DEPARTMENT OF THE NAVY - SOUTHWEST DIVISION
Naval Facilities Engineering Command

QUARTERLY GROUNDWATER MONITORING REPORT

UST SITE 43435
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

JULY, 2005

Prepared by:

Anteon
3430 Camino Del Rio North
San Diego, California 92108

Prepared by:

Aaron J. Heldt
Project Manager

Reviewed by:

David Bloom, CEG 2111, PG 6192
Technical Reviewer

Approved by:

Karen Collins
Program Manager

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ACRONYMS AND ABBREVIATIONS

BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
bgs	Below ground surface
COC	Chain-of-Custody
DO	Dissolved Oxygen
DON	Department of Navy
EDF	Electronic Deliverable Format
ESA	Environmental Site Assessment
IDW	Investigation-derived waste
MCBCP	Marine Corps Base Camp Pendleton
MCL	Maximum contaminant level
MEI	Minority Enterprises Inc.
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
MSL	Mean sea level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MTBE	Methyl tert-butyl ether
MW	Monitoring well
ND	Not detected
NREL	Navy Regional Environmental Laboratory
ORP	Oxidation Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbons
PPE	Personal Protective Equipment
PWC	Navy Public Works Center San Diego
QA	Quality Assurance
QC	Quality Control
RWQCB	Regional Water Quality Control Board
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
SWDIV	Naval Facilities Engineering Command Southwest Division
TOC	Total Organic Compounds
TPH-d	Total Petroleum Hydrocarbons, diesel range
TPH-g	Total Petroleum Hydrocarbons, gasoline range
TRPH	Total Recoverable Petroleum Hydrocarbons
U.S. EPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This report summarizes the results of the recent groundwater monitoring event conducted during the first quarter of 2005 at UST Site 43435, located at Marine Corps Base Camp Pendleton (MCBCP), California. Fieldwork activities were conducted by the Navy Public Works Center (PWC) Code 980, and reported on by Anteon Corporation for the Department of the Navy, Naval Facilities Engineering Command, Southwest Division (SWDIV).

The objectives of the monitoring program are to assess the current groundwater conditions and monitor natural attenuation at the site.

Groundwater levels were measured at the site in all three monitoring wells on March 1, 2005. To monitor the extent of contamination, all three monitoring wells (43435-B5/MW1, 43435-B6/MW2, and 43435-B9/MW3) were sampled between March 2 and 4, 2005.

Based on the fluid level measurements, the elevation of the groundwater surface beneath the site has risen approximately 3.5 feet since monitoring was last conducted in the fourth quarter of 2004, presently ranging between 232 and 233 feet above mean sea level (ft msl). During this event the groundwater gradient was directed toward the southeast, with an average magnitude of approximately 0.02 foot per foot.

Groundwater samples were analyzed for total petroleum hydrocarbons diesel range (TPH-d) by EPA Test Method 8015M; benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Test Method 8260B; and polycyclic aromatic hydrocarbons (PAHs) by EPA Test Method 8270C. The results of this groundwater sampling event indicate that two of the wells sampled did not contain detectable concentrations of hydrocarbons dissolved in groundwater above reporting limits. One well, 43435-B5/MW1, had a TPH-d concentration equal to the method reporting limit of 0.0047 milligrams per liter (mg/L), but less then the project action level of 0.1 mg/L. PAHs, BTEX, and MTBE were not detected above laboratory method reporting limits in samples collected from all three wells this event.

Continued quarterly groundwater monitoring for diesel-related constituents and annual monitoring for natural attenuation parameters is recommended. More aggressive remedial alternatives should be considered at former UST Site 43435 if project action levels are exceeded during monitoring.

1.0 INTRODUCTION

This quarterly groundwater monitoring report presents the results of the most recent groundwater monitoring event conducted at former Underground Storage Tank (UST) Site 43435 on Marine Corps Base Camp Pendleton (MCBCP) (Figure 1-1). The objectives of this report are to assess and describe groundwater conditions and remedial activities at the site.

1.1 Scope of Work

The monitoring program at the site includes measuring water levels and collecting groundwater samples from three (3) monitoring wells. Groundwater samples collected during this event were analyzed for the presence of total petroleum hydrocarbons diesel range, (TPH-d) by EPA test method 8015M; benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA test method 8260B; and polycyclic aromatic hydrocarbons (PAHs) by EPA test method 8270C. The scope of work for this project includes:

- Measure groundwater levels in three monitoring wells;
- Collect groundwater samples from three monitoring wells for laboratory analysis;
- Identify variations in water levels and chemical parameters at the site; and
- Summarize the trends observed from the individual and collective results of this and previous monitoring events.

1.2 Site Description

Former UST Site 43435 is currently an active personnel office located in the Las Pulgas Area of MCBCP (Figure 1-2). The site formerly consisted of a 950-gallon steel UST, approximately 100 feet of remote gravity-fed fill pipe, and an unknown length of ancillary piping used to supply diesel fuel to the boilers in Buildings 43435 and 43436. Surface drainage at the site is historically to the southwest and eventually discharges into Las Pulgas Creek. The site is underlain by fill (silty fine sand) from the surface to the bottom of the tank cavity, about 8.5 feet below ground surface (bgs), and younger alluvium, generally consisting of fine sandy silts to silty fine sands. In 2005, groundwater beneath the site occurs about 25 feet bgs and the groundwater gradient is directed to the southeast at a magnitude of about 0.02 foot per foot.

1.3 Site History

Between August 17 and December 6, 1994 Minority Enterprises, Inc. (MEI) removed UST 43435, product piping, and remote fill piping from the site. The greatest dimensions of the excavation were approximately 8.5 feet by 13.5 feet and 10 feet in depth. Groundwater was not encountered during excavation activities. MEI collected soil samples from the limits of the excavation and had them analyzed for total petroleum hydrocarbons, gasoline range (TPH-g) and diesel fuel range (TPH-d), and total recoverable petroleum hydrocarbons (TRPH) (Ninyo & Moore, 2000).

Ninyo & Moore conducted site assessment activities in January 2000 to assess the lateral and vertical extent of hydrocarbon-impacted soil and groundwater at the site. Ninyo & Moore drilled nine soil borings, and converted three borings to groundwater monitoring wells (43435-B5/MW1, 43435-B6-MW2, and 43435-B9/MW3). Seventy-six soil samples and twelve groundwater samples were analyzed for TPH-d by an on-site mobile laboratory. Selected soil and groundwater samples were also analyzed for BTEX, MTBE, PAHs, total organic compounds (TOC), and volatile organic compounds (VOCs). Additionally, soil samples were analyzed by the synthetic precipitation leaching procedure (SPLP) for BTEX/MTBE and PAHs (Ninyo & Moore, 2000).

Based on the investigation results, current site conditions, and the limited risk assessment outlined in the Environmental Site Assessment (ESA) Report, Ninyo & Moore recommended monitoring of natural attenuation (MNA) and long-term groundwater monitoring as the preferred remedial alternative at the site. It was also recommended that if maximum contaminant levels (MCLs) are exceeded and/or TPH-d concentrations above 0.1 mg/L are detected, then more aggressive remedial alternatives would be considered (Ninyo & Moore, 2000). Following review, the California Regional Water Quality Control Board, San Diego (RWQCB) concurred with the recommendations outlined in the ESA (RWQCB, 2004).

The Navy PWC submitted a Letter Work Plan proposing continued groundwater monitoring and sampling on a quarterly basis for hydrocarbon-related constituents (TPH-d, BTEX, MTBE, and PAHs), and annually for natural attenuation parameters (nitrate, nitrite, sulfate, total alkalinity, methane, ethane, ethylene, manganese, potassium, sodium, magnesium, total organic carbon, total dissolved solids, ammonia, chlorine, total iron, ferric iron, and total sulfides) to the RWQCB in November, 2004 (PWC, 2004). Following review the RWQCB concurred with the strategy outlined in the Work Plan and requested that monitoring reports be submitted following each event at three-month intervals (RWQCB, 2005).

1.4 Project Action Levels

Historically the project action levels (PALs) used at MCB Camp Pendleton are the state of California maximum contaminant levels (MCLs) for drinking water (CCR, 2003). Since no MCL exists for TPH-d, the PAL is based on the standard of 0.1 mg/L recommended in the ESA Report and agreed upon by the RWQCB (RWQCB, 2004).

2.0 FLUID LEVEL MEASUREMENT AND GROUNDWATER SAMPLING

On March 1, 2005, groundwater levels were measured in three monitoring wells at the site. All three wells, 43435-B5/MW1, 43435-B6/MW2, and 43435-B9/MW3, were micro purged and sampled from March 2 through 4, 2005. The results of the monitoring and sampling event are described below.

2.1 Field Measurements

Prior to well-purging activities, the water level was measured in each well relative to a permanently marked survey point. Water level measurements are used to estimate the groundwater gradient and flow direction at the site.

Current and historical groundwater elevation measurements are summarized in Table 2-1. During this event the groundwater gradient was directed toward the southeast, with an average magnitude of approximately 0.02.

2.2 Groundwater Sampling Methodology

All three wells were micro purged prior to sampling. Micro purging was performed using a QED Sample Pro, portable low flow bladder pump controlled by a MP15 Control/ Power Pack as summarized in the PWC Standard Operating Procedure (SOP) number 980-02-LFS. Field parameters such as groundwater depth, temperature, conductivity, dissolved oxygen, oxidation-reduction potential, and pH levels were measured using a YSI Groundwater Quality Meter and recorded on the Groundwater Sample Collection Log sheets (Appendix A). A summary of final parameter readings is available in Table 2-2. After micro purging of the wells was completed, groundwater samples were collected in accordance with PWC SOP 980-02-LFS.

Following sample collection, sample containers were labeled, enclosed within two self-sealing plastic bags, and placed in an insulated cooler with wet ice for transport to the laboratory. Samples were sent to the PWC Environmental Laboratory at Naval Air Station (NAS) North Island under standard chain-of-custody protocol. Copies of the chain-of-custody forms are provided in Appendix B. An Electronic Deliverable Format (EDF) file of the analytical results from this sampling event will be submitted to the Geotracker website. In order to comply with Geotracker data submissions, it was required that the naming convention of the wells be altered to include a two-digit well number. For example, monitoring well 43435-B5/MW1 has been renamed as MW-01. This new naming convention will continue to be used in both hard copy and electronic submissions to the regulatory agency.

2.3 Groundwater Analytical Results and Interpretation

A summary of the TPH-d, BTEX/MTBE, and PAH analytical results for monitoring wells 43435-B5/MW1, 43435-B6/MW2, and 43435-B9/MW3, are presented in Table 2-3. The results of this groundwater sampling event indicate that two of the wells

sampled did not contain detectable concentrations of hydrocarbons dissolved in groundwater. One well, 43435-B5/MW1, had a TPH-d concentration equal to the method reporting limit (0.0047 mg/L), but less then the project action level of 0.1 mg/L. PAHs, BTEX, and MTBE were not detected above laboratory method reporting limits in samples from all three wells. Figure 2-1 shows the analytical results for TPH-d and benzene in groundwater. The laboratory report is provided in Appendix B.

Electronic Deliverable Format (EDF) file sets of the analytical results from this sampling event were uploaded to the Geotracker website. Geotracker submittal confirmation reports are available in Appendix C.

3.0 DATA QUALITY REVIEW

This section summarizes the Quality Assurance/Quality Control (QA/QC) review for analytical data generated during the March 2005 groundwater monitoring event at UST Site 43435.

The evaluation was based on verification of sample integrity (i.e., preservation, storage, and holding times), and precision and accuracy data as measured by quality control parameters such as laboratory control samples, matrix spikes and matrix spike duplicates, surrogate spikes, and internal standards (where applicable). In addition, results from rinsate blanks and method blanks were evaluated to assess the possibility of external contamination of environmental samples during field and laboratory activities. All analysis listed below were performed by a California-certified laboratory using accepted laboratory procedures in accordance with their specified analytical protocols. In general, quality control criteria were met for all parameters except as discussed in the following sections.

3.1 BTEX/MTBE by EPA Test Method 8260B

Three groundwater samples, two trip blanks, one field blank, and one equipment blank were analyzed for BTEX/MTBE by EPA Test Method 8260. No target analytes were detected in the duplicate samples or any associated field or laboratory blanks. Quality control samples were within the laboratory control limits. BTEX and MTBE were not detected in samples collected during this monitoring event above the laboratory reporting limit.

3.2 PAHs by EPA Test Method 8270C

Three groundwater samples, one field blank and one equipment blank were analyzed for PAHs by EPA Test Method 8270C. Although no target analytes were detected in any of the associated field or laboratory blanks, a non-target matrix interference detected in both the field blank (50398-03) and equipment blank (50398-04) prevented adequate resolution of the target compound at the reporting limit, which caused an elevated reporting limit for acenaphthene for those samples. The results were flagged to indicate the matrix interference. No other anomalies were encountered during the review of this analyte group.

3.3 TPH Diesel by EPA Test Method 8015M

Three groundwater samples, one field blank, and one equipment blank were analyzed for TPH-d by EPA Test Method 8015M. Although apparent concentrations of diesel range organics were detected in both the field blank (50398-03) and equipment blank (50398-04) at 210 and 230 micrograms per liter (µg/L), respectively, the chromatographic fingerprint did not resemble a petroleum product and therefore was flagged as a non-target analyte. No additional issues were raised during the review of this analyte group and all quality control samples were within the laboratory control limits.

3.4 Data Usability

Laboratory QC measurement data were assessed for conformance with generally accepted QA standards. A thorough review of the data indicates that no discrepancies were encountered that would adversely affect the quality, validity, usability, and overall data interpretation presented in this report.

4.0 WASTE MANAGEMENT

Waste generated during groundwater monitoring, micro purging, and sampling, along with decontamination water used for equipment cleaning were handled as follows:

- All equipment decontamination wash water solutions, and groundwater generated from monitoring well micro purging and groundwater sampling, were transported to NAS North Island Industrial Waste Treatment facility in San Diego, California.
- Non-hazardous solid waste, such as personal protective equipment and plastic used during sampling, was bagged and disposed of as solid waste with other trash generated at MCB Camp Pendleton.

The waste acceptance form is included in Appendix D.

5.0 CONCLUSIONS

The following conclusions are based on the latest groundwater level measurements and laboratory analytical results for UST Site 43435.

- Groundwater elevations have increased approximately 3.5 feet across the site since the last sampling event conducted in November, 2004.
- During this event the groundwater gradient was directed toward the southeast, with an average magnitude of approximately 0.02 foot per foot, which is consistent with historical trends.
- TPH-d was detected in one well, 43435-B5/MW1, in a concentration equal to the method reporting limit (0.0047 mg/L), but lower then the project action level (0.1 mg/L).
- BTEX, MTBE, and PAHs were not detected above laboratory method reporting limits in groundwater from all three wells sampled this event.

6.0 RECOMMENDATIONS

Continued groundwater monitoring and sampling on a quarterly basis (June, September, and December 2005) for hydrocarbon-related constituents (TPH-d, BTEX, MTBE, and PAHs), and annually (December 2005) for natural attenuation parameters (nitrate, nitrite, sulfate, total alkalinity, methane, ethane, ethylene, manganese, potassium, sodium, magnesium, total organic carbon, total dissolved solids, ammonia, chlorine, total iron, ferric iron, and total sulfides) is recommended. Reports will be submitted following each event at three-month intervals (September and December 2005, and March 2006).

This is the second consecutive quarterly monitoring event in which groundwater concentrations have been less than project action levels (PALs). If concentrations remain consistently below PALs following three additional quarterly monitoring events, (June, September, and December 2005), including one additional quarter of MNA (December 2005), then no further action will be recommended for UST Site 43435.

If project action levels are exceeded during monitoring, then more aggressive remedial alternatives will be considered.

7.0 REFERENCES

California Code of Regulations (CCR). 2003. Cal DHS CCR Title 22, Division 4, Chapter 15, Domestic Water Quality and Monitoring (California MCLs).

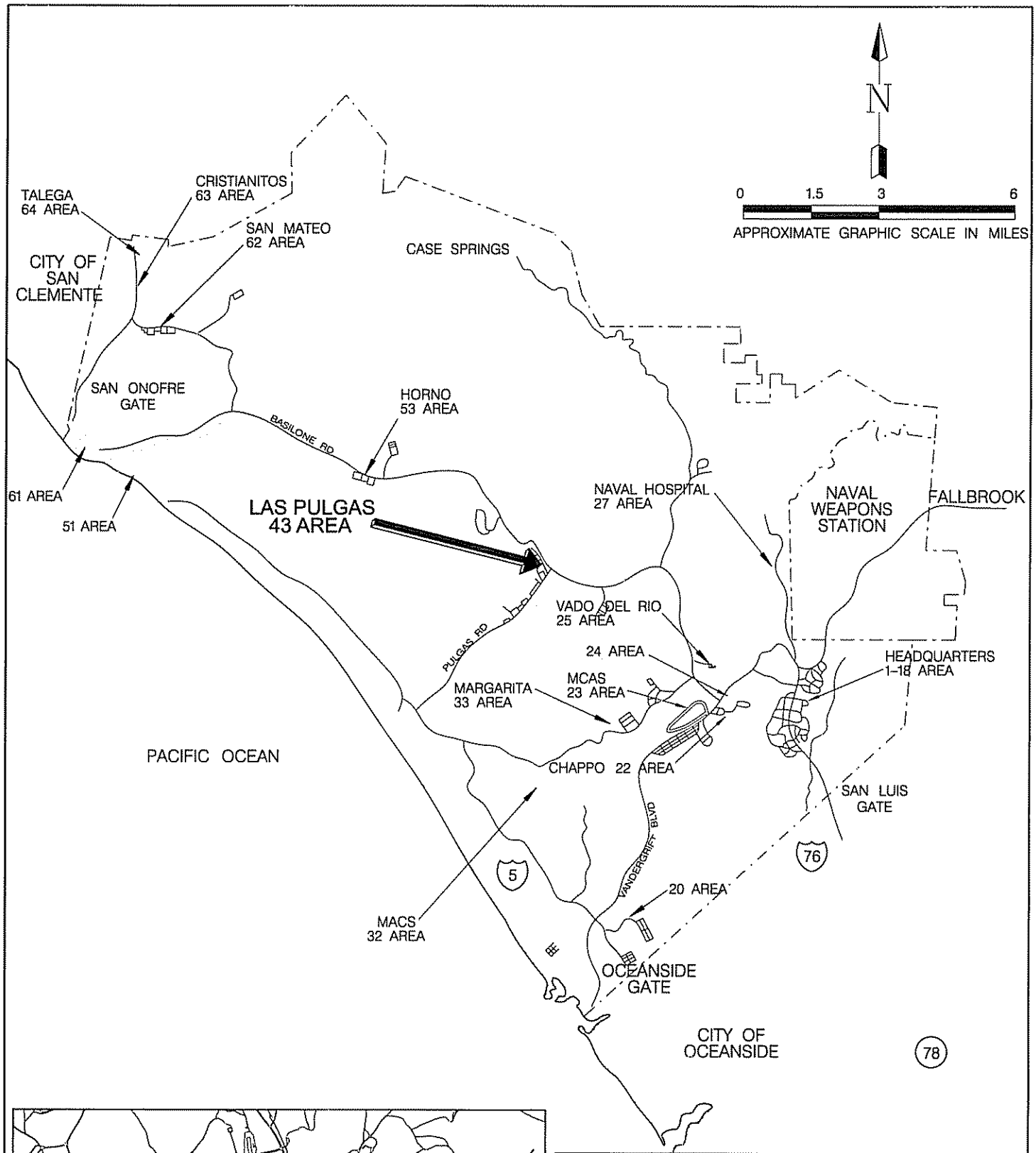
California Regional Water Quality Control Board (RWQCB), 2004, *Review Comments: Environmental Site Assessment Report.* Letter from C. Cheng Transmitted 7 June.

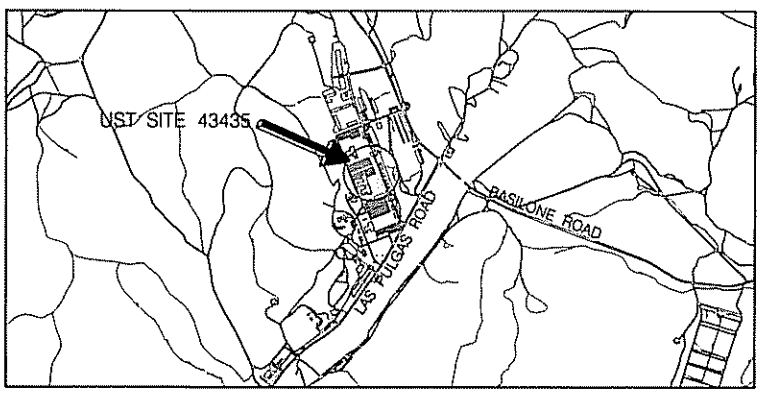
California Regional Water Quality Control Board (RWQCB), 2005, *Review Comments: Letter Work Plan for UST Site 43435.* Letter from P. Peuron Transmitted 1 March.

Ninyo & Moore, 2000, *Environmental Site Assessment Report, UST Site 43435, Marine Corps Base Camp Pendleton, California,* March 16.

PWC, 2004, *Work Plan for Groundwater Monitoring, UST Site 43435, Marine Corps Base Camp Pendleton, California,* November 2.

FIGURES





43 AREA LOCATION MAP

UST SITE 43435
MARINE CORPS BASE
CAMP PENDLETON, CA

ANTEON CORPORATION
3430 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA 92108

Date: 7/15/2005
File No. ahe001.dgn

FIGURE 1-1

S:\aheidt\ahe001.dgn

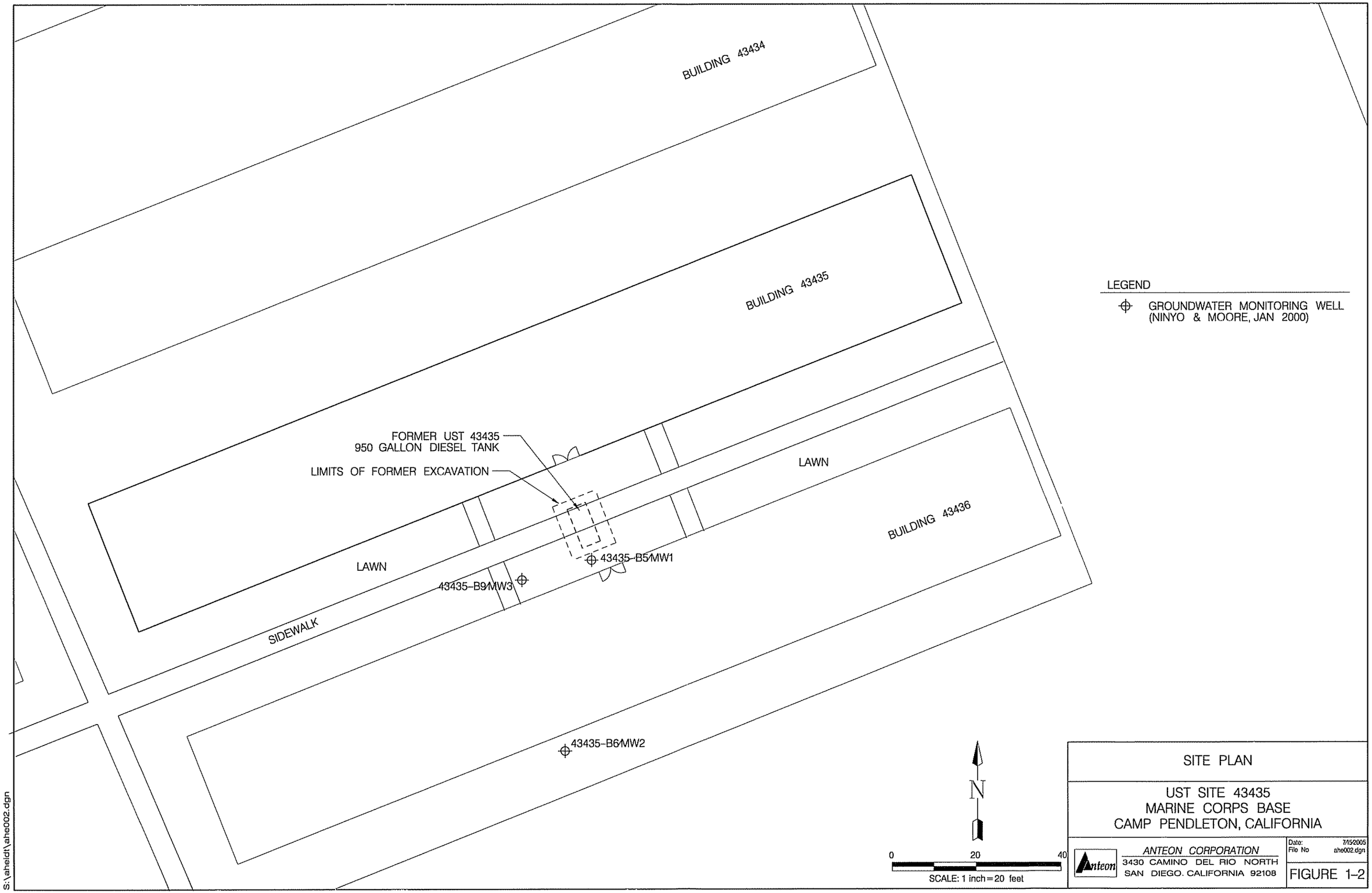

BUILDING 43434
BUILDING 43435
FORMER UST 43435
950 GALLON DIESEL TANK
LIMITS OF FORMER EXCAVATION
LAWN
LAWN
BUILDING 43436
43435-B5MW1
43435-B9MW3
SIDEWALK
43435-B6MW2
LEGEND
GROUNDWATER MONITORING WELL
(NINYO & MOORE, JAN 2000)
N
0
20
40
SCALE: 1 inch=20 feet
SITE PLAN
UST SITE 43435
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA
ANTEON CORPORATION
3430 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA 92108
Date: 7/15/2005
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FIGURE 1-2
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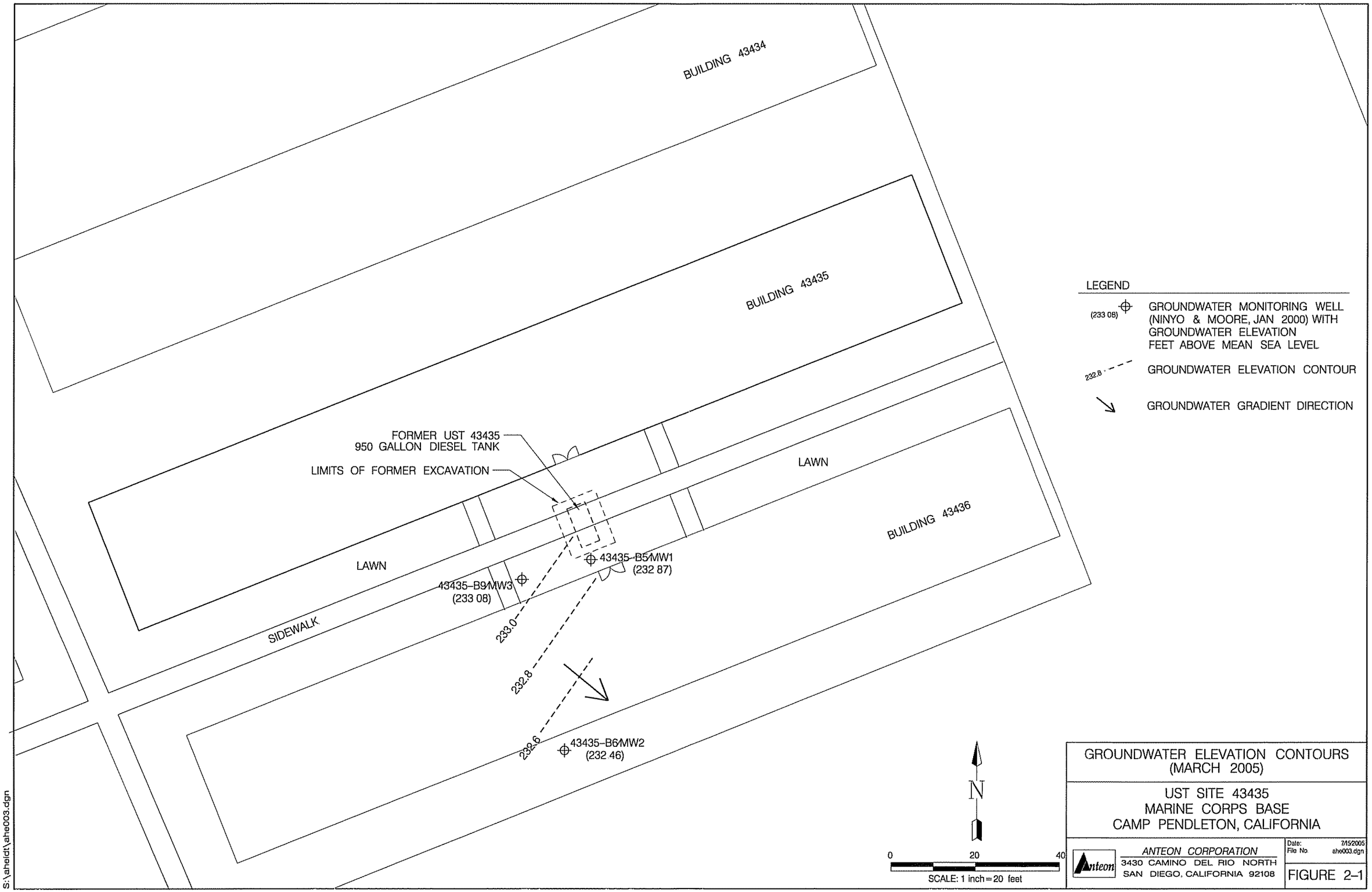

BUILDING 43434
BUILDING 43435
FORMER UST 43435
950 GALLON DIESEL TANK
LIMITS OF FORMER EXCAVATION
LAWN
LAWN
BUILDING 43436
43435-B5MW1
(232 87)
43435-B9MW3
(233 08)
SIDEWALK
233.0
232.8
232.6
43435-B6MW2
(232 46)
LEGEND
(233 08)
GROUNDWATER MONITORING WELL (NINYO & MOORE, JAN 2000) WITH GROUNDWATER ELEVATION FEET ABOVE MEAN SEA LEVEL
232.8
GROUNDWATER ELEVATION CONTOUR
GROUNDWATER GRADIENT DIRECTION
N
0
20
40
SCALE: 1 inch=20 feet
GROUNDWATER ELEVATION CONTOURS
(MARCH 2005)
UST SITE 43435
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA
ANTEON CORPORATION
3430 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA 92108
Date: 7/15/2005
File No ahe003.dgn
FIGURE 2-1
S:\aheldt\ahe003.dgn

BUILDING 43434

BUILDING 43435

LEGEND

⊕ GROUNDWATER MONITORING WELL (NINYO & MOORE, JAN 2000)

FORMER UST 43435
950 GALLON DIESEL TANK

LIMITS OF FORMER EXCAVATION

LAWN

BUILDING 43436

LAWN

43435-B5MW1

43435-B9MW3

SIDEWALK

TPHd	BENZENE
0.047 mg/L	<0.5 ug/L

TPHd	BENZENE
<0.046 mg/L	<0.5 ug/L

43435-B6MW2

TPHd	BENZENE
<0.046 mg/L	<0.5 ug/L

NOTES

mg/L = MILLIGRAMS PER LITER
ug/L = MICROGRAMS PER LITER
TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL

N

0 20 40
SCALE: 1 inch = 20 feet

GROUNDWATER TPH-d AND BENZENE ANALYTICAL RESULTS (MARCH 2005)

UST SITE 43435
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

ANTEON CORPORATION
3430 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA 92108

Date: 7/15/2005
File No. ahe004.dgn

FIGURE 2-2

S:\aheldt\ahe004.dgn

TABLES

TABLE 2-1
GROUNDWATER ELEVATION DATA
UST SITE 43435
MARINE CORPS BASE CAMP PENDLETON, CALIFORNIA

Well ID	Measurement Date	RPE (ft MSL)	Groundwater Depth (ft)	Groundwater Elevation (ft MSL)
43435-B5/MW1	1/14/2000	257.87	24.05	233.82
	2/10/2000	257.87	24.30	233.57
	11/9/2004	257.87	28.61	229.26
	3/1/2005	257.87	25.00	232.87
43435-B6/MW2	2/10/2000	257.31	24.24	233.07
	11/9/2004	257.31	28.56	228.75
	3/1/2005	257.31	24.85	232.46
43435-B9/MW3	2/10/2000	258.19	24.55	233.64
	11/9/2004	258.19	DRY	DRY
	3/1/2005	258.19	25.11	233.08

Notes:
RPE - Reference Point Elevation
ft - feet
MSL - Mean Sea Level

TABLE 2-2
PURGE PARAMETERS
UST SITE 43435
MARINE CORPS BASE CAMP PENDLETON, CALIFORNIA

Well ID	Sample ID	Date Sampled	Temperature (°C)	Specific Conductivity (µS/cm)	pH	ORP / Eh (mV)	DO (mg/L)	Turbidity (NTU)
43435-B5/MW1	MW-01	01/14/00	20.6	1.15	6.81	NM	NM	7.0
		02/10/00	21.0	1.05	6.71	NM	NM	20.3
		11/10/04	20.27	1.13	6.68	140.6	5.04	1.17
		03/02/05	20.11	1.17	6.51	146.6	2.50	1.44
43435-B6/MW2	MW-02	02/10/00	20.6	1.13	6.70	NM	NM	250
		11/10/04	21.54	1.14	6.30	158.7	4.31	1.86
		03/02/05	20.26	0.962	6.69	145.9	6.78	0.72
43435-B9/MW3	MW-03	02/10/00	20.3	1.10	6.75	NM	NM	26.0
		11/10/00	NM	NM	NM	NM	NM	NM
		03/04/05	19.18	1.77	6.60	143.5	2.55	1.20

Notes:
NM - Not Monitored
ORP / Eh - Oxidation Reduction Potential
DO - Dissolved Oxygen
mV - Millivolts
µS/cm - Microsiemens per centimeter
°C - Degrees Celcius
NTU - Nephelometric Turbidity Unit

TABLE 2-3
GROUNDWATER ANALYTICAL RESULTS
UST SITE 43435
MARINE CORPS BASE CAMP PENDLETON, CALIFORNIA

Well ID	Sample ID	Date Sampled	TPH-d EPA 8015M (mg/L)	MTBE EPA 8260 (µg/L)	BTEX EPA 8260 (µg/L)				PAHs EPA 8310
					B	T	E	X	(µg/L)
43435-B5/MW1	MW-01	1/14/2000	**0.770**	<20 U	<0.5 U	<0.5 U	<0.5 U	<1.5 U	NA
		2/10/2000	<0.1 U	<1 U	<0.5 U	<1 U	<1 U	<1 U	ND
		11/10/2004	<0.25 U	<1 U	<1 U	<1 U	<1 U	<1 U	ND
		3/2/2005	0.047 J	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	Naphthalene (0.0065 J) Anthracene (0.0067 J)
43435-B6/MW2	MW-02	2/10/2000	<0.1 U	<1 U	<0.5 U	<1 U	<1 U	<1 U	ND
		11/10/2004	<0.25 U	<1 U	<1 U	<1 U	<1 U	<1 U	ND
		3/2/2005	<0.046 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	Naphthalene (0.0086 J) 2-Methylnapthalene (0.0053 J) Phenanthrene (0.0048 J) Benz(a)anthracene (0.0041 J) Indeno(1,2,3-cd)pyrene (0.0042 J)
43435-B9/MW3	MW-03	2/10/2000	<0.1 U	<1 U	<0.5 U	<1 U	<1 U	<1 U	ND
		11/10/2004	NS	NS	NS	NS	NS	NS	NS
		3/4/2005	<0.046 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	<0.5 U	Naphthalene (0.0063J)

Notes:
MTBE - Methyl tert butyl ether
BTEX - Benzene, Toluene, Ethylbenzene and Xylenes
PAHs - Polycyclic Aromatic Hydrocarbons
TPH-d - Total Petroleum Hydrocarbons as diesel
NA - Not analyzed
ND - All analytes not detected at or above the reporting limits.
NS - Not sampled because well was dry.
J - The result is an estimated concentration that is less than or equal to the method reporting limit (MRL), but greater than or equal to the method detection limit (MDL).
U - Not detected above the associated numerical value.
µg/L - microgram per liter
mg/L - milligram per liter
Bold values indicate concentrations above laboritory reporting limits.

APPENDICES

Groundwater/Product Depths

Job Name: UST Site 43435
Job Number: 113623502008 / XFG95L
Personnel: S. Ausler / A Frias
Date Measured: 3/1/05

Well Number	TOC Elevation (MSL, MLLW)	Depth to Product (Feet)	Depth to Water (Feet)	Product Thickness (Feet)	Groundwater Elevation (Feet)
43435-B6/MW2			24.85		39.81
43435-B9/MW3			25.11	(Roots	in well)
43435-B5/MW1			25.00		39.76

[redacted] W [redacted] W [redacted] PU[redacted]NG [redacted]LD [redacted]TER [redacted]ALI[redacted] MEA[redacted]EM[redacted]S FORM [redacted] Page __ of __

Location (Site/Facility Name): 43 435

Well Number: 43435-B6/MW2

Date: 3-2-05

Field Personnel: A Frias / S. Ansh

Weather: Warm / ~~Sunny~~ (Partly cloudy)

Materials: [x] Dedicated Pump [ ] Polyethylene [ ] Teflon [ ] Disposable [ ] Other

Screen Interval (Depth in feet): 19.75 - 39.75 (39.81)

Pump Intake at (Depth in feet): 29.81

Purging Device: portable bladder pump

Total Depth (feet): 39.81

Clock Time 24 Hr:	Water Depth Below TOC ft	Pump Dial	Pumping Rate (ml/min)	Cum. Volume Purged (liters)	Temp (10%)	Conductivity (3%)	pH (0.5)	ORP/Eh (10 mv) mv	DO (10%) mg/L	Turbidity (10%) NTU	Comments
0940	24.85	20 12.5/2.5	200 ml/min								
0945	24.87	20 12.5/2.5	200 ml/min		20.76	1.06	6.87	194.6	7.49	1.76	
0950	24.88	20 12.5/2.5	200 ml/min		20.50	1.00	6.67	185.3	7.29	1.11	
0955	24.88	20 12.5/2.5	200 ml/min		20.27	.971	6.69	154.3	7.07	.94	
1000	24.88	20 12.5/2.5	200 ml/min		20.18	.963	6.68	148.5	6.91	.79	
1005	24.88	20 12.5/2.5	200 ml/min		20.26	.962	6.69	145.9	6.78	.72	

Lab Sample ID: 43435-B6/MW2

Sample Time: 1010

Comments:

Sampler Signature: [signature]

Well Number: 4340-B-1 MW1

Date: 3/2/05

Field Personnel: S Allison / A Farias

Weather: Sunny, hot cool

Materials: [✓] Dedicated ~~Pump~~ Tubing [ ] Polyethylene [✓] Teflon lined [ ] Disposable [ ] Other

Screen Interval (Depth in feet): 19.75 - 39.75

Pump Intake at (Depth in feet): 29.76

Purging Device: Portable Bladder Pump

Total Depth (feet): 39.76

Clock Time 24 Hr:	Water Depth Below TOC ft	Pump Dial	Pumping Rate (ml/min)	Cum. Volume Purged (liters)	Temp (10%)	Conductivity (3%)	pH (0.5)	ORP/Eh (10 mv) mv	DO (10%) mg/L	Turbidity (10%) NTU	Comments
1115	25.00	20 12.5/1.5	180 ml/min								
1120	25.00	20 12.5/1.5	180 ml/min		19.62	1.17	6.61	135.9	5.45	2.05	
1125	25.00	20 12.5/1.5	180 ml/min		19.81	1.17	6.53	139.9	3.59	1.73	
1130	25.00	20 12.5/1.5	180 ml/min		19.83	1.17	6.49	143.1	3.24	1.55	
1135	25.00	20 12.5/1.5	180 ml/min		19.99	1.17	6.49	145.9	2.96	1.80	
1140	25.00	20 12.5/1.5	180 ml/min		19.84	1.17	6.52	146.2	2.74	1.16	
1145	25.00	20 12.5/1.5	180 ml/min		19.85	1.17	6.51	145.7	2.59	1.13	
1150	25.00	20 12.5/1.5	180 ml/min		20.11	1.17	6.51	146.6	2.50	1.44	

Lab Sample ID: 43435-B-1/MW1 (MS/MSD)

Sample Time: 1155

Comments:

Sampler Signature:

WELL PURGING FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name): UST 43435
Well Number: 43435-B9/MW3
Date: 3/4/05
Field Personnel: S. AUSLER/A. FRIAS
Weather: RAINING
Materials: ☑ Dedicated ~~Pump~~ TUBING ☑ Polyethylene AIR LINE ☑ Teflon TUBING ☐ Disposable ☐ Other

Screen Interval (Depth in feet):
Pump Intake at (Depth in feet): 29.00
Purging Device: Portable bladder pump
Total Depth (feet):

Clock Time 24 Hr:	Water Depth Below TOC ft	Pump Dial	Pumping Rate (ml/min)	Cum. Volume Purged (liters)	Temp (10%)	Conductivity (3%)	pH (0.5)	ORP/Eh (10 mv) mv	DO (10%) mg/L	Turbidity (10%) NTU	Comments
0915	25.11	20 12.5/2.5	150 ml/min								
0920	25.13	20 12.5/2.5	150 ml/min		17.32	1.75	6.35	166.5	4.22	6.54	
0925	25.13	20 12.5/2.5	150 ml/min		18.15	1.77	6.53	153.9	3.67	4.23	
0930	25.13	20 12.5/2.5	150 ml/min		18.55	1.77	6.57	149.7	3.37	2.05	
0935	25.13	20 12.5/2.5	150 ml/min		18.84	1.77	6.59	146.2	3.00	1.78	
0940	25.13	20 12.5/2.5	150 ml/min		19.02	1.77	6.60	144.4	2.77	1.30	
0945	25.13	20 12.5/2.5	150 ml/min		19.18	1.77	6.60	143.5	2.55	1.20	

Lab Sample ID: 43435-B9/MW3
Sample Time: 0950

Comments:
Sampler Signature:

Navy Regional Environmental Laboratory
Public Works Center C-910
Naval Air Station North Island Bldg M-9
San Diego, CA 92135
Tel: (619) 545-8431 Fax: (619) 545-0793
NELAP CERT NO : 01124CA

Friday, March 25, 2005

Client: PWC Code 980
ATTN: Aaron Heidt

Sample Data Package

Lab Batch Number: 50398 & 50425
Samples Received On: 3/2 & 4/3/2005
Client Project Name/Number: UST 43435 (CAMP PENDLETON)

This sample data package includes the test results, associated QA/QC documents, Chain of Custody forms, and other relevant documentation for your samples. This page of the report is an integral part of this data package consisting of 6 pages. All results are reported on a wet weight basis unless otherwise noted.

All analysis reported in this sample data package were analyzed by the subcontract laboratory Columbia Analytical Services, CA ELAP number 2286.

We appreciate the opportunity to provide quality environmental testing services and look forward to meeting your needs in the future.

I certify that the test results meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC) and/or the above accrediting agencies.

Joe Arlauskas, Laboratory Director
Allen Hollander, Project Manager

201-0105-COV-01

Navy Public Works Center
Environmental Chemistry Laboratory, Code 910
Naval Air Station North Island Bldg M-9
San Diego, CA 92135
Tel: (619) 545-8431 Fax: (619) 545-0793

Date of Report: 03/25/05

Sample Summary

Lab Number	Sample ID	Date Sample Collected
50398-01	QCTB	3/2/2005
50398-02	43435-B6/MW2	3/2/2005
50398-03	QCFB	3/2/2005
50398-04	QCEB	3/2/2005
50398-05	43435-B5/MW1	3/2/2005
50425-01	QCTB	3/4/2005
50425-02	43435-B9/MW 3	3/4/2005

LABORATORY CHAIN-OF-CUSTODY

COC-

Navy Regional Environmental Laboratory
Public Works Center Code 910
Naval Air Station North Island, BLDG-M9
San Diego, CA 92135
Phone: (619)545-8431 Fax: (619)545-0793

CUSTOMER DUE DATE:
JOB ORDER #: 113623502008
PROJECT NAME: UST 43435 (CAMP Pendleton)
GLOBAL ID: T0607301714 (GEOTRACKER ONLY)
LOG CODE: NDWC (GEOTRACKER ONLY)
SAMPLED BY: S. AUSLER/A. FRIAS (PRINT)

CHECK REGULATORY PROGRAM
- [x] HAZWASTE/GROUNDWATER/LUFT (RCRA)
- [ ] DRINKING WATER (SDWA)
- [ ] DISCHARGE (NPDES/CWA)
- [ ] ABATEMENT (HUD)
- [ ] OTHER

(LAB USE ONLY)
- [ ] RUSH SURCHARGE
- PROJ. # 201-010
- [ ] NAVY IR
- [ ] OTHER

CONTACT: AARON HEIDT PHONE: 40377
ALT. CONTACT: SHELLI AUSLER PHONE: 46950
ACTIVITY: PWC-SD Code 980 FAX: 619-524-6000
ADDRESS: 2730 McKean St., Ste. 1
San Diego, CA 92136-5294

RESULTS DELIVERY:
- [x] FAX
- [ ] PICK UP
- [x] GUARD MAIL
- [ ] (OTHER)

ANALYSIS REQUESTED

(LAB USE ONLY) LAB LOG NUMBER	GEOTRACKER ID (10 characters max.)	SAMPLE ID*	COLLECTION DATE	COLLECTION TIME	SAMPLE MATRIX	CONTAINER TYPE	NUMBER OF CONTAINERS	TPH gasoline	TPH diesel 8015M	TPH JP-5 or ___	TPH extended	8021 for ___ (specify)	8021 for halogenated compounds	418.1 TRPH	8260B for VOCs	8260B for oxygenates only	8260B for VOCs and oxygenates	5035/8260B for VOCs (EnCore)	Organic Lead	8270C for ~~SVOCs~~ SIM PAH'S	8081A for pesticides	8082 for PCBs	8310 for PNAs	6010B for Metals, Title 22	Nitrate/Nitrite PCBs
50398-01		QCTB	3/2/05	0930	Ground Water	Various	3																		X
-02		43435-B6/MW2		1010			7		X											X					X
-03		QCFB		1040			7		X											X					X
-04		QCEB		1050			7		X											X					X
-05		43435-B5/MW1		1155			21		X											(MS/MSD)					X

Shelli Ausler

RELINQUISHED BY: SHELLI AUSLER / Shelli Ausler (PRINT & SIGN) RECEIVED BY: Marlyn T. Vasquez Marlyn T. Vasquez (PRINT & SIGN) DATE: 03/02/05 TIME: 1430
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: (PRINT & SIGN) DATE: TIME:
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: (PRINT & SIGN) DATE: TIME:

COMMENTS:
* = Location of where the sample(s) were collected.
(Rev. 11/22/02 Bloom)

* NOTE: SAMPLE ID#S QCFB, QCEB and 43435-B5/MW1 DOES NOT HAVE HCL IN BOTTLES. LAB NEED to Add HCL to SAMPLES. Added 2ml 1:1 HCl to the appropriate samples upon receipt in the lab.
MIV 03/02/05

COOLER TEMP 5.0 degrees C
RECEIVED ON ICE: Y [x] N [ ]
CORRECT CONTAINER: Y [x] N [ ]
PRESERVED: Y [x] N [ ]
SEAL INTACT: Y [ ] N [ ] N/A [x]
FED EX. TRACKING #

(LAB USE ONLY)
- [ ] BAC-T Form
- [ ] Field notes
- [ ] Scur Form
- [ ] SIF
- [ ] Others

COC1000.XLS

3/6

SAMPLE CONDITION UPON RECEIPT (SCUR) FORM

ACTIVITY: C-980 PWC SDG#: 50398
SAMPLES RECEIVED IN: COOLER(S) ✓ BOX(ES):_____ OTHER:_____
DELIVERED BY:_____
NUMBER OF COOLERS/BOXES/OTHER:____ LOG-IN DATE/TIME: 03/02/05 1430
LOGGED IN BY: Marlyn SIGNATURE: Marlyn Tilley

SECTION A: Are there any discrepancies? (If yes, please complete the entire form. If no, the Sample Custodian (SC) or designee ensures that the remainder of the questions are answered in the affirmative or are non-applicable.)		Yes	(No)
SECTION B: Questions 1-9			
1. Are custody seals on shipping containers intact?	NA	Yes	No
2. Were Chain of Custody (COC) forms filled out completely and properly by the customer?		Yes	No
3. Were all sample containers received intact (not broken or leaking, etc.)?		Yes	No
4. Were correct containers used for the analysis requested?		Yes	No
5. Were appropriate samples correctly preserved?	NA	Yes	No
6. Were sufficient sample amounts sent for each analysis requested?		Yes	No
7. Were air bubbles absent from VOA sample(s)?	NA	Yes	No
8. Are all samples within holding times for the requested analyses?		Yes	No
9. Were samples sufficiently chilled? If included, report temperature of temperature blank ___°C Cooler temperature(s) #1 #2 #3 #4 #5	NA	Yes	No

A NO RESPONSE TO ANY QUESTION REQUIRES AN EXPLANATION BELOW.

Describe discrepancy (include question#):

_____

Was the client contacted? ___Yes ___No

Was the pH of any sample adjusted by the laboratory? ___Yes ___No If yes, please note the following:

Date _____ Time_____ SC_____ Test/Preservative _____

Date _____ Time_____ SC_____ Test/Preservative _____

AFTER pH ADJUSTMENT OF DRINKING WATER METALS, HOLD METALS SAMPLES FOR ≥16 HRS AND THEN VERIFIED & DOCUMENTED BY THE ANALYST TO BE pH <2 BEFORE ANALYSIS.

LABORATORY CHAIN-OF-CUSTODY

COC-

Navy Regional Environmental Laboratory
Public Works Center Code 910
Naval Air Station North Island, BLDG-M9
San Diego, CA 92135
Phone: (619)545-8431 Fax: (619)545-0793

CUSTOMER DUE DATE: 4-18-05 JOB ORDER #: 113623502008
PROJECT NAME: UST 43435 (CAMP Pendleton)
GLOBAL ID: TD607301714 (GEOTRACKER ONLY) LOG CODE: NPWC (GEOTRACKER ONLY)
SAMPLED BY: S. AUSLER / A. FRIAS (PRINT)

CHECK REGULATORY PROGRAM
- [x] HAZWASTE/GROUNDWATER/LUFT (RCRA)
- [ ] DRINKING WATER (SDWA)
- [ ] DISCHARGE (NPDES/CWA)
- [ ] ABATEMENT (HUD)
- [ ] OTHER

(LAB USE ONLY)
- [ ] RUSH SURCHARGE
- PROJ. # 201-0105
- [ ] NAVY IR
- [ ] OTHER

CONTACT: AARON HEIDT PHONE: 40377
ALT. CONTACT: S. AUSLER PHONE: 46950
ACTIVITY: PWC-SD Code 980 FAX: 619-524-6000
ADDRESS: 2730 McKean St., Ste. 1
San Diego, CA 92136-5294

RESULTS DELIVERY:
- [x] FAX
- [ ] PICK UP
- [x] GUARD MAIL
- [ ] (OTHER)

ANALYSIS REQUESTED

(LAB USE ONLY) LAB LOG NUMBER	GEOTRACKER ID (10 characters max.)	SAMPLE ID*	COLLECTION DATE	COLLECTION TIME	SAMPLE MATRIX	CONTAINER TYPE	NUMBER OF CONTAINERS	TPH gasoline	TPH diesel 8015M	TPH JP-5 or	TPH extended	8021 for (specify)	8021 for halogenated compounds	418.1 TRPH	8260B for VOCs	8260B for oxygenates only	8260B for VOCs and oxygenates	5035/8260B for VOCs (EnCore)	Organic Lead	8270C for ~~SVOCs~~ PAH's (SIM)	8081A for pesticides	8082 for PCBs	8310 for PNAs	6010B for Metals, Title 22	BTEX & MTBE 8260B
50425-01		QC TB	3/4/05	0700	GROUND WATER	VOA'S	3																		X
50425-02		43435-B9/MW 3		0950	↓	VARIOUS			X											X					X

Shelli Ausler

RELINQUISHED BY: SHELLI AUSLER / Shelli Ausler (PRINT & SIGN) RECEIVED BY: [signature] / A. Hollander (PRINT & SIGN) DATE: 3-4-05 TIME: 1415
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: (PRINT & SIGN) DATE: TIME:
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: (PRINT & SIGN) DATE: TIME:

COMMENTS:
* = Location of where the sample(s) were collected.

JON # 113623502008

(Rev. 11/22/02 Bloom)

COOLER TEMP ____ degrees C (LAB USE ONLY)
RECEIVED ON ICE: Y [ ] N [ ]
CORRECT CONTAINER: Y [ ] N [ ]
PRESERVED: Y [ ] N [ ]
SEAL INTACT: Y [ ] N [ ] N/A [ ]
FED EX. TRACKING #

- [ ] BAC-T Form
- [ ] Field notes
- [ ] Scur Form
- [ ] SIF
- [ ] Others

5/6

SAMPLE CONDITION UPON RECEIPT (SCUR) FORM

ACTIVITY: PWC Code 980 PWC SDG#: 50425
SAMPLES RECEIVED IN: COOLER(S)____ BOX(ES): ✓ OTHER:____
DELIVERED BY: S. Ausler
NUMBER OF COOLERS/BOXES/OTHER: 1 LOG-IN DATE/TIME: 3-4-05 1415
LOGGED IN BY: A. Hollander SIGNATURE: [signature]

SECTION A: Are there any discrepancies? (If yes, please complete the entire form. If no, the Sample Custodian (SC) or designee ensures that the remainder of the questions are answered in the affirmative or are non-applicable.)		**Yes**	**No**
SECTION B: Questions 1-9			
1 Are custody seals on shipping containers intact?	NA	Yes	No
2. Were Chain of Custody (COC) forms filled out completely and properly by the customer?		Yes	No
3. Were all sample containers received intact (not broken or leaking, etc.)?		Yes	No
4. Were correct containers used for the analysis requested?		Yes	No
5. Were appropriate samples correctly preserved?	NA	Yes	No
6. Were sufficient sample amounts sent for each analysis requested?		Yes	No
7. Were air bubbles absent from VOA sample(s)?	NA	Yes	No
8. Are all samples within holding times for the requested analyses?		Yes	No
9. Were samples sufficiently chilled? If included, report temperature of temperature blank ___°C Cooler temperature(s) #1____ #2____ #3____ #4____ #5____	NA	Yes	No

A NO RESPONSE TO ANY QUESTION REQUIRES AN EXPLANATION BELOW.

Describe discrepancy (include question#):

Was the client contacted? ___Yes ___No

Was the pH of any sample adjusted by the laboratory? ___Yes ___No If yes, please note the following:

Date _____ Time_____ SC_____ Test/Preservative _____

Date _____ Time_____ SC_____ Test/Preservative _____

AFTER pH ADJUSTMENT OF DRINKING WATER METALS, HOLD METALS SAMPLES FOR ≥16 HRS AND THEN VERIFIED & DOCUMENTED BY THE ANALYST TO BE pH <2 BEFORE ANALYSIS.

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 ph (360) 636-1068 fax

Columbia Analytical Services INC.
An Employee - Owned Company

March 18, 2005 Service Request No: K2501544

Lyn Vasquez
Navy Public Works
Environmental Laboratory Code 910
NASNI Building M-9
San Diego, CA 92135

RE: UST 43435 Camp Pendelton / 201-0105

Dear Lyn:

Enclosed are the results of the sample(s) submitted to our laboratory on March 3, 2005. For your reference, these analyses have been assigned our service request number K2501544.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376.

Respectfully submitted,

Columbia Analytical Services, Inc.

Gregory Salata, Ph.D.
Project Chemist

GS/jeb

NELAP Accredited ACIL Seal of Excellence Award

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative
#	The control limit criteria is not applicable. See case narrative
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a matrix interference
X	See case narrative.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative
B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL has been elevated due to a matrix interference
X	See case narrative.
*	The duplicate analysis not within control limits. See case narrative
+	The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

*	The result is an outlier. See case narrative
#	The control limit criteria is not applicable. See case narrative
A	A tentatively identified compound, a suspected aldol-condensation product
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides)
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a chromatographic interference.
X	See case narrative

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard
Z	The chromatographic fingerprint does not resemble a petroleum product

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Navy Public Works Center	**Service Request No.:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Received:**	03/03/05
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Five water samples were received for analysis at Columbia Analytical Services on 03/03/05. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Diesel Range Organics by EPA Method 8015B

No anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260B

Initial Calibration (ICAL) Exceptions:
The primary evaluation criterion was exceeded for trans-1,3-Dichloropropene, 2-Hexanone, Styrene, Bromoform, 1,2-Dibromo-3-chloropropane, and Naphthalene in ICAL ID CAL4250. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the mean Relative Standard Deviation (RSD) of all analytes in the calibration. The result of the mean RSD calculation was 9.2%. The calibration meets the alternative evaluation criteria. Note that CAS/Kelso policy does not allow the use of averaging if any analyte in the ICAL exceeds 30% RSD.

The CAS minimum relative response factor criterion for tert-Butyl Alcohol was not met in ICAL ID CAL4250. In accordance with CAS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verifies instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question, the data quality is not significantly affected. No further corrective action was appropriate.

Continuing Calibration Verification (CCV) Exceptions:
The CAS minimum relative response factor criterion for tert-Butyl Alcohol was not met in CCV MS13\0315F003.D. In accordance with CAS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verifies instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question, the data quality is not significantly affected. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Approved by Gregory Salata **Date** 3/18/05

Polynuclear Aromatic Hydrocarbons by EPA Method 8270C

Elevated Method Reporting Limits:
The reporting limit is elevated for Acenaphthene in samples 50398-03 and 50398-04. The chromatograms indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compound at the reporting limit. The results are flagged to indicate the matrix interference.

No other anomalies associated with the analysis of these samples were observed.

Approved by_____**Date**_____

Chain of Custody Documentation

LABORATORY CHAIN-OF-CUSTODY

K2501544

COC-

Navy Regional Environmental Laboratory
Public Works Center Code 910
Naval Air Station North Island, BLDG-M9
San Diego, CA 92135
Phone: (619)545-8431 Fax: (619)545-0793

CUSTOMER DUE DATE: 4/4/05 JOB ORDER #:
PROJECT NAME: UST 43435 (CAMP Pendleton)
GLOBAL ID: T0607301714 (GEOTRACKER ONLY) LOG CODE: NDWC (GEOTRACKER ONLY)
SAMPLED BY: S. AUSLER/A. FRIAS (PRINT)

CHECK REGULATORY PROGRAM
- [x] HAZWASTE/GROUNDWATER/LUFT (RCRA)
- [ ] DRINKING WATER (SDWA)
- [ ] DISCHARGE (NPDES/CWA)
- [ ] ABATEMENT (HUD)
- [ ] OTHER

(LAB USE ONLY)
- [ ] RUSH SURCHARGE
- PROJ. # 201-0105
- [ ] NAVY IR
- [ ] OTHER

CONTACT: - SWRN to follow
ALT. CONTACT:
ACTIVITY: Questions: Call Allen Hollander
ADDRESS:
- (619) 545-6005

PHONE:
PHONE:
FAX:

RESULTS DELIVERY:
- [x] FAX
- [ ] PICK UP
- [x] GUARD MAIL
- [ ] (OTHER)

ANALYSIS REQUESTED

(LAB USE ONLY) LAB LOG NUMBER	GEOTRACKER ID (10 characters max.)	SAMPLE ID*	COLLECTION DATE	COLLECTION TIME	SAMPLE MATRIX	CONTAINER TYPE	NUMBER OF CONTAINERS	TPH gasoline	TPH diesel 8015M	TPH JP-5 or	TPH extended	8021 for (specify)	8021 for halogenated compounds	418.1 TRPH	8260B for VOCs	8260B for oxygenates only	8260B for VOCs and oxygenates	5035/8260B for VOCs (EnCore)	Organic Lead	8270C for ~~SVOCs~~ PAH'S	8081A for pesticides	8082 for PCBs	8310 for PNAs	6010B for Metals, Title 22	MTBE/BTEX 8260B
50398-01		QCTB	3/2/05	0930	GROUND WATER	VARIOUS	3																		X
-02		43435-B6/MW2		1010			7		X											X					X
-03		QCFB		1040			7		X											X					X
-04		QCEB		1050			7		X											X					X
-05		43435-B5/MW1		1155			21		X											X					X

(MS/MSD)

Shelli Ausler

RELINQUISHED BY: SHELLI AUSLER / Shelli Ausler (PRINT & SIGN)
RELINQUISHED BY: Allen Hollander / Allen Hollander (PRINT & SIGN)
RELINQUISHED BY: (PRINT & SIGN)

RECEIVED BY: Marlyn T. Vasquez / Marlyn T. Vasq (PRINT & SIGN) DATE: 03/02/05 TIME: 1430
RECEIVED BY: Tracy Black CAS (PRINT & SIGN) DATE: 3/3/05 1280 TIME:
RECEIVED BY: (PRINT & SIGN) DATE: TIME:

COMMENTS:
* Location of where the sample(s) were collected.

(Rev. 11/22/02 Bloom)

* NOTE: SAMPLE ID#S QCFB, QCEB and 43435-B5/MW1 DOES NOT HAVE HCL IN BOTTLES. LAB NEED to Add HCL to SAMPLES. Added 2ml 1:1 HCl to the appropriate samples upon receipt in the lab.
MV 03/02/05

COOLER TEMP: degrees C
RECEIVED ON ICE: Y [ ] N [ ]
CORRECT CONTAINER: Y [ ] N [ ]
PRESERVED: Y [ ] N [ ]
SEAL INTACT: Y [ ] N [ ] N/A [ ]
FED EX. TRACKING #

(LAB USE ONLY)
- [ ] BAC-T Form
- [ ] Field notes
- [ ] Scur Form
- [ ] SIF
- [ ] Others

COC1000 XLS

Columbia Analytical Services Inc.
Cooler Receipt and Preservation Form

PC Greg

Project/Client NAVY Work Order K250 1544

Cooler received on 3/3/05 and opened on 3/3/05 by [illegible]

1. Were custody seals on outside of coolers? FX Y (N)
   If yes, how many and where? —
2. Were custody seals intact? 7914 9440085 / Y N
3. Were signature and date present on the custody seals? 7909 35990580 Y N
4. Is the shipper's airbill available and filed? If no, record airbill number: 790936001499 Y (N)
5. COC#

Temperature of cooler(s) upon receipt: (°C)	0.9	2.1	1.0	
Temperature Blank: (°C)	0.5	N/P	N/P	

Were samples hand delivered on the same day as collection? Y N

6. Were custody papers properly filled out (ink, signed, etc.)? (Y) N
7. Type of packing material present ICE, BUBBLE, INSERT
8. **Did all bottles arrive in good condition (unbroken)?** (Y) N
9. Were all bottle labels complete (i.e analysis, preservation, etc.)? (Y) N
10. Did all bottle labels and tags agree with custody papers? (Y) N
11. **Were the correct types of bottles used for the tests indicated?** (Y) N
12. Were all of the preserved bottles received at the lab with the appropriate pH? Y N
13. Were VOA vials checked for absence of air bubbles, and if present, noted below? (Y) N
14. Did the bottles originate from CAS/K or a branch laboratory? Y (N)
15. **Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?** Y N
16. Was C12/Res negative? (Y) N

Explain any discrepancies:

RESOLUTION:

Samples that required preservation or received out of temperature:

Sample ID	Reagent	Volume	Lot Number	Bottle Type	Rec'd out of Temperature	Initials

Diesel & Residual Range Organics

Organic Analysis:
Diesel and Residual Range Organics

Summary Package

Sample and QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Cover Page - Organic Analysis Data Package
Diesel and Residual Range Organics

Sample Name	Lab Code	Date Collected	Date Received
50398-02	K2501544-002	03/02/2005	03/03/2005
50398-03	K2501544-003	03/02/2005	03/03/2005
50398-04	K2501544-004	03/02/2005	03/03/2005
50398-05	K2501544-005	03/02/2005	03/03/2005
50398-05MS	KWG0503600-2	03/02/2005	03/03/2005
50398-05DMS	KWG0503600-3	03/02/2005	03/03/2005

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

Signature: Christina Quinn Name: CHRISTINA QUINN

Date: 03/16/05 Title: SCIENTIST

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F019.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	46	U	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/09/05	Acceptable
n-Triacontane	86	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F020.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**210**	Z	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	87	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F021.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**230**	Z	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	92	52-128	03/09/05	Acceptable
n-Triacontane	95	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F022 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	540 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**47**	J	47	19	
CASID30160	**Residual Range Organics (RRO)**	**28**	J	93	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/09/05	Acceptable
n-Triacontane	88	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503600-6	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F009 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	50	U	50	19	
CASID30160	Residual Range Organics (RRO)	100	U	100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	84	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
50398-02	K2501544-002	84	86
50398-03	K2501544-003	81	87
50398-04	K2501544-004	92	95
50398-05	K2501544-005	84	88
Method Blank	KWG0503600-6	81	84
50398-05MS	KWG0503600-2	79	86
50398-05DMS	KWG0503600-3	75	79
Lab Control Sample	KWG0503600-4	76	80
Duplicate Lab Control Sample	KWG0503600-5	70	74

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	52-128
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005 - 03/10/2005

Matrix Spike/Duplicate Matrix Spike Summary
Diesel and Residual Range Organics

Sample Name: 50398-05
Lab Code: K2501544-005

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8015M

Level: Low
Extraction Lot: KWG0503600

Analyte Name	Sample Result	50398-05MS KWG0503600-2 Matrix Spike			50398-05DMS KWG0503600-3 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Diesel Range Organics (DRO)	47	2700	2910	91	2910	2910	99	57-158	8	30
Residual Range Organics (RRO)	28	1350	1450	91	1430	1450	97	45-157	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0503600

	Lab Control Sample KWG0503600-4 Lab Control Spike			Duplicate Lab Control Sample KWG0503600-5 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	2630	3200	82	2620	3200	82	67-151	0	30
Residual Range Organics (RRO)	1290	1600	80	1270	1600	80	59-146	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005
Time Analyzed: 19:50

Method Blank Summary
Diesel and Residual Range Organics

Sample Name: Method Blank
Lab Code: KWG0503600-6

File ID: J:\GC21\DATA\030905\0309F009 D
Instrument ID: gc21

Extraction Method: EPA 3510C
Analysis Method: 8015M

Level: Low
Extraction Lot: KWG0503600

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503600-4	J:\GC21\DATA\030905\0309F007 D	03/09/05	19:15
Duplicate Lab Control Sample	KWG0503600-5	J:\GC21\DATA\030905\0309F008 D	03/09/05	19:33
50398-02	K2501544-002	J:\GC21\DATA\030905\0309F019 D	03/09/05	22:44
50398-03	K2501544-003	J:\GC21\DATA\030905\0309F020 D	03/09/05	23:01
50398-04	K2501544-004	J:\GC21\DATA\030905\0309F021 D	03/09/05	23:19
50398-05	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
50398-05MS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
50398-05DMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Lab Control Sample/Duplicate Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0503600-4	**Lab Code:**	KWG0503600-5
File ID:	J:\GC21\DATA\030905\0309F007 D	**File ID:**	J:\GC21\DATA\030905\0309F008 D
Instrument ID:	gc21	**Instrument ID:**	gc21
Date Extracted:	03/07/2005	**Date Extracted:**	03/07/2005
Date Analyzed:	03/09/2005	**Date Analyzed:**	03/09/2005
Time Analyzed:	19:15	**Time Analyzed:**	19:33

Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503600-6	J:\GC21\DATA\030905\0309F009 D	03/09/05	19:50
50398-02	K2501544-002	J:\GC21\DATA\030905\0309F019 D	03/09/05	22:44
50398-03	K2501544-003	J:\GC21\DATA\030905\0309F020 D	03/09/05	23:01
50398-04	K2501544-004	J:\GC21\DATA\030905\0309F021 D	03/09/05	23:19
50398-05	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
50398-05MS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
50398-05DMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Level ID	File ID	Level ID	File ID
A	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F017.D	H	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F031.D
B	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F019.D	I	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F033.D
C	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F021.D	J	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F035.D
D	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F023.D	K	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F037.D
E	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F025.D	L	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F039.D
F	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F027.D	M	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F041.D
G	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F029.D	N	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F043.D

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Diesel Range Organics (DRO)				B	20	23800				D	50	23700			
	F	200	25800				H	500	25800				J	1000	25800
				L	2000	26300				N	5000	26100			
Residual Range Organics (RRO)	A	20	16200				C	50	15600				E	200	17600
				G	500	18600				I	1000	17600			
	K	2000	17600				M	5000	17400						
o-Terphenyl				B	1.0	30200				D	2.5	32200			
	F	10	34600				H	25	34800				J	50	34500
				L	100	35100				N	250	34700			
n-Triacontane										D	2.5	24400			
	F	10	28900				H	25	29300				J	50	29700
				L	100	30200									

Results flagged with an asterisk (*) indicate values outside control criteria

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	4.3		≤ 20
Residual Range Organics (RRO)	MS	AverageRF	% RSD	5.8		≤ 20
o-Terphenyl	SURR	AverageRF	% RSD	5.4		≤ 20
n-Triacontane	SURR	AverageRF	% RSD	8.2		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004
Date Analyzed: 11/23/2004

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration ID: CAL4011
Units: ppm

File ID: J:\GC21\DATA\CALIBRAT\112204 SEC\1122F051 D
J:\GC21\DATA\CALIBRAT\112204 SEC\1122F059 D

Column ID: RTX-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1100	25300	28600	13	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	1100	17200	19300	12	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F003.D
J:\GC21\DATA\030905\0309F004.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	990	25300	24900	-1	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	910	17200	15600	-9	NA	± 15 %	AverageRF
o-Terphenyl	50	47	33700	31400	-7	NA	± 15 %	AverageRF
n-Triacontane	50	47	28500	26500	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F017.D
J:\GC21\DATA\030905\0309F018.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26200	3	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33400	-1	NA	± 15 %	AverageRF
n-Triacontane	50	51	28500	29100	2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/10/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F029 D
J:\GC21\DATA\030905\0309F030 D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26500	5	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33200	-2	NA	± 15 %	AverageRF
n-Triacontane	50	53	28500	30200	6	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015M

Analysis Lot: KWG0503923
Instrument ID: gc21
Column: RTX-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0309F002.D	Instrument Blank	KWG0503923-10	3/9/2005	17:48		3/9/2005	18:00
0309F003.D	Continuing Calibration Verification	KWG0503923-1	3/9/2005	18:05		3/9/2005	18:17
0309F004.D	Continuing Calibration Verification	KWG0503923-1	3/9/2005	18:22		3/9/2005	18:34
0309F007.D	Lab Control Sample	KWG0503600-4	3/9/2005	19:15		3/9/2005	19:27
0309F008.D	Duplicate Lab Control Sample	KWG0503600-5	3/9/2005	19:33		3/9/2005	19:45
0309F009.D	Method Blank	KWG0503600-6	3/9/2005	19:50		3/9/2005	20:02
0309F010.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:08		3/9/2005	20:20
0309F011.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:25		3/9/2005	20:37
0309F012.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:42		3/9/2005	20:54
0309F013.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:00		3/9/2005	21:12
0309F014.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:17		3/9/2005	21:29
0309F015.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:34		3/9/2005	21:46
0309F016.D	Instrument Blank	KWG0503923-11	3/9/2005	21:51		3/9/2005	22:03
0309F017.D	Continuing Calibration Verification	KWG0503923-2	3/9/2005	22:09		3/9/2005	22:21
0309F018.D	Continuing Calibration Verification	KWG0503923-2	3/9/2005	22:26		3/9/2005	22:38
0309F019.D	50398-02	K2501544-002	3/9/2005	22:44		3/9/2005	22:56
0309F020.D	50398-03	K2501544-003	3/9/2005	23:01		3/9/2005	23:13
0309F021.D	50398-04	K2501544-004	3/9/2005	23:19		3/9/2005	23:31
0309F022.D	50398-05	K2501544-005	3/9/2005	23:36		3/9/2005	23:48
0309F023.D	50398-05MS	KWG0503600-2	3/9/2005	23:53		3/10/2005	00:05
0309F024.D	50398-05DMS	KWG0503600-3	3/10/2005	00:11		3/10/2005	00:23
0309F025.D	ZZZZZZ	ZZZZZZ	3/10/2005	00:28		3/10/2005	00:40
0309F026.D	ZZZZZZ	ZZZZZZ	3/10/2005	00:45		3/10/2005	00:57
0309F027.D	ZZZZZZ	ZZZZZZ	3/10/2005	01:03		3/10/2005	01:15
0309F028.D	Instrument Blank	KWG0503923-12	3/10/2005	01:20		3/10/2005	01:32
0309F029.D	Continuing Calibration Verification	KWG0503923-3	3/10/2005	01:37		3/10/2005	01:49
0309F030.D	Continuing Calibration Verification	KWG0503923-3	3/10/2005	01:55		3/10/2005	02:07
0309F031.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:12		3/10/2005	02:24
0309F032.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:30		3/10/2005	02:42
0309F033.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:47		3/10/2005	02:59
0309F035.D	ZZZZZZ	ZZZZZZ	3/10/2005	03:22		3/10/2005	03:34
0309F036.D	ZZZZZZ	ZZZZZZ	3/10/2005	03:39		3/10/2005	03:51
0309F037.D	ZZZZZZ	ZZZZZZ	3/10/2005	03:57		3/10/2005	04:09
0309F038.D	ZZZZZZ	ZZZZZZ	3/10/2005	04:14		3/10/2005	04:26

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015M

Analysis Lot: KWG0503923
Instrument ID: gc21
Column: RTX-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0309F039.D	ZZZZZZ	ZZZZZZ	3/10/2005	04:32		3/10/2005	04:44
0309F040.D	Instrument Blank	KWG0503923-7	3/10/2005	04:49		3/10/2005	05:01
0309F041.D	Continuing Calibration Verification	KWG0503923-4	3/10/2005	05:06		3/10/2005	05:18
0309F042.D	Continuing Calibration Verification	KWG0503923-4	3/10/2005	05:23		3/10/2005	05:35
0309F043.D	ZZZZZZ	ZZZZZZ	3/10/2005	05:41		3/10/2005	05:53
0309F044 D	Instrument Blank	KWG0503923-8	3/10/2005	05:58		3/10/2005	06:10
0309F045 D	Continuing Calibration Verification	KWG0503923-5	3/10/2005	06:16		3/10/2005	06:28
0309F046 D	Continuing Calibration Verification	KWG0503923-5	3/10/2005	06:34		3/10/2005	06:46

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005

Extraction Prep Log
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Extraction Lot: KWG0503600
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50398-02	K2501544-002	03/02/05	03/03/05	550ml	1ml	NA	
50398-03	K2501544-003	03/02/05	03/03/05	550ml	1ml	NA	
50398-04	K2501544-004	03/02/05	03/03/05	550ml	1ml	NA	
50398-05	K2501544-005	03/02/05	03/03/05	540ml	1ml	NA	
Method Blank	KWG0503600-6	NA	NA	500ml	1ml	NA	
50398-05MS	KWG0503600-2	03/02/05	03/03/05	550ml	1ml	NA	
50398-05DMS	KWG0503600-3	03/02/05	03/03/05	550ml	1ml	NA	
Lab Control Sample	KWG0503600-4	NA	NA	500ml	1ml	NA	
Duplicate Lab Control Sample	KWG0503600-5	NA	NA	500ml	1ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
50398-02	K2501544-002	84	86
50398-03	K2501544-003	81	87
50398-04	K2501544-004	92	95
50398-05	K2501544-005	84	88
Method Blank	KWG0503600-6	81	84
50398-05MS	KWG0503600-2	79	86
50398-05DMS	KWG0503600-3	75	79
Lab Control Sample	KWG0503600-4	76	80
Duplicate Lab Control Sample	KWG0503600-5	70	74

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	52-128
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005 - 03/10/2005

Matrix Spike/Duplicate Matrix Spike Summary
Diesel and Residual Range Organics

Sample Name: 50398-05
Lab Code: K2501544-005

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8015M

Level: Low
Extraction Lot: KWG0503600

Analyte Name	Sample Result	50398-05MS KWG0503600-2 Matrix Spike			50398-05DMS KWG0503600-3 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Diesel Range Organics (DRO)	47	2700	2910	91	2910	2910	99	57-158	8	30
Residual Range Organics (RRO)	28	1350	1450	91	1430	1450	97	45-157	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0503600

	Lab Control Sample KWG0503600-4 Lab Control Spike			Duplicate Lab Control Sample KWG0503600-5 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	2630	3200	82	2620	3200	82	67-151	0	30
Residual Range Organics (RRO)	1290	1600	80	1270	1600	80	59-146	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/07/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005
		Time Analyzed:	19:50

Method Blank Summary
Diesel and Residual Range Organics

Sample Name:	Method Blank	**File ID:**	J:\GC21\DATA\030905\0309F009 D
Lab Code:	KWG0503600-6	**Instrument ID:**	gc21
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503600-4	J:\GC21\DATA\030905\0309F007 D	03/09/05	19:15
Duplicate Lab Control Sample	KWG0503600-5	J:\GC21\DATA\030905\0309F008 D	03/09/05	19:33
50398-02	K2501544-002	J:\GC21\DATA\030905\0309F019 D	03/09/05	22:44
50398-03	K2501544-003	J:\GC21\DATA\030905\0309F020 D	03/09/05	23:01
50398-04	K2501544-004	J:\GC21\DATA\030905\0309F021 D	03/09/05	23:19
50398-05	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
50398-05MS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
50398-05DMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Lab Control Sample/Duplicate Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0503600-4	**Lab Code:**	KWG0503600-5
File ID:	J:\GC21\DATA\030905\0309F007.D	**File ID:**	J:\GC21\DATA\030905\0309F008.D
Instrument ID:	gc21	**Instrument ID:**	gc21
Date Extracted:	03/07/2005	**Date Extracted:**	03/07/2005
Date Analyzed:	03/09/2005	**Date Analyzed:**	03/09/2005
Time Analyzed:	19:15	**Time Analyzed:**	19:33

Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503600-6	J:\GC21\DATA\030905\0309F009.D	03/09/05	19:50
50398-02	K2501544-002	J:\GC21\DATA\030905\0309F019.D	03/09/05	22:44
50398-03	K2501544-003	J:\GC21\DATA\030905\0309F020.D	03/09/05	23:01
50398-04	K2501544-004	J:\GC21\DATA\030905\0309F021.D	03/09/05	23:19
50398-05	K2501544-005	J:\GC21\DATA\030905\0309F022.D	03/09/05	23:36
50398-05MS	KWG0503600-2	J:\GC21\DATA\030905\0309F023.D	03/09/05	23:53
50398-05DMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024.D	03/10/05	00:11

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F019 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	46	U	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/09/05	Acceptable
n-Triacontane	86	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F019 D
Lab ID: K2501544-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 22:44
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: MMB 1005

Secondary Review: JB 1005

Printed: 03/10/2005 15:21:28
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501544
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366245	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F019.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 22:44	**Quant Date:**	03/10/2005 14:32	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-002			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4.78	0.00	1408903	41.75	84	52-128	OK
n-Triacontane	6.74	0.00	1221440	42.85	86	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	80492	3.18	19	U	
Residual Range Organics (RRO)	5.83	?	114079	6.62	28	U	

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

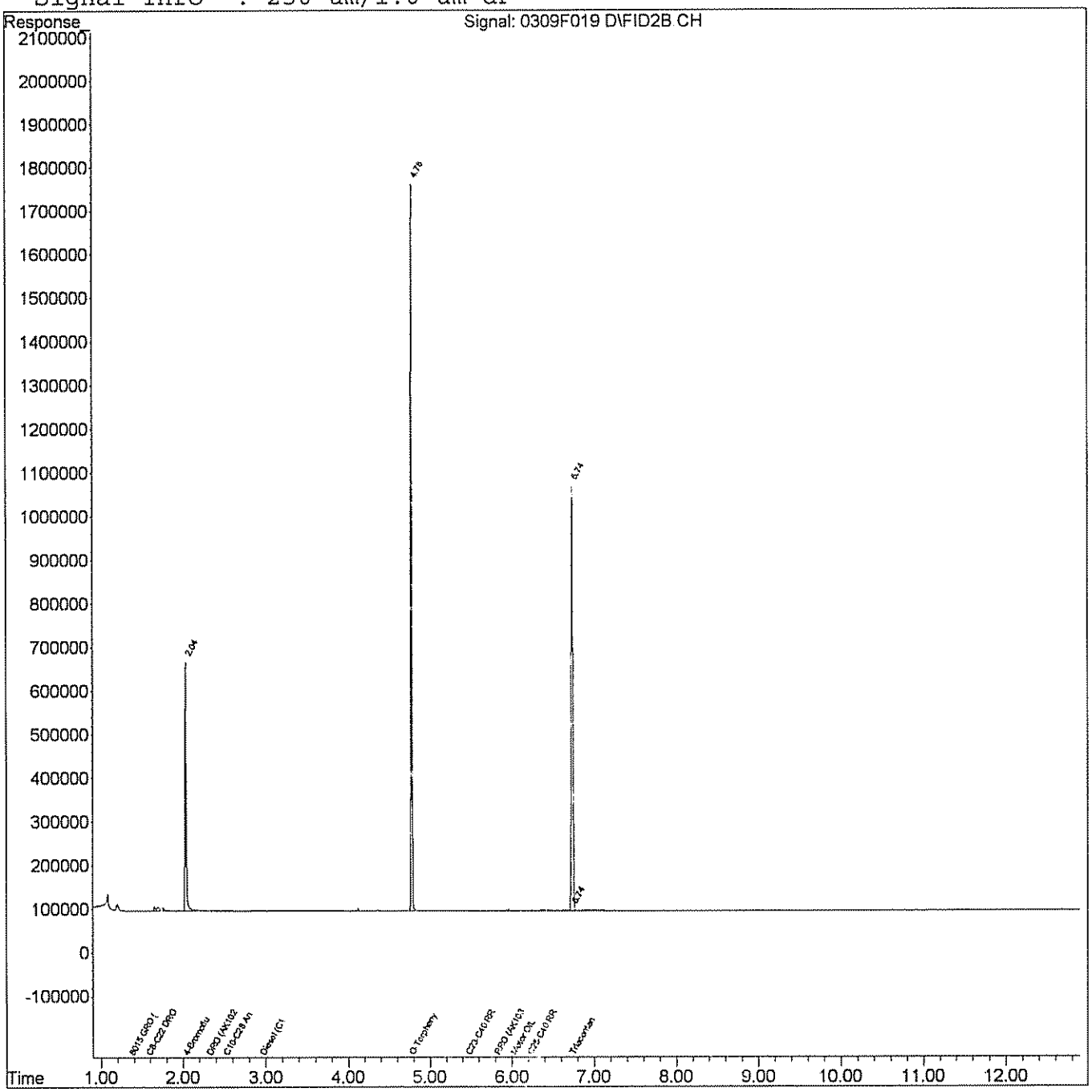
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F019.D
Acq On : 09 Mar 2005 10:44 pm
Sample : k2501544-002
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 20
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F020 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**210**	Z	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	87	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F020.D
Lab ID: K2501544-003
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 23:01
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: [signature] 03/10/05

Secondary Review: [signature] 03/10/05

Printed: 03/10/2005 15:21:31
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501544
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366246	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F020.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:01	**Quant Date:**	03/10/2005 14:32	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4.78	0.00	1374422	40.73	81	52-128	OK
n-Triacontane	6.74	0.00	1240506	43.52	87	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	2874933	113.52	210	Z	
Residual Range Organics (RRO)	5.83	?	93369	5.42	28	U	

'Z'

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

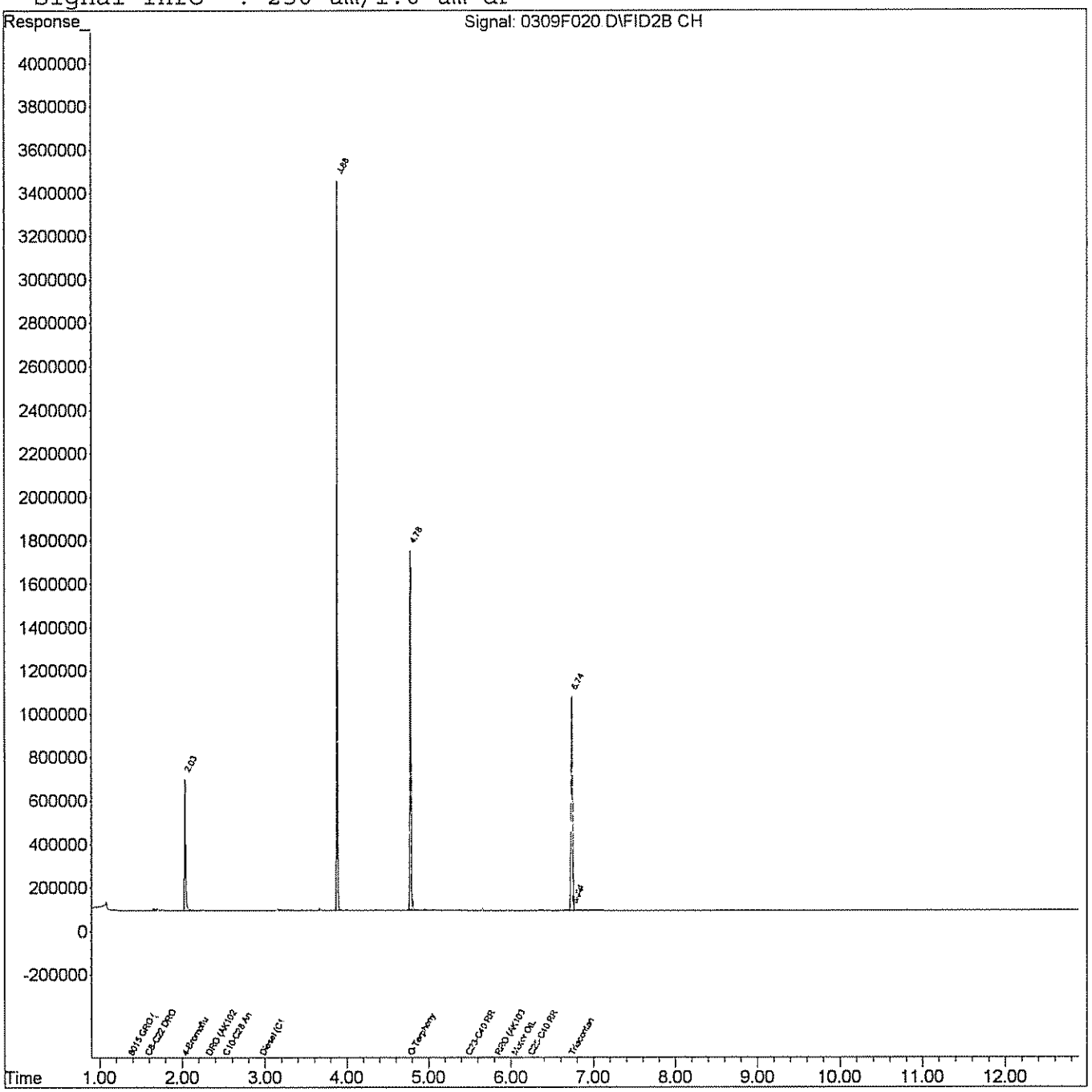
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F020.D
Acq On : 09 Mar 2005 11:01 pm
Sample : k2501544-003
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 21
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



0309F020.D 1122BACK.M Thu Mar 10 14:32:51 2005 Page 1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F021 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**230**	Z	46	19	
CASID30160	Residual Range Organics (RRO)	91	U	91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	92	52-128	03/09/05	Acceptable
n-Triacontane	95	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F021.D
Lab ID: K2501544-004
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 23:19
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: MMB 3/10/05

Secondary Review: [illegible] 3/15/05

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501544
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366247	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F021.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:19	**Quant Date:**	03/10/2005 14:32	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-004			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4.78	0.00	1544355	45.77	92	52-128	OK
n-Triacontane	6.74	0.00	1351870	47.43	95	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	3206325	126.61	230	Z	
Residual Range Organics (RRO)	5.83	?	84857	4.93	28	U	

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

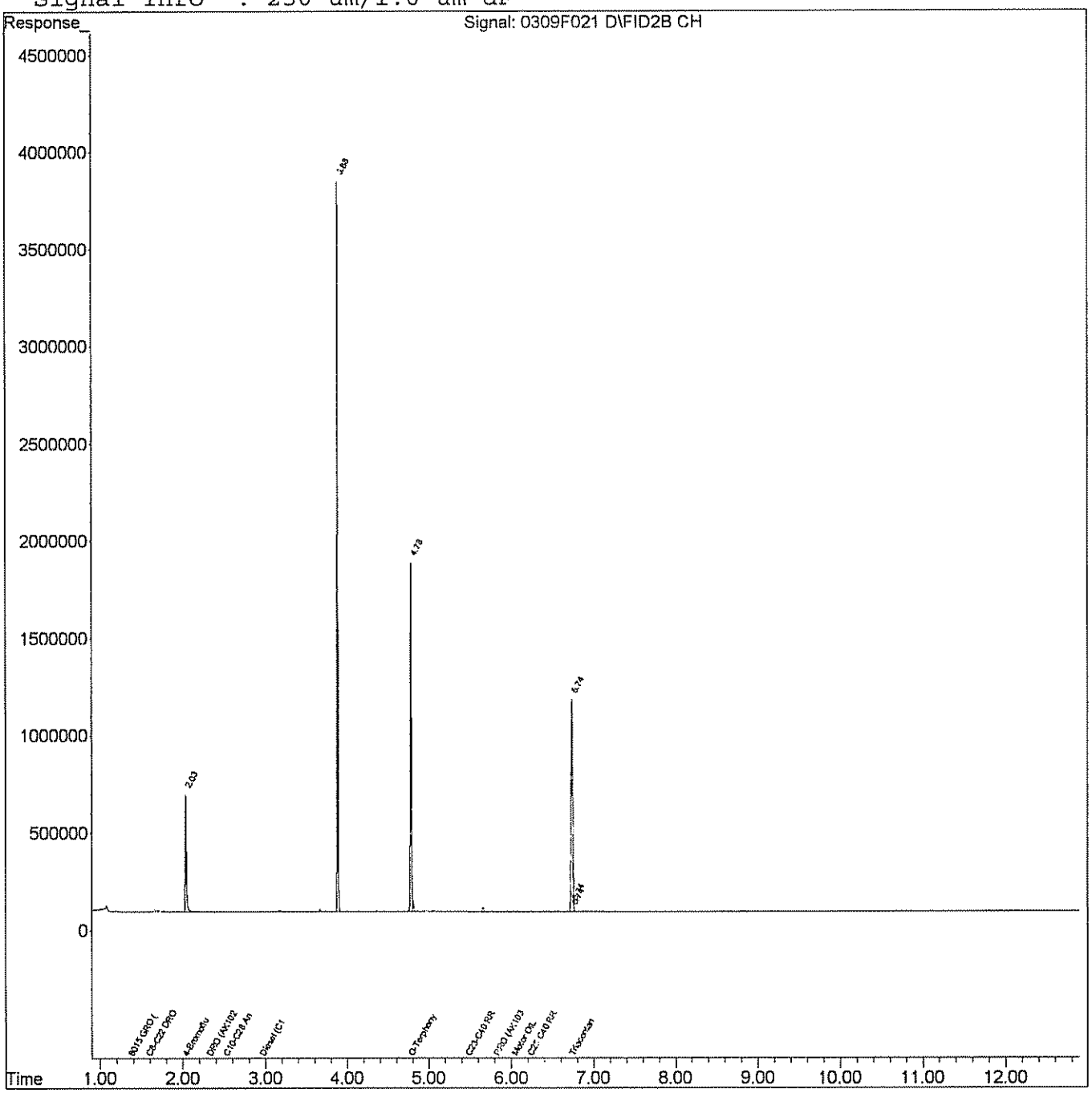
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F021.D
Acq On : 09 Mar 2005 11:19 pm
Sample : k2501544-004
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 22
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F022.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	540 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**47**	J	47	19	
CASID30160	**Residual Range Organics (RRO)**	**28**	J	93	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/09/05	Acceptable
n-Triacontane	88	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F022 D
Lab ID: K2501544-005
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 23:36
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: MM 03/10/05

Secondary Review: [illegible] 3/10/05

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501544
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366248	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F022.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:36	**Quant Date:**	03/10/2005 14:32	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-005			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4.78	0.00	1414046	41.90	84	52-128	OK
n-Triacontane	6.74	0.00	1259519	44.19	88	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	641650	25.34	47	J	
Residual Range Organics (RRO)	5.83	?	263400	15.29	28	J	

Prep Amount:	540 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

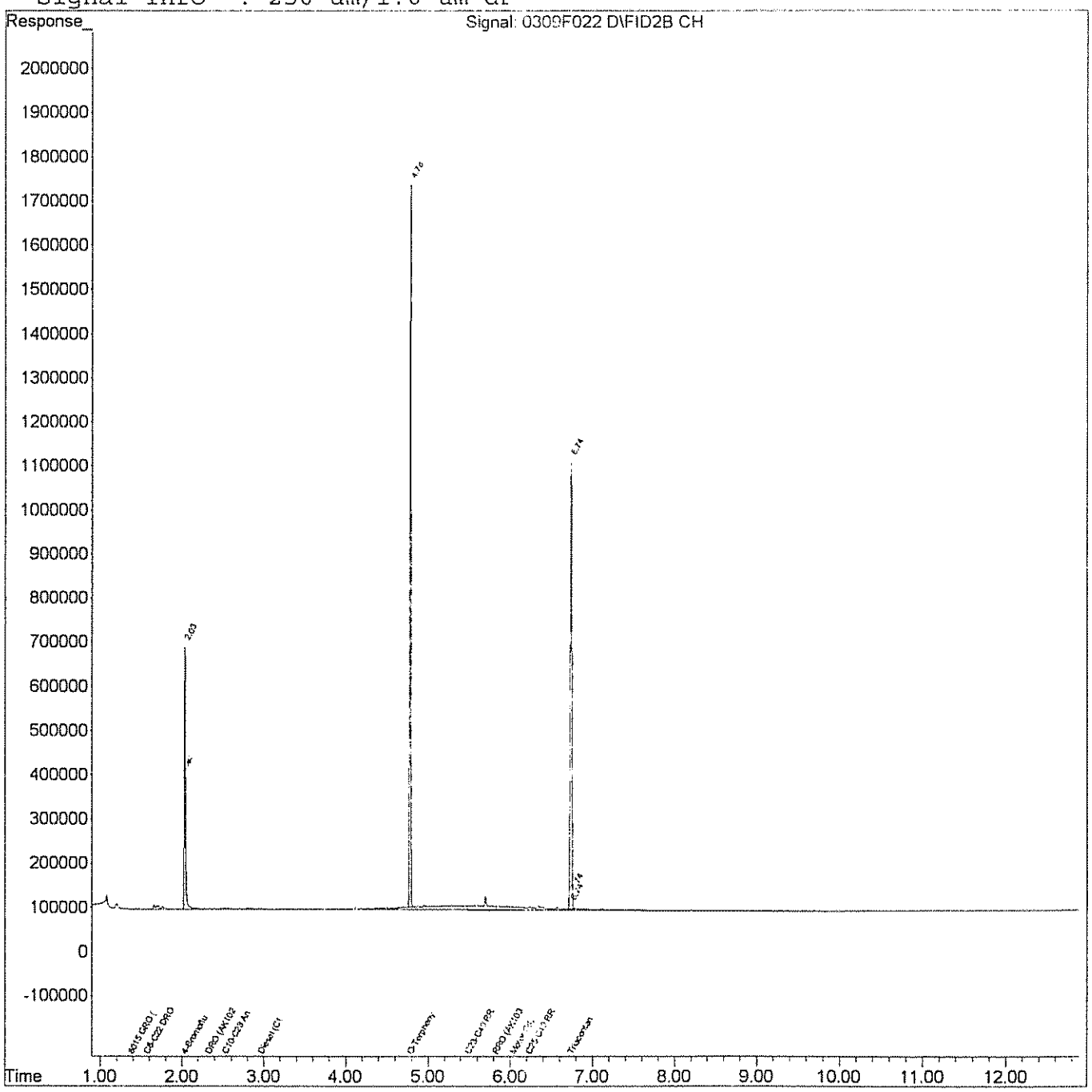
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F022.D
Acq On : 09 Mar 2005 11:36 pm
Sample : k2501544-005
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 23
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503600-6	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F009 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	50	U	50	19	
CASID30160	Residual Range Organics (RRO)	100	U	100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	84	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F009.D
Lab ID: KWG0503600-6
RunType: MB
Matrix: WATER

Date Acquired: 03/09/2005 19:50
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NC

Primary Review: PM 03/10/05

Secondary Review: 03/10/05

Printed: 03/10/2005 15:20:58
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366257	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F009 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:50	**Quant Date:**	03/10/2005 14:32	**Vial:**	13
Run Type:	MB			**Dilution:**	1 0
Lab ID:	KWG0503600-6			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2 04	0 00	569260	40 96	82	33-133	OK
o-Terphenyl	4 78	0 00	1373564	40 70	81	52-128	OK
n-Triacontane	6.74	0 00	1196627	41.98	84	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	76636	3 03	19	U	
C10 - C25 DRO	2 31	?	134191	4.62	9 25	J	
Diesel Range Organics	2 51	?	168152	5.75	19	U	
C8 - C22 DRO	1.58	?	190644	6.45	12.9	J	
C23 - C40 RRO	5.48	?	222746	9.85	24	U	
Residual Range Organics (RRO)	5.83	?	122624	7 12	28	U	
Motor Oil	6.03	?	122624	7.12	28	U	
C25 - C40 RRO	6 23	?	216044	11 73	27	U	
Gasoline Range Organics (GRO	1.38	?	114445	10 89	100	U	

Prep Amount:	500 ml	**Dilution:**	1 0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

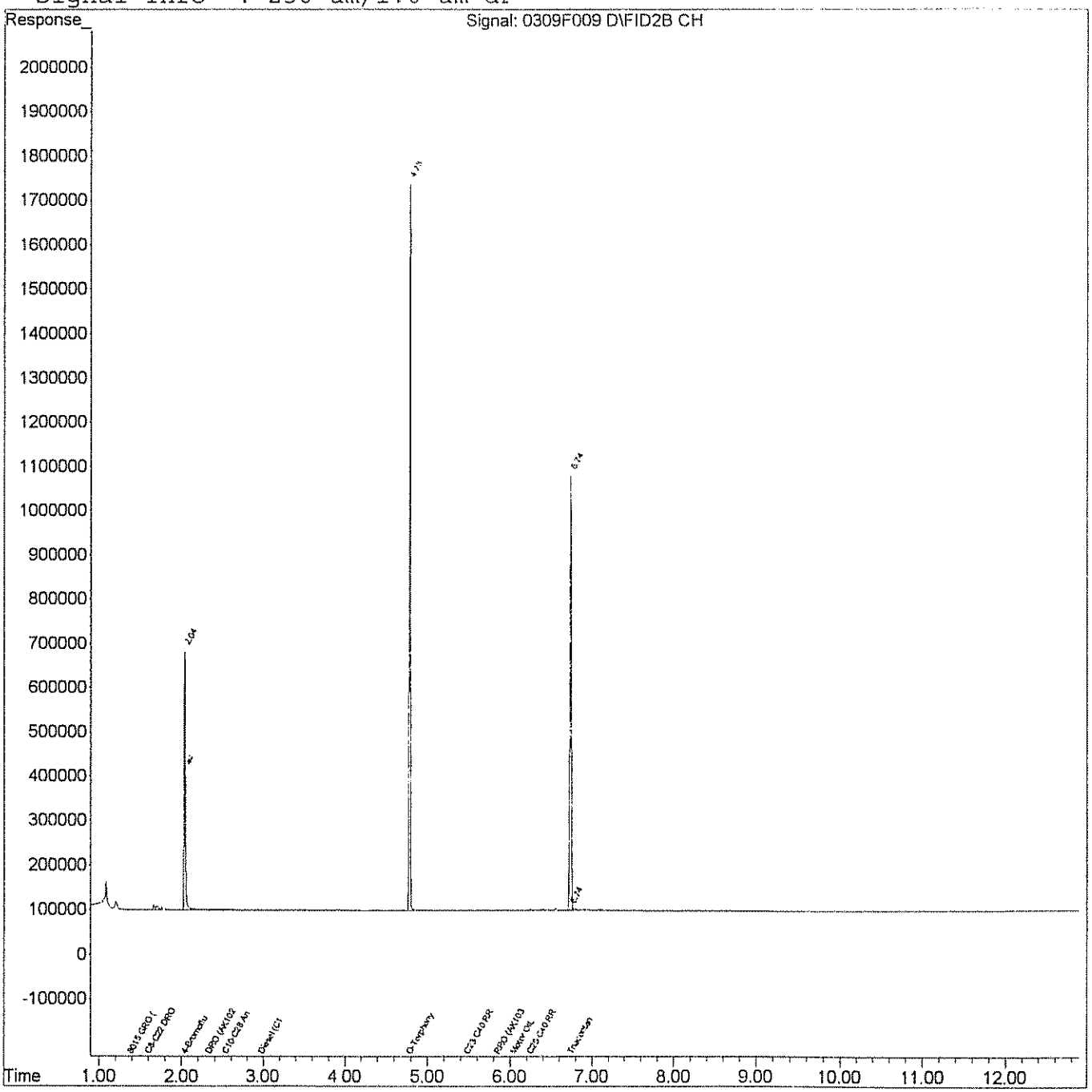
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F009.D
Acq On : 09 Mar 2005 7:50 pm
Sample : kwg0503600mb
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 13
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	50398-05MS	**Units:**	ug/L
Lab Code:	KWG0503600-2	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F023 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	2700		46	19	
CASID30160	Residual Range Organics (RRO)	1350		91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	79	52-128	03/09/05	Acceptable
n-Triacontane	86	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F023 D
Lab ID: KWG0503600-2 -- K2501544-005MS
RunType: MS
Matrix: WATER

Date Acquired: 03/09/2005 23:53
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NC

Primary Review: VMB 3/10/05

Secondary Review: 3/10/05

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366253	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F023.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:53	**Quant Date:**	03/10/2005 14:32	**Vial:**	24
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0503600-2 -- K2501544-005MS			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.03	-0.01	520721	37.47	75	33-133	OK
o-Terphenyl	4.78	0.00	1338309	39.66	79	52-128	OK
n-Triacontane	6.73	-0.01	1228370	43.10	86	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	37611643	1,485	2700		
C10 - C25 DRO	2.31	?	41363908	1,425	2590		
Diesel Range Organics	2.51	?	47684326	1,630	2960		
C8 - C22 DRO	1.58	?	38650764	1,308	2380		
C23 - C40 RRO	5.48	?	17448468	771.46	1400		
Residual Range Organics (RRO)	5.83	?	12784262	742.26	1350		
Motor Oil	6.03	?	12784262	742.26	1350		
C25 - C40 RRO	6.23	?	13917181	755.57	1370		
Gasoline Range Organics (GRO	1.38	?	4570408	434.79	791		

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

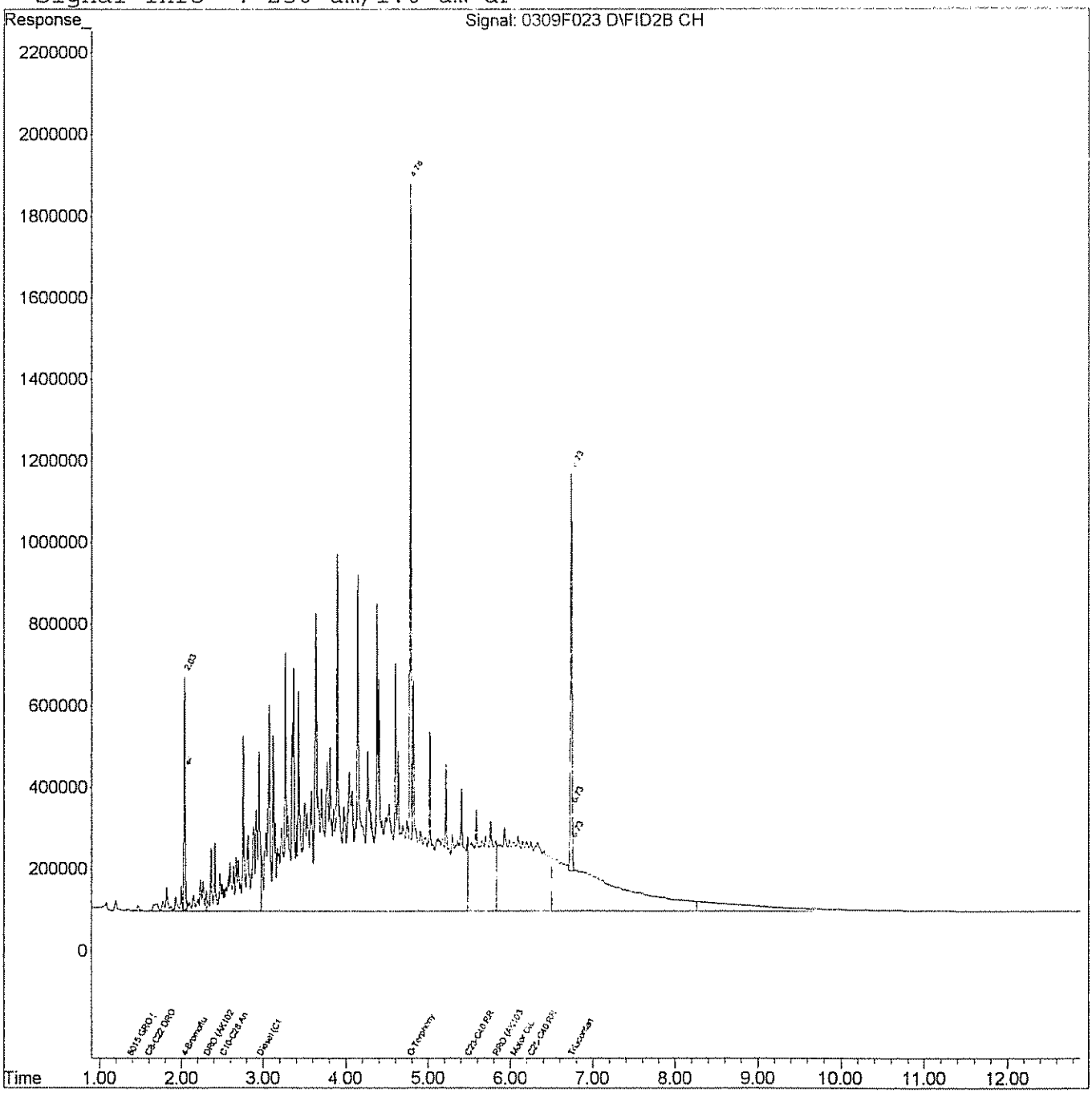
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F023.D
Acq On : 09 Mar 2005 11:53 pm
Sample : k2501544-005ms
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 24
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/10/2005

Diesel and Residual Range Organics

Sample Name:	50398-05DMS	**Units:**	ug/L
Lab Code:	KWG0503600-3	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F024 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	2910		46	19	
CASID30160	Residual Range Organics (RRO)	1430		91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	75	52-128	03/10/05	Acceptable
n-Triacontane	79	50-150	03/10/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F024 D
Lab ID: KWG0503600-3 -- K2501544-005DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/10/2005 00:11
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	[illegible]

Primary Review: [illegible]

Secondary Review: [illegible]

Printed: 03/10/2005 15:21:43
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366254	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MI257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F024.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 00:11	**Quant Date:**	03/10/2005 14:33	**Vial:**	25
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0503600-3 -- K2501544-005DMS			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04	0.00	518691	37.32	75	33-133	OK
o-Terphenyl	4.78	0.00	1267430	37.56	75	52-128	OK
n-Triacontane	6.74	0.00	1124422	39.45	79	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	40588234	1,603	2910		
C10 - C25 DRO	2.31	?	44842380	1,545	2810		
Diesel Range Organics	2.51	?	51460877	1,759	3200		
C8 - C22 DRO	1.58	?	42100596	1,424	2590		
C23 - C40 RRO	5.48	?	18529611	819.26	1490		
Residual Range Organics (RRO)	5.83	?	13573911	788.11	1430		
Motor Oil	6.03	?	13573911	788.11	1430		
C25 - C40 RRO	6.23	?	14860985	806.81	1470		
Gasoline Range Organics (GRO	1.38	?	5180987	492.87	896		

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

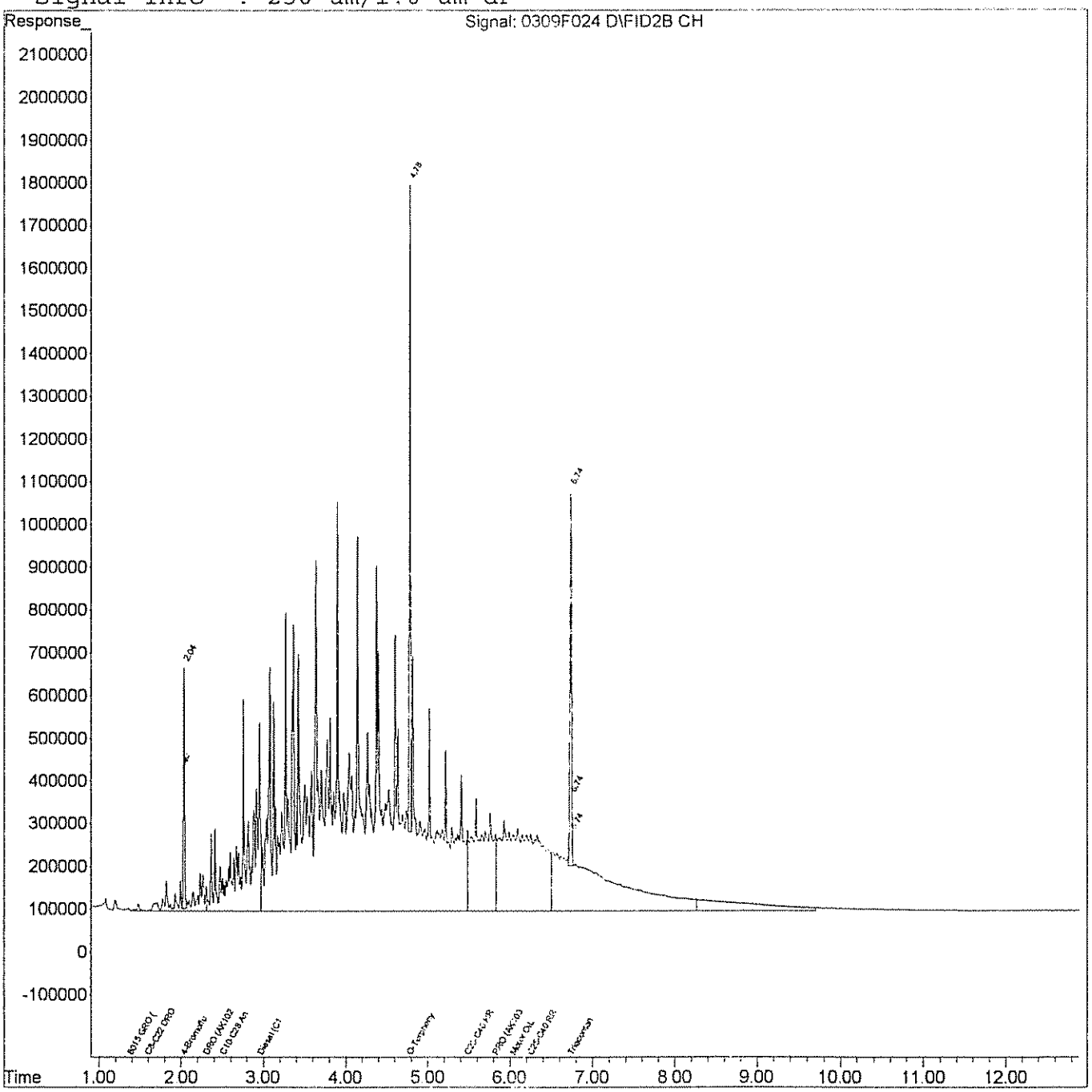
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F024.D
Acq On : 10 Mar 2005 12:11 am
Sample : k2501544-005dms
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 25
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0503600-4	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F007 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**2630**		50	19	
CASID30160	**Residual Range Organics (RRO)**	**1290**		100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	76	52-128	03/09/05	Acceptable
n-Triacontane	80	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F007 D
Lab ID: KWG0503600-4
RunType: LCS
Matrix: WATER

Date Acquired: 03/09/2005 19:15
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	

Primary Review: PM 031005

Secondary Review: 03/15/05

Printed: 03/10/2005 15:20:52
u \Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366255	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009 D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F007 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:15	**Quant Date:**	03/10/2005 14:32	**Vial:**	11
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0503600-4			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2 04	0 00	545001	39 22	78	33-133	OK
o-Terphenyl	4 78	0 00	1276753	37 84	76	52-128	OK
n-Triacontane	6 74	0 00	1146835	40 24	80	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	33316423	1,316	2630		
C10 - C25 DRO	2 31	?	36888640	1,271	2540		
Diesel Range Organics	2 51	?	42209292	1,443	2890		
C8 - C22 DRO	1 58	?	34801726	1,177	2350		
C23 - C40 RRO	5 48	?	15102153	667 72	1340		
Residual Range Organics (RRO)	5 83	?	11076388	643 10	1290		
Motor Oil	6 03	?	11076388	643 10	1290		
C25 - C40 RRO	6 23	?	12208698	662 81	1330		
Gasoline Range Organics (GRO	1 38	?	4378757	416 56	833		

Prep Amount:	500 ml	**Dilution:**	1 0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

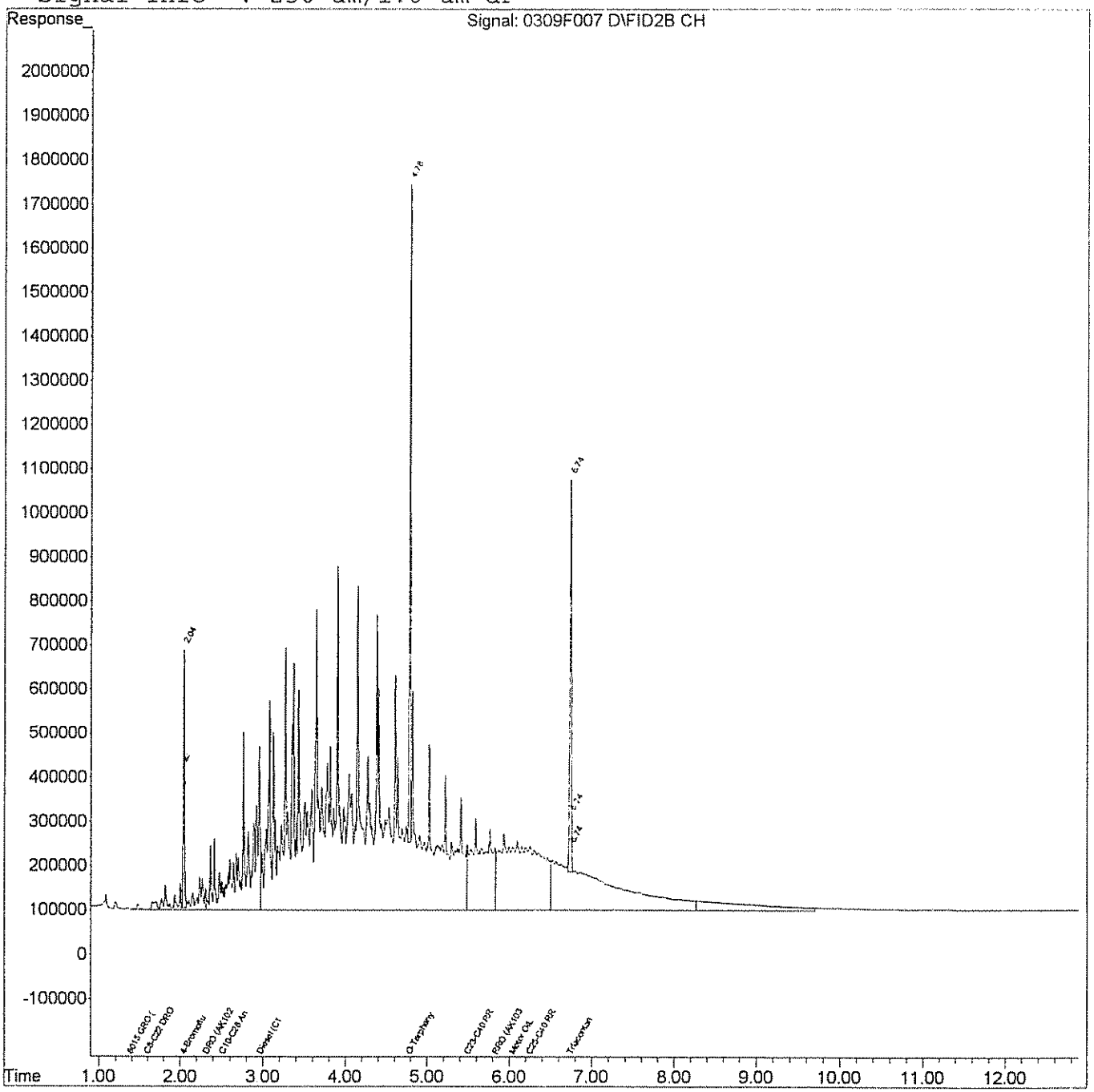
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F007.D
Acq On : 09 Mar 2005 7:15 pm
Sample : kwg0503600lcs
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 11
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Duplicate Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0503600-5	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F008.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**2620**		50	19	
CASID30160	**Residual Range Organics (RRO)**	**1270**		100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	70	52-128	03/09/05	Acceptable
n-Triacontane	74	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File:	J:\GC21\DATA\030905\0309F008 D	**Date Acquired:**	03/09/2005 19:33
Lab ID:	KWG0503600-5	**Date Quantitated:**	03/10/2005 14:32
RunType:	DLCS	**Batch ID:**	KWG0503923
Matrix:	WATER	**Analysis Method:**	8015M
		MethodJoinID:	MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NL

Primary Review: VM 03/10/05

Secondary Review: [illegible]

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366256	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009 D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F008 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:33	**Quant Date:**	03/10/2005 14:32	**Vial:**	12
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG0503600-5			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04	0.00	496762	35.75	71	33-133	OK
o-Terphenyl	4.78	0.00	1181997	35.03	70	52-128	OK
n-Triacontane	6.74	0.00	1054773	37.01	74	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	33164815	1,310	2620		
C10 - C25 DRO	2.31	?	36750777	1,266	2530		
Diesel Range Organics	2.51	?	42021277	1,437	2870		
C8 - C22 DRO	1.58	?	34680048	1,173	2350		
C23 - C40 RRO	5.48	?	15001521	663.27	1330		
Residual Range Organics (RRO)	5.83	?	10978614	637.43	1270		
Motor Oil	6.03	?	10978614	637.43	1270		
C25 - C40 RRO	6.23	?	12134407	658.78	1320		
Gasoline Range Organics (GRO	1.38	?	4382347	416.90	834		

Prep Amount:	500 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

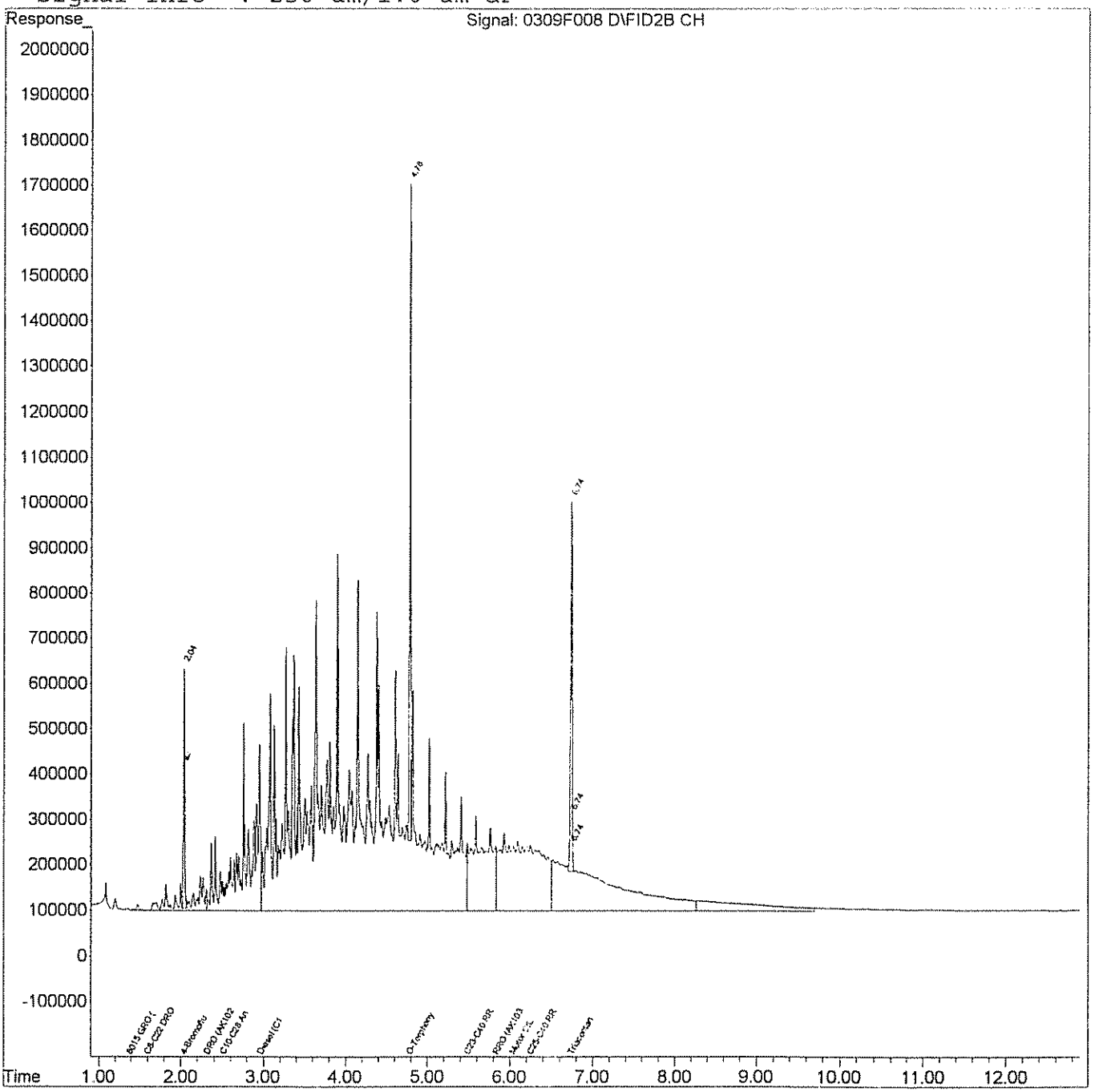
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F008.D
Acq On : 09 Mar 2005 7:33 pm
Sample : kwg0503600dlcs
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 12
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Level ID	File ID	Level ID	File ID
A	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F017.D	H	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F031.D
B	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F019.D	I	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F033.D
C	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F021.D	J	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F035.D
D	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F023.D	K	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F037.D
E	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F025.D	L	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F039.D
F	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F027.D	M	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F041.D
G	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F029.D	N	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F043.D

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Diesel Range Organics (DRO)				B	20	23800				D	50	23700			
	F	200	25800				H	500	25800				J	1000	25800
				L	2000	26300				N	5000	26100			
Residual Range Organics (RRO)	A	20	16200				C	50	15600				E	200	17600
				G	500	18600				I	1000	17600			
	K	2000	17600				M	5000	17400						
o-Terphenyl				B	1.0	30200				D	2.5	32200			
	F	10	34600				H	25	34800				J	50	34500
				L	100	35100				N	250	34700			
n-Triacontane										D	2.5	24400			
	F	10	28900				H	25	29300				J	50	29700
				L	100	30200									

Results flagged with an asterisk (*) indicate values outside control criteria

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Analyte Name	Compound Type	Calibration Evaluation					
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	4 3		≤ 20	
Residual Range Organics (RRO)	MS	AverageRF	% RSD	5 8		≤ 20	
o-Terphenyl	SURR	AverageRF	% RSD	5 4		≤ 20	
n-Triacontane	SURR	AverageRF	% RSD	8 2		≤ 20	

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 11/23/2004
Date Analyzed: 11/23/2004

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration ID: CAL4011
Units: ppm

File ID: J:\GC21\DATA\CALIBRAT\112204 SEC\1122F051 D
J:\GC21\DATA\CALIBRAT\112204 SEC\1122F059 D

Column ID: RTX-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1100	25300	28600	13	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	1100	17200	19300	12	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

† SPCC Compound ‡ CCC Compound

DATA ANALYSIS PARAMETERS

Method Name: J:\GC21\METHODS\1122BACK.M

Percent Report Settings

Sort By: Signal

Output Destination
Screen: No
Printer: Yes
File: No

Integration Events: Meth Default

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination
Screen: Yes
Printer: No
File: No

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Generate Report During Run Method: No

GRO+DRO+RRO 1122BACK CAL4011
Calibration Last Updated: Tue Nov 23 19:17:56 2004

Reference Window: 10.00 Minutes
Non-Reference Window: 5.00 Minutes
Correlation Window: 0.02 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

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1) 4-Bromofluorobenzene ( )
Ret. Time 2.05 min., Extract & Integrate from 2.00 to 2.10 min.

Lvl ID Conc (ppm) Response

D/S	50.000	-1
G/O	not used for this compound	
Xtra	not used for this compound	
1	1.000	-1
2	2.500	26492
3	10.000	135145
4	25.000	346916
5	50.000	724441
6	100.000	1526663
7	250.000	3909666

Curve Fit: Avg. RF

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2) O-Terphenyl ( )

Ret. Time 4.78 min., Extract & Integrate from 4.73 to 4.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		50.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		1.000	30216
2		2.500	80603
3		10.000	346094
4		25.000	870069
5		50.000	1727213
6		100.000	3509811
7		250.000	8676383

Curve Fit: Avg. RF

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3) Triacontane (C-30) ( )

Ret. Time 6.74 min., Extract & Integrate from 6.68 to 6.79 min.

Lvl	ID	Conc (ppm)	Response
D/S		50.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		1.000	-1
2		2.500	61039
3		10.000	289319
4		25.000	731765
5		50.000	1482753
6		100.000	3023823
7		250.000	-1

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Curve Fit: Avg. RF

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4) Diesel (C12-C25) ( )

Ret. Time 2.98 min., Extract & Integrate from 2.98 to 5.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	475436
2		50.000	1185416
3		200.000	5160664

4	500.000	12881488
5	1000.000	25782051
6	2000.000	52595920
7	5000.000	130732559

Curve Fit: Avg. RF

---

5) DRO (AK102; C10-C25) ( )

Ret. Time 2.32 min., Extract & Integrate from 2.32 to 5.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	566724
2		50.000	1358044
3		200.000	5870676
4		500.000	14642623
5		1000.000	29327882
6		2000.000	59866427
7		5000.000	148871741

Curve Fit: Avg. RF

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6) C10-C28 AntiTom DRO ( )

Ret. Time 2.52 min., Extract & Integrate from 2.32 to 6.50 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	572165
2		50.000	1377146
3		200.000	5957899
4		500.000	14764413
5		1000.000	29431668
6		2000.000	59999460
7		5000.000	149256707

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Curve Fit: Avg. RF

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7) C8-C22 DRO ( )

Ret. Time 1.60 min., Extract & Integrate from 1.40 to 5.49 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	580688
2		50.000	1341461
3		200.000	6005164
4		500.000	14978005
5		1000.000	29999143
6		2000.000	61230459
7		5000.000	152264194

Curve Fit: Avg. RF

---

8) C23-C40 RRO ( )
Ret. Time 5.49 min., Extract & Integrate from 5.49 to 9.71 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	446922
2		50.000	1056291
3		200.000	4506993
4		500.000	11979083
5		1000.000	22796176
6		2000.000	45864356
7		5000.000	113144637

Curve Fit: Avg. RF

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9) RRO (AK103; C25-C36) ( )
Ret. Time 5.83 min., Extract & Integrate from 5.83 to 8.25 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	324072
2		50.000	780959
3		200.000	3511686
4		500.000	9300400
5		1000.000	17605862
6		2000.000	35235721
7		5000.000	86788390

Curve Fit: Avg. RF

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10) Motor OIL (C25-C36) ( )
Ret. Time 6.03 min., Extract & Integrate from 5.83 to 8.25 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	324072
2		50.000	780959
3		200.000	3511686
4		500.000	9300400
5		1000.000	17605862
6		2000.000	35235721
7		5000.000	86788390

Curve Fit: Avg. RF

---

11) C25-C40 RRO ( )
Ret. Time 6.23 min., Extract & Integrate from 5.83 to 9.71 min.

Lvl ID	Conc (ppm)	Response
D/S	not used for this compound	
G/O	1000.000	-1
Xtra	not used for this compound	
1	20.000	364716
2	50.000	855042
3	200.000	3659009
4	500.000	9740978
5	1000.000	18598525
6	2000.000	37411714
7	5000.000	92592694

Curve Fit: Avg. RF

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12) 8015 GRO (C8-C12) ( )

Ret. Time 1.40 min., Extract & Integrate from 1.40 to 2.98 min.

Lvl ID	Conc (ppm)	Response
D/S	not used for this compound	
G/O	500.000	-1
Xtra	not used for this compound	
1	20.000	216551
2	50.000	466736
3	200.000	2003134
4	500.000	5496450
5	1000.000	10567840
6	2000.000	21640628
7	5000.000	55118634

Curve Fit: Avg. RF

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13) Kerosene (C9-C18) ( )

Ret. Time 2.20 min., Extract & Integrate from 2.20 to 2.20 min.

Lvl ID	Conc (ppm)	Response
D/S	not used for this compound	
G/O	not used for this compound	
Xtra	1000.000	-1
1	20.000	-1
2	50.000	-1
3	200.000	-1
4	500.000	-1
5	1000.000	-1
6	2000.000	-1
7	5000.000	-1

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Curve Fit: Avg. RF

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14) Future Development ( )

Ret. Time 7.00 min., Extract & Integrate from 7.00 to 7.00 min.

Lvl ID	Conc (ppm)	Response
D/S	not used for this compound	
G/O	not used for this compound	
Xtra	not used for this compound	
1	not used for this compound	
2	not used for this compound	

3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	5000.000	-1

Curve Fit: Avg. RF

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15) Ethylbenzene ( )

Ret. Time 1.79 min., Extract & Integrate from 1.74 to 1.84 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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16) p,m-Xylenes ( )

Ret. Time 1.83 min., Extract & Integrate from 1.78 to 1.88 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

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Curve Fit: Avg. RF

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17) o-Xylene ( )

Ret. Time 1.94 min., Extract & Integrate from 1.89 to 1.99 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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18) a-Pinene ( )
Ret. Time 2.17 min., Extract & Integrate from 2.12 to 2.22 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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19) b-Pinene ( )
Ret. Time 2.34 min., Extract & Integrate from 2.29 to 2.39 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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20) 1,2,3-Trimethylbenzene ( )
Ret. Time 2.48 min., Extract & Integrate from 2.43 to 2.53 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

---

21) Fluoranthene ( )
Ret. Time 5.17 min., Extract & Integrate from 5.12 to 5.22 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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22) Pyrene ( )
Ret. Time 5.28 min., Extract & Integrate from 5.23 to 5.33 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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23) Pristane ( )
Ret. Time 4.41 min., Extract & Integrate from 4.36 to 4.46 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

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Curve Fit: Avg. RF

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24) Phytane ( )
Ret. Time 4.64 min., Extract & Integrate from 4.59 to 4.69 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	

```
2          not used for this compound
3          not used for this compound
4          not used for this compound
5          not used for this compound
6          not used for this compound
7           5000.000            -1
```

Curve Fit: Avg. RF

END OF DATA ANALYSIS PARAMETERS

Tue Nov 23 19:29:28 2004

PM112304

9/12/04

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F015.D Vial: 4
Acq On : 23 Nov 2004 1:15 am Operator: PMulheri
Sample : 5-43I n-Alkanes marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:12 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.01f	622939	44.825 ppm
Spiked Amount 50.000		Recovery =	89.65%
2) S O-Terphenyl	4.82f	617224	18.291 ppm
Spiked Amount 50.000		Recovery =	36.58%
3) S Triacontane (C-30)	6.73	576247	20.218 ppm
Spiked Amount 50.000		Recovery =	40.44%
Target Compounds			
4) H Diesel (C12-C25)	2.98	8898122	351.361 ppm
5) H DRO (AK102; C10-C25)	2.32	10175779	350.593 ppm
6) H C10-C28 AntiTom DRO	2.52	12589993	430.422 ppm
7) H C8-C22 DRO	1.60	9591878	324.500 ppm
8) H C23-C40 RRO	5.49	9252502	409.086 ppm
9) H RRO (AK103; C25-C36)	5.83	6365894	369.608 ppm
10) H Motor OIL (C25-C36)	6.03	6365894	369.608 ppm
11) H C25-C40 RRO	6.23	7990196	433.790 ppm
12) H 8015 GRO (C8-C12)	1.40	1935499	184.126 ppm

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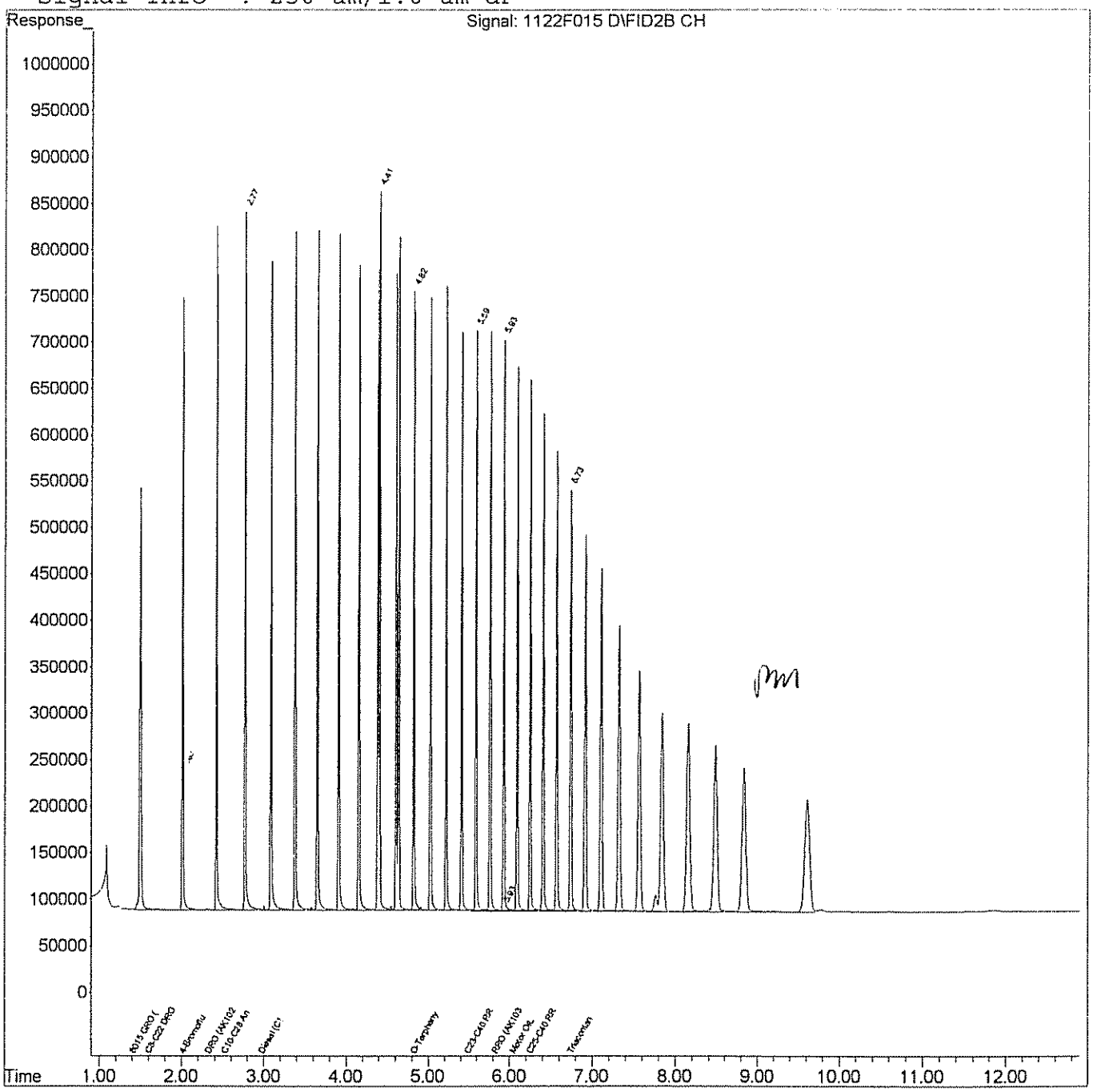
(f)=RT Delta > 1/2 Window (m)=manual int.

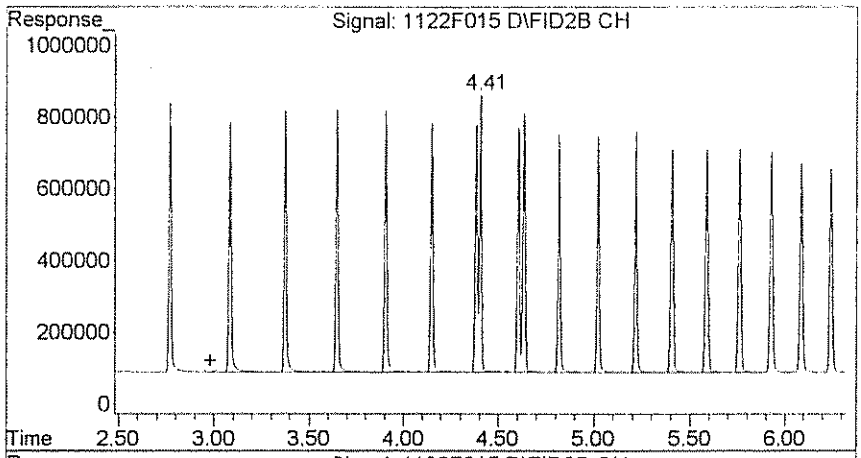
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F015.D Vial: 4
Acq On : 23 Nov 2004 1:15 am Operator: PMulheri
Sample : 5-43I n-Alkanes marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

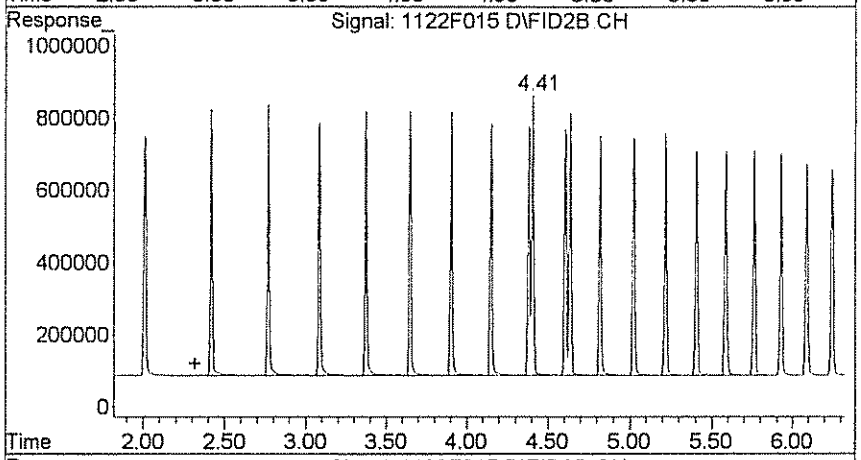
Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF





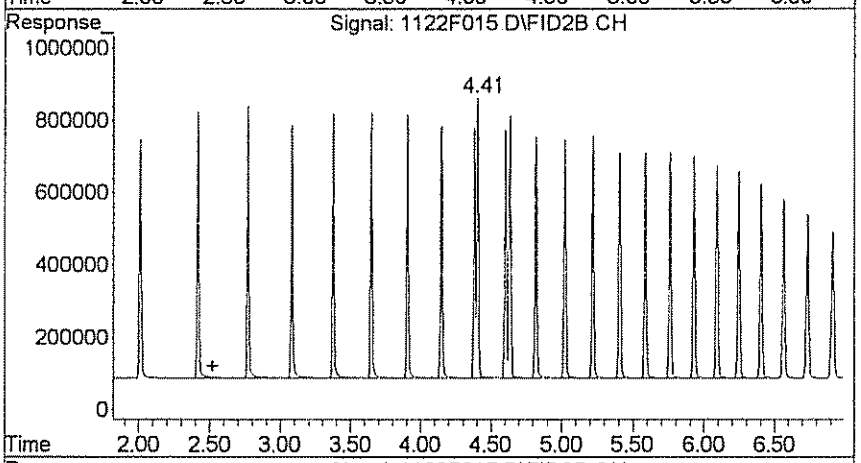
#4 Diesel (C12-C25)

R.T.: 2.980 min
Delta R.T.: 0.000 min
Response: 8898122
Conc: 351.36 ppm m



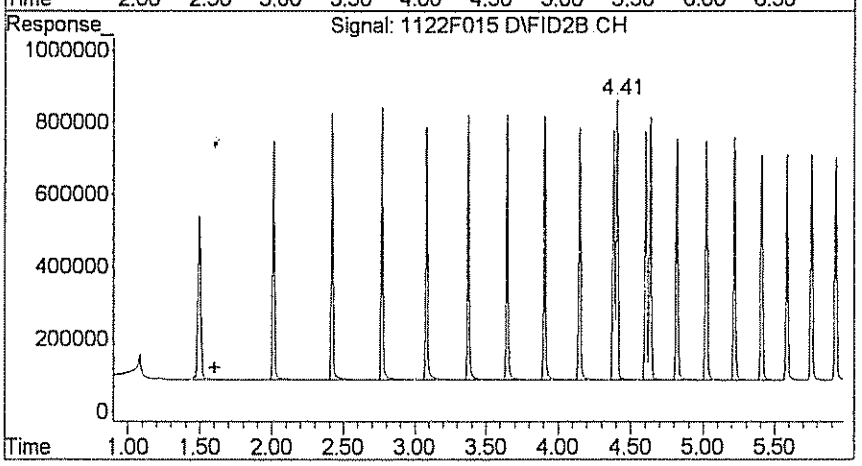
#5 DRO (AK102; C10-C25)

R.T.: 2.320 min
Delta R.T.: 0.000 min
Response: 10175779
Conc: 350.59 ppm m



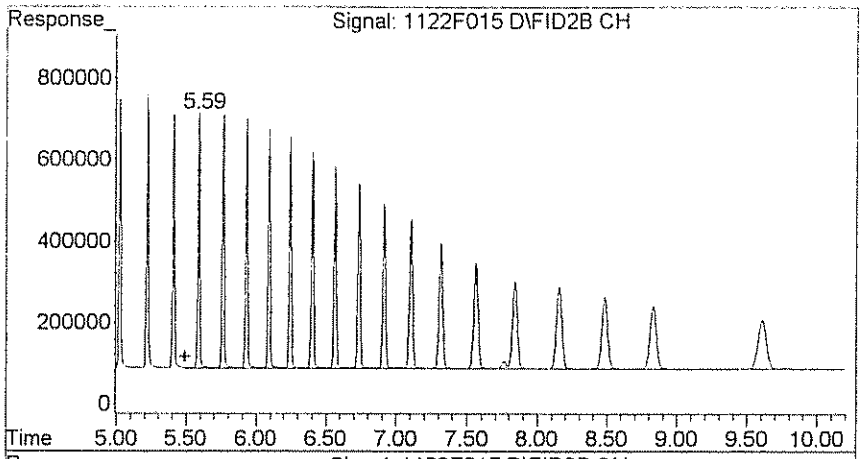
#6 C10-C28 AntiTom DRO

R.T.: 2.520 min
Delta R.T.: 0.000 min
Response: 12589993
Conc: 430.42 ppm m



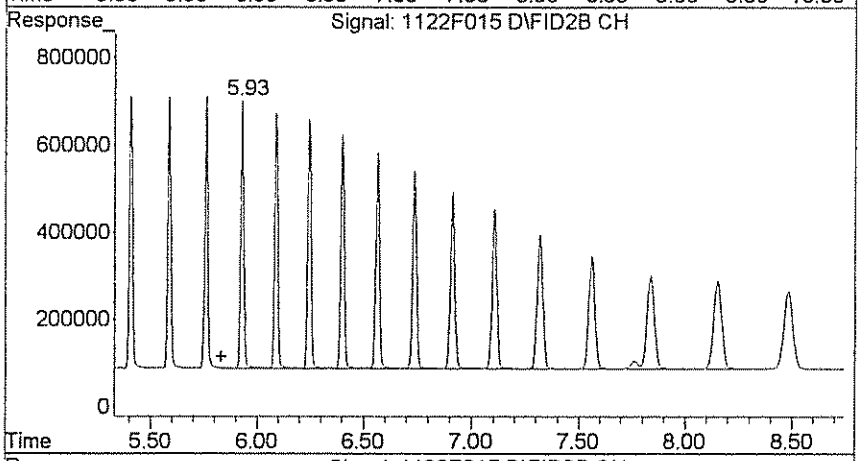
#7 C8-C22 DRO

R.T.: 1.600 min
Delta R.T.: 0.000 min
Response: 9591878
Conc: 324.50 ppm m



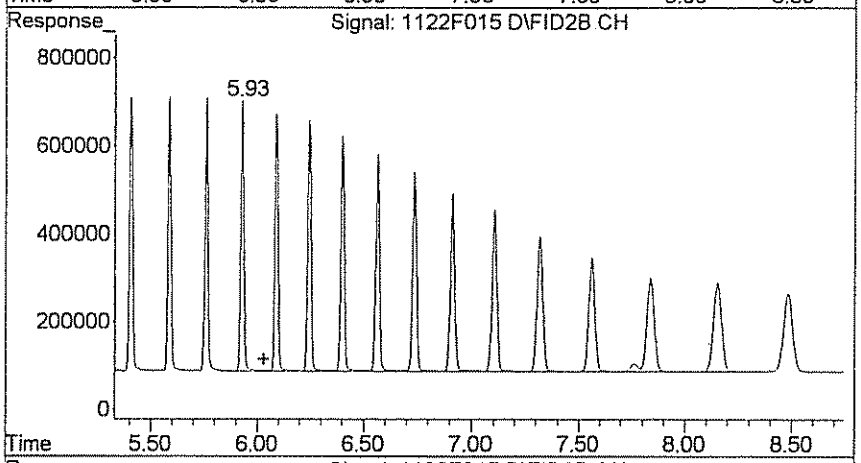
#8 C23-C40 RRO

R.T.: 5.490 min
Delta R.T.: 0.000 min
Response: 9252502
Conc: 409.09 ppm m



#9 RRO (AK103; C25-C36)

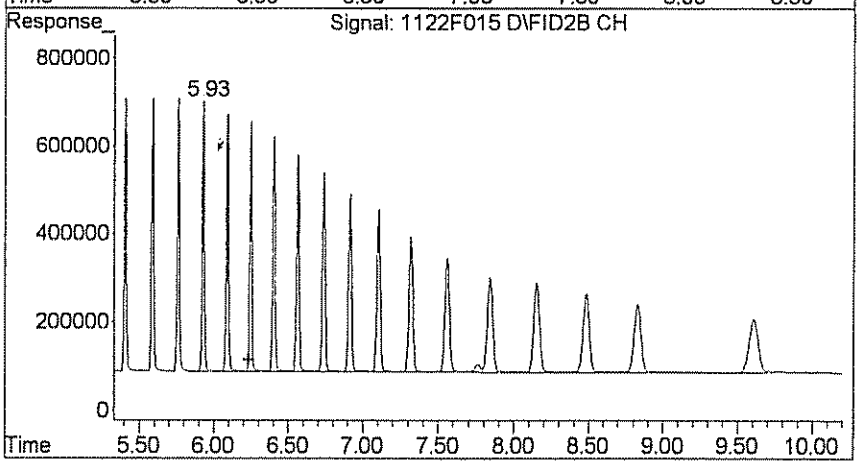
R.T.: 5.830 min
Delta R.T.: 0.000 min
Response: 6365894
Conc: 369.61 ppm m



#10 Motor OIL (C25-C36)

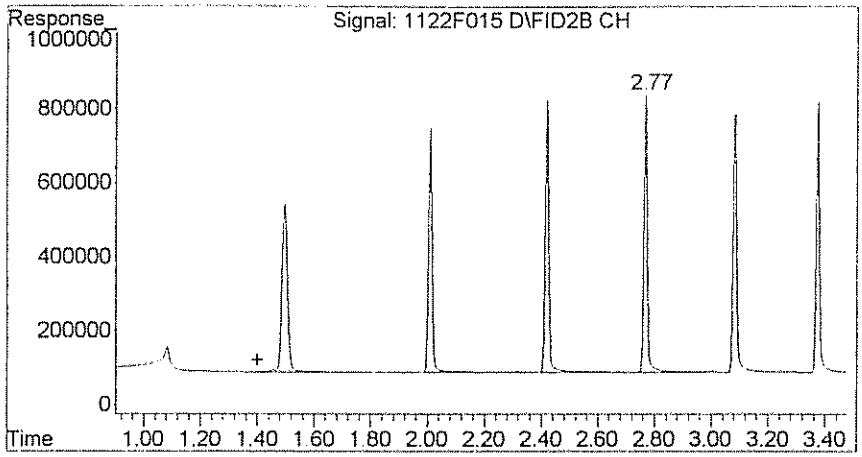
R.T.: 6.030 min
Delta R.T.: 0.000 min
Response: 6365894
Conc: 369.61 ppm m

pm



#11 C25-C40 RRO

R.T.: 6.230 min
Delta R.T.: 0.000 min
Response: 7990196
Conc: 433.79 ppm m



#12 8015 GRO (C8-C12)

R.T.: 1.400 min
Delta R.T.: 0.000 min
Response: 1935499
Conc: 184.13 ppm m

ppm

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F011.D Vial: 6
Acq On : 23 Nov 2004 12:39 am Operator: PMulheri
Sample : Instrument Blank Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:33 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
Target Compounds					
4)	H	Diesel (C12-C25)	2.98	50785	2.005 ppm
5)	H	DRO (AK102; C10-C25)	2.32	84814	2.922 ppm
6)	H	C10-C28 AntiTom DRO	2.52	99382	3.398 ppm
7)	H	C8-C22 DRO	1.60	105984	3.586 ppm
8)	H	C23-C40 RRO	5.49	106058	4.689 ppm
9)	H	RRO (AK103; C25-C36)	5.83	59372	3.447 ppm
10)	H	Motor OIL (C25-C36)	6.03	59372	3.447 ppm
11)	H	C25-C40 RRO	6.23	100898	5.478 ppm
12)	H	8015 GRO (C8-C12)	1.40	41949	3.991 ppm

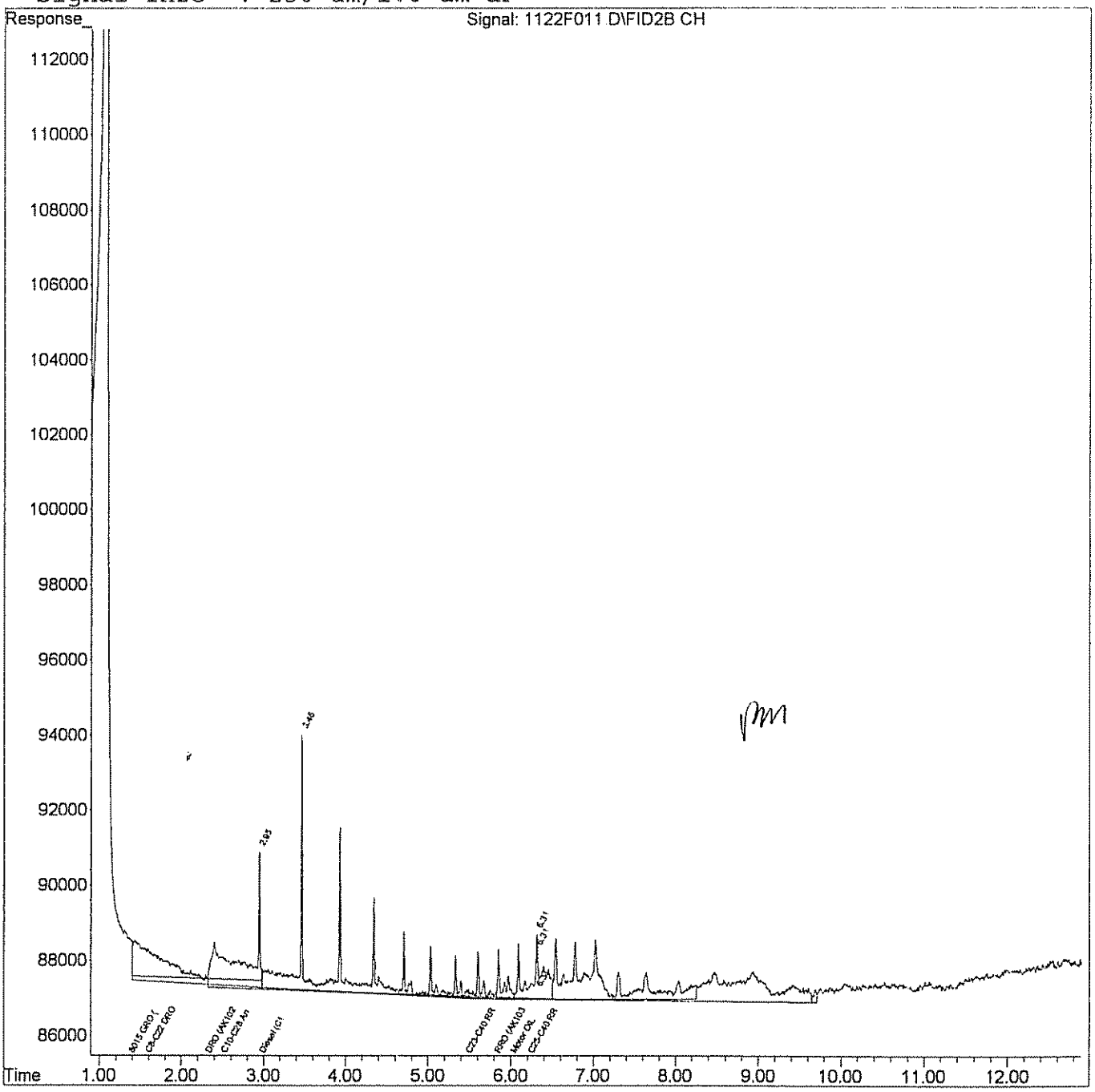
PM 112304

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F011.D Vial: 6
Acq On : 23 Nov 2004 12:39 am Operator: PMulheri
Sample : Instrument Blank Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F013.D Vial: 5
Acq On : 23 Nov 2004 12:57 am Operator: PMulheri
Sample : 5-47M MAHs/PAHs marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.01f	7963	0.573 ppm
Spiked Amount 50.000		Recovery =	1.15%
Target Compounds			
4) H Diesel (C12-C25)	2.98	7735911	305.469 ppm
5) H DRO (AK102; C10-C25)	2.32	10298341	354.816 ppm
6) H C10-C28 AntiTom DRO	2.52	13541867	462.965 ppm
7) H C8-C22 DRO	1.60	18712323	633.051 ppm
8) H C23-C40 RRO	5.49	6315022	279.210 ppm
9) H RRO (AK103; C25-C36)	5.83	6286549	365.002 ppm
10) H Motor OIL (C25-C36)	6.03	6286549	365.002 ppm
11) H C25-C40 RRO	6.23	6322590	343.255 ppm
12) H 8015 GRO (C8-C12)	1.40	10966639	1043.268 ppm

pm 112304

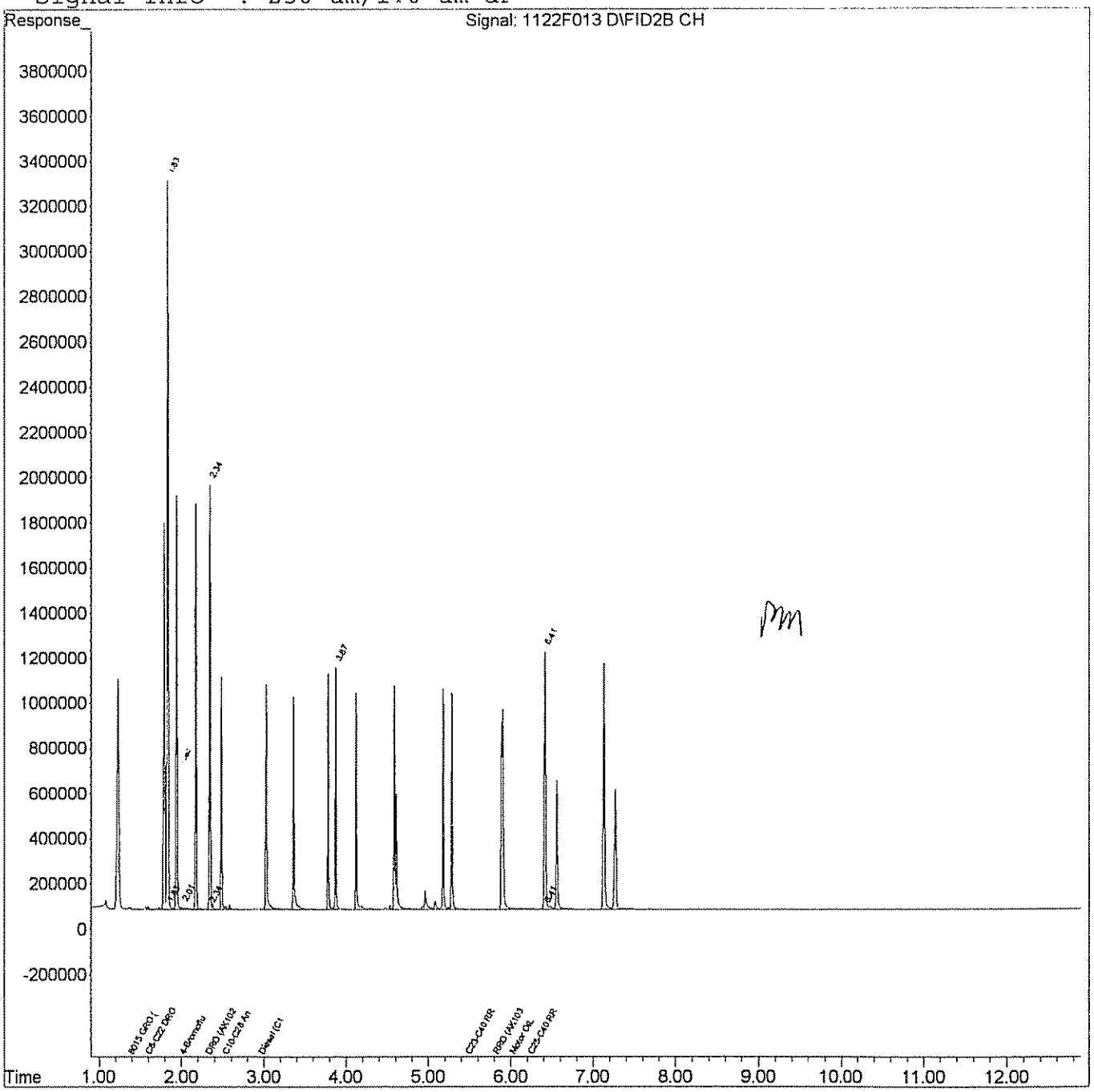
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F013.D Vial: 5
Acq On : 23 Nov 2004 12:57 am Operator: PMulheri
Sample : 5-47M MAHs/PAHs marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



PM

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F049.D Vial: 6
Acq On : 23 Nov 2004 2:24 pm Operator: PMulheri
Sample : IB Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:39 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
Target Compounds					
4)	H	Diesel (C12-C25)	2.98	80837	3.192 ppm
5)	H	DRO (AK102; C10-C25)	2.32	109610	3.776 ppm
6)	H	C10-C28 AntiTom DRO	2.52	126632	4.329 ppm
7)	H	C8-C22 DRO	1.60	141096	4.773 ppm
8)	H	C23-C40 RRO	5.49	146886	6.494 ppm
9)	H	RRO (AK103; C25-C36)	5.83	51716	3.003 ppm
10)	H	Motor OIL (C25-C36)	6.03	51716	3.003 ppm
11)	H	C25-C40 RRO	6.23	141709	7.693 ppm
12)	H	8015 GRO (C8-C12)	1.40	44834	4.265 ppm

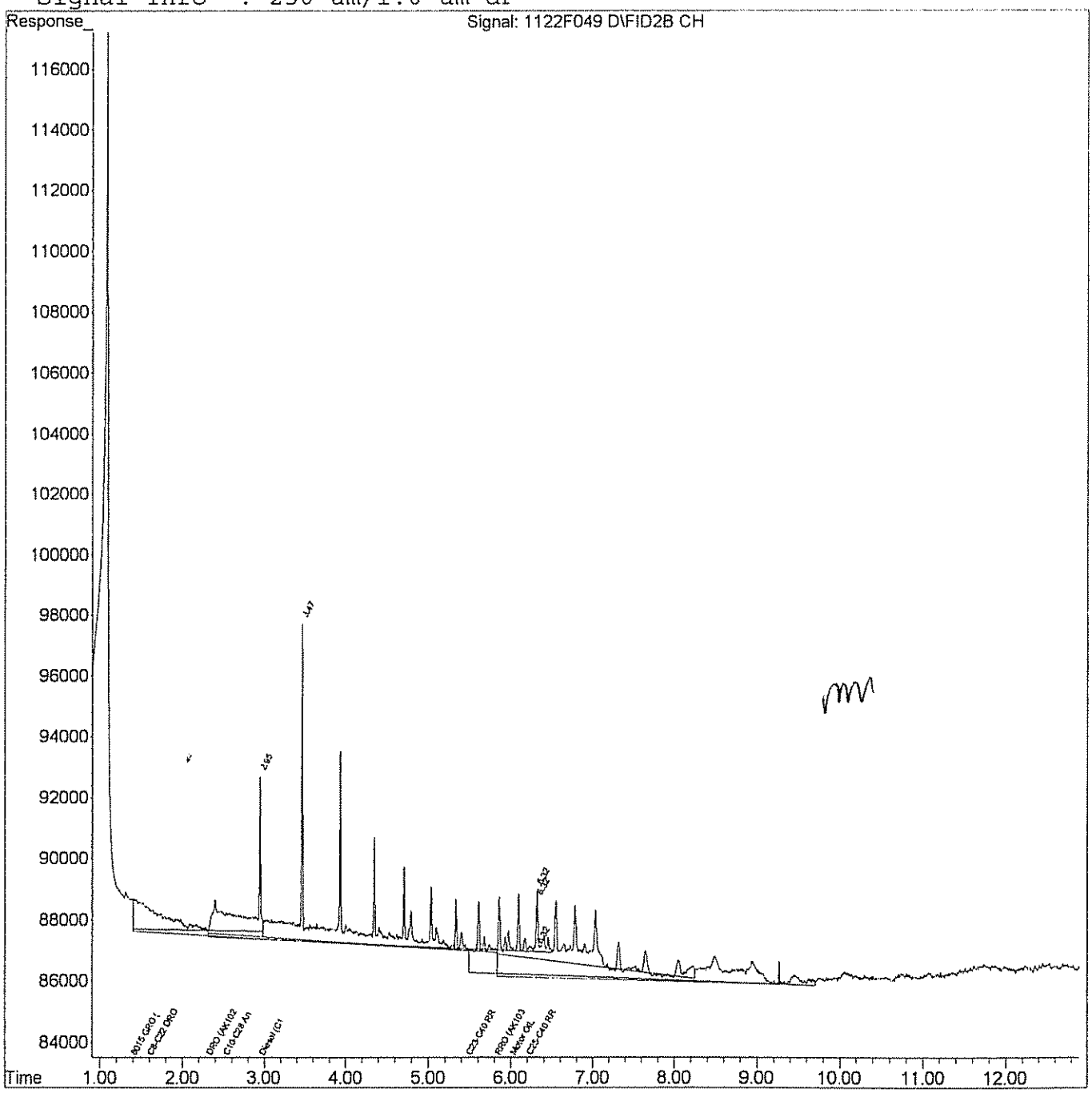
PM 112304

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F049.D Vial: 6
Acq On : 23 Nov 2004 2:24 pm Operator: PMulheri
Sample : IB Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F017.D Vial: 78
Acq On : 23 Nov 2004 1:33 am Operator: PMulheri
Sample : 20 ppm each HCSV6-74-I Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	446922	29.798 ppm
9) H RRO (AK103; C25-C36)	5.83	324072	28.848 ppm
10) H Motor OIL (C25-C36)	6.03	324072	28.848 ppm
11) H C25-C40 RRO	6.23	364716	29.660 ppm
12) H 8015 GRO (C8-C12)	1.40	216551	29.104 ppm

pm112304

9/12/04

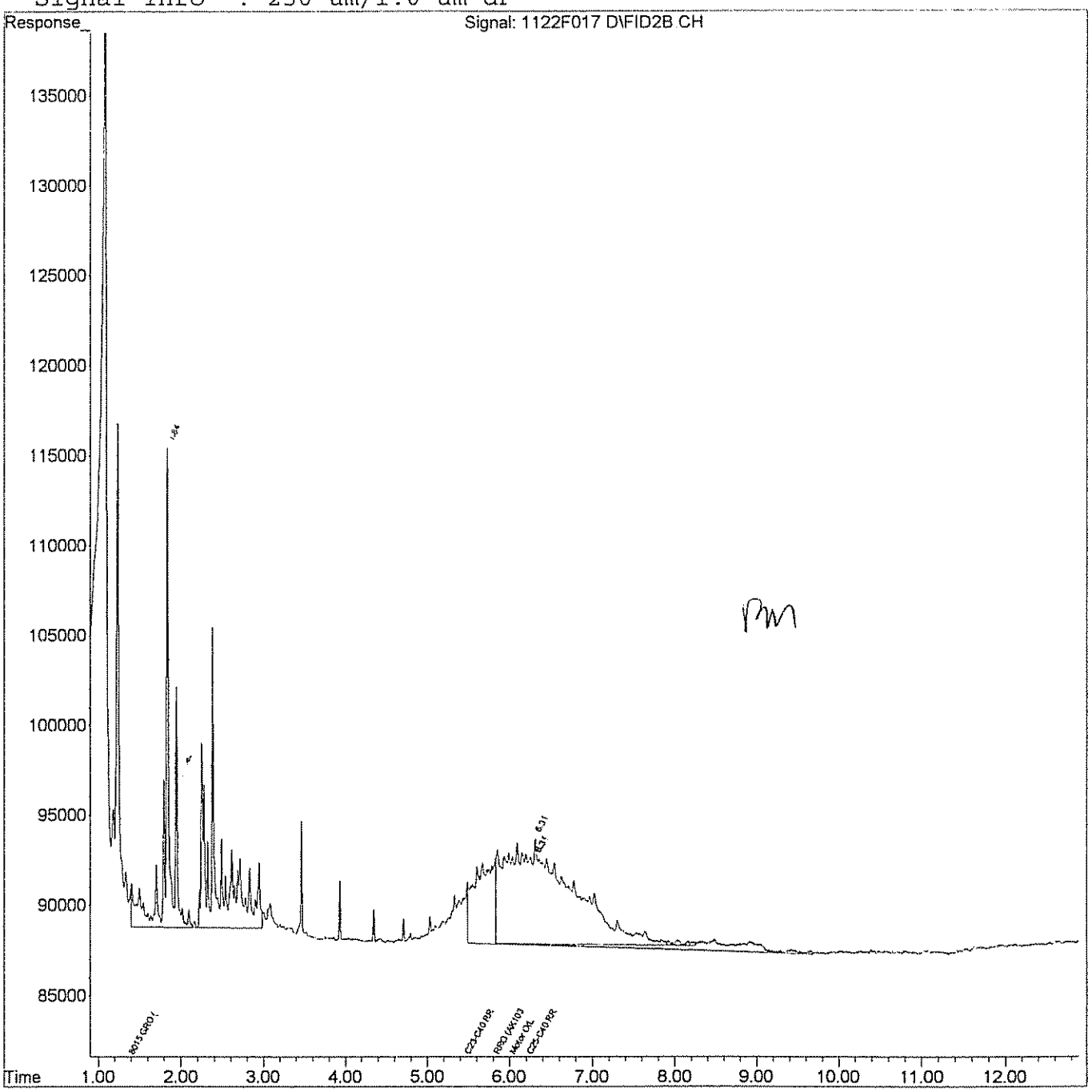
(f)=RT Delta > 1/2 Window (m)=manual int.
1122F017.D 1122BACK.M Tue Nov 23 19:31:16 2004 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F017.D Vial: 78
Acq On : 23 Nov 2004 1:33 am Operator: PMulheri
Sample : 20 ppm each HCSV6-74-I Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F019.D Vial: 71
Acq On : 23 Nov 2004 1:50 am Operator: PMulheri
Sample : 20/1 ppm HCSV6-74B Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:36 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

NOT USED PM 112304

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.06	8955	0.883 ppm
Spiked Amount 50.000	Recovery	=	1.77%
2) S O-Terphenyl	4.79	30216	1.362 ppm
Spiked Amount 50.000	Recovery	=	2.72%
3) S Triacontane (C-30)	6.74	19271	1.057 ppm
Spiked Amount 50.000	Recovery	=	2.11%
Target Compounds			
4) H Diesel (C12-C25)	2.98	475436	29.147 ppm
5) H DRO (AK102; C10-C25)	2.32	566724	30.187 ppm
6) H C10-C28 DRO	2.52	572165	30.243 ppm
7) H C8-C22 DRO	1.60	580688	29.933 ppm

PM 112304

112304

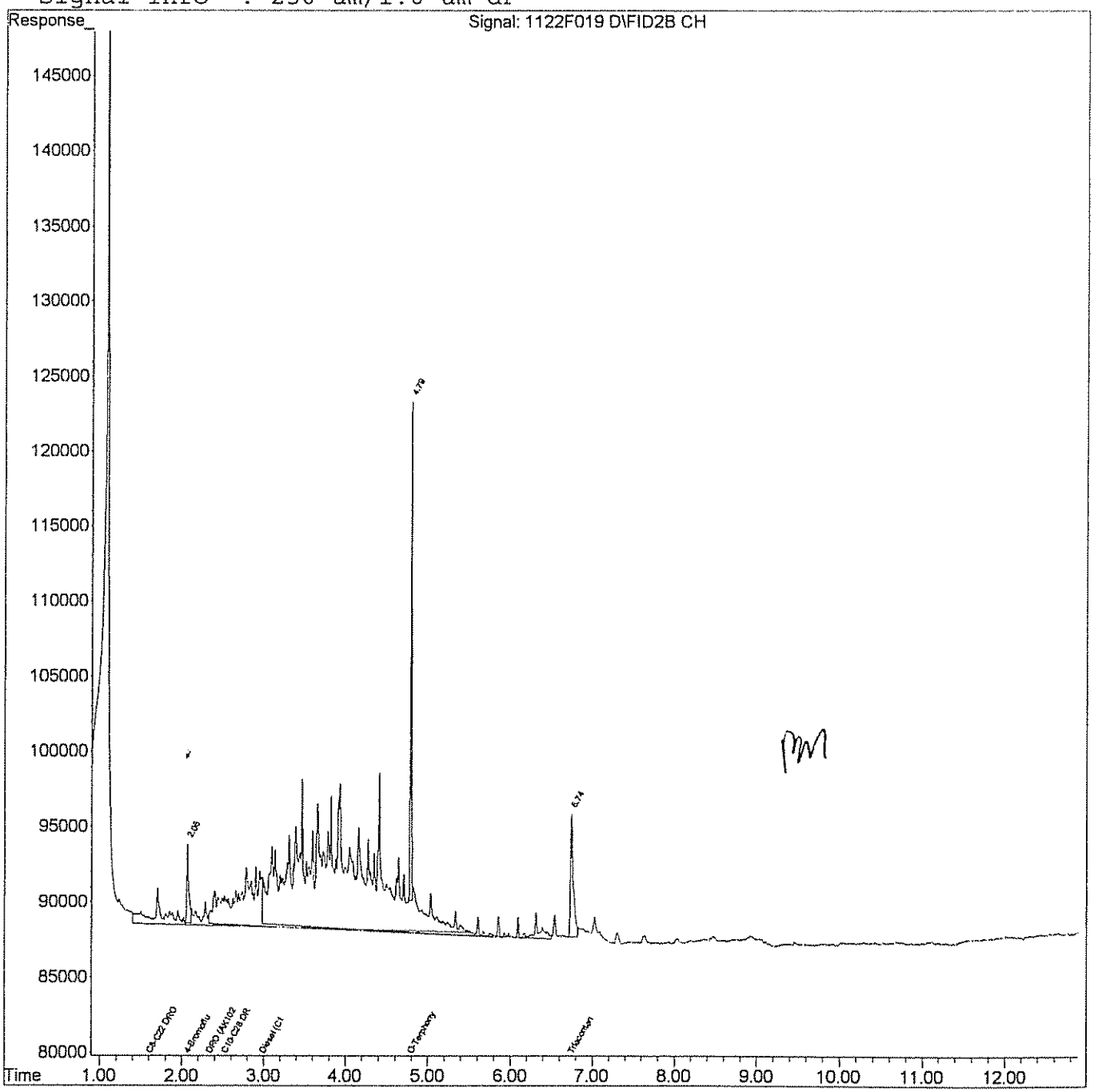
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F019.D Vial: 71
Acq On : 23 Nov 2004 1:50 am Operator: PMulheri
Sample : 20/1 ppm HCSV6-74B Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:40 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



PM

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F021.D Vial: 79
Acq On : 23 Nov 2004 2:08 am Operator: PMulheri
Sample : 50 ppm each HCSV6-74-H Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:39 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	1056291	70.426 ppm
9) H RRO (AK103; C25-C36)	5.83	780959	69.518 ppm
10) H Motor OIL (C25-C36)	6.03	780959	69.518 ppm
11) H C25-C40 RRO	6.23	855042	69.535 ppm
12) H 8015 GRO (C8-C12)	1.40	466736	62.728 ppm

pm 112304

g/12/04

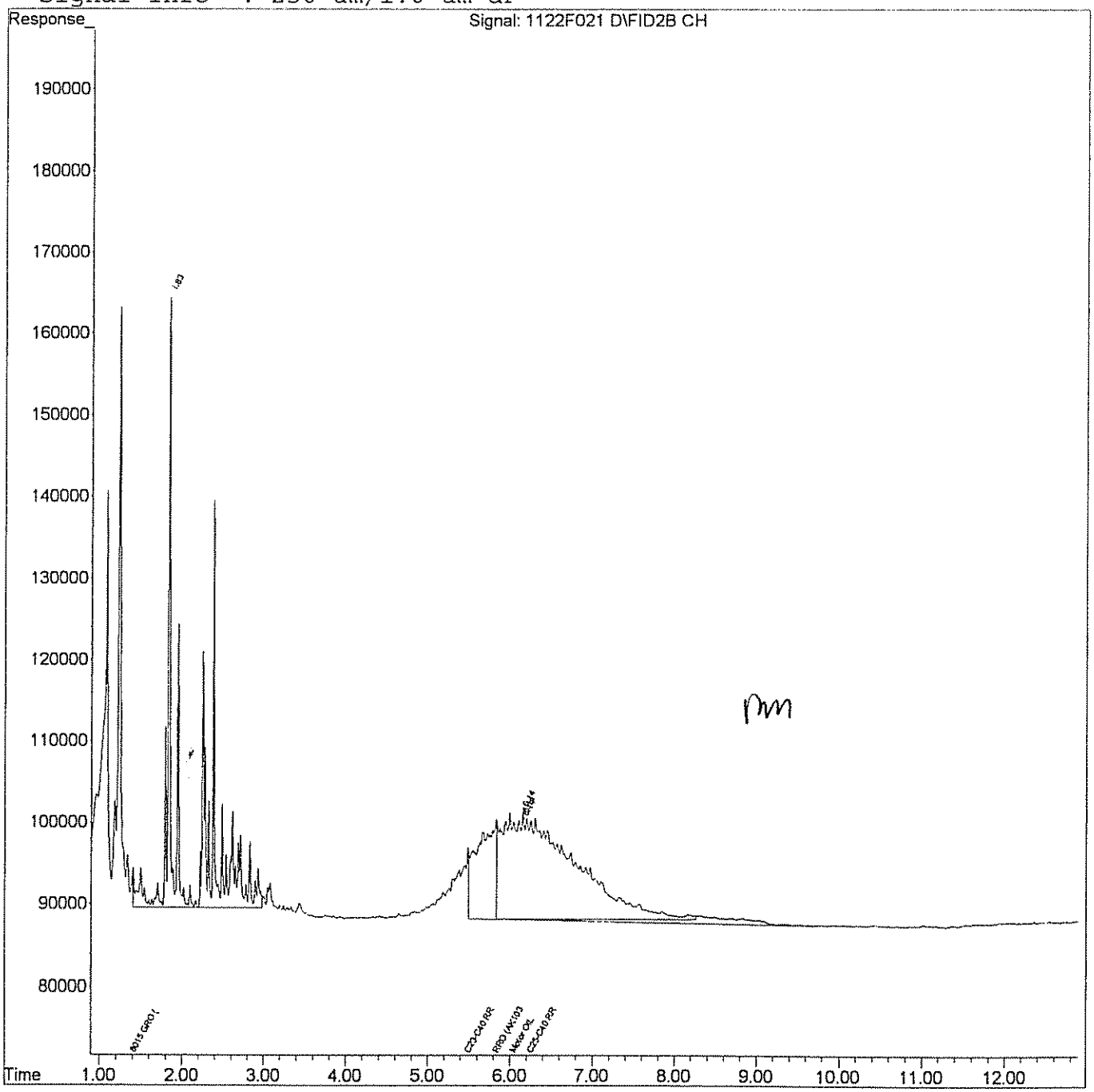
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F021.D Vial: 79
Acq On : 23 Nov 2004 2:08 am Operator: PMulheri
Sample : 50 ppm each HCSV6-74-H Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F023.D Vial: 72
Acq On : 23 Nov 2004 2:26 am Operator: PMulheri
Sample : 50/2.5 ppm HCSV6-74A Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.06	26492	2.612 ppm
Spiked Amount 50.000		Recovery =	5.22%
2) S O-Terphenyl	4.79	80603	3.632 ppm
Spiked Amount 50.000		Recovery =	7.26%
3) S Triacontane (C-30)	6.74	61039	3.348 ppm
Spiked Amount 50.000		Recovery =	6.70%
Target Compounds			
4) H Diesel (C12-C25)	2.98	1185416	72.673 ppm
5) H DRO (AK102; C10-C25)	2.32	1358044	72.338 ppm
6) H C10-C28 DRO	2.52	1377146	72.791 ppm
7) H C8-C22 DRO	1.60	1341461	69.148 ppm

PM 112304

11/23/04

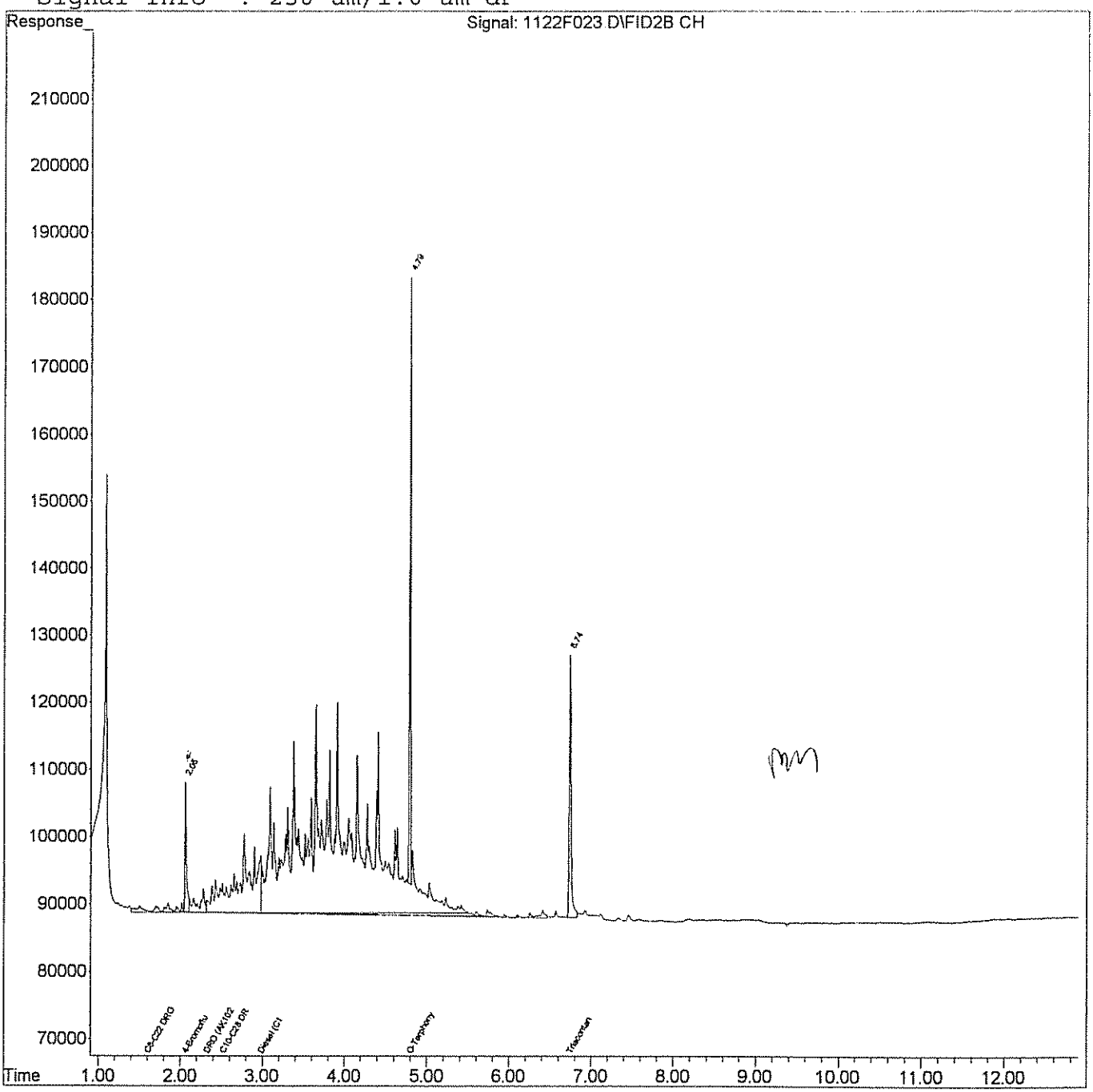
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F023.D Vial: 72
Acq On : 23 Nov 2004 2:26 am Operator: PMulheri
Sample : 50/2.5 ppm HCSV6-74A Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F025.D Vial: 80
Acq On : 23 Nov 2004 2:43 am Operator: PMulheri
Sample : 200 ppm each HCSV6-74-G Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:44 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
8) H	C23-C40 RRO	5.49	4506993	300.494 ppm
9) H	RRO (AK103; C25-C36)	5.83	3511686	312.598 ppm
10) H	Motor OIL (C25-C36)	6.03	3511686	312.598 ppm
11) H	C25-C40 RRO	6.23	3659009	297.564 ppm
12) H	8015 GRO (C8-C12)	1.40	2003134	269.215 ppm

PM 112304

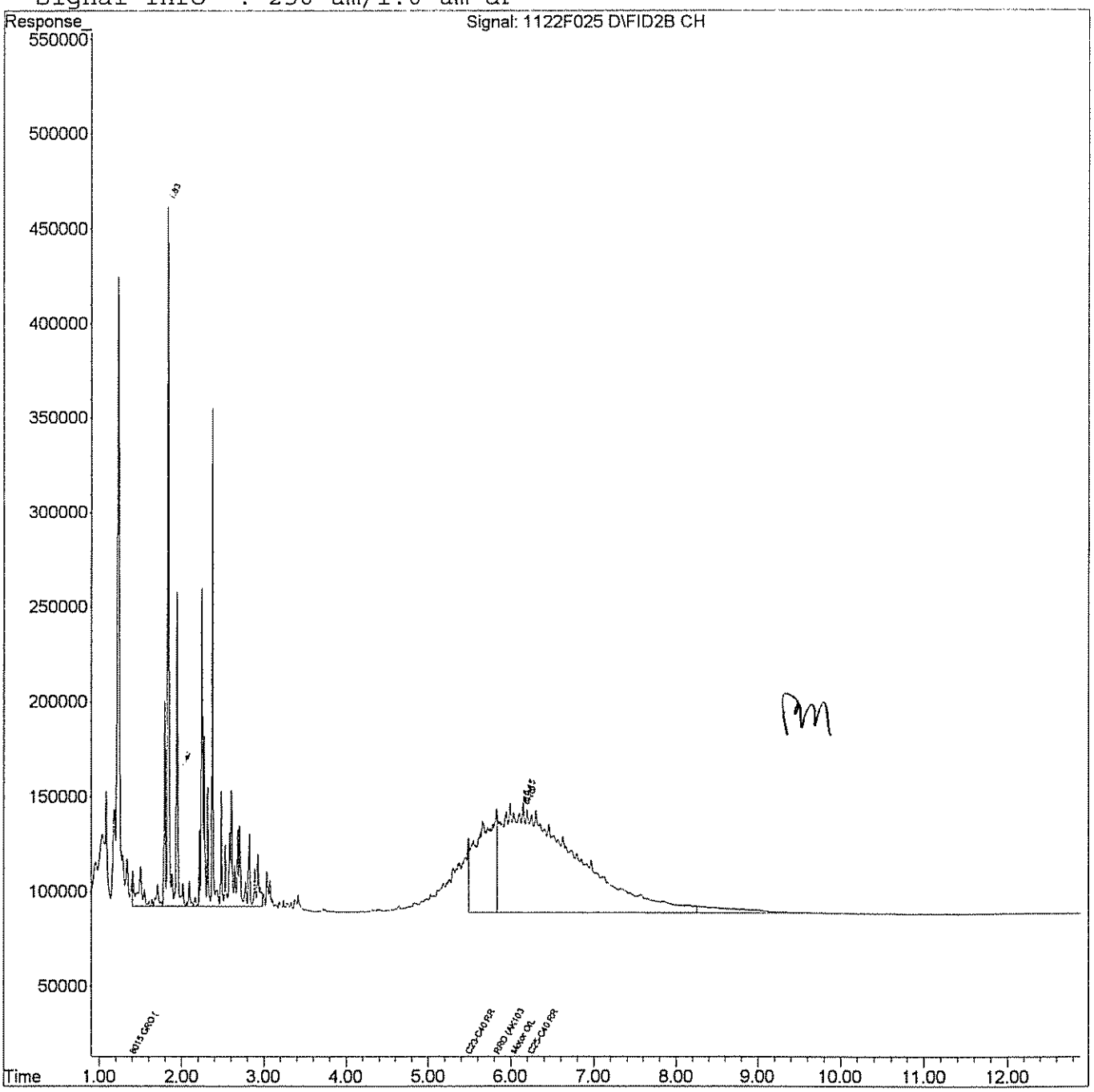
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F025.D Vial: 80
Acq On : 23 Nov 2004 2:43 am Operator: PMulheri
Sample : 200 ppm each HCSV6-74-G Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F027.D Vial: 73
Acq On : 23 Nov 2004 3:01 am Operator: PMulheri
Sample : 200/10 ppm HCSV6-73U Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:45 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	135145	13.323 ppm
Spiked Amount 50.000		Recovery =	26.65%
2) S O-Terphenyl	4.78	346094	15.596 ppm
Spiked Amount 50.000		Recovery =	31.19%
3) S Triacontane (C-30)	6.73	289319	15.867 ppm
Spiked Amount 50.000		Recovery =	31.73%
Target Compounds			
4) H Diesel (C12-C25)	2.98	5160664	316.379 ppm
5) H DRO (AK102; C10-C25)	2.32	5870676	312.708 ppm
6) H C10-C28 DRO	2.52	5957899	314.915 ppm
7) H C8-C22 DRO	1.60	6005164	309.549 ppm

g 112904

PM112304

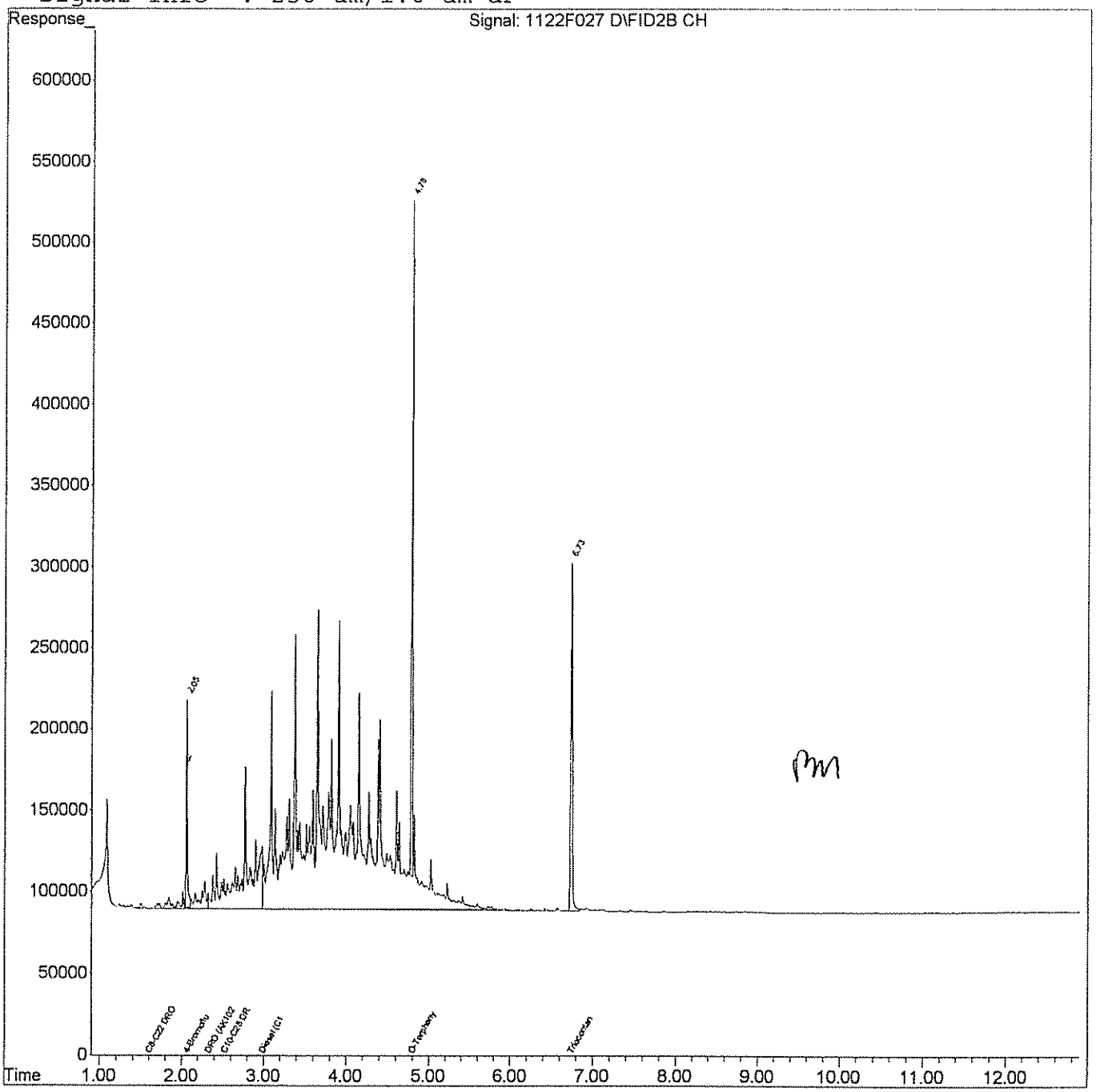
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F027.D Vial: 73
Acq On : 23 Nov 2004 3:01 am Operator: PMulheri
Sample : 200/10 ppm HCSV6-73U Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F029.D Vial: 81
Acq On : 23 Nov 2004 3:19 am Operator: PMulheri
Sample : 500 ppm each HCSV6-74-F Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:48 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

		Compound	R.T.	Response	Conc Units
		System Monitoring Compounds			
		Target Compounds			
8)	H	C23-C40 RRO	5.49	11979083	798.680 ppm
9)	H	RRO (AK103; C25-C36)	5.83	9300400	827.888 ppm
10)	H	Motor OIL (C25-C36)	6.03	9300400	827.888 ppm
11)	H	C25-C40 RRO	6.23	9740978	792.172 ppm
12)	H	8015 GRO (C8-C12)	1.40	5496450	738.705 ppm

pm 112304

7/12/04

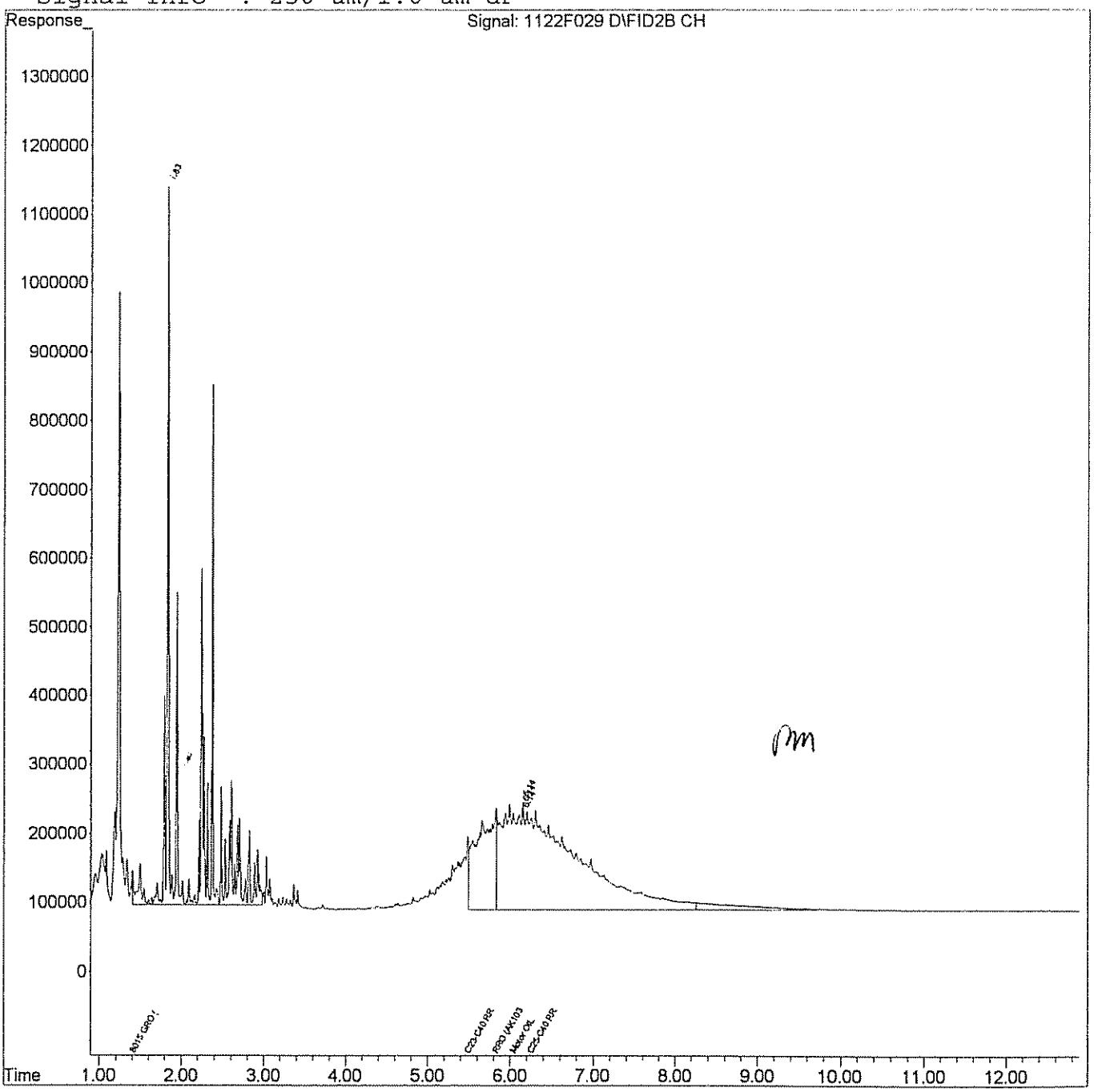
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F029.D Vial: 81
Acq On : 23 Nov 2004 3:19 am Operator: PMulheri
Sample : 500 ppm each HCSV6-74-F Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F031.D Vial: 74
Acq On : 23 Nov 2004 3:37 am Operator: PMulheri
Sample : 500/25 ppm HCSV6-73T Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:49 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	346916	34.199 ppm
Spiked Amount 50.000		Recovery =	68.40%
2) S O-Terphenyl	4.78	870069	39.208 ppm
Spiked Amount 50.000		Recovery =	78.42%
3) S Triacontane (C-30)	6.74	731765	40.132 ppm
Spiked Amount 50.000		Recovery =	80.26%
Target Compounds			
4) H Diesel (C12-C25)	2.98	12881488	789.712 ppm
5) H DRO (AK102; C10-C25)	2.32	14642623	779.956 ppm
6) H C10-C28 DRO	2.52	14764413	780.398 ppm
7) H C8-C22 DRO	1.60	14978005	772.072 ppm

pm112304

11/24/04

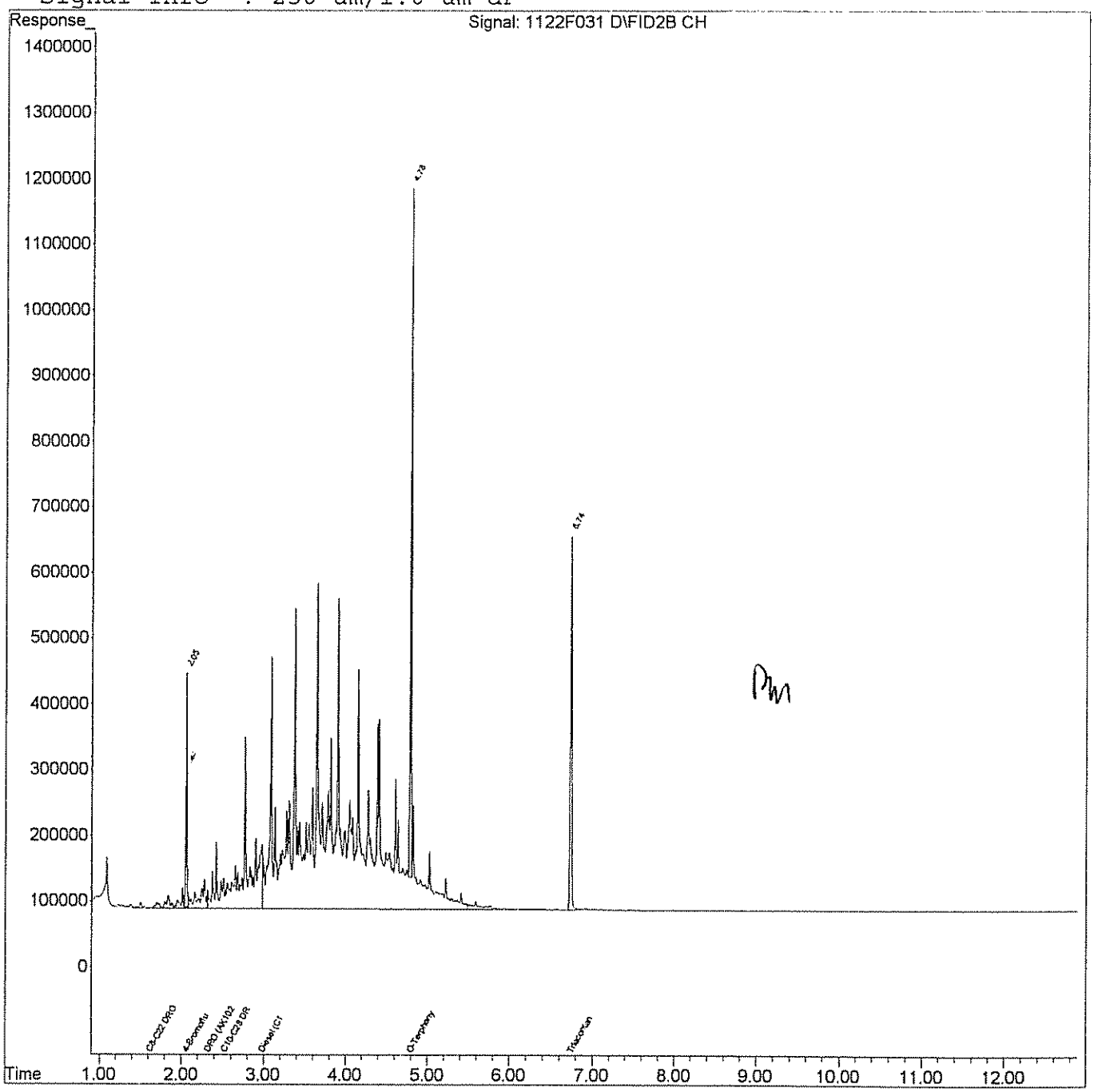
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F031.D Vial: 74
Acq On : 23 Nov 2004 3:37 am Operator: PMulheri
Sample : 500/25 ppm HCSV6-73T Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F033.D Vial: 82
Acq On : 23 Nov 2004 3:55 am Operator: PMulheri
Sample : 1000 ppm each HCSV6-74-E Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:51 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
8) H	C23-C40 RRO	5.49	22796176	1519.886	ppm
9) H	RRO (AK103; C25-C36)	5.83	17605862	1567.211	ppm
10) H	Motor OIL (C25-C36)	6.03	17605862	1567.211	ppm
11) H	C25-C40 RRO	6.23	18598525	1512.500	ppm
12) H	8015 GRO (C8-C12)	1.40	10567840	1420.283	ppm

PM 112304

g 112304

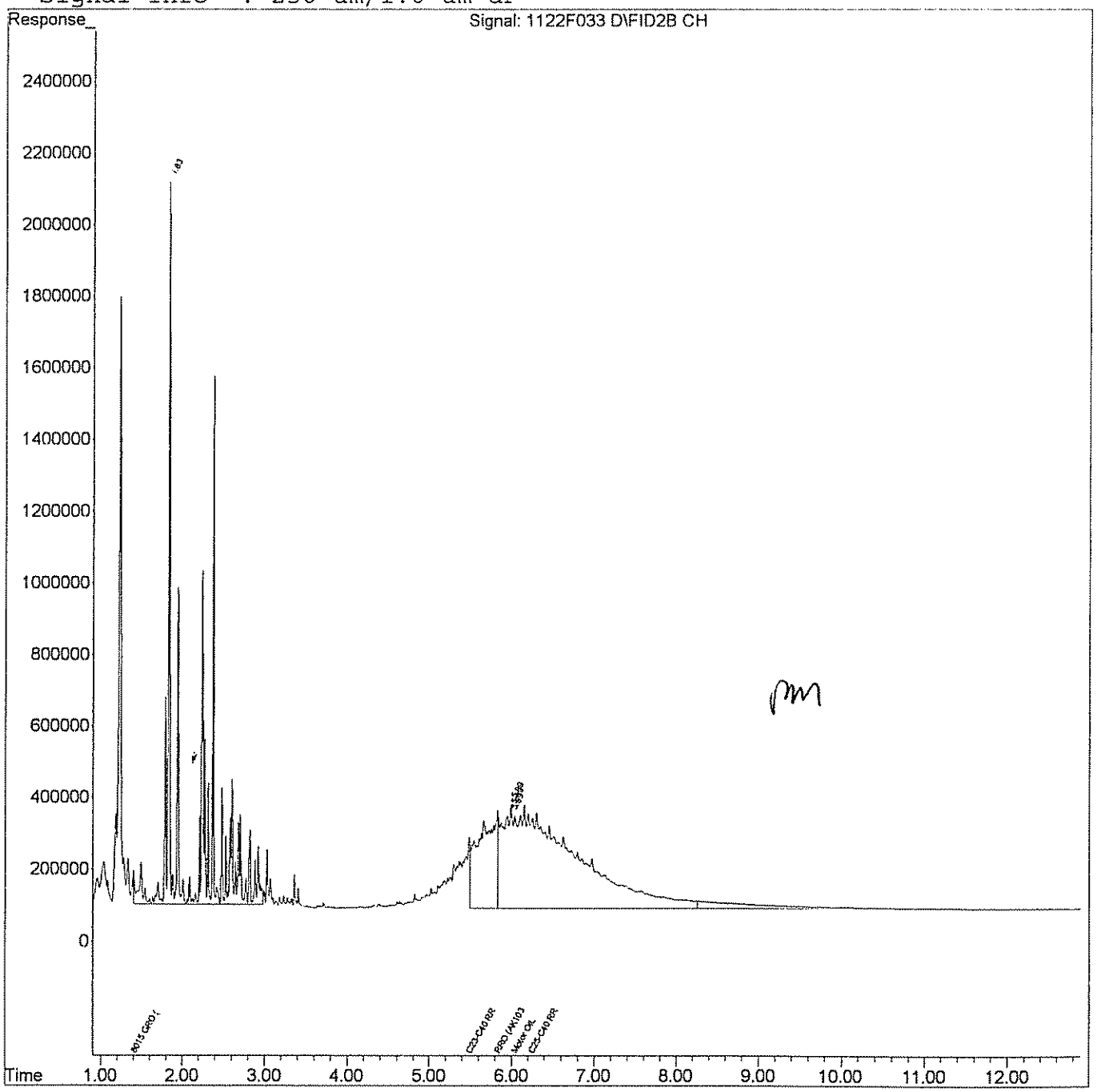
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F033.D Vial: 82
Acq On : 23 Nov 2004 3:55 am Operator: PMulheri
Sample : 1000 ppm each HCSV6-74-E Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F035.D Vial: 75
Acq On : 23 Nov 2004 4:12 am Operator: PMulheri
Sample : 1000/50 ppm HCSV6-73S Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:53 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	724441	71.416 ppm
Spiked Amount 50.000		Recovery =	142.83%
2) S O-Terphenyl	4.78	1727213	77.834 ppm
Spiked Amount 50.000		Recovery =	155.67%
3) S Triacontane (C-30)	6.74	1482753	81.318 ppm
Spiked Amount 50.000		Recovery =	162.64%
Target Compounds			
4) H Diesel (C12-C25)	2.98	25782051	1580.593 ppm
5) H DRO (AK102; C10-C25)	2.32	29327882	1562.183 ppm
6) H C10-C28 DRO	2.52	29431668	1555.660 ppm
7) H C8-C22 DRO	1.60	29999143	1546.368 ppm

PM 112304

f 112404

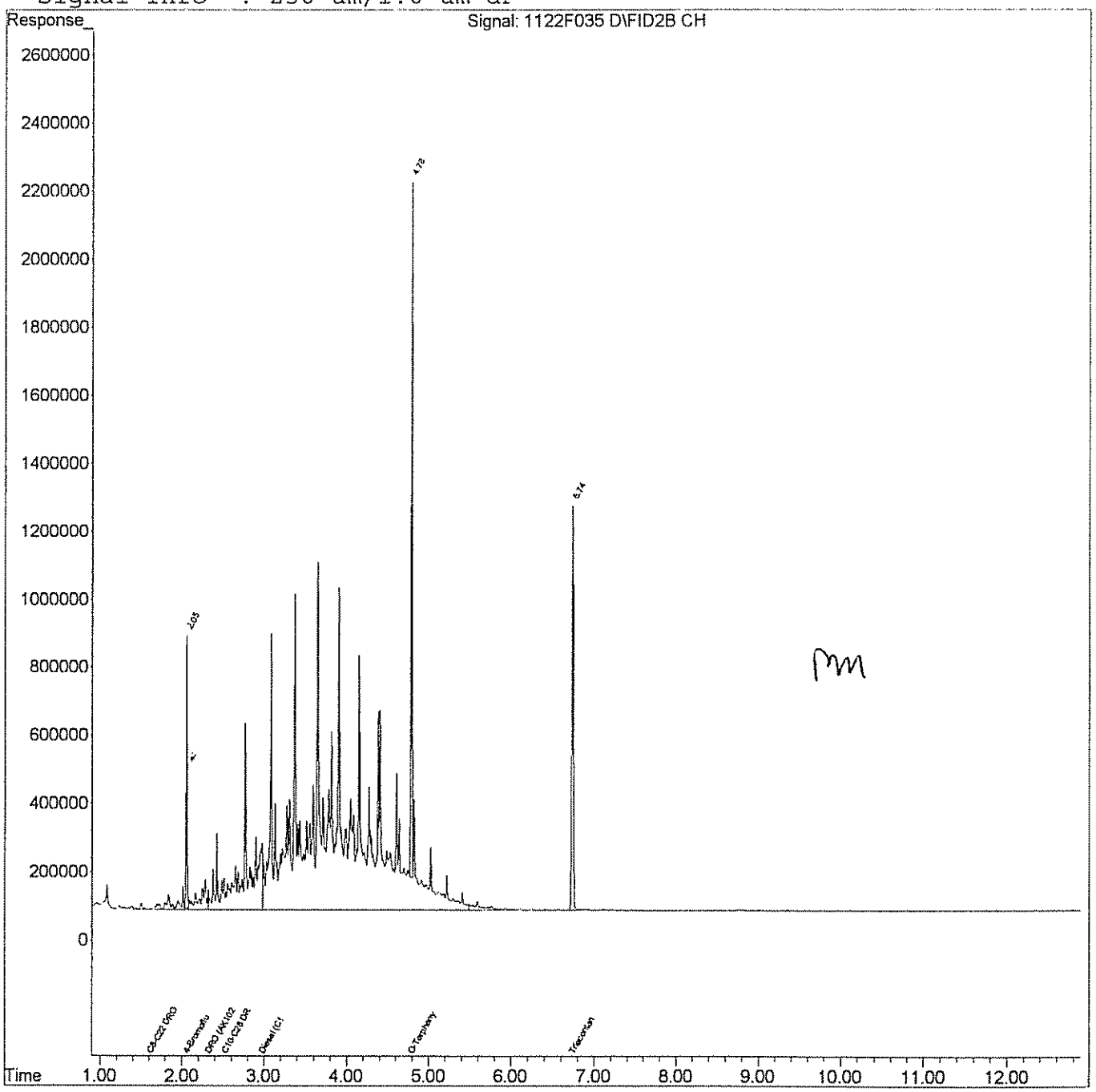
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F035.D Vial: 75
Acq On : 23 Nov 2004 4:12 am Operator: PMulheri
Sample : 1000/50 ppm HCSV6-73S Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



1122F035.D 1122BACK.M Tue Nov 23 19:31:28 2004 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F037.D Vial: 83
Acq On : 23 Nov 2004 4:30 am Operator: PMulheri
Sample : 2000 ppm each HCSV6-74-D Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:55 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	45864356	3057.908	ppm
9) H RRO (AK103; C25-C36)	5.83	35235721	3136.558	ppm
10) H Motor OIL (C25-C36)	6.03	35235721	3136.558	ppm
11) H C25-C40 RRO	6.23	37411714	3042.457	ppm
12) H 8015 GRO (C8-C12)	1.40	21640628	2908.429	ppm

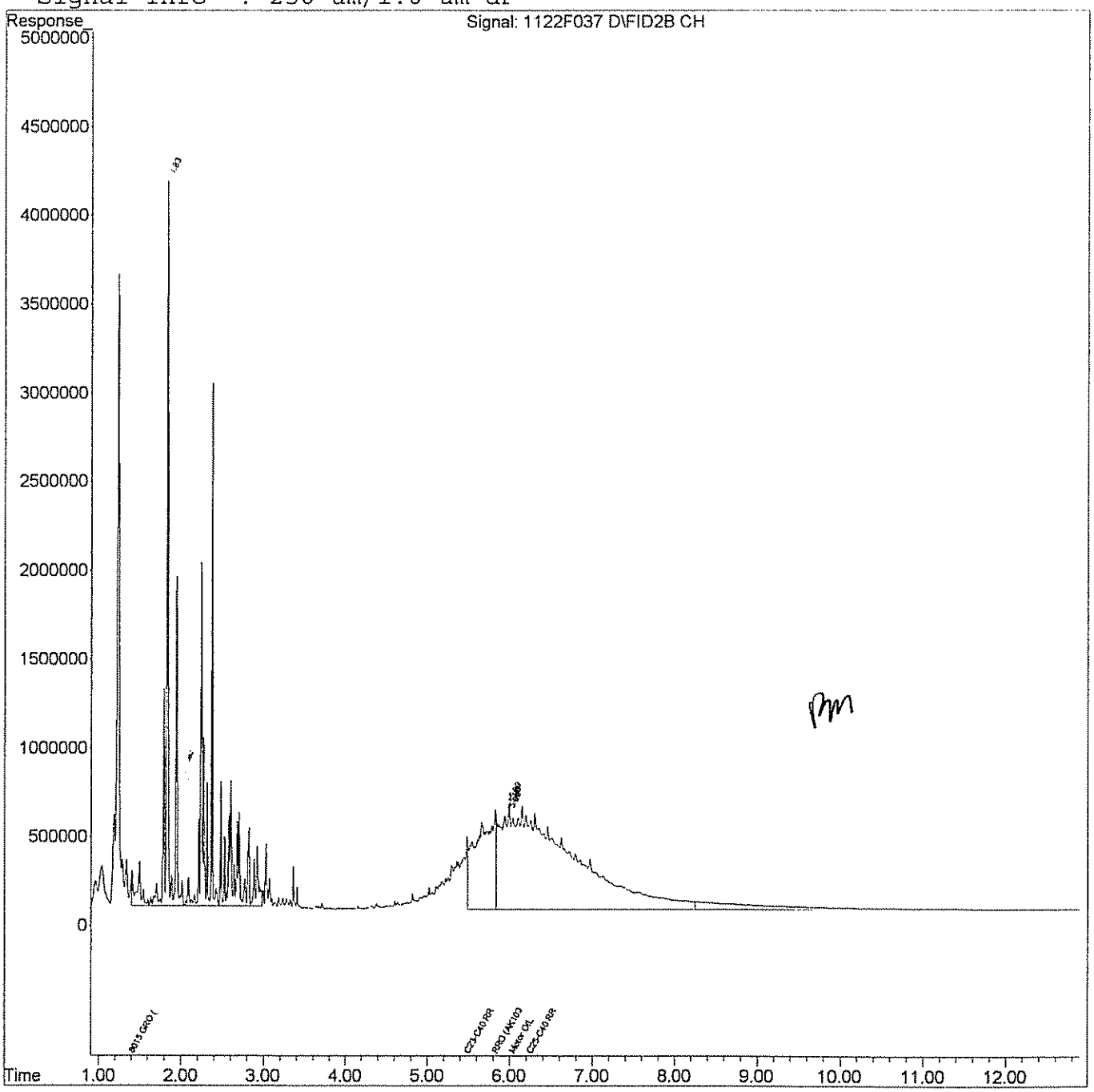
PM112304

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F037.D Vial: 83
Acq On : 23 Nov 2004 4:30 am Operator: PMulheri
Sample : 2000 ppm each HCSV6-74-D Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



pm

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F039.D Vial: 76
Acq On : 23 Nov 2004 4:47 am Operator: PMulheri
Sample : 2000/100 ppm HCSV6-73R Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:57 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	1526663	150.499 ppm
Spiked Amount 50.000		Recovery =	301.00%
2) S O-Terphenyl	4.78	3509811	158.164 ppm
Spiked Amount 50.000		Recovery =	316.33%
3) S Triacontane (C-30)	6.73	3023823	165.834 ppm
Spiked Amount 50.000		Recovery =	331.67%
Target Compounds			
4) H Diesel (C12-C25)	2.98	52595920	3224.443 ppm
5) H DRO (AK102; C10-C25)	2.32	59866427	3188.853 ppm
6) H C10-C28 DRO	2.52	59999460	3171.373 ppm
7) H C8-C22 DRO	1.60	61230459	3156.251 ppm

PM 112304

11/29/04

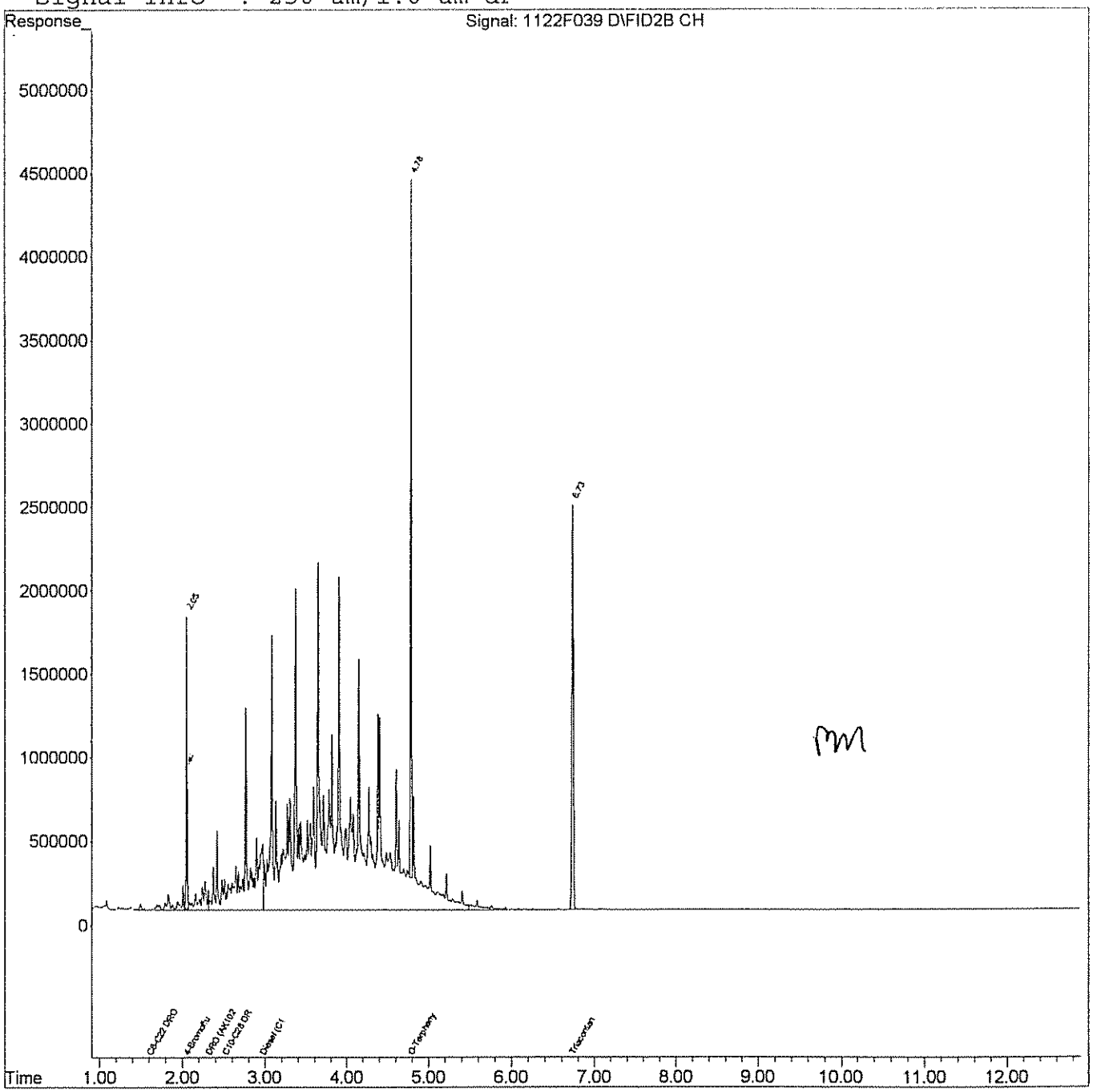
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F039.D Vial: 76
Acq On : 23 Nov 2004 4:47 am Operator: PMulheri
Sample : 2000/100 ppm HCSV6-73R Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



1122F039.D 1122BACK.M Tue Nov 23 19:31:31 2004 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F041.D Vial: 84
Acq On : 23 Nov 2004 5:05 am Operator: PMulheri
Sample : 5000 ppm each HCSV6-74-C Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:59 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	113144637	7543.678	ppm
9) H RRO (AK103; C25-C36)	5.83	86788390	7725.593	ppm
10) H Motor OIL (C25-C36)	6.03	86788390	7725.593	ppm
11) H C25-C40 RRO	6.23	92592694	7529.975	ppm
12) H 8015 GRO (C8-C12)	1.40	55118634	7407.762	ppm

PM 112304

11/29/04

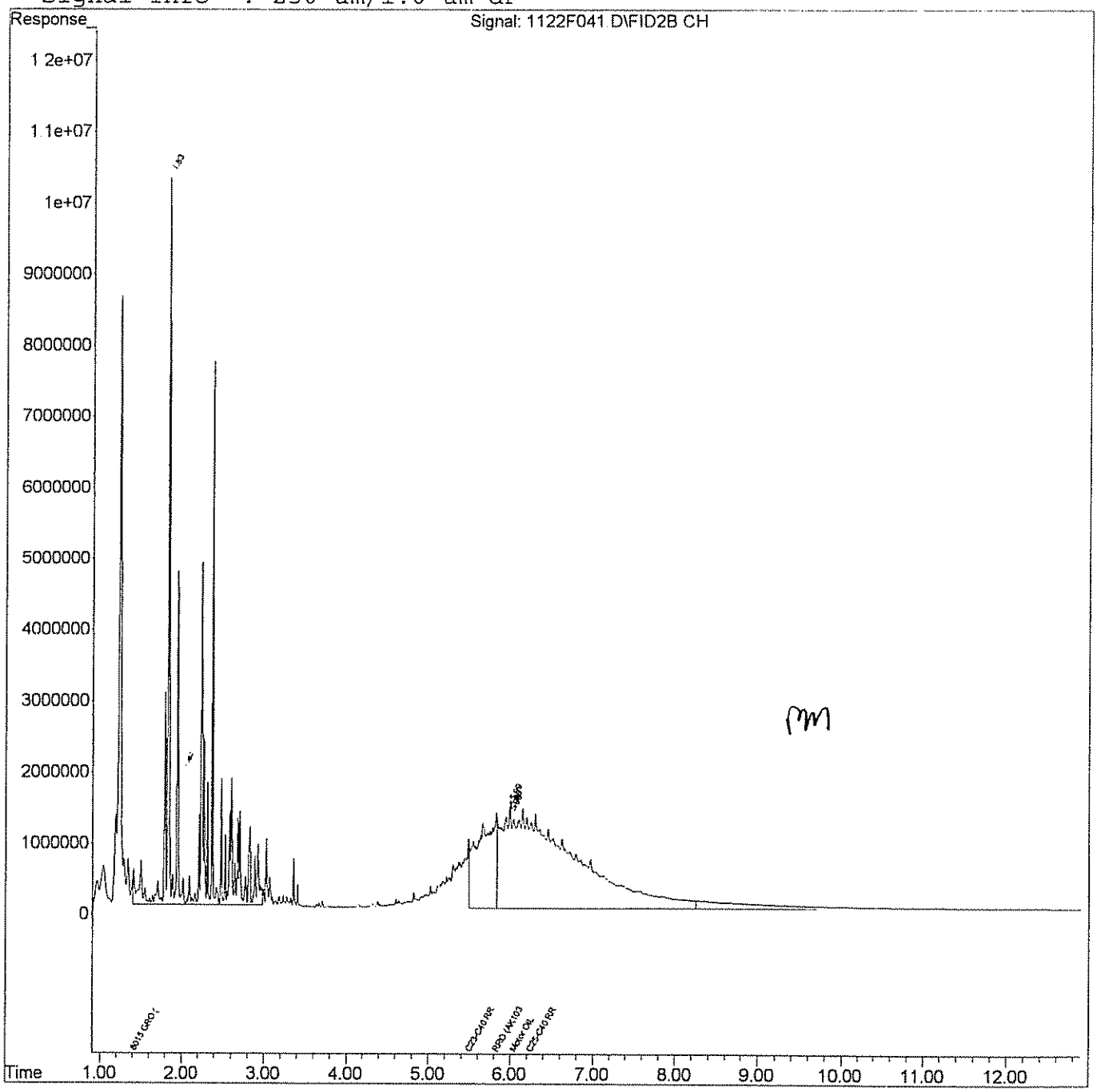
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F041.D Vial: 84
Acq On : 23 Nov 2004 5:05 am Operator: PMulheri
Sample : 5000 ppm each HCSV6-74-C Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:43 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F043.D Vial: 77
Acq On : 23 Nov 2004 5:23 am Operator: PMulheri
Sample : 5000/250 ppm HCSV6-73Q Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35:00 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	3909666	385.416 ppm
Spiked Amount 50.000		Recovery =	770.83%
2) S O-Terphenyl	4.79	8676383	390.988 ppm
Spiked Amount 50.000		Recovery =	781.98%
3) S Triacontane (C-30)	6.74	7527514	412.828 ppm
Spiked Amount 50.000		Recovery =	825.66%
Target Compounds			
4) H Diesel (C12-C25)	2.98	130732559	8014.685 ppm
5) H DRO (AK102; C10-C25)	2.32	148871741	7929.821 ppm
6) H C10-C28 DRO	2.52	149256707	7889.215 ppm
7) H C8-C22 DRO	1.60	152264194	7848.773 ppm

NOT USED PM 11/23/04

PM112304

9/12/04

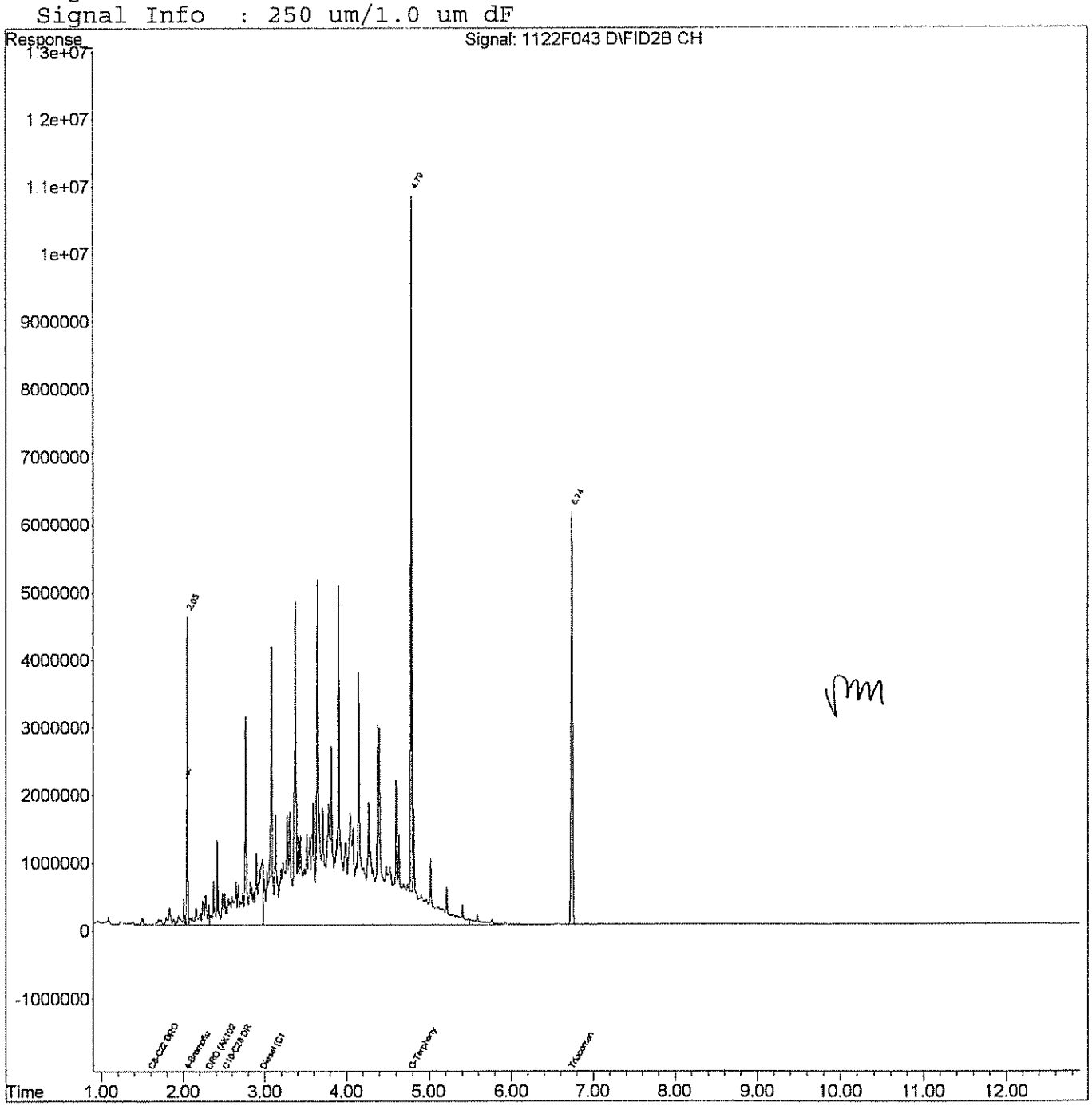
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F043.D Vial: 77
Acq On : 23 Nov 2004 5:23 am Operator: PMulheri
Sample : 5000/250 ppm HCSV6-73Q Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F051.D Vial: 86
Acq On : 23 Nov 2004 2:42 pm Operator: PMulheri
Sample : 1000 ppm each hcsv6-74j Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p GASOLINE/ MOTOR OIL LCV
Quant Time: Nov 23 19:18:06 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	25850057	1142.924	ppm
9) H RRO (AK103; C25-C36)	5.83	19338469	1122.806	ppm
10) H Motor OIL (C25-C36)	6.03	19338469	1122.806	ppm
11) H C25-C40 RRO	6.23	21316707	1157.290	ppm → NR THIS CURVE
12) H 8015 GRO (C8-C12)	1.40	11018739	1048.224	ppm

PM 112304

11/23/04

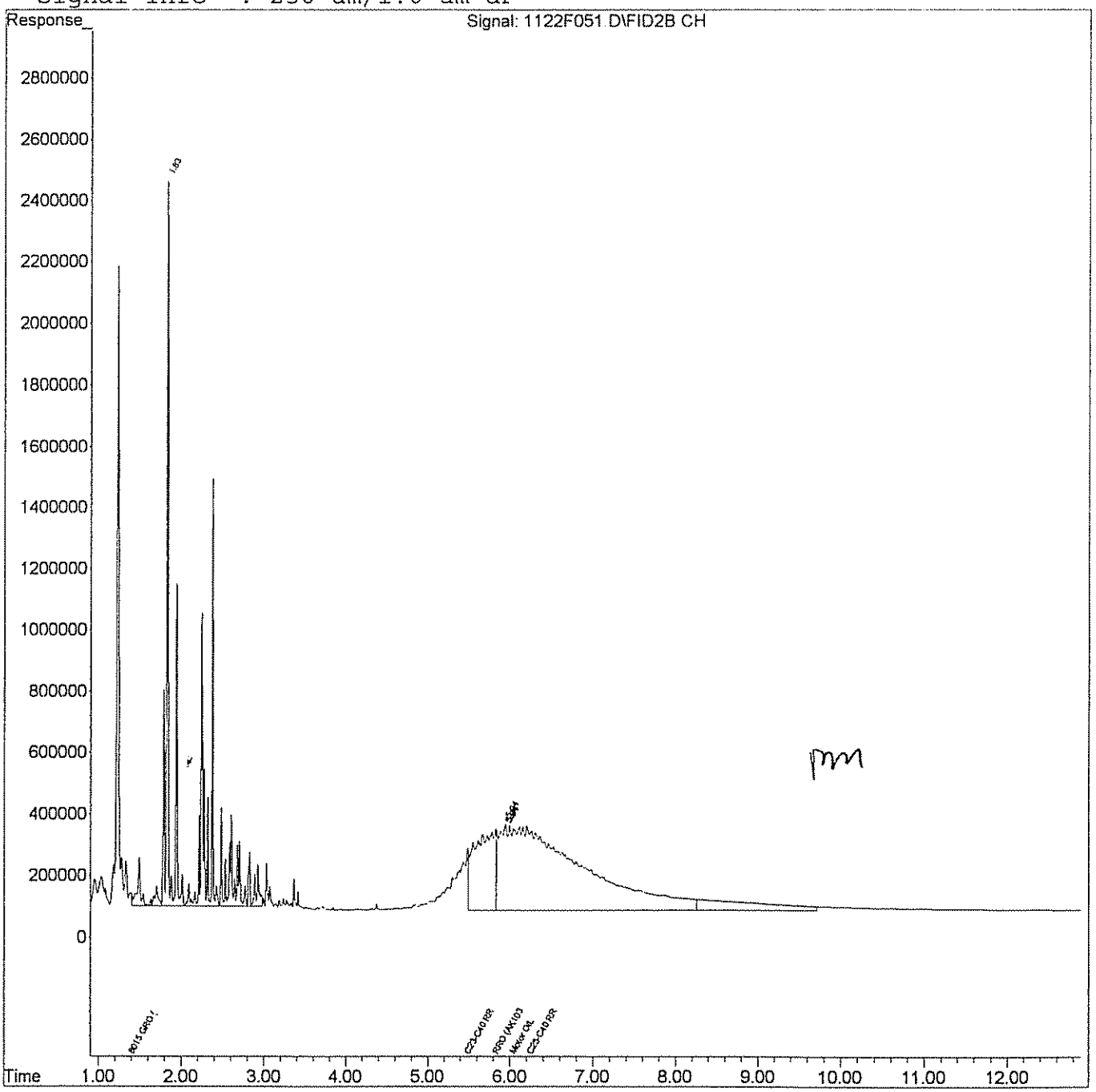
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F051.D Vial: 86
Acq On : 23 Nov 2004 2:42 pm Operator: PMulheri
Sample : 1000 ppm each hcsv6-74j Inst : gc21
Misc : GAS/DIL 10V Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:18 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F059.D Vial: 85
Acq On : 23 Nov 2004 3:59 pm Operator: PMulheri
Sample : 1000 ppm hcsv6-74k Inst : gc21
Misc : ICV DIESEL Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:11:52 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:10:42 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
4) H Diesel (C12-C25)	2.98	28571369	1128.201	ppm
5) H DRO (AK102; C10-C25)	2.32	31813387	1096.089	ppm
6) H C10-C28 AntiTom DRO	2.52	32169442	1099.798	ppm
7) H C8-C22 DRO	1.60	31778056	1075.074	ppm

pm112304

11/23/04

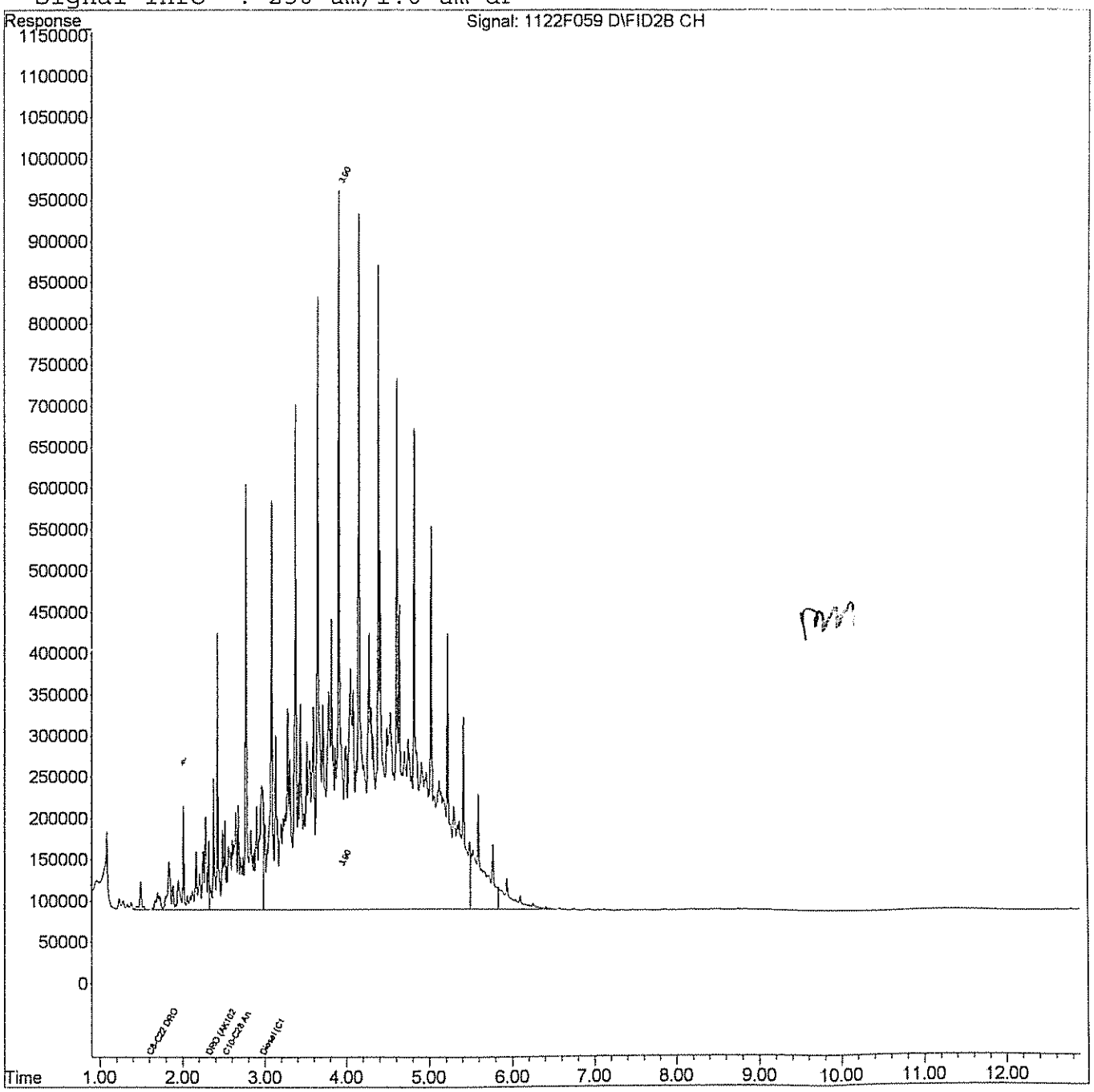
(f)=RT Delta > 1/2 Window (m)=manual int.
1122F059.D 1122BACK.M Tue Nov 23 19:31:36 2004 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F059.D Vial: 85
Acq On : 23 Nov 2004 3:59 pm Operator: PMulheri
Sample : 1000 ppm hcsv6-74k Inst : gc21
Misc : DIESEL Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:12 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:10:42 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F003 D
J:\GC21\DATA\030905\0309F004 D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	990	25300	24900	-1	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	910	17200	15600	-9	NA	± 15 %	AverageRF
o-Terphenyl	50	47	33700	31400	-7	NA	± 15 %	AverageRF
n-Triacontane	50	47	28500	26500	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

Exception Report

Data File: J:\GC21\DATA\030905\0309F003 D
Lab ID: KWG0503923-1
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 18:05
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NA

Primary Review: PM031005

Secondary Review: [illegible]

Printed: 03/10/2005 15:20:46
u \Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F003 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 18:05	**Quant Date:**	03/10/2005 14:32	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-1			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		705224	50.75		33-133	NA
o-Terphenyl	4.78		1571050	46.56		52-128	NA
n-Triacontane	6.74		1327450	46.57		50-150	NA

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	24947626	985.11			
C10 - C25 DRO	2.31	?	28490374	981.60			
Diesel Range Organics	2.51	?	28628214	978.73			
C8 - C22 DRO	1.58	?	29183180	987.29			
C23 - C40 RRO	5.48	?	410452	18.15			
Residual Range Organics (RRO)	5.83	?	112738	6.55			NR
Motor Oil	6.03	?	112738	6.55			
C25 - C40 RRO	6.23	?	207738	11.28			
Gasoline Range Organics (GRO	1.38	?	4410674	419.59			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

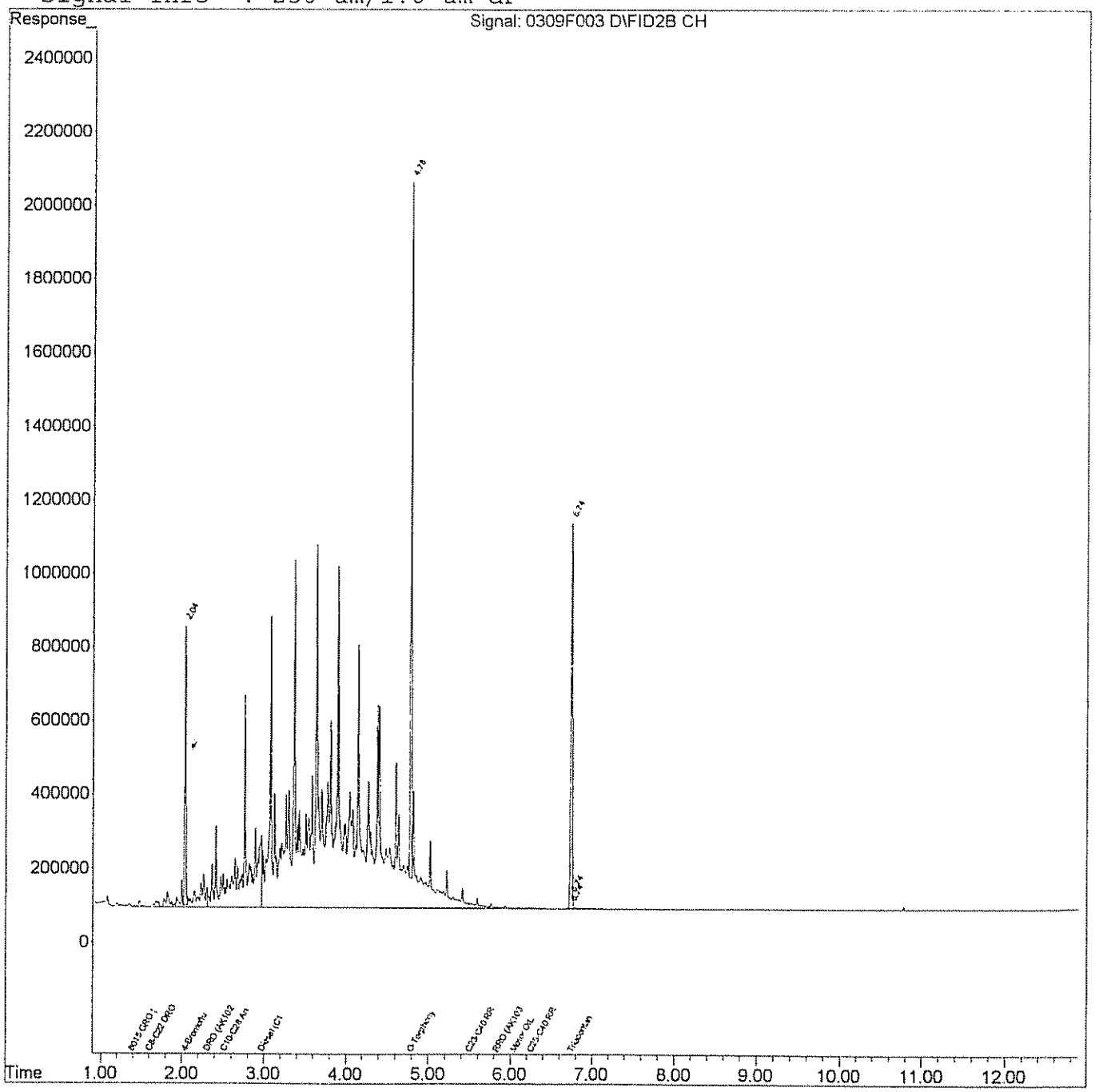
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F003.D
Acq On : 09 Mar 2005 6:05 pm
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File: J:\GC21\DATA\030905\0309F004 D
Lab ID: KWG0503923-1
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 18:22
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NA

Primary Review: MM031005

Secondary Review: 031005

Printed: 03/10/2005 15:20:49
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NW1PH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F004.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 18:22	**Quant Date:**	03/10/2005 14:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-1			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.08		31403	2.26		33-133	NA	
o-Terphenyl	4.82		28882	0.8560		52-128	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	6940266	274.05			NR
C10 - C25 DRO	2.31	?	8936359	307.89			
Diesel Range Organics	2.51	?	17112929	585.05			
C8 - C22 DRO	1.58	?	8233233	278.54			
C23 - C40 RRO	5.48	?	20282154	896.75			
Residual Range Organics (RRO)	5.83	?	15633448	907.69			
Motor Oil	6.03	?	15633448	907.69			
C25 - C40 RRO	6.23	?	16600580	901.25			
Gasoline Range Organics (GRO	1.38	?	4861072	462.44			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

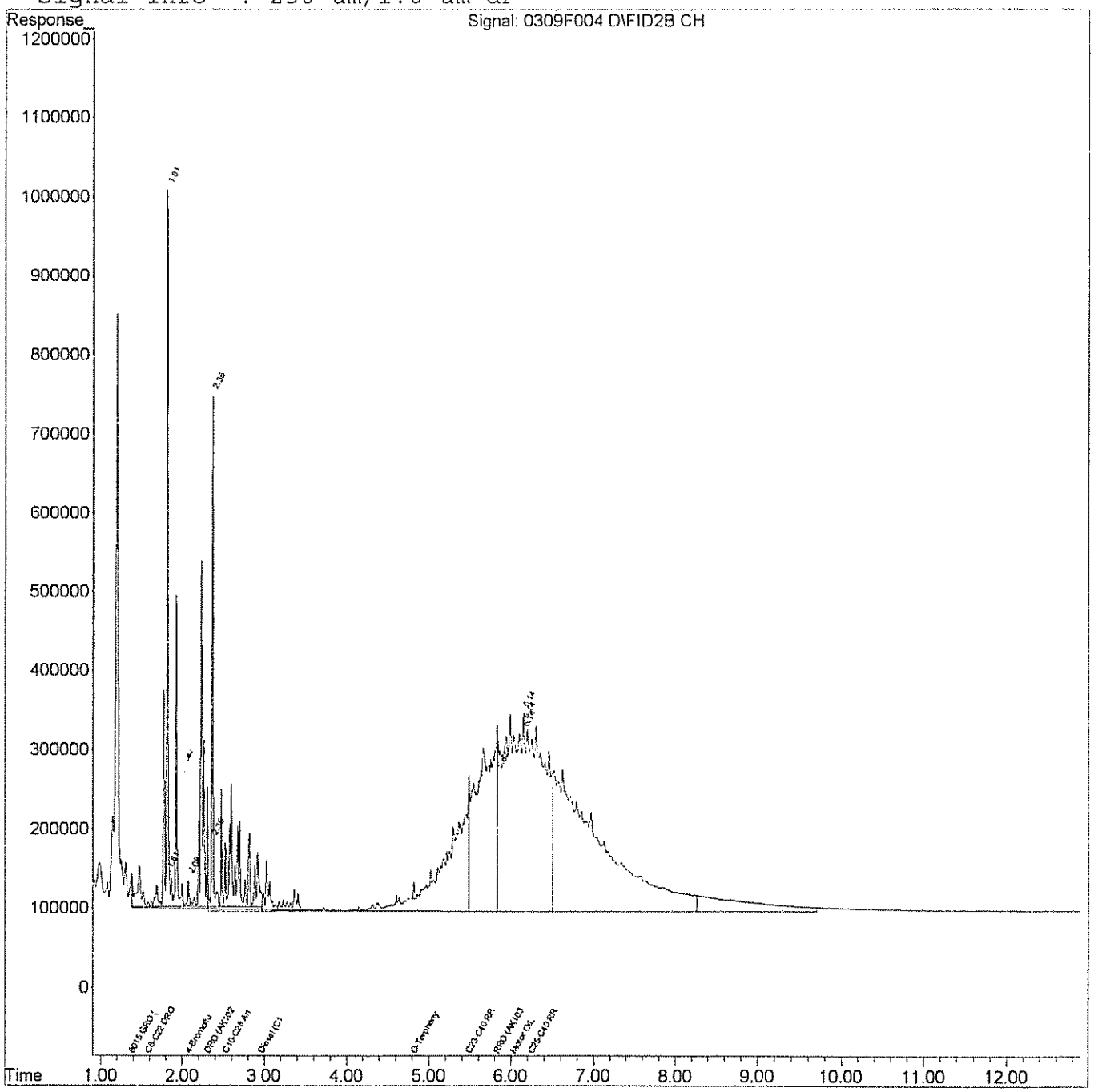
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F004.D
Acq On : 09 Mar 2005 6:22 pm
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F017.D
J:\GC21\DATA\030905\0309F018.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26200	3	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33400	-1	NA	± 15 %	AverageRF
n-Triacontane	50	51	28500	29100	2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File: J:\GC21\DATA\030905\0309F017 D
Lab ID: KWG0503923-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 22:09
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NC

Primary Review: 03/10/05

Secondary Review: 3/10/05

Printed: 03/10/2005 15:21:22
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F017.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 22:09	**Quant Date:**	03/10/2005 14:32	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-2			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		719954	51.81		33-133	NA
o-Terphenyl	4.78		1668455	49.44		52-128	NA
n-Triacontane	6.74		1456427	51.10		50-150	NA

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	26157054	1,033			
C10 - C25 DRO	2.31	?	29795845	1,027			
Diesel Range Organics	2.51	?	30077957	1,028			
C8 - C22 DRO	1.58	?	30500523	1,032			
C23 - C40 RRO	5.48	?	553472	24.47			
Residual Range Organics (RRO)	5.83	?	141317	8.21			NR
Motor Oil	6.03	?	141317	8.21			
C25 - C40 RRO	6.23	?	303259	16.46			
Gasoline Range Organics (GRO	1.38	?	4521267	430.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

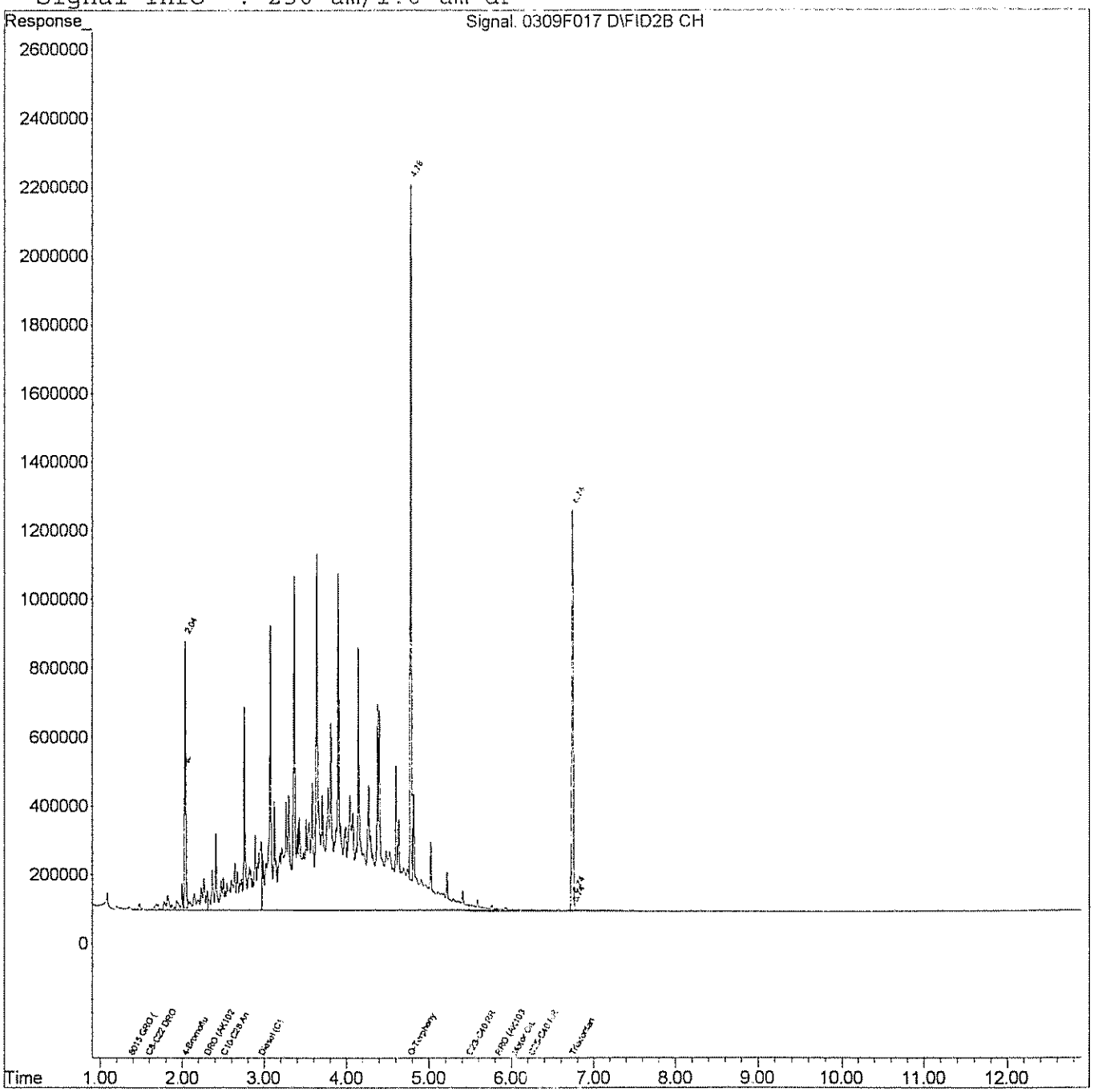
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F017.D
Acq On : 09 Mar 2005 10:09 pm
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File:	J:\GC21\DATA\030905\0309F018 D	**Date Acquired:**	03/09/2005 22:26
Lab ID:	KWG0503923-2	**Date Quantitated:**	03/10/2005 14:32
RunType:	CCV	**Batch ID:**	KWG0503923
Matrix:	WATER	**Analysis Method:**	8015M
		MethodJoinID:	MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NA

Primary Review: 03/10/2005

Secondary Review: 03/10/05

Printed: 03/10/2005 15:21:25

u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F018 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 22:26	**Quant Date:**	03/10/2005 14:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-2			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.08		32281	2.32		33-133	NA	
o-Terphenyl	4.82		30001	0.8890		52-128	NA	NR
n-Triacontane	6.72		39034	1.37		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	7161326	282.78			NR
C10 - C25 DRO	2.31	?	9192353	316.71			
Diesel Range Organics	2.51	?	17631379	602.78			
C8 - C22 DRO	1.58	?	8382025	283.57			
C23 - C40 RRO	5.48	?	20588605	910.30			
Residual Range Organics (RRO)	5.83	?	15955299	926.38			
Motor Oil	6.03	?	15955299	926.38			
C25 - C40 RRO	6.23	?	16786221	911.33			
Gasoline Range Organics (GRO	1.38	?	4910327	467.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

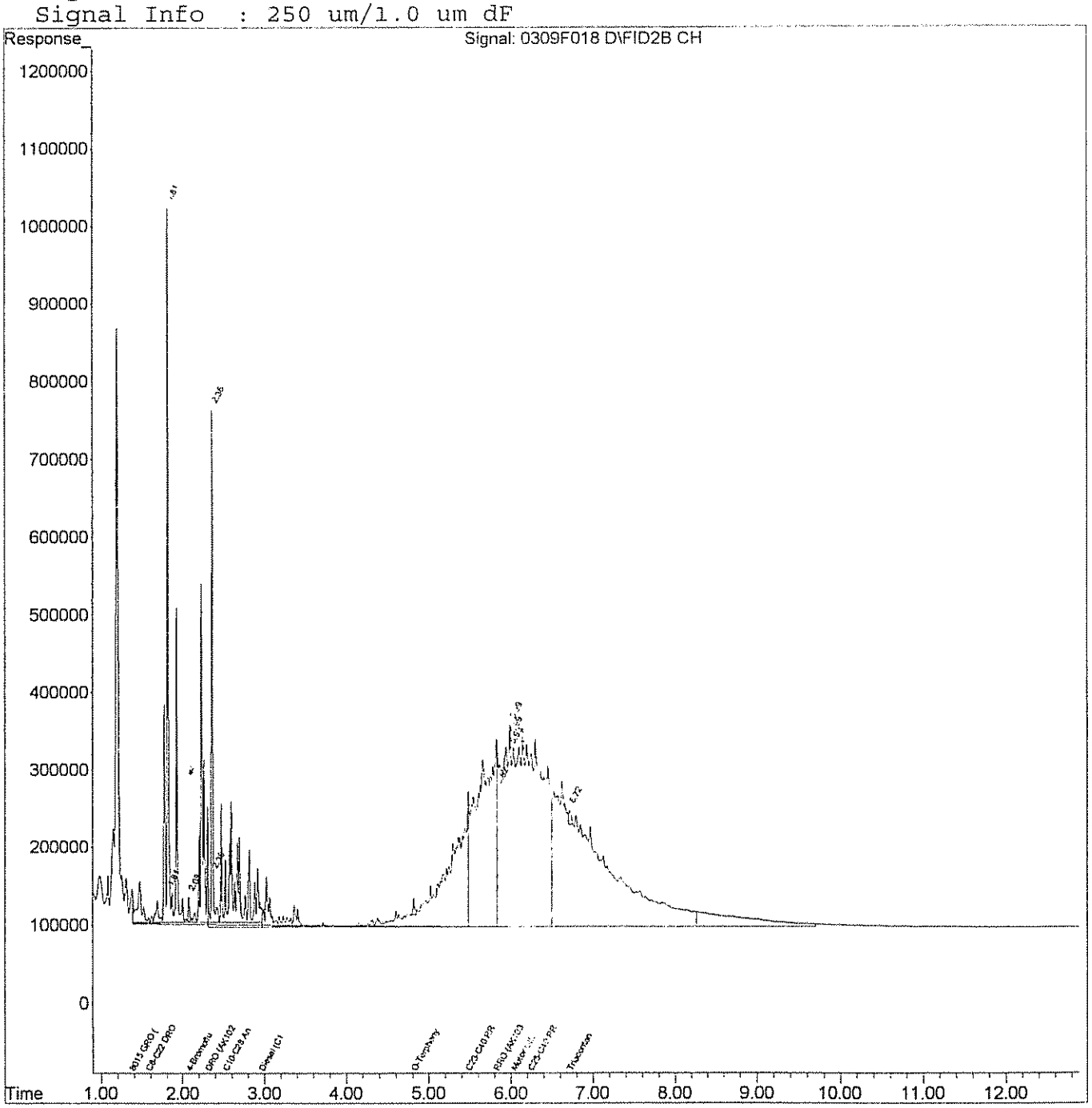
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F018.D
Acq On : 09 Mar 2005 10:26 pm
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/10/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F029.D
J:\GC21\DATA\030905\0309F030.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26500	5	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33200	-2	NA	± 15 %	AverageRF
n-Triacontane	50	53	28500	30200	6	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File:	J:\GC21\DATA\030905\0309F029 D	**Date Acquired:**	03/10/2005 01:37
Lab ID:	KWG0503923-3	**Date Quantitated:**	03/10/2005 14:33
RunType:	CCV	**Batch ID:**	KWG0503923
Matrix:	WATER	**Analysis Method:**	8015M
		MethodJoinID:	MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	N/C

Primary Review: PMB 3/10/05

Secondary Review: 03/16/05

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F029 D			**Instrument:**	gc21
Acqu Date:	03/10/2005 01:37	**Quant Date:**	03/10/2005 14:33	**Vial:**	2
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0503923-3			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2 04		734378	52 84		33-133	NA
o-Terphenyl	4 78		1660539	49 21		52-128	NA
n-Triacontane	6 74		1510521	53 00		50-150	NA

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	26518050	1,047			
C10 - C25 DRO	2 31	?	30216275	1,041			
Diesel Range Organics	2 51	?	30501922	1,043			
C8 - C22 DRO	1 58	?	30933418	1,046			
C23 - C40 RRO	5 48	?	581251	25 70			
Residual Range Organics (RRO)	5 83	?	157401	9 14			NR
Motor Oil	6 03	?	157401	9 14			
C25 - C40 RRO	6 23	?	324310	17 61			
Gasoline Range Organics (GRO	1 38	?	4601415	437 74			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

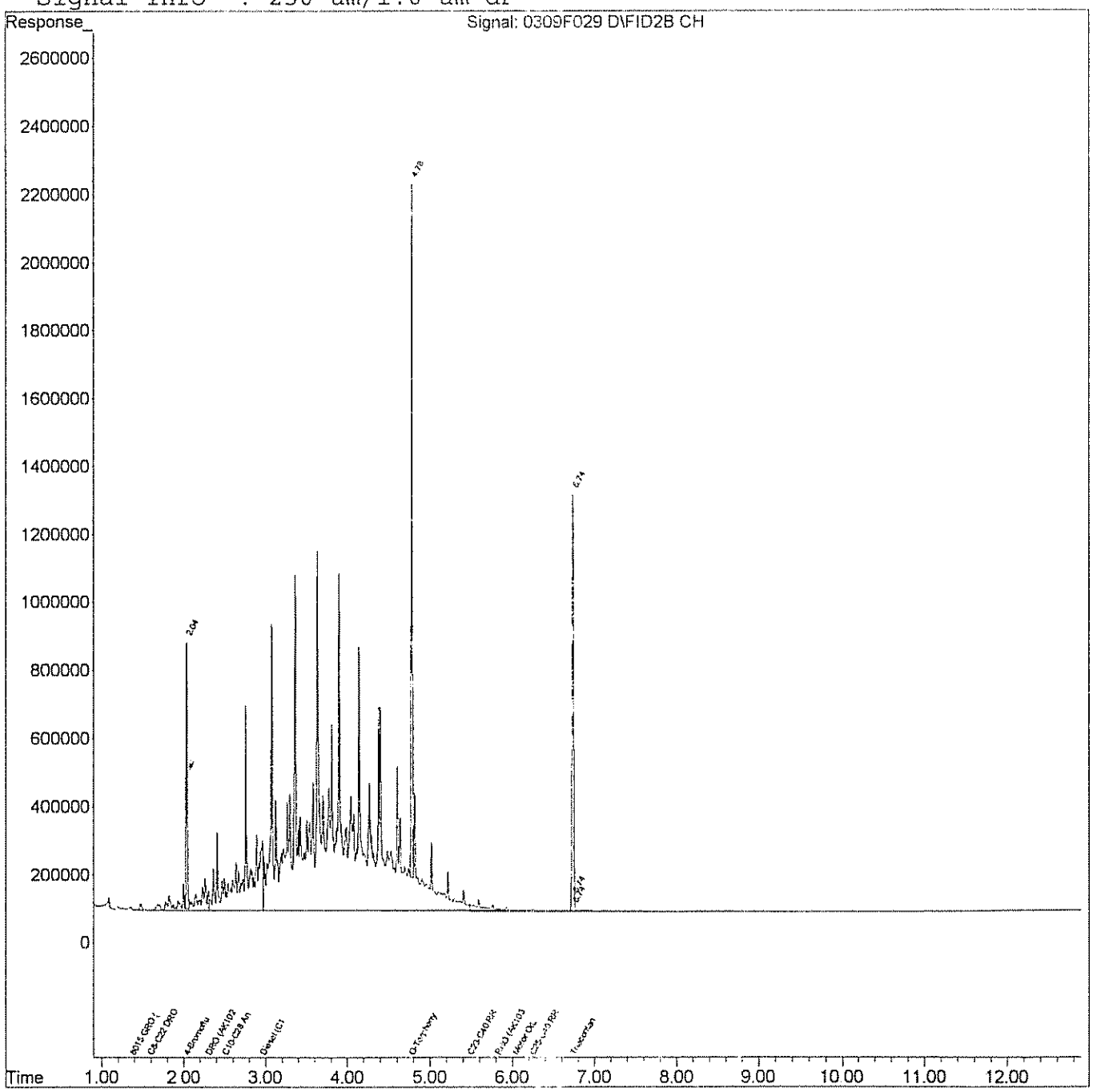
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F029.D
Acq On : 10 Mar 2005 1:37 am
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File:	J:\GC21\DATA\030905\0309F030 D	**Date Acquired:**	03/10/2005 01:55
Lab ID:	KWG0503923-3	**Date Quantitated:**	03/10/2005 14:33
RunType:	CCV	**Batch ID:**	KWG0503923
Matrix:	WATER	**Analysis Method:**	8015M
		MethodJoinID:	MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NL

Primary Review: PM 03/10/05

Secondary Review: 03/10/05

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F030.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 01:55	**Quant Date:**	03/10/2005 14:33	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-3			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.07		32257	2.32		33-133	NA	
o-Terphenyl	4.82		47040	1.39		52-128	NA	NR
n-Triacontane	6.71		46419	1.63		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	7178726	283.47			NR
C10 - C25 DRO	2.31	?	9236188	318.22			
Diesel Range Organics	2.51	?	17718678	605.76			
C8 - C22 DRO	1.58	?	8471972	286.61			
C23 - C40 RRO	5.48	?	20644271	912.76			
Residual Range Organics (RRO)	5.83	?	16021998	930.25			
Motor Oil	6.03	?	16021998	930.25			
C25 - C40 RRO	6.23	?	16823856	913.37			
Gasoline Range Organics (GRO	1.38	?	4977176	473.48			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

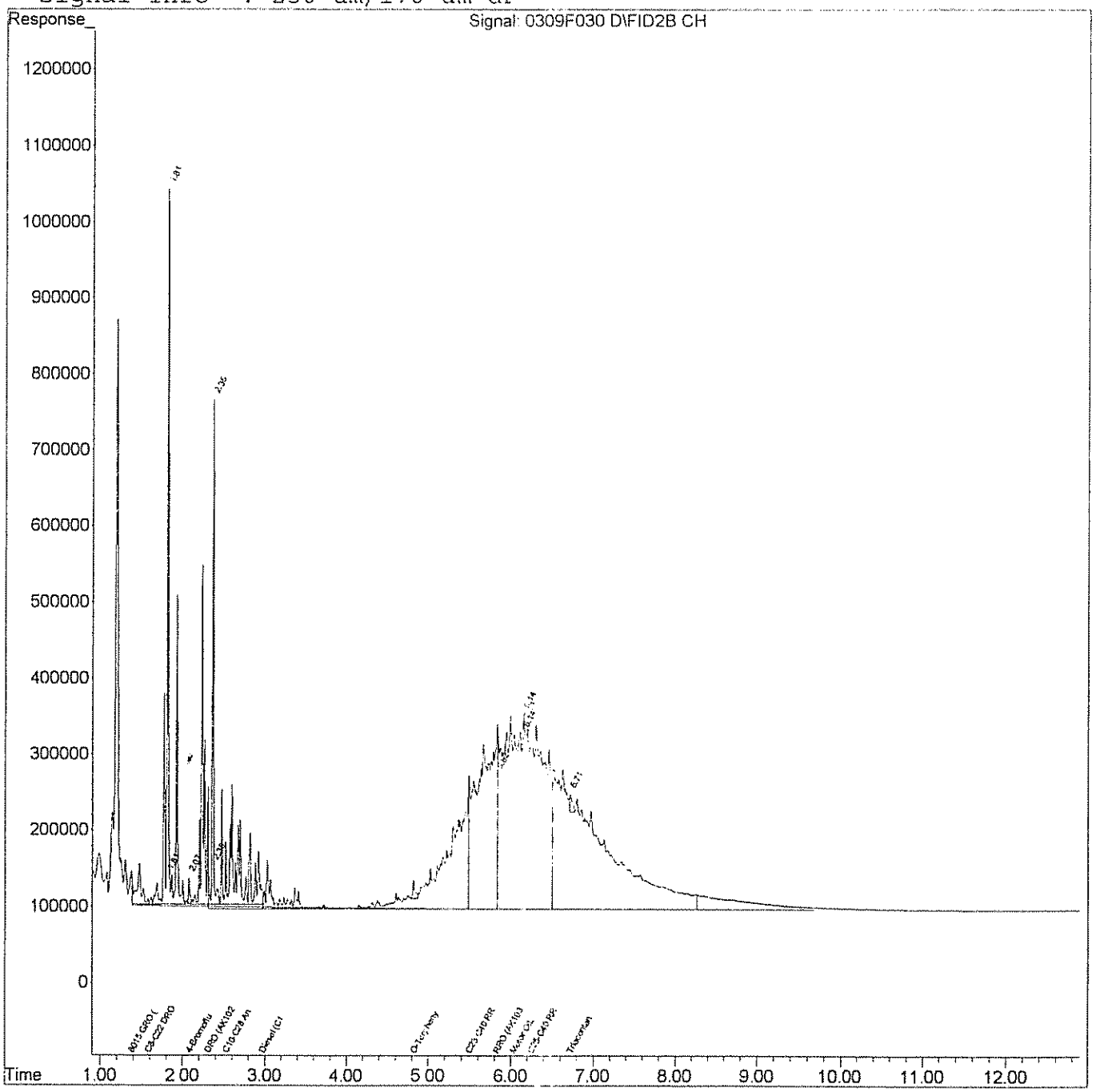
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F030.D
Acq On : 10 Mar 2005 1:55 am
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Sample Prep and Screen Data

Preparation Information

Group ID:	KWG0503600	**Prep Method:**	EPA 3510C	**Prep Date:**	03/07/05 09:00
Department:	PHP				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K2501524-002	229644	DX-NWTPH	WATER	470ml	1ml
K2501524-003	229645	DX-NWTPH	WATER	470ml	1ml
K2501524-004	229646	DX-NWTPH	WATER	475ml	1ml
K2501524-005	229647	DX-NWTPH	WATER	480ml	1ml
K2501524-006	229648	DX-NWTPH	WATER	485ml	1ml
K2501524-007	229649	DX-NWTPH	WATER	485ml	1ml
K2501544-002	50398-02	DRO-X-8015	WATER	550ml	1ml
K2501544-003	50398-03	DRO-X-8015	WATER	550ml	1ml
K2501544-004	50398-04	DRO-X-8015	WATER	550ml	1ml
K2501544-005	50398-05	DRO-X-8015	WATER	540ml	1ml
K2501548-001	50382-01	DRO-X-8015	WATER	500ml	1ml
K2501548-002	50382-02	DRO-X-8015	WATER	485ml	1ml
K2501609-001	OS-EFF-030305	DX-NWTPH	WATER	500ml	1ml
K2501622-003	229652	DX-NWTPH	WATER	480ml	1ml
K2501622-004	229653	DX-NWTPH	WATER	485ml	1ml
K2501622-005	229654	DX-NWTPH	WATER	460ml	1ml
K2501622-006	229655	DX-NWTPH	WATER	455ml	1ml
K2501630-002	50425-02	DRO-X-8015	WATER	545ml	1ml
KWG0503600-1	Duplicate Client Sample	DX-NWTPH	WATER	455ml	1ml
KWG0503600-2	Matrix Spike	DRO-X-8015	WATER	550ml	1ml
KWG0503600-3	Duplicate Matrix Spike	DRO-X-8015	WATER	550ml	1ml
KWG0503600-4	Lab Control Sample	DRO-X-8015	WATER	500ml	1ml
KWG0503600-5	Duplicate Lab Control Sampl	DRO-X-8015	WATER	500ml	1ml
KWG0503600-6	Method Blank	DRO-X-8015	WATER	500ml	1ml

Lab Code	Parent Lab Code	Comments
KWG0503600-1	K2501622-005	
KWG0503600-2	K2501544-005	
KWG0503600-3	K2501544-005	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501524-002	366234	HCSV6-96-F	100uL			PMulheri
K2501524-003	366235	HCSV6-96-F	100uL			PMulheri
K2501524-004	366236	HCSV6-96-F	100uL			PMulheri
K2501524-005	366237	HCSV6-96-F	100uL			PMulheri
K2501524-006	366238	HCSV6-96-F	100uL			PMulheri

Comments: (MS/MSD ON 1622-5 TO FOLLOW IN SEPARATE PREP GROUP)

Started By: CRuble Assisted By: ——— Training Yes No

Completed By: CRuble Assisted By: ——— Yes No

Reviewed By: PM Date: ~~030705(?)~~ 030905 PM 030905 Storage: BOX 4 A&B

Chain of Custody

Relinquished By: CRW Date: 3/8/05 Extracts Examined

Received By: PM Date: 030905 Yes No

Group ID:	KWG0503600	**Prep Method:**	EPA 3510C	**Prep Date:**	03/07/05 09:00
Department:	PHP				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501524-007	366239	HCSV6-96-F	100uL			PMulheri
K2501544-002	366245	HCSV6-96-F	100uL			PMulheri
K2501544-003	366246	HCSV6-96-F	100uL			PMulheri
K2501544-004	366247	HCSV6-96-F	100uL			PMulheri
K2501544-005	366248	HCSV6-96-F	100uL			PMulheri
K2501548-001	366249	HCSV6-96-F	100uL			PMulheri
K2501548-002	366250	HCSV6-96-F	100uL			PMulheri
K2501609-001	366244	HCSV6-96-F	100uL			PMulheri
K2501622-003	366240	HCSV6-96-F	100uL			PMulheri
K2501622-004	366241	HCSV6-96-F	100uL			PMulheri
K2501622-005	366242	HCSV6-96-F	100uL			PMulheri
K2501622-006	366243	HCSV6-96-F	100uL			PMulheri
K2501630-002	366251	HCSV6-96-F	100uL			PMulheri
KWG0503600-1	366252	HCSV6-96-F	100uL			PMulheri
KWG0503600-2	366253	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-3	366254	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-4	366255	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-5	366256	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-6	366257	HCSV6-96-F	100uL			PMulheri

Comments:

Started By: CRuble Assisted By: Training Yes No

Completed By: CRuble Assisted By: Yes No

Reviewed By: PM Date: 030905 Storage: Box 4 A+B

Chain of Custody

Relinquished By: CRW Date: 3/8/05 Extracts Examined

Received By: PM Date: 030905 Yes No

Preparation Information

Group ID: KWG0503600 **Prep Method:** EPA 3510C **Prep Date:** 03/07/05 09:00
Department: PHP

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
1	K2501524-002	229644		√	DX-NWTPH	WATER	470	<2		1mL	100uL	
2	K2501524-003	229645		√	DX-NWTPH	WATER	470					
3	K2501524-004	229646		√	DX-NWTPH	WATER	475					
4	K2501524-005	229647		√	DX-NWTPH	WATER	480					
5	K2501524-006	229648		√	DX-NWTPH	WATER	485					
6	K2501524-007	229649		√	DX-NWTPH	WATER	485					
7	K2501544-002	50398-02		√	DRO-X-8015	WATER	550					
8	K2501544-003	50398-03		√	DRO-X-8015	WATER	550					
9	K2501544-004	50398-04		√	DRO-X-8015	WATER	550					
10	K2501544-005	50398-05		√	DRO-X-8015	WATER	540					
11	K2501548-001	50382-01		√	DRO-X-8015	WATER	500					
12	K2501548-002	50382-02		√	DRO-X-8015	WATER	485					
13	K2501609-001	OS-EFF-030305		√	DX-NWTPH	WATER	500					
14	K2501622-003	229652		√	DX-NWTPH	WATER	480					
15	K2501622-004	229653		√	DX-NWTPH	WATER	485					
16	K2501622-005	229654		√	DX-NWTPH	WATER	460					
17	K2501622-006	229655		√	DX-NWTPH	WATER	455					
18	K2501630-002	50425-02		√	DRO-X-8015	WATER	545					

Comments: Box 4 A+B

Surrogate ID: HCSV6-94F
Spike ID: HCSV6-92P
Witness: P.M. YES, PM 03/07/05

Started By: CRuble Assisted By: P. Mulherin
Completed By: CRuble Assisted By: _____

Group ID:	KWG0503600	Prep Method:	EPA 3510C	Prep Date:	03/07/05 09:00
Department:	PHP				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
19	KWG0503600-1	Duplicate Client Sample 1622-5 Dup.			DX-NWTPH	WATER	455	<2		1mL	100µL	
20	KWG0503600-2	Matrix Spike 1544-5 MS			DRO-X-8015	WATER	550	↓		↓	↓	100µL
21	KWG0503600-3	Duplicate Matrix Spike 1544-5 DMS			DRO-X-8015	WATER	550	↓		↓	↓	↓
22	KWG0503600-4	Lab Control Sample WL1			DRO-X-8015	WATER	500	↓		↓	↓	↓
23	KWG0503600-5	Duplicate Lab Control Sample WL2			DRO-X-8015	WATER	↓	↓		↓	↓	↓
24	KWG0503600-6	Method Blank WB			DRO-X-8015	WATER	↓	↓		↓	↓	

DCM Lot # 45014

Glass Wool Lot # GW030305

Na_2SO_4 Lot # 44135450

Sonic Horn Tuned NF
Initial / Date

Comments:

Surrogate ID:

Spike ID:

Witness:

Started By: CRuble

Assisted By:

Completed By: CRuble

Assisted By:

Volatile Organic Compounds
EPA Method 8260B

Organic Analysis:
Volatile Organic Compounds

Summary Package

Sample and QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
50398-01	K2501544-001	03/02/2005	03/03/2005
50398-02	K2501544-002	03/02/2005	03/03/2005
50398-03	K2501544-003	03/02/2005	03/03/2005
50398-04	K2501544-004	03/02/2005	03/03/2005
50398-05	K2501544-005	03/02/2005	03/03/2005
50398-05MS	KWG0504274-1	03/02/2005	03/03/2005
50398-05DMS	KWG0504274-2	03/02/2005	03/03/2005

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

Signature: _____ Name: Jan Lane

Date: 3/17/05 Title: Supervisor

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-01
Lab Code: K2501544-001
File ID: J:\MS13\DATA\031505\0315F010.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**1.4**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-01	**Units:**	ug/L
Lab Code:	K2501544-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F010.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-01	**Units:**	ug/L
Lab Code:	K2501544-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F010.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	80-119	03/15/05	Acceptable
Toluene-d8	91	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F011.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F011.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F011.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	80-119	03/15/05	Acceptable
Toluene-d8	91	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-03
Lab Code: K2501544-003
File ID: J:\MS13\DATA\031505\0315F012.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**1.2**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F012.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F012 D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	87	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**0.69**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F014 D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F014.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F014.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	89	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504274-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504274-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504274-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	**Hexachlorobutadiene**	**0.40**	J	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	80-119	03/15/05	Acceptable
Toluene-d8	89	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	90	72-114	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50398-01	K2501544-001	96	91	88
50398-02	K2501544-002	98	91	88
50398-03	K2501544-003	98	90	87
50398-04	K2501544-004	99	90	88
50398-05	K2501544-005	100	90	89
Method Blank	KWG0504274-4	96	89	90
50398-05MS	KWG0504274-1	94	97	100
50398-05DMS	KWG0504274-2	92	96	103
Lab Control Sample	KWG0504274-3	95	97	101

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	80-119
Sur2 =	Toluene-d8	83-113
Sur3 =	4-Bromofluorobenzene	72-114

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005
Time Analyzed: 16:12

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031505\0315F003.D
Instrument ID: MS13
Analysis Method: 8260B

Lab Code: KWG0504273-2
Analysis Lot: KWG0504272

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	RT	Area	RT	Area	RT
	Results ==>	660,570	5.60	274,249	11.58	301,853	14.70
	Upper Limit ==>	1,321,140	6.10	548,498	12.08	603,706	15.20
	Lower Limit ==>	330,285	5.10	137,125	11.08	150,927	14.20
	ICAL Result ==>	769,126	5.60	331,133	11.58	378,337	14.71
Associated Analyses							
Lab Control Sample	KWG0504274-3	668,606	5.60	282,190	11.58	309,382	14.70
50398-05MS	KWG0504274-1	681,761	5.60	289,271	11.58	308,617	14.71
50398-05DMS	KWG0504274-2	694,227	5.60	286,017	11.58	314,153	14.71
Method Blank	KWG0504274-4	628,205	5.60	260,879	11.58	260,906	14.71
50398-01	K2501544-001	608,688	5.60	262,763	11.58	251,890	14.71
50398-02	K2501544-002	600,318	5.60	255,210	11.58	250,935	14.71
50398-03	K2501544-003	598,838	5.60	255,539	11.58	249,295	14.71
50398-04	K2501544-004	583,103	5.61	250,488	11.58	245,970	14.71
50398-05	K2501544-005	583,421	5.60	249,110	11.58	245,595	14.71

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

		50398-05MS KWG0504274-1 Matrix Spike			50398-05DMS KWG0504274-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethene	ND	10.9	10.0	109	10.3	10.0	103	76-143	6	30
Benzene	ND	10.1	10.0	101	9.62	10.0	96	75-130	5	30
Trichloroethene (TCE)	ND	10.3	10.0	103	9.66	10.0	97	69-132	7	30
Toluene	ND	9.87	10.0	99	9.38	10.0	94	72-132	5	30
Chlorobenzene	ND	9.69	10.0	97	9.56	10.0	96	78-117	1	30
1,2-Dichlorobenzene	ND	9.81	10.0	98	9.57	10.0	96	77-117	2	30
Naphthalene	ND	8.07	10.0	81	8.31	10.0	83	56-155	3	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504274

	Lab Control Sample KWG0504274-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	7.90	10.0	79	45-171
Chloromethane	7.77	10.0	78	53-135
Vinyl Chloride	8.58	10.0	86	67-130
Bromomethane	8.75	10.0	88	36-158
Chloroethane	9.24	10.0	92	62-125
Trichlorofluoromethane	8.80	10.0	88	66-126
Acetone	43.4	50.0	87	70-127
1,1-Dichloroethene	9.87	10.0	99	76-129
Methyl tert-Butyl Ether	8.14	10.0	81	63-132
Carbon Disulfide	21.1	20.0	105	62-138
Methylene Chloride	8.94	10.0	89	65-127
trans-1,2-Dichloroethene	9.32	10.0	93	81-121
1,1-Dichloroethane	9.45	10.0	95	76-117
2-Butanone (MEK)	43.2	50.0	86	69-132
2,2-Dichloropropane	9.00	10.0	90	63-142
cis-1,2-Dichloroethene	9.26	10.0	93	83-118
Chloroform	9.51	10.0	95	76-121
Bromochloromethane	9.51	10.0	95	80-125
1,1,1-Trichloroethane (TCA)	10.0	10.0	100	72-132
1,1-Dichloropropene	9.07	10.0	91	72-118
Carbon Tetrachloride	11.0	10.0	110	66-146
1,2-Dichloroethane (EDC)	9.80	10.0	98	74-121
Benzene	9.51	10.0	95	78-121
Trichloroethene (TCE)	9.45	10.0	95	79-119
1,2-Dichloropropane	9.28	10.0	93	76-116
Bromodichloromethane	10.3	10.0	103	74-130
Dibromomethane	9.46	10.0	95	76-123
2-Hexanone	39.7	50.0	79	67-127
cis-1,3-Dichloropropene	9.38	10.0	94	79-123
Toluene	9.16	10.0	92	76-122
trans-1,3-Dichloropropene	8.76	10.0	88	70-117
1,1,2-Trichloroethane	9.73	10.0	97	76-120
4-Methyl-2-pentanone (MIBK)	41.3	50.0	83	70-128
1,3-Dichloropropane	9.63	10.0	96	77-121
Tetrachloroethene (PCE)	9.54	10.0	95	72-124

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0504274

	Lab Control Sample KWG0504274-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dibromochloromethane	10.6	10.0	106	72-133
1,2-Dibromoethane (EDB)	9.51	10.0	95	75-120
Chlorobenzene	9.28	10.0	93	79-113
1,1,1,2-Tetrachloroethane	10.5	10.0	105	72-133
Ethylbenzene	10.1	10.0	101	84-122
m,p-Xylenes	20.3	20.0	102	83-125
o-Xylene	9.82	10.0	98	83-122
Styrene	10.3	10.0	103	83-127
Bromoform	10.9	10.0	109	63-149
Isopropylbenzene	9.07	10.0	91	72-114
1,1,2,2-Tetrachloroethane	9.48	10.0	95	70-122
1,2,3-Trichloropropane	9.28	10.0	93	73-125
Bromobenzene	9.80	10.0	98	80-121
n-Propylbenzene	10.5	10.0	105	78-124
2-Chlorotoluene	10.6	10.0	106	82-126
4-Chlorotoluene	10.4	10.0	104	80-122
1,3,5-Trimethylbenzene	10.7	10.0	107	78-132
tert-Butylbenzene	10.4	10.0	104	76-126
1,2,4-Trimethylbenzene	10.2	10.0	102	74-138
sec-Butylbenzene	11.0	10.0	110	72-133
1,3-Dichlorobenzene	9.40	10.0	94	81-116
4-Isopropyltoluene	9.73	10.0	97	62-132
1,4-Dichlorobenzene	9.46	10.0	95	80-113
n-Butylbenzene	10.3	10.0	103	51-138
1,2-Dichlorobenzene	9.17	10.0	92	81-113
1,2-Dibromo-3-chloropropane	9.61	10.0	96	63-124
1,2,4-Trichlorobenzene	8.42	10.0	84	61-135
1,2,3-Trichlorobenzene	8.21	10.0	82	66-131
Naphthalene	7.75	10.0	78	53-157
Hexachlorobutadiene	10.9	10.0	109	66-132
tert-Amyl Methyl Ether	19.9	20.0	100	68-127
tert-Butyl Ethyl Ether	17.9	20.0	90	68-121
tert-Butyl Alcohol	84.1	100	84	10-194
Diisopropyl Ether	19.0	20.0	95	68-127

Results flagged with an asterisk (*) indicate values outside control criteria.

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	18:56

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS13\DATA\031505\0315F009.D
Lab Code:	KWG0504274-4	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0504274-3	J:\MS13\DATA\031505\0315F004.D	03/15/05	16:40
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/05	17:07
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/05	17:34
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/05	19:23
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/05	19:51
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/05	20:18
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/05	20:45
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/05	21:13

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	16:40

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS13\DATA\031505\0315F004.D
Lab Code:	KWG0504274-3	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/05	17:07
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/05	17:34
Method Blank	KWG0504274-4	J:\MS13\DATA\031505\0315F009.D	03/15/05	18:56
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/05	19:23
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/05	19:51
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/05	20:18
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/05	20:45
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/05	21:13

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005
Time Analyzed: 15:41

Tune Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031505\0315F002.D
Instrument ID: MS13
Column:

Analysis Method: 8260B
Analysis Lot: KWG0504272

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	17.8	8353	PASS
75	95	20	70	47.4	22224	PASS
95	95	50	200	100.0	46920	PASS
96	95	5	9	7.3	3437	PASS
173	174	0	2	0.0	0	PASS
174	95	50	200	102.3	48000	PASS
175	174	5	9	7.4	3556	PASS
176	174	95	101	99.5	47736	PASS
177	176	5	9	6.7	3176	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504273-2	J:\MS13\DATA\031505\0315F003.D	03/15/2005	16:12	
Lab Control Sample	KWG0504274-3	J:\MS13\DATA\031505\0315F004.D	03/15/2005	16:40	
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/2005	17:07	
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/2005	17:34	
Method Blank	KWG0504274-4	J:\MS13\DATA\031505\0315F009.D	03/15/2005	18:56	
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/2005	19:23	
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/2005	19:51	
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/2005	20:18	
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/2005	20:45	
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/2005	21:13	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS13\DATA\022505\0225F007.D	F	J:\MS13\DATA\022505\0225F012.D
B	J:\MS13\DATA\022505\0225F008.D	G	J:\MS13\DATA\022505\0225F013.D
C	J:\MS13\DATA\022505\0225F009.D	H	J:\MS13\DATA\022505\0225F014.D
D	J:\MS13\DATA\022505\0225F010.D	I	J:\MS13\DATA\022505\0225F015.D
E	J:\MS13\DATA\022505\0225F011.D	J	J:\MS13\DATA\022505\0225F016.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	0.20	0.339	B	0.30	0.300	C	0.50	0.304	D	1.3	0.291	E	2.0	0.299
	F	5.0	0.328	G	10	0.321	H	20	0.304	I	40	0.281	J	80	0.308
† Chloromethane	A	0.20	0.492	B	0.30	0.435	C	0.50	0.418	D	1.3	0.403	E	2.0	0.389
	F	5.0	0.378	G	10	0.356	H	20	0.343	I	40	0.326	J	80	0.341
‡ Vinyl Chloride	A	0.20	0.371	B	0.30	0.342	C	0.50	0.337	D	1.3	0.327	E	2.0	0.316
	F	5.0	0.331	G	10	0.319	H	20	0.310	I	40	0.292	J	80	0.320
Bromomethane	A	0.20	0.198	B	0.30	0.193	C	0.50	0.203	D	1.3	0.192	E	2.0	0.192
	F	5.0	0.190	G	10	0.181	H	20	0.176	I	40	0.169	J	80	0.167
Chloroethane				B	0.30	0.257	C	0.50	0.217	D	1.3	0.191	E	2.0	0.194
	F	5.0	0.192	G	10	0.180	H	20	0.178	I	40	0.168	J	80	0.177
Trichlorofluoromethane	A	0.20	0.478	B	0.30	0.465	C	0.50	0.433	D	1.3	0.445	E	2.0	0.427
	F	5.0	0.429	G	10	0.418	H	20	0.408	I	40	0.388	J	80	0.418
Acetone	A	4.0	0.0404	B	6.0	0.0397	C	10	0.0403	D	25	0.0370	E	40	0.0363
	F	100	0.0383	G	200	0.0355	H	400	0.0376	I	800	0.0392	J	1600	0.0371
‡ 1,1-Dichloroethene	A	0.20	0.224	B	0.30	0.220	C	0.50	0.231	D	1.3	0.229	E	2.0	0.233
	F	5.0	0.231	G	10	0.227	H	20	0.223	I	40	0.212	J	80	0.232
Methyl tert-Butyl Ether	A	0.40	0.527	B	0.60	0.515	C	1.0	0.524	D	2.5	0.499	E	4.0	0.507
	F	10	0.549	G	20	0.540	H	40	0.559	I	80	0.565	J	160	0.567
Carbon Disulfide	A	0.20	0.787	B	0.30	0.698	C	0.50	0.702	D	1.3	0.661	E	2.0	0.681
	F	5.0	0.686	G	10	0.664	H	20	0.663	I	40	0.638	J	80	0.700
Methylene Chloride				B	0.30	0.349	C	0.50	0.309	D	1.3	0.280	E	2.0	0.266
	F	5.0	0.271	G	10	0.252	H	20	0.249	I	40	0.244	J	80	0.247
trans-1,2-Dichloroethene	A	0.20	0.305	B	0.30	0.285	C	0.50	0.269	D	1.3	0.262	E	2.0	0.256
	F	5.0	0.264	G	10	0.254	H	20	0.256	I	40	0.247	J	80	0.260
† 1,1-Dichloroethane	A	0.20	0.504	B	0.30	0.473	C	0.50	0.467	D	1.3	0.454	E	2.0	0.449
	F	5.0	0.467	G	10	0.452	H	20	0.456	I	40	0.442	J	80	0.463
2-Butanone (MEK)	A	4.0	0.0124	B	6.0	0.0116	C	10	0.0122	D	25	0.0137	E	40	0.0138
	F	100	0.0158	G	200	0.0146	H	400	0.0161	I	800	0.0168	J	1600	0.0162

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
2,2-Dichloropropane	A	0.20	0.258	B	0.30	0.262	C	0.50	0.250	D	1.3	0.237	E	2.0	0.239
	F	5.0	0.250	G	10	0.261	H	20	0.273	I	40	0.279	J	80	0.323
cis-1,2-Dichloroethene	A	0.20	0.287	B	0.30	0.294	C	0.50	0.285	D	1.3	0.282	E	2.0	0.277
	F	5.0	0.290	G	10	0.279	H	20	0.281	I	40	0.274	J	80	0.283
‡ Chloroform	A	0.20	0.510	B	0.30	0.449	C	0.50	0.452	D	1.3	0.442	E	2.0	0.430
	F	5.0	0.448	G	10	0.433	H	20	0.434	I	40	0.421	J	80	0.435
Bromochloromethane				B	0.30	0.116	C	0.50	0.126	D	1.3	0.115	E	2.0	0.122
	F	5.0	0.129	G	10	0.124	H	20	0.124	I	40	0.121	J	80	0.120
1,1,1-Trichloroethane (TCA)	A	0.20	0.316	B	0.30	0.350	C	0.50	0.337	D	1.3	0.326	E	2.0	0.330
	F	5.0	0.336	G	10	0.337	H	20	0.349	I	40	0.345	J	80	0.387
1,1-Dichloropropene	A	0.20	0.376	B	0.30	0.341	C	0.50	0.337	D	1.3	0.343	E	2.0	0.343
	F	5.0	0.354	G	10	0.348	H	20	0.350	I	40	0.336	J	80	0.365
Carbon Tetrachloride	A	0.20	0.240	B	0.30	0.225	C	0.50	0.230	D	1.3	0.238	E	2.0	0.233
	F	5.0	0.242	G	10	0.247	H	20	0.261	I	40	0.266	J	80	0.313
1,2-Dichloroethane (EDC)	A	0.20	0.328	B	0.30	0.312	C	0.50	0.324	D	1.3	0.299	E	2.0	0.301
	F	5.0	0.323	G	10	0.312	H	20	0.311	I	40	0.308	J	80	0.303
Benzene	A	0.20	1.13	B	0.30	1.14	C	0.50	1.11	D	1.3	1.06	E	2.0	1.07
	F	5.0	1.09	G	10	1.07	H	20	1.07	I	40	1.04	J	80	1.09
Trichloroethene (TCE)	A	0.20	0.274	B	0.30	0.276	C	0.50	0.276	D	1.3	0.255	E	2.0	0.261
	F	5.0	0.269	G	10	0.262	H	20	0.261	I	40	0.253	J	80	0.268
‡ 1,2-Dichloropropane	A	0.20	0.260	B	0.30	0.237	C	0.50	0.251	D	1.3	0.238	E	2.0	0.244
	F	5.0	0.261	G	10	0.253	H	20	0.257	I	40	0.255	J	80	0.263
Bromodichloromethane	A	0.20	0.285	B	0.30	0.269	C	0.50	0.264	D	1.3	0.247	E	2.0	0.246
	F	5.0	0.275	G	10	0.282	H	20	0.283	I	40	0.292	J	80	0.305
Dibromomethane	A	0.20	0.107	B	0.30	0.107	C	0.50	0.127	D	1.3	0.119	E	2.0	0.118
	F	5.0	0.129	G	10	0.123	H	20	0.124	I	40	0.124	J	80	0.122
2-Hexanone							C	10	0.0239	D	25	0.0276	E	40	0.0285
	F	100	0.0367	G	200	0.0364	H	400	0.0407	I	800	0.0443	J	1600	0.0424
cis-1,3-Dichloropropene	A	0.20	0.263	B	0.30	0.265	C	0.50	0.275	D	1.3	0.270	E	2.0	0.280
	F	5.0	0.321	G	10	0.329	H	20	0.350	I	40	0.369	J	80	0.387
‡ Toluene	A	0.20	0.728	B	0.30	0.671	C	0.50	0.684	D	1.3	0.682	E	2.0	0.695
	F	5.0	0.725	G	10	0.710	H	20	0.714	I	40	0.695	J	80	0.734
trans-1,3-Dichloropropene							C	0.50	0.442	D	1.3	0.423	E	2.0	0.441
	F	5.0	0.524	G	10	0.569	H	20	0.606	I	40	0.655	J	80	0.697

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† **SPCC Compound** ‡ **CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,1,2-Trichloroethane				B	0.30	0.353	C	0.50	0.315	D	1.3	0.326	E	2.0	0.320
	F	5.0	0.365	G	10	0.375	H	20	0.364	I	40	0.364	J	80	0.359
4-Methyl-2-pentanone (MIBK)				B	6.0	0.0400	C	10	0.0437	D	25	0.0427	E	40	0.0441
	F	100	0.0508	G	200	0.0488	H	400	0.0543	I	800	0.0579	J	1600	0.0555
1,3-Dichloropropane	A	0.20	0.667	B	0.30	0.744	C	0.50	0.681	D	1.3	0.709	E	2.0	0.713
	F	5.0	0.770	G	10	0.774	H	20	0.756	I	40	0.763	J	80	0.757
Tetrachloroethene (PCE)	A	0.20	0.618	B	0.30	0.609	C	0.50	0.552	D	1.3	0.549	E	2.0	0.553
	F	5.0	0.546	G	10	0.564	H	20	0.538	I	40	0.524	J	80	0.559
Dibromochloromethane				B	0.30	0.351	C	0.50	0.335	D	1.3	0.331	E	2.0	0.327
	F	5.0	0.404	G	10	0.416	H	20	0.429	I	40	0.460	J	80	0.481
1,2-Dibromoethane (EDB)	A	0.20	0.316	B	0.30	0.362	C	0.50	0.347	D	1.3	0.342	E	2.0	0.343
	F	5.0	0.405	G	10	0.410	H	20	0.409	I	40	0.414	J	80	0.415
† Chlorobenzene	A	0.20	1.94	B	0.30	1.85	C	0.50	1.79	D	1.3	1.75	E	2.0	1.76
	F	5.0	1.86	G	10	1.85	H	20	1.78	I	40	1.76	J	80	1.81
1,1,1,2-Tetrachloroethane	A	0.20	0.391	B	0.30	0.382	C	0.50	0.385	D	1.3	0.373	E	2.0	0.381
	F	5.0	0.446	G	10	0.453	H	20	0.478	I	40	0.511	J	80	0.547
‡ Ethylbenzene	A	0.20	0.866	B	0.30	0.780	C	0.50	0.796	D	1.3	0.865	E	2.0	0.881
	F	5.0	0.970	G	10	0.981	H	20	0.965	I	40	0.956	J	80	1.00
m,p-Xylenes	A	0.40	1.00	B	0.60	0.994	C	1.0	0.978	D	2.5	1.03	E	4.0	1.08
	F	10	1.22	G	20	1.24	H	40	1.22	I	80	1.20	J	160	1.26
o-Xylene	A	0.20	0.906	B	0.30	0.914	C	0.50	0.875	D	1.3	0.956	E	2.0	1.01
	F	5.0	1.13	G	10	1.16	H	20	1.15	I	40	1.15	J	80	1.20
Styrene							C	0.50	0.645	D	1.3	0.706	E	2.0	0.754
	F	5.0	0.878	G	10	0.942	H	20	0.936	I	40	0.951	J	80	0.977
† Bromoform	A	0.20	0.159	B	0.30	0.182	C	0.50	0.168	D	1.3	0.162	E	2.0	0.169
	F	5.0	0.197	G	10	0.213	H	20	0.226	I	40	0.250	J	80	0.270
Isopropylbenzene	A	0.20	2.17	B	0.30	2.10	C	0.50	2.17	D	1.3	2.32	E	2.0	2.47
	F	5.0	2.72	G	10	2.83	H	20	2.82	I	40	2.81	J	80	2.95
† 1,1,2,2-Tetrachloroethane	A	0.20	0.352	B	0.30	0.358	C	0.50	0.369	D	1.3	0.355	E	2.0	0.352
	F	5.0	0.400	G	10	0.426	H	20	0.407	I	40	0.410	J	80	0.410
1,2,3-Trichloropropane	A	0.20	0.110	B	0.30	0.115	C	0.50	0.125	D	1.3	0.125	E	2.0	0.129
	F	5.0	0.131	G	10	0.135	H	20	0.129	I	40	0.129	J	80	0.127
Bromobenzene	A	0.20	0.579	B	0.30	0.677	C	0.50	0.657	D	1.3	0.687	E	2.0	0.672
	F	5.0	0.727	G	10	0.731	H	20	0.711	I	40	0.697	J	80	0.711

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Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
n-Propylbenzene	A	0.20	2.28	B	0.30	2.28	C	0.50	2.28	D	1.3	2.46	E	2.0	2.61
	F	5.0	2.79	G	10	2.90	H	20	2.89	I	40	2.83	J	80	2.95
2-Chlorotoluene	A	0.20	1.58	B	0.30	1.63	C	0.50	1.70	D	1.3	1.70	E	2.0	1.70
	F	5.0	1.85	G	10	1.87	H	20	1.82	I	40	1.78	J	80	1.87
4-Chlorotoluene	A	0.20	1.80	B	0.30	1.78	C	0.50	1.83	D	1.3	1.86	E	2.0	1.97
	F	5.0	2.15	G	10	2.19	H	20	2.13	I	40	2.12	J	80	2.18
1,3,5-Trimethylbenzene				B	0.30	1.50	C	0.50	1.53	D	1.3	1.67	E	2.0	1.77
	F	5.0	2.02	G	10	2.10	H	20	2.08	I	40	2.06	J	80	2.18
tert-Butylbenzene	A	0.20	1.33	B	0.30	1.29	C	0.50	1.36	D	1.3	1.41	E	2.0	1.48
	F	5.0	1.60	G	10	1.68	H	20	1.68	I	40	1.64	J	80	1.78
1,2,4-Trimethylbenzene							C	0.50	1.51	D	1.3	1.65	E	2.0	1.76
	F	5.0	2.05	G	10	2.15	H	20	2.13	I	40	2.10	J	80	2.21
sec-Butylbenzene	A	0.20	1.68	B	0.30	1.70	C	0.50	1.74	D	1.3	1.83	E	2.0	1.99
	F	5.0	2.17	G	10	2.25	H	20	2.24	I	40	2.20	J	80	2.35
1,3-Dichlorobenzene	A	0.20	1.40	B	0.30	1.31	C	0.50	1.33	D	1.3	1.29	E	2.0	1.34
	F	5.0	1.38	G	10	1.40	H	20	1.35	I	40	1.32	J	80	1.37
4-Isopropyltoluene							C	0.50	1.49	D	1.3	1.66	E	2.0	1.74
	F	5.0	1.99	G	10	2.07	H	20	2.07	I	40	2.05	J	80	2.20
1,4-Dichlorobenzene	A	0.20	1.47	B	0.30	1.34	C	0.50	1.38	D	1.3	1.40	E	2.0	1.37
	F	5.0	1.43	G	10	1.46	H	20	1.37	I	40	1.35	J	80	1.38
n-Butylbenzene	A	0.20	1.33	B	0.30	1.28	C	0.50	1.25	D	1.3	1.33	E	2.0	1.41
	F	5.0	1.56	G	10	1.62	H	20	1.64	I	40	1.66	J	80	1.79
1,2-Dichlorobenzene	A	0.20	1.29	B	0.30	1.23	C	0.50	1.20	D	1.3	1.22	E	2.0	1.20
	F	5.0	1.31	G	10	1.32	H	20	1.28	I	40	1.24	J	80	1.27
1,2-Dibromo-3-chloropropane										D	1.3	0.0326	E	2.0	0.0344
	F	5.0	0.0404	G	10	0.0452	H	20	0.0513	I	40	0.0555	J	80	0.0600
1,2,4-Trichlorobenzene	A	0.20	0.780	B	0.30	0.717	C	0.50	0.722	D	1.3	0.660	E	2.0	0.662
	F	5.0	0.727	G	10	0.738	H	20	0.727	I	40	0.728	J	80	0.752
1,2,3-Trichlorobenzene	A	0.20	0.681	B	0.30	0.585	C	0.50	0.583	D	1.3	0.550	E	2.0	0.554
	F	5.0	0.609	G	10	0.616	H	20	0.605	I	40	0.607	J	80	0.614
Naphthalene							C	0.50	0.787	D	1.3	0.746	E	2.0	0.774
	F	5.0	0.933	G	10	1.03	H	20	1.11	I	40	1.17	J	80	1.20
Hexachlorobutadiene				B	0.30	0.411	C	0.50	0.363	D	1.3	0.349	E	2.0	0.352
	F	5.0	0.348	G	10	0.352	H	20	0.342	I	40	0.340	J	80	0.363

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Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
tert-Amyl Methyl Ether				B	0.30	0.207	C	0.50	0.216	D	1.3	0.198	E	2.0	0.193
	F	5.0	0.212	G	10	0.200	H	20	0.198	I	40	0.191	J	80	0.180
tert-Butyl Ethyl Ether	A	0.20	0.544	B	0.30	0.559	C	0.50	0.568	D	1.3	0.579	E	2.0	0.583
	F	5.0	0.625	G	10	0.617	H	20	0.639	I	40	0.653	J	80	0.671
tert-Butyl Alcohol							C	2.5	0.00708	D	6.3	0.00649	E	10	0.00642
	F	25	0.00717	G	50	0.00726	H	100	0.00779	I	200	0.00842	J	400	0.00902
Diisopropyl Ether	A	0.20	0.783	B	0.30	0.729	C	0.50	0.745	D	1.3	0.739	E	2.0	0.744
	F	5.0	0.798	G	10	0.795	H	20	0.819	I	40	0.821	J	80	0.834
Dibromofluoromethane	A	3.0	0.259	B	4.0	0.251	C	5.0	0.258	D	6.0	0.252	E	8.0	0.254
	F	9.0	0.253	G	10	0.245	H	20	0.238	I	40	0.233	J	50	0.231
Toluene-d8	A	3.0	1.11	B	4.0	1.06	C	5.0	1.09	D	6.0	1.11	E	8.0	1.13
	F	9.0	1.15	G	10	1.13	H	20	1.08	I	40	1.04	J	50	1.05
4-Bromofluorobenzene	A	3.0	0.876	B	4.0	0.850	C	5.0	0.869	D	6.0	0.892	E	8.0	0.897
	F	9.0	0.936	G	10	0.937	H	20	0.884	I	40	0.856	J	50	0.843

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Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	5.7		≤ 15	0.307		0.01
† Chloromethane	TRG	AverageRF	% RSD	13.2		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.5		≤ 15	0.327		0.01
Bromomethane	TRG	AverageRF	% RSD	6.5		≤ 15	0.186		0.01
Chloroethane	TRG	AverageRF	% RSD	14.0		≤ 15	0.195		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	6.1		≤ 15	0.431		0.01
Acetone	TRG	AverageRF	% RSD	4.5		≤ 15	0.0381		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	2.9		≤ 15	0.226		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	4.6		≤ 15	0.535		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	5.9		≤ 15	0.688		0.01
Methylene Chloride	TRG	AverageRF	% RSD	12.7		≤ 15	0.274		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.5		≤ 15	0.266		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.463		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0143		0.01
2,2-Dichloropropane	TRG	AverageRF	% RSD	9.5		≤ 15	0.263		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	2.2		≤ 15	0.283		0.01
‡ Chloroform	TRG	AverageRF	% RSD	5.5		≤ 15	0.445		0.01
Bromochloromethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.122		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	5.6		≤ 15	0.341		0.01
1,1-Dichloropropene	TRG	AverageRF	% RSD	3.7		≤ 15	0.349		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	10.3		≤ 15	0.249		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	3.2		≤ 15	0.312		0.01
Benzene	MS	AverageRF	% RSD	3.0		≤ 15	1.09		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	3.1		≤ 15	0.265		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	3.7		≤ 15	0.252		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	6.9		≤ 15	0.275		0.01
Dibromomethane	TRG	AverageRF	% RSD	6.2		≤ 15	0.120		0.01
2-Hexanone	TRG	AverageRF	% RSD	21.5	*	≤ 15	0.0351		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	14.9		≤ 15	0.311		0.01
‡ Toluene	MS	AverageRF	% RSD	3.1		≤ 15	0.704		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	19.2	*	≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.349		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0486		0.01
1,3-Dichloropropane	TRG	AverageRF	% RSD	5.2		≤ 15	0.734		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	5.3		≤ 15	0.561		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	14.9		≤ 15	0.393		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	10.1		≤ 15	0.376		0.01
† Chlorobenzene	MS	AverageRF	% RSD	3.3		≤ 15	1.81		0.30
1,1,1,2-Tetrachloroethane	TRG	AverageRF	% RSD	14.3		≤ 15	0.435		0.01
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.8		≤ 15	0.906		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	10.3		≤ 15	1.12		0.01
o-Xylene	TRG	AverageRF	% RSD	11.9		≤ 15	1.04		0.01

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Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Styrene	TRG	AverageRF	% RSD	15.1	*	≤ 15	0.849		0.01
† Bromoform	TRG	AverageRF	% RSD	19.4	*	≤ 15	0.200		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.54		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.384		0.30
1,2,3-Trichloropropane	TRG	AverageRF	% RSD	6.1		≤ 15	0.126		0.01
Bromobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	0.685		0.01
n-Propylbenzene	TRG	AverageRF	% RSD	10.7		≤ 15	2.63		0.01
2-Chlorotoluene	TRG	AverageRF	% RSD	5.9		≤ 15	1.75		0.01
4-Chlorotoluene	TRG	AverageRF	% RSD	8.5		≤ 15	2.00		0.01
1,3,5-Trimethylbenzene	TRG	AverageRF	% RSD	13.9		≤ 15	1.88		0.01
tert-Butylbenzene	TRG	AverageRF	% RSD	11.4		≤ 15	1.53		0.01
1,2,4-Trimethylbenzene	TRG	AverageRF	% RSD	13.6		≤ 15	1.95		0.01
sec-Butylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.02		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	2.7		≤ 15	1.35		0.01
4-Isopropyltoluene	TRG	AverageRF	% RSD	12.9		≤ 15	1.91		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	3.1		≤ 15	1.40		0.01
n-Butylbenzene	TRG	AverageRF	% RSD	12.7		≤ 15	1.49		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	3.6		≤ 15	1.26		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	22.9	*	≤ 15	0.0456		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	5.1		≤ 15	0.721		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.1		≤ 15	0.601		0.01
Naphthalene	MS	AverageRF	% RSD	19.1	*	≤ 15	0.968		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	6.0		≤ 15	0.358		0.01
tert-Amyl Methyl Ether	TRG	AverageRF	% RSD	5.7		≤ 15	0.199		0.01
tert-Butyl Ethyl Ether	TRG	AverageRF	% RSD	7.1		≤ 15	0.604		0.01
tert-Butyl Alcohol	TRG	AverageRF	% RSD	12.2		≤ 15	0.00746	*	0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	5.0		≤ 15	0.781		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	4.1		≤ 15	0.248		0.01
Toluene-d8	SURR	AverageRF	% RSD	3.4		≤ 15	1.09		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.7		≤ 15	0.884		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

File ID: J:\MS13\DATA\022505\0225F021.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	10	0.307	0.308	0	NA	± 40 %	AverageRF
† Chloromethane	10	9.7	0.388	0.378	-3	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.327	0.323	-1	NA	± 20 %	AverageRF
Bromomethane	10	12	0.186	0.216	16	NA	± 40 %	AverageRF
Chloroethane	10	9.8	0.195	0.190	-2	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	9.2	0.431	0.397	-8	NA	± 30 %	AverageRF
Acetone	50	50	0.0381	0.0381	0	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	11	0.226	0.243	8	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	10	11	0.535	0.564	5	NA	± 30 %	AverageRF
Carbon Disulfide	20	22	0.688	0.756	10	NA	± 30 %	AverageRF
Methylene Chloride	10	9.5	0.274	0.261	-5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.266	0.269	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.463	0.461	0	NA	± 30 %	AverageRF
2-Butanone (MEK)	50	52	0.0143	0.0150	5	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	10	0.263	0.274	4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	9.8	0.445	0.437	-2	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.122	0.124	2	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.341	0.362	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	9.9	0.349	0.345	-1	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	11	0.249	0.268	7	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.312	0.310	-1	NA	± 30 %	AverageRF
Benzene	10	10	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	11	0.265	0.279	5	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	10	0.252	0.255	1	NA	± 20 %	AverageRF
Bromodichloromethane	10	10	0.275	0.283	3	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.120	0.122	2	NA	± 30 %	AverageRF
2-Hexanone	50	48	0.0351	0.0334	-5	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	11	0.311	0.330	6	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.704	0.708	1	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	9.6	0.545	0.521	-4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.349	0.359	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	50	51	0.0486	0.0493	1	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.734	0.765	4	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.561	0.568	1	NA	± 30 %	AverageRF
Dibromochloromethane	10	10	0.393	0.400	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	10	0.376	0.391	4	NA	± 30 %	AverageRF
† Chlorobenzene	10	9.7	1.81	1.76	-3	NA	± 30 %	AverageRF
1,1,1,2-Tetrachloroethane	10	11	0.435	0.469	8	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.906	0.971	7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
m,p-Xylenes	20	22	1.12	1.22	9	NA	± 30 %	AverageRF
o-Xylene	10	11	1.04	1.12	7	NA	± 30 %	AverageRF
Styrene	10	11	0.849	0.906	7	NA	± 30 %	AverageRF
† Bromoform	10	10	0.200	0.204	2	NA	± 30 %	AverageRF
Isopropylbenzene	10	9.8	2.54	2.47	-2	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	9.7	0.384	0.373	-3	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.126	0.130	3	NA	± 30 %	AverageRF
Bromobenzene	10	10	0.685	0.701	2	NA	± 30 %	AverageRF
n-Propylbenzene	10	11	2.63	2.88	10	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	1.75	1.91	9	NA	± 30 %	AverageRF
4-Chlorotoluene	10	11	2.00	2.13	7	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	11	1.88	2.10	12	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	1.53	1.70	12	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	1.95	2.12	9	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	2.02	2.33	16	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	9.8	1.35	1.33	-2	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	10	1.91	1.96	3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	9.9	1.40	1.38	-1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	1.49	1.64	10	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	9.9	1.26	1.24	-1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.0456	0.0460	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	9.9	0.721	0.715	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	9.7	0.601	0.581	-3	NA	± 30 %	AverageRF
Naphthalene	10	10	0.968	0.999	3	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	10	0.358	0.357	0	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	20	19	0.199	0.190	-5	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	20	20	0.604	0.611	1	NA	± 30 %	AverageRF
tert-Butyl Alcohol	100	100	0.00746	0.00781	5	NA	± 30 %	AverageRF
Diisopropyl Ether	20	20	0.781	0.785	1	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504272
Units: PPB

File ID: J:\MS13\DATA\031505\0315F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	11	0.01	0.307	0.328	7	NA	± 40 %	AverageRF
† Chloromethane	10	8.8	0.10	0.388	0.340	-12	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.01	0.327	0.322	-1	NA	± 20 %	AverageRF
Bromomethane	10	9.5	0.01	0.186	0.178	-5	NA	± 40 %	AverageRF
Chloroethane	10	9.9	0.01	0.195	0.193	-1	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	11	0.01	0.431	0.454	5	NA	± 30 %	AverageRF
Acetone	200	170	0.01	0.0381	0.0325	-15	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	10	0.01	0.226	0.230	2	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	20	17	0.01	0.535	0.459	-14	NA	± 30 %	AverageRF
Carbon Disulfide	10	12	0.01	0.688	0.854	24	NA	± 30 %	AverageRF
Methylene Chloride	10	9.7	0.01	0.274	0.266	-3	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.01	0.266	0.268	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.10	0.463	0.468	1	NA	± 30 %	AverageRF
2-Butanone (MEK)	200	170	0.01	0.0143	0.0125	-13	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	9.6	0.01	0.263	0.252	-4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.01	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	11	0.01	0.445	0.474	6	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.01	0.122	0.126	4	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.01	0.341	0.360	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	10	0.01	0.349	0.364	4	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	12	0.01	0.249	0.293	18	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.01	0.312	0.322	3	NA	± 30 %	AverageRF
Benzene	10	10	0.01	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	10	0.01	0.265	0.271	2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	9.9	0.01	0.252	0.249	-1	NA	± 20 %	AverageRF
Bromodichloromethane	10	11	0.01	0.275	0.302	10	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.01	0.120	0.125	4	NA	± 30 %	AverageRF
2-Hexanone	200	180	0.01	0.0351	0.0315	-10	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	10	0.01	0.311	0.310	0	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.01	0.704	0.721	2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	10	0.01	0.545	0.543	0	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.01	0.349	0.365	5	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	200	170	0.01	0.0486	0.0413	-15	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.01	0.734	0.769	5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.01	0.561	0.588	5	NA	± 30 %	AverageRF
Dibromochloromethane	10	12	0.01	0.393	0.454	16	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.01	0.376	0.400	6	NA	± 30 %	AverageRF
† Chlorobenzene	10	10	0.30	1.81	1.84	2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504272
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1,2-Tetrachloroethane	10	12	0.01	0.435	0.518	19	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.01	0.906	1.01	12	NA	± 20 %	AverageRF
m,p-Xylenes	20	23	0.01	1.12	1.29	15	NA	± 30 %	AverageRF
o-Xylene	10	11	0.01	1.04	1.16	11	NA	± 30 %	AverageRF
Styrene	10	12	0.01	0.849	0.989	17	NA	± 30 %	AverageRF
† Bromoform	10	12	0.10	0.200	0.242	21	NA	± 30 %	AverageRF
Isopropylbenzene	10	12	0.01	2.54	2.93	15	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	11	0.30	0.384	0.406	6	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	11	0.01	0.126	0.133	6	NA	± 30 %	AverageRF
Bromobenzene	10	11	0.01	0.685	0.754	10	NA	± 30 %	AverageRF
n-Propylbenzene	10	12	0.01	2.63	3.14	20	NA	± 30 %	AverageRF
2-Chlorotoluene	10	12	0.01	1.75	2.02	16	NA	± 30 %	AverageRF
4-Chlorotoluene	10	12	0.01	2.00	2.36	18	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	12	0.01	1.88	2.27	21	NA	± 30 %	AverageRF
tert-Butylbenzene	10	12	0.01	1.53	1.79	17	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	12	0.01	1.95	2.25	16	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	0.01	2.02	2.39	19	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	10	0.01	1.35	1.40	4	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	12	0.01	1.91	2.20	15	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	10	0.01	1.40	1.45	4	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	0.01	1.49	1.70	14	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	10	0.01	1.26	1.29	3	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.01	0.0456	0.0467	2	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	8.7	0.01	0.721	0.630	-13	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	8.6	0.01	0.601	0.515	-14	NA	± 30 %	AverageRF
Naphthalene	10	8.1	0.01	0.968	0.788	-19	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	11	0.01	0.358	0.398	11	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	10	11	0.01	0.199	0.214	7	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	10	8.9	0.01	0.604	0.535	-11	NA	± 30 %	AverageRF
tert-Butyl Alcohol	50	38	0.01	0.00746	0.00567 *	-24	NA	± 30 %	AverageRF
Diisopropyl Ether	10	9.7	0.01	0.781	0.757	-3	NA	± 30 %	AverageRF
Dibromofluoromethane	10	9.3	0.01	0.248	0.231	-7	NA	± 30 %	AverageRF
Toluene-d8	10	9.9	0.01	1.09	1.08	-1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	10	11	0.01	0.884	0.948	7	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260B

Analysis Lot: KWG0504272
Instrument ID: MS13

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0315F002.D	GC/MS Tuning - Generic	KWG0504273-1	3/15/2005	15:41		3/15/2005	16:00
0315F003.D	Continuing Calibration Verification	KWG0504273-2	3/15/2005	16:12		3/15/2005	16:31
0315F004.D	Lab Control Sample	KWG0504274-3	3/15/2005	16:40		3/15/2005	16:59
0315F005.D	50398-05MS	KWG0504274-1	3/15/2005	17:07		3/15/2005	17:26
0315F006.D	50398-05DMS	KWG0504274-2	3/15/2005	17:34		3/15/2005	17:53
0315F009.D	Method Blank	KWG0504274-4	3/15/2005	18:56		3/15/2005	19:15
0315F010.D	50398-01	K2501544-001	3/15/2005	19:23		3/15/2005	19:42
0315F011.D	50398-02	K2501544-002	3/15/2005	19:51		3/15/2005	20:10
0315F012.D	50398-03	K2501544-003	3/15/2005	20:18		3/15/2005	20:37
0315F013.D	50398-04	K2501544-004	3/15/2005	20:45		3/15/2005	21:04
0315F014.D	50398-05	K2501544-005	3/15/2005	21:13		3/15/2005	21:32
0315F015.D	ZZZZZZ	ZZZZZZ	3/15/2005	21:40		3/15/2005	21:59
0315F016.D	ZZZZZZ	ZZZZZZ	3/15/2005	22:07		3/15/2005	22:26
0315F017.D	ZZZZZZ	ZZZZZZ	3/15/2005	22:35		3/15/2005	22:54
0315F018.D	ZZZZZZ	ZZZZZZ	3/15/2005	23:02		3/15/2005	23:21
0315F019.D	ZZZZZZ	ZZZZZZ	3/15/2005	23:29		3/15/2005	23:48
0315F020.D	ZZZZZZ	ZZZZZZ	3/15/2005	23:56		3/16/2005	00:15
0315F021.D	ZZZZZZ	ZZZZZZ	3/16/2005	00:24		3/16/2005	00:43
0315F022.D	ZZZZZZ	ZZZZZZ	3/16/2005	00:51		3/16/2005	01:10
0315F023.D	ZZZZZZ	ZZZZZZ	3/16/2005	01:18		3/16/2005	01:37
0315F024.D	ZZZZZZ	ZZZZZZ	3/16/2005	01:46		3/16/2005	02:05
0315F025.D	ZZZZZZ	ZZZZZZ	3/16/2005	02:13		3/16/2005	02:32
0315F026.D	ZZZZZZ	ZZZZZZ	3/16/2005	02:40		3/16/2005	02:59
0315F028.D	ZZZZZZ	ZZZZZZ	3/16/2005	03:34		3/16/2005	03:53

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/15/2005

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50398-01	K2501544-001	03/02/05	03/03/05	10ml	10ml	NA	
50398-02	K2501544-002	03/02/05	03/03/05	10ml	10ml	NA	
50398-03	K2501544-003	03/02/05	03/03/05	10ml	10ml	NA	
50398-04	K2501544-004	03/02/05	03/03/05	10ml	10ml	NA	
50398-05	K2501544-005	03/02/05	03/03/05	10ml	10ml	NA	
Method Blank	KWG0504274-4	NA	NA	10ml	10ml	NA	
50398-05MS	KWG0504274-1	03/02/05	03/03/05	10ml	10ml	NA	
50398-05DMS	KWG0504274-2	03/02/05	03/03/05	10ml	10ml	NA	
Lab Control Sample	KWG0504274-3	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Volatile Organic Compounds

Validation Package

Organic Analysis:
Volatile Organic Compounds

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50398-01	K2501544-001	96	91	88
50398-02	K2501544-002	98	91	88
50398-03	K2501544-003	98	90	87
50398-04	K2501544-004	99	90	88
50398-05	K2501544-005	100	90	89
Method Blank	KWG0504274-4	96	89	90
50398-05MS	KWG0504274-1	94	97	100
50398-05DMS	KWG0504274-2	92	96	103
Lab Control Sample	KWG0504274-3	95	97	101

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	80-119
Sur2 =	Toluene-d8	83-113
Sur3 =	4-Bromofluorobenzene	72-114

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005
Time Analyzed: 16:12

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031505\0315F003.D
Instrument ID: MS13
Analysis Method: 8260B

Lab Code: KWG0504273-2
Analysis Lot: KWG0504272

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	RT	Area	RT	Area	RT
	Results ==>	660,570	5.60	274,249	11.58	301,853	14.70
	Upper Limit ==>	1,321,140	6.10	548,498	12.08	603,706	15.20
	Lower Limit ==>	330,285	5.10	137,125	11.08	150,927	14.20
	ICAL Result ==>	769,126	5.60	331,133	11.58	378,337	14.71
Associated Analyses							
Lab Control Sample	KWG0504274-3	668,606	5.60	282,190	11.58	309,382	14.70
50398-05MS	KWG0504274-1	681,761	5.60	289,271	11.58	308,617	14.71
50398-05DMS	KWG0504274-2	694,227	5.60	286,017	11.58	314,153	14.71
Method Blank	KWG0504274-4	628,205	5.60	260,879	11.58	260,906	14.71
50398-01	K2501544-001	608,688	5.60	262,763	11.58	251,890	14.71
50398-02	K2501544-002	600,318	5.60	255,210	11.58	250,935	14.71
50398-03	K2501544-003	598,838	5.60	255,539	11.58	249,295	14.71
50398-04	K2501544-004	583,103	5.61	250,488	11.58	245,970	14.71
50398-05	K2501544-005	583,421	5.60	249,110	11.58	245,595	14.71

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

		50398-05MS KWG0504274-1 Matrix Spike			50398-05DMS KWG0504274-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethene	ND	10.9	10.0	109	10.3	10.0	103	76-143	6	30
Benzene	ND	10.1	10.0	101	9.62	10.0	96	75-130	5	30
Trichloroethene (TCE)	ND	10.3	10.0	103	9.66	10.0	97	69-132	7	30
Toluene	ND	9.87	10.0	99	9.38	10.0	94	72-132	5	30
Chlorobenzene	ND	9.69	10.0	97	9.56	10.0	96	78-117	1	30
1,2-Dichlorobenzene	ND	9.81	10.0	98	9.57	10.0	96	77-117	2	30
Naphthalene	ND	8.07	10.0	81	8.31	10.0	83	56-155	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0504274

	Lab Control Sample KWG0504274-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	7.90	10.0	79	45-171
Chloromethane	7.77	10.0	78	53-135
Vinyl Chloride	8.58	10.0	86	67-130
Bromomethane	8.75	10.0	88	36-158
Chloroethane	9.24	10.0	92	62-125
Trichlorofluoromethane	8.80	10.0	88	66-126
Acetone	43.4	50.0	87	70-127
1,1-Dichloroethene	9.87	10.0	99	76-129
Methyl tert-Butyl Ether	8.14	10.0	81	63-132
Carbon Disulfide	21.1	20.0	105	62-138
Methylene Chloride	8.94	10.0	89	65-127
trans-1,2-Dichloroethene	9.32	10.0	93	81-121
1,1-Dichloroethane	9.45	10.0	95	76-117
2-Butanone (MEK)	43.2	50.0	86	69-132
2,2-Dichloropropane	9.00	10.0	90	63-142
cis-1,2-Dichloroethene	9.26	10.0	93	83-118
Chloroform	9.51	10.0	95	76-121
Bromochloromethane	9.51	10.0	95	80-125
1,1,1-Trichloroethane (TCA)	10.0	10.0	100	72-132
1,1-Dichloropropene	9.07	10.0	91	72-118
Carbon Tetrachloride	11.0	10.0	110	66-146
1,2-Dichloroethane (EDC)	9.80	10.0	98	74-121
Benzene	9.51	10.0	95	78-121
Trichloroethene (TCE)	9.45	10.0	95	79-119
1,2-Dichloropropane	9.28	10.0	93	76-116
Bromodichloromethane	10.3	10.0	103	74-130
Dibromomethane	9.46	10.0	95	76-123
2-Hexanone	39.7	50.0	79	67-127
cis-1,3-Dichloropropene	9.38	10.0	94	79-123
Toluene	9.16	10.0	92	76-122
trans-1,3-Dichloropropene	8.76	10.0	88	70-117
1,1,2-Trichloroethane	9.73	10.0	97	76-120
4-Methyl-2-pentanone (MIBK)	41.3	50.0	83	70-128
1,3-Dichloropropane	9.63	10.0	96	77-121
Tetrachloroethene (PCE)	9.54	10.0	95	72-124

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0504274

	Lab Control Sample KWG0504274-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dibromochloromethane	10.6	10.0	106	72-133
1,2-Dibromoethane (EDB)	9.51	10.0	95	75-120
Chlorobenzene	9.28	10.0	93	79-113
1,1,1,2-Tetrachloroethane	10.5	10.0	105	72-133
Ethylbenzene	10.1	10.0	101	84-122
m,p-Xylenes	20.3	20.0	102	83-125
o-Xylene	9.82	10.0	98	83-122
Styrene	10.3	10.0	103	83-127
Bromoform	10.9	10.0	109	63-149
Isopropylbenzene	9.07	10.0	91	72-114
1,1,2,2-Tetrachloroethane	9.48	10.0	95	70-122
1,2,3-Trichloropropane	9.28	10.0	93	73-125
Bromobenzene	9.80	10.0	98	80-121
n-Propylbenzene	10.5	10.0	105	78-124
2-Chlorotoluene	10.6	10.0	106	82-126
4-Chlorotoluene	10.4	10.0	104	80-122
1,3,5-Trimethylbenzene	10.7	10.0	107	78-132
tert-Butylbenzene	10.4	10.0	104	76-126
1,2,4-Trimethylbenzene	10.2	10.0	102	74-138
sec-Butylbenzene	11.0	10.0	110	72-133
1,3-Dichlorobenzene	9.40	10.0	94	81-116
4-Isopropyltoluene	9.73	10.0	97	62-132
1,4-Dichlorobenzene	9.46	10.0	95	80-113
n-Butylbenzene	10.3	10.0	103	51-138
1,2-Dichlorobenzene	9.17	10.0	92	81-113
1,2-Dibromo-3-chloropropane	9.61	10.0	96	63-124
1,2,4-Trichlorobenzene	8.42	10.0	84	61-135
1,2,3-Trichlorobenzene	8.21	10.0	82	66-131
Naphthalene	7.75	10.0	78	53-157
Hexachlorobutadiene	10.9	10.0	109	66-132
tert-Amyl Methyl Ether	19.9	20.0	100	68-127
tert-Butyl Ethyl Ether	17.9	20.0	90	68-121
tert-Butyl Alcohol	84.1	100	84	10-194
Diisopropyl Ether	19.0	20.0	95	68-127

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	18:56

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS13\DATA\031505\0315F009.D
Lab Code:	KWG0504274-4	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0504274-3	J:\MS13\DATA\031505\0315F004.D	03/15/05	16:40
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/05	17:07
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/05	17:34
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/05	19:23
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/05	19:51
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/05	20:18
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/05	20:45
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/05	21:13

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/15/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	16:40

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS13\DATA\031505\0315F004.D
Lab Code:	KWG0504274-3	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504274

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/05	17:07
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/05	17:34
Method Blank	KWG0504274-4	J:\MS13\DATA\031505\0315F009.D	03/15/05	18:56
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/05	19:23
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/05	19:51
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/05	20:18
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/05	20:45
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/05	21:13

Organic Analysis:
Volatile Organic Compounds

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-01	**Units:**	ug/L
Lab Code:	K2501544-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F010.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**1.4**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-01	**Units:**	ug/L
Lab Code:	K2501544-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F010.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-01	**Units:**	ug/L
Lab Code:	K2501544-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F010.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	80-119	03/15/05	Acceptable
Toluene-d8	91	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F010.D
Lab ID: K2501544-001
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 19:23
Date Quantitated: 03/16/2005 15:53
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0057	0.01	NA	↓

Primary Review: LB 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	K2501544
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368594	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009.D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F010.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:23	**Quant Date:**	03/16/2005 15:53	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-001			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	608688	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	262763	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	251890	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	145206	9.64	96	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	608694	9.14	91	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	203896	8.78	88	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0d		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone				43	0d		4.1	U	
1	Carbon Disulfide	2.32		0.00	76	56547	1.35	1.4		
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F010.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:23	**Quant Date:**	03/16/2005 15:53	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-001			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Bromochloromethane				128	0		0.17	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0d		0.11	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F010.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:23	**Quant Date:**	03/16/2005 15:53	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-001			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0d		0.13	U	
3	4-Isopropyltoluene				119	0d		0.13	U	
3	1,3-Dichlorobenzene				146	0d		0.11	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	n-Butylbenzene				91	0d		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0d		0.22	U	
3	Hexachlorobutadiene	17.02	-0.01	0.00	225	1557	0.1700	0.28	U	
3	Naphthalene				128	0d		0.29	U	
3	1,2,3-Trichlorobenzene				180	0d		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

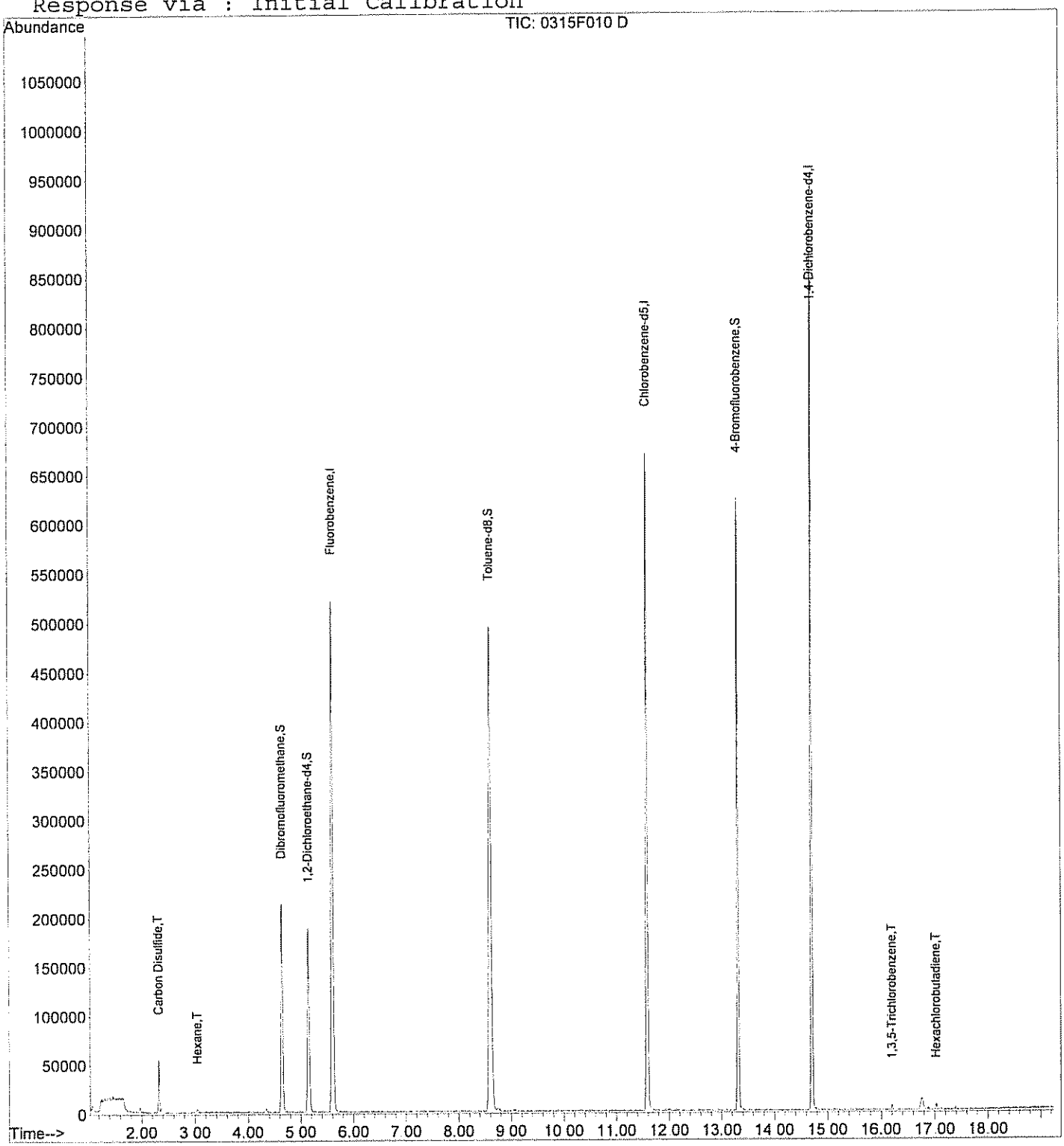
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

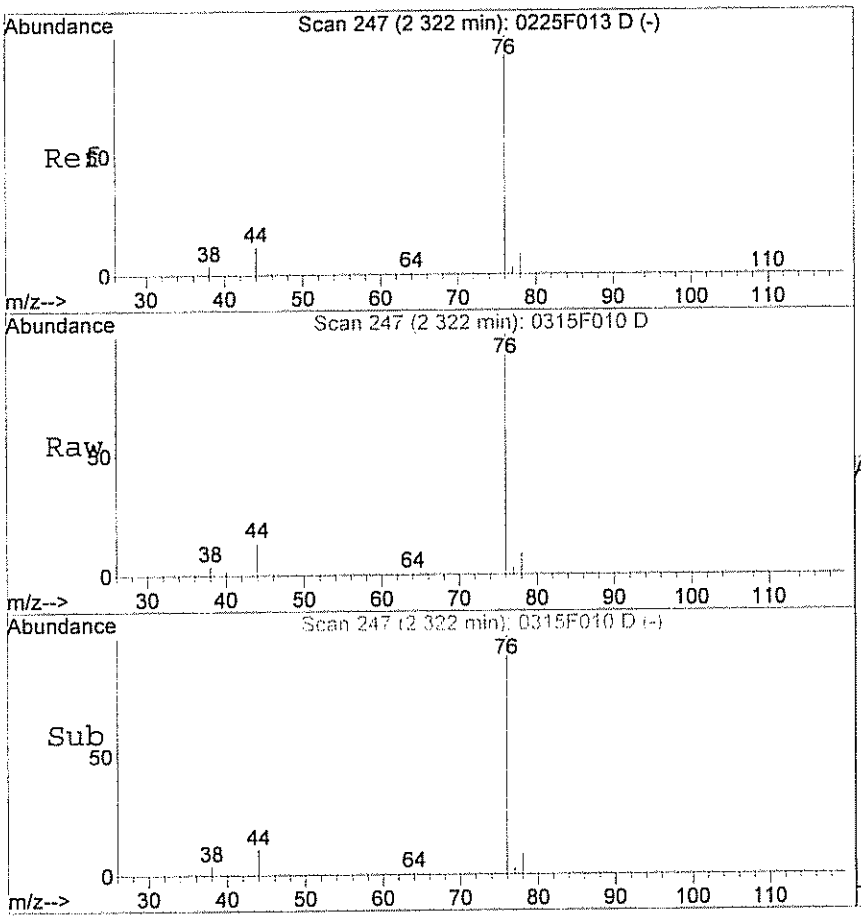
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F010.D
Acq On : 15 Mar 2005 7:23 pm
Sample : K2501544-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:53 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

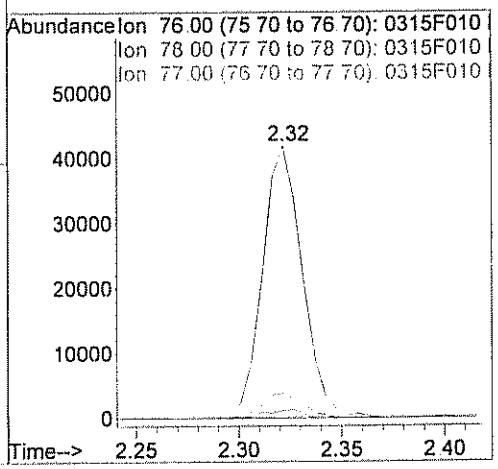


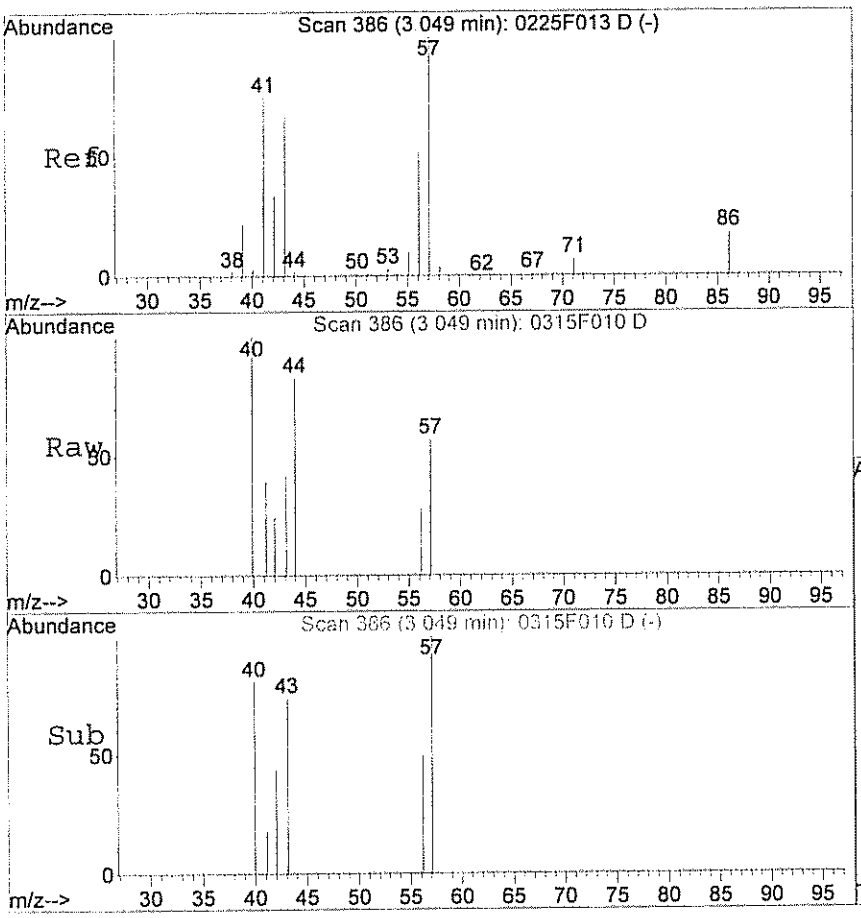


#15
Carbon Disulfide
Concen: 1.35 PPB
RT: 2.32 min Scan# 247
Delta R.T. -0.00 min
Lab File: 0315F010.D
Acq: 15 Mar 2005 7:23 pm

Tgt Ion: 76 Resp: 56547

Ion	Ratio	Lower	Upper
76	100		
78	9.0	0.0	38.8
77	2.7	0.0	32.6

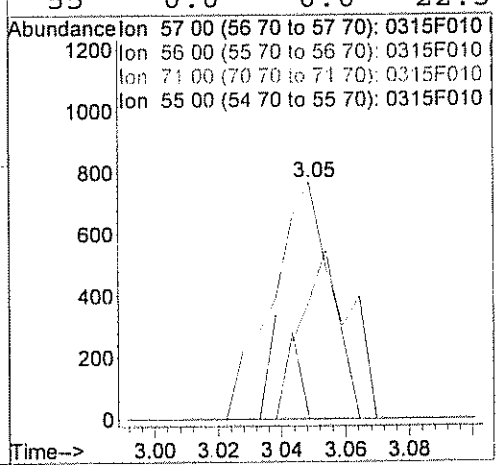


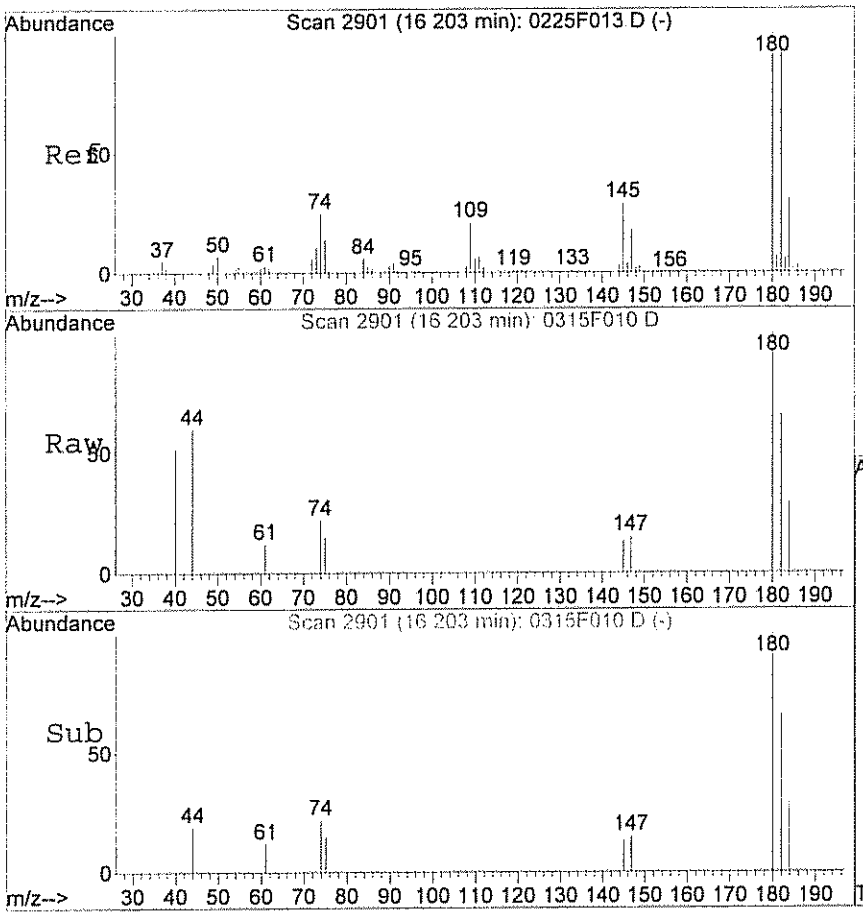


#23
Hexane
Concen: 0.07 PPB
RT: 3.05 min Scan# 386
Delta R.T. -0.00 min
Lab File: 0315F010.D
Acq: 15 Mar 2005 7:23 pm

Tgt Ion: 57 Resp: 1104

Ion	Ratio	Lower	Upper
57	100		
56	49.7	21.5	81.5
71	0.0	0.0	36.5
55	0.0	0.0	22.3

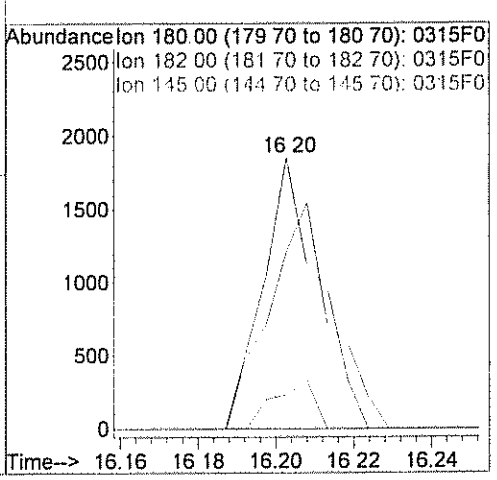


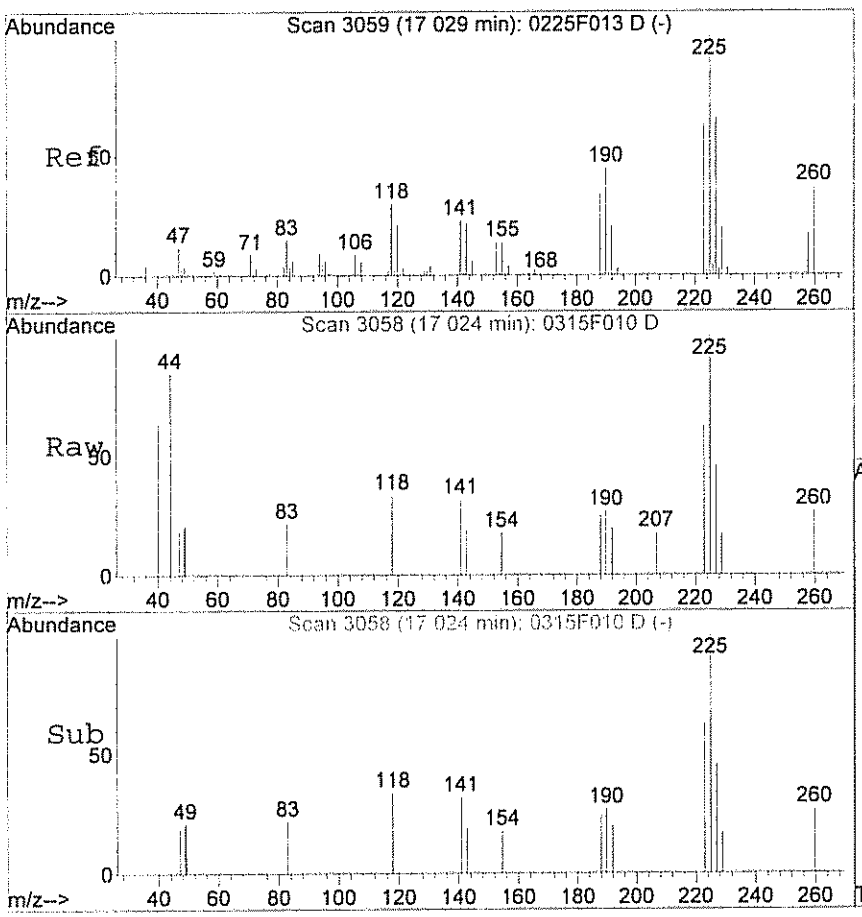


#98
1,3,5-Trichlorobenzene
Concen: 0.09 PPB
RT: 16.20 min Scan# 2901
Delta R.T. -0.00 min
Lab File: 0315F010.D
Acq: 15 Mar 2005 7:23 pm

Tgt Ion:180 Resp: 1836

Ion	Ratio	Lower	Upper
180	100		
182	65.6	67.4	127.4#
145	12.6	0.0	58.6

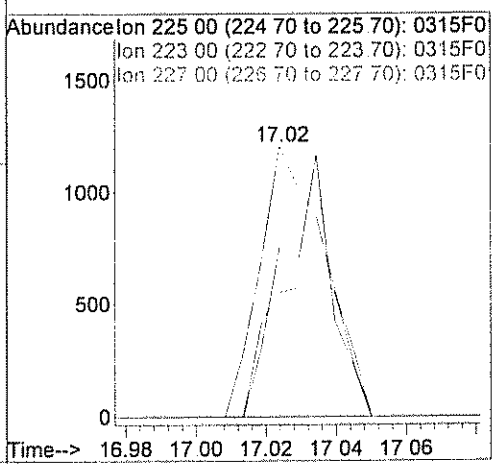




#100
Hexachlorobutadiene
Concen: 0.17 PPB
RT: 17.02 min Scan# 3058
Delta R.T. -0.01 min
Lab File: 0315F010.D
Acq: 15 Mar 2005 7:23 pm

Tgt Ion:225 Resp: 1557

Ion	Ratio	Lower	Upper
225	100		
223	62.6	33.2	93.2
227	45.8	36.0	96.0



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-02
Lab Code: K2501544-002
File ID: J:\MS13\DATA\031505\0315F011 D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F011.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F011.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	80-119	03/15/05	Acceptable
Toluene-d8	91	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F011.D
Lab ID: K2501544-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 19:51
Date Quantitated: 03/16/2005 15:54
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0057	0.01	NA	↓

Primary Review: KB 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	K2501544
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368595	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009.D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F011.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:51	**Quant Date:**	03/16/2005 15:54	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-002			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	600318	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	255210	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	250935	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	145270	9.78	98	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	599064	9.12	91	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	199479	8.84	88	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone				43	0d		4.1	U	
1	Carbon Disulfide				76	0d		0.16	U	
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F011 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:51	**Quant Date:**	03/16/2005 15:54	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-002			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Bromochloromethane				128	0		0.17	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0		0.11	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F011.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 19:51	**Quant Date:**	03/16/2005 15:54	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-002			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0		0.13	U	
3	4-Isopropyltoluene				119	0		0.13	U	
3	1,3-Dichlorobenzene				146	0		0.11	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	n-Butylbenzene				91	0d		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0d		0.22	U	
3	Hexachlorobutadiene	17.02	-0.01	0.00	225	966	0.1100	0.28	U	
3	Naphthalene				128	0		0.29	U	
3	1,2,3-Trichlorobenzene				180	0d		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

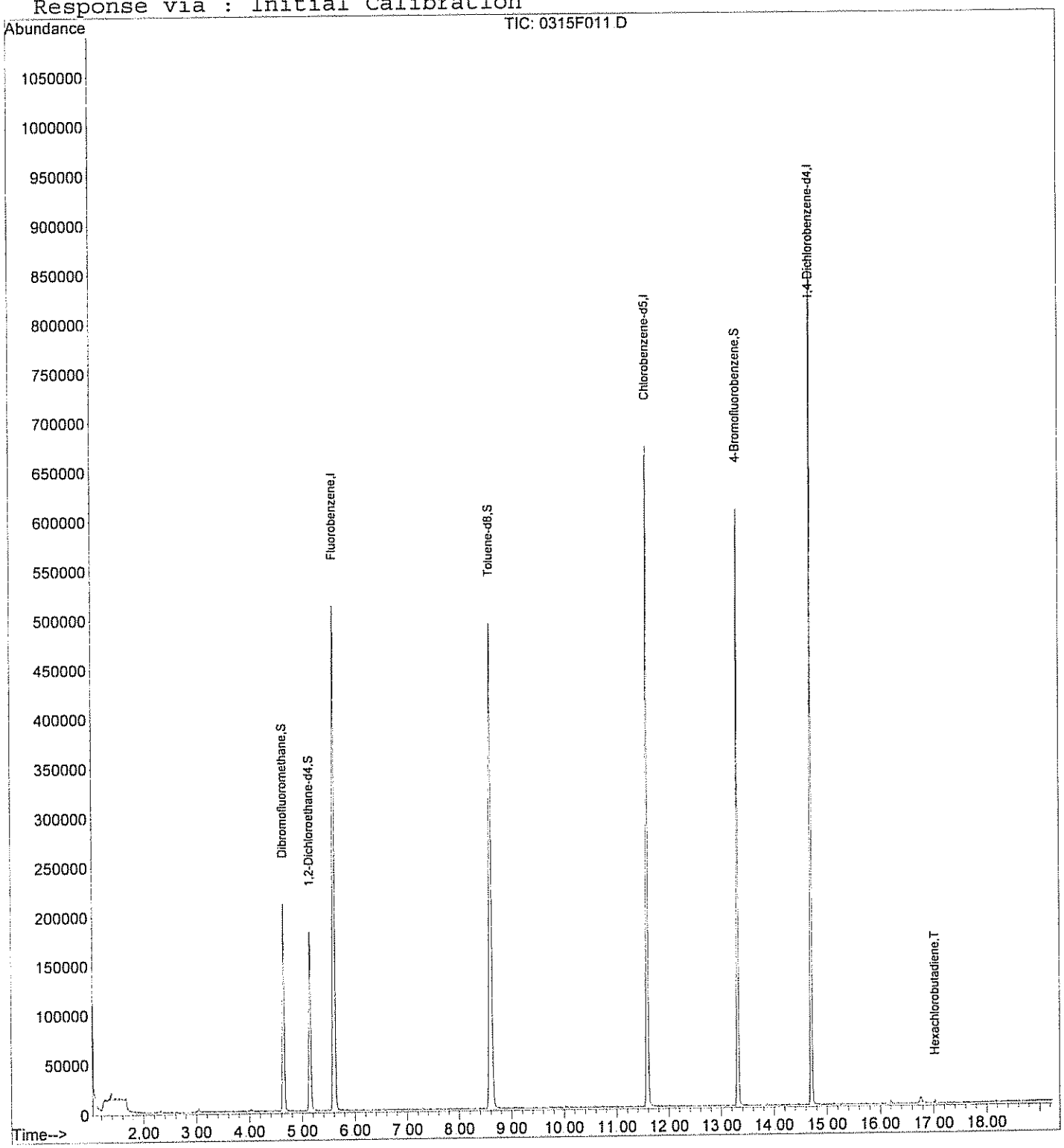
Quantitation Report (QT Reviewed)

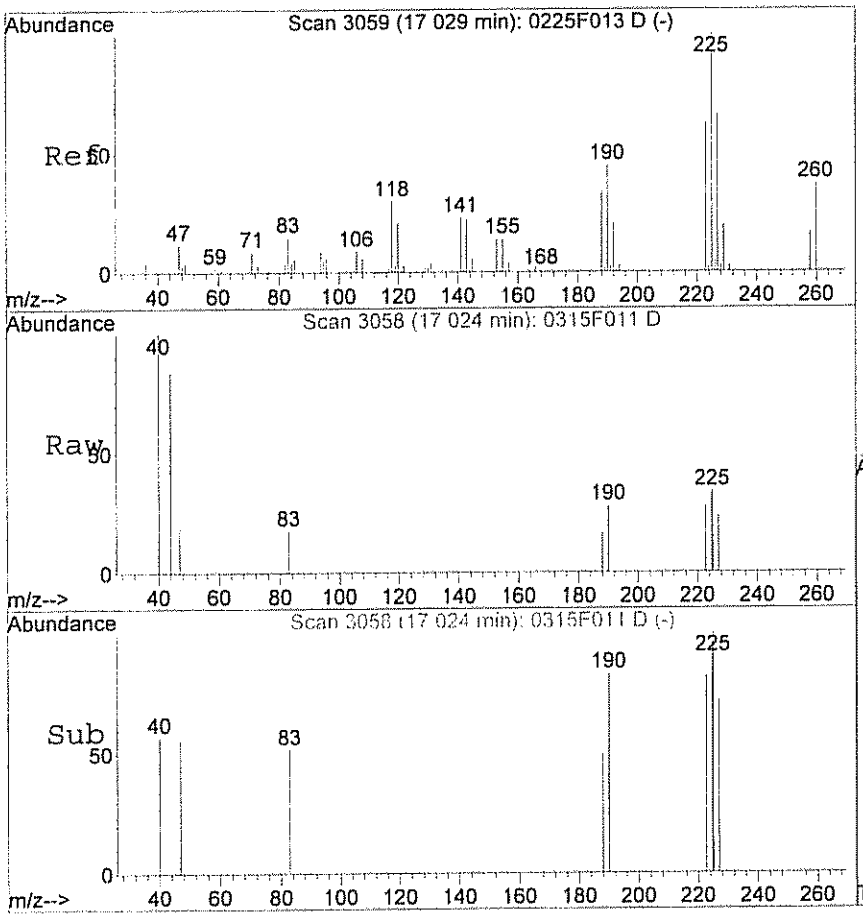
Data File : J:\MS13\DATA\031505\0315F011.D
Acq On : 15 Mar 2005 7:51 pm
Sample : K2501544-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:54 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

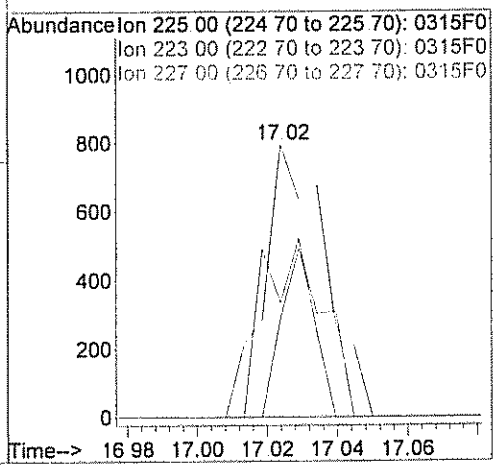




#100
Hexachlorobutadiene
Concen: 0.11 PPB
RT: 17.02 min Scan# 3058
Delta R.T. -0.01 min
Lab File: 0315F011.D
Acq: 15 Mar 2005 7:51 pm

Tgt Ion:225 Resp: 966

Ion	Ratio	Lower	Upper
225	100		
223	42.0	33.2	93.2
227	36.5	36.0	96.0



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-03
Lab Code: K2501544-003
File ID: J:\MS13\DATA\031505\0315F012.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**1.2**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F012.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F012.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	87	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F012.D
Lab ID: K2501544-003
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 20:18
Date Quantitated: 03/16/2005 15:55
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0057	0.01	NA	+

Primary Review: LB 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	K2501544
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368596	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009.D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F012.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:18	**Quant Date:**	03/16/2005 15:55	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	598838	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	255539	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	249295	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	145784	9.84	98	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	590806	9.01	90	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	197316	8.73	87	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone	2.25		0.00	43	1935	0.8500	4.1	U	
1	Carbon Disulfide	2.32		0.00	76	51175	1.24	1.2		
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
e: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F012.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:18	**Quant Date:**	03/16/2005 15:55	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0d		0.075	U	
1	2,2-Dichloropropane				77	0d		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Bromochloromethane				128	0		0.17	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Benzene				78	0d		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0d		0.11	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F012.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:18	**Quant Date:**	03/16/2005 15:55	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0		0.13	U	
3	4-Isopropyltoluene				119	0		0.13	U	
3	1,3-Dichlorobenzene				146	0d		0.11	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	n-Butylbenzene				91	0		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0		0.22	U	
3	Hexachlorobutadiene				225	0		0.28	U	
3	Naphthalene				128	0d		0.29	U	
3	1,2,3-Trichlorobenzene				180	0		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

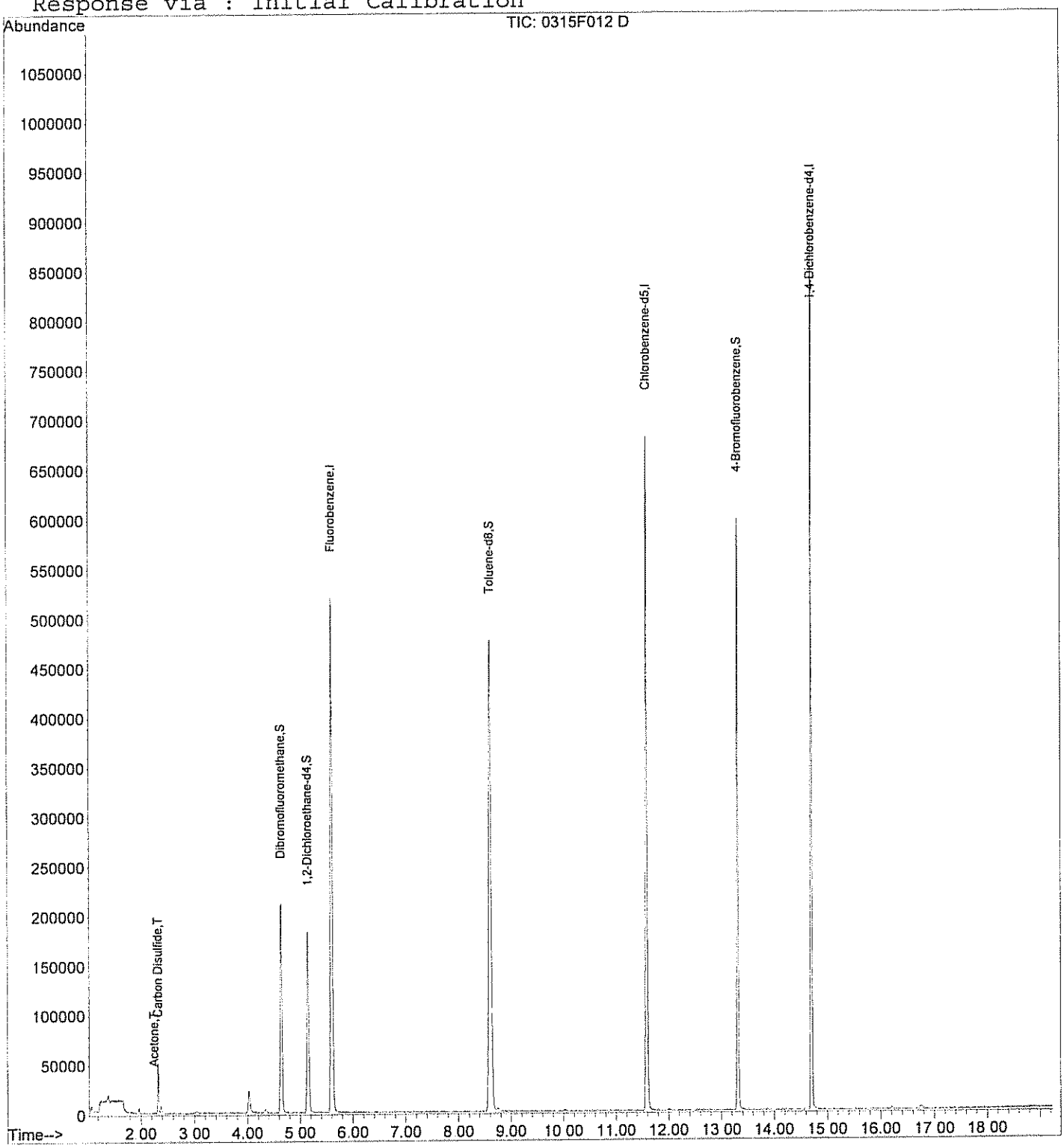
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

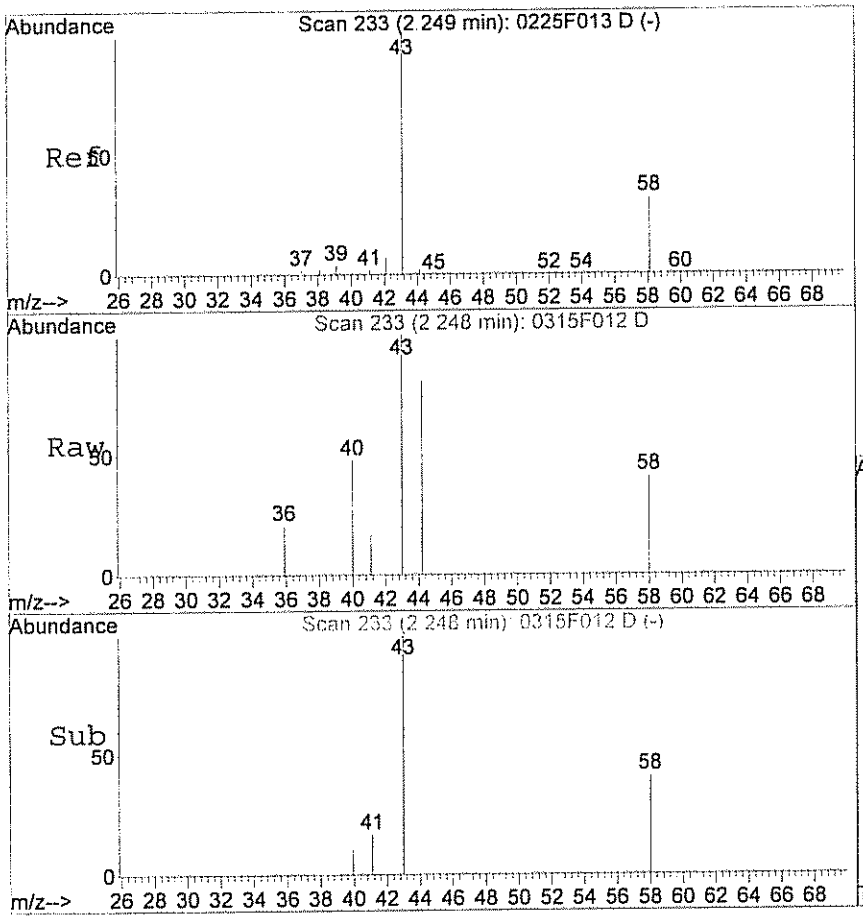
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F012.D
Acq On : 15 Mar 2005 8:18 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:55 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

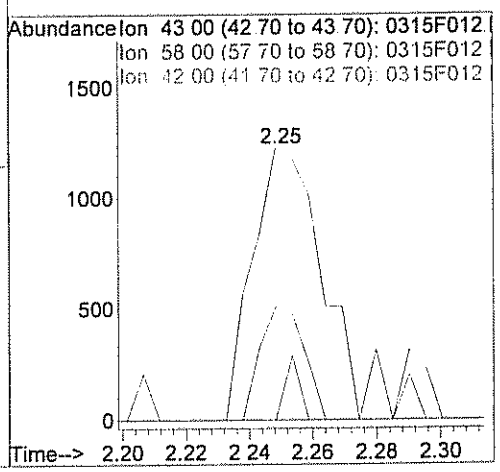


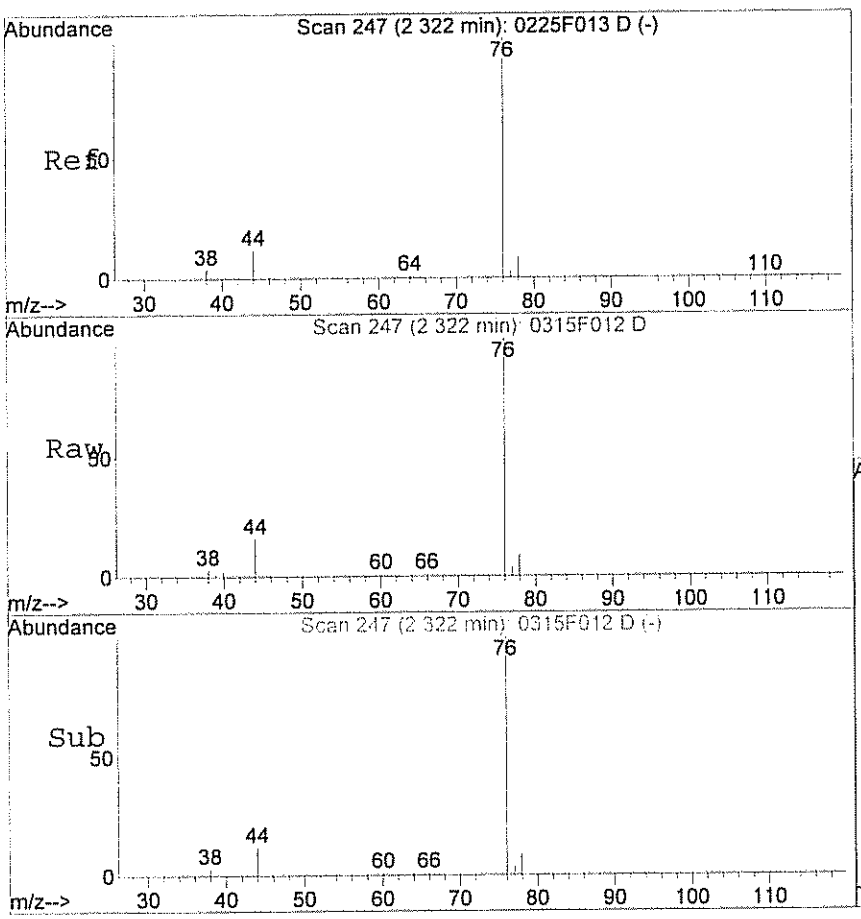


#13
Acetone
Concen: 0.85 PPB
RT: 2.25 min Scan# 233
Delta R.T. -0.00 min
Lab File: 0315F012.D
Acq: 15 Mar 2005 8:18 pm

Tgt Ion: 43 Resp: 1935

Ion	Ratio	Lower	Upper
43	100		
58	41.4	2.0	62.0
42	0.0	0.0	37.4

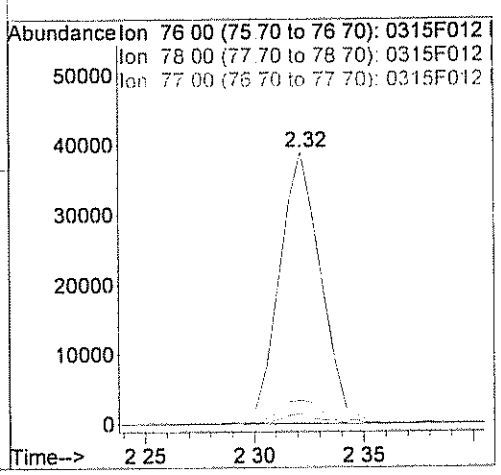




#15
Carbon Disulfide
Concen: 1.24 PPB
RT: 2.32 min Scan# 247
Delta R.T. -0.00 min
Lab File: 0315F012.D
Acq: 15 Mar 2005 8:18 pm

Tgt Ion: 76 Resp: 51175

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	38.8
77	3.7	0.0	32.6



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**0.69**		0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F013.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F013.D
Lab ID: K2501544-004
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 20:45
Date Quantitated: 03/16/2005 15:56
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0057	0.01	NA	↓

Primary Review: LB 3/16/05

Secondary Review: MT 3/17/5

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	K2501544
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
		Prep Date:	03/15/2005		
Prep Ref:	368597				

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009.D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F013.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:45	**Quant Date:**	03/16/2005 15:56	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-004			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.61	0.01	96	583103	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	250488	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	245970	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	142977	9.91	99	80-119 OK	
1	Toluene-d8	8.60	0.00	0.00	98	577269	9.04	90	83-113 OK	
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	193656	8.75	88	72-114 OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone	2.25		0.00	43	1831	0.8200	4.1	U	
1	Carbon Disulfide	2.33	0.01	0.00	76	27721	0.6900	0.69		
1	Methylene Chloride				84	0d		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F013.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:45	**Quant Date:**	03/16/2005 15:56	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-004			**Soln Conc. Units:**	PPB

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0d		0.075	U	
1	2,2-Dichloropropane				77	0d		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Bromochloromethane				128	0		0.17	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0d		0.11	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F013.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 20:45	**Quant Date:**	03/16/2005 15:56	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-004			**Soln Conc. Units:**	PPB

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0		0.13	U	
3	4-Isopropyltoluene				119	0		0.13	U	
3	1,3-Dichlorobenzene				146	0		0.11	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	n-Butylbenzene				91	0		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0		0.22	U	
3	Hexachlorobutadiene				225	0		0.28	U	
3	Naphthalene				128	0		0.29	U	
3	1,2,3-Trichlorobenzene				180	0		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

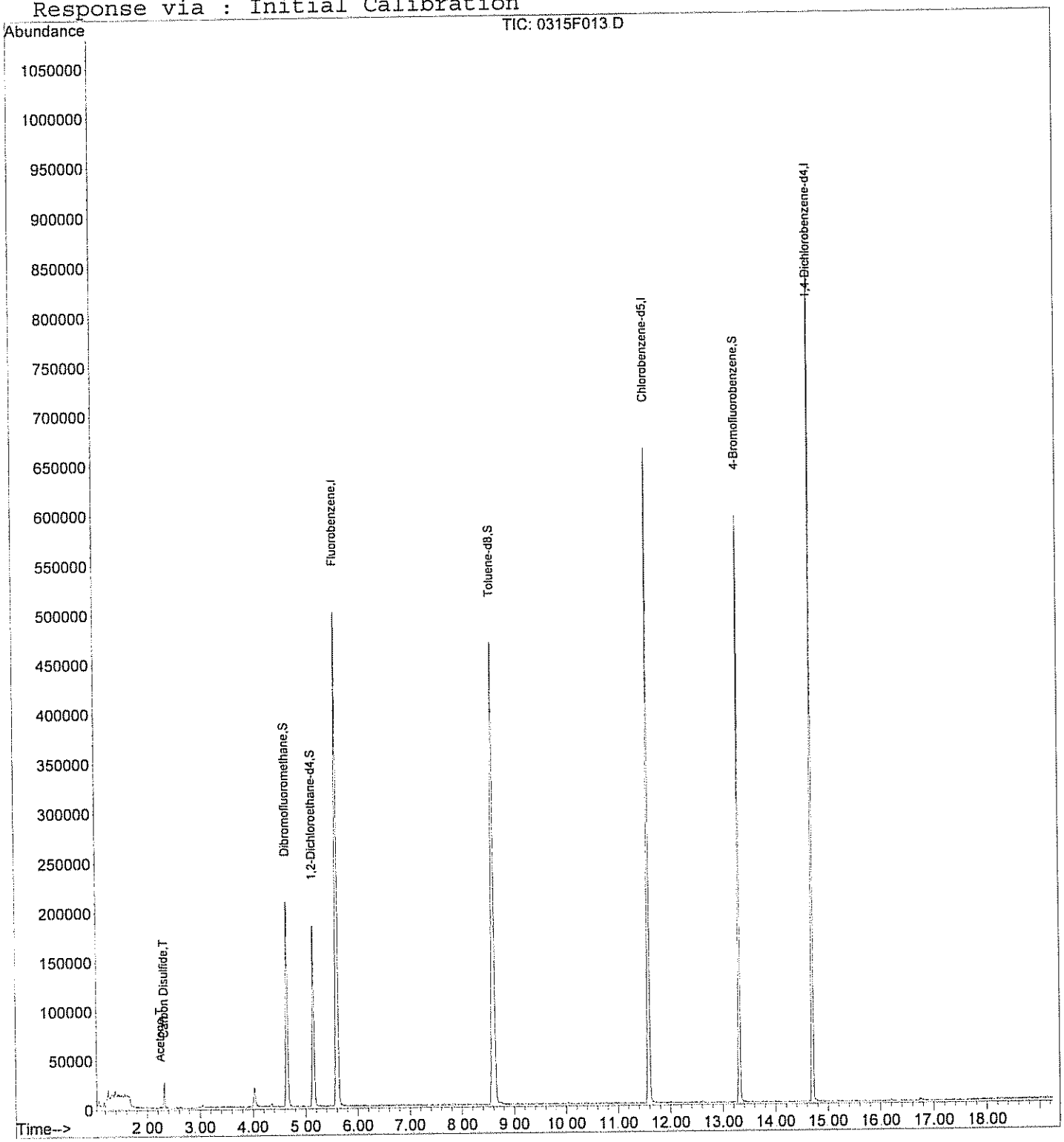
Quantitation Report (QT Reviewed)

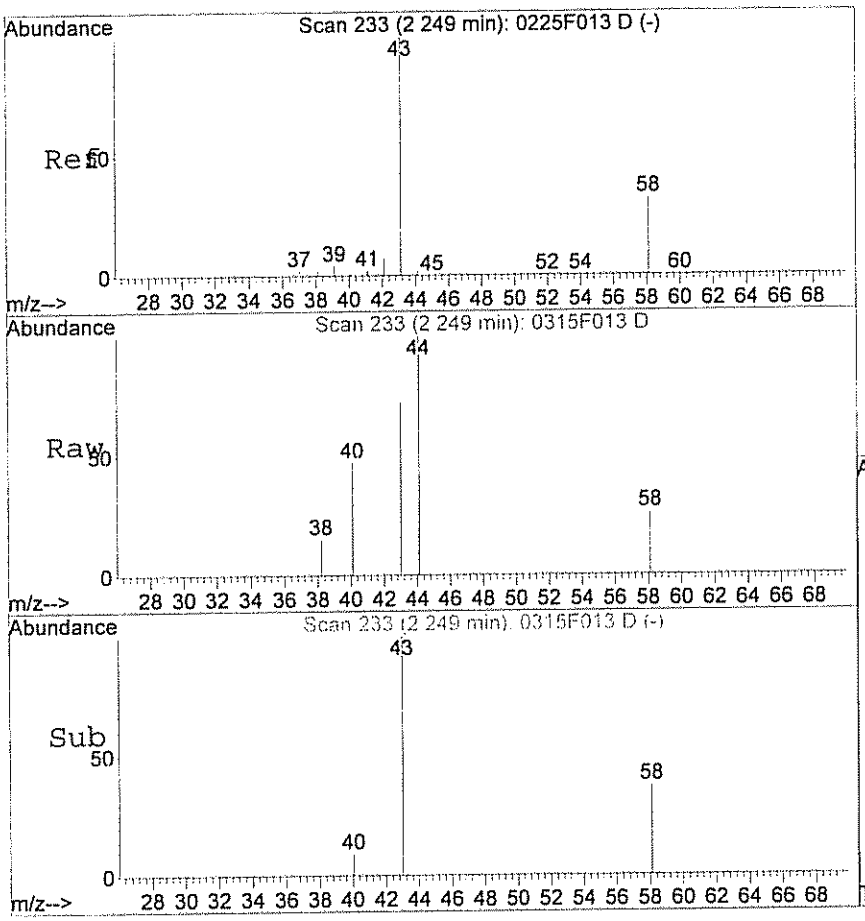
Data File : J:\MS13\DATA\031505\0315F013.D
Acq On : 15 Mar 2005 8:45 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:56 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

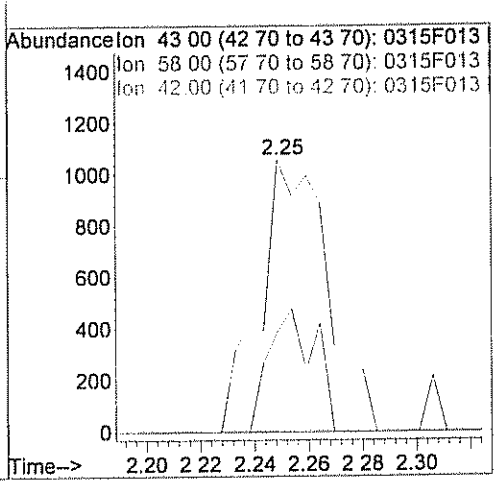


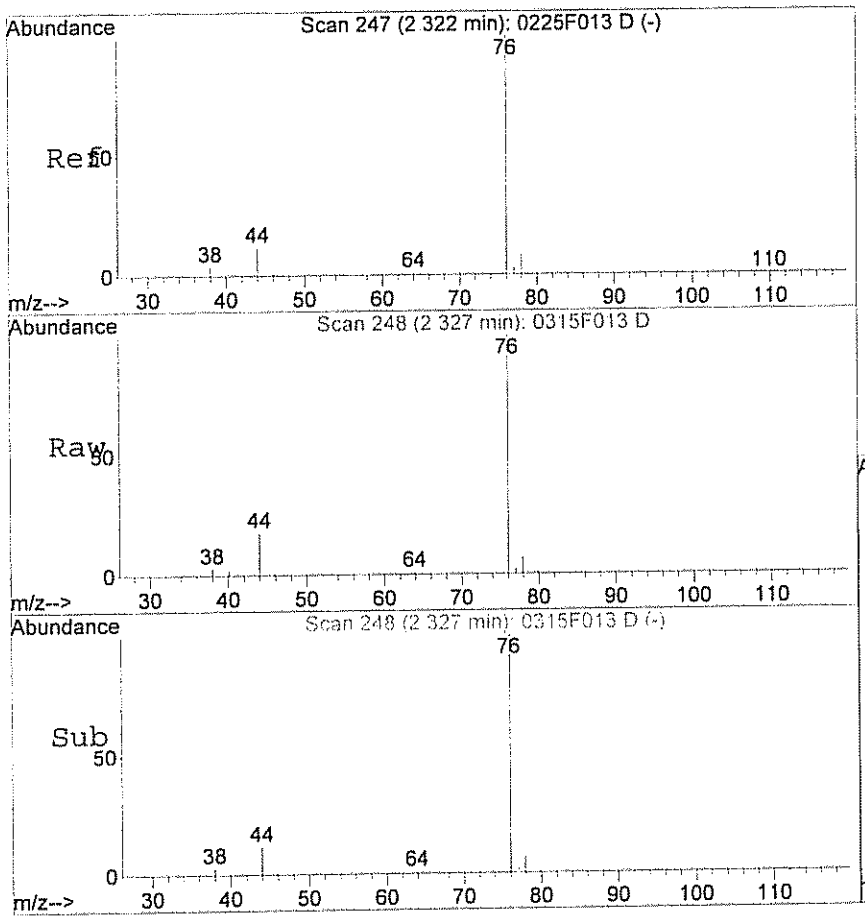


#13
Acetone
Concen: 0.82 PPB
RT: 2.25 min Scan# 233
Delta R.T. -0.00 min
Lab File: 0315F013.D
Acq: 15 Mar 2005 8:45 pm

Tgt Ion: 43 Resp: 1831

Ion	Ratio	Lower	Upper
43	100		
58	36.8	2.0	62.0
42	0.0	0.0	37.4

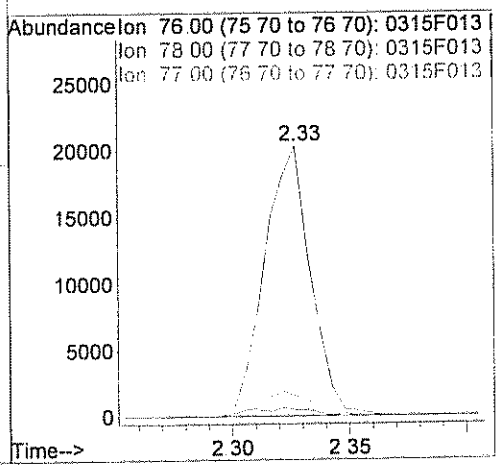




#15
Carbon Disulfide
Concen: 0.69 PPB
RT: 2.33 min Scan# 248
Delta R.T. 0.01 min
Lab File: 0315F013.D
Acq: 15 Mar 2005 8:45 pm

Tgt Ion: 76 Resp: 27721

Ion	Ratio	Lower	Upper
76	100		
78	7.4	0.0	38.8
77	2.4	0.0	32.6



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-05
Lab Code: K2501544-005
File ID: J:\MS13\DATA\031505\0315F014.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-05
Lab Code: K2501544-005
File ID: J:\MS13\DATA\031505\0315F014.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F014.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	80-119	03/15/05	Acceptable
Toluene-d8	90	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	89	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F014.D
Lab ID: K2501544-005
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 21:13
Date Quantitated: 03/16/2005 15:58
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0057	0.01	NA	↓

Primary Review: LB 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	K2501544
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368598	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031505\0315F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009 D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F014 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 21:13	**Quant Date:**	03/16/2005 15:58	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-005			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	583421	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	249110	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	245595	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	144341	10.00	100	80-119 OK	
1	Toluene-d8	8.60	0.00	0.00	98	575691	9.02	90	83-113 OK	
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	196820	8.94	89	72-114 OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0d		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone	2.25		0.00	43	2120	0.9500	4.1	U	
1	Carbon Disulfide	2.32		0.00	76	3164	0.0800	0.16	U	
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0d		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F014 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 21:13	**Quant Date:**	03/16/2005 15:58	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-005			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0		0 075	U	
1	2,2-Dichloropropane				77	0		0 18	U	
1	cis-1,2-Dichloroethene				96	0		0 12	U	
1	2-Butanone (MEK)				72	0		2 0	U	
1	Bromochloromethane				128	0		0 17	U	
1	Chloroform				83	0		0 14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0 12	U	
1	Carbon Tetrachloride				117	0		0 14	U	
1	1,1-Dichloropropene				75	0		0 15	U	
1	Benzene				78	0		0 14	U	
1	1,2-Dichloroethane (EDC)				62	0		0 12	U	
1	tert-Amyl Methyl Ether				55	0		0 15	U	
1	Trichloroethene (TCE)				95	0		0 14	U	
1	1,2-Dichloropropane				63	0		0 14	U	
1	Dibromomethane				93	0		0 12	U	
1	Bromodichloromethane				83	0		0 11	U	
1	cis-1,3-Dichloropropene				75	0		0 11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2 7	U	
1	Toluene				92	0		0 11	U	
2	trans-1,3-Dichloropropene				75	0		0 090	U	
2	1,1,2-Trichloroethane				83	0		0 14	U	
2	Tetrachloroethene (PCE)				164	0		0 13	U	
2	2-Hexanone				57	0		4 0	U	
2	1,3-Dichloropropane				76	0		0 15	U	
2	Dibromochloromethane				129	0		0 11	U	
2	1,2-Dibromoethane (EDB)				107	0		0 099	U	
2	Chlorobenzene				112	0		0 14	U	
2	Ethylbenzene				106	0		0 13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0 12	U	
2	m,p-Xylenes				106	0		0 22	U	
2	o-Xylene				106	0		0 11	U	
2	Styrene				103	0		0 095	U	
2	Bromoform				173	0		0 28	U	
2	Isopropylbenzene				105	0		0 11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0 14	U	
3	Bromobenzene				156	0		0 18	U	
3	n-Propylbenzene				91	0		0 098	U	
3	1,2,3-Trichloropropane				110	0		0 22	U	
3	2-Chlorotoluene				91	0		0 12	U	
3	1,3,5-Trimethylbenzene				105	0		0 13	U	
3	4-Chlorotoluene				91	0		0 12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F014 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 21:13	**Quant Date:**	03/16/2005 15:58	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-005			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0 15	U	
3	sec-Butylbenzene				105	0		0 13	U	
3	4-Isopropyltoluene				119	0		0 13	U	
3	1,3-Dichlorobenzene				146	0		0 11	U	
3	1,4-Dichlorobenzene				146	0		0 12	U	
3	n-Butylbenzene				91	0		0 23	U	
3	1,2-Dichlorobenzene				146	0		0 12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1 0	U	
3	1,2,4-Trichlorobenzene				180	0		0 22	U	
3	Hexachlorobutadiene				225	0		0 28	U	
3	Naphthalene				128	0		0 29	U	
3	1,2,3-Trichlorobenzene				180	0		0 33	U	

Prep Amount:	10 ml	**Dilution:**	1 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

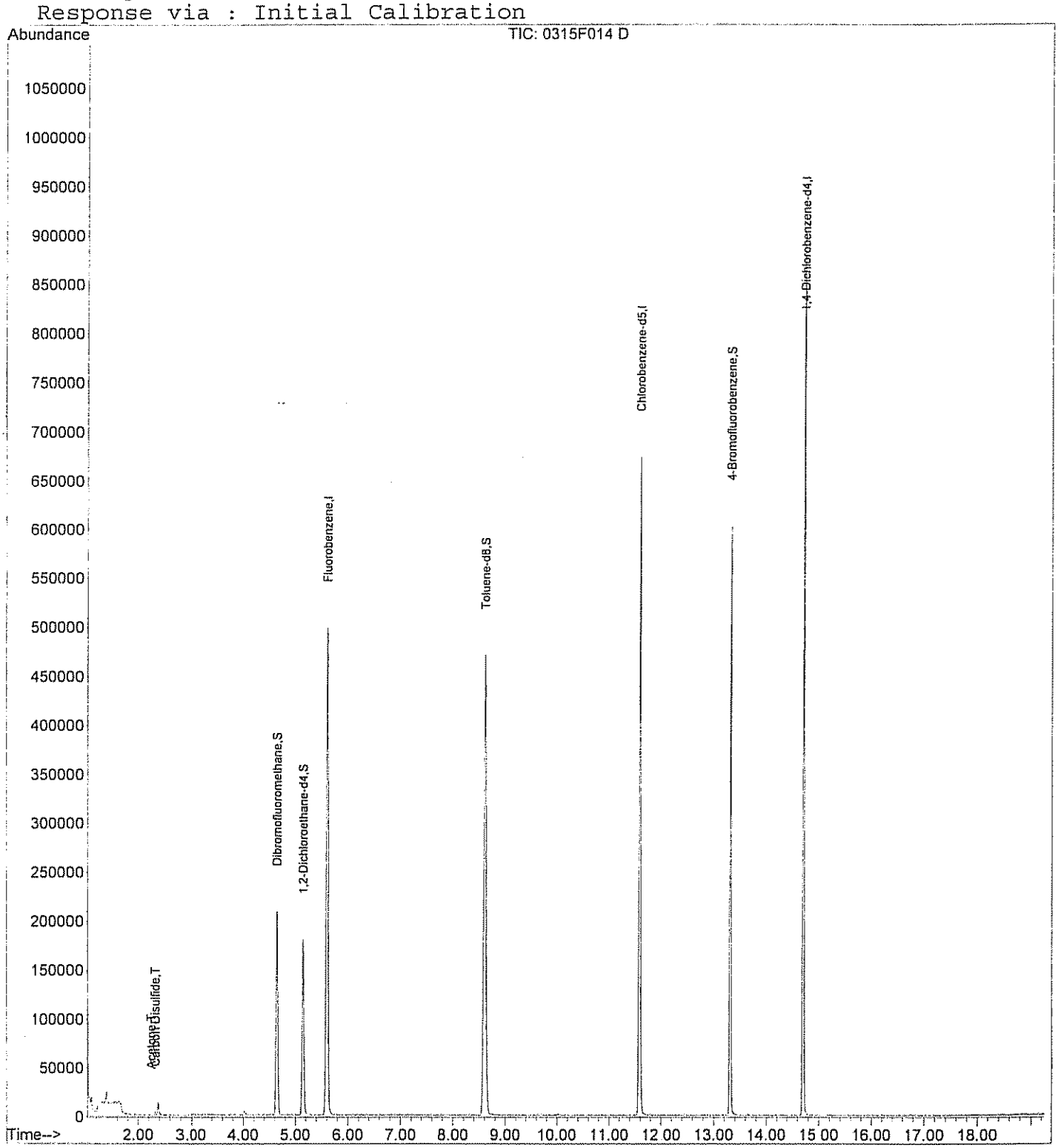
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

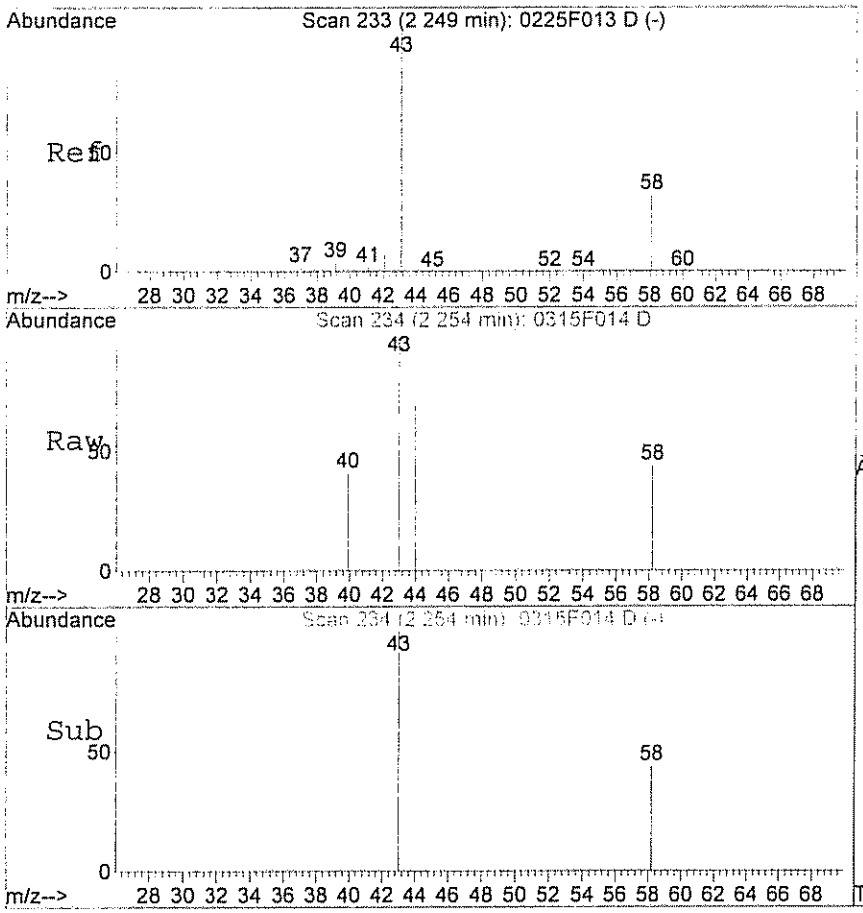
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F014.D Vial: 14
Acq On : 15 Mar 2005 9:13 pm Operator:
Sample : K2501544-005 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:58 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

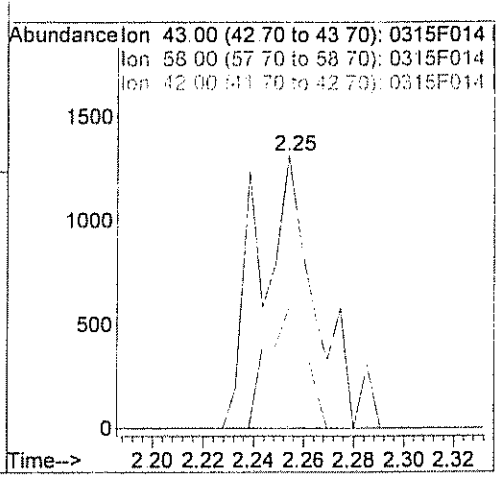


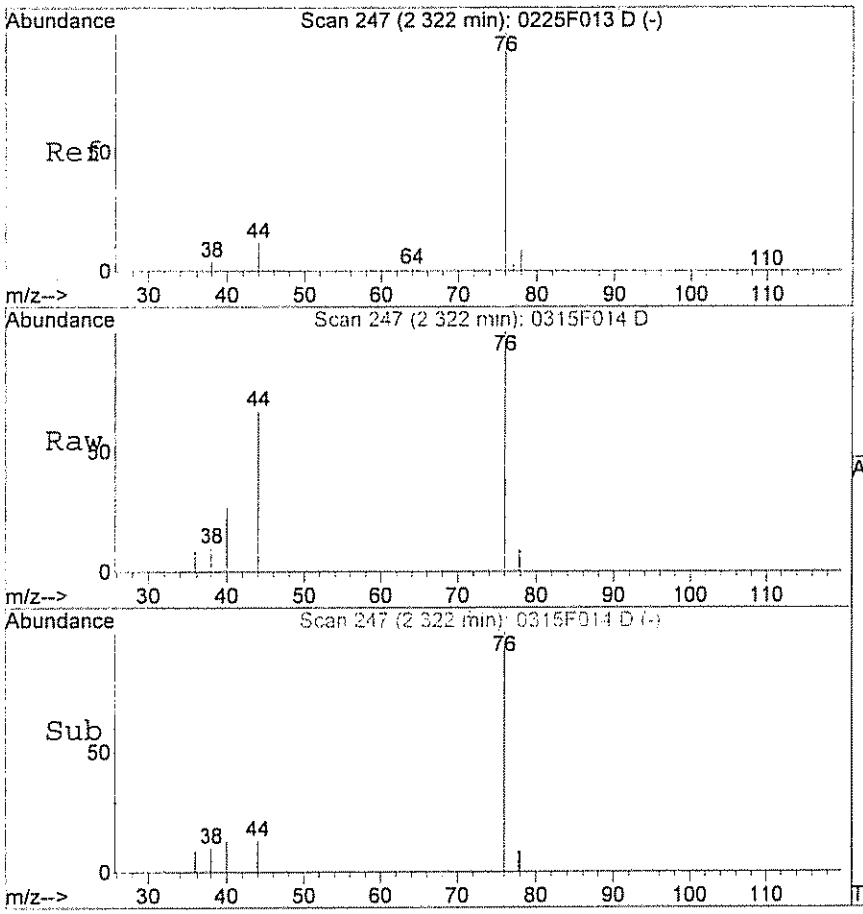


#13
Acetone
Concen: 0.95 PPB
RT: 2.25 min Scan# 234
Delta R.T. 0.01 min
Lab File: 0315F014.D
Acq: 15 Mar 2005 9:13 pm

Tgt Ion: 43 Resp: 2120

Ion	Ratio	Lower	Upper
43	100		
58	43.9	2.0	62.0
42	0.0	0.0	37.4

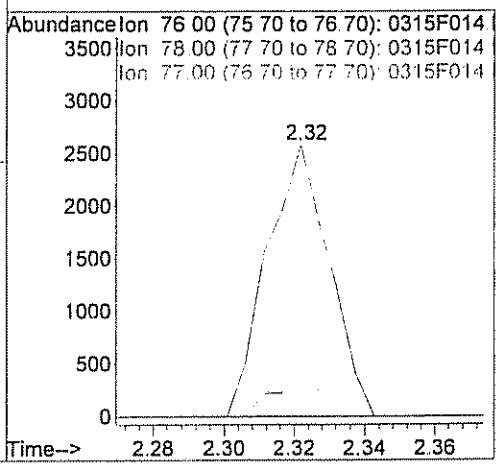




#15
Carbon Disulfide
Concen: 0.08 PPB
RT: 2.32 min Scan# 247
Delta R.T. -0.00 min
Lab File: 0315F014.D
Acq: 15 Mar 2005 9:13 pm

Tgt Ion: 76 Resp: 3164

Ion	Ratio	Lower	Upper
76	100		
78	17.5	0.0	38.8
77	0.0	0.0	32.6



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0504274-4
File ID: J:\MS13\DATA\031505\0315F009.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0504274-4
File ID: J:\MS13\DATA\031505\0315F009.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504274-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	**Hexachlorobutadiene**	**0.40**	J	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	80-119	03/15/05	Acceptable
Toluene-d8	89	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	90	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F009 D
Lab ID: KWG0504274-4
RunType: MB
Matrix: WATER

Date Acquired: 03/15/2005 18:56
Date Quantitated: 03/16/2005 15:51
Batch ID: KWG0504272
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0092	0.01	NA	NT
	tert-Butyl Alcohol	0.0057	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0029	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: LP 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368615	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Data File:	J:\MS13\DATA\031505\0315F009.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 18:56	**Quant Date:**	03/16/2005 15:51	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0504274-4			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	628205	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	260879	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	260906	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	149180	9.59	96	80-119 OK	
1	1,2-Dichloroethane-d4	5.15	0.01	0.00	65	169594	9.69	97	76-115 OK	
1	Toluene-d8	8.60	0.00	0.00	98	613134	8.92	89	83-113 OK	
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	207525	9.00	90	72-114 OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0		0.23	U	
1	Dichlorofluoromethane (CFC 21				67	0		0.40	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	Ethyl Ether				59	0		0.50	U	
1	Acrolein				56	0		1.5	U	
1	Trichlorotrifluoroethane				151	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone				43	0d		4.1	U	
1	Iodomethane				142	0		0.38	U	
1	Carbon Disulfide				76	0d		0.16	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL.
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL.
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F009 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 18:56	**Quant Date:**	03/16/2005 15:51	**Vial:**	9
Run Type:	MB			**Dilution:**	1 0
Lab ID:	KWG0504274-4			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene				76	0d		0.16	U	
1	Acetonitrile				40	0d		7 5	U	
1	Methylene Chloride	2 63	0 01	0 00	84	1186	0 0700	0 20	U	
1	tert-Butyl Alcohol				59	0		1 1	U	
1	Acrylonitrile				53	0		0 54	U	
1	Methyl tert-Butyl Ether				73	0		0 20	U	
1	trans-1,2-Dichloroethene				96	0		0 15	U	
1	n-Hexane	3 04	-0 01	0 00	57	1324	0 0800	0 18	U	
1	Diisopropyl Ether				45	0		0 25	U	
1	1,1-Dichloroethane				63	0		0 11	U	
1	Vinyl Acetate				86	0		0.67	U	
1	Chloroprene				53	0		0 35	U	
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0 18	U	
1	cis-1,2-Dichloroethene				96	0		0 12	U	
1	2-Butanone (MEK)				72	0		2 0	U	
1	Propionitrile				54	0		1 3	U	
1	Ethyl Acetate				61	0		0.62	U	
1	Methacrylonitrile				67	0		0.45	U	
1	Bromochloromethane				128	0		0.17	U	
1	Tetrahydrofuran				71	0		0.46	U	
1	Chloroform				83	0		0 14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0 12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0 15	U	
1	Isobutyl Alcohol				43	0		5.1	U	
1	Benzene				78	0		0 14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0		0.15	U	
1	Trichloroethene (TCE)				95	0		0 14	U	
1	1,2-Dichloropropane				63	0		0 14	U	
1	Dibromomethane				93	0		0.12	U	
1	Methyl Methacrylate				69	0		0.36	U	
1	1,4-Dioxane				88	0		24	U	
1	Bromodichloromethane				83	0		0.11	U	
1	2-Nitropropane				43	0		2.0	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.34	U	
1	cis-1,3-Dichloropropene				75	0		0 11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2 7	U	
1	Toluene				92	0		0.11	U	
2	n-Octane				85	0d		0.29	U	
2	trans-1,3-Dichloropropene				75	0		0 090	U	

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F009 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 18:56	**Quant Date:**	03/16/2005 15:51	**Vial:**	9
Run Type:	MB			**Dilution:**	1 0
Lab ID:	KWG0504274-4			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate				69	0		0 094	U	
2	1,1,2-Trichloroethane				83	0		0 14	U	
2	Tetrachloroethene (PCE)				164	0		0 13	U	
2	2-Hexanone				57	0		4 0	U	
2	1,3-Dichloropropane				76	0		0 15	U	
2	Dibromochloromethane				129	0		0 11	U	
2	1,2-Dibromoethane (EDB)				107	0		0 099	U	
2	1-Chlorohexane				91	0d		0 12	U	
2	Chlorobenzene				112	0		0 14	U	
2	Ethylbenzene				106	0		0 13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0 12	U	
2	m,p-Xylenes				106	0		0 22	U	
2	o-Xylene				106	0		0 11	U	
2	Styrene				103	0		0 095	U	
2	Bromoform				173	0		0 28	U	
2	Isopropylbenzene				105	0		0 11	U	
2	cis-1,4-Dichloro-2-butene				89	0		0 60	U	
3	1,1,2,2-Tetrachloroethane				83	0		0 14	U	
3	trans-1,4-Dichloro-2-butene				53	0		0 60	U	
3	Bromobenzene				156	0		0 18	U	
3	n-Propylbenzene				91	0d		0 098	U	
3	1,2,3-Trichloropropane				110	0		0 22	U	
3	2-Chlorotoluene				91	0		0 12	U	
3	1,3,5-Trimethylbenzene				105	0d		0 13	U	
3	4-Chlorotoluene				91	0d		0 12	U	
3	tert-Butylbenzene				119	0d		0 13	U	
3	1,2,4-Trimethylbenzene				105	0d		0 15	U	
3	sec-Butylbenzene				105	0d		0 13	U	
3	4-Isopropyltoluene				119	0d		0 13	U	
3	1,3-Dichlorobenzene				146	0d		0 11	U	
3	1,4-Dichlorobenzene				146	0d		0 12	U	
3	n-Butylbenzene				91	0d		0 23	U	
3	1,2-Dichlorobenzene				146	0d		0 12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1 0	U	
3	1,3,5-Trichlorobenzene	16 20		0 00	180	3905	0 1800	0 35	U	
3	1,2,4-Trichlorobenzene	16 88		0 00	180	2541	0 1400	0 22	U	
3	Hexachlorobutadiene	17 03		0 00	225	3765	0 4000	0 400	J	
3	Naphthalene	17 13		0 00	128	2988	0 1200	0 29	U	
3	1,2,3-Trichlorobenzene	17 38		0 00	180	3251	0 2100	0 33	U	

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e: Result >= MRL, but MRL less than low point of ICAL
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Data File:	J:\MS13\DATA\031505\0315F009 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 18:56	**Quant Date:**	03/16/2005 15:51	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0504274-4			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

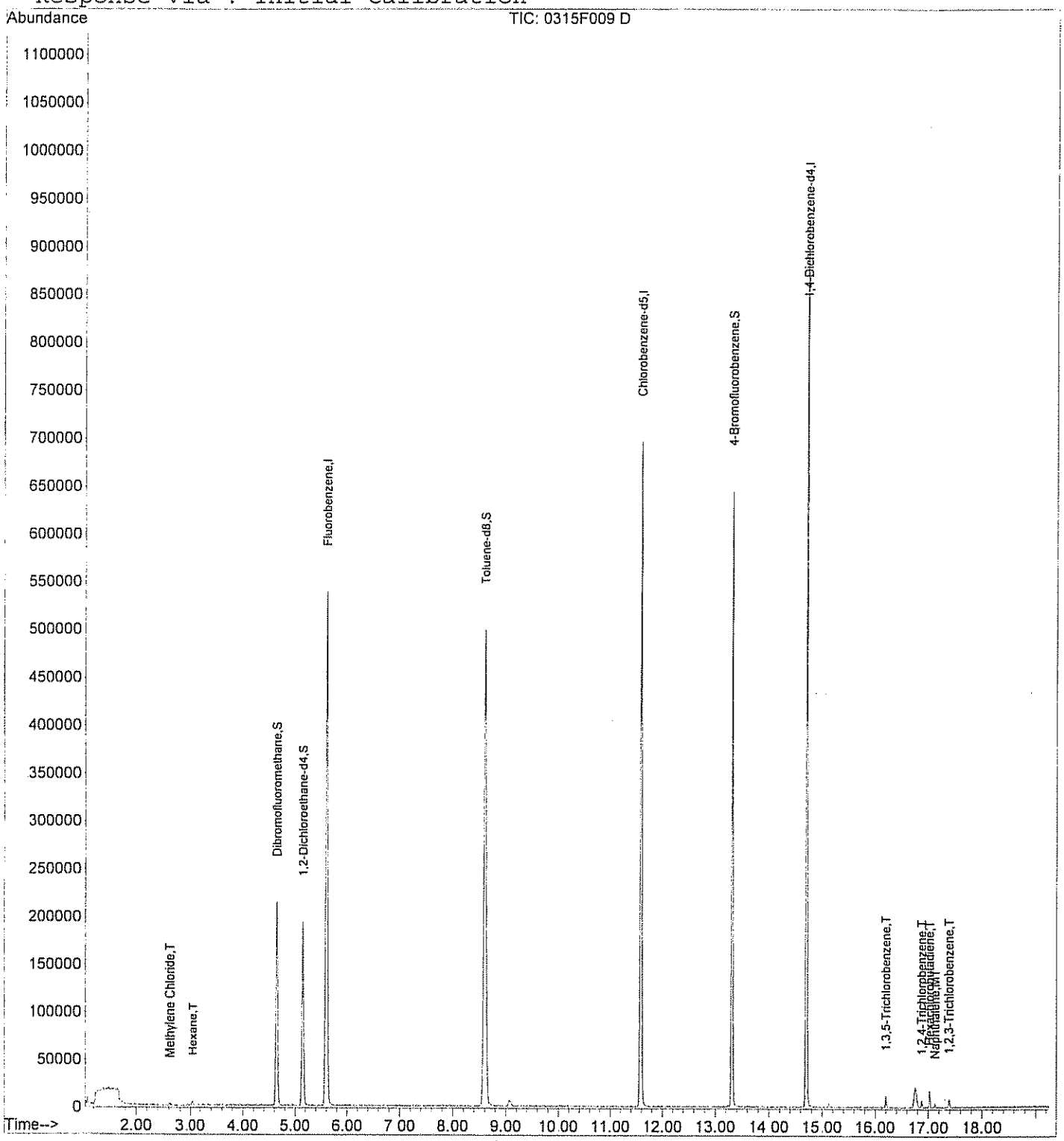
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

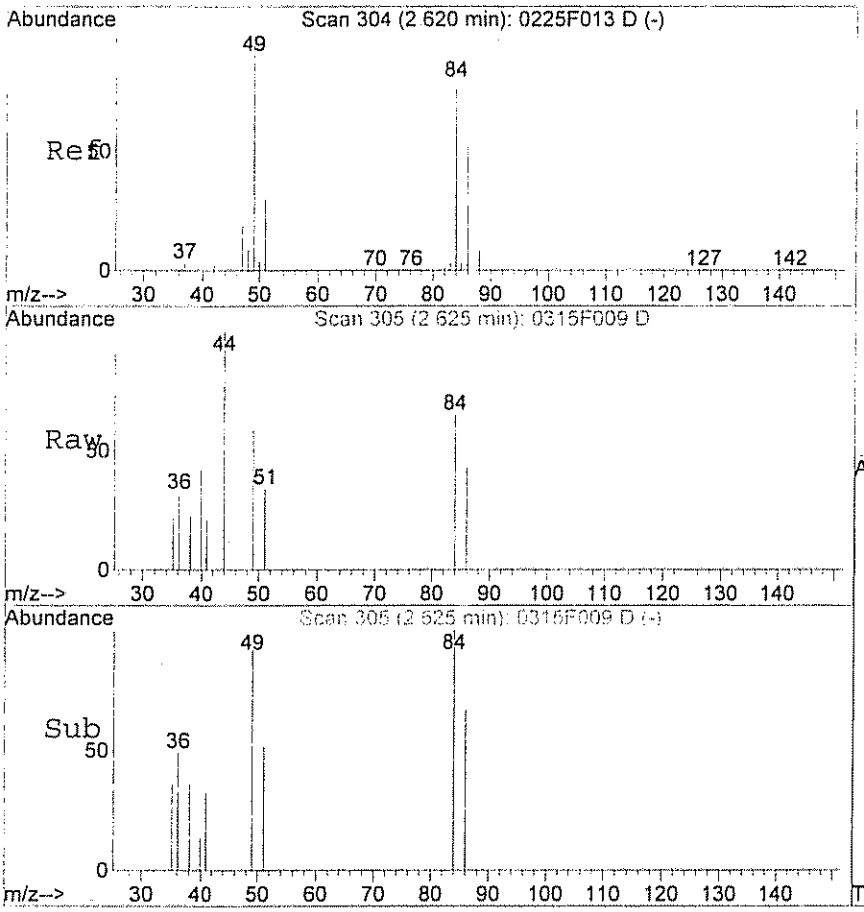
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F009.D Vial: 9
Acq On : 15 Mar 2005 6:56 pm Operator:
Sample : 0315 MB W Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:51 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

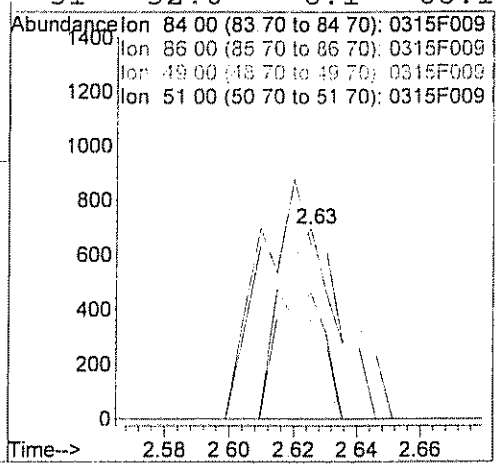


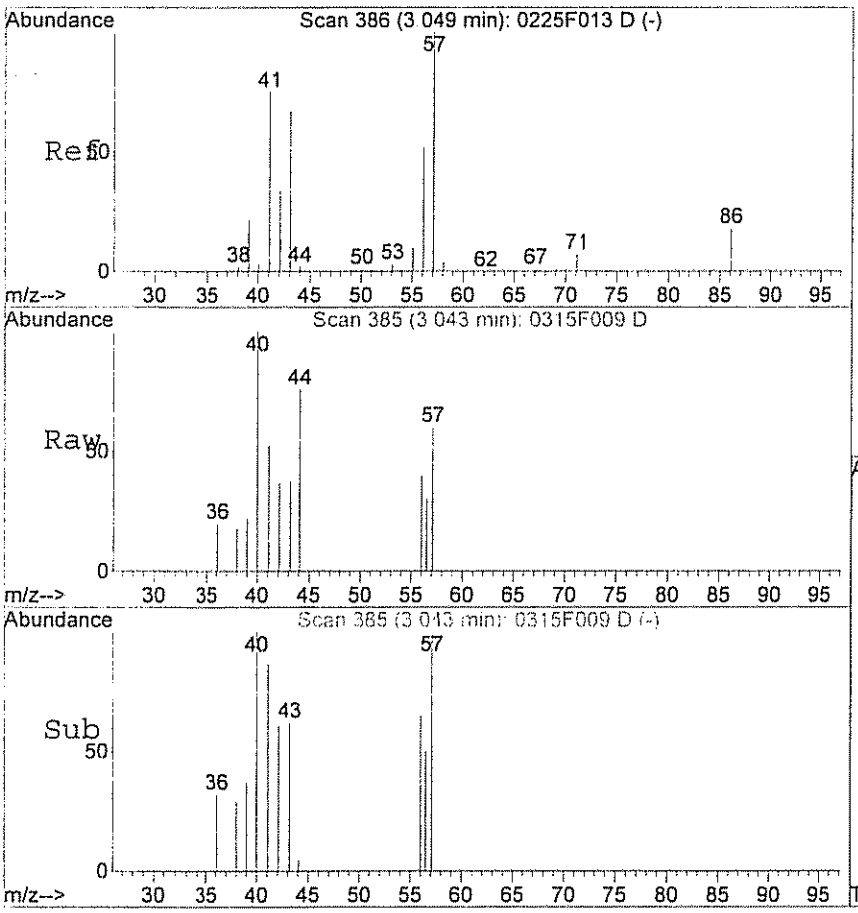


#18
Methylene Chloride
Concen: 0.07 PPB
RT: 2.63 min Scan# 305
Delta R.T. 0.01 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion: 84 Resp: 1186

Ion	Ratio	Lower	Upper
84	100		
86	66.7	35.9	95.9
49	91.8	96.0	156.0#
51	52.0	8.1	68.1

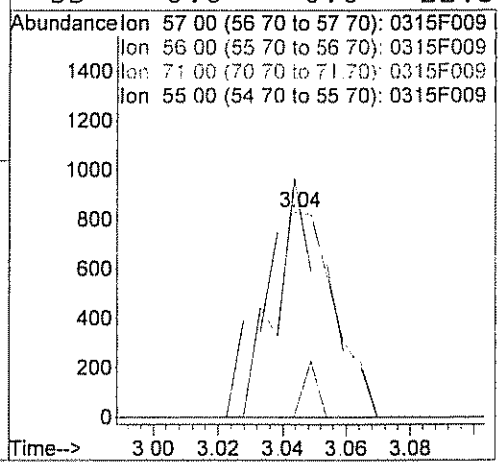


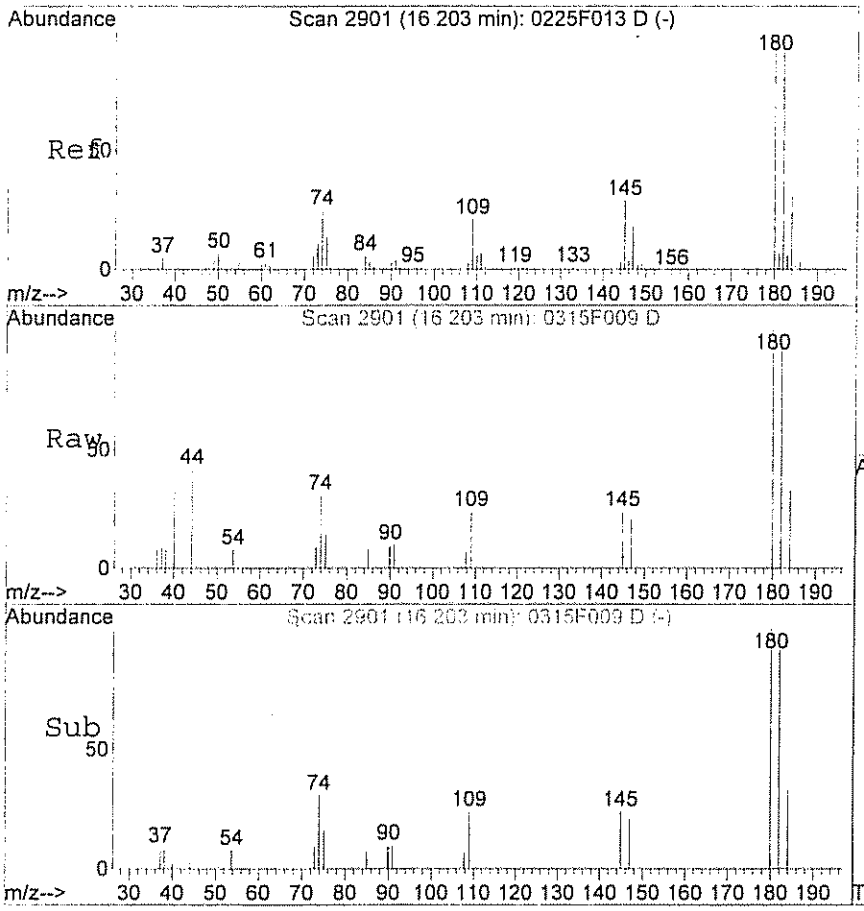


#23
Hexane
Concen: 0.08 PPB
RT: 3.04 min Scan# 385
Delta R.T. -0.01 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion: 57 Resp: 1324

Ion	Ratio	Lower	Upper
57	100		
56	116.1	21.5	81.5#
71	0.0	0.0	36.5
55	0.0	0.0	22.3

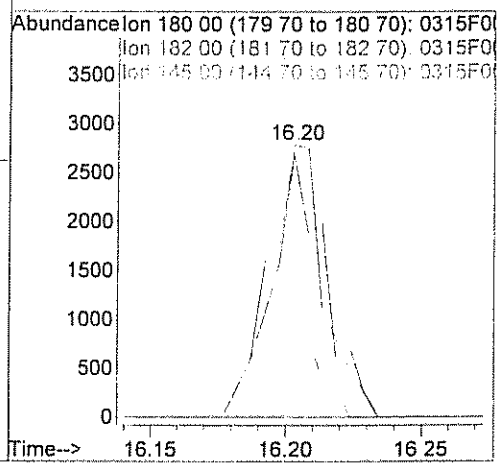


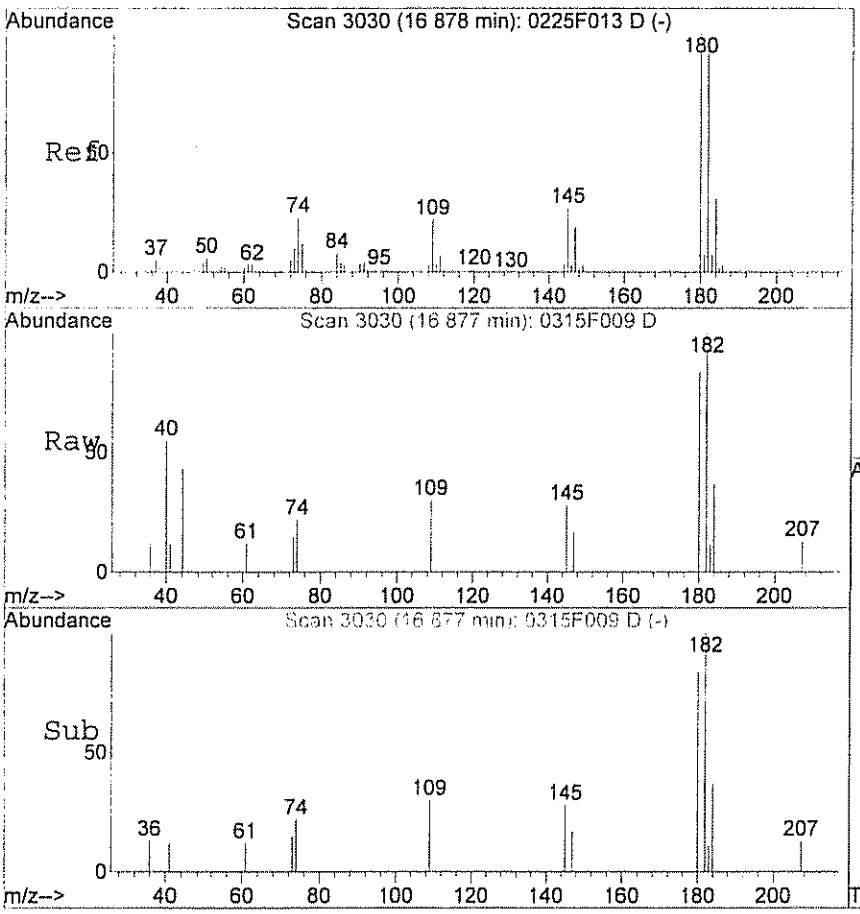


#98
1,3,5-Trichlorobenzene
Concen: 0.18 PPB
RT: 16.20 min Scan# 2901
Delta R.T. -0.00 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion:180 Resp: 3905

Ion	Ratio	Lower	Upper
180	100		
182	96.3	67.4	127.4
145	24.3	0.0	58.6

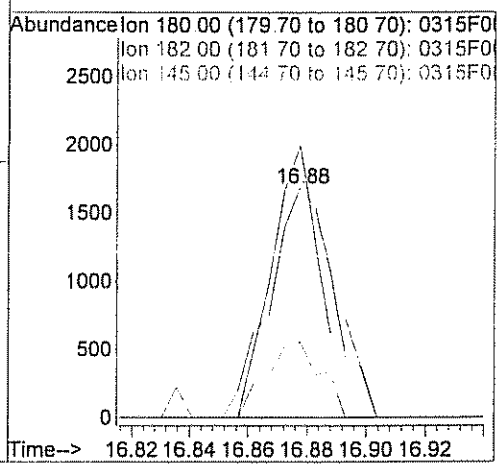


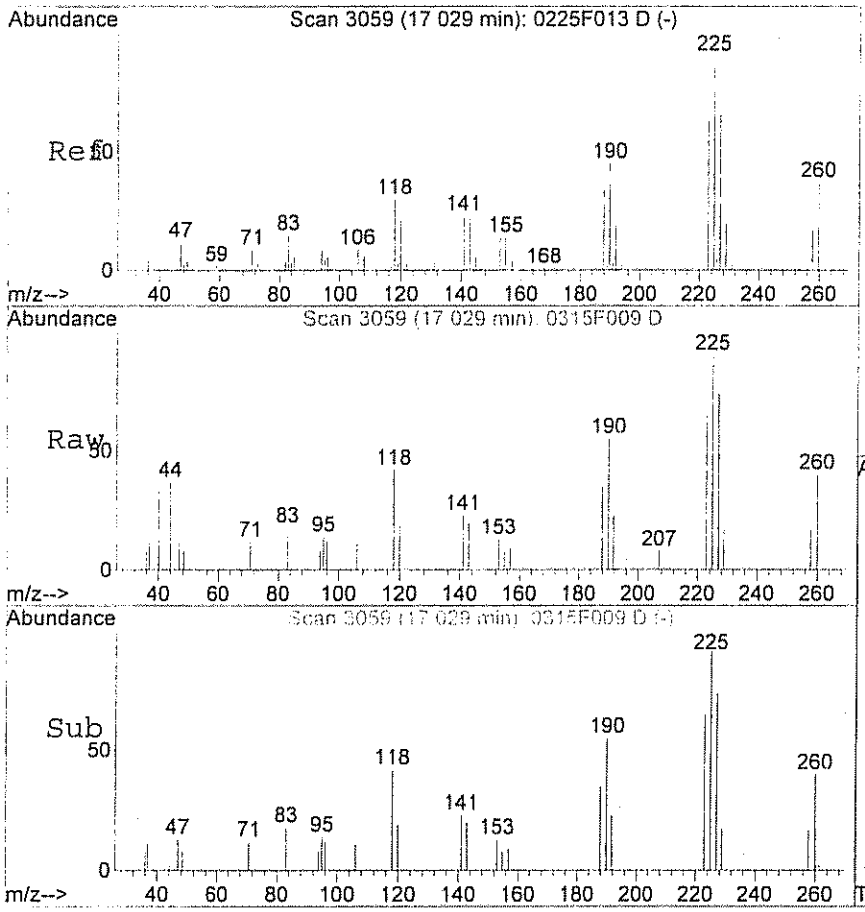


#99
1,2,4-Trichlorobenzene
Concen: 0.14 PPB
RT: 16.88 min Scan# 3030
Delta R.T. -0.00 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion:180 Resp: 2541

Ion	Ratio	Lower	Upper
180	100		
182	118.5	65.5	125.5
145	33.4	0.0	56.6

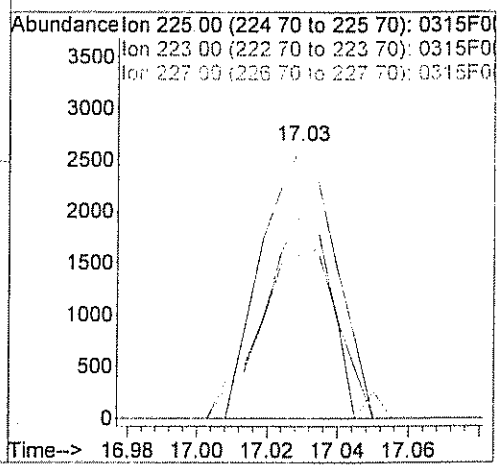


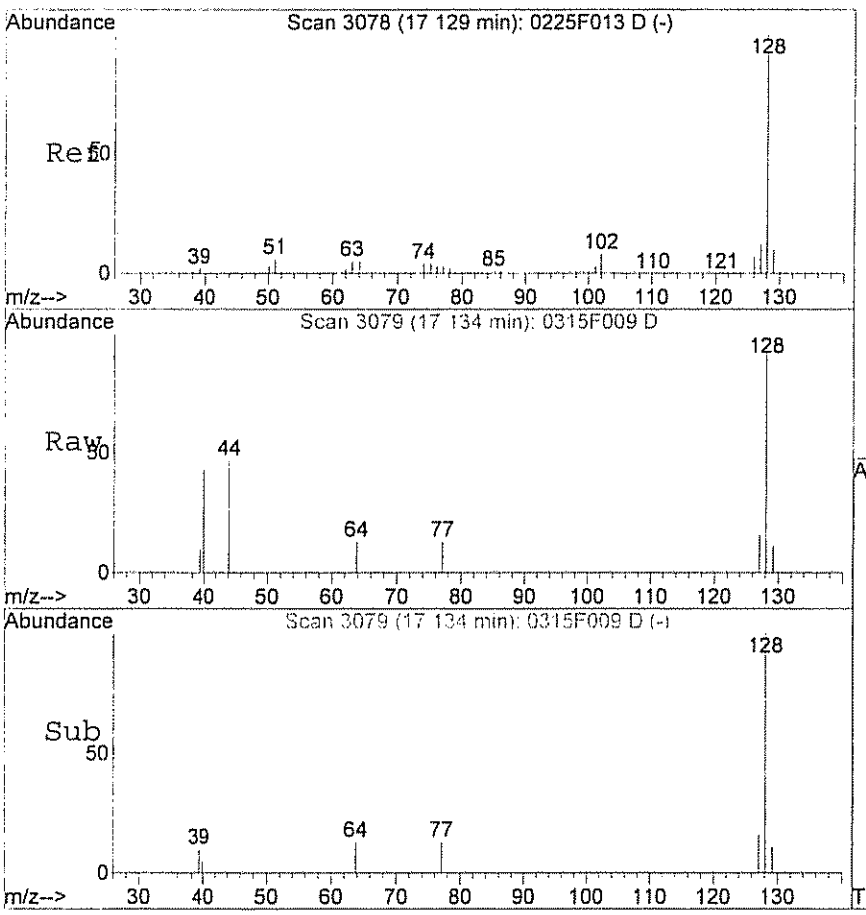


#100
Hexachlorobutadiene
Concen: 0.40 PPB
RT: 17.03 min Scan# 3059
Delta R.T. 0.00 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion:225 Resp: 3765

Ion	Ratio	Lower	Upper
225	100		
223	65.0	33.2	93.2
227	74.2	36.0	96.0

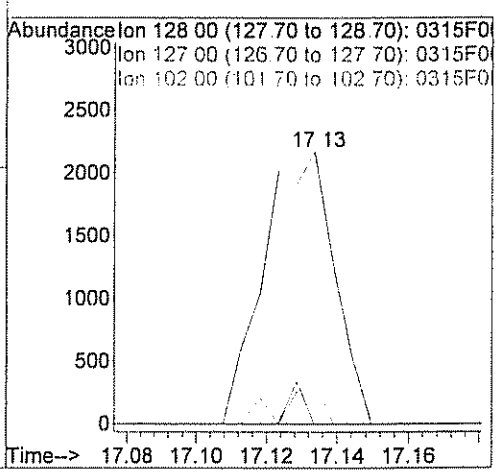


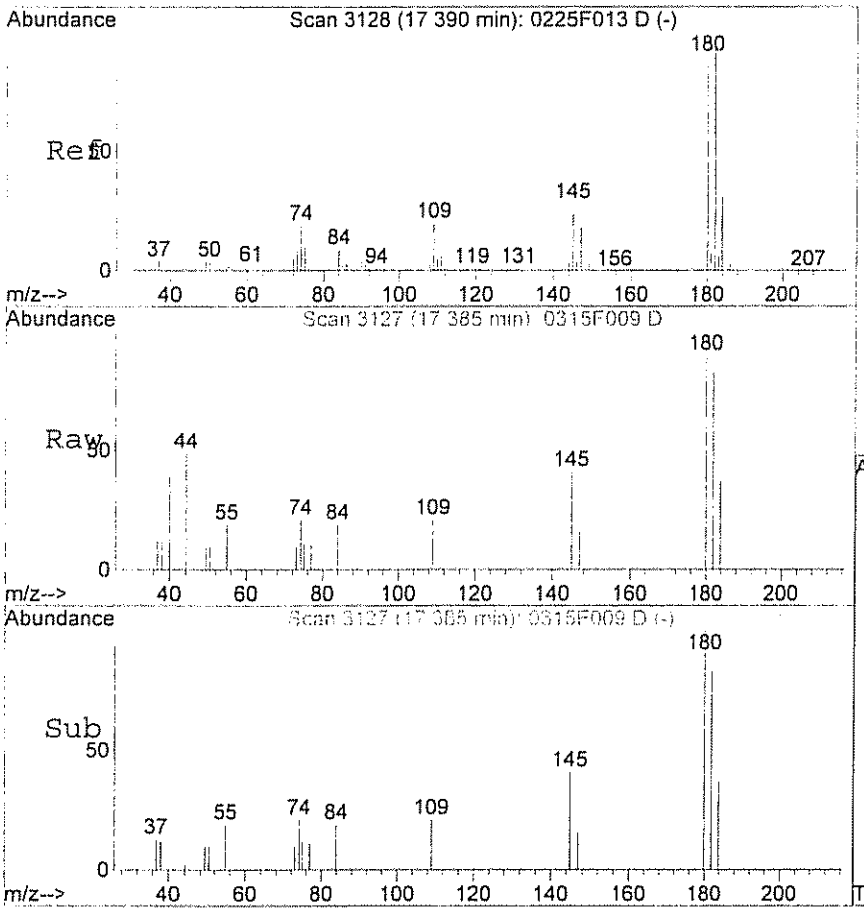


#101
Naphthalene
Concen: 0.12 PPB
RT: 17.13 min Scan# 3079
Delta R.T. 0.01 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion:128 Resp: 2988

Ion	Ratio	Lower	Upper
128	100		
127	15.6	0.0	42.3
102	0.0	0.0	38.0

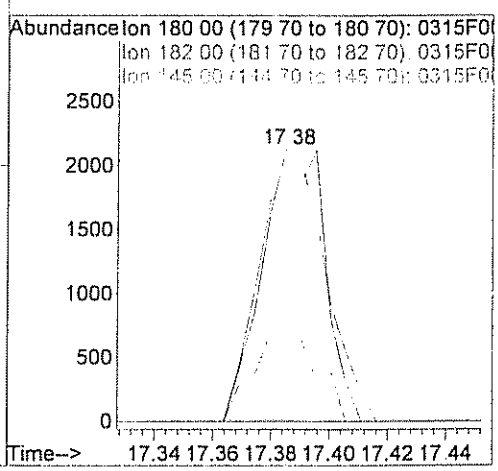




#102
1,2,3-Trichlorobenzene
Concen: 0.21 PPB
RT: 17.38 min Scan# 3127
Delta R.T. -0.01 min
Lab File: 0315F009.D
Acq: 15 Mar 2005 6:56 pm

Tgt Ion:180 Resp: 3251

Ion	Ratio	Lower	Upper
180	100		
182	83.4	66.1	126.1
145	41.4	0.0	58.0



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05MS	**Units:**	ug/L
Lab Code:	KWG0504274-1	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F005.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	9.84		0.50	0.17	
74-87-3	Chloromethane	8.89		0.50	0.14	
75-01-4	Vinyl Chloride	9.80		0.50	0.22	
74-83-9	Bromomethane	9.76		0.50	0.22	
75-00-3	Chloroethane	10.1		0.50	0.23	
75-69-4	Trichlorofluoromethane	9.77		0.50	0.14	
67-64-1	Acetone	42.9		20	4.1	
75-35-4	1,1-Dichloroethene	10.9		0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	8.45		0.50	0.20	
75-15-0	Carbon Disulfide	23.7		0.50	0.16	
75-09-2	Methylene Chloride	9.23		2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	10.2		0.50	0.15	
75-34-3	1,1-Dichloroethane	10.1		0.50	0.11	
78-93-3	2-Butanone (MEK)	41.5		20	2.0	
594-20-7	2,2-Dichloropropane	10.4		0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	10.0		0.50	0.12	
67-66-3	Chloroform	10.1		0.50	0.14	
74-97-5	Bromochloromethane	9.68		0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	10.8		0.50	0.12	
563-58-6	1,1-Dichloropropene	10.0		0.50	0.15	
56-23-5	Carbon Tetrachloride	12.1		0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	9.93		0.50	0.12	
71-43-2	Benzene	10.1		0.50	0.14	
79-01-6	Trichloroethene (TCE)	10.3		0.50	0.14	
78-87-5	1,2-Dichloropropane	9.86		0.50	0.14	
75-27-4	Bromodichloromethane	10.8		0.50	0.11	
74-95-3	Dibromomethane	9.48		0.50	0.12	
591-78-6	2-Hexanone	39.8		20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05MS	**Units:**	ug/L
Lab Code:	KWG0504274-1	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F005.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	9.67		0.50	0.11	
108-88-3	Toluene	9.87		0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	8.85		0.50	0.090	
79-00-5	1,1,2-Trichloroethane	9.84		0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	40.5		20	2.7	
142-28-9	1,3-Dichloropropane	9.71		0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	10.1		0.50	0.13	
124-48-1	Dibromochloromethane	10.5		0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	9.47		2.0	0.099	
108-90-7	Chlorobenzene	9.69		0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	10.9		0.50	0.12	
100-41-4	Ethylbenzene	10.7		0.50	0.13	
136777-61-2	m,p-Xylenes	21.7		0.50	0.22	
95-47-6	o-Xylene	10.6		0.50	0.11	
100-42-5	Styrene	10.6		0.50	0.095	
75-25-2	Bromoform	10.9		0.50	0.28	
98-82-8	Isopropylbenzene	9.68		2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	9.57		0.50	0.14	
96-18-4	1,2,3-Trichloropropane	9.62		0.50	0.22	
108-86-1	Bromobenzene	10.4		2.0	0.18	
103-65-1	n-Propylbenzene	11.7		2.0	0.098	
95-49-8	2-Chlorotoluene	11.6		2.0	0.12	
106-43-4	4-Chlorotoluene	11.3		2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	11.7		2.0	0.13	
98-06-6	tert-Butylbenzene	11.6		2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	11.2		2.0	0.15	
135-98-8	sec-Butylbenzene	12.3		2.0	0.13	
541-73-1	1,3-Dichlorobenzene	10.2		0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05MS	**Units:**	ug/L
Lab Code:	KWG0504274-1	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F005.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	10.9		2.0	0.13	
106-46-7	1,4-Dichlorobenzene	10.1		0.50	0.12	
104-51-8	n-Butylbenzene	11.6		2.0	0.23	
95-50-1	1,2-Dichlorobenzene	9.81		0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	10.1		2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	8.96		2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	8.83		2.0	0.33	
91-20-3	Naphthalene	8.07		2.0	0.29	
87-68-3	Hexachlorobutadiene	12.5		2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	20.3		2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	19.1		2.0	0.075	
75-65-0	tert-Butyl Alcohol	83.5		20	1.1	*
108-20-3	Diisopropyl Ether	20.3		2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	80-119	03/15/05	Acceptable
Toluene-d8	97	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	100	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F005 D
Lab ID: KWG0504274-1 -- K2501544-005MS
RunType: MS
Matrix: WATER

Date Acquired: 03/15/2005 17:07
Date Quantitated: 03/16/2005 15:47
Batch ID: KWG0504272
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0092	0.01	NA	NT
	tert-Butyl Alcohol	0.0057	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0029	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: LB 3/16/05

Secondary Review: [illegible] 3/17/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
		Prep Date:	03/15/2005		
Prep Ref:	368612				

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031505\0315F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009 D	**Quant based on Method**	

Data File:	J:\MS13\DATA\031505\0315F005 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:07	**Quant Date:**	03/16/2005 15:47	**Vial:**	5
Run Type:	MS			**Dilution:**	1 0
Lab ID:	KWG0504274-1 -- K2501544-005MS			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5 60	0.00	96	681761	10.00	OK
2	Chlorobenzene-d5	11 58	0 00	82	289271	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0 01	152	308617	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4 64	0 00	0 00	113	159135	9.43	94	80-119	OK
1	1,2-Dichloroethane-d4	5 15	0.01	0.00	65	170687	8 98	90	76-115	OK
1	Toluene-d8	8 60	0.00	0 00	98	720587	9.66	97	83-113	OK
2	4-Bromofluorobenzene	13 31	0 00	0 00	95	256819	10 04	100	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1 09	-0.01	0.00	85	206124	9.84	9.84		
1	Chloromethane	1 22		0.00	50	235175	8.89	8.89		
1	Vinyl Chloride	1 29		0.00	62	218148	9.80	9.80		
1	Bromomethane	1 51		0 00	96	123789	9.76	9 76		
1	Chloroethane	1.58		0.00	64	134493	10.12	10 1		
1	Dichlorofluoromethane (CFC 21				67	0d		0.40	U	
1	Trichlorofluoromethane	1 74		0.00	101	286945	9.77	9 77		
1	Ethyl Ether	1.97		0.00	59	103793	8 59	8.59		
1	Acrolein	2 12		0.00	56	136286	78.13	78.1		
1	Trichlorotrifluoroethane	2 13		0 00	151	164980	11 59	11.6		
1	1,1-Dichloroethene	2 15		0 00	96	168393	10.93	10.9		
1	Acetone	2.25		0 00	43	111604	42.94	42.9		
1	Iodomethane	2.29		0 00	142	536944m	28.22	28.2		
1	Carbon Disulfide	2.32		0.00	76	1109929	23.66	23 7		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	I:\MS13\DATA\031505\0315F005 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:07	**Quant Date:**	03/16/2005 15:47	**Vial:**	5
Run Type:	MS			**Dilution:**	1 0
Lab ID:	KWG0504274-1 -- K2501544-005MS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2.48		0 00	76	311409	37 93	37 9		
1	Acetonitrile	2 54		0 00	40	198221	309 35	309		
1	Methylene Chloride	2 62		0.00	84	172610	9.23	9 23		
1	tert-Butyl Alcohol	2 73	-0.01	0 00	59	42440	83.48	83 5		
1	Acrylonitrile	2 91		0 00	53	140772	40.89	40 9		
1	Methyl tert-Butyl Ether	2.82		0.00	73	308200	8.45	8.45		
1	trans-1,2-Dichloroethene	2 84		0.00	96	184686	10 19	10.2		
1	n-Hexane	3 05		0 00	57	747211	40 69	40 7		
1	Diisopropyl Ether	3 33		0 00	45	1078701	20.27	20 3		
1	1,1-Dichloroethane	3 31		0 00	63	317885	10 08	10.1		
1	Vinyl Acetate	3.37		0.00	86	121581	56.39	56.4		
1	Chloroprene	3 37		0 00	53	970547	43 63	43.6		
1	tert-Butyl Ethyl Ether	3 74		0 00	59	785426	19 09	19.1		
1	2,2-Dichloropropane	3 95		0.00	77	186076	10.36	10 4		
1	cis-1,2-Dichloroethene	4.00		0 00	96	193002	10.00	10 0		
1	2-Butanone (MEK)	4.06	0 01	0.00	72	40548	41 50	41 5		
1	Propionitrile	4.21	0 01	0 00	54	37187	30.52	30.5		
1	Ethyl Acetate	4 11		0 00	61	36352	31.01	31.0		
1	Methacrylonitrile	4 36		0.00	67	129229	30 49	30 5		
1	Bromochloromethane	4 31	0 01	0.00	128	80427	9 68	9 68		
1	Tetrahydrofuran	4 32	-0 02	0 00	71	19369	16.64	16.6		
1	Chloroform	4 42		0.00	83	306115	10.08	10.1		
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	252251	10.84	10 8		
1	Carbon Tetrachloride	4.77		0 00	117	205227	12.07	12.1		
1	1,1-Dichloropropene	4.83		0 00	75	238433	10.02	10.0		
1	Isobutyl Alcohol	5.20	0 01	0 00	43	64832	313.49	313		
1	Benzene	5.11		0.00	78	750058	10 13	10 1		
1	1,2-Dichloroethane (EDC)	5.26		0 00	62	211224	9 93	9.93		
1	tert-Amyl Methyl Ether	5.30	-0 01	0.00	55	275275	20.25	20.3		
1	Trichloroethene (TCE)	6.19	-0 01	0.00	95	186622	10.32	10.3		
1	1,2-Dichloropropane	6 65		0.00	63	169234	9.86	9.86		
1	Dibromomethane	6 87		0.00	93	77617	9 48	9 48		
1	Methyl Methacrylate	6.97		0.00	69	200901	29 28	29 3		
1	1,4-Dioxane	6.93		0.00	88	26716m	276 27	276		
1	Bromodichloromethane	7.21		0 00	83	202027	10.78	10 8		
1	2-Nitropropane	7 82		0 00	43	45635	33.54	33 5		
1	2-Chloroethyl Vinyl Ether	7 96	0 02	0.00	63	3148	0.4300	0.430	J	
1	cis-1,3-Dichloropropene	8 16		0.00	75	204997	9 67	9.67		
1	4-Methyl-2-pentanone (MIBK)	8.56		0.00	58	134424	40.53	40.5		
1	Toluene	8.75		0.00	92	473574	9.87	9 87		
2	n-Octane	9.07	-0.01	0.00	85	222510	29 45	29.5		
2	trans-1,3-Dichloropropene	9 60		0.00	75	139380	8 85	8 85		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL.
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F005 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:07	**Quant Date:**	03/16/2005 15:47	**Vial:**	5
Run Type:	MS			**Dilution:**	1 0
Lab ID:	KWG0504274-1 -- K2501544-005MS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 83	0 01	0 00	69	394647	31 12	31.1		
2	1,1,2-Trichloroethane	9.96		0 00	83	99334	9 84	9 84		
2	Tetrachloroethene (PCE)	9 97		0.00	164	164363	10 12	10.1		
2	2-Hexanone	10 53		0 00	57	40330	39 78	39.8		
2	1,3-Dichloropropane	10 29		0 00	76	205973	9 71	9 71		
2	Dibromochloromethane	10 63		0 00	129	118689	10 45	10.5		
2	1,2-Dibromoethane (EDB)	10 79		0 00	107	103064	9 47	9 47		
2	1-Chlorohexane	11 68		0 00	91	208812	11 18	11.2		
2	Chlorobenzene	11 63		0 00	112	508504	9.69	9.69		
2	Ethylbenzene	11.81		0 00	106	281407	10.73	10 7		
2	1,1,1,2-Tetrachloroethane	11.81		0 00	131	137367	10 93	10.9		
2	m,p-Xylenes	12.01		0 00	106	704889	21.72	21.7		
2	o-Xylene	12.57		0 00	106	318991	10 56	10 6		
2	Styrene	12 62	0 01	0 00	103	259614	10 57	10.6		
2	Bromoform	12.84	-0 01	0 00	173	62863	10.89	10 9		
2	Isopropylbenzene	13 08		0 00	105	709888	9.68	9 68		
2	cis-1,4-Dichloro-2-butene	13 29		0 00	89	35393	31.75	31 8		
3	1,1,2,2-Tetrachloroethane	13 59		0 00	83	113475	9 57	9.57		
3	trans-1,4-Dichloro-2-butene	13 68		0 00	53	103922	33 98	34.0		
3	Bromobenzene	13 45		0.00	156	219997	10.41	10 4		
3	n-Propylbenzene	13 61		0 00	91	945394	11.66	11 7		
3	1,2,3-Trichloropropane	13 61		0 00	110	37279	9.62	9 62		
3	2-Chlorotoluene	13 71		0.00	91	626414	11 59	11.6		
3	1,3,5-Trimethylbenzene	13 86		0.00	105	678975	11 70	11 7		
3	4-Chlorotoluene	13.86		0 00	91	700082	11.34	11.3		
3	tert-Butylbenzene	14 22		0 00	119	544539	11.57	11 6		
3	1,2,4-Trimethylbenzene	14.30		0.00	105	670348	11 16	11.2		
3	sec-Butylbenzene	14 48		0.00	105	767041	12.33	12.3		
3	4-Isopropyltoluene	14.67		0.00	119	642215	10.91	10 9		
3	1,3-Dichlorobenzene	14.61		0 00	146	425227	10.22	10 2		
3	1,4-Dichlorobenzene	14.73		0.00	146	436661	10 14	10.1		
3	n-Butylbenzene	15.13		0.00	91	532623	11.61	11.6		
3	1,2-Dichlorobenzene	15.14		0.00	146	380119	9 81	9.81		
3	1,2-Dibromo-3-chloropropane	16.02	-0 01	0.00	155	14153	10.05	10.1		
3	1,3,5-Trichlorobenzene	16 20		0.00	180	1140257	45.31	45.3		
3	1,2,4-Trichlorobenzene	16.88		0 00	180	199540	8.96	8 96		
3	Hexachlorobutadiene	17.03		0.00	225	138305	12.52	12 5		
3	Naphthalene	17.13		0.00	128	241293	8.07	8 07		
3	1,2,3-Trichlorobenzene	17.38		0 00	180	163664	8 83	8.83		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F005.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:07	**Quant Date:**	03/16/2005 15:47	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0504274-1 -- K2501544-005MS			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

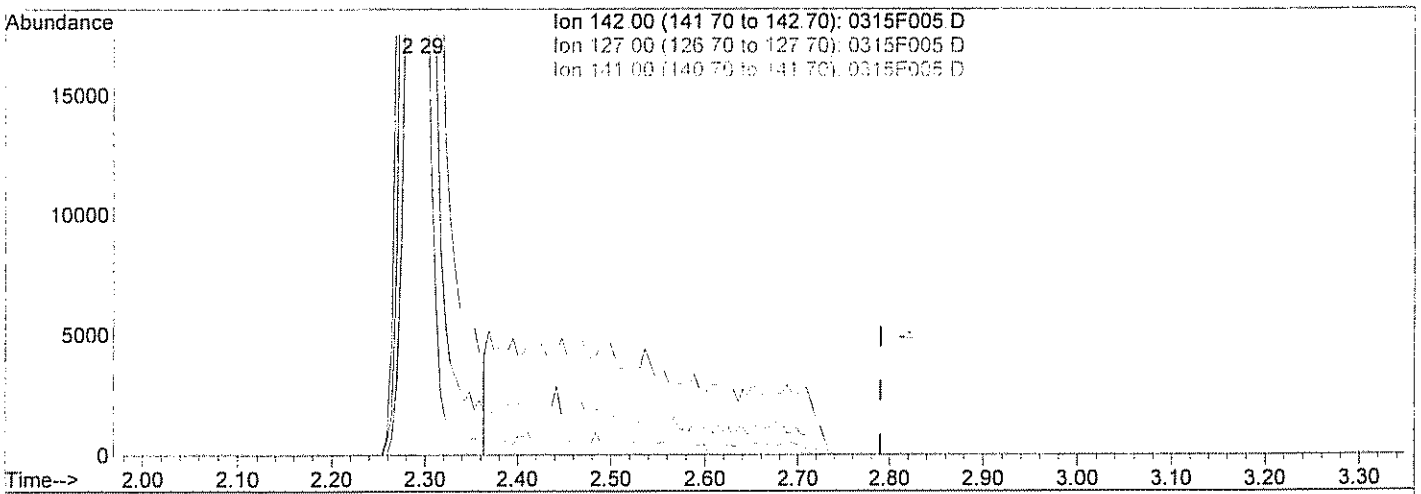
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

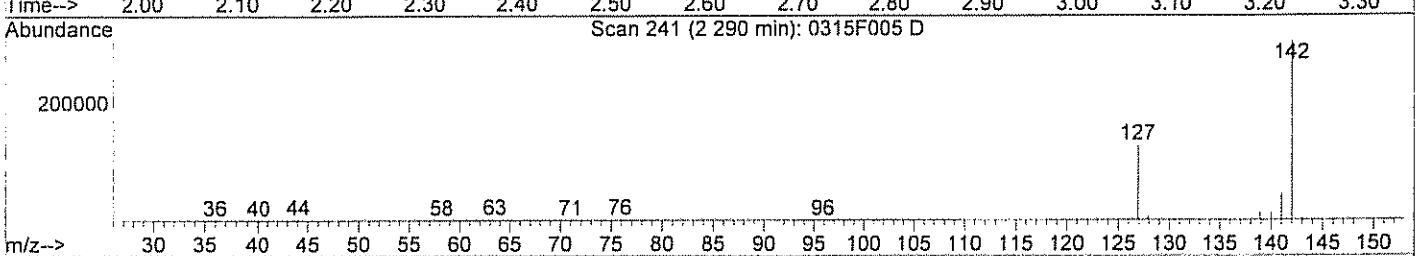
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

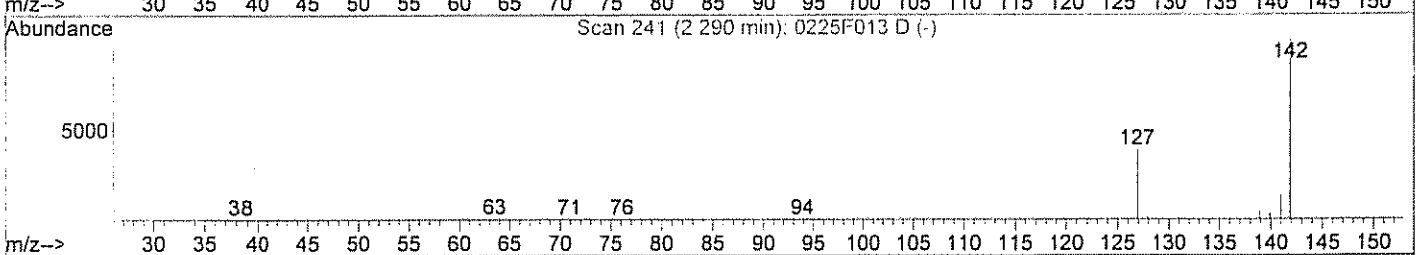
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F005.D Vial: 5
Acq On : 15 Mar 2005 5:07 pm Operator:
Sample : K2501544-005MS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:47 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F005.D

(14) Iodomethane (T)

2.29min 24.24PPB

response 461281

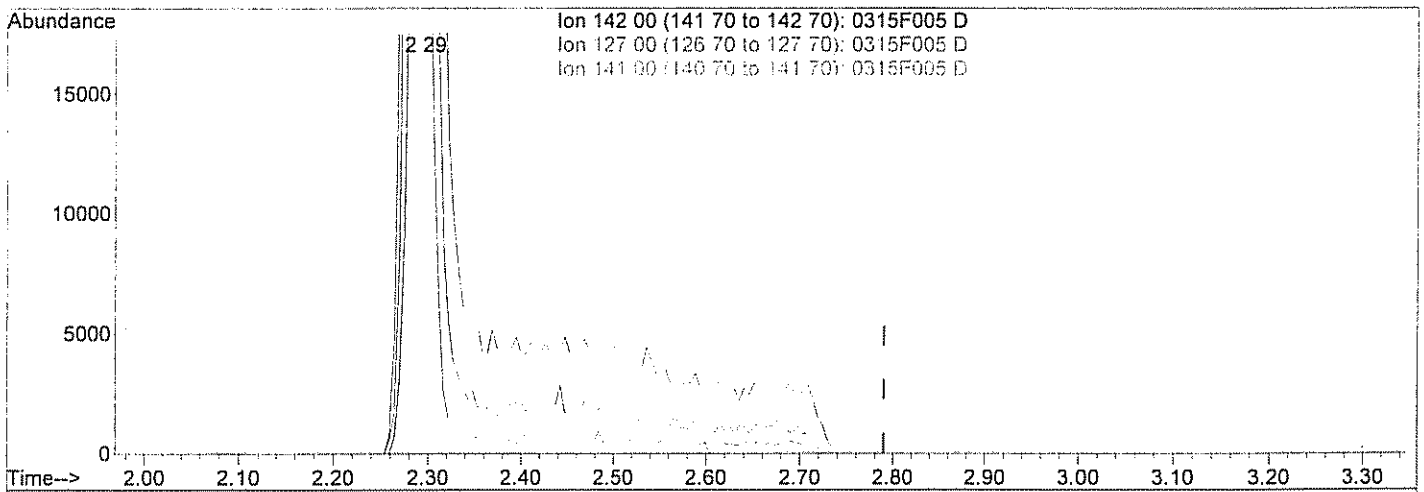
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.55
141.00	14.40	14.63
0.00	0.00	0.00

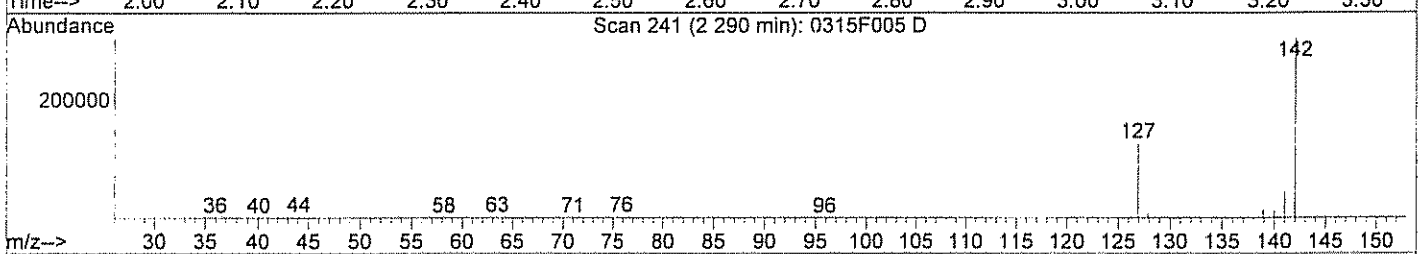
0315F005.D 022505_8260W.M Wed Mar 16 15:47:22 2005

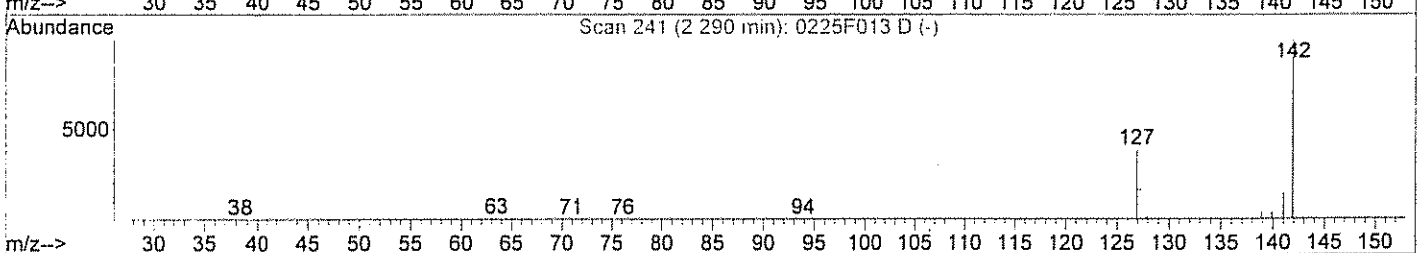
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F005.D Vial: 5
Acq On : 15 Mar 2005 5:07 pm Operator:
Sample : K2501544-005MS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:47 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







(14) Iodomethane (T)

2.29min 28.22PPB m

response 536944

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.55
141.00	14.40	14.63
0.00	0.00	0.00

peak tailing
LB 3/16/05

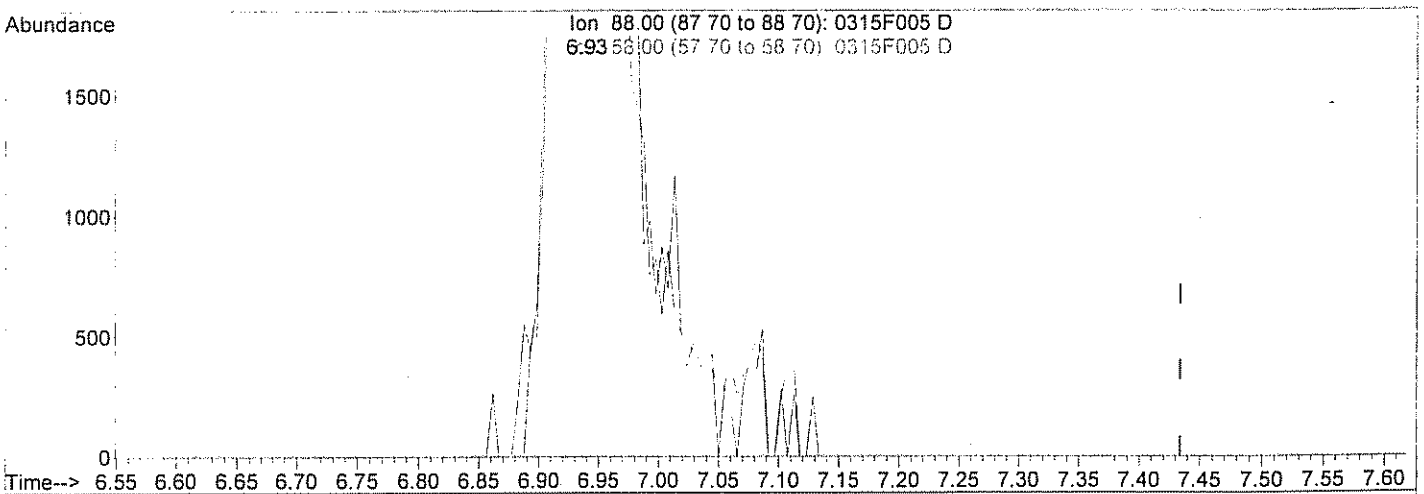
mt 3/17/5

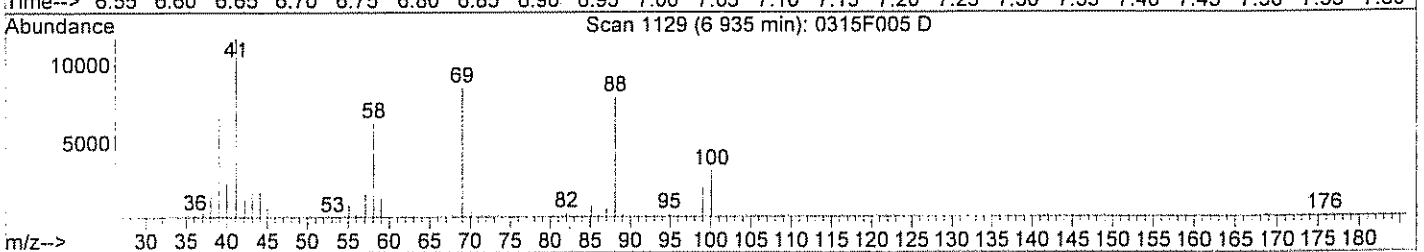
0315F005.D 022505_8260W.M Wed Mar 16 15:47:26 2005

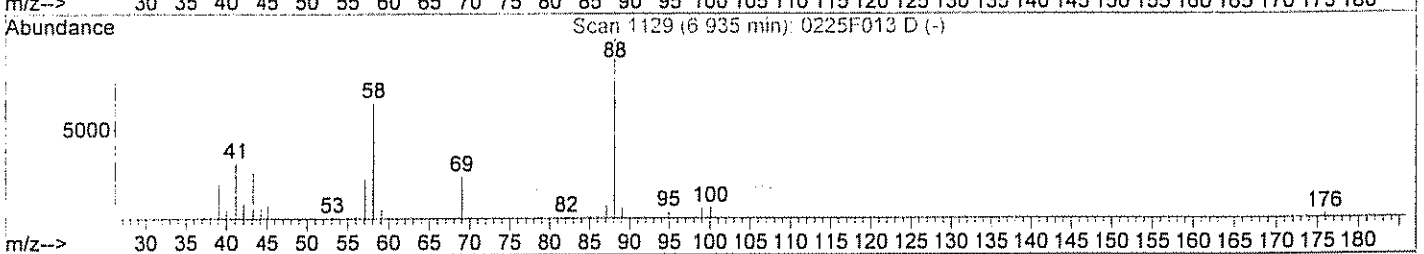
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F005.D Vial: 5
Acq On : 15 Mar 2005 5:07 pm Operator:
Sample : K2501544-005MS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:47 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F005.D

(51) 1,4-Dioxane (T)

6.93min 264.00PPB

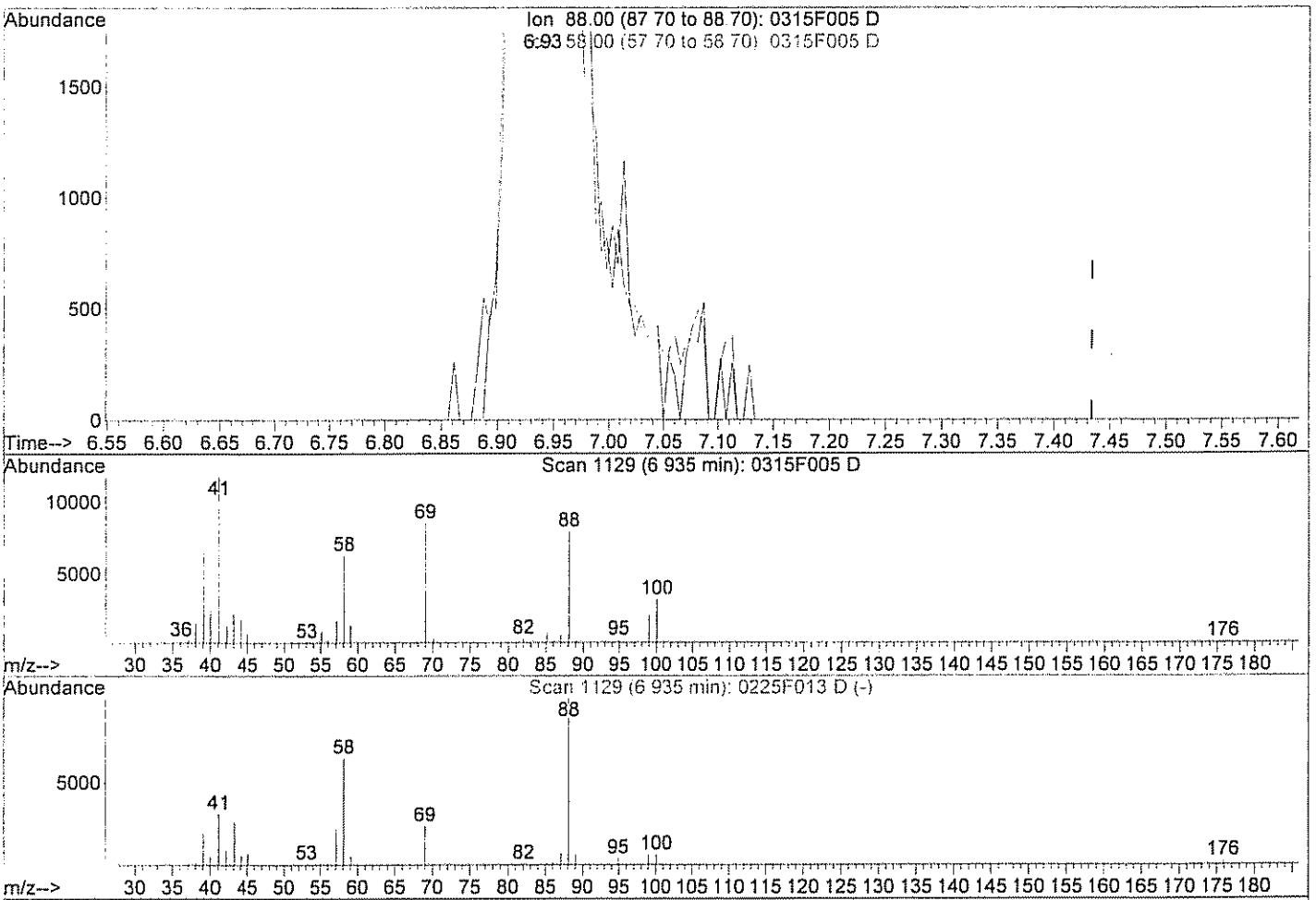
response 25529

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	79.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F005.D Vial: 5
Acq On : 15 Mar 2005 5:07 pm Operator:
Sample : K2501544-005MS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:47 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6.93min 276.27PPB m

response 26716

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	79.22
0.00	0.00	0.00
0.00	0.00	0.00

peak tailing
KB 3/16/05

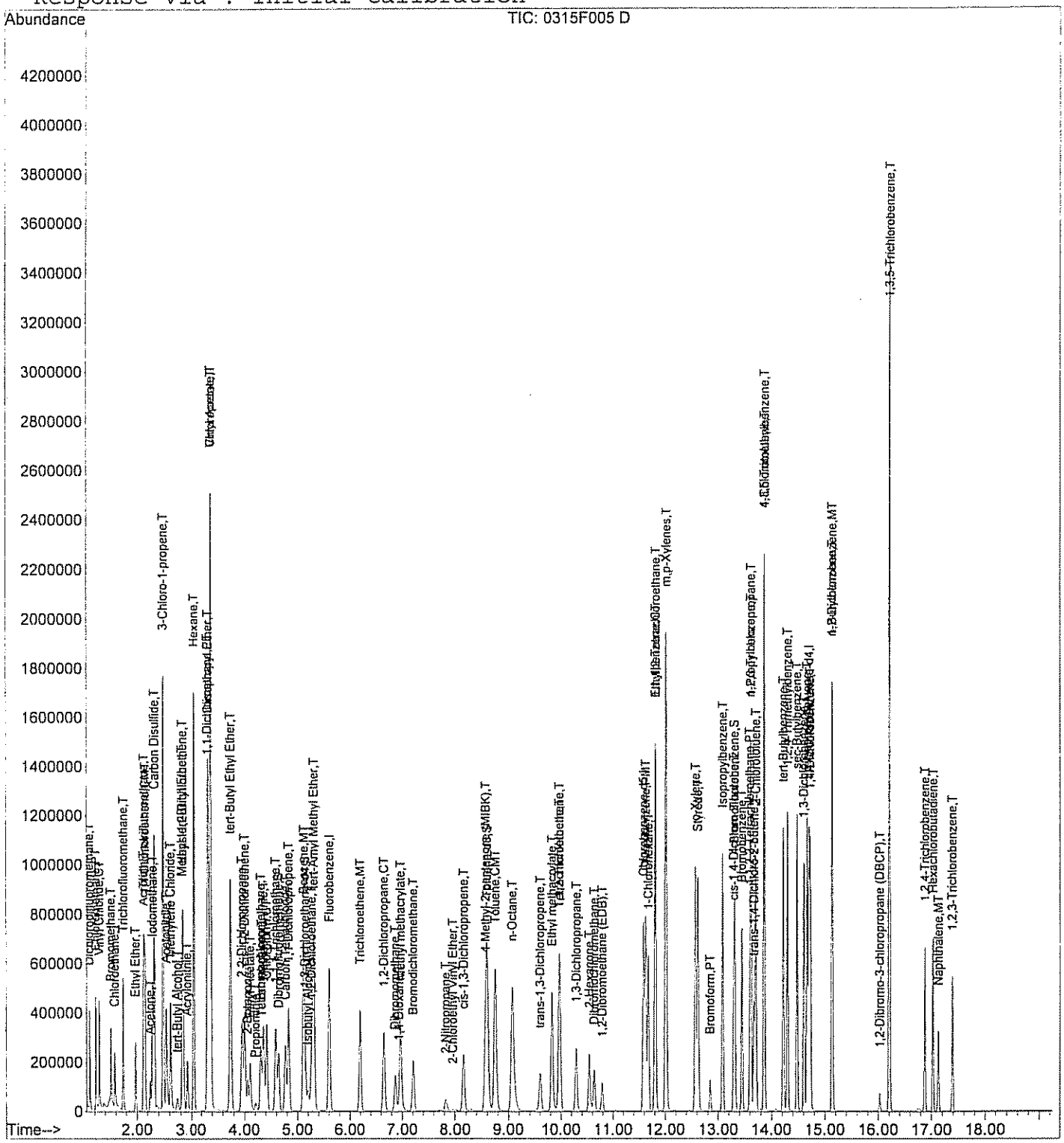
MAL 3/17/5

0315F005.D 022505_8260W.M Wed Mar 16 15:47:51 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F005.D Vial: 5
Acq On : 15 Mar 2005 5:07 pm Operator:
Sample : K2501544-005MS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:47 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: 50398-05DMS
Lab Code: KWG0504274-2
File ID: J:\MS13\DATA\031505\0315F006.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	9.17		0.50	0.17	
74-87-3	Chloromethane	8.34		0.50	0.14	
75-01-4	Vinyl Chloride	9.22		0.50	0.22	
74-83-9	Bromomethane	9.38		0.50	0.22	
75-00-3	Chloroethane	9.26		0.50	0.23	
75-69-4	Trichlorofluoromethane	9.15		0.50	0.14	
67-64-1	Acetone	43.6		20	4.1	
75-35-4	1,1-Dichloroethene	10.3		0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	8.37		0.50	0.20	
75-15-0	Carbon Disulfide	22.3		0.50	0.16	
75-09-2	Methylene Chloride	8.83		2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	9.63		0.50	0.15	
75-34-3	1,1-Dichloroethane	9.51		0.50	0.11	
78-93-3	2-Butanone (MEK)	44.2		20	2.0	
594-20-7	2,2-Dichloropropane	9.57		0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	9.44		0.50	0.12	
67-66-3	Chloroform	9.55		0.50	0.14	
74-97-5	Bromochloromethane	9.52		0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	10.4		0.50	0.12	
563-58-6	1,1-Dichloropropene	9.45		0.50	0.15	
56-23-5	Carbon Tetrachloride	11.2		0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	9.67		0.50	0.12	
71-43-2	Benzene	9.62		0.50	0.14	
79-01-6	Trichloroethene (TCE)	9.66		0.50	0.14	
78-87-5	1,2-Dichloropropane	9.39		0.50	0.14	
75-27-4	Bromodichloromethane	10.4		0.50	0.11	
74-95-3	Dibromomethane	9.35		0.50	0.12	
591-78-6	2-Hexanone	40.7		20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05DMS	**Units:**	ug/L
Lab Code:	KWG0504274-2	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F006.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	9.39		0.50	0.11	
108-88-3	Toluene	9.38		0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	8.86		0.50	0.090	
79-00-5	1,1,2-Trichloroethane	9.79		0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	41.4		20	2.7	
142-28-9	1,3-Dichloropropane	9.84		0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	10.1		0.50	0.13	
124-48-1	Dibromochloromethane	10.4		0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	9.57		2.0	0.099	
108-90-7	Chlorobenzene	9.56		0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	10.8		0.50	0.12	
100-41-4	Ethylbenzene	10.6		0.50	0.13	
136777-61-2	m,p-Xylenes	21.3		0.50	0.22	
95-47-6	o-Xylene	10.4		0.50	0.11	
100-42-5	Styrene	10.3		0.50	0.095	
75-25-2	Bromoform	11.1		0.50	0.28	
98-82-8	Isopropylbenzene	9.52		2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	9.46		0.50	0.14	
96-18-4	1,2,3-Trichloropropane	9.66		0.50	0.22	
108-86-1	Bromobenzene	10.0		2.0	0.18	
103-65-1	n-Propylbenzene	11.1		2.0	0.098	
95-49-8	2-Chlorotoluene	11.0		2.0	0.12	
106-43-4	4-Chlorotoluene	10.8		2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	11.0		2.0	0.13	
98-06-6	tert-Butylbenzene	11.0		2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	10.6		2.0	0.15	
135-98-8	sec-Butylbenzene	11.6		2.0	0.13	
541-73-1	1,3-Dichlorobenzene	9.71		0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	50398-05DMS	**Units:**	ug/L
Lab Code:	KWG0504274-2	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F006.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	10.3		2.0	0.13	
106-46-7	1,4-Dichlorobenzene	9.85		0.50	0.12	
104-51-8	n-Butylbenzene	11.0		2.0	0.23	
95-50-1	1,2-Dichlorobenzene	9.57		0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	9.56		2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	8.81		2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	8.74		2.0	0.33	
91-20-3	Naphthalene	8.31		2.0	0.29	
87-68-3	Hexachlorobutadiene	12.0		2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	19.8		2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	18.7		2.0	0.075	
75-65-0	tert-Butyl Alcohol	86.5		20	1.1	*
108-20-3	Diisopropyl Ether	19.7		2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	80-119	03/15/05	Acceptable
Toluene-d8	96	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	103	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F006.D
Lab ID: KWG0504274-2 -- K2501544-005DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/15/2005 17:34
Date Quantitated: 03/16/2005 15:49
Batch ID: KWG0504272
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0092	0.01	NA	NT
	tert-Butyl Alcohol	0.0057	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0029	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: KB 3/16/05

Secondary Review: mt 3/17/05

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
		Prep Date:	03/15/2005		
Prep Ref:	368613				

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031505\0315F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009 D	**Quant based on Method**	

Data File:	J:\MS13\DATA\031505\0315F006 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:34	**Quant Date:**	03/16/2005 15:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0504274-2 -- K2501544-005DMS			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	694227	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	286017	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.01	152	314153	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	158754	9.24	92	80-119	OK
1	1,2-Dichloroethane-d4	5.15	0.01	0.00	65	177612	9.18	92	76-115	OK
1	Toluene-d8	8.60	0.00	0.00	98	725609	9.55	96	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	259855	10.28	103	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.09	-0.01	0.00	85	195726	9.17	9.17		
1	Chloromethane	1.22		0.00	50	224808	8.34	8.34		
1	Vinyl Chloride	1.29		0.00	62	208931	9.22	9.22		
1	Bromomethane	1.51		0.00	96	121193	9.38	9.38		
1	Chloroethane	1.58		0.00	64	125398	9.26	9.26		
1	Dichlorofluoromethane (CFC 21				67	0d		0.40	U	
1	Trichlorofluoromethane	1.74		0.00	101	273835	9.15	9.15		
1	Ethyl Ether	1.97		0.00	59	101546	8.25	8.25		
1	Acrolein	2.12		0.00	56	139817	78.71	78.7		
1	Trichlorotrifluoroethane	2.13		0.00	151	163121	11.25	11.3		
1	1,1-Dichloroethene	2.15		0.00	96	160829	10.25	10.3		
1	Acetone	2.25		0.00	43	115252	43.55	43.6		
1	Iodomethane	2.29		0.00	142	516342m	26.65	26.7		
1	Carbon Disulfide	2.32		0.00	76	1066243	22.32	22.3		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	I:\MS13\DATA\031505\0315F006.D			Instrument:	MS13
Acqu Date:	03/15/2005 17:34	Quant Date:	03/16/2005 15:49	Vial:	6
Run Type:	DMS			Dilution:	1.0
Lab ID:	KWG0504274-2 -- K2501544-005DMS			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
I	3-Chloro-1-propene	2.48		0.00	76	302849	36.23	36.2		
I	Acetonitrile	2.54		0.00	40	200310	306.99	307		
I	Methylene Chloride	2.62		0.00	84	168086	8.83	8.83		
I	tert-Butyl Alcohol	2.74		0.00	59	44778	86.50	86.5		
I	Acrylonitrile	2.91		0.00	53	141663	40.41	40.4		
I	Methyl tert-Butyl Ether	2.82		0.00	73	311033	8.37	8.37		
I	trans-1,2-Dichloroethene	2.84		0.00	96	177679	9.63	9.63		
I	n-Hexane	3.05		0.00	57	711772	38.06	38.1		
I	Diisopropyl Ether	3.33		0.00	45	1068118	19.71	19.7		
I	1,1-Dichloroethane	3.31		0.00	63	305544	9.51	9.51		
I	Vinyl Acetate	3.37		0.00	86	123218	56.13	56.1		
I	Chloroprene	3.37		0.00	53	927239	40.94	40.9		
I	tert-Butyl Ethyl Ether	3.74		0.00	59	781596	18.65	18.7		
I	2,2-Dichloropropane	3.95		0.00	77	174879	9.57	9.57		
I	cis-1,2-Dichloroethene	4.00		0.00	96	185501	9.44	9.44		
I	2-Butanone (MEK)	4.05		0.00	72	43942	44.17	44.2		
I	Propionitrile	4.20		0.00	54	37837	30.50	30.5		
I	Ethyl Acetate	4.11		0.00	61	37712	31.60	31.6		
I	Methacrylonitrile	4.36		0.00	67	132577	30.71	30.7		
I	Bromochloromethane	4.30		0.00	128	80572	9.52	9.52		
I	Tetrahydrofuran	4.32	-0.02	0.00	71	18749	15.82	15.8		
I	Chloroform	4.42		0.00	83	295222	9.55	9.55		
I	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	245942	10.38	10.4		
I	Carbon Tetrachloride	4.77		0.00	117	194535	11.23	11.2		
I	1,1-Dichloropropene	4.83		0.00	75	228971	9.45	9.45		
I	Isobutyl Alcohol	5.20	0.01	0.00	43	64468	306.13	306		
I	Benzene	5.11		0.00	78	725025	9.62	9.62		
I	1,2-Dichloroethane (EDC)	5.26		0.00	62	209309	9.67	9.67		
I	tert-Amyl Methyl Ether	5.30	-0.01	0.00	55	273509	19.76	19.8		
I	Trichloroethene (TCE)	6.19	-0.01	0.00	95	178016	9.66	9.66		
I	1,2-Dichloropropane	6.65		0.00	63	164150	9.39	9.39		
I	Dibromomethane	6.87		0.00	93	77953	9.35	9.35		
I	Methyl Methacrylate	6.97		0.00	69	199323	28.53	28.5		
I	1,4-Dioxane	6.94	0.01	0.00	88	26974m	273.93	274		
I	Bromodichloromethane	7.21		0.00	83	198024	10.38	10.4		
I	2-Nitropropane	7.83	0.01	0.00	43	47559	34.33	34.3		
I	2-Chloroethyl Vinyl Ether				63	0		0.34	U	
I	cis-1,3-Dichloropropene	8.15	-0.01	0.00	75	202628	9.39	9.39		
I	4-Methyl-2-pentanone (MIBK)	8.57	0.01	0.00	58	139770	41.38	41.4		
I	Toluene	8.75		0.00	92	458591	9.38	9.38		
2	n-Octane	9.07	-0.01	0.00	85	211641	28.33	28.3		
2	trans-1,3-Dichloropropene	9.60		0.00	75	138079	8.86	8.86		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F006 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:34	**Quant Date:**	03/16/2005 15:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1 0
Lab ID:	KWG0504274-2 -- K2501544-005DMS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 82		0 00	69	403267	32 16	32.2		
2	1,1,2-Trichloroethane	9 97	0 01	0 00	83	97790	9 79	9.79		
2	Tetrachloroethene (PCE)	9 97		0 00	164	161357	10 05	10.1		
2	2-Hexanone	10 54	0 01	0 00	57	40839	40 74	40 7		
2	1,3-Dichloropropane	10 29		0 00	76	206508	9 84	9 84		
2	Dibromochloromethane	10 64	0 01	0 00	129	117050	10 42	10 4		
2	1,2-Dibromoethane (EDB)	10 79		0 00	107	103032	9 57	9 57		
2	1-Chlorohexane	11 68		0 00	91	198798	10 77	10 8		
2	Chlorobenzene	11 63		0 00	112	496101	9 56	9 56		
2	Ethylbenzene	11 81		0 00	106	273514	10 55	10.6		
2	1,1,1,2-Tetrachloroethane	11 81		0 00	131	134149	10 79	10 8		
2	m,p-Xylenes	12 01		0 00	106	681744	21 25	21.3		
2	o-Xylene	12 57		0 00	106	311277	10 42	10.4		
2	Styrene	12 61		0 00	103	249444	10 28	10.3		
2	Bromoform	12 84	-0 01	0 00	173	63356	11 10	11.1		
2	Isopropylbenzene	13 08		0 00	105	690561	9 52	9 52		
2	cis-1,4-Dichloro-2-butene	13 29		0 00	89	35042	31 79	31.8		
3	1,1,2,2-Tetrachloroethane	13 59		0 00	83	114177	9 46	9.46		
3	trans-1,4-Dichloro-2-butene	13 67	-0 01	0 00	53	104671m	33 62	33.6		
3	Bromobenzene	13 45		0 00	156	215742	10 03	10 0		
3	n-Propylbenzene	13 61		0 00	91	913325	11 07	11 1		
3	1,2,3-Trichloropropane	13 61		0 00	110	38082	9 66	9 66		
3	2-Chlorotoluene	13 71		0 00	91	605138	11 00	11 0		
3	1,3,5-Trimethylbenzene	13 86		0 00	105	649609	11 00	11 0		
3	4-Chlorotoluene	13 86		0 00	91	680342	10 83	10.8		
3	tert-Butylbenzene	14 22		0 00	119	524582	10 95	11 0		
3	1,2,4-Trimethylbenzene	14 30		0 00	105	646926	10 58	10 6		
3	sec-Butylbenzene	14 48		0 00	105	736484	11 63	11.6		
3	4-Isopropyltoluene	14 67		0 00	119	619852	10 34	10.3		
3	1,3-Dichlorobenzene	14 61		0 00	146	411588	9 71	9.71		
3	1,4-Dichlorobenzene	14 73		0 00	146	431912	9 85	9.85		
3	n-Butylbenzene	15 13		0 00	91	513107	10 99	11 0		
3	1,2-Dichlorobenzene	15 14		0 00	146	377477	9 57	9 57		
3	1,2-Dibromo-3-chloropropane	16 03		0 00	155	13707	9 56	9 56		
3	1,3,5-Trichlorobenzene	16 20		0 00	180	1110613	43 36	43 4		
3	1,2,4-Trichlorobenzene	16 88		0 00	180	199662	8 81	8.81		
3	Hexachlorobutadiene	17 03		0 00	225	134673	11 97	12.0		
3	Naphthalene	17 13		0 00	128	252694	8 31	8.31		
3	1,2,3-Trichlorobenzene	17 38		0 00	180	164848	8 74	8 74		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F006 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 17:34	**Quant Date:**	03/16/2005 15:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1 0
Lab ID:	KWG0504274-2 -- K2501544-005DMS			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

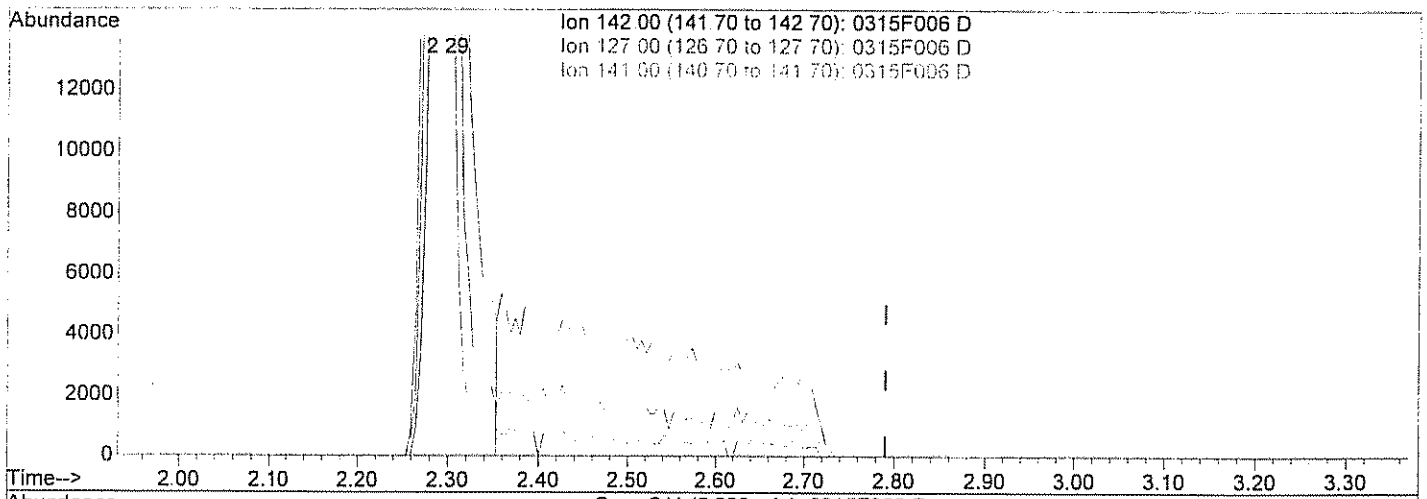
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

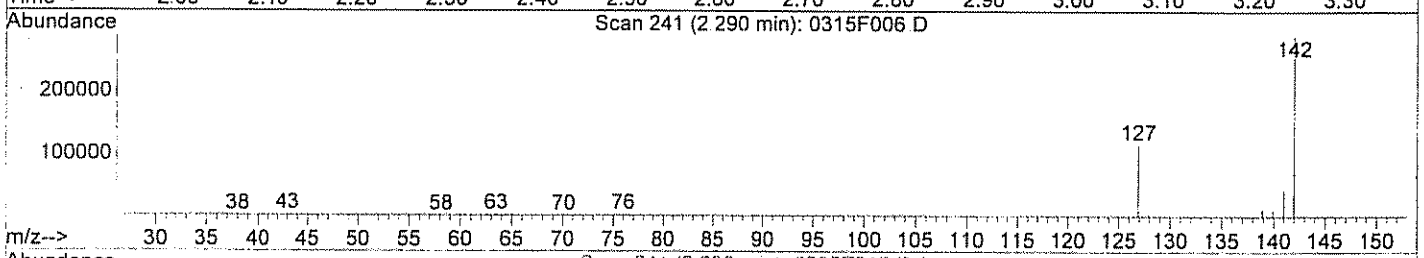
Quantitation Report (Qedit)

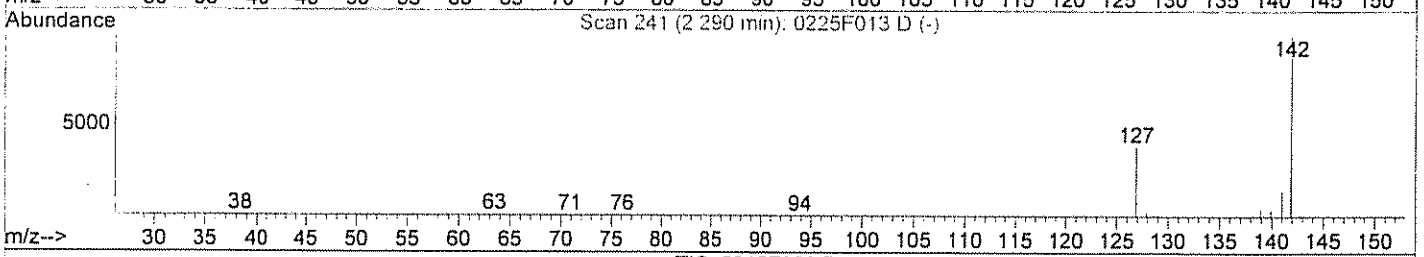
Data File : J:\MS13\DATA\031505\0315F006.D
Acq On : 15 Mar 2005 5:34 pm
Sample : K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:48 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F006.D

(14) Iodomethane (T)

2.29min 22.75PPB

response 440891

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	40.16
141.00	14.40	15.00
0.00	0.00	0.00

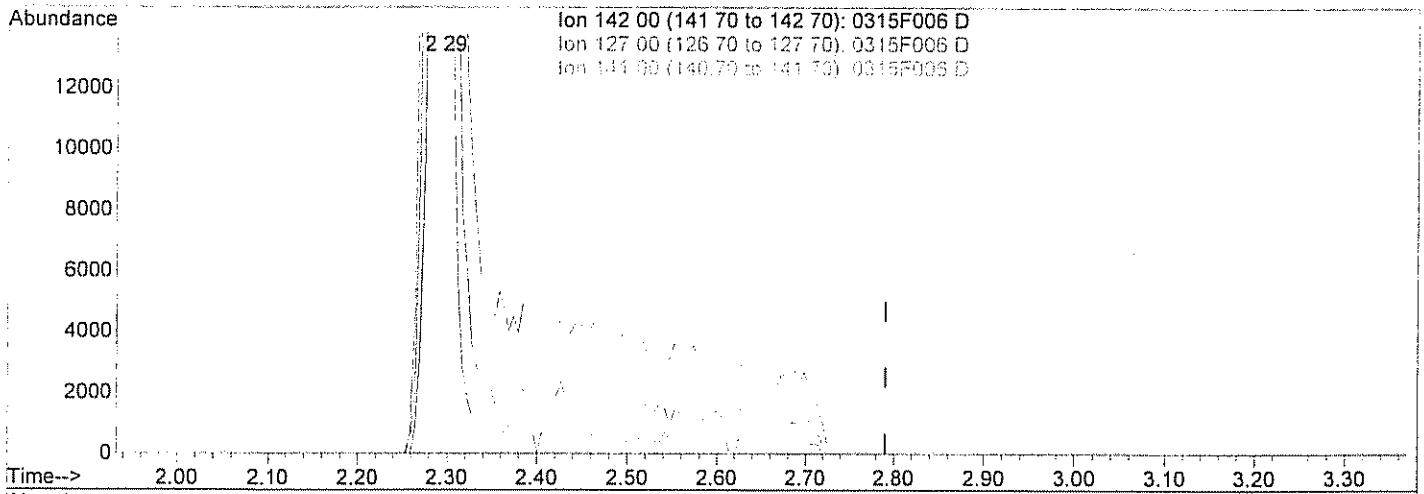
0315F006.D 022505_8260W.M Wed Mar 16 15:48:35 2005

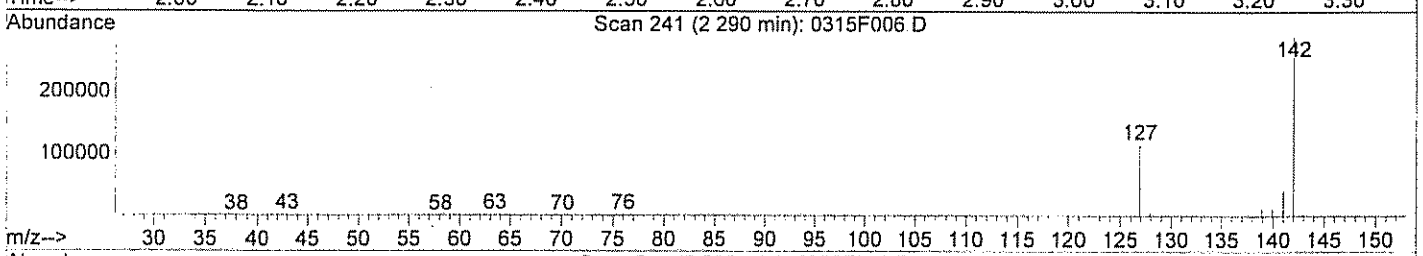
Quantitation Report (Qedit)

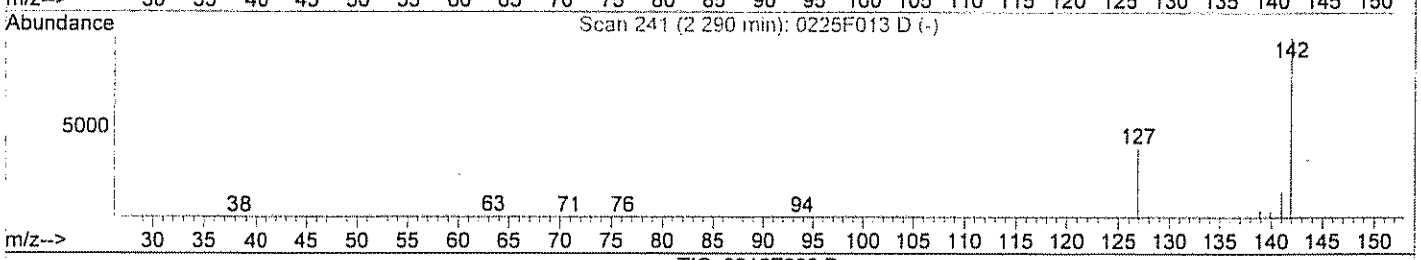
Data File : J:\MS13\DATA\031505\0315F006.D
Acq On : 15 Mar 2005 5:34 pm
Sample : K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:48 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F006 D

(14) Iodomethane (T)

2 29min 26 65PPB m

response 516342

Ion	Exp%	Act%
142 00	100	100
127 00	38 60	40 16
141 00	14 40	15 00
0 00	0 00	0.00

peak tailing
LB 3/16/05

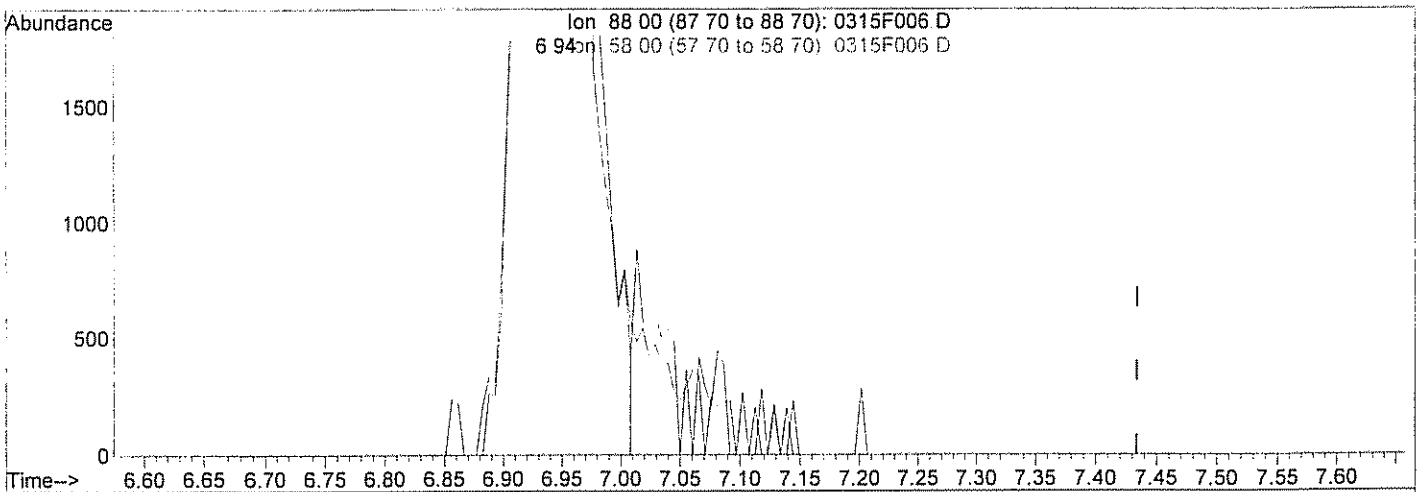
MAT 3/17/5

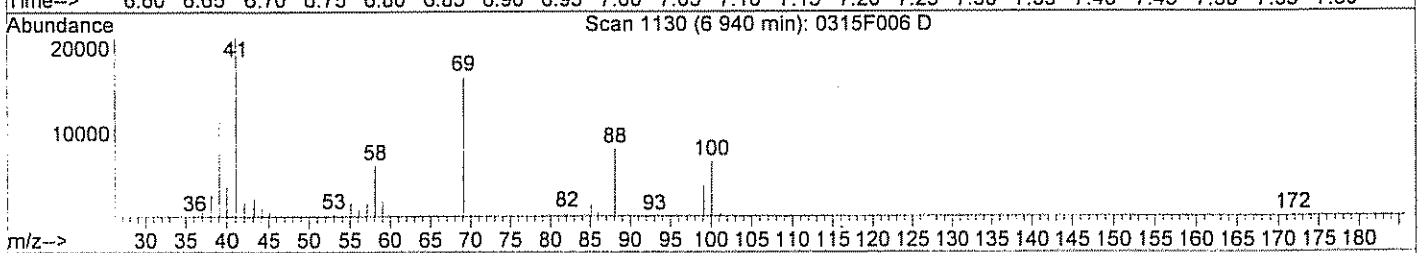
0315F006.D 022505_8260W.M Wed Mar 16 15:48:38 2005

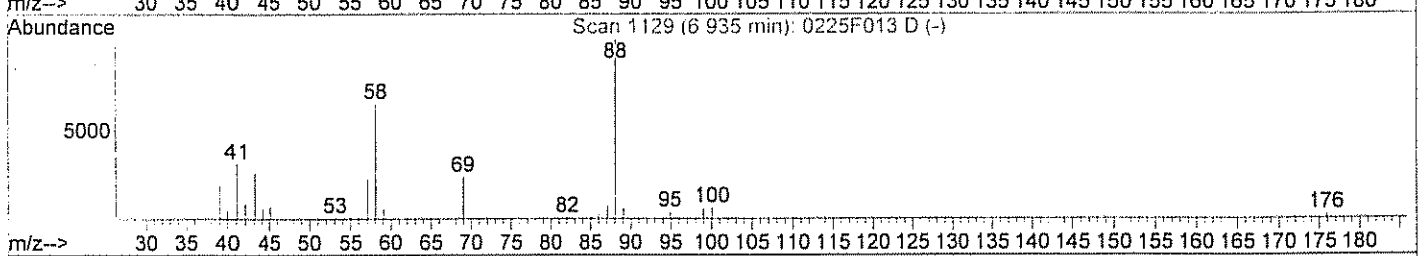
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F006.D Vial: 6
Acq On : 15 Mar 2005 5:34 pm Operator:
Sample : K2501544-005DMS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:48 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F006 D

(51) 1,4-Dioxane (T)

6 94min 251 77PPB

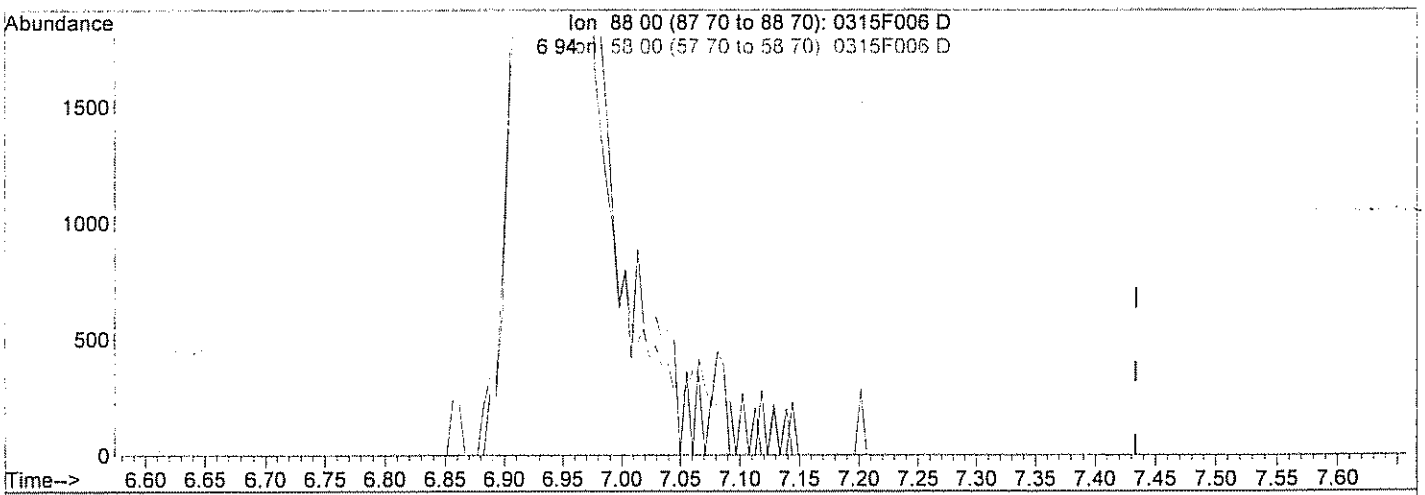
response 24792

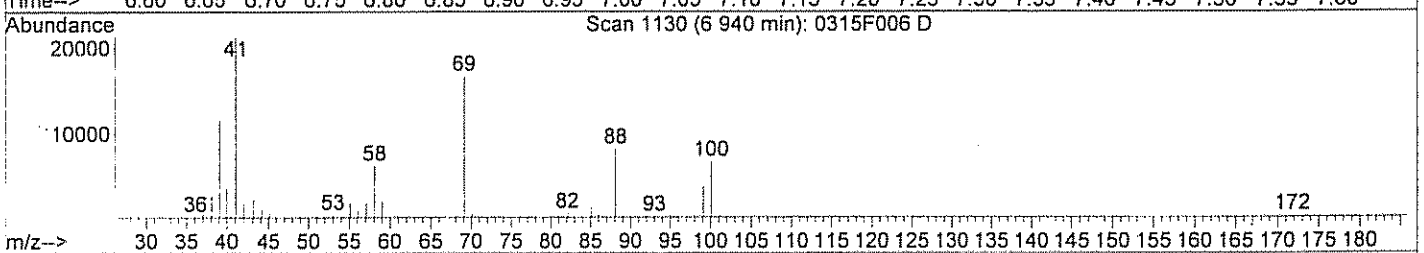
Ion	Exp%	Act%
88 00	100	100
58 00	64 70	76 66
0 00	0.00	0 00
0 00	0 00	0 00

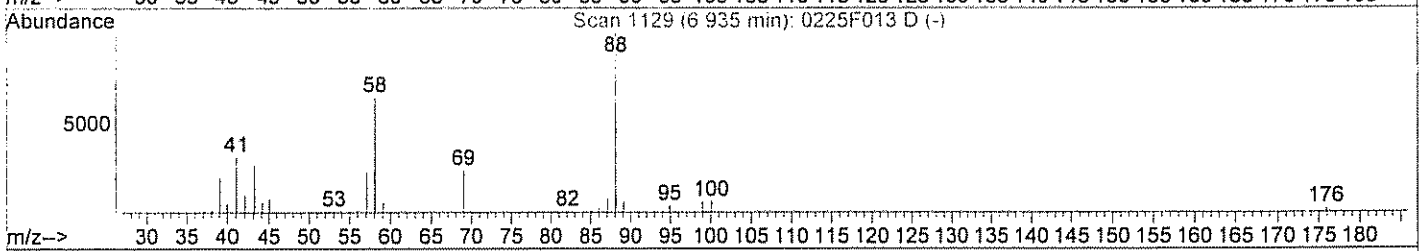
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F006.D Vial: 6
Acq On : 15 Mar 2005 5:34 pm Operator:
Sample : K2501544-005DMS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:48 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F006 D

(51) 1,4-Dioxane (T)

6 94min 273 93PPB m

response 26974

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	76 66
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing
LB 3/16/05

MA 3/17/5

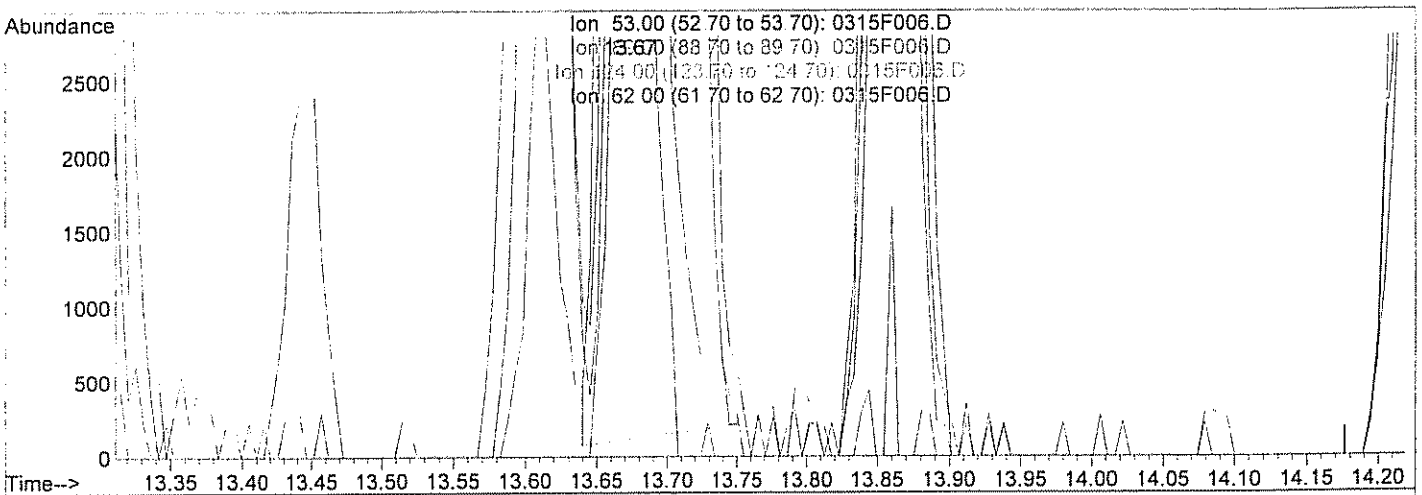
0315F006.D 022505_8260W.M Wed Mar 16 15:49:02 2005

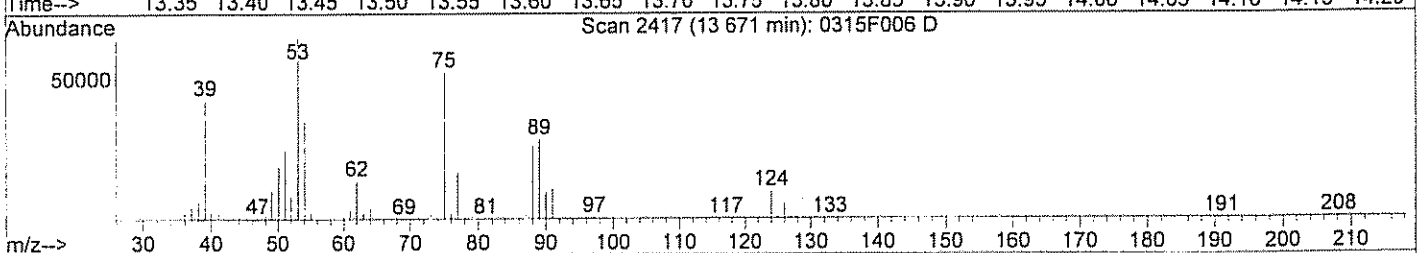
Quantitation Report (Qedit)

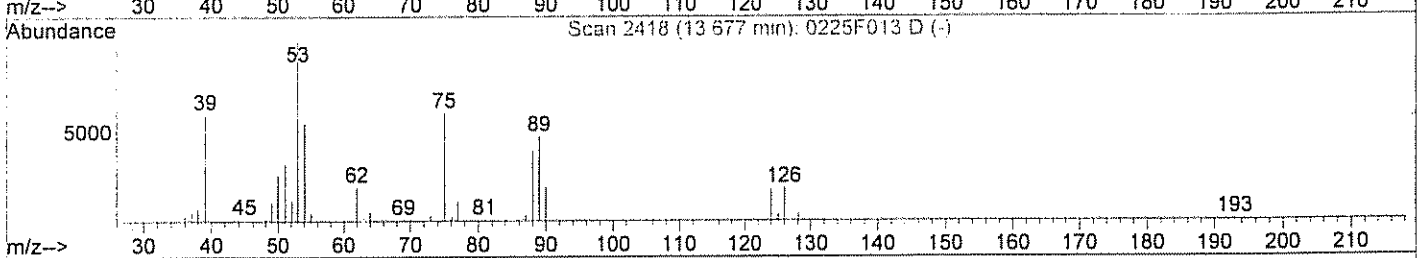
Data File : J:\MS13\DATA\031505\0315F006.D
Acq On : 15 Mar 2005 5:34 pm
Sample : K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:48 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F006.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 33.34PPB

response 103785

Ion	Exp%	Act%
53.00	100	100
89.00	46.90	43.57
124.00	18.00	15.44
62.00	19.00	21.22

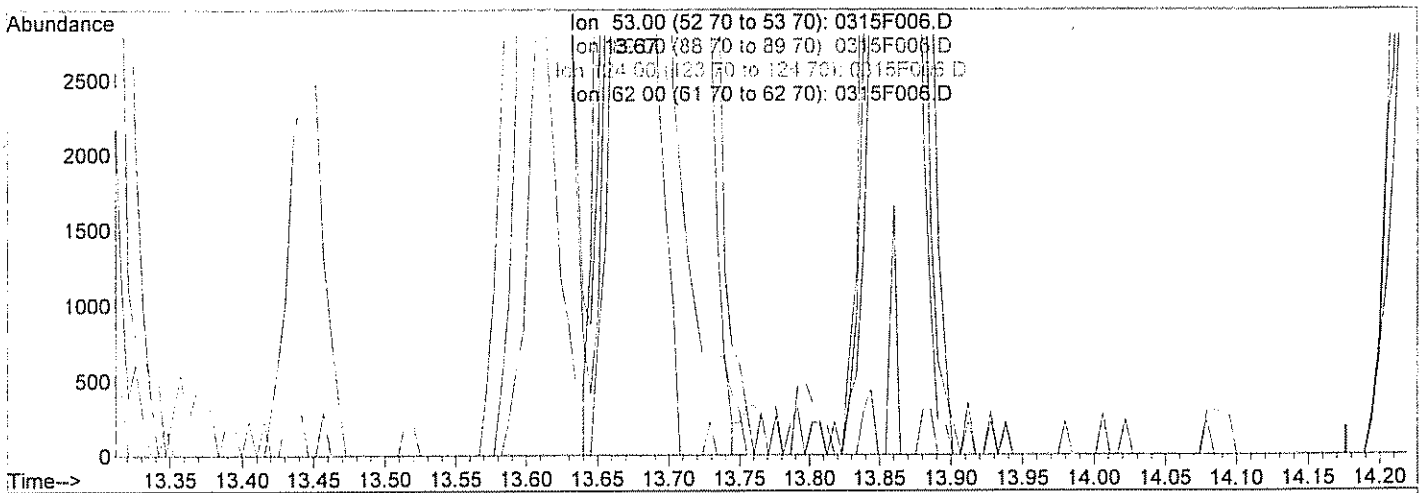
0315F006.D 022505_8260W.M Wed Mar 16 15:49:20 2005

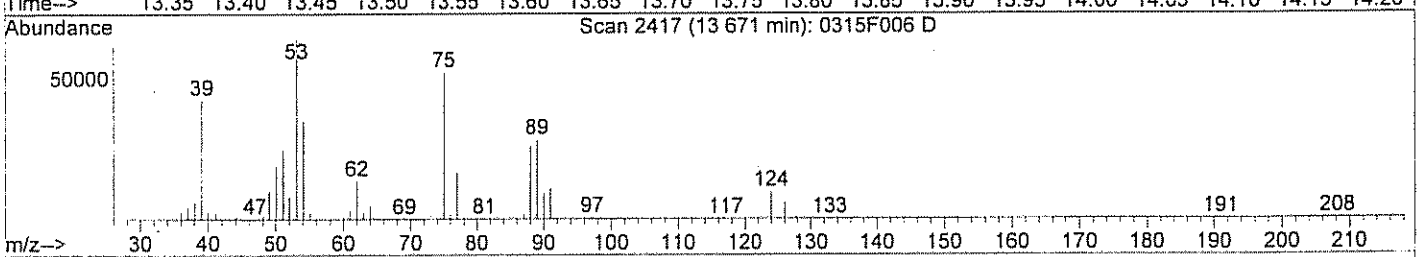
Quantitation Report (Qedit)

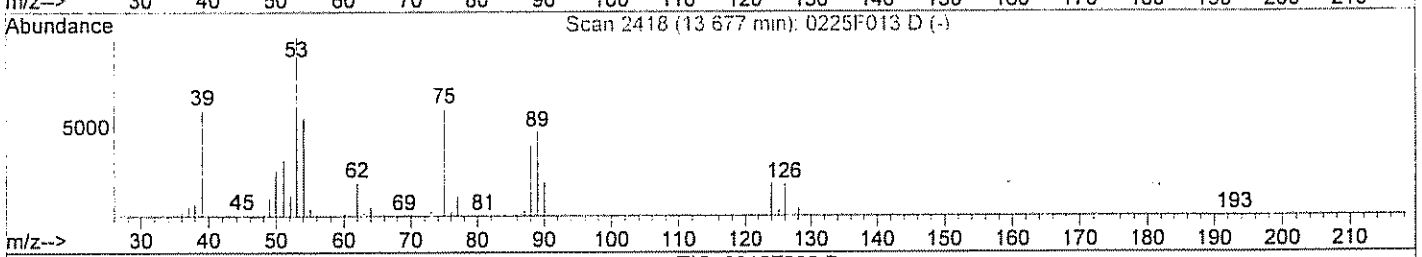
Data File : J:\MS13\DATA\031505\0315F006.D
Acq On : 15 Mar 2005 5:34 pm
Sample : K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:49 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F006.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 33.62PPB m

response 104671

Ion	Exp%	Act%
53.00	100	100
89.00	46.90	44.37
124.00	18.00	15.39
62.00	19.00	21.61

slanted baseline
LB 3/16/05

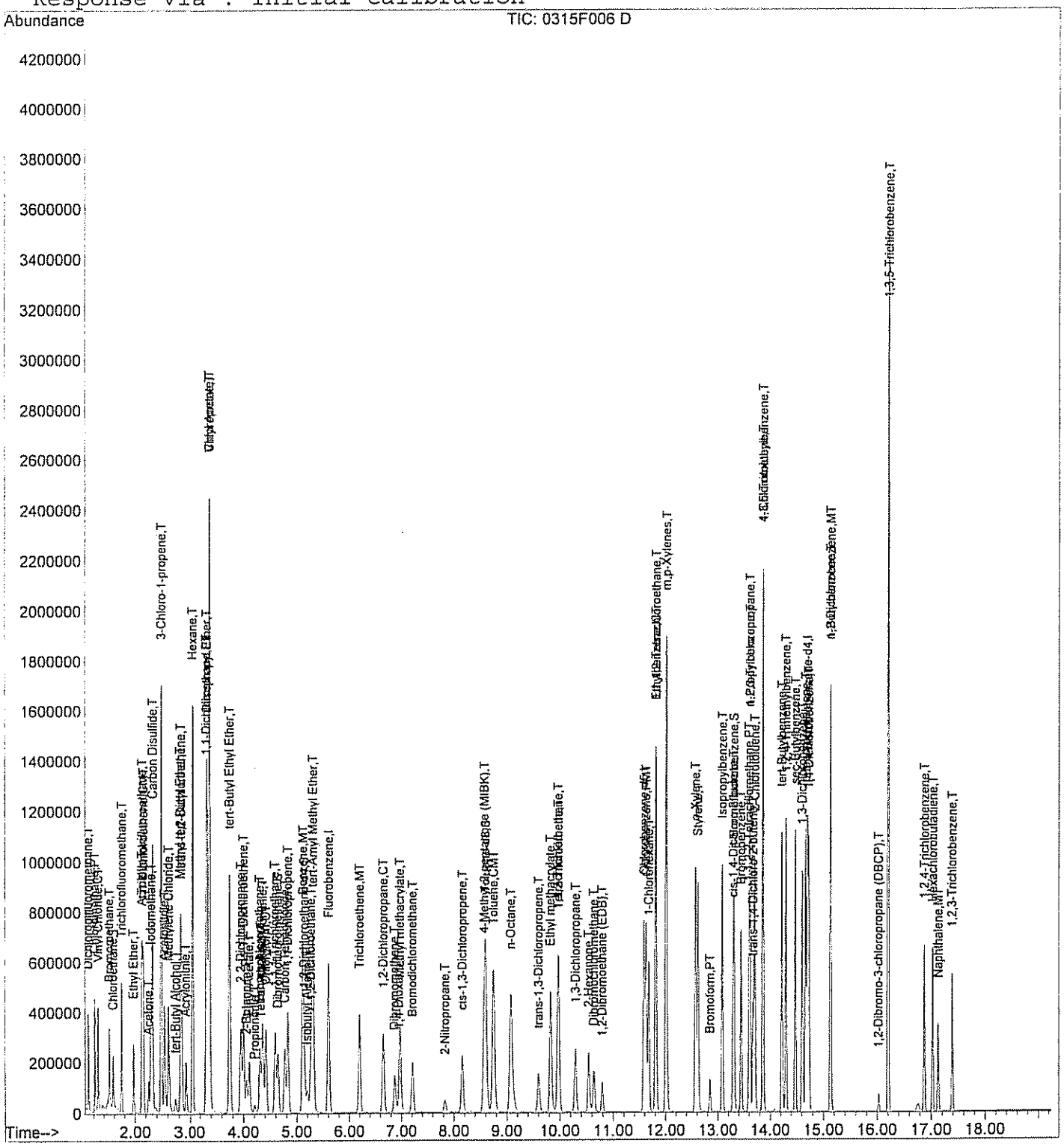
mt 3/17/05

0315F006.D 022505_8260W.M Wed Mar 16 15:49:26 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F006.D Vial: 6
Acq On : 15 Mar 2005 5:34 pm Operator:
Sample : K2501544-005DMS Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:49 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/15/2005
Date Analyzed: 03/15/2005

Volatile Organic Compounds

Sample Name: Lab Control Sample
Lab Code: KWG0504274-3
File ID: J:\MS13\DATA\031505\0315F004.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504274
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	7.90		0.50	0.17	
74-87-3	Chloromethane	7.77		0.50	0.14	
75-01-4	Vinyl Chloride	8.58		0.50	0.22	
74-83-9	Bromomethane	8.75		0.50	0.22	
75-00-3	Chloroethane	9.24		0.50	0.23	
75-69-4	Trichlorofluoromethane	8.80		0.50	0.14	
67-64-1	Acetone	43.4		20	4.1	
75-35-4	1,1-Dichloroethene	9.87		0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	8.14		0.50	0.20	
75-15-0	Carbon Disulfide	21.1		0.50	0.16	
75-09-2	Methylene Chloride	8.94		2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	9.32		0.50	0.15	
75-34-3	1,1-Dichloroethane	9.45		0.50	0.11	
78-93-3	2-Butanone (MEK)	43.2		20	2.0	
594-20-7	2,2-Dichloropropane	9.00		0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	9.26		0.50	0.12	
67-66-3	Chloroform	9.51		0.50	0.14	
74-97-5	Bromochloromethane	9.51		0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	10.0		0.50	0.12	
563-58-6	1,1-Dichloropropene	9.07		0.50	0.15	
56-23-5	Carbon Tetrachloride	11.0		0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	9.80		0.50	0.12	
71-43-2	Benzene	9.51		0.50	0.14	
79-01-6	Trichloroethene (TCE)	9.45		0.50	0.14	
78-87-5	1,2-Dichloropropane	9.28		0.50	0.14	
75-27-4	Bromodichloromethane	10.3		0.50	0.11	
74-95-3	Dibromomethane	9.46		0.50	0.12	
591-78-6	2-Hexanone	39.7		20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0504274-3	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F004.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	9.38		0.50	0.11	
108-88-3	Toluene	9.16		0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	8.76		0.50	0.090	
79-00-5	1,1,2-Trichloroethane	9.73		0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	41.3		20	2.7	
142-28-9	1,3-Dichloropropane	9.63		0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	9.54		0.50	0.13	
124-48-1	Dibromochloromethane	10.6		0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	9.51		2.0	0.099	
108-90-7	Chlorobenzene	9.28		0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	10.5		0.50	0.12	
100-41-4	Ethylbenzene	10.1		0.50	0.13	
136777-61-2	m,p-Xylenes	20.3		0.50	0.22	
95-47-6	o-Xylene	9.82		0.50	0.11	
100-42-5	Styrene	10.3		0.50	0.095	
75-25-2	Bromoform	10.9		0.50	0.28	
98-82-8	Isopropylbenzene	9.07		2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	9.48		0.50	0.14	
96-18-4	1,2,3-Trichloropropane	9.28		0.50	0.22	
108-86-1	Bromobenzene	9.80		2.0	0.18	
103-65-1	n-Propylbenzene	10.5		2.0	0.098	
95-49-8	2-Chlorotoluene	10.6		2.0	0.12	
106-43-4	4-Chlorotoluene	10.4		2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	10.7		2.0	0.13	
98-06-6	tert-Butylbenzene	10.4		2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	10.2		2.0	0.15	
135-98-8	sec-Butylbenzene	11.0		2.0	0.13	
541-73-1	1,3-Dichlorobenzene	9.40		0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/2005
		Date Analyzed:	03/15/2005

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0504274-3	**Basis:**	NA
File ID:	J:\MS13\DATA\031505\0315F004.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504274
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	9.73		2.0	0.13	
106-46-7	1,4-Dichlorobenzene	9.46		0.50	0.12	
104-51-8	n-Butylbenzene	10.3		2.0	0.23	
95-50-1	1,2-Dichlorobenzene	9.17		0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	9.61		2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	8.42		2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	8.21		2.0	0.33	
91-20-3	Naphthalene	7.75		2.0	0.29	
87-68-3	Hexachlorobutadiene	10.9		2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	19.9		2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	17.9		2.0	0.075	
75-65-0	tert-Butyl Alcohol	84.1		20	1.1	*
108-20-3	Diisopropyl Ether	19.0		2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	80-119	03/15/05	Acceptable
Toluene-d8	97	83-113	03/15/05	Acceptable
4-Bromofluorobenzene	101	72-114	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031505\0315F004 D
Lab ID: KWG0504274-3
RunType: LCS
Matrix: WATER

Date Acquired: 03/15/2005 16:40
Date Quantitated: 03/16/2005 15:46
Batch ID: KWG0504272
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0092	0.01	NA	NT
	tert-Butyl Alcohol	0.0057	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0029	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: LB 3/16/05

Secondary Review: MH 3/17/05

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**	KWG0504274	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	368614	**Prep Date:**	03/15/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031505\0315F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031505\0315F009 D	**Quant based on Method**	

Data File:	J:\MS13\DATA\031505\0315F004 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 16:40	**Quant Date:**	03/16/2005 15:46	**Vial:**	4
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0504274-3			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	668606	10.00	OK
2	Chlorobenzene-d5	11 58	0 00	82	282190	10.00	OK
3	1,4-Dichlorobenzene-d4	14 70	0.00	152	309382	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4 64	0 00	0.00	113	156330	9 45	95	80-119	OK	
1	1,2-Dichloroethane-d4	5 15	0 01	0 00	65	171307	9.19	92	76-115	OK	
1	Toluene-d8	8.60	0.00	0 00	98	707838	9 67	97	83-113	OK	
2	4-Bromofluorobenzene	13 31	0 00	0.00	95	251041	10 06	101	72-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1 09	-0 01	0 00	85	162402	7.90	7 90		
1	Chloromethane	1 22		0 00	50	201518	7 77	7 77		
1	Vinyl Chloride	1 29		0.00	62	187230	8 58	8 58		
1	Bromomethane	1 51		0 00	96	108894	8.75	8.75		
1	Chloroethane	1 58		0.00	64	120430	9.24	9.24		
1	Dichlorofluoromethane (CFC 21				67	0d		0.40	U	
1	Trichlorofluoromethane	1 74		0.00	101	253463	8 80	8 80		
1	Ethyl Ether	1 97		0 00	59	97493	8.22	8 22		
1	Acrolein	2 12		0.00	56	135486	79.20	79 2		
1	Trichlorotrifluoroethane	2.13		0 00	151	145960	10 46	10 5		
1	1,1-Dichloroethene	2 15		0 00	96	149200	9 87	9.87		
1	Acetone	2.25		0.00	43	110708	43.43	43.4		
1	Iodomethane	2.29		0 00	142	469654m	25.17	25.2		
1	Carbon Disulfide	2.32		0 00	76	969956	21 09	21.1		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F004.D			Instrument:	MS13
Acqu Date:	03/15/2005 16:40	Quant Date:	03/16/2005 15:46	Vial:	4
Run Type:	LCS			Dilution:	1.0
Lab ID:	KWG0504274-3			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2.48		0.00	76	271407	33.71	33.7		
1	Acetonitrile	2.54		0.00	40	187207	297.91	298		
1	Methylene Chloride	2.62		0.00	84	163888	8.94	8.94		
1	tert-Butyl Alcohol	2.73	-0.01	0.00	59	41941	84.13	84.1		
1	Acrylonitrile	2.92	0.01	0.00	53	131634	38.99	39.0		
1	Methyl tert-Butyl Ether	2.82		0.00	73	291267	8.14	8.14		
1	trans-1,2-Dichloroethene	2.83	-0.01	0.00	96	165596	9.32	9.32		
1	n-Hexane	3.04	-0.01	0.00	57	623539	34.62	34.6		
1	Diisopropyl Ether	3.33		0.00	45	989953	18.97	19.0		
1	1,1-Dichloroethane	3.31		0.00	63	292270	9.45	9.45		
1	Vinyl Acetate	3.37		0.00	86	111836	52.89	52.9		
1	Chloroprene	3.37		0.00	53	847043	38.83	38.8		
1	tert-Butyl Ethyl Ether	3.74		0.00	59	723941	17.94	17.9		
1	2,2-Dichloropropane	3.95		0.00	77	158424	9.00	9.00		
1	cis-1,2-Dichloroethene	4.00		0.00	96	175177	9.26	9.26		
1	2-Butanone (MEK)	4.05		0.00	72	41380	43.19	43.2		
1	Propionitrile	4.21	0.01	0.00	54	33911	28.38	28.4		
1	Ethyl Acetate	4.11		0.00	61	35070	30.51	30.5		
1	Methacrylonitrile	4.36		0.00	67	121479	29.22	29.2		
1	Bromochloromethane	4.31	0.01	0.00	128	77486	9.51	9.51		
1	Tetrahydrofuran	4.32	-0.02	0.00	71	17708	15.51	15.5		
1	Chloroform	4.42		0.00	83	283196	9.51	9.51		
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	228674	10.02	10.0		
1	Carbon Tetrachloride	4.77		0.00	117	183758	11.02	11.0		
1	1,1-Dichloropropene	4.83		0.00	75	211827	9.07	9.07		
1	Isobutyl Alcohol	5.20	0.01	0.00	43	58207	287.00	287		
1	Benzene	5.11		0.00	78	690809	9.51	9.51		
1	1,2-Dichloroethane (EDC)	5.26		0.00	62	204286	9.80	9.80		
1	tert-Amyl Methyl Ether	5.30	-0.01	0.00	55	265724	19.94	19.9		
1	Trichloroethene (TCE)	6.20		0.00	95	167586	9.45	9.45		
1	1,2-Dichloropropane	6.65		0.00	63	156257	9.28	9.28		
1	Dibromomethane	6.87		0.00	93	75960	9.46	9.46		
1	Methyl Methacrylate	6.97		0.00	69	181942	27.04	27.0		
1	1,4-Dioxane	6.93		0.00	88	25786m	271.90	272		
1	Bromodichloromethane	7.21		0.00	83	190025	10.34	10.3		
1	2-Nitropropane	7.83	0.01	0.00	43	45473	34.08	34.1		
1	2-Chloroethyl Vinyl Ether	7.95	0.01	0.00	63	49711	6.86	6.86		
1	cis-1,3-Dichloropropene	8.16		0.00	75	195123	9.38	9.38		
1	4-Methyl-2-pentanone (MIBK)	8.57	0.01	0.00	58	134321	41.29	41.3		
1	Toluene	8.75		0.00	92	431157	9.16	9.16		
2	n-Octane	9.07	-0.01	0.00	85	180638	24.51	24.5		
2	trans-1,3-Dichloropropene	9.60		0.00	75	134684	8.76	8.76		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F004 D			Instrument:	MS13
Acqu Date:	03/15/2005 16:40	Quant Date:	03/16/2005 15:46	Vial:	4
Run Type:	LCS			Dilution:	1 0
Lab ID:	KWG0504274-3			Soln Conc. Units:	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 83	0 01	0 00	69	360646	29 15	29 2		
2	1,1,2-Trichloroethane	9 96		0 00	83	95848	9 73	9 73		
2	Tetrachloroethene (PCE)	9 97		0 00	164	151126	9 54	9 54		
2	2-Hexanone	10 54	0 01	0 00	57	39250	39 68	39 7		
2	1,3-Dichloropropane	10 29		0 00	76	199234	9 63	9 63		
2	Dibromochloromethane	10 64	0 01	0 00	129	116898	10 55	10 6		
2	1,2-Dibromoethane (EDB)	10 79		0 00	107	101013	9 51	9 51		
2	1-Chlorohexane	11 68		0 00	91	182916	10 04	10 0		
2	Chlorobenzene	11 63		0 00	112	474919	9 28	9 28		
2	Ethylbenzene	11 81		0 00	106	257765	10 08	10 1		
2	1,1,1,2-Tetrachloroethane	11 81		0 00	131	128775	10 50	10 5		
2	m,p-Xylenes	12 01		0 00	106	643079	20 32	20 3		
2	o-Xylene	12 57		0 00	106	289325	9 82	9 82		
2	Styrene	12 61		0 00	103	247102	10 32	10 3		
2	Bromoform	12 85		0 00	173	61213	10 87	10 9		
2	Isopropylbenzene	13 08		0 00	105	648754	9 07	9 07		
2	cis-1,4-Dichloro-2-butene	13 29		0 00	89	30611	28 15	28 2		
3	1,1,2,2-Tetrachloroethane	13 59		0 00	83	112612	9 48	9 48		
3	trans-1,4-Dichloro-2-butene	13 67	-0 01	0 00	53	97726m	31 88	31 9		
3	Bromobenzene	13 45		0 00	156	207680	9 80	9 80		
3	n-Propylbenzene	13 61		0 00	91	855929	10 53	10 5		
3	1,2,3-Trichloropropane	13 61		0 00	110	36063	9 28	9 28		
3	2-Chlorotoluene	13 71		0 00	91	574732	10 61	10 6		
3	1,3,5-Trimethylbenzene	13 86		0 00	105	624702	10 74	10 7		
3	4-Chlorotoluene	13 86		0 00	91	643019	10 39	10 4		
3	tert-Butylbenzene	14 22		0 00	119	491947	10 42	10 4		
3	1,2,4-Trimethylbenzene	14 30		0 00	105	613899	10 20	10 2		
3	sec-Butylbenzene	14 48		0 00	105	688243	11 03	11 0		
3	4-Isopropyltoluene	14 67		0 00	119	574525	9 73	9 73		
3	1,3-Dichlorobenzene	14 61		0 00	146	392083	9 40	9 40		
3	1,4-Dichlorobenzene	14 73		0 00	146	408467	9 46	9 46		
3	n-Butylbenzene	15 13		0 00	91	475215	10 33	10 3		
3	1,2-Dichlorobenzene	15 14		0 00	146	356206	9 17	9 17		
3	1,2-Dibromo-3-chloropropane	16 03		0 00	155	13558	9 61	9 61		
3	1,3,5-Trichlorobenzene	16 20		0 00	180	996321	39 49	39 5		
3	1,2,4-Trichlorobenzene	16 88		0 00	180	187776	8 42	8 42		
3	Hexachlorobutadiene	17 03		0 00	225	120766	10 90	10 9		
3	Naphthalene	17 13		0 00	128	232361	7 75	7 75		
3	1,2,3-Trichlorobenzene	17 38		0 00	180	152611	8 21	8 21		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F004 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 16:40	**Quant Date:**	03/16/2005 15:46	**Vial:**	4
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0504274-3			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

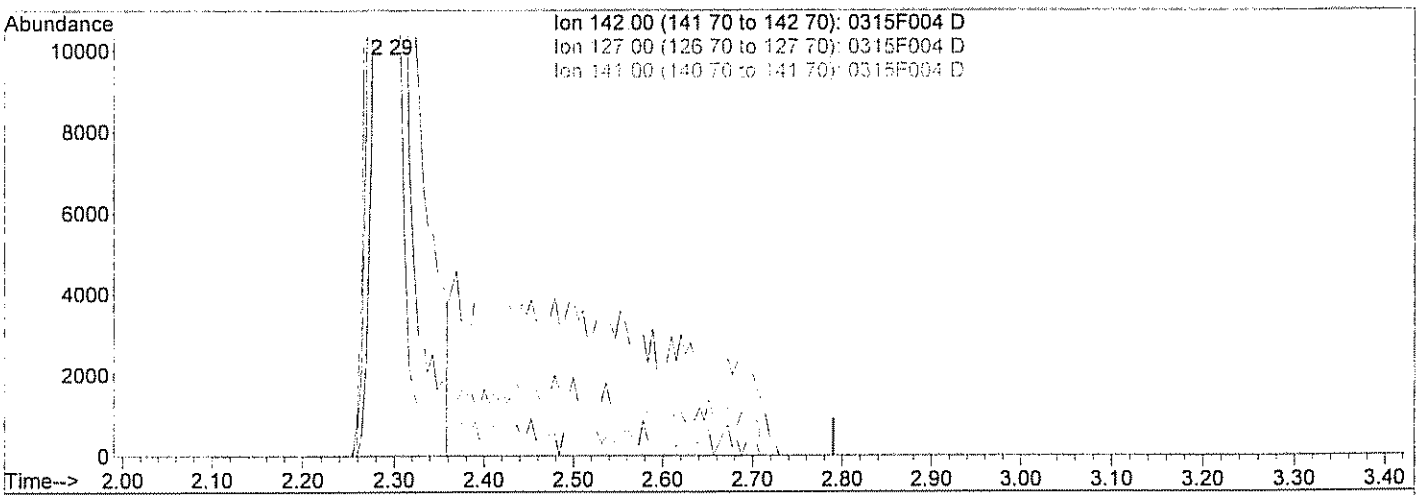
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

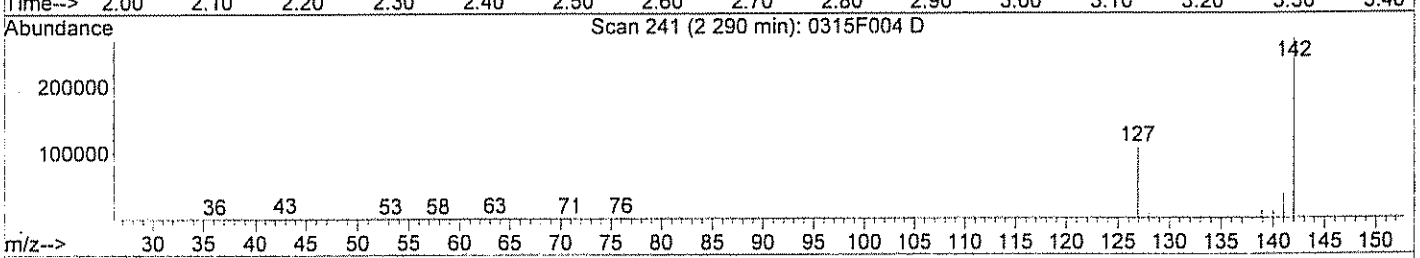
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

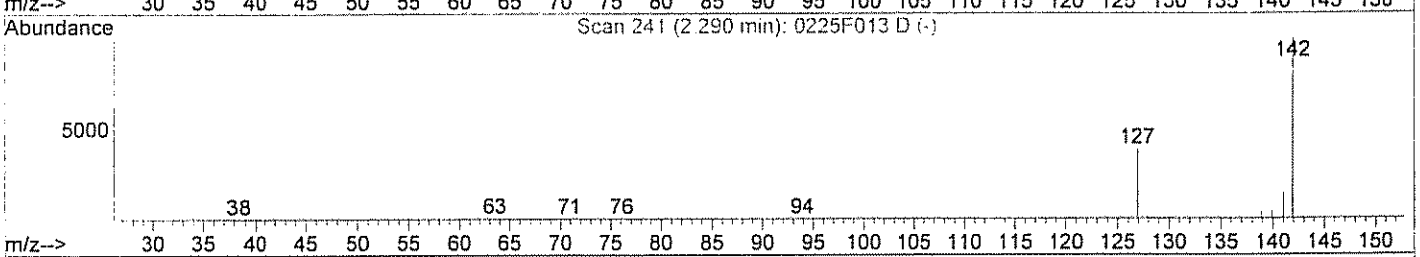
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F004.D Vial: 4
Acq On : 15 Mar 2005 4:40 pm Operator:
Sample : 0315 LCS W Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:44 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F004 D

(14) Iodomethane (T)

2 29min 21 67PPB

response 404469

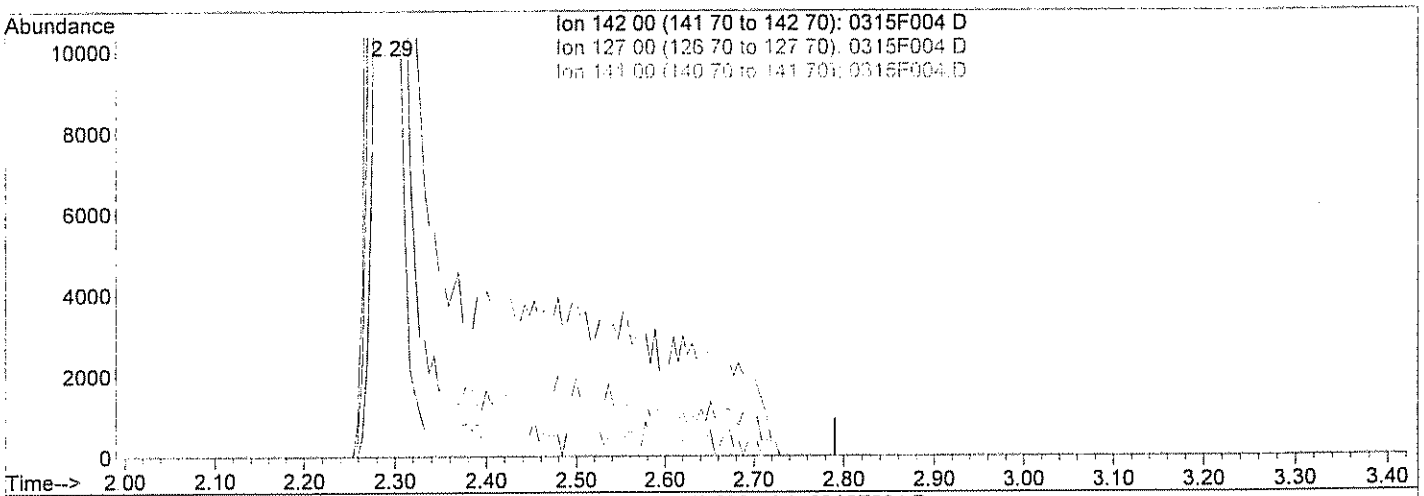
Ion	Exp%	Act%
142 00	100	100
127 00	38 60	39 54
141 00	14.40	13 96
0 00	0 00	0 00

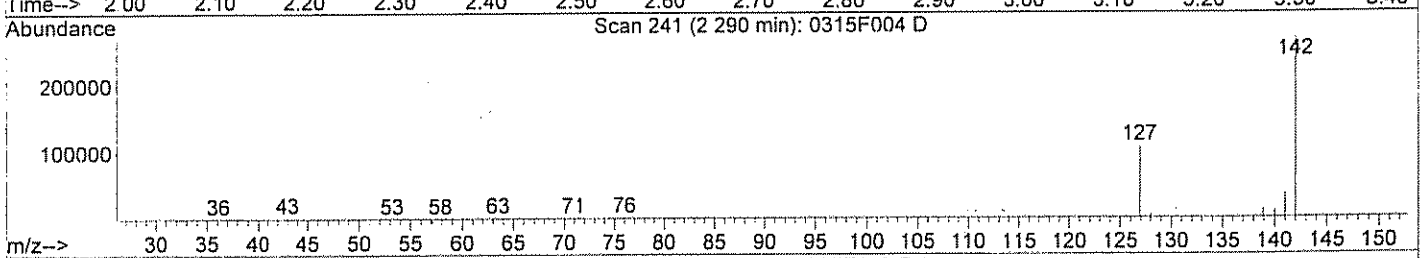
Quantitation Report (Qedit)

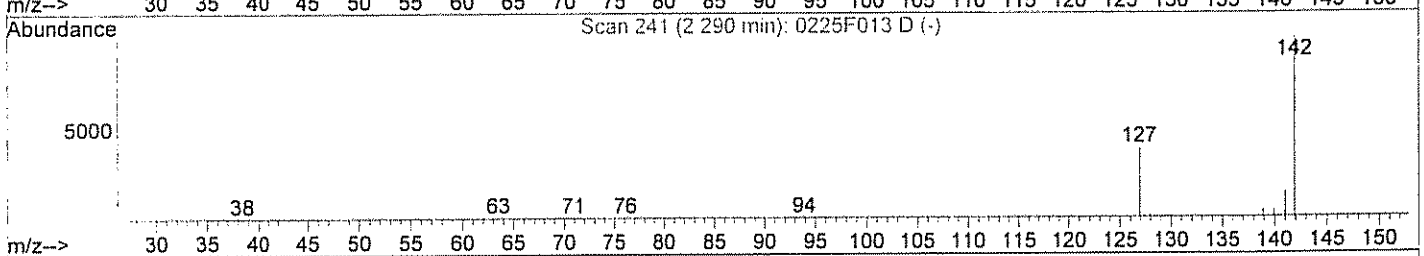
Data File : J:\MS13\DATA\031505\0315F004.D
Acq On : 15 Mar 2005 4:40 pm
Sample : 0315 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:45 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F004 D

(14) Iodomethane (T)

2 29min 25 17PPB m

response 469654

Ion	Exp%	Act%
142 00	100	100
127 00	38 60	39 54
141 00	14 40	13 96
0 00	0.00	0 00

peak tailing
LB 3/16/05

MT 3/17/5

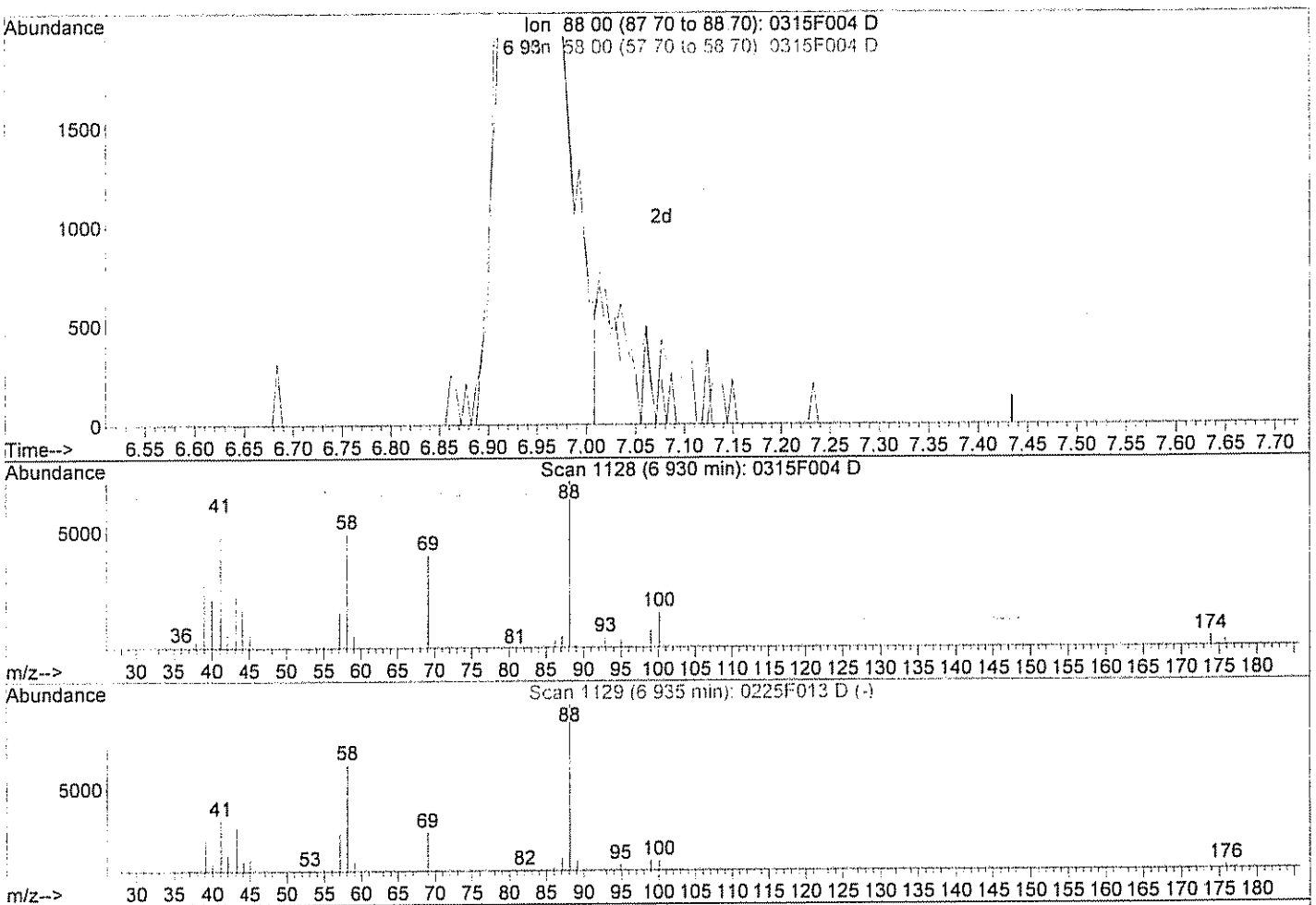
0315F004.D 022505_8260W.M Wed Mar 16 15:45:09 2005

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031505\0315F004.D
Acq On : 15 Mar 2005 4:40 pm
Sample : 0315 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:45 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6 93min 244 43PPB

response 23181

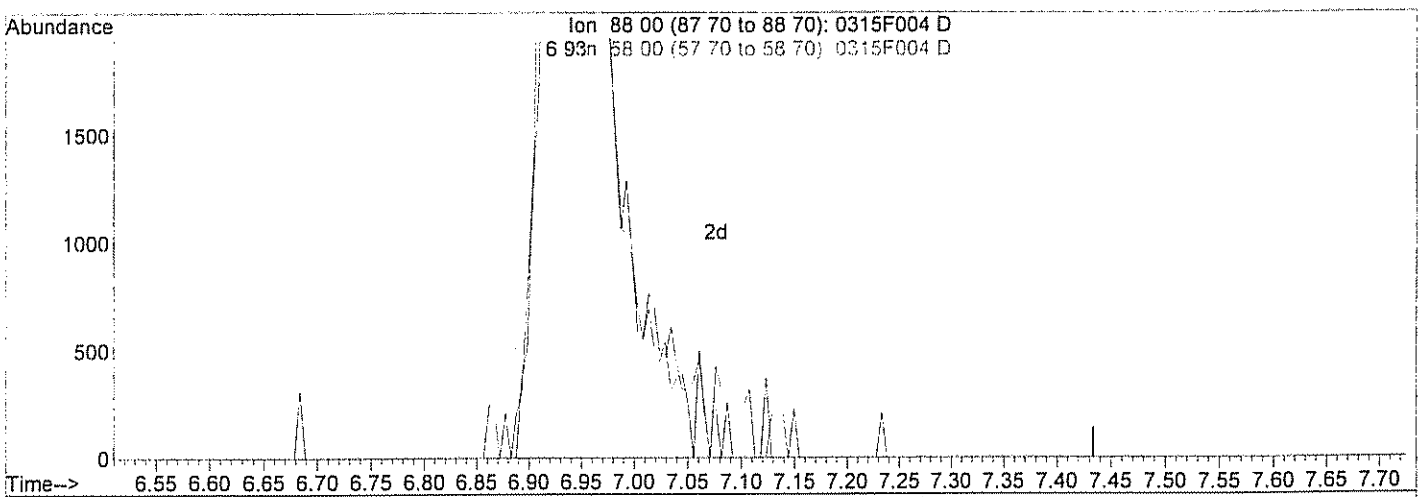
Ion	Exp%	Act%
88 00	100	100
58 00	64 70	70 10
0 00	0 00	0 00
0 00	0 00	0 00

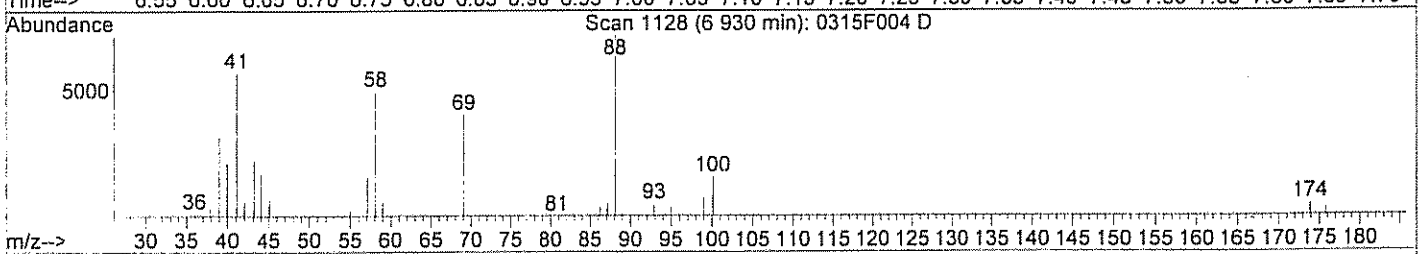
Quantitation Report (Qedit)

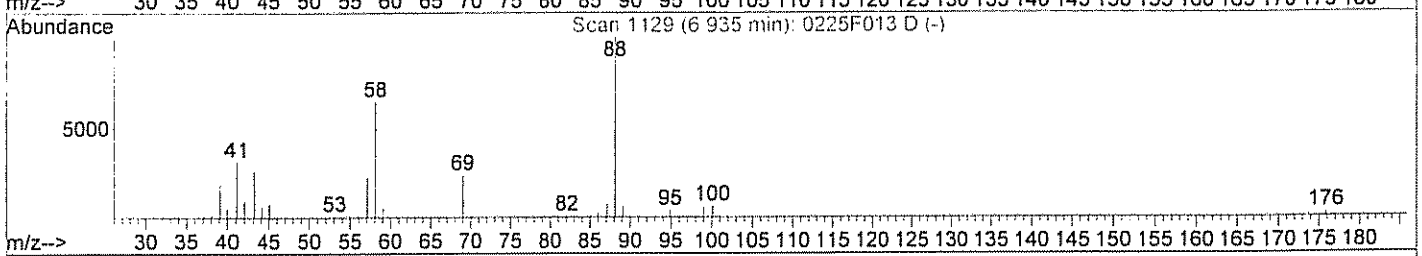
Data File : J:\MS13\DATA\031505\0315F004.D
Acq On : 15 Mar 2005 4:40 pm
Sample : 0315 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:45 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F004 D

(51) 1,4-Dioxane (T)

6 93min 271 90PPB m

response 25786

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	70 10
0 00	0.00	0.00
0 00	0.00	0 00

peak tailing
LB 3/16/05

MA 3/17/5

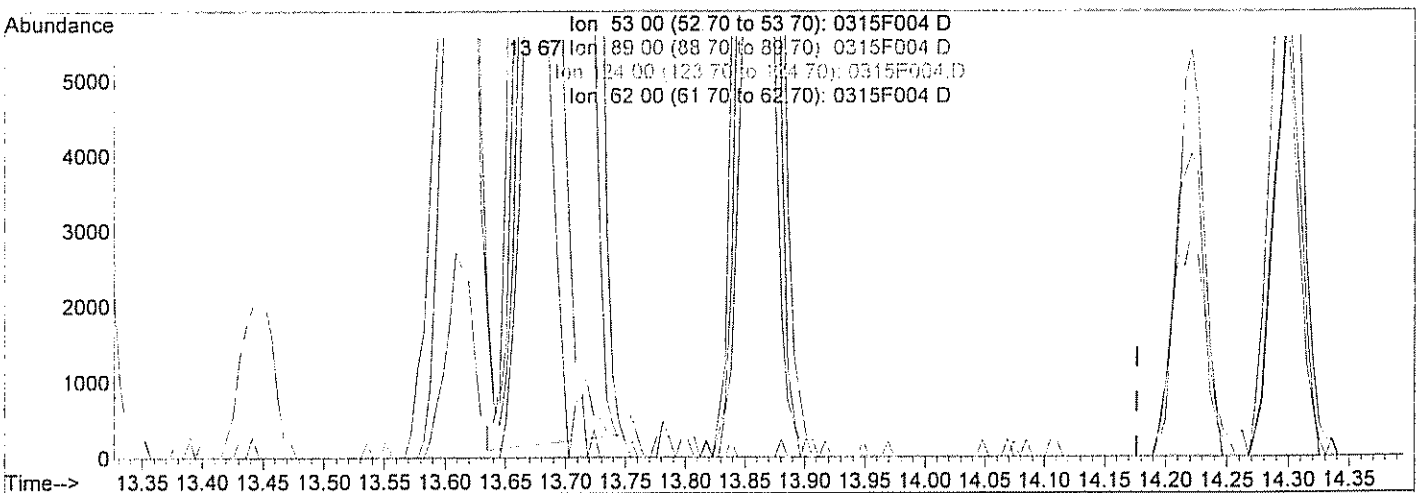
0315F004.D 022505_8260W.M Wed Mar 16 15:45:52 2005

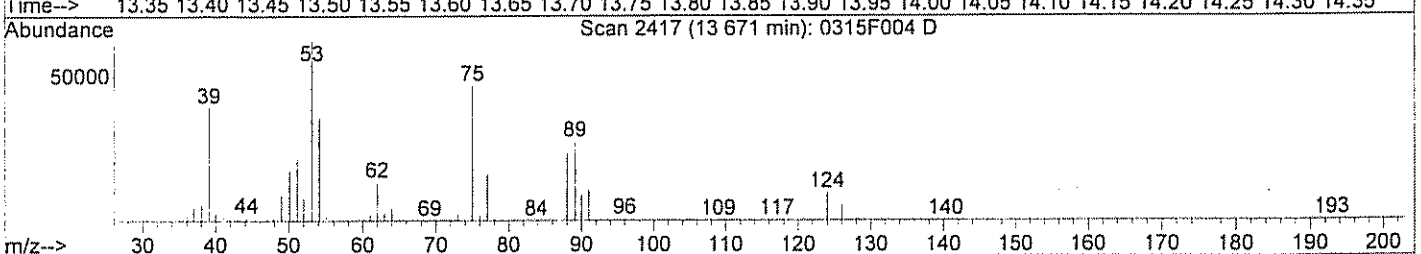
Quantitation Report (Qedit)

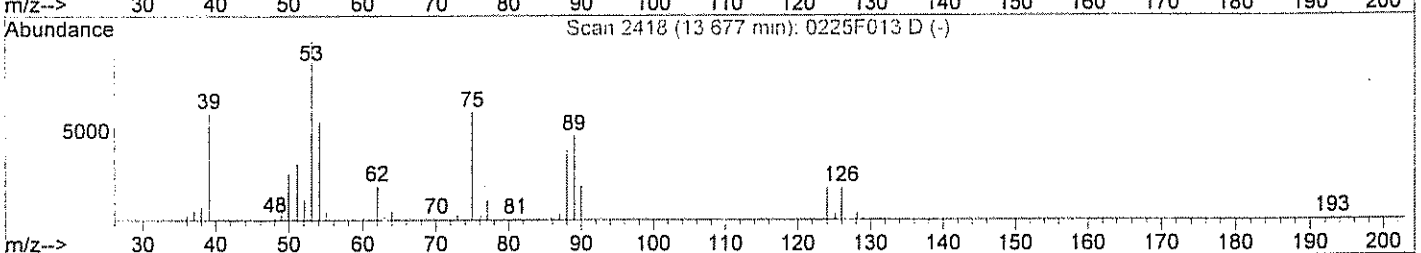
Data File : J:\MS13\DATA\031505\0315F004.D
Acq On : 15 Mar 2005 4:40 pm
Sample : 0315 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:45 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F004 D

(82) trans-1,4-Dichloro-2-butene (T)

13 67min 31 61PPB

response 96892

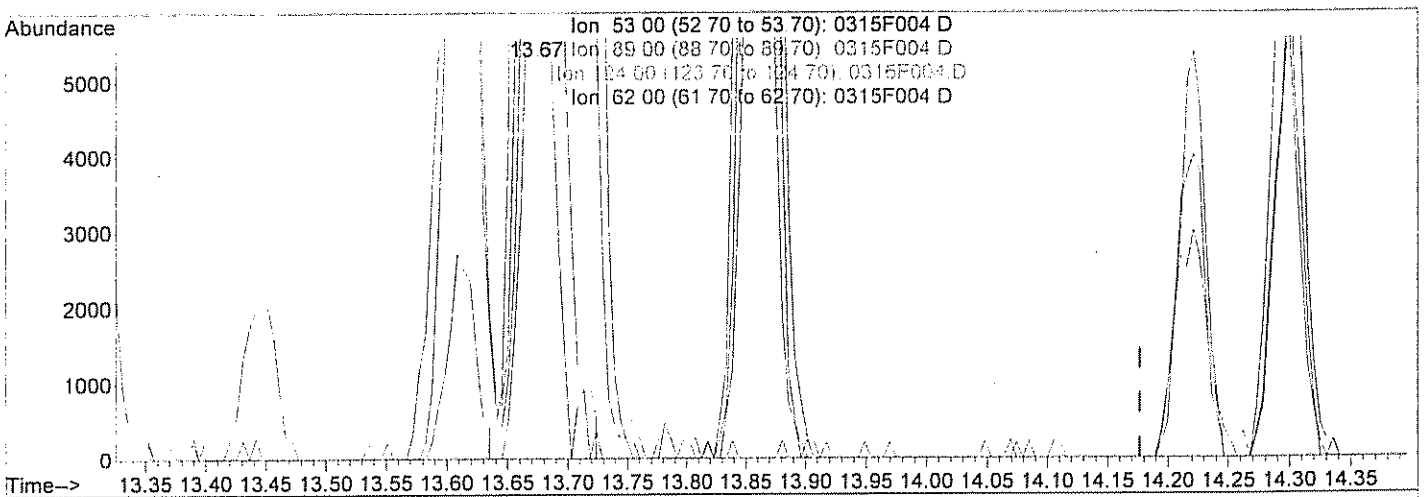
Ion	Exp%	Act%
53 00	100	100
89 00	46 90	43 36
124 00	18 00	15 36
62 00	19 00	21 30

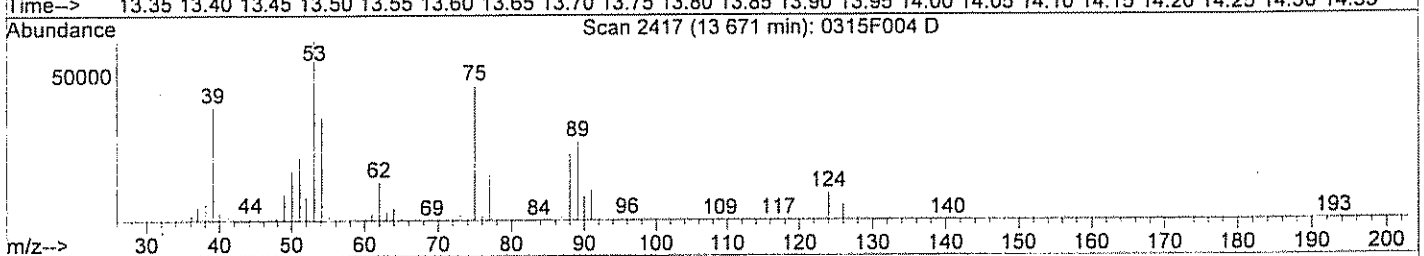
Quantitation Report (Qedit)

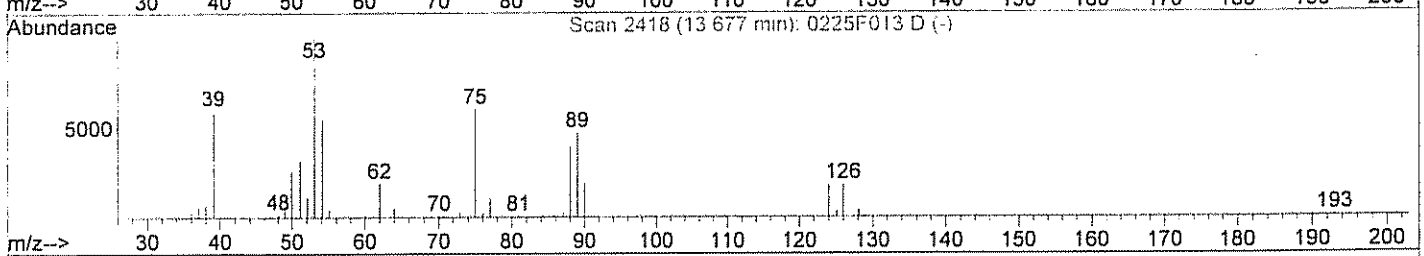
Data File : J:\MS13\DATA\031505\0315F004.D
Acq On : 15 Mar 2005 4:40 pm
Sample : 0315 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:46 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F004 D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 31 88PPB m

response 97726

Ion	Exp%	Act%
53 00	100	100
89 00	46 90	43 92
124 00	18 00	15 29
62 00	19 00	21 58

slanted baseline

LB 3/16/05

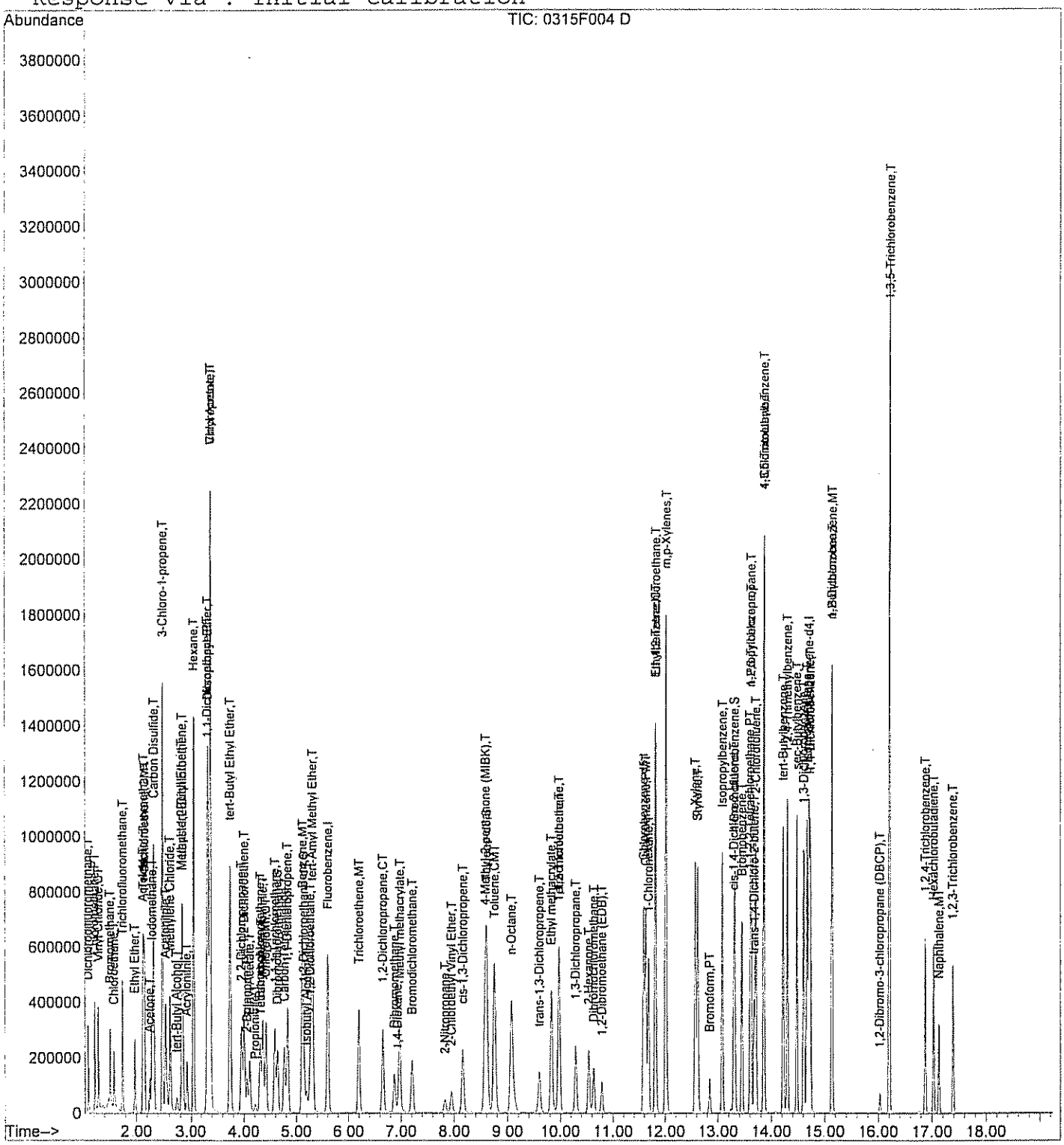
mt 3/17/5

0315F004.D 022505_8260W.M Wed Mar 16 15:46:42 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F004.D Vial: 4
Acq On : 15 Mar 2005 4:40 pm Operator:
Sample : 0315 LCS W Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:46 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005
Time Analyzed: 15:41

Tune Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031505\0315F002.D
Instrument ID: MS13
Column:

Analysis Method: 8260B
Analysis Lot: KWG0504272

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	17.8	8353	PASS
75	95	20	70	47.4	22224	PASS
95	95	50	200	100.0	46920	PASS
96	95	5	9	7.3	3437	PASS
173	174	0	2	0.0	0	PASS
174	95	50	200	102.3	48000	PASS
175	174	5	9	7.4	3556	PASS
176	174	95	101	99.5	47736	PASS
177	176	5	9	6.7	3176	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504273-2	J:\MS13\DATA\031505\0315F003.D	03/15/2005	16:12	
Lab Control Sample	KWG0504274-3	J:\MS13\DATA\031505\0315F004.D	03/15/2005	16:40	
50398-05MS	KWG0504274-1	J:\MS13\DATA\031505\0315F005.D	03/15/2005	17:07	
50398-05DMS	KWG0504274-2	J:\MS13\DATA\031505\0315F006.D	03/15/2005	17:34	
Method Blank	KWG0504274-4	J:\MS13\DATA\031505\0315F009.D	03/15/2005	18:56	
50398-01	K2501544-001	J:\MS13\DATA\031505\0315F010.D	03/15/2005	19:23	
50398-02	K2501544-002	J:\MS13\DATA\031505\0315F011.D	03/15/2005	19:51	
50398-03	K2501544-003	J:\MS13\DATA\031505\0315F012.D	03/15/2005	20:18	
50398-04	K2501544-004	J:\MS13\DATA\031505\0315F013.D	03/15/2005	20:45	
50398-05	K2501544-005	J:\MS13\DATA\031505\0315F014.D	03/15/2005	21:13	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File: J:\MS13\DATA\031505\0315F002.D
Lab ID: KWG0504273-1
RunType: TUNE
Matrix: WATER

Date Acquired: 03/15/2005 15:41
Date Quantitated:
Batch ID: KWG0504272
Analysis Method: 8260B
ListJoinID: LJ5396

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: LB 3/16/05

Secondary Review: MA 3/17/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ1456
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS13\DATA\031505\0315F002 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 15:41	**Quant Date:**		**Vial:**	2
Run Type:	TUNE			**Dilution:**	1 0
Lab ID:	KWG0504273-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	17.8	8353	Pass
75	95	20	70	47 4	22224	Pass
95	95	50	200	100 0	46920	Pass
96	95	5	9	7.3	3437	Pass
173	174	0	2	0 0	0	Pass
174	95	50	200	102.3	48000	Pass
175	174	5	9	7 4	3556	Pass
176	174	95	101	99 5	47736	Pass
177	176	5	9	6 7	3176	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

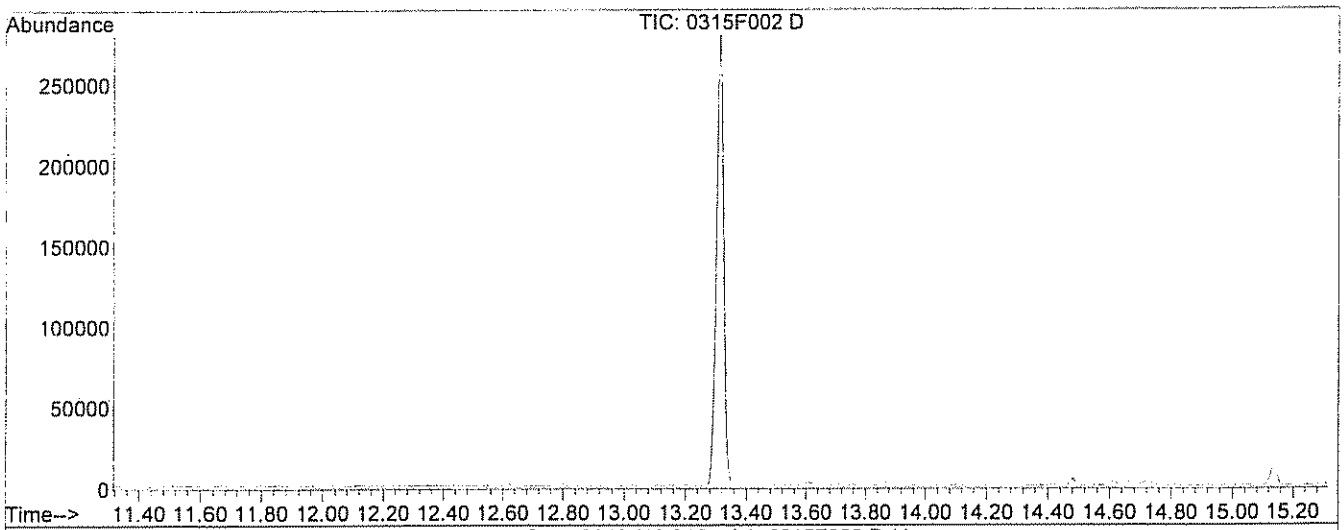
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

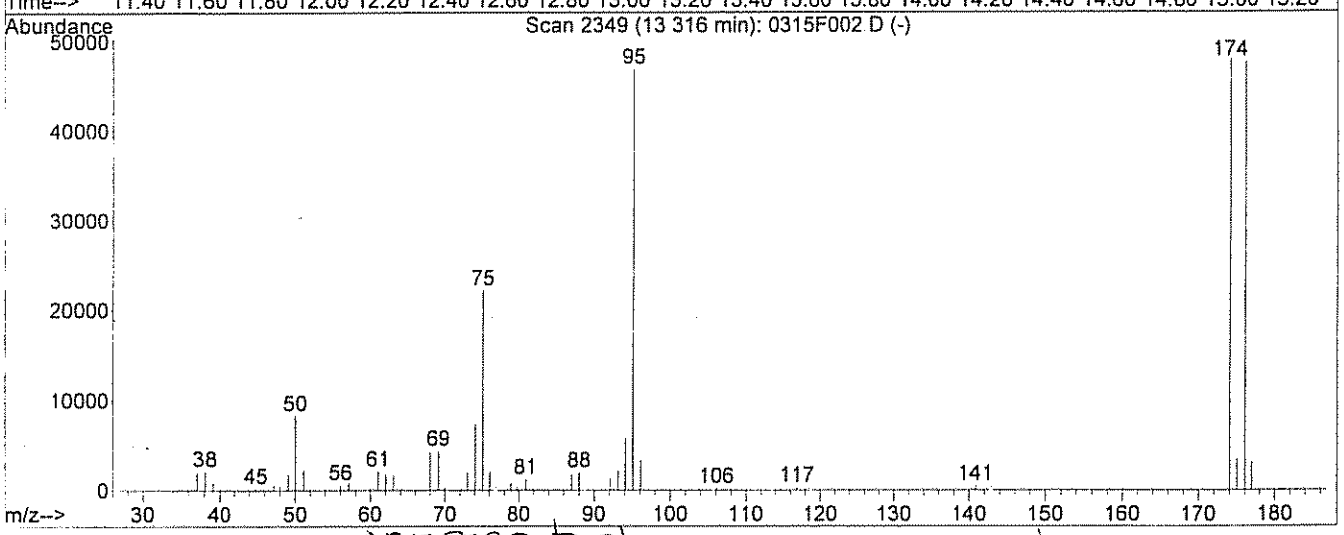
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

BFB

Data File : J:\MS13\DATA\031505\0315F002.D
Acq On : 15 Mar 2005 3:41 pm
Sample : 50ng BFB
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B

Vial: 2
Operator:
Inst : MS13
Multiplr: 1.00





one scan to rt.

Spectrum Information: Scan 2349 - scan 2337 KB 3/16/05

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	5	40	17.8	8353	PASS
75	95	20	70	47.4	22224	PASS
95	95	50	200	100.0	46920	PASS
96	95	5	9	7.3	3437	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	102.3	48000	PASS
175	174	5	9	7.4	3556	PASS
176	174	95	101	99.5	47736	PASS
177	176	5	9	6.7	3176	PASS

0315F002.D 022505_8260W.M Wed Mar 16 15:40:19 2005

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS13\DATA\022505\0225F007.D	F	J:\MS13\DATA\022505\0225F012.D
B	J:\MS13\DATA\022505\0225F008.D	G	J:\MS13\DATA\022505\0225F013.D
C	J:\MS13\DATA\022505\0225F009.D	H	J:\MS13\DATA\022505\0225F014.D
D	J:\MS13\DATA\022505\0225F010.D	I	J:\MS13\DATA\022505\0225F015.D
E	J:\MS13\DATA\022505\0225F011.D	J	J:\MS13\DATA\022505\0225F016.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	0.20	0.339	B	0.30	0.300	C	0.50	0.304	D	1.3	0.291	E	2.0	0.299
	F	5.0	0.328	G	10	0.321	H	20	0.304	I	40	0.281	J	80	0.308
† Chloromethane	A	0.20	0.492	B	0.30	0.435	C	0.50	0.418	D	1.3	0.403	E	2.0	0.389
	F	5.0	0.378	G	10	0.356	H	20	0.343	I	40	0.326	J	80	0.341
‡ Vinyl Chloride	A	0.20	0.371	B	0.30	0.342	C	0.50	0.337	D	1.3	0.327	E	2.0	0.316
	F	5.0	0.331	G	10	0.319	H	20	0.310	I	40	0.292	J	80	0.320
Bromomethane	A	0.20	0.198	B	0.30	0.193	C	0.50	0.203	D	1.3	0.192	E	2.0	0.192
	F	5.0	0.190	G	10	0.181	H	20	0.176	I	40	0.169	J	80	0.167
Chloroethane				B	0.30	0.257	C	0.50	0.217	D	1.3	0.191	E	2.0	0.194
	F	5.0	0.192	G	10	0.180	H	20	0.178	I	40	0.168	J	80	0.177
Trichlorofluoromethane	A	0.20	0.478	B	0.30	0.465	C	0.50	0.433	D	1.3	0.445	E	2.0	0.427
	F	5.0	0.429	G	10	0.418	H	20	0.408	I	40	0.388	J	80	0.418
Acetone	A	4.0	0.0404	B	6.0	0.0397	C	10	0.0403	D	25	0.0370	E	40	0.0363
	F	100	0.0383	G	200	0.0355	H	400	0.0376	I	800	0.0392	J	1600	0.0371
‡ 1,1-Dichloroethene	A	0.20	0.224	B	0.30	0.220	C	0.50	0.231	D	1.3	0.229	E	2.0	0.233
	F	5.0	0.231	G	10	0.227	H	20	0.223	I	40	0.212	J	80	0.232
Methyl tert-Butyl Ether	A	0.40	0.527	B	0.60	0.515	C	1.0	0.524	D	2.5	0.499	E	4.0	0.507
	F	10	0.549	G	20	0.540	H	40	0.559	I	80	0.565	J	160	0.567
Carbon Disulfide	A	0.20	0.787	B	0.30	0.698	C	0.50	0.702	D	1.3	0.661	E	2.0	0.681
	F	5.0	0.686	G	10	0.664	H	20	0.663	I	40	0.638	J	80	0.700
Methylene Chloride				B	0.30	0.349	C	0.50	0.309	D	1.3	0.280	E	2.0	0.266
	F	5.0	0.271	G	10	0.252	H	20	0.249	I	40	0.244	J	80	0.247
trans-1,2-Dichloroethene	A	0.20	0.305	B	0.30	0.285	C	0.50	0.269	D	1.3	0.262	E	2.0	0.256
	F	5.0	0.264	G	10	0.254	H	20	0.256	I	40	0.247	J	80	0.260
† 1,1-Dichloroethane	A	0.20	0.504	B	0.30	0.473	C	0.50	0.467	D	1.3	0.454	E	2.0	0.449
	F	5.0	0.467	G	10	0.452	H	20	0.456	I	40	0.442	J	80	0.463
2-Butanone (MEK)	A	4.0	0.0124	B	6.0	0.0116	C	10	0.0122	D	25	0.0137	E	40	0.0138
	F	100	0.0158	G	200	0.0146	H	400	0.0161	I	800	0.0168	J	1600	0.0162

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
2,2-Dichloropropane	A	0.20	0.258	B	0.30	0.262	C	0.50	0.250	D	1.3	0.237	E	2.0	0.239
	F	5.0	0.250	G	10	0.261	H	20	0.273	I	40	0.279	J	80	0.323
cis-1,2-Dichloroethene	A	0.20	0.287	B	0.30	0.294	C	0.50	0.285	D	1.3	0.282	E	2.0	0.277
	F	5.0	0.290	G	10	0.279	H	20	0.281	I	40	0.274	J	80	0.283
‡ Chloroform	A	0.20	0.510	B	0.30	0.449	C	0.50	0.452	D	1.3	0.442	E	2.0	0.430
	F	5.0	0.448	G	10	0.433	H	20	0.434	I	40	0.421	J	80	0.435
Bromochloromethane				B	0.30	0.116	C	0.50	0.126	D	1.3	0.115	E	2.0	0.122
	F	5.0	0.129	G	10	0.124	H	20	0.124	I	40	0.121	J	80	0.120
1,1,1-Trichloroethane (TCA)	A	0.20	0.316	B	0.30	0.350	C	0.50	0.337	D	1.3	0.326	E	2.0	0.330
	F	5.0	0.336	G	10	0.337	H	20	0.349	I	40	0.345	J	80	0.387
1,1-Dichloropropene	A	0.20	0.376	B	0.30	0.341	C	0.50	0.337	D	1.3	0.343	E	2.0	0.343
	F	5.0	0.354	G	10	0.348	H	20	0.350	I	40	0.336	J	80	0.365
Carbon Tetrachloride	A	0.20	0.240	B	0.30	0.225	C	0.50	0.230	D	1.3	0.238	E	2.0	0.233
	F	5.0	0.242	G	10	0.247	H	20	0.261	I	40	0.266	J	80	0.313
1,2-Dichloroethane (EDC)	A	0.20	0.328	B	0.30	0.312	C	0.50	0.324	D	1.3	0.299	E	2.0	0.301
	F	5.0	0.323	G	10	0.312	H	20	0.311	I	40	0.308	J	80	0.303
Benzene	A	0.20	1.13	B	0.30	1.14	C	0.50	1.11	D	1.3	1.06	E	2.0	1.07
	F	5.0	1.09	G	10	1.07	H	20	1.07	I	40	1.04	J	80	1.09
Trichloroethene (TCE)	A	0.20	0.274	B	0.30	0.276	C	0.50	0.276	D	1.3	0.255	E	2.0	0.261
	F	5.0	0.269	G	10	0.262	H	20	0.261	I	40	0.253	J	80	0.268
‡ 1,2-Dichloropropane	A	0.20	0.260	B	0.30	0.237	C	0.50	0.251	D	1.3	0.238	E	2.0	0.244
	F	5.0	0.261	G	10	0.253	H	20	0.257	I	40	0.255	J	80	0.263
Bromodichloromethane	A	0.20	0.285	B	0.30	0.269	C	0.50	0.264	D	1.3	0.247	E	2.0	0.246
	F	5.0	0.275	G	10	0.282	H	20	0.283	I	40	0.292	J	80	0.305
Dibromomethane	A	0.20	0.107	B	0.30	0.107	C	0.50	0.127	D	1.3	0.119	E	2.0	0.118
	F	5.0	0.129	G	10	0.123	H	20	0.124	I	40	0.124	J	80	0.122
2-Hexanone							C	10	0.0239	D	25	0.0276	E	40	0.0285
	F	100	0.0367	G	200	0.0364	H	400	0.0407	I	800	0.0443	J	1600	0.0424
cis-1,3-Dichloropropene	A	0.20	0.263	B	0.30	0.265	C	0.50	0.275	D	1.3	0.270	E	2.0	0.280
	F	5.0	0.321	G	10	0.329	H	20	0.350	I	40	0.369	J	80	0.387
‡ Toluene	A	0.20	0.728	B	0.30	0.671	C	0.50	0.684	D	1.3	0.682	E	2.0	0.695
	F	5.0	0.725	G	10	0.710	H	20	0.714	I	40	0.695	J	80	0.734
trans-1,3-Dichloropropene							C	0.50	0.442	D	1.3	0.423	E	2.0	0.441
	F	5.0	0.524	G	10	0.569	H	20	0.606	I	40	0.655	J	80	0.697

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† **SPCC Compound** ‡ **CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,1,2-Trichloroethane				B	0.30	0.353	C	0.50	0.315	D	1.3	0.326	E	2.0	0.320
	F	5.0	0.365	G	10	0.375	H	20	0.364	I	40	0.364	J	80	0.359
4-Methyl-2-pentanone (MIBK)				B	6.0	0.0400	C	10	0.0437	D	25	0.0427	E	40	0.0441
	F	100	0.0508	G	200	0.0488	H	400	0.0543	I	800	0.0579	J	1600	0.0555
1,3-Dichloropropane	A	0.20	0.667	B	0.30	0.744	C	0.50	0.681	D	1.3	0.709	E	2.0	0.713
	F	5.0	0.770	G	10	0.774	H	20	0.756	I	40	0.763	J	80	0.757
Tetrachloroethene (PCE)	A	0.20	0.618	B	0.30	0.609	C	0.50	0.552	D	1.3	0.549	E	2.0	0.553
	F	5.0	0.546	G	10	0.564	H	20	0.538	I	40	0.524	J	80	0.559
Dibromochloromethane				B	0.30	0.351	C	0.50	0.335	D	1.3	0.331	E	2.0	0.327
	F	5.0	0.404	G	10	0.416	H	20	0.429	I	40	0.460	J	80	0.481
1,2-Dibromoethane (EDB)	A	0.20	0.316	B	0.30	0.362	C	0.50	0.347	D	1.3	0.342	E	2.0	0.343
	F	5.0	0.405	G	10	0.410	H	20	0.409	I	40	0.414	J	80	0.415
† Chlorobenzene	A	0.20	1.94	B	0.30	1.85	C	0.50	1.79	D	1.3	1.75	E	2.0	1.76
	F	5.0	1.86	G	10	1.85	H	20	1.78	I	40	1.76	J	80	1.81
1,1,1,2-Tetrachloroethane	A	0.20	0.391	B	0.30	0.382	C	0.50	0.385	D	1.3	0.373	E	2.0	0.381
	F	5.0	0.446	G	10	0.453	H	20	0.478	I	40	0.511	J	80	0.547
‡ Ethylbenzene	A	0.20	0.866	B	0.30	0.780	C	0.50	0.796	D	1.3	0.865	E	2.0	0.881
	F	5.0	0.970	G	10	0.981	H	20	0.965	I	40	0.956	J	80	1.00
m,p-Xylenes	A	0.40	1.00	B	0.60	0.994	C	1.0	0.978	D	2.5	1.03	E	4.0	1.08
	F	10	1.22	G	20	1.24	H	40	1.22	I	80	1.20	J	160	1.26
o-Xylene	A	0.20	0.906	B	0.30	0.914	C	0.50	0.875	D	1.3	0.956	E	2.0	1.01
	F	5.0	1.13	G	10	1.16	H	20	1.15	I	40	1.15	J	80	1.20
Styrene							C	0.50	0.645	D	1.3	0.706	E	2.0	0.754
	F	5.0	0.878	G	10	0.942	H	20	0.936	I	40	0.951	J	80	0.977
† Bromoform	A	0.20	0.159	B	0.30	0.182	C	0.50	0.168	D	1.3	0.162	E	2.0	0.169
	F	5.0	0.197	G	10	0.213	H	20	0.226	I	40	0.250	J	80	0.270
Isopropylbenzene	A	0.20	2.17	B	0.30	2.10	C	0.50	2.17	D	1.3	2.32	E	2.0	2.47
	F	5.0	2.72	G	10	2.83	H	20	2.82	I	40	2.81	J	80	2.95
† 1,1,2,2-Tetrachloroethane	A	0.20	0.352	B	0.30	0.358	C	0.50	0.369	D	1.3	0.355	E	2.0	0.352
	F	5.0	0.400	G	10	0.426	H	20	0.407	I	40	0.410	J	80	0.410
1,2,3-Trichloropropane	A	0.20	0.110	B	0.30	0.115	C	0.50	0.125	D	1.3	0.125	E	2.0	0.129
	F	5.0	0.131	G	10	0.135	H	20	0.129	I	40	0.129	J	80	0.127
Bromobenzene	A	0.20	0.579	B	0.30	0.677	C	0.50	0.657	D	1.3	0.687	E	2.0	0.672
	F	5.0	0.727	G	10	0.731	H	20	0.711	I	40	0.697	J	80	0.711

Results flagged with an asterisk (*) indicate values outside control criteria

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
n-Propylbenzene	A	0.20	2.28	B	0.30	2.28	C	0.50	2.28	D	1.3	2.46	E	2.0	2.61
	F	5.0	2.79	G	10	2.90	H	20	2.89	I	40	2.83	J	80	2.95
2-Chlorotoluene	A	0.20	1.58	B	0.30	1.63	C	0.50	1.70	D	1.3	1.70	E	2.0	1.70
	F	5.0	1.85	G	10	1.87	H	20	1.82	I	40	1.78	J	80	1.87
4-Chlorotoluene	A	0.20	1.80	B	0.30	1.78	C	0.50	1.83	D	1.3	1.86	E	2.0	1.97
	F	5.0	2.15	G	10	2.19	H	20	2.13	I	40	2.12	J	80	2.18
1,3,5-Trimethylbenzene				B	0.30	1.50	C	0.50	1.53	D	1.3	1.67	E	2.0	1.77
	F	5.0	2.02	G	10	2.10	H	20	2.08	I	40	2.06	J	80	2.18
tert-Butylbenzene	A	0.20	1.33	B	0.30	1.29	C	0.50	1.36	D	1.3	1.41	E	2.0	1.48
	F	5.0	1.60	G	10	1.68	H	20	1.68	I	40	1.64	J	80	1.78
1,2,4-Trimethylbenzene							C	0.50	1.51	D	1.3	1.65	E	2.0	1.76
	F	5.0	2.05	G	10	2.15	H	20	2.13	I	40	2.10	J	80	2.21
sec-Butylbenzene	A	0.20	1.68	B	0.30	1.70	C	0.50	1.74	D	1.3	1.83	E	2.0	1.99
	F	5.0	2.17	G	10	2.25	H	20	2.24	I	40	2.20	J	80	2.35
1,3-Dichlorobenzene	A	0.20	1.40	B	0.30	1.31	C	0.50	1.33	D	1.3	1.29	E	2.0	1.34
	F	5.0	1.38	G	10	1.40	H	20	1.35	I	40	1.32	J	80	1.37
4-Isopropyltoluene							C	0.50	1.49	D	1.3	1.66	E	2.0	1.74
	F	5.0	1.99	G	10	2.07	H	20	2.07	I	40	2.05	J	80	2.20
1,4-Dichlorobenzene	A	0.20	1.47	B	0.30	1.34	C	0.50	1.38	D	1.3	1.40	E	2.0	1.37
	F	5.0	1.43	G	10	1.46	H	20	1.37	I	40	1.35	J	80	1.38
n-Butylbenzene	A	0.20	1.33	B	0.30	1.28	C	0.50	1.25	D	1.3	1.33	E	2.0	1.41
	F	5.0	1.56	G	10	1.62	H	20	1.64	I	40	1.66	J	80	1.79
1,2-Dichlorobenzene	A	0.20	1.29	B	0.30	1.23	C	0.50	1.20	D	1.3	1.22	E	2.0	1.20
	F	5.0	1.31	G	10	1.32	H	20	1.28	I	40	1.24	J	80	1.27
1,2-Dibromo-3-chloropropane										D	1.3	0.0326	E	2.0	0.0344
	F	5.0	0.0404	G	10	0.0452	H	20	0.0513	I	40	0.0555	J	80	0.0600
1,2,4-Trichlorobenzene	A	0.20	0.780	B	0.30	0.717	C	0.50	0.722	D	1.3	0.660	E	2.0	0.662
	F	5.0	0.727	G	10	0.738	H	20	0.727	I	40	0.728	J	80	0.752
1,2,3-Trichlorobenzene	A	0.20	0.681	B	0.30	0.585	C	0.50	0.583	D	1.3	0.550	E	2.0	0.554
	F	5.0	0.609	G	10	0.616	H	20	0.605	I	40	0.607	J	80	0.614
Naphthalene							C	0.50	0.787	D	1.3	0.746	E	2.0	0.774
	F	5.0	0.933	G	10	1.03	H	20	1.11	I	40	1.17	J	80	1.20
Hexachlorobutadiene				B	0.30	0.411	C	0.50	0.363	D	1.3	0.349	E	2.0	0.352
	F	5.0	0.348	G	10	0.352	H	20	0.342	I	40	0.340	J	80	0.363

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† **SPCC Compound** ‡ **CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
tert-Amyl Methyl Ether				B	0.30	0.207	C	0.50	0.216	D	1.3	0.198	E	2.0	0.193
	F	5.0	0.212	G	10	0.200	H	20	0.198	I	40	0.191	J	80	0.180
tert-Butyl Ethyl Ether	A	0.20	0.544	B	0.30	0.559	C	0.50	0.568	D	1.3	0.579	E	2.0	0.583
	F	5.0	0.625	G	10	0.617	H	20	0.639	I	40	0.653	J	80	0.671
tert-Butyl Alcohol							C	2.5	0.00708	D	6.3	0.00649	E	10	0.00642
	F	25	0.00717	G	50	0.00726	H	100	0.00779	I	200	0.00842	J	400	0.00902
Diisopropyl Ether	A	0.20	0.783	B	0.30	0.729	C	0.50	0.745	D	1.3	0.739	E	2.0	0.744
	F	5.0	0.798	G	10	0.795	H	20	0.819	I	40	0.821	J	80	0.834
Dibromofluoromethane	A	3.0	0.259	B	4.0	0.251	C	5.0	0.258	D	6.0	0.252	E	8.0	0.254
	F	9.0	0.253	G	10	0.245	H	20	0.238	I	40	0.233	J	50	0.231
Toluene-d8	A	3.0	1.11	B	4.0	1.06	C	5.0	1.09	D	6.0	1.11	E	8.0	1.13
	F	9.0	1.15	G	10	1.13	H	20	1.08	I	40	1.04	J	50	1.05
4-Bromofluorobenzene	A	3.0	0.876	B	4.0	0.850	C	5.0	0.869	D	6.0	0.892	E	8.0	0.897
	F	9.0	0.936	G	10	0.937	H	20	0.884	I	40	0.856	J	50	0.843

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Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	5.7		≤ 15	0.307		0.01
† Chloromethane	TRG	AverageRF	% RSD	13.2		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.5		≤ 15	0.327		0.01
Bromomethane	TRG	AverageRF	% RSD	6.5		≤ 15	0.186		0.01
Chloroethane	TRG	AverageRF	% RSD	14.0		≤ 15	0.195		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	6.1		≤ 15	0.431		0.01
Acetone	TRG	AverageRF	% RSD	4.5		≤ 15	0.0381		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	2.9		≤ 15	0.226		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	4.6		≤ 15	0.535		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	5.9		≤ 15	0.688		0.01
Methylene Chloride	TRG	AverageRF	% RSD	12.7		≤ 15	0.274		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.5		≤ 15	0.266		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.463		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0143		0.01
2,2-Dichloropropane	TRG	AverageRF	% RSD	9.5		≤ 15	0.263		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	2.2		≤ 15	0.283		0.01
‡ Chloroform	TRG	AverageRF	% RSD	5.5		≤ 15	0.445		0.01
Bromochloromethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.122		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	5.6		≤ 15	0.341		0.01
1,1-Dichloropropene	TRG	AverageRF	% RSD	3.7		≤ 15	0.349		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	10.3		≤ 15	0.249		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	3.2		≤ 15	0.312		0.01
Benzene	MS	AverageRF	% RSD	3.0		≤ 15	1.09		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	3.1		≤ 15	0.265		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	3.7		≤ 15	0.252		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	6.9		≤ 15	0.275		0.01
Dibromomethane	TRG	AverageRF	% RSD	6.2		≤ 15	0.120		0.01
2-Hexanone	TRG	AverageRF	% RSD	21.5	*	≤ 15	0.0351		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	14.9		≤ 15	0.311		0.01
‡ Toluene	MS	AverageRF	% RSD	3.1		≤ 15	0.704		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	19.2	*	≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.349		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0486		0.01
1,3-Dichloropropane	TRG	AverageRF	% RSD	5.2		≤ 15	0.734		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	5.3		≤ 15	0.561		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	14.9		≤ 15	0.393		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	10.1		≤ 15	0.376		0.01
† Chlorobenzene	MS	AverageRF	% RSD	3.3		≤ 15	1.81		0.30
1,1,1,2-Tetrachloroethane	TRG	AverageRF	% RSD	14.3		≤ 15	0.435		0.01
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.8		≤ 15	0.906		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	10.3		≤ 15	1.12		0.01
o-Xylene	TRG	AverageRF	% RSD	11.9		≤ 15	1.04		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Styrene	TRG	AverageRF	% RSD	15.1	*	≤ 15	0.849		0.01
† Bromoform	TRG	AverageRF	% RSD	19.4	*	≤ 15	0.200		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.54		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.384		0.30
1,2,3-Trichloropropane	TRG	AverageRF	% RSD	6.1		≤ 15	0.126		0.01
Bromobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	0.685		0.01
n-Propylbenzene	TRG	AverageRF	% RSD	10.7		≤ 15	2.63		0.01
2-Chlorotoluene	TRG	AverageRF	% RSD	5.9		≤ 15	1.75		0.01
4-Chlorotoluene	TRG	AverageRF	% RSD	8.5		≤ 15	2.00		0.01
1,3,5-Trimethylbenzene	TRG	AverageRF	% RSD	13.9		≤ 15	1.88		0.01
tert-Butylbenzene	TRG	AverageRF	% RSD	11.4		≤ 15	1.53		0.01
1,2,4-Trimethylbenzene	TRG	AverageRF	% RSD	13.6		≤ 15	1.95		0.01
sec-Butylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.02		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	2.7		≤ 15	1.35		0.01
4-Isopropyltoluene	TRG	AverageRF	% RSD	12.9		≤ 15	1.91		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	3.1		≤ 15	1.40		0.01
n-Butylbenzene	TRG	AverageRF	% RSD	12.7		≤ 15	1.49		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	3.6		≤ 15	1.26		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	22.9	*	≤ 15	0.0456		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	5.1		≤ 15	0.721		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.1		≤ 15	0.601		0.01
Naphthalene	MS	AverageRF	% RSD	19.1	*	≤ 15	0.968		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	6.0		≤ 15	0.358		0.01
tert-Amyl Methyl Ether	TRG	AverageRF	% RSD	5.7		≤ 15	0.199		0.01
tert-Butyl Ethyl Ether	TRG	AverageRF	% RSD	7.1		≤ 15	0.604		0.01
tert-Butyl Alcohol	TRG	AverageRF	% RSD	12.2		≤ 15	0.00746	*	0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	5.0		≤ 15	0.781		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	4.1		≤ 15	0.248		0.01
Toluene-d8	SURR	AverageRF	% RSD	3.4		≤ 15	1.09		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.7		≤ 15	0.884		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

File ID: J:\MS13\DATA\022505\0225F021.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	10	0.307	0.308	0	NA	± 40 %	AverageRF
† Chloromethane	10	9.7	0.388	0.378	-3	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.327	0.323	-1	NA	± 20 %	AverageRF
Bromomethane	10	12	0.186	0.216	16	NA	± 40 %	AverageRF
Chloroethane	10	9.8	0.195	0.190	-2	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	9.2	0.431	0.397	-8	NA	± 30 %	AverageRF
Acetone	50	50	0.0381	0.0381	0	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	11	0.226	0.243	8	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	10	11	0.535	0.564	5	NA	± 30 %	AverageRF
Carbon Disulfide	20	22	0.688	0.756	10	NA	± 30 %	AverageRF
Methylene Chloride	10	9.5	0.274	0.261	-5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.266	0.269	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.463	0.461	0	NA	± 30 %	AverageRF
2-Butanone (MEK)	50	52	0.0143	0.0150	5	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	10	0.263	0.274	4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	9.8	0.445	0.437	-2	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.122	0.124	2	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.341	0.362	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	9.9	0.349	0.345	-1	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	11	0.249	0.268	7	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.312	0.310	-1	NA	± 30 %	AverageRF
Benzene	10	10	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	11	0.265	0.279	5	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	10	0.252	0.255	1	NA	± 20 %	AverageRF
Bromodichloromethane	10	10	0.275	0.283	3	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.120	0.122	2	NA	± 30 %	AverageRF
2-Hexanone	50	48	0.0351	0.0334	-5	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	11	0.311	0.330	6	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.704	0.708	1	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	9.6	0.545	0.521	-4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.349	0.359	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	50	51	0.0486	0.0493	1	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.734	0.765	4	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.561	0.568	1	NA	± 30 %	AverageRF
Dibromochloromethane	10	10	0.393	0.400	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	10	0.376	0.391	4	NA	± 30 %	AverageRF
† Chlorobenzene	10	9.7	1.81	1.76	-3	NA	± 30 %	AverageRF
1,1,1,2-Tetrachloroethane	10	11	0.435	0.469	8	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.906	0.971	7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
m,p-Xylenes	20	22	1.12	1.22	9	NA	± 30 %	AverageRF
o-Xylene	10	11	1.04	1.12	7	NA	± 30 %	AverageRF
Styrene	10	11	0.849	0.906	7	NA	± 30 %	AverageRF
† Bromoform	10	10	0.200	0.204	2	NA	± 30 %	AverageRF
Isopropylbenzene	10	9.8	2.54	2.47	-2	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	9.7	0.384	0.373	-3	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.126	0.130	3	NA	± 30 %	AverageRF
Bromobenzene	10	10	0.685	0.701	2	NA	± 30 %	AverageRF
n-Propylbenzene	10	11	2.63	2.88	10	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	1.75	1.91	9	NA	± 30 %	AverageRF
4-Chlorotoluene	10	11	2.00	2.13	7	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	11	1.88	2.10	12	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	1.53	1.70	12	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	1.95	2.12	9	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	2.02	2.33	16	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	9.8	1.35	1.33	-2	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	10	1.91	1.96	3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	9.9	1.40	1.38	-1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	1.49	1.64	10	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	9.9	1.26	1.24	-1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.0456	0.0460	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	9.9	0.721	0.715	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	9.7	0.601	0.581	-3	NA	± 30 %	AverageRF
Naphthalene	10	10	0.968	0.999	3	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	10	0.358	0.357	0	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	20	19	0.199	0.190	-5	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	20	20	0.604	0.611	1	NA	± 30 %	AverageRF
tert-Butyl Alcohol	100	100	0.00746	0.00781	5	NA	± 30 %	AverageRF
Diisopropyl Ether	20	20	0.781	0.785	1	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

8260 ICAL (Water) CAL4250

Date: 2/25/05

Columbia Analytical Services, Inc.

Injection Log

MS13 - Agilent 5973

Tune File: BFB1.u

By: KB

New Tune: No

IS/SS Std. ID: 38VOA-5L-A IS/SS 38VOA-~~53-C~~ IS 43-C KB 2/28/05

CCV Std ID: see benchsheet

ICAL Date:

LCS/ICV Std ID: ↓

Second RV: mt 3/1/5

MS/DMS Std. ID: NA

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	primer	0225F001	8260W4				
2	↓	2	↓				
3		3					
4		4					
5	50ng BFB	5		5µL/50mL			4:59 PM 38VOA-53-B
6	IB	6				✓	
7	8260 ICAL (Water) #1	7				✓	
8	2	8				✓	
9	3	9				✓	
10	4	10				✓	
11	5	11				✓	
12	6	12				✓	
13	7	13				✓	
14	8	14				✓	
15	9	15				✓	
16	↓ 10	16				✓	
17	IB	17					
18	IB	18					
19	8260 ICV W	19					(NR) VC failed
20	IB	20					
21	8260 ICV2 W	21				✓	check prep
22	IB	22					
23	IB	23					
24	Alt. CCV level	24		20µL+10µL+ 5µL/50mL		✓	1:51 AM 38VOA-L5-B, L1-C, L5-A
25	IB	↓ 25	↓				
26							
27							KB 3/25/05

Date 2/25/05 Analysis: 8260/App.

Prepared By LB Instrument: MS13

Matrix: Water

Stock Solution #1 38VOA-L5-A Analytes: Surrogate Init. Concentration: 100ppm

Stock Solution #2 L5-C Analytes: Low 8260/Ketones Init. Concentration: 5/10/20/100/200ppm

Stock Solution #3 L5-B Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Stock Solution #4 L1-C Analytes: Ketones Init. Concentration: 2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Final Volume (mL)	Notes
1.5	3	2.0	0.2/.4/.8/4/8					50	Level ID: 1
2.0	4	3.0	0.3/.6/1.2/6/12					50	Level ID: 2
2.5	5	5.0	.5/1/2/10/20					50	Level ID: 3
3.0	6	12.5	1.25/2.5/5/25/50					50	Level ID: 4
4.0	8	20	2/4/8/40/80					50	Level ID: 5
4.5	9			5	5/10/20/100/200	2.5	100	50	Level ID: 6
5.0	10			10	10/20/40/200/400	5.0	200	50	Level ID: 7
10	20			20	20/40/80/400/800	10	400	50	Level ID: 8
20	40			40	40/80/160/800/1600	20	800	50	Level ID: 9
25	50			80	80/160/320/1600/3200	40	1600	50	Level ID: 10

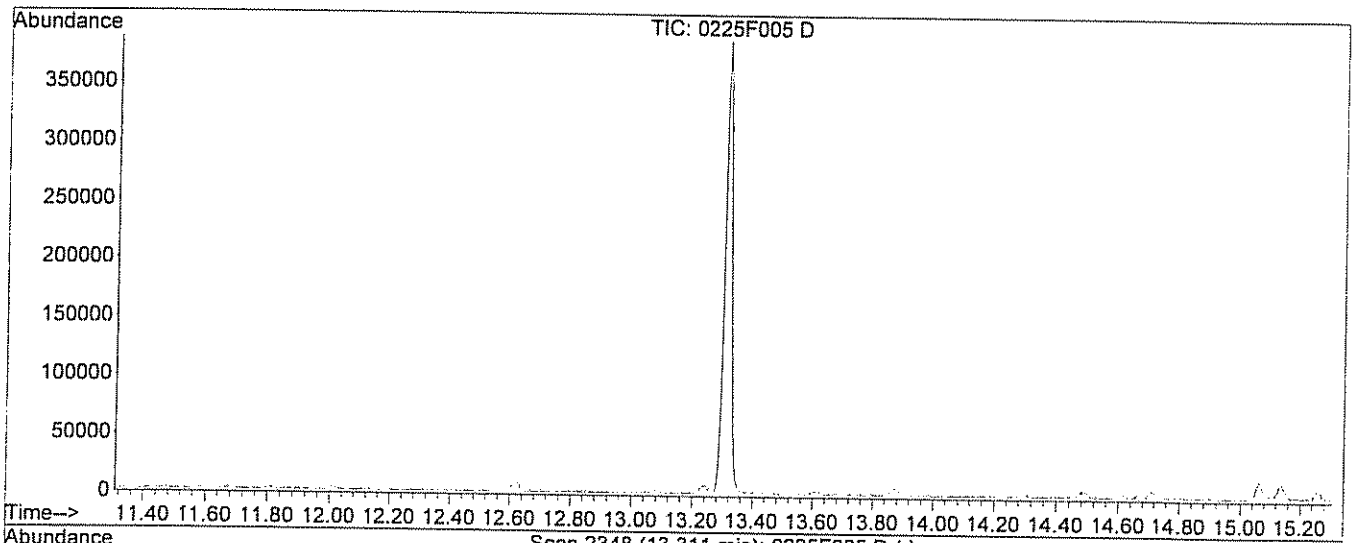
8260 ICV: 10uL of 50/250ppm Accustd ICV (38VOA-L4-F) + 50uL of 100ppm Acrolein (38VOA-LL-F) + 5uL of 100ppm Dichlorofluoromethane (38VOA-LL-D) + 5uL of 200ppm n-Octane/Tetrahydrofuran (38VOA-LL-B) + 7.5uL of 200/2000ppm Appendix ICV (38VOA-L2-C) + 5uL of 200/1000ppm Oxygenates (38VOA-LL-C) to 50mL.
+ 5µL, 100ppm Surr (38VOA-L5-A)

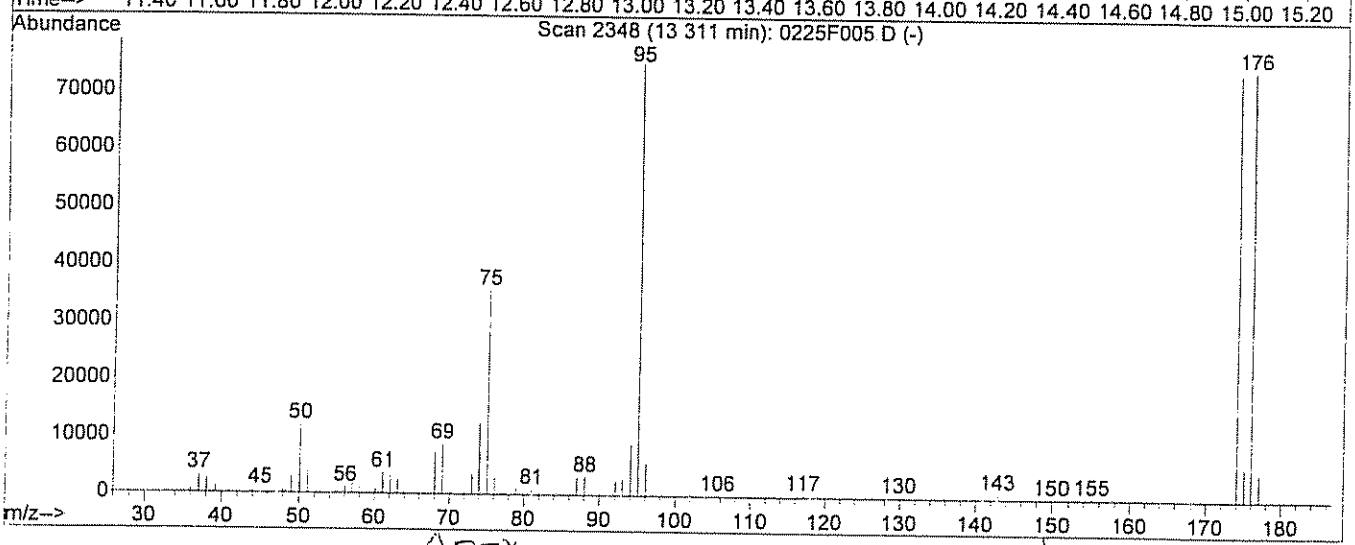
ICV2: same as ICV; check prep

BFB

Data File : J:\MS13\DATA\022505\0225F005.D
Acq On : 25 Feb 2005 4:59 pm
Sample : 50ng BFB
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B

Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00





Apex

Spectrum Information: Scan 2348 – scan 2329 LB 2/28/05

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	5	40	16.0	12066	PASS
75	95	20	70	47.3	35688	PASS
95	95	50	200	100.0	75376	PASS
96	95	5	9	7.6	5722	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	98.6	74320	PASS
175	174	5	9	8.0	5936	PASS
176	174	95	101	100.8	74936	PASS
177	176	5	9	7.0	5239	PASS

pmd 3/1/5

0225F005.D 022505_8260W.M Mon Feb 28 15:02:48 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F006.D
Acq On : 25 Feb 2005 5:30 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:47:10 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 15:43:59 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	5.60	96	766946	10.00 PPB	0.00
59) Chlorobenzene-d5	11.58	82	331217	10.00 PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	358951	10.00 PPB	0.00
System Monitoring Compounds					
39) Dibromofluoromethane	4.64	113	171340	9.03 PPB	0.00
Spiked Amount 10.000			Recovery	= 90.30%	
43) 1,2-Dichloroethane-d4	5.15	65	185022	8.66 PPB	0.00
Spiked Amount 10.000			Recovery	= 86.60%	
57) Toluene-d8	8.60	98	770701	9.18 PPB	0.00
Spiked Amount 10.000			Recovery	= 91.80%	
79) 4-Bromofluorobenzene	13.31	95	276828	9.45 PPB	0.00
Spiked Amount 10.000			Recovery	= 94.50%	
Target Compounds					Qvalue
18) Methylene Chloride	2.62	84	2189	0.10 PPB #	82
99) 1,2,4-Trichlorobenzene	16.88	180	2126	0.08 PPB	85
100) Hexachlorobutadiene	17.03	225	2943	0.23 PPB	91
101) Naphthalene	17.13	128	2993	0.09 PPB	90
102) 1,2,3-Trichlorobenzene	17.39	180	3000	0.14 PPB	94

mt 3/1/5

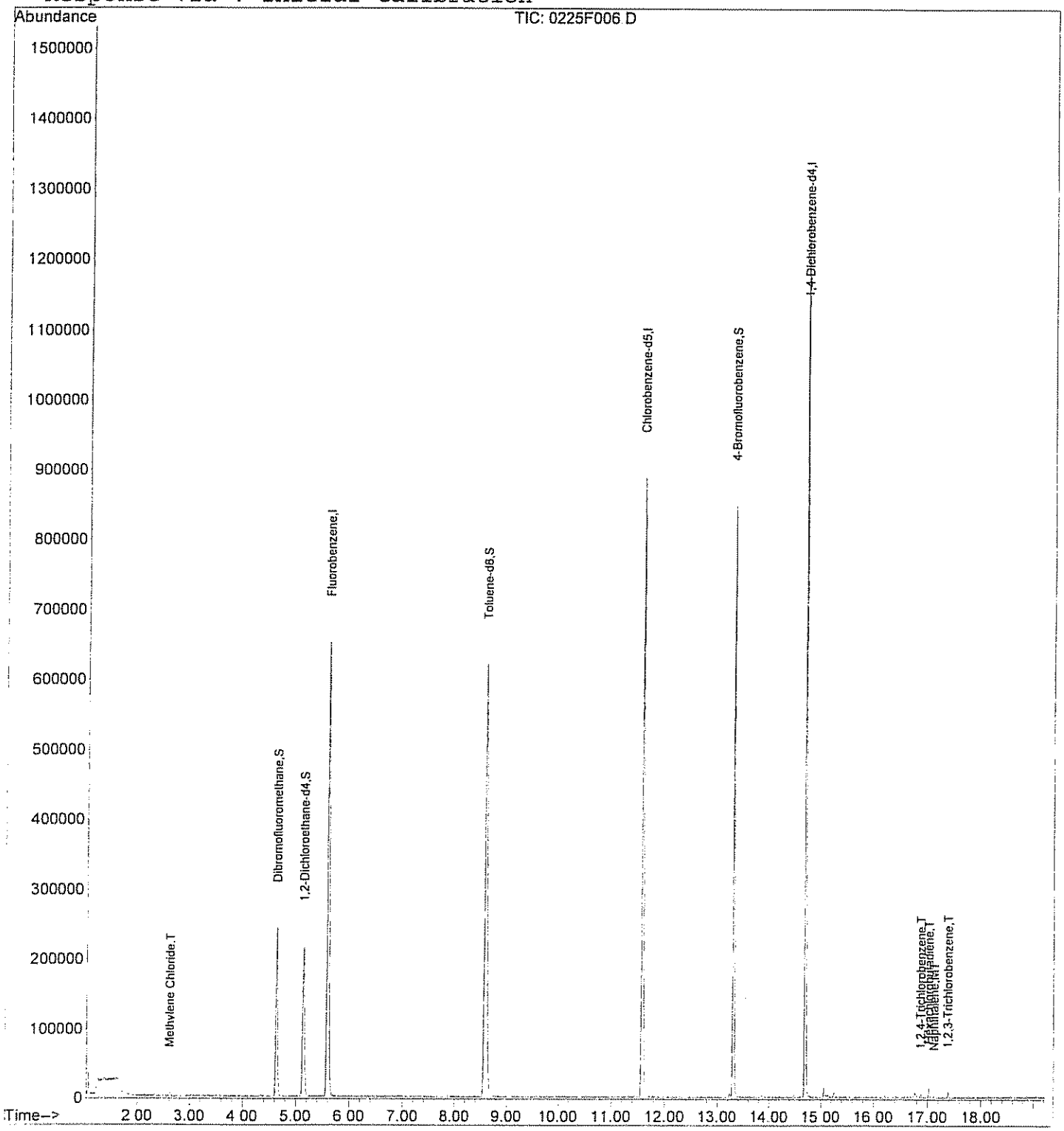
(#) = qualifier out of range (m) = manual integration
0225F006.D 022505_8260W.M Mon Feb 28 20:09:26 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F006.D
Acq On : 25 Feb 2005 5:30 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:48 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D
Acq On : 25 Feb 2005 6:00 pm
Sample : 8260 ICAL (Water) #1
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	729910	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	317877	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	355446	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	56778	3.55	PPB	0.00
Spiked Amount 10.000			Recovery	=	35.50%	
43) 1,2-Dichloroethane-d4	5.15	65	64506	3.56	PPB	0.00
Spiked Amount 10.000			Recovery	=	35.60%	
57) Toluene-d8	8.60	98	242901	3.26	PPB	0.00
Spiked Amount 10.000			Recovery	=	32.60%	
79) 4-Bromofluorobenzene	13.31	95	83515	3.12	PPB	0.00
Spiked Amount 10.000			Recovery	=	31.20%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	4951	0.23	PPB	94
3) Chloromethane	1.22	50	7187	0.28	PPB	95
4) Vinyl Chloride	1.29	62	5417	0.25	PPB	91
5) Bromomethane	1.51	96	2895	0.23	PPB	78
6) Chloroethane	1.58	64	3649	0.27	PPB	88
7) Dichlorofluoromethane	1.74	67	7557	0.23	PPB	99
8) Trichlorofluoromethane	1.74	101	6973	0.25	PPB	95
9) Ethyl Ether	1.97	59	2939	0.24	PPB	84
10) Acrolein	2.12	56	8556	5.24	PPB	84
11) Trichlorotrifluoroethane	2.13	151	3275	0.24	PPB	82
12) 1,1-Dichloroethene	2.15	96	3274	0.22	PPB	97
13) Acetone	2.25	43	11797	4.01	PPB	94
14) Iodomethane	2.29	142	14357	0.69	PPB	98
15) Carbon Disulfide	2.32	76	11490	0.21	PPB	98
16) 3-Chloro-1-propene	2.48	76	1789	0.19	PPB	98
18) Methylene Chloride	2.62	84	5961	0.33	PPB	92
21) Methyl tert-Butyl Ether	2.83	73	15398	0.36	PPB	98
22) trans-1,2-Dichloroethene	2.84	96	4455	0.24	PPB	83
23) Hexane	3.05	57	4745	0.22	PPB	94
24) Diisopropyl Ether	3.33	45	11426	0.18	PPB	93
25) 1,1-Dichloroethane	3.31	63	7358	0.23	PPB	93
26) Vinyl Acetate	3.37	86	903	0.33	PPB #	1
27) Chloroprene	3.37	53	17905	0.71	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	7938	0.15	PPB	98
29) 2,2-Dichloropropane	3.95	77	3762	0.13	PPB	94
30) cis-1,2-Dichloroethene	4.00	96	4185	0.21	PPB	83
31) 2-Butanone	4.06	72	3615	3.20	PPB #	60

(#) = qualifier out of range (m) = manual integration

3/1/05
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D Vial: 7
Acq On : 25 Feb 2005 6:00 pm Operator:
Sample : 8260 ICAL (Water) #1 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
34)	Methacrylonitrile	4.36	67	3032	0.64	PPB		90
37)	Chloroform	4.42	83	7447	0.24	PPB		91
38)	1,1,1-Trichloroethane	4.59	97	4617	0.17	PPB		83
40)	Carbon Tetrachloride	4.77	117	3497	0.16	PPB		87
41)	1,1-Dichloropropene	4.82	75	5484	0.21	PPB		98
44)	Benzene	5.11	78	16554	0.21	PPB		74
45)	1,2-Dichloroethane	5.27	62	4785	0.23	PPB		89
47)	Trichloroethene	6.19	95	3998	0.21	PPB		86
48)	1,2-Dichloropropane	6.65	63	3795	0.20	PPB		80
49)	Dibromomethane	6.87	93	1569	0.18	PPB		76
51)	1,4-Dioxane	6.94	88	2674	30.18	PPB		95
52)	Bromodichloromethane	7.21	83	4162	0.20	PPB		92
55)	cis-1,3-Dichloropropene	8.15	75	3844	0.15	PPB		84
58)	Toluene	8.74	92	10626	0.20	PPB		80
64)	Tetrachloroethene	9.98	164	3929	0.23	PPB		83
65)	2-Hexanone	10.55	57	2738	1.99	PPB	#	70
66)	1,3-Dichloropropane	10.29	76	4242	0.19	PPB		91
67)	Dibromochloromethane	10.64	129	2100	0.16	PPB		84
68)	1,2-Dibromoethane (EDB)	10.79	107	2006	0.16	PPB		98
69)	1-Chlorohexane	11.67	91	3946	0.19	PPB		89
70)	Chlorobenzene	11.63	112	12345	0.23	PPB		89
71)	Ethylbenzene	11.81	106	5503	0.18	PPB		87
72)	1,1,1,2-Tetrachloroethane	11.81	131	2487	0.15	PPB	#	74
73)	m,p-Xylenes	12.00	106	12759	0.34	PPB		89
74)	o-Xylene	12.57	106	5759	0.16	PPB		96
75)	Styrene	12.62	103	3970	0.14	PPB		95
76)	Bromoform	12.85	173	1011	0.14	PPB		76
77)	Isopropylbenzene	13.08	105	13791	0.16	PPB		94
81)	1,1,2,2-Tetrachloroethane	13.60	83	2502	0.17	PPB		92
83)	Bromobenzene	13.44	156	4117	0.16	PPB		81
84)	n-Propylbenzene	13.61	91	16202	0.15	PPB		94
85)	1,2,3-Trichloropropane	13.61	110	779	0.17	PPB	#	83
86)	2-Chlorotoluene	13.70	91	11258	0.17	PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	10446	0.14	PPB		87
88)	4-Chlorotoluene	13.86	91	12773	0.16	PPB		96
89)	tert-Butylbenzene	14.22	119	9434	0.15	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	10716	0.14	PPB		99
91)	sec-Butylbenzene	14.48	105	11949	0.15	PPB		98
92)	p-Isopropyltoluene	14.67	119	10919	0.14	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	9963	0.21	PPB		94
94)	1,4-Dichlorobenzene	14.73	146	10426	0.21	PPB		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D
Acq On : 25 Feb 2005 6:00 pm
Sample : 8260 ICAL (Water) #1
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95)	n-Butylbenzene	15.13	91	9445	0.15 PPB	96
96)	1,2-Dichlorobenzene	15.15	146	9155	0.21 PPB	92
98)	1,3,5-Trichlorobenzene	16.21	180	6481	0.21 PPB	93
99)	1,2,4-Trichlorobenzene	16.88	180	5542	0.20 PPB	92
100)	Hexachlorobutadiene	17.03	225	3721	0.29 PPB	77
101)	Naphthalene	17.13	128	6269	0.13 PPB	97
102)	1,2,3-Trichlorobenzene	17.39	180	4840	0.22 PPB	95

(#) = qualifier out of range (m) = manual integration

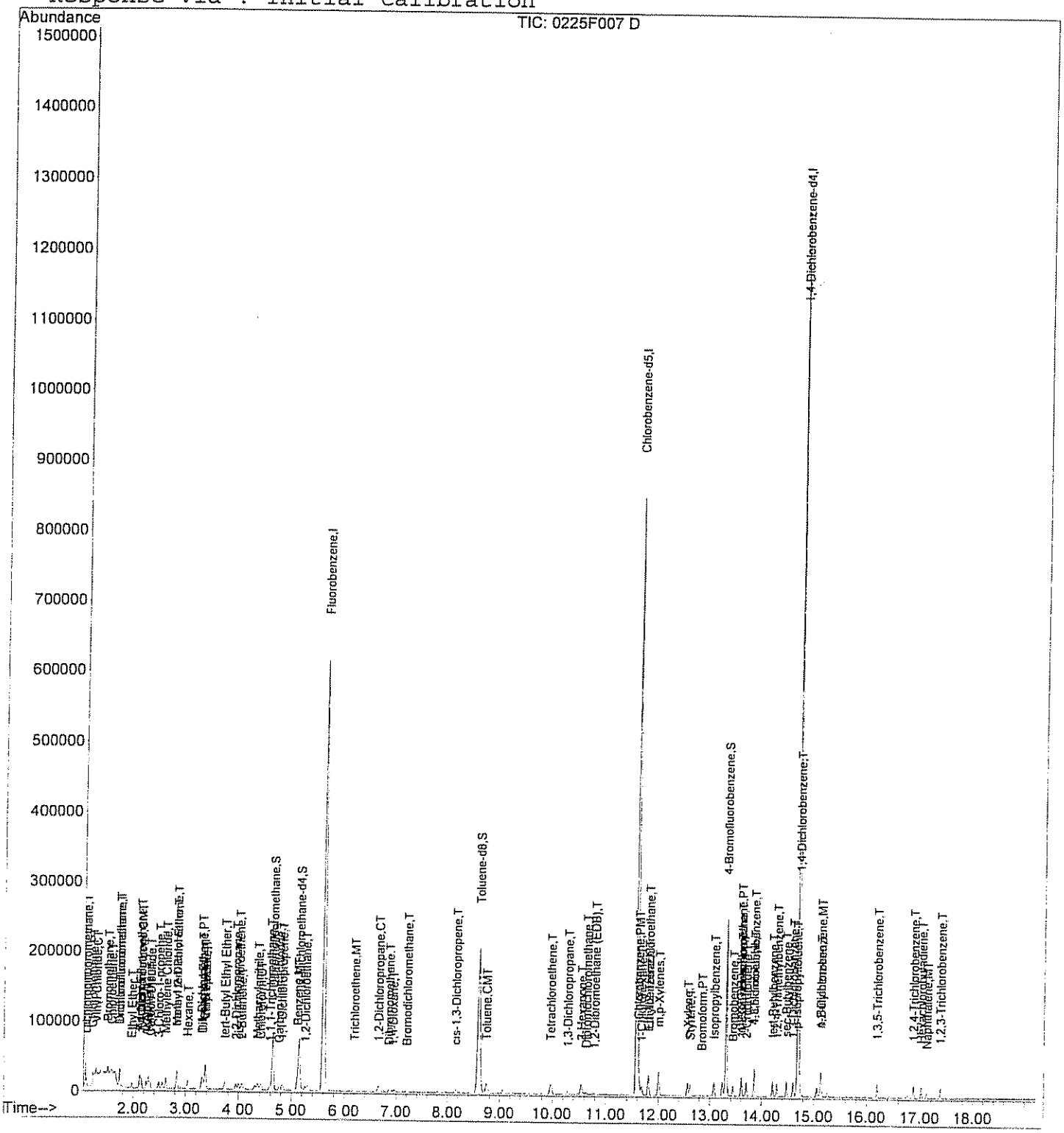
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D
Acq On : 25 Feb 2005 6:00 pm
Sample : 8260 ICAL (Water) #1
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:07 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D
Acq On : 25 Feb 2005 6:28 pm
Sample : 8260 ICAL (Water) #2
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	5.60	96	724575	10.00 PPB	0.00
59) Chlorobenzene-d5	11.58	82	314725	10.00 PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	351774	10.00 PPB	0.00
System Monitoring Compounds					
39) Dibromofluoromethane	4.64	113	72734	4.58 PPB	0.00
Spiked Amount 10.000			Recovery	= 45.80%	
43) 1,2-Dichloroethane-d4	5.15	65	82343	4.58 PPB	0.00
Spiked Amount 10.000			Recovery	= 45.80%	
57) Toluene-d8	8.60	98	306292	4.14 PPB	0.00
Spiked Amount 10.000			Recovery	= 41.40%	
79) 4-Bromofluorobenzene	13.31	95	106979	4.04 PPB	0.00
Spiked Amount 10.000			Recovery	= 40.40%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.09	85	6517	0.30 PPB	94
3) Chloromethane	1.22	50	9458	0.37 PPB	97
4) Vinyl Chloride	1.29	62	7441	0.34 PPB	98
5) Bromomethane	1.52	96	4200	0.33 PPB	89
6) Chloroethane	1.58	64	5593	0.42 PPB	96
7) Dichlorofluoromethane	1.74	67	10794	0.33 PPB	96
8) Trichlorofluoromethane	1.74	101	10115	0.36 PPB	91
9) Ethyl Ether	1.97	59	3680	0.30 PPB	96
10) Acrolein	2.12	56	10680	6.58 PPB	84
11) Trichlorotrifluoroethane	2.13	151	4975	0.37 PPB	80
12) 1,1-Dichloroethene	2.15	96	4775	0.32 PPB	92
13) Acetone	2.25	43	17239	5.90 PPB	93
14) Iodomethane	2.29	142	21015	1.02 PPB	97
15) Carbon Disulfide	2.32	76	15163	0.28 PPB	96
16) 3-Chloro-1-propene	2.48	76	2596	0.28 PPB	88
18) Methylene Chloride	2.62	84	7595	0.42 PPB	90
20) Acrylonitrile	2.92	53	4055	1.10 PPB	85
21) Methyl tert-Butyl Ether	2.82	73	22392	0.52 PPB	93
22) trans-1,2-Dichloroethene	2.84	96	6186	0.34 PPB	81
23) Hexane	3.04	57	5705	0.27 PPB	88
24) Diisopropyl Ether	3.33	45	15846	0.26 PPB	95
25) 1,1-Dichloroethane	3.32	63	10278	0.32 PPB	92
26) Vinyl Acetate	3.38	86	899	0.33 PPB #	1
27) Chloroprene	3.37	53	26063	1.04 PPB	91
28) tert-Butyl Ethyl Ether	3.75	59	12144	0.23 PPB	93
29) 2,2-Dichloropropane	3.95	77	5694	0.20 PPB	92
30) cis-1,2-Dichloroethene	4.00	96	6390	0.32 PPB	96

(#) = qualifier out of range (m) = manual integration
0225F008.D 022505_8260W.M Mon Feb 28 15:30:26 2005

LB 3/1/5
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D Vial: 8
Acq On : 25 Feb 2005 6:28 pm Operator:
Sample : 8260 ICAL (Water) #2 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	2-Butanone	4.06	72	5031	4.48	PPB	#	58
35)	Bromochloromethane	4.31	128	2521	0.31	PPB		85
37)	Chloroform	4.42	83	9760	0.32	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	7610	0.28	PPB		96
40)	Carbon Tetrachloride	4.77	117	4882	0.22	PPB		96
41)	1,1-Dichloropropene	4.83	75	7402	0.29	PPB		89
44)	Benzene	5.11	78	24688	0.32	PPB		93
45)	1,2-Dichloroethane	5.27	62	6784	0.33	PPB		94
46)	tert-Amyl Methyl Ether	5.30	55	4494	0.40	PPB	#	26
47)	Trichloroethene	6.20	95	5998	0.32	PPB		87
48)	1,2-Dichloropropane	6.66	63	5152	0.28	PPB		94
49)	Dibromomethane	6.87	93	2331	0.27	PPB		91
51)	1,4-Dioxane	6.93	88	2566	29.17	PPB		71
52)	Bromodichloromethane	7.21	83	5853	0.28	PPB		94
55)	cis-1,3-Dichloropropene	8.15	75	5769	0.22	PPB		96
56)	4-Methyl-2-pentanone (MIBK	8.58	58	17374	4.06	PPB	#	1
58)	Toluene	8.75	92	14587	0.28	PPB		91
61)	trans-1,3-Dichloropropene	9.61	75	3673	0.17	PPB		87
62)	Ethyl methacrylate	9.83	69	2454	0.14	PPB		83
63)	1,1,2-Trichloroethane	9.97	83	3330	0.30	PPB		91
64)	Tetrachloroethene	9.97	164	5751	0.34	PPB	#	78
65)	2-Hexanone	10.54	57	4177	3.07	PPB	#	81
66)	1,3-Dichloropropane	10.29	76	7025	0.31	PPB		90
67)	Dibromochloromethane	10.63	129	3316	0.25	PPB		70
68)	1,2-Dibromoethane (EDB)	10.79	107	3421	0.28	PPB		93
69)	1-Chlorohexane	11.68	91	5533	0.26	PPB		87
70)	Chlorobenzene	11.63	112	17445	0.32	PPB		92
71)	Ethylbenzene	11.81	106	7368	0.25	PPB		96
72)	1,1,1,2-Tetrachloroethane	11.81	131	3609	0.22	PPB		93
73)	m,p-Xylenes	12.01	106	18766	0.50	PPB		91
74)	o-Xylene	12.57	106	8633	0.24	PPB		95
75)	Styrene	12.62	103	6064	0.21	PPB	#	79
76)	Bromoform	12.84	173	1723	0.23	PPB		93
77)	Isopropylbenzene	13.08	105	19813	0.23	PPB		98
81)	1,1,2,2-Tetrachloroethane	13.59	83	3779	0.25	PPB		85
83)	Bromobenzene	13.45	156	7141	0.28	PPB		91
84)	n-Propylbenzene	13.61	91	24059	0.23	PPB		97
85)	1,2,3-Trichloropropane	13.62	110	1214	0.26	PPB	#	63
86)	2-Chlorotoluene	13.71	91	17185	0.25	PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	15825	0.21	PPB		98
88)	4-Chlorotoluene	13.86	91	18756	0.24	PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D
Acq On : 25 Feb 2005 6:28 pm
Sample : 8260 ICAL (Water) #2
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
89)	tert-Butylbenzene	14.22	119	13661	0.21 PPB	94
90)	1,2,4-Trimethylbenzene	14.30	105	15634	0.20 PPB	98
91)	sec-Butylbenzene	14.48	105	17932	0.22 PPB	98
92)	p-Isopropyltoluene	14.67	119	14662	0.19 PPB	95
93)	1,3-Dichlorobenzene	14.61	146	13775	0.29 PPB	85
94)	1,4-Dichlorobenzene	14.73	146	14105	0.29 PPB	96
95)	n-Butylbenzene	15.13	91	13515	0.22 PPB	90
96)	1,2-Dichlorobenzene	15.15	146	12946	0.30 PPB	99
98)	1,3,5-Trichlorobenzene	16.20	180	8893	0.29 PPB	88
99)	1,2,4-Trichlorobenzene	16.88	180	7562	0.28 PPB	98
100)	Hexachlorobutadiene	17.03	225	4341	0.34 PPB	92
101)	Naphthalene	17.13	128	8203	0.17 PPB	92
102)	1,2,3-Trichlorobenzene	17.39	180	6173	0.28 PPB	96

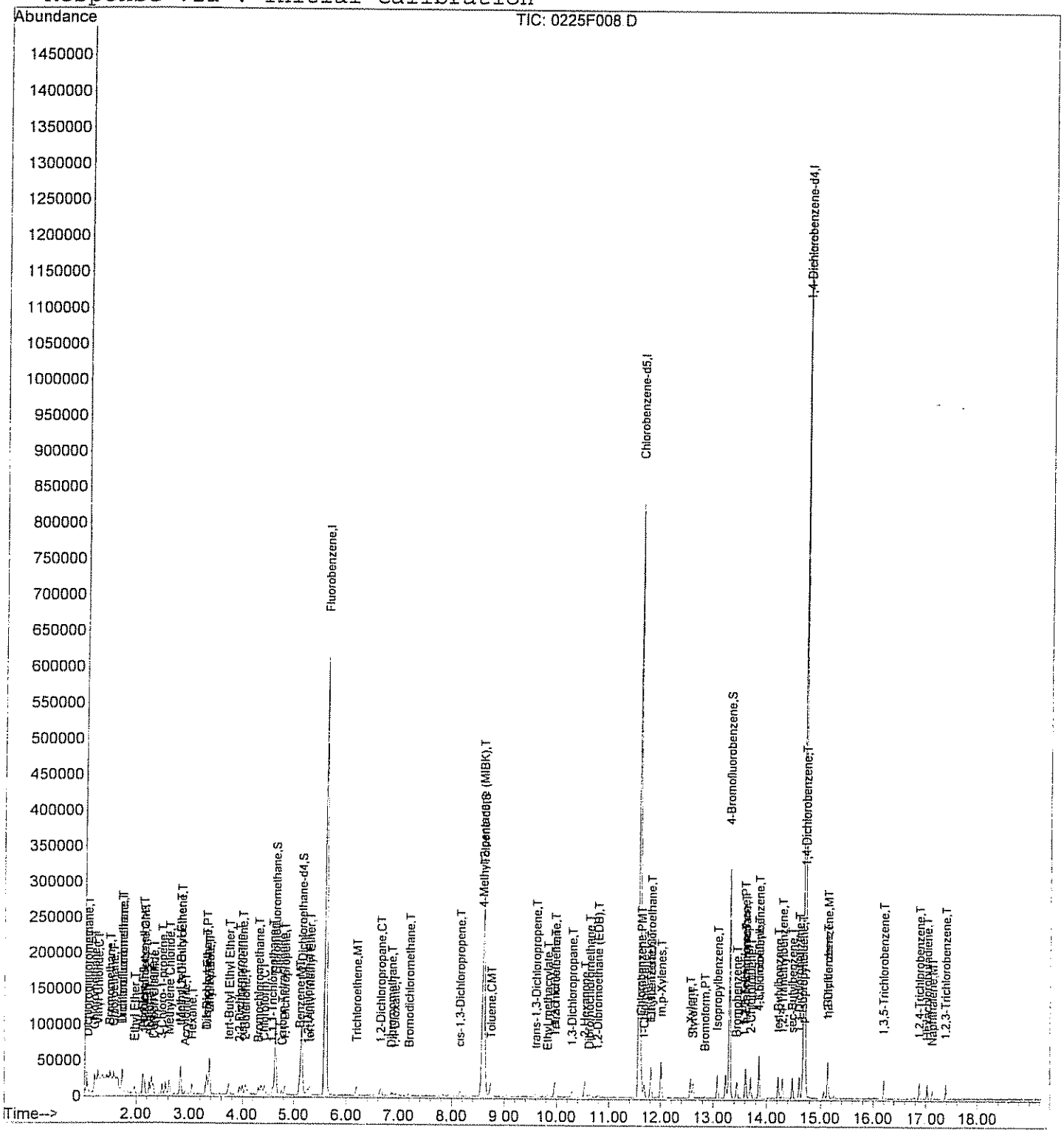
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D
Acq On : 25 Feb 2005 6:28 pm
Sample : 8260 ICAL (Water) #2
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:10 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.60	96	718252	10.00	PPB		0.00
59) Chlorobenzene-d5	11.58	82	319213	10.00	PPB		0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	350868	10.00	PPB		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	4.64	113	92816	5.89	PPB		0.00
Spiked Amount 10.000			Recovery	=	58.90%		
43) 1,2-Dichloroethane-d4	5.15	65	106057	5.95	PPB		0.00
Spiked Amount 10.000			Recovery	=	59.50%		
57) Toluene-d8	8.60	98	391848	5.35	PPB		0.01
Spiked Amount 10.000			Recovery	=	53.50%		
79) 4-Bromofluorobenzene	13.31	95	138676	5.16	PPB		0.00
Spiked Amount 10.000			Recovery	=	51.60%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.09	85	10935	0.51	PPB		96
3) Chloromethane	1.22	50	15026	0.60	PPB		98
4) Vinyl Chloride	1.29	62	12107	0.56	PPB		99
5) Bromomethane	1.51	96	7277	0.58	PPB		92
6) Chloroethane	1.58	64	7808	0.59	PPB		97
7) Dichlorofluoromethane	1.73	67	18073	0.55	PPB		91
8) Trichlorofluoromethane	1.74	101	15538	0.56	PPB		94
9) Ethyl Ether	1.97	59	6603	0.54	PPB		80
10) Acrolein	2.12	56	18497	11.50	PPB		99
11) Trichlorotrifluoroethane	2.13	151	7506	0.56	PPB		94
12) 1,1-Dichloroethene	2.15	96	8285	0.56	PPB		88
13) Acetone	2.25	43	28922	9.99	PPB		96
14) Iodomethane	2.29	142	34962	1.71	PPB		99
15) Carbon Disulfide	2.32	76	25216	0.46	PPB		98
16) 3-Chloro-1-propene	2.48	76	4271	0.47	PPB	#	85
17) Acetonitrile	2.55	40	12425	18.22	PPB		94
18) Methylene Chloride	2.62	84	11093	0.62	PPB		94
19) tert-Butyl Alcohol	2.74	59	1271	1.53	PPB		76
20) Acrylonitrile	2.92	53	6685	1.82	PPB		95
21) Methyl tert-Butyl Ether	2.83	73	37619	0.89	PPB		98
22) trans-1,2-Dichloroethene	2.84	96	9656	0.54	PPB		86
23) Hexane	3.05	57	9248	0.44	PPB		91
24) Diisopropyl Ether	3.33	45	26761	0.44	PPB		99
25) 1,1-Dichloroethane	3.31	63	16757	0.53	PPB		95
26) Vinyl Acetate	3.37	86	2033	0.76	PPB	#	1
27) Chloroprene	3.37	53	42537	1.72	PPB		98
28) tert-Butyl Ethyl Ether	3.74	59	20387	0.39	PPB		92

(#) = qualifier out of range (m) = manual integration
0225F009.D 022505_8260W.M Mon Feb 28 15:30:28 2005

LB 2/28/05 mt 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29) 2,2-Dichloropropane	3.95	77	8979	0.32 PPB		95
30) cis-1,2-Dichloroethene	4.00	96	10230	0.52 PPB		94
31) 2-Butanone	4.06	72	8764	7.88 PPB	#	84
32) Propionitrile	4.21	54	1948	1.41 PPB		66
33) Ethyl Acetate	4.11	61	2205	1.60 PPB		79
34) Methacrylonitrile	4.37	67	7963	1.72 PPB		83
35) Bromochloromethane	4.31	128	4539	0.56 PPB		82
37) Chloroform	4.42	83	16237	0.54 PPB		93
38) 1,1,1-Trichloroethane	4.59	97	12116	0.45 PPB		96
40) Carbon Tetrachloride	4.77	117	8252	0.38 PPB		92
41) 1,1-Dichloropropene	4.83	75	12093	0.48 PPB		96
42) Isobutyl Alcohol	5.21	43	3572	9.85 PPB		67
44) Benzene	5.11	78	39769	0.52 PPB		98
45) 1,2-Dichloroethane	5.26	62	11622	0.56 PPB		92
46) tert-Amyl Methyl Ether	5.30	55	7761	0.70 PPB	#	17
47) Trichloroethene	6.19	95	9909	0.53 PPB		86
48) 1,2-Dichloropropane	6.66	63	9009	0.49 PPB		90
49) Dibromomethane	6.88	93	4555	0.54 PPB	#	74
51) 1,4-Dioxane	6.95	88	3232	37.06 PPB		88
52) Bromodichloromethane	7.21	83	9463	0.46 PPB		87
54) 2-Chloroethyl Vinyl Ether	7.94	63	3189	0.40 PPB		91
55) cis-1,3-Dichloropropene	8.17	75	9890	0.38 PPB		90
56) 4-Methyl-2-pentanone (MIBK	8.57	58	31374	7.39 PPB	#	39
58) Toluene	8.74	92	24576	0.47 PPB		87
60) n-Octane	9.08	85	3920	0.40 PPB		83
61) trans-1,3-Dichloropropene	9.60	75	7055	0.32 PPB		90
62) Ethyl methacrylate	9.83	69	4377	0.25 PPB		73
63) 1,1,2-Trichloroethane	9.96	83	5030	0.44 PPB		94
64) Tetrachloroethene	9.98	164	8816	0.52 PPB		94
65) 2-Hexanone	10.54	57	7619	5.53 PPB		95
66) 1,3-Dichloropropane	10.29	76	10871	0.48 PPB		94
67) Dibromochloromethane	10.64	129	5351	0.40 PPB		93
68) 1,2-Dibromoethane (EDB)	10.79	107	5531	0.44 PPB		70
69) 1-Chlorohexane	11.68	91	9351	0.44 PPB		96
70) Chlorobenzene	11.63	112	28544	0.52 PPB		97
71) Ethylbenzene	11.81	106	12711	0.42 PPB		87
72) 1,1,1,2-Tetrachloroethane	11.81	131	6139	0.37 PPB		90
73) m,p-Xylenes	12.01	106	31216	0.83 PPB		90
74) o-Xylene	12.57	106	13972	0.38 PPB		95
75) Styrene	12.62	103	10301	0.36 PPB		95
76) Bromoform	12.84	173	2681	0.36 PPB		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	Isopropylbenzene	13.09	105	34665	0.39 PPB	95
81)	1,1,2,2-Tetrachloroethane	13.60	83	6471	0.43 PPB	74
83)	Bromobenzene	13.45	156	11522	0.46 PPB	89
84)	n-Propylbenzene	13.61	91	39949	0.38 PPB	98
85)	1,2,3-Trichloropropane	13.62	110	2193	0.47 PPB	91
86)	2-Chlorotoluene	13.71	91	29789	0.44 PPB	95
87)	1,3,5-Trimethylbenzene	13.86	105	26922	0.35 PPB	90
88)	4-Chlorotoluene	13.86	91	32077	0.41 PPB	96
89)	tert-Butylbenzene	14.22	119	23793	0.37 PPB	91
90)	1,2,4-Trimethylbenzene	14.30	105	26501	0.35 PPB	98
91)	sec-Butylbenzene	14.48	105	30610	0.38 PPB	98
92)	p-Isopropyltoluene	14.67	119	26141	0.34 PPB	94
93)	1,3-Dichlorobenzene	14.61	146	23408	0.50 PPB	98
94)	1,4-Dichlorobenzene	14.73	146	24207	0.49 PPB	95
95)	n-Butylbenzene	15.13	91	21964	0.36 PPB	97
96)	1,2-Dichlorobenzene	15.15	146	21003	0.48 PPB	98
98)	1,3,5-Trichlorobenzene	16.20	180	14136	0.47 PPB	95
99)	1,2,4-Trichlorobenzene	16.88	180	12674	0.46 PPB	87
100)	Hexachlorobutadiene	17.03	225	6373	0.50 PPB	82
101)	Naphthalene	17.13	128	13811	0.29 PPB	95
102)	1,2,3-Trichlorobenzene	17.38	180	10236	0.47 PPB	79

(#) = qualifier out of range (m) = manual integration

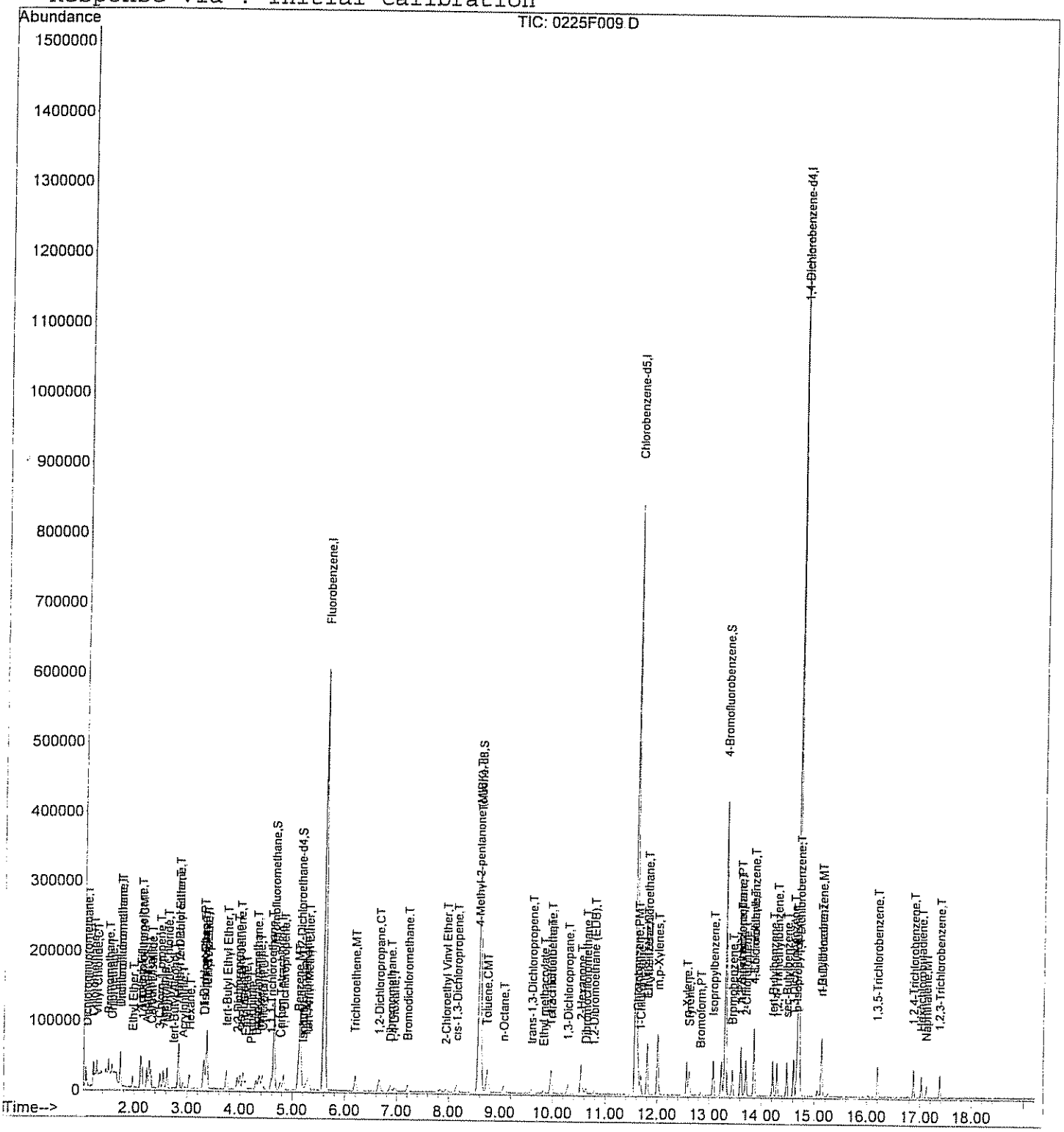
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:14 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.60	96	729082	10.00	PPB		0.00
59) Chlorobenzene-d5	11.58	82	322147	10.00	PPB		0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	361190	10.00	PPB		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	4.64	113	110355	6.90	PPB		0.00
Spiked Amount 10.000			Recovery	=	69.00%		
43) 1,2-Dichloroethane-d4	5.15	65	126047	6.97	PPB		0.00
Spiked Amount 10.000			Recovery	=	69.70%		
57) Toluene-d8	8.60	98	487753	6.55	PPB		0.00
Spiked Amount 10.000			Recovery	=	65.50%		
79) 4-Bromofluorobenzene	13.31	95	172468	6.36	PPB		0.00
Spiked Amount 10.000			Recovery	=	63.60%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.09	85	26500	1.22	PPB		94
3) Chloromethane	1.22	50	36705	1.44	PPB		99
4) Vinyl Chloride	1.29	62	29825	1.37	PPB		98
5) Bromomethane	1.51	96	17511	1.37	PPB		98
6) Chloroethane	1.58	64	17432	1.29	PPB		97
7) Dichlorofluoromethane	1.74	67	42341	1.27	PPB		94
8) Trichlorofluoromethane	1.74	101	40559	1.43	PPB		98
9) Ethyl Ether	1.97	59	15605	1.27	PPB		90
10) Acrolein	2.12	56	40855	25.03	PPB		97
11) Trichlorotrifluoroethane	2.13	151	19395	1.41	PPB		87
12) 1,1-Dichloroethene	2.15	96	20827	1.38	PPB		84
13) Acetone	2.25	43	67441	22.94	PPB		95
14) Iodomethane	2.29	142	93851m	4.51	PPB		
15) Carbon Disulfide	2.32	76	60237	1.09	PPB		99
16) 3-Chloro-1-propene	2.48	76	10284	1.11	PPB	#	85
17) Acetonitrile	2.55	40	33652	48.62	PPB		99
18) Methylene Chloride	2.62	84	25488	1.40	PPB		98
19) tert-Butyl Alcohol	2.74	59	2956	3.51	PPB		93
20) Acrylonitrile	2.92	53	17520	4.70	PPB		89
21) Methyl tert-Butyl Ether	2.82	73	90917	2.11	PPB		98
22) trans-1,2-Dichloroethene	2.84	96	23896	1.31	PPB		92
23) Hexane	3.05	57	22506	1.05	PPB		89
24) Diisopropyl Ether	3.33	45	67306	1.09	PPB		98
25) 1,1-Dichloroethane	3.31	63	41417	1.30	PPB		94
26) Vinyl Acetate	3.37	86	4948	1.82	PPB	#	77
27) Chloroprene	3.37	53	111460	4.43	PPB		98
28) tert-Butyl Ethyl Ether	3.74	59	52777	0.99	PPB		95

(#) = qualifier out of range (m) = manual integration

mt 3/1/5

LB 2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	21643	0.77	PPB		96
30)	cis-1,2-Dichloroethene	4.00	96	25688	1.28	PPB		93
31)	2-Butanone	4.06	72	24990	22.14	PPB	#	87
32)	Propionitrile	4.22	54	6168	4.41	PPB		92
33)	Ethyl Acetate	4.11	61	5711	4.09	PPB		99
34)	Methacrylonitrile	4.36	67	21072	4.49	PPB		88
35)	Bromochloromethane	4.30	128	10502	1.27	PPB		97
36)	Tetrahydrofuran	4.34	71	2139	1.79	PPB	#	58
37)	Chloroform	4.42	83	40250	1.32	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	29667	1.08	PPB		94
40)	Carbon Tetrachloride	4.77	117	21734	0.99	PPB		80
41)	1,1-Dichloropropene	4.83	75	31224	1.21	PPB		95
42)	Isobutyl Alcohol	5.20	43	8526	23.16	PPB		96
44)	Benzene	5.11	78	96148	1.24	PPB		99
45)	1,2-Dichloroethane	5.26	62	27227	1.30	PPB		96
46)	tert-Amyl Methyl Ether	5.31	55	18062	1.60	PPB	#	26
47)	Trichloroethene	6.20	95	23230	1.23	PPB		95
48)	1,2-Dichloropropane	6.66	63	21695	1.16	PPB		97
49)	Dibromomethane	6.87	93	10835	1.26	PPB		83
50)	Methyl methacrylate	6.97	69	6807	0.78	PPB		88
51)	1,4-Dioxane	6.95	88	5342m	60.35	PPB		
52)	Bromodichloromethane	7.21	83	22471	1.08	PPB		99
53)	2-Nitropropane	7.83	43	7102	3.29	PPB		90
54)	2-Chloroethyl Vinyl Ether	7.95	63	7060	0.88	PPB		83
55)	cis-1,3-Dichloropropene	8.16	75	24643	0.93	PPB		96
56)	4-Methyl-2-pentanone (MIBK	8.57	58	77880	18.08	PPB	#	71
58)	Toluene	8.75	92	62140	1.17	PPB		87
60)	n-Octane	9.08	85	9556m	0.97	PPB		
61)	trans-1,3-Dichloropropene	9.61	75	17031	0.76	PPB		88
62)	Ethyl methacrylate	9.83	69	11881	0.67	PPB		81
63)	1,1,2-Trichloroethane	9.97	83	13137	1.14	PPB		92
64)	Tetrachloroethene	9.97	164	22118	1.29	PPB		97
65)	2-Hexanone	10.54	57	22244	15.99	PPB	#	81
66)	1,3-Dichloropropane	10.29	76	28557	1.24	PPB		99
67)	Dibromochloromethane	10.64	129	13326	0.99	PPB		91
68)	1,2-Dibromoethane (EDB)	10.79	107	13779	1.10	PPB		94
69)	1-Chlorohexane	11.68	91	23117	1.08	PPB		88
70)	Chlorobenzene	11.63	112	70409	1.28	PPB		95
71)	Ethylbenzene	11.81	106	34839	1.15	PPB		87
72)	1,1,1,2-Tetrachloroethane	11.81	131	15000	0.90	PPB		95
73)	m,p-Xylenes	12.01	106	82774	2.17	PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
74)	o-Xylene	12.57	106	38477	1.05 PPB		97
75)	Styrene	12.62	103	28442	0.98 PPB		95
76)	Bromoform	12.85	173	6515	0.86 PPB		93
77)	Isopropylbenzene	13.08	105	93449	1.04 PPB		94
78)	cis-1,4-Dichloro-2-butene	13.29	89	3834	2.26 PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.59	83	16038	1.05 PPB		91
82)	trans-1,4-Dichloro-2-buten	13.67	53	3732	0.88 PPB	#	67
83)	Bromobenzene	13.45	156	31025	1.20 PPB	#	83
84)	n-Propylbenzene	13.61	91	111066	1.04 PPB		99
85)	1,2,3-Trichloropropane	13.61	110	5636	1.18 PPB		96
86)	2-Chlorotoluene	13.71	91	76879	1.11 PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	75416	0.96 PPB		98
88)	4-Chlorotoluene	13.86	91	84034	1.05 PPB		95
89)	tert-Butylbenzene	14.22	119	63774	0.97 PPB		97
90)	1,2,4-Trimethylbenzene	14.30	105	74471	0.94 PPB		96
91)	sec-Butylbenzene	14.48	105	82727	1.00 PPB		95
92)	p-Isopropyltoluene	14.67	119	74832	0.96 PPB		97
93)	1,3-Dichlorobenzene	14.61	146	58462	1.20 PPB		99
94)	1,4-Dichlorobenzene	14.73	146	63231	1.26 PPB		98
95)	n-Butylbenzene	15.13	91	60212	0.95 PPB		97
96)	1,2-Dichlorobenzene	15.14	146	55013	1.23 PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	1474	0.71 PPB	#	68
98)	1,3,5-Trichlorobenzene	16.20	180	34522	1.11 PPB		90
99)	1,2,4-Trichlorobenzene	16.88	180	29776	1.06 PPB		99
100)	Hexachlorobutadiene	17.03	225	15766	1.21 PPB		96
101)	Naphthalene	17.13	128	33665	0.68 PPB		93
102)	1,2,3-Trichlorobenzene	17.38	180	24849	1.11 PPB		96

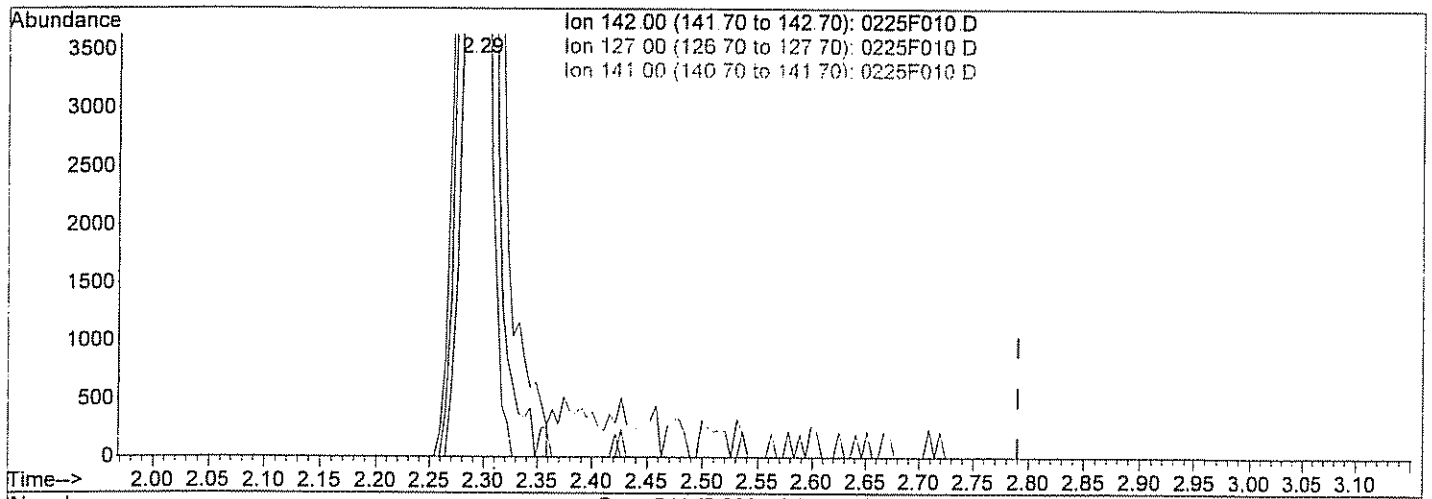
(#) = qualifier out of range (m) = manual integration

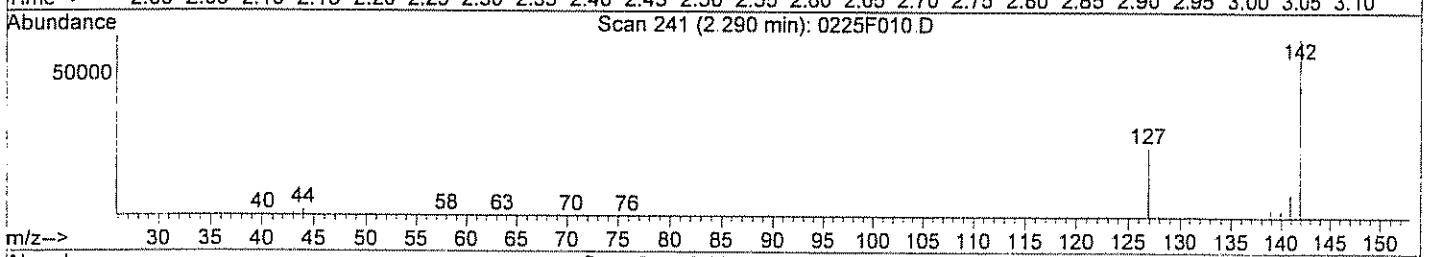
Quantitation Report (Qedit)

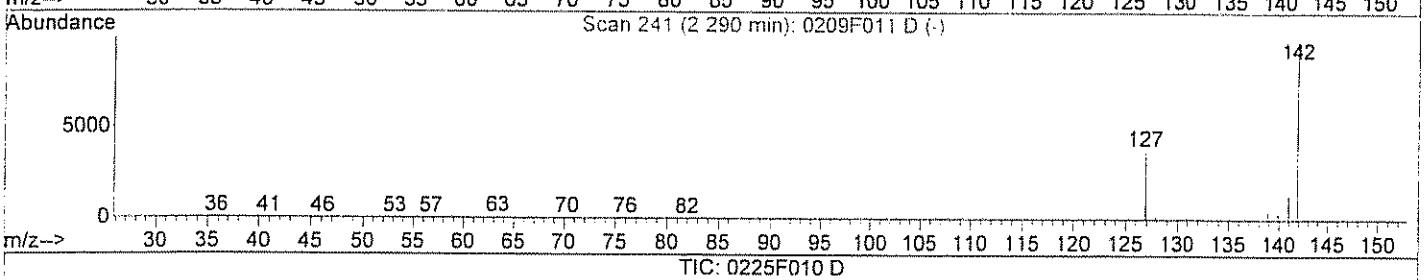
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F010.D

(14) Iodomethane (T)

2.29min 4.33PPB

response 90137

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.09
141.00	14.30	13.54
0.00	0.00	0.00

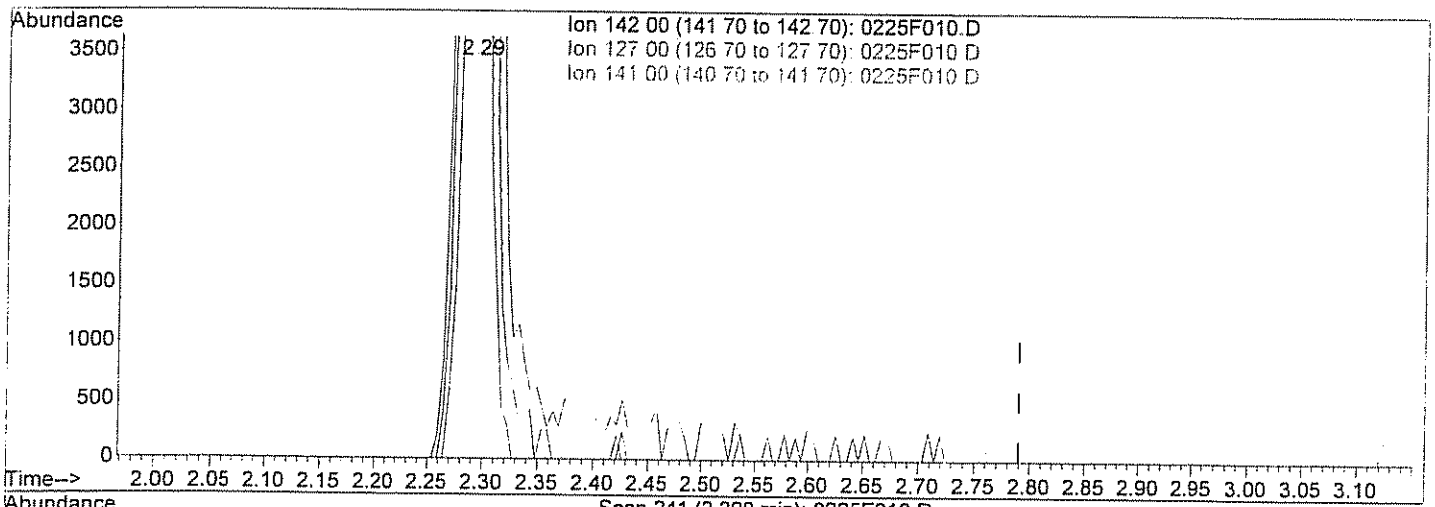
Quantitation Report (Qedit)

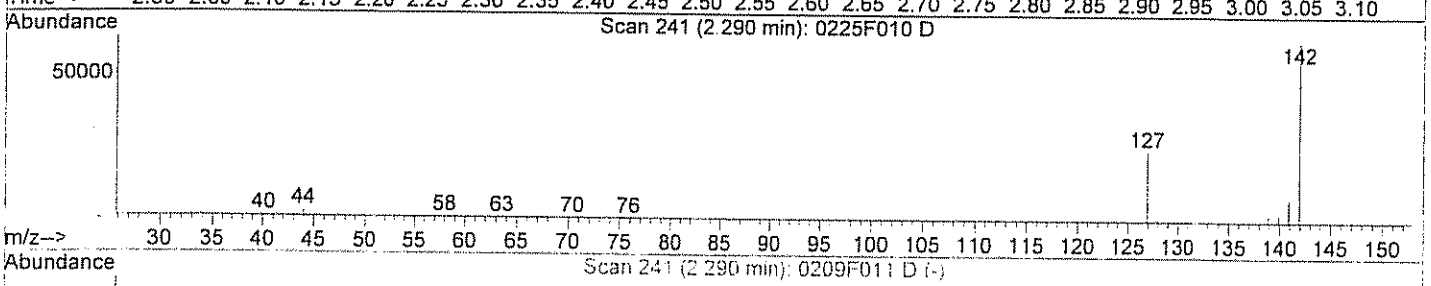
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

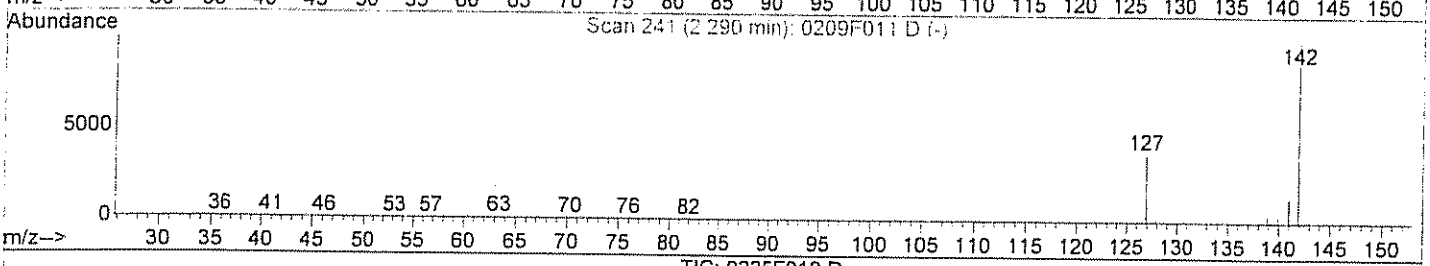
Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F010 D

(14) Iodomethane (T)

2 29min 4 51PPB m

response 93851

Ion	Exp%	Act%
142 00	100	100
127 00	39.50	39 09
141 00	14 30	13 54
0 00	0 00	0 00

peak tailing
LB 2/28/05

mdl 3/1/5

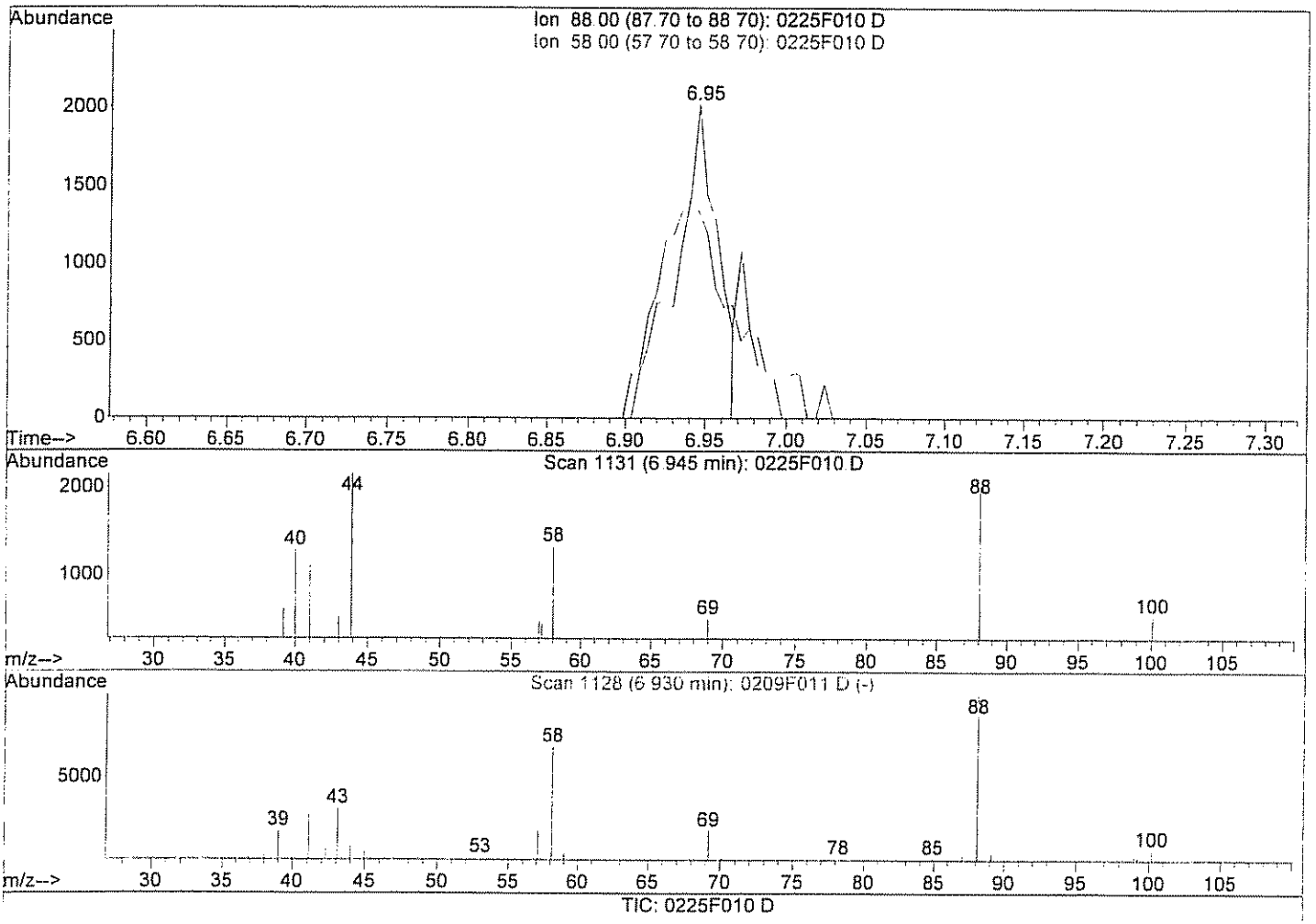
0225F010.D 022505_8260W.M Mon Feb 28 15:15:09 2005

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1.4-Dioxane (T)

6.95min 47.43PPB

response 4198

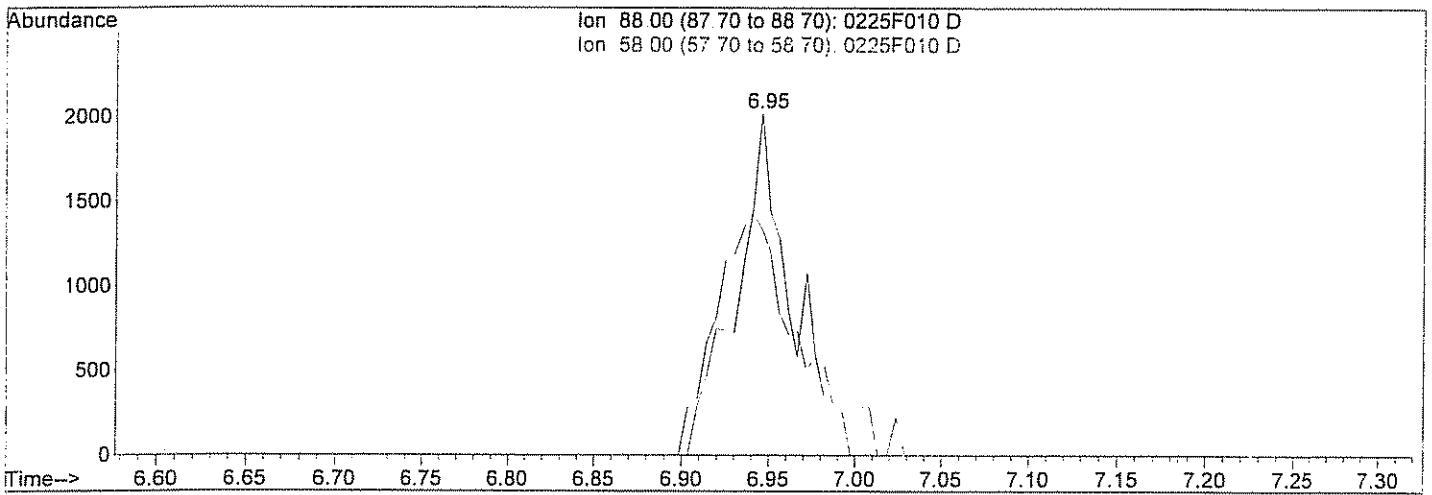
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	66.01
0.00	0.00	0.00
0.00	0.00	0.00

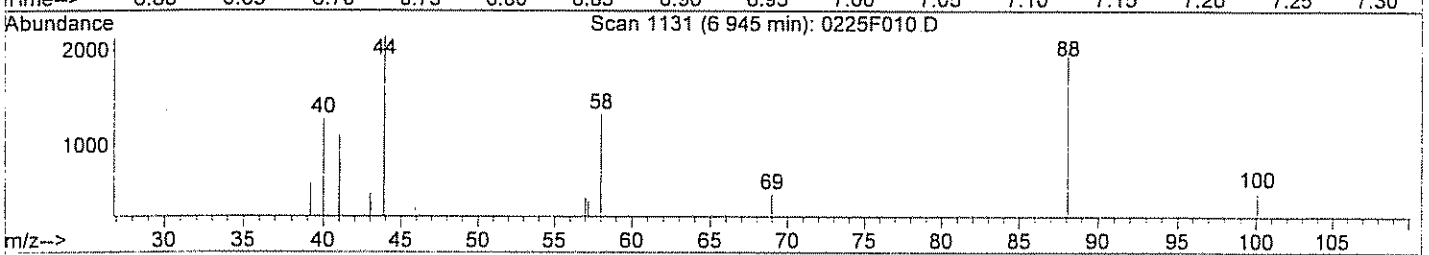
Quantitation Report (Qedit)

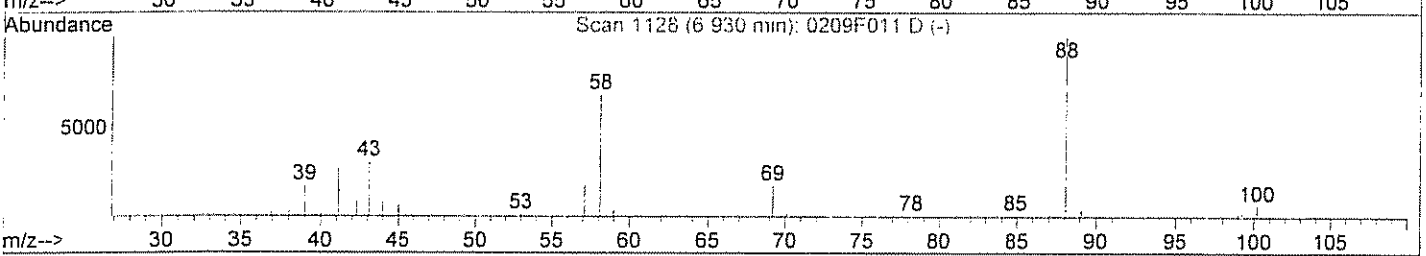
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F010.D

(51) 1.4-Dioxane (T)

6.95min 60.35PPB m

response 5342

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	66.01
0.00	0.00	0.00
0.00	0.00	0.00

split peak
LB 2/28/05
mt 3/1/5

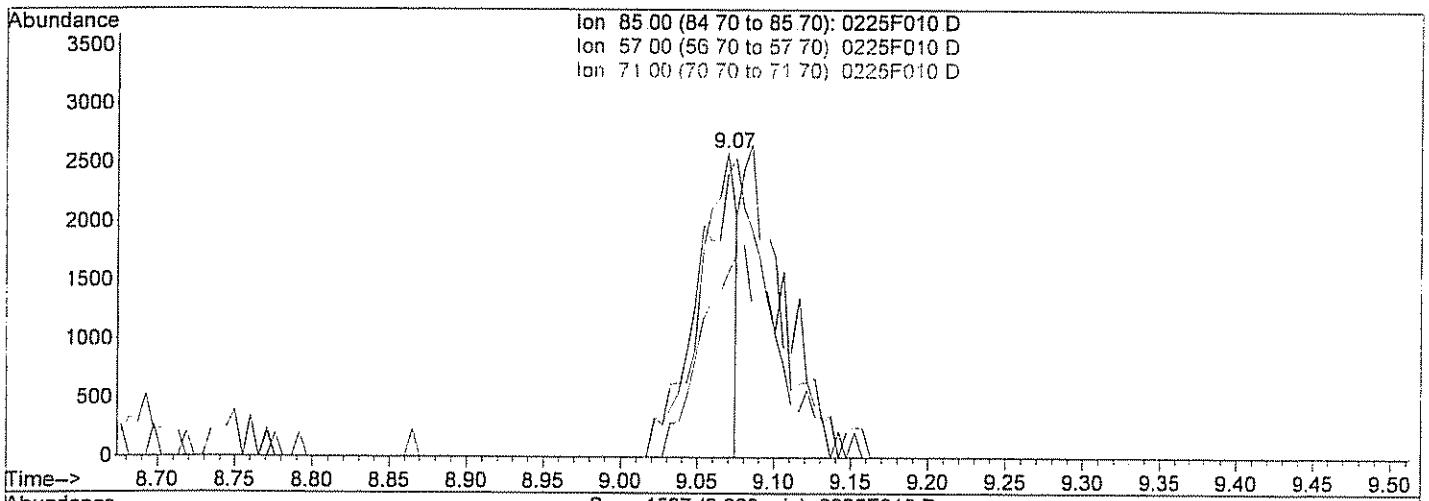
0225F010.D 022505_8260W.M Mon Feb 28 15:16:02 2005

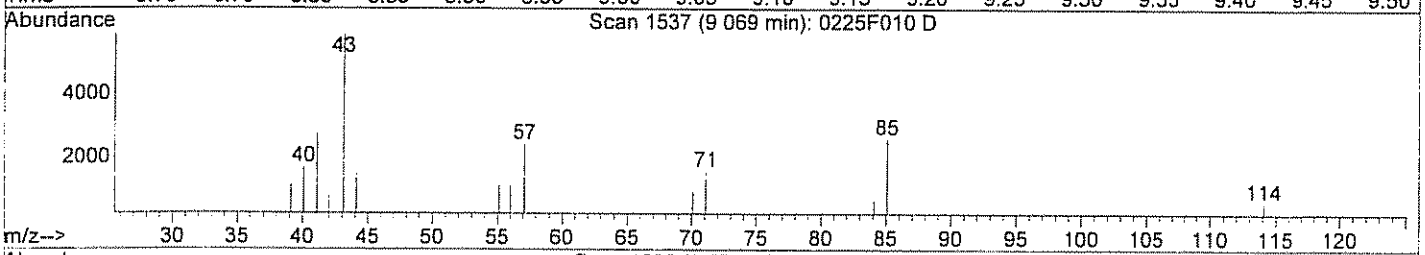
Quantitation Report (Qedit)

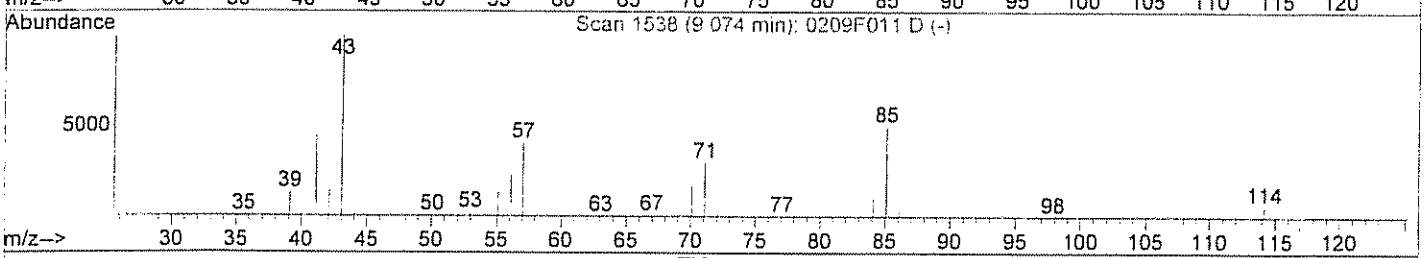
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F010 D

(60) n-Octane (T)

9 07min 0 45PPB

response 4445

Ion	Exp%	Act%
85 00	100	100
57 00	79 30	93 10
71 00	54 80	60 10
0 00	0 00	0 00

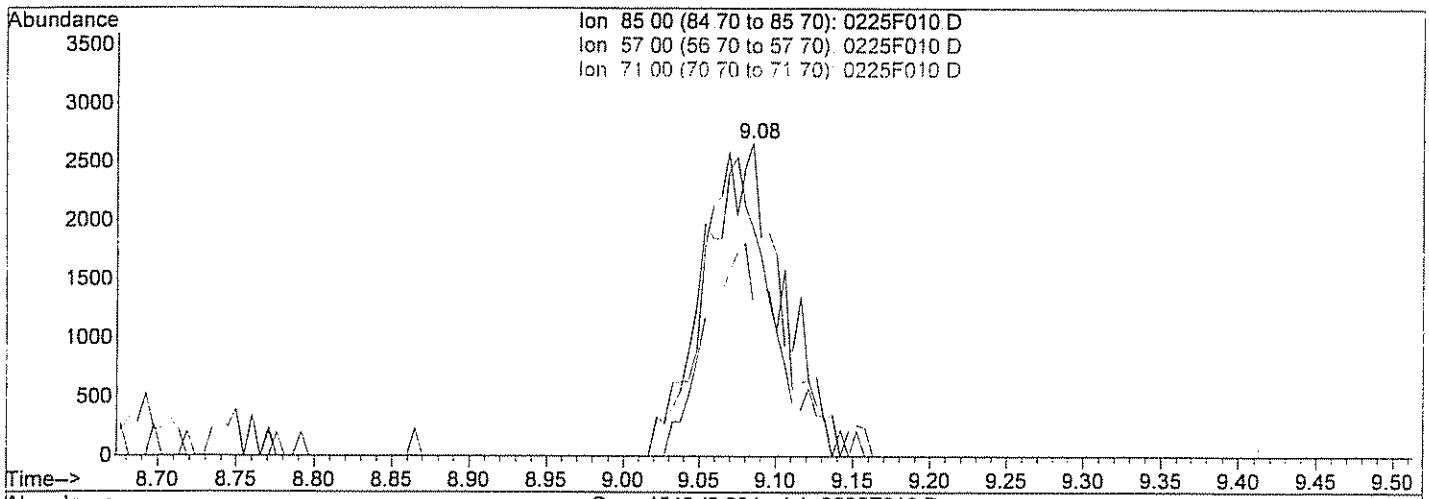
0225F010.D 022505_8260W.M Mon Feb 28 15:16:18 2005

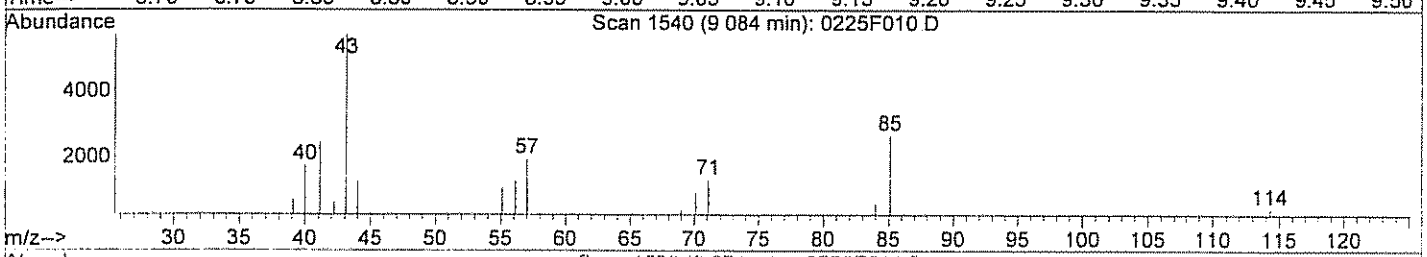
Quantitation Report (Qedit)

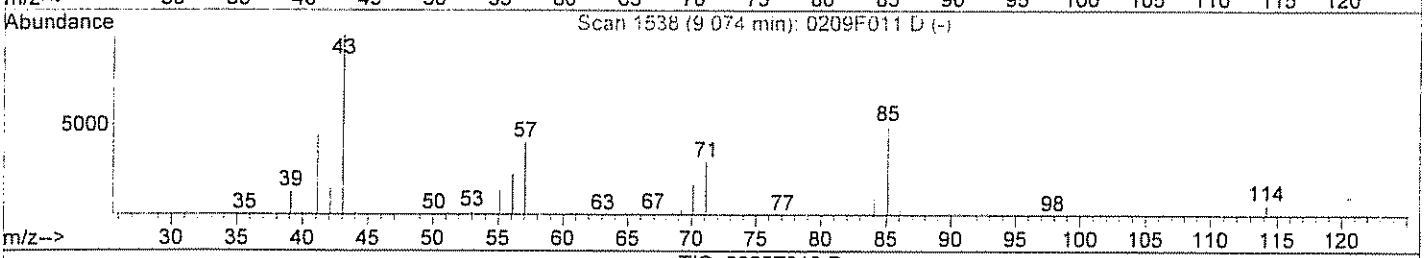
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:16 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F010.D

(60) n-Octane (T)

9.08min 0.97PPB m

response 9556

Ion	Exp%	Act%
85.00	100	100
57.00	79.30	72.92
71.00	54.80	49.70
0.00	0.00	0.00

split peak
LB 2/28/05
mt 3/1/5

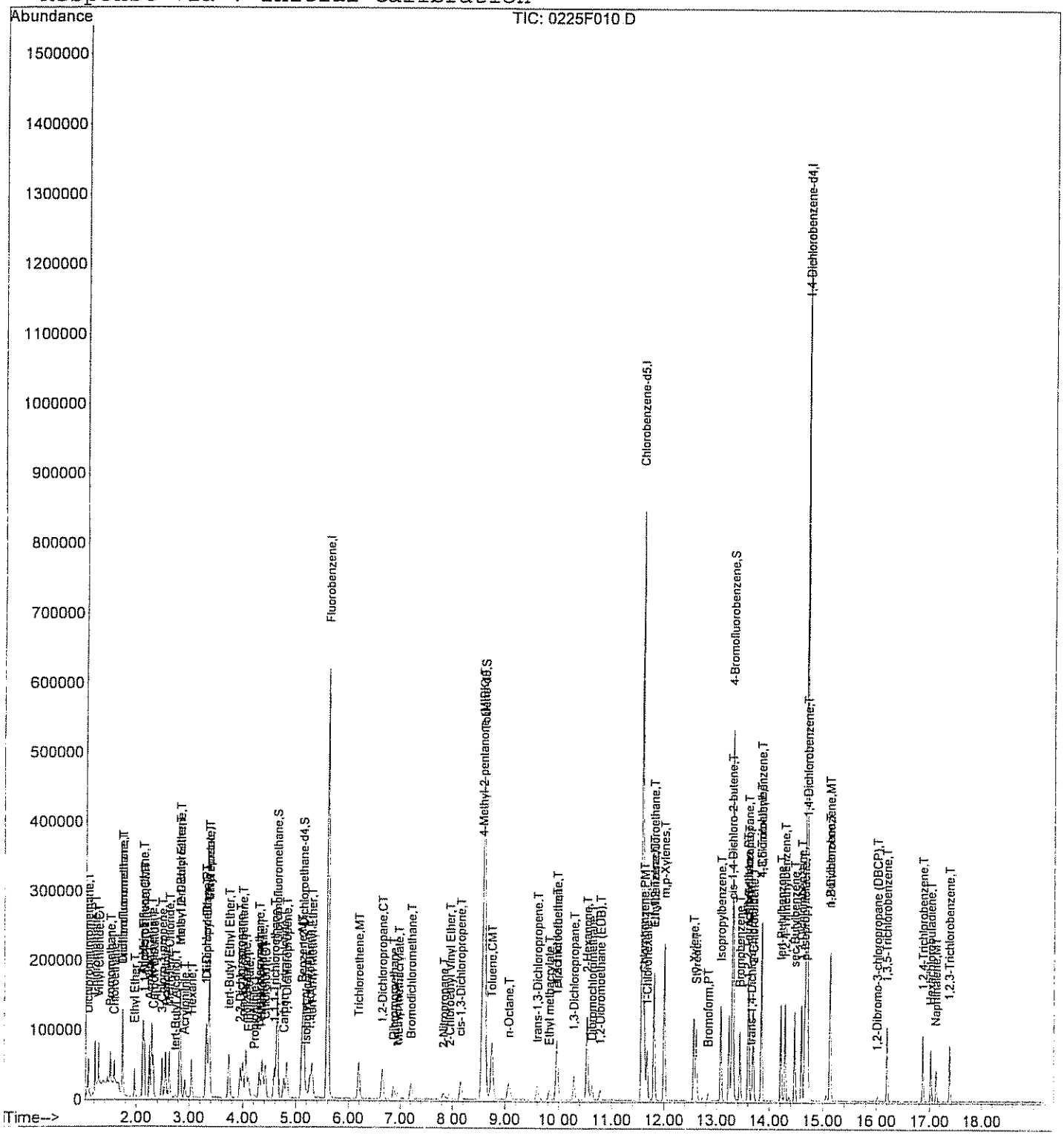
0225F010.D 022505_8260W.M Mon Feb 28 15:16:22 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:16 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	735104	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	323117	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	364389	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	149107	9.25	PPB	0.00
Spiked Amount 10.000			Recovery	=	92.50%	
43) 1,2-Dichloroethane-d4	5.15	65	168826	9.26	PPB	0.00
Spiked Amount 10.000			Recovery	=	92.60%	
57) Toluene-d8	8.60	98	662777	8.83	PPB	0.00
Spiked Amount 10.000			Recovery	=	88.30%	
79) 4-Bromofluorobenzene	13.31	95	231862	8.53	PPB	0.00
Spiked Amount 10.000			Recovery	=	85.30%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	43902	2.00	PPB	100
3) Chloromethane	1.22	50	57196	2.22	PPB	98
4) Vinyl Chloride	1.29	62	46440	2.11	PPB	98
5) Bromomethane	1.51	96	28196	2.20	PPB	94
6) Chloroethane	1.58	64	28487	2.09	PPB	98
7) Dichlorofluoromethane	1.74	67	69616	2.07	PPB	96
8) Trichlorofluoromethane	1.74	101	62824	2.19	PPB	98
9) Ethyl Ether	1.97	59	23739	1.91	PPB	95
10) Acrolein	2.12	56	68208	41.44	PPB	98
11) Trichlorotrifluoroethane	2.13	151	31738	2.30	PPB	95
12) 1,1-Dichloroethene	2.15	96	34246	2.25	PPB	88
13) Acetone	2.25	43	106599	35.96	PPB	93
14) Iodomethane	2.29	142	155935m	7.44	PPB	
15) Carbon Disulfide	2.32	76	100115	1.79	PPB	100
16) 3-Chloro-1-propene	2.48	76	16723	1.78	PPB	90
17) Acetonitrile	2.55	40	53365	76.47	PPB	93
18) Methylene Chloride	2.62	84	39167	2.13	PPB	99
19) tert-Butyl Alcohol	2.75	59	4719	5.56	PPB	94
20) Acrylonitrile	2.92	53	27753	7.39	PPB	91
21) Methyl tert-Butyl Ether	2.82	73	148945	3.44	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	37593	2.04	PPB	96
23) Hexane	3.05	57	39021	1.80	PPB	94
24) Diisopropyl Ether	3.33	45	109427	1.75	PPB	97
25) 1,1-Dichloroethane	3.31	63	65997	2.05	PPB	95
26) Vinyl Acetate	3.37	86	7490	2.73	PPB #	49
27) Chloroprene	3.37	53	187051	7.38	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	85656	1.60	PPB	97

(#) = qualifier out of range (m) = manual integration

MH 3/1/5

LB 2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29) 2,2-Dichloropropane	3.95	77	35207	1.24 PPB		96
30) cis-1,2-Dichloroethene	4.00	96	40719	2.02 PPB		96
31) 2-Butanone	4.05	72	40643	35.71 PPB		90
32) Propionitrile	4.22	54	9925	7.03 PPB		84
33) Ethyl Acetate	4.10	61	9645	6.85 PPB		89
34) Methacrylonitrile	4.37	67	32689	6.90 PPB		96
35) Bromochloromethane	4.30	128	17910	2.15 PPB	#	77
36) Tetrahydrofuran	4.34	71	2853	2.37 PPB		93
37) Chloroform	4.42	83	63182	2.05 PPB		95
38) 1,1,1-Trichloroethane	4.59	97	48528	1.75 PPB		95
40) Carbon Tetrachloride	4.76	117	34285	1.55 PPB		91
41) 1,1-Dichloropropene	4.83	75	50383	1.94 PPB		98
42) Isobutyl Alcohol	5.20	43	11974	32.26 PPB		83
44) Benzene	5.11	78	156879	2.01 PPB		98
45) 1,2-Dichloroethane	5.26	62	44213	2.09 PPB		97
46) tert-Amyl Methyl Ether	5.31	55	28309	2.49 PPB	#	41
47) Trichloroethene	6.19	95	38326	2.01 PPB		93
48) 1,2-Dichloropropane	6.66	63	35826	1.90 PPB		96
49) Dibromomethane	6.87	93	17418	2.00 PPB		93
50) Methyl methacrylate	6.98	69	11204	1.27 PPB		86
51) 1,4-Dioxane	6.94	88	7522	84.29 PPB		81
52) Bromodichloromethane	7.21	83	36192	1.73 PPB		88
53) 2-Nitropropane	7.82	43	10251	4.71 PPB		85
54) 2-Chloroethyl Vinyl Ether	7.95	63	12528	1.55 PPB		96
55) cis-1,3-Dichloropropene	8.16	75	41169	1.54 PPB		95
56) 4-Methyl-2-pentanone (MIBK	8.57	58	129710	29.87 PPB	#	79
58) Toluene	8.75	92	102192	1.91 PPB		94
60) n-Octane	9.07	85	14655	1.48 PPB		92
61) trans-1,3-Dichloropropene	9.60	75	28471	1.27 PPB		97
62) Ethyl methacrylate	9.83	69	19615	1.10 PPB		98
63) 1,1,2-Trichloroethane	9.97	83	20705	1.79 PPB		97
64) Tetrachloroethene	9.98	164	35718	2.07 PPB		96
65) 2-Hexanone	10.54	57	36866	26.41 PPB	#	88
66) 1,3-Dichloropropane	10.29	76	46083	1.99 PPB		98
67) Dibromochloromethane	10.64	129	21163	1.56 PPB		97
68) 1,2-Dibromoethane (EDB)	10.78	107	22167	1.76 PPB		98
69) 1-Chlorohexane	11.68	91	38622	1.80 PPB		92
70) Chlorobenzene	11.63	112	113624	2.05 PPB		94
71) Ethylbenzene	11.80	106	56934	1.88 PPB		88
72) 1,1,1,2-Tetrachloroethane	11.81	131	24648	1.48 PPB		95
73) m,p-Xylenes	12.01	106	139434	3.65 PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	65203	1.77	PPB		94
75)	Styrene	12.62	103	48758	1.67	PPB		96
76)	Bromoform	12.84	173	10935	1.44	PPB		96
77)	Isopropylbenzene	13.08	105	159791	1.77	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	5957	3.50	PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.60	83	25685	1.66	PPB		93
82)	trans-1,4-Dichloro-2-buten	13.68	53	6415	1.49	PPB		75
83)	Bromobenzene	13.45	156	48976	1.88	PPB		95
84)	n-Propylbenzene	13.61	91	190310	1.76	PPB		100
85)	1,2,3-Trichloropropane	13.62	110	9415	1.95	PPB		91
86)	2-Chlorotoluene	13.71	91	124209	1.78	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	129280	1.64	PPB		99
88)	4-Chlorotoluene	13.86	91	143796	1.79	PPB		96
89)	tert-Butylbenzene	14.22	119	107607	1.63	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	128356	1.61	PPB		97
91)	sec-Butylbenzene	14.48	105	144923	1.73	PPB		99
92)	p-Isopropyltoluene	14.67	119	126975	1.61	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	97513	1.99	PPB		96
94)	1,4-Dichlorobenzene	14.73	146	99550	1.96	PPB		94
95)	n-Butylbenzene	15.14	91	102530	1.61	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	87682	1.94	PPB		96
97)	1,2-Dibromo-3-chloropropan	16.03	155	2505	1.19	PPB		87
98)	1,3,5-Trichlorobenzene	16.21	180	54848	1.75	PPB		98
99)	1,2,4-Trichlorobenzene	16.88	180	48219	1.69	PPB		95
100)	Hexachlorobutadiene	17.03	225	25621	1.95	PPB		88
101)	Naphthalene	17.13	128	56380	1.14	PPB		97
102)	1,2,3-Trichlorobenzene	17.39	180	40394	1.79	PPB		96

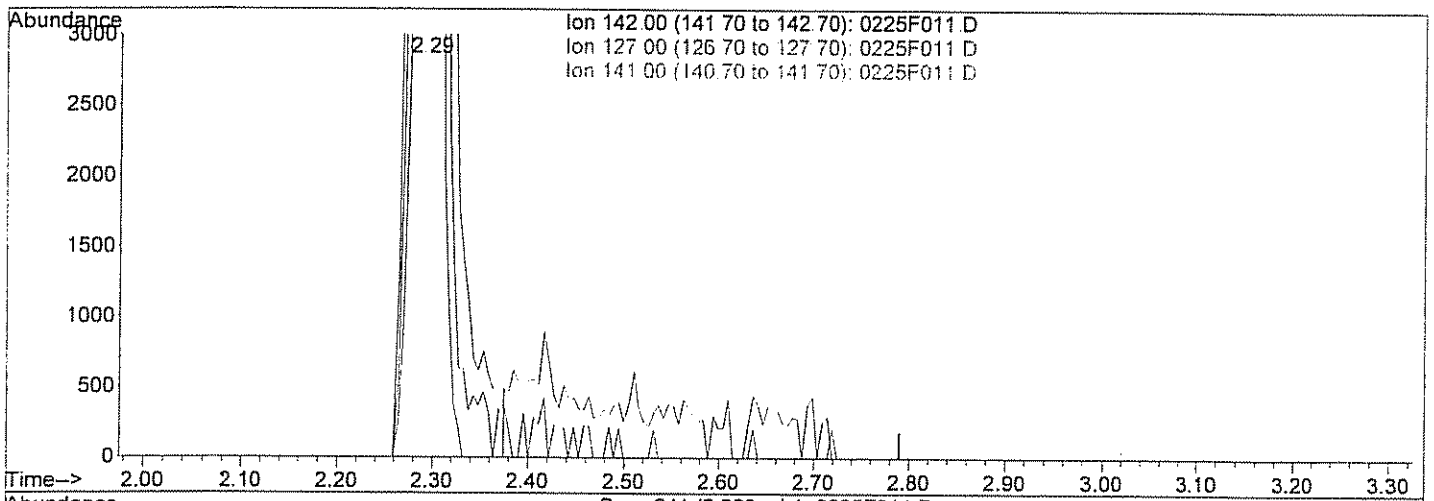
(#) = qualifier out of range (m) = manual integration

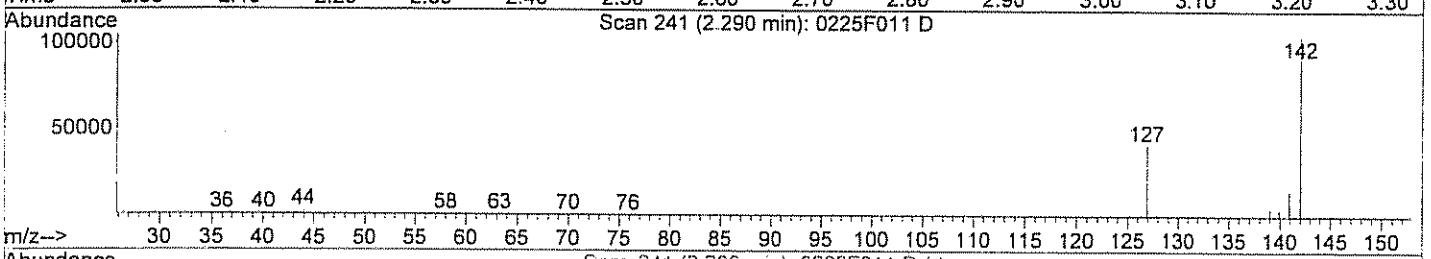
Quantitation Report (Qedit)

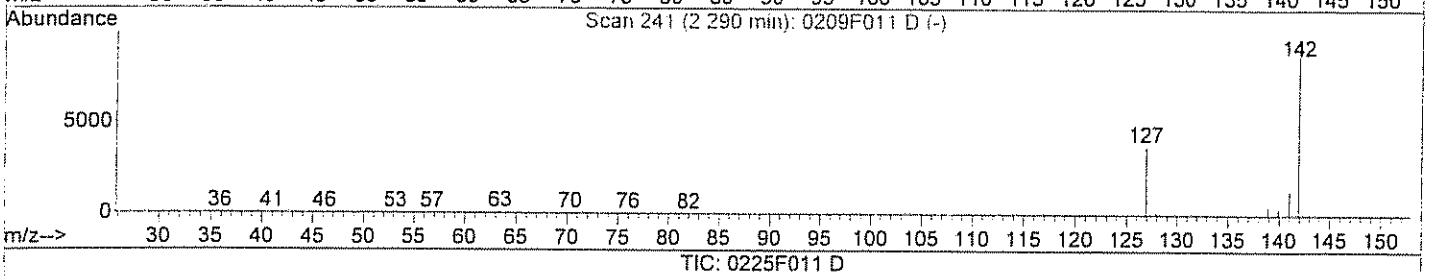
Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F011.D

(14) Iodomethane (T)

2.29min 7.11PPB

response 149005

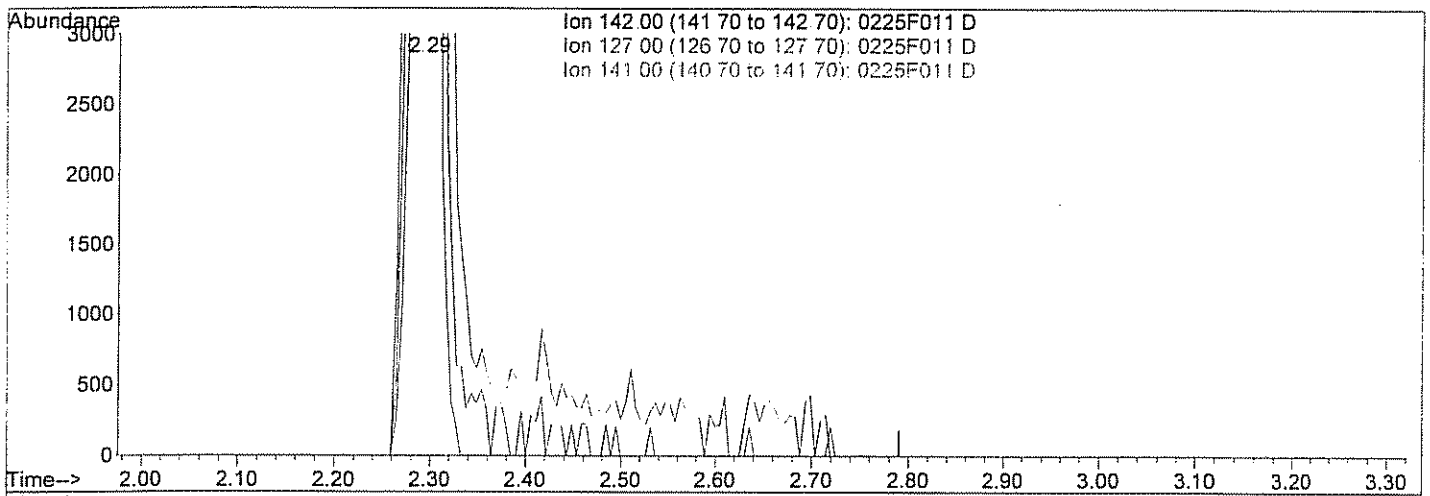
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.73
141.00	14.30	14.64
0.00	0.00	0.00

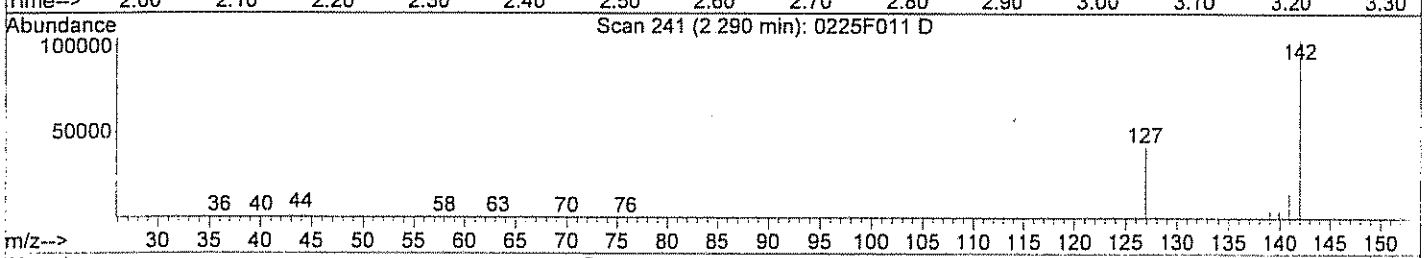
Quantitation Report (Qedit)

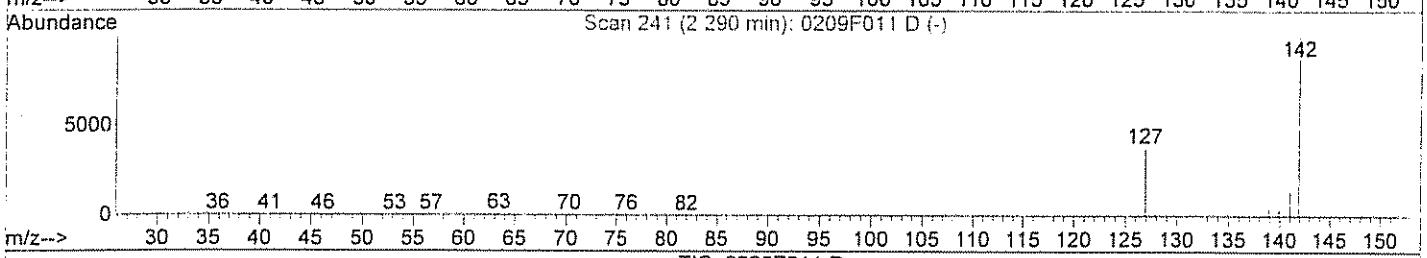
Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:17 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F011.D

(14) Iodomethane (T)

2.29min 7.44PPB m

response 155935

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.73
141.00	14.30	14.64
0.00	0.00	0.00

peak tailing
LB 2/28/05
MA 3/1/5

0225F011.D 022505_8260W.M Mon Feb 28 15:17:29 2005

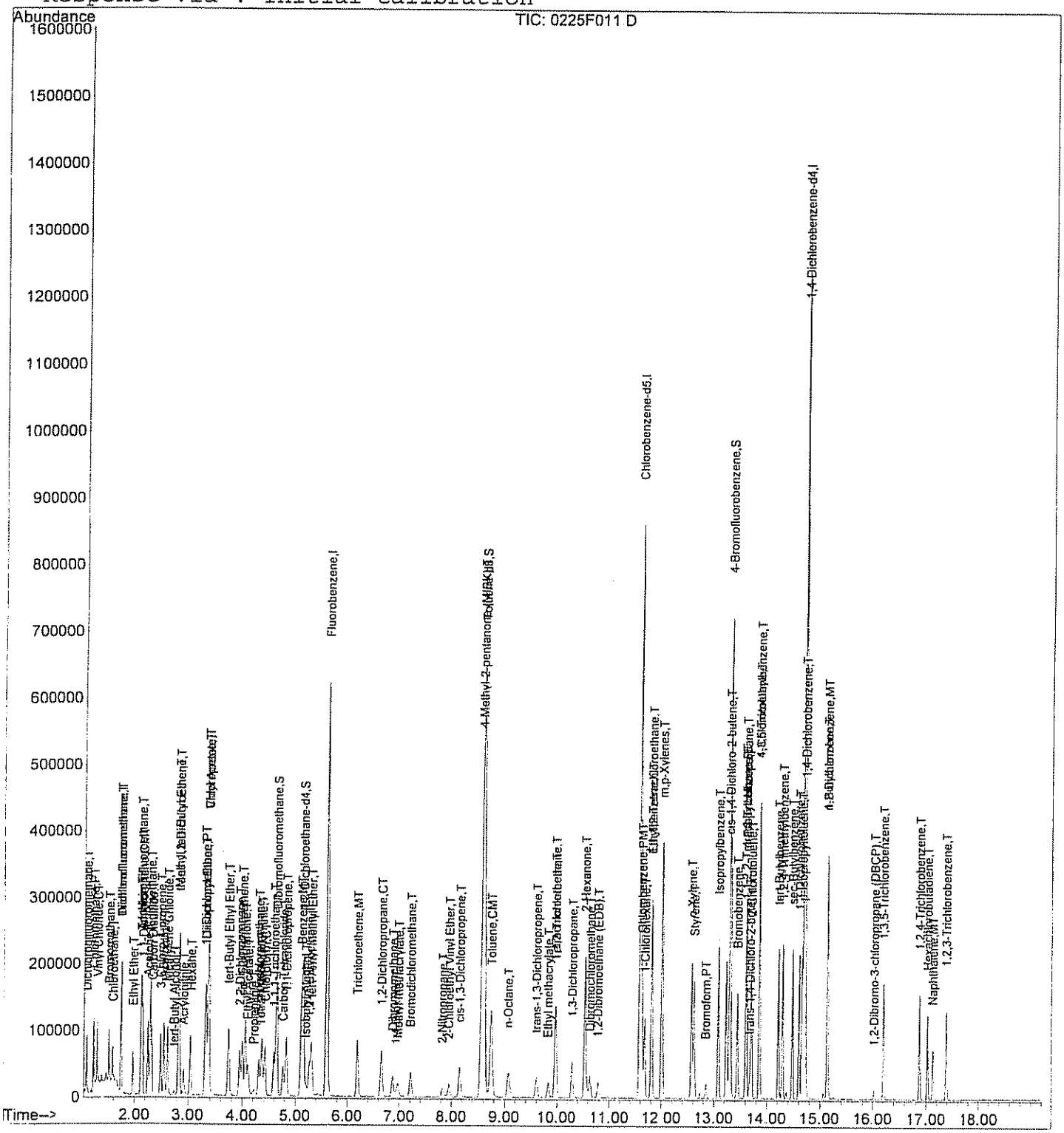
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:17 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	749703	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	326798	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	375745	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	170754	10.39	PPB	0.00
Spiked Amount 10.000			Recovery	=	103.90%	
43) 1,2-Dichloroethane-d4	5.15	65	190008	10.21	PPB	0.00
Spiked Amount 10.000			Recovery	=	102.10%	
57) Toluene-d8	8.60	98	773158	10.10	PPB	0.00
Spiked Amount 10.000			Recovery	=	101.00%	
79) 4-Bromofluorobenzene	13.31	95	275236	10.01	PPB	0.00
Spiked Amount 10.000			Recovery	=	100.10%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	122974	5.49	PPB	99
3) Chloromethane	1.22	50	141739	5.40	PPB	99
4) Vinyl Chloride	1.29	62	123967	5.52	PPB	100
5) Bromomethane	1.51	96	71150	5.43	PPB	100
6) Chloroethane	1.58	64	71829	5.16	PPB	99
7) Dichlorofluoromethane	1.74	67	178106	5.20	PPB	97
8) Trichlorofluoromethane	1.74	101	160801	5.51	PPB	100
9) Ethyl Ether	1.97	59	67788	5.35	PPB	96
10) Acrolein	2.12	56	188109	112.07	PPB	99
11) Trichlorotrifluoroethane	2.13	151	77304	5.48	PPB	96
12) 1,1-Dichloroethene	2.15	96	86635	5.57	PPB	96
13) Acetone	2.25	43	287053	94.96	PPB	99
14) Iodomethane	2.29	142	436786m	20.43	PPB	
15) Carbon Disulfide	2.32	76	257205	4.52	PPB	100
16) 3-Chloro-1-propene	2.48	76	43604	4.56	PPB	94
17) Acetonitrile	2.54	40	149070	209.45	PPB	96
18) Methylene Chloride	2.62	84	101444	5.41	PPB	99
19) tert-Butyl Alcohol	2.73	59	13437	15.54	PPB	95
20) Acrylonitrile	2.91	53	80837	21.11	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	411755	9.31	PPB	98
22) trans-1,2-Dichloroethene	2.84	96	99100	5.27	PPB	98
23) Hexane	3.05	57	97709	4.43	PPB	96
24) Diisopropyl Ether	3.33	45	298998	4.70	PPB	93
25) 1,1-Dichloroethane	3.31	63	174909	5.32	PPB	100
26) Vinyl Acetate	3.37	86	22762	8.13	PPB #	79
27) Chloroprene	3.37	53	499835	19.34	PPB	99
28) tert-Butyl Ethyl Ether	3.74	59	234181	4.28	PPB	98

(#) = qualifier out of range (m) = manual integration
0225F012.D 022505_8260W.M Mon Feb 28 15:30:35 2005 Page 1

3/7/5
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	93829	3.25	PPB		96
30)	cis-1,2-Dichloroethene	4.00	96	108779	5.28	PPB		97
31)	2-Butanone	4.05	72	118626	102.19	PPB		99
32)	Propionitrile	4.20	54	28011	19.46	PPB		94
33)	Ethyl Acetate	4.11	61	23649	16.47	PPB		92
34)	Methacrylonitrile	4.36	67	98312	20.36	PPB		95
35)	Bromochloromethane	4.30	128	48357	5.69	PPB		90
36)	Tetrahydrofuran	4.34	71	6869	5.59	PPB	#	80
37)	Chloroform	4.42	83	167871	5.34	PPB		97
38)	1,1,1-Trichloroethane	4.59	97	125907	4.46	PPB		97
40)	Carbon Tetrachloride	4.77	117	90846	4.03	PPB		95
41)	1,1-Dichloropropene	4.83	75	132604	5.00	PPB		95
42)	Isobutyl Alcohol	5.20	43	39440	104.18	PPB		92
44)	Benzene	5.11	78	410173	5.16	PPB		100
45)	1,2-Dichloroethane	5.27	62	121147	5.63	PPB		99
46)	tert-Amyl Methyl Ether	5.31	55	79592	6.86	PPB	#	40
47)	Trichloroethene	6.20	95	100656	5.18	PPB		98
48)	1,2-Dichloropropane	6.66	63	97690	5.09	PPB		96
49)	Dibromomethane	6.87	93	48260	5.44	PPB		92
50)	Methyl methacrylate	6.98	69	34560	3.85	PPB		92
51)	1,4-Dioxane	6.94	88	21183m	232.74	PPB		
52)	Bromodichloromethane	7.21	83	102937	4.81	PPB		100
53)	2-Nitropropane	7.82	43	31053	14.00	PPB		95
54)	2-Chloroethyl Vinyl Ether	7.95	63	37397	4.53	PPB		99
55)	cis-1,3-Dichloropropene	8.16	75	120320	4.42	PPB		98
56)	4-Methyl-2-pentanone (MIBK	8.56	58	380897	86.00	PPB		93
58)	Toluene	8.75	92	271709	4.99	PPB		95
60)	n-Octane	9.07	85	41288	4.13	PPB		92
61)	trans-1,3-Dichloropropene	9.60	75	85604	3.78	PPB		95
62)	Ethyl methacrylate	9.83	69	61110	3.38	PPB		98
63)	1,1,2-Trichloroethane	9.97	83	59628	5.09	PPB		96
64)	Tetrachloroethene	9.97	164	89272	5.12	PPB		90
65)	2-Hexanone	10.53	57	119955	84.98	PPB		99
66)	1,3-Dichloropropane	10.29	76	125869	5.38	PPB		96
67)	Dibromochloromethane	10.64	129	66017	4.82	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	66163	5.20	PPB		98
69)	1-Chlorohexane	11.68	91	107564	4.95	PPB		98
70)	Chlorobenzene	11.63	112	304053	5.43	PPB		98
71)	Ethylbenzene	11.81	106	158514	5.17	PPB		95
72)	1,1,1,2-Tetrachloroethane	11.81	131	72837	4.32	PPB		96
73)	m,p-Xylenes	12.01	106	397377	10.28	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	183932	4.93	PPB		93
75)	Styrene	12.61	103	143458	4.87	PPB		98
76)	Bromoform	12.85	173	32144	4.20	PPB		93
77)	Isopropylbenzene	13.08	105	443971	4.86	PPB		100
78)	cis-1,4-Dichloro-2-butene	13.29	89	19412	11.27	PPB	#	37
81)	1,1,2,2-Tetrachloroethane	13.59	83	75186	4.71	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	18613	4.21	PPB		74
83)	Bromobenzene	13.45	156	136588	5.08	PPB		93
84)	n-Propylbenzene	13.61	91	523643	4.71	PPB		99
85)	1,2,3-Trichloropropane	13.62	110	24610	4.95	PPB	#	76
86)	2-Chlorotoluene	13.71	91	347303	4.82	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	379290	4.66	PPB		99
88)	4-Chlorotoluene	13.86	91	403677	4.87	PPB		97
89)	tert-Butylbenzene	14.22	119	300544	4.41	PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	385160	4.68	PPB		100
91)	sec-Butylbenzene	14.48	105	407523	4.73	PPB		99
92)	p-Isopropyltoluene	14.67	119	373206	4.59	PPB		99
93)	1,3-Dichlorobenzene	14.61	146	259266	5.13	PPB		99
94)	1,4-Dichlorobenzene	14.73	146	269518	5.14	PPB		99
95)	n-Butylbenzene	15.13	91	292231	4.44	PPB		97
96)	1,2-Dichlorobenzene	15.14	146	246951	5.29	PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	7589	3.51	PPB		90
98)	1,3,5-Trichlorobenzene	16.20	180	154481	4.78	PPB		97
99)	1,2,4-Trichlorobenzene	16.88	180	136663	4.66	PPB		95
100)	Hexachlorobutadiene	17.03	225	65439	4.82	PPB		93
101)	Naphthalene	17.13	128	175332	3.43	PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	114342	4.93	PPB		98

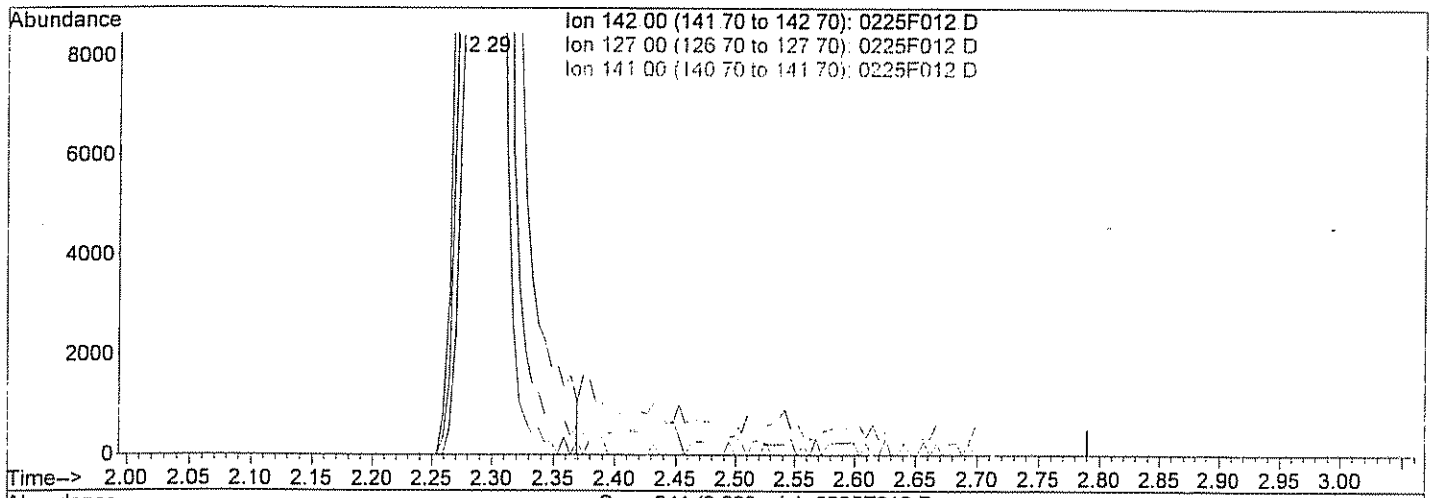
(#) = qualifier out of range (m) = manual integration

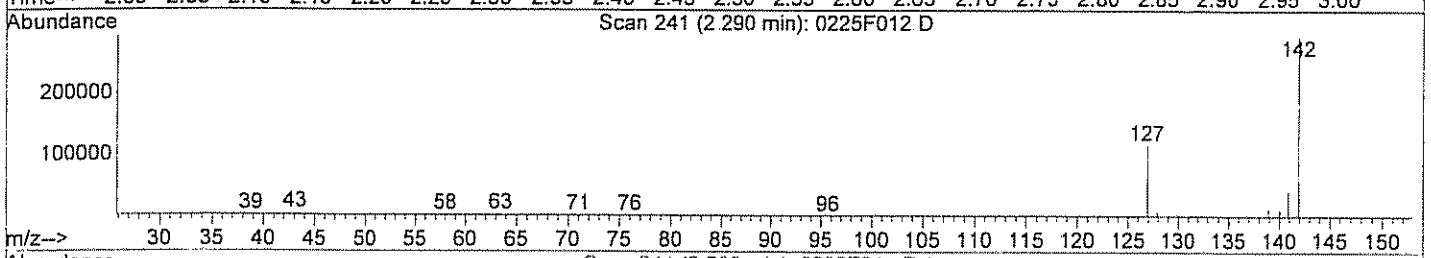
Quantitation Report (Qedit)

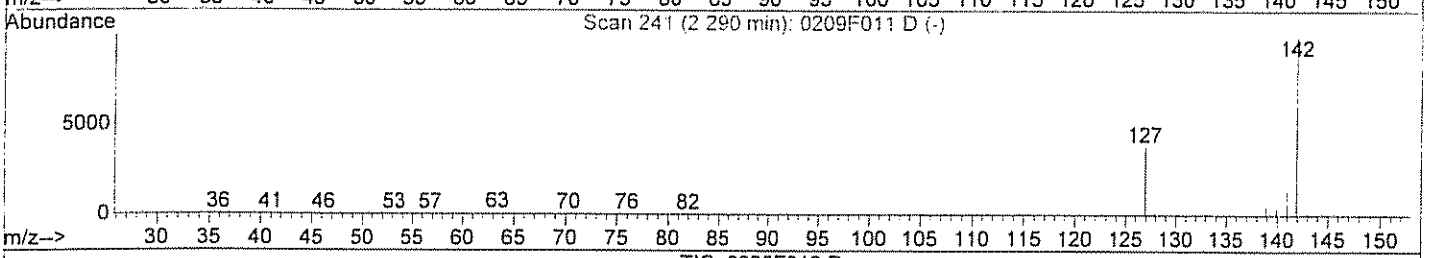
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F012.D

(14) Iodomethane (T)

2.29min 19.82PPB

response 423771

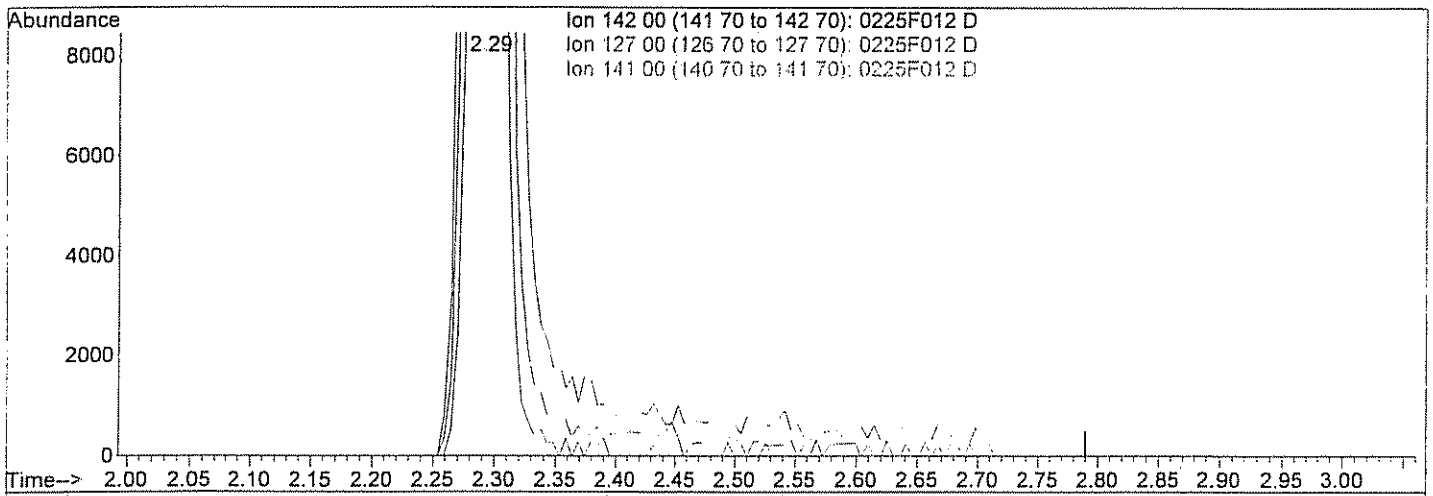
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.64
141.00	14.30	14.47
0.00	0.00	0.00

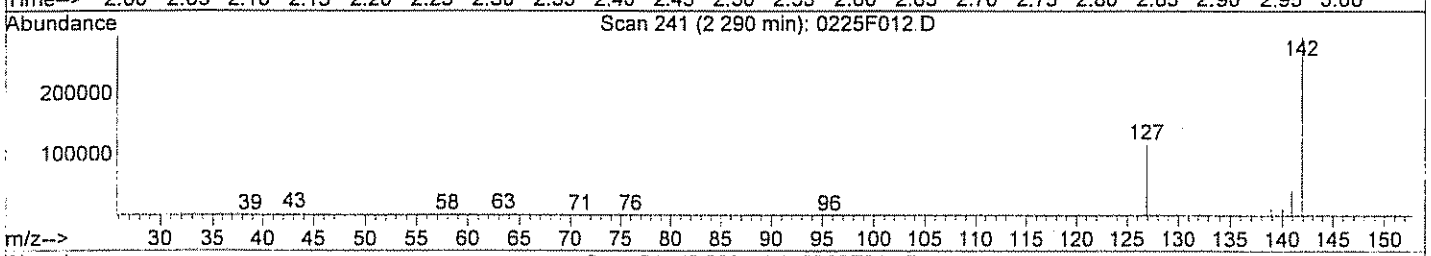
Quantitation Report (Qedit)

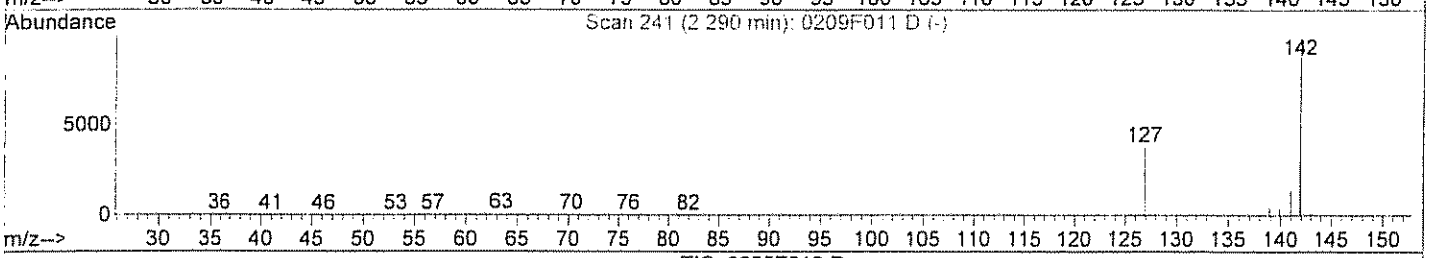
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:18 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F012 D

(14) Iodomethane (T)

2 29min 20 43PPB m

response 436786

Ion	Exp%	Act%
142 00	100	100
127 00	39 50	39 64
141 00	14 30	14 47
0 00	0 00	0 00

peak tailing
LB 2/28/05

MM 3/1/5

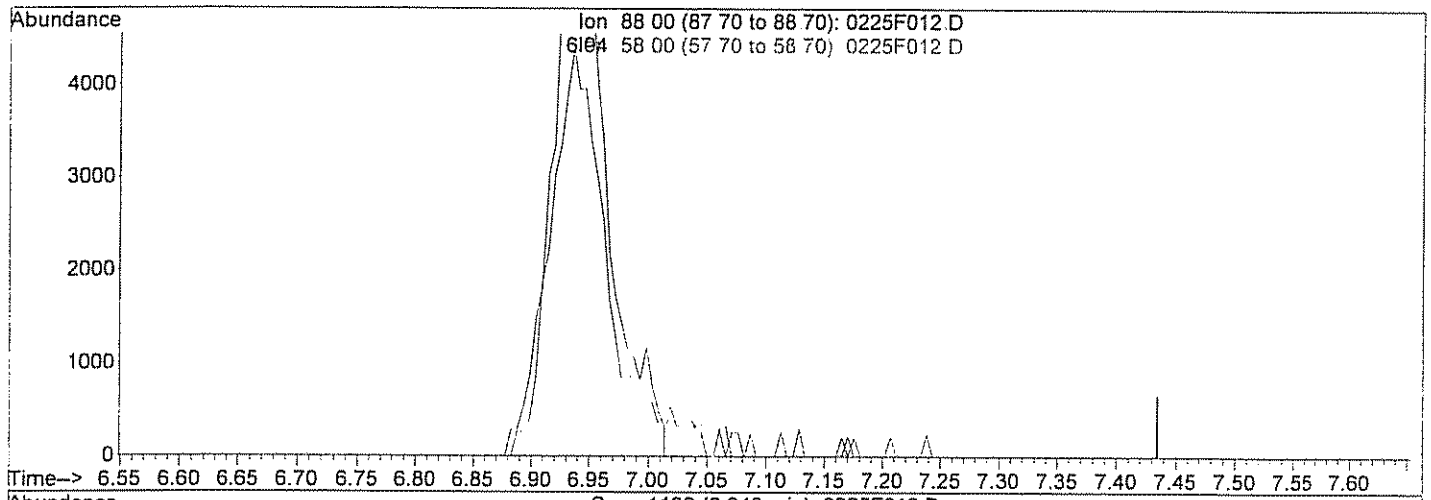
0225F012.D 022505_8260W.M Mon Feb 28 15:18:55 2005

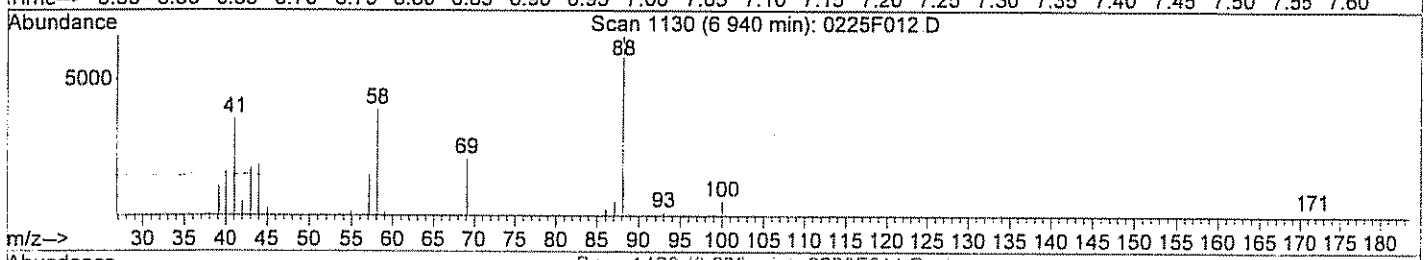
Quantitation Report (Qedit)

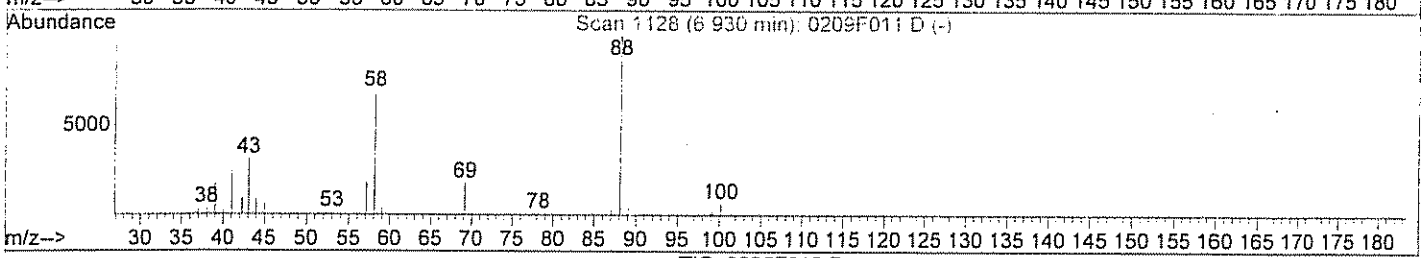
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:18 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F012.D

(51) 1.4-Dioxane (T)

6 94min 219 29PPB

response 19959

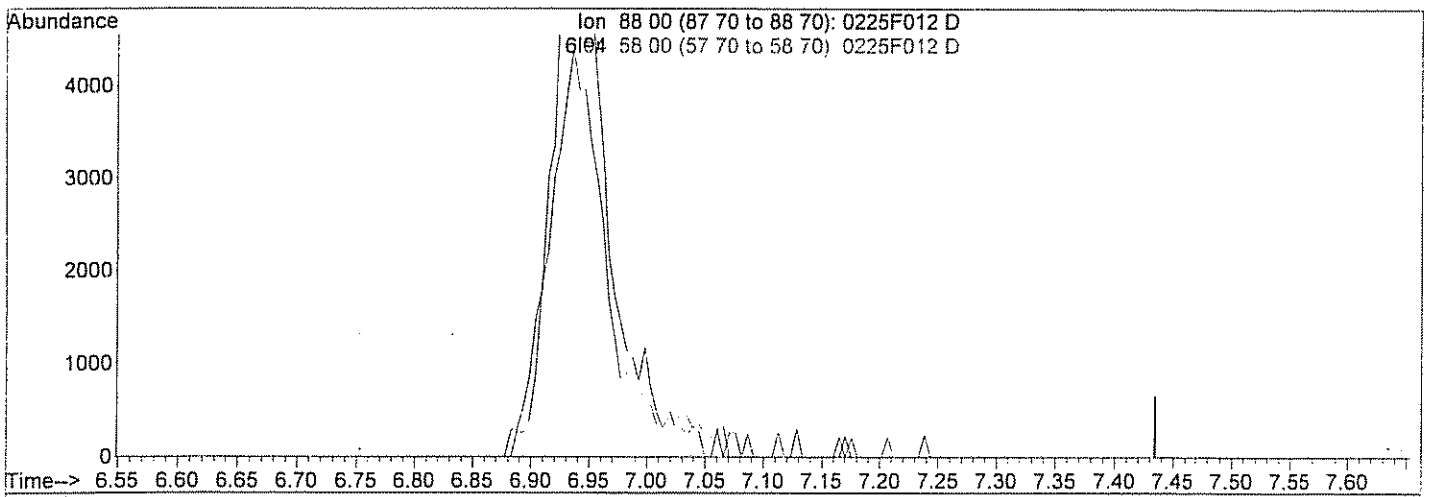
Ion	Exp%	Act%
88 00	100	100
58 00	65 60	60 53
0 00	0 00	0 00
0 00	0 00	0 00

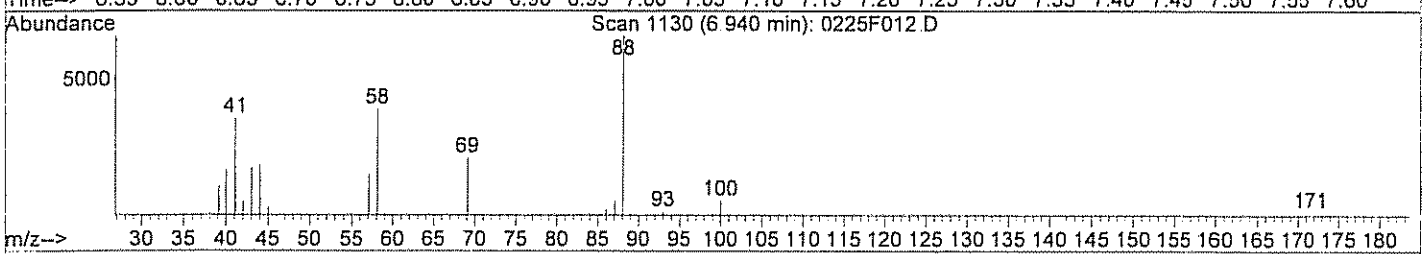
Quantitation Report (Qedit)

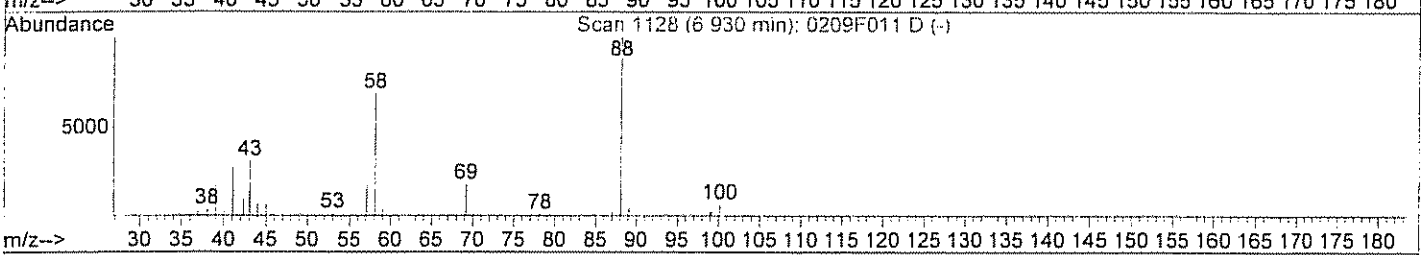
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:19 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F012 D

(51) 1,4-Dioxane (T)

6 94min 232 74PPB m

response 21183

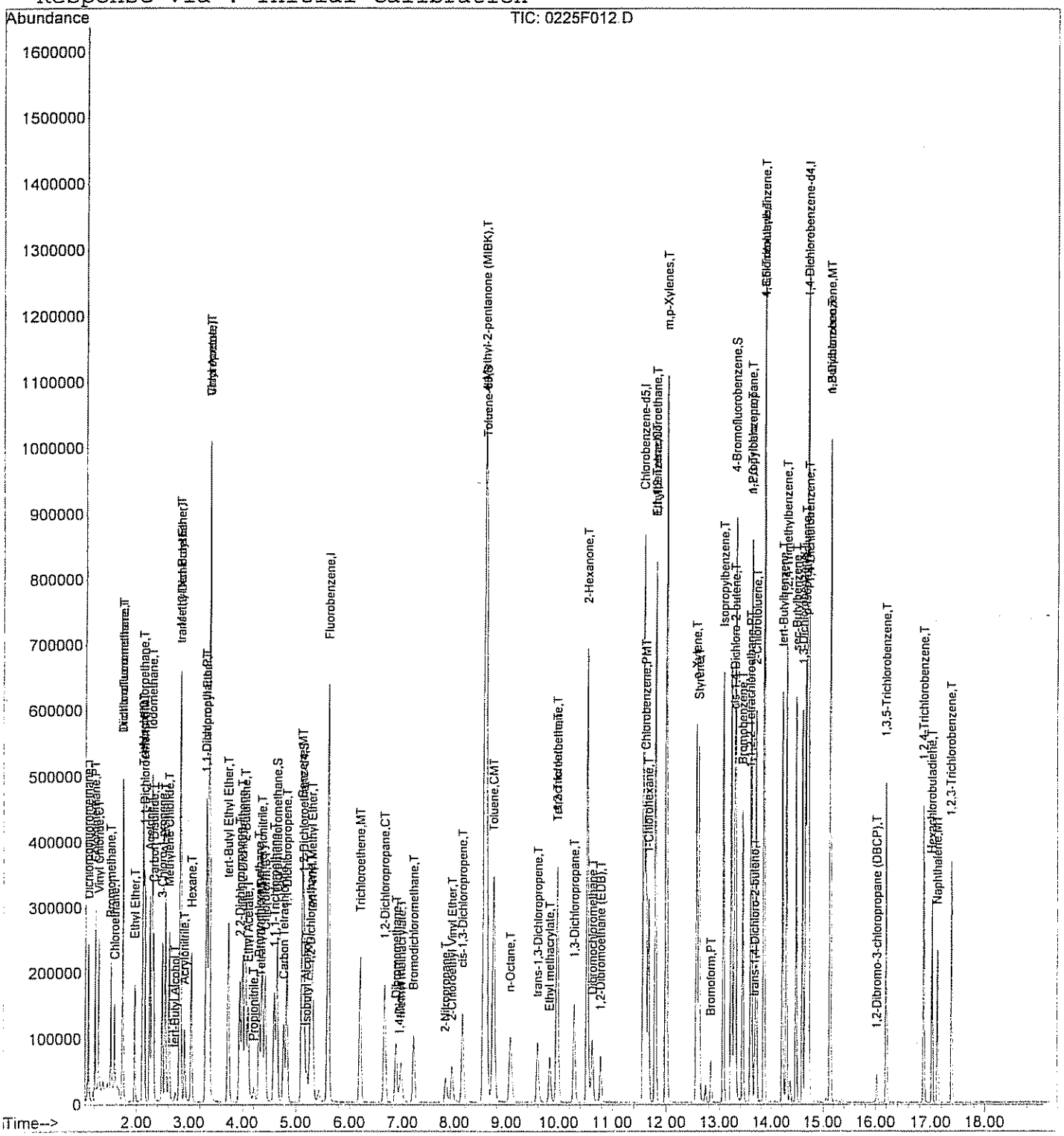
Ion	Exp%	Act%
88 00	100	100
58 00	65 60	60 53
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing
LB 2/28/05
3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:19 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	769126	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	331133	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	378337	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	188617	11.18	PPB	0.00
Spiked Amount 10.000			Recovery	=	111.80%	
43) 1,2-Dichloroethane-d4	5.15	65	211216	11.07	PPB	0.00
Spiked Amount 10.000			Recovery	=	110.70%	
57) Toluene-d8	8.60	98	868241	11.06	PPB	0.00
Spiked Amount 10.000			Recovery	=	110.60%	
79) 4-Bromofluorobenzene	13.31	95	310364	11.14	PPB	0.00
Spiked Amount 10.000			Recovery	=	111.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	246603	10.72	PPB	98
3) Chloromethane	1.22	50	273475	10.16	PPB	98
4) Vinyl Chloride	1.29	62	245208	10.64	PPB	99
5) Bromomethane	1.51	96	139149	10.35	PPB	99
6) Chloroethane	1.58	64	138596	9.70	PPB	99
7) Dichlorofluoromethane	1.74	67	350642	9.98	PPB	97
8) Trichlorofluoromethane	1.74	101	321672	10.74	PPB	99
9) Ethyl Ether	1.97	59	134231	10.33	PPB	99
10) Acrolein	2.12	56	384904	223.52	PPB	97
11) Trichlorotrifluoroethane	2.13	151	157811	10.91	PPB	98
12) 1,1-Dichloroethene	2.15	96	174432	10.94	PPB	91
13) Acetone	2.25	43	545588	175.92	PPB	99
14) Iodomethane	2.29	142	922214m	42.04	PPB	
15) Carbon Disulfide	2.32	76	510724	8.74	PPB	100
16) 3-Chloro-1-propene	2.48	76	93532	9.53	PPB	88
17) Acetonitrile	2.54	40	290748	398.21	PPB	98
18) Methylene Chloride	2.62	84	193846	10.08	PPB	99
19) tert-Butyl Alcohol	2.74	59	27931	31.48	PPB	97
20) Acrylonitrile	2.91	53	162702	41.41	PPB	93
21) Methyl tert-Butyl Ether	2.82	73	830215	18.31	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	195443	10.12	PPB	97
23) Hexane	3.05	57	209679	9.27	PPB	97
24) Diisopropyl Ether	3.33	45	611313	9.37	PPB	98
25) 1,1-Dichloroethane	3.31	63	347803	10.32	PPB	99
26) Vinyl Acetate	3.37	86	47810	16.65	PPB	95
27) Chloroprene	3.37	53	1030703	38.87	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	474806	8.46	PPB	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	200708	6.78	PPB		99
30)	cis-1,2-Dichloroethene	4.00	96	214692	10.16	PPB		94
31)	2-Butanone	4.05	72	224849	188.81	PPB		89
32)	Propionitrile	4.20	54	58174	39.39	PPB		97
33)	Ethyl Acetate	4.11	61	53941	36.61	PPB		91
34)	Methacrylonitrile	4.36	67	199373	40.25	PPB		95
35)	Bromochloromethane	4.30	128	95278	10.92	PPB		90
36)	Tetrahydrofuran	4.33	71	12926	10.25	PPB		93
37)	Chloroform	4.42	83	332662	10.31	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	259367	8.95	PPB		93
40)	Carbon Tetrachloride	4.77	117	190296	8.24	PPB		99
41)	1,1-Dichloropropene	4.83	75	267897	9.85	PPB		96
42)	Isobutyl Alcohol	5.19	43	88832	228.72	PPB		95
44)	Benzene	5.11	78	822800	10.08	PPB		98
45)	1,2-Dichloroethane	5.27	62	239723	10.85	PPB		98
46)	tert-Amyl Methyl Ether	5.30	55	154155	12.95	PPB	#	48
47)	Trichloroethene	6.19	95	201345	10.09	PPB		98
48)	1,2-Dichloropropane	6.65	63	194443	9.88	PPB		96
49)	Dibromomethane	6.87	93	94529	10.38	PPB		96
50)	Methyl methacrylate	6.97	69	75105	8.16	PPB		97
51)	1,4-Dioxane	6.93	88	43164m	462.26	PPB		
52)	Bromodichloromethane	7.21	83	216946	9.89	PPB		99
53)	2-Nitropropane	7.82	43	68920	30.28	PPB		97
54)	2-Chloroethyl Vinyl Ether	7.95	63	81924	9.66	PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	252725	9.05	PPB		94
56)	4-Methyl-2-pentanone (MIBK	8.56	58	751315	165.36	PPB		95
58)	Toluene	8.75	92	546321	9.77	PPB		97
60)	n-Octane	9.08	85	94513	9.33	PPB		95
61)	trans-1,3-Dichloropropene	9.60	75	188503	8.22	PPB		93
62)	Ethyl methacrylate	9.83	69	140860	7.68	PPB		96
63)	1,1,2-Trichloroethane	9.97	83	124075	10.45	PPB		90
64)	Tetrachloroethene	9.98	164	186766	10.57	PPB		95
65)	2-Hexanone	10.53	57	240821	168.37	PPB		97
66)	1,3-Dichloropropane	10.29	76	256289	10.82	PPB		95
67)	Dibromochloromethane	10.64	129	137832	9.94	PPB		98
68)	1,2-Dibromoethane (EDB)	10.78	107	135705	10.52	PPB		97
69)	1-Chlorohexane	11.68	91	226807	10.29	PPB		99
70)	Chlorobenzene	11.63	112	611481	10.78	PPB		99
71)	Ethylbenzene	11.81	106	324803	10.46	PPB		99
72)	1,1,1,2-Tetrachloroethane	11.81	131	150000	8.79	PPB		96
73)	m,p-Xylenes	12.01	106	819715	20.92	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	383594	10.14	PPB		98
75)	Styrene	12.61	103	311961	10.44	PPB		99
76)	Bromoform	12.85	173	70570	9.10	PPB		97
77)	Isopropylbenzene	13.08	105	936165	10.11	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	47053	26.97	PPB	#	76
81)	1,1,2,2-Tetrachloroethane	13.59	83	161243	10.03	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	37930	8.51	PPB		79
83)	Bromobenzene	13.45	156	276613	10.23	PPB		95
84)	n-Propylbenzene	13.61	91	1098888	9.82	PPB		99
85)	1,2,3-Trichloropropane	13.61	110	51121	10.21	PPB		91
86)	2-Chlorotoluene	13.71	91	706677	9.73	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	795087	9.70	PPB		98
88)	4-Chlorotoluene	13.86	91	829199	9.93	PPB		98
89)	tert-Butylbenzene	14.22	119	635727	9.27	PPB		100
90)	1,2,4-Trimethylbenzene	14.30	105	811898	9.80	PPB		100
91)	sec-Butylbenzene	14.48	105	850751	9.80	PPB		99
92)	p-Isopropyltoluene	14.67	119	781370	9.54	PPB		100
93)	1,3-Dichlorobenzene	14.61	146	528621	10.40	PPB		98
94)	1,4-Dichlorobenzene	14.73	146	550607	10.44	PPB		99
95)	n-Butylbenzene	15.13	91	612097	9.24	PPB		99
96)	1,2-Dichlorobenzene	15.14	146	500042	10.63	PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	17109	7.86	PPB		93
98)	1,3,5-Trichlorobenzene	16.20	180	309793	9.51	PPB		100
99)	1,2,4-Trichlorobenzene	16.88	180	279245	9.45	PPB		96
100)	Hexachlorobutadiene	17.03	225	133337	9.75	PPB		96
101)	Naphthalene	17.13	128	391134	7.59	PPB		98
102)	1,2,3-Trichlorobenzene	17.39	180	233040	9.97	PPB		98

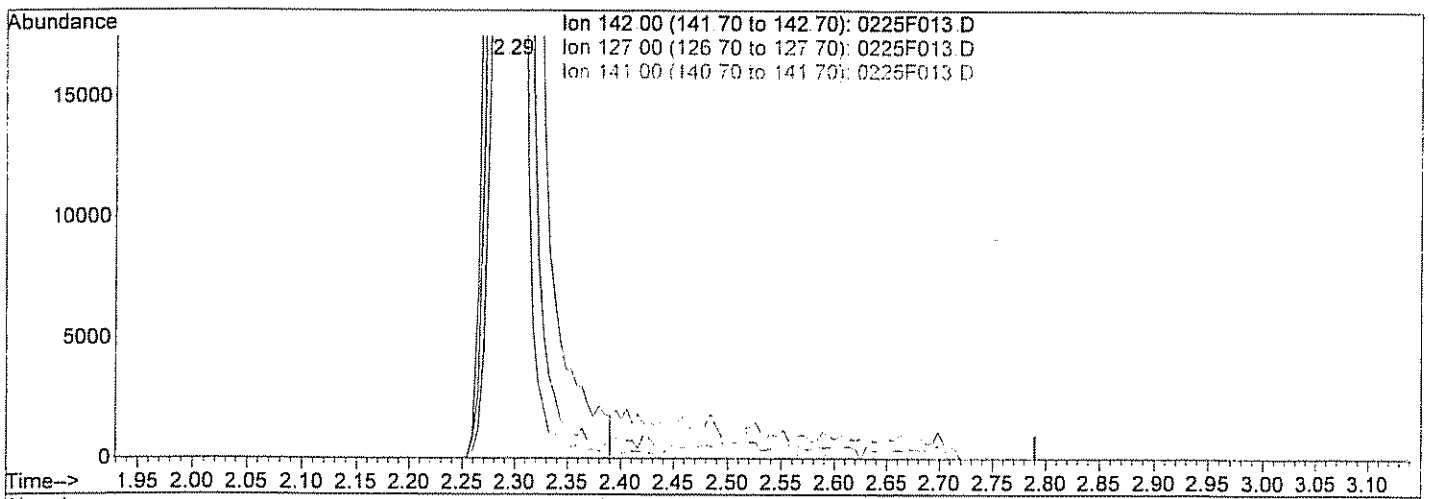
(#) = qualifier out of range (m) = manual integration

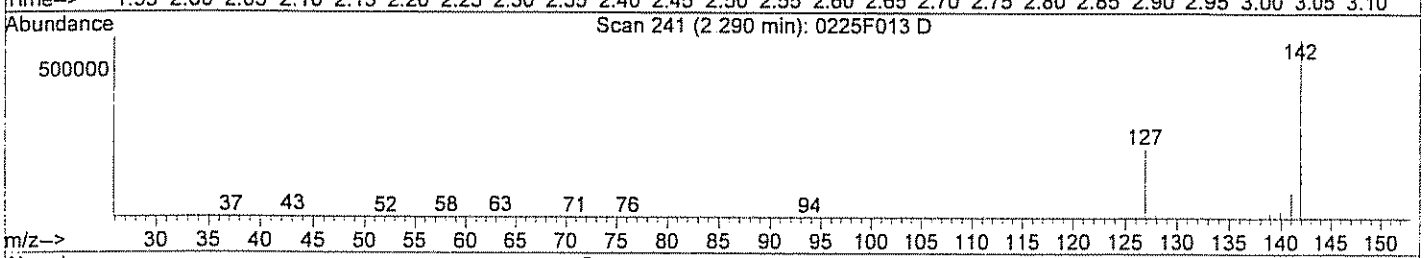
Quantitation Report (Qedit)

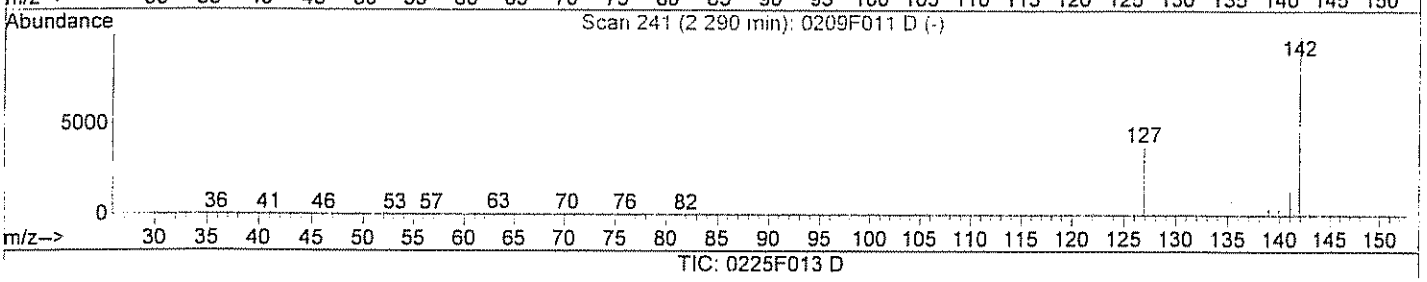
Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







(14) Iodomethane (T)

2.29min 41.06PPB

response 900751

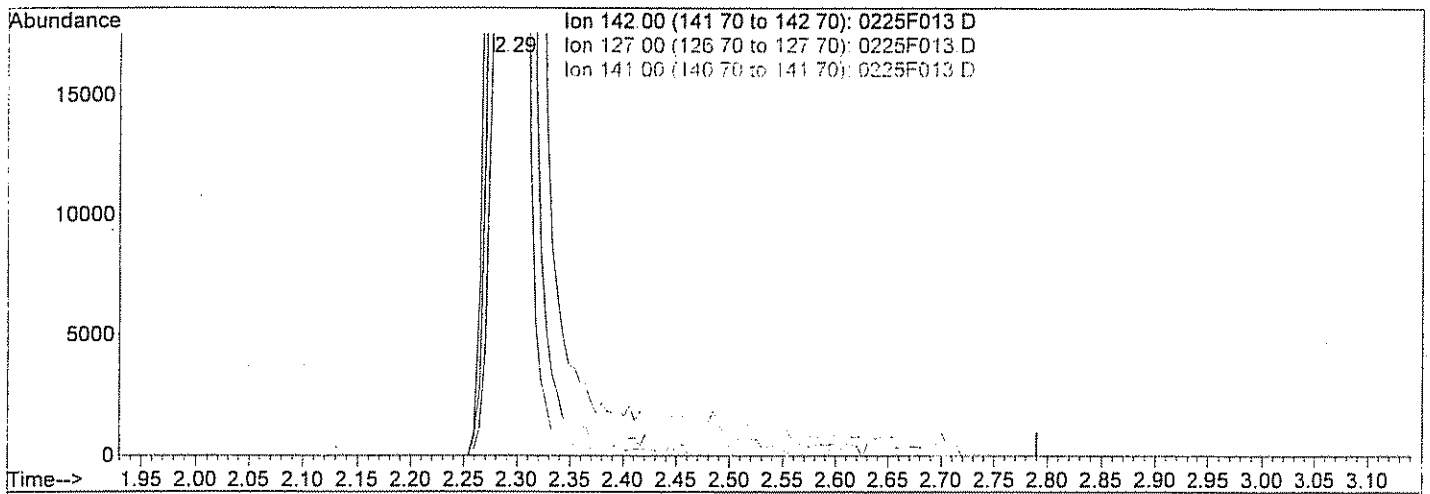
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.58
141.00	14.30	14.37
0.00	0.00	0.00

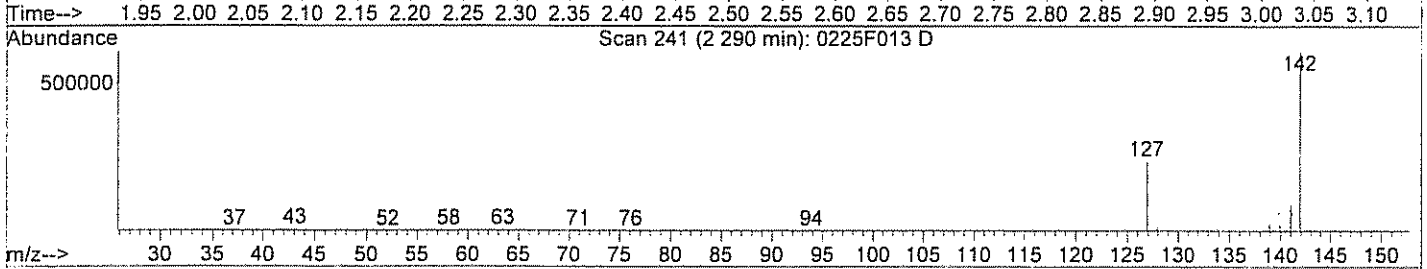
Quantitation Report (Qedit)

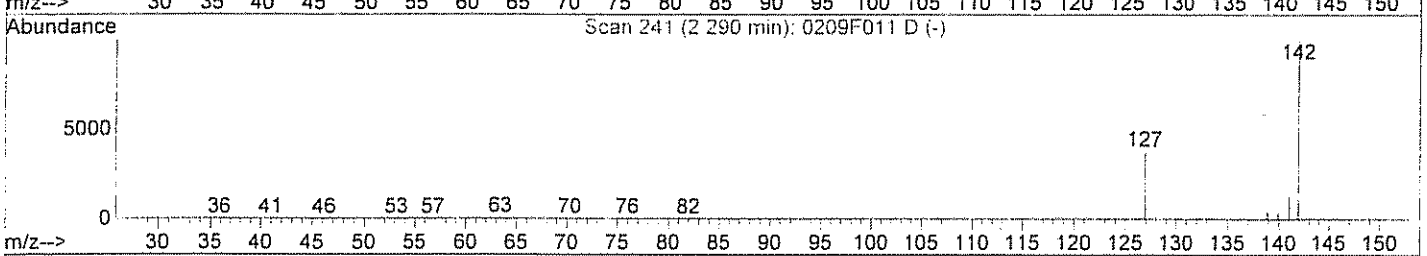
Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F013.D

(14) Iodomethane (T)

2.29min 42.04PPB m

response 922214

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.58
141.00	14.30	14.37
0.00	0.00	0.00

peak tailing
LB 2/28/05
mt 3/1/5

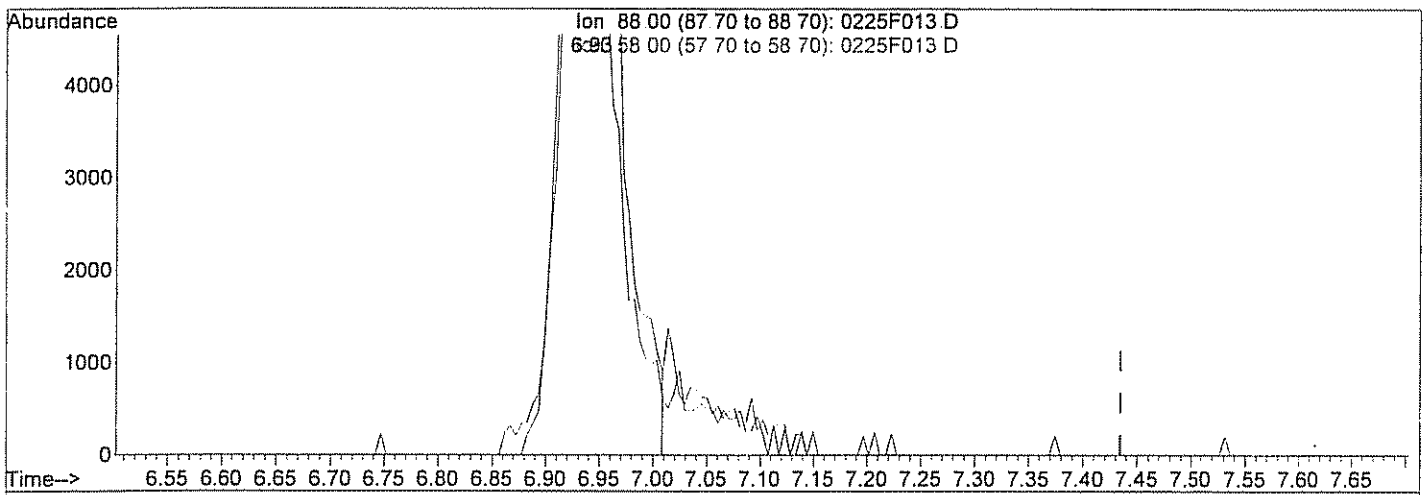
0225F013.D 022505_8260W.M Mon Feb 28 15:20:14 2005

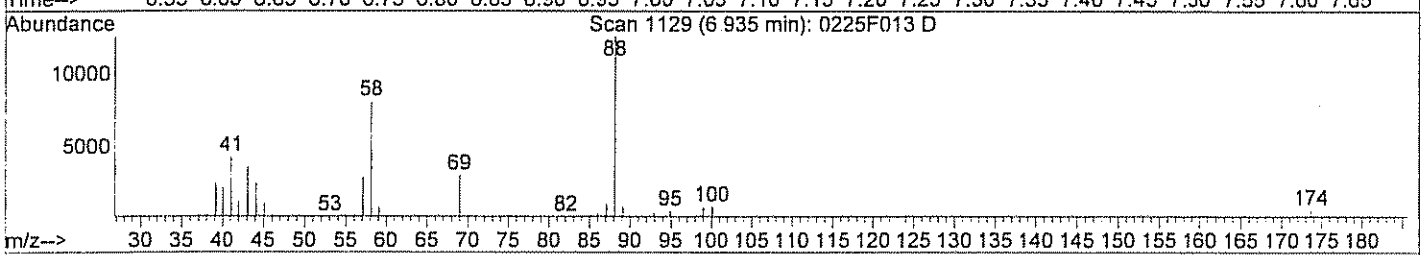
Quantitation Report (Qedit)

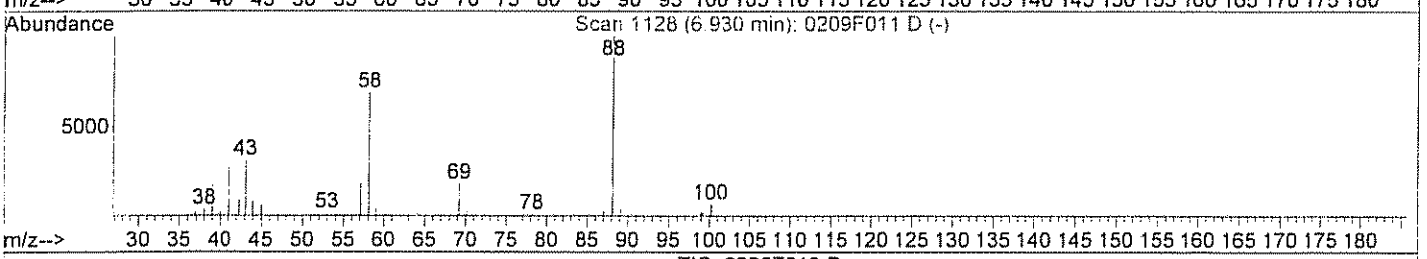
Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F013.D

(51) 1,4-Dioxane (T)

6.93min 420.25PPB

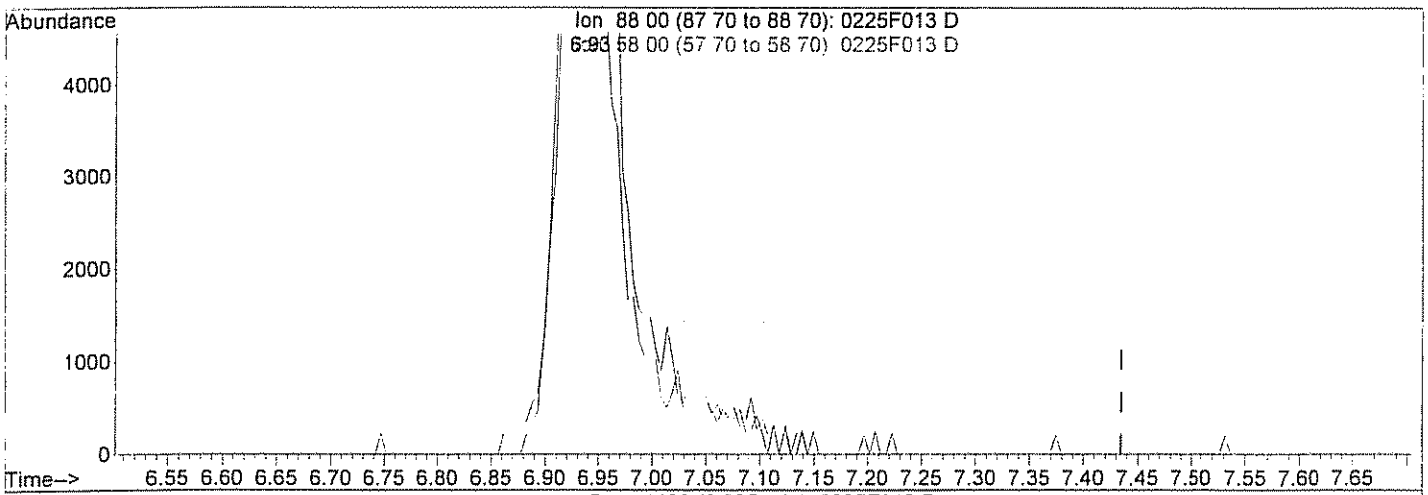
response 39241

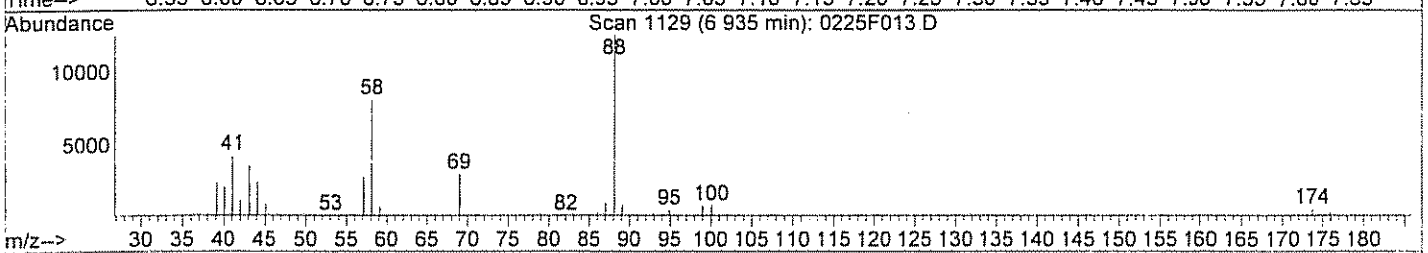
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	64.70
0.00	0.00	0.00
0.00	0.00	0.00

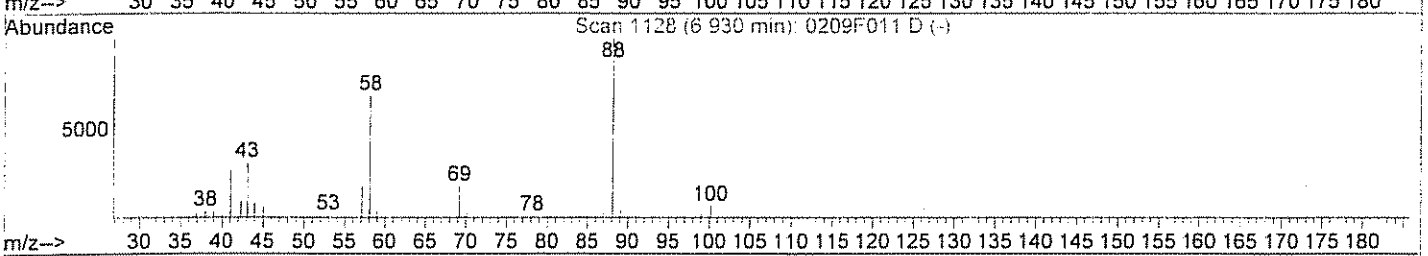
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F013 D

(51) 1.4-Dioxane (T)

6.93min 462.26PPB m

response 43164

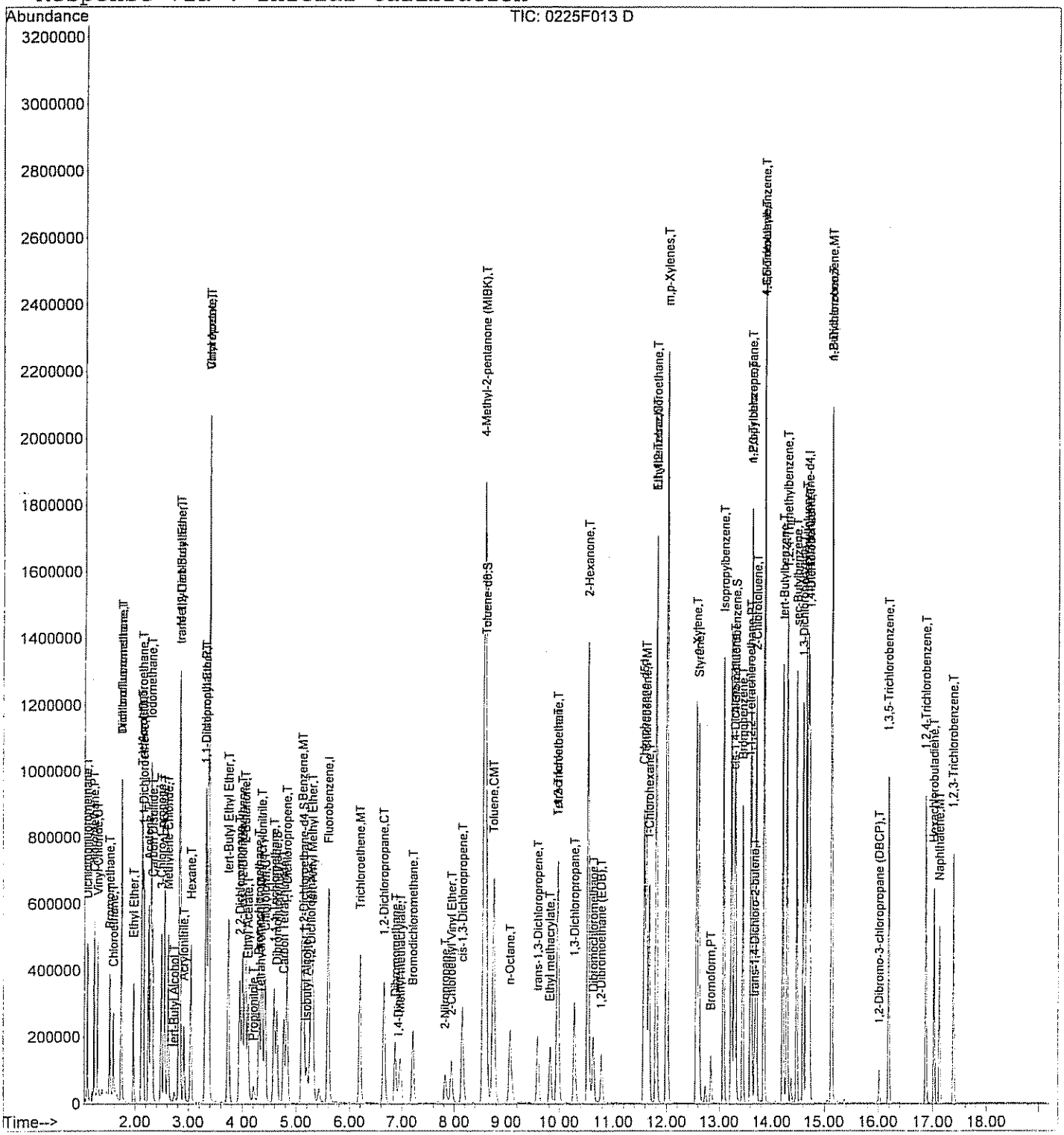
Ion	Exp%	Act%
88 00	100	100
58 00	65 60	64 70
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing
LB 2/28/05
3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	779797	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	343195	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	389751	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	371242	21.71	PPB	0.00
Spiked Amount 10.000			Recovery	=	217.10%	
43) 1,2-Dichloroethane-d4	5.15	65	416682	21.53	PPB	0.00
Spiked Amount 10.000			Recovery	=	215.30%	
57) Toluene-d8	8.60	98	1688861	21.22	PPB	0.00
Spiked Amount 10.000			Recovery	=	212.20%	
79) 4-Bromofluorobenzene	13.31	95	606534	21.00	PPB	0.00
Spiked Amount 10.000			Recovery	=	210.00%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	473392	20.31	PPB	98
3) Chloromethane	1.22	50	534480	19.59	PPB	99
4) Vinyl Chloride	1.29	62	483952	20.72	PPB	97
5) Bromomethane	1.51	96	275180	20.20	PPB	100
6) Chloroethane	1.58	64	278333	19.22	PPB	99
7) Dichlorofluoromethane	1.73	67	707676	19.86	PPB	96
8) Trichlorofluoromethane	1.74	101	636512	20.96	PPB	99
9) Ethyl Ether	1.97	59	279473	21.22	PPB	97
10) Acrolein	2.12	56	820328	469.87	PPB	100
11) Trichlorotrifluoroethane	2.13	151	304435	20.76	PPB	99
12) 1,1-Dichloroethene	2.15	96	347103	21.47	PPB	93
13) Acetone	2.25	43	1173665	373.26	PPB	99
14) Iodomethane	2.29	142	1926051m	86.60	PPB	
15) Carbon Disulfide	2.32	76	1034484	17.47	PPB	99
16) 3-Chloro-1-propene	2.48	76	193809	19.49	PPB	89
17) Acetonitrile	2.54	40	597026	806.49	PPB	97
18) Methylene Chloride	2.62	84	388811	19.93	PPB	97
19) tert-Butyl Alcohol	2.74	59	60780	67.56	PPB	96
20) Acrylonitrile	2.91	53	331359	83.19	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	1743001	37.91	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	398933	20.38	PPB	98
23) Hexane	3.05	57	414500	18.07	PPB	99
24) Diisopropyl Ether	3.33	45	1276929	19.30	PPB	99
25) 1,1-Dichloroethane	3.31	63	711792	20.83	PPB	99
26) Vinyl Acetate	3.37	86	109597	37.65	PPB	93
27) Chloroprene	3.37	53	2109498	78.47	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	996288	17.50	PPB	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	426200	14.20 PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	437959	20.44 PPB		96
31)	2-Butanone	4.05	72	502405	416.10 PPB		95
32)	Propionitrile	4.20	54	119802	80.01 PPB		95
33)	Ethyl Acetate	4.11	61	117952	78.95 PPB		96
34)	Methacrylonitrile	4.36	67	414904	82.61 PPB		98
35)	Bromochloromethane	4.30	128	193637	21.89 PPB		94
36)	Tetrahydrofuran	4.33	71	24885	19.46 PPB	#	79
37)	Chloroform	4.42	83	677462	20.70 PPB		99
38)	1,1,1-Trichloroethane	4.59	97	544464	18.54 PPB		96
40)	Carbon Tetrachloride	4.77	117	406943	17.37 PPB		98
41)	1,1-Dichloropropene	4.83	75	546095	19.80 PPB		97
42)	Isobutyl Alcohol	5.20	43	213236	541.51 PPB		95
44)	Benzene	5.11	78	1669935	20.18 PPB		99
45)	1,2-Dichloroethane	5.26	62	484577	21.64 PPB		97
46)	tert-Amyl Methyl Ether	5.30	55	308176	25.54 PPB	#	54
47)	Trichloroethene	6.19	95	406716	20.11 PPB		99
48)	1,2-Dichloropropane	6.66	63	400266	20.06 PPB		93
49)	Dibromomethane	6.87	93	194165	21.04 PPB		97
50)	Methyl methacrylate	6.97	69	165919	17.77 PPB		93
51)	1,4-Dioxane	6.93	88	89431m	944.65 PPB		
52)	Bromodichloromethane	7.21	83	441693	19.85 PPB		95
53)	2-Nitropropane	7.83	43	162554	70.45 PPB		99
54)	2-Chloroethyl Vinyl Ether	7.95	63	180545	21.00 PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	546500	19.30 PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.56	58	1692540	367.42 PPB		95
58)	Toluene	8.75	92	1113997	19.65 PPB		97
60)	n-Octane	9.07	85	184165	17.54 PPB		93
61)	trans-1,3-Dichloropropene	9.60	75	416062	17.50 PPB		97
62)	Ethyl methacrylate	9.83	69	319190	16.80 PPB		97
63)	1,1,2-Trichloroethane	9.96	83	249922	20.32 PPB		94
64)	Tetrachloroethene	9.98	164	369351	20.18 PPB		95
65)	2-Hexanone	10.53	57	558448	376.72 PPB		96
66)	1,3-Dichloropropane	10.29	76	519031	21.14 PPB		96
67)	Dibromochloromethane	10.64	129	294485	20.49 PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	280647	21.00 PPB		95
69)	1-Chlorohexane	11.68	91	475424	20.82 PPB		99
70)	Chlorobenzene	11.63	112	1223183	20.81 PPB		98
71)	Ethylbenzene	11.81	106	662461	20.58 PPB		100
72)	1,1,1,2-Tetrachloroethane	11.81	131	327963	18.53 PPB		96
73)	m,p-Xylenes	12.01	106	1680679	41.38 PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
74)	o-Xylene	12.57	106	789493	20.13 PPB		100
75)	Styrene	12.62	103	642349	20.75 PPB		97
76)	Bromoform	12.84	173	154882	19.27 PPB		99
77)	Isopropylbenzene	13.08	105	1938701	20.21 PPB		99
78)	cis-1,4-Dichloro-2-butene	13.29	89	112619	62.28 PPB	#	70
81)	1,1,2,2-Tetrachloroethane	13.60	83	317520	19.18 PPB		98
82)	trans-1,4-Dichloro-2-buten	13.68	53	81363m	17.72 PPB		
83)	Bromobenzene	13.45	156	553847	19.88 PPB		94
84)	n-Propylbenzene	13.61	91	2252671	19.53 PPB		99
85)	1,2,3-Trichloropropane	13.61	110	100511	19.48 PPB		100
86)	2-Chlorotoluene	13.71	91	1420744	18.99 PPB		100
87)	1,3,5-Trimethylbenzene	13.86	105	1621828	19.21 PPB		98
88)	4-Chlorotoluene	13.86	91	1660416	19.30 PPB		98
89)	tert-Butylbenzene	14.22	119	1313068	18.59 PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	1661261	19.47 PPB		100
91)	sec-Butylbenzene	14.48	105	1748638	19.55 PPB		99
92)	p-Isopropyltoluene	14.67	119	1613078	19.11 PPB		99
93)	1,3-Dichlorobenzene	14.61	146	1049291	20.03 PPB		99
94)	1,4-Dichlorobenzene	14.73	146	1069990	19.69 PPB		98
95)	n-Butylbenzene	15.13	91	1276259	18.70 PPB		99
96)	1,2-Dichlorobenzene	15.14	146	994797	20.53 PPB		97
97)	1,2-Dibromo-3-chloropropan	16.03	155	39967	17.82 PPB		90
98)	1,3,5-Trichlorobenzene	16.20	180	624097	18.60 PPB		100
99)	1,2,4-Trichlorobenzene	16.88	180	566704	18.62 PPB		97
100)	Hexachlorobutadiene	17.03	225	266970	18.96 PPB		98
101)	Naphthalene	17.13	128	861511	16.23 PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	471714	19.59 PPB		100

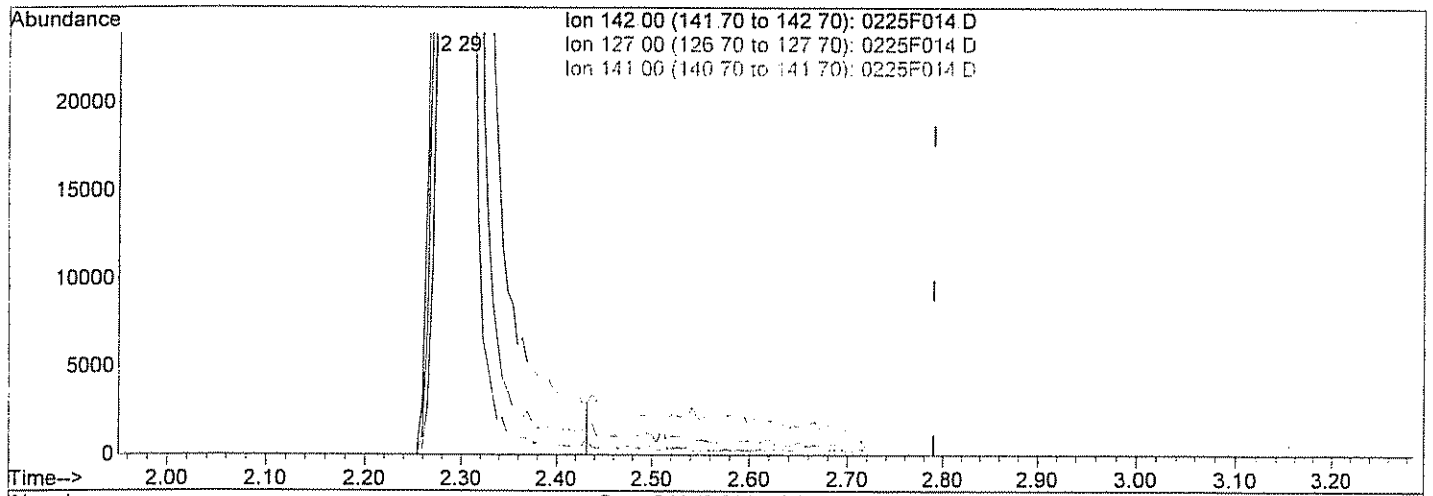
(#) = qualifier out of range (m) = manual integration

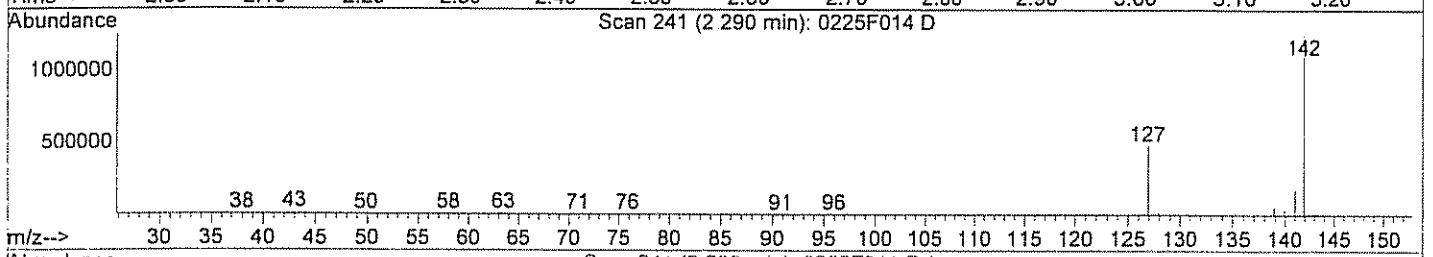
Quantitation Report (Qedit)

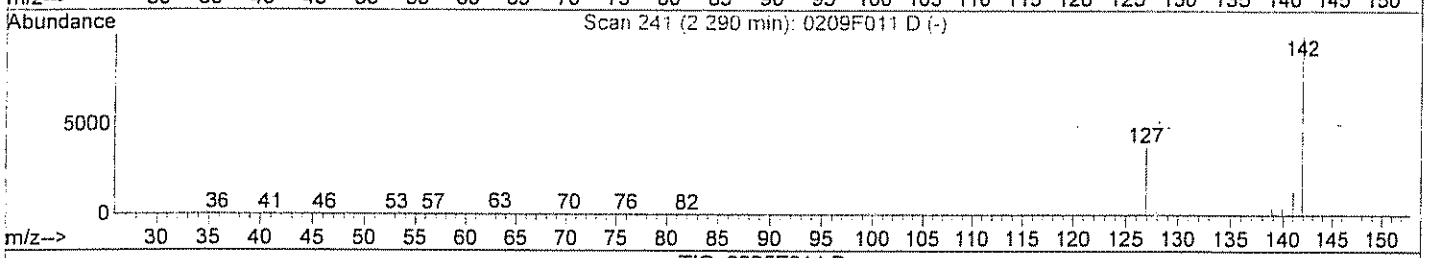
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F014.D

(14) Iodomethane (T)

2.29min 84.99PPB

response 1890165

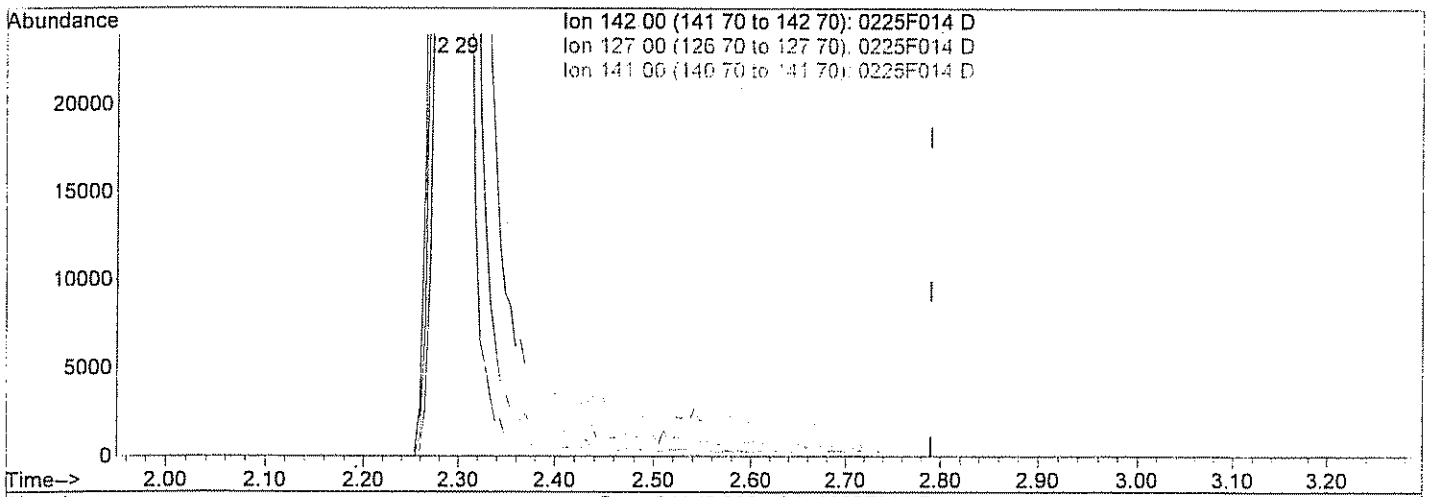
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.38
141.00	14.30	14.01
0.00	0.00	0.00

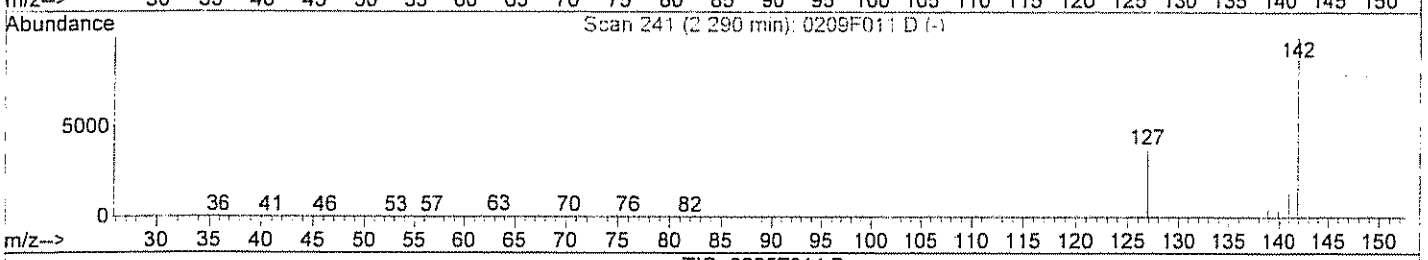
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration





TIC: 0225F014.D

(14) Iodomethane (T)

2.29min 86.60PPB m

response 1926051

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.38
141.00	14.30	14.01
0.00	0.00	0.00

peak tailing
KB 2/28/05
MH 3/1/5

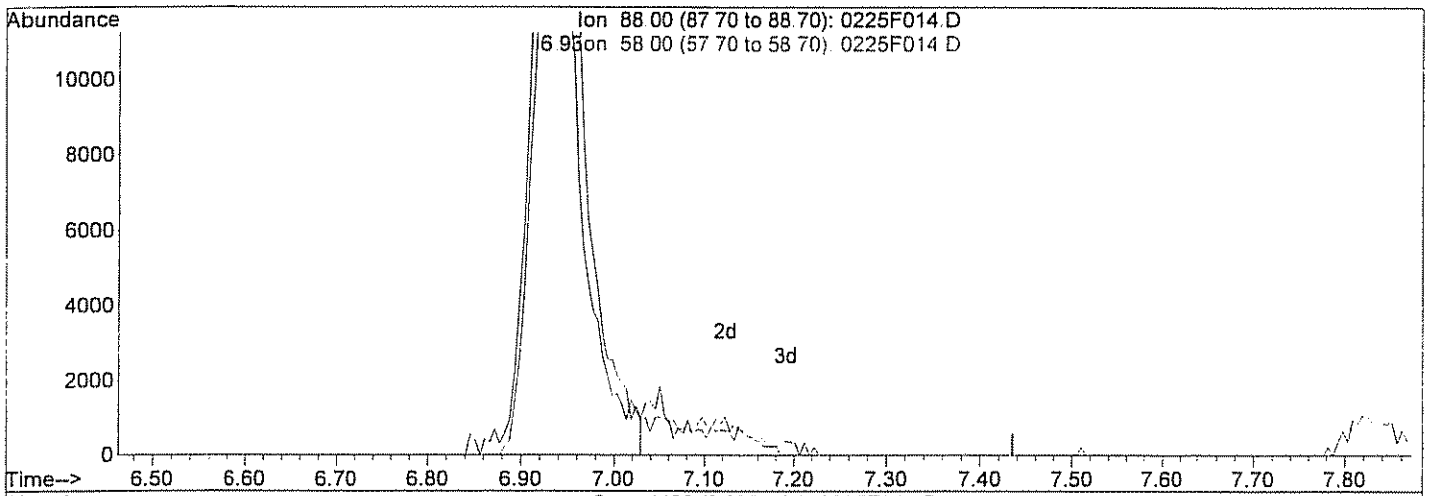
0225F014.D 022505_8260W.M Mon Feb 28 15:21:29 2005

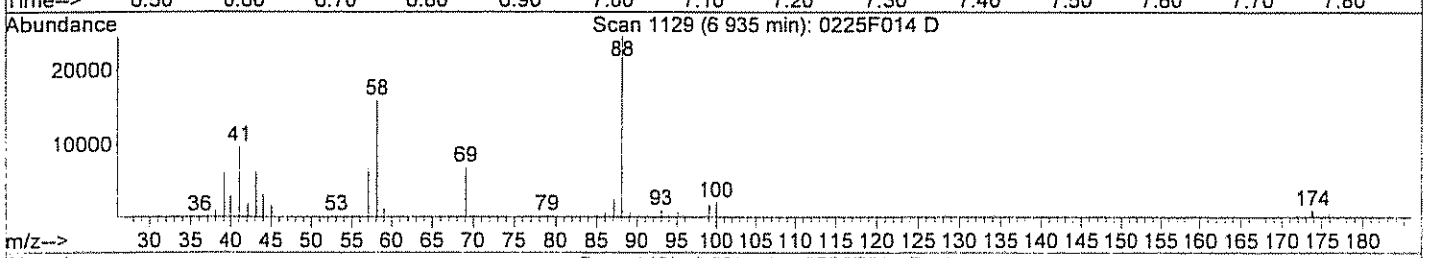
Quantitation Report (Qedit)

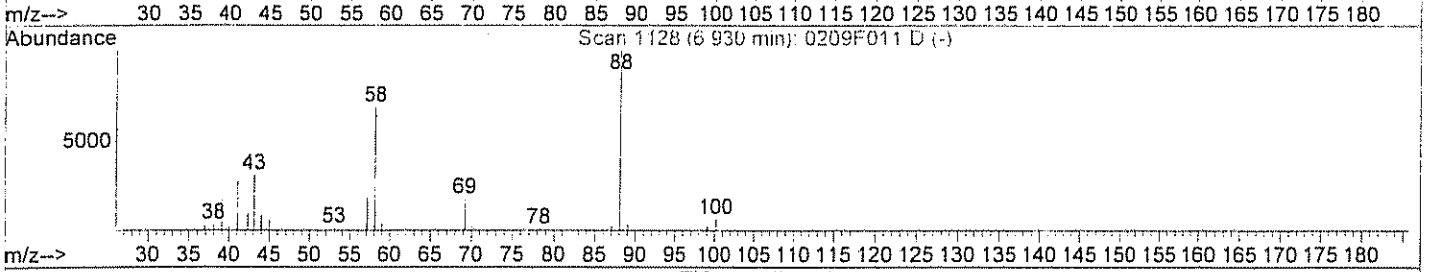
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(51) 1,4-Dioxane (T)

6.93min 858.26PPB

response 81252

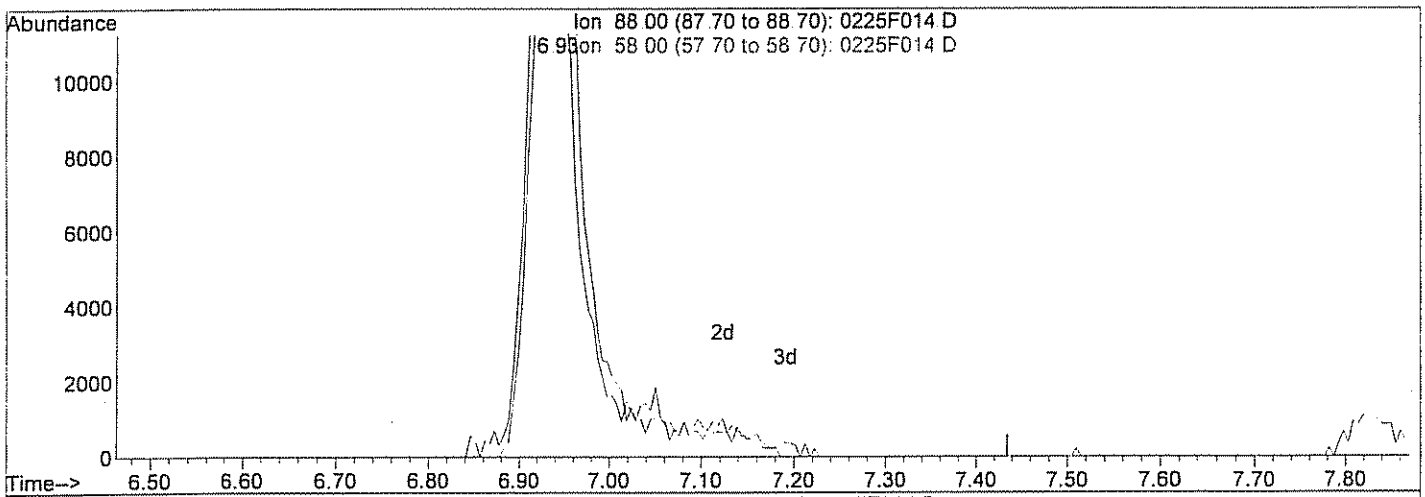
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	65.23
0.00	0.00	0.00
0.00	0.00	0.00

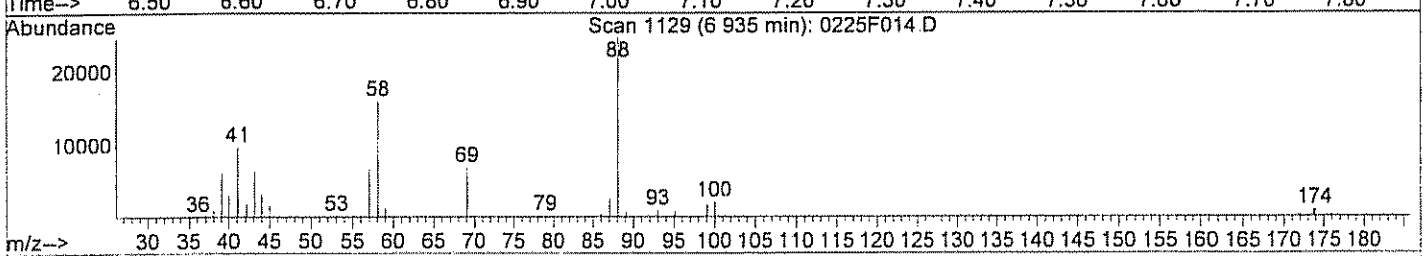
Quantitation Report (Qedit)

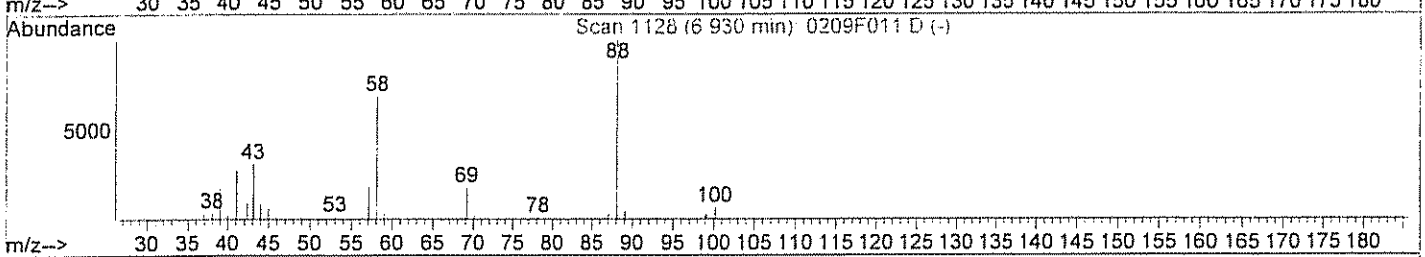
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014 D

(51) 1,4-Dioxane (T)

6.93min 944 65PPB m

response 89431

Ion	Exp%	Act%
88 00	100	100
58 00	65 60	65 23
0 00	0 00	0 00
0 00	0 00	0 00

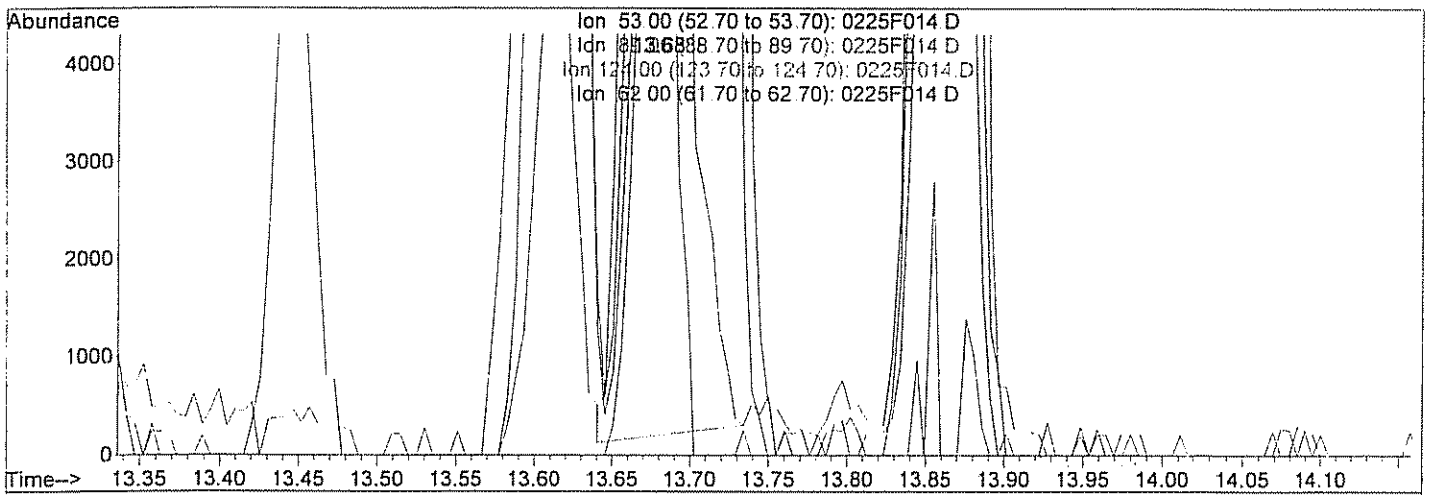
peak tailing
LB 2/28/05
MM 3/1/5

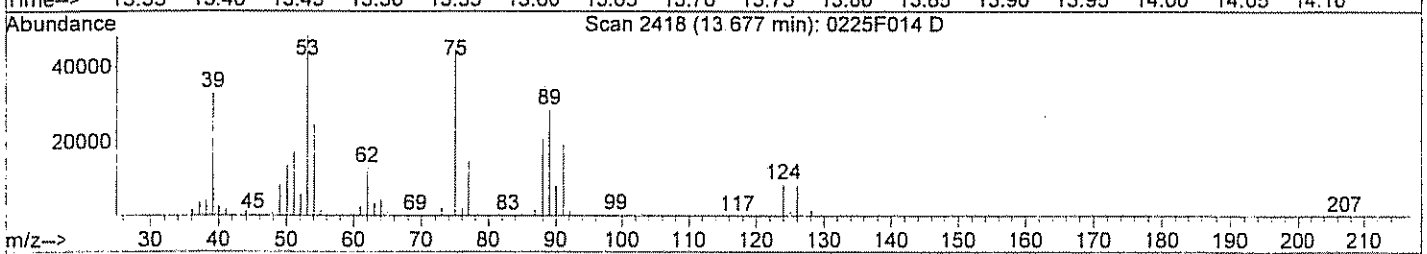
0225F014.D 022505_8260W.M Mon Feb 28 15:21:57 2005

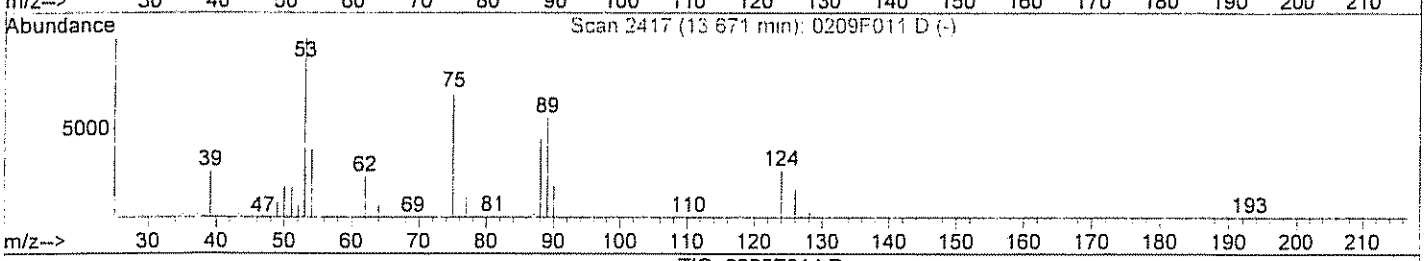
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 17.46PPB

response 80137

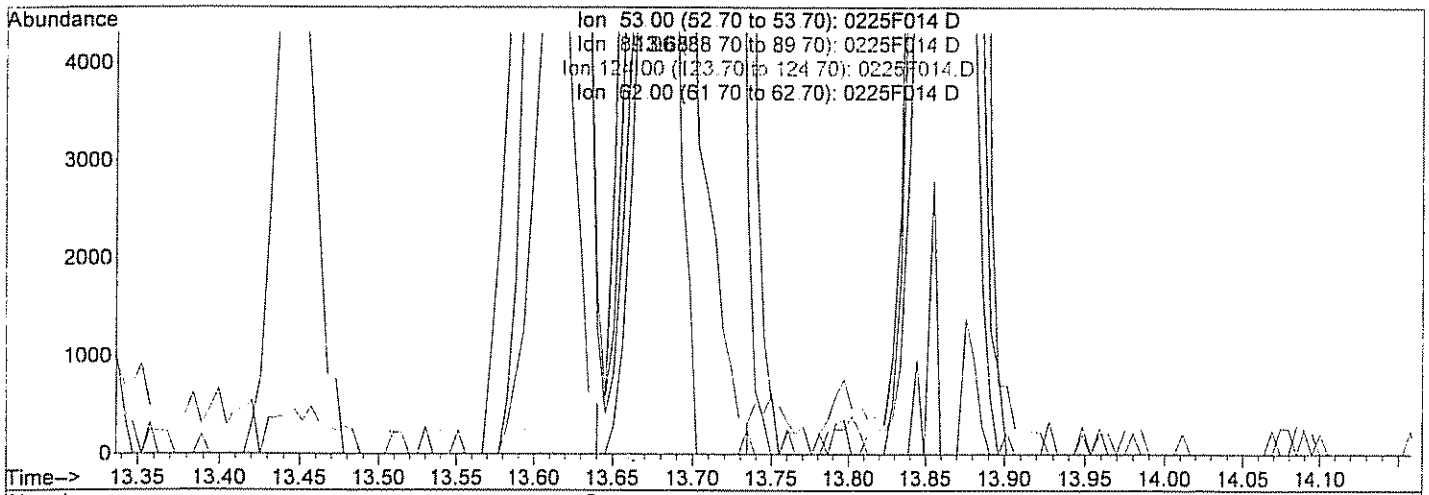
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	56.26
124.00	22.00	18.36
62.00	31.10	24.88

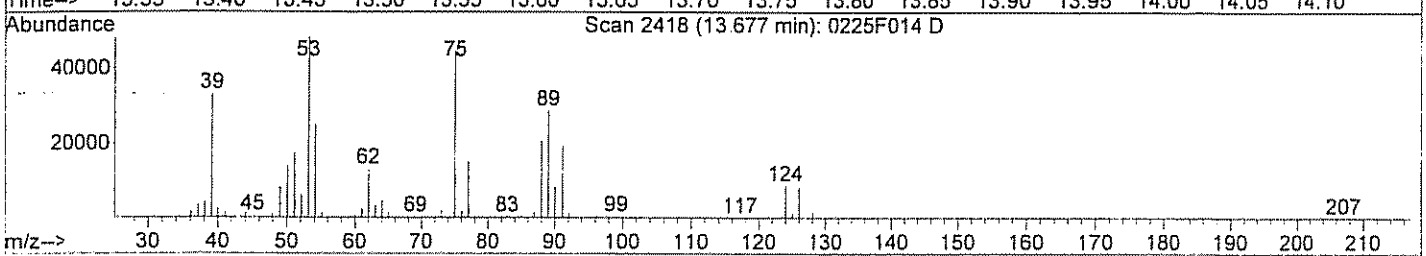
Quantitation Report (Qedit)

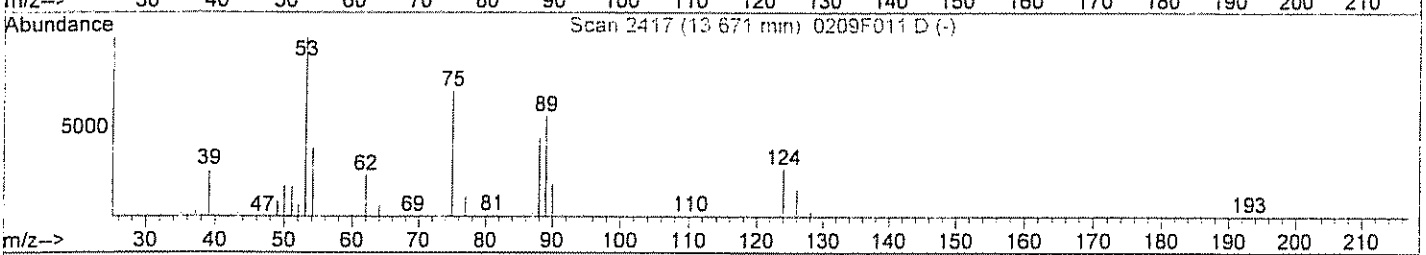
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 17.72PPB m

response 81363

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.28
124.00	22.00	18.24
62.00	31.10	27.40

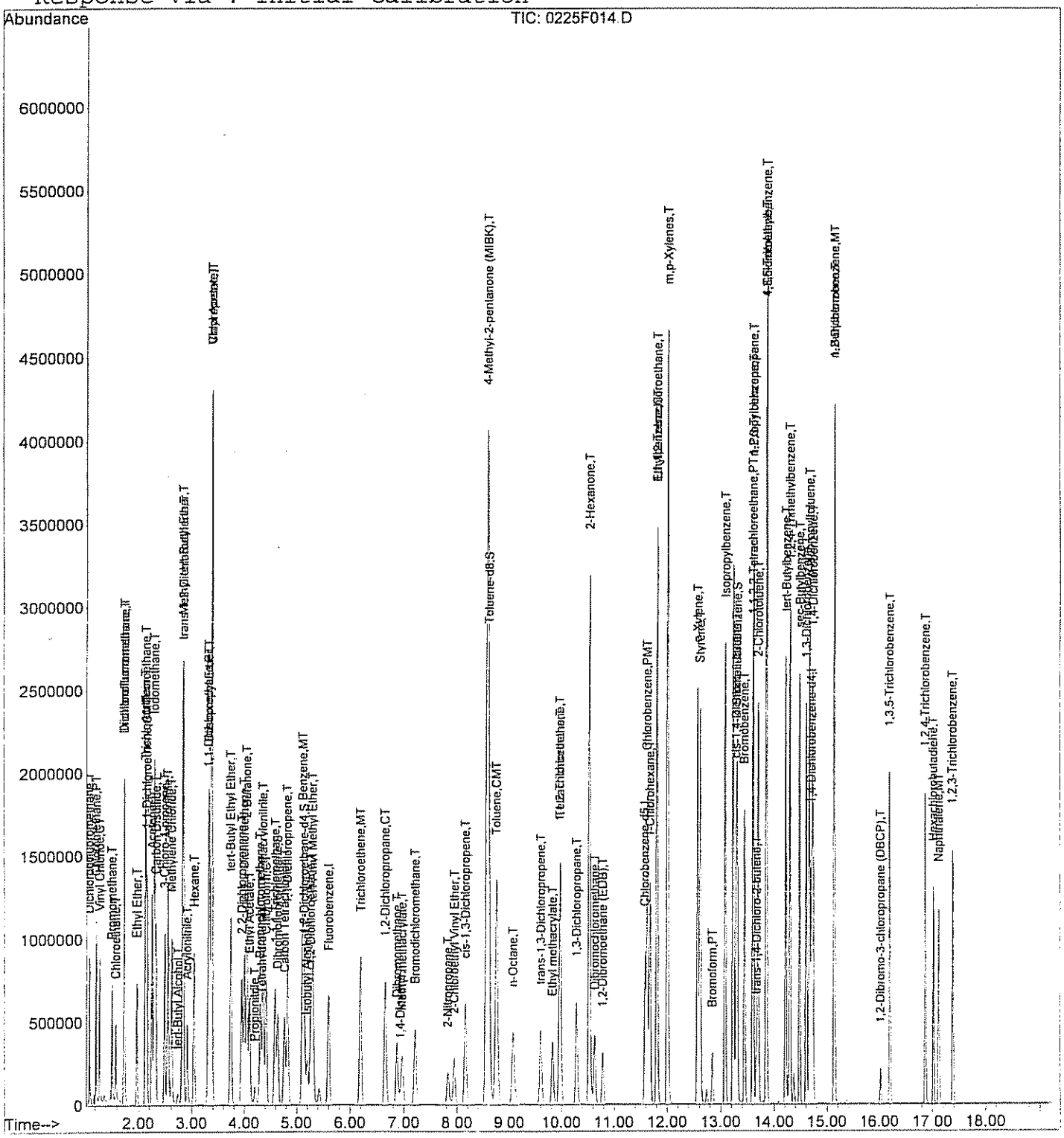
slanted baseline
LB 2/28/05
AT 3/1/5

0225F014.D 022505_8260W.M Mon Feb 28 15:22:26 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	802338	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	350739	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	400431	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	747249	42.47	PPB	0.00
Spiked Amount 10.000			Recovery =	424.70%		
43) 1,2-Dichloroethane-d4	5.15	65	830553	41.72	PPB	0.00
Spiked Amount 10.000			Recovery =	417.20%		
57) Toluene-d8	8.60	98	3347027	40.87	PPB	0.01
Spiked Amount 10.000			Recovery =	408.70%		
79) 4-Bromofluorobenzene	13.31	95	1201544	40.71	PPB	0.00
Spiked Amount 10.000			Recovery =	407.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	902276	37.61	PPB	99
3) Chloromethane	1.22	50	1045904	37.26	PPB	99
4) Vinyl Chloride	1.29	62	937269	39.00	PPB	99
5) Bromomethane	1.51	96	541061	38.60	PPB	98
6) Chloroethane	1.58	64	538755	36.16	PPB	99
7) Dichlorofluoromethane	1.74	67	1395155	38.06	PPB	96
8) Trichlorofluoromethane	1.74	101	1244312	39.83	PPB	99
9) Ethyl Ether	1.97	59	569461	42.02	PPB	96
10) Acrolein	2.12	56	1742127	969.82	PPB	100
11) Trichlorotrifluoroethane	2.13	151	594242	39.39	PPB	99
12) 1,1-Dichloroethene	2.15	96	680809	40.93	PPB	91
13) Acetone	2.24	43	2516146	777.74	PPB	100
14) Iodomethane	2.29	142	3971140m	173.54	PPB	
15) Carbon Disulfide	2.32	76	2047447	33.60	PPB	99
16) 3-Chloro-1-propene	2.48	76	391808	38.28	PPB #	85
17) Acetonitrile	2.54	40	1247498	1637.84	PPB	95
18) Methylene Chloride	2.62	84	784637	39.09	PPB	99
19) tert-Butyl Alcohol	2.74	59	135154	146.02	PPB	99
20) Acrylonitrile	2.91	53	685363	167.22	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	3624066	76.61	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	791775	39.31	PPB	99
23) Hexane	3.05	57	815876	34.58	PPB	99
24) Diisopropyl Ether	3.33	45	2634134	38.69	PPB	99
25) 1,1-Dichloroethane	3.31	63	1418401	40.33	PPB	98
26) Vinyl Acetate	3.37	86	236820	79.07	PPB	96
27) Chloroprene	3.37	53	4200928	151.87	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	2094606	35.76	PPB	98

(#) = qualifier out of range (m) = manual integration
0225F015.D 022505_8260W.M Mon Feb 28 15:30:42 2005 Page 1

3/1/5
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	894396	28.96	PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	878244	39.83	PPB		97
31)	2-Butanone	4.05	72	1079501	868.94	PPB		99
32)	Propionitrile	4.20	54	251816	163.44	PPB		100
33)	Ethyl Acetate	4.10	61	245827	159.93	PPB		96
34)	Methacrylonitrile	4.36	67	848010	164.10	PPB		96
35)	Bromochloromethane	4.30	128	387143	42.54	PPB		93
36)	Tetrahydrofuran	4.33	71	52090	39.58	PPB		95
37)	Chloroform	4.42	83	1352017	40.15	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	1106727	36.62	PPB		98
40)	Carbon Tetrachloride	4.77	117	853312	35.40	PPB		97
41)	1,1-Dichloropropene	4.83	75	1079227	38.03	PPB		97
42)	Isobutyl Alcohol	5.20	43	518896	1280.72	PPB		98
44)	Benzene	5.11	78	3331752	39.13	PPB		97
45)	1,2-Dichloroethane	5.27	62	987058	42.84	PPB		98
46)	tert-Amyl Methyl Ether	5.30	55	611778	49.28	PPB	#	62
47)	Trichloroethene	6.20	95	812747	39.06	PPB		99
48)	1,2-Dichloropropane	6.66	63	817749	39.83	PPB		95
49)	Dibromomethane	6.87	93	397116	41.82	PPB		94
50)	Methyl methacrylate	6.97	69	364519	37.95	PPB		95
51)	1,4-Dioxane	6.93	88	191114m	1962.01	PPB		
52)	Bromodichloromethane	7.21	83	937488	40.95	PPB		97
53)	2-Nitropropane	7.83	43	401733	169.21	PPB		97
54)	2-Chloroethyl Vinyl Ether	7.95	63	387072	43.77	PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	1182919	40.60	PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.57	58	3718868	784.62	PPB		93
58)	Toluene	8.75	92	2231196	38.25	PPB		97
60)	n-Octane	9.07	85	390531	36.39	PPB		91
61)	trans-1,3-Dichloropropene	9.60	75	919235	37.83	PPB		94
62)	Ethyl methacrylate	9.83	69	726547	37.42	PPB		98
63)	1,1,2-Trichloroethane	9.96	83	511359	40.67	PPB		95
64)	Tetrachloroethene	9.97	164	735062	39.29	PPB		96
65)	2-Hexanone	10.53	57	1241936	819.78	PPB		99
66)	1,3-Dichloropropane	10.29	76	1070178	42.66	PPB		97
67)	Dibromochloromethane	10.64	129	645010	43.91	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	581426	42.56	PPB		97
69)	1-Chlorohexane	11.68	91	970651	41.59	PPB		98
70)	Chlorobenzene	11.63	112	2466273	41.06	PPB		98
71)	Ethylbenzene	11.81	106	1340882	40.76	PPB		100
72)	1,1,1,2-Tetrachloroethane	11.81	131	716336	39.61	PPB		97
73)	m,p-Xylenes	12.01	106	3371873	81.24	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

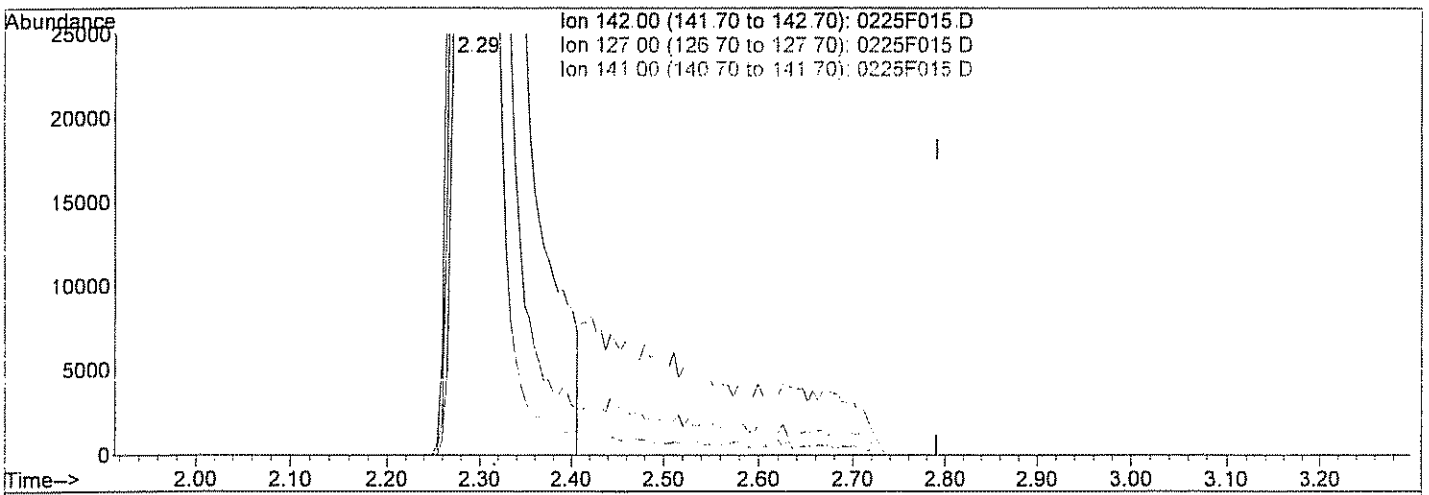
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	1608314	40.13	PPB		99
75)	Styrene	12.61	103	1333808	42.15	PPB		99
76)	Bromoform	12.85	173	350050	42.61	PPB		97
77)	Isopropylbenzene	13.08	105	3936642	40.16	PPB		100
78)	cis-1,4-Dichloro-2-butene	13.29	89	273384	147.93	PPB	#	82
81)	1,1,2,2-Tetrachloroethane	13.59	83	657501	38.65	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	173003m	36.68	PPB		
83)	Bromobenzene	13.45	156	1116310	38.99	PPB		95
84)	n-Propylbenzene	13.61	91	4534894	38.27	PPB		99
85)	1,2,3-Trichloropropane	13.61	110	207368	39.12	PPB		95
86)	2-Chlorotoluene	13.71	91	2858476	37.20	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	3306926	38.12	PPB		99
88)	4-Chlorotoluene	13.86	91	3390074	38.36	PPB		98
89)	tert-Butylbenzene	14.22	119	2628475	36.22	PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	3369058	38.43	PPB		100
91)	sec-Butylbenzene	14.48	105	3530860	38.43	PPB		99
92)	p-Isopropyltoluene	14.67	119	3287874	37.92	PPB		100
93)	1,3-Dichlorobenzene	14.61	146	2119957	39.40	PPB		100
94)	1,4-Dichlorobenzene	14.73	146	2169466	38.85	PPB		99
95)	n-Butylbenzene	15.13	91	2654174	37.86	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	1991540	40.01	PPB		99
97)	1,2-Dibromo-3-chloropropan	16.03	155	88869	38.56	PPB		92
98)	1,3,5-Trichlorobenzene	16.20	180	1283246	37.23	PPB		96
99)	1,2,4-Trichlorobenzene	16.88	180	1165704	37.28	PPB		97
100)	Hexachlorobutadiene	17.03	225	544980	37.66	PPB		98
101)	Naphthalene	17.13	128	1866731	34.22	PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	972904	39.33	PPB		99

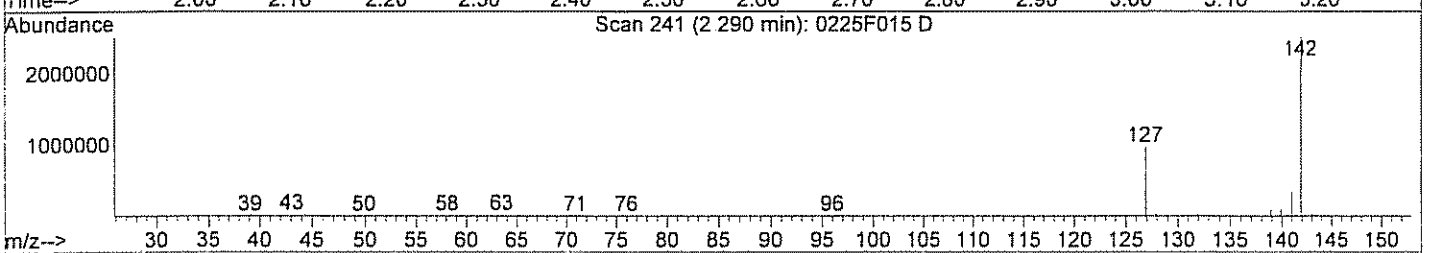
(#) = qualifier out of range (m) = manual integration

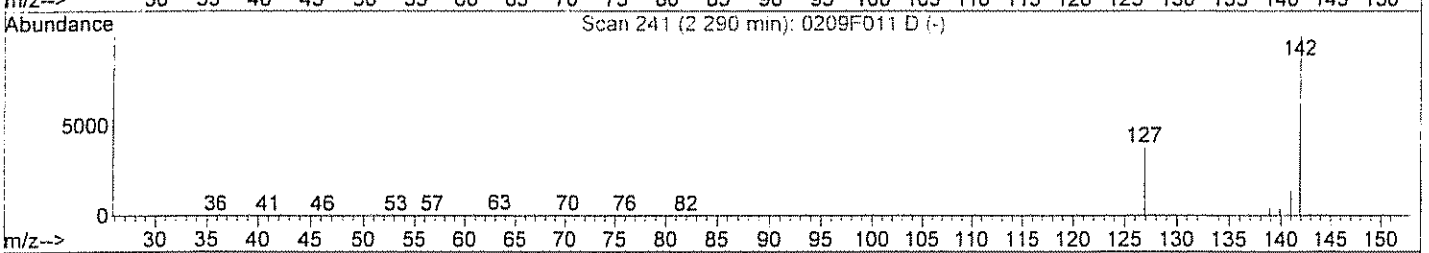
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F015.D

(14) Iodomethane (T)

2.29min 169.66PPB

response 3882367

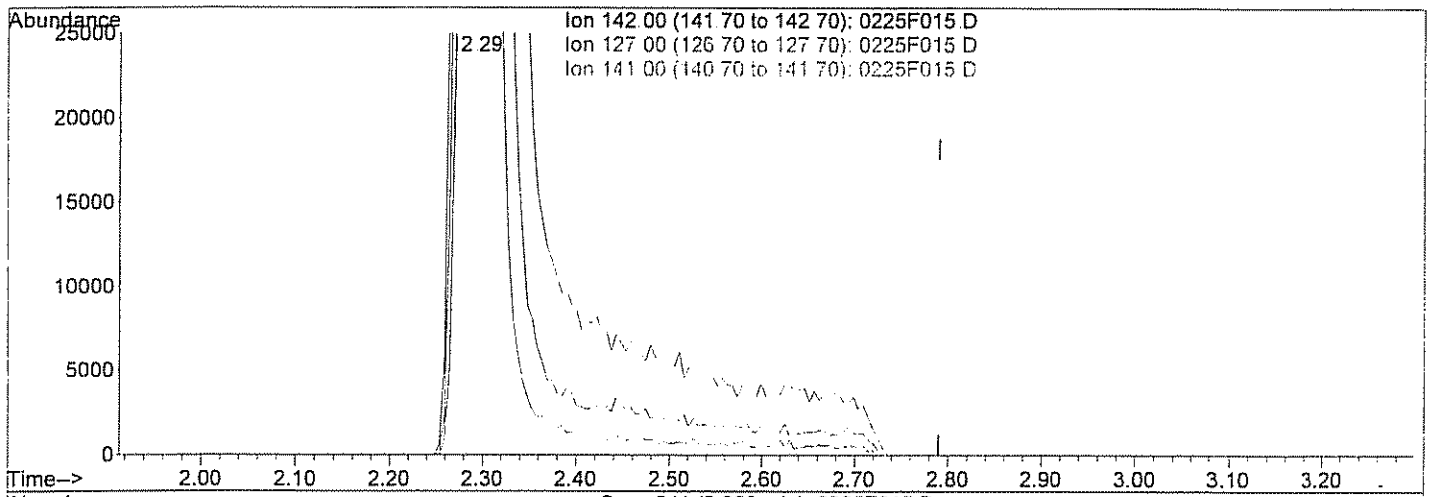
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.50
141.00	14.30	13.89
0.00	0.00	0.00

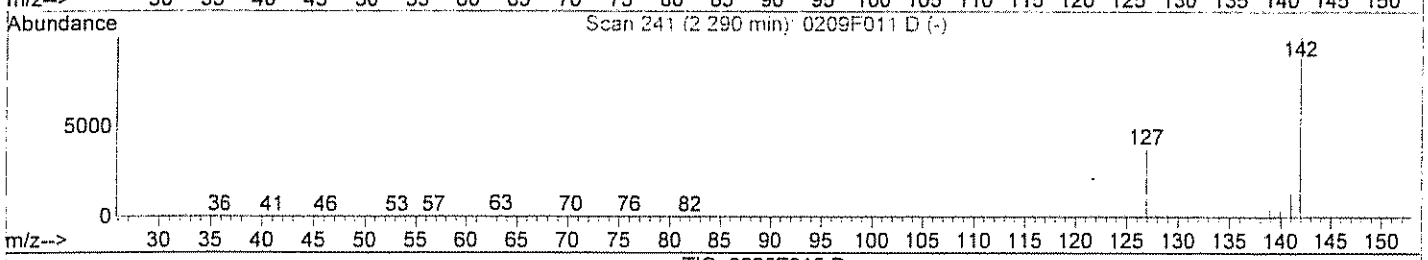
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration





TIC: 0225F015.D

(14) Iodomethane (T)

2.29min 173.54PPB m

response 3971140

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.50
141.00	14.30	13.89
0.00	0.00	0.00

peak tailing
LB 2/28/05
mt 3/1/5

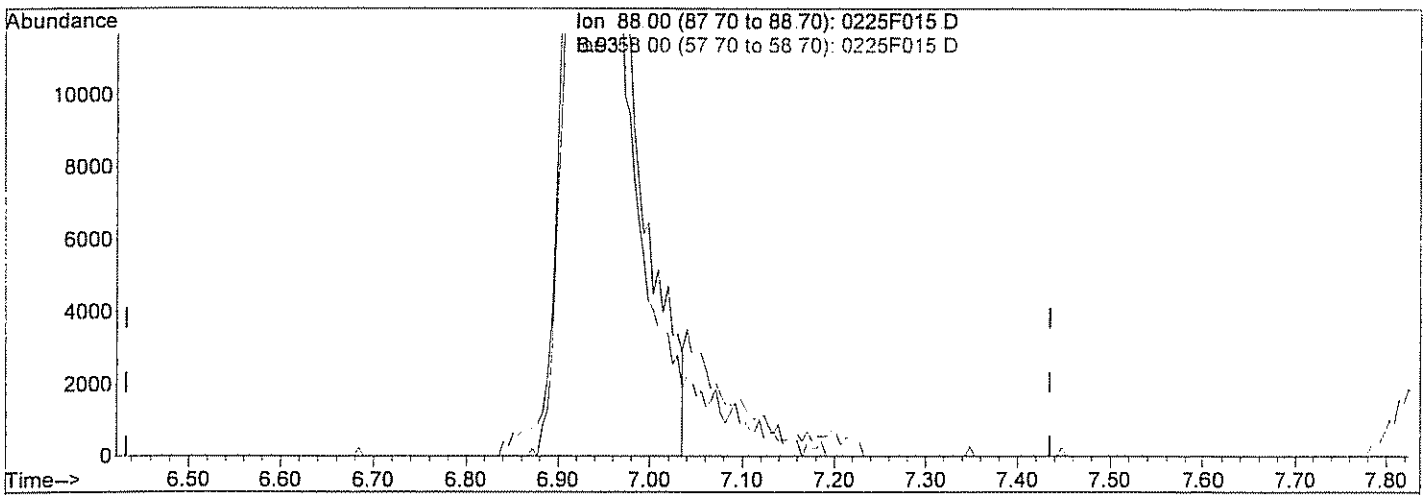
0225F015.D 022505_8260W.M Mon Feb 28 15:22:57 2005

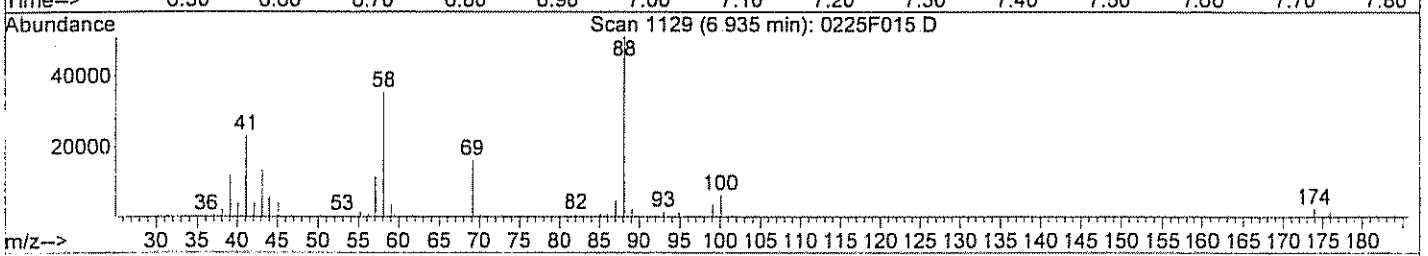
Quantitation Report (Qedit)

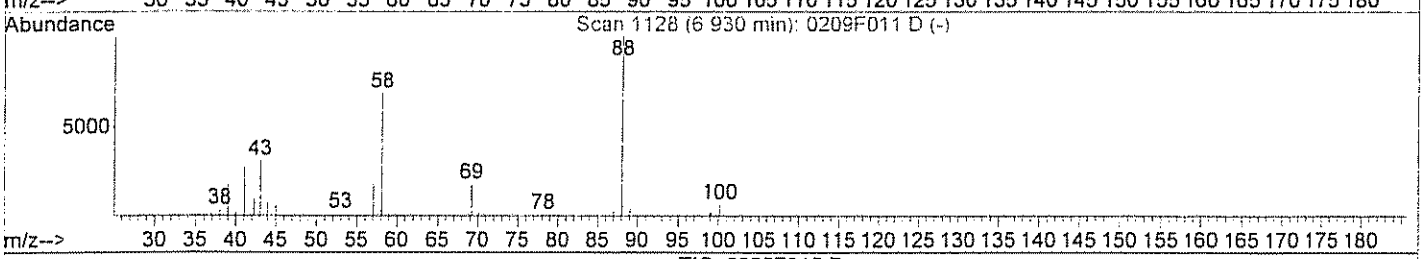
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015 D

(51) 1.4-Dioxane (T)

6 93min 1823 61PPB

response 177633

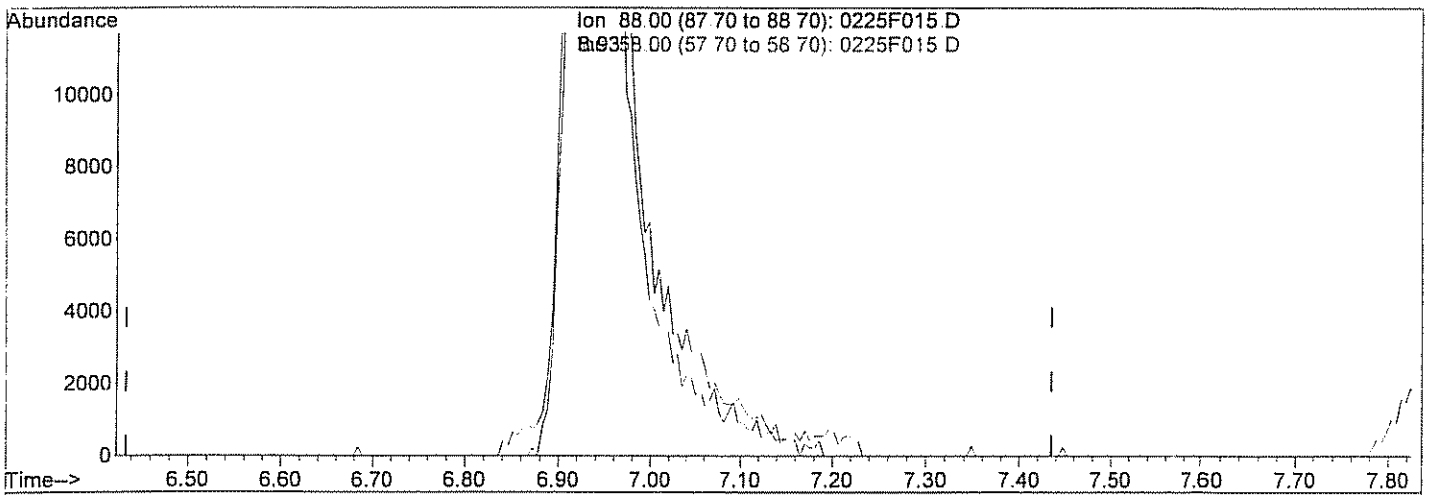
Ion	Exp%	Act%
88 00	100	100
58 00	65 60	69 41
0 00	0 00	0 00
0 00	0 00	0 00

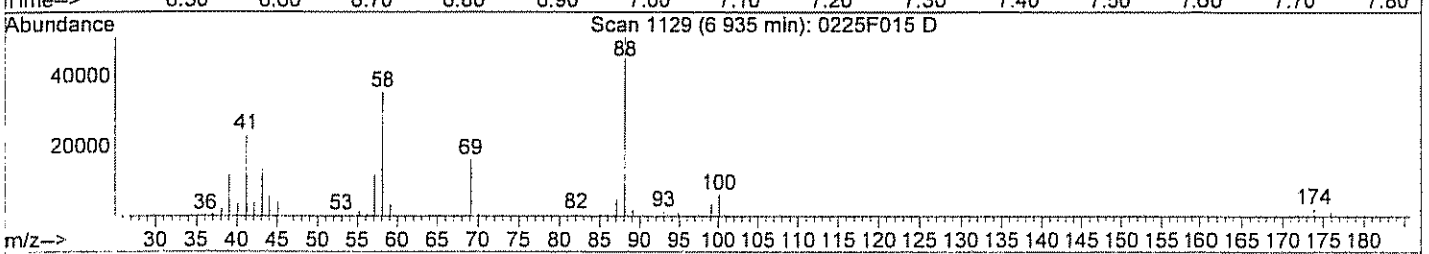
Quantitation Report (Qedit)

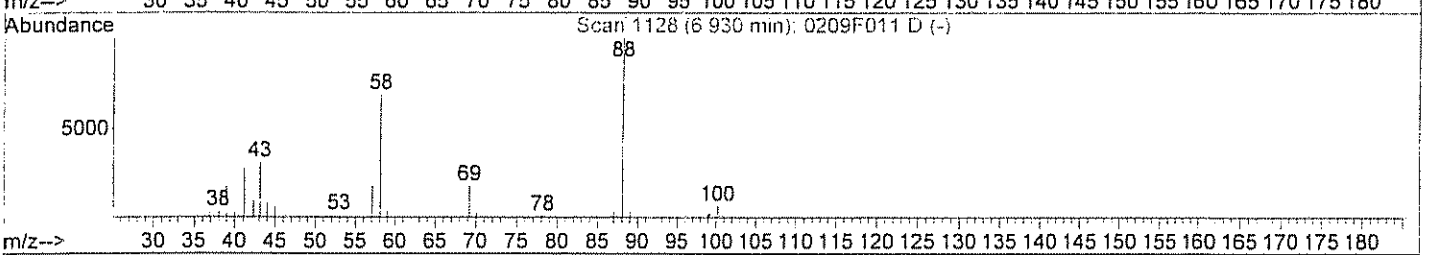
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(51) 1.4-Dioxane (T)

6.93min 1962 01PPB m

response 191114

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	69.41
0.00	0.00	0.00
0.00	0.00	0.00

peak tailing
KB 2/28/05
MH 3/1/5

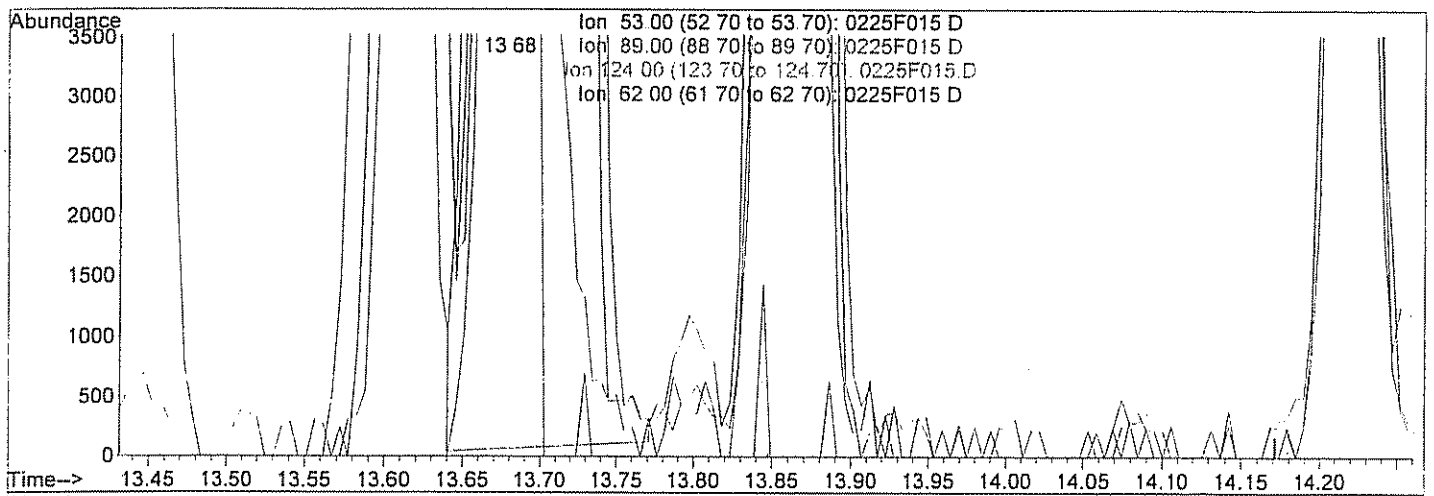
0225F015.D 022505_8260W.M Mon Feb 28 15:23:25 2005

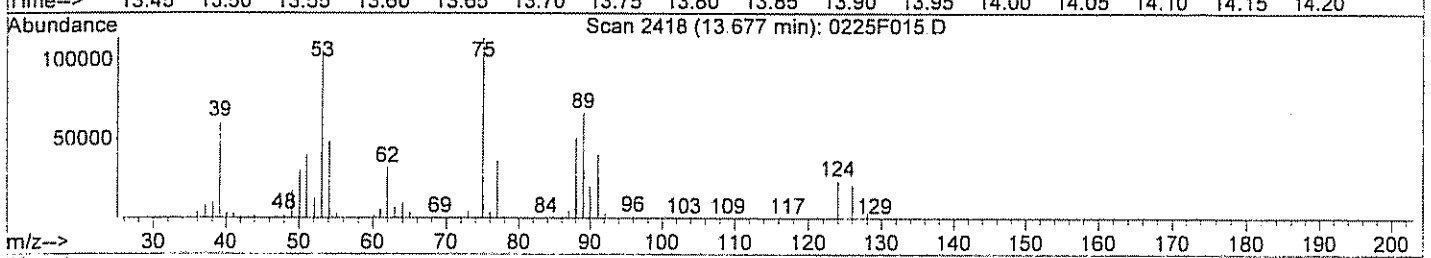
Quantitation Report (Qedit)

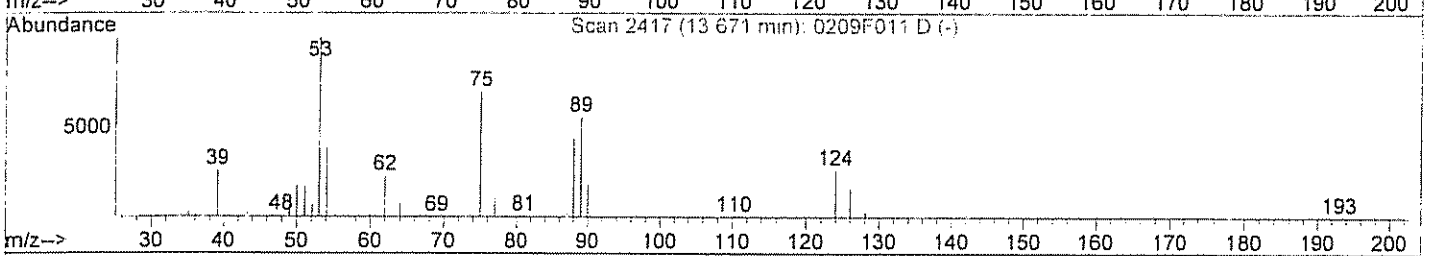
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 36.54PPB

response 172360

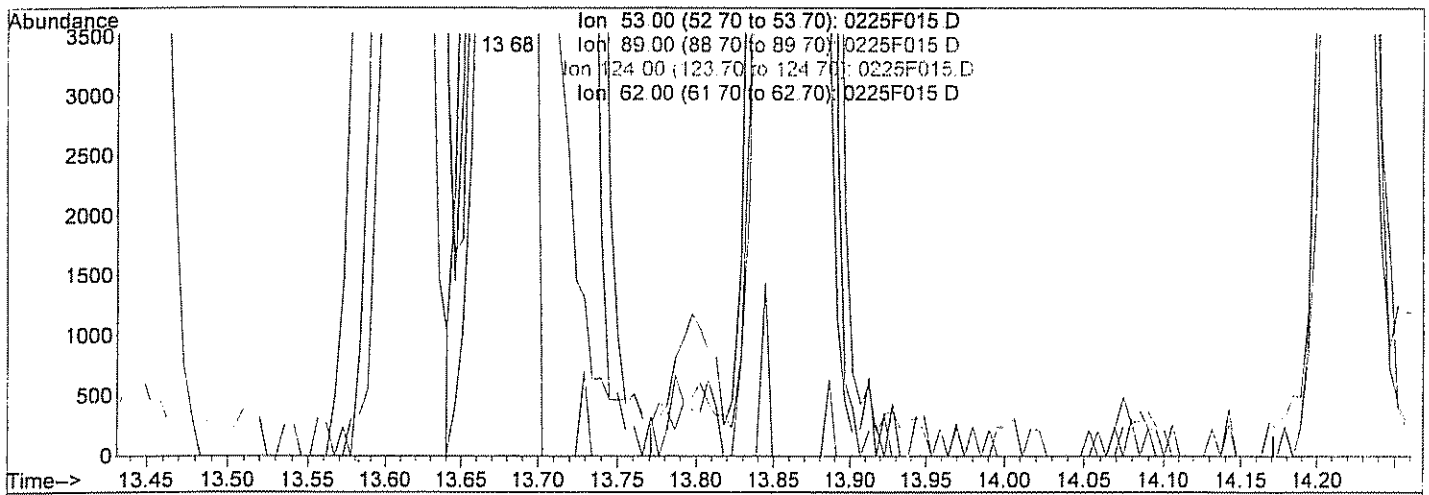
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	62.92
124.00	22.00	22.64
62.00	31.10	30.02

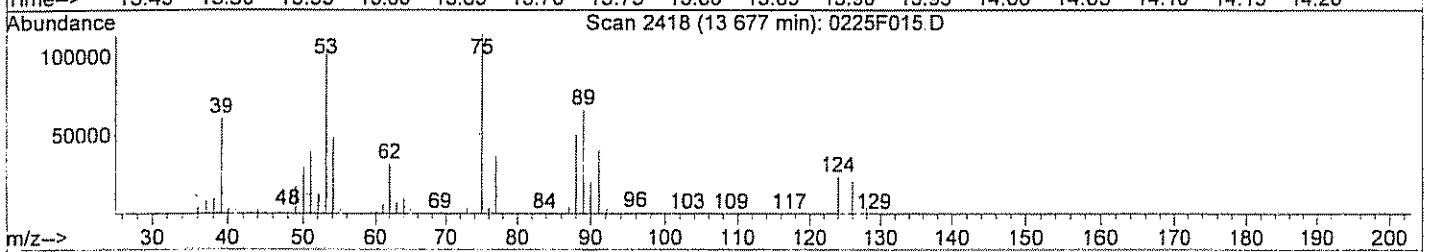
Quantitation Report (Qedit)

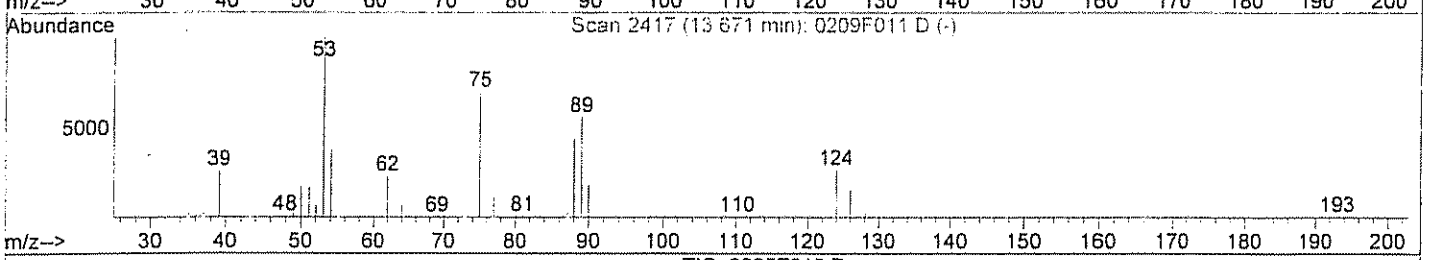
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 36.68PPB m

response 173003

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	63.05
124.00	22.00	22.58
62.00	31.10	30.26

slanted baseline
LB 2/28/05
3/1/5

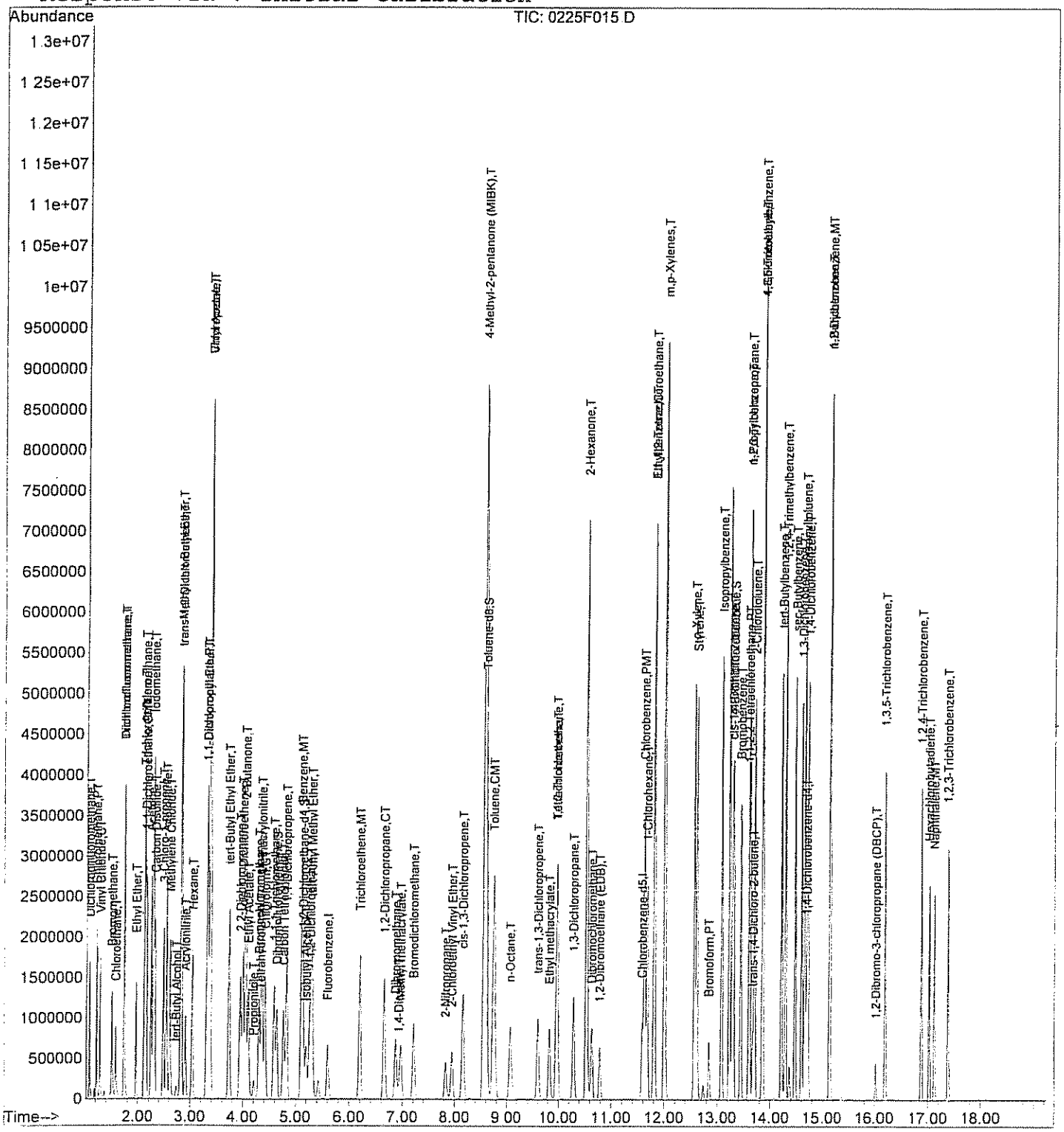
0225F015.D 022505_8260W.M Mon Feb 28 15:23:56 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	832706	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	366804	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	412346	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	963379	52.76	PPB	0.00
Spiked Amount 10.000			Recovery =	527.60%		
43) 1,2-Dichloroethane-d4	5.15	65	1062466	51.42	PPB	0.00
Spiked Amount 10.000			Recovery =	514.20%		
57) Toluene-d8	8.60	98	4354345	51.23	PPB	0.01
Spiked Amount 10.000			Recovery =	512.30%		
79) 4-Bromofluorobenzene	13.31	95	1546038	50.09	PPB	0.00
Spiked Amount 10.000			Recovery =	500.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	2049450	82.32	PPB	99
3) Chloromethane	1.22	50	2272793	78.01	PPB	99
4) Vinyl Chloride	1.29	62	2131060	85.43	PPB	98
5) Bromomethane	1.50	96	1115454	76.67	PPB	99
6) Chloroethane	1.58	64	1179298	76.27	PPB	99
7) Dichlorofluoromethane	1.73	67	3036357	79.82	PPB	97
8) Trichlorofluoromethane	1.74	101	2785496	85.91	PPB	100
9) Ethyl Ether	1.97	59	1156871	82.26	PPB	96
10) Acrolein	2.12	56	3607164	1934.83	PPB	100
11) Trichlorotrifluoroethane	2.13	151	1367758	87.35	PPB	99
12) 1,1-Dichloroethene	2.15	96	1542693	89.37	PPB	95
13) Acetone	2.24	43	4938260	1470.74	PPB	100
14) Iodomethane	2.29	142	8748629m	368.38	PPB	
15) Carbon Disulfide	2.32	76	4660238	73.70	PPB	100
16) 3-Chloro-1-propene	2.48	76	881675	83.01	PPB	89
17) Acetonitrile	2.54	40	2546091	3220.85	PPB	96
18) Methylene Chloride	2.62	84	1644809	78.96	PPB	98
19) tert-Butyl Alcohol	2.74	59	300385	312.70	PPB	97
20) Acrylonitrile	2.91	53	1406324	330.62	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	7551360	153.80	PPB	100
22) trans-1,2-Dichloroethene	2.84	96	1734482	82.98	PPB	99
23) Hexane	3.05	57	1885410	76.99	PPB	99
24) Diisopropyl Ether	3.33	45	5556661	78.64	PPB	98
25) 1,1-Dichloroethane	3.31	63	3082062	84.45	PPB	99
26) Vinyl Acetate	3.37	86	514138	165.40	PPB	96
27) Chloroprene	3.37	53	9395827	327.29	PPB	96
28) tert-Butyl Ethyl Ether	3.74	59	4467098	73.49	PPB	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	2154996	67.22	PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	1882626	82.27	PPB		98
31)	2-Butanone	4.05	72	2164813	1679.00	PPB		97
32)	Propionitrile	4.20	54	511841	320.10	PPB		98
33)	Ethyl Acetate	4.10	61	500076	313.47	PPB		97
34)	Methacrylonitrile	4.36	67	1749383	326.18	PPB		94
35)	Bromochloromethane	4.30	128	797845	84.47	PPB		95
36)	Tetrahydrofuran	4.32	71	104679	76.64	PPB		95
37)	Chloroform	4.42	83	2896450	82.88	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	2574973	82.09	PPB		99
40)	Carbon Tetrachloride	4.77	117	2083284	83.28	PPB		99
41)	1,1-Dichloropropene	4.83	75	2433057	82.62	PPB		97
42)	Isobutyl Alcohol	5.20	43	1179836	2805.83	PPB		99
44)	Benzene	5.11	78	7253759	82.08	PPB		98
45)	1,2-Dichloroethane	5.26	62	2016699	84.35	PPB		99
46)	tert-Amyl Methyl Ether	5.30	55	1196731	92.88	PPB	#	72
47)	Trichloroethene	6.20	95	1785556	82.68	PPB		98
48)	1,2-Dichloropropane	6.66	63	1755047	82.36	PPB		93
49)	Dibromomethane	6.87	93	809579	82.14	PPB		94
50)	Methyl methacrylate	6.97	69	784780	78.73	PPB		94
51)	1,4-Dioxane	6.93	88	385394m	3812.23	PPB		
52)	Bromodichloromethane	7.21	83	2033338	85.58	PPB		97
53)	2-Nitropropane	7.82	43	992126	402.64	PPB		96
54)	2-Chloroethyl Vinyl Ether	7.94	63	815830	88.88	PPB		98
55)	cis-1,3-Dichloropropene	8.16	75	2575949	85.19	PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.57	58	7395764	1503.47	PPB		88
58)	Toluene	8.75	92	4891318	80.80	PPB		97
60)	n-Octane	9.08	85	865428	77.12	PPB		94
61)	trans-1,3-Dichloropropene	9.60	75	2044788	80.46	PPB		95
62)	Ethyl methacrylate	9.83	69	1597635	78.68	PPB		99
63)	1,1,2-Trichloroethane	9.97	83	1054705	80.22	PPB		97
64)	Tetrachloroethene	9.97	164	1640194	83.83	PPB		95
65)	2-Hexanone	10.53	57	2487369	1569.96	PPB		91
66)	1,3-Dichloropropane	10.29	76	2222350	84.70	PPB		97
67)	Dibromochloromethane	10.64	129	1412452	91.93	PPB		100
68)	1,2-Dibromoethane (EDB)	10.79	107	1218463	85.29	PPB		98
69)	1-Chlorohexane	11.68	91	2243670	91.93	PPB		98
70)	Chlorobenzene	11.63	112	5309261	84.52	PPB		98
71)	Ethylbenzene	11.81	106	2940518	85.48	PPB		97
72)	1,1,1,2-Tetrachloroethane	11.81	131	1604938	84.87	PPB		97
73)	m,p-Xylenes	12.01	106	7372746	169.85	PPB		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
74)	o-Xylene	12.57	106	3525771	84.11 PPB	98
75)	Styrene	12.62	103	2867160	86.64 PPB	98
76)	Bromoform	12.85	173	791072	92.07 PPB	96
77)	Isopropylbenzene	13.08	105	8644916	84.32 PPB	99
78)	cis-1,4-Dichloro-2-butene	13.29	89	624707	323.23 PPB	87
81)	1,1,2,2-Tetrachloroethane	13.60	83	1351950	77.17 PPB	98
82)	trans-1,4-Dichloro-2-buten	13.67	53	366928m	75.55 PPB	
83)	Bromobenzene	13.45	156	2344107	79.52 PPB	97
84)	n-Propylbenzene	13.61	91	9743348	79.85 PPB	98
85)	1,2,3-Trichloropropane	13.62	110	420063	76.96 PPB	97
86)	2-Chlorotoluene	13.71	91	6178807	78.08 PPB	99
87)	1,3,5-Trimethylbenzene	13.86	105	7181790	80.39 PPB	100
88)	4-Chlorotoluene	13.86	91	7192407	79.04 PPB	97
89)	tert-Butylbenzene	14.22	119	5878301	78.66 PPB	99
90)	1,2,4-Trimethylbenzene	14.30	105	7297786	80.85 PPB	98
91)	sec-Butylbenzene	14.48	105	7755916	81.97 PPB	98
92)	p-Isopropyltoluene	14.67	119	7250841	81.21 PPB	98
93)	1,3-Dichlorobenzene	14.61	146	4510866	81.41 PPB	99
94)	1,4-Dichlorobenzene	14.73	146	4567739	79.44 PPB	99
95)	n-Butylbenzene	15.13	91	5914692	81.93 PPB	99
96)	1,2-Dichlorobenzene	15.14	146	4196601	81.87 PPB	98
97)	1,2-Dibromo-3-chloropropan	16.03	155	197783	83.35 PPB	90
98)	1,3,5-Trichlorobenzene	16.21	180	2750243	77.49 PPB	97
99)	1,2,4-Trichlorobenzene	16.88	180	2482024	77.07 PPB	97
100)	Hexachlorobutadiene	17.03	225	1198963	80.47 PPB	97
101)	Naphthalene	17.13	128	3970214	70.68 PPB	98
102)	1,2,3-Trichlorobenzene	17.38	180	2025490	79.51 PPB	99

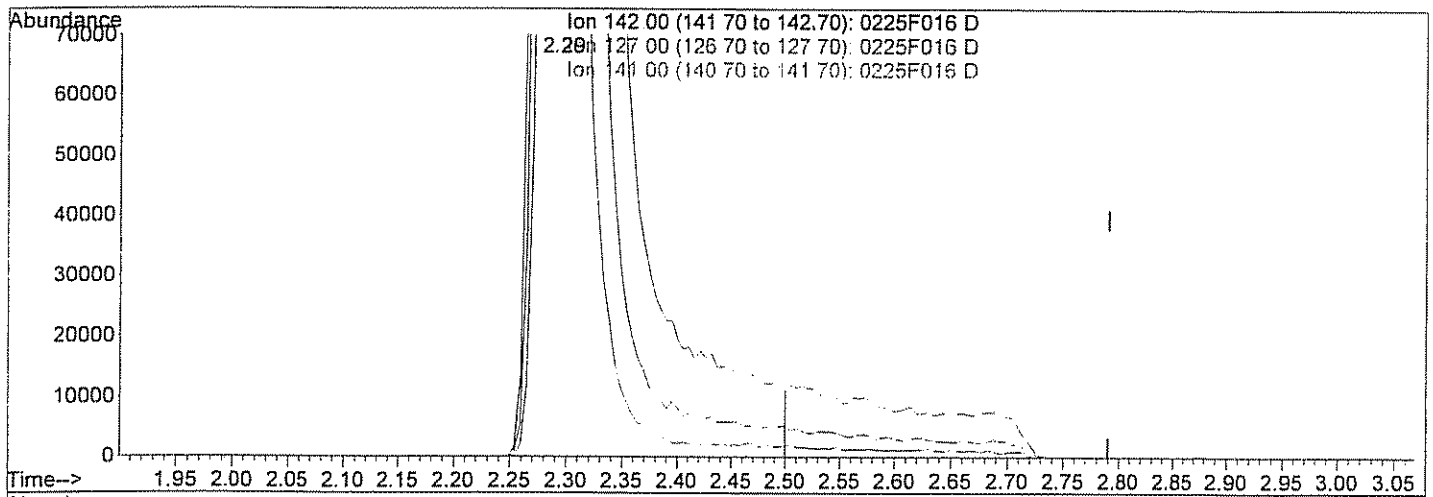
(#) = qualifier out of range (m) = manual integration

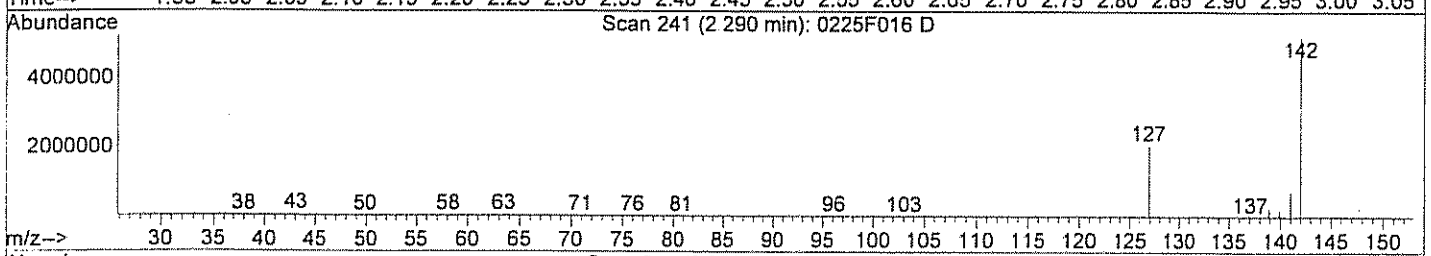
Quantitation Report (Qedit)

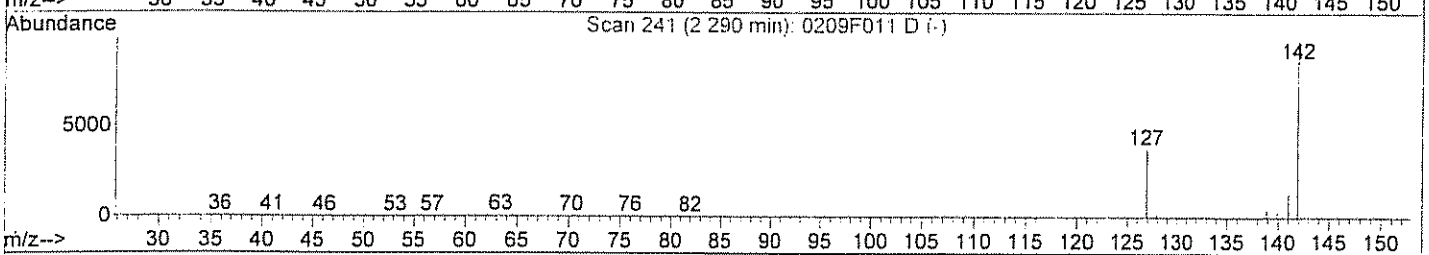
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F016.D

(14) Iodomethane (T)

2 29min 363 77PPB

response 8639067

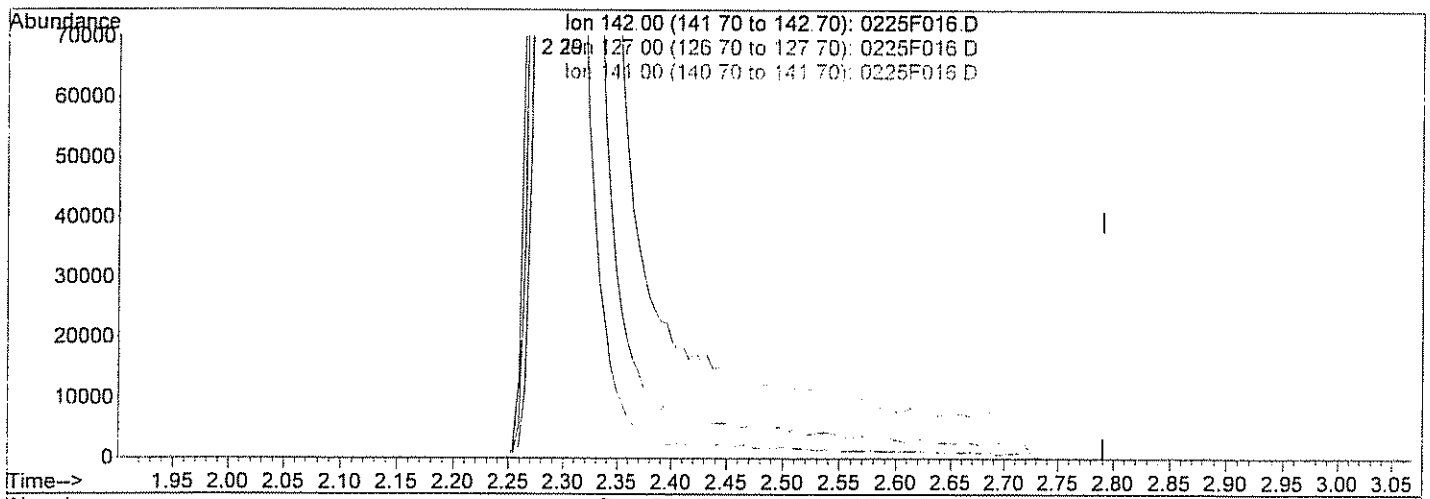
Ion	Exp%	Act%
142 00	100	100
127 00	39 50	39 77
141 00	14 30	14 41
0 00	0 00	0 00

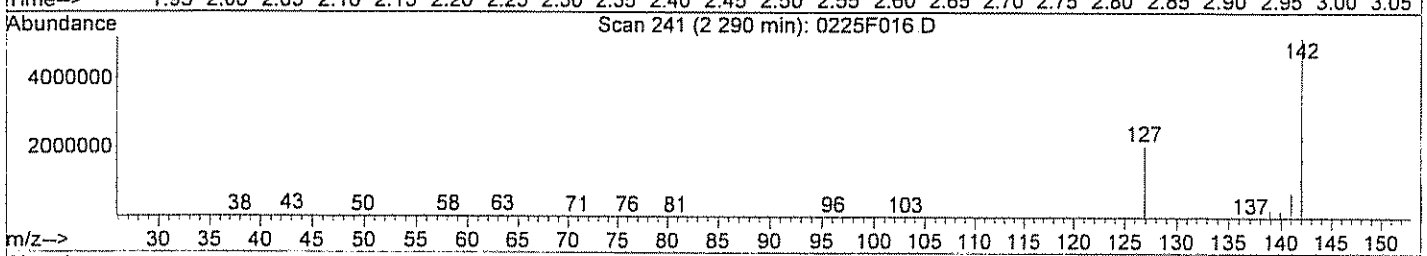
Quantitation Report (Qedit)

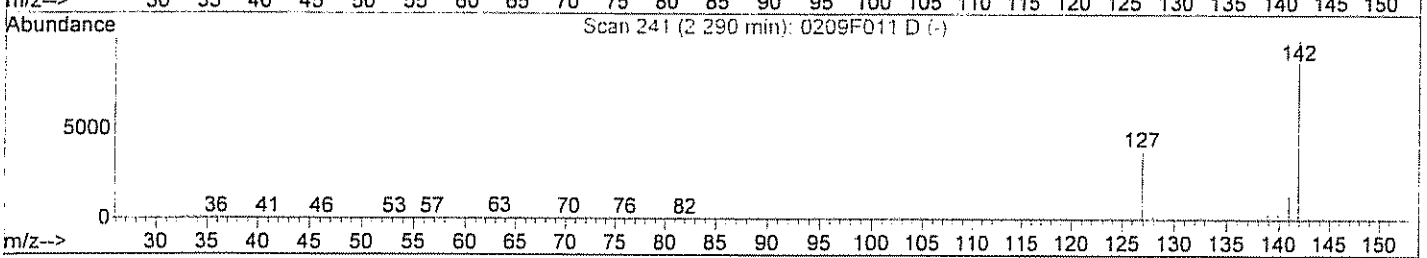
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:28 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F016.D

(14) Iodomethane (T)

2.29min 368.38PPB m

response 8748629

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.77
141.00	14.30	14.41
0.00	0.00	0.00

peak tailing
LB 2/28/05
3/1/5

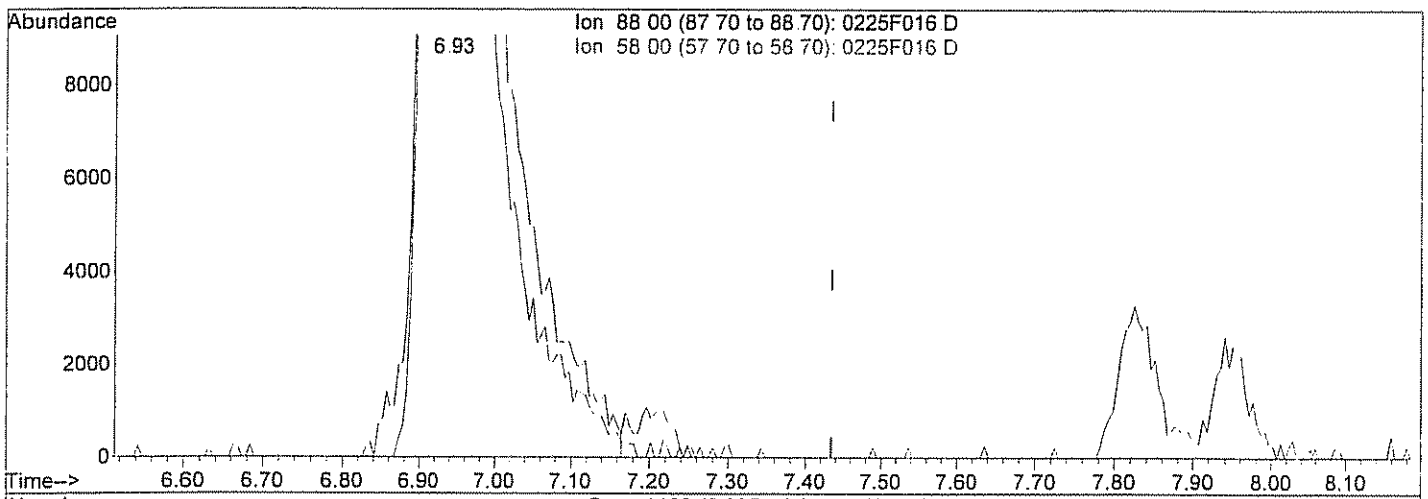
0225F016.D 022505_8260W.M Mon Feb 28 15:28:36 2005

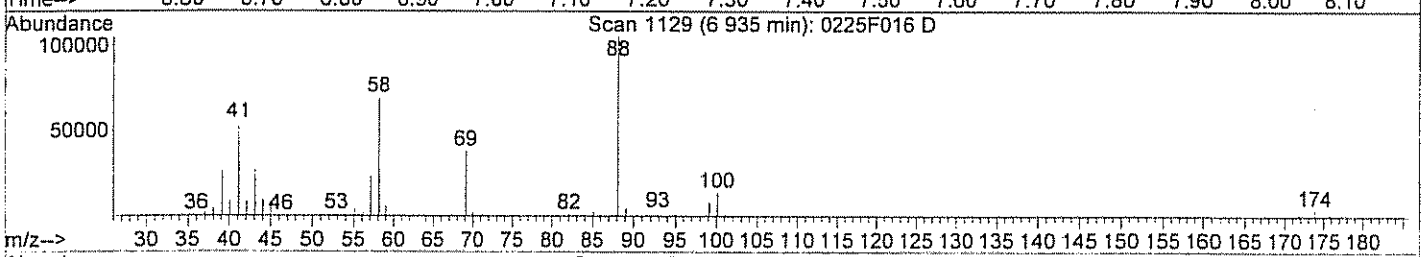
Quantitation Report (Qedit)

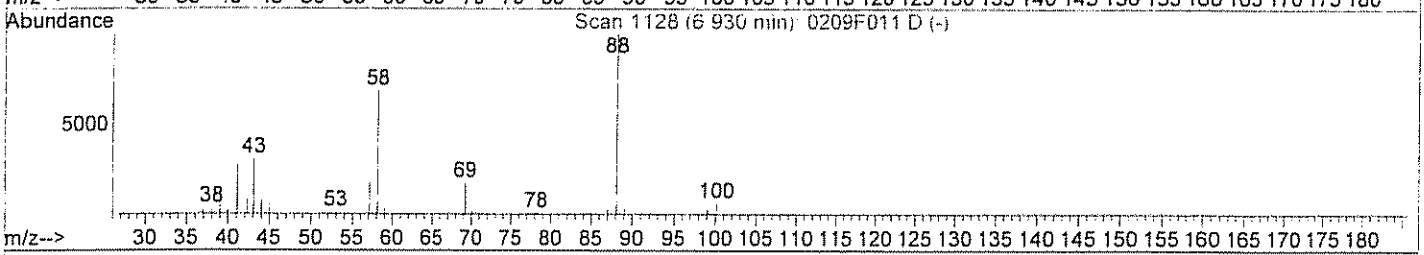
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:28 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016 D

(51) 1,4-Dioxane (T)

6 93min 3777 08PPB

response 381841

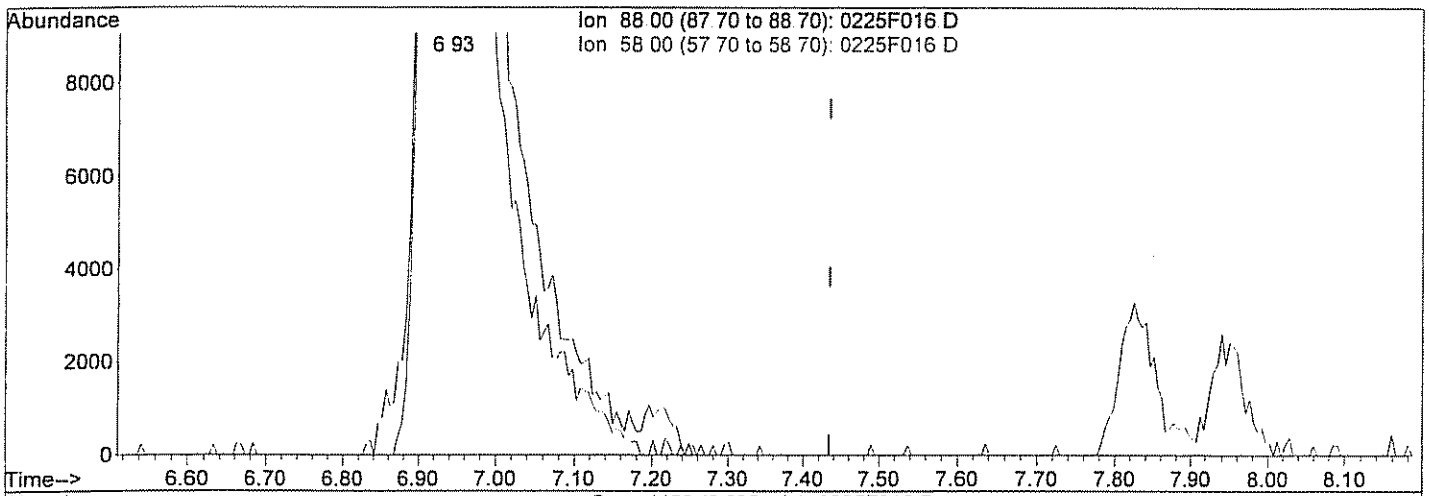
Ion	Exp%	Act%
88 00	100	100
58 00	65 60	65 82
0 00	0 00	0 00
0 00	0 00	0 00

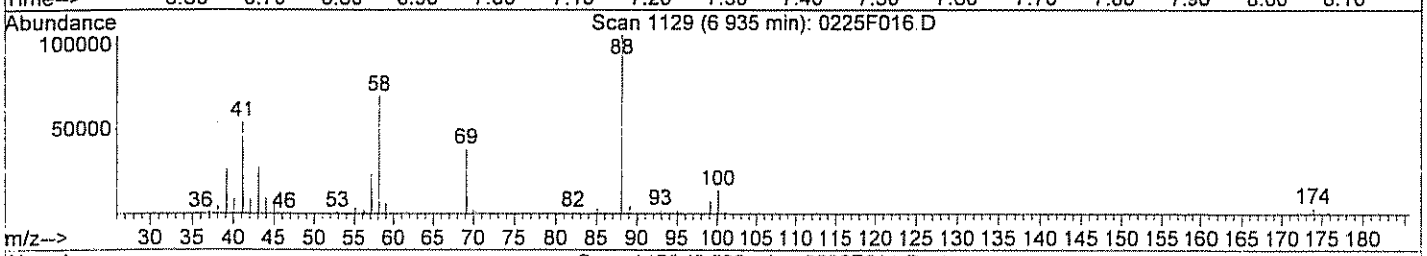
Quantitation Report (Qedit)

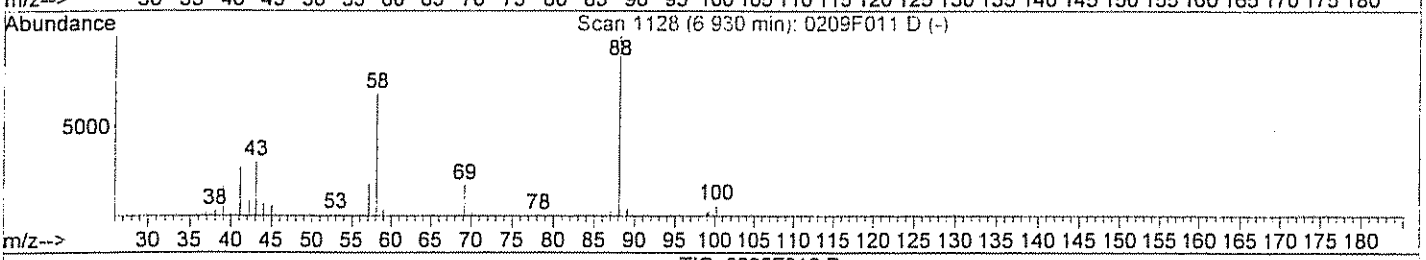
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016 D

(51) 1,4-Dioxane (T)

6 93min 3812 23PPB m

response 385394

Ion	Exp%	Act%
88 00	100	100
58 00	65 60	65 82
0 00	0 00	0 00
0 00	0 00	0 00

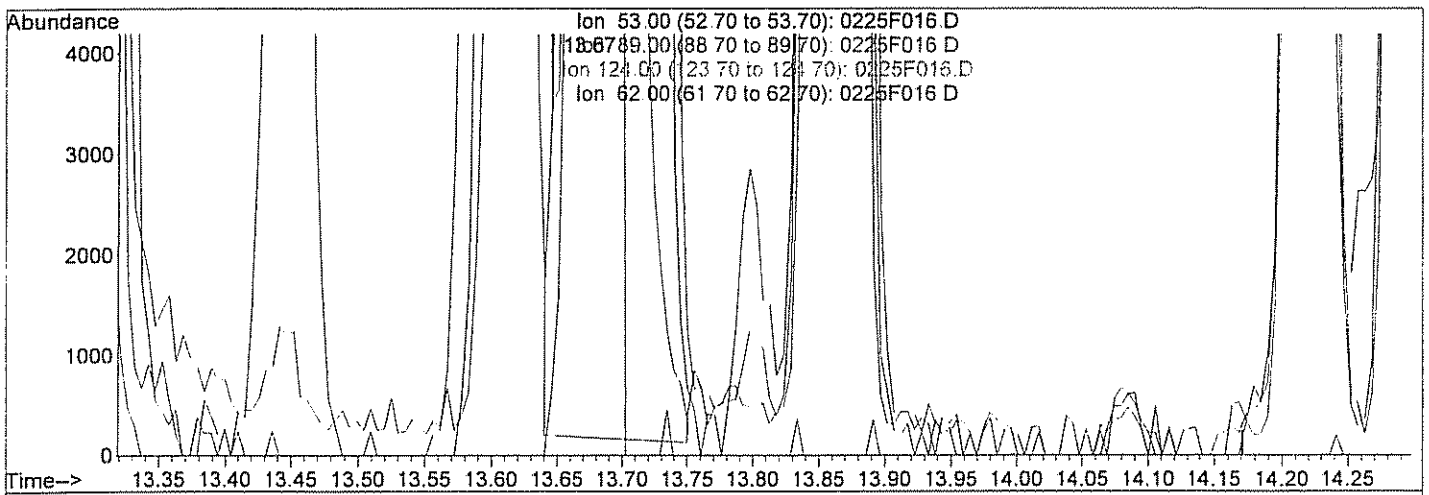
peak tailing
LB 2/28/05
AH 3/1/5

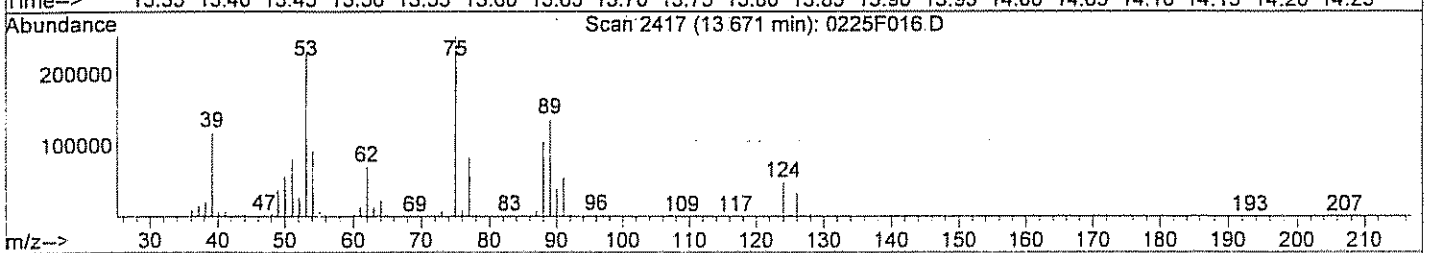
0225F016.D 022505_8260W.M Mon Feb 28 15:29:05 2005

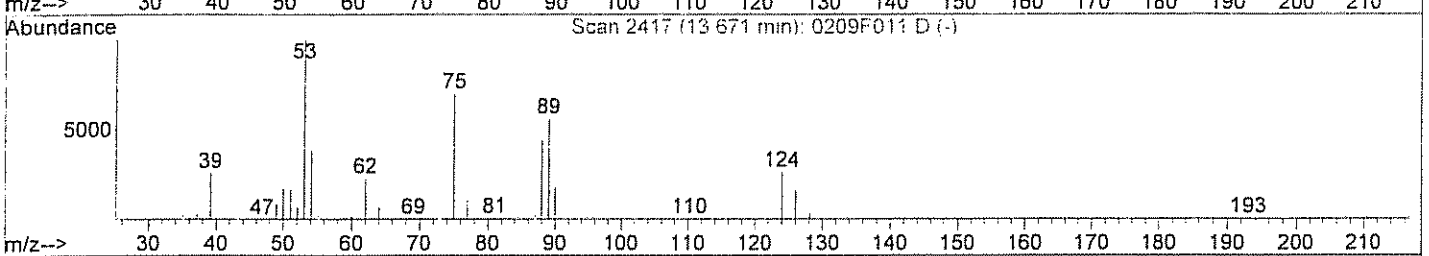
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 75.32PPB

response 365831

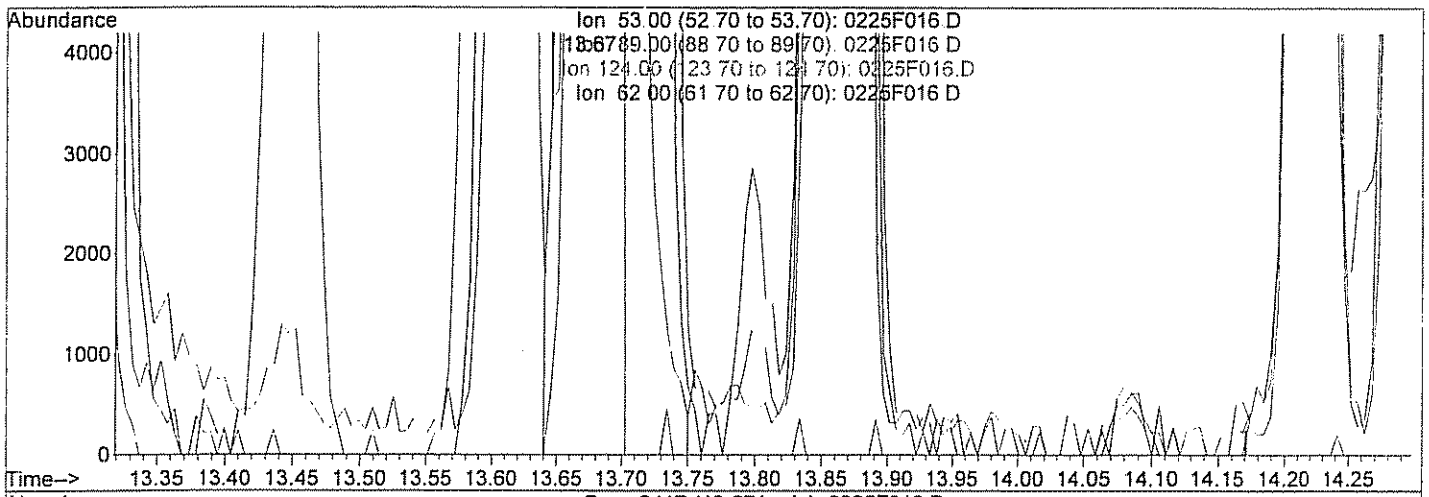
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.38
124.00	22.00	21.20
62.00	31.10	30.58

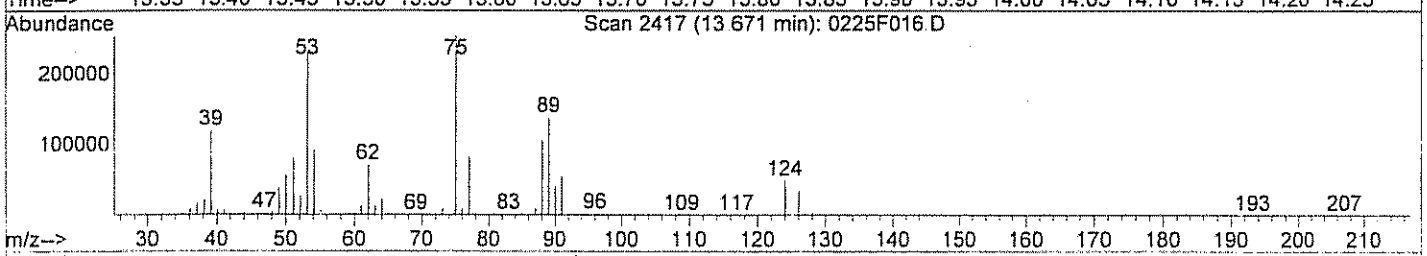
Quantitation Report (Qedit)

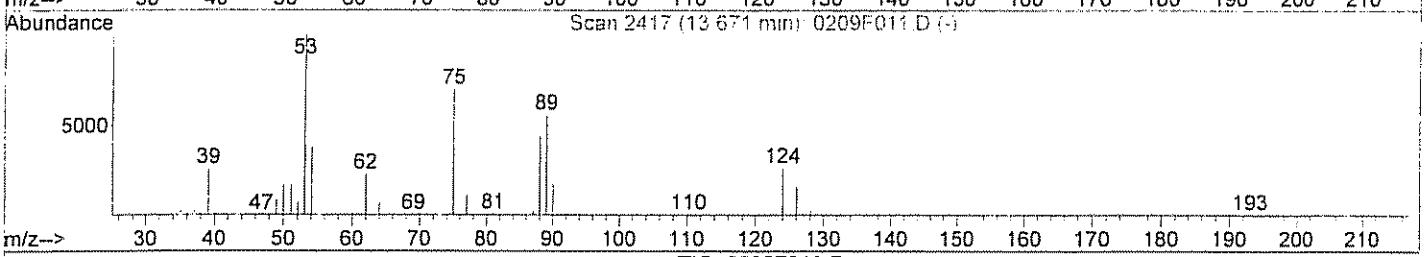
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016.D

(82) trans-1.4-Dichloro-2-butene (T)

13.67min 75.55PPB m

response 366928

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.82
124.00	22.00	21.16
62.00	31.10	30.82

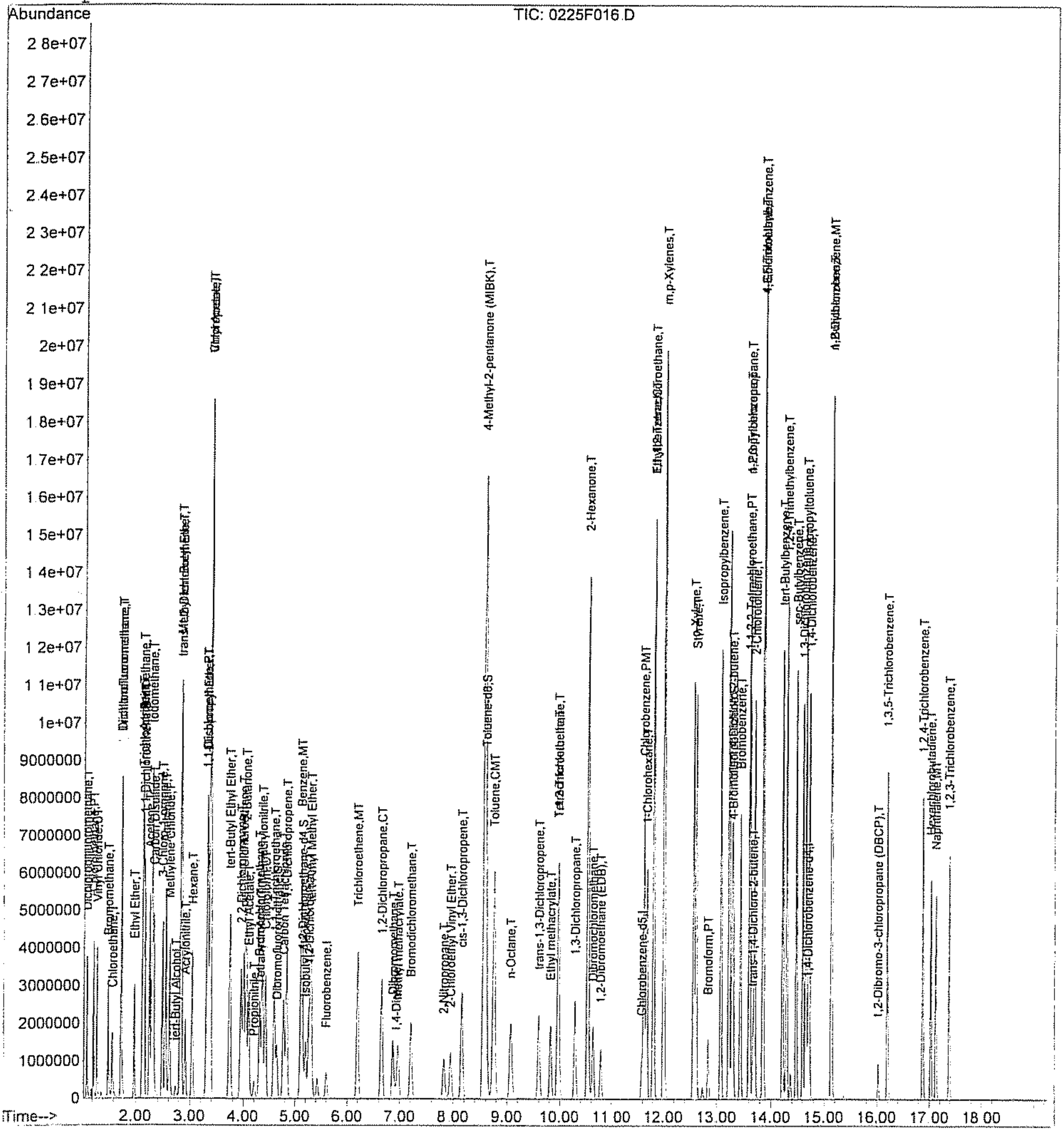
slanted baseline
LB 2/28/05
mt 3/1/5

0225F016.D 022505_8260W.M Mon Feb 28 15:29:37 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	789950	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	346346	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	386752	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	188929	9.66	PPB	0.00
Spiked Amount 10.000			Recovery	=	96.60%	
43) 1,2-Dichloroethane-d4	5.15	65	210544	9.56	PPB	0.00
Spiked Amount 10.000			Recovery	=	95.60%	
57) Toluene-d8	8.60	98	854260	9.88	PPB	0.00
Spiked Amount 10.000			Recovery	=	98.80%	
79) 4-Bromofluorobenzene	13.31	95	301806	9.86	PPB	0.00
Spiked Amount 10.000			Recovery	=	98.60%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	243645	10.03	PPB	96
3) Chloromethane	1.22	50	298370	9.73	PPB	98
4) Vinyl Chloride	1.29	62	255150	9.89	PPB	99
5) Bromomethane	1.51	96	170241	11.58	PPB	94
6) Chloroethane	1.58	64	150307	9.76	PPB	98
7) Dichlorofluoromethane	1.74	67	432785	11.58	PPB	99
8) Trichlorofluoromethane	1.74	101	313286	9.20	PPB	98
9) Ethyl Ether	1.97	59	140834	10.06	PPB	99
10) Acrolein	2.12	56	163340	80.81	PPB	97
11) Trichlorotrifluoroethane	2.13	151	176837	10.72	PPB	95
12) 1,1-Dichloroethene	2.15	96	192165	10.76	PPB	98
13) Acetone	2.25	43	150414	49.95	PPB	99
14) Iodomethane	2.29	142	785759m	35.64	PPB	
15) Carbon Disulfide	2.32	76	1194081	21.97	PPB	100
16) 3-Chloro-1-propene	2.48	76	339926	35.74	PPB	99
17) Acetonitrile	2.54	40	245765	331.01	PPB	96
18) Methylene Chloride	2.62	84	206470	9.53	PPB	98
19) tert-Butyl Alcohol	2.74	59	61694	104.74	PPB	94
20) Acrylonitrile	2.91	53	179232	44.93	PPB	99
21) Methyl tert-Butyl Ether	2.82	73	445263	10.53	PPB	100
22) trans-1,2-Dichloroethene	2.84	96	212517	10.12	PPB	98
23) Hexane	3.05	57	744575	34.99	PPB	97
24) Diisopropyl Ether	3.33	45	1240925	20.12	PPB	99
25) 1,1-Dichloroethane	3.31	63	364321	9.97	PPB	98
26) Vinyl Acetate	3.37	86	113222	45.32	PPB	98
27) Chloroprene	3.37	53	992471	38.51	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	965879	20.26	PPB	99

(#) = qualifier out of range (m) = manual integration
0225F021.D 022505_8260W.M Mon Feb 28 20:25:14 2005 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	216669	10.42 PPB		99
30)	cis-1,2-Dichloroethene	4.00	96	224874	10.06 PPB		98
31)	2-Butanone	4.06	72	59189	52.29 PPB		91
32)	Propionitrile	4.21	54	49278	34.90 PPB		96
33)	Ethyl Acetate	4.11	61	48523	35.73 PPB		98
34)	Methacrylonitrile	4.36	67	167765	34.16 PPB		95
35)	Bromochloromethane	4.30	128	98059	10.19 PPB		93
36)	Tetrahydrofuran	4.33	71	27944	20.72 PPB	#	86
37)	Chloroform	4.42	83	345492	9.82 PPB		98
38)	1,1,1-Trichloroethane	4.59	97	285779	10.60 PPB		96
40)	Carbon Tetrachloride	4.77	117	211821	10.75 PPB		98
41)	1,1-Dichloropropene	4.83	75	272321	9.87 PPB		96
42)	Isobutyl Alcohol	5.20	43	77224	322.27 PPB		96
44)	Benzene	5.11	78	874309	10.19 PPB		100
45)	1,2-Dichloroethane	5.26	62	245071	9.95 PPB		97
46)	tert-Amyl Methyl Ether	5.30	55	300663	19.09 PPB		91
47)	Trichloroethene	6.19	95	220259	10.51 PPB		98
48)	1,2-Dichloropropane	6.65	63	201794	10.15 PPB		98
49)	Dibromomethane	6.87	93	96496	10.18 PPB		93
50)	Methyl methacrylate	6.97	69	258698	32.54 PPB		93
51)	1,4-Dioxane	6.93	88	34794m	310.53 PPB		
52)	Bromodichloromethane	7.21	83	223705	10.31 PPB		94
53)	2-Nitropropane	7.82	43	42697	27.09 PPB		93
54)	2-Chloroethyl Vinyl Ether	7.95	63	83154	9.71 PPB		97
55)	cis-1,3-Dichloropropene	8.16	75	260514	10.60 PPB		95
56)	4-Methyl-2-pentanone (MIBK	8.57	58	194809	50.69 PPB	#	74
58)	Toluene	8.75	92	558985	10.05 PPB		100
60)	n-Octane	9.08	85	194495	21.50 PPB		94
61)	trans-1,3-Dichloropropene	9.60	75	180478	9.57 PPB		98
62)	Ethyl methacrylate	9.82	69	504425	33.22 PPB		94
63)	1,1,2-Trichloroethane	9.97	83	124271	10.28 PPB		96
64)	Tetrachloroethene	9.97	164	196783	10.12 PPB		95
65)	2-Hexanone	10.54	57	57891	47.69 PPB		97
66)	1,3-Dichloropropane	10.29	76	264878	10.43 PPB		97
67)	Dibromochloromethane	10.64	129	138599	10.19 PPB		99
68)	1,2-Dibromoethane (EDB)	10.78	107	135515	10.40 PPB		95
69)	1-Chlorohexane	11.68	91	244461	10.93 PPB		98
70)	Chlorobenzene	11.63	112	610744	9.72 PPB		99
71)	Ethylbenzene	11.81	106	336388	10.72 PPB		98
72)	1,1,1,2-Tetrachloroethane	11.81	131	162608	10.80 PPB		91
73)	m,p-Xylenes	12.01	106	845813	21.77 PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	387196	10.71	PPB		96
75)	Styrene	12.62	103	313647	10.67	PPB		99
76)	Bromoform	12.84	173	70521	10.21	PPB		97
77)	Isopropylbenzene	13.08	105	856583	9.75	PPB		99
78)	cis-1,4-Dichloro-2-butene	13.29	89	43669	32.72	PPB		97
81)	1,1,2,2-Tetrachloroethane	13.59	83	144326	9.72	PPB		97
82)	trans-1,4-Dichloro-2-buten	13.67	53	127677m	33.32	PPB		
83)	Bromobenzene	13.45	156	271189	10.24	PPB		99
84)	n-Propylbenzene	13.61	91	1115618	10.98	PPB		98
85)	1,2,3-Trichloropropane	13.62	110	50107	10.32	PPB	#	79
86)	2-Chlorotoluene	13.71	91	739581	10.92	PPB		100
87)	1,3,5-Trimethylbenzene	13.86	105	811758	11.16	PPB		99
88)	4-Chlorotoluene	13.86	91	824717	10.66	PPB		98
89)	tert-Butylbenzene	14.22	119	658455	11.16	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	818596	10.88	PPB		99
91)	sec-Butylbenzene	14.48	105	901918	11.57	PPB		98
92)	p-Isopropyltoluene	14.67	119	757491	10.27	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	513485	9.84	PPB		98
94)	1,4-Dichlorobenzene	14.73	146	532825	9.88	PPB		97
95)	n-Butylbenzene	15.13	91	632985	11.01	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	479344	9.87	PPB		99
97)	1,2-Dibromo-3-chloropropan	16.03	155	17790	10.08	PPB		83
98)	1,3,5-Trichlorobenzene	16.21	180	1365152	43.29	PPB		98
99)	1,2,4-Trichlorobenzene	16.88	180	276423	9.91	PPB		99
100)	Hexachlorobutadiene	17.03	225	138213	9.98	PPB		97
101)	Naphthalene	17.13	128	386509	10.32	PPB		100
102)	1,2,3-Trichlorobenzene	17.39	180	224822	9.68	PPB		99

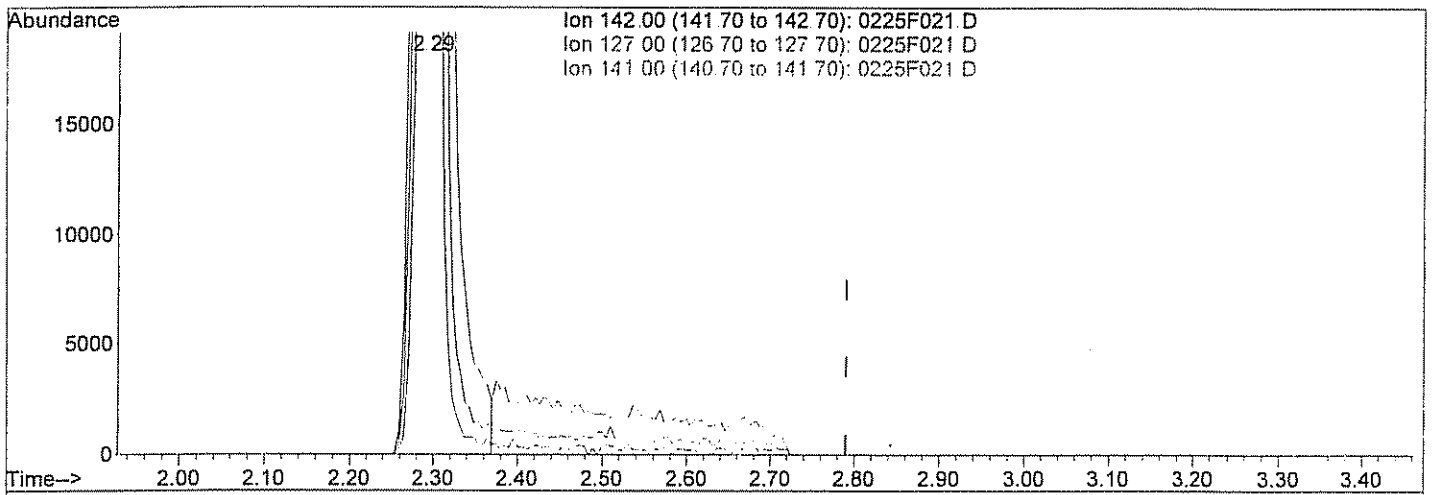
(#) = qualifier out of range (m) = manual integration

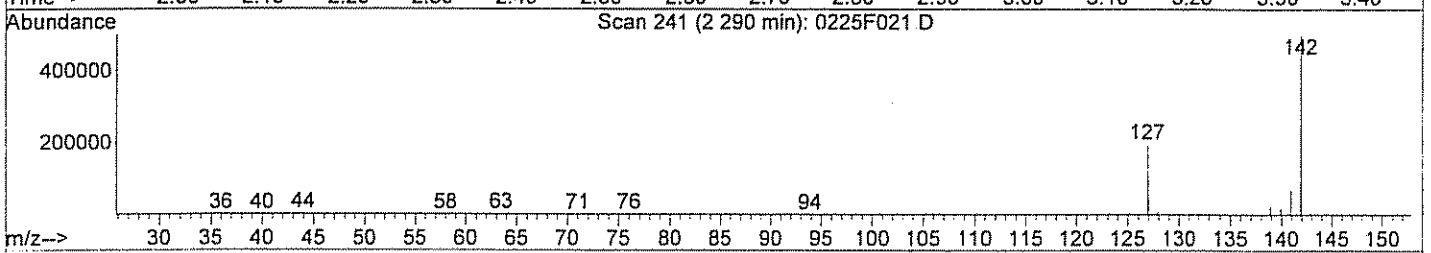
Quantitation Report (Qedit)

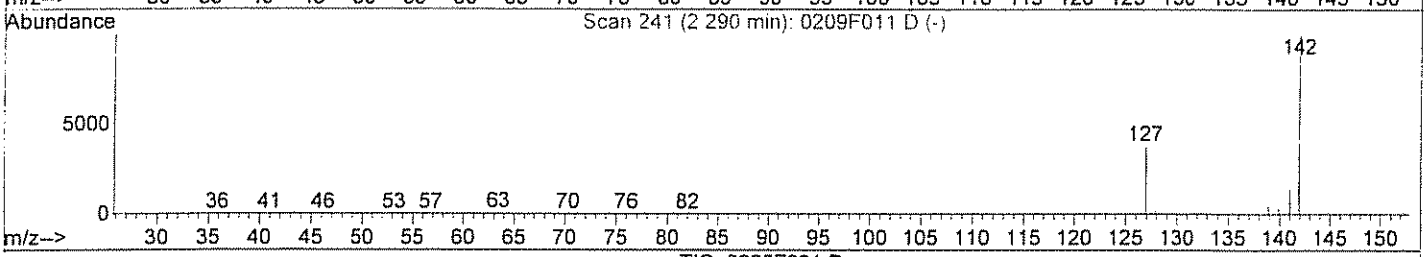
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Multiple Level Calibration







TIC: 0225F021.D

(14) Iodomethane (T)

2.29min 33.92PPB

response 747751

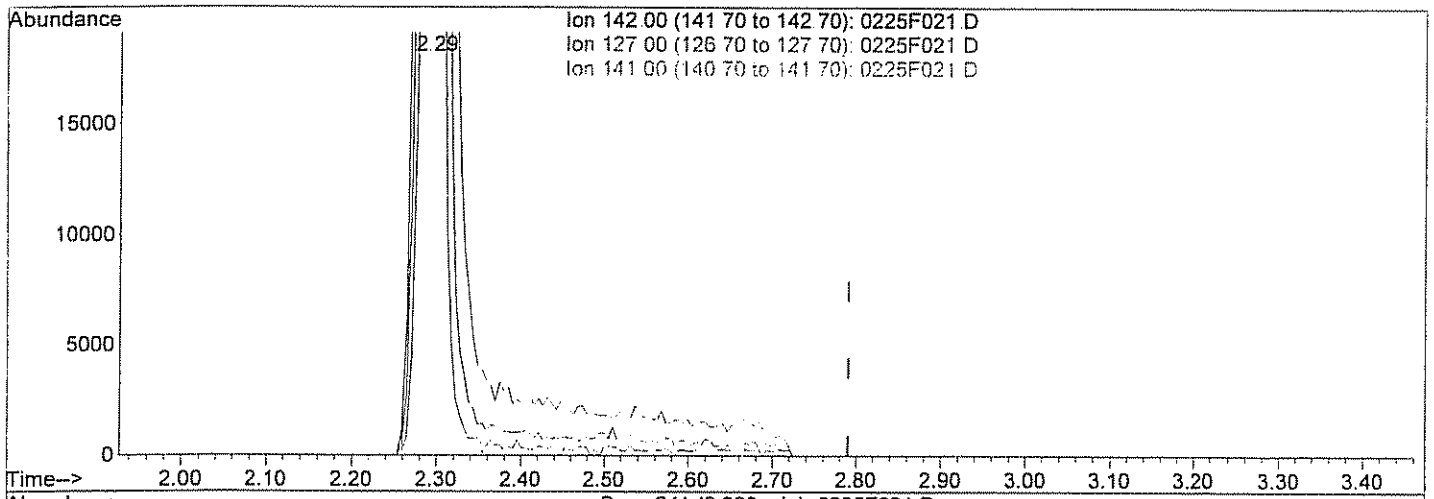
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	39.21
141.00	14.40	13.99
0.00	0.00	0.00

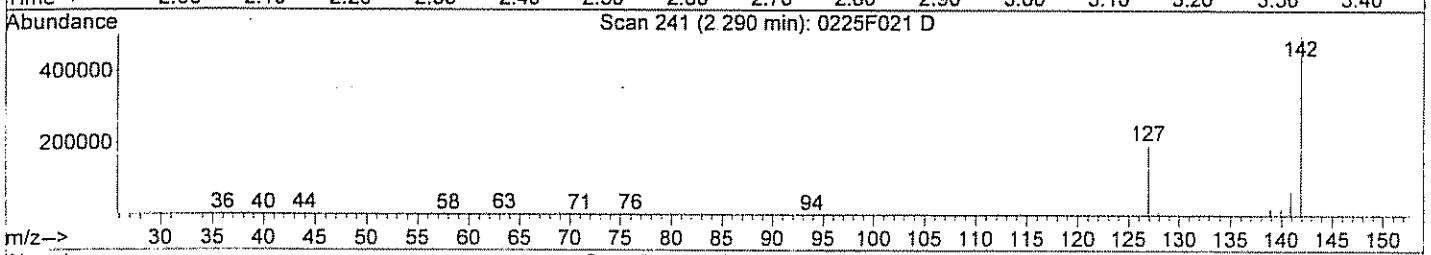
Quantitation Report (Qedit)

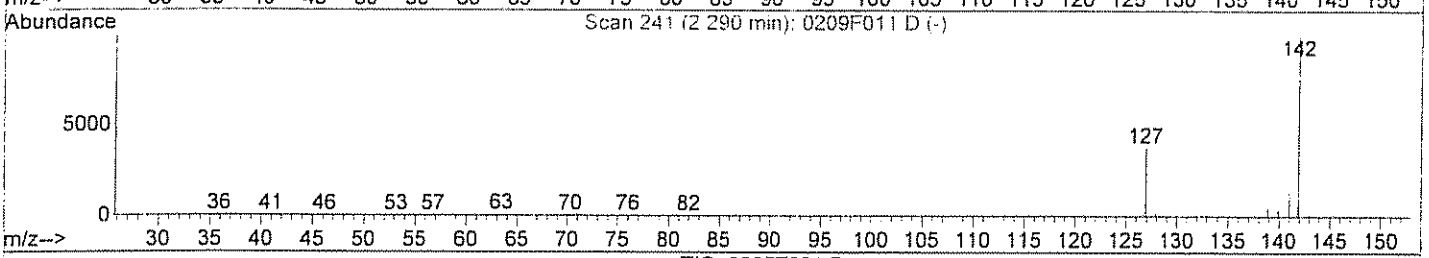
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Multiple Level Calibration







TIC: 0225F021.D

(14) Iodomethane (T)

2.29min 35.64PPB m

response 785759

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	39.21
141.00	14.40	13.99
0.00	0.00	0.00

peak tailing
LB 2/28/05
mL 3/1/5

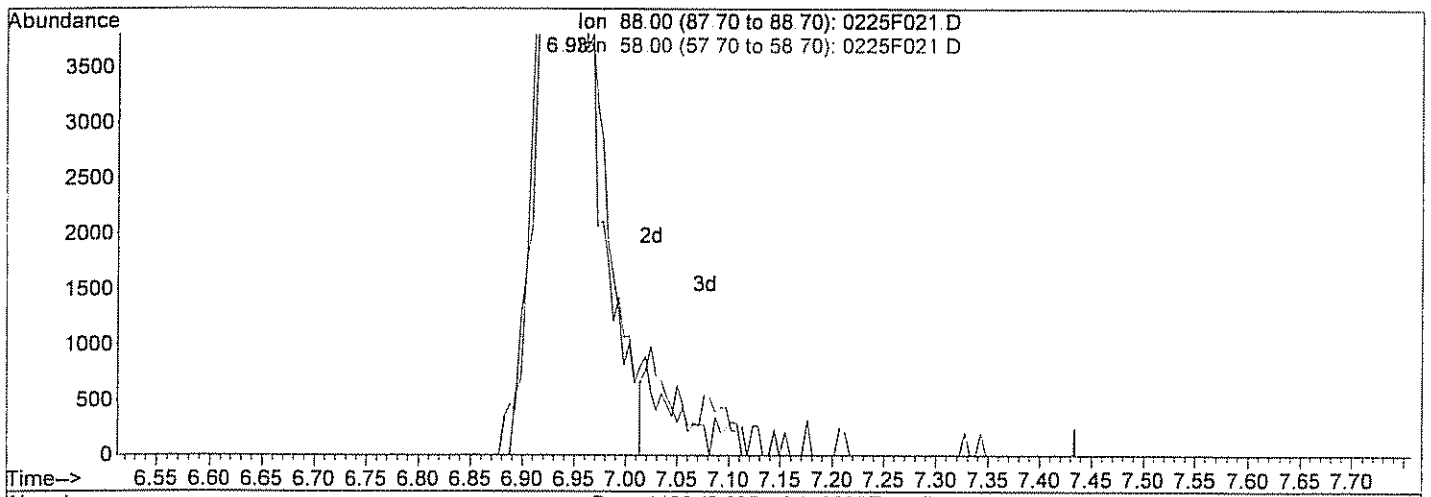
0225F021.D 022505_8260W.M Mon Feb 28 16:04:33 2005

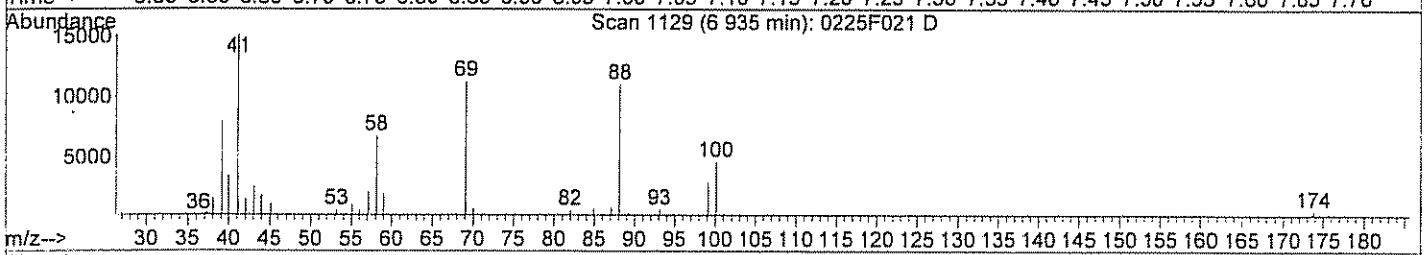
Quantitation Report (Qedit)

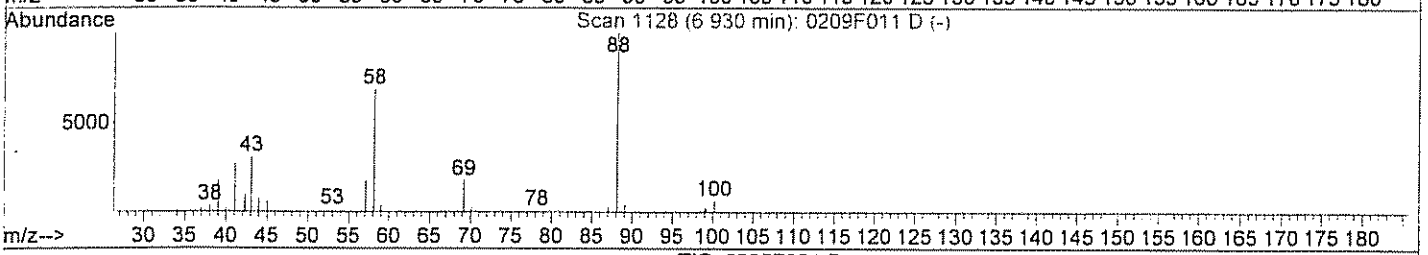
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(51) 1,4-Dioxane (T)

6.93min 283.96PPB

response 31817

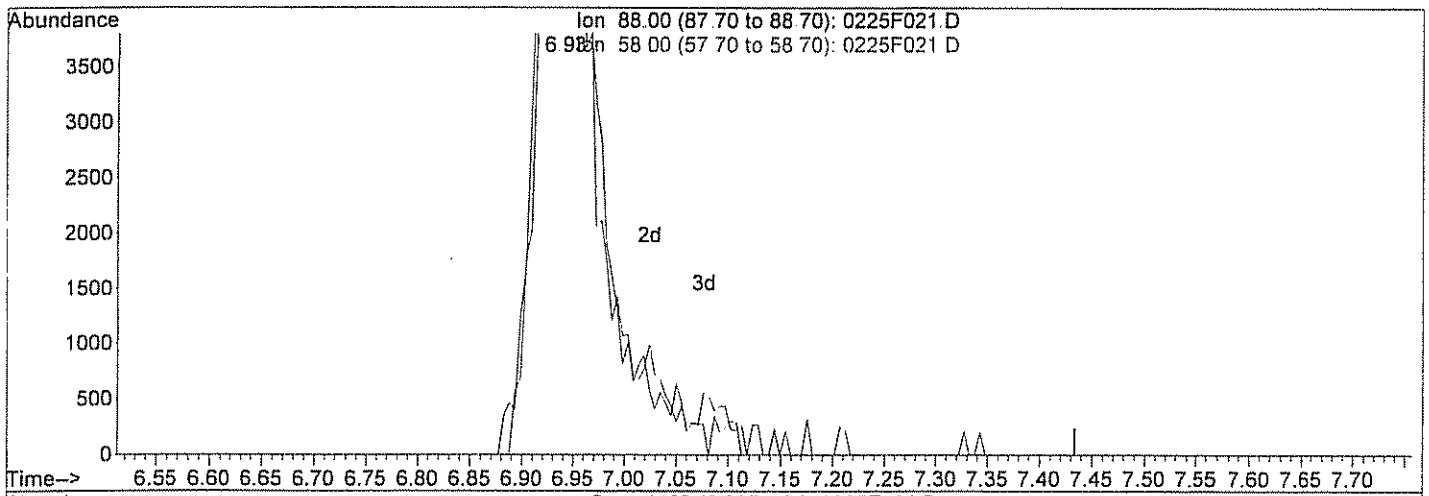
Ion	Exp%	Act%
88.00	100	100
58.00	64.70	61.29
0.00	0.00	0.00
0.00	0.00	0.00

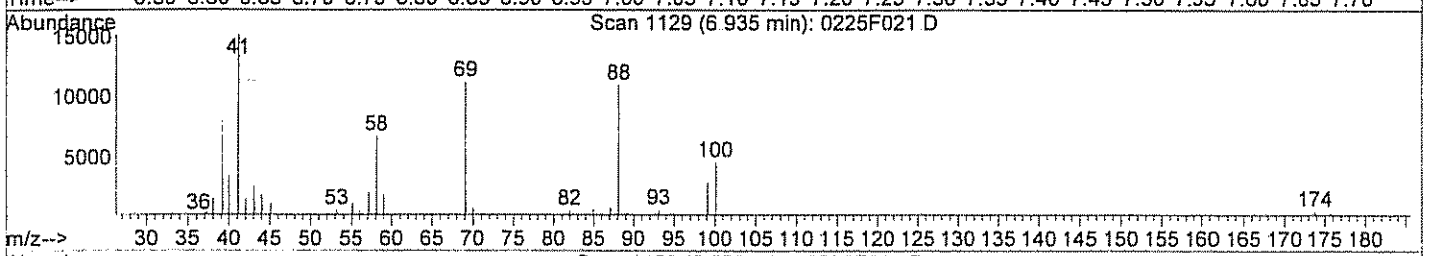
Quantitation Report (Qedit)

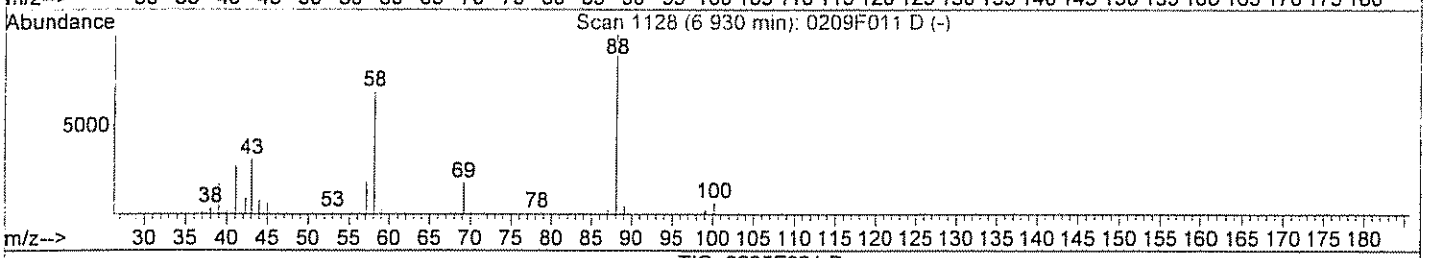
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(51) 1,4-Dioxane (T)

6.93min 310.53PPB m

response 34794

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	61.29
0.00	0.00	0.00
0.00	0.00	0.00

peak tailing
LB 2/28/05
MA 3/1/5

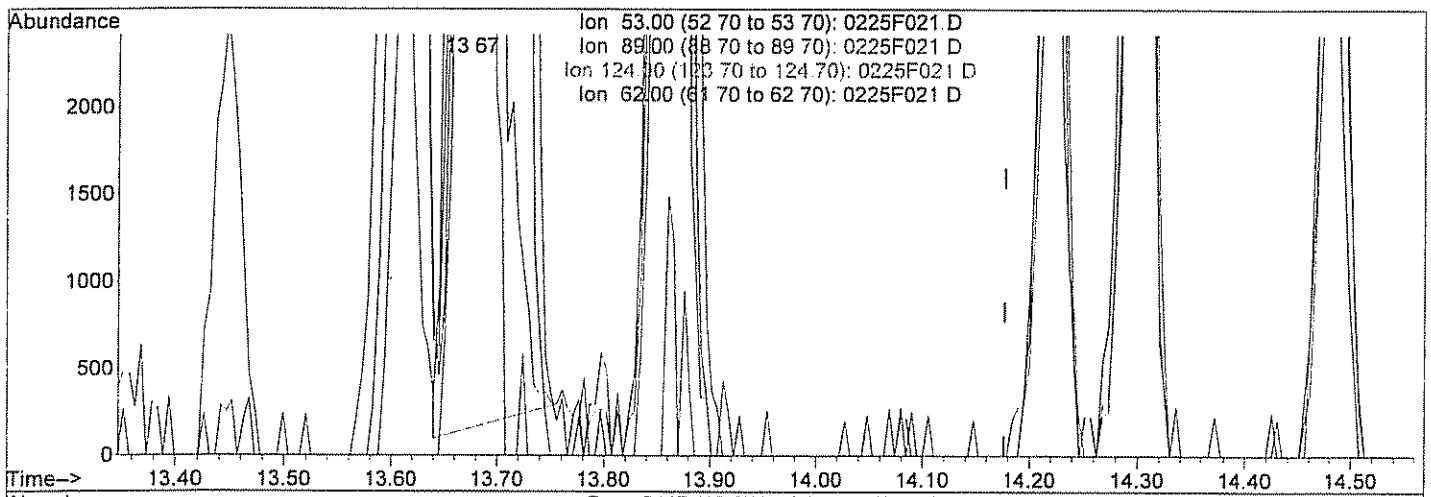
0225F021.D 022505_8260W.M Mon Feb 28 16:04:59 2005

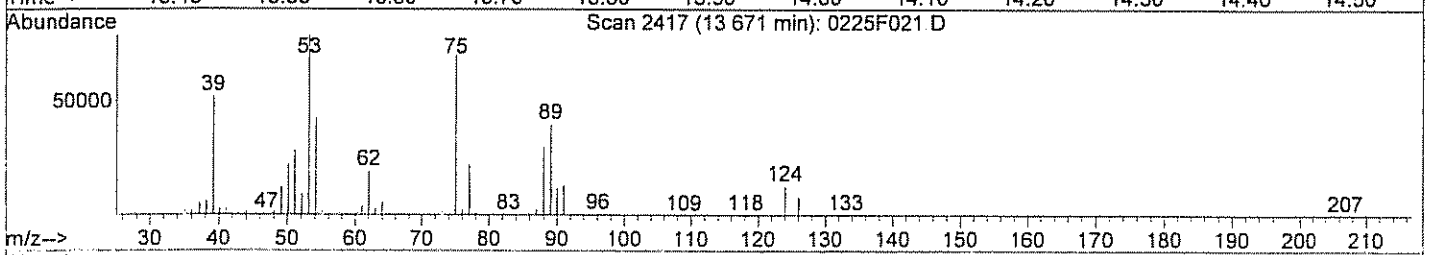
Quantitation Report (Qedit)

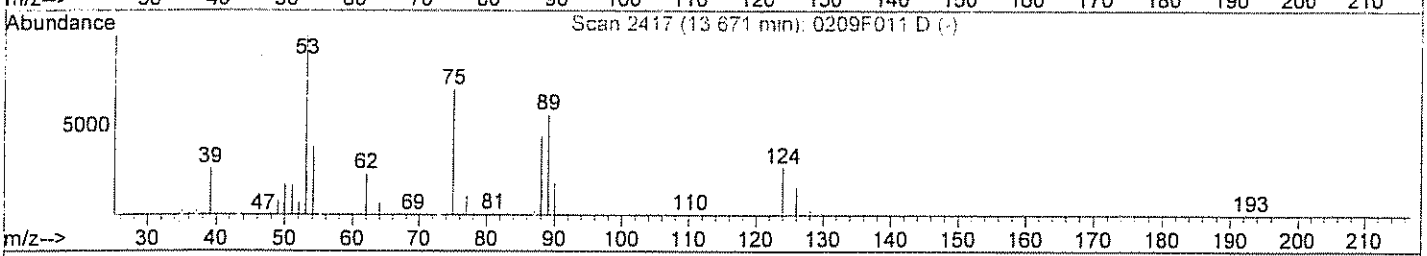
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 32.99PPB

response 126416

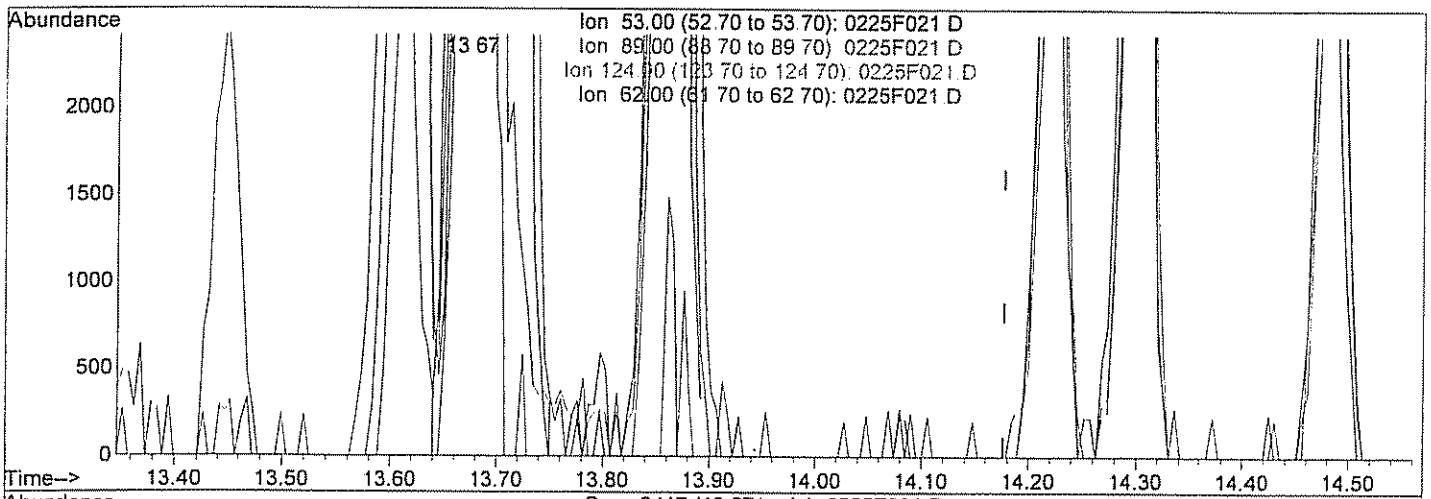
Ion	Exp%	Act%
53.00	100	100
89.00	46.90	50.07
124.00	18.00	16.65
62.00	19.00	24.66

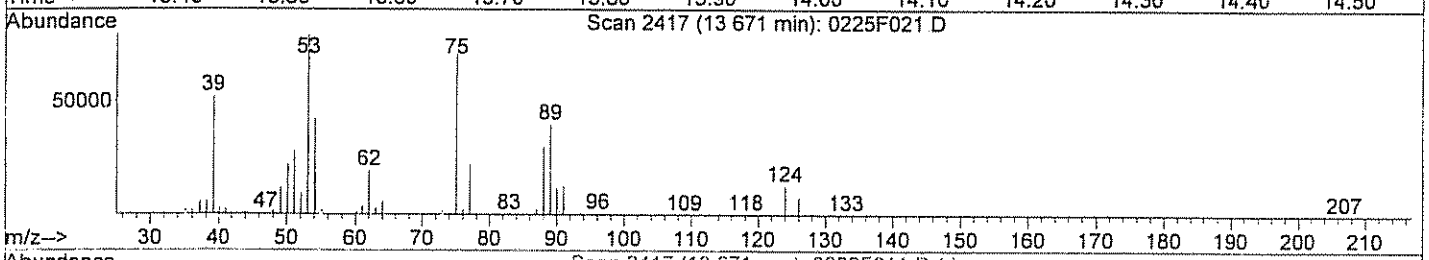
Quantitation Report (Qedit)

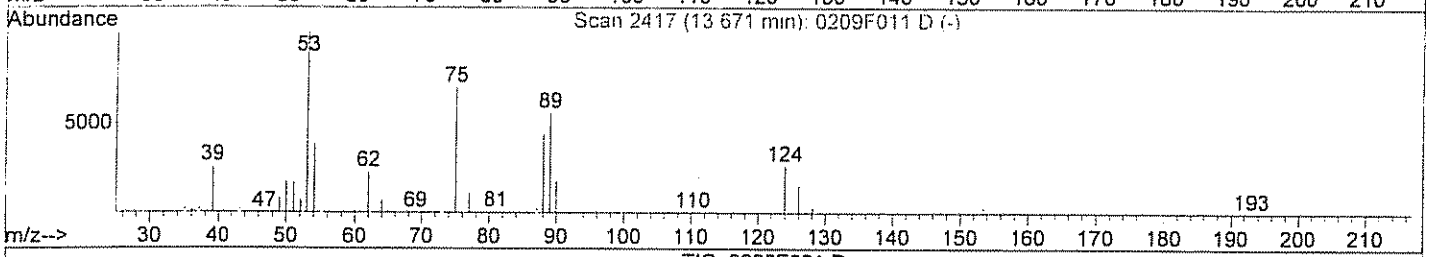
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:05 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021 D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 33.32PPB m

response 127677

Ion	Exp%	Act%
53.00	100	100
89.00	46.90	50.14
124.00	18.00	16.58
62.00	19.00	24.57

Slanted baseline
LB 2/28/05
mt 3/1/5

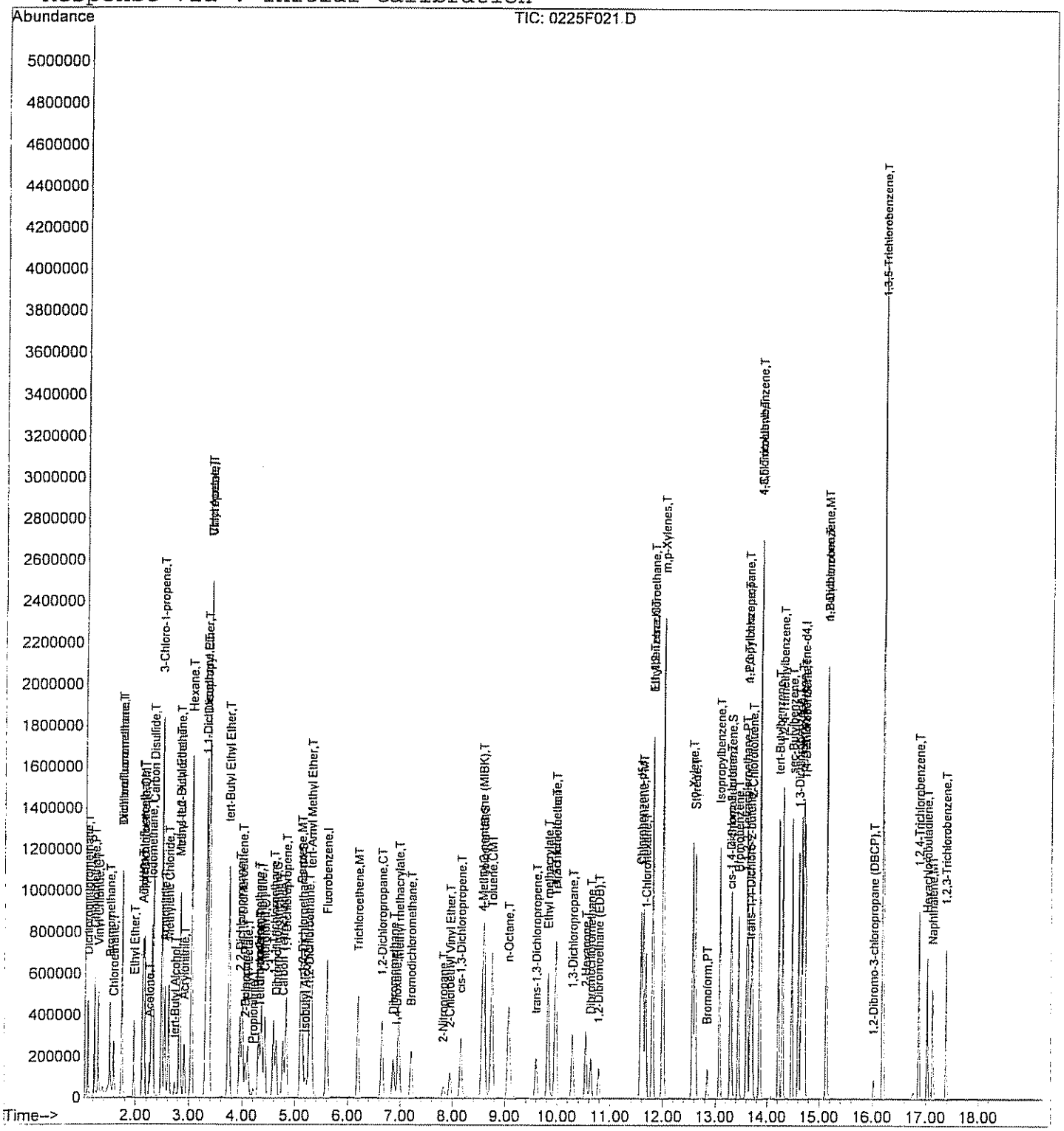
0225F021.D 022505_8260W.M Mon Feb 28 16:05:52 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:05 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504272
Units: PPB

File ID: J:\MS13\DATA\031505\0315F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	11	0.01	0.307	0.328	7	NA	± 40 %	AverageRF
† Chloromethane	10	8.8	0.10	0.388	0.340	-12	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.01	0.327	0.322	-1	NA	± 20 %	AverageRF
Bromomethane	10	9.5	0.01	0.186	0.178	-5	NA	± 40 %	AverageRF
Chloroethane	10	9.9	0.01	0.195	0.193	-1	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	11	0.01	0.431	0.454	5	NA	± 30 %	AverageRF
Acetone	200	170	0.01	0.0381	0.0325	-15	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	10	0.01	0.226	0.230	2	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	20	17	0.01	0.535	0.459	-14	NA	± 30 %	AverageRF
Carbon Disulfide	10	12	0.01	0.688	0.854	24	NA	± 30 %	AverageRF
Methylene Chloride	10	9.7	0.01	0.274	0.266	-3	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.01	0.266	0.268	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.10	0.463	0.468	1	NA	± 30 %	AverageRF
2-Butanone (MEK)	200	170	0.01	0.0143	0.0125	-13	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	9.6	0.01	0.263	0.252	-4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.01	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	11	0.01	0.445	0.474	6	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.01	0.122	0.126	4	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.01	0.341	0.360	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	10	0.01	0.349	0.364	4	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	12	0.01	0.249	0.293	18	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.01	0.312	0.322	3	NA	± 30 %	AverageRF
Benzene	10	10	0.01	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	10	0.01	0.265	0.271	2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	9.9	0.01	0.252	0.249	-1	NA	± 20 %	AverageRF
Bromodichloromethane	10	11	0.01	0.275	0.302	10	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.01	0.120	0.125	4	NA	± 30 %	AverageRF
2-Hexanone	200	180	0.01	0.0351	0.0315	-10	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	10	0.01	0.311	0.310	0	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.01	0.704	0.721	2	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	10	0.01	0.545	0.543	0	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.01	0.349	0.365	5	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	200	170	0.01	0.0486	0.0413	-15	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.01	0.734	0.769	5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.01	0.561	0.588	5	NA	± 30 %	AverageRF
Dibromochloromethane	10	12	0.01	0.393	0.454	16	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.01	0.376	0.400	6	NA	± 30 %	AverageRF
† Chlorobenzene	10	10	0.30	1.81	1.84	2	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504272
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1,2-Tetrachloroethane	10	12	0.01	0.435	0.518	19	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.01	0.906	1.01	12	NA	± 20 %	AverageRF
m,p-Xylenes	20	23	0.01	1.12	1.29	15	NA	± 30 %	AverageRF
o-Xylene	10	11	0.01	1.04	1.16	11	NA	± 30 %	AverageRF
Styrene	10	12	0.01	0.849	0.989	17	NA	± 30 %	AverageRF
† Bromoform	10	12	0.10	0.200	0.242	21	NA	± 30 %	AverageRF
Isopropylbenzene	10	12	0.01	2.54	2.93	15	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	11	0.30	0.384	0.406	6	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	11	0.01	0.126	0.133	6	NA	± 30 %	AverageRF
Bromobenzene	10	11	0.01	0.685	0.754	10	NA	± 30 %	AverageRF
n-Propylbenzene	10	12	0.01	2.63	3.14	20	NA	± 30 %	AverageRF
2-Chlorotoluene	10	12	0.01	1.75	2.02	16	NA	± 30 %	AverageRF
4-Chlorotoluene	10	12	0.01	2.00	2.36	18	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	12	0.01	1.88	2.27	21	NA	± 30 %	AverageRF
tert-Butylbenzene	10	12	0.01	1.53	1.79	17	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	12	0.01	1.95	2.25	16	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	0.01	2.02	2.39	19	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	10	0.01	1.35	1.40	4	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	12	0.01	1.91	2.20	15	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	10	0.01	1.40	1.45	4	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	0.01	1.49	1.70	14	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	10	0.01	1.26	1.29	3	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.01	0.0456	0.0467	2	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	8.7	0.01	0.721	0.630	-13	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	8.6	0.01	0.601	0.515	-14	NA	± 30 %	AverageRF
Naphthalene	10	8.1	0.01	0.968	0.788	-19	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	11	0.01	0.358	0.398	11	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	10	11	0.01	0.199	0.214	7	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	10	8.9	0.01	0.604	0.535	-11	NA	± 30 %	AverageRF
tert-Butyl Alcohol	50	38	0.01	0.00746	0.00567 *	-24	NA	± 30 %	AverageRF
Diisopropyl Ether	10	9.7	0.01	0.781	0.757	-3	NA	± 30 %	AverageRF
Dibromofluoromethane	10	9.3	0.01	0.248	0.231	-7	NA	± 30 %	AverageRF
Toluene-d8	10	9.9	0.01	1.09	1.08	-1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	10	11	0.01	0.884	0.948	7	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Exception Report

Data File: J:\MS13\DATA\031505\0315F003 D
Lab ID: KWG0504273-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/15/2005 16:12
Date Quantitated: 03/16/2005 15:41
Batch ID: KWG0504272
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0 0014	0 01	NA	MRL CHK
	Acetonitrile	0 0094	0 01	NA	NT
	tert-Butyl Alcohol	0 0075	0 01	NA	MRL CHK
	Isobutyl Alcohol	0 0030	0 01	NA	↓

Primary Review: LB 3/16/05

Secondary Review: mt 3/17/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/16/2005

Analysis Lot:	KWG0504272	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260B	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031505\0315F002.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Data File:	J:\MS13\DATA\031505\0315F003.D			**Instrument:**	MS13
Acqu Date:	03/15/2005 16:12	**Quant Date:**	03/16/2005 15:41	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0504273-2			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	660570	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	274249	10.00	OK
3	1,4-Dichlorobenzene-d4	14.70	-0.01	152	301853	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64			113	152785	9.34		80-119	NA
1	1,2-Dichloroethane-d4	5.14			65	167599	9.10		76-115	NA
1	Toluene-d8	8.60			98	712815	9.86		83-113	NA
2	4-Bromofluorobenzene	13.31			95	259964	10.72		72-114	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	216439	10.66			
1	Chloromethane	1.22			50	224862	8.77			
1	Vinyl Chloride	1.29			62	212720	9.86			
1	Bromomethane	1.51			96	117256	9.54			
1	Chloroethane	1.58			64	127795	9.92			
1	Dichlorofluoromethane (CFC 21	1.74			67	336207	10.76			
1	Trichlorofluoromethane	1.74			101	299910	10.54			
1	Ethyl Ether	1.97			59	114165	9.75			
1	Acrolein	2.12			56	211273	125.00			
1	Trichlorotrifluoroethane	2.13			151	146456	10.62			
1	1,1-Dichloroethene	2.15			96	152216	10.19			
1	Acetone	2.25			43	429244	170.45			
1	Iodomethane	2.29			142	552963m	29.99			
1	Carbon Disulfide	2.32			76	564399	12.42			

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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031505\0315F003 D			**Instrument:**	MS13
Acqu Date:	03/15/2005 16:12	**Quant Date:**	03/16/2005 15:41	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0504273-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2.48			76	80397	10.11			
1	Acetonitrile	2.54			40	243000	391.39			
1	Methylene Chloride	2.62			84	175628	9.70			
1	tert-Butyl Alcohol	2.74			59	18725	38.02			
1	Acrylonitrile	2.91			53	129724	38.89			
1	Methyl tert-Butyl Ether	2.82			73	606266	17.15			
1	trans-1,2-Dichloroethene	2.84			96	176995	10.08			
1	n-Hexane	3.05			57	191679	10.77			
1	Diisopropyl Ether	3.33			45	500379	9.70			
1	1,1-Dichloroethane	3.31			63	309442	10.12			
1	Vinyl Acetate	3.37			86	39296	18.81			
1	Chloroprene	3.37			53	933525	43.31			
1	tert-Butyl Ethyl Ether	3.74			59	353527	8.87			
1	2,2-Dichloropropane	3.95			77	166249	9.56			
1	cis-1,2-Dichloroethene	4.00			96	188206	10.07			
1	2-Butanone (MEK)	4.05			72	165297	174.62			
1	Propionitrile	4.20			54	45401	38.46			
1	Ethyl Acetate	4.11			61	43665	38.45			
1	Methacrylonitrile	4.36			67	156128	38.01			
1	Bromochloromethane	4.30			128	83503	10.37			
1	Tetrahydrofuran	4.34			71	9279	8.23			
1	Chloroform	4.42			83	312831	10.63			
1	1,1,1-Trichloroethane (TCA)	4.59			97	237904	10.55			
1	Carbon Tetrachloride	4.77			117	193750	11.76			
1	1,1-Dichloropropene	4.83			75	240737	10.44			
1	Isobutyl Alcohol	5.19			43	75599	377.28			
1	Benzene	5.11			78	734601	10.24			
1	1,2-Dichloroethane (EDC)	5.26			62	212834	10.33			
1	tert-Amyl Methyl Ether	5.31			55	141103	10.71			
1	Trichloroethene (TCE)	6.20			95	179128	10.22			
1	1,2-Dichloropropane	6.65			63	164349	9.88			
1	Dibromomethane	6.87			93	82801	10.44			
1	Methyl Methacrylate	6.97			69	57249	8.61			
1	1,4-Dioxane	6.93			88	31814m	339.55			
1	Bromodichloromethane	7.21			83	199437	10.99			
1	2-Nitropropane	7.82			43	76023	57.67			
1	2-Chloroethyl Vinyl Ether	7.94			63	54945	7.67			
1	cis-1,3-Dichloropropene	8.16			75	205058	9.98			
1	4-Methyl-2-pentanone (MIBK)	8.56			58	546019	169.91			
1	Toluene	8.75			92	476105	10.24			
2	n-Octane	9.08			85	78132	10.91			
2	trans-1,3-Dichloropropene	9.60			75	149029	9.98			

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Data File:	J:\MS13\DATA\031505\0315F003 D			Instrument:	MS13
Acqu Date:	03/15/2005 16:12	Quant Date:	03/16/2005 15:41	Vial:	3
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504273-2			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 82			69	100723	8 38			
2	1,1,2-Trichloroethane	9 96			83	100130	10 46			
2	Tetrachloroethene (PCE)	9 97			164	161202	10 47			
2	2-Hexanone	10 53			57	172729	179 69			
2	1,3-Dichloropropane	10 29			76	210847	10 48			
2	Dibromochloromethane	10 63			129	124611	11 57			
2	1,2-Dibromoethane (EDB)	10 79			107	109639	10 62			
2	1-Chlorohexane	11 68			91	183137	10 34			
2	Chlorobenzene	11 63			112	505008	10 15			
2	Ethylbenzene	11 81			106	277584	11 17			
2	1,1,1,2-Tetrachloroethane	11 81			131	142192	11 93			
2	m,p-Xylenes	12 01			106	705228	22 92			
2	o-Xylene	12 57			106	318212	11 11			
2	Styrene	12 61			103	271326	11 66			
2	Bromoform	12 85			173	66473	12 15			
2	Isopropylbenzene	13 08			105	803029	11 55			
2	cis-1,4-Dichloro-2-butene	13 29			89	37873	35 83			
3	1,1,2,2-Tetrachloroethane	13 59			83	122540	10 57			
3	trans-1,4-Dichloro-2-butene	13 68			53	30109	10 07			
3	Bromobenzene	13 45			156	227521	11 01			
3	n-Propylbenzene	13 61			91	948341	11 96			
3	1,2,3-Trichloropropane	13 61			110	40135	10 59			
3	2-Chlorotoluene	13 71			91	610985	11 56			
3	1,3,5-Trimethylbenzene	13 86			105	686659	12 10			
3	4-Chlorotoluene	13 86			91	711688	11 79			
3	tert-Butylbenzene	14 22			119	539738	11 72			
3	1,2,4-Trimethylbenzene	14 30			105	678615	11 56			
3	sec-Butylbenzene	14 48			105	722155	11 87			
3	4-Isopropyltoluene	14 67			119	662587	11 51			
3	1,3-Dichlorobenzene	14 61			146	423930	10 41			
3	1,4-Dichlorobenzene	14 73			146	436881	10 37			
3	n-Butylbenzene	15 13			91	513368	11 44			
3	1,2-Dichlorobenzene	15 14			146	389196	10 26			
3	1,2-Dibromo-3-chloropropane	16 03			155	14098	10 24			
3	1,3,5-Trichlorobenzene	16 20			180	234607	9 53			
3	1,2,4-Trichlorobenzene	16 88			180	190233	8 74			
3	Hexachlorobutadiene	17 03			225	120260	11 13			
3	Naphthalene	17 13			128	237911	8 14			
3	1,2,3-Trichlorobenzene	17 38			180	155520	8 58			

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E: Analyte concentration above high point of ICAL
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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

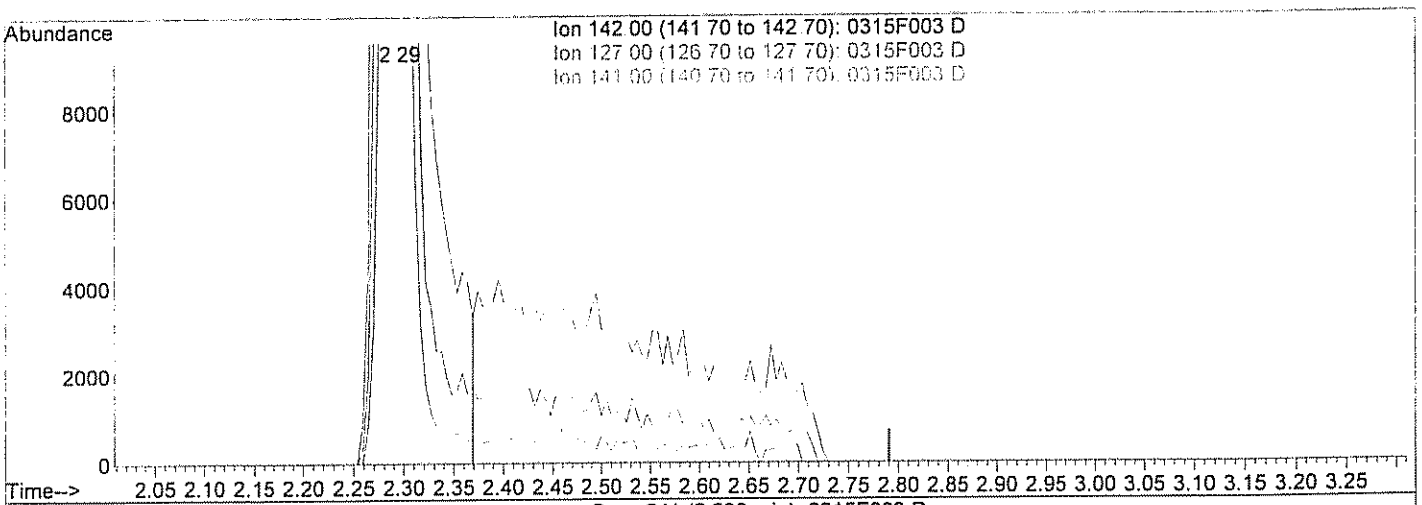
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

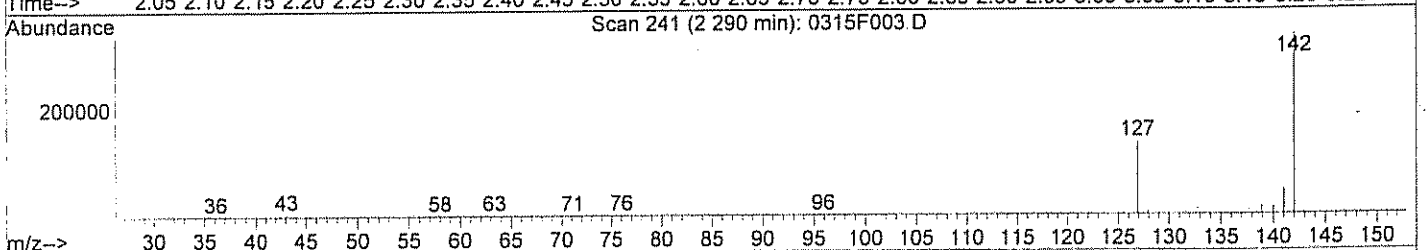
Quantitation Report (Qedit)

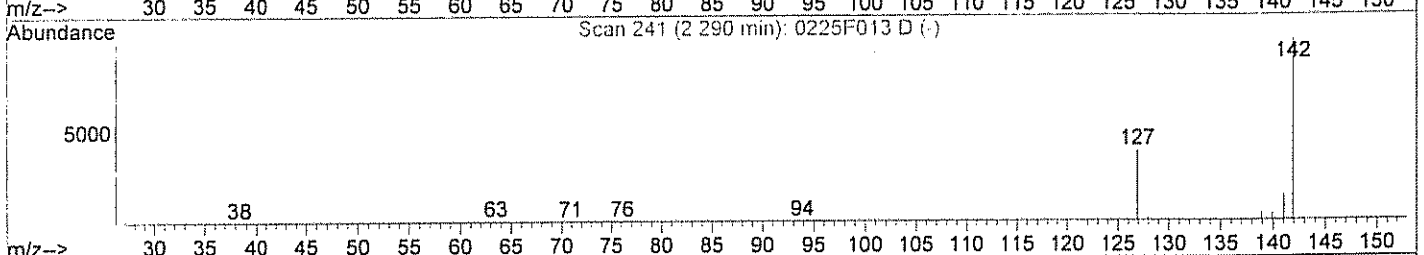
Data File : J:\MS13\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 4:12 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:40 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F003.D

(14) Iodomethane (T)

2.29min 26.93PPB

response 496409

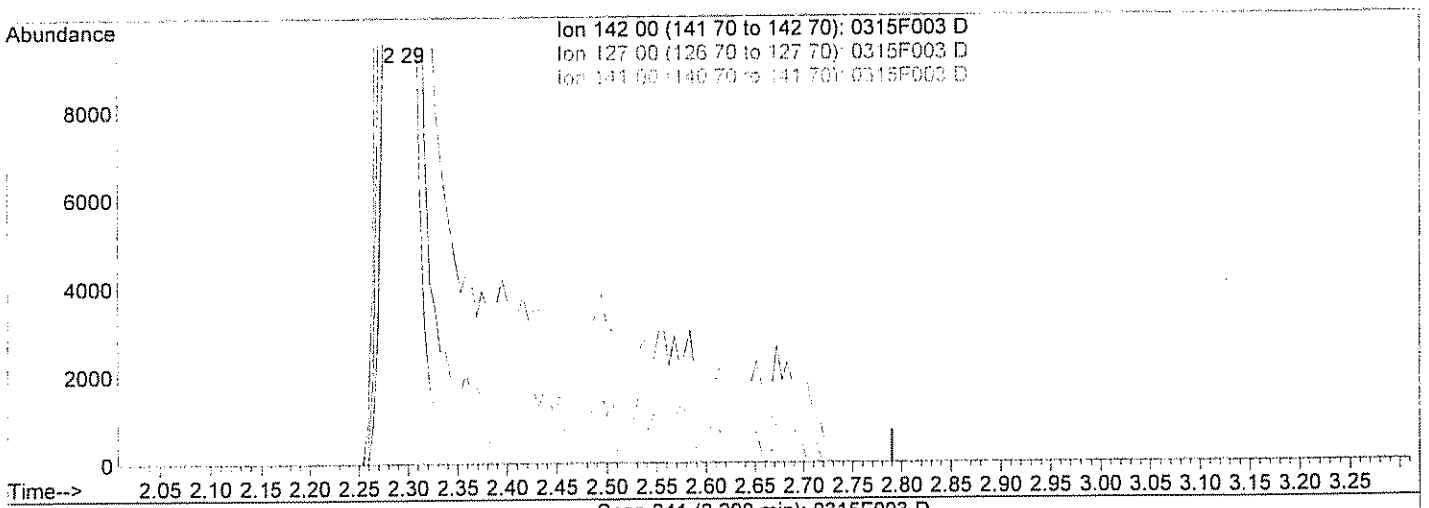
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	40.73
141.00	14.40	14.32
0.00	0.00	0.00

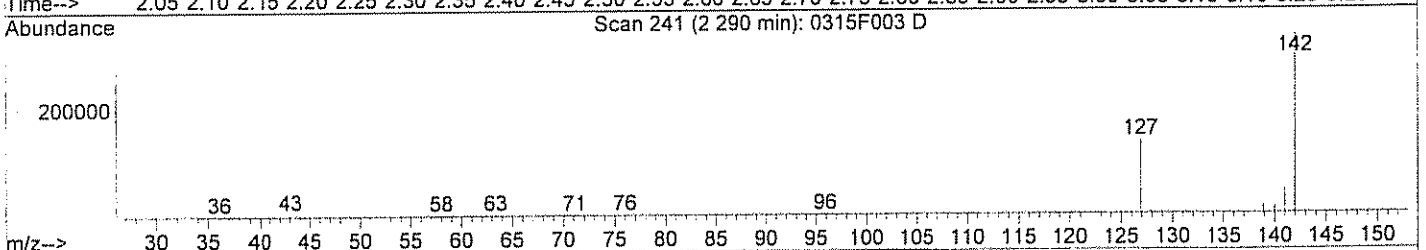
Quantitation Report (Qedit)

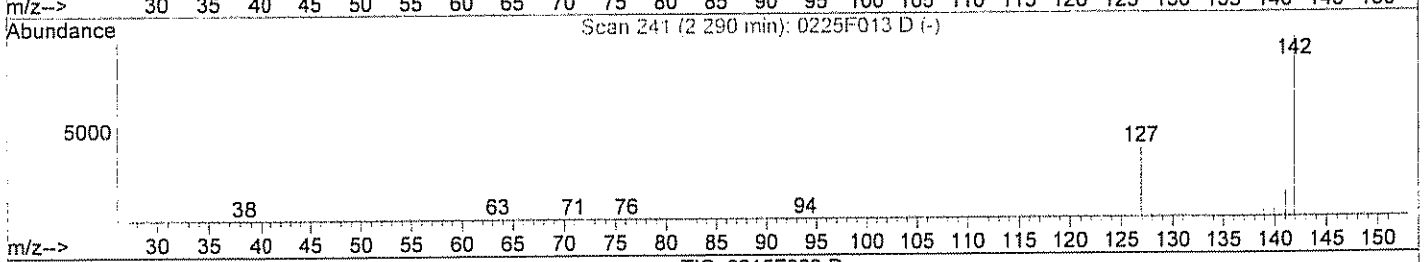
Data File : J:\MS13\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 4:12 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:40 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0315F003.D

(14) Iodomethane (T)

2 29min 29.99PPB m

response 552963

Ion	Exp%	Act%
142 00	100	100
127 00	38 60	40 73
141 00	14 40	14 32
0 00	0 00	0 00

peak tailing

MH 3/17/5

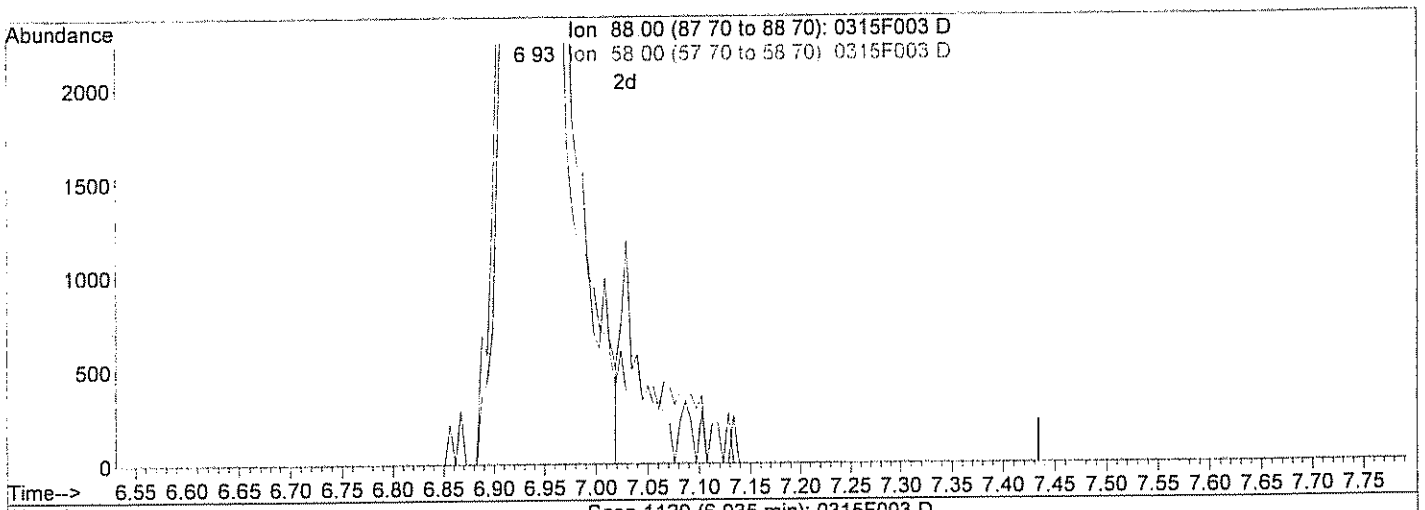
LB 3/16/05

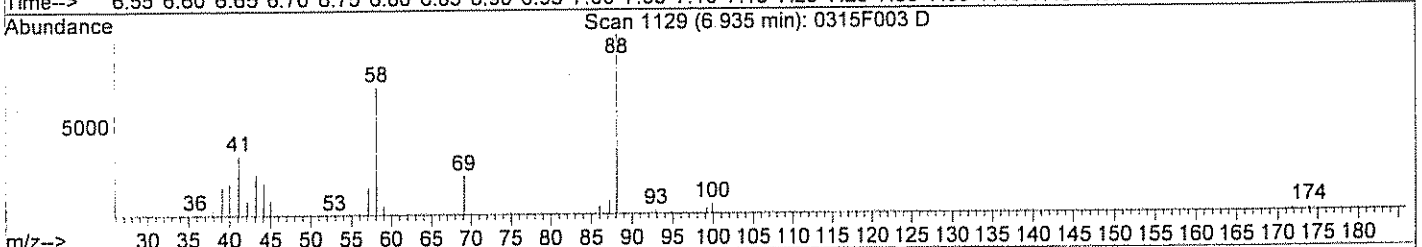
Quantitation Report (Qedit)

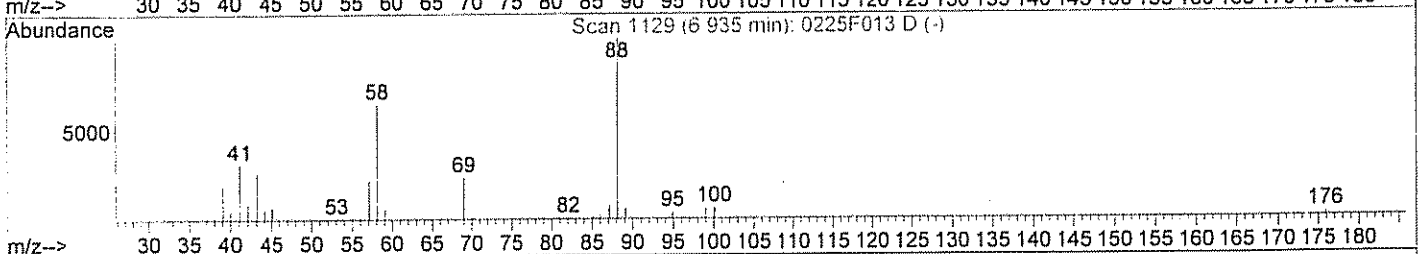
Data File : J:\MS13\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 4:12 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:40 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F003.D

(51) 1.4-Dioxane (T)

6.93min 311.07PPB

response 29146

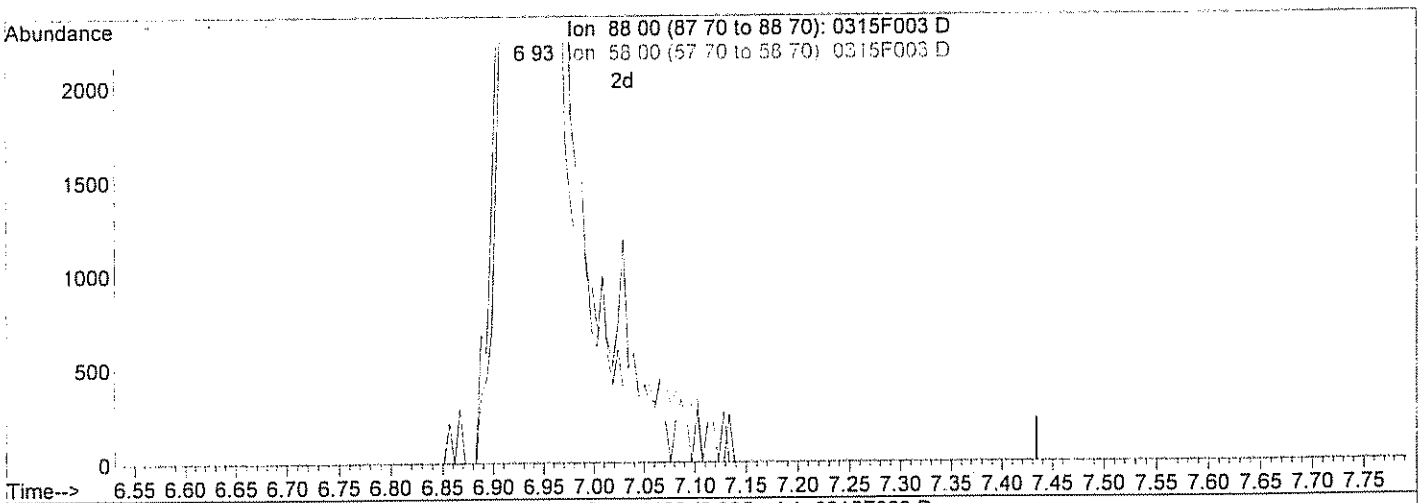
Ion	Exp%	Act%
88.00	100	100
58.00	64.70	72.42
0.00	0.00	0.00
0.00	0.00	0.00

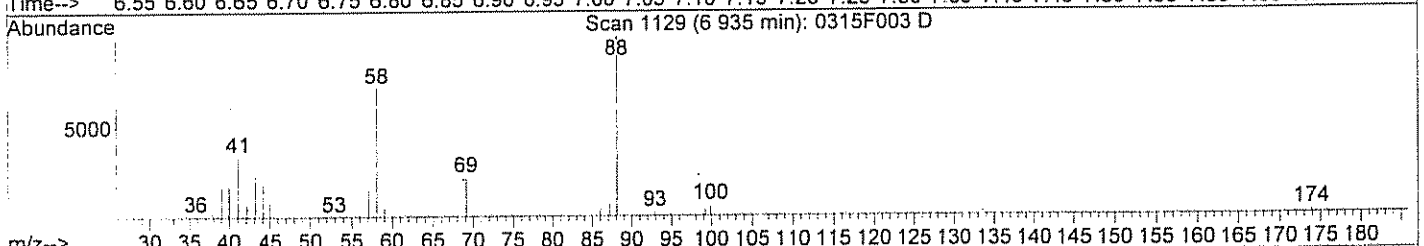
Quantitation Report (Qedit)

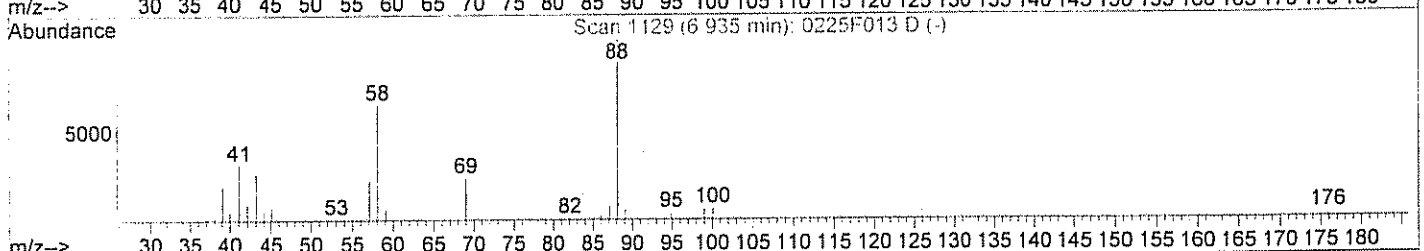
Data File : J:\MS13\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 4:12 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:41 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0315F003 D

(51) 1,4-Dioxane (T)

6 93min 339 55PPB m

response 31814

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	72 42
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing
LB 3/16/05

MH 3/17/5

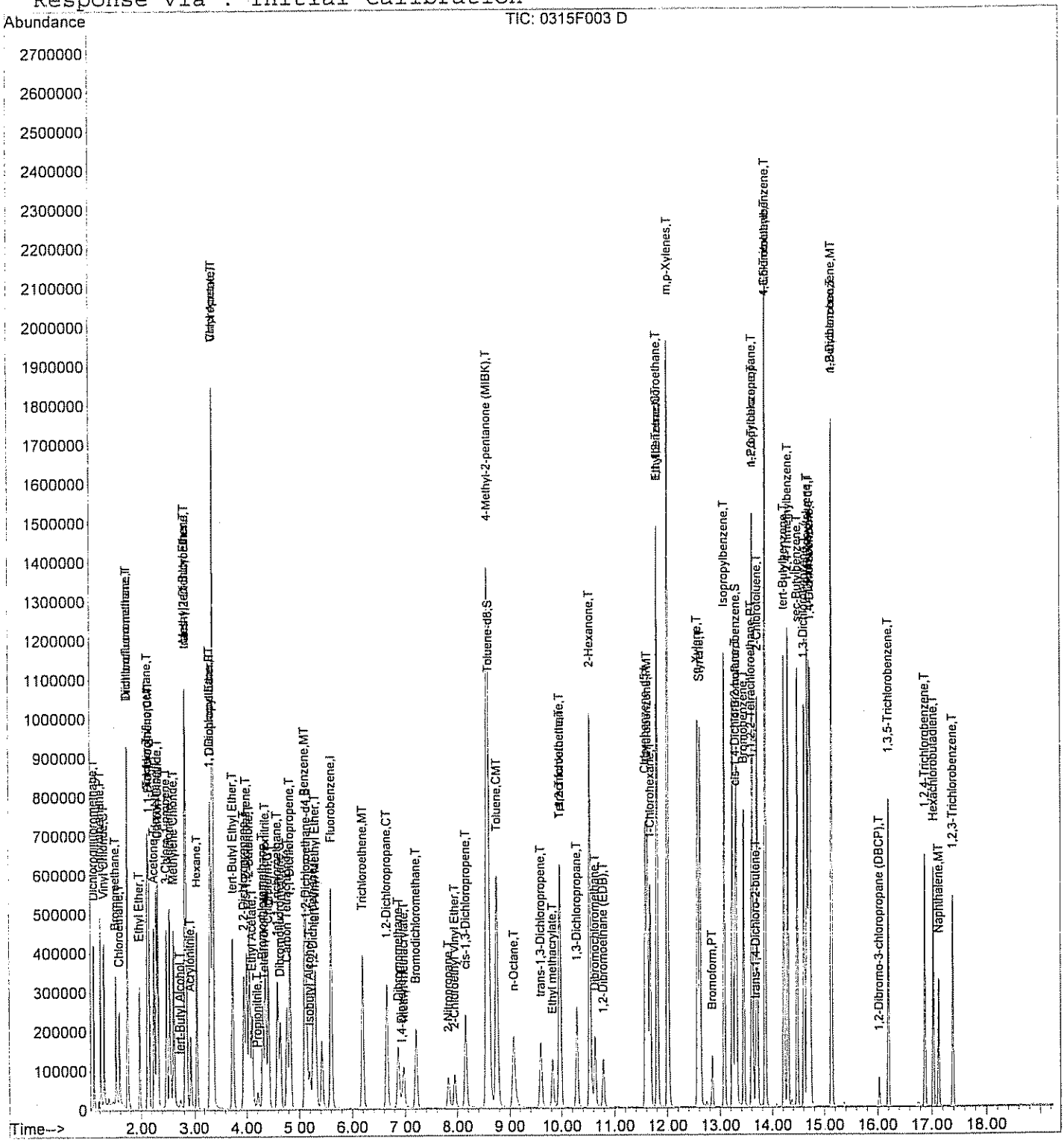
0315F003.D 022505_8260W.M Wed Mar 16 15:41:19 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 4:12 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:41 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Sample Prep and Screen Data

Date: 3/15/05

Columbia Analytical Services, Inc.

Injection Log

MS13 - Agilent 5973

Tune File: BFB1.u

By: LB

New Tune: NO

IS/SS Std. ID: 38VOA-75-B

CCV Std ID: 38VOA-77-C,E

ICAL Date: 2/25/05 CAL425C

LCS/ICV Std ID: 38VOA-75-C,77-A,75C,79-A,7L-E

Second RV: 3/17/5

MS/DMS Std. ID: 4CCLCS

LIMS ID: KW6050427 2/4274/PIP

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	primer	0315F001	82LOW4				
2	50ng BFB	2		5uL/50mL			341 PM 38VOA-77-B
3	82LO CCV W	3		10uL+5uL /50mL		/	
4	0315 LCS W	4				/	10uL+50uL+7.5uL+ 5uL+5uL/50mL
5	1544-5MS	5			<2	/	Spike: 8.5uL+43uL+6.5uL 4.5uL+4.3uL/VOA
6	5DMS	6				/	
7	MRL CHK	7		10uL/50mL			(NP) Not needed 38VOA-78-A
8	MRL CHK	8		25uL/50mL		/	Spiked t-butyl Alc. 50ug/L Alc, 14-Dioxane
9	0315 MB W	9				/	
10	1544-1	10			<2	/	
11	2	11				/	
12	3	12				/	
13	4	13				/	
14	5	14				/	
15	1569-14	15				/	
16	16	16				/	TB ID 29292
17	1606-1	17				/	
18	2	18				/	
19	3	19				/	
20	4	20				/	TB ID 29198
21	1609-1	21				/	
22	2	22				/	
23	3	23				/	TB ID 29196
24	1607-1	24				/	
25	2	25				/	TB ID 28282
26	1534-41 DIL	26		500uL/50mL 100X		/	
27	1B	27				/	
	1534-51 DIL	28		500uL/50mL 100X	<2	/	334 AM

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Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F008.D
Acq On : 15 Mar 2005 6:29 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:42:36 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	653159	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	273986	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	294009	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	150851	9.33	PPB	0.00
Spiked Amount 10.000			Recovery	=	93.30%	
43) 1,2-Dichloroethane-d4	5.15	65	169687	9.32	PPB	0.00
Spiked Amount 10.000			Recovery	=	93.20%	
57) Toluene-d8	8.60	98	683389	9.56	PPB	0.00
Spiked Amount 10.000			Recovery	=	95.60%	
79) 4-Bromofluorobenzene	13.31	95	248803	10.27	PPB	0.00
Spiked Amount 10.000			Recovery	=	102.70%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	47233	2.35	PPB	95
3) Chloromethane	1.22	50	52655	2.08	PPB	99
4) Vinyl Chloride	1.29	62	49830	2.34	PPB	98
5) Bromomethane	1.51	96	29341	2.41	PPB	98
6) Chloroethane	1.58	64	30858	2.42	PPB	93
7) Dichlorofluoromethane	1.74	67	79326	2.57	PPB	96
8) Trichlorofluoromethane	1.74	101	70923	2.52	PPB	97
9) Ethyl Ether	1.97	59	27134	2.34	PPB	97
10) Acrolein	2.12	56	62126	37.17	PPB	94
11) Trichlorotrifluoroethane	2.13	151	35908	2.63	PPB	92
12) 1,1-Dichloroethene	2.15	96	36033	2.44	PPB	93
13) Acetone	2.25	43	111317	44.71	PPB	96
14) Iodomethane	2.29	142	87622	4.81	PPB	99
15) Carbon Disulfide	2.32	76	131977	2.94	PPB	99
16) 3-Chloro-1-propene	2.48	76	18354	2.33	PPB	94
17) Acetonitrile	2.55	40	57054	92.94	PPB	99
18) Methylene Chloride	2.63	84	41778	2.33	PPB	95
19) tert-Butyl Alcohol	2.74	59	5195	10.67	PPB @ 12.5	94
20) Acrylonitrile	2.92	53	30126	9.13	PPB	98
21) Methyl tert-Butyl Ether	2.83	73	138015	3.95	PPB	97
22) trans-1,2-Dichloroethene	2.84	96	42161	2.43	PPB	96
23) Hexane	3.04	57	44184	2.51	PPB	97
24) Diisopropyl Ether	3.33	45	113267	2.22	PPB	100
25) 1,1-Dichloroethane	3.31	63	72716	2.41	PPB	99
26) Vinyl Acetate	3.37	86	8248	3.99	PPB #	84
27) Chloroprene	3.37	53	198674	9.32	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	82699	2.10	PPB	97

(#) = qualifier out of range (m) = manual integration

mt 3/17/5

0315F008.D 022505_8260W.M Wed Mar 16 16:18:42 2005 Page 1

LB 3/16/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F008.D
Acq On : 15 Mar 2005 6:29 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:42:36 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	37204	2.16	PPB		98
30)	cis-1,2-Dichloroethene	4.00	96	44115	2.39	PPB		97
31)	2-Butanone	4.06	72	41410	44.24	PPB		90
32)	Propionitrile	4.21	54	9974	8.54	PPB		97
33)	Ethyl Acetate	4.11	61	9384	8.36	PPB		96
34)	Methacrylonitrile	4.36	67	33278	8.19	PPB		91
35)	Bromochloromethane	4.31	128	19450	2.44	PPB		94
36)	Tetrahydrofuran	4.34	71	2007	1.80	PPB	#	51
37)	Chloroform	4.42	83	72396	2.49	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	55122	2.47	PPB		93
40)	Carbon Tetrachloride	4.77	117	41464	2.54	PPB		97
41)	1,1-Dichloropropene	4.83	75	55052	2.41	PPB		96
42)	Isobutyl Alcohol	5.20	43	16035	80.93	PPB	@100	95
44)	Benzene	5.11	78	168900	2.38	PPB		99
45)	1,2-Dichloroethane	5.26	62	50458	2.48	PPB		97
46)	tert-Amyl Methyl Ether	5.30	55	32084	2.46	PPB	#	54
47)	Trichloroethene	6.20	95	41224	2.38	PPB		98
48)	1,2-Dichloropropane	6.65	63	36482	2.22	PPB		93
49)	Dibromomethane	6.87	93	18919	2.41	PPB		86
50)	Methyl methacrylate	6.98	69	12059	1.83	PPB		97
51)	1,4-Dioxane	6.93	88	6153	66.42	PPB	@100	93
52)	Bromodichloromethane	7.21	83	42976	2.39	PPB		100
53)	2-Nitropropane	7.83	43	14832	11.38	PPB		91
54)	2-Chloroethyl Vinyl Ether	7.94	63	11017	1.56	PPB		96
55)	cis-1,3-Dichloropropene	8.15	75	42353	2.09	PPB		96
56)	4-Methyl-2-pentanone (MIBK	8.57	58	126841	39.92	PPB	#	67
58)	Toluene	8.75	92	107966	2.35	PPB		98
60)	n-Octane	9.07	85	18819	2.63	PPB		93
61)	trans-1,3-Dichloropropene	9.60	75	30251	2.03	PPB		93
62)	Ethyl methacrylate	9.83	69	21248	1.77	PPB		93
63)	1,1,2-Trichloroethane	9.96	83	21929	2.29	PPB		93
64)	Tetrachloroethene	9.98	164	37636	2.45	PPB		95
65)	2-Hexanone	10.54	57	36832	38.35	PPB		94
66)	1,3-Dichloropropane	10.29	76	48848	2.43	PPB		97
67)	Dibromochloromethane	10.64	129	26899	2.50	PPB		97
68)	1,2-Dibromoethane (EDB)	10.79	107	23958	2.32	PPB		87
69)	1-Chlorohexane	11.68	91	39150	2.21	PPB		89
70)	Chlorobenzene	11.63	112	117331	2.36	PPB		98
71)	Ethylbenzene	11.81	106	56620	2.28	PPB		99
72)	1,1,1,2-Tetrachloroethane	11.81	131	31436	2.64	PPB		95
73)	m,p-Xylenes	12.01	106	147828	4.81	PPB		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F008.D
Acq On : 15 Mar 2005 6:29 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:42:36 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	68684	2.40	PPB		99
75)	Styrene	12.62	103	53154	2.29	PPB		94
76)	Bromoform	12.84	173	13135	2.40	PPB		95
77)	Isopropylbenzene	13.08	105	164324	2.37	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	6962	6.59	PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.59	83	26650	2.36	PPB		96
82)	trans-1,4-Dichloro-2-buten	13.68	53	6205	2.13	PPB		82
83)	Bromobenzene	13.45	156	52772	2.62	PPB		97
84)	n-Propylbenzene	13.61	91	200735	2.60	PPB		98
85)	1,2,3-Trichloropropane	13.61	110	8956	2.43	PPB	#	77
86)	2-Chlorotoluene	13.71	91	136740	2.66	PPB		98
87)	1,3,5-Trimethylbenzene	13.86	105	137688	2.49	PPB		97
88)	4-Chlorotoluene	13.86	91	151619	2.58	PPB		98
89)	tert-Butylbenzene	14.22	119	113032	2.52	PPB		97
90)	1,2,4-Trimethylbenzene	14.30	105	131919	2.31	PPB		97
91)	sec-Butylbenzene	14.48	105	149435	2.52	PPB		97
92)	p-Isopropyltoluene	14.67	119	131207	2.34	PPB		97
93)	1,3-Dichlorobenzene	14.61	146	96433	2.43	PPB		98
94)	1,4-Dichlorobenzene	14.73	146	102883	2.51	PPB		97
95)	n-Butylbenzene	15.13	91	106647	2.44	PPB		99
96)	1,2-Dichlorobenzene	15.14	146	90812	2.46	PPB		97
97)	1,2-Dibromo-3-chloropropan	16.03	155	2997	2.23	PPB		79
98)	1,3,5-Trichlorobenzene	16.20	180	60230	2.51	PPB		93
99)	1,2,4-Trichlorobenzene	16.88	180	46086	2.17	PPB		97
100)	Hexachlorobutadiene	17.03	225	32638	3.10	PPB		99
101)	Naphthalene	17.13	128	49632	1.74	PPB		97
102)	1,2,3-Trichlorobenzene	17.38	180	38636	2.19	PPB		94

(#) = qualifier out of range (m) = manual integration

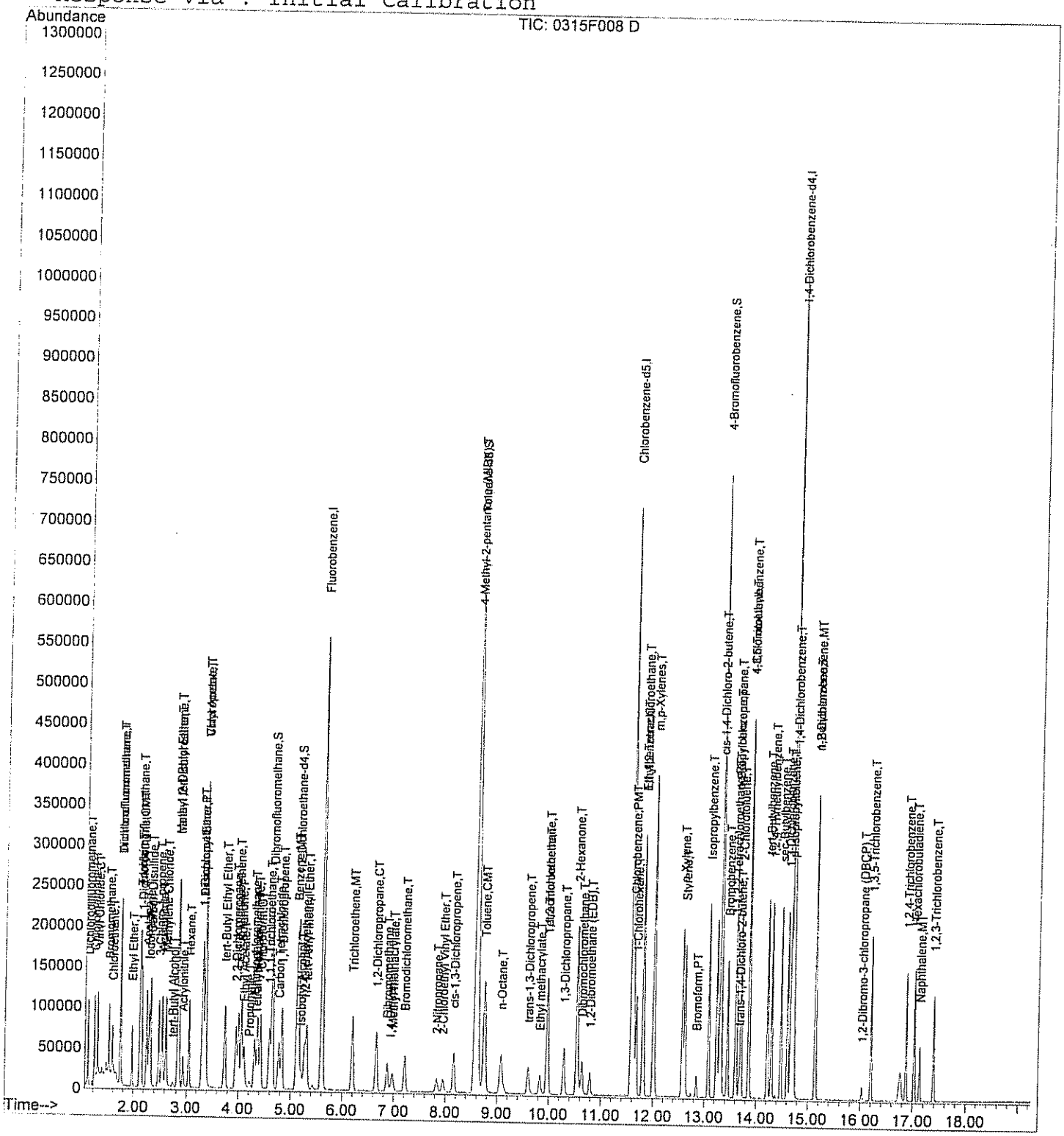
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031505\0315F008.D
Acq On : 15 Mar 2005 6:29 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 15:42 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Polynuclear Aromatic Hydrocarbons
EPA Method 8270C

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Summary Package

Sample and QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
50398-02	K2501544-002	03/02/2005	03/03/2005
50398-03	K2501544-003	03/02/2005	03/03/2005
50398-04	K2501544-004	03/02/2005	03/03/2005
50398-05	K2501544-005	03/02/2005	03/03/2005
50398-05MS	KWG0503522-1	03/02/2005	03/03/2005
50398-05DMS	KWG0503522-2	03/02/2005	03/03/2005

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

Signature: [signature]

Name: Carl Degner

Date: 3/14/05

Title: SVM Supervisor

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/04/2005
Date Analyzed: 03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: 50398-02
Lab Code: K2501544-002
File ID: J:\MS11\DATA\030905\0309F012.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0086**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0053**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	**Phenanthrene**	**0.0048**	J	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	**Benz(a)anthracene**	**0.0041**	J	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.0042**	J	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	71	37-107	03/09/05	Acceptable
Fluoranthene-d10	75	18-137	03/09/05	Acceptable
Terphenyl-d14	84	18-153	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F013.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.018**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0049**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.030	Ui	0.030	0.030	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	54	37-107	03/09/05	Acceptable
Fluoranthene-d10	79	18-137	03/09/05	Acceptable
Terphenyl-d14	72	18-153	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/04/2005
Date Analyzed: 03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: 50398-04
Lab Code: K2501544-004
File ID: J:\MS11\DATA\030905\0309F014.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.019**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0047**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.030	Ui	0.030	0.030	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	45	37-107	03/09/05	Acceptable
Fluoranthene-d10	67	18-137	03/09/05	Acceptable
Terphenyl-d14	67	18-153	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F011.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0065**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	**Anthracene**	**0.0067**	J	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	72	37-107	03/09/05	Acceptable
Fluoranthene-d10	78	18-137	03/09/05	Acceptable
Terphenyl-d14	87	18-153	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/04/2005
Date Analyzed: 03/08/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: Method Blank
Lab Code: KWG0503522-4
File ID: J:\MS11\DATA\030805\0308F006.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0054**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	73	37-107	03/08/05	Acceptable
Fluoranthene-d10	74	18-137	03/08/05	Acceptable
Terphenyl-d14	79	18-153	03/08/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50398-02	K2501544-002	71	75	84
50398-03	K2501544-003	54	79	72
50398-04	K2501544-004	45	67	67
50398-05	K2501544-005	72	78	87
Method Blank	KWG0503522-4	73	74	79
50398-05MS	KWG0503522-1	71	74	78
50398-05DMS	KWG0503522-2	83	87	94
Lab Control Sample	KWG0503522-3	78	80	80

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	37-107
Sur2 =	Fluoranthene-d10	18-137
Sur3 =	Terphenyl-d14	18-153

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/08/2005
		Time Analyzed:	06:48

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030805\0308F003.D	**Lab Code:**	KWG0503808-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0503808
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Results ==>	232,658	5.06	186,739	6.50	313,686	7.71
	Upper Limit ==>	465,316	5.56	373,478	7.00	627,372	8.21
	Lower Limit ==>	116,329	4.56	93,370	6.00	156,843	7.21
	ICAL Result ==>	203,867	5.06	167,499	6.50	264,803	7.71
Associated Analyses							
Method Blank	KWG0503522-4	245,120	5.06	193,795	6.49	318,556	7.72

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/08/2005
		Time Analyzed:	06:48

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030805\0308F003.D	**Lab Code:**	KWG0503808-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0503808
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	281,088	10.62	265,128	14.56
	Upper Limit ==>	562,176	11.12	530,256	15.06
	Lower Limit ==>	140,544	10.12	132,564	14.06
	ICAL Result ==>	213,362	10.61	173,446	14.55
Associated Analyses					
Method Blank	KWG0503522-4	279,619	10.61	256,863	14.55

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005
Time Analyzed: 07:33

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\030905\0309F002.D
Instrument ID: MS11
Analysis Method: 8270C SIM

Lab Code: KWG0504050-2
Analysis Lot: KWG0504050

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Results ==>	246,614	5.06	186,852	6.50	306,166	7.72
	Upper Limit ==>	493,228	5.56	373,704	7.00	612,332	8.22
	Lower Limit ==>	123,307	4.56	93,426	6.00	153,083	7.22
	ICAL Result ==>	203,867	5.06	167,499	6.50	264,803	7.71
Associated Analyses							
Lab Control Sample	KWG0503522-3	282,434	5.06	210,444	6.49	339,545	7.72
50398-05MS	KWG0503522-1	285,782	5.06	212,908	6.50	348,625	7.71
50398-05DMS	KWG0503522-2	300,141	5.06	213,806	6.50	353,753	7.72
50398-05	K2501544-005	248,676	5.06	193,894	6.50	306,927	7.71
50398-02	K2501544-002	253,518	5.06	194,489	6.49	309,531	7.71
50398-03	K2501544-003	282,937	5.06	299,742	6.50	351,060	7.71
50398-04	K2501544-004	284,721	5.06	291,146	6.50	334,969	7.71

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/09/2005
		Time Analyzed:	07:33

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030905\0309F002.D	**Lab Code:**	KWG0504050-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504050
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	RT	Area	RT
	Results ==>	262,521	10.62	223,502	14.56
	Upper Limit ==>	525,042	11.12	447,004	15.06
	Lower Limit ==>	131,261	10.12	111,751	14.06
	ICAL Result ==>	213,362	10.61	173,446	14.55
Associated Analyses					
Lab Control Sample	KWG0503522-3	339,885	10.62	312,848	14.56
50398-05MS	KWG0503522-1	340,979	10.62	309,182	14.56
50398-05DMS	KWG0503522-2	337,994	10.62	311,869	14.58
50398-05	K2501544-005	283,680	10.62	250,486	14.56
50398-02	K2501544-002	276,354	10.62	247,699	14.56
50398-03	K2501544-003	305,940	10.62	274,758	14.56
50398-04	K2501544-004	296,477	10.62	262,596	14.56

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

		50398-05MS KWG0503522-1 Matrix Spike			50398-05DMS KWG0503522-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	0.0065	2.25	2.40	93	2.15	2.40	89	20-117	4	30
2-Methylnaphthalene	ND	2.02	2.40	84	1.87	2.40	78	19-121	8	30
Acenaphthylene	ND	2.44	2.40	101	2.37	2.40	98	25-121	3	30
Acenaphthene	ND	2.29	2.40	95	2.20	2.40	92	28-119	4	30
Dibenzofuran	ND	2.30	2.40	96	2.21	2.40	92	10-148	4	30
Fluorene	ND	2.44	2.40	102	2.35	2.40	98	12-147	4	30
Phenanthrene	ND	2.27	2.40	94	2.23	2.40	93	27-127	2	30
Anthracene	0.0067	2.47	2.40	102	2.40	2.40	100	35-124	3	30
Fluoranthene	ND	2.44	2.40	102	2.37	2.40	99	32-137	3	30
Pyrene	ND	2.17	2.40	90	2.18	2.40	91	27-143	0	30
Benz(a)anthracene	ND	2.60	2.40	108	2.43	2.40	101	37-131	7	30
Chrysene	ND	2.34	2.40	97	2.15	2.40	90	37-133	8	30
Benzo(b)fluoranthene	ND	2.43	2.40	101	2.19	2.40	91	39-129	10	30
Benzo(k)fluoranthene	ND	2.34	2.40	97	2.15	2.40	90	40-131	8	30
Benzo(a)pyrene	ND	2.55	2.40	106	2.36	2.40	98	40-126	7	30
Indeno(1,2,3-cd)pyrene	ND	2.78	2.40	116	2.66	2.40	111	34-130	4	30
Dibenz(a,h)anthracene	ND	2.67	2.40	111	2.49	2.40	104	35-129	7	30
Benzo(g,h,i)perylene	ND	2.40	2.40	100	2.23	2.40	93	39-124	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3535	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0503522

	Lab Control Sample KWG0503522-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Naphthalene	2.26	2.50	91	42-108
2-Methylnaphthalene	2.05	2.50	82	29-121
Acenaphthylene	2.46	2.50	99	40-112
Acenaphthene	2.35	2.50	94	42-115
Dibenzofuran	2.38	2.50	95	34-121
Fluorene	2.54	2.50	102	47-117
Phenanthrene	2.41	2.50	96	50-115
Anthracene	2.62	2.50	105	54-118
Fluoranthene	2.61	2.50	104	50-127
Pyrene	2.24	2.50	90	45-133
Benz(a)anthracene	2.60	2.50	104	44-127
Chrysene	2.41	2.50	96	36-137
Benzo(b)fluoranthene	2.41	2.50	96	47-127
Benzo(k)fluoranthene	2.36	2.50	94	30-144
Benzo(a)pyrene	2.59	2.50	104	36-136
Indeno(1,2,3-cd)pyrene	2.87	2.50	115	20-150
Dibenz(a,h)anthracene	2.73	2.50	109	50-127
Benzo(g,h,i)perylene	2.43	2.50	97	56-119

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/08/2005
		Time Analyzed:	08:07

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**File ID:**	J:\MS11\DATA\030805\0308F006.D
Lab Code:	KWG0503522-4	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503522-3	J:\MS11\DATA\030905\0309F008.D	03/09/05	10:14
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/05	10:42
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/05	11:09
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/05	11:37
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/05	12:04
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/05	12:31
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/05	12:58

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005
		Time Analyzed:	10:14

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**File ID:**	J:\MS11\DATA\030905\0309F008.D
Lab Code:	KWG0503522-3	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503522-4	J:\MS11\DATA\030805\0308F006.D	03/08/05	08:07
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/05	10:42
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/05	11:09
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/05	11:37
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/05	12:04
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/05	12:31
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/05	12:58

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/08/2005
Time Analyzed: 06:30

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\030805\0308F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0503808

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	37.3	414272	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	38.6	428672	PASS
70	69	0	2	0.5	2121	PASS
127	198	10	80	45.2	501504	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	51.9	1110528	PASS
199	198	5	9	6.8	75016	PASS
275	198	10	60	35.0	388672	PASS
365	442	1	50	2.8	59296	PASS
441	443	0	100	74.9	313152	PASS
442	442	100	100	100.0	2139648	PASS
443	442	15	24	19.6	418304	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0503808-2	J:\MS11\DATA\030805\0308F003.D	03/08/2005	06:48	
Method Blank	KWG0503522-4	J:\MS11\DATA\030805\0308F006.D	03/08/2005	08:07	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005
Time Analyzed: 07:15

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\030905\0309F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504050

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	31.2	310272	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	32.5	322624	PASS
70	69	0	2	0.5	1732	PASS
127	198	10	80	43.3	429504	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	42.1	992960	PASS
199	198	5	9	6.7	66680	PASS
275	198	10	60	36.1	358848	PASS
365	442	1	50	2.8	65240	PASS
441	443	0	100	74.1	343104	PASS
442	442	100	100	100.0	2359296	PASS
443	442	15	24	19.6	462976	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504050-2	J:\MS11\DATA\030905\0309F002.D	03/09/2005	07:33	
Lab Control Sample	KWG0503522-3	J:\MS11\DATA\030905\0309F008.D	03/09/2005	10:14	
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/2005	10:42	
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/2005	11:09	
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/2005	11:37	
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/2005	12:04	
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/2005	12:31	
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/2005	12:58	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS11\DATA\030505\0305F004.D	E	J:\MS11\DATA\030505\0305F008.D
B	J:\MS11\DATA\030505\0305F005.D	F	J:\MS11\DATA\030505\0305F009.D
C	J:\MS11\DATA\030505\0305F006.D	G	J:\MS11\DATA\030505\0305F010.D
D	J:\MS11\DATA\030505\0305F007.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	4.0	1.17	B	20	1.13	C	100	1.07	D	200	1.07	E	400	1.13
	F	1000	1.10	G	1600	1.10									
2-Methylnaphthalene	A	4.0	0.938	B	20	0.971	C	100	0.968	D	200	0.973	E	400	1.04
	F	1000	0.995	G	1600	1.02									
Acenaphthylene	A	4.0	1.79	B	20	1.74	C	100	1.76	D	200	1.82	E	400	1.96
	F	1000	1.96	G	1600	1.94									
Acenaphthene	A	4.0	1.16	B	20	1.17	C	100	1.11	D	200	1.12	E	400	1.18
	F	1000	1.16	G	1600	1.14									
Dibenzofuran	A	4.0	1.69	B	20	1.66	C	100	1.59	D	200	1.62	E	400	1.72
	F	1000	1.67	G	1600	1.67									
Fluorene	A	4.0	1.25	B	20	1.27	C	100	1.27	D	200	1.28	E	400	1.41
	F	1000	1.38	G	1600	1.38									
Phenanthrene	A	4.0	1.25	B	20	1.20	C	100	1.11	D	200	1.14	E	400	1.25
	F	1000	1.17	G	1600	1.14									
Anthracene	A	4.0	1.05	B	20	0.986	C	100	0.971	D	200	1.05	E	400	1.16
	F	1000	1.16	G	1600	1.14									
Fluoranthene	A	4.0	1.18	B	20	1.18	C	100	1.15	D	200	1.25	E	400	1.37
	F	1000	1.32	G	1600	1.22									
Pyrene	A	4.0	1.63	B	20	1.60	C	100	1.49	D	200	1.50	E	400	1.49
	F	1000	1.33	G	1600	1.26									
Benz(a)anthracene	A	4.0	1.19	B	20	1.09	C	100	1.05	D	200	1.10	E	400	1.20
	F	1000	1.21	G	1600	1.23									
Chrysene	A	4.0	1.25	B	20	1.24	C	100	1.19	D	200	1.21	E	400	1.27
	F	1000	1.24	G	1600	1.24									
Benzo(b)fluoranthene	A	4.0	1.21	B	20	1.23	C	100	1.22	D	200	1.35	E	400	1.47
	F	1000	1.50	G	1600	1.46									
Benzo(k)fluoranthene	A	4.0	1.20	B	20	1.20	C	100	1.30	D	200	1.40	E	400	1.57
	F	1000	1.55	G	1600	1.55									

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene	A	4.0	0.977	B	20	0.977	C	100	1.00	D	200	1.11	E	400	1.27
	F	1000	1.31	G	1600	1.33									
Indeno(1,2,3-cd)pyrene	A	4.0	0.838	B	20	0.807	C	100	0.802	D	200	0.862	E	400	0.973
	F	1000	1.05	G	1600	1.09									
Dibenz(a,h)anthracene	A	4.0	0.883	B	20	0.875	C	100	0.914	D	200	1.02	E	400	1.09
	F	1000	1.15	G	1600	1.14									
Benzo(g,h,i)perylene	A	4.0	1.26	B	20	1.24	C	100	1.19	D	200	1.26	E	400	1.37
	F	1000	1.32	G	1600	1.28									
Fluorene-d10	A	4.0	1.29	B	20	1.29	C	100	1.31	D	200	1.33	E	400	1.43
	F	1000	1.39	G	1600	1.37									
Fluoranthene-d10	A	4.0	1.32	B	20	1.29	C	100	1.31	D	200	1.35	E	400	1.50
	F	1000	1.44	G	1600	1.35									
Terphenyl-d14	A	4.0	1.21	B	20	1.18	C	100	1.11	D	200	1.13	E	400	1.16
	F	1000	1.08	G	1600	1.06									

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

		Calibration Evaluation					RRF Evaluation		
Analyte Name	Compound Type	Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Naphthalene	MS	AverageRF	% RSD	3.1		≤ 15	1.11		0.01
2-Methylnaphthalene	MS	AverageRF	% RSD	3.6		≤ 15	0.987		0.01
Acenaphthylene	MS	AverageRF	% RSD	5.3		≤ 15	1.85		0.01
Acenaphthene	MS	AverageRF	% RSD	2.1		≤ 15	1.15		0.01
Dibenzofuran	MS	AverageRF	% RSD	2.5		≤ 15	1.66		0.01
Fluorene	MS	AverageRF	% RSD	5.0		≤ 15	1.32		0.01
Phenanthrene	MS	AverageRF	% RSD	4.7		≤ 15	1.18		0.01
Anthracene	MS	AverageRF	% RSD	7.6		≤ 15	1.07		0.01
Fluoranthene	MS	AverageRF	% RSD	6.3		≤ 15	1.24		0.01
Pyrene	MS	AverageRF	% RSD	9.0		≤ 15	1.47		0.01
Benz(a)anthracene	MS	AverageRF	% RSD	6.1		≤ 15	1.15		0.01
Chrysene	MS	AverageRF	% RSD	2.2		≤ 15	1.24		0.01
Benzo(b)fluoranthene	MS	AverageRF	% RSD	9.4		≤ 15	1.35		0.01
Benzo(k)fluoranthene	MS	AverageRF	% RSD	11.8		≤ 15	1.40		0.01
Benzo(a)pyrene	MS	AverageRF	% RSD	14.1		≤ 15	1.14		0.01
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	13.0		≤ 15	0.918		0.01
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	11.8		≤ 15	1.01		0.01
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	4.5		≤ 15	1.27		0.01
Fluorene-d10	SURR	AverageRF	% RSD	3.9		≤ 15	1.34		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	5.5		≤ 15	1.37		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	4.7		≤ 15	1.13		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005
Date Analyzed: 03/05/2005

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration ID: CAL4271
Units: ng/ml

File ID: J:\MS11\DATA\030505\0305G011.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	1.11	1.07	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	180	0.987	0.893	-10	NA	± 20 %	AverageRF
Acenaphthylene	200	200	1.85	1.82	-2	NA	± 20 %	AverageRF
Acenaphthene	200	200	1.15	1.12	-2	NA	± 20 %	AverageRF
Dibenzofuran	200	190	1.66	1.61	-3	NA	± 20 %	AverageRF
Fluorene	200	200	1.32	1.31	-1	NA	± 20 %	AverageRF
Phenanthrene	200	190	1.18	1.13	-5	NA	± 20 %	AverageRF
Anthracene	200	190	1.07	1.03	-4	NA	± 20 %	AverageRF
Fluoranthene	200	190	1.24	1.21	-3	NA	± 20 %	AverageRF
Pyrene	200	200	1.47	1.46	-1	NA	± 20 %	AverageRF
Benz(a)anthracene	200	190	1.15	1.08	-7	NA	± 20 %	AverageRF
Chrysene	200	200	1.24	1.22	-1	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	1.35	1.33	-2	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	1.40	1.40	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	1.14	1.13	-1	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	180	0.918	0.843	-8	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	190	1.01	0.934	-7	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	190	1.27	1.24	-3	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/08/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/05/2005
Calibration ID: CAL4271
Analysis Lot: KWG0503808
Units: ng/ml

File ID: J:\MS11\DATA\030805\0308F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	100	97	0.01	1.11	1.08	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	100	95	0.01	0.987	0.936	-5	NA	± 20 %	AverageRF
Acenaphthylene	100	100	0.01	1.85	1.90	2	NA	± 20 %	AverageRF
Acenaphthene	100	99	0.01	1.15	1.13	-1	NA	± 20 %	AverageRF
Dibenzofuran	100	99	0.01	1.66	1.64	-1	NA	± 20 %	AverageRF
Fluorene	100	100	0.01	1.32	1.36	3	NA	± 20 %	AverageRF
Phenanthrene	100	93	0.01	1.18	1.10	-7	NA	± 20 %	AverageRF
Anthracene	100	100	0.01	1.07	1.10	3	NA	± 20 %	AverageRF
Fluoranthene	100	97	0.01	1.24	1.20	-3	NA	± 20 %	AverageRF
Pyrene	100	94	0.01	1.47	1.39	-6	NA	± 20 %	AverageRF
Benz(a)anthracene	100	100	0.01	1.15	1.17	1	NA	± 20 %	AverageRF
Chrysene	100	97	0.01	1.24	1.20	-3	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	100	95	0.01	1.35	1.28	-5	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	100	90	0.01	1.40	1.26	-10	NA	± 20 %	AverageRF
Benzo(a)pyrene	100	98	0.01	1.14	1.12	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	100	110	0.01	0.918	1.05	15	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	100	110	0.01	1.01	1.06	5	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	100	97	0.01	1.27	1.24	-3	NA	± 20 %	AverageRF
Fluorene-d10	100	100	0.01	1.34	1.36	1	NA	± 20 %	AverageRF
Fluoranthene-d10	100	97	0.01	1.37	1.33	-3	NA	± 20 %	AverageRF
Terphenyl-d14	100	94	0.01	1.13	1.06	-6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/05/2005
Calibration ID: CAL4271
Analysis Lot: KWG0504050
Units: ng/ml

File ID: J:\MS11\DATA\030905\0309F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	100	98	0.01	1.11	1.09	-2	NA	± 20 %	AverageRF
2-Methylnaphthalene	100	93	0.01	0.987	0.913	-7	NA	± 20 %	AverageRF
Acenaphthylene	100	99	0.01	1.85	1.84	-1	NA	± 20 %	AverageRF
Acenaphthene	100	99	0.01	1.15	1.14	-1	NA	± 20 %	AverageRF
Dibenzofuran	100	98	0.01	1.66	1.63	-2	NA	± 20 %	AverageRF
Fluorene	100	100	0.01	1.32	1.34	2	NA	± 20 %	AverageRF
Phenanthrene	100	96	0.01	1.18	1.14	-4	NA	± 20 %	AverageRF
Anthracene	100	99	0.01	1.07	1.07	-1	NA	± 20 %	AverageRF
Fluoranthene	100	95	0.01	1.24	1.17	-5	NA	± 20 %	AverageRF
Pyrene	100	97	0.01	1.47	1.44	-3	NA	± 20 %	AverageRF
Benz(a)anthracene	100	94	0.01	1.15	1.08	-6	NA	± 20 %	AverageRF
Chrysene	100	96	0.01	1.24	1.19	-4	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	100	91	0.01	1.35	1.22	-9	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	100	92	0.01	1.40	1.28	-8	NA	± 20 %	AverageRF
Benzo(a)pyrene	100	93	0.01	1.14	1.06	-7	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	100	88	0.01	0.918	0.809	-12	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	100	91	0.01	1.01	0.916	-9	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	100	89	0.01	1.27	1.14	-11	NA	± 20 %	AverageRF
Fluorene-d10	100	100	0.01	1.34	1.35	0	NA	± 20 %	AverageRF
Fluoranthene-d10	100	93	0.01	1.37	1.27	-7	NA	± 20 %	AverageRF
Terphenyl-d14	100	94	0.01	1.13	1.06	-6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center **Service Request:** K2501544
Project: UST 43435 Camp Pendelton/201-0105

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270C SIM **Analysis Lot:** KWG0503808
Instrument ID: MS11

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0308F001.D	GC/MS Tuning - Decafluorotripheny	KWG0503808-1	3/8/2005	06:30		3/8/2005	06:42
0308F003.D	Continuing Calibration Verification	KWG0503808-2	3/8/2005	06:48		3/8/2005	07:07
0308F004.D	Instrument Blank	KWG0503808-3	3/8/2005	07:14		3/8/2005	07:33
0308F005.D	ZZZZZZ	ZZZZZZ	3/8/2005	07:41		3/8/2005	08:00
0308F006.D	Method Blank	KWG0503522-4	3/8/2005	08:07		3/8/2005	08:26
0308F007.D	ZZZZZZ	ZZZZZZ	3/8/2005	08:35		3/8/2005	08:54
0308F008.D	ZZZZZZ	ZZZZZZ	3/8/2005	09:02		3/8/2005	09:21
0308F009.D	ZZZZZZ	ZZZZZZ	3/8/2005	09:29		3/8/2005	09:48
0308F010.D	ZZZZZZ	ZZZZZZ	3/8/2005	09:56		3/8/2005	10:15
0308F011.D	ZZZZZZ	ZZZZZZ	3/8/2005	10:23		3/8/2005	10:42
0308F012.D	ZZZZZZ	ZZZZZZ	3/8/2005	12:13		3/8/2005	12:32
0308F013.D	ZZZZZZ	ZZZZZZ	3/8/2005	12:39		3/8/2005	12:58
0308F014.D	ZZZZZZ	ZZZZZZ	3/8/2005	13:06		3/8/2005	13:25
0308F015.D	ZZZZZZ	ZZZZZZ	3/8/2005	13:32		3/8/2005	13:51
0308F016.D	ZZZZZZ	ZZZZZZ	3/8/2005	13:59		3/8/2005	14:18
0308F017.D	ZZZZZZ	ZZZZZZ	3/8/2005	14:25		3/8/2005	14:44
0308F018.D	ZZZZZZ	ZZZZZZ	3/8/2005	14:52		3/8/2005	15:11
0308F019.D	ZZZZZZ	ZZZZZZ	3/8/2005	15:19		3/8/2005	15:38
0308F020.D	ZZZZZZ	ZZZZZZ	3/8/2005	15:45		3/8/2005	16:04
0308F021.D	ZZZZZZ	ZZZZZZ	3/8/2005	16:12		3/8/2005	16:31
0308F022.D	ZZZZZZ	ZZZZZZ	3/8/2005	16:40		3/8/2005	16:59
0308F023.D	ZZZZZZ	ZZZZZZ	3/8/2005	17:06		3/8/2005	17:25
0308F024.D	ZZZZZZ	ZZZZZZ	3/8/2005	17:33		3/8/2005	17:52
0308F025.D	ZZZZZZ	ZZZZZZ	3/8/2005	18:00		3/8/2005	18:19
0308F026.D	ZZZZZZ	ZZZZZZ	3/8/2005	18:26		3/8/2005	18:45

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270C SIM

Analysis Lot: KWG0504050
Instrument ID: MS11

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0309F001.D	GC/MS Tuning - Decafluorotripheny	KWG0504050-1	3/9/2005	07:15		3/9/2005	07:27
0309F002.D	Continuing Calibration Verification	KWG0504050-2	3/9/2005	07:33		3/9/2005	07:52
0309F003.D	Instrument Blank	KWG0504050-3	3/9/2005	07:59		3/9/2005	08:18
0309F006.D	ZZZZZZ	ZZZZZZ	3/9/2005	09:21		3/9/2005	09:40
0309F007.D	ZZZZZZ	ZZZZZZ	3/9/2005	09:48		3/9/2005	10:07
0309F008.D	Lab Control Sample	KWG0503522-3	3/9/2005	10:14		3/9/2005	10:33
0309F009.D	50398-05MS	KWG0503522-1	3/9/2005	10:42		3/9/2005	11:01
0309F010.D	50398-05DMS	KWG0503522-2	3/9/2005	11:09		3/9/2005	11:28
0309F011.D	50398-05	K2501544-005	3/9/2005	11:37		3/9/2005	11:56
0309F012.D	50398-02	K2501544-002	3/9/2005	12:04		3/9/2005	12:23
0309F013.D	50398-03	K2501544-003	3/9/2005	12:31		3/9/2005	12:50
0309F014.D	50398-04	K2501544-004	3/9/2005	12:58		3/9/2005	13:17
0309F015.D	ZZZZZZ	ZZZZZZ	3/9/2005	13:25		3/9/2005	13:44
0309F016.D	ZZZZZZ	ZZZZZZ	3/9/2005	13:52		3/9/2005	14:11
0309F017.D	ZZZZZZ	ZZZZZZ	3/9/2005	14:19		3/9/2005	14:38
0309F018.D	ZZZZZZ	ZZZZZZ	3/9/2005	14:46		3/9/2005	15:05

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Extracted: 03/04/2005

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50398-02	K2501544-002	03/02/05	03/03/05	1040ml	5ml	NA	
50398-03	K2501544-003	03/02/05	03/03/05	1040ml	5ml	NA	
50398-04	K2501544-004	03/02/05	03/03/05	1040ml	5ml	NA	
50398-05	K2501544-005	03/02/05	03/03/05	1040ml	5ml	NA	
Method Blank	KWG0503522-4	NA	NA	1040ml	5ml	NA	
50398-05MS	KWG0503522-1	03/02/05	03/03/05	1040ml	5ml	NA	
50398-05DMS	KWG0503522-2	03/02/05	03/03/05	1040ml	5ml	NA	
Lab Control Sample	KWG0503522-3	NA	NA	1000ml	5ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50398-02	K2501544-002	71	75	84
50398-03	K2501544-003	54	79	72
50398-04	K2501544-004	45	67	67
50398-05	K2501544-005	72	78	87
Method Blank	KWG0503522-4	73	74	79
50398-05MS	KWG0503522-1	71	74	78
50398-05DMS	KWG0503522-2	83	87	94
Lab Control Sample	KWG0503522-3	78	80	80

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	37-107
Sur2 =	Fluoranthene-d10	18-137
Sur3 =	Terphenyl-d14	18-153

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/08/2005
		Time Analyzed:	06:48

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030805\0308F003.D	**Lab Code:**	KWG0503808-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0503808
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	232,658	5.06	186,739	6.50	313,686	7.71
	Upper Limit ==>	465,316	5.56	373,478	7.00	627,372	8.21
	Lower Limit ==>	116,329	4.56	93,370	6.00	156,843	7.21
	ICAL Result ==>	203,867	5.06	167,499	6.50	264,803	7.71
Associated Analyses							
Method Blank	KWG0503522-4	245,120	5.06	193,795	6.49	318,556	7.72

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/08/2005
		Time Analyzed:	06:48

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030805\0308F003.D	**Lab Code:**	KWG0503808-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0503808
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	281,088	10.62	265,128	14.56
	Upper Limit ==>	562,176	11.12	530,256	15.06
	Lower Limit ==>	140,544	10.12	132,564	14.06
	ICAL Result ==>	213,362	10.61	173,446	14.55
Associated Analyses					
Method Blank	KWG0503522-4	279,619	10.61	256,863	14.55

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/09/2005
		Time Analyzed:	07:33

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030905\0309F002.D	**Lab Code:**	KWG0504050-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504050
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	246,614	5.06	186,852	6.50	306,166	7.72
	Upper Limit ==>	493,228	5.56	373,704	7.00	612,332	8.22
	Lower Limit ==>	123,307	4.56	93,426	6.00	153,083	7.22
	ICAL Result ==>	203,867	5.06	167,499	6.50	264,803	7.71
Associated Analyses							
Lab Control Sample	KWG0503522-3	282,434	5.06	210,444	6.49	339,545	7.72
50398-05MS	KWG0503522-1	285,782	5.06	212,908	6.50	348,625	7.71
50398-05DMS	KWG0503522-2	300,141	5.06	213,806	6.50	353,753	7.72
50398-05	K2501544-005	248,676	5.06	193,894	6.50	306,927	7.71
50398-02	K2501544-002	253,518	5.06	194,489	6.49	309,531	7.71
50398-03	K2501544-003	282,937	5.06	299,742	6.50	351,060	7.71
50398-04	K2501544-004	284,721	5.06	291,146	6.50	334,969	7.71

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/09/2005
		Time Analyzed:	07:33

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\030905\0309F002.D	**Lab Code:**	KWG0504050-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504050
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	262,521	10.62	223,502	14.56
	Upper Limit ==>	525,042	11.12	447,004	15.06
	Lower Limit ==>	131,261	10.12	111,751	14.06
	ICAL Result ==>	213,362	10.61	173,446	14.55
Associated Analyses					
Lab Control Sample	KWG0503522-3	339,885	10.62	312,848	14.56
50398-05MS	KWG0503522-1	340,979	10.62	309,182	14.56
50398-05DMS	KWG0503522-2	337,994	10.62	311,869	14.58
50398-05	K2501544-005	283,680	10.62	250,486	14.56
50398-02	K2501544-002	276,354	10.62	247,699	14.56
50398-03	K2501544-003	305,940	10.62	274,758	14.56
50398-04	K2501544-004	296,477	10.62	262,596	14.56

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

		50398-05MS KWG0503522-1 Matrix Spike			50398-05DMS KWG0503522-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	0.0065	2.25	2.40	93	2.15	2.40	89	20-117	4	30
2-Methylnaphthalene	ND	2.02	2.40	84	1.87	2.40	78	19-121	8	30
Acenaphthylene	ND	2.44	2.40	101	2.37	2.40	98	25-121	3	30
Acenaphthene	ND	2.29	2.40	95	2.20	2.40	92	28-119	4	30
Dibenzofuran	ND	2.30	2.40	96	2.21	2.40	92	10-148	4	30
Fluorene	ND	2.44	2.40	102	2.35	2.40	98	12-147	4	30
Phenanthrene	ND	2.27	2.40	94	2.23	2.40	93	27-127	2	30
Anthracene	0.0067	2.47	2.40	102	2.40	2.40	100	35-124	3	30
Fluoranthene	ND	2.44	2.40	102	2.37	2.40	99	32-137	3	30
Pyrene	ND	2.17	2.40	90	2.18	2.40	91	27-143	0	30
Benz(a)anthracene	ND	2.60	2.40	108	2.43	2.40	101	37-131	7	30
Chrysene	ND	2.34	2.40	97	2.15	2.40	90	37-133	8	30
Benzo(b)fluoranthene	ND	2.43	2.40	101	2.19	2.40	91	39-129	10	30
Benzo(k)fluoranthene	ND	2.34	2.40	97	2.15	2.40	90	40-131	8	30
Benzo(a)pyrene	ND	2.55	2.40	106	2.36	2.40	98	40-126	7	30
Indeno(1,2,3-cd)pyrene	ND	2.78	2.40	116	2.66	2.40	111	34-130	4	30
Dibenz(a,h)anthracene	ND	2.67	2.40	111	2.49	2.40	104	35-129	7	30
Benzo(g,h,i)perylene	ND	2.40	2.40	100	2.23	2.40	93	39-124	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3535	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0503522

	Lab Control Sample KWG0503522-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Naphthalene	2.26	2.50	91	42-108
2-Methylnaphthalene	2.05	2.50	82	29-121
Acenaphthylene	2.46	2.50	99	40-112
Acenaphthene	2.35	2.50	94	42-115
Dibenzofuran	2.38	2.50	95	34-121
Fluorene	2.54	2.50	102	47-117
Phenanthrene	2.41	2.50	96	50-115
Anthracene	2.62	2.50	105	54-118
Fluoranthene	2.61	2.50	104	50-127
Pyrene	2.24	2.50	90	45-133
Benz(a)anthracene	2.60	2.50	104	44-127
Chrysene	2.41	2.50	96	36-137
Benzo(b)fluoranthene	2.41	2.50	96	47-127
Benzo(k)fluoranthene	2.36	2.50	94	30-144
Benzo(a)pyrene	2.59	2.50	104	36-136
Indeno(1,2,3-cd)pyrene	2.87	2.50	115	20-150
Dibenz(a,h)anthracene	2.73	2.50	109	50-127
Benzo(g,h,i)perylene	2.43	2.50	97	56-119

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/08/2005
		Time Analyzed:	08:07

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**File ID:**	J:\MS11\DATA\030805\0308F006.D
Lab Code:	KWG0503522-4	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503522-3	J:\MS11\DATA\030905\0309F008.D	03/09/05	10:14
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/05	10:42
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/05	11:09
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/05	11:37
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/05	12:04
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/05	12:31
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/05	12:58

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/04/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005
		Time Analyzed:	10:14

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**File ID:**	J:\MS11\DATA\030905\0309F008.D
Lab Code:	KWG0503522-3	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503522

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503522-4	J:\MS11\DATA\030805\0308F006.D	03/08/05	08:07
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/05	10:42
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/05	11:09
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/05	11:37
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/05	12:04
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/05	12:31
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/05	12:58

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-02	**Units:**	ug/L
Lab Code:	K2501544-002	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F012.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0086**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0053**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	**Phenanthrene**	**0.0048**	J	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	**Benz(a)anthracene**	**0.0041**	J	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	**Indeno(1,2,3-cd)pyrene**	**0.0042**	J	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	71	37-107	03/09/05	Acceptable
Fluoranthene-d10	75	18-137	03/09/05	Acceptable
Terphenyl-d14	84	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F012 D
Lab ID: K2501544-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 12:04
Date Quantitated: 03/14/2005 08:15
Batch ID: KWG0504050
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 3/14/5

Secondary Review: 3-14-5

Printed: 03/14/2005 08:52:54
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	K2501544
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365922	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK.M	**Calibration ID:**	CAL4271
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ4885
Tune Ref:	J:\MS11\DATA\030905\0309F001.D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\030805\0308F006.D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\030905\0309F012.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:04	**Quant Date:**	03/14/2005 08:15	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-002			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.00	136	253518	200.00	OK
2	Acenaphthene-d10	6.49	-0.01	164	194489	200.00	OK
3	Phenanthrene-d10	7.71	-0.01	188	309531	200.00	OK
4	Chrysene-d12	10.62	0.00	240	276354	200.00	OK
5	Perylene-d12	14.56	0.00	264	247699	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	373680	285.97	71	37-107	OK
3	Fluoranthene-d10	8.72	0.00	0.00	212	633821	299.32	75	18-137	OK
4	Terphenyl-d14	9.13	0.00	0.00	244	525302	335.97	84	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.08		0.00	128	2520	1.79	0.0086	J	
1	2-Methylnaphthalene	5.63		0.00	142	1373	1.10	0.0053	J	
2	Acenaphthylene	6.37		0.00	152	702	0.3900	0.0031	U	
2	Acenaphthene	6.52		0.00	154	505	0.4500	0.0042	U	
2	Dibenzofuran	6.65		0.00	168	860	0.5300	0.0044	U	
2	Fluorene	6.93		0.00	166	791	0.6200	0.0051	U	
3	Phenanthrene	7.73		0.00	178	1813	0.9900	0.0048	J	
3	Anthracene	7.77		0.00	178	1133	0.6800	0.0039	U	
3	Fluoranthene	8.74		0.00	202	1258m	0.6600	0.0042	U	
4	Pyrene	8.96		0.00	202	1544	0.7600	0.0037	U	
4	Benz(a)anthracene	10.58	-0.01	0.00	228	1371m	0.8600	0.0041	J	
4	Chrysene	10.66		0.00	228	1252	0.7300	0.0036	U	
5	Benzo(b)fluoranthene	13.25		0.00	252	1412	0.8500	0.0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030905\0309F012 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:04	**Quant Date:**	03/14/2005 08:15	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-002			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene	13 32	-0 01	0 00	252	1442	0 8300	0 0041	U	
5	Benzo(a)pyrene	14 34		0 00	252	1146	0 8100	0 0041	U	
5	Indeno(1,2,3-cd)pyrene	17 40	-0 01	0 00	276	998	0 8800	0 0042	J	
5	Dibenz(a,h)anthracene	17 46	-0 01	0 00	278	1192	0 9500	0 0066	U	
5	Benzo(g,h,i)perylene	17 84	-0 01	0 00	276	1330	0 8400	0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F012.D
Acq On : 9 Mar 2005 12:04 pm
Sample : K2501544-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:45 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	253518	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	194489	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	309531	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	276354	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	247699	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	373680	285.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 28.60%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.72	212	633821	299.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 29.93%			
42) Terphenyl-d14	9.13	244	525302	335.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 33.60%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	2520	1.79	ng/ml	96
3) 2-Methylnaphthalene	5.63	142	1373	1.10	ng/ml	92
4) 1-Methylnaphthalene	5.72	142	1051	0.93	ng/ml	97
5) Biphenyl	6.00	154	1890m	1.21	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	704	0.63	ng/ml	99
11) Acenaphthylene	6.37	152	702	0.39	ng/ml	96
12) Acenaphthene	6.52	154	505	0.45	ng/ml	97
13) Dibenzofuran	6.65	168	860	0.53	ng/ml	81
16) Fluorene	6.93	166	791	0.62	ng/ml	100
27) Phenanthrene	7.73	178	1813	0.99	ng/ml	99
28) Anthracene	7.77	178	1133	0.68	ng/ml	99
29) Carbazole	7.90	167	1010	0.71	ng/ml	98
30) 1-Methylphenanthrene	8.24	192	652m	0.52	ng/ml	
35) Fluoranthene	8.74	202	1258m	0.66	ng/ml	
38) Pyrene	8.96	202	1544	0.76	ng/ml	59
43) Benz(a)anthracene	10.58	228	1371m	0.86	ng/ml	
44) Chrysene	10.66	228	1252	0.73	ng/ml	99
50) Benzo(b)fluoranthene	13.25	252	1412	0.85	ng/ml	76
51) Benzo(k)fluoranthene	13.32	252	1442	0.83	ng/ml	98
52) Benzo(e)pyrene	14.16	252	1538	0.93	ng/ml	92
53) Benzo(a)pyrene	14.34	252	1146	0.81	ng/ml	98
54) Perylene	14.64	252	1308	0.87	ng/ml	82
55) Indeno(1,2,3-cd)pyrene	17.40	276	998	0.88	ng/ml	97
56) Dibenz(a,h)anthracene	17.46	278	1192	0.95	ng/ml	81
57) Benzo(g,h,i)perylene	17.84	276	1330	0.84	ng/ml	97

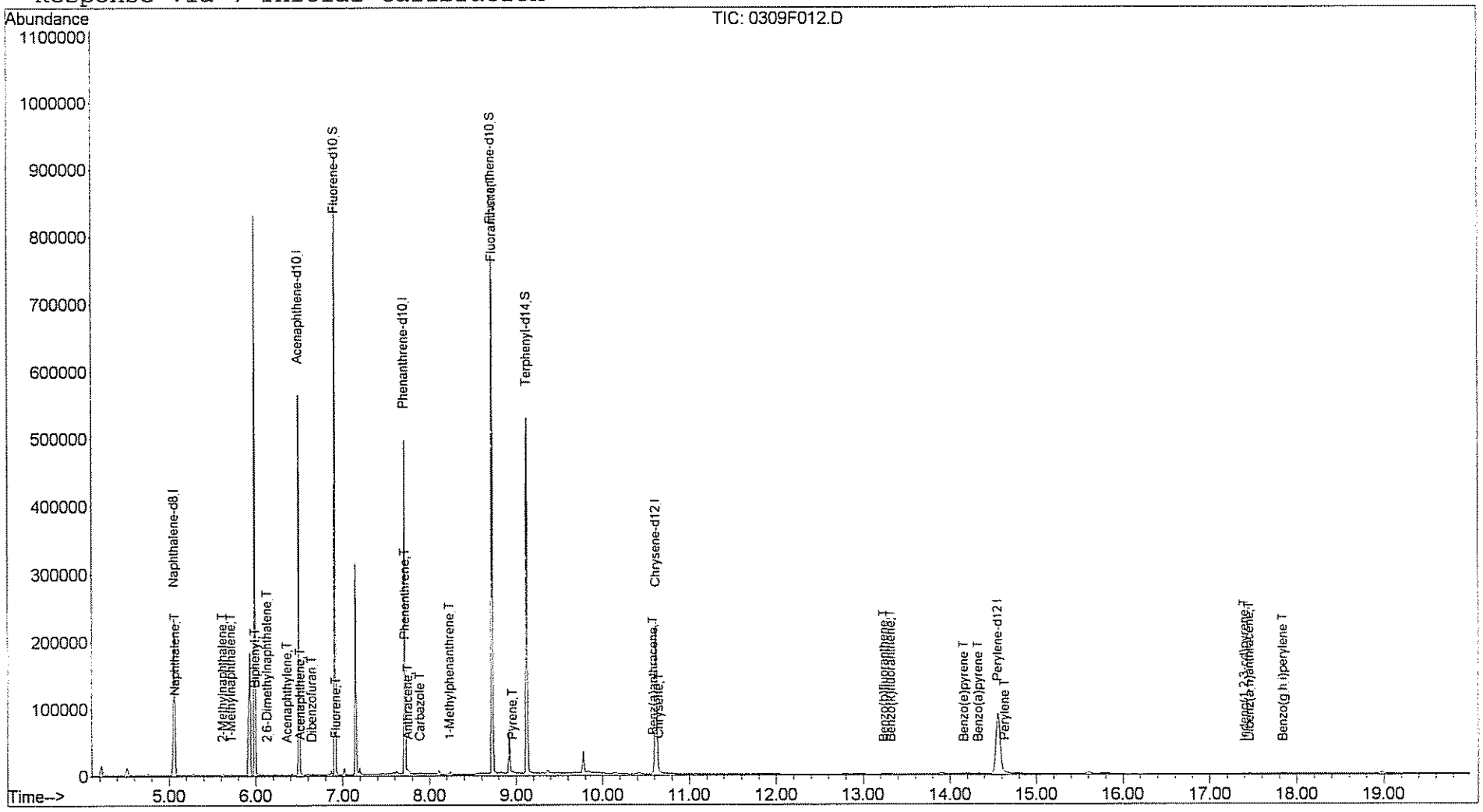
(#) = qualifier out of range (m) = manual integration

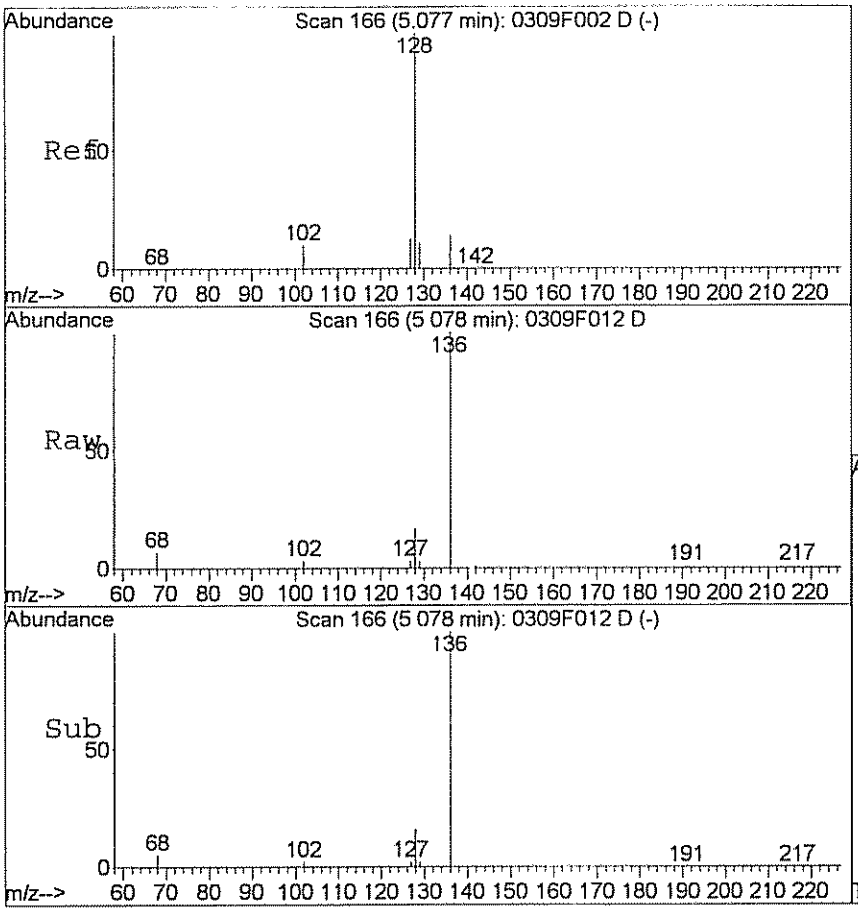
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F012.D
Acq On : 9 Mar 2005 12:04 pm
Sample : K2501544-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:15 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration

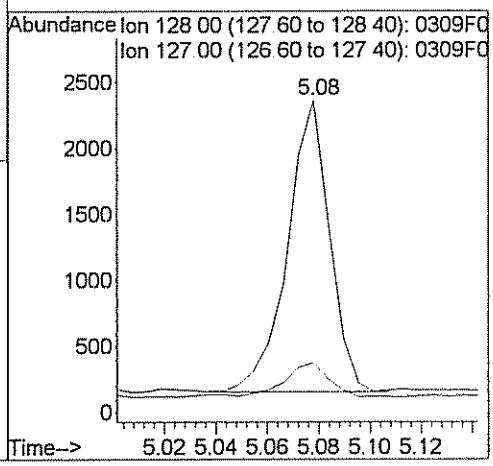


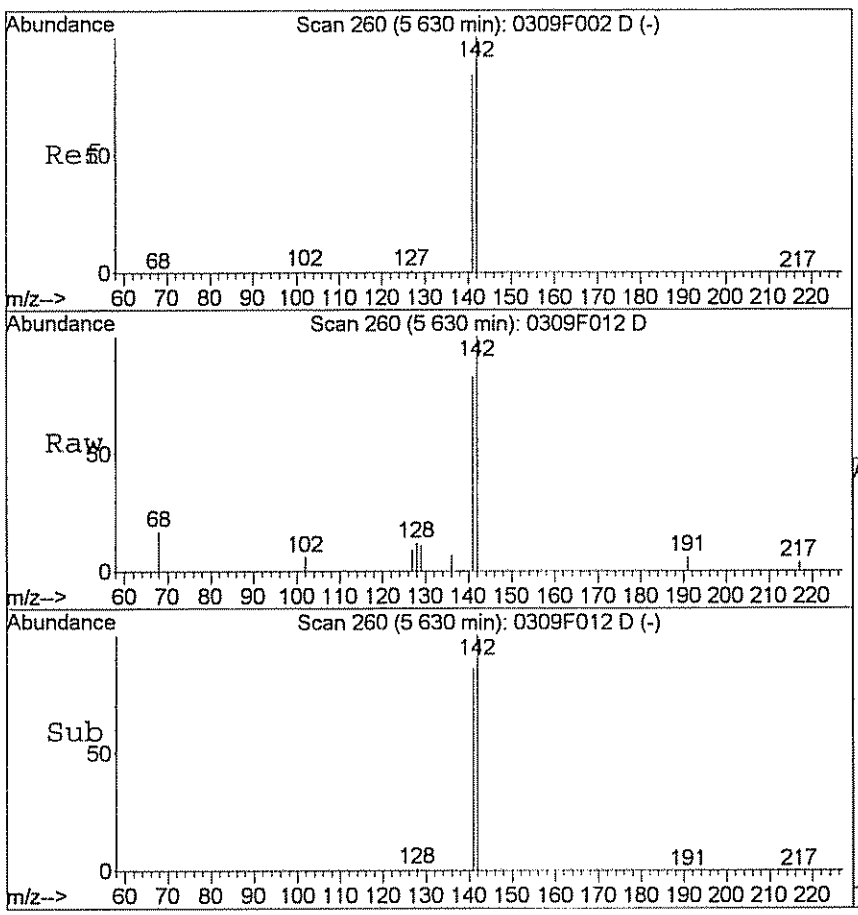


#2
Naphthalene
Concen: 1.79 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:128 Resp: 2520

Ion	Ratio	Lower	Upper
128	100		
127	11.5	0.0	43.1

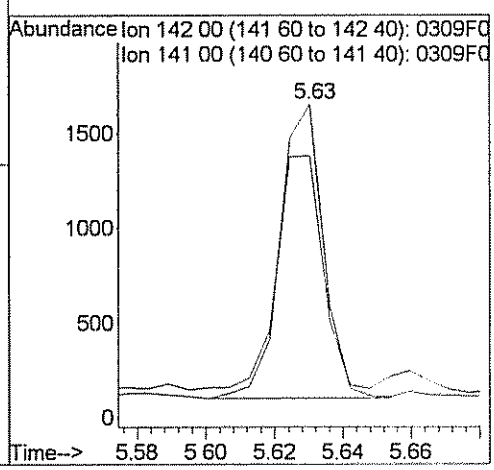


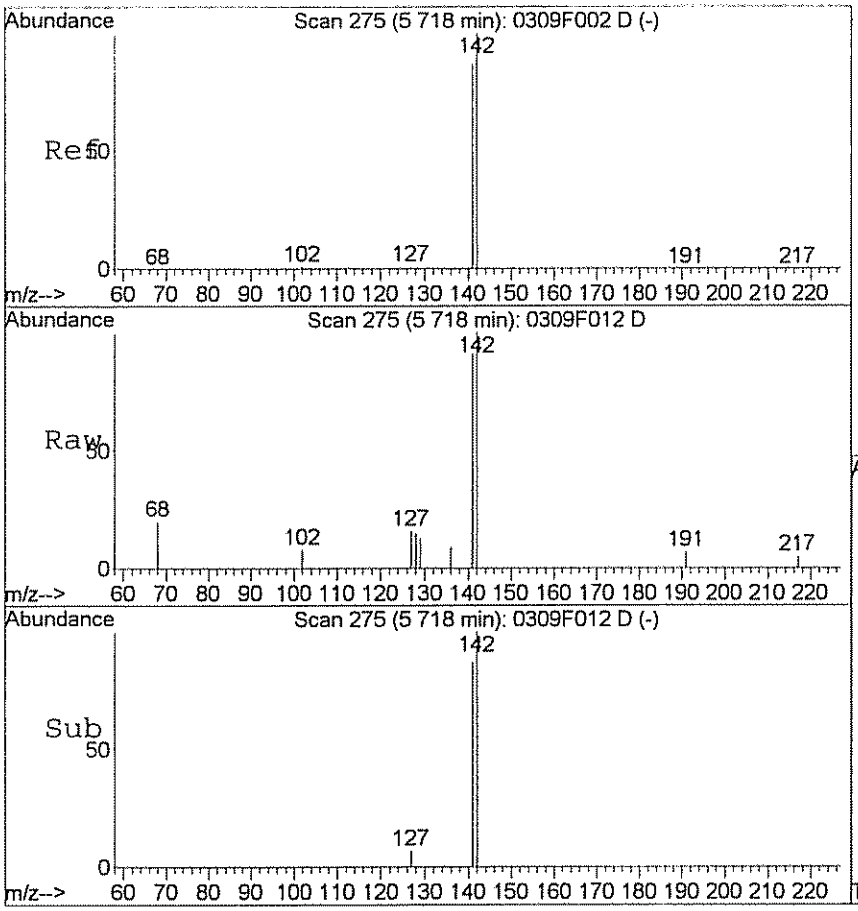


#3
2-Methylnaphthalene
Concen: 1.10 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:142 Resp: 1373

Ion	Ratio	Lower	Upper
142	100		
141	78.7	56.4	116.4

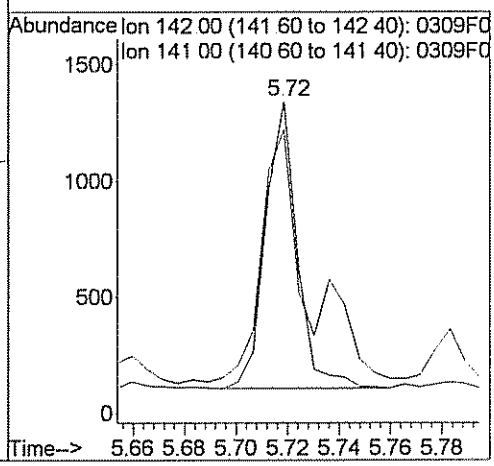


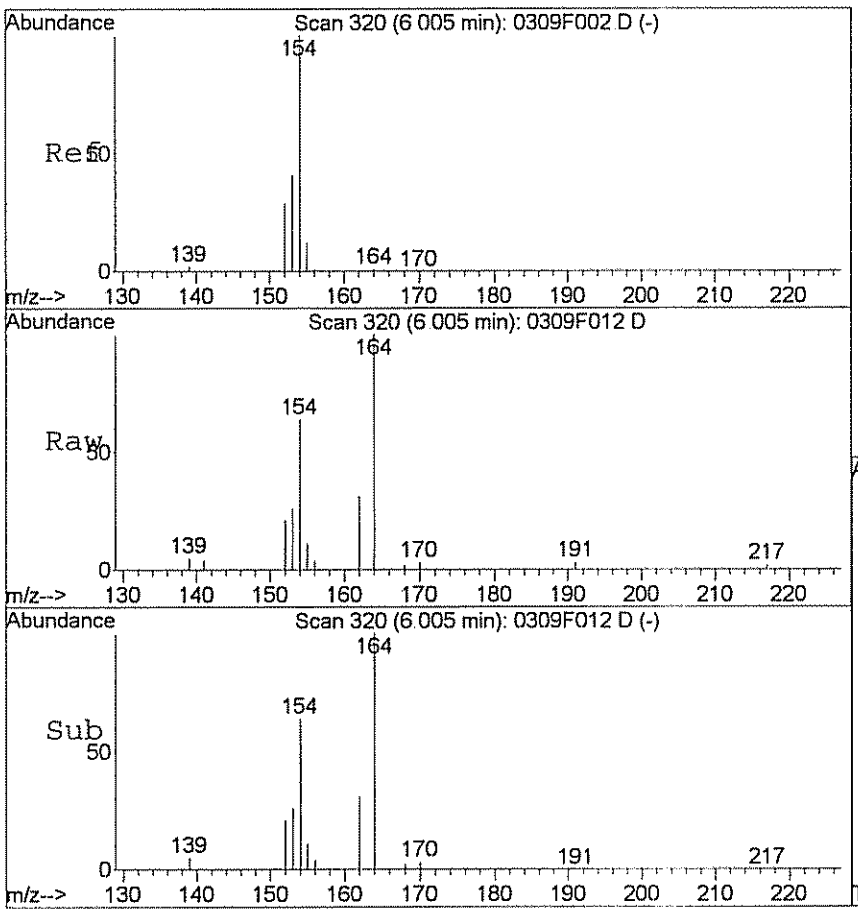


#4
1-Methylnaphthalene
Concen: 0.93 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:142 Resp: 1051

Ion	Ratio	Lower	Upper
142	100		
141	87.8	60.9	120.9

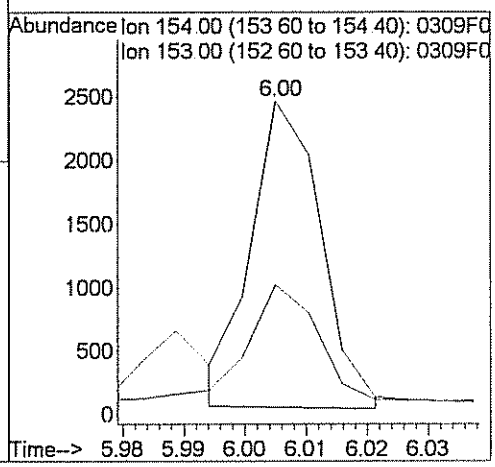


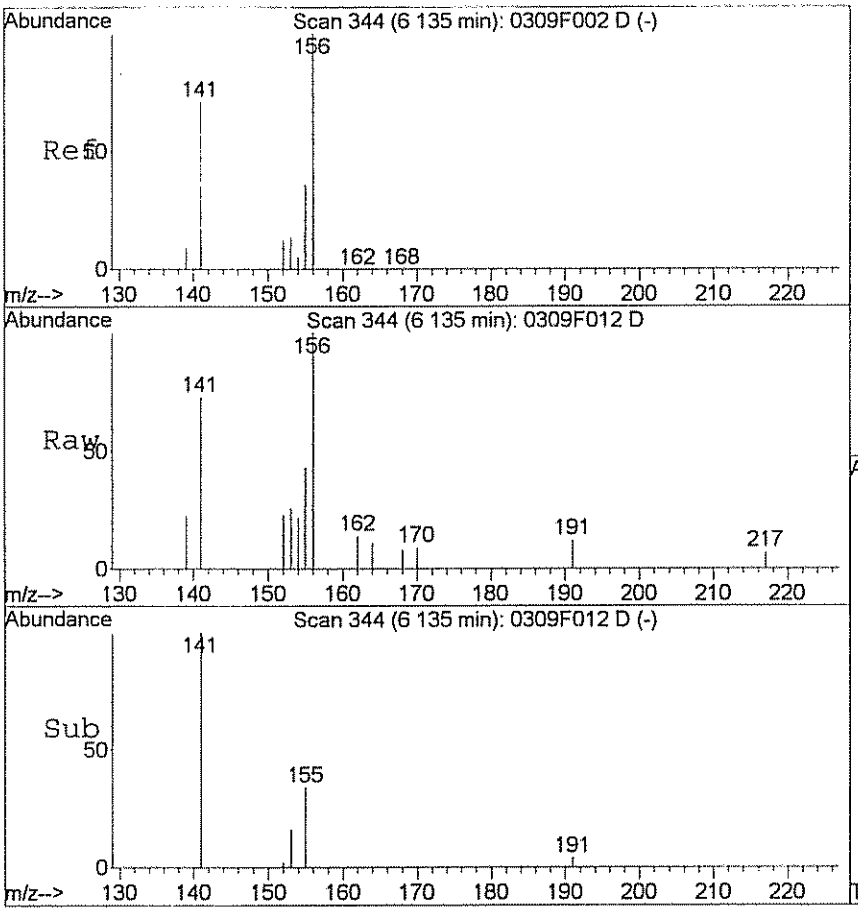


#5
Biphenyl
Concen: 1.21 ng/ml m
RT: 6.00 min Scan# 320
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:154 Resp: 1890

Ion	Ratio	Lower	Upper
154	100		
153	41.4	11.1	71.1

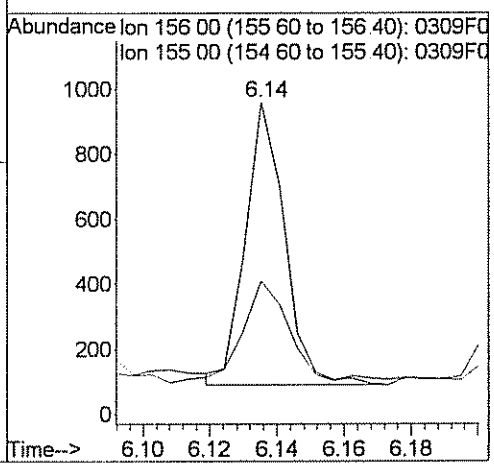


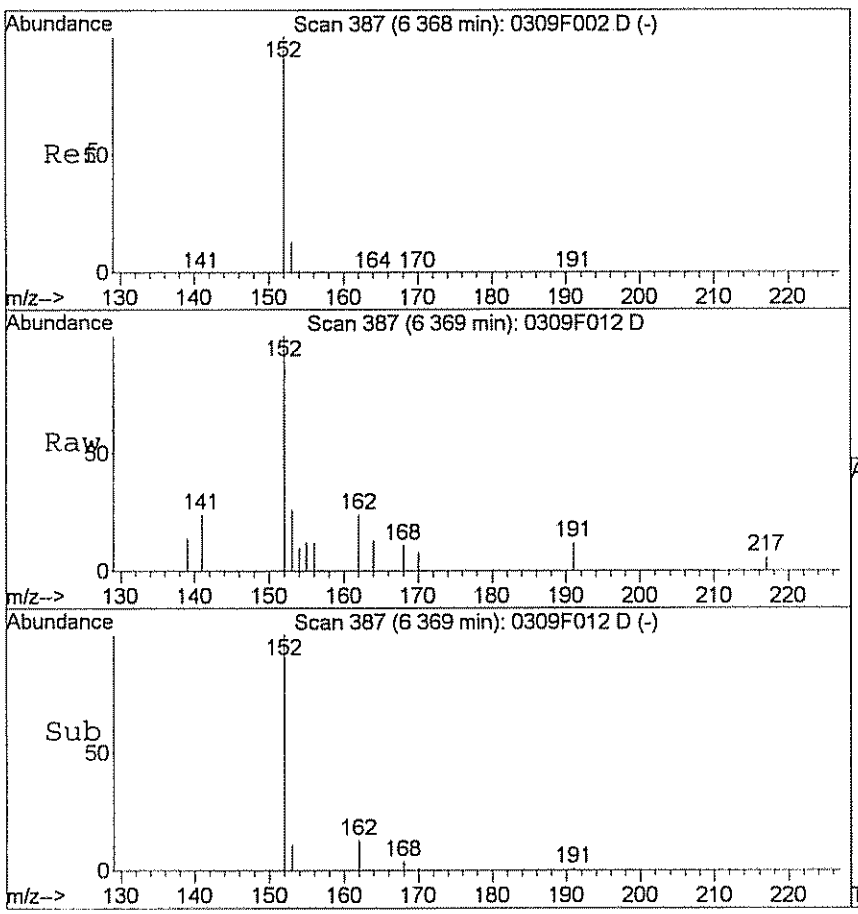


#6
2,6-Dimethylnaphthalene
Concen: 0.63 ng/ml
RT: 6.14 min Scan# 344
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:156 Resp: 704

Ion	Ratio	Lower	Upper
156	100		
155	34.7	5.3	65.3

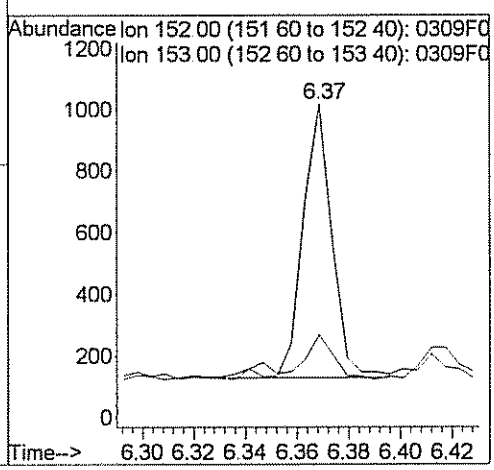


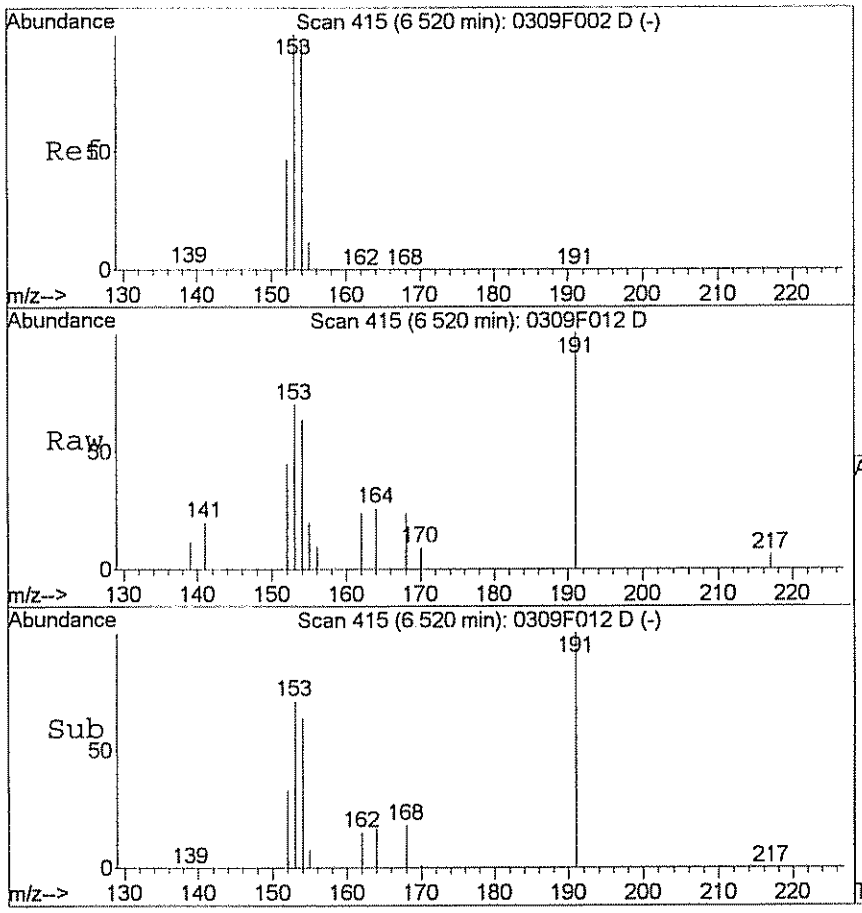


#11
Acenaphthylene
Concen: 0.39 ng/ml
RT: 6.37 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:152 Resp: 702

Ion	Ratio	Lower	Upper
152	100		
153	15.2	0.0	43.6

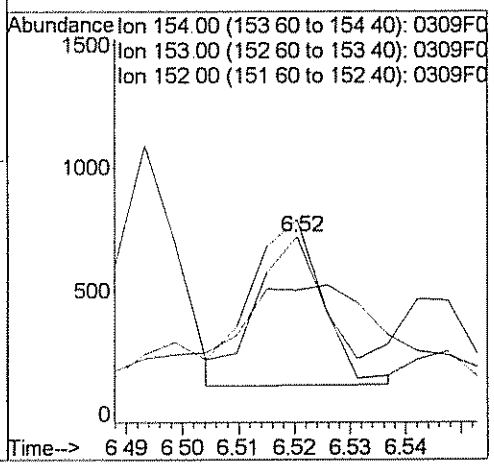


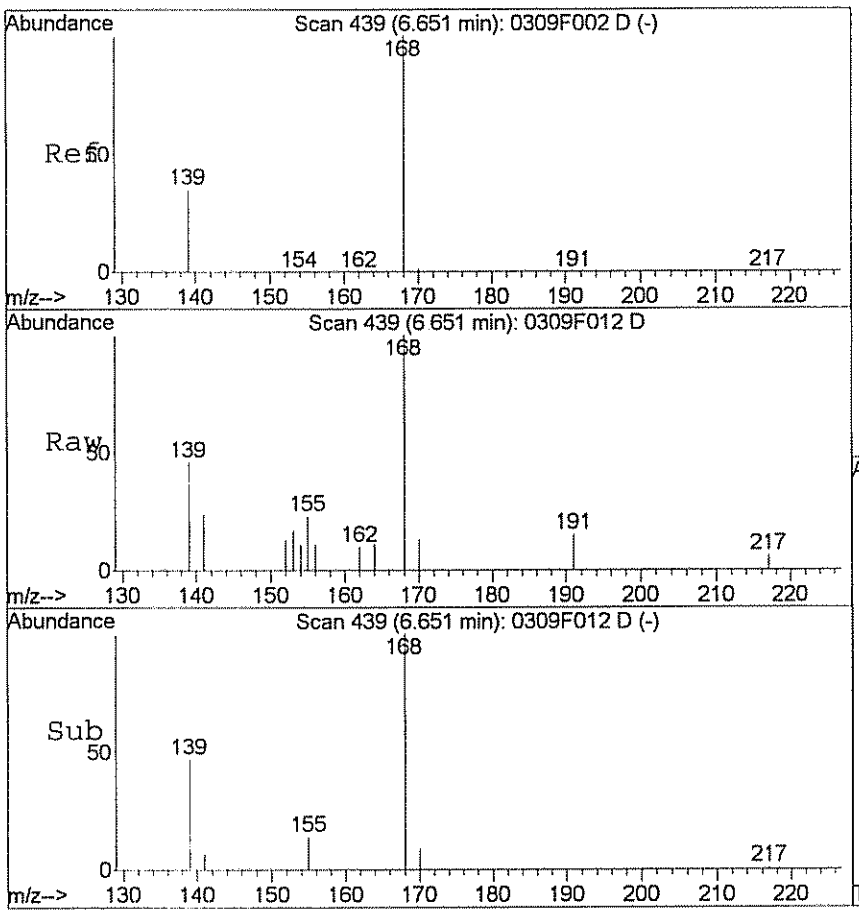


#12
Acenaphthene
Concen: 0.45 ng/ml
RT: 6.52 min Scan# 415
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:154 Resp: 505

Ion	Ratio	Lower	Upper
154	100		
153	100.7	73.0	133.0
152	44.9	17.8	77.8

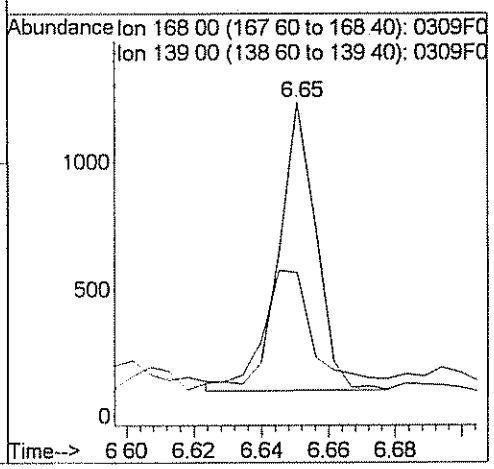


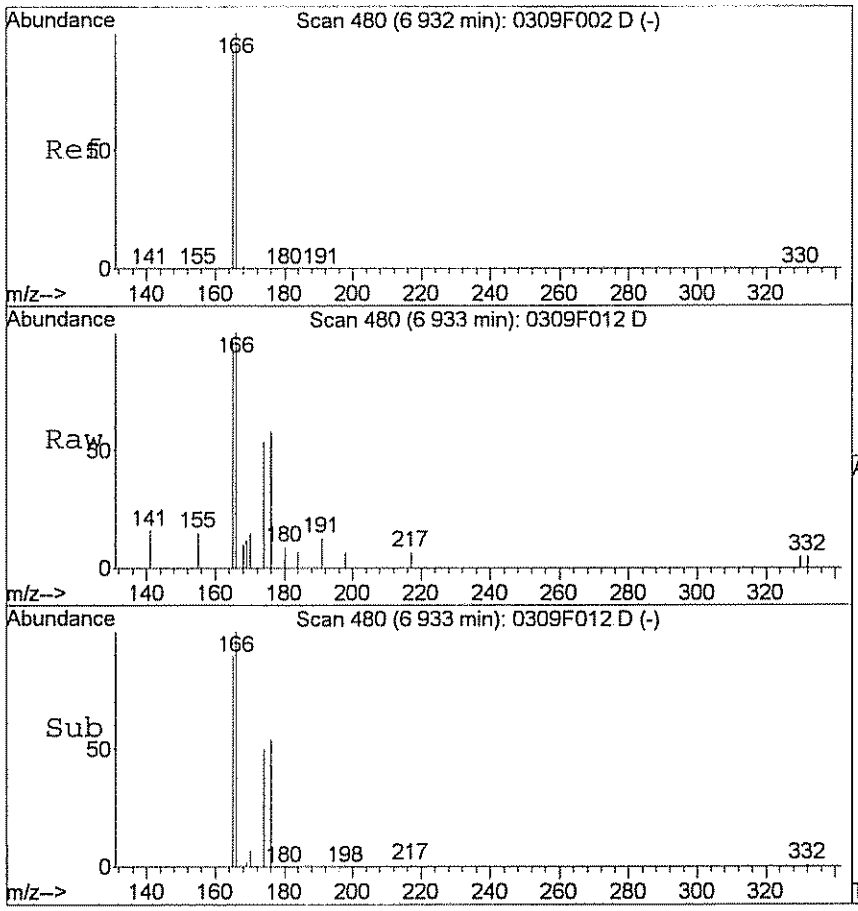


#13
Dibenzofuran
Concen: 0.53 ng/ml
RT: 6.65 min Scan# 439
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:168 Resp: 860

Ion	Ratio	Lower	Upper
168	100		
139	38.0	0.0	58.1

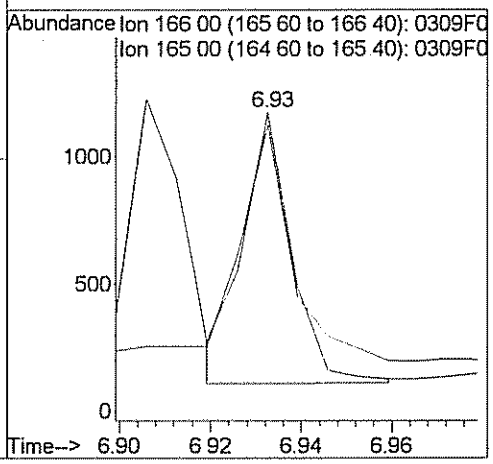


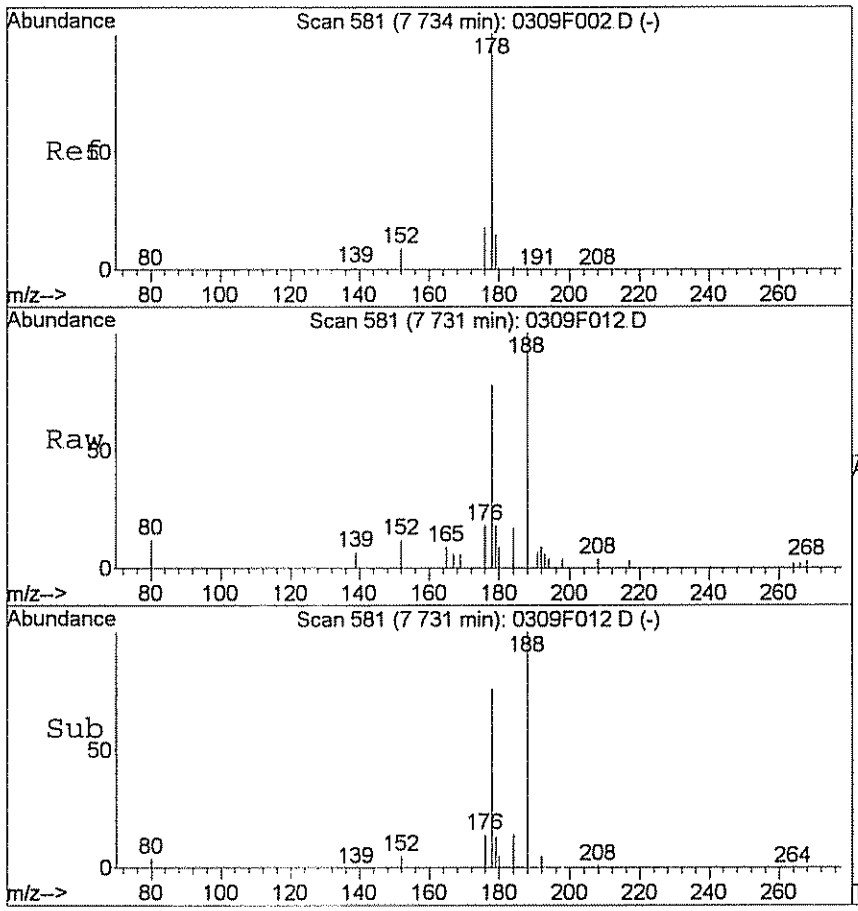


#16
Fluorene
Concen: 0.62 ng/ml
RT: 6.93 min Scan# 480
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:166 Resp: 791

Ion	Ratio	Lower	Upper
166	100		
165	88.5	58.6	118.6

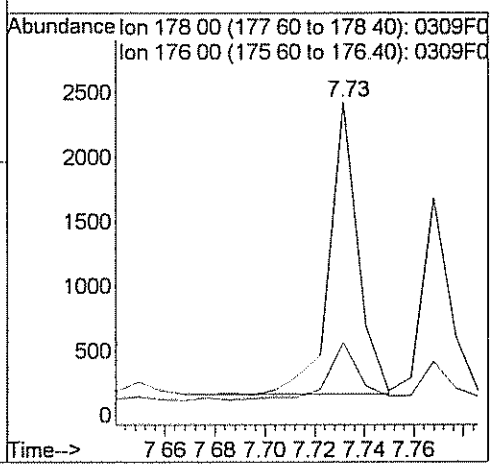


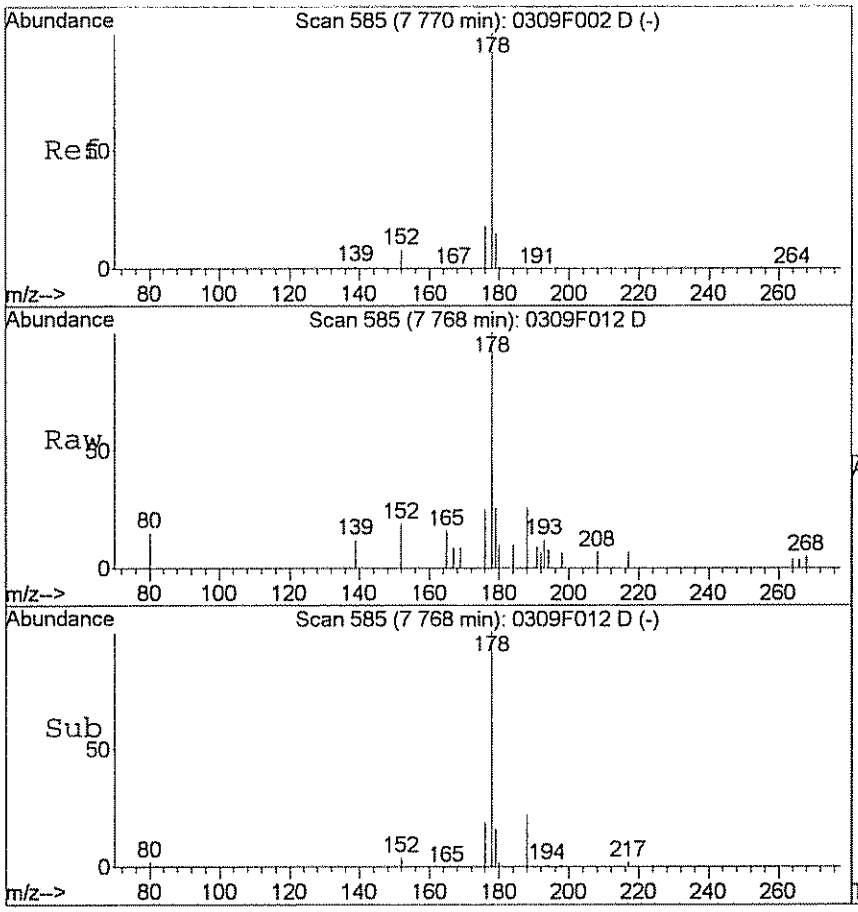


#27
Phenanthrene
Concen: 0.99 ng/ml
RT: 7.73 min Scan# 581
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:178 Resp: 1813

Ion	Ratio	Lower	Upper
178	100		
176	18.9	0.0	48.4

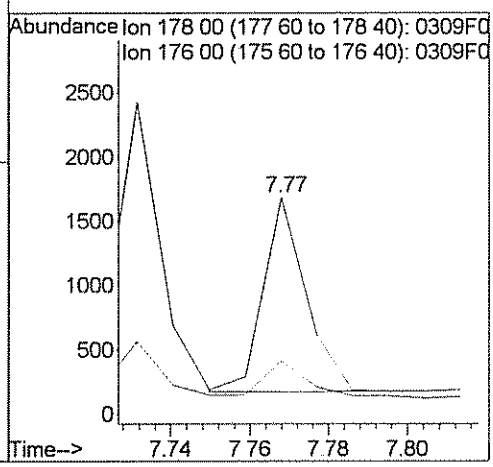


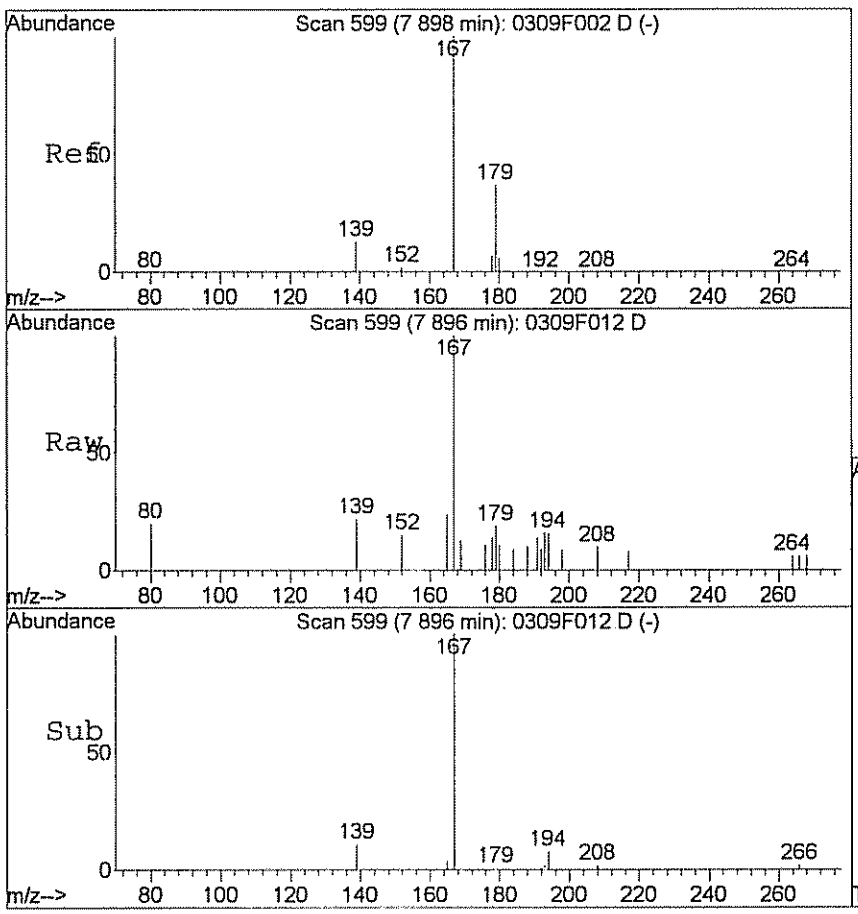


#28
Anthracene
Concen: 0.68 ng/ml
RT: 7.77 min Scan# 585
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:178 Resp: 1133

Ion	Ratio	Lower	Upper
178	100		
176	18.1	0.0	47.7

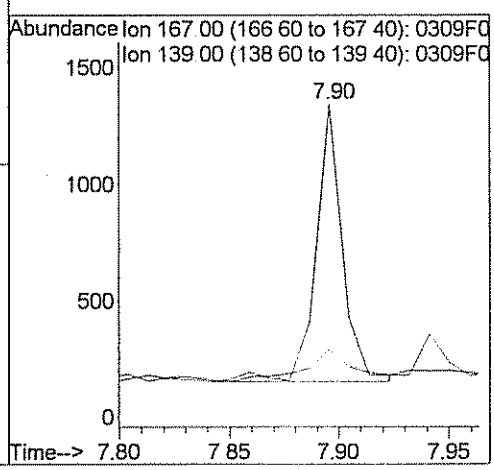


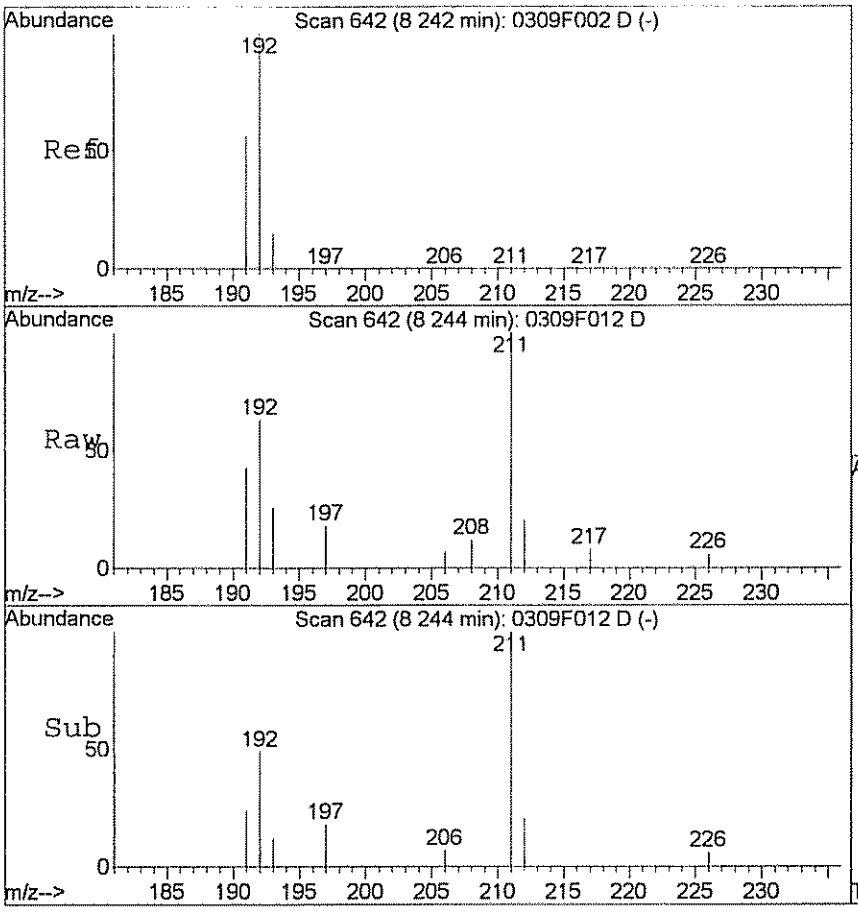


#29
Carbazole
Concen: 0.71 ng/ml
RT: 7.90 min Scan# 599
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:167 Resp: 1010

Ion	Ratio	Lower	Upper
167	100		
139	10.9	0.0	41.6

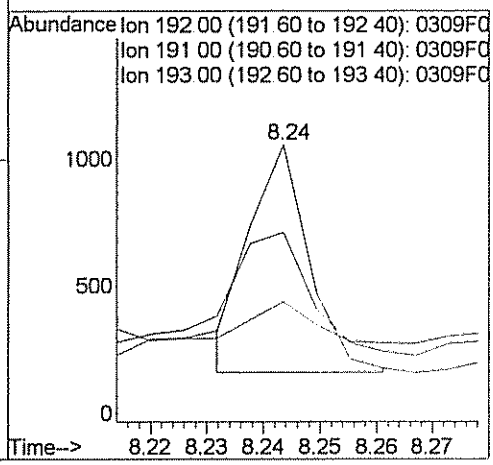


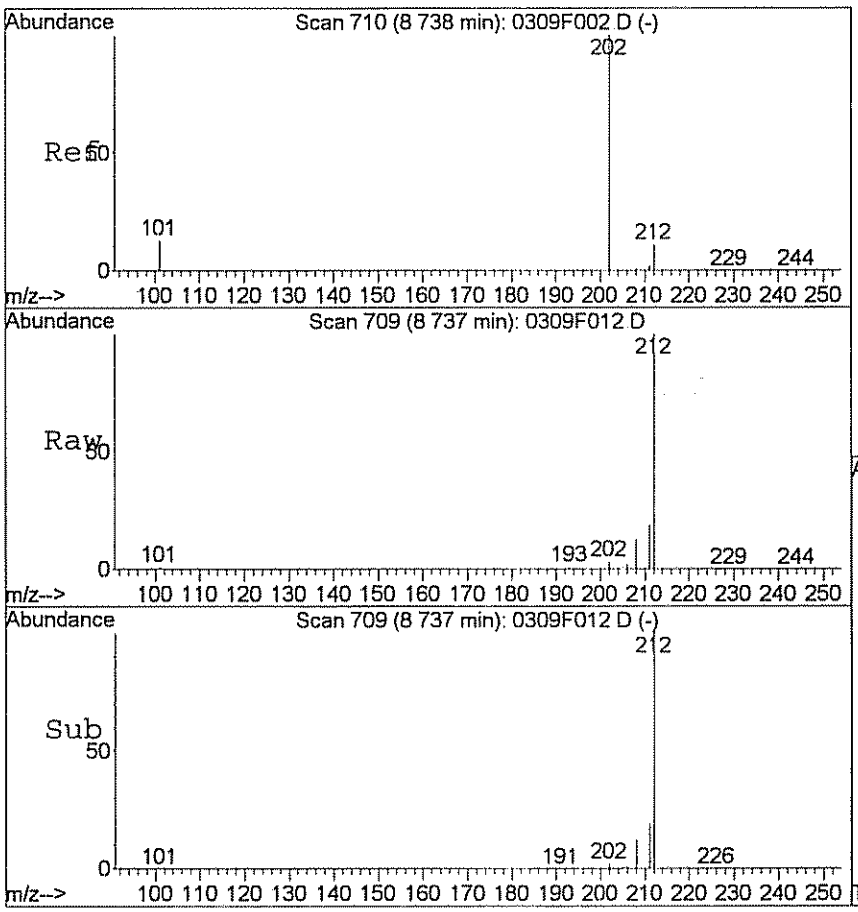


#30
1-Methylphenanthrene
Concen: 0.52 ng/ml m
RT: 8.24 min Scan# 642
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:192 Resp: 652

Ion	Ratio	Lower	Upper
192	100		
191	67.3	23.7	83.7
193	41.5	0.0	46.6

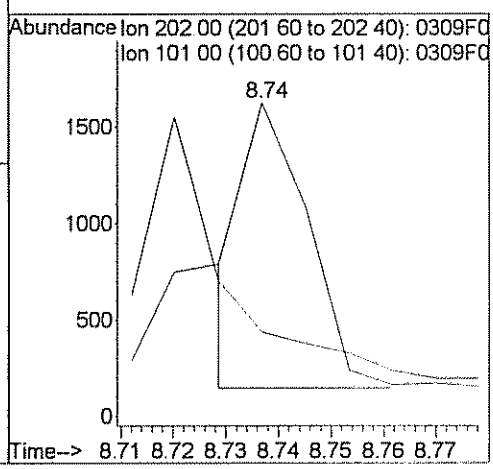


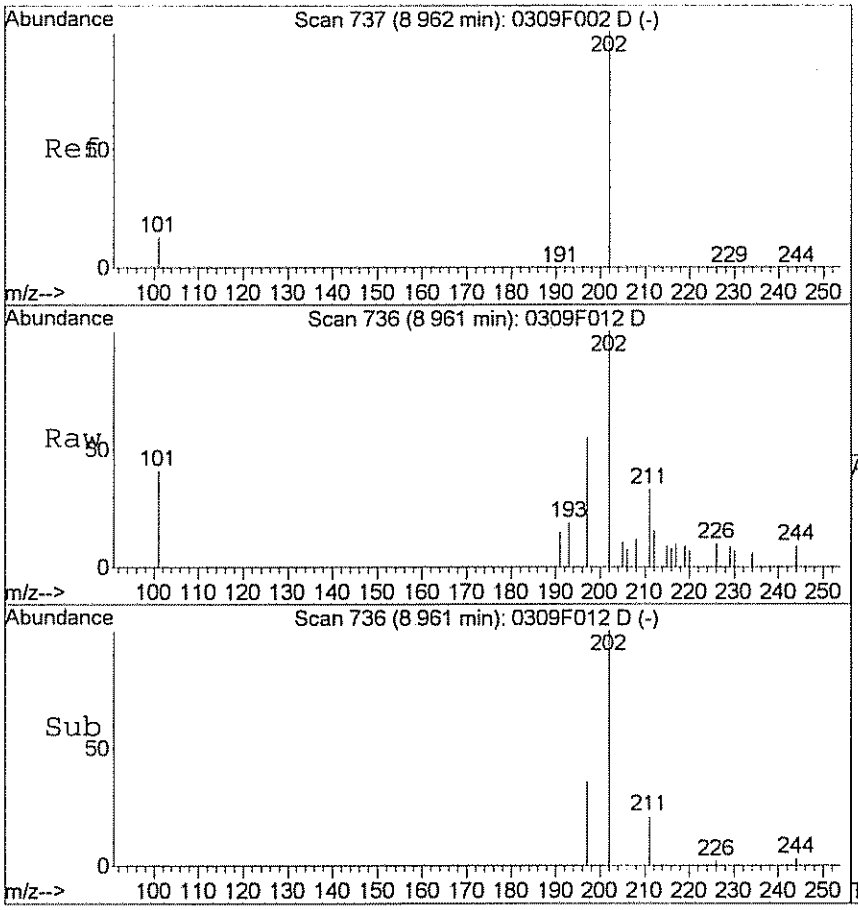


#35
Fluoranthene
Concen: 0.66 ng/ml m
RT: 8.74 min Scan# 709
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:202 Resp: 1258

Ion	Ratio	Lower	Upper
202	100		
101	27.0	0.0	42.3

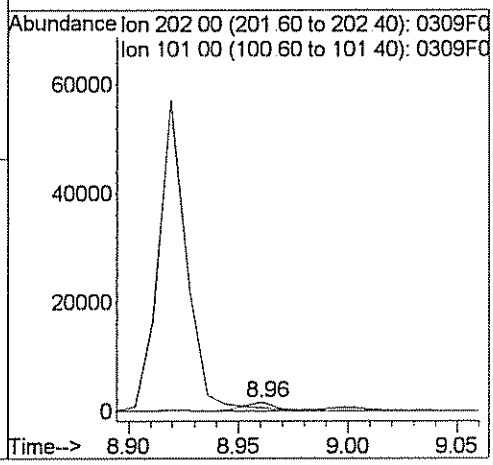


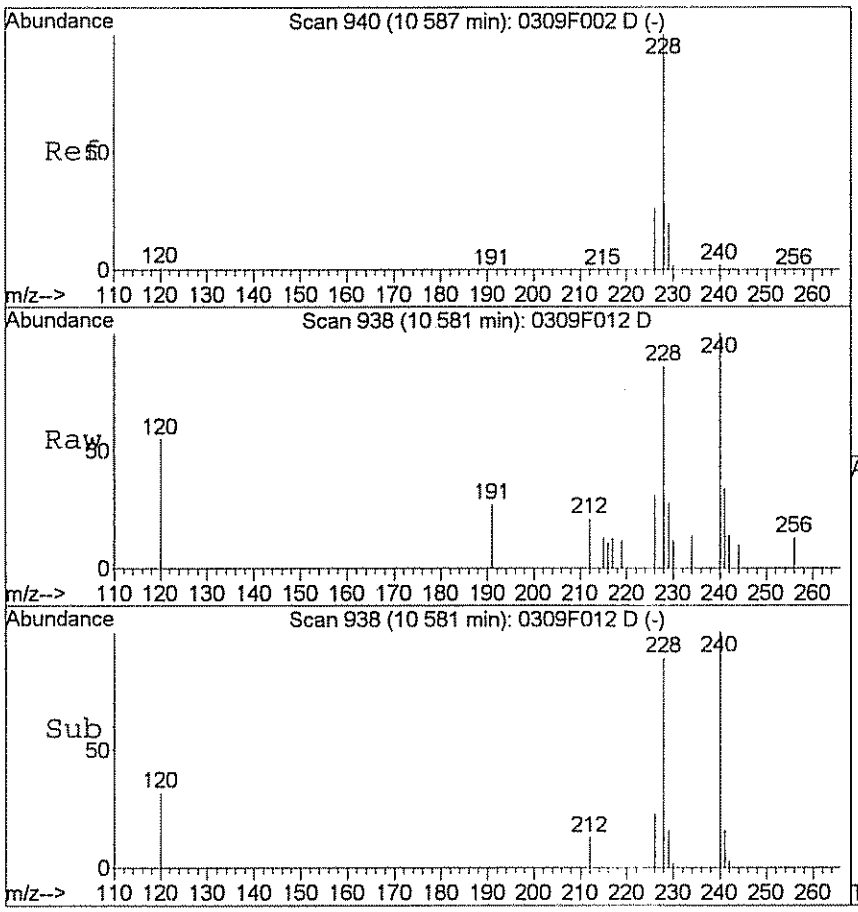


#38
Pyrene
Concen: 0.76 ng/ml
RT: 8.96 min Scan# 736
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:202 Resp: 1544

Ion	Ratio	Lower	Upper
202	100		
101	28.2	0.0	42.1

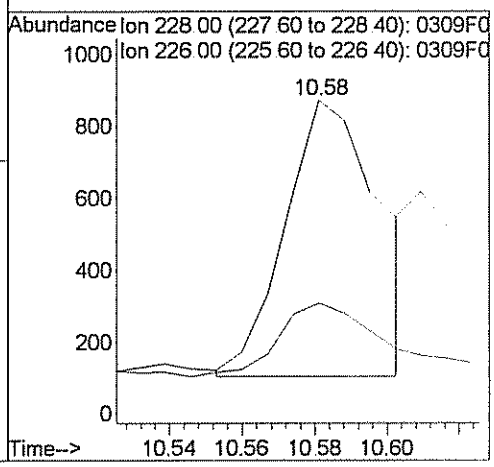


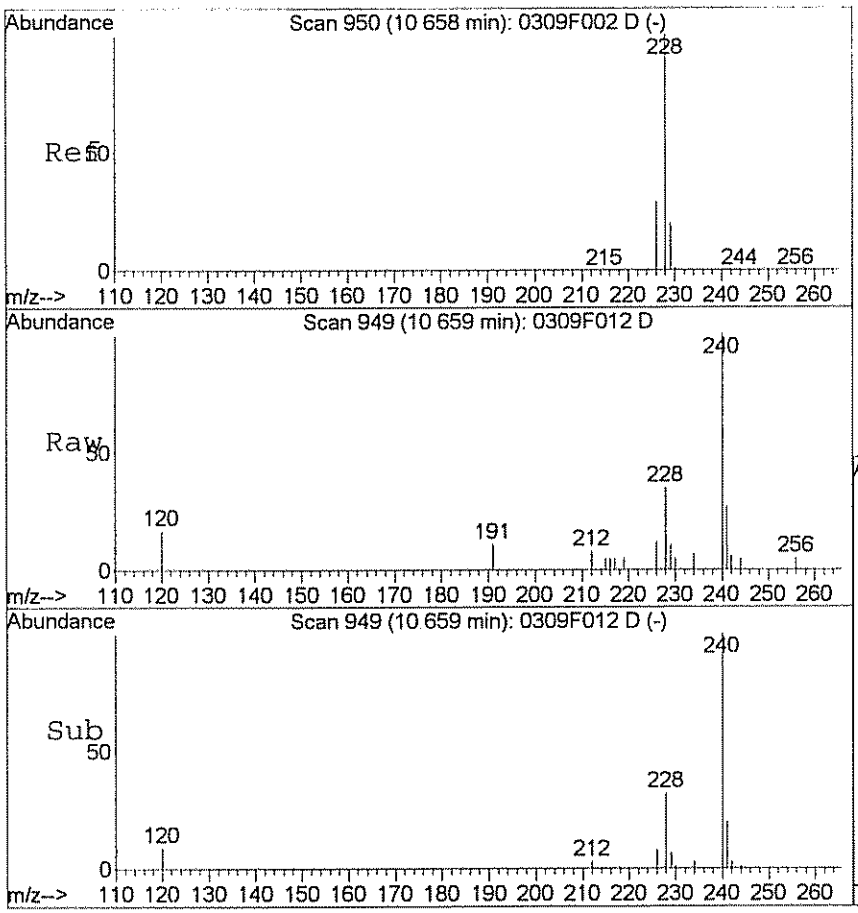


#43
Benz(a)anthracene
Concen: 0.86 ng/ml m
RT: 10.58 min Scan# 938
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:228 Resp: 1371

Ion	Ratio	Lower	Upper
228	100		
226	35.4	0.0	56.6

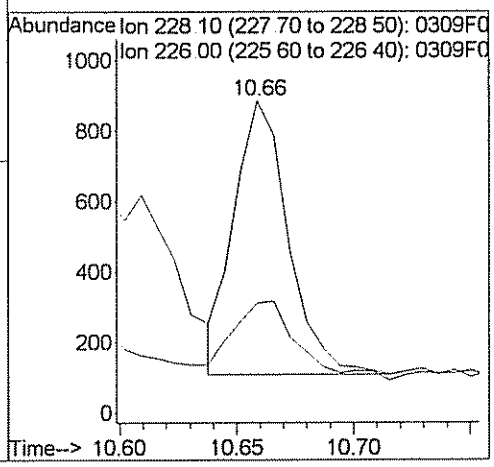


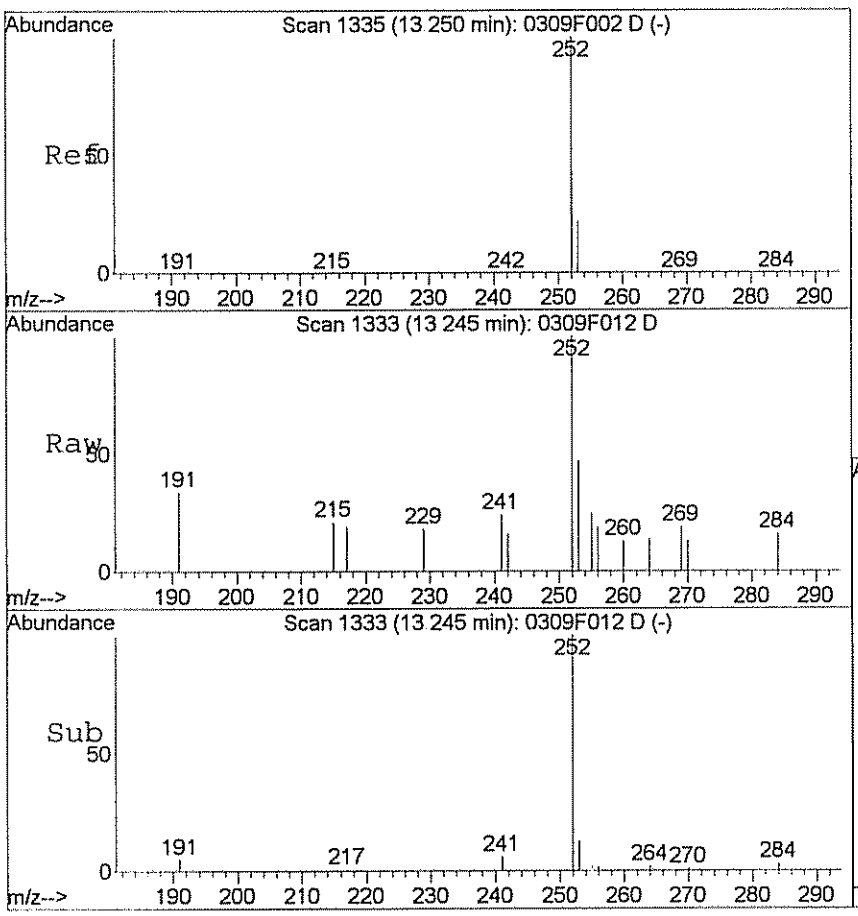


#44
Chrysene
Concen: 0.73 ng/ml
RT: 10.66 min Scan# 949
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:228 Resp: 1252

Ion	Ratio	Lower	Upper
228	100		
226	28.3	0.0	58.9

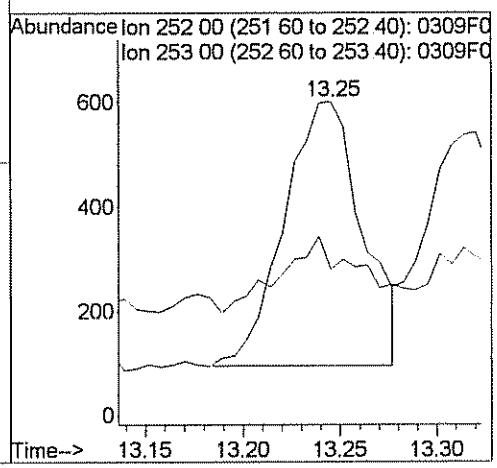


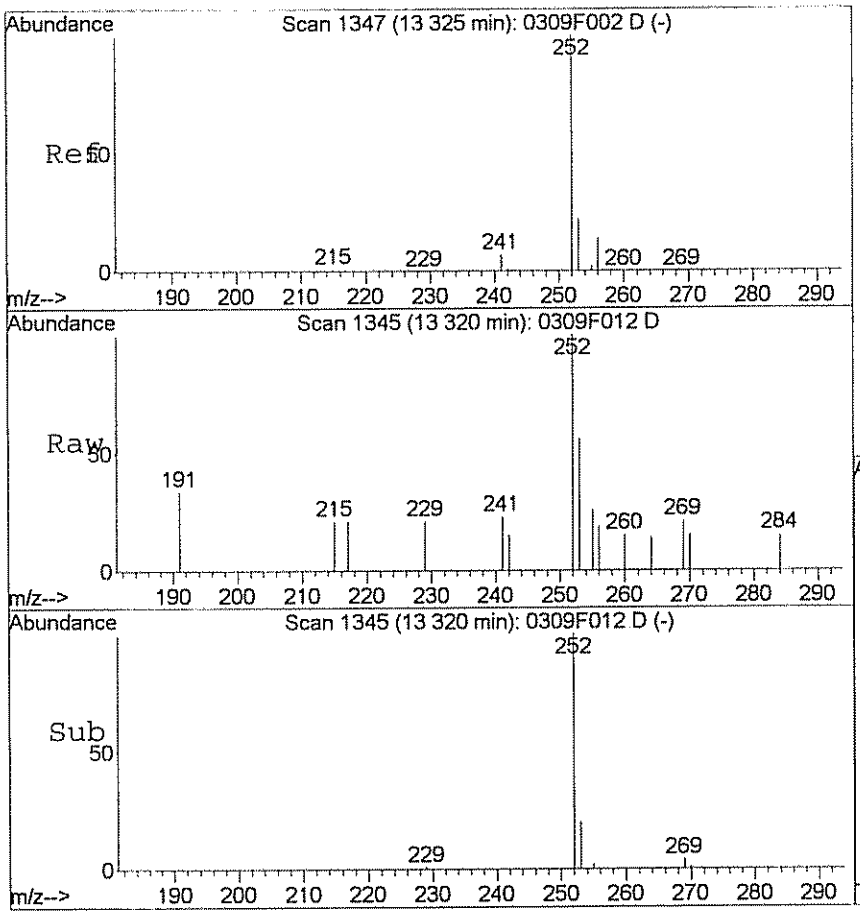


#50
Benzo(b)fluoranthene
Concen: 0.85 ng/ml
RT: 13.25 min Scan# 1333
Delta R.T. -0.02 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:252 Resp: 1412

Ion	Ratio	Lower	Upper
252	100		
253	10.7	0.0	52.0

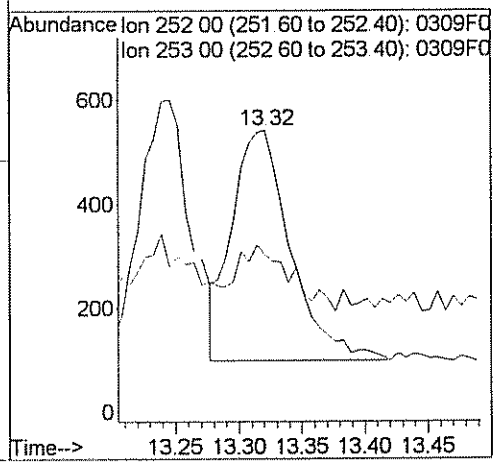


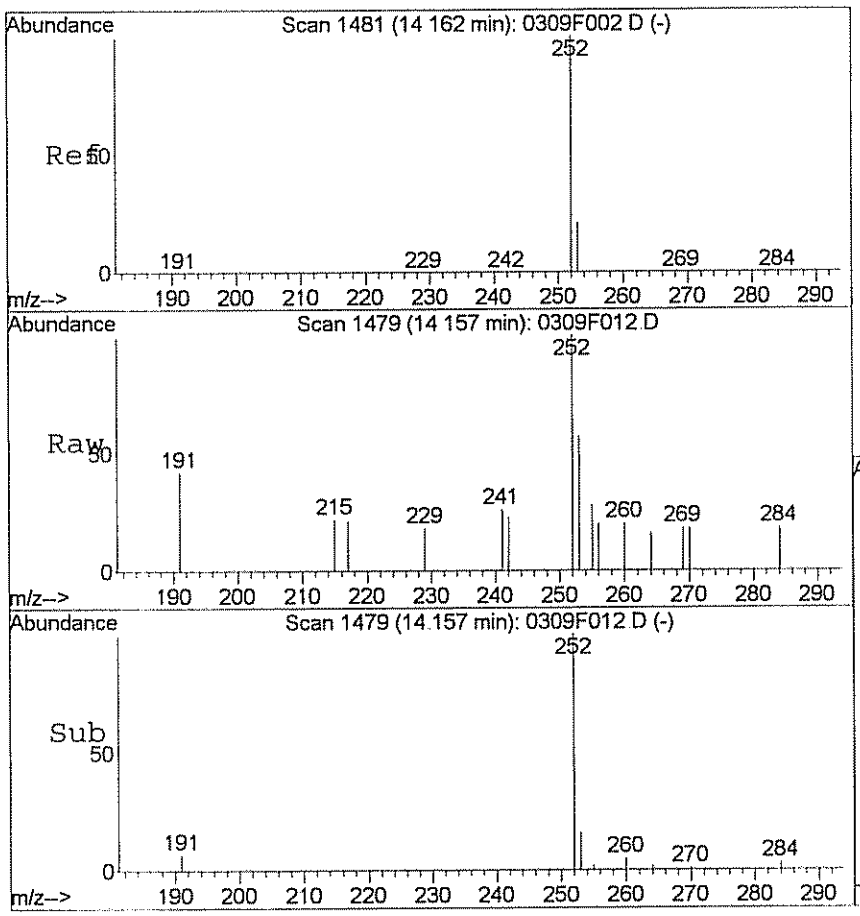


#51
Benzo(k)fluoranthene
Concen: 0.83 ng/ml
RT: 13.32 min Scan# 1345
Delta R.T. -0.02 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:252 Resp: 1442

Ion	Ratio	Lower	Upper
252	100		
253	21.4	0.0	52.2

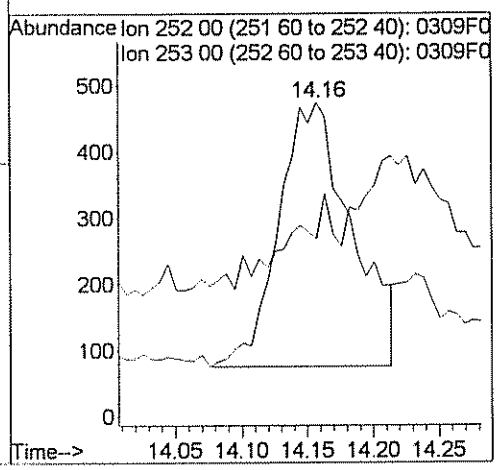


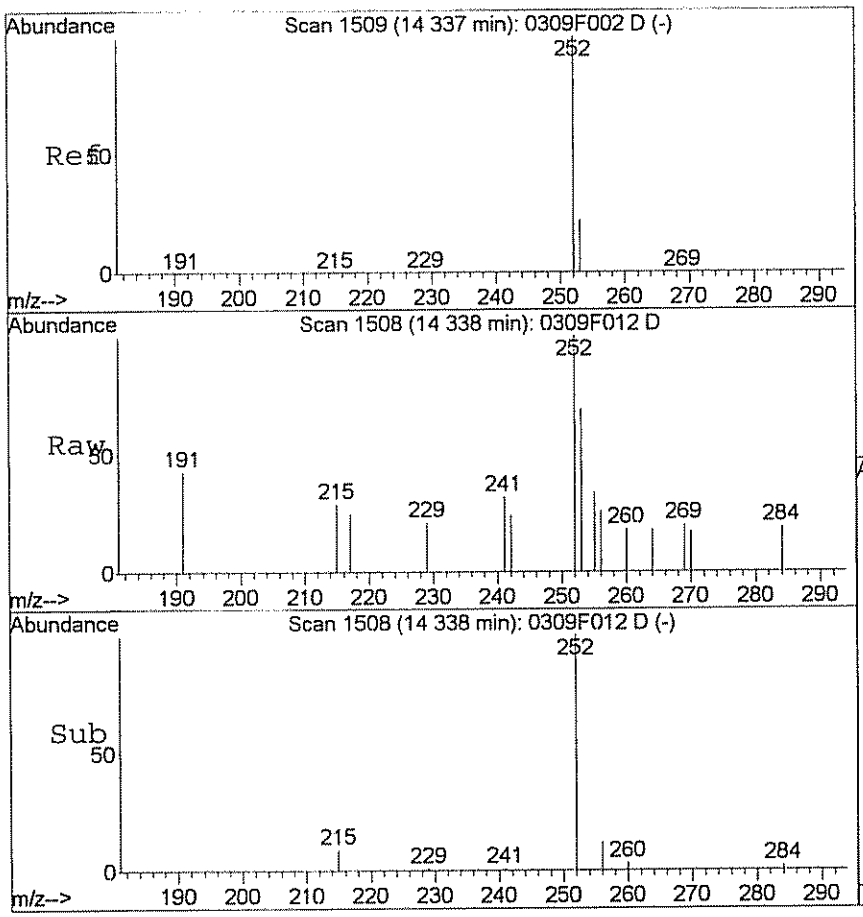


#52
Benzo(e)pyrene
Concen: 0.93 ng/ml
RT: 14.16 min Scan# 1479
Delta R.T. -0.03 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:252 Resp: 1538

Ion	Ratio	Lower	Upper
252	100		
253	17.8	0.0	51.7

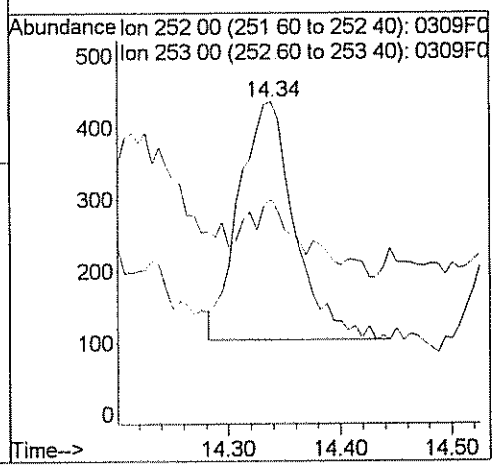


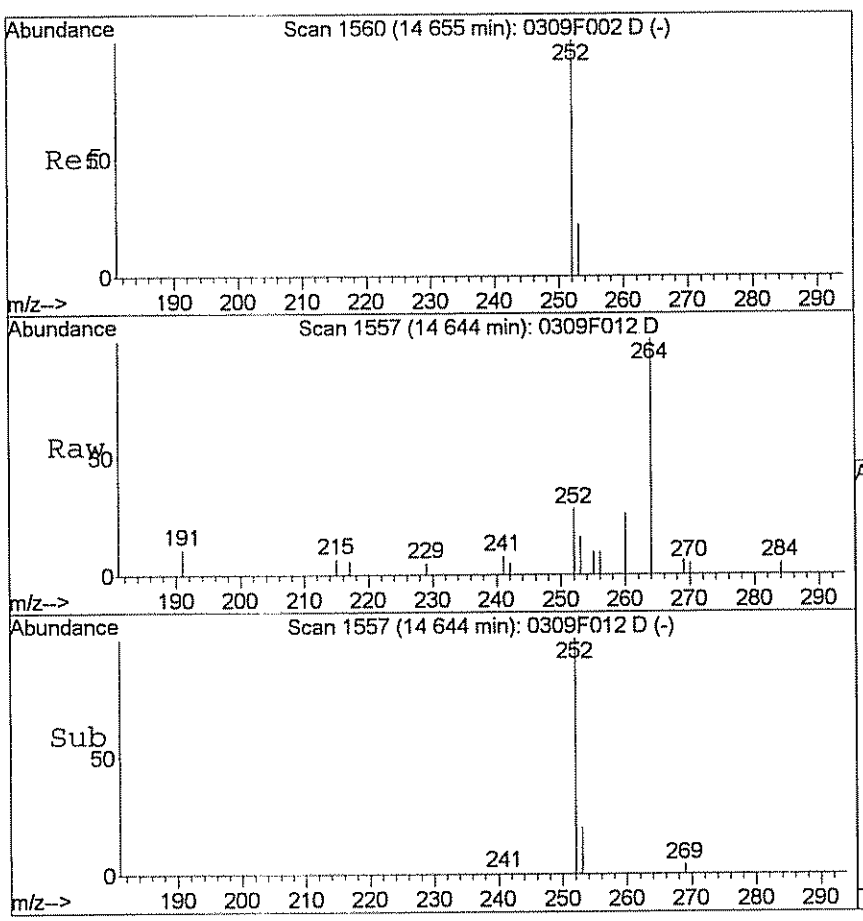


#53
Benzo(a)pyrene
Concen: 0.81 ng/ml
RT: 14.34 min Scan# 1508
Delta R.T. -0.02 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:252 Resp: 1146

Ion	Ratio	Lower	Upper
252	100		
253	20.8	0.0	51.9

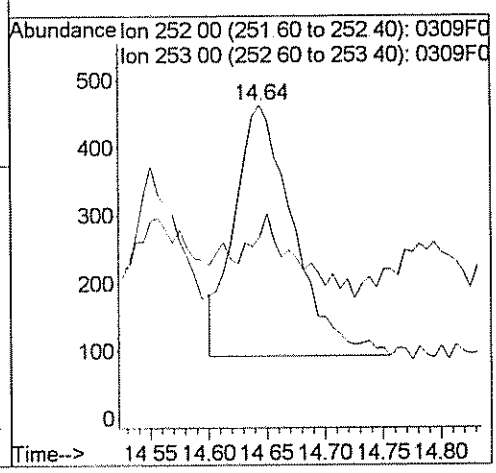


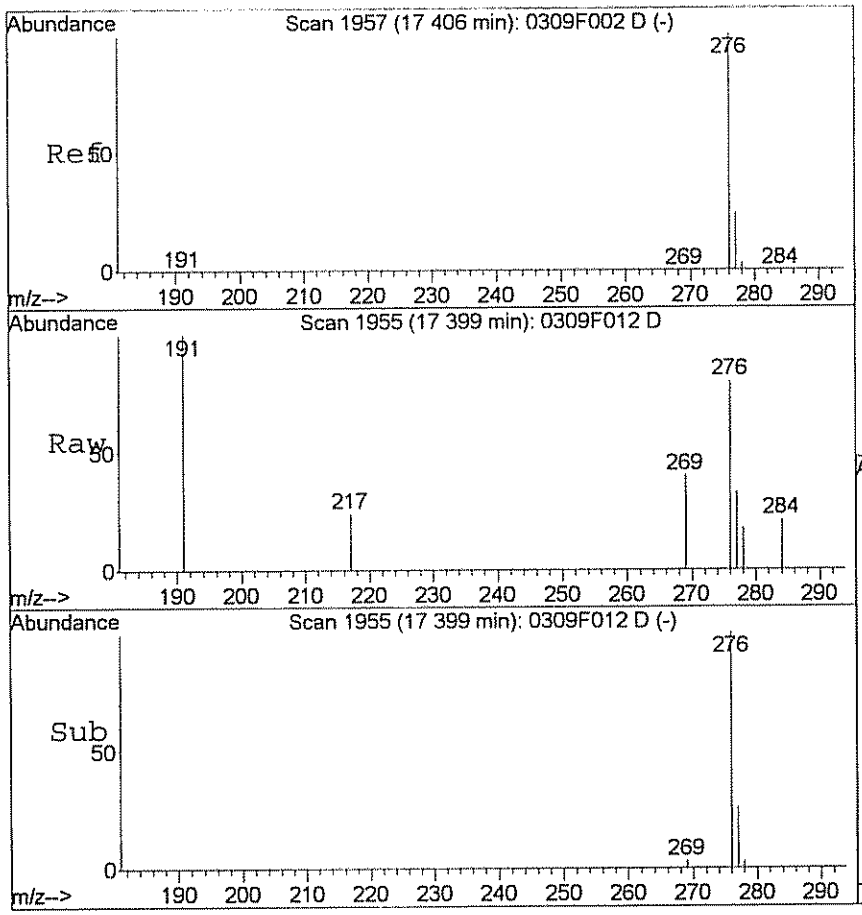


#54
Perylene
Concen: 0.87 ng/ml
RT: 14.64 min Scan# 1557
Delta R.T. -0.04 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:252 Resp: 1308

Ion	Ratio	Lower	Upper
252	100		
253	12.9	0.0	51.7

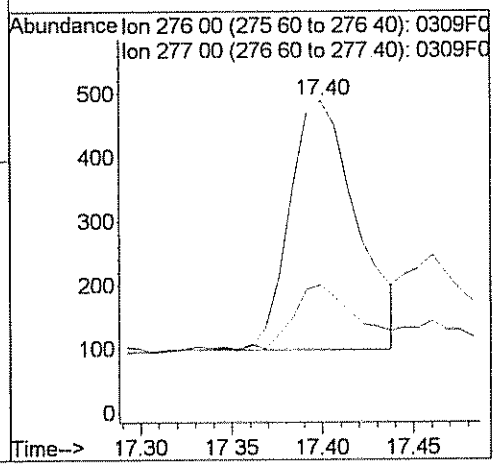


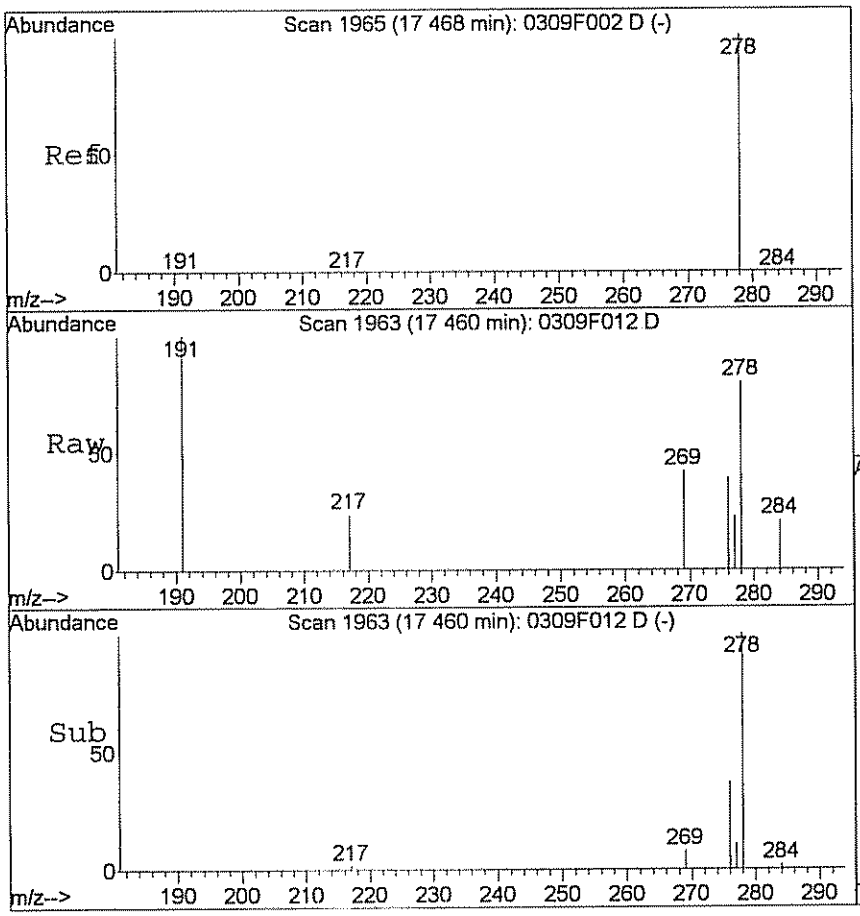


#55
Indeno(1,2,3-cd)pyrene
Concen: 0.88 ng/ml
RT: 17.40 min Scan# 1955
Delta R.T. -0.01 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:276 Resp: 998

Ion	Ratio	Lower	Upper
276	100		
277	25.3	0.0	53.7

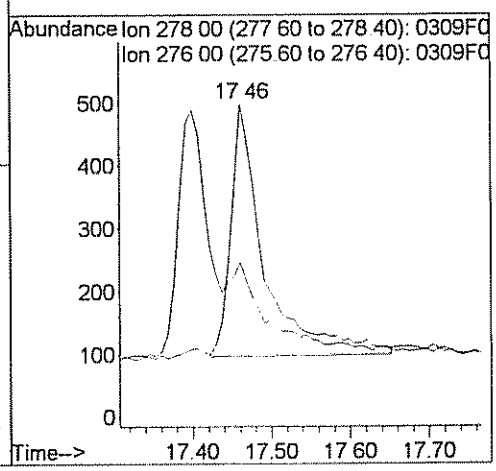


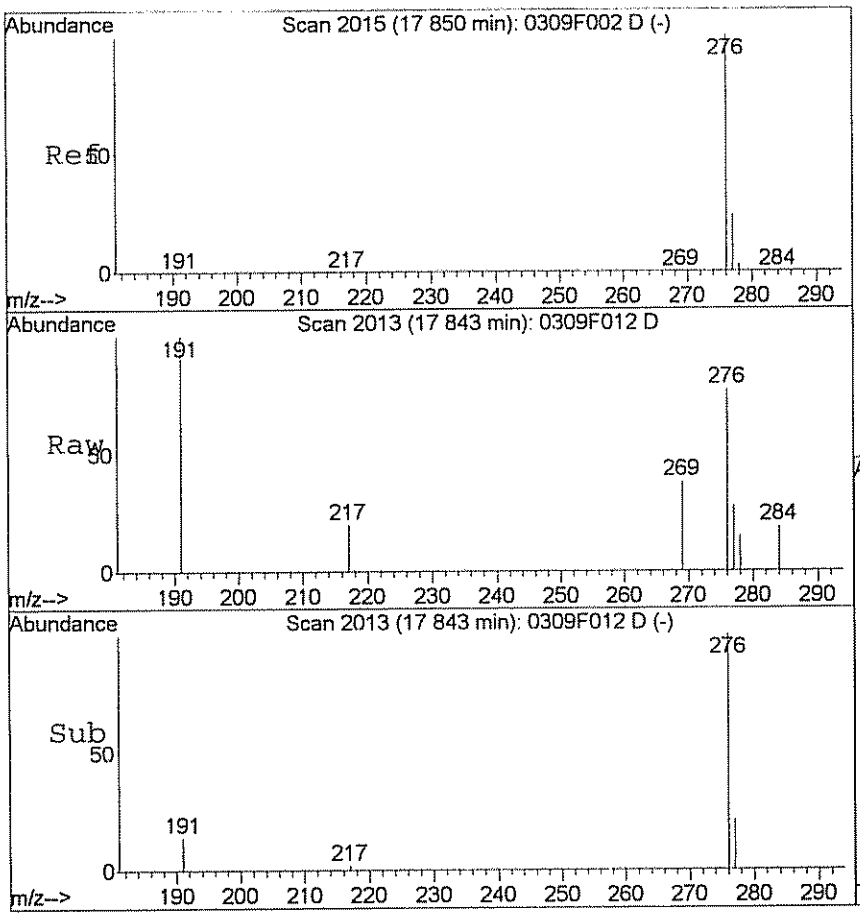


#56
Dibenz(a,h)anthracene
Concen: 0.95 ng/ml
RT: 17.46 min Scan# 1963
Delta R.T. -0.02 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:278 Resp: 1192

Ion	Ratio	Lower	Upper
278	100		
276	34.8	0.0	55.3

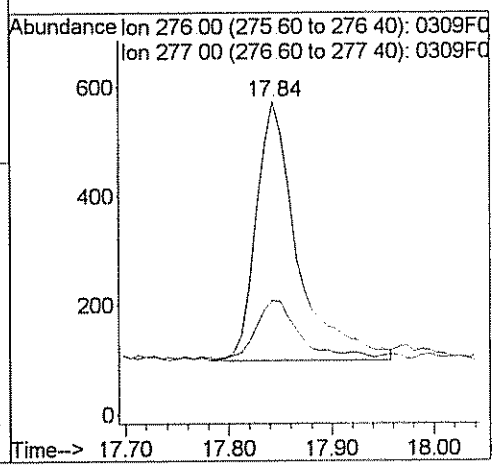




#57
Benzo(g,h,i)perylene
Concen: 0.84 ng/ml
RT: 17.84 min Scan# 2013
Delta R.T. -0.02 min
Lab File: 0309F012.D
Acq: 9 Mar 2005 12:04 pm

Tgt Ion:276 Resp: 1330

Ion	Ratio	Lower	Upper
276	100		
277	22.3	0.0	53.9

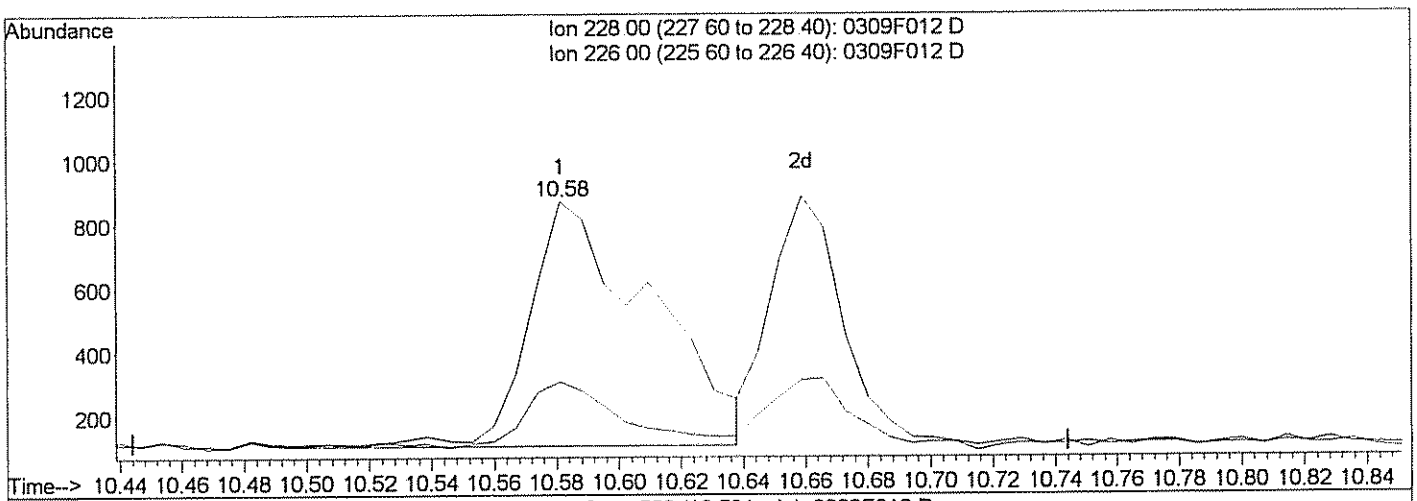


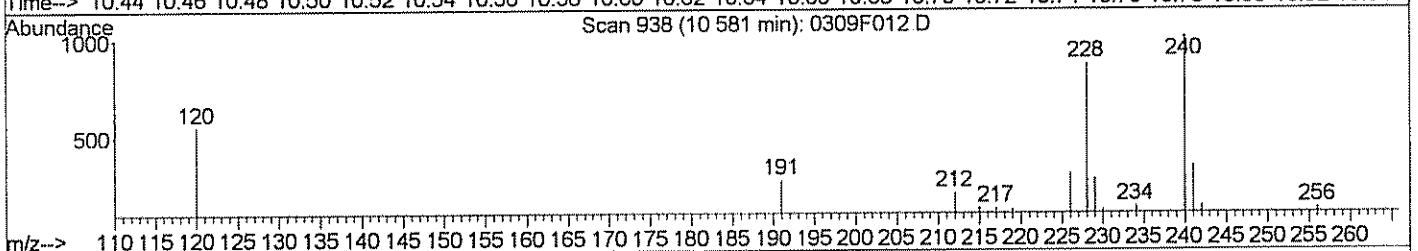
Quantitation Report (Qedit)

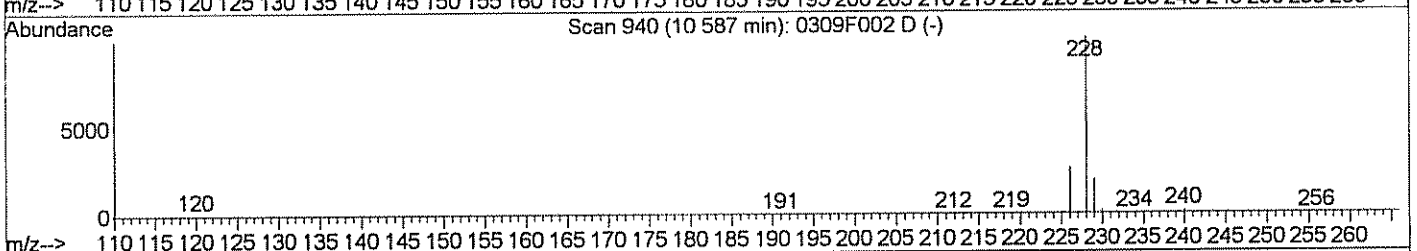
Data File : J:\MS11\DATA\030905\0309F012.D
Acq On : 9 Mar 2005 12:04 pm
Sample : K2501544-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:15 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F012 D

(43) Benz(a)anthracene (T)

10 58min 1 30ng/ml

response 2069

Ion	Exp%	Act%
228.00	100	100
226 00	26 60	25 43
0 00	0 00	0 00
0 00	0 00	0 00

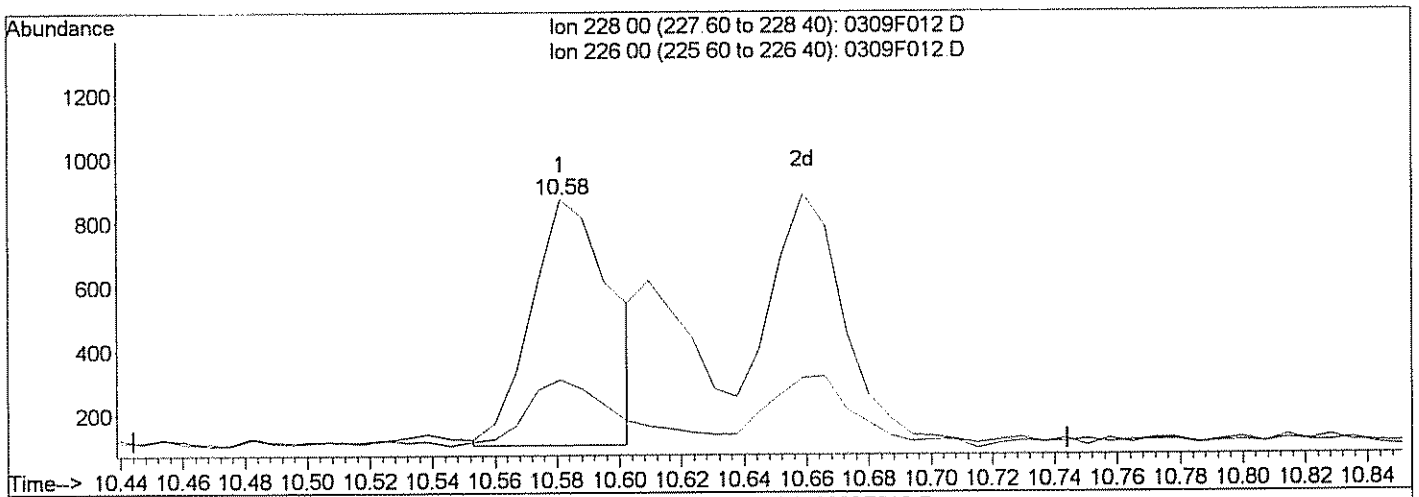
0309F012.D 0305ALK.M Mon Mar 14 08:15:52 2005

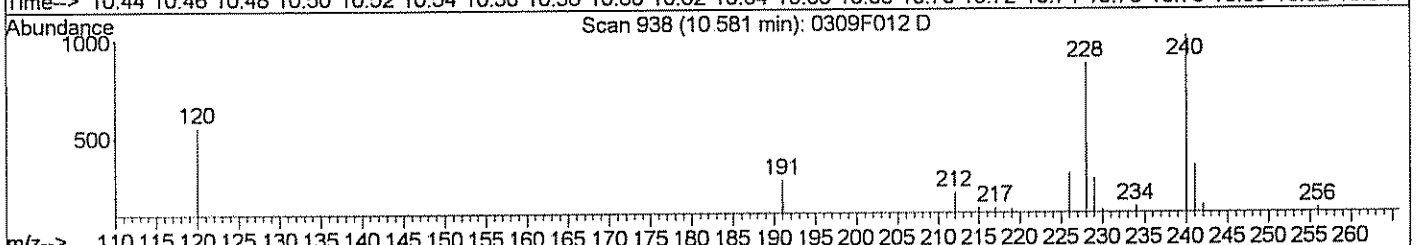
Quantitation Report (Qedit)

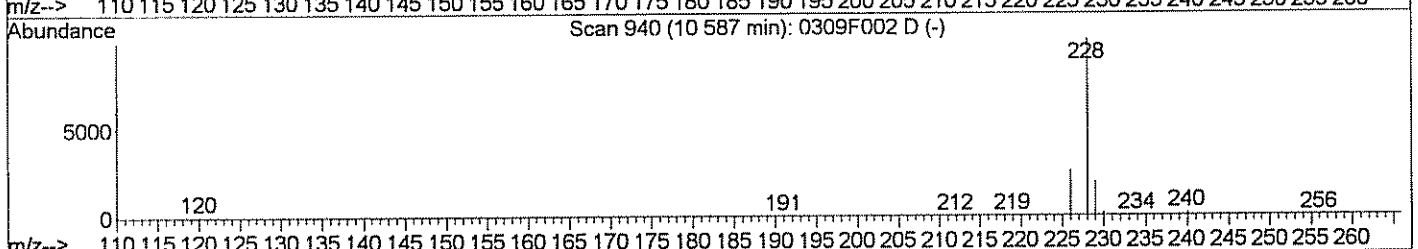
Data File : J:\MS11\DATA\030905\0309F012.D
Acq On : 9 Mar 2005 12:04 pm
Sample : K2501544-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:15 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F012 D

(43) Benz(a)anthracene (T)

10 58min 0 86ng/ml m

response 1371

Ion	Exp%	Act%
228 00	100	100
226 00	26 60	35 44
0 00	0 00	0 00
0 00	0 00	0 00

over integrated

0309F012.D 0305ALK.M Mon Mar 14 08:15:57 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-03	**Units:**	ug/L
Lab Code:	K2501544-003	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F013.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.018**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0049**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.030	Ui	0.030	0.030	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	54	37-107	03/09/05	Acceptable
Fluoranthene-d10	79	18-137	03/09/05	Acceptable
Terphenyl-d14	72	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F013 D
Lab ID: K2501544-003
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 12:31
Date Quantitated: 03/14/2005 08:54
Batch ID: KWG0504050
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 3/14/15

Secondary Review: 3-14-1

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	K2501544
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365923	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK.M	**Calibration ID:**	CAL4271
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ4885
Tune Ref:	J:\MS11\DATA\030905\0309F001.D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\030805\0308F006.D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\030905\0309F013.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:31	**Quant Date:**	03/14/2005 08:54	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.00	136	282937	200.00	OK
2	Acenaphthene-d10	6.50	0.00	164	299742m	200.00	OK
3	Phenanthrene-d10	7.71	-0.01	188	351060	200.00	OK
4	Chrysene-d12	10.62	0.00	240	305940	200.00	OK
5	Perylene-d12	14.56	0.00	264	274758	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	433294	215.16	54	37-107	OK
3	Fluoranthene-d10	8.72	0.00	0.00	212	756285	314.91	79	18-137	OK
4	Terphenyl-d14	9.13	0.00	0.00	244	499787	288.74	72	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.08		0.00	128	6030	3.84	0.018	J	
1	2-Methylnaphthalene	5.63		0.00	142	1413	1.01	0.0049	J	
2	Acenaphthylene	6.37		0.00	152	296m	0.1100	0.0031	U	
2	Acenaphthene	6.52		0.00	154	10635	6.18	0.030	Ui	
2	Dibenzofuran	6.65		0.00	168	348	0.1400	0.0044	U	
2	Fluorene	6.93		0.00	166	490	0.2500	0.0051	U	
3	Phenanthrene				178	0d		0.0038	U	
3	Anthracene				178	0d		0.0039	U	
3	Fluoranthene				202	0d		0.0042	U	
4	Pyrene				202	0d		0.0037	U	
4	Benz(a)anthracene				228	0d		0.0040	U	
4	Chrysene				228	0d		0.0036	U	
5	Benzo(b)fluoranthene				252	0d		0.0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030905\0309F013.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:31	**Quant Date:**	03/14/2005 08:54	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-003			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene				252	0d		0.0041	U	
5	Benzo(a)pyrene				252	0d		0.0041	U	
5	Indeno(1,2,3-cd)pyrene	17.39	-0.02	0.00	276	117	0.0900	0.0038	U	
5	Dibenz(a,h)anthracene	17.47		0.00	278	146	0.1100	0.0066	U	
5	Benzo(g,h,i)perylene	17.84	-0.01	0.00	276	173	0.1000	0.0041	U	

Prep Amount: 1040 ml **Dilution:** 1.0
Prep Final Vol: 5 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F013.D
Acq On : 9 Mar 2005 12:31 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:45 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	282937	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	299742m	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	351060	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	305940	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	274758	200.00	ng/ml	-0.03
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	433294	215.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	21.52%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
36) Fluoranthene-d10	8.72	212	756285	314.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	31.49%	
42) Terphenyl-d14	9.13	244	499787	288.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	28.87%	

Target Compounds						Qvalue
2) Naphthalene	5.08	128	6030	3.84	ng/ml	95
3) 2-Methylnaphthalene	5.63	142	1413	1.01	ng/ml	96
4) 1-Methylnaphthalene	5.72	142	831	0.66	ng/ml	98
5) Biphenyl	6.01	154	1219m	0.70	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	268	0.21	ng/ml	97
11) Acenaphthylene	6.37	152	296m	0.11	ng/ml	
12) Acenaphthene	6.52	154	10635	6.18	ng/ml#	1
13) Dibenzofuran	6.65	168	348	0.14	ng/ml	96
16) Fluorene	6.93	166	490	0.25	ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.39	276	117	0.09	ng/ml	92
56) Dibenz(a,h)anthracene	17.47	278	146	0.11	ng/ml	89
57) Benzo(g,h,i)perylene	17.84	276	173	0.10	ng/ml	89

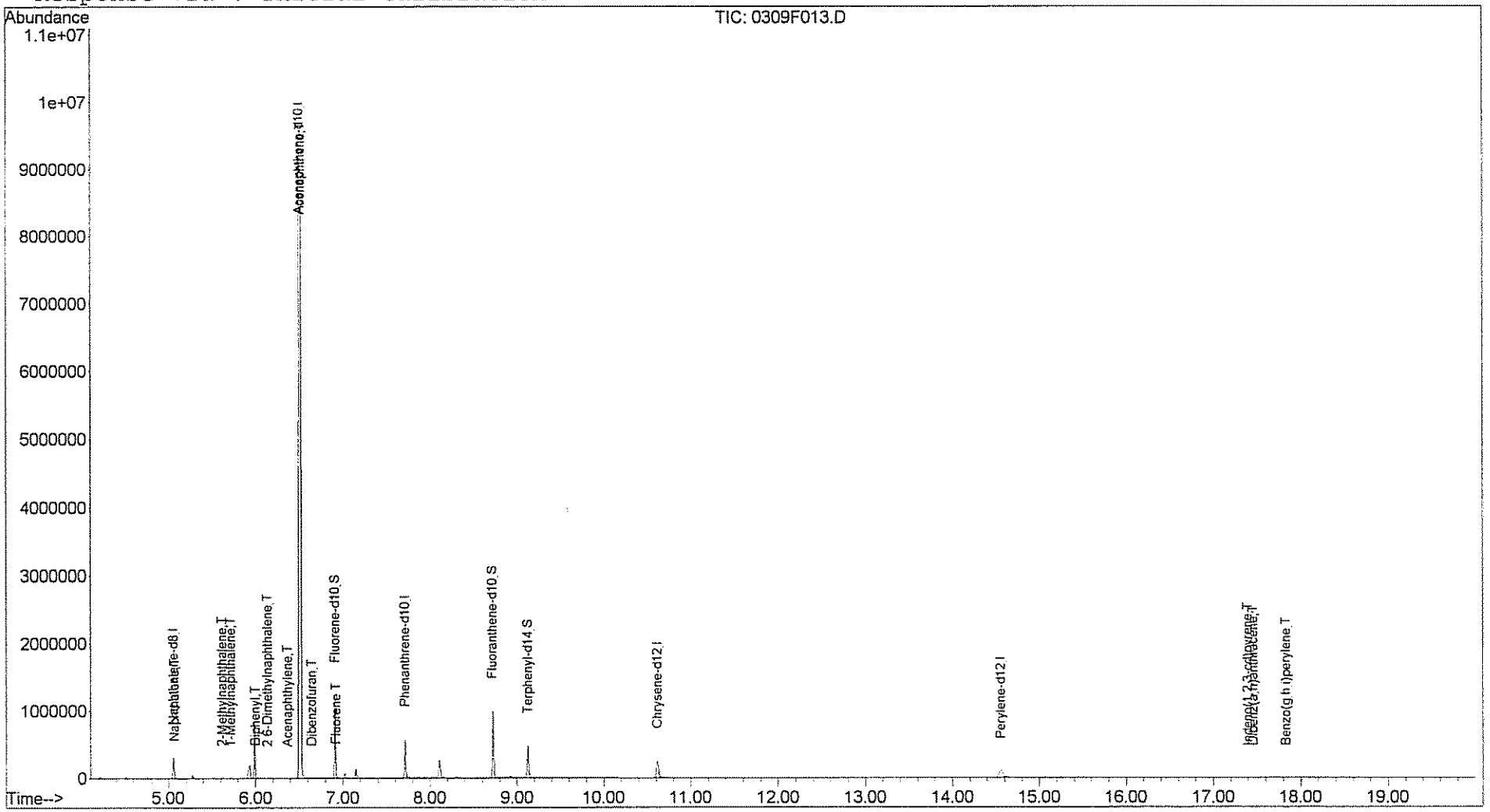
(#) = qualifier out of range (m) = manual integration

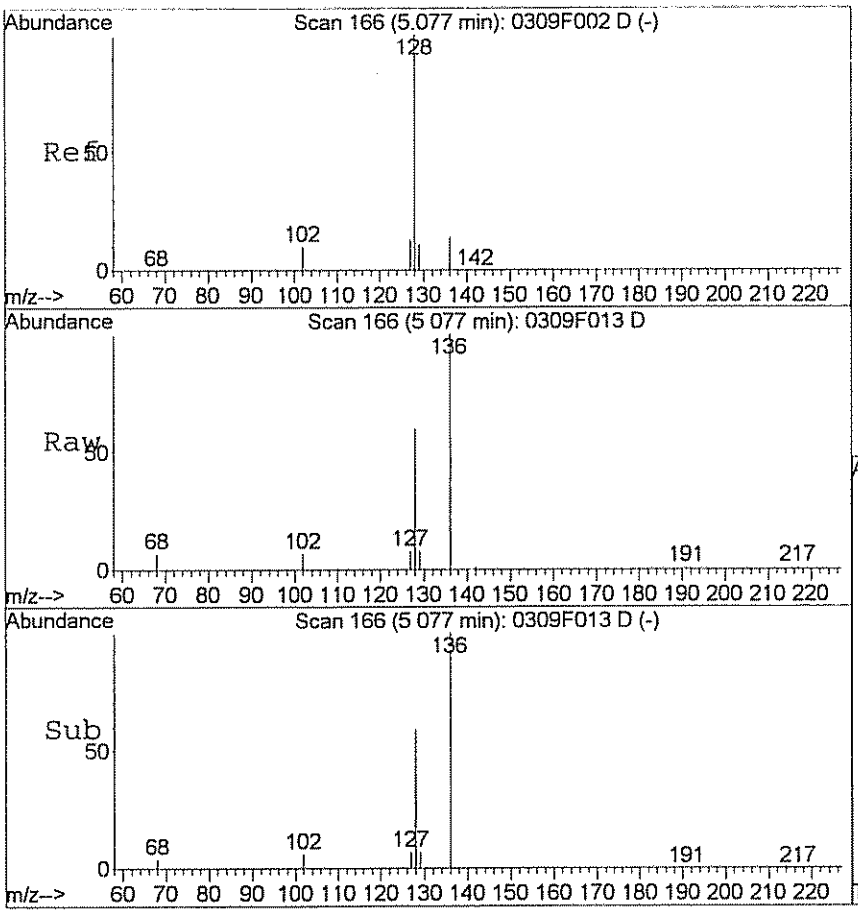
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F013.D
Acq On : 9 Mar 2005 12:31 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:54 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration

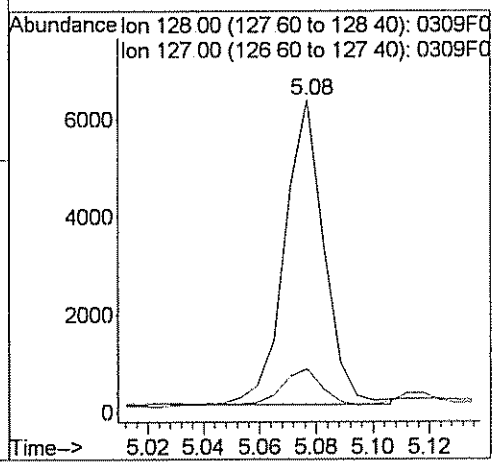


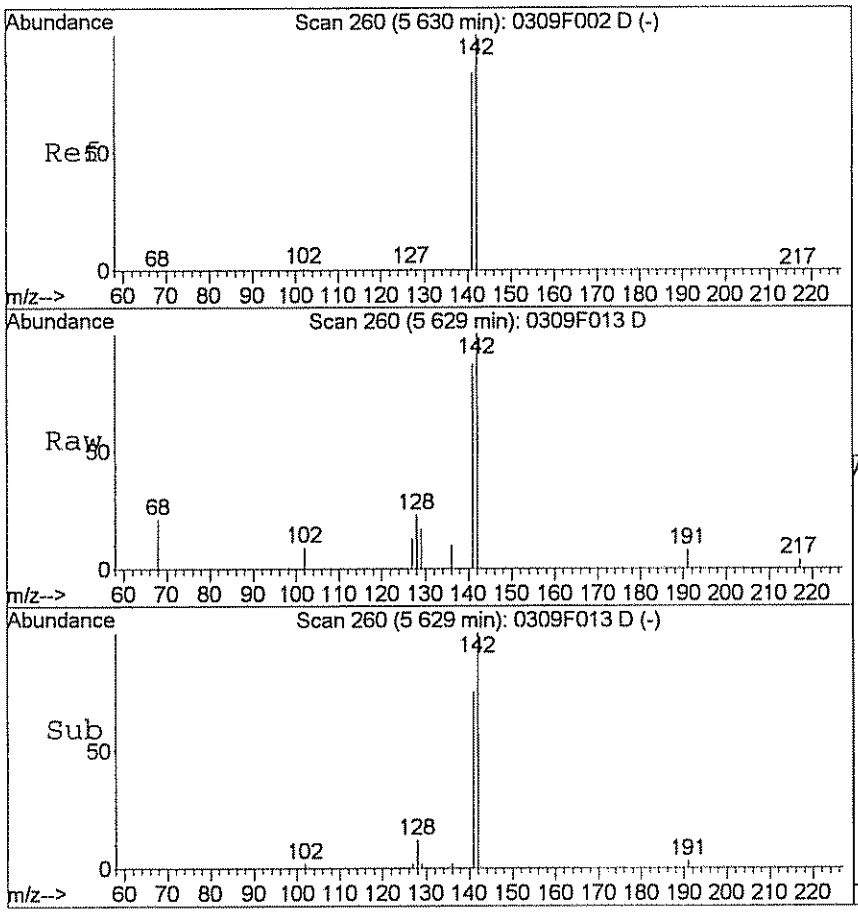


#2
Naphthalene
Concen: 3.84 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:128 Resp: 6030

Ion	Ratio	Lower	Upper
128	100		
127	11.3	0.0	43.1

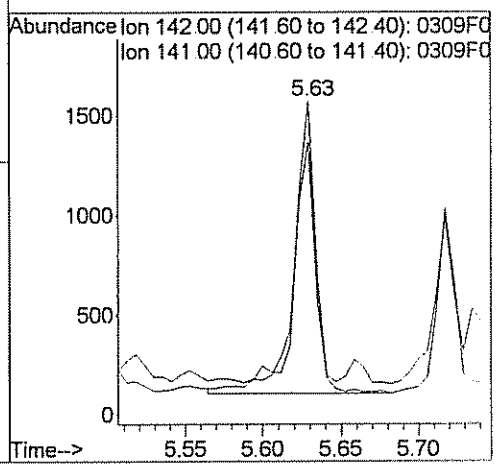


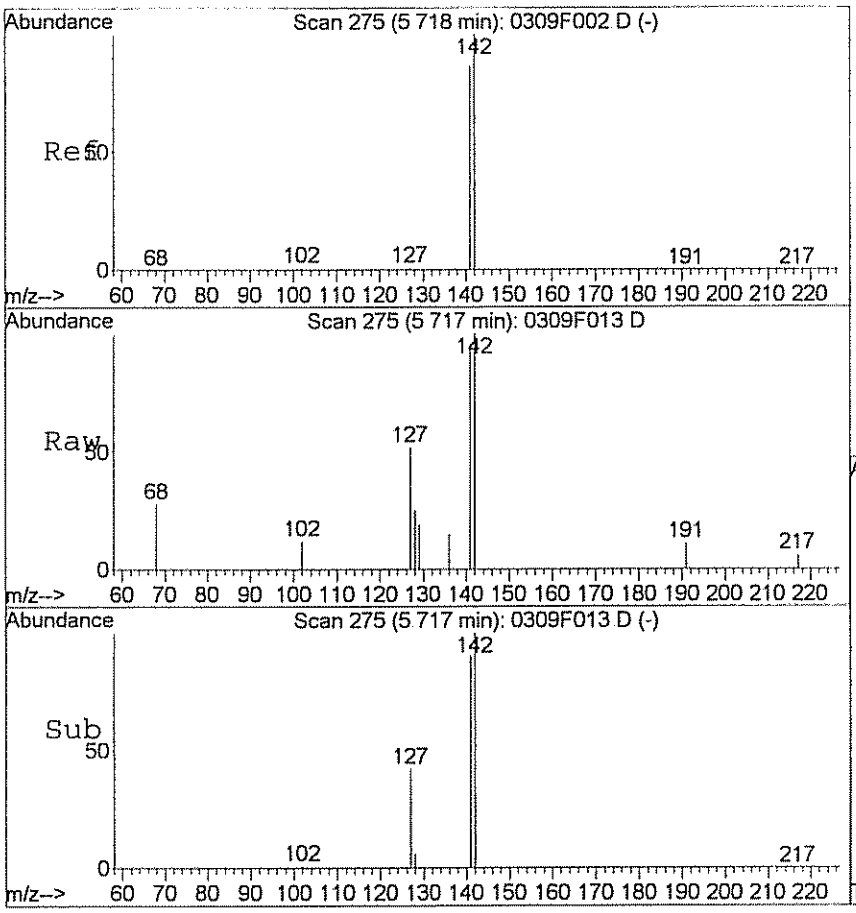


#3
2-Methylnaphthalene
Concen: 1.01 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:142 Resp: 1413

Ion	Ratio	Lower	Upper
142	100		
141	82.7	56.4	116.4

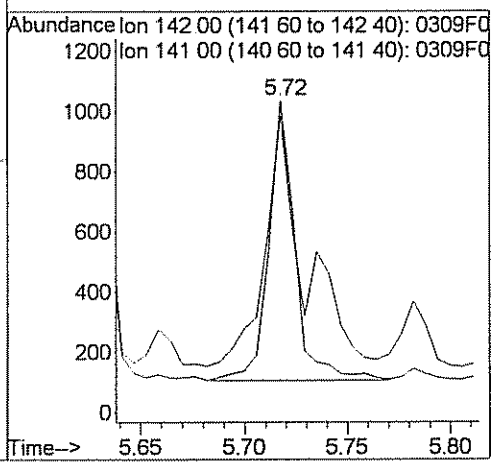


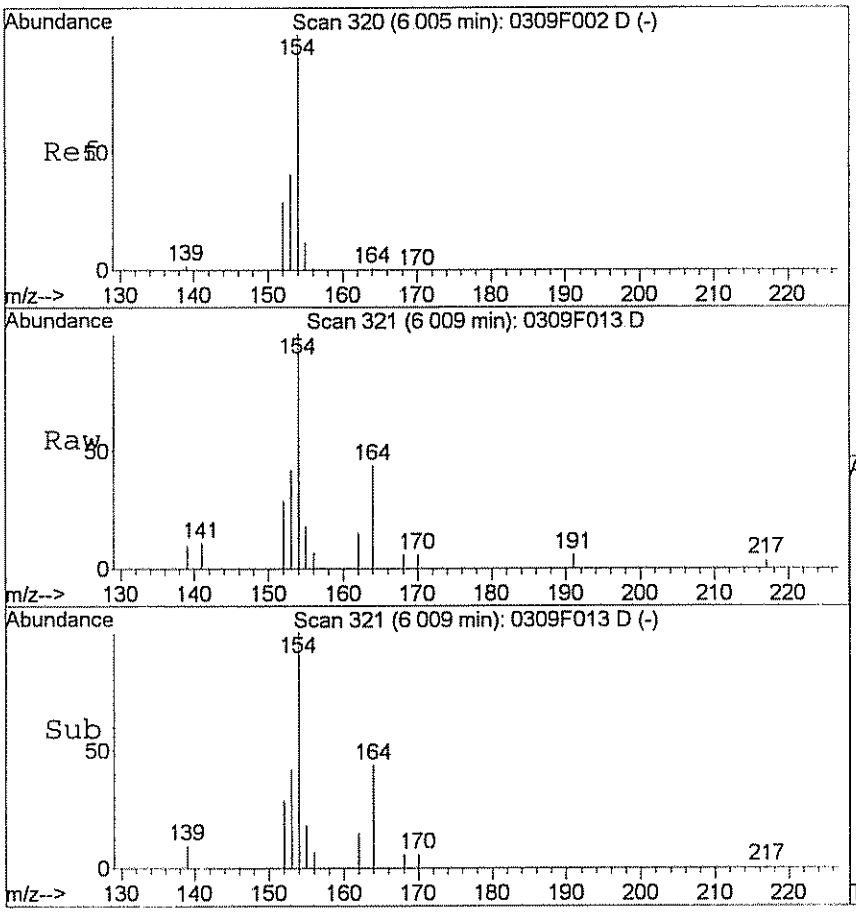


#4
1-Methylnaphthalene
Concen: 0.66 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:142 Resp: 831

Ion	Ratio	Lower	Upper
142	100		
141	89.4	60.9	120.9

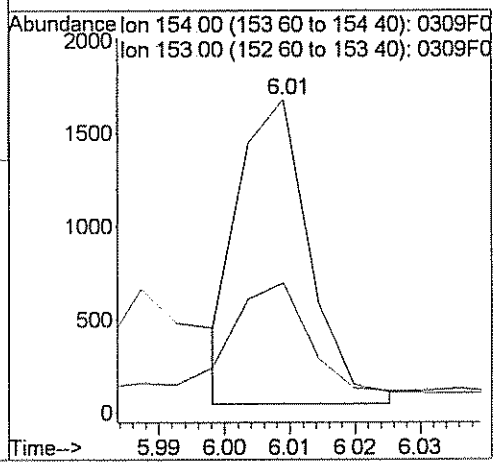


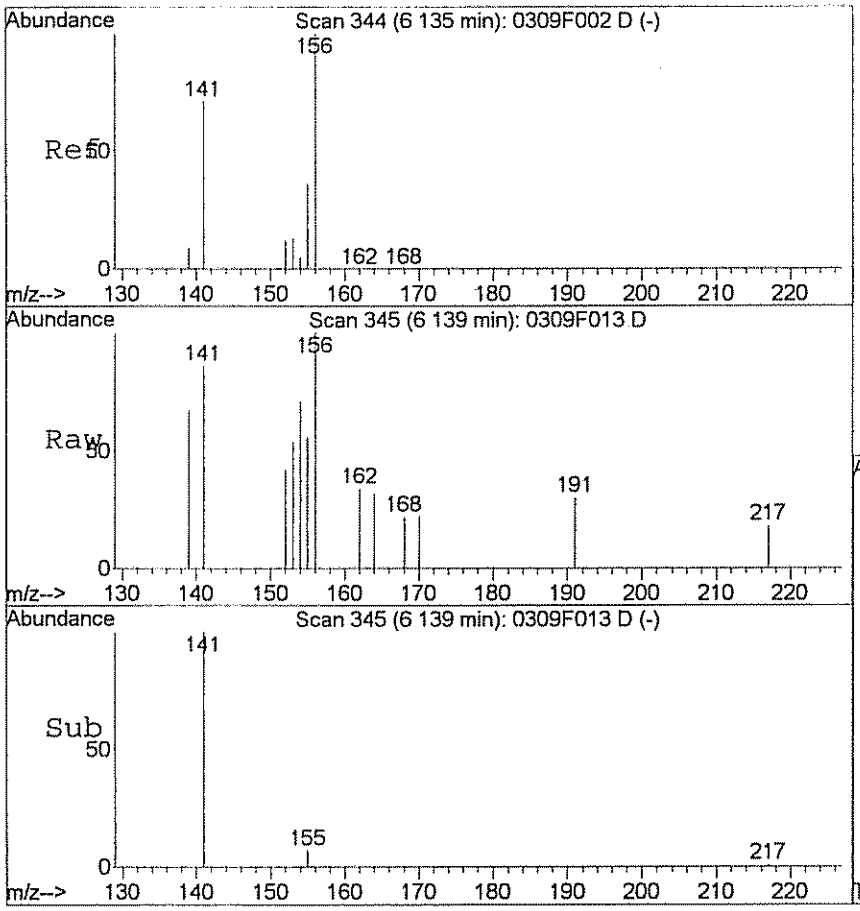


#5
Biphenyl
Concen: 0.70 ng/ml m
RT: 6.01 min Scan# 321
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:154 Resp: 1219

Ion	Ratio	Lower	Upper
154	100		
153	41.6	11.1	71.1

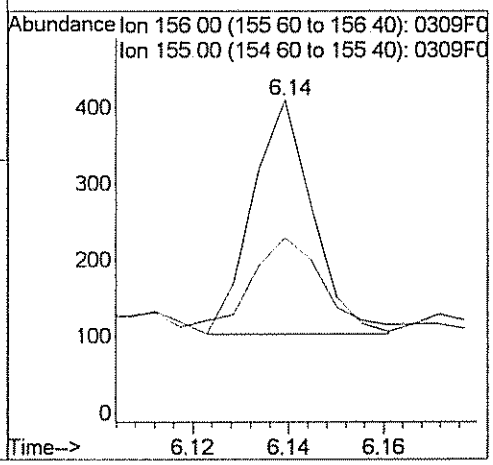


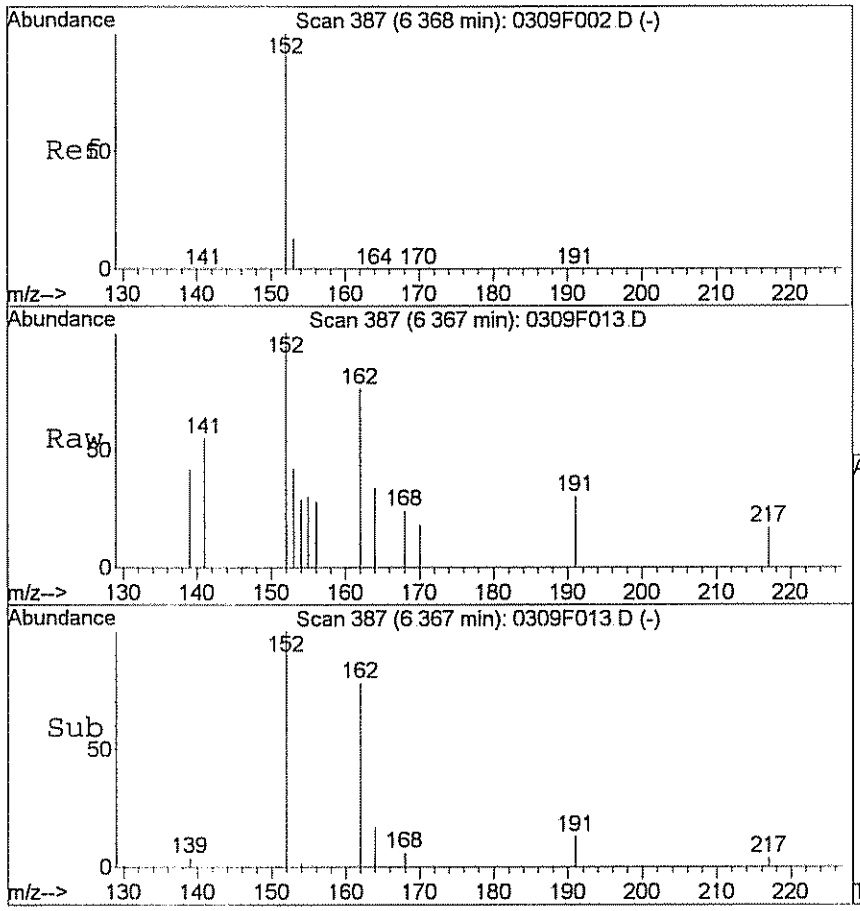


#6
2,6-Dimethylnaphthalene
Concen: 0.21 ng/ml
RT: 6.14 min Scan# 345
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:156 Resp: 268

Ion	Ratio	Lower	Upper
156	100		
155	37.3	5.3	65.3

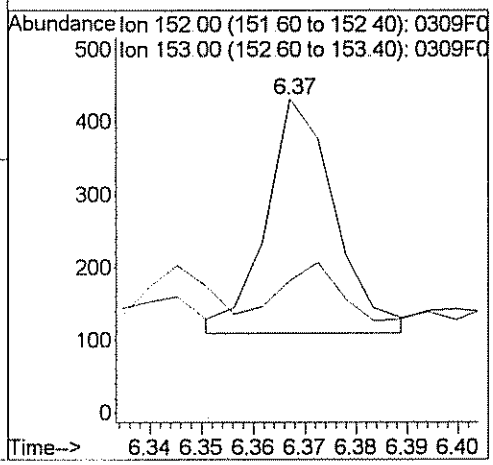




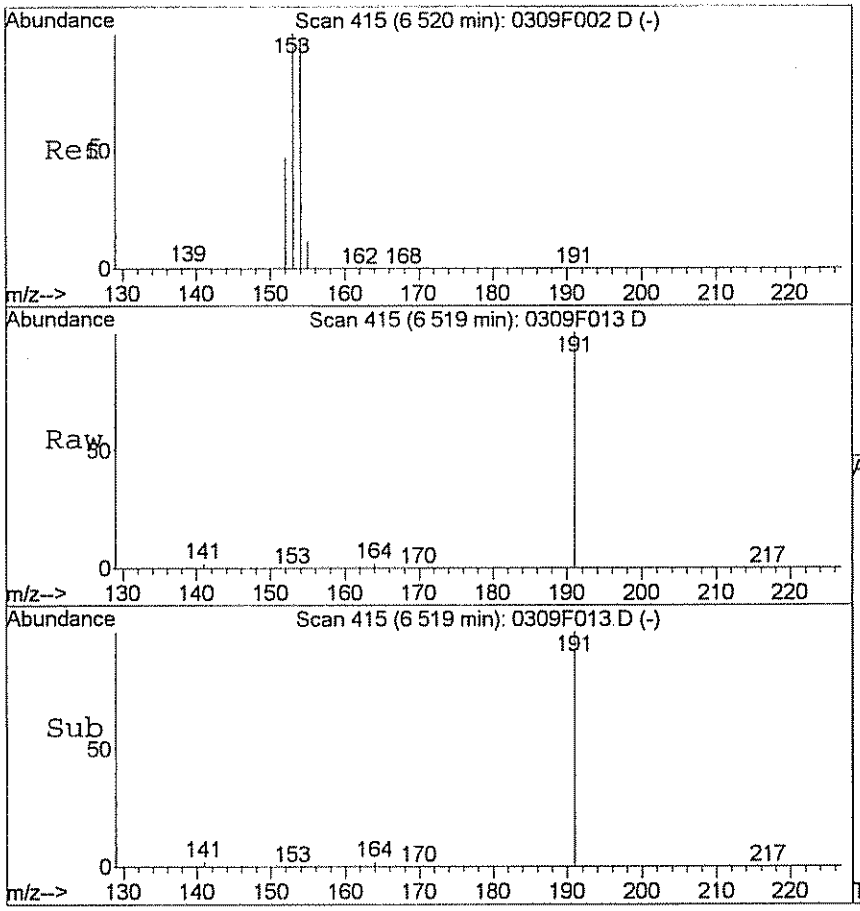
#11
Acenaphthylene
Concen: 0.11 ng/ml m
RT: 6.37 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:152 Resp: 296

Ion	Ratio	Lower	Upper
152	100		
153	42.2	0.0	43.6



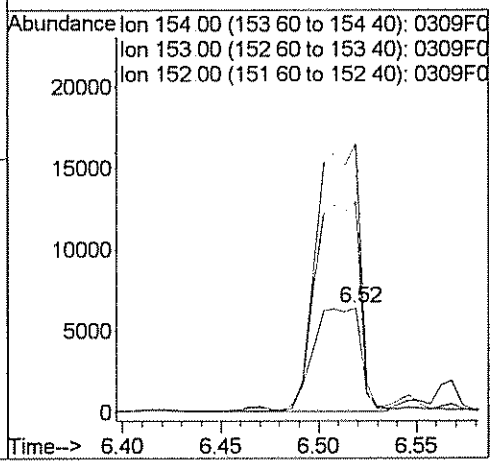
i-matrix

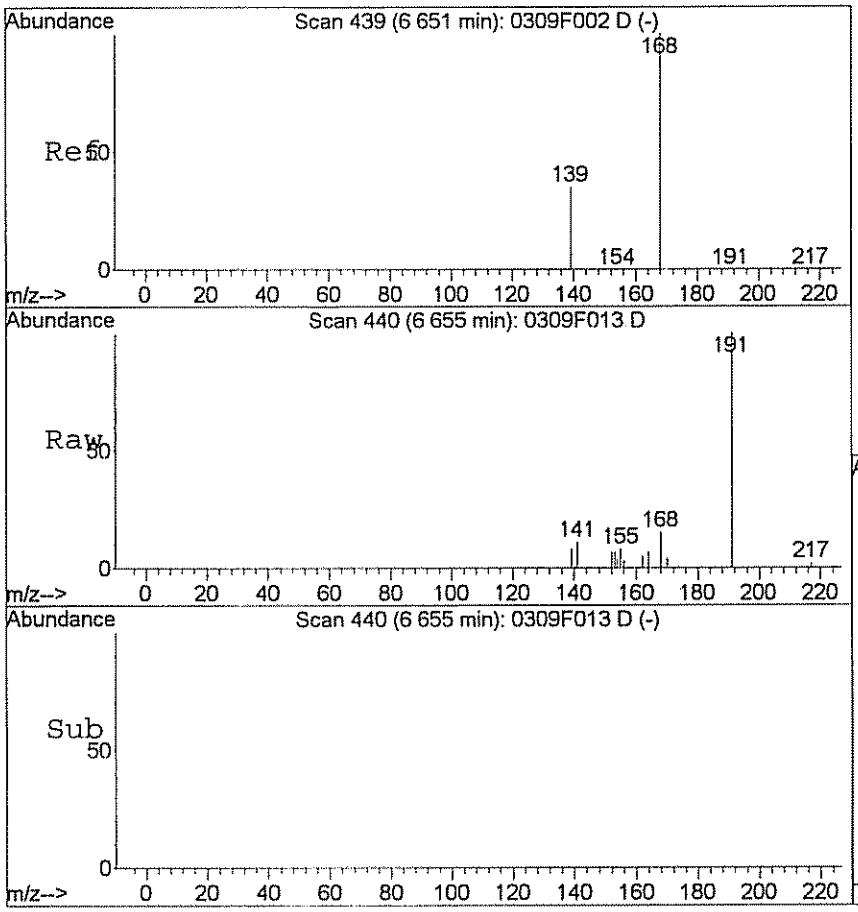


#12
Acenaphthene
Concen: 6.18 ng/ml
RT: 6.52 min Scan# 415
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:154 Resp: 10635

Ion	Ratio	Lower	Upper
154	100		
153	257.4	73.0	133.0#
152	201.3	17.8	77.8#

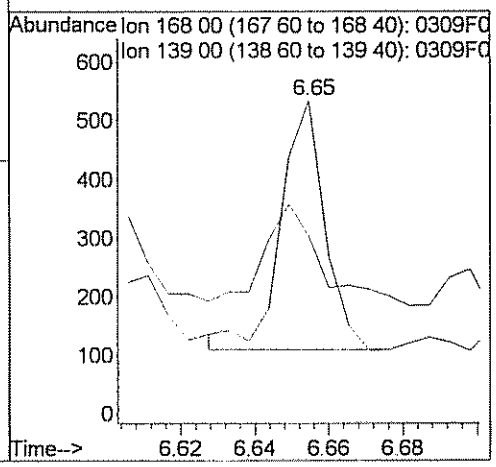


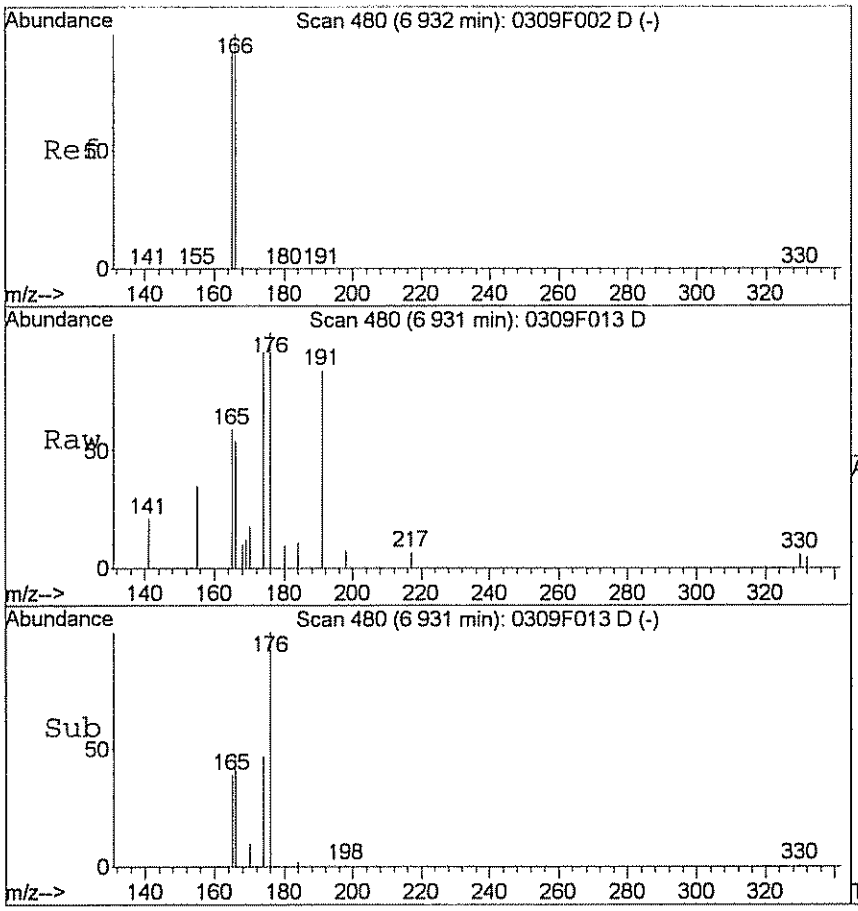


#13
Dibenzofuran
Concen: 0.14 ng/ml
RT: 6.65 min Scan# 440
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:168 Resp: 348

Ion	Ratio	Lower	Upper
168	100		
139	25.9	0.0	58.1

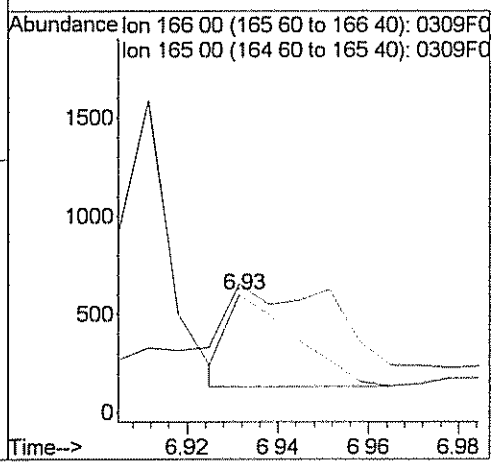


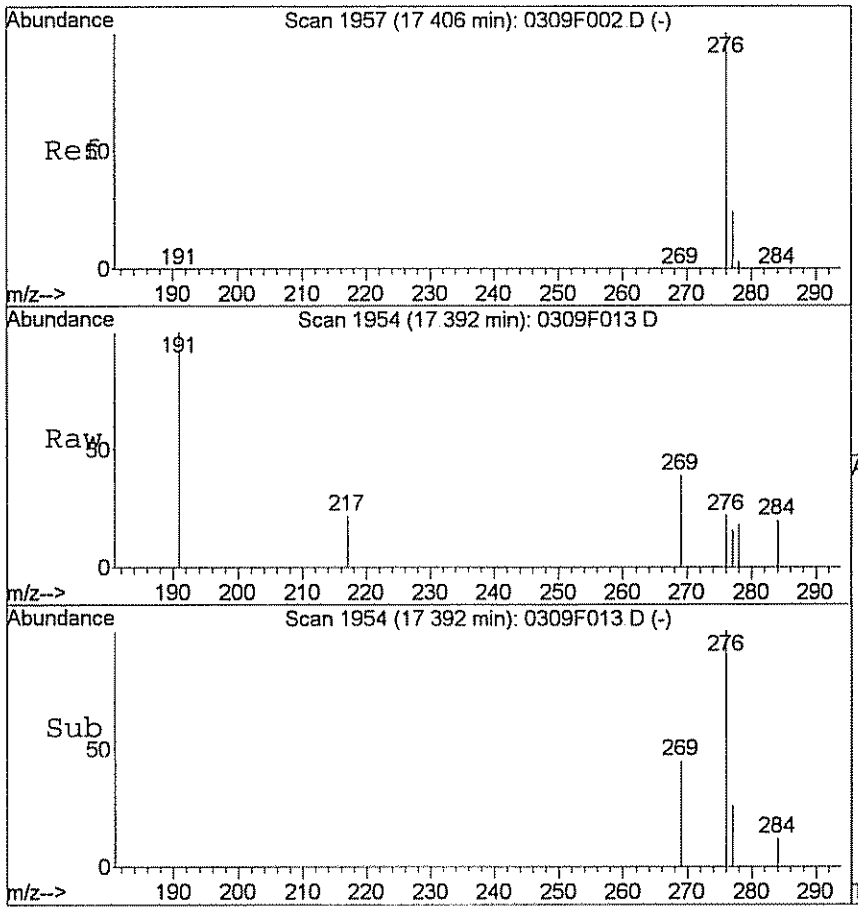


#16
Fluorene
Concen: 0.25 ng/ml
RT: 6.93 min Scan# 480
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:166 Resp: 490

Ion	Ratio	Lower	Upper
166	100		
165	89.0	58.6	118.6

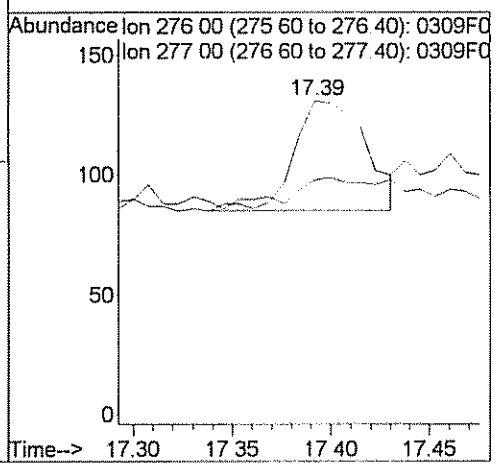


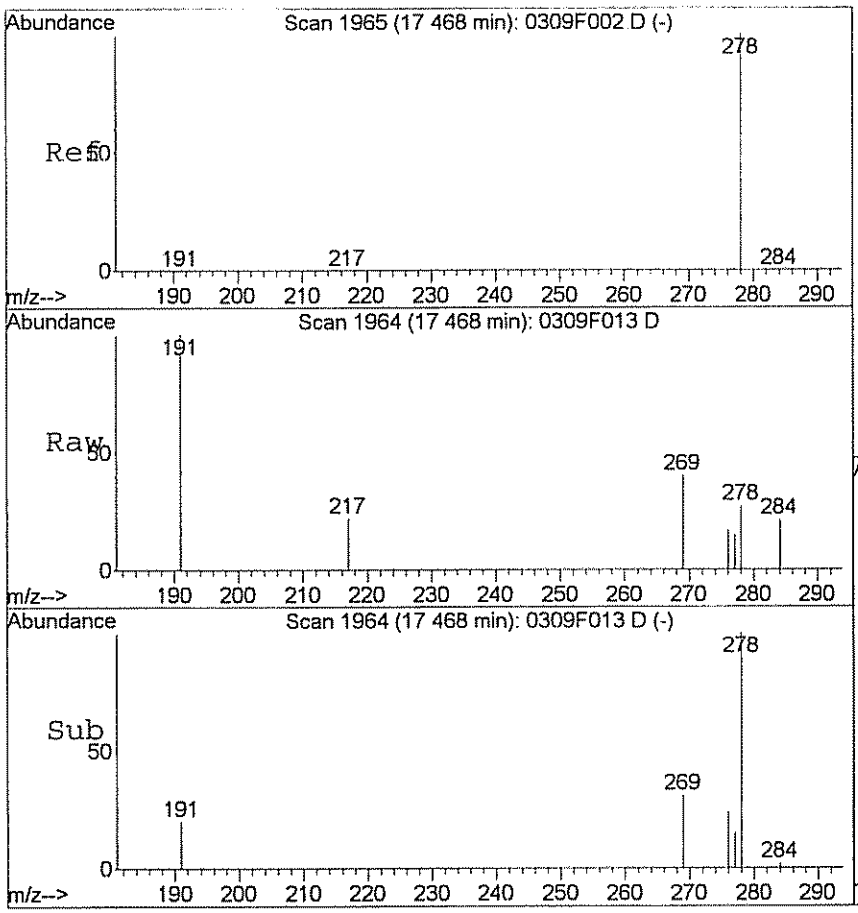


#55
Indeno(1,2,3-cd)pyrene
Concen: 0.09 ng/ml
RT: 17.39 min Scan# 1954
Delta R.T. -0.02 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:276 Resp: 117

Ion	Ratio	Lower	Upper
276	100		
277	19.6	0.0	53.7

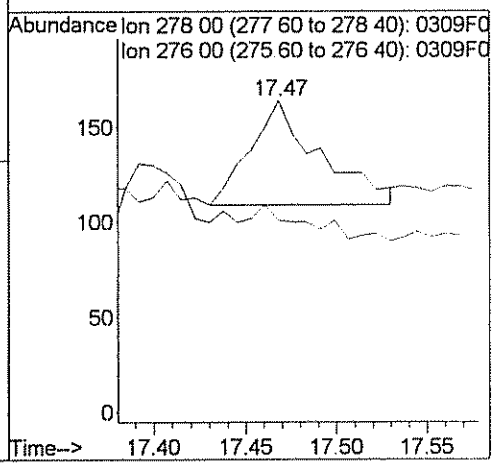


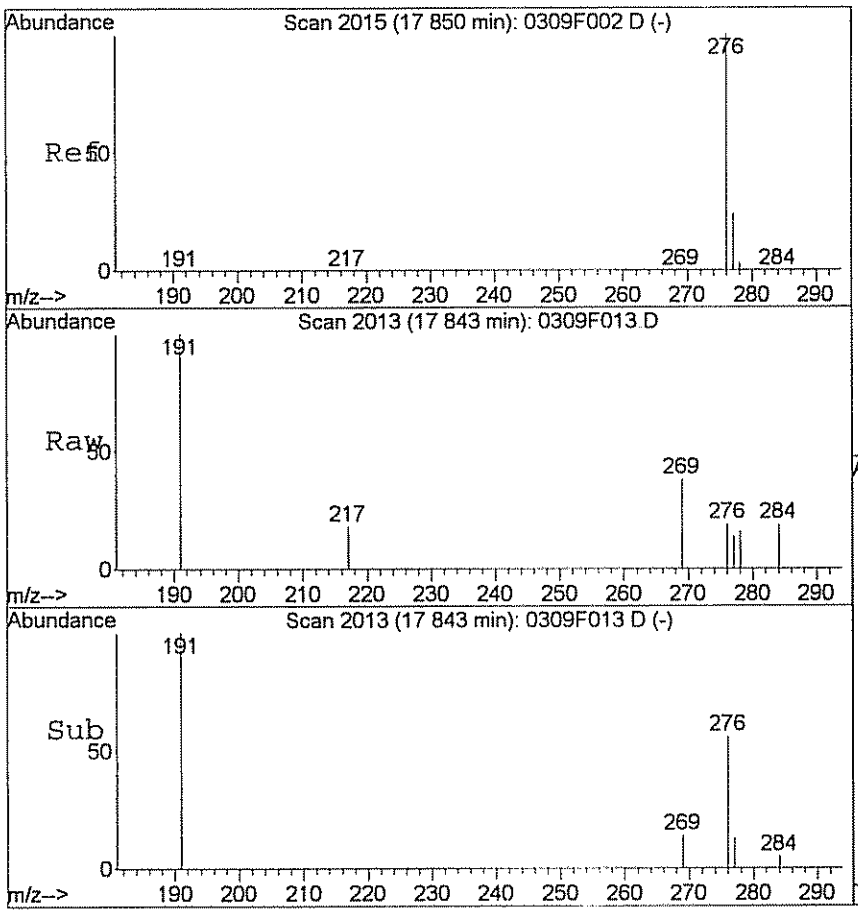


#56
Dibenz(a,h)anthracene
Concen: 0.11 ng/ml
RT: 17.47 min Scan# 1964
Delta R.T. -0.01 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:278 Resp: 146

Ion	Ratio	Lower	Upper
278	100		
276	20.0	0.0	55.3

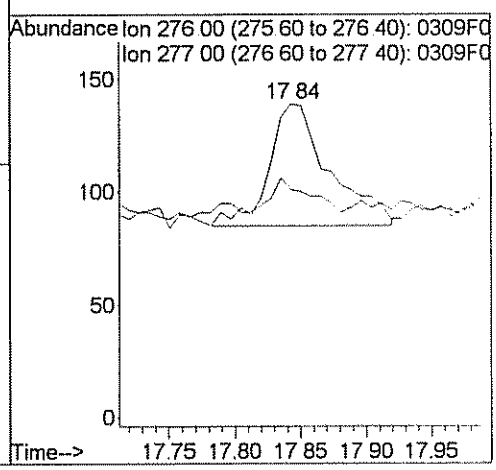




#57
Benzo(g,h,i)perylene
Concen: 0.10 ng/ml
RT: 17.84 min Scan# 2013
Delta R.T. -0.02 min
Lab File: 0309F013.D
Acq: 9 Mar 2005 12:31 pm

Tgt Ion:276 Resp: 173

Ion	Ratio	Lower	Upper
276	100		
277	18.5	0.0	53.9

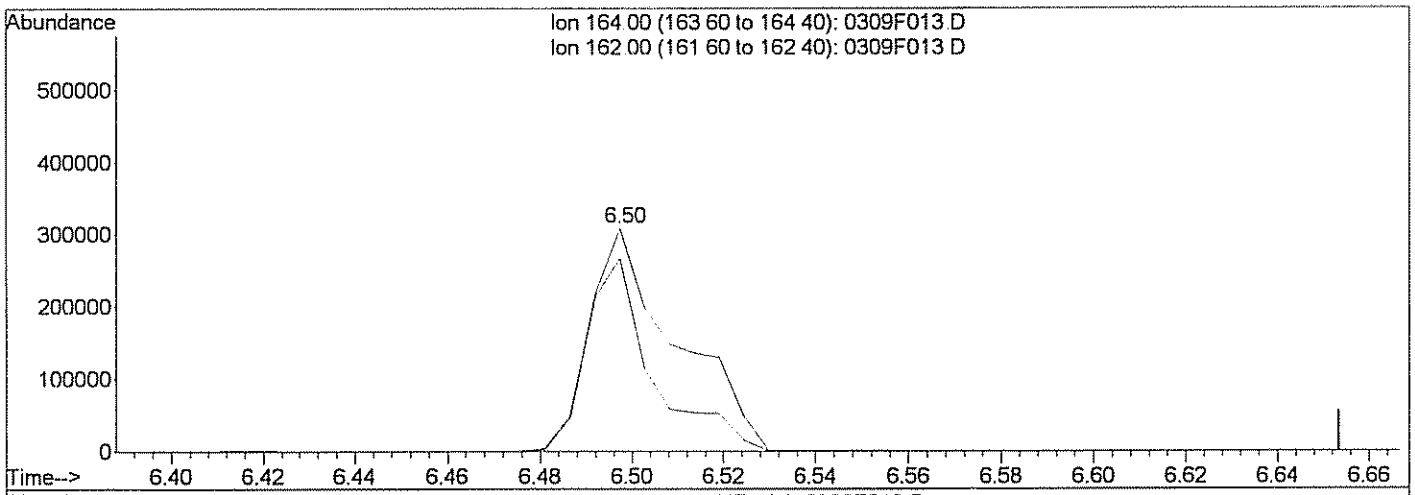


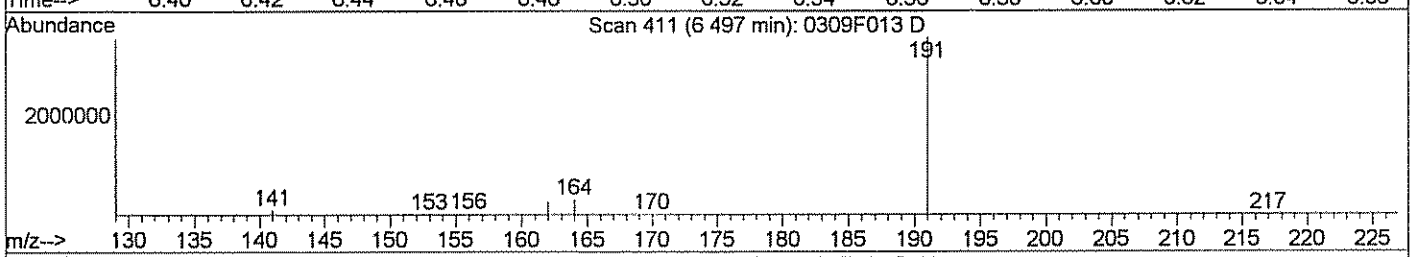
Quantitation Report (Qedit)

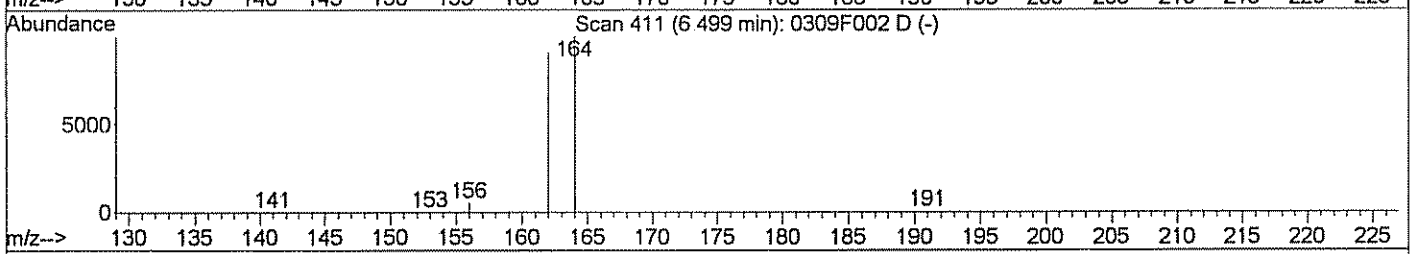
Data File : J:\MS11\DATA\030905\0309F013.D
Acq On : 9 Mar 2005 12:31 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:17 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F013.D

(10) Acenaphthene-d10 (I)

6.50min 200.00ng/ml

response 403153

Ion	Exp%	Act%
164.00	100	100
162.00	96.40	86.59
0.00	0.00	0.00
0.00	0.00	0.00

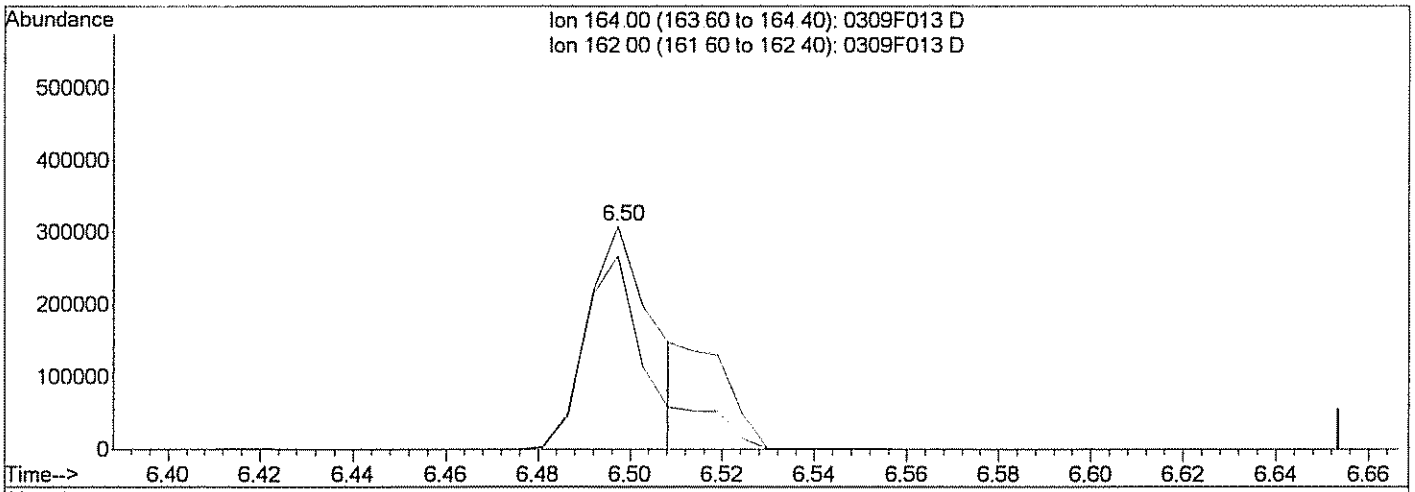
0309F013.D 0305ALK.M Mon Mar 14 08:54:18 2005

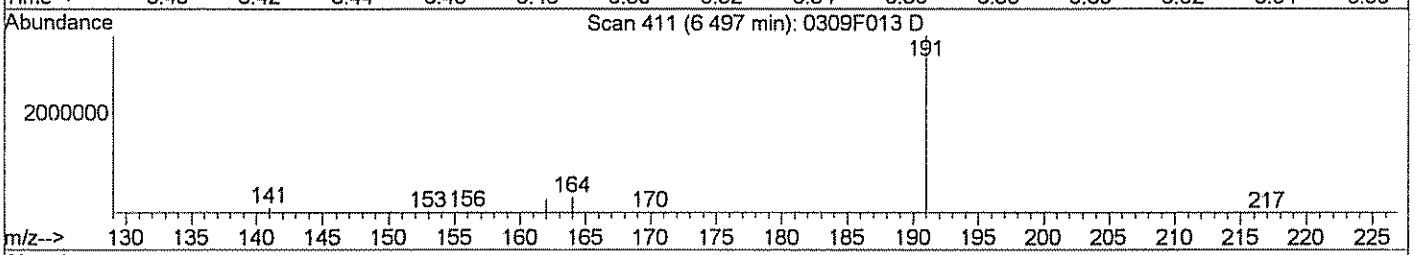
Quantitation Report (Qedit)

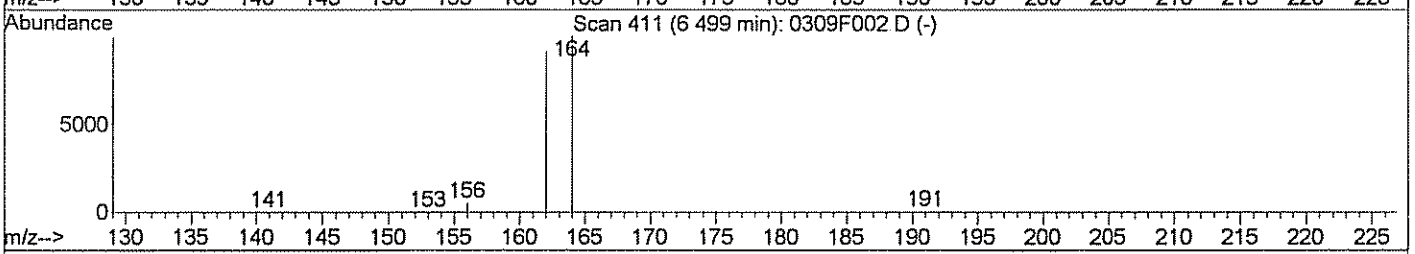
Data File : J:\MS11\DATA\030905\0309F013.D
Acq On : 9 Mar 2005 12:31 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:54 2005

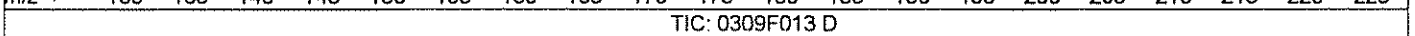
Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration









(10) Acenaphthene-d10 (I)

6.50min 200.00ng/ml m

response 299742

Ion	Exp%	Act%
164.00	100	100
162.00	96.40	86.62
0.00	0.00	0.00
0.00	0.00	0.00

matrix interference
over integrated
3/14/15

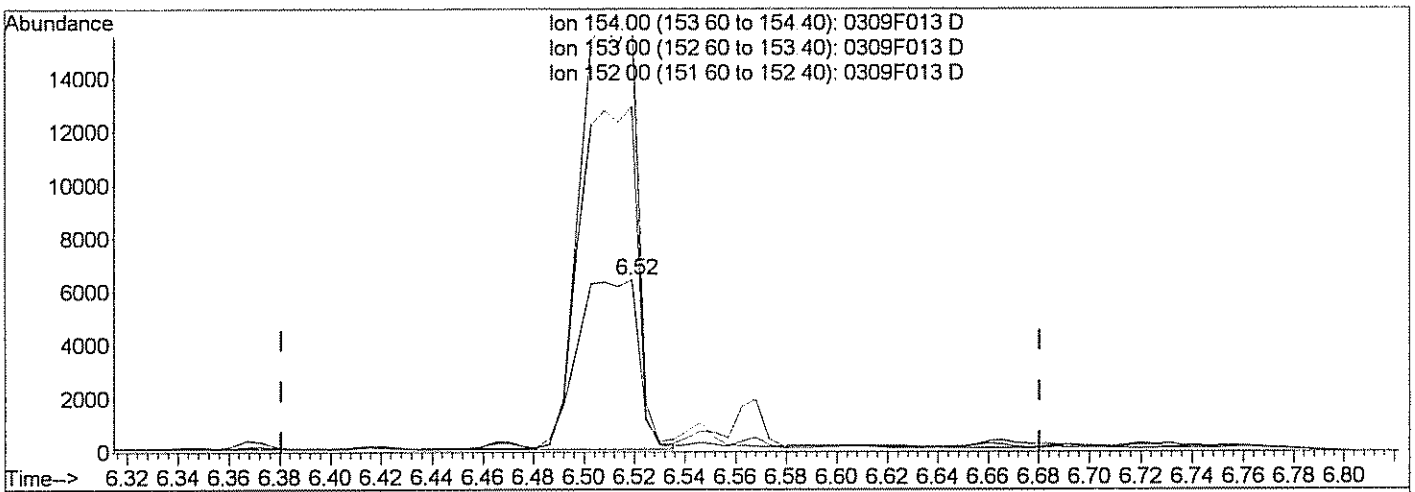
0309F013.D 0305ALK.M Mon Mar 14 08:54:23 2005

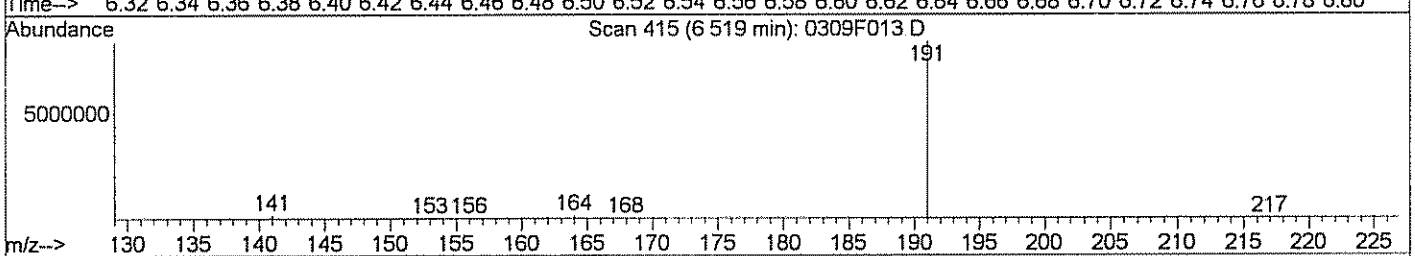
Quantitation Report (Qedit)

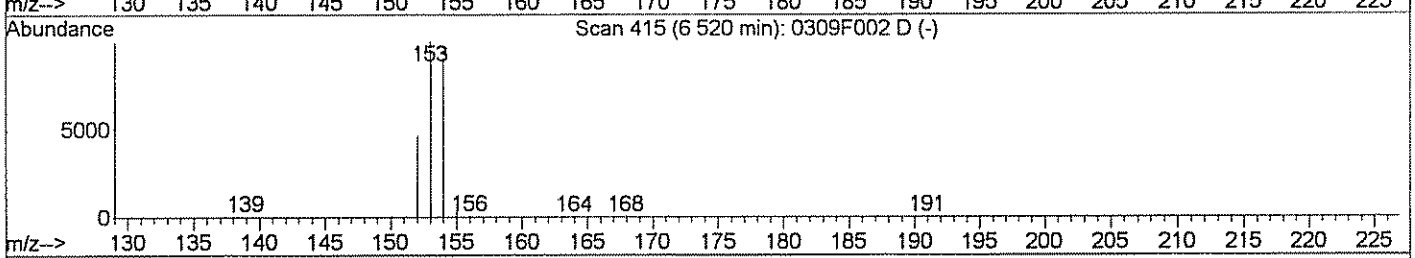
Data File : J:\MS11\DATA\030905\0309F013.D
Acq On : 9 Mar 2005 12:31 pm
Sample : K2501544-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:16 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F013.D

(12) Acenaphthene (T)

6.52min 4.60ng/ml

response 10635

Ion	Exp%	Act%
154.00	100	100
153.00	103.00	257.39#
152.00	47.80	201.34#
0.00	0.00	0.00

i-matrix 03/14/15

0309F013.D 0305ALK.M Mon Mar 14 08:16:31 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-04	**Units:**	ug/L
Lab Code:	K2501544-004	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F014.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.019**	J	0.020	0.0048	
91-57-6	**2-Methylnaphthalene**	**0.0047**	J	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.030	Ui	0.030	0.030	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	45	37-107	03/09/05	Acceptable
Fluoranthene-d10	67	18-137	03/09/05	Acceptable
Terphenyl-d14	67	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F014 D
Lab ID: K2501544-004
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 12:58
Date Quantitated: 03/14/2005 08:54
Batch ID: KWG0504050
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 3/14/15

Secondary Review: 3·14·

Printed: 03/14/2005 08:56:57
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	K2501544
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365924	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK.M	**Calibration ID:**	CAL4271
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ4885
Tune Ref:	J:\MS11\DATA\030905\0309F001.D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\030805\0308F006.D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\030905\0309F014.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:58	**Quant Date:**	03/14/2005 08:54	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-004			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.00	136	284721	200.00	OK
2	Acenaphthene-d10	6.50	0.00	164	291146m	200.00	OK
3	Phenanthrene-d10	7.71	-0.01	188	334969	200.00	OK
4	Chrysene-d12	10.62	0.00	240	296477	200.00	OK
5	Perylene-d12	14.56	0.00	264	262596	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	348520	178.17	45	37-107 OK	
3	Fluoranthene-d10	8.72	0.00	0.00	212	613385	267.67	67	18-137 OK	
4	Terphenyl-d14	9.13	0.00	0.00	244	451782	269.33	67	18-153 OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.08		0.00	128	6146	3.89	0.019	J	
1	2-Methylnaphthalene	5.63		0.00	142	1383	0.9800	0.0047	J	
2	Acenaphthylene	6.37		0.00	152	335m	0.1200	0.0031	U	
2	Acenaphthene	6.52		0.00	154	10299	6.17	0.030	Ui	
2	Dibenzofuran	6.65		0.00	168	436	0.1800	0.0044	U	
2	Fluorene	6.93		0.00	166	490	0.2500	0.0051	U	
3	Phenanthrene	7.73		0.00	178	1401	0.7100	0.0038	U	
3	Anthracene	7.77		0.00	178	217	0.1200	0.0039	U	
3	Fluoranthene				202	0d		0.0042	U	
4	Pyrene				202	0d		0.0037	U	
4	Benz(a)anthracene				228	0d		0.0040	U	
4	Chrysene				228	0d		0.0036	U	
5	Benzo(b)fluoranthene				252	0d		0.0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
#: Acceptance criteria not applicable
? Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030905\0309F014 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 12:58	**Quant Date:**	03/14/2005 08:54	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-004			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene				252	0d		0.0041	U	
5	Benzo(a)pyrene				252	0d		0.0041	U	
5	Indeno(1,2,3-cd)pyrene	17 41		0 00	276	129	0 1100	0.0038	U	
5	Dibenz(a,h)anthracene	17 47		0 00	278	93	0 0700	0 0066	U	
5	Benzo(g,h,i)perylene	17 84	-0 01	0 00	276	169	0 1000	0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F014.D
Acq On : 9 Mar 2005 12:58 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:48 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	284721	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.50	164	291146m	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	334969	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	296477	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	262596	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	348520	178.17	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 17.82%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.72	212	613385	267.67	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 26.77%			
42) Terphenyl-d14	9.13	244	451782	269.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 26.93%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	6146	3.89	ng/ml	98
3) 2-Methylnaphthalene	5.63	142	1383	0.98	ng/ml	99
4) 1-Methylnaphthalene	5.72	142	1006	0.79	ng/ml	100
5) Biphenyl	6.01	154	1102m	0.63	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	361	0.29	ng/ml	98
11) Acenaphthylene	6.37	152	335m	0.12	ng/ml	
12) Acenaphthene	6.52	154	10299	6.17	ng/ml#	1
13) Dibenzofuran	6.65	168	436	0.18	ng/ml	100
16) Fluorene	6.93	166	490	0.25	ng/ml	98
27) Phenanthrene	7.73	178	1401	0.71	ng/ml	96
28) Anthracene	7.77	178	217	0.12	ng/ml	85
55) Indeno(1,2,3-cd)pyrene	17.41	276	129	0.11	ng/ml	97
56) Dibenz(a,h)anthracene	17.47	278	93	0.07	ng/ml	99
57) Benzo(g,h,i)perylene	17.84	276	169	0.10	ng/ml	82

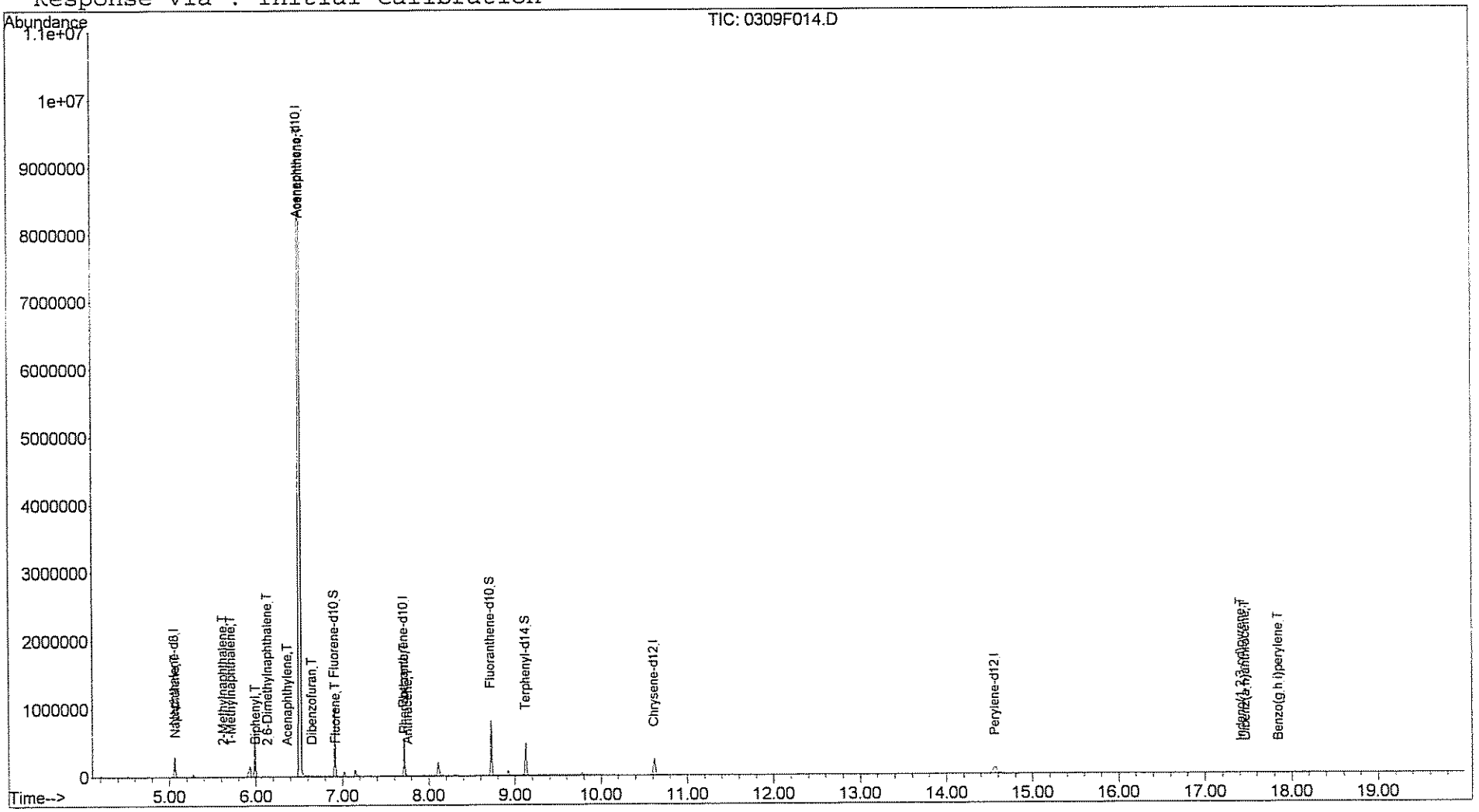
(#) = qualifier out of range (m) = manual integration

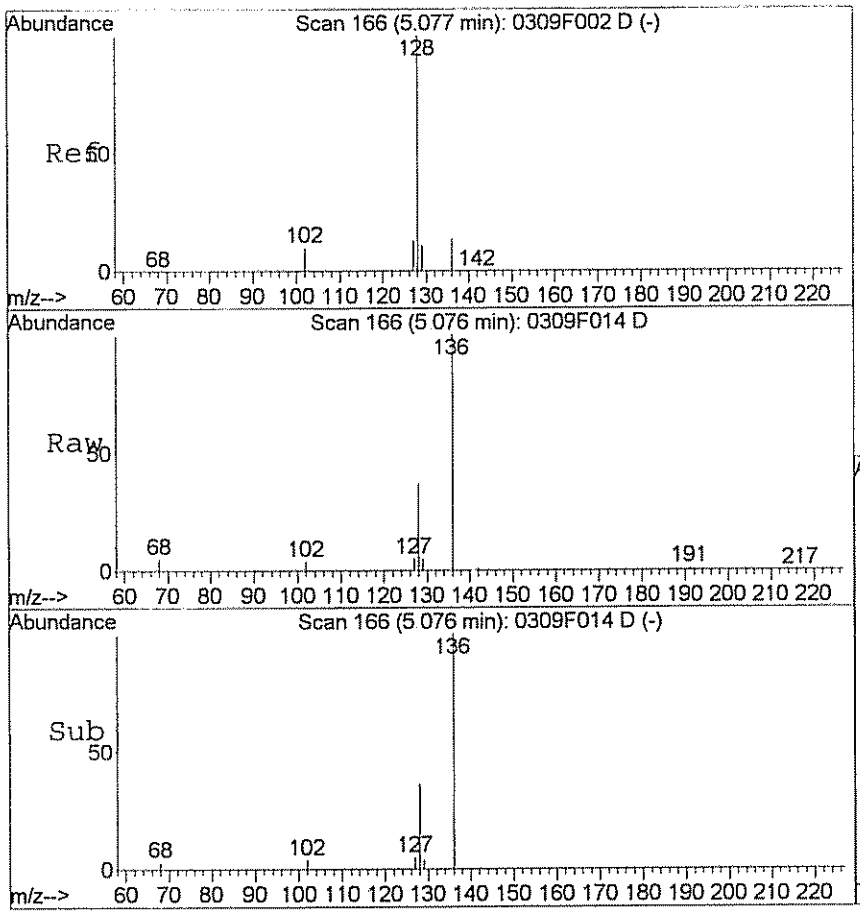
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F014.D
Acq On : 9 Mar 2005 12:58 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:54 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration

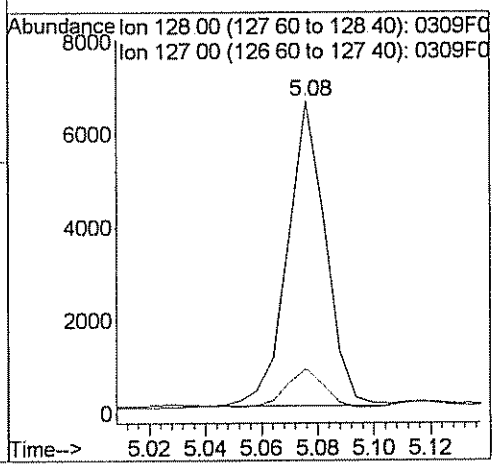


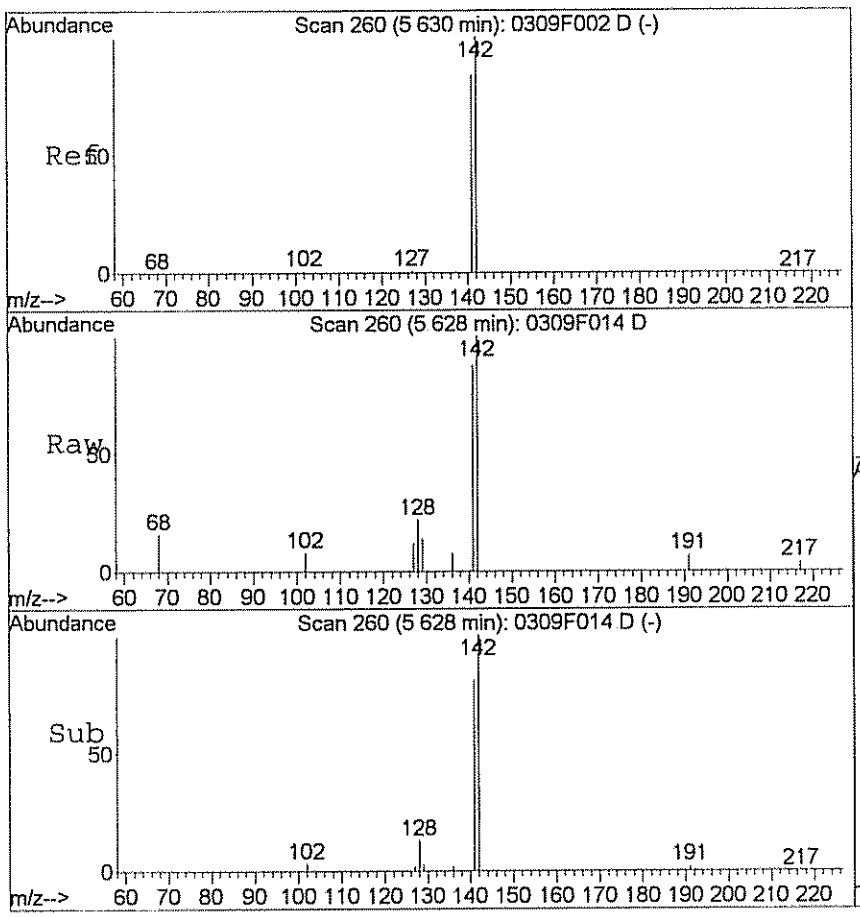


#2
Naphthalene
Concen: 3.89 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:128 Resp: 6146

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	43.1

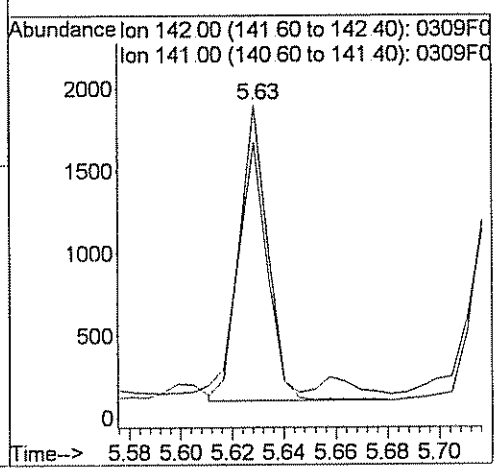


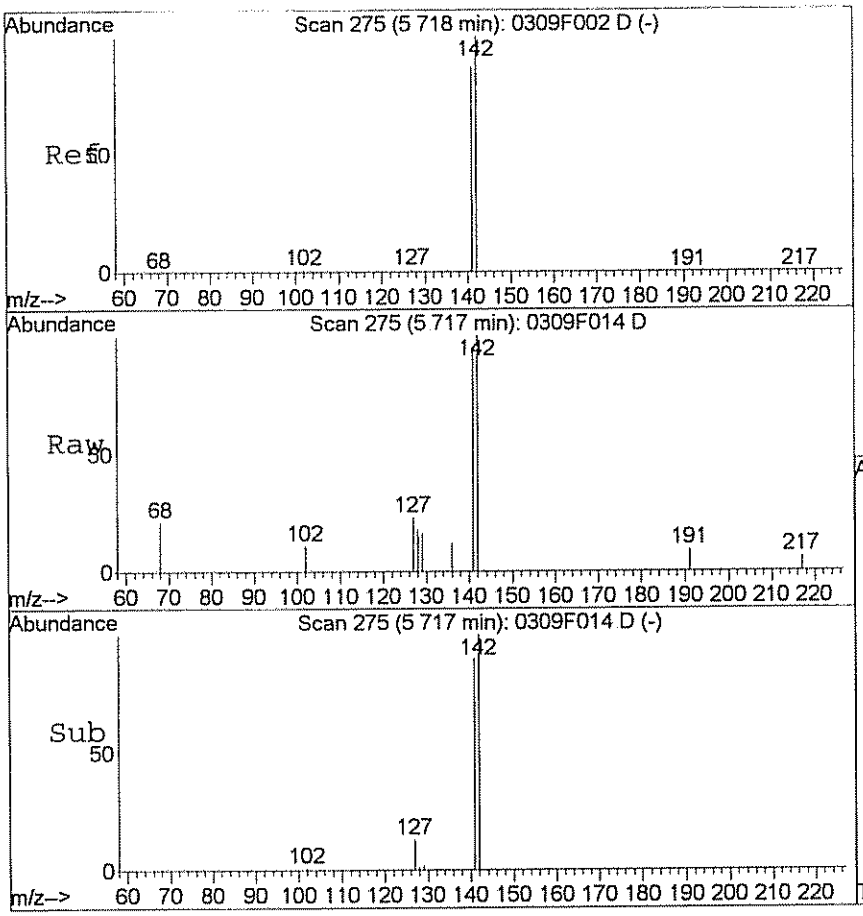


#3
2-Methylnaphthalene
Concen: 0.98 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:142 Resp: 1383

Ion	Ratio	Lower	Upper
142	100		
141	85.2	56.4	116.4

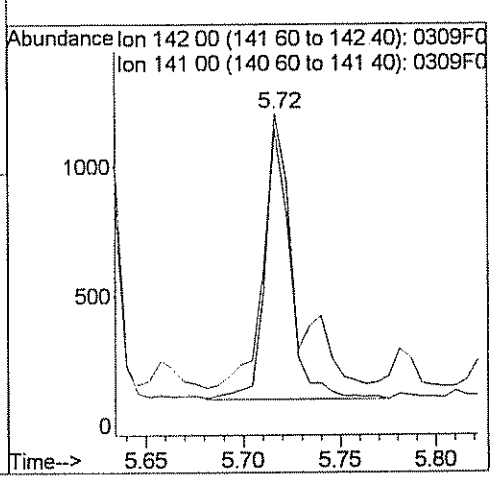


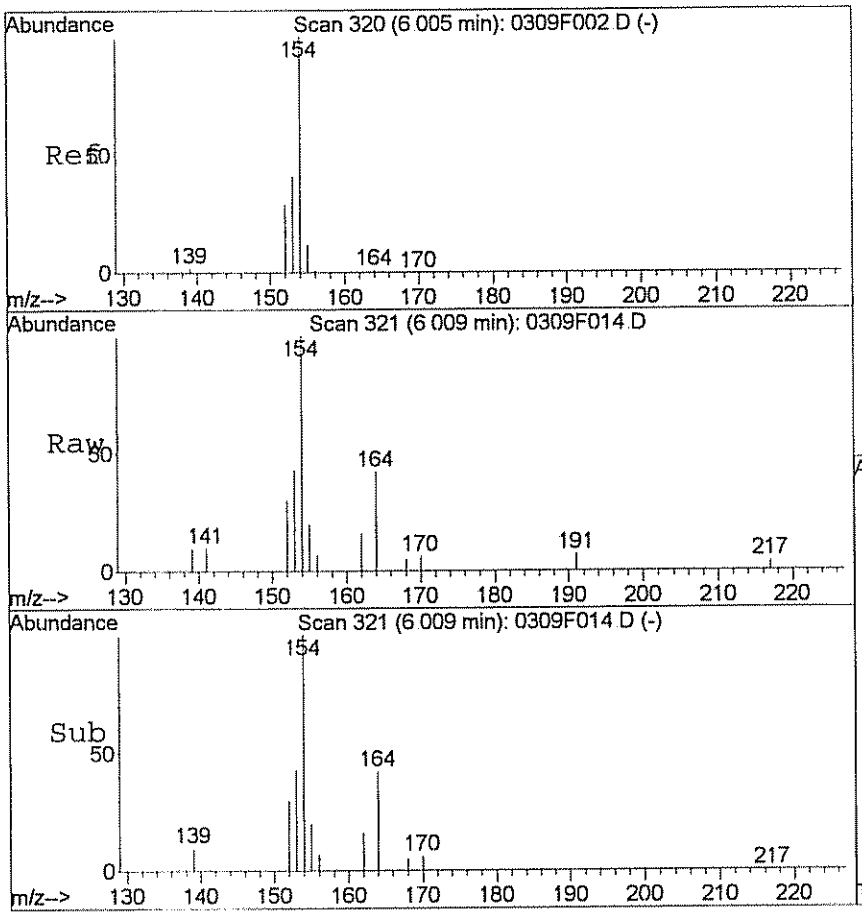


#4
1-Methylnaphthalene
Concen: 0.79 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:142 Resp: 1006

Ion	Ratio	Lower	Upper
142	100		
141	90.7	60.9	120.9

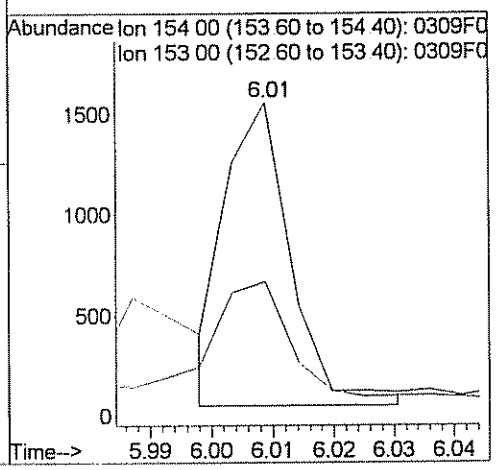


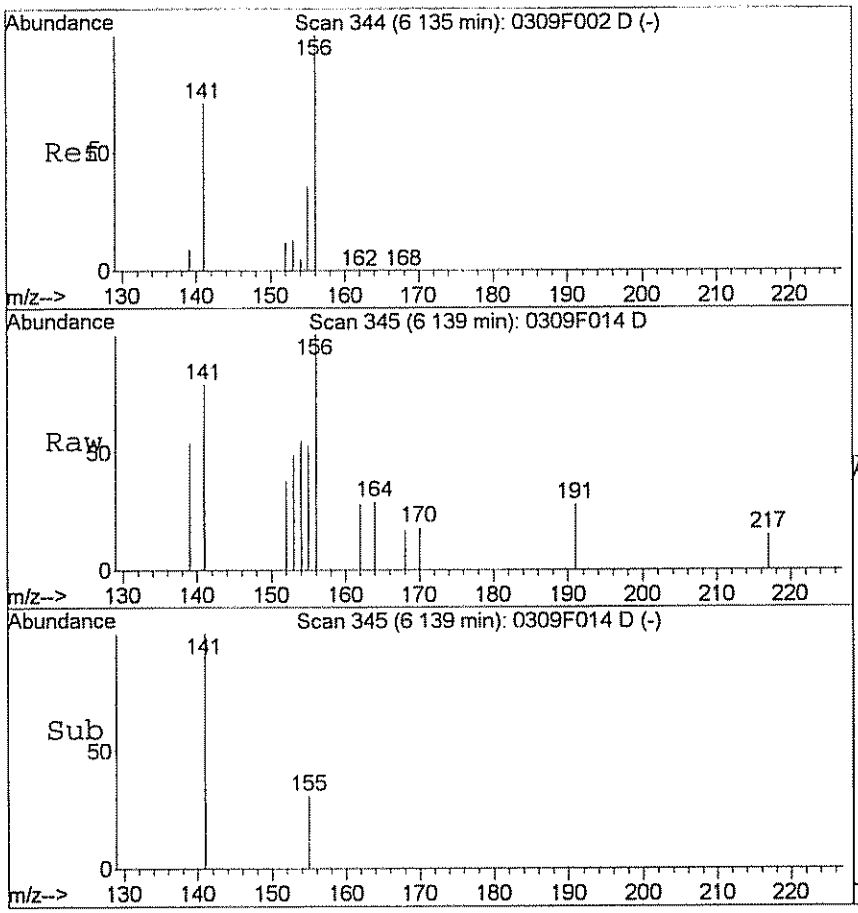


#5
Biphenyl
Concen: 0.63 ng/ml m
RT: 6.01 min Scan# 321
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:154 Resp: 1102

Ion	Ratio	Lower	Upper
154	100		
153	42.9	11.1	71.1

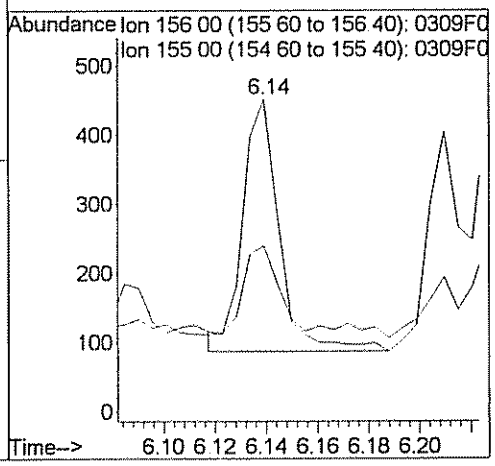


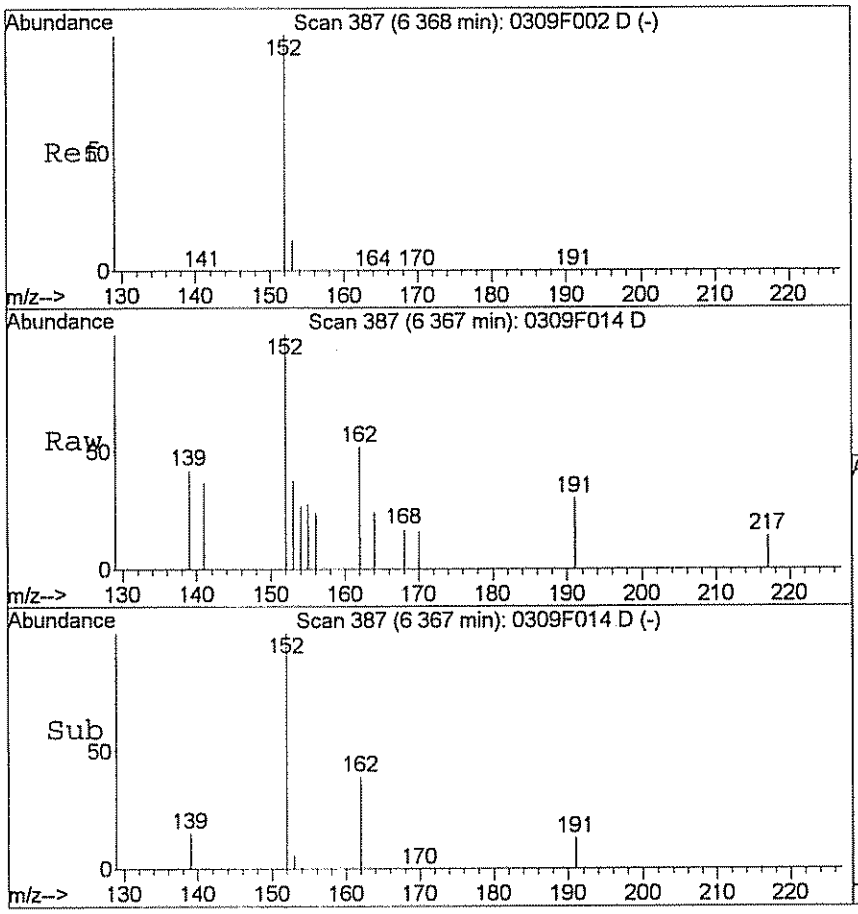


#6
2,6-Dimethylnaphthalene
Concen: 0.29 ng/ml
RT: 6.14 min Scan# 345
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:156 Resp: 361

Ion	Ratio	Lower	Upper
156	100		
155	36.7	5.3	65.3

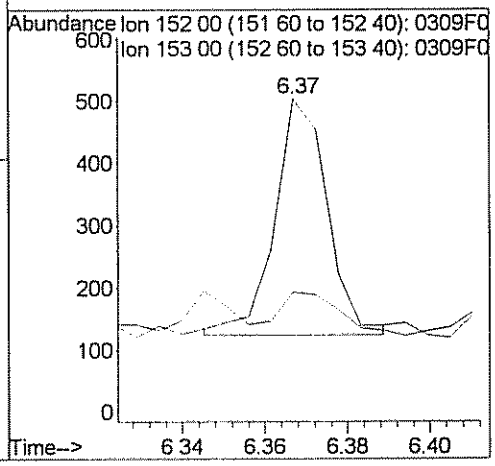


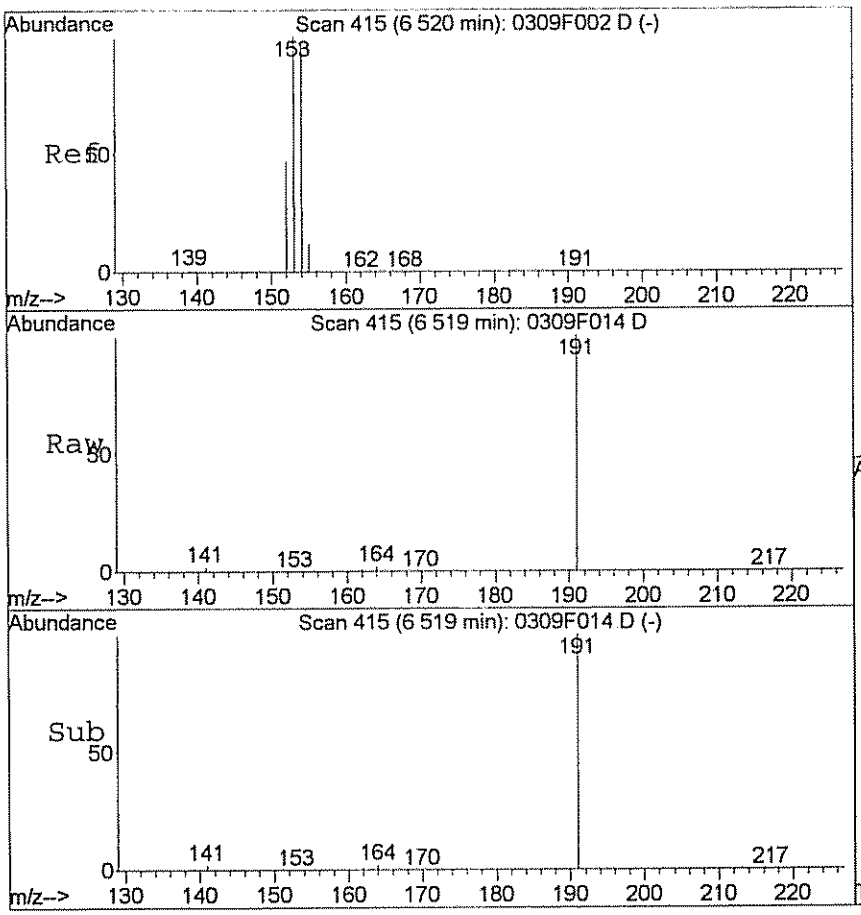


#11
Acenaphthylene
Concen: 0.12 ng/ml m
RT: 6.37 min Scan# 387
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:152 Resp: 335

Ion	Ratio	Lower	Upper
152	100		
153	38.5	0.0	43.6



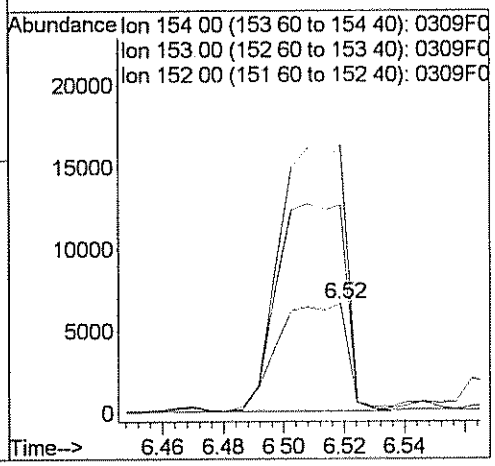


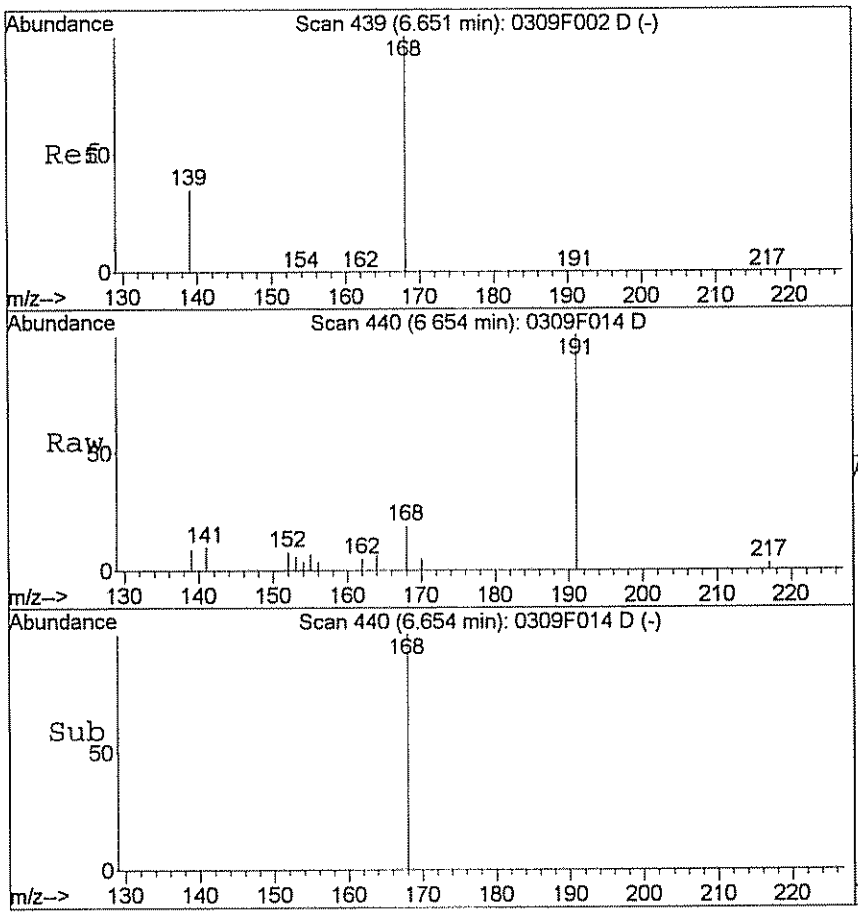
#12
Acenaphthene
Concen: 6.17 ng/ml
RT: 6.52 min Scan# 415
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

i-matrix

Tgt Ion:154 Resp: 10299

Ion	Ratio	Lower	Upper
154	100		
153	246.6	73.0	133.0#
152	190.2	17.8	77.8#

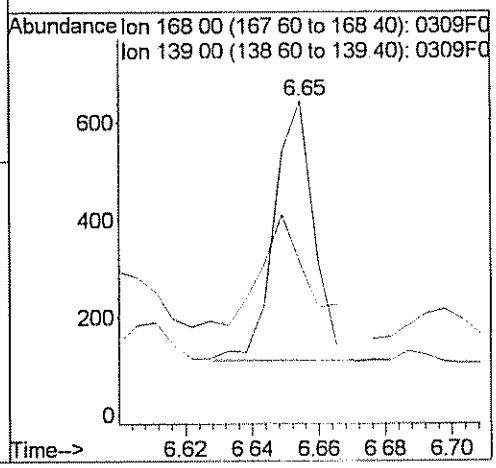


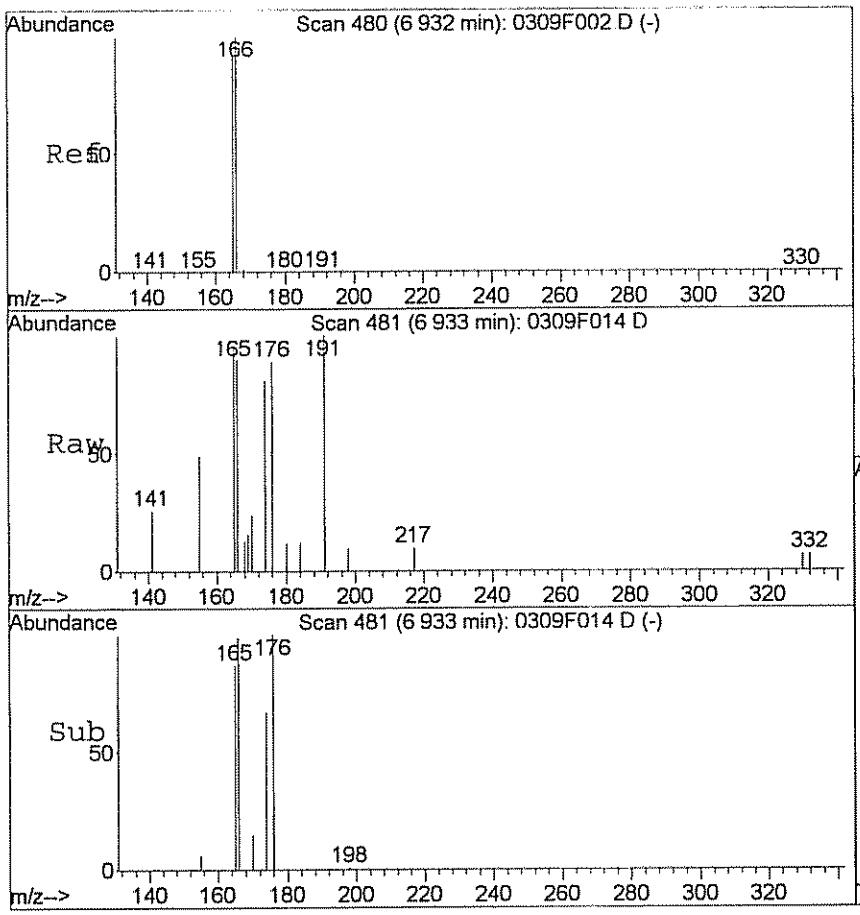


#13
Dibenzofuran
Concen: 0.18 ng/ml
RT: 6.65 min Scan# 440
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:168 Resp: 436

Ion	Ratio	Lower	Upper
168	100		
139	28.2	0.0	58.1

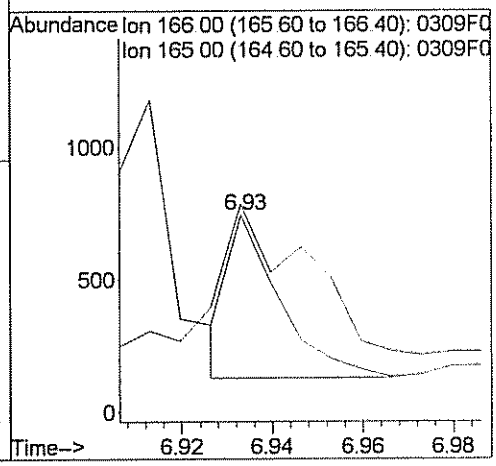


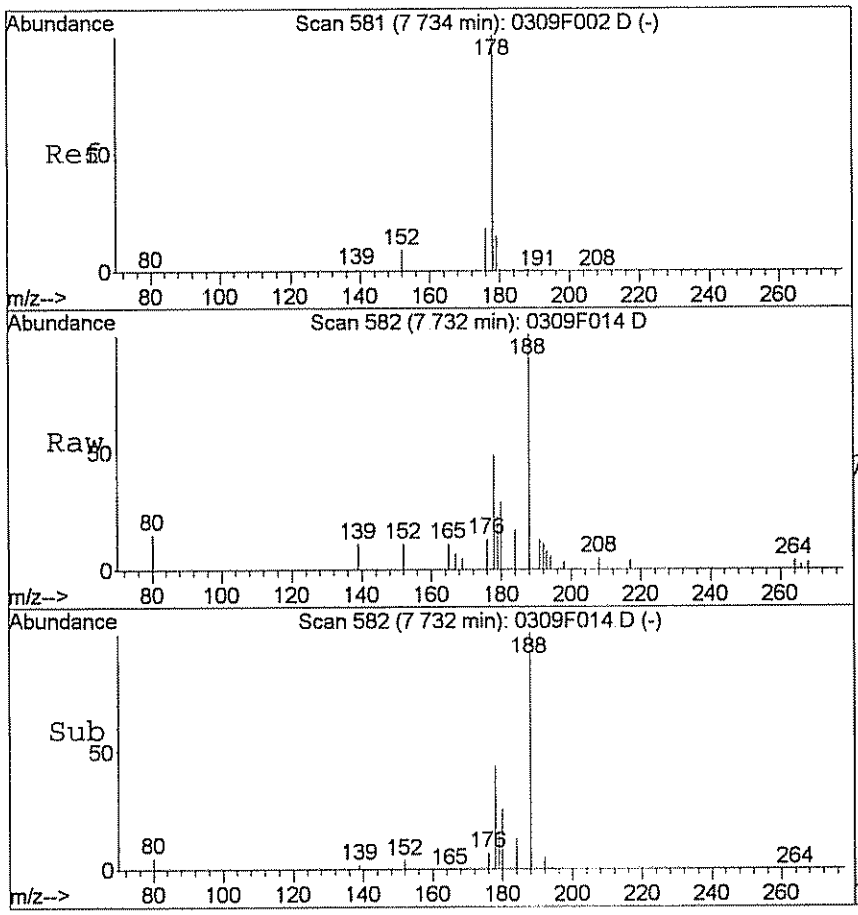


#16
Fluorene
Concen: 0.25 ng/ml
RT: 6.93 min Scan# 481
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:166 Resp: 490

Ion	Ratio	Lower	Upper
166	100		
165	90.8	58.6	118.6

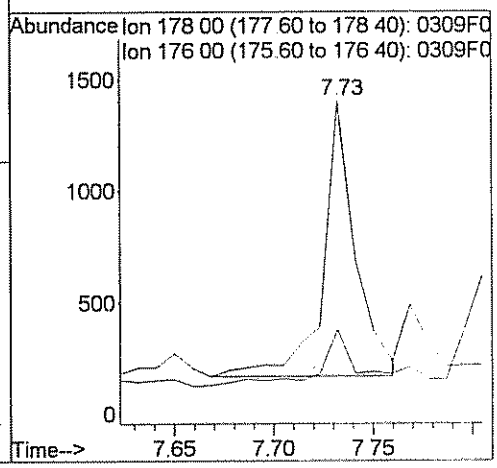


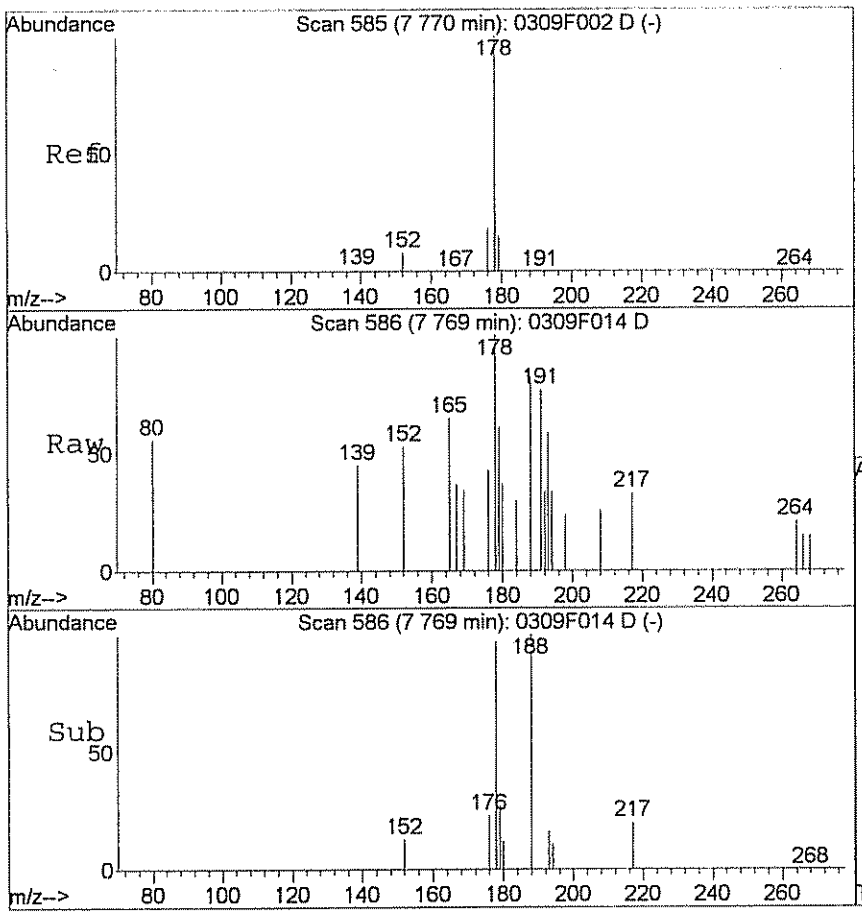


#27
Phenanthrene
Concen: 0.71 ng/ml
RT: 7.73 min Scan# 582
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:178 Resp: 1401

Ion	Ratio	Lower	Upper
178	100		
176	20.2	0.0	48.4

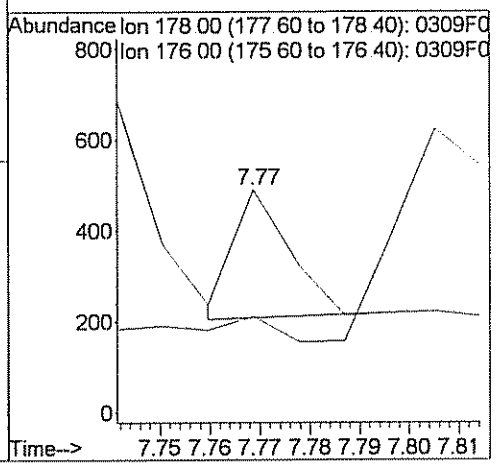


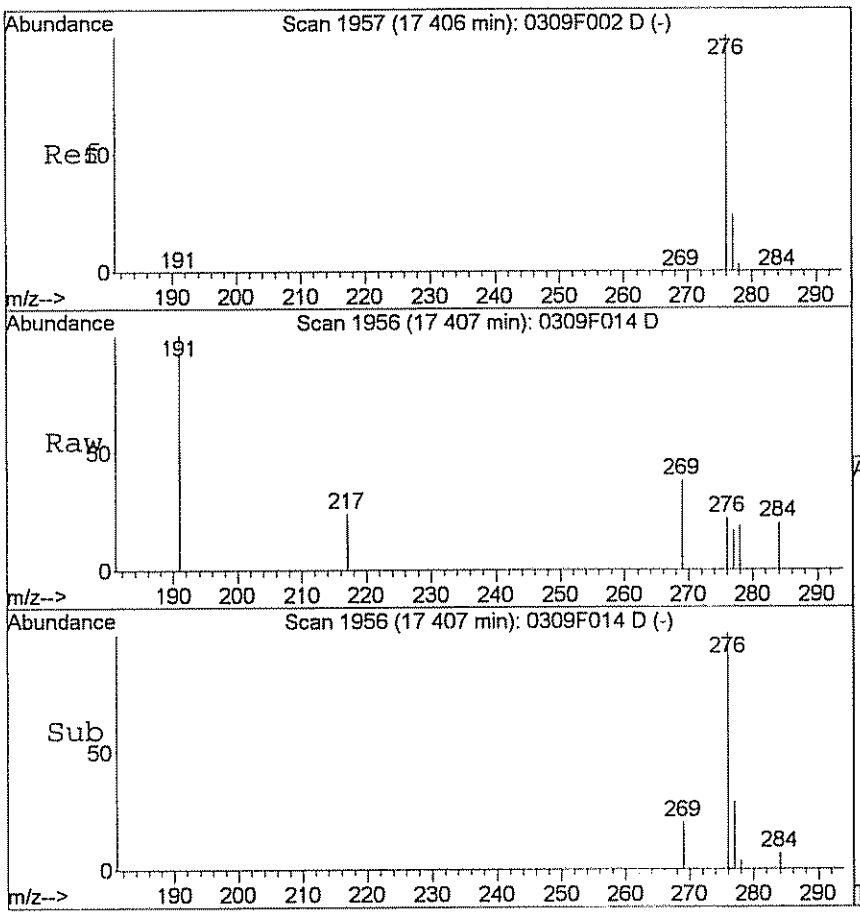


#28
Anthracene
Concen: 0.12 ng/ml
RT: 7.77 min Scan# 586
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:178 Resp: 217

Ion	Ratio	Lower	Upper
178	100		
176	11.1	0.0	47.7

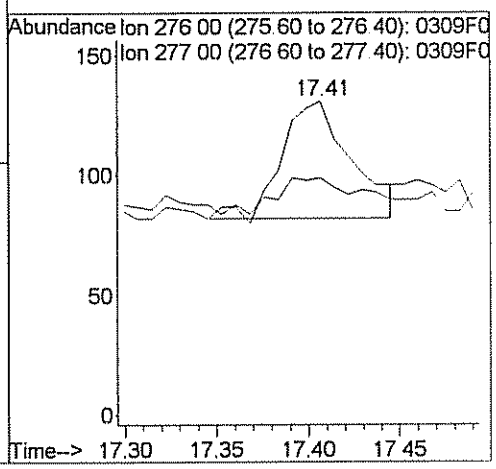


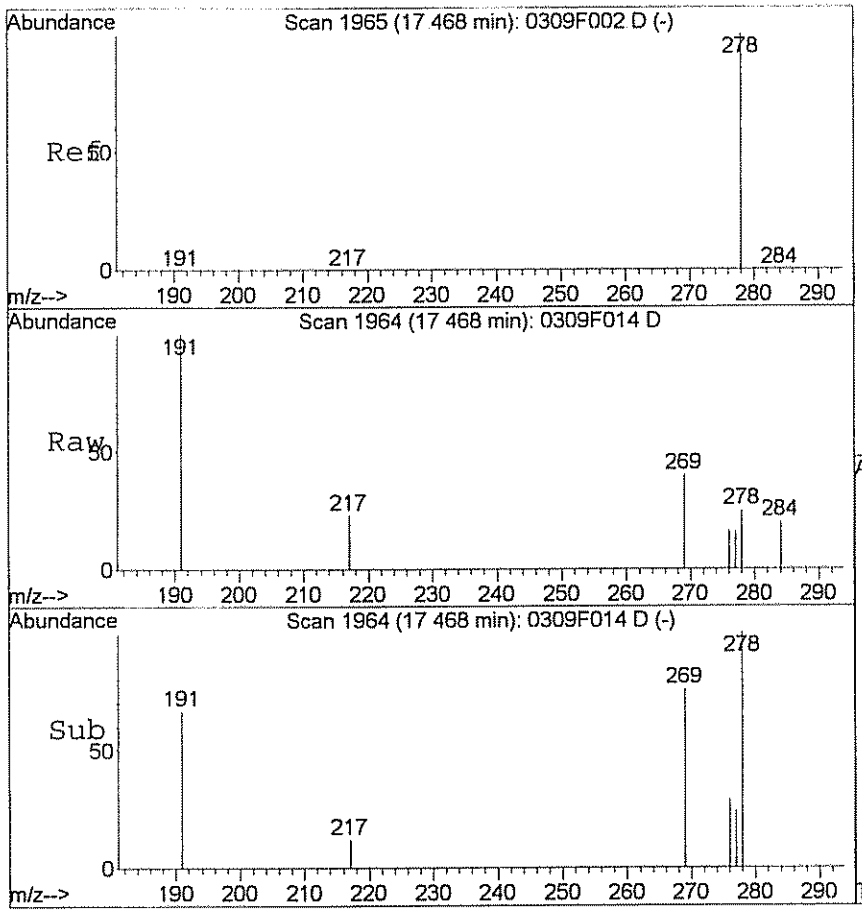


#55
Indeno(1,2,3-cd)pyrene
Concen: 0.11 ng/ml
RT: 17.41 min Scan# 1956
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:276 Resp: 129

Ion	Ratio	Lower	Upper
276	100		
277	22.4	0.0	53.7

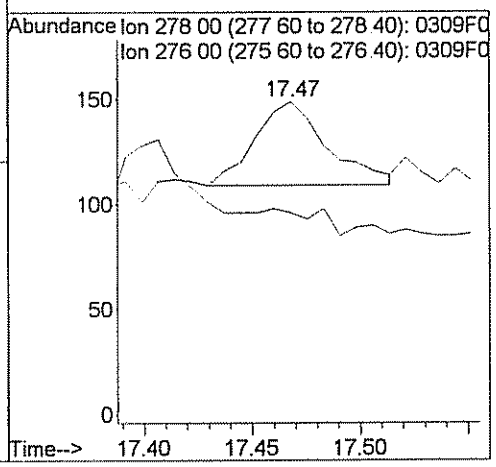


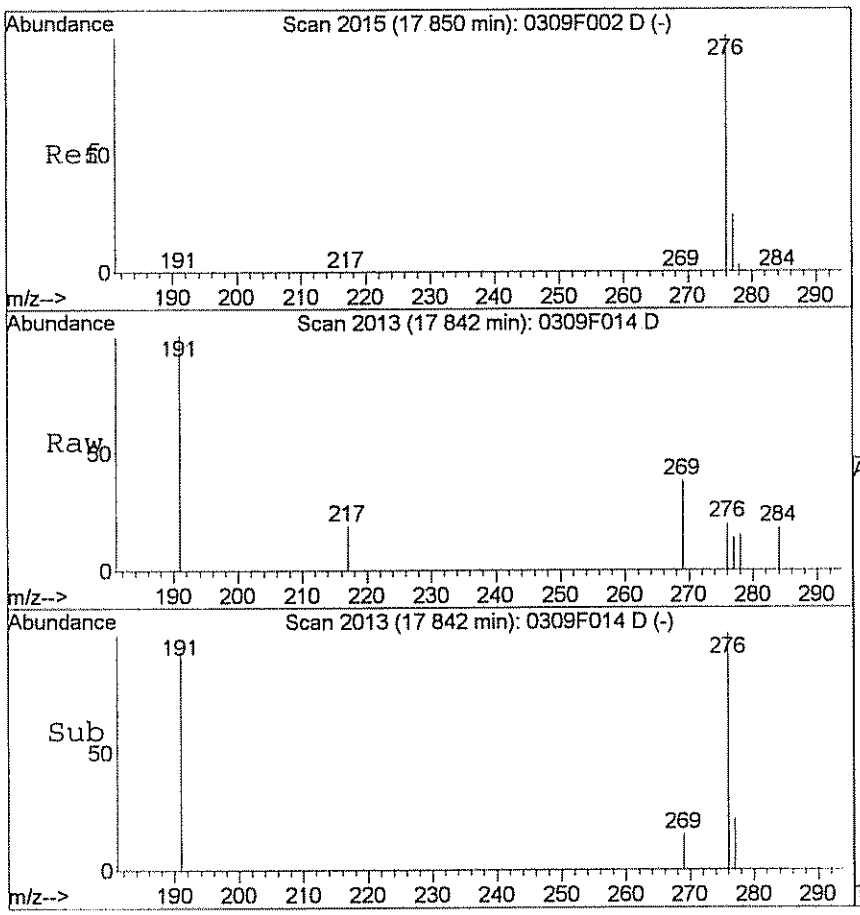


#56
Dibenz(a,h)anthracene
Concen: 0.07 ng/ml
RT: 17.47 min Scan# 1964
Delta R.T. -0.01 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:278 Resp: 93

Ion	Ratio	Lower	Upper
278	100		
276	25.0	0.0	55.3

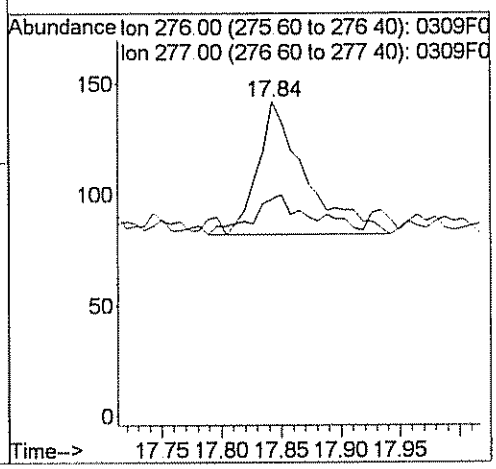




#57
Benzo(g,h,i)perylene
Concen: 0.10 ng/ml
RT: 17.84 min Scan# 2013
Delta R.T. -0.02 min
Lab File: 0309F014.D
Acq: 9 Mar 2005 12:58 pm

Tgt Ion:276 Resp: 169

Ion	Ratio	Lower	Upper
276	100		
277	15.0	0.0	53.9

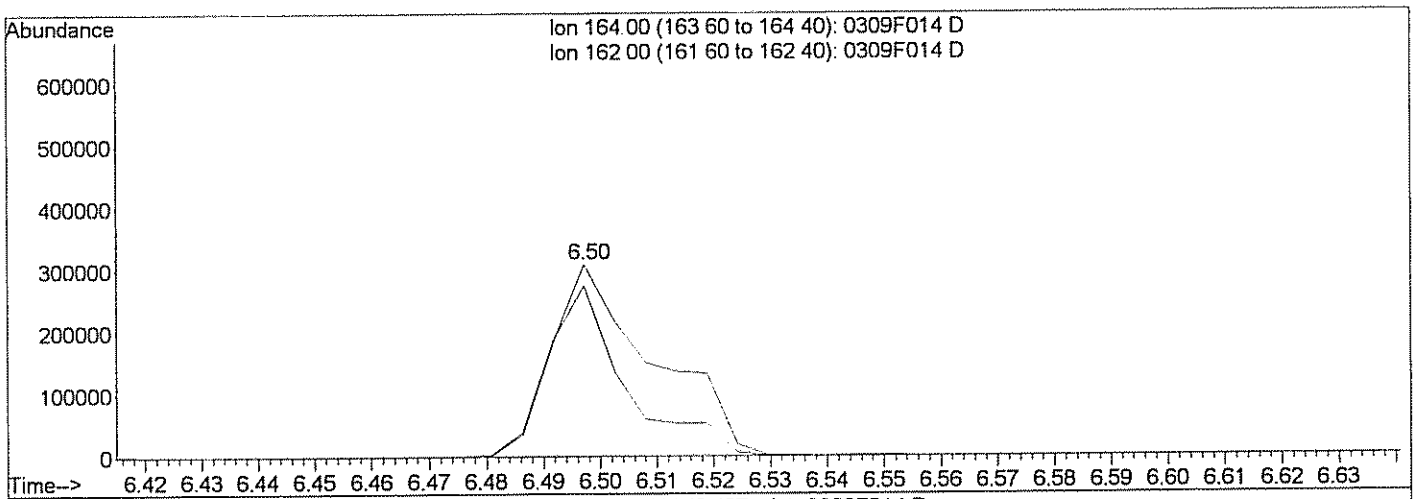


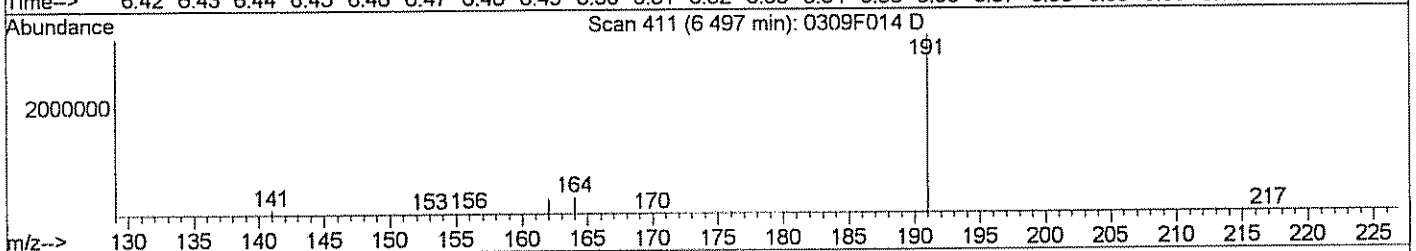
Quantitation Report (Qedit)

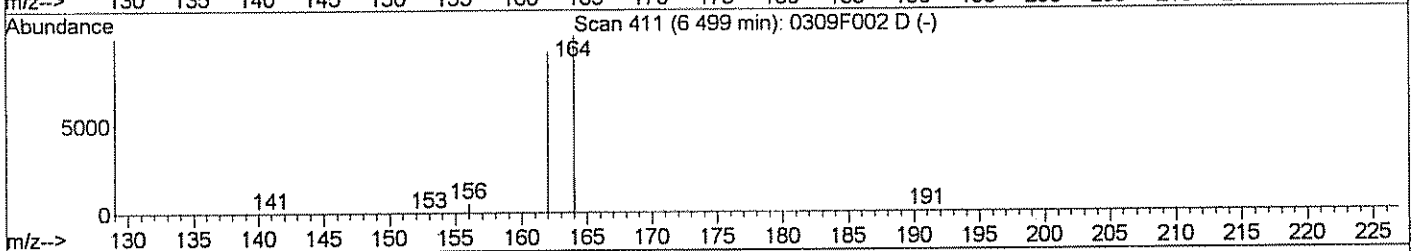
Data File : J:\MS11\DATA\030905\0309F014.D
Acq On : 9 Mar 2005 12:58 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:18 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F014.D

(10) Acenaphthene-d10 (I)

6.50min 200.00ng/ml

response 386264

Ion	Exp%	Act%
164.00	100	100
162.00	96.40	88.80
0.00	0.00	0.00
0.00	0.00	0.00

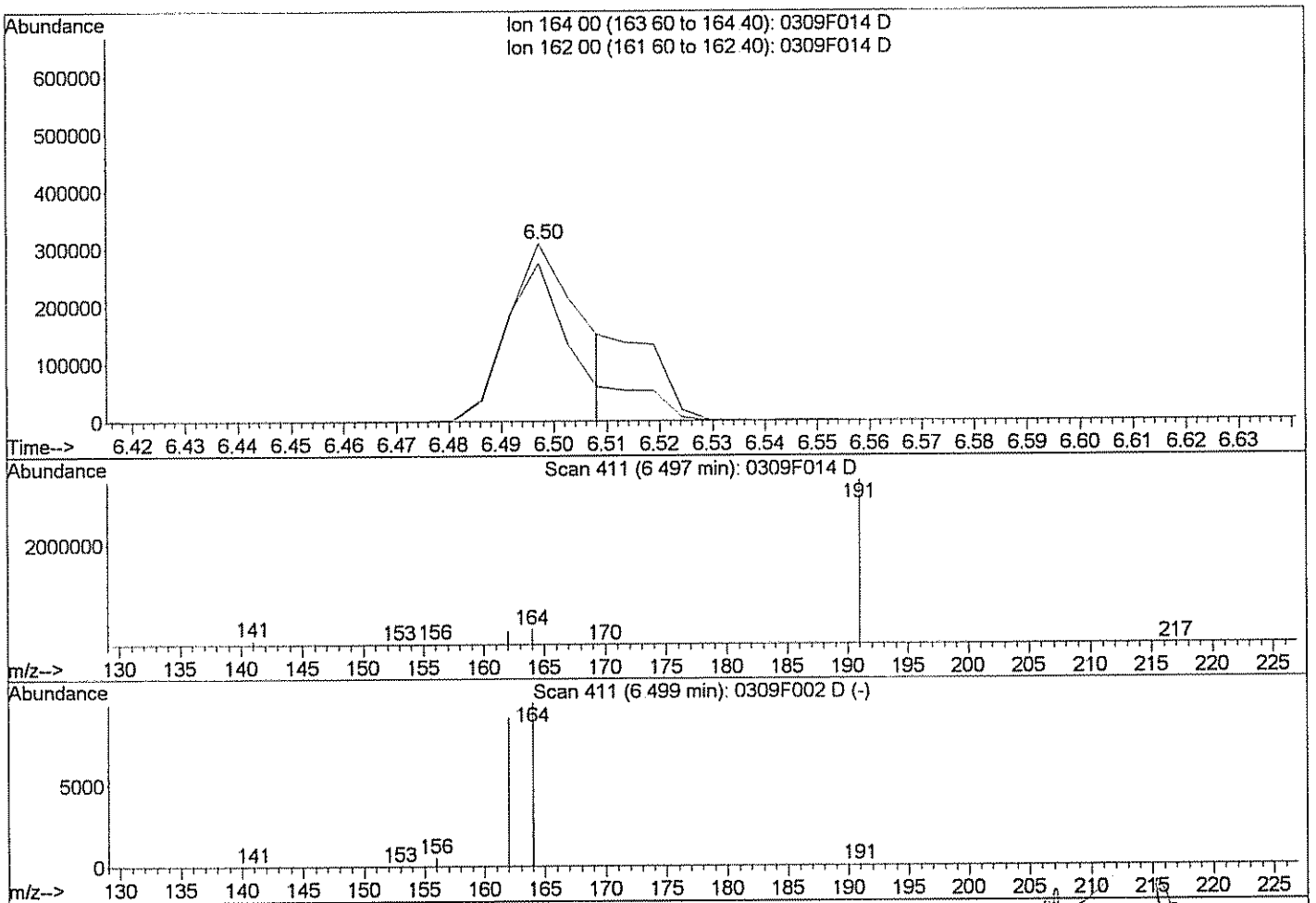
0309F014.D 0305ALK.M Mon Mar 14 08:54:56 2005

Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030905\0309F014.D
Acq On : 9 Mar 2005 12:58 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:54 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration



TIC: 0309F014.D

(10) Acenaphthene-d10 (I)

6.50min 200.00ng/ml m

response 291146

Ion	Exp%	Act%
164.00	100	100
162.00	96.40	88.81
0.00	0.00	0.00
0.00	0.00	0.00

matrix interference
over integrated
3/15/05

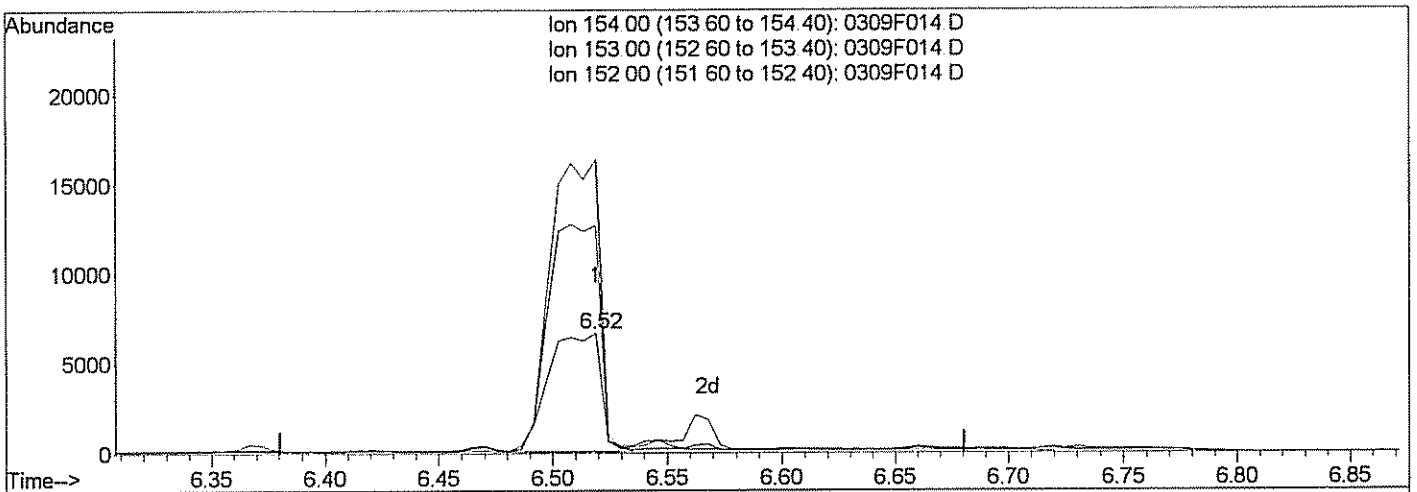
0309F014.D 0305ALK.M Mon Mar 14 08:55:00 2005

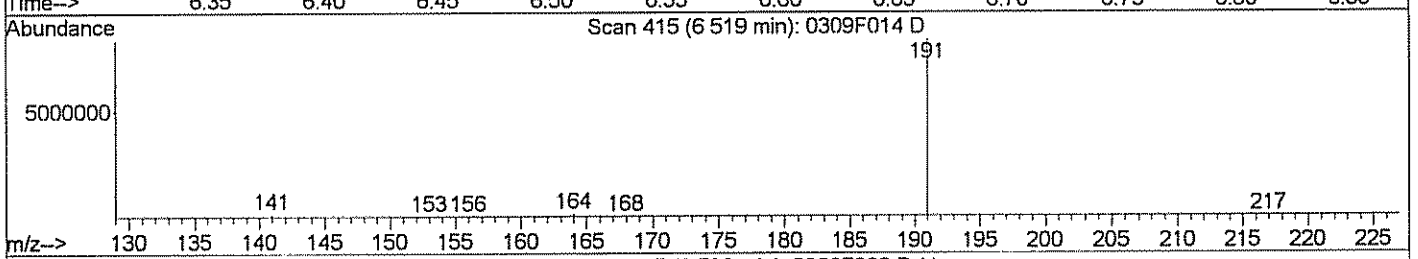
Quantitation Report (Qedit)

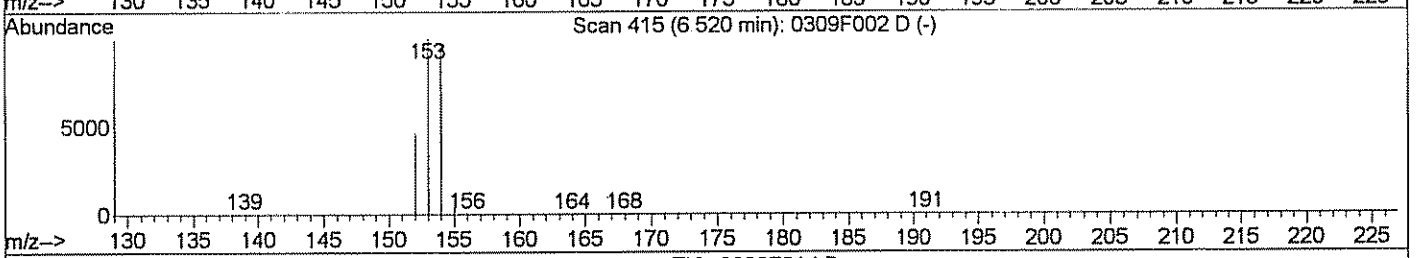
Data File : J:\MS11\DATA\030905\0309F014.D
Acq On : 9 Mar 2005 12:58 pm
Sample : K2501544-004
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:18 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Multiple Level Calibration







TIC: 0309F014.D

(12) Acenaphthene (T)

6.52min 4.65ng/ml

response 10299

Ion	Exp%	Act%
154.00	100	100
153.00	103.00	246.58#
152.00	47.80	190.24#
0.00	0.00	0.00

i-matrix
3/14/15

0309F014.D 0305ALK.M Mon Mar 14 08:18:13 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-05	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F011.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0065**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	**Anthracene**	**0.0067**	J	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	72	37-107	03/09/05	Acceptable
Fluoranthene-d10	78	18-137	03/09/05	Acceptable
Terphenyl-d14	87	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F011 D
Lab ID: K2501544-005
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 11:37
Date Quantitated: 03/14/2005 08:14
Batch ID: KWG0504050
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 3/14/5

Secondary Review: 3-14-5

Printed: 03/14/2005 08:52:50
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	K2501544
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365925	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK.M	**Calibration ID:**	CAL4271
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ4885
Tune Ref:	J:\MS11\DATA\030905\0309F001.D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\030805\0308F006.D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\030905\0309F011.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 11:37	**Quant Date:**	03/14/2005 08:14	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501544-005			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.00	136	248676	200.00	OK
2	Acenaphthene-d10	6.50	0.00	164	193894	200.00	OK
3	Phenanthrene-d10	7.71	-0.01	188	306927	200.00	OK
4	Chrysene-d12	10.62	0.00	240	283680	200.00	OK
5	Perylene-d12	14.56	0.00	264	250486	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	373782	286.93	72	37-107	OK	
3	Fluoranthene-d10	8.73	0.01	0.00	212	652710	310.86	78	18-137	OK	
4	Terphenyl-d14	9.13	0.00	0.00	244	558223	347.80	87	18-153	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.08		0.00	128	1869	1.35	0.0065	J	
1	2-Methylnaphthalene	5.63		0.00	142	866	0.7100	0.0040	U	
2	Acenaphthylene	6.37		0.00	152	312	0.1700	0.0031	U	
2	Acenaphthene	6.52		0.00	154	183	0.1600	0.0042	U	
2	Dibenzofuran	6.65		0.00	168	424	0.2600	0.0044	U	
2	Fluorene	6.93		0.00	166	331	0.2600	0.0051	U	
3	Phenanthrene	7.73		0.00	178	737m	0.4100	0.0038	U	
3	Anthracene	7.77		0.00	178	2295	1.39	0.0067	J	
3	Fluoranthene				202	0d		0.0042	U	
4	Pyrene				202	0d		0.0037	U	
4	Benz(a)anthracene	10.58	-0.01	0.00	228	288m	0.1800	0.0040	U	
4	Chrysene	10.66		0.00	228	401	0.2300	0.0036	U	
5	Benzo(b)fluoranthene	13.24	-0.01	0.00	252	364	0.2200	0.0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030905\0309F011 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 11:37	**Quant Date:**	03/14/2005 08:14	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-005			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene	13 33		0 00	252	328	0 1900	0 0041	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Indeno(1,2,3-cd)pyrene	17 41		0 00	276	310	0 2700	0 0038	U	
5	Dibenz(a,h)anthracene	17 47		0 00	278	414	0 3300	0 0066	U	
5	Benzo(g,h,i)perylene	17 84	-0 01	0 00	276	341	0 2100	0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F011.D
Acq On : 9 Mar 2005 11:37 am
Sample : K2501544-005
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:43 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	248676	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	193894	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	306927	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	283680	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	250486	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	373782	286.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 28.69%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.73	212	652710	310.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 31.09%			
42) Terphenyl-d14	9.13	244	558223	347.80	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 34.78%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	1869	1.35	ng/ml	95
3) 2-Methylnaphthalene	5.63	142	866	0.71	ng/ml	99
4) 1-Methylnaphthalene	5.72	142	635	0.57	ng/ml	91
5) Biphenyl	6.00	154	1326m	0.86	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	324	0.30	ng/ml	85
11) Acenaphthylene	6.37	152	312	0.17	ng/ml	75
12) Acenaphthene	6.52	154	183	0.16	ng/ml#	76
13) Dibenzofuran	6.65	168	424	0.26	ng/ml	95
16) Fluorene	6.93	166	331	0.26	ng/ml	95
27) Phenanthrene	7.73	178	737m	0.41	ng/ml	
28) Anthracene	7.77	178	2295	1.39	ng/ml	94
43) Benz(a)anthracene	10.58	228	288m	0.18	ng/ml	
44) Chrysene	10.66	228	401	0.23	ng/ml	95
50) Benzo(b)fluoranthene	13.24	252	364	0.22	ng/ml	98
51) Benzo(k)fluoranthene	13.33	252	328	0.19	ng/ml	84
55) Indeno(1,2,3-cd)pyrene	17.41	276	310	0.27	ng/ml	91
56) Dibenz(a,h)anthracene	17.47	278	414	0.33	ng/ml	91
57) Benzo(g,h,i)perylene	17.84	276	341	0.21	ng/ml	97

(#) = qualifier out of range (m) = manual integration

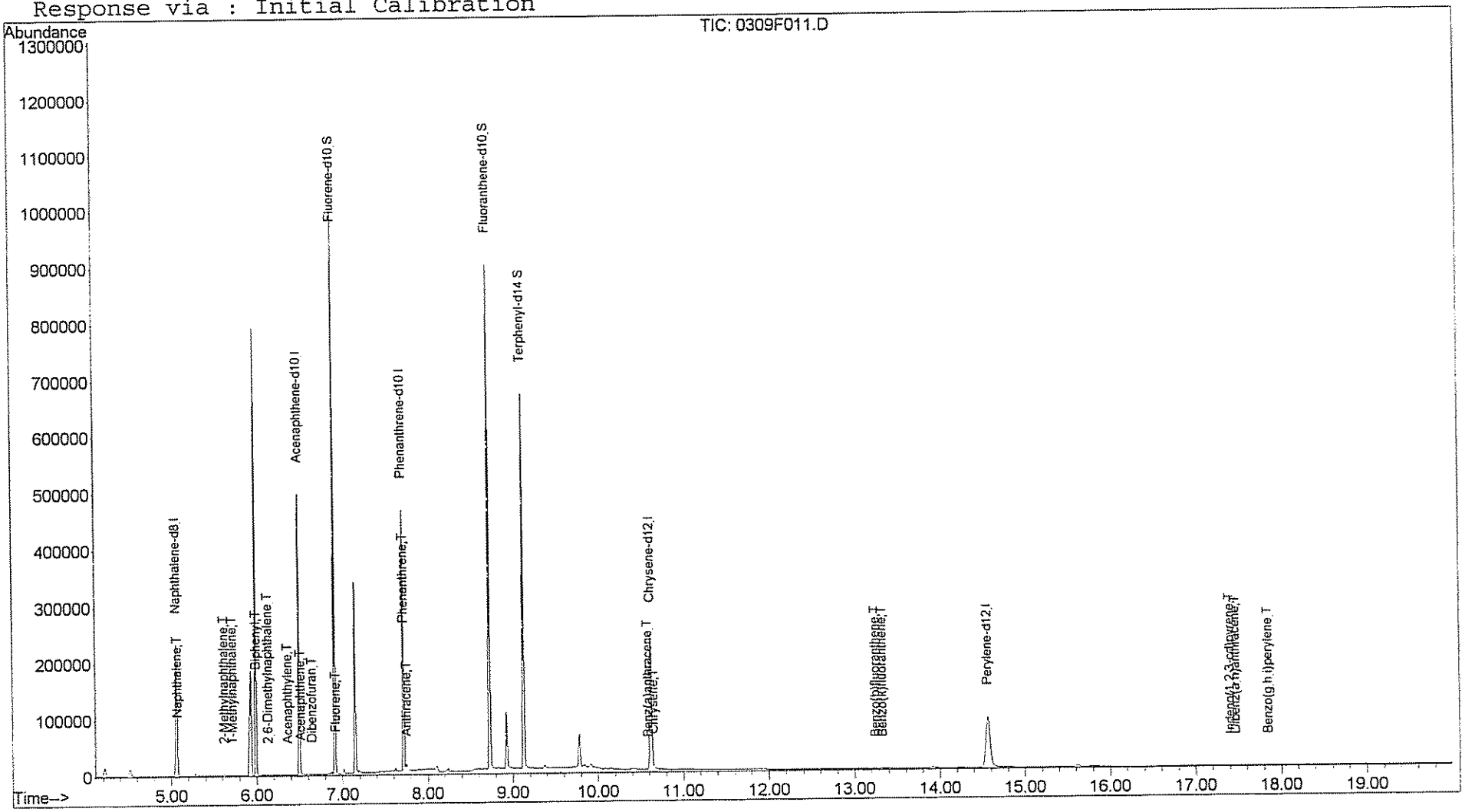
Quantitation Report (QT Reviewed)

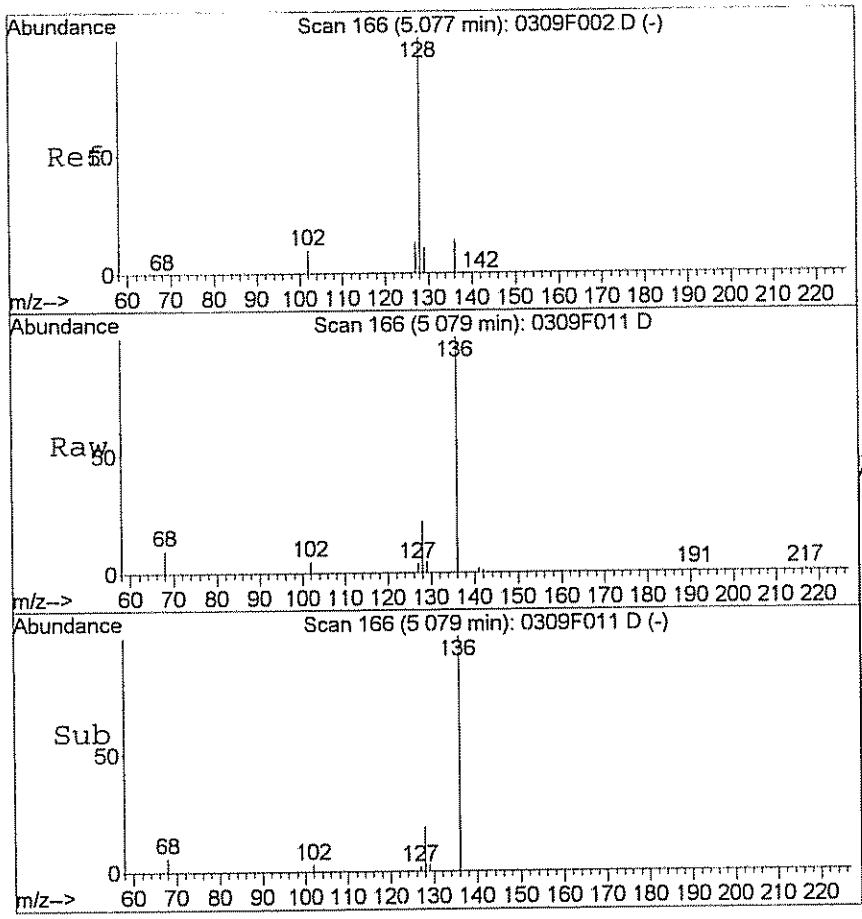
Data File : J:\MS11\DATA\030905\0309F011.D
Acq On : 9 Mar 2005 11:37 am
Sample : K2501544-005
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:14 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration

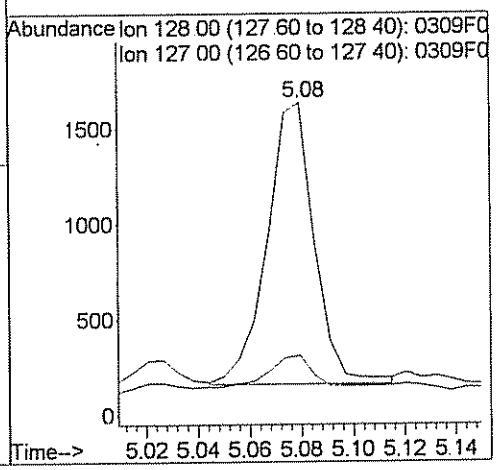


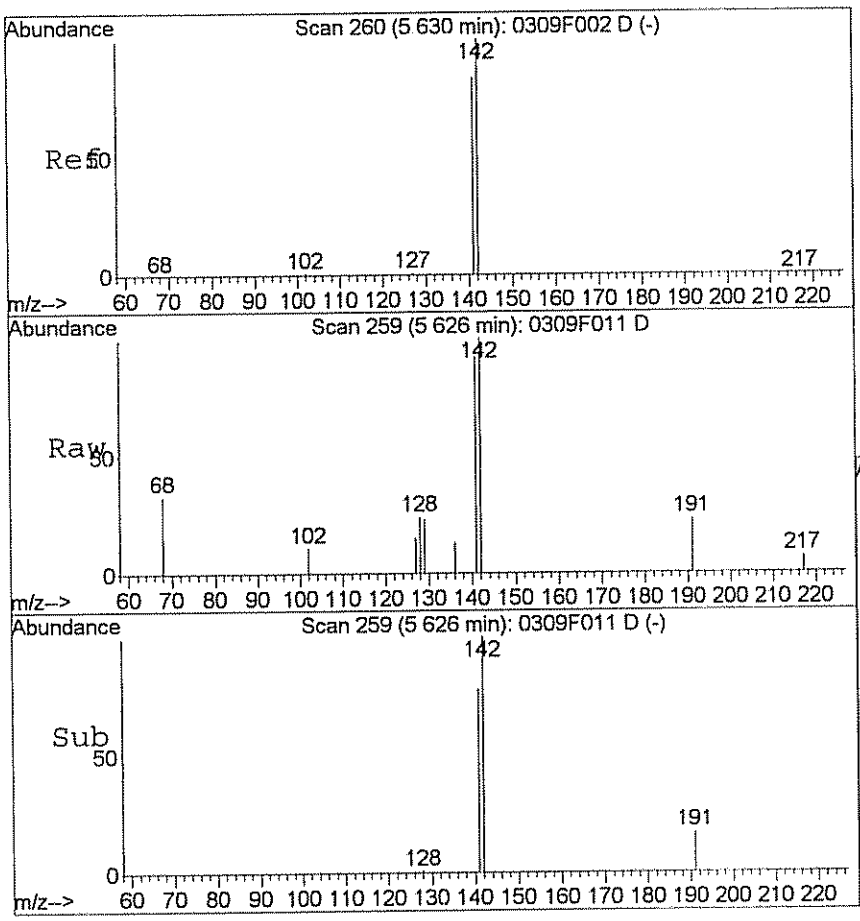


#2
Naphthalene
Concen: 1.35 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:128 Resp: 1869

Ion	Ratio	Lower	Upper
128	100		
127	11.1	0.0	43.1

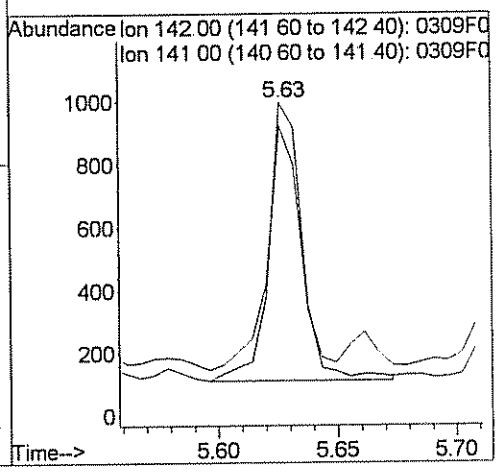


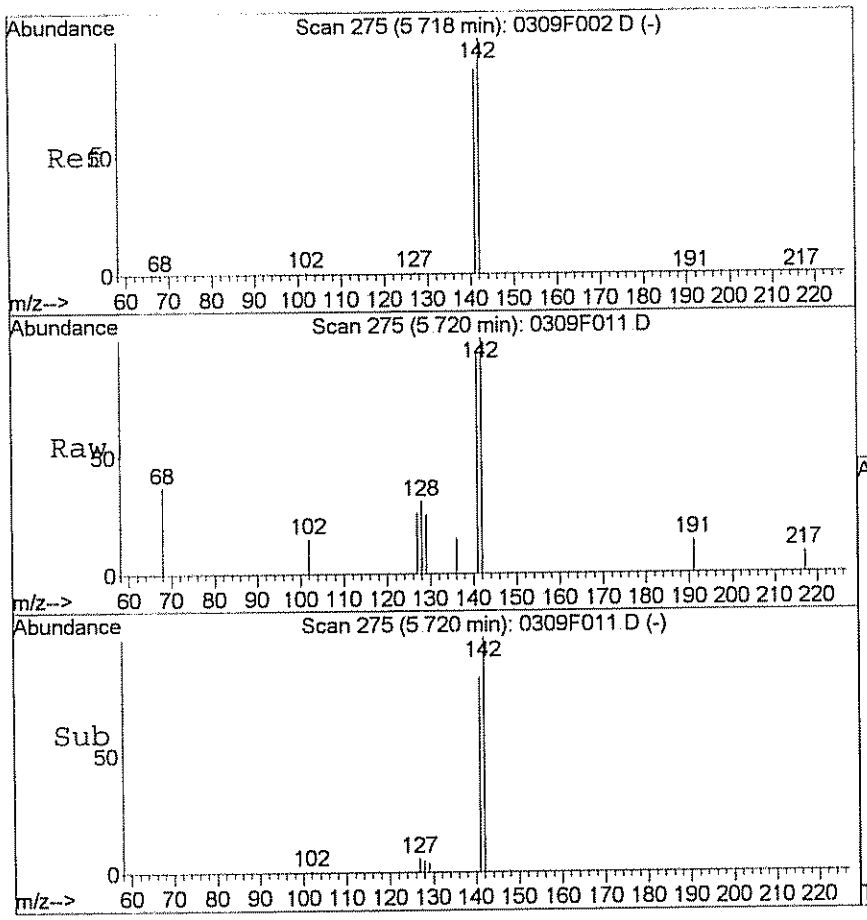


#3
2-Methylnaphthalene
Concen: 0.71 ng/ml
RT: 5.63 min Scan# 259
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:142 Resp: 866

Ion	Ratio	Lower	Upper
142	100		
141	87.6	56.4	116.4

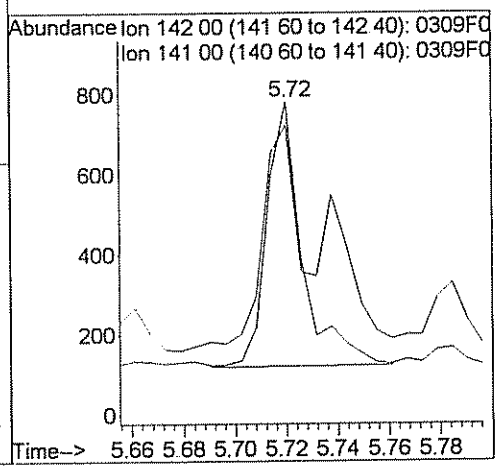


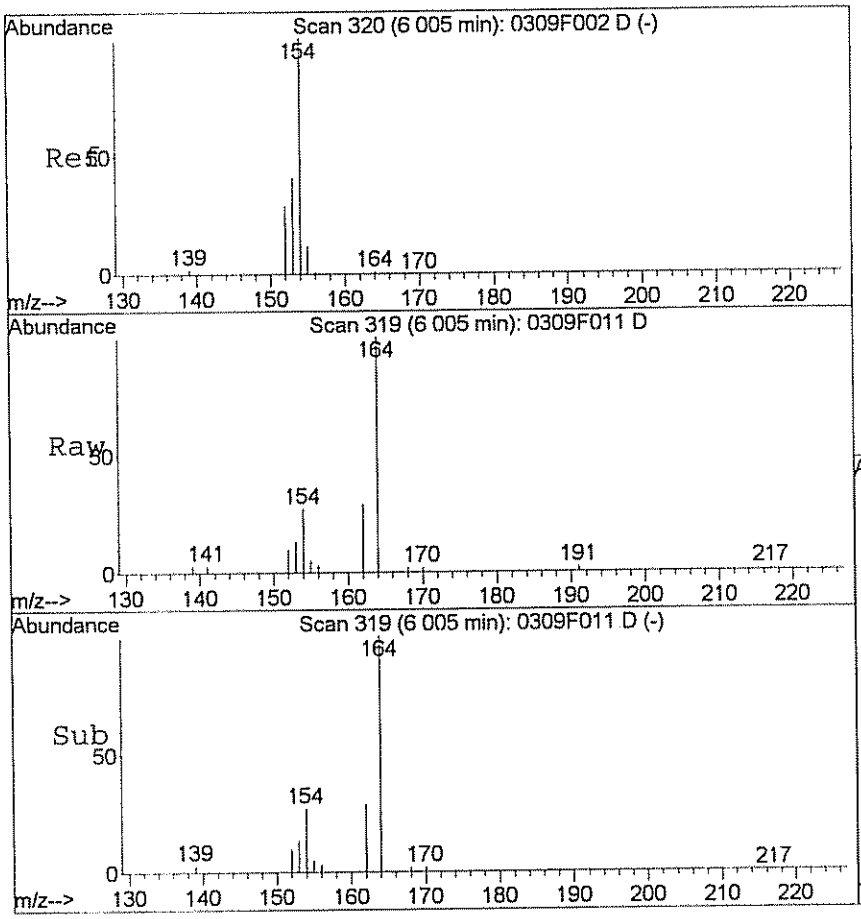


#4
1-Methylnaphthalene
Concen: 0.57 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:142 Resp: 635

Ion	Ratio	Lower	Upper
142	100		
141	82.2	60.9	120.9

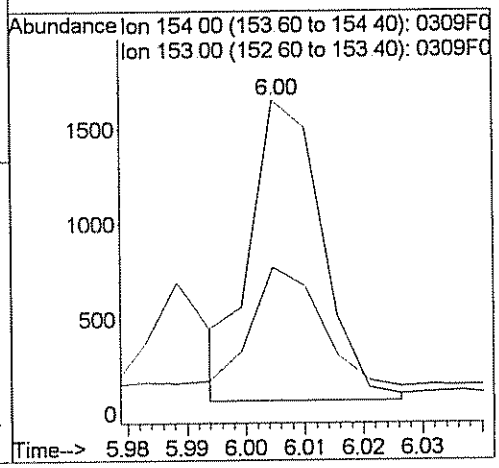


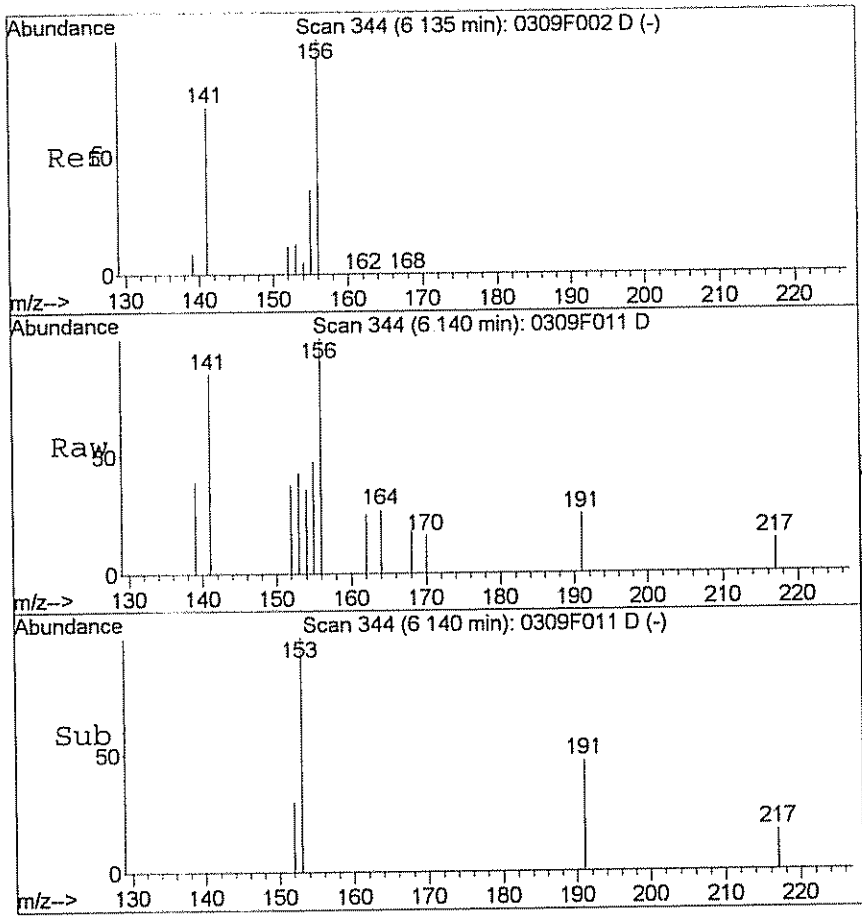


#5
Biphenyl
Concen: 0.86 ng/ml m
RT: 6.00 min Scan# 319
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:154 Resp: 1326

Ion	Ratio	Lower	Upper
154	100		
153	46.8	11.1	71.1

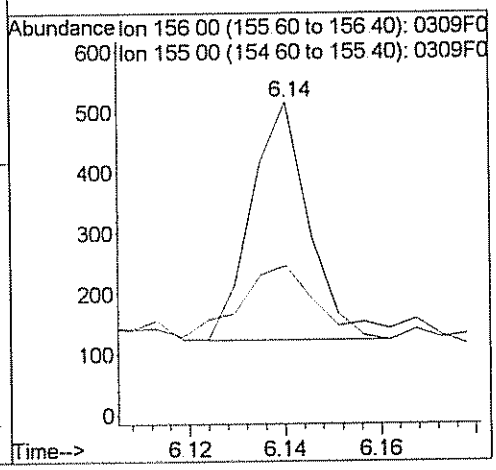


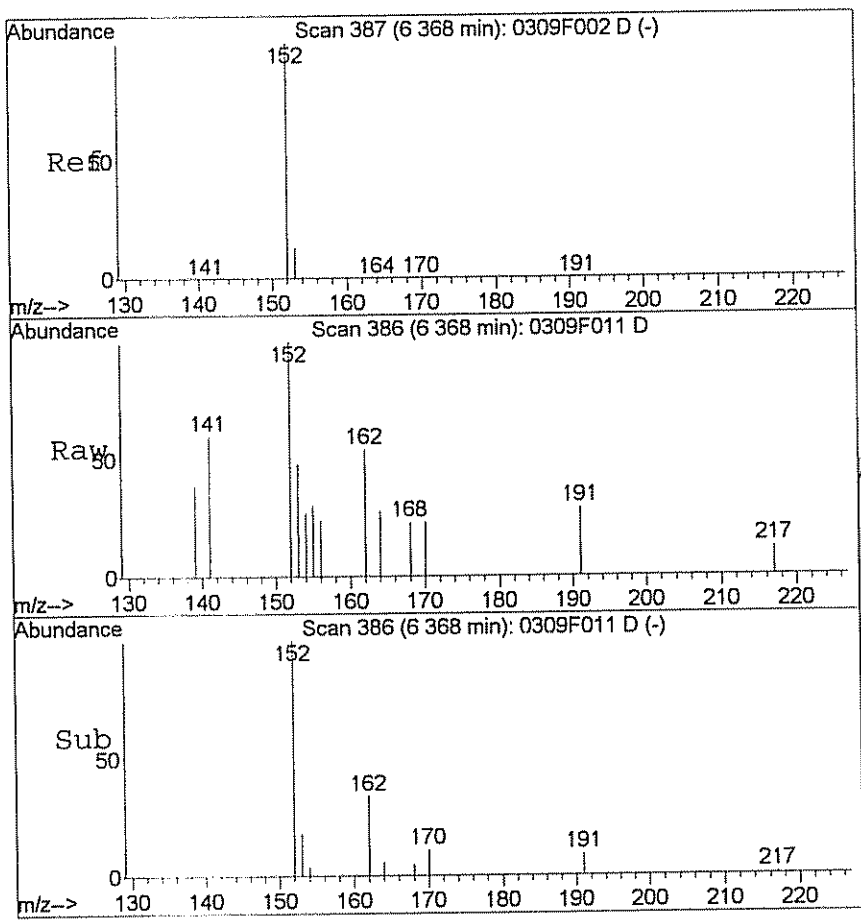


#6
2,6-Dimethylnaphthalene
Concen: 0.30 ng/ml
RT: 6.14 min Scan# 344
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:156 Resp: 324

Ion	Ratio	Lower	Upper
156	100		
155	26.5	5.3	65.3

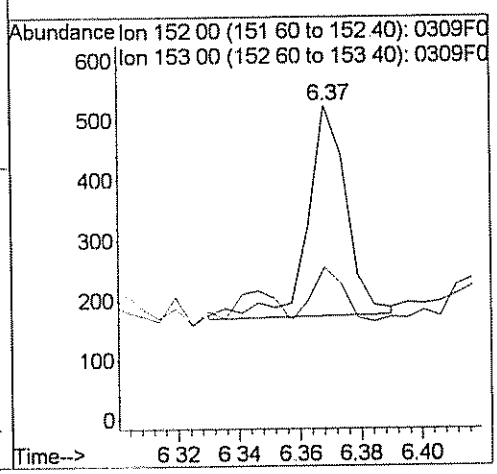


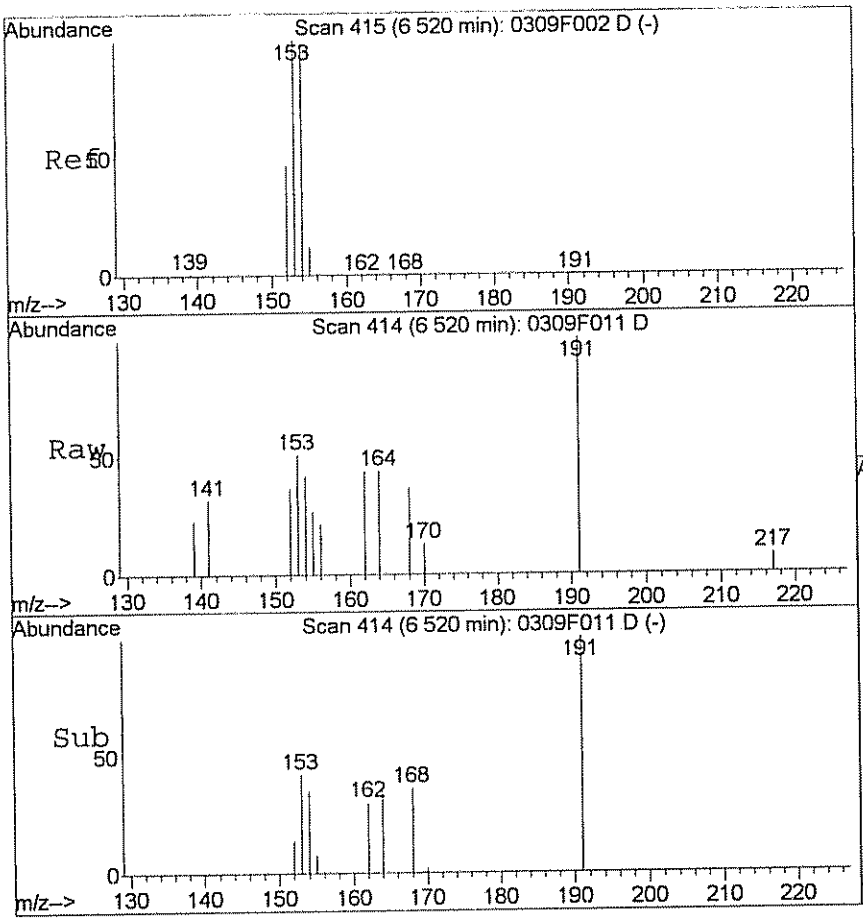


#11
Acenaphthylene
Concen: 0.17 ng/ml
RT: 6.37 min Scan# 386
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:152 Resp: 312

Ion	Ratio	Lower	Upper
152	100		
153	23.6	0.0	43.6

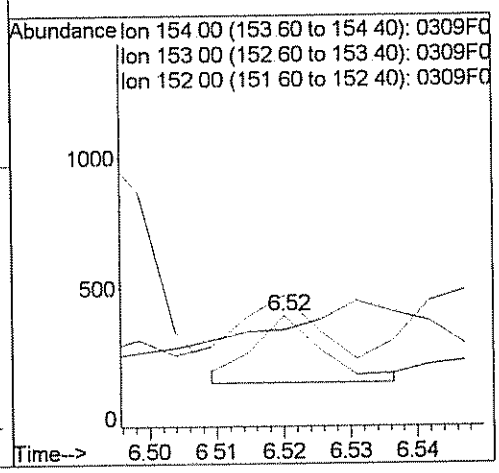


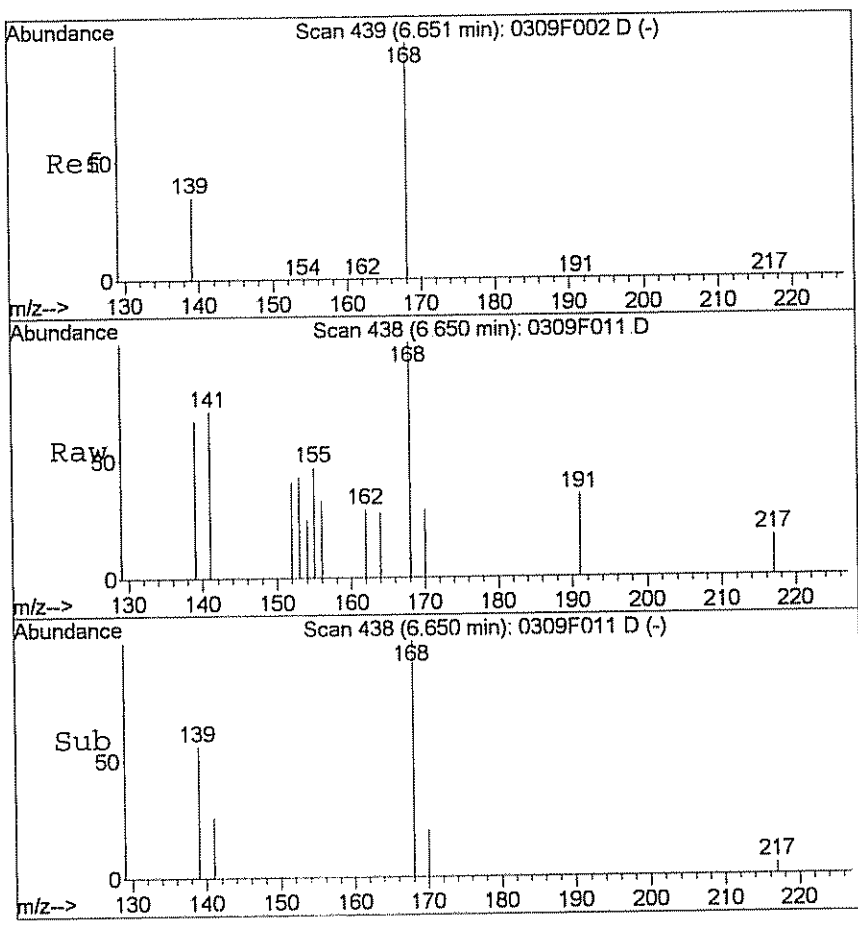


#12
Acenaphthene
Concen: 0.16 ng/ml
RT: 6.52 min Scan# 414
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:154 Resp: 183

Ion	Ratio	Lower	Upper
154	100		
153	87.8	73.0	133.0
152	17.6	17.8	77.8#

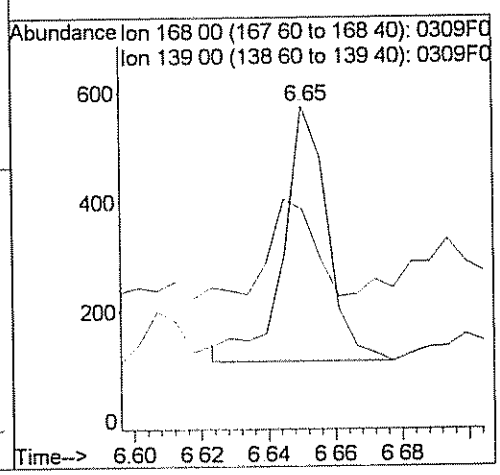


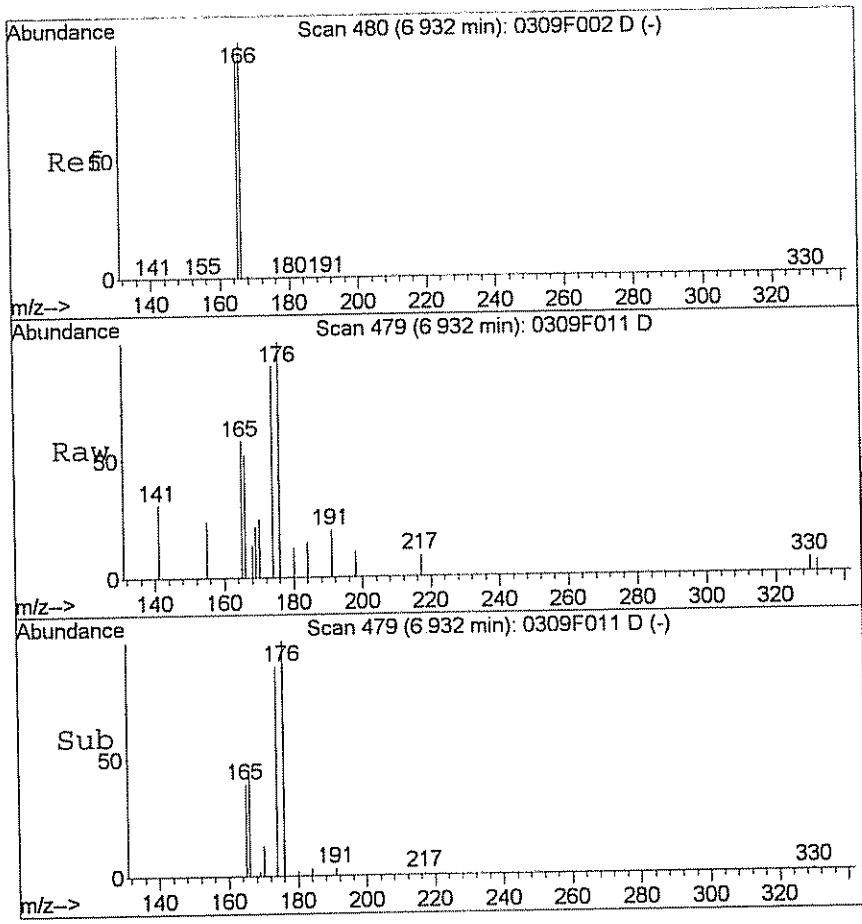


#13
Dibenzofuran
Concen: 0.26 ng/ml
RT: 6.65 min Scan# 438
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:168 Resp: 424

Ion	Ratio	Lower	Upper
168	100		
139	30.8	0.0	58.1

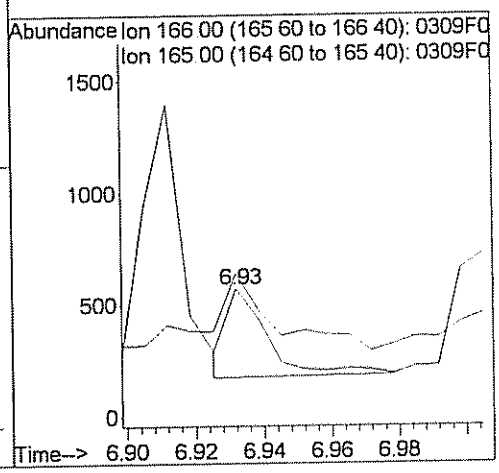


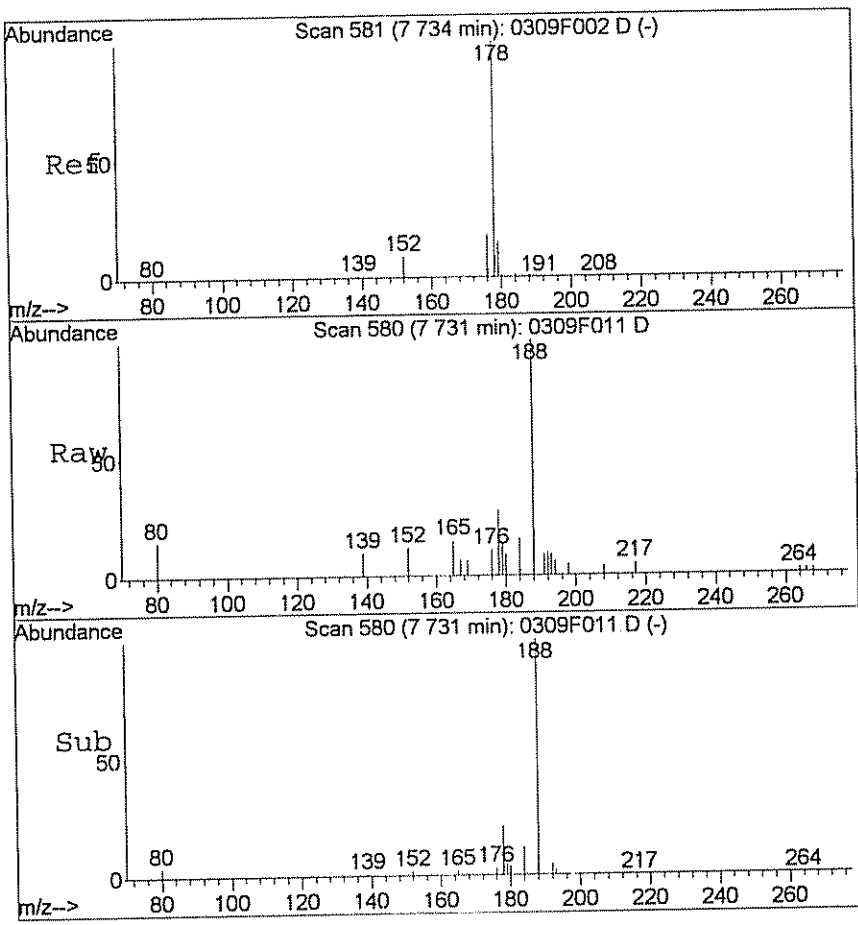


#16
Fluorene
Concen: 0.26 ng/ml
RT: 6.93 min Scan# 479
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:166 Resp: 331

Ion	Ratio	Lower	Upper
166	100		
165	83.6	58.6	118.6

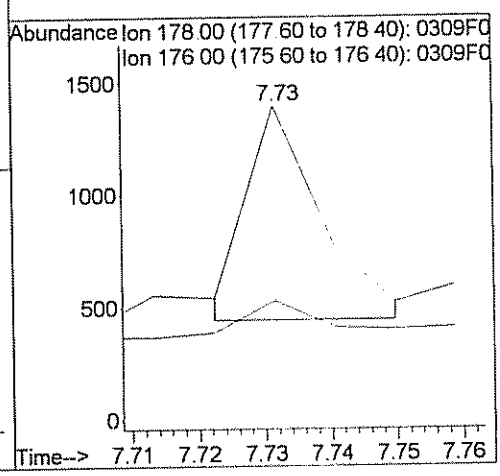


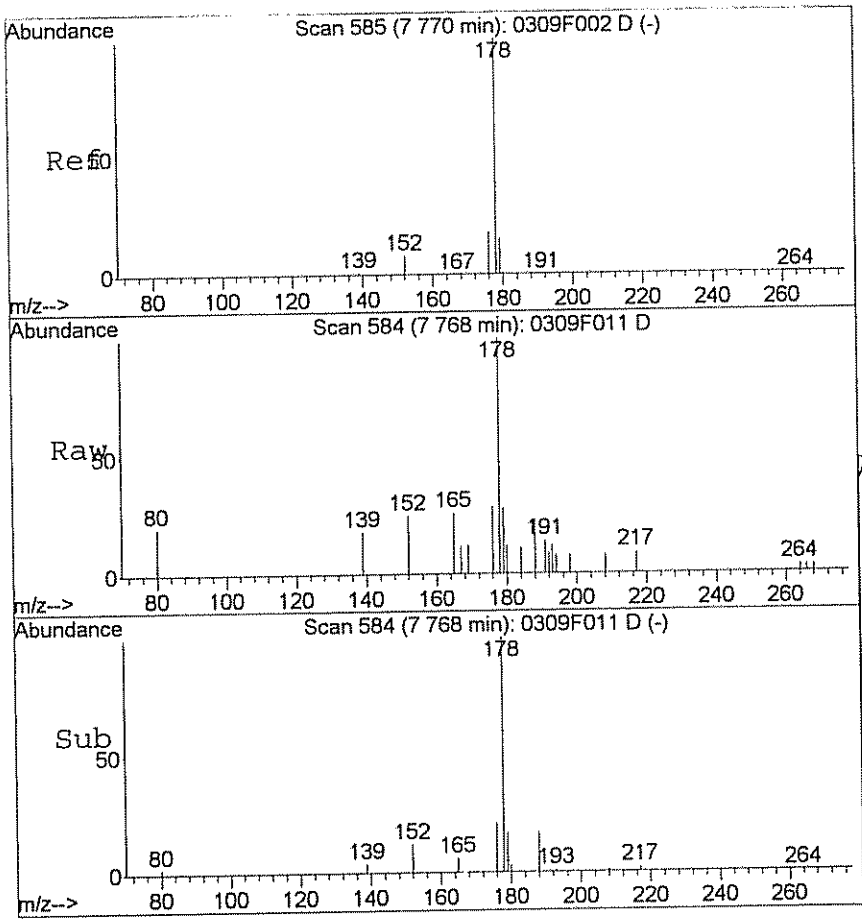


#27
Phenanthrene
Concen: 0.41 ng/ml m
RT: 7.73 min Scan# 580
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:178 Resp: 737

Ion	Ratio	Lower	Upper
178	100		
176	38.0	0.0	48.4

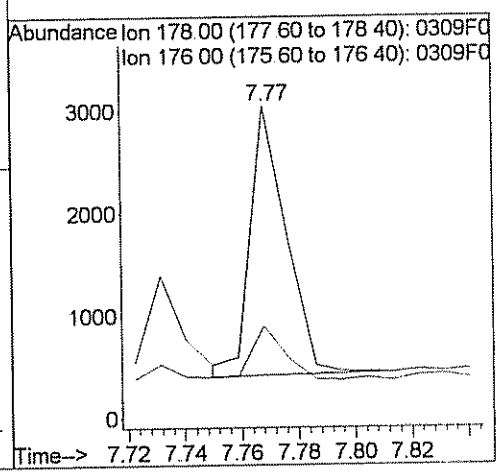


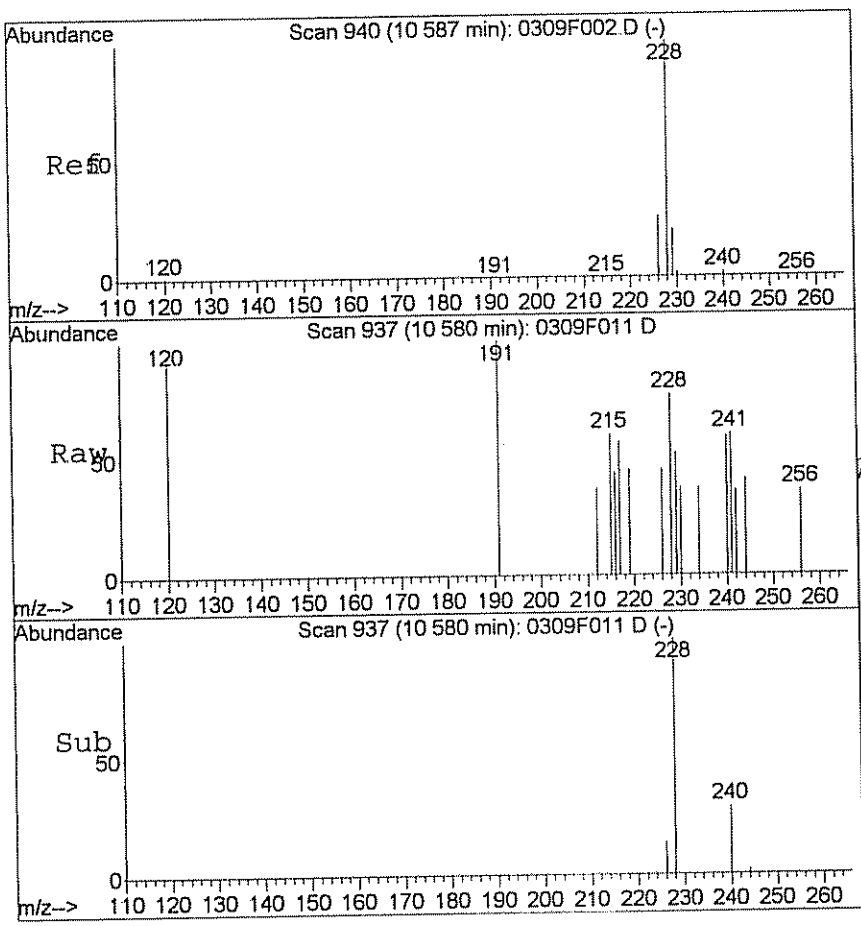


#28
Anthracene
Concen: 1.39 ng/ml
RT: 7.77 min Scan# 584
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:178 Resp: 2295

Ion	Ratio	Lower	Upper
178	100		
176	20.4	0.0	47.7

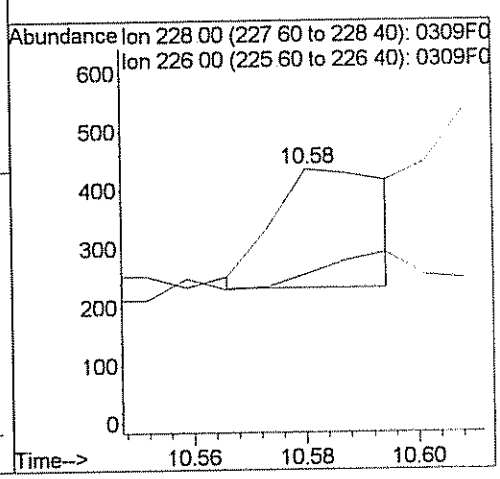


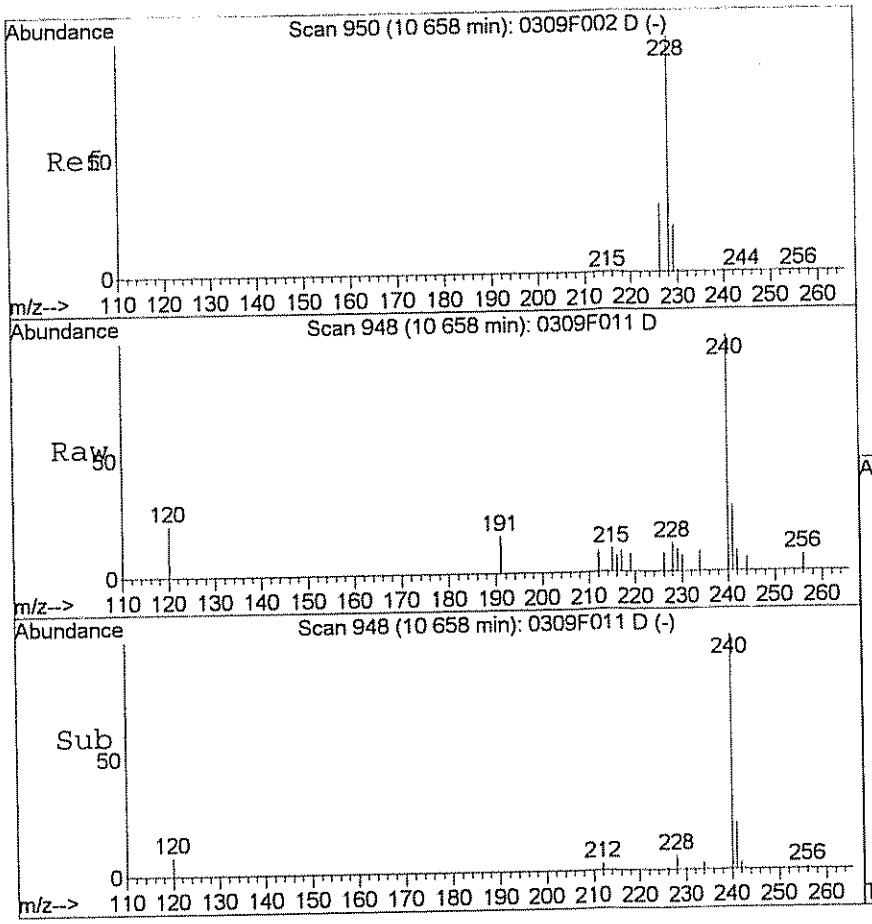


#43
Benz(a)anthracene
Concen: 0.18 ng/ml m
RT: 10.58 min Scan# 937
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:228 Resp: 288

Ion	Ratio	Lower	Upper
228	100		
226	58.8	0.0	56.6#

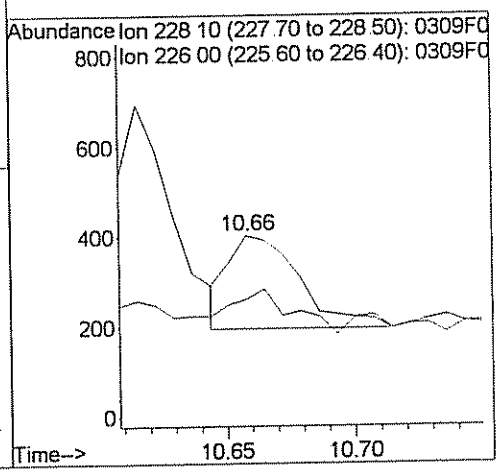


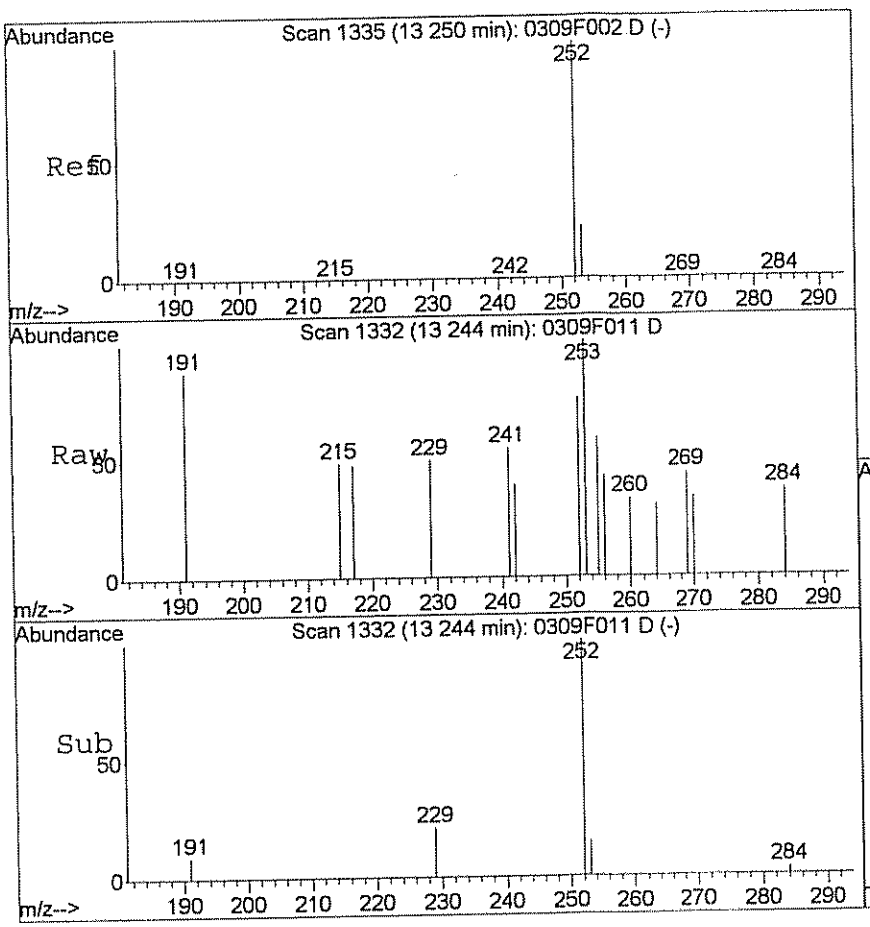


#44
Chrysene
Concen: 0.23 ng/ml
RT: 10.66 min Scan# 948
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:228 Resp: 401

Ion	Ratio	Lower	Upper
228	100		
226	31.6	0.0	58.9

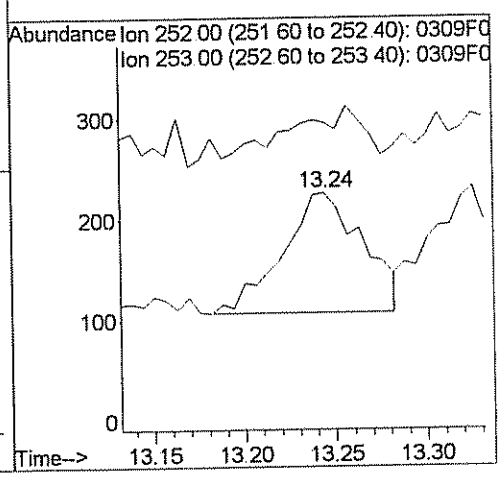


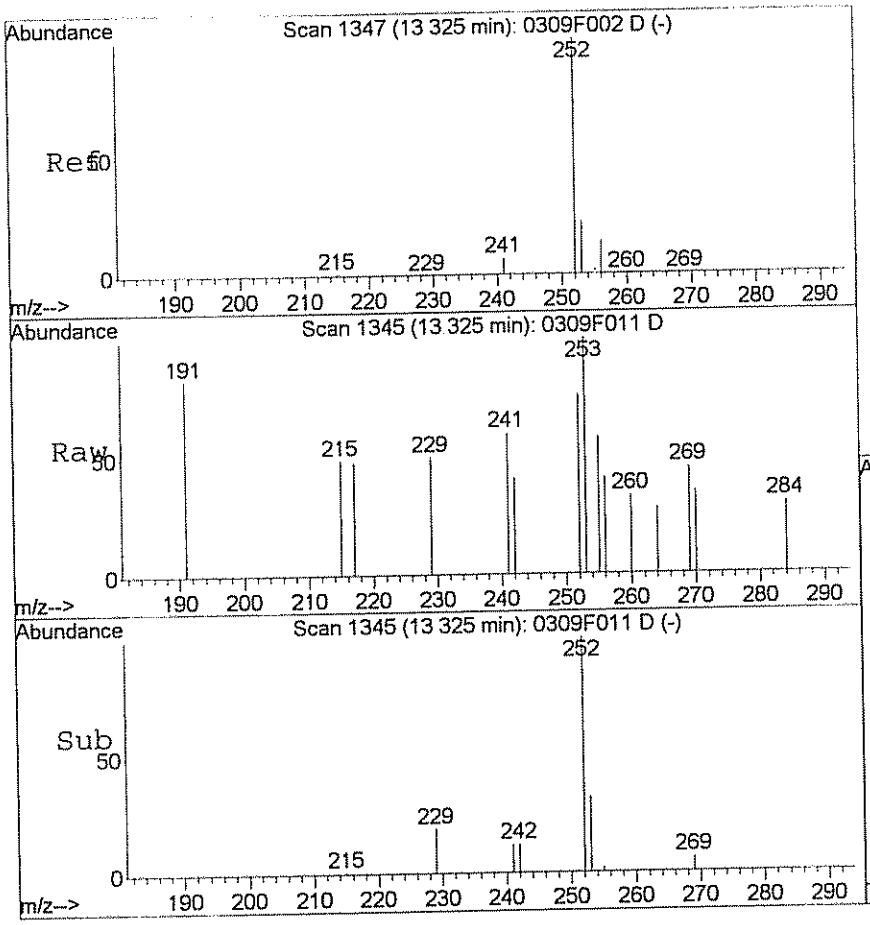


#50
Benzo(b)fluoranthene
Concen: 0.22 ng/ml
RT: 13.24 min Scan# 1332
Delta R.T. -0.02 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:252 Resp: 364

Ion	Ratio	Lower	Upper
252	100		
253	21.0	0.0	52.0

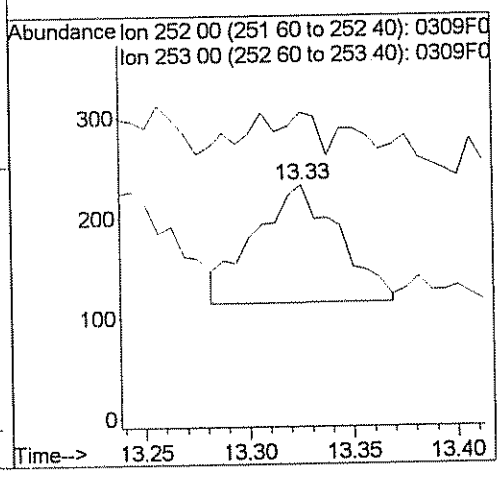


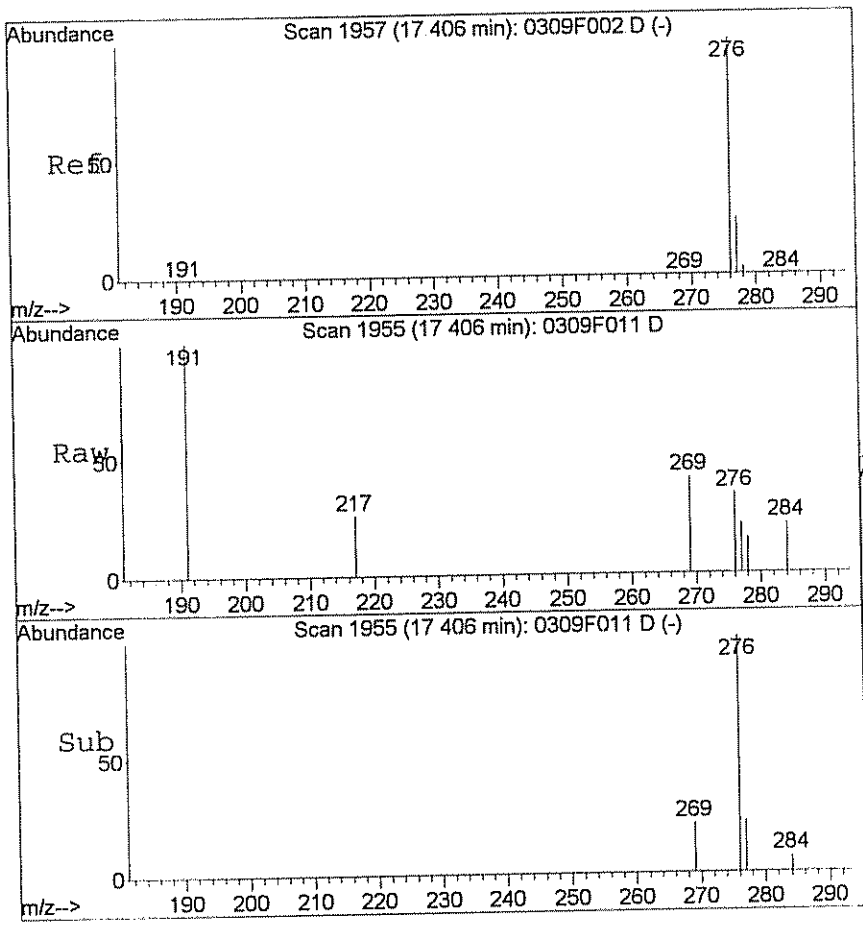


#51
Benzo(k)fluoranthene
Concen: 0.19 ng/ml
RT: 13.33 min Scan# 1345
Delta R.T. -0.02 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:252 Resp: 328

Ion	Ratio	Lower	Upper
252	100		
253	30.0	0.0	52.2

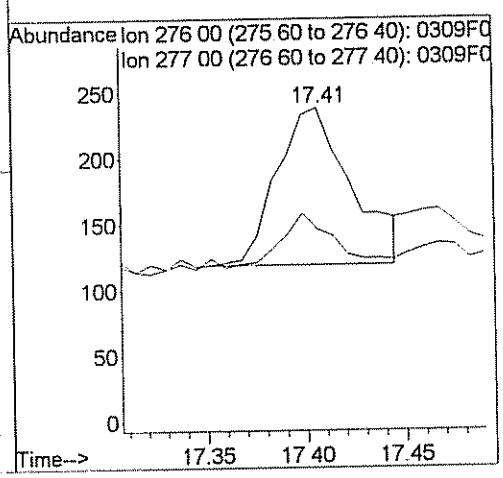


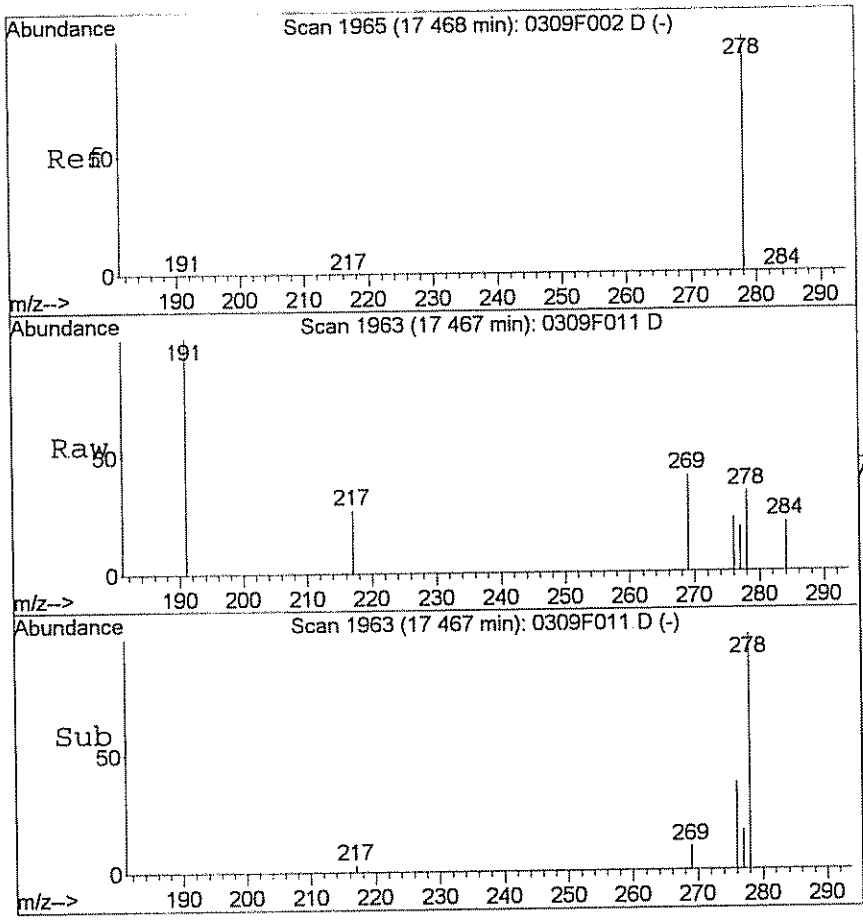


#55
Indeno(1,2,3-cd)pyrene
Concen: 0.27 ng/ml
RT: 17.41 min Scan# 1955
Delta R.T. -0.01 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:276 Resp: 310

Ion	Ratio	Lower	Upper
276	100		
277	19.3	0.0	53.7

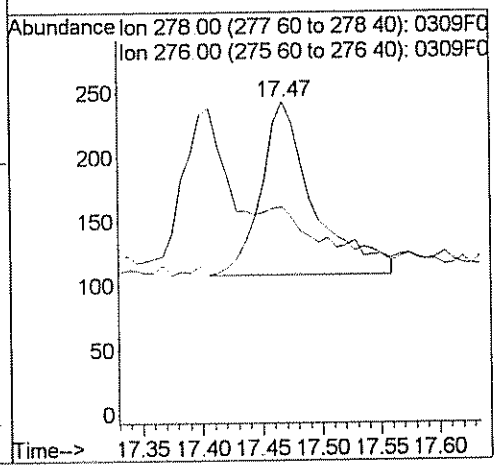


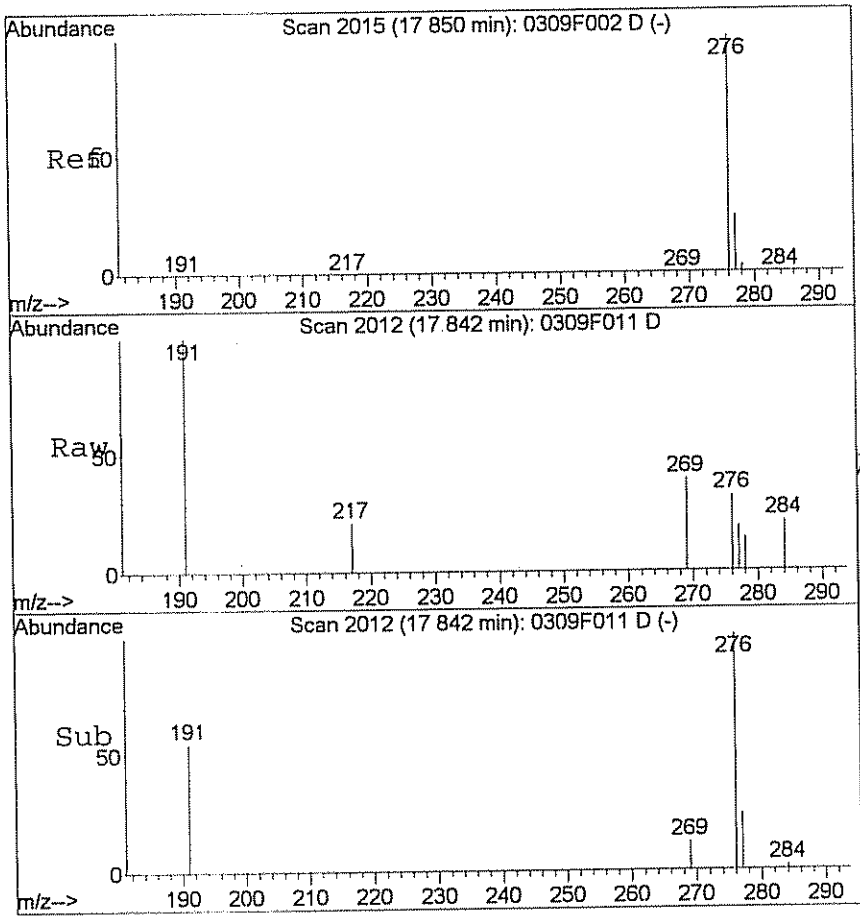


#56
Dibenz(a,h)anthracene
Concen: 0.33 ng/ml
RT: 17.47 min Scan# 1963
Delta R.T. -0.02 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:278 Resp: 414

Ion	Ratio	Lower	Upper
278	100		
276	29.6	0.0	55.3

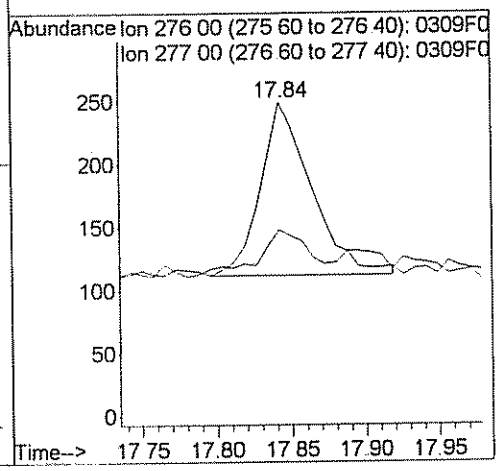




#57
Benzo(g,h,i)perylene
Concen: 0.21 ng/ml
RT: 17.84 min Scan# 2012
Delta R.T. -0.02 min
Lab File: 0309F011.D
Acq: 9 Mar 2005 11:37 am

Tgt Ion:276 Resp: 341

Ion	Ratio	Lower	Upper
276	100		
277	22.6	0.0	53.9



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/04/2005
Date Analyzed: 03/08/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: Method Blank
Lab Code: KWG0503522-4
File ID: J:\MS11\DATA\030805\0308F006.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0054**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	73	37-107	03/08/05	Acceptable
Fluoranthene-d10	74	18-137	03/08/05	Acceptable
Terphenyl-d14	79	18-153	03/08/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030805\0308F006 D
Lab ID: KWG0503522-4
RunType: MB
Matrix: WATER

Date Acquired: 03/08/2005 08:07
Date Quantitated: 03/09/2005 10:03
Batch ID: KWG0503808
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K1544

Primary Review: 3/9/05

Secondary Review: 3/10/5

Printed: 03/09/2005 12:43:55
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/04/2005

Analysis Lot:	KWG0503808	Prep Lot:	KWG0503522	Report Group:	
Analysis Method:	8270C SIM	Prep Method:	EPA 3535		
Prep Ref:	365929	Prep Date:	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK M	Calibration ID:	CAL4271
Title:			
Tune Ref:	J:\MS11\DATA\030805\0308F001 D	Method ID:	MJ532
MB Ref:		Quant based on Method	

Data File:	J:\MS11\DATA\030805\0308F006 D			Instrument:	MS11
Acqu Date:	03/08/2005 08:07	Quant Date:	03/09/2005 10:03	Vial:	3
Run Type:	MB			Dilution:	1 0
Lab ID:	KWG0503522-4			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	245120	200 00	OK
2	Acenaphthene-d10	6 49	-0 01	164	193795	200 00	OK
3	Phenanthrene-d10	7 72	0 01	188	318556	200 00	OK
4	Chrysene-d12	10 61	-0 01	240	279619	200 00	OK
5	Perylene-d12	14 55	-0 01	264	256863	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	381867	293 29	73	37-107	OK
3	Fluoranthene-d10	8 72	0 00	0 00	212	641574	294 40	74	18-137	OK
4	Terphenyl-d14	9 12	-0.01	0 00	244	500017	316 06	79	18-153	OK

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.07	-0.01	0 00	128	1544	1 13	0 00543	J	
1	2-Methylnaphthalene	5.62	-0.01	0 00	142	677	0 5600	0.0040	U	
1	1-Methylnaphthalene	5 72		0 00	142	480	0.4400	0 0037	U	
1	Biphenyl	6 00	-0 01	0 00	154	1503	0 9900	0 0060	U	
1	2,6-Dimethylnaphthalene	6 13		0 00	156	279	0 2600	0.0044	U	
2	Acenaphthylene				152	0d		0 0031	U	
2	Acenaphthene				154	0d		0 0042	U	
2	Dibenzofuran				168	0d		0 0044	U	
2	2,3,5-Trimethylnaphthalene				170	0d		0.0041	U	
2	Fluorene				166	0d		0.0051	U	
3	Dibenzothiophene				184	0d		0 0040	U	
3	Phenanthrene				178	0d		0.0038	U	
3	Anthracene				178	0d		0.0039	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030805\0308F006 D			**Instrument:**	MS11
Acqu Date:	03/08/2005 08:07	**Quant Date:**	03/09/2005 10:03	**Vial:**	3
Run Type:	MB			**Dilution:**	1 0
Lab ID:	KWG0503522-4			**Soln Conc. Units:**	ng/ml

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole				167	0d		0 0037	U	
3	1-Methylphenanthrene				192	0d		0 0046	U	
3	Fluoranthene	8 74		0 00	202	494m	0 2500	0 0042	U	
4	Pyrene	8 96		0 00	202	733	0 3600	0 0037	U	
4	Benz(a)anthracene	10 59		0 00	228	229m	0 1400	0 0040	U	
4	Chrysene	10 65	-0 02	0 00	228	318	0 1800	0 0036	U	
5	Benzo(b)fluoranthene	13 23	-0 01	0 00	252	280	0 1600	0 0048	U	
5	Benzo(k)fluoranthene	13 31	-0 01	0 00	252	210	0 1200	0 0041	U	
5	Benzo(e)pyrene				252	0d		0 0045	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Perylene				252	0d		0 0038	U	
5	Indeno(1,2,3-cd)pyrene	17 39	-0 01	0 00	276	222	0 1900	0 0038	U	
5	Dibenz(a,h)anthracene	17 45	-0 02	0 00	278	162	0 1200	0 0066	U	
5	Benzo(g,h,i)perylene	17 84		0 00	276	239	0 1500	0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030805\0308F006.D
Acq On : 8 Mar 2005 8:07 am
Sample : KWG0503522-4 MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 09 09:59:05 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Mar 09 09:58:43 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	245120	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	193795	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	318556	200.00	ng/ml	0.00
37) Chrysene-d12	10.61	240	279619	200.00	ng/ml	-0.02
49) Perylene-d12	14.55	264	256863	200.00	ng/ml	-0.03
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	381867	293.29	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	29.33%		
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
36) Fluoranthene-d10	8.72	212	641574	294.40	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	29.44%		
42) Terphenyl-d14	9.12	244	500017	316.06	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	31.61%		

Target Compounds						Qvalue
2) Naphthalene	5.07	128	1544	1.13	ng/ml	98
3) 2-Methylnaphthalene	5.62	142	677	0.56	ng/ml	98
4) 1-Methylnaphthalene	5.72	142	480	0.44	ng/ml	96
5) Biphenyl	6.00	154	1503	0.99	ng/ml	98
6) 2,6-Dimethylnaphthalene	6.13	156	279	0.26	ng/ml	97
35) Fluoranthene	8.74	202	494m	0.25	ng/ml	
38) Pyrene	8.96	202	733	0.36	ng/ml	94
43) Benz(a)anthracene	10.59	228	229m	0.14	ng/ml	
44) Chrysene	10.65	228	318	0.18	ng/ml	98
50) Benzo(b)fluoranthene	13.23	252	280	0.16	ng/ml	76
51) Benzo(k)fluoranthene	13.31	252	210	0.12	ng/ml	92
55) Indeno(1,2,3-cd)pyrene	17.39	276	222	0.19	ng/ml	82
56) Dibenz(a,h)anthracene	17.45	278	162	0.12	ng/ml	98
57) Benzo(g,h,i)perylene	17.84	276	239	0.15	ng/ml	92

(#) = qualifier out of range (m) = manual integration

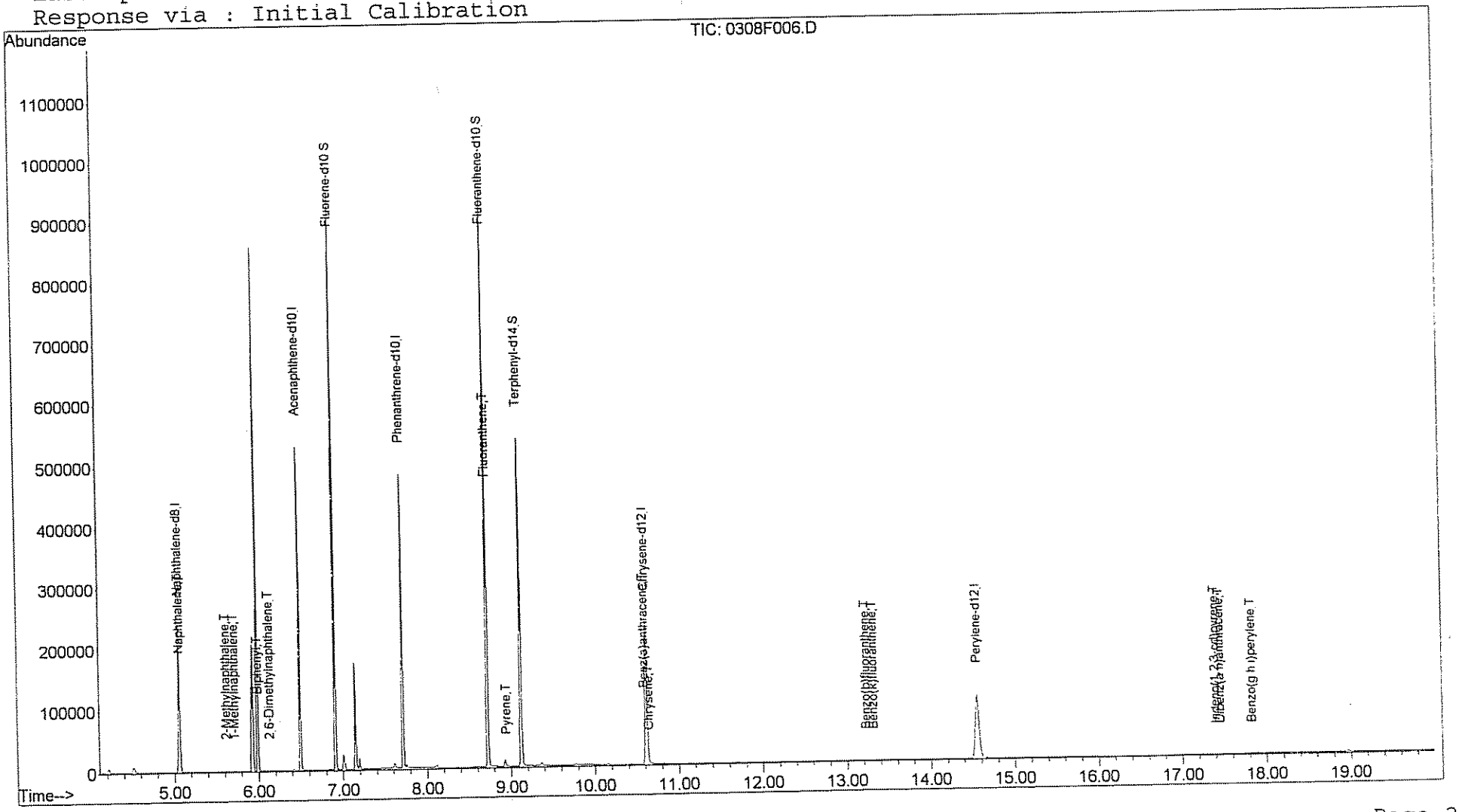
Quantitation Report (QT Reviewed)

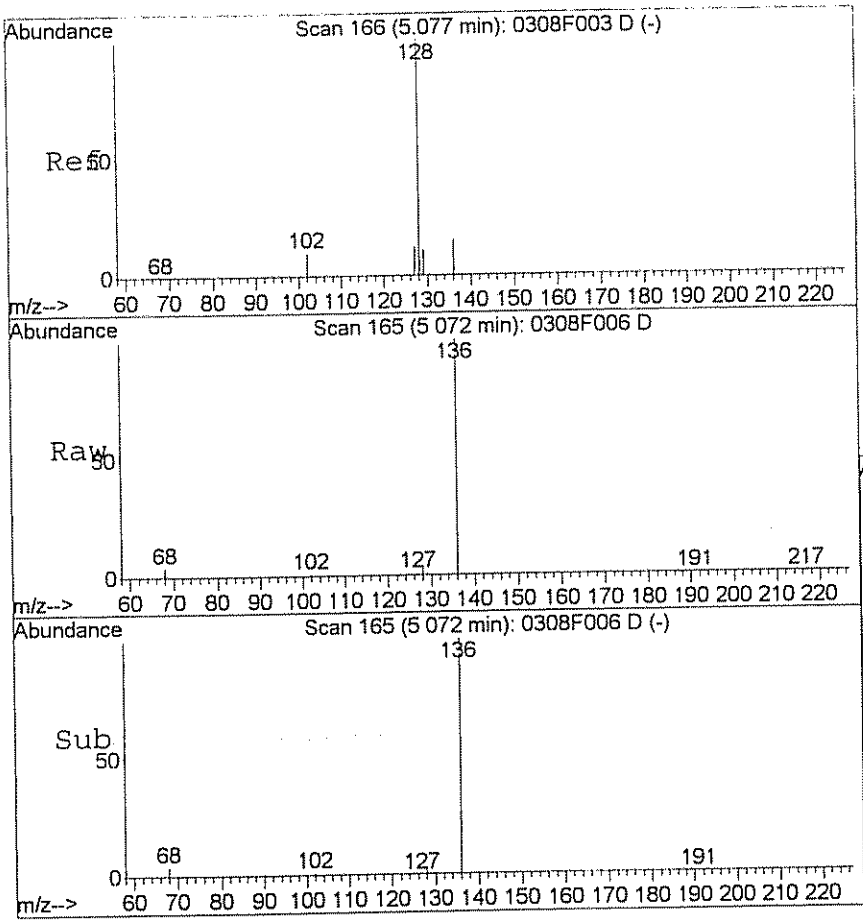
Data File : J:\MS11\DATA\030805\0308F006.D
Acq On : 8 Mar 2005 8:07 am
Sample : KWG0503522-4 MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 9 10:03 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Mar 09 09:58:43 2005
Response via : Initial Calibration

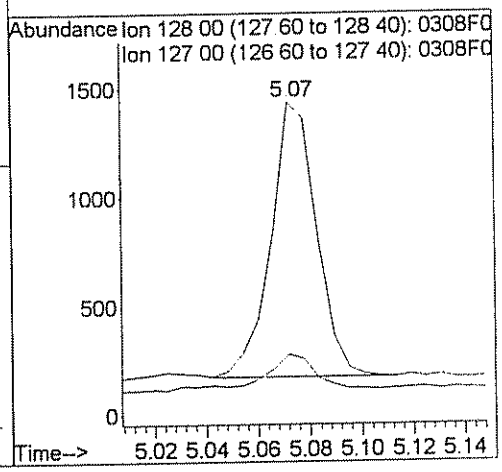


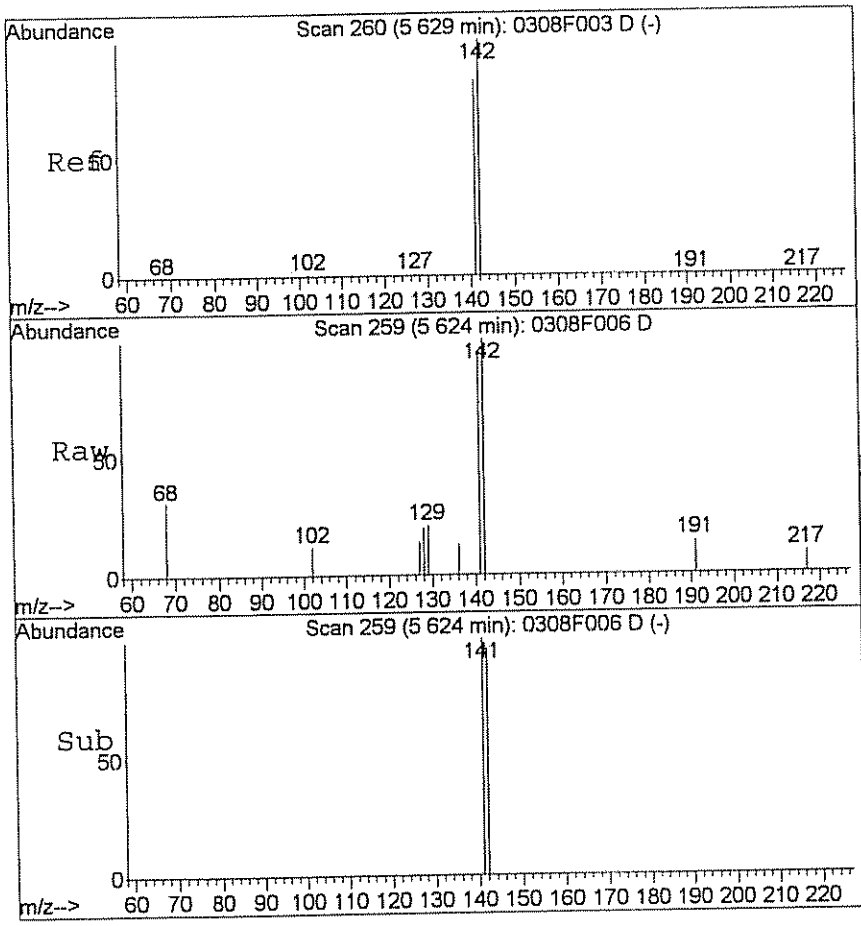


#2
Naphthalene
Concen: 1.13 ng/ml
RT: 5.07 min Scan# 165
Delta R.T. -0.01 min
Lab File: 0308F006.D
Acq: 8 Mar 2005 8:07 am

Tgt Ion:128 Resp: 1544

Ion	Ratio	Lower	Upper
128	100		
127	12.4	0.0	43.1

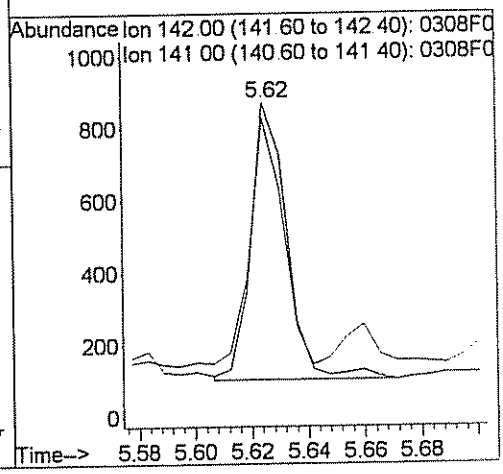




#3
2-Methylnaphthalene
Concen: 0.56 ng/ml
RT: 5.62 min Scan# 259
Delta R.T. -0.01 min
Lab File: 0308F006.D
Acq: 8 Mar 2005 8:07 am

Tgt Ion:142 Resp: 677

Ion	Ratio	Lower	Upper
142	100		
141	88.5	56.4	116.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501544
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/02/2005
Sample Matrix:	Water	**Date Received:**	03/03/2005
		Date Extracted:	03/04/2005
		Date Analyzed:	03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50398-05MS	**Units:**	ug/L
Lab Code:	KWG0503522-1	**Basis:**	NA
File ID:	J:\MS11\DATA\030905\0309F009.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503522
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.25		0.020	0.0048	
91-57-6	2-Methylnaphthalene	2.02		0.020	0.0040	
208-96-8	Acenaphthylene	2.44		0.020	0.0031	
83-32-9	Acenaphthene	2.29		0.020	0.0042	
132-64-9	Dibenzofuran	2.30		0.020	0.0044	
86-73-7	Fluorene	2.44		0.020	0.0051	
85-01-8	Phenanthrene	2.27		0.020	0.0038	
120-12-7	Anthracene	2.47		0.020	0.0039	
206-44-0	Fluoranthene	2.44		0.020	0.0042	
129-00-0	Pyrene	2.17		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.60		0.020	0.0040	
218-01-9	Chrysene	2.34		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.43		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.34		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.55		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.78		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.67		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.40		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	71	37-107	03/09/05	Acceptable
Fluoranthene-d10	74	18-137	03/09/05	Acceptable
Terphenyl-d14	78	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F009.D
Lab ID: KWG0503522-1 -- K2501544-005MS
RunType: MS
Matrix: WATER

Date Acquired: 03/09/2005 10:42
Date Quantitated: 03/14/2005 08:13
Batch ID: KWG0504050
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 03/14/05

Secondary Review: 3-14-7

Printed: 03/14/2005 08:52:42
u \Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/04/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365926	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK.M	**Calibration ID:**	CAL4271
Title:		**Method ID:**	MJ532
Tune Ref:	J:\MS11\DATA\030905\0309F001.D	**Quant based on Method**	
MB Ref:	J:\MS11\DATA\030805\0308F006.D		

Data File:	J:\MS11\DATA\030905\0309F009.D			**Instrument:**	MS11
Acqu Date:	03/09/2005 10:42	**Quant Date:**	03/14/2005 08:13	**Vial:**	7
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0503522-1 -- K2501544-005MS			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.00	136	285782	200.00	OK
2	Acenaphthene-d10	6.50	0.00	164	212908	200.00	OK
3	Phenanthrene-d10	7.71	-0.01	188	348625	200.00	OK
4	Chrysene-d12	10.62	0.00	240	340979	200.00	OK
5	Perylene-d12	14.56	0.00	264	309182	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	405535	283.50	71	37-107	OK
3	Fluoranthene-d10	8.72	0.00	0.00	212	703684	295.05	74	18-137	OK
4	Terphenyl-d14	9.12	-0.01	0.00	244	599968	310.99	78	18-153	OK

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.07	-0.01	0.00	128	741892	467.60	2.25		
1	2-Methylnaphthalene	5.63		0.00	142	593044	420.45	2.02		
1	1-Methylnaphthalene	5.72		0.00	142	535281	418.35	2.01		
1	Biphenyl	6.01	0.01	0.00	154	745334	422.20	2.03		
1	2,6-Dimethylnaphthalene	6.13	-0.01	0.00	156	540385	428.70	2.06		
2	Acenaphthylene	6.37		0.00	152	1000138	507.11	2.44		
2	Acenaphthene	6.52		0.00	154	582201	476.62	2.29		
2	Dibenzofuran	6.65		0.00	168	846979	479.27	2.30		
2	2,3,5-Trimethylnaphthalene	6.83		0.00	170	525441	482.06	2.32		
2	Fluorene	6.93		0.00	166	714469	507.89	2.44		
3	Dibenzothiophene	7.63		0.00	184	900099	483.58	2.32		
3	Phenanthrene	7.73		0.00	178	973407	472.28	2.27		
3	Anthracene	7.77		0.00	178	960867	513.12	2.47		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 03/14/2005 08:47:27

J:\MS11\DATA\030905\0309F009.D

u:\Stealth\Crystal rpt\quant1.rpt

Data File:	J:\MS11\DATA\030905\0309F009 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 10:42	**Quant Date:**	03/14/2005 08:13	**Vial:**	7
Run Type:	MS			**Dilution:**	1 0
Lab ID:	KWG0503522-1 -- K2501544-005MS			**Soln Conc. Units:**	ng/ml

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 90		0 00	167	906570	566 07	2 72		
3	1-Methylphenanthrene	8 24		0 00	192	711973	507 46	2 44		
3	Fluoranthene	8 74		0 00	202	1097364	508 48	2 44		
4	Pyrene	8 96		0 00	202	1136729	452 36	2 17		
4	Benz(a)anthracene	10 59		0 00	228	1063126	541 81	2 60		
4	Chrysene	10 67	0 01	0 00	228	1023915	486 28	2 34		
5	Benzo(b)fluoranthene	13 25		0 00	252	1053731	505 44	2 43		
5	Benzo(k)fluoranthene	13 32	-0 01	0 00	252	1050675	486 63	2 34		
5	Benzo(e)pyrene	14 16		0 00	252	954035	459 77	2 21		
5	Benzo(a)pyrene	14 34		0 00	252	935086	529 95	2 55		
5	Perylene	14 65	-0 01	0 00	252	927701	491 76	2 36		
5	Indeno(1,2,3-cd)pyrene	17 40	-0 01	0 00	276	819576	577 72	2 78		
5	Dibenz(a,h)anthracene	17 47		0 00	278	866352	555 33	2 67		
5	Benzo(g,h,i)perylene	17 85		0 00	276	984656	499 97	2 40		

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
\# Acceptance criteria not applicable
? Insufficient information to determine acceptance
e Result >= MRL, but MRL less than low point of ICAL
c check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F009.D
Acq On : 9 Mar 2005 10:42 am
Sample : KWG0503522-1 K2501544-005MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:39 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	285782	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	212908	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	348625	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	340979	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	309182	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	405535	283.50 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 28.35%		
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%		
36) Fluoranthene-d10	8.72	212	703684	295.05 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 29.51%		
42) Terphenyl-d14	9.12	244	599968	310.99 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 31.10%		
Target Compounds					Qvalue
2) Naphthalene	5.07	128	741892	467.60 ng/ml	99
3) 2-Methylnaphthalene	5.63	142	593044	420.45 ng/ml	95
4) 1-Methylnaphthalene	5.72	142	535281	418.35 ng/ml	92
5) Biphenyl	6.01	154	745334	422.20 ng/ml	95
6) 2,6-Dimethylnaphthalene	6.13	156	540385	428.70 ng/ml	98
11) Acenaphthylene	6.37	152	1000138	507.11 ng/ml	98
12) Acenaphthene	6.52	154	582201	476.62 ng/ml	96
13) Dibenzofuran	6.65	168	846979	479.27 ng/ml	79
14) 2,3,5-Trimethylnaphthalene	6.83	170	525441	482.06 ng/ml	68
16) Fluorene	6.93	166	714469	507.89 ng/ml	94
23) Dibenzothiophene	7.63	184	900099	483.58 ng/ml	80
27) Phenanthrene	7.73	178	973407	472.28 ng/ml	99
28) Anthracene	7.77	178	960867	513.12 ng/ml	98
29) Carbazole	7.90	167	906570	566.07 ng/ml	95
30) 1-Methylphenanthrene	8.24	192	711973	507.46 ng/ml	99
35) Fluoranthene	8.74	202	1097364	508.48 ng/ml	100
38) Pyrene	8.96	202	1136729	452.36 ng/ml	99
43) Benz(a)anthracene	10.59	228	1063126	541.81 ng/ml	98
44) Chrysene	10.67	228	1023915	486.28 ng/ml	98
50) Benzo(b)fluoranthene	13.25	252	1053731	505.44 ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	1050675	486.63 ng/ml	99
52) Benzo(e)pyrene	14.16	252	954035	459.77 ng/ml	100
53) Benzo(a)pyrene	14.34	252	935086	529.95 ng/ml	100
54) Perylene	14.65	252	927701	491.76 ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.40	276	819576	577.72 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F009.D
Acq On : 9 Mar 2005 10:42 am
Sample : KWG0503522-1 K2501544-005MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:39 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56) Dibenz(a,h)anthracene	17.47	278	866352	555.33 ng/ml	97
57) Benzo(g,h,i)perylene	17.85	276	984656	499.97 ng/ml	100

(#) = qualifier out of range (m) = manual integration
0309F009.D 0305ALK.M Mon Mar 14 08:13:30 2005

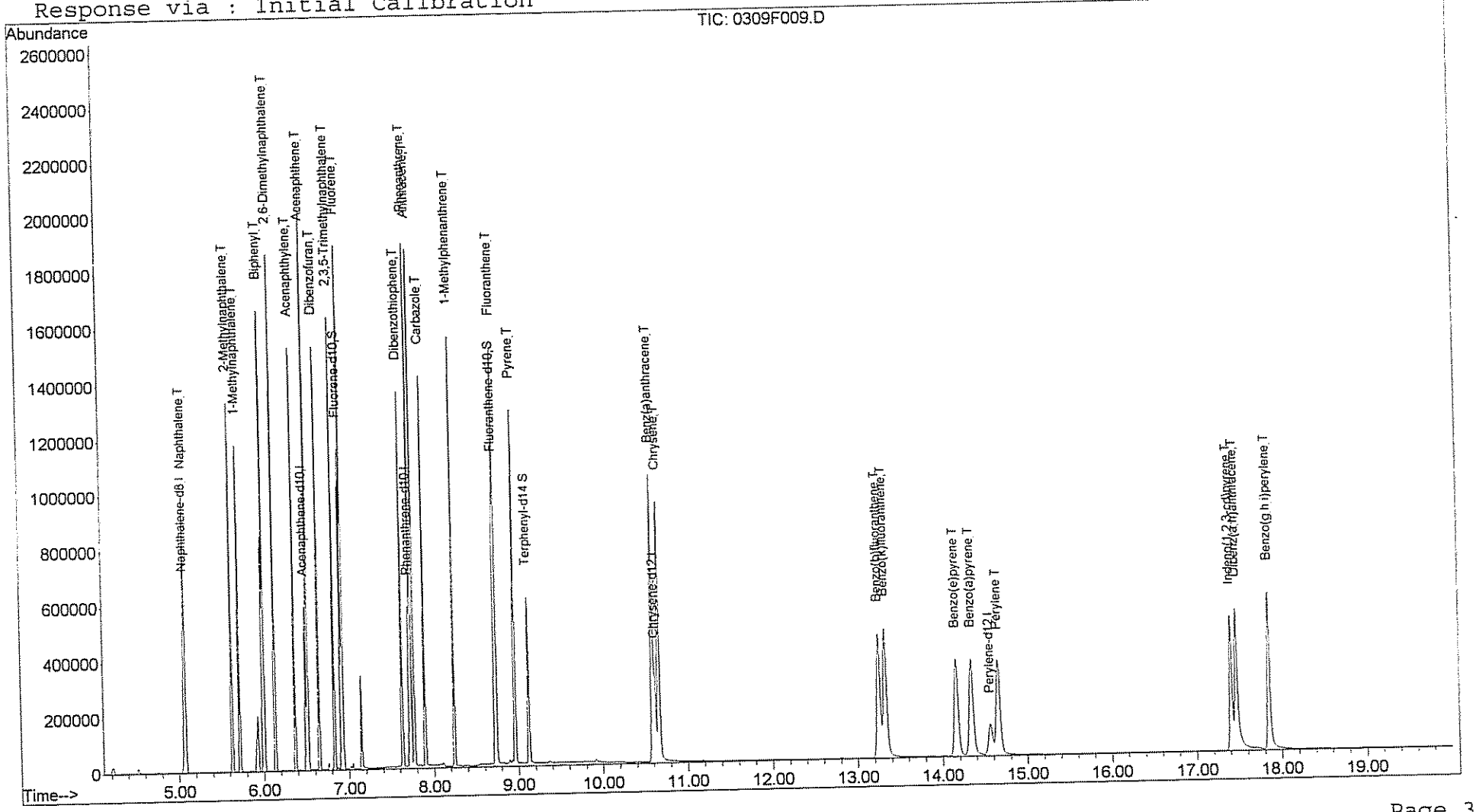
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F009.D
Acq On : 9 Mar 2005 10:42 am
Sample : KWG0503522-1 K2501544-005MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:13 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration



0309F009.D 0305ALK.M Mon Mar 14 08:13:31 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: 03/02/2005
Date Received: 03/03/2005
Date Extracted: 03/04/2005
Date Analyzed: 03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: 50398-05DMS
Lab Code: KWG0503522-2
File ID: J:\MS11\DATA\030905\0309F010.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.15		0.020	0.0048	
91-57-6	2-Methylnaphthalene	1.87		0.020	0.0040	
208-96-8	Acenaphthylene	2.37		0.020	0.0031	
83-32-9	Acenaphthene	2.20		0.020	0.0042	
132-64-9	Dibenzofuran	2.21		0.020	0.0044	
86-73-7	Fluorene	2.35		0.020	0.0051	
85-01-8	Phenanthrene	2.23		0.020	0.0038	
120-12-7	Anthracene	2.40		0.020	0.0039	
206-44-0	Fluoranthene	2.37		0.020	0.0042	
129-00-0	Pyrene	2.18		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.43		0.020	0.0040	
218-01-9	Chrysene	2.15		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.19		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.15		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.36		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.66		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.49		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.23		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	37-107	03/09/05	Acceptable
Fluoranthene-d10	87	18-137	03/09/05	Acceptable
Terphenyl-d14	94	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F010 D
Lab ID: KWG0503522-2 -- K2501544-005DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/09/2005 11:09
Date Quantitated: 03/14/2005 08:13
Batch ID: KWG0504050
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 03/15/4

Secondary Review: 03·14·5

Printed: 03/14/2005 08:52:46
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/04/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	365927	**Prep Date:**	03/04/2005		

Quant Method:	J:\MS11\METHODS\SIM\0305ALK M	**Calibration ID:**	CAL4271
Title:		**Method ID:**	MJ532
Tune Ref:	J:\MS11\DATA\030905\0309F001 D	**Quant based on Method**	
MB Ref:	J:\MS11\DATA\030805\0308F006 D		

Data File:	J:\MS11\DATA\030905\0309F010 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 11:09	**Quant Date:**	03/14/2005 08:13	**Vial:**	8
Run Type:	DMS			**Dilution:**	1 0
Lab ID:	KWG0503522-2 -- K2501544-005DMS			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	300141	200 00	OK
2	Acenaphthene-d10	6 50	0 00	164	213806	200 00	OK
3	Phenanthrene-d10	7 72	0 00	188	353753	200 00	OK
4	Chrysene-d12	10 62	0 00	240	337994	200 00	OK
5	Perylene-d12	14 58	0 02	264	311869	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	476825	331 94	83	37-107	OK
3	Fluoranthene-d10	8 72	0 00	0 00	212	839679	346 97	87	18-137	OK
4	Terphenyl-d14	9 13	0 00	0 00	244	720654	376 85	94	18-153	OK

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08		0 00	128	746656	448 09	2 15		
1	2-Methylnaphthalene	5 63		0 00	142	577668	389 95	1 87		
1	1-Methylnaphthalene	5 72		0 00	142	520920	387 65	1 86		
1	Biphenyl	6 00		0 00	154	721196	388 99	1 87		
1	2,6-Dimethylnaphthalene	6 13	-0 01	0 00	156	525768	397 15	1 91		
2	Acenaphthylene	6 37		0 00	152	974468	492 02	2 37		
2	Acenaphthene	6 52		0 00	154	561535	457 77	2 20		
2	Dibenzofuran	6 65		0 00	168	817221	460 49	2 21		
2	2,3,5-Trimethylnaphthalene	6 83		0 00	170	513216	468 87	2 25		
2	Fluorene	6 93		0 00	166	689707	488 23	2 35		
3	Dibenzothiophene	7 63		0 00	184	876890	464 29	2 23		
3	Phenanthrene	7 73		0 00	178	968442	463 06	2 23		
3	Anthracene	7 77		0 00	178	950384	500 17	2 40		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 03/14/2005 08:48:35 J:\MS11\DATA\030905\0309F010 D

u:\Stealth\Crystal rpt\quant1 rpt

Data File:	J:\MS11\DATA\030905\0309F010 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 11:09	**Quant Date:**	03/14/2005 08:13	**Vial:**	8
Run Type:	DMS			**Dilution:**	1 0
Lab ID:	KWG0503522-2 -- K2501544-005DMS			**Soln Conc. Units:**	ng/ml

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 90		0.00	167	879781	541 38	2.60		
3	1-Methylphenanthrene	8 24		0.00	192	709152	498 12	2 39		
3	Fluoranthene	8.74		0 00	202	1079249	492 84	2.37		
4	Pyrene	8 96		0 00	202	1131866	454.41	2 18		
4	Benz(a)anthracene	10 59		0 00	228	984328	506.08	2.43		
4	Chrysene	10 66		0 00	228	935501	448 21	2 15		
5	Benzo(b)fluoranthene	13 27	0 02	0 00	252	958593	455 84	2 19		
5	Benzo(k)fluoranthene	13.35	0 02	0 00	252	975975	448 14	2 15		
5	Benzo(e)pyrene	14 19	0 03	0 00	252	877173	419 08	2 01		
5	Benzo(a)pyrene	14 36	0 02	0 00	252	875167	491 72	2 36		
5	Perylene	14.67	0.01	0 00	252	859796	451.84	2 17		
5	Indeno(1,2,3-cd)pyrene	17.41		0 00	276	791638	553 22	2 66		
5	Dibenz(a,h)anthracene	17.47		0 00	278	814657	517.70	2 49		
5	Benzo(g,h,i)perylene	17 85		0 00	276	921013	463.62	2.23		

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F010.D
Acq On : 9 Mar 2005 11:09 am
Sample : KWG0503522-2 K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:41 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	300141	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	213806	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.72	188	353753	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	337994	200.00 ng/ml	-0.01
49) Perylene-d12	14.58	264	311869	200.00 ng/ml	0.00
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	476825	331.94 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	33.19%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%	
36) Fluoranthene-d10	8.72	212	839679	346.97 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	34.70%	
42) Terphenyl-d14	9.13	244	720654	376.85 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.69%	

Target Compounds					Qvalue
2) Naphthalene	5.08	128	746656	448.09 ng/ml	98
3) 2-Methylnaphthalene	5.63	142	577668	389.95 ng/ml	94
4) 1-Methylnaphthalene	5.72	142	520920	387.65 ng/ml	94
5) Biphenyl	6.00	154	721196	388.99 ng/ml	99
6) 2,6-Dimethylnaphthalene	6.13	156	525768	397.15 ng/ml	98
11) Acenaphthylene	6.37	152	974468	492.02 ng/ml	99
12) Acenaphthene	6.52	154	561535	457.77 ng/ml	97
13) Dibenzofuran	6.65	168	817221	460.49 ng/ml	79
14) 2,3,5-Trimethylnaphthalene	6.83	170	513216	468.87 ng/ml	75
16) Fluorene	6.93	166	689707	488.23 ng/ml	96
23) Dibenzothiophene	7.63	184	876890	464.29 ng/ml	80
27) Phenanthrene	7.73	178	968442	463.06 ng/ml	100
28) Anthracene	7.77	178	950384	500.17 ng/ml	97
29) Carbazole	7.90	167	879781	541.38 ng/ml	94
30) 1-Methylphenanthrene	8.24	192	709152	498.12 ng/ml	95
35) Fluoranthene	8.74	202	1079249	492.84 ng/ml	100
38) Pyrene	8.96	202	1131866	454.41 ng/ml	98
43) Benz(a)anthracene	10.59	228	984328	506.08 ng/ml	100
44) Chrysene	10.66	228	935501	448.21 ng/ml	100
50) Benzo(b)fluoranthene	13.27	252	958593	455.84 ng/ml	100
51) Benzo(k)fluoranthene	13.35	252	975975	448.14 ng/ml	99
52) Benzo(e)pyrene	14.19	252	877173	419.08 ng/ml	99
53) Benzo(a)pyrene	14.36	252	875167	491.72 ng/ml	100
54) Perylene	14.67	252	859796	451.84 ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.41	276	791638	553.22 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F010.D
Acq On : 9 Mar 2005 11:09 am
Sample : KWG0503522-2 K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:41 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56) Dibenz(a,h)anthracene	17.47	278	814657	517.70 ng/ml	92
57) Benzo(g,h,i)perylene	17.85	276	921013	463.62 ng/ml	100

(#) = qualifier out of range (m) = manual integration
0309F010.D 0305ALK.M Mon Mar 14 08:13:32 2005

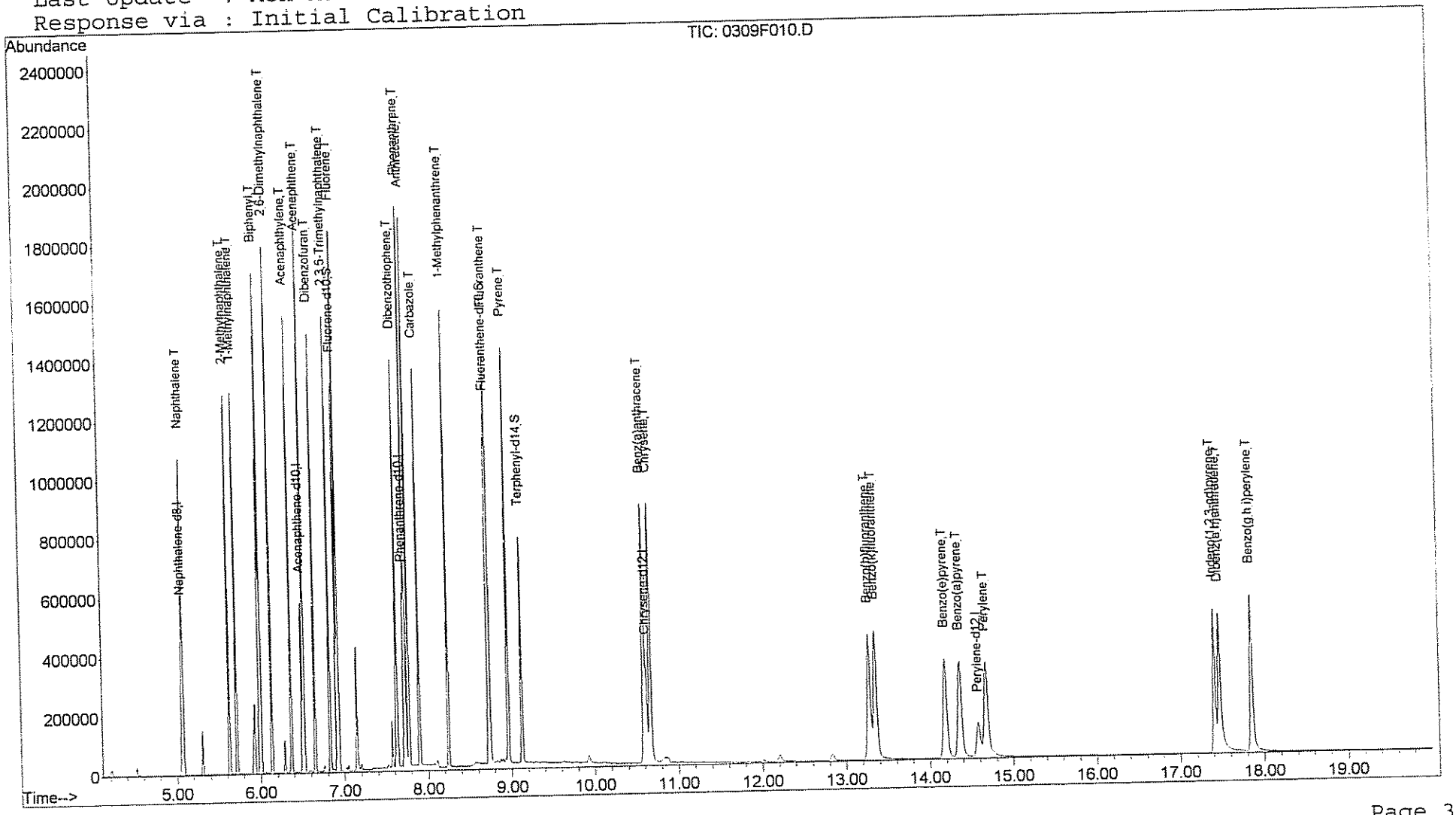
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F010.D
Acq On : 9 Mar 2005 11:09 am
Sample : KWG0503522-2 K2501544-005DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:13 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501544
Date Collected: NA
Date Received: NA
Date Extracted: 03/04/2005
Date Analyzed: 03/09/2005

Polynuclear Aromatic Hydrocarbons

Sample Name: Lab Control Sample
Lab Code: KWG0503522-3
File ID: J:\MS11\DATA\030905\0309F008.D
Instrument ID: MS11

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503522
Calibration ID: CAL4271

Sample Amount: 1000 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.26		0.020	0.0048	
91-57-6	2-Methylnaphthalene	2.05		0.020	0.0040	
208-96-8	Acenaphthylene	2.46		0.020	0.0031	
83-32-9	Acenaphthene	2.35		0.020	0.0042	
132-64-9	Dibenzofuran	2.38		0.020	0.0044	
86-73-7	Fluorene	2.54		0.020	0.0051	
85-01-8	Phenanthrene	2.41		0.020	0.0038	
120-12-7	Anthracene	2.62		0.020	0.0039	
206-44-0	Fluoranthene	2.61		0.020	0.0042	
129-00-0	Pyrene	2.24		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.60		0.020	0.0040	
218-01-9	Chrysene	2.41		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.41		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.36		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.59		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.87		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.73		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.43		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	37-107	03/09/05	Acceptable
Fluoranthene-d10	80	18-137	03/09/05	Acceptable
Terphenyl-d14	80	18-153	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\030905\0309F008 D
Lab ID: KWG0503522-3
RunType: LCS
Matrix: WATER

Date Acquired: 03/09/2005 10:14
Date Quantitated: 03/14/2005 08:12
Batch ID: KWG0504050
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K1544

Primary Review: 03/14/5

Secondary Review: 03/14/

Printed: 03/14/2005 08:52:38
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/04/2005

Analysis Lot:	KWG0504050	**Prep Lot:**	KWG0503522	**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
		Prep Date:	03/04/2005		
Prep Ref:	365928				

Quant Method:	J:\MS11\METHODS\SIM\0305ALK M	**Calibration ID:**	CAL4271
Title:			
Tune Ref:	J:\MS11\DATA\030905\0309F001 D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\030805\0308F006 D	**Quant based on Method**	

Data File:	J:\MS11\DATA\030905\0309F008 D			**Instrument:**	MS11
Acqu Date:	03/09/2005 10:14	**Quant Date:**	03/14/2005 08:12	**Vial:**	6
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0503522-3			**Soln Conc Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	282434	200 00	OK
2	Acenaphthene-d10	6 49	-0 01	164	210444	200 00	OK
3	Phenanthrene-d10	7 72	0 00	188	339545	200 00	OK
4	Chrysene-d12	10 62	0 00	240	339885	200 00	OK
5	Perylene-d12	14 56	0 00	264	312848	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	439269	310 68	78	37-107	OK
3	Fluoranthene-d10	8 73	0 01	0 00	212	746644	321 44	80	18-137	OK
4	Terphenyl-d14	9 13	0 00	0 00	244	618289	321 52	80	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08		0 00	128	710183	452 92	2 26		
1	2-Methylnaphthalene	5 63		0 00	142	570671	409 38	2 05		
1	1-Methylnaphthalene	5 72		0 00	142	514074	406 54	2 03		
1	Biphenyl	6 00		0 00	154	727477	416 97	2 08		
1	2,6-Dimethylnaphthalene	6 13	-0 01	0 00	156	525912	422 16	2 11		
2	Acenaphthylene	6 37		0 00	152	960702	492 82	2 46		
2	Acenaphthene	6 52		0 00	154	568143	470 55	2 35		
2	Dibenzofuran	6 65		0 00	168	830317	475 35	2 38		
2	2,3,5-Trimethylnaphthalene	6 83		0 00	170	511125	474 42	2 37		
2	Fluorene	6 93		0 00	166	705795	507 60	2 54		
3	Dibenzothiophene	7 63		0 00	184	886776	489 17	2 45		
3	Phenanthrene	7 73		0 00	178	966401	481 42	2 41		
3	Anthracene	7 77		0 00	178	957256	524 86	2 62		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\030905\0309F008 D			Instrument:	MS11
Acqu Date:	03/09/2005 10 14	Quant Date:	03/14/2005 08:12	Vial:	6
Run Type:	LCS			Dilution:	1 0
Lab ID:	KWG0503522-3			Soln Conc. Units:	ng/ml

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 90		0 00	167	847513	543 35	2 72		
3	1-Methylphenanthrene	8 24		0 00	192	700911	512 94	2 56		
3	Fluoranthene	8 74		0 00	202	1096702	521 76	2 61		
4	Pyrene	8 96		0 00	202	1122890	448 29	2 24		
4	Benz(a)anthracene	10 59		0 00	228	1018995	520 99	2 60		
4	Chrysene	10 66		0 00	228	1009803	481 12	2 41		
5	Benzo(b)fluoranthene	13 24	-0 01	0 00	252	1017037	482 12	2 41		
5	Benzo(k)fluoranthene	13 32	-0 01	0 00	252	1031645	472 22	2 36		
5	Benzo(e)pyrene	14 16		0 00	252	935533	445 57	2 23		
5	Benzo(a)pyrene	14 34		0 00	252	924785	517 97	2 59		
5	Perylene	14 66		0 00	252	908269	475 82	2 38		
5	Indeno(1,2,3-cd)pyrene	17 40	-0 01	0 00	276	823046	573 36	2 87		
5	Dibenz(a,h)anthracene	17 47		0 00	278	861742	545 90	2 73		
5	Benzo(g,h,i)perylene	17 85		0 00	276	969123	486 31	2 43		

Prep Amount:	1000 ml	Dilution:	1 0
Prep Final Vol:	5 ml	Unit Factor:	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F008.D
Acq On : 9 Mar 2005 10:14 am
Sample : KWG0503522-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:36 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	282434	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	210444	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	339545	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	339885	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	312848	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	439269	310.68	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 31.07%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.73	212	746644	321.44	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 32.14%			
42) Terphenyl-d14	9.13	244	618289	321.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 32.15%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	710183	452.92	ng/ml	98
3) 2-Methylnaphthalene	5.63	142	570671	409.38	ng/ml	95
4) 1-Methylnaphthalene	5.72	142	514074	406.54	ng/ml	94
5) Biphenyl	6.00	154	727477	416.97	ng/ml	99
6) 2,6-Dimethylnaphthalene	6.13	156	525912	422.16	ng/ml	99
11) Acenaphthylene	6.37	152	960702	492.82	ng/ml	99
12) Acenaphthene	6.52	154	568143	470.55	ng/ml	97
13) Dibenzofuran	6.65	168	830317	475.35	ng/ml	88
14) 2,3,5-Trimethylnaphthalene	6.83	170	511125	474.42	ng/ml	74
16) Fluorene	6.93	166	705795	507.60	ng/ml	97
23) Dibenzothiophene	7.63	184	886776	489.17	ng/ml	79
27) Phenanthrene	7.73	178	966401	481.42	ng/ml	100
28) Anthracene	7.77	178	957256	524.86	ng/ml	98
29) Carbazole	7.90	167	847513	543.35	ng/ml	98
30) 1-Methylphenanthrene	8.24	192	700911	512.94	ng/ml	97
35) Fluoranthene	8.74	202	1096702	521.76	ng/ml	98
38) Pyrene	8.96	202	1122890	448.29	ng/ml	98
43) Benz(a)anthracene	10.59	228	1018995	520.99	ng/ml	99
44) Chrysene	10.66	228	1009803	481.12	ng/ml	100
50) Benzo(b)fluoranthene	13.24	252	1017037	482.12	ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	1031645	472.22	ng/ml	99
52) Benzo(e)pyrene	14.16	252	935533	445.57	ng/ml	99
53) Benzo(a)pyrene	14.34	252	924785	517.97	ng/ml	100
54) Perylene	14.66	252	908269	475.82	ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.40	276	823046	573.36	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F008.D
Acq On : 9 Mar 2005 10:14 am
Sample : KWG0503522-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 08:00:36 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56)	Dibenz(a,h)anthracene	17.47	278	861742	545.90 ng/ml	98
57)	Benzo(g,h,i)perylene	17.85	276	969123	486.31 ng/ml	100

(#) = qualifier out of range (m) = manual integration

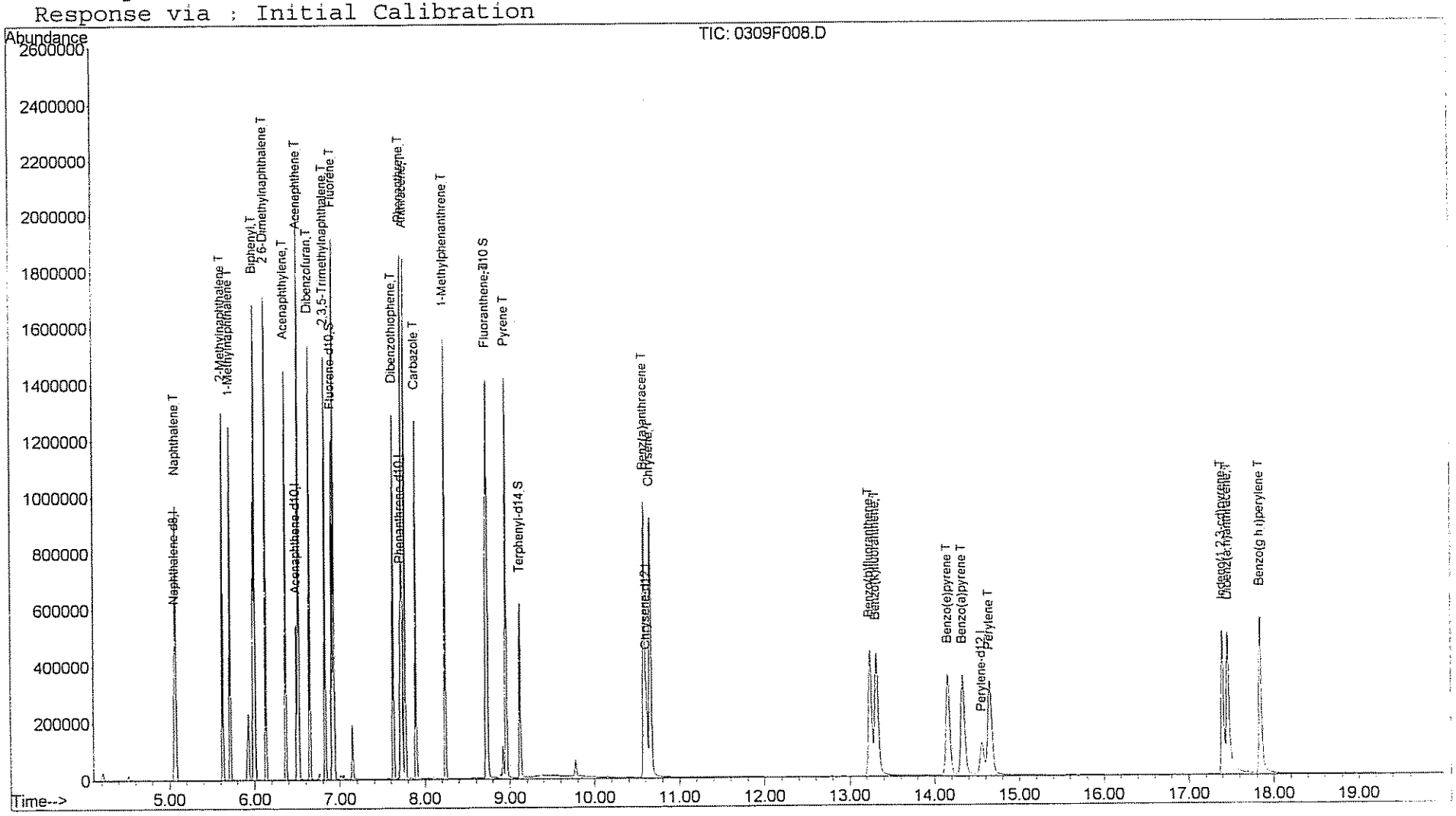
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F008.D
Acq On : 9 Mar 2005 10:14 am
Sample : KWG0503522-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 8:12 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration



Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/08/2005
Time Analyzed: 06:30

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\030805\0308F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0503808

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	37.3	414272	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	38.6	428672	PASS
70	69	0	2	0.5	2121	PASS
127	198	10	80	45.2	501504	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	51.9	1110528	PASS
199	198	5	9	6.8	75016	PASS
275	198	10	60	35.0	388672	PASS
365	442	1	50	2.8	59296	PASS
441	443	0	100	74.9	313152	PASS
442	442	100	100	100.0	2139648	PASS
443	442	15	24	19.6	418304	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0503808-2	J:\MS11\DATA\030805\0308F003.D	03/08/2005	06:48	
Method Blank	KWG0503522-4	J:\MS11\DATA\030805\0308F006.D	03/08/2005	08:07	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File: J:\MS11\DATA\030805\0308F001 D
Lab ID: KWG0503808-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 03/08/2005 06:30
Date Quantitated:
Batch ID: KWG0503808
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 3/9/5

Secondary Review: 3/10/5

Printed: 03/09/2005 12:43:40
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	TUNE-8270	**Collect Date:**		**Receive Date:**	03/09/2005

Analysis Lot:	KWG0503808	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\DFTPPPAH M	**Calibration ID:**	CAL4271
Title:		**Report List ID:**	LJ1965
Tune Ref:		**Method ID:**	MJ190
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS11\DATA\030805\0308F001 D			**Instrument:**	MS11
Acqu Date:	03/08/2005 06:30	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1 0
Lab ID:	KWG0503808-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	37.3	414272	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	38.6	428672	Pass
70	69	0	2	0 5	2121	Pass
127	198	10	80	45.2	501504	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	51 9	1110528	Pass
199	198	5	9	6.8	75016	Pass
275	198	10	60	35.0	388672	Pass
365	442	1	50	2.8	59296	Pass
441	443	0 01	100	74.9	313152	Pass
442	442	100	100	100.0	2139648	Pass
443	442	15	24	19.6	418304	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

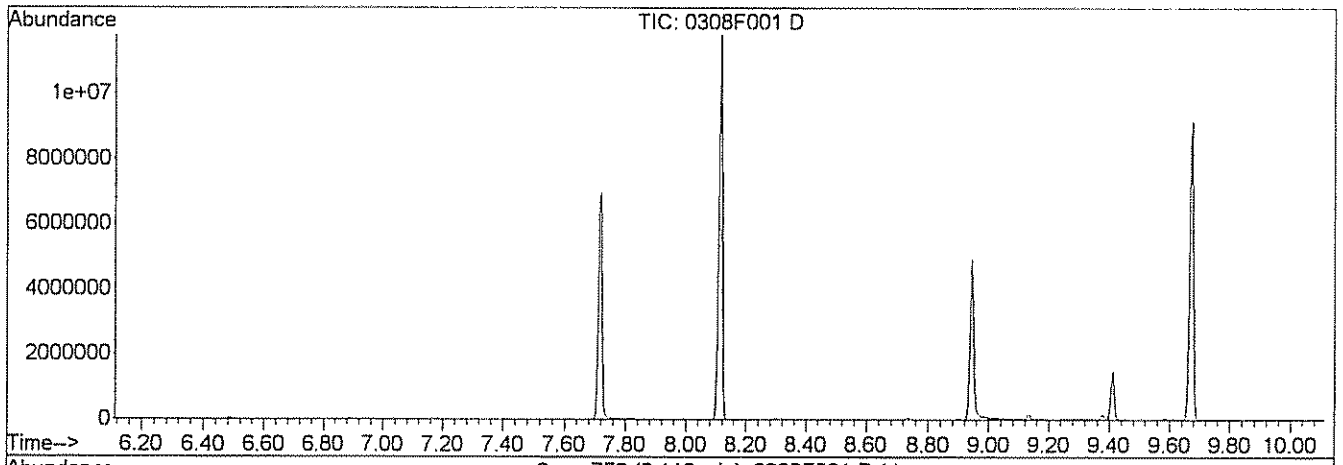
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

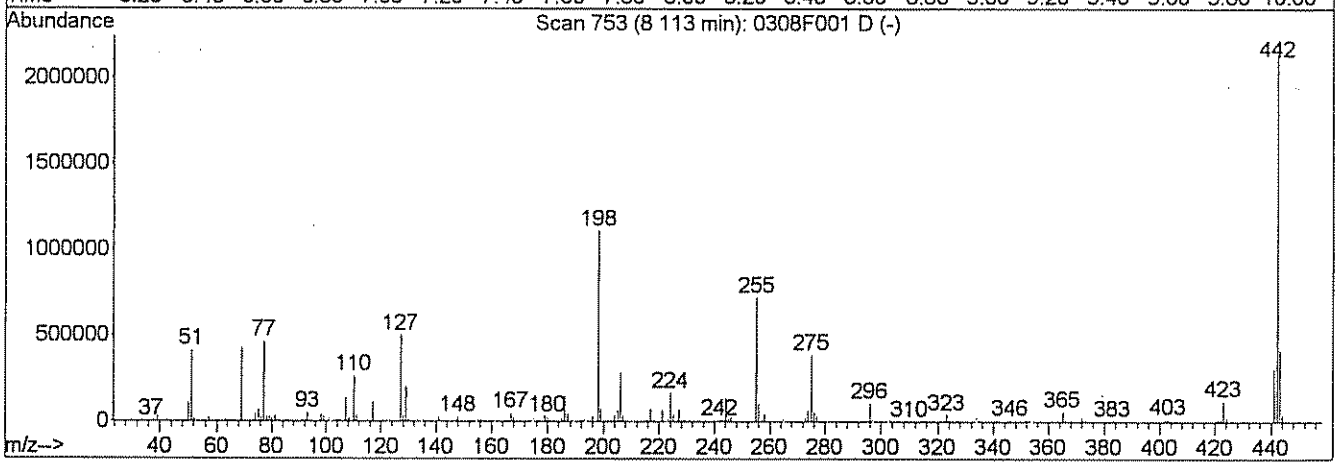
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

DFTPP

Data File : J:\MS11\DATA\030805\0308F001.D
Acq On : 8 Mar 2005 6:30 am
Sample : DFTPP @ 50ug/mL | SVM19-7A
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00





Spectrum Information: Scan 753

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.3	414272	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	2121	PASS
127	198	10	80	45.2	501504	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	51.9	1110528	PASS
199	198	5	9	6.8	75016	PASS
275	198	10	60	35.0	388672	PASS
365	442	1	50	2.8	59296	PASS
441	443	0.01	100	74.9	313152	PASS
442	442	30	100	100.0	2139648	PASS
443	442	15	24	19.6	418304	PASS

0308F001.D DFTPPPAH.M Wed Mar 09 09:57:44 2005

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1894	55.10	2590	70.10	2121	83.10	7440
38.10	5643	56.10	12975	73.20	3254	84.10	815
39.10	32528	57.10	27408	74.10	44920	85.10	5710
40.10	1929	58.00	1474	75.10	68424	86.10	9956
41.10	574	61.10	5300	76.10	24832	87.10	4212
45.10	1038	62.10	6068	77.10	465024	88.00	1627
49.10	3693	63.10	17616	78.10	31648	89.10	752
50.10	110672	64.10	2094	79.10	31712	91.10	7778
51.10	414272	65.10	8214	80.10	25048	92.10	9076
52.10	20152	66.10	769	81.10	34832	93.00	52056
53.10	1079	69.00	428672	82.10	8855	94.10	3656

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.10	1160	108.10	22632	121.10	815	133.20	864
96.10	2065	110.00	262464	122.00	9771	134.10	6188
98.10	42416	111.00	40544	123.00	15896	135.00	15916
99.00	32480	112.10	4575	124.00	6338	136.10	6398
100.10	2635	113.00	1547	125.00	6117	137.10	8107
101.10	19176	115.10	673	127.10	501504	138.00	1942
102.00	1228	116.10	8388	128.10	38264	139.10	1180
103.00	6795	117.00	115944	129.00	201984	140.00	2893
104.00	12648	118.00	8346	130.00	17632	141.00	26936
105.00	11379	119.10	1207	131.10	3445	142.00	8378
107.00	140864	120.00	1783	132.00	1848	143.00	6368

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.10	1654	155.00	14180	166.00	8153	177.00	10746
145.00	1629	156.10	22328	167.00	50688	178.00	3475
146.10	5149	157.10	4395	168.00	25056	179.00	38768
147.10	13464	158.00	5503	169.00	4547	180.00	26688
148.00	28344	159.00	3723	170.00	1619	181.00	12273
149.00	5851	160.00	8370	171.00	2606	182.10	2203
150.10	1748	161.00	12649	172.00	4481	182.90	1387
151.10	3710	162.00	3613	173.10	6341	184.00	3129
152.00	2411	163.00	1102	174.00	10776	185.10	19440
153.00	7884	164.00	1533	175.00	20992	186.10	150976
154.00	6315	165.00	10744	176.10	5278	187.10	44600

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
188.10	4186	200.00	6110	215.00	3408	228.00	9695
189.00	9997	201.50	5567	216.00	6162	229.00	14339
190.00	1671	203.00	7736	217.00	77912	230.00	2258
191.00	3595	204.00	38896	218.00	9930	231.00	6173
192.00	12766	205.10	68856	219.20	1000	232.00	1111
193.10	14839	206.10	286528	221.10	64728	233.10	1274
194.10	3305	207.10	36200	223.00	17424	234.00	4372
195.10	1852	208.00	10125	224.00	167040	235.00	5415
196.00	33272	209.00	2806	225.10	42032	236.00	3405
198.00	1110528	211.00	11787	226.10	4778	237.00	5170
199.00	75016	213.00	914	227.00	70656	238.00	803

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
239.00	2623	250.00	994	262.90	570	276.00	53464
240.10	2057	251.10	1137	264.00	1258	277.00	31432
241.00	4594	252.10	1445	265.00	16856	278.00	5256
242.00	9352	253.00	2549	266.00	2922	279.10	1393
243.10	10784	255.00	721344	267.90	580	282.10	821
244.10	139136	256.00	104688	270.00	1200	283.00	3239
245.10	18264	257.00	8711	271.00	1682	284.00	2909
246.00	28368	258.00	42912	272.10	1811	285.00	6004
247.00	6196	259.00	6198	273.00	24600	286.00	1061
247.90	1168	260.00	1274	274.00	64880	288.90	1261
249.00	5402	261.00	1583	275.00	388672	290.00	1012

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
291.00	730	304.10	3495	321.00	4109	334.00	27168
292.10	1715	304.90	524	322.00	2375	335.10	7067
293.00	7359	307.90	1809	323.10	40904	336.00	971
294.10	1966	309.00	1140	324.00	6998	339.10	534
295.10	2503	310.00	1471	325.00	922	340.00	572
296.00	105080	313.00	1255	326.00	944	341.00	4829
297.00	14631	314.00	5858	327.00	7195	342.10	1562
298.00	1130	315.00	12612	328.00	3894	346.00	8188
301.10	1450	316.00	7291	329.10	628	347.00	1946
302.00	2235	317.00	1394	332.00	2889	351.00	696
303.00	12954	320.00	589	333.00	4365	352.00	13107

Scan 753 (8.113 min): 0308F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.10	9249	373.10	7206	403.00	16672	442.10	2139648
354.00	13547	374.00	904	404.00	5722	443.10	418304
355.10	2435	377.10	853	405.10	1016	444.10	39184
356.00	567	383.00	7506	410.00	587	445.00	2392
359.10	959	384.10	1885	415.00	852		
365.00	59296	385.00	614	421.00	15234		
366.00	9065	390.00	3603	422.10	14431		
367.00	593	391.00	2699	423.00	120136		
370.00	1458	392.00	1993	424.10	24216		
371.00	3913	401.00	1697	425.10	2159		
372.10	25000	402.00	9993	441.10	313152		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005
Time Analyzed: 07:15

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\030905\0309F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504050

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	31.2	310272	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	32.5	322624	PASS
70	69	0	2	0.5	1732	PASS
127	198	10	80	43.3	429504	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	42.1	992960	PASS
199	198	5	9	6.7	66680	PASS
275	198	10	60	36.1	358848	PASS
365	442	1	50	2.8	65240	PASS
441	443	0	100	74.1	343104	PASS
442	442	100	100	100.0	2359296	PASS
443	442	15	24	19.6	462976	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504050-2	J:\MS11\DATA\030905\0309F002.D	03/09/2005	07:33	
Lab Control Sample	KWG0503522-3	J:\MS11\DATA\030905\0309F008.D	03/09/2005	10:14	
50398-05MS	KWG0503522-1	J:\MS11\DATA\030905\0309F009.D	03/09/2005	10:42	
50398-05DMS	KWG0503522-2	J:\MS11\DATA\030905\0309F010.D	03/09/2005	11:09	
50398-05	K2501544-005	J:\MS11\DATA\030905\0309F011.D	03/09/2005	11:37	
50398-02	K2501544-002	J:\MS11\DATA\030905\0309F012.D	03/09/2005	12:04	
50398-03	K2501544-003	J:\MS11\DATA\030905\0309F013.D	03/09/2005	12:31	
50398-04	K2501544-004	J:\MS11\DATA\030905\0309F014.D	03/09/2005	12:58	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File: J:\MS11\DATA\030905\0309F001 D
Lab ID: KWG0504050-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 03/09/2005 07 15
Date Quantitated:
Batch ID: KWG0504050
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 03/14/05

Secondary Review: 3/14

Printed: 03/14/2005 08:52:19
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	TUNE-8270	Collect Date:		Receive Date:	03/14/2005

Analysis Lot:	KWG0504050	Prep Lot:		Report Group:	
Analysis Method:	DFTPP	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	J:\MS11\METHODS\SIM\DFTPPPAH M	Calibration ID:	CAL4271
Title:		Report List ID:	LJ1965
Tune Ref:		Method ID:	MJ190
MB Ref:		Quant based on Report List	

Data File:	J:\MS11\DATA\030905\0309F001 D			Instrument:	MS11
Acqu Date:	03/09/2005 07:15	Quant Date:		Vial:	1
Run Type:	DFTPP			Dilution:	1 0
Lab ID:	KWG0504050-1			Soln Conc. Units:	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	31 2	310272	Pass
68	69	0	2	0 0	0	Pass
69	198	0	100	32 5	322624	Pass
70	69	0	2	0 5	1732	Pass
127	198	10	80	43 3	429504	Pass
197	198	0	2	0 0	0	Pass
198	442	30	100	42 1	992960	Pass
199	198	5	9	6 7	66680	Pass
275	198	10	60	36 1	358848	Pass
365	442	1	50	2 8	65240	Pass
441	443	0 01	100	74 1	343104	Pass
442	442	100	100	100 0	2359296	Pass
443	442	15	24	19 6	462976	Pass

U Undetected at or above MDL
J Analyte detected above MDL, but below MRL
B Hit above MRL also found in Method Blank
E Analyte concentration above high point of ICAL
N Presumptive evidence of compound

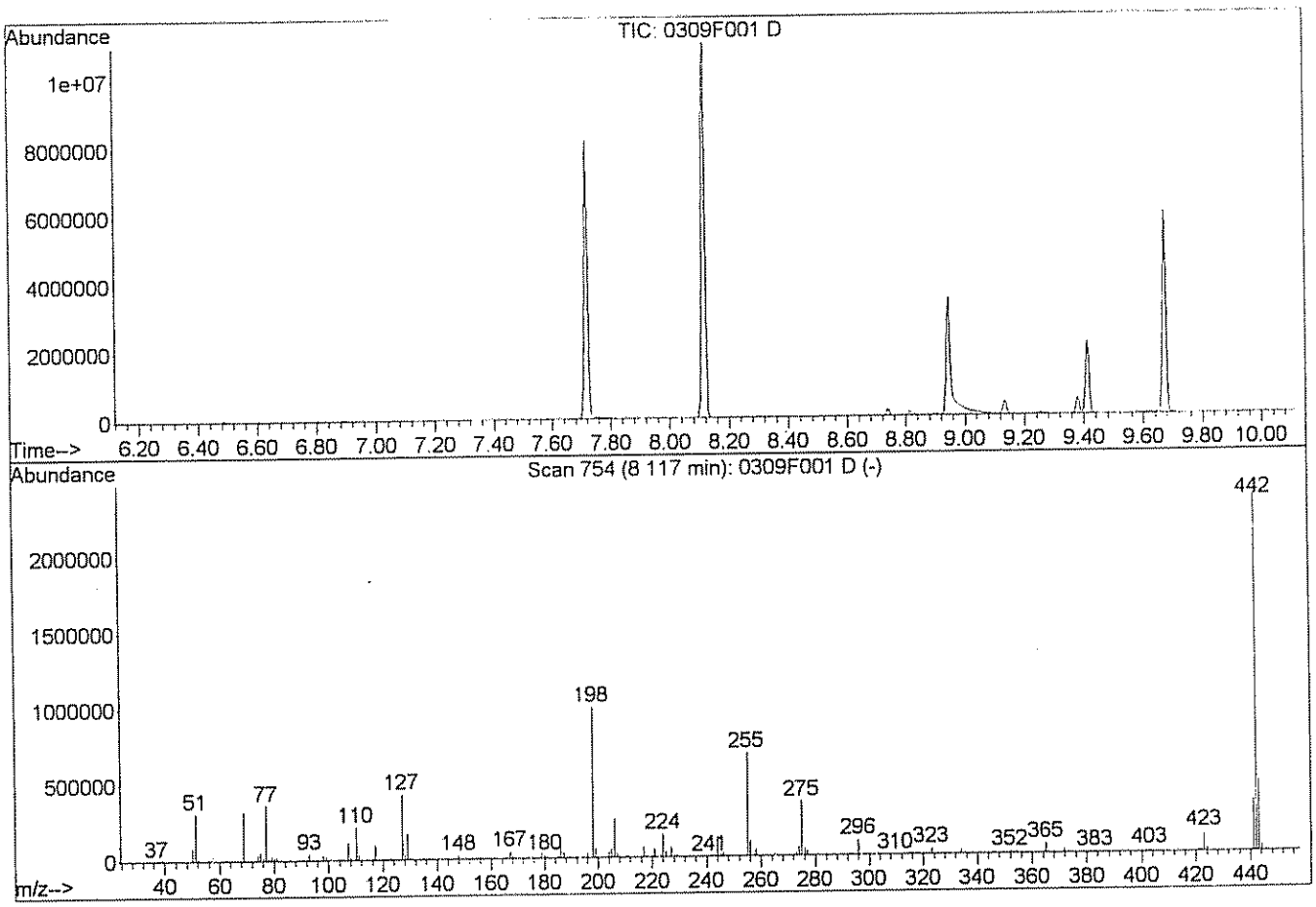
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

DFTPP

Data File : J:\MS11\DATA\030905\0309F001.D
Acq On : 9 Mar 2005 7:15 am
Sample : DFTPP @ 50ug/mL | SVM19-7A
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00



Spectrum Information: Scan 754

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	31.2	310272	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1732	PASS
127	198	10	80	43.3	429504	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	42.1	992960	PASS
199	198	5	9	6.7	66680	PASS
275	198	10	60	36.1	358848	PASS
365	442	1	50	2.8	65240	PASS
441	443	0.01	100	74.1	343104	PASS
442	442	30	100	100.0	2359296	PASS
443	442	15	24	19.6	462976	PASS

0309F001.D DFTPPPAH.M Mon Mar 14 07:59:05 2005

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1364	56.10	9723	74.10	35656	85.10	5187
38.10	4080	57.10	21392	75.10	51864	86.10	7798
39.10	23672	58.00	1008	76.10	19152	87.10	3481
40.10	1123	61.10	3971	77.10	363264	88.10	1442
41.20	873	62.10	4760	78.10	23928	89.10	726
45.10	714	63.10	12120	79.10	26448	91.10	6346
50.10	84592	64.20	1803	80.10	19656	92.10	6889
51.10	310272	65.10	7125	81.10	27432	93.10	44744
52.10	16640	69.00	322624	82.10	6787	94.10	3028
53.10	741	70.10	1732	83.10	6222	95.00	848
55.10	1462	73.20	2917	84.20	693	96.00	1925

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.00	36448	111.10	33856	122.00	8937	134.00	5185
99.00	25904	112.00	3662	123.00	13351	135.10	13989
100.10	2188	113.10	1515	124.00	5379	136.10	5433
101.10	15495	115.10	574	125.00	5243	137.10	6810
102.10	728	116.10	7721	127.10	429504	138.00	1693
103.00	4745	117.00	100288	128.10	33456	139.10	948
104.00	10738	118.00	7097	129.00	173888	140.00	2100
105.10	10155	119.10	1068	130.00	14211	141.00	22760
107.00	118840	120.10	1623	131.00	2893	142.10	7611
108.10	18960	121.00	507	132.00	1342	143.00	5419
110.00	215616	121.20	509	132.80	632	144.10	1556

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.10	1235	157.10	3987	168.00	21720	179.00	34760
146.00	4333	158.00	4130	169.00	3776	180.10	22840
147.00	13053	159.00	3273	170.00	1681	181.00	11271
148.00	26584	160.10	6748	171.00	2015	182.10	1861
149.00	5533	161.00	10798	172.00	4472	182.90	1152
150.00	1489	162.00	3143	173.10	5902	184.00	2989
151.20	3277	163.10	815	174.10	10171	185.10	17736
153.00	7000	164.10	1392	175.10	18384	186.00	132096
154.00	6193	165.00	9860	176.10	5399	187.10	38872
155.00	13689	166.00	7140	177.00	8701	188.10	4326
156.10	18584	167.00	45816	178.00	2923	189.00	8639

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.00	1483	203.10	7361	216.00	5911	229.00	13081
191.00	3919	204.00	36168	217.00	69992	230.00	1964
192.00	11138	205.00	60136	218.00	8745	231.00	5743
193.10	12615	206.10	259200	219.10	1017	232.00	925
194.10	2938	207.10	30904	221.00	55072	233.00	1433
195.00	1522	208.00	9735	223.00	16968	234.00	4365
196.00	29624	209.00	3256	224.00	151872	235.00	4921
198.00	992960	210.20	4255	225.00	36944	236.00	2966
199.00	66680	211.00	11117	226.10	3982	237.00	5082
200.00	5624	213.10	792	227.00	65136	238.10	837
201.50	5282	215.00	2844	228.00	8754	239.00	2666

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
240.00	2294	251.00	946	264.10	1424	278.00	4457
241.00	3818	252.00	1191	265.00	18096	279.10	1098
242.00	8335	253.00	2739	266.00	2534	282.10	819
243.10	9242	255.00	681152	270.00	1006	283.10	3321
244.10	134144	256.00	100096	271.00	1239	284.10	2513
245.10	17840	257.00	7337	272.00	1983	285.00	4917
246.00	26528	258.00	40744	273.00	23408	286.00	1169
247.00	5432	259.00	5964	274.00	60496	289.00	1515
248.00	1094	260.10	1246	275.00	358848	290.00	1027
249.00	5236	261.00	844	276.00	47768	291.00	706
250.00	1009	263.10	515	277.00	29056	292.00	1570

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
293.00	6309	308.00	1519	324.00	7384	339.00	554
294.00	1678	309.10	839	325.00	733	339.90	656
295.10	2266	310.00	1827	326.10	921	341.10	5612
296.00	101008	313.10	884	327.00	7456	342.00	1556
297.00	14104	314.10	6051	328.10	3704	346.00	9995
298.00	908	315.00	13259	329.00	708	347.00	1538
301.00	1383	316.00	7678	332.10	3066	351.00	647
302.00	2290	317.00	1377	333.00	3815	352.00	13779
303.00	12554	321.00	3684	334.10	26712	353.10	9601
304.00	3581	322.00	2118	335.10	7281	354.10	14778
304.90	579	323.10	39496	336.10	932	355.00	2966

Scan 754 (8.117 min): 0309F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
359.10	1158	384.00	1990	415.00	724		
365.00	65240	385.00	735	421.00	15994		
366.00	8766	390.00	4035	422.00	15427		
367.00	557	391.00	2931	423.00	128176		
370.00	1639	392.10	2003	424.00	26040		
371.00	3723	401.10	1716	425.00	1928		
372.00	27008	402.00	11760	441.10	343104		
373.00	6548	403.00	17608	442.10	2359296		
374.10	824	404.00	6634	443.10	462976		
377.00	761	405.10	958	444.10	42936		
383.00	7658	410.00	819	445.10	2490		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

Level ID	File ID
A	J:\MS11\DATA\030505\0305F004.D
B	J:\MS11\DATA\030505\0305F005.D
C	J:\MS11\DATA\030505\0305F006.D
D	J:\MS11\DATA\030505\0305F007.D
E	J:\MS11\DATA\030505\0305F008.D
F	J:\MS11\DATA\030505\0305F009.D
G	J:\MS11\DATA\030505\0305F010.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	4.0	1.17	B	20	1.13	C	100	1.07	D	200	1.07	E	400	1.13
	F	1000	1.10	G	1600	1.10									
2-Methylnaphthalene	A	4.0	0.938	B	20	0.971	C	100	0.968	D	200	0.973	E	400	1.04
	F	1000	0.995	G	1600	1.02									
Acenaphthylene	A	4.0	1.79	B	20	1.74	C	100	1.76	D	200	1.82	E	400	1.96
	F	1000	1.96	G	1600	1.94									
Acenaphthene	A	4.0	1.16	B	20	1.17	C	100	1.11	D	200	1.12	E	400	1.18
	F	1000	1.16	G	1600	1.14									
Dibenzofuran	A	4.0	1.69	B	20	1.66	C	100	1.59	D	200	1.62	E	400	1.72
	F	1000	1.67	G	1600	1.67									
Fluorene	A	4.0	1.25	B	20	1.27	C	100	1.27	D	200	1.28	E	400	1.41
	F	1000	1.38	G	1600	1.38									
Phenanthrene	A	4.0	1.25	B	20	1.20	C	100	1.11	D	200	1.14	E	400	1.25
	F	1000	1.17	G	1600	1.14									
Anthracene	A	4.0	1.05	B	20	0.986	C	100	0.971	D	200	1.05	E	400	1.16
	F	1000	1.16	G	1600	1.14									
Fluoranthene	A	4.0	1.18	B	20	1.18	C	100	1.15	D	200	1.25	E	400	1.37
	F	1000	1.32	G	1600	1.22									
Pyrene	A	4.0	1.63	B	20	1.60	C	100	1.49	D	200	1.50	E	400	1.49
	F	1000	1.33	G	1600	1.26									
Benz(a)anthracene	A	4.0	1.19	B	20	1.09	C	100	1.05	D	200	1.10	E	400	1.20
	F	1000	1.21	G	1600	1.23									
Chrysene	A	4.0	1.25	B	20	1.24	C	100	1.19	D	200	1.21	E	400	1.27
	F	1000	1.24	G	1600	1.24									
Benzo(b)fluoranthene	A	4.0	1.21	B	20	1.23	C	100	1.22	D	200	1.35	E	400	1.47
	F	1000	1.50	G	1600	1.46									
Benzo(k)fluoranthene	A	4.0	1.20	B	20	1.20	C	100	1.30	D	200	1.40	E	400	1.57
	F	1000	1.55	G	1600	1.55									

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene	A	4.0	0.977	B	20	0.977	C	100	1.00	D	200	1.11	E	400	1.27
	F	1000	1.31	G	1600	1.33									
Indeno(1,2,3-cd)pyrene	A	4.0	0.838	B	20	0.807	C	100	0.802	D	200	0.862	E	400	0.973
	F	1000	1.05	G	1600	1.09									
Dibenz(a,h)anthracene	A	4.0	0.883	B	20	0.875	C	100	0.914	D	200	1.02	E	400	1.09
	F	1000	1.15	G	1600	1.14									
Benzo(g,h,i)perylene	A	4.0	1.26	B	20	1.24	C	100	1.19	D	200	1.26	E	400	1.37
	F	1000	1.32	G	1600	1.28									
Fluorene-d10	A	4.0	1.29	B	20	1.29	C	100	1.31	D	200	1.33	E	400	1.43
	F	1000	1.39	G	1600	1.37									
Fluoranthene-d10	A	4.0	1.32	B	20	1.29	C	100	1.31	D	200	1.35	E	400	1.50
	F	1000	1.44	G	1600	1.35									
Terphenyl-d14	A	4.0	1.21	B	20	1.18	C	100	1.11	D	200	1.13	E	400	1.16
	F	1000	1.08	G	1600	1.06									

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† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4271
Instrument ID: MS11

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Naphthalene	MS	AverageRF	% RSD	3.1		≤ 15	1.11		0.01
2-Methylnaphthalene	MS	AverageRF	% RSD	3.6		≤ 15	0.987		0.01
Acenaphthylene	MS	AverageRF	% RSD	5.3		≤ 15	1.85		0.01
Acenaphthene	MS	AverageRF	% RSD	2.1		≤ 15	1.15		0.01
Dibenzofuran	MS	AverageRF	% RSD	2.5		≤ 15	1.66		0.01
Fluorene	MS	AverageRF	% RSD	5.0		≤ 15	1.32		0.01
Phenanthrene	MS	AverageRF	% RSD	4.7		≤ 15	1.18		0.01
Anthracene	MS	AverageRF	% RSD	7.6		≤ 15	1.07		0.01
Fluoranthene	MS	AverageRF	% RSD	6.3		≤ 15	1.24		0.01
Pyrene	MS	AverageRF	% RSD	9.0		≤ 15	1.47		0.01
Benz(a)anthracene	MS	AverageRF	% RSD	6.1		≤ 15	1.15		0.01
Chrysene	MS	AverageRF	% RSD	2.2		≤ 15	1.24		0.01
Benzo(b)fluoranthene	MS	AverageRF	% RSD	9.4		≤ 15	1.35		0.01
Benzo(k)fluoranthene	MS	AverageRF	% RSD	11.8		≤ 15	1.40		0.01
Benzo(a)pyrene	MS	AverageRF	% RSD	14.1		≤ 15	1.14		0.01
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	13.0		≤ 15	0.918		0.01
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	11.8		≤ 15	1.01		0.01
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	4.5		≤ 15	1.27		0.01
Fluorene-d10	SURR	AverageRF	% RSD	3.9		≤ 15	1.34		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	5.5		≤ 15	1.37		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	4.7		≤ 15	1.13		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Calibration Date: 03/05/2005
Date Analyzed: 03/05/2005

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration ID: CAL4271
Units: ng/ml

File ID: J:\MS11\DATA\030505\0305G011 D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	1.11	1.07	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	180	0.987	0.893	-10	NA	± 20 %	AverageRF
Acenaphthylene	200	200	1.85	1.82	-2	NA	± 20 %	AverageRF
Acenaphthene	200	200	1.15	1.12	-2	NA	± 20 %	AverageRF
Dibenzofuran	200	190	1.66	1.61	-3	NA	± 20 %	AverageRF
Fluorene	200	200	1.32	1.31	-1	NA	± 20 %	AverageRF
Phenanthrene	200	190	1.18	1.13	-5	NA	± 20 %	AverageRF
Anthracene	200	190	1.07	1.03	-4	NA	± 20 %	AverageRF
Fluoranthene	200	190	1.24	1.21	-3	NA	± 20 %	AverageRF
Pyrene	200	200	1.47	1.46	-1	NA	± 20 %	AverageRF
Benz(a)anthracene	200	190	1.15	1.08	-7	NA	± 20 %	AverageRF
Chrysene	200	200	1.24	1.22	-1	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	1.35	1.33	-2	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	1.40	1.40	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	1.14	1.13	-1	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	180	0.918	0.843	-8	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	190	1.01	0.934	-7	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	190	1.27	1.24	-3	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Injection Log

Directory: J.\MS11\DATA\030505

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0305F001.D	1	DFTPP @ 50ug/mL | SVM19-7A		5 Mar 2005 07:24
2	1	0305F002.D	1	IB		5 Mar 2005 08:09
3	2	0305F003.D	1	SIM-PAH ICAL @ .002/.05ug/mL | SVM19-6D MR		5 Mar 2005 08:36
4	3	0305F004.D	1	SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E		5 Mar 2005 09:02
5	4	0305F005.D	1	SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G		5 Mar 2005 09:29
6	5	0305F006.D	1	SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H		5 Mar 2005 09:56
7	6	0305F007.D	1	SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I		5 Mar 2005 10:22
8	7	0305F008.D	1	SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J		5 Mar 2005 10:49
9	8	0305F009.D	1	SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K		5 Mar 2005 11:16
10	9	0305F010.D	1	SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L		5 Mar 2005 11:42
11	1	0305F011.D	1	SIM-PAH ICV @ 0.2ug/mL | SVM19-7G		5 Mar 2005 12:09
12	2	0305F012.D	1	IB		5 Mar 2005 12:35
13	3	0305F013.D	1	KWG0503247-5 MB		5 Mar 2005 13:02
14	4	0305F014.D	1	K2501397-001		5 Mar 2005 13:30
15	5	0305F015.D	1	K2501397-002		5 Mar 2005 13:56
16	6	0305F016.D	1	KWG0503247-3 LCS 2X		5 Mar 2005 14:23
17	7	0305F017.D	1	KWG0503247-4 DLCS 2X		5 Mar 2005 14:49
18	8	0305F018.D	1	KWG0503247-1 K2501397-001MS 2X		5 Mar 2005 15:16
19	9	0305F019.D	1	KWG0503247-2 K2501397-001DMS 2X		5 Mar 2005 15:43
20	10	0305F020.D	1	KWG0503247-6 SRM 10X		5 Mar 2005 16:09
21	16	0305F021.D	1	K2410226-018REX		5 Mar 2005 16:36
22	17	0305F022.D	1	K2410226-017REX 5X		5 Mar 2005 17:04
23	11	0305F023.D	1	K2501401-001		5 Mar 2005 17:31
24	12	0305F024.D	1	K2501401-002		5 Mar 2005 17:57
25	13	0305F025.D	1	K2501401-003		5 Mar 2005 18:24
26	14	0305F026.D	1	K2501401-004		5 Mar 2005 18:51
27	15	0305F027.D	1	K2501401-005		5 Mar 2005 19:18
28	18	0305F028.D	1	PR		5 Mar 2005 19:45
29	18	0305F029.D	1	PR		5 Mar 2005 20:12
30	18	0305F030.D	1	PR		5 Mar 2005 20:38
31	18	0305F031.D	1	PR		5 Mar 2005 21:05
32	18	0305F032.D	1	PR		5 Mar 2005 21:31
33	19	0305F033.D	1	DCM		5 Mar 2005 21:58

CAL 4271

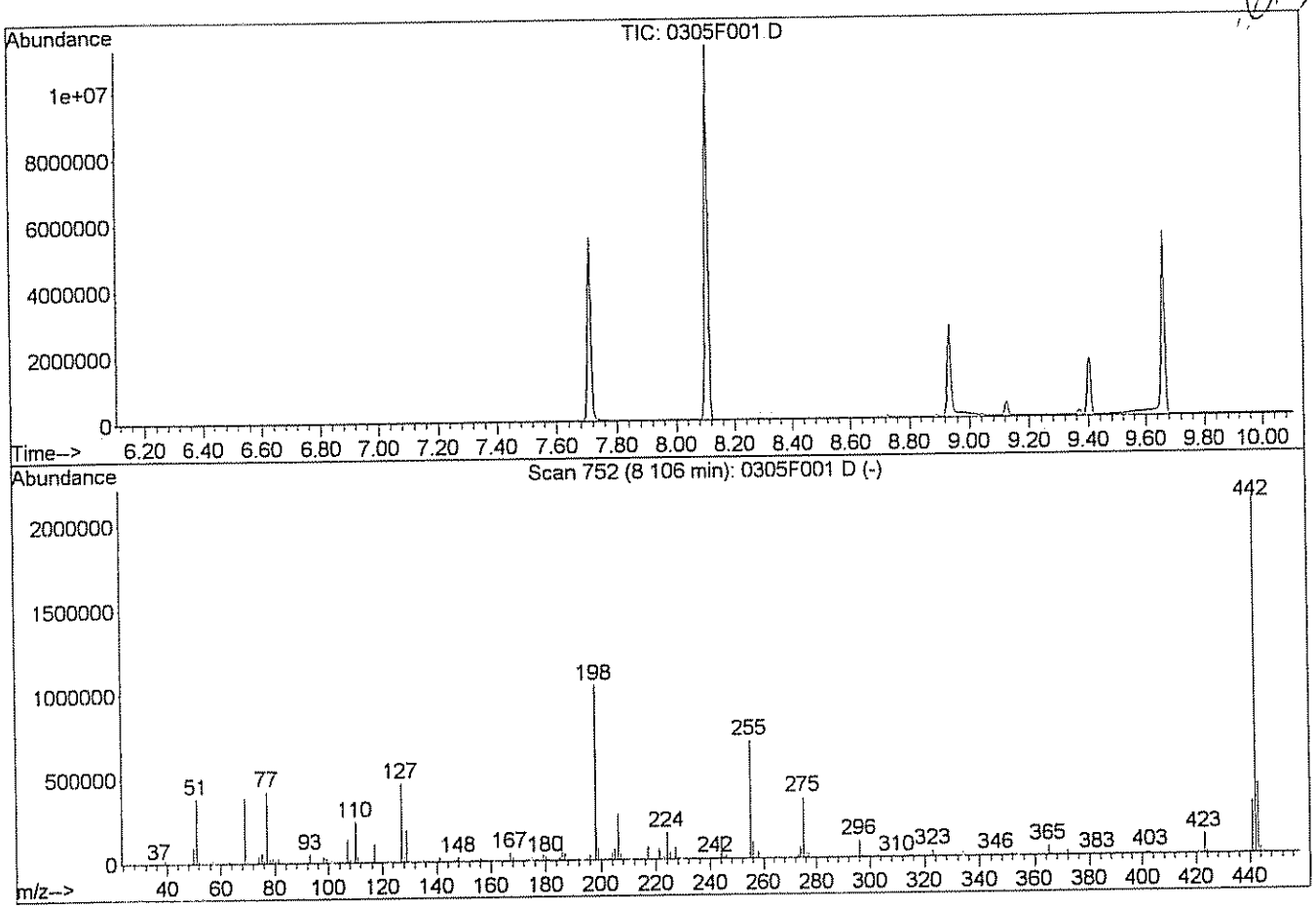
SIM-PAH ICAL [illegible] 3/7/05

[illegible] 3.7.5

DFTPP

Data File : J:\MS11\DATA\030505\0305F001.D
Acq On : 5 Mar 2005 7:24 am
Sample : DFTPP @ 50ug/mL | SVM19-7A
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00



Spectrum Information: Scan 752

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.2	385856	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	2084	PASS
127	198	10	80	45.4	469888	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	48.9	1036096	PASS
199	198	5	9	7.1	73272	PASS
275	198	10	60	35.0	363072	PASS
365	442	1	50	2.7	58008	PASS
441	443	0.01	100	74.8	313536	PASS
442	442	30	100	100.0	2120192	PASS
443	442	15	24	19.8	419072	PASS

0305F001.D DFTPPPAH.M Mon Mar 07 06:52:23 2005

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1657	56.10	11816	69.00	393472	82.00	8129
38.10	5817	57.10	25520	70.10	2084	83.10	6969
39.10	28504	58.10	1184	73.05	3176	84.00	670
40.10	1662	60.00	538	74.10	42040	85.10	5737
41.10	1120	61.10	4790	75.10	64384	86.10	9480
45.10	877	62.10	6281	76.10	21976	87.10	4408
50.10	102984	63.10	16050	77.10	426880	88.10	1647
51.10	385856	64.10	2359	78.10	29904	89.00	730
52.10	19664	65.10	7673	79.10	30856	91.10	7290
53.10	823	66.00	601	80.10	23680	92.10	7997
55.10	2152	67.20	637	81.10	31400	93.00	52192

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	3892	107.00	133824	120.00	1801	132.10	1961
95.10	1004	108.00	20728	121.10	765	133.00	858
96.10	2461	110.00	241856	122.00	9188	134.00	5576
98.10	39776	111.00	37008	123.00	13953	135.00	15521
99.10	29792	112.10	4130	124.00	6402	136.00	5879
100.10	2611	113.00	1535	125.00	6255	137.10	7311
101.10	16744	115.10	818	127.10	469888	137.90	1765
102.10	803	116.10	8199	128.00	37056	139.00	1174
103.10	6037	117.00	112208	129.00	191552	140.10	2508
104.00	12025	118.00	8014	130.00	15749	141.00	25784
105.00	9494	119.00	1128	131.00	3094	142.10	7779

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.00	5880	154.00	5710	165.00	9786	176.00	5214
144.10	1408	155.00	13533	166.00	7189	177.00	9179
145.00	1425	156.10	21312	167.00	48944	178.00	3360
146.10	4923	157.10	4304	168.00	22800	179.00	37616
147.00	13580	158.00	4935	169.00	3966	180.00	25688
148.00	27288	159.00	3320	170.10	1761	181.00	11626
149.00	6037	160.00	7910	171.00	2578	182.10	2094
150.10	1362	161.00	11196	172.00	4528	183.00	947
151.10	3570	162.00	3801	173.00	6833	184.00	3060
151.90	2185	163.00	1119	174.00	10331	185.10	18720
153.00	8069	164.00	1519	175.00	19944	186.00	142016

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
187.00	40760	199.00	73272	211.00	11282	226.10	4636
188.00	4241	200.00	5762	212.90	935	227.00	70072
189.00	8963	201.50	4510	215.00	3573	228.00	9350
190.00	1520	203.00	7501	216.00	5992	229.00	14441
191.00	4260	204.00	37880	217.00	75336	230.00	2017
192.00	12857	205.00	65344	218.00	9432	231.00	6095
193.10	13482	206.10	266624	219.00	909	232.00	1304
194.10	2910	207.05	35832	221.00	59624	233.00	1456
195.00	1729	208.00	9306	223.00	16520	234.00	4350
196.00	31232	209.10	3040	224.00	160192	235.00	5350
198.00	1036096	210.30	5194	225.00	39656	236.00	3378

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
237.00	5647	248.00	1201	260.00	1046	275.00	363072
238.00	1051	249.00	4797	260.90	1255	276.00	47448
239.00	2801	250.00	1128	264.00	1747	277.00	28856
240.00	2565	251.10	1394	265.00	16336	278.00	5173
241.00	4340	252.00	1311	265.90	3117	279.00	975
242.00	9441	253.00	3145	268.00	582	281.10	147
243.10	9359	255.00	700352	270.00	1055	282.00	1085
244.10	135168	256.00	103720	271.10	1547	283.00	3612
245.10	17264	257.00	8222	272.10	2088	284.10	2240
246.00	26440	258.00	41536	273.00	23128	285.10	5355
247.00	5580	259.00	6387	274.00	63312	286.00	1085

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
288.00	545	301.00	1105	316.00	7383	329.00	572
289.00	1275	302.10	1894	317.10	1637	332.00	2712
290.00	969	303.00	12112	320.00	522	333.00	3643
291.00	971	304.00	3668	321.00	3805	334.00	25632
292.00	1607	308.00	1569	322.00	1912	335.00	6504
293.00	6619	309.00	922	323.10	38856	336.00	591
294.00	1853	310.00	1275	324.00	6944	339.00	548
295.00	2120	311.00	501	325.00	919	340.00	535
296.00	103336	313.00	1273	326.00	791	341.00	4935
297.00	15103	314.00	5425	327.00	7123	342.00	1448
298.00	934	315.00	12352	328.00	3801	346.00	9180

Scan 752 (8.106 min): 0305F001.D
DFTPP @ 50ug/mL | SVM19-7A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
347.00	1763	370.00	1337	392.00	1800	424.00	24568
350.00	537	371.00	3736	401.00	2176	425.00	2166
351.00	911	372.00	25096	402.00	11272	441.00	313536
352.00	13202	373.00	6970	403.00	16712	442.10	2120192
353.00	9173	374.00	767	404.00	5520	443.00	419072
354.10	14311	377.00	756	405.00	820	444.00	38968
355.00	2962	383.00	6765	410.00	667	445.00	2148
359.00	1045	384.00	2120	415.00	806		
365.00	58008	385.00	627	421.00	15248		
366.00	8610	390.00	3537	422.00	14440		
367.00	511	391.00	2393	423.00	119304		

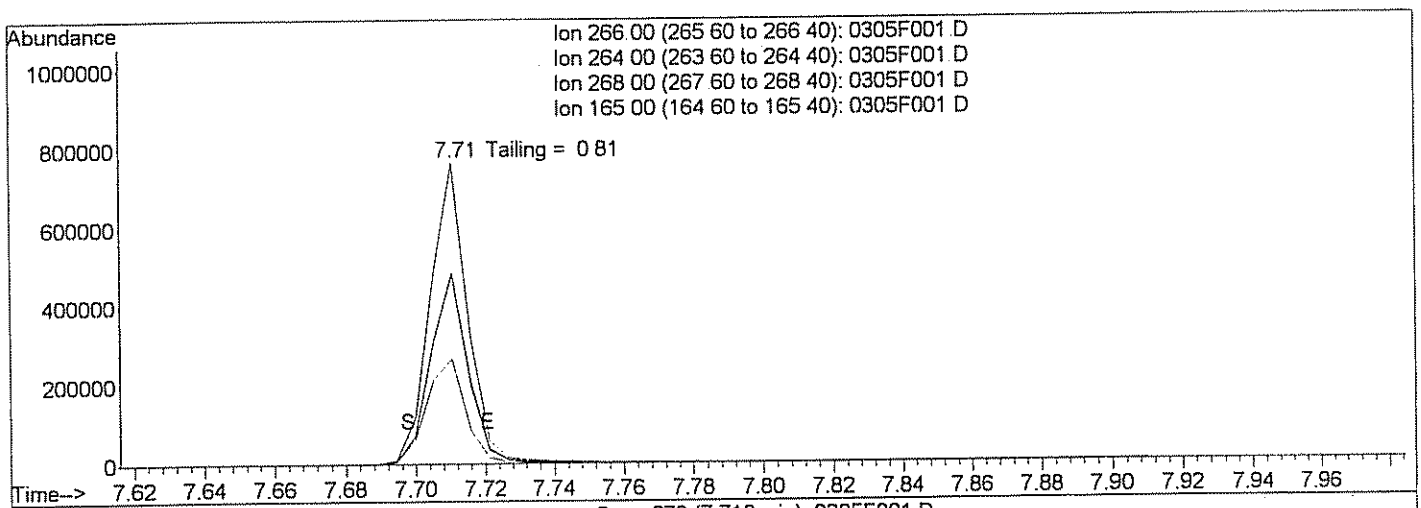
Quantitation Report (Qedit)

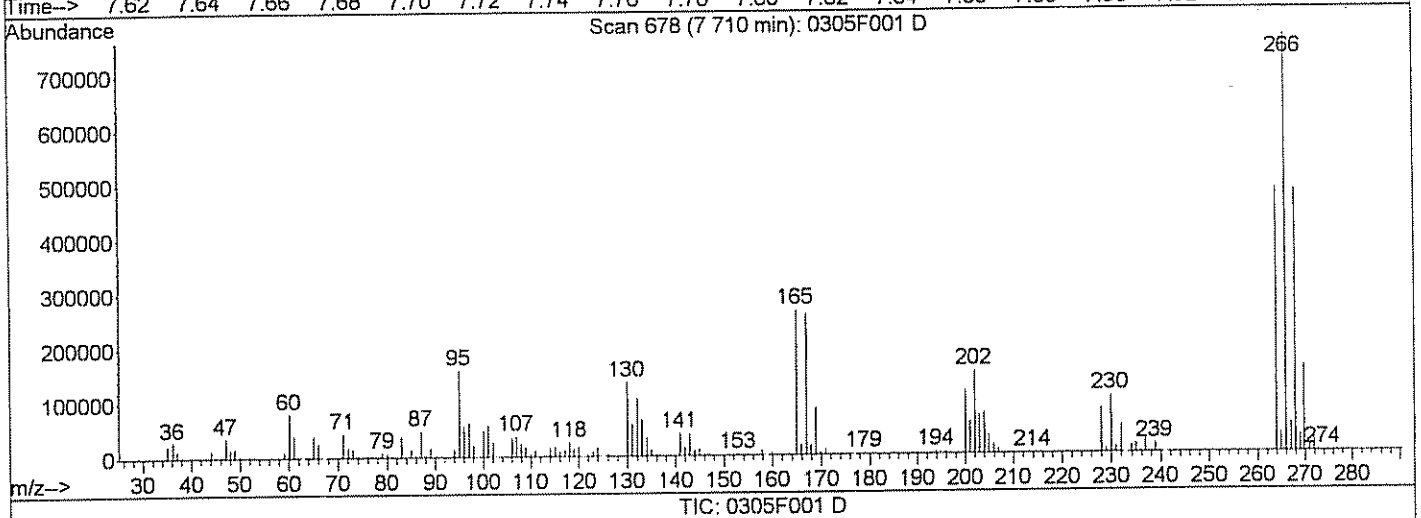
Data File : J:\MS11\DATA\030505\0305F001.D
Acq On : 5 Mar 2005 7:24 am
Sample : DFTPP @ 50ug/mL | SVM19-7A
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 7:36 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Oct 12 13:33:42 2004
Response via : Single Level Calibration





TIC: 0305F001.D

(1) Pentachlorophenol

6.94min 0.00ng/ml

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	64.50	0.00#
268.00	63.70	0.00#
165.00	28.70	0.00

0305F001.D DFTPPPAH.M Mon Mar 07 06:52:42 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F002.D
Acq On : 5 Mar 2005 8:09 am
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:26:40 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 12:25:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	208074	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	167541	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	254887	200.00	ng/ml	0.00
37) Chrysene-d12	10.61	240	212268	200.00	ng/ml	-0.02
49) Perylene-d12	14.55	264	191160	200.00	ng/ml	-0.03

System Monitoring Compounds						
15) Fluorene-d10	6.91	176	1087	0.96	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 0.10%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.72	212	2146	1.22	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 0.12%			
42) Terphenyl-d14	9.12	244	2370	1.95	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.19%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	373	0.32	ng/ml	92
3) 2-Methylnaphthalene	5.63	142	239	0.23	ng/ml	96
4) 1-Methylnaphthalene	5.72	142	201	0.21	ng/ml	89
5) Biphenyl	6.00	154	368	0.29	ng/ml	96
6) 2,6-Dimethylnaphthalene	6.13	156	206	0.22	ng/ml	95
11) Acenaphthylene	6.37	152	434	0.28	ng/ml	97
12) Acenaphthene	6.52	154	258	0.27	ng/ml	95
13) Dibenzofuran	6.65	168	331	0.24	ng/ml	94
14) 2,3,5-Trimethylnaphthalene	6.83	170	227	0.26	ng/ml	82
16) Fluorene	6.93	166	391	0.35	ng/ml	84
27) Phenanthrene	7.73	178	1852	1.21	ng/ml	99
28) Anthracene	7.77	178	851	0.62	ng/ml	100
29) Carbazole	7.90	167	831	0.70	ng/ml	94
30) 1-Methylphenanthrene	8.24	192	615	0.60	ng/ml	94
35) Fluoranthene	8.74	202	2279	1.44	ng/ml	99
38) Pyrene	8.96	202	2485	1.54	ng/ml	99
43) Benz(a)anthracene	10.58	228	2426	1.91	ng/ml	95
44) Chrysene	10.66	228	2219	1.68	ng/ml	99
50) Benzo(b)fluoranthene	13.24	252	2183	1.69	ng/ml	94
51) Benzo(k)fluoranthene	13.31	252	1845	1.39	ng/ml	99
52) Benzo(e)pyrene	14.15	252	1123	0.87	ng/ml	93
53) Benzo(a)pyrene	14.32	252	1480	1.36	ng/ml	99
54) Perylene	14.64	252	690	0.60	ng/ml	97
55) Indeno(1,2,3-cd)pyrene	17.40	276	1454	1.64	ng/ml	96
56) Dibenz(a,h)anthracene	17.46	278	1408	1.46	ng/ml	83

(#) = qualifier out of range (m) = manual integration
0305F002.D 0305ALK.M Mon Mar 07 06:51:49 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F002.D
Acq On : 5 Mar 2005 8:09 am
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:26:40 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 12:25:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
57) Benzo(g,h,i)perylene	17.84	276	1964	1.60 ng/ml	95

(#) = qualifier out of range (m) = manual integration
0305F002.D 0305ALK.M Mon Mar 07 06:51:49 2005

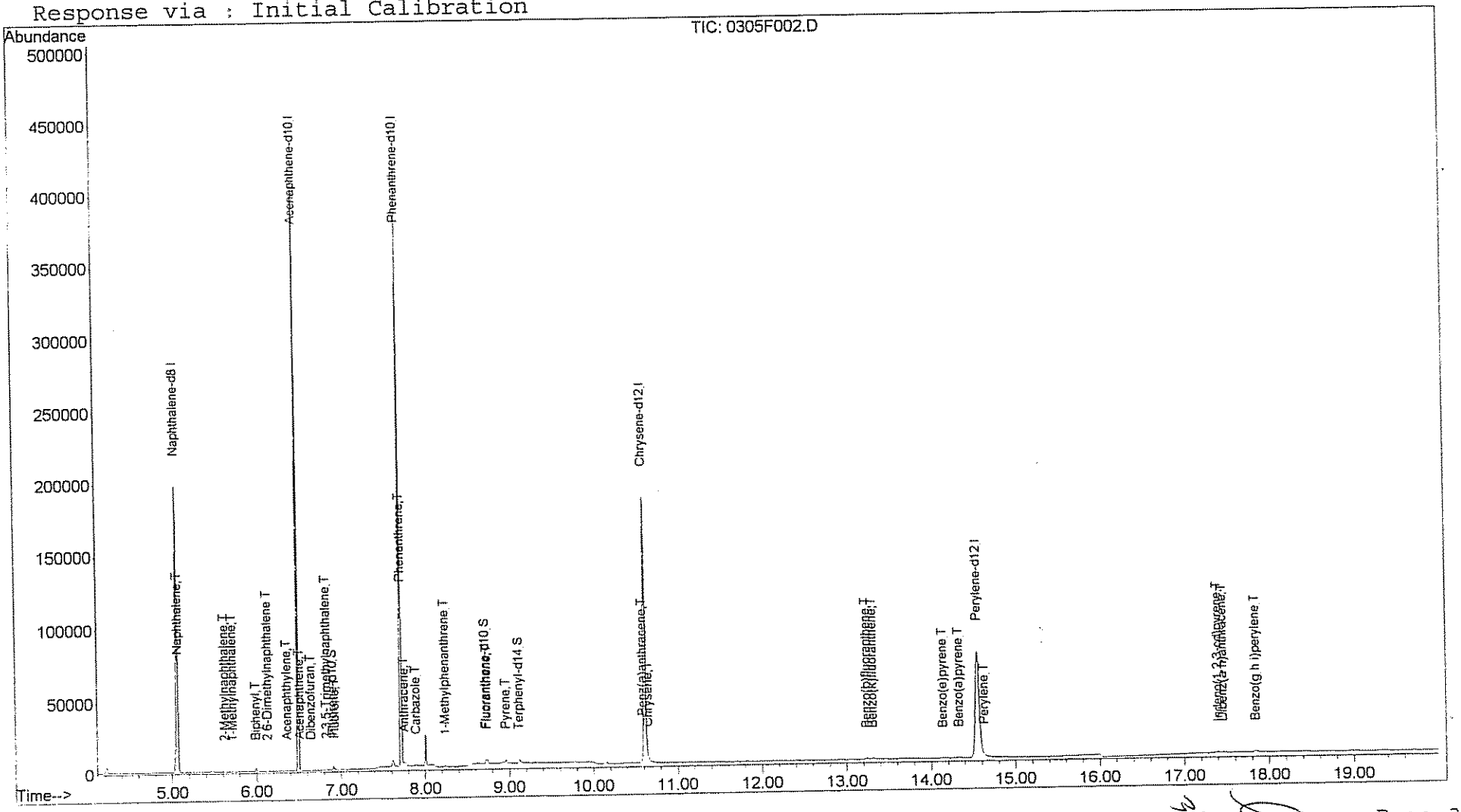
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F002.D
Acq On : 5 Mar 2005 8:09 am
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 7 6:51 2005

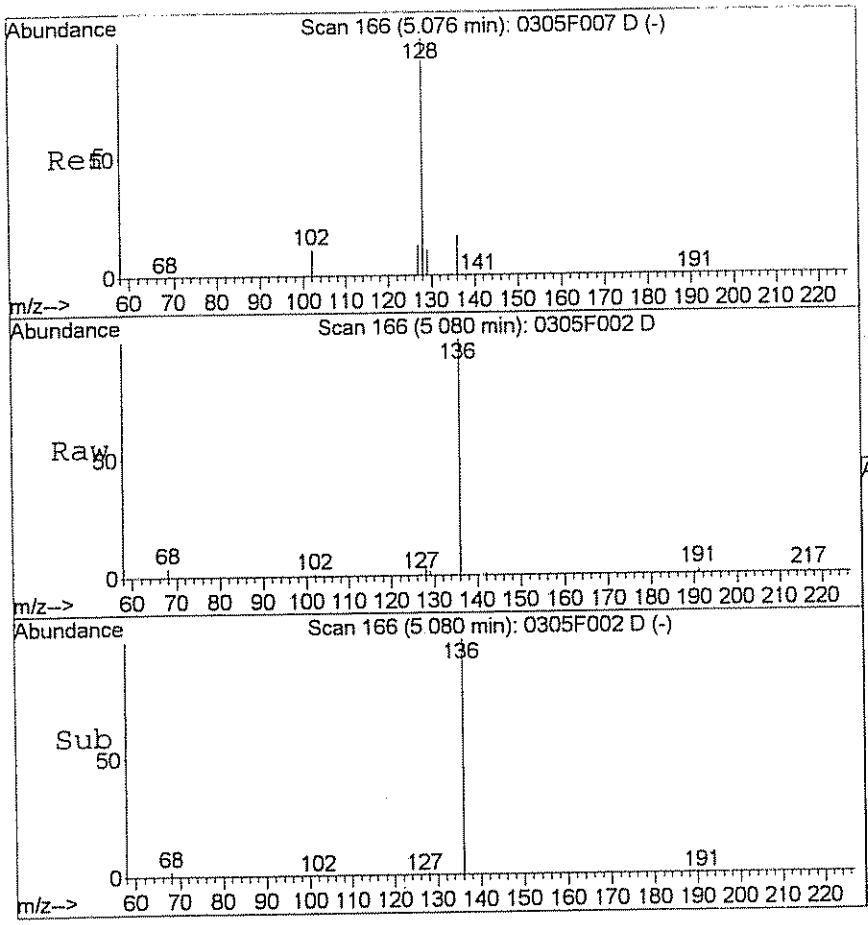
Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 06:40:43 2005
Response via : Initial Calibration



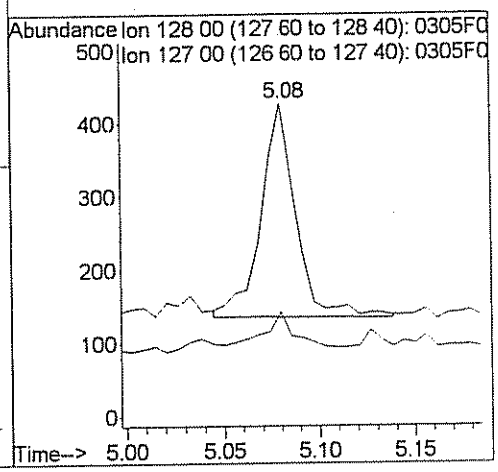
0305F002.D 0305ALK.M Mon Mar 07 06:51:50 2005

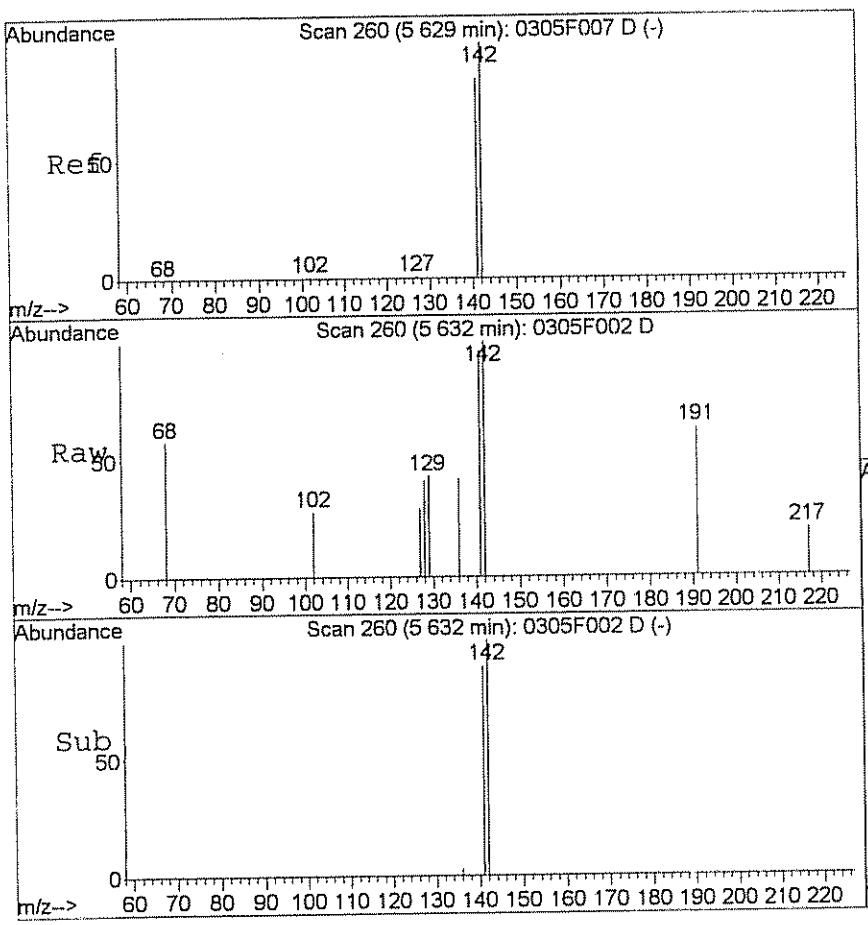


#2
Naphthalene
Concen: 0.32 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:128 Resp: 373

Ion	Ratio	Lower	Upper
128	100		
127	16.3	0.0	43.1

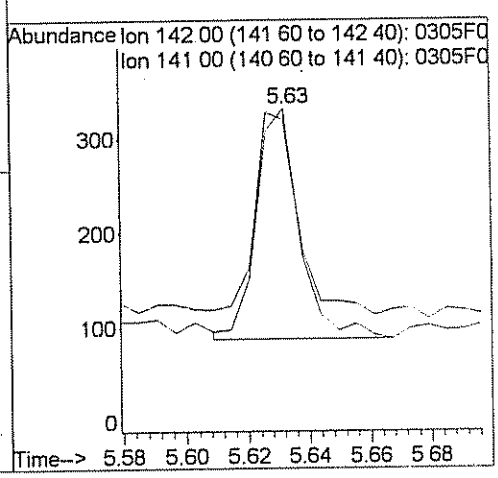


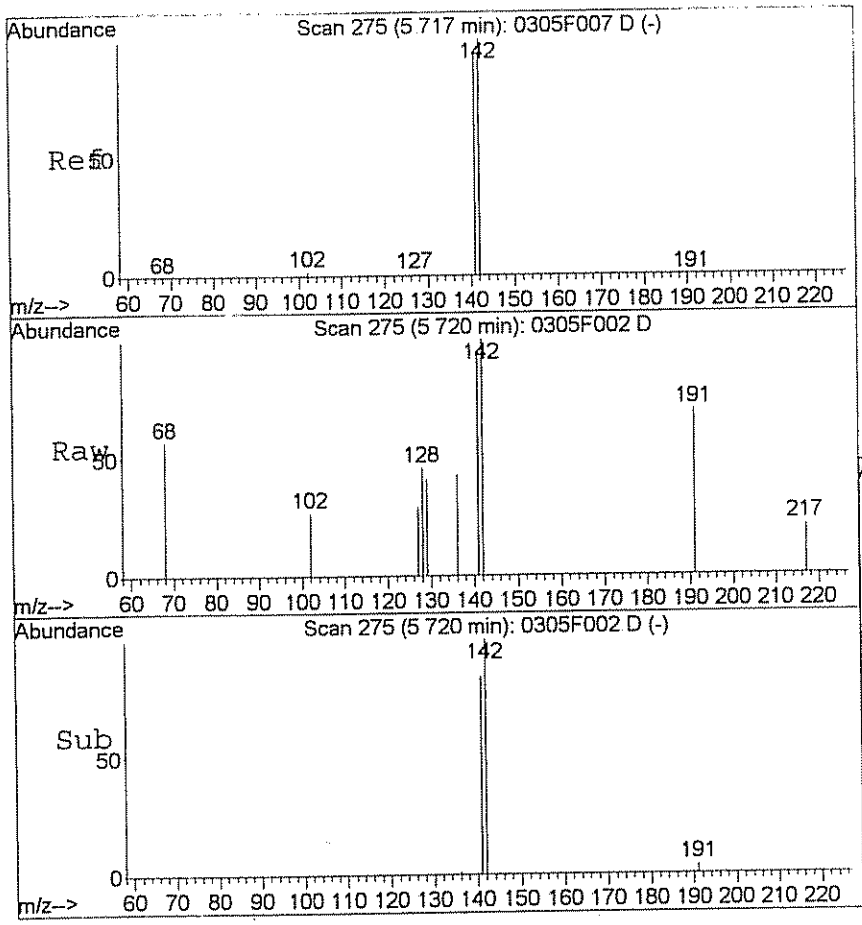


#3
2-Methylnaphthalene
Concen: 0.23 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:142 Resp: 239

Ion	Ratio	Lower	Upper
142	100		
141	82.4	56.4	116.4

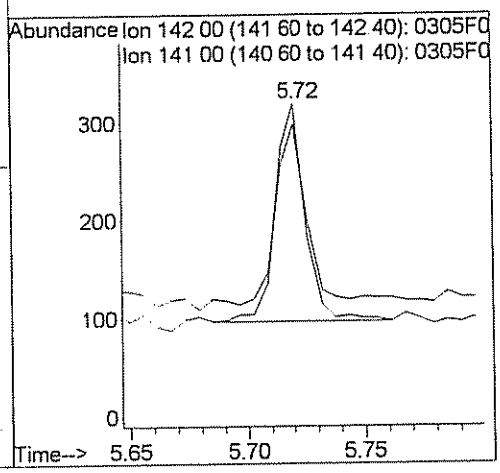


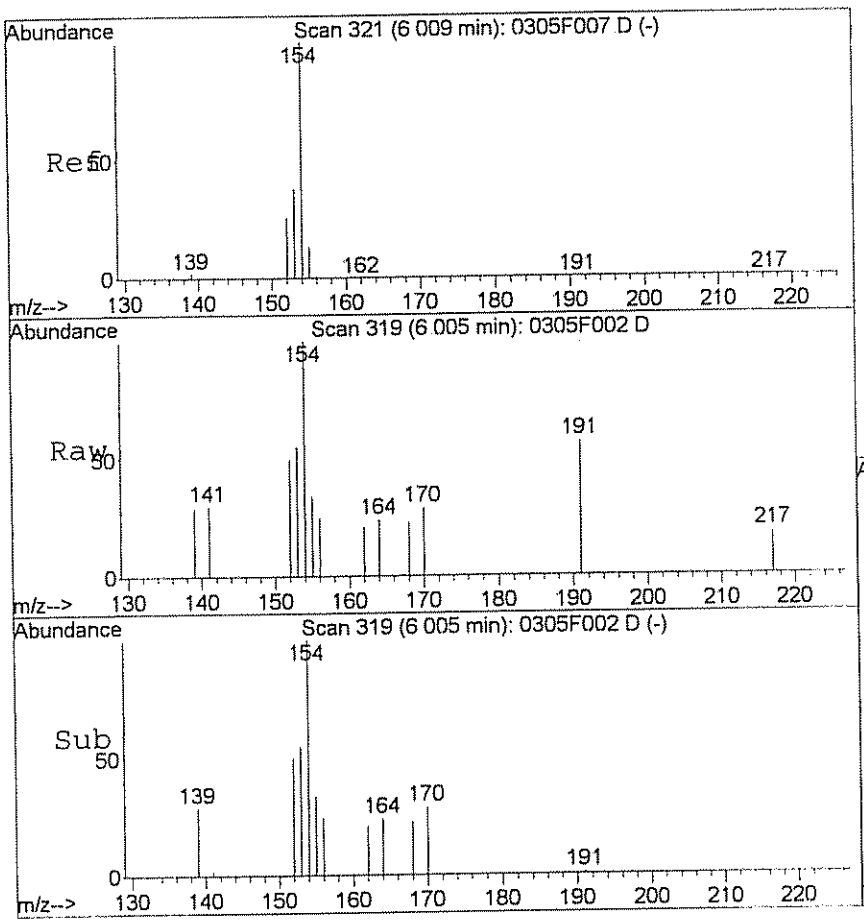


#4
1-Methylnaphthalene
Concen: 0.21 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:142 Resp: 201

Ion	Ratio	Lower	Upper
142	100		
141	80.2	60.9	120.9

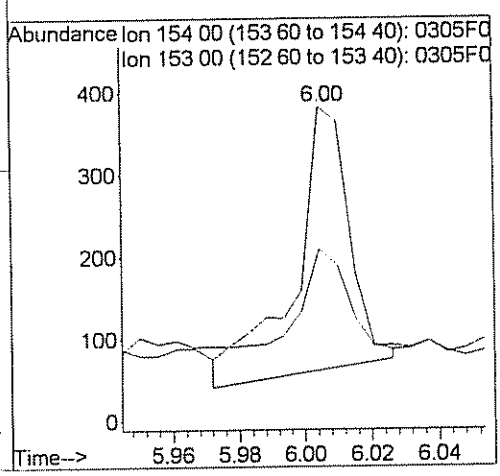


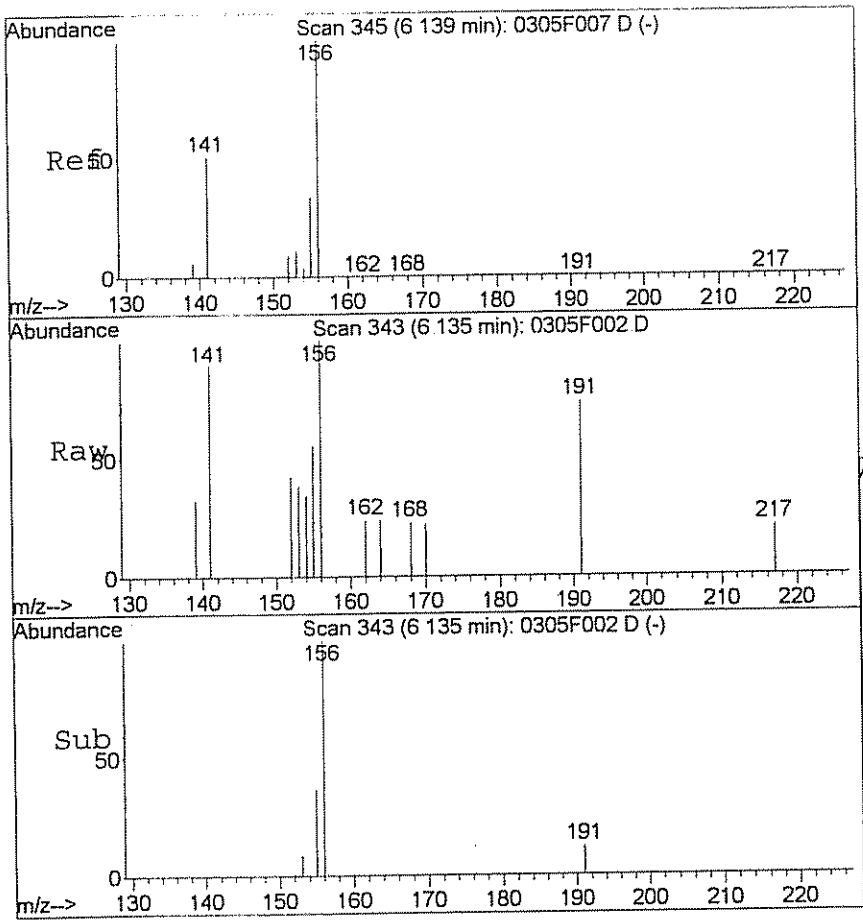


#5
Biphenyl
Concen: 0.29 ng/ml
RT: 6.00 min Scan# 319
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:154 Resp: 368

Ion	Ratio	Lower	Upper
154	100		
153	38.4	11.1	71.1

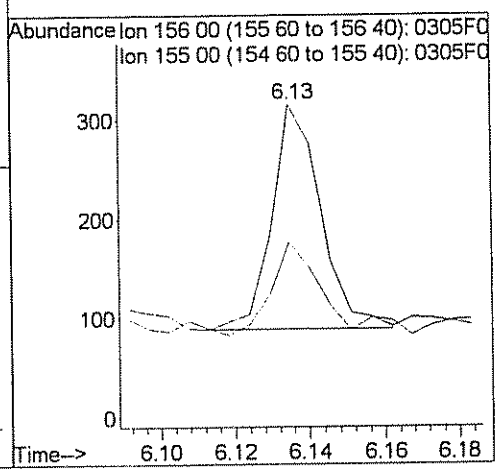


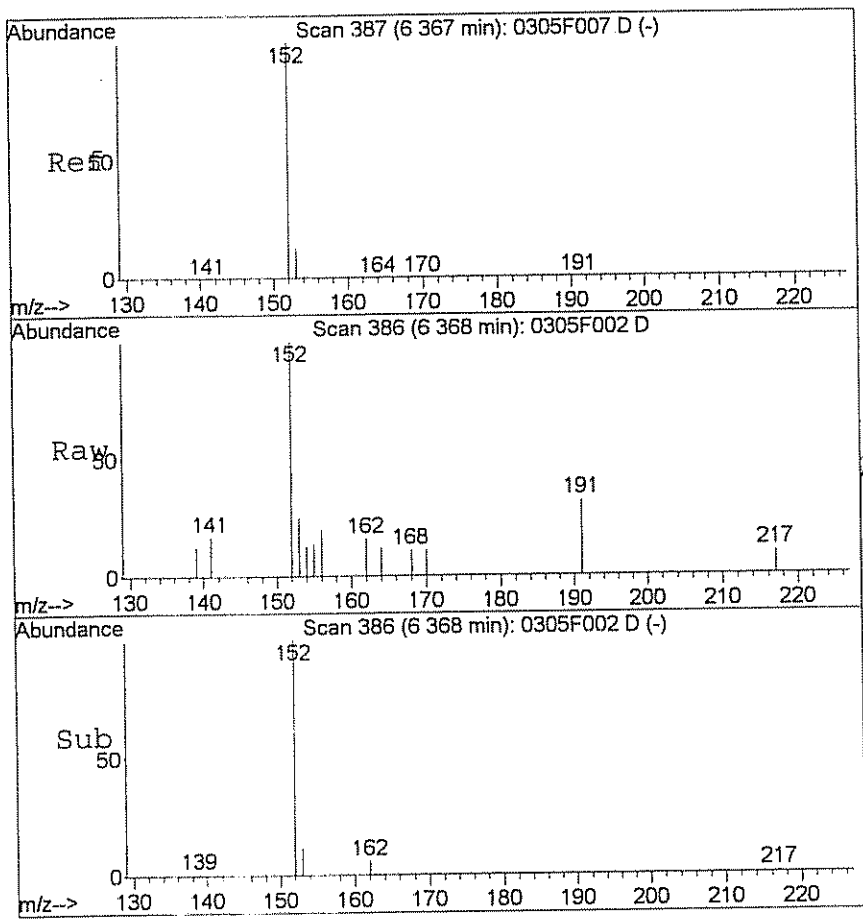


#6
2,6-Dimethylnaphthalene
Concen: 0.22 ng/ml
RT: 6.13 min Scan# 343
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:156 Resp: 206

Ion	Ratio	Lower	Upper
156	100		
155	38.3	5.3	65.3

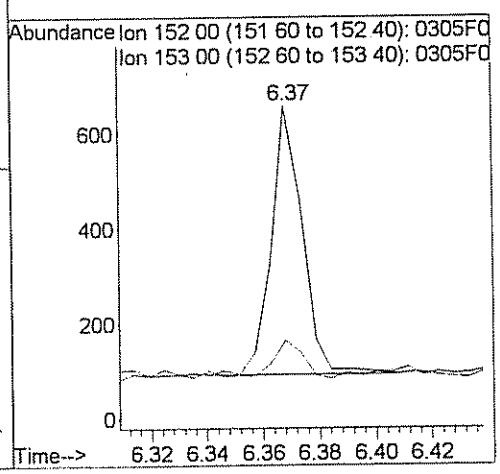


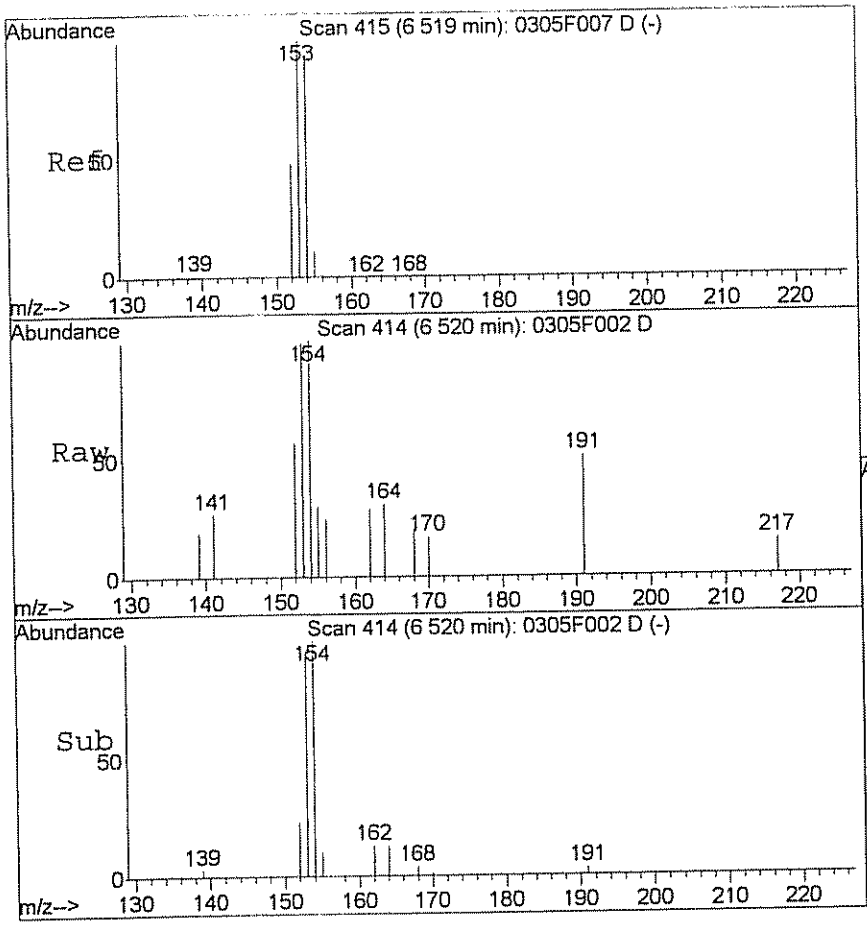


#11
Acenaphthylene
Concen: 0.28 ng/ml
RT: 6.37 min Scan# 386
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:152 Resp: 434

Ion	Ratio	Lower	Upper
152	100		
153	12.6	0.0	43.6

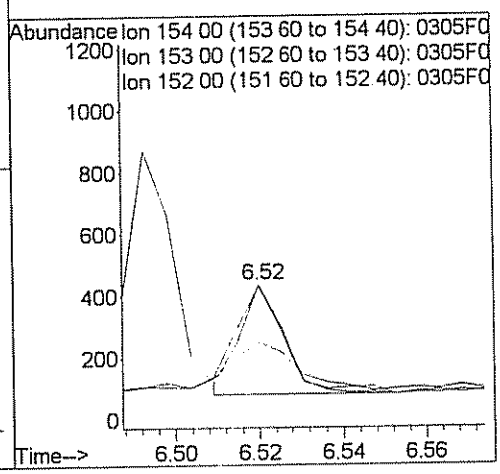


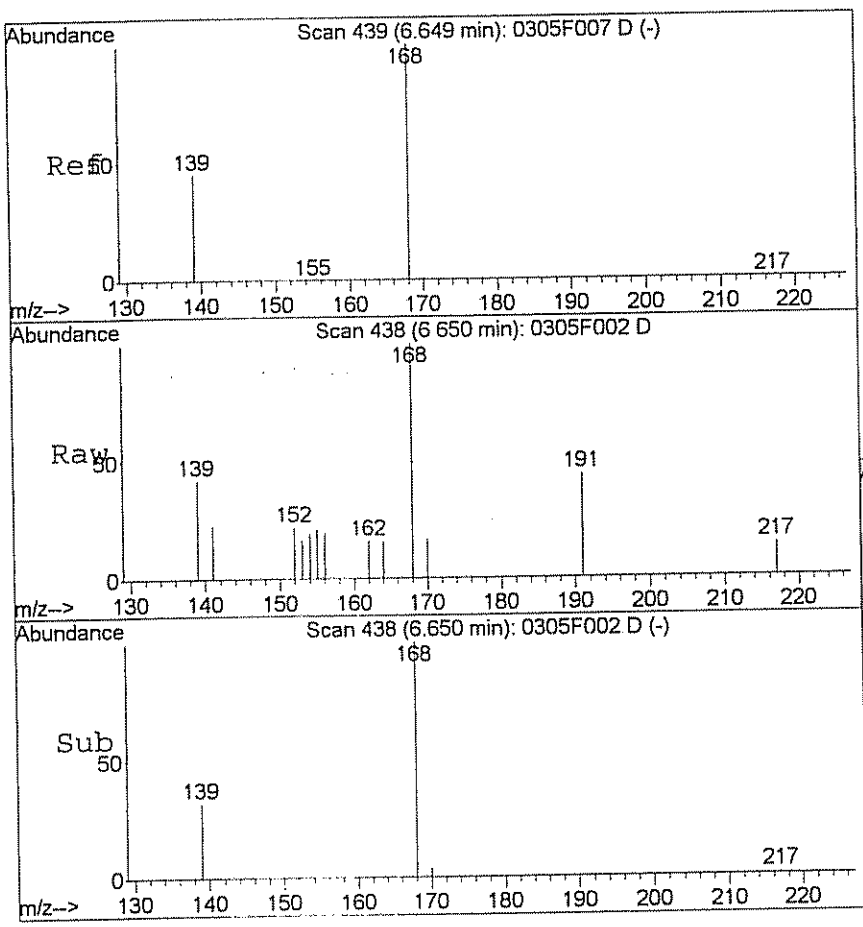


#12
Acenaphthene
Concen: 0.27 ng/ml
RT: 6.52 min Scan# 414
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:154 Resp: 258

Ion	Ratio	Lower	Upper
154	100		
153	99.2	73.0	133.0
152	42.8	17.8	77.8

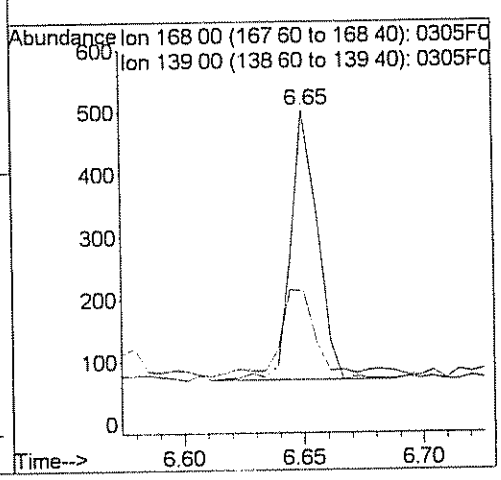


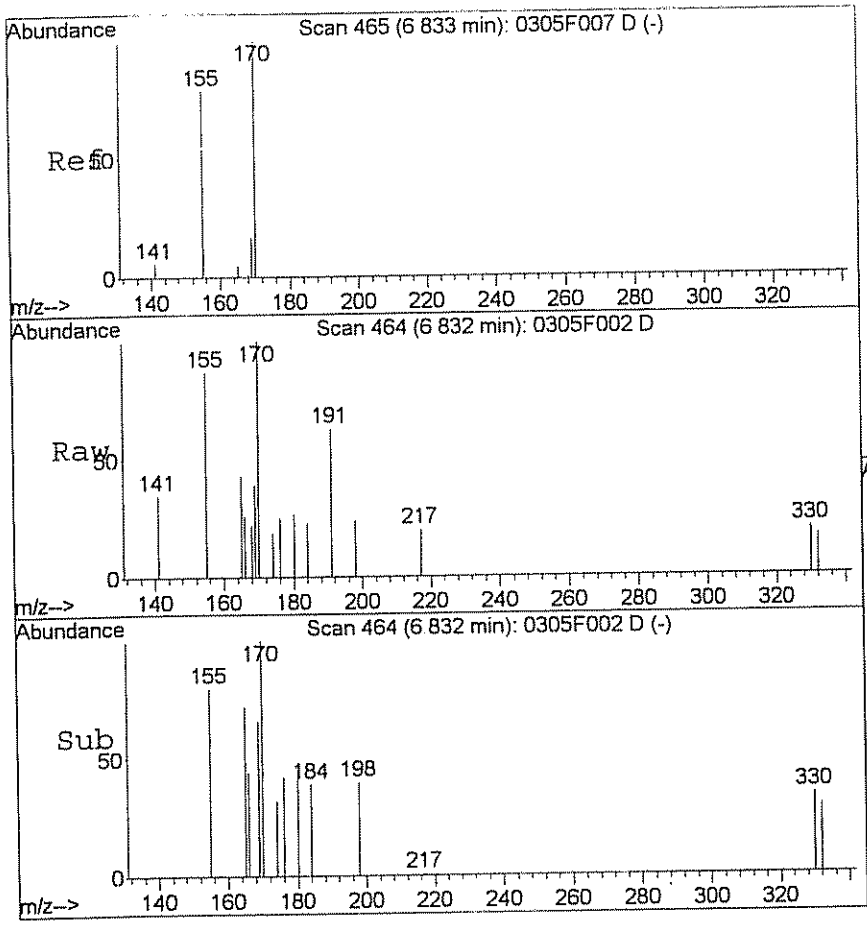


#13
Dibenzofuran
Concen: 0.24 ng/ml
RT: 6.65 min Scan# 438
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:168 Resp: 331

Ion	Ratio	Lower	Upper
168	100		
139	31.5	0.0	58.1

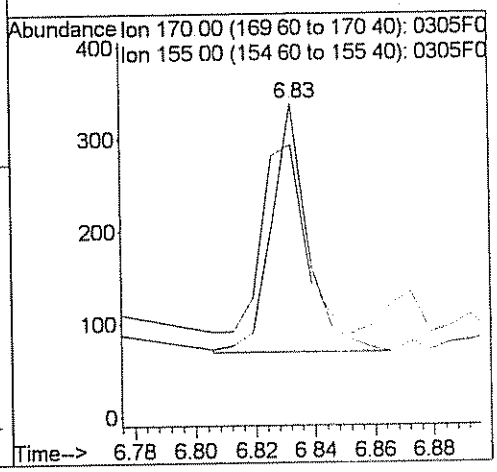


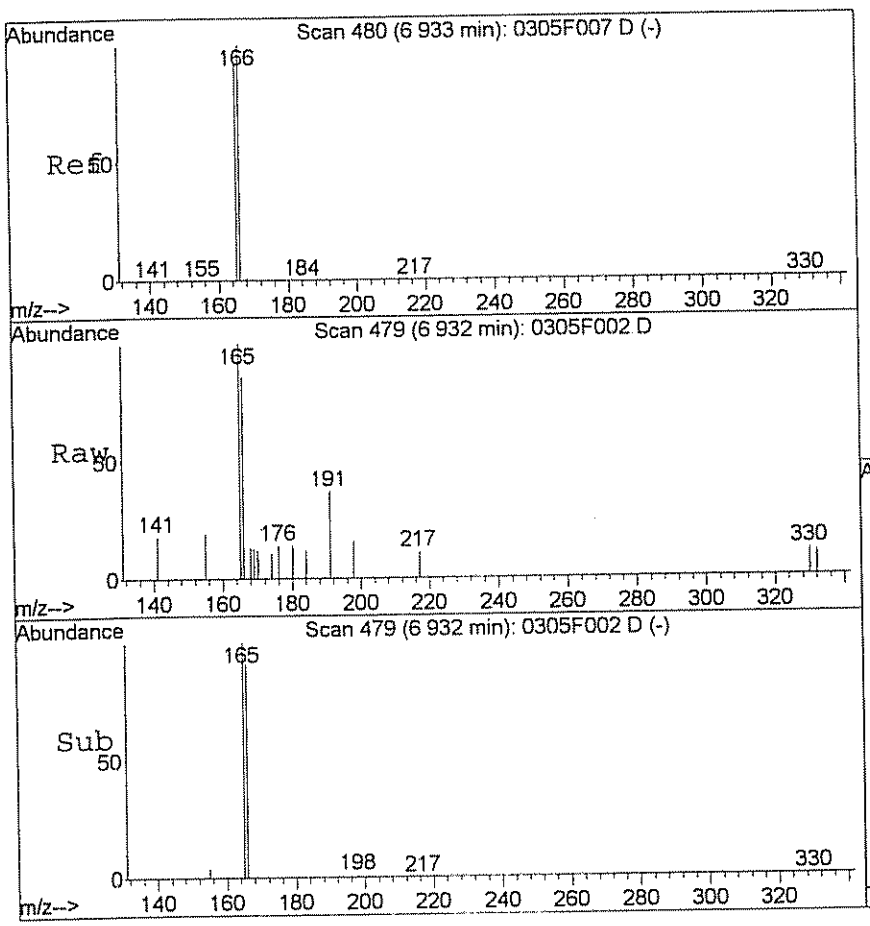


#14
2,3,5-Trimethylnaphthalene
Concen: 0.26 ng/ml
RT: 6.83 min Scan# 464
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:170 Resp: 227

Ion	Ratio	Lower	Upper
170	100		
155	75.1	31.0	91.0

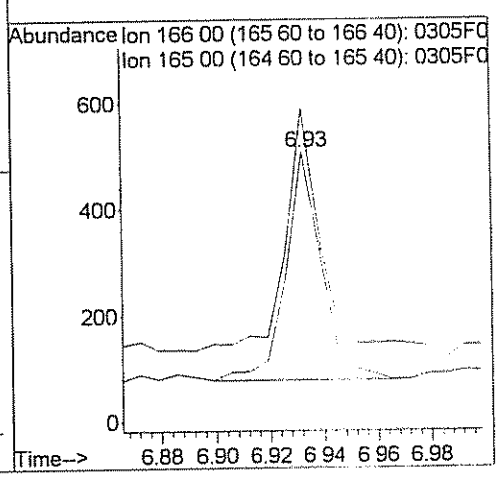


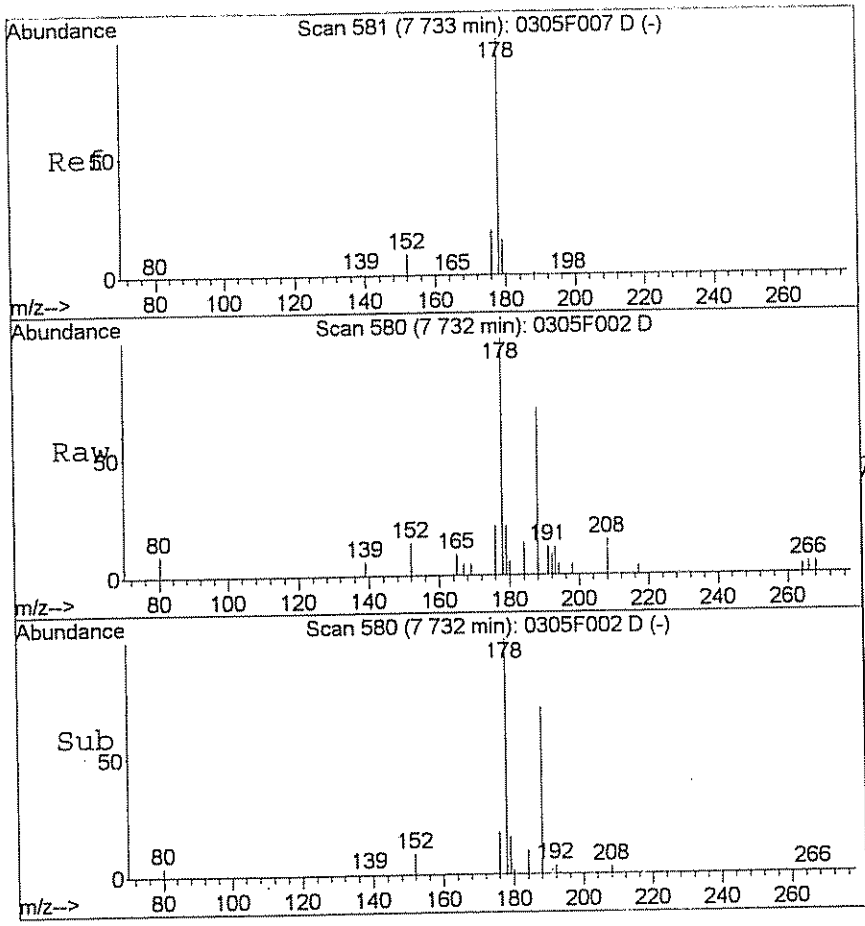


#16
Fluorene
Concen: 0.35 ng/ml
RT: 6.93 min Scan# 479
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:166 Resp: 391

Ion	Ratio	Lower	Upper
166	100		
165	103.5	58.6	118.6

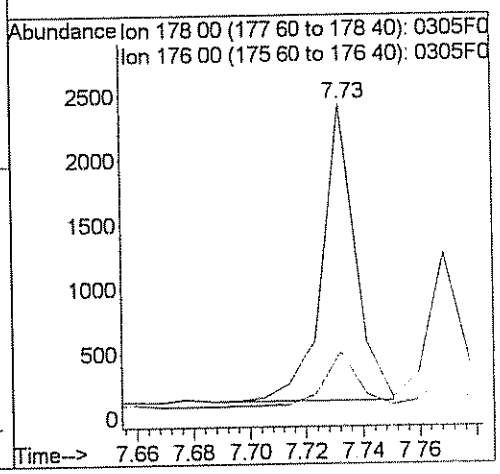


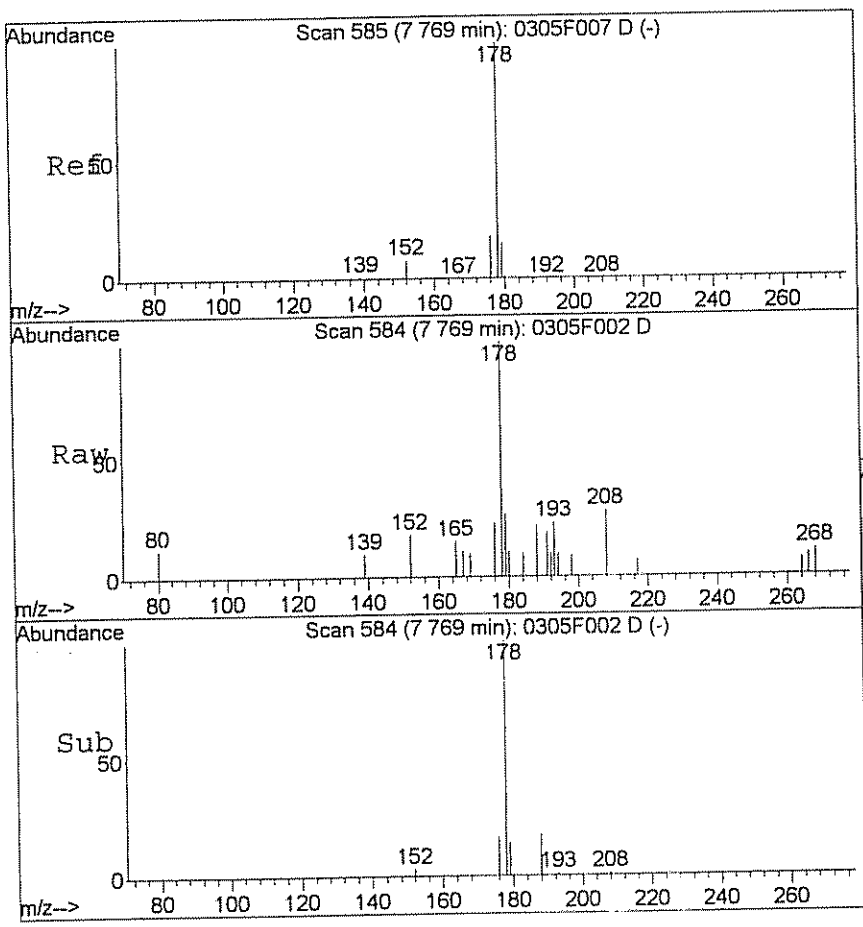


#27
Phenanthrene
Concen: 1.21 ng/ml
RT: 7.73 min Scan# 580
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:178 Resp: 1852

Ion	Ratio	Lower	Upper
178	100		
176	18.1	0.0	48.4

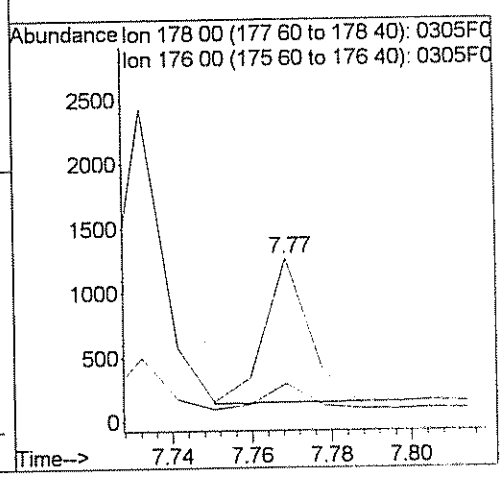


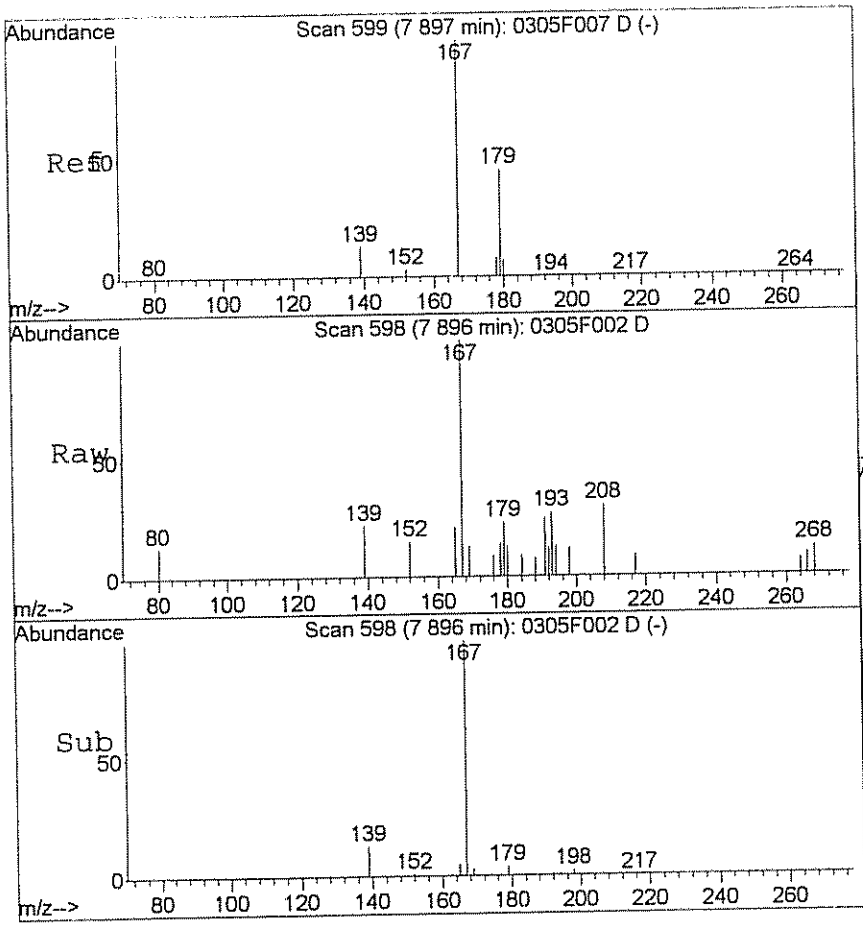


#28
Anthracene
Concen: 0.62 ng/ml
RT: 7.77 min Scan# 584
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:178 Resp: 851

Ion	Ratio	Lower	Upper
178	100		
176	17.9	0.0	47.7

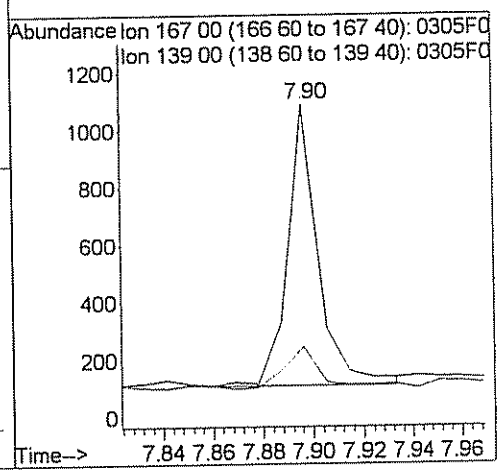


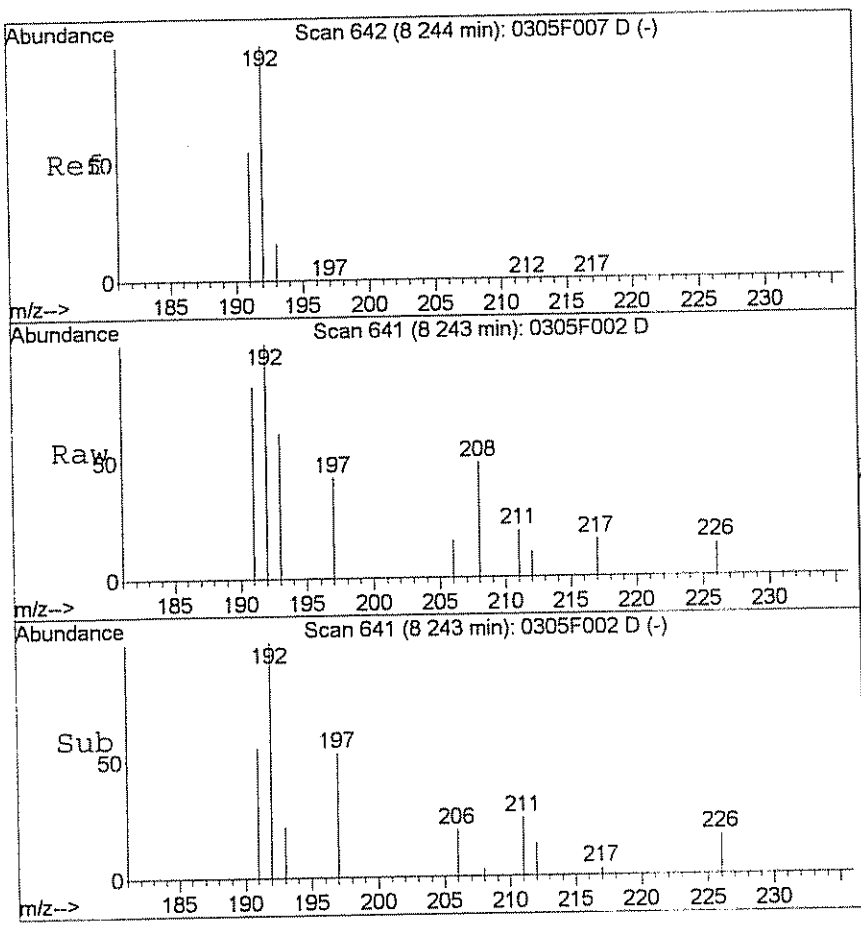


#29
Carbazole
Concen: 0.70 ng/ml
RT: 7.90 min Scan# 598
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:167 Resp: 831

Ion	Ratio	Lower	Upper
167	100		
139	13.8	0.0	41.6

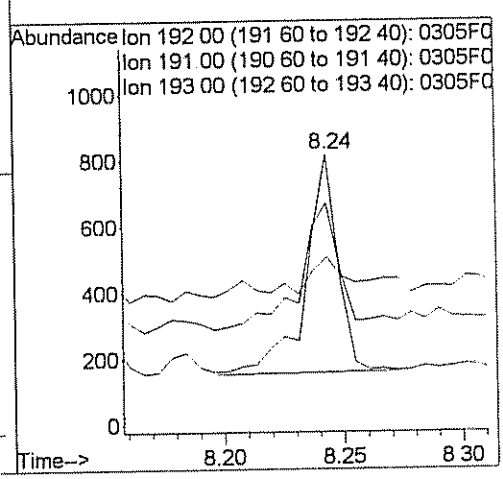


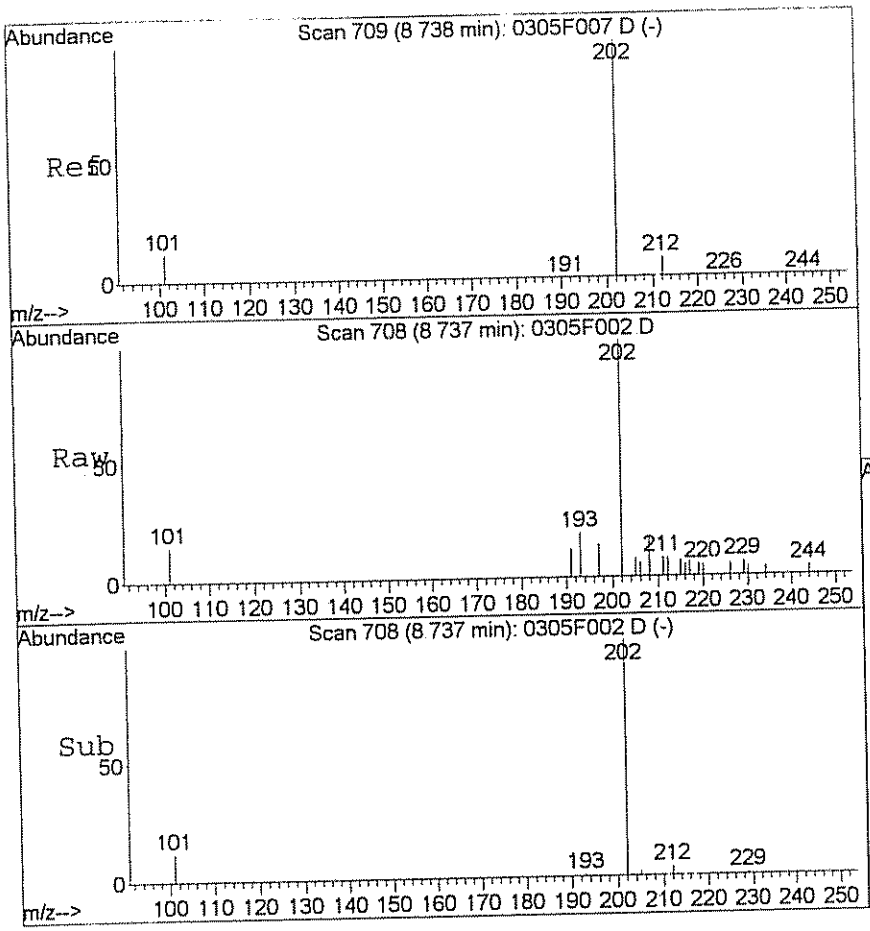


#30
1-Methylphenanthrene
Concen: 0.60 ng/ml
RT: 8.24 min Scan# 641
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:192 Resp: 615

Ion	Ratio	Lower	Upper
192	100		
191	58.1	23.7	83.7
193	18.1	0.0	46.6

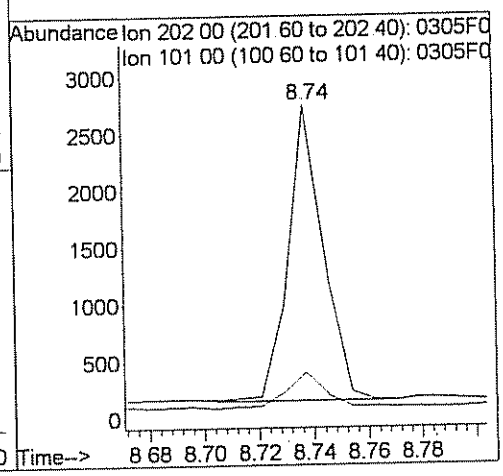


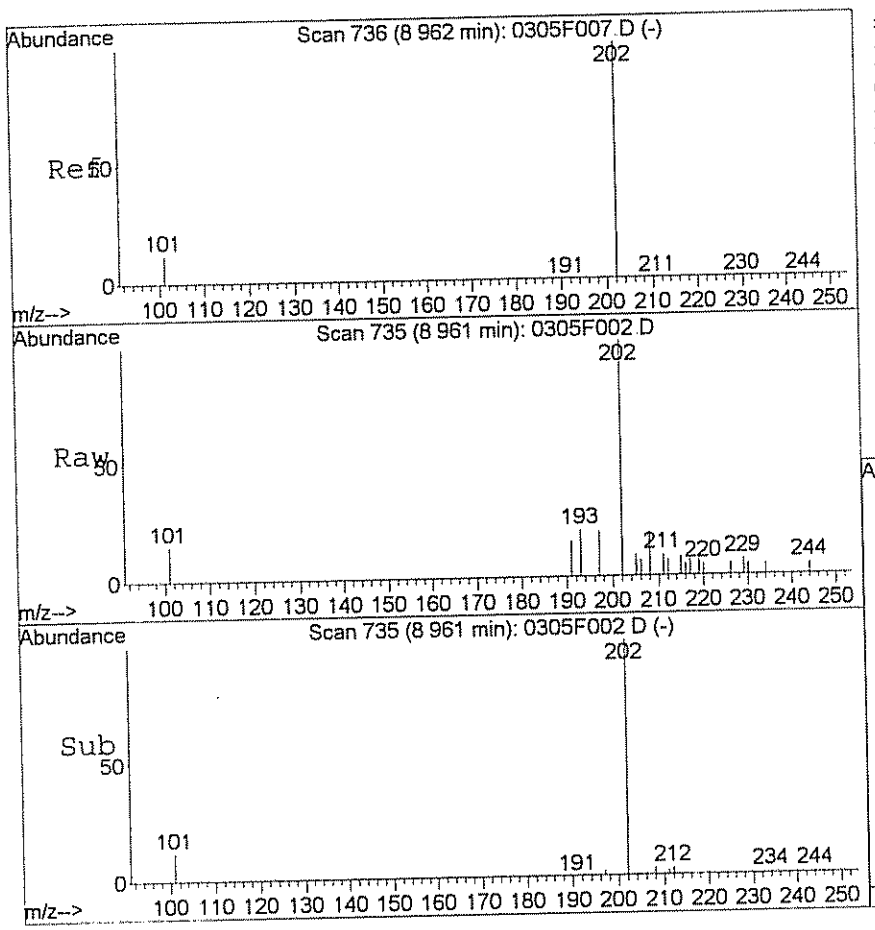


#35
Fluoranthene
Concen: 1.44 ng/ml
RT: 8.74 min Scan# 708
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:202 Resp: 2279

Ion	Ratio	Lower	Upper
202	100		
101	12.0	0.0	42.3

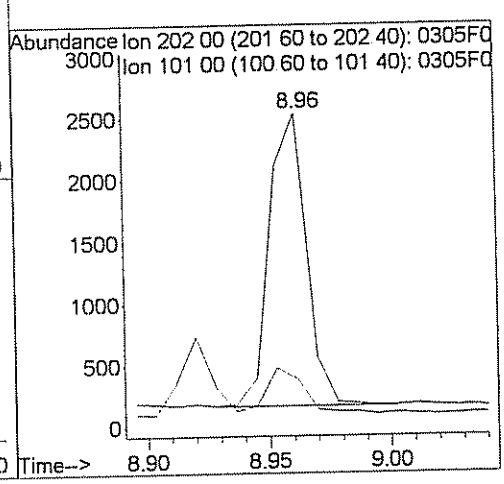


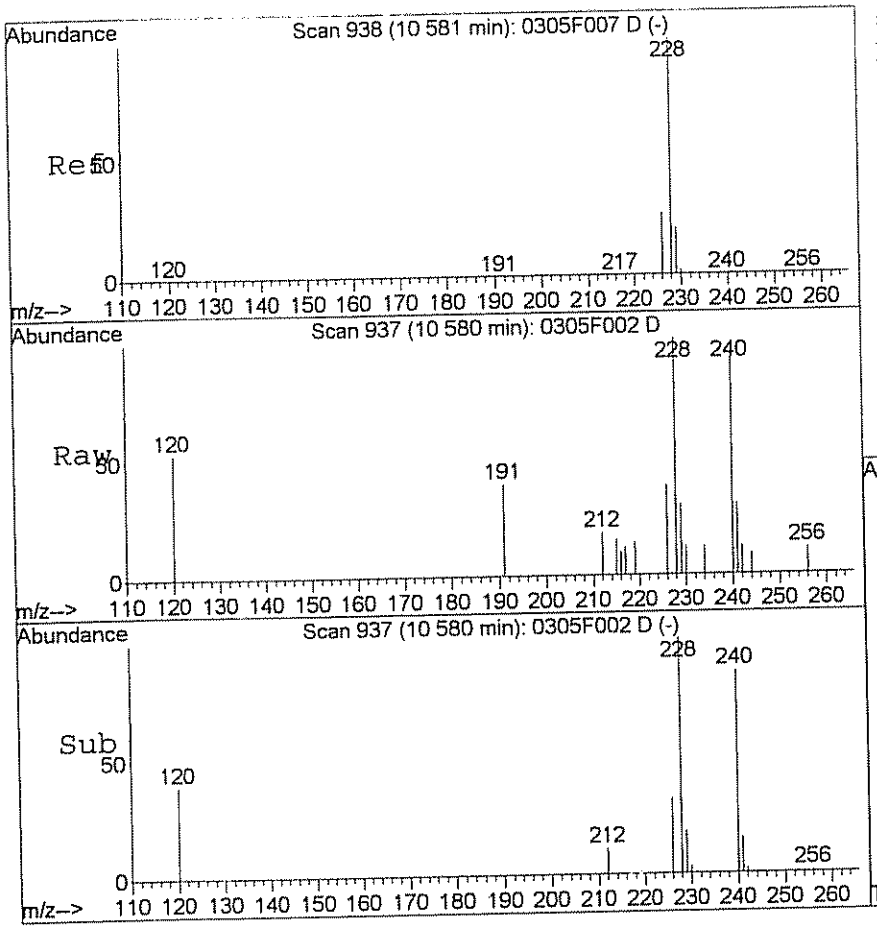


#38
Pyrene
Concen: 1.54 ng/ml
RT: 8.96 min Scan# 735
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:202 Resp: 2485

Ion	Ratio	Lower	Upper
202	100		
101	11.6	0.0	42.1

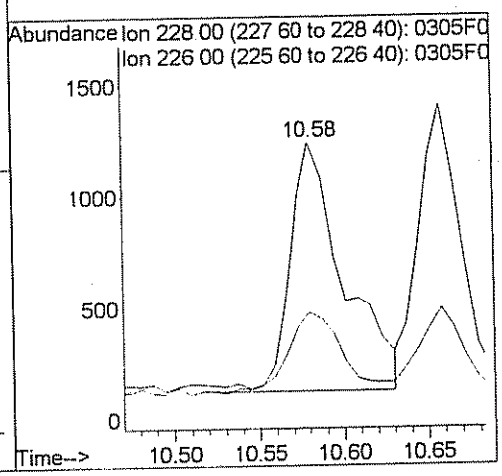


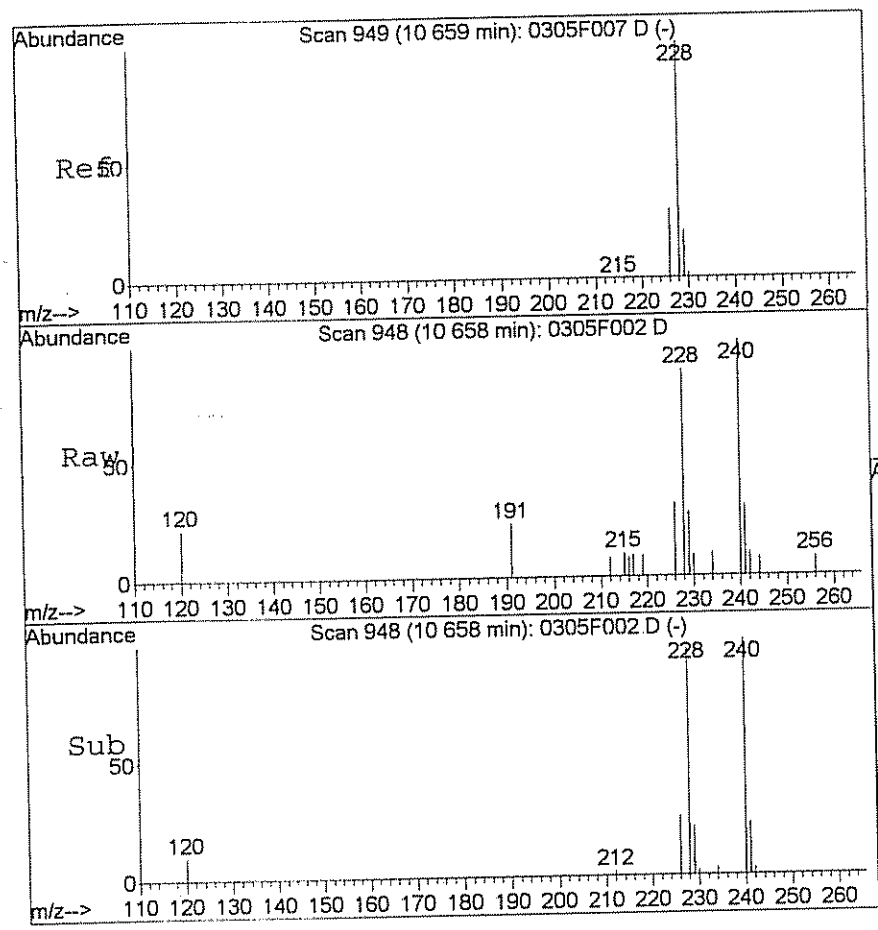


#43
Benz(a)anthracene
Concen: 1.91 ng/ml
RT: 10.58 min Scan# 937
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:228 Resp: 2426

Ion	Ratio	Lower	Upper
228	100		
226	29.1	0.0	56.6

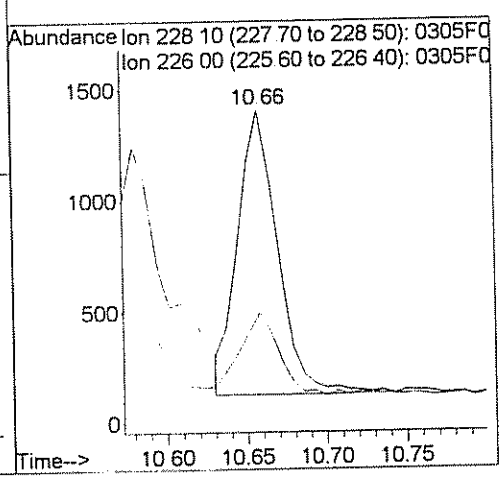


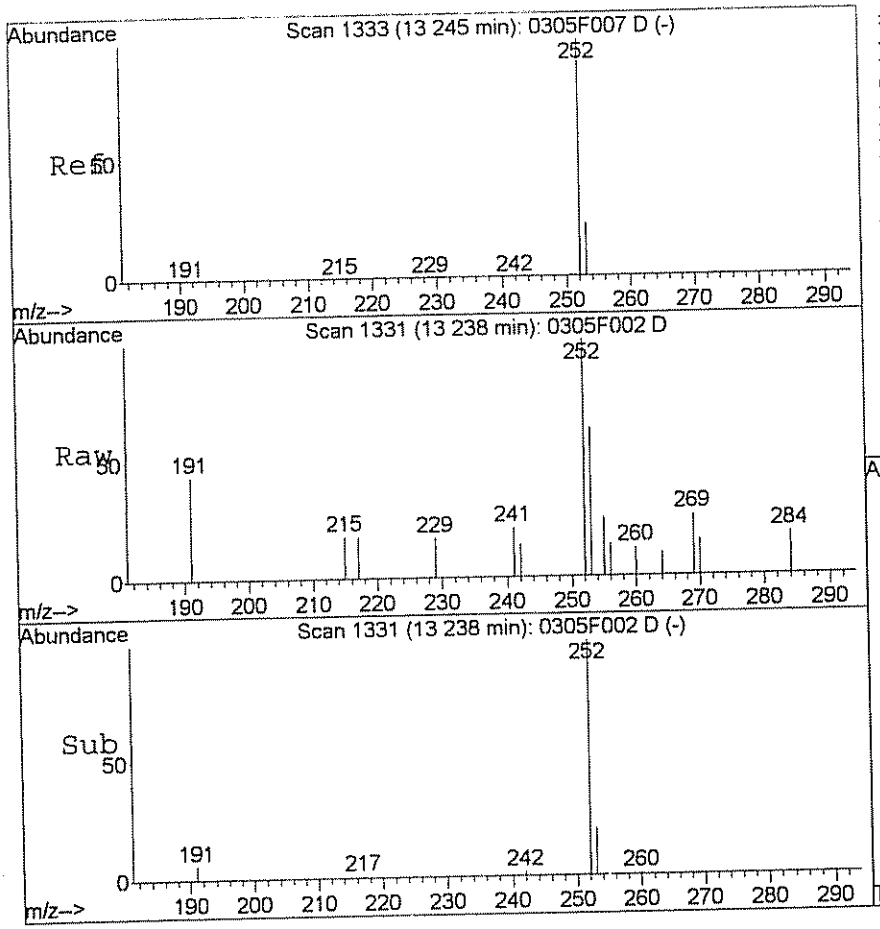


#44
Chrysene
Concen: 1.68 ng/ml
RT: 10.66 min Scan# 948
Delta R.T. -0.01 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:228 Resp: 2219

Ion	Ratio	Lower	Upper
228	100		
226	28.6	0.0	58.9

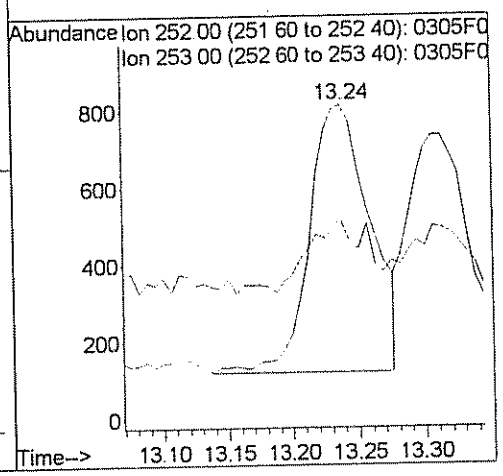


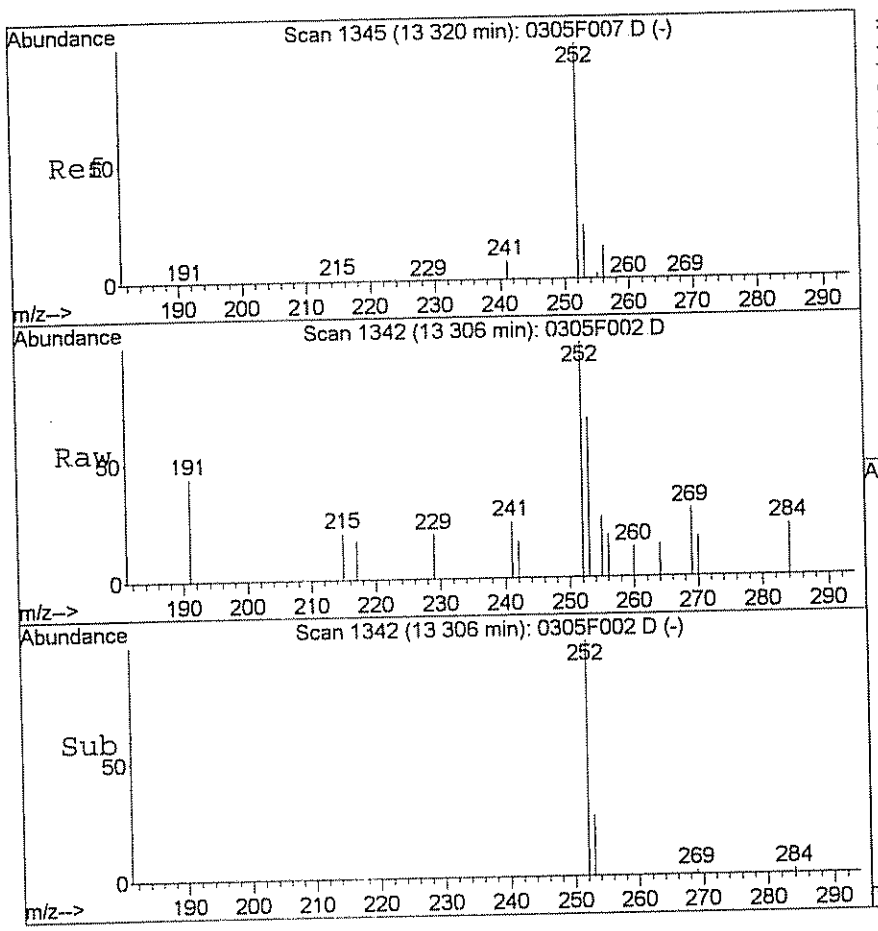


#50
Benzo(b)fluoranthene
Concen: 1.69 ng/ml
RT: 13.24 min Scan# 1331
Delta R.T. -0.03 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:252 Resp: 2183

Ion	Ratio	Lower	Upper
252	100		
253	24.8	0.0	52.0

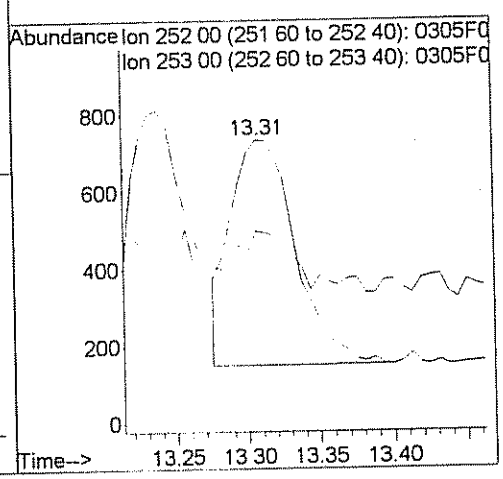


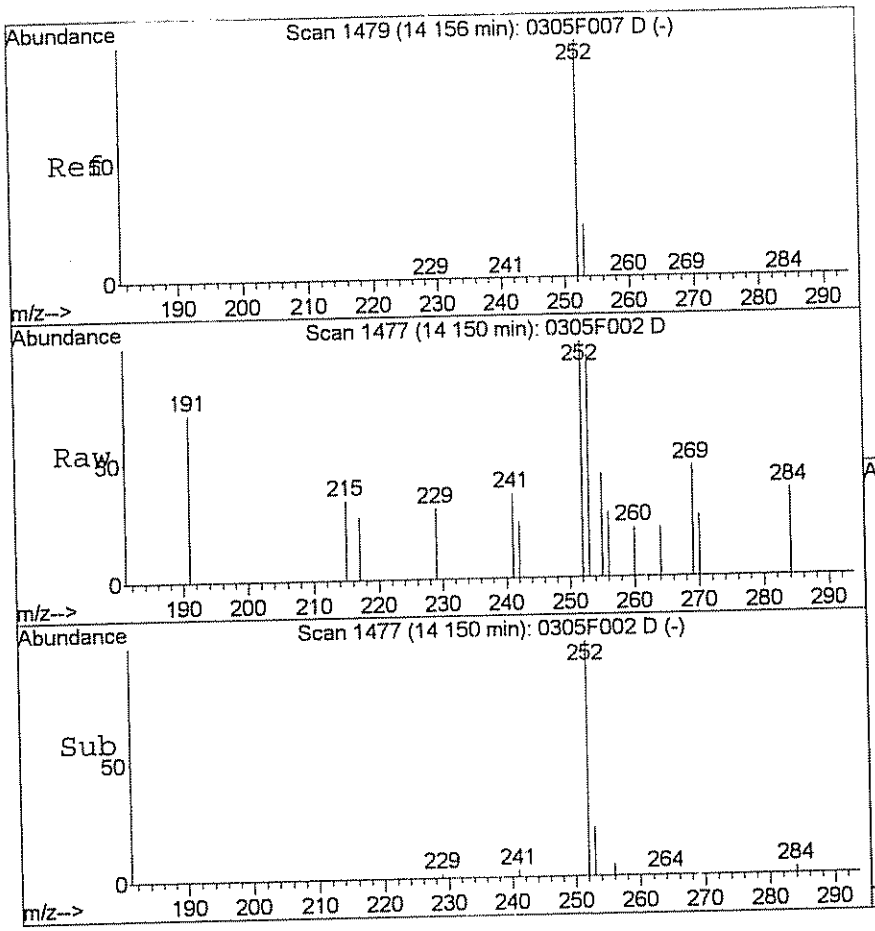


#51
Benzo(k)fluoranthene
Concen: 1.39 ng/ml
RT: 13.31 min Scan# 1342
Delta R.T. -0.04 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:252 Resp: 1845

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	52.2

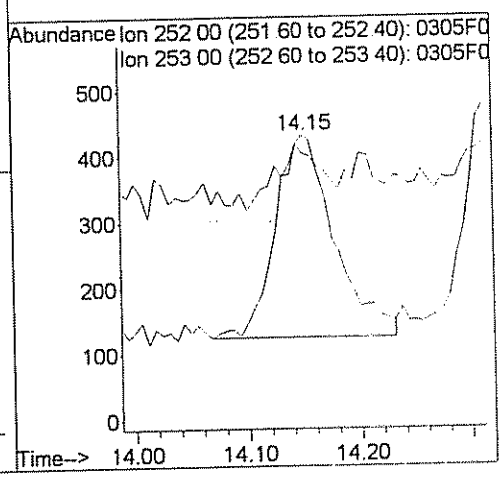


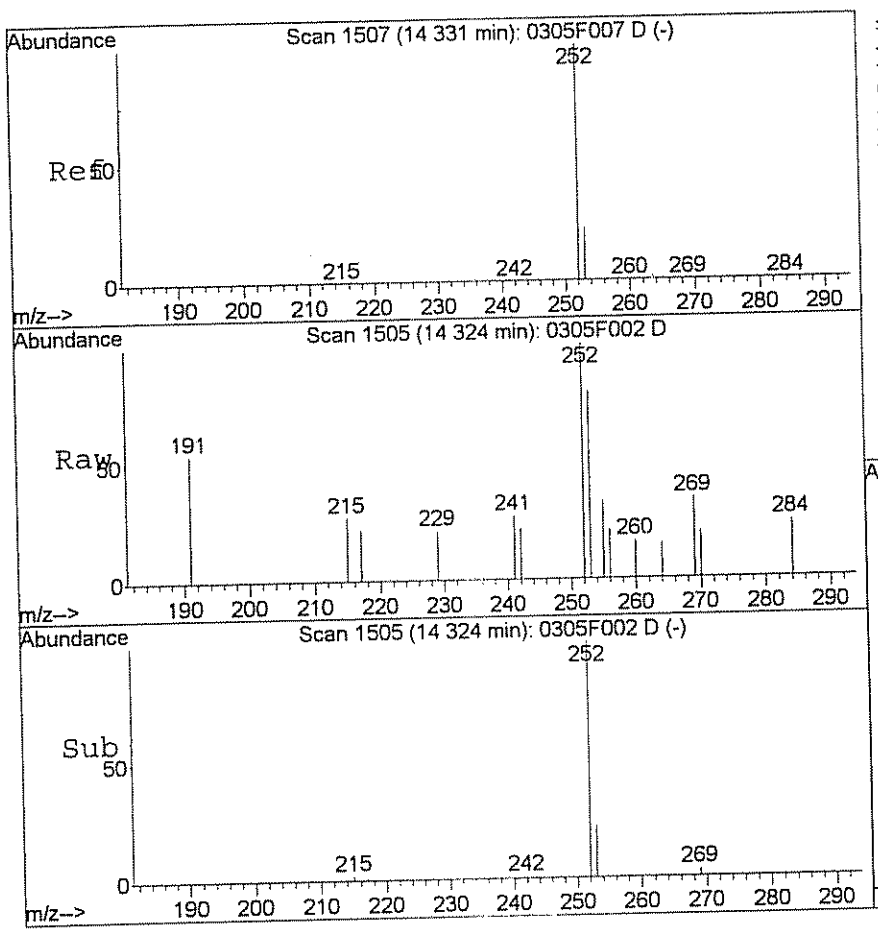


#52
Benzo(e)pyrene
Concen: 0.87 ng/ml
RT: 14.15 min Scan# 1477
Delta R.T. -0.04 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:252 Resp: 1123

Ion	Ratio	Lower	Upper
252	100		
253	25.1	0.0	51.7

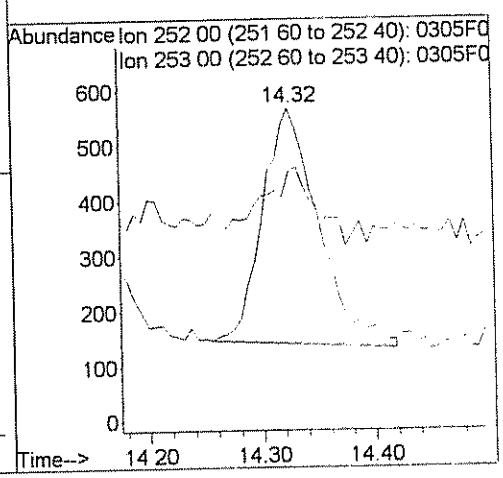


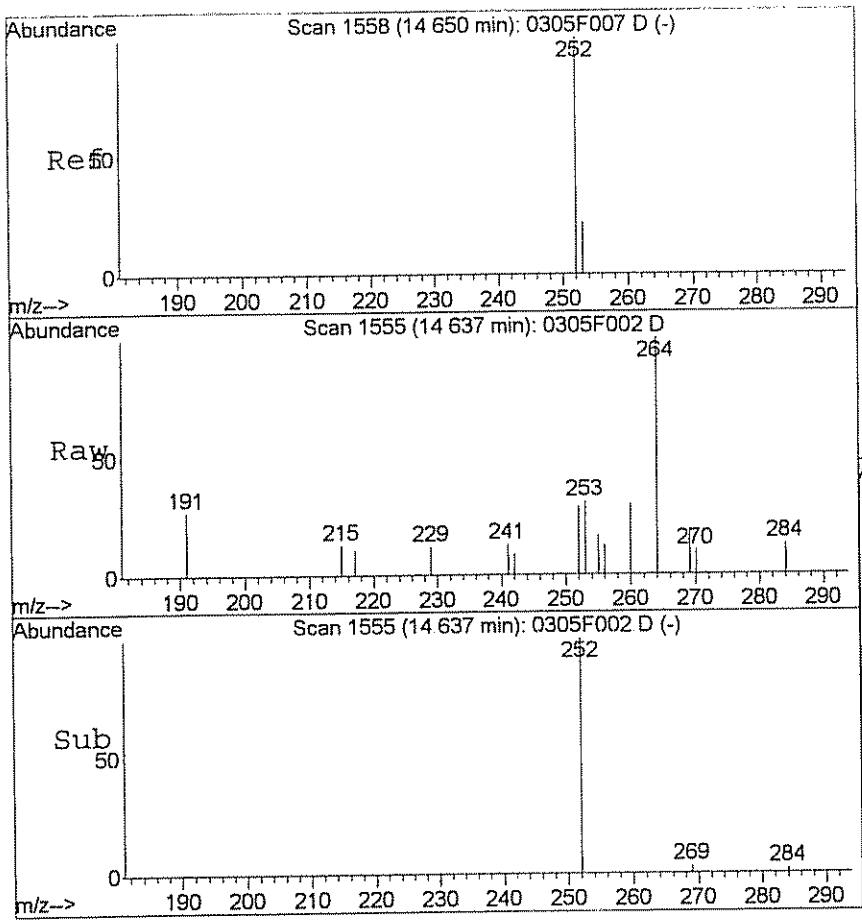


#53
Benzo(a)pyrene
Concen: 1.36 ng/ml
RT: 14.32 min Scan# 1505
Delta R.T. -0.04 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:252 Resp: 1480

Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	51.9

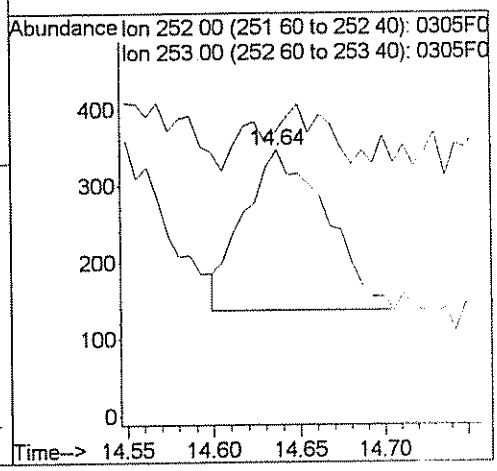


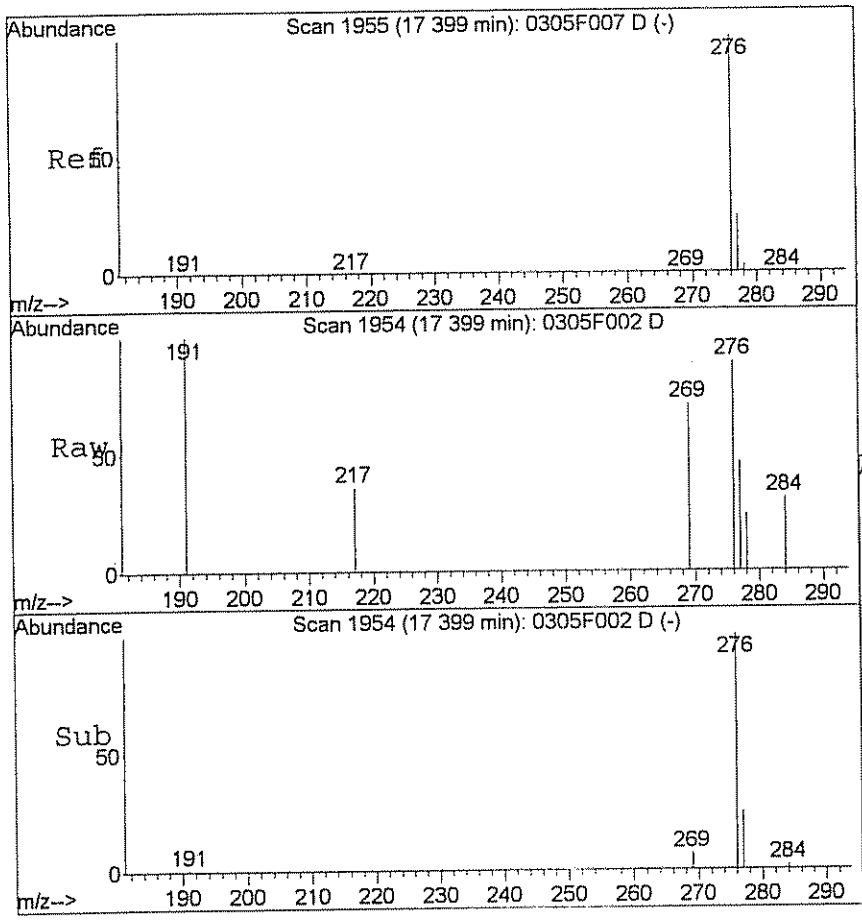


#54
Perylene
Concen: 0.60 ng/ml
RT: 14.64 min Scan# 1555
Delta R.T. -0.04 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:252 Resp: 690

Ion	Ratio	Lower	Upper
252	100		
253	20.1	0.0	51.7

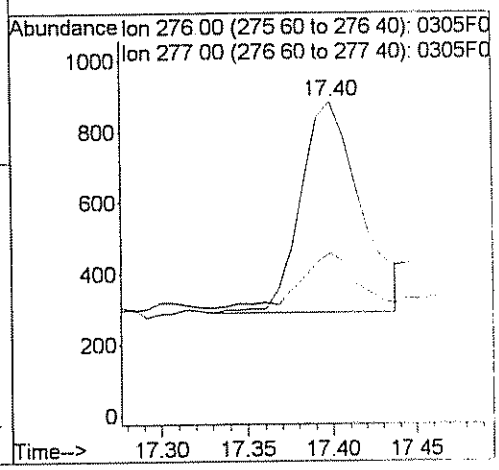


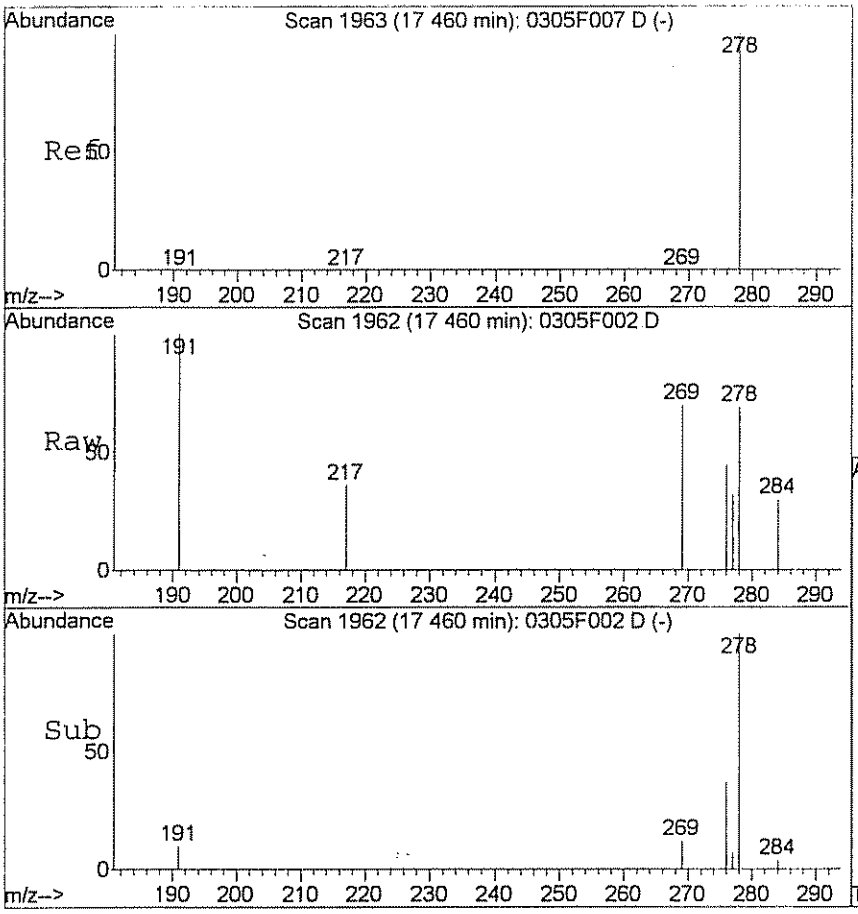


#55
Indeno(1,2,3-cd)pyrene
Concen: 1.64 ng/ml
RT: 17.40 min Scan# 1954
Delta R.T. -0.02 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:276 Resp: 1454

Ion	Ratio	Lower	Upper
276	100		
277	25.7	0.0	53.7

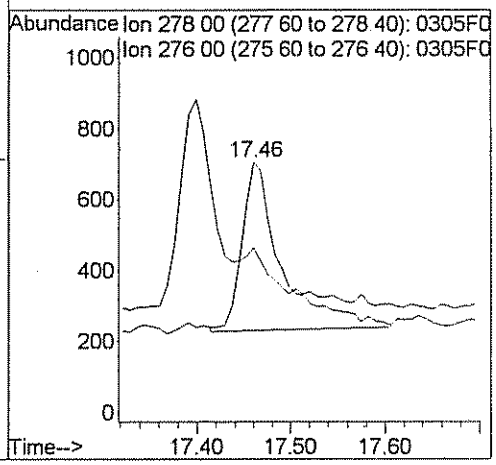


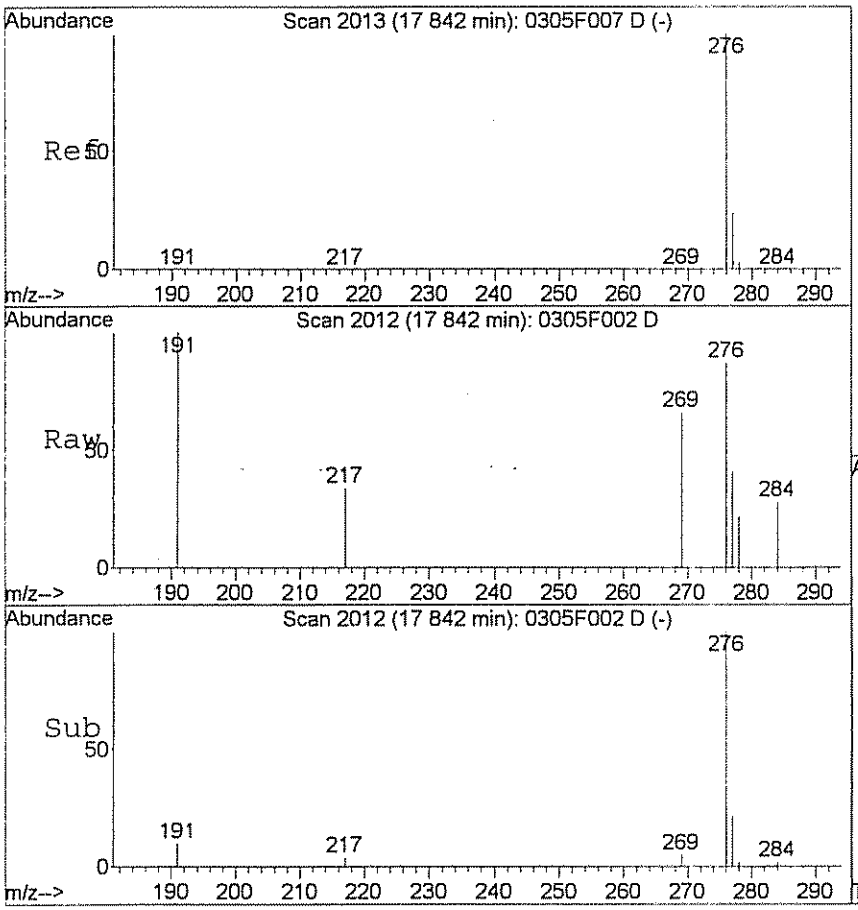


#56
Dibenz(a,h)anthracene
Concen: 1.46 ng/ml
RT: 17.46 min Scan# 1962
Delta R.T. -0.02 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:278 Resp: 1408

Ion	Ratio	Lower	Upper
278	100		
276	33.9	0.0	55.3

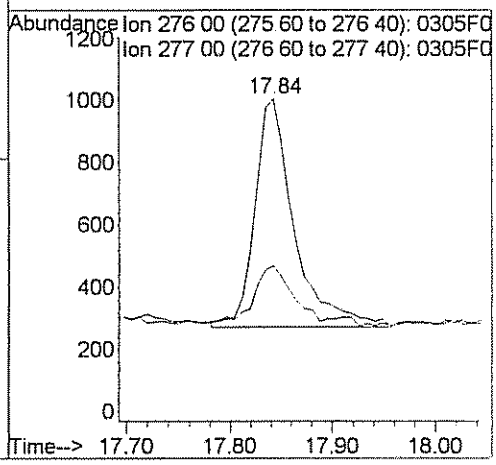




#57
Benzo(g,h,i)perylene
Concen: 1.60 ng/ml
RT: 17.84 min Scan# 2012
Delta R.T. -0.02 min
Lab File: 0305F002.D
Acq: 5 Mar 2005 8:09 am

Tgt Ion:276 Resp: 1964

Ion	Ratio	Lower	Upper
276	100		
277	26.4	0.0	53.9



Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 09:22:37 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	212415	200.00 ng/ml	0.00
10) Acenaphthene-d10	6.50	164	160332	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	246865	200.00 ng/ml	0.00
37) Chrysene-d12	10.61	240	189261	200.00 ng/ml	-0.02
49) Perylene-d12	14.55	264	157575	200.00 ng/ml	-0.03
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	4148	3.86 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.39%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%	
36) Fluoranthene-d10	8.72	212	6540	3.95 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.40%	
42) Terphenyl-d14	9.12	244	4565	4.39 ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.44%	
Target Compounds					Qvalue
2) Naphthalene	5.08	128	4965	3.94 ng/ml	100
3) 2-Methylnaphthalene	5.63	142	3984	3.57 ng/ml	97
4) 1-Methylnaphthalene	5.72	142	3644	3.61 ng/ml	99
5) Biphenyl	6.01	154	5075	3.64 ng/ml	94
6) 2,6-Dimethylnaphthalene	6.13	156	3428	3.36 ng/ml	98
11) Acenaphthylene	6.37	152	5728	3.52 ng/ml	98
12) Acenaphthene	6.52	154	3724	3.83 ng/ml	99
13) Dibenzofuran	6.65	168	5411	3.94 ng/ml	78
14) 2,3,5-Trimethylnaphthalene	6.83	170	3245	3.61 ng/ml	93
16) Fluorene	6.93	166	4020	3.46 ng/ml	96
23) Dibenzothiophene	7.63	184	5360	3.90 ng/ml	79
27) Phenanthrene	7.73	178	6187	3.90 ng/ml	98
28) Anthracene	7.77	178	5167m	3.35 ng/ml	
29) Carbazole	7.90	167	4370	3.25 ng/ml	98
30) 1-Methylphenanthrene	8.24	192	3906	3.52 ng/ml	99
35) Fluoranthene	8.74	202	5805	3.07 ng/ml	98
38) Pyrene	8.95	202	6165	4.13 ng/ml	89
43) Benz(a)anthracene	10.58	228	4490	3.32 ng/ml	100
44) Chrysene	10.66	228	4741	3.79 ng/ml	96
50) Benzo(b)fluoranthene	13.23	252	3825	3.28 ng/ml	100
51) Benzo(k)fluoranthene	13.31	252	3779	3.25 ng/ml	100
52) Benzo(e)pyrene	14.15	252	4044	3.88 ng/ml	96
53) Benzo(a)pyrene	14.33	252	3080	2.79 ng/ml	97
54) Perylene	14.63	252	3340	3.23 ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.39	276	2642	2.75 ng/ml	99

(#) = qualifier out of range (m) = manual integration
0305F004.D 0305ALK.M Sat Mar 05 10:19:16 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 09:22:37 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56) Dibenz(a,h)anthracene	17.46	278	2783m	2.76 ng/ml	
57) Benzo(g,h,i)perylene	17.83	276	3969	3.55 ng/ml	98

(#) = qualifier out of range (m) = manual integration
0305F004.D 0305ALK.M Sat Mar 05 10:19:16 2005

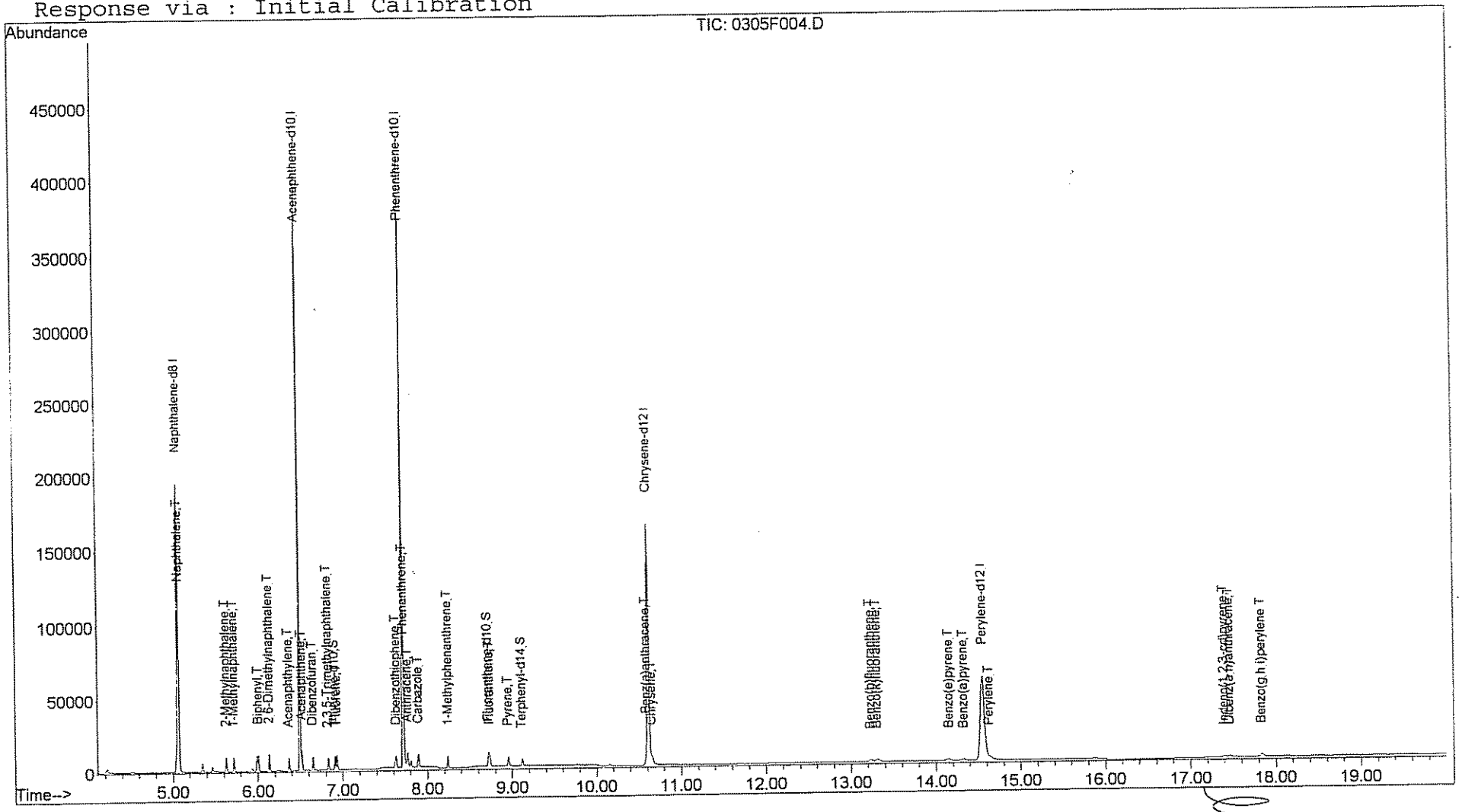
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:17 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration



0305F004.D 0305ALK.M Sat Mar 05 10:19:17 2005

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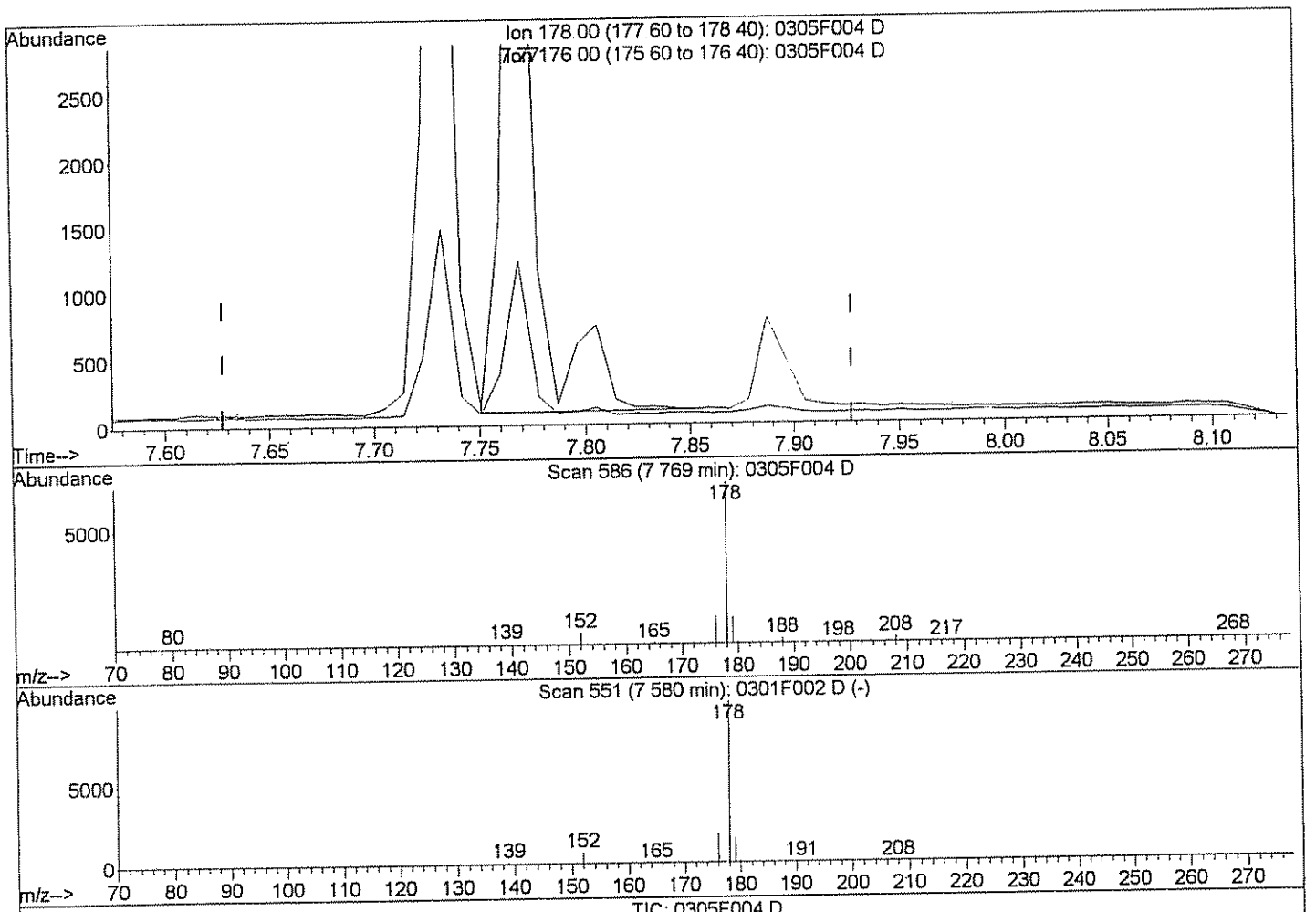
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:16 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 3.78ng/ml

response 5821

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	17.02
0.00	0.00	0.00
0.00	0.00	0.00

0305F004.D 0305ALK.M Sat Mar 05 10:16:56 2005

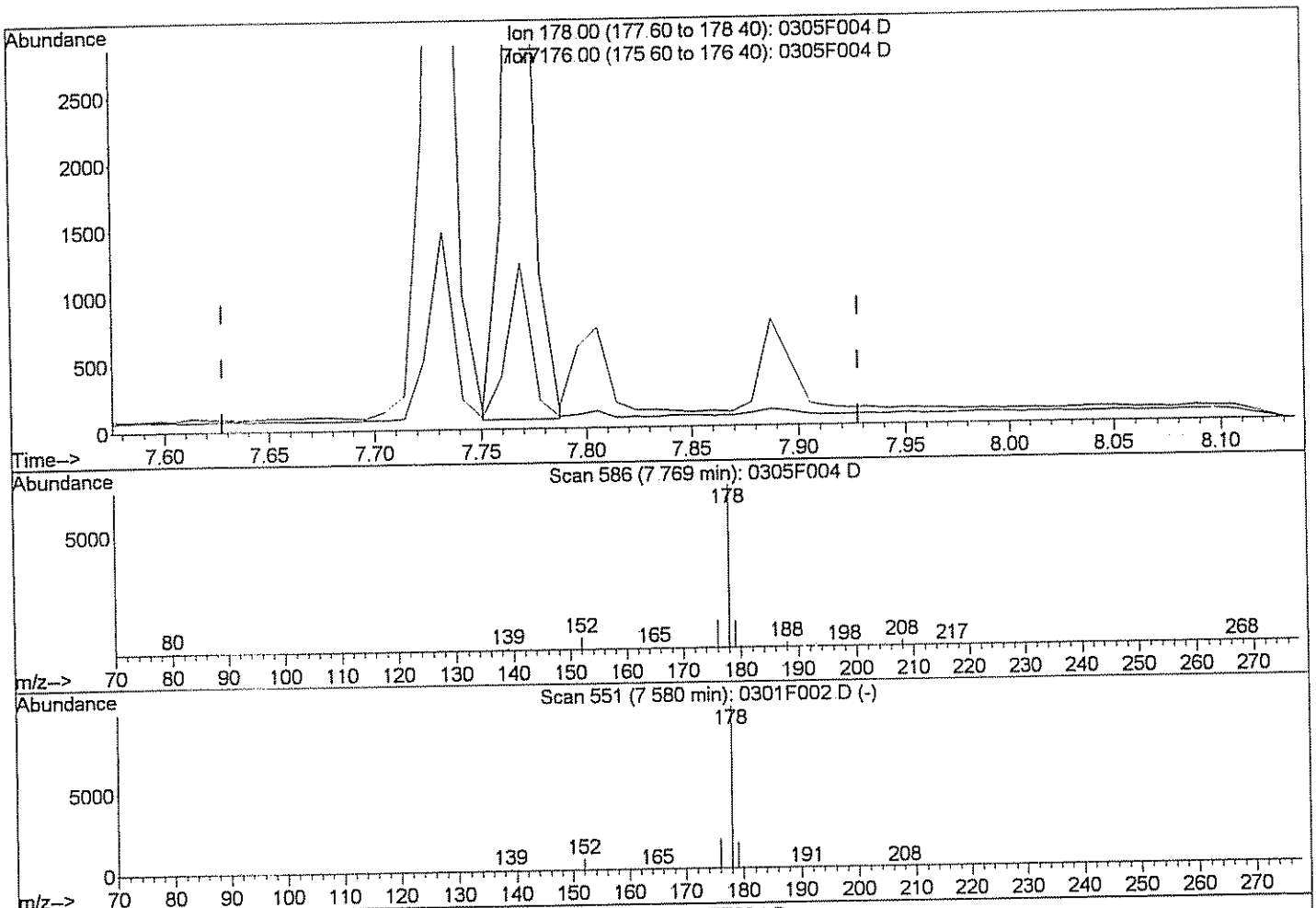
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:17 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 3.35ng/ml m

response 5167

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.00
0.00	0.00	0.00
0.00	0.00	0.00

over integrated 6/3/15

0305F004.D 0305ALK.M Sat Mar 05 10:17:02 2005

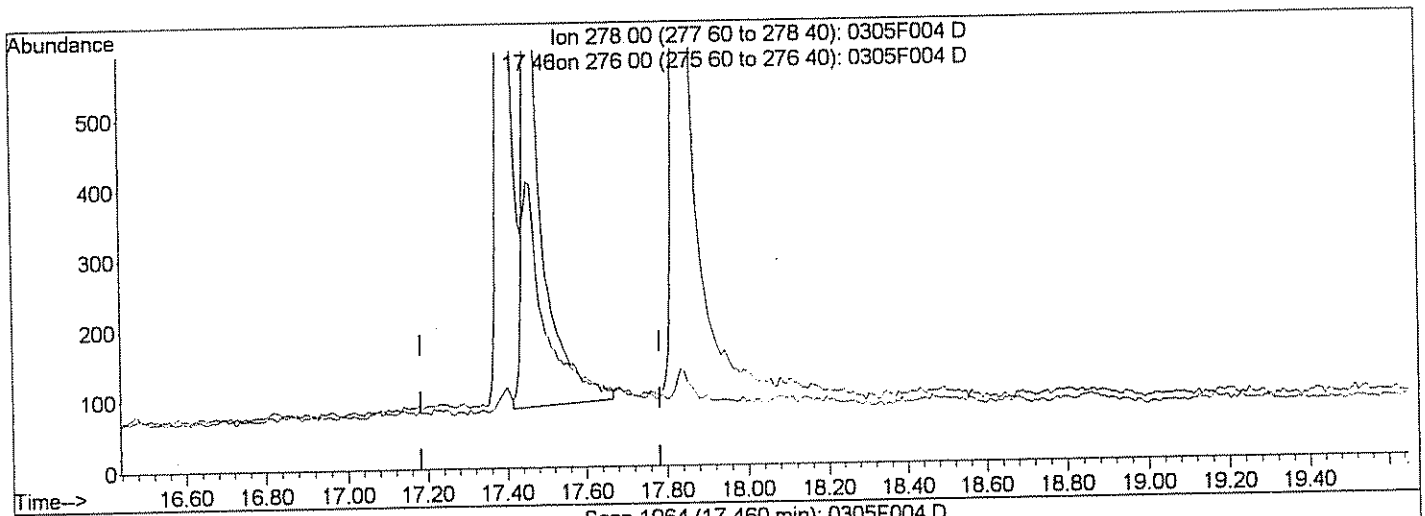
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:17 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration



(56) Dibenz(a,h)anthracene (T)

17.46min 2.49ng/ml

response 2507

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	35.37
0.00	0.00	0.00
0.00	0.00	0.00

0305F004.D 0305ALK.M Sat Mar 05 10:17:25 2005

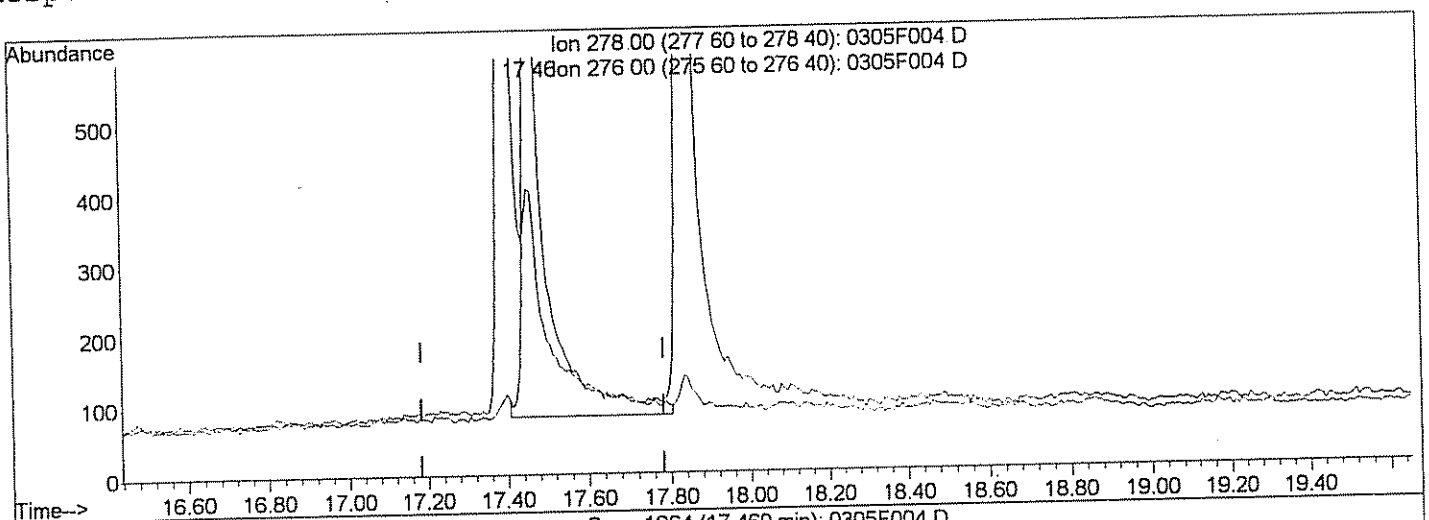
Quantitation Report (Qedit)

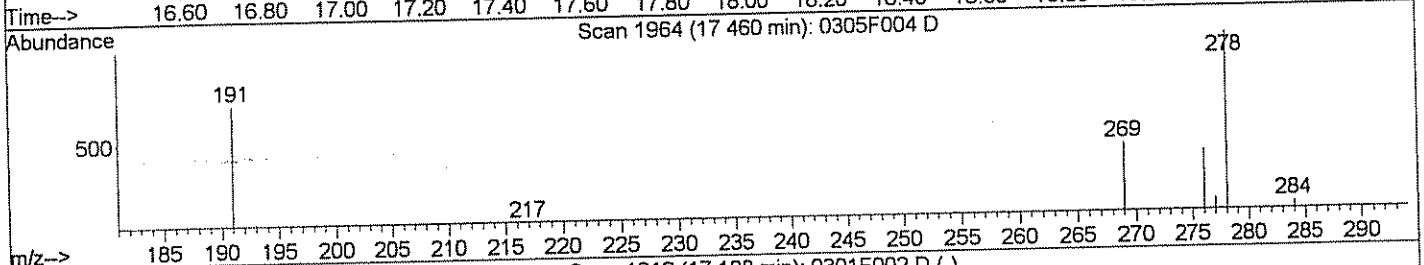
Data File : J:\MS11\DATA\030505\0305F004.D
Acq On : 5 Mar 2005 9:02 am
Sample : SIM-PAH ICAL @ .004/.1ug/mL | SVM19-6E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:17 2005

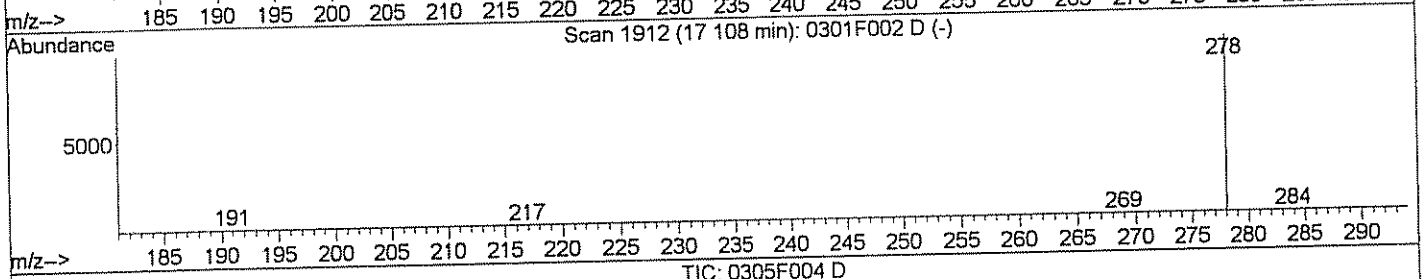
Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration







(56) Dibenz(a,h)anthracene (T)

17.46min 2.76ng/ml m

response 2783

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	43.38
0.00	0.00	0.00
0.00	0.00	0.00

0305F004.D 0305ALK.M Sat Mar 05 10:17:31 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F005.D
Acq On : 5 Mar 2005 9:29 am
Sample : SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:02:54 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.07	136	209233	200.00 ng/ml	0.00
10) Acenaphthene-d10	6.50	164	167383	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.72	188	255524	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	193856	200.00 ng/ml	-0.01
49) Perylene-d12	14.55	264	159963	200.00 ng/ml	-0.03
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	21637	19.31 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.93%	
20) 2,4,6 Tribromophenol	7.14	330	1649	11.65 ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	1.17%	
36) Fluoranthene-d10	8.72	212	32992	19.26 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	1.93%	
42) Terphenyl-d14	9.12	244	22847	21.43 ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	2.14%	
Target Compounds					Qvalue
2) Naphthalene	5.08	128	23554	18.98 ng/ml	100
3) 2-Methylnaphthalene	5.63	142	20325	18.49 ng/ml	96
4) 1-Methylnaphthalene	5.72	142	18398	18.51 ng/ml	97
5) Biphenyl	6.01	154	25487	18.55 ng/ml	94
6) 2,6-Dimethylnaphthalene	6.13	156	17758	17.68 ng/ml	99
11) Acenaphthylene	6.37	152	29087	17.12 ng/ml	99
12) Acenaphthene	6.52	154	19510	19.21 ng/ml	99
13) Dibenzofuran	6.65	168	27724	19.35 ng/ml	91
14) 2,3,5-Trimethylnaphthalene	6.83	170	16498	17.60 ng/ml	80
16) Fluorene	6.93	166	21279	17.52 ng/ml	97
21) Pentachlorophenol	7.61	266	444	2.79 ng/ml	97
23) Dibenzothiophene	7.63	184	27103	19.06 ng/ml	78
27) Phenanthrene	7.73	178	30764	18.71 ng/ml	99
28) Anthracene	7.77	178	25189	15.79 ng/ml	100
29) Carbazole	7.90	167	21476	15.43 ng/ml	99
30) 1-Methylphenanthrene	8.24	192	19854	17.31 ng/ml	99
35) Fluoranthene	8.74	202	30216	15.42 ng/ml	97
38) Pyrene	8.95	202	31036	20.32 ng/ml	91
43) Benz(a)anthracene	10.58	228	21042	15.19 ng/ml	99
44) Chrysene	10.66	228	24080	18.77 ng/ml	97
50) Benzo(b)fluoranthene	13.24	252	19682	16.63 ng/ml	99
51) Benzo(k)fluoranthene	13.31	252	19232	16.29 ng/ml	100
52) Benzo(e)pyrene	14.15	252	20349	19.25 ng/ml	100
53) Benzo(a)pyrene	14.32	252	15624	13.92 ng/ml	97
54) Perylene	14.64	252	17827	17.00 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F005.D
Acq On : 5 Mar 2005 9:29 am
Sample : SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:02:54 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55) Indeno(1,2,3-cd)pyrene	17.39	276	12911	13.21 ng/ml	99
56) Dibenz(a,h)anthracene	17.46	278	13992m	13.68 ng/ml	
57) Benzo(g,h,i)perylene	17.84	276	19791	17.43 ng/ml	97

(#) = qualifier out of range (m) = manual integration

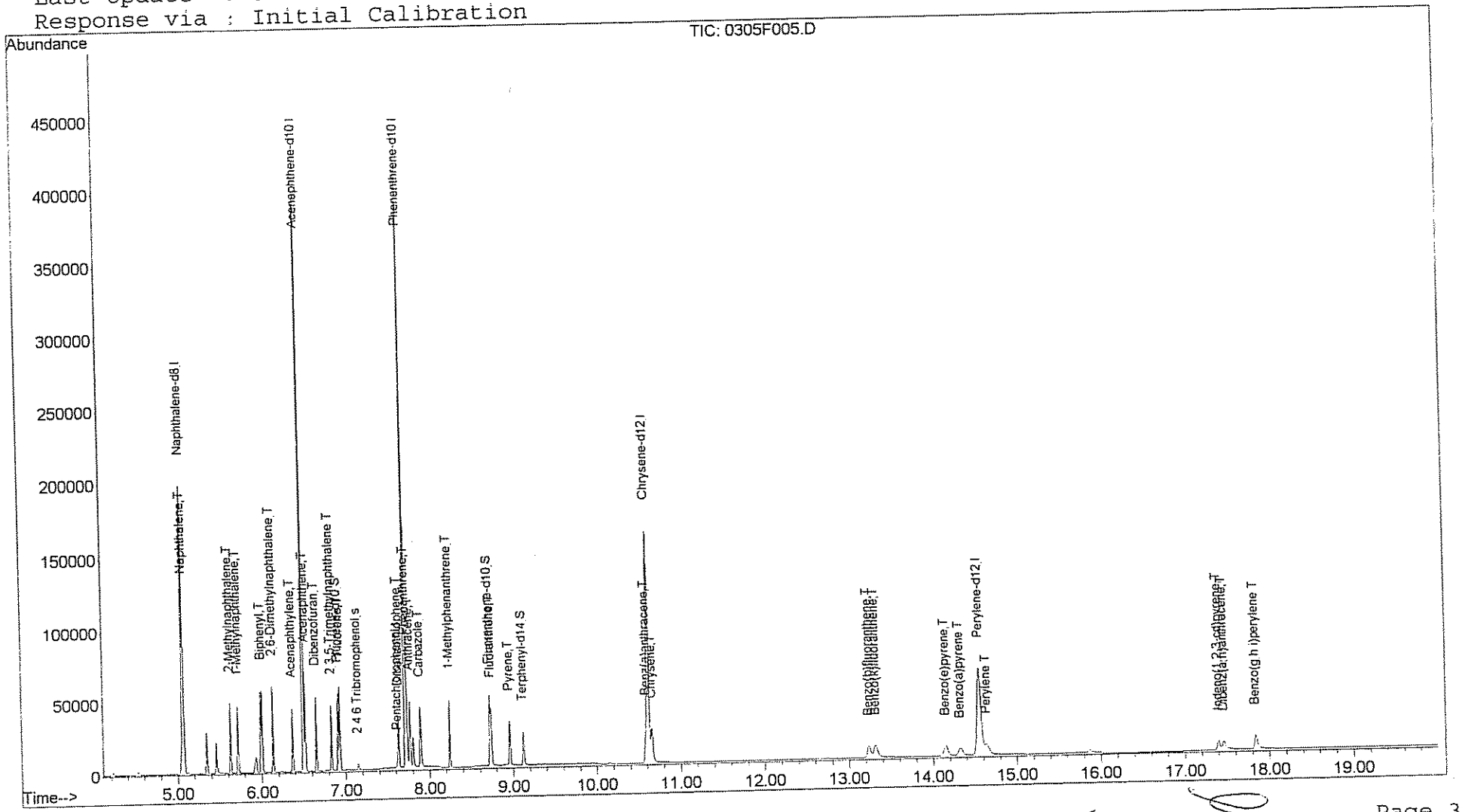
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F005.D
Acq On : 5 Mar 2005 9:29 am
Sample : SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:18 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration



0305F005.D 0305ALK.M Sat Mar 05 10:19:20 2005

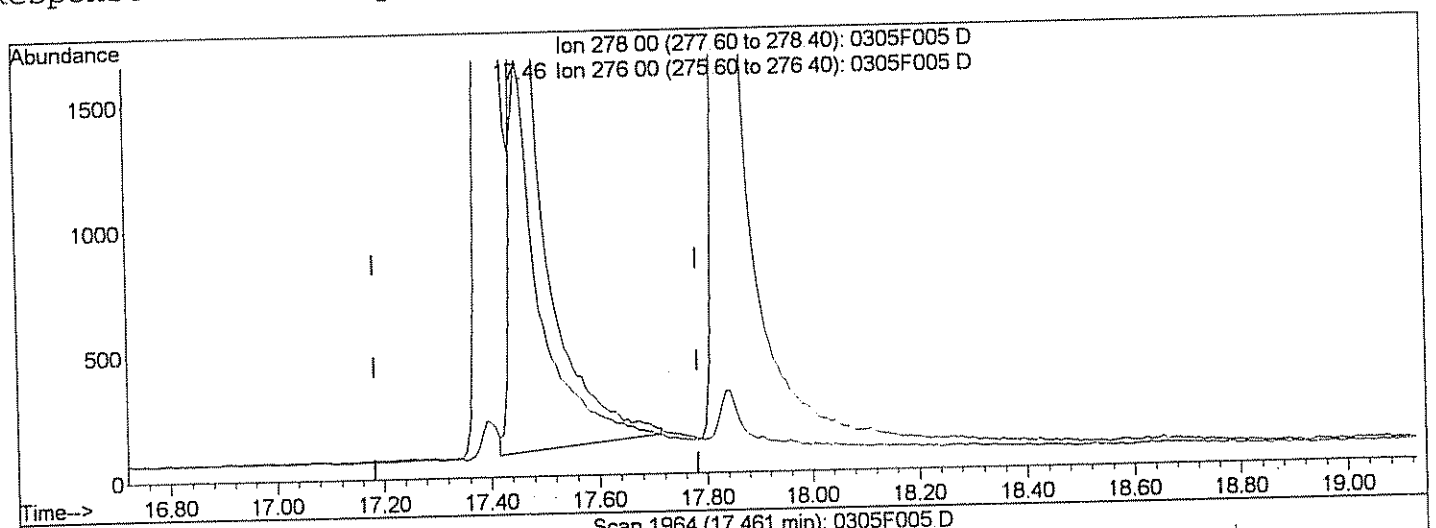
Quantitation Report (Qedit)

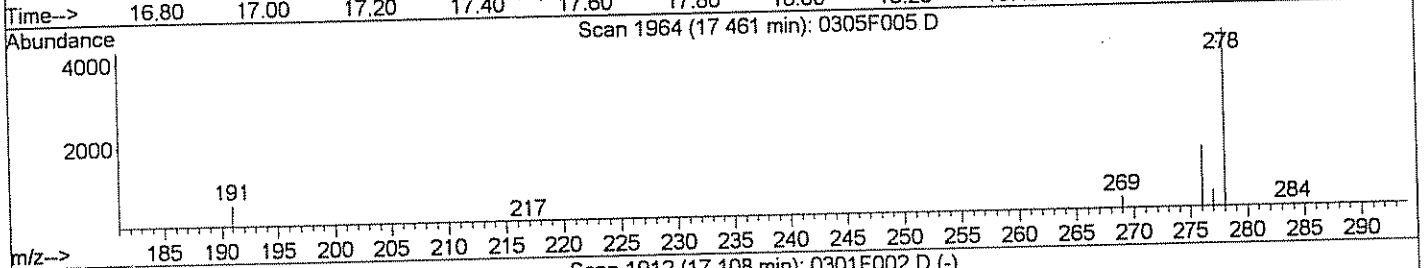
Data File : J:\MS11\DATA\030505\0305F005.D
Acq On : 5 Mar 2005 9:29 am
Sample : SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:17 2005

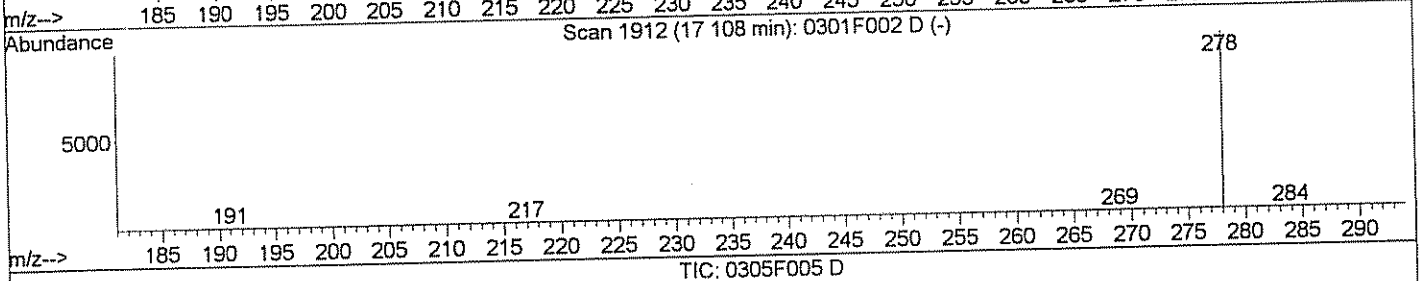
Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration







(56) Dibenz(a.h)anthracene (T)

17.46min 12.29ng/ml

response 12571

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	33.82
0.00	0.00	0.00
0.00	0.00	0.00

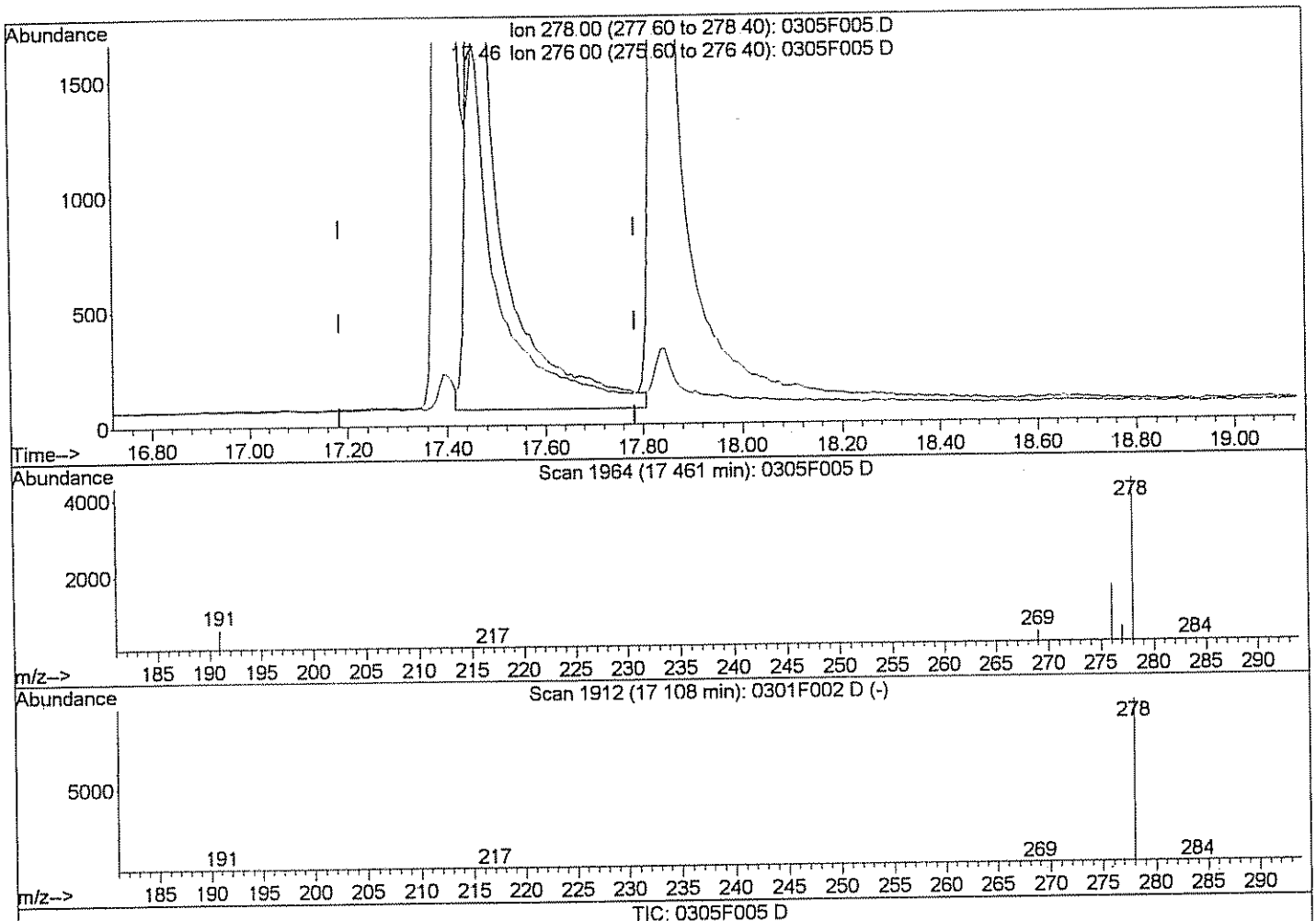
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F005.D
Acq On : 5 Mar 2005 9:29 am
Sample : SIM-PAH ICAL @ .02/.4ug/mL | SVM19-6G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:18 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration



(56) Dibenz(a,h)anthracene (T)

17.46min 13.68ng/ml m

response 13992

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	36.20
0.00	0.00	0.00
0.00	0.00	0.00

acceptable 3/31/05

0305F005.D 0305ALK.M Sat Mar 05 10:18:16 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F006.D
Acq On : 5 Mar 2005 9:56 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:15:18 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	203867	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	167499	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	264803	200.00	ng/ml	0.00
37) Chrysene-d12	10.61	240	213362	200.00	ng/ml	-0.02
49) Perylene-d12	14.55	264	173446	200.00	ng/ml	-0.03
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	109516	97.65	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.77%			
20) 2,4,6 Tribromophenol	7.15	330	9093	64.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 6.42%			
36) Fluoranthene-d10	8.72	212	173727	97.88	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.79%			
42) Terphenyl-d14	9.12	244	118307	100.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 10.08%			
Target Compounds						Qvalue
2) Naphthalene	5.08	128	109254	90.37	ng/ml	99
3) 2-Methylnaphthalene	5.63	142	98706	92.18	ng/ml	93
4) 1-Methylnaphthalene	5.72	142	89815	92.72	ng/ml	93
5) Biphenyl	6.01	154	124060	92.66	ng/ml	94
6) 2,6-Dimethylnaphthalene	6.13	156	88107	90.02	ng/ml	98
11) Acenaphthylene	6.37	152	147409	86.69	ng/ml	98
12) Acenaphthene	6.52	154	92979	91.48	ng/ml	95
13) Dibenzofuran	6.65	168	133577	93.17	ng/ml	77
14) 2,3,5-Trimethylnaphthalene	6.83	170	81608	86.98	ng/ml	72
16) Fluorene	6.93	166	106638	87.75	ng/ml	96
21) Pentachlorophenol	7.61	266	769	4.82	ng/ml	87
23) Dibenzothiophene	7.63	184	131923	89.53	ng/ml	80
27) Phenanthrene	7.73	178	147053	86.32	ng/ml	100
28) Anthracene	7.77	178	128578	77.78	ng/ml	100
29) Carbazole	7.90	167	112030	77.65	ng/ml	99
30) 1-Methylphenanthrene	8.24	192	98204	82.62	ng/ml	99
35) Fluoranthene	8.74	202	152676	75.18	ng/ml	98
38) Pyrene	8.96	202	159398	94.83	ng/ml	98
43) Benz(a)anthracene	10.58	228	112056	73.50	ng/ml	99
44) Chrysene	10.66	228	126919	89.89	ng/ml	99
50) Benzo(b)fluoranthene	13.24	252	106140	82.71	ng/ml	99
51) Benzo(k)fluoranthene	13.31	252	113101	88.37	ng/ml	99
52) Benzo(e)pyrene	14.15	252	108808	94.93	ng/ml	99
53) Benzo(a)pyrene	14.33	252	87128	71.60	ng/ml	99
54) Perylene	14.64	252	98864	86.93	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F006.D
Acq On : 5 Mar 2005 9:56 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:15:18 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.40	276	69580	65.68 ng/ml	99
56)	Dibenz(a,h)anthracene	17.46	278	79304m	71.49 ng/ml	
57)	Benzo(g,h,i)perylene	17.84	276	103212	83.81 ng/ml	100

(#) = qualifier out of range (m) = manual integration

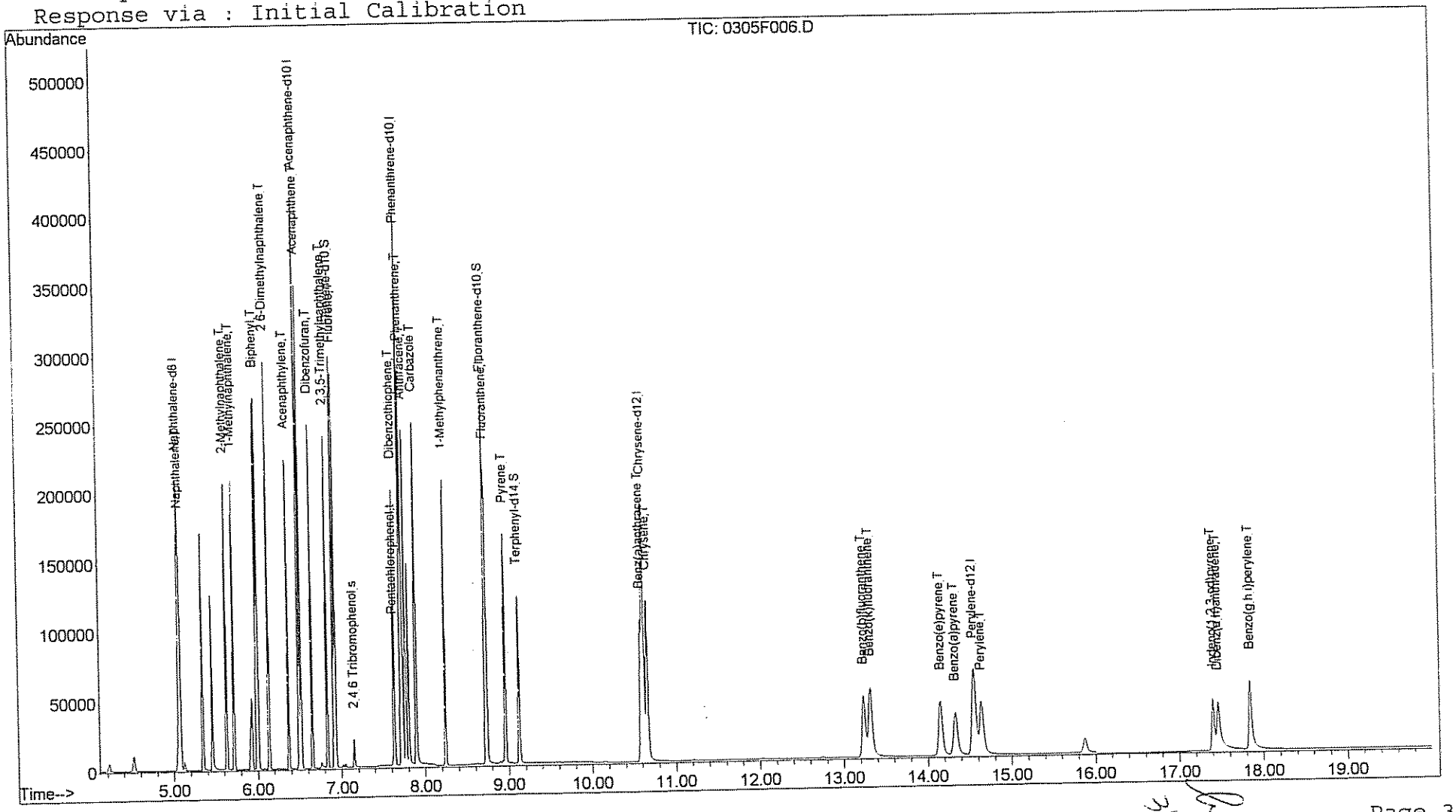
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F006.D
Acq On : 5 Mar 2005 9:56 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:18 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Initial Calibration



0305F006.D 0305ALK.M Sat Mar 05 10:19:23 2005

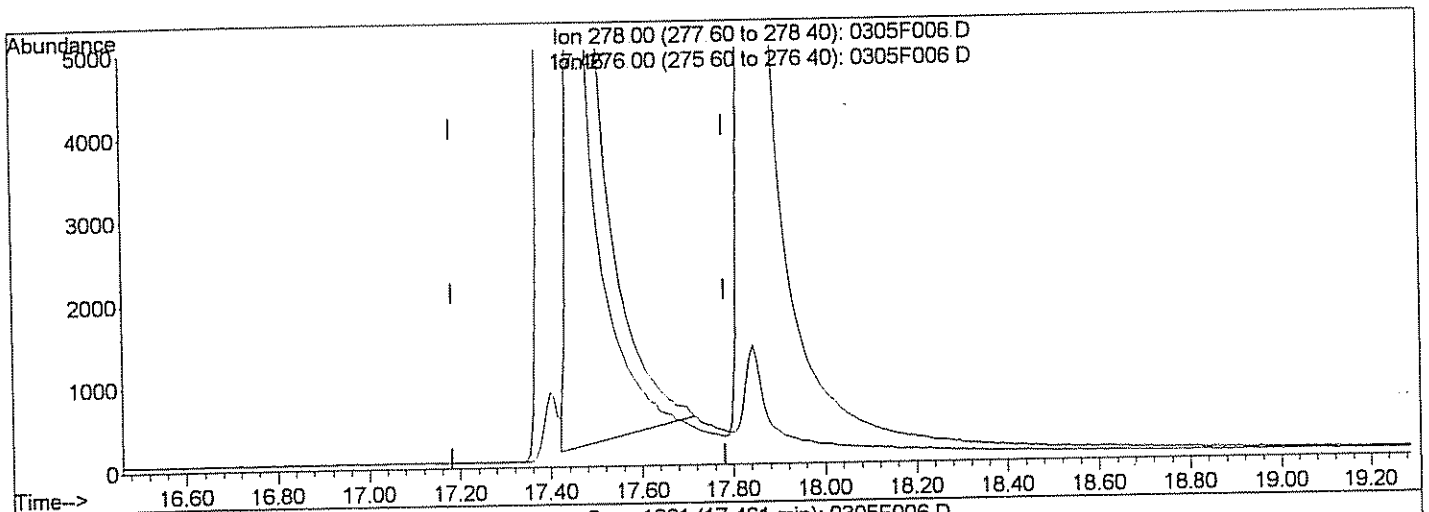
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F006.D
Acq On : 5 Mar 2005 9:56 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:18 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration



(56) Dibenz(a,h)anthracene (T)

17.46min 64.95ng/ml

response 72048

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	36.49
0.00	0.00	0.00
0.00	0.00	0.00

0305F006.D 0305ALK.M Sat Mar 05 10:18:49 2005

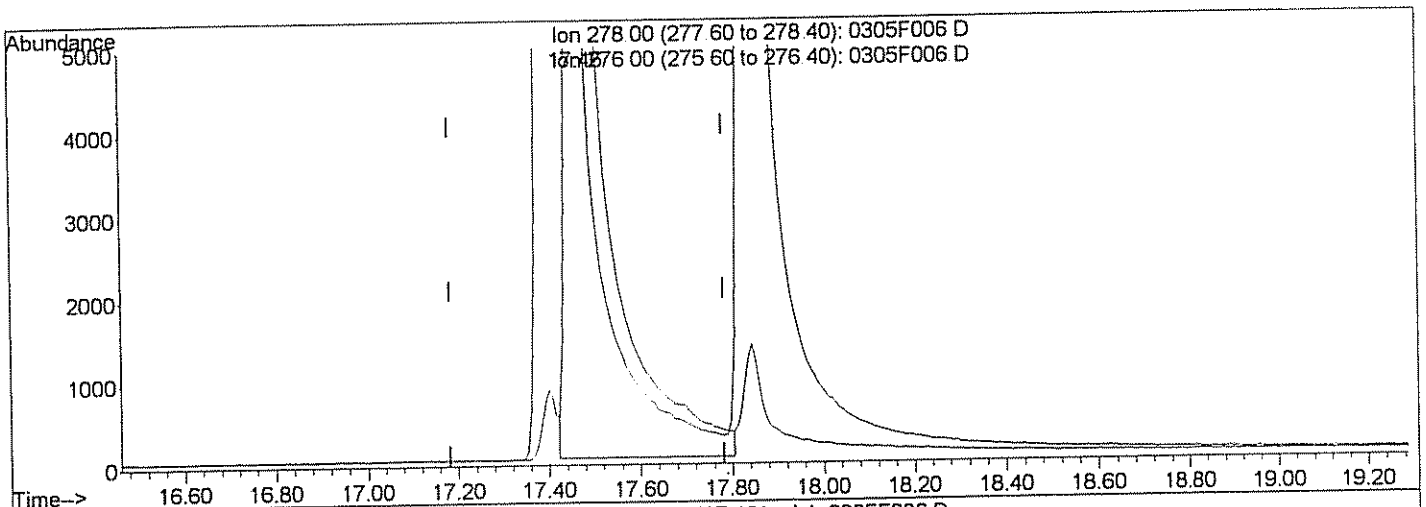
Quantitation Report (Qedit)

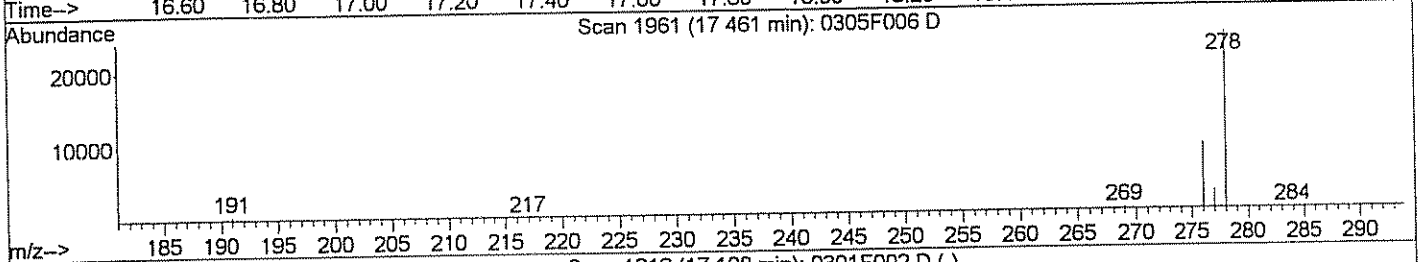
Data File : J:\MS11\DATA\030505\0305F006.D
Acq On : 5 Mar 2005 9:56 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:18 2005

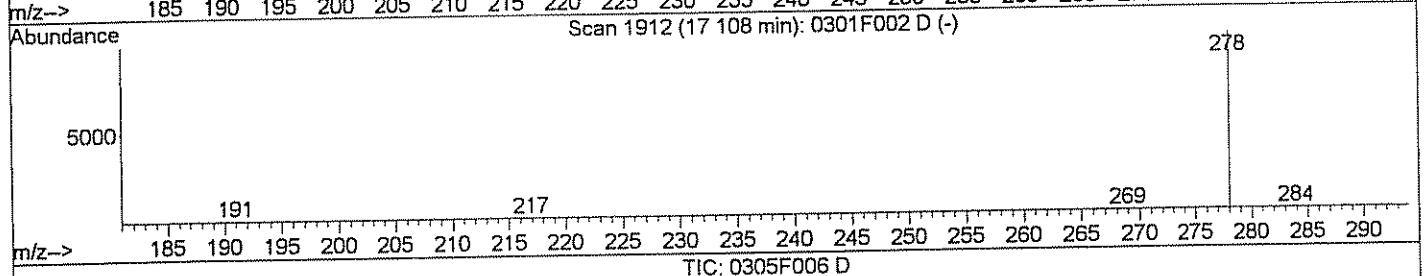
Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 07:16:45 2005
Response via : Multiple Level Calibration







TIC: 0305F006.D

(56) Dibenz(a,h)anthracene (T)

17.46min 71.49ng/ml m

response 79304

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	37.50
0.00	0.00	0.00
0.00	0.00	0.00

0305F006.D 0305ALK.M Sat Mar 05 10:18:55 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:40:36 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	210564	200.00	ng/ml	0.00
10) Acenaphthene-d10	6.50	164	167263	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	262341	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	223688	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	177660	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	222191	201.83	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.18%			
20) 2,4,6 Tribromophenol	7.15	330	21124	243.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 24.39%			
36) Fluoranthene-d10	8.72	212	355203	201.29	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.13%			
42) Terphenyl-d14	9.13	244	253056	190.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 19.06%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	225724	187.69	ng/ml	100
3) 2-Methylnaphthalene	5.63	142	204978	199.08	ng/ml	99
4) 1-Methylnaphthalene	5.72	142	183486	196.26	ng/ml	97
5) Biphenyl	6.01	154	248968	193.28	ng/ml	95
6) 2,6-Dimethylnaphthalene	6.14	156	177984	199.15	ng/ml	97
11) Acenaphthylene	6.37	152	304619	204.48	ng/ml	98
12) Acenaphthene	6.52	154	187802	196.25	ng/ml	96
13) Dibenzofuran	6.65	168	270660	195.82	ng/ml	68
14) 2,3,5-Trimethylnaphthalene	6.83	170	167074	197.86	ng/ml	76
16) Fluorene	6.93	166	214348	200.35	ng/ml	96
21) Pentachlorophenol	7.61	266	1320	88.40	ng/ml	89
23) Dibenzothiophene	7.63	184	269777	192.15	ng/ml	80
27) Phenanthrene	7.73	178	300212	187.12	ng/ml	99
28) Anthracene	7.77	178	275033m	206.01	ng/ml	
29) Carbazole	7.90	167	236177	199.33	ng/ml	96
30) 1-Methylphenanthrene	8.24	192	205838	198.60	ng/ml	98
35) Fluoranthene	8.74	202	327513	208.11	ng/ml	100
38) Pyrene	8.96	202	336320	183.40	ng/ml	99
43) Benz(a)anthracene	10.58	228	245923	182.57	ng/ml	99
44) Chrysene	10.66	228	271290	194.78	ng/ml	99
50) Benzo(b)fluoranthene	13.24	252	239279	213.75	ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	248828	220.74	ng/ml	99
52) Benzo(e)pyrene	14.16	252	235679	205.53	ng/ml	100
53) Benzo(a)pyrene	14.33	252	197937	218.84	ng/ml	99
54) Perylene	14.65	252	213625	219.95	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0305F007.D 0305ALK.M Sat Mar 05 10:41:44 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 10:40:36 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55) Indeno(1,2,3-cd)pyrene	17.40	276	153217	200.17 ng/ml	100
56) Dibenz(a,h)anthracene	17.46	278	180471m	221.07 ng/ml	
57) Benzo(g,h,i)perylene	17.84	276	224333	199.52 ng/ml	99

(#) = qualifier out of range (m) = manual integration

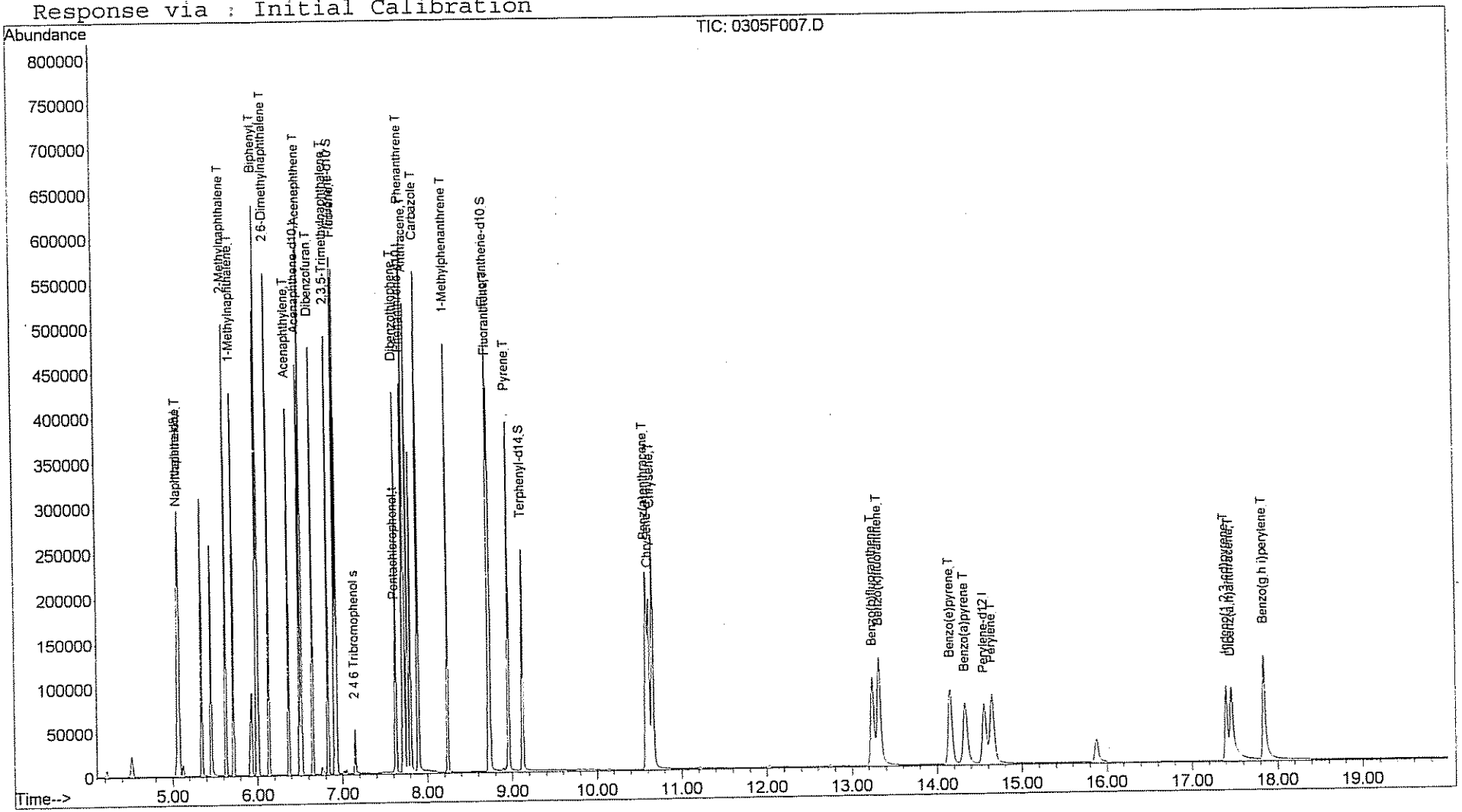
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:41 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Initial Calibration



0305F007.D 0305ALK.M Sat Mar 05 10:41:45 2005

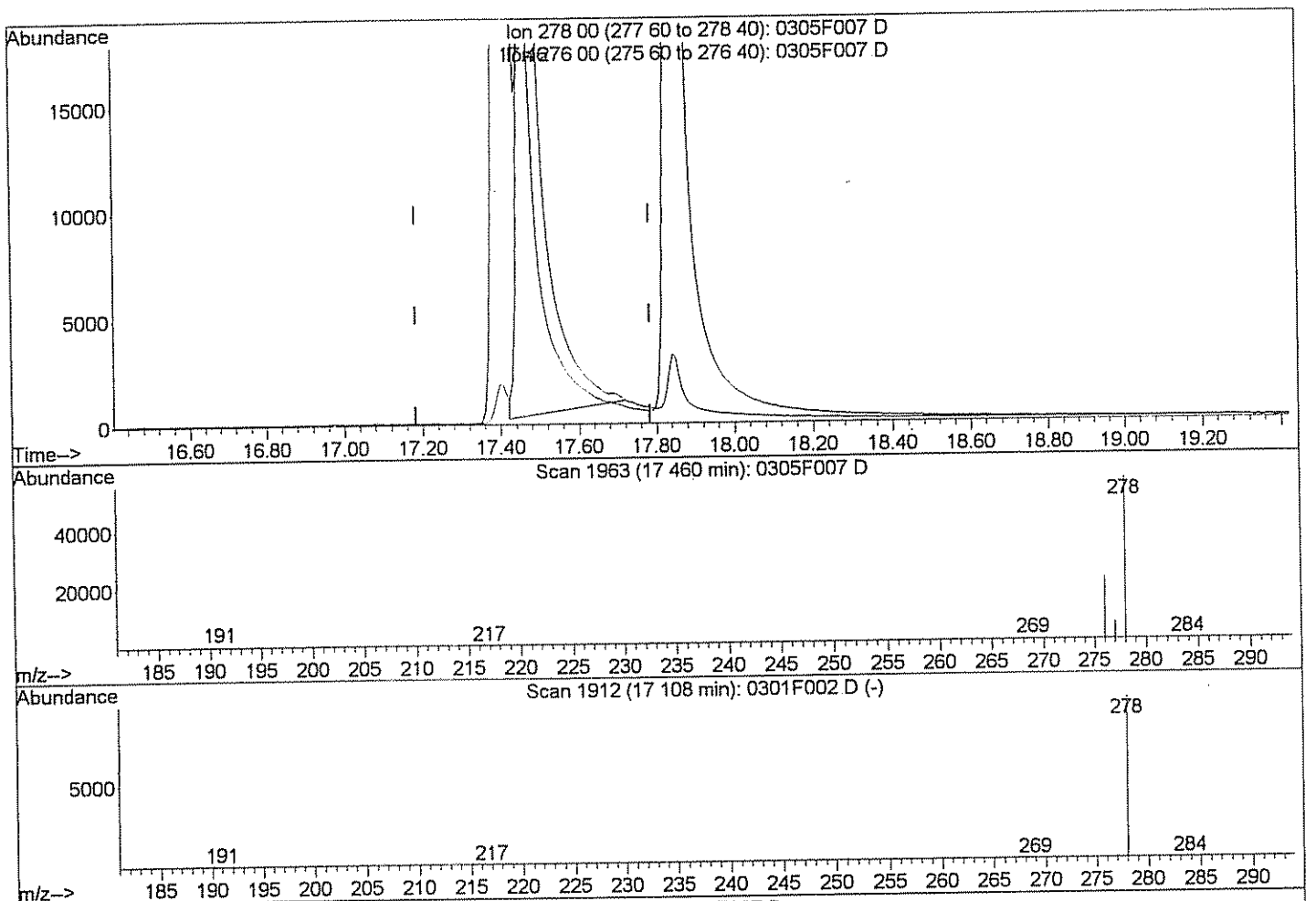
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:41 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Multiple Level Calibration



(56) Dibenz(a,h)anthracene (T)

17 46min 205 09ng/ml

response 167427

Ion	Exp%	Act%
278 00	100	100
276 00	25 30	38 06
0 00	0 00	0 00
0 00	0 00	0 00

0305F007.D 0305ALK.M Sat Mar 05 10:41:21 2005

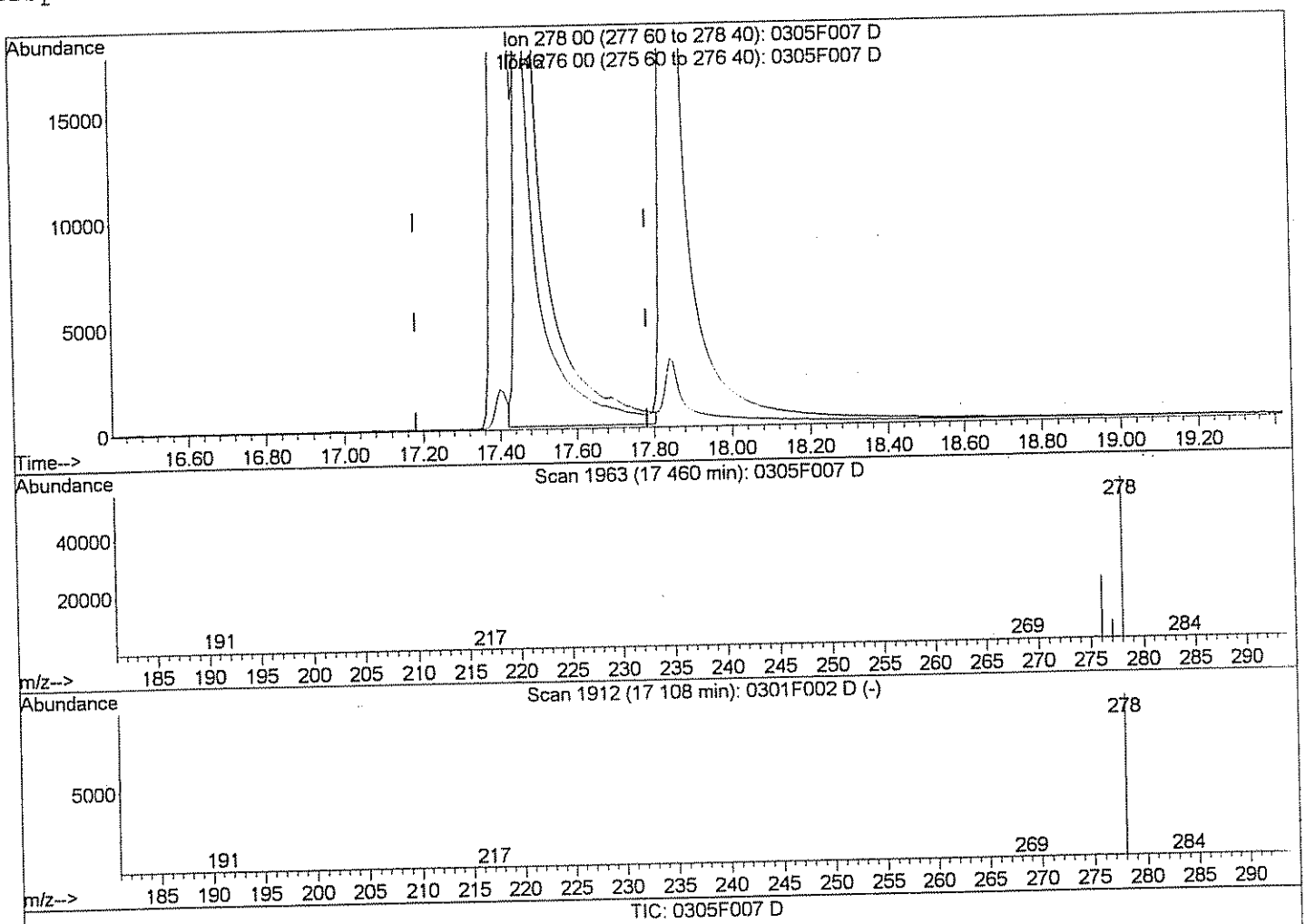
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:41 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Multiple Level Calibration



(56) Dibenz(a,h)anthracene (T)

17 46min 221 07ng/ml m

response 180471

Ion	Exp%	Act%
278 00	100	100
276 00	25 30	38 72
0 00	0.00	0 00
0 00	0 00	0 00

incomplete results

0305F007.D 0305ALK.M Sat Mar 05 10:41:34 2005

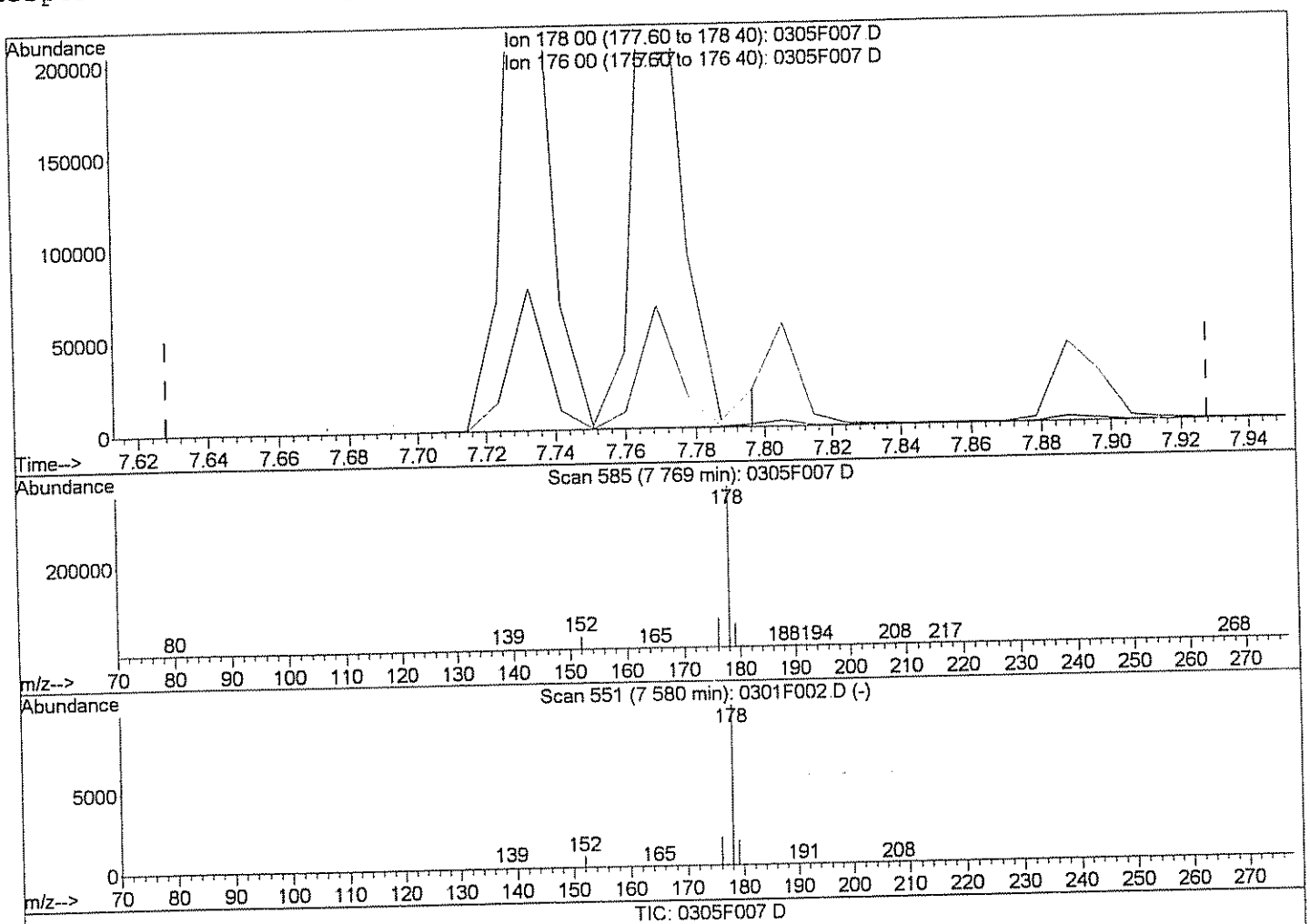
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:40 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 213.86ng/ml

response 285514

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.19
0.00	0.00	0.00
0.00	0.00	0.00

0305F007.D 0305ALK.M Sat Mar 05 10:40:57 2005

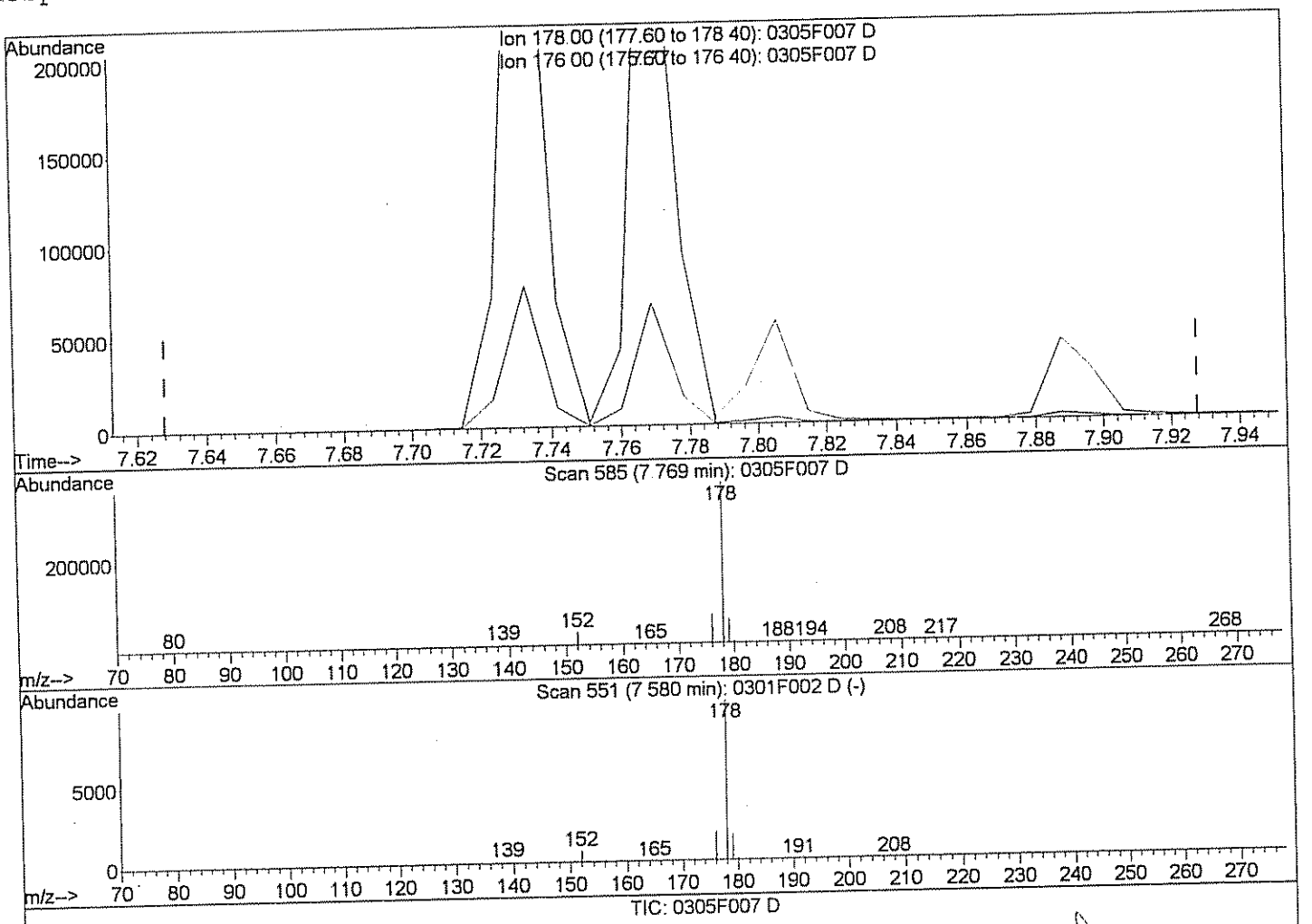
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F007.D
Acq On : 5 Mar 2005 10:22 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-6I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 10:40 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:20:07 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 206.01ng/ml m

response 275033

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.20
0.00	0.00	0.00
0.00	0.00	0.00

one integrated peak

0305F007.D 0305ALK.M Sat Mar 05 10:41:01 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F008.D
Acq On : 5 Mar 2005 10:49 am
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 11:28:53 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:41:53 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	201296	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	168271	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	262018	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	247707	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	193041	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	479789	432.41 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	43.24%	
20) 2,4,6 Tribromophenol	7.15	330	54793	586.04 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	58.60%	
36) Fluoranthene-d10	8.72	212	786464	445.66 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	44.57%	
42) Terphenyl-d14	9.13	244	573909	394.04 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.40%	

Target Compounds					Qvalue
2) Naphthalene	5.08	128	453178	399.08 ng/ml	98
3) 2-Methylnaphthalene	5.63	142	420291	427.38 ng/ml	98
4) 1-Methylnaphthalene	5.72	142	382450	429.53 ng/ml	95
5) Biphenyl	6.00	154	525545	429.67 ng/ml	99
6) 2,6-Dimethylnaphthalene	6.13	156	381720	447.16 ng/ml	98
11) Acenaphthylene	6.37	152	658900	437.68 ng/ml	98
12) Acenaphthene	6.52	154	395485	412.35 ng/ml	97
13) Dibenzofuran	6.65	168	577724	417.21 ng/ml	90
14) 2,3,5-Trimethylnaphthalene	6.83	170	364081	429.50 ng/ml	81
16) Fluorene	6.93	166	473905	440.14 ng/ml	96
21) Pentachlorophenol	7.61	266	1622	132.65 ng/ml	96
23) Dibenzothiophene	7.63	184	592424	425.82 ng/ml	78
27) Phenanthrene	7.73	178	654669	413.89 ng/ml	100
28) Anthracene	7.77	178	609405m	454.31 ng/ml	
29) Carbazole	7.90	167	530341	448.46 ng/ml	97
30) 1-Methylphenanthrene	8.24	192	453826	439.01 ng/ml	97
35) Fluoranthene	8.74	202	716306	452.05 ng/ml	99
38) Pyrene	8.96	202	740448	370.78 ng/ml	100
43) Benz(a)anthracene	10.59	228	592370	404.17 ng/ml	98
44) Chrysene	10.66	228	630068	410.65 ng/ml	100
50) Benzo(b)fluoranthene	13.24	252	567461	460.20 ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	604371	483.41 ng/ml	100
52) Benzo(e)pyrene	14.16	252	556878	444.48 ng/ml	100
53) Benzo(a)pyrene	14.33	252	491227	490.58 ng/ml	100
54) Perylene	14.65	252	517261	480.55 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F008.D
Acq On : 5 Mar 2005 10:49 am
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 11:28:53 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:41:53 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55) Indeno(1,2,3-cd)pyrene	17.40	276	375631	451.56 ng/ml	100
56) Dibenz(a,h)anthracene	17.47	278	419326	462.98 ng/ml	85
57) Benzo(g,h,i)perylene	17.84	276	527558	432.02 ng/ml	99

(#) = qualifier out of range (m) = manual integration
0305F008.D 0305ALK.M Sat Mar 05 11:29:51 2005

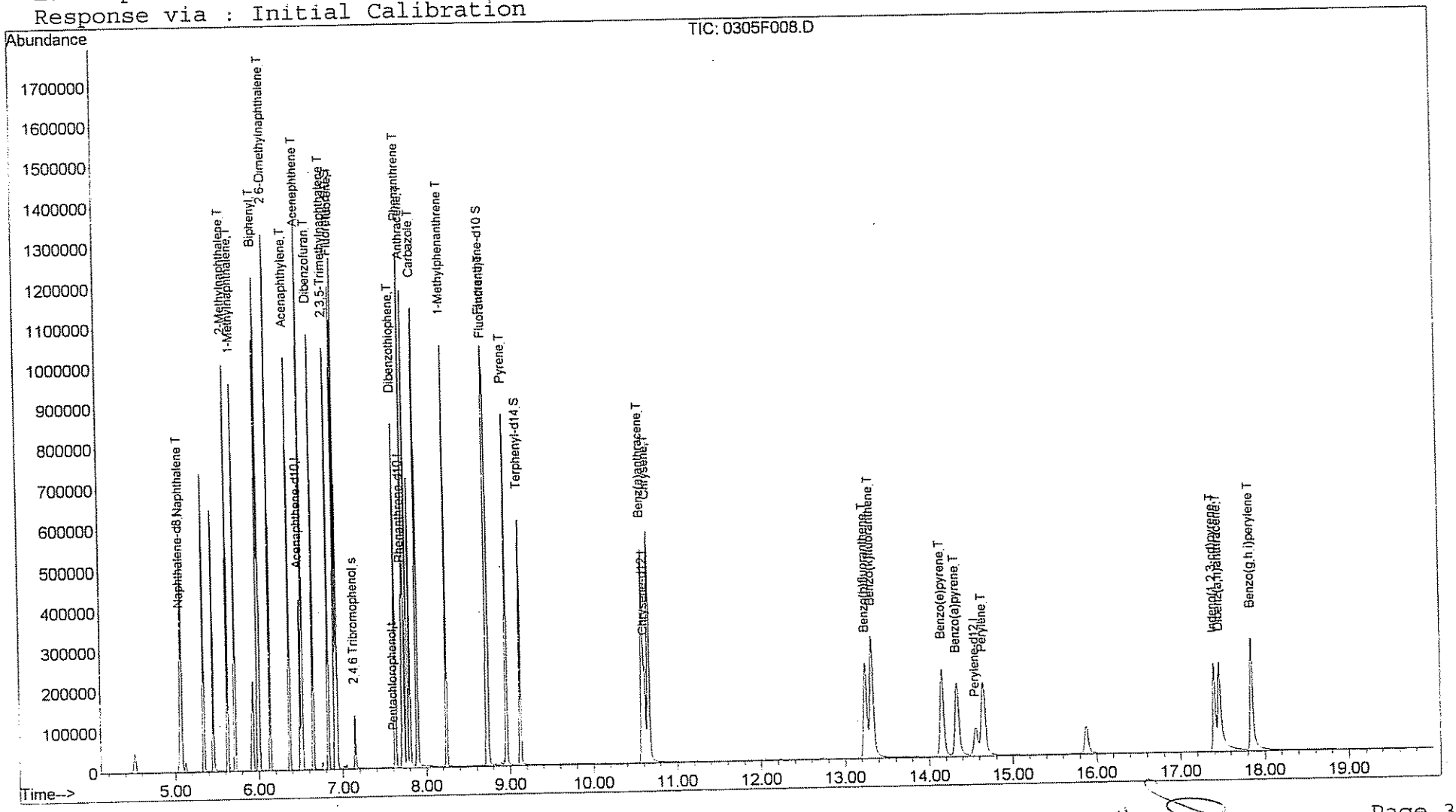
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F008.D
Acq On : 5 Mar 2005 10:49 am
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:29 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:41:53 2005
Response via : Initial Calibration



0305F008.D 0305ALK.M Sat Mar 05 11:29:52 2005

Page 3

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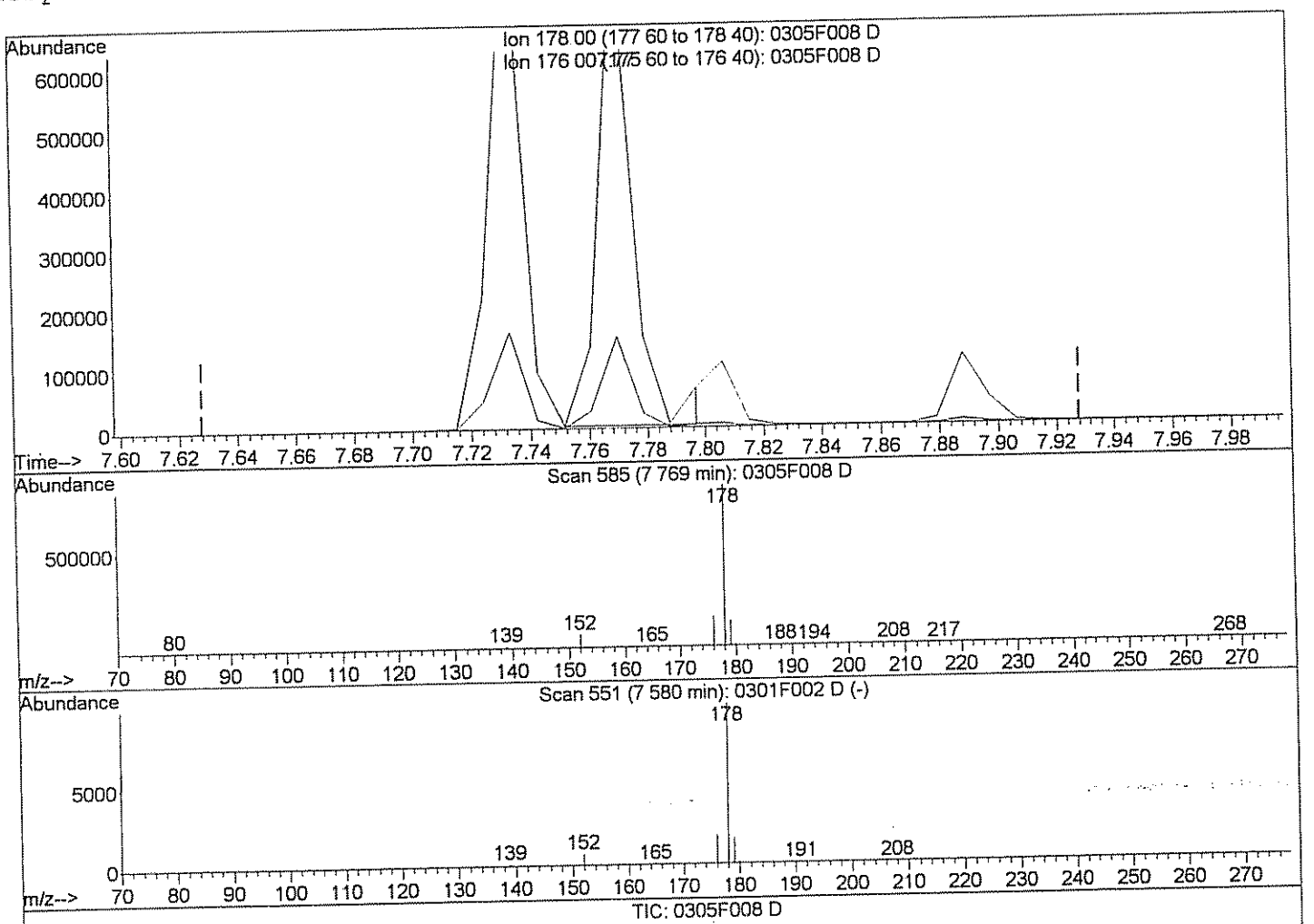
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F008.D
Acq On : 5 Mar 2005 10:49 am
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:28 2005

Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:41:53 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 473.38ng/ml

response 634987

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.70
0.00	0.00	0.00
0.00	0.00	0.00

0305F008.D 0305ALK.M Sat Mar 05 11:29:21 2005

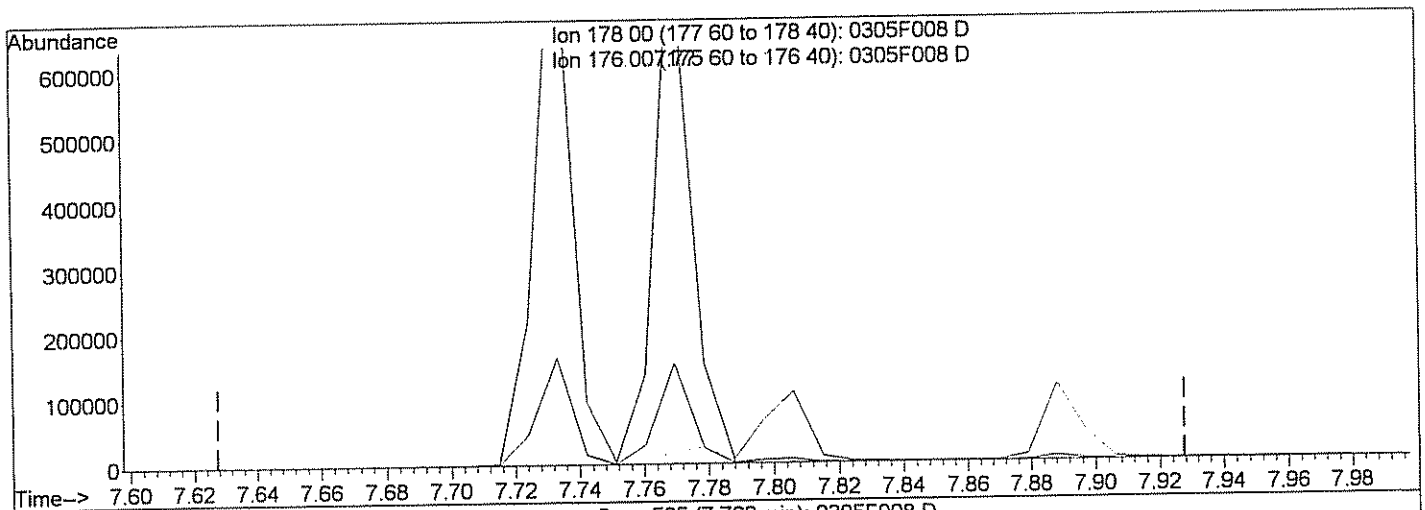
Quantitation Report (Qedit)

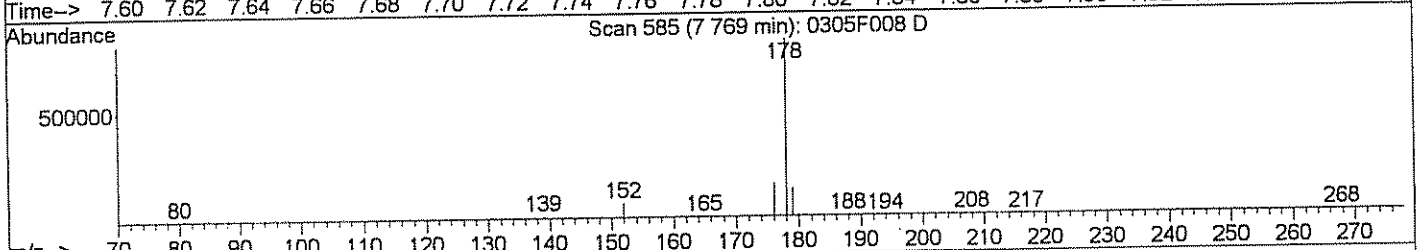
Data File : J:\MS11\DATA\030505\0305F008.D
Acq On : 5 Mar 2005 10:49 am
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-6J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:29 2005

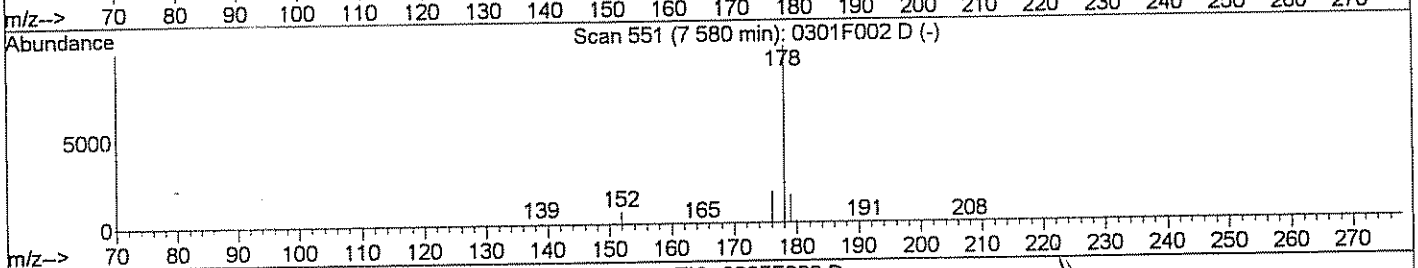
Vial: 7
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 10:41:53 2005
Response via : Multiple Level Calibration







TIC: 0305F008.D

(28) Anthracene (T)

7.77min 454.31ng/ml m

response 609405

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.70
0.00	0.00	0.00
0.00	0.00	0.00

mer integrated

0305F008.D 0305ALK.M Sat Mar 05 11:29:26 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F009.D
Acq On : 5 Mar 2005 11:16 am
Sample : SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 11:35:16 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:30:01 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	218554	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	179609	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	284620	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	286396	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	227971	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	1248726	1040.33 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.03%		
20) 2,4,6 Tribromophenol	7.15	330	214294	1923.62 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 192.36%		
36) Fluoranthene-d10	8.73	212	2049429	1049.15 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.92%		
42) Terphenyl-d14	9.13	244	1548433	921.81 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 92.18%		
Target Compounds					Qvalue
2) Naphthalene	5.07	128	1206080	978.61 ng/ml	100
3) 2-Methylnaphthalene	5.63	142	1086803	1006.38 ng/ml	95
4) 1-Methylnaphthalene	5.72	142	987225	1008.78 ng/ml	95
5) Biphenyl	6.01	154	1358426	1010.42 ng/ml	99
6) 2,6-Dimethylnaphthalene	6.14	156	995301	1053.17 ng/ml	98
11) Acenaphthylene	6.37	152	1764343	1081.03 ng/ml	99
12) Acenaphthene	6.52	154	1037530	1008.29 ng/ml	98
13) Dibenzofuran	6.65	168	1503231	1009.81 ng/ml	84
14) 2,3,5-Trimethylnaphthalene	6.83	170	953350	1040.87 ng/ml	62
16) Fluorene	6.93	166	1242914	1063.70 ng/ml	92
21) Pentachlorophenol	7.61	266	3989	366.95 ng/ml	92
23) Dibenzothiophene	7.63	184	1571981	1029.11 ng/ml	79
27) Phenanthrene	7.73	178	1670944	966.90 ng/ml	97
28) Anthracene	7.77	178	1655311m	1110.89 ng/ml	
29) Carbazole	7.90	167	1371233	1046.32 ng/ml	95
30) 1-Methylphenanthrene	8.24	192	1199657	1051.26 ng/ml	97
35) Fluoranthene	8.74	202	1872114	1064.55 ng/ml	96
38) Pyrene	8.96	202	1909187	837.06 ng/ml	97
43) Benz(a)anthracene	10.59	228	1738703	1024.27 ng/ml	99
44) Chrysene	10.66	228	1769584	993.13 ng/ml	99
50) Benzo(b)fluoranthene	13.25	252	1705455	1142.52 ng/ml	99
51) Benzo(k)fluoranthene	13.33	252	1771263	1159.38 ng/ml	100
52) Benzo(e)pyrene	14.17	252	1620341	1075.21 ng/ml	100
53) Benzo(a)pyrene	14.34	252	1497164	1220.06 ng/ml	100
54) Perylene	14.66	252	1537464	1170.22 ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F009.D
Acq On : 5 Mar 2005 11:16 am
Sample : SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 11:35:16 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:30:01 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55) Indeno(1,2,3-cd)pyrene	17.41	276	1197908	1193.77 ng/ml	100
56) Dibenz(a,h)anthracene	17.47	278	1305786	1189.61 ng/ml	87
57) Benzo(g,h,i)perylene	17.85	276	1503938	1029.15 ng/ml	100

(#) = qualifier out of range (m) = manual integration
0305F009.D 0305ALK.M Sat Mar 05 11:36:08 2005

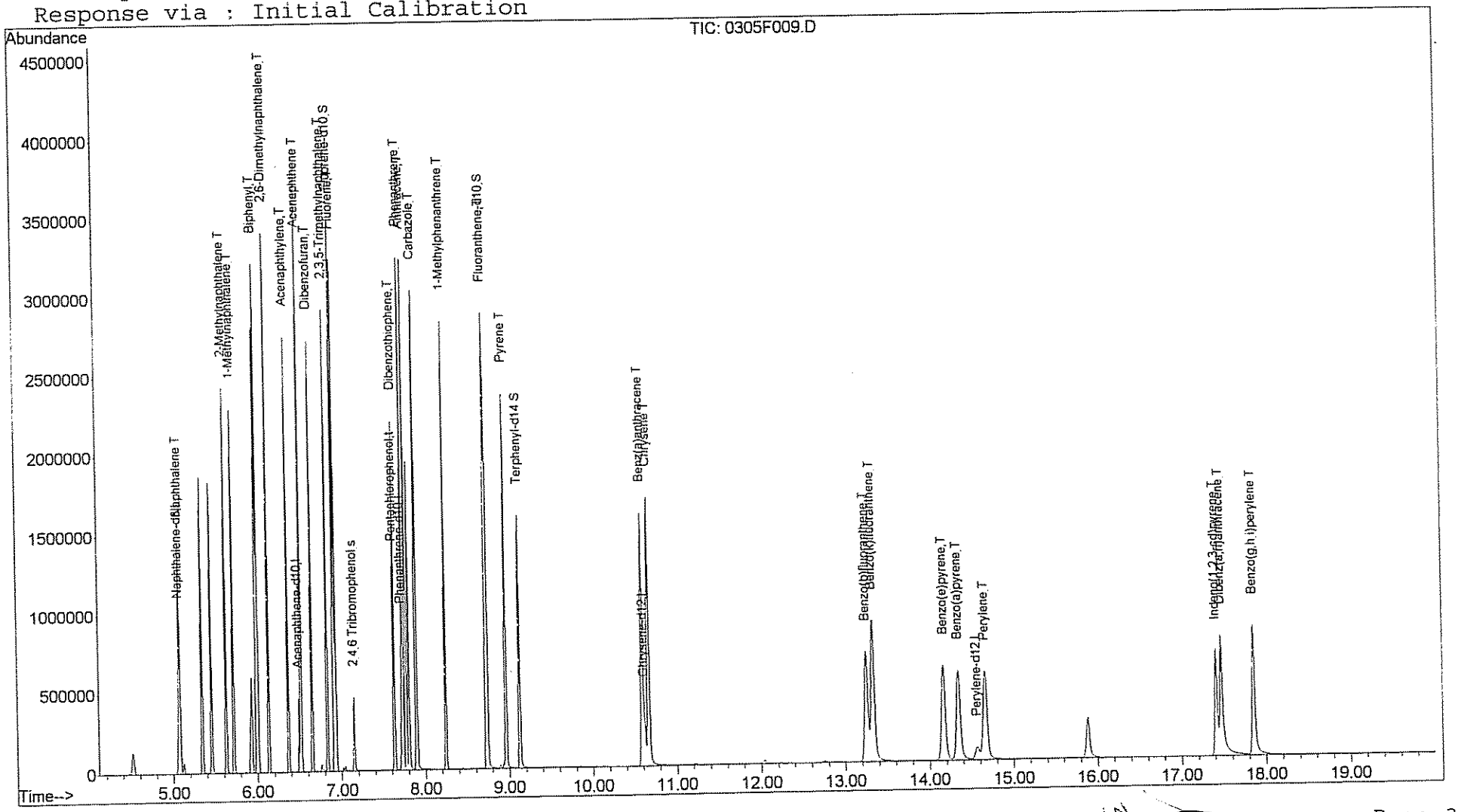
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F009.D
Acq On : 5 Mar 2005 11:16 am
Sample : SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:35 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:30:01 2005
Response via : Initial Calibration



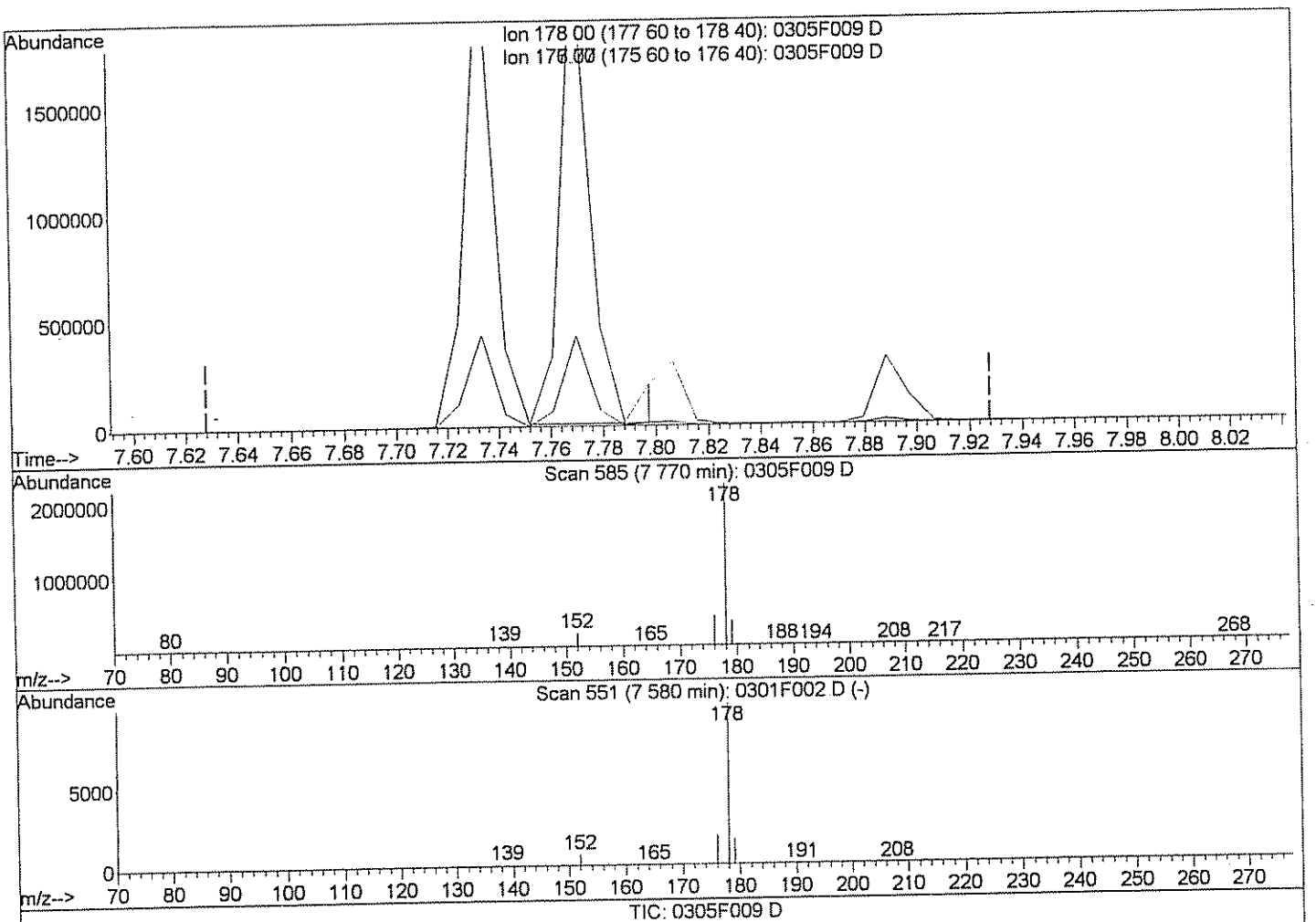
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F009.D
Acq On : 5 Mar 2005 11:16 am
Sample : SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:35 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:30:01 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 1163.10ng/ml

response 1733110

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.90
0.00	0.00	0.00
0.00	0.00	0.00

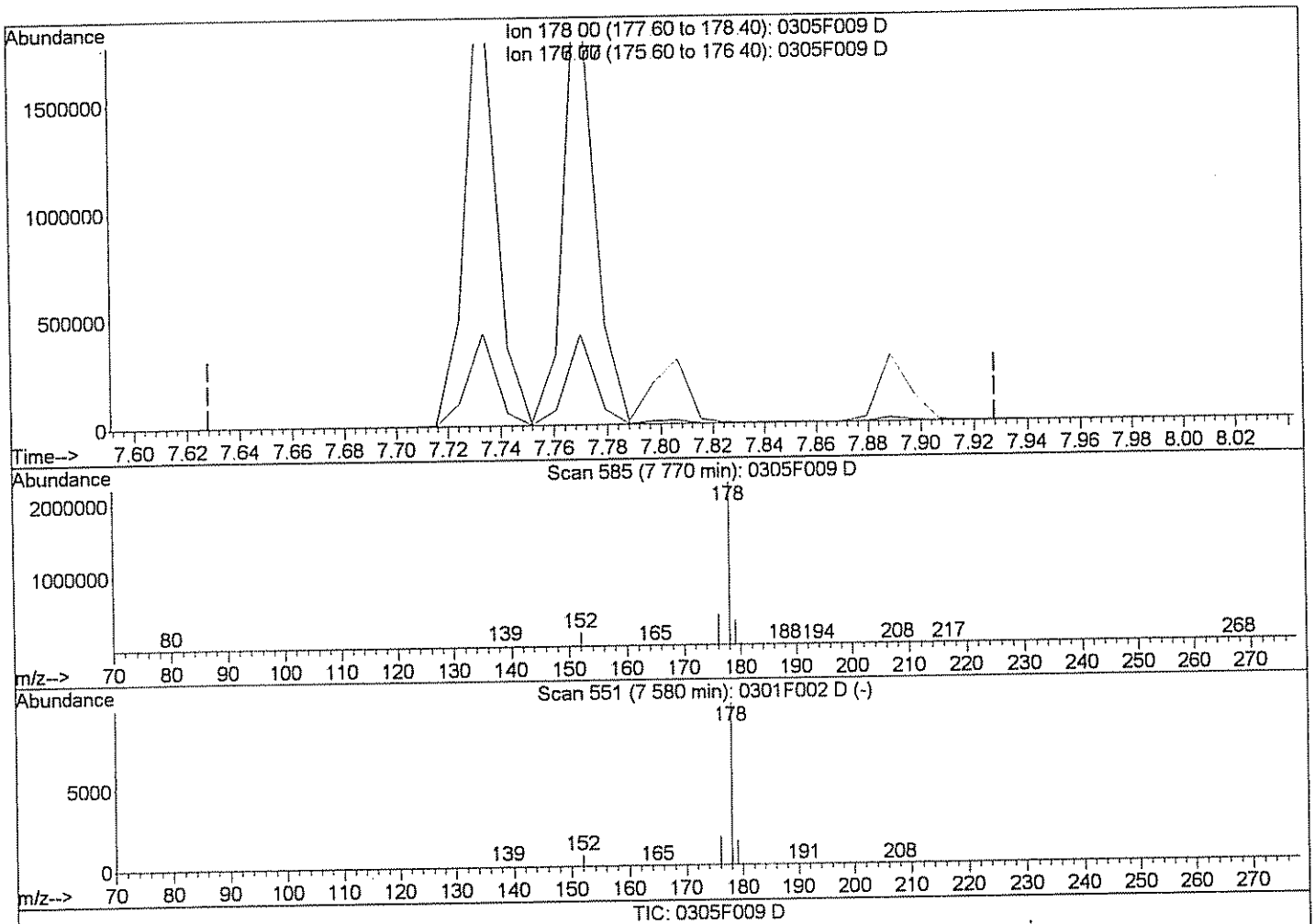
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F009.D
Acq On : 5 Mar 2005 11:16 am
Sample : SIM-PAH ICAL @ 1.0/2.0ug/mL | SVM19-6K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 11:35 2005

Vial: 8
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:30:01 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 1110.89ng/ml m

response 1655311

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.90
0.00	0.00	0.00
0.00	0.00	0.00

0305F009.D 0305ALK.M Sat Mar 05 11:35:41 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F010.D
Acq On : 5 Mar 2005 11:42 am
Sample : SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:01:03 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:36:33 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	210523	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.49	164	181532	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	288013	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	296205	200.00 ng/ml	0.00
49) Perylene-d12	14.57	264	245094	200.00 ng/ml	0.00
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	1986112	1627.75 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 162.78%		
20) 2,4,6 Tribromophenol	7.15	330	368745	2764.35 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 276.44%		
36) Fluoranthene-d10	8.73	212	3121322	1568.04 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 156.80%		
42) Terphenyl-d14	9.13	244	2503084	1457.06 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 145.71%		

Target Compounds					Qvalue
2) Naphthalene	5.07	128	1860726	1572.19 ng/ml	99
3) 2-Methylnaphthalene	5.63	142	1718488	1650.53 ng/ml	98
4) 1-Methylnaphthalene	5.72	142	1558058	1650.74 ng/ml	97
5) Biphenyl	6.01	154	2168329	1671.88 ng/ml	97
6) 2,6-Dimethylnaphthalene	6.14	156	1601510	1746.02 ng/ml	96
11) Acenaphthylene	6.37	152	2818510	1689.08 ng/ml	99
12) Acenaphthene	6.52	154	1658365	1592.67 ng/ml	94
13) Dibenzofuran	6.65	168	2429774	1612.67 ng/ml	72
14) 2,3,5-Trimethylnaphthalene	6.83	170	1529214	1642.33 ng/ml#	61
16) Fluorene	6.93	166	2001472	1679.45 ng/ml	91
21) Pentachlorophenol	7.61	266	4936	514.38 ng/ml	94
23) Dibenzothiophene	7.63	184	2461834	1586.07 ng/ml	89
27) Phenanthrene	7.73	178	2629763	1510.94 ng/ml	95
28) Anthracene	7.77	178	2631363m	1717.91 ng/ml	
29) Carbazole	7.90	167	2266664	1697.96 ng/ml	87
30) 1-Methylphenanthrene	8.24	192	1914089	1645.50 ng/ml	96
35) Fluoranthene	8.75	202	2821006	1570.74 ng/ml	94
38) Pyrene	8.96	202	2990883	1298.11 ng/ml	93
43) Benz(a)anthracene	10.59	228	2903013	1647.81 ng/ml	100
44) Chrysene	10.66	228	2939756	1596.79 ng/ml	99
50) Benzo(b)fluoranthene	13.26	252	2861236	1747.31 ng/ml	100
51) Benzo(k)fluoranthene	13.34	252	3041028	1810.23 ng/ml	99
52) Benzo(e)pyrene	14.18	252	2736191	1670.86 ng/ml	99
53) Benzo(a)pyrene	14.36	252	2609848	1917.92 ng/ml	100
54) Perylene	14.67	252	2621234	1811.68 ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F010.D
Acq On : 5 Mar 2005 11:42 am
Sample : SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 05 12:01:03 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:36:33 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	2136587	1927.10 ng/ml	100
56)	Dibenz(a,h)anthracene	17.47	278	2243818	1851.22 ng/ml	91
57)	Benzo(g,h,i)perylene	17.86	276	2514600	1593.89 ng/ml	98

(#) = qualifier out of range (m) = manual integration
0305F010.D 0305ALK.M Sat Mar 05 12:01:52 2005

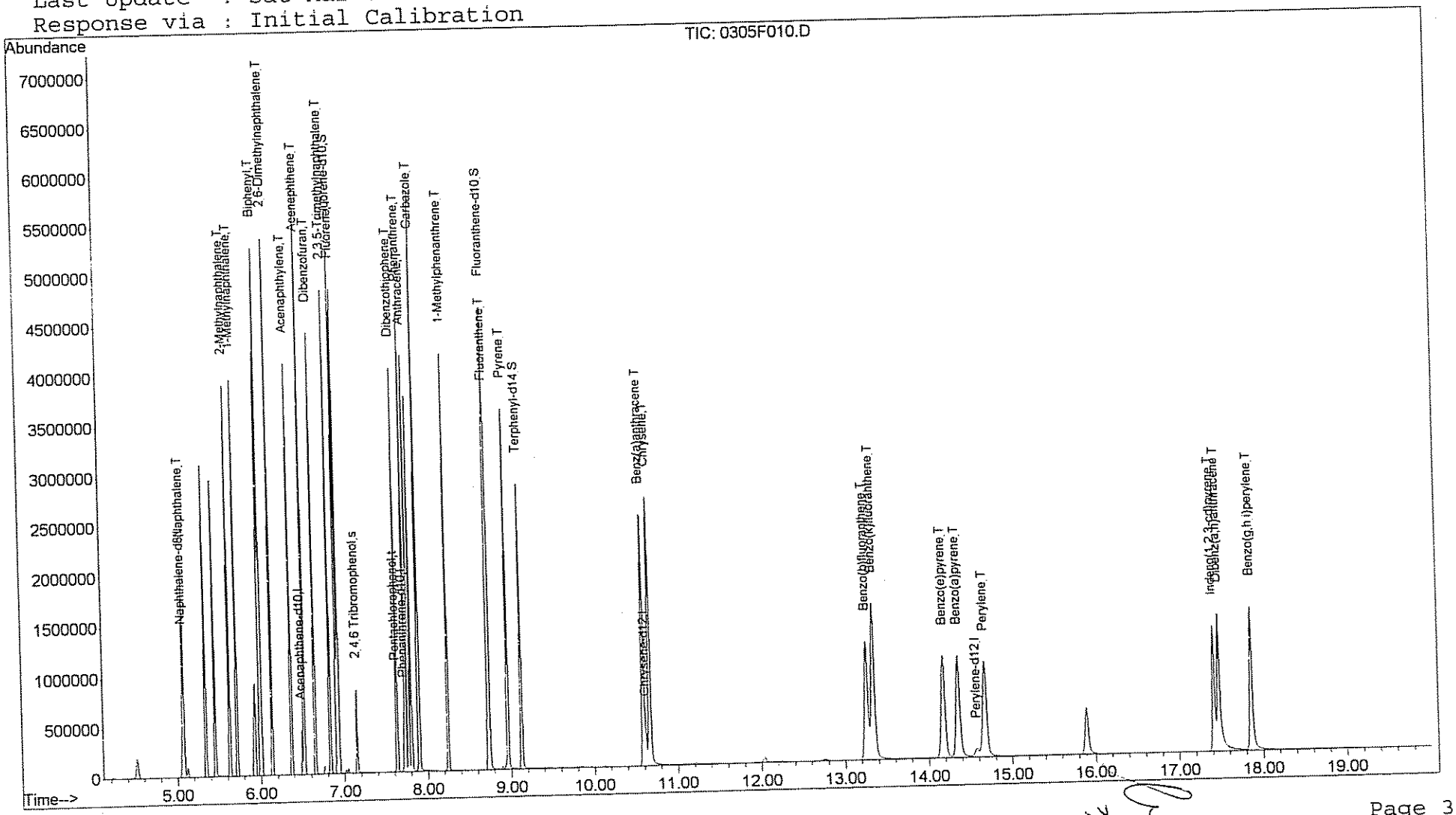
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305F010.D
Acq On : 5 Mar 2005 11:42 am
Sample : SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 12:01 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:36:33 2005
Response via : Initial Calibration



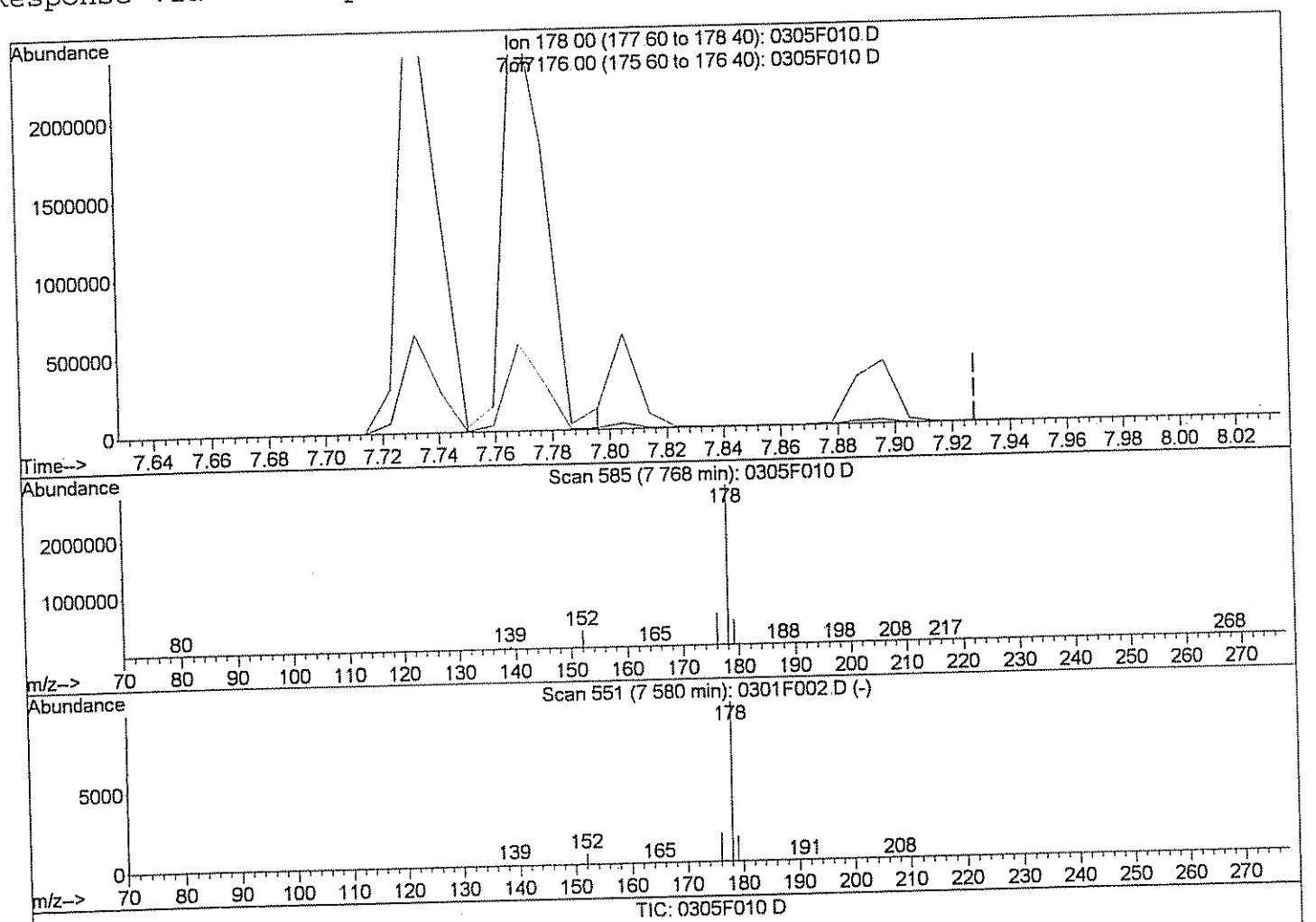
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F010.D
Acq On : 5 Mar 2005 11:42 am
Sample : SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 12:01 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:36:33 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 1764.25ng/ml

response 2702347

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	19.87
0.00	0.00	0.00
0.00	0.00	0.00

0305F010.D 0305ALK.M Sat Mar 05 12:01:24 2005

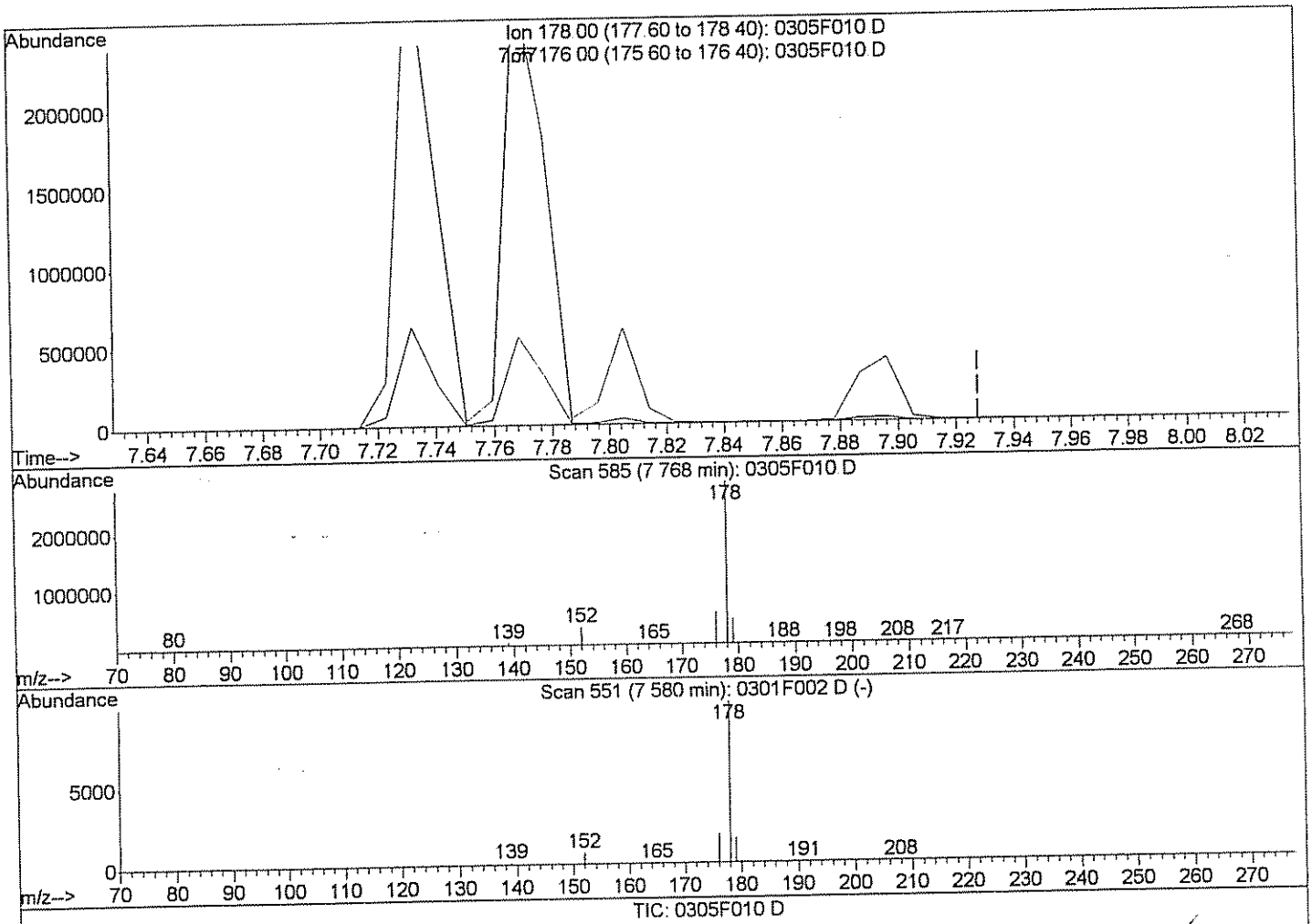
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030505\0305F010.D
Acq On : 5 Mar 2005 11:42 am
Sample : SIM-PAH ICAL @ 1.6/2.4ug/mL | SVM19-6L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 5 12:01 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Sat Mar 05 11:36:33 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7.77min 1717.91ng/ml m

response 2631363

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	19.84
0.00	0.00	0.00
0.00	0.00	0.00

over integrated

0305F010.D 0305ALK.M Sat Mar 05 12:01:29 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305G011.D
Acq On : 5 Mar 2005 12:09 pm
Sample : SIM-PAH ICV @ 0.2ug/mL | SVM19-7G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 07 06:41:05 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 06:40:43 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	237214	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	175734	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	279232	200.00 ng/ml	0.00
37) Chrysene-d12	10.61	240	235384	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	187581	200.00 ng/ml	-0.03
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	233304	197.60 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.76%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%	
36) Fluoranthene-d10	8.72	212	376095	196.88 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.69%	
42) Terphenyl-d14	9.13	244	261602	196.43 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	19.64%	
Target Compounds					Qvalue
2) Naphthalene	5.07	128	254658	193.37 ng/ml	100
3) 2-Methylnaphthalene	5.63	142	211714	180.83 ng/ml	96
4) 1-Methylnaphthalene	5.72	142	193987	182.65 ng/ml	91
5) Biphenyl	6.00	154	261281	178.31 ng/ml	99
6) 2,6-Dimethylnaphthalene	6.13	156	185987	177.76 ng/ml	100
11) Acenaphthylene	6.37	152	320374	196.80 ng/ml	98
12) Acenaphthene	6.52	154	197360	195.74 ng/ml	98
13) Dibenzofuran	6.65	168	282553	193.71 ng/ml	84
14) 2,3,5-Trimethylnaphthalene	6.83	170	173060	192.36 ng/ml	75
16) Fluorene	6.93	166	230350	198.39 ng/ml	96
23) Dibenzothiophene	7.63	184	292689	196.33 ng/ml	78
27) Phenanthrene	7.73	178	314387	190.44 ng/ml	100
28) Anthracene	7.77	178	288452	192.32 ng/ml	100
29) Carbazole	7.90	167	251648	196.18 ng/ml	97
30) 1-Methylphenanthrene	8.24	192	216543	192.70 ng/ml	98
35) Fluoranthene	8.74	202	336863	194.88 ng/ml	100
38) Pyrene	8.96	202	343051	197.76 ng/ml	99
43) Benz(a)anthracene	10.59	228	253108	186.86 ng/ml	99
44) Chrysene	10.66	228	288009	198.14 ng/ml	99
50) Benzo(b)fluoranthene	13.24	252	248834	196.73 ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	263202	200.93 ng/ml	100
52) Benzo(e)pyrene	14.15	252	247287	196.43 ng/ml	100
53) Benzo(a)pyrene	14.33	252	211111	197.21 ng/ml	100
54) Perylene	14.65	252	227757	199.00 ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.40	276	158183	183.79 ng/ml	100

(#) = qualifier out of range (m) = manual integration
0305G011.D 0305ALK.M Mon Mar 07 06:41:40 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305G011.D
Acq On : 5 Mar 2005 12:09 pm
Sample : SIM-PAH ICV @ 0.2ug/mL | SVM19-7G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 07 06:41:05 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 06:40:43 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56) Dibenz(a,h)anthracene	17.46	278	175119	185.02 ng/ml	75
57) Benzo(g,h,i)perylene	17.84	276	232311	194.42 ng/ml	99

(#) = qualifier out of range (m) = manual integration
0305G011.D 0305ALK.M Mon Mar 07 06:41:40 2005

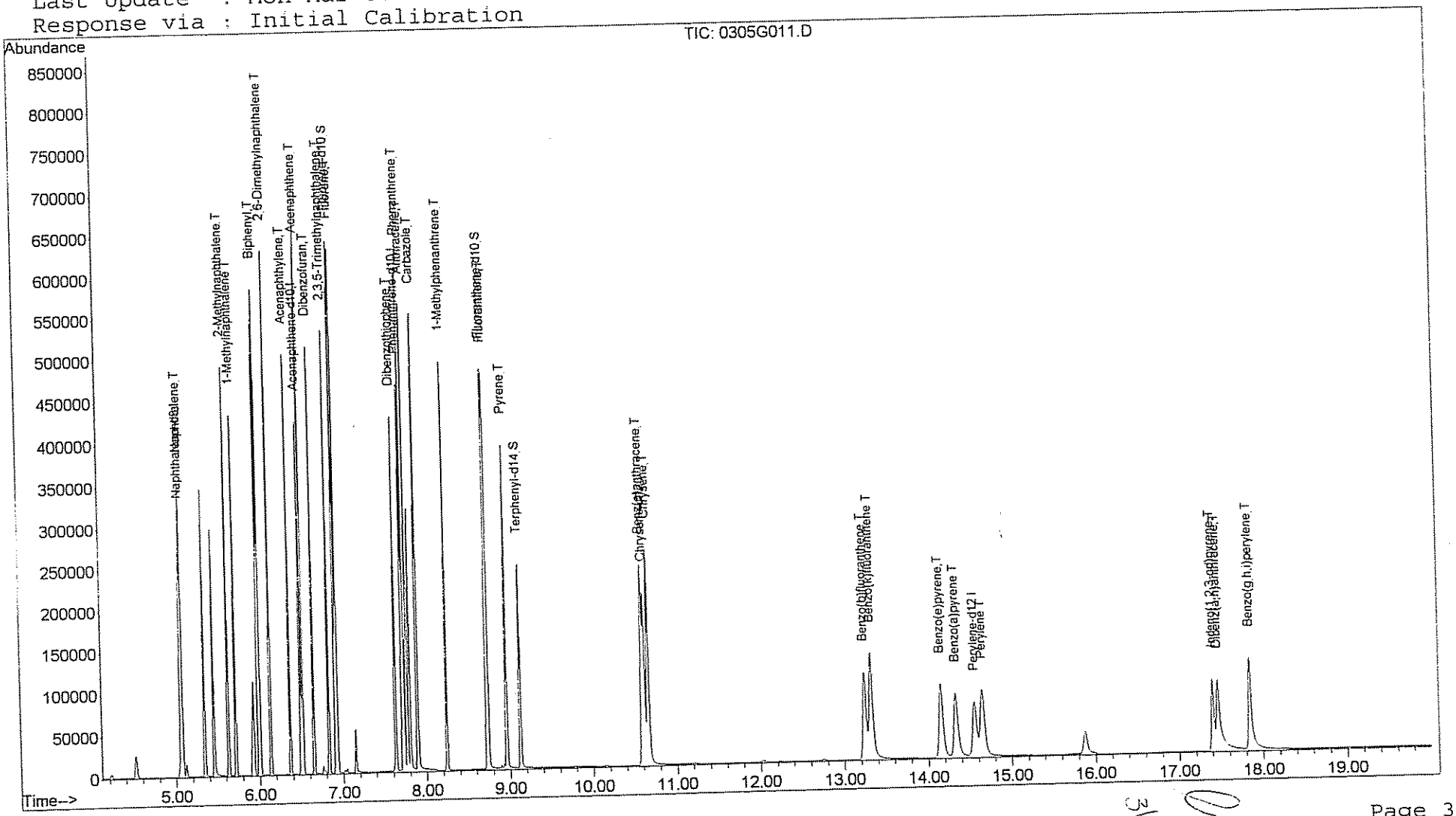
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030505\0305G011.D
Acq On : 5 Mar 2005 12:09 pm
Sample : SIM-PAH ICV @ 0.2ug/mL | SVM19-7G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 7 6:41 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 06:40:43 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/08/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/05/2005
Calibration ID: CAL4271
Analysis Lot: KWG0503808
Units: ng/ml

File ID: J:\MS11\DATA\030805\0308F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	100	97	0.01	1.11	1.08	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	100	95	0.01	0.987	0.936	-5	NA	± 20 %	AverageRF
Acenaphthylene	100	100	0.01	1.85	1.90	2	NA	± 20 %	AverageRF
Acenaphthene	100	99	0.01	1.15	1.13	-1	NA	± 20 %	AverageRF
Dibenzofuran	100	99	0.01	1.66	1.64	-1	NA	± 20 %	AverageRF
Fluorene	100	100	0.01	1.32	1.36	3	NA	± 20 %	AverageRF
Phenanthrene	100	93	0.01	1.18	1.10	-7	NA	± 20 %	AverageRF
Anthracene	100	100	0.01	1.07	1.10	3	NA	± 20 %	AverageRF
Fluoranthene	100	97	0.01	1.24	1.20	-3	NA	± 20 %	AverageRF
Pyrene	100	94	0.01	1.47	1.39	-6	NA	± 20 %	AverageRF
Benz(a)anthracene	100	100	0.01	1.15	1.17	1	NA	± 20 %	AverageRF
Chrysene	100	97	0.01	1.24	1.20	-3	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	100	95	0.01	1.35	1.28	-5	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	100	90	0.01	1.40	1.26	-10	NA	± 20 %	AverageRF
Benzo(a)pyrene	100	98	0.01	1.14	1.12	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	100	110	0.01	0.918	1.05	15	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	100	110	0.01	1.01	1.06	5	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	100	97	0.01	1.27	1.24	-3	NA	± 20 %	AverageRF
Fluorene-d10	100	100	0.01	1.34	1.36	1	NA	± 20 %	AverageRF
Fluoranthene-d10	100	97	0.01	1.37	1.33	-3	NA	± 20 %	AverageRF
Terphenyl-d14	100	94	0.01	1.13	1.06	-6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Exception Report

Data File: J:\MS11\DATA\030805\0308F003.D
Lab ID: KWG0503808-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/08/2005 06:48
Date Quantitated: 03/09/2005 09:58
Batch ID: KWG0503808
Analysis Method: 8270C SIM
MethodJoinID: MJ139

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 3/13/15

Secondary Review: 3/10/15

Printed: 03/09/2005 12:43:43
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/09/2005

Analysis Lot:	KWG0503808	Prep Lot:		Report Group:	
Analysis Method:	8270C SIM	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	J:\MS11\METHODS\SIM\0305ALK M	Calibration ID:	CAL4271
Title:		Method ID:	MJ532
Tune Ref:	J:\MS11\DATA\030805\0308F001 D	Quant based on Method	
MB Ref:			

Data File:	J:\MS11\DATA\030805\0308F003 D			Instrument:	MS11
Acqu Date:	03/08/2005 06:48	Quant Date:	03/09/2005 09:58	Vial:	1
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0503808-2			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0.00	136	232658	200 00	OK
2	Acenaphthene-d10	6 50	0 00	164	186739	200 00	OK
3	Phenanthrene-d10	7 71	0.00	188	313686	200 00	OK
4	Chrysene-d12	10 62	0.01	240	281088	200 00	OK
5	Perylene-d12	14 56	0 01	264	265128	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91			176	126916	101 16		37-107	NA
3	Fluoranthene-d10	8 72			212	208238	97 04		18-137	NA
4	Terphenyl-d14	9 13			244	149119	93 77		18-153	NA

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08			128	125794	97 39			
1	2-Methylnaphthalene	5 63			142	108886	94 82			
1	1-Methylnaphthalene	5 72			142	98259	94 33			
1	Biphenyl	6.01			154	136692	95 11			
1	2,6-Dimethylnaphthalene	6.13			156	100208	97 65			
2	Acenaphthylene	6 37			152	177221	102 45			
2	Acenaphthene	6.52			154	105861	98 81			
2	Dibenzofuran	6 65			168	152684	98 51			
2	2,3,5-Trimethylnaphthalene	6 83			170	95440	99 83			
2	Fluorene	6 93			166	126891	102 84			
3	Dibenzothiophene	7 63			184	163594	97 68			
3	Phenanthrene	7 73			178	172580	93 06			
3	Anthracene	7 77			178	173182m	102 78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 03/09/2005 12:32:47

J:\MS11\DATA\030805\0308F003 D

u:\Stealth\Crystal rpt\quant1 rpt

Data File:	J:\MS11\DATA\030805\0308F003 D	Quant Date:	03/09/2005 09:58	Instrument:	MS11
Acqu Date:	03/08/2005 06:48			Vial:	1
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0503808-2			Soln Conc. Units:	ng/ml

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 90			167	142856	99 14			
3	1-Methylphenanthrene	8 24			192	122652	97 16			
3	Fluoranthene	8 74			202	188150	96 89			
4	Pyrene	8 96			202	194737	94 01			
4	Benz(a)anthracene	10 59			228	163850	101 30			
4	Chrysene	10 67			228	169115	97 43			
5	Benzo(b)fluoranthene	13 24			252	169482	94 80			
5	Benzo(k)fluoranthene	13 32			252	166764	90 07			
5	Benzo(e)pyrene	14 15			252	161248	90 62			
5	Benzo(a)pyrene	14 33			252	148517	98 16			
5	Perylene	14 65			252	152812	94 46			
5	Indeno(1,2,3-cd)pyrene	17 40			276	139492	114 67			
5	Dibenz(a,h)anthracene	17 47			278	140515	105 04			
5	Benzo(g,h,i)perylene	17 84			276	164490	97 40			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030805\0308F003.D
Acq On : 8 Mar 2005 6:48 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 08 07:05:16 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	232658	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	186739	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	313686	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	281088	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	265128	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	126916	101.16 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.12%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%	
36) Fluoranthene-d10	8.72	212	208238	97.04 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.70%	
42) Terphenyl-d14	9.13	244	149119	93.77 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.38%	
Target Compounds					Qvalue
2) Naphthalene	5.08	128	125794	97.39 ng/ml	98
3) 2-Methylnaphthalene	5.63	142	108886	94.82 ng/ml	96
4) 1-Methylnaphthalene	5.72	142	98259	94.33 ng/ml	98
5) Biphenyl	6.01	154	136692	95.11 ng/ml	94
6) 2,6-Dimethylnaphthalene	6.13	156	100208	97.65 ng/ml	99
11) Acenaphthylene	6.37	152	177221	102.45 ng/ml	98
12) Acenaphthene	6.52	154	105861	98.81 ng/ml	98
13) Dibenzofuran	6.65	168	152684	98.51 ng/ml	81
14) 2,3,5-Trimethylnaphthalene	6.83	170	95440	99.83 ng/ml	74
16) Fluorene	6.93	166	126891	102.84 ng/ml	96
23) Dibenzothiophene	7.63	184	163594	97.68 ng/ml	80
27) Phenanthrene	7.73	178	172580	93.06 ng/ml	100
28) Anthracene	7.77	178	173182m	102.78 ng/ml	
29) Carbazole	7.90	167	142856	99.14 ng/ml	97
30) 1-Methylphenanthrene	8.24	192	122652	97.16 ng/ml	96
35) Fluoranthene	8.74	202	188150	96.89 ng/ml	97
38) Pyrene	8.96	202	194737	94.01 ng/ml	100
43) Benz(a)anthracene	10.59	228	163850	101.30 ng/ml	98
44) Chrysene	10.67	228	169115	97.43 ng/ml	98
50) Benzo(b)fluoranthene	13.24	252	169482	94.80 ng/ml	99
51) Benzo(k)fluoranthene	13.32	252	166764	90.07 ng/ml	100
52) Benzo(e)pyrene	14.15	252	161248	90.62 ng/ml	100
53) Benzo(a)pyrene	14.33	252	148517	98.16 ng/ml	99
54) Perylene	14.65	252	152812	94.46 ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.40	276	139492	114.67 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030805\0308F003.D
Acq On : 8 Mar 2005 6:48 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 08 07:05:16 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56) Dibenz(a,h)anthracene	17.47	278	140515	105.04 ng/ml	98
57) Benzo(g,h,i)perylene	17.84	276	164490	97.40 ng/ml	99

(#) = qualifier out of range (m) = manual integration
0308F003.D 0305ALK.M Wed Mar 09 09:58:47 2005

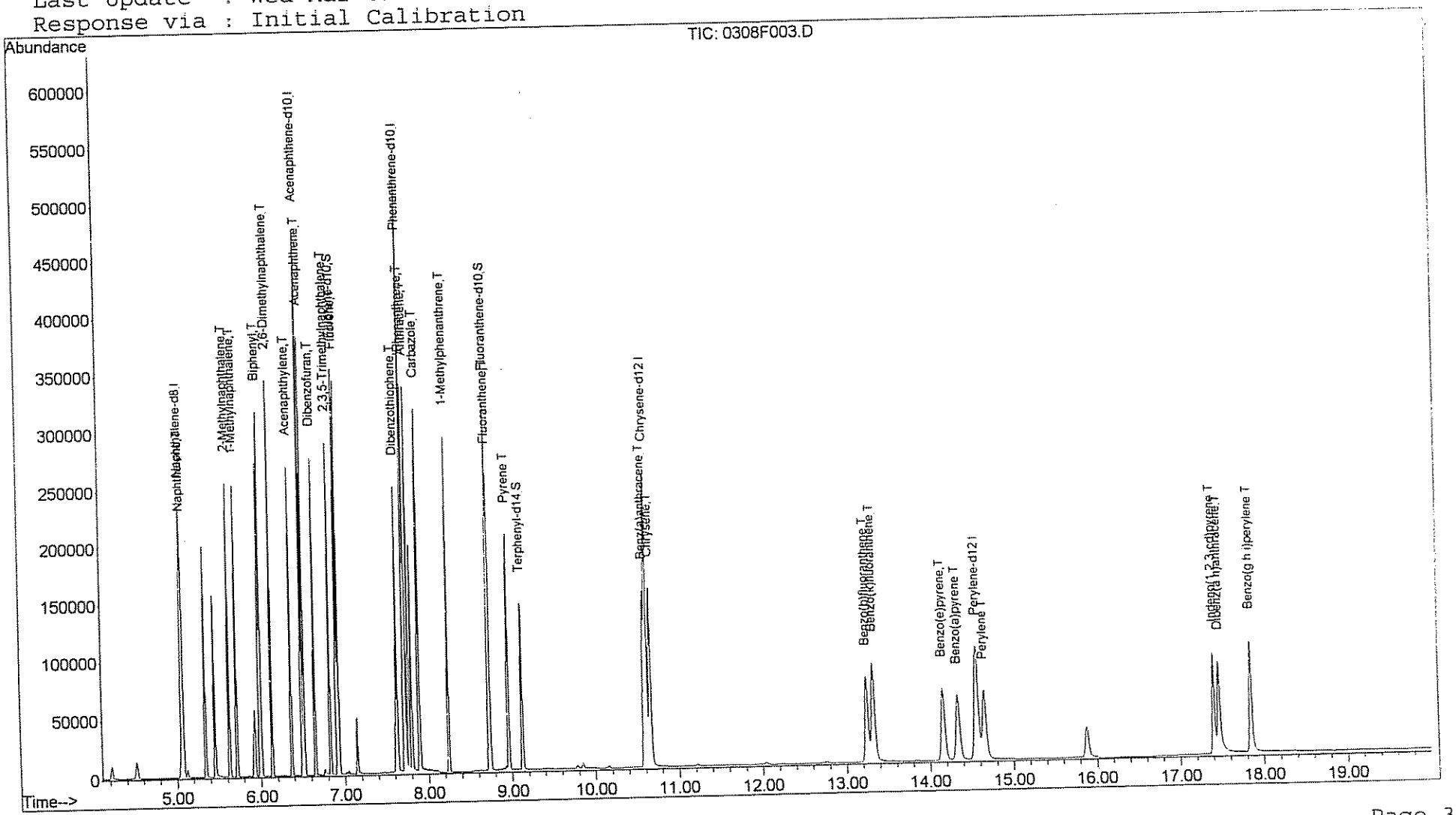
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030805\0308F003.D
Acq On : 8 Mar 2005 6:48 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 9 9:58 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Mar 09 09:58:43 2005
Response via : Initial Calibration



0308F003.D 0305ALK.M Wed Mar 09 09:58:48 2005

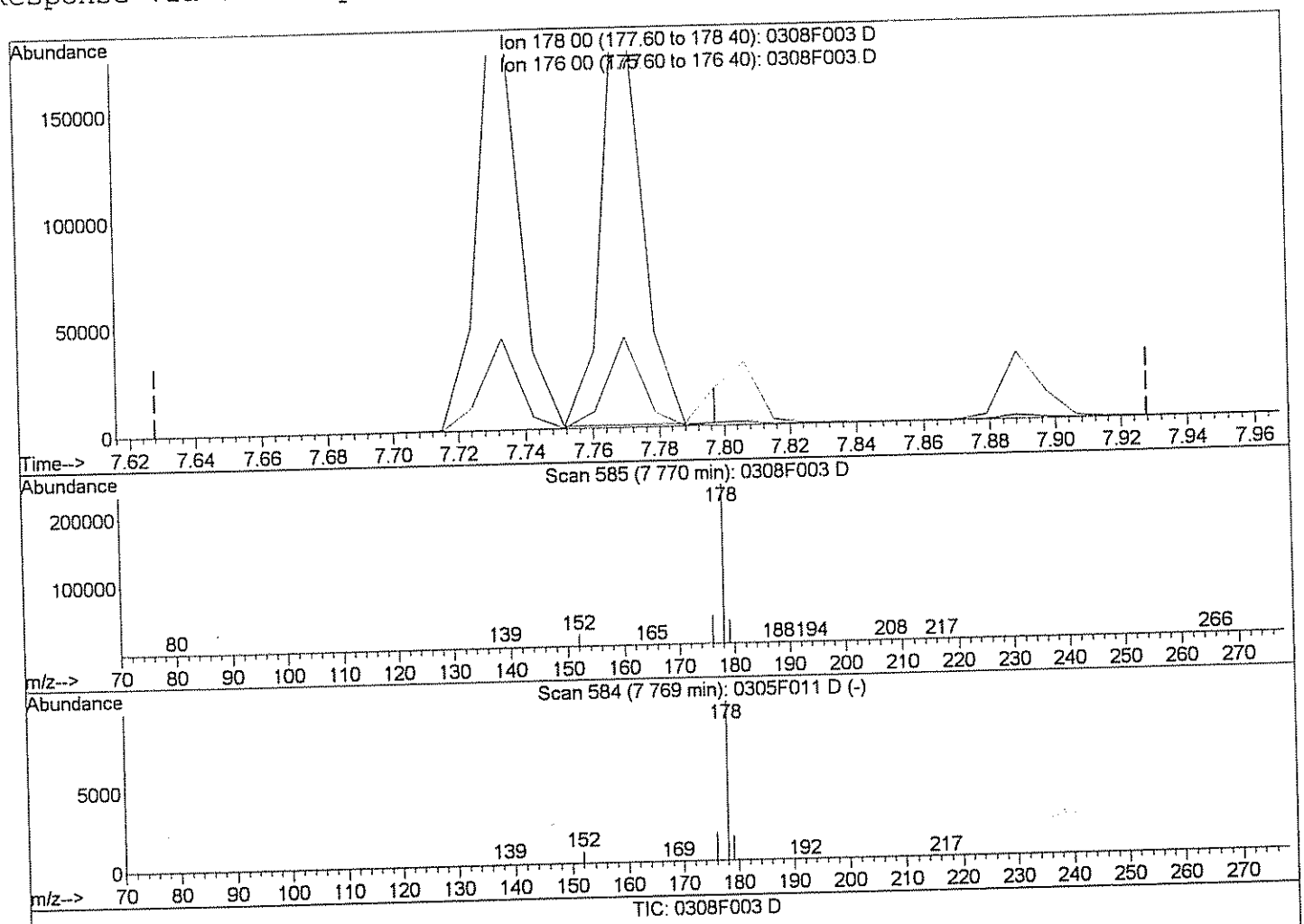
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030805\0308F003.D
Acq On : 8 Mar 2005 6:48 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 9 9:58 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7 77min 107 00ng/ml

response 180286

Ion	Exp%	Act%
178 00	100	100
176 00	17 70	17 97
0 00	0 00	0 00
0 00	0 00	0 00

0308F003.D 0305ALK.M Wed Mar 09 09:58:19 2005

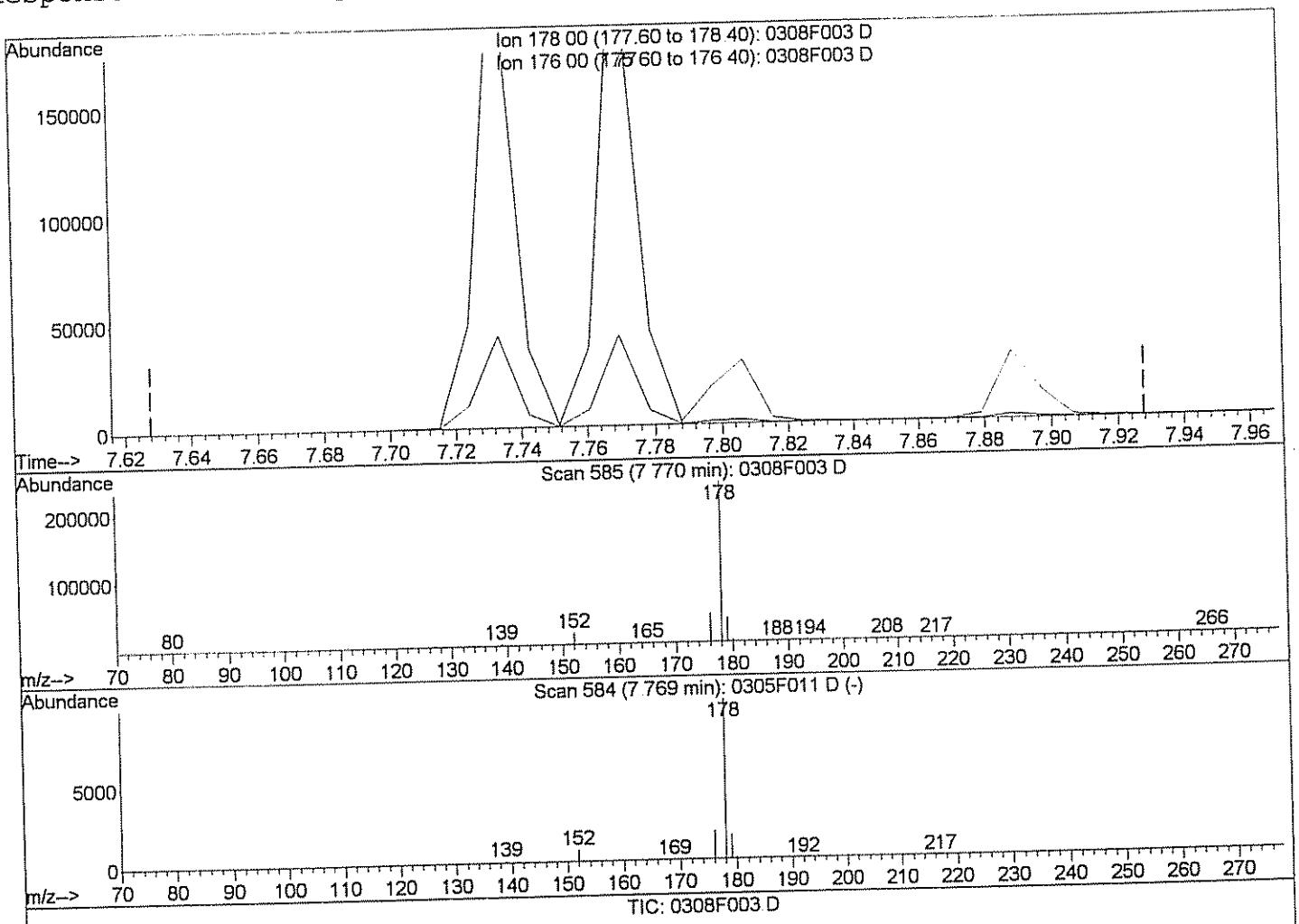
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\030805\0308F003.D
Acq On : 8 Mar 2005 6:48 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 9 9:58 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7 77min 102 78ng/ml m

response 173182

Ion	Exp%	Act%
178 00	100	100
176 00	17 70	18 00
0 00	0 00	0.00
0 00	0 00	0 00

g 3/10/5

mer integrated

L 3/9/5

0308F003.D 0305ALK.M Wed Mar 09 09:58:23 2005

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501544
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/05/2005
Calibration ID: CAL4271
Analysis Lot: KWG0504050
Units: ng/ml

File ID: J:\MS11\DATA\030905\0309F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	100	98	0.01	1.11	1.09	-2	NA	± 20 %	AverageRF
2-Methylnaphthalene	100	93	0.01	0.987	0.913	-7	NA	± 20 %	AverageRF
Acenaphthylene	100	99	0.01	1.85	1.84	-1	NA	± 20 %	AverageRF
Acenaphthene	100	99	0.01	1.15	1.14	-1	NA	± 20 %	AverageRF
Dibenzofuran	100	98	0.01	1.66	1.63	-2	NA	± 20 %	AverageRF
Fluorene	100	100	0.01	1.32	1.34	2	NA	± 20 %	AverageRF
Phenanthrene	100	96	0.01	1.18	1.14	-4	NA	± 20 %	AverageRF
Anthracene	100	99	0.01	1.07	1.07	-1	NA	± 20 %	AverageRF
Fluoranthene	100	95	0.01	1.24	1.17	-5	NA	± 20 %	AverageRF
Pyrene	100	97	0.01	1.47	1.44	-3	NA	± 20 %	AverageRF
Benz(a)anthracene	100	94	0.01	1.15	1.08	-6	NA	± 20 %	AverageRF
Chrysene	100	96	0.01	1.24	1.19	-4	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	100	91	0.01	1.35	1.22	-9	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	100	92	0.01	1.40	1.28	-8	NA	± 20 %	AverageRF
Benzo(a)pyrene	100	93	0.01	1.14	1.06	-7	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	100	88	0.01	0.918	0.809	-12	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	100	91	0.01	1.01	0.916	-9	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	100	89	0.01	1.27	1.14	-11	NA	± 20 %	AverageRF
Fluorene-d10	100	100	0.01	1.34	1.35	0	NA	± 20 %	AverageRF
Fluoranthene-d10	100	93	0.01	1.37	1.27	-7	NA	± 20 %	AverageRF
Terphenyl-d14	100	94	0.01	1.13	1.06	-6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Exception Report

Data File: J:\MS11\DATA\030905\0309F002.D
Lab ID: KWG0504050-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 07:33
Date Quantitated: 03/14/2005 07:59
Batch ID: KWG0504050
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 3/14/05

Secondary Review: 3-14-5

Printed: 03/14/2005 08:52:22
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/14/2005

Analysis Lot:	KWG0504050	Prep Lot:		Report Group:	
Analysis Method:	8270C SIM	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	J:\MS11\METHODS\SIM\0305ALK M	Calibration ID:	CAL4271
Title:		Method ID:	MJ532
Tune Ref:	J:\MS11\DATA\030905\0309F001 D	Quant based on Method	
MB Ref:			

Data File:	J:\MS11\DATA\030905\0309F002 D			Instrument:	MS11
Acqu Date:	03/09/2005 07:33	Quant Date:	03/14/2005 07:59	Vial:	1
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504050-2			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	246614	200 00	OK
2	Acenaphthene-d10	6 50	0 00	164	186852	200 00	OK
3	Phenanthrene-d10	7 72	0 01	188	306166	200 00	OK
4	Chrysene-d12	10 62	0 01	240	262521	200 00	OK
5	Perylene-d12	14 56	0 01	264	223502	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91			176	125957	100 33		37-107	NA
3	Fluoranthene-d10	8 72			212	195011	93 11		18-137	NA
4	Terphenyl-d14	9 13			244	139758	94 09		18-153	NA

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08			128	134788	98 45			
1	2-Methylnaphthalene	5 63			142	112597	92 51			
1	1-Methylnaphthalene	5 72			142	100396	90 93			
1	Biphenyl	6 00			154	138924	91 19			
1	2,6-Dimethylnaphthalene	6 14			156	99070	91 08			
2	Acenaphthylene	6 37			152	171510	99 09			
2	Acenaphthene	6 52			154	106222	99 08			
2	Dibenzofuran	6 65			168	152554	98 36			
2	2,3,5-Trimethylnaphthalene	6 83			170	93803	98 06			
2	Fluorene	6 93			166	125607	101 74			
3	Dibenzothiophene	7 63			184	153328	93 80			
3	Phenanthrene	7 73			178	174309	96 30			
3	Anthracene	7 77			178	163482	99 41			

U: Undetected at or above MDL
J: Analyte detected above MDL but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
# Acceptance criteria not applicable
? Insufficient information to determine acceptance
e Result >= MRL, but MRL less than low point of ICAL
c. check for co-elution

Printed: 03/14/2005 08:46:00

J:\MS11\DATA\030905\0309F002 D

u:\Stealth\Crystal rpt\quant1 rpt

Data File:	J:\MS11\DATA\030905\0309F002 D	Quant Date:	03/14/2005 07 59	Instrument:	MS11
Acqu Date:	03/09/2005 07 33			Vial:	1
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504050-2			Soln Conc Units:	ng/ml

Final Conc Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 90			167	143455	102 00			
3	1-Methylphenanthrene	8 24			192	114812	93 18			
3	Fluoranthene	8 74			202	179327	94 62			
4	Pyrene	8 96			202	188514	97 44			
4	Benz(a)anthracene	10 59			228	142201	94 13			
4	Chrysene	10 66			228	156288	96 41			
5	Benzo(b)fluoranthene	13 25			252	136821	90 79			
5	Benzo(k)fluoranthene	13 33			252	143315	91 82			
5	Benzo(e)pyrene	14 16			252	132517	88 34			
5	Benzo(a)pyrene	14 34			252	118591	92 98			
5	Perylene	14 66			252	127043	93 16			
5	Indeno(1,2,3-cd)pyrene	17 41			276	90400	88 15			
5	Dibenz(a,h)anthracene	17 47			278	102371	90 78			
5	Benzo(g,h,i)perylene	17 85			276	126871	89 12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
# Acceptance criteria not applicable
? Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F002.D
Acq On : 9 Mar 2005 7:33 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 09 07:49:31 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.06	136	246614	200.00 ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	186852	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.72	188	306166	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	262521	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	223502	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	125957	100.33 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 10.03%		
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00 ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%		
36) Fluoranthene-d10	8.72	212	195011	93.11 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.31%		
42) Terphenyl-d14	9.13	244	139758	94.09 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.41%		
Target Compounds					Qvalue
2) Naphthalene	5.08	128	134788	98.45 ng/ml	99
3) 2-Methylnaphthalene	5.63	142	112597	92.51 ng/ml	97
4) 1-Methylnaphthalene	5.72	142	100396	90.93 ng/ml	96
5) Biphenyl	6.00	154	138924	91.19 ng/ml	100
6) 2,6-Dimethylnaphthalene	6.14	156	99070	91.08 ng/ml	98
11) Acenaphthylene	6.37	152	171510	99.09 ng/ml	98
12) Acenaphthene	6.52	154	106222	99.08 ng/ml	99
13) Dibenzofuran	6.65	168	152554	98.36 ng/ml	88
14) 2,3,5-Trimethylnaphthalene	6.83	170	93803	98.06 ng/ml	75
16) Fluorene	6.93	166	125607	101.74 ng/ml	96
23) Dibenzothiophene	7.63	184	153328	93.80 ng/ml	80
27) Phenanthrene	7.73	178	174309	96.30 ng/ml	100
28) Anthracene	7.77	178	163482	99.41 ng/ml	98
29) Carbazole	7.90	167	143455	102.00 ng/ml	97
30) 1-Methylphenanthrene	8.24	192	114812	93.18 ng/ml	95
35) Fluoranthene	8.74	202	179327	94.62 ng/ml	99
38) Pyrene	8.96	202	188514	97.44 ng/ml	98
43) Benz(a)anthracene	10.59	228	142201	94.13 ng/ml	98
44) Chrysene	10.66	228	156288	96.41 ng/ml	100
50) Benzo(b)fluoranthene	13.25	252	136821	90.79 ng/ml	100
51) Benzo(k)fluoranthene	13.33	252	143315	91.82 ng/ml	100
52) Benzo(e)pyrene	14.16	252	132517	88.34 ng/ml	99
53) Benzo(a)pyrene	14.34	252	118591	92.98 ng/ml	100
54) Perylene	14.66	252	127043	93.16 ng/ml	99
55) Indeno(1,2,3-cd)pyrene	17.41	276	90400	88.15 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F002.D
Acq On : 9 Mar 2005 7:33 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 09 07:49:31 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 07 14:30:17 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
56) Dibenz(a,h)anthracene	17.47	278	102371	90.78	ng/ml	78
57) Benzo(g,h,i)perylene	17.85	276	126871	89.12	ng/ml	100

(#) = qualifier out of range (m) = manual integration

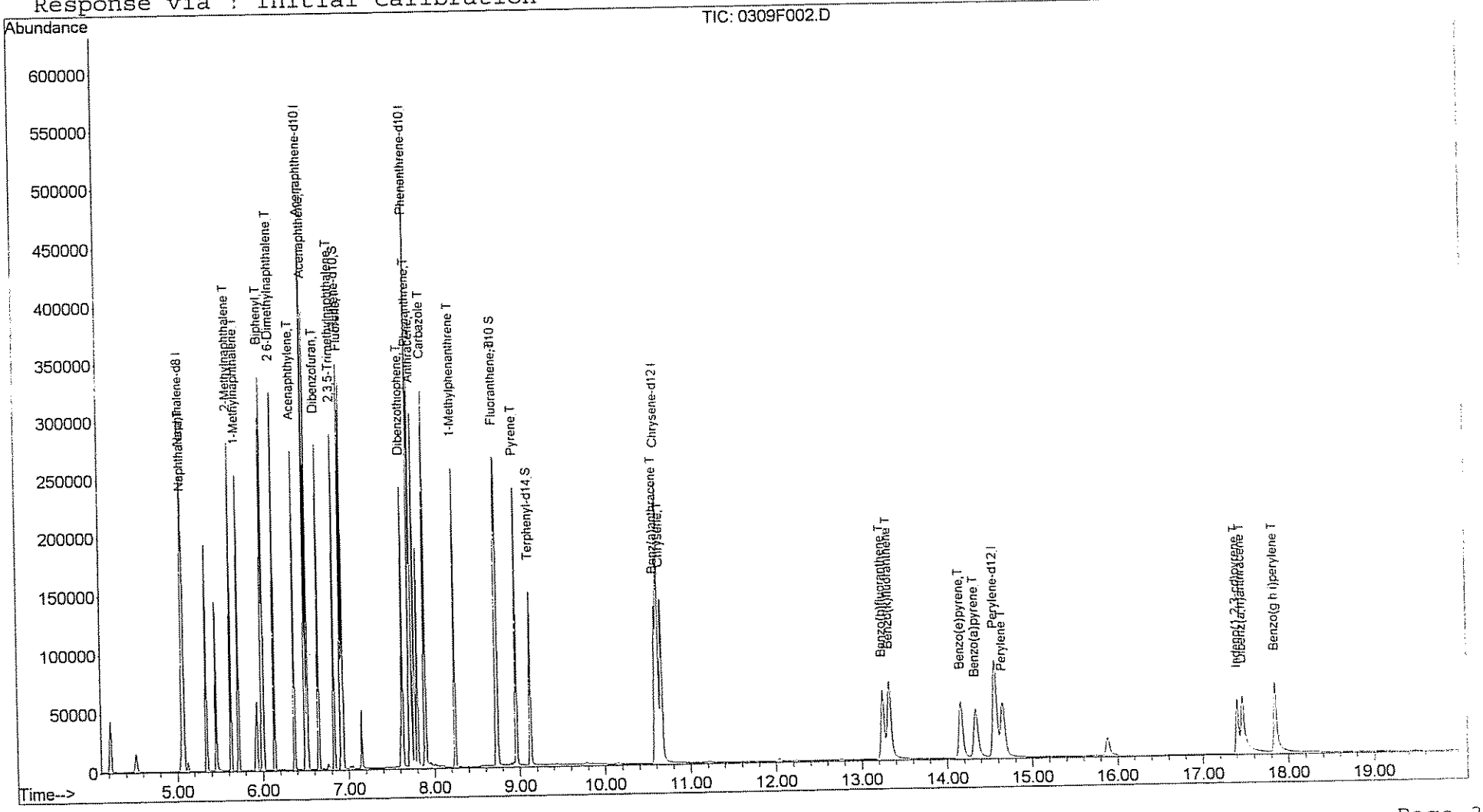
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\030905\0309F002.D
Acq On : 9 Mar 2005 7:33 am
Sample : SIM-PAH CCV @ 0.1ug/mL | SVM19-6H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 14 7:59 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0305ALK.RES

Method : J:\MS11\METHODS\SIM\0305ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Mar 14 07:59:45 2005
Response via : Initial Calibration



Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Sample Prep and Screen Data

Preparation Information

Group ID:	KWG0503522	**Prep Method:**	EPA 3535	**Prep Date:**	03/04/05 00:00
Department:	MSP				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K2501544-002	50398-02	SIM-PAH	WATER	1040ml	5ml
K2501544-003	50398-03	SIM-PAH	WATER	1040ml	5ml
K2501544-004	50398-04	SIM-PAH	WATER	1040ml	5ml
K2501544-005	50398-05	SIM-PAH	WATER	1040ml	5ml
KWG0503522-1	Matrix Spike	SIM-PAH	WATER	1040ml	5ml
KWG0503522-2	Duplicate Matrix Spike	SIM-PAH	WATER	1040ml	5ml
KWG0503522-3	Lab Control Sample	SIM-PAH	WATER	1000ml	5ml
KWG0503522-4	Method Blank	SIM-PAH	WATER	1040ml	5ml

Lab Code	Parent Lab Code	Comments
KWG0503522-1	K2501544-005	
KWG0503522-2	K2501544-005	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501544-002	365922	SVMP3-63B	20uL			MBlack
K2501544-003	365923	SVMP3-63B	20uL			MBlack
K2501544-004	365924	SVMP3-63B	20uL			MBlack
K2501544-005	365925	SVMP3-63B	20uL			MBlack
KWG0503522-1	365926	SVMP3-63B	20uL	SVMP3-66F	100uL	MBlack
KWG0503522-2	365927	SVMP3-63B	20uL	SVMP3-66F	100uL	MBlack
KWG0503522-3	365928	SVMP3-63B	20uL	SVMP3-66F	100uL	MBlack
KWG0503522-4	365929	SVMP3-63B	20uL			MBlack

Comments: IS = SVM18 - 72B

Training

Started By: SMurray — Assisted By: _____ — Yes / No

Completed By: SMurray — Assisted By: _____ — Yes / No

Reviewed By: EE — Date: 3-4-05 — Storage: A.M11

Chain of Custody

Relinquished By: [signature] — Date: 3-4-05

Received By: [signature] — Date: 3/8/05

Extracts Examined: Yes / No

Printed: 03/04/2005 14:17:35 — Preparation Information

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Preparation Information

Group ID:	KWG0503522	**Prep Method:**	EPA 3535	**Prep Date:**	03/04/05 00:00
Department:	MSP				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext.	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
1	K2501544-002	50398-02		✓	SIM-PAH	WATER	1040	7	NA	5mL	200	—
2	K2501544-003	50398-03		✓	SIM-PAH	WATER		6				—
3	K2501544-004	50398-04		✓	SIM-PAH	WATER		6				—
4	K2501544-005	50398-05		✓	SIM-PAH	WATER		7				—
5	KWG0503522-1	Matrix Spike -5		✓	SIM-PAH	WATER						100
6	KWG0503522-2	Duplicate Matrix Spike -5		✓	SIM-PAH	WATER						
7	KWG0503522-3	Lab Control Sample			SIM-PAH	WATER	1000	6				
8	KWG0503522-4	Method Blank			SIM-PAH	WATER	1040					—

Comments:

Surrogate ID: SVMP3-63B, 100/150ppm, 200, syringe, XF: 2-28-05

Spike ID: SVMP3-66F, 25ppm, 100, Epp, XF: 8-28-05

Witness: [signature] 3/4/05

Started By: SMurray Assisted By:

Completed By: SMurray Assisted By:

Additional Prep Information For Sim-Pah Water by 3535

Service Request # 1544 Work Group # KWG0503522

Solvents/Reagents used:

Acetone Lot # 442440 DCM Lot # 45014

C18xf extraction Disk Lot # 448792

Dry Disk Lot # NA

Extraction Program # 8310 Purge Program # 8270.9

Start (Time/Date/Initial): 10:00 am 3-4-05 SM

Stop (Time/Date/Initial): 11:45 am 3-4-05 SM

Cleanups:

Clean-up #1: NA ☐ all samples ☐ some samples:

Comments/Observations:

Bench Sheet Review Check List
☑ Hold Times Met (if no, Reason:)
☑ Prep date, dept, method, product code correct in stealth
☑ Spike Information correct
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked—Bottle numbers appended if required
☑ Names present for: Started by, Completed by, relinquished by, and witnessed by.
☑ Training has been circled
☑ Extract Storage recorded
☑ Additional Prep Sheet completely filled out (NA or line out Blanks)
☑ All clean-ups have been noted on additional prep sheet
☑ Signed service request with Form V, if applicable, has been attached

Injection Log

Directory. J:\MS11\DATA\030805

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0308F001.D	1	DFTPP @ 50ug/mL | SVM19-7A		8 Mar 2005 06:30
2	1	0308F003.D	1	SIM-PAH CCV @ 0.1ug/mL | SVM19-6H		8 Mar 2005 06:48
3	1	0308F004.D	1.	IB		8 Mar 2005 07:14
4	2	0308F005.D	1.	KWG0503385-3 MB		8 Mar 2005 07:41
5	3	0308F006.D	1	KWG0503522-4 MB		8 Mar 2005 08:07
6	4	0308F007.D	1.	K2501161-012		8 Mar 2005 08:35
7	5	0308F008.D	1.	K2501161-013		8 Mar 2005 09:02
8	6	0308F009.D	1.	K2501161-003		8 Mar 2005 09:29
9	7	0308F010.D	1.	K2501161-004		8 Mar 2005 09:56
10	8	0308F011.D	1.	K2501161-007		8 Mar 2005 10:23
11	9	0308F012.D	1.	K2501161-009		8 Mar 2005 12:13
12	10	0308F013.D	1.	K2501161-010		8 Mar 2005 12:39
13	11	0308F014.D	1.	KWG0503385-1 LCS		8 Mar 2005 13:06
14	12	0308F015.D	1.	KWG0503385-2 DLCS		8 Mar 2005 13:32
15	13	0308F016.D	1.	K2501428-001		8 Mar 2005 13:59
16	14	0308F017.D	1.	K2501428-002		8 Mar 2005 14:25
17	1	0308F018.D	1.	KWG0503605-5 MB		8 Mar 2005 14:52
18	2	0308F019.D	1.	K2501401-003REX		8 Mar 2005 15:19
19	3	0308F020.D	1.	K2501401-005REX		8 Mar 2005 15:45
20	4	0308F021.D	1.	KWG0503605-1 K2501401-005MS		8 Mar 2005 16:12
21	5	0308F022.D	1.	KWG0503605-2 K2501401-005DMS		8 Mar 2005 16:40
22	6	0308F023.D	1.	KWG0503605-3 LCS		8 Mar 2005 17:06
23	7	0308F024.D	1.	KWG0503605-4 DLCS		8 Mar 2005 17:33
24	8	0308F025.D	1.	KWG0503605-6 SRM 10X		8 Mar 2005 18:00
25	15	0308F026.D	1.	K2501428-003		8 Mar 2005 18:26
26	16	0308F027.D	1.	K2501428-004		8 Mar 2005 18:53
27	17	0308F028.D	1.	K2501428-005		8 Mar 2005 19:19
28	18	0308F029.D	1.	KWG0503522-3 LCS		8 Mar 2005 19:46
29	19	0308F030.D	1.	KWG0503522-1 K2501544-005MS		8 Mar 2005 20:13
30	20	0308F031.D	1.	KWG0503522-2 K2501544-005DMS		8 Mar 2005 20:40
31	21	0308F032.D	1.	K2501544-005		8 Mar 2005 21:07
32	22	0308F033.D	1.	K2501544-002		8 Mar 2005 21:33
33	23	0308F034.D	1.	K2501544-003		8 Mar 2005 22:00
34	24	0308F035.D	1.	K2501544-004		8 Mar 2005 22:27
35	25	0308F036.D	1.	Penta Accustd 1.0ppm 200		8 Mar 2005 22:54
36	26	0308F037.D	1.	Penta Accustd 1.0ppm 40		8 Mar 2005 23:21
37	27	0308F038.D	1.	Penta Ultra 1.0ppm 1000		8 Mar 2005 23:47

GZ 4271
3/9/15
3/10/15

09 Mar 2005 06:47

Injection Log

Directory: J.\MS11\DATA\030905

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0309F001.D	1	DFTPP @ 50ug/mL | SVM19-7A		9 Mar 2005 07:15
2	1	0309F002.D	1	SIM-PAH CCV @ 0.1ug/mL | SVM19-6H		9 Mar 2005 07:33
3	1	0309F003.D	1	IB		9 Mar 2005 07:59
4	2	0309F004.D	1	KWG0503385-1 LCS 2X		9 Mar 2005 08:26
5	3	0309F005.D	1	KWG0503385-2 DLCS 2X		9 Mar 2005 08:52
6	4	0309F006.D	1	K2501428-005		9 Mar 2005 09:21
7	5	0309F007.D	1	K2501428-004		9 Mar 2005 09:48
8	6	0309F008.D	1.	KWG0503522-3 LCS		9 Mar 2005 10:14
9	7	0309F009.D	1.	KWG0503522-1 K2501544-005MS		9 Mar 2005 10:42
10	8	0309F010.D	1.	KWG0503522-2 K2501544-005DMS		9 Mar 2005 11:09
11	9	0309F011.D	1.	K2501544-005		9 Mar 2005 11:37
12	10	0309F012.D	1	K2501544-002		9 Mar 2005 12:04
13	11	0309F013.D	1	K2501544-003		9 Mar 2005 12:31
14	12	0309F014.D	1.	K2501544-004		9 Mar 2005 12:58
15	2	0309F015.D	1.	KWG0503385-1 LCS 2X		9 Mar 2005 13:25
16	3	0309F016.D	1.	KWG0503385-2 DLCS 2X		9 Mar 2005 13:52
17	13	0309F017.D	1.	K2501428-003DIL 50X		9 Mar 2005 14:19
18	14	0309F018.D	1.	K2501428-004DIL 50X		9 Mar 2005 14:46
19	15	0309F019.D	1.	DFTPP @ 50ug/mL | SVM19-7A		9 Mar 2005 19:09
20	1	0309F020.D	1.	SIM-PAH CCV @ 0.2ug/mL | SVM19-6I		9 Mar 2005 19:27
21	1	0309F021.D	1.	IB		9 Mar 2005 19:53
22	2	0309F022.D	1.	KWG0503603-3 MB 2X		9 Mar 2005 20:20
23	3	0309F023.D	1.	KWG0503603-1 LCS 10X		9 Mar 2005 20:47
24	4	0309F024.D	1	KWG0503603-2 DLCS 10X		9 Mar 2005 21:13
25	5	0309F025.D	1.	K2501588-001DIL 2X		9 Mar 2005 21:40
26	6	0309F026.D	1.	K2501588-002DIL 2X		9 Mar 2005 22:07
27	7	0309F027.D	1.	K2501588-003DIL 2X		9 Mar 2005 22:33
28	8	0309F028.D	1.	K2501588-004DIL 2X		9 Mar 2005 23:00

AL 4271
3/14/05
3-14-5

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 ph (360) 636-1068 fax

Columbia Analytical Services Inc.
An Employee - Owned Company

March 23, 2005 Service Request No: K2501630

Lyn Vasquez
Navy Public Works
Environmental Laboratory Code 910
NASNI Building M-9
San Diego, CA 92135

RE: UST 43435 Camp Pendelton /201-0105

Dear Lyn:

Enclosed are the results of the sample(s) submitted to our laboratory on March 5, 2005. For your reference, these analyses have been assigned our service request number K2501630.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376.

Respectfully submitted,

Columbia Analytical Services, Inc.

Gregory Salata, Ph.D.
Project Chemist

GS/jeb

NELAP Accredited ACIL Seal of Excellence Award

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative
#	The control limit criteria is not applicable. See case narrative
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result
E	The result is an estimate amount because the value exceeded the instrument calibration range
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a matrix interference
X	See case narrative

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative
B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative
S	The reported value was determined by the Method of Standard Additions (MSA)
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance
i	The MRL/MDL has been elevated due to a matrix interference
X	See case narrative.
*	The duplicate analysis not within control limits. See case narrative
+	The correlation coefficient for the MSA is less than 0.995

Organic Data Qualifiers

*	The result is an outlier. See case narrative
#	The control limit criteria is not applicable. See case narrative
A	A tentatively identified compound, a suspected aldol-condensation product
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution
E	The result is an estimate amount because the value exceeded the instrument calibration range
J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides)
U	The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
i	The MRL/MDL has been elevated due to a chromatographic interference.
X	See case narrative.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard
Z	The chromatographic fingerprint does not resemble a petroleum product.

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Navy Public Works Center	**Service Request No.:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Received:**	03/05/05
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two water samples were received for analysis at Columbia Analytical Services on 03/05/05. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Diesel Range Organics by EPA Method 8015B

No anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260B

Initial Calibration (ICAL) Exceptions:
The primary evaluation criterion was exceeded for trans-1,3-Dichloropropene, 2-Hexanone, Styrene, Bromoform, 1,2-Dibromo-3-chloropropane, and Naphthalene in ICAL ID CAL4250. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the mean Relative Standard Deviation (RSD) of all analytes in the calibration. The result of the mean RSD calculation was 9.2%. The calibration meets the alternative evaluation criteria. Note that CAS/Kelso policy does not allow the use of averaging if any analyte in the ICAL exceeds 30% RSD.

Continuing Calibration Verification Exceptions:
The CAS minimum relative response factor criterion for tert-Butyl Alcohol was not met in CCV MS13\0316F003.D. In accordance with CAS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verifies instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270C

Initial Calibration (ICAL) Exceptions:
The primary evaluation criterion was exceeded for Indeno(1,2,3-cd)Pyrene in ICAL ID 4299. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the mean Relative Standard Deviation (RSD) of all analytes in the calibration. The result of the mean RSD calculation was 7.3%. The calibration meets the alternative evaluation criteria. CAS/Kelso policy does not allow the use of averaging if any analyte in the ICAL exceeds 30% RSD.

No other anomalies associated with the analysis of these samples were observed.

Approved by Gregory Galotta **Date** 9/24/05

Chain of Custody Documentation

1(250 1630 COC-

LABORATORY CHAIN-OF-CUSTODY

Navy Regional Environmental Laboratory
Public Works Center Code 910
Naval Air Station North Island, BLDG-M9
San Diego, CA 92135
Phone: (619)545-8431 Fax: (619)545-0793

CUSTOMER DUE DATE: 4-18-05 JOB ORDER #
PROJECT NAME: UST 43435 (CAMP Pendleton)
GLOBAL ID: TD607301714 (GEOTRACKER ONLY) LOG CODE: NPWC (GEOTRACKER ONLY)
SAMPLED BY: S. AUSIER / A. FRIAS (PRINT)

CHECK REGULATORY PROGRAM
- [x] HAZWASTE/GROUNDWATER/LUFT (RCRA)
- [ ] DRINKING WATER (SDWA)
- [ ] DISCHARGE (NPDES/CWA)
- [ ] ABATEMENT (HUD)
- [ ] OTHER

(LAB USE ONLY)
- [ ] RUSH SURCHARGE
- PROJ. # 201-0105
- [ ] NAVY IR
- [ ] OTHER

CONTACT: SWRN To follow PHONE: 40377
ALT. CONTACT: PHONE: 46950
ACTIVITY: Questions Call Allen Hollander FAX: 619-524-6000
ADDRESS: (619) 545-6005

RESULTS DELIVERY:
- [x] FAX
- [ ] PICK UP
- [x] GUARD MAIL
- [ ] (OTHER)

ANALYSIS REQUESTED

(LAB USE ONLY) LAB LOG NUMBER	GEOTRACKER ID (10 characters max.)	SAMPLE ID*	COLLECTION DATE	COLLECTION TIME	SAMPLE MATRIX	CONTAINER TYPE	NUMBER OF CONTAINERS	TPH gasoline	TPH diesel 8015M	TPH JP-5 or	TPH extended	8021 for (specify)	8021 for halogenated compounds	418.1 TRPH	8260B for VOCs	8260B for oxygenates only	8260B for VOCs and oxygenates	5035/8260B for VOCs (EnCore)	Organic Lead	8270C for ~~SVOCs~~ PAH's (SIM) SA 3/4/05	8081A for pesticides	8082 for PCBs	8310 for PNAs	6010B for Metals, Title 22	BTEX & MTBE 8260B
50425-01		QC TB	3/4/05	0700	GROUND WATER	VOA'S	3																		X
50425-02		43435-B9/MW 3		0950	↓	VARIOUS			X											X					X

Shelli Ausier

RELINQUISHED BY: SHELLI AUSIER / Shelli Ausier (PRINT & SIGN) RECEIVED BY: Allen Hollander / A. Hollander (PRINT & SIGN) DATE: 3-4-05 TIME: 1415
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: Fran Adani (PRINT & SIGN) DATE: 3/8/05 TIME: 0830
RELINQUISHED BY: (PRINT & SIGN) RECEIVED BY: (PRINT & SIGN) DATE: TIME:

COMMENTS:
* = Location of where the sample(s) were collected.

(Rev. 11/22/02 Bloom)

COOLER TEMP ____ degrees C (LAB USE ONLY)
RECEIVED ON ICE: Y [ ] N [ ]
CORRECT CONTAINER: Y [ ] N [ ]
PRESERVED: Y [ ] N [ ]
SEAL INTACT: Y [ ] N [ ] N/A [ ]
FED EX. TRACKING #

- [ ] BAC-T Form
- [ ] Field notes
- [ ] Scur Form
- [ ] SIF
- [ ] Others

3

Columbia Analytical Services Inc.
Cooler Receipt and Preservation Form

PC Grey

Project/Client NAVY Work Order K250 1630

Cooler received on 3/5/5 and opened on 3/5/5 by Hp

1. Were custody seals on outside of coolers? FX Y (N)
   If yes, how many and where? —
2. Were custody seals intact? Y N
3. Were signature and date present on the custody seals? Y N
4. Is the shipper's airbill available and filed? If no, record airbill number: 790938815125 Y (N)
5. COC#
   Temperature of cooler(s) upon receipt: (°C) 0.3
   Temperature Blank: (°C) N/P
   Were samples hand delivered on the same day as collection? Y N
6. Were custody papers properly filled out (ink, signed, etc.)? (Y) N
7. Type of packing material present BUBBLE, INSERT, MESH, ICE
8. **Did all bottles arrive in good condition (unbroken)?** (Y) N
9. Were all bottle labels complete (i.e analysis, preservation, etc.)? (Y) N
10. Did all bottle labels and tags agree with custody papers? (Y) N
11. **Were the correct types of bottles used for the tests indicated?** (Y) N
12. Were all of the preserved bottles received at the lab with the appropriate pH? Y N
13. Were VOA vials checked for absence of air bubbles, and if present, noted below? (Y) N
14. Did the bottles originate from CAS/K or a branch laboratory? Y (N)
15. **Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?** Y N
16. Was C12/Res negative? (Y) N

Explain any discrepancies:

RESOLUTION:

Samples that required preservation or received out of temperature:

Sample ID	Reagent	Volume	Lot Number	Bottle Type	Rec'd out of Temperature	Initials

Diesel & Residual Range Organics

Organic Analysis:
Diesel and Residual Range Organics

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Cover Page - Organic Analysis Data Package
Diesel and Residual Range Organics

Sample Name	Lab Code	Date Collected	Date Received
50425-02	K2501630-002	03/04/2005	03/05/2005

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

Signature: Christina Quinn

Name: CHRISTINA QUINN

Date: 13/6005

Title: SCIENTIST

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/10/2005

Diesel and Residual Range Organics

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F036.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	545 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	46	U	46	19	
CASID30160	Residual Range Organics (RRO)	92	U	92	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/10/05	Acceptable
n-Triacontane	87	50-150	03/10/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503600-6	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F009 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	50	U	50	19	
CASID30160	Residual Range Organics (RRO)	100	U	100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	84	50-150	03/09/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
50425-02	K2501630-002	84	87
Method Blank	KWG0503600-6	81	84
Batch QC	K2501544-005	84	88
Batch QCMS	KWG0503600-2	79	86
Batch QCDMS	KWG0503600-3	75	79
Lab Control Sample	KWG0503600-4	76	80
Duplicate Lab Control Sample	KWG0503600-5	70	74

Surrogate Recovery Control Limits (%)

Sur1 = o-Terphenyl	52-128
Sur2 = n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005 - 03/10/2005

Matrix Spike/Duplicate Matrix Spike Summary
Diesel and Residual Range Organics

Sample Name: Batch QC
Lab Code: K2501544-005

Units: ug/L
Basis: NA

Extraction Method: EPA 3510C
Analysis Method: 8015M

Level: Low
Extraction Lot: KWG0503600

Analyte Name	Sample Result	Batch QCMS KWG0503600-2 Matrix Spike			Batch QCDMS KWG0503600-3 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Diesel Range Organics (DRO)	47	2700	2910	91	2910	2910	99	57-158	8	30
Residual Range Organics (RRO)	28	1350	1450	91	1430	1450	97	45-157	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0503600

	Lab Control Sample KWG0503600-4 Lab Control Spike			Duplicate Lab Control Sample KWG0503600-5 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	2630	3200	82	2620	3200	82	67-151	0	30
Residual Range Organics (RRO)	1290	1600	80	1270	1600	80	59-146	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/07/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005
		Time Analyzed:	19:50

Method Blank Summary
Diesel and Residual Range Organics

Sample Name:	Method Blank	**File ID:**	J:\GC21\DATA\030905\0309F009 D
Lab Code:	KWG0503600-6	**Instrument ID:**	gc21
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503600-4	J:\GC21\DATA\030905\0309F007 D	03/09/05	19:15
Duplicate Lab Control Sample	KWG0503600-5	J:\GC21\DATA\030905\0309F008 D	03/09/05	19:33
Batch QC	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
Batch QCMS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
Batch QCDMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11
50425-02	K2501630-002	J:\GC21\DATA\030905\0309F036 D	03/10/05	03:39

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Lab Control Sample/Duplicate Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0503600-4	**Lab Code:**	KWG0503600-5
File ID:	J:\GC21\DATA\030905\0309F007 D	**File ID:**	J:\GC21\DATA\030905\0309F008 D
Instrument ID:	gc21	**Instrument ID:**	gc21
Date Extracted:	03/07/2005	**Date Extracted:**	03/07/2005
Date Analyzed:	03/09/2005	**Date Analyzed:**	03/09/2005
Time Analyzed:	19:15	**Time Analyzed:**	19:33

Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503600-6	J:\GC21\DATA\030905\0309F009 D	03/09/05	19:50
Batch QC	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
Batch QCMS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
Batch QCDMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11
50425-02	K2501630-002	J:\GC21\DATA\030905\0309F036 D	03/10/05	03:39

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Level ID	File ID	Level ID	File ID
A	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F017 D	H	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F031 D
B	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F019 D	I	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F033 D
C	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F021 D	J	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F035 D
D	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F023 D	K	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F037 D
E	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F025 D	L	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F039 D
F	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F027 D	M	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F041 D
G	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F029 D	N	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F043 D

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Diesel Range Organics (DRO)				B	20	23800				D	50	23700			
	F	200	25800				H	500	25800				J	1000	25800
				L	2000	26300				N	5000	26100			
Residual Range Organics (RRO)	A	20	16200				C	50	15600				E	200	17600
				G	500	18600				I	1000	17600			
	K	2000	17600				M	5000	17400						
o-Terphenyl				B	1.0	30200				D	2.5	32200			
	F	10	34600				H	25	34800				J	50	34500
				L	100	35100				N	250	34700			
n-Triacontane										D	2.5	24400			
	F	10	28900				H	25	29300				J	50	29700
				L	100	30200									

Results flagged with an asterisk (*) indicate values outside control criteria

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	4 3		≤ 20
Residual Range Organics (RRO)	MS	AverageRF	% RSD	5 8		≤ 20
o-Terphenyl	SURR	AverageRF	% RSD	5 4		≤ 20
n-Triacontane	SURR	AverageRF	% RSD	8 2		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004
Date Analyzed: 11/23/2004

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration ID: CAL4011
Units: ppm

File ID: J:\GC21\DATA\CALIBRAT\112204 SEC\1122F051.D
J:\GC21\DATA\CALIBRAT\112204 SEC\1122F059.D

Column ID: RTX-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1100	25300	28600	13	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	1100	17200	19300	12	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F003.D
J:\GC21\DATA\030905\0309F004.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	990	25300	24900	-1	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	910	17200	15600	-9	NA	± 15 %	AverageRF
o-Terphenyl	50	47	33700	31400	-7	NA	± 15 %	AverageRF
n-Triacontane	50	47	28500	26500	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F017.D
J:\GC21\DATA\030905\0309F018.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26200	3	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33400	-1	NA	± 15 %	AverageRF
n-Triacontane	50	51	28500	29100	2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/10/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F029.D
J:\GC21\DATA\030905\0309F030.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26500	5	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33200	-2	NA	± 15 %	AverageRF
n-Triacontane	50	53	28500	30200	6	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/10/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F041 D
J:\GC21\DATA\030905\0309F042 D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	25800	2	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	940	17200	16100	-6	NA	± 15 %	AverageRF
o-Terphenyl	50	48	33700	32500	-4	NA	± 15 %	AverageRF
n-Triacontane	50	49	28500	28000	-2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015M

Analysis Lot: KWG0503923
Instrument ID: gc21
Column: RTX-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0309F002.D	Instrument Blank	KWG0503923-10	3/9/2005	17:48		3/9/2005	18:00
0309F003.D	Continuing Calibration Verification	KWG0503923-1	3/9/2005	18:05		3/9/2005	18:17
0309F004.D	Continuing Calibration Verification	KWG0503923-1	3/9/2005	18:22		3/9/2005	18:34
0309F007.D	Lab Control Sample	KWG0503600-4	3/9/2005	19:15		3/9/2005	19:27
0309F008.D	Duplicate Lab Control Sample	KWG0503600-5	3/9/2005	19:33		3/9/2005	19:45
0309F009.D	Method Blank	KWG0503600-6	3/9/2005	19:50		3/9/2005	20:02
0309F010.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:08		3/9/2005	20:20
0309F011.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:25		3/9/2005	20:37
0309F012.D	ZZZZZZ	ZZZZZZ	3/9/2005	20:42		3/9/2005	20:54
0309F013.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:00		3/9/2005	21:12
0309F014.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:17		3/9/2005	21:29
0309F015.D	ZZZZZZ	ZZZZZZ	3/9/2005	21:34		3/9/2005	21:46
0309F016.D	Instrument Blank	KWG0503923-11	3/9/2005	21:51		3/9/2005	22:03
0309F017.D	Continuing Calibration Verification	KWG0503923-2	3/9/2005	22:09		3/9/2005	22:21
0309F018.D	Continuing Calibration Verification	KWG0503923-2	3/9/2005	22:26		3/9/2005	22:38
0309F019.D	ZZZZZZ	ZZZZZZ	3/9/2005	22:44		3/9/2005	22:56
0309F020.D	ZZZZZZ	ZZZZZZ	3/9/2005	23:01		3/9/2005	23:13
0309F021.D	ZZZZZZ	ZZZZZZ	3/9/2005	23:19		3/9/2005	23:31
0309F022.D	Batch QC	K2501544-005	3/9/2005	23:36		3/9/2005	23:48
0309F023.D	Batch QCMS	KWG0503600-2	3/9/2005	23:53		3/10/2005	00:05
0309F024.D	Batch QCDMS	KWG0503600-3	3/10/2005	00:11		3/10/2005	00:23
0309F025.D	ZZZZZZ	ZZZZZZ	3/10/2005	00:28		3/10/2005	00:40
0309F026.D	ZZZZZZ	ZZZZZZ	3/10/2005	00:45		3/10/2005	00:57
0309F027.D	ZZZZZZ	ZZZZZZ	3/10/2005	01:03		3/10/2005	01:15
0309F028.D	Instrument Blank	KWG0503923-12	3/10/2005	01:20		3/10/2005	01:32
0309F029.D	Continuing Calibration Verification	KWG0503923-3	3/10/2005	01:37		3/10/2005	01:49
0309F030.D	Continuing Calibration Verification	KWG0503923-3	3/10/2005	01:55		3/10/2005	02:07
0309F031.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:12		3/10/2005	02:24
0309F032.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:30		3/10/2005	02:42
0309F033.D	ZZZZZZ	ZZZZZZ	3/10/2005	02:47		3/10/2005	02:59
0309F035.D	ZZZZZZ	ZZZZZZ	3/10/2005	03:22		3/10/2005	03:34
0309F036.D	50425-02	K2501630-002	3/10/2005	03:39		3/10/2005	03:51
0309F037.D	ZZZZZZ	ZZZZZZ	3/10/2005	03:57		3/10/2005	04:09
0309F038.D	ZZZZZZ	ZZZZZZ	3/10/2005	04:14		3/10/2005	04:26

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015M

Analysis Lot: KWG0503923
Instrument ID: gc21
Column: RTX-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0309F039.D	ZZZZZZ	ZZZZZZ	3/10/2005	04:32		3/10/2005	04:44
0309F040.D	Instrument Blank	KWG0503923-7	3/10/2005	04:49		3/10/2005	05:01
0309F041.D	Continuing Calibration Verification	KWG0503923-4	3/10/2005	05:06		3/10/2005	05:18
0309F042.D	Continuing Calibration Verification	KWG0503923-4	3/10/2005	05:23		3/10/2005	05:35
0309F043.D	ZZZZZZ	ZZZZZZ	3/10/2005	05:41		3/10/2005	05:53
0309F044.D	Instrument Blank	KWG0503923-8	3/10/2005	05:58		3/10/2005	06:10
0309F045.D	Continuing Calibration Verification	KWG0503923-5	3/10/2005	06:16		3/10/2005	06:28
0309F046.D	Continuing Calibration Verification	KWG0503923-5	3/10/2005	06:34		3/10/2005	06:46

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/07/2005

Extraction Prep Log
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Extraction Lot: KWG0503600
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50425-02	K2501630-002	03/04/05	03/05/05	545ml	1ml	NA	
Method Blank	KWG0503600-6	NA	NA	500ml	1ml	NA	
Batch QC	K2501544-005	NA	NA	540ml	1ml	NA	
Batch QCMS	KWG0503600-2	NA	NA	550ml	1ml	NA	
Batch QCDMS	KWG0503600-3	NA	NA	550ml	1ml	NA	
Lab Control Sample	KWG0503600-4	NA	NA	500ml	1ml	NA	
Duplicate Lab Control Sample	KWG0503600-5	NA	NA	500ml	1ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
50425-02	K2501630-002	84	87
Method Blank	KWG0503600-6	81	84
Batch QC	K2501544-005	84	88
Batch QCMS	KWG0503600-2	79	86
Batch QCDMS	KWG0503600-3	75	79
Lab Control Sample	KWG0503600-4	76	80
Duplicate Lab Control Sample	KWG0503600-5	70	74

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	52-128
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria
Results flagged with a pound (#) indicate the control criteria is not applicable

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005 - 03/10/2005

Matrix Spike/Duplicate Matrix Spike Summary
Diesel and Residual Range Organics

Sample Name: Batch QC
Lab Code: K2501544-005

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: ug/L
Basis: NA

Level: Low
Extraction Lot: KWG0503600

Analyte Name	Sample Result	Batch QCMS KWG0503600-2 Matrix Spike			Batch QCDMS KWG0503600-3 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Diesel Range Organics (DRO)	47	2700	2910	91	2910	2910	99	57-158	8	30
Residual Range Organics (RRO)	28	1350	1450	91	1430	1450	97	45-157	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/07/2005
Date Analyzed: 03/09/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015M

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0503600

	Lab Control Sample KWG0503600-4 Lab Control Spike			Duplicate Lab Control Sample KWG0503600-5 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	2630	3200	82	2620	3200	82	67-151	0	30
Residual Range Organics (RRO)	1290	1600	80	1270	1600	80	59-146	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/07/2005
Sample Matrix:	Water	**Date Analyzed:**	03/09/2005
		Time Analyzed:	19:50

Method Blank Summary
Diesel and Residual Range Organics

Sample Name:	Method Blank	**File ID:**	J:\GC21\DATA\030905\0309F009 D
Lab Code:	KWG0503600-6	**Instrument ID:**	gc21
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0503600-4	J:\GC21\DATA\030905\0309F007 D	03/09/05	19:15
Duplicate Lab Control Sample	KWG0503600-5	J:\GC21\DATA\030905\0309F008 D	03/09/05	19:33
Batch QC	K2501544-005	J:\GC21\DATA\030905\0309F022 D	03/09/05	23:36
Batch QCMS	KWG0503600-2	J:\GC21\DATA\030905\0309F023 D	03/09/05	23:53
Batch QCDMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024 D	03/10/05	00:11
50425-02	K2501630-002	J:\GC21\DATA\030905\0309F036 D	03/10/05	03:39

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Lab Control Sample/Duplicate Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0503600-4	**Lab Code:**	KWG0503600-5
File ID:	J:\GC21\DATA\030905\0309F007.D	**File ID:**	J:\GC21\DATA\030905\0309F008.D
Instrument ID:	gc21	**Instrument ID:**	gc21
Date Extracted:	03/07/2005	**Date Extracted:**	03/07/2005
Date Analyzed:	03/09/2005	**Date Analyzed:**	03/09/2005
Time Analyzed:	19:15	**Time Analyzed:**	19:33

Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015M	**Extraction Lot:**	KWG0503600

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503600-6	J:\GC21\DATA\030905\0309F009.D	03/09/05	19:50
Batch QC	K2501544-005	J:\GC21\DATA\030905\0309F022.D	03/09/05	23:36
Batch QCMS	KWG0503600-2	J:\GC21\DATA\030905\0309F023.D	03/09/05	23:53
Batch QCDMS	KWG0503600-3	J:\GC21\DATA\030905\0309F024.D	03/10/05	00:11
50425-02	K2501630-002	J:\GC21\DATA\030905\0309F036.D	03/10/05	03:39

Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/07/2005
		Date Analyzed:	03/10/2005

Diesel and Residual Range Organics

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F036 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	545 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	46	U	46	19	
CASID30160	Residual Range Organics (RRO)	92	U	92	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/10/05	Acceptable
n-Triacontane	87	50-150	03/10/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F036.D
Lab ID: K2501630-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/10/2005 03:39
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: PM031005

Secondary Review: [illegible]

Printed: 03/10/2005 15:22:16
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/04/2005	**Receive Date:**	03/05/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501630
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
		Prep Date:	03/07/2005		
Prep Ref:	366251				

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F036.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 03:39	**Quant Date:**	03/10/2005 14:33	**Vial:**	34
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501630-002			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4.78	0.00	1415957	41.96	84	52-128	OK
n-Triacontane	6.73	-0.01	1236458	43.38	87	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	94553	3.73	19	U	
Residual Range Organics (RRO)	5.83	?	109751	6.37	28	U	

Prep Amount:	545 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

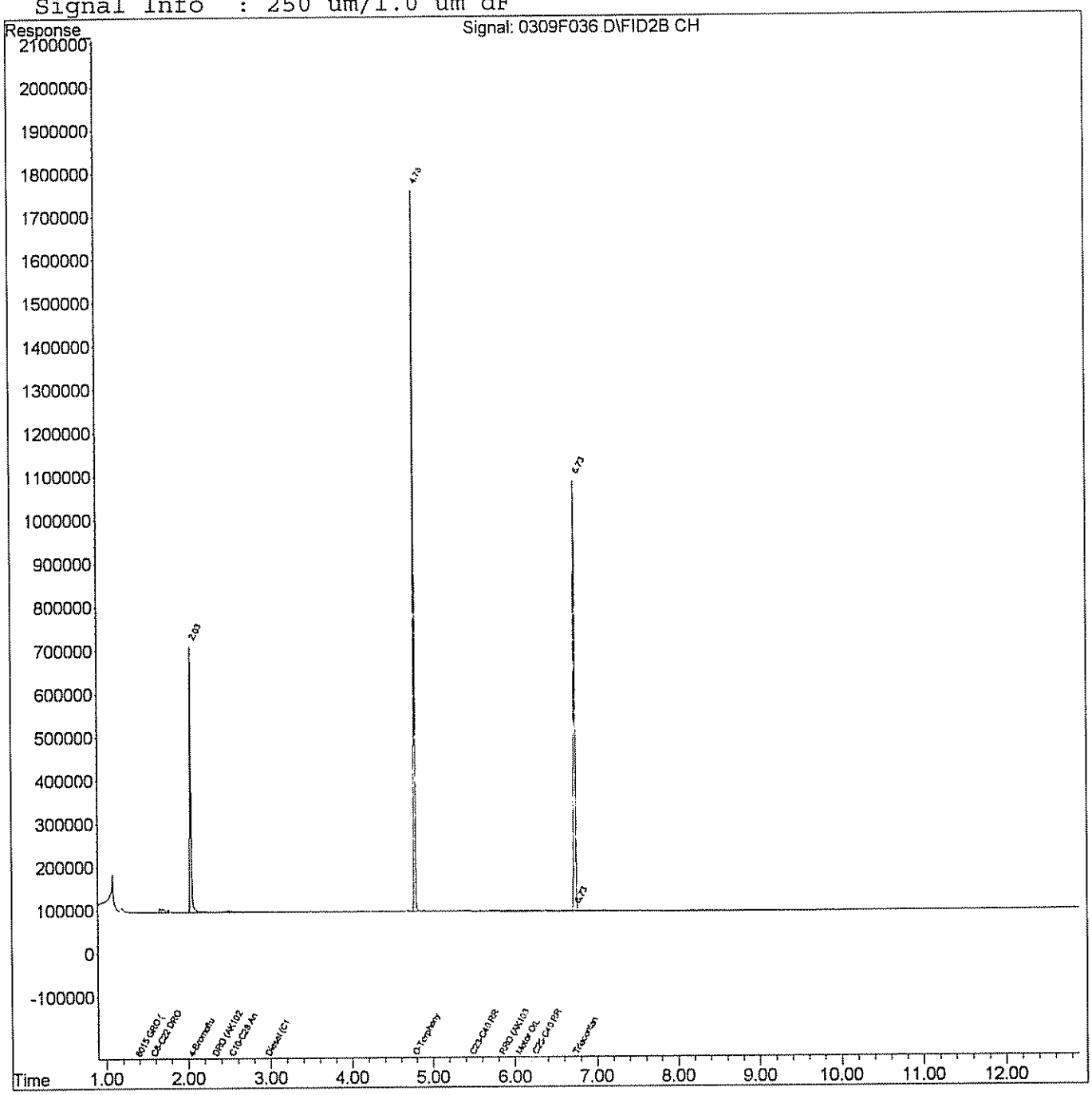
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F036.D
Acq On : 10 Mar 2005 3:39 am
Sample : k2501630-002
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 34
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



0309F036.D 1122BACK.M Thu Mar 10 14:33:36 2005 Page 1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503600-6	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F009 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	50	U	50	19	
CASID30160	Residual Range Organics (RRO)	100	U	100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	52-128	03/09/05	Acceptable
n-Triacontane	84	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F009 D
Lab ID: KWG0503600-6
RunType: MB
Matrix: WATER

Date Acquired: 03/09/2005 19:50
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NC

Primary Review: PM 03/10/05

Secondary Review: 03/10/05

Printed: 03/10/2005 15:20:58
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
		Prep Date:	03/07/2005		
Prep Ref:	366257				

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F009 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:50	**Quant Date:**	03/10/2005 14:32	**Vial:**	13
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0503600-6			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04	0.00	569260	40.96	82	33-133	OK
o-Terphenyl	4.78	0.00	1373564	40.70	81	52-128	OK
n-Triacontane	6.74	0.00	1196627	41.98	84	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	76636	3.03	19	U	
C10 - C25 DRO	2.31	?	134191	4.62	9.25	J	
Diesel Range Organics	2.51	?	168152	5.75	19	U	
C8 - C22 DRO	1.58	?	190644	6.45	12.9	J	
C23 - C40 RRO	5.48	?	222746	9.85	24	U	
Residual Range Organics (RRO)	5.83	?	122624	7.12	28	U	
Motor Oil	6.03	?	122624	7.12	28	U	
C25 - C40 RRO	6.23	?	216044	11.73	27	U	
Gasoline Range Organics (GRO	1.38	?	114445	10.89	100	U	

Prep Amount:	500 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

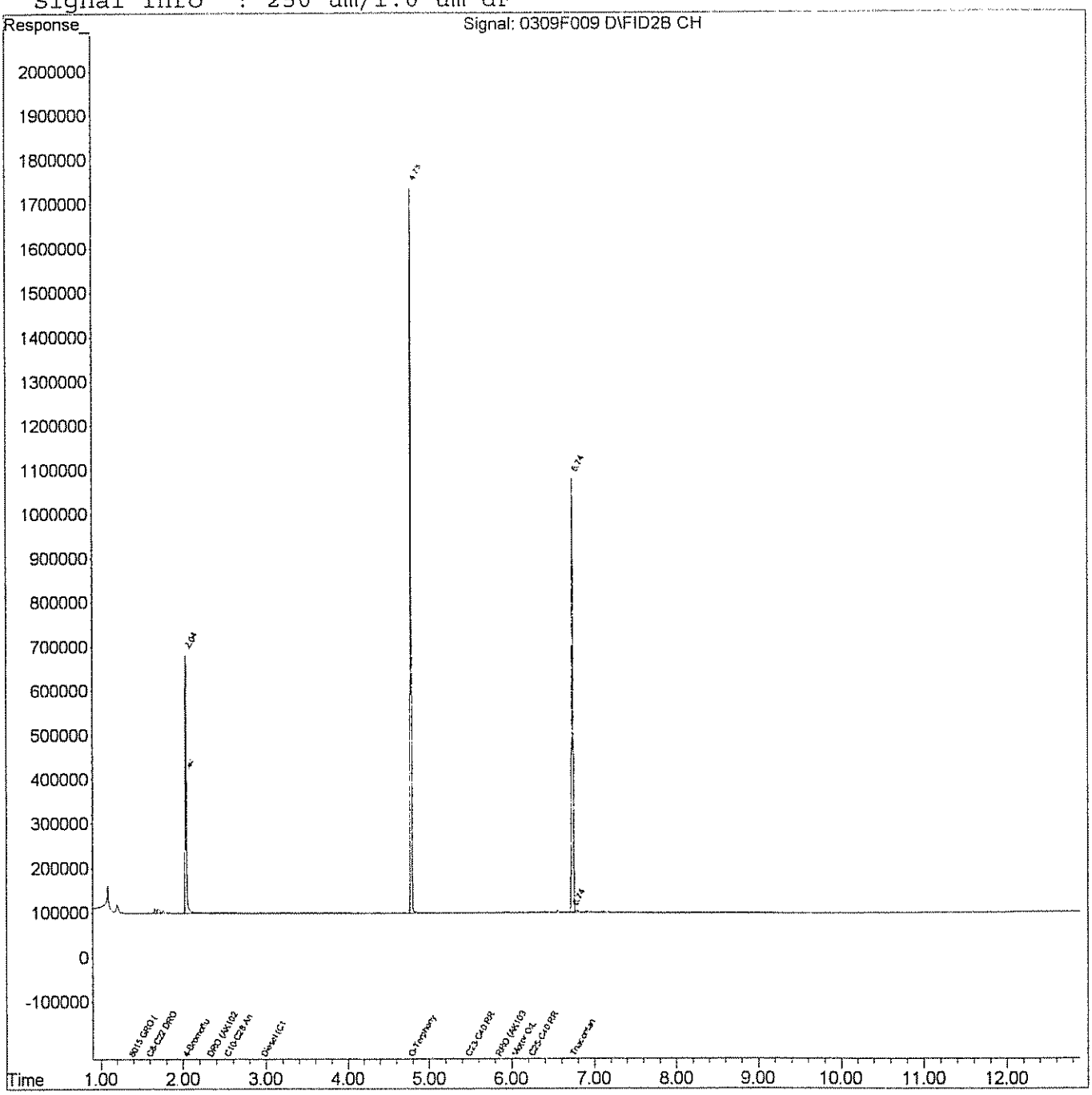
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F009.D
Acq On : 09 Mar 2005 7:50 pm
Sample : kwg0503600mb
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 13
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K2501544-005	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F022.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1

Sample Amount: 540 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	47	J	47	19	
CASID30160	Residual Range Organics (RRO)	28	J	93	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	52-128	03/09/05	Acceptable
n-Triacontane	88	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F022 D
Lab ID: K2501544-005
RunType: SMPL
Matrix: WATER

Date Acquired: 03/09/2005 23:36
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Batch QC

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: MM 03/16/05

Secondary Review: 03/17/05

Printed: 03/10/2005 15:21:37
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**	03/02/2005	**Receive Date:**	03/03/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	K2501544
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
		Prep Date:	03/07/2005		
Prep Ref:	366248				

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ3965
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009 D	**Quant based on Report List**	

Data File:	J:\GC21\DATA\030905\0309F022 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:36	**Quant Date:**	03/10/2005 14:32	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501544-005			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
o-Terphenyl	4 78	0 00	1414046	41 90	84	52-128	OK
n-Triacontane	6 74	0 00	1259519	44.19	88	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	641650	25 34	47	J	
Residual Range Organics (RRO)	5 83	?	263400	15 29	28	J	

Prep Amount:	540 ml	**Dilution:**	1 0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

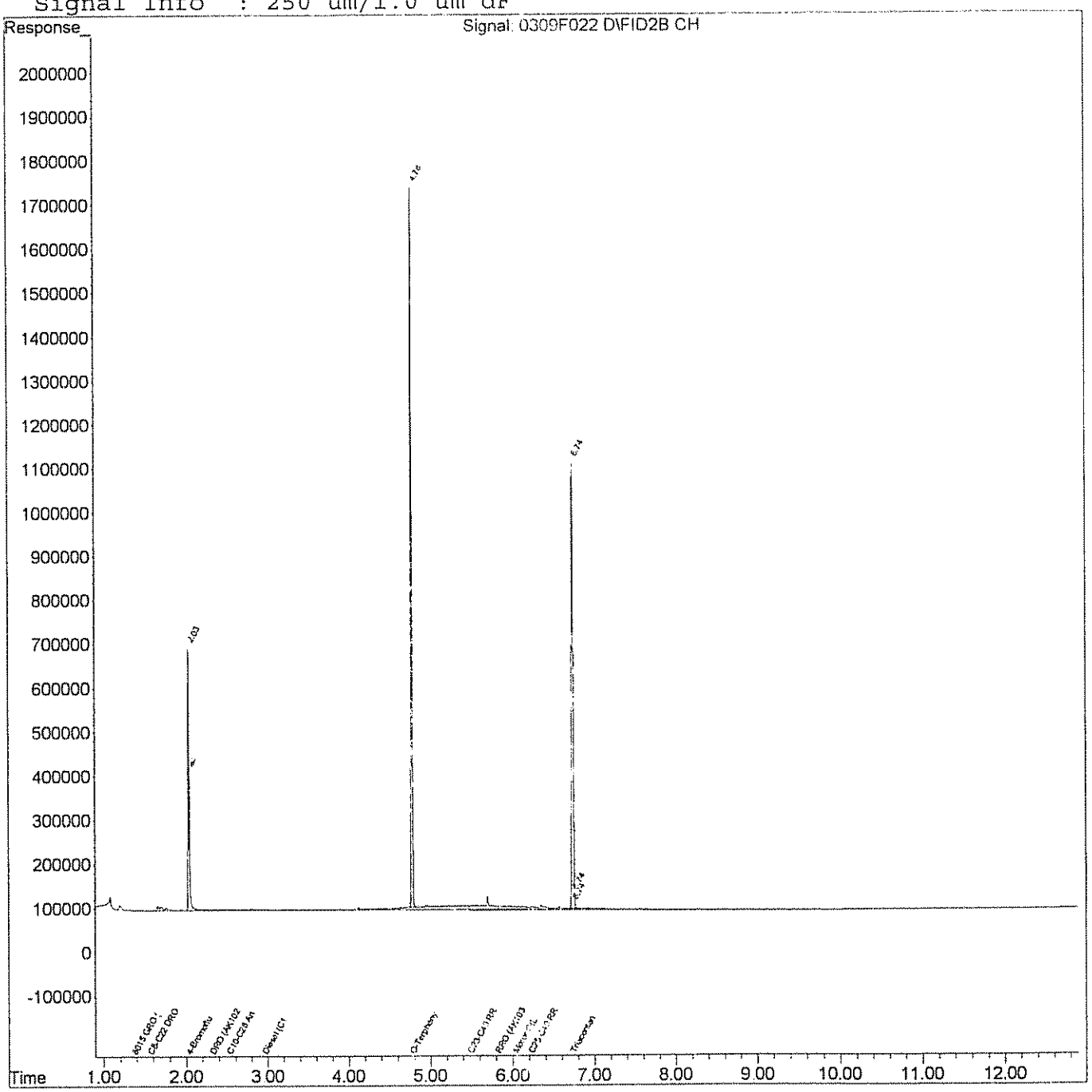
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F022.D
Acq On : 09 Mar 2005 11:36 pm
Sample : k2501544-005
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 23
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Batch QCMS	**Units:**	ug/L
Lab Code:	KWG0503600-2	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F023 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1

Sample Amount:	550 ml
% Solids:	NA
Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	2700		46	19	
CASID30160	Residual Range Organics (RRO)	1350		91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	79	52-128	03/09/05	Acceptable
n-Triacontane	86	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F023 D
Lab ID: KWG0503600-2 -- K2501544-005MS
RunType: MS
Matrix: WATER

Date Acquired: 03/09/2005 23:53
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Batch QC

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	

Primary Review: 3/10/05

Secondary Review: 3/14/05

Printed: 03/10/2005 15:21:40
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
Prep Ref:	366253	**Prep Date:**	03/07/2005		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F023.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 23:53	**Quant Date:**	03/10/2005 14:32	**Vial:**	24
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG0503600-2 -- K2501544-005MS			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.03	-0.01	520721	37.47	75	33-133	OK
o-Terphenyl	4.78	0.00	1338309	39.66	79	52-128	OK
n-Triacontane	6.73	-0.01	1228370	43.10	86	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	37611643	1,485	2700		
C10 - C25 DRO	2.31	?	41363908	1,425	2590		
Diesel Range Organics	2.51	?	47684326	1,630	2960		
C8 - C22 DRO	1.58	?	38650764	1,308	2380		
C23 - C40 RRO	5.48	?	17448468	771.46	1400		
Residual Range Organics (RRO)	5.83	?	12784262	742.26	1350		
Motor Oil	6.03	?	12784262	742.26	1350		
C25 - C40 RRO	6.23	?	13917181	755.57	1370		
Gasoline Range Organics (GRO	1.38	?	4570408	434.79	791		

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

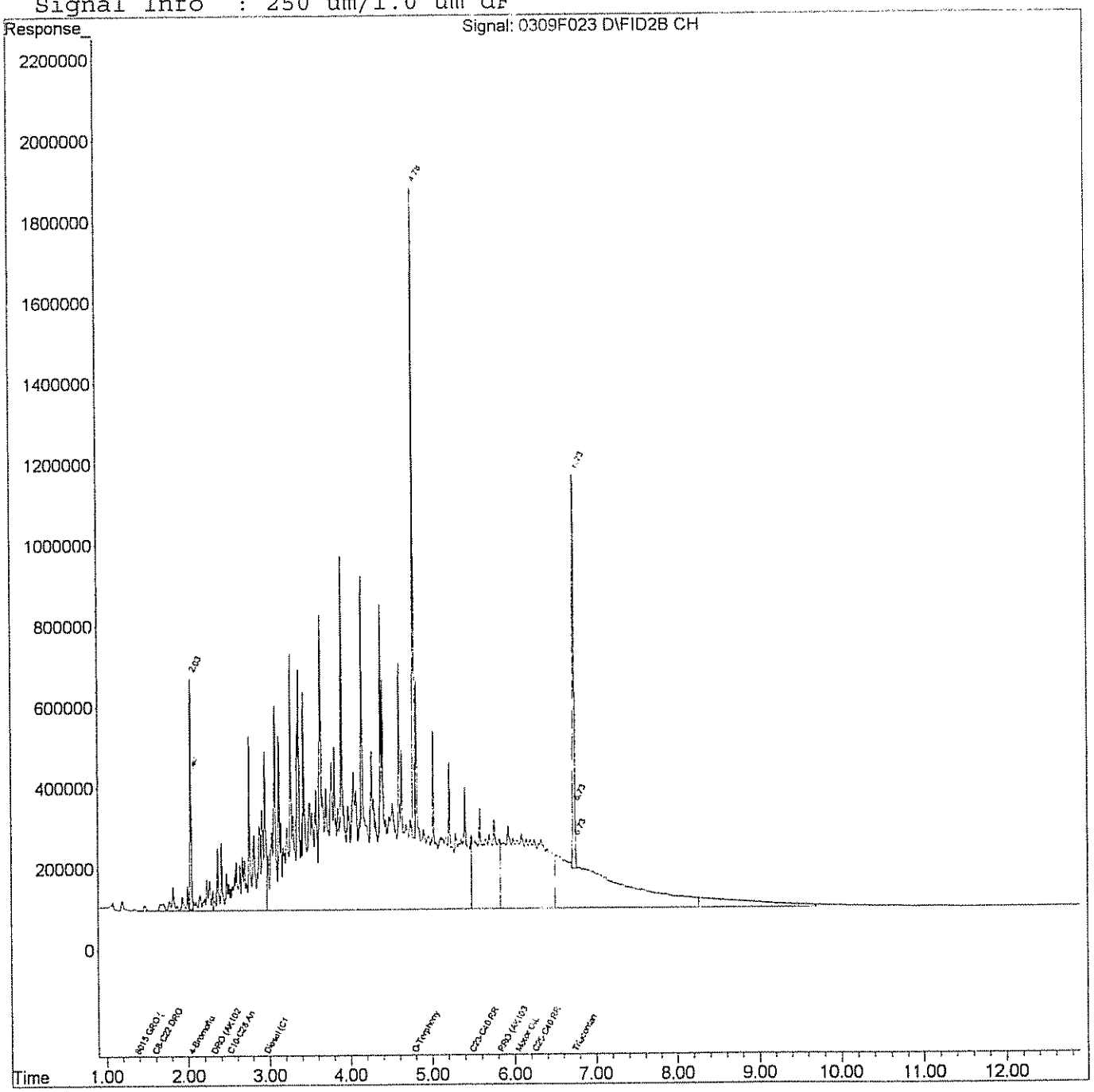
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F023.D
Acq On : 09 Mar 2005 11:53 pm
Sample : k2501544-005ms
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 24
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/10/2005

Diesel and Residual Range Organics

Sample Name:	Batch QCDMS	**Units:**	ug/L
Lab Code:	KWG0503600-3	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F024.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	550 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**2910**		46	19	
CASID30160	**Residual Range Organics (RRO)**	**1430**		91	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	75	52-128	03/10/05	Acceptable
n-Triacontane	79	50-150	03/10/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F024 D
Lab ID: KWG0503600-3 -- K2501544-005DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/10/2005 00:11
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Batch QC

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	[illegible]

Primary Review: VMB1005

Secondary Review: 9031505

Printed: 03/10/2005 15:21:43
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**
Analysis Method:	8015M	**Prep Method:**	EPA 3510C	
		Prep Date:	03/07/2005	
Prep Ref:	366254			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MI257
MB Ref:	J:\GC21\DATA\030905\0309F009.D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F024.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 00:11	**Quant Date:**	03/10/2005 14:33	**Vial:**	25
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG0503600-3 -- K2501544-005DMS			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04	0.00	518691	37.32	75	33-133	OK
o-Terphenyl	4.78	0.00	1267430	37.56	75	52-128	OK
n-Triacontane	6.74	0.00	1124422	39.45	79	50-150	OK

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	40588234	1,603	2910		
C10 - C25 DRO	2.31	?	44842380	1,545	2810		
Diesel Range Organics	2.51	?	51460877	1,759	3200		
C8 - C22 DRO	1.58	?	42100596	1,424	2590		
C23 - C40 RRO	5.48	?	18529611	819.26	1490		
Residual Range Organics (RRO)	5.83	?	13573911	788.11	1430		
Motor Oil	6.03	?	13573911	788.11	1430		
C25 - C40 RRO	6.23	?	14860985	806.81	1470		
Gasoline Range Organics (GRO	1.38	?	5180987	492.87	896		

Prep Amount:	550 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

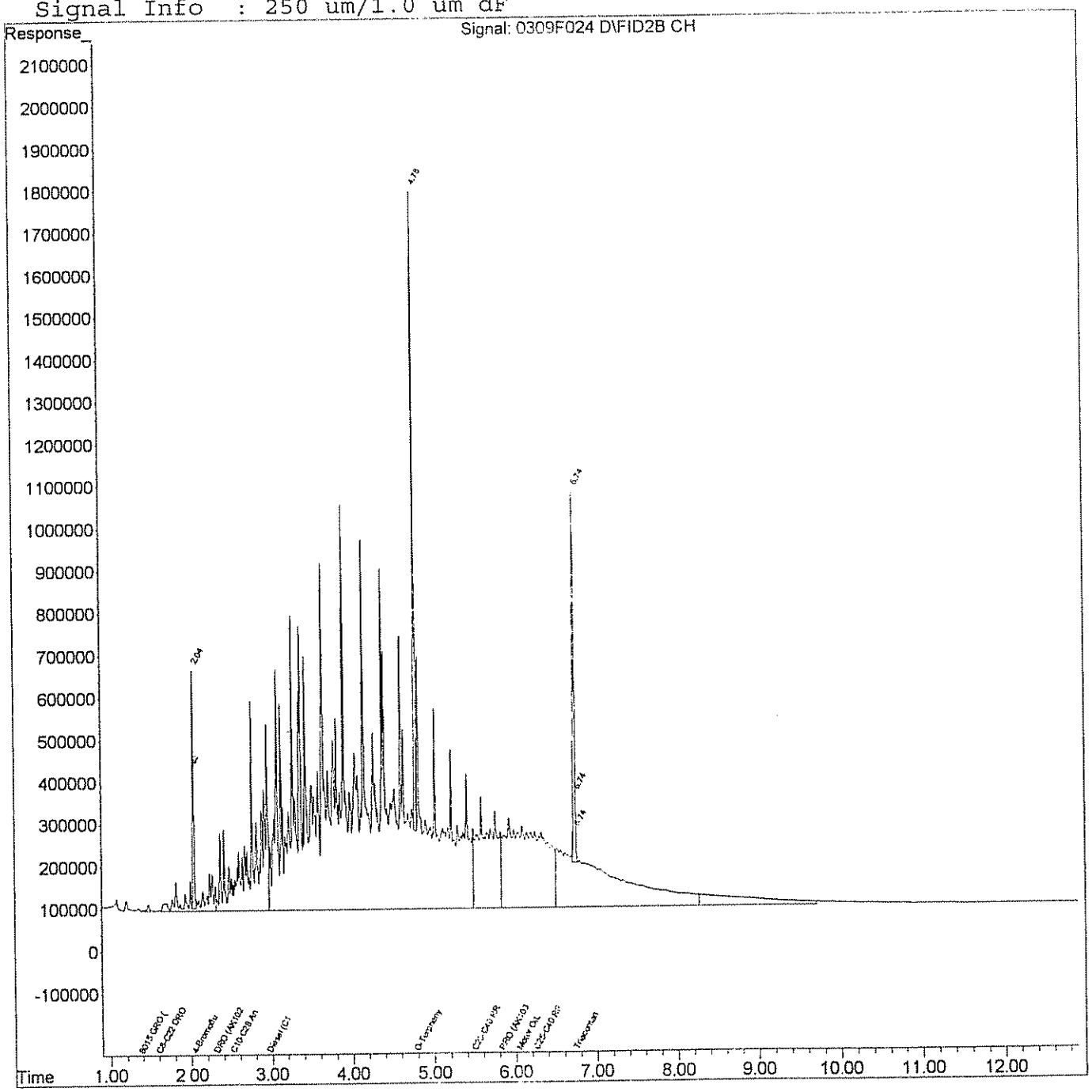
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F024.D
Acq On : 10 Mar 2005 12:11 am
Sample : k2501544-005dms
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 25
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



0309F024.D 1122BACK.M Thu Mar 10 14:33:01 2005 Page 1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0503600-4	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F007.D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1

Sample Amount:	500 ml
% Solids:	NA
Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	**Diesel Range Organics (DRO)**	**2630**		50	19	
CASID30160	**Residual Range Organics (RRO)**	**1290**		100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	76	52-128	03/09/05	Acceptable
n-Triacontane	80	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F007.D
Lab ID: KWG0503600-4
RunType: LCS
Matrix: WATER

Date Acquired: 03/09/2005 19:15
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	[illegible]

Primary Review: [illegible] 031005

Secondary Review: [illegible] 031505

Printed: 03/10/2005 15:20:52
u \Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
		Prep Date:	03/07/2005		
Prep Ref:	366255				

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MJ257
MB Ref:	J:\GC21\DATA\030905\0309F009 D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F007 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:15	**Quant Date:**	03/10/2005 14:32	**Vial:**	11
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0503600-4			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2 04	0 00	545001	39 22	78	33-133	OK	
o-Terphenyl	4 78	0.00	1276753	37 84	76	52-128	OK	
n-Triacontane	6 74	0 00	1146835	40 24	80	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	33316423	1,316	2630		
C10 - C25 DRO	2 31	?	36888640	1,271	2540		
Diesel Range Organics	2 51	?	42209292	1,443	2890		
C8 - C22 DRO	1 58	?	34801726	1,177	2350		
C23 - C40 RRO	5 48	?	15102153	667 72	1340		
Residual Range Organics (RRO)	5 83	?	11076388	643 10	1290		
Motor Oil	6 03	?	11076388	643 10	1290		
C25 - C40 RRO	6.23	?	12208698	662.81	1330		
Gasoline Range Organics (GRO	1 38	?	4378757	416 56	833		

Prep Amount:	500 ml	**Dilution:**	1 0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

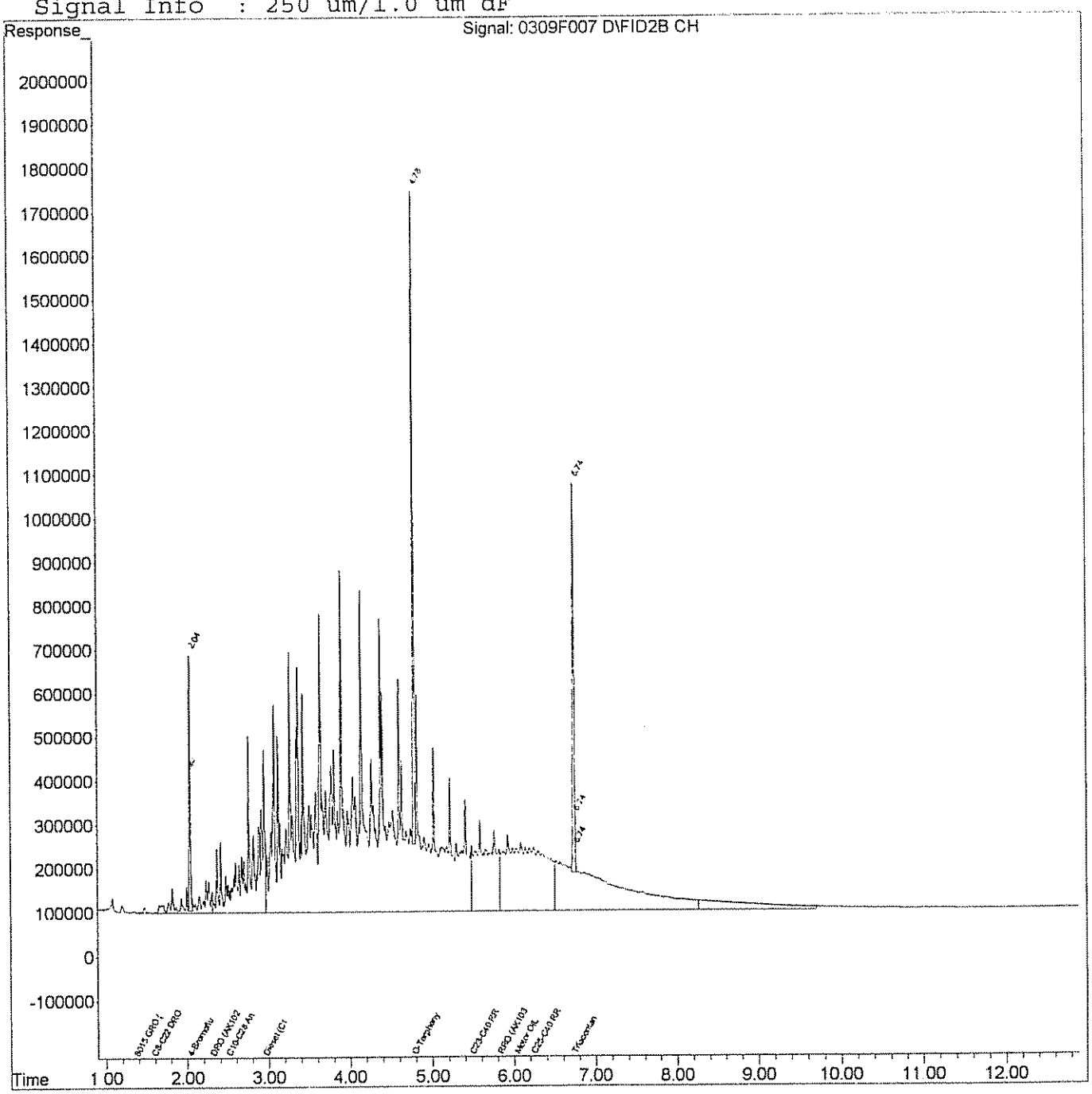
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F007.D
Acq On : 09 Mar 2005 7:15 pm
Sample : kwg0503600lcs
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 11
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/07/2005
		Date Analyzed:	03/09/2005

Diesel and Residual Range Organics

Sample Name:	Duplicate Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0503600-5	**Basis:**	NA
File ID:	J:\GC21\DATA\030905\0309F008 D	**Level:**	Low
Instrument ID:	gc21		
Extraction Method:	EPA 3510C	**Extraction Lot:**	KWG0503600
Analysis Method:	8015M	**Calibration ID:**	CAL4011
		Column1:	RTX-1
Sample Amount:	500 ml		
% Solids:	NA		
Dilution Factor:	1		

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
68334-30-5	Diesel Range Organics (DRO)	2620		50	19	
CASID30160	Residual Range Organics (RRO)	1270		100	28	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	70	52-128	03/09/05	Acceptable
n-Triacontane	74	50-150	03/09/05	Acceptable

Comments:

Exception Report

Data File: J:\GC21\DATA\030905\0309F008.D
Lab ID: KWG0503600-5
RunType: DLCS
Matrix: WATER

Date Acquired: 03/09/2005 19:33
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NA

Primary Review: VM 031005

Secondary Review: [illegible]

Printed: 03/10/2005 15:20:55
n:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DRO-X-8015	**Collect Date:**		**Receive Date:**	03/08/2005

Analysis Lot:	KWG0503923	**Prep Lot:**	KWG0503600	**Report Group:**	
Analysis Method:	8015M	**Prep Method:**	EPA 3510C		
		Prep Date:	03/07/2005		
Prep Ref:	366256				

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:			
		Method ID:	MI257
MB Ref:	J:\GC21\DATA\030905\0309F009 D	**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F008 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 19:33	**Quant Date:**	03/10/2005 14:32	**Vial:**	12
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG0503600-5			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04	0.00	496762	35.75	71	33-133	OK
o-Terphenyl	4.78	0.00	1181997	35.03	70	52-128	OK
n-Triacontane	6.74	0.00	1054773	37.01	74	50-150	OK

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	33164815	1,310	2620		
C10 - C25 DRO	2.31	?	36750777	1,266	2530		
Diesel Range Organics	2.51	?	42021277	1,437	2870		
C8 - C22 DRO	1.58	?	34680048	1,173	2350		
C23 - C40 RRO	5.48	?	15001521	663.27	1330		
Residual Range Organics (RRO)	5.83	?	10978614	637.43	1270		
Motor Oil	6.03	?	10978614	637.43	1270		
C25 - C40 RRO	6.23	?	12134407	658.78	1320		
Gasoline Range Organics (GRO	1.38	?	4382347	416.90	834		

Prep Amount:	500 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

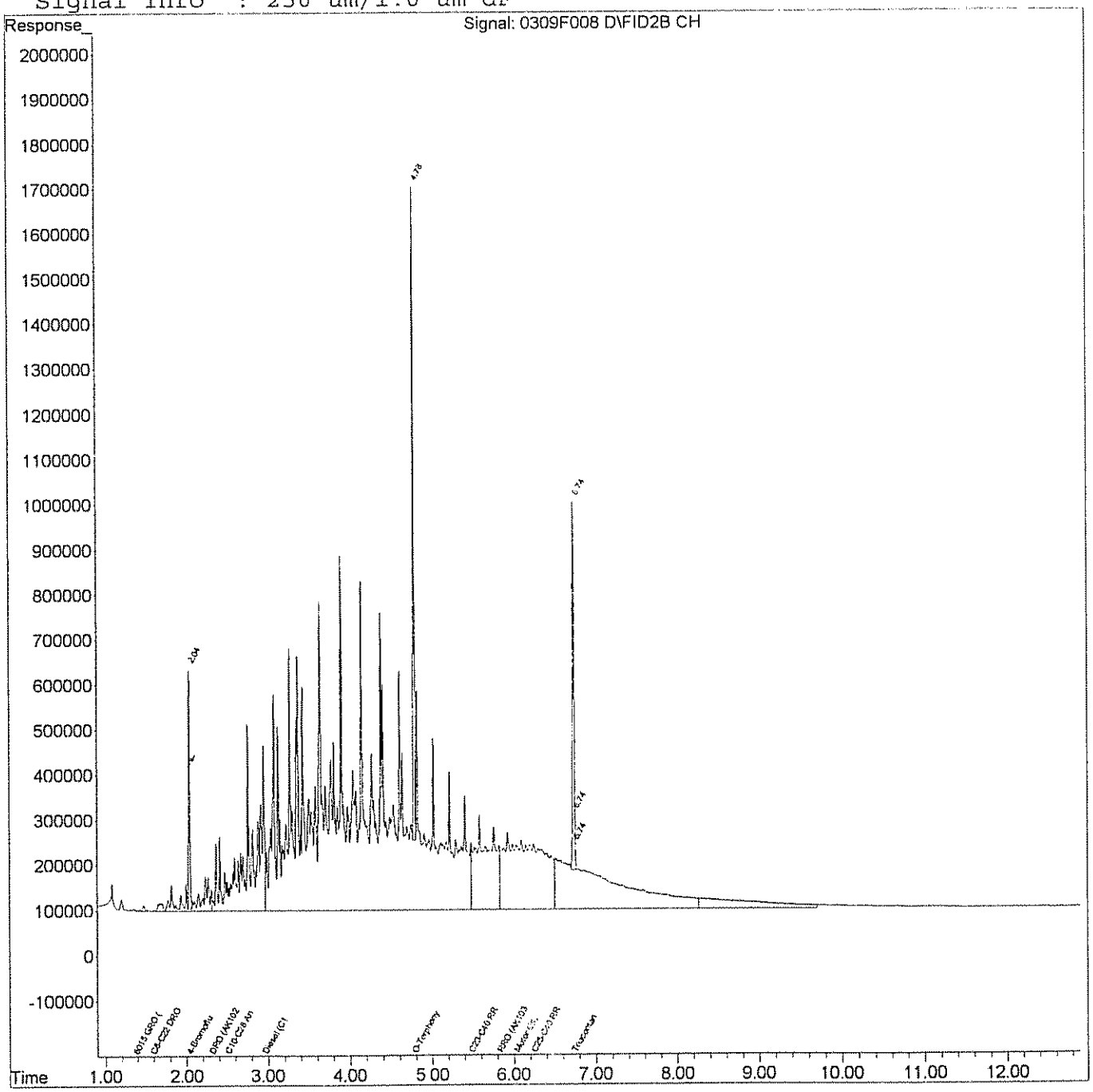
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F008.D
Acq On : 09 Mar 2005 7:33 pm
Sample : kwg0503600dlcs
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 12
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Level ID	File ID	Level ID	File ID
A	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F017 D	H	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F031 D
B	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F019 D	I	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F033 D
C	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F021 D	J	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F035 D
D	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F023 D	K	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F037 D
E	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F025 D	L	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F039 D
F	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F027 D	M	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F041 D
G	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F029 D	N	J:\GC21\DATA\CALIBRAT\112204 SEC\1122F043 D

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Diesel Range Organics (DRO)				B	20	23800				D	50	23700			
	F	200	25800				H	500	25800				J	1000	25800
				L	2000	26300				N	5000	26100			
Residual Range Organics (RRO)	A	20	16200				C	50	15600				E	200	17600
				G	500	18600				I	1000	17600			
	K	2000	17600				M	5000	17400						
o-Terphenyl				B	1.0	30200				D	2.5	32200			
	F	10	34600				H	25	34800				J	50	34500
				L	100	35100				N	250	34700			
n-Triacontane										D	2.5	24400			
	F	10	28900				H	25	29300				J	50	29700
				L	100	30200									

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL4011
Instrument ID: gc21

Column: RTX-1

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	4 3		≤ 20
Residual Range Organics (RRO)	MS	AverageRF	% RSD	5 8		≤ 20
o-Terphenyl	SURR	AverageRF	% RSD	5 4		≤ 20
n-Triacontane	SURR	AverageRF	% RSD	8 2		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 11/23/2004
Date Analyzed: 11/23/2004

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration ID: CAL4011
Units: ppm

File ID: J:\GC21\DATA\CALIBRAT\112204 SEC\1122F051.D
J:\GC21\DATA\CALIBRAT\112204 SEC\1122F059.D

Column ID: RTX-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1100	25300	28600	13	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	1100	17200	19300	12	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

DATA ANALYSIS PARAMETERS

Method Name: J:\GC21\METHODS\1122BACK.M

Percent Report Settings

Sort By: Signal

Output Destination
Screen: No
Printer: Yes
File: No

Integration Events: Meth Default

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Quantitative Report Settings

Report Type: Summary

Output Destination
Screen: Yes
Printer: No
File: No

Generate Report During Run Method: No

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GRO+DRO+RRO 1122BACK CAL4011
Calibration Last Updated: Tue Nov 23 19:17:56 2004

Reference Window: 10.00 Minutes
Non-Reference Window: 5.00 Minutes
Correlation Window: 0.02 minutes
Default Multiplier: 1.00
Default Sample Concentration: 0.00

Compound Information

1) 4-Bromofluorobenzene ( )
Ret. Time 2.05 min., Extract & Integrate from 2.00 to 2.10 min.

Lvl ID Conc (ppm) Response

D/S	50.000	-1
G/O	not used for this compound	
Xtra	not used for this compound	
1	1.000	-1
2	2.500	26492
3	10.000	135145
4	25.000	346916
5	50.000	724441
6	100.000	1526663
7	250.000	3909666

Curve Fit: Avg. RF

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2) O-Terphenyl ( )
Ret. Time 4.78 min., Extract & Integrate from 4.73 to 4.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		50.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		1.000	30216
2		2.500	80603
3		10.000	346094
4		25.000	870069
5		50.000	1727213
6		100.000	3509811
7		250.000	8676383

Curve Fit: Avg. RF

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3) Triacontane (C-30) ( )
Ret. Time 6.74 min., Extract & Integrate from 6.68 to 6.79 min.

Lvl	ID	Conc (ppm)	Response
D/S		50.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		1.000	-1
2		2.500	61039
3		10.000	289319
4		25.000	731765
5		50.000	1482753
6		100.000	3023823
7		250.000	-1

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9/12/04

Curve Fit: Avg. RF

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4) Diesel (C12-C25) ( )
Ret. Time 2.98 min., Extract & Integrate from 2.98 to 5.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	475436
2		50.000	1185416
3		200.000	5160664

4	500.000	12881488
5	1000.000	25782051
6	2000.000	52595920
7	5000.000	130732559

Curve Fit: Avg. RF

---

5) DRO (AK102; C10-C25) ( )
Ret. Time 2.32 min., Extract & Integrate from 2.32 to 5.83 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	566724
2		50.000	1358044
3		200.000	5870676
4		500.000	14642623
5		1000.000	29327882
6		2000.000	59866427
7		5000.000	148871741

Curve Fit: Avg. RF

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6) C10-C28 AntiTom DRO ( )
Ret. Time 2.52 min., Extract & Integrate from 2.32 to 6.50 min.

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	572165
2		50.000	1377146
3		200.000	5957899
4		500.000	14764413
5		1000.000	29431668
6		2000.000	59999460
7		5000.000	149256707

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Curve Fit: Avg. RF

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7) C8-C22 DRO ( )
Ret. Time 1.60 min., Extract & Integrate from 1.40 to 5.49 min.

gasoline

Lvl	ID	Conc (ppm)	Response
D/S		1000.000	-1
G/O		not used for this compound	
Xtra		not used for this compound	
1		20.000	580688
2		50.000	1341461
3		200.000	6005164
4		500.000	14978005
5		1000.000	29999143
6		2000.000	61230459
7		5000.000	152264194

Curve Fit: Avg. RF

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8) C23-C40 RRO ( )
Ret. Time 5.49 min., Extract & Integrate from 5.49 to 9.71 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	446922
2		50.000	1056291
3		200.000	4506993
4		500.000	11979083
5		1000.000	22796176
6		2000.000	45864356
7		5000.000	113144637

Curve Fit: Avg. RF

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9) RRO (AK103; C25-C36) ( )
Ret. Time 5.83 min., Extract & Integrate from 5.83 to 8.25 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	324072
2		50.000	780959
3		200.000	3511686
4		500.000	9300400
5		1000.000	17605862
6		2000.000	35235721
7		5000.000	86788390

Curve Fit: Avg. RF

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10) Motor OIL (C25-C36) ( )
Ret. Time 6.03 min., Extract & Integrate from 5.83 to 8.25 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	324072
2		50.000	780959
3		200.000	3511686
4		500.000	9300400
5		1000.000	17605862
6		2000.000	35235721
7		5000.000	86788390

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Curve Fit: Avg. RF

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11) C25-C40 RRO ( )
Ret. Time 6.23 min., Extract & Integrate from 5.83 to 9.71 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		1000.000	-1
Xtra		not used for this compound	
1		20.000	364716
2		50.000	855042
3		200.000	3659009
4		500.000	9740978
5		1000.000	18598525
6		2000.000	37411714
7		5000.000	92592694

Curve Fit: Avg. RF

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12) 8015 GRO (C8-C12) ( )
Ret. Time 1.40 min., Extract & Integrate from 1.40 to 2.98 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		500.000	-1
Xtra		not used for this compound	
1		20.000	216551
2		50.000	466736
3		200.000	2003134
4		500.000	5496450
5		1000.000	10567840
6		2000.000	21640628
7		5000.000	55118634

Curve Fit: Avg. RF

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13) Kerosene (C9-C18) ( )
Ret. Time 2.20 min., Extract & Integrate from 2.20 to 2.20 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		1000.000	-1
1		20.000	-1
2		50.000	-1
3		200.000	-1
4		500.000	-1
5		1000.000	-1
6		2000.000	-1
7		5000.000	-1

pm 112304

Curve Fit: Avg. RF

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14) Future Development ( )
Ret. Time 7.00 min., Extract & Integrate from 7.00 to 7.00 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	

3	not used for this compound	
4	not used for this compound	
5	not used for this compound	
6	not used for this compound	
7	5000.000	-1

Curve Fit: Avg. RF

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15) Ethylbenzene ( )
Ret. Time 1.79 min., Extract & Integrate from 1.74 to 1.84 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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16) p,m-Xylenes ( )
Ret. Time 1.83 min., Extract & Integrate from 1.78 to 1.88 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

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Curve Fit: Avg. RF

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17) o-Xylene ( )
Ret. Time 1.94 min., Extract & Integrate from 1.89 to 1.99 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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18) a-Pinene ( )
Ret. Time 2.17 min., Extract & Integrate from 2.12 to 2.22 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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19) b-Pinene ( )
Ret. Time 2.34 min., Extract & Integrate from 2.29 to 2.39 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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20) 1,2,3-Trimethylbenzene ( )
Ret. Time 2.48 min., Extract & Integrate from 2.43 to 2.53 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

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21) Fluoranthene ( )
Ret. Time 5.17 min., Extract & Integrate from 5.12 to 5.22 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

---

22) Pyrene ( )
Ret. Time 5.28 min., Extract & Integrate from 5.23 to 5.33 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

Curve Fit: Avg. RF

---

23) Pristane ( )
Ret. Time 4.41 min., Extract & Integrate from 4.36 to 4.46 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	
2		not used for this compound	
3		not used for this compound	
4		not used for this compound	
5		not used for this compound	
6		not used for this compound	
7		5000.000	-1

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Curve Fit: Avg. RF

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24) Phytane ( )
Ret. Time 4.64 min., Extract & Integrate from 4.59 to 4.69 min.

Lvl	ID	Conc (ppm)	Response
D/S		not used for this compound	
G/O		not used for this compound	
Xtra		not used for this compound	
1		not used for this compound	

```
2          not used for this compound
3          not used for this compound
4          not used for this compound
5          not used for this compound
6          not used for this compound
7           5000.000            -1
```

Curve Fit: Avg. RF

END OF DATA ANALYSIS PARAMETERS

Tue Nov 23 19:29:28 2004

PM112304

9/12/04

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F015.D Vial: 4
Acq On : 23 Nov 2004 1:15 am Operator: PMulheri
Sample : 5-43I n-Alkanes marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:12 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.01f	622939	44.825 ppm
Spiked Amount 50.000		Recovery =	89.65%
2) S O-Terphenyl	4.82f	617224	18.291 ppm
Spiked Amount 50.000		Recovery =	36.58%
3) S Triacontane (C-30)	6.73	576247	20.218 ppm
Spiked Amount 50.000		Recovery =	40.44%
Target Compounds			
4) H Diesel (C12-C25)	2.98	8898122	351.361 ppm
5) H DRO (AK102; C10-C25)	2.32	10175779	350.593 ppm
6) H C10-C28 AntiTom DRO	2.52	12589993	430.422 ppm
7) H C8-C22 DRO	1.60	9591878	324.500 ppm
8) H C23-C40 RRO	5.49	9252502	409.086 ppm
9) H RRO (AK103; C25-C36)	5.83	6365894	369.608 ppm
10) H Motor OIL (C25-C36)	6.03	6365894	369.608 ppm
11) H C25-C40 RRO	6.23	7990196	433.790 ppm
12) H 8015 GRO (C8-C12)	1.40	1935499	184.126 ppm

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pm2904

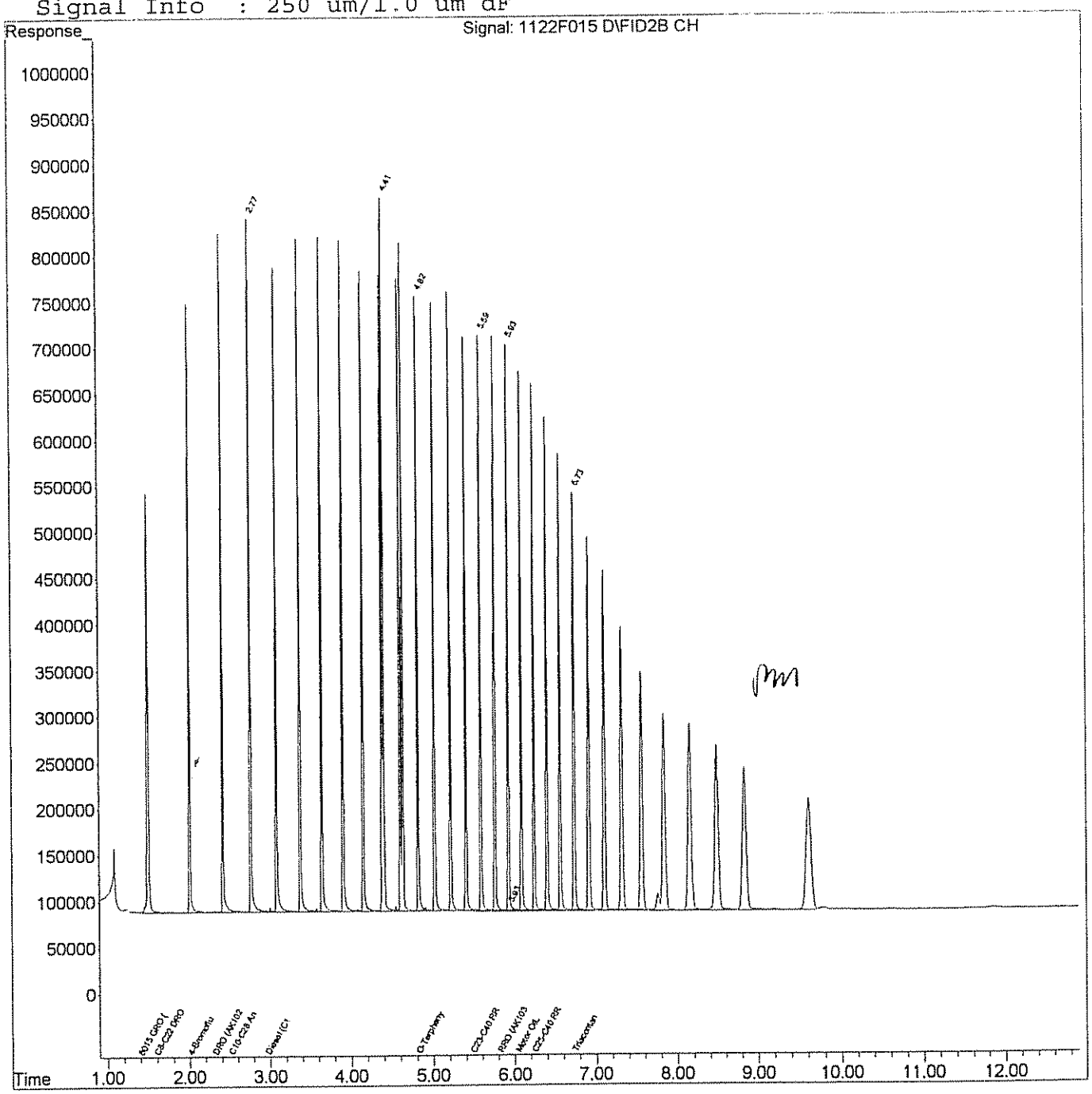
(f)=RT Delta > 1/2 Window (m)=manual int.

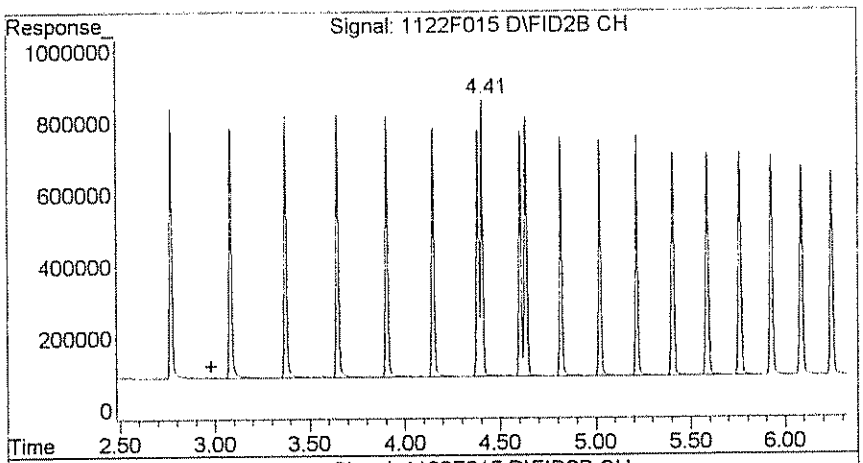
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F015.D Vial: 4
Acq On : 23 Nov 2004 1:15 am Operator: PMulheri
Sample : 5-43I n-Alkanes marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

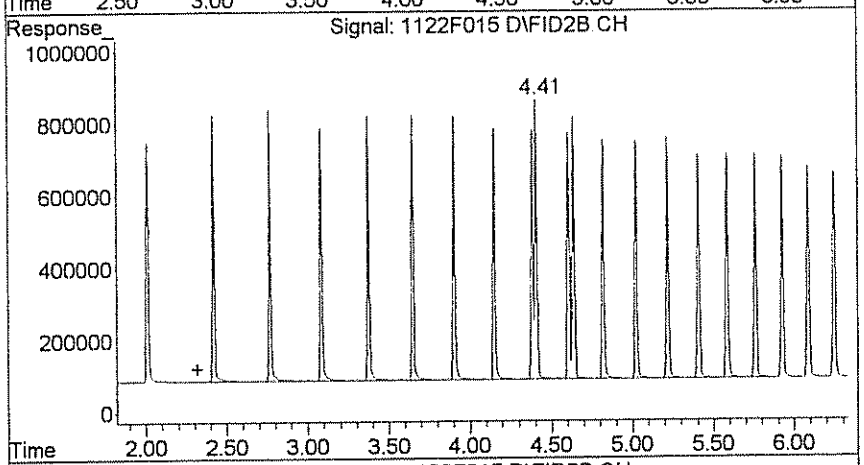
Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF





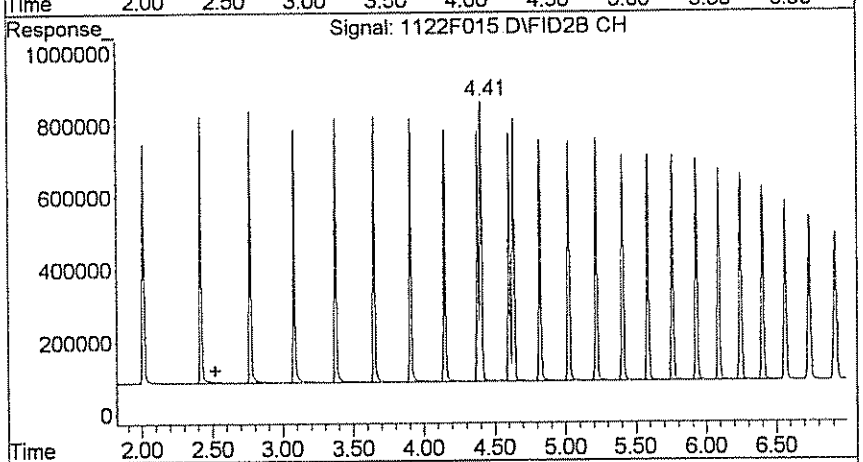
#4 Diesel (C12-C25)

R.T.: 2.980 min
Delta R.T.: 0.000 min
Response: 8898122
Conc: 351.36 ppm m



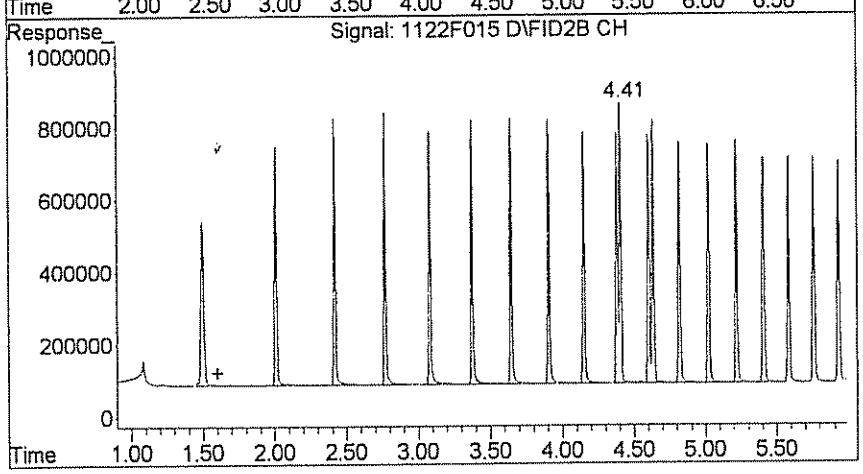
#5 DRO (AK102; C10-C25)

R.T.: 2.320 min
Delta R.T.: 0.000 min
Response: 10175779
Conc: 350.59 ppm m



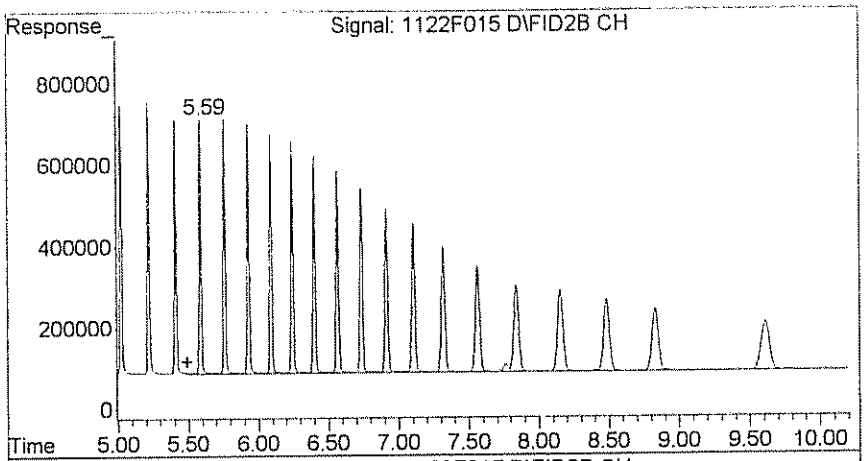
#6 C10-C28 AntiTom DRO

R.T.: 2.520 min
Delta R.T.: 0.000 min
Response: 12589993
Conc: 430.42 ppm m



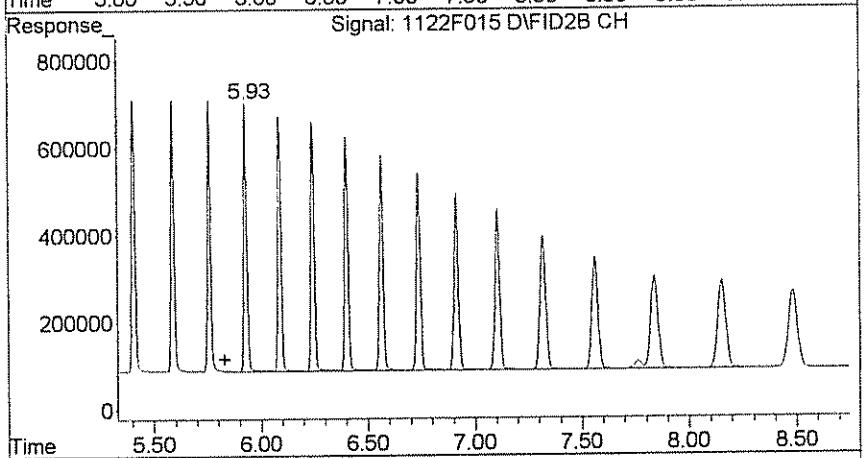
#7 C8-C22 DRO

R.T.: 1.600 min
Delta R.T.: 0.000 min
Response: 9591878
Conc: 324.50 ppm m



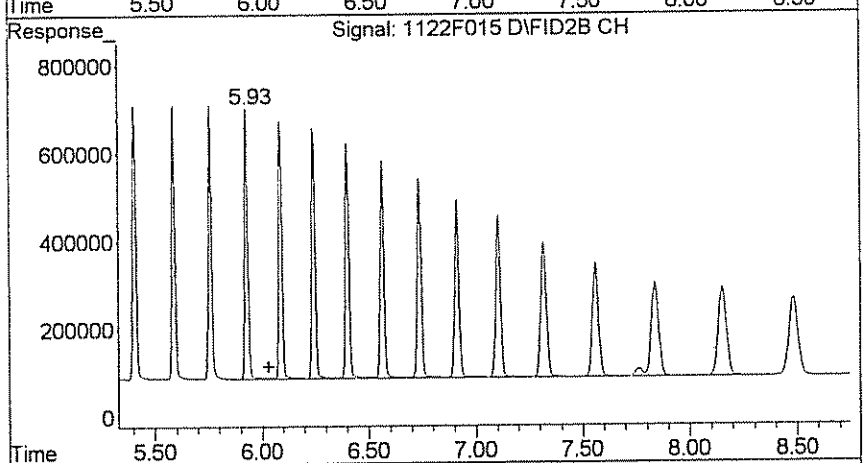
#8 C23-C40 RRO

R.T.: 5.490 min
Delta R.T.: 0.000 min
Response: 9252502
Conc: 409.09 ppm m



#9 RRO (AK103; C25-C36)

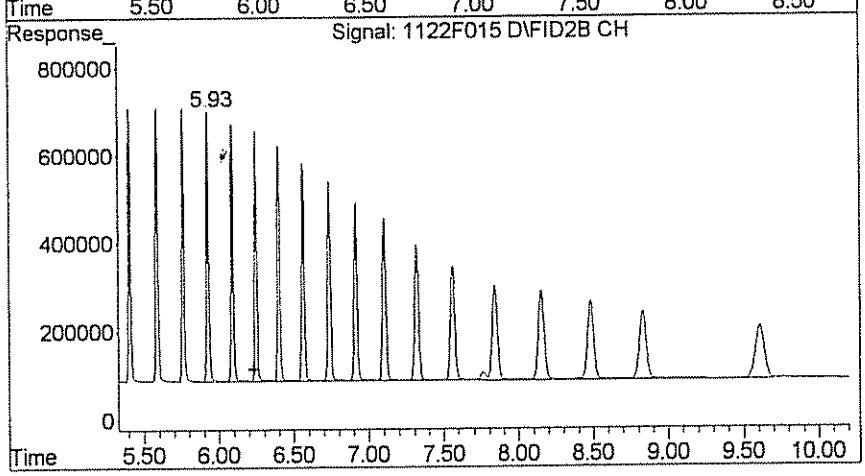
R.T.: 5.830 min
Delta R.T.: 0.000 min
Response: 6365894
Conc: 369.61 ppm m



#10 Motor OIL (C25-C36)

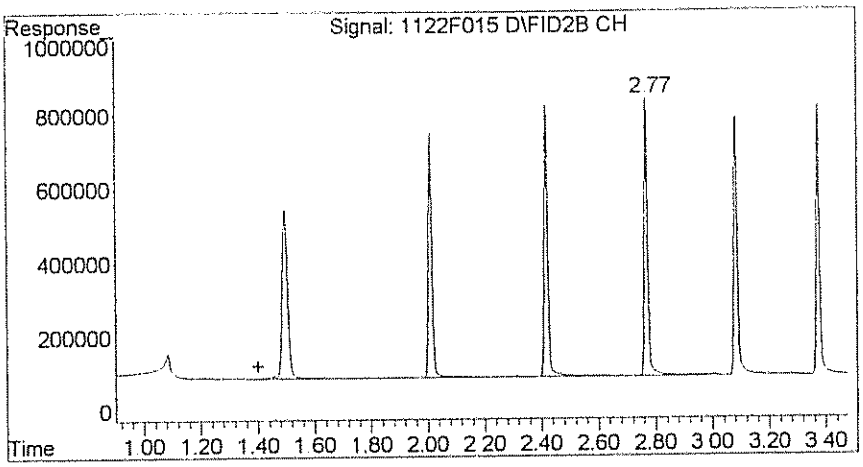
R.T.: 6.030 min
Delta R.T.: 0.000 min
Response: 6365894
Conc: 369.61 ppm m

pm



#11 C25-C40 RRO

R.T.: 6.230 min
Delta R.T.: 0.000 min
Response: 7990196
Conc: 433.79 ppm m



#12 8015 GRO (C8-C12)

R.T.: 1.400 min
Delta R.T.: 0.000 min
Response: 1935499
Conc: 184.13 ppm m

pm

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F011.D Vial: 6
Acq On : 23 Nov 2004 12:39 am Operator: PMulheri
Sample : Instrument Blank Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:33 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
Target Compounds					
4)	H	Diesel (C12-C25)	2.98	50785	2.005 ppm
5)	H	DRO (AK102; C10-C25)	2.32	84814	2.922 ppm
6)	H	C10-C28 AntiTom DRO	2.52	99382	3.398 ppm
7)	H	C8-C22 DRO	1.60	105984	3.586 ppm
8)	H	C23-C40 RRO	5.49	106058	4.689 ppm
9)	H	RRO (AK103; C25-C36)	5.83	59372	3.447 ppm
10)	H	Motor OIL (C25-C36)	6.03	59372	3.447 ppm
11)	H	C25-C40 RRO	6.23	100898	5.478 ppm
12)	H	8015 GRO (C8-C12)	1.40	41949	3.991 ppm

PM 112304

7/12/04

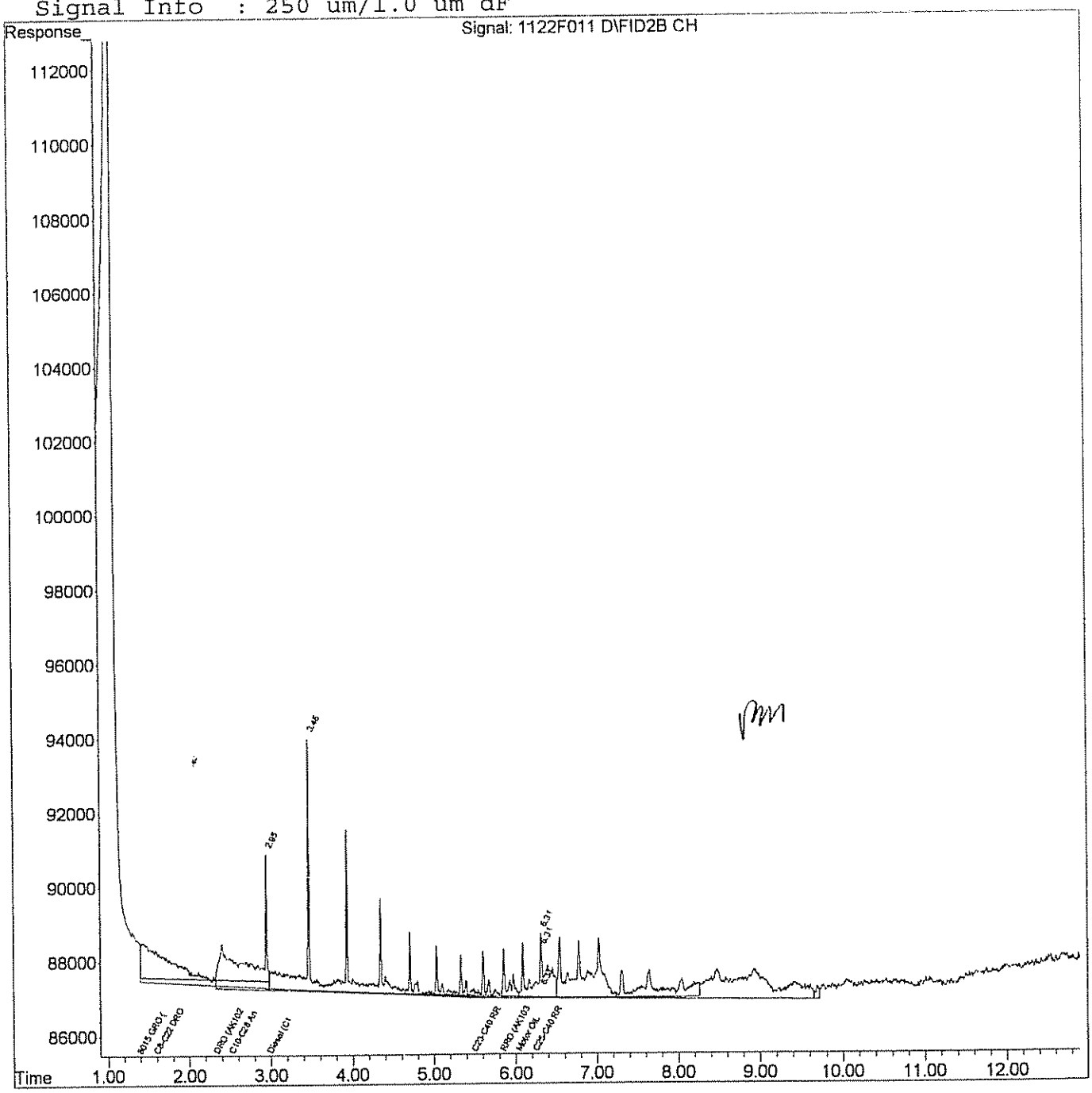
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F011.D Vial: 6
Acq On : 23 Nov 2004 12:39 am Operator: PMulheri
Sample : Instrument Blank Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F013.D Vial: 5
Acq On : 23 Nov 2004 12:57 am Operator: PMulheri
Sample : 5-47M MAHs/PAHs marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.01f	7963	0.573 ppm
Spiked Amount 50.000		Recovery =	1.15%
Target Compounds			
4) H Diesel (C12-C25)	2.98	7735911	305.469 ppm
5) H DRO (AK102; C10-C25)	2.32	10298341	354.816 ppm
6) H C10-C28 AntiTom DRO	2.52	13541867	462.965 ppm
7) H C8-C22 DRO	1.60	18712323	633.051 ppm
8) H C23-C40 RRO	5.49	6315022	279.210 ppm
9) H RRO (AK103; C25-C36)	5.83	6286549	365.002 ppm
10) H Motor OIL (C25-C36)	6.03	6286549	365.002 ppm
11) H C25-C40 RRO	6.23	6322590	343.255 ppm
12) H 8015 GRO (C8-C12)	1.40	10966639	1043.268 ppm

pm 112304

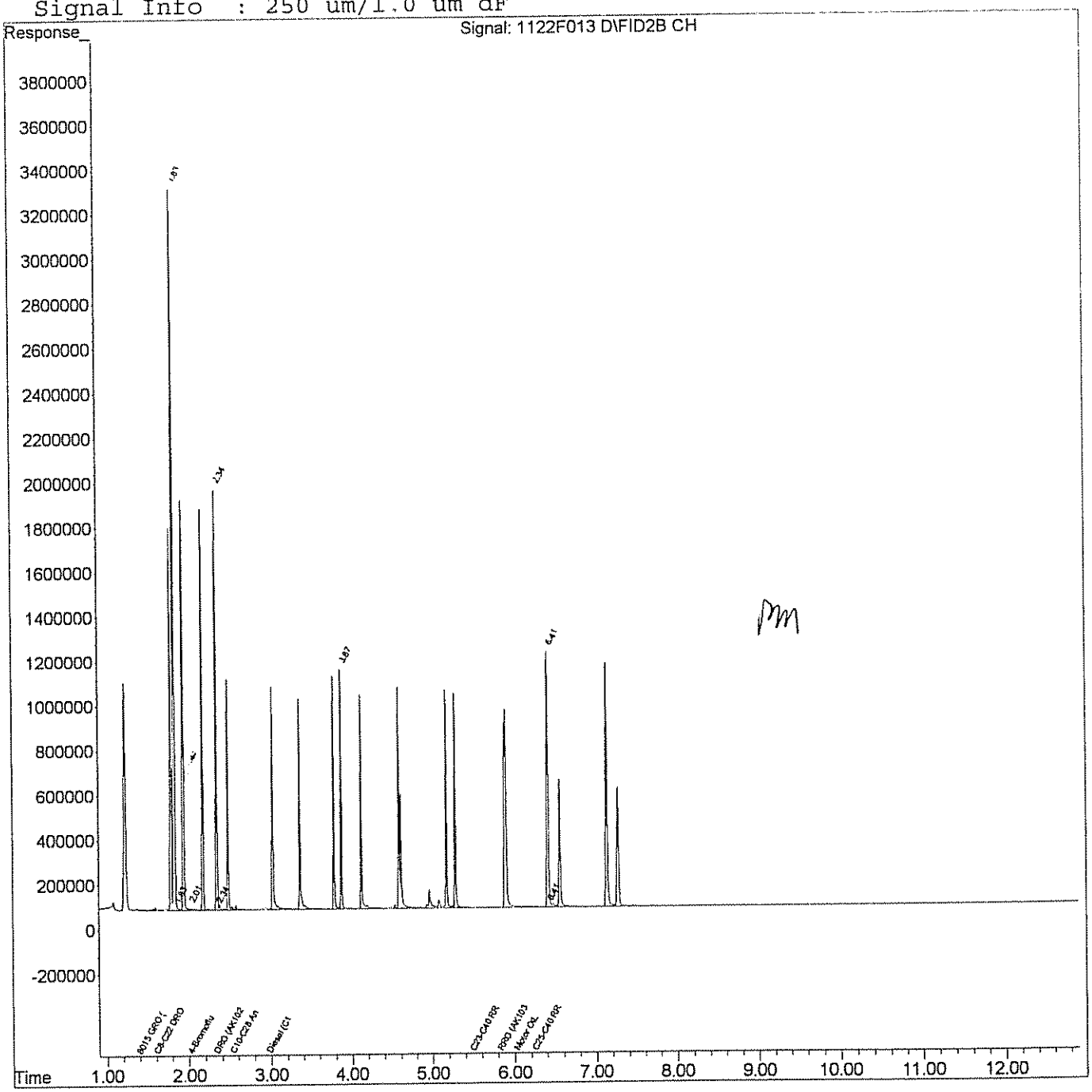
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F013.D Vial: 5
Acq On : 23 Nov 2004 12:57 am Operator: PMulheri
Sample : 5-47M MAHs/PAHs marker Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



PM

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F049.D Vial: 6
Acq On : 23 Nov 2004 2:24 pm Operator: PMulheri
Sample : IB Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30:39 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

		Compound	R.T.	Response	Conc Units
System Monitoring Compounds					
Target Compounds					
4)	H	Diesel (C12-C25)	2.98	80837	3.192 ppm
5)	H	DRO (AK102; C10-C25)	2.32	109610	3.776 ppm
6)	H	C10-C28 AntiTom DRO	2.52	126632	4.329 ppm
7)	H	C8-C22 DRO	1.60	141096	4.773 ppm
8)	H	C23-C40 RRO	5.49	146886	6.494 ppm
9)	H	RRO (AK103; C25-C36)	5.83	51716	3.003 ppm
10)	H	Motor OIL (C25-C36)	6.03	51716	3.003 ppm
11)	H	C25-C40 RRO	6.23	141709	7.693 ppm
12)	H	8015 GRO (C8-C12)	1.40	44834	4.265 ppm

pm 112304

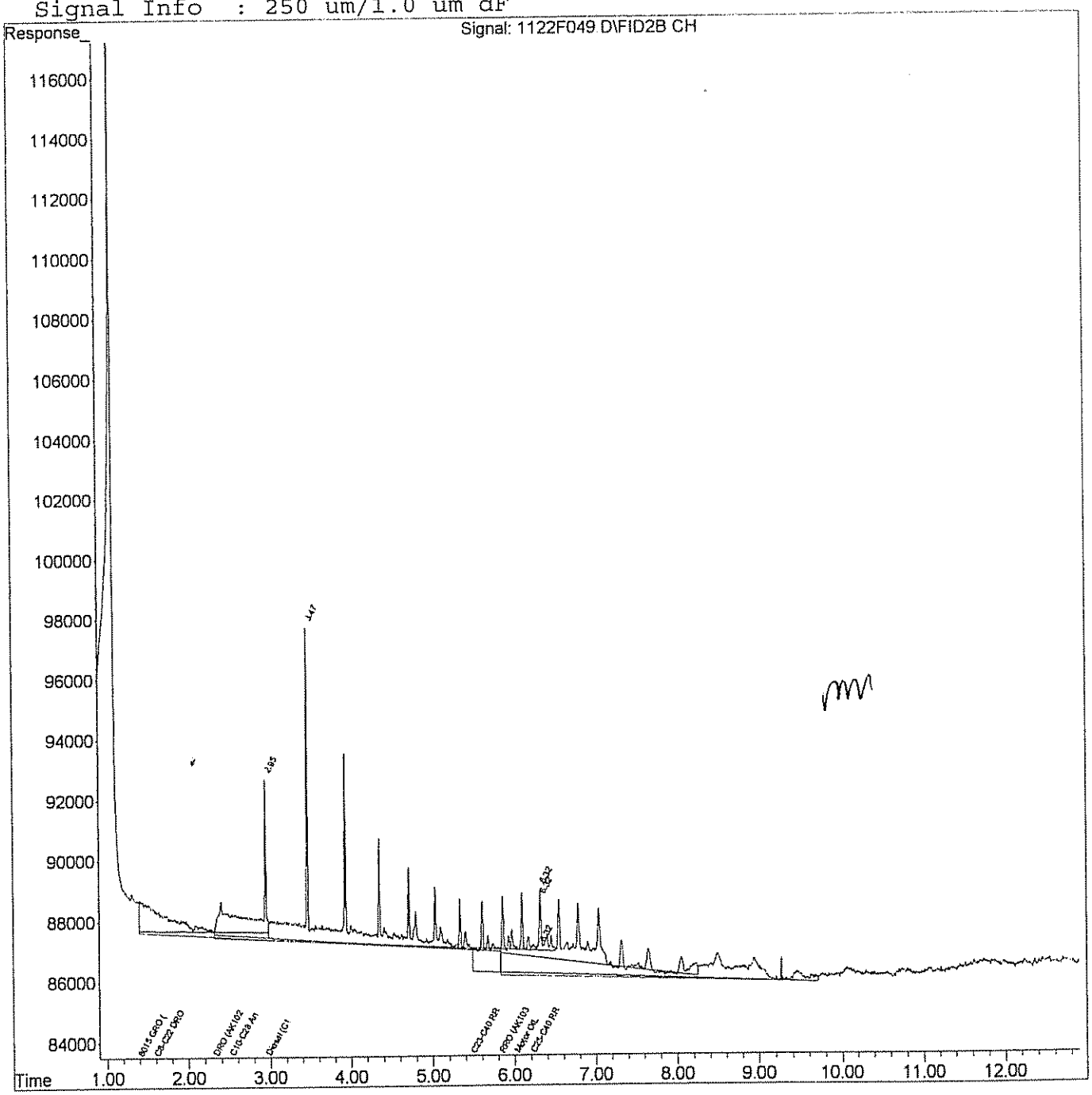
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F049.D Vial: 6
Acq On : 23 Nov 2004 2:24 pm Operator: PMulheri
Sample : IB Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:30 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F017.D Vial: 78
Acq On : 23 Nov 2004 1:33 am Operator: PMulheri
Sample : 20 ppm each HCSV6-74-I Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	446922	29.798 ppm
9) H RRO (AK103; C25-C36)	5.83	324072	28.848 ppm
10) H Motor OIL (C25-C36)	6.03	324072	28.848 ppm
11) H C25-C40 RRO	6.23	364716	29.660 ppm
12) H 8015 GRO (C8-C12)	1.40	216551	29.104 ppm

PM112304

11/29/04

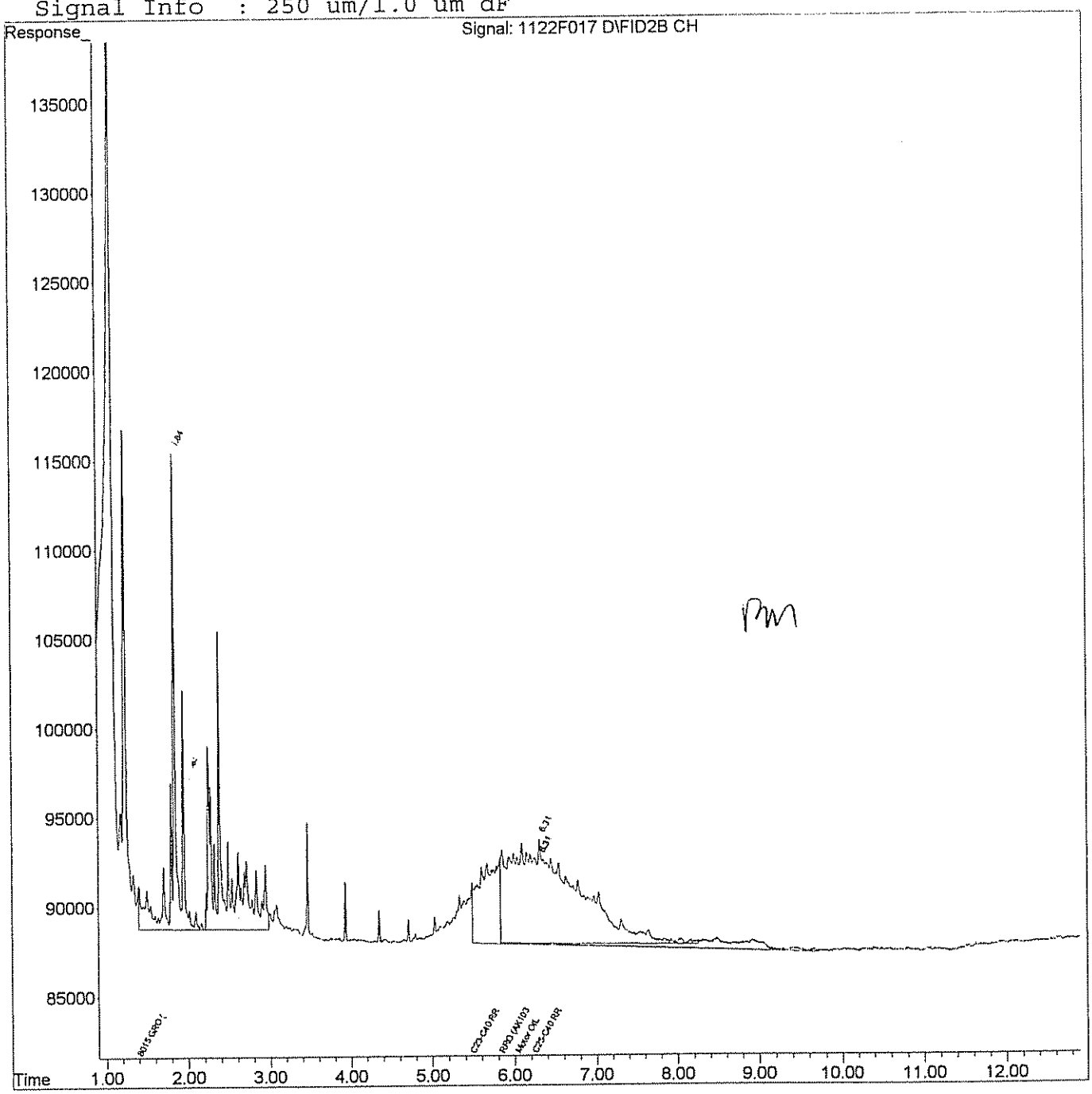
(f)=RT Delta > 1/2 Window (m)=manual int.
1122F017.D 1122BACK.M Tue Nov 23 19:31:16 2004 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F017.D Vial: 78
Acq On : 23 Nov 2004 1:33 am Operator: PMulheri
Sample : 20 ppm each HCSV6-74-I Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F019.D Vial: 71
Acq On : 23 Nov 2004 1:50 am Operator: PMulheri
Sample : 20/1 ppm HCSV6-74B Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:36 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.06	8955	0.883 ppm
Spiked Amount 50.000	Recovery	=	1.77%
2) S O-Terphenyl	4.79	30216	1.362 ppm
Spiked Amount 50.000	Recovery	=	2.72%
3) S Triacontane (C-30)	6.74	19271	1.057 ppm
Spiked Amount 50.000	Recovery	=	2.11%
Target Compounds			
4) H Diesel (C12-C25)	2.98	475436	29.147 ppm
5) H DRO (AK102; C10-C25)	2.32	566724	30.187 ppm
6) H C10-C28 DRO	2.52	572165	30.243 ppm
7) H C8-C22 DRO	1.60	580688	29.933 ppm

NOT USED PM 112304

PM 112304

112904

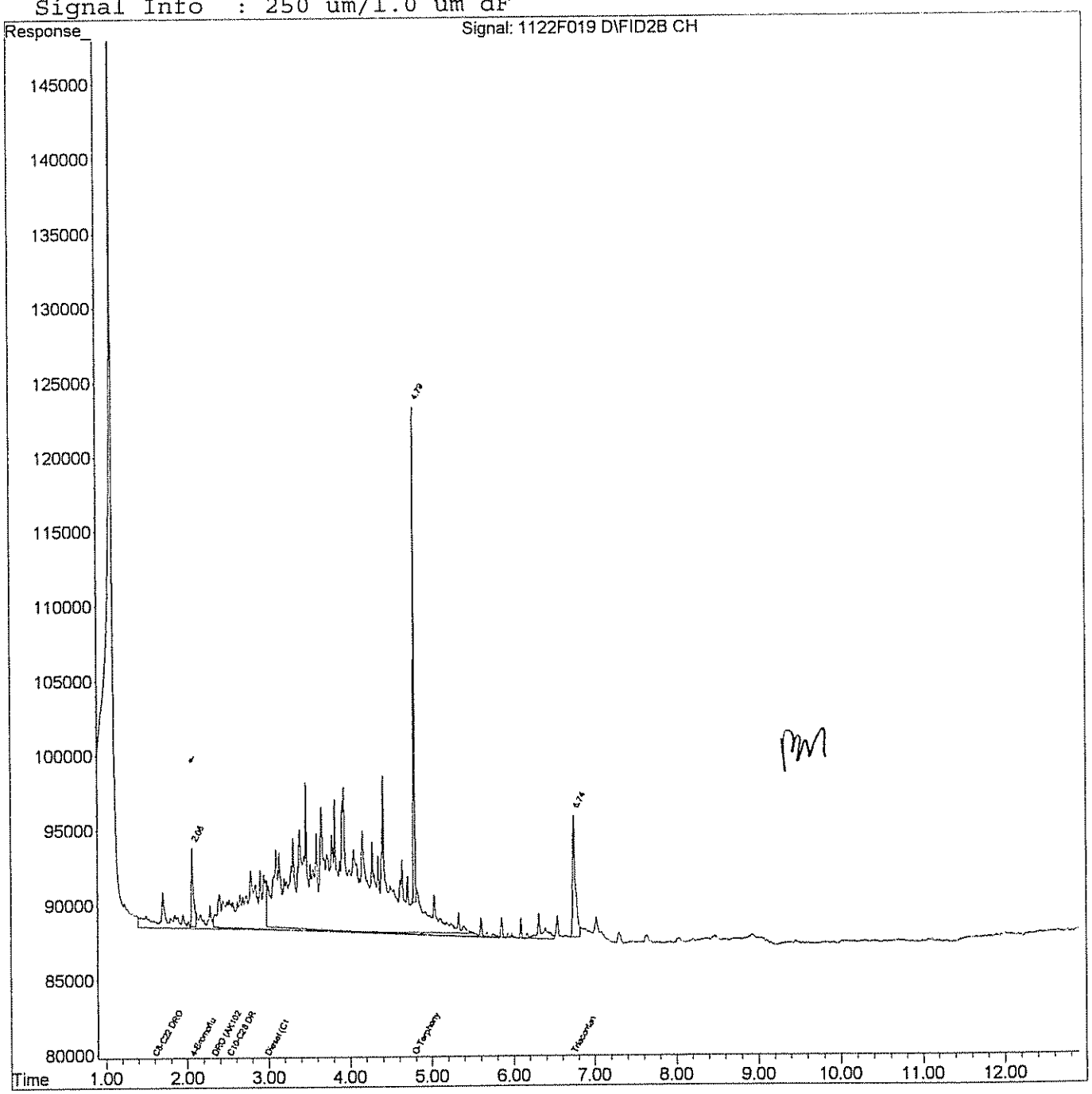
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F019.D Vial: 71
Acq On : 23 Nov 2004 1:50 am Operator: PMulheri
Sample : 20/1 ppm HCSV6-74B Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:40 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



1122F019.D 1122BACK.M Tue Nov 23 19:31:18 2004 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F021.D Vial: 79
Acq On : 23 Nov 2004 2:08 am Operator: PMulheri
Sample : 50 ppm each HCSV6-74-H Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:39 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	1056291	70.426 ppm
9) H RRO (AK103; C25-C36)	5.83	780959	69.518 ppm
10) H Motor OIL (C25-C36)	6.03	780959	69.518 ppm
11) H C25-C40 RRO	6.23	855042	69.535 ppm
12) H 8015 GRO (C8-C12)	1.40	466736	62.728 ppm

pm 112304

9/12/04

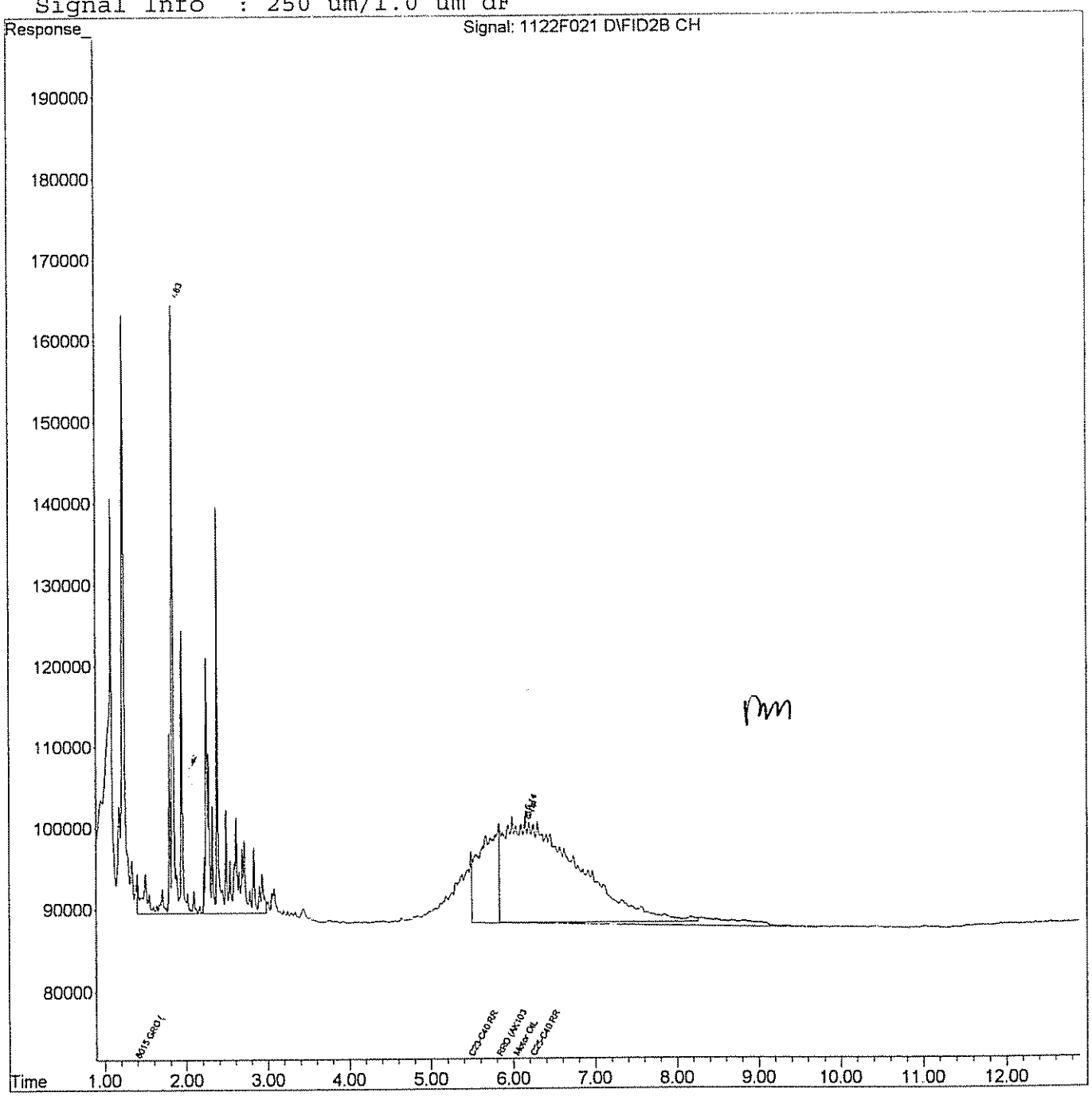
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F021.D Vial: 79
Acq On : 23 Nov 2004 2:08 am Operator: PMulheri
Sample : 50 ppm each HCSV6-74-H Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F023.D Vial: 72
Acq On : 23 Nov 2004 2:26 am Operator: PMulheri
Sample : 50/2.5 ppm HCSV6-74A Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.06	26492	2.612 ppm
Spiked Amount 50.000	Recovery	=	5.22%
2) S O-Terphenyl	4.79	80603	3.632 ppm
Spiked Amount 50.000	Recovery	=	7.26%
3) S Triacontane (C-30)	6.74	61039	3.348 ppm
Spiked Amount 50.000	Recovery	=	6.70%
Target Compounds			
4) H Diesel (C12-C25)	2.98	1185416	72.673 ppm
5) H DRO (AK102; C10-C25)	2.32	1358044	72.338 ppm
6) H C10-C28 DRO	2.52	1377146	72.791 ppm
7) H C8-C22 DRO	1.60	1341461	69.148 ppm

PM 112304
9/12/04

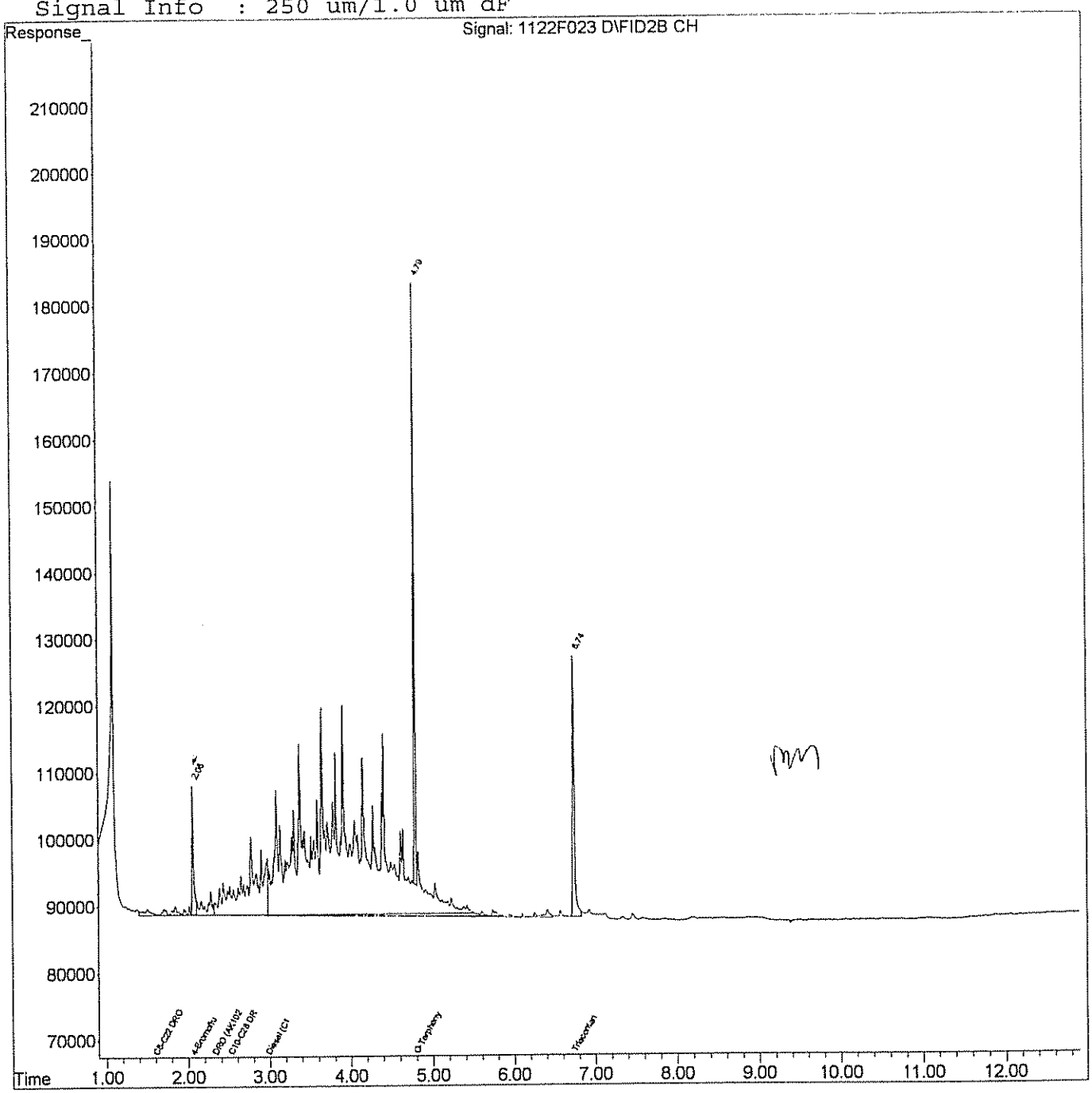
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F023.D Vial: 72
Acq On : 23 Nov 2004 2:26 am Operator: PMulheri
Sample : 50/2.5 ppm HCSV6-74A Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F025.D Vial: 80
Acq On : 23 Nov 2004 2:43 am Operator: PMulheri
Sample : 200 ppm each HCSV6-74-G Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:44 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	4506993	300.494 ppm
9) H RRO (AK103; C25-C36)	5.83	3511686	312.598 ppm
10) H Motor OIL (C25-C36)	6.03	3511686	312.598 ppm
11) H C25-C40 RRO	6.23	3659009	297.564 ppm
12) H 8015 GRO (C8-C12)	1.40	2003134	269.215 ppm

PM 112304

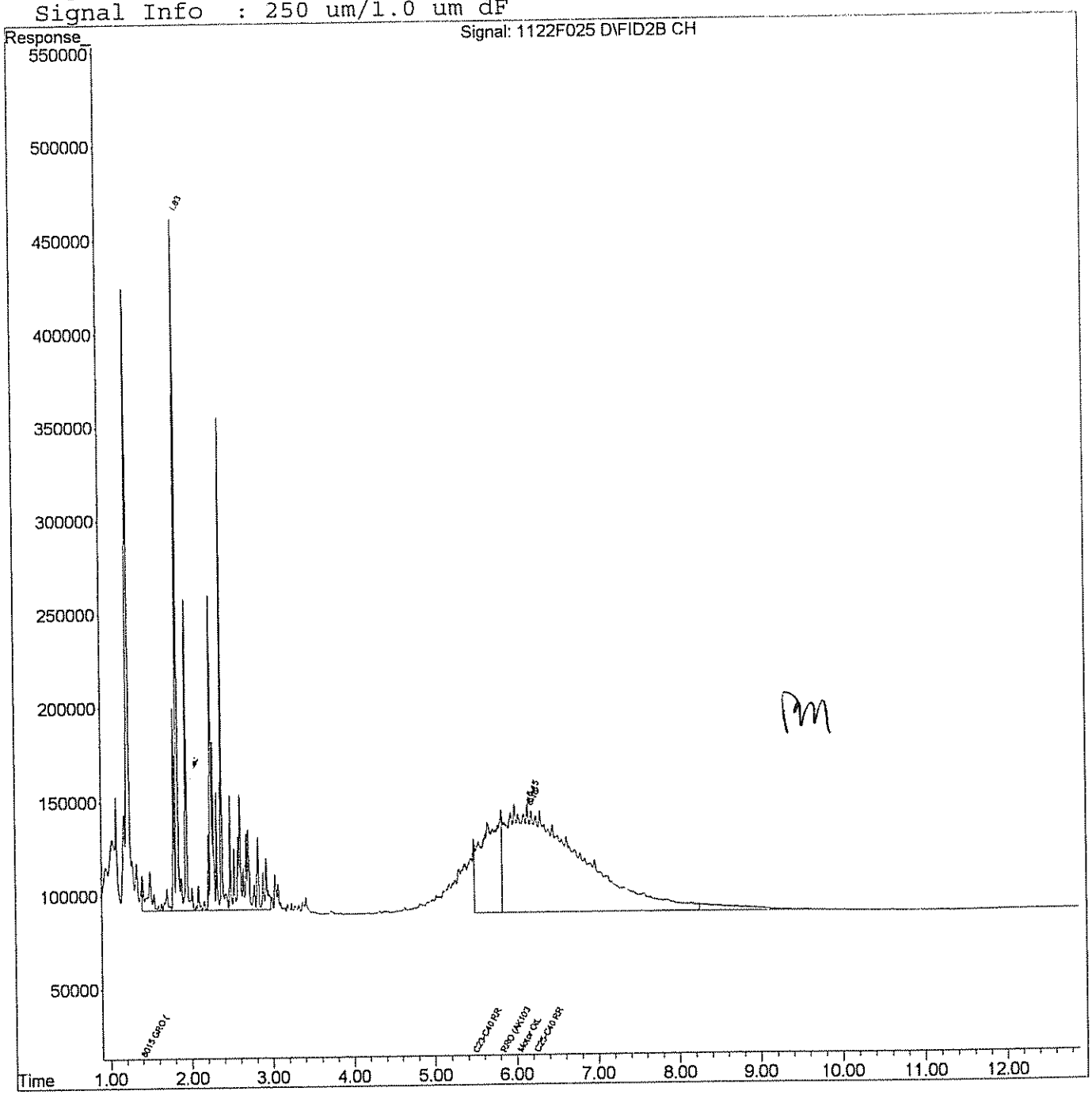
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F025.D Vial: 80
Acq On : 23 Nov 2004 2:43 am Operator: PMulheri
Sample : 200 ppm each HCSV6-74-G Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F027.D Vial: 73
Acq On : 23 Nov 2004 3:01 am Operator: PMulheri
Sample : 200/10 ppm HCSV6-73U Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:45 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	135145	13.323 ppm
Spiked Amount 50.000		Recovery =	26.65%
2) S O-Terphenyl	4.78	346094	15.596 ppm
Spiked Amount 50.000		Recovery =	31.19%
3) S Triacontane (C-30)	6.73	289319	15.867 ppm
Spiked Amount 50.000		Recovery =	31.73%
Target Compounds			
4) H Diesel (C12-C25)	2.98	5160664	316.379 ppm
5) H DRO (AK102; C10-C25)	2.32	5870676	312.708 ppm
6) H C10-C28 DRO	2.52	5957899	314.915 ppm
7) H C8-C22 DRO	1.60	6005164	309.549 ppm

g 112904

PM112304

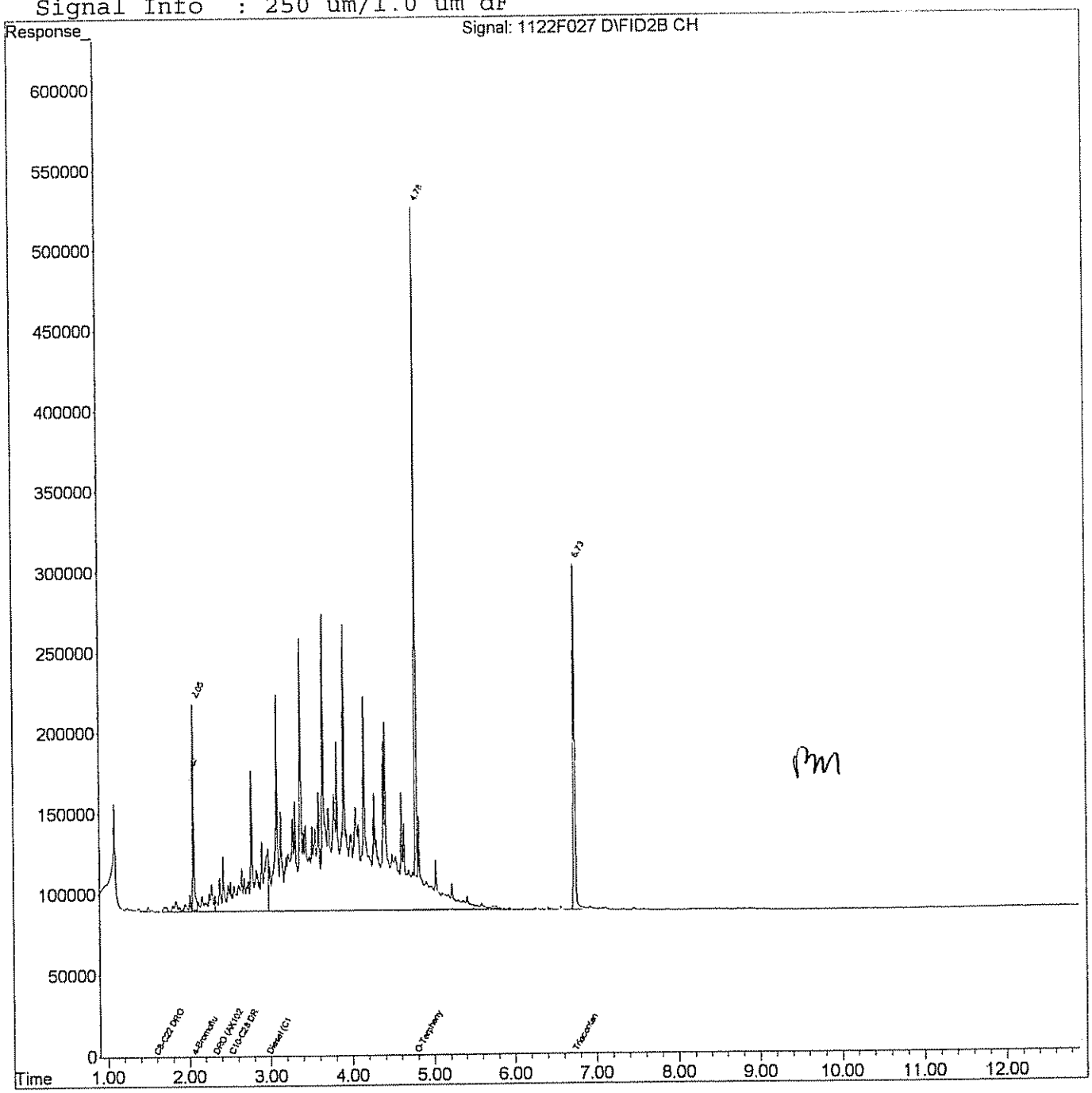
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F027.D Vial: 73
Acq On : 23 Nov 2004 3:01 am Operator: PMulheri
Sample : 200/10 ppm HCSV6-73U Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F029.D Vial: 81
Acq On : 23 Nov 2004 3:19 am Operator: PMulheri
Sample : 500 ppm each HCSV6-74-F Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:48 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
8) H C23-C40 RRO	5.49	11979083	798.680 ppm
9) H RRO (AK103; C25-C36)	5.83	9300400	827.888 ppm
10) H Motor OIL (C25-C36)	6.03	9300400	827.888 ppm
11) H C25-C40 RRO	6.23	9740978	792.172 ppm
12) H 8015 GRO (C8-C12)	1.40	5496450	738.705 ppm

pm 112304

f 112404

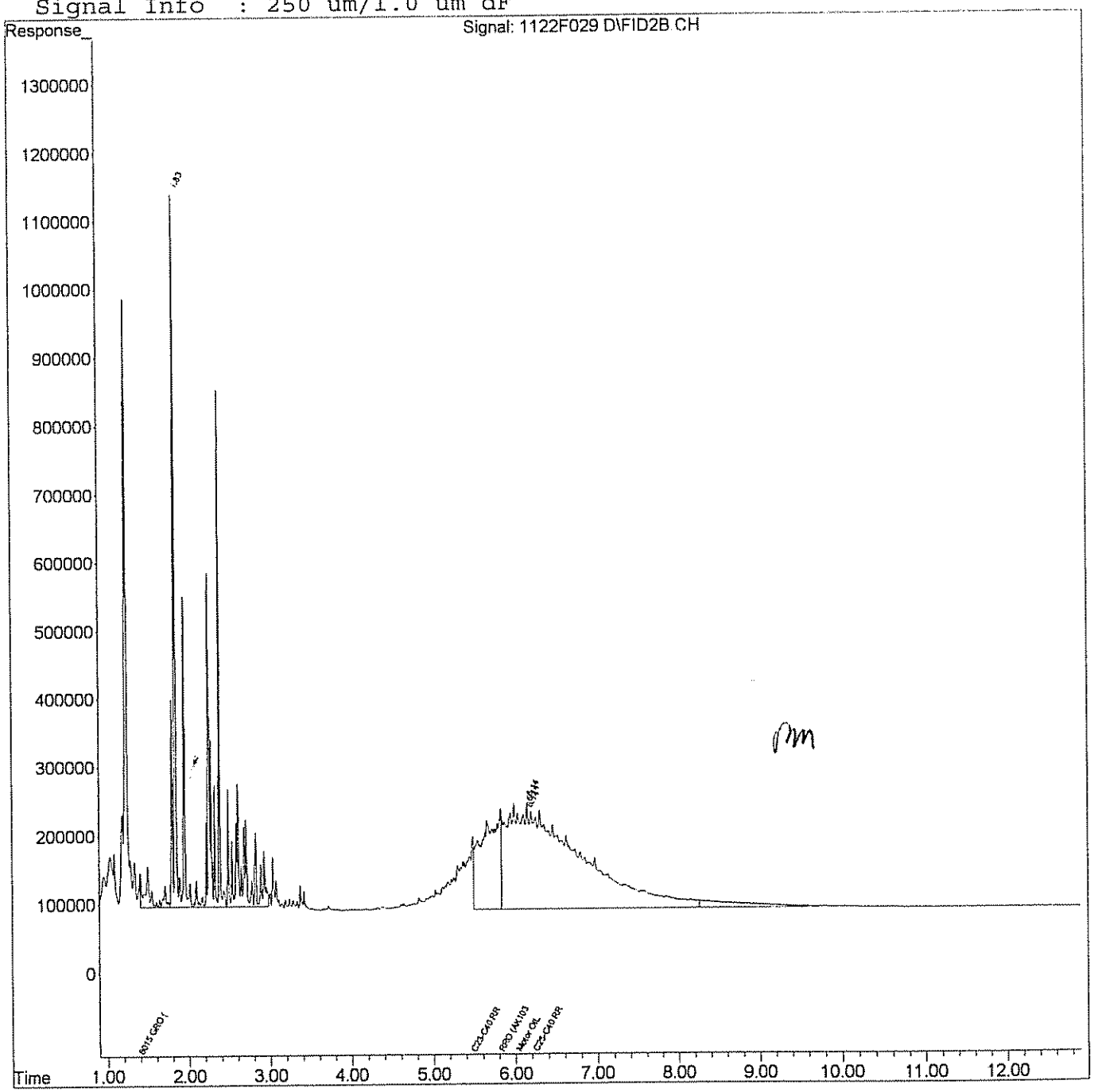
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F029.D Vial: 81
Acq On : 23 Nov 2004 3:19 am Operator: PMulheri
Sample : 500 ppm each HCSV6-74-F Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F031.D Vial: 74
Acq On : 23 Nov 2004 3:37 am Operator: PMulheri
Sample : 500/25 ppm HCSV6-73T Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:49 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	346916	34.199 ppm
Spiked Amount 50.000	Recovery	=	68.40%
2) S O-Terphenyl	4.78	870069	39.208 ppm
Spiked Amount 50.000	Recovery	=	78.42%
3) S Triacontane (C-30)	6.74	731765	40.132 ppm
Spiked Amount 50.000	Recovery	=	80.26%
Target Compounds			
4) H Diesel (C12-C25)	2.98	12881488	789.712 ppm
5) H DRO (AK102; C10-C25)	2.32	14642623	779.956 ppm
6) H C10-C28 DRO	2.52	14764413	780.398 ppm
7) H C8-C22 DRO	1.60	14978005	772.072 ppm

pm112304

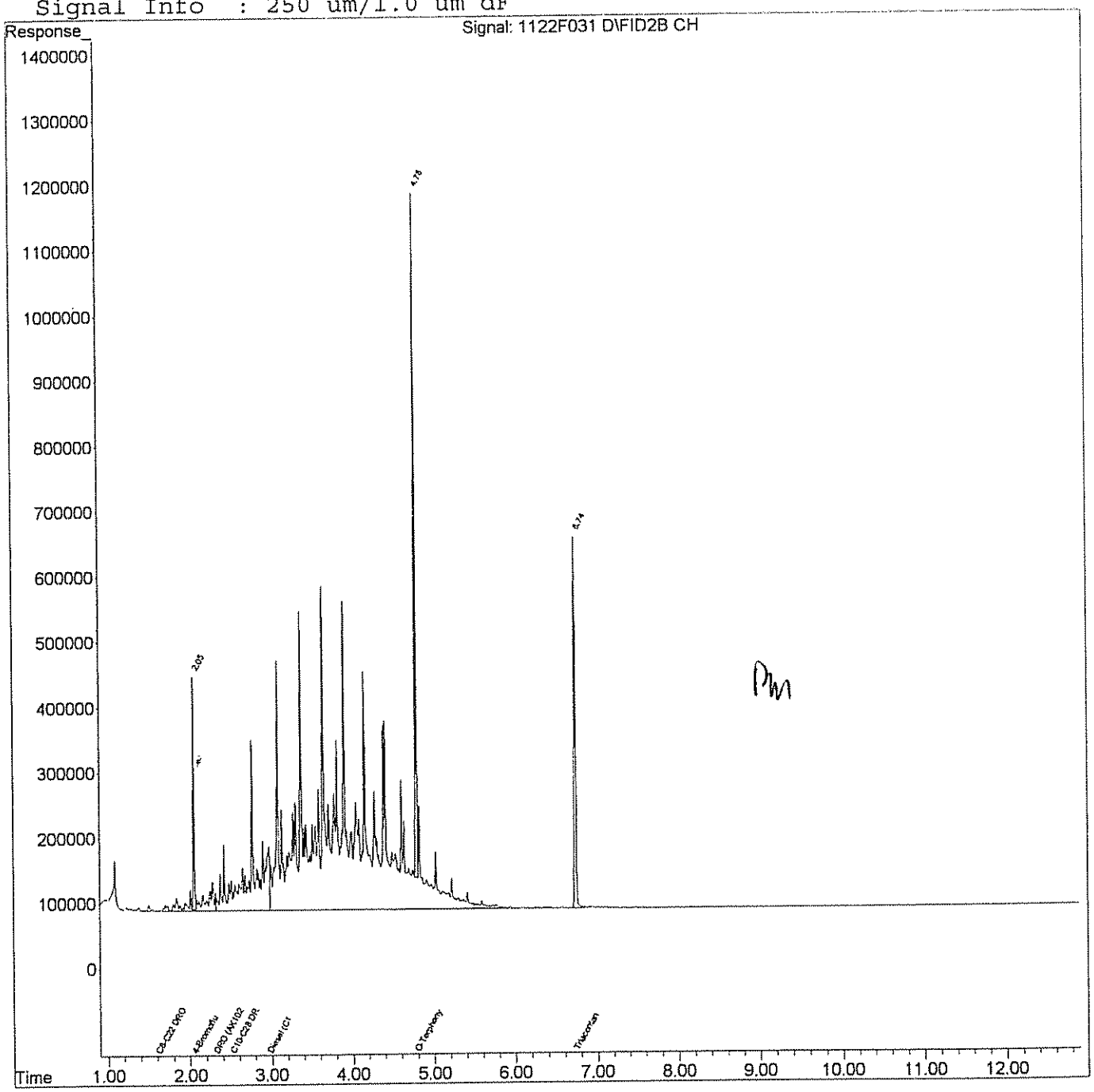
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F031.D Vial: 74
Acq On : 23 Nov 2004 3:37 am Operator: PMulheri
Sample : 500/25 ppm HCSV6-73T Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:41 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



PM

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F033.D Vial: 82
Acq On : 23 Nov 2004 3:55 am Operator: PMulheri
Sample : 1000 ppm each HCSV6-74-E Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:51 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	22796176	1519.886	ppm
9) H RRO (AK103; C25-C36)	5.83	17605862	1567.211	ppm
10) H Motor OIL (C25-C36)	6.03	17605862	1567.211	ppm
11) H C25-C40 RRO	6.23	18598525	1512.500	ppm
12) H 8015 GRO (C8-C12)	1.40	10567840	1420.283	ppm

PM 112304

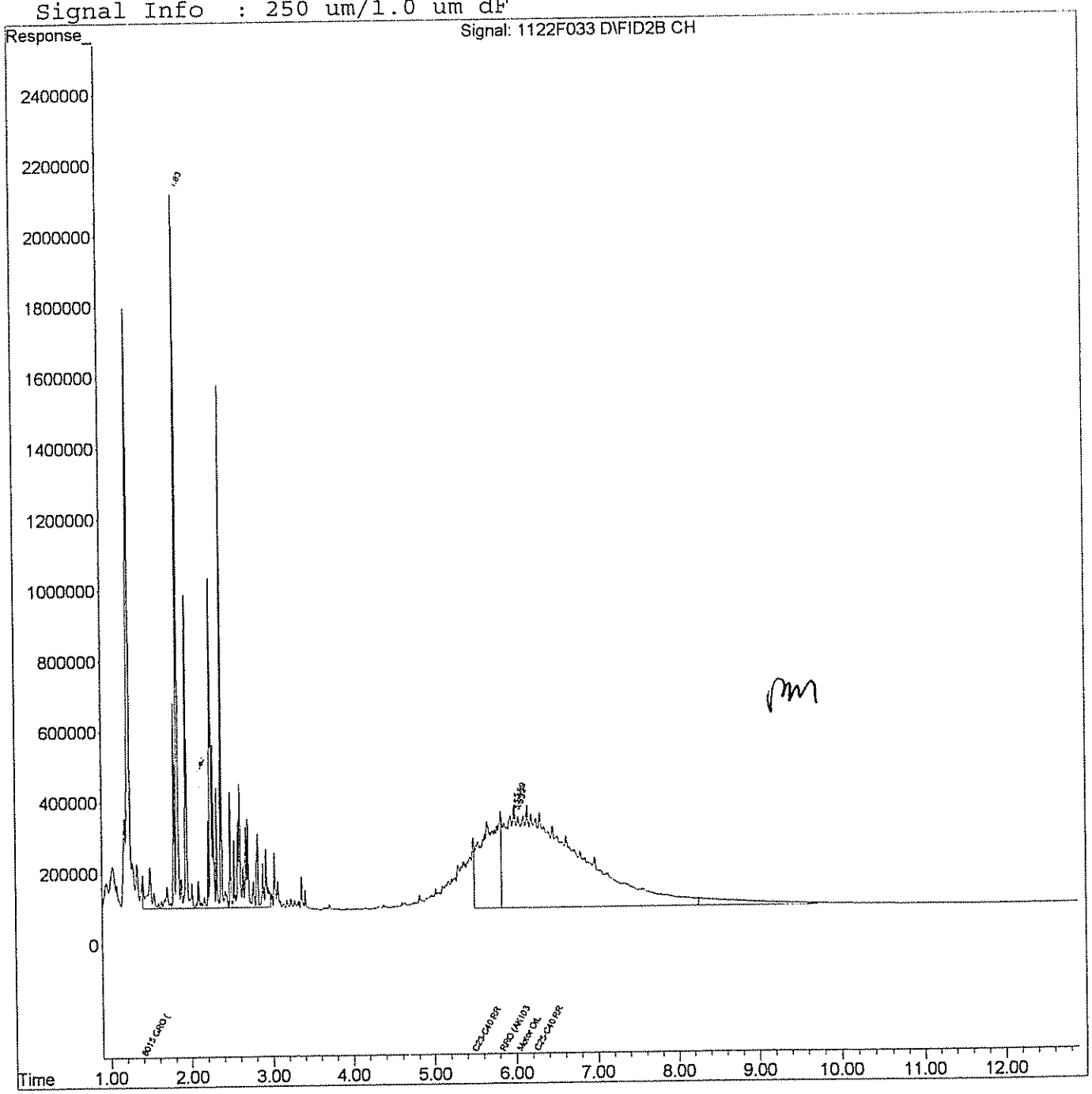
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F033.D Vial: 82
Acq On : 23 Nov 2004 3:55 am Operator: PMulheri
Sample : 1000 ppm each HCSV6-74-E Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F035.D Vial: 75
Acq On : 23 Nov 2004 4:12 am Operator: PMulheri
Sample : 1000/50 ppm HCSV6-73S Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:53 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	724441	71.416 ppm
Spiked Amount 50.000		Recovery =	142.83%
2) S O-Terphenyl	4.78	1727213	77.834 ppm
Spiked Amount 50.000		Recovery =	155.67%
3) S Triacontane (C-30)	6.74	1482753	81.318 ppm
Spiked Amount 50.000		Recovery =	162.64%
Target Compounds			
4) H Diesel (C12-C25)	2.98	25782051	1580.593 ppm
5) H DRO (AK102; C10-C25)	2.32	29327882	1562.183 ppm
6) H C10-C28 DRO	2.52	29431668	1555.660 ppm
7) H C8-C22 DRO	1.60	29999143	1546.368 ppm

PM 112304

112904

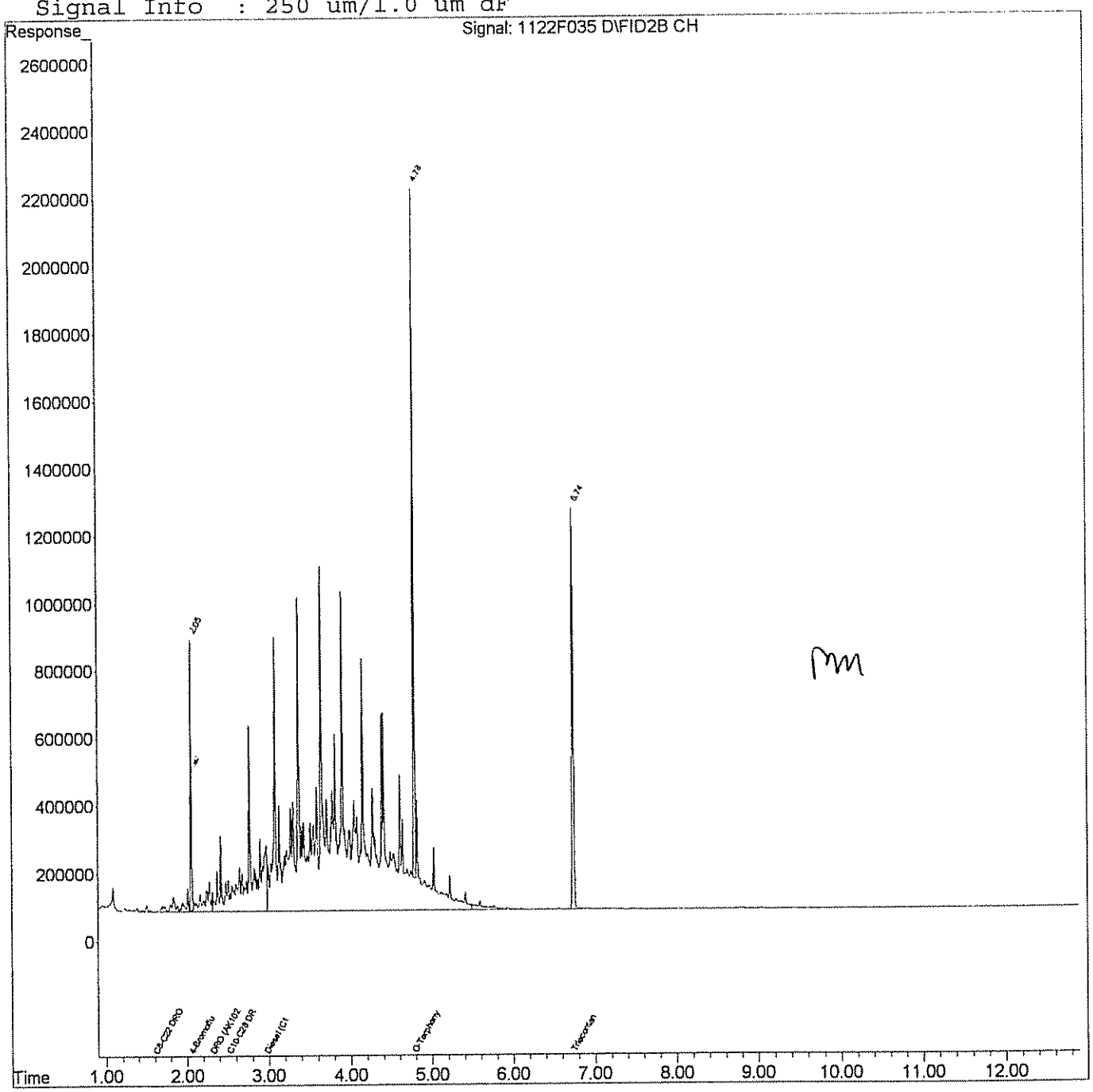
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F035.D Vial: 75
Acq On : 23 Nov 2004 4:12 am Operator: PMulheri
Sample : 1000/50 ppm HCSV6-73S Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F037.D Vial: 83
Acq On : 23 Nov 2004 4:30 am Operator: PMulheri
Sample : 2000 ppm each HCSV6-74-D Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:55 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	45864356	3057.908	ppm
9) H RRO (AK103; C25-C36)	5.83	35235721	3136.558	ppm
10) H Motor OIL (C25-C36)	6.03	35235721	3136.558	ppm
11) H C25-C40 RRO	6.23	37411714	3042.457	ppm
12) H 8015 GRO (C8-C12)	1.40	21640628	2908.429	ppm

PM112304

112204

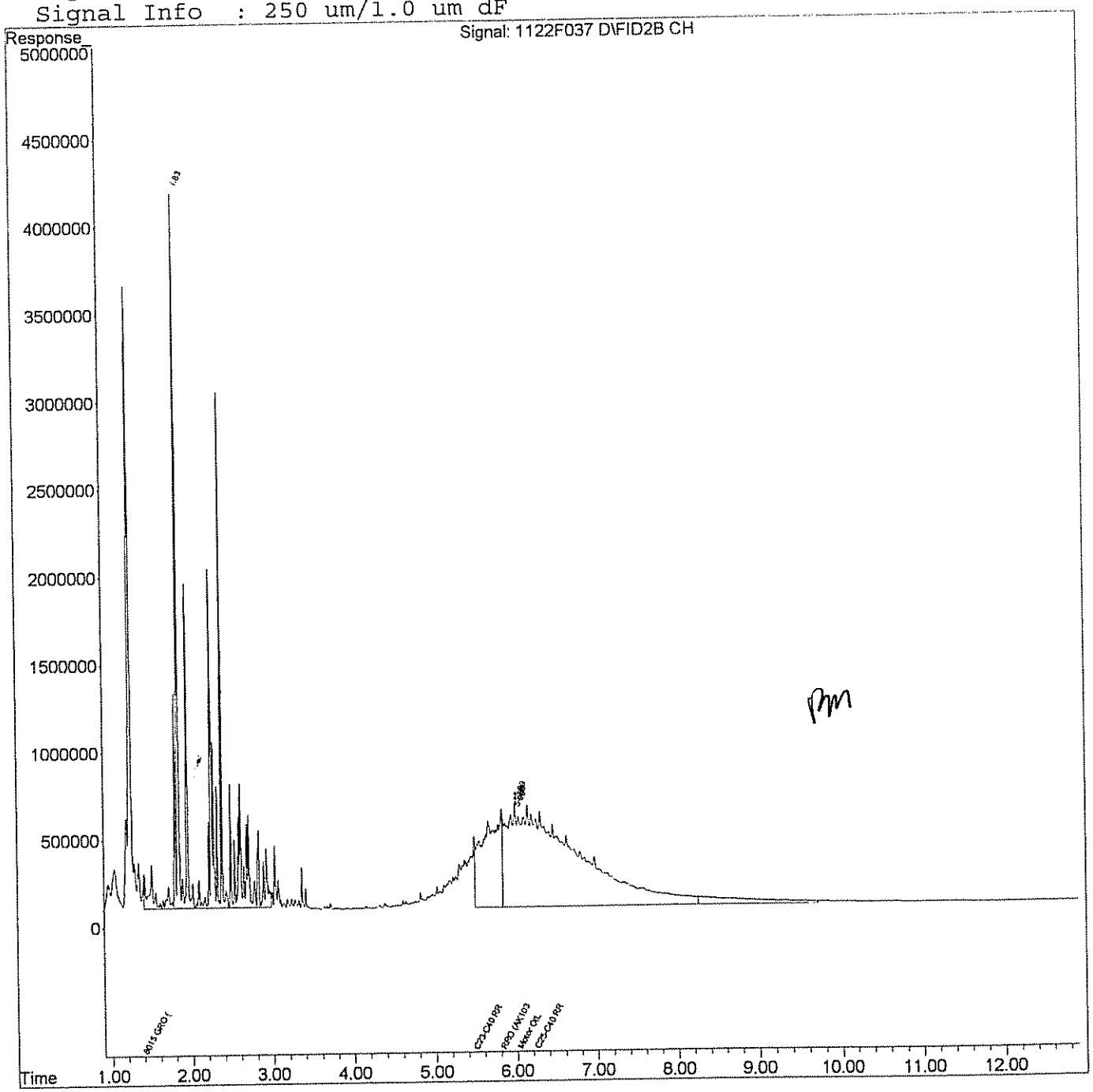
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F037.D Vial: 83
Acq On : 23 Nov 2004 4:30 am Operator: PMulheri
Sample : 2000 ppm each HCSV6-74-D Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F039.D Vial: 76
Acq On : 23 Nov 2004 4:47 am Operator: PMulheri
Sample : 2000/100 ppm HCSV6-73R Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:57 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	1526663	150.499 ppm
Spiked Amount 50.000		Recovery =	301.00%
2) S O-Terphenyl	4.78	3509811	158.164 ppm
Spiked Amount 50.000		Recovery =	316.33%
3) S Triacontane (C-30)	6.73	3023823	165.834 ppm
Spiked Amount 50.000		Recovery =	331.67%
Target Compounds			
4) H Diesel (C12-C25)	2.98	52595920	3224.443 ppm
5) H DRO (AK102; C10-C25)	2.32	59866427	3188.853 ppm
6) H C10-C28 DRO	2.52	59999460	3171.373 ppm
7) H C8-C22 DRO	1.60	61230459	3156.251 ppm

PM 112304

11/29/04

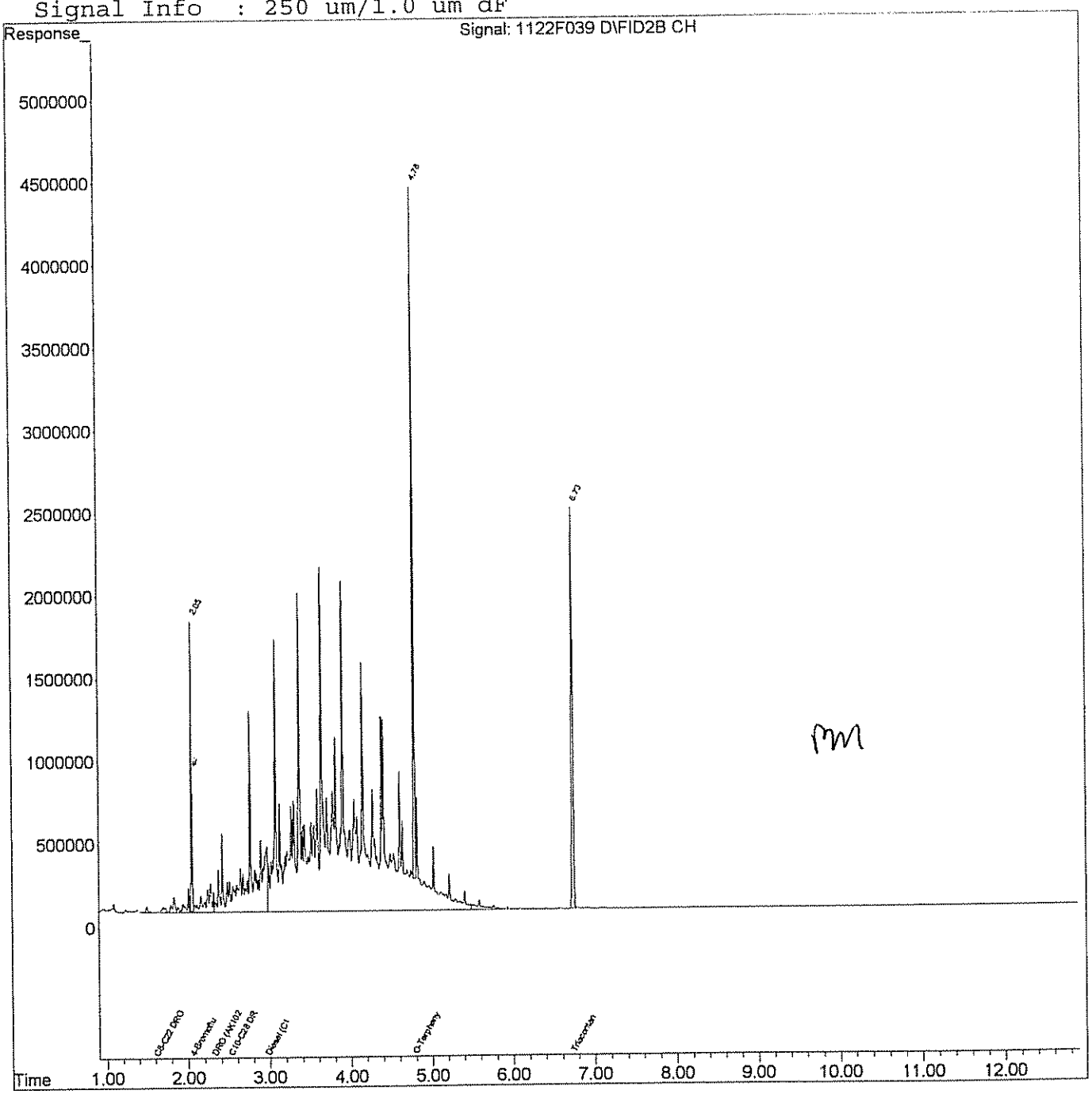
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F039.D Vial: 76
Acq On : 23 Nov 2004 4:47 am Operator: PMulheri
Sample : 2000/100 ppm HCSV6-73R Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:42 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F041.D Vial: 84
Acq On : 23 Nov 2004 5:05 am Operator: PMulheri
Sample : 5000 ppm each HCSV6-74-C Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:34:59 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	113144637	7543.678	ppm
9) H RRO (AK103; C25-C36)	5.83	86788390	7725.593	ppm
10) H Motor OIL (C25-C36)	6.03	86788390	7725.593	ppm
11) H C25-C40 RRO	6.23	92592694	7529.975	ppm
12) H 8015 GRO (C8-C12)	1.40	55118634	7407.762	ppm

PM 112304

11/29/04

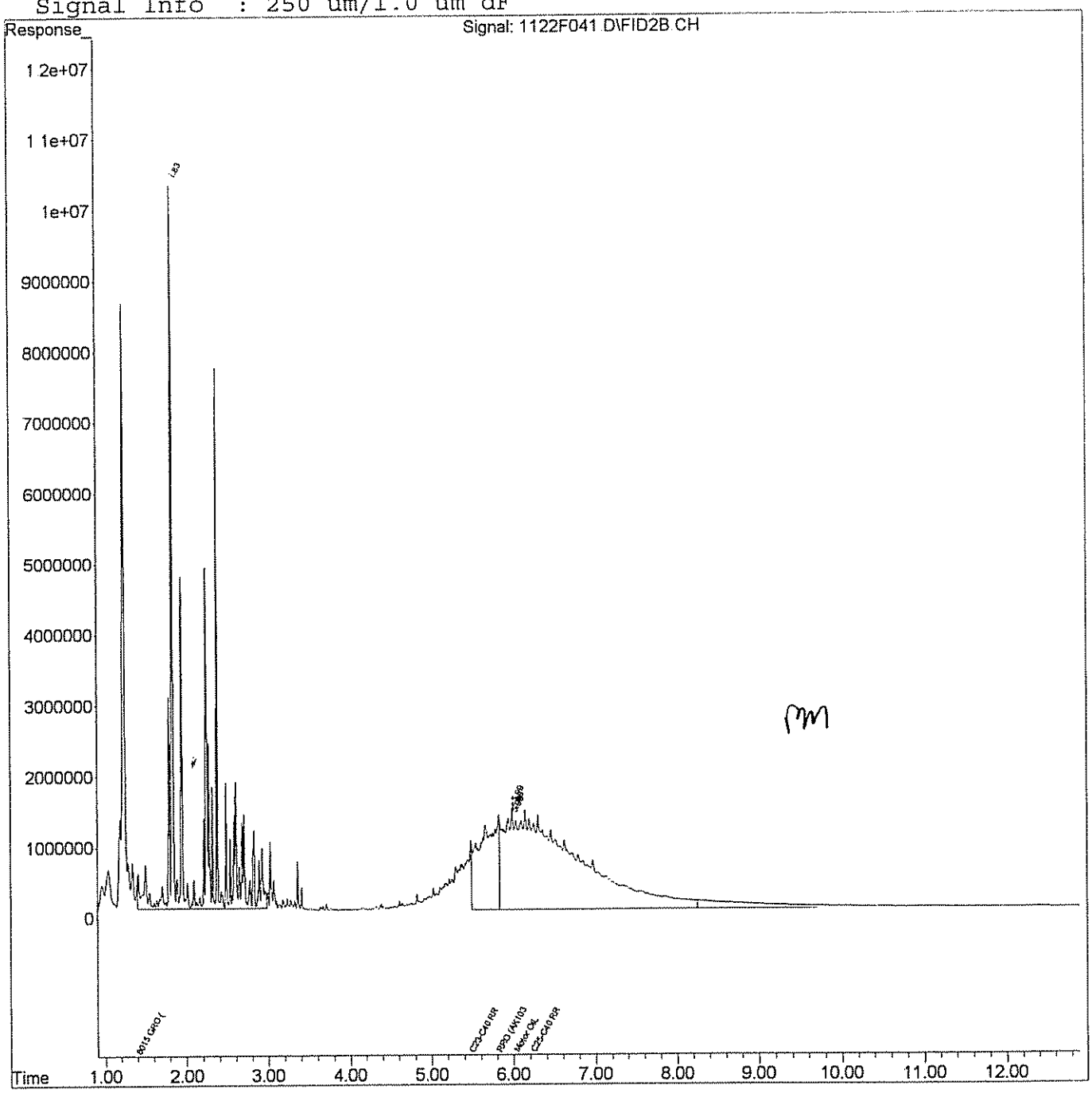
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F041.D Vial: 84
Acq On : 23 Nov 2004 5:05 am Operator: PMulheri
Sample : 5000 ppm each HCSV6-74-C Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:43 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F043.D Vial: 77
Acq On : 23 Nov 2004 5:23 am Operator: PMulheri
Sample : 5000/250 ppm HCSV6-73Q Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35:00 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	2.05	3909666	385.416 ppm
Spiked Amount 50.000		Recovery =	770.83%
2) S O-Terphenyl	4.79	8676383	390.988 ppm
Spiked Amount 50.000		Recovery =	781.98%
3) S Triacontane (C-30)	6.74	7527514	412.828 ppm
Spiked Amount 50.000		Recovery =	825.66%
Target Compounds			
4) H Diesel (C12-C25)	2.98	130732559	8014.685 ppm
5) H DRO (AK102; C10-C25)	2.32	148871741	7929.821 ppm
6) H C10-C28 DRO	2.52	149256707	7889.215 ppm
7) H C8-C22 DRO	1.60	152264194	7848.773 ppm

NOT USED PM 112304

PM112304

gh12904

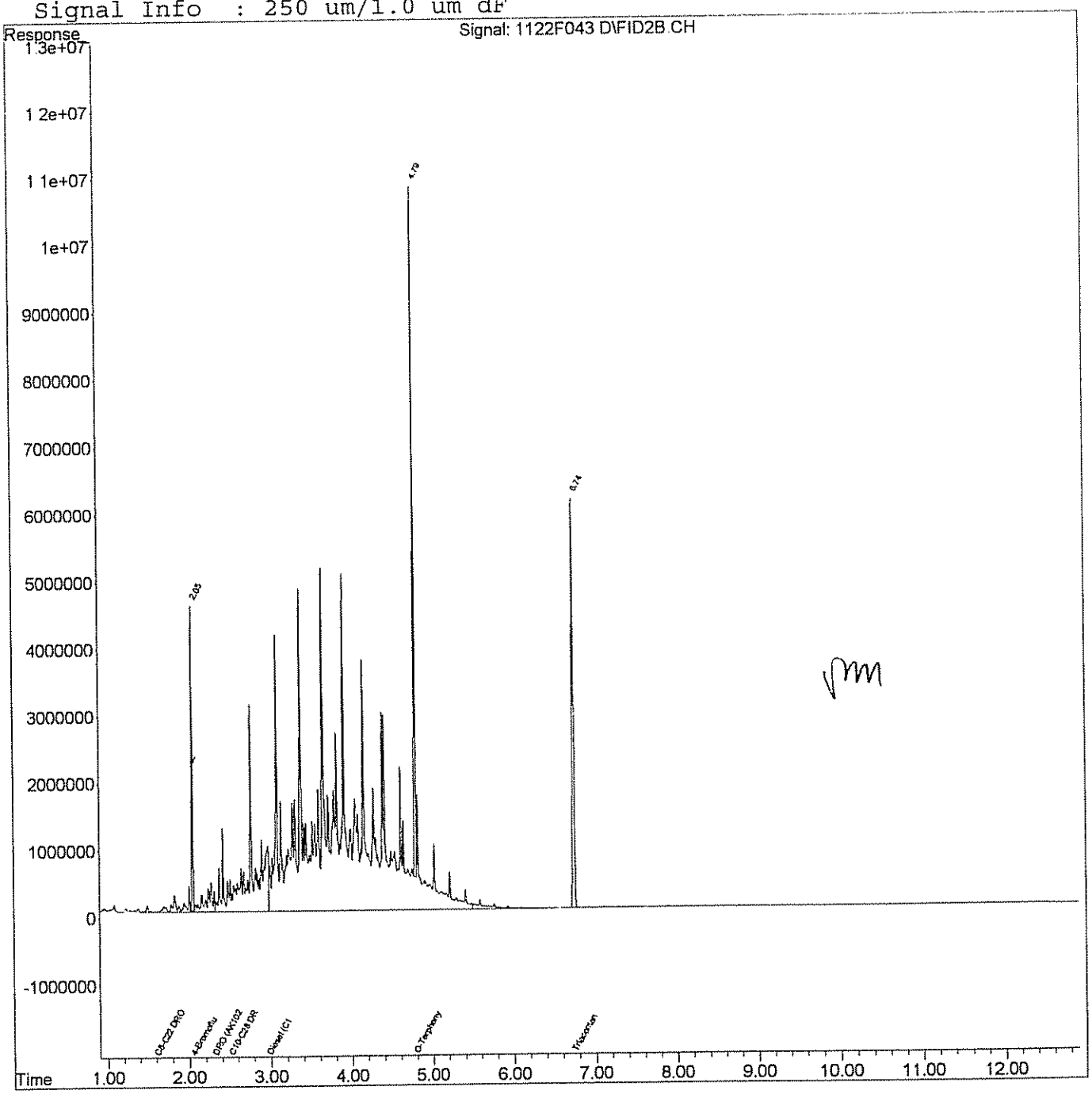
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F043.D Vial: 77
Acq On : 23 Nov 2004 5:23 am Operator: PMulheri
Sample : 5000/250 ppm HCSV6-73Q Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 13:35 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 13:32:21 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F051.D Vial: 86
Acq On : 23 Nov 2004 2:42 pm Operator: PMulheri
Sample : 1000 ppm each hcsv6-74j Inst : gc21
Misc : Multiplr: 1.00
IntFile : rteint.p GASOLINE/ MOTOR OIL LCV
Quant Time: Nov 23 19:18:06 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:17:56 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
8) H C23-C40 RRO	5.49	25850057	1142.924	ppm
9) H RRO (AK103; C25-C36)	5.83	19338469	1122.806	ppm
10) H Motor OIL (C25-C36)	6.03	19338469	1122.806	ppm
11) H C25-C40 RRO	6.23	21316707	1157.290	ppm → MR THIS CURVE
12) H 8015 GRO (C8-C12)	1.40	11018739	1048.224	ppm

PM 112304

11/23/04

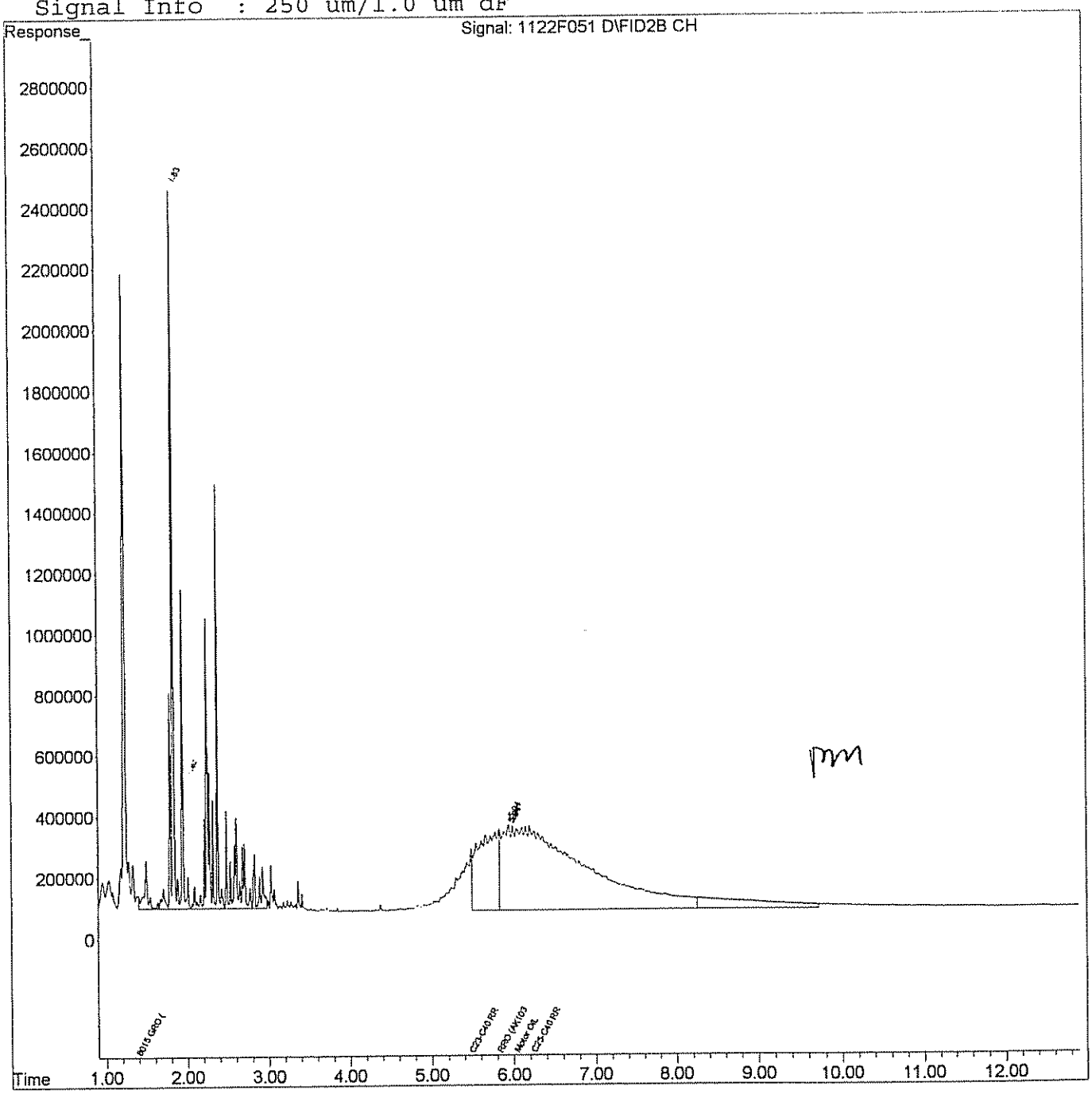
(f)=RT Delta > 1/2 Window (m)=manual int.
1122F051.D 1122BACK.M Tue Nov 23 19:31:35 2004 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F051.D Vial: 86
Acq On : 23 Nov 2004 2:42 pm Operator: PMulheri
Sample : 1000 ppm each hcsv6-74j Inst : gc21
Misc : GASOIL 1CU Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:18 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:17:56 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F059.D Vial: 85
Acq On : 23 Nov 2004 3:59 pm Operator: PMulheri
Sample : 1000 ppm hcsv6-74k Inst : gc21
Misc : ICV DIESEL Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:11:52 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:10:42 2004
Response via : Initial Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
4) H Diesel (C12-C25)	2.98	28571369	1128.201	ppm
5) H DRO (AK102; C10-C25)	2.32	31813387	1096.089	ppm
6) H C10-C28 AntiTom DRO	2.52	32169442	1099.798	ppm
7) H C8-C22 DRO	1.60	31778056	1075.074	ppm

pm112304

gl112304

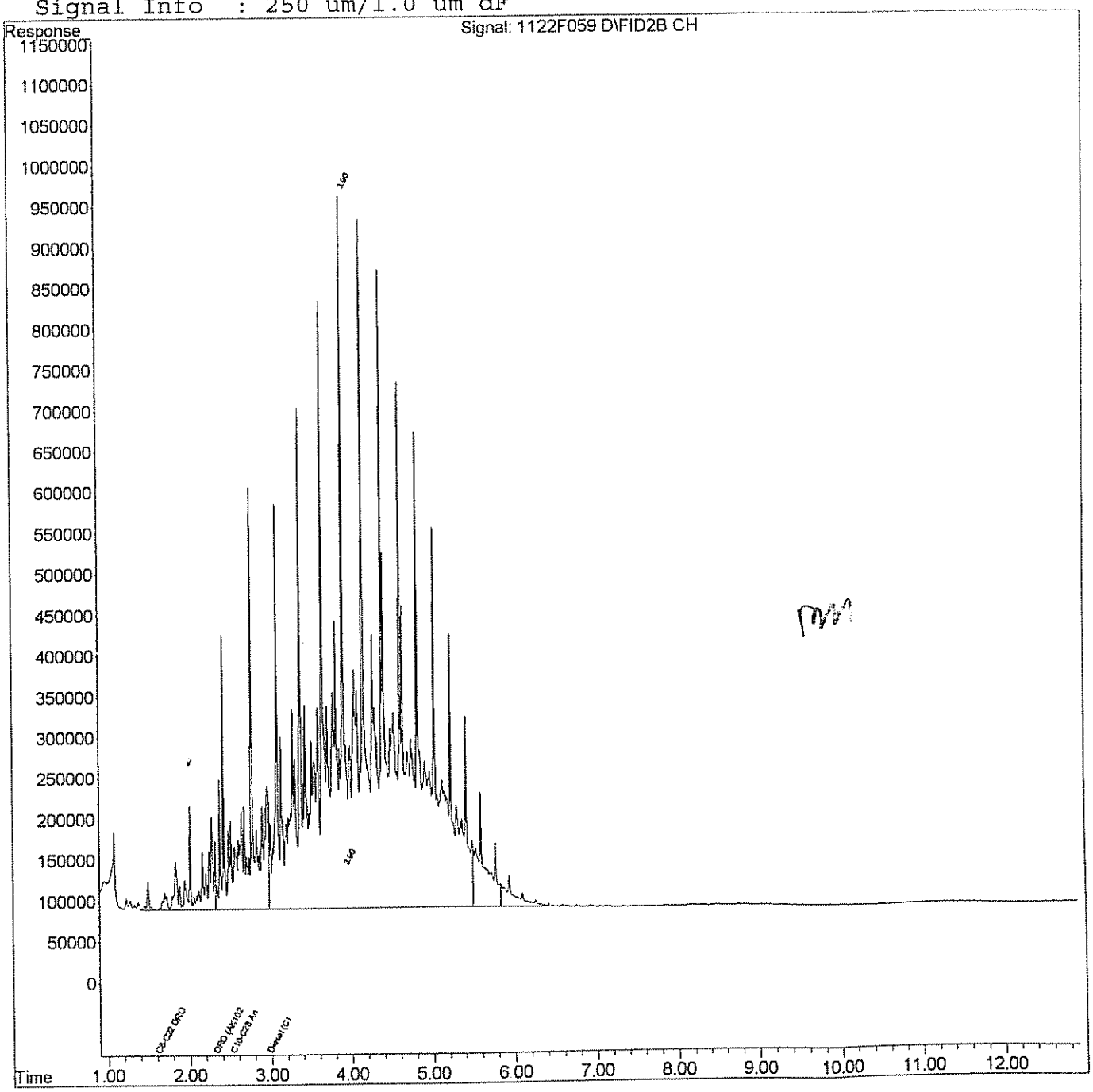
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\CALIBRAT\112204.SEC\1122F059.D Vial: 85
Acq On : 23 Nov 2004 3:59 pm Operator: PMulheri
Sample : 1000 ppm hcsv6-74k Inst : gc21
Misc : DIESEL ICV Multiplr: 1.00
IntFile : rteint.p
Quant Time: Nov 23 19:12 2004 Quant Results File: 1122BACK.RES

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL
Last Update : Tue Nov 23 19:10:42 2004
Response via : Single Level Calibration
DataAcq Meth : FASTBOTH.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F003.D
J:\GC21\DATA\030905\0309F004.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	990	25300	24900	-1	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	910	17200	15600	-9	NA	± 15 %	AverageRF
o-Terphenyl	50	47	33700	31400	-7	NA	± 15 %	AverageRF
n-Triacontane	50	47	28500	26500	-7	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File: J:\GC21\DATA\030905\0309F003 D
Lab ID: KWG0503923-1
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 18:05
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NA

Primary Review: MM031005

Secondary Review: [illegible]

Printed: 03/10/2005 15:20:46
u \Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**
Analysis Method:	8015M	**Prep Method:**		
Prep Ref:		**Prep Date:**		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F003.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 18:05	**Quant Date:**	03/10/2005 14:32	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-1			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		705224	50.75		33-133	NA
o-Terphenyl	4.78		1571050	46.56		52-128	NA
n-Triacontane	6.74		1327450	46.57		50-150	NA

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	24947626	985.11			
C10 - C25 DRO	2.31	?	28490374	981.60			
Diesel Range Organics	2.51	?	28628214	978.73			
C8 - C22 DRO	1.58	?	29183180	987.29			
C23 - C40 RRO	5.48	?	410452	18.15			
Residual Range Organics (RRO)	5.83	?	112738	6.55			NR
Motor Oil	6.03	?	112738	6.55			
C25 - C40 RRO	6.23	?	207738	11.28			
Gasoline Range Organics (GRO	1.38	?	4410674	419.59			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

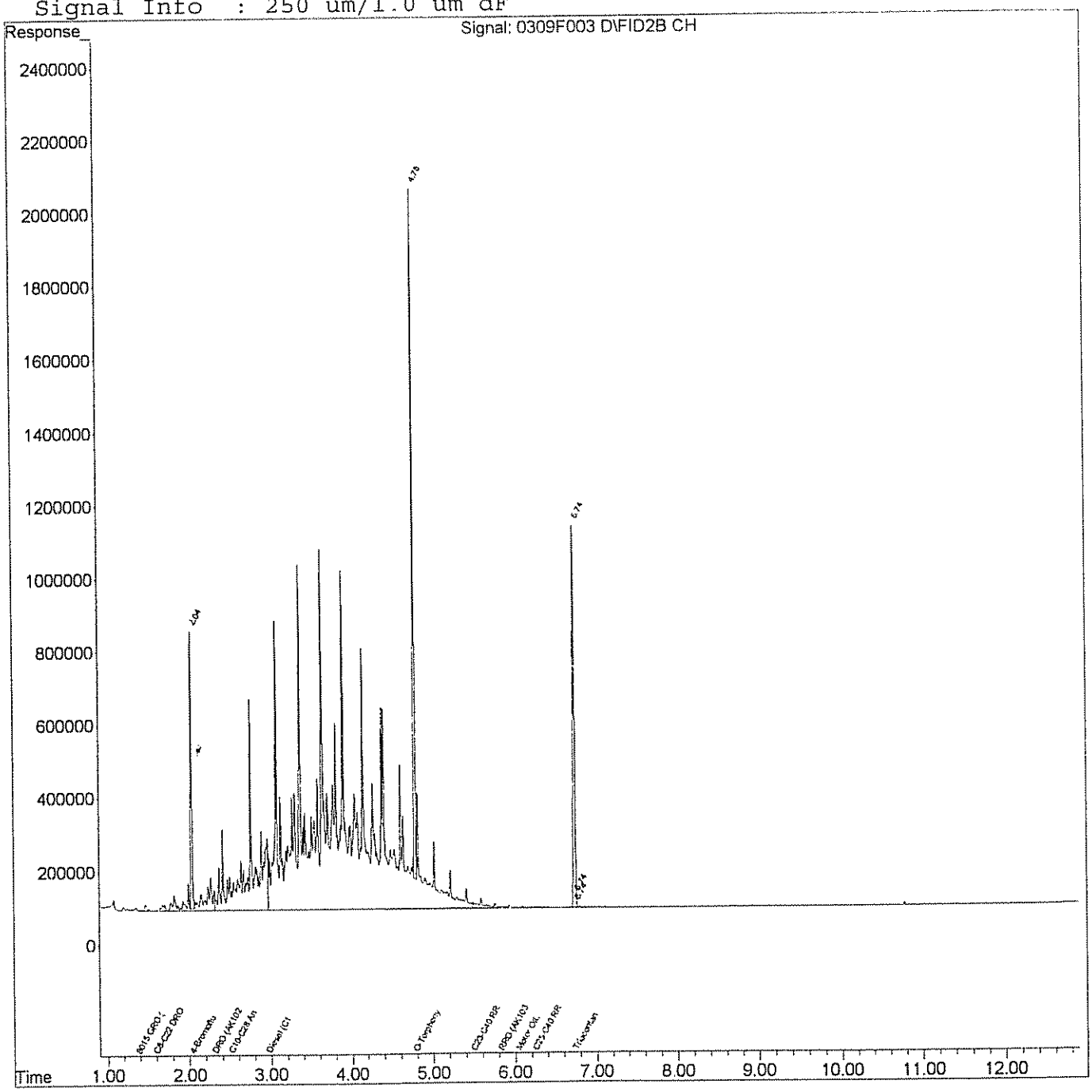
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F003.D
Acq On : 09 Mar 2005 6:05 pm
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File: J:\GC21\DATA\030905\0309F004 D
Lab ID: KWG0503923-1
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 18:22
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NL

Primary Review: MM03/10/05

Secondary Review: 03/10/05

Printed: 03/10/2005 15:20:49
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F004.D			**Instrument:**	gc21
Acqu Date:	03/09/2005 18:22	**Quant Date:**	03/10/2005 14:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-1			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.08		31403	2.26		33-133	NA	
o-Terphenyl	4.82		28882	0.8560		52-128	NA	NR
n-Triacontane			0			50-150	NA	NR

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	6940266	274.05			NR
C10 - C25 DRO	2.31	?	8936359	307.89			
Diesel Range Organics	2.51	?	17112929	585.05			
C8 - C22 DRO	1.58	?	8233233	278.54			
C23 - C40 RRO	5.48	?	20282154	896.75			
Residual Range Organics (RRO)	5.83	?	15633448	907.69			
Motor Oil	6.03	?	15633448	907.69			
C25 - C40 RRO	6.23	?	16600580	901.25			
Gasoline Range Organics (GRO	1.38	?	4861072	462.44			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

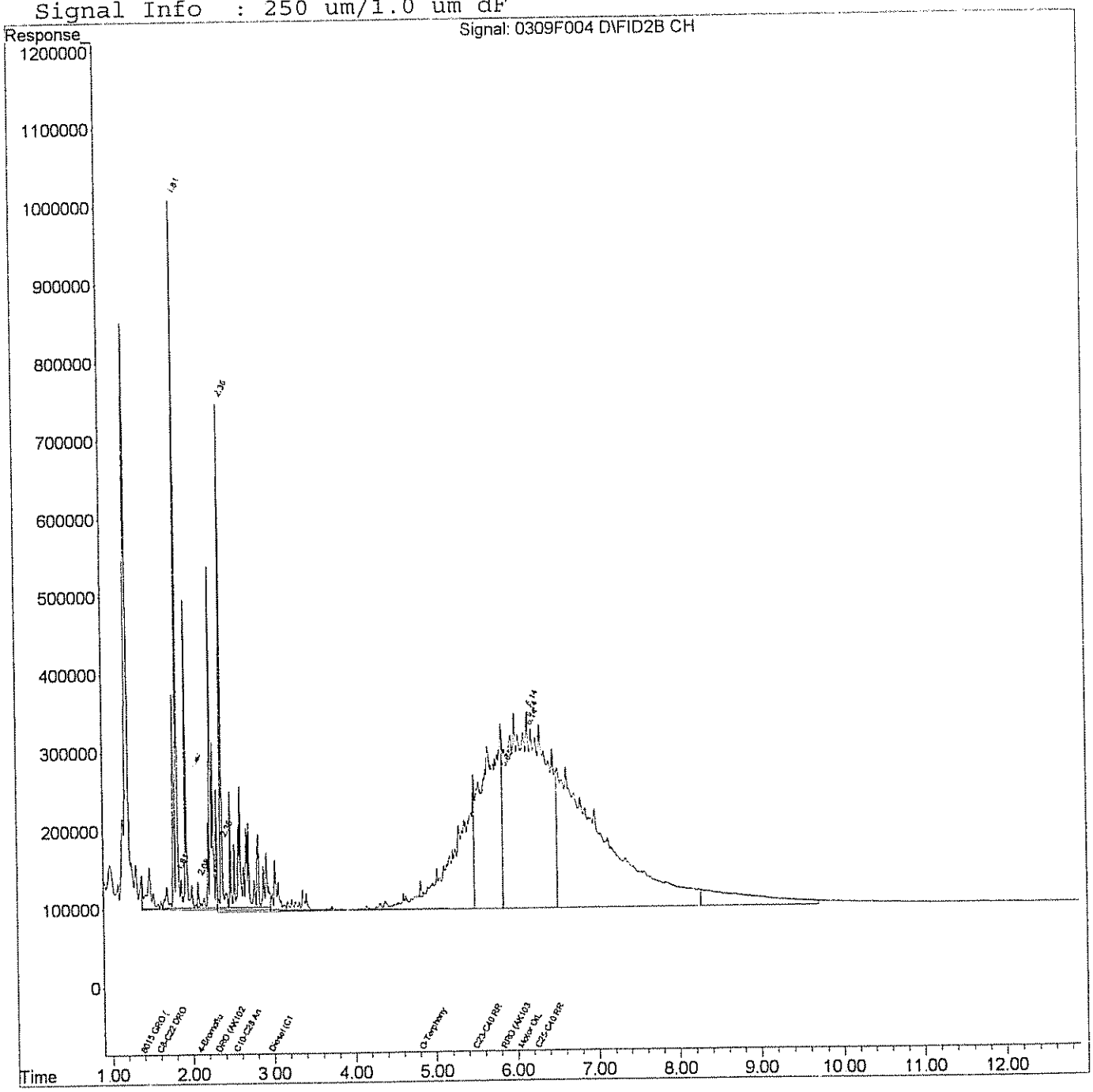
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F004.D
Acq On : 09 Mar 2005 6:22 pm
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/09/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F017 D
J:\GC21\DATA\030905\0309F018 D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26200	3	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33400	-1	NA	± 15 %	AverageRF
n-Triacontane	50	51	28500	29100	2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File: J:\GC21\DATA\030905\0309F017 D
Lab ID: KWG0503923-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 22:09
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NC

Primary Review: 03/10/05

Secondary Review: 3/15/05

Printed: 03/10/2005 15:21:22
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**
Analysis Method:	8015M	**Prep Method:**		
Prep Ref:		**Prep Date:**		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F017 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 22:09	**Quant Date:**	03/10/2005 14:32	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-2			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		719954	51.81		33-133	NA
o-Terphenyl	4.78		1668455	49.44		52-128	NA
n-Triacontane	6.74		1456427	51.10		50-150	NA

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	26157054	1,033			
C10 - C25 DRO	2.31	?	29795845	1,027			
Diesel Range Organics	2.51	?	30077957	1,028			
C8 - C22 DRO	1.58	?	30500523	1,032			
C23 - C40 RRO	5.48	?	553472	24.47			
Residual Range Organics (RRO)	5.83	?	141317	8.21			NR
Motor Oil	6.03	?	141317	8.21			
C25 - C40 RRO	6.23	?	303259	16.46			
Gasoline Range Organics (GRO	1.38	?	4521267	430.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

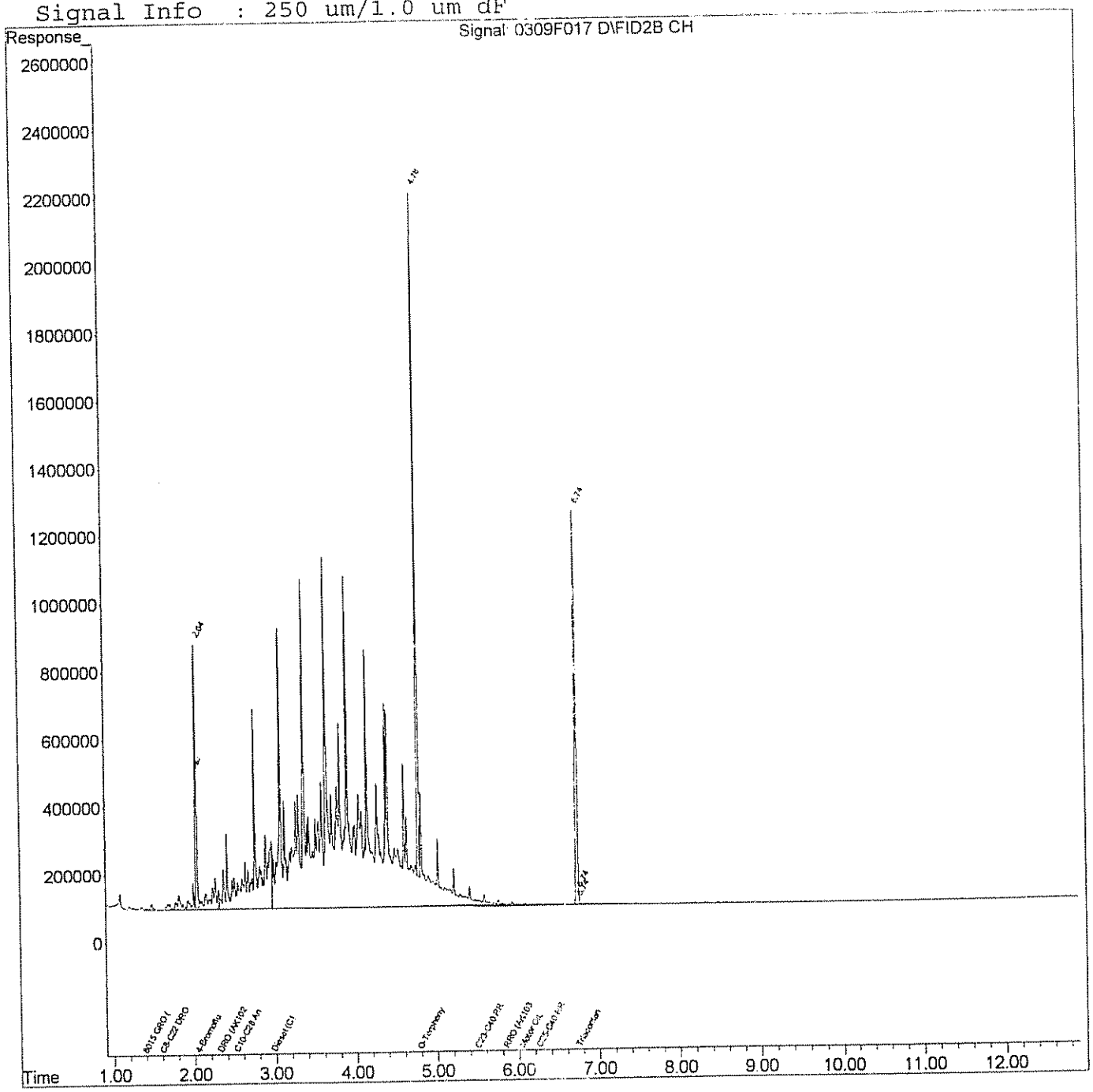
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F017.D
Acq On : 09 Mar 2005 10:09 pm
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File: J:\GC21\DATA\030905\0309F018.D
Lab ID: KWG0503923-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/09/2005 22:26
Date Quantitated: 03/10/2005 14:32
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NC

Primary Review: DM031005

Secondary Review: [illegible]

Printed: 03/10/2005 15:21:25
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**
Analysis Method:	8015M	**Prep Method:**		
Prep Ref:		**Prep Date:**		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F018 D			**Instrument:**	gc21
Acqu Date:	03/09/2005 22:26	**Quant Date:**	03/10/2005 14:32	**Vial:**	3
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0503923-2			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2 08		32281	2.32		33-133	NA	
o-Terphenyl	4 82		30001	0 8890		52-128	NA	NR
n-Triacontane	6 72		39034	1 37		50-150	NA	NR

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	7161326	282.78			NR
C10 - C25 DRO	2 31	?	9192353	316 71			
Diesel Range Organics	2 51	?	17631379	602.78			
C8 - C22 DRO	1 58	?	8382025	283.57			
C23 - C40 RRO	5.48	?	20588605	910 30			
Residual Range Organics (RRO)	5 83	?	15955299	926 38			
Motor Oil	6 03	?	15955299	926.38			
C25 - C40 RRO	6 23	?	16786221	911 33			
Gasoline Range Organics (GRO	1 38	?	4910327	467.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

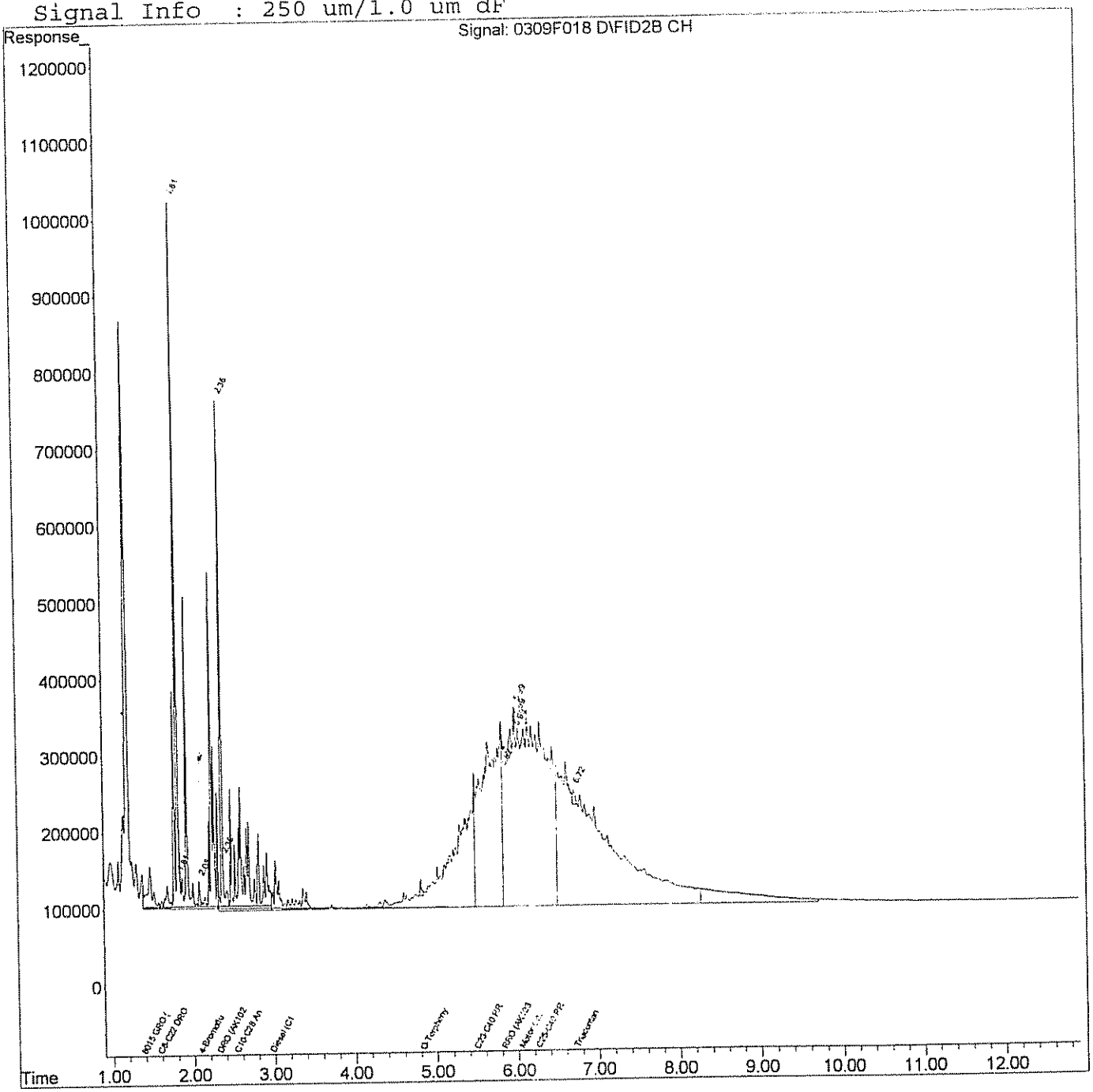
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F018.D
Acq On : 09 Mar 2005 10:26 pm
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:32 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/10/2005

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F029.D
J:\GC21\DATA\030905\0309F030.D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	26500	5	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	930	17200	16000	-7	NA	± 15 %	AverageRF
o-Terphenyl	50	49	33700	33200	-2	NA	± 15 %	AverageRF
n-Triacontane	50	53	28500	30200	6	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File: J:\GC21\DATA\030905\0309F029 D
Lab ID: KWG0503923-3
RunType: CCV
Matrix: WATER

Date Acquired: 03/10/2005 01:37
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NR

Primary Review: MMB1005

Secondary Review: gB1605

Printed: 03/10/2005 15:21:58
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F029.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 01:37	**Quant Date:**	03/10/2005 14:33	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-3			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		734378	52.84		33-133	NA
o-Terphenyl	4.78		1660539	49.21		52-128	NA
n-Triacontane	6.74		1510521	53.00		50-150	NA

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	26518050	1,047			
C10 - C25 DRO	2.31	?	30216275	1,041			
Diesel Range Organics	2.51	?	30501922	1,043			
C8 - C22 DRO	1.58	?	30933418	1,046			
C23 - C40 RRO	5.48	?	581251	25.70			
Residual Range Organics (RRO)	5.83	?	157401	9.14			NR
Motor Oil	6.03	?	157401	9.14			
C25 - C40 RRO	6.23	?	324310	17.61			
Gasoline Range Organics (GRO	1.38	?	4601415	437.74			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

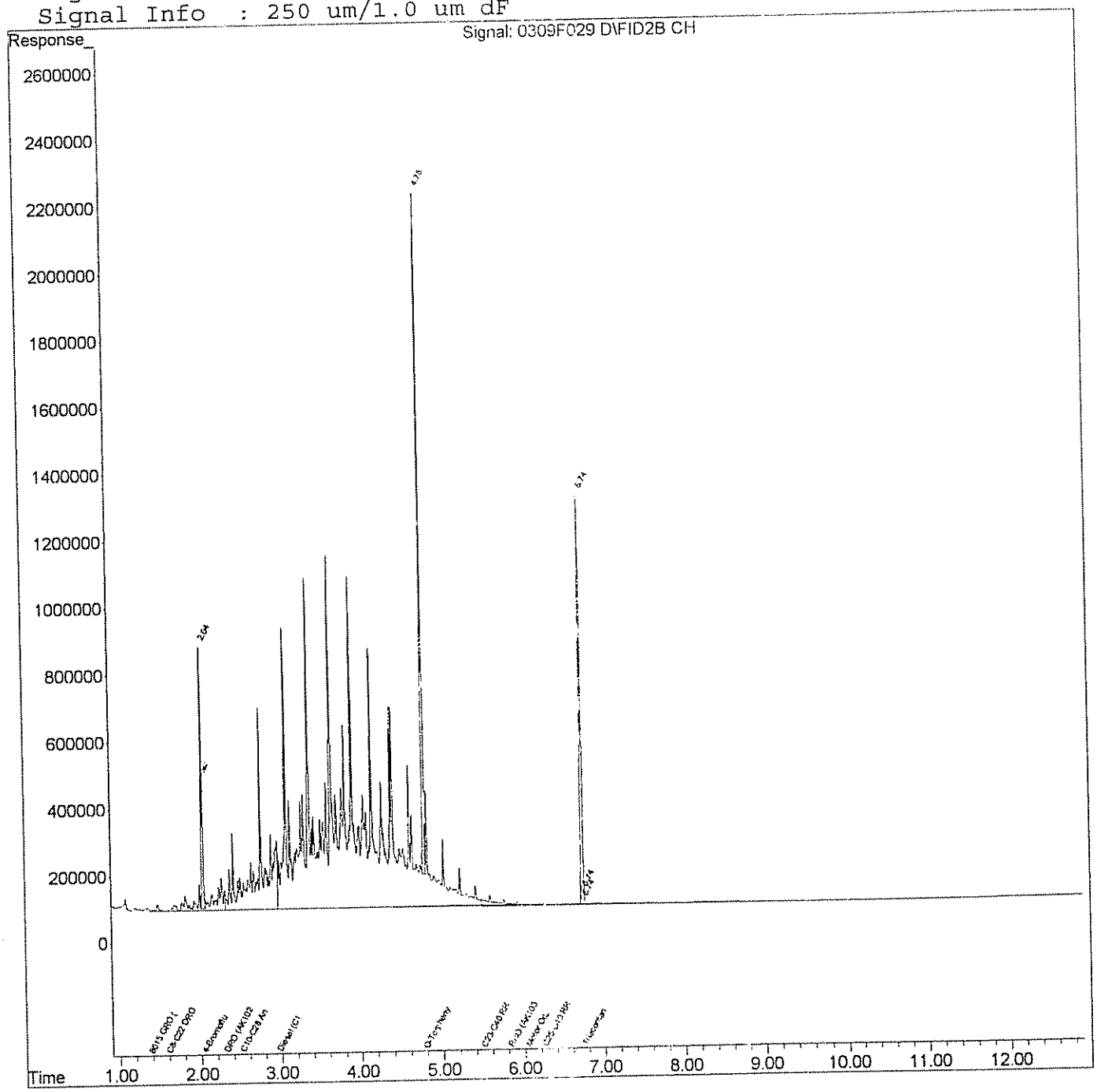
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F029.D
Acq On : 10 Mar 2005 1:37 am
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File: J:\GC21\DATA\030905\0309F030 D
Lab ID: KWG0503923-3
RunType: CCV
Matrix: WATER

Date Acquired: 03/10/2005 01:55
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15.7	NA	15	NC

Primary Review: PM 03/10/05

Secondary Review: 03/15/05

Printed: 03/10/2005 15:22:01
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015M	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MI257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F030 D			**Instrument:**	gc21
Acqu Date:	03/10/2005 01:55	**Quant Date:**	03/10/2005 14:33	**Vial:**	3
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0503923-3			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2 07		32257	2 32		33-133	NA	
o-Terphenyl	4 82		47040	1 39		52-128	NA	NR
n-Triacontane	6.71		46419	1.63		50-150	NA	NR

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2 97	?	7178726	283 47			NR
C10 - C25 DRO	2 31	?	9236188	318 22			
Diesel Range Organics	2 51	?	17718678	605 76			
C8 - C22 DRO	1 58	?	8471972	286 61			
C23 - C40 RRO	5 48	?	20644271	912 76			
Residual Range Organics (RRO)	5 83	?	16021998	930 25			
Motor Oil	6 03	?	16021998	930 25			
C25 - C40 RRO	6 23	?	16823856	913 37			
Gasoline Range Organics (GRO	1 38	?	4977176	473 48			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

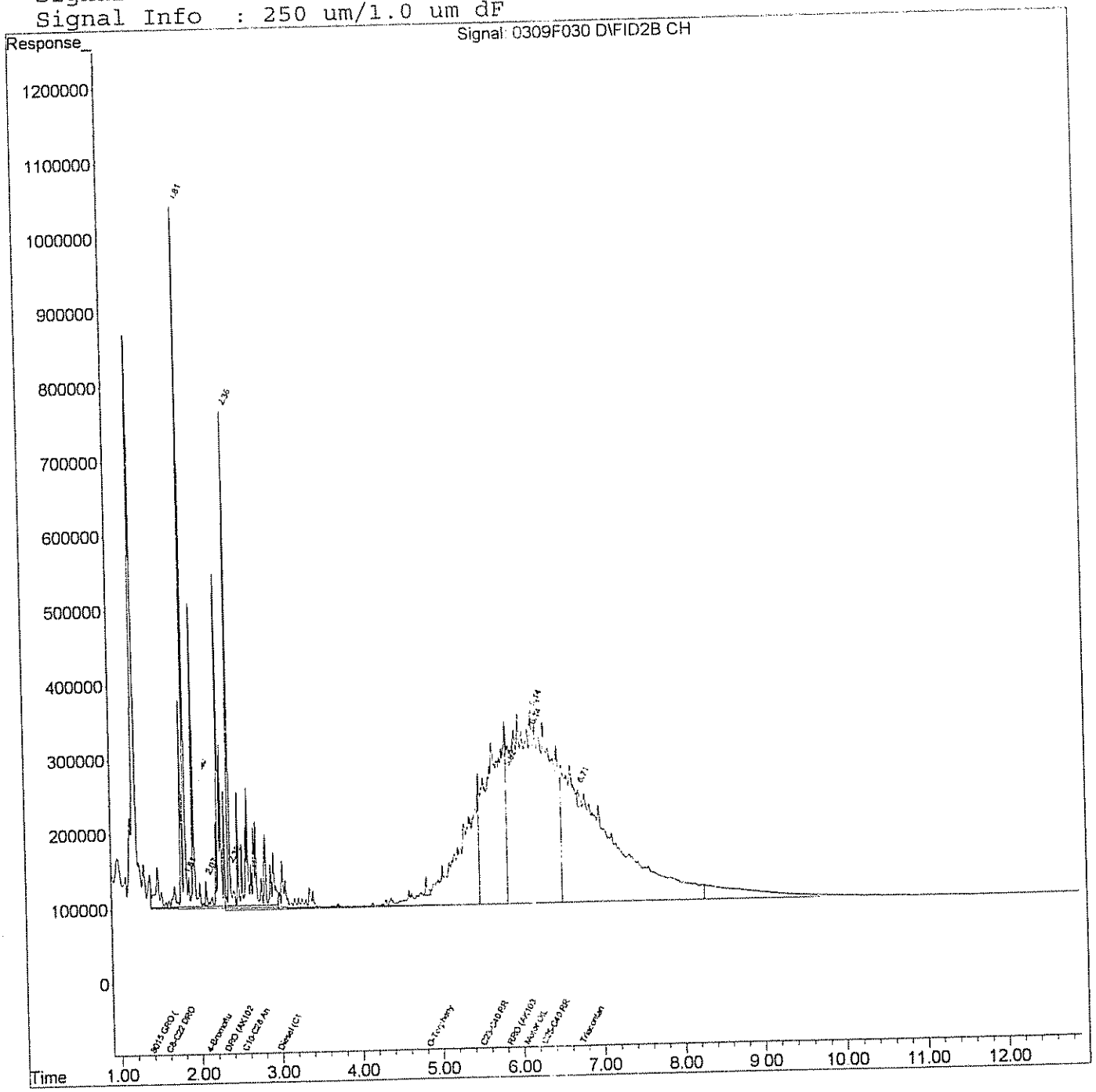
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F030.D
Acq On : 10 Mar 2005 1:55 am
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Service Request: K2501630
Date Analyzed: 03/10/2005

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015M

Calibration Date: 11/23/2004
Calibration ID: CAL4011
Analysis Lot: KWG0503923
Units: ppm
Column ID: RTX-1

File ID: J:\GC21\DATA\030905\0309F041 D
J:\GC21\DATA\030905\0309F042 D

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	25300	25800	2	NA	± 15 %	AverageRF
Residual Range Organics (RRO)	1000	940	17200	16100	-6	NA	± 15 %	AverageRF
o-Terphenyl	50	48	33700	32500	-4	NA	± 15 %	AverageRF
n-Triacontane	50	49	28500	28000	-2	NA	± 15 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Exception Report

Data File: J:\GC21\DATA\030905\0309F041 D
Lab ID: KWG0503923-4
RunType: CCV
Matrix: WATER

Date Acquired: 03/10/2005 05:06
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NR

Primary Review: PM03C005

Secondary Review: gB1505

Printed: 03/10/2005 15:22:31
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**
Analysis Method:	8015M	**Prep Method:**		
Prep Ref:		**Prep Date:**		

Quant Method:	J:\GC21\METHODS\1122BACK.M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F041.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 05:06	**Quant Date:**	03/10/2005 14:33	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-4			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
4-Bromofluorobenzene	2.04		728184	52.40		33-133	NA
o-Terphenyl	4.78		1624054	48.13		52-128	NA
n-Triacontane	6.74		1402336	49.20		50-150	NA

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	25769925	1,018			
C10 - C25 DRO	2.31	?	29429362	1,014			
Diesel Range Organics	2.51	?	29743153	1,017			
C8 - C22 DRO	1.58	?	30155540	1,020			
C23 - C40 RRO	5.48	?	583287	25.79			
Residual Range Organics (RRO)	5.83	?	162495	9.44			NR
Motor Oil	6.03	?	162495	9.44			
C25 - C40 RRO	6.23	?	332262	18.04			
Gasoline Range Organics (GRO	1.38	?	4555324	433.35			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

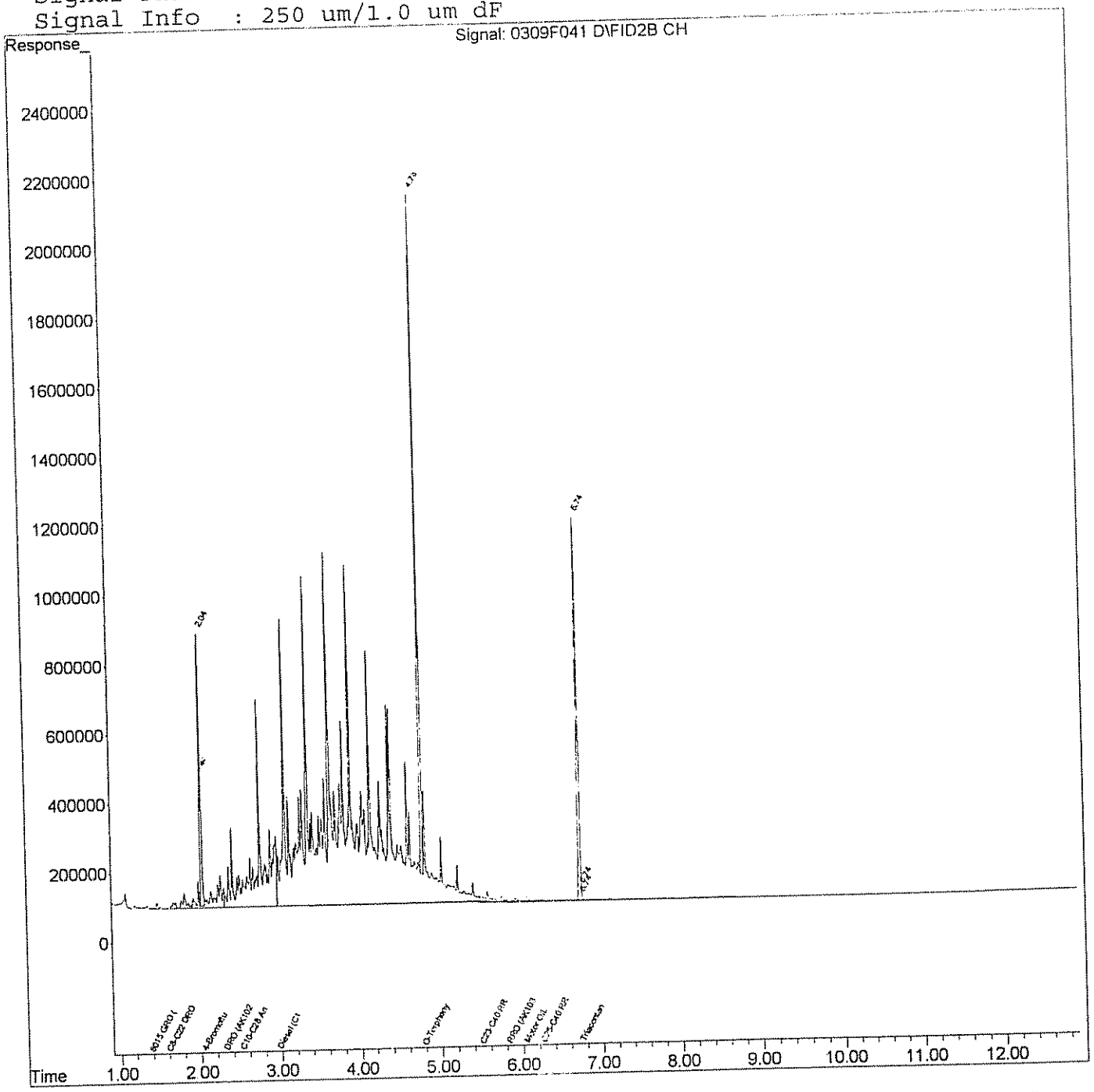
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F041.D
Acq On : 10 Mar 2005 5:06 am
Sample : HCSV6-70I D/S @ 1000/50 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 2
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Exception Report

Data File: J:\GC21\DATA\030905\0309F042 D
Lab ID: KWG0503923-4
RunType: CCV
Matrix: WATER

Date Acquired: 03/10/2005 05:23
Date Quantitated: 03/10/2005 14:33
Batch ID: KWG0503923
Analysis Method: 8015M
MethodJoinID: MJ257

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	C25 - C40 RRO	15 7	NA	15	NC

Primary Review: PM 031005

Secondary Review: gB 1505

Printed: 03/10/2005 15:22:34
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	DX-NWTPH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0503923	**Prep Lot:**		**Report Group:**
Analysis Method:	8015M	**Prep Method:**		
Prep Ref:		**Prep Date:**		

Quant Method:	J:\GC21\METHODS\1122BACK M	**Calibration ID:**	CAL4011
Title:		**Method ID:**	MJ257
MB Ref:		**Quant based on Method**	

Data File:	J:\GC21\DATA\030905\0309F042.D			**Instrument:**	gc21
Acqu Date:	03/10/2005 05:23	**Quant Date:**	03/10/2005 14:33	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0503923-4			**Soln Conc. Units:**	ppm

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.08		32402	2.33		33-133	NA	
o-Terphenyl	4.82		30812	0.9130		52-128	NA	NR
n-Triacontane			0			50-150	NA	NR

Final Conc. Units: ug/L

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	2.97	?	7270034	287.07			NR
C10 - C25 DRO	2.31	?	9324068	321.25			
Diesel Range Organics	2.51	?	17894246	611.76			
C8 - C22 DRO	1.58	?	8470687	286.57			
C23 - C40 RRO	5.48	?	20755096	917.66			
Residual Range Organics (RRO)	5.83	?	16138686	937.02			
Motor Oil	6.03	?	16138686	937.02			
C25 - C40 RRO	6.23	?	16883927	916.63			
Gasoline Range Organics (GRO	1.38	?	4938287	469.78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

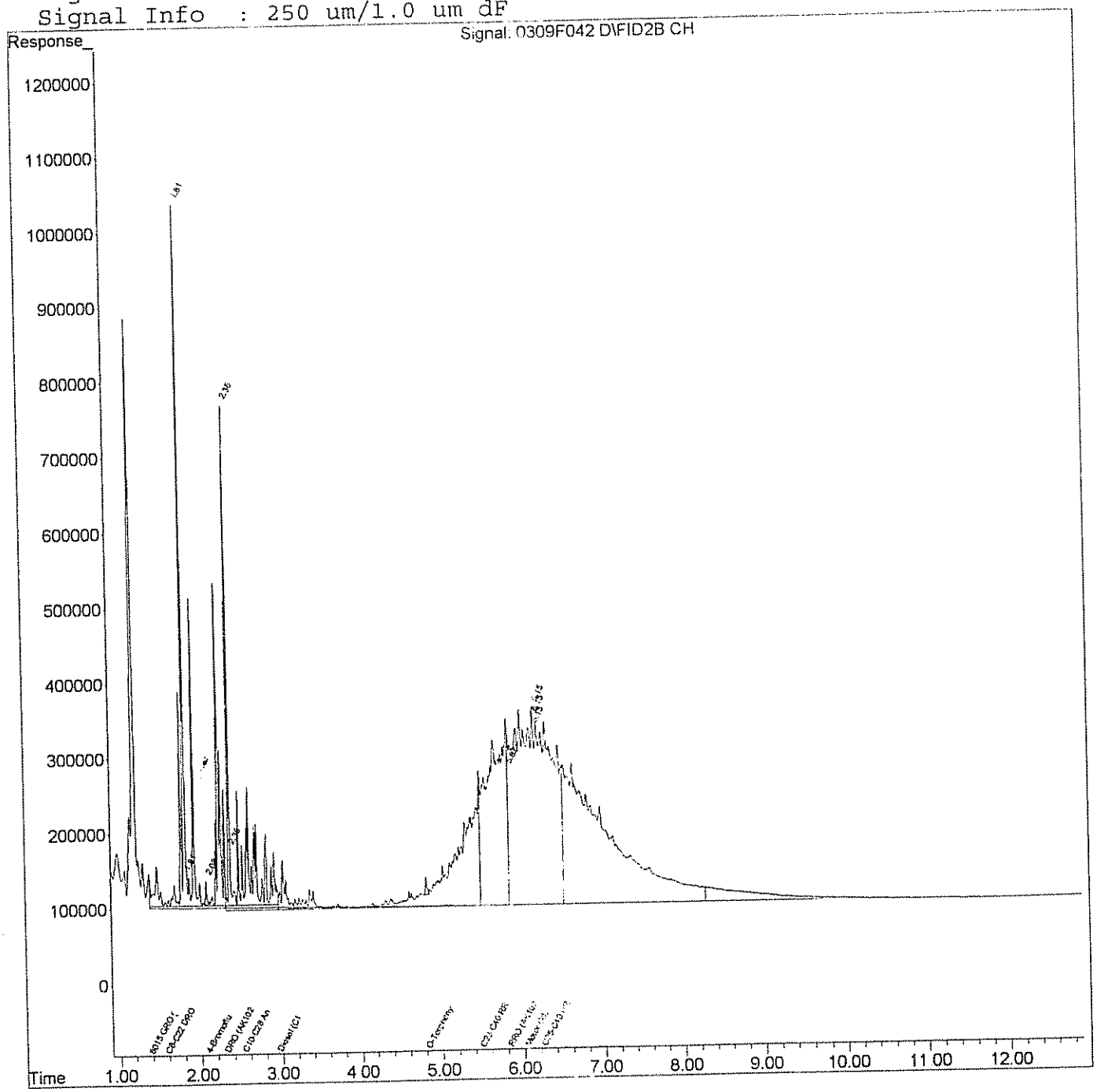
Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\030905\0309F042.D
Acq On : 10 Mar 2005 5:23 am
Sample : HCSV6-82K G/O @ 500/1000 ppm
Misc :
IntFile : rteint.p
Quant Time: Mar 10 14:33 2005 Quant Results File: 1122BACK.RES

Vial: 3
Operator: PMulheri
Inst : gc21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\1122BACK.M (RTE Integrator)
Title : GRO+DRO+RRO 1122BACK CAL4011
Last Update : Wed Mar 02 08:19:43 2005
Response via : Single Level Calibration
DataAcq Meth : FASTBACK.M

Volume Inj. : 1 uL
Signal Phase : RTX-1
Signal Info : 250 um/1.0 um dF



Organic Analysis:
Diesel and Residual Range Organics

Validation Package

Sample Prep and Screen Data

Preparation Information

Group ID:	KWG0503600	**Prep Method:**	EPA 3510C	**Prep Date:**	03/07/05 09:00
Department:	PHP				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K2501524-002	229644	DX-NWTPH	WATER	470ml	1ml
K2501524-003	229645	DX-NWTPH	WATER	470ml	1ml
K2501524-004	229646	DX-NWTPH	WATER	475ml	1ml
K2501524-005	229647	DX-NWTPH	WATER	480ml	1ml
K2501524-006	229648	DX-NWTPH	WATER	485ml	1ml
K2501524-007	229649	DX-NWTPH	WATER	485ml	1ml
K2501544-002	50398-02	DRO-X-8015	WATER	550ml	1ml
K2501544-003	50398-03	DRO-X-8015	WATER	550ml	1ml
K2501544-004	50398-04	DRO-X-8015	WATER	550ml	1ml
K2501544-005	50398-05	DRO-X-8015	WATER	540ml	1ml
K2501548-001	50382-01	DRO-X-8015	WATER	500ml	1ml
K2501548-002	50382-02	DRO-X-8015	WATER	485ml	1ml
K2501609-001	OS-EFF-030305	DX-NWTPH	WATER	500ml	1ml
K2501622-003	229652	DX-NWTPH	WATER	480ml	1ml
K2501622-004	229653	DX-NWTPH	WATER	485ml	1ml
K2501622-005	229654	DX-NWTPH	WATER	460ml	1ml
K2501622-006	229655	DX-NWTPH	WATER	455ml	1ml
K2501630-002	50425-02	DRO-X-8015	WATER	545ml	1ml
KWG0503600-1	Duplicate Client Sample	DX-NWTPH	WATER	455ml	1ml
KWG0503600-2	Matrix Spike	DRO-X-8015	WATER	550ml	1ml
KWG0503600-3	Duplicate Matrix Spike	DRO-X-8015	WATER	550ml	1ml
KWG0503600-4	Lab Control Sample	DRO-X-8015	WATER	500ml	1ml
KWG0503600-5	Duplicate Lab Control Sampl	DRO-X-8015	WATER	500ml	1ml
KWG0503600-6	Method Blank	DRO-X-8015	WATER	500ml	1ml

Lab Code	Parent Lab Code	Comments
KWG0503600-1	K2501622-005	
KWG0503600-2	K2501544-005	
KWG0503600-3	K2501544-005	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501524-002	366234	HCSV6-96-F	100uL			PMulheri
K2501524-003	366235	HCSV6-96-F	100uL			PMulheri
K2501524-004	366236	HCSV6-96-F	100uL			PMulheri
K2501524-005	366237	HCSV6-96-F	100uL			PMulheri
K2501524-006	366238	HCSV6-96-F	100uL			PMulheri

Comments: (MS/MSD ON 1622-5 TO FOLLOW IN SEPARATE PREP GROUP)

Training

Started By: CRuble — Assisted By: — Yes / No

Completed By: CRuble — Assisted By: — Yes / No

Reviewed By: PM — Date: ~~030705(?)~~ 030905 PM 030905 — Storage: BOX 4 A&B

Chain of Custody

Relinquished By: CRW — Date: 3/8/05 — Extracts Examined Yes / No

Received By: PM — Date: 030905

Group ID:	KWG0503600	**Prep Method:**	EPA 3510C	**Prep Date:**	03/07/05 09:00
Department:	PHP				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501524-007	366239	HCSV6-96-F	100uL			PMulheri
K2501544-002	366245	HCSV6-96-F	100uL			PMulheri
K2501544-003	366246	HCSV6-96-F	100uL			PMulheri
K2501544-004	366247	HCSV6-96-F	100uL			PMulheri
K2501544-005	366248	HCSV6-96-F	100uL			PMulheri
K2501548-001	366249	HCSV6-96-F	100uL			PMulheri
K2501548-002	366250	HCSV6-96-F	100uL			PMulheri
K2501609-001	366244	HCSV6-96-F	100uL			PMulheri
K2501622-003	366240	HCSV6-96-F	100uL			PMulheri
K2501622-004	366241	HCSV6-96-F	100uL			PMulheri
K2501622-005	366242	HCSV6-96-F	100uL			PMulheri
K2501622-006	366243	HCSV6-96-F	100uL			PMulheri
K2501630-002	366251	HCSV6-96-F	100uL			PMulheri
KWG0503600-1	366252	HCSV6-96-F	100uL			PMulheri
KWG0503600-2	366253	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-3	366254	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-4	366255	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-5	366256	HCSV6-96-F	100uL	HCSV6-92-P	100uL	PMulheri
KWG0503600-6	366257	HCSV6-96-F	100uL			PMulheri

Comments:

Started By: CRuble Assisted By: Training Yes No

Completed By: CRuble Assisted By: Yes No

Reviewed By: PM Date: 030905 Storage: Box 4 A-B

Chain of Custody

Relinquished By: CRW Date: 3/8/05 Extracts Examined Yes No

Received By: PM Date: 030905

Preparation Information

Group ID: KWG0503600 **Prep Method:** EPA 3510C **Prep Date:** 03/07/05 09:00
Department: PHP

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
1	K2501524-002	229644		√	DX-NWTPH	WATER	470	<2		1mL	100uL	
2	K2501524-003	229645		√	DX-NWTPH	WATER	470					
3	K2501524-004	229646		√	DX-NWTPH	WATER	475					
4	K2501524-005	229647		√	DX-NWTPH	WATER	480					
5	K2501524-006	229648		√	DX-NWTPH	WATER	485					
6	K2501524-007	229649		√	DX-NWTPH	WATER	485					
7	K2501544-002	50398-02		√	DRO-X-8015	WATER	550					
8	K2501544-003	50398-03		√	DRO-X-8015	WATER	550					
9	K2501544-004	50398-04		√	DRO-X-8015	WATER	550					
10	K2501544-005	50398-05		√	DRO-X-8015	WATER	540					
11	K2501548-001	50382-01		√	DRO-X-8015	WATER	500					
12	K2501548-002	50382-02		√	DRO-X-8015	WATER	485					
13	K2501609-001	OS-EFF-030305		√	DX-NWTPH	WATER	500					
14	K2501622-003	229652		√	DX-NWTPH	WATER	480					
15	K2501622-004	229653		√	DX-NWTPH	WATER	485					
16	K2501622-005	229654		√	DX-NWTPH	WATER	460					
17	K2501622-006	229655		√	DX-NWTPH	WATER	455					
18	K2501630-002	50425-02		√	DRO-X-8015	WATER	545					

Comments: Box 4 A+B

Surrogate ID: HCSV6-94F

Spike ID: HCSV6-92P

Witness: P.M. YES, PM 03/07/05

Started By: CRuble Assisted By: P. Mulherin

Completed By: CRuble Assisted By: ——

Group ID:	KWG0503600	**Prep Method:**	EPA 3510C	**Prep Date:**	03/07/05 09:00
Department:	PHP				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
19	KWG0503600-1	Duplicate Client Sample 1622-5 Dup			DX-NWTPH	WATER	455	<2		1mL	100uL	
20	KWG0503600-2	Matrix Spike 1544-5 MS			DRO-X-8015	WATER	550	↓		↓	↓	100uL
21	KWG0503600-3	Duplicate Matrix Spike 1544-5 DMS			DRO-X-8015	WATER	550	↓		↓	↓	↓
22	KWG0503600-4	Lab Control Sample WL1			DRO-X-8015	WATER	500	↓		↓	↓	↓
23	KWG0503600-5	Duplicate Lab Control Sample WL2			DRO-X-8015	WATER	↓	↓		↓	↓	↓
24	KWG0503600-6	Method Blank WB			DRO-X-8015	WATER	↓	↓		↓	↓	

DCM Lot # 45014

Glass Wool Lot # GW030305

Na_2SO_4 Lot # 44135450

Sonic Horn Tuned NE
Initial / Date

Comments:

Surrogate ID:

Spike ID:

Witness:

Started By: CRuble

Assisted By:

Completed By: CRuble

Assisted By:

Volatile Organic Compounds
EPA Method 8260B

Organic Analysis:
Volatile Organic Compounds

Summary Package

Sample and QC Results

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
50425-01	K2501630-001	03/04/2005	03/05/2005
50425-02	K2501630-002	03/04/2005	03/05/2005

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

Signature: _____ Name: Jan Stoney

Date: 3/22/5 Title: Supervisor

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-01
Lab Code: K2501630-001
File ID: J:\MS13\DATA\031605\0316F016.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**0.17**	J	0.50	0.16	
75-09-2	**Methylene Chloride**	**0.66**	J	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-01
Lab Code: K2501630-001
File ID: J:\MS13\DATA\031605\0316F016.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-01	**Units:**	ug/L
Lab Code:	K2501630-001	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F016.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/16/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F017.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	**Acetone**	**4.6**	J	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F017.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F017.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	86	72-114	03/16/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0504385-4
File ID: J:\MS13\DATA\031605\0316F009.D
Instrument ID: MS13
Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504385-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0504385-4
File ID: J:\MS13\DATA\031605\0316F009.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	**Hexachlorobutadiene**	**0.42**	J	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	91	72-114	03/16/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Service Request: K2501630

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Surrogate Recovery Summary
Volatile Organic Compounds

Units: PERCENT
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Sample Name	Lab Code	Sur1	Sur2	Sur3
50425-01	K2501630-001	101	91	88
50425-02	K2501630-002	101	91	86
Method Blank	KWG0504385-4	97	91	91
Batch QC	K2501626-002	102	91	98
Batch QCDL	K2501626-002	98	90	90
Batch QCMS	KWG0504385-1	94	97	102
Batch QCDMS	KWG0504385-2	92	95	102
Lab Control Sample	KWG0504385-3	95	98	101

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	80-119
Sur2 =	Toluene-d8	83-113
Sur3 =	4-Bromofluorobenzene	72-114

Results flagged with an asterisk (*) indicate values outside control criteria
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 16:32

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031605\0316F003.D
Instrument ID: MS13
Analysis Method: 8260B

Lab Code: KWG0504384-2
Analysis Lot: KWG0504384

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	RT	Area	RT	Area	RT
	Results ==>	635,934	5.60	263,507	11.58	298,471	14.71
	Upper Limit ==>	1,271,868	6.10	527,014	12.08	596,942	15.21
	Lower Limit ==>	317,967	5.10	131,754	11.08	149,236	14.21
	ICAL Result ==>	769,126	5.60	331,133	11.58	378,337	14.71
Associated Analyses							
Lab Control Sample	KWG0504385-3	648,290	5.60	276,290	11.58	299,988	14.71
Batch QCMS	KWG0504385-1	658,057	5.60	280,719	11.58	301,906	14.71
Batch QCDMS	KWG0504385-2	671,941	5.60	284,157	11.58	302,381	14.71
Method Blank	KWG0504385-4	601,434	5.60	255,168	11.58	253,720	14.71
Batch QCDL	K2501626-002	595,344	5.60	255,216	11.58	255,510	14.71
50425-01	K2501630-001	562,724	5.60	243,724	11.58	239,917	14.70
50425-02	K2501630-002	568,405	5.60	248,343	11.58	240,374	14.71
Batch QC	K2501626-002	582,110	5.60	259,286	11.58	275,445	14.71

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2501626-002

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA

Level: Low
Extraction Lot: KWG0504385

Analyte Name	Sample Result	Batch QCMS KWG0504385-1 Matrix Spike			Batch QCDMS KWG0504385-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	1 5	200	200	99	191	200	95	76-143	5	30
Benzene	0 42	191	200	95	184	200	92	75-130	4	30
Trichloroethene (TCE)	60	249	200	94	243	200	91	69-132	2	30
Toluene	5 1	193	200	94	184	200	89	72-132	5	30
Chlorobenzene	0 66	186	200	93	181	200	90	78-117	3	30
1,2-Dichlorobenzene	58	252	200	97	250	200	96	77-117	1	30
Naphthalene	ND	161	200	80	169	200	85	56-155	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504385

	Lab Control Sample KWG0504385-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	8.39	10.0	84	45-171
Chloromethane	8.17	10.0	82	53-135
Vinyl Chloride	8.81	10.0	88	67-130
Bromomethane	8.23	10.0	82	36-158
Chloroethane	9.48	10.0	95	62-125
Trichlorofluoromethane	9.24	10.0	92	66-126
Acetone	44.4	50.0	89	70-127
1,1-Dichloroethene	10.2	10.0	102	76-129
Methyl tert-Butyl Ether	8.49	10.0	85	63-132
Carbon Disulfide	22.4	20.0	112	62-138
Methylene Chloride	9.24	10.0	92	65-127
trans-1,2-Dichloroethene	9.67	10.0	97	81-121
1,1-Dichloroethane	9.67	10.0	97	76-117
2-Butanone (MEK)	44.4	50.0	89	69-132
2,2-Dichloropropane	9.18	10.0	92	63-142
cis-1,2-Dichloroethene	9.63	10.0	96	83-118
Chloroform	9.79	10.0	98	76-121
Bromochloromethane	9.67	10.0	97	80-125
1,1,1-Trichloroethane (TCA)	10.5	10.0	105	72-132
1,1-Dichloropropene	9.36	10.0	94	72-118
Carbon Tetrachloride	11.5	10.0	115	66-146
1,2-Dichloroethane (EDC)	9.91	10.0	99	74-121
Benzene	9.67	10.0	97	78-121
Trichloroethene (TCE)	9.76	10.0	98	79-119
1,2-Dichloropropane	9.32	10.0	93	76-116
Bromodichloromethane	10.7	10.0	107	74-130
Dibromomethane	9.65	10.0	97	76-123
2-Hexanone	40.1	50.0	80	67-127
cis-1,3-Dichloropropene	9.70	10.0	97	79-123
Toluene	9.51	10.0	95	76-122
trans-1,3-Dichloropropene	8.78	10.0	88	70-117
1,1,2-Trichloroethane	10.0	10.0	100	76-120
4-Methyl-2-pentanone (MIBK)	41.0	50.0	82	70-128
1,3-Dichloropropane	9.76	10.0	98	77-121
Tetrachloroethene (PCE)	9.81	10.0	98	72-124

Results flagged with an asterisk (*) indicate values outside control criteria

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504385

	Lab Control Sample KWG0504385-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dibromochloromethane	10.6	10.0	106	72-133
1,2-Dibromoethane (EDB)	9.67	10.0	97	75-120
Chlorobenzene	9.43	10.0	94	79-113
1,1,1,2-Tetrachloroethane	11.0	10.0	110	72-133
Ethylbenzene	10.3	10.0	103	84-122
m,p-Xylenes	20.9	20.0	105	83-125
o-Xylene	9.88	10.0	99	83-122
Styrene	10.4	10.0	104	83-127
Bromoform	11.1	10.0	111	63-149
Isopropylbenzene	9.22	10.0	92	72-114
1,1,2,2-Tetrachloroethane	9.78	10.0	98	70-122
1,2,3-Trichloropropane	9.37	10.0	94	73-125
Bromobenzene	10.2	10.0	102	80-121
n-Propylbenzene	10.9	10.0	109	78-124
2-Chlorotoluene	11.1	10.0	111	82-126
4-Chlorotoluene	10.8	10.0	108	80-122
1,3,5-Trimethylbenzene	11.1	10.0	111	78-132
tert-Butylbenzene	11.0	10.0	110	76-126
1,2,4-Trimethylbenzene	10.6	10.0	106	74-138
sec-Butylbenzene	11.6	10.0	116	72-133
1,3-Dichlorobenzene	9.70	10.0	97	81-116
4-Isopropyltoluene	10.2	10.0	102	62-132
1,4-Dichlorobenzene	9.75	10.0	98	80-113
n-Butylbenzene	10.9	10.0	109	51-138
1,2-Dichlorobenzene	9.64	10.0	96	81-113
1,2-Dibromo-3-chloropropane	9.73	10.0	97	63-124
1,2,4-Trichlorobenzene	8.89	10.0	89	61-135
1,2,3-Trichlorobenzene	8.92	10.0	89	66-131
Naphthalene	8.21	10.0	82	53-157
Hexachlorobutadiene	11.7	10.0	117	66-132
tert-Amyl Methyl Ether	19.9	20.0	99	68-127
tert-Butyl Ethyl Ether	18.0	20.0	90	68-121
tert-Butyl Alcohol	80.8	100	81	10-194
Diisopropyl Ether	19.1	20.0	96	68-127

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/16/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	19:17

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS13\DATA\031605\0316F009.D
Lab Code:	KWG0504385-4	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504385

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0504385-3	J:\MS13\DATA\031605\0316F004.D	03/16/05	17:00
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/05	17:28
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/05	17:55
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/05	20:11
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/05	22:28
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/05	22:55
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/05	02:33

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/16/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	17:00

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS13\DATA\031605\0316F004.D
Lab Code:	KWG0504385-3	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504385

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/05	17:28
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/05	17:55
Method Blank	KWG0504385-4	J:\MS13\DATA\031605\0316F009.D	03/16/05	19:17
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/05	20:11
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/05	22:28
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/05	22:55
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/05	02:33

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 16:02

Tune Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031605\0316F002.D
Instrument ID: MS13
Column:

Analysis Method: 8260B
Analysis Lot: KWG0504384

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	19.2	8366	PASS
75	95	20	70	50.3	21944	PASS
95	95	50	200	100.0	43640	PASS
96	95	5	9	6.6	2862	PASS
173	174	0	2	1.7	632	PASS
174	95	50	200	87.6	38208	PASS
175	174	5	9	7.7	2936	PASS
176	174	95	101	96.4	36840	PASS
177	176	5	9	7.3	2678	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504384-2	J:\MS13\DATA\031605\0316F003.D	03/16/2005	16:32	
Lab Control Sample	KWG0504385-3	J:\MS13\DATA\031605\0316F004.D	03/16/2005	17:00	
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/2005	17:28	
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/2005	17:55	
Method Blank	KWG0504385-4	J:\MS13\DATA\031605\0316F009.D	03/16/2005	19:17	
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/2005	20:11	
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/2005	22:28	
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/2005	22:55	
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/2005	02:33	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Column: MS

Calibration ID: CAL4250
Instrument ID: MS13

Level ID	File ID
A	J:\MS13\DATA\022505\0225F007.D
B	J:\MS13\DATA\022505\0225F008.D
C	J:\MS13\DATA\022505\0225F009.D
D	J:\MS13\DATA\022505\0225F010.D
E	J:\MS13\DATA\022505\0225F011.D
F	J:\MS13\DATA\022505\0225F012.D
G	J:\MS13\DATA\022505\0225F013.D
H	J:\MS13\DATA\022505\0225F014.D
I	J:\MS13\DATA\022505\0225F015.D
J	J:\MS13\DATA\022505\0225F016.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	0.20	0.339	B	0.30	0.300	C	0.50	0.304	D	1.3	0.291	E	2.0	0.299
	F	5.0	0.328	G	10	0.321	H	20	0.304	I	40	0.281	J	80	0.308
† Chloromethane	A	0.20	0.492	B	0.30	0.435	C	0.50	0.418	D	1.3	0.403	E	2.0	0.389
	F	5.0	0.378	G	10	0.356	H	20	0.343	I	40	0.326	J	80	0.341
‡ Vinyl Chloride	A	0.20	0.371	B	0.30	0.342	C	0.50	0.337	D	1.3	0.327	E	2.0	0.316
	F	5.0	0.331	G	10	0.319	H	20	0.310	I	40	0.292	J	80	0.320
Bromomethane	A	0.20	0.198	B	0.30	0.193	C	0.50	0.203	D	1.3	0.192	E	2.0	0.192
	F	5.0	0.190	G	10	0.181	H	20	0.176	I	40	0.169	J	80	0.167
Chloroethane				B	0.30	0.257	C	0.50	0.217	D	1.3	0.191	E	2.0	0.194
	F	5.0	0.192	G	10	0.180	H	20	0.178	I	40	0.168	J	80	0.177
Trichlorofluoromethane	A	0.20	0.478	B	0.30	0.465	C	0.50	0.433	D	1.3	0.445	E	2.0	0.427
	F	5.0	0.429	G	10	0.418	H	20	0.408	I	40	0.388	J	80	0.418
Acetone	A	4.0	0.0404	B	6.0	0.0397	C	10	0.0403	D	25	0.0370	E	40	0.0363
	F	100	0.0383	G	200	0.0355	H	400	0.0376	I	800	0.0392	J	1600	0.0371
‡ 1,1-Dichloroethene	A	0.20	0.224	B	0.30	0.220	C	0.50	0.231	D	1.3	0.229	E	2.0	0.233
	F	5.0	0.231	G	10	0.227	H	20	0.223	I	40	0.212	J	80	0.232
Methyl tert-Butyl Ether	A	0.40	0.527	B	0.60	0.515	C	1.0	0.524	D	2.5	0.499	E	4.0	0.507
	F	10	0.549	G	20	0.540	H	40	0.559	I	80	0.565	J	160	0.567
Carbon Disulfide	A	0.20	0.787	B	0.30	0.698	C	0.50	0.702	D	1.3	0.661	E	2.0	0.681
	F	5.0	0.686	G	10	0.664	H	20	0.663	I	40	0.638	J	80	0.700
Methylene Chloride				B	0.30	0.349	C	0.50	0.309	D	1.3	0.280	E	2.0	0.266
	F	5.0	0.271	G	10	0.252	H	20	0.249	I	40	0.244	J	80	0.247
trans-1,2-Dichloroethene	A	0.20	0.305	B	0.30	0.285	C	0.50	0.269	D	1.3	0.262	E	2.0	0.256
	F	5.0	0.264	G	10	0.254	H	20	0.256	I	40	0.247	J	80	0.260
† 1,1-Dichloroethane	A	0.20	0.504	B	0.30	0.473	C	0.50	0.467	D	1.3	0.454	E	2.0	0.449
	F	5.0	0.467	G	10	0.452	H	20	0.456	I	40	0.442	J	80	0.463
2-Butanone (MEK)	A	4.0	0.0124	B	6.0	0.0116	C	10	0.0122	D	25	0.0137	E	40	0.0138
	F	100	0.0158	G	200	0.0146	H	400	0.0161	I	800	0.0168	J	1600	0.0162

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
2,2-Dichloropropane	A	0.20	0.258	B	0.30	0.262	C	0.50	0.250	D	1.3	0.237	E	2.0	0.239
	F	5.0	0.250	G	10	0.261	H	20	0.273	I	40	0.279	J	80	0.323
cis-1,2-Dichloroethene	A	0.20	0.287	B	0.30	0.294	C	0.50	0.285	D	1.3	0.282	E	2.0	0.277
	F	5.0	0.290	G	10	0.279	H	20	0.281	I	40	0.274	J	80	0.283
‡ Chloroform	A	0.20	0.510	B	0.30	0.449	C	0.50	0.452	D	1.3	0.442	E	2.0	0.430
	F	5.0	0.448	G	10	0.433	H	20	0.434	I	40	0.421	J	80	0.435
Bromochloromethane				B	0.30	0.116	C	0.50	0.126	D	1.3	0.115	E	2.0	0.122
	F	5.0	0.129	G	10	0.124	H	20	0.124	I	40	0.121	J	80	0.120
1,1,1-Trichloroethane (TCA)	A	0.20	0.316	B	0.30	0.350	C	0.50	0.337	D	1.3	0.326	E	2.0	0.330
	F	5.0	0.336	G	10	0.337	H	20	0.349	I	40	0.345	J	80	0.387
1,1-Dichloropropene	A	0.20	0.376	B	0.30	0.341	C	0.50	0.337	D	1.3	0.343	E	2.0	0.343
	F	5.0	0.354	G	10	0.348	H	20	0.350	I	40	0.336	J	80	0.365
Carbon Tetrachloride	A	0.20	0.240	B	0.30	0.225	C	0.50	0.230	D	1.3	0.238	E	2.0	0.233
	F	5.0	0.242	G	10	0.247	H	20	0.261	I	40	0.266	J	80	0.313
1,2-Dichloroethane (EDC)	A	0.20	0.328	B	0.30	0.312	C	0.50	0.324	D	1.3	0.299	E	2.0	0.301
	F	5.0	0.323	G	10	0.312	H	20	0.311	I	40	0.308	J	80	0.303
Benzene	A	0.20	1.13	B	0.30	1.14	C	0.50	1.11	D	1.3	1.06	E	2.0	1.07
	F	5.0	1.09	G	10	1.07	H	20	1.07	I	40	1.04	J	80	1.09
Trichloroethene (TCE)	A	0.20	0.274	B	0.30	0.276	C	0.50	0.276	D	1.3	0.255	E	2.0	0.261
	F	5.0	0.269	G	10	0.262	H	20	0.261	I	40	0.253	J	80	0.268
‡ 1,2-Dichloropropane	A	0.20	0.260	B	0.30	0.237	C	0.50	0.251	D	1.3	0.238	E	2.0	0.244
	F	5.0	0.261	G	10	0.253	H	20	0.257	I	40	0.255	J	80	0.263
Bromodichloromethane	A	0.20	0.285	B	0.30	0.269	C	0.50	0.264	D	1.3	0.247	E	2.0	0.246
	F	5.0	0.275	G	10	0.282	H	20	0.283	I	40	0.292	J	80	0.305
Dibromomethane	A	0.20	0.107	B	0.30	0.107	C	0.50	0.127	D	1.3	0.119	E	2.0	0.118
	F	5.0	0.129	G	10	0.123	H	20	0.124	I	40	0.124	J	80	0.122
2-Hexanone							C	10	0.0239	D	25	0.0276	E	40	0.0285
	F	100	0.0367	G	200	0.0364	H	400	0.0407	I	800	0.0443	J	1600	0.0424
cis-1,3-Dichloropropene	A	0.20	0.263	B	0.30	0.265	C	0.50	0.275	D	1.3	0.270	E	2.0	0.280
	F	5.0	0.321	G	10	0.329	H	20	0.350	I	40	0.369	J	80	0.387
‡ Toluene	A	0.20	0.728	B	0.30	0.671	C	0.50	0.684	D	1.3	0.682	E	2.0	0.695
	F	5.0	0.725	G	10	0.710	H	20	0.714	I	40	0.695	J	80	0.734
trans-1,3-Dichloropropene							C	0.50	0.442	D	1.3	0.423	E	2.0	0.441
	F	5.0	0.524	G	10	0.569	H	20	0.606	I	40	0.655	J	80	0.697

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† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Column: MS

Calibration ID: CAL4250
Instrument ID: MS13

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,1,2-Trichloroethane				B	0.30	0.353	C	0.50	0.315	D	1.3	0.326	E	2.0	0.320
	F	5.0	0.365	G	10	0.375	H	20	0.364	I	40	0.364	J	80	0.359
4-Methyl-2-pentanone (MIBK)				B	6.0	0.0400	C	10	0.0437	D	25	0.0427	E	40	0.0441
	F	100	0.0508	G	200	0.0488	H	400	0.0543	I	800	0.0579	J	1600	0.0555
1,3-Dichloropropane	A	0.20	0.667	B	0.30	0.744	C	0.50	0.681	D	1.3	0.709	E	2.0	0.713
	F	5.0	0.770	G	10	0.774	H	20	0.756	I	40	0.763	J	80	0.757
Tetrachloroethene (PCE)	A	0.20	0.618	B	0.30	0.609	C	0.50	0.552	D	1.3	0.549	E	2.0	0.553
	F	5.0	0.546	G	10	0.564	H	20	0.538	I	40	0.524	J	80	0.559
Dibromochloromethane				B	0.30	0.351	C	0.50	0.335	D	1.3	0.331	E	2.0	0.327
	F	5.0	0.404	G	10	0.416	H	20	0.429	I	40	0.460	J	80	0.481
1,2-Dibromoethane (EDB)	A	0.20	0.316	B	0.30	0.362	C	0.50	0.347	D	1.3	0.342	E	2.0	0.343
	F	5.0	0.405	G	10	0.410	H	20	0.409	I	40	0.414	J	80	0.415
† Chlorobenzene	A	0.20	1.94	B	0.30	1.85	C	0.50	1.79	D	1.3	1.75	E	2.0	1.76
	F	5.0	1.86	G	10	1.85	H	20	1.78	I	40	1.76	J	80	1.81
1,1,1,2-Tetrachloroethane	A	0.20	0.391	B	0.30	0.382	C	0.50	0.385	D	1.3	0.373	E	2.0	0.381
	F	5.0	0.446	G	10	0.453	H	20	0.478	I	40	0.511	J	80	0.547
‡ Ethylbenzene	A	0.20	0.866	B	0.30	0.780	C	0.50	0.796	D	1.3	0.865	E	2.0	0.881
	F	5.0	0.970	G	10	0.981	H	20	0.965	I	40	0.956	J	80	1.00
m,p-Xylenes	A	0.40	1.00	B	0.60	0.994	C	1.0	0.978	D	2.5	1.03	E	4.0	1.08
	F	10	1.22	G	20	1.24	H	40	1.22	I	80	1.20	J	160	1.26
o-Xylene	A	0.20	0.906	B	0.30	0.914	C	0.50	0.875	D	1.3	0.956	E	2.0	1.01
	F	5.0	1.13	G	10	1.16	H	20	1.15	I	40	1.15	J	80	1.20
Styrene							C	0.50	0.645	D	1.3	0.706	E	2.0	0.754
	F	5.0	0.878	G	10	0.942	H	20	0.936	I	40	0.951	J	80	0.977
† Bromoform	A	0.20	0.159	B	0.30	0.182	C	0.50	0.168	D	1.3	0.162	E	2.0	0.169
	F	5.0	0.197	G	10	0.213	H	20	0.226	I	40	0.250	J	80	0.270
Isopropylbenzene	A	0.20	2.17	B	0.30	2.10	C	0.50	2.17	D	1.3	2.32	E	2.0	2.47
	F	5.0	2.72	G	10	2.83	H	20	2.82	I	40	2.81	J	80	2.95
† 1,1,2,2-Tetrachloroethane	A	0.20	0.352	B	0.30	0.358	C	0.50	0.369	D	1.3	0.355	E	2.0	0.352
	F	5.0	0.400	G	10	0.426	H	20	0.407	I	40	0.410	J	80	0.410
1,2,3-Trichloropropane	A	0.20	0.110	B	0.30	0.115	C	0.50	0.125	D	1.3	0.125	E	2.0	0.129
	F	5.0	0.131	G	10	0.135	H	20	0.129	I	40	0.129	J	80	0.127
Bromobenzene	A	0.20	0.579	B	0.30	0.677	C	0.50	0.657	D	1.3	0.687	E	2.0	0.672
	F	5.0	0.727	G	10	0.731	H	20	0.711	I	40	0.697	J	80	0.711

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
n-Propylbenzene	A	0.20	2.28	B	0.30	2.28	C	0.50	2.28	D	1.3	2.46	E	2.0	2.61
	F	5.0	2.79	G	10	2.90	H	20	2.89	I	40	2.83	J	80	2.95
2-Chlorotoluene	A	0.20	1.58	B	0.30	1.63	C	0.50	1.70	D	1.3	1.70	E	2.0	1.70
	F	5.0	1.85	G	10	1.87	H	20	1.82	I	40	1.78	J	80	1.87
4-Chlorotoluene	A	0.20	1.80	B	0.30	1.78	C	0.50	1.83	D	1.3	1.86	E	2.0	1.97
	F	5.0	2.15	G	10	2.19	H	20	2.13	I	40	2.12	J	80	2.18
1,3,5-Trimethylbenzene				B	0.30	1.50	C	0.50	1.53	D	1.3	1.67	E	2.0	1.77
	F	5.0	2.02	G	10	2.10	H	20	2.08	I	40	2.06	J	80	2.18
tert-Butylbenzene	A	0.20	1.33	B	0.30	1.29	C	0.50	1.36	D	1.3	1.41	E	2.0	1.48
	F	5.0	1.60	G	10	1.68	H	20	1.68	I	40	1.64	J	80	1.78
1,2,4-Trimethylbenzene							C	0.50	1.51	D	1.3	1.65	E	2.0	1.76
	F	5.0	2.05	G	10	2.15	H	20	2.13	I	40	2.10	J	80	2.21
sec-Butylbenzene	A	0.20	1.68	B	0.30	1.70	C	0.50	1.74	D	1.3	1.83	E	2.0	1.99
	F	5.0	2.17	G	10	2.25	H	20	2.24	I	40	2.20	J	80	2.35
1,3-Dichlorobenzene	A	0.20	1.40	B	0.30	1.31	C	0.50	1.33	D	1.3	1.29	E	2.0	1.34
	F	5.0	1.38	G	10	1.40	H	20	1.35	I	40	1.32	J	80	1.37
4-Isopropyltoluene							C	0.50	1.49	D	1.3	1.66	E	2.0	1.74
	F	5.0	1.99	G	10	2.07	H	20	2.07	I	40	2.05	J	80	2.20
1,4-Dichlorobenzene	A	0.20	1.47	B	0.30	1.34	C	0.50	1.38	D	1.3	1.40	E	2.0	1.37
	F	5.0	1.43	G	10	1.46	H	20	1.37	I	40	1.35	J	80	1.38
n-Butylbenzene	A	0.20	1.33	B	0.30	1.28	C	0.50	1.25	D	1.3	1.33	E	2.0	1.41
	F	5.0	1.56	G	10	1.62	H	20	1.64	I	40	1.66	J	80	1.79
1,2-Dichlorobenzene	A	0.20	1.29	B	0.30	1.23	C	0.50	1.20	D	1.3	1.22	E	2.0	1.20
	F	5.0	1.31	G	10	1.32	H	20	1.28	I	40	1.24	J	80	1.27
1,2-Dibromo-3-chloropropane										D	1.3	0.0326	E	2.0	0.0344
	F	5.0	0.0404	G	10	0.0452	H	20	0.0513	I	40	0.0555	J	80	0.0600
1,2,4-Trichlorobenzene	A	0.20	0.780	B	0.30	0.717	C	0.50	0.722	D	1.3	0.660	E	2.0	0.662
	F	5.0	0.727	G	10	0.738	H	20	0.727	I	40	0.728	J	80	0.752
1,2,3-Trichlorobenzene	A	0.20	0.681	B	0.30	0.585	C	0.50	0.583	D	1.3	0.550	E	2.0	0.554
	F	5.0	0.609	G	10	0.616	H	20	0.605	I	40	0.607	J	80	0.614
Naphthalene							C	0.50	0.787	D	1.3	0.746	E	2.0	0.774
	F	5.0	0.933	G	10	1.03	H	20	1.11	I	40	1.17	J	80	1.20
Hexachlorobutadiene				B	0.30	0.411	C	0.50	0.363	D	1.3	0.349	E	2.0	0.352
	F	5.0	0.348	G	10	0.352	H	20	0.342	I	40	0.340	J	80	0.363

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
tert-Amyl Methyl Ether				B	0.30	0.207	C	0.50	0.216	D	1.3	0.198	E	2.0	0.193
	F	5.0	0.212	G	10	0.200	H	20	0.198	I	40	0.191	J	80	0.180
tert-Butyl Ethyl Ether	A	0.20	0.544	B	0.30	0.559	C	0.50	0.568	D	1.3	0.579	E	2.0	0.583
	F	5.0	0.625	G	10	0.617	H	20	0.639	I	40	0.653	J	80	0.671
tert-Butyl Alcohol							C	2.5	0.00708	D	6.3	0.00649	E	10	0.00642
	F	25	0.00717	G	50	0.00726	H	100	0.00779	I	200	0.00842	J	400	0.00902
Diisopropyl Ether	A	0.20	0.783	B	0.30	0.729	C	0.50	0.745	D	1.3	0.739	E	2.0	0.744
	F	5.0	0.798	G	10	0.795	H	20	0.819	I	40	0.821	J	80	0.834
Dibromofluoromethane	A	3.0	0.259	B	4.0	0.251	C	5.0	0.258	D	6.0	0.252	E	8.0	0.254
	F	9.0	0.253	G	10	0.245	H	20	0.238	I	40	0.233	J	50	0.231
Toluene-d8	A	3.0	1.11	B	4.0	1.06	C	5.0	1.09	D	6.0	1.11	E	8.0	1.13
	F	9.0	1.15	G	10	1.13	H	20	1.08	I	40	1.04	J	50	1.05
4-Bromofluorobenzene	A	3.0	0.876	B	4.0	0.850	C	5.0	0.869	D	6.0	0.892	E	8.0	0.897
	F	9.0	0.936	G	10	0.937	H	20	0.884	I	40	0.856	J	50	0.843

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	5.7		≤ 15	0.307		0.01
† Chloromethane	TRG	AverageRF	% RSD	13.2		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.5		≤ 15	0.327		0.01
Bromomethane	TRG	AverageRF	% RSD	6.5		≤ 15	0.186		0.01
Chloroethane	TRG	AverageRF	% RSD	14.0		≤ 15	0.195		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	6.1		≤ 15	0.431		0.01
Acetone	TRG	AverageRF	% RSD	4.5		≤ 15	0.0381		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	2.9		≤ 15	0.226		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	4.6		≤ 15	0.535		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	5.9		≤ 15	0.688		0.01
Methylene Chloride	TRG	AverageRF	% RSD	12.7		≤ 15	0.274		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.5		≤ 15	0.266		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.463		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0143		0.01
2,2-Dichloropropane	TRG	AverageRF	% RSD	9.5		≤ 15	0.263		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	2.2		≤ 15	0.283		0.01
‡ Chloroform	TRG	AverageRF	% RSD	5.5		≤ 15	0.445		0.01
Bromochloromethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.122		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	5.6		≤ 15	0.341		0.01
1,1-Dichloropropene	TRG	AverageRF	% RSD	3.7		≤ 15	0.349		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	10.3		≤ 15	0.249		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	3.2		≤ 15	0.312		0.01
Benzene	MS	AverageRF	% RSD	3.0		≤ 15	1.09		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	3.1		≤ 15	0.265		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	3.7		≤ 15	0.252		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	6.9		≤ 15	0.275		0.01
Dibromomethane	TRG	AverageRF	% RSD	6.2		≤ 15	0.120		0.01
2-Hexanone	TRG	AverageRF	% RSD	21.5	*	≤ 15	0.0351		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	14.9		≤ 15	0.311		0.01
‡ Toluene	MS	AverageRF	% RSD	3.1		≤ 15	0.704		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	19.2	*	≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.349		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0486		0.01
1,3-Dichloropropane	TRG	AverageRF	% RSD	5.2		≤ 15	0.734		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	5.3		≤ 15	0.561		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	14.9		≤ 15	0.393		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	10.1		≤ 15	0.376		0.01
† Chlorobenzene	MS	AverageRF	% RSD	3.3		≤ 15	1.81		0.30
1,1,1,2-Tetrachloroethane	TRG	AverageRF	% RSD	14.3		≤ 15	0.435		0.01
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.8		≤ 15	0.906		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	10.3		≤ 15	1.12		0.01
o-Xylene	TRG	AverageRF	% RSD	11.9		≤ 15	1.04		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Styrene	TRG	AverageRF	% RSD	15.1	*	≤ 15	0.849		0.01
† Bromoform	TRG	AverageRF	% RSD	19.4	*	≤ 15	0.200		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.54		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.384		0.30
1,2,3-Trichloropropane	TRG	AverageRF	% RSD	6.1		≤ 15	0.126		0.01
Bromobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	0.685		0.01
n-Propylbenzene	TRG	AverageRF	% RSD	10.7		≤ 15	2.63		0.01
2-Chlorotoluene	TRG	AverageRF	% RSD	5.9		≤ 15	1.75		0.01
4-Chlorotoluene	TRG	AverageRF	% RSD	8.5		≤ 15	2.00		0.01
1,3,5-Trimethylbenzene	TRG	AverageRF	% RSD	13.9		≤ 15	1.88		0.01
tert-Butylbenzene	TRG	AverageRF	% RSD	11.4		≤ 15	1.53		0.01
1,2,4-Trimethylbenzene	TRG	AverageRF	% RSD	13.6		≤ 15	1.95		0.01
sec-Butylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.02		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	2.7		≤ 15	1.35		0.01
4-Isopropyltoluene	TRG	AverageRF	% RSD	12.9		≤ 15	1.91		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	3.1		≤ 15	1.40		0.01
n-Butylbenzene	TRG	AverageRF	% RSD	12.7		≤ 15	1.49		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	3.6		≤ 15	1.26		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	22.9	*	≤ 15	0.0456		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	5.1		≤ 15	0.721		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.1		≤ 15	0.601		0.01
Naphthalene	MS	AverageRF	% RSD	19.1	*	≤ 15	0.968		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	6.0		≤ 15	0.358		0.01
tert-Amyl Methyl Ether	TRG	AverageRF	% RSD	5.7		≤ 15	0.199		0.01
tert-Butyl Ethyl Ether	TRG	AverageRF	% RSD	7.1		≤ 15	0.604		0.01
tert-Butyl Alcohol	TRG	AverageRF	% RSD	12.2		≤ 15	0.00746	*	0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	5.0		≤ 15	0.781		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	4.1		≤ 15	0.248		0.01
Toluene-d8	SURR	AverageRF	% RSD	3.4		≤ 15	1.09		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.7		≤ 15	0.884		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

File ID: J:\MS13\DATA\022505\0225F021.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	10	0.307	0.308	0	NA	± 40 %	AverageRF
† Chloromethane	10	9.7	0.388	0.378	-3	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.327	0.323	-1	NA	± 20 %	AverageRF
Bromomethane	10	12	0.186	0.216	16	NA	± 40 %	AverageRF
Chloroethane	10	9.8	0.195	0.190	-2	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	9.2	0.431	0.397	-8	NA	± 30 %	AverageRF
Acetone	50	50	0.0381	0.0381	0	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	11	0.226	0.243	8	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	10	11	0.535	0.564	5	NA	± 30 %	AverageRF
Carbon Disulfide	20	22	0.688	0.756	10	NA	± 30 %	AverageRF
Methylene Chloride	10	9.5	0.274	0.261	-5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.266	0.269	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.463	0.461	0	NA	± 30 %	AverageRF
2-Butanone (MEK)	50	52	0.0143	0.0150	5	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	10	0.263	0.274	4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	9.8	0.445	0.437	-2	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.122	0.124	2	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.341	0.362	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	9.9	0.349	0.345	-1	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	11	0.249	0.268	7	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.312	0.310	-1	NA	± 30 %	AverageRF
Benzene	10	10	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	11	0.265	0.279	5	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	10	0.252	0.255	1	NA	± 20 %	AverageRF
Bromodichloromethane	10	10	0.275	0.283	3	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.120	0.122	2	NA	± 30 %	AverageRF
2-Hexanone	50	48	0.0351	0.0334	-5	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	11	0.311	0.330	6	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.704	0.708	1	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	9.6	0.545	0.521	-4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.349	0.359	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	50	51	0.0486	0.0493	1	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.734	0.765	4	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.561	0.568	1	NA	± 30 %	AverageRF
Dibromochloromethane	10	10	0.393	0.400	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	10	0.376	0.391	4	NA	± 30 %	AverageRF
† Chlorobenzene	10	9.7	1.81	1.76	-3	NA	± 30 %	AverageRF
1,1,1,2-Tetrachloroethane	10	11	0.435	0.469	8	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.906	0.971	7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
m,p-Xylenes	20	22	1.12	1.22	9	NA	± 30 %	AverageRF
o-Xylene	10	11	1.04	1.12	7	NA	± 30 %	AverageRF
Styrene	10	11	0.849	0.906	7	NA	± 30 %	AverageRF
† Bromoform	10	10	0.200	0.204	2	NA	± 30 %	AverageRF
Isopropylbenzene	10	9.8	2.54	2.47	-2	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	9.7	0.384	0.373	-3	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.126	0.130	3	NA	± 30 %	AverageRF
Bromobenzene	10	10	0.685	0.701	2	NA	± 30 %	AverageRF
n-Propylbenzene	10	11	2.63	2.88	10	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	1.75	1.91	9	NA	± 30 %	AverageRF
4-Chlorotoluene	10	11	2.00	2.13	7	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	11	1.88	2.10	12	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	1.53	1.70	12	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	1.95	2.12	9	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	2.02	2.33	16	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	9.8	1.35	1.33	-2	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	10	1.91	1.96	3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	9.9	1.40	1.38	-1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	1.49	1.64	10	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	9.9	1.26	1.24	-1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.0456	0.0460	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	9.9	0.721	0.715	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	9.7	0.601	0.581	-3	NA	± 30 %	AverageRF
Naphthalene	10	10	0.968	0.999	3	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	10	0.358	0.357	0	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	20	19	0.199	0.190	-5	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	20	20	0.604	0.611	1	NA	± 30 %	AverageRF
tert-Butyl Alcohol	100	100	0.00746	0.00781	5	NA	± 30 %	AverageRF
Diisopropyl Ether	20	20	0.781	0.785	1	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504384
Units: PPB

File ID: J:\MS13\DATA\031605\0316F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	11	0.01	0.307	0.332	8	NA	± 40 %	AverageRF
† Chloromethane	10	9.1	0.10	0.388	0.352	-9	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.01	0.327	0.324	-1	NA	± 20 %	AverageRF
Bromomethane	10	9.2	0.01	0.186	0.172	-8	NA	± 40 %	AverageRF
Chloroethane	10	9.9	0.01	0.195	0.194	-1	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	11	0.01	0.431	0.473	10	NA	± 30 %	AverageRF
Acetone	200	180	0.01	0.0381	0.0337	-12	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	10	0.01	0.226	0.235	4	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	20	17	0.01	0.535	0.450	-16	NA	± 30 %	AverageRF
Carbon Disulfide	10	13	0.01	0.688	0.861	25	NA	± 30 %	AverageRF
Methylene Chloride	10	9.7	0.01	0.274	0.264	-4	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.01	0.266	0.274	3	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.10	0.463	0.474	2	NA	± 30 %	AverageRF
2-Butanone (MEK)	200	180	0.01	0.0143	0.0129	-10	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	9.4	0.01	0.263	0.248	-6	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.01	0.283	0.288	2	NA	± 30 %	AverageRF
‡ Chloroform	10	11	0.01	0.445	0.477	7	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.01	0.122	0.126	3	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.01	0.341	0.368	8	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	10	0.01	0.349	0.363	4	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	12	0.01	0.249	0.299	20	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.01	0.312	0.325	4	NA	± 30 %	AverageRF
Benzene	10	10	0.01	1.09	1.10	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	10	0.01	0.265	0.270	2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	9.6	0.01	0.252	0.243	-4	NA	± 20 %	AverageRF
Bromodichloromethane	10	11	0.01	0.275	0.297	8	NA	± 30 %	AverageRF
Dibromomethane	10	11	0.01	0.120	0.127	5	NA	± 30 %	AverageRF
2-Hexanone	200	190	0.01	0.0351	0.0328	-6	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	10	0.01	0.311	0.310	0	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.01	0.704	0.724	3	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	10	0.01	0.545	0.547	0	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.01	0.349	0.358	2	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	200	180	0.01	0.0486	0.0433	-11	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.01	0.734	0.769	5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	11	0.01	0.561	0.599	7	NA	± 30 %	AverageRF
Dibromochloromethane	10	12	0.01	0.393	0.463	18	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.01	0.376	0.406	8	NA	± 30 %	AverageRF
† Chlorobenzene	10	10	0.30	1.81	1.86	3	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504384
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1,2-Tetrachloroethane	10	12	0.01	0.435	0.518	19	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.01	0.906	0.994	10	NA	± 20 %	AverageRF
m,p-Xylenes	20	23	0.01	1.12	1.29	15	NA	± 30 %	AverageRF
o-Xylene	10	11	0.01	1.04	1.15	10	NA	± 30 %	AverageRF
Styrene	10	12	0.01	0.849	0.979	15	NA	± 30 %	AverageRF
† Bromoform	10	12	0.10	0.200	0.245	23	NA	± 30 %	AverageRF
Isopropylbenzene	10	12	0.01	2.54	2.92	15	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	10	0.30	0.384	0.388	1	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.01	0.126	0.130	4	NA	± 30 %	AverageRF
Bromobenzene	10	11	0.01	0.685	0.728	6	NA	± 30 %	AverageRF
n-Propylbenzene	10	12	0.01	2.63	3.09	17	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	0.01	1.75	1.98	13	NA	± 30 %	AverageRF
4-Chlorotoluene	10	12	0.01	2.00	2.31	15	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	12	0.01	1.88	2.23	19	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	0.01	1.53	1.74	14	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	0.01	1.95	2.18	12	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	0.01	2.02	2.35	17	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	10	0.01	1.35	1.38	3	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	11	0.01	1.91	2.14	12	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	10	0.01	1.40	1.41	1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	0.01	1.49	1.67	12	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	10	0.01	1.26	1.27	1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.01	0.0456	0.0463	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	8.7	0.01	0.721	0.626	-13	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	8.4	0.01	0.601	0.505	-16	NA	± 30 %	AverageRF
Naphthalene	10	8.0	0.01	0.968	0.774	-20	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	11	0.01	0.358	0.389	9	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	10	11	0.01	0.199	0.213	7	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	10	8.6	0.01	0.604	0.517	-14	NA	± 30 %	AverageRF
tert-Butyl Alcohol	50	37	0.01	0.00746	0.00550 *	-26	NA	± 30 %	AverageRF
Diisopropyl Ether	10	9.5	0.01	0.781	0.744	-5	NA	± 30 %	AverageRF
Dibromofluoromethane	10	9.5	0.01	0.248	0.235	-5	NA	± 30 %	AverageRF
Toluene-d8	10	10	0.01	1.09	1.10	1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	10	11	0.01	0.884	0.954	8	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260B

Analysis Lot: KWG0504384
Instrument ID: MS13

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0316F002.D	GC/MS Tuning - Generic	KWG0504384-1	3/16/2005	16:02		3/16/2005	16:21
0316F003.D	Continuing Calibration Verification	KWG0504384-2	3/16/2005	16:32		3/16/2005	16:51
0316F004.D	Lab Control Sample	KWG0504385-3	3/16/2005	17:00		3/16/2005	17:19
0316F005.D	Batch QCMS	KWG0504385-1	3/16/2005	17:28		3/16/2005	17:47
0316F006.D	Batch QCDMS	KWG0504385-2	3/16/2005	17:55		3/16/2005	18:14
0316F009.D	Method Blank	KWG0504385-4	3/16/2005	19:17		3/16/2005	19:36
0316F010.D	ZZZZZZ	ZZZZZZ	3/16/2005	19:44		3/16/2005	20:03
0316F011.D	Batch QCDL	K2501626-002	3/16/2005	20:11		3/16/2005	20:30
0316F012.D	ZZZZZZ	ZZZZZZ	3/16/2005	20:39		3/16/2005	20:58
0316F013.D	ZZZZZZ	ZZZZZZ	3/16/2005	21:06		3/16/2005	21:25
0316F014.D	ZZZZZZ	ZZZZZZ	3/16/2005	21:33		3/16/2005	21:52
0316F015.D	ZZZZZZ	ZZZZZZ	3/16/2005	22:01		3/16/2005	22:20
0316F016.D	50425-01	K2501630-001	3/16/2005	22:28		3/16/2005	22:47
0316F017.D	50425-02	K2501630-002	3/16/2005	22:55		3/16/2005	23:14
0316F018.D	ZZZZZZ	ZZZZZZ	3/16/2005	23:22		3/16/2005	23:41
0316F019.D	ZZZZZZ	ZZZZZZ	3/16/2005	23:49		3/17/2005	00:08
0316F020.D	ZZZZZZ	ZZZZZZ	3/17/2005	00:17		3/17/2005	00:36
0316F021.D	ZZZZZZ	ZZZZZZ	3/17/2005	00:44		3/17/2005	01:03
0316F022.D	ZZZZZZ	ZZZZZZ	3/17/2005	01:11		3/17/2005	01:30
0316F023.D	ZZZZZZ	ZZZZZZ	3/17/2005	01:38		3/17/2005	01:57
0316F025.D	Batch QC	K2501626-002	3/17/2005	02:33		3/17/2005	02:52
0316F027.D	ZZZZZZ	ZZZZZZ	3/17/2005	03:27		3/17/2005	03:46

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50425-01	K2501630-001	03/04/05	03/05/05	10ml	10ml	NA	
50425-02	K2501630-002	03/04/05	03/05/05	10ml	10ml	NA	
Method Blank	KWG0504385-4	NA	NA	10ml	10ml	NA	
Batch QCDL	K2501626-002	NA	NA	10ml	10ml	NA	
Batch QC	K2501626-002	NA	NA	10ml	10ml	NA	
Batch QCMS	KWG0504385-1	NA	NA	10ml	10ml	NA	
Batch QCDMS	KWG0504385-2	NA	NA	10ml	10ml	NA	
Lab Control Sample	KWG0504385-3	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Volatile Organic Compounds

Validation Package

Organic Analysis:
Volatile Organic Compounds

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50425-01	K2501630-001	101	91	88
50425-02	K2501630-002	101	91	86
Method Blank	KWG0504385-4	97	91	91
Batch QC	K2501626-002	102	91	98
Batch QCDL	K2501626-002	98	90	90
Batch QCMS	KWG0504385-1	94	97	102
Batch QCDMS	KWG0504385-2	92	95	102
Lab Control Sample	KWG0504385-3	95	98	101

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	80-119
Sur2 =	Toluene-d8	83-113
Sur3 =	4-Bromofluorobenzene	72-114

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 16:32

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031605\0316F003.D
Instrument ID: MS13
Analysis Method: 8260B

Lab Code: KWG0504384-2
Analysis Lot: KWG0504384

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	RT	Area	RT	Area	RT
	Results ==>	635,934	5.60	263,507	11.58	298,471	14.71
	Upper Limit ==>	1,271,868	6.10	527,014	12.08	596,942	15.21
	Lower Limit ==>	317,967	5.10	131,754	11.08	149,236	14.21
	ICAL Result ==>	769,126	5.60	331,133	11.58	378,337	14.71
Associated Analyses							
Lab Control Sample	KWG0504385-3	648,290	5.60	276,290	11.58	299,988	14.71
Batch QCMS	KWG0504385-1	658,057	5.60	280,719	11.58	301,906	14.71
Batch QCDMS	KWG0504385-2	671,941	5.60	284,157	11.58	302,381	14.71
Method Blank	KWG0504385-4	601,434	5.60	255,168	11.58	253,720	14.71
Batch QCDL	K2501626-002	595,344	5.60	255,216	11.58	255,510	14.71
50425-01	K2501630-001	562,724	5.60	243,724	11.58	239,917	14.70
50425-02	K2501630-002	568,405	5.60	248,343	11.58	240,374	14.71
Batch QC	K2501626-002	582,110	5.60	259,286	11.58	275,445	14.71

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2501626-002
Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504385

Analyte Name	Sample Result	Batch QCMS KWG0504385-1 Matrix Spike			Batch QCDMS KWG0504385-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	1.5	200	200	99	191	200	95	76-143	5	30
Benzene	0.42	191	200	95	184	200	92	75-130	4	30
Trichloroethene (TCE)	60	249	200	94	243	200	91	69-132	2	30
Toluene	5.1	193	200	94	184	200	89	72-132	5	30
Chlorobenzene	0.66	186	200	93	181	200	90	78-117	3	30
1,2-Dichlorobenzene	58	252	200	97	250	200	96	77-117	1	30
Naphthalene	ND	161	200	80	169	200	85	56-155	5	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504385

	Lab Control Sample KWG0504385-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	8.39	10.0	84	45-171
Chloromethane	8.17	10.0	82	53-135
Vinyl Chloride	8.81	10.0	88	67-130
Bromomethane	8.23	10.0	82	36-158
Chloroethane	9.48	10.0	95	62-125
Trichlorofluoromethane	9.24	10.0	92	66-126
Acetone	44.4	50.0	89	70-127
1,1-Dichloroethene	10.2	10.0	102	76-129
Methyl tert-Butyl Ether	8.49	10.0	85	63-132
Carbon Disulfide	22.4	20.0	112	62-138
Methylene Chloride	9.24	10.0	92	65-127
trans-1,2-Dichloroethene	9.67	10.0	97	81-121
1,1-Dichloroethane	9.67	10.0	97	76-117
2-Butanone (MEK)	44.4	50.0	89	69-132
2,2-Dichloropropane	9.18	10.0	92	63-142
cis-1,2-Dichloroethene	9.63	10.0	96	83-118
Chloroform	9.79	10.0	98	76-121
Bromochloromethane	9.67	10.0	97	80-125
1,1,1-Trichloroethane (TCA)	10.5	10.0	105	72-132
1,1-Dichloropropene	9.36	10.0	94	72-118
Carbon Tetrachloride	11.5	10.0	115	66-146
1,2-Dichloroethane (EDC)	9.91	10.0	99	74-121
Benzene	9.67	10.0	97	78-121
Trichloroethene (TCE)	9.76	10.0	98	79-119
1,2-Dichloropropane	9.32	10.0	93	76-116
Bromodichloromethane	10.7	10.0	107	74-130
Dibromomethane	9.65	10.0	97	76-123
2-Hexanone	40.1	50.0	80	67-127
cis-1,3-Dichloropropene	9.70	10.0	97	79-123
Toluene	9.51	10.0	95	76-122
trans-1,3-Dichloropropene	8.78	10.0	88	70-117
1,1,2-Trichloroethane	10.0	10.0	100	76-120
4-Methyl-2-pentanone (MIBK)	41.0	50.0	82	70-128
1,3-Dichloropropane	9.76	10.0	98	77-121
Tetrachloroethene (PCE)	9.81	10.0	98	72-124

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0504385

	Lab Control Sample KWG0504385-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dibromochloromethane	10.6	10.0	106	72-133
1,2-Dibromoethane (EDB)	9.67	10.0	97	75-120
Chlorobenzene	9.43	10.0	94	79-113
1,1,1,2-Tetrachloroethane	11.0	10.0	110	72-133
Ethylbenzene	10.3	10.0	103	84-122
m,p-Xylenes	20.9	20.0	105	83-125
o-Xylene	9.88	10.0	99	83-122
Styrene	10.4	10.0	104	83-127
Bromoform	11.1	10.0	111	63-149
Isopropylbenzene	9.22	10.0	92	72-114
1,1,2,2-Tetrachloroethane	9.78	10.0	98	70-122
1,2,3-Trichloropropane	9.37	10.0	94	73-125
Bromobenzene	10.2	10.0	102	80-121
n-Propylbenzene	10.9	10.0	109	78-124
2-Chlorotoluene	11.1	10.0	111	82-126
4-Chlorotoluene	10.8	10.0	108	80-122
1,3,5-Trimethylbenzene	11.1	10.0	111	78-132
tert-Butylbenzene	11.0	10.0	110	76-126
1,2,4-Trimethylbenzene	10.6	10.0	106	74-138
sec-Butylbenzene	11.6	10.0	116	72-133
1,3-Dichlorobenzene	9.70	10.0	97	81-116
4-Isopropyltoluene	10.2	10.0	102	62-132
1,4-Dichlorobenzene	9.75	10.0	98	80-113
n-Butylbenzene	10.9	10.0	109	51-138
1,2-Dichlorobenzene	9.64	10.0	96	81-113
1,2-Dibromo-3-chloropropane	9.73	10.0	97	63-124
1,2,4-Trichlorobenzene	8.89	10.0	89	61-135
1,2,3-Trichlorobenzene	8.92	10.0	89	66-131
Naphthalene	8.21	10.0	82	53-157
Hexachlorobutadiene	11.7	10.0	117	66-132
tert-Amyl Methyl Ether	19.9	20.0	99	68-127
tert-Butyl Ethyl Ether	18.0	20.0	90	68-121
tert-Butyl Alcohol	80.8	100	81	10-194
Diisopropyl Ether	19.1	20.0	96	68-127

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/16/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	19:17

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**File ID:**	J:\MS13\DATA\031605\0316F009.D
Lab Code:	KWG0504385-4	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504385

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0504385-3	J:\MS13\DATA\031605\0316F004.D	03/16/05	17:00
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/05	17:28
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/05	17:55
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/05	20:11
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/05	22:28
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/05	22:55
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/05	02:33

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/16/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	17:00

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**File ID:**	J:\MS13\DATA\031605\0316F004.D
Lab Code:	KWG0504385-3	**Instrument ID:**	MS13
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	KWG0504385

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/05	17:28
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/05	17:55
Method Blank	KWG0504385-4	J:\MS13\DATA\031605\0316F009.D	03/16/05	19:17
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/05	20:11
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/05	22:28
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/05	22:55
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/05	02:33

Organic Analysis:
Volatile Organic Compounds

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-01
Lab Code: K2501630-001
File ID: J:\MS13\DATA\031605\0316F016.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	**Carbon Disulfide**	**0.17**	J	0.50	0.16	
75-09-2	**Methylene Chloride**	**0.66**	J	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-01
Lab Code: K2501630-001
File ID: J:\MS13\DATA\031605\0316F016.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-01
Lab Code: K2501630-001
File ID: J:\MS13\DATA\031605\0316F016.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	88	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F016.D
Lab ID: K2501630-001
RunType: SMPL
Matrix: WATER

Date Acquired: 03/16/2005 22:28
Date Quantitated: 03/18/2005 15:38
Batch ID: KWG0504384
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0055	0.01	NA	+

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:09:09

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**	03/04/2005	**Receive Date:**	03/05/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	K2501630
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	369291	**Prep Date:**	03/16/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5094
Tune Ref:	J:\MS13\DATA\031605\0316F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031605\0316F009.D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031605\0316F016.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 22:28	**Quant Date:**	03/18/2005 15:38	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501630-001			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	562724	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	243724	10.00	OK
3	1,4-Dichlorobenzene-d4	14.70	-0.01	152	239917	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	139984	10.05	101	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	559229	9.08	91	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	188532	8.75	88	72-114	OK

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone	2.25		0.00	43	3268	1.52	4.1	U	
1	Carbon Disulfide	2.32		0.00	76	6595	0.1700	0.17	J	
1	Methylene Chloride	2.62		0.00	84	10134	0.6600	0.66	J	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F016 D			Instrument:	MS13
Acqu Date:	03/16/2005 22:28	Quant Date:	03/18/2005 15:38	Vial:	16
Run Type:	SMPL			Dilution:	1 0
Lab ID:	K2501630-001			Soln Conc. Units:	PPB

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0 18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2 0	U	
1	Bromochloromethane				128	0		0 17	U	
1	Chloroform				83	0		0 14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0 12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0 15	U	
1	Benzene				78	0		0 14	U	
1	1,2-Dichloroethane (EDC)				62	0		0 12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0 14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0 11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2 7	U	
1	Toluene				92	0d		0 11	U	
2	trans-1,3-Dichloropropene				75	0		0 090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0 11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0 14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0 22	U	
2	o-Xylene				106	0		0 11	U	
2	Styrene				103	0		0 095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0 11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0 18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0 22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0 13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0 13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F016.D	**Quant Date:**	03/18/2005 15:38	**Instrument:**	MS13
Acqu Date:	03/16/2005 22:28			**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501630-001			**Soln Conc. Units:**	PPB

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0		0.13	U	
3	4-Isopropyltoluene				119	0		0.13	U	
3	1,3-Dichlorobenzene				146	0		0.11	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	n-Butylbenzene				91	0		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0		0.22	U	
3	Hexachlorobutadiene				225	0		0.28	U	
3	Naphthalene				128	0		0.29	U	
3	1,2,3-Trichlorobenzene				180	0		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

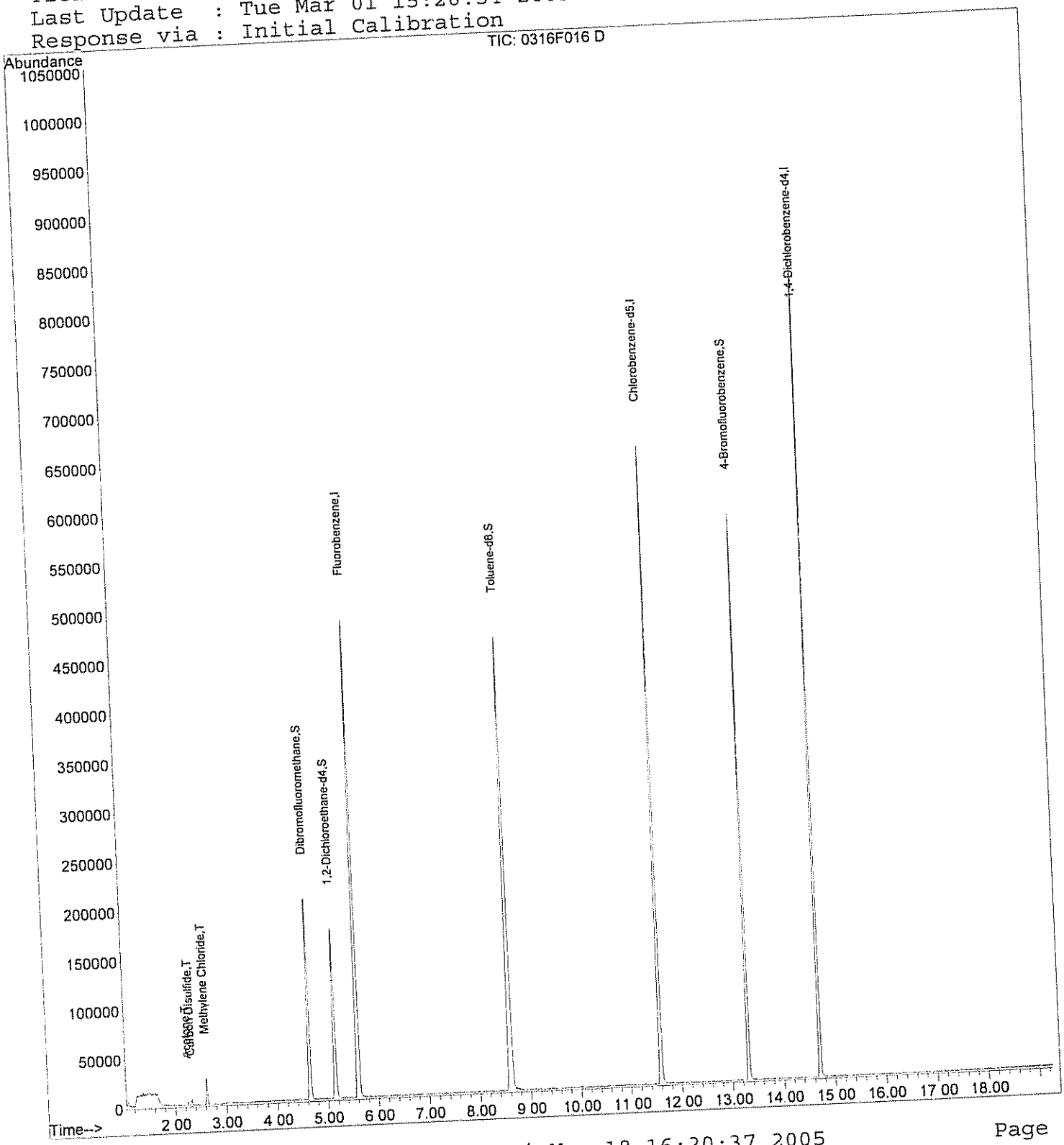
Quantitation Report (QT Reviewed)

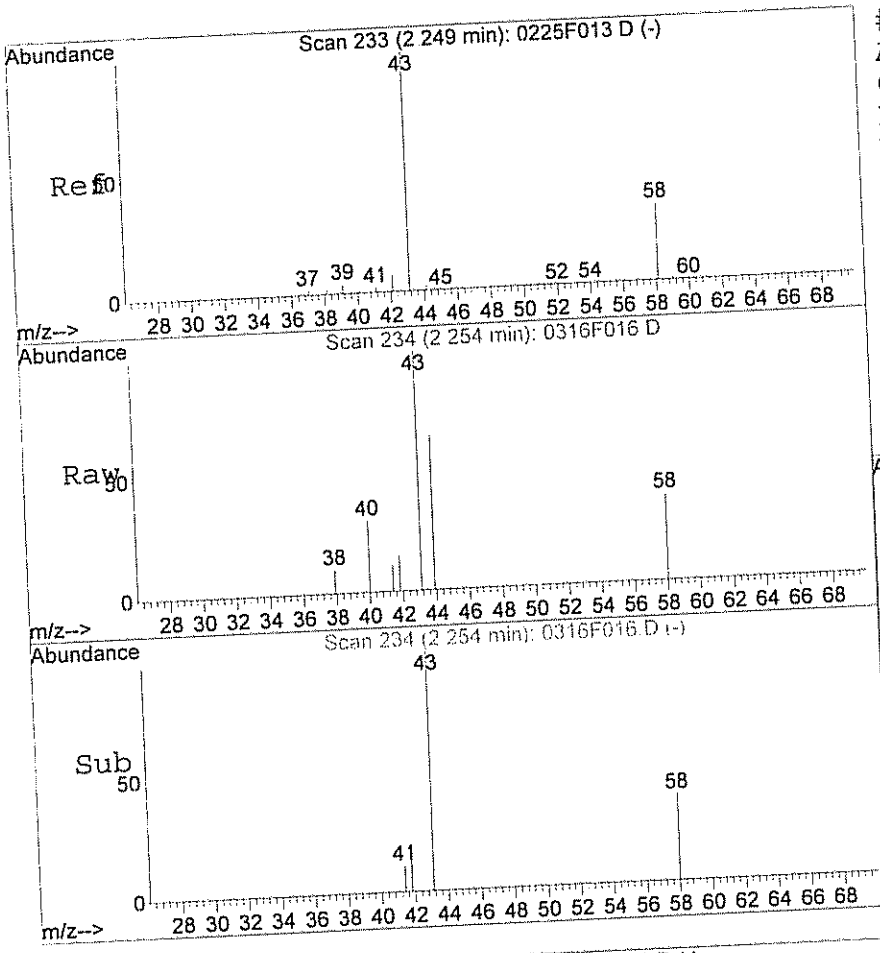
Data File : J:\MS13\DATA\031605\0316F016.D
Acq On : 16 Mar 2005 10:28 pm
Sample : K2501630-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:38 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

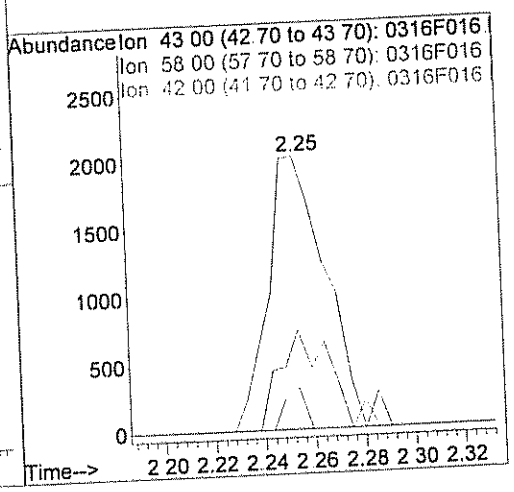


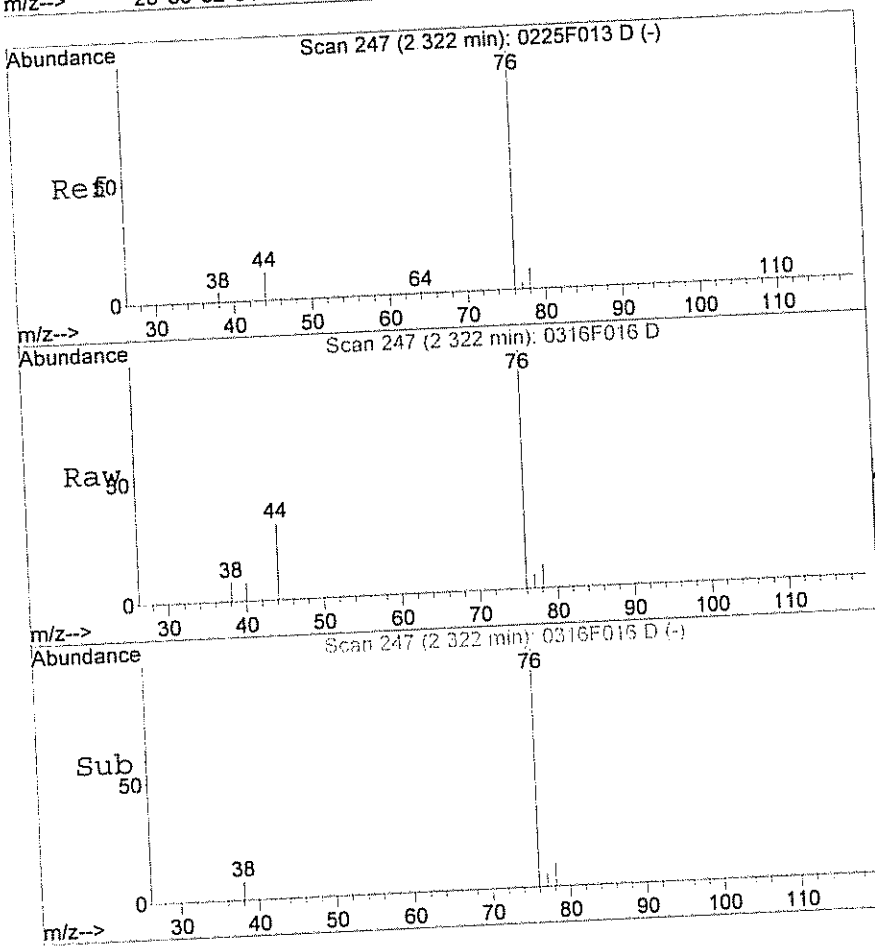


#13
Acetone
Concen: 1.52 PPB
RT: 2.25 min Scan# 234
Delta R.T. 0.01 min
Lab File: 0316F016.D
Acq: 16 Mar 2005 10:28 pm

Tgt Ion: 43 Resp: 3268

Ion	Ratio	Lower	Upper
43	100		
58	36.4	2.0	62.0
42	15.1	0.0	37.4

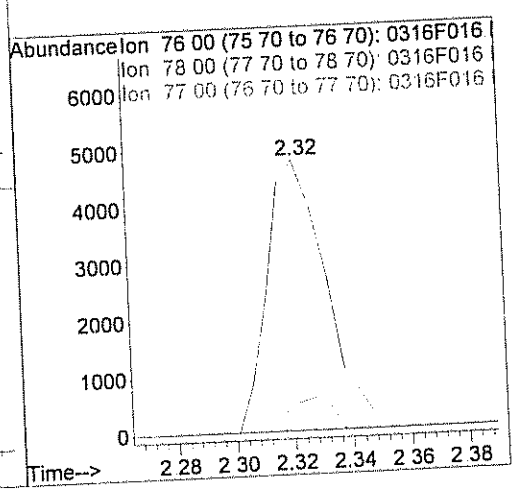


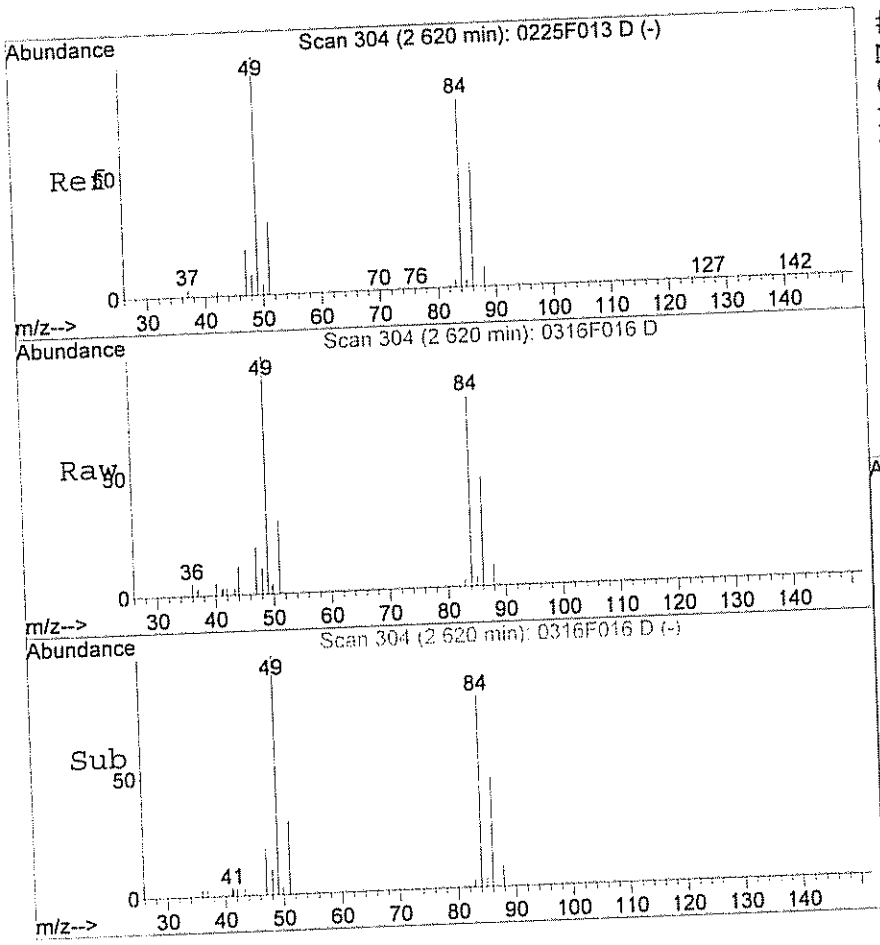


#15
Carbon Disulfide
Concen: 0.17 PPB
RT: 2.32 min Scan# 247
Delta R.T. -0.00 min
Lab File: 0316F016.D
Acq: 16 Mar 2005 10:28 pm

Tgt Ion: 76 Resp: 6595

Ion	Ratio	Lower	Upper
76	100		
78	10.4	0.0	38.8
77	5.9	0.0	32.6

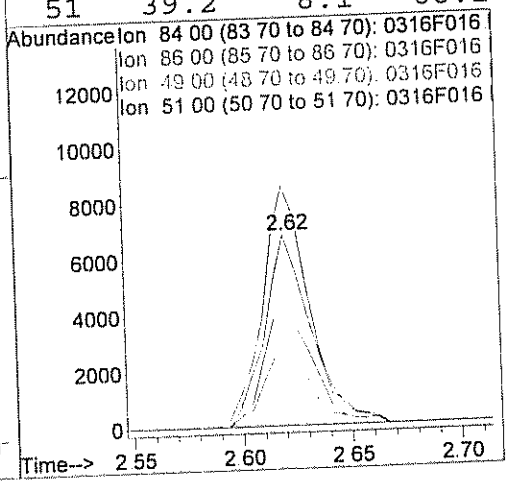




#18
Methylene Chloride
Concen: 0.66 PPB
RT: 2.62 min Scan# 304
Delta R.T. 0.00 min
Lab File: 0316F016.D
Acq: 16 Mar 2005 10:28 pm

Tgt Ion: 84 Resp: 10134

Ion	Ratio	Lower	Upper
84	100		
86	58.3	35.9	95.9
49	125.6	96.0	156.0
51	39.2	8.1	68.1



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: 03/04/2005
Date Received: 03/05/2005
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: 50425-02
Lab Code: K2501630-002
File ID: J:\MS13\DATA\031605\0316F017.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	**Acetone**	**4.6**	J	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F017.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F017.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	86	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F017.D
Lab ID: K2501630-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/16/2005 22:55
Date Quantitated: 03/18/2005 15:39
Batch ID: KWG0504384
Analysis Method: 8260B
ListJoinID: LJ5094

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
Continuing Calibration Minimum RF	tert-Butyl Alcohol	0.0055	0.01	NA	↓

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Quantitation Report

Bottle ID:		Tier:	V	Matrix:	WATER
Prod Code:	8260	Collect Date:	03/04/2005	Receive Date:	03/05/2005

Analysis Lot:	KWG0504384	Prep Lot:	KWG0504385	Report Group:	K2501630
Analysis Method:	8260B	Prep Method:	EPA 5030B		
Prep Ref:	369292	Prep Date:	03/16/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	Calibration ID:	CAL4250
Title:	Volatile Organic Compounds	Report List ID:	LJ5094
Tune Ref:	J:\MS13\DATA\031605\0316F002.D	Method ID:	MJ119
MB Ref:	J:\MS13\DATA\031605\0316F009.D	Quant based on Report List	

Data File:	J:\MS13\DATA\031605\0316F017.D	Quant Date:	03/18/2005 15:39	Instrument:	MS13
Acqu Date:	03/16/2005 22:55			Vial:	17
Run Type:	SMPL			Dilution:	1.0
Lab ID:	K2501630-002			Soln Conc. Units:	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	568405	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	248343	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	240374	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	142274	10.11	101	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	565759	9.09	91	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	188126	8.57	86	72-114	OK

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0d		0.17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0.22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0.23	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	1,1-Dichloroethene				96	0		0.13	U	
1	Acetone	2.25		0.00	43	9971	4.60	4.6	J	
1	Carbon Disulfide				76	0d		0.16	U	
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 03/18/2005 17:05:47

J:\MS13\DATA\031605\0316F017.D

Data File:	J:\MS13\DATA\031605\0316F017.D	**Quant Date:**	03/18/2005 15:39	**Instrument:**	MS13
Acqu Date:	03/16/2005 22:55			**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501630-002			**Soln Conc. Units:**	PPB
				Final Conc. Units:	ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Bromochloromethane				128	0		0.17	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Bromodichloromethane				83	0		0.11	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0		0.11	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F017.D	**Quant Date:**	03/18/2005 15:39	**Instrument:**	MS13
Acqu Date:	03/16/2005 22:55			**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501630-002			**Soln Conc. Units:**	PPB
				Final Conc. Units:	ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	1,2,4-Trimethylbenzene				105	0		0.15	U	
3	sec-Butylbenzene				105	0		0.13	U	
3	4-Isopropyltoluene				119	0		0.13	U	
3	1,3-Dichlorobenzene				146	0		0.11	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	n-Butylbenzene				91	0		0.23	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,2,4-Trichlorobenzene				180	0		0.22	U	
3	Hexachlorobutadiene				225	0		0.28	U	
3	Naphthalene				128	0		0.29	U	
3	1,2,3-Trichlorobenzene				180	0		0.33	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

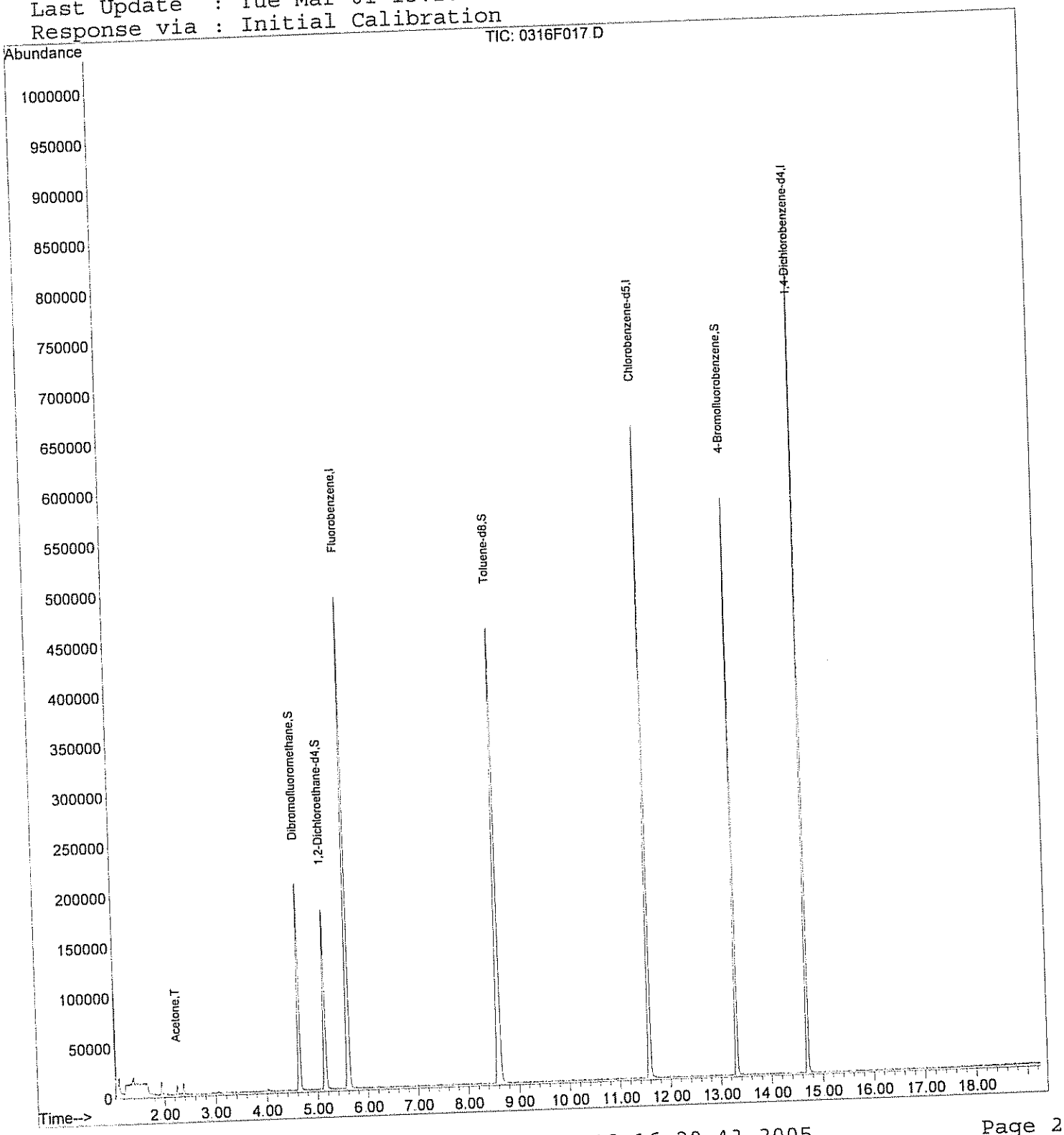
Quantitation Report (QT Reviewed)

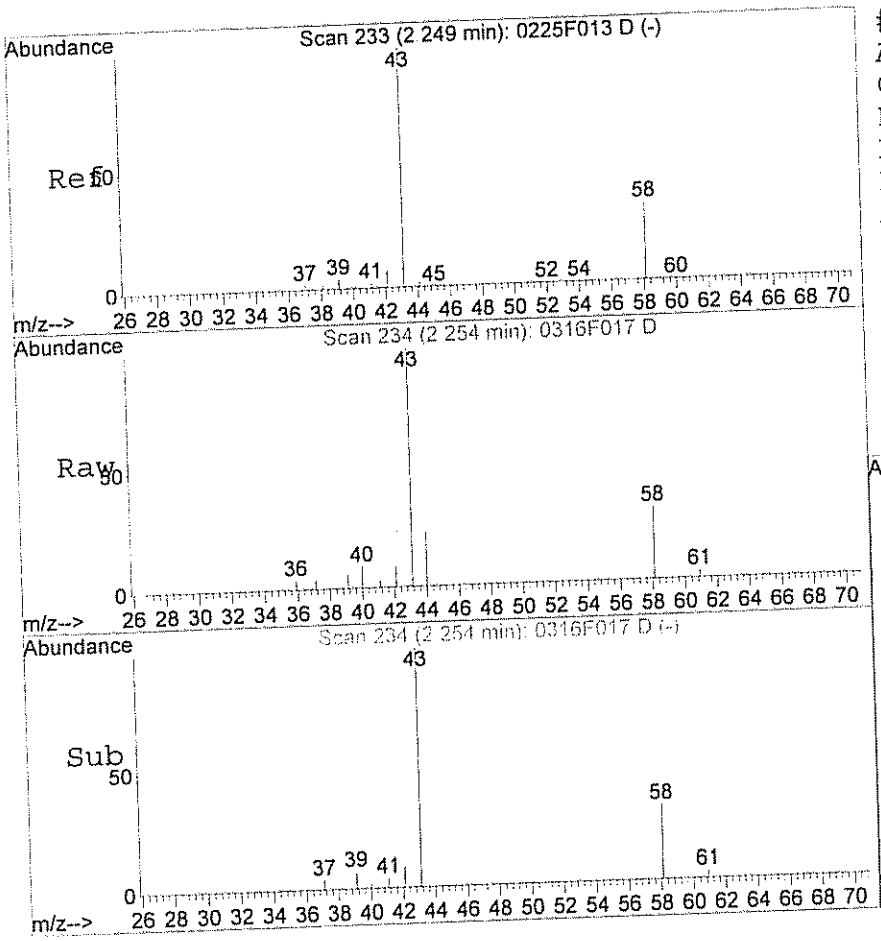
Data File : J:\MS13\DATA\031605\0316F017.D
Acq On : 16 Mar 2005 10:55 pm
Sample : K2501630-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:39 2005

Vial: 17
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

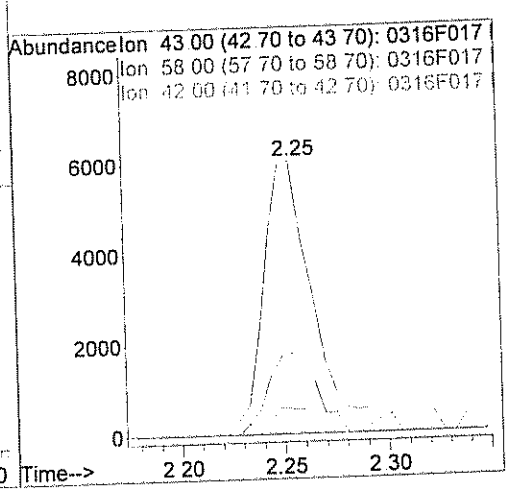




#13
Acetone
Concen: 4.60 PPB
RT: 2.25 min Scan# 234
Delta R.T. 0.01 min
Lab File: 0316F017.D
Acq: 16 Mar 2005 10:55 pm

Tgt Ion: 43 Resp: 9971

Ion	Ratio	Lower	Upper
43	100		
58	29.6	2.0	62.0
42	9.0	0.0	37.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0504385-4
File ID: J:\MS13\DATA\031605\0316F009.D
Instrument ID: MS13
Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.17	
74-87-3	Chloromethane	0.50	U	0.50	0.14	
75-01-4	Vinyl Chloride	0.50	U	0.50	0.22	
74-83-9	Bromomethane	0.50	U	0.50	0.22	
75-00-3	Chloroethane	0.50	U	0.50	0.23	
75-69-4	Trichlorofluoromethane	0.50	U	0.50	0.14	
67-64-1	Acetone	20	U	20	4.1	
75-35-4	1,1-Dichloroethene	0.50	U	0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	0.50	U	0.50	0.20	
75-15-0	Carbon Disulfide	0.50	U	0.50	0.16	
75-09-2	Methylene Chloride	2.0	U	2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.50	0.15	
75-34-3	1,1-Dichloroethane	0.50	U	0.50	0.11	
78-93-3	2-Butanone (MEK)	20	U	20	2.0	
594-20-7	2,2-Dichloropropane	0.50	U	0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	0.50	U	0.50	0.12	
67-66-3	Chloroform	0.50	U	0.50	0.14	
74-97-5	Bromochloromethane	0.50	U	0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	0.50	U	0.50	0.12	
563-58-6	1,1-Dichloropropene	0.50	U	0.50	0.15	
56-23-5	Carbon Tetrachloride	0.50	U	0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	0.50	U	0.50	0.12	
71-43-2	Benzene	0.50	U	0.50	0.14	
79-01-6	Trichloroethene (TCE)	0.50	U	0.50	0.14	
78-87-5	1,2-Dichloropropane	0.50	U	0.50	0.14	
75-27-4	Bromodichloromethane	0.50	U	0.50	0.11	
74-95-3	Dibromomethane	0.50	U	0.50	0.12	
591-78-6	2-Hexanone	20	U	20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504385-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.50	0.11	
108-88-3	Toluene	0.50	U	0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	0.50	U	0.50	0.090	
79-00-5	1,1,2-Trichloroethane	0.50	U	0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	2.7	
142-28-9	1,3-Dichloropropane	0.50	U	0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	0.50	U	0.50	0.13	
124-48-1	Dibromochloromethane	0.50	U	0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.099	
108-90-7	Chlorobenzene	0.50	U	0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.12	
100-41-4	Ethylbenzene	0.50	U	0.50	0.13	
136777-61-2	m,p-Xylenes	0.50	U	0.50	0.22	
95-47-6	o-Xylene	0.50	U	0.50	0.11	
100-42-5	Styrene	0.50	U	0.50	0.095	
75-25-2	Bromoform	0.50	U	0.50	0.28	
98-82-8	Isopropylbenzene	2.0	U	2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.14	
96-18-4	1,2,3-Trichloropropane	0.50	U	0.50	0.22	
108-86-1	Bromobenzene	2.0	U	2.0	0.18	
103-65-1	n-Propylbenzene	2.0	U	2.0	0.098	
95-49-8	2-Chlorotoluene	2.0	U	2.0	0.12	
106-43-4	4-Chlorotoluene	2.0	U	2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	0.13	
98-06-6	tert-Butylbenzene	2.0	U	2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	0.15	
135-98-8	sec-Butylbenzene	2.0	U	2.0	0.13	
541-73-1	1,3-Dichlorobenzene	0.50	U	0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0504385-4	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F009.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	2.0	U	2.0	0.13	
106-46-7	1,4-Dichlorobenzene	0.50	U	0.50	0.12	
104-51-8	n-Butylbenzene	2.0	U	2.0	0.23	
95-50-1	1,2-Dichlorobenzene	0.50	U	0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U	2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	0.33	
91-20-3	Naphthalene	2.0	U	2.0	0.29	
87-68-3	**Hexachlorobutadiene**	**0.42**	J	2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	2.0	U	2.0	0.075	
75-65-0	tert-Butyl Alcohol	20	U	20	1.1	*
108-20-3	Diisopropyl Ether	2.0	U	2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	80-119	03/16/05	Acceptable
Toluene-d8	91	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	91	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F009 D
Lab ID: KWG0504385-4
RunType: MB
Matrix: WATER

Date Acquired: 03/16/2005 19:17
Date Quantitated: 03/18/2005 15:16
Batch ID: KWG0504384
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0089	0.01	NA	NT
	tert-Butyl Alcohol	0.0055	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0027	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:08:38

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	369304	**Prep Date:**	03/16/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031605\0316F002 D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Data File:	J:\MS13\DATA\031605\0316F009 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 19:17	**Quant Date:**	03/18/2005 15:16	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0504385-4			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5 60	0 00	96	601434	10.00	OK
2	Chlorobenzene-d5	11 58	0 00	82	255168	10 00	OK
3	1,4-Dichlorobenzene-d4	14 71	0 00	152	253720	10 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4 64	0 00	0 00	113	144158	9.68	97	80-119	OK
1	1,2-Dichloroethane-d4	5 15	0 00	0 00	65	164482	9 81	98	76-115	OK
1	Toluene-d8	8 60	0.00	0 00	98	599770	9.11	91	83-113	OK
2	4-Bromofluorobenzene	13 31	0 00	0 00	95	204747	9 08	91	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0 17	U	
1	Chloromethane				50	0		0.14	U	
1	Vinyl Chloride				62	0		0 22	U	
1	Bromomethane				96	0		0.22	U	
1	Chloroethane				64	0d		0 23	U	
1	Dichlorofluoromethane (CFC 21				67	0		0 40	U	
1	Trichlorofluoromethane				101	0		0.14	U	
1	Ethyl Ether				59	0		0 50	U	
1	Acrolein				56	0		1.5	U	
1	Trichlorotrifluoroethane				151	0		0.14	U	
1	1,1-Dichloroethene				96	0		0 13	U	
1	Acetone				43	0		4.1	U	
1	Iodomethane				142	0		0.38	U	
1	Carbon Disulfide				76	0d		0 16	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F009 D			Instrument:	MS13
Acqu Date:	03/16/2005 19:17	Quant Date:	03/18/2005 15:16	Vial:	9
Run Type:	MB			Dilution:	1.0
Lab ID:	KWG0504385-4			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene				76	0d		0.16	U	
1	Acetonitrile				40	0d		7.5	U	
1	Methylene Chloride				84	0		0.20	U	
1	tert-Butyl Alcohol				59	0		1.1	U	
1	Acrylonitrile				53	0		0.54	U	
1	Methyl tert-Butyl Ether				73	0		0.20	U	
1	trans-1,2-Dichloroethene				96	0		0.15	U	
1	n-Hexane	3.05		0.00	57	1250	0.0800	0.18	U	
1	Diisopropyl Ether				45	0		0.25	U	
1	1,1-Dichloroethane				63	0		0.11	U	
1	Vinyl Acetate				86	0		0.67	U	
1	Chloroprene				53	0		0.35	U	
1	tert-Butyl Ethyl Ether				59	0		0.075	U	
1	2,2-Dichloropropane				77	0		0.18	U	
1	cis-1,2-Dichloroethene				96	0		0.12	U	
1	2-Butanone (MEK)				72	0		2.0	U	
1	Propionitrile				54	0		1.3	U	
1	Ethyl Acetate				61	0		0.62	U	
1	Methacrylonitrile				67	0		0.45	U	
1	Bromochloromethane				128	0		0.17	U	
1	Tetrahydrofuran				71	0		0.46	U	
1	Chloroform				83	0		0.14	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.12	U	
1	Carbon Tetrachloride				117	0		0.14	U	
1	1,1-Dichloropropene				75	0		0.15	U	
1	Isobutyl Alcohol				43	0		5.1	U	
1	Benzene				78	0		0.14	U	
1	1,2-Dichloroethane (EDC)				62	0		0.12	U	
1	tert-Amyl Methyl Ether				55	0d		0.15	U	
1	Trichloroethene (TCE)				95	0		0.14	U	
1	1,2-Dichloropropane				63	0		0.14	U	
1	Dibromomethane				93	0		0.12	U	
1	Methyl Methacrylate				69	0		0.36	U	
1	1,4-Dioxane				88	0		24	U	
1	Bromodichloromethane				83	0		0.11	U	
1	2-Nitropropane				43	0		2.0	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.34	U	
1	cis-1,3-Dichloropropene				75	0		0.11	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.7	U	
1	Toluene				92	0		0.11	U	
2	n-Octane	9.08		0.00	85	1599	0.2400	0.29	U	
2	trans-1,3-Dichloropropene				75	0		0.090	U	

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m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

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#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	I:\MS13\DATA\031605\0316F009 D			Instrument:	MS13
Acqu Date:	03/16/2005 19:17	Quant Date:	03/18/2005 15:16	Vial:	9
Run Type:	MB			Dilution:	1.0
Lab ID:	KWG0504385-4			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate				69	0		0.094	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.13	U	
2	2-Hexanone				57	0		4.0	U	
2	1,3-Dichloropropane				76	0		0.15	U	
2	Dibromochloromethane				129	0		0.11	U	
2	1,2-Dibromoethane (EDB)				107	0		0.099	U	
2	1-Chlorohexane				91	0d		0.12	U	
2	Chlorobenzene				112	0		0.14	U	
2	Ethylbenzene				106	0		0.13	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.12	U	
2	m,p-Xylenes				106	0		0.22	U	
2	o-Xylene				106	0		0.11	U	
2	Styrene				103	0		0.095	U	
2	Bromoform				173	0		0.28	U	
2	Isopropylbenzene				105	0		0.11	U	
2	cis-1,4-Dichloro-2-butene				89	0		0.60	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.14	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.60	U	
3	Bromobenzene				156	0		0.18	U	
3	n-Propylbenzene				91	0d		0.098	U	
3	1,2,3-Trichloropropane				110	0		0.22	U	
3	2-Chlorotoluene				91	0		0.12	U	
3	1,3,5-Trimethylbenzene				105	0d		0.13	U	
3	4-Chlorotoluene				91	0		0.12	U	
3	tert-Butylbenzene				119	0		0.13	U	
3	1,2,4-Trimethylbenzene				105	0d		0.15	U	
3	sec-Butylbenzene				105	0d		0.13	U	
3	4-Isopropyltoluene				119	0d		0.13	U	
3	1,3-Dichlorobenzene				146	0d		0.11	U	
3	1,4-Dichlorobenzene				146	0d		0.12	U	
3	n-Butylbenzene	15.14	0.01	0.00	91	2085	0.0600	0.23	U	
3	1,2-Dichlorobenzene				146	0d		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		1.0	U	
3	1,3,5-Trichlorobenzene	16.20	-0.01	0.00	180	3673	0.1800	0.35	U	
3	1,2,4-Trichlorobenzene	16.88		0.00	180	2001	0.1100	0.22	U	
3	Hexachlorobutadiene	17.03		0.00	225	3803	0.4200	0.420	J	
3	Naphthalene	17.13		0.00	128	3022	0.1200	0.29	U	
3	1,2,3-Trichlorobenzene	17.39		0.00	180	3235	0.2100	0.33	U	

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e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F009 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 19:17	**Quant Date:**	03/18/2005 15:16	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG0504385-4			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
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d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

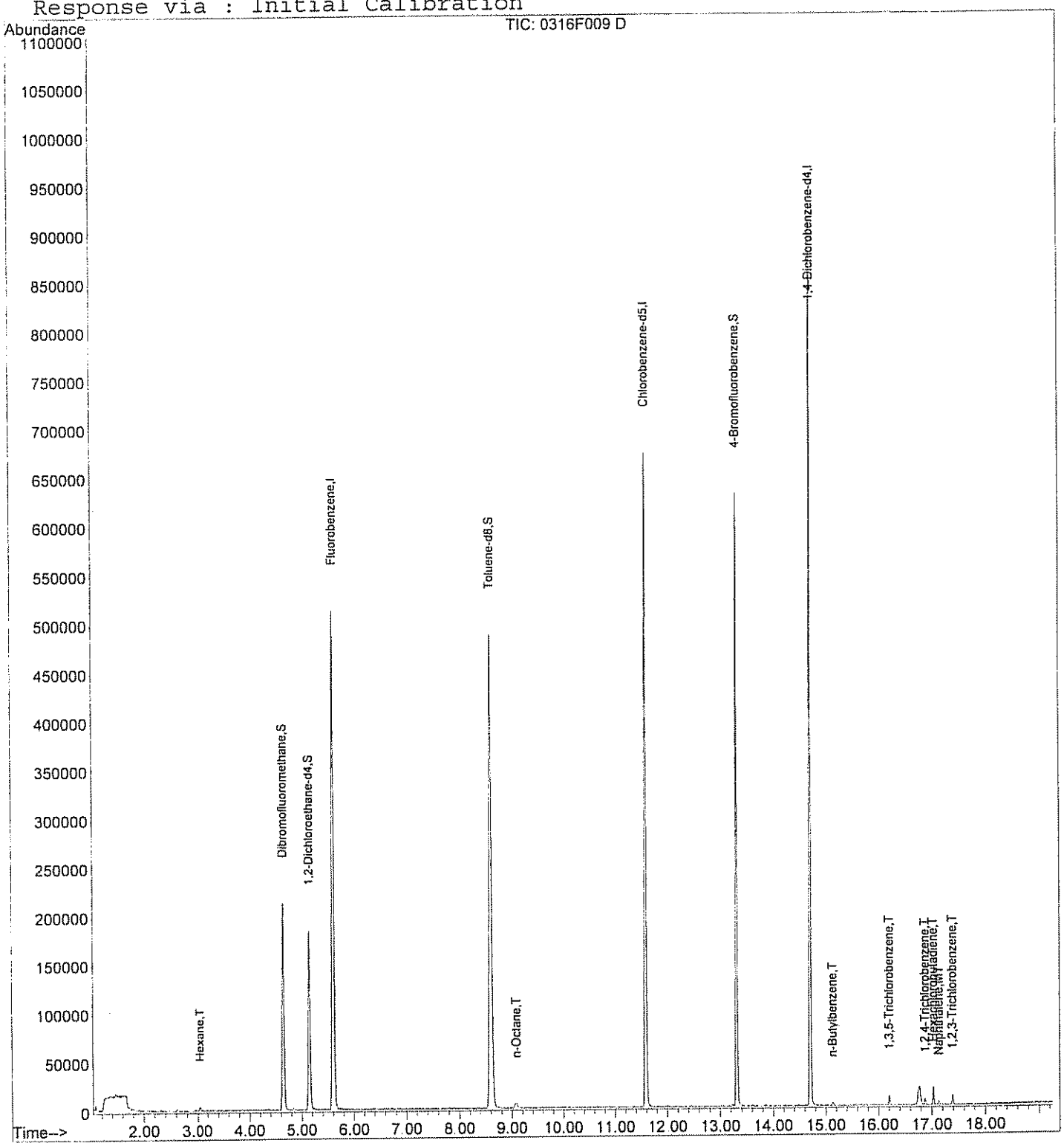
Quantitation Report (QT Reviewed)

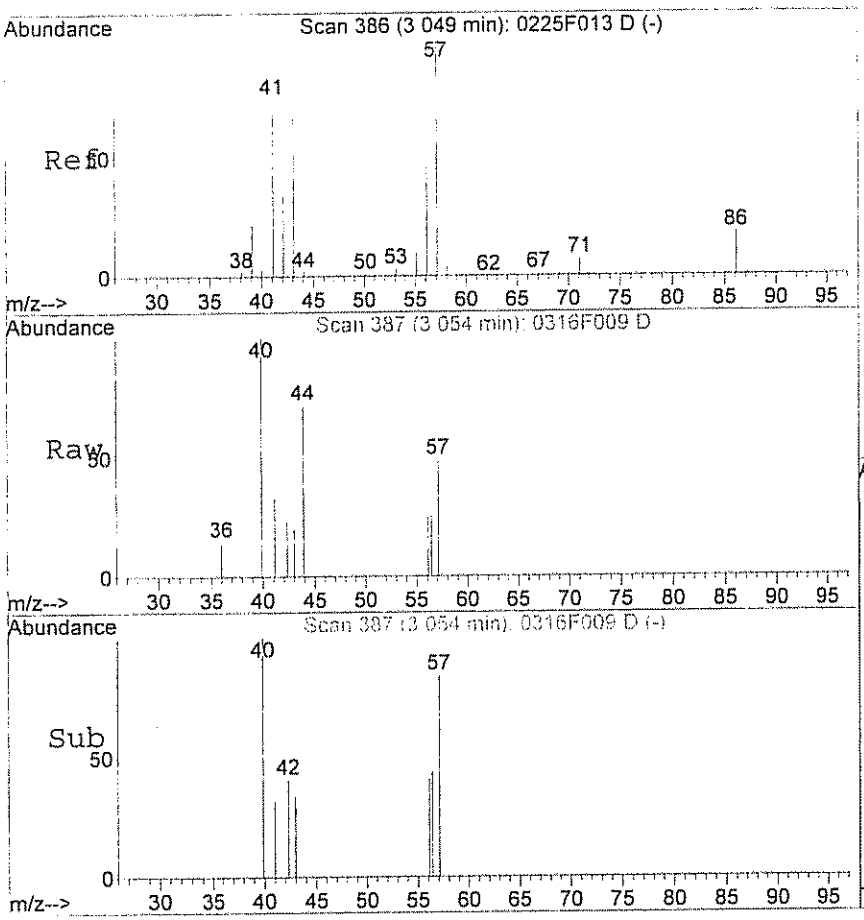
Data File : J:\MS13\DATA\031605\0316F009.D
Acq On : 16 Mar 2005 7:17 pm
Sample : 0316 MB W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:16 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

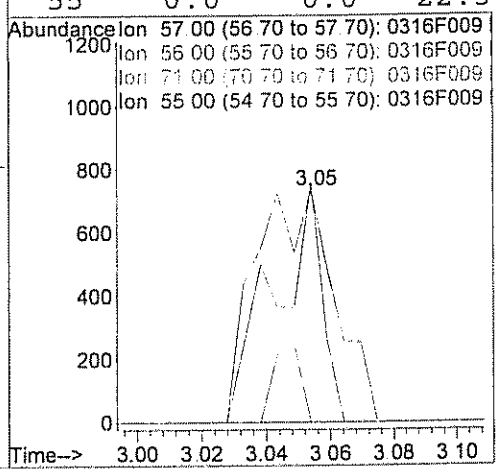


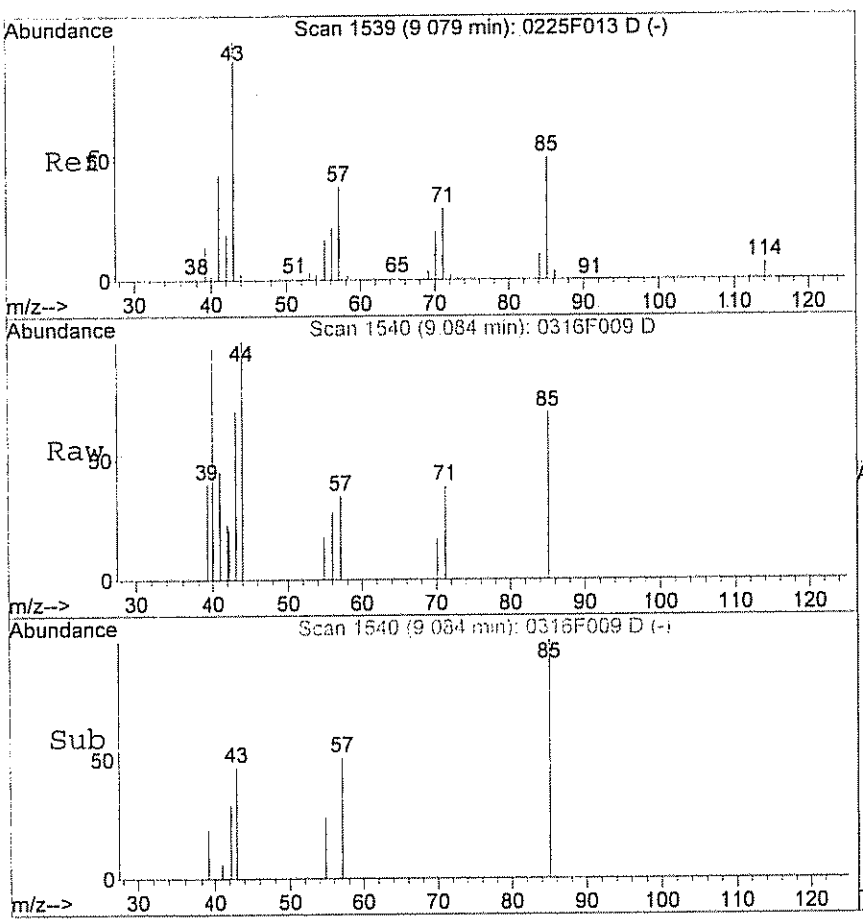


#23
Hexane
Concen: 0.08 PPB
RT: 3.05 min Scan# 387
Delta R.T. 0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion: 57 Resp: 1250

Ion	Ratio	Lower	Upper
57	100		
56	103.1	21.5	81.5#
71	0.0	0.0	36.5
55	0.0	0.0	22.3

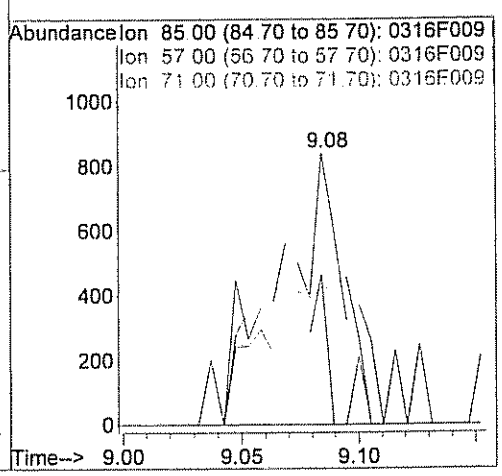


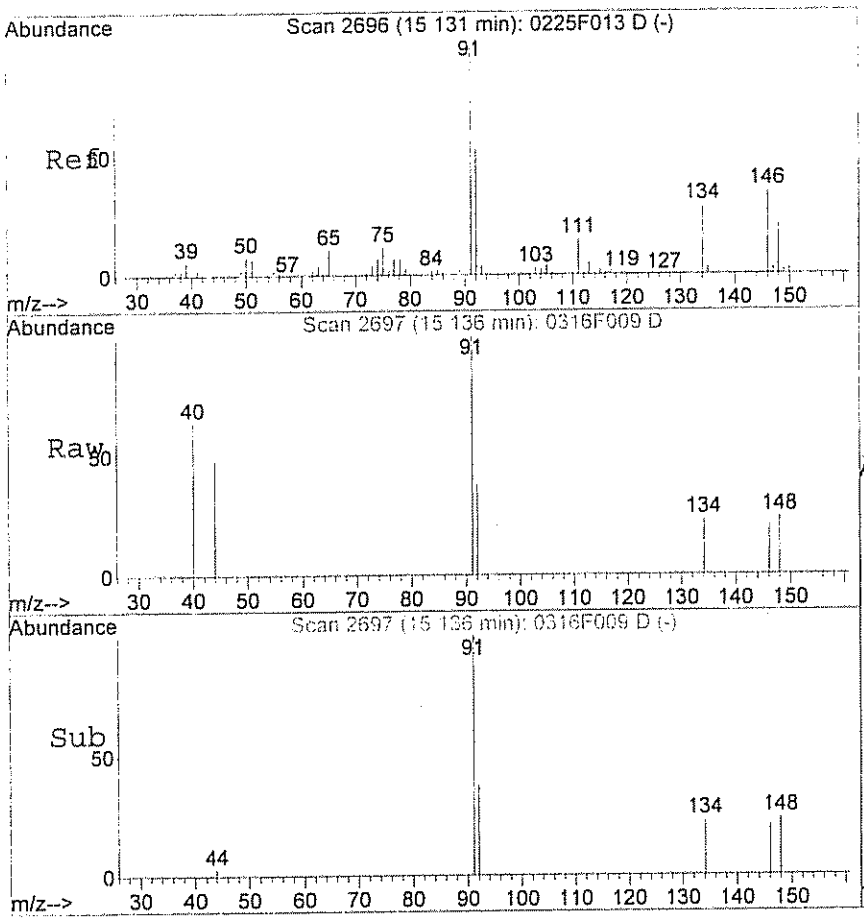


#60
n-Octane
Concen: 0.24 PPB
RT: 9.08 min Scan# 1540
Delta R.T. 0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion: 85 Resp: 1599

Ion	Ratio	Lower	Upper
85	100		
57	26.5	45.6	105.6#
71	55.2	28.4	88.4

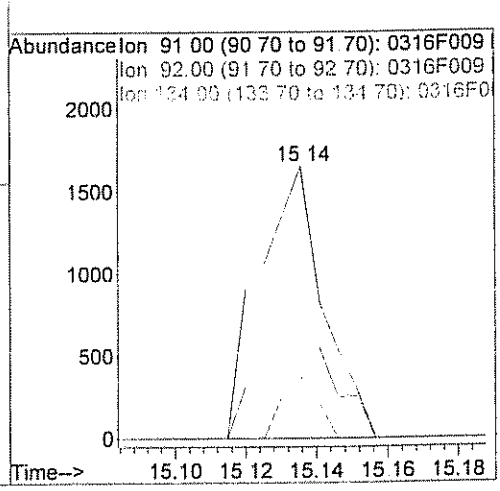


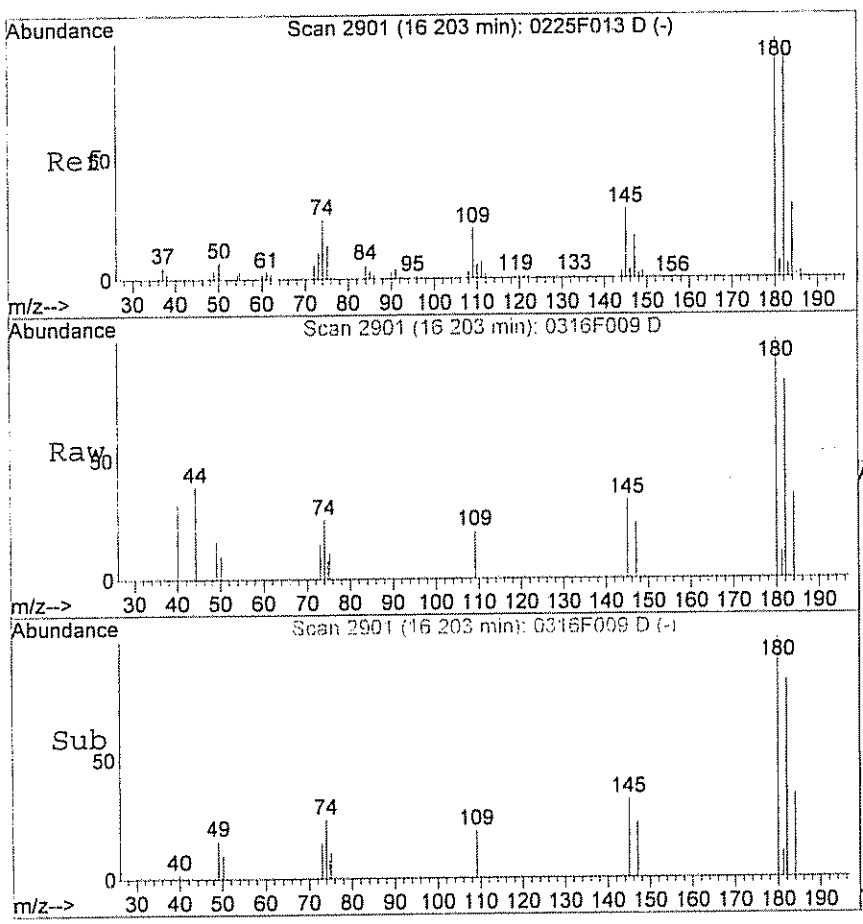


#95
n-Butylbenzene
Concen: 0.06 PPB
RT: 15.14 min Scan# 2697
Delta R.T. 0.01 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion: 91 Resp: 2085

Ion	Ratio	Lower	Upper
91	100		
92	37.6	23.0	83.0
134	22.6	0.0	59.5

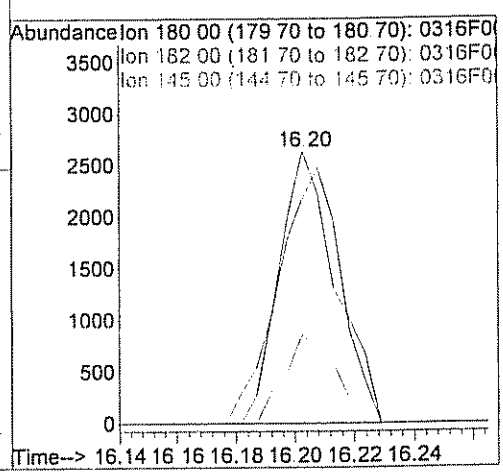


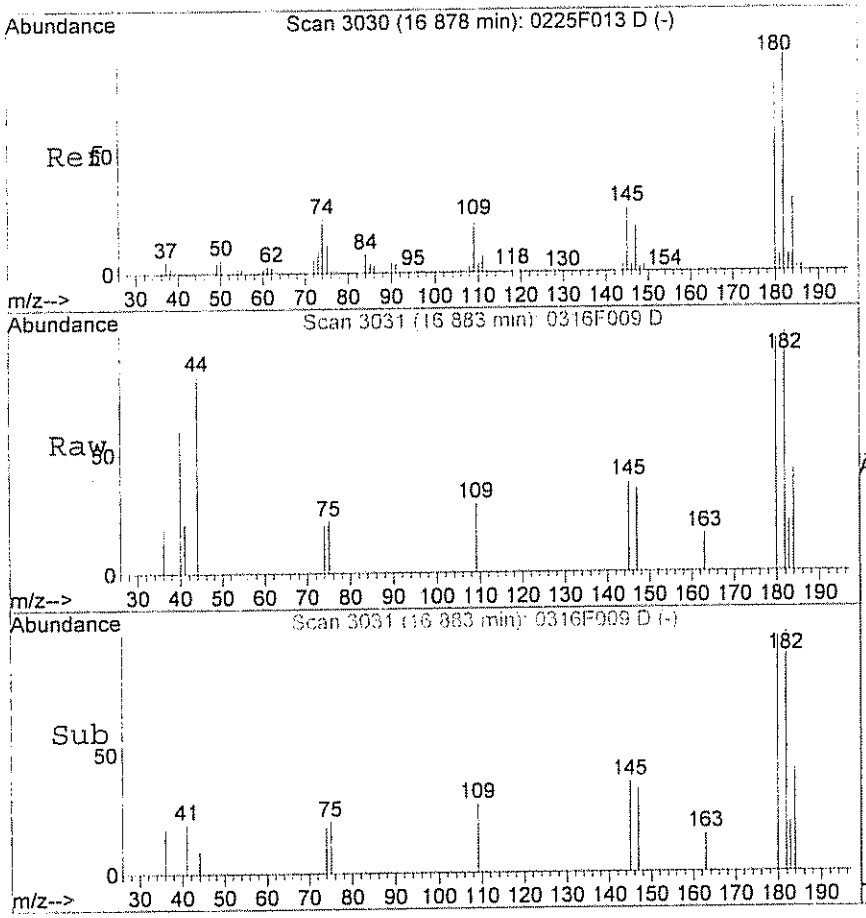


#98
1,3,5-Trichlorobenzene
Concen: 0.18 PPB
RT: 16.20 min Scan# 2901
Delta R.T. -0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion:180 Resp: 3673

Ion	Ratio	Lower	Upper
180	100		
182	82.7	67.4	127.4
145	32.8	0.0	58.6

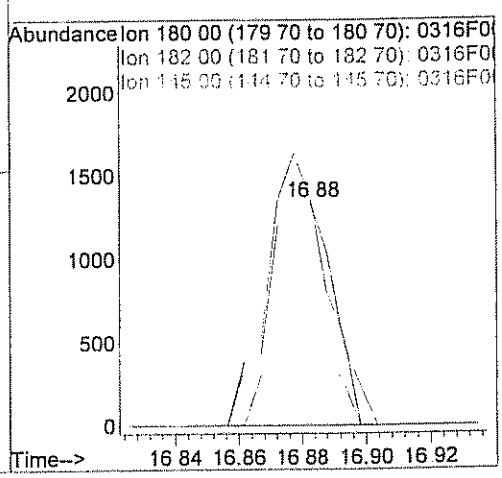


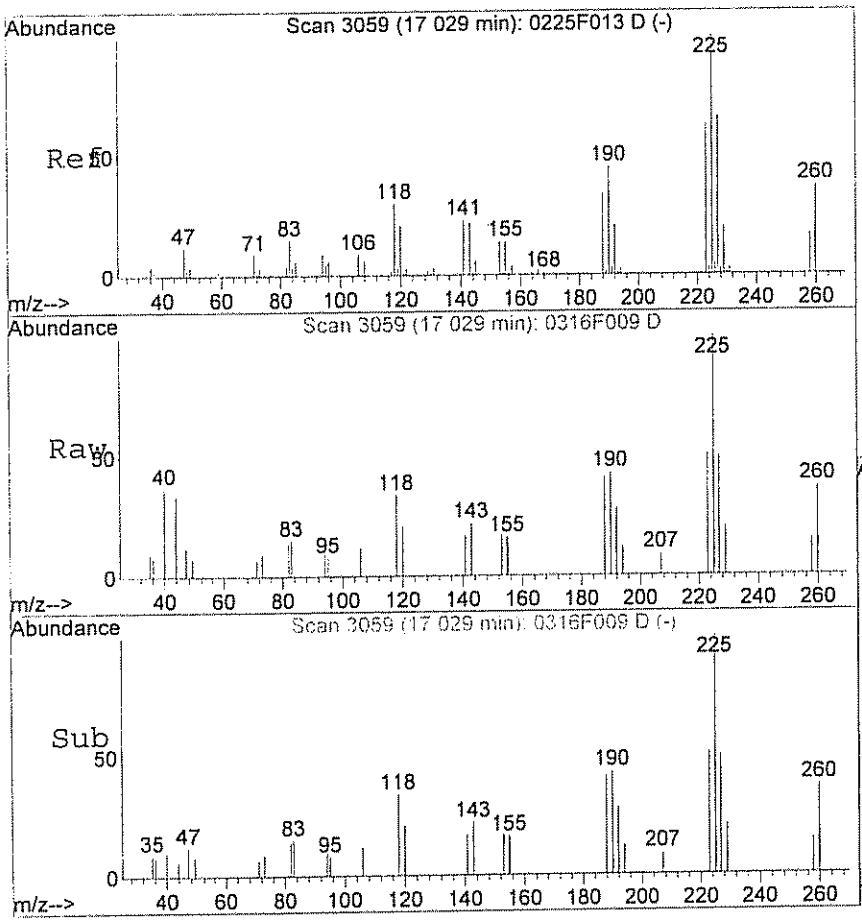


#99
1,2,4-Trichlorobenzene
Concen: 0.11 PPB
RT: 16.88 min Scan# 3031
Delta R.T. 0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion:180 Resp: 2001

Ion	Ratio	Lower	Upper
180	100		
182	101.6	65.5	125.5
145	38.9	0.0	56.6

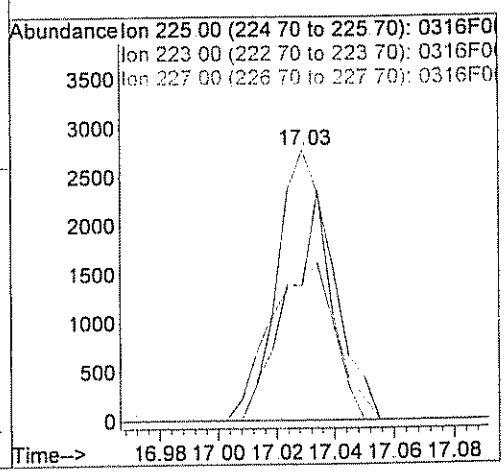


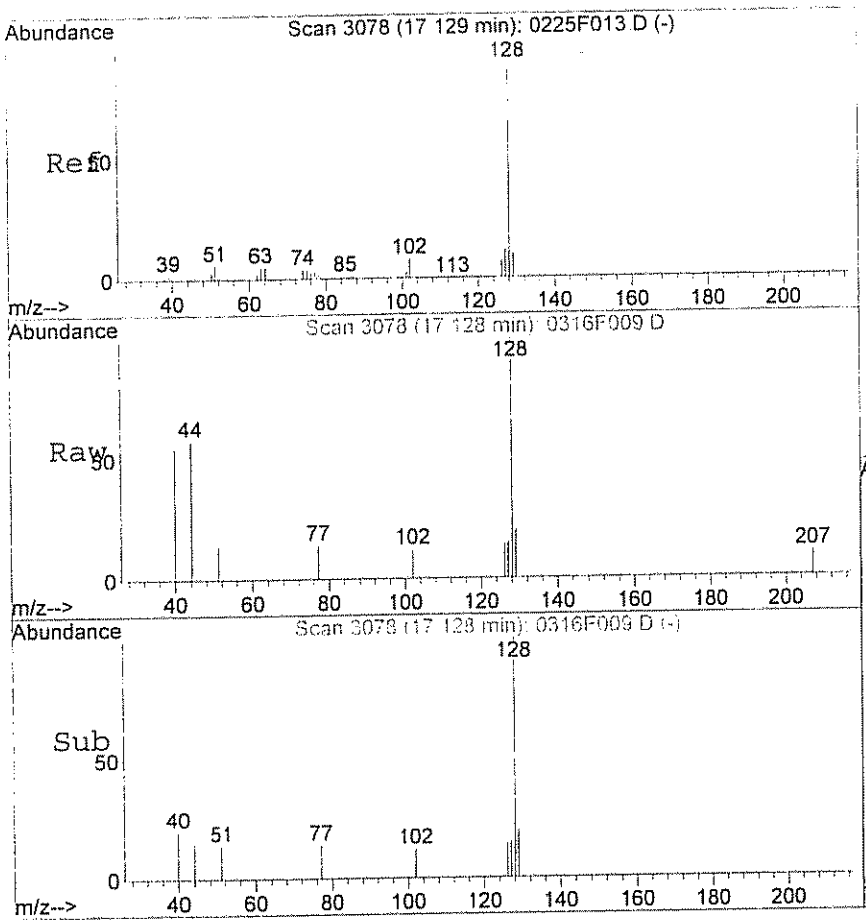


#100
Hexachlorobutadiene
Concen: 0.42 PPB
RT: 17.03 min Scan# 3059
Delta R.T. 0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion:225 Resp: 3803

Ion	Ratio	Lower	Upper
225	100		
223	51.0	33.2	93.2
227	49.5	36.0	96.0

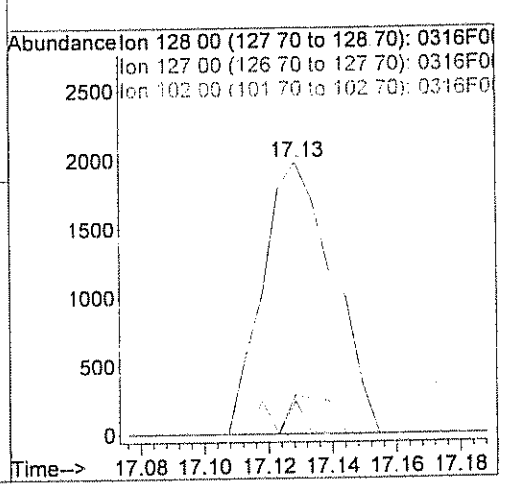


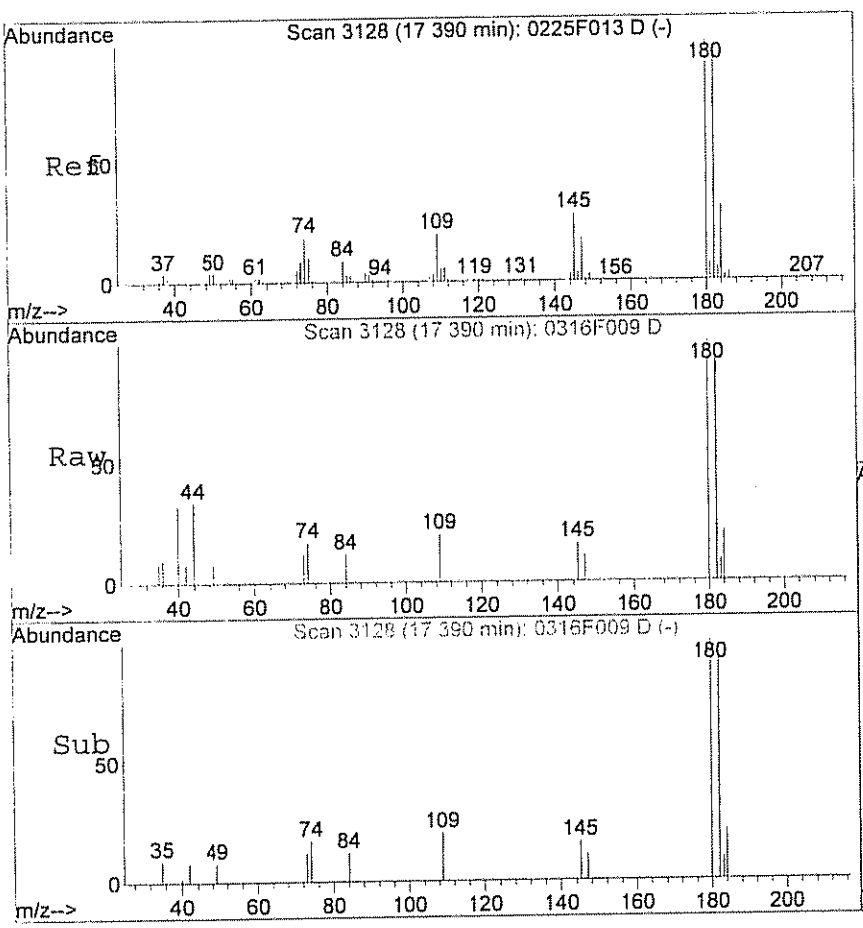


#101
Naphthalene
Concen: 0.12 PPB
RT: 17.13 min Scan# 3078
Delta R.T. 0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion:128 Resp: 3022

Ion	Ratio	Lower	Upper
128	100		
127	14.5	0.0	42.3
102	12.1	0.0	38.0

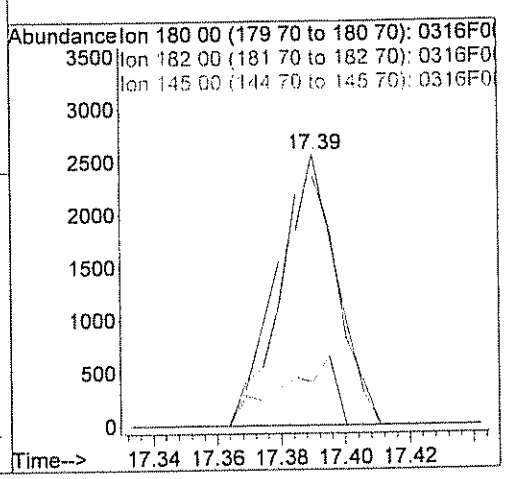




#102
1,2,3-Trichlorobenzene
Concen: 0.21 PPB
RT: 17.39 min Scan# 3128
Delta R.T. -0.00 min
Lab File: 0316F009.D
Acq: 16 Mar 2005 7:17 pm

Tgt Ion:180 Resp: 3235

Ion	Ratio	Lower	Upper
180	100		
182	92.4	66.1	126.1
145	15.8	0.0	58.0



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/17/2005
Date Analyzed: 03/17/2005

Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F025.D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.34	
74-87-3	Chloromethane	1.0	U	1.0	0.28	
75-01-4	**Vinyl Chloride**	**17**	D	1.0	0.43	
74-83-9	Bromomethane	1.0	U	1.0	0.44	
75-00-3	**Chloroethane**	**12**	D	1.0	0.46	
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.27	
67-64-1	Acetone	40	U	40	8.2	
75-35-4	**1,1-Dichloroethene**	**1.5**	D	1.0	0.25	
1634-04-4	Methyl tert-Butyl Ether	1.0	U	1.0	0.40	
75-15-0	Carbon Disulfide	1.0	U	1.0	0.32	
75-09-2	**Methylene Chloride**	**1.3**	JD	4.0	0.39	
156-60-5	**trans-1,2-Dichloroethene**	**1.5**	D	1.0	0.29	
75-34-3	**1,1-Dichloroethane**	**33**	D	1.0	0.21	
78-93-3	2-Butanone (MEK)	40	U	40	3.9	
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.35	
156-59-2	**cis-1,2-Dichloroethene**	**45**	D	1.0	0.24	
67-66-3	**Chloroform**	**6.9**	D	1.0	0.28	
74-97-5	Bromochloromethane	1.0	U	1.0	0.33	
71-55-6	**1,1,1-Trichloroethane (TCA)**	**210**	ED	1.0	0.24	
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.30	
56-23-5	Carbon Tetrachloride	1.0	U	1.0	0.28	
107-06-2	**1,2-Dichloroethane (EDC)**	**0.50**	JD	1.0	0.23	
71-43-2	**Benzene**	**0.42**	JD	1.0	0.28	
79-01-6	**Trichloroethene (TCE)**	**60**	D	1.0	0.27	
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.28	
75-27-4	Bromodichloromethane	1.0	U	1.0	0.22	
74-95-3	Dibromomethane	1.0	U	1.0	0.24	
591-78-6	2-Hexanone	40	U	40	8.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/17/2005
Date Analyzed: 03/17/2005

Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F025.D
Instrument ID: MS13
Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.22	
108-88-3	**Toluene**	**5.1**	D	1.0	0.22	
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.18	
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.28	
108-10-1	4-Methyl-2-pentanone (MIBK)	40	U	40	5.4	
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.30	
127-18-4	**Tetrachloroethene (PCE)**	**470**	ED	1.0	0.26	
124-48-1	Dibromochloromethane	1.0	U	1.0	0.21	
106-93-4	1,2-Dibromoethane (EDB)	4.0	U	4.0	0.20	
108-90-7	**Chlorobenzene**	**0.66**	JD	1.0	0.27	
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23	
100-41-4	**Ethylbenzene**	**20**	D	1.0	0.26	
136777-61-2	**m,p-Xylenes**	**18**	D	1.0	0.44	
95-47-6	**o-Xylene**	**21**	D	1.0	0.21	
100-42-5	Styrene	1.0	U	1.0	0.19	
75-25-2	Bromoform	1.0	U	1.0	0.56	
98-82-8	**Isopropylbenzene**	**0.52**	JD	4.0	0.21	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.28	
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43	
108-86-1	Bromobenzene	4.0	U	4.0	0.35	
103-65-1	**n-Propylbenzene**	**0.92**	JD	4.0	0.20	
95-49-8	2-Chlorotoluene	4.0	U	4.0	0.23	
106-43-4	**4-Chlorotoluene**	**0.24**	JD	4.0	0.24	
108-67-8	**1,3,5-Trimethylbenzene**	**1.8**	JD	4.0	0.25	
98-06-6	tert-Butylbenzene	4.0	U	4.0	0.25	
95-63-6	**1,2,4-Trimethylbenzene**	**4.7**	D	4.0	0.29	
135-98-8	sec-Butylbenzene	4.0	U	4.0	0.26	
541-73-1	**1,3-Dichlorobenzene**	**3.0**	D	1.0	0.21	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/17/2005
Date Analyzed: 03/17/2005

Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F025 D
Instrument ID: MS13
Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	**4-Isopropyltoluene**	**0.74**	JD	4.0	0.26	
106-46-7	**1,4-Dichlorobenzene**	**9.3**	D	1.0	0.23	
104-51-8	n-Butylbenzene	4.0	U	4.0	0.45	
95-50-1	**1,2-Dichlorobenzene**	**58**	D	1.0	0.23	
96-12-8	1,2-Dibromo-3-chloropropane	4.0	U	4.0	2.0	
120-82-1	1,2,4-Trichlorobenzene	4.0	U	4.0	0.44	
87-61-6	1,2,3-Trichlorobenzene	4.0	U	4.0	0.66	
91-20-3	Naphthalene	4.0	U	4.0	0.57	
87-68-3	Hexachlorobutadiene	4.0	U	4.0	0.56	
994-05-8	tert-Amyl Methyl Ether	4.0	U	4.0	0.29	
637-92-3	tert-Butyl Ethyl Ether	4.0	U	4.0	0.15	
75-65-0	tert-Butyl Alcohol	40	U	40	2.1	*
108-20-3	Diisopropyl Ether	4.0	U	4.0	0.49	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	80-119	03/17/05	Acceptable
Toluene-d8	91	83-113	03/17/05	Acceptable
4-Bromofluorobenzene	98	72-114	03/17/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F025.D
Lab ID: K2501626-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/17/2005 02:33
Date Quantitated: 03/18/2005 16:14
Batch ID: KWG0504384
Analysis Method: 8260B
ListJoinID: LJ5396

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

BASE RUN

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	Sample ND
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	
	Isobutyl Alcohol	0.0027	0.01	NA	
Above Highest ICAL Level	Tetrachloroethene (PCE)	232.89	NA	80	Sec 20X
	1,1,1-Trichloroethane (TCA)	107.34	NA	80	

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:09:47

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**	03/03/2005	**Receive Date:**	03/05/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	K2501626
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	369299	**Prep Date:**	03/17/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5396
Tune Ref:	J:\MS13\DATA\031605\0316F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031605\0316F009 D	**Quant based on Report List**	

Data File:	J:\MS13\DATA\031605\0316F025 D			**Instrument:**	MS13
Acqu Date:	03/17/2005 02:33	**Quant Date:**	03/18/2005 16:14	**Vial:**	25
Run Type:	SMPL			**Dilution:**	2.0
Lab ID:	K2501626-002			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	582110	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	259286	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	275445	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	147495	10.24	102	80-119	OK
1	Toluene-d8	8.60	0.00	0.00	98	577063	9.06	91	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	224047	9.78	98	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.34	U	
1	Chloromethane				50	0d		0.28	U	
1	Vinyl Chloride	1.29		0.00	62	161228	8.48	17	D	
1	Bromomethane				96	0		0.44	U	
1	Chloroethane	1.58		0.00	64	70528	6.21	12	D	
1	Trichlorofluoromethane				101	0d		0.27	U	
1	Ethyl Ether				59	0d		1.0	U	
1	Acrolein				56	0		2.9	U	
1	Trichlorotrifluoroethane				151	0		0.27	U	
1	1,1-Dichloroethene	2.15		0.00	96	9637	0.7300	1.5	D	
1	Acetone	2.25		0.00	43	7818	3.52	8.2	U	
1	Iodomethane				142	0		0.75	U	
1	Carbon Disulfide	2.33	0.01	0.00	76	3154	0.0800	0.32	U	
1	3-Chloro-1-propene				76	0d		0.31	U	
1	Methylene Chloride	2.62		0.00	84	10489	0.6600	1.3	JD	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F025 D			Instrument:	MS13
Acqu Date:	03/17/2005 02:33	Quant Date:	03/18/2005 16:14	Vial:	25
Run Type:	SMPL			Dilution:	2.0
Lab ID:	K2501626-002			Soln Conc. Units:	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Acrylonitrile				53	0		1.1	U	
1	Methyl tert-Butyl Ether				73	0		0.40	U	
1	trans-1,2-Dichloroethene	2.84		0.00	96	11968	0.7700	1.5	D	
1	n-Hexane				57	0		0.36	U	
1	1,1-Dichloroethane	3.31		0.00	63	443168	16.45	33	D	
1	Vinyl Acetate				86	0d		1.4	U	
1	Chloroprene				53	0		0.70	U	
1	2,2-Dichloropropane				77	0d		0.35	U	
1	cis-1,2-Dichloroethene	4.00		0.00	96	370521	22.49	45	D	
1	2-Butanone (MEK)				72	0d		3.9	U	
1	Propionitrile				54	0d		2.6	U	
1	Methacrylonitrile				67	0		0.89	U	
1	Bromochloromethane				128	0		0.33	U	
1	Tetrahydrofuran				71	0d		0.92	U	
1	Chloroform	4.42		0.00	83	88918	3.43	6.9	D	
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	2132498	107.34	210	ED	NR
1	Carbon Tetrachloride				117	0d		0.28	U	
1	1,1-Dichloropropene				75	0		0.30	U	
1	Isobutyl Alcohol				43	0		11	U	
1	Benzene	5.11		0.00	78	13414	0.2100	0.42	JD	
1	1,2-Dichloroethane (EDC)	5.27	0.01	0.00	62	4611	0.2500	0.50	JD	
1	Trichloroethene (TCE)	6.20		0.00	95	465345	30.12	60	D	
1	1,2-Dichloropropane				63	0		0.28	U	
1	Dibromomethane				93	0		0.24	U	
1	Methyl Methacrylate				69	0		0.71	U	
1	1,4-Dioxane				88	0d		48	U	
1	Bromodichloromethane				83	0		0.22	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.67	U	
1	cis-1,3-Dichloropropene				75	0		0.22	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		5.4	U	
1	Toluene	8.75		0.00	92	103516	2.53	5.1	D	
2	n-Octane				85	0d		0.58	U	
2	trans-1,3-Dichloropropene				75	0		0.18	U	
2	1,1,2-Trichloroethane				83	0d		0.28	U	
2	Tetrachloroethene (PCE)	9.97		0.00	164	3389285	232.89	470	ED	NR
2	2-Hexanone				57	0		8.0	U	
2	1,3-Dichloropropane				76	0		0.30	U	
2	Dibromochloromethane				129	0		0.21	U	
2	1,2-Dibromoethane (EDB)				107	0		0.20	U	
2	Chlorobenzene	11.63		0.00	112	15515	0.3300	0.66	JD	
2	Ethylbenzene	11.81		0.00	106	236946	10.08	20	D	
2	1,1,1,2-Tetrachloroethane				131	0		0.23	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F025 D			**Instrument:**	MS13
Acqu Date:	03/17/2005 02:33	**Quant Date:**	03/18/2005 16:14	**Vial:**	25
Run Type:	SMPL			**Dilution:**	2.0
Lab ID:	K2501626-002			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	m,p-Xylenes	12.01		0.00	106	257079	8.84	18	D	
2	o-Xylene	12.57		0.00	106	277440	10.25	21	D	
2	Styrene				103	0d		0.19	U	
2	Bromoform				173	0		0.56	U	
2	Isopropylbenzene	13.08		0.00	105	17288	0.2600	0.52	JD	
2	cis-1,4-Dichloro-2-butene				89	0d		1.2	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.28	U	
3	trans-1,4-Dichloro-2-butene				53	0d		1.2	U	
3	Bromobenzene				156	0		0.35	U	
3	n-Propylbenzene	13.61		0.00	91	33364	0.4600	0.92	JD	
3	1,2,3-Trichloropropane				110	0		0.43	U	
3	2-Chlorotoluene	13.71		0.00	91	4074	0.0800	0.23	U	
3	1,3,5-Trimethylbenzene	13.86		0.00	105	45382	0.8800	1.8	JD	
3	4-Chlorotoluene	13.86		0.00	91	6754	0.1200	0.24	JD	
3	tert-Butylbenzene				119	0d		0.25	U	
3	1,2,4-Trimethylbenzene	14.30		0.00	105	124872	2.33	4.7	D	
3	sec-Butylbenzene				105	0d		0.26	U	
3	4-Isopropyltoluene	14.67		0.00	119	19386	0.3700	0.74	JD	
3	1,3-Dichlorobenzene	14.61		0.00	146	54913	1.48	3.0	D	
3	1,4-Dichlorobenzene	14.73		0.00	146	178104	4.63	9.3	D	
3	n-Butylbenzene	15.14	0.01	0.00	91	6902	0.1700	0.45	U	
3	1,2-Dichlorobenzene	15.14		0.00	146	1005302	29.06	58	D	
3	1,2-Dibromo-3-chloropropane				155	0		2.0	U	
3	1,2,4-Trichlorobenzene	16.88		0.00	180	3353	0.1700	0.44	U	
3	Hexachlorobutadiene				225	0		0.56	U	
3	Naphthalene				128	0d		0.57	U	
3	1,2,3-Trichlorobenzene				180	0		0.66	U	

Prep Amount:	10 ml	**Dilution:**	2.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

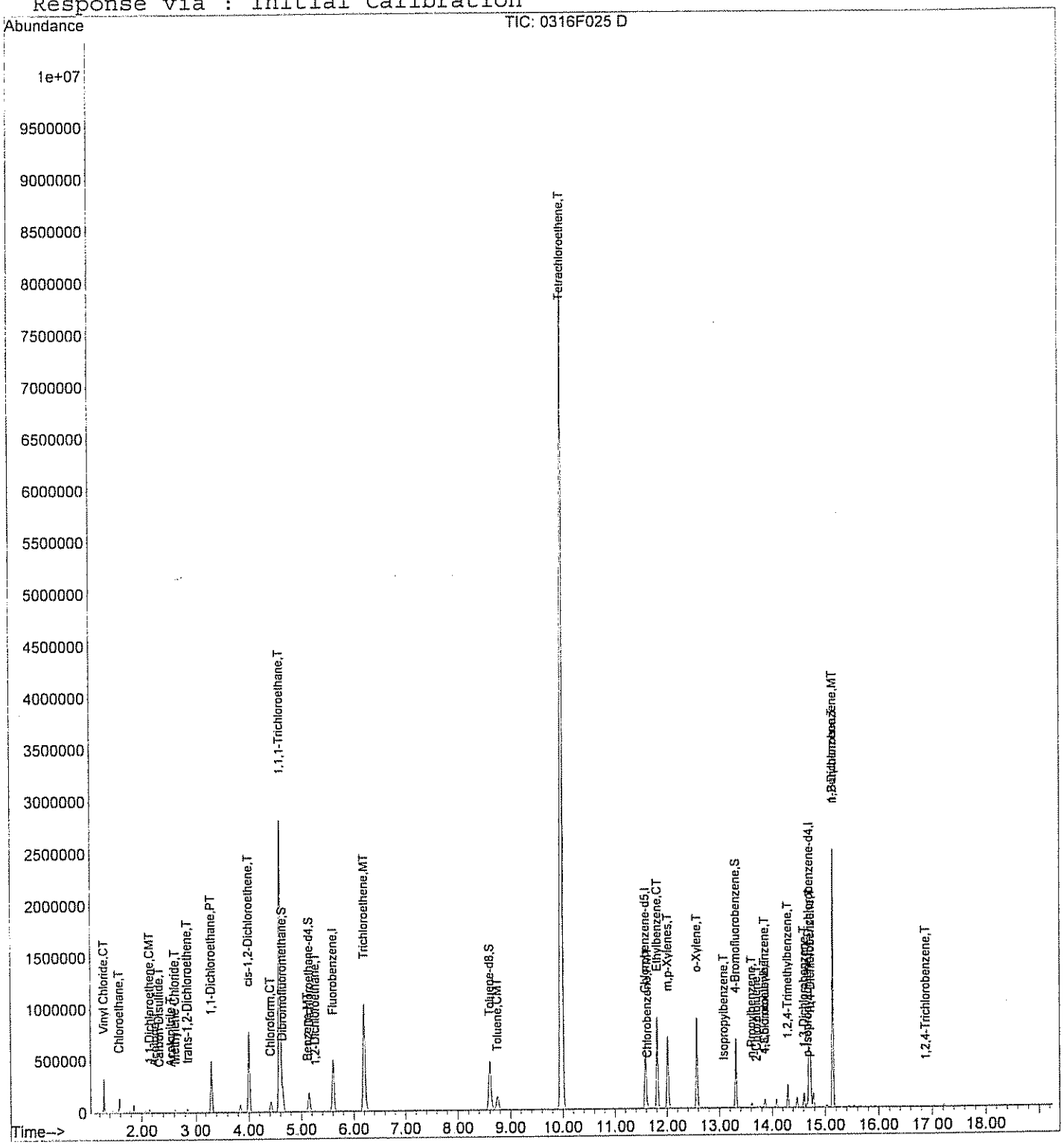
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

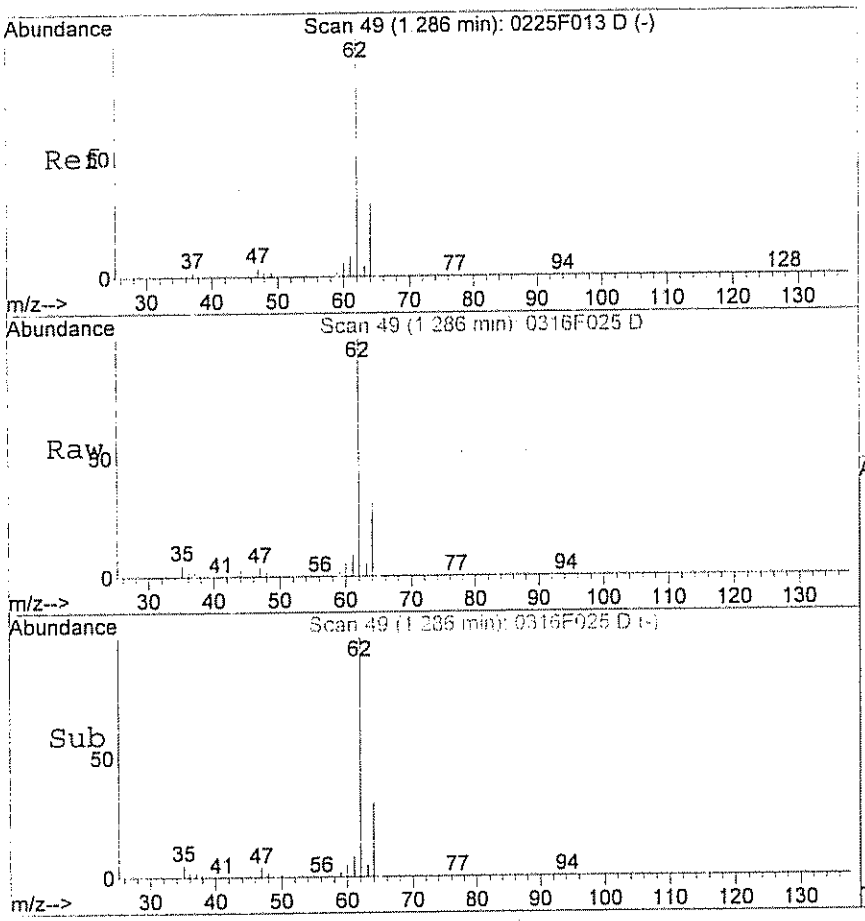
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F025.D
Acq On : 17 Mar 2005 2:33 am
Sample : K2501626-002DIL 2X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 16:14 2005

Vial: 25
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

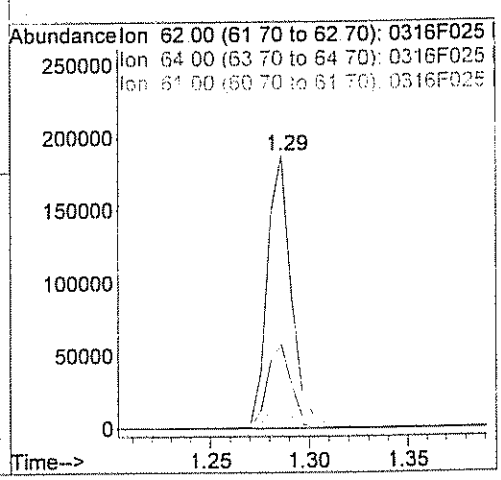


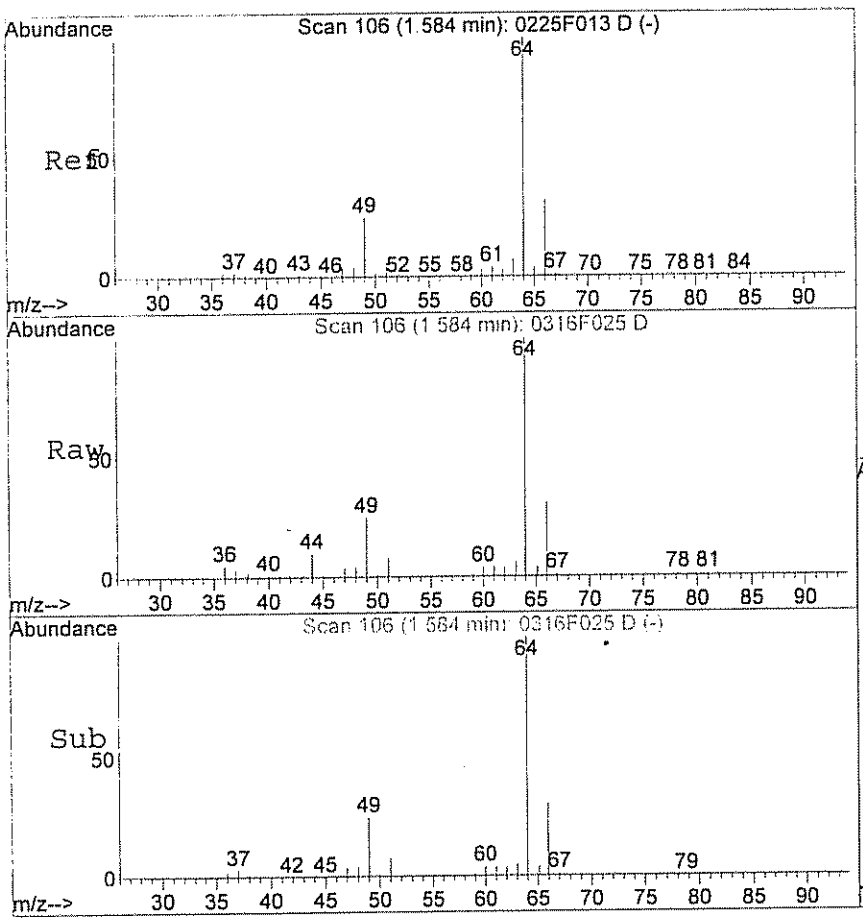


#4
Vinyl Chloride
Concen: 8.48 PPB
RT: 1.29 min Scan# 49
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 62 Resp: 161228

Ion	Ratio	Lower	Upper
62	100		
64	30.8	1.9	61.9
61	8.7	0.0	38.5

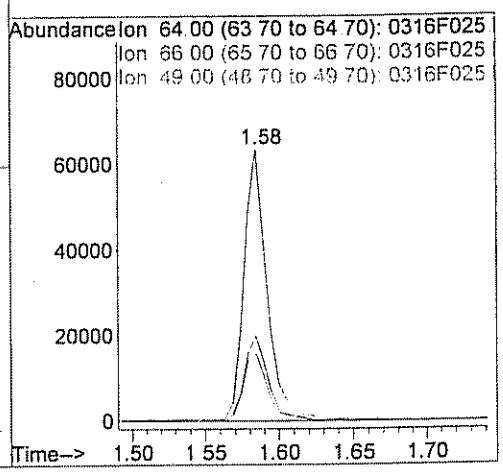


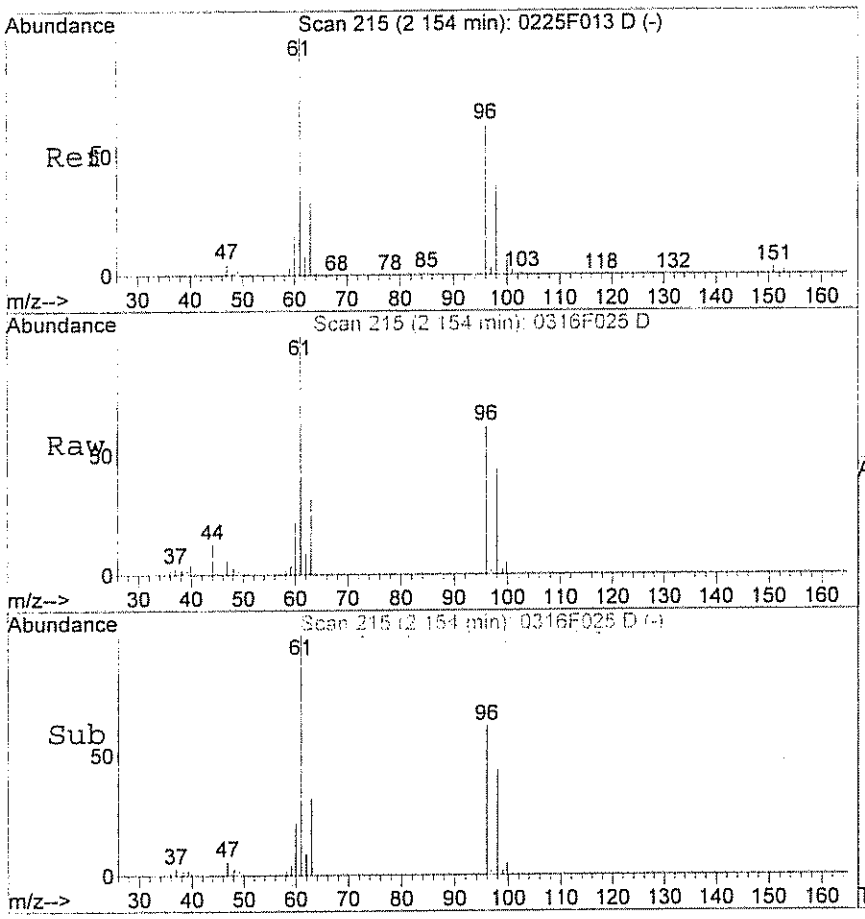


#6
Chloroethane
Concen: 6.21 PPB
RT: 1.58 min Scan# 106
Delta R.T. 0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 64 Resp: 70528

Ion	Ratio	Lower	Upper
64	100		
66	31.2	2.0	62.0
49	24.9	0.0	55.2

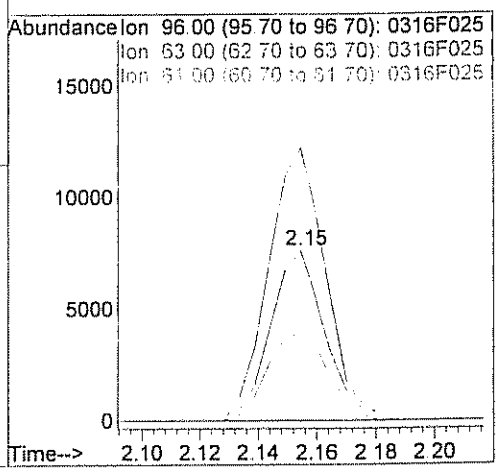


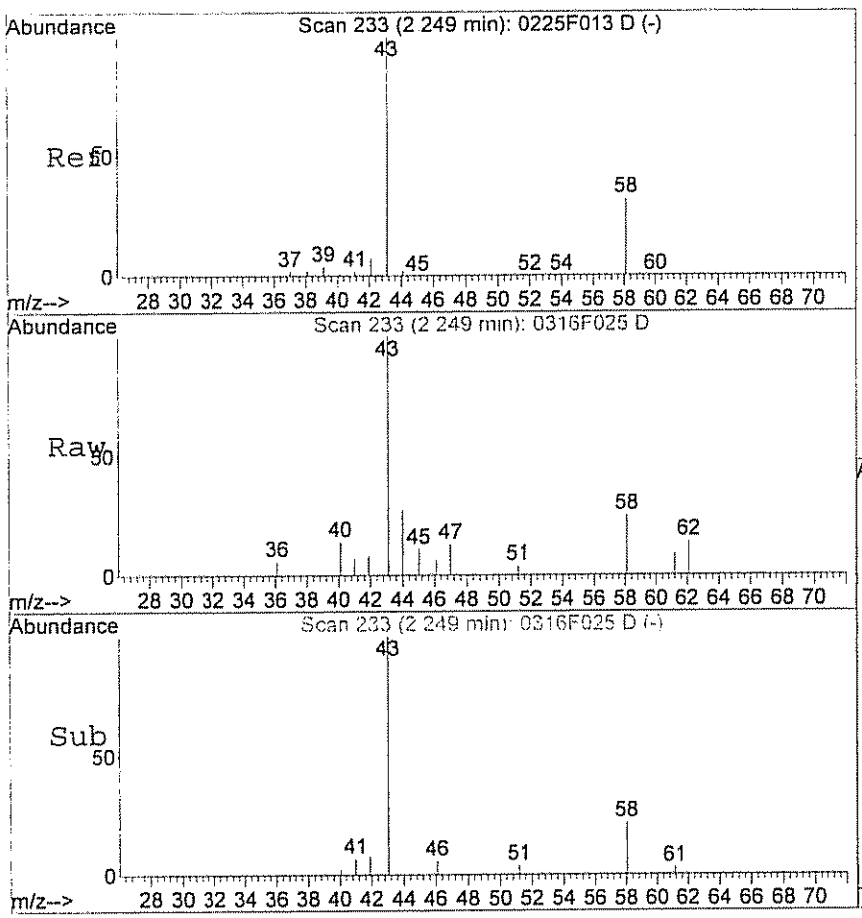


#12
1,1-Dichloroethene
Concen: 0.73 PPB
RT: 2.15 min Scan# 215
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 96 Resp: 9637

Ion	Ratio	Lower	Upper
96	100		
63	51.1	19.1	79.1
61	160.6	127.6	187.6

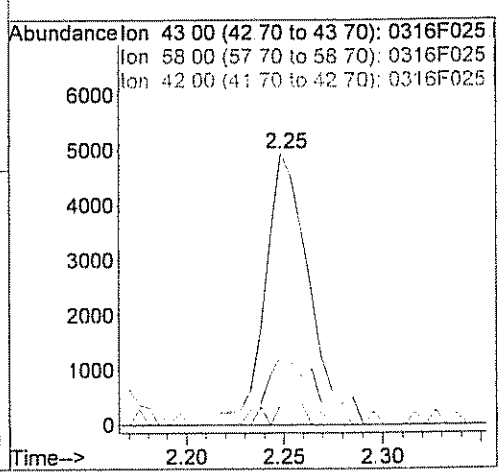


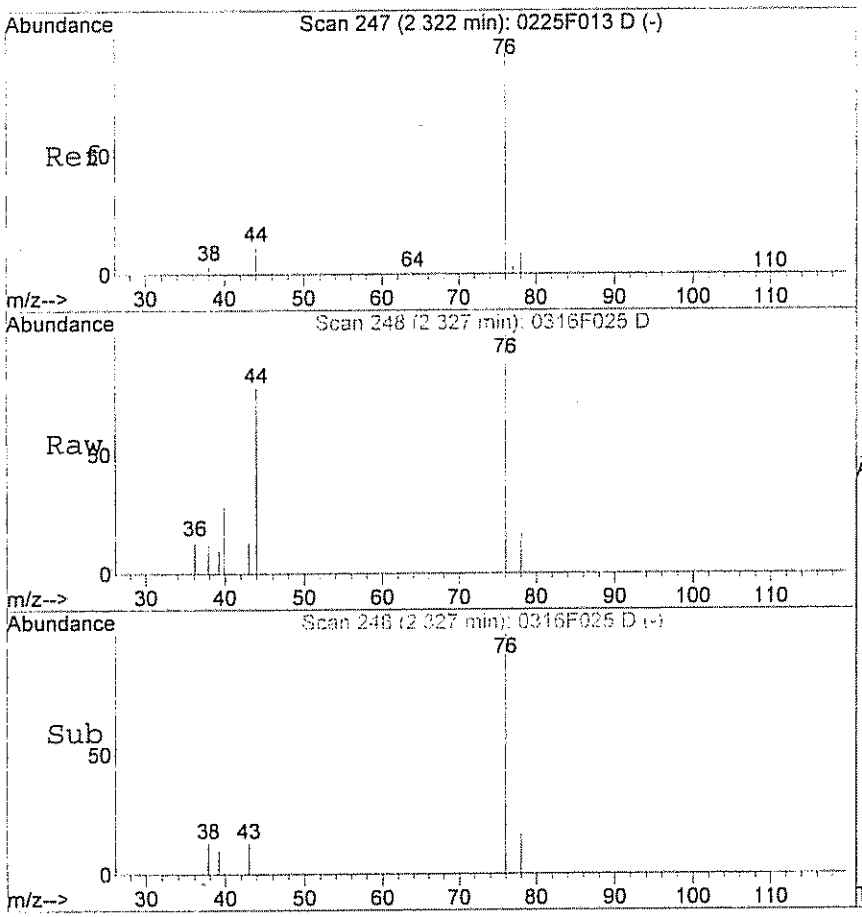


#13
Acetone
Concen: 3.52 PPB
RT: 2.25 min Scan# 233
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 43 Resp: 7818

Ion	Ratio	Lower	Upper
43	100		
58	25.5	2.0	62.0
42	7.8	0.0	37.4

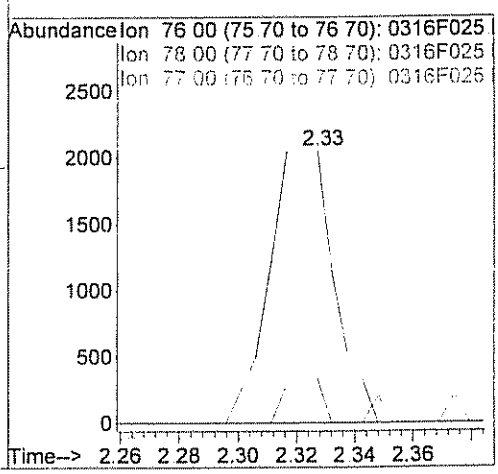


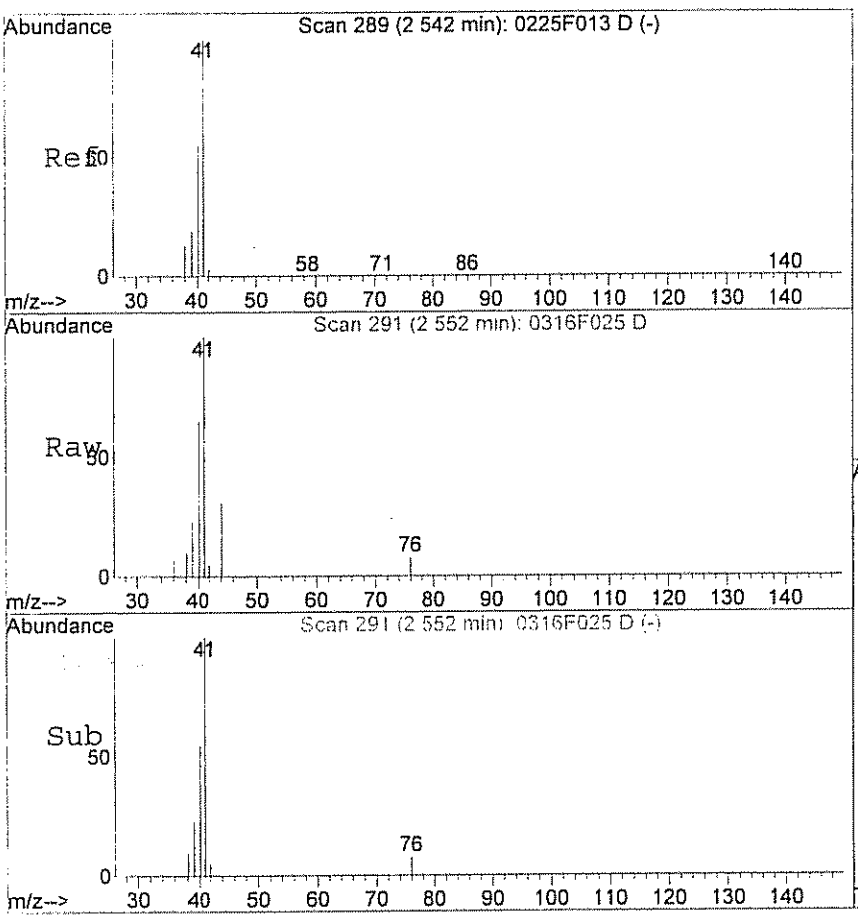


#15
Carbon Disulfide
Concen: 0.08 PPB
RT: 2.33 min Scan# 248
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 76 Resp: 3154

Ion	Ratio	Lower	Upper
76	100		
78	16.9	0.0	38.8
77	0.0	0.0	32.6

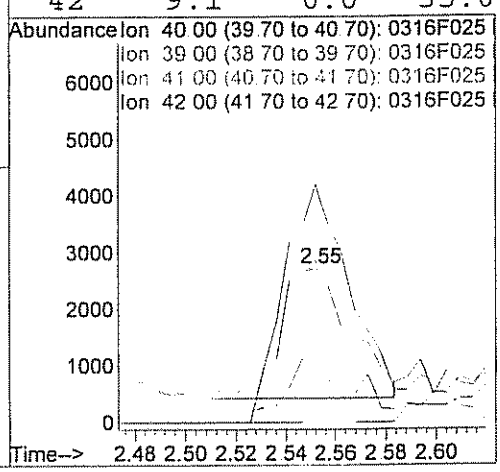


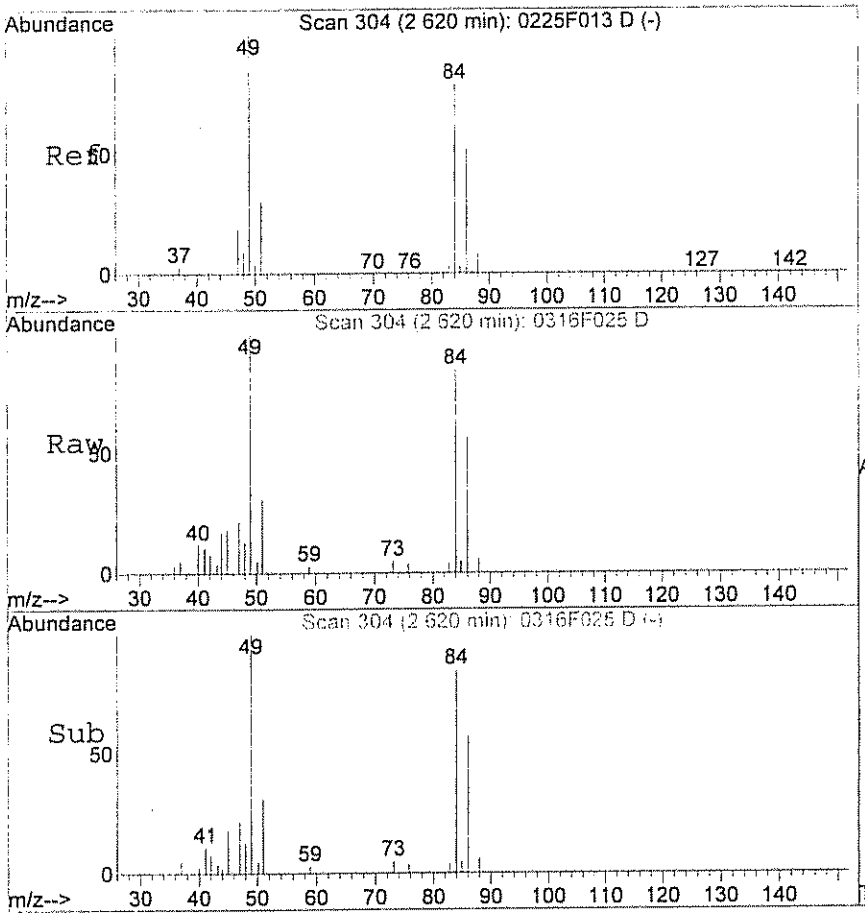


#17
Acetonitrile
Concen: 8.44 PPB
RT: 2.55 min Scan# 291
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 40 Resp: 4616

Ion	Ratio	Lower	Upper
40	100		
39	41.4	6.6	66.6
41	183.5	152.7	212.7
42	9.1	0.0	35.0

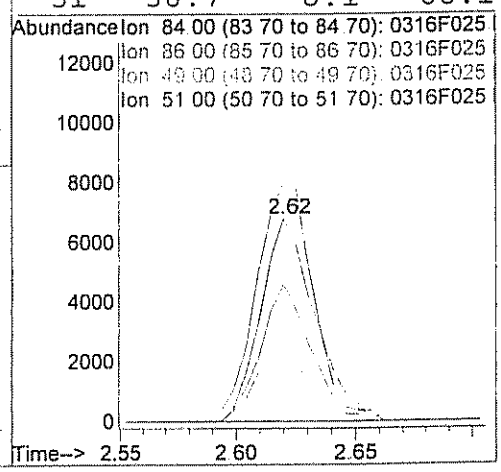


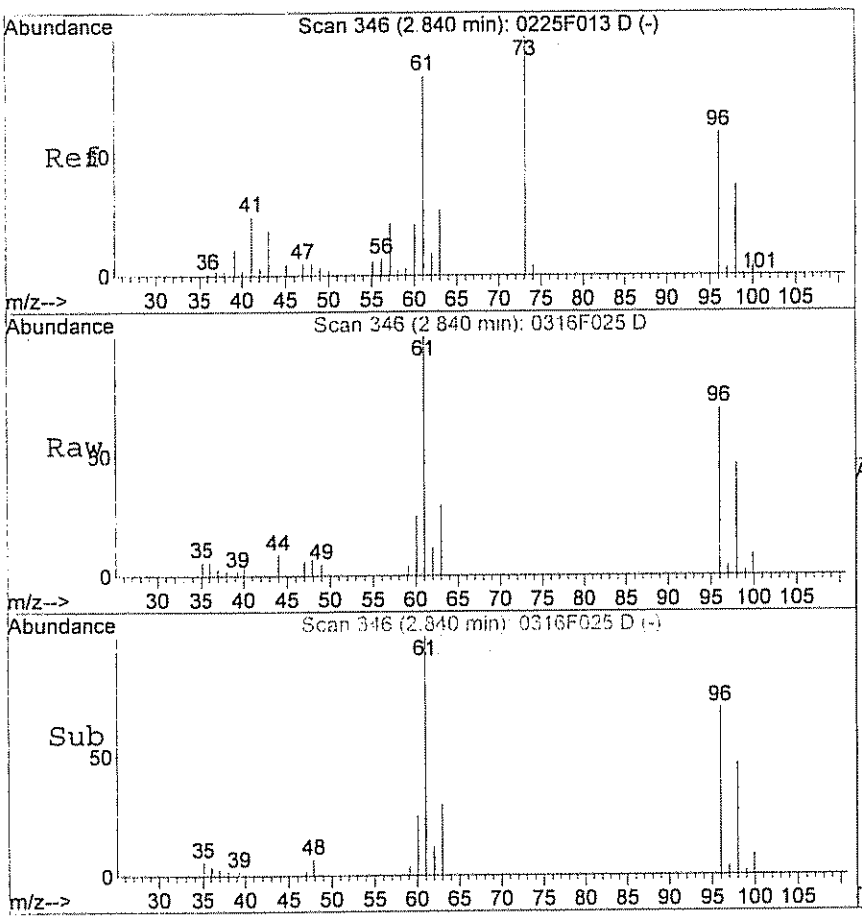


#18
Methylene Chloride
Concen: 0.66 PPB
RT: 2.62 min Scan# 304
Delta R.T. 0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 84 Resp: 10489

Ion	Ratio	Lower	Upper
84	100		
86	67.4	35.9	95.9
49	118.0	96.0	156.0
51	36.7	8.1	68.1

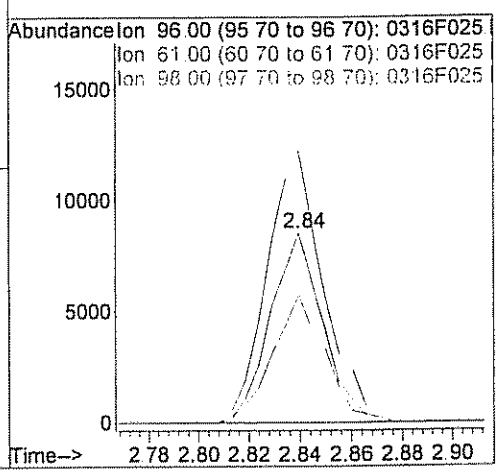


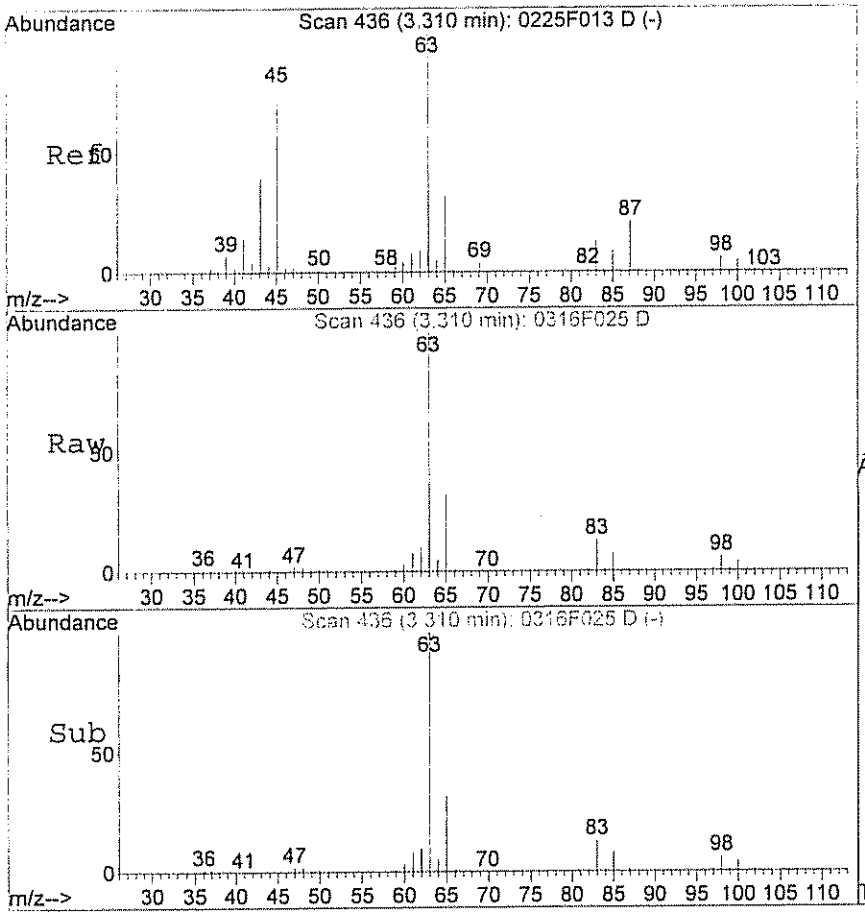


#22
trans-1,2-Dichloroethene
Concen: 0.77 PPB
RT: 2.84 min Scan# 346
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 96 Resp: 11968

Ion	Ratio	Lower	Upper
96	100		
61	143.4	110.6	170.6
98	67.4	33.9	93.9

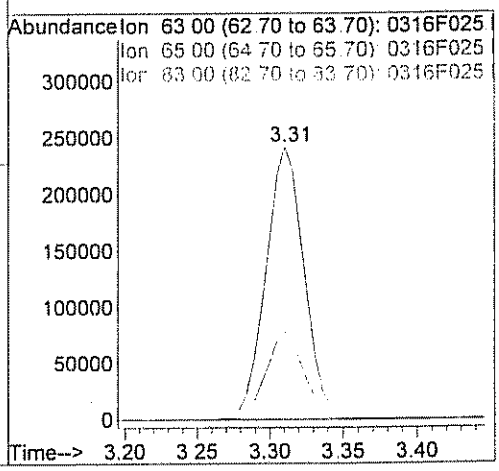


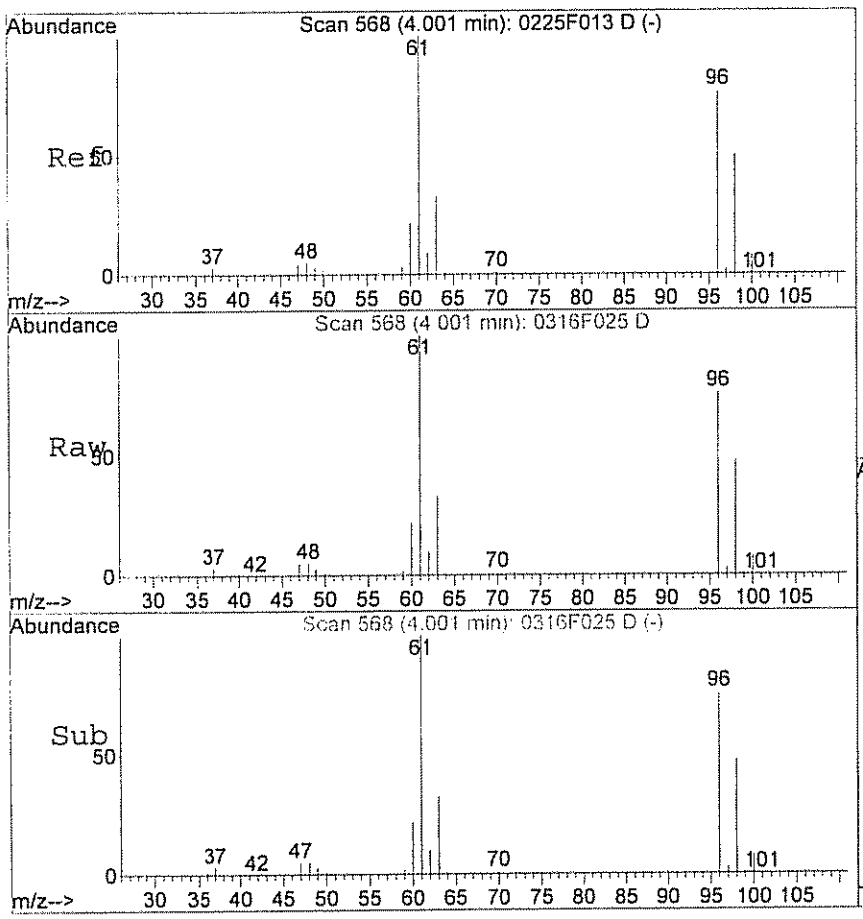


#25
1,1-Dichloroethane
Concen: 16.45 PPB
RT: 3.31 min Scan# 436
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 63 Resp: 443168

Ion	Ratio	Lower	Upper
63	100		
65	32.4	1.7	61.7
83	13.1	0.0	42.8

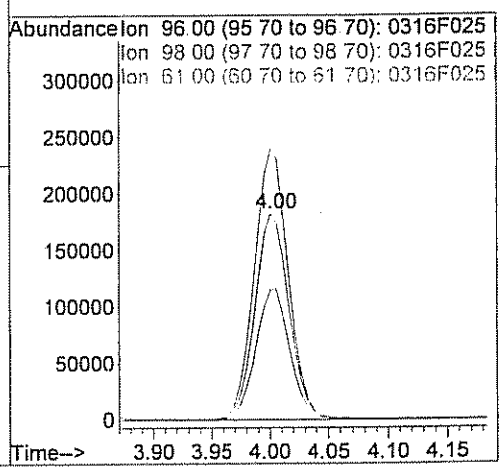


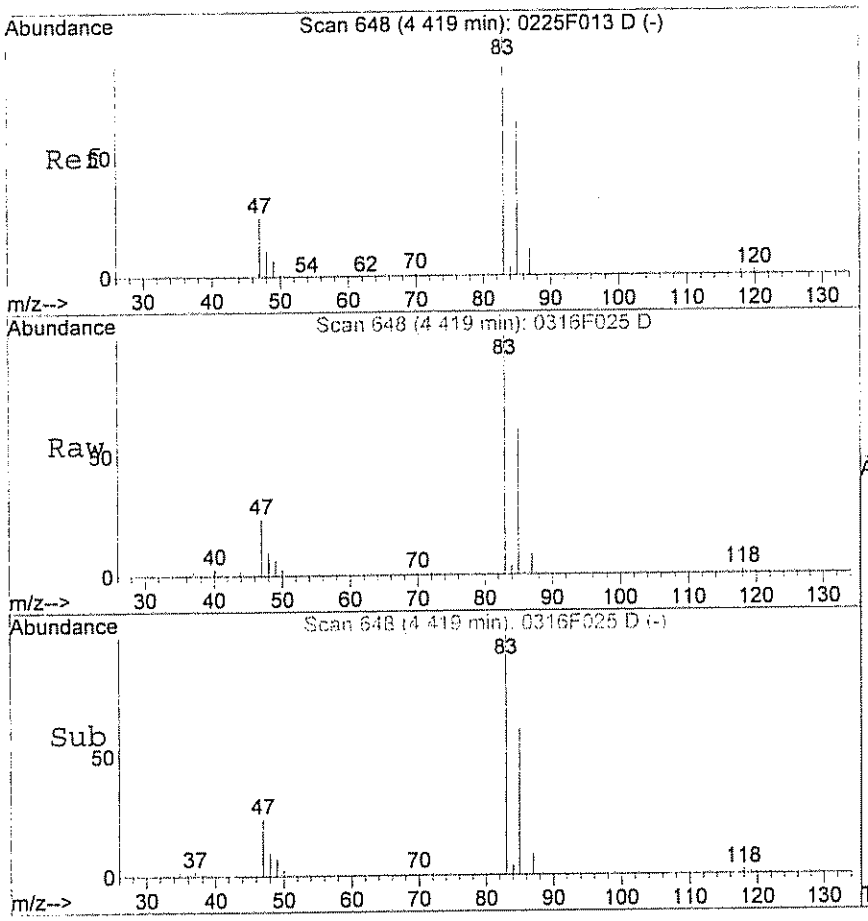


#30
cis-1,2-Dichloroethene
Concen: 22.49 PPB
RT: 4.00 min Scan# 568
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 96 Resp: 370521

Ion	Ratio	Lower	Upper
96	100		
98	63.0	34.6	94.6
61	131.2	100.4	160.4

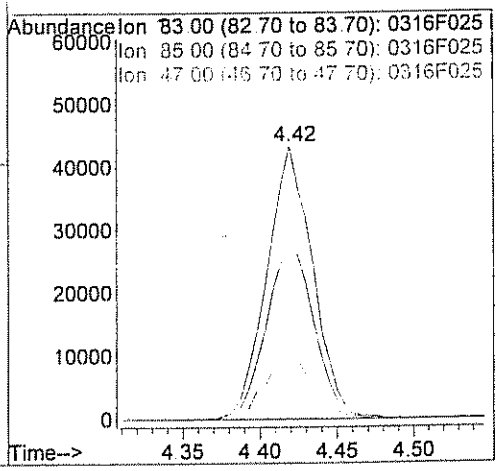


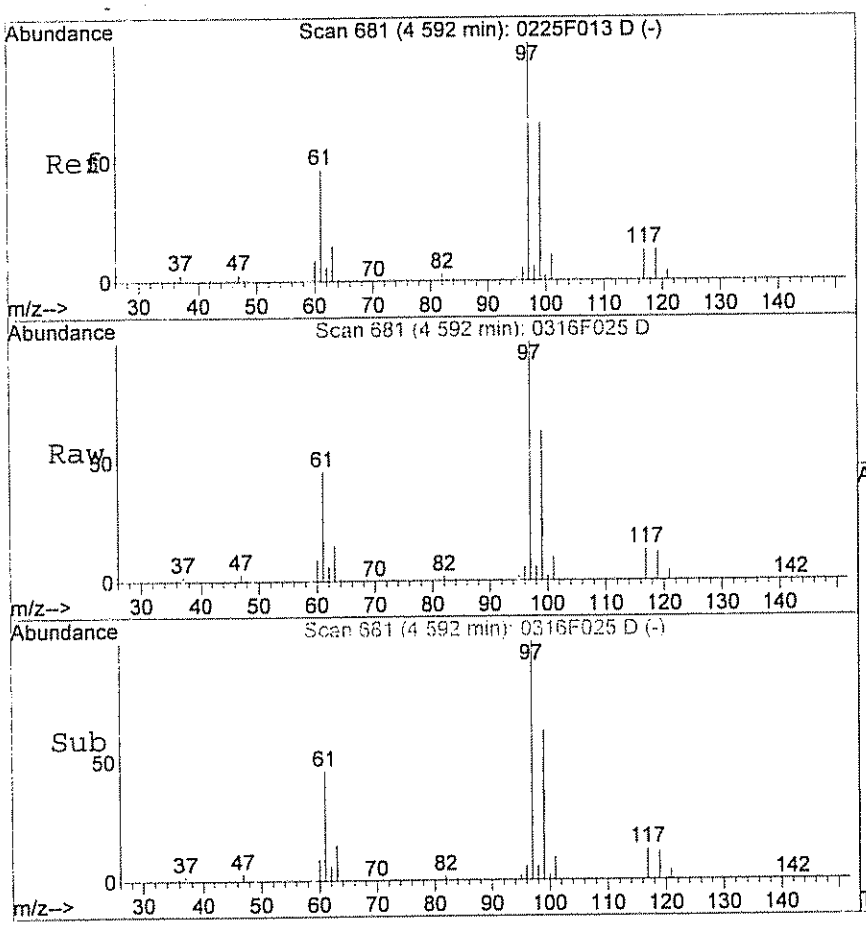


#37
Chloroform
Concen: 3.43 PPB
RT: 4.42 min Scan# 648
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 83 Resp: 88918

Ion	Ratio	Lower	Upper
83	100		
85	60.5	34.4	94.4
47	23.6	0.0	54.5

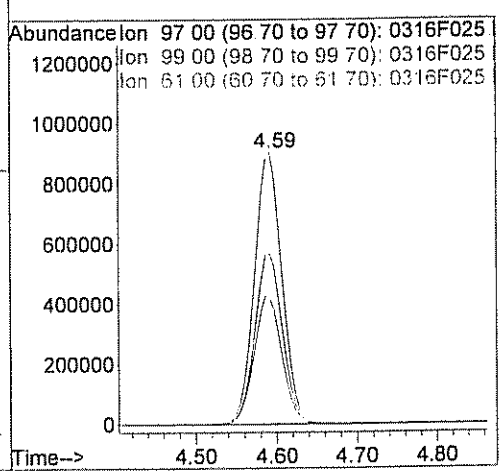


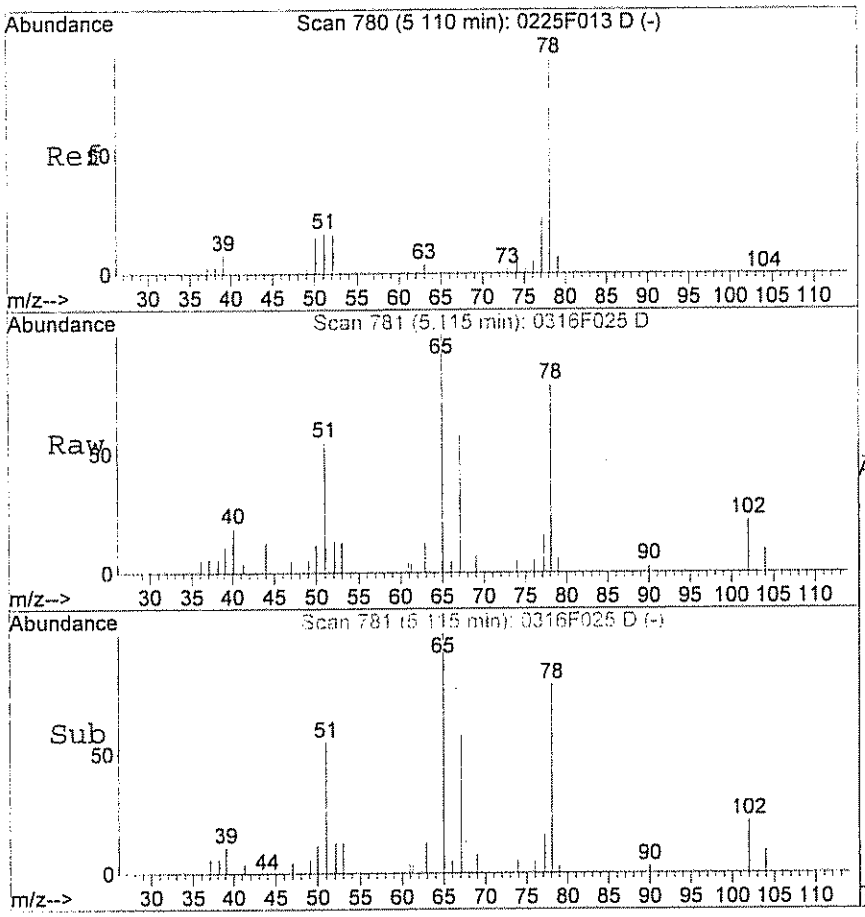


#38
1,1,1-Trichloroethane
Concen: 107.34 PPB
RT: 4.59 min Scan# 681
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 97 Resp: 2132498

Ion	Ratio	Lower	Upper
97	100		
99	62.8	37.0	97.0
61	46.3	17.3	77.3

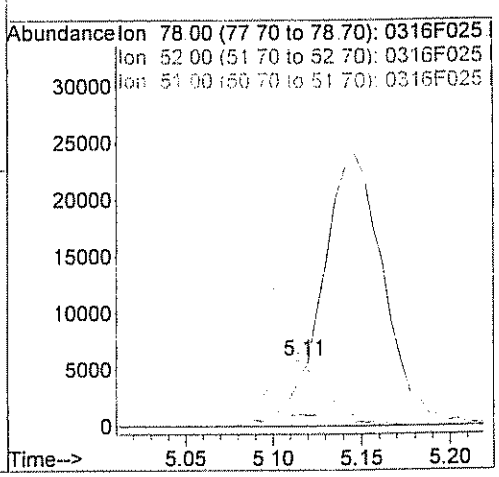


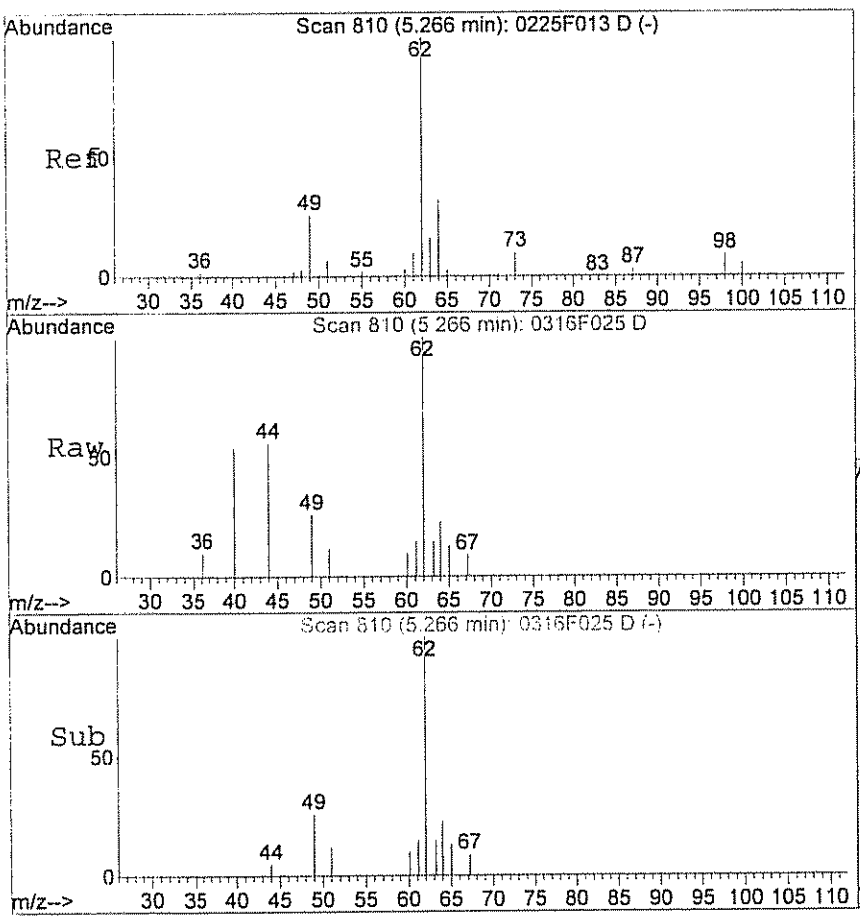


#44
Benzene
Concen: 0.21 PPB
RT: 5.11 min Scan# 781
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 78 Resp: 13414

Ion	Ratio	Lower	Upper
78	100		
52	16.8	0.0	45.9
51	69.4	0.0	46.8#

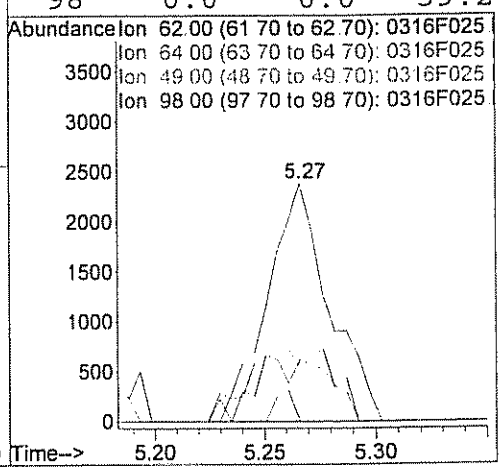


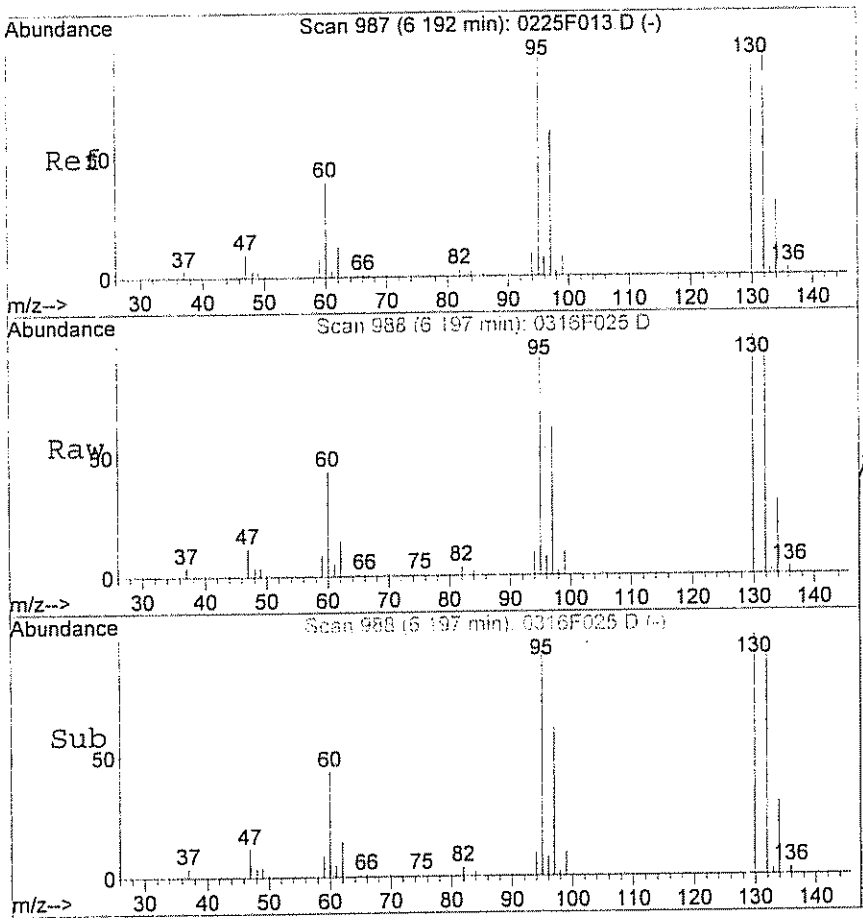


#45
1,2-Dichloroethane
Concen: 0.25 PPB
RT: 5.27 min Scan# 810
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 62 Resp: 4611

Ion	Ratio	Lower	Upper
62	100		
64	23.5	2.3	62.3
49	25.9	0.0	56.3
98	0.0	0.0	39.2

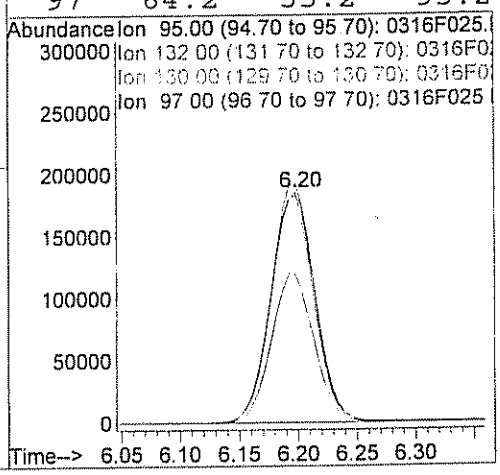


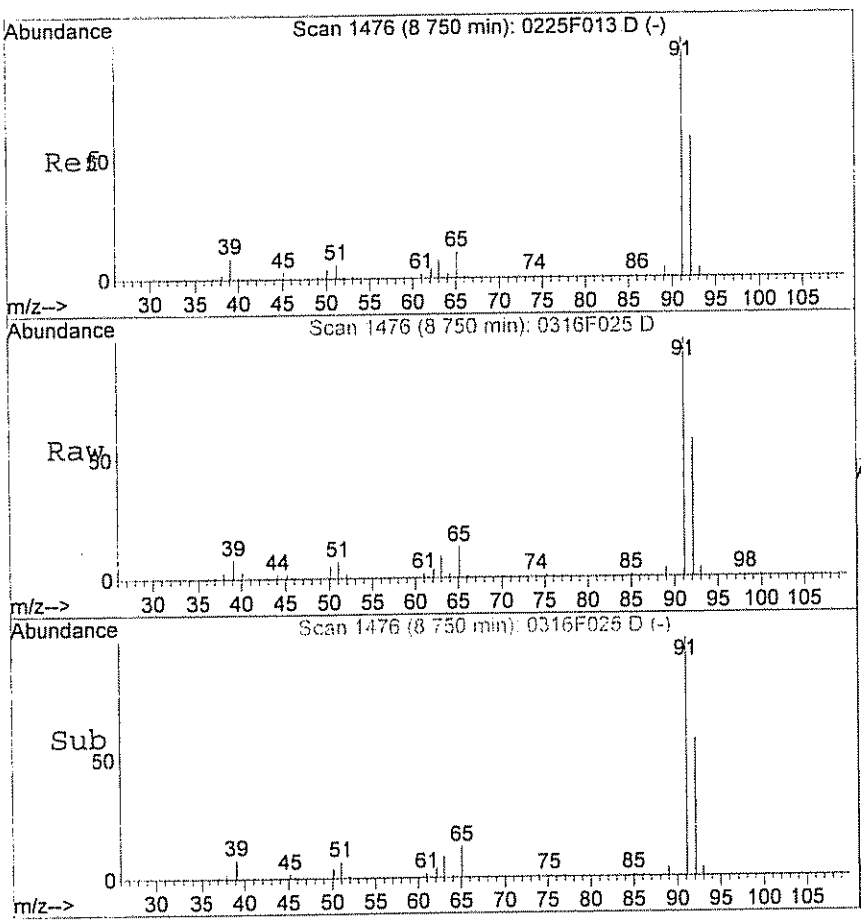


#47
Trichloroethene
Concen: 30.12 PPB
RT: 6.20 min Scan# 988
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 95 Resp: 465345

Ion	Ratio	Lower	Upper
95	100		
132	98.3	71.9	131.9
130	103.9	77.0	137.0
97	64.2	35.2	95.2

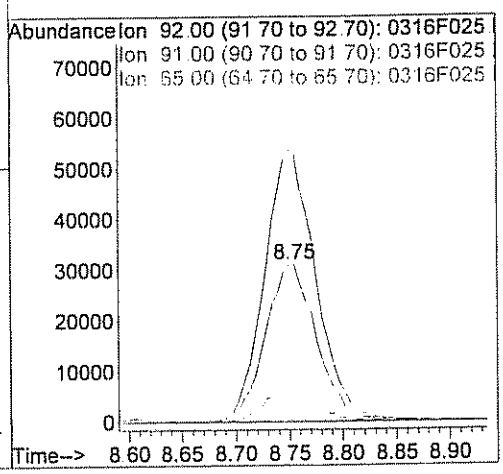


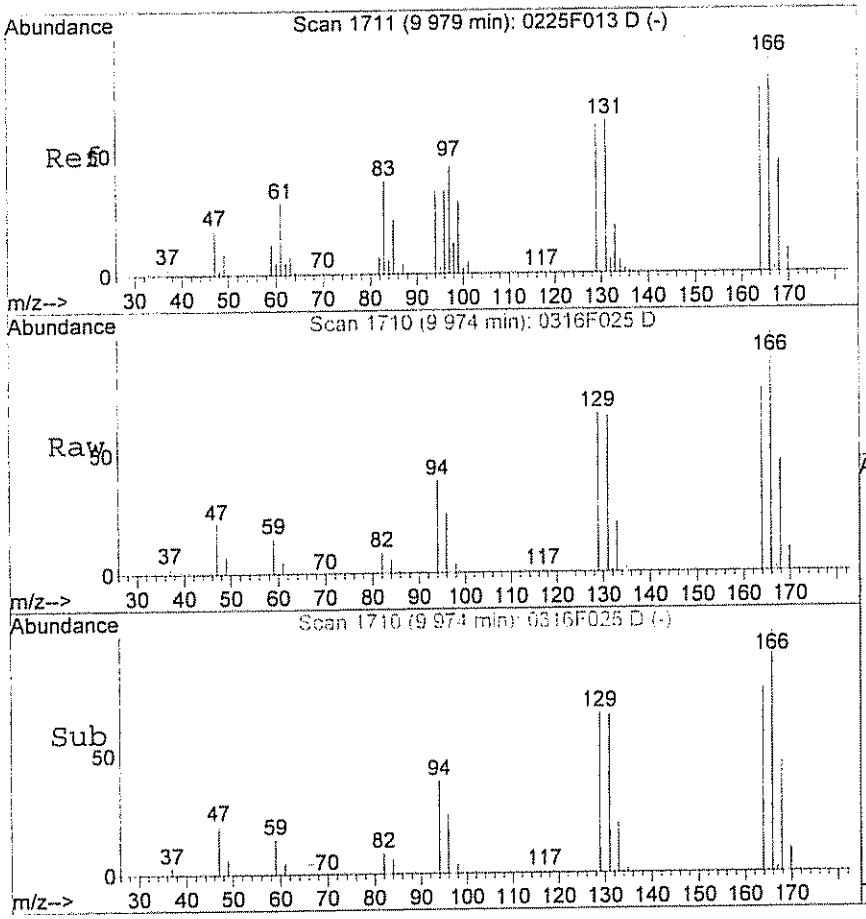


#58
Toluene
Concen: 2.53 PPB
RT: 8.75 min Scan# 1476
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 92 Resp: 103516

Ion	Ratio	Lower	Upper
92	100		
91	172.2	140.8	200.8
65	22.3	0.0	48.7

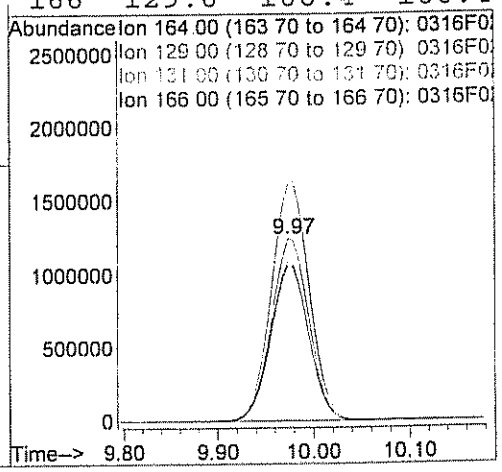


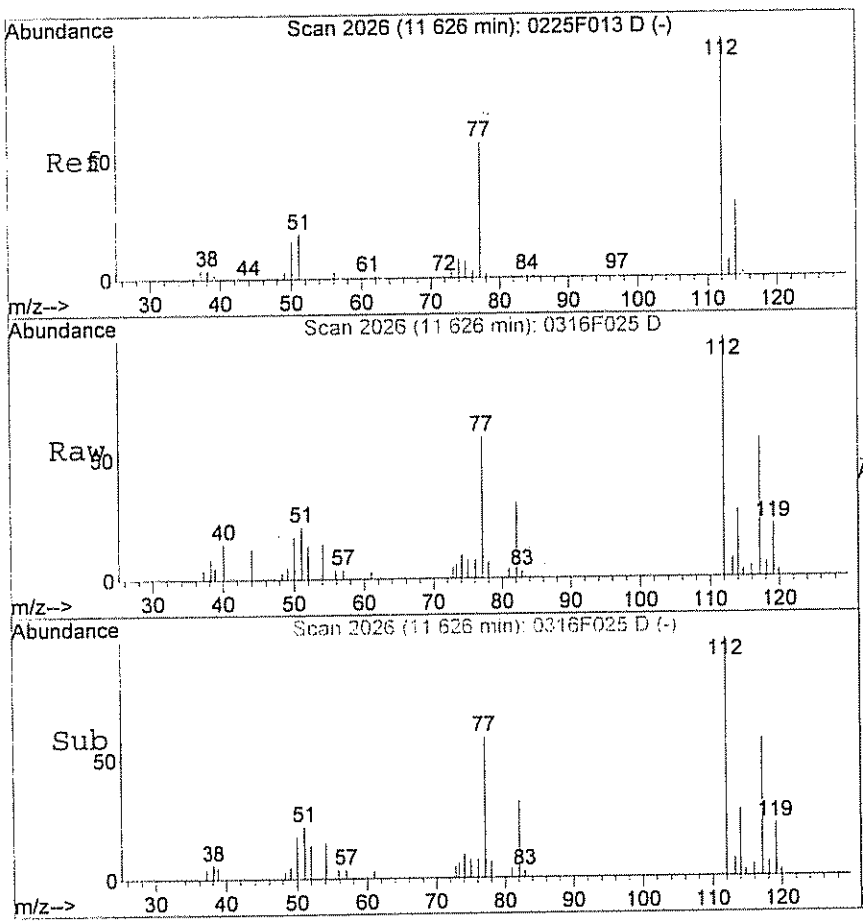


#64
Tetrachloroethene
Concen: 232.89 PPB
RT: 9.97 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:164 Resp: 3389285

Ion	Ratio	Lower	Upper
164	100		
129	87.4	52.1	112.1
131	85.2	52.9	112.9
166	129.6	100.4	160.4

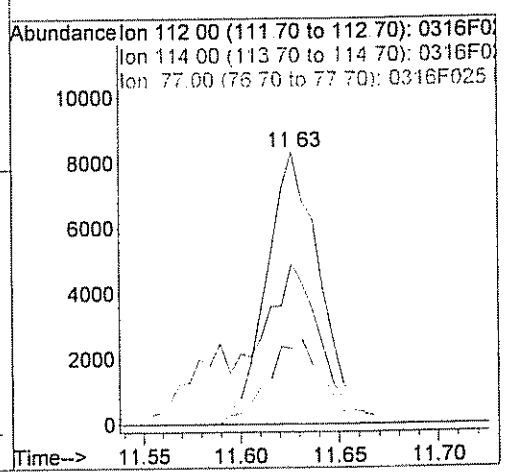


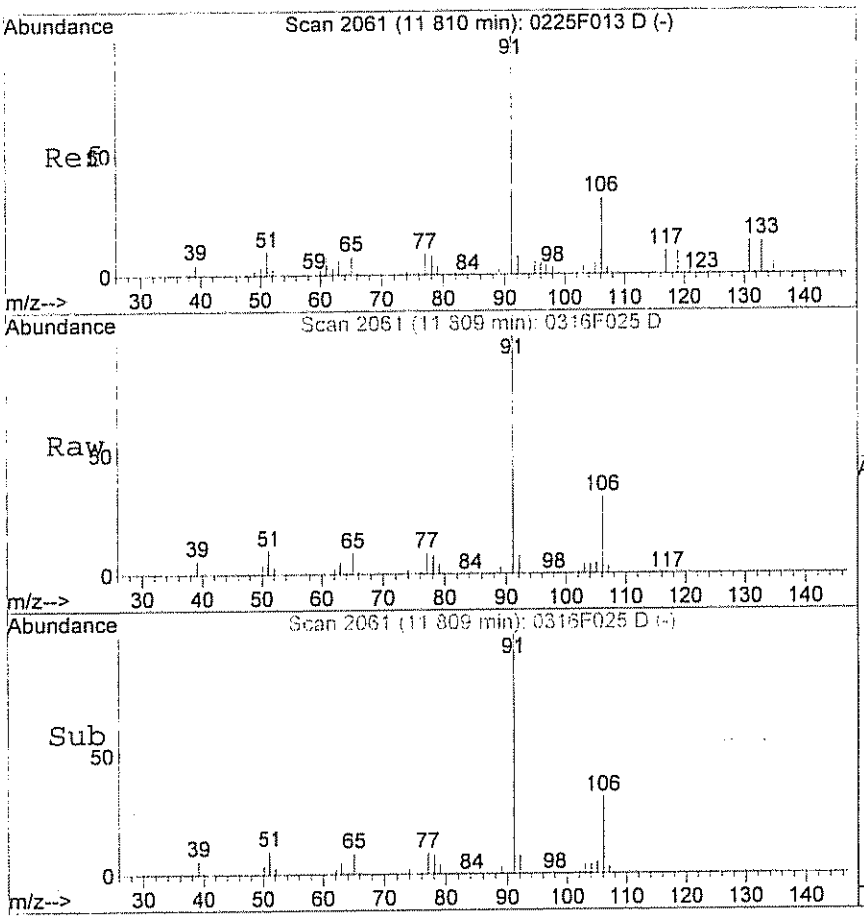


#70
Chlorobenzene
Concen: 0.33 PPB
RT: 11.63 min Scan# 2026
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:112 Resp: 15515

Ion	Ratio	Lower	Upper
112	100		
114	30.3	1.5	61.5
77	59.1	27.6	87.6

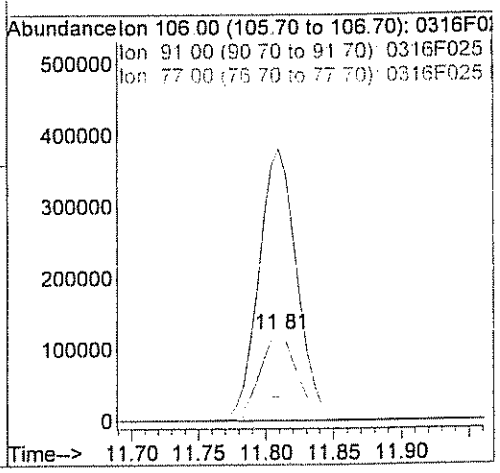


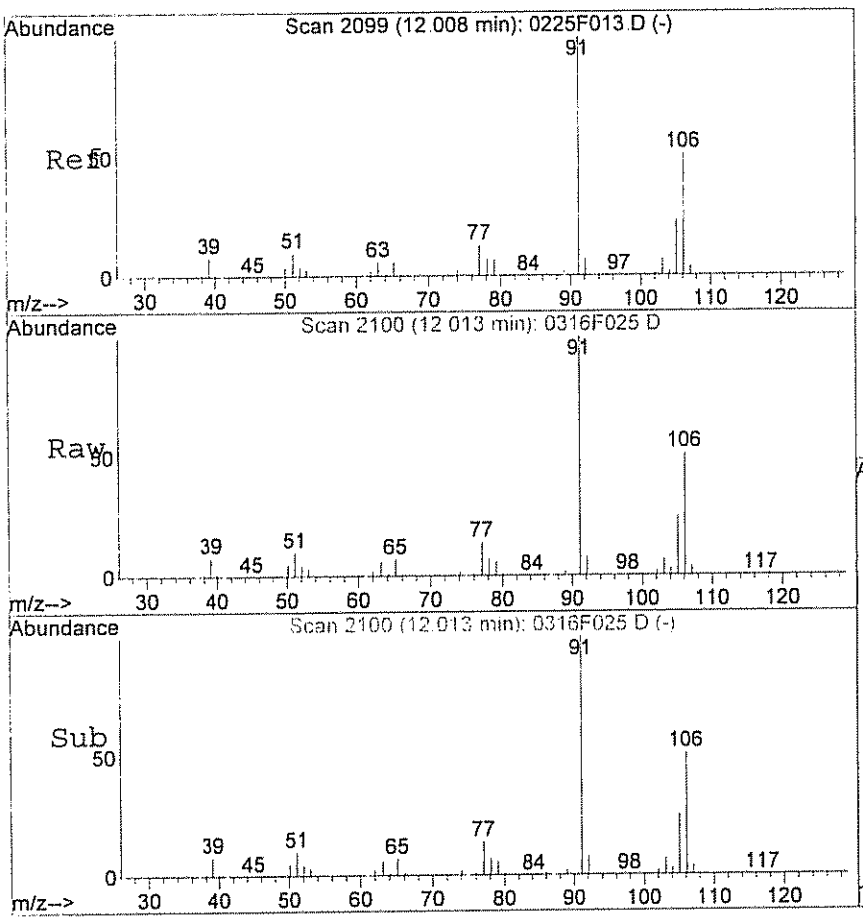


#71
Ethylbenzene
Concen: 10.08 PPB
RT: 11.81 min Scan# 2061
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:106 Resp: 236946

Ion	Ratio	Lower	Upper
106	100		
91	314.7	283.9	343.9
77	27.3	0.0	57.4

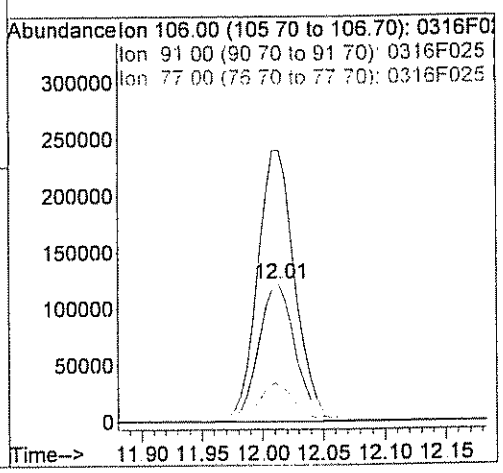


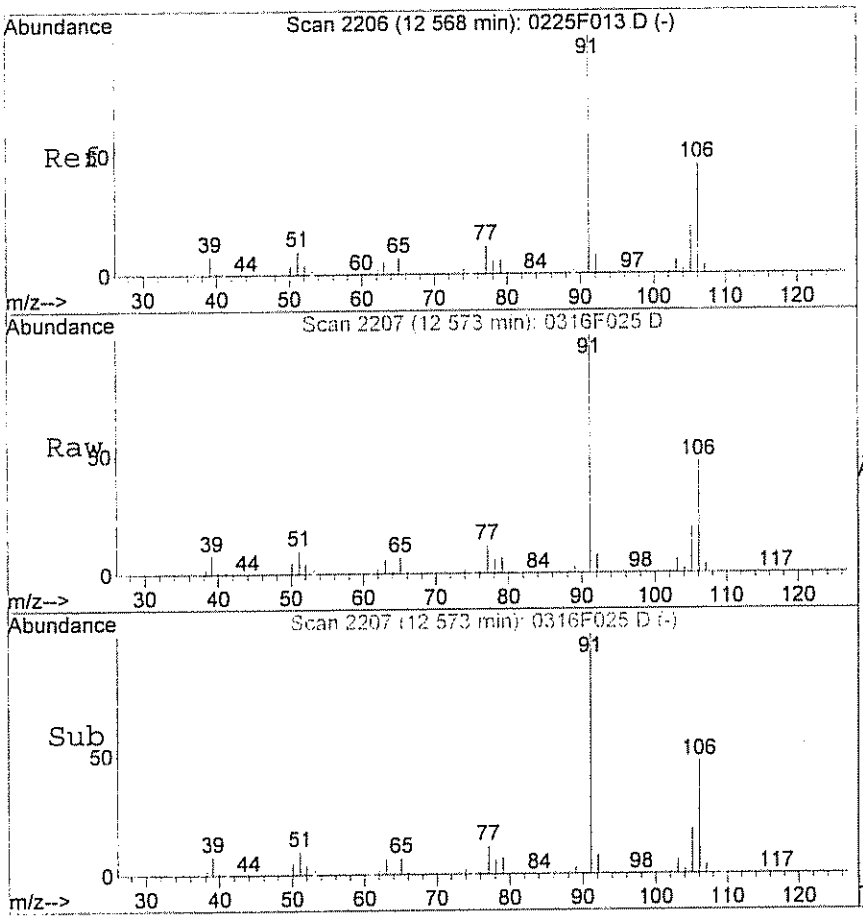


#73
m,p-Xylenes
Concen: 8.84 PPB
RT: 12.01 min Scan# 2100
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:106 Resp: 257079

Ion	Ratio	Lower	Upper
106	100		
91	196.4	166.4	226.4
77	27.1	0.0	55.1

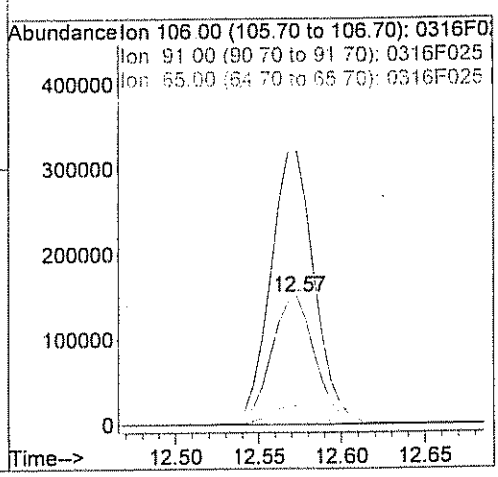


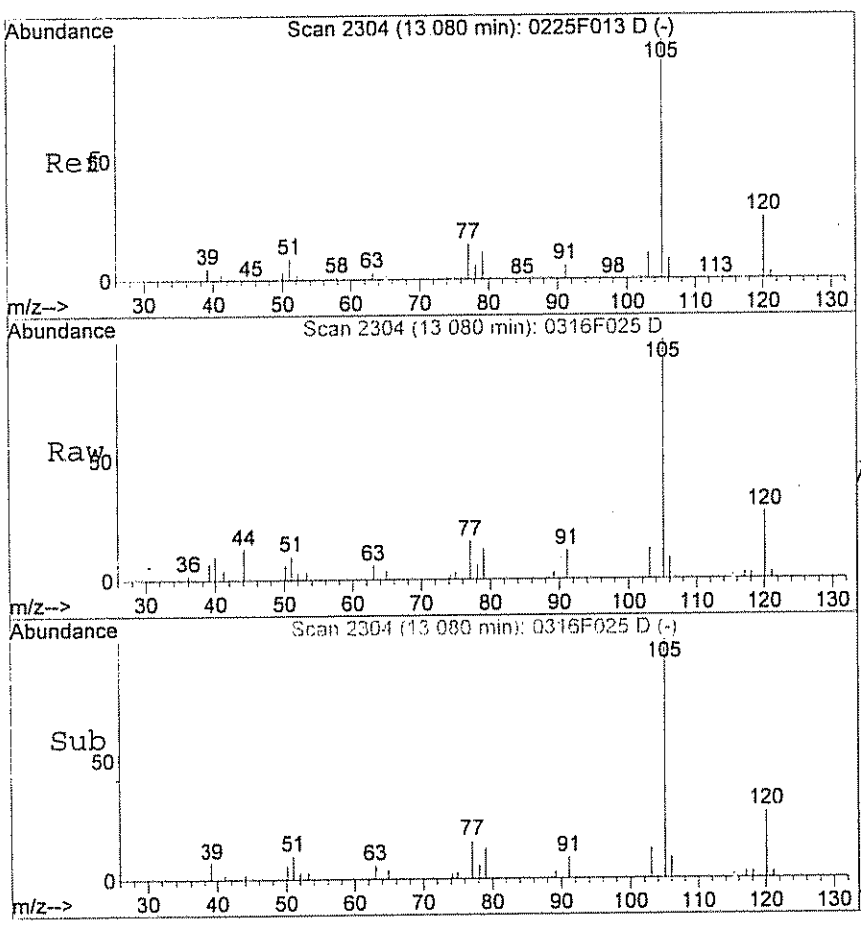


#74
o-Xylene
Concen: 10.25 PPB
RT: 12.57 min Scan# 2207
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:106 Resp: 277440

Ion	Ratio	Lower	Upper
106	100		
91	213.4	185.4	245.4
65	14.2	0.0	45.0

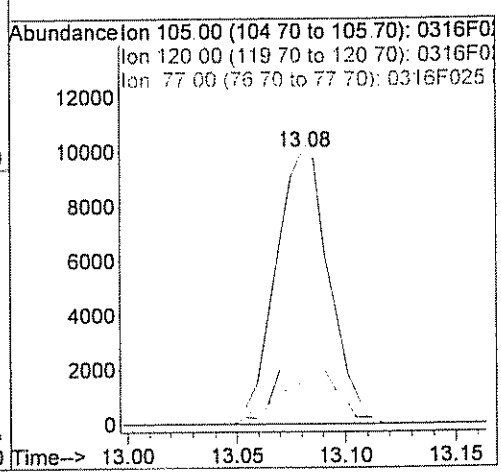


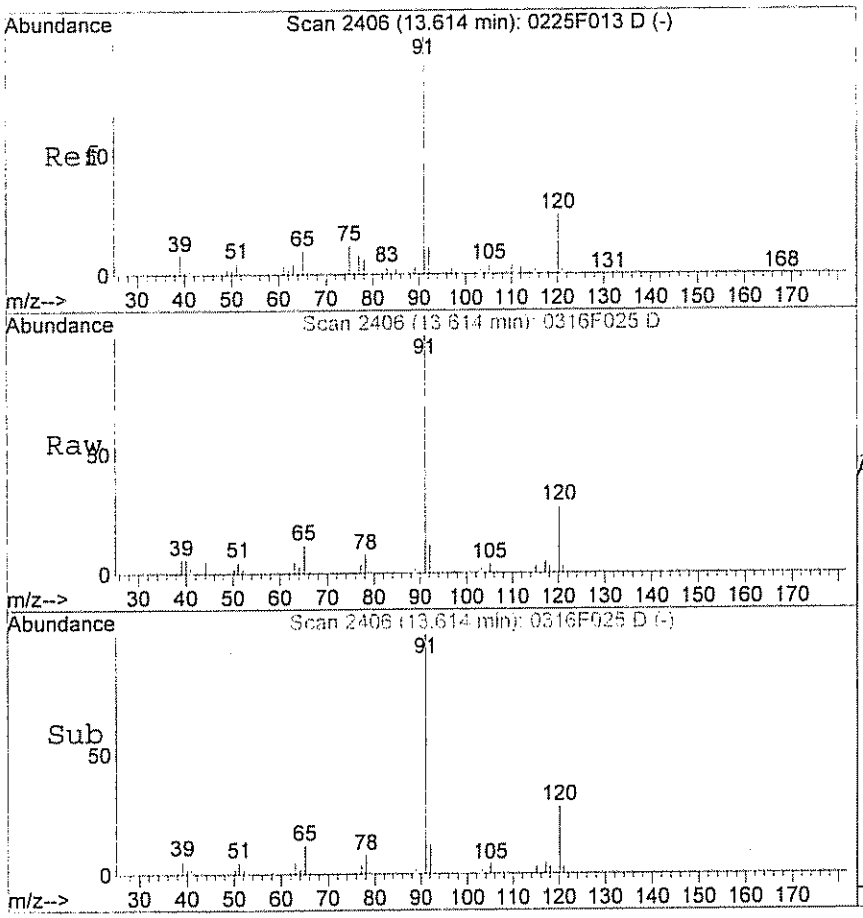


#77
Isopropylbenzene
Concen: 0.26 PPB
RT: 13.08 min Scan# 2304
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:105 Resp: 17288

Ion	Ratio	Lower	Upper
105	100		
120	27.8	0.0	56.4
77	15.5	0.0	44.6

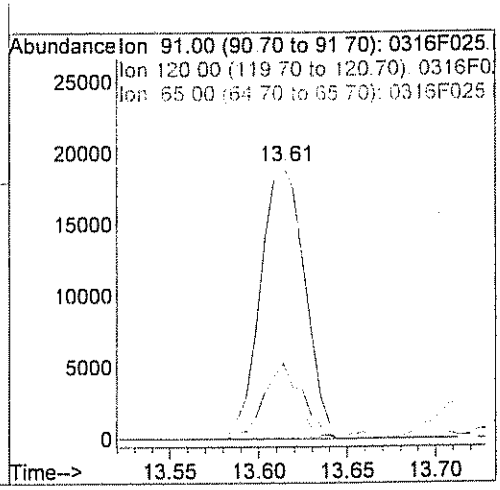


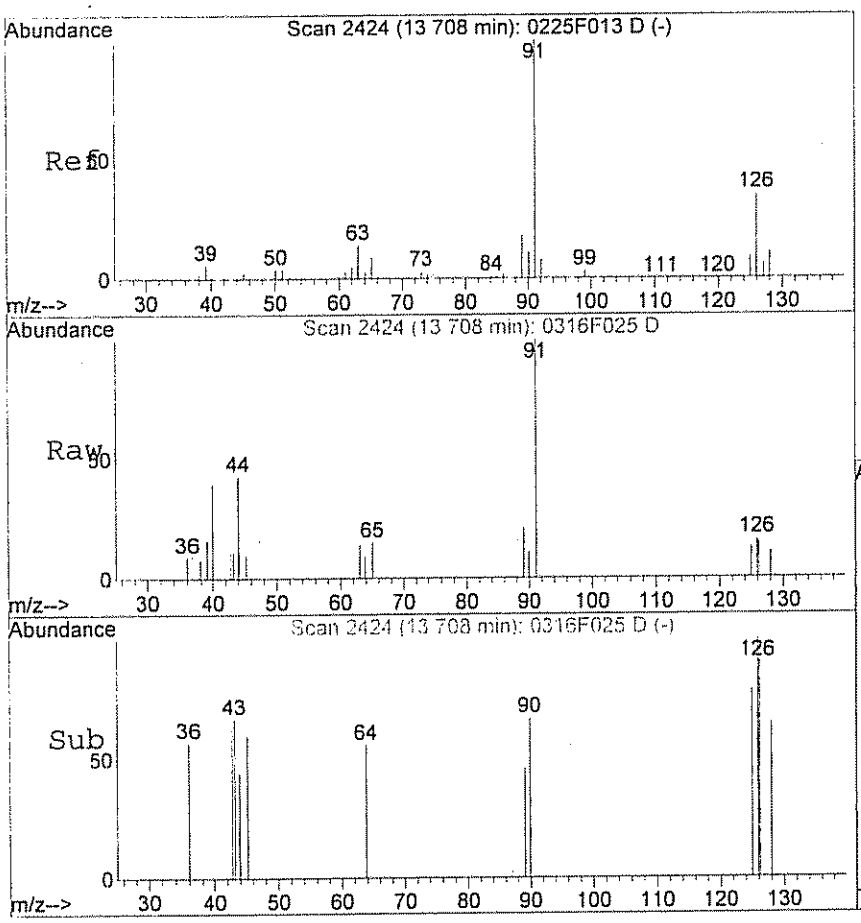


#84
n-Propylbenzene
Concen: 0.46 PPB
RT: 13.61 min Scan# 2406
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 91 Resp: 33364

Ion	Ratio	Lower	Upper
91	100		
120	27.6	0.0	54.7
65	11.7	0.0	40.1

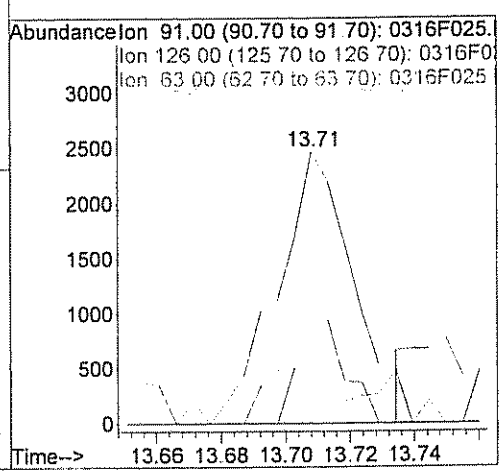


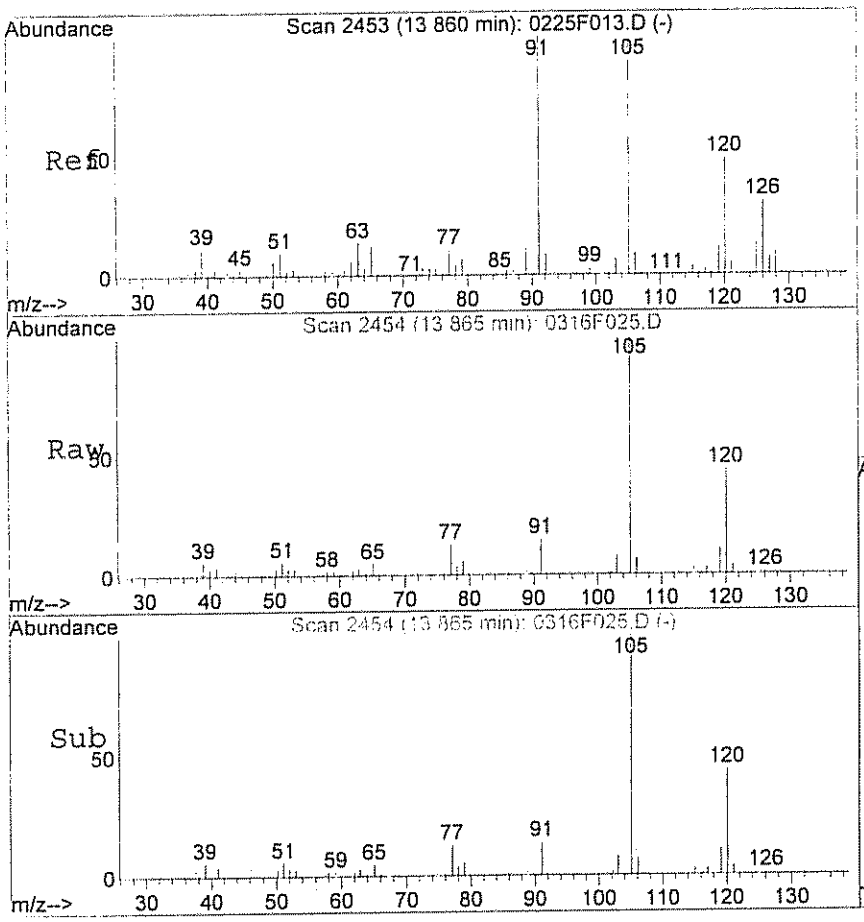


#86
2-Chlorotoluene
Concen: 0.08 PPB
RT: 13.71 min Scan# 2424
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 91 Resp: 4074

Ion	Ratio	Lower	Upper
91	100		
126	31.5	5.3	65.3
63	14.4	0.0	44.1

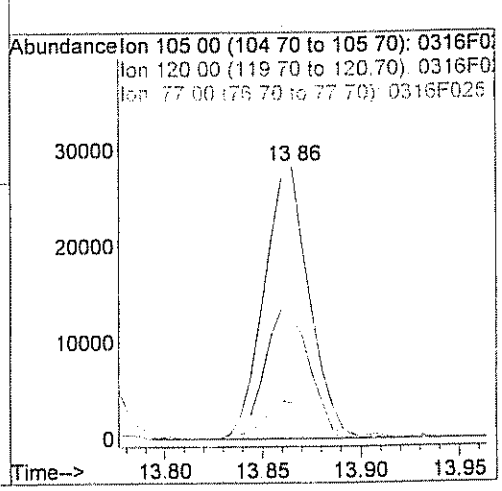


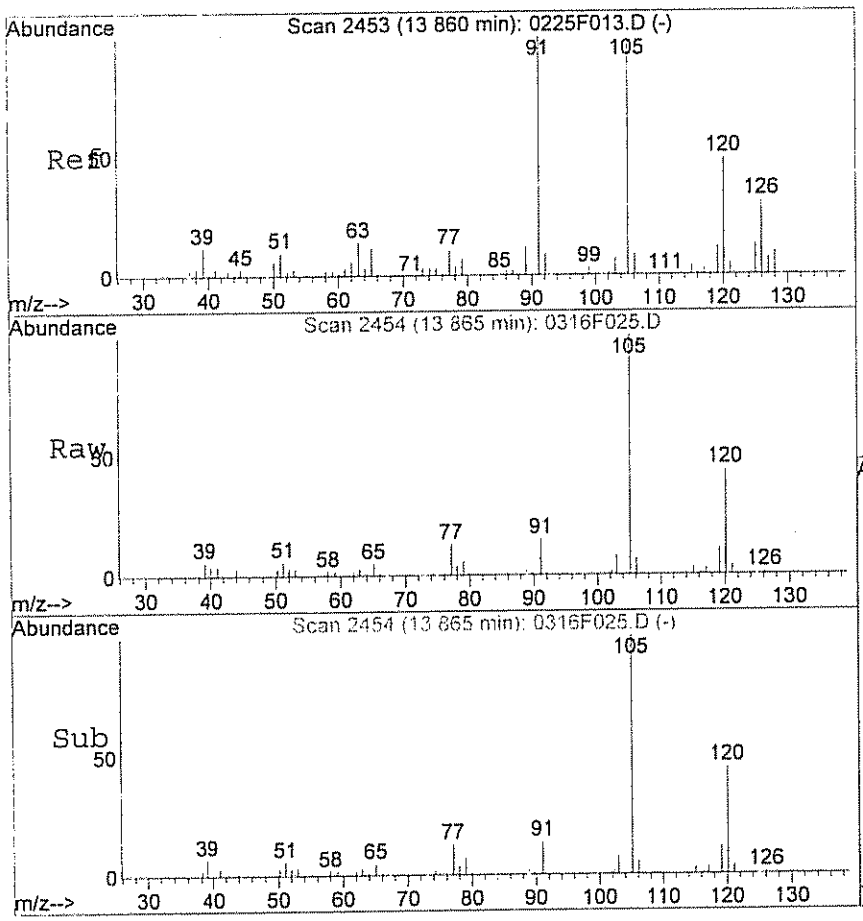


#87
1,3,5-Trimethylbenzene
Concen: 0.88 PPB
RT: 13.86 min Scan# 2454
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:105 Resp: 45382

Ion	Ratio	Lower	Upper
105	100		
120	44.2	19.7	79.7
77	13.0	0.0	41.6

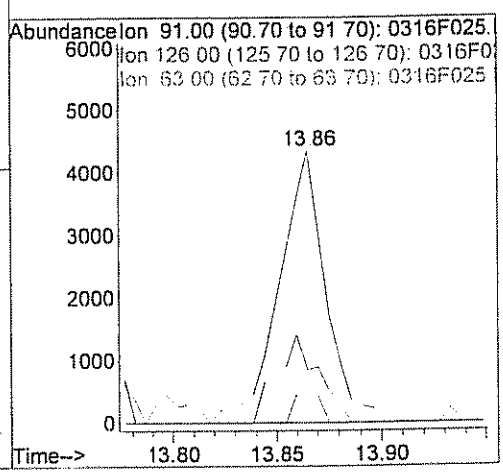


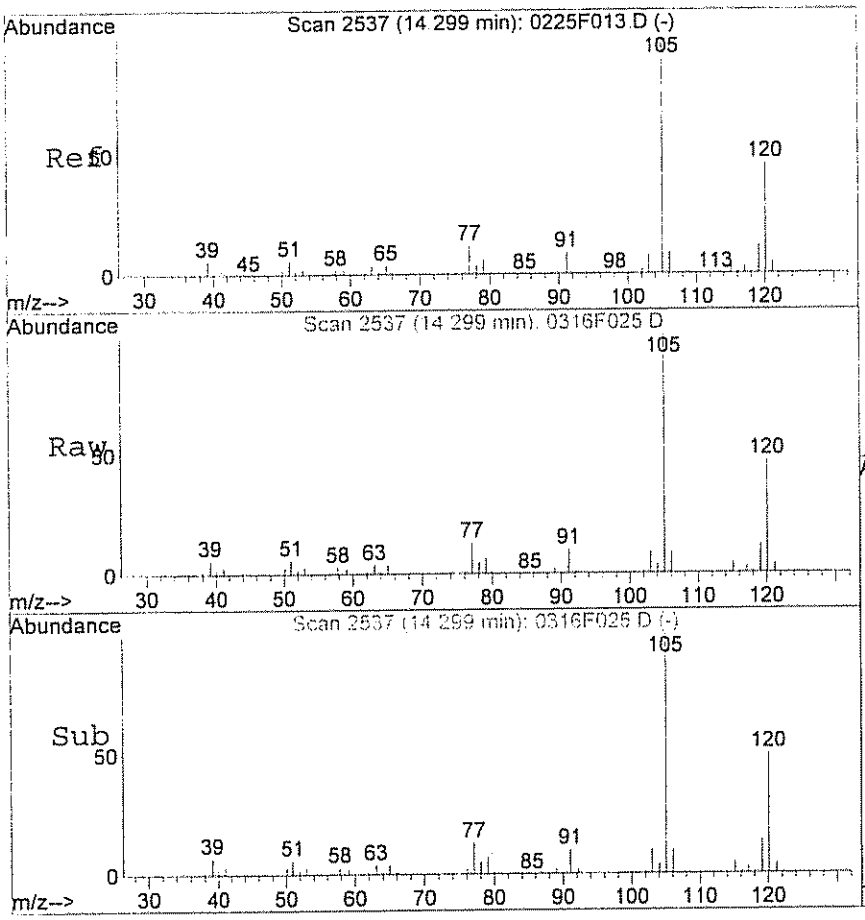


#88
4-Chlorotoluene
Concen: 0.12 PPB
RT: 13.86 min Scan# 2454
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 91 Resp: 6754

Ion	Ratio	Lower	Upper
91	100		
126	8.4	0.9	60.9
63	19.6	0.0	44.1

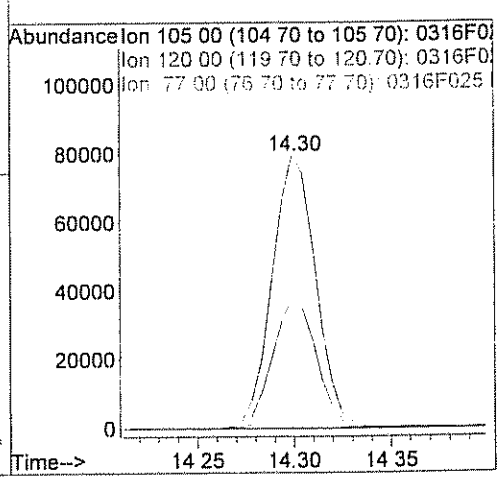


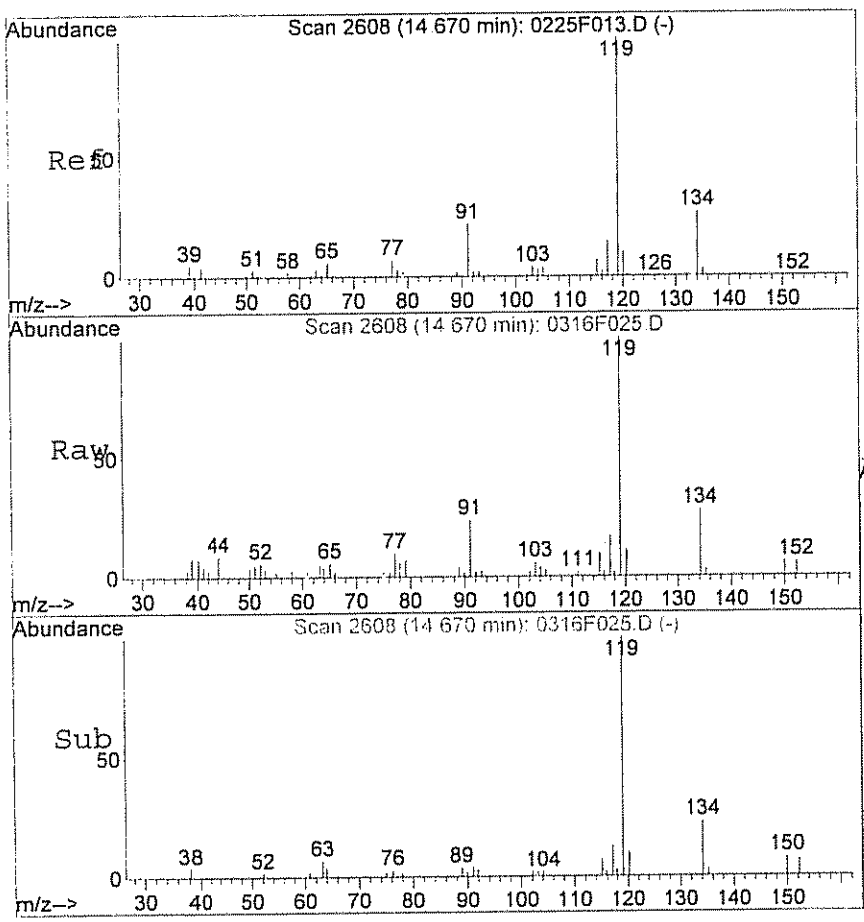


#90
1,2,4-Trimethylbenzene
Concen: 2.33 PPB
RT: 14.30 min Scan# 2537
Delta R.T. 0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:105 Resp: 124872

Ion	Ratio	Lower	Upper
105	100		
120	47.1	16.0	76.0
77	12.5	0.0	41.8

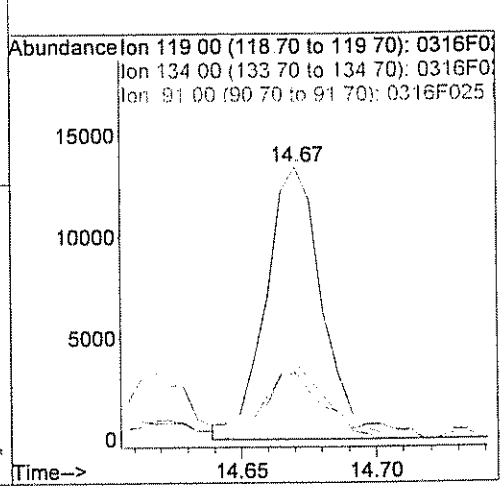


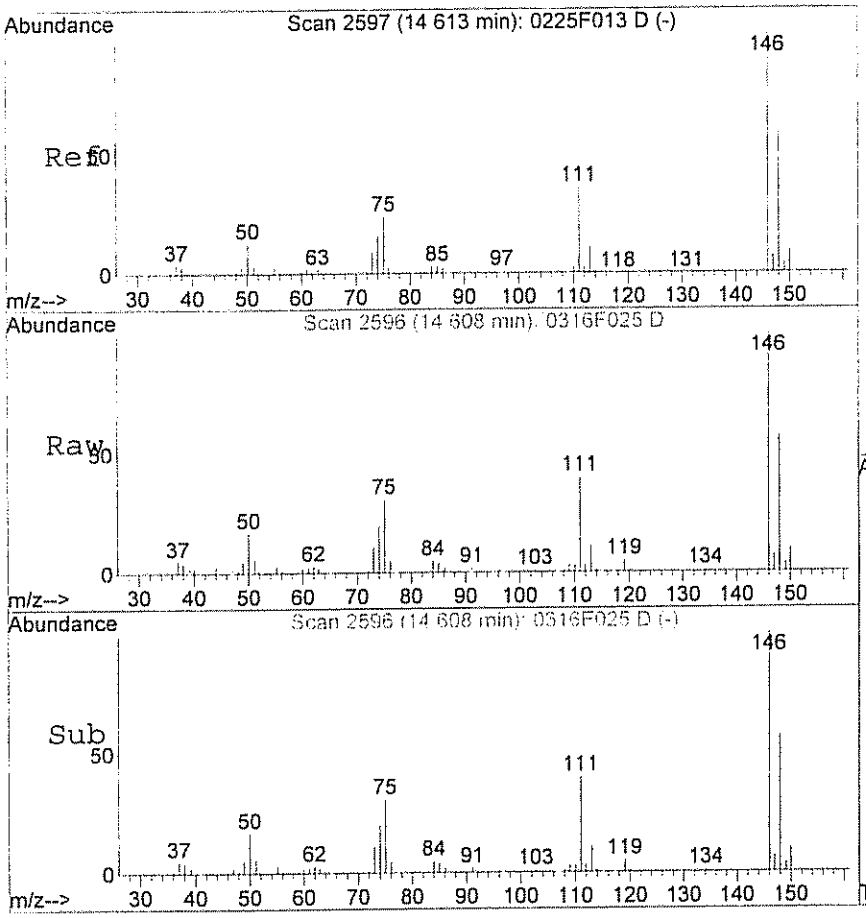


#92
p-Isopropyltoluene
Concen: 0.37 PPB
RT: 14.67 min Scan# 2608
Delta R.T. 0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:119 Resp: 19386

Ion	Ratio	Lower	Upper
119	100		
134	28.9	0.0	56.8
91	21.9	0.0	51.8

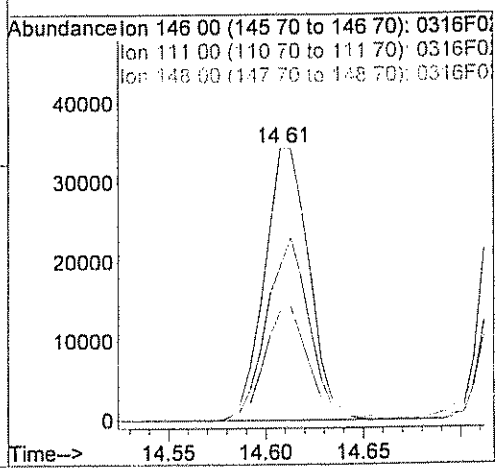


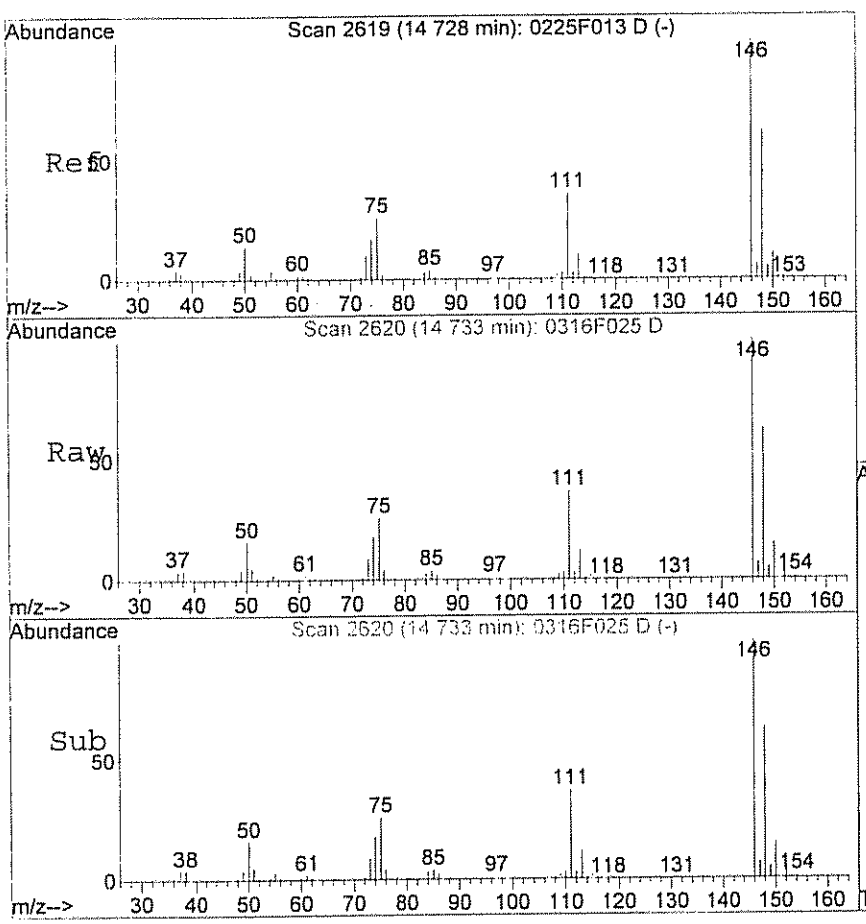


#93
1,3-Dichlorobenzene
Concen: 1.48 PPB
RT: 14.61 min Scan# 2596
Delta R.T. -0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:146 Resp: 54913

Ion	Ratio	Lower	Upper
146	100		
111	40.2	6.0	66.0
148	56.8	31.2	91.2

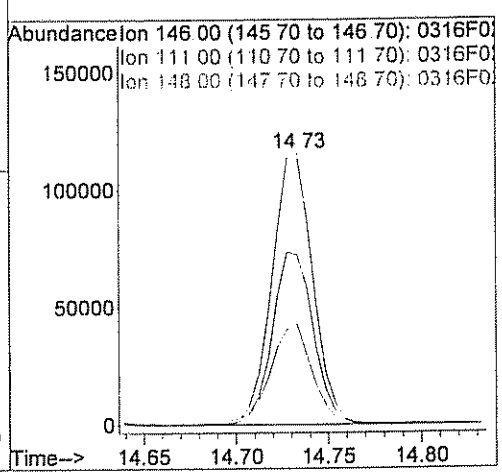


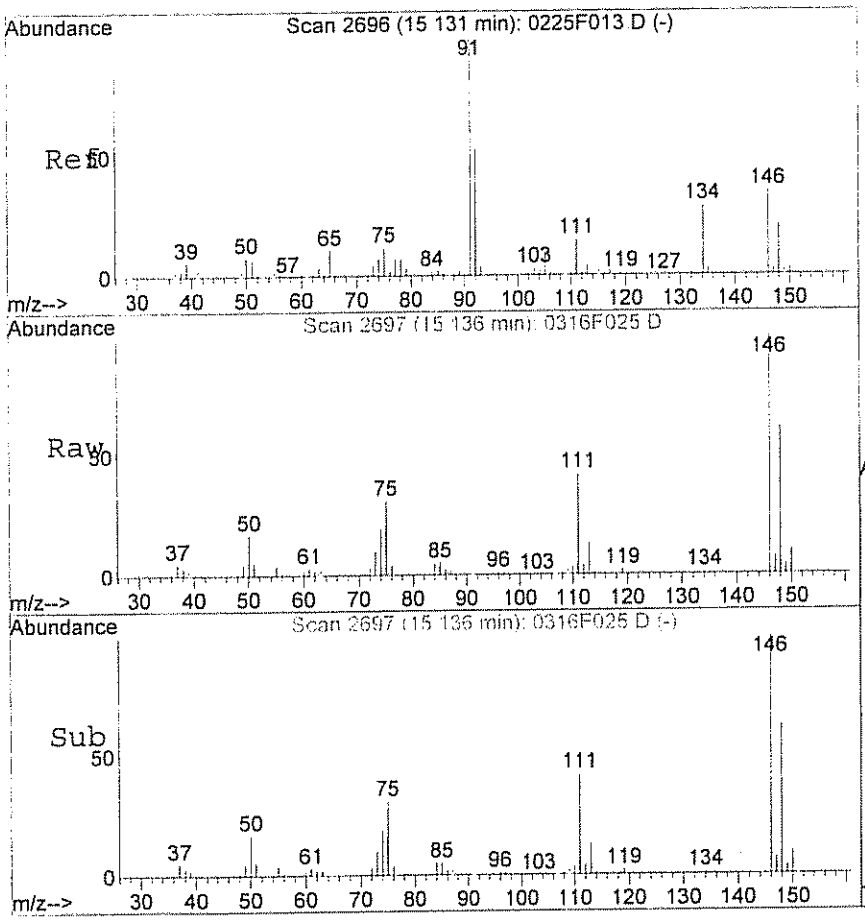


#94
1,4-Dichlorobenzene
Concen: 4.63 PPB
RT: 14.73 min Scan# 2620
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:146 Resp: 178104

Ion	Ratio	Lower	Upper
146	100		
111	37.2	5.8	65.8
148	62.6	31.7	91.7

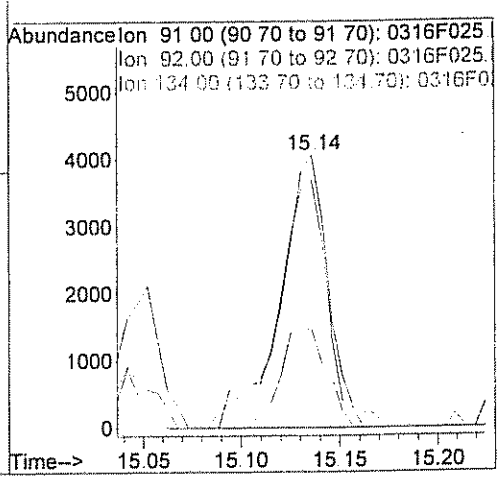


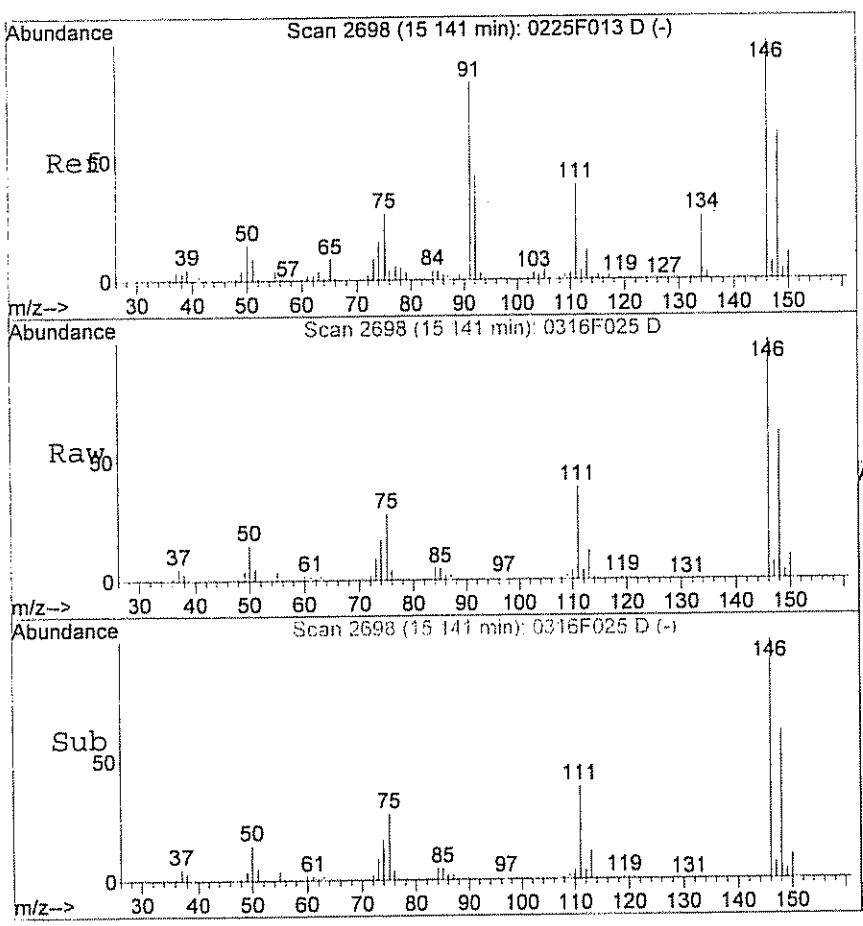


#95
n-Butylbenzene
Concen: 0.17 PPB
RT: 15.14 min Scan# 2697
Delta R.T. 0.01 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion: 91 Resp: 6902

Ion	Ratio	Lower	Upper
91	100		
92	35.6	23.0	83.0
134	90.8	0.0	59.5#

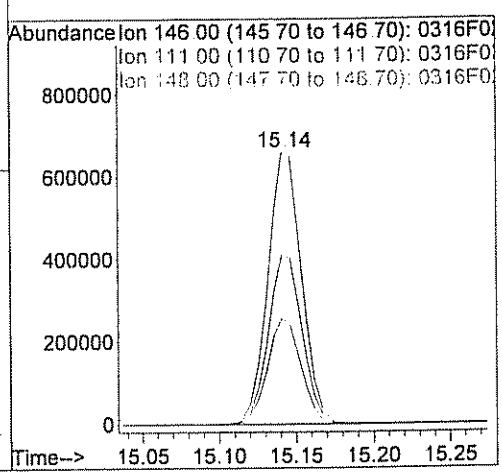


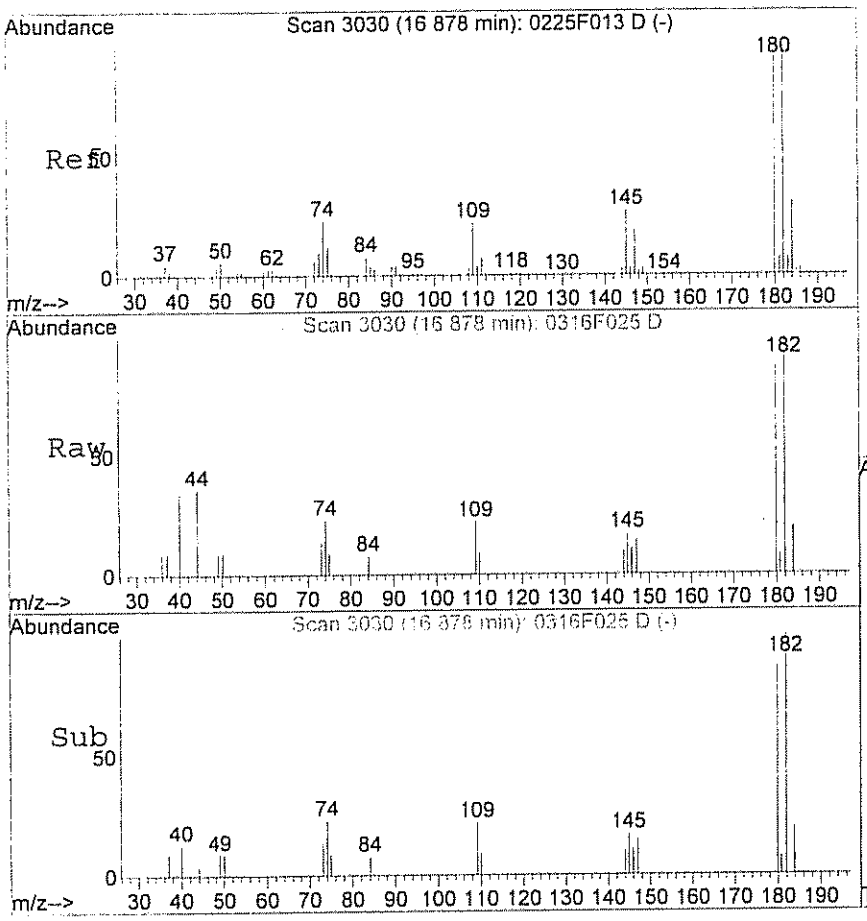


#96
1,2-Dichlorobenzene
Concen: 29.06 PPB
RT: 15.14 min Scan# 2698
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:146 Resp: 1005302

Ion	Ratio	Lower	Upper
146	100		
111	38.8	9.5	69.5
148	61.9	31.7	91.7

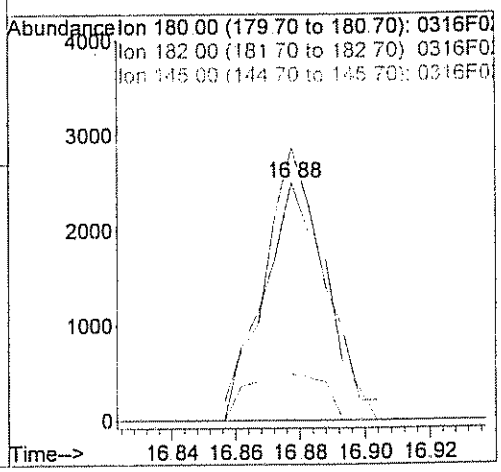




#99
1,2,4-Trichlorobenzene
Concen: 0.17 PPB
RT: 16.88 min Scan# 3030
Delta R.T. -0.00 min
Lab File: 0316F025.D
Acq: 17 Mar 2005 2:33 am

Tgt Ion:180 Resp: 3353

Ion	Ratio	Lower	Upper
180	100		
182	105.1	65.5	125.5
145	18.0	0.0	56.6



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDL
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F011.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	10	U	10	3.4	
74-87-3	Chloromethane	10	U	10	2.8	
75-01-4	**Vinyl Chloride**	**18**	D	10	4.3	
74-83-9	Bromomethane	10	U	10	4.4	
75-00-3	**Chloroethane**	**16**	D	10	4.6	
75-69-4	Trichlorofluoromethane	10	U	10	2.7	
67-64-1	Acetone	400	U	400	82	
75-35-4	1,1-Dichloroethene	10	U	10	2.5	
1634-04-4	Methyl tert-Butyl Ether	10	U	10	4.0	
75-15-0	Carbon Disulfide	10	U	10	3.2	
75-09-2	Methylene Chloride	40	U	40	3.9	
156-60-5	trans-1,2-Dichloroethene	10	U	10	2.9	
75-34-3	**1,1-Dichloroethane**	**35**	D	10	2.1	
78-93-3	2-Butanone (MEK)	400	U	400	39	
594-20-7	2,2-Dichloropropane	10	U	10	3.5	
156-59-2	**cis-1,2-Dichloroethene**	**47**	D	10	2.4	
67-66-3	**Chloroform**	**7.4**	JD	10	2.8	
74-97-5	Bromochloromethane	10	U	10	3.3	
71-55-6	**1,1,1-Trichloroethane (TCA)**	**200**	D	10	2.4	
563-58-6	1,1-Dichloropropene	10	U	10	3.0	
56-23-5	Carbon Tetrachloride	10	U	10	2.8	
107-06-2	1,2-Dichloroethane (EDC)	10	U	10	2.3	
71-43-2	Benzene	10	U	10	2.8	
79-01-6	**Trichloroethene (TCE)**	**61**	D	10	2.7	
78-87-5	1,2-Dichloropropane	10	U	10	2.8	
75-27-4	Bromodichloromethane	10	U	10	2.2	
74-95-3	Dibromomethane	10	U	10	2.4	
591-78-6	2-Hexanone	400	U	400	80	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDL
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F011.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	10	U	10	2.2	
108-88-3	**Toluene**	**5.4**	JD	10	2.2	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.8	
79-00-5	1,1,2-Trichloroethane	10	U	10	2.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	400	U	400	54	
142-28-9	1,3-Dichloropropane	10	U	10	3.0	
127-18-4	**Tetrachloroethene (PCE)**	**480**	D	10	2.6	
124-48-1	Dibromochloromethane	10	U	10	2.1	
106-93-4	1,2-Dibromoethane (EDB)	40	U	40	2.0	
108-90-7	Chlorobenzene	10	U	10	2.7	
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.3	
100-41-4	**Ethylbenzene**	**18**	D	10	2.6	
136777-61-2	**m,p-Xylenes**	**15**	D	10	4.4	
95-47-6	**o-Xylene**	**17**	D	10	2.1	
100-42-5	Styrene	10	U	10	1.9	
75-25-2	Bromoform	10	U	10	5.6	
98-82-8	Isopropylbenzene	40	U	40	2.1	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.8	
96-18-4	1,2,3-Trichloropropane	10	U	10	4.3	
108-86-1	Bromobenzene	40	U	40	3.5	
103-65-1	n-Propylbenzene	40	U	40	2.0	
95-49-8	2-Chlorotoluene	40	U	40	2.3	
106-43-4	4-Chlorotoluene	40	U	40	2.4	
108-67-8	1,3,5-Trimethylbenzene	40	U	40	2.5	
98-06-6	tert-Butylbenzene	40	U	40	2.5	
95-63-6	**1,2,4-Trimethylbenzene**	**4.0**	JD	40	2.9	
135-98-8	sec-Butylbenzene	40	U	40	2.6	
541-73-1	**1,3-Dichlorobenzene**	**3.4**	JD	10	2.1	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDL
Lab Code: K2501626-002
File ID: J:\MS13\DATA\031605\0316F011.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	40	U	40	2.6	
106-46-7	**1,4-Dichlorobenzene**	**11**	**D**	10	2.3	
104-51-8	n-Butylbenzene	40	U	40	4.5	
95-50-1	**1,2-Dichlorobenzene**	**59**	**D**	10	2.3	
96-12-8	1,2-Dibromo-3-chloropropane	40	U	40	20	
120-82-1	1,2,4-Trichlorobenzene	40	U	40	4.4	
87-61-6	1,2,3-Trichlorobenzene	40	U	40	6.6	
91-20-3	Naphthalene	40	U	40	5.7	
87-68-3	Hexachlorobutadiene	40	U	40	5.6	
994-05-8	tert-Amyl Methyl Ether	40	U	40	2.9	
637-92-3	tert-Butyl Ethyl Ether	40	U	40	1.5	
75-65-0	tert-Butyl Alcohol	400	U	400	21	*
108-20-3	Diisopropyl Ether	40	U	40	4.9	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	80-119	03/16/05	Acceptable
Toluene-d8	90	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	90	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F011 D
Lab ID: K2501626-002
RunType: DL
Matrix: WATER

Date Acquired: 03/16/2005 20:11
Date Quantitated: 03/18/2005 15:23
Batch ID: KWG0504384
Analysis Method: 8260B
ListJoinID: LJ5396

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

dilution for TCA and PCE.

Also see 2X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	
	Isobutyl Alcohol	0.0030	0.01	NA	
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	
	Isobutyl Alcohol	0.0027	0.01	NA	

Primary Review: KB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:08:50
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**	03/03/2005	**Receive Date:**	03/05/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	K2501626
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
		Prep Date:	03/16/2005		
Prep Ref:	369286				

Quant Method:	I:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	Volatile Organic Compounds	**Report List ID:**	LJ5396
Tune Ref:	I:\MS13\DATA\031605\0316F002.D	**Method ID:**	MJ119
MB Ref:	I:\MS13\DATA\031605\0316F009.D	**Quant based on Report List**	

Data File:	I:\MS13\DATA\031605\0316F011.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 20:11	**Quant Date:**	03/18/2005 15:23	**Vial:**	11
Run Type:	DL			**Dilution:**	20.0
Lab ID:	K2501626-002			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	595344	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	255216	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	255510	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	144859	9.83	98	80-119	OK	NR
1	Toluene-d8	8.60	0.00	0.00	98	586114	8.99	90	83-113	OK	NR
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	202504	8.98	90	72-114	OK	NR

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		3.4	U	NR
1	Chloromethane				50	0		2.8	U	NR
1	Vinyl Chloride	1.29		0.00	62	17591	0.9000	18	D	NR
1	Bromomethane				96	0		4.4	U	NR
1	Chloroethane	1.58		0.00	64	9117	0.7900	16	D	NR
1	Trichlorofluoromethane				101	0		2.7	U	NR
1	Ethyl Ether				59	0		10	U	NR
1	Acrolein				56	0		29	U	NR
1	Trichlorotrifluoroethane				151	0		2.7	U	NR
1	1,1-Dichloroethene	2.15		0.00	96	1321	0.1000	2.5	U	NR
1	Acetone	2.25		0.00	43	1816	0.8000	82	U	NR
1	Iodomethane				142	0		7.5	U	NR
1	Carbon Disulfide				76	0d		3.2	U	NR
1	3-Chloro-1-propene				76	0d		3.1	U	NR
1	Methylene Chloride	2.62		0.00	84	1836	0.1100	3.9	U	NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F011.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 20:11	**Quant Date:**	03/18/2005 15:23	**Vial:**	11
Run Type:	DL			**Dilution:**	20.0
Lab ID:	K2501626-002			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Acrylonitrile				53	0		11	U	NR
1	Methyl tert-Butyl Ether				73	0		4.0	U	NR
1	trans-1,2-Dichloroethene	2.83	-0.01	0.00	96	1263	0.0800	2.9	U	NR
1	n-Hexane				57	0d		3.6	U	NR
1	1,1-Dichloroethane	3.31		0.00	63	47998	1.74	35	D	NR
1	Vinyl Acetate				86	0		14	U	NR
1	Chloroprene				53	0		7.0	U	NR
1	2,2-Dichloropropane				77	0		3.5	U	NR
1	cis-1,2-Dichloroethene	4.00		0.00	96	39745	2.36	47	D	NR
1	2-Butanone (MEK)				72	0		39	U	NR
1	Propionitrile				54	0		26	U	NR
1	Methacrylonitrile				67	0		8.9	U	NR
1	Bromochloromethane				128	0		3.3	U	NR
1	Tetrahydrofuran				71	0		9.2	U	NR
1	Chloroform	4.42		0.00	83	9873	0.3700	7.4	JD	NR
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	204577	10.07	200	D	
1	Carbon Tetrachloride				117	0		2.8	U	NR
1	1,1-Dichloropropene				75	0		3.0	U	NR
1	Isobutyl Alcohol				43	0		110	U	NR
1	Benzene				78	0d		2.8	U	NR
1	1,2-Dichloroethane (EDC)				62	0		2.3	U	NR
1	Trichloroethene (TCE)	6.20		0.00	95	48325	3.06	61	D	NR
1	1,2-Dichloropropane				63	0		2.8	U	NR
1	Dibromomethane				93	0		2.4	U	NR
1	Methyl Methacrylate				69	0		7.1	U	NR
1	1,4-Dioxane				88	0		480	U	NR
1	Bromodichloromethane				83	0		2.2	U	NR
1	2-Chloroethyl Vinyl Ether				63	0		6.7	U	NR
1	cis-1,3-Dichloropropene				75	0		2.2	U	NR
1	4-Methyl-2-pentanone (MIBK)				58	0d		54	U	NR
1	Toluene	8.74	-0.01	0.00	92	11181	0.2700	5.4	JD	NR
2	n-Octane				85	0		5.8	U	NR
2	trans-1,3-Dichloropropene				75	0		1.8	U	NR
2	1,1,2-Trichloroethane				83	0d		2.8	U	NR
2	Tetrachloroethene (PCE)	9.97		0.00	164	341572	23.84	480	D	
2	2-Hexanone				57	0		80	U	NR
2	1,3-Dichloropropane				76	0		3.0	U	NR
2	Dibromochloromethane				129	0		2.1	U	NR
2	1,2-Dibromoethane (EDB)				107	0		2.0	U	NR
2	Chlorobenzene				112	0d		2.7	U	NR
2	Ethylbenzene	11.81		0.00	106	20865	0.9000	18	D	NR
2	1,1,1,2-Tetrachloroethane				131	0		2.3	U	NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	I:\MS13\DATA\031605\0316F011 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 20:11	**Quant Date:**	03/18/2005 15:23	**Vial:**	11
Run Type:	DL			**Dilution:**	20 0
Lab ID:	K2501626-002			**Soln Conc. Units:**	PPB

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	m,p-Xylenes	12.01		0 00	106	21012	0.7300	15	D	NR
2	o-Xylene	12.57		0 00	106	22961	0.8600	17	D	NR
2	Styrene				103	0d		1 9	U	NR
2	Bromoform				173	0		5 6	U	NR
2	Isopropylbenzene				105	0d		2.1	U	NR
2	cis-1.4-Dichloro-2-butene				89	0		12	U	NR
3	1,1,2,2-Tetrachloroethane				83	0		2 8	U	NR
3	trans-1,4-Dichloro-2-butene				53	0		12	U	NR
3	Bromobenzene				156	0		3 5	U	NR
3	n-Propylbenzene	13 61		0 00	91	3951	0 0600	2.0	U	NR
3	1,2,3-Trichloropropane				110	0		4 3	U	NR
3	2-Chlorotoluene				91	0		2.3	U	NR
3	1,3.5-Trimethylbenzene	13 86		0.00	105	4568	0 1000	2.5	U	NR
3	4-Chlorotoluene				91	0d		2.4	U	NR
3	tert-Butylbenzene				119	0d		2 5	U	NR
3	1,2.4-Trimethylbenzene	14 30		0 00	105	10169	0 2000	4 0	JD	NR
3	sec-Butylbenzene				105	0d		2 6	U	NR
3	4-Isopropyltoluene				119	0d		2.6	U	NR
3	1,3-Dichlorobenzene	14 61		0 00	146	5791	0 1700	3 4	JD	NR
3	1,4-Dichlorobenzene	14 73		0 00	146	18763	0 5300	11	D	NR
3	n-Butylbenzene				91	0d		4 5	U	NR
3	1,2-Dichlorobenzene	15 14		0 00	146	94906	2.96	59	D	NR
3	1,2-Dibromo-3-chloropropane				155	0		20	U	NR
3	1,2.4-Trichlorobenzene				180	0d		4 4	U	NR
3	Hexachlorobutadiene				225	0d		5.6	U	NR
3	Naphthalene				128	0d		5.7	U	NR
3	1.2.3-Trichlorobenzene				180	0		6.6	U	NR

Prep Amount:	10 ml	**Dilution:**	20 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

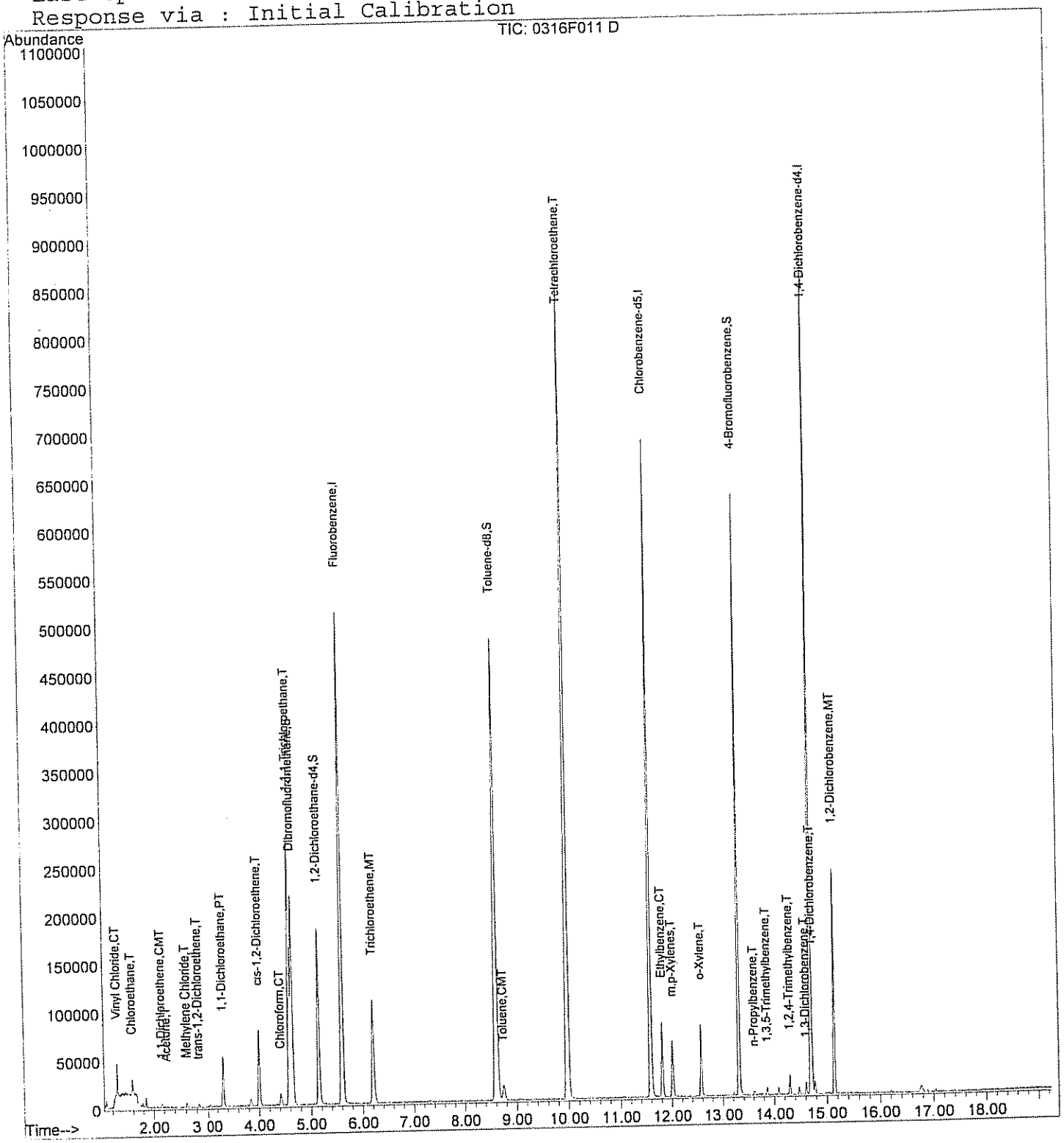
Quantitation Report (QT Reviewed)

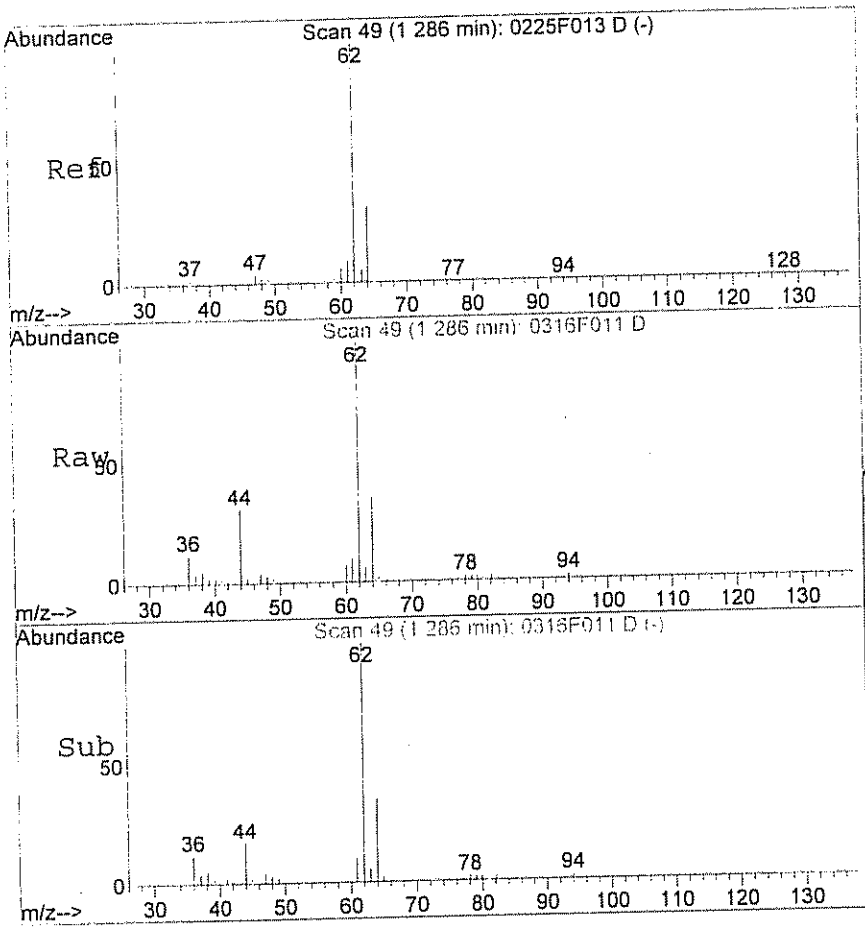
Data File : J:\MS13\DATA\031605\0316F011.D
Acq On : 16 Mar 2005 8:11 pm
Sample : K2501626-002DIL 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:23 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration

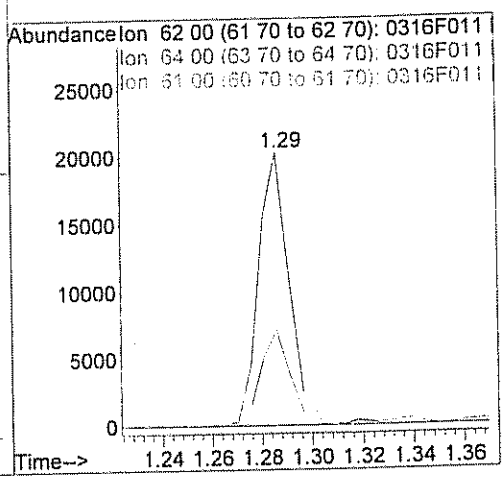


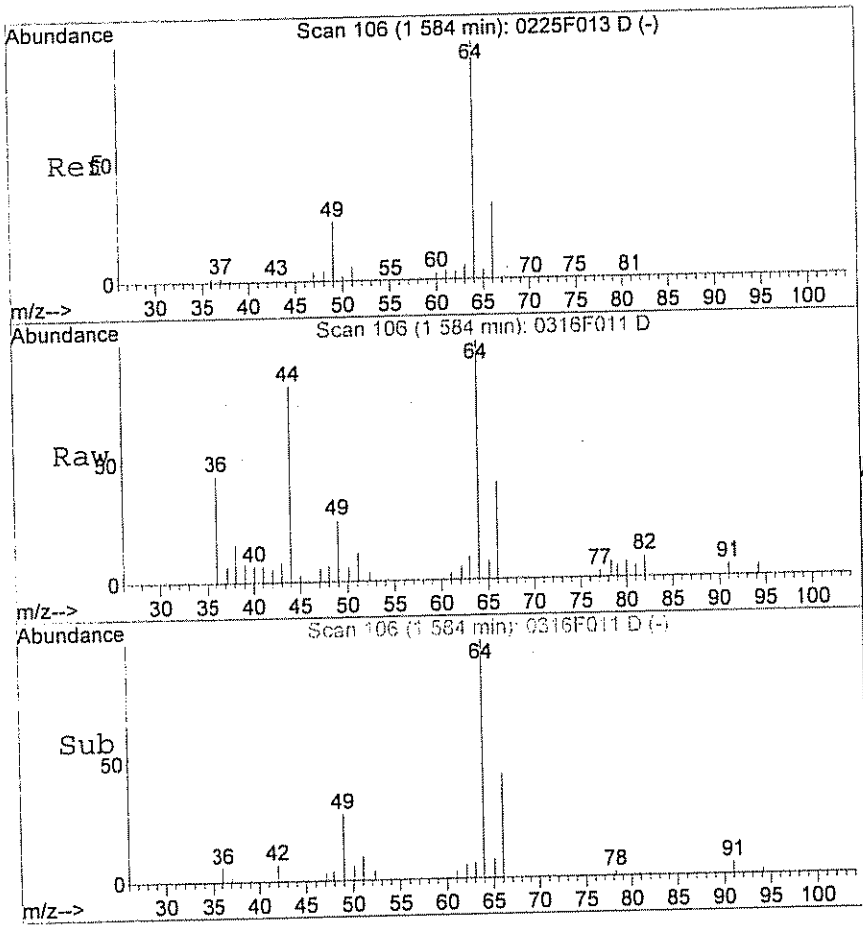


#4
Vinyl Chloride
Concen: 0.90 PPB
RT: 1.29 min Scan# 49
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 62 Resp: 17591

Ion	Ratio	Lower	Upper
62	100		
64	35.1	1.9	61.9
61	9.9	0.0	38.5

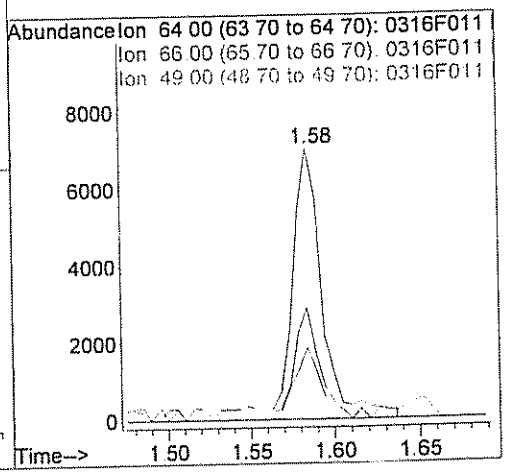


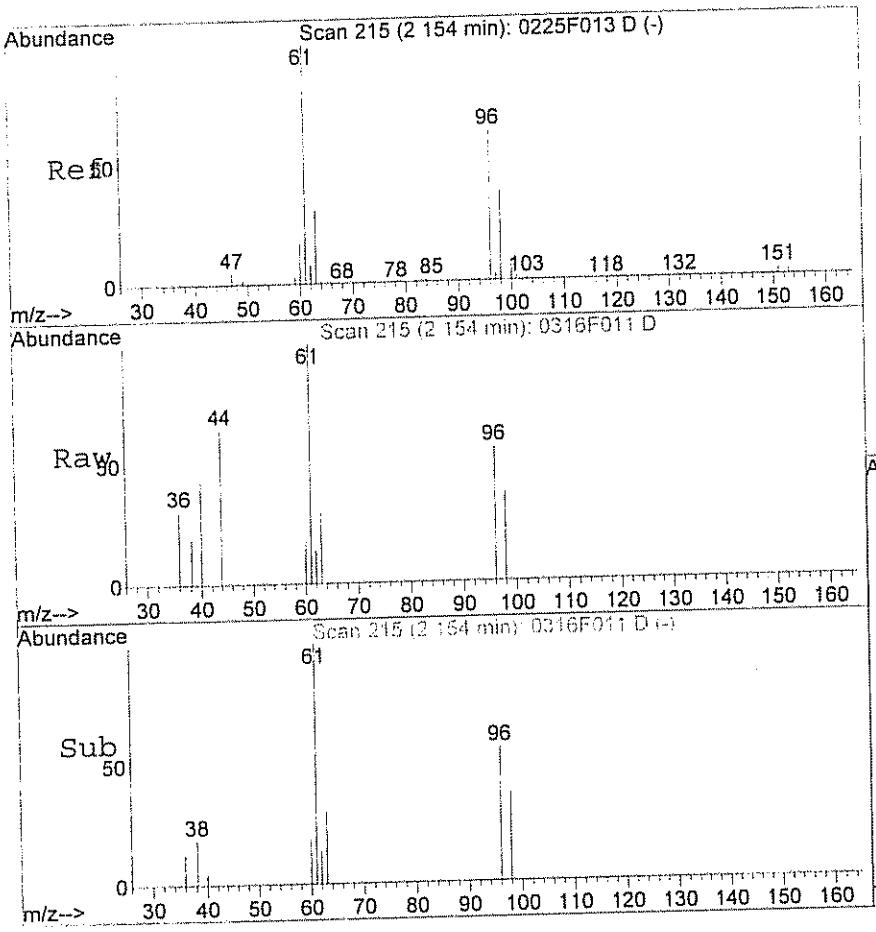


#6
Chloroethane
Concen: 0.79 PPB
RT: 1.58 min Scan# 106
Delta R.T. 0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 64 Resp: 9117

Ion	Ratio	Lower	Upper
64	100		
66	40.9	2.0	62.0
49	26.3	0.0	55.2

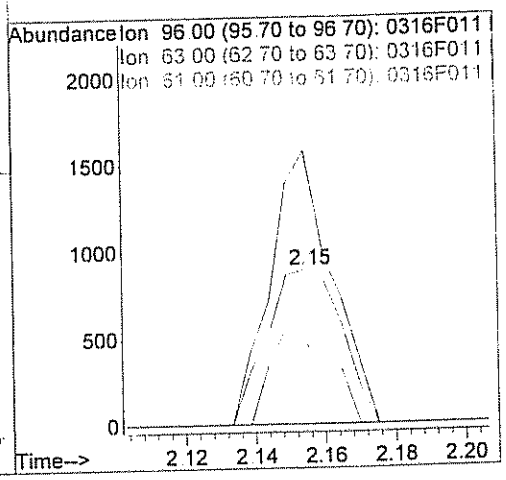


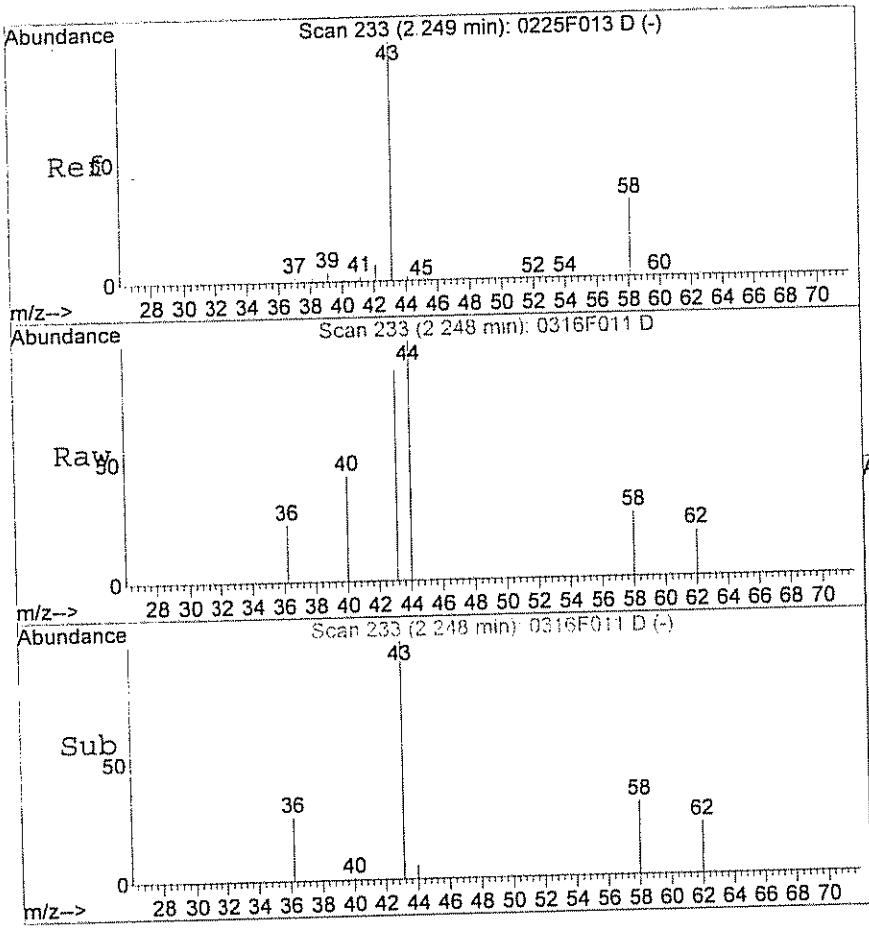


#12
1,1-Dichloroethene
Concen: 0.10 PPB
RT: 2.15 min Scan# 215
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 96 Resp: 1321

Ion	Ratio	Lower	Upper
96	100		
63	54.1	19.1	79.1
61	177.4	127.6	187.6

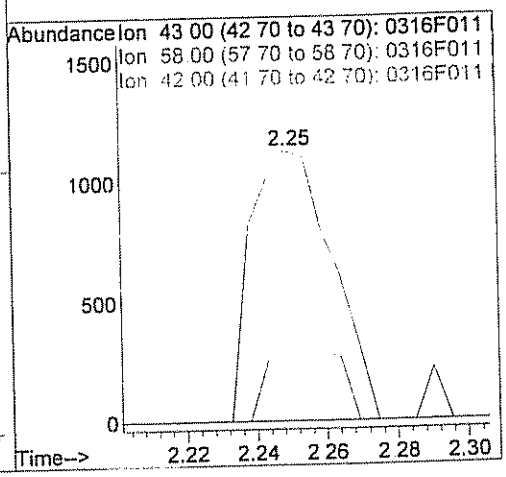


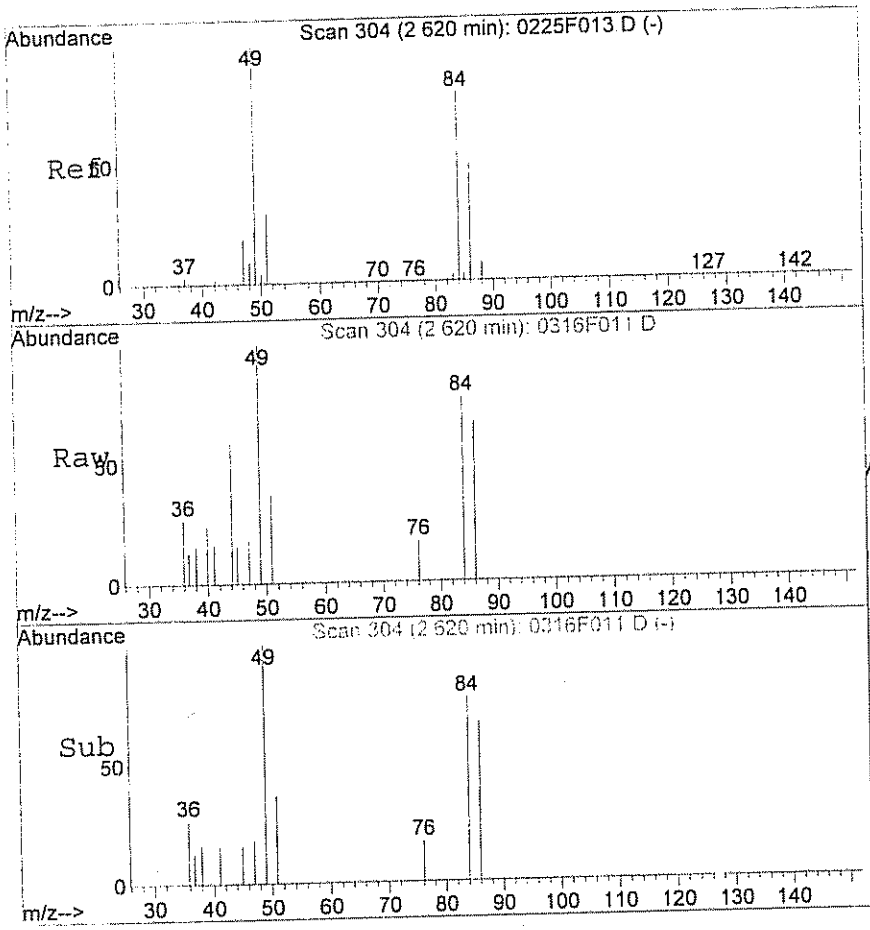


#13
Acetone
Concen: 0.80 PPB
RT: 2.25 min Scan# 233
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 43 Resp: 1816

Ion	Ratio	Lower	Upper
43	100		
58	30.6	2.0	62.0
42	0.0	0.0	37.4

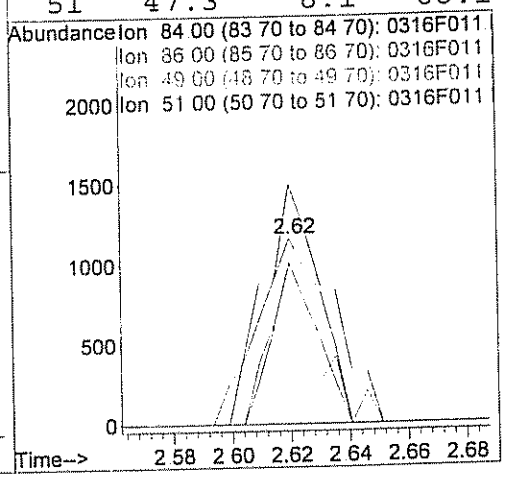


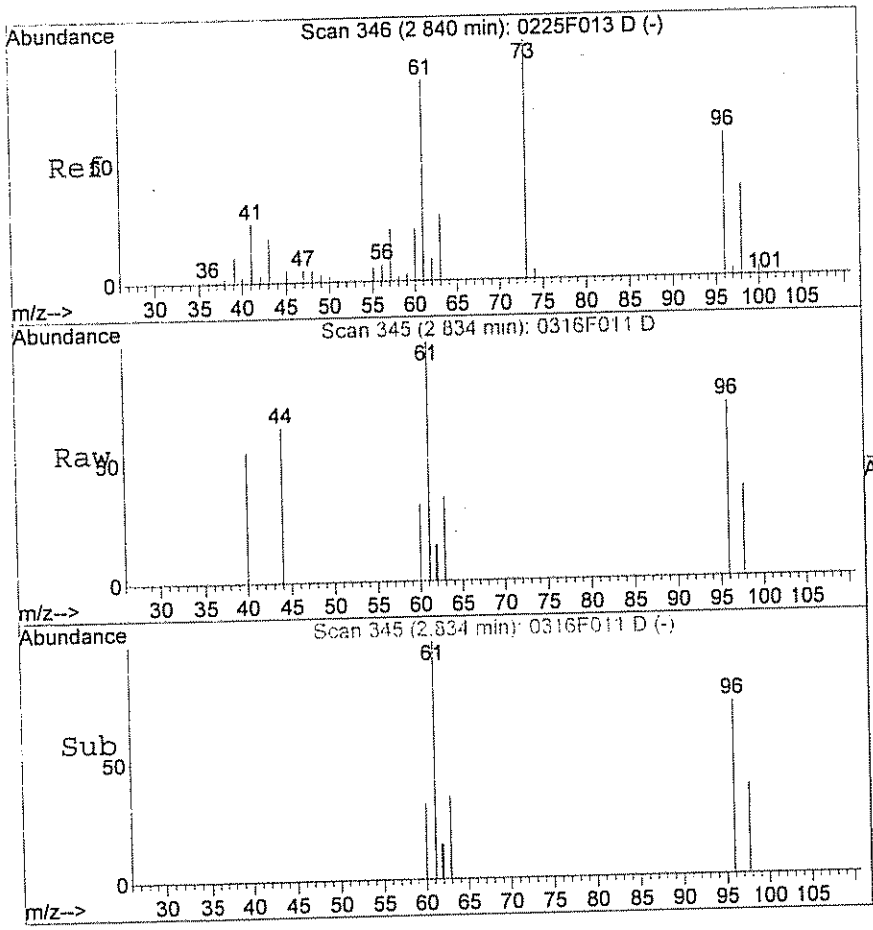


#18
Methylene Chloride
Concen: 0.11 PPB
RT: 2.62 min Scan# 304
Delta R.T. 0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 84 Resp: 1836

Ion	Ratio	Lower	Upper
84	100		
86	86.9	35.9	95.9
49	129.0	96.0	156.0
51	47.3	8.1	68.1

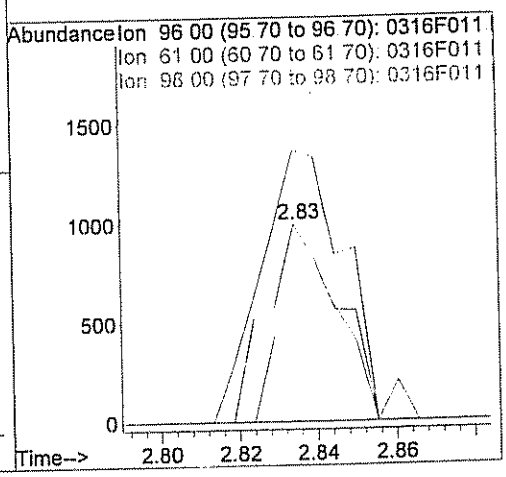


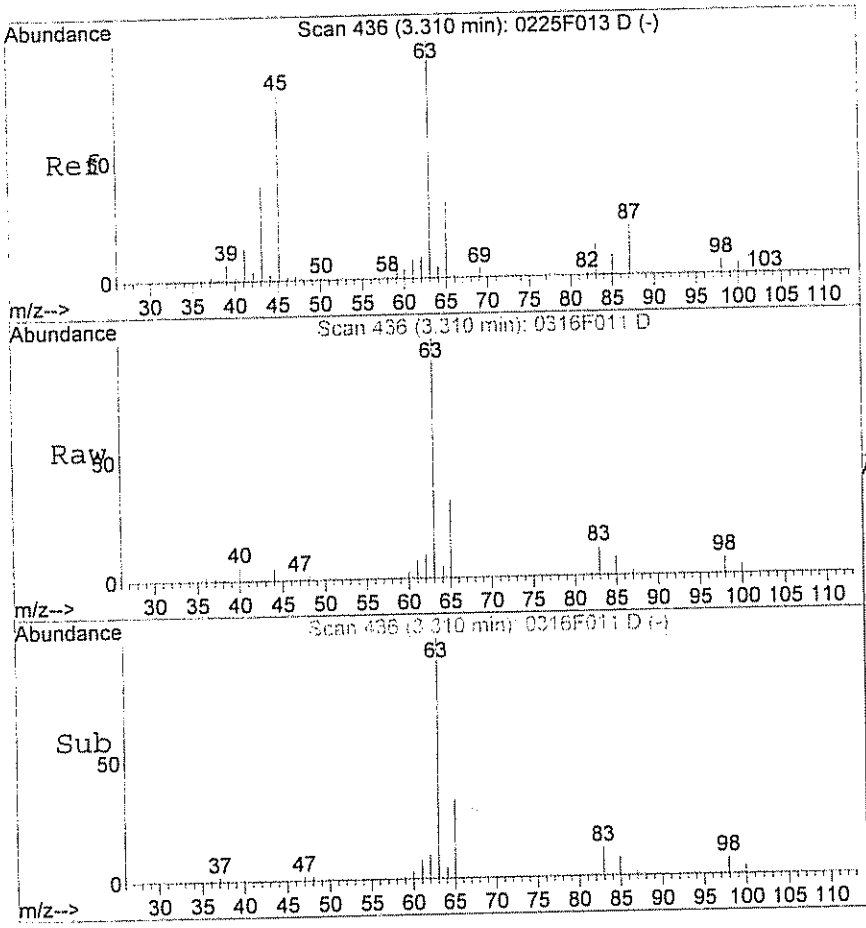


#22
trans-1,2-Dichloroethene
Concen: 0.08 PPB
RT: 2.83 min Scan# 345
Delta R.T. -0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 96 Resp: 1263

Ion	Ratio	Lower	Upper
96	100		
61	137.2	110.6	170.6
98	52.8	33.9	93.9

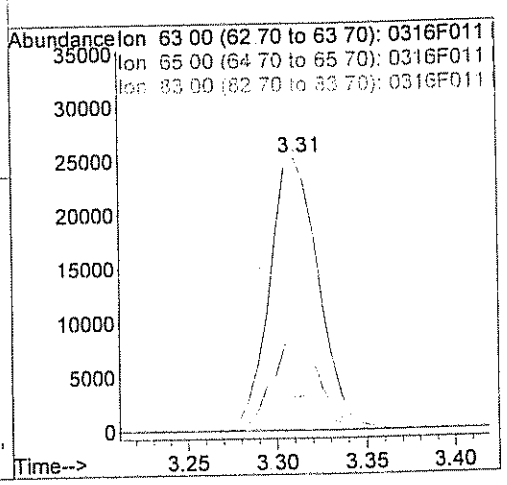


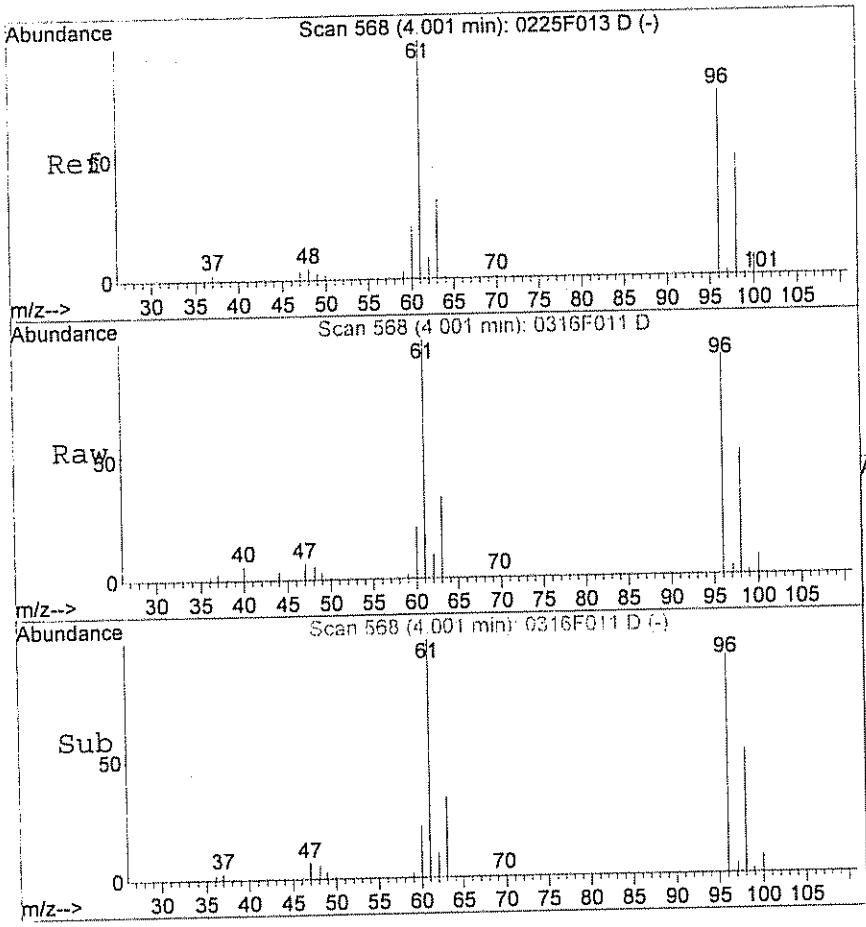


#25
1,1-Dichloroethane
Concen: 1.74 PPB
RT: 3.31 min Scan# 436
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 63 Resp: 47998

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.7	61.7
83	12.1	0.0	42.8

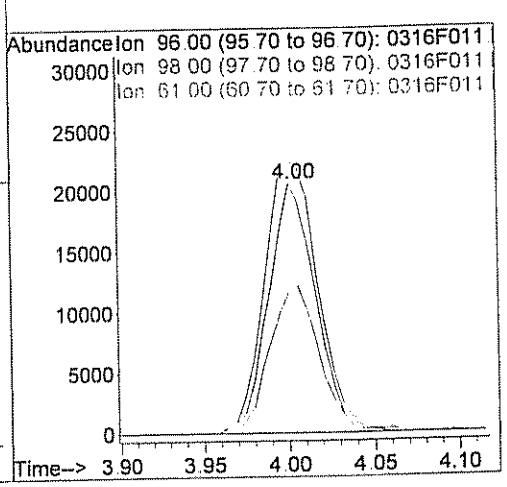


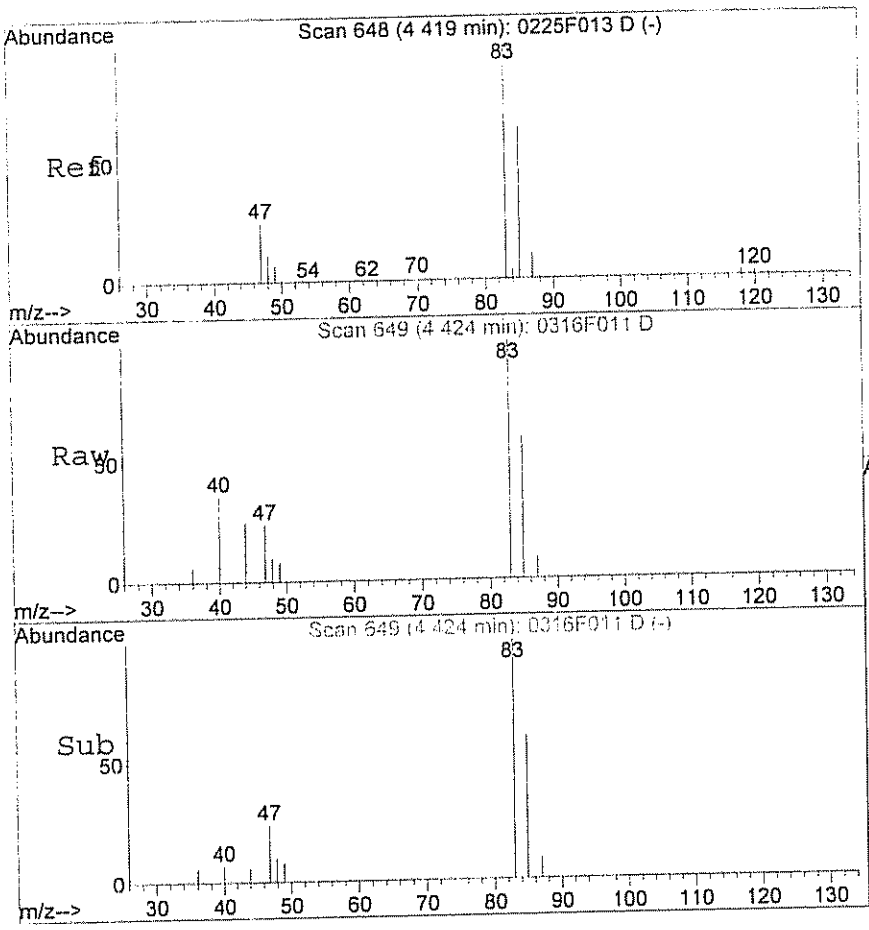


#30
cis-1,2-Dichloroethene
Concen: 2.36 PPB
RT: 4.00 min Scan# 568
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 96 Resp: 39745

Ion	Ratio	Lower	Upper
96	100		
98	57.0	34.6	94.6
61	108.9	100.4	160.4

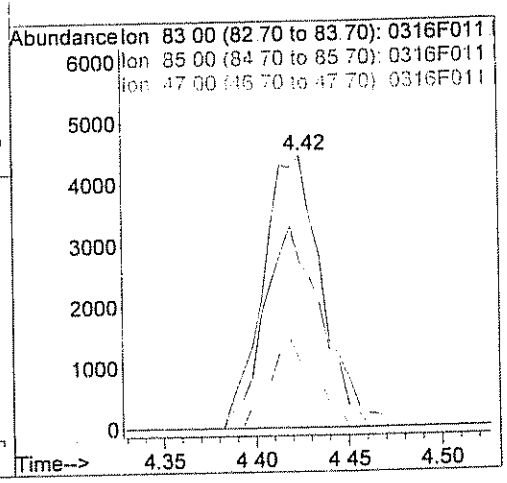


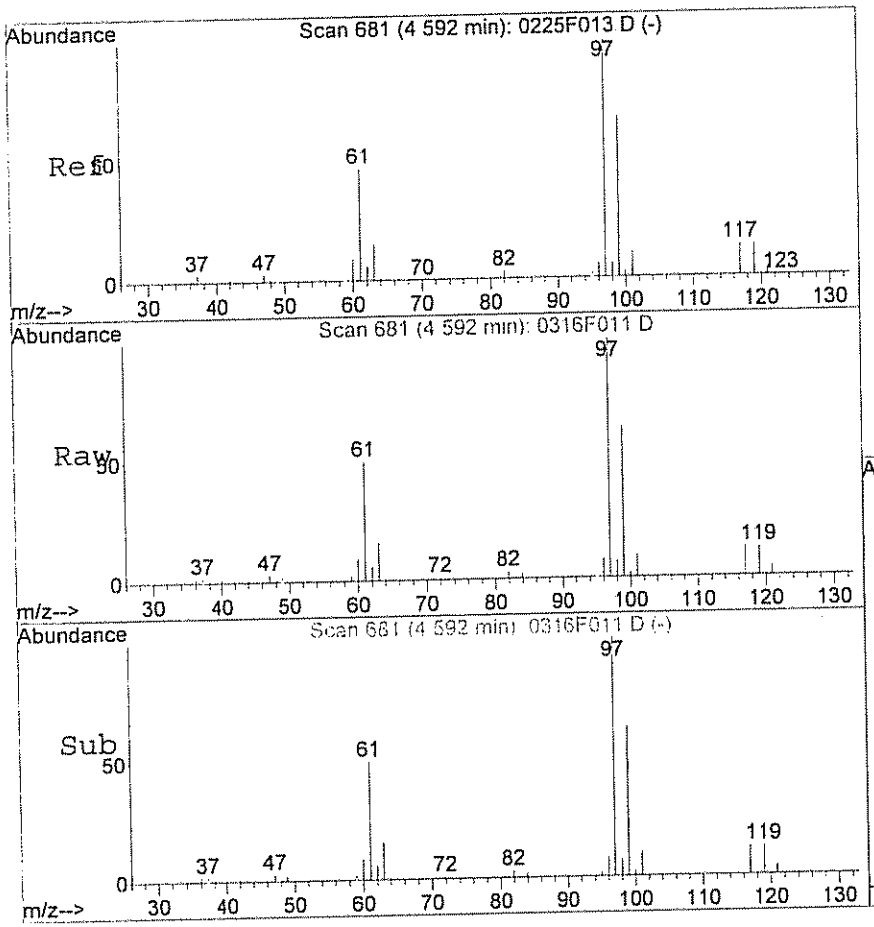


#37
Chloroform
Concen: 0.37 PPB
RT: 4.42 min Scan# 649
Delta R.T. 0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 83 Resp: 9873

Ion	Ratio	Lower	Upper
83	100		
85	60.4	34.4	94.4
47	24.0	0.0	54.5

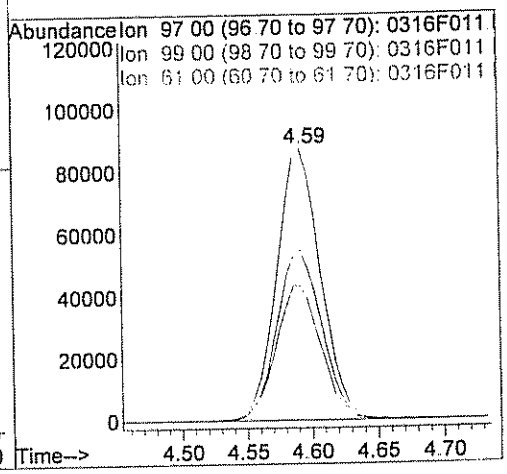


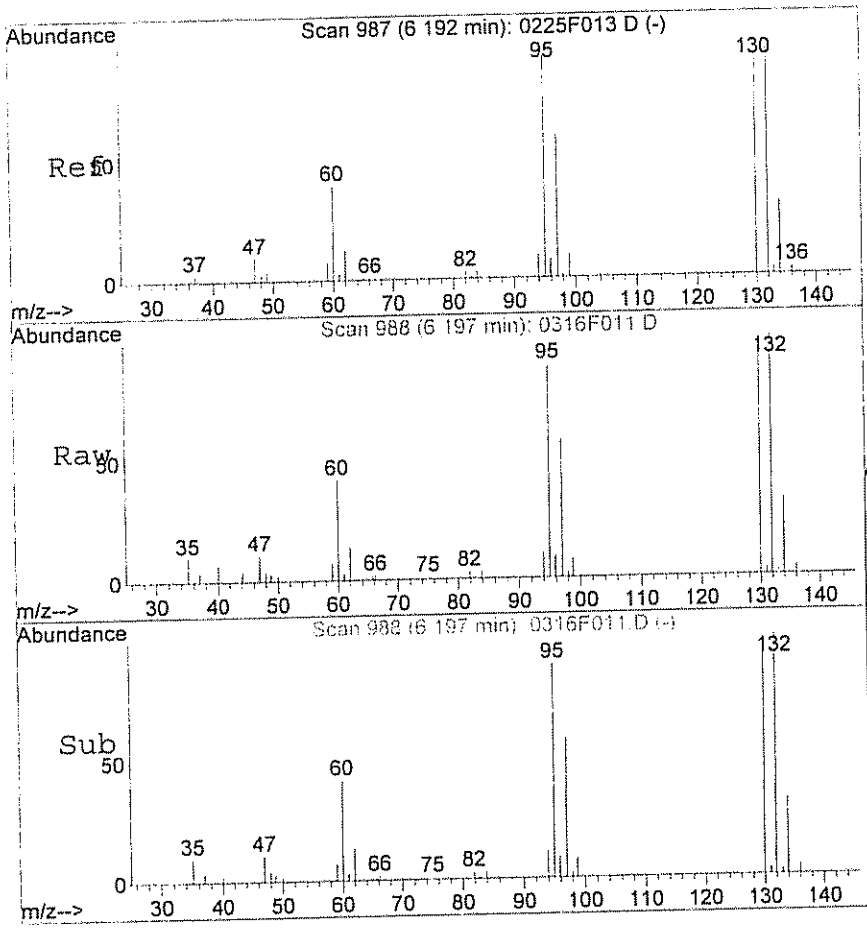


#38
1,1,1-Trichloroethane
Concen: 10.07 PPB
RT: 4.59 min Scan# 681
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 97 Resp: 204577

Ion	Ratio	Lower	Upper
97	100		
99	62.8	37.0	97.0
61	49.6	17.3	77.3

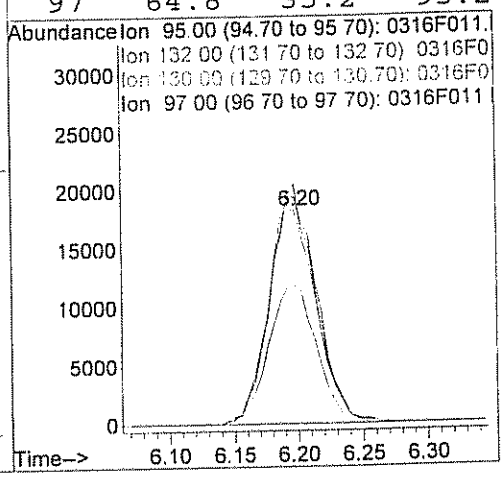


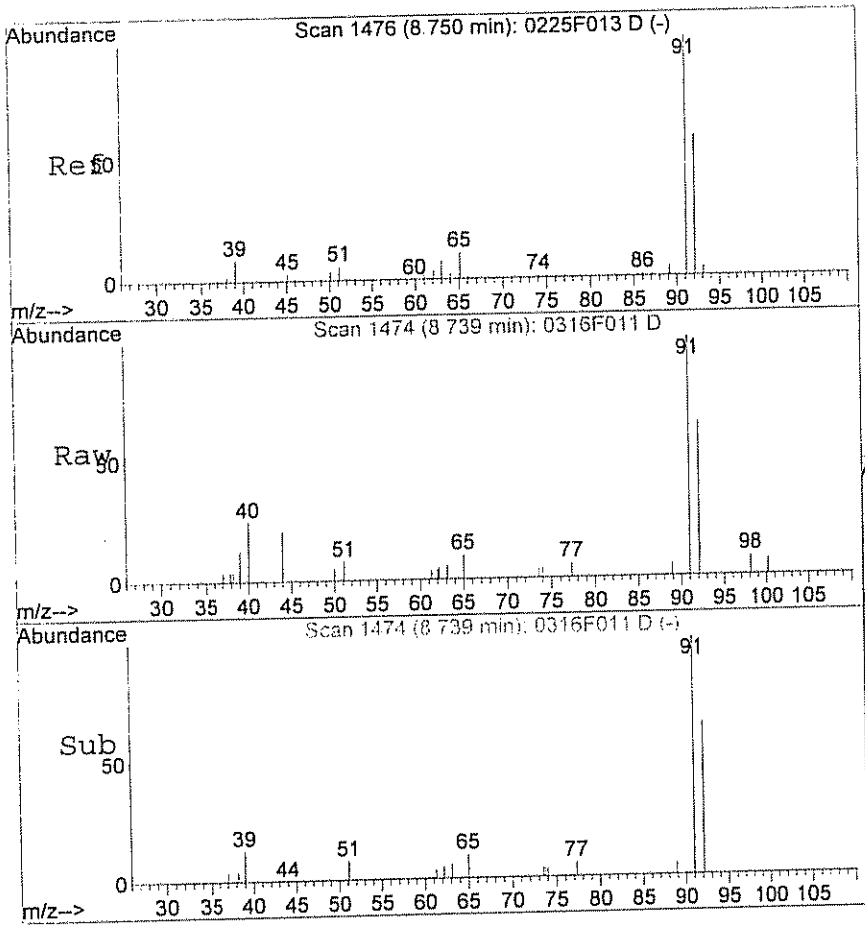


#47
Trichloroethene
Concen: 3.06 PPB
RT: 6.20 min Scan# 988
Delta R.T. 0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 95 Resp: 48325

Ion	Ratio	Lower	Upper
95	100		
132	112.5	71.9	131.9
130	106.4	77.0	137.0
97	64.8	35.2	95.2

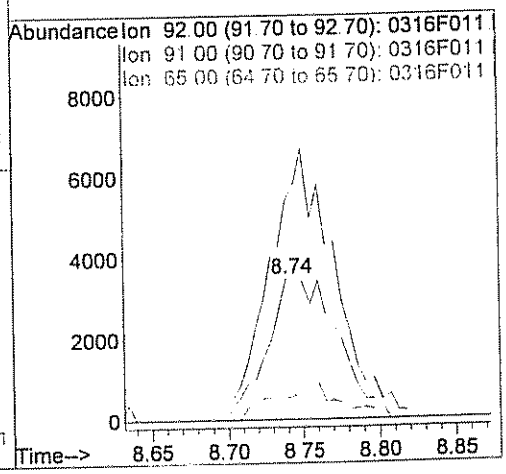


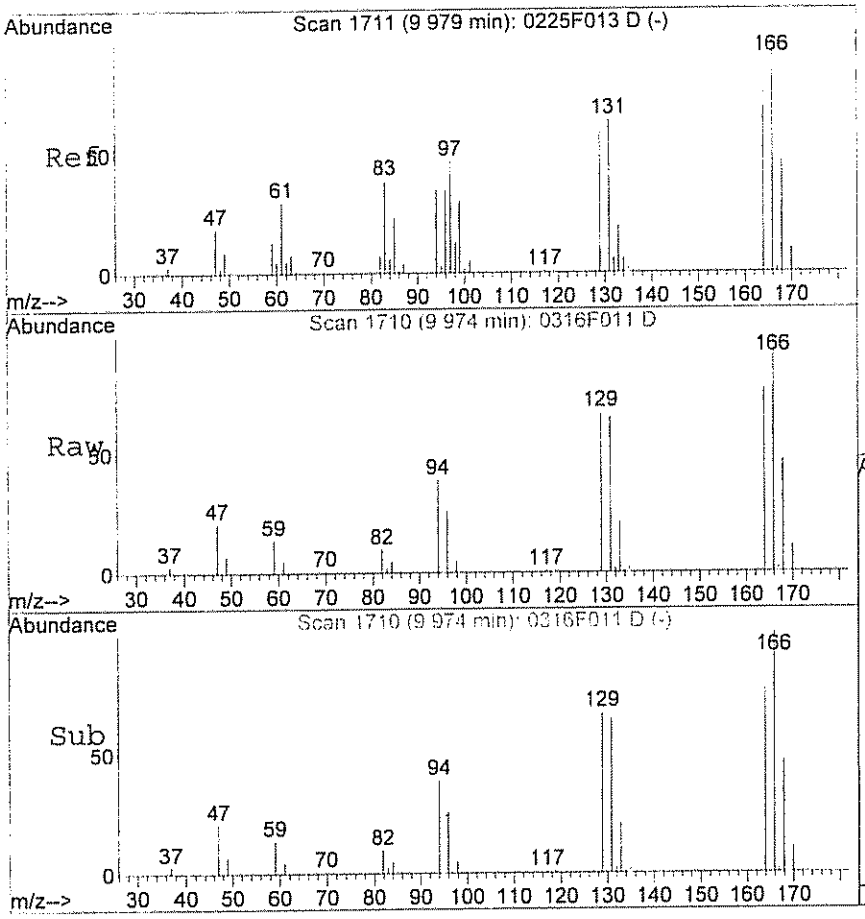


#58
Toluene
Concen: 0.27 PPB
RT: 8.74 min Scan# 1474
Delta R.T. -0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 92 Resp: 11181

Ion	Ratio	Lower	Upper
92	100		
91	149.7	140.8	200.8
65	15.2	0.0	48.7

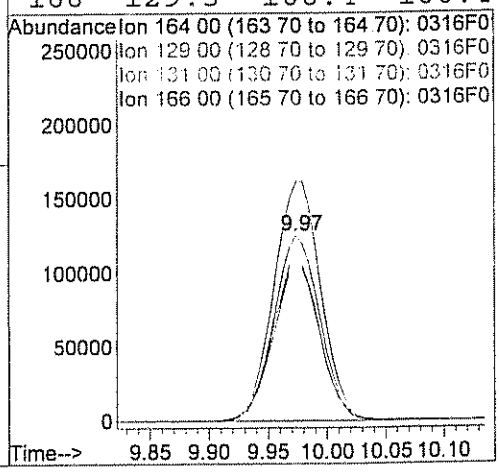


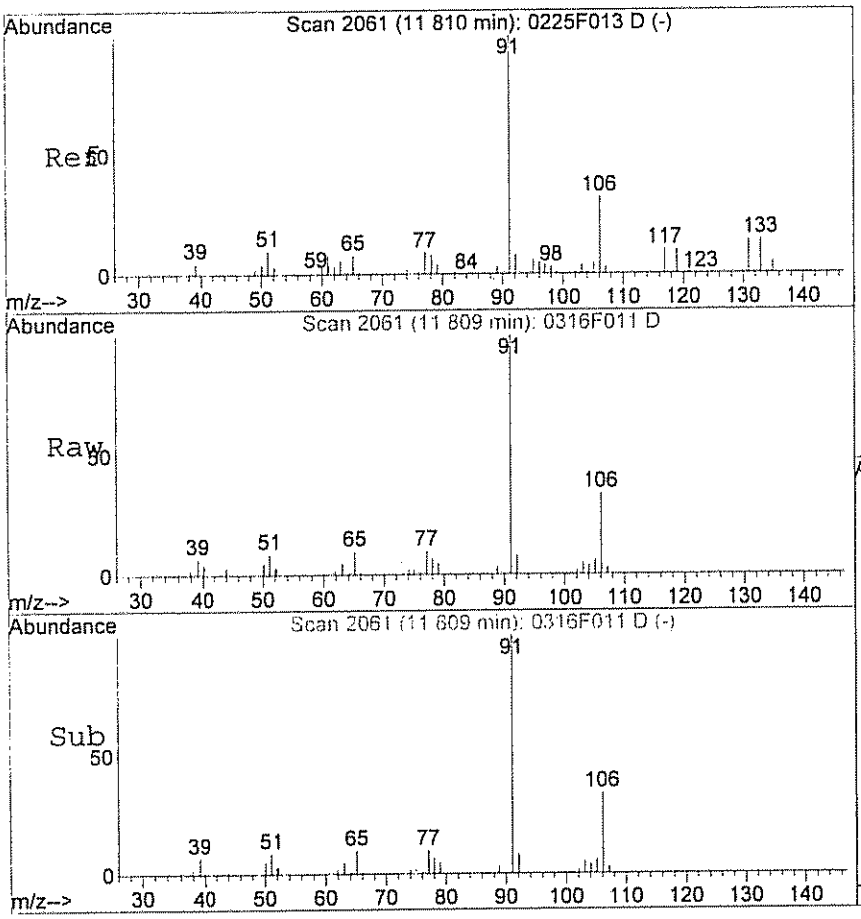


#64
Tetrachloroethene
Concen: 23.84 PPB
RT: 9.97 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:164 Resp: 341572

Ion	Ratio	Lower	Upper
164	100		
129	86.5	52.1	112.1
131	83.8	52.9	112.9
166	129.3	100.4	160.4

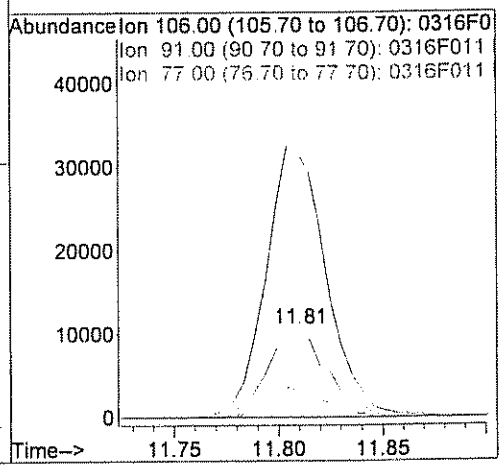


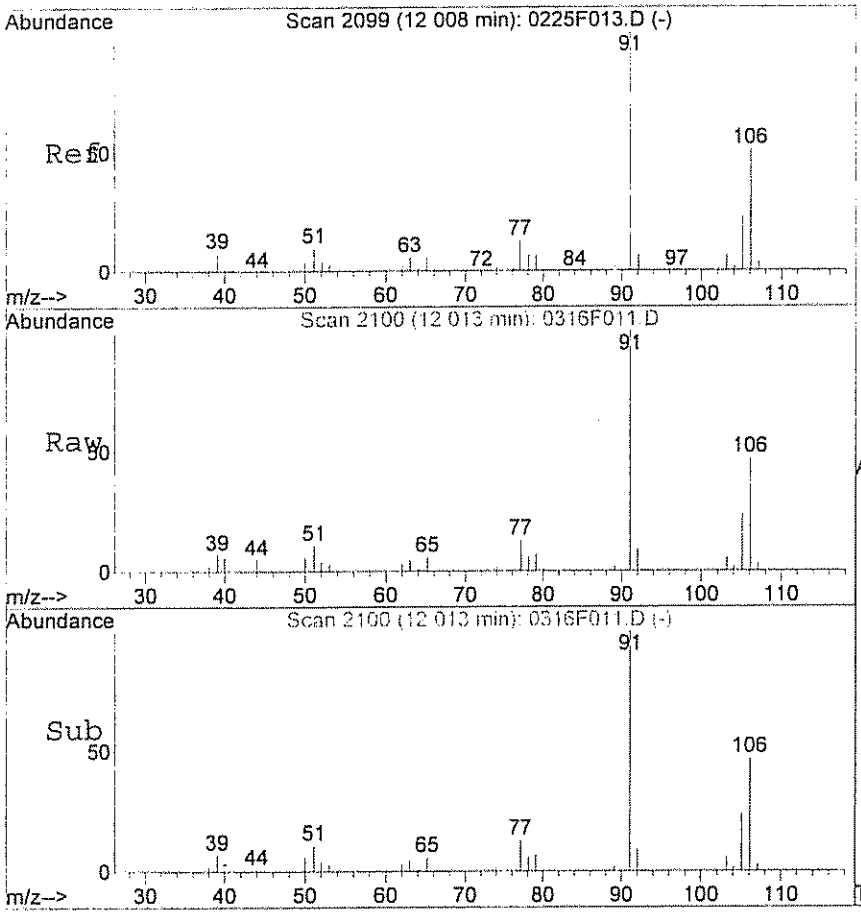


#71
Ethylbenzene
Concen: 0.90 PPB
RT: 11.81 min Scan# 2061
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:106 Resp: 20865

Ion	Ratio	Lower	Upper
106	100		
91	296.1	283.9	343.9
77	29.7	0.0	57.4

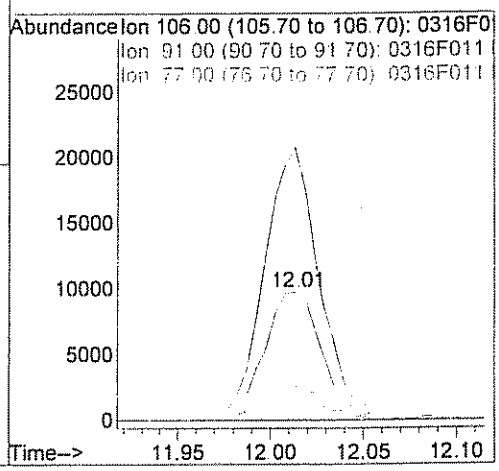


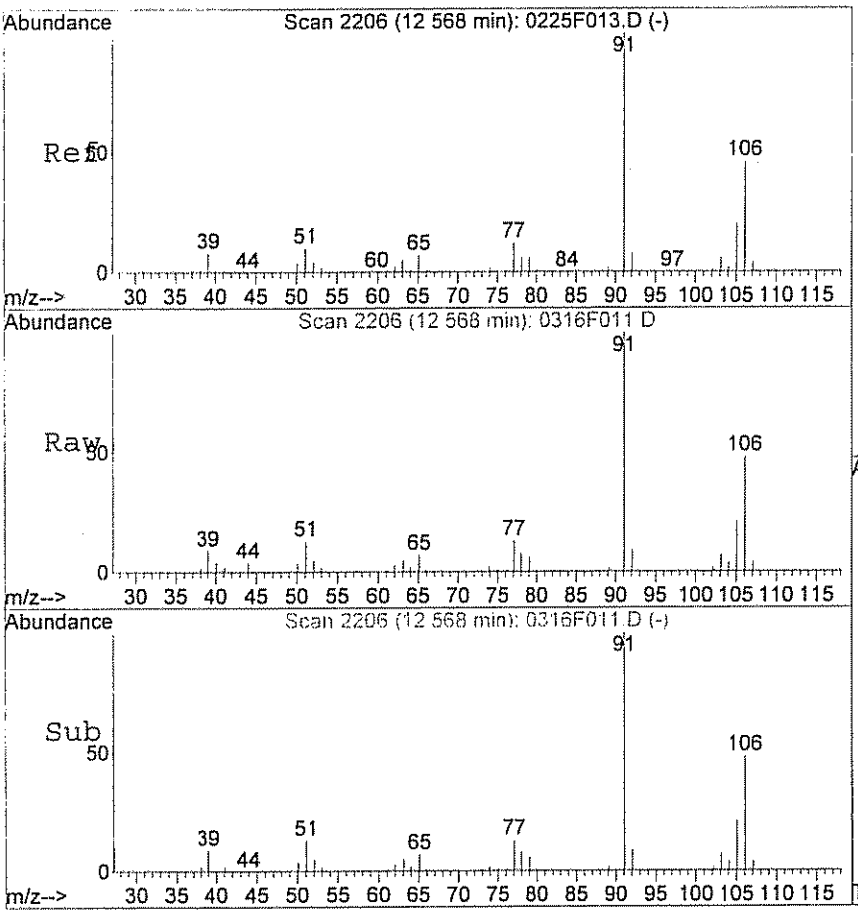


#73
m,p-Xylenes
Concen: 0.73 PPB
RT: 12.01 min Scan# 2100
Delta R.T. 0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:106 Resp: 21012

Ion	Ratio	Lower	Upper
106	100		
91	213.2	166.4	226.4
77	27.0	0.0	55.1

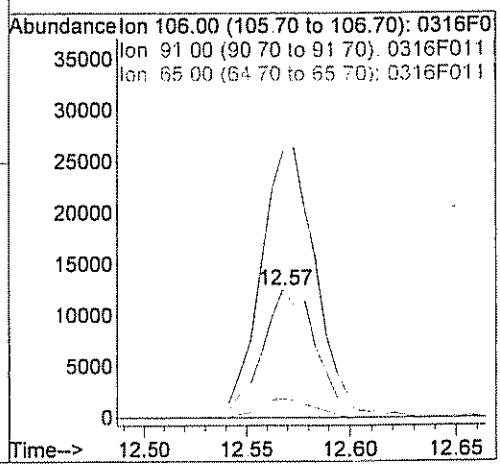


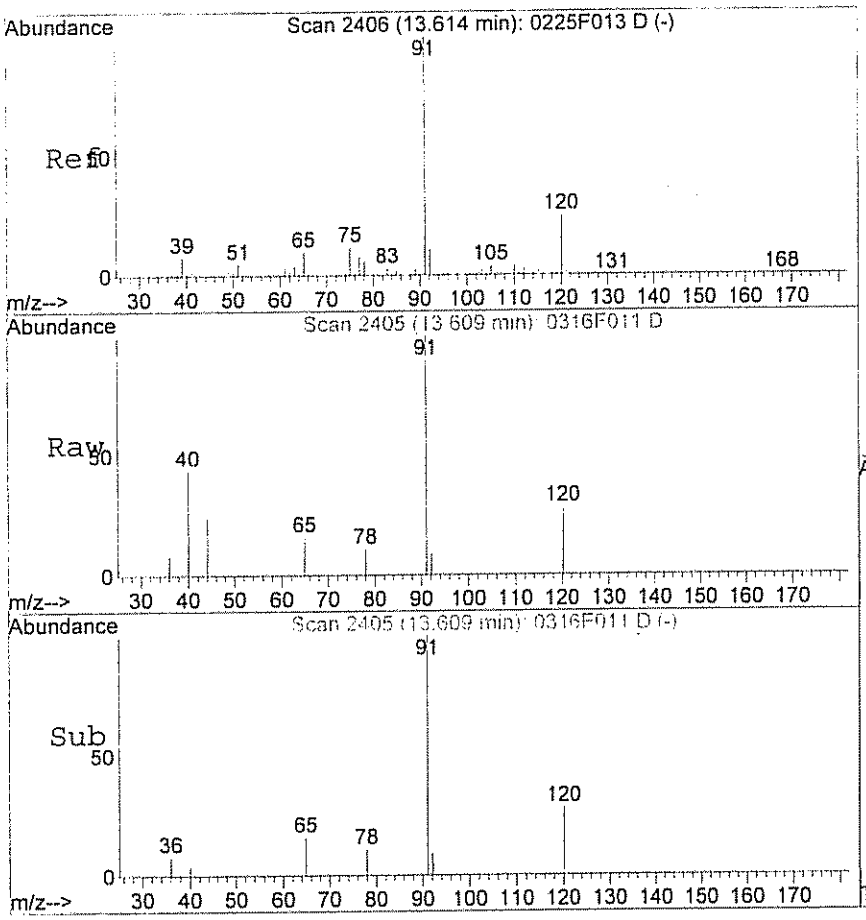


#74
o-Xylene
Concen: 0.86 PPB
RT: 12.57 min Scan# 2206
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:106 Resp: 22961

Ion	Ratio	Lower	Upper
106	100		
91	207.6	185.4	245.4
65	14.6	0.0	45.0

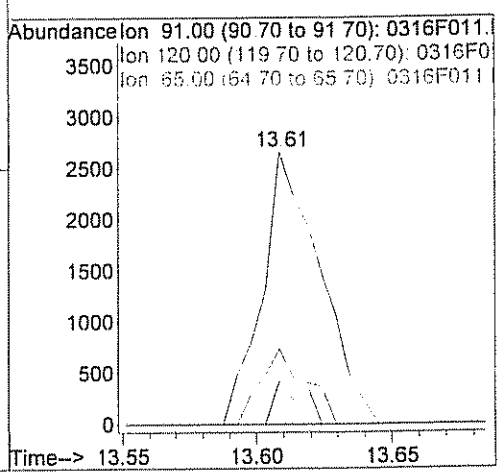


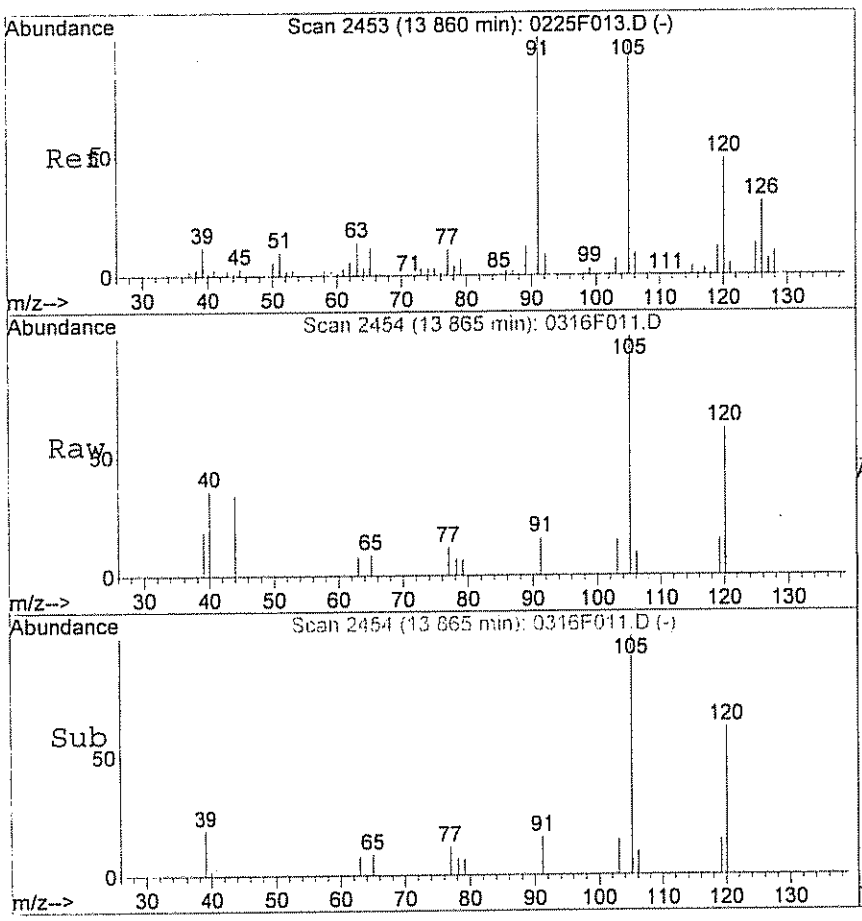


#84
n-Propylbenzene
Concen: 0.06 PPB
RT: 13.61 min Scan# 2405
Delta R.T. -0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion: 91 Resp: 3951

Ion	Ratio	Lower	Upper
91	100		
120	27.5	0.0	54.7
65	15.6	0.0	40.1

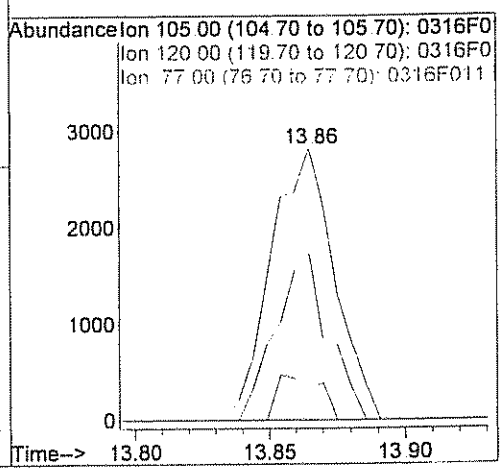


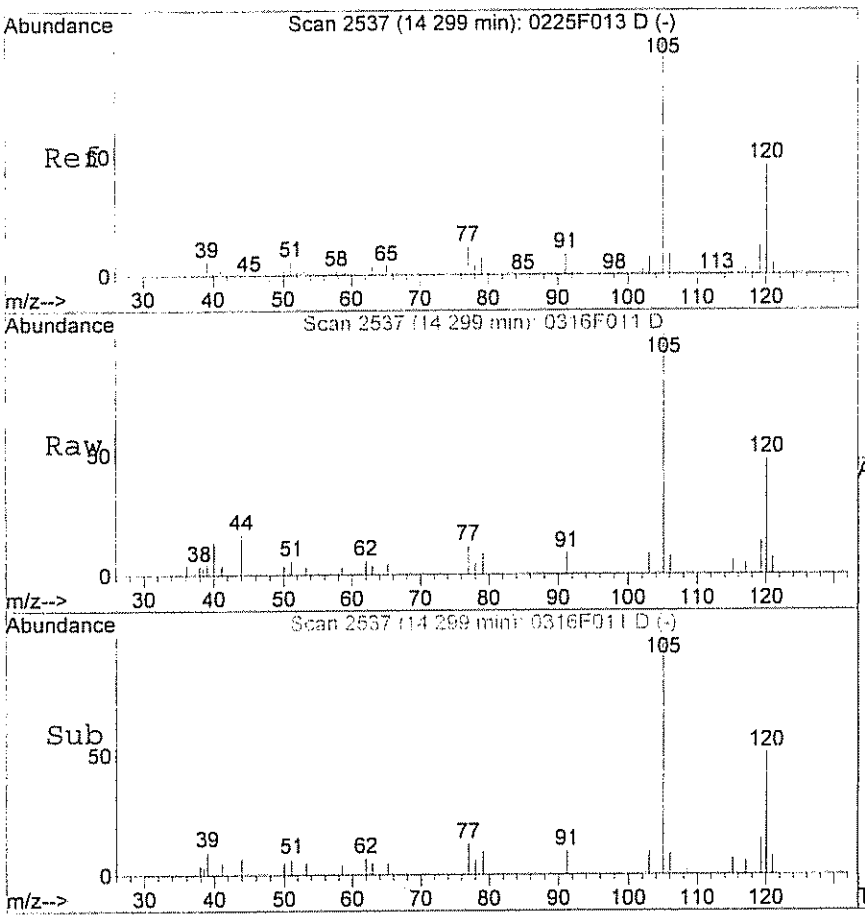


#87
1,3,5-Trimethylbenzene
Concen: 0.10 PPB
RT: 13.86 min Scan# 2454
Delta R.T. 0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:105 Resp: 4568

Ion	Ratio	Lower	Upper
105	100		
120	61.5	19.7	79.7
77	12.0	0.0	41.6

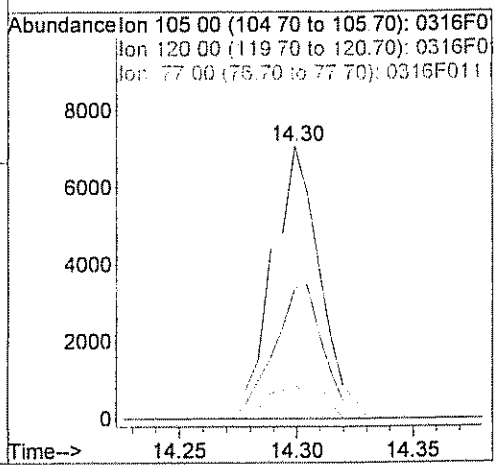


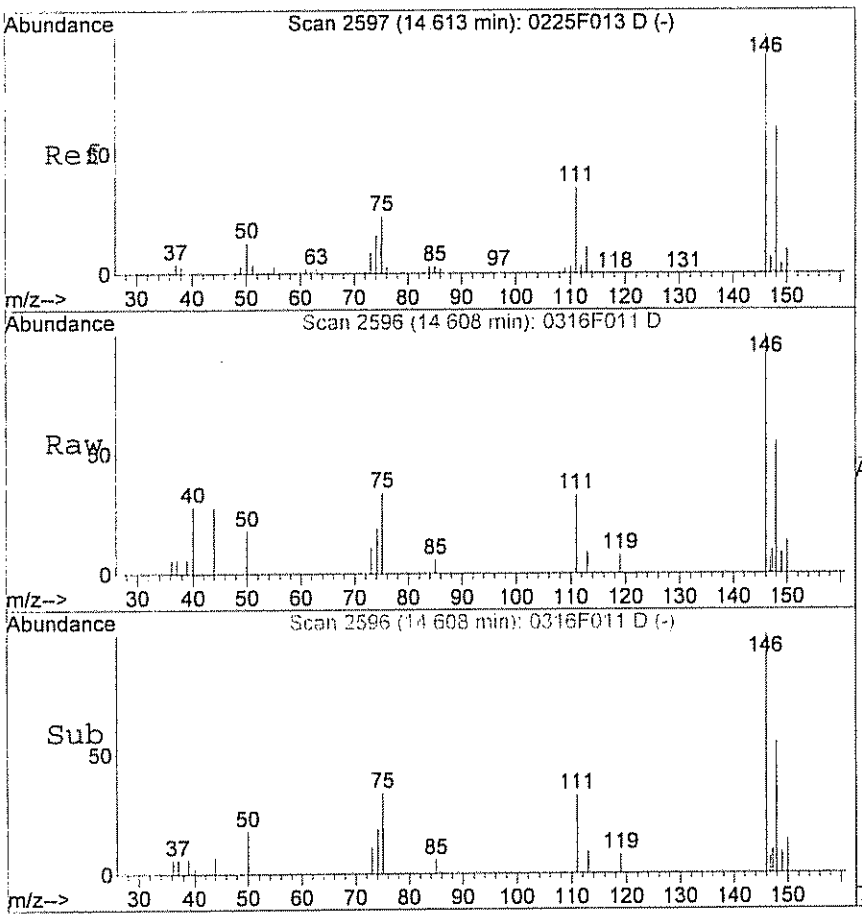


#90
1,2,4-Trimethylbenzene
Concen: 0.20 PPB
RT: 14.30 min Scan# 2537
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:105 Resp: 10169

Ion	Ratio	Lower	Upper
105	100		
120	47.8	16.0	76.0
77	11.6	0.0	41.8

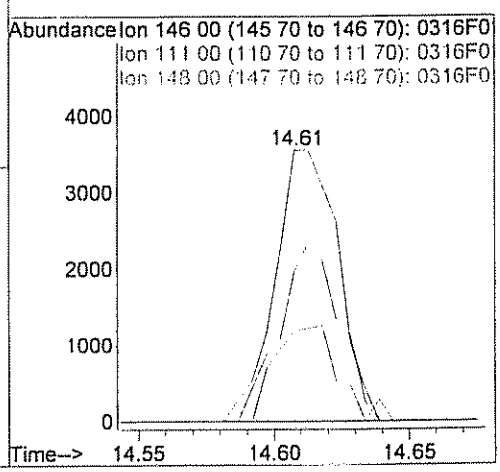


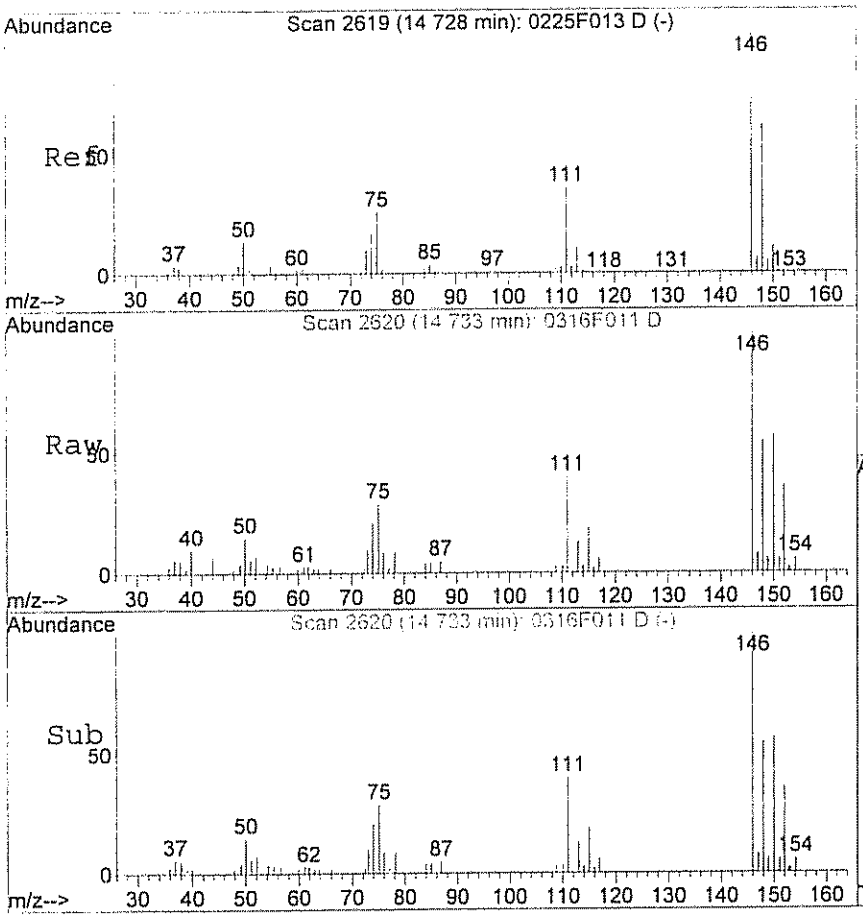


#93
1,3-Dichlorobenzene
Concen: 0.17 PPB
RT: 14.61 min Scan# 2596
Delta R.T. -0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:146 Resp: 5791

Ion	Ratio	Lower	Upper
146	100		
111	33.4	6.0	66.0
148	55.3	31.2	91.2

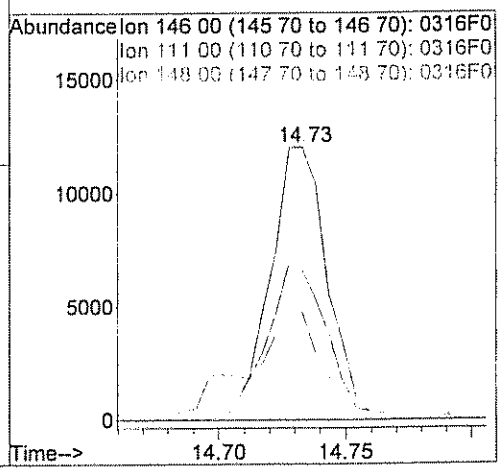


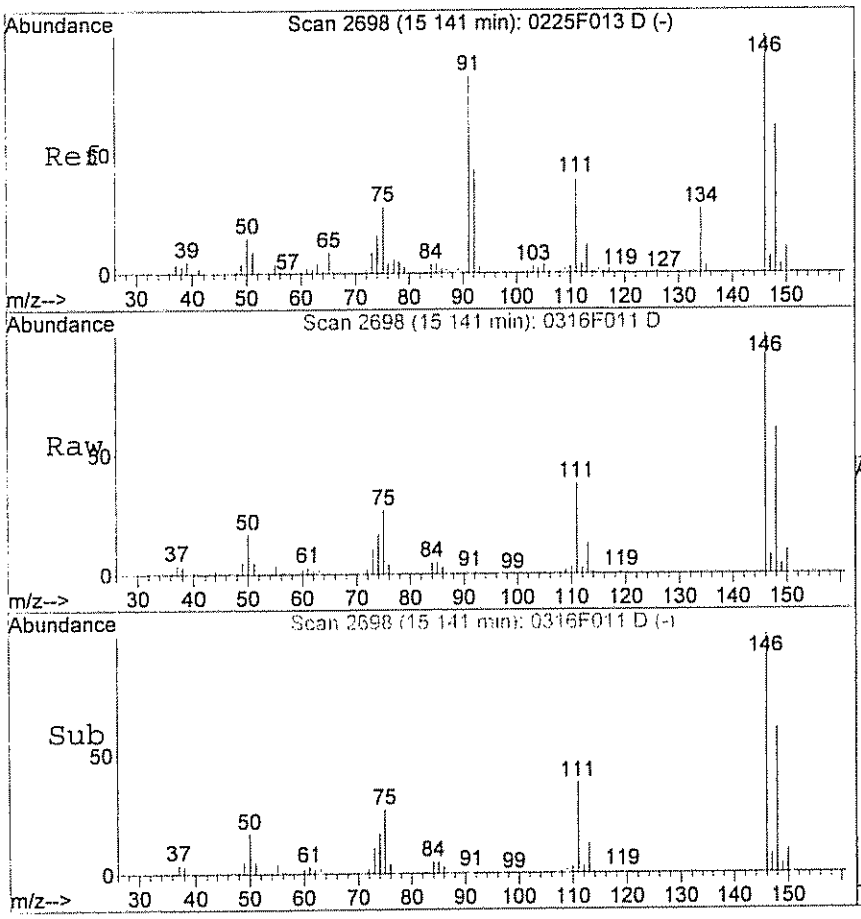


#94
1,4-Dichlorobenzene
Concen: 0.53 PPB
RT: 14.73 min Scan# 2620
Delta R.T. 0.01 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:146 Resp: 18763

Ion	Ratio	Lower	Upper
146	100		
111	39.7	5.8	65.8
148	55.1	31.7	91.7

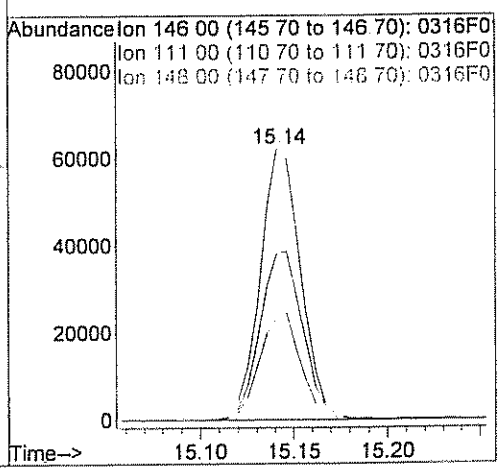




#96
1,2-Dichlorobenzene
Concen: 2.96 PPB
RT: 15.14 min Scan# 2698
Delta R.T. -0.00 min
Lab File: 0316F011.D
Acq: 16 Mar 2005 8:11 pm

Tgt Ion:146 Resp: 94906

Ion	Ratio	Lower	Upper
146	100		
111	37.8	9.5	69.5
148	61.2	31.7	91.7



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCMS
Lab Code: KWG0504385-1
File ID: J:\MS13\DATA\031605\0316F005 D
Instrument ID: MS13

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	167	D	10	3.4	
74-87-3	Chloromethane	154	D	10	2.8	
75-01-4	Vinyl Chloride	190	D	10	4.3	
74-83-9	Bromomethane	162	D	10	4.4	
75-00-3	Chloroethane	195	D	10	4.6	
75-69-4	Trichlorofluoromethane	178	D	10	2.7	
67-64-1	Acetone	861	D	400	82	
75-35-4	1,1-Dichloroethene	200	D	10	2.5	
1634-04-4	Methyl tert-Butyl Ether	169	D	10	4.0	
75-15-0	Carbon Disulfide	439	D	10	3.2	
75-09-2	Methylene Chloride	180	D	40	3.9	
156-60-5	trans-1,2-Dichloroethene	192	D	10	2.9	
75-34-3	1,1-Dichloroethane	225	D	10	2.1	
78-93-3	2-Butanone (MEK)	876	D	400	39	
594-20-7	2,2-Dichloropropane	188	D	10	3.5	
156-59-2	cis-1,2-Dichloroethene	233	D	10	2.4	
67-66-3	Chloroform	201	D	10	2.8	
74-97-5	Bromochloromethane	186	D	10	3.3	
71-55-6	1,1,1-Trichloroethane (TCA)	413	D	10	2.4	
563-58-6	1,1-Dichloropropene	186	D	10	3.0	
56-23-5	Carbon Tetrachloride	229	D	10	2.8	
107-06-2	1,2-Dichloroethane (EDC)	199	D	10	2.3	
71-43-2	Benzene	191	D	10	2.8	
79-01-6	Trichloroethene (TCE)	249	D	10	2.7	
78-87-5	1,2-Dichloropropane	188	D	10	2.8	
75-27-4	Bromodichloromethane	210	D	10	2.2	
74-95-3	Dibromomethane	188	D	10	2.4	
591-78-6	2-Hexanone	793	D	400	80	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCMS
Lab Code: KWG0504385-1
File ID: J:\MS13\DATA\031605\0316F005.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	192	D	10	2.2	
108-88-3	Toluene	193	D	10	2.2	
10061-02-6	trans-1,3-Dichloropropene	173	D	10	1.8	
79-00-5	1,1,2-Trichloroethane	207	D	10	2.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	826	D	400	54	
142-28-9	1,3-Dichloropropane	194	D	10	3.0	
127-18-4	Tetrachloroethene (PCE)	657	D	10	2.6	
124-48-1	Dibromochloromethane	209	D	10	2.1	
106-93-4	1,2-Dibromoethane (EDB)	193	D	40	2.0	
108-90-7	Chlorobenzene	186	D	10	2.7	
630-20-6	1,1,1,2-Tetrachloroethane	219	D	10	2.3	
100-41-4	Ethylbenzene	227	D	10	2.6	
136777-61-2	m,p-Xylenes	429	D	10	4.4	
95-47-6	o-Xylene	220	D	10	2.1	
100-42-5	Styrene	206	D	10	1.9	
75-25-2	Bromoform	221	D	10	5.6	
98-82-8	Isopropylbenzene	183	D	40	2.1	
79-34-5	1,1,2,2-Tetrachloroethane	198	D	10	2.8	
96-18-4	1,2,3-Trichloropropane	196	D	10	4.3	
108-86-1	Bromobenzene	204	D	40	3.5	
103-65-1	n-Propylbenzene	218	D	40	2.0	
95-49-8	2-Chlorotoluene	221	D	40	2.3	
106-43-4	4-Chlorotoluene	216	D	40	2.4	
108-67-8	1,3,5-Trimethylbenzene	221	D	40	2.5	
98-06-6	tert-Butylbenzene	214	D	40	2.5	
95-63-6	1,2,4-Trimethylbenzene	218	D	40	2.9	
135-98-8	sec-Butylbenzene	230	D	40	2.6	
541-73-1	1,3-Dichlorobenzene	200	D	10	2.1	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCMS
Lab Code: KWG0504385-1
File ID: J:\MS13\DATA\031605\0316F005.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	202	D	40	2.6	
106-46-7	1,4-Dichlorobenzene	206	D	10	2.3	
104-51-8	n-Butylbenzene	218	D	40	4.5	
95-50-1	1,2-Dichlorobenzene	252	D	10	2.3	
96-12-8	1,2-Dibromo-3-chloropropane	195	D	40	20	
120-82-1	1,2,4-Trichlorobenzene	176	D	40	4.4	
87-61-6	1,2,3-Trichlorobenzene	174	D	40	6.6	
91-20-3	Naphthalene	161	D	40	5.7	
87-68-3	Hexachlorobutadiene	237	D	40	5.6	
994-05-8	tert-Amyl Methyl Ether	392	D	40	2.9	
637-92-3	tert-Butyl Ethyl Ether	355	D	40	1.5	
75-65-0	tert-Butyl Alcohol	1680	D	400	21	*
108-20-3	Diisopropyl Ether	378	D	40	4.9	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	80-119	03/16/05	Acceptable
Toluene-d8	97	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	102	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F005.D
Lab ID: KWG0504385-1 -- K2501626-002MS
RunType: MS
Matrix: WATER

Date Acquired: 03/16/2005 17:28
Date Quantitated: 03/18/2005 15:12
Batch ID: KWG0504384
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0089	0.01	NA	NT
	tert-Butyl Alcohol	0.0055	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0027	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	130	100	NA	NT

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:08:30
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	369301	**Prep Date:**	03/16/2005		

Quant Method:	I:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	I:\MS13\DATA\031605\0316F002.D	**Method ID:**	MJ119
MB Ref:	I:\MS13\DATA\031605\0316F009.D	**Quant based on Method**	

Data File:	I:\MS13\DATA\031605\0316F005.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:28	**Quant Date:**	03/18/2005 15:12	**Vial:**	5
Run Type:	MS			**Dilution:**	20.0
Lab ID:	KWG0504385-1 -- K2501626-002MS			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	658057	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	280719	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	301906	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	152587	9.37	94	80-119	OK
1	1,2-Dichloroethane-d4	5.15	0.00	0.00	65	167482	9.13	91	76-115	OK
1	Toluene-d8	8.60	0.00	0.00	98	696803	9.67	97	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	253679	10.22	102	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.09	-0.01	0.00	85	169133	8.36	167	D	
1	Chloromethane	1.22		0.00	50	197281	7.72	154	D	
1	Vinyl Chloride	1.29		0.00	62	203666	9.48	190	D	
1	Bromomethane	1.51		0.00	96	98927	8.08	162	D	
1	Chloroethane	1.58		0.00	64	125010	9.74	195	D	
1	Dichlorofluoromethane (CFC 21				67	0d		8.0	U	
1	Trichlorofluoromethane	1.74		0.00	101	251871	8.88	178	D	
1	Ethyl Ether	1.97		0.00	59	105994	9.09	182	D	
1	Acrolein	2.12		0.00	56	134252	79.74	1590	D	
1	Trichlorotrifluoroethane	2.13		0.00	151	151623	11.03	221	D	
1	1,1-Dichloroethene	2.15		0.00	96	149096	10.02	200	D	
1	Acetone	2.25		0.00	43	108061	43.07	861	D	
1	Iodomethane	2.29		0.00	142	445888m	24.28	486	D	
1	Carbon Disulfide	2.32		0.00	76	994558	21.97	439	D	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F005 D			Instrument:	MS13
Acqu Date:	03/16/2005 17:28	Quant Date:	03/18/2005 15:12	Vial:	5
Run Type:	MS			Dilution:	20 0
Lab ID:	KWG0504385-1 -- K2501626-002MS			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2 48		0 00	76	271702	34 29	686	D	
1	Acetonitrile	2 55	0 01	0 00	40	183440	296 59	5930	D	
1	Methylene Chloride	2 62		0.00	84	162781	9 02	180	D	
1	tert-Butyl Alcohol	2 74		0.00	59	41098	83 76	1680	D	
1	Acrylonitrile	2.91	-0 01	0 00	53	127982	38 51	770	D	
1	Methyl tert-Butyl Ether	2.82		0 00	73	298133	8 47	169	D	
1	trans-1,2-Dichloroethene	2.84		0 00	96	168184	9 62	192	D	
1	n-Hexane	3 05		0.00	57	650471	36 70	734	D	
1	Diisopropyl Ether	3 33		0 00	45	972087	18 92	378	D	
1	1,1-Dichloroethane	3 31		0 00	63	342006	11 23	225	D	
1	Vinyl Acetate	3 37		0.00	86	112033	53 84	1080	D	
1	Chloroprene	3 37		0 00	53	845171	39 36	787	D	
1	tert-Butyl Ethyl Ether	3 74		0.00	59	704371	17 73	355	D	
1	2,2-Dichloropropane	3 95		0.00	77	163127	9.41	188	D	
1	cis-1,2-Dichloroethene	4.00		0 00	96	217458	11 67	233	D	
1	2-Butanone (MEK)	4 06	0 01	0 00	72	41289	43.78	876	D	
1	Propionitrile	4 21		0 00	54	35109	29 85	597	D	
1	Ethyl Acetate	4.11		0.00	61	32588	28 80	576	D	
1	Methacrylonitrile	4.36		0 00	67	119744	29 27	585	D	
1	Bromochloromethane	4.30		0 00	128	74762	9 32	186	D	
1	Tetrahydrofuran	4 33	-0 01	0.00	71	17883	15 92	318	D	
1	Chloroform	4.42		0 00	83	293810	10 03	201	D	
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	463689	20 65	413	D	
1	Carbon Tetrachloride	4.77		0 00	117	187925	11.45	229	D	
1	1,1-Dichloropropene	4 83		0.00	75	213660	9.30	186	D	
1	Isobutyl Alcohol	5 20		0.00	43	59227	296 71	5930	D	
1	Benzene	5 11		0 00	78	683689	9 57	191	D	
1	1,2-Dichloroethane (EDC)	5 26		0.00	62	204125	9 95	199	D	
1	tert-Amyl Methyl Ether	5.30	-0.01	0 00	55	257382	19 62	392	D	
1	Trichloroethene (TCE)	6.19	-0 01	0.00	95	217465	12.45	249	D	
1	1,2-Dichloropropane	6.66		0.00	63	155612	9.39	188	D	
1	Dibromomethane	6.87		0.00	93	74276	9 40	188	D	
1	Methyl Methacrylate	6.97		0.00	69	177511	26.80	536	D	
1	1,4-Dioxane	6.94	0.01	0.00	88	24697m	264.59	5290	D	
1	Bromodichloromethane	7 21		0.00	83	189767	10 49	210	D	
1	2-Nitropropane	7.83		0 00	43	45197	34 42	688	D	
1	2-Chloroethyl Vinyl Ether	7.95		0 00	63	44504	6.24	125	D	
1	cis-1,3-Dichloropropene	8.15	-0 01	0.00	75	196185	9 59	192	D	
1	4-Methyl-2-pentanone (MIBK)	8 57	0.01	0.00	58	132230	41.30	826	D	
1	Toluene	8.75		0.00	92	447896	9 67	193	D	
2	n-Octane	9 07	-0 01	0.00	85	200397	27 33	547	D	
2	trans-1,3-Dichloropropene	9 60		0.00	75	131966	8.63	173	D	

U: Undetected at or above MDL
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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F005 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:28	**Quant Date:**	03/18/2005 15:12	**Vial:**	5
Run Type:	MS			**Dilution:**	20.0
Lab ID:	KWG0504385-1 -- K2501626-002MS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9.82	-0.01	0.00	69	354681	28.82	576	D	
2	1,1,2-Trichloroethane	9.96		0.00	83	101256	10.33	207	D	
2	Tetrachloroethene (PCE)	9.97		0.00	164	517824	32.86	657	D	
2	2-Hexanone	10.53		0.00	57	39020	39.66	793	D	
2	1,3-Dichloropropane	10.29		0.00	76	199527	9.69	194	D	
2	Dibromochloromethane	10.64		0.00	129	115409	10.47	209	D	
2	1,2-Dibromoethane (EDB)	10.79		0.00	107	102057	9.66	193	D	
2	1-Chlorohexane	11.68		0.00	91	183870	10.14	203	D	
2	Chlorobenzene	11.63		0.00	112	473219	9.29	186	D	
2	Ethylbenzene	11.81		0.00	106	288438	11.34	227	D	
2	1,1,1,2-Tetrachloroethane	11.81		0.00	131	133813	10.97	219	D	
2	m,p-Xylenes	12.01		0.00	106	675353	21.45	429	D	
2	o-Xylene	12.57		0.00	106	322214	10.99	220	D	
2	Styrene	12.61	-0.01	0.00	103	245558	10.31	206	D	
2	Bromoform	12.85	0.01	0.00	173	61920	11.06	221	D	
2	Isopropylbenzene	13.08		0.00	105	652081	9.16	183	D	
2	cis-1,4-Dichloro-2-butene	13.29		0.00	89	33286	30.77	615	D	
3	1,1,2,2-Tetrachloroethane	13.59		0.00	83	114702	9.89	198	D	
3	trans-1,4-Dichloro-2-butene	13.67	-0.01	0.00	53	96947	32.41	648	D	
3	Bromobenzene	13.45		0.00	156	210776	10.19	204	D	
3	n-Propylbenzene	13.61		0.00	91	864012	10.89	218	D	
3	1,2,3-Trichloropropane	13.62	0.01	0.00	110	37072	9.78	196	D	
3	2-Chlorotoluene	13.71		0.00	91	582961	11.03	221	D	
3	1,3,5-Trimethylbenzene	13.86		0.00	105	626743	11.04	221	D	
3	4-Chlorotoluene	13.86		0.00	91	651853	10.79	216	D	
3	tert-Butylbenzene	14.22		0.00	119	493013	10.71	214	D	
3	1,2,4-Trimethylbenzene	14.30		0.00	105	641239	10.92	218	D	
3	sec-Butylbenzene	14.48		0.00	105	699231	11.49	230	D	
3	4-Isopropyltoluene	14.67		0.00	119	582481	10.11	202	D	
3	1,3-Dichlorobenzene	14.61		0.00	146	406494	9.98	200	D	
3	1,4-Dichlorobenzene	14.73		0.00	146	434710	10.32	206	D	
3	n-Butylbenzene	15.13		0.00	91	488887	10.90	218	D	
3	1,2-Dichlorobenzene	15.14		0.00	146	478472	12.62	252	D	
3	1,2-Dibromo-3-chloropropane	16.03	-0.01	0.00	155	13429	9.75	195	D	
3	1,3,5-Trichlorobenzene	16.20	-0.01	0.00	180	1035614	42.07	841	D	
3	1,2,4-Trichlorobenzene	16.88		0.00	180	191571	8.80	176	D	
3	Hexachlorobutadiene	17.03		0.00	225	127921	11.83	237	D	
3	Naphthalene	17.13		0.00	128	235075	8.04	161	D	
3	1,2,3-Trichlorobenzene	17.38	-0.01	0.00	180	158111	8.72	174	D	

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d: Compound manually deleted
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#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F005 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:28	**Quant Date:**	03/18/2005 15:12	**Vial:**	5
Run Type:	MS			**Dilution:**	20.0
Lab ID:	KWG0504385-1 -- K2501626-002MS			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	20.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL.
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
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D: Result from dilution
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d: Compound manually deleted
NR: Analyte not reported from this analysis

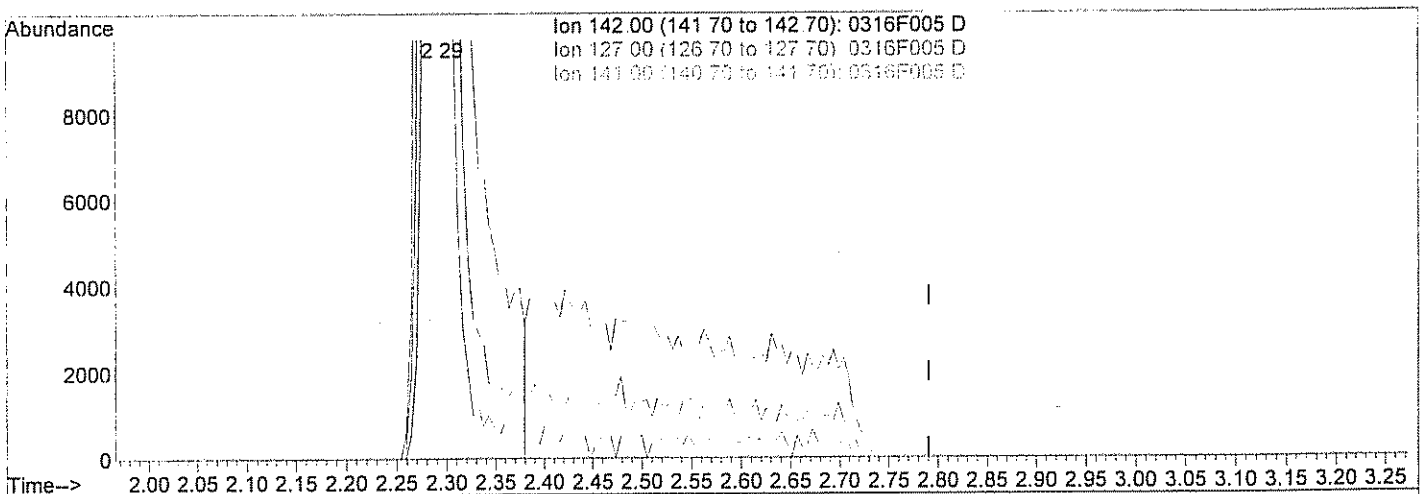
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

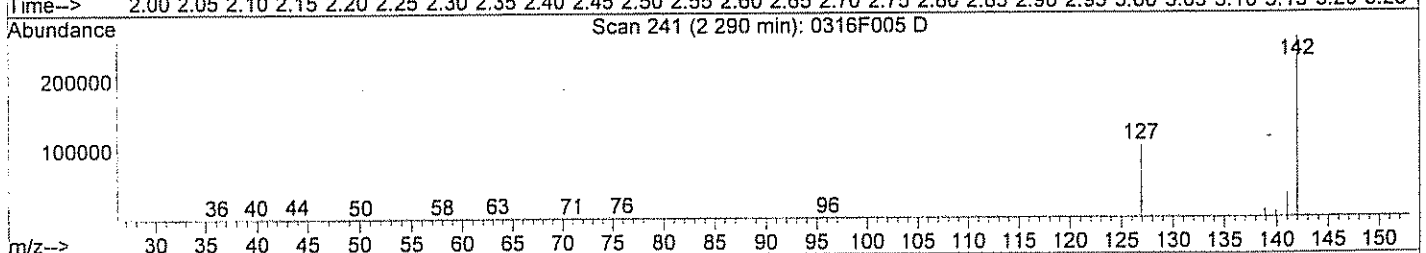
Quantitation Report (Qedit)

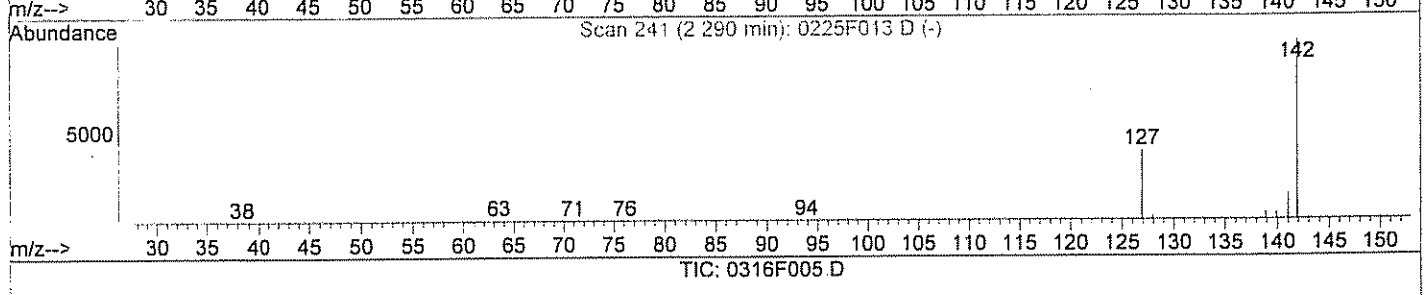
Data File : J:\MS13\DATA\031605\0316F005.D
Acq On : 16 Mar 2005 5:28 pm
Sample : K2501626-002MS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:12 2005

Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F005.D

(14) Iodomethane (T)

2.29min 21.23PPB

response 389962

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	40.37
141.00	14.40	13.57
0.00	0.00	0.00

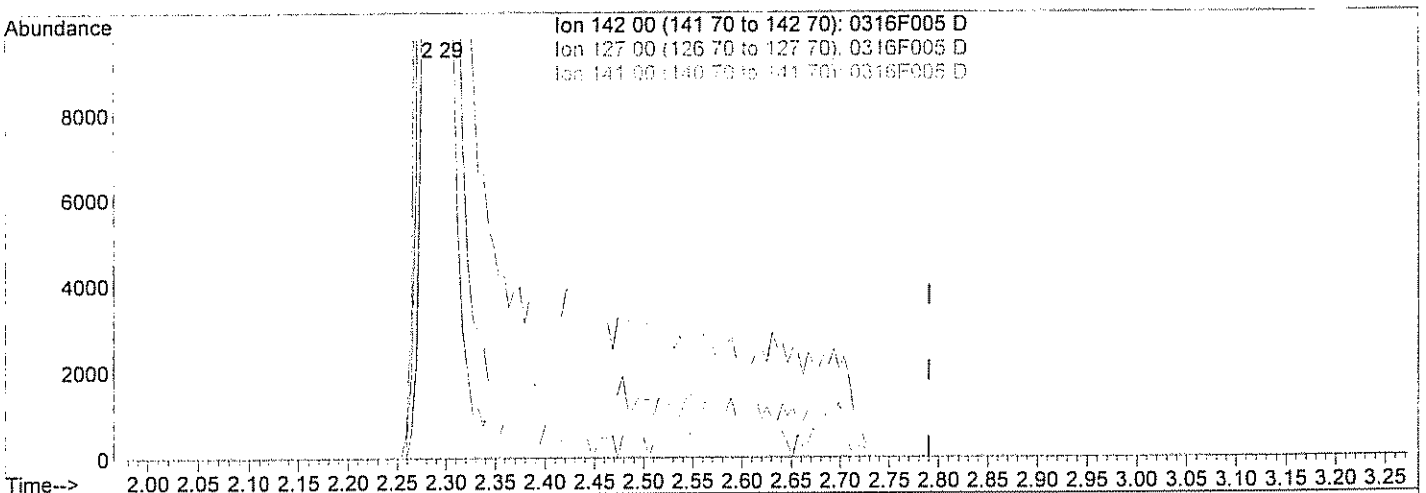
0316F005.D 022505_8260W.M Fri Mar 18 15:12:17 2005

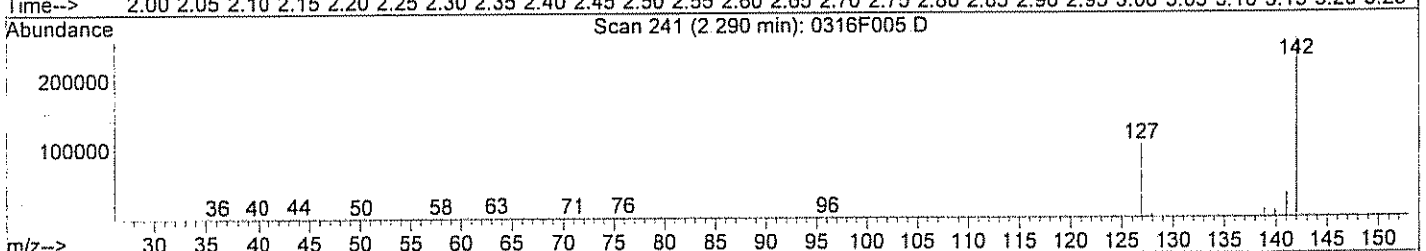
Quantitation Report (Qedit)

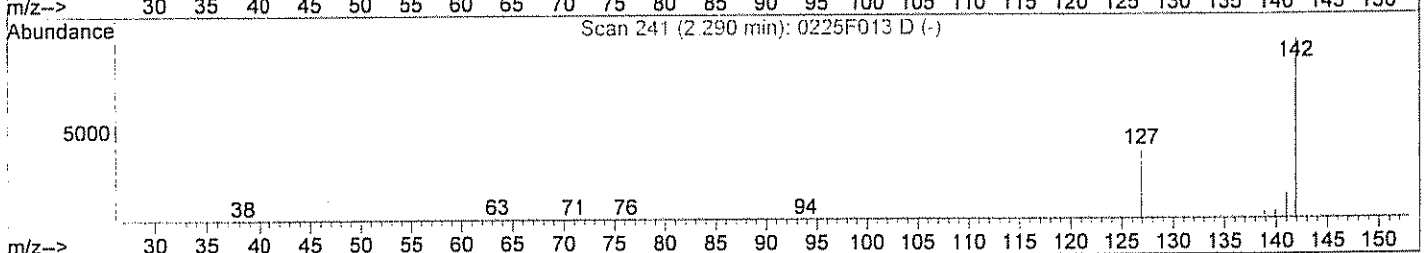
Data File : J:\MS13\DATA\031605\0316F005.D
Acq On : 16 Mar 2005 5:28 pm
Sample : K2501626-002MS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:12 2005

Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F005 D

(14) Iodomethane (T)

2 29min 24 28PPB m

response 445888

Ion	Exp%	Act%
142 00	100	100
127 00	38 60	40 37
141 00	14.40	13.57
0 00	0 00	0 00

mt 3/21/5

peak tailing
KB 3/18/05

0316F005.D 022505_8260W.M Fri Mar 18 15:12:21 2005

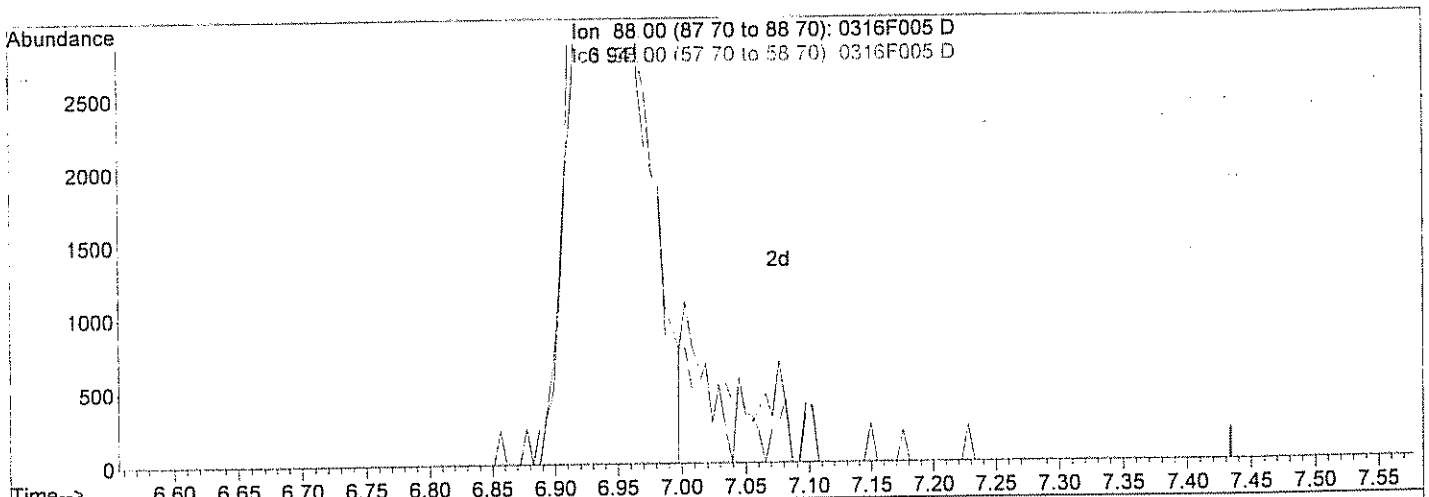
Quantitation Report (Qedit)

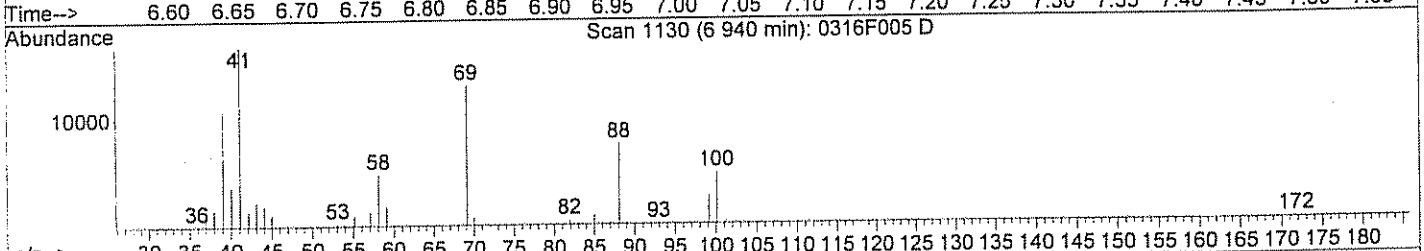
Data File : J:\MS13\DATA\031605\0316F005.D
Acq On : 16 Mar 2005 5:28 pm
Sample : K2501626-002MS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:12 2005

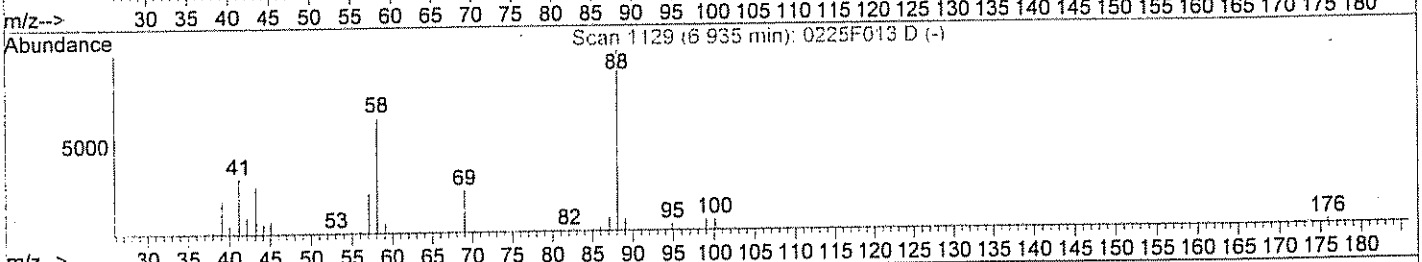
Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F005.D

(51) 1,4-Dioxane (T)

6.94min 233.56PPB

response 21800

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	65.17
0.00	0.00	0.00
0.00	0.00	0.00

0316F005.D 022505_8260W.M Fri Mar 18 15:12:40 2005

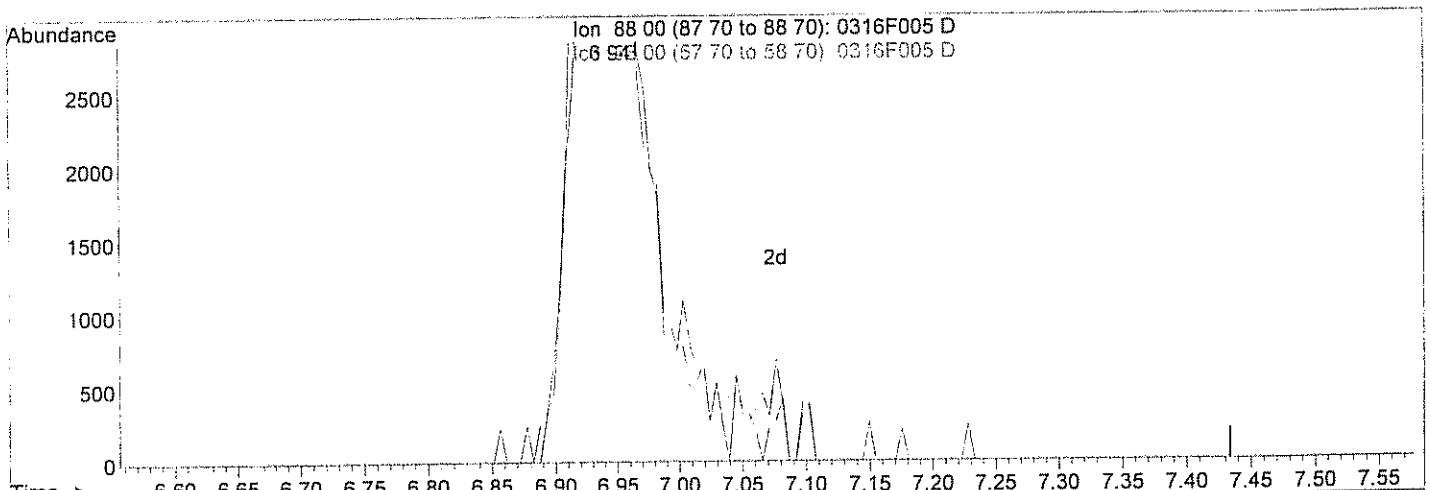
Quantitation Report (Qedit)

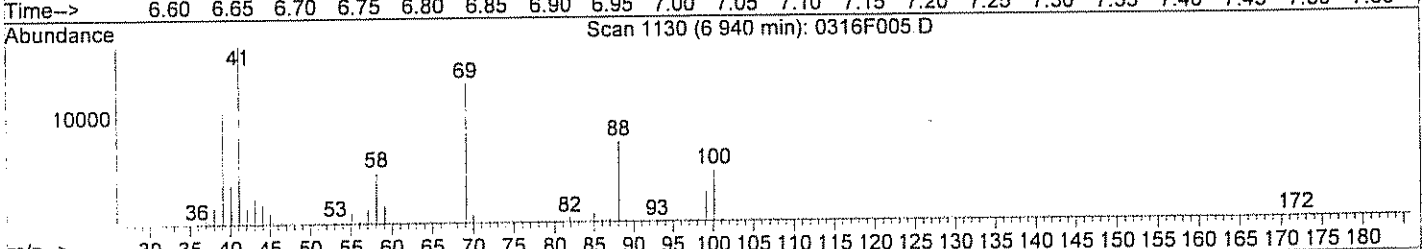
Data File : J:\MS13\DATA\031605\0316F005.D
Acq On : 16 Mar 2005 5:28 pm
Sample : K2501626-002MS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:12 2005

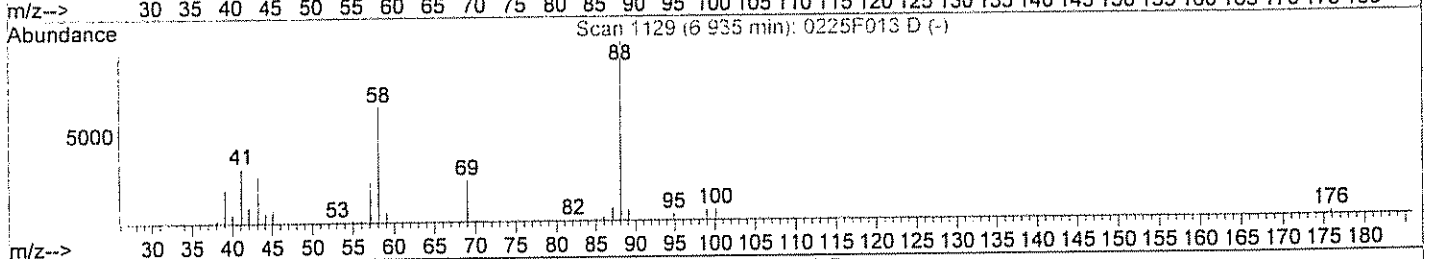
Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F005 D

(51) 1,4-Dioxane (T)

6 94min 264 59PPB m

response 24697

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	65 17
0 00	0 00	0 00
0 00	0 00	0 00

mt 3/21/5

peak tailing
KB 3/18/05

0316F005.D 022505_8260W.M Fri Mar 18 15:12:44 2005

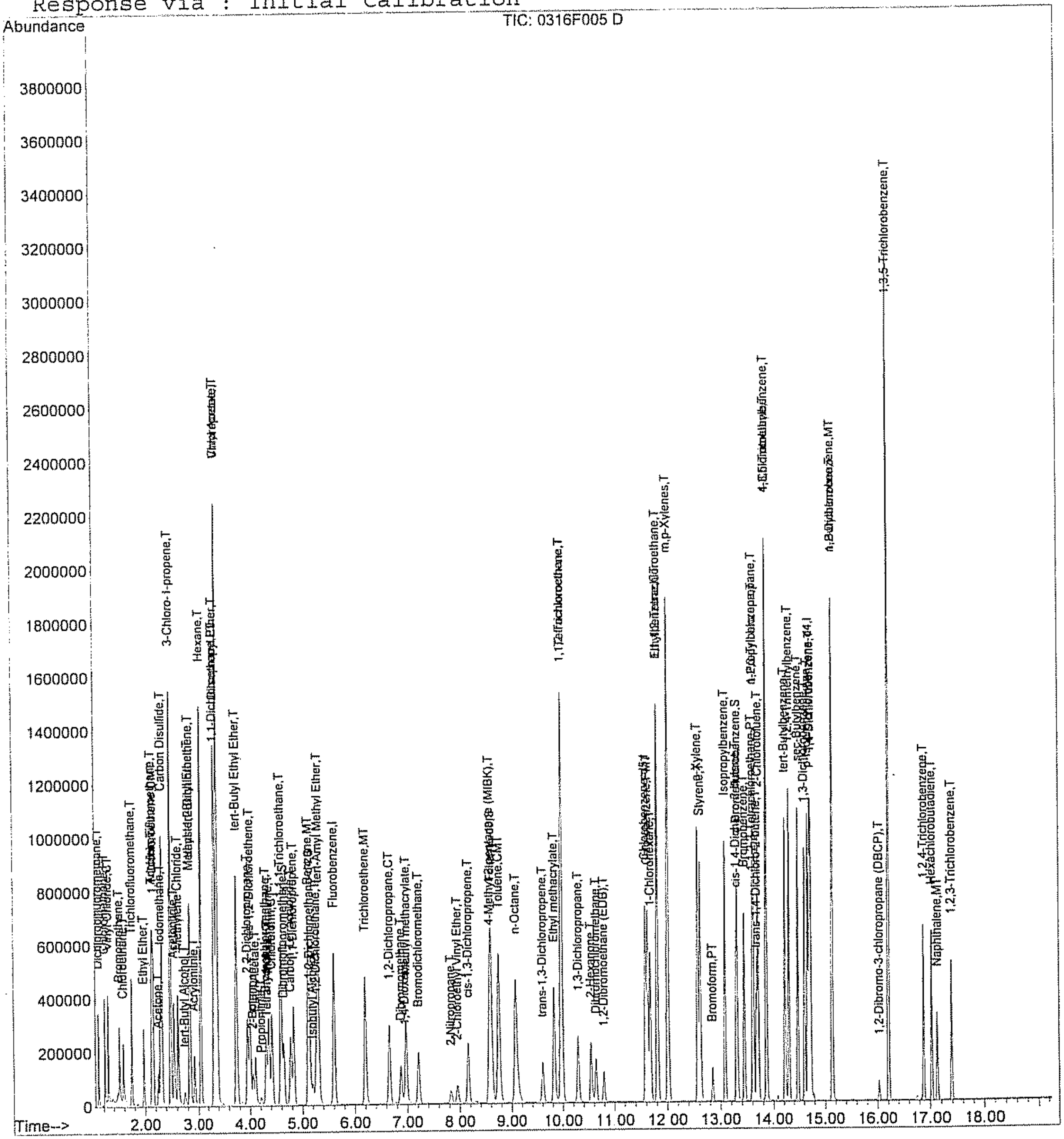
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F005.D
Acq On : 16 Mar 2005 5:28 pm
Sample : K2501626-002MS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:12 2005

Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDMS
Lab Code: KWG0504385-2
File ID: J:\MS13\DATA\031605\0316F006.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	161	D	10	3.4	
74-87-3	Chloromethane	147	D	10	2.8	
75-01-4	Vinyl Chloride	179	D	10	4.3	
74-83-9	Bromomethane	161	D	10	4.4	
75-00-3	Chloroethane	184	D	10	4.6	
75-69-4	Trichlorofluoromethane	171	D	10	2.7	
67-64-1	Acetone	867	D	400	82	
75-35-4	1,1-Dichloroethene	191	D	10	2.5	
1634-04-4	Methyl tert-Butyl Ether	168	D	10	4.0	
75-15-0	Carbon Disulfide	418	D	10	3.2	
75-09-2	Methylene Chloride	173	D	40	3.9	
156-60-5	trans-1,2-Dichloroethene	181	D	10	2.9	
75-34-3	1,1-Dichloroethane	212	D	10	2.1	
78-93-3	2-Butanone (MEK)	841	D	400	39	
594-20-7	2,2-Dichloropropane	180	D	10	3.5	
156-59-2	cis-1,2-Dichloroethene	226	D	10	2.4	
67-66-3	Chloroform	194	D	10	2.8	
74-97-5	Bromochloromethane	184	D	10	3.3	
71-55-6	1,1,1-Trichloroethane (TCA)	396	D	10	2.4	
563-58-6	1,1-Dichloropropene	179	D	10	3.0	
56-23-5	Carbon Tetrachloride	218	D	10	2.8	
107-06-2	1,2-Dichloroethane (EDC)	191	D	10	2.3	
71-43-2	Benzene	184	D	10	2.8	
79-01-6	Trichloroethene (TCE)	243	D	10	2.7	
78-87-5	1,2-Dichloropropane	180	D	10	2.8	
75-27-4	Bromodichloromethane	203	D	10	2.2	
74-95-3	Dibromomethane	183	D	10	2.4	
591-78-6	2-Hexanone	809	D	400	80	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDMS
Lab Code: KWG0504385-2
File ID: J:\MS13\DATA\031605\0316F006.D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	185	D	10	2.2	
108-88-3	Toluene	184	D	10	2.2	
10061-02-6	trans-1,3-Dichloropropene	174	D	10	1.8	
79-00-5	1,1,2-Trichloroethane	208	D	10	2.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	828	D	400	54	
142-28-9	1,3-Dichloropropane	192	D	10	3.0	
127-18-4	Tetrachloroethene (PCE)	639	D	10	2.6	
124-48-1	Dibromochloromethane	205	D	10	2.1	
106-93-4	1,2-Dibromoethane (EDB)	188	D	40	2.0	
108-90-7	Chlorobenzene	181	D	10	2.7	
630-20-6	1,1,1,2-Tetrachloroethane	211	D	10	2.3	
100-41-4	Ethylbenzene	221	D	10	2.6	
136777-61-2	m,p-Xylenes	422	D	10	4.4	
95-47-6	o-Xylene	216	D	10	2.1	
100-42-5	Styrene	199	D	10	1.9	
75-25-2	Bromoform	216	D	10	5.6	
98-82-8	Isopropylbenzene	179	D	40	2.1	
79-34-5	1,1,2,2-Tetrachloroethane	194	D	10	2.8	
96-18-4	1,2,3-Trichloropropane	190	D	10	4.3	
108-86-1	Bromobenzene	198	D	40	3.5	
103-65-1	n-Propylbenzene	214	D	40	2.0	
95-49-8	2-Chlorotoluene	216	D	40	2.3	
106-43-4	4-Chlorotoluene	211	D	40	2.4	
108-67-8	1,3,5-Trimethylbenzene	218	D	40	2.5	
98-06-6	tert-Butylbenzene	212	D	40	2.5	
95-63-6	1,2,4-Trimethylbenzene	214	D	40	2.9	
135-98-8	sec-Butylbenzene	227	D	40	2.6	
541-73-1	1,3-Dichlorobenzene	196	D	10	2.1	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Collected: NA
Date Received: NA
Date Extracted: 03/16/2005
Date Analyzed: 03/16/2005

Volatile Organic Compounds

Sample Name: Batch QCDMS
Lab Code: KWG0504385-2
File ID: J:\MS13\DATA\031605\0316F006 D
Instrument ID: MS13

Units: ug/L
Basis: NA
Level: Low

Extraction Method: EPA 5030B
Analysis Method: 8260B

Extraction Lot: KWG0504385
Calibration ID: CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	200	D	40	2.6	
106-46-7	1,4-Dichlorobenzene	204	D	10	2.3	
104-51-8	n-Butylbenzene	215	D	40	4.5	
95-50-1	1,2-Dichlorobenzene	250	D	10	2.3	
96-12-8	1,2-Dibromo-3-chloropropane	202	D	40	20	
120-82-1	1,2,4-Trichlorobenzene	181	D	40	4.4	
87-61-6	1,2,3-Trichlorobenzene	178	D	40	6.6	
91-20-3	Naphthalene	169	D	40	5.7	
87-68-3	Hexachlorobutadiene	232	D	40	5.6	
994-05-8	tert-Amyl Methyl Ether	385	D	40	2.9	
637-92-3	tert-Butyl Ethyl Ether	349	D	40	1.5	
75-65-0	tert-Butyl Alcohol	1660	D	400	21	*
108-20-3	Diisopropyl Ether	370	D	40	4.9	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	80-119	03/16/05	Acceptable
Toluene-d8	95	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	102	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F006 D
Lab ID: KWG0504385-2 -- K2501626-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/16/2005 17:55
Date Quantitated: 03/18/2005 15:13
Batch ID: KWG0504384
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0089	0.01	NA	NT
	tert-Butyl Alcohol	0.0055	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0027	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	130	100	NA	NT

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Printed: 03/18/2005 17:08:34
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
		Prep Date:	03/16/2005		
Prep Ref:	369302				

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031605\0316F002 D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031605\0316F009 D	**Quant based on Method**	

Data File:	J:\MS13\DATA\031605\0316F006 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:55	**Quant Date:**	03/18/2005 15:13	**Vial:**	6
Run Type:	DMS			**Dilution:**	20.0
Lab ID:	KWG0504385-2 -- K2501626-002DMS			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	671941	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	284157	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	302381	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0.00	0.00	113	153469	9.23	92	80-119	OK
1	1,2-Dichloroethane-d4	5.15	0.00	0.00	65	172493	9.21	92	76-115	OK
1	Toluene-d8	8.60	0.00	0.00	98	699877	9.52	95	83-113	OK
2	4-Bromofluorobenzene	13.31	0.00	0.00	95	256484	10.21	102	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.09	-0.01	0.00	85	166230	8.05	161	D	
1	Chloromethane	1.22		0.00	50	192033	7.36	147	D	
1	Vinyl Chloride	1.29		0.00	62	196418	8.95	179	D	
1	Bromomethane	1.51		0.00	96	100524	8.04	161	D	
1	Chloroethane	1.58		0.00	64	120704	9.21	184	D	
1	Dichlorofluoromethane (CFC 21				67	0d		8.0	U	
1	Trichlorofluoromethane	1.74		0.00	101	247020	8.53	171	D	
1	Ethyl Ether	1.97		0.00	59	106096	8.91	178	D	
1	Acrolein	2.12		0.00	56	139565	81.18	1620	D	
1	Trichlorotrifluoroethane	2.13		0.00	151	149056	10.62	212	D	
1	1,1-Dichloroethene	2.15		0.00	96	144899	9.54	191	D	
1	Acetone	2.25		0.00	43	111024	43.34	867	D	
1	Iodomethane	2.29		0.00	142	407948m	21.75	435	D	
1	Carbon Disulfide	2.32		0.00	76	966974	20.92	418	D	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F006.D			Instrument:	MS13
Acqu Date:	03/16/2005 17:55	Quant Date:	03/18/2005 15:13	Vial:	6
Run Type:	DMS			Dilution:	20.0
Lab ID:	KWG0504385-2 -- K2501626-002DMS			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2.48		0.00	76	267137	33.02	660	D	
1	Acetonitrile	2.55	0.01	0.00	40	184535	292.20	5840	D	
1	Methylene Chloride	2.62		0.00	84	159161	8.64	173	D	
1	tert-Butyl Alcohol	2.74		0.00	59	41579	82.99	1660	D	
1	Acrylonitrile	2.92		0.00	53	132028	38.91	778	D	
1	Methyl tert-Butyl Ether	2.82		0.00	73	302886	8.42	168	D	
1	trans-1,2-Dichloroethene	2.84		0.00	96	161350	9.03	181	D	
1	n-Hexane	3.05		0.00	57	643754	35.57	711	D	
1	Diisopropyl Ether	3.33		0.00	45	969176	18.48	370	D	
1	1,1-Dichloroethane	3.31		0.00	63	330241	10.62	212	D	
1	Vinyl Acetate	3.37		0.00	86	114327	53.80	1080	D	
1	Chloroprene	3.37		0.00	53	825818	37.67	753	D	
1	tert-Butyl Ethyl Ether	3.74		0.00	59	707816	17.45	349	D	
1	2,2-Dichloropropane	3.95		0.00	77	158896	8.98	180	D	
1	cis-1,2-Dichloroethene	4.00		0.00	96	215313	11.32	226	D	
1	2-Butanone (MEK)	4.06	0.01	0.00	72	40492	42.05	841	D	
1	Propionitrile	4.21		0.00	54	35068	29.20	584	D	
1	Ethyl Acetate	4.11		0.00	61	34154	29.56	591	D	
1	Methacrylonitrile	4.36		0.00	67	121668	29.12	582	D	
1	Bromochloromethane	4.30		0.00	128	75140	9.18	184	D	
1	Tetrahydrofuran	4.33	-0.01	0.00	71	18264	15.92	318	D	
1	Chloroform	4.42		0.00	83	290075	9.69	194	D	
1	1,1,1-Trichloroethane (TCA)	4.59		0.00	97	454404	19.81	396	D	
1	Carbon Tetrachloride	4.77		0.00	117	182634	10.89	218	D	
1	1,1-Dichloropropene	4.83		0.00	75	209930	8.95	179	D	
1	Isobutyl Alcohol	5.20		0.00	43	60167	295.19	5900	D	
1	Benzene	5.11		0.00	78	670638	9.19	184	D	
1	1,2-Dichloroethane (EDC)	5.27	0.01	0.00	62	199983	9.54	191	D	
1	tert-Amyl Methyl Ether	5.30	-0.01	0.00	55	257905	19.25	385	D	
1	Trichloroethene (TCE)	6.20		0.00	95	216723	12.15	243	D	
1	1,2-Dichloropropane	6.65	-0.01	0.00	63	152150	8.99	180	D	
1	Dibromomethane	6.87		0.00	93	73678	9.13	183	D	
1	Methyl Methacrylate	6.97		0.00	69	183262	27.10	542	D	
1	1,4-Dioxane	6.93		0.00	88	25388m	266.38	5330	D	
1	Bromodichloromethane	7.21		0.00	83	187641	10.16	203	D	
1	2-Nitropropane	7.82	-0.01	0.00	43	44583	33.25	665	D	
1	2-Chloroethyl Vinyl Ether	7.95		0.00	63	33018	4.53	90.6	JD	
1	cis-1,3-Dichloropropene	8.16		0.00	75	193783	9.27	185	D	
1	4-Methyl-2-pentanone (MIBK)	8.57	0.01	0.00	58	135269	41.38	828	D	
1	Toluene	8.76	0.01	0.00	92	435266	9.20	184	D	
2	n-Octane	9.08		0.00	85	197625	26.63	533	D	
2	trans-1,3-Dichloropropene	9.60		0.00	75	134342	8.68	174	D	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F006 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:55	**Quant Date:**	03/18/2005 15:13	**Vial:**	6
Run Type:	DMS			**Dilution:**	20 0
Lab ID:	KWG0504385-2 -- K2501626-002DMS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 83		0 00	69	358985	28 82	576	D	
2	1,1,2-Trichloroethane	9 96		0 00	83	103033	10 39	208	D	
2	Tetrachloroethene (PCE)	9 97		0 00	164	509514	31 95	639	D	
2	2-Hexanone	10 54	0 01	0 00	57	40309	40 47	809	D	
2	1,3-Dichloropropane	10 29		0 00	76	200411	9 61	192	D	
2	Dibromochloromethane	10 64		0 00	129	114684	10 27	205	D	
2	1,2-Dibromoethane (EDB)	10 79		0 00	107	100681	9 42	188	D	
2	1-Chlorohexane	11 68		0 00	91	181749	9 91	198	D	
2	Chlorobenzene	11 63		0 00	112	465651	9 03	181	D	
2	Ethylbenzene	11 81		0 00	106	284635	11 05	221	D	
2	1,1,1,2-Tetrachloroethane	11 81		0 00	131	130225	10 54	211	D	
2	m,p-Xylenes	12 01		0 00	106	673180	21 12	422	D	
2	o-Xylene	12 57		0 00	106	319854	10 78	216	D	
2	Styrene	12 61	-0 01	0 00	103	239444	9 93	199	D	
2	Bromoform	12 85	0 01	0 00	173	61315	10 82	216	D	
2	Isopropylbenzene	13 08		0 00	105	646190	8 97	179	D	
2	cis-1,4-Dichloro-2-butene	13 29		0 00	89	32723	29 88	598	D	
3	1,1,2,2-Tetrachloroethane	13 59		0 00	83	112755	9 71	194	D	
3	trans-1,4-Dichloro-2-butene	13 67	-0 01	0 00	53	97390	32 50	650	D	
3	Bromobenzene	13 45		0 00	156	204859	9 89	198	D	
3	n-Propylbenzene	13 61		0 00	91	849435	10 69	214	D	
3	1,2,3-Trichloropropane	13 61		0 00	110	35978	9 48	190	D	
3	2-Chlorotoluene	13 71		0 00	91	572153	10 80	216	D	
3	1,3,5-Trimethylbenzene	13 86		0 00	105	619469	10 90	218	D	
3	4-Chlorotoluene	13 86		0 00	91	639069	10 57	211	D	
3	tert-Butylbenzene	14 22		0 00	119	487870	10 58	212	D	
3	1,2,4-Trimethylbenzene	14 30		0 00	105	628799	10 69	214	D	
3	sec-Butylbenzene	14 48		0 00	105	693158	11 37	227	D	
3	4-Isopropyltoluene	14 67		0 00	119	575569	9 98	200	D	
3	1,3-Dichlorobenzene	14 61		0 00	146	400380	9 82	196	D	
3	1,4-Dichlorobenzene	14 73		0 00	146	429810	10 19	204	D	
3	n-Butylbenzene	15 13		0 00	91	483134	10 75	215	D	
3	1,2-Dichlorobenzene	15 14		0 00	146	475207	12 51	250	D	
3	1,2-Dibromo-3-chloropropane	16 03	-0 01	0 00	155	13955	10 12	202	D	
3	1,3,5-Trichlorobenzene	16 20	-0 01	0 00	180	1023044	41 49	830	D	
3	1,2,4-Trichlorobenzene	16 88		0 00	180	196852	9 03	181	D	
3	Hexachlorobutadiene	17 03		0 00	225	125374	11 58	232	D	
3	Naphthalene	17 13		0 00	128	247418	8 45	169	D	
3	1,2,3-Trichlorobenzene	17 38	-0 01	0 00	180	161304	8 88	178	D	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F006 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:55	**Quant Date:**	03/18/2005 15:13	**Vial:**	6
Run Type:	DMS			**Dilution:**	20 0
Lab ID:	KWG0504385-2 -- K2501626-002DMS			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	20 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

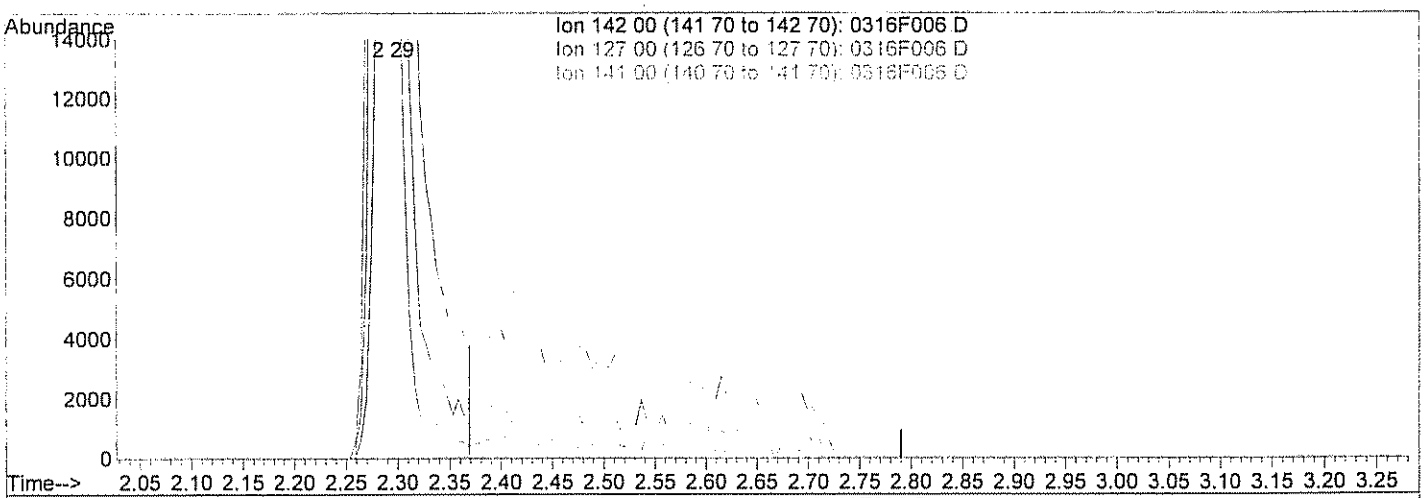
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

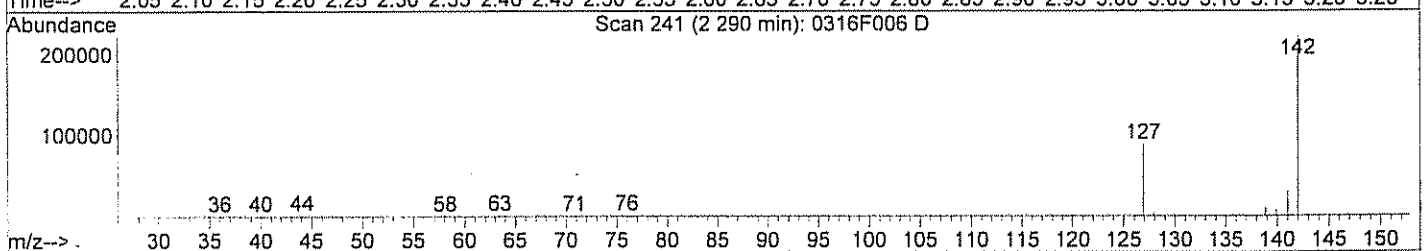
Quantitation Report (Qedit)

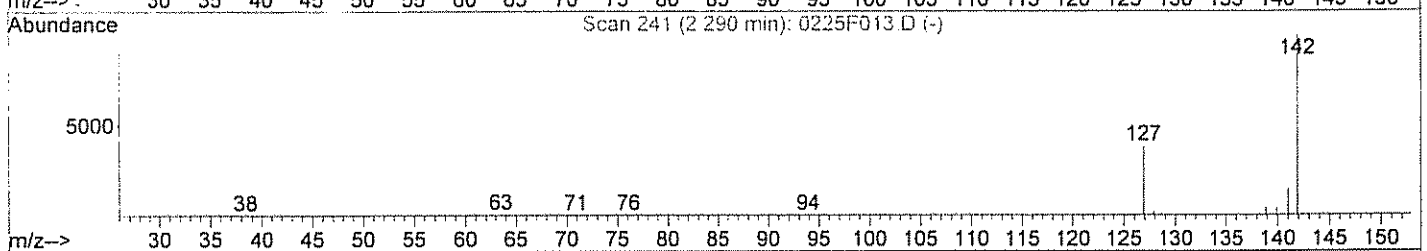
Data File : J:\MS13\DATA\031605\0316F006.D
Acq On : 16 Mar 2005 5:55 pm
Sample : K2501626-002DMS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:13 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F006 D

(14) Iodomethane (T)

2 29min 18 58PPB

response 348509

Ion	Exp%	Act%
142 00	100	100
127 00	38 60	39 82
141 00	14 40	14 00
0 00	0 00	0.00

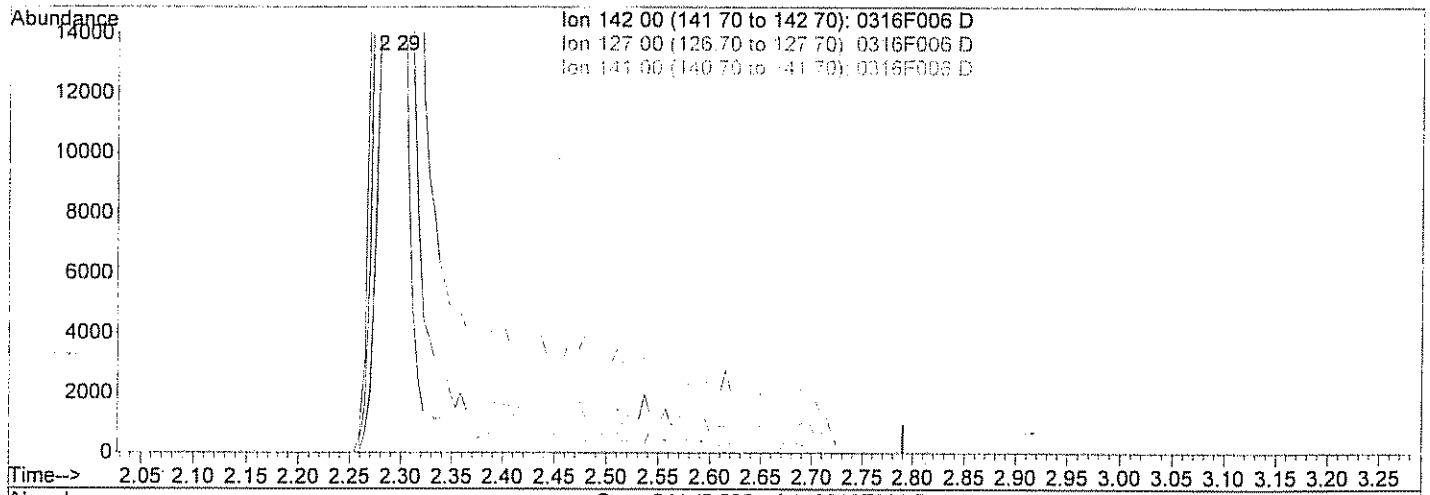
0316F006.D 022505_8260W.M Fri Mar 18 15:13:27 2005

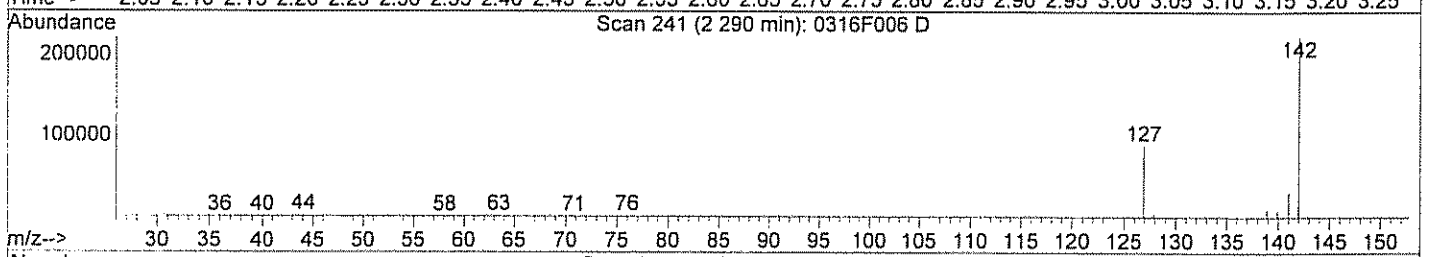
Quantitation Report (Qedit)

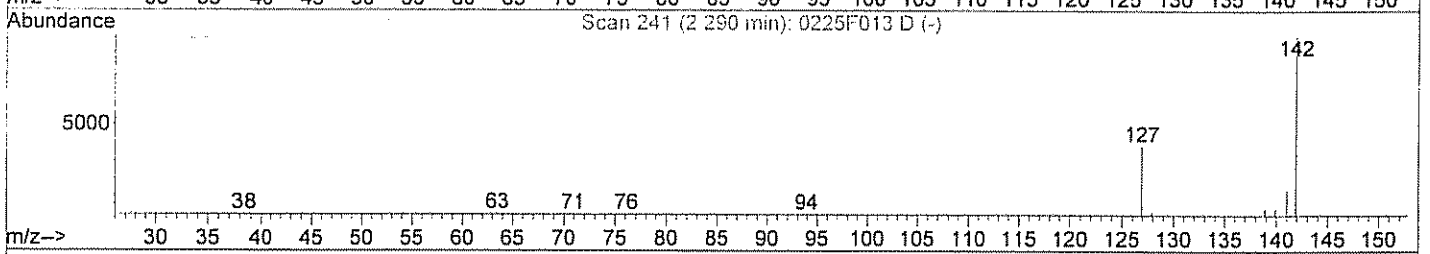
Data File : J:\MS13\DATA\031605\0316F006.D
Acq On : 16 Mar 2005 5:55 pm
Sample : K2501626-002DMS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:13 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F006.D

(14) Iodomethane (T)

2.29min 21.75PPB m

response 407948

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	39.82
141.00	14.40	14.00
0.00	0.00	0.00

MAT 3/21/5

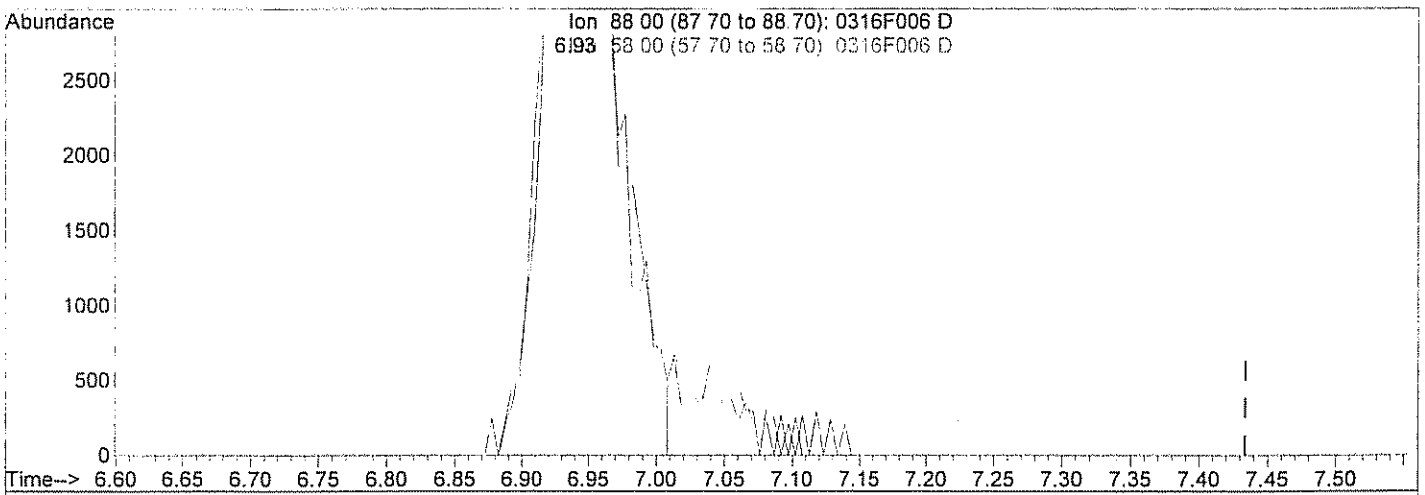
peak tailing
LB 3/18/05

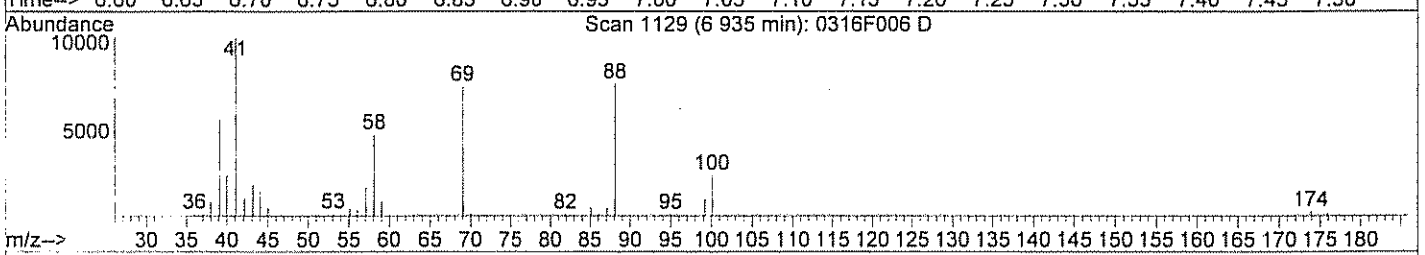
0316F006.D 022505_8260W.M Fri Mar 18 15:13:31 2005

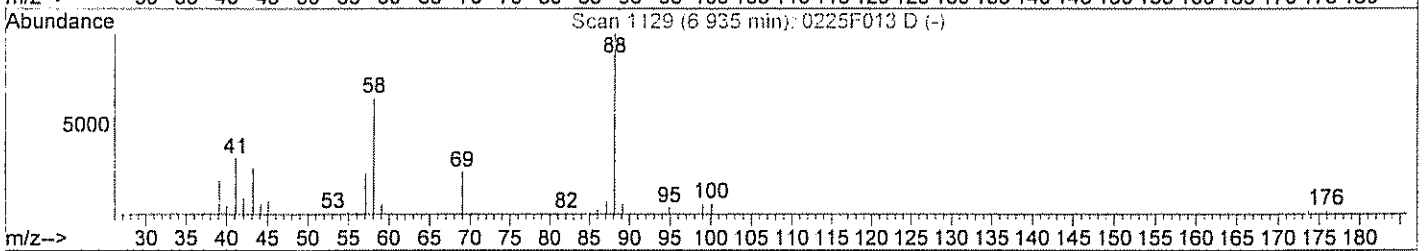
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031605\0316F006.D Vial: 6
Acq On : 16 Mar 2005 5:55 pm Operator:
Sample : K2501626-002DMS 20X Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:13 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F006 D

(51) 1,4-Dioxane (T)

6 93min 242 46PPB

response 23109

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	62 93
0 00	0.00	0 00
0 00	0.00	0 00

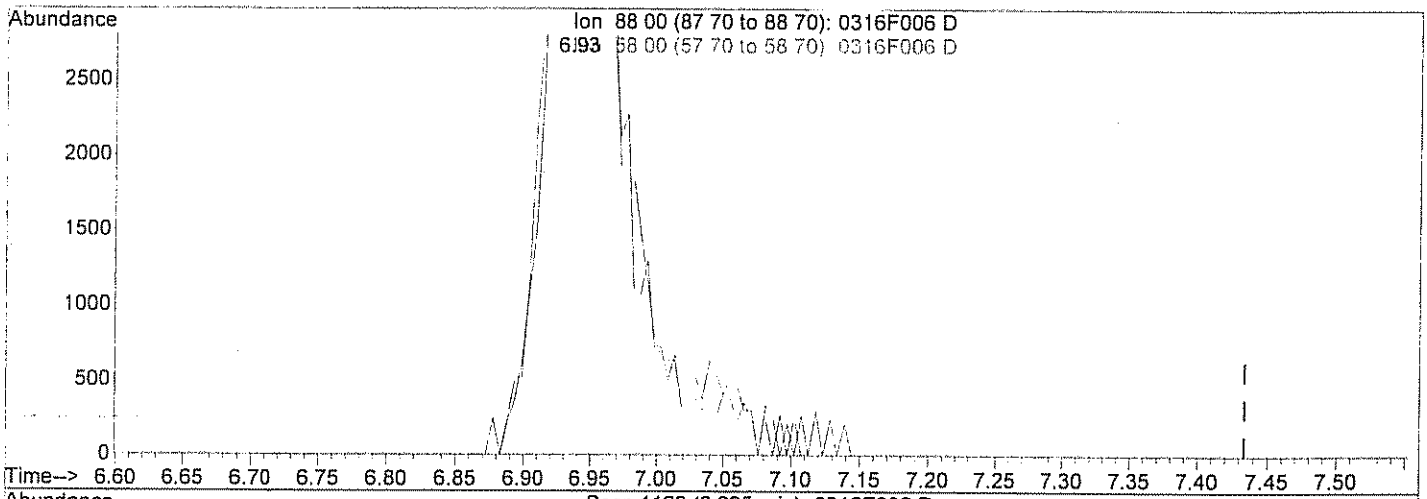
0316F006.D 022505_8260W.M Fri Mar 18 15:13:52 2005

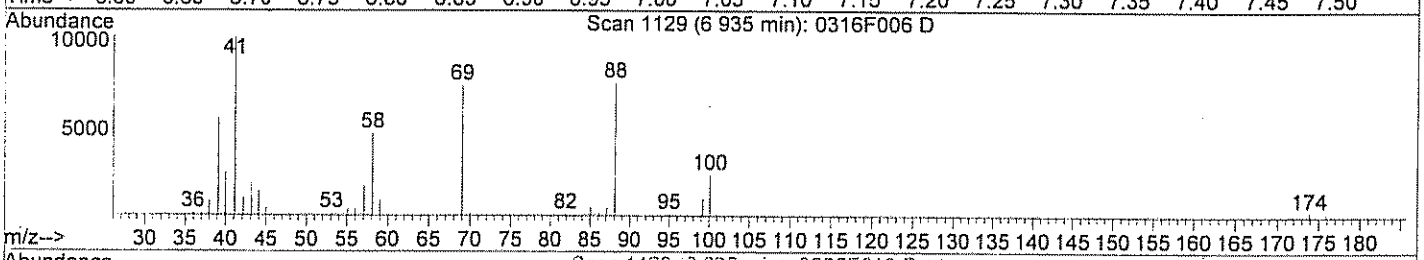
Quantitation Report (Qedit)

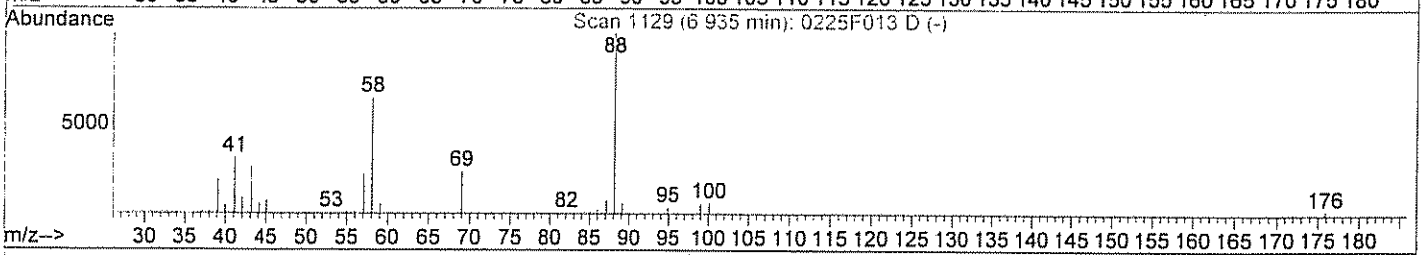
Data File : J:\MS13\DATA\031605\0316F006.D
Acq On : 16 Mar 2005 5:55 pm
Sample : K2501626-002DMS 20X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:13 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F006.D

(51) 1,4-Dioxane (T)

6.93min 266.38PPB m

response 25388

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	62.93
0.00	0.00	0.00
0.00	0.00	0.00

mt 3/21/5

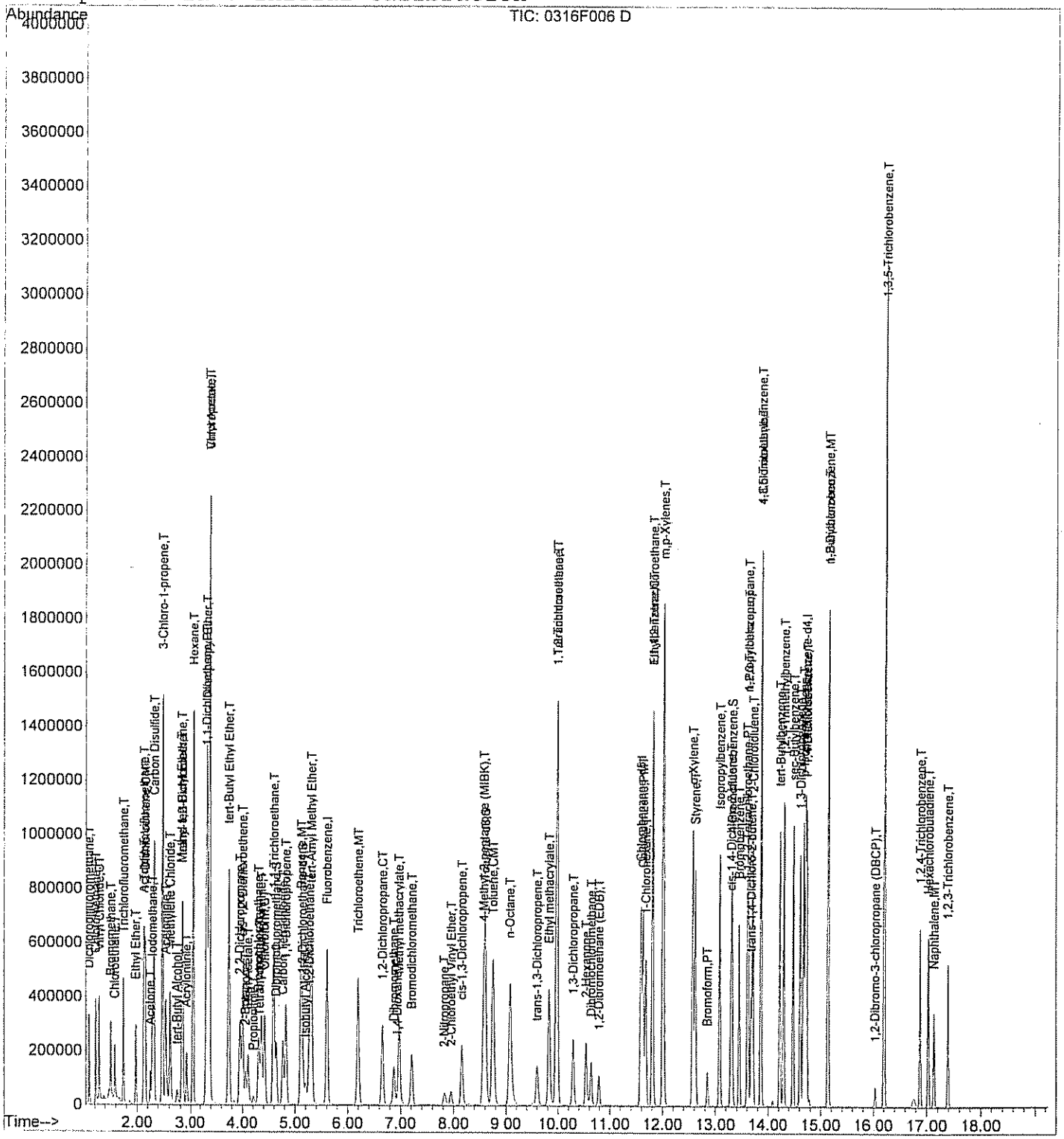
peak tailing
KB 3/18/05

0316F006.D 022505_8260W.M Fri Mar 18 15:14:01 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F006.D Vial: 6
Acq On : 16 Mar 2005 5:55 pm Operator:
Sample : K2501626-002DMS 20X Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:13 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0504385-3	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F004.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
75-71-8	Dichlorodifluoromethane	8.39		0.50	0.17	
74-87-3	Chloromethane	8.17		0.50	0.14	
75-01-4	Vinyl Chloride	8.81		0.50	0.22	
74-83-9	Bromomethane	8.23		0.50	0.22	
75-00-3	Chloroethane	9.48		0.50	0.23	
75-69-4	Trichlorofluoromethane	9.24		0.50	0.14	
67-64-1	Acetone	44.4		20	4.1	
75-35-4	1,1-Dichloroethene	10.2		0.50	0.13	
1634-04-4	Methyl tert-Butyl Ether	8.49		0.50	0.20	
75-15-0	Carbon Disulfide	22.4		0.50	0.16	
75-09-2	Methylene Chloride	9.24		2.0	0.20	
156-60-5	trans-1,2-Dichloroethene	9.67		0.50	0.15	
75-34-3	1,1-Dichloroethane	9.67		0.50	0.11	
78-93-3	2-Butanone (MEK)	44.4		20	2.0	
594-20-7	2,2-Dichloropropane	9.18		0.50	0.18	
156-59-2	cis-1,2-Dichloroethene	9.63		0.50	0.12	
67-66-3	Chloroform	9.79		0.50	0.14	
74-97-5	Bromochloromethane	9.67		0.50	0.17	
71-55-6	1,1,1-Trichloroethane (TCA)	10.5		0.50	0.12	
563-58-6	1,1-Dichloropropene	9.36		0.50	0.15	
56-23-5	Carbon Tetrachloride	11.5		0.50	0.14	
107-06-2	1,2-Dichloroethane (EDC)	9.91		0.50	0.12	
71-43-2	Benzene	9.67		0.50	0.14	
79-01-6	Trichloroethene (TCE)	9.76		0.50	0.14	
78-87-5	1,2-Dichloropropane	9.32		0.50	0.14	
75-27-4	Bromodichloromethane	10.7		0.50	0.11	
74-95-3	Dibromomethane	9.65		0.50	0.12	
591-78-6	2-Hexanone	40.1		20	4.0	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0504385-3	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F004 D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
10061-01-5	cis-1,3-Dichloropropene	9.70		0.50	0.11	
108-88-3	Toluene	9.51		0.50	0.11	
10061-02-6	trans-1,3-Dichloropropene	8.78		0.50	0.090	
79-00-5	1,1,2-Trichloroethane	10.0		0.50	0.14	
108-10-1	4-Methyl-2-pentanone (MIBK)	41.0		20	2.7	
142-28-9	1,3-Dichloropropane	9.76		0.50	0.15	
127-18-4	Tetrachloroethene (PCE)	9.81		0.50	0.13	
124-48-1	Dibromochloromethane	10.6		0.50	0.11	
106-93-4	1,2-Dibromoethane (EDB)	9.67		2.0	0.099	
108-90-7	Chlorobenzene	9.43		0.50	0.14	
630-20-6	1,1,1,2-Tetrachloroethane	11.0		0.50	0.12	
100-41-4	Ethylbenzene	10.3		0.50	0.13	
136777-61-2	m,p-Xylenes	20.9		0.50	0.22	
95-47-6	o-Xylene	9.88		0.50	0.11	
100-42-5	Styrene	10.4		0.50	0.095	
75-25-2	Bromoform	11.1		0.50	0.28	
98-82-8	Isopropylbenzene	9.22		2.0	0.11	
79-34-5	1,1,2,2-Tetrachloroethane	9.78		0.50	0.14	
96-18-4	1,2,3-Trichloropropane	9.37		0.50	0.22	
108-86-1	Bromobenzene	10.2		2.0	0.18	
103-65-1	n-Propylbenzene	10.9		2.0	0.098	
95-49-8	2-Chlorotoluene	11.1		2.0	0.12	
106-43-4	4-Chlorotoluene	10.8		2.0	0.12	
108-67-8	1,3,5-Trimethylbenzene	11.1		2.0	0.13	
98-06-6	tert-Butylbenzene	11.0		2.0	0.13	
95-63-6	1,2,4-Trimethylbenzene	10.6		2.0	0.15	
135-98-8	sec-Butylbenzene	11.6		2.0	0.13	
541-73-1	1,3-Dichlorobenzene	9.70		0.50	0.11	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/16/2005
		Date Analyzed:	03/16/2005

Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0504385-3	**Basis:**	NA
File ID:	J:\MS13\DATA\031605\0316F004.D	**Level:**	Low
Instrument ID:	MS13		
Extraction Method:	EPA 5030B	**Extraction Lot:**	KWG0504385
Analysis Method:	8260B	**Calibration ID:**	CAL4250

Sample Amount: 10 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
99-87-6	4-Isopropyltoluene	10.2		2.0	0.13	
106-46-7	1,4-Dichlorobenzene	9.75		0.50	0.12	
104-51-8	n-Butylbenzene	10.9		2.0	0.23	
95-50-1	1,2-Dichlorobenzene	9.64		0.50	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	9.73		2.0	1.0	
120-82-1	1,2,4-Trichlorobenzene	8.89		2.0	0.22	
87-61-6	1,2,3-Trichlorobenzene	8.92		2.0	0.33	
91-20-3	Naphthalene	8.21		2.0	0.29	
87-68-3	Hexachlorobutadiene	11.7		2.0	0.28	
994-05-8	tert-Amyl Methyl Ether	19.9		2.0	0.15	
637-92-3	tert-Butyl Ethyl Ether	18.0		2.0	0.075	
75-65-0	tert-Butyl Alcohol	80.8		20	1.1	*
108-20-3	Diisopropyl Ether	19.1		2.0	0.25	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	80-119	03/16/05	Acceptable
Toluene-d8	98	83-113	03/16/05	Acceptable
4-Bromofluorobenzene	101	72-114	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS13\DATA\031605\0316F004.D
Lab ID: KWG0504385-3
RunType: LCS
Matrix: WATER

Date Acquired: 03/16/2005 17:00
Date Quantitated: 03/18/2005 15:11
Batch ID: KWG0504384
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA		x
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓
Continuing Calibration Recovery	Acrolein	-40.6	NA	40	↓
Continuing Calibration Minimum RF	1,4-Dioxane	0.0012	0.01	NA	↓
	Acetonitrile	0.0089	0.01	NA	NT
	tert-Butyl Alcohol	0.0055	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0027	0.01	NA	↓
Std MRL Unsupported by ICAL	2-Nitropropane	6.3	5.0	NA	NT

Primary Review: LP 3/18/05

Secondary Review: mt 3/24/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260-I	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**	KWG0504385	**Report Group:**	
Analysis Method:	8260B	**Prep Method:**	EPA 5030B		
Prep Ref:	369303	**Prep Date:**	03/16/2005		

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031605\0316F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS13\DATA\031605\0316F009 D	**Quant based on Method**	

Data File:	J:\MS13\DATA\031605\0316F004 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:00	**Quant Date:**	03/18/2005 15:11	**Vial:**	4
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0504385-3			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5 60	0 00	96	648290	10.00	OK
2	Chlorobenzene-d5	11 58	0 00	82	276290	10 00	OK
3	1,4-Dichlorobenzene-d4	14 71	0 00	152	299988	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64	0 00	0 00	113	152113	9.48	95	80-119	OK
1	1,2-Dichloroethane-d4	5.15	0.00	0.00	65	168637	9 33	93	76-115	OK
1	Toluene-d8	8 60	0.00	0.00	98	692039	9 75	98	83-113	OK
2	4-Bromofluorobenzene	13 31	0.00	0 00	95	247404	10.13	101	72-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1 09	-0 01	0.00	85	167120	8 39	8.39		
1	Chloromethane	1 22		0 00	50	205620	8 17	8 17		
1	Vinyl Chloride	1 29		0 00	62	186542	8.81	8 81		
1	Bromomethane	1.51		0 00	96	99281	8.23	8 23		
1	Chloroethane	1 58		0.00	64	119887	9 48	9 48		
1	Dichlorofluoromethane (CFC 21				67	0d		0 40	U	
1	Trichlorofluoromethane	1 74		0.00	101	258155	9.24	9 24		
1	Ethyl Ether	1.97		0.00	59	103425	9.00	9.00		
1	Acrolein	2.12		0.00	56	128189	77.28	77 3		
1	Trichlorotrifluoroethane	2 13		0 00	151	148172	10.95	11.0		
1	1,1-Dichloroethene	2 15		0 00	96	149771	10 22	10.2		
1	Acetone	2.25		0 00	43	109839	44 44	44 4		
1	Iodomethane	2 29		0.00	142	443392m	24.51	24 5		
1	Carbon Disulfide	2 32		0 00	76	999288	22.41	22.4		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F004 D			Instrument:	MS13
Acqu Date:	03/16/2005 17:00	Quant Date:	03/18/2005 15:11	Vial:	4
Run Type:	LCS			Dilution:	1 0
Lab ID:	KWG0504385-3			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2 48		0 00	76	270411	34 64	34 6		
1	Acetonitrile	2.55	0 01	0 00	40	185016	303 64	304		
1	Methylene Chloride	2.62		0 00	84	164279	9.24	9 24		
1	tert-Butyl Alcohol	2.74		0.00	59	39054	80 79	80.8		
1	Acrylonitrile	2 91	-0.01	0 00	53	128496	39 25	39.3		
1	Methyl tert-Butyl Ether	2.82		0 00	73	294667	8.49	8 49		
1	trans-1,2-Dichloroethene	2.84		0 00	96	166632	9 67	9 67		
1	n-Hexane	3 05		0.00	57	624569	35 77	35 8		
1	Diisopropyl Ether	3 33		0 00	45	968001	19 13	19 1		
1	1,1-Dichloroethane	3 31		0.00	63	290038	9.67	9 67		
1	Vinyl Acetate	3 37		0.00	86	107955	52.66	52.7		
1	Chloroprene	3 37		0 00	53	842054	39 81	39 8		
1	tert-Butyl Ethyl Ether	3 74		0 00	59	704858	18 01	18 0		
1	2,2-Dichloropropane	3 95		0.00	77	156676	9 18	9 18		
1	cis-1,2-Dichloroethene	4 00		0 00	96	176808	9.63	9 63		
1	2-Butanone (MEK)	4.06	0.01	0.00	72	41218	44 37	44 4		
1	Propionitrile	4.21		0 00	54	33431	28 85	28 9		
1	Ethyl Acetate	4.11		0 00	61	33288	29.86	29 9		
1	Methacrylonitrile	4.36		0 00	67	118657	29.44	29 4		
1	Bromochloromethane	4.30		0.00	128	76428	9.67	9 67		
1	Tetrahydrofuran	4 33	-0 01	0.00	71	17302	15 63	15.6		
1	Chloroform	4.42		0 00	83	282666	9.79	9 79		
1	1,1,1-Trichloroethane (TCA)	4 59		0 00	97	231919	10.48	10 5		
1	Carbon Tetrachloride	4 77		0 00	117	185268	11 45	11.5		
1	1,1-Dichloropropene	4 83		0.00	75	211834	9.36	9.36		
1	Isobutyl Alcohol	5.20		0 00	43	57949	294.68	295		
1	Benzene	5.11		0 00	78	680953	9.67	9 67		
1	1,2-Dichloroethane (EDC)	5 27	0.01	0.00	62	200288	9 91	9 91		
1	tert-Amyl Methyl Ether	5 30	-0 01	0.00	55	256887	19 88	19.9		
1	Trichloroethene (TCE)	6 19	-0 01	0.00	95	167966	9 76	9 76		
1	1,2-Dichloropropane	6 66		0.00	63	152082	9 32	9 32		
1	Dibromomethane	6.87		0.00	93	75058	9 65	9 65		
1	Methyl Methacrylate	6.97		0 00	69	175788	26.94	26 9		
1	1,4-Dioxane	6.94	0.01	0 00	88	25089m	272 84	273		
1	Bromodichloromethane	7 21		0.00	83	189786	10.65	10.7		
1	2-Nitropropane	7 83		0.00	43	44970	34.76	34.8		
1	2-Chloroethyl Vinyl Ether	7 95		0.00	63	49836	7.09	7 09		
1	cis-1,3-Dichloropropene	8 16		0.00	75	195605	9.70	9 70		
1	4-Methyl-2-pentanone (MIBK)	8.57	0 01	0.00	58	129381	41 02	41.0		
1	Toluene	8 75		0.00	92	433949	9.51	9.51		
2	n-Octane	9 08		0.00	85	178571	24.75	24 8		
2	trans-1,3-Dichloropropene	9 60		0.00	75	132188	8.78	8.78		

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F004.D			Instrument:	MS13
Acqu Date:	03/16/2005 17:00	Quant Date:	03/18/2005 15:11	Vial:	4
Run Type:	LCS			Dilution:	1.0
Lab ID:	KWG0504385-3			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9.83		0.00	69	348163	28.75	28.8		
2	1,1,2-Trichloroethane	9.96		0.00	83	96548	10.01	10.0		
2	Tetrachloroethene (PCE)	9.97		0.00	164	152072	9.81	9.81		
2	2-Hexanone	10.54	0.01	0.00	57	38839	40.11	40.1		
2	1,3-Dichloropropane	10.29		0.00	76	197738	9.76	9.76		
2	Dibromochloromethane	10.64		0.00	129	115295	10.62	10.6		
2	1,2-Dibromoethane (EDB)	10.79		0.00	107	100573	9.67	9.67		
2	1-Chlorohexane	11.68		0.00	91	185659	10.41	10.4		
2	Chlorobenzene	11.63		0.00	112	472562	9.43	9.43		
2	Ethylbenzene	11.81		0.00	106	258932	10.34	10.3		
2	1,1,1,2-Tetrachloroethane	11.81		0.00	131	131928	10.99	11.0		
2	m,p-Xylenes	12.01		0.00	106	648471	20.92	20.9		
2	o-Xylene	12.57		0.00	106	285146	9.88	9.88		
2	Styrene	12.62		0.00	103	244714	10.44	10.4		
2	Bromoform	12.85	0.01	0.00	173	60886	11.05	11.1		
2	Isopropylbenzene	13.08		0.00	105	645964	9.22	9.22		
2	cis-1,4-Dichloro-2-butene	13.29		0.00	89	32165	30.21	30.2		
3	1,1,2,2-Tetrachloroethane	13.59		0.00	83	112720	9.78	9.78		
3	trans-1,4-Dichloro-2-butene	13.68		0.00	53	95689	32.19	32.2		
3	Bromobenzene	13.45		0.00	156	208713	10.16	10.2		
3	n-Propylbenzene	13.61		0.00	91	862227	10.94	10.9		
3	1,2,3-Trichloropropane	13.61		0.00	110	35302	9.37	9.37		
3	2-Chlorotoluene	13.71		0.00	91	581023	11.06	11.1		
3	1,3,5-Trimethylbenzene	13.86		0.00	105	623569	11.06	11.1		
3	4-Chlorotoluene	13.86		0.00	91	648938	10.81	10.8		
3	tert-Butylbenzene	14.22		0.00	119	501231	10.95	11.0		
3	1,2,4-Trimethylbenzene	14.30		0.00	105	617507	10.58	10.6		
3	sec-Butylbenzene	14.48		0.00	105	699913	11.57	11.6		
3	4-Isopropyltoluene	14.67		0.00	119	583280	10.19	10.2		
3	1,3-Dichlorobenzene	14.61		0.00	146	392329	9.70	9.70		
3	1,4-Dichlorobenzene	14.73		0.00	146	408230	9.75	9.75		
3	n-Butylbenzene	15.13		0.00	91	486609	10.91	10.9		
3	1,2-Dichlorobenzene	15.15	0.01	0.00	146	363275	9.64	9.64		
3	1,2-Dibromo-3-chloropropane	16.03	-0.01	0.00	155	13321	9.73	9.73		
3	1,3,5-Trichlorobenzene	16.20	-0.01	0.00	180	1005635	41.11	41.1		
3	1,2,4-Trichlorobenzene	16.88		0.00	180	192451	8.89	8.89		
3	Hexachlorobutadiene	17.03		0.00	225	126116	11.74	11.7		
3	Naphthalene	17.13		0.00	128	238474	8.21	8.21		
3	1,2,3-Trichlorobenzene	17.39		0.00	180	160735	8.92	8.92		

U: Undetected at or above MDL
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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F004 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 17:00	**Quant Date:**	03/18/2005 15:11	**Vial:**	4
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0504385-3			**Soln Conc. Units:**	PPB

Prep Amount:	10 ml	**Dilution:**	1 0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
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d: Compound manually deleted
NR: Analyte not reported from this analysis

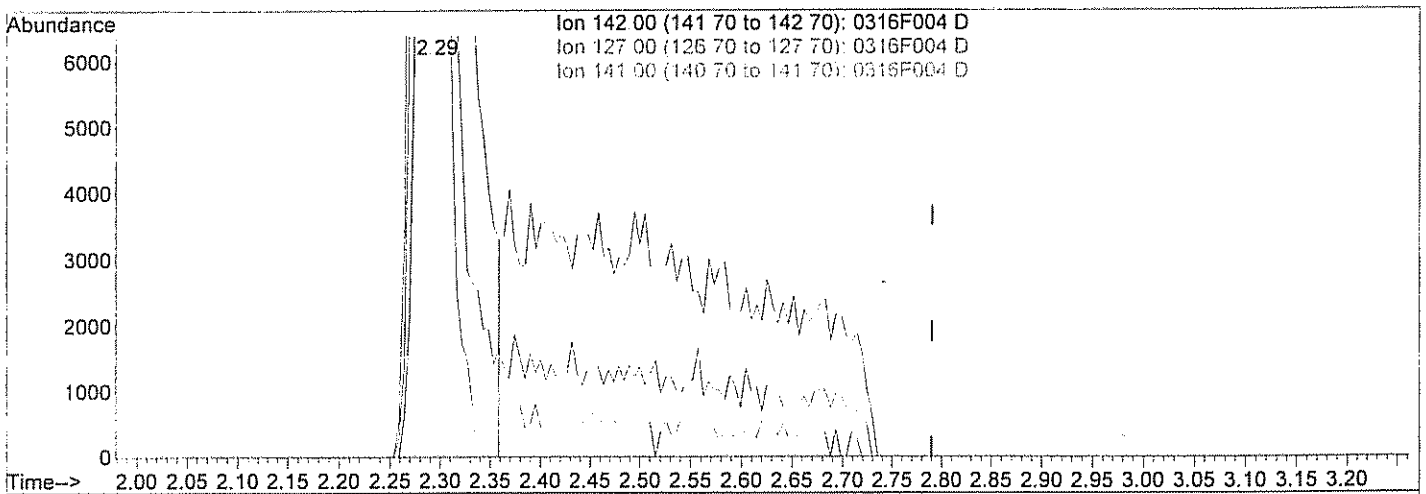
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

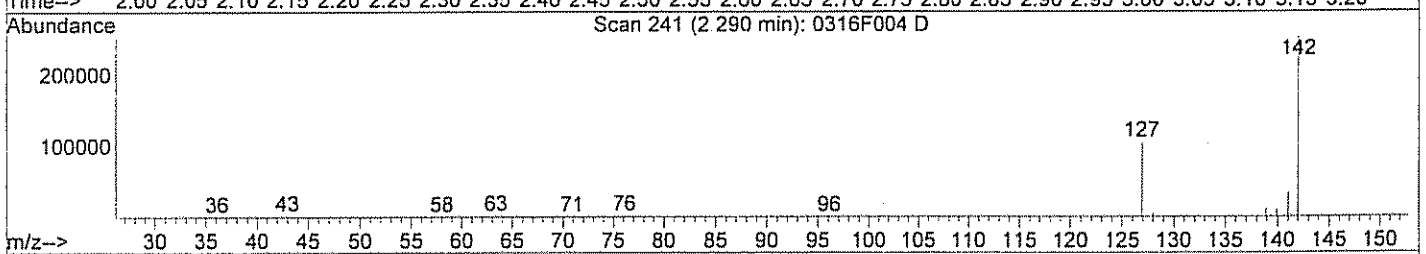
Quantitation Report (Qedit)

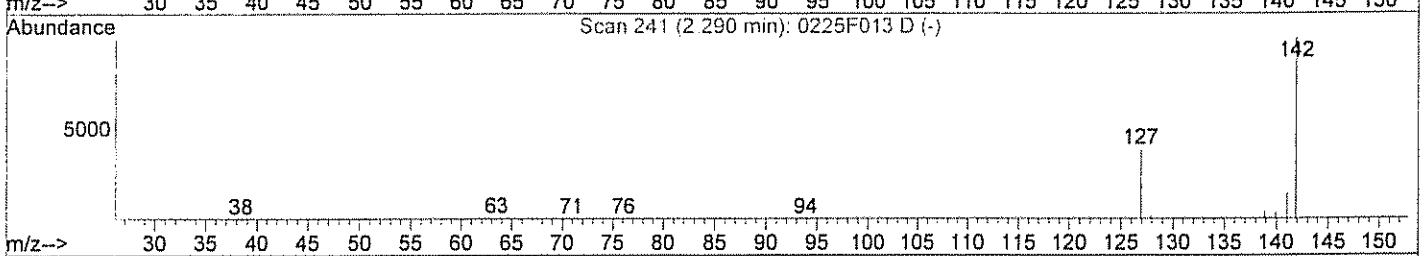
Data File : J:\MS13\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 5:00 pm
Sample : 0316 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:10 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F004.D

(14) Iodomethane (T)

2.29min 21.18PPB

response 383169

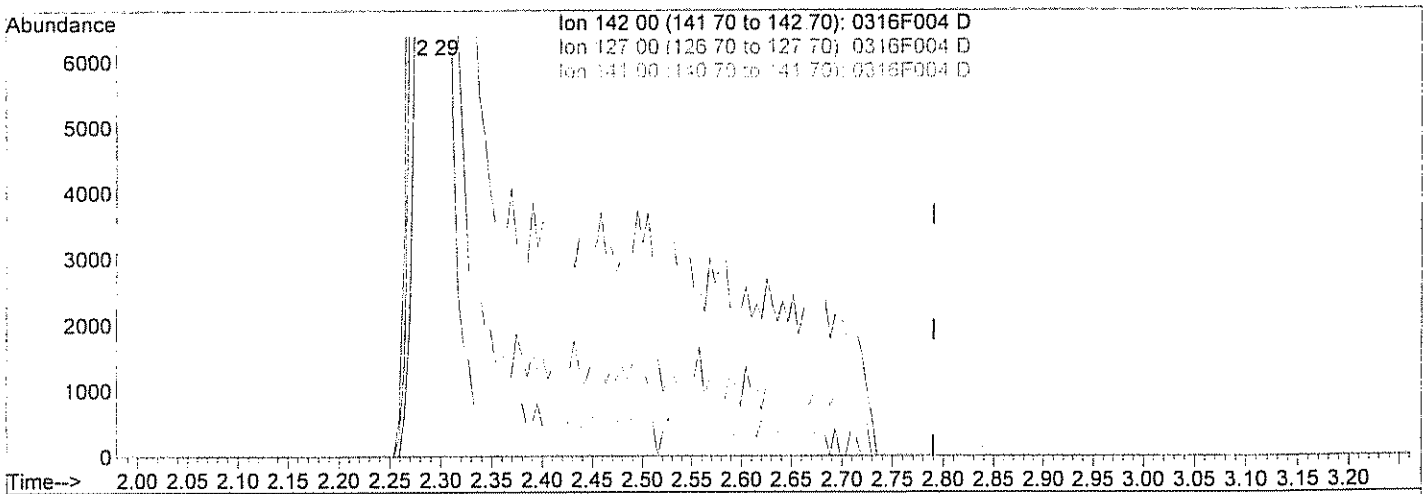
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.44
141.00	14.40	13.80
0.00	0.00	0.00

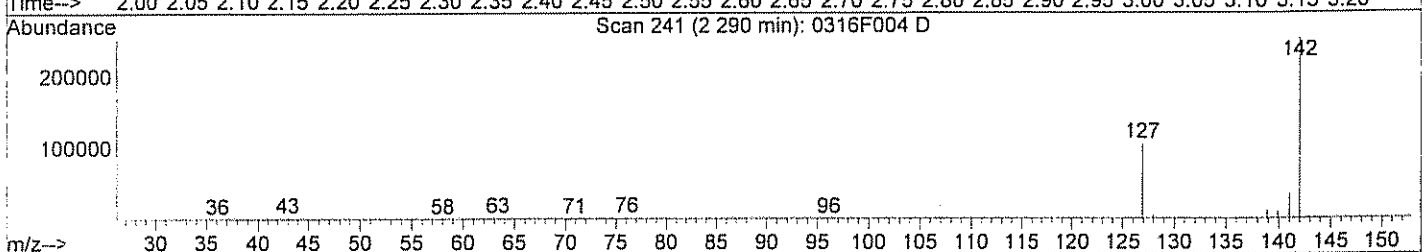
Quantitation Report (Qedit)

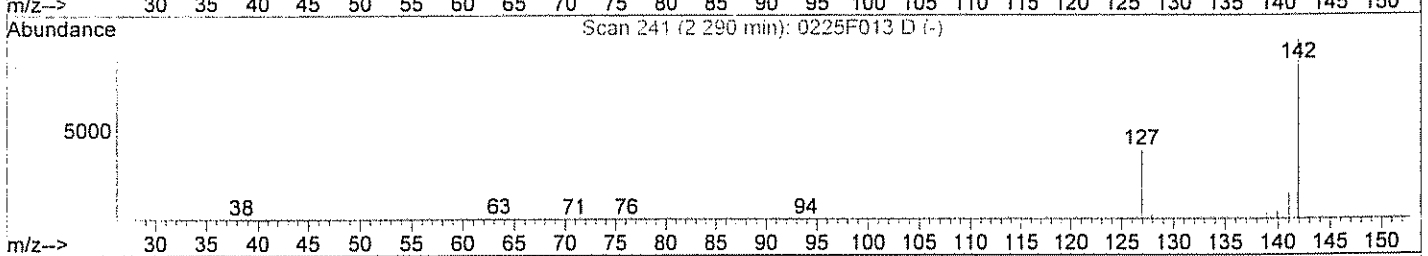
Data File : J:\MS13\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 5:00 pm
Sample : 0316 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:11 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F004.D

(14) Iodomethane (T)

2.29min 24.51PPB m

response 443392

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.44
141.00	14.40	13.80
0.00	0.00	0.00

mt 3/21/5

peak tailing
KB 3/18/05

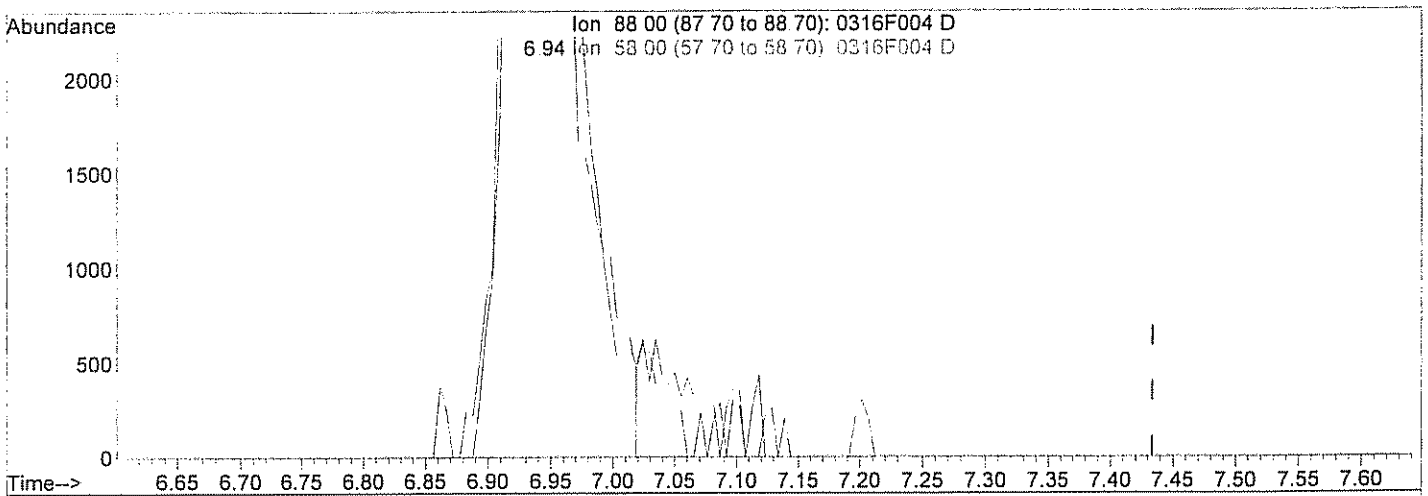
0316F004.D 022505_8260W.M Fri Mar 18 15:11:08 2005

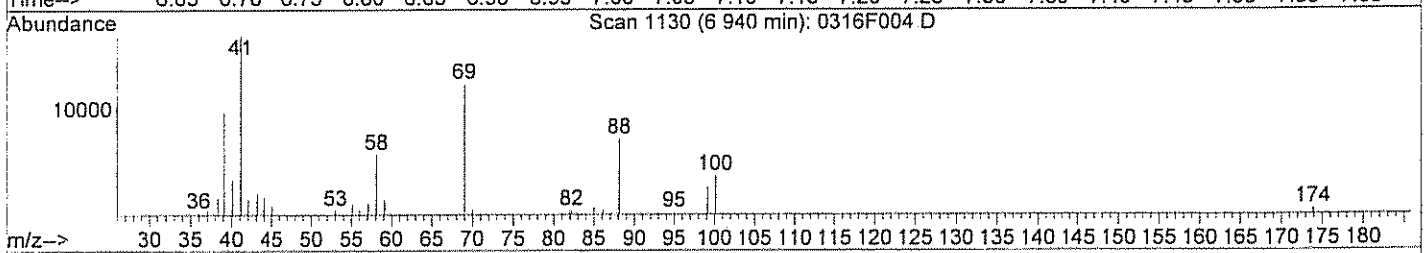
Quantitation Report (Qedit)

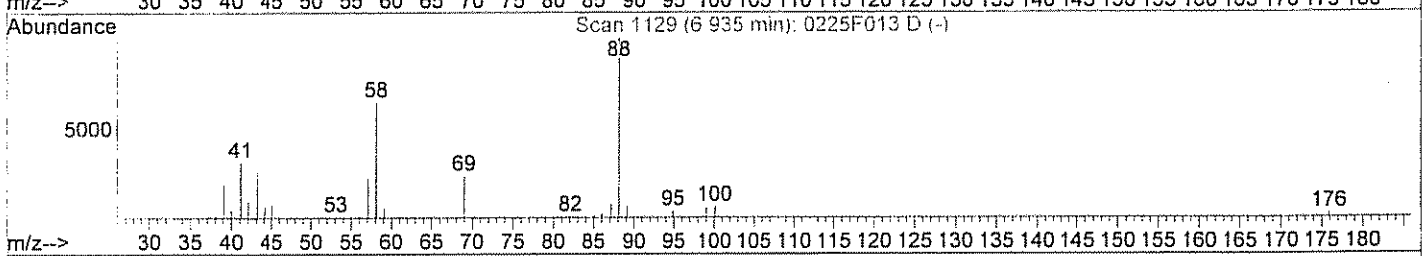
Data File : J:\MS13\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 5:00 pm
Sample : 0316 LCS W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:11 2005

Vial: 4
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F004.D

(51) 1,4-Dioxane (T)

6.94min 250.54PPB

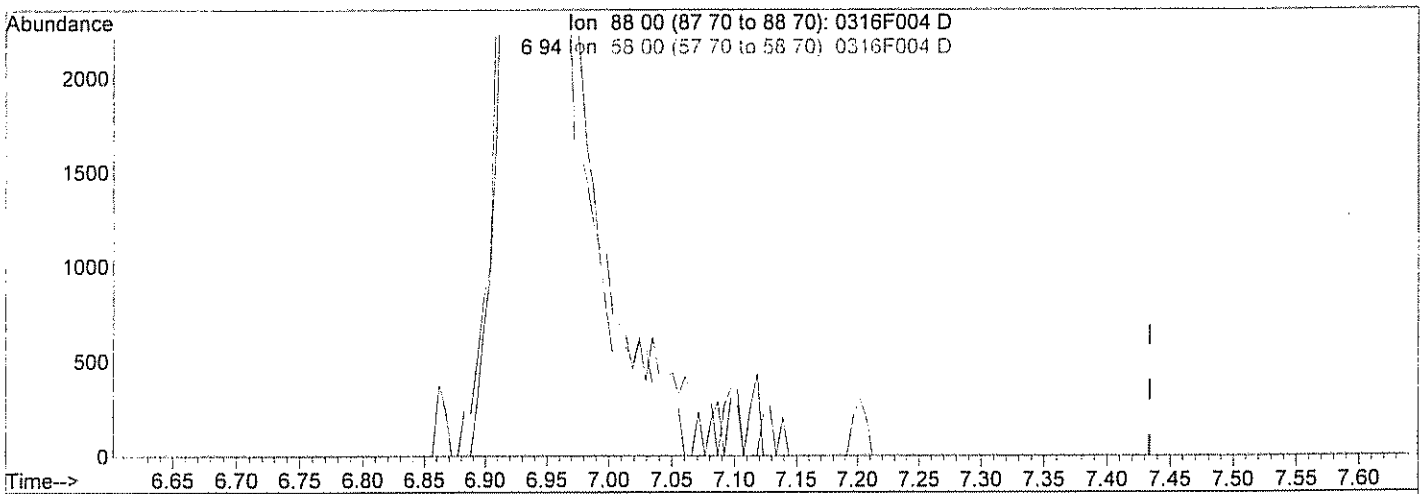
response 23038

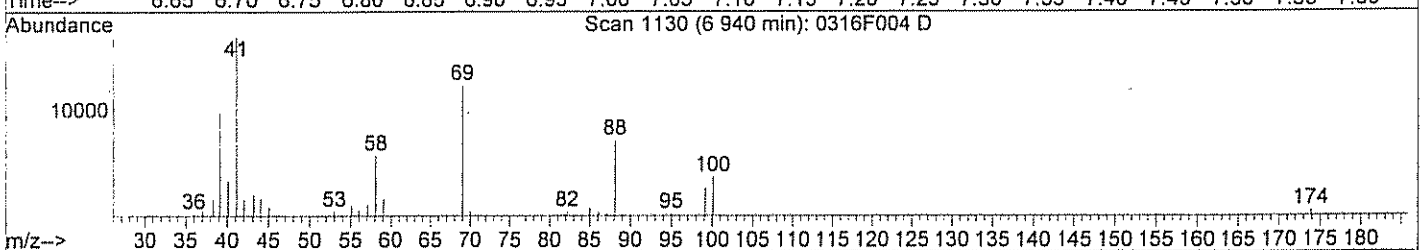
Ion	Exp%	Act%
88.00	100	100
58.00	64.70	80.82
0.00	0.00	0.00
0.00	0.00	0.00

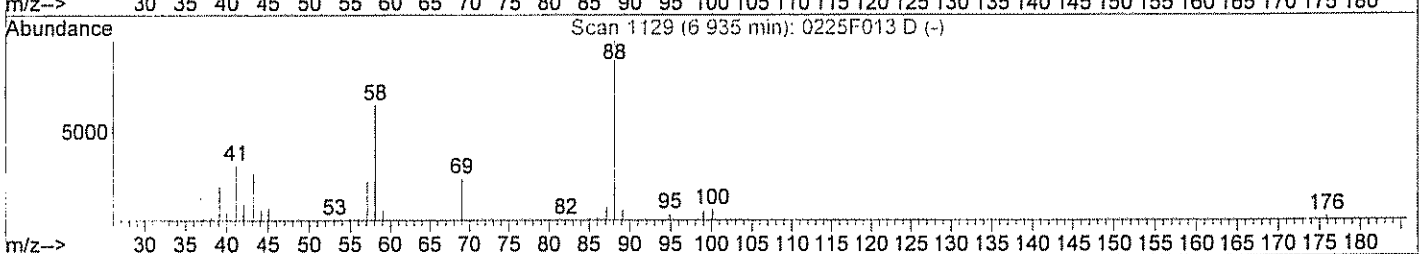
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\031605\0316F004.D Vial: 4
Acq On : 16 Mar 2005 5:00 pm Operator:
Sample : 0316 LCS W Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:11 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F004 D

(51) 1,4-Dioxane (T)

6 94min 272 84PPB m

response 25089

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	80 82
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing

mt 3/21/5

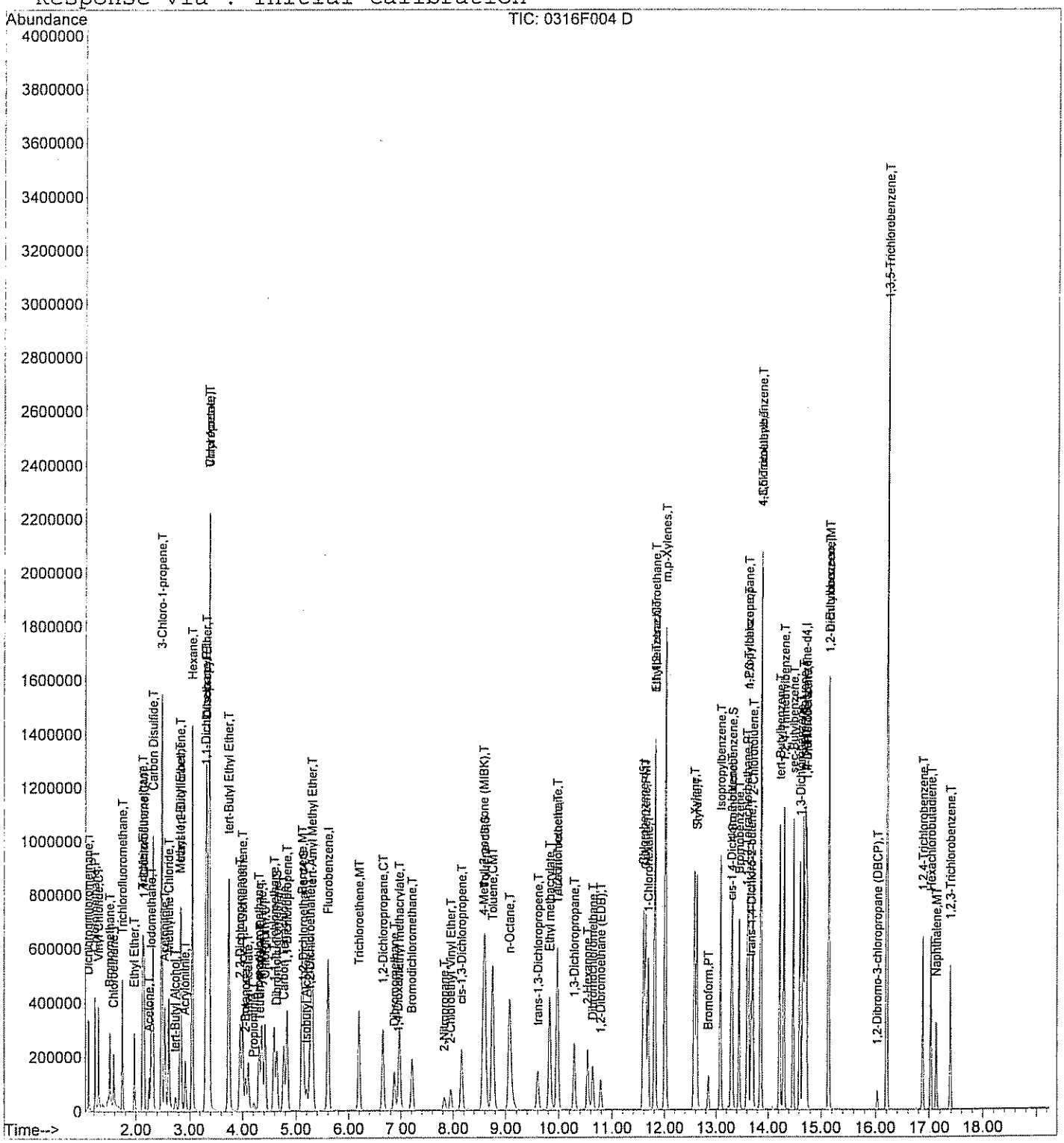
KB 3/18/05

0316F004.D 022505_8260W.M Fri Mar 18 15:11:33 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F004.D Vial: 4
Acq On : 16 Mar 2005 5:00 pm Operator:
Sample : 0316 LCS W Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 15:11 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 16:02

Tune Summary
Volatile Organic Compounds

File ID: J:\MS13\DATA\031605\0316F002.D
Instrument ID: MS13
Column:

Analysis Method: 8260B
Analysis Lot: KWG0504384

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	19.2	8366	PASS
75	95	20	70	50.3	21944	PASS
95	95	50	200	100.0	43640	PASS
96	95	5	9	6.6	2862	PASS
173	174	0	2	1.7	632	PASS
174	95	50	200	87.6	38208	PASS
175	174	5	9	7.7	2936	PASS
176	174	95	101	96.4	36840	PASS
177	176	5	9	7.3	2678	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504384-2	J:\MS13\DATA\031605\0316F003.D	03/16/2005	16:32	
Lab Control Sample	KWG0504385-3	J:\MS13\DATA\031605\0316F004.D	03/16/2005	17:00	
Batch QCMS	KWG0504385-1	J:\MS13\DATA\031605\0316F005.D	03/16/2005	17:28	
Batch QCDMS	KWG0504385-2	J:\MS13\DATA\031605\0316F006.D	03/16/2005	17:55	
Method Blank	KWG0504385-4	J:\MS13\DATA\031605\0316F009.D	03/16/2005	19:17	
Batch QCDL	K2501626-002	J:\MS13\DATA\031605\0316F011.D	03/16/2005	20:11	
50425-01	K2501630-001	J:\MS13\DATA\031605\0316F016.D	03/16/2005	22:28	
50425-02	K2501630-002	J:\MS13\DATA\031605\0316F017.D	03/16/2005	22:55	
Batch QC	K2501626-002	J:\MS13\DATA\031605\0316F025.D	03/17/2005	02:33	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File: J:\MS13\DATA\031605\0316F002 D
Lab ID: KWG0504384-1
RunType: TUNE
Matrix: WATER

Date Acquired: 03/16/2005 16:02
Date Quantitated:
Batch ID: KWG0504384
Analysis Method: 8260B
ListJoinID: LJ5396

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: LB 3/18/05

Secondary Review: MT 3/21/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ1456
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS13\DATA\031605\0316F002.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 16:02	**Quant Date:**		**Vial:**	2
Run Type:	TUNE			**Dilution:**	1.0
Lab ID:	KWG0504384-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	5	40	19.2	8366	Pass
75	95	20	70	50.3	21944	Pass
95	95	50	200	100.0	43640	Pass
96	95	5	9	6.6	2862	Pass
173	174	0	2	1.7	632	Pass
174	95	50	200	87.6	38208	Pass
175	174	5	9	7.7	2936	Pass
176	174	95	101	96.4	36840	Pass
177	176	5	9	7.3	2678	Pass

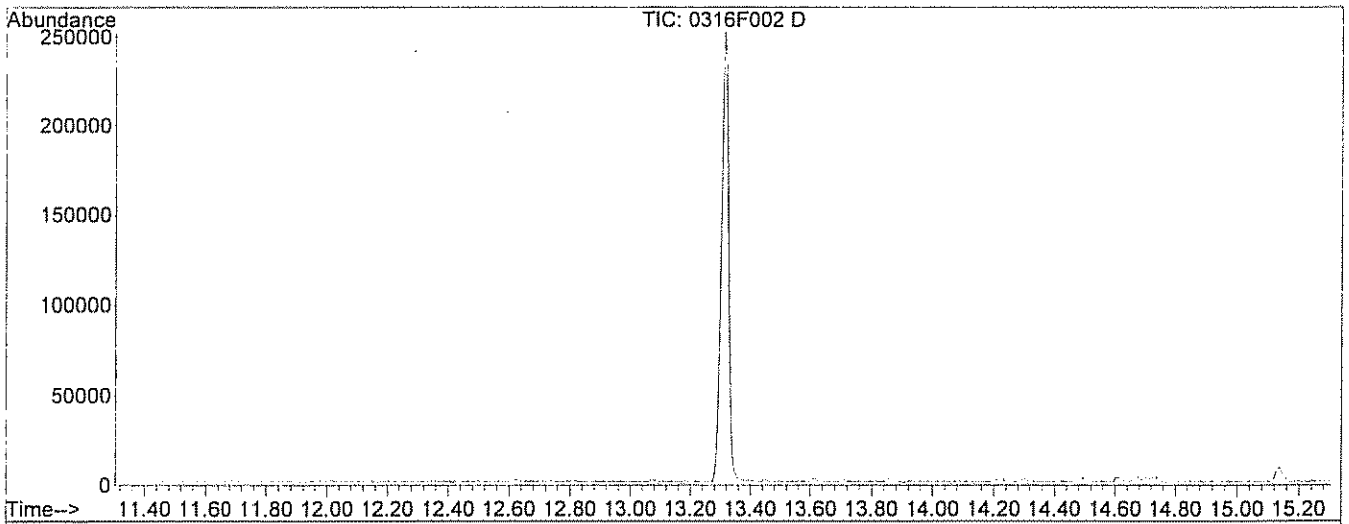
U: Undetected at or above MDL.
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

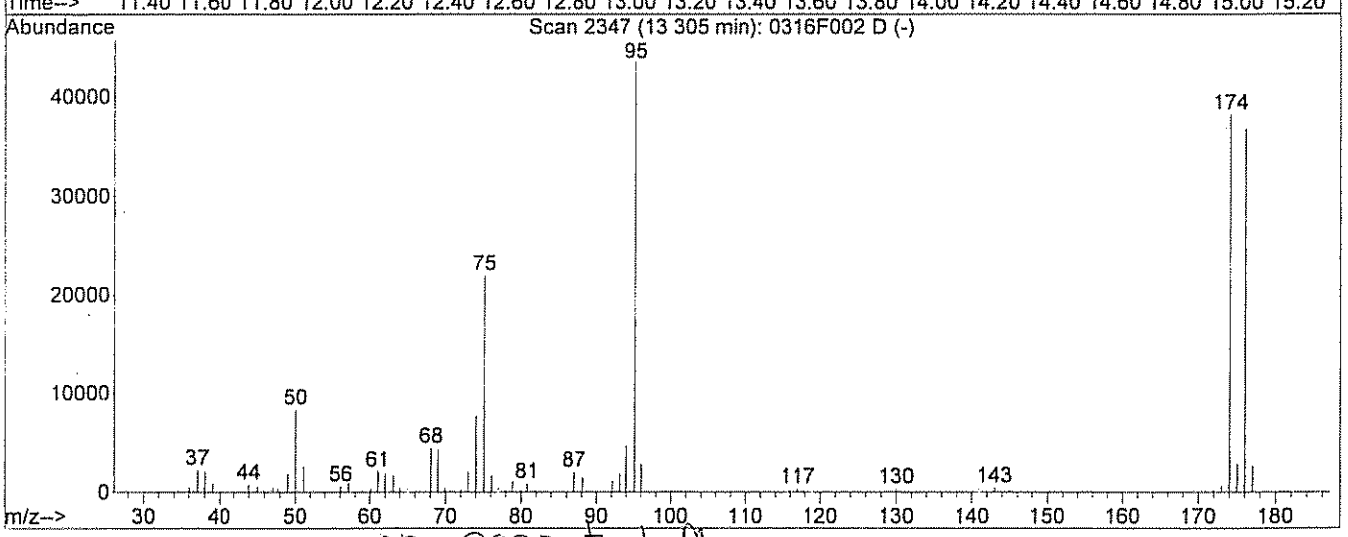
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

BFB

Data File : J:\MS13\DATA\031605\0316F002.D Vial: 2
Acq On : 16 Mar 2005 4:02 pm Operator:
Sample : 50ng BFB Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B





one scan to left

Spectrum Information: Scan 2347 - scan 2334 KB 3/18/05

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	5	40	19.2	8366	PASS
75	95	20	70	50.3	21944	PASS
95	95	50	200	100.0	43640	PASS
96	95	5	9	6.6	2862	PASS
173	174	0.00	2	1.7	632	PASS
174	95	50	200	87.6	38208	PASS
175	174	5	9	7.7	2936	PASS
176	174	95	101	96.4	36840	PASS
177	176	5	9	7.3	2678	PASS

mrt 3/21/5

0316F002.D 022505_8260W.M Thu Mar 17 22:24:37 2005

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS13\DATA\022505\0225F007.D	F	J:\MS13\DATA\022505\0225F012.D
B	J:\MS13\DATA\022505\0225F008.D	G	J:\MS13\DATA\022505\0225F013.D
C	J:\MS13\DATA\022505\0225F009.D	H	J:\MS13\DATA\022505\0225F014.D
D	J:\MS13\DATA\022505\0225F010.D	I	J:\MS13\DATA\022505\0225F015.D
E	J:\MS13\DATA\022505\0225F011.D	J	J:\MS13\DATA\022505\0225F016.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Dichlorodifluoromethane	A	0.20	0.339	B	0.30	0.300	C	0.50	0.304	D	1.3	0.291	E	2.0	0.299
	F	5.0	0.328	G	10	0.321	H	20	0.304	I	40	0.281	J	80	0.308
† Chloromethane	A	0.20	0.492	B	0.30	0.435	C	0.50	0.418	D	1.3	0.403	E	2.0	0.389
	F	5.0	0.378	G	10	0.356	H	20	0.343	I	40	0.326	J	80	0.341
‡ Vinyl Chloride	A	0.20	0.371	B	0.30	0.342	C	0.50	0.337	D	1.3	0.327	E	2.0	0.316
	F	5.0	0.331	G	10	0.319	H	20	0.310	I	40	0.292	J	80	0.320
Bromomethane	A	0.20	0.198	B	0.30	0.193	C	0.50	0.203	D	1.3	0.192	E	2.0	0.192
	F	5.0	0.190	G	10	0.181	H	20	0.176	I	40	0.169	J	80	0.167
Chloroethane				B	0.30	0.257	C	0.50	0.217	D	1.3	0.191	E	2.0	0.194
	F	5.0	0.192	G	10	0.180	H	20	0.178	I	40	0.168	J	80	0.177
Trichlorofluoromethane	A	0.20	0.478	B	0.30	0.465	C	0.50	0.433	D	1.3	0.445	E	2.0	0.427
	F	5.0	0.429	G	10	0.418	H	20	0.408	I	40	0.388	J	80	0.418
Acetone	A	4.0	0.0404	B	6.0	0.0397	C	10	0.0403	D	25	0.0370	E	40	0.0363
	F	100	0.0383	G	200	0.0355	H	400	0.0376	I	800	0.0392	J	1600	0.0371
‡ 1,1-Dichloroethene	A	0.20	0.224	B	0.30	0.220	C	0.50	0.231	D	1.3	0.229	E	2.0	0.233
	F	5.0	0.231	G	10	0.227	H	20	0.223	I	40	0.212	J	80	0.232
Methyl tert-Butyl Ether	A	0.40	0.527	B	0.60	0.515	C	1.0	0.524	D	2.5	0.499	E	4.0	0.507
	F	10	0.549	G	20	0.540	H	40	0.559	I	80	0.565	J	160	0.567
Carbon Disulfide	A	0.20	0.787	B	0.30	0.698	C	0.50	0.702	D	1.3	0.661	E	2.0	0.681
	F	5.0	0.686	G	10	0.664	H	20	0.663	I	40	0.638	J	80	0.700
Methylene Chloride				B	0.30	0.349	C	0.50	0.309	D	1.3	0.280	E	2.0	0.266
	F	5.0	0.271	G	10	0.252	H	20	0.249	I	40	0.244	J	80	0.247
trans-1,2-Dichloroethene	A	0.20	0.305	B	0.30	0.285	C	0.50	0.269	D	1.3	0.262	E	2.0	0.256
	F	5.0	0.264	G	10	0.254	H	20	0.256	I	40	0.247	J	80	0.260
† 1,1-Dichloroethane	A	0.20	0.504	B	0.30	0.473	C	0.50	0.467	D	1.3	0.454	E	2.0	0.449
	F	5.0	0.467	G	10	0.452	H	20	0.456	I	40	0.442	J	80	0.463
2-Butanone (MEK)	A	4.0	0.0124	B	6.0	0.0116	C	10	0.0122	D	25	0.0137	E	40	0.0138
	F	100	0.0158	G	200	0.0146	H	400	0.0161	I	800	0.0168	J	1600	0.0162

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
2,2-Dichloropropane	A	0.20	0.258	B	0.30	0.262	C	0.50	0.250	D	1.3	0.237	E	2.0	0.239
	F	5.0	0.250	G	10	0.261	H	20	0.273	I	40	0.279	J	80	0.323
cis-1,2-Dichloroethene	A	0.20	0.287	B	0.30	0.294	C	0.50	0.285	D	1.3	0.282	E	2.0	0.277
	F	5.0	0.290	G	10	0.279	H	20	0.281	I	40	0.274	J	80	0.283
‡ Chloroform	A	0.20	0.510	B	0.30	0.449	C	0.50	0.452	D	1.3	0.442	E	2.0	0.430
	F	5.0	0.448	G	10	0.433	H	20	0.434	I	40	0.421	J	80	0.435
Bromochloromethane				B	0.30	0.116	C	0.50	0.126	D	1.3	0.115	E	2.0	0.122
	F	5.0	0.129	G	10	0.124	H	20	0.124	I	40	0.121	J	80	0.120
1,1,1-Trichloroethane (TCA)	A	0.20	0.316	B	0.30	0.350	C	0.50	0.337	D	1.3	0.326	E	2.0	0.330
	F	5.0	0.336	G	10	0.337	H	20	0.349	I	40	0.345	J	80	0.387
1,1-Dichloropropene	A	0.20	0.376	B	0.30	0.341	C	0.50	0.337	D	1.3	0.343	E	2.0	0.343
	F	5.0	0.354	G	10	0.348	H	20	0.350	I	40	0.336	J	80	0.365
Carbon Tetrachloride	A	0.20	0.240	B	0.30	0.225	C	0.50	0.230	D	1.3	0.238	E	2.0	0.233
	F	5.0	0.242	G	10	0.247	H	20	0.261	I	40	0.266	J	80	0.313
1,2-Dichloroethane (EDC)	A	0.20	0.328	B	0.30	0.312	C	0.50	0.324	D	1.3	0.299	E	2.0	0.301
	F	5.0	0.323	G	10	0.312	H	20	0.311	I	40	0.308	J	80	0.303
Benzene	A	0.20	1.13	B	0.30	1.14	C	0.50	1.11	D	1.3	1.06	E	2.0	1.07
	F	5.0	1.09	G	10	1.07	H	20	1.07	I	40	1.04	J	80	1.09
Trichloroethene (TCE)	A	0.20	0.274	B	0.30	0.276	C	0.50	0.276	D	1.3	0.255	E	2.0	0.261
	F	5.0	0.269	G	10	0.262	H	20	0.261	I	40	0.253	J	80	0.268
‡ 1,2-Dichloropropane	A	0.20	0.260	B	0.30	0.237	C	0.50	0.251	D	1.3	0.238	E	2.0	0.244
	F	5.0	0.261	G	10	0.253	H	20	0.257	I	40	0.255	J	80	0.263
Bromodichloromethane	A	0.20	0.285	B	0.30	0.269	C	0.50	0.264	D	1.3	0.247	E	2.0	0.246
	F	5.0	0.275	G	10	0.282	H	20	0.283	I	40	0.292	J	80	0.305
Dibromomethane	A	0.20	0.107	B	0.30	0.107	C	0.50	0.127	D	1.3	0.119	E	2.0	0.118
	F	5.0	0.129	G	10	0.123	H	20	0.124	I	40	0.124	J	80	0.122
2-Hexanone							C	10	0.0239	D	25	0.0276	E	40	0.0285
	F	100	0.0367	G	200	0.0364	H	400	0.0407	I	800	0.0443	J	1600	0.0424
cis-1,3-Dichloropropene	A	0.20	0.263	B	0.30	0.265	C	0.50	0.275	D	1.3	0.270	E	2.0	0.280
	F	5.0	0.321	G	10	0.329	H	20	0.350	I	40	0.369	J	80	0.387
‡ Toluene	A	0.20	0.728	B	0.30	0.671	C	0.50	0.684	D	1.3	0.682	E	2.0	0.695
	F	5.0	0.725	G	10	0.710	H	20	0.714	I	40	0.695	J	80	0.734
trans-1,3-Dichloropropene							C	0.50	0.442	D	1.3	0.423	E	2.0	0.441
	F	5.0	0.524	G	10	0.569	H	20	0.606	I	40	0.655	J	80	0.697

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,1,2-Trichloroethane				B	0.30	0.353	C	0.50	0.315	D	1.3	0.326	E	2.0	0.320
	F	5.0	0.365	G	10	0.375	H	20	0.364	I	40	0.364	J	80	0.359
4-Methyl-2-pentanone (MIBK)				B	6.0	0.0400	C	10	0.0437	D	25	0.0427	E	40	0.0441
	F	100	0.0508	G	200	0.0488	H	400	0.0543	I	800	0.0579	J	1600	0.0555
1,3-Dichloropropane	A	0.20	0.667	B	0.30	0.744	C	0.50	0.681	D	1.3	0.709	E	2.0	0.713
	F	5.0	0.770	G	10	0.774	H	20	0.756	I	40	0.763	J	80	0.757
Tetrachloroethene (PCE)	A	0.20	0.618	B	0.30	0.609	C	0.50	0.552	D	1.3	0.549	E	2.0	0.553
	F	5.0	0.546	G	10	0.564	H	20	0.538	I	40	0.524	J	80	0.559
Dibromochloromethane				B	0.30	0.351	C	0.50	0.335	D	1.3	0.331	E	2.0	0.327
	F	5.0	0.404	G	10	0.416	H	20	0.429	I	40	0.460	J	80	0.481
1,2-Dibromoethane (EDB)	A	0.20	0.316	B	0.30	0.362	C	0.50	0.347	D	1.3	0.342	E	2.0	0.343
	F	5.0	0.405	G	10	0.410	H	20	0.409	I	40	0.414	J	80	0.415
† Chlorobenzene	A	0.20	1.94	B	0.30	1.85	C	0.50	1.79	D	1.3	1.75	E	2.0	1.76
	F	5.0	1.86	G	10	1.85	H	20	1.78	I	40	1.76	J	80	1.81
1,1,1,2-Tetrachloroethane	A	0.20	0.391	B	0.30	0.382	C	0.50	0.385	D	1.3	0.373	E	2.0	0.381
	F	5.0	0.446	G	10	0.453	H	20	0.478	I	40	0.511	J	80	0.547
‡ Ethylbenzene	A	0.20	0.866	B	0.30	0.780	C	0.50	0.796	D	1.3	0.865	E	2.0	0.881
	F	5.0	0.970	G	10	0.981	H	20	0.965	I	40	0.956	J	80	1.00
m,p-Xylenes	A	0.40	1.00	B	0.60	0.994	C	1.0	0.978	D	2.5	1.03	E	4.0	1.08
	F	10	1.22	G	20	1.24	H	40	1.22	I	80	1.20	J	160	1.26
o-Xylene	A	0.20	0.906	B	0.30	0.914	C	0.50	0.875	D	1.3	0.956	E	2.0	1.01
	F	5.0	1.13	G	10	1.16	H	20	1.15	I	40	1.15	J	80	1.20
Styrene							C	0.50	0.645	D	1.3	0.706	E	2.0	0.754
	F	5.0	0.878	G	10	0.942	H	20	0.936	I	40	0.951	J	80	0.977
† Bromoform	A	0.20	0.159	B	0.30	0.182	C	0.50	0.168	D	1.3	0.162	E	2.0	0.169
	F	5.0	0.197	G	10	0.213	H	20	0.226	I	40	0.250	J	80	0.270
Isopropylbenzene	A	0.20	2.17	B	0.30	2.10	C	0.50	2.17	D	1.3	2.32	E	2.0	2.47
	F	5.0	2.72	G	10	2.83	H	20	2.82	I	40	2.81	J	80	2.95
† 1,1,2,2-Tetrachloroethane	A	0.20	0.352	B	0.30	0.358	C	0.50	0.369	D	1.3	0.355	E	2.0	0.352
	F	5.0	0.400	G	10	0.426	H	20	0.407	I	40	0.410	J	80	0.410
1,2,3-Trichloropropane	A	0.20	0.110	B	0.30	0.115	C	0.50	0.125	D	1.3	0.125	E	2.0	0.129
	F	5.0	0.131	G	10	0.135	H	20	0.129	I	40	0.129	J	80	0.127
Bromobenzene	A	0.20	0.579	B	0.30	0.677	C	0.50	0.657	D	1.3	0.687	E	2.0	0.672
	F	5.0	0.727	G	10	0.731	H	20	0.711	I	40	0.697	J	80	0.711

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
n-Propylbenzene	A	0.20	2.28	B	0.30	2.28	C	0.50	2.28	D	1.3	2.46	E	2.0	2.61
	F	5.0	2.79	G	10	2.90	H	20	2.89	I	40	2.83	J	80	2.95
2-Chlorotoluene	A	0.20	1.58	B	0.30	1.63	C	0.50	1.70	D	1.3	1.70	E	2.0	1.70
	F	5.0	1.85	G	10	1.87	H	20	1.82	I	40	1.78	J	80	1.87
4-Chlorotoluene	A	0.20	1.80	B	0.30	1.78	C	0.50	1.83	D	1.3	1.86	E	2.0	1.97
	F	5.0	2.15	G	10	2.19	H	20	2.13	I	40	2.12	J	80	2.18
1,3,5-Trimethylbenzene				B	0.30	1.50	C	0.50	1.53	D	1.3	1.67	E	2.0	1.77
	F	5.0	2.02	G	10	2.10	H	20	2.08	I	40	2.06	J	80	2.18
tert-Butylbenzene	A	0.20	1.33	B	0.30	1.29	C	0.50	1.36	D	1.3	1.41	E	2.0	1.48
	F	5.0	1.60	G	10	1.68	H	20	1.68	I	40	1.64	J	80	1.78
1,2,4-Trimethylbenzene							C	0.50	1.51	D	1.3	1.65	E	2.0	1.76
	F	5.0	2.05	G	10	2.15	H	20	2.13	I	40	2.10	J	80	2.21
sec-Butylbenzene	A	0.20	1.68	B	0.30	1.70	C	0.50	1.74	D	1.3	1.83	E	2.0	1.99
	F	5.0	2.17	G	10	2.25	H	20	2.24	I	40	2.20	J	80	2.35
1,3-Dichlorobenzene	A	0.20	1.40	B	0.30	1.31	C	0.50	1.33	D	1.3	1.29	E	2.0	1.34
	F	5.0	1.38	G	10	1.40	H	20	1.35	I	40	1.32	J	80	1.37
4-Isopropyltoluene							C	0.50	1.49	D	1.3	1.66	E	2.0	1.74
	F	5.0	1.99	G	10	2.07	H	20	2.07	I	40	2.05	J	80	2.20
1,4-Dichlorobenzene	A	0.20	1.47	B	0.30	1.34	C	0.50	1.38	D	1.3	1.40	E	2.0	1.37
	F	5.0	1.43	G	10	1.46	H	20	1.37	I	40	1.35	J	80	1.38
n-Butylbenzene	A	0.20	1.33	B	0.30	1.28	C	0.50	1.25	D	1.3	1.33	E	2.0	1.41
	F	5.0	1.56	G	10	1.62	H	20	1.64	I	40	1.66	J	80	1.79
1,2-Dichlorobenzene	A	0.20	1.29	B	0.30	1.23	C	0.50	1.20	D	1.3	1.22	E	2.0	1.20
	F	5.0	1.31	G	10	1.32	H	20	1.28	I	40	1.24	J	80	1.27
1,2-Dibromo-3-chloropropane										D	1.3	0.0326	E	2.0	0.0344
	F	5.0	0.0404	G	10	0.0452	H	20	0.0513	I	40	0.0555	J	80	0.0600
1,2,4-Trichlorobenzene	A	0.20	0.780	B	0.30	0.717	C	0.50	0.722	D	1.3	0.660	E	2.0	0.662
	F	5.0	0.727	G	10	0.738	H	20	0.727	I	40	0.728	J	80	0.752
1,2,3-Trichlorobenzene	A	0.20	0.681	B	0.30	0.585	C	0.50	0.583	D	1.3	0.550	E	2.0	0.554
	F	5.0	0.609	G	10	0.616	H	20	0.605	I	40	0.607	J	80	0.614
Naphthalene							C	0.50	0.787	D	1.3	0.746	E	2.0	0.774
	F	5.0	0.933	G	10	1.03	H	20	1.11	I	40	1.17	J	80	1.20
Hexachlorobutadiene				B	0.30	0.411	C	0.50	0.363	D	1.3	0.349	E	2.0	0.352
	F	5.0	0.348	G	10	0.352	H	20	0.342	I	40	0.340	J	80	0.363

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
tert-Amyl Methyl Ether				B	0.30	0.207	C	0.50	0.216	D	1.3	0.198	E	2.0	0.193
	F	5.0	0.212	G	10	0.200	H	20	0.198	I	40	0.191	J	80	0.180
tert-Butyl Ethyl Ether	A	0.20	0.544	B	0.30	0.559	C	0.50	0.568	D	1.3	0.579	E	2.0	0.583
	F	5.0	0.625	G	10	0.617	H	20	0.639	I	40	0.653	J	80	0.671
tert-Butyl Alcohol							C	2.5	0.00708	D	6.3	0.00649	E	10	0.00642
	F	25	0.00717	G	50	0.00726	H	100	0.00779	I	200	0.00842	J	400	0.00902
Diisopropyl Ether	A	0.20	0.783	B	0.30	0.729	C	0.50	0.745	D	1.3	0.739	E	2.0	0.744
	F	5.0	0.798	G	10	0.795	H	20	0.819	I	40	0.821	J	80	0.834
Dibromofluoromethane	A	3.0	0.259	B	4.0	0.251	C	5.0	0.258	D	6.0	0.252	E	8.0	0.254
	F	9.0	0.253	G	10	0.245	H	20	0.238	I	40	0.233	J	50	0.231
Toluene-d8	A	3.0	1.11	B	4.0	1.06	C	5.0	1.09	D	6.0	1.11	E	8.0	1.13
	F	9.0	1.15	G	10	1.13	H	20	1.08	I	40	1.04	J	50	1.05
4-Bromofluorobenzene	A	3.0	0.876	B	4.0	0.850	C	5.0	0.869	D	6.0	0.892	E	8.0	0.897
	F	9.0	0.936	G	10	0.937	H	20	0.884	I	40	0.856	J	50	0.843

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† SPCC Compound

‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation: Fit Type	Eval.	Eval. Result	Q	Control Criteria	RRF Evaluation: Average RRF	Q	Minimum RRF
Dichlorodifluoromethane	TRG	AverageRF	% RSD	5.7		≤ 15	0.307		0.01
† Chloromethane	TRG	AverageRF	% RSD	13.2		≤ 15	0.388		0.10
‡ Vinyl Chloride	TRG	AverageRF	% RSD	6.5		≤ 15	0.327		0.01
Bromomethane	TRG	AverageRF	% RSD	6.5		≤ 15	0.186		0.01
Chloroethane	TRG	AverageRF	% RSD	14.0		≤ 15	0.195		0.01
Trichlorofluoromethane	TRG	AverageRF	% RSD	6.1		≤ 15	0.431		0.01
Acetone	TRG	AverageRF	% RSD	4.5		≤ 15	0.0381		0.01
‡ 1,1-Dichloroethene	MS	AverageRF	% RSD	2.9		≤ 15	0.226		0.01
Methyl tert-Butyl Ether	TRG	AverageRF	% RSD	4.6		≤ 15	0.535		0.01
Carbon Disulfide	TRG	AverageRF	% RSD	5.9		≤ 15	0.688		0.01
Methylene Chloride	TRG	AverageRF	% RSD	12.7		≤ 15	0.274		0.01
trans-1,2-Dichloroethene	TRG	AverageRF	% RSD	6.5		≤ 15	0.266		0.01
† 1,1-Dichloroethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.463		0.10
2-Butanone (MEK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0143		0.01
2,2-Dichloropropane	TRG	AverageRF	% RSD	9.5		≤ 15	0.263		0.01
cis-1,2-Dichloroethene	TRG	AverageRF	% RSD	2.2		≤ 15	0.283		0.01
‡ Chloroform	TRG	AverageRF	% RSD	5.5		≤ 15	0.445		0.01
Bromochloromethane	TRG	AverageRF	% RSD	3.7		≤ 15	0.122		0.01
1,1,1-Trichloroethane (TCA)	TRG	AverageRF	% RSD	5.6		≤ 15	0.341		0.01
1,1-Dichloropropene	TRG	AverageRF	% RSD	3.7		≤ 15	0.349		0.01
Carbon Tetrachloride	TRG	AverageRF	% RSD	10.3		≤ 15	0.249		0.01
1,2-Dichloroethane (EDC)	TRG	AverageRF	% RSD	3.2		≤ 15	0.312		0.01
Benzene	MS	AverageRF	% RSD	3.0		≤ 15	1.09		0.01
Trichloroethene (TCE)	MS	AverageRF	% RSD	3.1		≤ 15	0.265		0.01
‡ 1,2-Dichloropropane	TRG	AverageRF	% RSD	3.7		≤ 15	0.252		0.01
Bromodichloromethane	TRG	AverageRF	% RSD	6.9		≤ 15	0.275		0.01
Dibromomethane	TRG	AverageRF	% RSD	6.2		≤ 15	0.120		0.01
2-Hexanone	TRG	AverageRF	% RSD	21.5	*	≤ 15	0.0351		0.01
cis-1,3-Dichloropropene	TRG	AverageRF	% RSD	14.9		≤ 15	0.311		0.01
‡ Toluene	MS	AverageRF	% RSD	3.1		≤ 15	0.704		0.01
trans-1,3-Dichloropropene	TRG	AverageRF	% RSD	19.2	*	≤ 15	0.545		0.01
1,1,2-Trichloroethane	TRG	AverageRF	% RSD	6.4		≤ 15	0.349		0.01
4-Methyl-2-pentanone (MIBK)	TRG	AverageRF	% RSD	13.1		≤ 15	0.0486		0.01
1,3-Dichloropropane	TRG	AverageRF	% RSD	5.2		≤ 15	0.734		0.01
Tetrachloroethene (PCE)	TRG	AverageRF	% RSD	5.3		≤ 15	0.561		0.01
Dibromochloromethane	TRG	AverageRF	% RSD	14.9		≤ 15	0.393		0.01
1,2-Dibromoethane (EDB)	TRG	AverageRF	% RSD	10.1		≤ 15	0.376		0.01
† Chlorobenzene	MS	AverageRF	% RSD	3.3		≤ 15	1.81		0.30
1,1,1,2-Tetrachloroethane	TRG	AverageRF	% RSD	14.3		≤ 15	0.435		0.01
‡ Ethylbenzene	TRG	AverageRF	% RSD	8.8		≤ 15	0.906		0.01
m,p-Xylenes	TRG	AverageRF	% RSD	10.3		≤ 15	1.12		0.01
o-Xylene	TRG	AverageRF	% RSD	11.9		≤ 15	1.04		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL4250
Instrument ID: MS13

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Styrene	TRG	AverageRF	% RSD	15.1	*	≤ 15	0.849		0.01
† Bromoform	TRG	AverageRF	% RSD	19.4	*	≤ 15	0.200		0.10
Isopropylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.54		0.01
† 1,1,2,2-Tetrachloroethane	TRG	AverageRF	% RSD	7.6		≤ 15	0.384		0.30
1,2,3-Trichloropropane	TRG	AverageRF	% RSD	6.1		≤ 15	0.126		0.01
Bromobenzene	TRG	AverageRF	% RSD	6.5		≤ 15	0.685		0.01
n-Propylbenzene	TRG	AverageRF	% RSD	10.7		≤ 15	2.63		0.01
2-Chlorotoluene	TRG	AverageRF	% RSD	5.9		≤ 15	1.75		0.01
4-Chlorotoluene	TRG	AverageRF	% RSD	8.5		≤ 15	2.00		0.01
1,3,5-Trimethylbenzene	TRG	AverageRF	% RSD	13.9		≤ 15	1.88		0.01
tert-Butylbenzene	TRG	AverageRF	% RSD	11.4		≤ 15	1.53		0.01
1,2,4-Trimethylbenzene	TRG	AverageRF	% RSD	13.6		≤ 15	1.95		0.01
sec-Butylbenzene	TRG	AverageRF	% RSD	12.8		≤ 15	2.02		0.01
1,3-Dichlorobenzene	TRG	AverageRF	% RSD	2.7		≤ 15	1.35		0.01
4-Isopropyltoluene	TRG	AverageRF	% RSD	12.9		≤ 15	1.91		0.01
1,4-Dichlorobenzene	TRG	AverageRF	% RSD	3.1		≤ 15	1.40		0.01
n-Butylbenzene	TRG	AverageRF	% RSD	12.7		≤ 15	1.49		0.01
1,2-Dichlorobenzene	MS	AverageRF	% RSD	3.6		≤ 15	1.26		0.01
1,2-Dibromo-3-chloropropane	TRG	AverageRF	% RSD	22.9	*	≤ 15	0.0456		0.01
1,2,4-Trichlorobenzene	TRG	AverageRF	% RSD	5.1		≤ 15	0.721		0.01
1,2,3-Trichlorobenzene	TRG	AverageRF	% RSD	6.1		≤ 15	0.601		0.01
Naphthalene	MS	AverageRF	% RSD	19.1	*	≤ 15	0.968		0.01
Hexachlorobutadiene	TRG	AverageRF	% RSD	6.0		≤ 15	0.358		0.01
tert-Amyl Methyl Ether	TRG	AverageRF	% RSD	5.7		≤ 15	0.199		0.01
tert-Butyl Ethyl Ether	TRG	AverageRF	% RSD	7.1		≤ 15	0.604		0.01
tert-Butyl Alcohol	TRG	AverageRF	% RSD	12.2		≤ 15	0.00746	*	0.01
Diisopropyl Ether	TRG	AverageRF	% RSD	5.0		≤ 15	0.781		0.01
Dibromofluoromethane	SURR	AverageRF	% RSD	4.1		≤ 15	0.248		0.01
Toluene-d8	SURR	AverageRF	% RSD	3.4		≤ 15	1.09		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.7		≤ 15	0.884		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

File ID: J:\MS13\DATA\022505\0225F021.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	10	0.307	0.308	0	NA	± 40 %	AverageRF
† Chloromethane	10	9.7	0.388	0.378	-3	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.327	0.323	-1	NA	± 20 %	AverageRF
Bromomethane	10	12	0.186	0.216	16	NA	± 40 %	AverageRF
Chloroethane	10	9.8	0.195	0.190	-2	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	9.2	0.431	0.397	-8	NA	± 30 %	AverageRF
Acetone	50	50	0.0381	0.0381	0	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	11	0.226	0.243	8	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	10	11	0.535	0.564	5	NA	± 30 %	AverageRF
Carbon Disulfide	20	22	0.688	0.756	10	NA	± 30 %	AverageRF
Methylene Chloride	10	9.5	0.274	0.261	-5	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.266	0.269	1	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.463	0.461	0	NA	± 30 %	AverageRF
2-Butanone (MEK)	50	52	0.0143	0.0150	5	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	10	0.263	0.274	4	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.283	0.285	1	NA	± 30 %	AverageRF
‡ Chloroform	10	9.8	0.445	0.437	-2	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.122	0.124	2	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.341	0.362	6	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	9.9	0.349	0.345	-1	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	11	0.249	0.268	7	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.312	0.310	-1	NA	± 30 %	AverageRF
Benzene	10	10	1.09	1.11	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	11	0.265	0.279	5	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	10	0.252	0.255	1	NA	± 20 %	AverageRF
Bromodichloromethane	10	10	0.275	0.283	3	NA	± 30 %	AverageRF
Dibromomethane	10	10	0.120	0.122	2	NA	± 30 %	AverageRF
2-Hexanone	50	48	0.0351	0.0334	-5	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	11	0.311	0.330	6	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.704	0.708	1	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	9.6	0.545	0.521	-4	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.349	0.359	3	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	50	51	0.0486	0.0493	1	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.734	0.765	4	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	10	0.561	0.568	1	NA	± 30 %	AverageRF
Dibromochloromethane	10	10	0.393	0.400	2	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	10	0.376	0.391	4	NA	± 30 %	AverageRF
† Chlorobenzene	10	9.7	1.81	1.76	-3	NA	± 30 %	AverageRF
1,1,1,2-Tetrachloroethane	10	11	0.435	0.469	8	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.906	0.971	7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 02/25/2005
Date Analyzed: 02/26/2005

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration ID: CAL4250
Units: PPB

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
m,p-Xylenes	20	22	1.12	1.22	9	NA	± 30 %	AverageRF
o-Xylene	10	11	1.04	1.12	7	NA	± 30 %	AverageRF
Styrene	10	11	0.849	0.906	7	NA	± 30 %	AverageRF
† Bromoform	10	10	0.200	0.204	2	NA	± 30 %	AverageRF
Isopropylbenzene	10	9.8	2.54	2.47	-2	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	9.7	0.384	0.373	-3	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.126	0.130	3	NA	± 30 %	AverageRF
Bromobenzene	10	10	0.685	0.701	2	NA	± 30 %	AverageRF
n-Propylbenzene	10	11	2.63	2.88	10	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	1.75	1.91	9	NA	± 30 %	AverageRF
4-Chlorotoluene	10	11	2.00	2.13	7	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	11	1.88	2.10	12	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	1.53	1.70	12	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	1.95	2.12	9	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	2.02	2.33	16	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	9.8	1.35	1.33	-2	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	10	1.91	1.96	3	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	9.9	1.40	1.38	-1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	1.49	1.64	10	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	9.9	1.26	1.24	-1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.0456	0.0460	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	9.9	0.721	0.715	-1	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	9.7	0.601	0.581	-3	NA	± 30 %	AverageRF
Naphthalene	10	10	0.968	0.999	3	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	10	0.358	0.357	0	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	20	19	0.199	0.190	-5	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	20	20	0.604	0.611	1	NA	± 30 %	AverageRF
tert-Butyl Alcohol	100	100	0.00746	0.00781	5	NA	± 30 %	AverageRF
Diisopropyl Ether	20	20	0.781	0.785	1	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

8260 ICAL (Water) CAL4250

Date: 2/25/05

Columbia Analytical Services, Inc.
Injection Log
MS13 - Agilent 5973

Tune File: BFB1.u

By: KB

New Tune: NO

IS/SS Std. ID: 38VOA-56-A IS/SS 38VOA-~~53-A~~ 43-C IS KB 2/28/05

CCV Std ID: See benchsheet

ICAL Date:

LCS/ICV Std ID: ↓

Second RV: mt 3/1/5

MS/DMS Std. ID: NA

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	primer	0225F001	8260W4				
2		2					
3		3					
4		4					
5	50ng BFB	5		5µL/50mL			4 59 PM 38VOA-53-B
6	IB	6				✓	
7	8260 ICAL (Water) #1	7				✓	
8	2	8				✓	
9	3	9				✓	
10	4	10				✓	
11	5	11				✓	
12	6	12				✓	
13	7	13				✓	
14	8	14				✓	
15	9	15				✓	
16	10	16				✓	
17	IB	17					
18	IB	18					
19	8260 ICV W	19					(NR) VC failed
20	IB	20					
21	8260 ICV2 W	21				✓	check prep
22	IB	22					
23	IB	23					
24	Alt. CCV level	24		20µL+10µL+5µL/50mL		✓	1 51 AM 38VOA-65-B, 61-C, 65-A
25	IB	25					
26							
27							KB 2/25/05

Date 2/25/05

Prepared By LB

Analysis: 8260/App.

Instrument: MS13

Matrix: Water

Stock Solution #1 38VOA-L5-A Analytes: Surrogate Init. Concentration: 100ppm

Stock Solution #2 L5-C Analytes: Low 8260/Ketones Init. Concentration: 5/10/20/100/200ppm

Stock Solution #3 L5-B Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Stock Solution #4 L1-C Analytes: Ketones Init. Concentration: 2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Final Volume (mL)	Notes
1.5	3	2.0	0.2/.4/.8/4/8					50	Level ID: 1
2.0	4	3.0	0.3/.6/1.2/6/12					50	Level ID: 2
2.5	5	5.0	.5/1/2/10/20					50	Level ID: 3
3.0	6	12.5	1.25/2.5/5/25/50					50	Level ID: 4
4.0	8	20	2/4/8/40/80					50	Level ID: 5
4.5	9			5	5/10/20/100/200	2.5	100	50	Level ID: 6
5.0	10			10	10/20/40/200/400	5.0	200	50	Level ID: 7
10	20			20	20/40/80/400/800	10	400	50	Level ID: 8
20	40			40	40/80/160/800/1600	20	800	50	Level ID: 9
25	50			80	80/160/320/1600/3200	40	1600	50	Level ID: 10

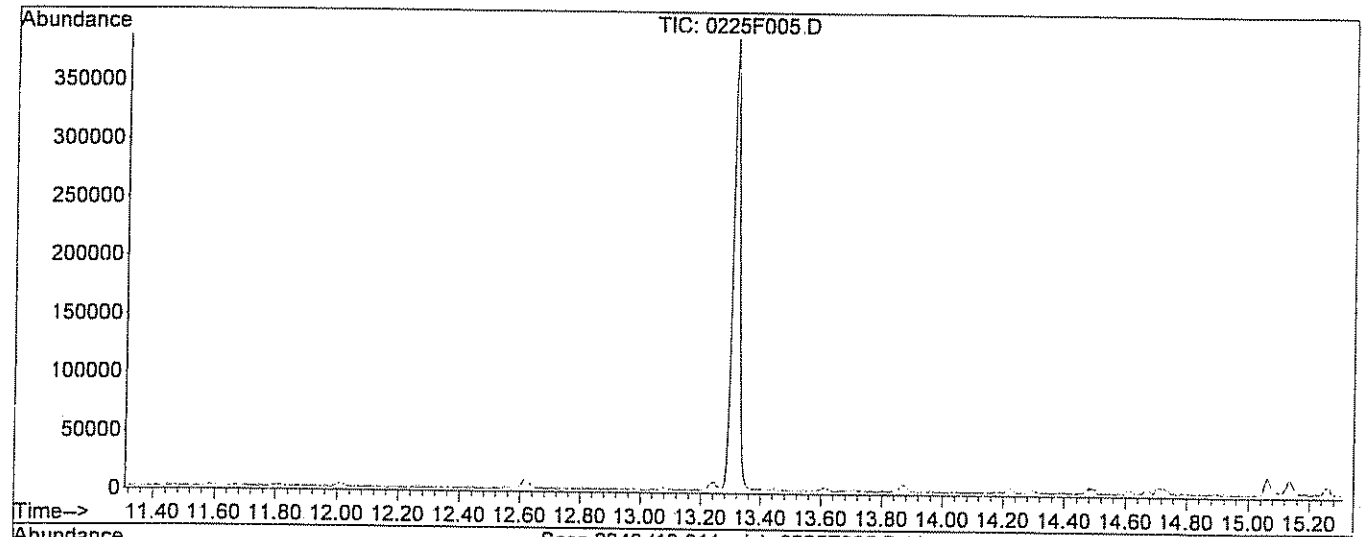
8260 ICV: 10uL of 50/250ppm Accustd ICV (38VOA-LA-F) + 50uL of 100ppm Acrolein (38VOA-LL-F) + 5uL of 100ppm Dichlorofluoromethane (38VOA-LL-D) + 5uL of 200ppm n-Octane/Tetrahydrofuran (38VOA-LL-B) + 7.5uL of 200/2000ppm Appendix ICV (38VOA-L2-C) + 5uL of 200/1000ppm Oxygenates (38VOA-LL-C) to 50mL.
+ 5µL, 100ppm Surr (38VOA-L5-A)

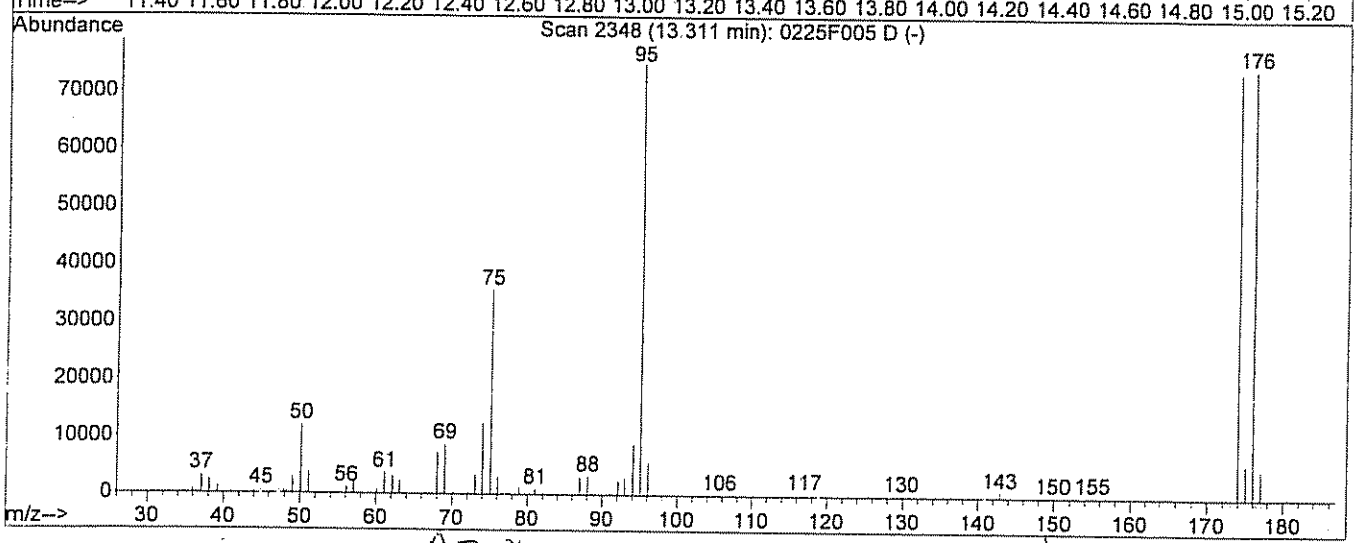
ICV2: same as ICV; check prep

BFB

Data File : J:\MS13\DATA\022505\0225F005.D
Acq On : 25 Feb 2005 4:59 pm
Sample : 50ng BFB
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B

Vial: 5
Operator:
Inst : MS13
Multiplr: 1.00





Apex

Spectrum Information: Scan 2348 – scan 2329 LB 2/28/05

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	5	40	16.0	12066	PASS
75	95	20	70	47.3	35688	PASS
95	95	50	200	100.0	75376	PASS
96	95	5	9	7.6	5722	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	98.6	74320	PASS
175	174	5	9	8.0	5936	PASS
176	174	95	101	100.8	74936	PASS
177	176	5	9	7.0	5239	PASS

3/1/5

0225F005.D 022505_8260W.M Mon Feb 28 15:02:48 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F006.D
Acq On : 25 Feb 2005 5:30 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:47:10 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 15:43:59 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	5.60	96	766946	10.00 PPB	0.00
59) Chlorobenzene-d5	11.58	82	331217	10.00 PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	358951	10.00 PPB	0.00
System Monitoring Compounds					
39) Dibromofluoromethane	4.64	113	171340	9.03 PPB	0.00
Spiked Amount 10.000			Recovery	= 90.30%	
43) 1,2-Dichloroethane-d4	5.15	65	185022	8.66 PPB	0.00
Spiked Amount 10.000			Recovery	= 86.60%	
57) Toluene-d8	8.60	98	770701	9.18 PPB	0.00
Spiked Amount 10.000			Recovery	= 91.80%	
79) 4-Bromofluorobenzene	13.31	95	276828	9.45 PPB	0.00
Spiked Amount 10.000			Recovery	= 94.50%	
Target Compounds					Qvalue
18) Methylene Chloride	2.62	84	2189	0.10 PPB #	82
99) 1,2,4-Trichlorobenzene	16.88	180	2126	0.08 PPB	85
100) Hexachlorobutadiene	17.03	225	2943	0.23 PPB	91
101) Naphthalene	17.13	128	2993	0.09 PPB	90
102) 1,2,3-Trichlorobenzene	17.39	180	3000	0.14 PPB	94

mt 3/1/5

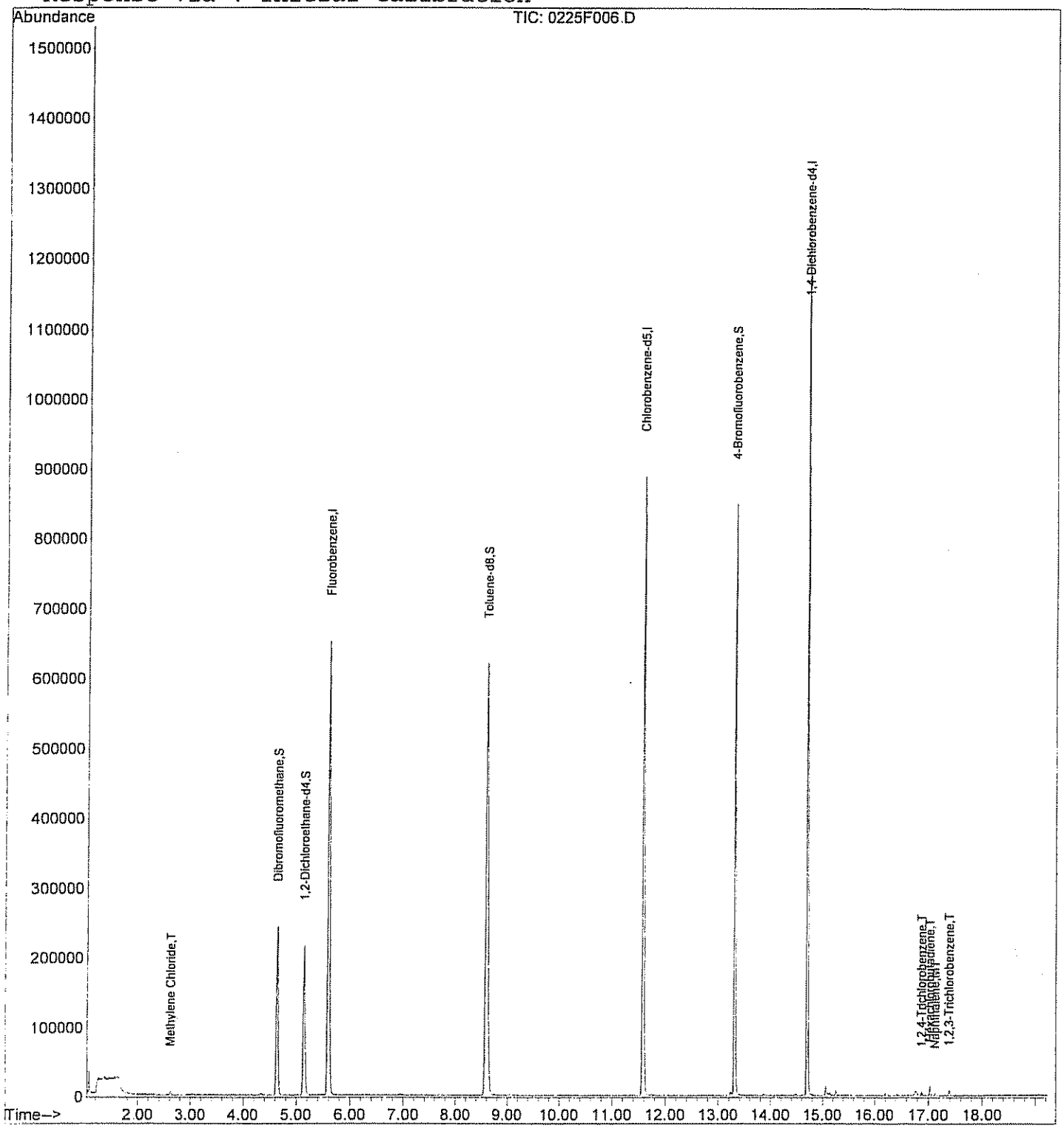
(#) = qualifier out of range (m) = manual integration
0225F006.D 022505_8260W.M Mon Feb 28 20:09:26 2005 LB 2/28/05 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F006.D
Acq On : 25 Feb 2005 5:30 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:48 2005

Vial: 6
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D Vial: 7
Acq On : 25 Feb 2005 6:00 pm Operator:
Sample : 8260 ICAL (Water) #1 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	729910	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	317877	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	355446	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	56778	3.55	PPB	0.00
Spiked Amount 10.000			Recovery	=	35.50%	
43) 1,2-Dichloroethane-d4	5.15	65	64506	3.56	PPB	0.00
Spiked Amount 10.000			Recovery	=	35.60%	
57) Toluene-d8	8.60	98	242901	3.26	PPB	0.00
Spiked Amount 10.000			Recovery	=	32.60%	
79) 4-Bromofluorobenzene	13.31	95	83515	3.12	PPB	0.00
Spiked Amount 10.000			Recovery	=	31.20%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	4951	0.23	PPB	94
3) Chloromethane	1.22	50	7187	0.28	PPB	95
4) Vinyl Chloride	1.29	62	5417	0.25	PPB	91
5) Bromomethane	1.51	96	2895	0.23	PPB	78
6) Chloroethane	1.58	64	3649	0.27	PPB	88
7) Dichlorofluoromethane	1.74	67	7557	0.23	PPB	99
8) Trichlorofluoromethane	1.74	101	6973	0.25	PPB	95
9) Ethyl Ether	1.97	59	2939	0.24	PPB	84
10) Acrolein	2.12	56	8556	5.24	PPB	84
11) Trichlorotrifluoroethane	2.13	151	3275	0.24	PPB	82
12) 1,1-Dichloroethene	2.15	96	3274	0.22	PPB	97
13) Acetone	2.25	43	11797	4.01	PPB	94
14) Iodomethane	2.29	142	14357	0.69	PPB	98
15) Carbon Disulfide	2.32	76	11490	0.21	PPB	98
16) 3-Chloro-1-propene	2.48	76	1789	0.19	PPB	98
18) Methylene Chloride	2.62	84	5961	0.33	PPB	92
21) Methyl tert-Butyl Ether	2.83	73	15398	0.36	PPB	98
22) trans-1,2-Dichloroethene	2.84	96	4455	0.24	PPB	83
23) Hexane	3.05	57	4745	0.22	PPB	94
24) Diisopropyl Ether	3.33	45	11426	0.18	PPB	93
25) 1,1-Dichloroethane	3.31	63	7358	0.23	PPB	93
26) Vinyl Acetate	3.37	86	903	0.33	PPB #	1
27) Chloroprene	3.37	53	17905	0.71	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	7938	0.15	PPB	98
29) 2,2-Dichloropropane	3.95	77	3762	0.13	PPB	94
30) cis-1,2-Dichloroethene	4.00	96	4185	0.21	PPB	83
31) 2-Butanone	4.06	72	3615	3.20	PPB #	60

(#) = qualifier out of range (m) = manual integration
0225F007.D 022505_8260W.M Mon Feb 28 15:30:23 2005 Page 1

LB 3/1/5
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D Vial: 7
Acq On : 25 Feb 2005 6:00 pm Operator:
Sample : 8260 ICAL (Water) #1 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
34)	Methacrylonitrile	4.36	67	3032	0.64	PPB		90
37)	Chloroform	4.42	83	7447	0.24	PPB		91
38)	1,1,1-Trichloroethane	4.59	97	4617	0.17	PPB		83
40)	Carbon Tetrachloride	4.77	117	3497	0.16	PPB		87
41)	1,1-Dichloropropene	4.82	75	5484	0.21	PPB		98
44)	Benzene	5.11	78	16554	0.21	PPB		74
45)	1,2-Dichloroethane	5.27	62	4785	0.23	PPB		89
47)	Trichloroethene	6.19	95	3998	0.21	PPB		86
48)	1,2-Dichloropropane	6.65	63	3795	0.20	PPB		80
49)	Dibromomethane	6.87	93	1569	0.18	PPB		76
51)	1,4-Dioxane	6.94	88	2674	30.18	PPB		95
52)	Bromodichloromethane	7.21	83	4162	0.20	PPB		92
55)	cis-1,3-Dichloropropene	8.15	75	3844	0.15	PPB		84
58)	Toluene	8.74	92	10626	0.20	PPB		80
64)	Tetrachloroethene	9.98	164	3929	0.23	PPB		83
65)	2-Hexanone	10.55	57	2738	1.99	PPB	#	70
66)	1,3-Dichloropropane	10.29	76	4242	0.19	PPB		91
67)	Dibromochloromethane	10.64	129	2100	0.16	PPB		84
68)	1,2-Dibromoethane (EDB)	10.79	107	2006	0.16	PPB		98
69)	1-Chlorohexane	11.67	91	3946	0.19	PPB		89
70)	Chlorobenzene	11.63	112	12345	0.23	PPB		89
71)	Ethylbenzene	11.81	106	5503	0.18	PPB		87
72)	1,1,1,2-Tetrachloroethane	11.81	131	2487	0.15	PPB	#	74
73)	m,p-Xylenes	12.00	106	12759	0.34	PPB		89
74)	o-Xylene	12.57	106	5759	0.16	PPB		96
75)	Styrene	12.62	103	3970	0.14	PPB		95
76)	Bromoform	12.85	173	1011	0.14	PPB		76
77)	Isopropylbenzene	13.08	105	13791	0.16	PPB		94
81)	1,1,2,2-Tetrachloroethane	13.60	83	2502	0.17	PPB		92
83)	Bromobenzene	13.44	156	4117	0.16	PPB		81
84)	n-Propylbenzene	13.61	91	16202	0.15	PPB		94
85)	1,2,3-Trichloropropane	13.61	110	779	0.17	PPB	#	83
86)	2-Chlorotoluene	13.70	91	11258	0.17	PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	10446	0.14	PPB		87
88)	4-Chlorotoluene	13.86	91	12773	0.16	PPB		96
89)	tert-Butylbenzene	14.22	119	9434	0.15	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	10716	0.14	PPB		99
91)	sec-Butylbenzene	14.48	105	11949	0.15	PPB		98
92)	p-Isopropyltoluene	14.67	119	10919	0.14	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	9963	0.21	PPB		94
94)	1,4-Dichlorobenzene	14.73	146	10426	0.21	PPB		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D Vial: 7
Acq On : 25 Feb 2005 6:00 pm Operator:
Sample : 8260 ICAL (Water) #1 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:15 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95)	n-Butylbenzene	15.13	91	9445	0.15 PPB	96
96)	1,2-Dichlorobenzene	15.15	146	9155	0.21 PPB	92
98)	1,3,5-Trichlorobenzene	16.21	180	6481	0.21 PPB	93
99)	1,2,4-Trichlorobenzene	16.88	180	5542	0.20 PPB	92
100)	Hexachlorobutadiene	17.03	225	3721	0.29 PPB	77
101)	Naphthalene	17.13	128	6269	0.13 PPB	97
102)	1,2,3-Trichlorobenzene	17.39	180	4840	0.22 PPB	95

(#) = qualifier out of range (m) = manual integration

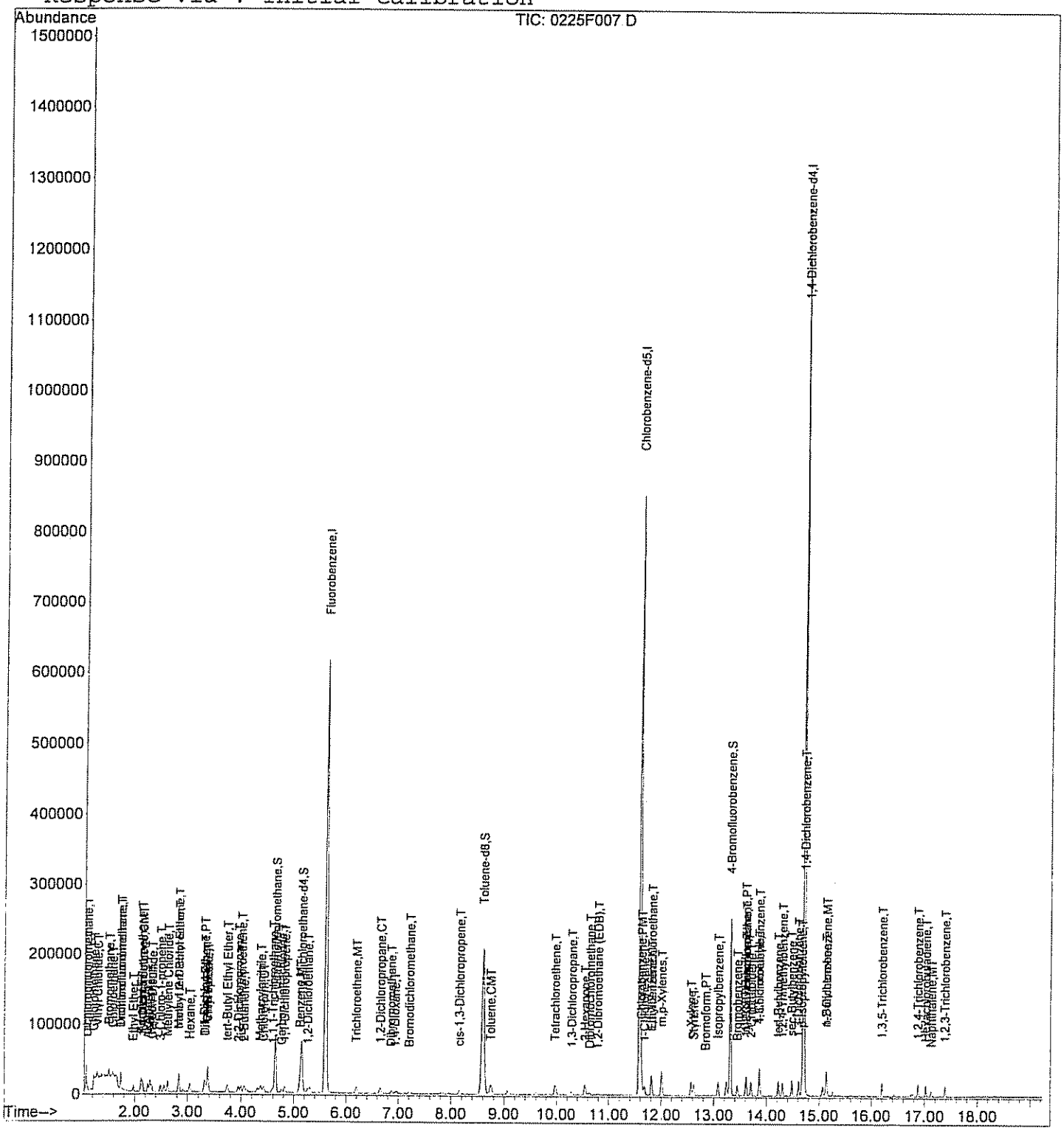
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F007.D
Acq On : 25 Feb 2005 6:00 pm
Sample : 8260 ICAL (Water) #1
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:07 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D
Acq On : 25 Feb 2005 6:28 pm
Sample : 8260 ICAL (Water) #2
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	724575	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	314725	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	351774	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	72734	4.58	PPB	0.00
Spiked Amount 10.000			Recovery	=	45.80%	
43) 1,2-Dichloroethane-d4	5.15	65	82343	4.58	PPB	0.00
Spiked Amount 10.000			Recovery	=	45.80%	
57) Toluene-d8	8.60	98	306292	4.14	PPB	0.00
Spiked Amount 10.000			Recovery	=	41.40%	
79) 4-Bromofluorobenzene	13.31	95	106979	4.04	PPB	0.00
Spiked Amount 10.000			Recovery	=	40.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	6517	0.30	PPB	94
3) Chloromethane	1.22	50	9458	0.37	PPB	97
4) Vinyl Chloride	1.29	62	7441	0.34	PPB	98
5) Bromomethane	1.52	96	4200	0.33	PPB	89
6) Chloroethane	1.58	64	5593	0.42	PPB	96
7) Dichlorofluoromethane	1.74	67	10794	0.33	PPB	96
8) Trichlorofluoromethane	1.74	101	10115	0.36	PPB	91
9) Ethyl Ether	1.97	59	3680	0.30	PPB	96
10) Acrolein	2.12	56	10680	6.58	PPB	84
11) Trichlorotrifluoroethane	2.13	151	4975	0.37	PPB	80
12) 1,1-Dichloroethene	2.15	96	4775	0.32	PPB	92
13) Acetone	2.25	43	17239	5.90	PPB	93
14) Iodomethane	2.29	142	21015	1.02	PPB	97
15) Carbon Disulfide	2.32	76	15163	0.28	PPB	96
16) 3-Chloro-1-propene	2.48	76	2596	0.28	PPB	88
18) Methylene Chloride	2.62	84	7595	0.42	PPB	90
20) Acrylonitrile	2.92	53	4055	1.10	PPB	85
21) Methyl tert-Butyl Ether	2.82	73	22392	0.52	PPB	93
22) trans-1,2-Dichloroethene	2.84	96	6186	0.34	PPB	81
23) Hexane	3.04	57	5705	0.27	PPB	88
24) Diisopropyl Ether	3.33	45	15846	0.26	PPB	95
25) 1,1-Dichloroethane	3.32	63	10278	0.32	PPB	92
26) Vinyl Acetate	3.38	86	899	0.33	PPB #	1
27) Chloroprene	3.37	53	26063	1.04	PPB	91
28) tert-Butyl Ethyl Ether	3.75	59	12144	0.23	PPB	93
29) 2,2-Dichloropropane	3.95	77	5694	0.20	PPB	92
30) cis-1,2-Dichloroethene	4.00	96	6390	0.32	PPB	96

(#) = qualifier out of range (m) = manual integration
0225F008.D 022505_8260W.M Mon Feb 28 15:30:26 2005

mH 3/1/5
LB 2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D Vial: 8
Acq On : 25 Feb 2005 6:28 pm Operator:
Sample : 8260 ICAL (Water) #2 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	2-Butanone	4.06	72	5031	4.48	PPB	#	58
35)	Bromochloromethane	4.31	128	2521	0.31	PPB		85
37)	Chloroform	4.42	83	9760	0.32	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	7610	0.28	PPB		96
40)	Carbon Tetrachloride	4.77	117	4882	0.22	PPB		96
41)	1,1-Dichloropropene	4.83	75	7402	0.29	PPB		89
44)	Benzene	5.11	78	24688	0.32	PPB		93
45)	1,2-Dichloroethane	5.27	62	6784	0.33	PPB		94
46)	tert-Amyl Methyl Ether	5.30	55	4494	0.40	PPB	#	26
47)	Trichloroethene	6.20	95	5998	0.32	PPB		87
48)	1,2-Dichloropropane	6.66	63	5152	0.28	PPB		94
49)	Dibromomethane	6.87	93	2331	0.27	PPB		91
51)	1,4-Dioxane	6.93	88	2566	29.17	PPB		71
52)	Bromodichloromethane	7.21	83	5853	0.28	PPB		94
55)	cis-1,3-Dichloropropene	8.15	75	5769	0.22	PPB		96
56)	4-Methyl-2-pentanone (MIBK	8.58	58	17374	4.06	PPB	#	1
58)	Toluene	8.75	92	14587	0.28	PPB		91
61)	trans-1,3-Dichloropropene	9.61	75	3673	0.17	PPB		87
62)	Ethyl methacrylate	9.83	69	2454	0.14	PPB		83
63)	1,1,2-Trichloroethane	9.97	83	3330	0.30	PPB		91
64)	Tetrachloroethene	9.97	164	5751	0.34	PPB	#	78
65)	2-Hexanone	10.54	57	4177	3.07	PPB	#	81
66)	1,3-Dichloropropane	10.29	76	7025	0.31	PPB		90
67)	Dibromochloromethane	10.63	129	3316	0.25	PPB		70
68)	1,2-Dibromoethane (EDB)	10.79	107	3421	0.28	PPB		93
69)	1-Chlorohexane	11.68	91	5533	0.26	PPB		87
70)	Chlorobenzene	11.63	112	17445	0.32	PPB		92
71)	Ethylbenzene	11.81	106	7368	0.25	PPB		96
72)	1,1,1,2-Tetrachloroethane	11.81	131	3609	0.22	PPB		93
73)	m,p-Xylenes	12.01	106	18766	0.50	PPB		91
74)	o-Xylene	12.57	106	8633	0.24	PPB		95
75)	Styrene	12.62	103	6064	0.21	PPB	#	79
76)	Bromoform	12.84	173	1723	0.23	PPB		93
77)	Isopropylbenzene	13.08	105	19813	0.23	PPB		98
81)	1,1,2,2-Tetrachloroethane	13.59	83	3779	0.25	PPB		85
83)	Bromobenzene	13.45	156	7141	0.28	PPB		91
84)	n-Propylbenzene	13.61	91	24059	0.23	PPB		97
85)	1,2,3-Trichloropropane	13.62	110	1214	0.26	PPB	#	63
86)	2-Chlorotoluene	13.71	91	17185	0.25	PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	15825	0.21	PPB		98
88)	4-Chlorotoluene	13.86	91	18756	0.24	PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D Vial: 8
Acq On : 25 Feb 2005 6:28 pm Operator:
Sample : 8260 ICAL (Water) #2 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:16 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

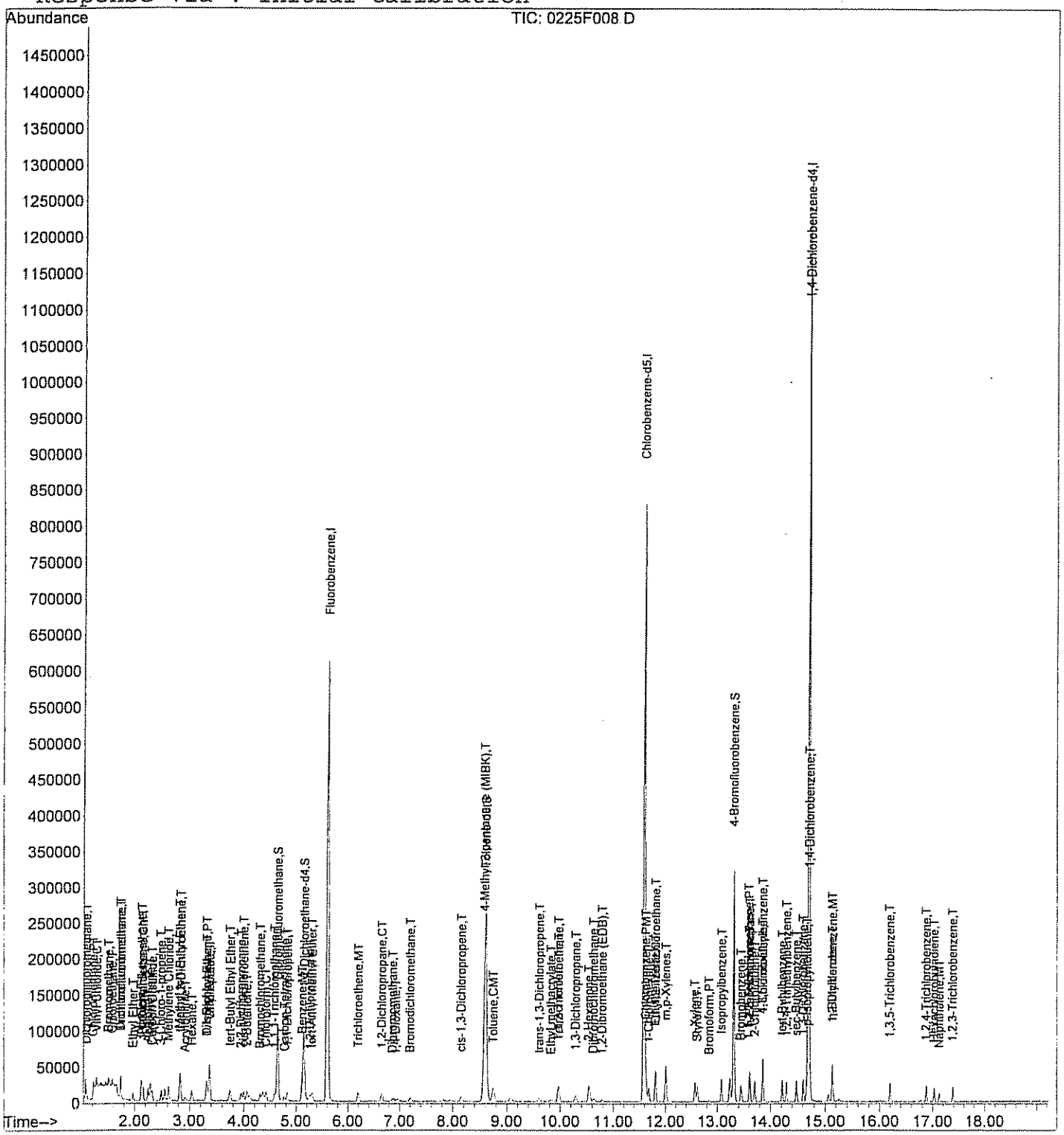
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
89)	tert-Butylbenzene	14.22	119	13661	0.21 PPB	94
90)	1,2,4-Trimethylbenzene	14.30	105	15634	0.20 PPB	98
91)	sec-Butylbenzene	14.48	105	17932	0.22 PPB	98
92)	p-Isopropyltoluene	14.67	119	14662	0.19 PPB	95
93)	1,3-Dichlorobenzene	14.61	146	13775	0.29 PPB	85
94)	1,4-Dichlorobenzene	14.73	146	14105	0.29 PPB	96
95)	n-Butylbenzene	15.13	91	13515	0.22 PPB	90
96)	1,2-Dichlorobenzene	15.15	146	12946	0.30 PPB	99
98)	1,3,5-Trichlorobenzene	16.20	180	8893	0.29 PPB	88
99)	1,2,4-Trichlorobenzene	16.88	180	7562	0.28 PPB	98
100)	Hexachlorobutadiene	17.03	225	4341	0.34 PPB	92
101)	Naphthalene	17.13	128	8203	0.17 PPB	92
102)	1,2,3-Trichlorobenzene	17.39	180	6173	0.28 PPB	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F008.D Vial: 8
Acq On : 25 Feb 2005 6:28 pm Operator:
Sample : 8260 ICAL (Water) #2 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:10 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.60	96	718252	10.00	PPB		0.00
59) Chlorobenzene-d5	11.58	82	319213	10.00	PPB		0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	350868	10.00	PPB		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	4.64	113	92816	5.89	PPB		0.00
Spiked Amount 10.000			Recovery	=	58.90%		
43) 1,2-Dichloroethane-d4	5.15	65	106057	5.95	PPB		0.00
Spiked Amount 10.000			Recovery	=	59.50%		
57) Toluene-d8	8.60	98	391848	5.35	PPB		0.01
Spiked Amount 10.000			Recovery	=	53.50%		
79) 4-Bromofluorobenzene	13.31	95	138676	5.16	PPB		0.00
Spiked Amount 10.000			Recovery	=	51.60%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.09	85	10935	0.51	PPB		96
3) Chloromethane	1.22	50	15026	0.60	PPB		98
4) Vinyl Chloride	1.29	62	12107	0.56	PPB		99
5) Bromomethane	1.51	96	7277	0.58	PPB		92
6) Chloroethane	1.58	64	7808	0.59	PPB		97
7) Dichlorofluoromethane	1.73	67	18073	0.55	PPB		91
8) Trichlorofluoromethane	1.74	101	15538	0.56	PPB		94
9) Ethyl Ether	1.97	59	6603	0.54	PPB		80
10) Acrolein	2.12	56	18497	11.50	PPB		99
11) Trichlorotrifluoroethane	2.13	151	7506	0.56	PPB		94
12) 1,1-Dichloroethene	2.15	96	8285	0.56	PPB		88
13) Acetone	2.25	43	28922	9.99	PPB		96
14) Iodomethane	2.29	142	34962	1.71	PPB		99
15) Carbon Disulfide	2.32	76	25216	0.46	PPB		98
16) 3-Chloro-1-propene	2.48	76	4271	0.47	PPB	#	85
17) Acetonitrile	2.55	40	12425	18.22	PPB		94
18) Methylene Chloride	2.62	84	11093	0.62	PPB		94
19) tert-Butyl Alcohol	2.74	59	1271	1.53	PPB		76
20) Acrylonitrile	2.92	53	6685	1.82	PPB		95
21) Methyl tert-Butyl Ether	2.83	73	37619	0.89	PPB		98
22) trans-1,2-Dichloroethene	2.84	96	9656	0.54	PPB		86
23) Hexane	3.05	57	9248	0.44	PPB		91
24) Diisopropyl Ether	3.33	45	26761	0.44	PPB		99
25) 1,1-Dichloroethane	3.31	63	16757	0.53	PPB		95
26) Vinyl Acetate	3.37	86	2033	0.76	PPB	#	1
27) Chloroprene	3.37	53	42537	1.72	PPB		98
28) tert-Butyl Ethyl Ether	3.74	59	20387	0.39	PPB		92

(#) = qualifier out of range (m) = manual integration

LB 2/28/05 mt 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D
Acq On : 25 Feb 2005 6:56 pm
Sample : 8260 ICAL (Water) #3
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005

Vial: 9
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	8979	0.32	PPB		95
30)	cis-1,2-Dichloroethene	4.00	96	10230	0.52	PPB		94
31)	2-Butanone	4.06	72	8764	7.88	PPB	#	84
32)	Propionitrile	4.21	54	1948	1.41	PPB		66
33)	Ethyl Acetate	4.11	61	2205	1.60	PPB		79
34)	Methacrylonitrile	4.37	67	7963	1.72	PPB		83
35)	Bromochloromethane	4.31	128	4539	0.56	PPB		82
37)	Chloroform	4.42	83	16237	0.54	PPB		93
38)	1,1,1-Trichloroethane	4.59	97	12116	0.45	PPB		96
40)	Carbon Tetrachloride	4.77	117	8252	0.38	PPB		92
41)	1,1-Dichloropropene	4.83	75	12093	0.48	PPB		96
42)	Isobutyl Alcohol	5.21	43	3572	9.85	PPB		67
44)	Benzene	5.11	78	39769	0.52	PPB		98
45)	1,2-Dichloroethane	5.26	62	11622	0.56	PPB		92
46)	tert-Amyl Methyl Ether	5.30	55	7761	0.70	PPB	#	17
47)	Trichloroethene	6.19	95	9909	0.53	PPB		86
48)	1,2-Dichloropropane	6.66	63	9009	0.49	PPB		90
49)	Dibromomethane	6.88	93	4555	0.54	PPB	#	74
51)	1,4-Dioxane	6.95	88	3232	37.06	PPB		88
52)	Bromodichloromethane	7.21	83	9463	0.46	PPB		87
54)	2-Chloroethyl Vinyl Ether	7.94	63	3189	0.40	PPB		91
55)	cis-1,3-Dichloropropene	8.17	75	9890	0.38	PPB		90
56)	4-Methyl-2-pentanone (MIBK	8.57	58	31374	7.39	PPB	#	39
58)	Toluene	8.74	92	24576	0.47	PPB		87
60)	n-Octane	9.08	85	3920	0.40	PPB		83
61)	trans-1,3-Dichloropropene	9.60	75	7055	0.32	PPB		90
62)	Ethyl methacrylate	9.83	69	4377	0.25	PPB		73
63)	1,1,2-Trichloroethane	9.96	83	5030	0.44	PPB		94
64)	Tetrachloroethene	9.98	164	8816	0.52	PPB		94
65)	2-Hexanone	10.54	57	7619	5.53	PPB		95
66)	1,3-Dichloropropane	10.29	76	10871	0.48	PPB		94
67)	Dibromochloromethane	10.64	129	5351	0.40	PPB		93
68)	1,2-Dibromoethane (EDB)	10.79	107	5531	0.44	PPB		70
69)	1-Chlorohexane	11.68	91	9351	0.44	PPB		96
70)	Chlorobenzene	11.63	112	28544	0.52	PPB		97
71)	Ethylbenzene	11.81	106	12711	0.42	PPB		87
72)	1,1,1,2-Tetrachloroethane	11.81	131	6139	0.37	PPB		90
73)	m,p-Xylenes	12.01	106	31216	0.83	PPB		90
74)	o-Xylene	12.57	106	13972	0.38	PPB		95
75)	Styrene	12.62	103	10301	0.36	PPB		95
76)	Bromoform	12.84	173	2681	0.36	PPB		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D Vial: 9
Acq On : 25 Feb 2005 6:56 pm Operator:
Sample : 8260 ICAL (Water) #3 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:19 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

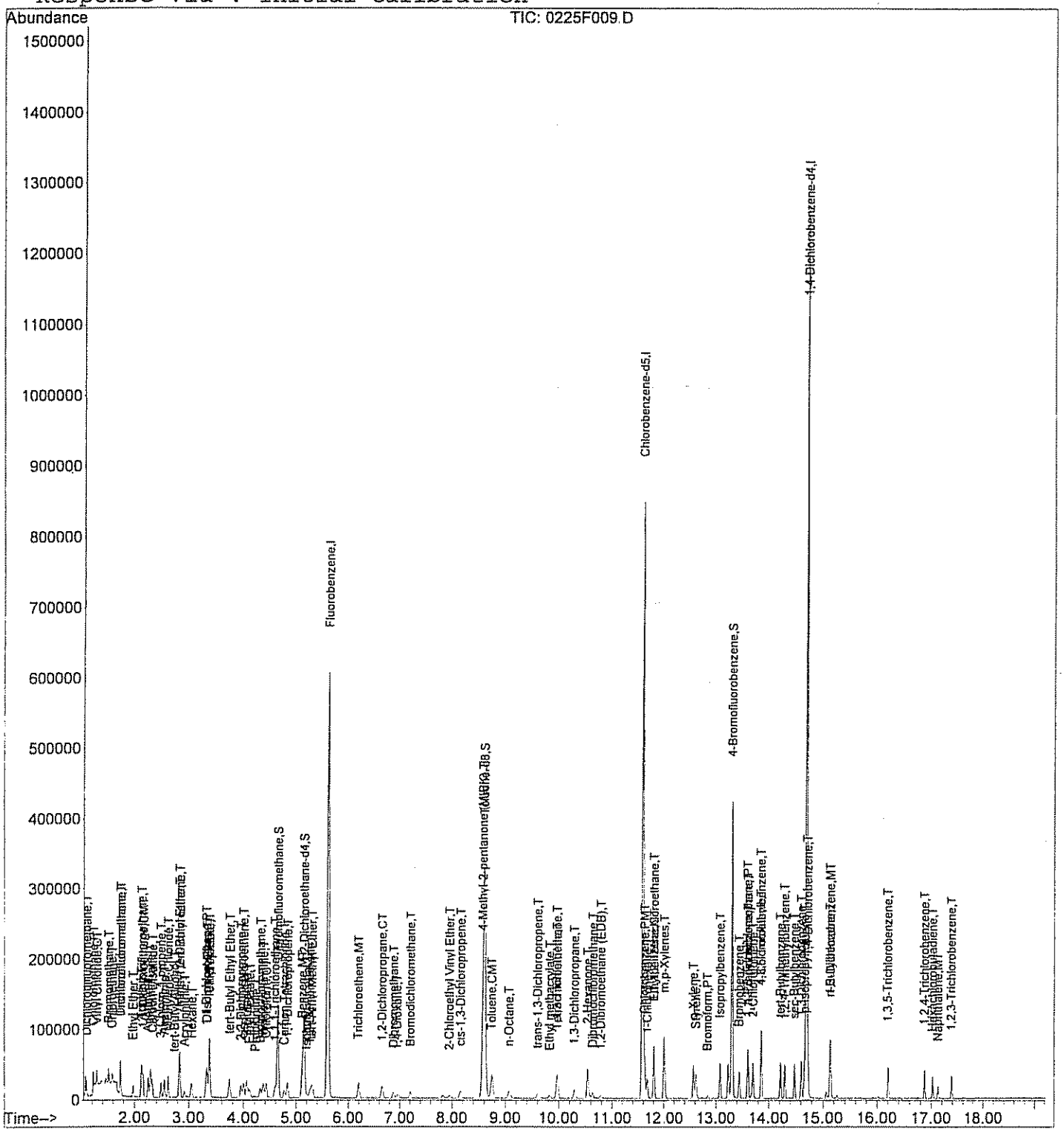
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77)	Isopropylbenzene	13.09	105	34665	0.39 PPB	95
81)	1,1,2,2-Tetrachloroethane	13.60	83	6471	0.43 PPB	74
83)	Bromobenzene	13.45	156	11522	0.46 PPB	89
84)	n-Propylbenzene	13.61	91	39949	0.38 PPB	98
85)	1,2,3-Trichloropropane	13.62	110	2193	0.47 PPB	91
86)	2-Chlorotoluene	13.71	91	29789	0.44 PPB	95
87)	1,3,5-Trimethylbenzene	13.86	105	26922	0.35 PPB	90
88)	4-Chlorotoluene	13.86	91	32077	0.41 PPB	96
89)	tert-Butylbenzene	14.22	119	23793	0.37 PPB	91
90)	1,2,4-Trimethylbenzene	14.30	105	26501	0.35 PPB	98
91)	sec-Butylbenzene	14.48	105	30610	0.38 PPB	98
92)	p-Isopropyltoluene	14.67	119	26141	0.34 PPB	94
93)	1,3-Dichlorobenzene	14.61	146	23408	0.50 PPB	98
94)	1,4-Dichlorobenzene	14.73	146	24207	0.49 PPB	95
95)	n-Butylbenzene	15.13	91	21964	0.36 PPB	97
96)	1,2-Dichlorobenzene	15.15	146	21003	0.48 PPB	98
98)	1,3,5-Trichlorobenzene	16.20	180	14136	0.47 PPB	95
99)	1,2,4-Trichlorobenzene	16.88	180	12674	0.46 PPB	87
100)	Hexachlorobutadiene	17.03	225	6373	0.50 PPB	82
101)	Naphthalene	17.13	128	13811	0.29 PPB	95
102)	1,2,3-Trichlorobenzene	17.38	180	10236	0.47 PPB	79

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F009.D Vial: 9
Acq On : 25 Feb 2005 6:56 pm Operator:
Sample : 8260 ICAL (Water) #3 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:14 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D Vial: 10
Acq On : 25 Feb 2005 7:23 pm Operator:
Sample : 8260 ICAL (Water) #4 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	729082	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	322147	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	361190	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	110355	6.90	PPB	0.00
Spiked Amount 10.000			Recovery	=	69.00%	
43) 1,2-Dichloroethane-d4	5.15	65	126047	6.97	PPB	0.00
Spiked Amount 10.000			Recovery	=	69.70%	
57) Toluene-d8	8.60	98	487753	6.55	PPB	0.00
Spiked Amount 10.000			Recovery	=	65.50%	
79) 4-Bromofluorobenzene	13.31	95	172468	6.36	PPB	0.00
Spiked Amount 10.000			Recovery	=	63.60%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	26500	1.22	PPB	94
3) Chloromethane	1.22	50	36705	1.44	PPB	99
4) Vinyl Chloride	1.29	62	29825	1.37	PPB	98
5) Bromomethane	1.51	96	17511	1.37	PPB	98
6) Chloroethane	1.58	64	17432	1.29	PPB	97
7) Dichlorofluoromethane	1.74	67	42341	1.27	PPB	94
8) Trichlorofluoromethane	1.74	101	40559	1.43	PPB	98
9) Ethyl Ether	1.97	59	15605	1.27	PPB	90
10) Acrolein	2.12	56	40855	25.03	PPB	97
11) Trichlorotrifluoroethane	2.13	151	19395	1.41	PPB	87
12) 1,1-Dichloroethene	2.15	96	20827	1.38	PPB	84
13) Acetone	2.25	43	67441	22.94	PPB	95
14) Iodomethane	2.29	142	93851m	4.51	PPB	
15) Carbon Disulfide	2.32	76	60237	1.09	PPB	99
16) 3-Chloro-1-propene	2.48	76	10284	1.11	PPB #	85
17) Acetonitrile	2.55	40	33652	48.62	PPB	99
18) Methylene Chloride	2.62	84	25488	1.40	PPB	98
19) tert-Butyl Alcohol	2.74	59	2956	3.51	PPB	93
20) Acrylonitrile	2.92	53	17520	4.70	PPB	89
21) Methyl tert-Butyl Ether	2.82	73	90917	2.11	PPB	98
22) trans-1,2-Dichloroethene	2.84	96	23896	1.31	PPB	92
23) Hexane	3.05	57	22506	1.05	PPB	89
24) Diisopropyl Ether	3.33	45	67306	1.09	PPB	98
25) 1,1-Dichloroethane	3.31	63	41417	1.30	PPB	94
26) Vinyl Acetate	3.37	86	4948	1.82	PPB #	77
27) Chloroprene	3.37	53	111460	4.43	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	52777	0.99	PPB	95

(#) = qualifier out of range (m) = manual integration
0225F010.D 022505_8260W.M Mon Feb 28 15:30:30 2005 Page 1

mt 3/1/5
LB 2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D Vial: 10
Acq On : 25 Feb 2005 7:23 pm Operator:
Sample : 8260 ICAL (Water) #4 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	21643	0.77	PPB		96
30)	cis-1,2-Dichloroethene	4.00	96	25688	1.28	PPB		93
31)	2-Butanone	4.06	72	24990	22.14	PPB	#	87
32)	Propionitrile	4.22	54	6168	4.41	PPB		92
33)	Ethyl Acetate	4.11	61	5711	4.09	PPB		99
34)	Methacrylonitrile	4.36	67	21072	4.49	PPB		88
35)	Bromochloromethane	4.30	128	10502	1.27	PPB		97
36)	Tetrahydrofuran	4.34	71	2139	1.79	PPB	#	58
37)	Chloroform	4.42	83	40250	1.32	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	29667	1.08	PPB		94
40)	Carbon Tetrachloride	4.77	117	21734	0.99	PPB		80
41)	1,1-Dichloropropene	4.83	75	31224	1.21	PPB		95
42)	Isobutyl Alcohol	5.20	43	8526	23.16	PPB		96
44)	Benzene	5.11	78	96148	1.24	PPB		99
45)	1,2-Dichloroethane	5.26	62	27227	1.30	PPB		96
46)	tert-Amyl Methyl Ether	5.31	55	18062	1.60	PPB	#	26
47)	Trichloroethene	6.20	95	23230	1.23	PPB		95
48)	1,2-Dichloropropane	6.66	63	21695	1.16	PPB		97
49)	Dibromomethane	6.87	93	10835	1.26	PPB		83
50)	Methyl methacrylate	6.97	69	6807	0.78	PPB		88
51)	1,4-Dioxane	6.95	88	5342m	60.35	PPB		
52)	Bromodichloromethane	7.21	83	22471	1.08	PPB		99
53)	2-Nitropropane	7.83	43	7102	3.29	PPB		90
54)	2-Chloroethyl Vinyl Ether	7.95	63	7060	0.88	PPB		83
55)	cis-1,3-Dichloropropene	8.16	75	24643	0.93	PPB		96
56)	4-Methyl-2-pentanone (MIBK	8.57	58	77880	18.08	PPB	#	71
58)	Toluene	8.75	92	62140	1.17	PPB		87
60)	n-Octane	9.08	85	9556m	0.97	PPB		
61)	trans-1,3-Dichloropropene	9.61	75	17031	0.76	PPB		88
62)	Ethyl methacrylate	9.83	69	11881	0.67	PPB		81
63)	1,1,2-Trichloroethane	9.97	83	13137	1.14	PPB		92
64)	Tetrachloroethene	9.97	164	22118	1.29	PPB		97
65)	2-Hexanone	10.54	57	22244	15.99	PPB	#	81
66)	1,3-Dichloropropane	10.29	76	28557	1.24	PPB		99
67)	Dibromochloromethane	10.64	129	13326	0.99	PPB		91
68)	1,2-Dibromoethane (EDB)	10.79	107	13779	1.10	PPB		94
69)	1-Chlorohexane	11.68	91	23117	1.08	PPB		88
70)	Chlorobenzene	11.63	112	70409	1.28	PPB		95
71)	Ethylbenzene	11.81	106	34839	1.15	PPB		87
72)	1,1,1,2-Tetrachloroethane	11.81	131	15000	0.90	PPB		95
73)	m,p-Xylenes	12.01	106	82774	2.17	PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D Vial: 10
Acq On : 25 Feb 2005 7:23 pm Operator:
Sample : 8260 ICAL (Water) #4 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:22 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

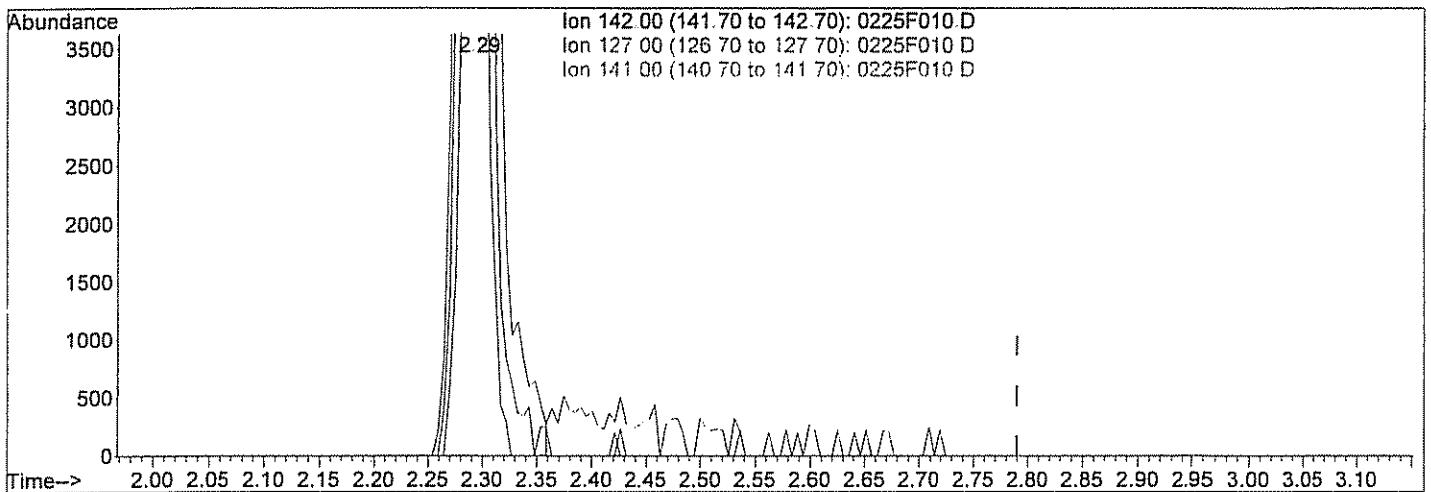
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	38477	1.05	PPB		97
75)	Styrene	12.62	103	28442	0.98	PPB		95
76)	Bromoform	12.85	173	6515	0.86	PPB		93
77)	Isopropylbenzene	13.08	105	93449	1.04	PPB		94
78)	cis-1,4-Dichloro-2-butene	13.29	89	3834	2.26	PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.59	83	16038	1.05	PPB		91
82)	trans-1,4-Dichloro-2-buten	13.67	53	3732	0.88	PPB	#	67
83)	Bromobenzene	13.45	156	31025	1.20	PPB	#	83
84)	n-Propylbenzene	13.61	91	111066	1.04	PPB		99
85)	1,2,3-Trichloropropane	13.61	110	5636	1.18	PPB		96
86)	2-Chlorotoluene	13.71	91	76879	1.11	PPB		95
87)	1,3,5-Trimethylbenzene	13.86	105	75416	0.96	PPB		98
88)	4-Chlorotoluene	13.86	91	84034	1.05	PPB		95
89)	tert-Butylbenzene	14.22	119	63774	0.97	PPB		97
90)	1,2,4-Trimethylbenzene	14.30	105	74471	0.94	PPB		96
91)	sec-Butylbenzene	14.48	105	82727	1.00	PPB		95
92)	p-Isopropyltoluene	14.67	119	74832	0.96	PPB		97
93)	1,3-Dichlorobenzene	14.61	146	58462	1.20	PPB		99
94)	1,4-Dichlorobenzene	14.73	146	63231	1.26	PPB		98
95)	n-Butylbenzene	15.13	91	60212	0.95	PPB		97
96)	1,2-Dichlorobenzene	15.14	146	55013	1.23	PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	1474	0.71	PPB	#	68
98)	1,3,5-Trichlorobenzene	16.20	180	34522	1.11	PPB		90
99)	1,2,4-Trichlorobenzene	16.88	180	29776	1.06	PPB		99
100)	Hexachlorobutadiene	17.03	225	15766	1.21	PPB		96
101)	Naphthalene	17.13	128	33665	0.68	PPB		93
102)	1,2,3-Trichlorobenzene	17.38	180	24849	1.11	PPB		96

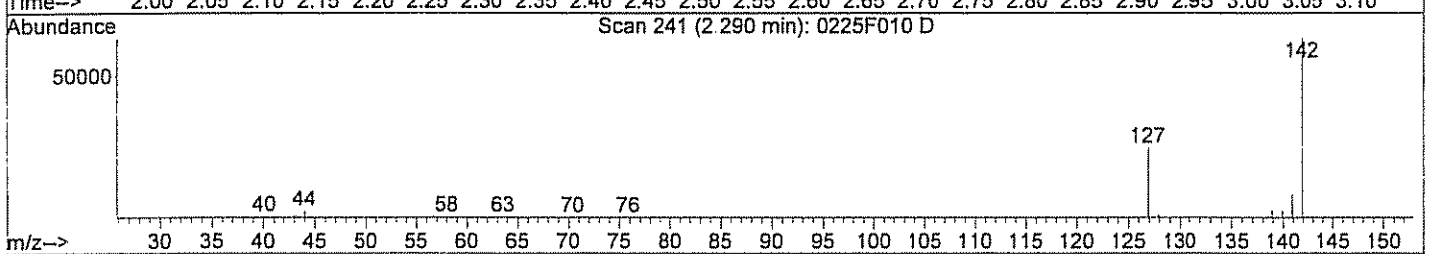
(#) = qualifier out of range (m) = manual integration

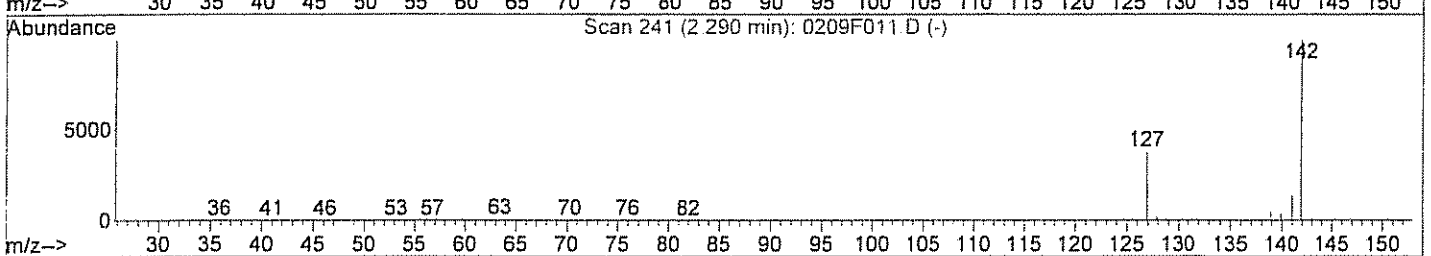
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F010.D Vial: 10
Acq On : 25 Feb 2005 7:23 pm Operator:
Sample : 8260 ICAL (Water) #4 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F010.D

(14) Iodomethane (T)

2.29min 4.33PPB

response 90137

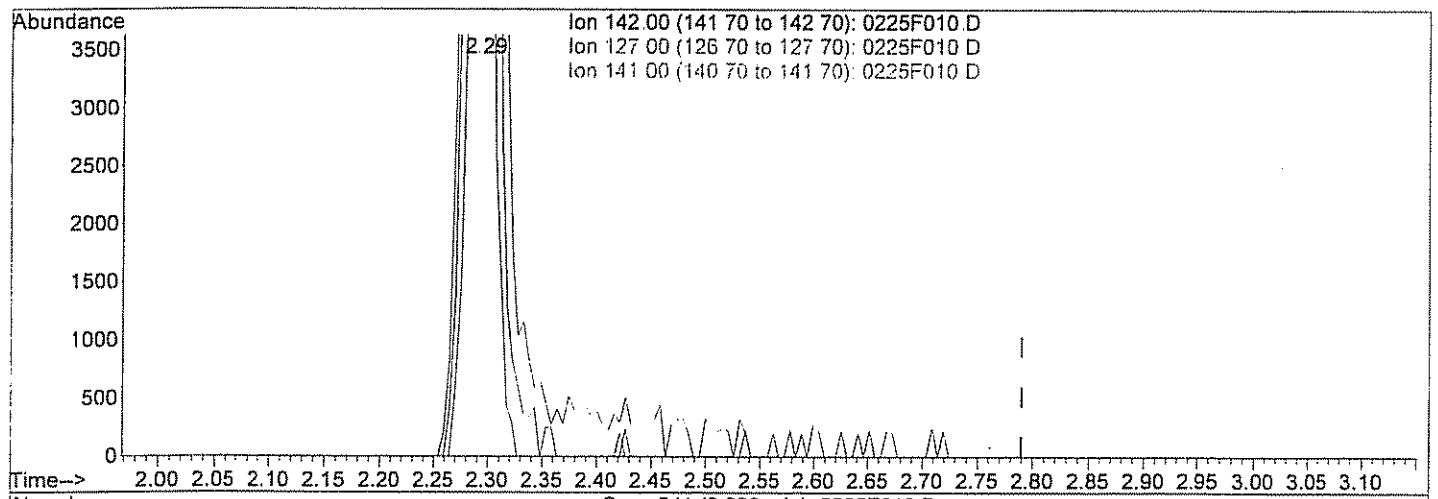
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.09
141.00	14.30	13.54
0.00	0.00	0.00

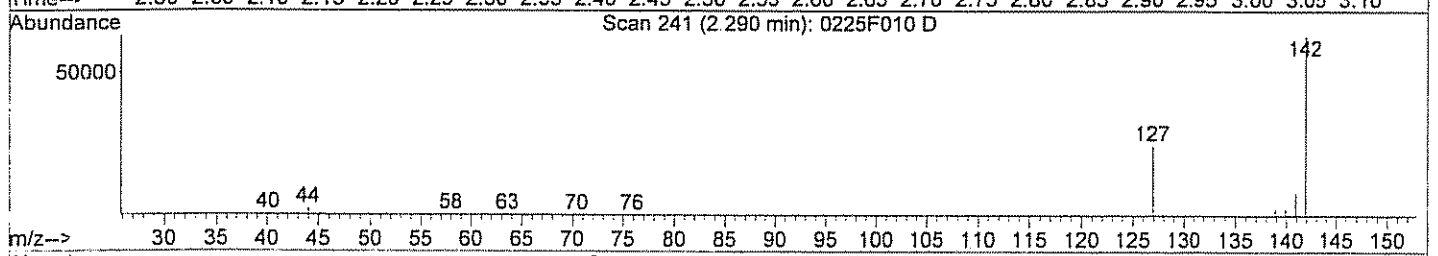
Quantitation Report (Qedit)

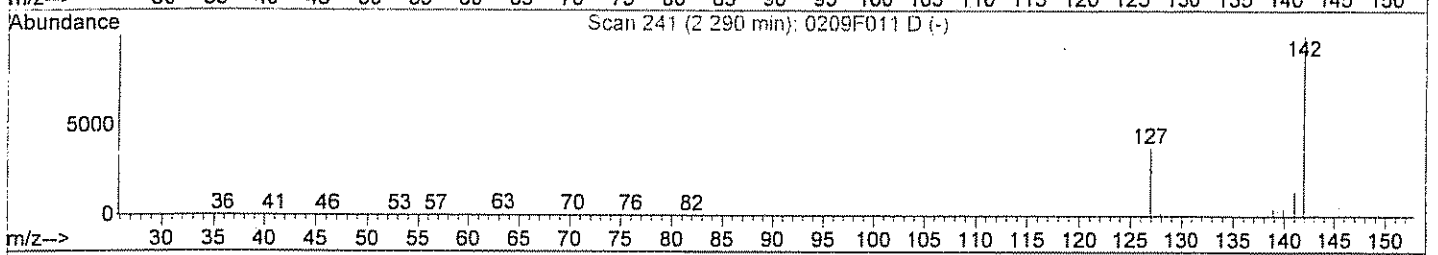
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F010.D

(14) Iodomethane (T)

2.29min 4.51PPB m

response 93851

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.09
141.00	14.30	13.54
0.00	0.00	0.00

peak tailing
LB 2/28/05

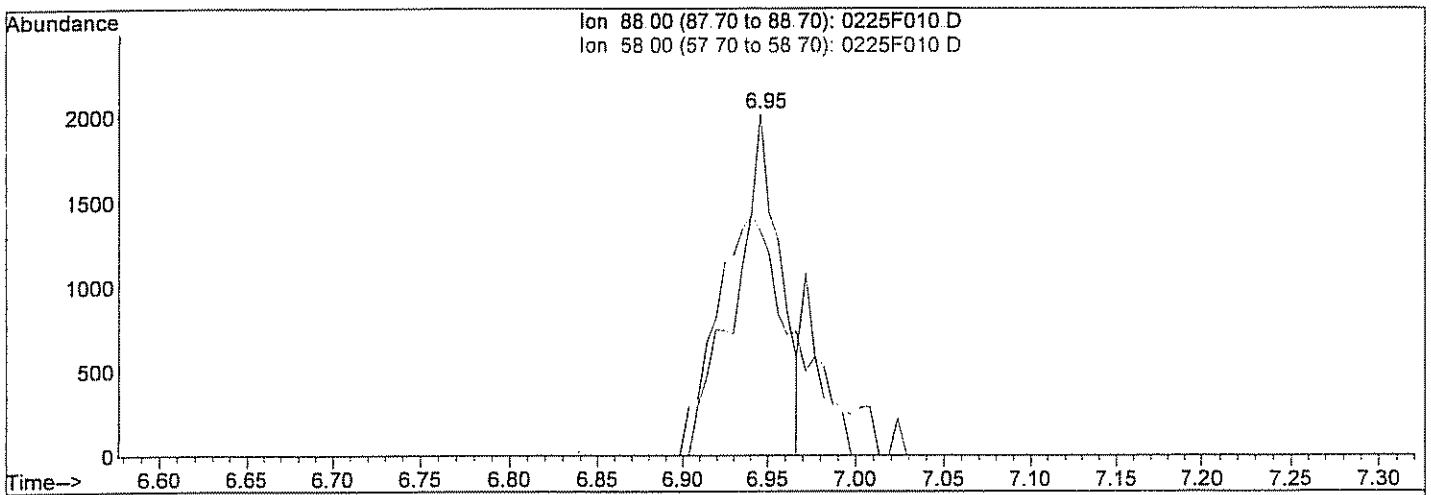
mt 3/1/5

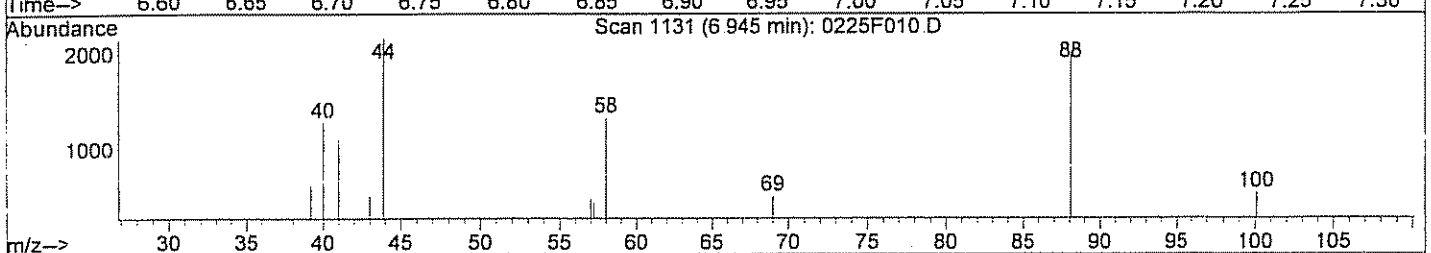
Quantitation Report (Qedit)

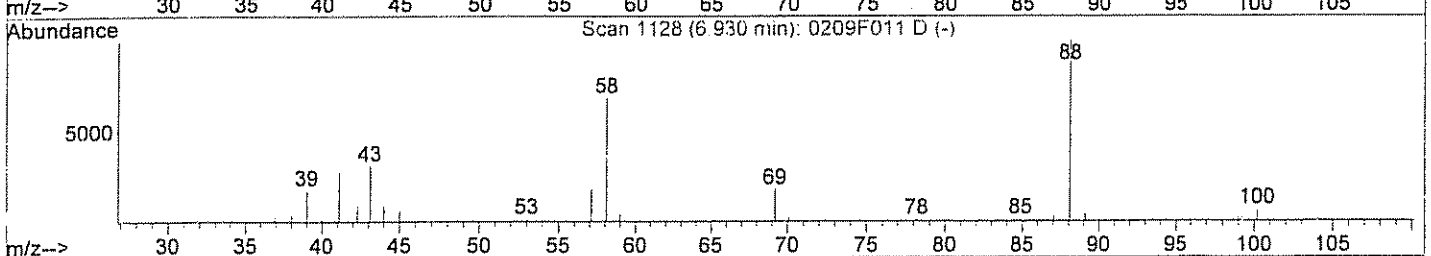
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F010.D

(51) 1.4-Dioxane (T)

6.95min 47.43PPB

response 4198

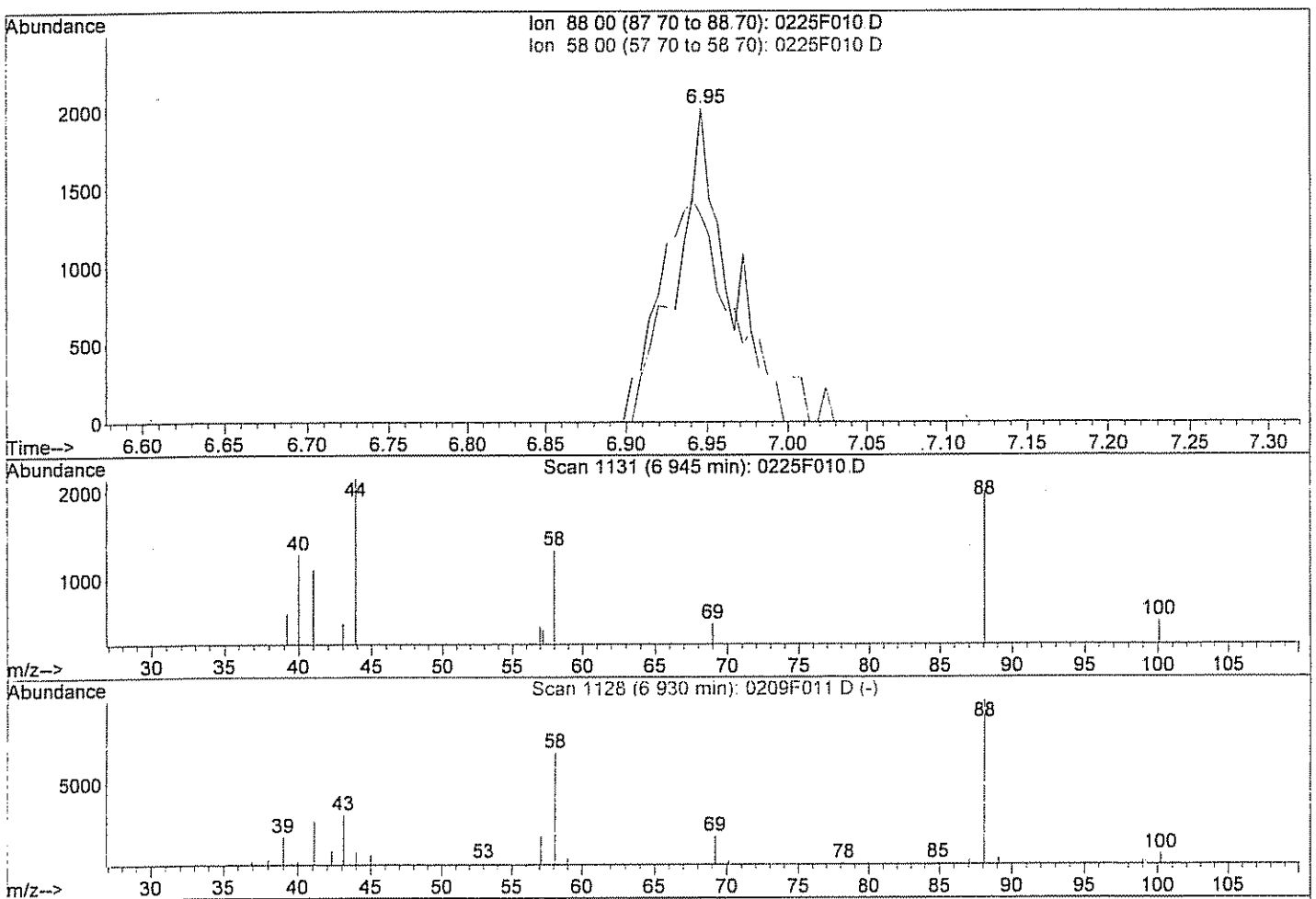
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	66.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6 95min 60.35PPB m

response 5342

Ion	Exp%	Act%
88 00	100	100
58 00	65 60	66 01
0 00	0 00	0.00
0 00	0 00	0.00

split peak
LB 2/28/05
MAT 3/1/5

0225F010.D 022505_8260W.M Mon Feb 28 15:16:02 2005

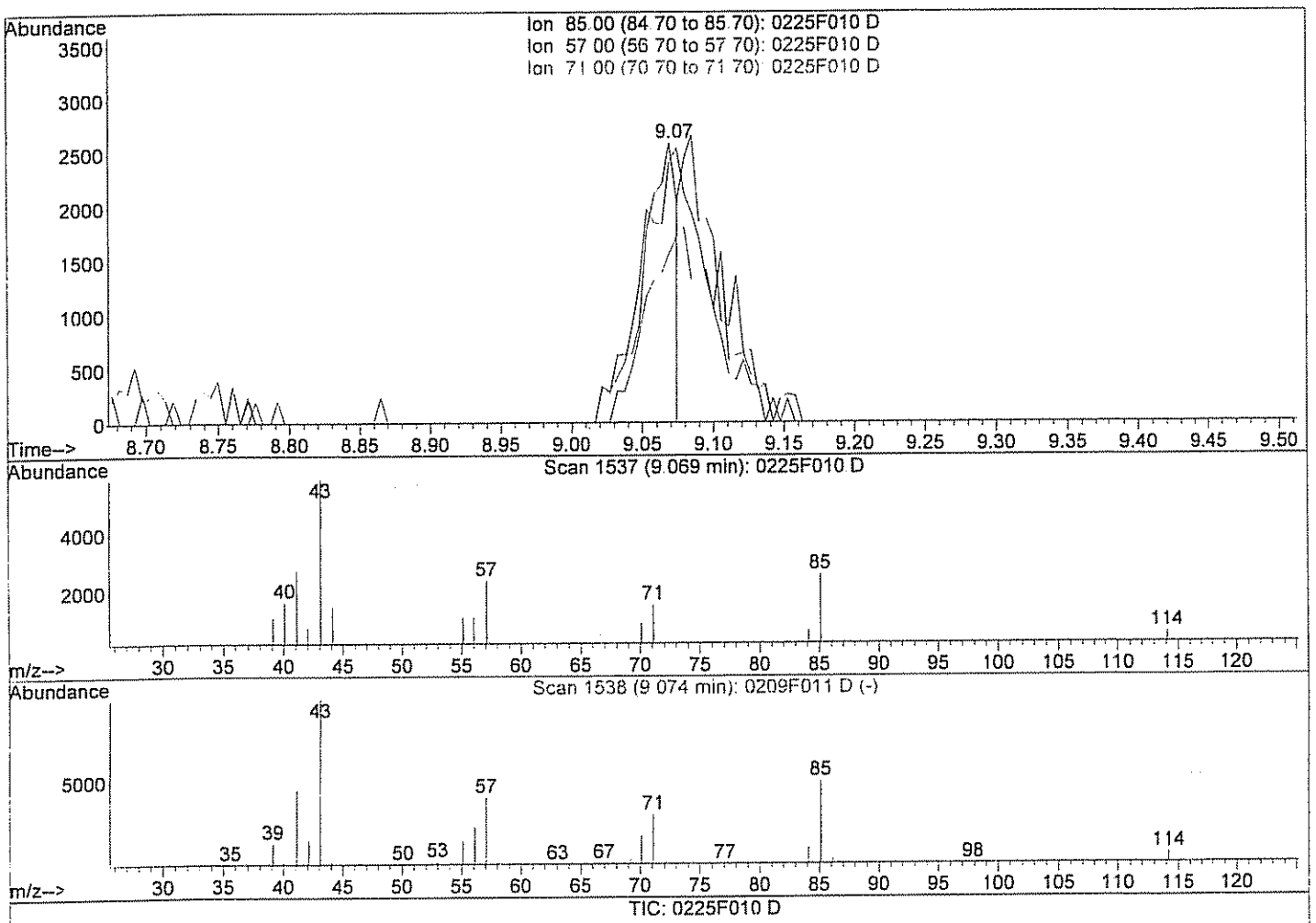
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:15 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(60) n-Octane (T)

9.07min 0.45PPB

response 4445

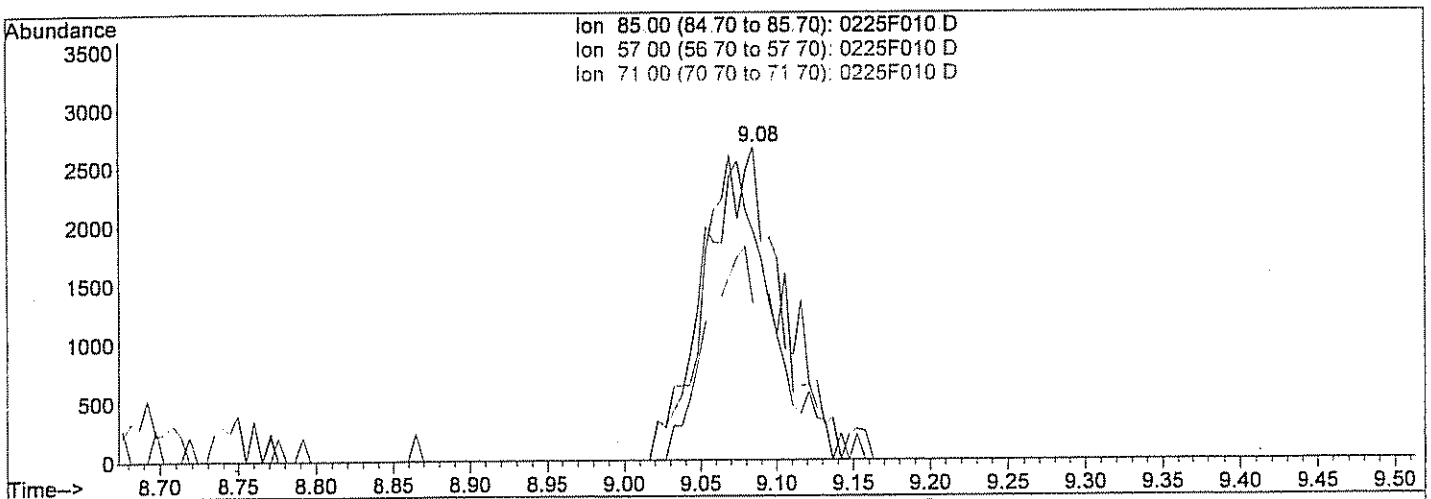
Ion	Exp%	Act%
85.00	100	100
57.00	79.30	93.10
71.00	54.80	60.10
0.00	0.00	0.00

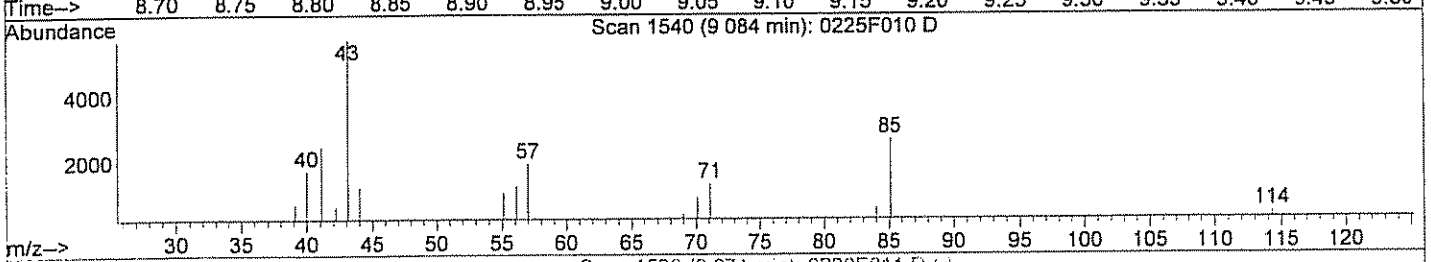
Quantitation Report (Qedit)

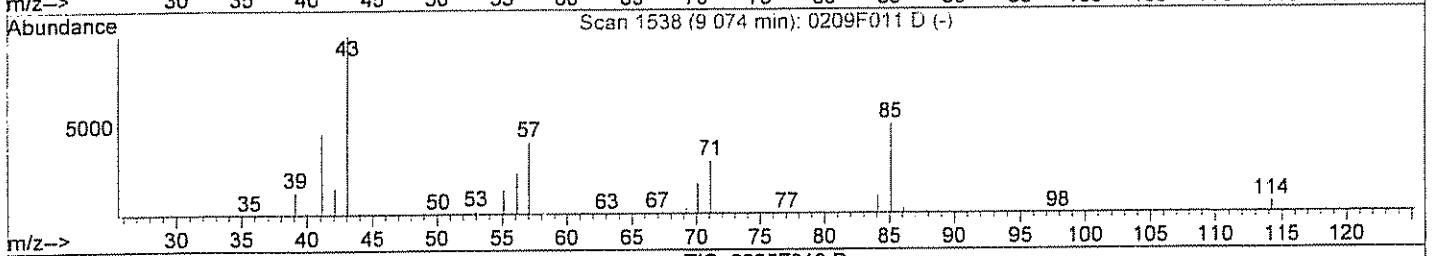
Data File : J:\MS13\DATA\022505\0225F010.D
Acq On : 25 Feb 2005 7:23 pm
Sample : 8260 ICAL (Water) #4
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:16 2005

Vial: 10
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F010.D

(60) n-Octane (T)

9.08min 0.97PPB m

response 9556

Ion	Exp%	Act%
85.00	100	100
57.00	79.30	72.92
71.00	54.80	49.70
0.00	0.00	0.00

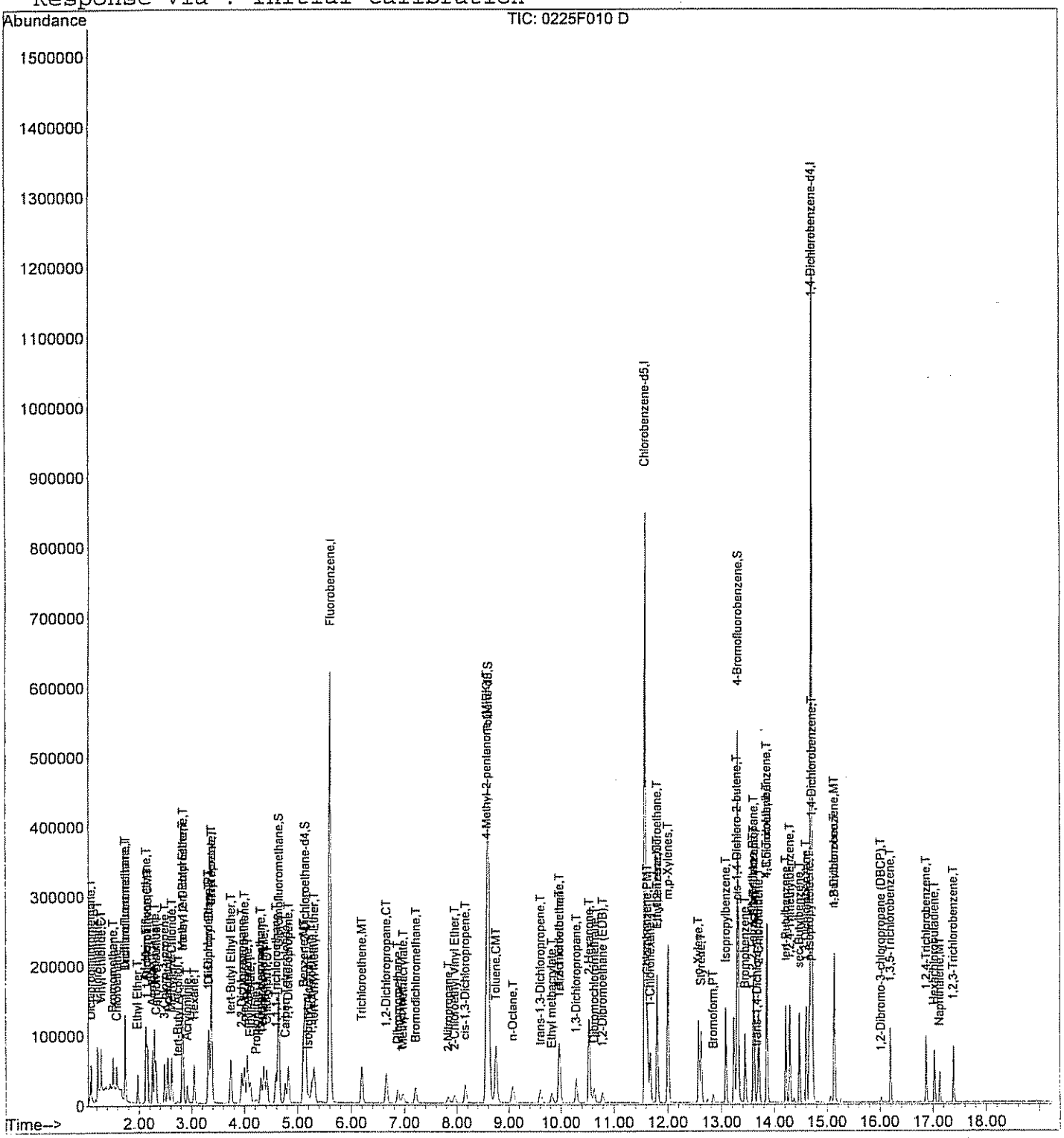
split peak
LB 2/28/05
mt 3/1/5

0225F010.D 022505_8260W.M Mon Feb 28 15:16:22 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F010.D Vial: 10
Acq On : 25 Feb 2005 7:23 pm Operator:
Sample : 8260 ICAL (Water) #4 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:16 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D Vial: 11
Acq On : 25 Feb 2005 7:51 pm Operator:
Sample : 8260 ICAL (Water) #5 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	735104	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	323117	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	364389	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	149107	9.25	PPB	0.00
Spiked Amount 10.000			Recovery	=	92.50%	
43) 1,2-Dichloroethane-d4	5.15	65	168826	9.26	PPB	0.00
Spiked Amount 10.000			Recovery	=	92.60%	
57) Toluene-d8	8.60	98	662777	8.83	PPB	0.00
Spiked Amount 10.000			Recovery	=	88.30%	
79) 4-Bromofluorobenzene	13.31	95	231862	8.53	PPB	0.00
Spiked Amount 10.000			Recovery	=	85.30%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	43902	2.00	PPB	100
3) Chloromethane	1.22	50	57196	2.22	PPB	98
4) Vinyl Chloride	1.29	62	46440	2.11	PPB	98
5) Bromomethane	1.51	96	28196	2.20	PPB	94
6) Chloroethane	1.58	64	28487	2.09	PPB	98
7) Dichlorofluoromethane	1.74	67	69616	2.07	PPB	96
8) Trichlorofluoromethane	1.74	101	62824	2.19	PPB	98
9) Ethyl Ether	1.97	59	23739	1.91	PPB	95
10) Acrolein	2.12	56	68208	41.44	PPB	98
11) Trichlorotrifluoroethane	2.13	151	31738	2.30	PPB	95
12) 1,1-Dichloroethene	2.15	96	34246	2.25	PPB	88
13) Acetone	2.25	43	106599	35.96	PPB	93
14) Iodomethane	2.29	142	155935m	7.44	PPB	
15) Carbon Disulfide	2.32	76	100115	1.79	PPB	100
16) 3-Chloro-1-propene	2.48	76	16723	1.78	PPB	90
17) Acetonitrile	2.55	40	53365	76.47	PPB	93
18) Methylene Chloride	2.62	84	39167	2.13	PPB	99
19) tert-Butyl Alcohol	2.75	59	4719	5.56	PPB	94
20) Acrylonitrile	2.92	53	27753	7.39	PPB	91
21) Methyl tert-Butyl Ether	2.82	73	148945	3.44	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	37593	2.04	PPB	96
23) Hexane	3.05	57	39021	1.80	PPB	94
24) Diisopropyl Ether	3.33	45	109427	1.75	PPB	97
25) 1,1-Dichloroethane	3.31	63	65997	2.05	PPB	95
26) Vinyl Acetate	3.37	86	7490	2.73	PPB #	49
27) Chloroprene	3.37	53	187051	7.38	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	85656	1.60	PPB	97

(#) = qualifier out of range (m) = manual integration
0225F011.D 022505_8260W.M Mon Feb 28 15:30:32 2005 Page 1

LB 2/28/05 MH 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	35207	1.24 PPB		96
30)	cis-1,2-Dichloroethene	4.00	96	40719	2.02 PPB		96
31)	2-Butanone	4.05	72	40643	35.71 PPB		90
32)	Propionitrile	4.22	54	9925	7.03 PPB		84
33)	Ethyl Acetate	4.10	61	9645	6.85 PPB		89
34)	Methacrylonitrile	4.37	67	32689	6.90 PPB		96
35)	Bromochloromethane	4.30	128	17910	2.15 PPB	#	77
36)	Tetrahydrofuran	4.34	71	2853	2.37 PPB		93
37)	Chloroform	4.42	83	63182	2.05 PPB		95
38)	1,1,1-Trichloroethane	4.59	97	48528	1.75 PPB		95
40)	Carbon Tetrachloride	4.76	117	34285	1.55 PPB		91
41)	1,1-Dichloropropene	4.83	75	50383	1.94 PPB		98
42)	Isobutyl Alcohol	5.20	43	11974	32.26 PPB		83
44)	Benzene	5.11	78	156879	2.01 PPB		98
45)	1,2-Dichloroethane	5.26	62	44213	2.09 PPB		97
46)	tert-Amyl Methyl Ether	5.31	55	28309	2.49 PPB	#	41
47)	Trichloroethene	6.19	95	38326	2.01 PPB		93
48)	1,2-Dichloropropane	6.66	63	35826	1.90 PPB		96
49)	Dibromomethane	6.87	93	17418	2.00 PPB		93
50)	Methyl methacrylate	6.98	69	11204	1.27 PPB		86
51)	1,4-Dioxane	6.94	88	7522	84.29 PPB		81
52)	Bromodichloromethane	7.21	83	36192	1.73 PPB		88
53)	2-Nitropropane	7.82	43	10251	4.71 PPB		85
54)	2-Chloroethyl Vinyl Ether	7.95	63	12528	1.55 PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	41169	1.54 PPB		95
56)	4-Methyl-2-pentanone (MIBK	8.57	58	129710	29.87 PPB	#	79
58)	Toluene	8.75	92	102192	1.91 PPB		94
60)	n-Octane	9.07	85	14655	1.48 PPB		92
61)	trans-1,3-Dichloropropene	9.60	75	28471	1.27 PPB		97
62)	Ethyl methacrylate	9.83	69	19615	1.10 PPB		98
63)	1,1,2-Trichloroethane	9.97	83	20705	1.79 PPB		97
64)	Tetrachloroethene	9.98	164	35718	2.07 PPB		96
65)	2-Hexanone	10.54	57	36866	26.41 PPB	#	88
66)	1,3-Dichloropropane	10.29	76	46083	1.99 PPB		98
67)	Dibromochloromethane	10.64	129	21163	1.56 PPB		97
68)	1,2-Dibromoethane (EDB)	10.78	107	22167	1.76 PPB		98
69)	1-Chlorohexane	11.68	91	38622	1.80 PPB		92
70)	Chlorobenzene	11.63	112	113624	2.05 PPB		94
71)	Ethylbenzene	11.80	106	56934	1.88 PPB		88
72)	1,1,1,2-Tetrachloroethane	11.81	131	24648	1.48 PPB		95
73)	m,p-Xylenes	12.01	106	139434	3.65 PPB		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:25 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	65203	1.77	PPB		94
75)	Styrene	12.62	103	48758	1.67	PPB		96
76)	Bromoform	12.84	173	10935	1.44	PPB		96
77)	Isopropylbenzene	13.08	105	159791	1.77	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	5957	3.50	PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.60	83	25685	1.66	PPB		93
82)	trans-1,4-Dichloro-2-buten	13.68	53	6415	1.49	PPB		75
83)	Bromobenzene	13.45	156	48976	1.88	PPB		95
84)	n-Propylbenzene	13.61	91	190310	1.76	PPB		100
85)	1,2,3-Trichloropropane	13.62	110	9415	1.95	PPB		91
86)	2-Chlorotoluene	13.71	91	124209	1.78	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	129280	1.64	PPB		99
88)	4-Chlorotoluene	13.86	91	143796	1.79	PPB		96
89)	tert-Butylbenzene	14.22	119	107607	1.63	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	128356	1.61	PPB		97
91)	sec-Butylbenzene	14.48	105	144923	1.73	PPB		99
92)	p-Isopropyltoluene	14.67	119	126975	1.61	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	97513	1.99	PPB		96
94)	1,4-Dichlorobenzene	14.73	146	99550	1.96	PPB		94
95)	n-Butylbenzene	15.14	91	102530	1.61	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	87682	1.94	PPB		96
97)	1,2-Dibromo-3-chloropropan	16.03	155	2505	1.19	PPB		87
98)	1,3,5-Trichlorobenzene	16.21	180	54848	1.75	PPB		98
99)	1,2,4-Trichlorobenzene	16.88	180	48219	1.69	PPB		95
100)	Hexachlorobutadiene	17.03	225	25621	1.95	PPB		88
101)	Naphthalene	17.13	128	56380	1.14	PPB		97
102)	1,2,3-Trichlorobenzene	17.39	180	40394	1.79	PPB		96

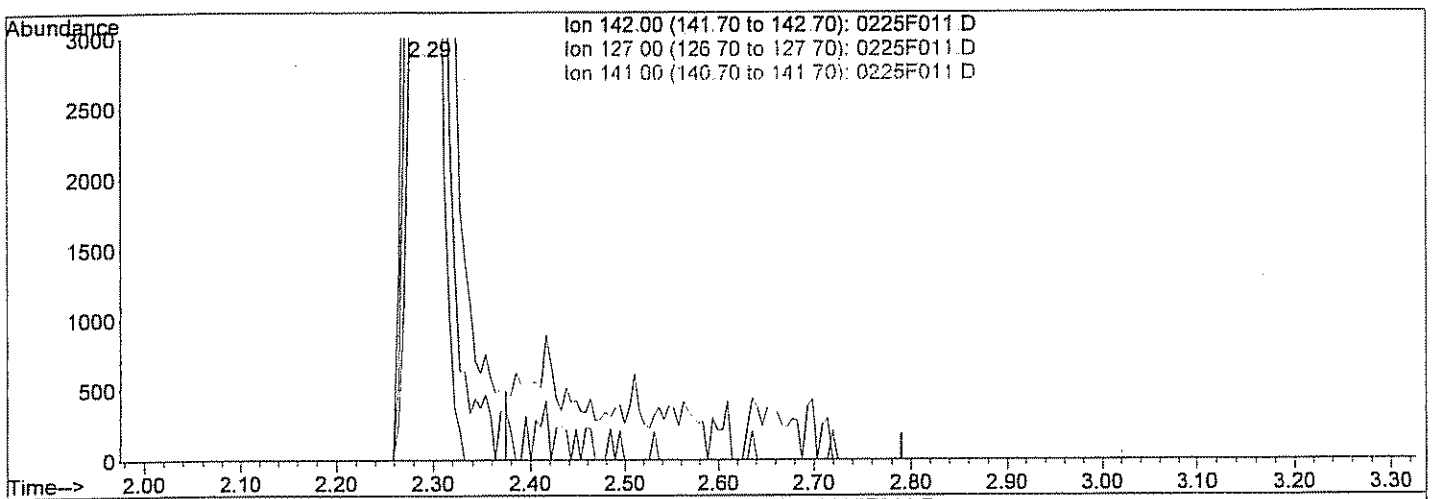
(#) = qualifier out of range (m) = manual integration

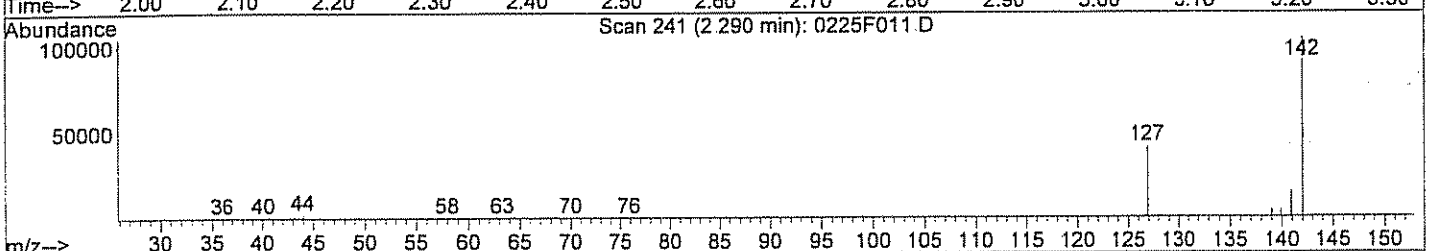
Quantitation Report (Qedit)

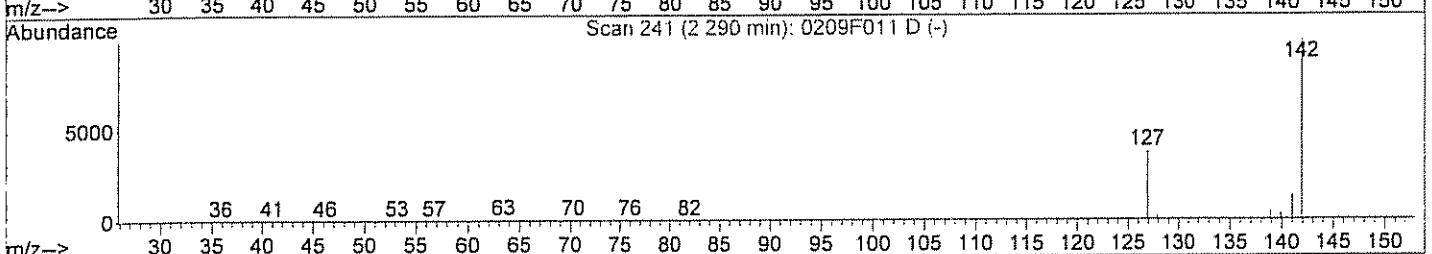
Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F011.D

(14) Iodomethane (T)

2.29min 7.11PPB

response 149005

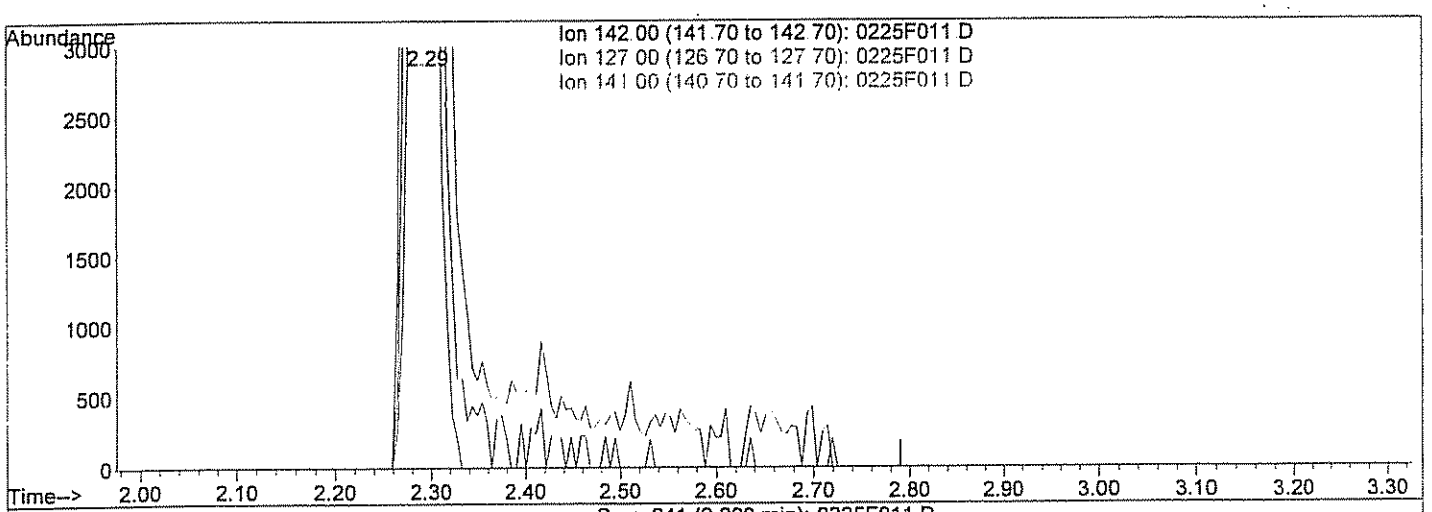
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.73
141.00	14.30	14.64
0.00	0.00	0.00

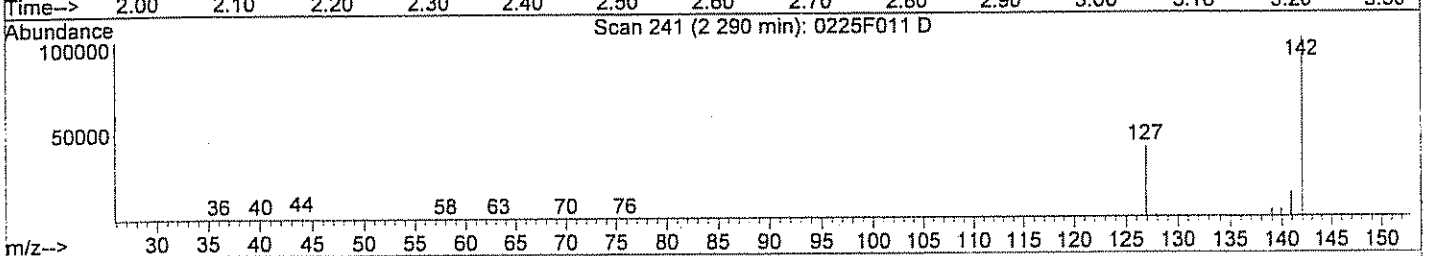
Quantitation Report (Qedit)

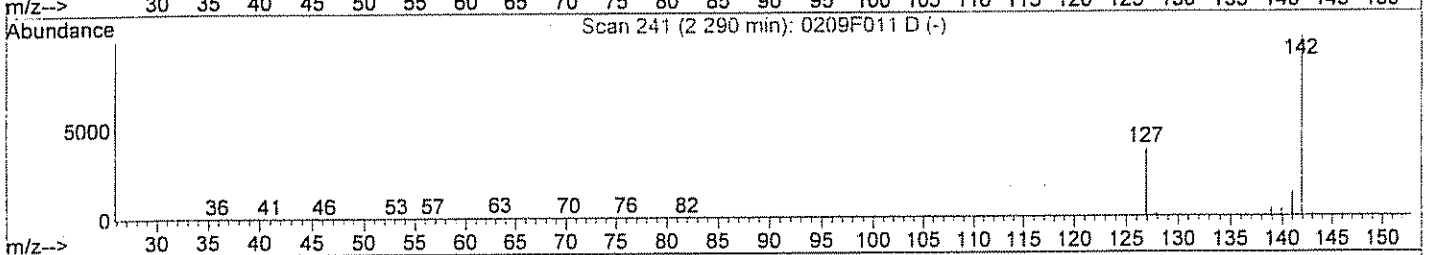
Data File : J:\MS13\DATA\022505\0225F011.D
Acq On : 25 Feb 2005 7:51 pm
Sample : 8260 ICAL (Water) #5
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:17 2005

Vial: 11
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F011.D

(14) Iodomethane (T)

2.29min 7.44PPB m

response 155935

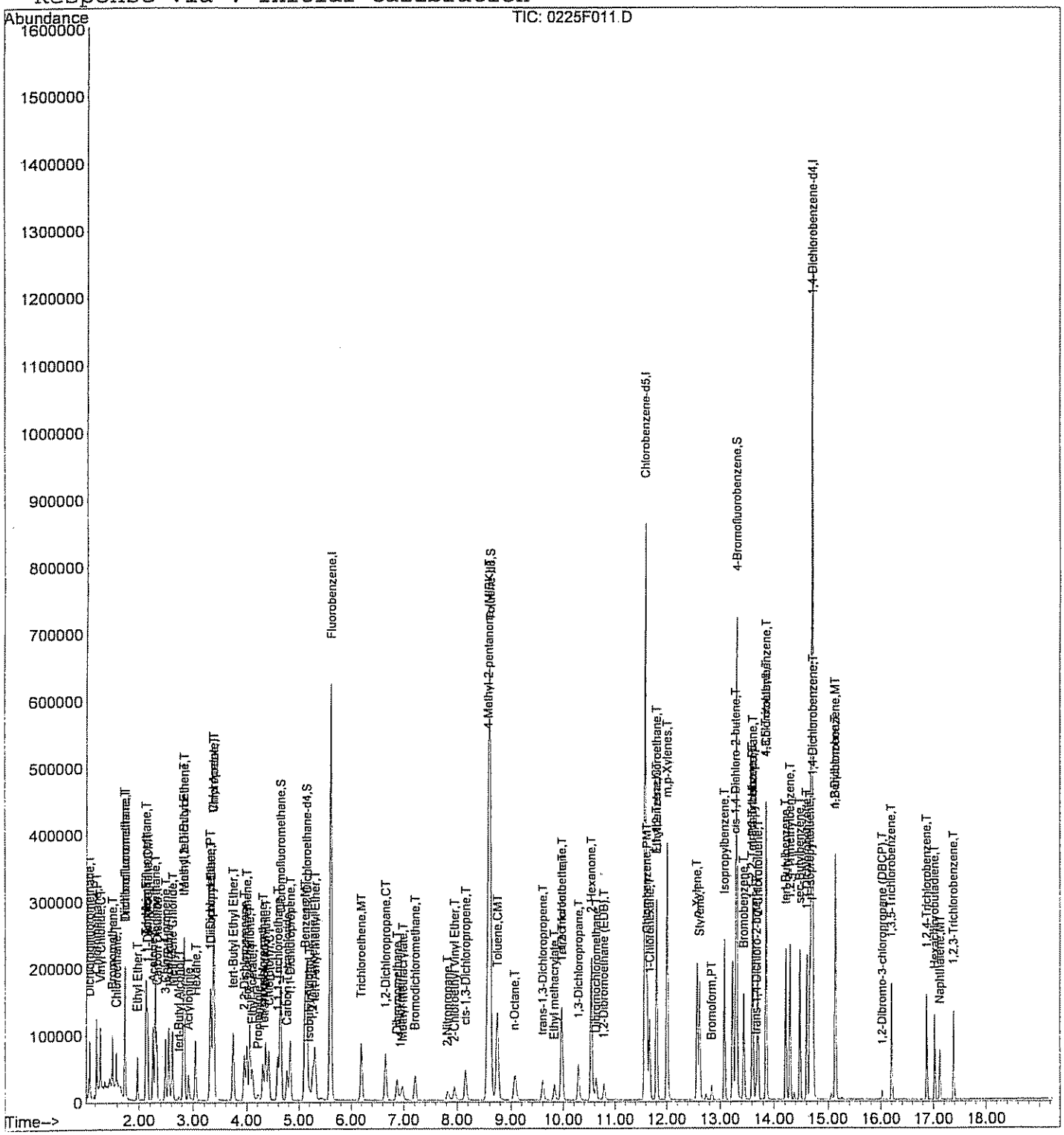
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.73
141.00	14.30	14.64
0.00	0.00	0.00

peak tailing
LB 2/28/05
mal 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F011.D Vial: 11
Acq On : 25 Feb 2005 7:51 pm Operator:
Sample : 8260 ICAL (Water) #5 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:17 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	749703	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	326798	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	375745	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	170754	10.39	PPB	0.00
Spiked Amount 10.000			Recovery	=	103.90%	
43) 1,2-Dichloroethane-d4	5.15	65	190008	10.21	PPB	0.00
Spiked Amount 10.000			Recovery	=	102.10%	
57) Toluene-d8	8.60	98	773158	10.10	PPB	0.00
Spiked Amount 10.000			Recovery	=	101.00%	
79) 4-Bromofluorobenzene	13.31	95	275236	10.01	PPB	0.00
Spiked Amount 10.000			Recovery	=	100.10%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	122974	5.49	PPB	99
3) Chloromethane	1.22	50	141739	5.40	PPB	99
4) Vinyl Chloride	1.29	62	123967	5.52	PPB	100
5) Bromomethane	1.51	96	71150	5.43	PPB	100
6) Chloroethane	1.58	64	71829	5.16	PPB	99
7) Dichlorofluoromethane	1.74	67	178106	5.20	PPB	97
8) Trichlorofluoromethane	1.74	101	160801	5.51	PPB	100
9) Ethyl Ether	1.97	59	67788	5.35	PPB	96
10) Acrolein	2.12	56	188109	112.07	PPB	99
11) Trichlorotrifluoroethane	2.13	151	77304	5.48	PPB	96
12) 1,1-Dichloroethene	2.15	96	86635	5.57	PPB	96
13) Acetone	2.25	43	287053	94.96	PPB	99
14) Iodomethane	2.29	142	436786m	20.43	PPB	
15) Carbon Disulfide	2.32	76	257205	4.52	PPB	100
16) 3-Chloro-1-propene	2.48	76	43604	4.56	PPB	94
17) Acetonitrile	2.54	40	149070	209.45	PPB	96
18) Methylene Chloride	2.62	84	101444	5.41	PPB	99
19) tert-Butyl Alcohol	2.73	59	13437	15.54	PPB	95
20) Acrylonitrile	2.91	53	80837	21.11	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	411755	9.31	PPB	98
22) trans-1,2-Dichloroethene	2.84	96	99100	5.27	PPB	98
23) Hexane	3.05	57	97709	4.43	PPB	96
24) Diisopropyl Ether	3.33	45	298998	4.70	PPB	93
25) 1,1-Dichloroethane	3.31	63	174909	5.32	PPB	100
26) Vinyl Acetate	3.37	86	22762	8.13	PPB #	79
27) Chloroprene	3.37	53	499835	19.34	PPB	99
28) tert-Butyl Ethyl Ether	3.74	59	234181	4.28	PPB	98

mt 3/7/5

(#) = qualifier out of range (m) = manual integration

LB 2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	93829	3.25	PPB		96
30)	cis-1,2-Dichloroethene	4.00	96	108779	5.28	PPB		97
31)	2-Butanone	4.05	72	118626	102.19	PPB		99
32)	Propionitrile	4.20	54	28011	19.46	PPB		94
33)	Ethyl Acetate	4.11	61	23649	16.47	PPB		92
34)	Methacrylonitrile	4.36	67	98312	20.36	PPB		95
35)	Bromochloromethane	4.30	128	48357	5.69	PPB		90
36)	Tetrahydrofuran	4.34	71	6869	5.59	PPB	#	80
37)	Chloroform	4.42	83	167871	5.34	PPB		97
38)	1,1,1-Trichloroethane	4.59	97	125907	4.46	PPB		97
40)	Carbon Tetrachloride	4.77	117	90846	4.03	PPB		95
41)	1,1-Dichloropropene	4.83	75	132604	5.00	PPB		95
42)	Isobutyl Alcohol	5.20	43	39440	104.18	PPB		92
44)	Benzene	5.11	78	410173	5.16	PPB		100
45)	1,2-Dichloroethane	5.27	62	121147	5.63	PPB		99
46)	tert-Amyl Methyl Ether	5.31	55	79592	6.86	PPB	#	40
47)	Trichloroethene	6.20	95	100656	5.18	PPB		98
48)	1,2-Dichloropropane	6.66	63	97690	5.09	PPB		96
49)	Dibromomethane	6.87	93	48260	5.44	PPB		92
50)	Methyl methacrylate	6.98	69	34560	3.85	PPB		92
51)	1,4-Dioxane	6.94	88	21183m	232.74	PPB		
52)	Bromodichloromethane	7.21	83	102937	4.81	PPB		100
53)	2-Nitropropane	7.82	43	31053	14.00	PPB		95
54)	2-Chloroethyl Vinyl Ether	7.95	63	37397	4.53	PPB		99
55)	cis-1,3-Dichloropropene	8.16	75	120320	4.42	PPB		98
56)	4-Methyl-2-pentanone (MIBK	8.56	58	380897	86.00	PPB		93
58)	Toluene	8.75	92	271709	4.99	PPB		95
60)	n-Octane	9.07	85	41288	4.13	PPB		92
61)	trans-1,3-Dichloropropene	9.60	75	85604	3.78	PPB		95
62)	Ethyl methacrylate	9.83	69	61110	3.38	PPB		98
63)	1,1,2-Trichloroethane	9.97	83	59628	5.09	PPB		96
64)	Tetrachloroethene	9.97	164	89272	5.12	PPB		90
65)	2-Hexanone	10.53	57	119955	84.98	PPB		99
66)	1,3-Dichloropropane	10.29	76	125869	5.38	PPB		96
67)	Dibromochloromethane	10.64	129	66017	4.82	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	66163	5.20	PPB		98
69)	1-Chlorohexane	11.68	91	107564	4.95	PPB		98
70)	Chlorobenzene	11.63	112	304053	5.43	PPB		98
71)	Ethylbenzene	11.81	106	158514	5.17	PPB		95
72)	1,1,1,2-Tetrachloroethane	11.81	131	72837	4.32	PPB		96
73)	m,p-Xylenes	12.01	106	397377	10.28	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:28 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

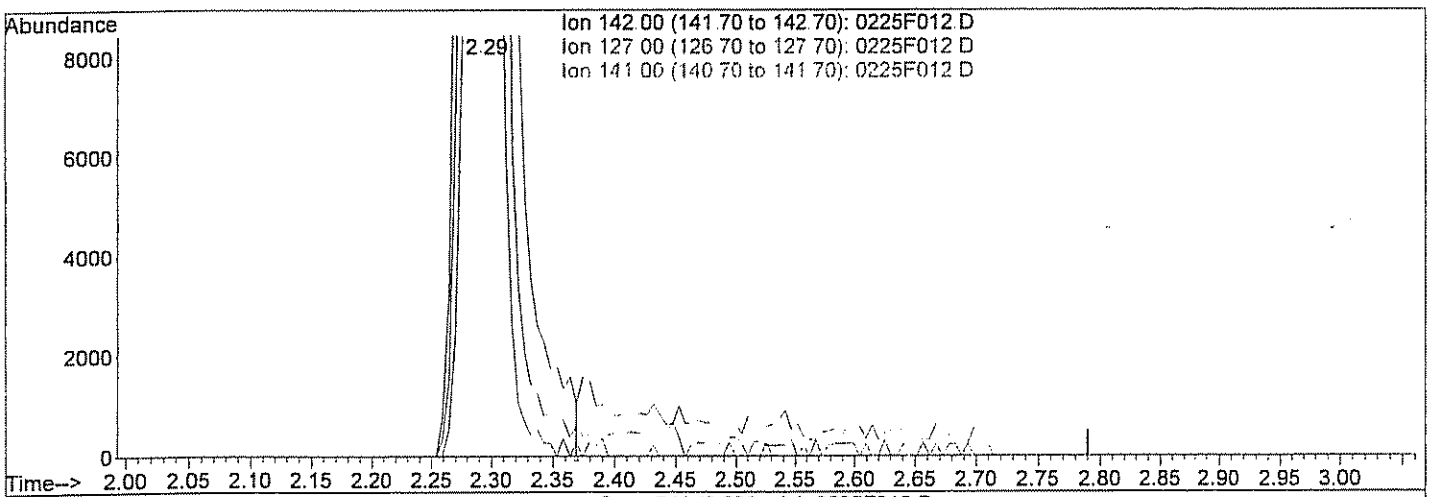
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	183932	4.93	PPB		93
75)	Styrene	12.61	103	143458	4.87	PPB		98
76)	Bromoform	12.85	173	32144	4.20	PPB		93
77)	Isopropylbenzene	13.08	105	443971	4.86	PPB		100
78)	cis-1,4-Dichloro-2-butene	13.29	89	19412	11.27	PPB	#	37
81)	1,1,2,2-Tetrachloroethane	13.59	83	75186	4.71	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	18613	4.21	PPB		74
83)	Bromobenzene	13.45	156	136588	5.08	PPB		93
84)	n-Propylbenzene	13.61	91	523643	4.71	PPB		99
85)	1,2,3-Trichloropropane	13.62	110	24610	4.95	PPB	#	76
86)	2-Chlorotoluene	13.71	91	347303	4.82	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	379290	4.66	PPB		99
88)	4-Chlorotoluene	13.86	91	403677	4.87	PPB		97
89)	tert-Butylbenzene	14.22	119	300544	4.41	PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	385160	4.68	PPB		100
91)	sec-Butylbenzene	14.48	105	407523	4.73	PPB		99
92)	p-Isopropyltoluene	14.67	119	373206	4.59	PPB		99
93)	1,3-Dichlorobenzene	14.61	146	259266	5.13	PPB		99
94)	1,4-Dichlorobenzene	14.73	146	269518	5.14	PPB		99
95)	n-Butylbenzene	15.13	91	292231	4.44	PPB		97
96)	1,2-Dichlorobenzene	15.14	146	246951	5.29	PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	7589	3.51	PPB		90
98)	1,3,5-Trichlorobenzene	16.20	180	154481	4.78	PPB		97
99)	1,2,4-Trichlorobenzene	16.88	180	136663	4.66	PPB		95
100)	Hexachlorobutadiene	17.03	225	65439	4.82	PPB		93
101)	Naphthalene	17.13	128	175332	3.43	PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	114342	4.93	PPB		98

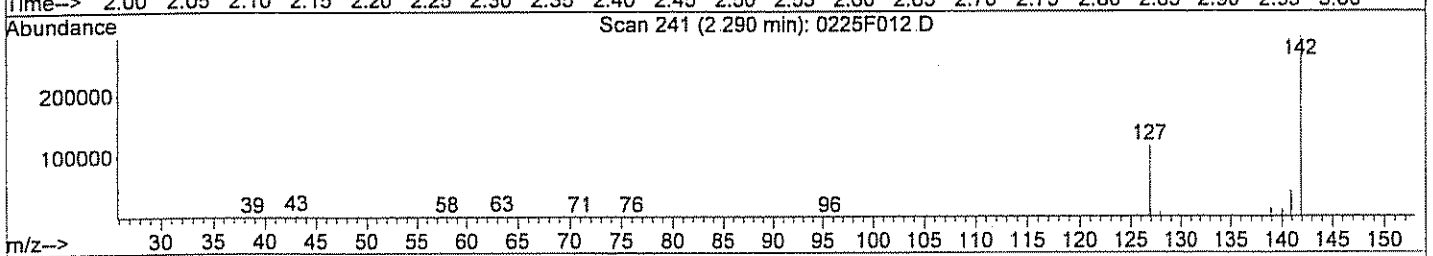
(#) = qualifier out of range (m) = manual integration

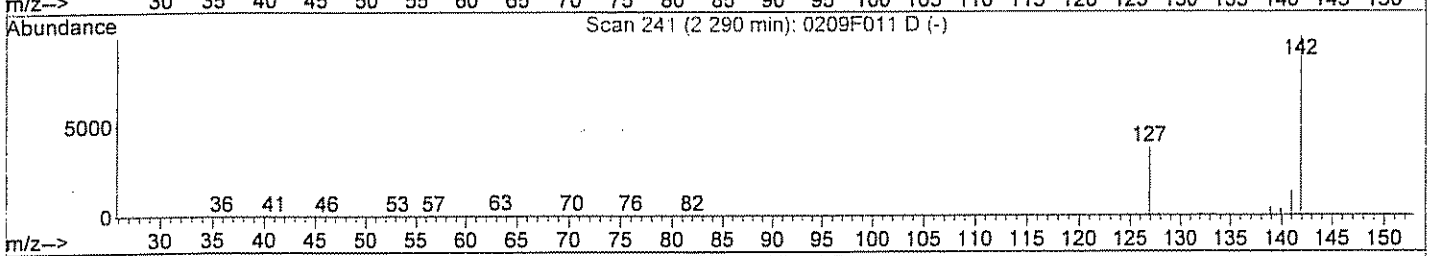
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F012.D

(14) Iodomethane (T)

2.29min 19.82PPB

response 423771

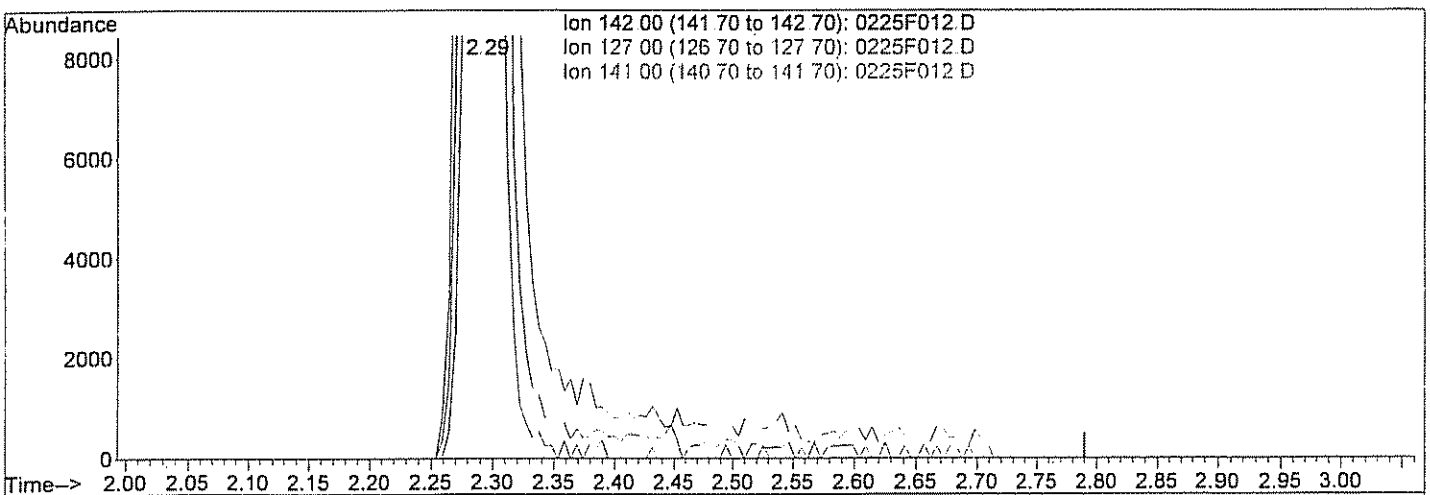
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.64
141.00	14.30	14.47
0.00	0.00	0.00

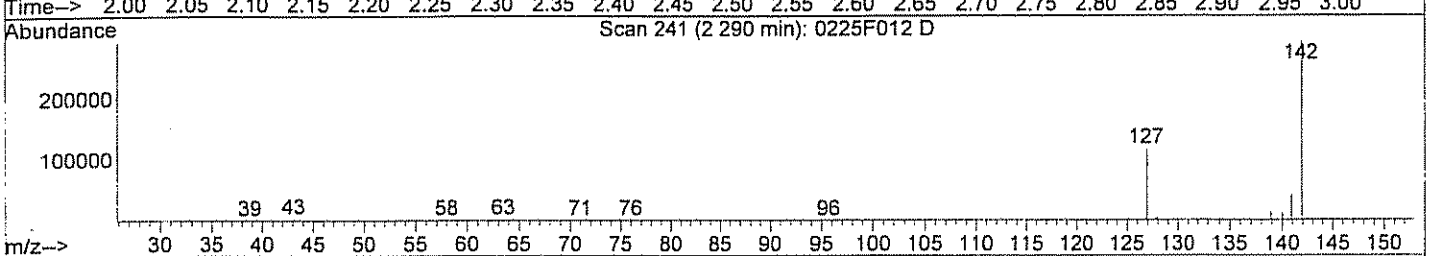
Quantitation Report (Qedit)

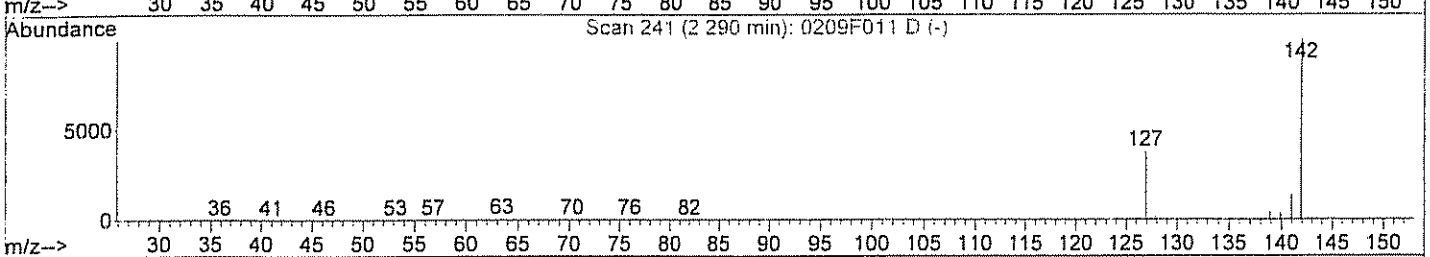
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:18 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F012 D

(14) Iodomethane (T)

2 29min 20 43PPB m

response 436786

Ion	Exp%	Act%
142 00	100	100
127 00	39 50	39 64
141 00	14 30	14 47
0 00	0 00	0 00

peak tailing
LB 2/28/05
MH 3/1/5

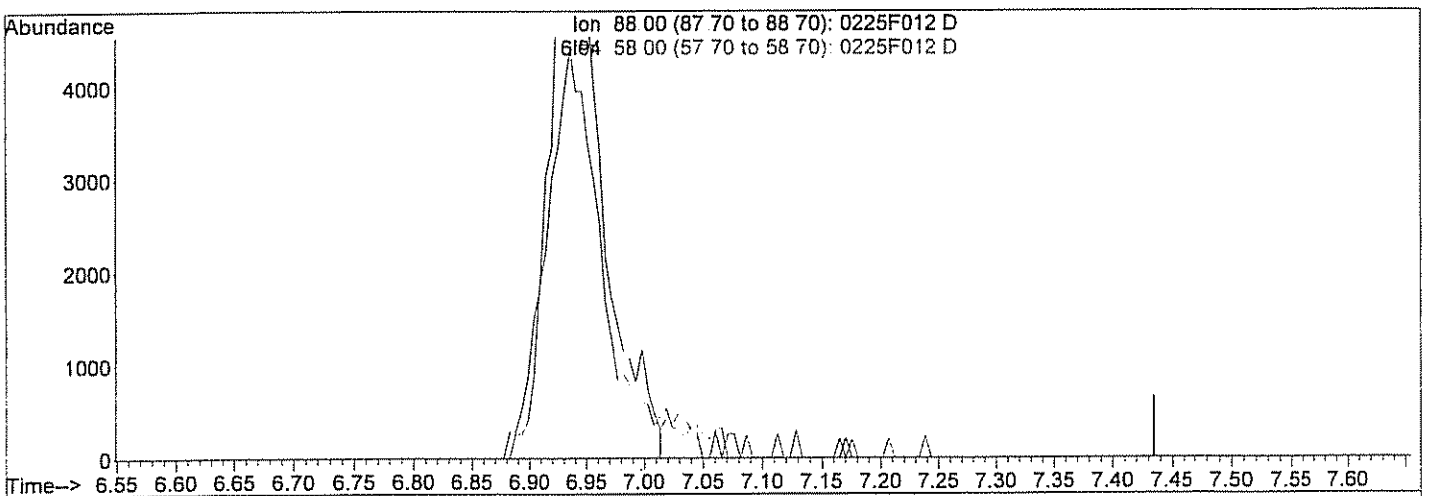
0225F012.D 022505_8260W.M Mon Feb 28 15:18:55 2005

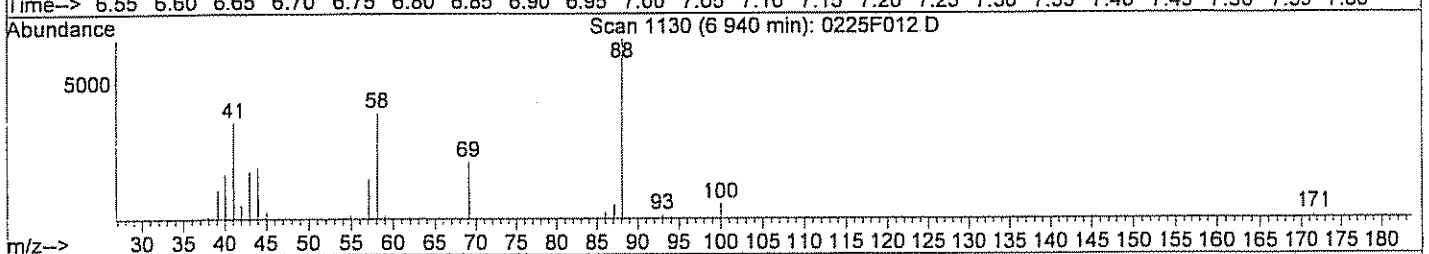
Quantitation Report (Qedit)

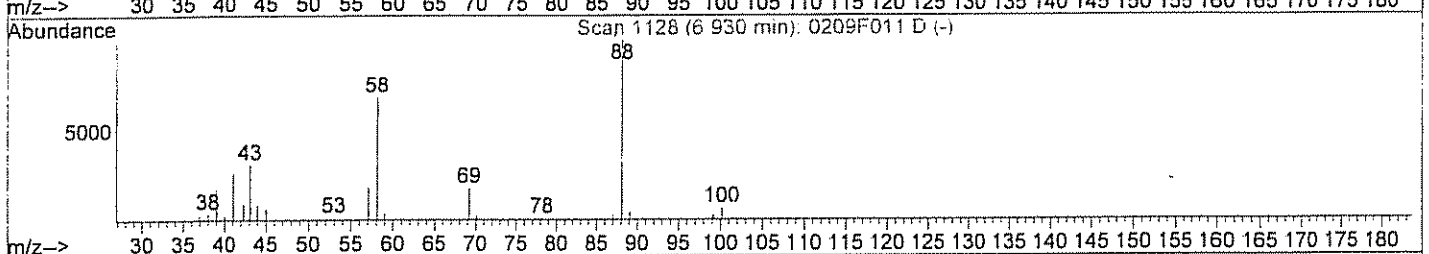
Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:18 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F012.D

(51) 1,4-Dioxane (T)

6.94min 219.29PPB

response 19959

ion	Exp%	Act%
88.00	100	100
58.00	65.60	60.53
0.00	0.00	0.00
0.00	0.00	0.00

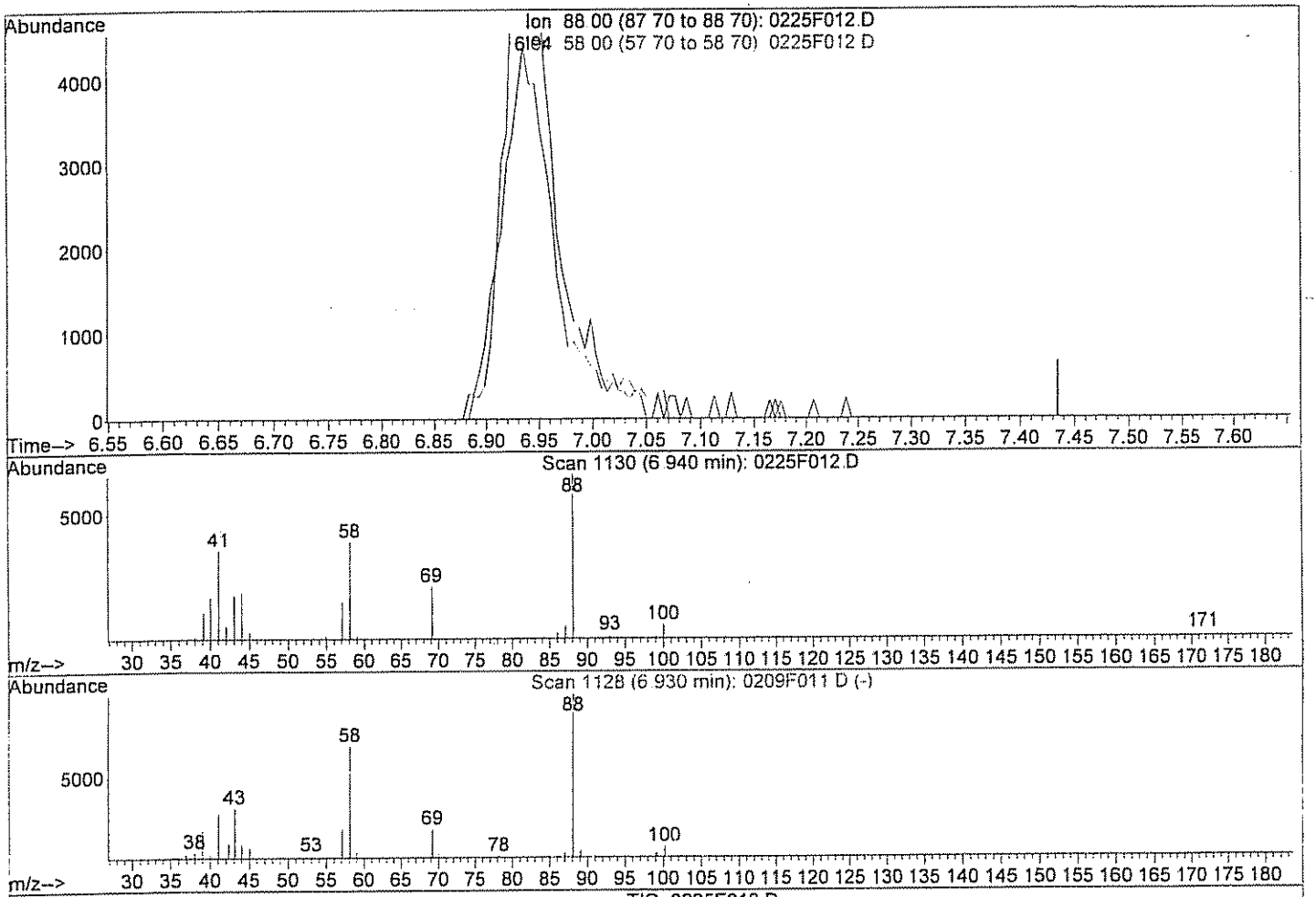
0225F012.D 022505_8260W.M Mon Feb 28 15:19:16 2005

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F012.D
Acq On : 25 Feb 2005 8:19 pm
Sample : 8260 ICAL (Water) #6
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:19 2005

Vial: 12
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6.94min 232.74PPB m

response 21183

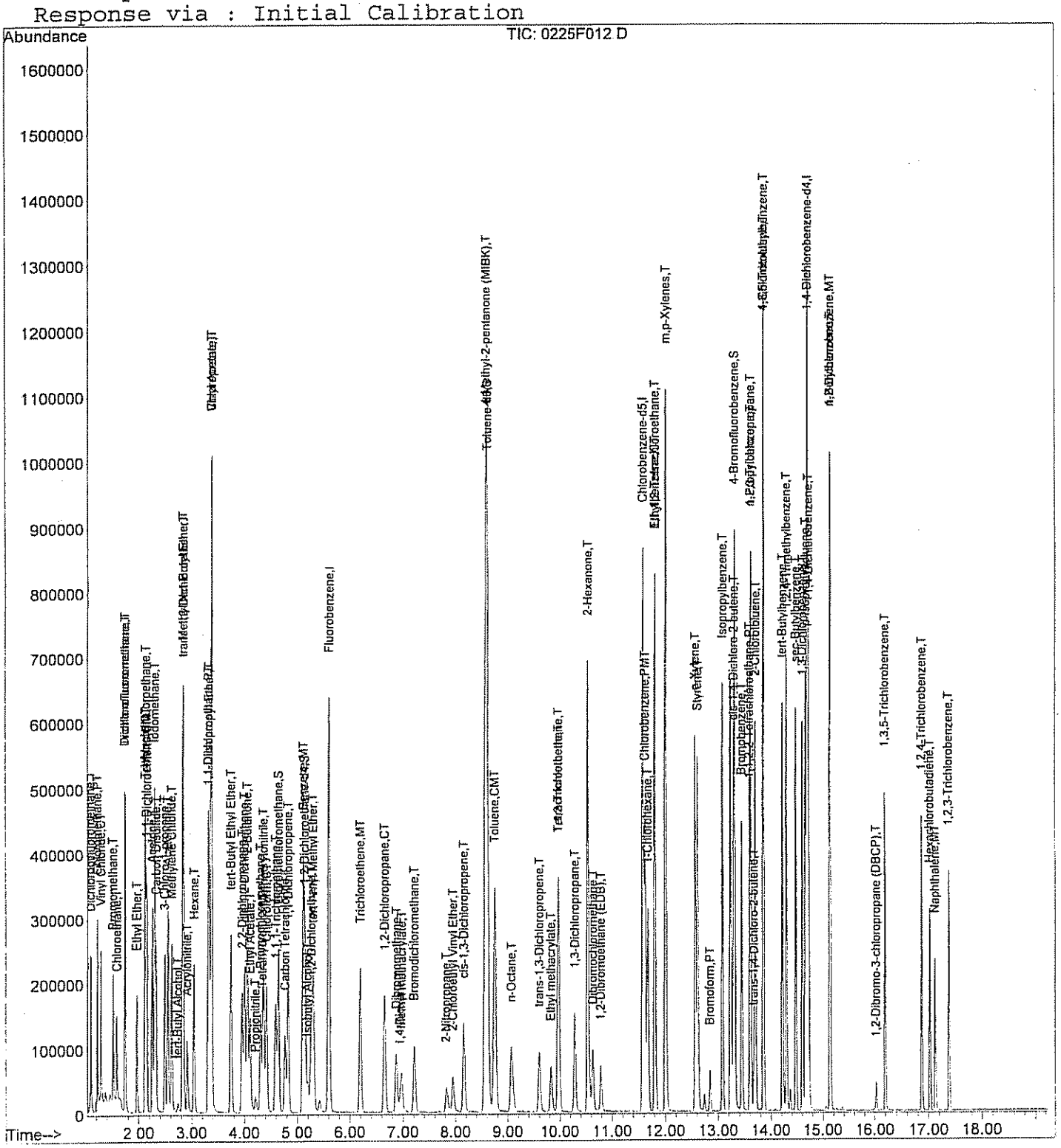
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	60.53
0.00	0.00	0.00
0.00	0.00	0.00

peak tailing
LB 2/28/05
3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F012.D Vial: 12
Acq On : 25 Feb 2005 8:19 pm Operator:
Sample : 8260 ICAL (Water) #6 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:19 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	769126	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	331133	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	378337	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	188617	11.18	PPB	0.00
Spiked Amount 10.000			Recovery =	111.80%		
43) 1,2-Dichloroethane-d4	5.15	65	211216	11.07	PPB	0.00
Spiked Amount 10.000			Recovery =	110.70%		
57) Toluene-d8	8.60	98	868241	11.06	PPB	0.00
Spiked Amount 10.000			Recovery =	110.60%		
79) 4-Bromofluorobenzene	13.31	95	310364	11.14	PPB	0.00
Spiked Amount 10.000			Recovery =	111.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	246603	10.72	PPB	98
3) Chloromethane	1.22	50	273475	10.16	PPB	98
4) Vinyl Chloride	1.29	62	245208	10.64	PPB	99
5) Bromomethane	1.51	96	139149	10.35	PPB	99
6) Chloroethane	1.58	64	138596	9.70	PPB	99
7) Dichlorofluoromethane	1.74	67	350642	9.98	PPB	97
8) Trichlorofluoromethane	1.74	101	321672	10.74	PPB	99
9) Ethyl Ether	1.97	59	134231	10.33	PPB	99
10) Acrolein	2.12	56	384904	223.52	PPB	97
11) Trichlorotrifluoroethane	2.13	151	157811	10.91	PPB	98
12) 1,1-Dichloroethene	2.15	96	174432	10.94	PPB	91
13) Acetone	2.25	43	545588	175.92	PPB	99
14) Iodomethane	2.29	142	922214m	42.04	PPB	
15) Carbon Disulfide	2.32	76	510724	8.74	PPB	100
16) 3-Chloro-1-propene	2.48	76	93532	9.53	PPB	88
17) Acetonitrile	2.54	40	290748	398.21	PPB	98
18) Methylene Chloride	2.62	84	193846	10.08	PPB	99
19) tert-Butyl Alcohol	2.74	59	27931	31.48	PPB	97
20) Acrylonitrile	2.91	53	162702	41.41	PPB	93
21) Methyl tert-Butyl Ether	2.82	73	830215	18.31	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	195443	10.12	PPB	97
23) Hexane	3.05	57	209679	9.27	PPB	97
24) Diisopropyl Ether	3.33	45	611313	9.37	PPB	98
25) 1,1-Dichloroethane	3.31	63	347803	10.32	PPB	99
26) Vinyl Acetate	3.37	86	47810	16.65	PPB	95
27) Chloroprene	3.37	53	1030703	38.87	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	474806	8.46	PPB	99

(#) = qualifier out of range (m) = manual integration
0225F013.D 022505_8260W.M Mon Feb 28 15:30:37 2005 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	200708	6.78	PPB		99
30)	cis-1,2-Dichloroethene	4.00	96	214692	10.16	PPB		94
31)	2-Butanone	4.05	72	224849	188.81	PPB		89
32)	Propionitrile	4.20	54	58174	39.39	PPB		97
33)	Ethyl Acetate	4.11	61	53941	36.61	PPB		91
34)	Methacrylonitrile	4.36	67	199373	40.25	PPB		95
35)	Bromochloromethane	4.30	128	95278	10.92	PPB		90
36)	Tetrahydrofuran	4.33	71	12926	10.25	PPB		93
37)	Chloroform	4.42	83	332662	10.31	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	259367	8.95	PPB		93
40)	Carbon Tetrachloride	4.77	117	190296	8.24	PPB		99
41)	1,1-Dichloropropene	4.83	75	267897	9.85	PPB		96
42)	Isobutyl Alcohol	5.19	43	88832	228.72	PPB		95
44)	Benzene	5.11	78	822800	10.08	PPB		98
45)	1,2-Dichloroethane	5.27	62	239723	10.85	PPB		98
46)	tert-Amyl Methyl Ether	5.30	55	154155	12.95	PPB	#	48
47)	Trichloroethene	6.19	95	201345	10.09	PPB		98
48)	1,2-Dichloropropane	6.65	63	194443	9.88	PPB		96
49)	Dibromomethane	6.87	93	94529	10.38	PPB		96
50)	Methyl methacrylate	6.97	69	75105	8.16	PPB		97
51)	1,4-Dioxane	6.93	88	43164m	462.26	PPB		
52)	Bromodichloromethane	7.21	83	216946	9.89	PPB		99
53)	2-Nitropropane	7.82	43	68920	30.28	PPB		97
54)	2-Chloroethyl Vinyl Ether	7.95	63	81924	9.66	PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	252725	9.05	PPB		94
56)	4-Methyl-2-pentanone (MIBK	8.56	58	751315	165.36	PPB		95
58)	Toluene	8.75	92	546321	9.77	PPB		97
60)	n-Octane	9.08	85	94513	9.33	PPB		95
61)	trans-1,3-Dichloropropene	9.60	75	188503	8.22	PPB		93
62)	Ethyl methacrylate	9.83	69	140860	7.68	PPB		96
63)	1,1,2-Trichloroethane	9.97	83	124075	10.45	PPB		90
64)	Tetrachloroethene	9.98	164	186766	10.57	PPB		95
65)	2-Hexanone	10.53	57	240821	168.37	PPB		97
66)	1,3-Dichloropropane	10.29	76	256289	10.82	PPB		95
67)	Dibromochloromethane	10.64	129	137832	9.94	PPB		98
68)	1,2-Dibromoethane (EDB)	10.78	107	135705	10.52	PPB		97
69)	1-Chlorohexane	11.68	91	226807	10.29	PPB		99
70)	Chlorobenzene	11.63	112	611481	10.78	PPB		99
71)	Ethylbenzene	11.81	106	324803	10.46	PPB		99
72)	1,1,1,2-Tetrachloroethane	11.81	131	150000	8.79	PPB		96
73)	m,p-Xylenes	12.01	106	819715	20.92	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:29 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

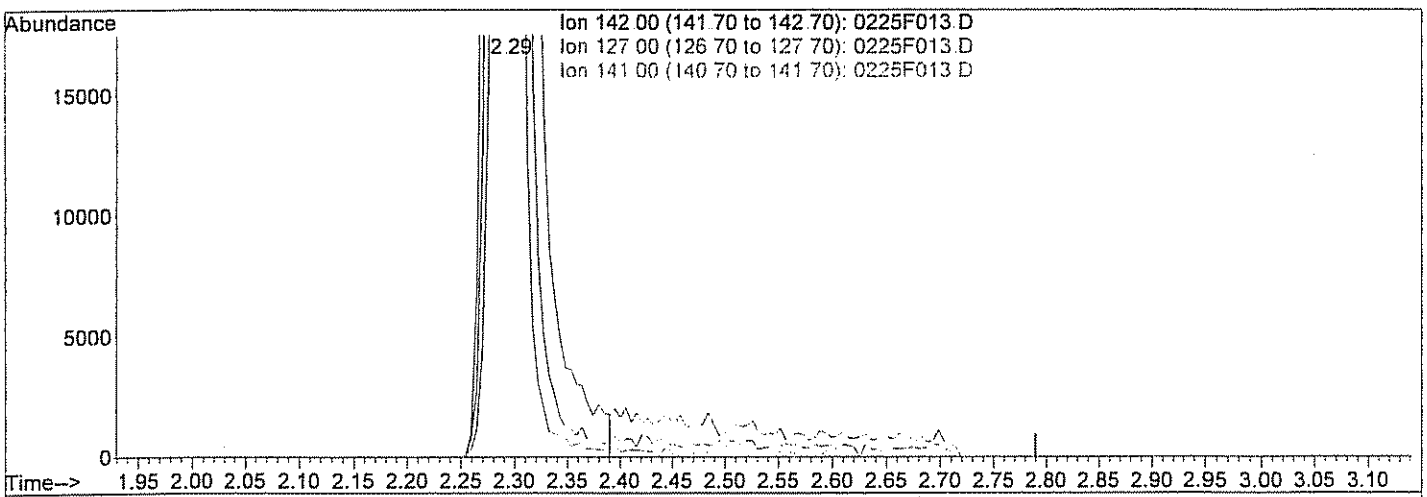
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	383594	10.14	PPB		98
75)	Styrene	12.61	103	311961	10.44	PPB		99
76)	Bromoform	12.85	173	70570	9.10	PPB		97
77)	Isopropylbenzene	13.08	105	936165	10.11	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	47053	26.97	PPB	#	76
81)	1,1,2,2-Tetrachloroethane	13.59	83	161243	10.03	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	37930	8.51	PPB		79
83)	Bromobenzene	13.45	156	276613	10.23	PPB		95
84)	n-Propylbenzene	13.61	91	1098888	9.82	PPB		99
85)	1,2,3-Trichloropropane	13.61	110	51121	10.21	PPB		91
86)	2-Chlorotoluene	13.71	91	706677	9.73	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	795087	9.70	PPB		98
88)	4-Chlorotoluene	13.86	91	829199	9.93	PPB		98
89)	tert-Butylbenzene	14.22	119	635727	9.27	PPB		100
90)	1,2,4-Trimethylbenzene	14.30	105	811898	9.80	PPB		100
91)	sec-Butylbenzene	14.48	105	850751	9.80	PPB		99
92)	p-Isopropyltoluene	14.67	119	781370	9.54	PPB		100
93)	1,3-Dichlorobenzene	14.61	146	528621	10.40	PPB		98
94)	1,4-Dichlorobenzene	14.73	146	550607	10.44	PPB		99
95)	n-Butylbenzene	15.13	91	612097	9.24	PPB		99
96)	1,2-Dichlorobenzene	15.14	146	500042	10.63	PPB		98
97)	1,2-Dibromo-3-chloropropan	16.03	155	17109	7.86	PPB		93
98)	1,3,5-Trichlorobenzene	16.20	180	309793	9.51	PPB		100
99)	1,2,4-Trichlorobenzene	16.88	180	279245	9.45	PPB		96
100)	Hexachlorobutadiene	17.03	225	133337	9.75	PPB		96
101)	Naphthalene	17.13	128	391134	7.59	PPB		98
102)	1,2,3-Trichlorobenzene	17.39	180	233040	9.97	PPB		98

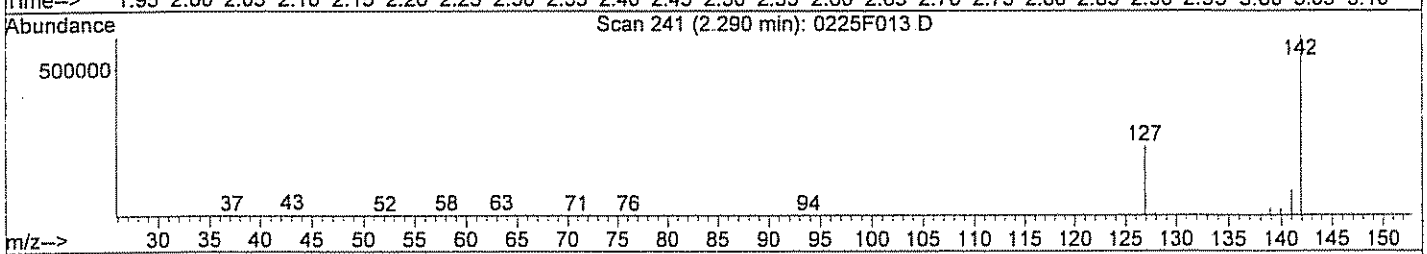
(#) = qualifier out of range (m) = manual integration

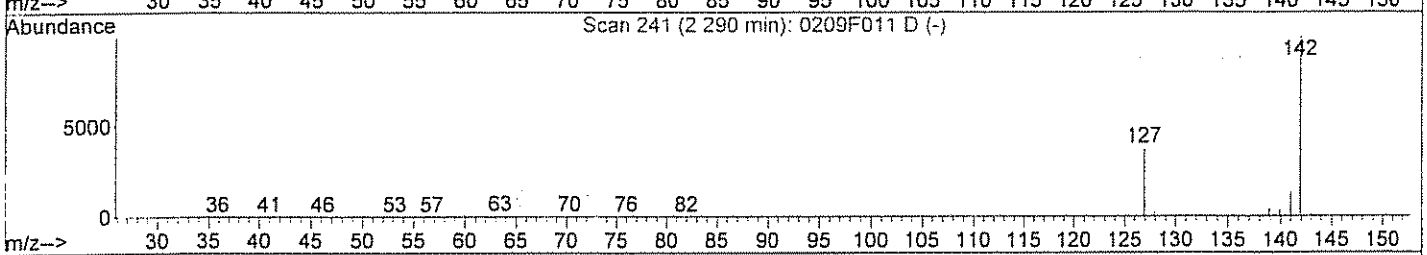
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







(14) Iodomethane (T)

2.29min 41.06PPB

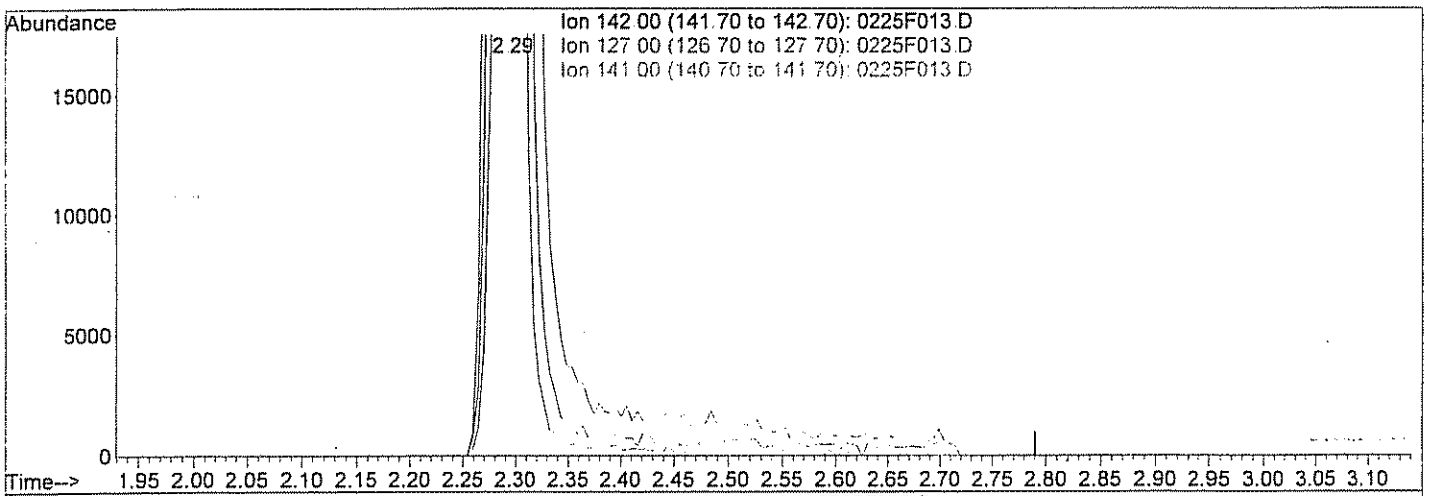
response 900751

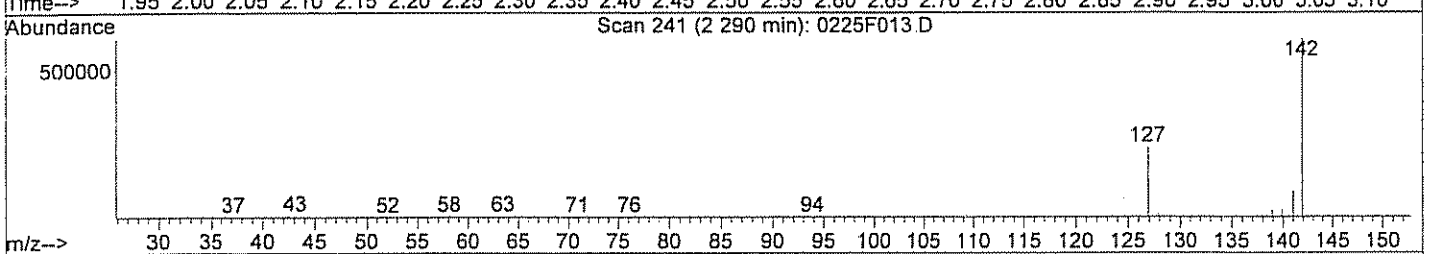
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.58
141.00	14.30	14.37
0.00	0.00	0.00

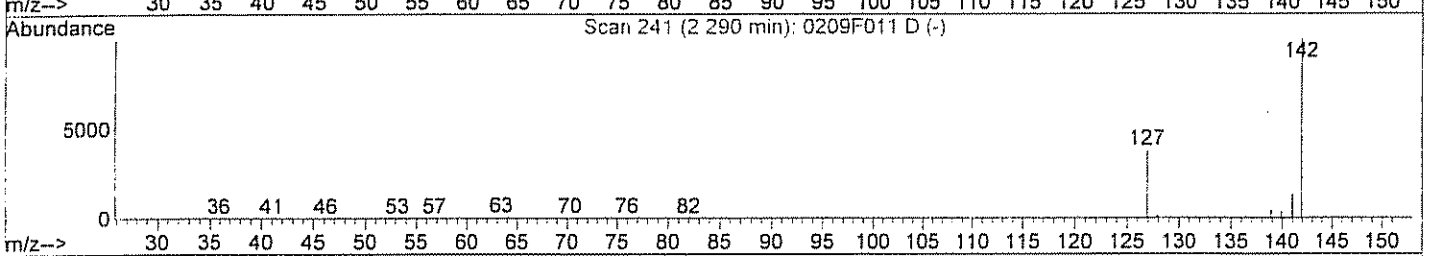
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F013.D Vial: 13
Acq On : 25 Feb 2005 8:47 pm Operator:
Sample : 8260 ICAL (Water) #7 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F013.D

(14) Iodomethane (T)

2.29min 42.04PPB m

response 922214

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.58
141.00	14.30	14.37
0.00	0.00	0.00

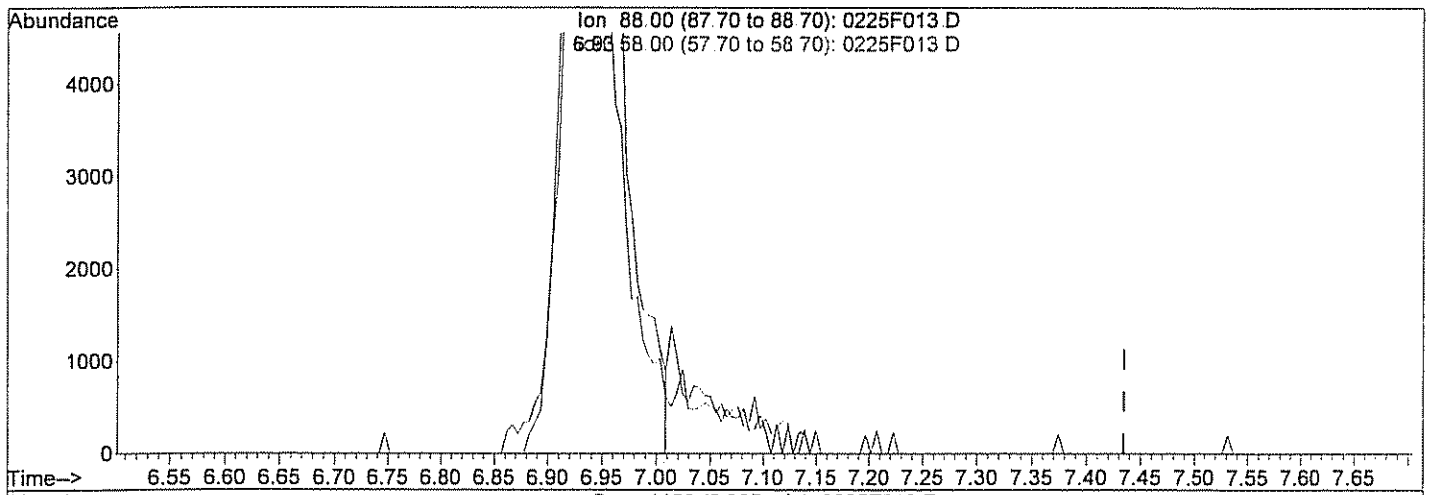
peak tailing
LB 2/28/05
3/1/5

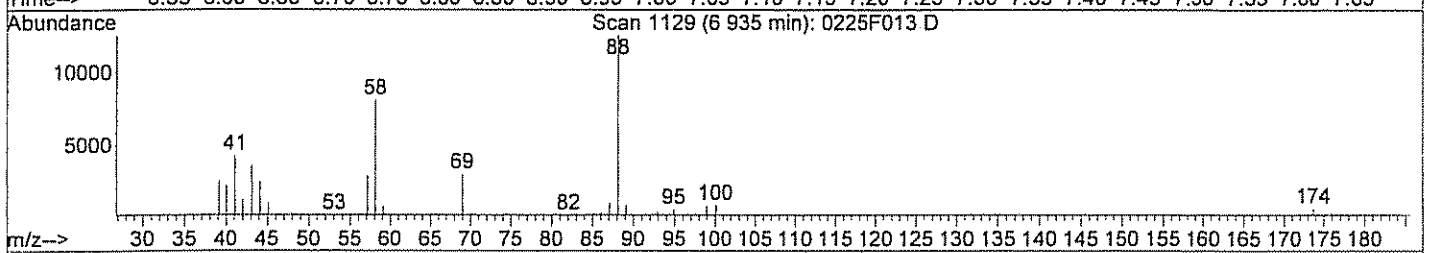
0225F013.D 022505_8260W.M Mon Feb 28 15:20:14 2005

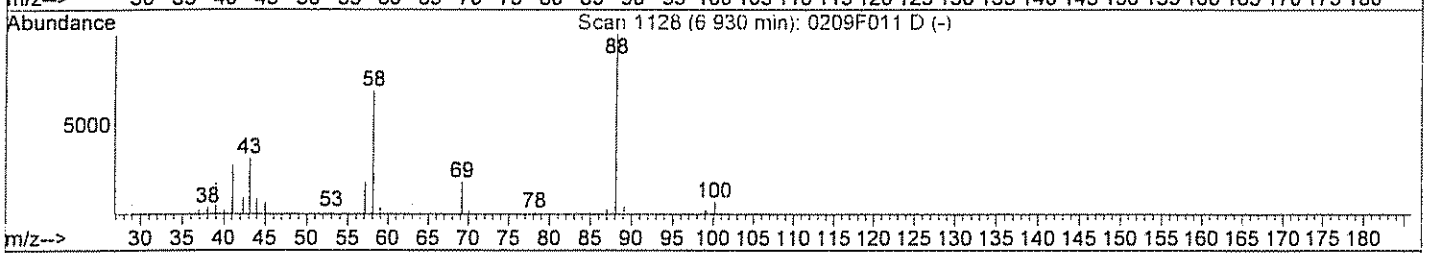
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F013.D
Vial: 13
Acq On : 25 Feb 2005 8:47 pm
Operator:
Sample : 8260 ICAL (Water) #7
Inst : MS13
Misc :
Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F013.D

(51) 1,4-Dioxane (T)

6.93min 420.25PPB

response 39241

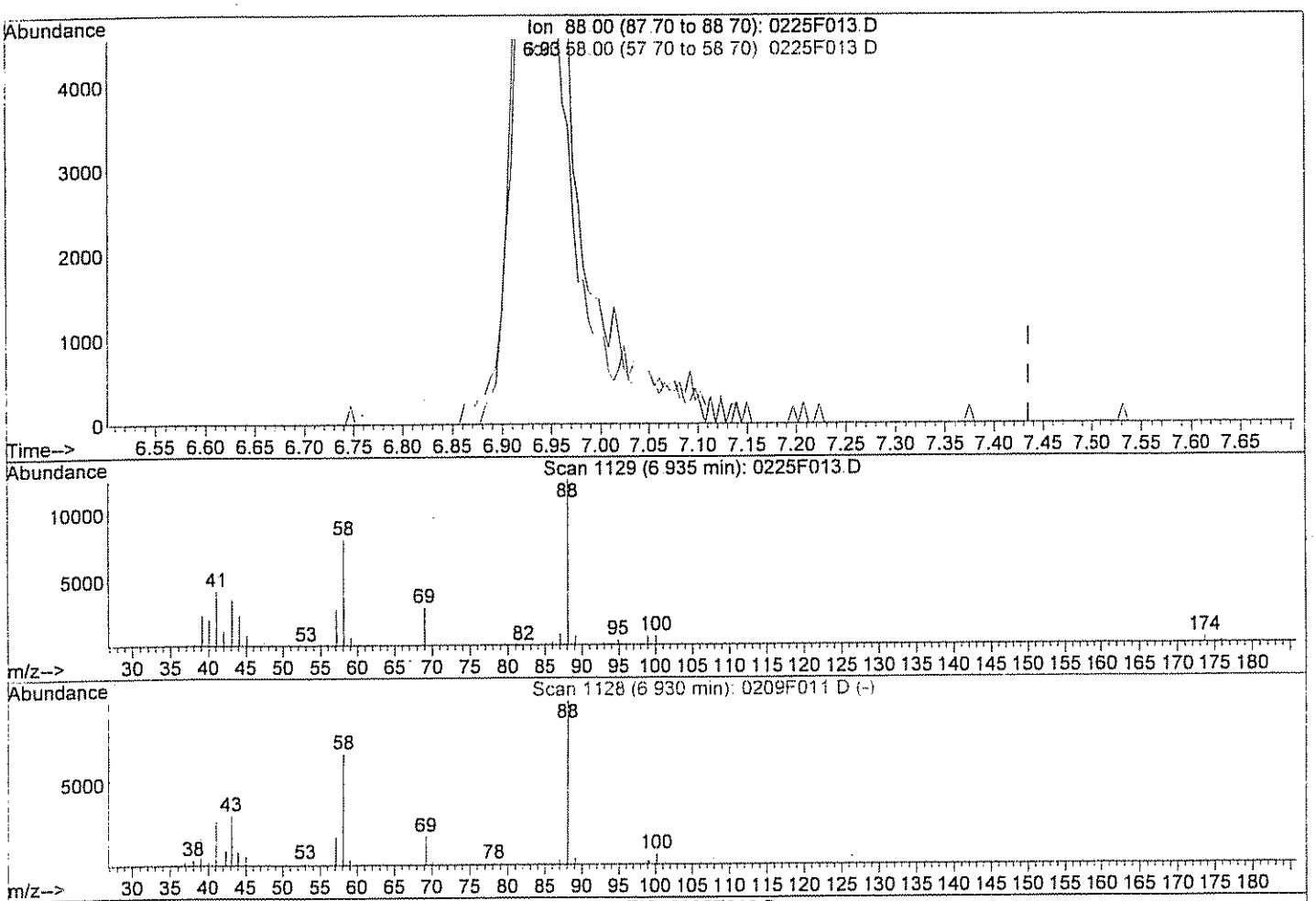
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	64.70
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6.93min 462.26PPB m

response 43164

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	64.70
0.00	0.00	0.00
0.00	0.00	0.00

peak tailing
LB 2/28/05
MH 3/1/5

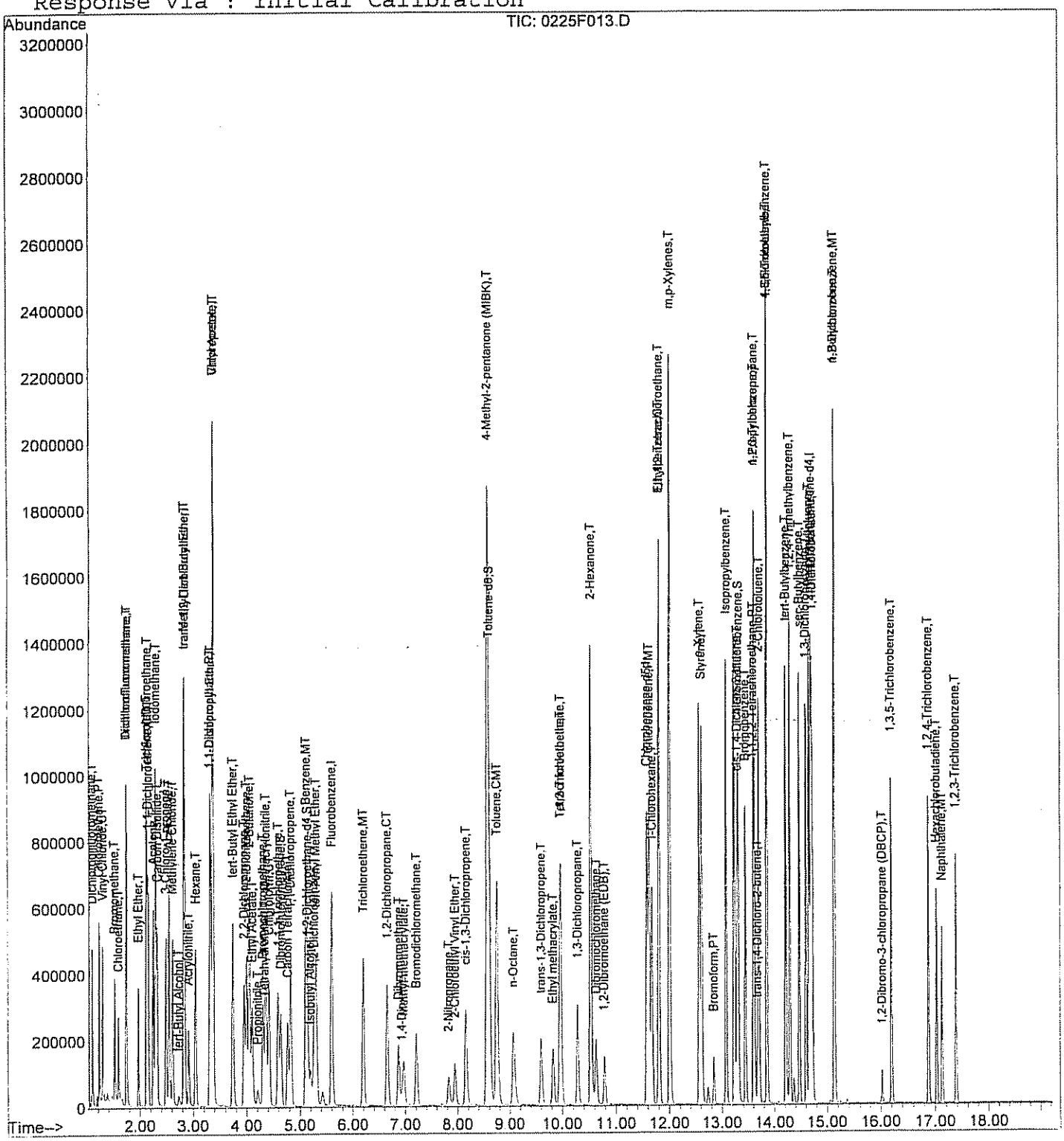
0225F013.D 022505_8260W.M Mon Feb 28 15:20:40 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F013.D
Acq On : 25 Feb 2005 8:47 pm
Sample : 8260 ICAL (Water) #7
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:20 2005

Vial: 13
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	779797	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	343195	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	389751	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	371242	21.71	PPB	0.00
Spiked Amount 10.000			Recovery	=	217.10%	
43) 1,2-Dichloroethane-d4	5.15	65	416682	21.53	PPB	0.00
Spiked Amount 10.000			Recovery	=	215.30%	
57) Toluene-d8	8.60	98	1688861	21.22	PPB	0.00
Spiked Amount 10.000			Recovery	=	212.20%	
79) 4-Bromofluorobenzene	13.31	95	606534	21.00	PPB	0.00
Spiked Amount 10.000			Recovery	=	210.00%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	473392	20.31	PPB	98
3) Chloromethane	1.22	50	534480	19.59	PPB	99
4) Vinyl Chloride	1.29	62	483952	20.72	PPB	97
5) Bromomethane	1.51	96	275180	20.20	PPB	100
6) Chloroethane	1.58	64	278333	19.22	PPB	99
7) Dichlorofluoromethane	1.73	67	707676	19.86	PPB	96
8) Trichlorofluoromethane	1.74	101	636512	20.96	PPB	99
9) Ethyl Ether	1.97	59	279473	21.22	PPB	97
10) Acrolein	2.12	56	820328	469.87	PPB	100
11) Trichlorotrifluoroethane	2.13	151	304435	20.76	PPB	99
12) 1,1-Dichloroethene	2.15	96	347103	21.47	PPB	93
13) Acetone	2.25	43	1173665	373.26	PPB	99
14) Iodomethane	2.29	142	1926051m	86.60	PPB	
15) Carbon Disulfide	2.32	76	1034484	17.47	PPB	99
16) 3-Chloro-1-propene	2.48	76	193809	19.49	PPB	89
17) Acetonitrile	2.54	40	597026	806.49	PPB	97
18) Methylene Chloride	2.62	84	388811	19.93	PPB	97
19) tert-Butyl Alcohol	2.74	59	60780	67.56	PPB	96
20) Acrylonitrile	2.91	53	331359	83.19	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	1743001	37.91	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	398933	20.38	PPB	98
23) Hexane	3.05	57	414500	18.07	PPB	99
24) Diisopropyl Ether	3.33	45	1276929	19.30	PPB	99
25) 1,1-Dichloroethane	3.31	63	711792	20.83	PPB	99
26) Vinyl Acetate	3.37	86	109597	37.65	PPB	93
27) Chloroprene	3.37	53	2109498	78.47	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	996288	17.50	PPB	98

(#) = qualifier out of range (m) = manual integration
0225F014.D 022505_8260W.M Mon Feb 28 15:30:39 2005 Page 1

3/1/5
2/28/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	426200	14.20	PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	437959	20.44	PPB		96
31)	2-Butanone	4.05	72	502405	416.10	PPB		95
32)	Propionitrile	4.20	54	119802	80.01	PPB		95
33)	Ethyl Acetate	4.11	61	117952	78.95	PPB		96
34)	Methacrylonitrile	4.36	67	414904	82.61	PPB		98
35)	Bromochloromethane	4.30	128	193637	21.89	PPB		94
36)	Tetrahydrofuran	4.33	71	24885	19.46	PPB	#	79
37)	Chloroform	4.42	83	677462	20.70	PPB		99
38)	1,1,1-Trichloroethane	4.59	97	544464	18.54	PPB		96
40)	Carbon Tetrachloride	4.77	117	406943	17.37	PPB		98
41)	1,1-Dichloropropene	4.83	75	546095	19.80	PPB		97
42)	Isobutyl Alcohol	5.20	43	213236	541.51	PPB		95
44)	Benzene	5.11	78	1669935	20.18	PPB		99
45)	1,2-Dichloroethane	5.26	62	484577	21.64	PPB		97
46)	tert-Amyl Methyl Ether	5.30	55	308176	25.54	PPB	#	54
47)	Trichloroethene	6.19	95	406716	20.11	PPB		99
48)	1,2-Dichloropropane	6.66	63	400266	20.06	PPB		93
49)	Dibromomethane	6.87	93	194165	21.04	PPB		97
50)	Methyl methacrylate	6.97	69	165919	17.77	PPB		93
51)	1,4-Dioxane	6.93	88	89431m	944.65	PPB		
52)	Bromodichloromethane	7.21	83	441693	19.85	PPB		95
53)	2-Nitropropane	7.83	43	162554	70.45	PPB		99
54)	2-Chloroethyl Vinyl Ether	7.95	63	180545	21.00	PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	546500	19.30	PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.56	58	1692540	367.42	PPB		95
58)	Toluene	8.75	92	1113997	19.65	PPB		97
60)	n-Octane	9.07	85	184165	17.54	PPB		93
61)	trans-1,3-Dichloropropene	9.60	75	416062	17.50	PPB		97
62)	Ethyl methacrylate	9.83	69	319190	16.80	PPB		97
63)	1,1,2-Trichloroethane	9.96	83	249922	20.32	PPB		94
64)	Tetrachloroethene	9.98	164	369351	20.18	PPB		95
65)	2-Hexanone	10.53	57	558448	376.72	PPB		96
66)	1,3-Dichloropropane	10.29	76	519031	21.14	PPB		96
67)	Dibromochloromethane	10.64	129	294485	20.49	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	280647	21.00	PPB		95
69)	1-Chlorohexane	11.68	91	475424	20.82	PPB		99
70)	Chlorobenzene	11.63	112	1223183	20.81	PPB		98
71)	Ethylbenzene	11.81	106	662461	20.58	PPB		100
72)	1,1,1,2-Tetrachloroethane	11.81	131	327963	18.53	PPB		96
73)	m,p-Xylenes	12.01	106	1680679	41.38	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:33 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
74)	o-Xylene	12.57	106	789493	20.13 PPB		100
75)	Styrene	12.62	103	642349	20.75 PPB		97
76)	Bromoform	12.84	173	154882	19.27 PPB		99
77)	Isopropylbenzene	13.08	105	1938701	20.21 PPB		99
78)	cis-1,4-Dichloro-2-butene	13.29	89	112619	62.28 PPB	#	70
81)	1,1,2,2-Tetrachloroethane	13.60	83	317520	19.18 PPB		98
82)	trans-1,4-Dichloro-2-buten	13.68	53	81363m	17.72 PPB		
83)	Bromobenzene	13.45	156	553847	19.88 PPB		94
84)	n-Propylbenzene	13.61	91	2252671	19.53 PPB		99
85)	1,2,3-Trichloropropane	13.61	110	100511	19.48 PPB		100
86)	2-Chlorotoluene	13.71	91	1420744	18.99 PPB		100
87)	1,3,5-Trimethylbenzene	13.86	105	1621828	19.21 PPB		98
88)	4-Chlorotoluene	13.86	91	1660416	19.30 PPB		98
89)	tert-Butylbenzene	14.22	119	1313068	18.59 PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	1661261	19.47 PPB		100
91)	sec-Butylbenzene	14.48	105	1748638	19.55 PPB		99
92)	p-Isopropyltoluene	14.67	119	1613078	19.11 PPB		99
93)	1,3-Dichlorobenzene	14.61	146	1049291	20.03 PPB		99
94)	1,4-Dichlorobenzene	14.73	146	1069990	19.69 PPB		98
95)	n-Butylbenzene	15.13	91	1276259	18.70 PPB		99
96)	1,2-Dichlorobenzene	15.14	146	994797	20.53 PPB		97
97)	1,2-Dibromo-3-chloropropan	16.03	155	39967	17.82 PPB		90
98)	1,3,5-Trichlorobenzene	16.20	180	624097	18.60 PPB		100
99)	1,2,4-Trichlorobenzene	16.88	180	566704	18.62 PPB		97
100)	Hexachlorobutadiene	17.03	225	266970	18.96 PPB		98
101)	Naphthalene	17.13	128	861511	16.23 PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	471714	19.59 PPB		100

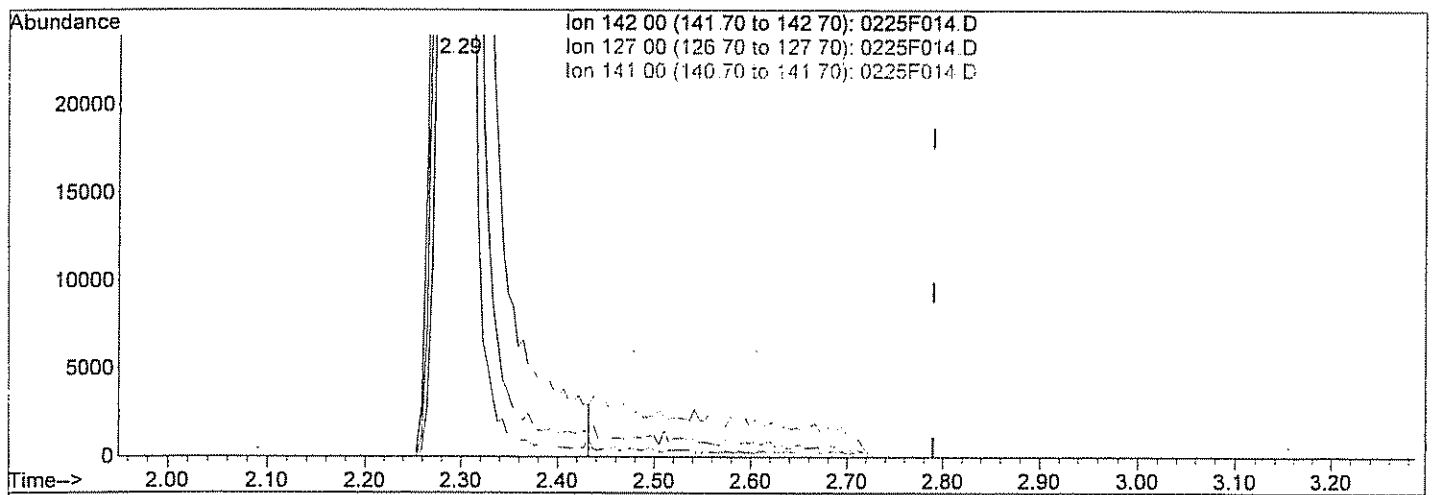
(#) = qualifier out of range (m) = manual integration

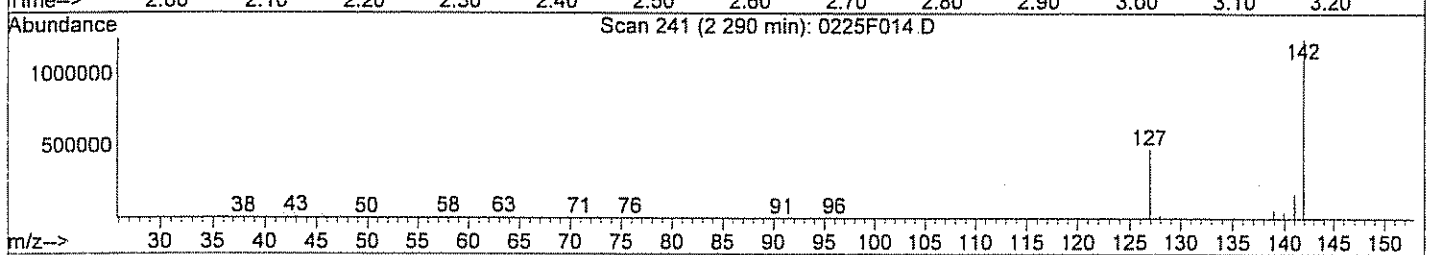
Quantitation Report (Qedit)

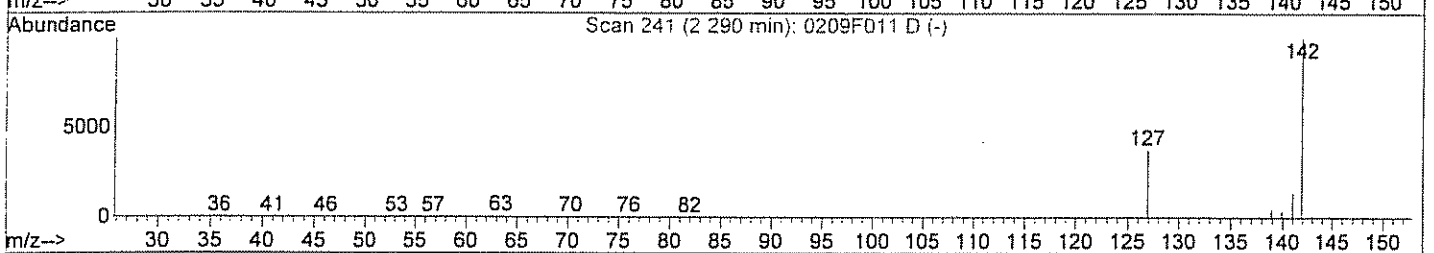
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F014.D

(14) Iodomethane (T)

2.29min 84.99PPB

response 1890165

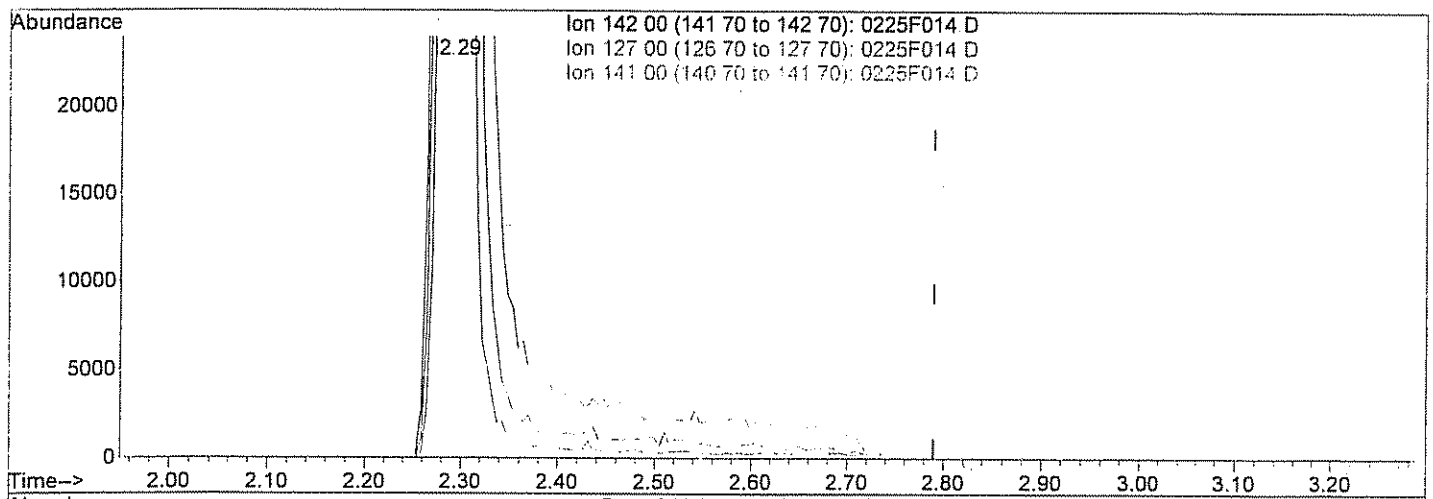
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.38
141.00	14.30	14.01
0.00	0.00	0.00

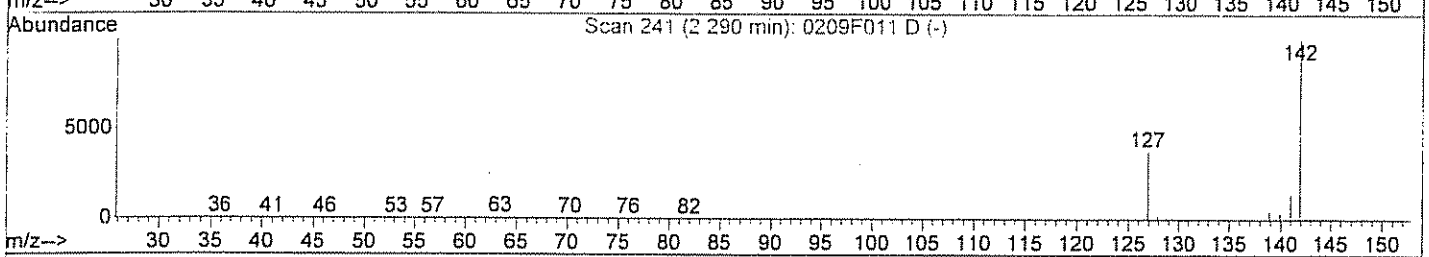
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration





TIC: 0225F014.D

(14) Iodomethane (T)

2.29min 86.60PPB m

response 1926051

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.38
141.00	14.30	14.01
0.00	0.00	0.00

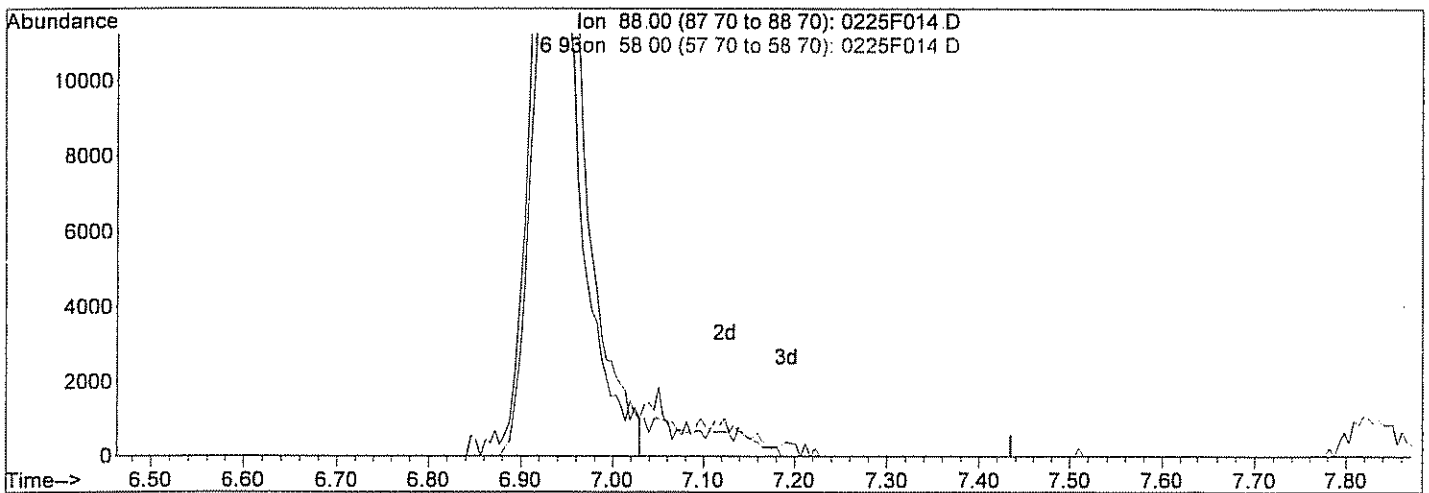
peak tailing
LB 2/28/05
MH 3/1/5

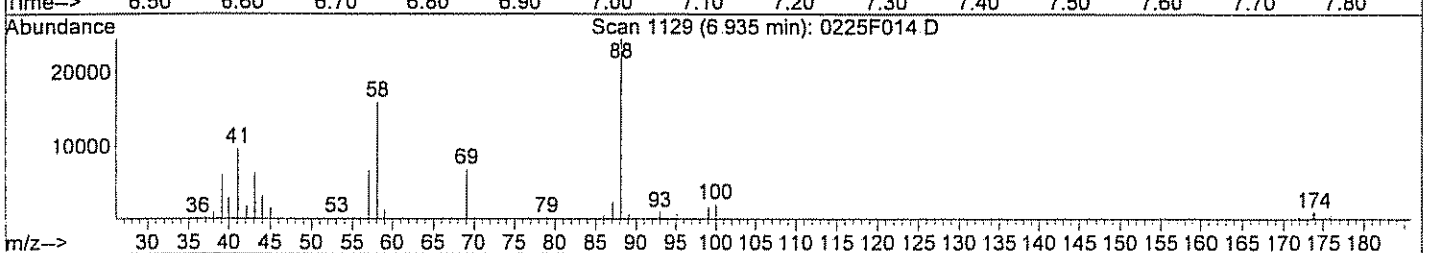
Quantitation Report (Qedit)

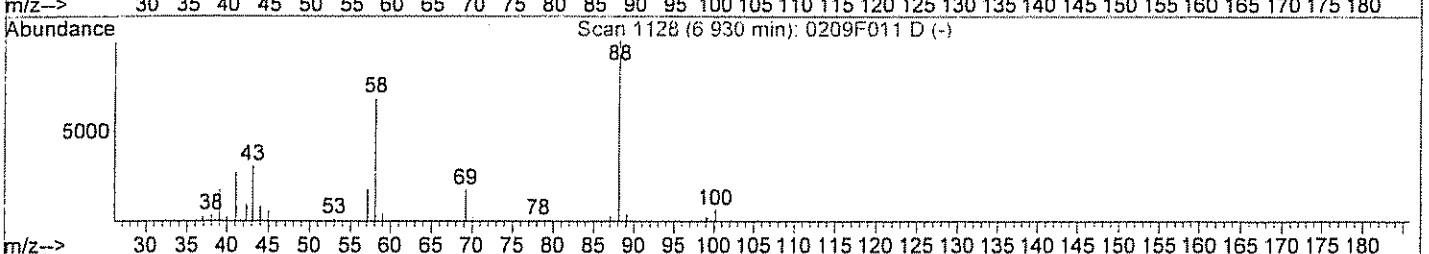
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(51) 1,4-Dioxane (T)

6.93min 858.26PPB

response 81252

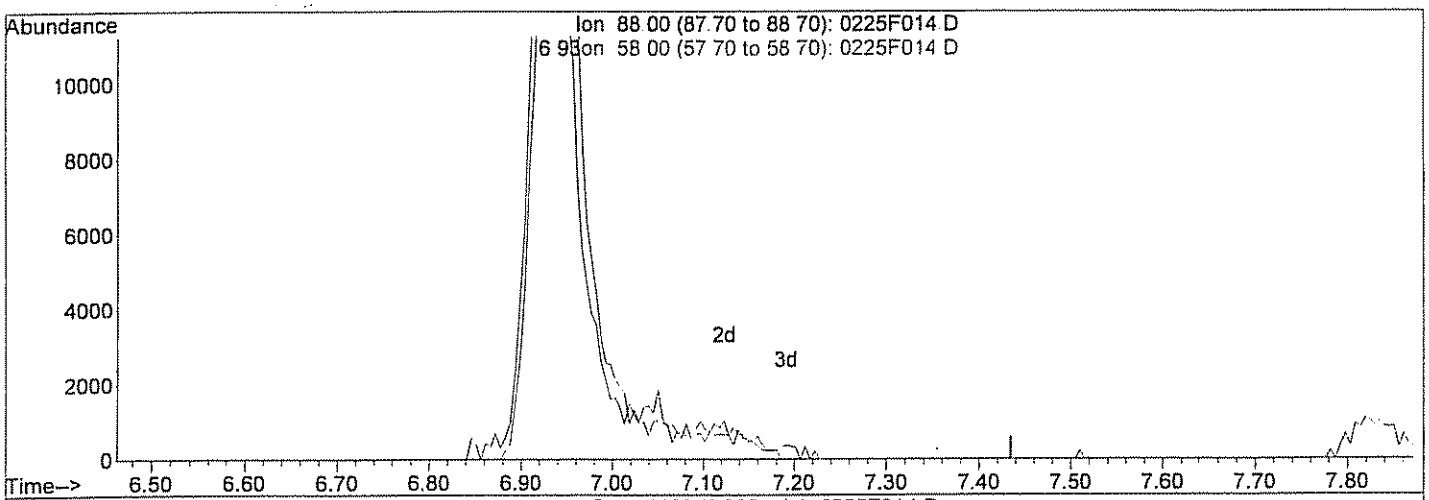
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	65.23
0.00	0.00	0.00
0.00	0.00	0.00

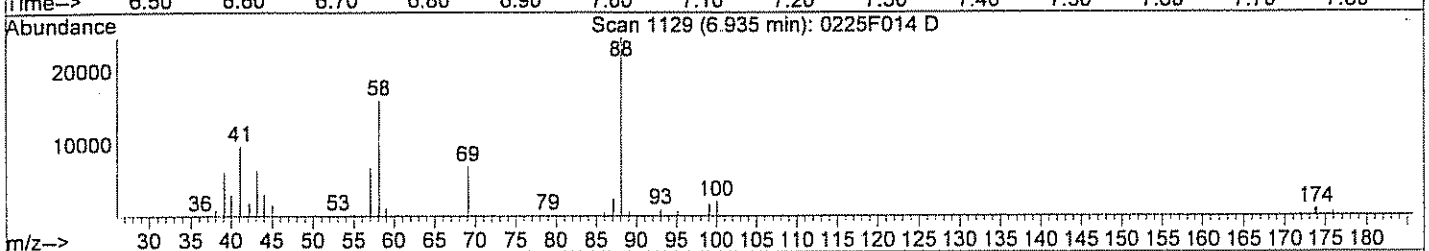
Quantitation Report (Qedit)

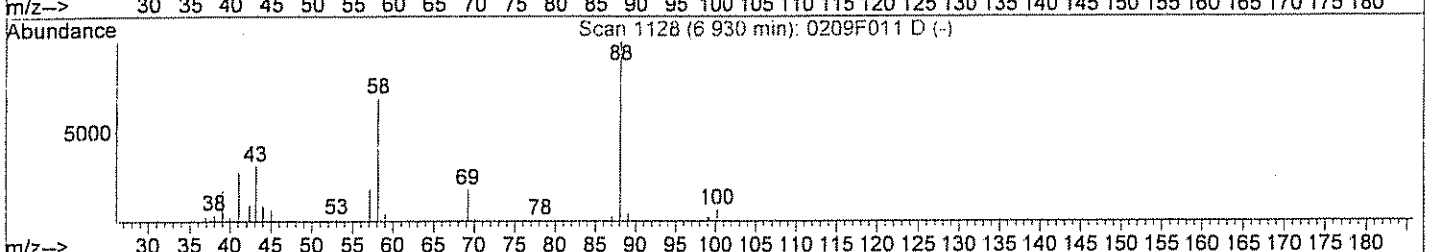
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014 D

(51) 1,4-Dioxane (T)

6.93min 944.65PPB m

response 89431

Ion	Exp%	Act%
88 00	100	100
58 00	65 60	65 23
0.00	0.00	0 00
0 00	0.00	0.00

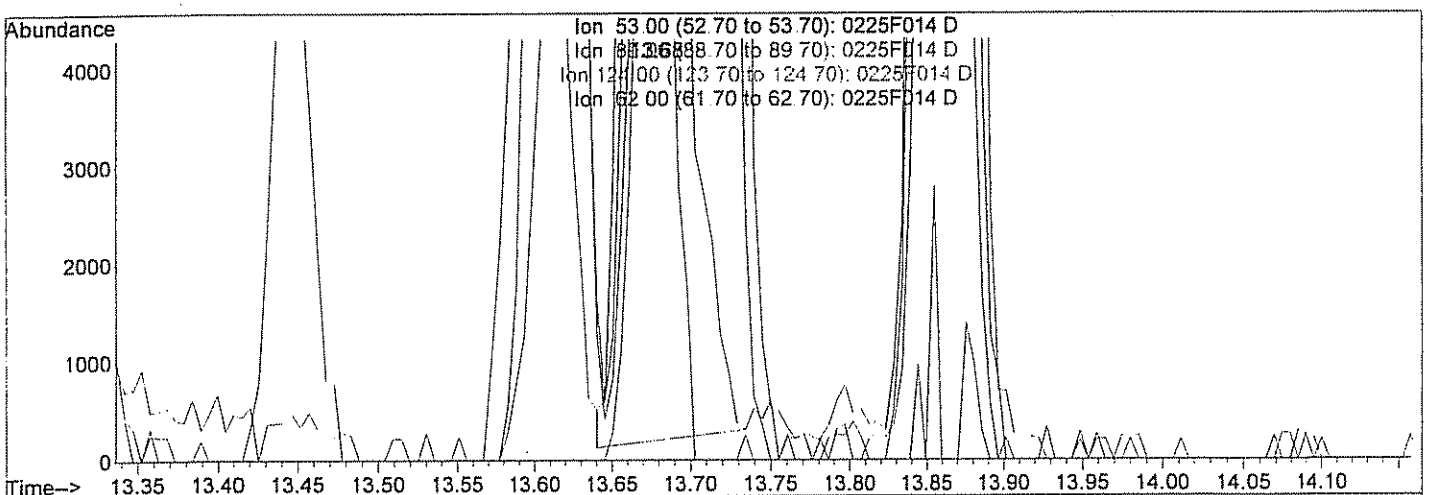
peak tailing
LB 2/28/05
MM 3/1/5

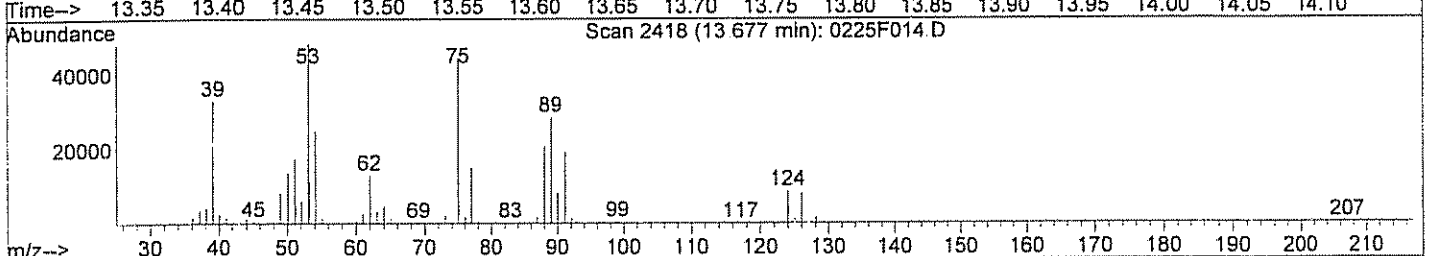
Quantitation Report (Qedit)

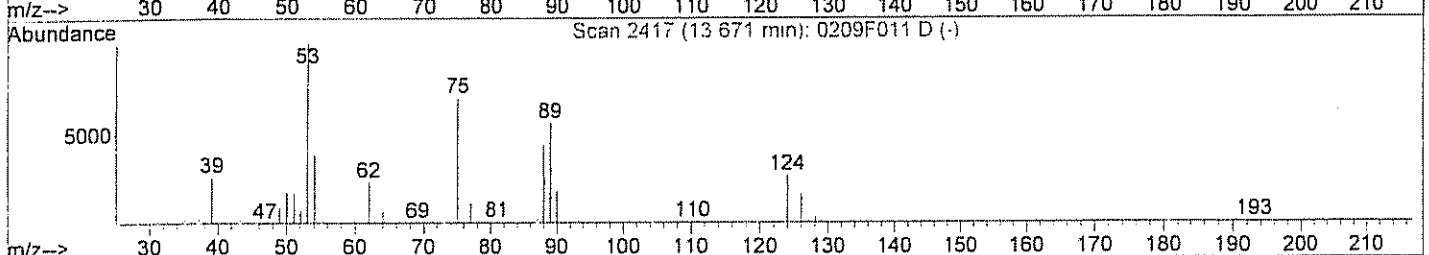
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:21 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 17.46PPB

response 80137

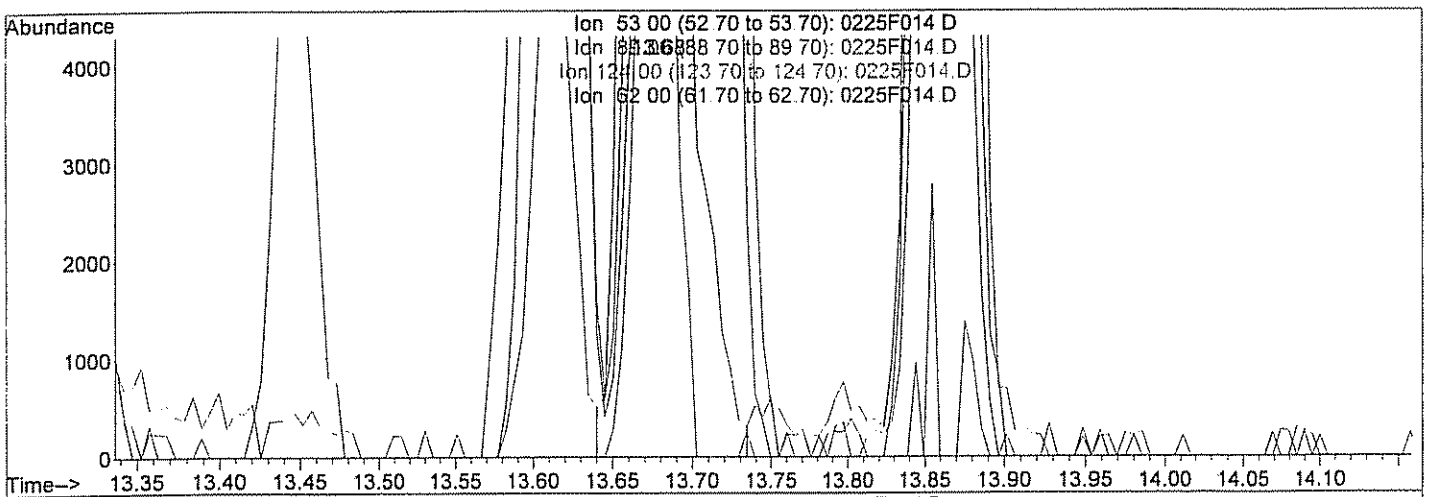
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	56.26
124.00	22.00	18.36
62.00	31.10	24.88

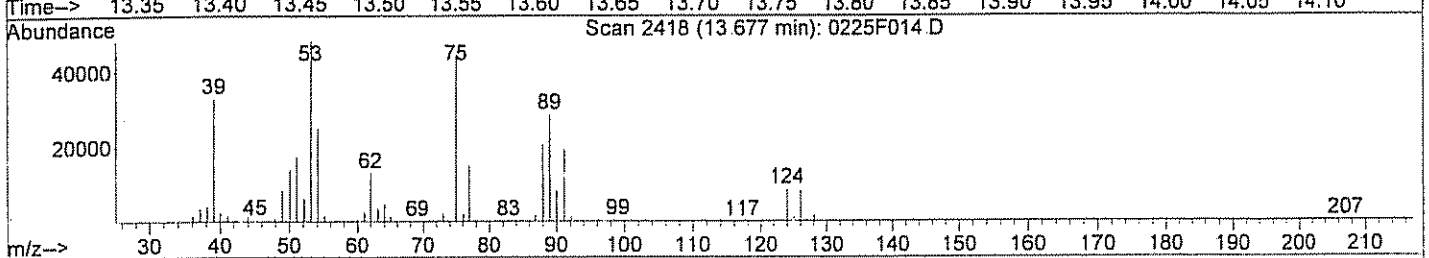
Quantitation Report (Qedit)

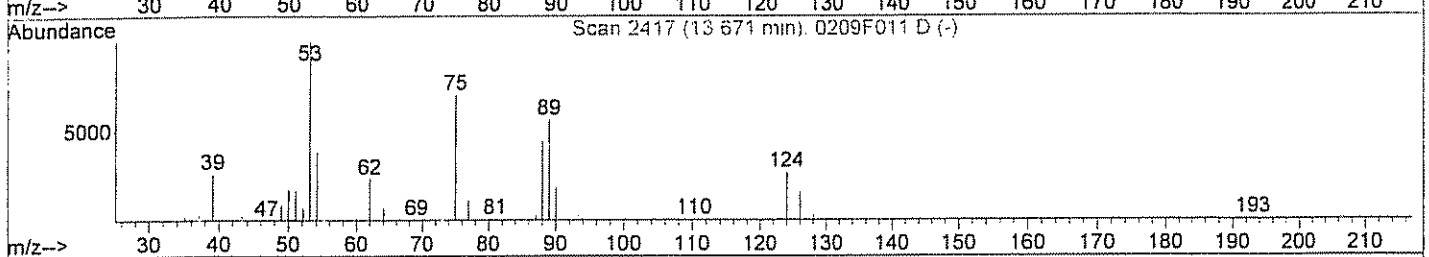
Data File : J:\MS13\DATA\022505\0225F014.D
Acq On : 25 Feb 2005 9:14 pm
Sample : 8260 ICAL (Water) #8
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 14
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F014.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 17.72PPB m

response 81363

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.28
124.00	22.00	18.24
62.00	31.10	27.40

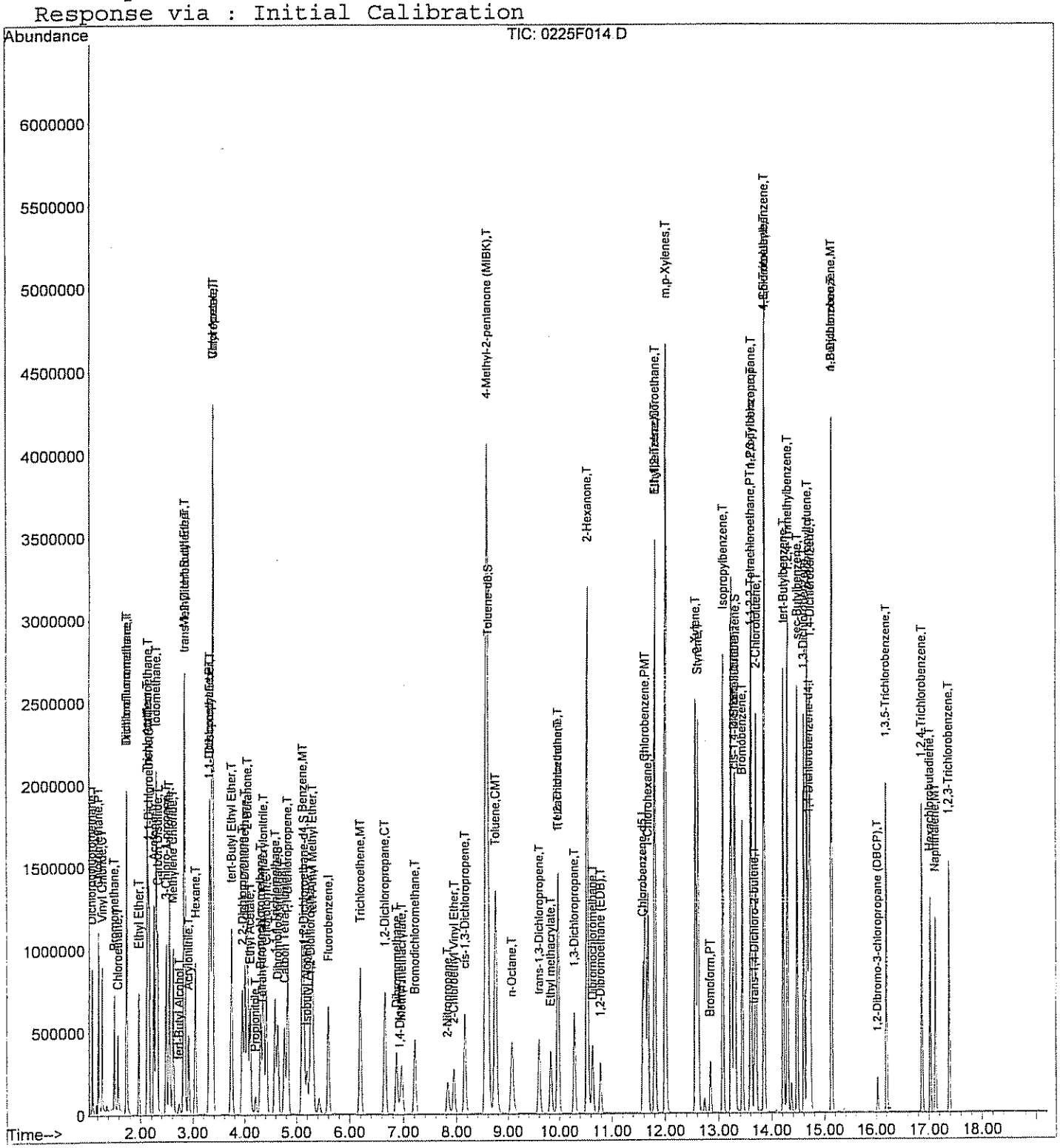
slanted baseline
LB 2/28/05
3/1/5

0225F014.D 022505_8260W.M Mon Feb 28 15:22:26 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F014.D Vial: 14
Acq On : 25 Feb 2005 9:14 pm Operator:
Sample : 8260 ICAL (Water) #8 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	802338	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	350739	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	400431	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	747249	42.47	PPB	0.00
Spiked Amount 10.000			Recovery	=	424.70%	
43) 1,2-Dichloroethane-d4	5.15	65	830553	41.72	PPB	0.00
Spiked Amount 10.000			Recovery	=	417.20%	
57) Toluene-d8	8.60	98	3347027	40.87	PPB	0.01
Spiked Amount 10.000			Recovery	=	408.70%	
79) 4-Bromofluorobenzene	13.31	95	1201544	40.71	PPB	0.00
Spiked Amount 10.000			Recovery	=	407.10%	

Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.09	85	902276	37.61	PPB		99
3) Chloromethane	1.22	50	1045904	37.26	PPB		99
4) Vinyl Chloride	1.29	62	937269	39.00	PPB		99
5) Bromomethane	1.51	96	541061	38.60	PPB		98
6) Chloroethane	1.58	64	538755	36.16	PPB		99
7) Dichlorofluoromethane	1.74	67	1395155	38.06	PPB		96
8) Trichlorofluoromethane	1.74	101	1244312	39.83	PPB		99
9) Ethyl Ether	1.97	59	569461	42.02	PPB		96
10) Acrolein	2.12	56	1742127	969.82	PPB		100
11) Trichlorotrifluoroethane	2.13	151	594242	39.39	PPB		99
12) 1,1-Dichloroethene	2.15	96	680809	40.93	PPB		91
13) Acetone	2.24	43	2516146	777.74	PPB		100
14) Iodomethane	2.29	142	3971140m	173.54	PPB		
15) Carbon Disulfide	2.32	76	2047447	33.60	PPB		99
16) 3-Chloro-1-propene	2.48	76	391808	38.28	PPB	#	85
17) Acetonitrile	2.54	40	1247498	1637.84	PPB		95
18) Methylene Chloride	2.62	84	784637	39.09	PPB		99
19) tert-Butyl Alcohol	2.74	59	135154	146.02	PPB		99
20) Acrylonitrile	2.91	53	685363	167.22	PPB		94
21) Methyl tert-Butyl Ether	2.82	73	3624066	76.61	PPB		99
22) trans-1,2-Dichloroethene	2.84	96	791775	39.31	PPB		99
23) Hexane	3.05	57	815876	34.58	PPB		99
24) Diisopropyl Ether	3.33	45	2634134	38.69	PPB		99
25) 1,1-Dichloroethane	3.31	63	1418401	40.33	PPB		98
26) Vinyl Acetate	3.37	86	236820	79.07	PPB		96
27) Chloroprene	3.37	53	4200928	151.87	PPB		98
28) tert-Butyl Ethyl Ether	3.74	59	2094606	35.76	PPB		98

(#) = qualifier out of range (m) = manual integration

LC 2/28/05 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	894396	28.96	PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	878244	39.83	PPB		97
31)	2-Butanone	4.05	72	1079501	868.94	PPB		99
32)	Propionitrile	4.20	54	251816	163.44	PPB		100
33)	Ethyl Acetate	4.10	61	245827	159.93	PPB		96
34)	Methacrylonitrile	4.36	67	848010	164.10	PPB		96
35)	Bromochloromethane	4.30	128	387143	42.54	PPB		93
36)	Tetrahydrofuran	4.33	71	52090	39.58	PPB		95
37)	Chloroform	4.42	83	1352017	40.15	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	1106727	36.62	PPB		98
40)	Carbon Tetrachloride	4.77	117	853312	35.40	PPB		97
41)	1,1-Dichloropropene	4.83	75	1079227	38.03	PPB		97
42)	Isobutyl Alcohol	5.20	43	518896	1280.72	PPB		98
44)	Benzene	5.11	78	3331752	39.13	PPB		97
45)	1,2-Dichloroethane	5.27	62	987058	42.84	PPB		98
46)	tert-Amyl Methyl Ether	5.30	55	611778	49.28	PPB	#	62
47)	Trichloroethene	6.20	95	812747	39.06	PPB		99
48)	1,2-Dichloropropane	6.66	63	817749	39.83	PPB		95
49)	Dibromomethane	6.87	93	397116	41.82	PPB		94
50)	Methyl methacrylate	6.97	69	364519	37.95	PPB		95
51)	1,4-Dioxane	6.93	88	191114m	1962.01	PPB		
52)	Bromodichloromethane	7.21	83	937488	40.95	PPB		97
53)	2-Nitropropane	7.83	43	401733	169.21	PPB		97
54)	2-Chloroethyl Vinyl Ether	7.95	63	387072	43.77	PPB		96
55)	cis-1,3-Dichloropropene	8.16	75	1182919	40.60	PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.57	58	3718868	784.62	PPB		93
58)	Toluene	8.75	92	2231196	38.25	PPB		97
60)	n-Octane	9.07	85	390531	36.39	PPB		91
61)	trans-1,3-Dichloropropene	9.60	75	919235	37.83	PPB		94
62)	Ethyl methacrylate	9.83	69	726547	37.42	PPB		98
63)	1,1,2-Trichloroethane	9.96	83	511359	40.67	PPB		95
64)	Tetrachloroethene	9.97	164	735062	39.29	PPB		96
65)	2-Hexanone	10.53	57	1241936	819.78	PPB		99
66)	1,3-Dichloropropane	10.29	76	1070178	42.66	PPB		97
67)	Dibromochloromethane	10.64	129	645010	43.91	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	581426	42.56	PPB		97
69)	1-Chlorohexane	11.68	91	970651	41.59	PPB		98
70)	Chlorobenzene	11.63	112	2466273	41.06	PPB		98
71)	Ethylbenzene	11.81	106	1340882	40.76	PPB		100
72)	1,1,1,2-Tetrachloroethane	11.81	131	716336	39.61	PPB		97
73)	m,p-Xylenes	12.01	106	3371873	81.24	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:35 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

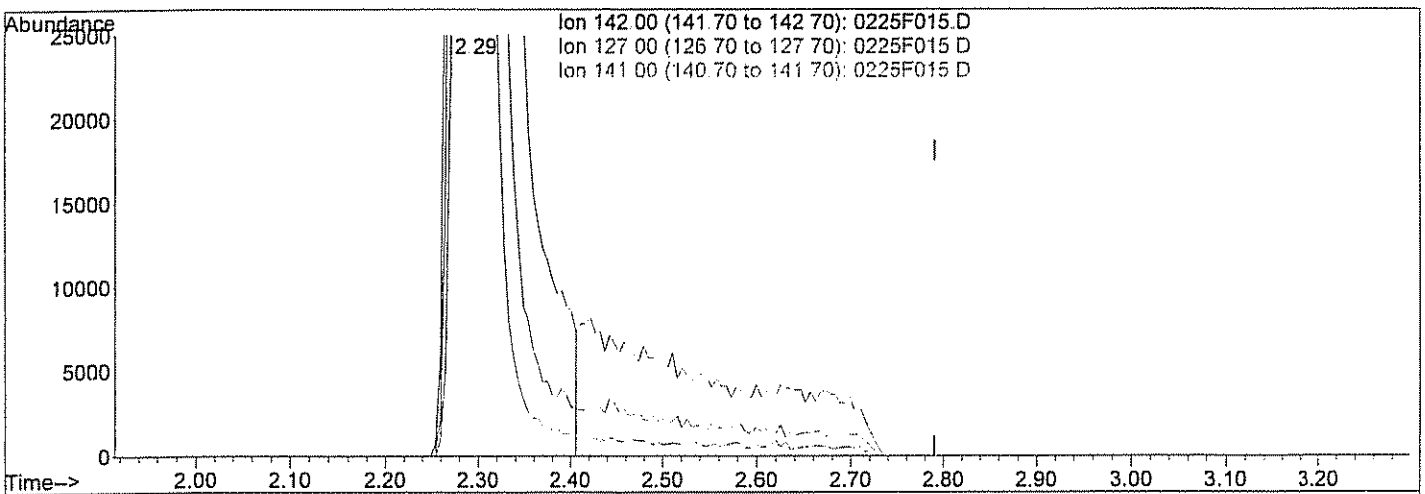
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	1608314	40.13	PPB		99
75)	Styrene	12.61	103	1333808	42.15	PPB		99
76)	Bromoform	12.85	173	350050	42.61	PPB		97
77)	Isopropylbenzene	13.08	105	3936642	40.16	PPB		100
78)	cis-1,4-Dichloro-2-butene	13.29	89	273384	147.93	PPB	#	82
81)	1,1,2,2-Tetrachloroethane	13.59	83	657501	38.65	PPB		99
82)	trans-1,4-Dichloro-2-buten	13.68	53	173003m	36.68	PPB		
83)	Bromobenzene	13.45	156	1116310	38.99	PPB		95
84)	n-Propylbenzene	13.61	91	4534894	38.27	PPB		99
85)	1,2,3-Trichloropropane	13.61	110	207368	39.12	PPB		95
86)	2-Chlorotoluene	13.71	91	2858476	37.20	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	3306926	38.12	PPB		99
88)	4-Chlorotoluene	13.86	91	3390074	38.36	PPB		98
89)	tert-Butylbenzene	14.22	119	2628475	36.22	PPB		99
90)	1,2,4-Trimethylbenzene	14.30	105	3369058	38.43	PPB		100
91)	sec-Butylbenzene	14.48	105	3530860	38.43	PPB		99
92)	p-Isopropyltoluene	14.67	119	3287874	37.92	PPB		100
93)	1,3-Dichlorobenzene	14.61	146	2119957	39.40	PPB		100
94)	1,4-Dichlorobenzene	14.73	146	2169466	38.85	PPB		99
95)	n-Butylbenzene	15.13	91	2654174	37.86	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	1991540	40.01	PPB		99
97)	1,2-Dibromo-3-chloropropan	16.03	155	88869	38.56	PPB		92
98)	1,3,5-Trichlorobenzene	16.20	180	1283246	37.23	PPB		96
99)	1,2,4-Trichlorobenzene	16.88	180	1165704	37.28	PPB		97
100)	Hexachlorobutadiene	17.03	225	544980	37.66	PPB		98
101)	Naphthalene	17.13	128	1866731	34.22	PPB		99
102)	1,2,3-Trichlorobenzene	17.38	180	972904	39.33	PPB		99

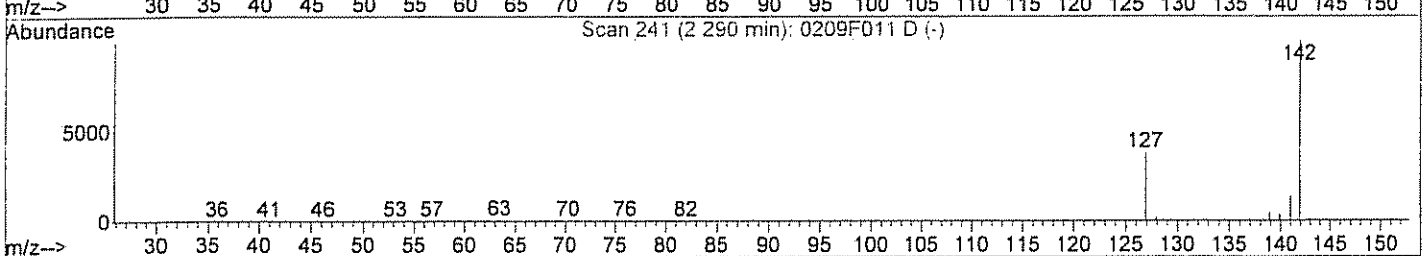
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration





TIC: 0225F015.D

(14) Iodomethane (T)

2.29min 169.66PPB

response 3882367

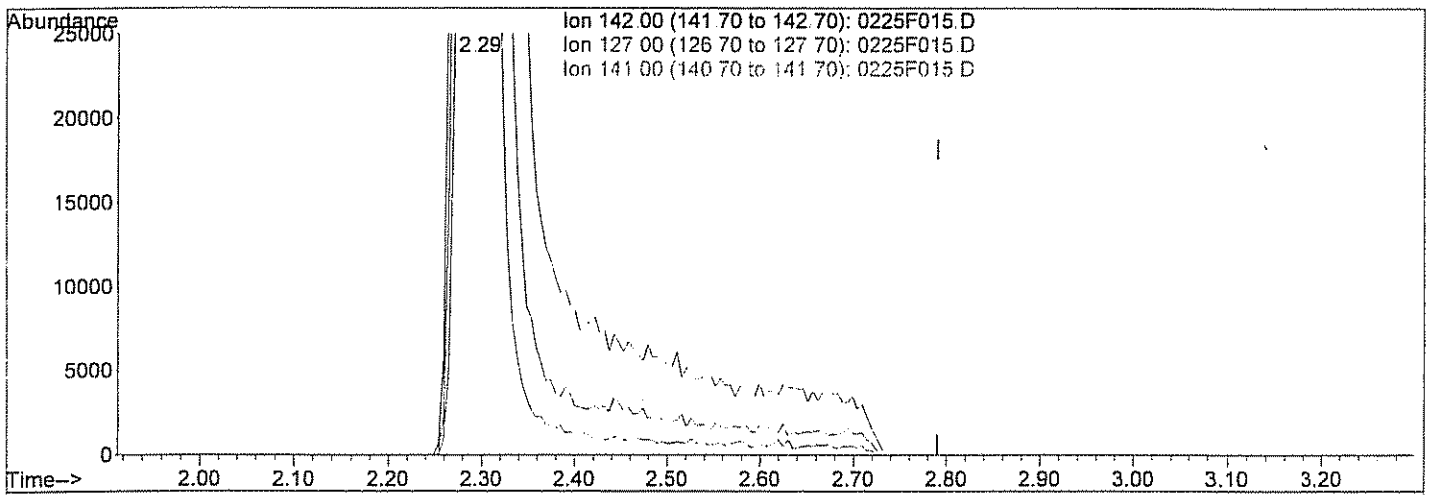
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.50
141.00	14.30	13.89
0.00	0.00	0.00

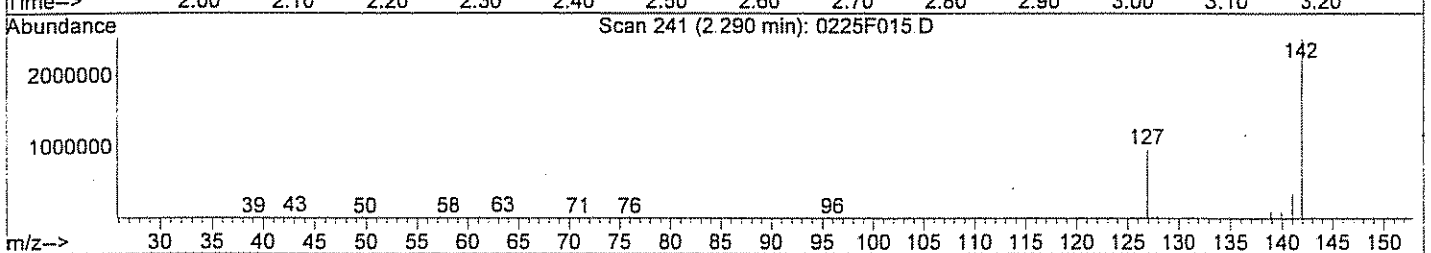
Quantitation Report (Qedit)

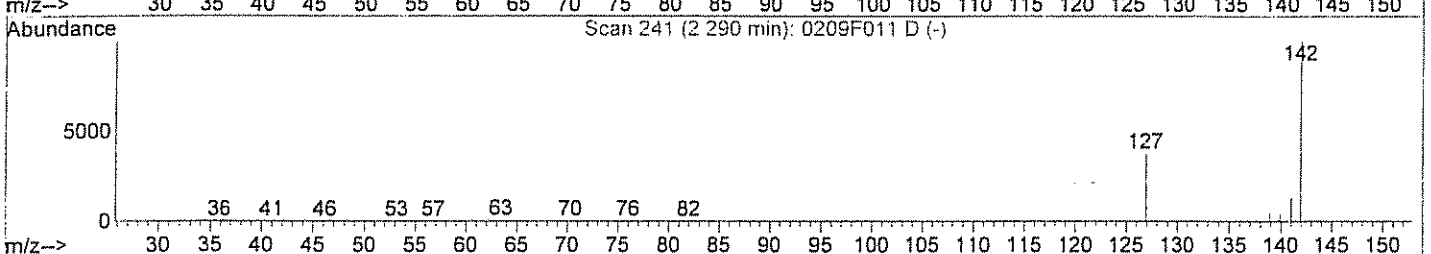
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F015.D

(14) Iodomethane (T)

2.29min 173.54PPB m

response 3971140

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	38.50
141.00	14.30	13.89
0.00	0.00	0.00

peak tailing
LB 2/28/05
mt 3/1/5

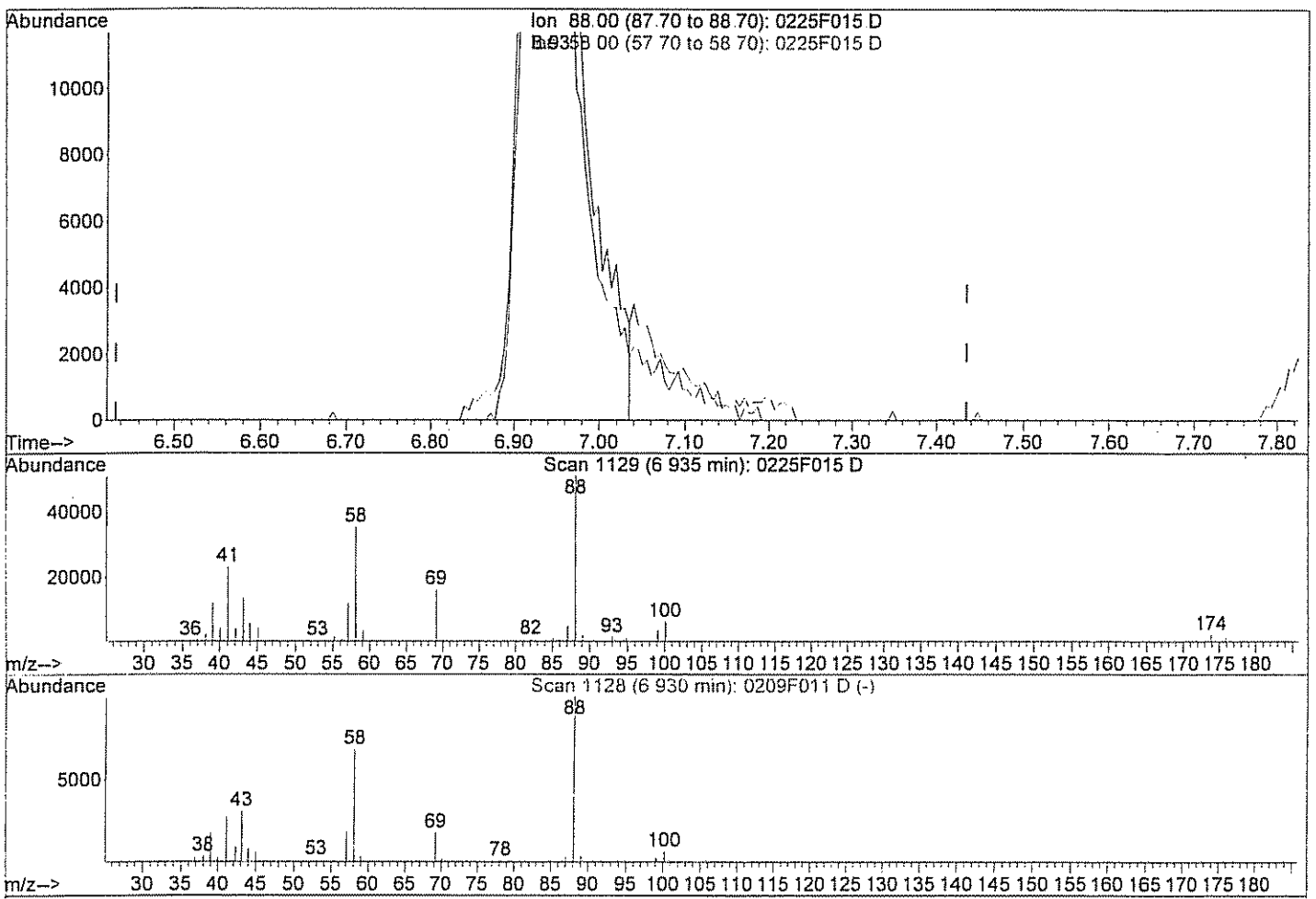
0225F015.D 022505_8260W.M Mon Feb 28 15:22:57 2005

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:22 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6.93min 1823.61PPB

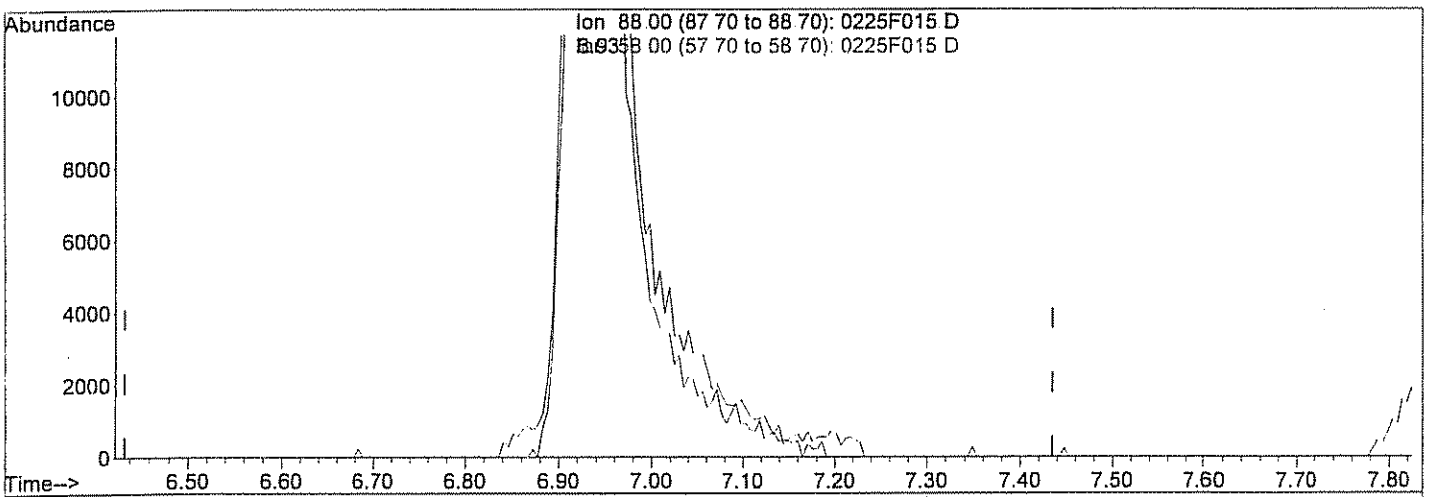
response 177633

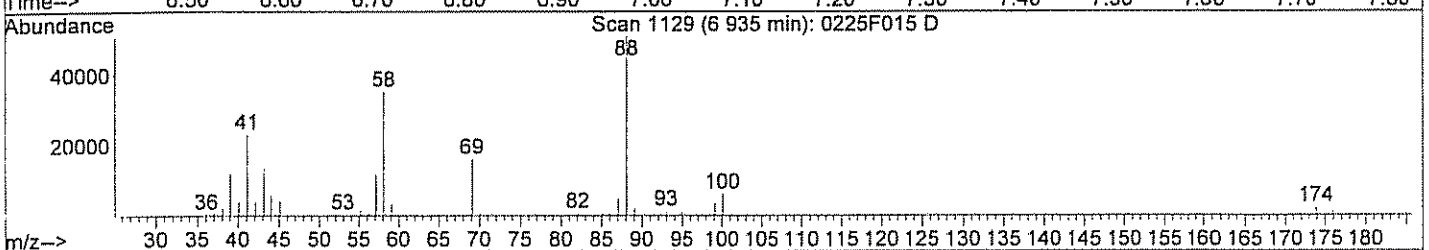
Ion	Exp%	Act%
88.00	100	100
58.00	65.60	69.41
0.00	0.00	0.00
0.00	0.00	0.00

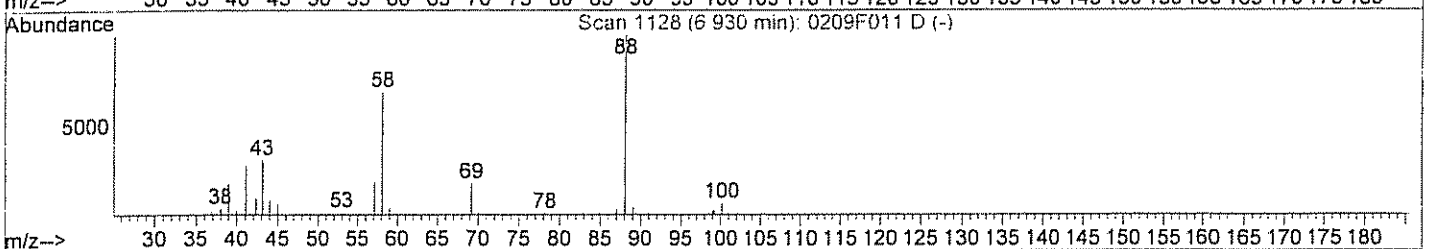
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(51) 1,4-Dioxane (T)

6.93min 1962.01PPB m

response 191114

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	69.41
0.00	0.00	0.00
0.00	0.00	0.00

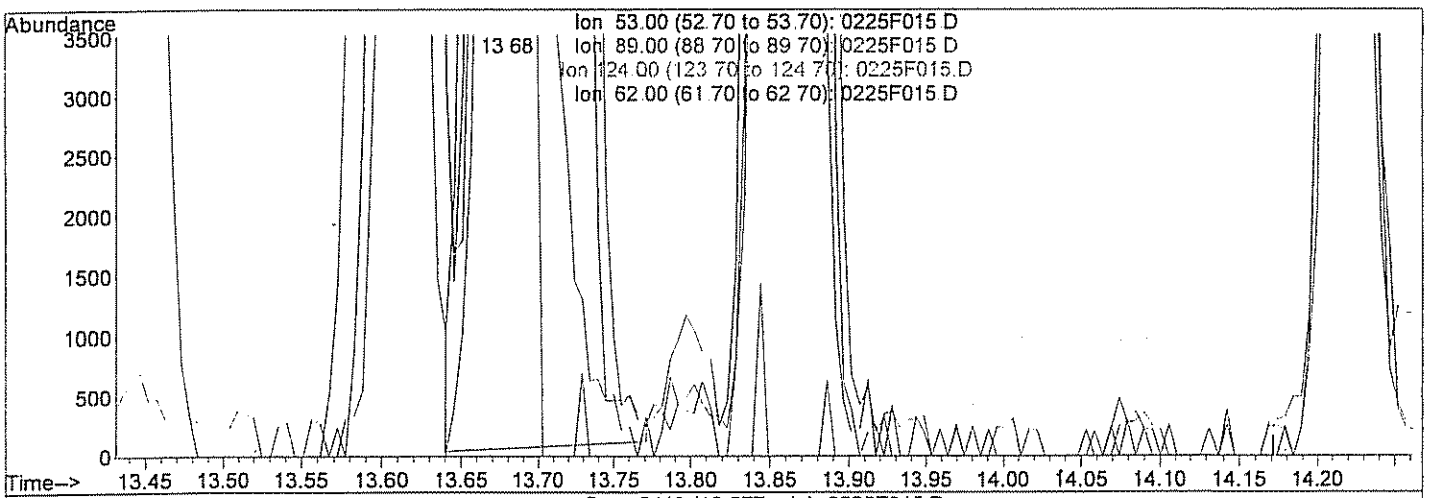
peak tailing
KB 2/28/05
3/1/5

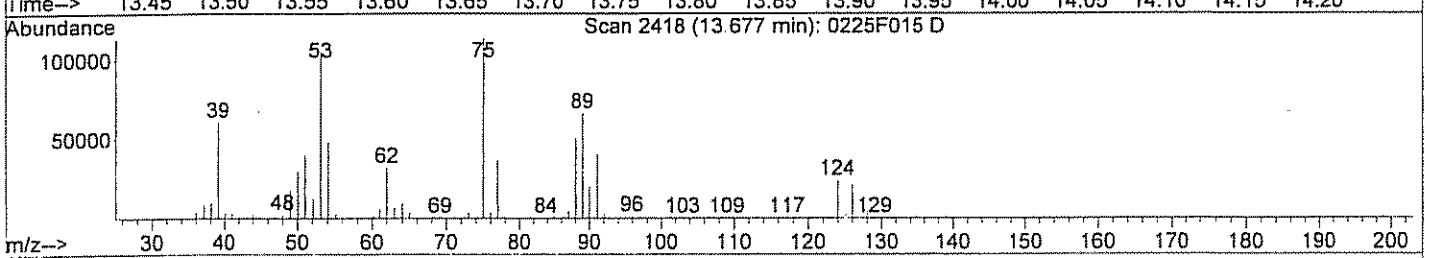
0225F015.D 022505_8260W.M Mon Feb 28 15:23:25 2005

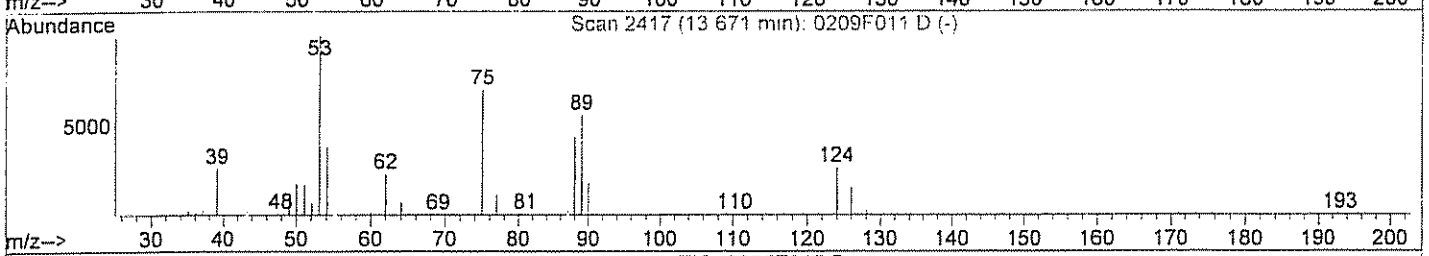
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F015.D Vial: 15
Acq On : 25 Feb 2005 9:42 pm Operator:
Sample : 8260 ICAL (Water) #9 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 36.54PPB

response 172360

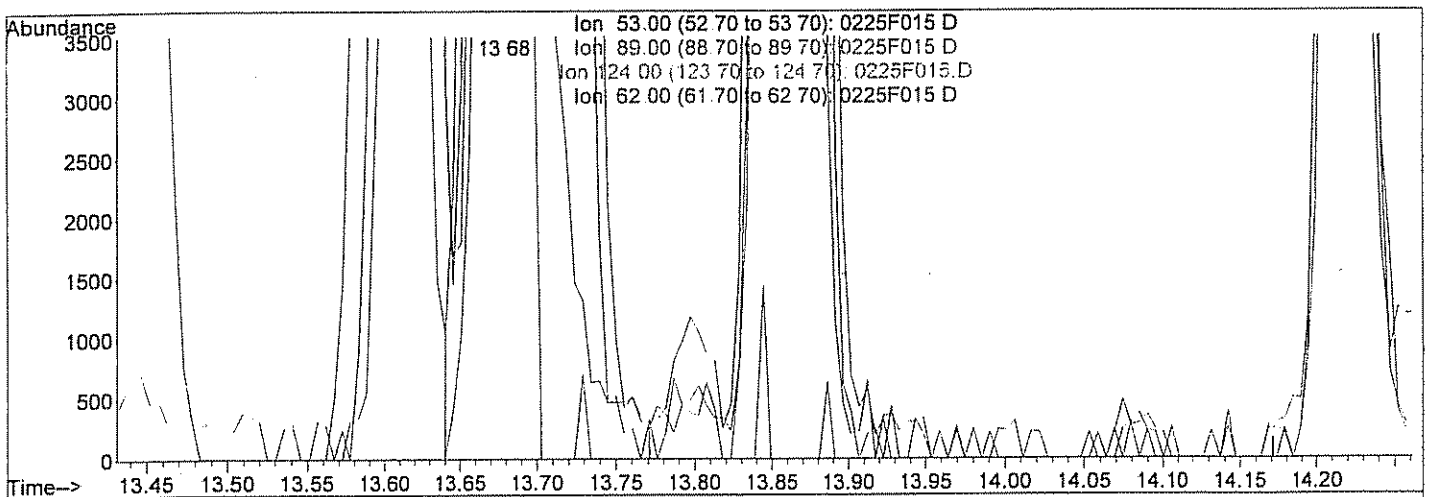
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	62.92
124.00	22.00	22.64
62.00	31.10	30.02

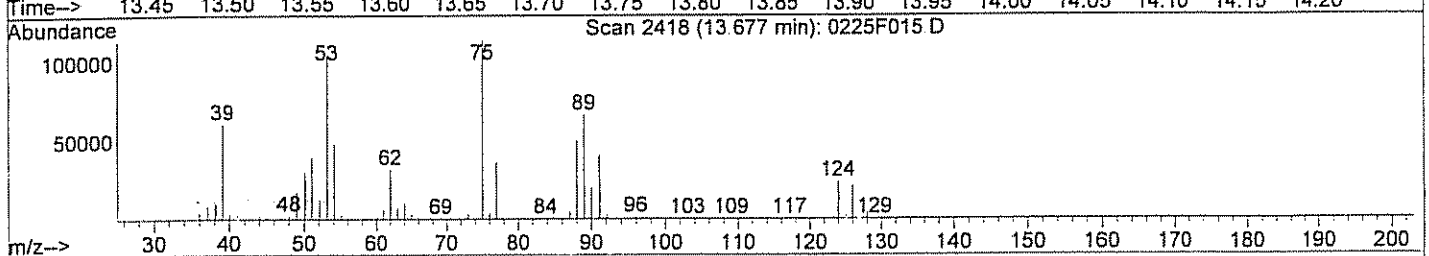
Quantitation Report (Qedit)

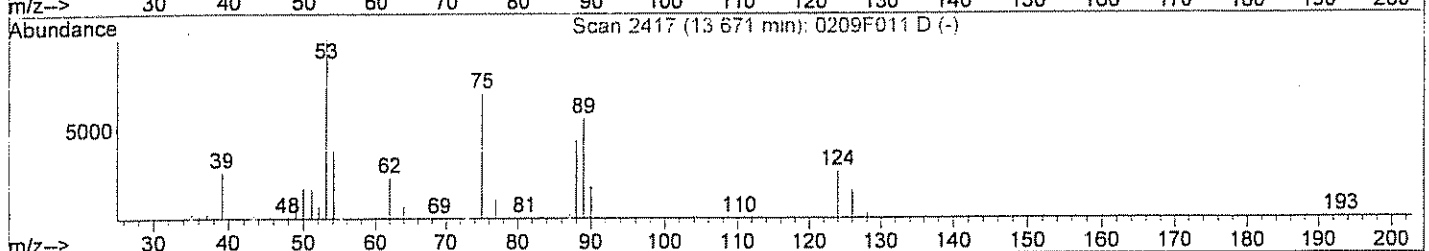
Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F015.D

(82) trans-1,4-Dichloro-2-butene (T)

13.68min 36.68PPB m

response 173003

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	63.05
124.00	22.00	22.58
62.00	31.10	30.26

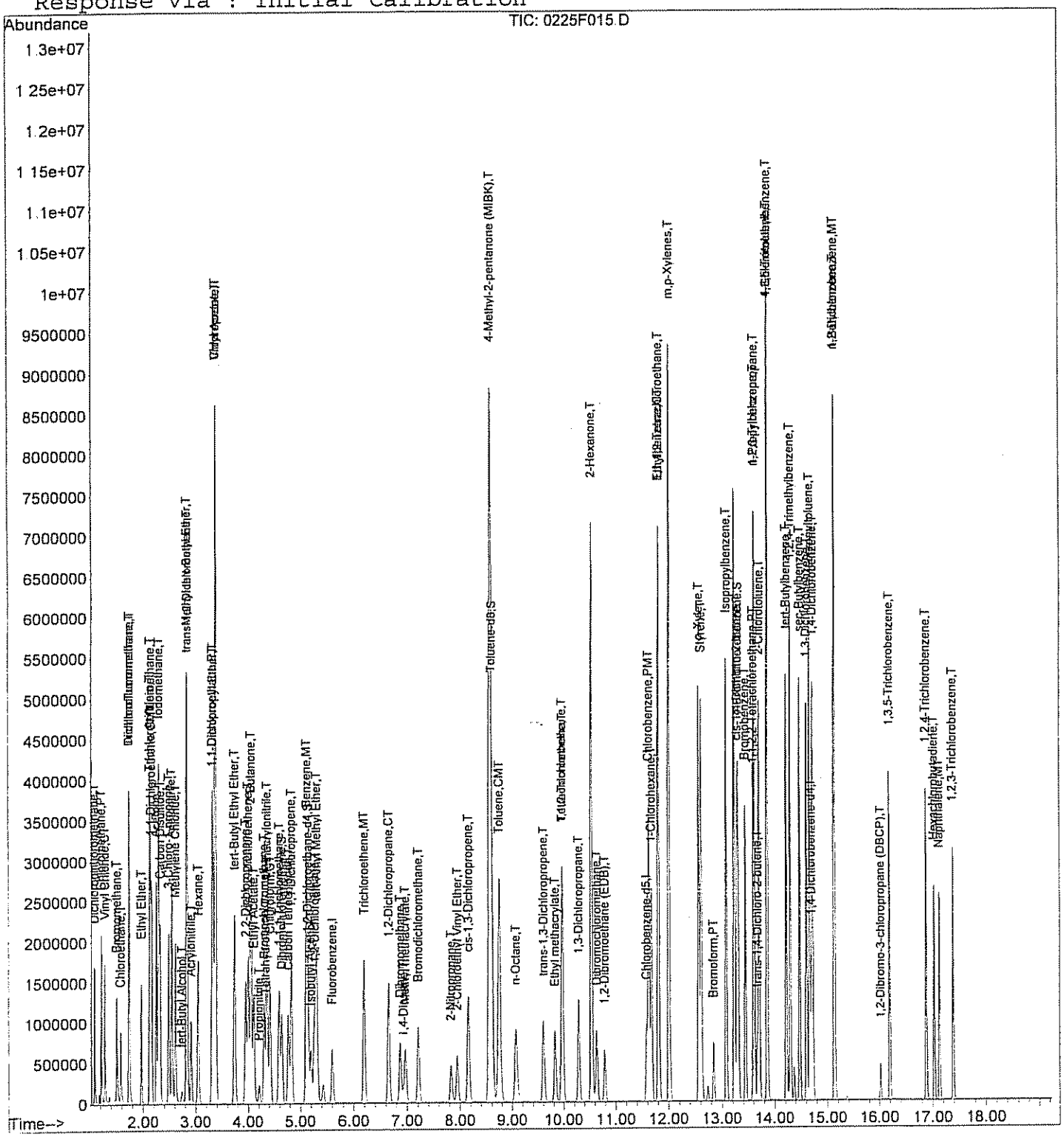
slanted baseline
LB 0/28/05
mt 3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F015.D
Acq On : 25 Feb 2005 9:42 pm
Sample : 8260 ICAL (Water) #9
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:23 2005

Vial: 15
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	832706	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	366804	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.70	152	412346	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	963379	52.76	PPB	0.00
Spiked Amount 10.000			Recovery	=	527.60%	
43) 1,2-Dichloroethane-d4	5.15	65	1062466	51.42	PPB	0.00
Spiked Amount 10.000			Recovery	=	514.20%	
57) Toluene-d8	8.60	98	4354345	51.23	PPB	0.01
Spiked Amount 10.000			Recovery	=	512.30%	
79) 4-Bromofluorobenzene	13.31	95	1546038	50.09	PPB	0.00
Spiked Amount 10.000			Recovery	=	500.90%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	2049450	82.32	PPB	99
3) Chloromethane	1.22	50	2272793	78.01	PPB	99
4) Vinyl Chloride	1.29	62	2131060	85.43	PPB	98
5) Bromomethane	1.50	96	1115454	76.67	PPB	99
6) Chloroethane	1.58	64	1179298	76.27	PPB	99
7) Dichlorofluoromethane	1.73	67	3036357	79.82	PPB	97
8) Trichlorofluoromethane	1.74	101	2785496	85.91	PPB	100
9) Ethyl Ether	1.97	59	1156871	82.26	PPB	96
10) Acrolein	2.12	56	3607164	1934.83	PPB	100
11) Trichlorotrifluoroethane	2.13	151	1367758	87.35	PPB	99
12) 1,1-Dichloroethene	2.15	96	1542693	89.37	PPB	95
13) Acetone	2.24	43	4938260	1470.74	PPB	100
14) Iodomethane	2.29	142	8748629m	368.38	PPB	
15) Carbon Disulfide	2.32	76	4660238	73.70	PPB	100
16) 3-Chloro-1-propene	2.48	76	881675	83.01	PPB	89
17) Acetonitrile	2.54	40	2546091	3220.85	PPB	96
18) Methylene Chloride	2.62	84	1644809	78.96	PPB	98
19) tert-Butyl Alcohol	2.74	59	300385	312.70	PPB	97
20) Acrylonitrile	2.91	53	1406324	330.62	PPB	94
21) Methyl tert-Butyl Ether	2.82	73	7551360	153.80	PPB	100
22) trans-1,2-Dichloroethene	2.84	96	1734482	82.98	PPB	99
23) Hexane	3.05	57	1885410	76.99	PPB	99
24) Diisopropyl Ether	3.33	45	5556661	78.64	PPB	98
25) 1,1-Dichloroethane	3.31	63	3082062	84.45	PPB	99
26) Vinyl Acetate	3.37	86	514138	165.40	PPB	96
27) Chloroprene	3.37	53	9395827	327.29	PPB	96
28) tert-Butyl Ethyl Ether	3.74	59	4467098	73.49	PPB	98

(#) = qualifier out of range (m) = manual integration
0225F016.D 022505_8260W.M Mon Feb 28 15:30:47 2005 Page 1

3/1/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	2154996	67.22	PPB		97
30)	cis-1,2-Dichloroethene	4.00	96	1882626	82.27	PPB		98
31)	2-Butanone	4.05	72	2164813	1679.00	PPB		97
32)	Propionitrile	4.20	54	511841	320.10	PPB		98
33)	Ethyl Acetate	4.10	61	500076	313.47	PPB		97
34)	Methacrylonitrile	4.36	67	1749383	326.18	PPB		94
35)	Bromochloromethane	4.30	128	797845	84.47	PPB		95
36)	Tetrahydrofuran	4.32	71	104679	76.64	PPB		95
37)	Chloroform	4.42	83	2896450	82.88	PPB		98
38)	1,1,1-Trichloroethane	4.59	97	2574973	82.09	PPB		99
40)	Carbon Tetrachloride	4.77	117	2083284	83.28	PPB		99
41)	1,1-Dichloropropene	4.83	75	2433057	82.62	PPB		97
42)	Isobutyl Alcohol	5.20	43	1179836	2805.83	PPB		99
44)	Benzene	5.11	78	7253759	82.08	PPB		98
45)	1,2-Dichloroethane	5.26	62	2016699	84.35	PPB		99
46)	tert-Amyl Methyl Ether	5.30	55	1196731	92.88	PPB	#	72
47)	Trichloroethene	6.20	95	1785556	82.68	PPB		98
48)	1,2-Dichloropropane	6.66	63	1755047	82.36	PPB		93
49)	Dibromomethane	6.87	93	809579	82.14	PPB		94
50)	Methyl methacrylate	6.97	69	784780	78.73	PPB		94
51)	1,4-Dioxane	6.93	88	385394m	3812.23	PPB		
52)	Bromodichloromethane	7.21	83	2033338	85.58	PPB		97
53)	2-Nitropropane	7.82	43	992126	402.64	PPB		96
54)	2-Chloroethyl Vinyl Ether	7.94	63	815830	88.88	PPB		98
55)	cis-1,3-Dichloropropene	8.16	75	2575949	85.19	PPB		97
56)	4-Methyl-2-pentanone (MIBK	8.57	58	7395764	1503.47	PPB		88
58)	Toluene	8.75	92	4891318	80.80	PPB		97
60)	n-Octane	9.08	85	865428	77.12	PPB		94
61)	trans-1,3-Dichloropropene	9.60	75	2044788	80.46	PPB		95
62)	Ethyl methacrylate	9.83	69	1597635	78.68	PPB		99
63)	1,1,2-Trichloroethane	9.97	83	1054705	80.22	PPB		97
64)	Tetrachloroethene	9.97	164	1640194	83.83	PPB		95
65)	2-Hexanone	10.53	57	2487369	1569.96	PPB		91
66)	1,3-Dichloropropane	10.29	76	2222350	84.70	PPB		97
67)	Dibromochloromethane	10.64	129	1412452	91.93	PPB		100
68)	1,2-Dibromoethane (EDB)	10.79	107	1218463	85.29	PPB		98
69)	1-Chlorohexane	11.68	91	2243670	91.93	PPB		98
70)	Chlorobenzene	11.63	112	5309261	84.52	PPB		98
71)	Ethylbenzene	11.81	106	2940518	85.48	PPB		97
72)	1,1,1,2-Tetrachloroethane	11.81	131	1604938	84.87	PPB		97
73)	m,p-Xylenes	12.01	106	7372746	169.85	PPB		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03:37 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
74)	o-Xylene	12.57	106	3525771	84.11 PPB	98
75)	Styrene	12.62	103	2867160	86.64 PPB	98
76)	Bromoform	12.85	173	791072	92.07 PPB	96
77)	Isopropylbenzene	13.08	105	8644916	84.32 PPB	99
78)	cis-1,4-Dichloro-2-butene	13.29	89	624707	323.23 PPB	87
81)	1,1,2,2-Tetrachloroethane	13.60	83	1351950	77.17 PPB	98
82)	trans-1,4-Dichloro-2-buten	13.67	53	366928m	75.55 PPB	
83)	Bromobenzene	13.45	156	2344107	79.52 PPB	97
84)	n-Propylbenzene	13.61	91	9743348	79.85 PPB	98
85)	1,2,3-Trichloropropane	13.62	110	420063	76.96 PPB	97
86)	2-Chlorotoluene	13.71	91	6178807	78.08 PPB	99
87)	1,3,5-Trimethylbenzene	13.86	105	7181790	80.39 PPB	100
88)	4-Chlorotoluene	13.86	91	7192407	79.04 PPB	97
89)	tert-Butylbenzene	14.22	119	5878301	78.66 PPB	99
90)	1,2,4-Trimethylbenzene	14.30	105	7297786	80.85 PPB	98
91)	sec-Butylbenzene	14.48	105	7755916	81.97 PPB	98
92)	p-Isopropyltoluene	14.67	119	7250841	81.21 PPB	98
93)	1,3-Dichlorobenzene	14.61	146	4510866	81.41 PPB	99
94)	1,4-Dichlorobenzene	14.73	146	4567739	79.44 PPB	99
95)	n-Butylbenzene	15.13	91	5914692	81.93 PPB	99
96)	1,2-Dichlorobenzene	15.14	146	4196601	81.87 PPB	98
97)	1,2-Dibromo-3-chloropropan	16.03	155	197783	83.35 PPB	90
98)	1,3,5-Trichlorobenzene	16.21	180	2750243	77.49 PPB	97
99)	1,2,4-Trichlorobenzene	16.88	180	2482024	77.07 PPB	97
100)	Hexachlorobutadiene	17.03	225	1198963	80.47 PPB	97
101)	Naphthalene	17.13	128	3970214	70.68 PPB	98
102)	1,2,3-Trichlorobenzene	17.38	180	2025490	79.51 PPB	99

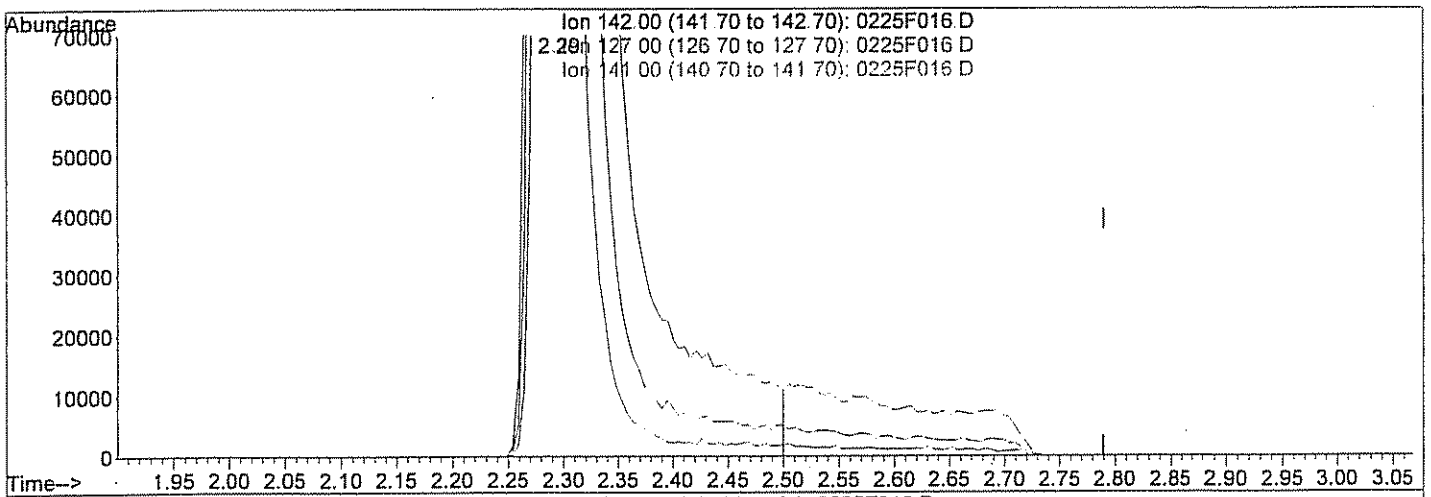
(#) = qualifier out of range (m) = manual integration

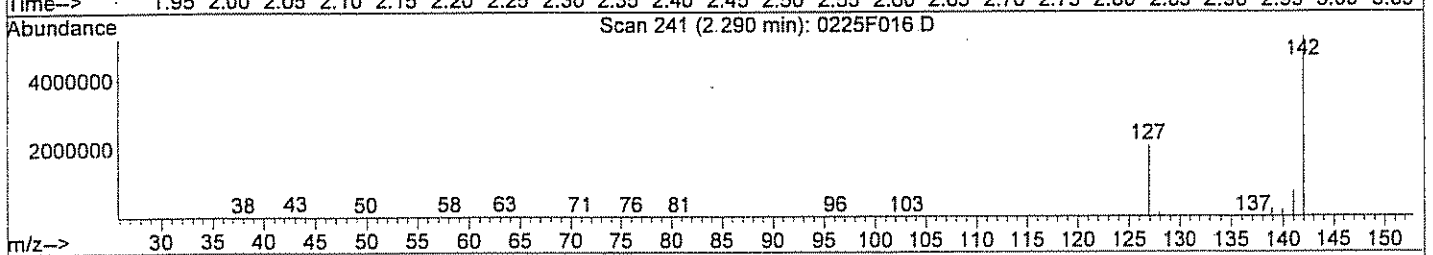
Quantitation Report (Qedit)

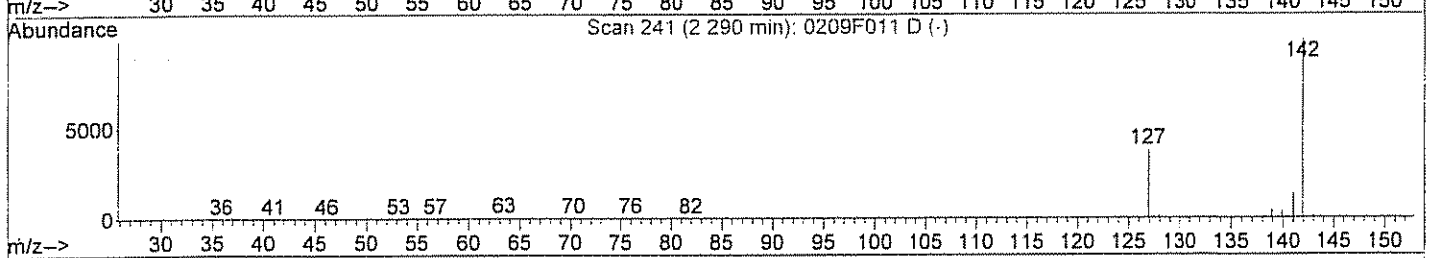
Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:03 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F016.D

(14) Iodomethane (T)

2.29min 363.77PPB

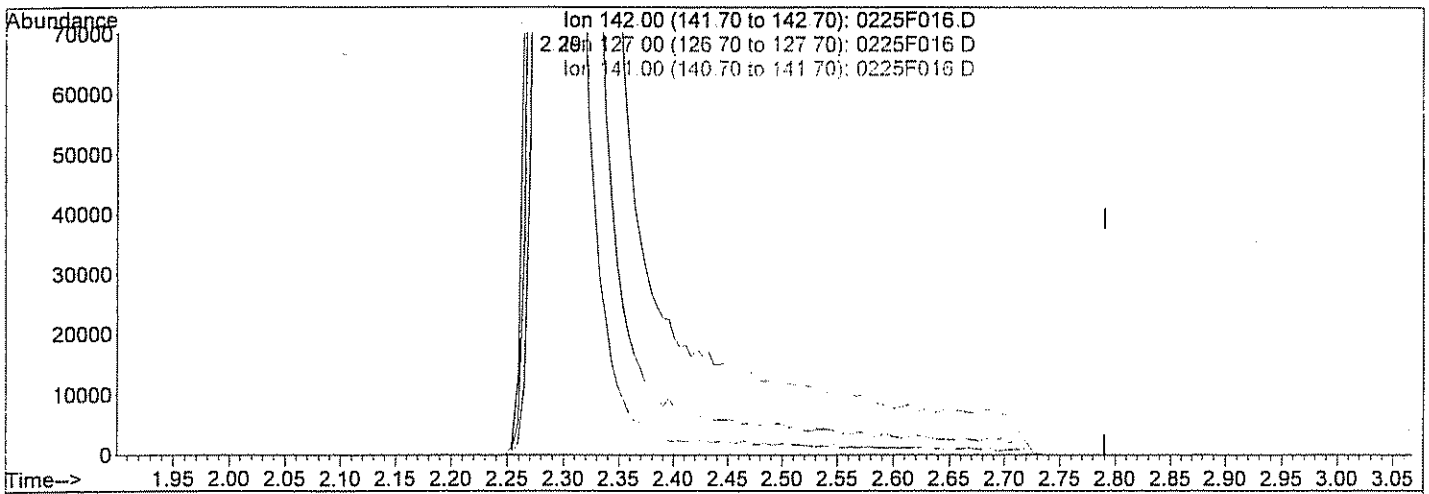
response 8639067

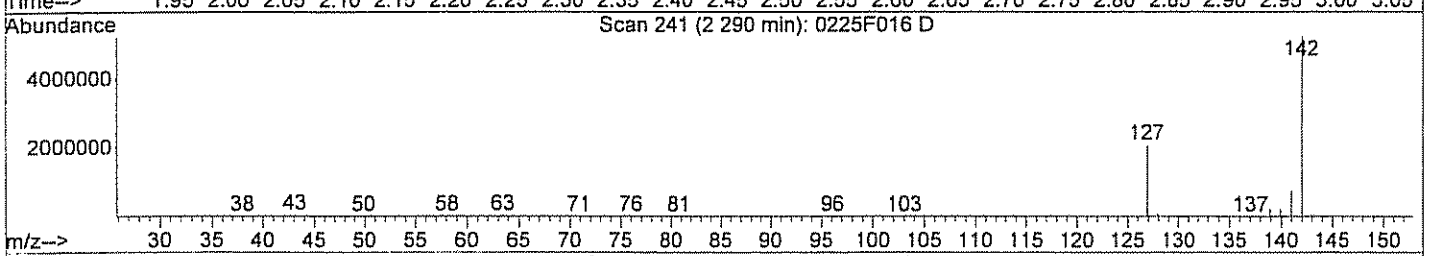
Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.77
141.00	14.30	14.41
0.00	0.00	0.00

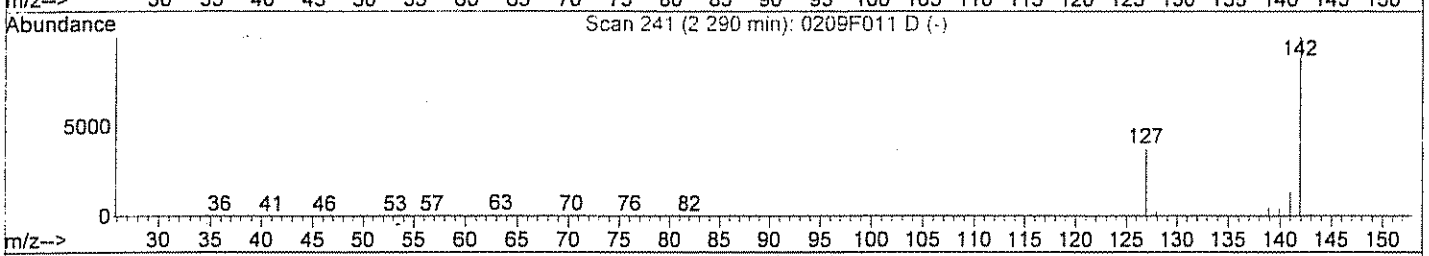
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D
Vial: 16
Acq On : 25 Feb 2005 10:10 pm
Operator:
Sample : 8260 ICAL (Water) #10
Inst : MS13
Misc :
Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:28 2005
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Multiple Level Calibration







TIC: 0225F016.D

(14) Iodomethane (T)

2.29min 368.38PPB m

response 8748629

Ion	Exp%	Act%
142.00	100	100
127.00	39.50	39.77
141.00	14.30	14.41
0.00	0.00	0.00

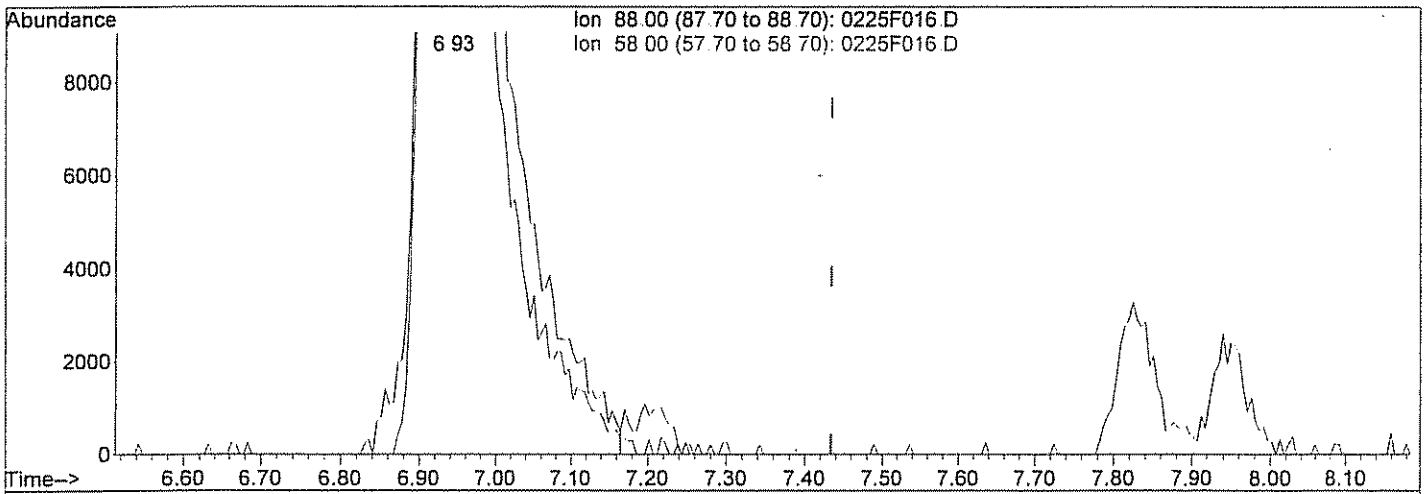
peak tailing
LB 2/28/05
3/1/5

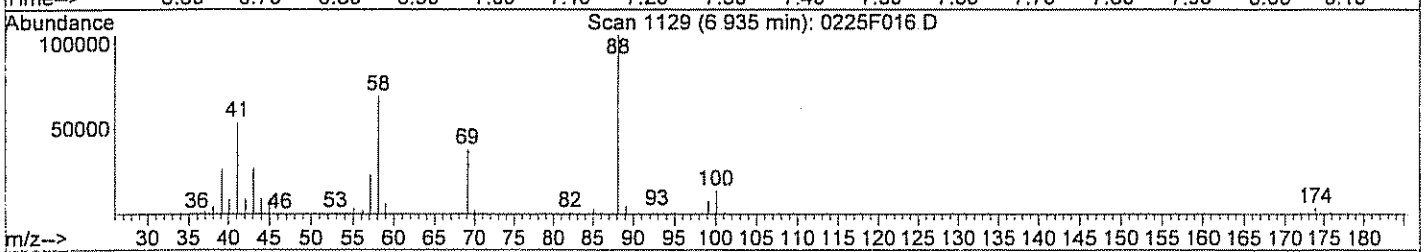
0225F016.D 022505_8260W.M Mon Feb 28 15:28:36 2005

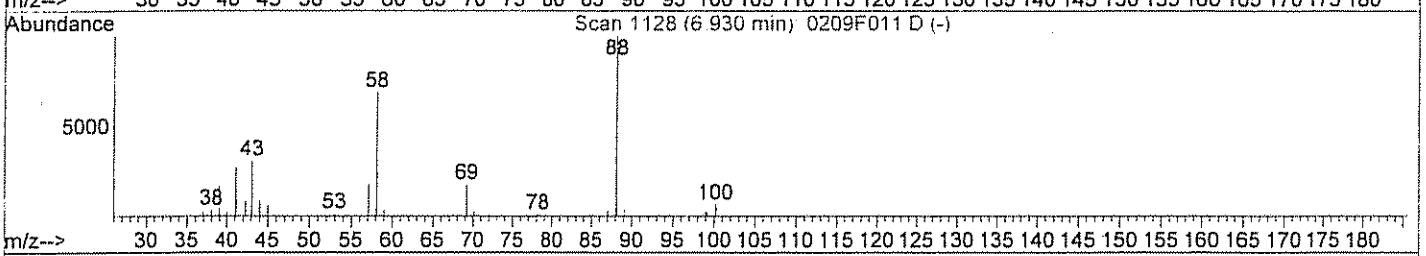
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D
Vial: 16
Acq On : 25 Feb 2005 10:10 pm
Operator:
Sample : 8260 ICAL (Water) #10
Inst : MS13
Misc :
Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:28 2005
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016.D

(51) 1,4-Dioxane (T)

6.93min 3777.08PPB

response 381841

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	65.82
0.00	0.00	0.00
0.00	0.00	0.00

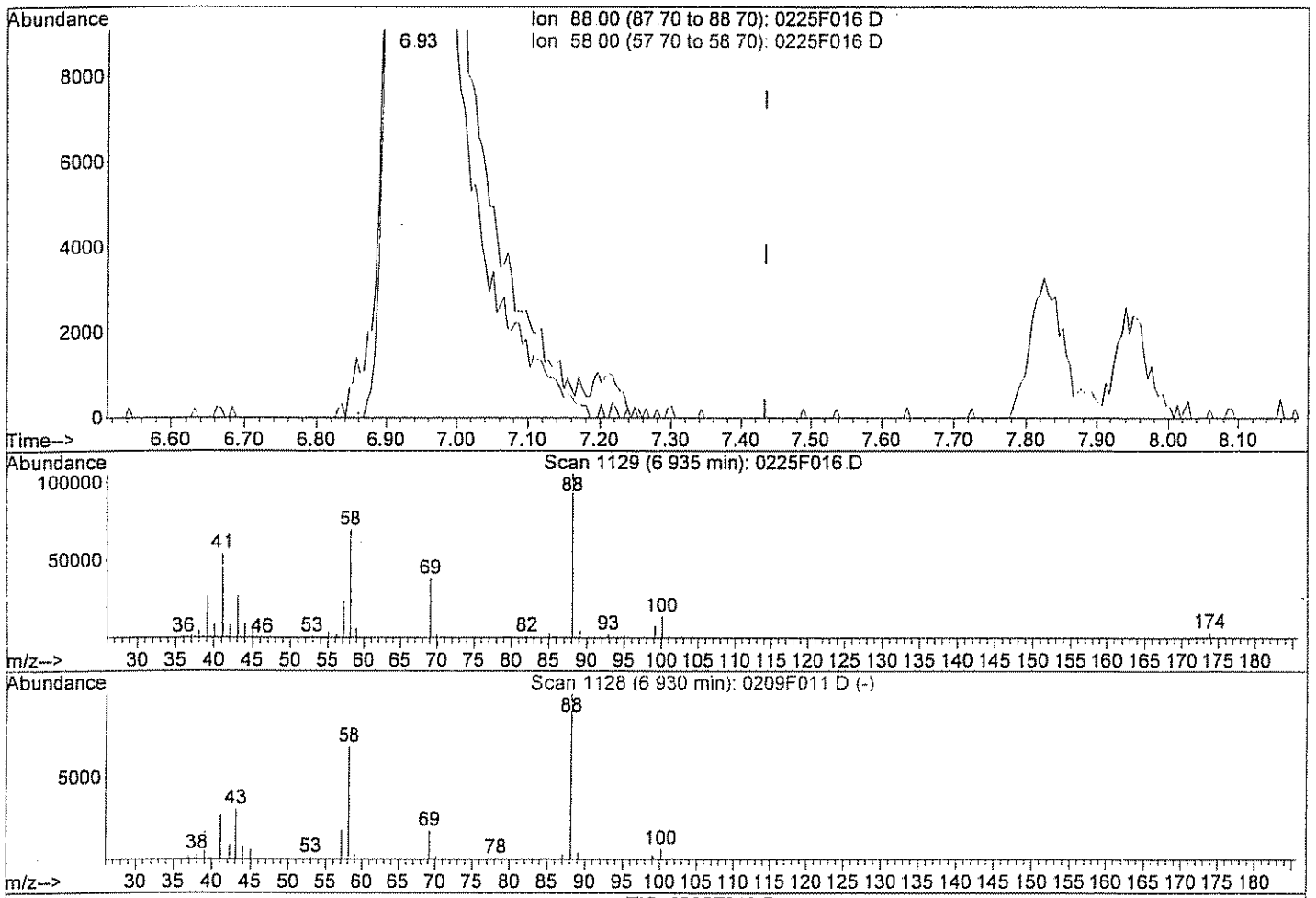
0225F016.D 022505_8260W.M Mon Feb 28 15:28:59 2005

Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D
Acq On : 25 Feb 2005 10:10 pm
Sample : 8260 ICAL (Water) #10
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005

Vial: 16
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration



(51) 1,4-Dioxane (T)

6.93min 3812.23PPB m

response 385394

Ion	Exp%	Act%
88.00	100	100
58.00	65.60	65.82
0.00	0.00	0.00
0.00	0.00	0.00

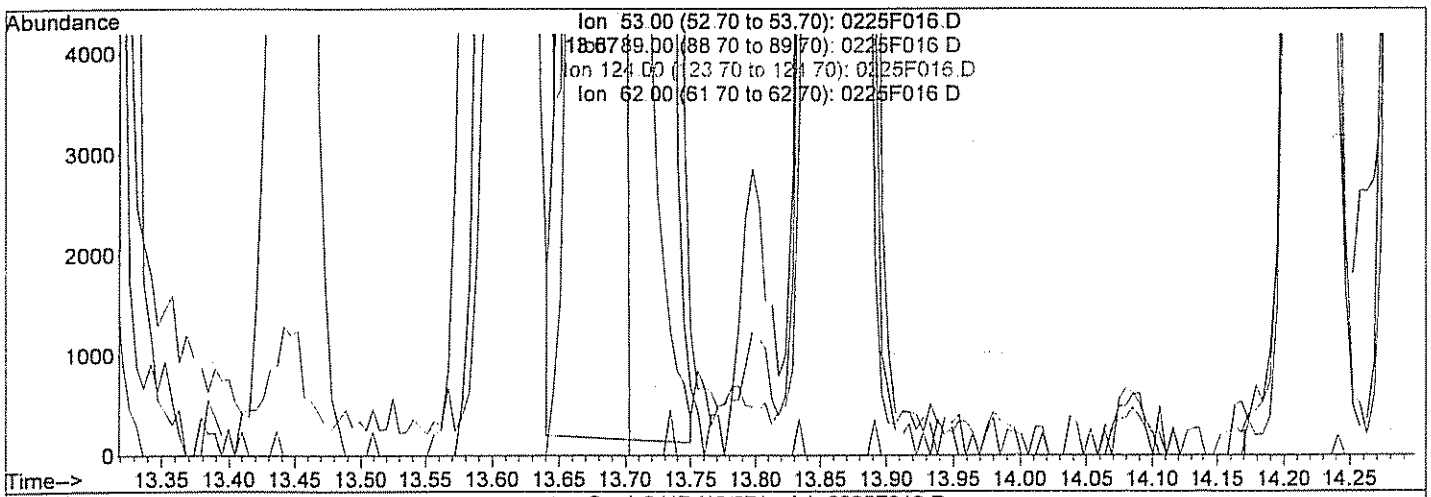
peak tailing
LB 2/28/05
AH 3/1/5

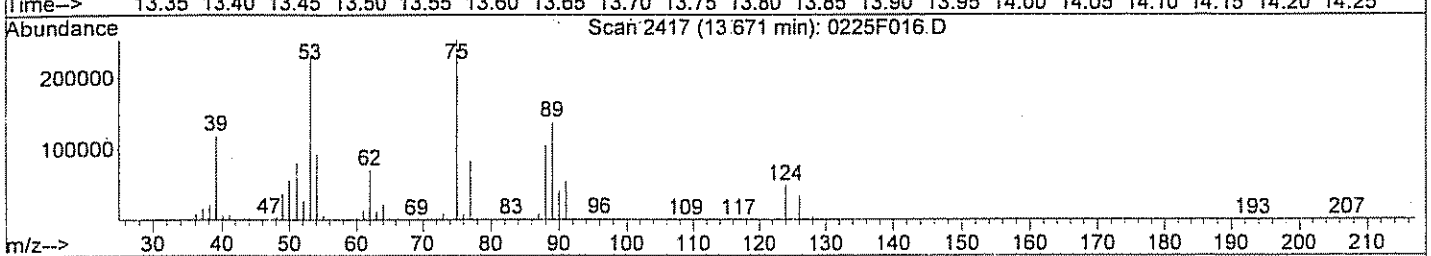
0225F016.D 022505_8260W.M Mon Feb 28 15:29:05 2005

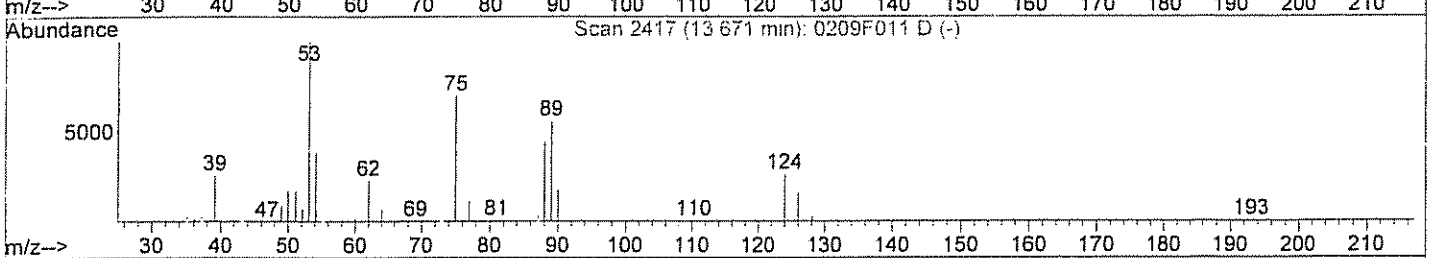
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 75.32PPB

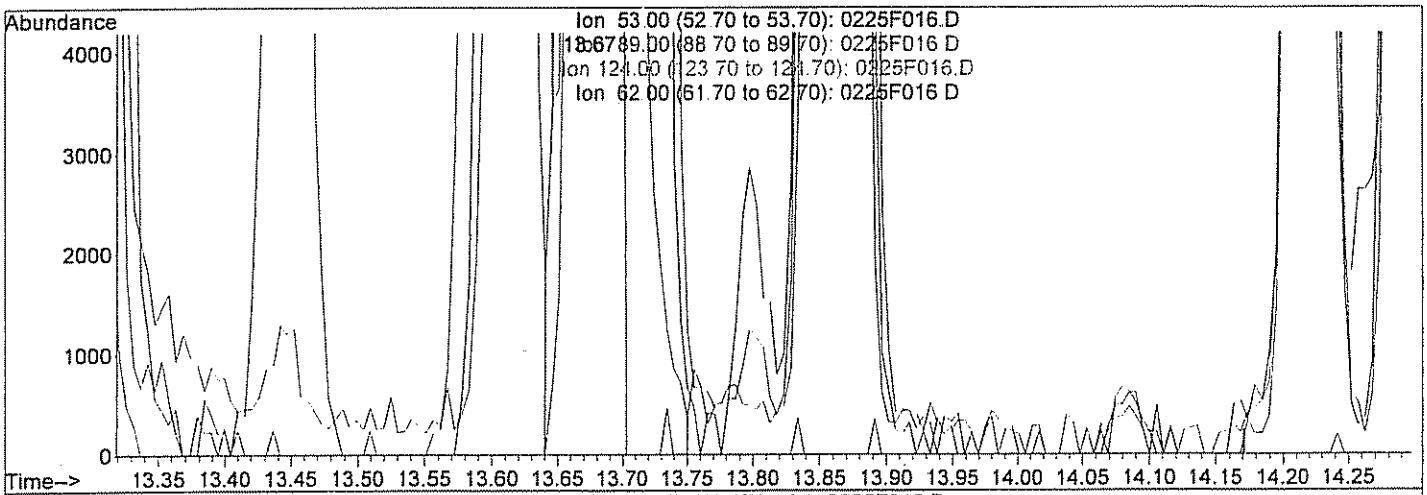
response 365831

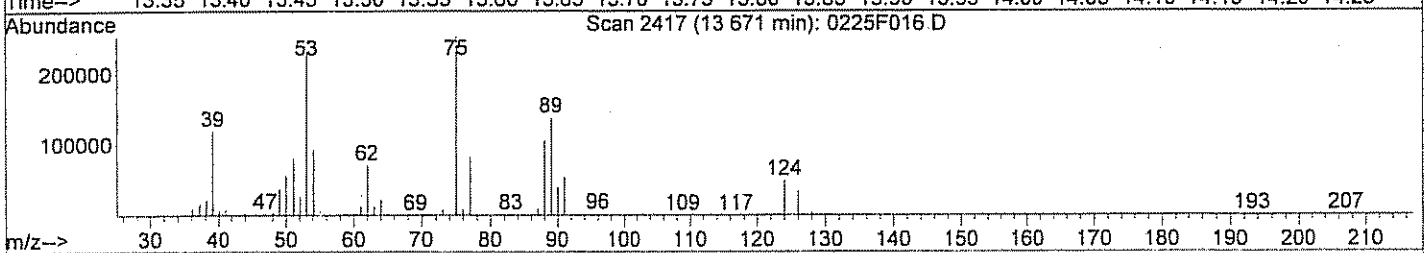
Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.38
124.00	22.00	21.20
62.00	31.10	30.58

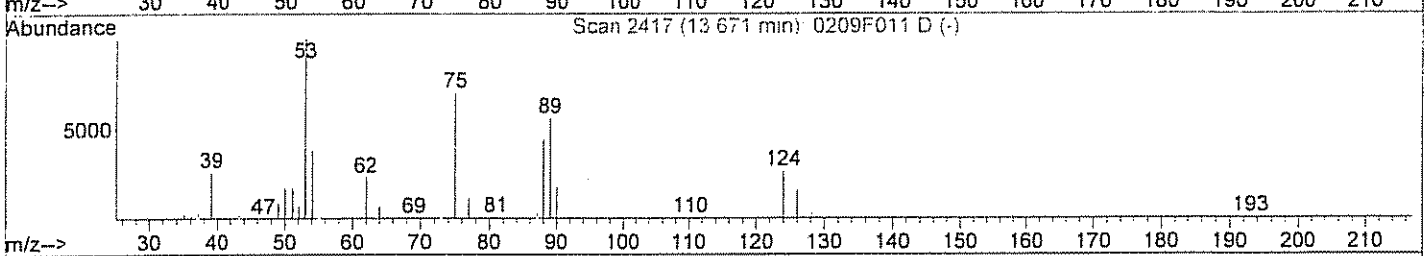
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Single Level Calibration







TIC: 0225F016.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 75.55PPB m

response 366928

Ion	Exp%	Act%
53.00	100	100
89.00	67.10	59.82
124.00	22.00	21.16
62.00	31.10	30.82

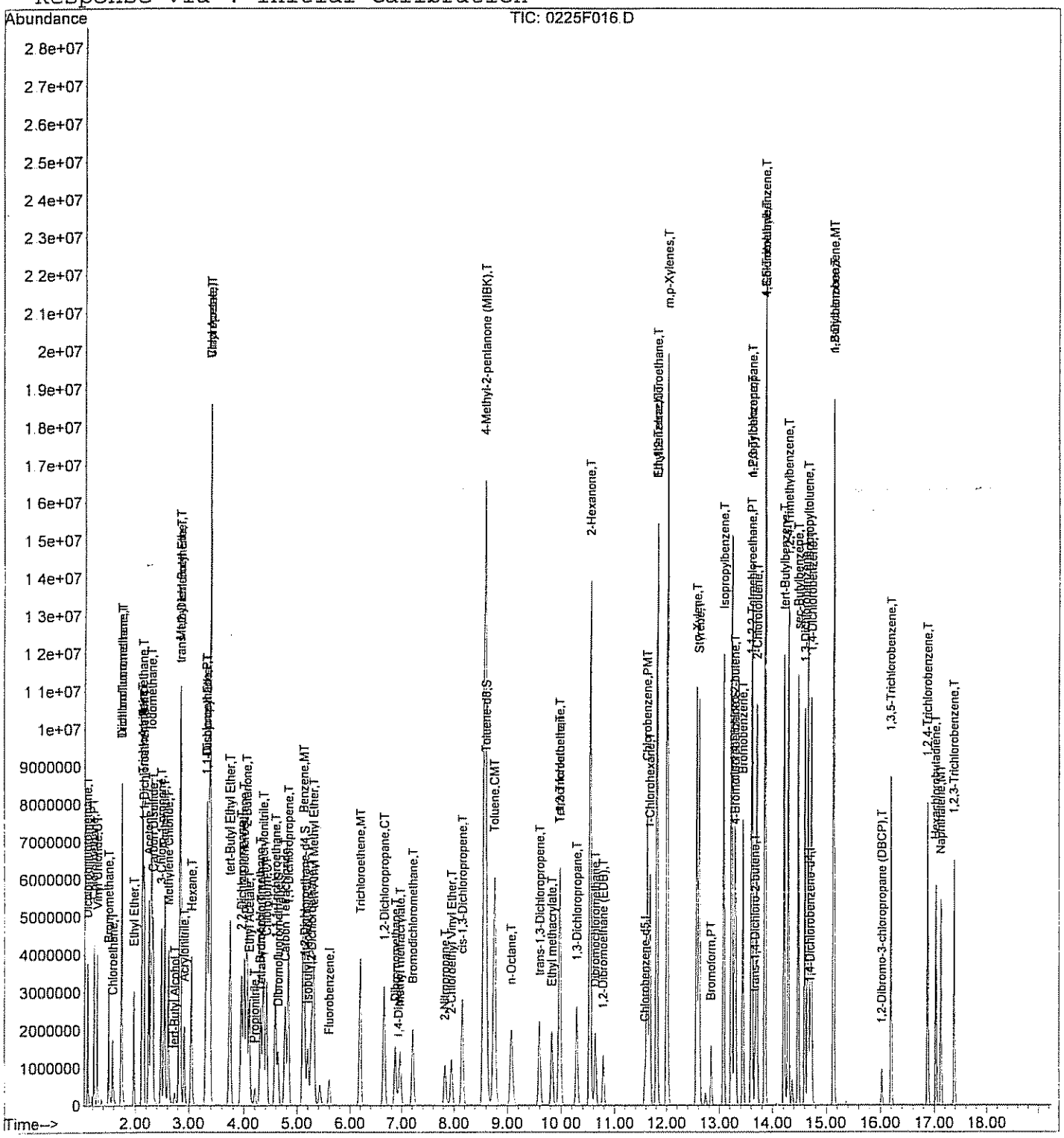
slanted baseline
LB 2/28/05
mt 3/1/5

0225F016.D 022505_8260W.M Mon Feb 28 15:29:37 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F016.D Vial: 16
Acq On : 25 Feb 2005 10:10 pm Operator:
Sample : 8260 ICAL (Water) #10 Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 15:29 2005 Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Thu Feb 10 21:27:52 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	789950	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	346346	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	386752	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	188929	9.66	PPB	0.00
Spiked Amount 10.000			Recovery = 96.60%			
43) 1,2-Dichloroethane-d4	5.15	65	210544	9.56	PPB	0.00
Spiked Amount 10.000			Recovery = 95.60%			
57) Toluene-d8	8.60	98	854260	9.88	PPB	0.00
Spiked Amount 10.000			Recovery = 98.80%			
79) 4-Bromofluorobenzene	13.31	95	301806	9.86	PPB	0.00
Spiked Amount 10.000			Recovery = 98.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.09	85	243645	10.03	PPB	96
3) Chloromethane	1.22	50	298370	9.73	PPB	98
4) Vinyl Chloride	1.29	62	255150	9.89	PPB	99
5) Bromomethane	1.51	96	170241	11.58	PPB	94
6) Chloroethane	1.58	64	150307	9.76	PPB	98
7) Dichlorofluoromethane	1.74	67	432785	11.58	PPB	99
8) Trichlorofluoromethane	1.74	101	313286	9.20	PPB	98
9) Ethyl Ether	1.97	59	140834	10.06	PPB	99
10) Acrolein	2.12	56	163340	80.81	PPB	97
11) Trichlorotrifluoroethane	2.13	151	176837	10.72	PPB	95
12) 1,1-Dichloroethene	2.15	96	192165	10.76	PPB	98
13) Acetone	2.25	43	150414	49.95	PPB	99
14) Iodomethane	2.29	142	785759m	35.64	PPB	
15) Carbon Disulfide	2.32	76	1194081	21.97	PPB	100
16) 3-Chloro-1-propene	2.48	76	339926	35.74	PPB	99
17) Acetonitrile	2.54	40	245765	331.01	PPB	96
18) Methylene Chloride	2.62	84	206470	9.53	PPB	98
19) tert-Butyl Alcohol	2.74	59	61694	104.74	PPB	94
20) Acrylonitrile	2.91	53	179232	44.93	PPB	99
21) Methyl tert-Butyl Ether	2.82	73	445263	10.53	PPB	100
22) trans-1,2-Dichloroethene	2.84	96	212517	10.12	PPB	98
23) Hexane	3.05	57	744575	34.99	PPB	97
24) Diisopropyl Ether	3.33	45	1240925	20.12	PPB	99
25) 1,1-Dichloroethane	3.31	63	364321	9.97	PPB	98
26) Vinyl Acetate	3.37	86	113222	45.32	PPB	98
27) Chloroprene	3.37	53	992471	38.51	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	965879	20.26	PPB	99

(#) = qualifier out of range (m) = manual integration
0225F021.D 022505_8260W.M Mon Feb 28 20:25:14 2005 Page 1

3/1/5

4/22/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	216669	10.42 PPB		99
30)	cis-1,2-Dichloroethene	4.00	96	224874	10.06 PPB		98
31)	2-Butanone	4.06	72	59189	52.29 PPB		91
32)	Propionitrile	4.21	54	49278	34.90 PPB		96
33)	Ethyl Acetate	4.11	61	48523	35.73 PPB		98
34)	Methacrylonitrile	4.36	67	167765	34.16 PPB		95
35)	Bromochloromethane	4.30	128	98059	10.19 PPB		93
36)	Tetrahydrofuran	4.33	71	27944	20.72 PPB	#	86
37)	Chloroform	4.42	83	345492	9.82 PPB		98
38)	1,1,1-Trichloroethane	4.59	97	285779	10.60 PPB		96
40)	Carbon Tetrachloride	4.77	117	211821	10.75 PPB		98
41)	1,1-Dichloropropene	4.83	75	272321	9.87 PPB		96
42)	Isobutyl Alcohol	5.20	43	77224	322.27 PPB		96
44)	Benzene	5.11	78	874309	10.19 PPB		100
45)	1,2-Dichloroethane	5.26	62	245071	9.95 PPB		97
46)	tert-Amyl Methyl Ether	5.30	55	300663	19.09 PPB		91
47)	Trichloroethene	6.19	95	220259	10.51 PPB		98
48)	1,2-Dichloropropane	6.65	63	201794	10.15 PPB		98
49)	Dibromomethane	6.87	93	96496	10.18 PPB		93
50)	Methyl methacrylate	6.97	69	258698	32.54 PPB		93
51)	1,4-Dioxane	6.93	88	34794m	310.53 PPB		
52)	Bromodichloromethane	7.21	83	223705	10.31 PPB		94
53)	2-Nitropropane	7.82	43	42697	27.09 PPB		93
54)	2-Chloroethyl Vinyl Ether	7.95	63	83154	9.71 PPB		97
55)	cis-1,3-Dichloropropene	8.16	75	260514	10.60 PPB		95
56)	4-Methyl-2-pentanone (MIBK	8.57	58	194809	50.69 PPB	#	74
58)	Toluene	8.75	92	558985	10.05 PPB		100
60)	n-Octane	9.08	85	194495	21.50 PPB		94
61)	trans-1,3-Dichloropropene	9.60	75	180478	9.57 PPB		98
62)	Ethyl methacrylate	9.82	69	504425	33.22 PPB		94
63)	1,1,2-Trichloroethane	9.97	83	124271	10.28 PPB		96
64)	Tetrachloroethene	9.97	164	196783	10.12 PPB		95
65)	2-Hexanone	10.54	57	57891	47.69 PPB		97
66)	1,3-Dichloropropane	10.29	76	264878	10.43 PPB		97
67)	Dibromochloromethane	10.64	129	138599	10.19 PPB		99
68)	1,2-Dibromoethane (EDB)	10.78	107	135515	10.40 PPB		95
69)	1-Chlorohexane	11.68	91	244461	10.93 PPB		98
70)	Chlorobenzene	11.63	112	610744	9.72 PPB		99
71)	Ethylbenzene	11.81	106	336388	10.72 PPB		98
72)	1,1,1,2-Tetrachloroethane	11.81	131	162608	10.80 PPB		91
73)	m,p-Xylenes	12.01	106	845813	21.77 PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04:04 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

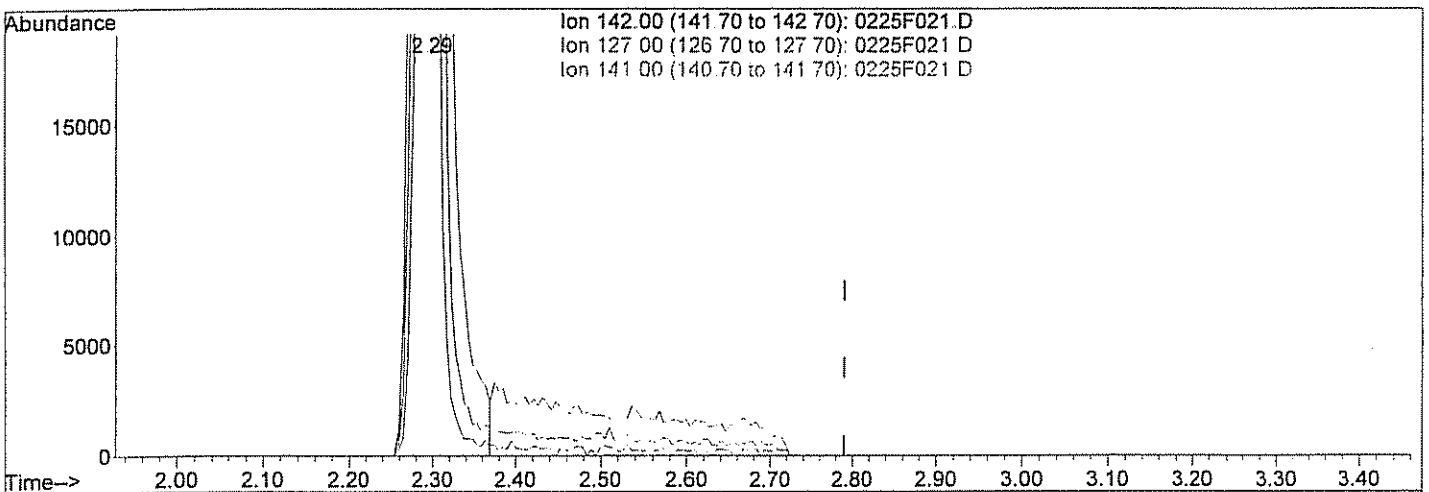
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	387196	10.71	PPB		96
75)	Styrene	12.62	103	313647	10.67	PPB		99
76)	Bromoform	12.84	173	70521	10.21	PPB		97
77)	Isopropylbenzene	13.08	105	856583	9.75	PPB		99
78)	cis-1,4-Dichloro-2-butene	13.29	89	43669	32.72	PPB		97
81)	1,1,2,2-Tetrachloroethane	13.59	83	144326	9.72	PPB		97
82)	trans-1,4-Dichloro-2-buten	13.67	53	127677m	33.32	PPB		
83)	Bromobenzene	13.45	156	271189	10.24	PPB		99
84)	n-Propylbenzene	13.61	91	1115618	10.98	PPB		98
85)	1,2,3-Trichloropropane	13.62	110	50107	10.32	PPB	#	79
86)	2-Chlorotoluene	13.71	91	739581	10.92	PPB		100
87)	1,3,5-Trimethylbenzene	13.86	105	811758	11.16	PPB		99
88)	4-Chlorotoluene	13.86	91	824717	10.66	PPB		98
89)	tert-Butylbenzene	14.22	119	658455	11.16	PPB		98
90)	1,2,4-Trimethylbenzene	14.30	105	818596	10.88	PPB		99
91)	sec-Butylbenzene	14.48	105	901918	11.57	PPB		98
92)	p-Isopropyltoluene	14.67	119	757491	10.27	PPB		98
93)	1,3-Dichlorobenzene	14.61	146	513485	9.84	PPB		98
94)	1,4-Dichlorobenzene	14.73	146	532825	9.88	PPB		97
95)	n-Butylbenzene	15.13	91	632985	11.01	PPB		98
96)	1,2-Dichlorobenzene	15.14	146	479344	9.87	PPB		99
97)	1,2-Dibromo-3-chloropropan	16.03	155	17790	10.08	PPB		83
98)	1,3,5-Trichlorobenzene	16.21	180	1365152	43.29	PPB		98
99)	1,2,4-Trichlorobenzene	16.88	180	276423	9.91	PPB		99
100)	Hexachlorobutadiene	17.03	225	138213	9.98	PPB		97
101)	Naphthalene	17.13	128	386509	10.32	PPB		100
102)	1,2,3-Trichlorobenzene	17.39	180	224822	9.68	PPB		99

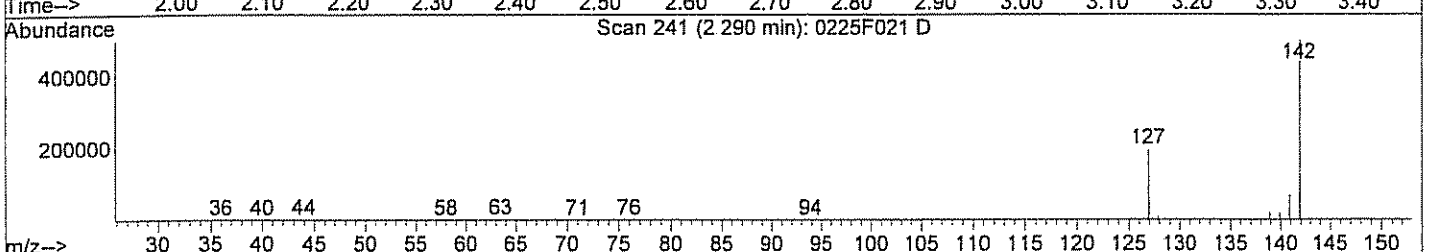
(#) = qualifier out of range (m) = manual integration

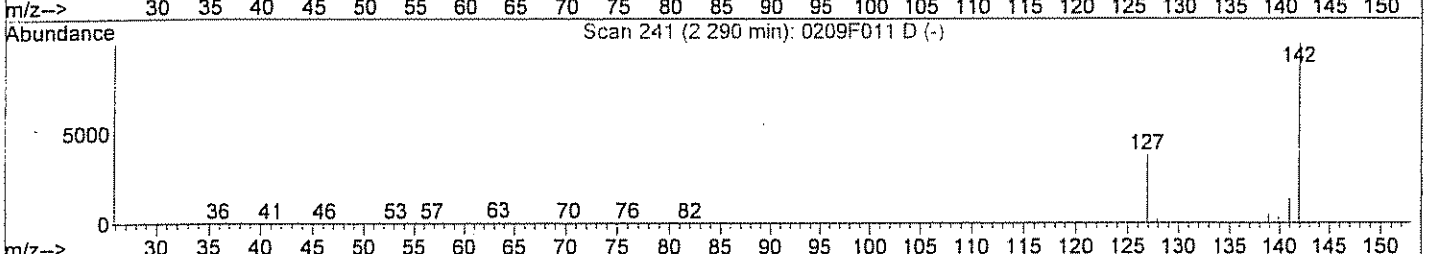
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Multiple Level Calibration







TIC: 0225F021.D

(14) Iodomethane (T)

2.29min 33.92PPB

response 747751

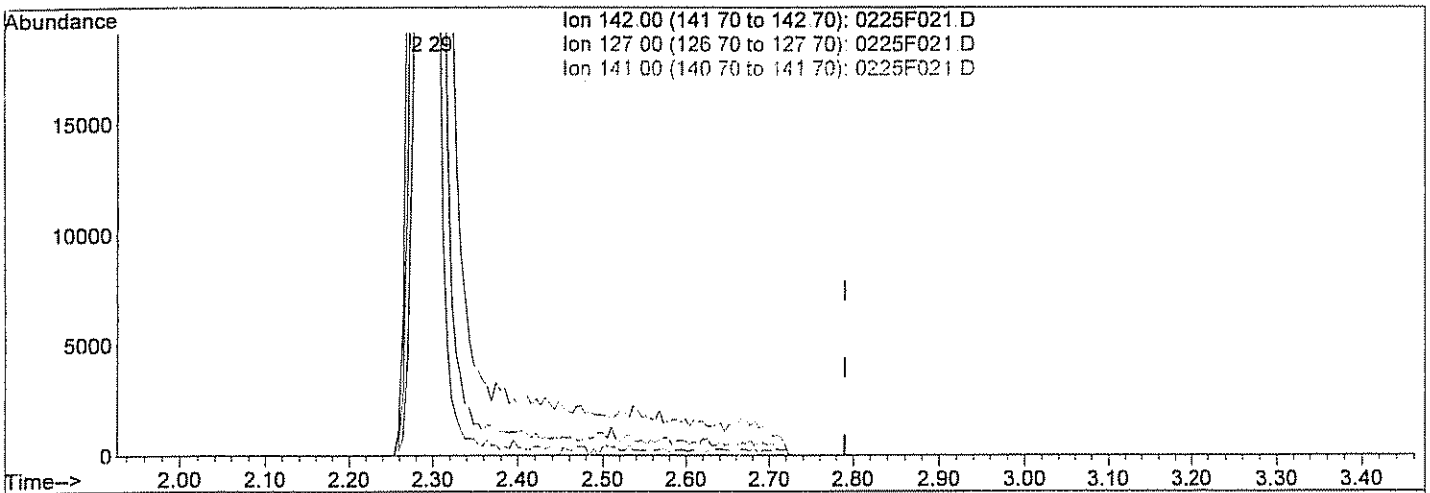
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	39.21
141.00	14.40	13.99
0.00	0.00	0.00

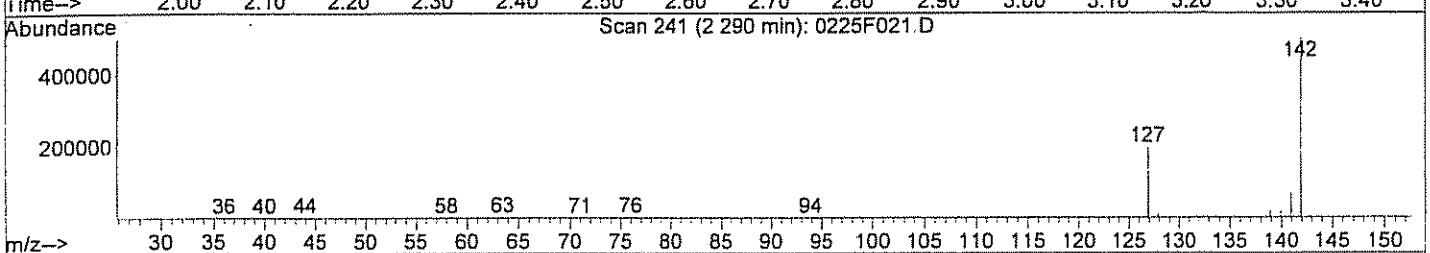
Quantitation Report (Qedit)

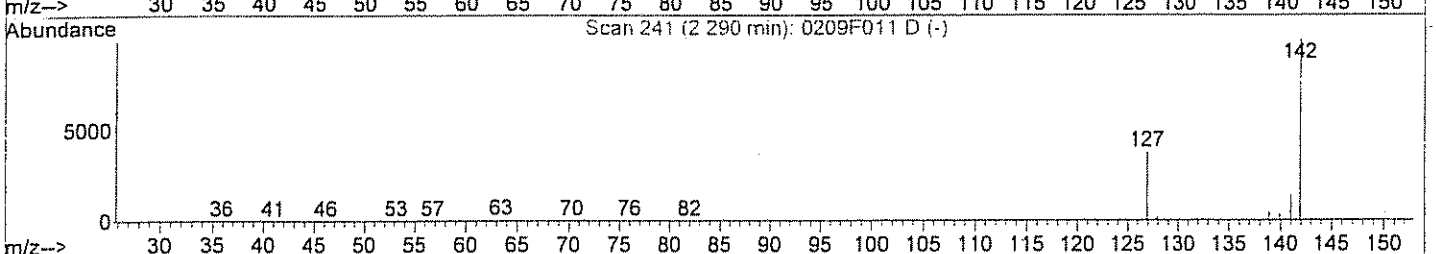
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Multiple Level Calibration







TIC: 0225F021.D

(14) Iodomethane (T)

2.29min 35.64PPB m

response 785759

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	39.21
141.00	14.40	13.99
0.00	0.00	0.00

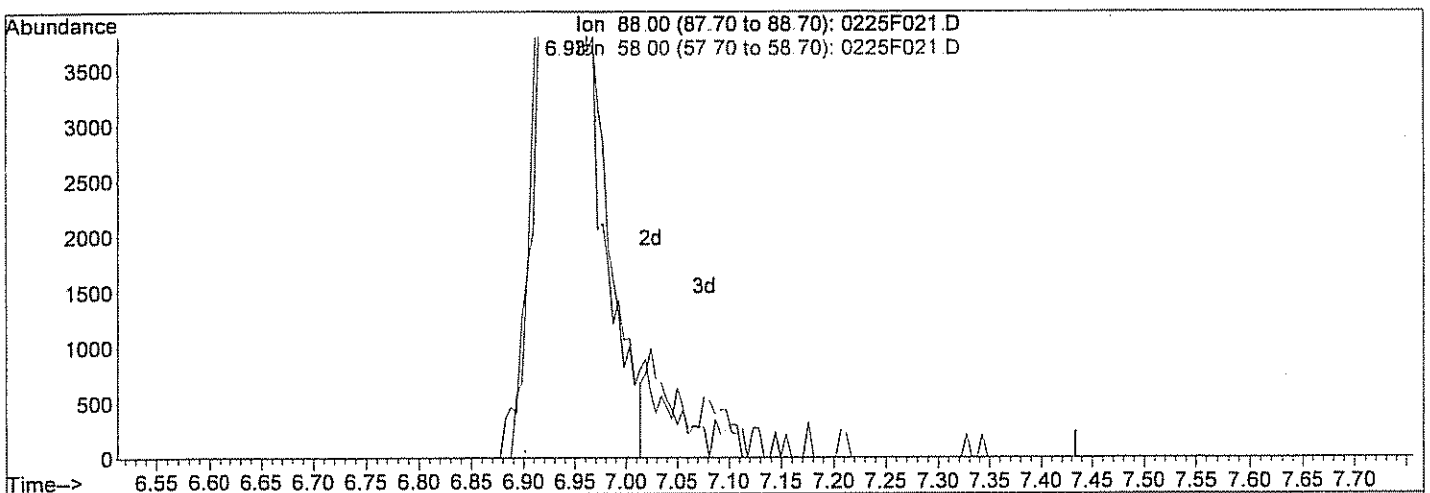
peak tailing
LB 2/28/05
MH 3/1/5

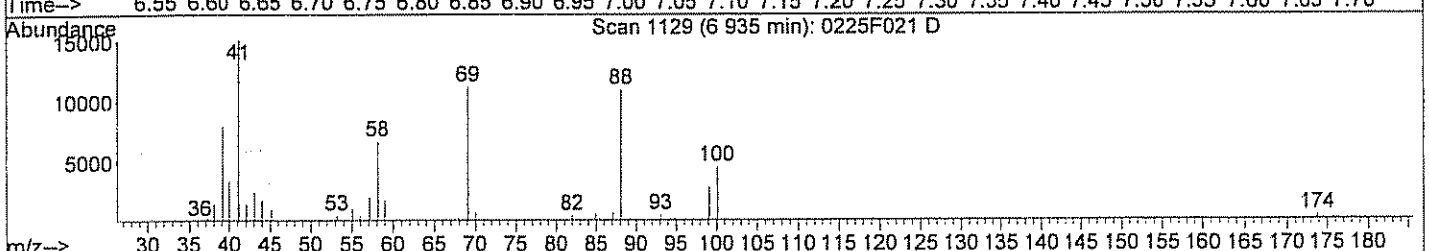
Quantitation Report (Qedit)

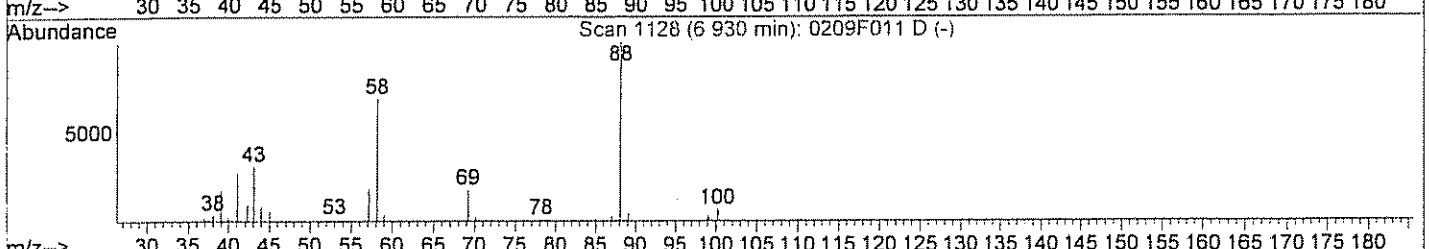
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(51) 1,4-Dioxane (T)

6.93min 283.96PPB

response 31817

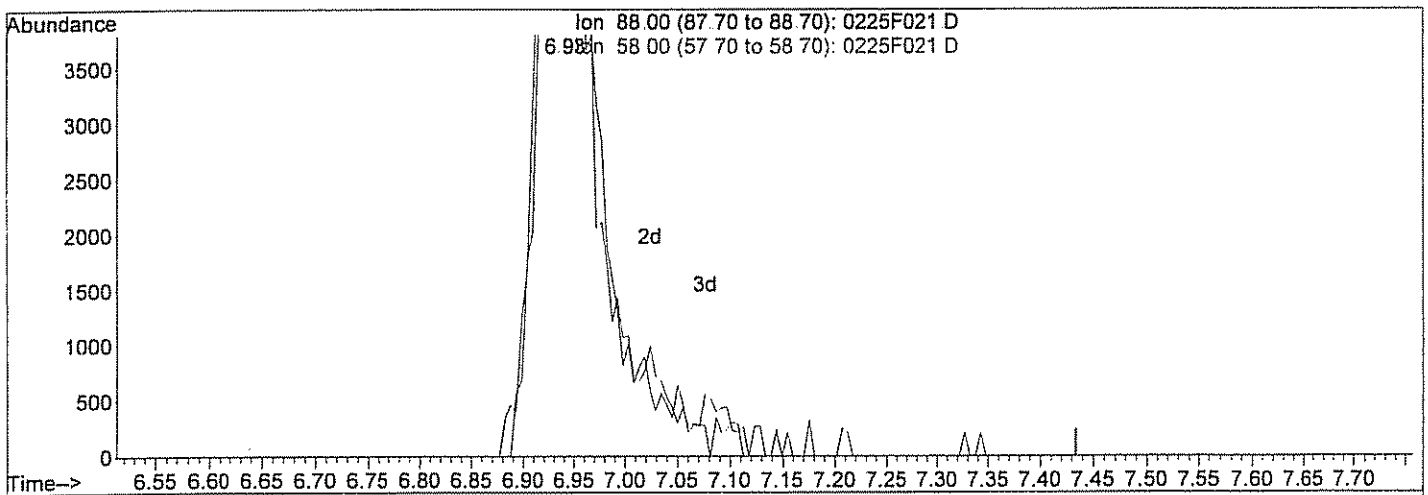
Ion	Exp%	Act%
88.00	100	100
58.00	64.70	61.29
0.00	0.00	0.00
0.00	0.00	0.00

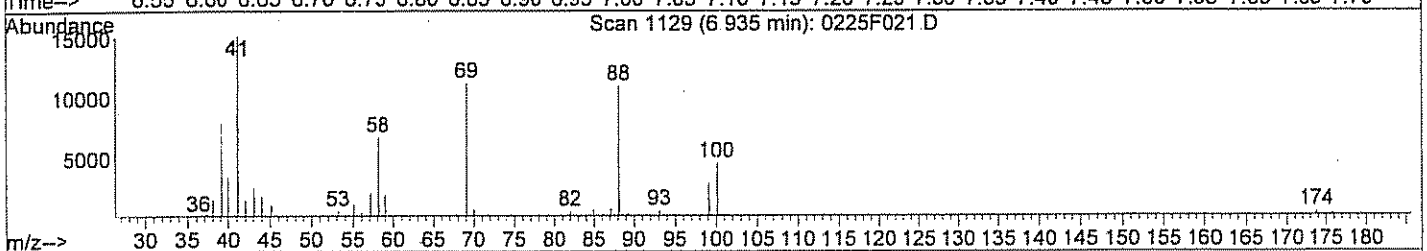
Quantitation Report (Qedit)

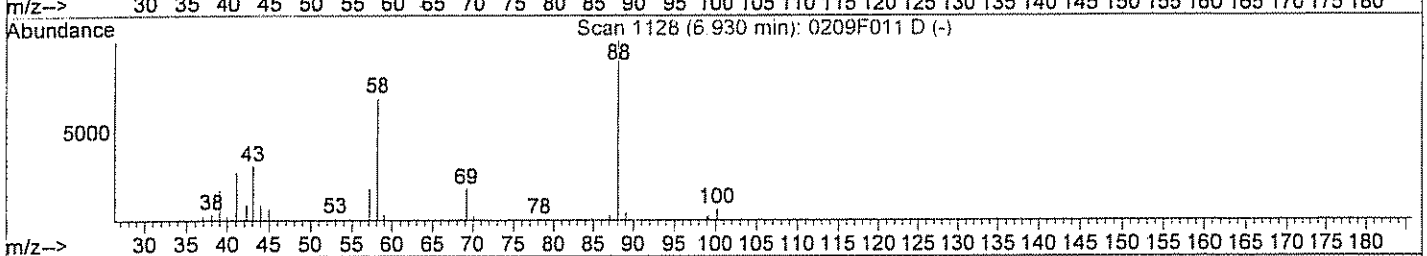
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(51) 1.4-Dioxane (T)

6.93min 310.53PPB m

response 34794

Ion	Exp%	Act%
88.00	100	100
58.00	64.70	61.29
0.00	0.00	0.00
0.00	0.00	0.00

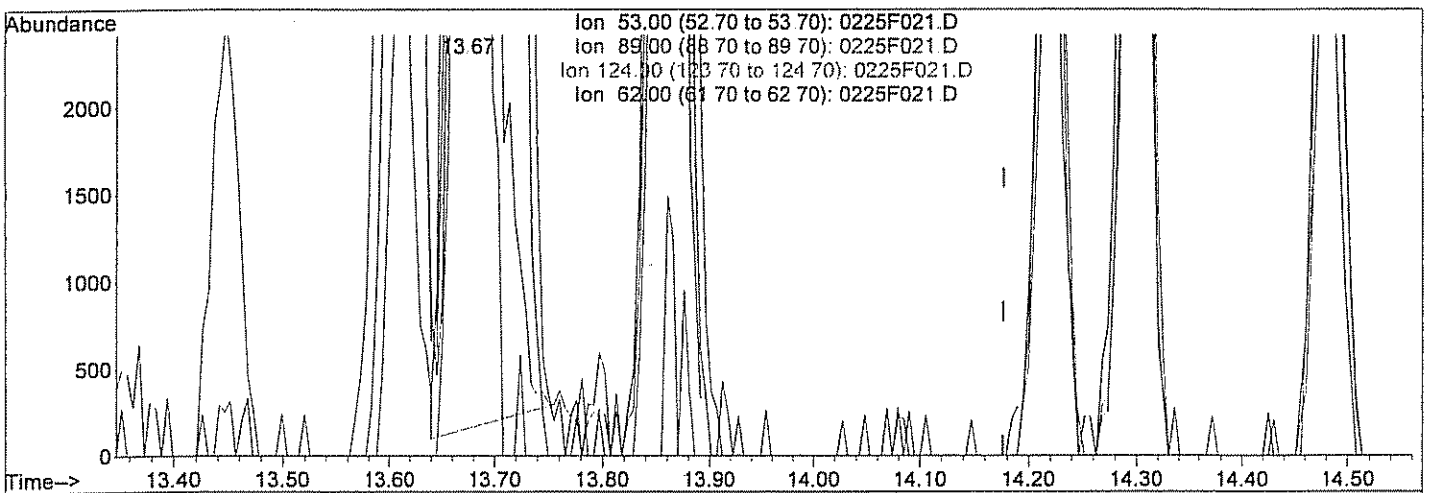
peak tailing
LB 2/28/05
MA 3/1/5

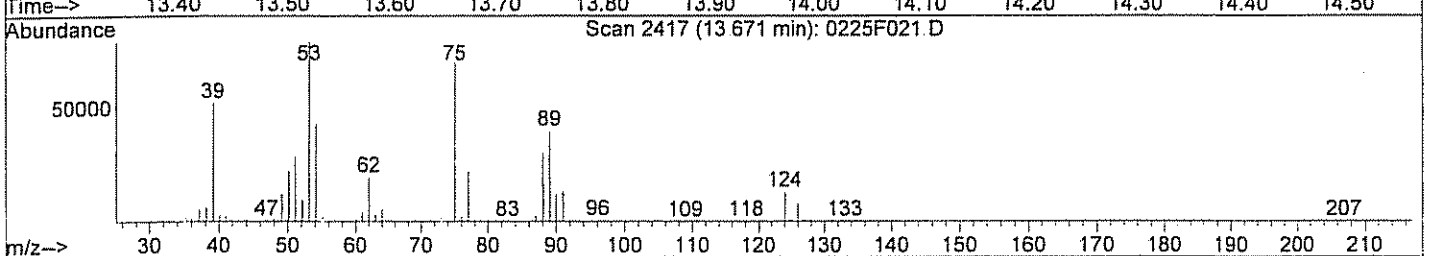
0225F021.D 022505_8260W.M Mon Feb 28 16:04:59 2005

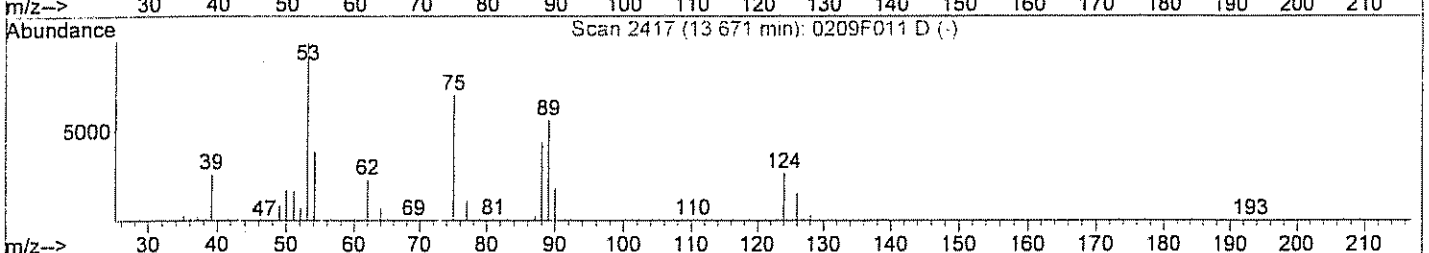
Quantitation Report (Qedit)

Data File : J:\MS13\DATA\022505\0225F021.D Vial: 21
Acq On : 26 Feb 2005 12:28 am Operator:
Sample : 8260 ICV2 (Water) Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:04 2005 Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 32.99PPB

response 126416

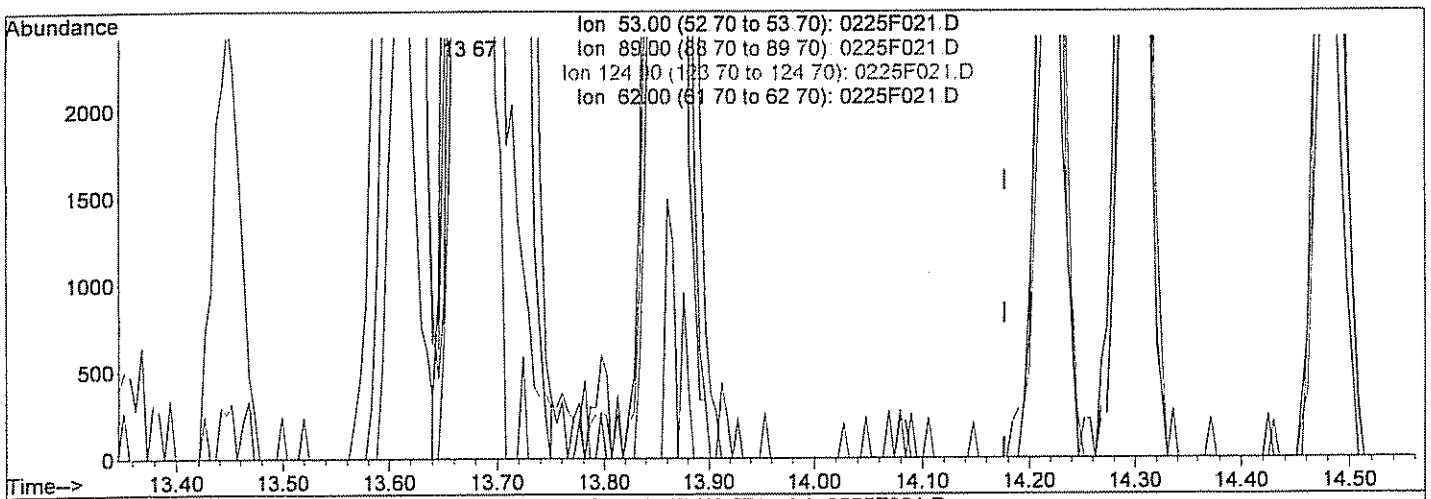
Ion	Exp%	Act%
53.00	100	100
89.00	46.90	50.07
124.00	18.00	16.65
62.00	19.00	24.66

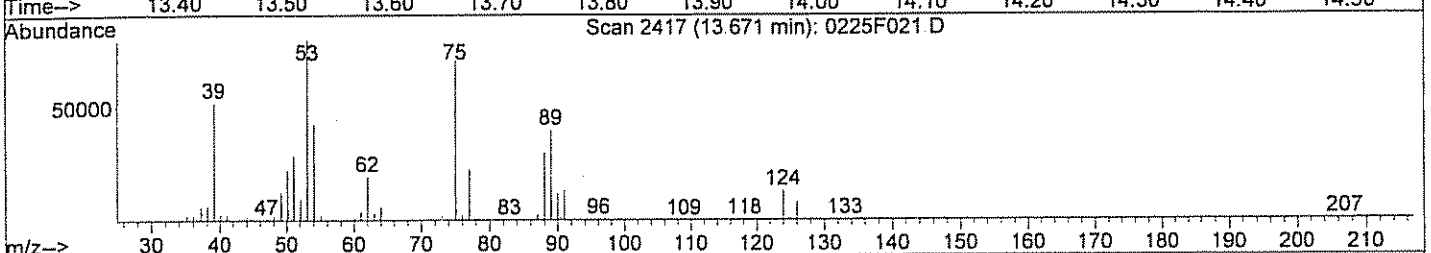
Quantitation Report (Qedit)

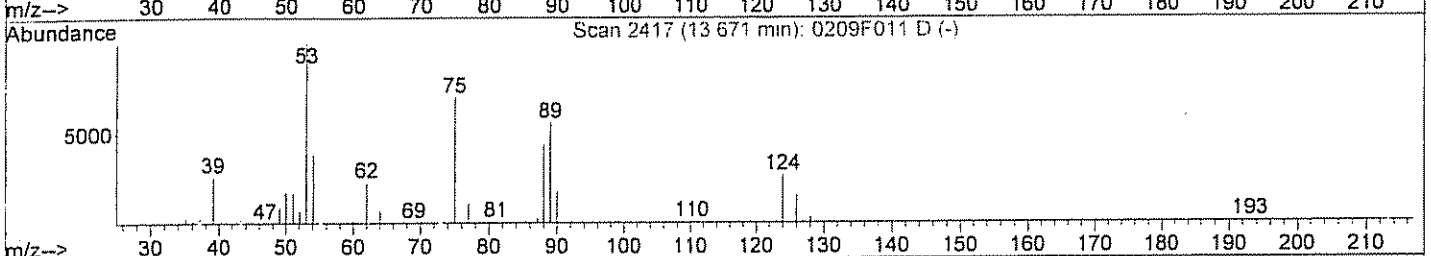
Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:05 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Single Level Calibration







TIC: 0225F021.D

(82) trans-1,4-Dichloro-2-butene (T)

13.67min 33.32PPB m

response 127677

Ion	Exp%	Act%
53.00	100	100
89.00	46.90	50.14
124.00	18.00	16.58
62.00	19.00	24.57

Slanted baseline

LB 2/28/05

MM 3/1/5

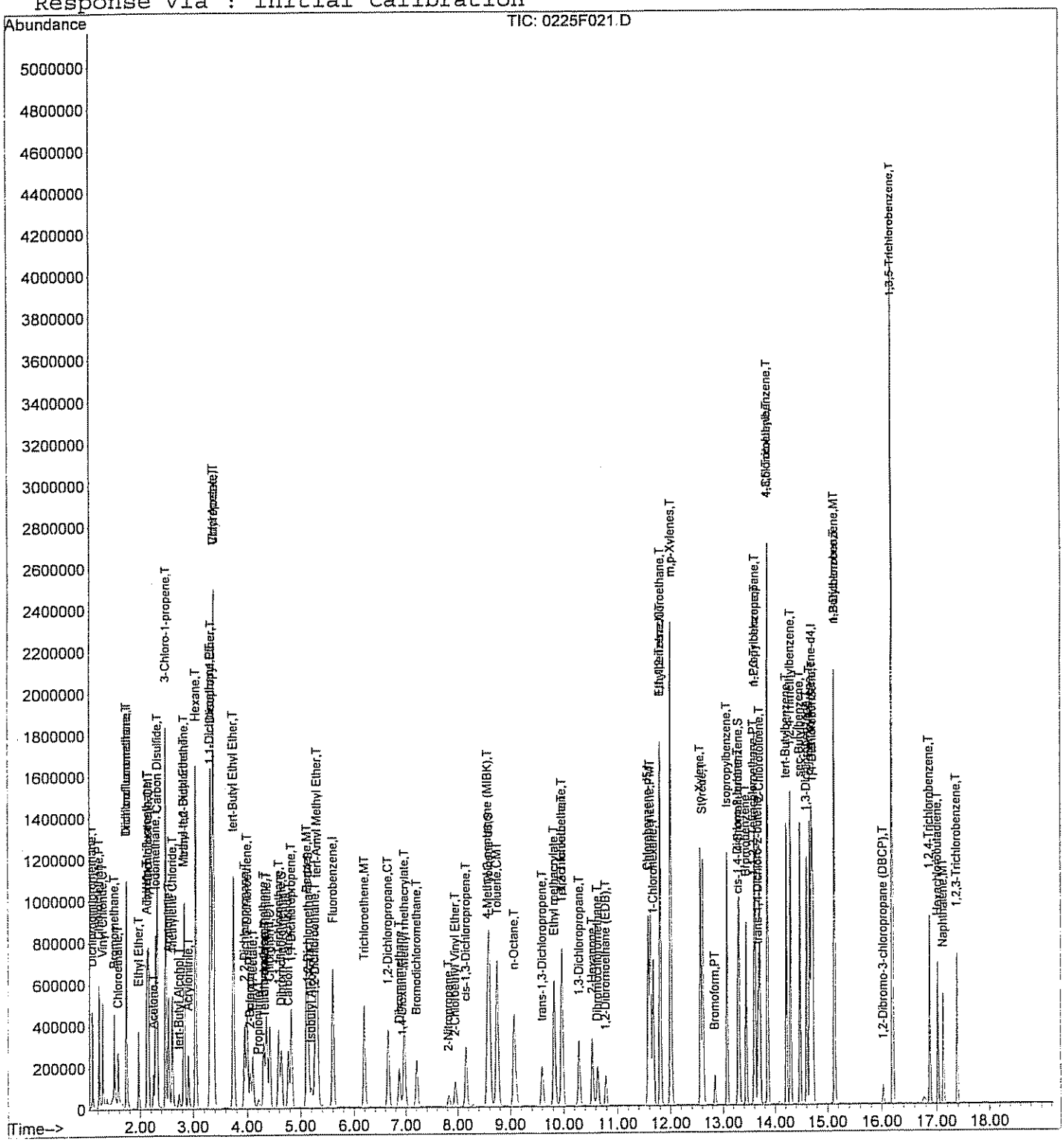
0225F021.D 022505_8260W.M Mon Feb 28 16:05:52 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\022505\0225F021.D
Acq On : 26 Feb 2005 12:28 am
Sample : 8260 ICV2 (Water)
Misc :
MS Integration Params: RTEINT.P
Quant Time: Feb 28 16:05 2005

Vial: 21
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Mon Feb 28 16:03:57 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504384
Units: PPB

File ID: J:\MS13\DATA\031605\0316F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane	10	11	0.01	0.307	0.332	8	NA	± 40 %	AverageRF
† Chloromethane	10	9.1	0.10	0.388	0.352	-9	NA	± 40 %	AverageRF
‡ Vinyl Chloride	10	9.9	0.01	0.327	0.324	-1	NA	± 20 %	AverageRF
Bromomethane	10	9.2	0.01	0.186	0.172	-8	NA	± 40 %	AverageRF
Chloroethane	10	9.9	0.01	0.195	0.194	-1	NA	± 40 %	AverageRF
Trichlorofluoromethane	10	11	0.01	0.431	0.473	10	NA	± 30 %	AverageRF
Acetone	200	180	0.01	0.0381	0.0337	-12	NA	± 30 %	AverageRF
‡ 1,1-Dichloroethene	10	10	0.01	0.226	0.235	4	NA	± 20 %	AverageRF
Methyl tert-Butyl Ether	20	17	0.01	0.535	0.450	-16	NA	± 30 %	AverageRF
Carbon Disulfide	10	13	0.01	0.688	0.861	25	NA	± 30 %	AverageRF
Methylene Chloride	10	9.7	0.01	0.274	0.264	-4	NA	± 30 %	AverageRF
trans-1,2-Dichloroethene	10	10	0.01	0.266	0.274	3	NA	± 30 %	AverageRF
† 1,1-Dichloroethane	10	10	0.10	0.463	0.474	2	NA	± 30 %	AverageRF
2-Butanone (MEK)	200	180	0.01	0.0143	0.0129	-10	NA	± 30 %	AverageRF
2,2-Dichloropropane	10	9.4	0.01	0.263	0.248	-6	NA	± 30 %	AverageRF
cis-1,2-Dichloroethene	10	10	0.01	0.283	0.288	2	NA	± 30 %	AverageRF
‡ Chloroform	10	11	0.01	0.445	0.477	7	NA	± 20 %	AverageRF
Bromochloromethane	10	10	0.01	0.122	0.126	3	NA	± 30 %	AverageRF
1,1,1-Trichloroethane (TCA)	10	11	0.01	0.341	0.368	8	NA	± 30 %	AverageRF
1,1-Dichloropropene	10	10	0.01	0.349	0.363	4	NA	± 30 %	AverageRF
Carbon Tetrachloride	10	12	0.01	0.249	0.299	20	NA	± 30 %	AverageRF
1,2-Dichloroethane (EDC)	10	10	0.01	0.312	0.325	4	NA	± 30 %	AverageRF
Benzene	10	10	0.01	1.09	1.10	2	NA	± 30 %	AverageRF
Trichloroethene (TCE)	10	10	0.01	0.265	0.270	2	NA	± 30 %	AverageRF
‡ 1,2-Dichloropropane	10	9.6	0.01	0.252	0.243	-4	NA	± 20 %	AverageRF
Bromodichloromethane	10	11	0.01	0.275	0.297	8	NA	± 30 %	AverageRF
Dibromomethane	10	11	0.01	0.120	0.127	5	NA	± 30 %	AverageRF
2-Hexanone	200	190	0.01	0.0351	0.0328	-6	NA	± 30 %	AverageRF
cis-1,3-Dichloropropene	10	10	0.01	0.311	0.310	0	NA	± 30 %	AverageRF
‡ Toluene	10	10	0.01	0.704	0.724	3	NA	± 20 %	AverageRF
trans-1,3-Dichloropropene	10	10	0.01	0.545	0.547	0	NA	± 30 %	AverageRF
1,1,2-Trichloroethane	10	10	0.01	0.349	0.358	2	NA	± 30 %	AverageRF
4-Methyl-2-pentanone (MIBK)	200	180	0.01	0.0486	0.0433	-11	NA	± 30 %	AverageRF
1,3-Dichloropropane	10	10	0.01	0.734	0.769	5	NA	± 30 %	AverageRF
Tetrachloroethene (PCE)	10	11	0.01	0.561	0.599	7	NA	± 30 %	AverageRF
Dibromochloromethane	10	12	0.01	0.393	0.463	18	NA	± 30 %	AverageRF
1,2-Dibromoethane (EDB)	10	11	0.01	0.376	0.406	8	NA	± 30 %	AverageRF
† Chlorobenzene	10	10	0.30	1.81	1.86	3	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria

† **SPCC Compound** ‡ **CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260B

Calibration Date: 02/25/2005
Calibration ID: CAL4250
Analysis Lot: KWG0504384
Units: PPB

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1,2-Tetrachloroethane	10	12	0.01	0.435	0.518	19	NA	± 30 %	AverageRF
‡ Ethylbenzene	10	11	0.01	0.906	0.994	10	NA	± 20 %	AverageRF
m,p-Xylenes	20	23	0.01	1.12	1.29	15	NA	± 30 %	AverageRF
o-Xylene	10	11	0.01	1.04	1.15	10	NA	± 30 %	AverageRF
Styrene	10	12	0.01	0.849	0.979	15	NA	± 30 %	AverageRF
† Bromoform	10	12	0.10	0.200	0.245	23	NA	± 30 %	AverageRF
Isopropylbenzene	10	12	0.01	2.54	2.92	15	NA	± 30 %	AverageRF
† 1,1,2,2-Tetrachloroethane	10	10	0.30	0.384	0.388	1	NA	± 30 %	AverageRF
1,2,3-Trichloropropane	10	10	0.01	0.126	0.130	4	NA	± 30 %	AverageRF
Bromobenzene	10	11	0.01	0.685	0.728	6	NA	± 30 %	AverageRF
n-Propylbenzene	10	12	0.01	2.63	3.09	17	NA	± 30 %	AverageRF
2-Chlorotoluene	10	11	0.01	1.75	1.98	13	NA	± 30 %	AverageRF
4-Chlorotoluene	10	12	0.01	2.00	2.31	15	NA	± 30 %	AverageRF
1,3,5-Trimethylbenzene	10	12	0.01	1.88	2.23	19	NA	± 30 %	AverageRF
tert-Butylbenzene	10	11	0.01	1.53	1.74	14	NA	± 30 %	AverageRF
1,2,4-Trimethylbenzene	10	11	0.01	1.95	2.18	12	NA	± 30 %	AverageRF
sec-Butylbenzene	10	12	0.01	2.02	2.35	17	NA	± 30 %	AverageRF
1,3-Dichlorobenzene	10	10	0.01	1.35	1.38	3	NA	± 30 %	AverageRF
4-Isopropyltoluene	10	11	0.01	1.91	2.14	12	NA	± 30 %	AverageRF
1,4-Dichlorobenzene	10	10	0.01	1.40	1.41	1	NA	± 30 %	AverageRF
n-Butylbenzene	10	11	0.01	1.49	1.67	12	NA	± 30 %	AverageRF
1,2-Dichlorobenzene	10	10	0.01	1.26	1.27	1	NA	± 30 %	AverageRF
1,2-Dibromo-3-chloropropane	10	10	0.01	0.0456	0.0463	1	NA	± 30 %	AverageRF
1,2,4-Trichlorobenzene	10	8.7	0.01	0.721	0.626	-13	NA	± 30 %	AverageRF
1,2,3-Trichlorobenzene	10	8.4	0.01	0.601	0.505	-16	NA	± 30 %	AverageRF
Naphthalene	10	8.0	0.01	0.968	0.774	-20	NA	± 30 %	AverageRF
Hexachlorobutadiene	10	11	0.01	0.358	0.389	9	NA	± 30 %	AverageRF
tert-Amyl Methyl Ether	10	11	0.01	0.199	0.213	7	NA	± 30 %	AverageRF
tert-Butyl Ethyl Ether	10	8.6	0.01	0.604	0.517	-14	NA	± 30 %	AverageRF
tert-Butyl Alcohol	50	37	0.01	0.00746	0.00550 *	-26	NA	± 30 %	AverageRF
Diisopropyl Ether	10	9.5	0.01	0.781	0.744	-5	NA	± 30 %	AverageRF
Dibromofluoromethane	10	9.5	0.01	0.248	0.235	-5	NA	± 30 %	AverageRF
Toluene-d8	10	10	0.01	1.09	1.10	1	NA	± 30 %	AverageRF
4-Bromofluorobenzene	10	11	0.01	0.884	0.954	8	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Exception Report

Data File: J:\MS13\DATA\031605\0316F003 D
Lab ID: KWG0504384-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/16/2005 16:32
Date Quantitated: 03/17/2005 22:27
Batch ID: KWG0504384
Analysis Method: 8260B
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	1,4-Dioxane	0.0014	0.01	NA	MRL CHK
	Acetonitrile	0.0094	0.01	NA	NT
	tert-Butyl Alcohol	0.0075	0.01	NA	MRL CHK
	Isobutyl Alcohol	0.0030	0.01	NA	↓

Primary Review: LB 3/18/05

Secondary Review: mt 3/21/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260	**Collect Date:**		**Receive Date:**	03/18/2005

Analysis Lot:	KWG0504384	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260B	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS13\METHODS\022505_8260W	**Calibration ID:**	CAL4250
Title:			
Tune Ref:	J:\MS13\DATA\031605\0316F002.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Data File:	J:\MS13\DATA\031605\0316F003.D			**Instrument:**	MS13
Acqu Date:	03/16/2005 16:32	**Quant Date:**	03/17/2005 22:27	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG0504384-2			**Soln Conc. Units:**	PPB

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.60	0.00	96	635934	10.00	OK
2	Chlorobenzene-d5	11.58	0.00	82	263507	10.00	OK
3	1,4-Dichlorobenzene-d4	14.71	0.00	152	298471	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.64			113	149736	9.51		80-119	NA
1	1,2-Dichloroethane-d4	5.15			65	165022	9.31		76-115	NA
1	Toluene-d8	8.60			98	699899	10.06		83-113	NA
2	4-Bromofluorobenzene	13.31			95	251382	10.79		72-114	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	211376	10.81			
1	Chloromethane	1.22			50	223807	9.07			
1	Vinyl Chloride	1.29			62	205847	9.91			
1	Bromomethane	1.51			96	109196	9.23			
1	Chloroethane	1.58			64	123319	9.94			
1	Dichlorofluoromethane (CFC 21	1.74			67	331824	11.03			
1	Trichlorofluoromethane	1.74			101	300635	10.97			
1	Ethyl Ether	1.97			59	105478	9.36			
1	Acrolein	2.12			56	193236	118.76			
1	Trichlorotrifluoroethane	2.13			151	144513	10.88			
1	1,1-Dichloroethene	2.15			96	149146	10.38			
1	Acetone	2.25			43	428711	176.83			
1	Iodomethane	2.29			142	477874m	26.92			
1	Carbon Disulfide	2.32			76	547323	12.51			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F003 D			Instrument:	MS13
Acqu Date:	03/16/2005 16:32	Quant Date:	03/17/2005 22:27	Vial:	3
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504384-2			Soln Conc. Units:	PPB

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	3-Chloro-1-propene	2 48			76	76757	10 02			
1	Acetonitrile	2 54			40	226777	379 41			
1	Methylene Chloride	2.62			84	168182	9 65			
1	tert-Butyl Alcohol	2.74			59	17482	36 87			
1	Acrylonitrile	2 92			53	124030	38 62			
1	Methyl tert-Butyl Ether	2 82			73	571959	16.81			
1	trans-1,2-Dichloroethene	2 84			96	174550	10.33			
1	n-Hexane	3.05			57	187199	10.93			
1	Diisopropyl Ether	3.33			45	473306	9 53			
1	1,1-Dichloroethane	3.31			63	301195	10 24			
1	Vinyl Acetate	3 37			86	36592	18.20			
1	Chloroprene	3 37			53	899491	43 35			
1	tert-Butyl Ethyl Ether	3 74			59	328509	8 56			
1	2,2-Dichloropropane	3.95			77	157603	9 41			
1	cis-1,2-Dichloroethene	4 00			96	182949	10.16			
1	2-Butanone (MEK)	4.05			72	163502	179 42			
1	Propionitrile	4.21			54	44261	38 94			
1	Ethyl Acetate	4.11			61	40692	37 22			
1	Methacrylonitrile	4 36			67	148262	37 50			
1	Bromochloromethane	4.30			128	79927	10 31			
1	Tetrahydrofuran	4.34			71	7826	7 21			
1	Chloroform	4 42			83	303167	10.70			
1	1,1,1-Trichloroethane (TCA)	4 59			97	234310	10 80			
1	Carbon Tetrachloride	4 77			117	190200	11 99			
1	1,1-Dichloropropene	4.83			75	231057	10.40			
1	Isobutyl Alcohol	5.20			43	69353	359.52			
1	Benzene	5 11			78	702608	10.17			
1	1,2-Dichloroethane (EDC)	5.26			62	206901	10 43			
1	tert-Amyl Methyl Ether	5.31			55	135251	10 67			
1	Trichloroethene (TCE)	6.20			95	171576	10 17			
1	1,2-Dichloropropane	6.66			63	154279	9.64			
1	Dibromomethane	6.87			93	80490	10.54			
1	Methyl Methacrylate	6.97			69	53950	8 43			
1	1,4-Dioxane	6 93			88	30402m	337 05			
1	Bromodichloromethane	7 21			83	189062	10 82			
1	2-Nitropropane	7.83			43	74937	59.05			
1	2-Chloroethyl Vinyl Ether	7.95			63	52361	7.60			
1	cis-1,3-Dichloropropene	8 16			75	196980	9.96			
1	4-Methyl-2-pentanone (MIBK)	8.56			58	550390	177.90			
1	Toluene	8.75			92	460194	10.28			
2	n-Octane	9.08			85	74308	10.80			
2	trans-1,3-Dichloropropene	9 60			75	144125	10.04			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS13\DATA\031605\0316F003 D			**Instrument:**	MS13
Acqu Date:	03/16/2005 16:32	**Quant Date:**	03/17/2005 22:27	**Vial:**	3
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0504384-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Ethyl Methacrylate	9 83			69	95522	8 27			
2	1,1,2-Trichloroethane	9 96			83	94266	10.25			
2	Tetrachloroethene (PCE)	9 97			164	157846	10.67			
2	2-Hexanone	10 53			57	172906	187.21			
2	1,3-Dichloropropane	10 29			76	202591	10.48			
2	Dibromochloromethane	10.64			129	121878	11.77			
2	1,2-Dibromoethane (EDB)	10.79			107	107038	10.80			
2	1-Chlorohexane	11.68			91	176641	10.38			
2	Chlorobenzene	11.63			112	490446	10.26			
2	Ethylbenzene	11 81			106	261858	10.97			
2	1,1,1,2-Tetrachloroethane	11.81			131	136566	11.92			
2	m,p-Xylenes	12.01			106	678253	22.95			
2	o-Xylene	12.57			106	301923	10.97			
2	Styrene	12.62			103	257968	11 53			
2	Bromoform	12 84			173	64532	12 28			
2	Isopropylbenzene	13 08			105	768628	11.50			
2	cis-1,4-Dichloro-2-butene	13 29			89	37327	36.76			
3	1,1,2,2-Tetrachloroethane	13.59			83	115951	10.12			
3	trans-1,4-Dichloro-2-butene	13.68			53	29303	9.91			
3	Bromobenzene	13.45			156	217150	10.62			
3	n-Propylbenzene	13 61			91	921249	11.75			
3	1,2,3-Trichloropropane	13 61			110	38908	10.38			
3	2-Chlorotoluene	13 71			91	591958	11.32			
3	1,3,5-Trimethylbenzene	13 86			105	666540	11.88			
3	4-Chlorotoluene	13.86			91	688248	11.53			
3	tert-Butylbenzene	14 22			119	520045	11.42			
3	1,2,4-Trimethylbenzene	14 30			105	650033	11 19			
3	sec-Butylbenzene	14 48			105	702548	11.67			
3	4-Isopropyltoluene	14 67			119	640199	11.24			
3	1,3-Dichlorobenzene	14 61			146	413350	10.27			
3	1,4-Dichlorobenzene	14.73			146	420619	10.10			
3	n-Butylbenzene	15.13			91	497954	11.23			
3	1,2-Dichlorobenzene	15.14			146	380278	10.14			
3	1,2-Dibromo-3-chloropropane	16.04			155	13819	10.15			
3	1,3,5-Trichlorobenzene	16 21			180	229611	9.43			
3	1,2,4-Trichlorobenzene	16.88			180	186750	8.68			
3	Hexachlorobutadiene	17.03			225	116045	10.86			
3	Naphthalene	17.13			128	230894	7 99			
3	1,2,3-Trichlorobenzene	17 39			180	150839	8.42			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

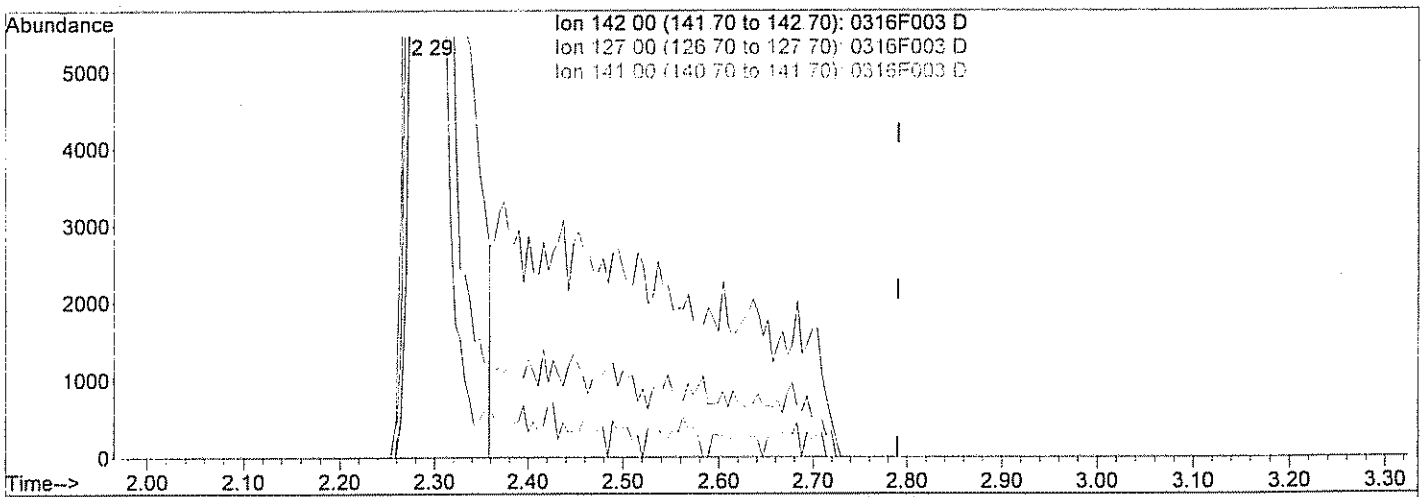
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

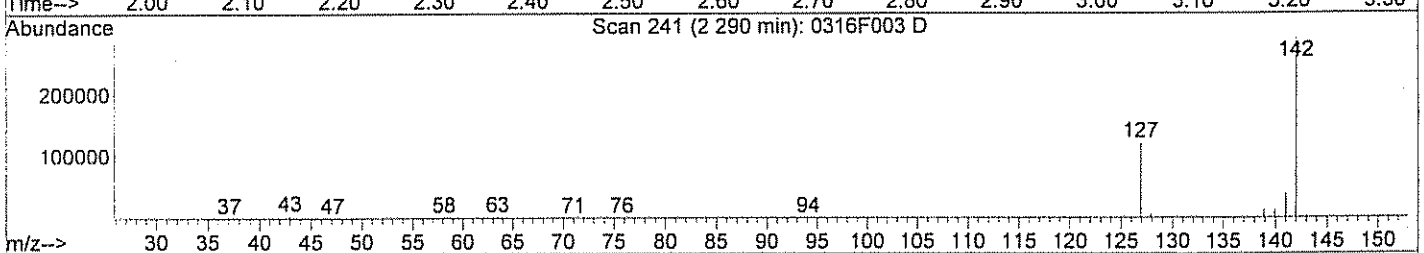
Quantitation Report (Qedit)

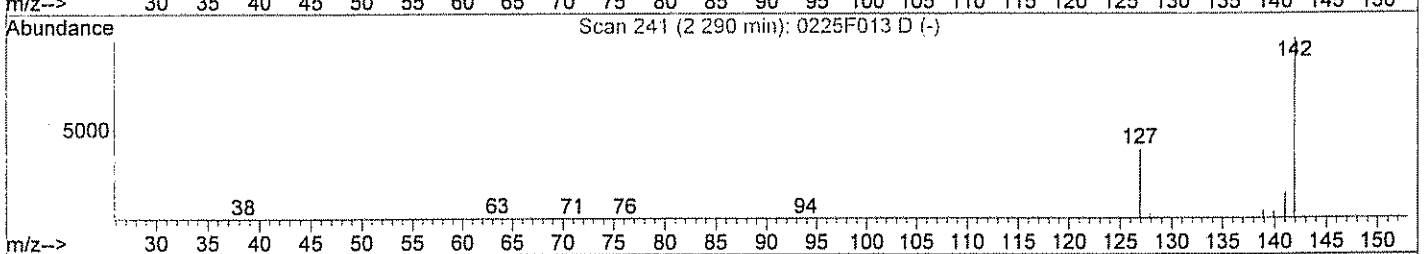
Data File : J:\MS13\DATA\031605\0316F003.D
Acq On : 16 Mar 2005 4:32 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:25 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F003.D

(14) Iodomethane (T)

2.29min 24.33PPB

response 431801

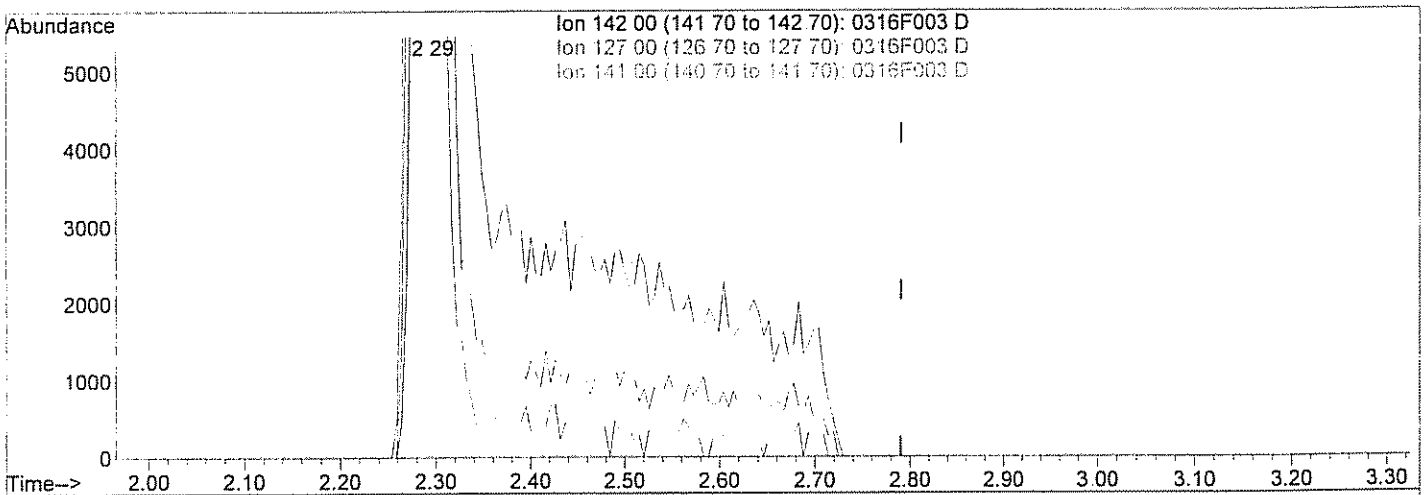
Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.74
141.00	14.40	14.02
0.00	0.00	0.00

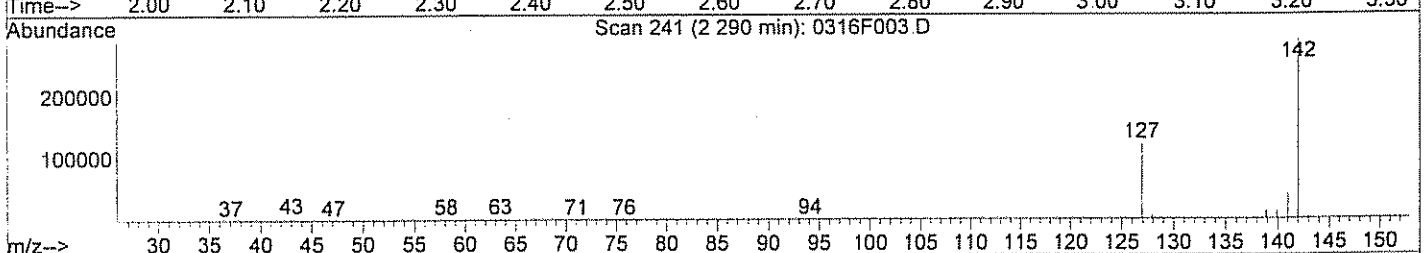
Quantitation Report (Qedit)

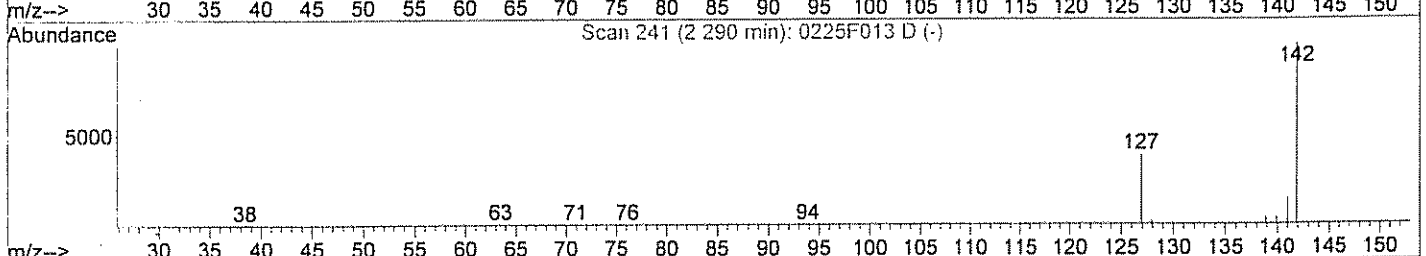
Data File : J:\MS13\DATA\031605\0316F003.D
Acq On : 16 Mar 2005 4:32 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:26 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Multiple Level Calibration







TIC: 0316F003.D

(14) Iodomethane (T)

2.29min 26.92PPB m

response 477874

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	41.74
141.00	14.40	14.02
0.00	0.00	0.00

mt 3/21/5

peak tailing
KB 3/18/05

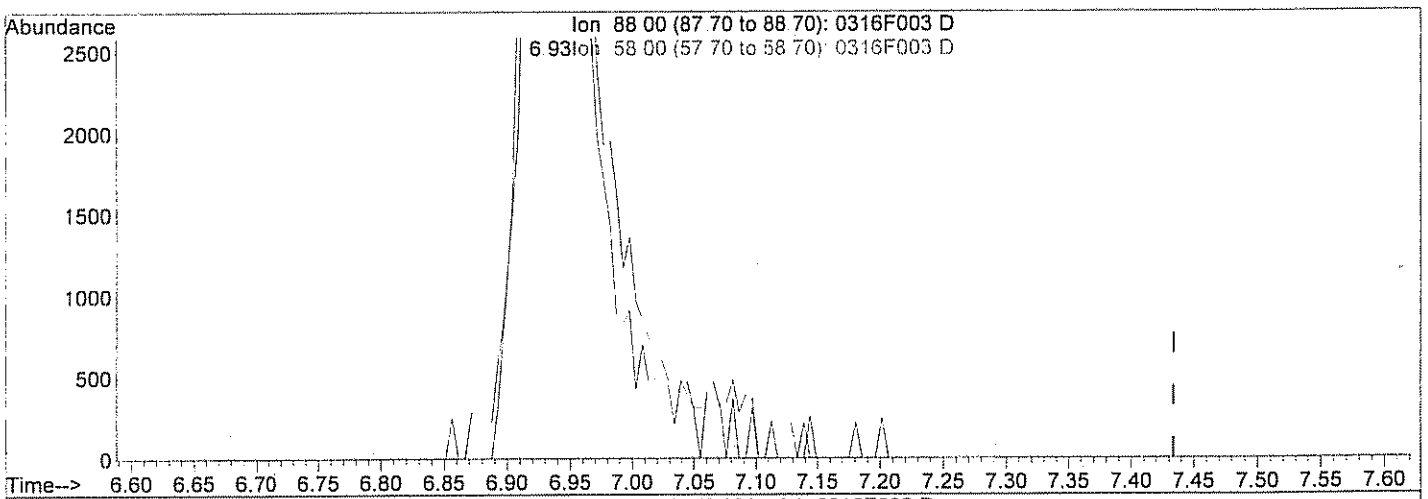
0316F003.D 022505_8260W.M Thu Mar 17 22:26:43 2005

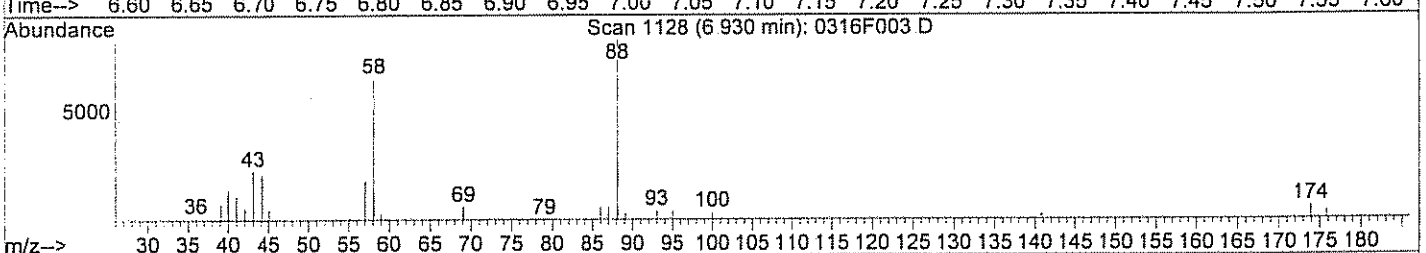
Quantitation Report (Qedit)

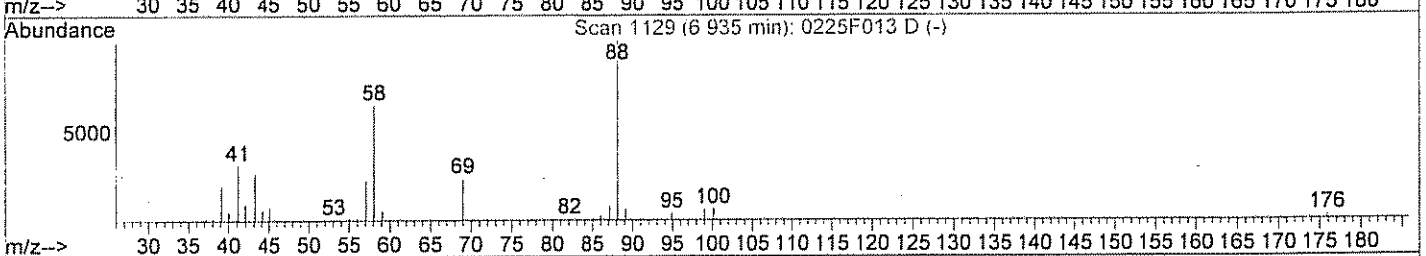
Data File : J:\MS13\DATA\031605\0316F003.D
Acq On : 16 Mar 2005 4:32 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:26 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F003.D

(51) 1,4-Dioxane (T)

6.93min 321.67PPB

response 29015

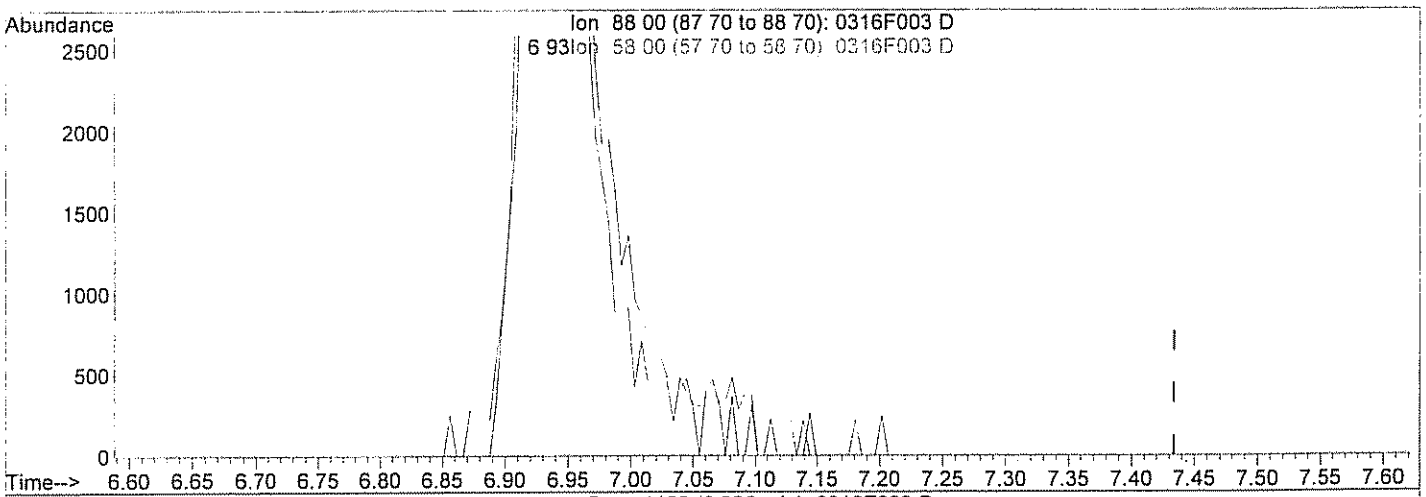
Ion	Exp%	Act%
88.00	100	100
58.00	64.70	79.32
0.00	0.00	0.00
0.00	0.00	0.00

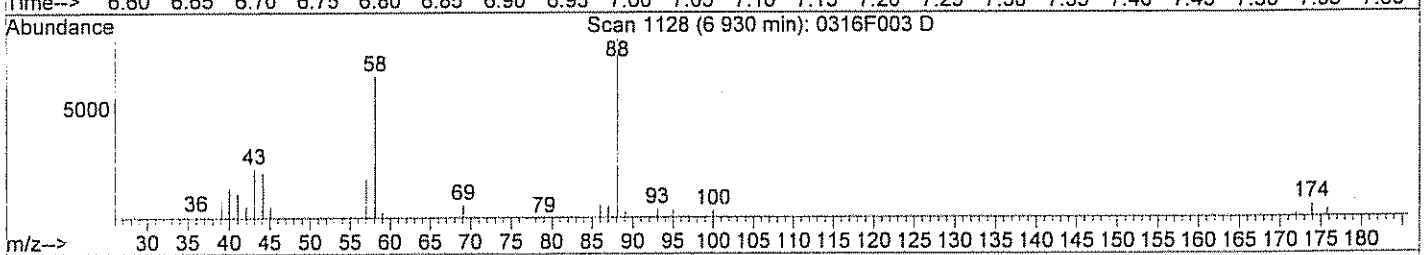
Quantitation Report (Qedit)

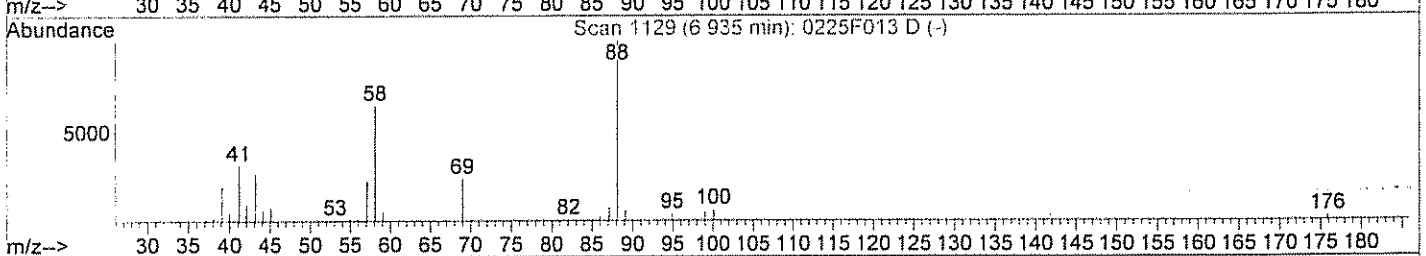
Data File : J:\MS13\DATA\031605\0316F003.D
Acq On : 16 Mar 2005 4:32 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:27 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Single Level Calibration







TIC: 0316F003 D

(51) 1,4-Dioxane (T)

6 93min 337 05PPB m

response 30402

Ion	Exp%	Act%
88 00	100	100
58 00	64 70	79 32
0 00	0 00	0 00
0 00	0 00	0 00

peak tailing
LB 3/18/05

mt 3/21/5

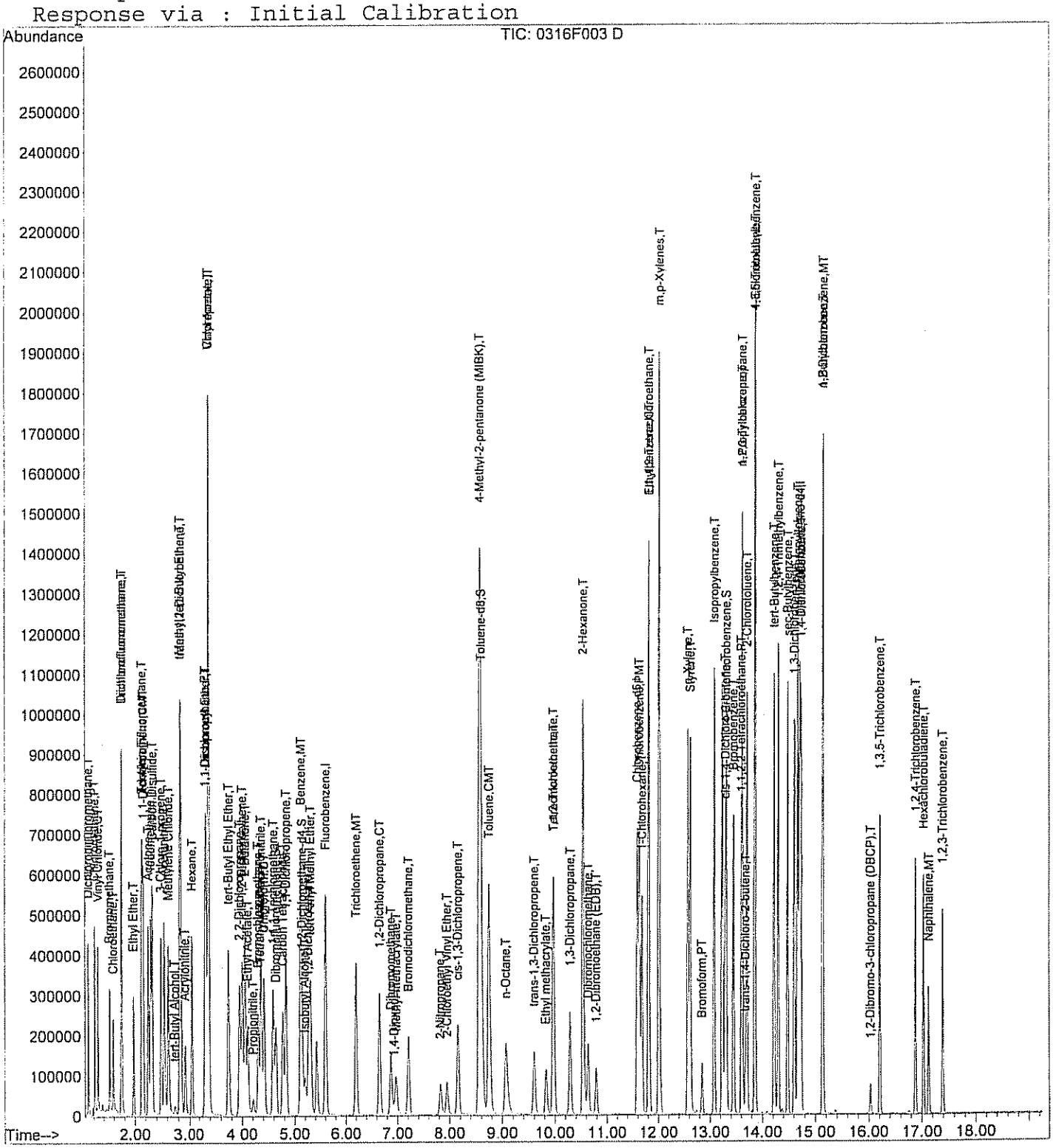
0316F003.D 022505_8260W.M Thu Mar 17 22:27:40 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F003.D
Acq On : 16 Mar 2005 4:32 pm
Sample : 8260 CCV W
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:27 2005

Vial: 3
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Organic Analysis:
Volatile Organic Compounds

Validation Package

Sample Prep and Screen Data

Date: 3/16/05

Columbia Analytical Services, Inc.

Injection Log

MS13 - Agilent 5973

By:

Tune File: BFB1 LL

New Tune: NO

IS/SS Std. ID: 38VOA-75-B

CCV Std ID: 38VOA-77-C, E

ICAL Date: 2/25/05 CAL4250

LCS/ICV Std ID: 38VOA-79-C, 77-A, 75-C, 76-E, 79-A

Second RV: mt 3/21/5

MS/DMS Std. ID: 5CC LCS

LIMS ID: LWG050438A/4385 (prep

	Sample Name	File Name	Method	Dilution	pH	R	Comments
1	primer	031LF001	8260W4				
2	50ng BFB	2		5uL/50mL			402 PM 38VOA-77-B
3	8260CCV W	3		10uL+5uL /50mL		✓	
4	031L LCS W	4				✓	10uL+50uL+7.5uL+ 5uL+5uL/50mL
5	1L2L-2MS	5		2.5mL/50mL 20X	<2	✓	
6	2DMS	6				✓	
7	MRL CHK	7		10uL/50mL		✓	38VOA-78-A
8	MRL CHK	8		25uL/50mL		✓	
9	031L MB W	9				✓	
10	1L2L-1DIL	10		2mL/50mL 25X	<2	✓	
11	2DIL	11		2.5mL/50mL 20X		✓	
12	3DIL	12		2mL/50mL 25X		✓	
13	4DIL	13				✓	
14	6DIL	14		1mL/50mL 50X		✓	
15	15LL-2R	15				✓	
16	1L30-1	16				✓	
17	2	17				✓	
18	1577-1	18				✓	
19	1L2L-5	19				✓	DB ID 29213
20	7	20				✓	DB ID 29217
21	1DIL	21		200uL/50mL 250X		✓	
22	3DIL	22		20mL/50mL 2.5X		✓	
23	4DIL	23				✓	
24	IB	24				✓	
25	1L2L-2DIL	25		25mL/50mL 2X	<2	✓	
26	IB	26				✓	
27	1L2L-6DIL	27		10mL/50mL 5X	<2	✓	327 AM
	IB	28					

219

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F007.D Vial: 7
Acq On : 16 Mar 2005 6:22 pm Operator:
Sample : MRL CHK Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:14 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	629464	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	267099	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	279569	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	148426	9.53	PPB	0.00
Spiked Amount 10.000			Recovery	=	95.30%	
43) 1,2-Dichloroethane-d4	5.15	65	169240	9.65	PPB	0.00
Spiked Amount 10.000			Recovery	=	96.50%	
57) Toluene-d8	8.60	98	644909	9.36	PPB	0.00
Spiked Amount 10.000			Recovery	=	93.60%	
79) 4-Bromofluorobenzene	13.31	95	233141	9.87	PPB	0.00
Spiked Amount 10.000			Recovery	=	98.70%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	20630	1.07	PPB	100
3) Chloromethane	1.22	50	22827	0.93	PPB	92
4) Vinyl Chloride	1.29	62	20150	0.98	PPB	98
5) Bromomethane	1.51	96	12709	1.08	PPB	95
6) Chloroethane	1.58	64	13420	1.09	PPB	96
7) Dichlorofluoromethane	1.74	67	32355	1.09	PPB	98
8) Trichlorofluoromethane	1.74	101	28521	1.05	PPB	91
9) Ethyl Ether	1.97	59	11094	0.99	PPB	96
10) Acrolein	2.12	56	24429	15.17	PPB @ 20	98
11) Trichlorotrifluoroethane	2.13	151	14792	1.13	PPB	95
12) 1,1-Dichloroethene	2.15	96	14042	0.99	PPB	87
13) Acetone	2.25	43	44191	18.42	PPB	99
14) Iodomethane	2.29	142	26517	1.51	PPB	97
15) Carbon Disulfide	2.32	76	53510	1.24	PPB	99
16) 3-Chloro-1-propene	2.48	76	7238	0.95	PPB	86
17) Acetonitrile	2.55	40	21394	36.16	PPB	95
18) Methylene Chloride	2.62	84	18454	1.07	PPB	95
19) tert-Butyl Alcohol	2.74	59	2151	4.58	PPB	78
20) Acrylonitrile	2.92	53	10716	3.37	PPB	98
21) Methyl tert-Butyl Ether	2.82	73	55131	1.64	PPB	94
22) trans-1,2-Dichloroethene	2.84	96	17386	1.04	PPB	94
23) Hexane	3.05	57	20746	1.22	PPB	92
24) Diisopropyl Ether	3.33	45	44799	0.91	PPB	95
25) 1,1-Dichloroethane	3.31	63	29927	1.03	PPB	99
26) Vinyl Acetate	3.37	86	3231	1.62	PPB #	77
27) Chloroprene	3.37	53	77319	3.76	PPB	98
28) tert-Butyl Ethyl Ether	3.74	59	31819	0.84	PPB	98

(#) = qualifier out of range (m) = manual integration
LB mt 3/21/5

3/18/05

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F007.D
Acq On : 16 Mar 2005 6:22 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:14 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	15810	0.95	PPB		88
30)	cis-1,2-Dichloroethene	4.01	96	17572	0.99	PPB		93
31)	2-Butanone	4.06	72	15328	16.99	PPB		92
32)	Propionitrile	4.23	54	3838	3.41	PPB		95
33)	Ethyl Acetate	4.11	61	3438	3.18	PPB		92
34)	Methacrylonitrile	4.36	67	13353	3.41	PPB		90
35)	Bromochloromethane	4.30	128	7354	0.96	PPB		88
36)	Tetrahydrofuran	4.35	71	1030	0.96	PPB	#	66
37)	Chloroform	4.42	83	30575	1.09	PPB		95
38)	1,1,1-Trichloroethane	4.59	97	22629	1.05	PPB		95
40)	Carbon Tetrachloride	4.77	117	17938	1.14	PPB		97
41)	1,1-Dichloropropene	4.83	75	22122	1.01	PPB		95
42)	Isobutyl Alcohol	5.20	43	7099	37.18	PPB		89
44)	Benzene	5.11	78	66746	0.98	PPB		86
45)	1,2-Dichloroethane	5.27	62	20619	1.05	PPB		94
46)	tert-Amyl Methyl Ether	5.30	55	12999	1.04	PPB	#	56
47)	Trichloroethene	6.19	95	17075	1.02	PPB		86
48)	1,2-Dichloropropane	6.66	63	14992	0.95	PPB		95
49)	Dibromomethane	6.87	93	7418	0.98	PPB		83
50)	Methyl methacrylate	6.97	69	4173	0.66	PPB		84
51)	1,4-Dioxane	6.93	88	1000	11.20	PPB		73
52)	Bromodichloromethane	7.21	83	17643	1.02	PPB		94
53)	2-Nitropropane	7.83	43	6655	5.30	PPB		89
54)	2-Chloroethyl Vinyl Ether	7.95	63	3893	0.57	PPB		75
55)	cis-1,3-Dichloropropene	8.16	75	16317	0.83	PPB		91
56)	4-Methyl-2-pentanone (MIBK	8.57	58	49306	16.10	PPB	#	51
58)	Toluene	8.75	92	41828	0.94	PPB		95
60)	n-Octane	9.07	85	20679	2.96	PPB		93
61)	trans-1,3-Dichloropropene	9.60	75	12275	0.84	PPB		82
62)	Ethyl methacrylate	9.83	69	8316	0.71	PPB		92
63)	1,1,2-Trichloroethane	9.97	83	9054	0.97	PPB		91
64)	Tetrachloroethene	9.97	164	15975	1.07	PPB		91
65)	2-Hexanone	10.54	57	12443	13.29	PPB		95
66)	1,3-Dichloropropane	10.29	76	19312	0.99	PPB		98
67)	Dibromochloromethane	10.64	129	10308	0.98	PPB		92
68)	1,2-Dibromoethane (EDB)	10.79	107	9516	0.95	PPB		85
69)	1-Chlorohexane	11.68	91	15409	0.89	PPB		96
70)	Chlorobenzene	11.63	112	47023	0.97	PPB		98
71)	Ethylbenzene	11.81	106	21329	0.88	PPB		98
72)	1,1,1,2-Tetrachloroethane	11.80	131	12429	1.07	PPB		86
73)	m,p-Xylenes	12.01	106	52838	1.76	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F007.D
Acq On : 16 Mar 2005 6:22 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:14 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	o-Xylene	12.57	106	24202	0.87	PPB		93
75)	Styrene	12.62	103	18382	0.81	PPB		96
76)	Bromoform	12.84	173	5458	1.02	PPB		97
77)	Isopropylbenzene	13.08	105	60068	0.89	PPB		98
78)	cis-1,4-Dichloro-2-butene	13.29	89	2987	2.90	PPB	#	1
81)	1,1,2,2-Tetrachloroethane	13.59	83	10961	1.02	PPB		91
82)	trans-1,4-Dichloro-2-buten	13.67	53	2619	0.95	PPB		89
83)	Bromobenzene	13.45	156	20029	1.05	PPB		95
84)	n-Propylbenzene	13.61	91	76790	1.05	PPB		94
85)	1,2,3-Trichloropropane	13.61	110	3723	1.06	PPB	#	83
86)	2-Chlorotoluene	13.71	91	51377	1.05	PPB		99
87)	1,3,5-Trimethylbenzene	13.86	105	49486	0.94	PPB		98
88)	4-Chlorotoluene	13.86	91	58570	1.05	PPB		97
89)	tert-Butylbenzene	14.22	119	41814	0.98	PPB		100
90)	1,2,4-Trimethylbenzene	14.30	105	45883	0.84	PPB		94
91)	sec-Butylbenzene	14.48	105	55396	0.98	PPB		96
92)	p-Isopropyltoluene	14.67	119	47690	0.89	PPB		97
93)	1,3-Dichlorobenzene	14.61	146	38536	1.02	PPB		95
94)	1,4-Dichlorobenzene	14.73	146	41627	1.07	PPB		97
95)	n-Butylbenzene	15.13	91	44367	1.07	PPB		93
96)	1,2-Dichlorobenzene	15.14	146	35646	1.02	PPB		93
97)	1,2-Dibromo-3-chloropropan	16.02	155	1441	1.13	PPB	#	62
98)	1,3,5-Trichlorobenzene	16.20	180	45647	2.00	PPB		91
99)	1,2,4-Trichlorobenzene	16.88	180	24887	1.23	PPB		95
100)	Hexachlorobutadiene	17.03	225	23034	2.30	PPB		90
101)	Naphthalene	17.13	128	30034	1.11	PPB		98
102)	1,2,3-Trichlorobenzene	17.38	180	24375	1.45	PPB		94

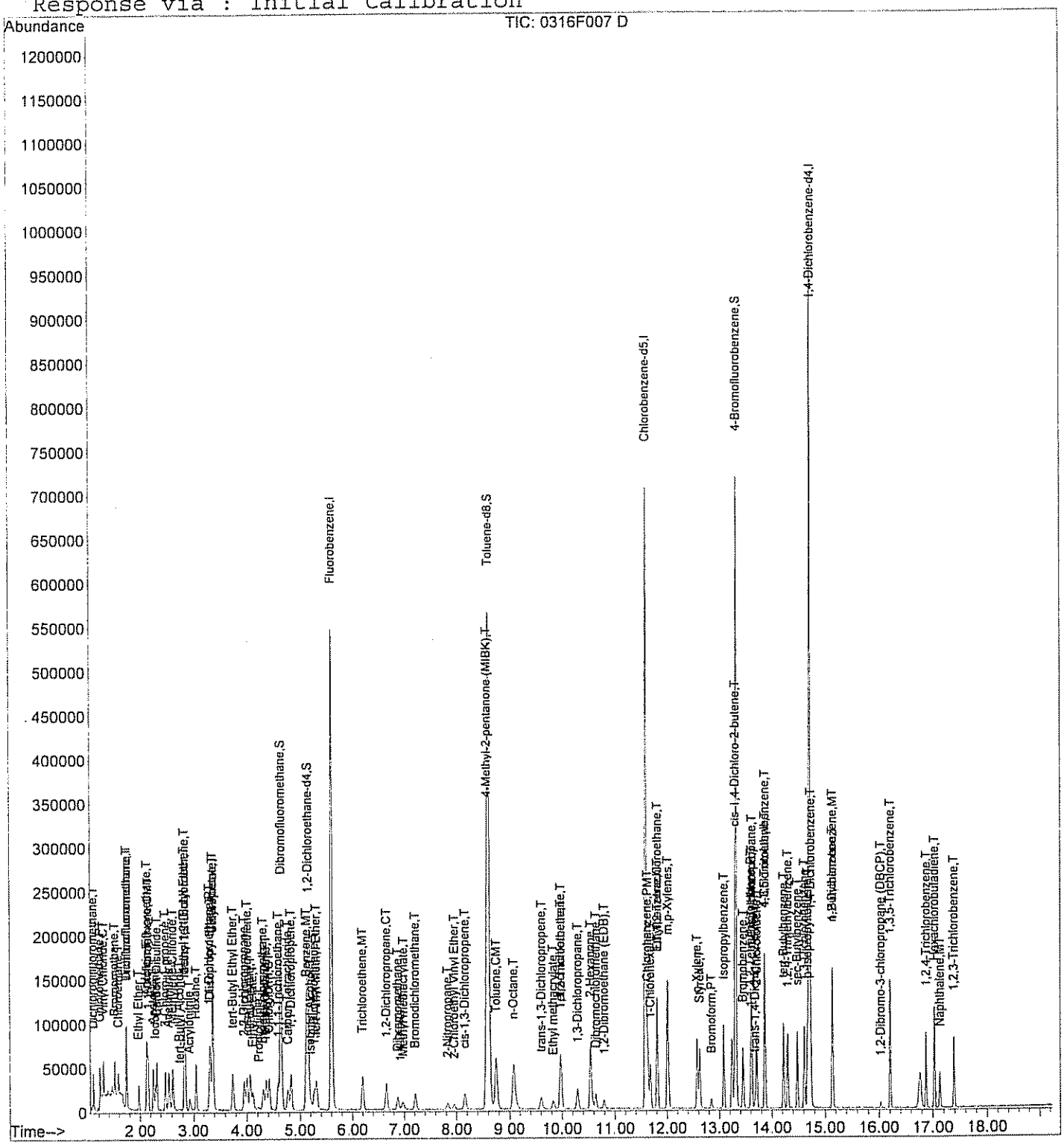
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F007.D
Acq On : 16 Mar 2005 6:22 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29 2005

Vial: 7
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F008.D
Acq On : 16 Mar 2005 6:50 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:19 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00
Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.60	96	628212	10.00	PPB	0.00
59) Chlorobenzene-d5	11.58	82	270501	10.00	PPB	0.00
80) 1,4-Dichlorobenzene-d4	14.71	152	290204	10.00	PPB	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	4.64	113	148512	9.55	PPB	0.00
Spiked Amount 10.000			Recovery	=	95.50%	
43) 1,2-Dichloroethane-d4	5.15	65	165353	9.45	PPB	0.00
Spiked Amount 10.000			Recovery	=	94.50%	
57) Toluene-d8	8.60	98	668850	9.73	PPB	0.00
Spiked Amount 10.000			Recovery	=	97.30%	
79) 4-Bromofluorobenzene	13.31	95	245121	10.25	PPB	0.00
Spiked Amount 10.000			Recovery	=	102.50%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	45545	2.36	PPB	94
3) Chloromethane	1.22	50	52755	2.16	PPB	99
4) Vinyl Chloride	1.29	62	47082	2.30	PPB	98
5) Bromomethane	1.51	96	29825	2.55	PPB	98
6) Chloroethane	1.58	64	29922	2.44	PPB	99
7) Dichlorofluoromethane	1.74	67	75948	2.56	PPB	98
8) Trichlorofluoromethane	1.74	101	67195	2.48	PPB	98
9) Ethyl Ether	1.97	59	26072	2.34	PPB	96
10) Acrolein	2.12	56	60330	37.53	PPB	97
11) Trichlorotrifluoroethane	2.13	151	32192	2.45	PPB	97
12) 1,1-Dichloroethene	2.15	96	33824	2.38	PPB	89
13) Acetone	2.25	43	109377	45.67	PPB	98
14) Iodomethane	2.29	142	68818	3.92	PPB	97
15) Carbon Disulfide	2.32	76	124471	2.88	PPB	98
16) 3-Chloro-1-propene	2.48	76	17649	2.33	PPB	96
17) Acetonitrile	2.55	40	54354	92.06	PPB	97
18) Methylene Chloride	2.62	84	40110	2.33	PPB	92
19) tert-Butyl Alcohol	2.74	59	4794	10.23	PPB @12.5	88
20) Acrylonitrile	2.92	53	28045	8.84	PPB	93
21) Methyl tert-Butyl Ether	2.83	73	133406	3.97	PPB	99
22) trans-1,2-Dichloroethene	2.84	96	40325	2.42	PPB	96
23) Hexane	3.05	57	39996	2.36	PPB	92
24) Diisopropyl Ether	3.33	45	109615	2.24	PPB	99
25) 1,1-Dichloroethane	3.32	63	69233	2.38	PPB	99
26) Vinyl Acetate	3.37	86	8454	4.26	PPB #	77
27) Chloroprene	3.37	53	183876	8.97	PPB	97
28) tert-Butyl Ethyl Ether	3.74	59	79229	2.09	PPB	98

(#) = qualifier out of range (m) = manual integration
LB 3/18/05 mmt 3/21/5

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F008.D Vial: 8
Acq On : 16 Mar 2005 6:50 pm Operator:
Sample : MRL CHK Inst : MS13
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:19 2005 Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	2,2-Dichloropropane	3.95	77	35473	2.14	PPB		91
30)	cis-1,2-Dichloroethene	4.00	96	42271	2.38	PPB		96
31)	2-Butanone	4.06	72	38237	42.47	PPB	#	86
32)	Propionitrile	4.22	54	10414	9.28	PPB		90
33)	Ethyl Acetate	4.12	61	8388	7.77	PPB		87
34)	Methacrylonitrile	4.36	67	34325	8.79	PPB		97
35)	Bromochloromethane	4.31	128	17803	2.33	PPB		85
36)	Tetrahydrofuran	4.34	71	2002	1.87	PPB	#	71
37)	Chloroform	4.42	83	71321	2.55	PPB		98
38)	1,1,1-Trichloroethane	4.60	97	51601	2.41	PPB		94
40)	Carbon Tetrachloride	4.77	117	39972	2.55	PPB		90
41)	1,1-Dichloropropene	4.83	75	51666	2.36	PPB		94
42)	Isobutyl Alcohol	5.20	43	14599	76.61	PPB	@100	77
44)	Benzene	5.11	78	162714	2.38	PPB		95
45)	1,2-Dichloroethane	5.27	62	48216	2.46	PPB		95
46)	tert-Amyl Methyl Ether	5.30	55	31502	2.52	PPB	#	58
47)	Trichloroethene	6.20	95	39202	2.35	PPB		95
48)	1,2-Dichloropropane	6.66	63	36637	2.32	PPB		97
49)	Dibromomethane	6.87	93	19282	2.56	PPB		83
50)	Methyl methacrylate	6.97	69	11391	1.80	PPB		95
51)	1,4-Dioxane	6.95	88	6224	69.85	PPB	@100	91
52)	Bromodichloromethane	7.21	83	44109	2.56	PPB		95
53)	2-Nitropropane	7.82	43	15040	12.00	PPB		95
54)	2-Chloroethyl Vinyl Ether	7.95	63	10971	1.61	PPB		98
55)	cis-1,3-Dichloropropene	8.15	75	41877	2.14	PPB		95
56)	4-Methyl-2-pentanone (MIBK	8.57	58	124705	40.80	PPB	#	71
58)	Toluene	8.76	92	105188	2.38	PPB		93
60)	n-Octane	9.08	85	17628	2.50	PPB		94
61)	trans-1,3-Dichloropropene	9.60	75	31663	2.15	PPB		96
62)	Ethyl methacrylate	9.83	69	19756	1.67	PPB		96
63)	1,1,2-Trichloroethane	9.96	83	22577	2.39	PPB		93
64)	Tetrachloroethene	9.97	164	35612	2.35	PPB		94
65)	2-Hexanone	10.54	57	36047	38.02	PPB		91
66)	1,3-Dichloropropane	10.29	76	46269	2.33	PPB		97
67)	Dibromochloromethane	10.63	129	27061	2.55	PPB		99
68)	1,2-Dibromoethane (EDB)	10.79	107	24398	2.40	PPB		98
69)	1-Chlorohexane	11.68	91	35932	2.06	PPB		85
70)	Chlorobenzene	11.63	112	114806	2.34	PPB		96
71)	Ethylbenzene	11.81	106	53748	2.19	PPB		91
72)	1,1,1,2-Tetrachloroethane	11.81	131	28798	2.45	PPB		97
73)	m,p-Xylenes	12.01	106	140052	4.62	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F008.D
Acq On : 16 Mar 2005 6:50 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29:19 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W.RE

Quant Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration
DataAcq Meth : 8260W4

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
74) o-Xylene	12.57	106	63090	2.23 PPB		95
75) Styrene	12.61	103	50309	2.19 PPB		93
76) Bromoform	12.85	173	14246	2.64 PPB		97
77) Isopropylbenzene	13.08	105	155999	2.27 PPB		99
78) cis-1,4-Dichloro-2-butene	13.29	89	6869	6.59 PPB	#	1
81) 1,1,2,2-Tetrachloroethane	13.60	83	26435	2.37 PPB		98
82) trans-1,4-Dichloro-2-buten	13.67	53	6100	2.12 PPB		79
83) Bromobenzene	13.45	156	51314	2.58 PPB		97
84) n-Propylbenzene	13.61	91	190396	2.50 PPB		98
85) 1,2,3-Trichloropropane	13.61	110	9258	2.54 PPB		91
86) 2-Chlorotoluene	13.71	91	131375	2.58 PPB		99
87) 1,3,5-Trimethylbenzene	13.86	105	131206	2.40 PPB		99
88) 4-Chlorotoluene	13.86	91	149432	2.57 PPB		99
89) tert-Butylbenzene	14.22	119	107059	2.42 PPB		96
90) 1,2,4-Trimethylbenzene	14.30	105	128536	2.28 PPB		99
91) sec-Butylbenzene	14.48	105	140821	2.41 PPB		99
92) p-Isopropyltoluene	14.67	119	122313	2.21 PPB		97
93) 1,3-Dichlorobenzene	14.61	146	95040	2.43 PPB		98
94) 1,4-Dichlorobenzene	14.73	146	99888	2.47 PPB		97
95) n-Butylbenzene	15.13	91	100149	2.32 PPB		96
96) 1,2-Dichlorobenzene	15.14	146	87036	2.39 PPB		97
97) 1,2-Dibromo-3-chloropropan	16.03	155	3106	2.35 PPB	#	61
98) 1,3,5-Trichlorobenzene	16.20	180	57783	2.44 PPB		94
99) 1,2,4-Trichlorobenzene	16.88	180	45314	2.16 PPB		96
100) Hexachlorobutadiene	17.03	225	30263	2.91 PPB		99
101) Naphthalene	17.13	128	50765	1.81 PPB		99
102) 1,2,3-Trichlorobenzene	17.38	180	38222	2.19 PPB		96

(#) = qualifier out of range (m) = manual integration

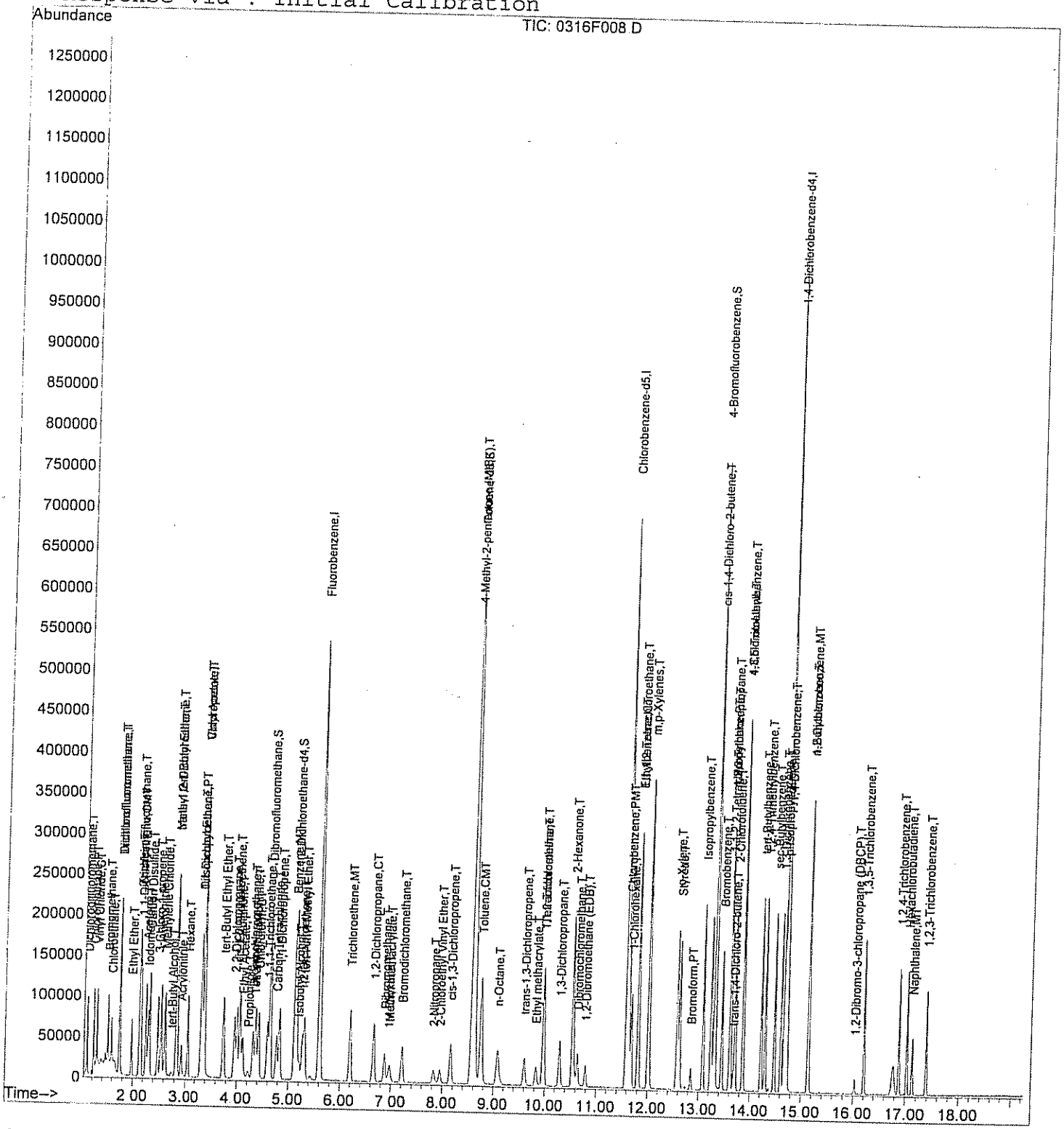
Quantitation Report (QT Reviewed)

Data File : J:\MS13\DATA\031605\0316F008.D
Acq On : 16 Mar 2005 6:50 pm
Sample : MRL CHK
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 22:29 2005

Vial: 8
Operator:
Inst : MS13
Multiplr: 1.00

Quant Results File: 022505_8260W

Method : J:\MS13\METHODS\022505_8260W.M (RTE Integrator)
Title : VOA MS13 EPA Method 8260B
Last Update : Tue Mar 01 15:26:54 2005
Response via : Initial Calibration



Polynuclear Aromatic Hydrocarbons
EPA Method 8270C

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Summary Package

Sample and QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
50425-02	K2501630-002	03/04/2005	03/05/2005

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

Signature: Julie Gish
Name: Julie Gish
Date: 3-23-05
Title: Scientist IV

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/09/2005
		Date Analyzed:	03/15/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS11\DATA\031505\0315F019.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0063**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	67	37-107	03/15/05	Acceptable
Fluoranthene-d10	82	18-137	03/15/05	Acceptable
Terphenyl-d14	116	18-153	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/15/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503769-4	**Basis:**	NA
File ID:	J:\MS11\DATA\031505\0315F003.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0055**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	68	37-107	03/15/05	Acceptable
Fluoranthene-d10	76	18-137	03/15/05	Acceptable
Terphenyl-d14	100	18-153	03/15/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50425-02	K2501630-002	67	82	116
Method Blank	KWG0503769-4	68	76	100
Batch QC	K2501656-003	70	86	99
Batch QCMS	KWG0503769-1	70	77	99
Batch QCDMS	KWG0503769-2	83	93	118
Lab Control Sample	KWG0503769-3	82	91	108

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	37-107
Sur2 =	Fluoranthene-d10	18-137
Sur3 =	Terphenyl-d14	18-153

Results flagged with an asterisk (*) indicate values outside control criteria
Results flagged with a pound (#) indicate the control criteria is not applicable

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:04

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031505\0315F002.D	**Lab Code:**	KWG0504292-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504292
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Results ==>	211,050	5.06	167,917	6.50	265,653	7.71
	Upper Limit ==>	422,100	5.56	335,834	7.00	531,306	8.21
	Lower Limit ==>	105,525	4.56	83,959	6.00	132,827	7.21
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Method Blank	KWG0503769-4	227,753	5.06	174,347	6.49	271,320	7.71
Batch QC	K2501656-003	205,562	5.06	154,531	6.50	242,827	7.72
50425-02	K2501630-002	198,663	5.06	153,970	6.50	235,903	7.72

Results flagged with an asterisk (*) indicate values outside control criteria

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:04

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031505\0315F002.D	**Lab Code:**	KWG0504292-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504292
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	246,310	10.63	229,170	14.59
	Upper Limit ==>	492,620	11.13	458,340	15.09
	Lower Limit ==>	123,155	10.13	114,585	14.09
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Method Blank	KWG0503769-4	228,802	10.62	204,068	14.58
Batch QC	K2501656-003	194,035	10.63	123,537	14.59
50425-02	K2501630-002	189,634	10.63	158,621	14.59

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/16/2005
		Time Analyzed:	07:03

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031605\0316F002.D	**Lab Code:**	KWG0504293-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504293
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	211,488	5.06	166,555	6.50	263,269	7.72
	Upper Limit ==>	422,976	5.56	333,110	7.00	526,538	8.22
	Lower Limit ==>	105,744	4.56	83,278	6.00	131,635	7.22
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Lab Control Sample	KWG0503769-3	212,763	5.06	176,039	6.50	284,278	7.72

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/16/2005
		Time Analyzed:	07:03

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031605\0316F002.D	**Lab Code:**	KWG0504293-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504293
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	243,898	10.64	235,707	14.62
	Upper Limit ==>	487,796	11.14	471,414	15.12
	Lower Limit ==>	121,949	10.14	117,854	14.12
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Lab Control Sample	KWG0503769-3	268,246	10.64	250,153	14.61

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/18/2005
		Time Analyzed:	06:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031805\0318F002.D	**Lab Code:**	KWG0504491-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504491
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	166,708	5.04	143,907	6.48	226,082	7.70
	Upper Limit ==>	333,416	5.54	287,814	6.98	452,164	8.20
	Lower Limit ==>	83,354	4.54	71,954	5.98	113,041	7.20
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Batch QCMS	KWG0503769-1	192,627	5.04	166,363	6.47	266,885	7.70
Batch QCDMS	KWG0503769-2	178,355	5.04	160,540	6.47	245,733	7.70

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/18/2005
		Time Analyzed:	06:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031805\0318F002.D	**Lab Code:**	KWG0504491-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504491
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	202,156	10.57	174,056	14.48
	Upper Limit ==>	404,312	11.07	348,112	14.98
	Lower Limit ==>	101,078	10.07	87,028	13.98
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Batch QCMS	KWG0503769-1	251,303	10.57	218,092	14.49
Batch QCDMS	KWG0503769-2	232,701	10.58	198,644	14.50

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/18/2005

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K2501656-003	**Basis:**	NA
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

		Batch QCMS KWG0503769-1 Matrix Spike			Batch QCDMS KWG0503769-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	0.0072	2.20	2.45	90	2.14	2.45	87	20-117	3	30
2-Methylnaphthalene	ND	2.25	2.45	92	2.29	2.45	94	19-121	2	30
Acenaphthylene	ND	2.31	2.45	94	2.22	2.45	90	25-121	4	30
Acenaphthene	ND	2.27	2.45	93	2.21	2.45	90	28-119	3	30
Dibenzofuran	ND	2.25	2.45	92	2.13	2.45	87	10-148	5	30
Fluorene	ND	2.37	2.45	97	2.23	2.45	91	12-147	6	30
Phenanthrene	ND	2.35	2.45	96	2.21	2.45	90	27-127	6	30
Anthracene	ND	2.46	2.45	100	2.29	2.45	93	35-124	7	30
Fluoranthene	ND	2.61	2.45	106	2.51	2.45	103	32-137	4	30
Pyrene	ND	2.50	2.45	102	2.38	2.45	97	27-143	5	30
Benz(a)anthracene	ND	2.46	2.45	100	2.29	2.45	93	37-131	7	30
Chrysene	ND	2.43	2.45	99	2.25	2.45	92	37-133	7	30
Benzo(b)fluoranthene	ND	2.67	2.45	109	2.45	2.45	100	39-129	9	30
Benzo(k)fluoranthene	ND	2.63	2.45	107	2.51	2.45	102	40-131	5	30
Benzo(a)pyrene	ND	2.65	2.45	108	2.47	2.45	101	40-126	7	30
Indeno(1,2,3-cd)pyrene	ND	2.82	2.45	115	2.65	2.45	108	34-130	6	30
Dibenz(a,h)anthracene	ND	2.74	2.45	112	2.51	2.45	102	35-129	9	30
Benzo(g,h,i)perylene	ND	2.75	2.45	112	2.55	2.45	104	39-124	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3535	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0503769

	Lab Control Sample KWG0503769-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Naphthalene	2.38	2.50	95	42-108
2-Methylnaphthalene	2.37	2.50	95	29-121
Acenaphthylene	2.44	2.50	98	40-112
Acenaphthene	2.48	2.50	99	42-115
Dibenzofuran	2.40	2.50	96	34-121
Fluorene	2.50	2.50	100	47-117
Phenanthrene	2.46	2.50	98	50-115
Anthracene	2.62	2.50	105	54-118
Fluoranthene	2.79	2.50	112	50-127
Pyrene	2.63	2.50	105	45-133
Benz(a)anthracene	2.56	2.50	103	44-127
Chrysene	2.53	2.50	101	36-137
Benzo(b)fluoranthene	2.65	2.50	106	47-127
Benzo(k)fluoranthene	2.57	2.50	103	30-144
Benzo(a)pyrene	2.63	2.50	105	36-136
Indeno(1,2,3-cd)pyrene	2.83	2.50	113	20-150
Dibenz(a,h)anthracene	2.65	2.50	106	50-127
Benzo(g,h,i)perylene	2.68	2.50	107	56-119

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:31

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**File ID:**	J:\MS11\DATA\031505\0315F003.D
Lab Code:	KWG0503769-4	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/05	13:27
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/05	15:15
Lab Control Sample	KWG0503769-3	J:\MS11\DATA\031605\0316F004.D	03/16/05	08:01
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/05	08:39
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/05	09:08

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	08:01

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**File ID:**	J:\MS11\DATA\031605\0316F004.D
Lab Code:	KWG0503769-3	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503769-4	J:\MS11\DATA\031505\0315F003.D	03/15/05	07:31
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/05	13:27
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/05	15:15
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/05	08:39
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/05	09:08

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/15/2005
Time Analyzed: 06:46

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031505\0315F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504292

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
275	198	10	60	35.5	386944	PASS
365	442	1	50	2.5	59648	PASS
51	198	10	80	33.0	358848	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.9	380502	PASS
70	69	0	2	0.6	2126	PASS
127	198	10	80	44.0	478720	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	45.3	1089024	PASS
199	198	5	9	6.8	74416	PASS
441	443	0	100	73.7	352320	PASS
442	442	100	100	100.0	2403328	PASS
443	442	15	24	19.9	478080	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504292-2	J:\MS11\DATA\031505\0315F002.D	03/15/2005	07:04	
Method Blank	KWG0503769-4	J:\MS11\DATA\031505\0315F003.D	03/15/2005	07:31	
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/2005	13:27	
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/2005	15:15	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 06:45

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031605\0316F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504293

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	32.0	360640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.6	389794	PASS
70	69	0	2	0.7	2610	PASS
127	198	10	80	42.9	484160	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	46.5	1127936	PASS
199	198	5	9	6.7	75352	PASS
275	198	10	60	34.8	392128	PASS
365	442	1	50	2.5	61432	PASS
441	443	0	100	72.8	350720	PASS
442	442	100	100	100.0	2425344	PASS
443	442	15	24	19.9	481856	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504293-2	J:\MS11\DATA\031605\0316F002.D	03/16/2005	07:03	
Lab Control Sample	KWG0503769-3	J:\MS11\DATA\031605\0316F004.D	03/16/2005	08:01	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/18/2005
Time Analyzed: 06:05

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031805\0318F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504491

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33.1	339328	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.5	353664	PASS
70	69	0	2	0.6	2000	PASS
127	198	10	80	42.9	439936	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	43.6	1026112	PASS
199	198	5	9	6.7	68592	PASS
275	198	10	60	35.8	367168	PASS
365	442	1	50	2.5	57848	PASS
441	443	0	100	74.7	344768	PASS
442	442	100	100	100.0	2351616	PASS
443	442	15	24	19.6	461504	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504491-2	J:\MS11\DATA\031805\0318F002.D	03/18/2005	06:23	
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/2005	08:39	
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/2005	09:08	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS11\DATA\031005\0310F006.D	F	J:\MS11\DATA\031105\0311F005.D
B	J:\MS11\DATA\031005\0310F011.D	G	J:\MS11\DATA\031105\0311F006.D
C	J:\MS11\DATA\031005\0310F012.D	H	J:\MS11\DATA\031105\0311F007.D
D	J:\MS11\DATA\031005\0310F013.D	I	J:\MS11\DATA\031105\0311F008.D
E	J:\MS11\DATA\031005\0310F014.D	J	J:\MS11\DATA\031105\0311F009.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	4.0	1.15	B	400	1.15	C	1000	1.11	D	1600	1.11	E	2000	1.15
	F	2.0	1.22	G	8.0	1.21	H	20	1.17	I	100	1.11	J	200	1.12
2-Methylnaphthalene	A	4.0	1.04	B	400	1.05	C	1000	1.05	D	1600	1.03	E	2000	1.00
	F	2.0	0.966	G	8.0	0.999	H	20	0.977	I	100	0.942	J	200	0.973
Acenaphthylene	A	4.0	2.01	B	400	2.09	C	1000	2.02	D	1600	1.97	E	2000	2.05
	F	2.0	2.05	G	8.0	2.04	H	20	2.00	I	100	1.93	J	200	1.99
Acenaphthene	A	4.0	1.17	B	400	1.24	C	1000	1.16	D	1600	1.15	E	2000	1.19
	F	2.0	1.17	G	8.0	1.27	H	20	1.23	I	100	1.15	J	200	1.18
Dibenzofuran	A	4.0	1.71	B	400	1.78	C	1000	1.71	D	1600	1.69	E	2000	1.76
	F	2.0	1.77	G	8.0	1.79	H	20	1.78	I	100	1.68	J	200	1.72
Fluorene	A	4.0	1.42	B	400	1.49	C	1000	1.42	D	1600	1.39	E	2000	1.46
	F	2.0	1.42	G	8.0	1.43	H	20	1.41	I	100	1.37	J	200	1.41
Phenanthrene	A	4.0	1.25	B	400	1.28	C	1000	1.17	D	1600	1.16	E	2000	1.22
	F	2.0	1.53	G	8.0	1.33	H	20	1.27	I	100	1.14	J	200	1.15
Anthracene	A	4.0	1.17	B	400	1.29	C	1000	1.19	D	1600	1.17	E	2000	1.21
	F	2.0	1.19	G	8.0	1.16	H	20	1.15	I	100	1.06	J	200	1.09
Fluoranthene	A	4.0	1.27	B	400	1.40	C	1000	1.26	D	1600	1.16	E	2000	1.13
				G	8.0	1.27	H	20	1.26	I	100	1.17	J	200	1.21
Pyrene	A	4.0	1.58	B	400	1.47	C	1000	1.35	D	1600	1.19	E	2000	1.20
				G	8.0	1.69	H	20	1.62	I	100	1.41	J	200	1.38
Benz(a)anthracene	A	4.0	1.45	B	400	1.32	C	1000	1.27	D	1600	1.24	E	2000	1.32
	F	2.0	1.74	G	8.0	1.29	H	20	1.21	I	100	1.07	J	200	1.09
Chrysene	A	4.0	1.29	B	400	1.31	C	1000	1.26	D	1600	1.22	E	2000	1.31
	F	2.0	1.60	G	8.0	1.34	H	20	1.30	I	100	1.15	J	200	1.16
Benzo(b)fluoranthene	A	4.0	1.37	B	400	1.47	C	1000	1.45	D	1600	1.44	E	2000	1.54
	F	2.0	1.55	G	8.0	1.31	H	20	1.29	I	100	1.20	J	200	1.20
Benzo(k)fluoranthene	A	4.0	1.35	B	400	1.53	C	1000	1.45	D	1600	1.42	E	2000	1.54
	F	2.0	1.39	G	8.0	1.34	H	20	1.31	I	100	1.22	J	200	1.33

Results flagged with an asterisk (*) indicate values outside control criteria

† SPCC Compound ‡ CCC Compound

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene	A	4.0	1.23	B	400	1.33	C	1000	1.29	D	1600	1.28	E	2000	1.38
	F	2.0	1.32	G	8.0	1.15	H	20	1.14	I	100	1.05	J	200	1.09
Indeno(1,2,3-cd)pyrene	A	4.0	1.24	B	400	1.22	C	1000	1.15	D	1600	1.11	E	2000	1.21
	F	2.0	1.02	G	8.0	0.906	H	20	0.901	I	100	0.837	J	200	0.863
Dibenz(a,h)anthracene	A	4.0	1.23	B	400	1.26	C	1000	1.19	D	1600	1.17	E	2000	1.25
	F	2.0	1.09	G	8.0	1.01	H	20	0.998	I	100	0.963	J	200	0.941
Benzo(g,h,i)perylene	A	4.0	1.36	B	400	1.41	C	1000	1.29	D	1600	1.24	E	2000	1.31
	F	2.0	1.40	G	8.0	1.28	H	20	1.23	I	100	1.12	J	200	1.15
Fluorene-d10	A	4.0	1.39	B	400	1.47	C	1000	1.40	D	1600	1.36	E	2000	1.41
	F	2.0	1.46	G	8.0	1.43	H	20	1.42	I	100	1.36	J	200	1.41
Fluoranthene-d10	A	4.0	1.42	B	400	1.54	C	1000	1.37	D	1600	1.23	E	2000	1.21
	F	2.0	1.41	G	8.0	1.38	H	20	1.38	I	100	1.28	J	200	1.31
Terphenyl-d14	A	4.0	1.21	B	400	1.14	C	1000	1.07	D	1600	1.02	E	2000	1.07
	F	2.0	1.23	G	8.0	1.20	H	20	1.18	I	100	1.04	J	200	1.02

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Naphthalene	MS	AverageRF	% RSD	3.5		≤ 15	1.15		0.01
2-Methylnaphthalene	MS	AverageRF	% RSD	3.7		≤ 15	1.00		0.01
Acenaphthylene	MS	AverageRF	% RSD	2.3		≤ 15	2.01		0.01
Acenaphthene	MS	AverageRF	% RSD	3.4		≤ 15	1.19		0.01
Dibenzofuran	MS	AverageRF	% RSD	2.4		≤ 15	1.74		0.01
Fluorene	MS	AverageRF	% RSD	2.5		≤ 15	1.42		0.01
Phenanthrene	MS	AverageRF	% RSD	9.4		≤ 15	1.25		0.01
Anthracene	MS	AverageRF	% RSD	5.3		≤ 15	1.17		0.01
Fluoranthene	MS	AverageRF	% RSD	6.6		≤ 15	1.24		0.01
Pyrene	MS	AverageRF	% RSD	12.3		≤ 15	1.43		0.01
Benz(a)anthracene	MS	AverageRF	% RSD	14.6		≤ 15	1.30		0.01
Chrysene	MS	AverageRF	% RSD	9.8		≤ 15	1.29		0.01
Benzo(b)fluoranthene	MS	AverageRF	% RSD	9.2		≤ 15	1.38		0.01
Benzo(k)fluoranthene	MS	AverageRF	% RSD	7.1		≤ 15	1.39		0.01
Benzo(a)pyrene	MS	AverageRF	% RSD	9.2		≤ 15	1.23		0.01
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	15.2	*	≤ 15	1.05		0.01
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	11.2		≤ 15	1.11		0.01
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	7.6		≤ 15	1.28		0.01
Fluorene-d10	SURR	AverageRF	% RSD	2.7		≤ 15	1.41		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	7.2		≤ 15	1.35		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.3		≤ 15	1.12		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005
Date Analyzed: 03/11/2005

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration ID: CAL4299
Units: ng/ml

File ID: J:\MS11\DATA\031105\0311G011.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	1.15	1.12	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	1.00	0.944	-6	NA	± 20 %	AverageRF
Acenaphthylene	200	190	2.01	1.95	-3	NA	± 20 %	AverageRF
Acenaphthene	200	190	1.19	1.16	-3	NA	± 20 %	AverageRF
Dibenzofuran	200	200	1.74	1.74	0	NA	± 20 %	AverageRF
Fluorene	200	200	1.42	1.40	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	1.25	1.26	1	NA	± 20 %	AverageRF
Anthracene	200	210	1.17	1.21	3	NA	± 20 %	AverageRF
Fluoranthene	200	210	1.24	1.30	5	NA	± 20 %	AverageRF
Pyrene	200	210	1.43	1.50	5	NA	± 20 %	AverageRF
Benz(a)anthracene	200	180	1.30	1.20	-8	NA	± 20 %	AverageRF
Chrysene	200	200	1.29	1.27	-2	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	1.38	1.37	-1	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	210	1.39	1.44	3	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	1.23	1.21	-1	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	180	1.05	0.929	-11	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	190	1.11	1.04	-7	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	200	1.28	1.28	0	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504292
Units: ng/ml

File ID: J:\MS11\DATA\031505\0315F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	0.01	1.15	1.10	-5	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.956	-5	NA	± 20 %	AverageRF
Acenaphthylene	200	200	0.01	2.01	1.98	-2	NA	± 20 %	AverageRF
Acenaphthene	200	200	0.01	1.19	1.18	-1	NA	± 20 %	AverageRF
Dibenzofuran	200	200	0.01	1.74	1.74	0	NA	± 20 %	AverageRF
Fluorene	200	200	0.01	1.42	1.41	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	0.01	1.25	1.25	0	NA	± 20 %	AverageRF
Anthracene	200	210	0.01	1.17	1.22	5	NA	± 20 %	AverageRF
Fluoranthene	200	220	0.01	1.24	1.34	8	NA	± 20 %	AverageRF
Pyrene	200	200	0.01	1.43	1.46	2	NA	± 20 %	AverageRF
Benz(a)anthracene	200	200	0.01	1.30	1.27	-2	NA	± 20 %	AverageRF
Chrysene	200	190	0.01	1.29	1.25	-3	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.36	-2	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	0.01	1.39	1.38	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.09	4	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.11	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.32	3	NA	± 20 %	AverageRF
Fluorene-d10	200	200	0.01	1.41	1.44	2	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.49	10	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.15	3	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504293
Units: ng/ml

File ID: J:\MS11\DATA\031605\0316F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	0.01	1.15	1.10	-4	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.952	-5	NA	± 20 %	AverageRF
Acenaphthylene	200	200	0.01	2.01	1.99	-1	NA	± 20 %	AverageRF
Acenaphthene	200	200	0.01	1.19	1.17	-2	NA	± 20 %	AverageRF
Dibenzofuran	200	200	0.01	1.74	1.71	-2	NA	± 20 %	AverageRF
Fluorene	200	200	0.01	1.42	1.41	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	0.01	1.25	1.24	-1	NA	± 20 %	AverageRF
Anthracene	200	220	0.01	1.17	1.27	9	NA	± 20 %	AverageRF
Fluoranthene	200	220	0.01	1.24	1.37	11	NA	± 20 %	AverageRF
Pyrene	200	210	0.01	1.43	1.50	5	NA	± 20 %	AverageRF
Benz(a)anthracene	200	200	0.01	1.30	1.29	-1	NA	± 20 %	AverageRF
Chrysene	200	200	0.01	1.29	1.26	-2	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.39	1	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	190	0.01	1.39	1.34	-4	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.11	6	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.11	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.34	5	NA	± 20 %	AverageRF
Fluorene-d10	200	200	0.01	1.41	1.44	2	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.50	11	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.17	4	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/18/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504491
Units: ng/ml

File ID: J:\MS11\DATA\031805\0318F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	180	0.01	1.15	1.06	-8	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.966	-4	NA	± 20 %	AverageRF
Acenaphthylene	200	180	0.01	2.01	1.84	-9	NA	± 20 %	AverageRF
Acenaphthene	200	190	0.01	1.19	1.10	-7	NA	± 20 %	AverageRF
Dibenzofuran	200	180	0.01	1.74	1.61	-8	NA	± 20 %	AverageRF
Fluorene	200	190	0.01	1.42	1.33	-7	NA	± 20 %	AverageRF
Phenanthrene	200	190	0.01	1.25	1.16	-7	NA	± 20 %	AverageRF
Anthracene	200	190	0.01	1.17	1.11	-5	NA	± 20 %	AverageRF
Fluoranthene	200	200	0.01	1.24	1.24	0	NA	± 20 %	AverageRF
Pyrene	200	200	0.01	1.43	1.43	0	NA	± 20 %	AverageRF
Benz(a)anthracene	200	180	0.01	1.30	1.20	-8	NA	± 20 %	AverageRF
Chrysene	200	190	0.01	1.29	1.21	-7	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.38	0	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	0.01	1.39	1.39	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.11	7	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.14	2	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.34	5	NA	± 20 %	AverageRF
Fluorene-d10	200	210	0.01	1.41	1.46	3	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.46	8	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.19	6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270C SIM

Analysis Lot: KWG0504292
Instrument ID: MS11

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0315F001.D	GC/MS Tuning - Decafluorotripheny	KWG0504292-1	3/15/2005	06:46		3/15/2005	06:58
0315F002.D	Continuing Calibration Verification	KWG0504292-2	3/15/2005	07:04		3/15/2005	07:23
0315F003.D	Method Blank	KWG0503769-4	3/15/2005	07:31		3/15/2005	07:50
0315F004.D	ZZZZZZ	ZZZZZZ	3/15/2005	07:58		3/15/2005	08:17
0315F005.D	ZZZZZZ	ZZZZZZ	3/15/2005	08:26		3/15/2005	08:45
0315F006.D	ZZZZZZ	ZZZZZZ	3/15/2005	08:54		3/15/2005	09:13
0315F007.D	ZZZZZZ	ZZZZZZ	3/15/2005	09:21		3/15/2005	09:40
0315F008.D	ZZZZZZ	ZZZZZZ	3/15/2005	09:47		3/15/2005	10:06
0315F009.D	ZZZZZZ	ZZZZZZ	3/15/2005	10:15		3/15/2005	10:34
0315F015.D	Batch QC	K2501656-003	3/15/2005	13:27		3/15/2005	13:46
0315F016.D	ZZZZZZ	ZZZZZZ	3/15/2005	13:54		3/15/2005	14:13
0315F017.D	ZZZZZZ	ZZZZZZ	3/15/2005	14:21		3/15/2005	14:41
0315F018.D	ZZZZZZ	ZZZZZZ	3/15/2005	14:48		3/15/2005	15:07
0315F019.D	50425-02	K2501630-002	3/15/2005	15:15		3/15/2005	15:34
0315F020.D	ZZZZZZ	ZZZZZZ	3/15/2005	15:42		3/15/2005	16:01
0315F021.D	ZZZZZZ	ZZZZZZ	3/15/2005	16:09		3/15/2005	16:28
0315F022.D	ZZZZZZ	ZZZZZZ	3/15/2005	16:36		3/15/2005	16:55
0315F023.D	ZZZZZZ	ZZZZZZ	3/15/2005	17:04		3/15/2005	17:23
0315F024.D	ZZZZZZ	ZZZZZZ	3/15/2005	17:31		3/15/2005	17:50
0315F025.D	ZZZZZZ	ZZZZZZ	3/15/2005	17:58		3/15/2005	18:17
0315F026.D	ZZZZZZ	ZZZZZZ	3/15/2005	18:25		3/15/2005	18:44

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270C SIM

Analysis Lot: KWG0504293
Instrument ID: MS11

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0316F001.D	GC/MS Tuning - Decafluorotripheny	KWG0504293-1	3/16/2005	06:45		3/16/2005	06:57
0316F002.D	Continuing Calibration Verification	KWG0504293-2	3/16/2005	07:03		3/16/2005	07:22
0316F003.D	Instrument Blank	KWG0504293-3	3/16/2005	07:35		3/16/2005	07:54
0316F004.D	Lab Control Sample	KWG0503769-3	3/16/2005	08:01		3/16/2005	08:20
0316F005.D	ZZZZZZ	ZZZZZZ	3/16/2005	08:29		3/16/2005	08:48
0316F006.D	ZZZZZZ	ZZZZZZ	3/16/2005	08:56		3/16/2005	09:15
0316F007.D	ZZZZZZ	ZZZZZZ	3/16/2005	09:22		3/16/2005	09:41
0316F008.D	ZZZZZZ	ZZZZZZ	3/16/2005	09:49		3/16/2005	10:08
0316F009.D	ZZZZZZ	ZZZZZZ	3/16/2005	10:16		3/16/2005	10:35
0316F010.D	ZZZZZZ	ZZZZZZ	3/16/2005	10:43		3/16/2005	11:02

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270C SIM

Analysis Lot: KWG0504491
Instrument ID: MS11

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0318F001.D	GC/MS Tuning - Decafluorotripheny	KWG0504491-1	3/18/2005	06:05		3/18/2005	06:17
0318F002.D	Continuing Calibration Verification	KWG0504491-2	3/18/2005	06:23		3/18/2005	06:42
0318F003.D	ZZZZZZ	ZZZZZZ	3/18/2005	06:50		3/18/2005	07:09
0318F004.D	ZZZZZZ	ZZZZZZ	3/18/2005	07:17		3/18/2005	07:36
0318F005.D	ZZZZZZ	ZZZZZZ	3/18/2005	07:45		3/18/2005	08:04
0318F006.D	ZZZZZZ	ZZZZZZ	3/18/2005	08:11		3/18/2005	08:30
0318F007.D	Batch QCMS	KWG0503769-1	3/18/2005	08:39		3/18/2005	08:58
0318F008.D	Batch QCDMS	KWG0503769-2	3/18/2005	09:08		3/18/2005	09:27
0318F009.D	ZZZZZZ	ZZZZZZ	3/18/2005	09:35		3/18/2005	09:54
0318F010.D	ZZZZZZ	ZZZZZZ	3/18/2005	10:03		3/18/2005	10:22
0318F011.D	ZZZZZZ	ZZZZZZ	3/18/2005	10:30		3/18/2005	10:49
0318F012.D	ZZZZZZ	ZZZZZZ	3/18/2005	10:59		3/18/2005	11:18
0318F013.D	ZZZZZZ	ZZZZZZ	3/18/2005	11:26		3/18/2005	11:45
0318F014.D	ZZZZZZ	ZZZZZZ	3/18/2005	11:56		3/18/2005	12:15
0318F015.D	ZZZZZZ	ZZZZZZ	3/18/2005	12:25		3/18/2005	12:44
0318F016.D	ZZZZZZ	ZZZZZZ	3/18/2005	12:54		3/18/2005	13:13
0318F023.D	ZZZZZZ	ZZZZZZ	3/18/2005	16:11		3/18/2005	16:30
0318F024.D	ZZZZZZ	ZZZZZZ	3/18/2005	16:38		3/18/2005	16:57
0318F025.D	ZZZZZZ	ZZZZZZ	3/18/2005	17:05		3/18/2005	17:24
0318F026.D	ZZZZZZ	ZZZZZZ	3/18/2005	17:33		3/18/2005	17:52
0318F027.D	ZZZZZZ	ZZZZZZ	3/18/2005	18:00		3/18/2005	18:19

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630
Date Extracted: 03/09/2005

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Extraction Lot: KWG0503769
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
50425-02	K2501630-002	03/04/05	03/05/05	1040ml	5ml	NA	
Method Blank	KWG0503769-4	NA	NA	1040ml	5ml	NA	
Batch QC	K2501656-003	NA	NA	1000ml	5ml	NA	
Batch QCMS	KWG0503769-1	NA	NA	1020ml	5ml	NA	
Batch QCDMS	KWG0503769-2	NA	NA	1020ml	5ml	NA	
Lab Control Sample	KWG0503769-3	NA	NA	1000ml	5ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105
Sample Matrix: Water

Service Request: K2501630

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3535
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
50425-02	K2501630-002	67	82	116
Method Blank	KWG0503769-4	68	76	100
Batch QC	K2501656-003	70	86	99
Batch QCMS	KWG0503769-1	70	77	99
Batch QCDMS	KWG0503769-2	83	93	118
Lab Control Sample	KWG0503769-3	82	91	108

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	37-107
Sur2 =	Fluoranthene-d10	18-137
Sur3 =	Terphenyl-d14	18-153

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:04

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031505\0315F002.D	**Lab Code:**	KWG0504292-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504292
Analysis Method:	8270C SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	211,050	5.06	167,917	6.50	265,653	7.71
	Upper Limit ==>	422,100	5.56	335,834	7.00	531,306	8.21
	Lower Limit ==>	105,525	4.56	83,959	6.00	132,827	7.21
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Method Blank	KWG0503769-4	227,753	5.06	174,347	6.49	271,320	7.71
Batch QC	K2501656-003	205,562	5.06	154,531	6.50	242,827	7.72
50425-02	K2501630-002	198,663	5.06	153,970	6.50	235,903	7.72

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:04

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031505\0315F002.D	**Lab Code:**	KWG0504292-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504292
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	246,310	10.63	229,170	14.59
	Upper Limit ==>	492,620	11.13	458,340	15.09
	Lower Limit ==>	123,155	10.13	114,585	14.09
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Method Blank	KWG0503769-4	228,802	10.62	204,068	14.58
Batch QC	K2501656-003	194,035	10.63	123,537	14.59
50425-02	K2501630-002	189,634	10.63	158,621	14.59

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 07:03

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031605\0316F002.D
Instrument ID: MS11
Analysis Method: 8270C SIM

Lab Code: KWG0504293-2
Analysis Lot: KWG0504293

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Results ==>	211,488	5.06	166,555	6.50	263,269	7.72
	Upper Limit ==>	422,976	5.56	333,110	7.00	526,538	8.22
	Lower Limit ==>	105,744	4.56	83,278	6.00	131,635	7.22
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Lab Control Sample	KWG0503769-3	212,763	5.06	176,039	6.50	284,278	7.72

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/16/2005
		Time Analyzed:	07:03

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031605\0316F002.D	**Lab Code:**	KWG0504293-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504293
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	243,898	10.64	235,707	14.62
	Upper Limit ==>	487,796	11.14	471,414	15.12
	Lower Limit ==>	121,949	10.14	117,854	14.12
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Lab Control Sample	KWG0503769-3	268,246	10.64	250,153	14.61

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/18/2005
Time Analyzed: 06:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031805\0318F002.D
Instrument ID: MS11
Analysis Method: 8270C SIM

Lab Code: KWG0504491-2
Analysis Lot: KWG0504491

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Results ==>	166,708	5.04	143,907	6.48	226,082	7.70
	Upper Limit ==>	333,416	5.54	287,814	6.98	452,164	8.20
	Lower Limit ==>	83,354	4.54	71,954	5.98	113,041	7.20
	ICAL Result ==>	245,465	5.05	191,170	6.49	322,201	7.71
Associated Analyses							
Batch QCMS	KWG0503769-1	192,627	5.04	166,363	6.47	266,885	7.70
Batch QCDMS	KWG0503769-2	178,355	5.04	160,540	6.47	245,733	7.70

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Analyzed:**	03/18/2005
		Time Analyzed:	06:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS11\DATA\031805\0318F002.D	**Lab Code:**	KWG0504491-2
Instrument ID:	MS11	**Analysis Lot:**	KWG0504491
Analysis Method:	8270C SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	202,156	10.57	174,056	14.48
	Upper Limit ==>	404,312	11.07	348,112	14.98
	Lower Limit ==>	101,078	10.07	87,028	13.98
	ICAL Result ==>	290,333	10.62	243,506	14.56
Associated Analyses					
Batch QCMS	KWG0503769-1	251,303	10.57	218,092	14.49
Batch QCDMS	KWG0503769-2	232,701	10.58	198,644	14.50

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/18/2005

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K2501656-003	**Basis:**	NA
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

		Batch QCMS KWG0503769-1 Matrix Spike			Batch QCDMS KWG0503769-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	0.0072	2.20	2.45	90	2.14	2.45	87	20-117	3	30
2-Methylnaphthalene	ND	2.25	2.45	92	2.29	2.45	94	19-121	2	30
Acenaphthylene	ND	2.31	2.45	94	2.22	2.45	90	25-121	4	30
Acenaphthene	ND	2.27	2.45	93	2.21	2.45	90	28-119	3	30
Dibenzofuran	ND	2.25	2.45	92	2.13	2.45	87	10-148	5	30
Fluorene	ND	2.37	2.45	97	2.23	2.45	91	12-147	6	30
Phenanthrene	ND	2.35	2.45	96	2.21	2.45	90	27-127	6	30
Anthracene	ND	2.46	2.45	100	2.29	2.45	93	35-124	7	30
Fluoranthene	ND	2.61	2.45	106	2.51	2.45	103	32-137	4	30
Pyrene	ND	2.50	2.45	102	2.38	2.45	97	27-143	5	30
Benz(a)anthracene	ND	2.46	2.45	100	2.29	2.45	93	37-131	7	30
Chrysene	ND	2.43	2.45	99	2.25	2.45	92	37-133	7	30
Benzo(b)fluoranthene	ND	2.67	2.45	109	2.45	2.45	100	39-129	9	30
Benzo(k)fluoranthene	ND	2.63	2.45	107	2.51	2.45	102	40-131	5	30
Benzo(a)pyrene	ND	2.65	2.45	108	2.47	2.45	101	40-126	7	30
Indeno(1,2,3-cd)pyrene	ND	2.82	2.45	115	2.65	2.45	108	34-130	6	30
Dibenz(a,h)anthracene	ND	2.74	2.45	112	2.51	2.45	102	35-129	9	30
Benzo(g,h,i)perylene	ND	2.75	2.45	112	2.55	2.45	104	39-124	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3535	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG0503769

	Lab Control Sample KWG0503769-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Naphthalene	2.38	2.50	95	42-108
2-Methylnaphthalene	2.37	2.50	95	29-121
Acenaphthylene	2.44	2.50	98	40-112
Acenaphthene	2.48	2.50	99	42-115
Dibenzofuran	2.40	2.50	96	34-121
Fluorene	2.50	2.50	100	47-117
Phenanthrene	2.46	2.50	98	50-115
Anthracene	2.62	2.50	105	54-118
Fluoranthene	2.79	2.50	112	50-127
Pyrene	2.63	2.50	105	45-133
Benz(a)anthracene	2.56	2.50	103	44-127
Chrysene	2.53	2.50	101	36-137
Benzo(b)fluoranthene	2.65	2.50	106	47-127
Benzo(k)fluoranthene	2.57	2.50	103	30-144
Benzo(a)pyrene	2.63	2.50	105	36-136
Indeno(1,2,3-cd)pyrene	2.83	2.50	113	20-150
Dibenz(a,h)anthracene	2.65	2.50	106	50-127
Benzo(g,h,i)perylene	2.68	2.50	107	56-119

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/15/2005
		Time Analyzed:	07:31

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**File ID:**	J:\MS11\DATA\031505\0315F003.D
Lab Code:	KWG0503769-4	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/05	13:27
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/05	15:15
Lab Control Sample	KWG0503769-3	J:\MS11\DATA\031605\0316F004.D	03/16/05	08:01
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/05	08:39
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/05	09:08

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Extracted:**	03/09/2005
Sample Matrix:	Water	**Date Analyzed:**	03/16/2005
		Time Analyzed:	08:01

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**File ID:**	J:\MS11\DATA\031605\0316F004.D
Lab Code:	KWG0503769-3	**Instrument ID:**	MS11
Extraction Method:	EPA 3535	**Level:**	Low
Analysis Method:	8270C SIM	**Extraction Lot:**	KWG0503769

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0503769-4	J:\MS11\DATA\031505\0315F003.D	03/15/05	07:31
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/05	13:27
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/05	15:15
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/05	08:39
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/05	09:08

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Raw Data

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	03/04/2005
Sample Matrix:	Water	**Date Received:**	03/05/2005
		Date Extracted:	03/09/2005
		Date Analyzed:	03/15/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	50425-02	**Units:**	ug/L
Lab Code:	K2501630-002	**Basis:**	NA
File ID:	J:\MS11\DATA\031505\0315F019.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0063**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	67	37-107	03/15/05	Acceptable
Fluoranthene-d10	82	18-137	03/15/05	Acceptable
Terphenyl-d14	116	18-153	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031505\0315F019 D
Lab ID: K2501630-002
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 15:15
Date Quantitated: 03/17/2005 08:16
Batch ID: KWG0504292
Analysis Method: 8270C SIM
ListJoinID: LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 3/17/05

Secondary Review: 3/17/5

Printed: 03/17/2005 10:15:14
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/04/2005	**Receive Date:**	03/05/2005

Analysis Lot:	KWG0504292	**Prep Lot:**	KWG0503769	**Report Group:**	K2501630
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	366799	**Prep Date:**	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	**Calibration ID:**	CAL4299
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ4885
Tune Ref:	J:\MS11\DATA\031505\0315F001 D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\031505\0315F003 D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\031505\0315F019 D			**Instrument:**	MS11
Acqu Date:	03/15/2005 15:15	**Quant Date:**	03/17/2005 08:16	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501630-002			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	198663	200 00	OK
2	Acenaphthene-d10	6 50	0 00	164	153970	200 00	OK
3	Phenanthrene-d10	7 72	0 01	188	235903	200 00	OK
4	Chrysene-d12	10 63	0 00	240	189634	200 00	OK
5	Perylene-d12	14 59	0 00	264	158621m	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	293191	269 88	67	37-107	OK
3	Fluoranthene-d10	8 73	0 00	0 00	212	522799	327 49	82	18-137	OK
4	Terphenyl-d14	9 13	0 00	0 00	244	491080	463 19	116	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 07		0 00	128	1497	1 31	0 0063	J	
1	2-Methylnaphthalene	5 63	0 01	0 00	142	623	0 6300	0 0040	U	
2	Acenaphthylene				152	0d		0 0031	U	
2	Acenaphthene				154	0d		0 0042	U	
2	Dibenzofuran	6 66	0 01	0 00	168	262	0 2000	0 0044	U	
2	Fluorene				166	0d		0 0051	U	
3	Phenanthrene				178	0d		0 0038	U	
3	Anthracene				178	0d		0 0039	U	
3	Fluoranthene				202	0d		0 0042	U	
4	Pyrene				202	0d		0 0037	U	
4	Benz(a)anthracene				228	0d		0 0040	U	
4	Chrysene				228	0d		0 0036	U	
5	Benzo(b)fluoranthene				252	0d		0 0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031505\0315F019 D			**Instrument:**	MS11
Acqu Date:	03/15/2005 15:15	**Quant Date:**	03/17/2005 08:16	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501630-002			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene				252	0d		0 0041	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Indeno(1,2,3-cd)pyrene				276	0d		0 0038	U	
5	Dibenz(a,h)anthracene				278	0d		0 0066	U	
5	Benzo(g,h,i)perylene				276	0d		0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F019.D
Acq On : 15 Mar 2005 3:15 pm
Sample : K2501630-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 07:20:12 2005

Vial: 15
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	198663	200.00	ng/ml	0.03
10) Acenaphthene-d10	6.50	164	153970	200.00	ng/ml	0.03
22) Phenanthrene-d10	7.72	188	235903	200.00	ng/ml	0.02
37) Chrysene-d12	10.63	240	189634	200.00	ng/ml	0.05
49) Perylene-d12	14.59	264	158621m	200.00	ng/ml	0.10
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	293191	269.88	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 26.99%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.73	212	522799	327.49	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 32.75%			
42) Terphenyl-d14	9.13	244	491080	463.19	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 46.32%			
Target Compounds						Qvalue
2) Naphthalene	5.07	128	1497	1.31	ng/ml	97
3) 2-Methylnaphthalene	5.63	142	623	0.63	ng/ml	93
4) 1-Methylnaphthalene	5.71	142	490	0.54	ng/ml	99
5) Biphenyl	6.01	154	868m	0.70	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	175	0.20	ng/ml	66
13) Dibenzofuran	6.66	168	262	0.20	ng/ml	96

(#) = qualifier out of range (m) = manual integration

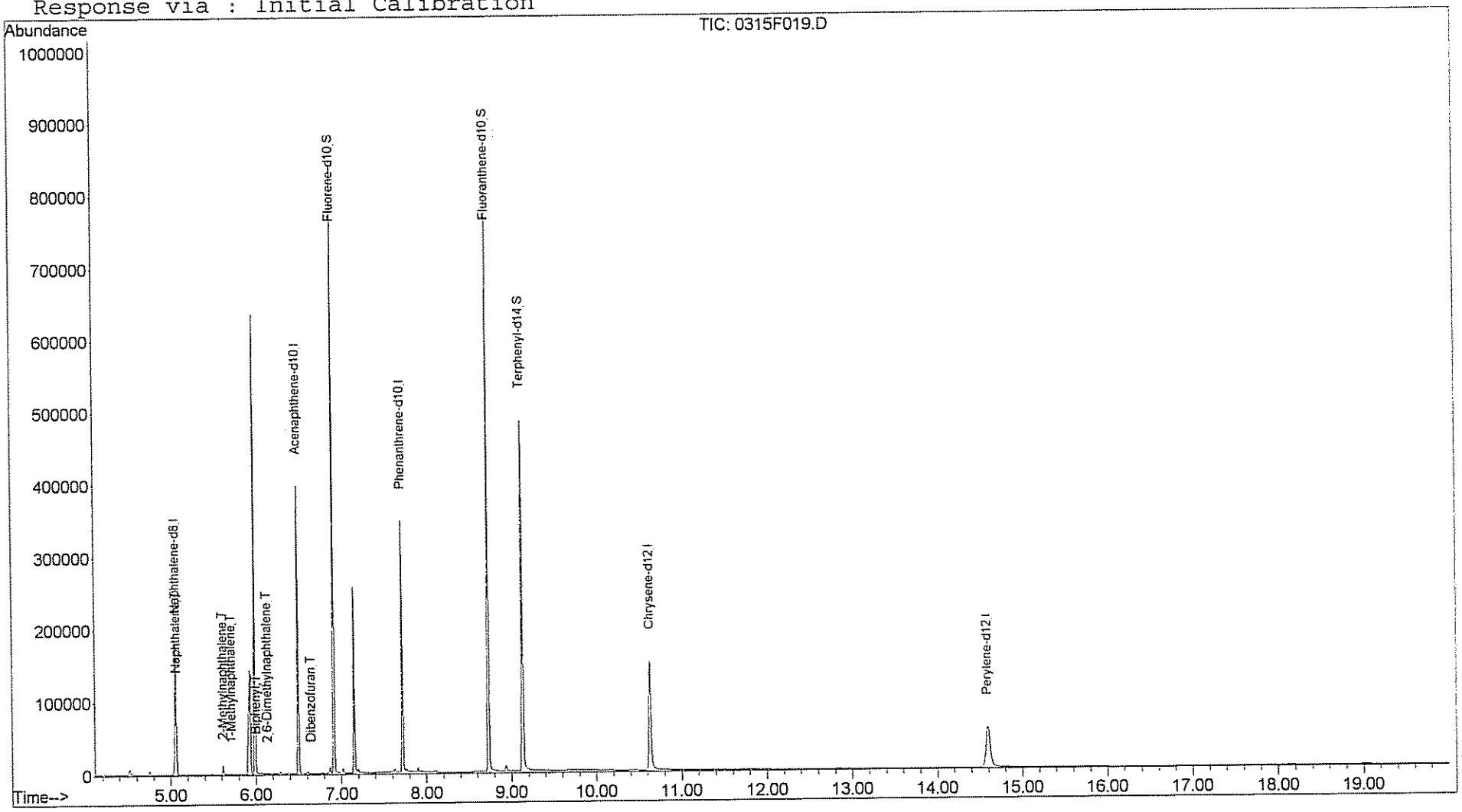
Quantitation Report (QT Reviewed)

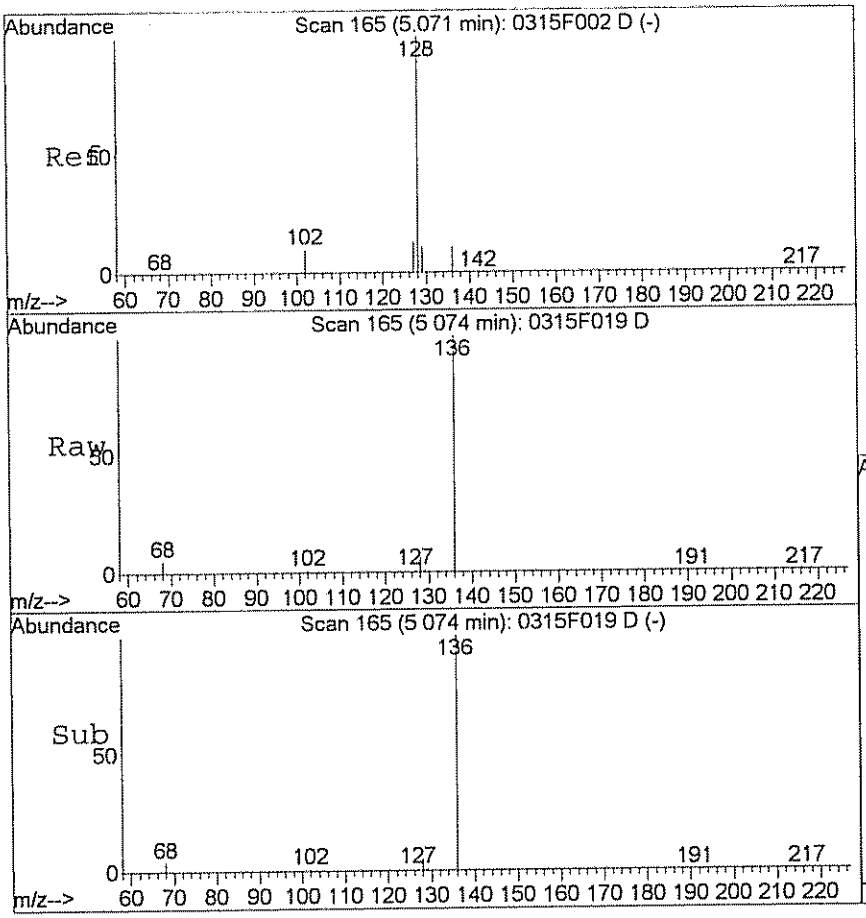
Data File : J:\MS11\DATA\031505\0315F019.D
Acq On : 15 Mar 2005 3:15 pm
Sample : K2501630-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:16 2005

Vial: 15
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration

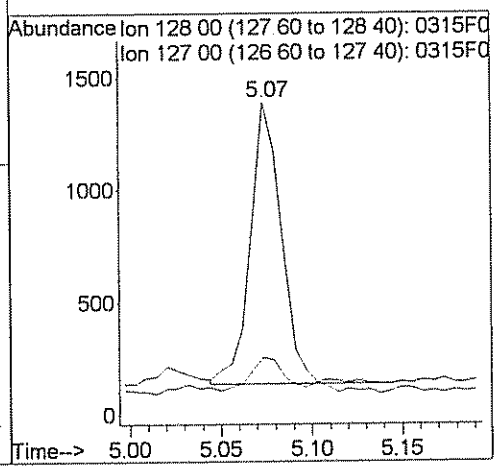


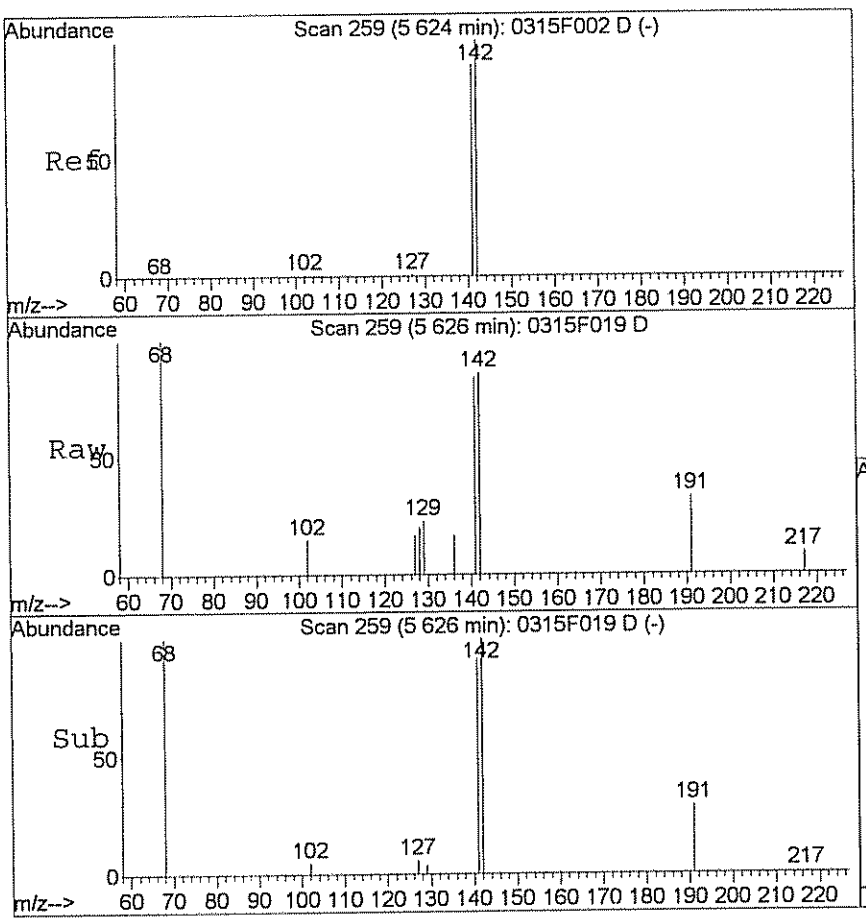


#2
Naphthalene
Concen: 1.31 ng/ml
RT: 5.07 min Scan# 165
Delta R.T. 0.02 min
Lab File: 0315F019.D
Acq: 15 Mar 2005 3:15 pm

Tgt Ion:128 Resp: 1497

Ion	Ratio	Lower	Upper
128	100		
127	12.0	0.0	43.1

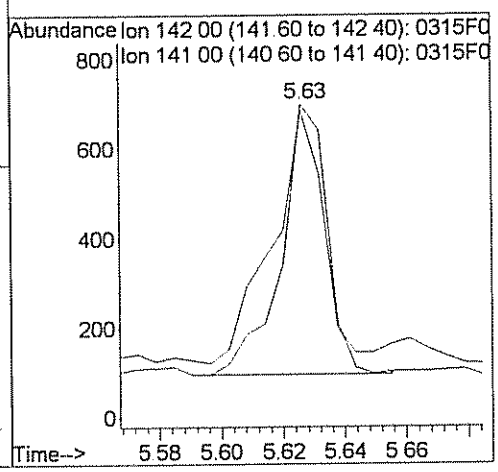




#3
2-Methylnaphthalene
Concen: 0.63 ng/ml
RT: 5.63 min Scan# 259
Delta R.T. 0.02 min
Lab File: 0315F019.D
Acq: 15 Mar 2005 3:15 pm

Tgt Ion:142 Resp: 623

Ion	Ratio	Lower	Upper
142	100		
141	93.2	56.4	116.4



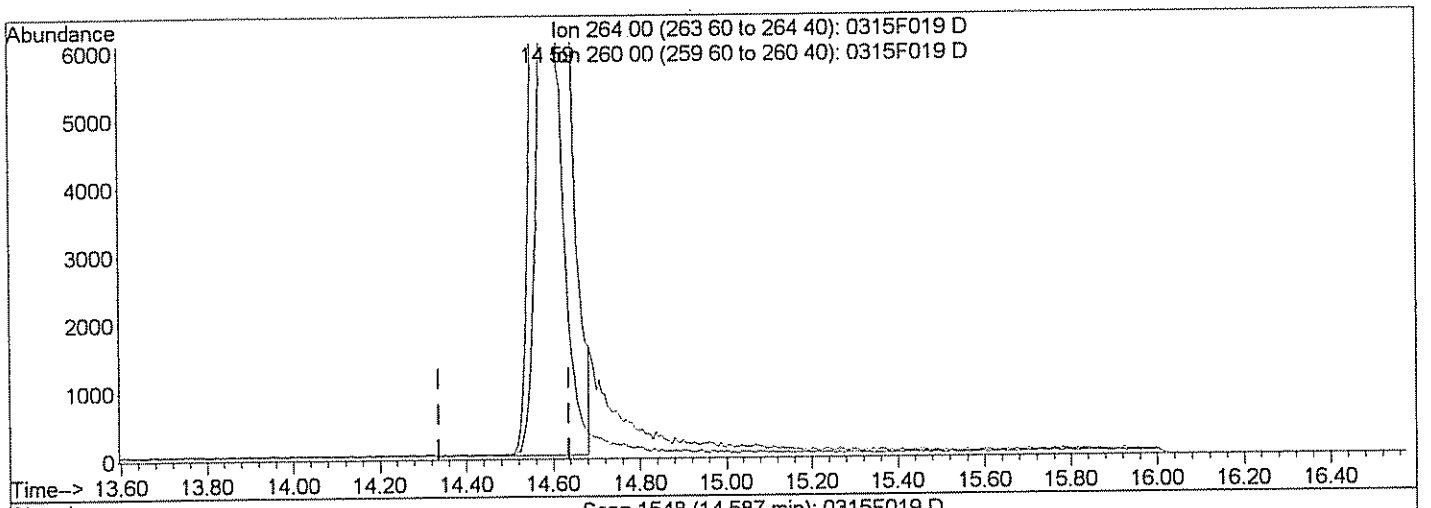
Quantitation Report (Qedit)

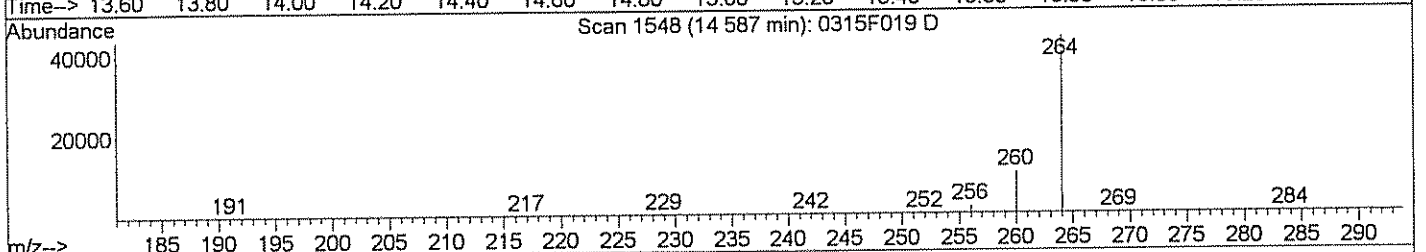
Data File : J:\MS11\DATA\031505\0315F019.D
Acq On : 15 Mar 2005 3:15 pm
Sample : K2501630-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:16 2005

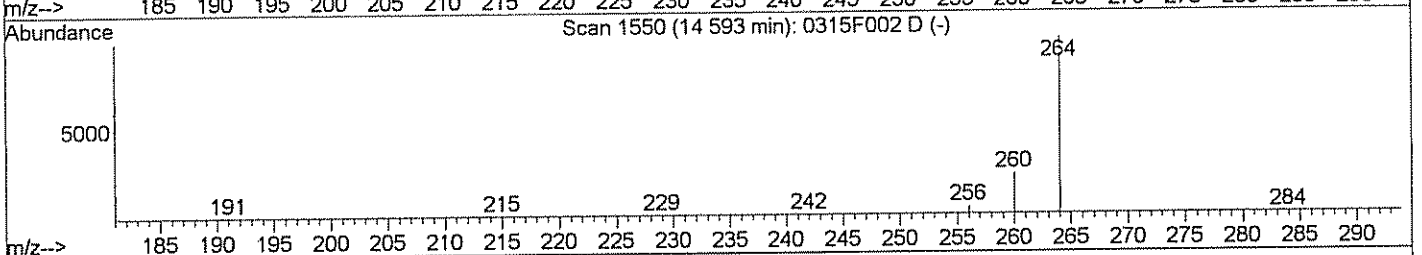
Vial: 15
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Multiple Level Calibration







TIC: 0315F019 D

(49) Perylene-d12 (I)

14 59min 200 00ng/ml

response 150804

Ion	Exp%	Act%
264 00	100	100
260 00	23 10	23 43
0 00	0 00	0 00
0 00	0 00	0 00

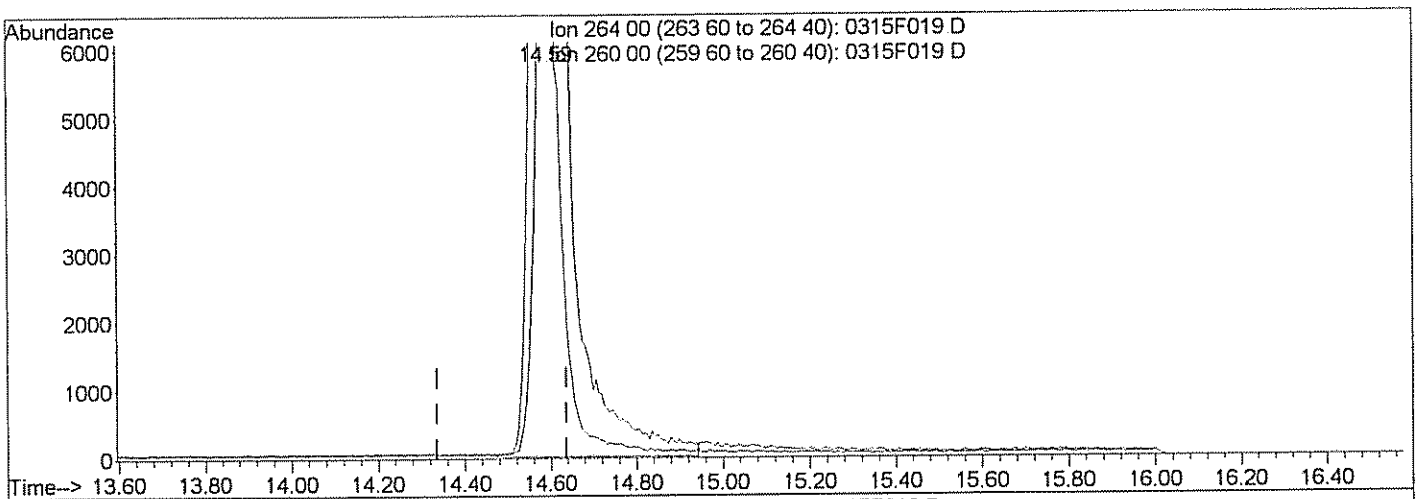
0315F019.D 0310ALK.M Thu Mar 17 08:16:37 2005

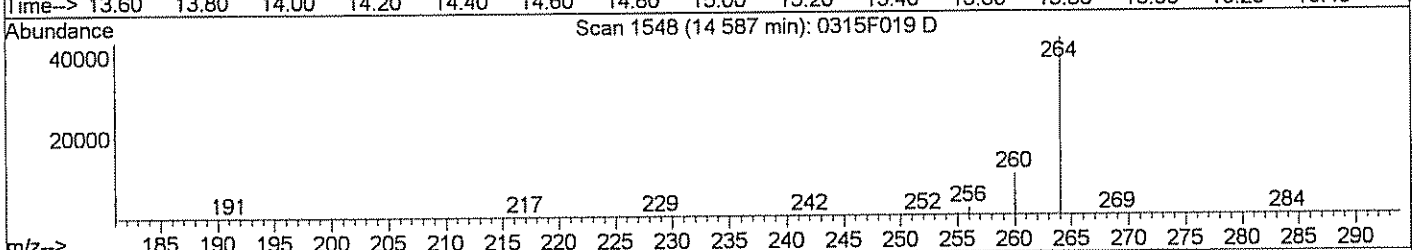
Quantitation Report (Qedit)

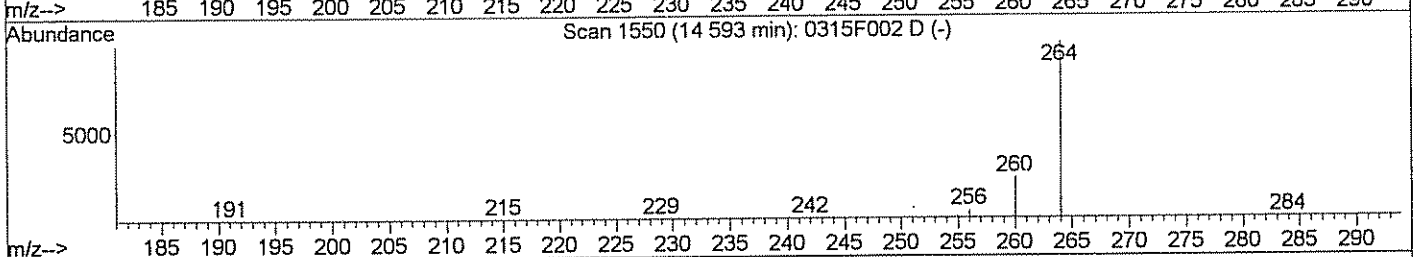
Data File : J:\MS11\DATA\031505\0315F019.D
Acq On : 15 Mar 2005 3:15 pm
Sample : K2501630-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:16 2005

Vial: 15
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Multiple Level Calibration







TIC: 0315F019 D

(49) Perylene-d12 (I)

14 59min 200 00ng/ml m

response 158621

Ion	Exp%	Act%
264 00	100	100
260 00	23 10	23 55
0 00	0 00	0 00
0 00	0 00	0 00

3/17/5
incomplete
3/17/5

0315F019.D 0310ALK.M Thu Mar 17 08:16:48 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/15/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG0503769-4	**Basis:**	NA
File ID:	J:\MS11\DATA\031505\0315F003.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1040 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0055**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	68	37-107	03/15/05	Acceptable
Fluoranthene-d10	76	18-137	03/15/05	Acceptable
Terphenyl-d14	100	18-153	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031505\0315F003 D
Lab ID: KWG0503769-4
RunType: MB
Matrix: WATER

Date Acquired: 03/15/2005 07:31
Date Quantitated: 03/17/2005 07.22
Batch ID: KWG0504292
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K1630
K1656
K1657

Primary Review: CH 3/17/05

Secondary Review: 3/17/5

Printed: 03/17/2005 10:14:30
u \Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/10/2005

Analysis Lot:	KWG0504292	Prep Lot:	KWG0503769	Report Group:	
Analysis Method:	8270C SIM	Prep Method:	EPA 3535		
Prep Ref:	366803	Prep Date:	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	Calibration ID:	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031505\0315F001 D	Method ID:	MJ140
MB Ref:		Quant based on Method	

Data File:	J:\MS11\DATA\031505\0315F003 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:31	Quant Date:	03/17/2005 07:22	Vial:	1
Run Type:	MB			Dilution:	1 0
Lab ID:	KWG0503769-4			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 01	136	227753	200 00	OK
2	Acenaphthene-d10	6 49	0 00	164	174347	200 00	OK
3	Phenanthrene-d10	7 71	0 00	188	271320	200 00	OK
4	Chrysene-d12	10 62	0 00	240	228802	200 00	OK
5	Perylene-d12	14 58	0 02	264	204068	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	336140	273 26	68	37-107 OK	
3	Fluoranthene-d10	8 73	0 00	0 00	212	559508	304 74	76	18-137 OK	
4	Terphenyl-d14	9 13	0 00	0 00	244	510545	399 12	100	18-153 OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 07		0 00	128	1510	1 15	0 00553	J	
1	2-Methylnaphthalene	5 62		0 00	142	550	0 4800	0 0040	U	
1	1-Methylnaphthalene	5 71	-0 01	0 00	142	420	0 4100	0 0037	U	
1	Biphenyl	6 00		0 00	154	879m	0 6200	0 0060	U	
1	2,6-Dimethylnaphthalene	6 14	0 01	0 00	156	218	0 2100	0 0044	U	
2	Acenaphthylene	6 37		0 00	152	454	0 2600	0 0031	U	
2	Acenaphthene	6 52		0 00	154	152	0 1500	0 0042	U	
2	Dibenzofuran	6 65		0 00	168	388	0 2600	0 0044	U	
2	2,3,5-Trimethylnaphthalene				170	0d		0 0041	U	
2	Fluorene	6 93		0 00	166	310	0 2500	0 0051	U	
3	Dibenzothiophene				184	0d		0 0040	U	
3	Phenanthrene	7 73		0 00	178	934	0 5500	0 0038	U	
3	Anthracene	7 77		0 00	178	395	0 2500	0 0039	U	

U: Undetected at or above MDL
J: Analyte detected above MDL but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR. Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031505\0315F003 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:31	Quant Date:	03/17/2005 07:22	Vial:	1
Run Type:	MB			Dilution:	1 0
Lab ID:	KWG0503769-4			Soln Conc. Units:	ng/ml

Target Compounds — Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole				167	0d		0 0037	U	
3	1-Methylphenanthrene				192	0d		0 0046	U	
3	Fluoranthene				202	0d		0 0042	U	
4	Pyrene				202	0d		0 0037	U	
4	Benz(a)anthracene				228	0d		0 0040	U	
4	Chrysene				228	0d		0 0036	U	
5	Benzo(b)fluoranthene				252	0d		0 0048	U	
5	Benzo(k)fluoranthene				252	0d		0 0041	U	
5	Benzo(e)pyrene				252	0d		0 0045	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Perylene				252	0d		0 0038	U	
5	Indeno(1,2,3-cd)pyrene				276	0d		0 0038	U	
5	Dibenz(a,h)anthracene				278	0d		0 0066	U	
5	Benzo(g,h,i)perylene				276	0d		0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/10/2005

Analysis Lot:	KWG0504292	Prep Lot:	KWG0503769	Report Group:	
Analysis Method:	8270C SIM	Prep Method:	EPA 3535		
Prep Ref:	366803	Prep Date:	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	Calibration ID:	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031505\0315F001 D	Method ID:	MJ532
MB Ref:		Quant based on Method	

Data File:	J:\MS11\DATA\031505\0315F003 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:31	Quant Date:	03/17/2005 07:22	Vial:	1
Run Type:	MB			Dilution:	1 0
Lab ID:	KWG0503769-4			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	227753	200 00	OK
2	Acenaphthene-d10	6 49	-0 01	164	174347	200 00	OK
3	Phenanthrene-d10	7 71	0 00	188	271320	200 00	OK
4	Chrysene-d12	10 62	-0 01	240	228802	200 00	OK
5	Perylene-d12	14 58	-0 01	264	204068	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91	0 00	0 00	176	336140	273 26	68	37-107	OK
3	Fluoranthene-d10	8 73	0 00	0 00	212	559508	304 74	76	18-137	OK
4	Terphenyl-d14	9 13	0 00	0 00	244	510545	399 12	100	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 07		0 00	128	1510	1 15	0 00553	J	
1	2-Methylnaphthalene	5 62		0 00	142	550	0 4800	0 0040	U	
1	1-Methylnaphthalene	5 71	-0 01	0 00	142	420	0 4100	0 0037	U	
1	Biphenyl	6 00		0 00	154	879m	0 6200	0 0060	U	
1	2,6-Dimethylnaphthalene	6 14	0 01	0 00	156	218	0 2100	0 0044	U	
2	Acenaphthylene	6 37		0 00	152	454	0 2600	0 0031	U	
2	Acenaphthene	6 52		0 00	154	152	0 1500	0 0042	U	
2	Dibenzofuran	6 65		0 00	168	388	0 2600	0 0044	U	
2	2,3,5-Trimethylnaphthalene				170	0d		0 0041	U	
2	Fluorene	6 93		0 00	166	310	0 2500	0 0051	U	
3	Dibenzothiophene				184	0d		0 0040	U	
3	Phenanthrene	7 73		0 00	178	934	0 5500	0 0038	U	
3	Anthracene	7 77		0 00	178	395	0 2500	0 0039	U	

U: Undetected at or above MDL
J: Analyte detected above MDL but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031505\0315F003 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:31	Quant Date:	03/17/2005 07:22	Vial:	1
Run Type:	MB			Dilution:	1 0
Lab ID:	KWG0503769-4			Soln Conc. Units:	ng/ml

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole				167	0d		0 0037	U	
3	1-Methylphenanthrene				192	0d		0 0046	U	
3	Fluoranthene				202	0d		0 0042	U	
4	Pyrene				202	0d		0 0037	U	
4	Benz(a)anthracene				228	0d		0 0040	U	
4	Chrysene				228	0d		0 0036	U	
5	Benzo(b)fluoranthene				252	0d		0 0048	U	
5	Benzo(k)fluoranthene				252	0d		0 0041	U	
5	Benzo(e)pyrene				252	0d		0 0045	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Perylene				252	0d		0 0038	U	
5	Indeno(1,2,3-cd)pyrene				276	0d		0 0038	U	
5	Dibenz(a,h)anthracene				278	0d		0 0066	U	
5	Benzo(g,h,i)perylene				276	0d		0 0041	U	

Prep Amount:	1040 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 7:31 am
Sample : KWG0503769-4 MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 07:19:49 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	227753	200.00	ng/ml	0.02
10) Acenaphthene-d10	6.49	164	174347	200.00	ng/ml	0.02
22) Phenanthrene-d10	7.71	188	271320	200.00	ng/ml	0.02
37) Chrysene-d12	10.62	240	228802	200.00	ng/ml	0.04
49) Perylene-d12	14.58	264	204068	200.00	ng/ml	0.09
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	336140	273.26	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 27.33%			
20) 2,4,6 Tribromophenol	7.15	330	50074	224.93	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 22.49%			
36) Fluoranthene-d10	8.73	212	559508	304.74	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 30.47%			
42) Terphenyl-d14	9.13	244	510545	399.12	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 39.91%			
Target Compounds						Qvalue
2) Naphthalene	5.07	128	1510	1.15	ng/ml	98
3) 2-Methylnaphthalene	5.62	142	550	0.48	ng/ml	94
4) 1-Methylnaphthalene	5.71	142	420	0.41	ng/ml	99
5) Biphenyl	6.00	154	879m	0.62	ng/ml	
6) 2,6-Dimethylnaphthalene	6.14	156	218	0.21	ng/ml	99
11) Acenaphthylene	6.37	152	454	0.26	ng/ml	80
12) Acenaphthene	6.52	154	152	0.15	ng/ml#	57
13) Dibenzofuran	6.65	168	388	0.26	ng/ml	98
16) Fluorene	6.93	166	310	0.25	ng/ml	85
21) Pentachlorophenol	7.61	266	3432	14.06	ng/ml	92
27) Phenanthrene	7.73	178	934	0.55	ng/ml	99
28) Anthracene	7.77	178	395	0.25	ng/ml	92

(#) = qualifier out of range (m) = manual integration

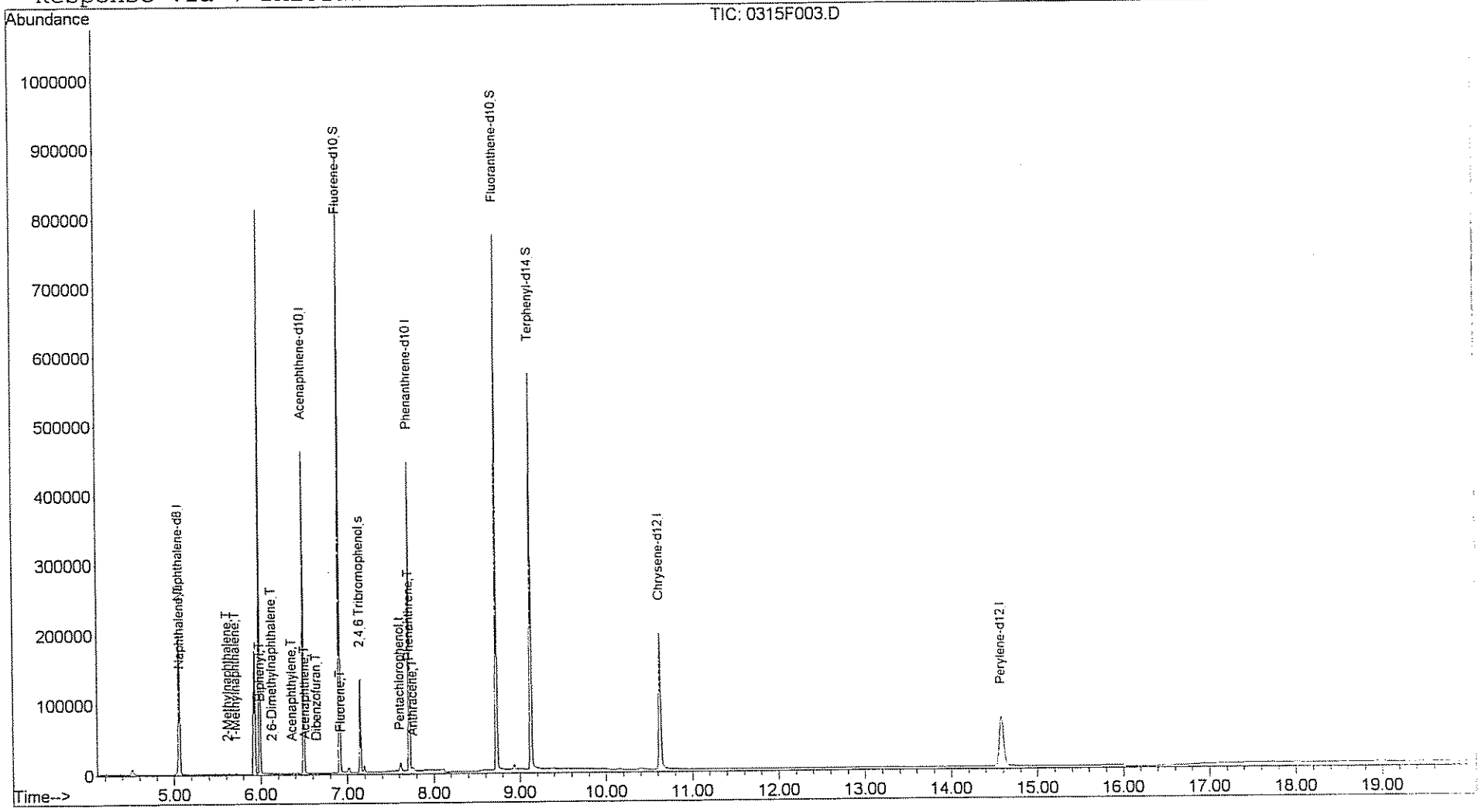
Quantitation Report (QT Reviewed)

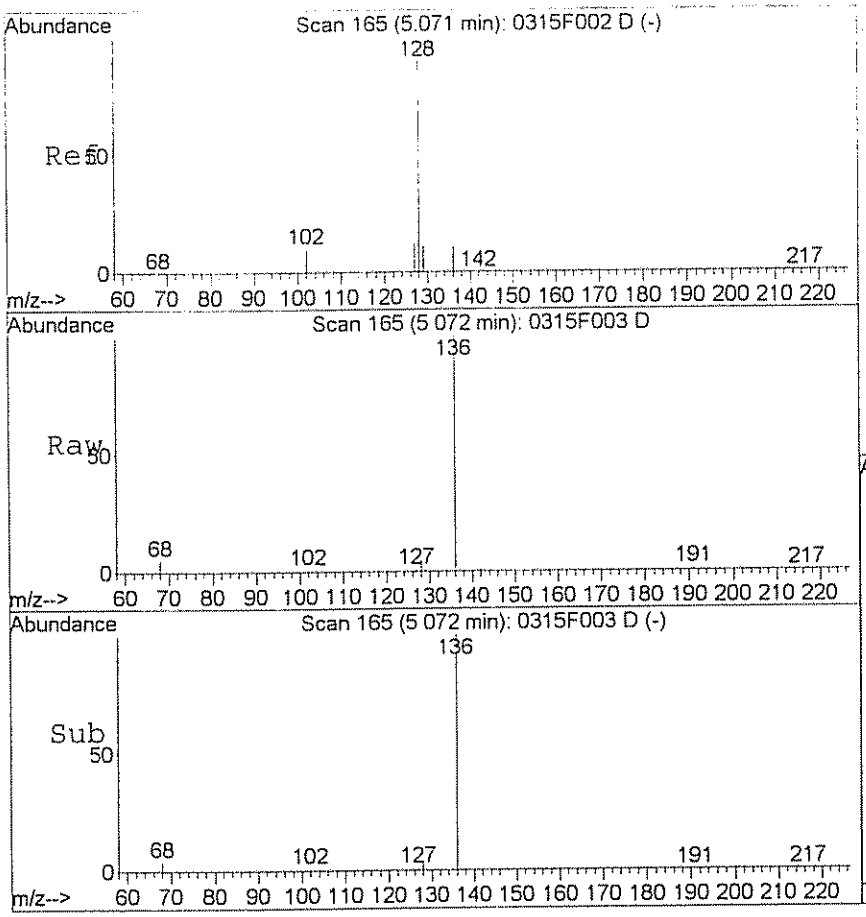
Data File : J:\MS11\DATA\031505\0315F003.D
Acq On : 15 Mar 2005 7:31 am
Sample : KWG0503769-4 MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 7:22 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration

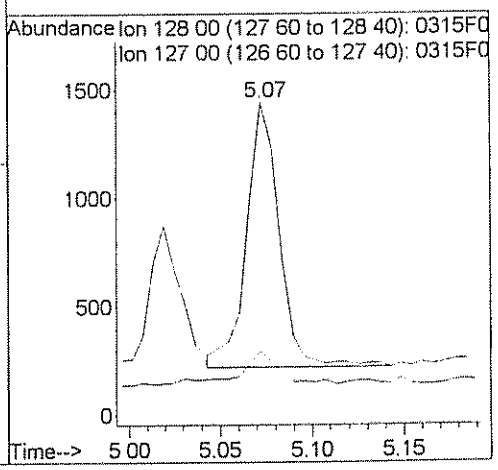


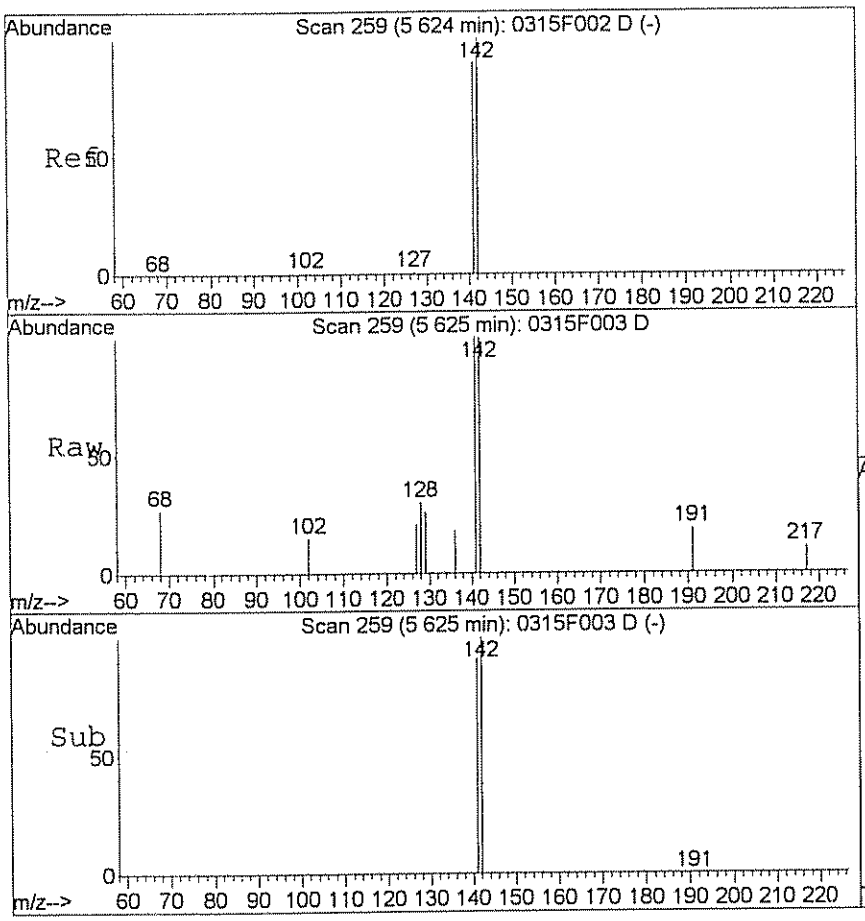


#2
Naphthalene
Concen: 1.15 ng/ml
RT: 5.07 min Scan# 165
Delta R.T. 0.02 min
Lab File: 0315F003.D
Acq: 15 Mar 2005 7:31 am

Tgt Ion:128 Resp: 1510

Ion	Ratio	Lower	Upper
128	100		
127	12.5	0.0	43.1

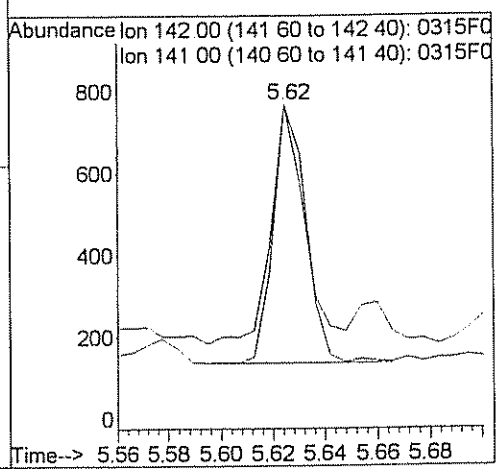




#3
2-Methylnaphthalene
Concen: 0.48 ng/ml
RT: 5.62 min Scan# 259
Delta R.T. 0.02 min
Lab File: 0315F003.D
Acq: 15 Mar 2005 7:31 am

Tgt Ion:142 Resp: 550

Ion	Ratio	Lower	Upper
142	100		
141	92.2	56.4	116.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/15/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K2501656-003	**Basis:**	NA
File ID:	J:\MS11\DATA\031505\0315F015.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1000 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	**Naphthalene**	**0.0072**	J	0.020	0.0048	
91-57-6	2-Methylnaphthalene	0.020	U	0.020	0.0040	
208-96-8	Acenaphthylene	0.020	U	0.020	0.0031	
83-32-9	Acenaphthene	0.020	U	0.020	0.0042	
132-64-9	Dibenzofuran	0.020	U	0.020	0.0044	
86-73-7	Fluorene	0.020	U	0.020	0.0051	
85-01-8	Phenanthrene	0.020	U	0.020	0.0038	
120-12-7	Anthracene	0.020	U	0.020	0.0039	
206-44-0	Fluoranthene	0.020	U	0.020	0.0042	
129-00-0	Pyrene	0.020	U	0.020	0.0037	
56-55-3	Benz(a)anthracene	0.020	U	0.020	0.0040	
218-01-9	Chrysene	0.020	U	0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	0.020	U	0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	0.020	U	0.020	0.0041	
50-32-8	Benzo(a)pyrene	0.020	U	0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	0.020	U	0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	0.020	U	0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	0.020	U	0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	70	37-107	03/15/05	Acceptable
Fluoranthene-d10	86	18-137	03/15/05	Acceptable
Terphenyl-d14	99	18-153	03/15/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031505\0315F015 D
Lab ID: K2501656-003
RunType: SMPL
Matrix: WATER

Date Acquired: 03/15/2005 13:27
Date Quantitated: 03/17/2005 07:52
Batch ID: KWG0504292
Analysis Method: 8270C SIM
ListJoinID: LJ5637

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Batch QC

Primary Review: 3/17/05

Secondary Review: 3/17/05

Printed: 03/17/2005 10:53:18
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**	03/04/2005	**Receive Date:**	03/08/2005

Analysis Lot:	KWG0504292	**Prep Lot:**	KWG0503769	**Report Group:**	K2501656
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	366797	**Prep Date:**	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK.M	**Calibration ID:**	CAL4299
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ5637
Tune Ref:	J:\MS11\DATA\031505\0315F001.D	**Method ID:**	MJ140
MB Ref:	J:\MS11\DATA\031505\0315F003.D	**Quant based on Report List**	

Data File:	J:\MS11\DATA\031505\0315F015.D			**Instrument:**	MS11
Acqu Date:	03/15/2005 13:27	**Quant Date:**	03/17/2005 07:52	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K2501656-003			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.06	0.01	136	205562	200.00	OK
2	Acenaphthene-d10	6.50	0.01	164	154531	200.00	OK
3	Phenanthrene-d10	7.72	0.01	188	242827	200.00	OK
4	Chrysene-d12	10.63	0.01	240	194035	200.00	OK
5	Perylene-d12	14.59	0.03	264	123537	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.91	0.00	0.00	176	307307	281.85	70	43-96	OK
3	Fluoranthene-d10	8.73	0.00	0.00	212	567057	345.09	86	20-131	OK
4	Terphenyl-d14	9.13	0.00	0.00	244	430366	396.72	99	20-146	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.08	0.01	0.00	128	1687	1.43	0.0072	J	
1	2-Methylnaphthalene	5.63	0.01	0.00	142	480	0.4700	0.0040	U	
2	Acenaphthylene	6.37		0.00	152	446	0.2900	0.0031	U	
2	Acenaphthene	6.52		0.00	154	167	0.1800	0.0042	U	
2	Dibenzofuran	6.65		0.00	168	376	0.2800	0.0044	U	
2	Fluorene	6.93		0.00	166	381	0.3500	0.0051	U	
3	Phenanthrene	7.73		0.00	178	1118	0.7400	0.0038	U	
3	Anthracene				178	0d		0.0039	U	
3	Fluoranthene	8.75		0.00	202	749m	0.5000	0.0042	U	
4	Pyrene	8.96		0.00	202	760	0.5500	0.0037	U	
4	Benz(a)anthracene	10.60		0.00	228	400m	0.3200	0.0040	U	
4	Chrysene	10.68	0.01	0.00	228	601	0.4800	0.0036	U	
5	Benzo(b)fluoranthene				252	0d		0.0048	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031505\0315F015 D			**Instrument:**	MS11
Acqu Date:	03/15/2005 13:27	**Quant Date:**	03/17/2005 07:52	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1 0
Lab ID:	K2501656-003			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(k)fluoranthene				252	0d		0 0041	U	
5	Benzo(a)pyrene				252	0d		0 0041	U	
5	Indeno(1,2,3-cd)pyrene	17 42	0 01	0 00	276	203	0 3100	0 0038	U	
5	Dibenz(a,h)anthracene	17 48		0 00	278	128	0 1900	0 0066	U	
5	Benzo(g,h,i)perylene	17 87		0 00	276	210m	0 2700	0 0041	U	

Prep Amount: 1000 ml **Dilution:** 1 0
Prep Final Vol: 5 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL, also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F015.D Vial: 11
Acq On : 15 Mar 2005 1:27 pm Operator: LWeiskopf
Sample : K2501656-003 Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 07:20:06 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	205562	200.00	ng/ml	0.02
10) Acenaphthene-d10	6.50	164	154531	200.00	ng/ml	0.03
22) Phenanthrene-d10	7.72	188	242827	200.00	ng/ml	0.02
37) Chrysene-d12	10.63	240	194035	200.00	ng/ml	0.05
49) Perylene-d12	14.59	264	123537	200.00	ng/ml	0.10
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	307307	281.85	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 28.19%			
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery = 0.00%			
36) Fluoranthene-d10	8.73	212	567057	345.09	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 34.51%			
42) Terphenyl-d14	9.13	244	430366	396.72	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 39.67%			

Target Compounds						Qvalue
2) Naphthalene	5.08	128	1687	1.43	ng/ml	98
3) 2-Methylnaphthalene	5.63	142	480	0.47	ng/ml	93
4) 1-Methylnaphthalene	5.72	142	409	0.44	ng/ml	79
5) Biphenyl	6.01	154	898m	0.70	ng/ml	
6) 2,6-Dimethylnaphthalene	6.13	156	521	0.57	ng/ml	91
11) Acenaphthylene	6.37	152	446	0.29	ng/ml	77
12) Acenaphthene	6.52	154	167	0.18	ng/ml	85
13) Dibenzofuran	6.65	168	376	0.28	ng/ml	58
16) Fluorene	6.93	166	381	0.35	ng/ml	73
27) Phenanthrene	7.73	178	1118	0.74	ng/ml	97
35) Fluoranthene	8.75	202	749m	0.50	ng/ml	
38) Pyrene	8.96	202	760	0.55	ng/ml	95
43) Benz(a)anthracene	10.60	228	400m	0.32	ng/ml	
44) Chrysene	10.68	228	601	0.48	ng/ml	98
55) Indeno(1,2,3-cd)pyrene	17.42	276	203	0.31	ng/ml	85
56) Dibenz(a,h)anthracene	17.48	278	128	0.19	ng/ml	88
57) Benzo(g,h,i)perylene	17.87	276	210m	0.27	ng/ml	

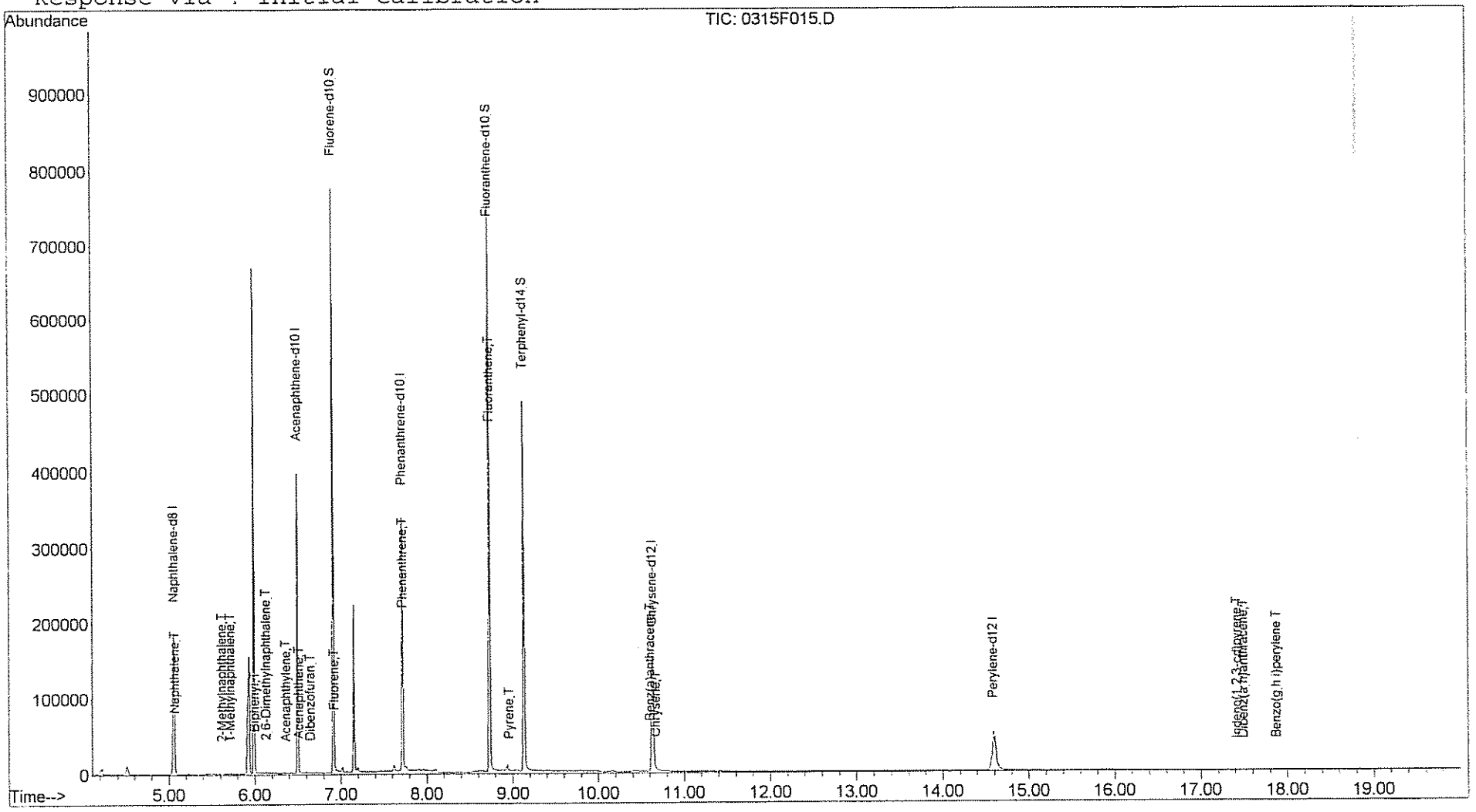
(#) = qualifier out of range (m) = manual integration

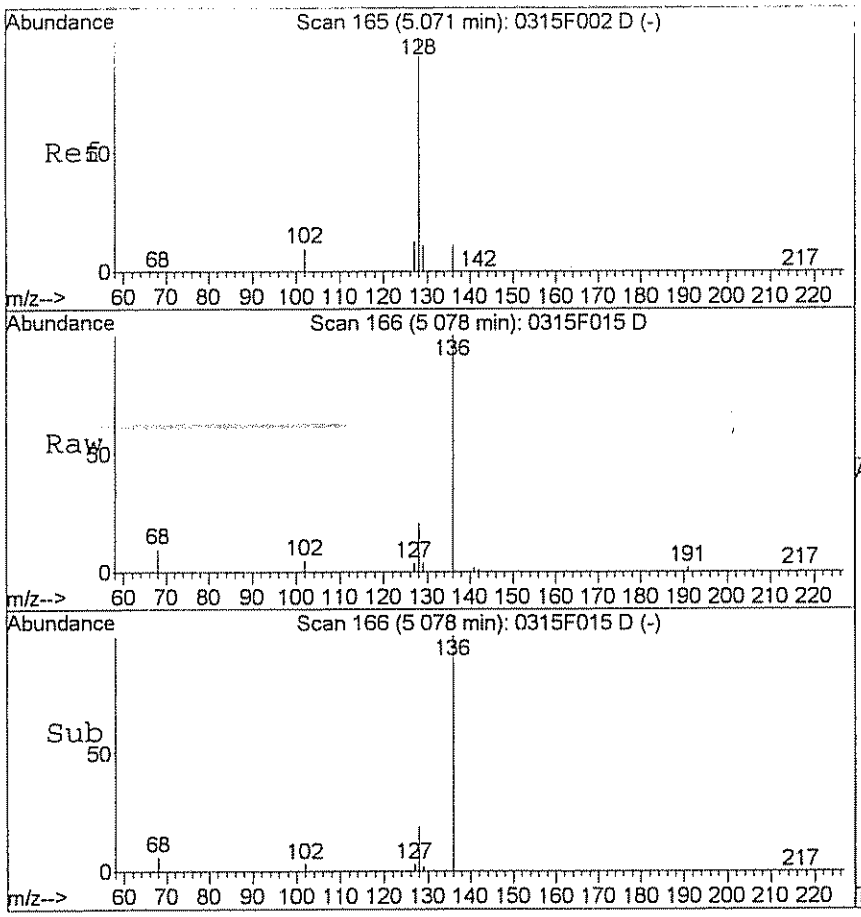
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F015.D
Acq On : 15 Mar 2005 1:27 pm
Sample : K2501656-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 7:52 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration

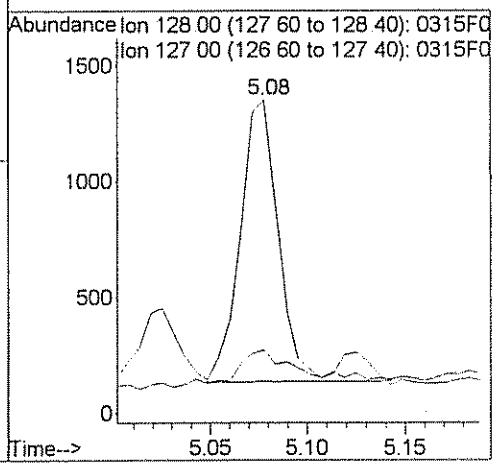


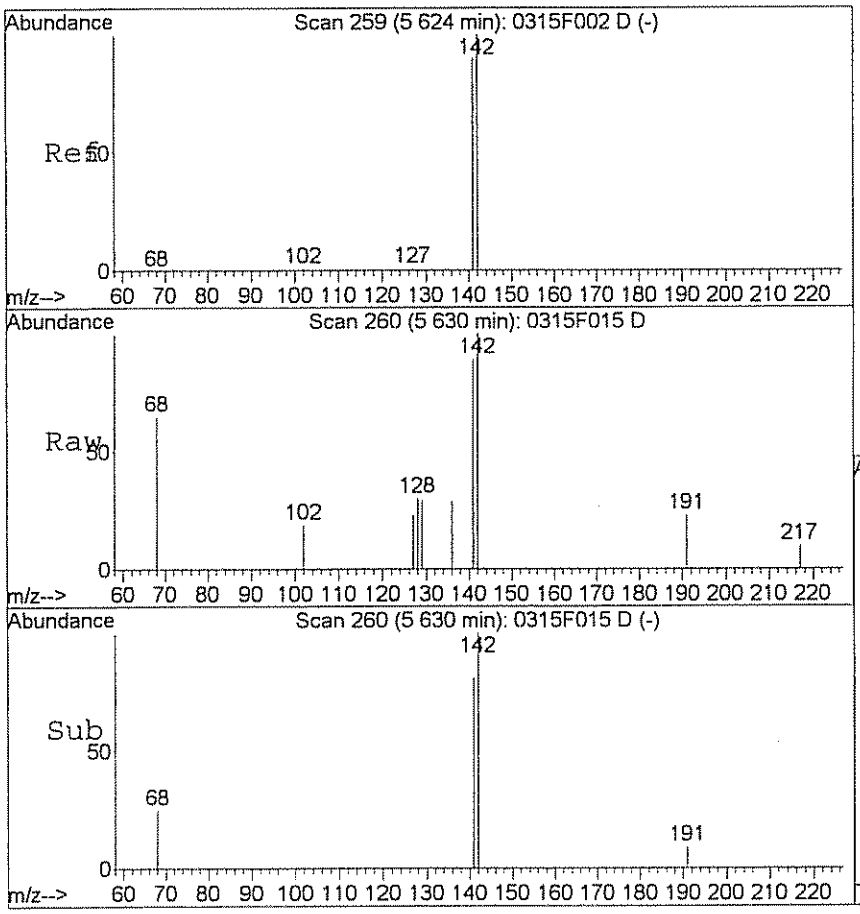


#2
Naphthalene
Concen: 1.43 ng/ml
RT: 5.08 min Scan# 166
Delta R.T. 0.02 min
Lab File: 0315F015.D
Acq: 15 Mar 2005 1:27 pm

Tgt Ion:128 Resp: 1687

Ion	Ratio	Lower	Upper
128	100		
127	12.3	0.0	43.1

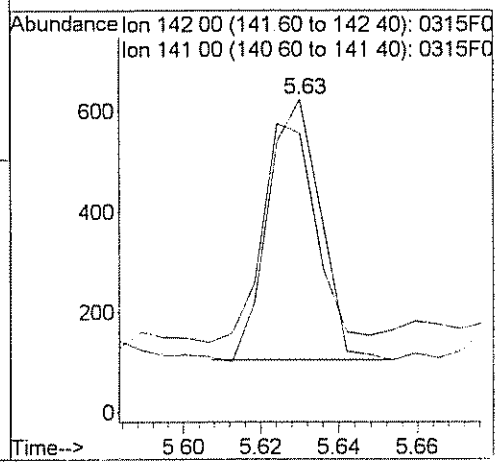




#3
2-Methylnaphthalene
Concen: 0.47 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. 0.02 min
Lab File: 0315F015.D
Acq: 15 Mar 2005 1:27 pm

Tgt Ion:142 Resp: 480

Ion	Ratio	Lower	Upper
142	100		
141	80.2	56.4	116.4



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/18/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Batch QCMS	**Units:**	ug/L
Lab Code:	KWG0503769-1	**Basis:**	NA
File ID:	J:\MS11\DATA\031805\0318F007.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1020 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.20		0.020	0.0048	
91-57-6	2-Methylnaphthalene	2.25		0.020	0.0040	
208-96-8	Acenaphthylene	2.31		0.020	0.0031	
83-32-9	Acenaphthene	2.27		0.020	0.0042	
132-64-9	Dibenzofuran	2.25		0.020	0.0044	
86-73-7	Fluorene	2.37		0.020	0.0051	
85-01-8	Phenanthrene	2.35		0.020	0.0038	
120-12-7	Anthracene	2.46		0.020	0.0039	
206-44-0	Fluoranthene	2.61		0.020	0.0042	
129-00-0	Pyrene	2.50		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.46		0.020	0.0040	
218-01-9	Chrysene	2.43		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.67		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.63		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.65		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.82		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.74		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.75		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	70	37-107	03/18/05	Acceptable
Fluoranthene-d10	77	18-137	03/18/05	Acceptable
Terphenyl-d14	99	18-153	03/18/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031805\0318F007 D
Lab ID: KWG0503769-1 -- K2501656-003MS
RunType: MS
Matrix: WATER

Date Acquired: 03/18/2005 08:39
Date Quantitated: 03/22/2005 08:02
Batch ID: KWG0504491
Analysis Method: 8270C SIM
MethodJoinID: MJ140

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Batch QC
K1630
K1657

report this run

Primary Review: 3/22/15

Secondary Review: 3/22/15

Printed: 03/22/2005 08:45:41
u:\Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/10/2005

Analysis Lot:	KWG0504491	Prep Lot:	KWG0503769	Report Group:	
Analysis Method:	8270C SIM	Prep Method:	EPA 3535		
Prep Ref:	366800	Prep Date:	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK.M	Calibration ID:	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031805\0318F001.D	Method ID:	MJ140
MB Ref:	J:\MS11\DATA\031505\0315F003.D	Quant based on Method	

Data File:	J:\MS11\DATA\031805\0318F007.D			Instrument:	MS11
Acqu Date:	03/18/2005 08:39	Quant Date:	03/22/2005 08:02	Vial:	5
Run Type:	MS			Dilution:	1.0
Lab ID:	KWG0503769-1 -- K2501656-003MS			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.04	-0.01	136	192627	200.00	OK
2	Acenaphthene-d10	6.47	-0.02	164	166363	200.00	OK
3	Phenanthrene-d10	7.70	-0.01	188	266885	200.00	OK
4	Chrysene-d12	10.57	-0.05	240	251303	200.00	OK
5	Perylene-d12	14.49	-0.07	264	218092	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.89	0.00	0.00	176	330978	281.97	70	37-107	OK
3	Fluoranthene-d10	8.70	0.00	0.00	212	555707	307.70	77	18-137	OK
4	Terphenyl-d14	9.09	0.00	0.00	244	554031	394.33	99	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.06		0.00	128	498244	449.37	2.20		
1	2-Methylnaphthalene	5.61		0.00	142	442763	458.53	2.25		
1	1-Methylnaphthalene	5.70		0.00	142	399861	457.96	2.24		
1	Biphenyl	5.99		0.00	154	581688	483.61	2.37		
1	2,6-Dimethylnaphthalene	6.12		0.00	156	422603	491.60	2.41		
2	Acenaphthylene	6.35		0.00	152	791227	472.18	2.31		
2	Acenaphthene	6.50	-0.01	0.00	154	458969	463.27	2.27		
2	Dibenzofuran	6.63	-0.01	0.00	168	665149m	459.86	2.25		
2	2,3,5-Trimethylnaphthalene	6.81		0.00	170	430531	486.10	2.38		
2	Fluorene	6.91	-0.01	0.00	166	571747	483.33	2.37		
3	Dibenzothiophene	7.62	0.01	0.00	184	690809	457.63	2.24		
3	Phenanthrene	7.72	0.01	0.00	178	798435	478.64	2.35		
3	Anthracene	7.75		0.00	178	782349	502.01	2.46		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031805\0318F007 D			Instrument:	MS11
Acqu Date:	03/18/2005 08:39	Quant Date:	03/22/2005 08:02	Vial:	5
Run Type:	MS			Dilution:	1 0
Lab ID:	KWG0503769-1 -- K2501656-003MS			Soln Conc. Units:	ng/ml

Target Compounds — Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 88		0 00	167	702378	525 22	2 57		
3	1-Methylphenanthrene	8 22		0 00	192	580790	521 99	2 56		
3	Fluoranthene	8 71		0 00	202	878258	532 29	2 61		
4	Pyrene	8 94		0 00	202	916611	509 77	2 50		
4	Benz(a)anthracene	10 55		0 00	228	819451	502 00	2 46		
4	Chrysene	10 62		0 00	228	803634	494 81	2 43		
5	Benzo(b)fluoranthene	13 19	0 01	0 00	252	822048	545 47	2 67		
5	Benzo(k)fluoranthene	13 26		0 00	252	812724	536 75	2 63		
5	Benzo(e)pyrene	14 09		0 00	252	740940	518 44	2 54		
5	Benzo(a)pyrene	14 27	0 01	0 00	252	723103	541 04	2 65		
5	Perylene	14 58	0 01	0 00	252	719440	529 10	2 59		
5	Indeno(1,2,3-cd)pyrene	17 36	0 01	0 00	276	655227	575 00	2 82		
5	Dibenz(a,h)anthracene	17 43	0 01	0 00	278	677365	559 08	2 74		
5	Benzo(g,h,i)perylene	17 80		0 00	276	783101	561 93	2 75		

Prep Amount:	1020 ml	Dilution:	1 0
Prep Final Vol:	5 ml	Unit Factor:	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F007.D
Acq On : 18 Mar 2005 8:39 am
Sample : K2501656-003MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 07:57:26 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.04	136	192627	200.00	ng/ml	0.00
10) Acenaphthene-d10	6.47	164	166363	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.70	188	266885	200.00	ng/ml	0.00
37) Chrysene-d12	10.57	240	251303	200.00	ng/ml	0.00
49) Perylene-d12	14.49	264	218092	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	6.89	176	330978	281.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 28.20%			
20) 2,4,6 Tribromophenol	7.13	330	69926	329.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 32.92%			
36) Fluoranthene-d10	8.70	212	555707	307.70	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 30.77%			
42) Terphenyl-d14	9.09	244	554031	394.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.43%			
Target Compounds						Qvalue
2) Naphthalene	5.06	128	498244	449.37	ng/ml	98
3) 2-Methylnaphthalene	5.61	142	442763	458.53	ng/ml	94
4) 1-Methylnaphthalene	5.70	142	399861	457.96	ng/ml	96
5) Biphenyl	5.99	154	581688	483.61	ng/ml	99
6) 2,6-Dimethylnaphthalene	6.12	156	422603	491.60	ng/ml	99
11) Acenaphthylene	6.35	152	791227	472.18	ng/ml	100
12) Acenaphthene	6.50	154	458969	463.27	ng/ml	99
13) Dibenzofuran	6.63	168	665149m	459.86	ng/ml	
14) 2,3,5-Trimethylnaphthalene	6.81	170	430531	486.10	ng/ml#	37
16) Fluorene	6.91	166	571747	483.33	ng/ml	100
23) Dibenzothiophene	7.62	184	690809	457.63	ng/ml	75
27) Phenanthrene	7.72	178	798435	478.64	ng/ml	99
28) Anthracene	7.75	178	782349	502.01	ng/ml	99
29) Carbazole	7.88	167	702378	525.22	ng/ml	99
30) 1-Methylphenanthrene	8.22	192	580790	521.99	ng/ml	98
35) Fluoranthene	8.71	202	878258	532.29	ng/ml	98
38) Pyrene	8.94	202	916611	509.77	ng/ml	99
43) Benz(a)anthracene	10.55	228	819451	502.00	ng/ml	99
44) Chrysene	10.62	228	803634	494.81	ng/ml	100
50) Benzo(b)fluoranthene	13.19	252	822048	545.47	ng/ml	100
51) Benzo(k)fluoranthene	13.26	252	812724	536.75	ng/ml	99
52) Benzo(e)pyrene	14.09	252	740940	518.44	ng/ml	100
53) Benzo(a)pyrene	14.27	252	723103	541.04	ng/ml	100
54) Perylene	14.58	252	719440	529.10	ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.36	276	655227	575.00	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F007.D
Acq On : 18 Mar 2005 8:39 am
Sample : K2501656-003MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 07:57:26 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56)	Dibenz(a,h)anthracene	17.43	278	677365	559.08 ng/ml	99
57)	Benzo(g,h,i)perylene	17.80	276	783101	561.93 ng/ml	100

(#) = qualifier out of range (m) = manual integration

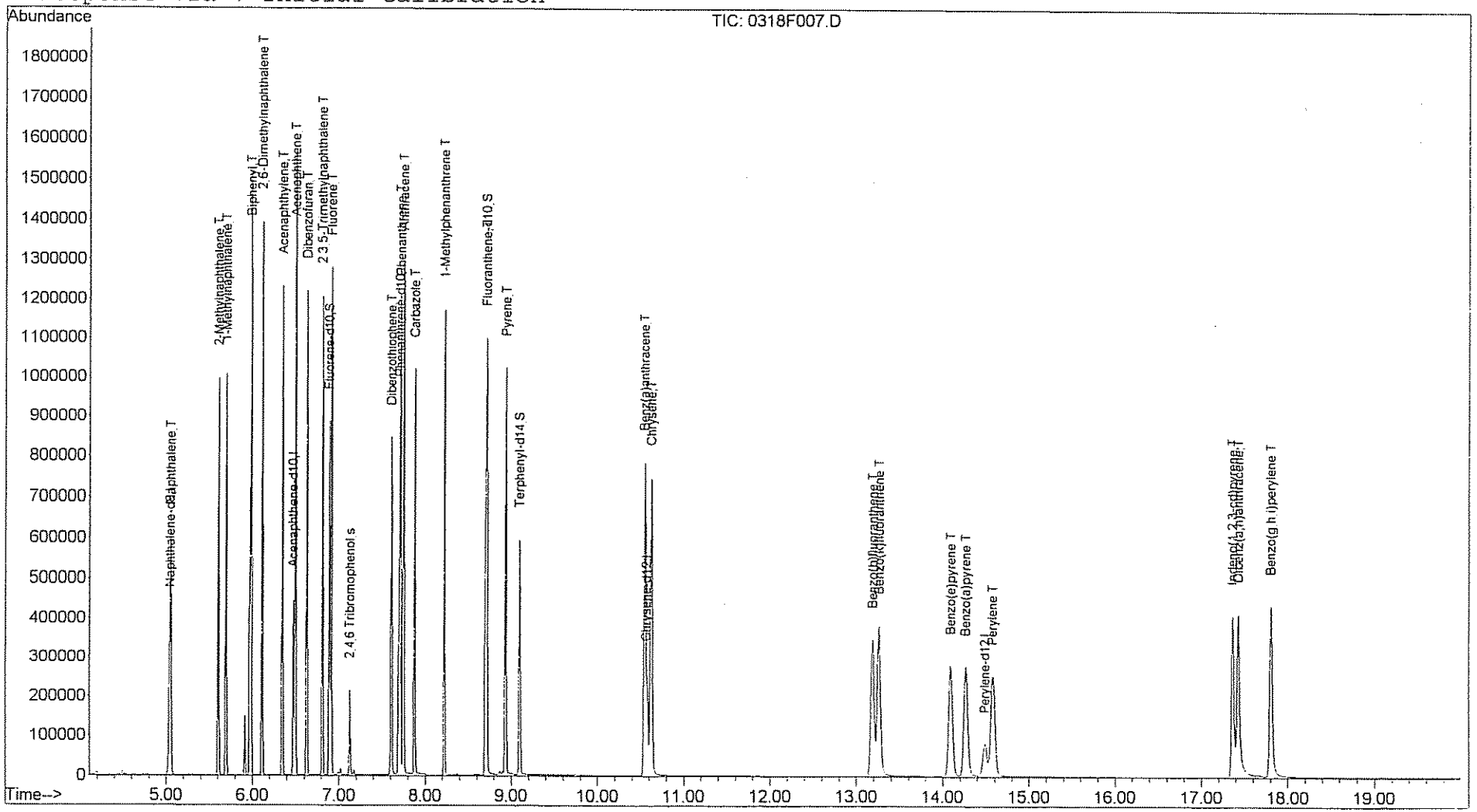
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F007.D
Acq On : 18 Mar 2005 8:39 am
Sample : K2501656-003MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 8:02 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration



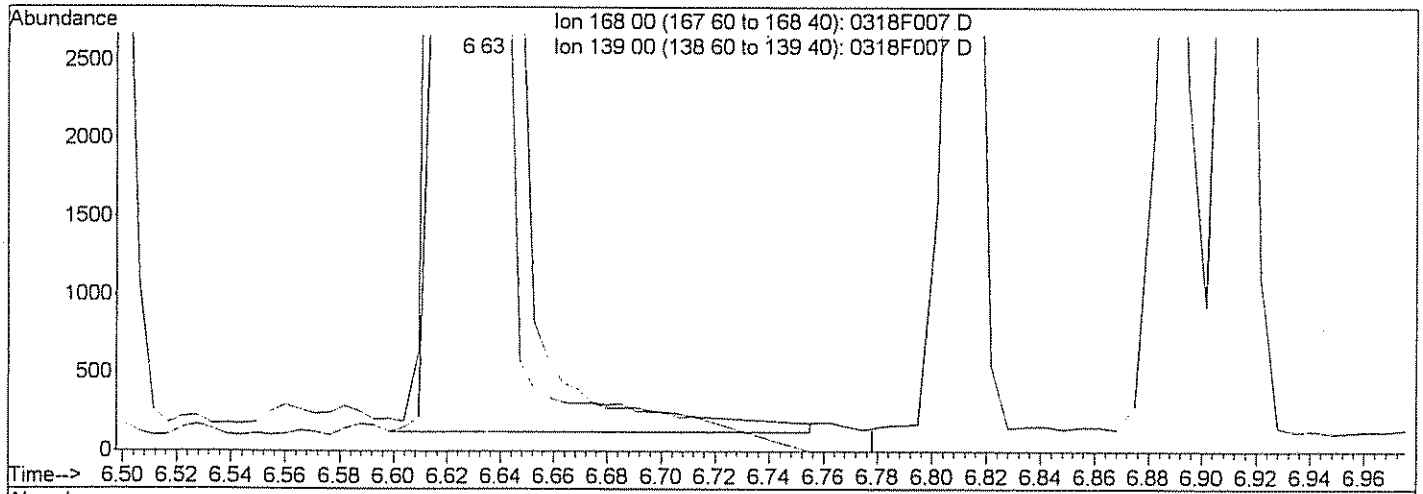
Quantitation Report (Qedit)

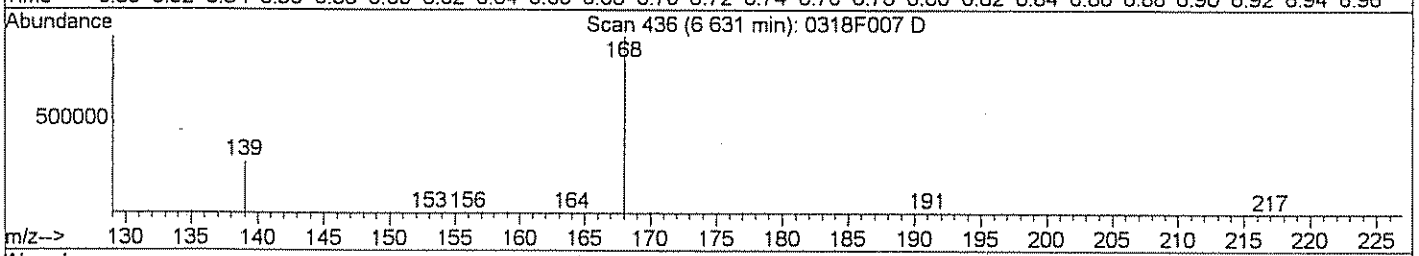
Data File : J:\MS11\DATA\031805\0318F007.D
Acq On : 18 Mar 2005 8:39 am
Sample : K2501656-003MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 7:57 2005

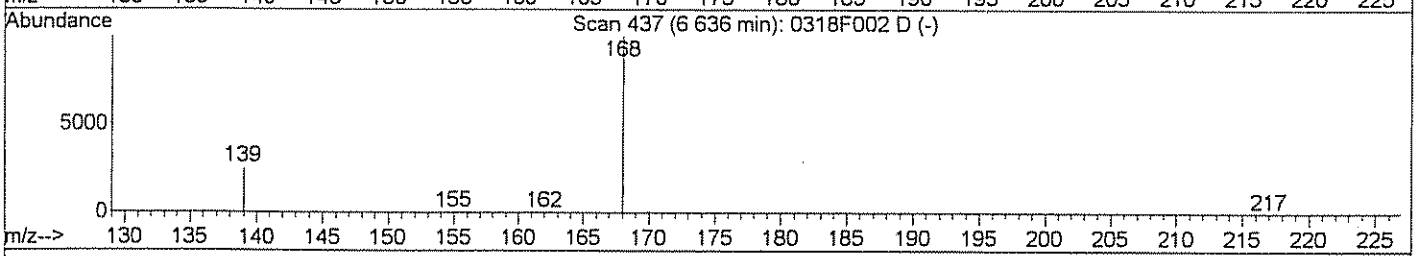
Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Multiple Level Calibration







TIC: 0318F007 D

(13) Dibenzofuran (T)

6 63min 603 45ng/ml

response 872844

Ion	Exp%	Act%
168 00	100	100
139 00	28 10	29 40
0 00	0 00	0 00
0 00	0 00	0 00

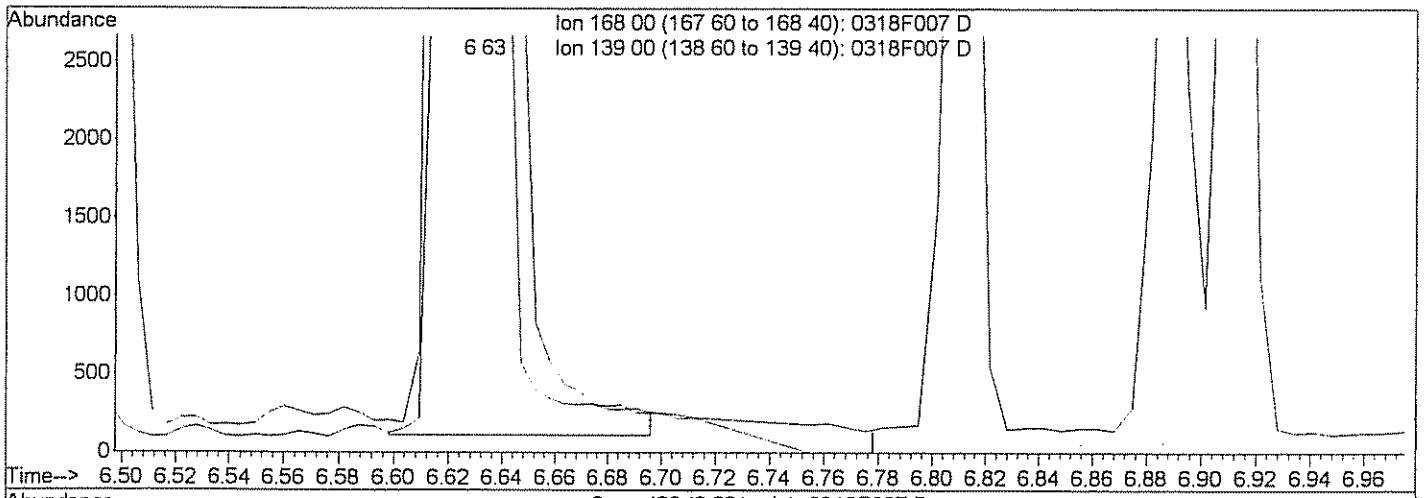
0318F007.D 0310ALK.M Tue Mar 22 08:02:00 2005

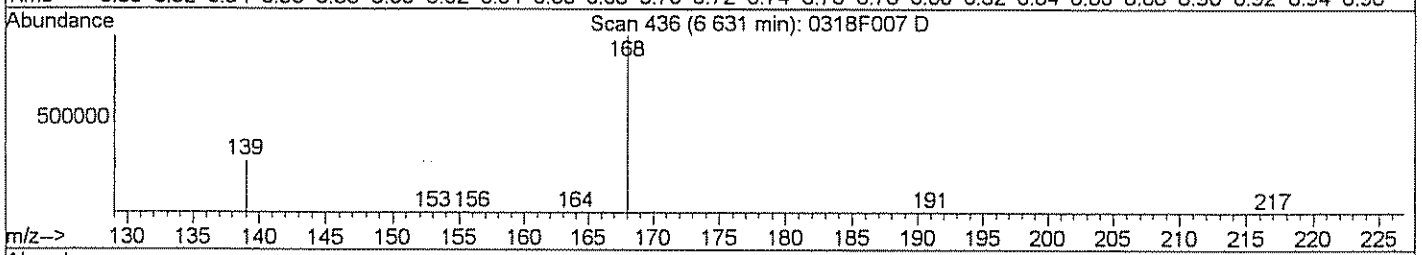
Quantitation Report (Qedit)

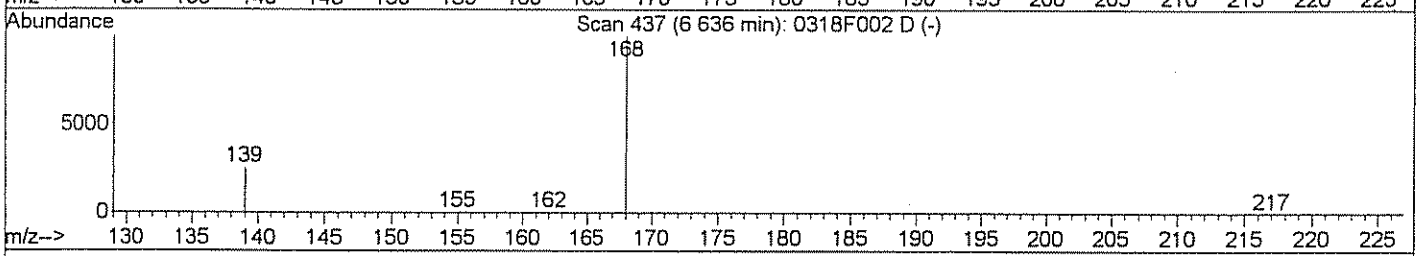
Data File : J:\MS11\DATA\031805\0318F007.D
Acq On : 18 Mar 2005 8:39 am
Sample : K2501656-003MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 8:02 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Multiple Level Calibration







TIC: 0318F007 D

(13) Dibenzofuran (T)

6 63min 459 86ng/ml m

response 665149

Ion	Exp%	Act%
168 00	100	100
139 00	28 10	29 40
0 00	0 00	0 00
0 00	0 00	0 00

g 3/22/15

ures integrated

l 3/22/15

0318F007.D 0310ALK.M Tue Mar 22 08:02:06 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/18/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Batch QCDMS	**Units:**	ug/L
Lab Code:	KWG0503769-2	**Basis:**	NA
File ID:	J:\MS11\DATA\031805\0318F008.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1020 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.14		0.020	0.0048	
91-57-6	2-Methylnaphthalene	2.29		0.020	0.0040	
208-96-8	Acenaphthylene	2.22		0.020	0.0031	
83-32-9	Acenaphthene	2.21		0.020	0.0042	
132-64-9	Dibenzofuran	2.13		0.020	0.0044	
86-73-7	Fluorene	2.23		0.020	0.0051	
85-01-8	Phenanthrene	2.21		0.020	0.0038	
120-12-7	Anthracene	2.29		0.020	0.0039	
206-44-0	Fluoranthene	2.51		0.020	0.0042	
129-00-0	Pyrene	2.38		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.29		0.020	0.0040	
218-01-9	Chrysene	2.25		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.45		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.51		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.47		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.65		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.51		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.55		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	37-107	03/18/05	Acceptable
Fluoranthene-d10	93	18-137	03/18/05	Acceptable
Terphenyl-d14	118	18-153	03/18/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031805\0318F008 D
Lab ID: KWG0503769-2 -- K2501656-003DMS
RunType: DMS
Matrix: WATER

Date Acquired: 03/18/2005 09:08
Date Quantitated: 03/22/2005 08:02
Batch ID: KWG0504491
Analysis Method: 8270C SIM
MethodJoinID: MJ140

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Batch QC
K1630
K1657

report this run

Primary Review: [signature] 3/22/5

Secondary Review: [signature] 3/22/5

Printed: 03/22/2005 08:45:45
u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/10/2005

Analysis Lot:	KWG0504491	Prep Lot:	KWG0503769	Report Group:	
Analysis Method:	8270C SIM	Prep Method:	EPA 3535		
Prep Ref:	366801	Prep Date:	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	Calibration ID:	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031805\0318F001 D	Method ID:	MJ532
MB Ref:	J:\MS11\DATA\031505\0315F003 D	Quant based on Method	

Data File:	J:\MS11\DATA\031805\0318F008 D			Instrument:	MS11
Acqu Date:	03/18/2005 09:08	Quant Date:	03/22/2005 08:02	Vial:	6
Run Type:	DMS			Dilution:	1 0
Lab ID:	KWG0503769-2 -- K2501656-003DMS			Soln Conc. Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 04	0 00	136	178355	200 00	OK
2	Acenaphthene-d10	6 47	-0 01	164	160540	200 00	OK
3	Phenanthrene-d10	7 70	0 00	188	245733	200 00	OK
4	Chrysene-d12	10 58	0 01	240	232701	200 00	OK
5	Perylene-d12	14 50	0 02	264	198644	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 89	0 00	0 00	176	374625	330 73	83	37-107	OK
3	Fluoranthene-d10	8 70	0.00	0 00	212	619345	372 45	93	18-137	OK
4	Terphenyl-d14	9 10	0 01	0 00	244	612029	470 44	118	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 05	-0 01	0 00	128	447890	436 28	2 14		
1	2-Methylnaphthalene	5 61		0 00	142	417986	467 51	2 29		
1	1-Methylnaphthalene	5 69	-0 01	0 00	142	380819	471 05	2 31		
1	Biphenyl	5 99		0 00	154	539423	484 36	2 37		
1	2,6-Dimethylnaphthalene	6 12		0 00	156	398709	500 92	2 46		
2	Acenaphthylene	6 35		0 00	152	731342	452 27	2 22		
2	Acenaphthene	6 50	-0 01	0 00	154	430801	450 61	2 21		
2	Dibenzofuran	6 63	-0 01	0 00	168	607879m	435 51	2 13		
2	2,3,5-Trimethylnaphthalene	6 82	0 01	0 00	170	396223	463 59	2 27		
2	Fluorene	6 92		0 00	166	518754	454 44	2 23		
3	Dibenzothiophene	7 62	0 01	0 00	184	618356	444 90	2 18		
3	Phenanthrene	7 72	0 01	0 00	178	693376	451 44	2 21		
3	Anthracene	7 75		0 00	178	670259	467 11	2 29		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031805\0318F008 D			Instrument:	MS11
Acqu Date:	03/18/2005 09:08	Quant Date:	03/22/2005 08:02	Vial:	6
Run Type:	DMS			Dilution:	1 0
Lab ID:	KWG0503769-2 -- K2501656-003DMS			Soln Conc. Units:	ng/ml

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 88		0 00	167	603839	490 41	2 40		
3	1-Methylphenanthrene	8 22		0 00	192	509647	497 48	2 44		
3	Fluoranthene	8 72	0 01	0 00	202	779007	512 77	2 51		
4	Pyrene	8 94		0 00	202	807022	484 70	2 38		
4	Benz(a)anthracene	10 55		0 00	228	705151	466 52	2 29		
4	Chrysene	10 63	0 01	0 00	228	691574	459 85	2 25		
5	Benzo(b)fluoranthene	13 19	0 01	0 00	252	686540	500 15	2 45		
5	Benzo(k)fluoranthene	13 26		0 00	252	706370	512 18	2 51		
5	Benzo(e)pyrene	14 10	0 01	0 00	252	634483	487 42	2 39		
5	Benzo(a)pyrene	14 27	0 01	0 00	252	613510	503 98	2 47		
5	Perylene	14 59	0 02	0 00	252	613814	495 61	2 43		
5	Indeno(1,2,3-cd)pyrene	17 37	0 02	0 00	276	560526	540 05	2 65		
5	Dibenz(a,h)anthracene	17 43	0 01	0 00	278	564821	511 83	2 51		
5	Benzo(g,h,i)perylene	17 81	0 01	0 00	276	661353	521 03	2 55		

Prep Amount:	1020 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F008.D
Acq On : 18 Mar 2005 9:08 am
Sample : K2501656-003DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 07:57:28 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.04	136	178355	200.00	ng/ml	0.00
10) Acenaphthene-d10	6.47	164	160540	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.70	188	245733	200.00	ng/ml	0.00
37) Chrysene-d12	10.58	240	232701	200.00	ng/ml	0.00
49) Perylene-d12	14.50	264	198644	200.00	ng/ml	0.01
System Monitoring Compounds						
15) Fluorene-d10	6.89	176	374625	330.73	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 33.07%			
20) 2,4,6 Tribromophenol	7.13	330	86105	420.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.00%			
36) Fluoranthene-d10	8.70	212	619345	372.45	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.24%			
42) Terphenyl-d14	9.10	244	612029	470.44	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 47.04%			
Target Compounds						Qvalue
2) Naphthalene	5.05	128	447890	436.28	ng/ml	100
3) 2-Methylnaphthalene	5.61	142	417986	467.51	ng/ml	97
4) 1-Methylnaphthalene	5.69	142	380819	471.05	ng/ml	97
5) Biphenyl	5.99	154	539423	484.36	ng/ml	99
6) 2,6-Dimethylnaphthalene	6.12	156	398709	500.92	ng/ml	100
11) Acenaphthylene	6.35	152	731342	452.27	ng/ml	99
12) Acenaphthene	6.50	154	430801	450.61	ng/ml	98
13) Dibenzofuran	6.63	168	607879m	435.51	ng/ml	
14) 2,3,5-Trimethylnaphthalene	6.82	170	396223	463.59	ng/ml	98
16) Fluorene	6.92	166	518754	454.44	ng/ml	100
23) Dibenzothiophene	7.62	184	618356	444.90	ng/ml	76
27) Phenanthrene	7.72	178	693376	451.44	ng/ml	99
28) Anthracene	7.75	178	670259	467.11	ng/ml	100
29) Carbazole	7.88	167	603839	490.41	ng/ml	96
30) 1-Methylphenanthrene	8.22	192	509647	497.48	ng/ml	99
35) Fluoranthene	8.72	202	779007	512.77	ng/ml	93
38) Pyrene	8.94	202	807022	484.70	ng/ml	97
43) Benz(a)anthracene	10.55	228	705151	466.52	ng/ml	99
44) Chrysene	10.63	228	691574	459.85	ng/ml	99
50) Benzo(b)fluoranthene	13.19	252	686540	500.15	ng/ml	100
51) Benzo(k)fluoranthene	13.26	252	706370	512.18	ng/ml	99
52) Benzo(e)pyrene	14.10	252	634483	487.42	ng/ml	100
53) Benzo(a)pyrene	14.27	252	613510	503.98	ng/ml	100
54) Perylene	14.59	252	613814	495.61	ng/ml	100
55) Indeno(1,2,3-cd)pyrene	17.37	276	560526	540.05	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F008.D
Acq On : 18 Mar 2005 9:08 am
Sample : K2501656-003DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 07:57:28 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
56)	Dibenz(a,h)anthracene	17.43	278	564821	511.83 ng/ml	96
57)	Benzo(g,h,i)perylene	17.81	276	661353	521.03 ng/ml	99

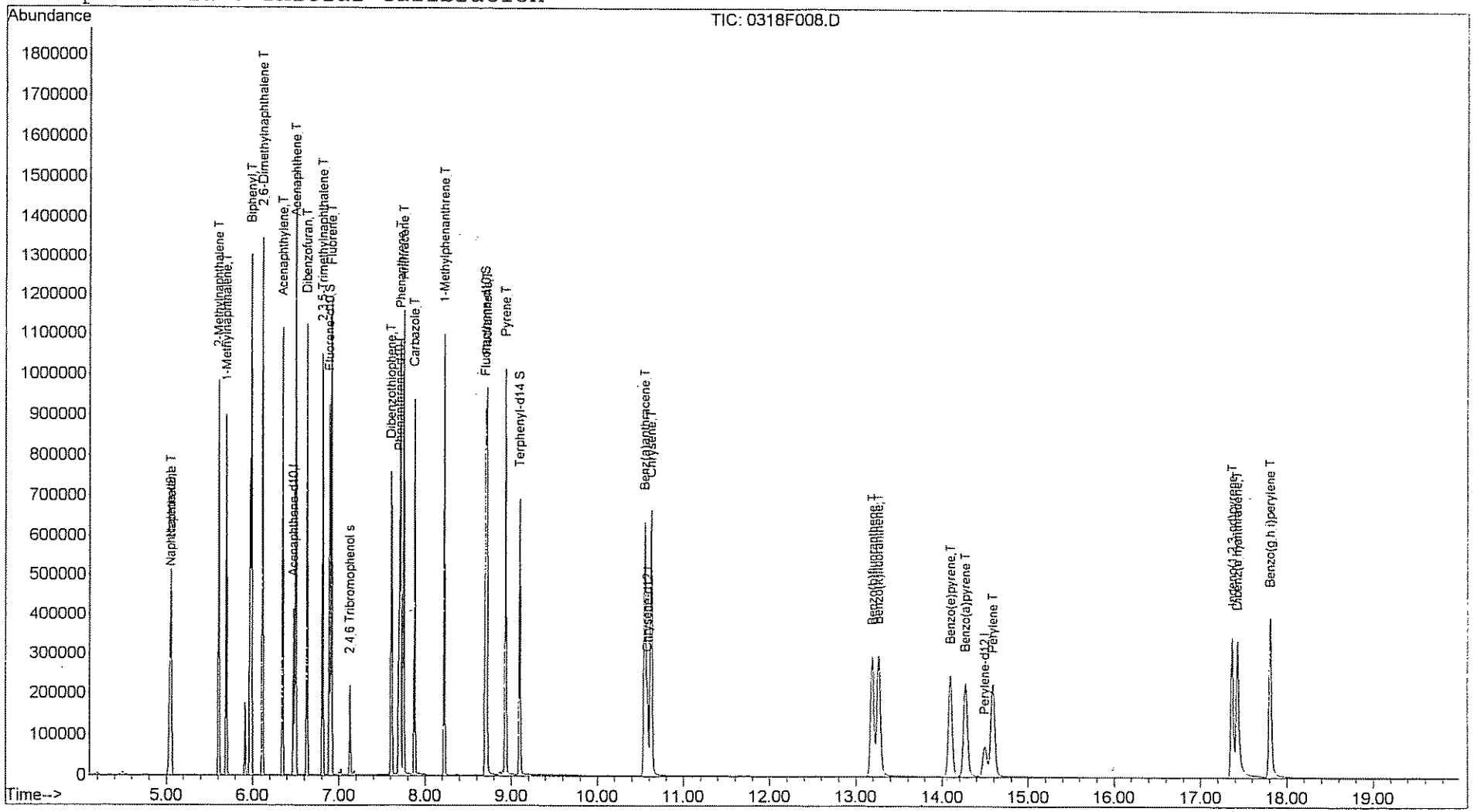
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F008.D
Acq On : 18 Mar 2005 9:08 am
Sample : K2501656-003DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 8:02 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration

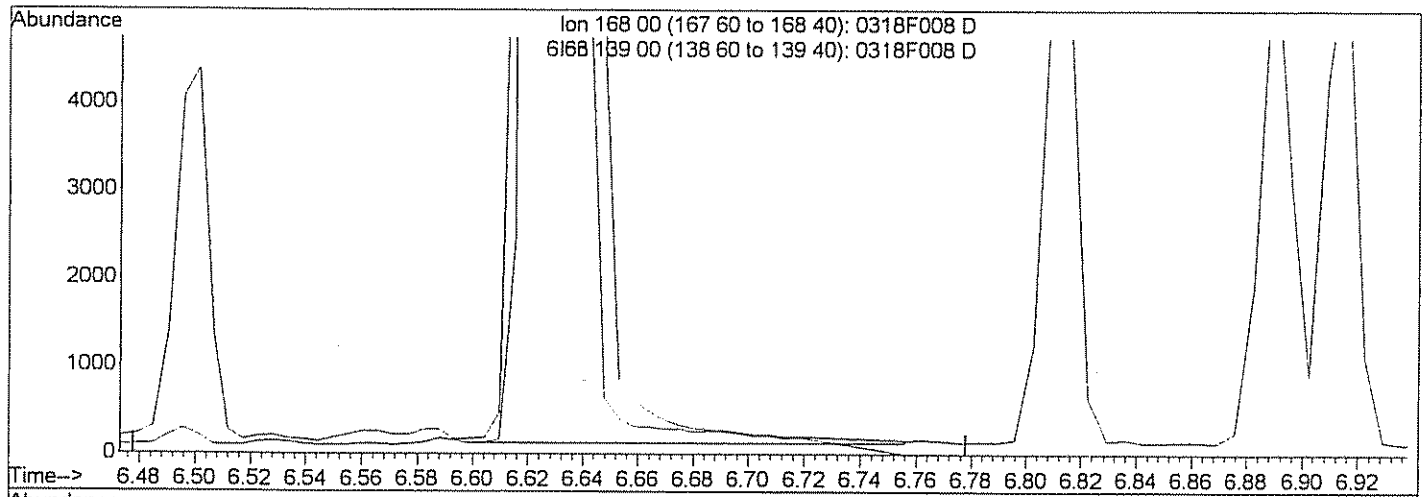


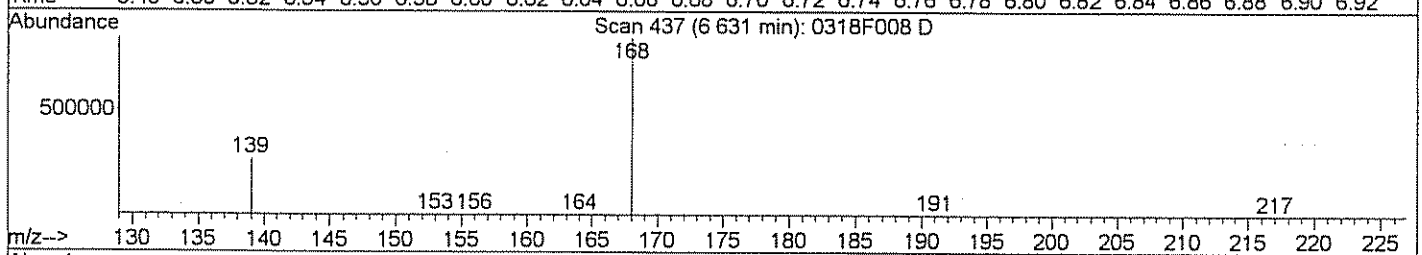
Quantitation Report (Qedit)

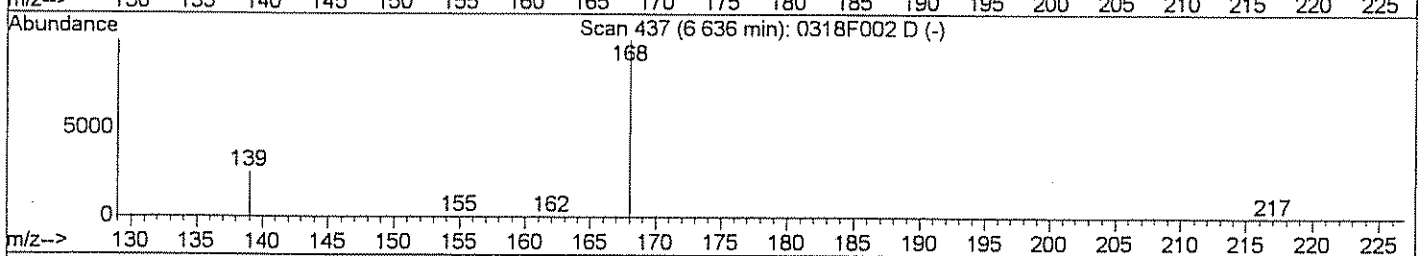
Data File : J:\MS11\DATA\031805\0318F008.D
Acq On : 18 Mar 2005 9:08 am
Sample : K2501656-003DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 7:57 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Multiple Level Calibration







TIC: 0318F008 D

(13) Dibenzofuran (T)

6 63min 548 44ng/ml

response 765510

Ion	Exp%	Act%
168 00	100	100
139 00	28 10	31 46
0 00	0 00	0.00
0 00	0 00	0 00

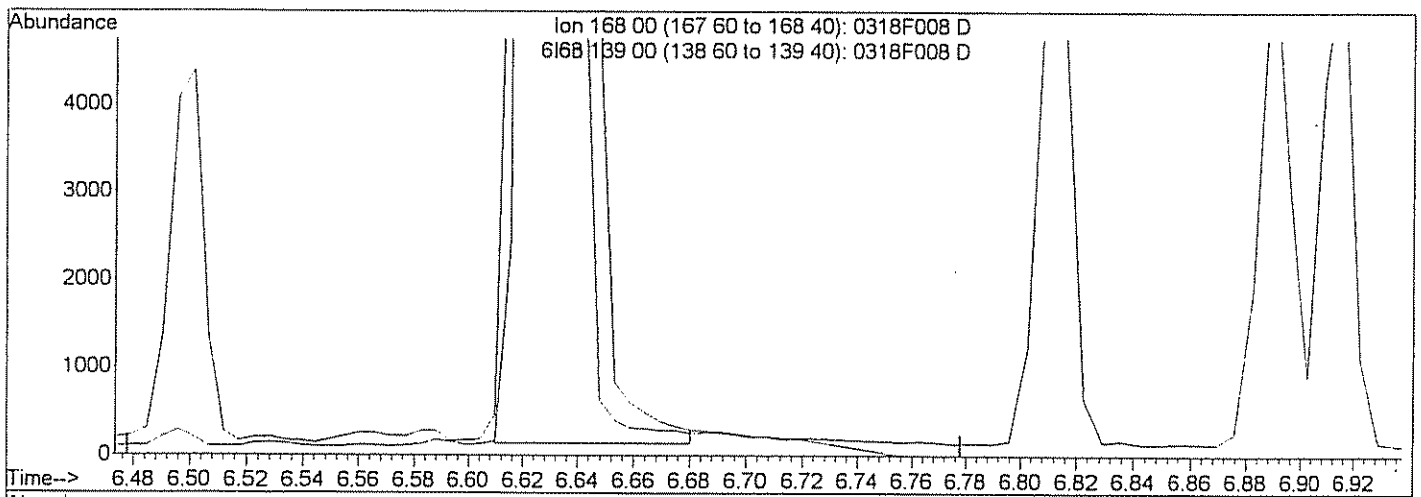
0318F008.D 0310ALK.M Tue Mar 22 08:02:30 2005

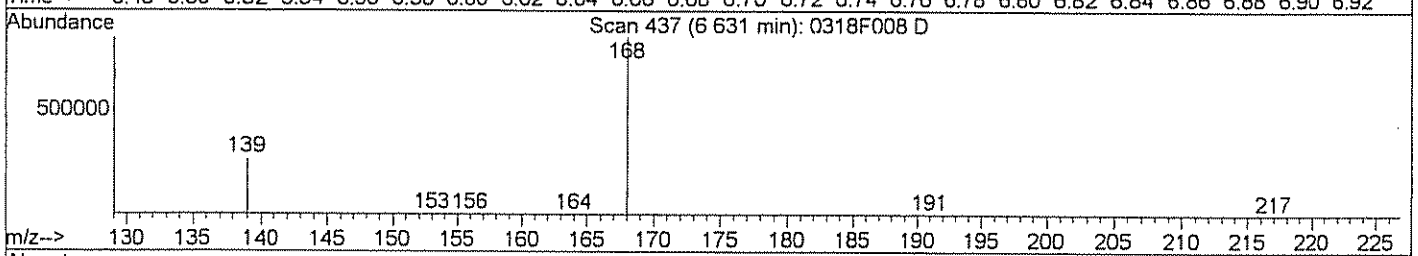
Quantitation Report (Qedit)

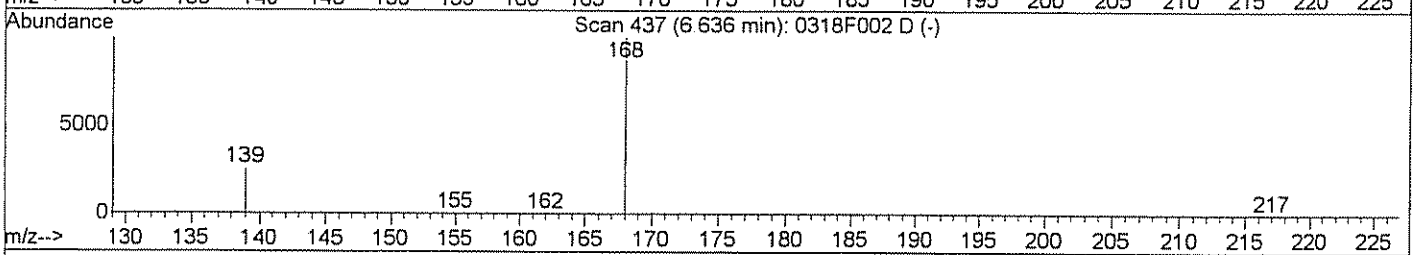
Data File : J:\MS11\DATA\031805\0318F008.D
Acq On : 18 Mar 2005 9:08 am
Sample : K2501656-003DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 22 8:02 2005

Vial: 6
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Multiple Level Calibration







TIC: 0318F008 D

(13) Dibenzofuran (T)

6 63min 435 51ng/ml m

response 607879

Ion	Exp%	Act%
168 00	100	100
139 00	28 10	31 46
0 00	0 00	0 00
0 00	0 00	0 00

g 3/22/15
over integrated
G 3/22/15

0318F008.D 0310ALK.M Tue Mar 22 08:02:35 2005

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Navy Public Works Center	**Service Request:**	K2501630
Project:	UST 43435 Camp Pendelton/201-0105	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/09/2005
		Date Analyzed:	03/16/2005

Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Units:**	ug/L
Lab Code:	KWG0503769-3	**Basis:**	NA
File ID:	J:\MS11\DATA\031605\0316F004.D	**Level:**	Low
Instrument ID:	MS11		
Extraction Method:	EPA 3535	**Extraction Lot:**	KWG0503769
Analysis Method:	8270C SIM	**Calibration ID:**	CAL4299

Sample Amount: 1000 ml
% Solids: NA
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
91-20-3	Naphthalene	2.38		0.020	0.0048	
91-57-6	2-Methylnaphthalene	2.37		0.020	0.0040	
208-96-8	Acenaphthylene	2.44		0.020	0.0031	
83-32-9	Acenaphthene	2.48		0.020	0.0042	
132-64-9	Dibenzofuran	2.40		0.020	0.0044	
86-73-7	Fluorene	2.50		0.020	0.0051	
85-01-8	Phenanthrene	2.46		0.020	0.0038	
120-12-7	Anthracene	2.62		0.020	0.0039	
206-44-0	Fluoranthene	2.79		0.020	0.0042	
129-00-0	Pyrene	2.63		0.020	0.0037	
56-55-3	Benz(a)anthracene	2.56		0.020	0.0040	
218-01-9	Chrysene	2.53		0.020	0.0036	
205-99-2	Benzo(b)fluoranthene	2.65		0.020	0.0048	
207-08-9	Benzo(k)fluoranthene	2.57		0.020	0.0041	
50-32-8	Benzo(a)pyrene	2.63		0.020	0.0041	
193-39-5	Indeno(1,2,3-cd)pyrene	2.83		0.020	0.0038	
53-70-3	Dibenz(a,h)anthracene	2.65		0.020	0.0066	
191-24-2	Benzo(g,h,i)perylene	2.68		0.020	0.0041	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	82	37-107	03/16/05	Acceptable
Fluoranthene-d10	91	18-137	03/16/05	Acceptable
Terphenyl-d14	108	18-153	03/16/05	Acceptable

Comments:

Exception Report

Data File: J:\MS11\DATA\031605\0316F004 D
Lab ID: KWG0503769-3
RunType: LCS
Matrix: WATER

Date Acquired: 03/16/2005 08:01
Date Quantitated: 03/17/2005 08:37
Batch ID: KWG0504293
Analysis Method: 8270C SIM
MethodJoinID: MJ532

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K1630
K1656
K1657

Primary Review: 3/17/05
Secondary Review: 3/17/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/10/2005

Analysis Lot:	KWG0504293	**Prep Lot:**	KWG0503769	**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**	EPA 3535		
Prep Ref:	366802	**Prep Date:**	03/09/2005		

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	**Calibration ID:**	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031605\0316F001 D	**Method ID:**	MJ532
MB Ref:	J:\MS11\DATA\031505\0315F003 D	**Quant based on Method**	

Data File:	J:\MS11\DATA\031605\0316F004 D			**Instrument:**	MS11
Acqu Date:	03/16/2005 08:01	**Quant Date:**	03/17/2005 08:37	**Vial:**	2
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0503769-3			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 00	136	212763	200 00	OK
2	Acenaphthene-d10	6 50	0 00	164	176039	200 00	OK
3	Phenanthrene-d10	7 72	0 00	188	284278	200 00	OK
4	Chrysene-d12	10 64	0 00	240	268246	200 00	OK
5	Perylene-d12	14 61	-0 01	264	250153	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 92	0 00	0 00	176	406197	327 03	82	37-107	OK
3	Fluoranthene-d10	8 74	0 00	0 00	212	698853	363 28	91	18-137	OK
4	Terphenyl-d14	9 14	0 01	0 00	244	648477	432 40	108	18-153	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08		0 00	128	583702	476 62	2 38		
1	2-Methylnaphthalene	5 63		0 00	142	505315	473 78	2 37		
1	1-Methylnaphthalene	5 72		0 00	142	462426	479 49	2 40		
1	Biphenyl	6 01	-0 01	0 00	154	648520	488 15	2 44		
1	2,6-Dimethylnaphthalene	6 14		0 00	156	468634	493 55	2 47		
2	Acenaphthylene	6 37		0 00	152	865309	488 00	2 44		
2	Acenaphthene	6 52	-0 01	0 00	154	519507	495 55	2 48		
2	Dibenzofuran	6 66		0 00	168	735993	480 87	2 40		
2	2,3,5-Trimethylnaphthalene	6 84		0 00	170	465752	496 96	2 48		
2	Fluorene	6 94		0 00	166	625025	499 33	2 50		
3	Dibenzothiophene	7 64		0 00	184	775888	482 55	2 41		
3	Phenanthrene	7 74		0 00	178	873258	491 47	2 46		
3	Anthracene	7 78		0 00	178	868526	523 21	2 62		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031605\0316F004 D			**Instrument:**	MS11
Acqu Date:	03/16/2005 08:01	**Quant Date:**	03/17/2005 08:37	**Vial:**	2
Run Type:	LCS			**Dilution:**	1 0
Lab ID:	KWG0503769-3			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 91		0 00	167	745437	523 32	2 62		
3	1-Methylphenanthrene	8 25		0 00	192	624474	526 91	2 63		
3	Fluoranthene	8 75		0 00	202	981172	558 28	2 79		
4	Pyrene	8 97	-0 01	0 00	202	1010332	526 40	2 63		
4	Benz(a)anthracene	10 61		0 00	228	893157	512 60	2 56		
4	Chrysene	10 68	-0 01	0 00	228	877236	506 01	2 53		
5	Benzo(b)fluoranthene	13 29		0 00	252	915972	529 89	2 65		
5	Benzo(k)fluoranthene	13 36	-0 01	0 00	252	892948	514 15	2 57		
5	Benzo(e)pyrene	14 21		0 00	252	835449	509 65	2 55		
5	Benzo(a)pyrene	14 39		0 00	252	806419	526 04	2 63		
5	Perylene	14 71		0 00	252	802551	514 57	2 57		
5	Indeno(1,2,3-cd)pyrene	17 43		0 00	276	740650m	566 66	2 83		
5	Dibenz(a,h)anthracene	17 50		0 00	278	737194	530 48	2 65		
5	Benzo(g,h,i)perylene	17 88		0 00	276	855605	535 27	2 68		

Prep Amount:	1000 ml	**Dilution:**	1 0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U Undetected at or above MDL
J Analyte detected above MDL, but below MRL
B Hit above MRL also found in Method Blank
E Analyte concentration above high point of ICAL
N Presumptive evidence of compound

D Result from dilution
m Manual integration performed
d Compound manually deleted
NR Analyte not reported from this analysis

^ Result fails acceptance criteria
# Acceptance criteria not applicable
? Insufficient information to determine acceptance
e Result >= MRL, but MRL less than low point of ICAL
c check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 8:01 am
Sample : KWG0503769-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 08:35:06 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	212763	200.00	ng/ml	0.03
10) Acenaphthene-d10	6.50	164	176039	200.00	ng/ml	0.03
22) Phenanthrene-d10	7.72	188	284278	200.00	ng/ml	0.03
37) Chrysene-d12	10.64	240	268246	200.00	ng/ml	0.06
49) Perylene-d12	14.61	264	250153	200.00	ng/ml	0.13
System Monitoring Compounds						
15) Fluorene-d10	6.92	176	406197	327.03	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 32.70%			
20) 2,4,6 Tribromophenol	7.15	330	63470	282.36	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 28.24%			
36) Fluoranthene-d10	8.74	212	698853	363.28	ng/ml	0.04
Spiked Amount 1000.000			Recovery = 36.33%			
42) Terphenyl-d14	9.14	244	648477	432.40	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 43.24%			
Target Compounds						Qvalue
2) Naphthalene	5.08	128	583702	476.62	ng/ml	99
3) 2-Methylnaphthalene	5.63	142	505315	473.78	ng/ml	93
4) 1-Methylnaphthalene	5.72	142	462426	479.49	ng/ml	94
5) Biphenyl	6.01	154	648520	488.15	ng/ml	94
6) 2,6-Dimethylnaphthalene	6.14	156	468634	493.55	ng/ml	97
11) Acenaphthylene	6.37	152	865309	488.00	ng/ml	98
12) Acenaphthene	6.52	154	519507	495.55	ng/ml	95
13) Dibenzofuran	6.66	168	735993	480.87	ng/ml	84
14) 2,3,5-Trimethylnaphthalene	6.84	170	465752	496.96	ng/ml	90
16) Fluorene	6.94	166	625025	499.33	ng/ml	96
21) Pentachlorophenol	7.62	266	3756	15.24	ng/ml	89
23) Dibenzothiophene	7.64	184	775888	482.55	ng/ml	77
27) Phenanthrene	7.74	178	873258	491.47	ng/ml	100
28) Anthracene	7.78	178	868526	523.21	ng/ml	100
29) Carbazole	7.91	167	745437	523.32	ng/ml	96
30) 1-Methylphenanthrene	8.25	192	624474	526.91	ng/ml	97
35) Fluoranthene	8.75	202	981172	558.28	ng/ml	97
38) Pyrene	8.97	202	1010332	526.40	ng/ml	95
43) Benz(a)anthracene	10.61	228	893157	512.60	ng/ml	99
44) Chrysene	10.68	228	877236	506.01	ng/ml	100
50) Benzo(b)fluoranthene	13.29	252	915972	529.89	ng/ml	100
51) Benzo(k)fluoranthene	13.36	252	892948	514.15	ng/ml	98
52) Benzo(e)pyrene	14.21	252	835449	509.65	ng/ml	100
53) Benzo(a)pyrene	14.39	252	806419	526.04	ng/ml	98
54) Perylene	14.71	252	802551	514.57	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 8:01 am
Sample : KWG0503769-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 08:35:06 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.43	276	740650m	566.66 ng/ml	
56)	Dibenz(a,h)anthracene	17.50	278	737194	530.48 ng/ml	97
57)	Benzo(g,h,i)perylene	17.88	276	855605	535.27 ng/ml	99

(#) = qualifier out of range (m) = manual integration

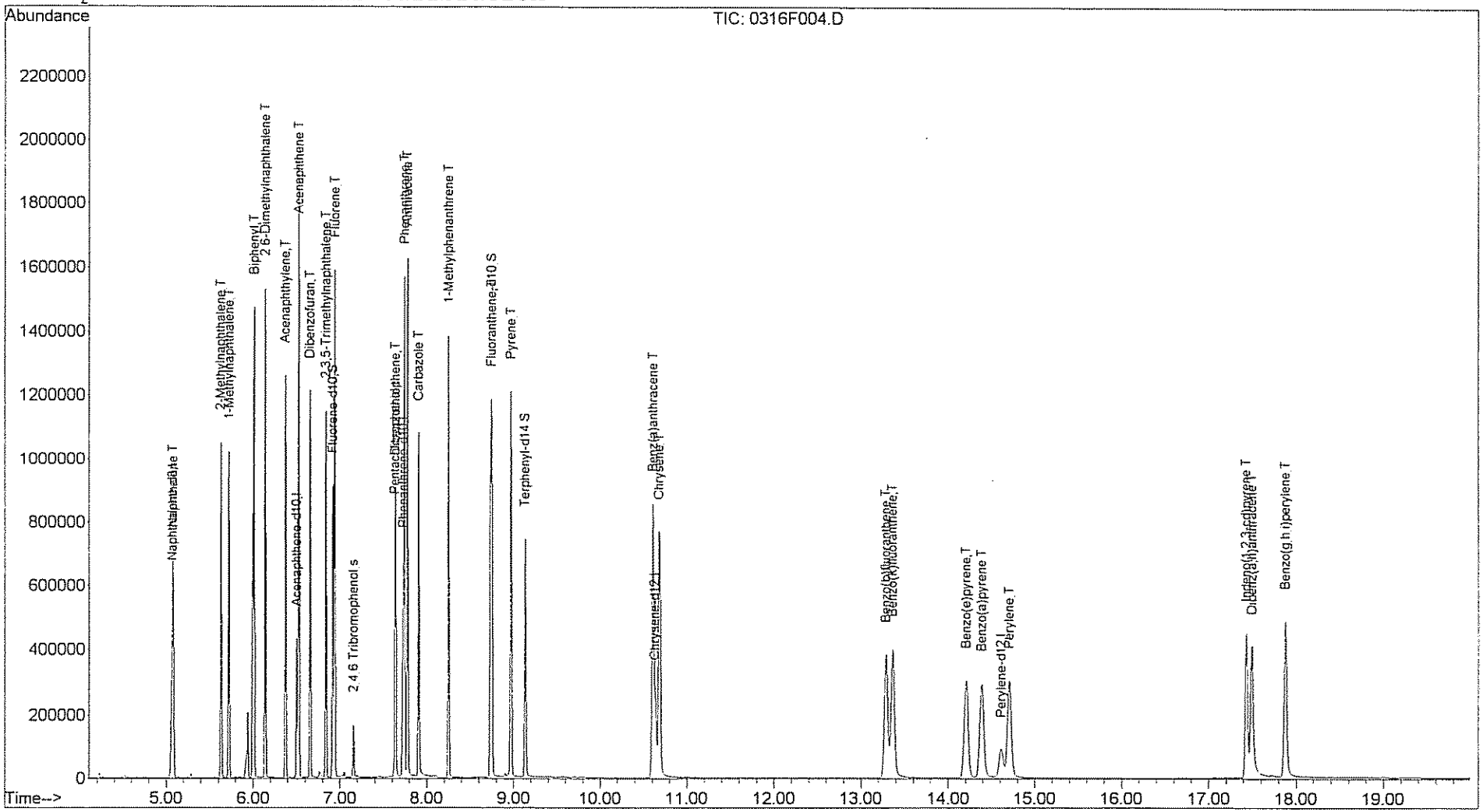
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F004.D
Acq On : 16 Mar 2005 8:01 am
Sample : KWG0503769-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:37 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

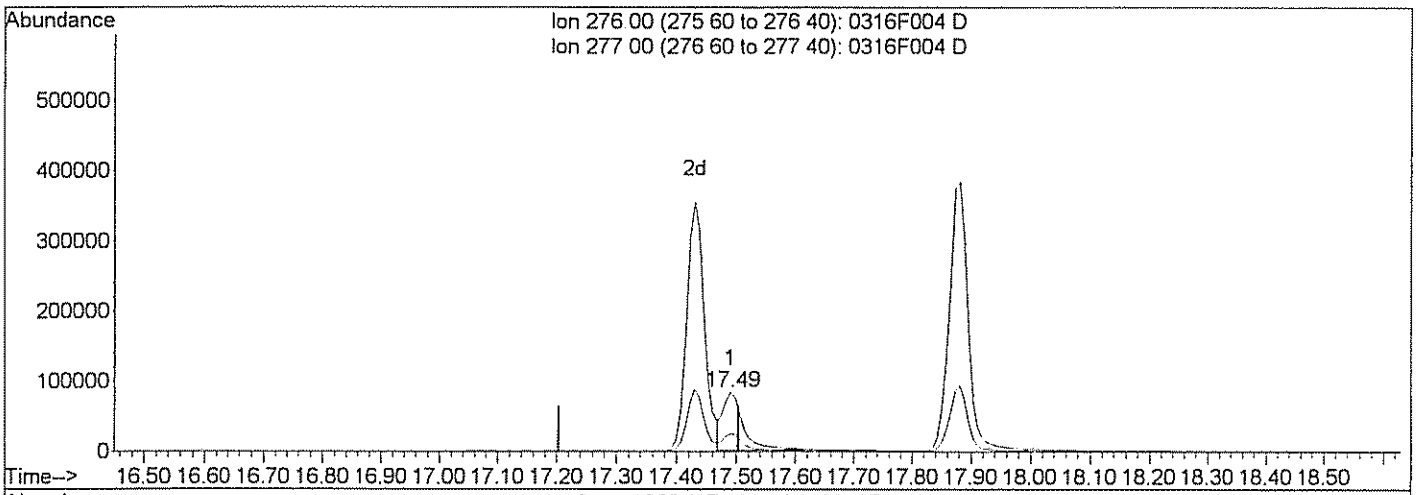
Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration

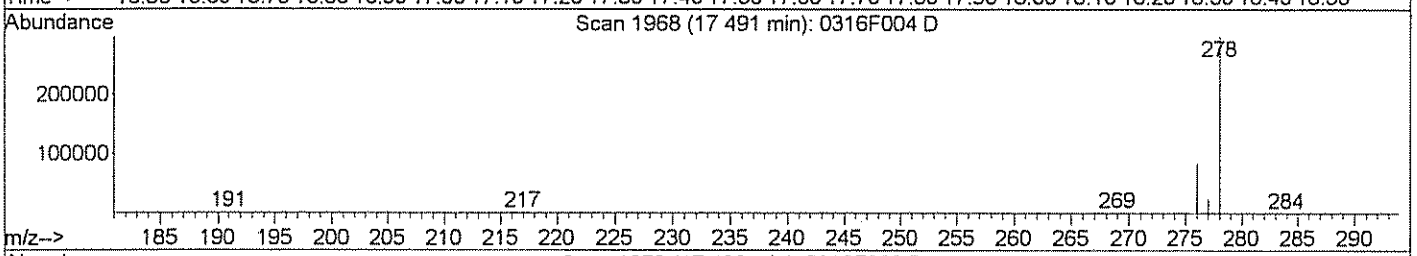


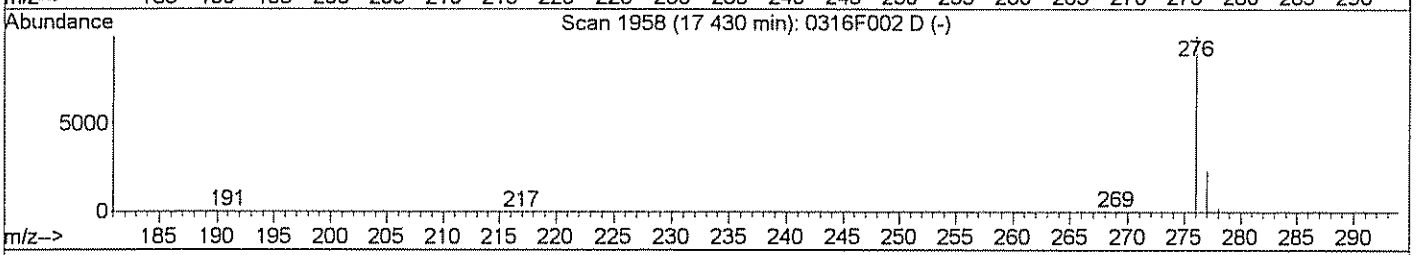
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031605\0316F004.D Vial: 2
Acq On : 16 Mar 2005 8:01 am Operator: LWeiskopf
Sample : KWG0503769-3 LCS Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:35 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Multiple Level Calibration







TIC: 0316F004 D

(55) Indeno(1,2,3-cd)pyrene (T)

17 49min 149 96ng/ml

response 196010

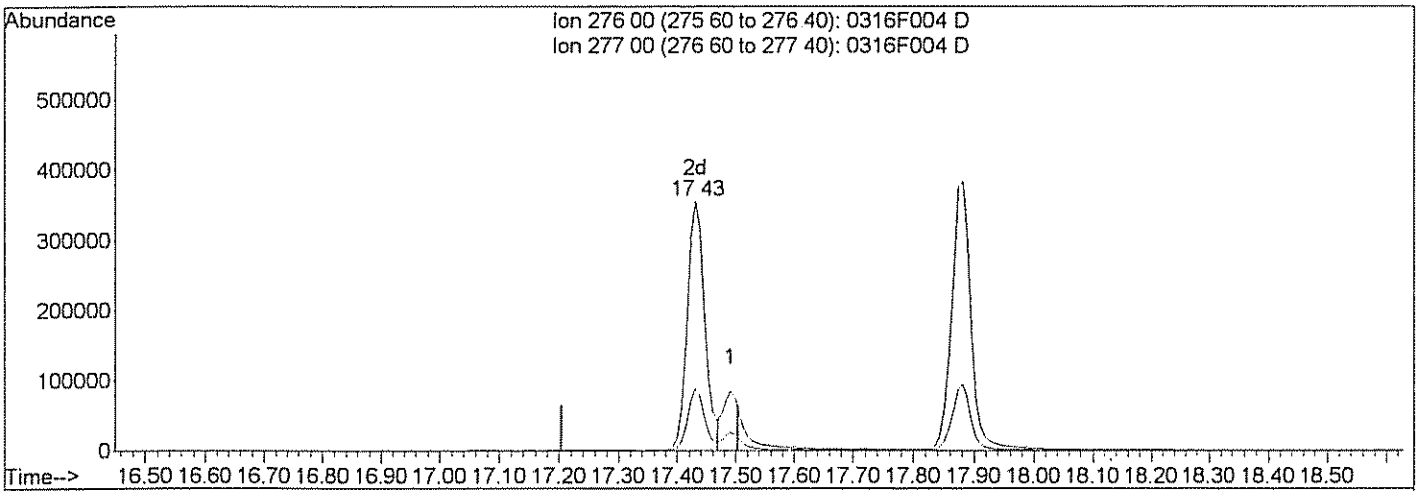
Ion	Exp%	Act%
276 00	100	100
277 00	23 70	29 98
0 00	0 00	0 00
0 00	0 00	0 00

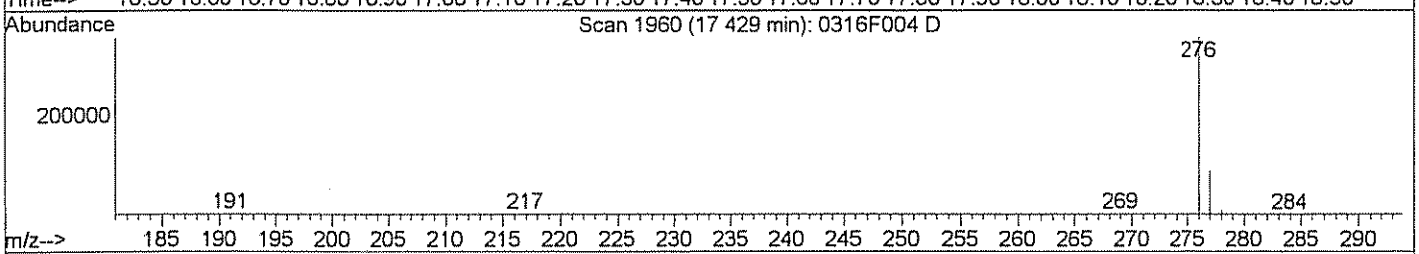
0316F004.D 0310ALK.M Thu Mar 17 08:37:12 2005

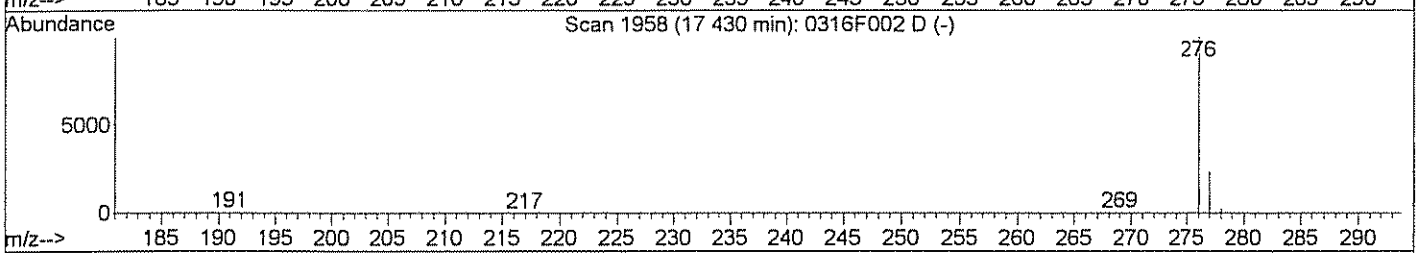
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031605\0316F004.D Vial: 2
Acq On : 16 Mar 2005 8:01 am Operator: LWeiskopf
Sample : KWG0503769-3 LCS Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 17 8:37 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Multiple Level Calibration







TIC: 0316F004 D

(55) Indeno(1,2,3-cd)pyrene (T)

17 43min 566 66ng/ml m

response 740650

Ion	Exp%	Act%
276 00	100	100
277 00	23 70	24 75
0 00	0 00	0 00
0 00	0 00	0 00

wrong peak
3/17/5
3/17/5

0316F004.D 0310ALK.M Thu Mar 17 08:37:17 2005

Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Standards Data

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/15/2005
Time Analyzed: 06:46

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031505\0315F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504292

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
275	198	10	60	35.5	386944	PASS
365	442	1	50	2.5	59648	PASS
51	198	10	80	33.0	358848	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.9	380502	PASS
70	69	0	2	0.6	2126	PASS
127	198	10	80	44.0	478720	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	45.3	1089024	PASS
199	198	5	9	6.8	74416	PASS
441	443	0	100	73.7	352320	PASS
442	442	100	100	100.0	2403328	PASS
443	442	15	24	19.9	478080	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504292-2	J:\MS11\DATA\031505\0315F002.D	03/15/2005	07:04	
Method Blank	KWG0503769-4	J:\MS11\DATA\031505\0315F003.D	03/15/2005	07:31	
Batch QC	K2501656-003	J:\MS11\DATA\031505\0315F015.D	03/15/2005	13:27	
50425-02	K2501630-002	J:\MS11\DATA\031505\0315F019.D	03/15/2005	15:15	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File:	J:\MS11\DATA\031505\0315F001 D	**Date Acquired:**	03/15/2005 06:46
Lab ID:	KWG0504292-1	**Date Quantitated:**	
RunType:	DFTPP	**Batch ID:**	KWG0504292
Matrix:	WATER	**Analysis Method:**	8270C SIM
		ListJoinID:	LJ4448

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 3/17/05

Secondary Review: 3/17/5

Printed: 03/17/2005 10:14:22

u:\Stealth\Crystal rpt\except2.rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	TUNE-8270	**Collect Date:**		**Receive Date:**	03/17/2005

Analysis Lot:	KWG0504292	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\DFTPPPAH M	**Calibration ID:**	CAL4299
Title:		**Report List ID:**	LJ1965
Tune Ref:		**Method ID:**	MJ190
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS11\DATA\031505\0315F001 D			**Instrument:**	MS11
Acqu Date:	03/15/2005 06:46	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1 0
Lab ID:	KWG0504292-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33 0	358848	Pass
68	69	0	2	0 0	0	Pass
69	198	0	100	34 9	380502	Pass
70	69	0	2	0 6	2126	Pass
127	198	10	80	44 0	478720	Pass
197	198	0	2	0 0	0	Pass
198	442	30	100	45 3	1089024	Pass
199	198	5	9	6 8	74416	Pass
275	198	10	60	35 5	386944	Pass
365	442	1	50	2 5	59648	Pass
441	443	0.01	100	73 7	352320	Pass
442	442	100	100	100 0	2403328	Pass
443	442	15	24	19 9	478080	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

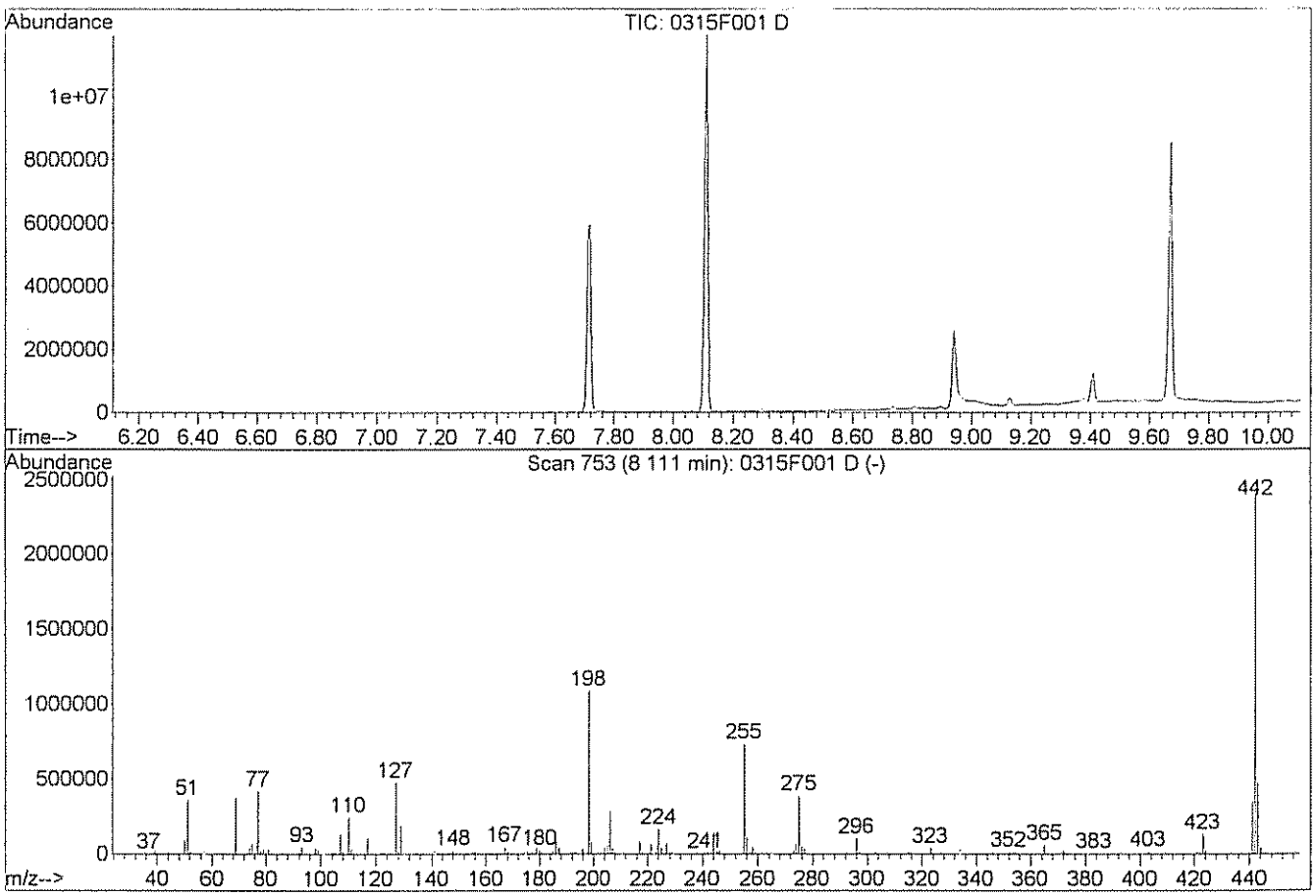
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

DFTPP

Data File : J:\MS11\DATA\031505\0315F001.D
Acq On : 15 Mar 2005 6:46 am
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00



Spectrum Information: Scan 753

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.0	358848	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2126	PASS
127	198	10	80	44.0	478720	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	45.3	1089024	PASS
199	198	5	9	6.8	74416	PASS
275	198	10	60	35.5	386944	PASS
365	442	1	50	2.5	59648	PASS
441	443	0.01	100	73.7	352320	PASS
442	442	30	100	100.0	2403328	PASS
443	442	15	24	19.9	478080	PASS

0315F001.D DFTPPPAH.M Thu Mar 17 07:18:14 2005

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1940	55.10	1581	69.10	380502	81.10	31326
38.20	4733	56.10	10883	70.10	2126	82.10	7838
39.10	26369	57.10	23819	71.20	222	83.10	6908
40.10	1574	58.10	1119	73.10	3230	84.00	815
41.15	615	61.10	4711	74.10	41560	85.10	5443
43.10	155	62.10	5761	75.10	63368	86.10	9665
45.10	851	63.10	15076	76.10	22168	87.00	4244
50.10	95600	64.10	2090	77.10	420096	88.10	1429
51.10	358848	65.10	7675	78.10	27728	89.10	739
52.10	18280	66.10	671	79.05	29821	91.10	6936
53.20	1205	67.15	451	80.10	22392	92.10	8166

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	50072	105.00	10449	119.10	1120	131.05	3203
94.10	3262	107.10	134912	120.00	2212	132.10	2073
95.10	863	108.10	21616	121.10	936	133.00	587
96.10	2299	110.00	246208	122.00	10243	134.00	5510
98.10	38928	111.10	35976	123.00	15494	135.10	15694
99.10	29592	112.00	5019	124.00	6617	136.10	5681
100.10	2893	113.00	1668	125.00	6174	137.10	8700
101.00	16928	115.00	1090	127.10	478720	138.00	1779
102.10	844	116.10	8146	128.10	36216	139.00	1066
103.10	6157	117.00	108235	129.00	192256	140.00	2731
104.00	12648	118.10	7794	130.10	16872	141.00	25656

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.00	9110	153.00	8254	164.00	1485	175.10	22000
143.00	5213	154.00	6709	165.00	10512	176.00	6003
144.10	1794	155.10	14645	166.00	7809	177.00	9836
145.00	1340	156.10	21912	167.00	49448	178.00	3780
146.10	4692	157.10	4331	168.00	22632	179.00	39392
147.00	14347	158.00	5210	169.00	4651	180.10	25360
148.00	27584	159.00	3451	170.10	2096	181.00	12554
149.00	5833	160.00	8247	171.00	2470	182.10	2300
150.10	1826	161.00	11709	172.00	5301	183.10	1810
151.10	3090	162.00	3785	173.10	6048	184.00	3087
151.90	2219	163.10	1258	174.00	10943	185.00	19816

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
186.10	147008	198.00	1089024	210.30	5037	225.10	41312
187.10	42352	199.00	74416	211.00	11614	226.10	4770
188.10	4402	200.00	5709	213.10	994	227.00	72224
189.00	10125	201.50	5501	215.00	3741	228.00	10140
190.00	1920	203.00	8321	216.10	6261	229.00	15623
191.00	4366	204.00	38608	217.00	78848	230.00	2075
192.00	12298	205.10	66784	218.00	10184	231.10	7217
193.10	14004	206.10	286912	219.00	1352	232.00	1101
194.10	3241	207.10	37072	221.10	63680	233.00	1835
195.10	2220	208.00	9583	223.00	17632	234.00	4701
196.00	32840	209.00	3522	224.00	166272	235.00	5890

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
236.00	3669	247.00	6289	259.00	6708	272.10	2272
237.00	5849	248.00	1321	260.00	1552	273.00	25160
238.00	880	249.00	5631	261.10	1367	274.00	67504
239.00	3406	249.90	935	263.10	758	275.00	386944
240.00	2459	251.00	1564	264.00	1411	276.00	51776
241.00	4721	252.00	1687	265.00	17672	277.00	32120
242.00	9587	253.10	3590	266.00	2831	278.00	5277
243.10	10221	255.00	734528	267.10	525	279.00	1312
244.10	144576	256.00	110312	268.00	620	282.00	1077
245.10	19152	257.00	8673	270.00	979	283.10	3595
246.00	26968	258.00	44688	271.10	1643	284.00	2526

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.10	5702	301.00	1882	316.00	6961	328.00	4066
286.10	1178	302.10	2100	317.10	1546	329.00	1047
289.00	1531	303.10	13843	319.10	517	332.00	3589
290.00	1161	304.00	3979	320.10	947	333.00	4503
291.10	996	308.00	2039	321.10	4031	334.00	28336
292.00	2133	309.00	1171	322.00	2144	335.00	7275
293.00	7782	310.10	2034	323.10	40976	336.00	1148
294.00	1605	311.10	601	324.00	8124	339.00	930
296.00	105096	313.00	1311	325.10	1323	340.10	828
297.00	14772	314.00	6123	326.10	983	341.10	5182
298.10	1035	315.00	12721	327.00	8338	342.10	1364

Scan 753 (8.111 min): 0315F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
346.00	10066	367.10	691	391.10	2912	423.10	132544
347.00	1831	370.00	1754	392.10	2281	424.10	25368
350.00	506	371.00	4200	401.00	1731	425.10	2468
351.00	804	372.00	27680	402.00	11466	441.10	352320
352.00	15095	373.00	6985	403.00	18616	442.10	2403328
353.00	10855	374.00	885	404.10	6252	443.10	478080
354.10	14916	377.10	946	405.10	1175	444.10	44712
355.10	3310	383.00	6914	410.00	733	445.10	2844
359.00	1004	384.00	2235	415.00	1284		
365.00	59648	385.00	653	421.00	16784		
366.00	9211	390.00	3832	422.10	15440		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005
Time Analyzed: 06:45

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031605\0316F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504293

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	32.0	360640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.6	389794	PASS
70	69	0	2	0.7	2610	PASS
127	198	10	80	42.9	484160	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	46.5	1127936	PASS
199	198	5	9	6.7	75352	PASS
275	198	10	60	34.8	392128	PASS
365	442	1	50	2.5	61432	PASS
441	443	0	100	72.8	350720	PASS
442	442	100	100	100.0	2425344	PASS
443	442	15	24	19.9	481856	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504293-2	J:\MS11\DATA\031605\0316F002.D	03/16/2005	07:03	
Lab Control Sample	KWG0503769-3	J:\MS11\DATA\031605\0316F004.D	03/16/2005	08:01	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File:	J:\MS11\DATA\031605\0316F001 D	**Date Acquired:**	03/16/2005 06:45
Lab ID:	KWG0504293-1	**Date Quantitated:**	
RunType:	DFTPP	**Batch ID:**	KWG0504293
Matrix:	WATER	**Analysis Method:**	8270C SIM
		ListJoinID:	LJ4448

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 03/17/05

Secondary Review: 03/17/5

Printed: 03/17/2005 09:45:50

u \Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	TUNE-8270	**Collect Date:**		**Receive Date:**	03/17/2005

Analysis Lot:	KWG0504293	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\DFTPPPAH M	**Calibration ID:**	CAL4299
Title:		**Report List ID:**	LJ1965
Tune Ref:		**Method ID:**	MJ190
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS11\DATA\031605\0316F001 D			**Instrument:**	MS11
Acqu Date:	03/16/2005 06:45	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1 0
Lab ID:	KWG0504293-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	32 0	360640	Pass
68	69	0	2	0 0	0	Pass
69	198	0	100	34 6	389794	Pass
70	69	0	2	0 7	2610	Pass
127	198	10	80	42 9	484160	Pass
197	198	0	2	0 0	0	Pass
198	442	30	100	46.5	1127936	Pass
199	198	5	9	6.7	75352	Pass
275	198	10	60	34 8	392128	Pass
365	442	1	50	2 5	61432	Pass
441	443	0 01	100	72 8	350720	Pass
442	442	100	100	100.0	2425344	Pass
443	442	15	24	19 9	481856	Pass

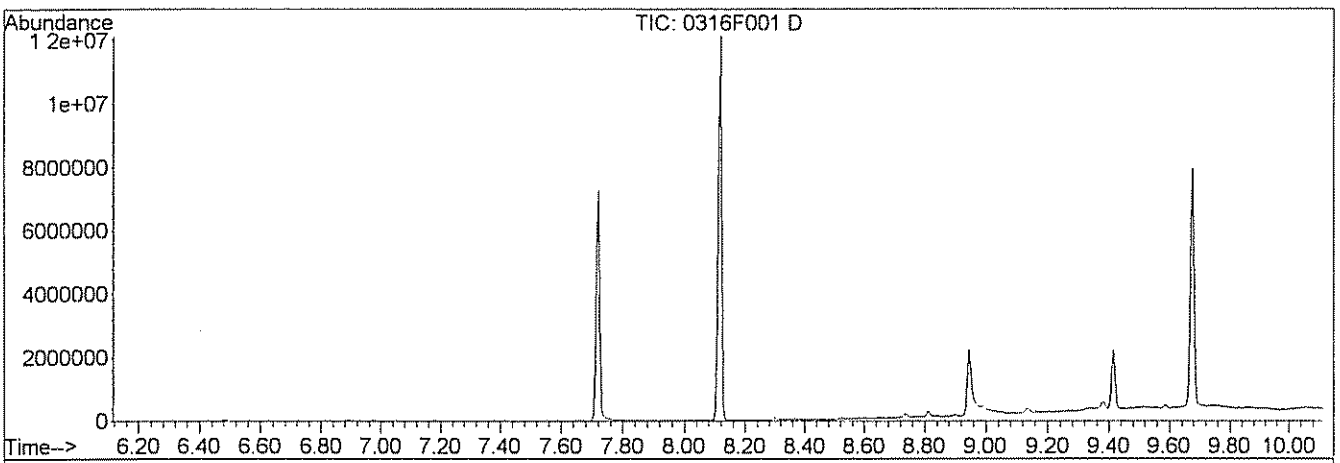
U Undetected at or above MDL
J Analyte detected above MDL but below MRL
B Hit above MRL also found in Method Blank
E Analyte concentration above high point of ICAL
N Presumptive evidence of compound

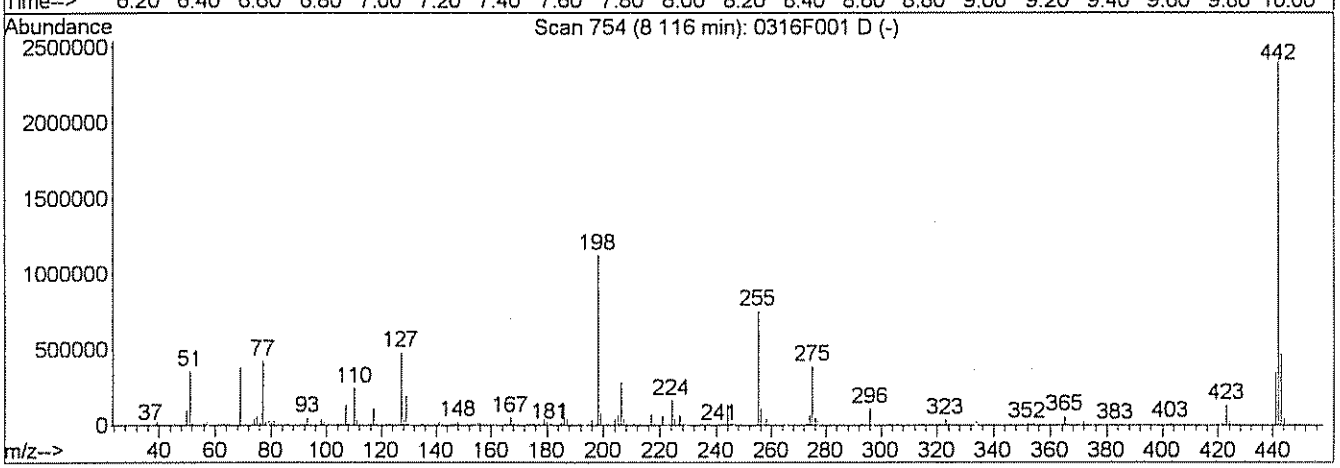
D Result from dilution
m Manual integration performed
d Compound manually deleted
NR Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e Result >= MRL, but MRL less than low point of ICAL
c check for co-elution

DFTPP

Data File : J:\MS11\DATA\031605\0316F001.D Vial: 1
Acq On : 16 Mar 2005 6:45 am Operator: LWeiskopf
Sample : DFTPP @ 50ug/mL | SVM19-9C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS





Spectrum Information: Scan 754

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	32.0	360640	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2610	PASS
127	198	10	80	42.9	484160	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	46.5	1127936	PASS
199	198	5	9	6.7	75352	PASS
275	198	10	60	34.8	392128	PASS
365	442	1	50	2.5	61432	PASS
441	443	0.01	100	72.8	350720	PASS
442	442	30	100	100.0	2425344	PASS
443	442	15	24	19.9	481856	PASS

0316F001.D DFTPPPAH.M Thu Mar 17 08:34:15 2005

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1769	56.10	11759	70.10	2610	82.00	7224
38.20	5158	57.10	25377	71.10	469	83.10	6578
39.10	26800	58.00	1296	73.10	3422	84.10	749
40.10	1465	61.10	4543	74.10	42840	85.10	5301
41.10	1018	62.10	5783	75.10	61608	86.10	9091
45.10	686	63.10	15374	76.10	22928	87.10	4177
50.10	98056	64.10	1994	77.10	425216	88.00	1574
51.10	360640	65.10	7760	78.10	28392	89.10	1003
52.10	18432	66.00	854	79.10	31714	91.10	7184
53.10	943	67.15	293	80.10	22192	92.10	8118
55.10	1683	69.10	389794	81.10	31767	93.10	51424

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	3716	105.10	10088	117.00	110184	129.00	195136
95.10	1033	106.10	4095	118.00	8142	130.00	17232
96.10	2654	107.10	135224	119.10	737	131.00	3517
97.10	974	108.10	21160	120.10	2172	132.00	1982
98.10	39632	110.10	249408	121.10	916	133.05	696
99.10	29488	111.10	36816	122.00	9944	134.10	6210
100.10	2491	112.00	4861	123.10	14491	135.10	15745
101.10	17264	113.10	1548	124.10	6434	136.00	6259
102.10	992	114.10	592	125.00	6504	137.10	8353
103.00	6578	115.00	592	127.10	484160	138.10	2064
104.10	12104	116.10	8660	128.10	37504	139.10	1254

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.00	2509	151.10	3384	162.00	3544	173.05	6215
141.00	26608	151.80	2427	163.00	1187	174.10	10788
142.10	8276	153.00	8438	164.00	1694	175.10	20712
143.00	5443	154.10	6459	165.00	9664	176.10	5961
144.10	2212	155.10	16281	166.00	8435	177.00	10479
145.10	1221	156.10	21464	167.00	51488	178.00	3423
146.00	5382	157.10	5031	168.00	23448	179.00	39792
147.10	13352	158.00	5373	169.10	4490	180.00	26312
148.00	28488	159.10	3237	170.10	2359	181.10	12780
149.10	5727	160.00	8591	171.00	2961	182.10	2451
150.00	1724	161.10	12218	172.00	4903	183.10	1448

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.10	3298	195.10	2107	208.00	9627	223.00	17688
185.10	18904	196.00	32840	209.00	3441	224.10	167040
186.10	149120	198.00	1127936	210.20	5376	225.10	42928
187.10	44424	199.00	75352	211.00	11706	226.10	5158
188.10	4361	200.00	5972	213.10	1066	227.00	70472
189.00	9767	201.50	6556	215.00	3434	228.00	10625
190.00	1914	203.00	7930	216.00	6248	229.00	15673
191.10	4591	204.10	41472	217.00	78640	230.00	2197
192.00	13212	205.10	70768	218.00	10337	231.00	6560
193.10	13771	206.10	288256	219.00	1454	232.00	1389
194.10	3401	207.10	37400	221.00	64368	233.00	1936

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.00	4880	245.10	19976	257.00	8116	271.10	2051
235.00	5719	246.00	27688	258.00	41920	272.10	2467
236.00	3095	247.00	5904	259.00	7231	273.00	24640
237.00	5708	248.00	1557	260.10	1321	274.00	66912
238.00	889	249.00	5784	261.00	1848	275.00	392128
239.00	3237	250.00	1288	263.00	691	276.00	52624
240.00	2430	251.00	1760	264.00	1423	277.00	31264
241.00	4345	252.10	1541	265.00	18568	278.00	5285
242.00	9262	253.00	3270	265.95	2103	279.00	1290
243.10	10591	255.00	757568	267.90	794	281.10	603
244.10	145088	256.00	112928	270.00	1171	282.00	704

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.10	3689	296.00	113104	311.10	632	325.00	1068
284.00	2971	297.00	14862	313.10	1286	326.00	1003
285.10	5525	298.00	1179	314.00	5743	327.00	7758
286.00	1275	301.00	1958	315.00	13037	328.00	4150
288.00	514	302.10	2574	316.10	8059	329.10	913
289.00	1775	303.00	14373	317.00	1775	332.00	3609
290.00	1334	304.00	4047	320.10	615	333.10	4624
291.00	940	305.00	591	321.00	4846	334.00	27512
292.10	1670	308.10	1921	322.10	2154	335.00	7680
293.00	8236	309.00	1339	323.10	40848	336.00	1127
294.00	2027	310.10	1558	324.10	7917	339.10	897

Scan 754 (8.116 min): 0316F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
340.10	592	359.00	1294	384.00	2377	415.10	782
341.10	5594	365.00	61432	385.10	944	421.10	17288
342.00	1423	366.00	8328	390.00	3749	422.10	15908
346.00	9737	367.00	768	391.10	3092	423.00	136320
347.00	1746	370.10	1460	392.10	2367	424.00	26656
351.10	937	371.10	4120	401.00	1820	425.00	2798
352.00	14226	372.00	28000	402.00	12149	441.10	350720
353.00	10083	373.00	6754	403.00	19392	442.10	2425344
354.10	14414	374.10	898	404.00	5906	443.10	481856
355.10	2871	376.90	802	405.10	812	444.10	46096
356.00	546	383.00	7712	410.10	526	445.10	2595

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/18/2005
Time Analyzed: 06:05

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS11\DATA\031805\0318F001.D
Instrument ID: MS11
Column:

Analysis Method: 8270C SIM
Analysis Lot: KWG0504491

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33.1	339328	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	34.5	353664	PASS
70	69	0	2	0.6	2000	PASS
127	198	10	80	42.9	439936	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	43.6	1026112	PASS
199	198	5	9	6.7	68592	PASS
275	198	10	60	35.8	367168	PASS
365	442	1	50	2.5	57848	PASS
441	443	0	100	74.7	344768	PASS
442	442	100	100	100.0	2351616	PASS
443	442	15	24	19.6	461504	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0504491-2	J:\MS11\DATA\031805\0318F002.D	03/18/2005	06:23	
Batch QCMS	KWG0503769-1	J:\MS11\DATA\031805\0318F007.D	03/18/2005	08:39	
Batch QCDMS	KWG0503769-2	J:\MS11\DATA\031805\0318F008.D	03/18/2005	09:08	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Exception Report

Data File:	J:\MS11\DATA\031805\0318F001 D	**Date Acquired:**	03/18/2005 06:05
Lab ID:	KWG0504491-1	**Date Quantitated:**	
RunType:	DFTPP	**Batch ID:**	KWG0504491
Matrix:	WATER	**Analysis Method:**	8270C SIM
		ListJoinID:	LJ4885

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 3/22/15

Secondary Review: 3/22/15

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	TUNE-8270	**Collect Date:**		**Receive Date:**	03/22/2005

Analysis Lot:	KWG0504491	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\DFTPPPAH M	**Calibration ID:**	CAL4299
Title:		**Report List ID:**	LJ1965
Tune Ref:		**Method ID:**	MJ190
MB Ref:		**Quant based on Report List**	

Data File:	J:\MS11\DATA\031805\0318F001 D			**Instrument:**	MS11
Acqu Date:	03/18/2005 06:05	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1 0
Lab ID:	KWG0504491-1			**Soln Conc. Units:**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33 1	339328	Pass
68	69	0	2	0 0	0	Pass
69	198	0	100	34 5	353664	Pass
70	69	0	2	0 6	2000	Pass
127	198	10	80	42.9	439936	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	43 6	1026112	Pass
199	198	5	9	6 7	68592	Pass
275	198	10	60	35 8	367168	Pass
365	442	1	50	2 5	57848	Pass
441	443	0.01	100	74.7	344768	Pass
442	442	100	100	100.0	2351616	Pass
443	442	15	24	19 6	461504	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

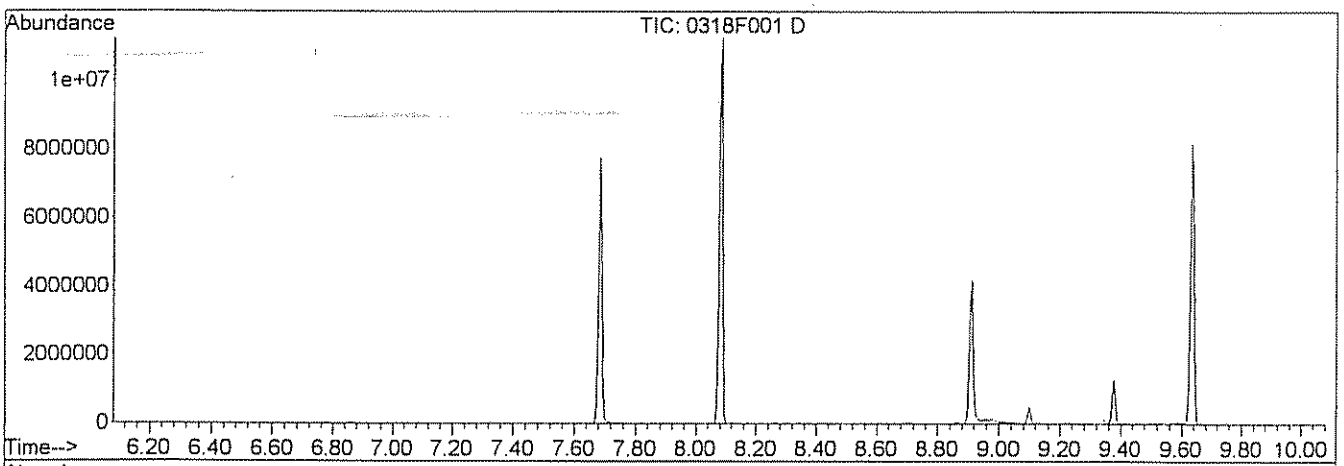
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

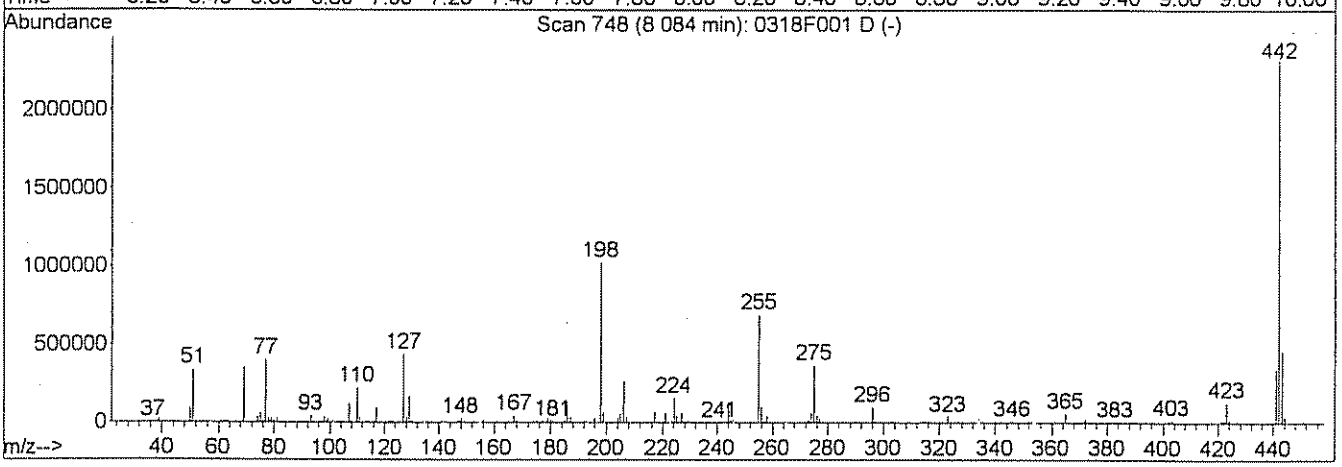
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

DFTPP

Data File : J:\MS11\DATA\031805\0318F001.D
Acq On : 18 Mar 2005 6:05 am
Sample : DFTPP @ 50ug/mL | SVM19-
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00





Spectrum Information: Scan 748

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.1	339328	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2000	PASS
127	198	10	80	42.9	439936	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	43.6	1026112	PASS
199	198	5	9	6.7	68592	PASS
275	198	10	60	35.8	367168	PASS
365	442	1	50	2.5	57848	PASS
441	443	0.01	100	74.7	344768	PASS
442	442	30	100	100.0	2351616	PASS
443	442	15	24	19.6	461504	PASS

0318F001.D DFTPPPAH.M Tue Mar 22 07:56:16 2005

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	588	53.05	717	67.05	794	81.05	28168
37.05	1754	55.05	1975	69.05	353664	82.05	7206
38.05	4631	56.05	10809	69.95	2000	83.05	6797
39.05	25152	57.05	23360	73.05	3015	83.95	843
40.05	1461	58.05	1156	74.05	37552	85.05	4980
41.10	532	61.05	4763	75.05	57944	86.05	8510
44.05	247	62.05	5278	76.05	21328	87.05	3571
45.05	784	63.05	13372	77.05	401600	88.05	1484
50.05	91104	64.05	2113	78.05	27984	89.05	647
51.05	339328	65.05	6733	79.05	26888	91.05	6834
52.05	16768	66.05	563	80.05	20272	92.05	7353

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	45280	104.95	9598	119.05	1057	131.05	3121
94.05	3115	107.05	121520	120.05	1485	131.95	1599
94.95	1057	108.05	19384	120.95	807	133.05	659
96.05	2012	109.95	222720	122.05	8558	133.95	5151
98.05	37016	111.05	33408	122.95	12555	134.95	13760
99.05	27448	112.05	4461	124.05	5813	136.05	5822
100.05	2367	112.95	1422	125.05	5465	137.05	7020
101.05	16760	114.85	577	127.05	439936	137.85	2000
102.15	947	116.05	7222	128.05	33392	139.05	833
102.95	5479	117.05	97200	128.95	169600	139.95	2295
103.95	10506	118.05	7256	129.95	14520	140.95	22856

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.95	7186	152.95	6736	163.95	1056	175.05	18936
142.95	5263	153.95	5248	164.95	9523	175.95	5166
144.05	1296	155.05	13225	165.95	6815	176.95	8912
144.95	1391	156.05	19704	167.05	46288	177.95	3193
145.95	4267	157.05	3738	167.95	21848	178.95	35064
147.05	11793	157.95	4643	169.05	3646	180.05	23904
147.95	25968	158.95	3285	169.95	1550	180.95	11095
149.05	5029	159.95	6785	170.95	1984	182.05	2175
150.05	1444	160.95	10592	171.95	3952	182.95	1184
151.05	2834	161.95	3294	172.95	5566	183.95	2905
151.85	2109	162.95	952	174.05	9360	185.05	17200

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
186.05	137664	197.95	1026112	210.95	10693	225.95	4501
187.05	40424	198.95	68592	213.05	721	226.95	66064
188.05	3725	200.05	5370	215.05	2659	227.95	8561
188.95	9091	201.45	5781	216.05	5689	228.95	13643
189.95	1734	202.95	7431	216.95	72632	229.95	2005
190.95	3984	203.95	35912	217.95	9613	231.05	6088
191.95	11797	205.05	64456	218.95	1035	232.05	883
193.05	13652	206.05	270208	220.95	62008	232.95	1167
193.95	2453	207.05	34584	222.95	16752	233.95	4090
194.95	1545	208.05	7994	224.05	158400	234.95	4681
195.95	30496	209.05	2757	225.05	42080	235.95	3039

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
237.05	4659	247.95	997	260.05	1318	275.95	48312
237.95	971	248.95	4778	260.95	1260	276.95	28080
238.95	2960	249.95	928	263.95	1343	277.95	4487
239.95	2056	250.95	956	264.95	16204	279.05	1200
240.95	3666	251.95	1364	265.95	2697	282.05	672
242.05	9238	253.05	2844	269.95	896	283.05	3133
243.05	9835	254.95	691968	270.95	1386	283.95	2395
244.05	140288	255.95	102528	272.05	2018	284.95	5400
245.05	17984	257.05	8006	273.05	22864	285.95	711
245.95	24672	257.95	39696	273.95	63464	288.95	1315
246.95	5453	258.95	5938	274.95	367168	290.05	1076

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
290.95	739	308.05	1550	323.05	40080	335.95	1070
292.05	1111	308.95	1058	324.05	7224	339.05	602
292.95	7076	310.05	1513	325.05	553	339.95	511
294.05	1754	313.05	1131	326.05	728	341.05	4963
295.95	100552	314.05	5442	326.95	7029	342.05	1267
296.95	13797	314.95	11800	328.05	3659	345.95	10285
297.95	912	316.05	7509	328.95	649	346.95	1679
300.95	1403	316.95	1061	332.05	2953	350.95	892
302.05	2120	319.95	594	332.95	3591	352.05	12826
303.05	12671	320.95	3578	334.05	26400	353.05	8866
303.95	3028	321.95	1948	335.05	6738	354.05	14080

Scan 748 (8.084 min): 0318F001.D
DFTPP @ 50ug/mL | SVM19-
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
355.05	2384	382.95	7735	415.05	1021		
359.05	1030	383.95	2093	421.05	16512		
364.95	57848	390.05	3860	422.05	15329		
365.95	8883	391.05	2773	423.05	131840		
367.05	682	392.05	2305	424.05	26784		
369.95	1370	401.05	1586	425.05	2211		
371.05	3690	402.05	12324	441.05	344768		
372.05	25408	403.05	17928	442.05	2351616		
373.05	6490	404.05	6299	443.05	461504		
374.05	956	405.05	1046	444.05	42912		
376.95	572	410.05	503	445.05	2318		

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS11\DATA\031005\0310F006.D	F	J:\MS11\DATA\031105\0311F005.D
B	J:\MS11\DATA\031005\0310F011.D	G	J:\MS11\DATA\031105\0311F006.D
C	J:\MS11\DATA\031005\0310F012.D	H	J:\MS11\DATA\031105\0311F007.D
D	J:\MS11\DATA\031005\0310F013.D	I	J:\MS11\DATA\031105\0311F008.D
E	J:\MS11\DATA\031005\0310F014.D	J	J:\MS11\DATA\031105\0311F009.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	4.0	1.15	B	400	1.15	C	1000	1.11	D	1600	1.11	E	2000	1.15
	F	2.0	1.22	G	8.0	1.21	H	20	1.17	I	100	1.11	J	200	1.12
2-Methylnaphthalene	A	4.0	1.04	B	400	1.05	C	1000	1.05	D	1600	1.03	E	2000	1.00
	F	2.0	0.966	G	8.0	0.999	H	20	0.977	I	100	0.942	J	200	0.973
Acenaphthylene	A	4.0	2.01	B	400	2.09	C	1000	2.02	D	1600	1.97	E	2000	2.05
	F	2.0	2.05	G	8.0	2.04	H	20	2.00	I	100	1.93	J	200	1.99
Acenaphthene	A	4.0	1.17	B	400	1.24	C	1000	1.16	D	1600	1.15	E	2000	1.19
	F	2.0	1.17	G	8.0	1.27	H	20	1.23	I	100	1.15	J	200	1.18
Dibenzofuran	A	4.0	1.71	B	400	1.78	C	1000	1.71	D	1600	1.69	E	2000	1.76
	F	2.0	1.77	G	8.0	1.79	H	20	1.78	I	100	1.68	J	200	1.72
Fluorene	A	4.0	1.42	B	400	1.49	C	1000	1.42	D	1600	1.39	E	2000	1.46
	F	2.0	1.42	G	8.0	1.43	H	20	1.41	I	100	1.37	J	200	1.41
Phenanthrene	A	4.0	1.25	B	400	1.28	C	1000	1.17	D	1600	1.16	E	2000	1.22
	F	2.0	1.53	G	8.0	1.33	H	20	1.27	I	100	1.14	J	200	1.15
Anthracene	A	4.0	1.17	B	400	1.29	C	1000	1.19	D	1600	1.17	E	2000	1.21
	F	2.0	1.19	G	8.0	1.16	H	20	1.15	I	100	1.06	J	200	1.09
Fluoranthene	A	4.0	1.27	B	400	1.40	C	1000	1.26	D	1600	1.16	E	2000	1.13
				G	8.0	1.27	H	20	1.26	I	100	1.17	J	200	1.21
Pyrene	A	4.0	1.58	B	400	1.47	C	1000	1.35	D	1600	1.19	E	2000	1.20
				G	8.0	1.69	H	20	1.62	I	100	1.41	J	200	1.38
Benz(a)anthracene	A	4.0	1.45	B	400	1.32	C	1000	1.27	D	1600	1.24	E	2000	1.32
	F	2.0	1.74	G	8.0	1.29	H	20	1.21	I	100	1.07	J	200	1.09
Chrysene	A	4.0	1.29	B	400	1.31	C	1000	1.26	D	1600	1.22	E	2000	1.31
	F	2.0	1.60	G	8.0	1.34	H	20	1.30	I	100	1.15	J	200	1.16
Benzo(b)fluoranthene	A	4.0	1.37	B	400	1.47	C	1000	1.45	D	1600	1.44	E	2000	1.54
	F	2.0	1.55	G	8.0	1.31	H	20	1.29	I	100	1.20	J	200	1.20
Benzo(k)fluoranthene	A	4.0	1.35	B	400	1.53	C	1000	1.45	D	1600	1.42	E	2000	1.54
	F	2.0	1.39	G	8.0	1.34	H	20	1.31	I	100	1.22	J	200	1.33

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene	A	4.0	1.23	B	400	1.33	C	1000	1.29	D	1600	1.28	E	2000	1.38
	F	2.0	1.32	G	8.0	1.15	H	20	1.14	I	100	1.05	J	200	1.09
Indeno(1,2,3-cd)pyrene	A	4.0	1.24	B	400	1.22	C	1000	1.15	D	1600	1.11	E	2000	1.21
	F	2.0	1.02	G	8.0	0.906	H	20	0.901	I	100	0.837	J	200	0.863
Dibenz(a,h)anthracene	A	4.0	1.23	B	400	1.26	C	1000	1.19	D	1600	1.17	E	2000	1.25
	F	2.0	1.09	G	8.0	1.01	H	20	0.998	I	100	0.963	J	200	0.941
Benzo(g,h,i)perylene	A	4.0	1.36	B	400	1.41	C	1000	1.29	D	1600	1.24	E	2000	1.31
	F	2.0	1.40	G	8.0	1.28	H	20	1.23	I	100	1.12	J	200	1.15
Fluorene-d10	A	4.0	1.39	B	400	1.47	C	1000	1.40	D	1600	1.36	E	2000	1.41
	F	2.0	1.46	G	8.0	1.43	H	20	1.42	I	100	1.36	J	200	1.41
Fluoranthene-d10	A	4.0	1.42	B	400	1.54	C	1000	1.37	D	1600	1.23	E	2000	1.21
	F	2.0	1.41	G	8.0	1.38	H	20	1.38	I	100	1.28	J	200	1.31
Terphenyl-d14	A	4.0	1.21	B	400	1.14	C	1000	1.07	D	1600	1.02	E	2000	1.07
	F	2.0	1.23	G	8.0	1.20	H	20	1.18	I	100	1.04	J	200	1.02

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL4299
Instrument ID: MS11

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Naphthalene	MS	AverageRF	% RSD	3.5		≤ 15	1.15		0.01
2-Methylnaphthalene	MS	AverageRF	% RSD	3.7		≤ 15	1.00		0.01
Acenaphthylene	MS	AverageRF	% RSD	2.3		≤ 15	2.01		0.01
Acenaphthene	MS	AverageRF	% RSD	3.4		≤ 15	1.19		0.01
Dibenzofuran	MS	AverageRF	% RSD	2.4		≤ 15	1.74		0.01
Fluorene	MS	AverageRF	% RSD	2.5		≤ 15	1.42		0.01
Phenanthrene	MS	AverageRF	% RSD	9.4		≤ 15	1.25		0.01
Anthracene	MS	AverageRF	% RSD	5.3		≤ 15	1.17		0.01
Fluoranthene	MS	AverageRF	% RSD	6.6		≤ 15	1.24		0.01
Pyrene	MS	AverageRF	% RSD	12.3		≤ 15	1.43		0.01
Benz(a)anthracene	MS	AverageRF	% RSD	14.6		≤ 15	1.30		0.01
Chrysene	MS	AverageRF	% RSD	9.8		≤ 15	1.29		0.01
Benzo(b)fluoranthene	MS	AverageRF	% RSD	9.2		≤ 15	1.38		0.01
Benzo(k)fluoranthene	MS	AverageRF	% RSD	7.1		≤ 15	1.39		0.01
Benzo(a)pyrene	MS	AverageRF	% RSD	9.2		≤ 15	1.23		0.01
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	15.2	*	≤ 15	1.05		0.01
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	11.2		≤ 15	1.11		0.01
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	7.6		≤ 15	1.28		0.01
Fluorene-d10	SURR	AverageRF	% RSD	2.7		≤ 15	1.41		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	7.2		≤ 15	1.35		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.3		≤ 15	1.12		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Calibration Date: 03/10/2005
Date Analyzed: 03/11/2005

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration ID: CAL4299
Units: ng/ml

File ID: J:\MS11\DATA\031105\0311G011.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	1.15	1.12	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	1.00	0.944	-6	NA	± 20 %	AverageRF
Acenaphthylene	200	190	2.01	1.95	-3	NA	± 20 %	AverageRF
Acenaphthene	200	190	1.19	1.16	-3	NA	± 20 %	AverageRF
Dibenzofuran	200	200	1.74	1.74	0	NA	± 20 %	AverageRF
Fluorene	200	200	1.42	1.40	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	1.25	1.26	1	NA	± 20 %	AverageRF
Anthracene	200	210	1.17	1.21	3	NA	± 20 %	AverageRF
Fluoranthene	200	210	1.24	1.30	5	NA	± 20 %	AverageRF
Pyrene	200	210	1.43	1.50	5	NA	± 20 %	AverageRF
Benz(a)anthracene	200	180	1.30	1.20	-8	NA	± 20 %	AverageRF
Chrysene	200	200	1.29	1.27	-2	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	1.38	1.37	-1	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	210	1.39	1.44	3	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	1.23	1.21	-1	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	180	1.05	0.929	-11	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	190	1.11	1.04	-7	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	200	1.28	1.28	0	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Injection Log

Directory. J:\MS11\DATA\031005

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0310F001.D	1	DFTPP @ 50ug/mL | SVM19-9C		10 Mar 2005 13:4
2	1	0310F002.D	1	IB		10 Mar 2005 14:0
3	1	0310F003.D	1	IB		10 Mar 2005 14:2
4	1	0310F004.D	1	IB		10 Mar 2005 15:2
5	3	0310F005.D	1	SIM-PAH ICAL @ .002/0.05ug/mL * | SVM19-1 NR		10 Mar 2005 15:5
6	4	0310F006.D	1	SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10		10 Mar 2005 16:1
7	5	0310F007.D	1	SIM-PAH ICAL @ .008/0.2ug/mL * | SVM19-10 NR		10 Mar 2005 16:4
8	6	0310F008.D	1	SIM-PAH ICAL @ 0.02/0.4ug/mL * | SVM19-10		10 Mar 2005 17:1
9	7	0310F009.D	1	SIM-PAH ICAL @ 0.1/0.6ug/mL * | SVM19-10F		10 Mar 2005 17:3
10	8	0310F010.D	1	SIM-PAH ICAL @ 0.2/0.8ug/mL * | SVM19-10G		10 Mar 2005 18:0
11	9	0310F011.D	1	SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H		10 Mar 2005 18:3
12	10	0310F012.D	1	SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I		10 Mar 2005 18:5
13	11	0310F013.D	1	SIM-PAH ICAL @ 1.6/2.0ug/mL | SVM19-10J		10 Mar 2005 19:2
14	12	0310F014.D	1	SIM-PAH ICAL @ 2.0/3.0ug/mL | SVM19-10K		10 Mar 2005 19:5
15	13	0310F015.D	1	SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L		10 Mar 2005 20:1
16	13	0310F016.D	1	SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L		10 Mar 2005 20:4
17	2	0310F100.D	1	PR		10 Mar 2005 14:5

CAL 4299

SIM PAH EP ICAL

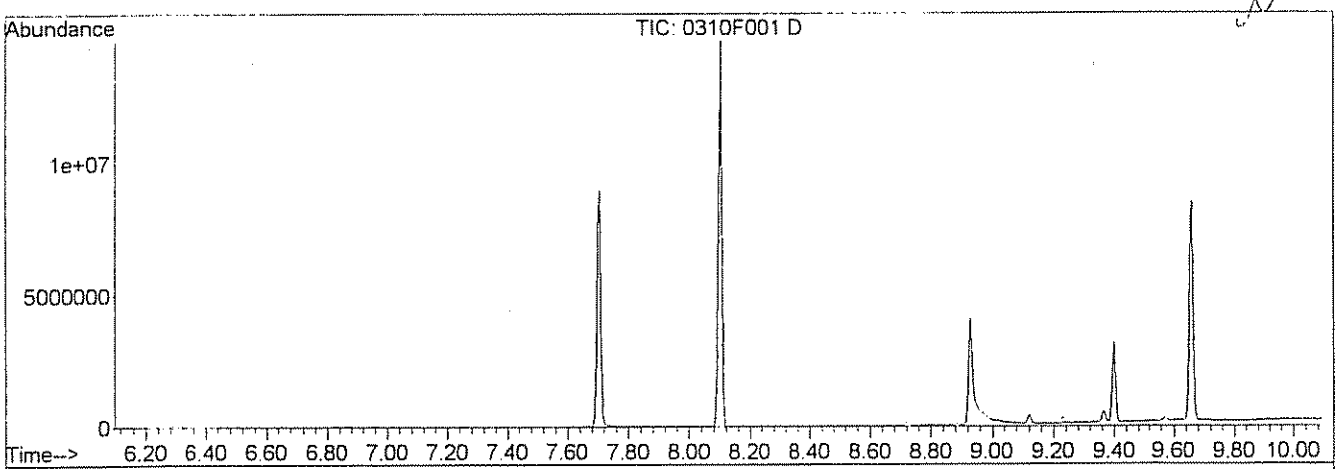
* these points in the ICAL were made incorrectly they were remade and analyzed on 03/15/05 [illegible] 3/15/05

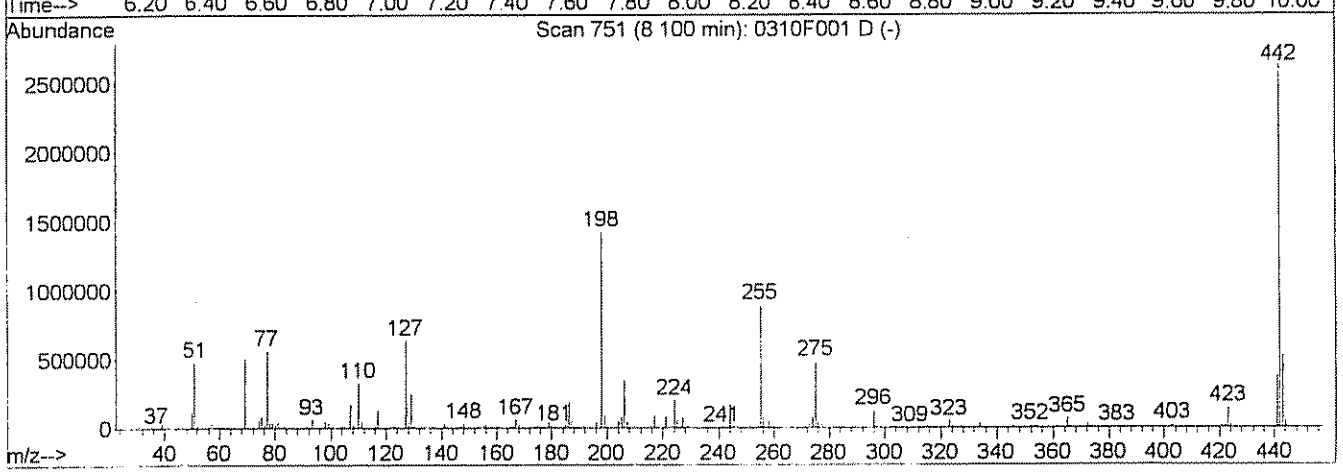
DFTPP

Data File : J:\MS11\DATA\031005\0310F001.D
Acq On : 10 Mar 2005 1:41 pm
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

3/15/05





Spectrum Information: Scan 751

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	33.5	476352	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	3655	PASS
127	198	10	80	44.6	635072	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	53.4	1423872	PASS
199	198	5	9	6.9	97664	PASS
275	198	10	60	33.9	482944	PASS
365	442	1	50	2.6	69472	PASS
441	443	0.01	100	72.3	384000	PASS
442	442	30	100	100.0	2666496	PASS
443	442	15	24	19.9	531392	PASS

0310F001.D DFTPPPAH.M Tue Mar 15 08:18:36 2005

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.20	615	55.10	2383	69.10	515170	81.10	42418
37.10	2510	56.10	14900	70.10	3655	82.10	10264
38.20	6665	57.10	32069	71.10	766	83.10	9920
39.10	36462	58.10	1669	73.10	4360	84.10	1168
40.10	1955	61.10	6408	74.10	55032	85.10	8343
41.15	734	62.10	7107	75.10	84656	86.10	11016
45.00	1233	63.10	21248	76.20	28648	87.10	5661
50.10	129520	64.10	2810	77.10	564672	88.10	1785
51.10	476352	65.10	9154	78.10	38040	89.10	1153
52.10	24432	66.10	706	79.10	41552	91.10	9176
53.10	1331	67.10	515	80.10	30768	92.10	10460

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	64856	105.00	13169	118.00	10545	130.00	22656
94.10	4932	107.10	177216	119.10	1993	131.00	4388
95.10	863	108.10	26936	120.10	2192	132.10	2186
96.10	3024	110.00	331136	121.10	1252	133.00	1122
98.10	49664	111.10	49432	122.00	11697	134.10	7898
99.10	37792	112.10	6477	123.00	18768	135.10	20296
100.10	3766	113.10	2018	124.10	8016	136.10	8104
101.10	22944	114.10	500	125.10	7875	137.10	9677
102.10	1570	115.00	998	127.10	635072	138.10	2139
103.00	8189	116.10	10302	128.10	49288	139.10	1453
104.00	15615	117.00	133760	129.00	247680	140.00	3138

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.00	32544	151.90	2783	163.00	1581	174.10	13105
142.00	10758	153.00	11049	164.00	1931	175.10	24608
143.00	7310	154.00	7155	165.00	12320	176.00	7985
144.00	2180	155.10	18632	166.10	10031	177.00	12994
145.10	2103	156.10	27472	167.00	62480	178.00	4240
146.10	6485	157.10	5903	168.00	27680	179.00	48032
147.00	16520	158.00	6298	169.10	5316	180.00	32584
148.00	35288	159.00	5248	170.10	2249	181.00	16096
149.10	7449	160.00	10513	171.00	2887	182.10	2556
150.00	2273	161.00	15283	172.00	5944	183.10	1457
151.10	4056	162.00	4703	173.00	7968	184.00	4044

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.10	23808	196.00	42352	209.00	3814	223.00	22064
186.10	186560	198.00	1423872	210.30	6861	224.10	204672
187.10	52456	199.00	97664	211.00	13310	225.00	54104
188.10	5752	200.00	7552	213.00	1086	226.10	5648
189.00	12633	201.50	7614	213.90	527	227.00	85064
190.00	1904	203.00	9223	215.00	3834	228.00	11289
191.10	5574	204.00	48824	216.10	7644	229.00	18440
192.00	15838	205.10	85080	217.00	94272	230.00	2505
193.00	18496	206.10	362688	218.00	12606	231.10	8148
194.10	3933	207.10	46856	219.00	1561	232.00	1331
195.00	2282	208.00	12311	221.00	84200	233.00	1855

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.00	5130	245.10	22872	257.00	10663	270.00	1279
235.00	6004	246.00	30992	258.00	50656	271.00	2151
236.10	4324	247.00	6584	259.00	8217	272.10	2498
237.00	7606	248.00	1920	260.10	1851	273.00	29872
238.10	1348	249.00	6491	261.00	1709	274.00	79784
239.00	3854	250.10	1033	263.00	736	275.00	482944
240.00	2654	251.00	1205	263.90	1709	276.00	61688
241.00	5155	252.00	1555	265.00	19544	277.00	36176
242.00	11444	253.00	3886	266.00	3433	278.00	6000
243.10	11981	255.00	894848	267.00	503	279.00	1492
244.10	176064	256.00	133888	267.90	619	281.90	993

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

3/15/05

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
283.10	4094	296.00	126872	313.10	1122	325.90	963
284.00	2945	297.00	17984	314.00	6056	327.00	9436
285.00	7257	298.00	1291	315.00	14805	328.00	4485
286.00	1296	301.00	1805	316.00	9286	329.00	756
288.00	597	302.00	2823	317.00	1622	332.10	3676
289.00	1872	303.00	15237	320.00	781	333.00	4979
290.10	1175	304.10	4309	321.10	4787	334.00	32272
291.10	1346	305.00	598	322.00	2170	335.00	8214
292.00	1809	308.00	2083	323.10	48632	336.00	1322
293.00	7763	309.00	1549	324.10	9546	339.10	1043
294.00	2545	310.10	2102	325.00	1082	340.00	848

Scan 751 (8.100 min): 0310F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
341.00	5866	366.00	11331	390.00	4397	421.00	18544
342.00	1744	367.00	1040	391.00	3621	422.10	18016
346.00	11730	370.00	1904	392.00	2915	423.10	146560
347.00	2006	371.00	4974	393.10	707	424.10	29304
352.00	16384	372.10	31064	401.00	1974	425.00	3251
353.10	10902	373.10	7777	402.10	13041	441.10	384000
354.10	17608	374.00	1180	403.00	20000	442.10	2666496
355.10	3370	377.00	877	404.10	7322	443.10	531392
359.00	1352	383.00	8828	405.00	1158	444.10	49496
360.00	587	384.00	2705	410.00	710	445.10	3040
365.00	69472	385.10	1057	415.00	798		

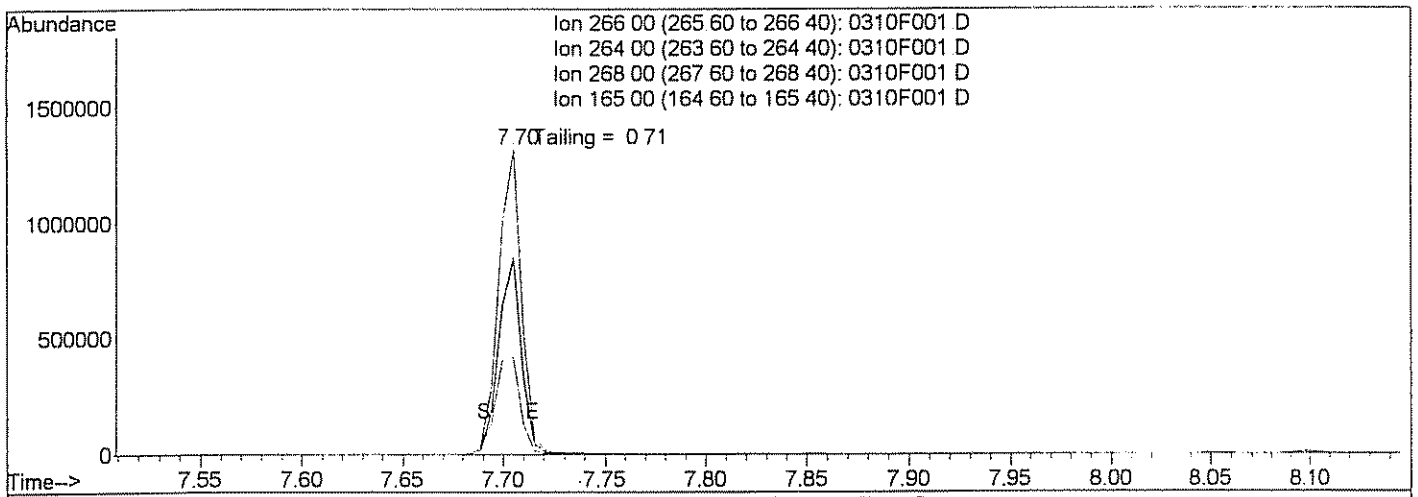
Quantitation Report (Qedit)

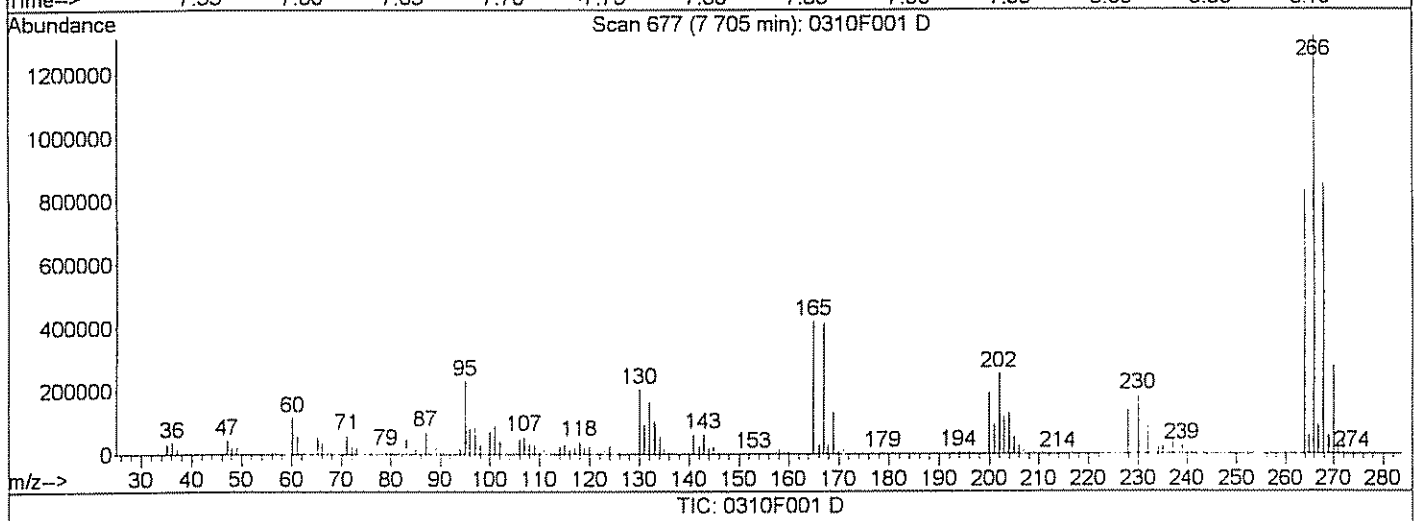
Data File : J:\MS11\DATA\031005\0310F001.D
Acq On : 10 Mar 2005 1:41 pm
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 10 13:54 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Oct 12 13:33:42 2004
Response via : Single Level Calibration





TIC: 0310F001 D

(1) Pentachlorophenol

6 94min 0 00ng/ml

response 0

Ion	Exp%	Act%
266 00	100	0 00
264 00	64 50	0 00#
268 00	63 70	0 00#
165 00	28 70	0 00

0310F001.D DFTPPPAH.M Tue Mar 15 08:21:17 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F004.D
Acq On : 10 Mar 2005 3:23 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:45 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

dl 3/15/05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	291538	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	232033	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	354402	200.00	ng/ml	0.00
37) Chrysene-d12	10.63	240	331483	200.00	ng/ml	0.00
49) Perylene-d12	14.59	264	308750	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	0.00	176	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
36) Fluoranthene-d10	0.00	212	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
42) Terphenyl-d14	0.00	244	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) Naphthalene	5.07	128	364	0.22	ng/ml	95
3) 2-Methylnaphthalene	5.63	142	175	0.12	ng/ml	71
4) 1-Methylnaphthalene	5.72	142	158	0.12	ng/ml	77
21) Pentachlorophenol	7.62	266	377	16.74	ng/ml	97

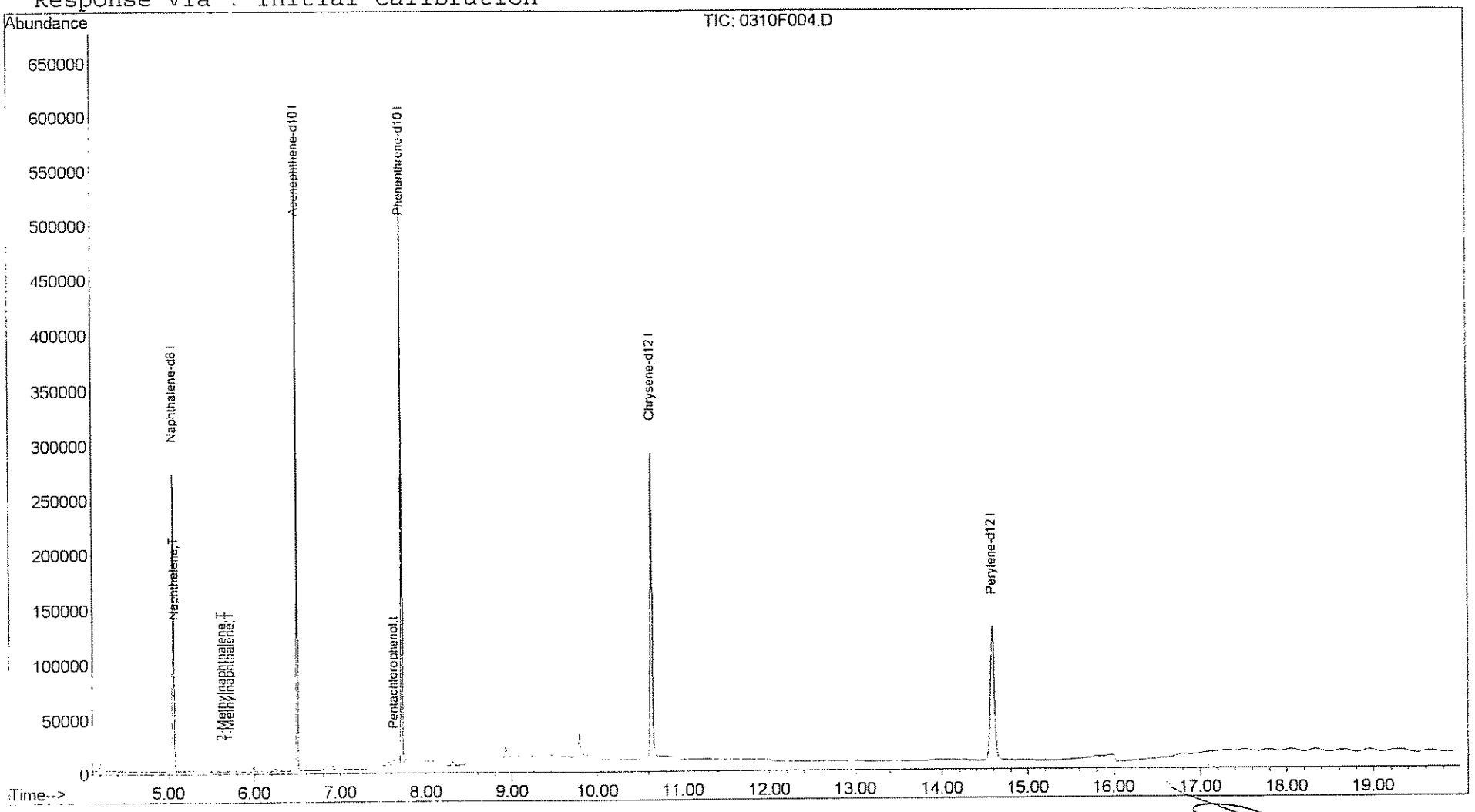
(#) = qualifier out of range (m) = manual integration

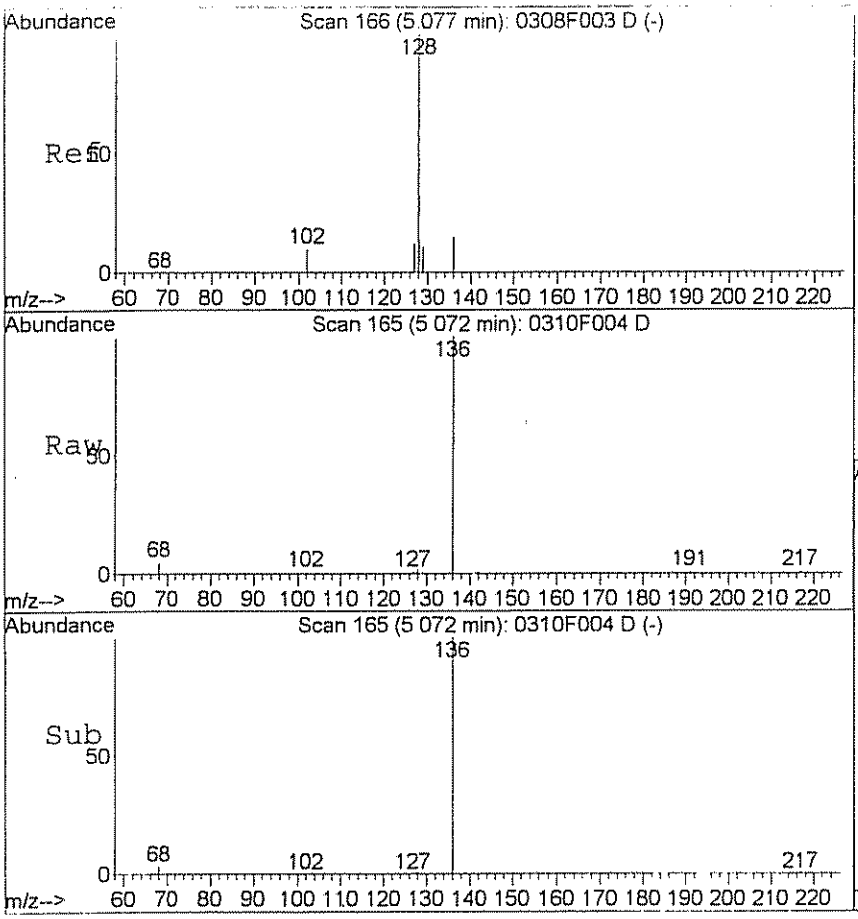
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F004.D
Acq On : 10 Mar 2005 3:23 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:29 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

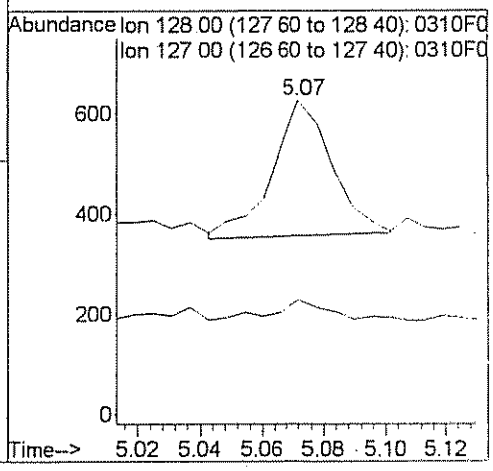


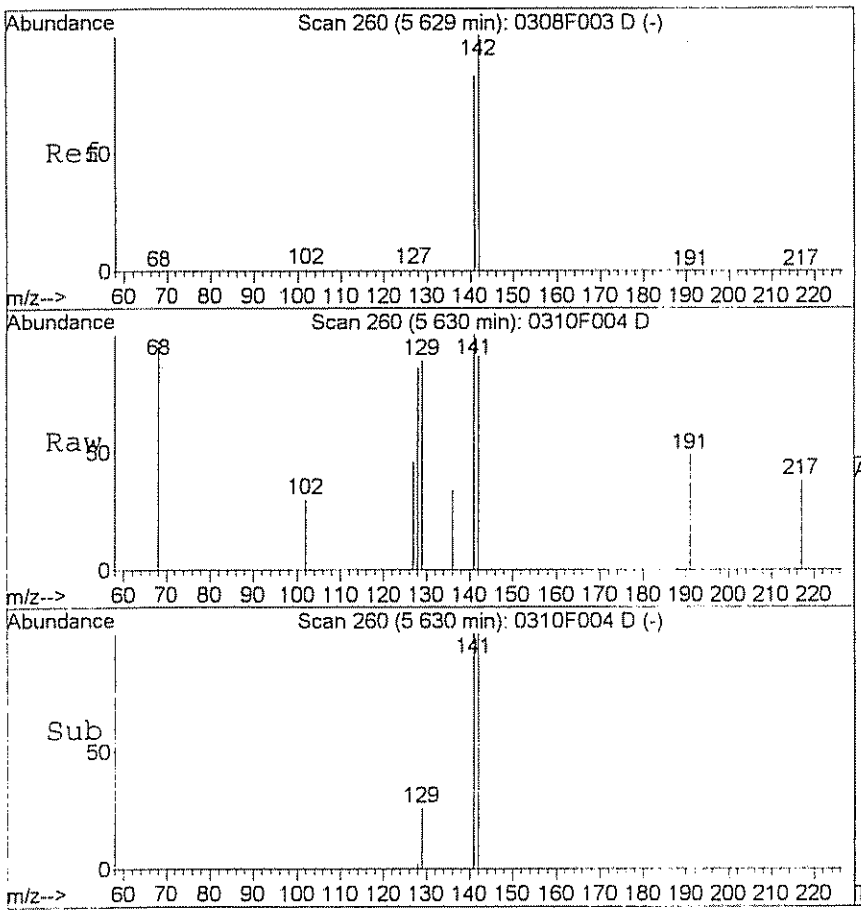


#2
Naphthalene
Concen: 0.22 ng/ml
RT: 5.07 min Scan# 165
Delta R.T. -0.01 min
Lab File: 0310F004.D
Acq: 10 Mar 2005 3:23 pm

Tgt Ion:128 Resp: 364

Ion	Ratio	Lower	Upper
128	100		
127	15.1	0.0	43.1

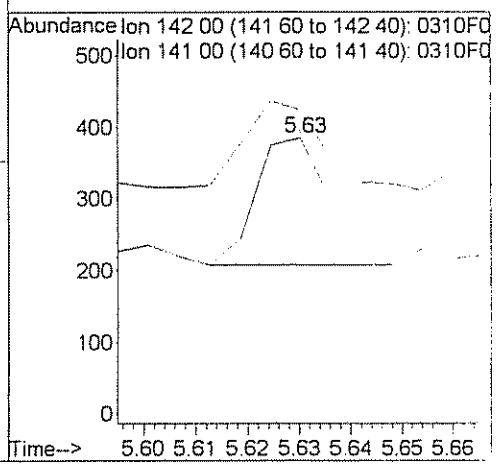


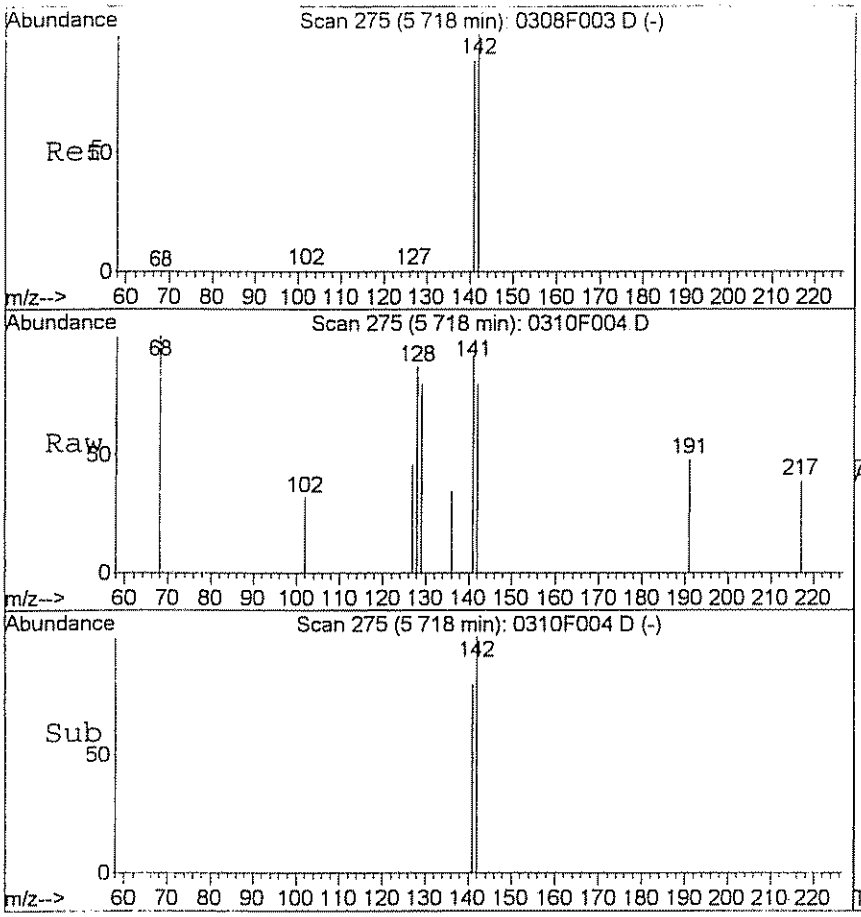


#3
2-Methylnaphthalene
Concen: 0.12 ng/ml
RT: 5.63 min Scan# 260
Delta R.T. -0.01 min
Lab File: 0310F004.D
Acq: 10 Mar 2005 3:23 pm

Tgt Ion:142 Resp: 175

Ion	Ratio	Lower	Upper
142	100		
141	59.3	56.4	116.4

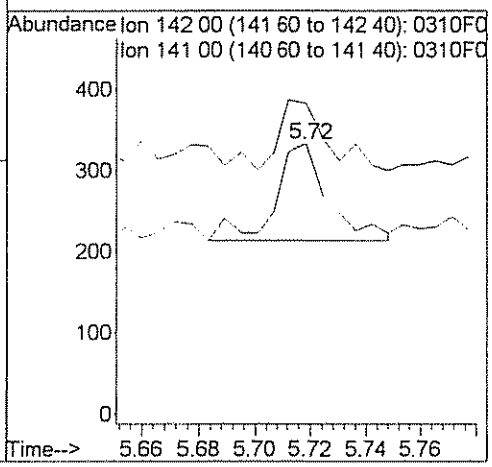


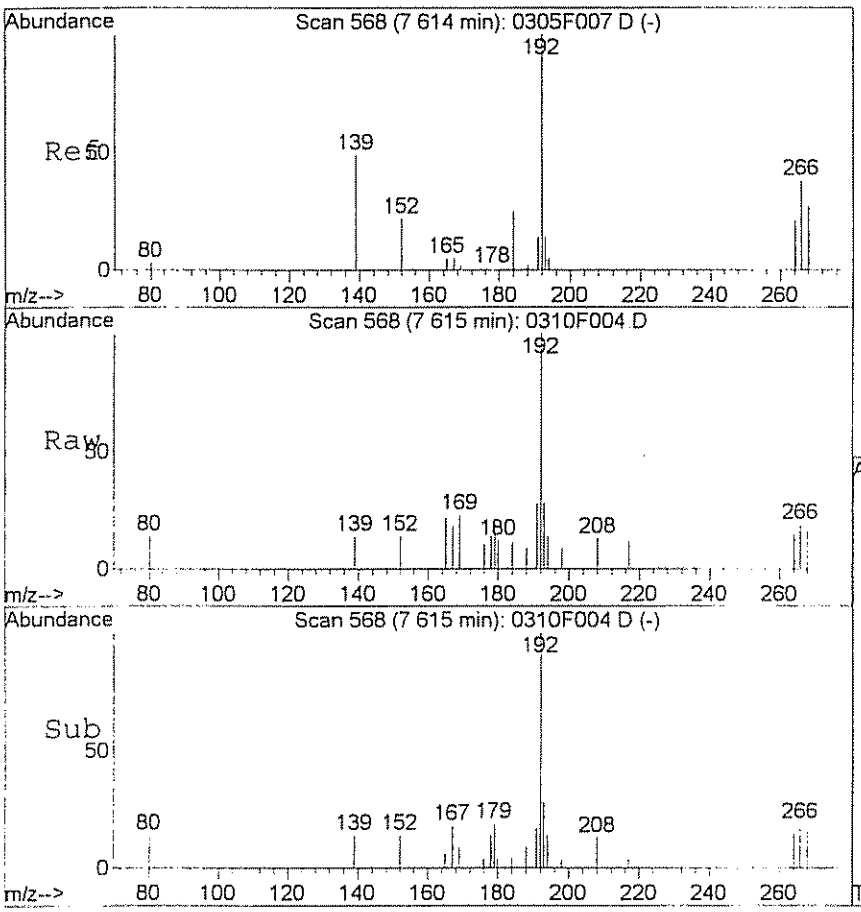


#4
1-Methylnaphthalene
Concen: 0.12 ng/ml
RT: 5.72 min Scan# 275
Delta R.T. -0.01 min
Lab File: 0310F004.D
Acq: 10 Mar 2005 3:23 pm

Tgt Ion:142 Resp: 158

Ion	Ratio	Lower	Upper
142	100		
141	69.2	60.9	120.9

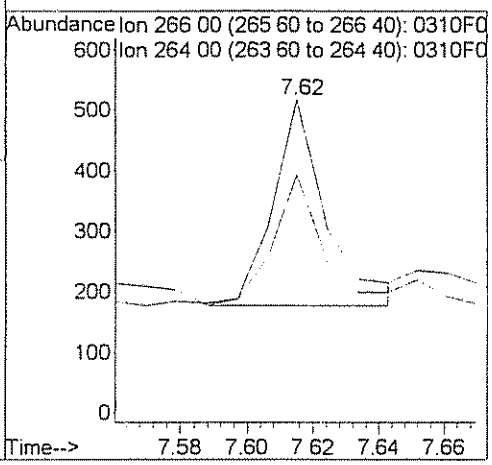




#21
Pentachlorophenol
Concen: 16.74 ng/ml
RT: 7.62 min Scan# 568
Delta R.T. 0.00 min
Lab File: 0310F004.D
Acq: 10 Mar 2005 3:23 pm

Tgt Ion:266 Resp: 377

Ion	Ratio	Lower	Upper
266	100		
264	62.4	45.0	85.0



Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031005\0310F006.D Vial: 4
Acq On : 10 Mar 2005 4:16 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:46 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

3/15/5

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	247778	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	204230	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	320235	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	267878	200.00	ng/ml	0.00
49) Perylene-d12	14.58	264	249891	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	5666	4.13	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.41%	
20) 2,4,6 Tribromophenol	7.15	330	876	2.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.29%	
36) Fluoranthene-d10	8.73	212	9097	4.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.41%	
42) Terphenyl-d14	9.13	244	6461	4.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.43%	
Target Compounds						Qvalue
2) Naphthalene	5.07	128	5705	4.15	ng/ml	99
3) 2-Methylnaphthalene	5.62	142	5156	4.22	ng/ml	100
4) 1-Methylnaphthalene	5.71	142	4630	4.17	ng/ml	98
5) Biphenyl	6.00	154	6445	4.21	ng/ml	96
6) 2,6-Dimethylnaphthalene	6.13	156	4545	4.16	ng/ml	99
11) Acenaphthylene	6.37	152	8201	4.33	ng/ml	99
12) Acenaphthene	6.52	154	4796	4.09	ng/ml	98
13) Dibenzofuran	6.65	168	6982	4.12	ng/ml	97
14) 2,3,5-Trimethylnaphthalene	6.83	170	4371	4.18	ng/ml	81
16) Fluorene	6.93	166	5804	4.30	ng/ml	97
21) Pentachlorophenol	7.62	266	22438	1131.99	ng/ml	91
23) Dibenzothiophene	7.63	184	7361	4.31	ng/ml	82
27) Phenanthrene	7.73	178	8027	4.24	ng/ml	99
28) Anthracene	7.77	178	7522m	4.37	ng/ml	
29) Carbazole	7.90	167	6784	4.61	ng/ml	95
30) 1-Methylphenanthrene	8.24	192	5579	4.33	ng/ml	95
35) Fluoranthene	8.75	202	8129	4.10	ng/ml	93
38) Pyrene	8.96	202	8470	4.29	ng/ml	92
43) Benz(a)anthracene	10.60	228	7747	5.03	ng/ml	99
44) Chrysene	10.67	228	6886	4.16	ng/ml	97
50) Benzo(b)fluoranthene	13.26	252	6834	4.06	ng/ml	98
51) Benzo(k)fluoranthene	13.33	252	6762	3.88	ng/ml	97
52) Benzo(e)pyrene	14.18	252	6645	3.96	ng/ml	94
53) Benzo(a)pyrene	14.36	252	6163	4.32	ng/ml	96
54) Perylene	14.68	252	6162	4.04	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031005\0310F006.D Vial: 4
Acq On : 10 Mar 2005 4:16 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:46 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

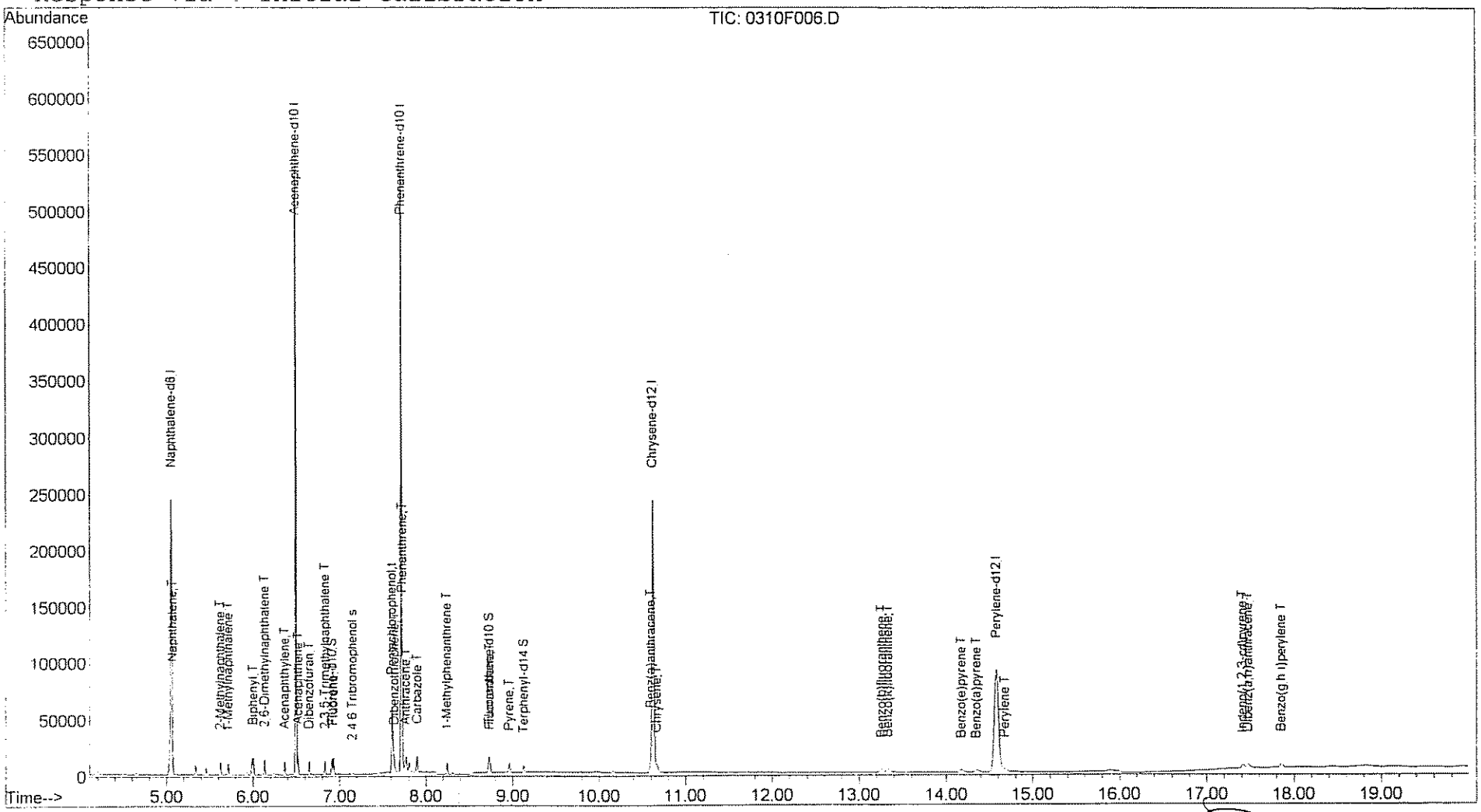
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	6189	5.40 ng/ml	96
56)	Dibenz(a,h)anthracene	17.48	278	6168	4.89 ng/ml	96
57)	Benzo(g,h,i)perylene	17.86	276	6815	4.28 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031005\0310F006.D Vial: 4
Acq On : 10 Mar 2005 4:16 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:24 2005 Quant Results File: 0310ALK.RES

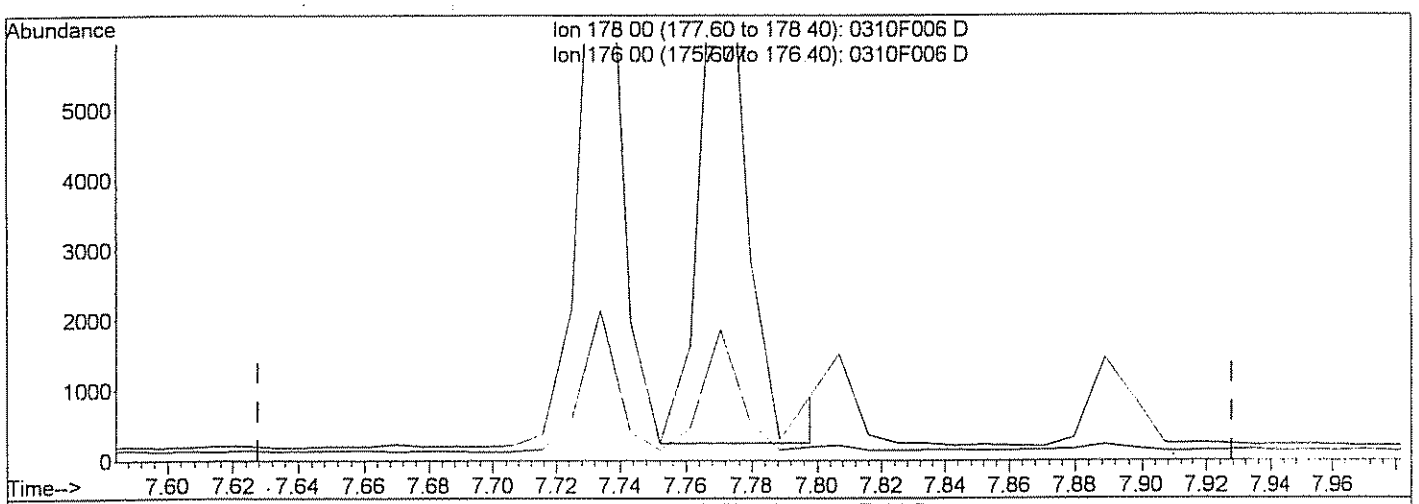
Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

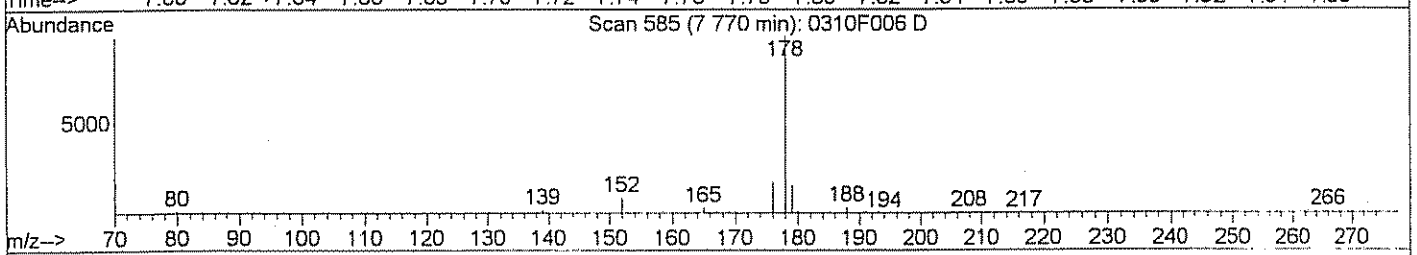


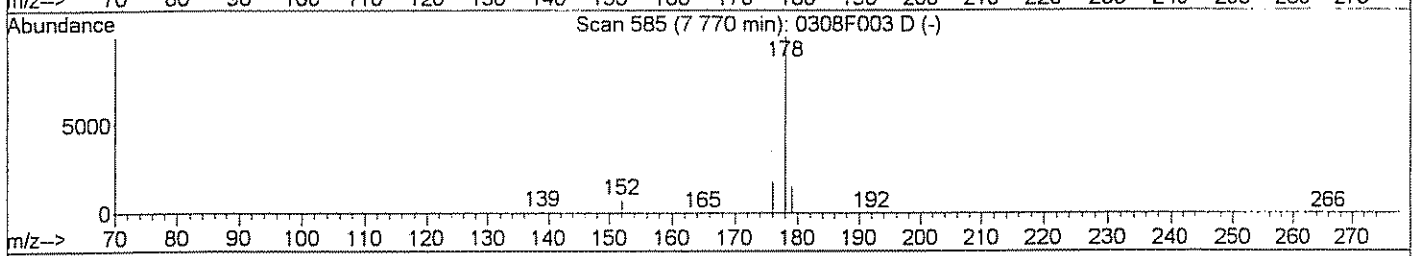
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031005\0310F006.D Vial: 4
Acq On : 10 Mar 2005 4:16 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:45 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0310F006.D

(28) Anthracene (T)

7.77min 4.49ng/ml

response 7724

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.22
0.00	0.00	0.00
0.00	0.00	0.00

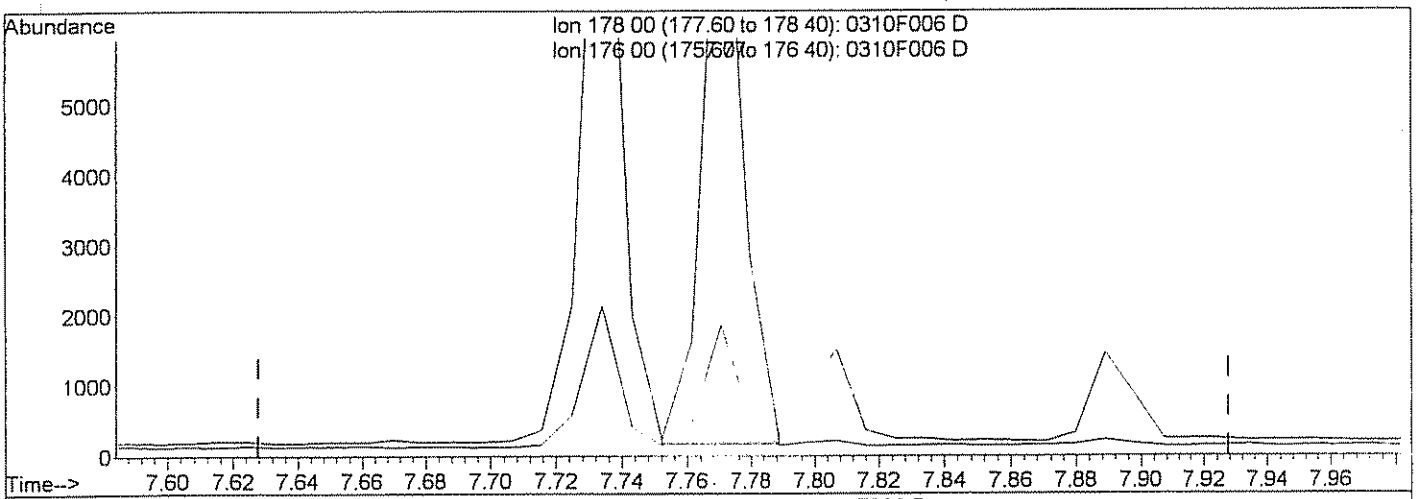
0310F006.D 0310ALK.M Fri Mar 11 09:24:50 2005

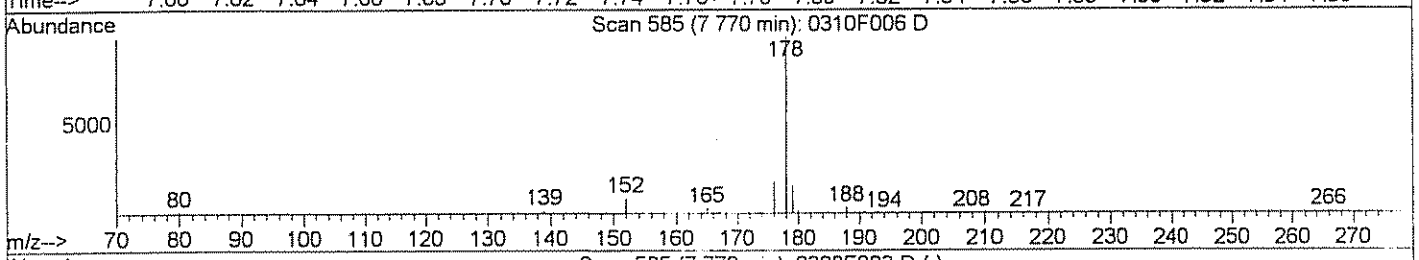
Quantitation Report (Qedit)

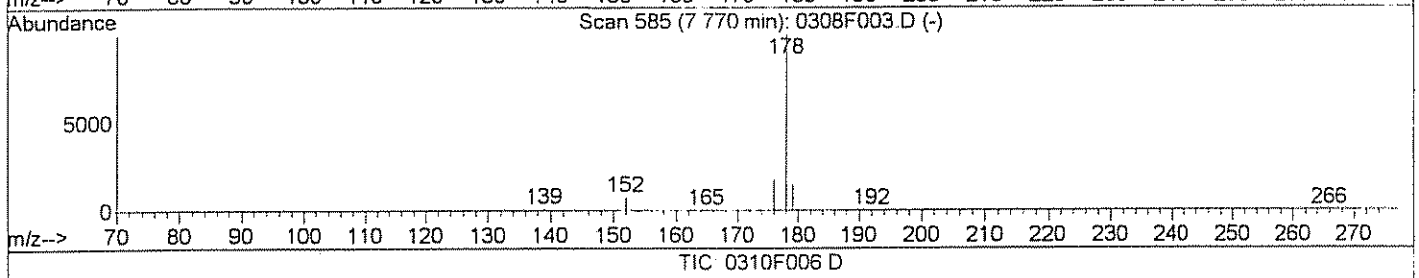
Data File : J:\MS11\DATA\031005\0310F006.D
Acq On : 10 Mar 2005 4:16 pm
Sample : SIM-PAH ICAL @ .004/0.1ug/mL | SVM19-10C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:24 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0310F006.D

(28) Anthracene (T)

7.77min 4.37ng/ml m

response 7522

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	19.32
0.00	0.00	0.00
0.00	0.00	0.00

0310F006.D 0310ALK.M Fri Mar 11 09:24:56 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F011.D Vial: 9
Acq On : 10 Mar 2005 6:31 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:50 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	248818	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	201200	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	316543	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	309969	200.00	ng/ml	0.00
49) Perylene-d12	14.59	264	268837	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	591918	437.88	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 43.79%			
20) 2,4,6 Tribromophenol	7.15	330	108423	366.41	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 36.64%			
36) Fluoranthene-d10	8.73	212	974436	449.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 45.00%			
42) Terphenyl-d14	9.13	244	709541	404.59	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.46%			

Target Compounds						Qvalue
2) Naphthalene	5.07	128	572896	414.73	ng/ml	100
3) 2-Methylnaphthalene	5.62	142	520447	423.79	ng/ml	98
4) 1-Methylnaphthalene	5.71	142	471299	423.07	ng/ml	97
5) Biphenyl	6.00	154	650389	423.15	ng/ml	99
6) 2,6-Dimethylnaphthalene	6.13	156	472456	430.49	ng/ml	99
11) Acenaphthylene	6.37	152	840108	450.76	ng/ml	99
12) Acenaphthene	6.52	154	497295	430.80	ng/ml	97
13) Dibenzofuran	6.65	168	715725	428.57	ng/ml	87
14) 2,3,5-Trimethylnaphthalene	6.83	170	450885	437.73	ng/ml	68
16) Fluorene	6.93	166	601578	452.53	ng/ml	93
21) Pentachlorophenol	7.61	266	321533	16465.57	ng/ml	92
23) Dibenzothiophene	7.63	184	776988	459.75	ng/ml	83
27) Phenanthrene	7.73	178	808416	431.98	ng/ml	98
28) Anthracene	7.77	178	814313m	478.93	ng/ml	
29) Carbazole	7.90	167	693245	476.74	ng/ml	92
30) 1-Methylphenanthrene	8.24	192	582870	457.55	ng/ml	96
35) Fluoranthene	8.75	202	887063	452.69	ng/ml	94
38) Pyrene	8.96	202	908498	397.71	ng/ml	92
43) Benz(a)anthracene	10.60	228	817611	458.37	ng/ml	99
44) Chrysene	10.67	228	812614	424.53	ng/ml	99
50) Benzo(b)fluoranthene	13.27	252	790363	436.00	ng/ml	100
51) Benzo(k)fluoranthene	13.34	252	823342	438.57	ng/ml	100
52) Benzo(e)pyrene	14.18	252	749369	415.33	ng/ml	100
53) Benzo(a)pyrene	14.36	252	713404	464.99	ng/ml	100
54) Perylene	14.68	252	721881	440.09	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F011.D Vial: 9
Acq On : 10 Mar 2005 6:31 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:50 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

3/11/05

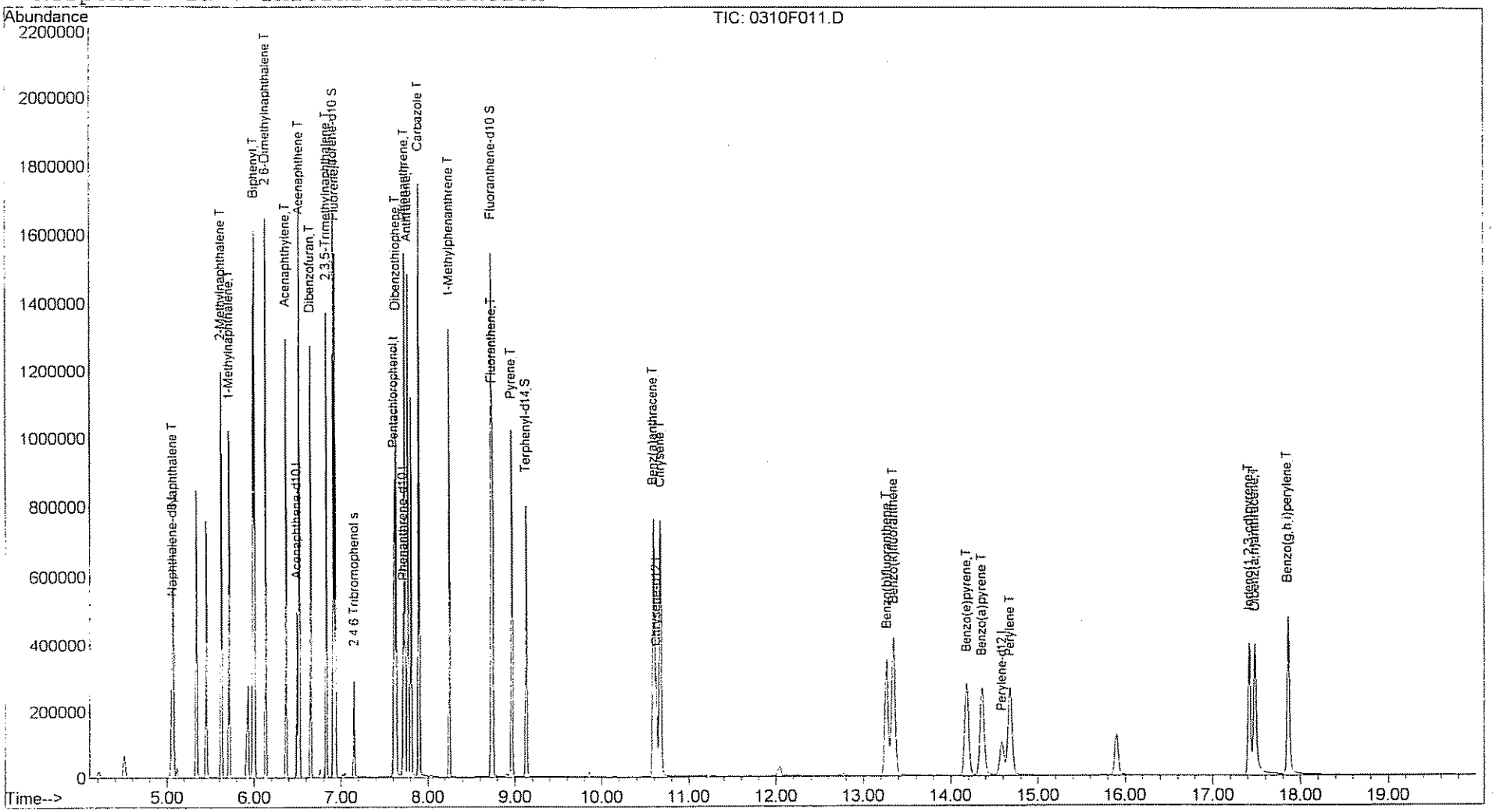
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	653452	529.74 ng/ml	100
56)	Dibenz(a,h)anthracene	17.48	278	675174	497.74 ng/ml	98
57)	Benzo(g,h,i)perylene	17.86	276	755975	441.46 ng/ml	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F011.D Vial: 9
Acq On : 10 Mar 2005 6:31 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:25 2005 Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration



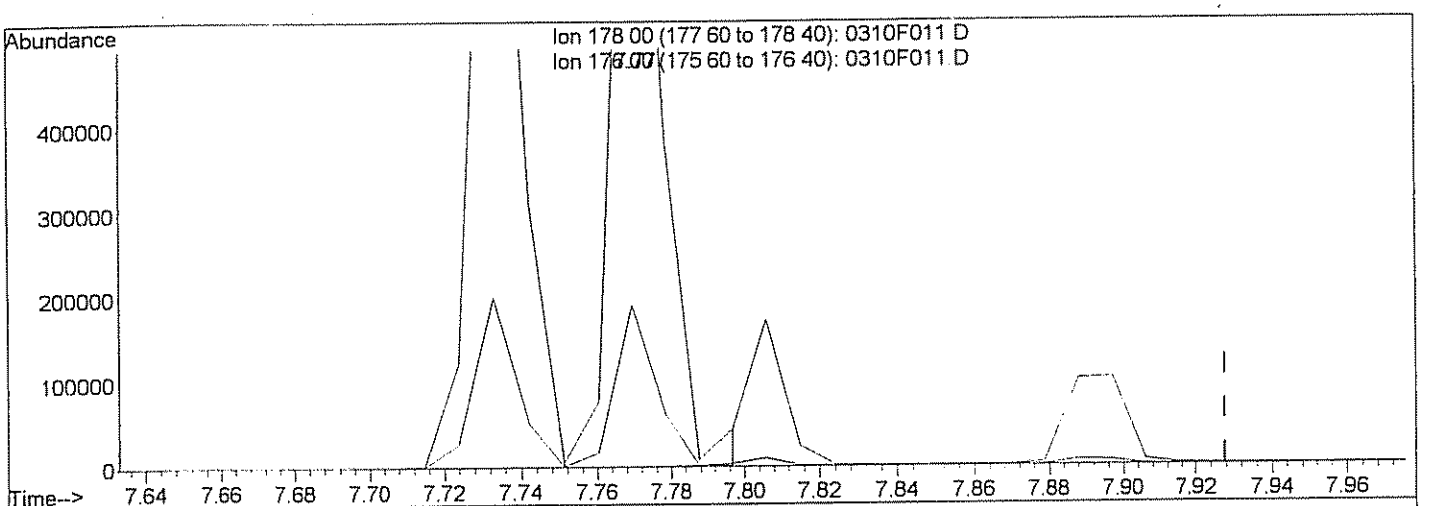
Quantitation Report (Qedit)

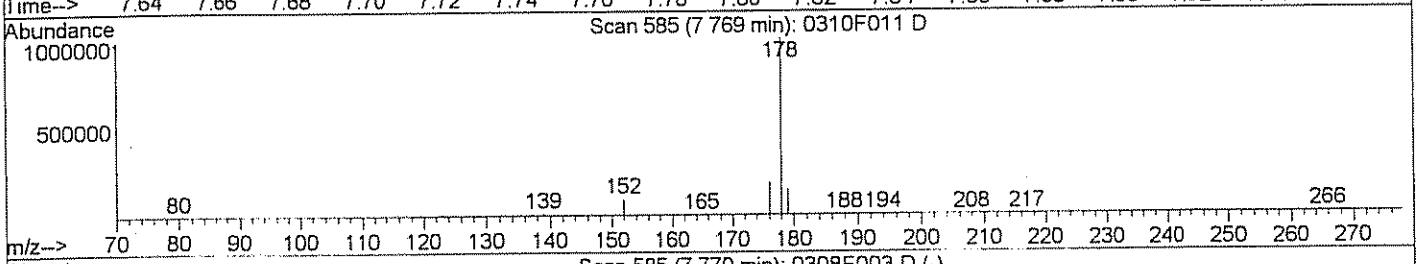
Data File : J:\MS11\DATA\031005\0310F011.D
Acq On : 10 Mar 2005 6:31 pm
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:45 2005

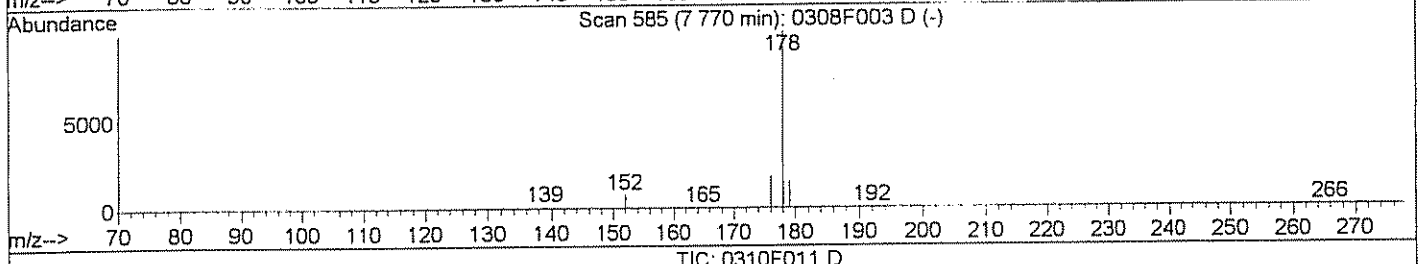
Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0310F011.D

(28) Anthracene (T)

7.77min 492.59ng/ml

response 837540

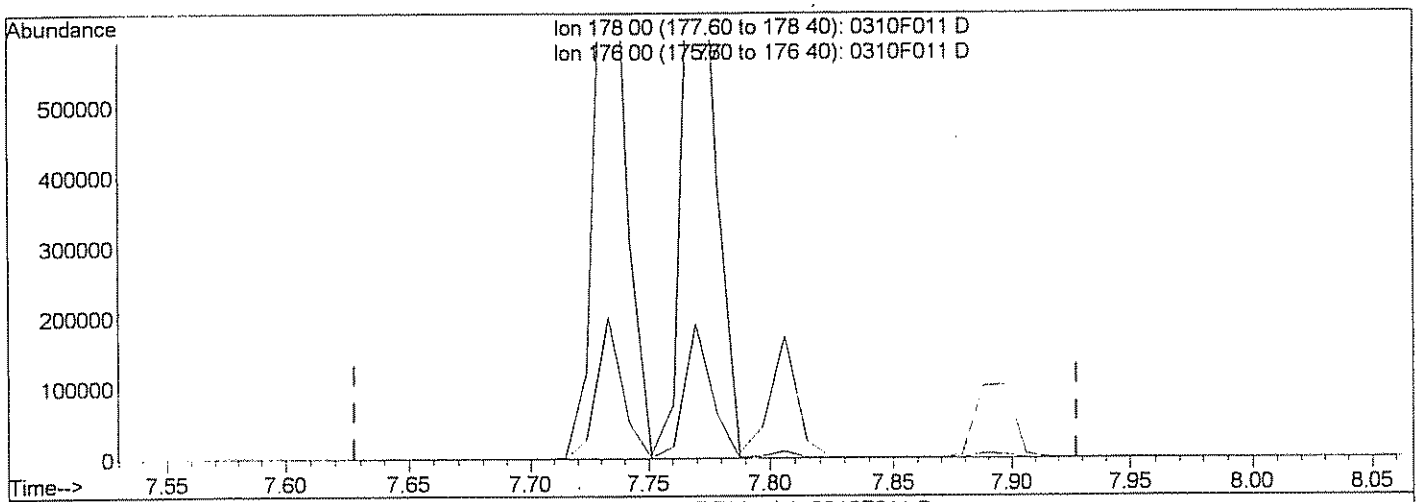
Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.68
0.00	0.00	0.00
0.00	0.00	0.00

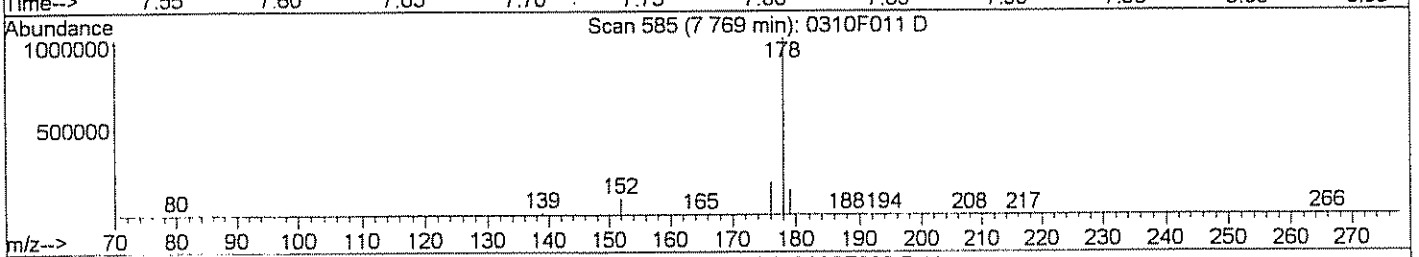
Quantitation Report (Qedit)

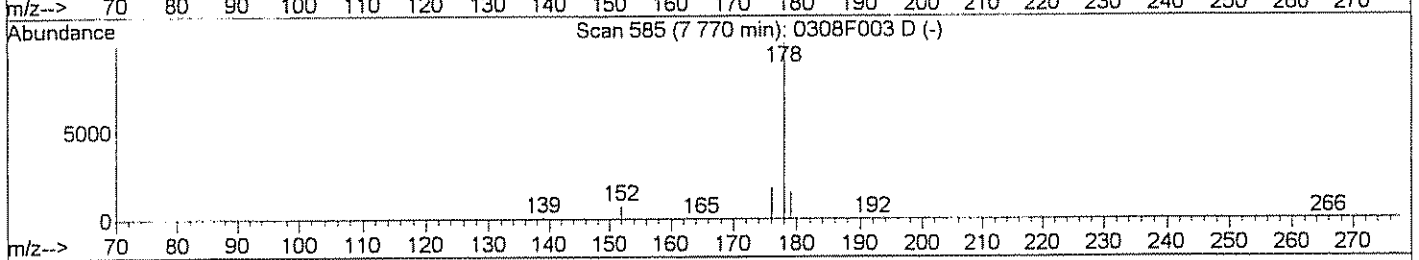
Data File : J:\MS11\DATA\031005\0310F011.D
Acq On : 10 Mar 2005 6:31 pm
Sample : SIM-PAH ICAL @ 0.4/1.0ug/mL | SVM19-10H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:25 2005

Vial: 9
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0310F011.D

(28) Anthracene (T)

7.77min 478.93ng/ml m

response 814313

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.68
0.00	0.00	0.00
0.00	0.00	0.00

0310F011.D 0310ALK.M Fri Mar 11 09:25:35 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F012.D Vial: 10
Acq On : 10 Mar 2005 6:57 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:51 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.05	136	245639	200.00 ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	209436	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	346401	200.00 ng/ml	0.00
37) Chrysene-d12	10.63	240	333741	200.00 ng/ml	0.00
49) Perylene-d12	14.59	264	293901	200.00 ng/ml	0.01
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	1464841	1041.02 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 104.10%		
20) 2,4,6 Tribromophenol	7.15	330	293381	952.49 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 95.25%		
36) Fluoranthene-d10	8.73	212	2367920	999.23 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 99.92%		
42) Terphenyl-d14	9.13	244	1793840	950.01 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 95.00%		
Target Compounds					Qvalue
2) Naphthalene	5.07	128	1364457	1000.54 ng/ml	99
3) 2-Methylnaphthalene	5.63	142	1283969	1059.05 ng/ml	96
4) 1-Methylnaphthalene	5.72	142	1167378	1061.47 ng/ml	96
5) Biphenyl	6.00	154	1603763	1056.94 ng/ml	100
6) 2,6-Dimethylnaphthalene	6.13	156	1172326	1082.01 ng/ml	99
11) Acenaphthylene	6.37	152	2116134	1090.75 ng/ml	99
12) Acenaphthene	6.52	154	1218970	1014.45 ng/ml	98
13) Dibenzofuran	6.65	168	1788276	1028.69 ng/ml	89
14) 2,3,5-Trimethylnaphthalene	6.83	170	1114241	1039.20 ng/ml	68
16) Fluorene	6.93	166	1484929	1073.09 ng/ml	94
21) Pentachlorophenol	7.61	266	629042	30946.21 ng/ml	97
23) Dibenzothiophene	7.63	184	1899228	1026.92 ng/ml	88
27) Phenanthrene	7.73	178	2029895	991.19 ng/ml	96
28) Anthracene	7.77	178	2054393m	1104.13 ng/ml	
29) Carbazole	7.90	167	1643892	1033.05 ng/ml	89
30) 1-Methylphenanthrene	8.24	192	1422995	1020.75 ng/ml	93
35) Fluoranthene	8.75	202	2181359	1017.25 ng/ml	96
38) Pyrene	8.97	202	2244628	912.63 ng/ml	97
43) Benz(a)anthracene	10.60	228	2125523	1106.73 ng/ml	99
44) Chrysene	10.67	228	2097279	1017.64 ng/ml	100
50) Benzo(b)fluoranthene	13.28	252	2130913	1075.27 ng/ml	100
51) Benzo(k)fluoranthene	13.35	252	2129976	1037.82 ng/ml	99
52) Benzo(e)pyrene	14.19	252	1952297	989.77 ng/ml	100
53) Benzo(a)pyrene	14.37	252	1894667	1129.61 ng/ml	100
54) Perylene	14.69	252	1901455	1060.34 ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F012.D Vial: 10
Acq On : 10 Mar 2005 6:57 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:51 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

3/15/05

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.42	276	1697096	1258.48 ng/ml	99
56)	Dibenz(a,h)anthracene	17.49	278	1751212	1180.89 ng/ml	96
57)	Benzo(g,h,i)perylene	17.87	276	1889789	1009.45 ng/ml	99

(#) = qualifier out of range (m) = manual integration
0310F012.D 0310ALK.M Fri Mar 11 09:28:13 2005 Page 2

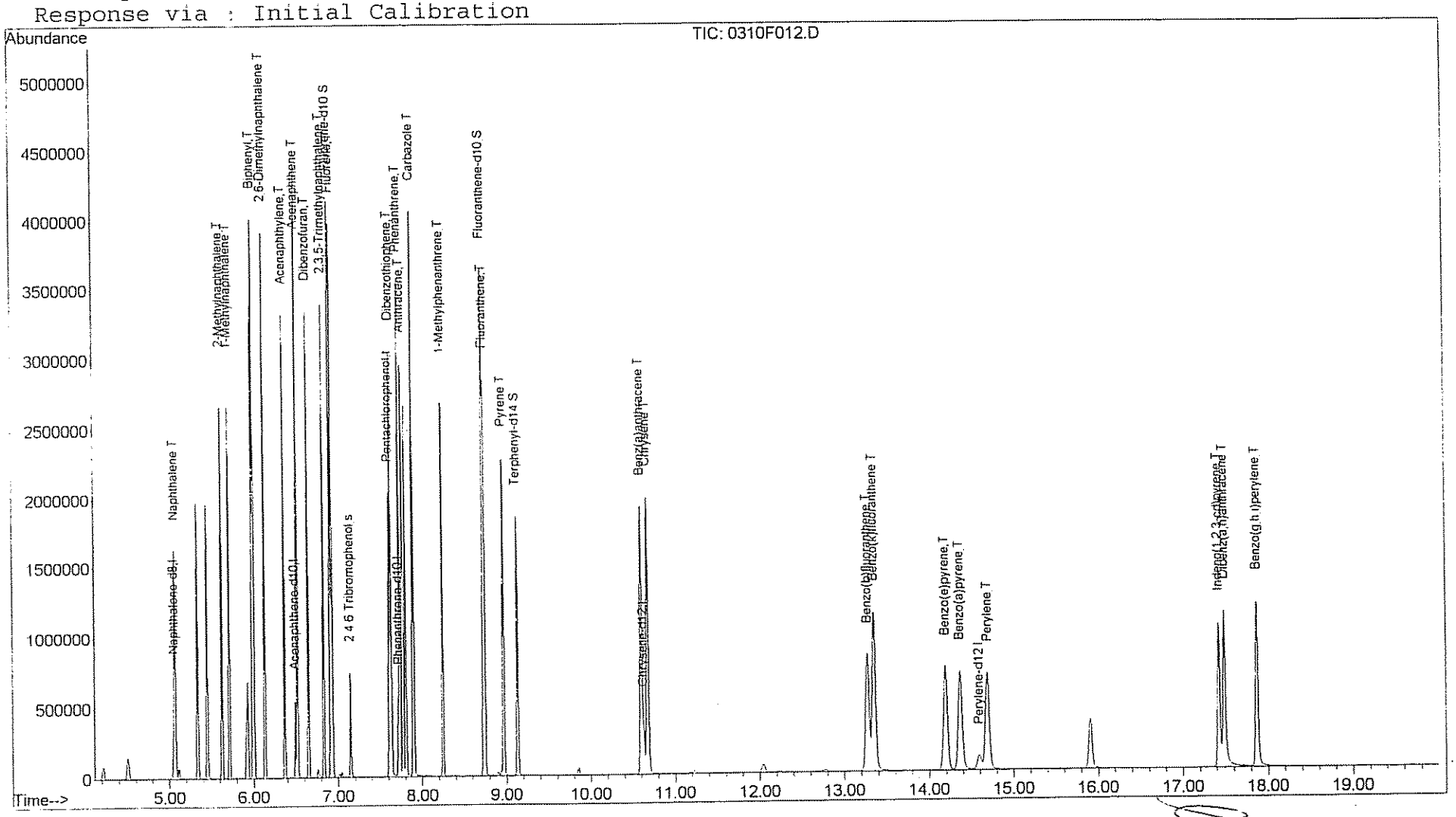
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F012.D
Acq On : 10 Mar 2005 6:57 pm
Sample : SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:26 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration



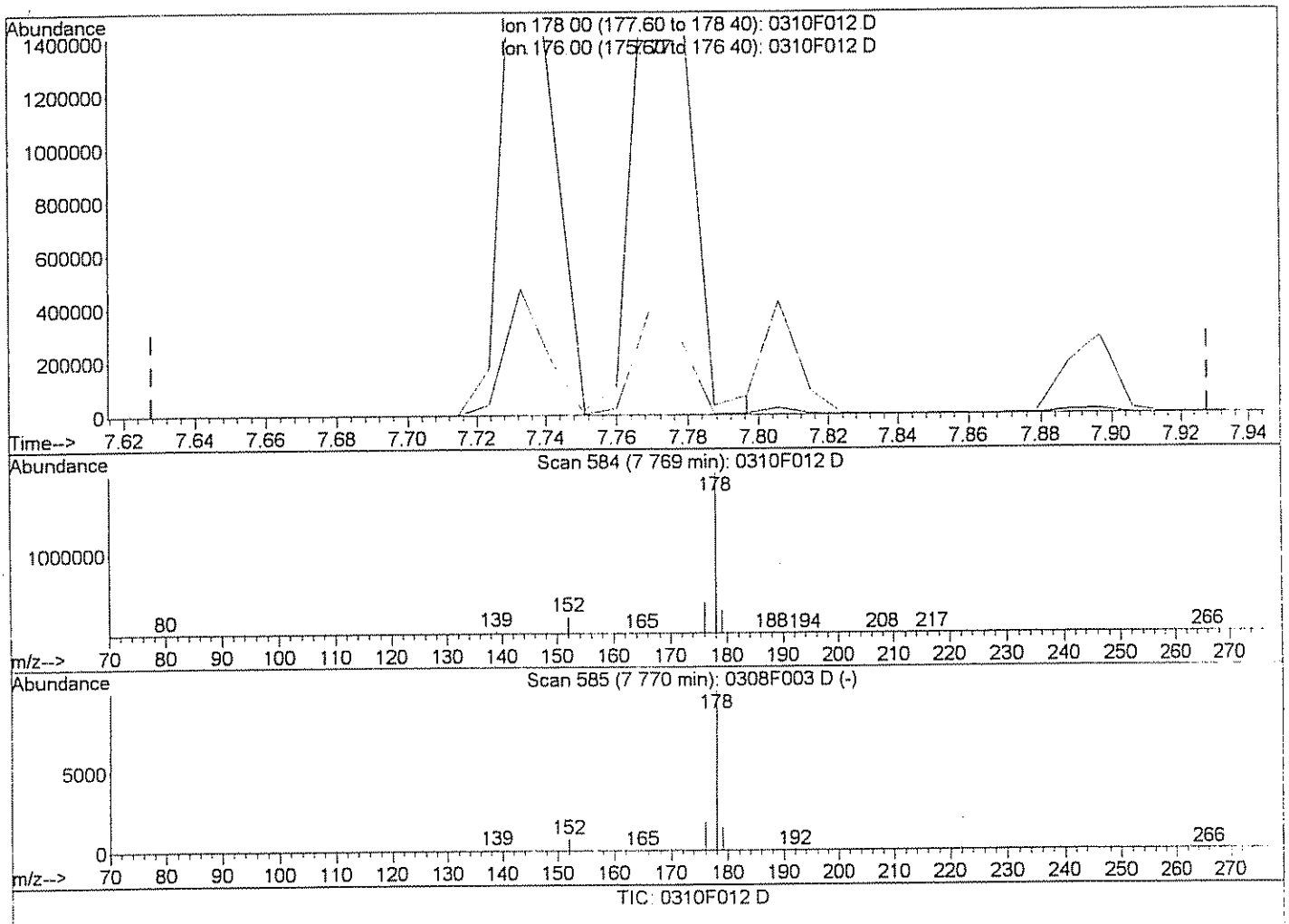
0310F012.D 0310ALK.M Fri Mar 11 09:28:13 2005

Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031005\0310F012.D
Acq On : 10 Mar 2005 6:57 pm
Sample : SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:45 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7 77min 1123 76ng/ml

response 2090929

Ion	Exp%	Act%
178 00	100	100
176 00	17 70	19 53
0 00	0 00	0 00
0 00	0 00	0 00

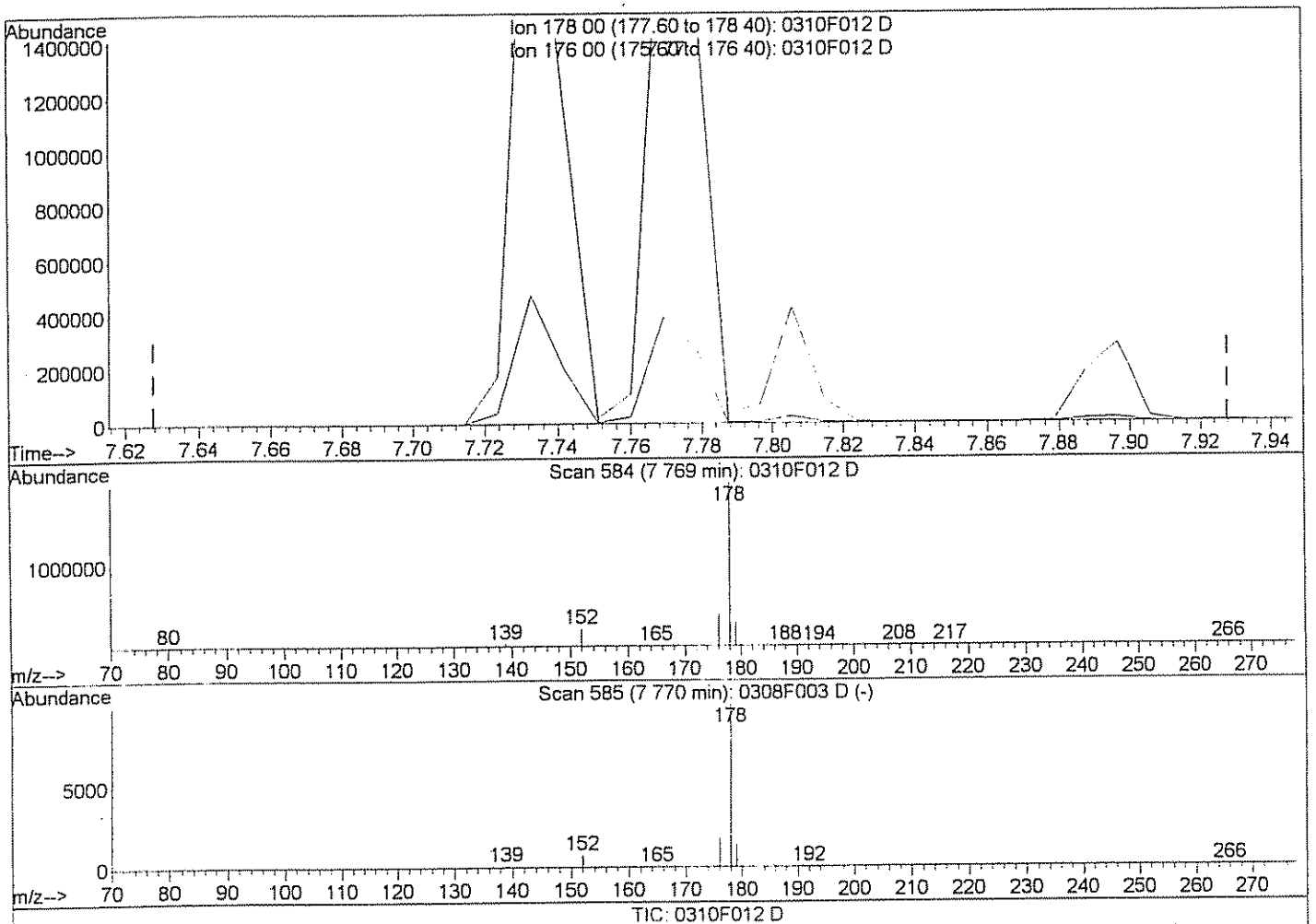
0310F012.D 0310ALK.M Fri Mar 11 09:26:17 2005

Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031005\0310F012.D
Acq On : 10 Mar 2005 6:57 pm
Sample : SIM-PAH ICAL @ 1.0/1.6ug/mL | SVM19-10I
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:26 2005

Vial: 10
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration



TIC: 0310F012 D

(28) Anthracene (T)

7 77min 1104 13ng/ml m

response 2054393

Ion	Exp%	Act%
178 00	100	100
176 00	17 70	19 50
0 00	0 00	0 00
0 00	0 00	0 00

0310F012.D 0310ALK.M Fri Mar 11 09:26:21 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F013.D
Acq On : 10 Mar 2005 7:24 pm
Sample : SIM-PAH ICAL @ 1.6/2.0ug/mL | SVM19-10J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:52 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

M 3/15/05

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.05	136	251939	200.00 ng/ml	-0.02
10) Acenaphthene-d10	6.50	164	216856	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	361049	200.00 ng/ml	0.00
37) Chrysene-d12	10.63	240	366978	200.00 ng/ml	0.00
49) Perylene-d12	14.59	264	320545	200.00 ng/ml	0.01
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	2363102	1621.93 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 162.19%		
20) 2,4,6 Tribromophenol	7.15	330	501437	1572.26 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 157.23%		
36) Fluoranthene-d10	8.73	212	3565629	1443.61 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 144.36%		
42) Terphenyl-d14	9.14	244	2986154	1438.22 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 143.82%		
Target Compounds					Qvalue
2) Naphthalene	5.07	128	2235768	1598.47 ng/ml	100
3) 2-Methylnaphthalene	5.63	142	2083561	1675.59 ng/ml	98
4) 1-Methylnaphthalene	5.71	142	1887154	1673.04 ng/ml	100
5) Biphenyl	6.01	154	2610671	1677.50 ng/ml	96
6) 2,6-Dimethylnaphthalene	6.13	156	1923424	1730.86 ng/ml	96
11) Acenaphthylene	6.37	152	3411452	1698.25 ng/ml	99
12) Acenaphthene	6.52	154	1988029	1597.86 ng/ml	94
13) Dibenzofuran	6.65	168	2933802	1629.90 ng/ml	83
14) 2,3,5-Trimethylnaphthalene	6.83	170	1816117	1635.85 ng/ml	64
16) Fluorene	6.93	166	2419560	1688.68 ng/ml	91
21) Pentachlorophenol	7.61	266	738167	35072.14 ng/ml	100
23) Dibenzothiophene	7.63	184	3140768	1629.33 ng/ml	93
27) Phenanthrene	7.73	178	3338771	1564.16 ng/ml	95
28) Anthracene	7.78	178	3370409	1737.93 ng/ml	100
29) Carbazole	7.91	167	2684590	1618.60 ng/ml	99
30) 1-Methylphenanthrene	8.25	192	2320001	1596.68 ng/ml	100
35) Fluoranthene	8.75	202	3338420	1493.67 ng/ml	100
38) Pyrene	8.97	202	3505099	1296.04 ng/ml	99
43) Benz(a)anthracene	10.60	228	3635487	1721.51 ng/ml	100
44) Chrysene	10.68	228	3576802	1578.34 ng/ml	100
50) Benzo(b)fluoranthene	13.28	252	3685171	1704.98 ng/ml	99
51) Benzo(k)fluoranthene	13.36	252	3654208	1632.50 ng/ml	99
52) Benzo(e)pyrene	14.21	252	3368849	1565.96 ng/ml	100
53) Benzo(a)pyrene	14.38	252	3285131	1795.81 ng/ml	100
54) Perylene	14.70	252	3280608	1677.36 ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F013.D Vial: 11
Acq On : 10 Mar 2005 7:24 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.6/2.0ug/mL | SVM19-10J Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:52 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

3/15/15

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.43	276	2837833	1929.47 ng/ml	99
56)	Dibenz(a,h)anthracene	17.49	278	3000320	1855.03 ng/ml	100
57)	Benzo(g,h,i)perylene	17.88	276	3172555	1553.79 ng/ml	99

(#) = qualifier out of range (m) = manual integration

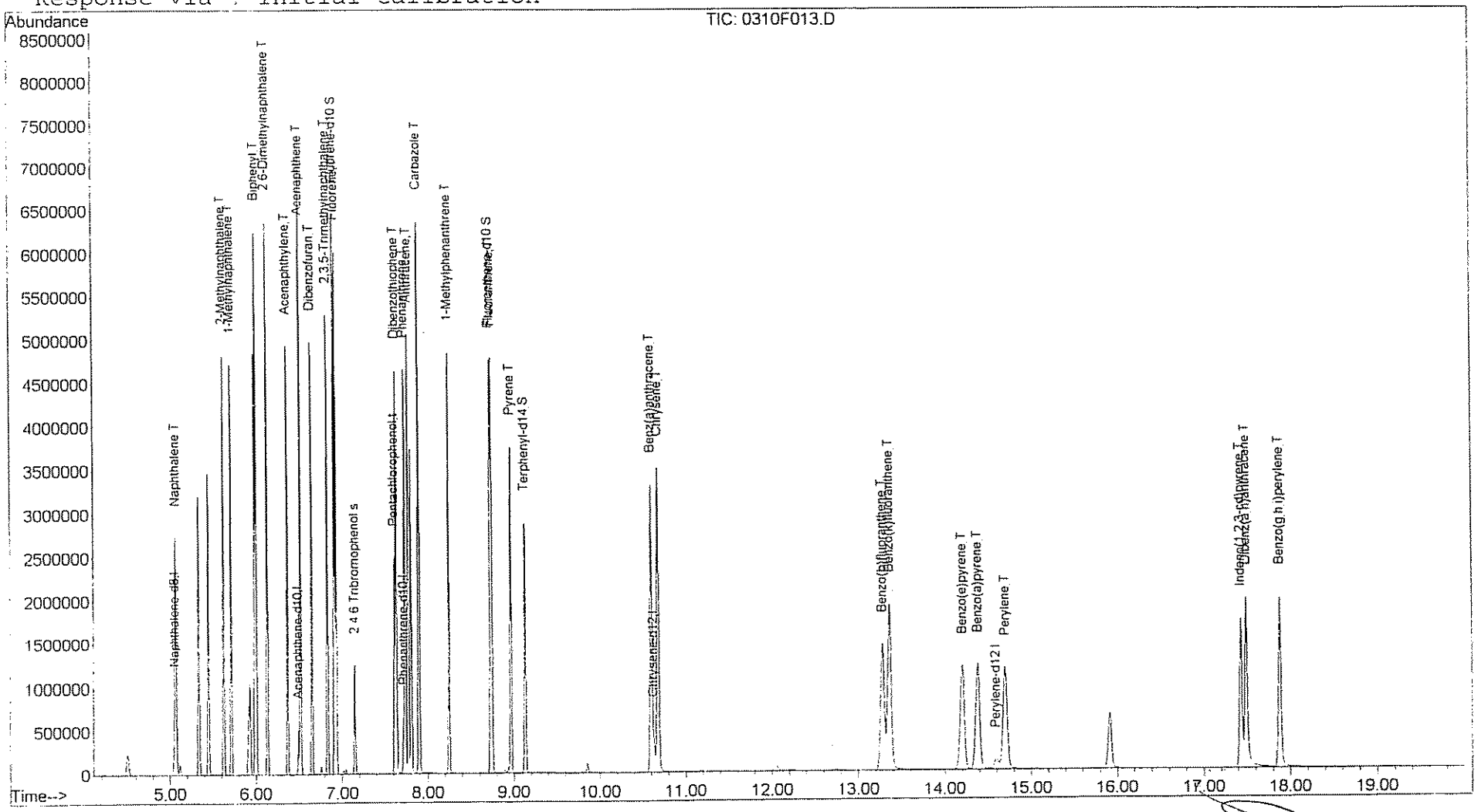
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F013.D
Acq On : 10 Mar 2005 7:24 pm
Sample : SIM-PAH ICAL @ 1.6/2.0ug/mL | SVM19-10J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:45 2005

Vial: 11
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration



3/15/05

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F014.D Vial: 12
Acq On : 10 Mar 2005 7:51 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0/3.0ug/mL | SVM19-10K Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:53 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.05	136	269643	200.00 ng/ml	-0.00
10) Acenaphthene-d10	6.50	164	210062	200.00 ng/ml	0.00
22) Phenanthrene-d10	7.71	188	351873	200.00 ng/ml	0.00
37) Chrysene-d12	10.64	240	349281	200.00 ng/ml	0.00
49) Perylene-d12	14.61	264	304890	200.00 ng/ml	0.02
System Monitoring Compounds					
15) Fluorene-d10	6.92	176	2964639	2100.61 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 210.06%		
20) 2,4,6 Tribromophenol	7.15	330	641905	2077.79 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 207.78%		
36) Fluoranthene-d10	8.73	212	4271463	1774.47 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 177.45%		
42) Terphenyl-d14	9.14	244	3745533	1895.36 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 189.54%		

Target Compounds					Qvalue
2) Naphthalene	5.07	128	3112839	2079.41 ng/ml	100
3) 2-Methylnaphthalene	5.62	142	2704546	2032.19 ng/ml	97
4) 1-Methylnaphthalene	5.72	142	2454870	2033.45 ng/ml	94
5) Biphenyl	6.01	154	3318640	1992.40 ng/ml	98
6) 2,6-Dimethylnaphthalene	6.13	156	2447870	2058.17 ng/ml	95
11) Acenaphthylene	6.37	152	4302789	2211.24 ng/ml	100
12) Acenaphthene	6.52	154	2492499	2068.12 ng/ml	92
13) Dibenzofuran	6.66	168	3702909	2123.72 ng/ml	88
14) 2,3,5-Trimethylnaphthalene	6.84	170	2296218	2135.19 ng/ml	97
16) Fluorene	6.94	166	3074057	2214.86 ng/ml	97
21) Pentachlorophenol	7.61	266	896917	43993.03 ng/ml	99
23) Dibenzothiophene	7.63	184	3940147	2097.33 ng/ml	96
27) Phenanthrene	7.74	178	4301932	2067.95 ng/ml	100
28) Anthracene	7.78	178	4249792	2248.52 ng/ml	98
29) Carbazole	7.91	167	3488858	2158.37 ng/ml	100
30) 1-Methylphenanthrene	8.25	192	2890310	2041.06 ng/ml	95
35) Fluoranthene	8.75	202	3977595	1826.06 ng/ml	97
38) Pyrene	8.97	202	4181509	1624.49 ng/ml	98
43) Benz(a)anthracene	10.60	228	4623020	2300.05 ng/ml	99
44) Chrysene	10 69	228	4563371	2115.72 ng/ml	100
50) Benzo(b)fluoranthene	13.29	252	4688685	2280.65 ng/ml	100
51) Benzo(k)fluoranthene	13.37	252	4680330	2198.27 ng/ml	99
52) Benzo(e)pyrene	14.21	252	4289597	2096.34 ng/ml	100
53) Benzo(a)pyrene	14.39	252	4204642	2416.48 ng/ml	100
54) Perylene	14.72	252	4193058	2253.98 ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F014.D Vial: 12
Acq On : 10 Mar 2005 7:51 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0/3.0ug/mL | SVM19-10K Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 06:45:53 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.43	276	3687538	2635.93	ng/ml	100
56)	Dibenz(a,h)anthracene	17.50	278	3814841	2479.73	ng/ml	96
57)	Benzo(g,h,i)perylene	17.88	276	3992671	2055.85	ng/ml	100

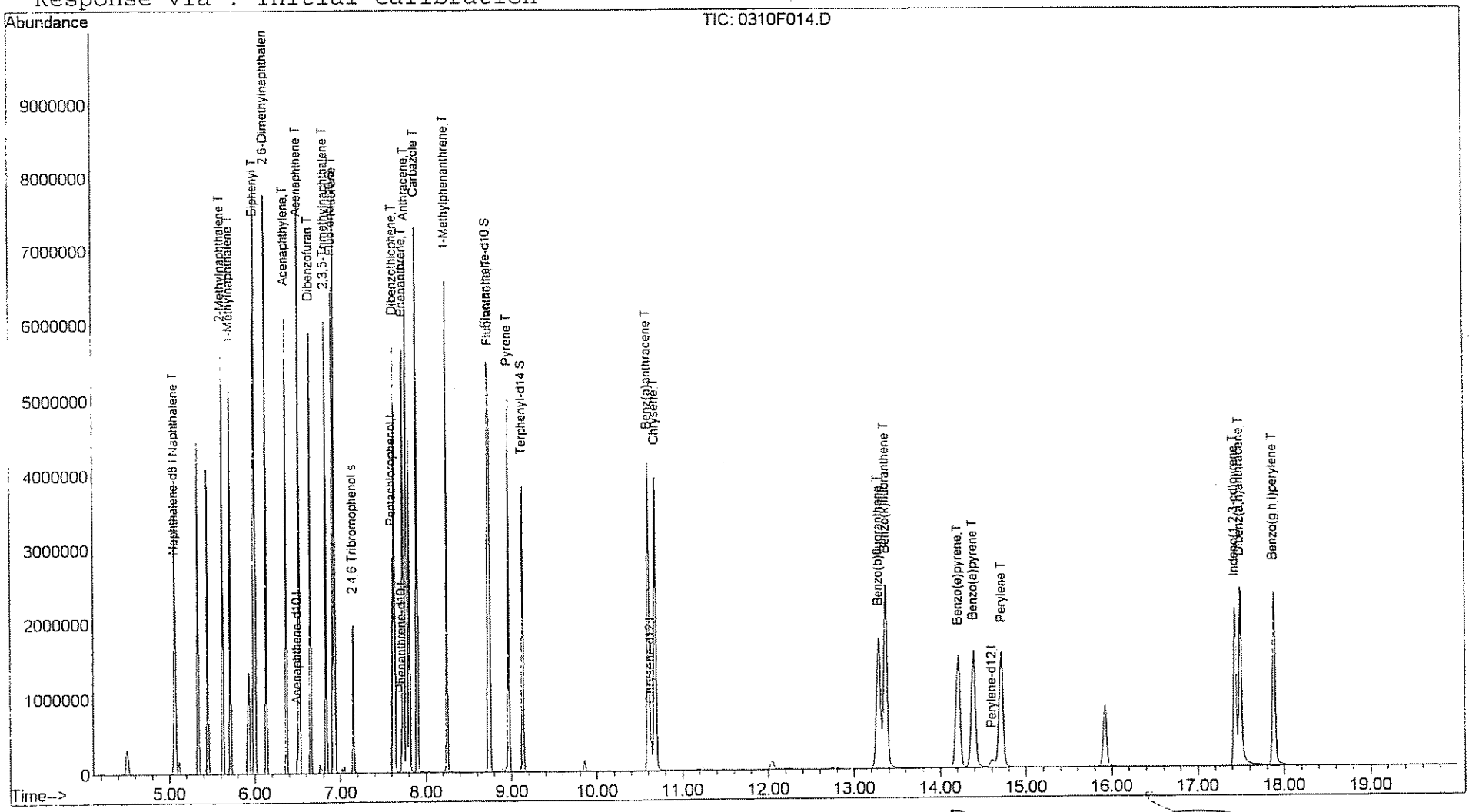
(#) = qualifier out of range (m) = manual integration
0310F014.D 0310ALK.M Fri Mar 11 09:28:18 2005 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031005\0310F014.D
Acq On : 10 Mar 2005 7:51 pm
Sample : SIM-PAH ICAL @ 2.0/3.0ug/mL | SVM19-10K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:45 2005

Vial: 12
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration



0310F014.D 0310ALK.M Fri Mar 11 09:28:19 2005

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Injection Log

Directory: J:\MS11\DATA\031105

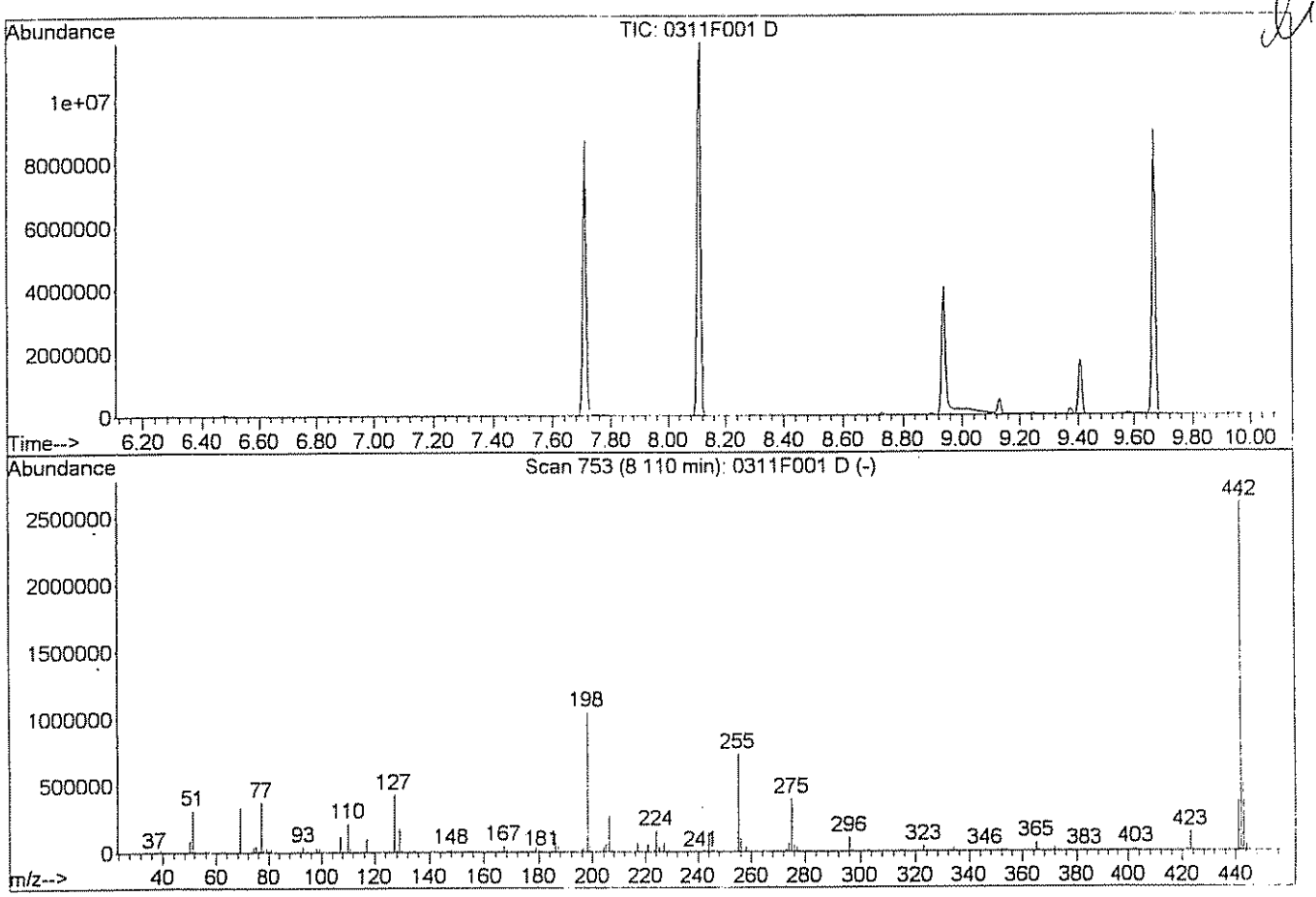
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0311F001.D	1.	DFTPP @ 50ug/mL | SVM19-9C		11 Mar 2005 06:2
2	2	0311F002.D	1.	IB		11 Mar 2005 06:4
3	2	0311F003.D	1.	IB		11 Mar 2005 07:1
4	3	0311F004.D	1.	SIM-PAH ICAL @ .002/.05ug/mL | SVM19-11 AR2		11 Mar 2005 07:3
5	3	0311F005.D	1.	SIM-PAH ICAL @ .002/.05ug/mL | SVM19-~~11~~ 12A		11 Mar 2005 08:0
6	4	0311F006.D	1.	SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~ 12B		11 Mar 2005 08:3
7	5	0311F007.D	1.	SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-~~11~~ 12C		11 Mar 2005 08:5
8	1	0311F008.D	1.	SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-~~11D~~ 12D		11 Mar 2005 09:5
9	2	0311F009.D	1.	SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-~~11E~~ 12E		11 Mar 2005 10:2
10	1	0311F010.D	1.	DFTPP @ 50ug/mL | SVM19-9C		11 Mar 2005 10:4
11	2	0311F011.D	1.	SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L		11 Mar 2005 11:0
12	3	0311F012.D	1.	IB		11 Mar 2005 11:3
13	4	0311F013.D	1.	KWG0503207-4 MB		11 Mar 2005 12:0
14	5	0311F014.D	1	KWG0503654-3 MB		11 Mar 2005 12:2
15	6	0311F015.D	1	KWG0503207-3 LCS		11 Mar 2005 12:5
16	7	0311F016.D	1.	KWG0503654-1 LCS		11 Mar 2005 13:2
17	8	0311F017.D	1.	KWG0503654-2 DLCS		11 Mar 2005 13:4
18	9	0311F018.D	1.	K2501085-001REX		11 Mar 2005 14:1
19	10	0311F019.D	1.	K2501085-004REX		11 Mar 2005 14:3
20	11	0311F020.D	1	K2501365-001		11 Mar 2005 15:0
21	12	0311F021.D	1.	K2501404-002		11 Mar 2005 15:3
22	13	0311F022.D	1	K2501404-004		11 Mar 2005 16:0
23	14	0311F023.D	1	K2501404-005		11 Mar 2005 16:2
24	15	0311F024.D	1.	K2501404-008		11 Mar 2005 16:5
25	16	0311F025.D	1.	K2501404-009		11 Mar 2005 17:2
26	17	0311F026.D	1.	K2501404-010		11 Mar 2005 17:4
27	18	0311F027.D	1.	K2501404-011		11 Mar 2005 18:1
28	19	0311F028.D	1.	K2501404-013		11 Mar 2005 18:4
29	20	0311F029.D	1	K2501404-012DIL 10X		11 Mar 2005 19:0
30	21	0311F030.D	1	K2501404-003DIL 50X		11 Mar 2005 19:3
31	22	0311F031.D	1	K2501404-006DIL 100X		11 Mar 2005 20:0
32	23	0311F032.D	1	K2501404-007DIL 50X		11 Mar 2005 20:2
33	24	0311F033.D	1	K2501404-001DIL 50X		11 Mar 2005 20:5
34	25	0311F034.D	1.	K2501404-001MS 50X		11 Mar 2005 21:2
35	26	0311F035.D	1.	K2501404-001DMS 50X		11 Mar 2005 21:4
36	27	0311F036.D	1	K2501085-002REX 50X		11 Mar 2005 22:1
37	28	0311F037.D	1	K2501085-003REX 50X		11 Mar 2005 22:4
38	1	0311F038.D	1	PR		14 Mar 2005 06:2

CAL4299
SIM-PAH RCP ICAL
3/15/05 3-15-J

DFTPP

Data File : J:\MS11\DATA\031105\0311F001.D
Acq On : 11 Mar 2005 6:27 am
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00



Spectrum Information: Scan 753

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.5	319360	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1719	PASS
127	198	10	80	41.3	432960	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	39.5	1047936	PASS
199	198	5	9	6.8	71256	PASS
275	198	10	60	38.1	398976	PASS
365	442	1	50	2.5	65584	PASS
441	443	0.01	100	72.7	379968	PASS
442	442	30	100	100.0	2654720	PASS
443	442	15	24	19.7	522752	PASS

0311F001.D DFTPPPAH.M Tue Mar 15 08:25:37 2005

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	1425	56.10	9318	73.10	2550	84.10	894
38.10	4615	57.10	20944	74.10	36208	85.10	5343
39.10	23344	58.10	952	75.10	54992	86.10	7774
40.10	1307	61.10	4712	76.10	20272	87.10	4215
41.10	603	62.10	5194	77.10	379072	88.10	1488
43.10	517	63.10	13202	78.10	26920	89.10	755
50.10	87216	64.10	1829	79.10	27320	91.00	7400
51.10	319360	65.10	6680	80.10	20232	92.10	6995
52.10	16133	67.10	694	81.10	29336	93.10	45560
53.20	743	69.10	339584	82.00	6538	94.10	3324
55.10	1533	70.00	1719	83.10	6220	95.10	1220

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.10	2071	110.00	221248	123.00	12421	135.00	13828
98.10	35256	111.00	33072	124.00	6126	136.00	5936
99.00	26408	112.10	3762	125.10	5668	137.10	7174
100.00	2292	113.00	1672	127.10	432960	138.00	1822
101.00	16031	115.10	699	128.10	34344	139.00	1025
102.00	1049	116.10	7463	129.00	175488	140.00	2469
103.00	5217	117.00	100072	130.00	15162	141.00	22864
104.00	10742	118.10	6737	131.00	3173	142.00	7614
105.10	10014	119.00	1051	132.00	1631	143.00	5428
107.10	120712	120.10	1819	132.90	789	144.10	1483
108.10	18480	122.00	8511	134.10	5363	145.10	1200

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
146.00	4103	157.10	4356	168.00	21952	179.00	36512
147.00	12854	158.00	4836	169.10	3766	180.00	24520
148.00	25520	159.00	3279	170.00	1871	181.00	11735
149.00	4736	160.00	7629	171.00	2088	182.00	1709
150.10	1511	161.00	10758	172.00	4696	182.90	1331
151.10	3092	162.10	3349	173.00	5600	184.00	3302
151.90	2438	163.10	931	174.00	10420	185.00	17864
153.00	8131	164.10	1323	175.10	19984	186.10	140864
154.10	5586	165.00	9072	176.10	5739	187.00	40728
155.00	14311	166.10	7246	177.00	9280	188.00	3709
156.10	19888	167.00	47096	178.00	2763	189.00	9209

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.00	1301	203.00	7812	217.00	74072	230.00	1926
191.00	4135	204.00	36920	218.00	9386	231.10	5655
192.00	11921	205.00	64888	219.00	1090	232.00	1214
193.00	12483	206.10	272768	221.00	63016	233.00	1240
194.10	2419	207.10	33632	223.00	17280	234.00	4702
195.00	1571	208.00	8979	224.00	160896	235.00	5956
196.10	31000	209.00	2733	225.10	40432	236.00	2934
198.00	1047936	211.10	11634	226.10	4234	237.00	5439
199.00	71256	213.10	1179	227.00	69504	238.00	1039
200.00	5497	215.00	3142	228.00	10046	239.00	3048
201.50	5335	216.10	6068	229.00	14506	240.00	2740

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
241.00	4327	252.00	1121	266.00	2973	282.00	775
242.10	9689	253.10	2718	270.00	976	283.10	3309
243.10	9776	255.00	733952	271.00	1418	284.00	2758
244.10	141120	256.00	107672	272.10	2241	285.10	6271
245.10	19384	257.00	8319	273.00	25336	286.00	973
246.00	26312	258.00	42984	274.00	67048	289.00	1427
247.00	5375	259.00	7120	275.00	398976	290.10	1371
248.10	1273	260.00	1317	276.00	51808	291.00	680
249.00	4927	261.00	1527	277.00	31744	292.00	1361
250.00	843	264.00	1326	278.00	4708	293.00	7774
251.00	1148	265.00	17928	279.00	1139	294.10	2144

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
295.10	3039	310.10	1576	324.10	7967	339.00	831
296.00	109480	312.10	520	325.10	745	340.00	887
297.00	14970	313.00	1162	326.00	902	341.00	5076
298.00	1047	314.10	6224	327.00	7107	342.00	1793
301.00	1617	315.00	13514	328.00	4191	346.00	10158
302.00	2123	316.00	7952	329.00	835	347.00	1724
303.10	13940	317.10	1253	332.00	3333	351.00	902
304.10	3436	320.10	505	333.10	4808	352.10	14802
305.10	616	321.10	4024	334.00	28728	353.00	10823
308.00	1630	322.10	2432	335.00	7787	354.10	15826
309.00	1248	323.00	41920	336.00	1289	355.10	2671

Scan 753 (8.110 min): 0311F001.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

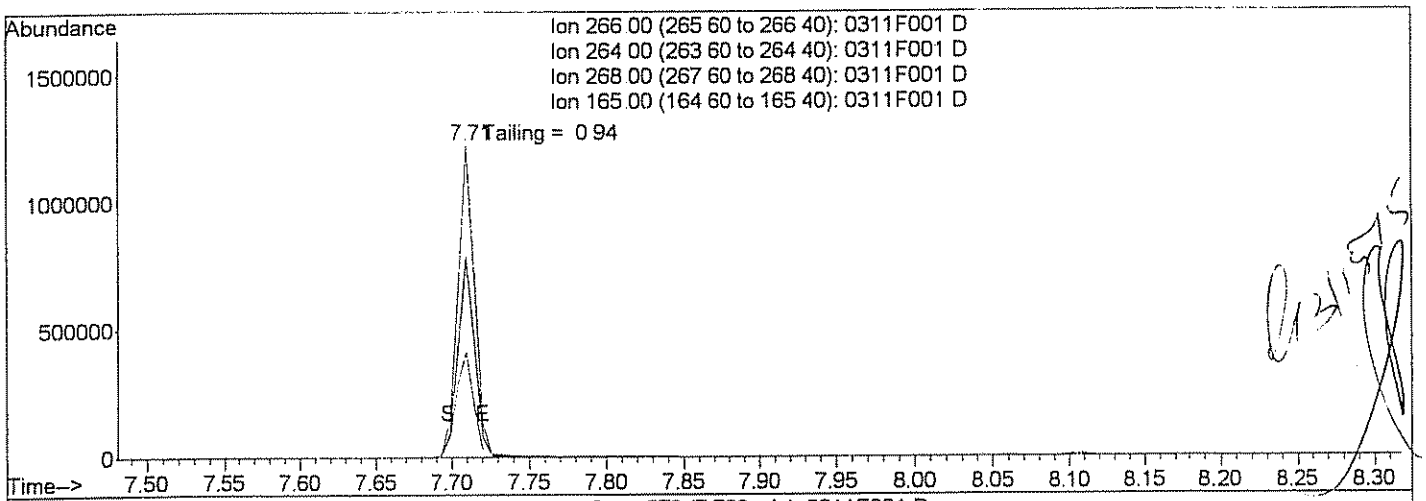
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
359.00	1146	384.00	2204	415.00	749		
365.00	65584	385.00	718	421.00	18272		
366.00	10148	390.10	4155	422.10	16696		
367.00	581	391.00	3203	423.10	148288		
370.10	1542	392.00	2518	424.10	28128		
371.00	4108	401.00	2157	425.00	2857		
372.00	29816	402.00	13495	441.10	379968		
373.00	7861	403.00	18936	442.10	2654720		
374.10	920	404.00	7119	443.10	522752		
377.00	811	405.00	1333	444.10	47240		
383.00	8356	410.00	707	445.10	3024		

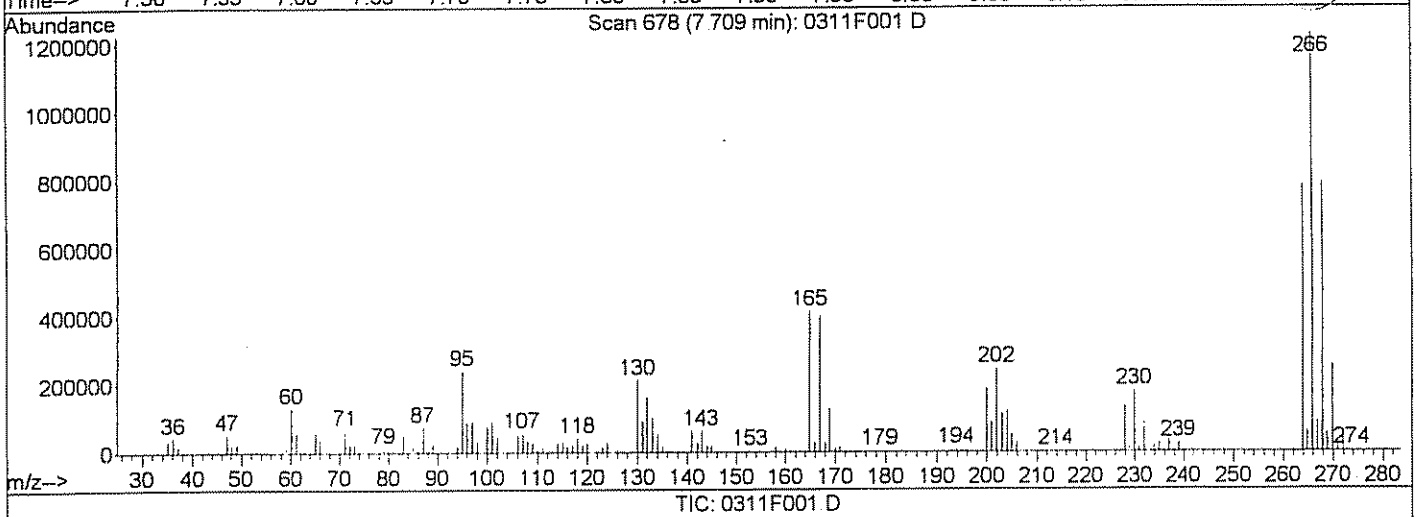
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F001.D
Acq On : 11 Mar 2005 6:27 am
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 6:49 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Oct 12 13:33:42 2004
Response via : Single Level Calibration





TIC: 0311F001.D

(1) Pentachlorophenol

6.94min 0.00ng/ml

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	64.50	0.00#
268.00	63.70	0.00#
165.00	28.70	0.00

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F003.D
Acq On : 11 Mar 2005 7:12 am
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 07:26:52 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	279818	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	215115	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	330269	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	285432	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	257180	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	0.00	176	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
20) 2,4,6 Tribromophenol	0.00	330	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
36) Fluoranthene-d10	0.00	212	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
42) Terphenyl-d14	0.00	244	0d	0.00	ng/ml	
Spiked Amount 1000.000			Recovery	=	0.00%	
Target Compounds						Qvalue
2) Naphthalene	5.07	128	342	0.22	ng/ml	91
3) 2-Methylnaphthalene	5.63	142	139	0.10	ng/ml	90
4) 1-Methylnaphthalene	5.71	142	132	0.11	ng/ml	91
21) Pentachlorophenol	7.61	266	3060	146.56	ng/ml	99
55) Indeno(1,2,3-cd)pyrene	17.40	276	170	0.14	ng/ml	100
56) Dibenz(a,h)anthracene	17.46	278	209	0.16	ng/ml	86
57) Benzo(g,h,i)perylene	17.84	276	199	0.12	ng/ml	93

(#) = qualifier out of range (m) = manual integration

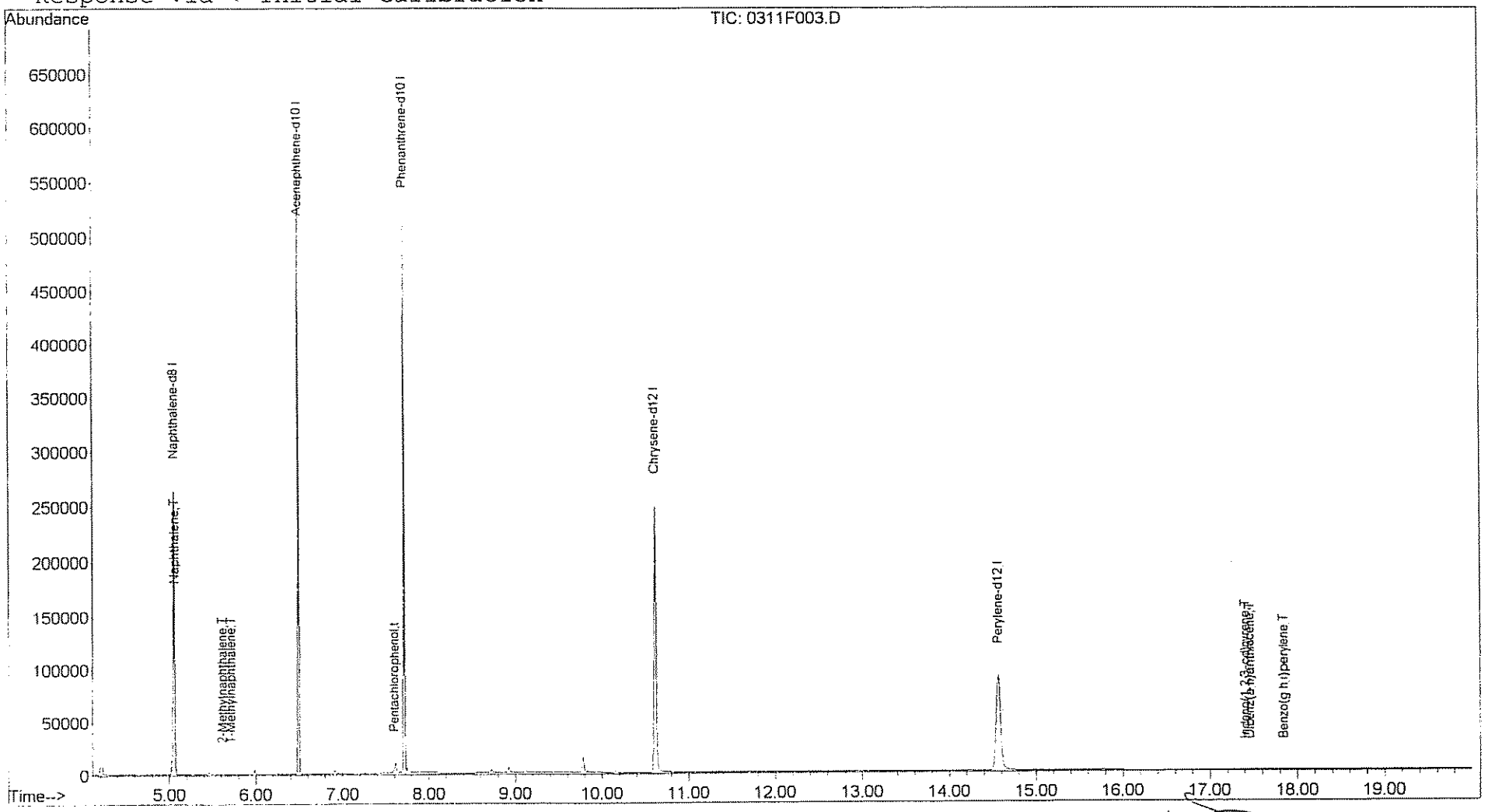
Quantitation Report (QT Reviewed)

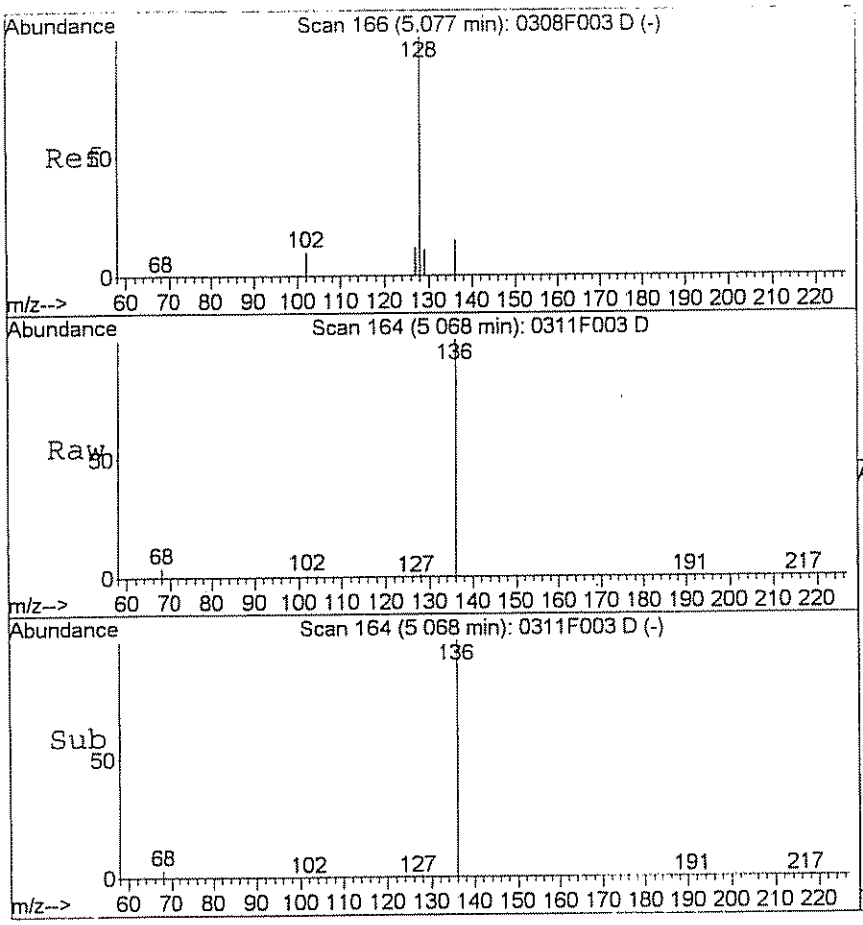
Data File : J:\MS11\DATA\031105\0311F003.D
Acq On : 11 Mar 2005 7:12 am
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:30 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

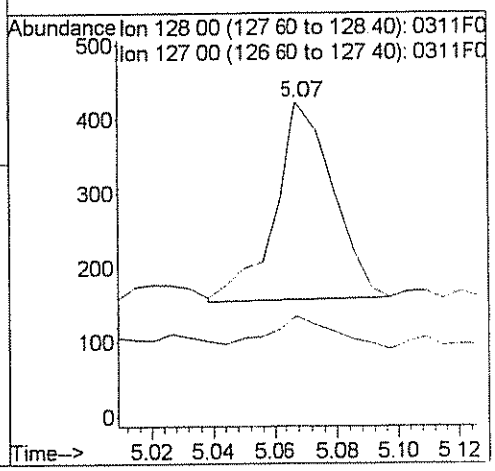


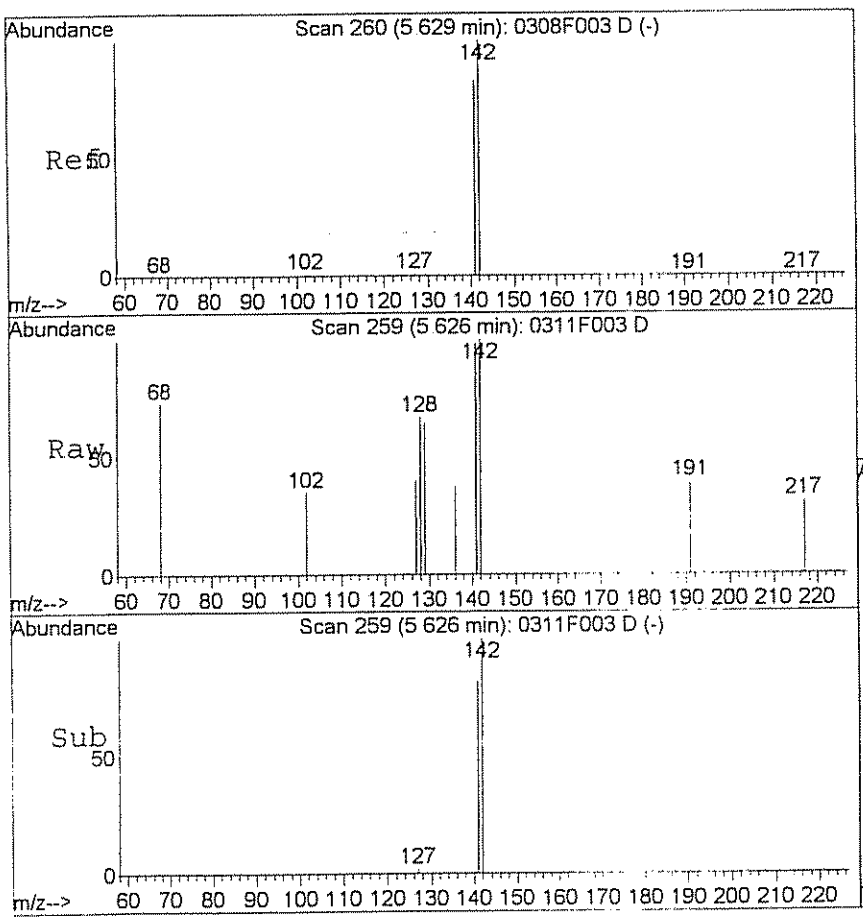


#2
Naphthalene
Concen: 0.22 ng/ml
RT: 5.07 min Scan# 164
Delta R.T. -0.02 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:128 Resp: 342

Ion	Ratio	Lower	Upper
128	100		
127	16.7	0.0	43.1

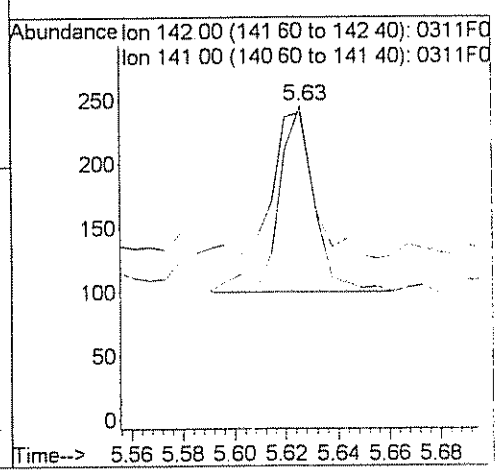


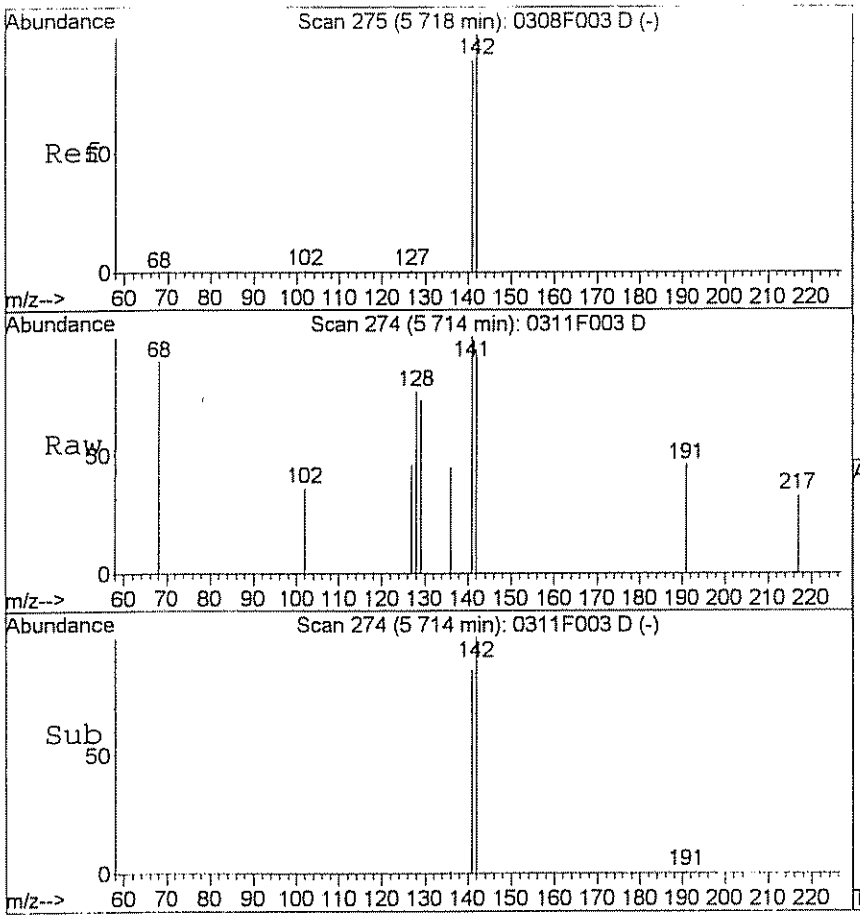


#3
2-Methylnaphthalene
Concen: 0.10 ng/ml
RT: 5.63 min Scan# 259
Delta R.T. -0.01 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:142 Resp: 139

Ion	Ratio	Lower	Upper
142	100		
141	77.2	56.4	116.4

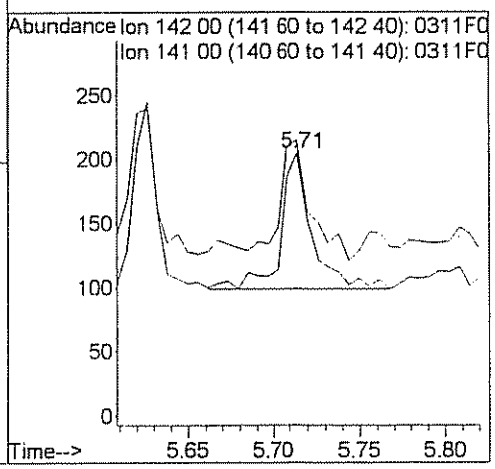


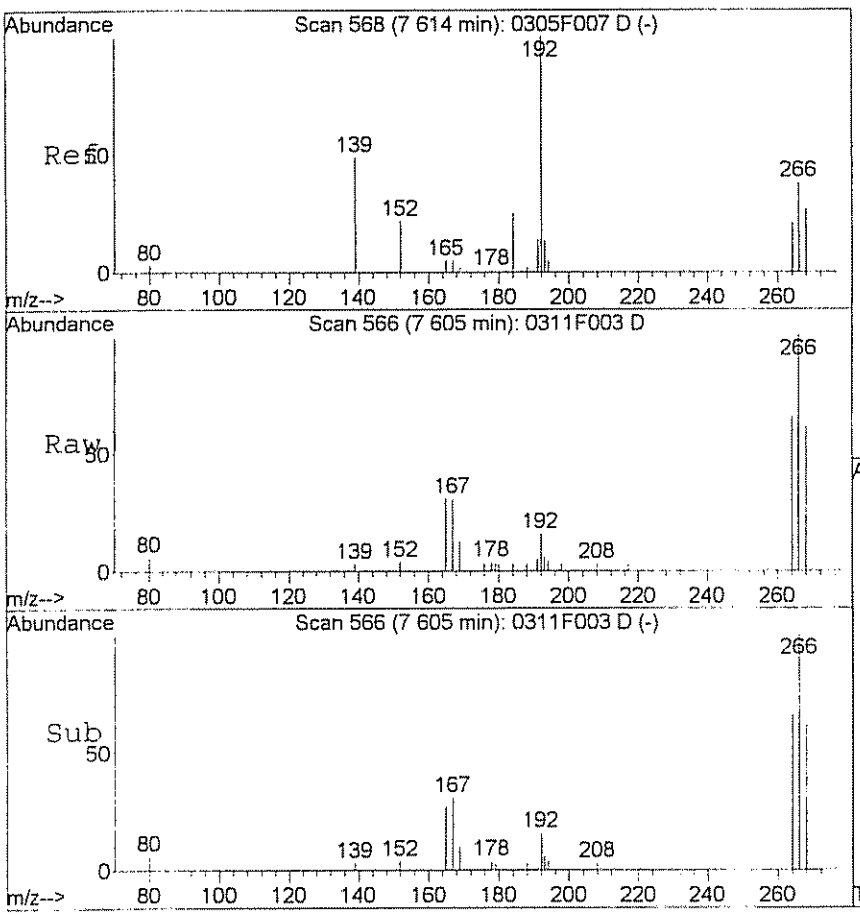


#4
1-Methylnaphthalene
Concen: 0.11 ng/ml
RT: 5.71 min Scan# 274
Delta R.T. -0.01 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:142 Resp: 132

Ion	Ratio	Lower	Upper
142	100		
141	82.1	60.9	120.9

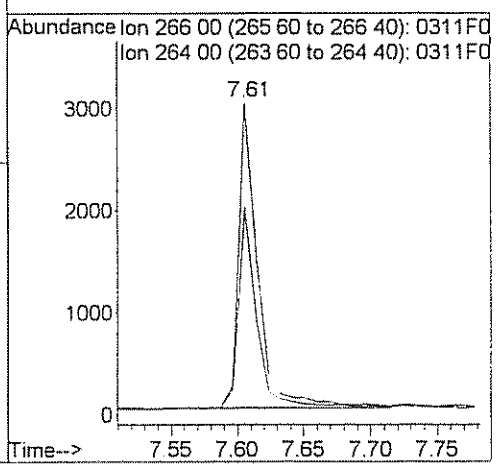


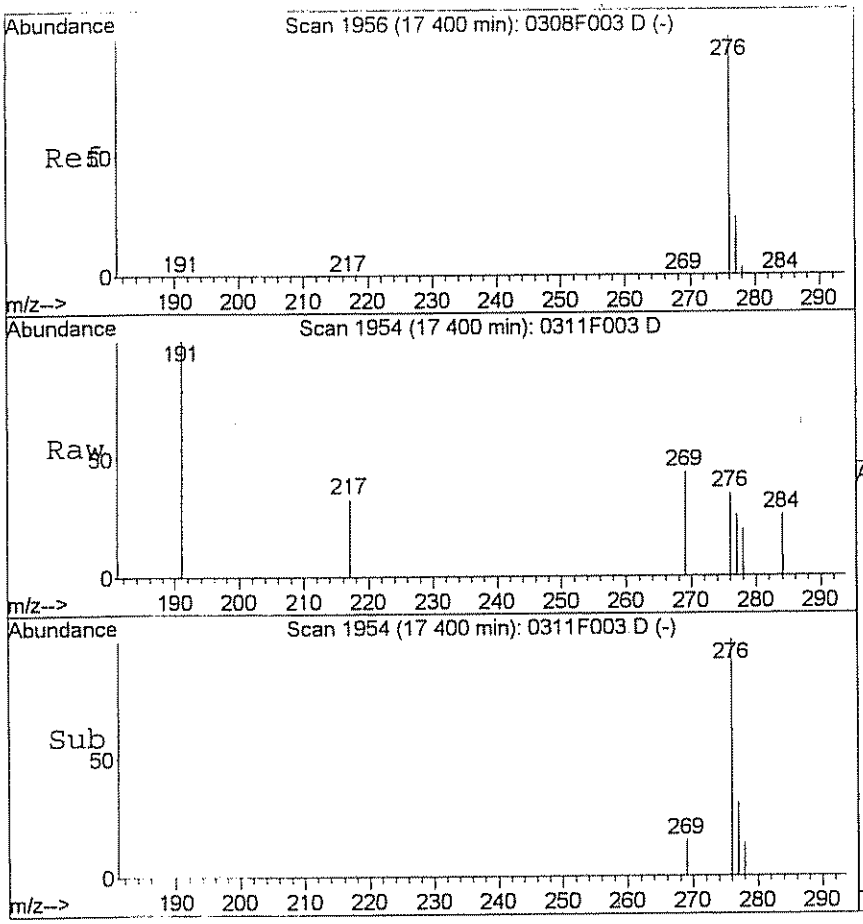


#21
Pentachlorophenol
Concen: 146.56 ng/ml
RT: 7.61 min Scan# 566
Delta R.T. -0.01 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:266 Resp: 3060

Ion	Ratio	Lower	Upper
266	100		
264	65.5	45.0	85.0

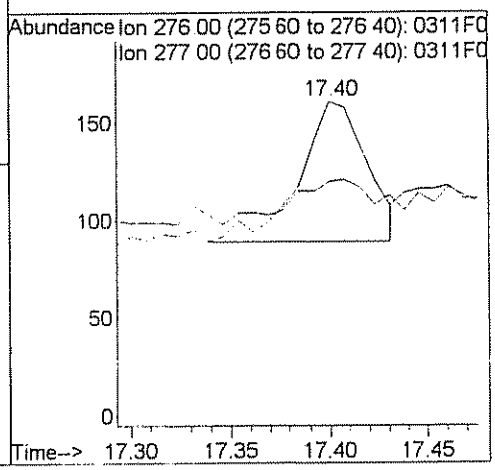


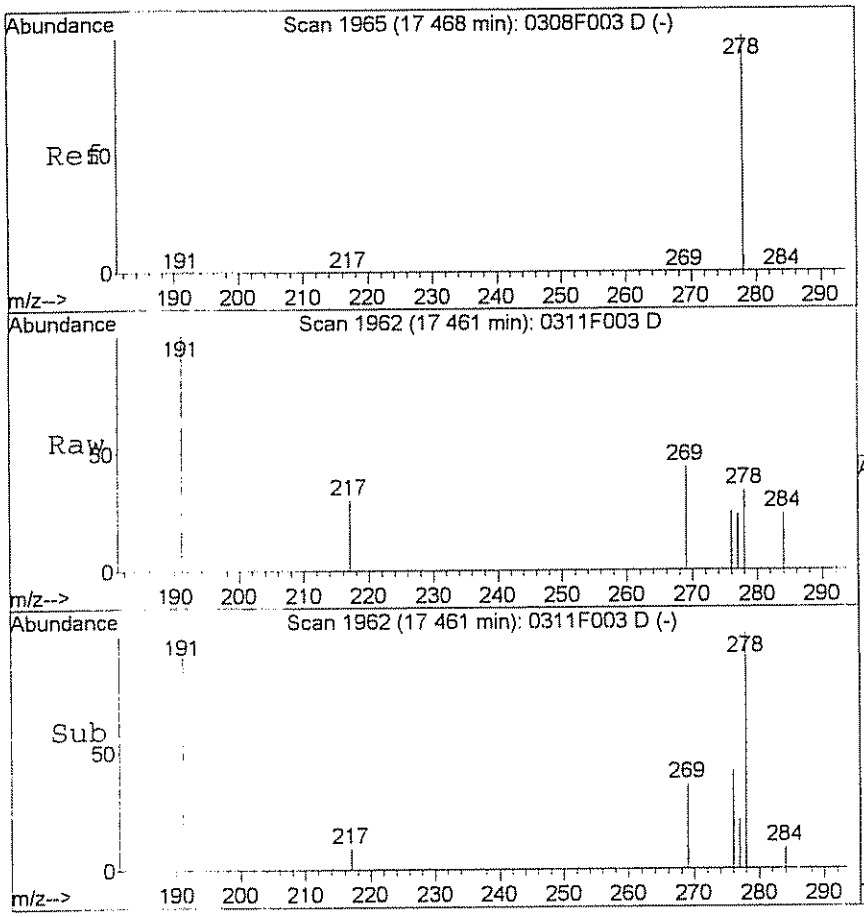


#55
Indeno(1,2,3-cd)pyrene
Concen: 0.14 ng/ml
RT: 17.40 min Scan# 1954
Delta R.T. -0.01 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:276 Resp: 170

Ion	Ratio	Lower	Upper
276	100		
277	23.6	0.0	53.7

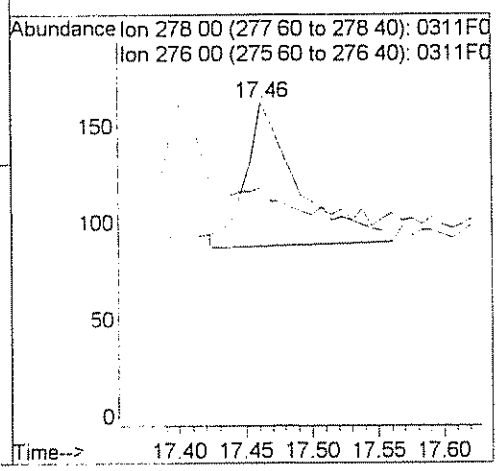


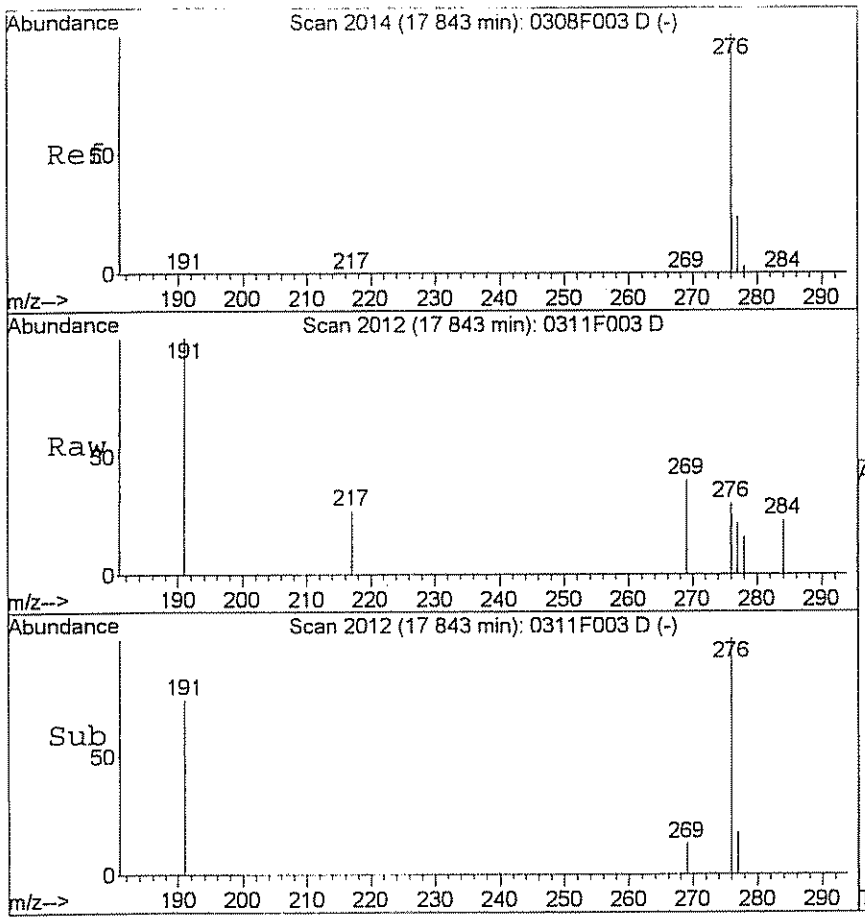


#56
Dibenz(a,h)anthracene
Concen: 0.16 ng/ml
RT: 17.46 min Scan# 1962
Delta R.T. -0.02 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:278 Resp: 209

Ion	Ratio	Lower	Upper
278	100		
276	18.1	0.0	55.3

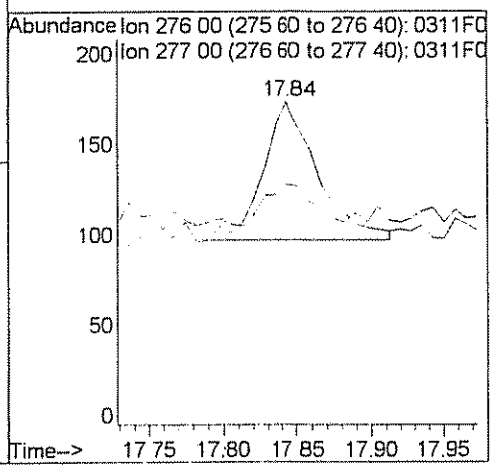




#57
Benzo(g,h,i)perylene
Concen: 0.12 ng/ml
RT: 17.84 min Scan# 2012
Delta R.T. -0.02 min
Lab File: 0311F003.D
Acq: 11 Mar 2005 7:12 am

Tgt Ion:276 Resp: 199

Ion	Ratio	Lower	Upper
276	100		
277	27.3	0.0	53.9



Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F005.D Vial: 3
Acq On : 11 Mar 2005 8:05 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .002/.05ug/mL | SVM19-~~11A~~ 12A Inst : MS11
Misc :
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Mar 11 08:21:31 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.05	136	254054	200.00 ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	192316	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	298896	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	246764	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	216394	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.91	176	2816	2.18 ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.22%	
20) 2,4,6 Tribromophenol	7.15	330	615	2.17 ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.22%	
36) Fluoranthene-d10	8.72	212	4222	2.06 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.21%	
42) Terphenyl-d14	9.13	244	3036	2.17 ng/ml	0.00
Spiked Amount 1000.000			Recovery =	0.22%	
Target Compounds					Qvalue
2) Naphthalene	5.07	128	3103	2.20 ng/ml	95
3) 2-Methylnaphthalene	5.62	142	2454	1.96 ng/ml	99
4) 1-Methylnaphthalene	5.71	142	2227	1.96 ng/ml	99
5) Biphenyl	6.00	154	3120	1.99 ng/ml	95
6) 2,6-Dimethylnaphthalene	6.13	156	2088	1.86 ng/ml	100
11) Acenaphthylene	6.37	152	3947	2.22 ng/ml	98
12) Acenaphthene	6.52	154	2252	2.04 ng/ml	99
13) Dibenzofuran	6.65	168	3407	2.13 ng/ml	97
14) 2,3,5-Trimethylnaphthalene	6.83	170	1985	2.02 ng/ml#	36
16) Fluorene	6.93	166	2722	2.14 ng/ml	98
21) Pentachlorophenol	7.60	266	10792	578.18 ng/ml	99
23) Dibenzothiophene	7.63	184	3415	2.14 ng/ml	78
27) Phenanthrene	7.73	178	4583	2.59 ng/ml	99
28) Anthracene	7.77	178	3568	2.22 ng/ml	99
29) Carbazole	7.90	167	3411	2.48 ng/ml	97
30) 1-Methylphenanthrene	8.24	192	2641	2.20 ng/ml	94
35) Fluoranthene	8.74	202	6114	3.30 ng/ml	97
38) Pyrene	8.96	202	5951	3.27 ng/ml	99
43) Benz(a)anthracene	10.59	228	4290	3.02 ng/ml	99
44) Chrysene	10.66	228	3953	2.59 ng/ml	97
50) Benzo(b)fluoranthene	13.24	252	3350	2.30 ng/ml	98
51) Benzo(k)fluoranthene	13.32	252	3009	1.99 ng/ml	97
52) Benzo(e)pyrene	14.16	252	3004	2.07 ng/ml	99
53) Benzo(a)pyrene	14.34	252	2862	2.32 ng/ml	95
54) Perylene	14.65	252	2679	2.03 ng/ml	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F005.D Vial: 3
Acq On : 11 Mar 2005 8:05 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .002/.05ug/mL | SVM19-~~11~~12A Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 08:21:31 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.40	276	2205	2.22 ng/ml	99
56)	Dibenz(a,h)anthracene	17.47	278	2369m	2.17 ng/ml	
57)	Benzo(g,h,i)perylene	17.84	276	3027	2.20 ng/ml	99

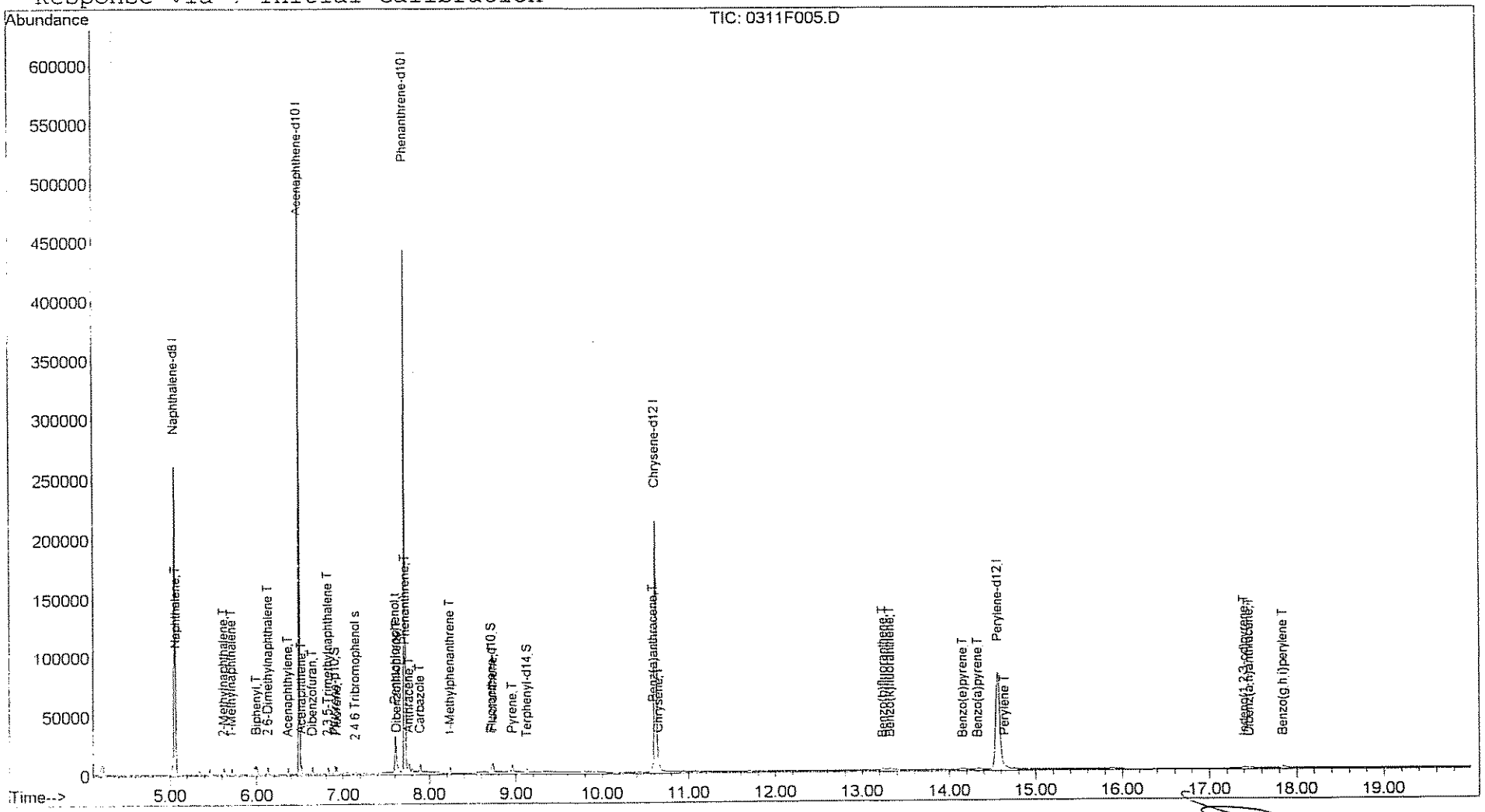
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F005.D
Acq On : 11 Mar 2005 8:05 am
Sample : SIM-PAH ICAL @ .002/.05ug/mL | SVM19-11A
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:31 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

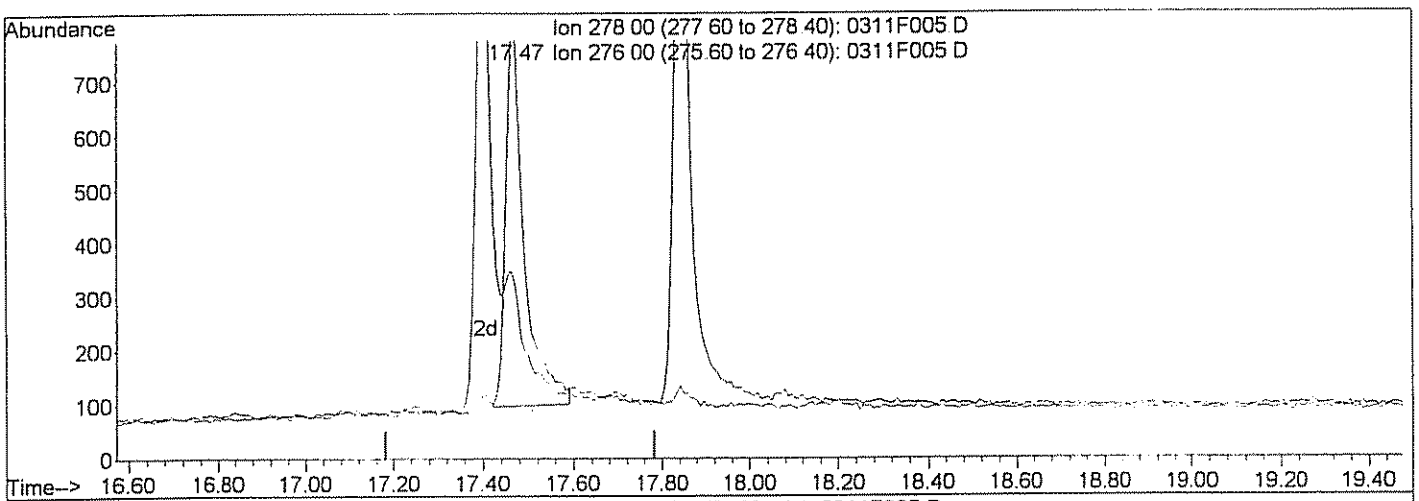
Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

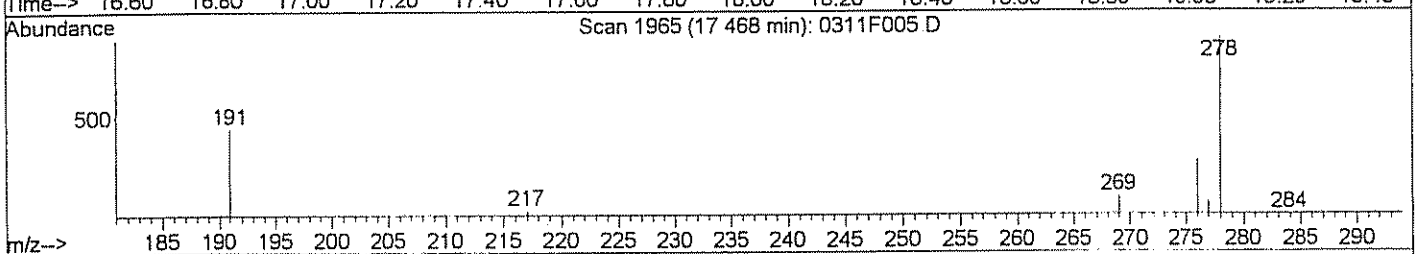


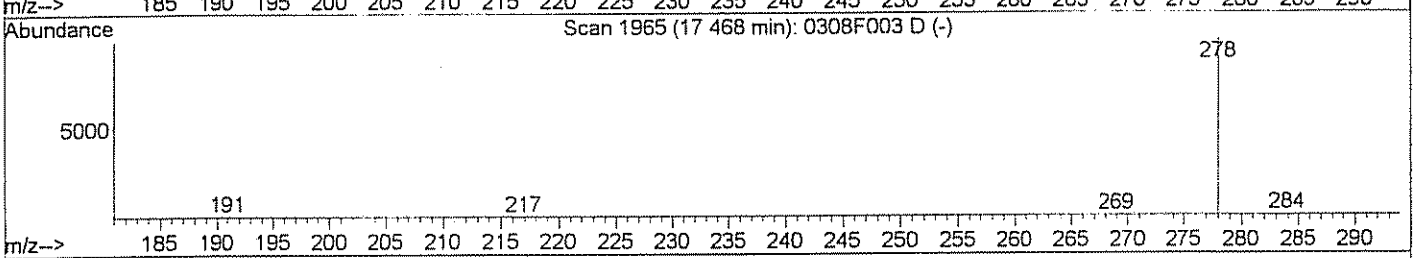
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F005.D Vial: 3
Acq On : 11 Mar 2005 8:05 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .002/.05ug/mL | SVM19-11A Inst : MS11
Misc :
MS Integration Params: RTEINT.P Multiplr: 1.00
Quant Time: Mar 11 8:21 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F005 D

(56) Dibenz(a,h)anthracene (T)

17 47min 1 87ng/ml

response 2038

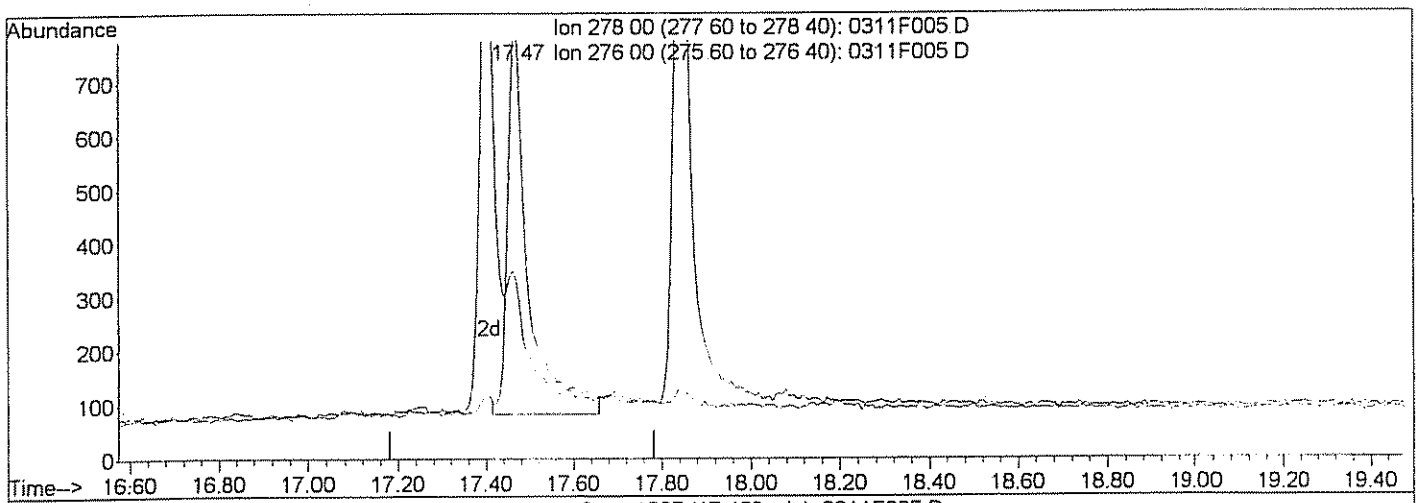
Ion	Exp%	Act%
278 00	100	100
276 00	25 30	28 57
0 00	0 00	0 00
0 00	0 00	0 00

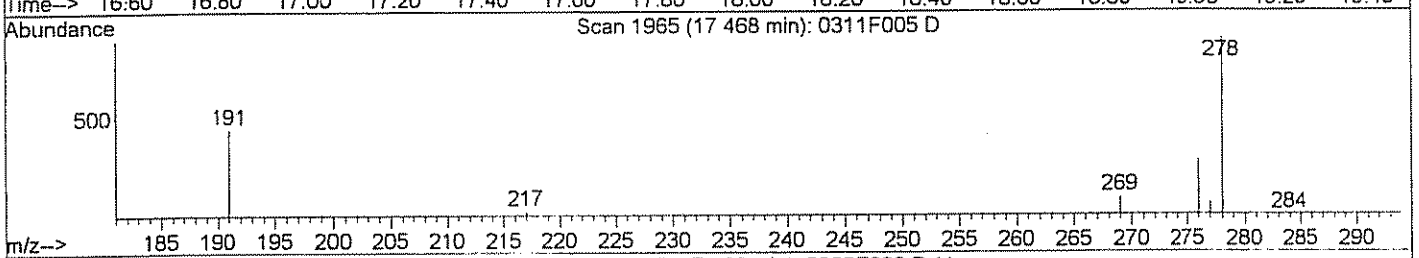
Quantitation Report (Qedit)

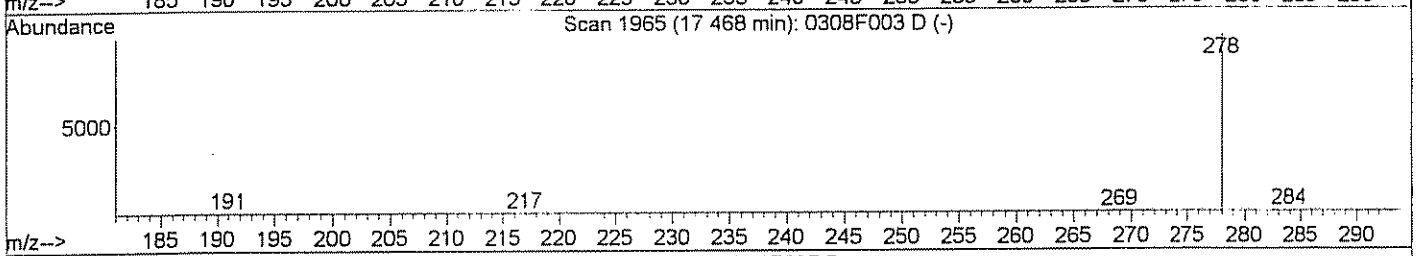
Data File : J:\MS11\DATA\031105\0311F005.D
Acq On : 11 Mar 2005 8:05 am
Sample : SIM-PAH ICAL @ .002/.05ug/mL | SVM19-~~11~~12A
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:31 2005

Vial: 3
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F005.D

(56) Dibenz(a,h)anthracene (T)

17.47min 2.17ng/ml m

response 2369

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	40.97
0.00	0.00	0.00
0.00	0.00	0.00

0311F005.D 0310ALK.M Fri Mar 11 09:31:20 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F006.D Vial: 4
Acq On : 11 Mar 2005 8:32 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~12B Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 08:46:53 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.05	136	245276	200.00 ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	184761	200.00 ng/ml	-0.01
22) Phenanthrene-d10	7.72	188	291921	200.00 ng/ml	0.00
37) Chrysene-d12	10.62	240	226607	200.00 ng/ml	-0.01
49) Perylene-d12	14.56	264	195409	200.00 ng/ml	-0.02
System Monitoring Compounds					
15) Fluorene-d10	6.90	176	10541	8.49 ng/ml	-0.01
Spiked Amount 1000.000			Recovery	= 0.85%	
20) 2,4,6 Tribromophenol	7.14	330	1589	5.85 ng/ml	-0.01
Spiked Amount 1000.000			Recovery	= 0.58%	
36) Fluoranthene-d10	8.72	212	16079	8.05 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.80%	
42) Terphenyl-d14	9.13	244	10864	8.47 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.85%	

Target Compounds					Qvalue
2) Naphthalene	5.07	128	11899	8.74 ng/ml	99
3) 2-Methylnaphthalene	5.62	142	9799	8.09 ng/ml	95
4) 1-Methylnaphthalene	5.71	142	8849	8.06 ng/ml	97
5) Biphenyl	6.00	154	12067	7.96 ng/ml	97
6) 2,6-Dimethylnaphthalene	6.13	156	8523	7.88 ng/ml	97
11) Acenaphthylene	6.36	152	15089	8.82 ng/ml	97
12) Acenaphthene	6.51	154	9364m	8.83 ng/ml	
13) Dibenzofuran	6.65	168	13212	8.62 ng/ml	85
14) 2,3,5-Trimethylnaphthalene	6.83	170	8052	8.51 ng/ml	94
16) Fluorene	6.93	166	10535	8.63 ng/ml	99
21) Pentachlorophenol	7.61	266	42674	2379.75 ng/ml	99
23) Dibenzothiophene	7.63	184	13536	8.68 ng/ml	77
27) Phenanthrene	7.73	178	15480	8.97 ng/ml	98
28) Anthracene	7.77	178	13587	8.67 ng/ml	98
29) Carbazole	7.90	167	11585	8.64 ng/ml	98
30) 1-Methylphenanthrene	8.24	192	9881	8.41 ng/ml	99
35) Fluoranthene	8.74	202	14830	8.21 ng/ml	96
38) Pyrene	8.96	202	15341	9.19 ng/ml	100
43) Benz(a)anthracene	10.59	228	11651	8.93 ng/ml	96
44) Chrysene	10.66	228	12159	8.69 ng/ml	98
50) Benzo(b)fluoranthene	13.24	252	10253	7.78 ng/ml	98
51) Benzo(k)fluoranthene	13.32	252	10467	7.67 ng/ml	99
52) Benzo(e)pyrene	14.16	252	10179	7.76 ng/ml	98
53) Benzo(a)pyrene	14.33	252	8997	8.07 ng/ml	100
54) Perylene	14.66	252	9595	8.05 ng/ml	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F006.D Vial: 4
Acq On : 11 Mar 2005 8:32 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~12B Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 08:46:53 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.40	276	7079	7.90	ng/ml	98
56)	Dibenz(a,h)anthracene	17.47	278	7907m	8.02	ng/ml	
57)	Benzo(g,h,i)perylene	17.84	276	9995	8.03	ng/ml	99

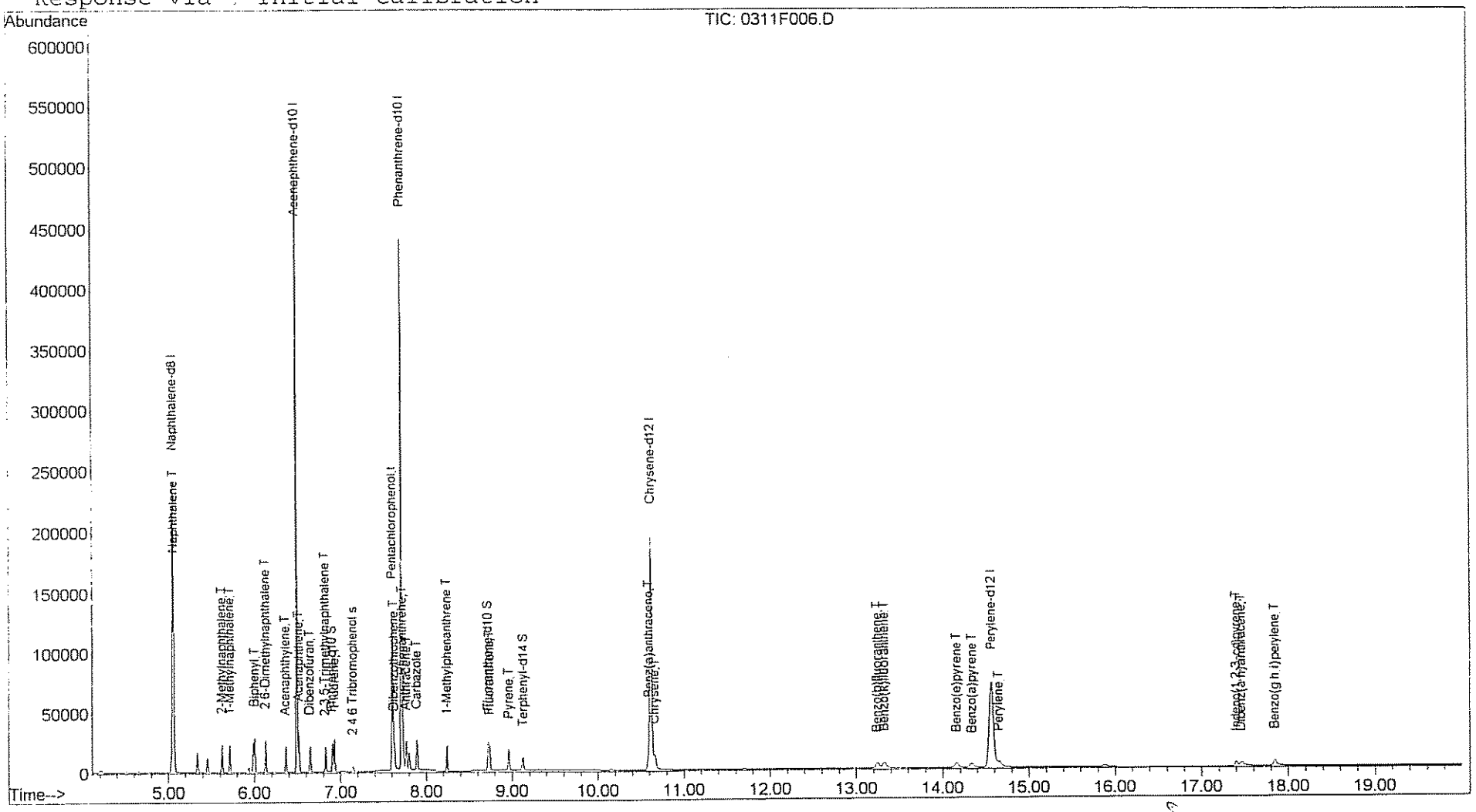
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F006.D
Acq On : 11 Mar 2005 8:32 am
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~12B
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

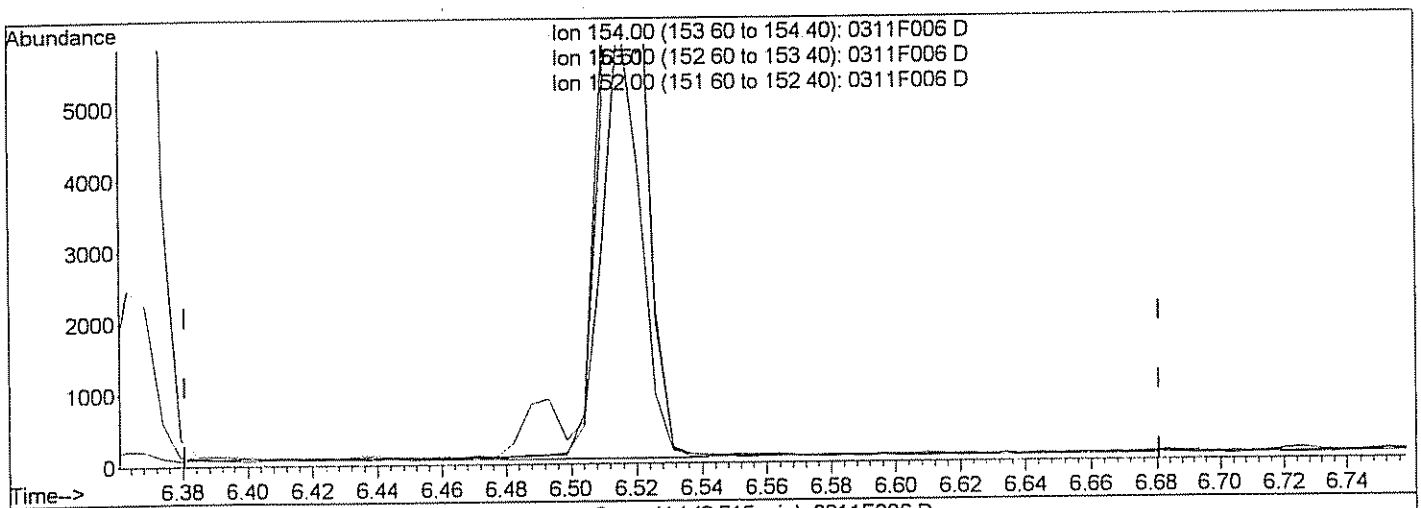


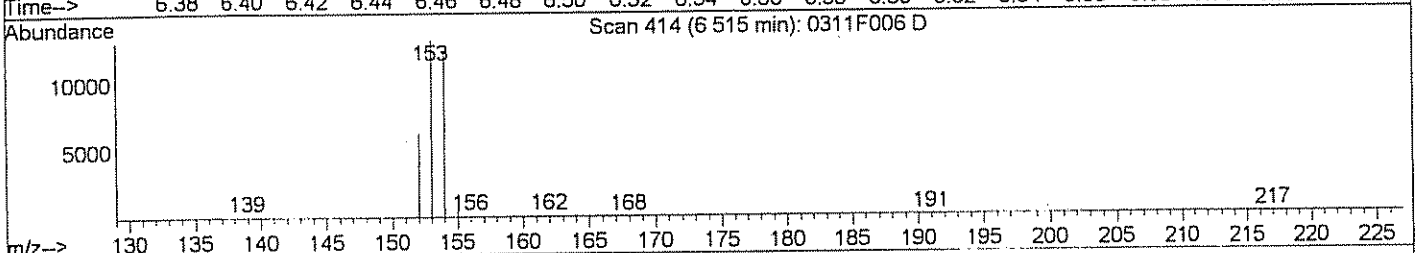
Quantitation Report (Qedit)

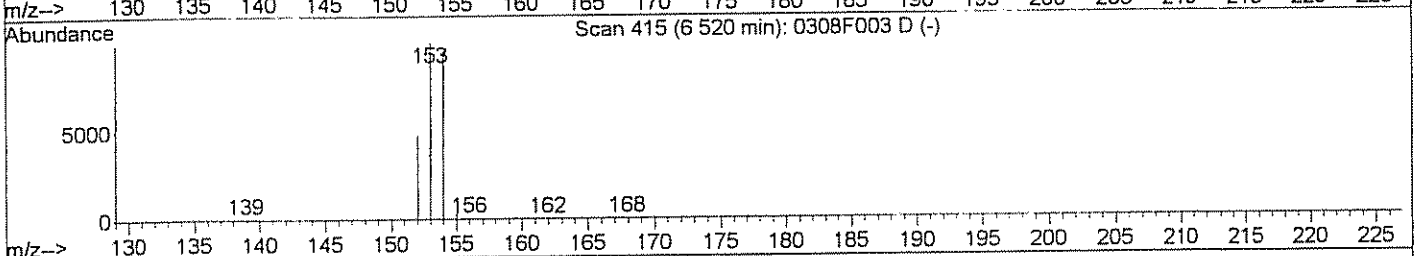
Data File : J:\MS11\DATA\031105\0311F006.D
Acq On : 11 Mar 2005 8:32 am
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~12B
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 8:46 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F006.D

(12) Acenaphthene (T)

6.51min 9.47ng/ml

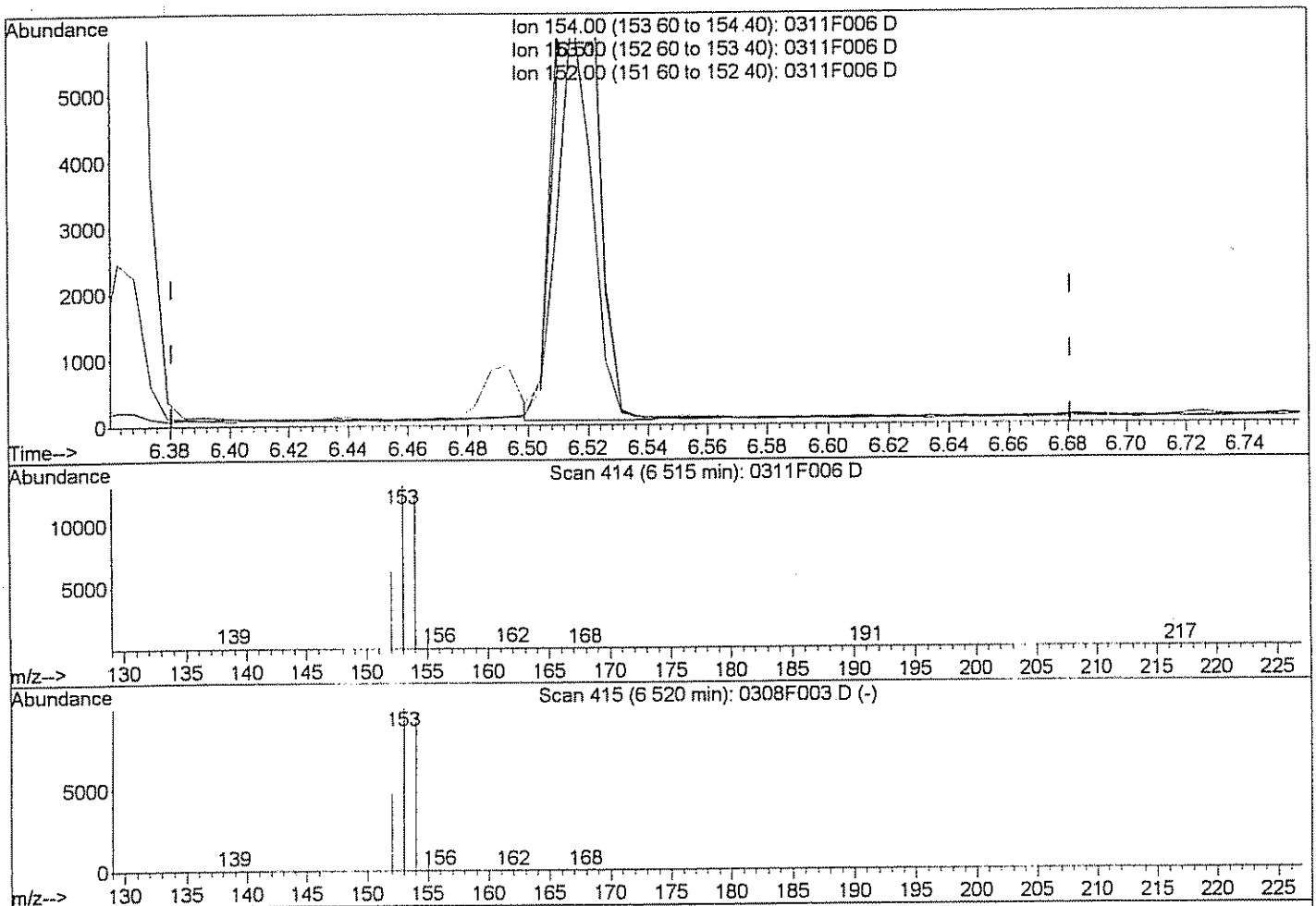
response 10035

Ion	Exp%	Act%
154.00	100	100
153.00	103.00	105.87
152.00	47.80	50.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F006.D Vial: 4
Acq On : 11 Mar 2005 8:32 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-11B Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:31 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration



(12) Acenaphthene (T)

6.51min 8.83ng/ml m

response 9364

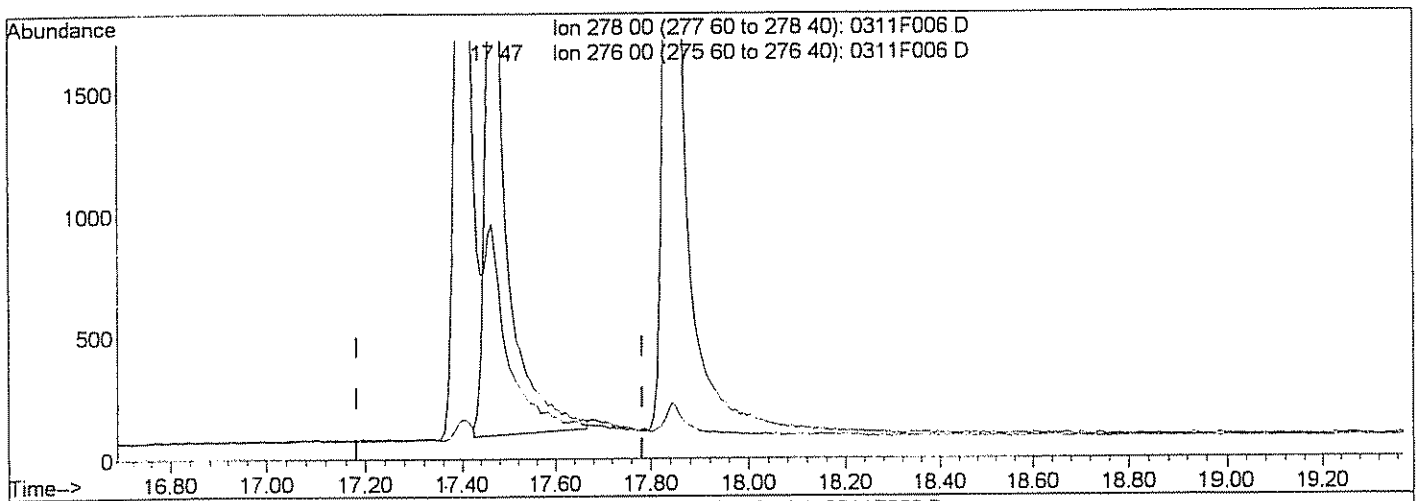
Ion	Exp%	Act%
154.00	100	100
153.00	103.00	106.01
152.00	47.80	50.80
0.00	0.00	0.00

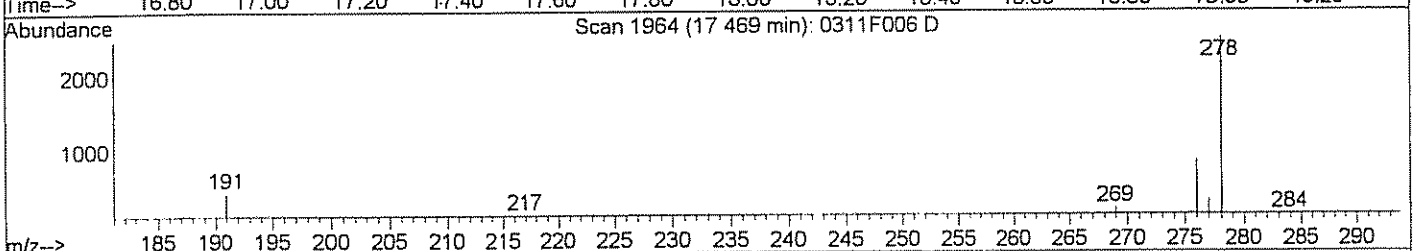
0311F006.D 0310ALK.M Fri Mar 11 09:31:36 2005

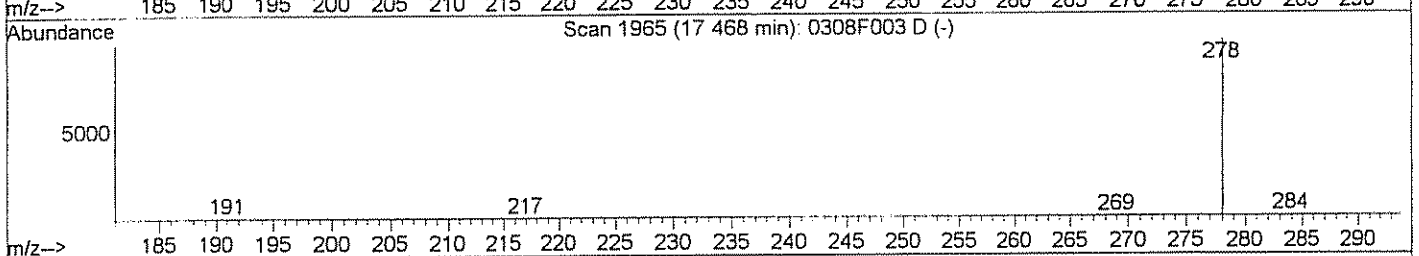
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F006.D Vial: 4
Acq On : 11 Mar 2005 8:32 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~1~~1B Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:31 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F006 D

(56) Dibenz(a.h)anthracene (T)

17 47min 7 30ng/ml

response 7201

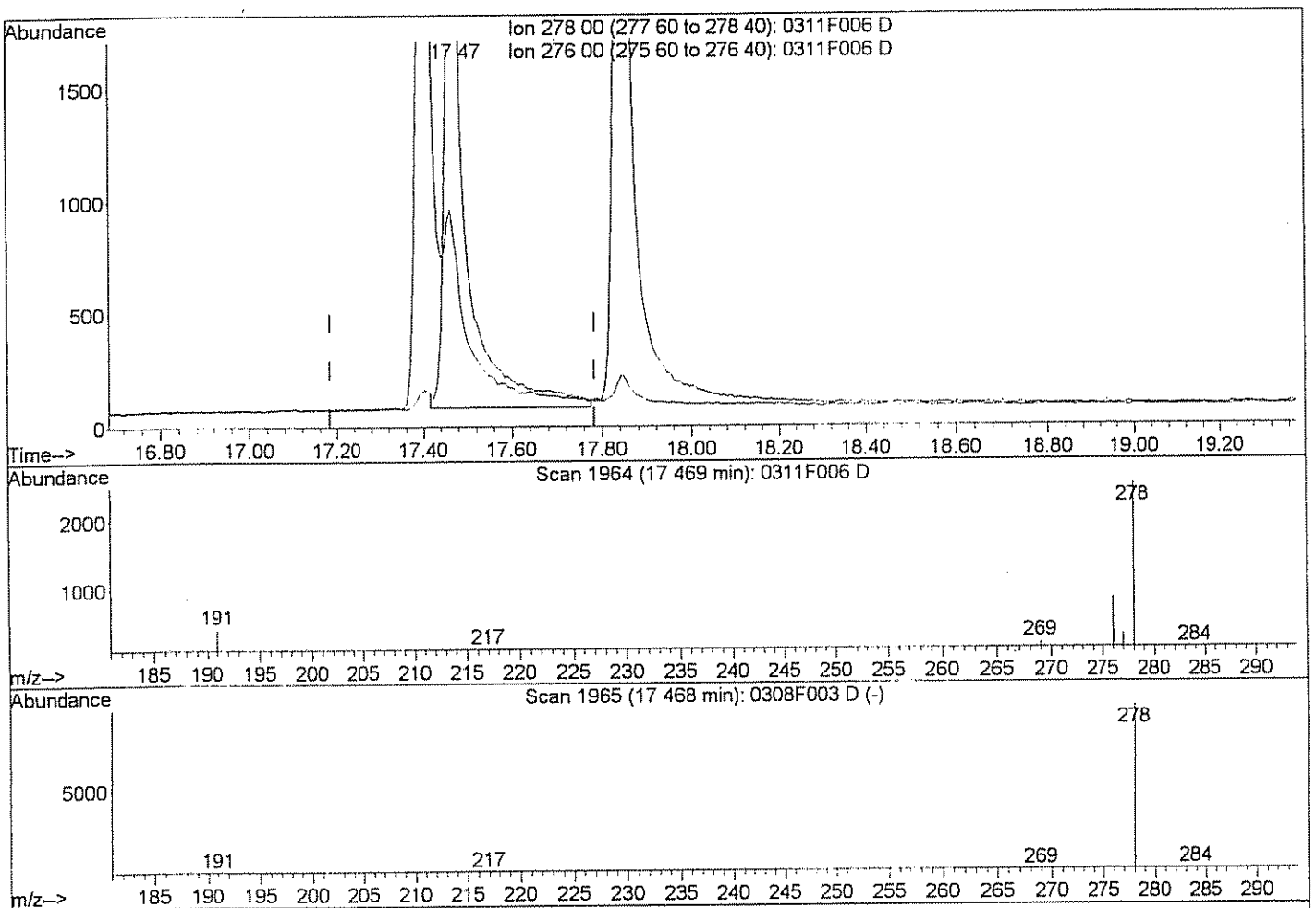
Ion	Exp%	Act%
278 00	100	100
276 00	25 30	29 34
0 00	0 00	0 00
0 00	0 00	0 00

Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F006.D
Acq On : 11 Mar 2005 8:32 am
Sample : SIM-PAH ICAL @ .008/0.2ug/mL | SVM19-~~11~~12B
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005

Vial: 4
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration



(56) Dibenz(a.h)anthracene (T)

17 47min 8 02ng/ml m

response 7907

Ion	Exp%	Act%
278 00	100	100
276 00	25 30	33 33
0 00	0 00	0 00
0 00	0 00	0 00

0311F006.D 0310ALK.M Fri Mar 11 09:32:03 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F007.D Vial: 5
Acq On : 11 Mar 2005 8:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 09:20:37 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	249755	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	188273	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	292778	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	232263	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	198797	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	26803	21.19	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 2.12%			
20) 2,4,6 Tribromophenol	7.15	330	4003	14.46	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 1.45%			
36) Fluoranthene-d10	8.72	212	40311	20.13	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 2.01%			
42) Terphenyl-d14	9.13	244	27319	20.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 2.08%			

Target Compounds						Qvalue
2) Naphthalene	5.07	128	29172	21.04	ng/ml	98
3) 2-Methylnaphthalene	5.62	142	24407	19.80	ng/ml	98
4) 1-Methylnaphthalene	5.71	142	22047	19.72	ng/ml	98
5) Biphenyl	6.01	154	30607	19.84	ng/ml	95
6) 2,6-Dimethylnaphthalene	6.13	156	21197	19.24	ng/ml	97
11) Acenaphthylene	6.36	152	37628	21.58	ng/ml	98
12) Acenaphthene	6.52	154	23188m	21.47	ng/ml	
13) Dibenzofuran	6.65	168	33496	21.43	ng/ml	85
14) 2,3,5-Trimethylnaphthalene	6.83	170	19838	20.58	ng/ml	92
16) Fluorene	6.93	166	26566	21.36	ng/ml	99
21) Pentachlorophenol	7.60	266	92832	5080.29	ng/ml	98
23) Dibenzothiophene	7.63	184	34685	22.19	ng/ml	78
27) Phenanthrene	7.73	178	37266	21.53	ng/ml	100
28) Anthracene	7.77	178	33547	21.33	ng/ml	100
29) Carbazole	7.90	167	29519	21.95	ng/ml	98
30) 1-Methylphenanthrene	8.24	192	24041	20.40	ng/ml	98
35) Fluoranthene	8.74	202	36905	20.36	ng/ml	98
38) Pyrene	8.96	202	37528	21.92	ng/ml	100
43) Benz(a)anthracene	10.59	228	28068	21.00	ng/ml	97
44) Chrysene	10.66	228	30252	21.09	ng/ml	97
50) Benzo(b)fluoranthene	13.24	252	25645	19.13	ng/ml	99
51) Benzo(k)fluoranthene	13.33	252	26100	18.80	ng/ml	100
52) Benzo(e)pyrene	14.16	252	25544	19.15	ng/ml	98
53) Benzo(a)pyrene	14.34	252	22637	19.95	ng/ml	99
54) Perylene	14.66	252	24217	19.97	ng/ml	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F007.D Vial: 5
Acq On : 11 Mar 2005 8:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 09:20:37 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

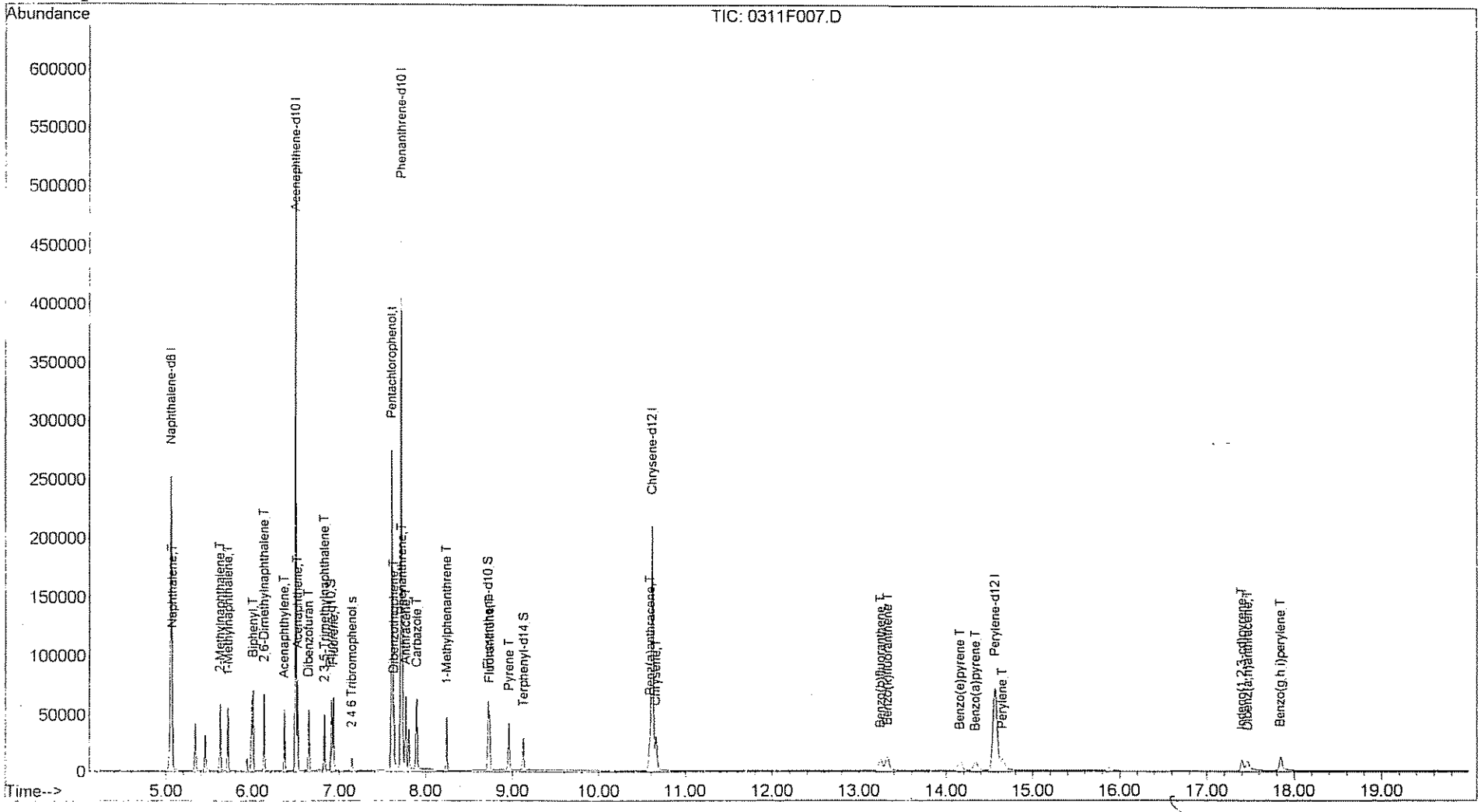
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.40	276	17916	19.64 ng/ml	100
56)	Dibenz(a,h)anthracene	17.47	278	19832m	19.77 ng/ml	
57)	Benzo(g,h,i)perylene	17.84	276	24546	19.38 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F007.D Vial: 5
Acq On : 11 Mar 2005 8:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005 Quant Results File: 0310ALK.RES

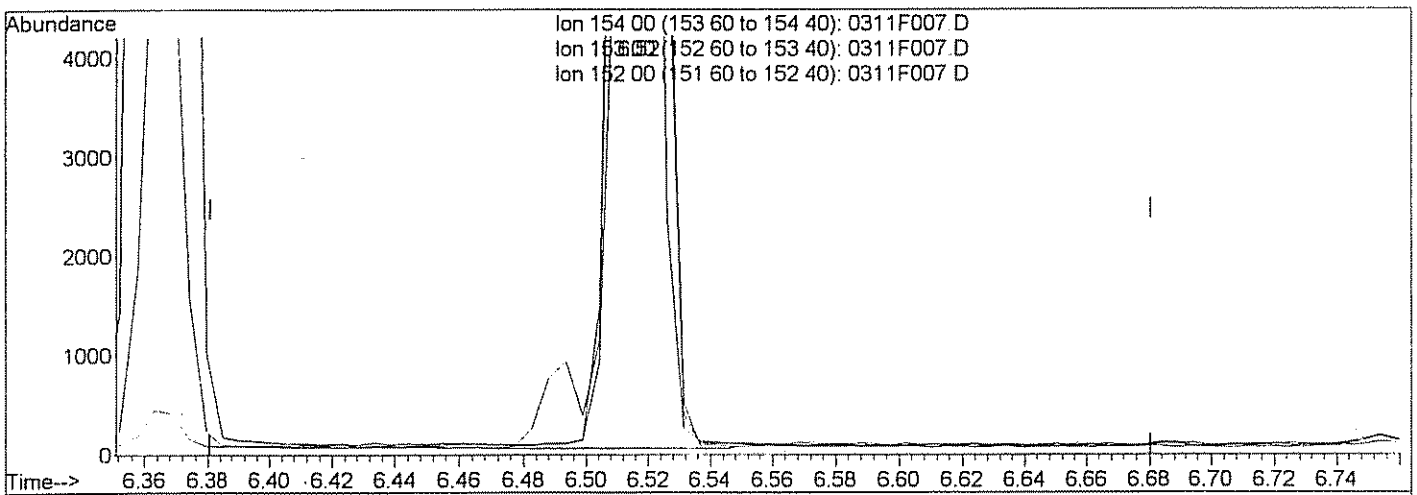
Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Initial Calibration

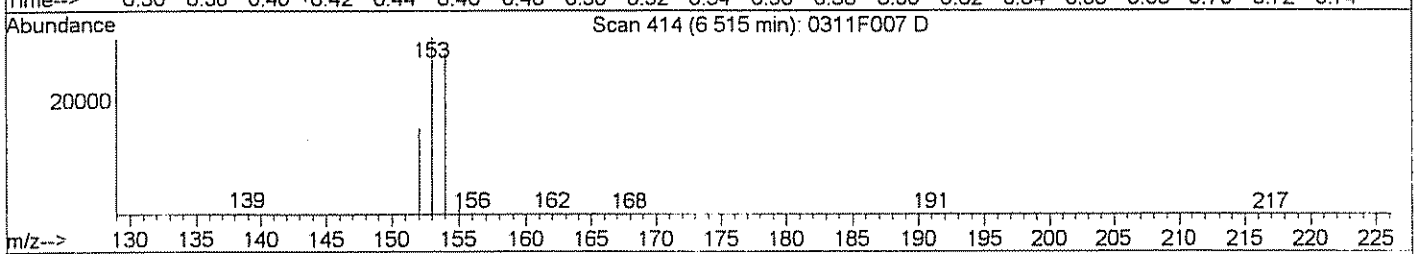


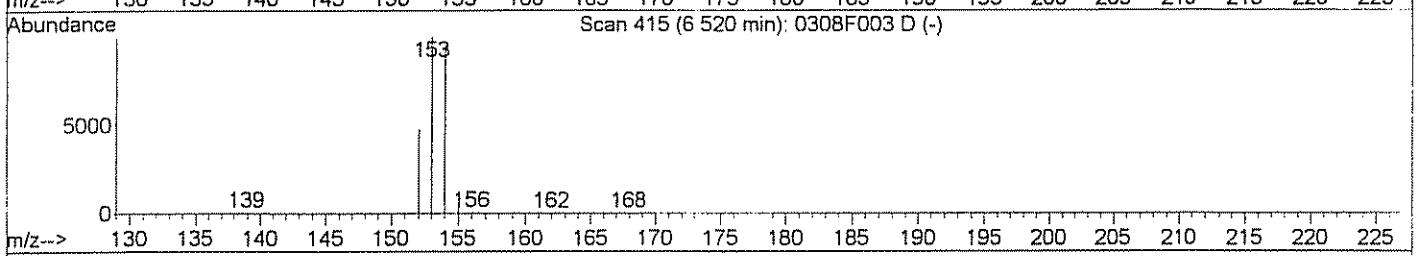
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F007.D Vial: 5
Acq On : 11 Mar 2005 8:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:20 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F007 D

(12) Acenaphthene (T)

6 52min 22 12ng/ml

response 23892

Ion	Exp%	Act%
154 00	100	100
153 00	103 00	109 05
152 00	47 80	53 24
0 00	0 00	0 00

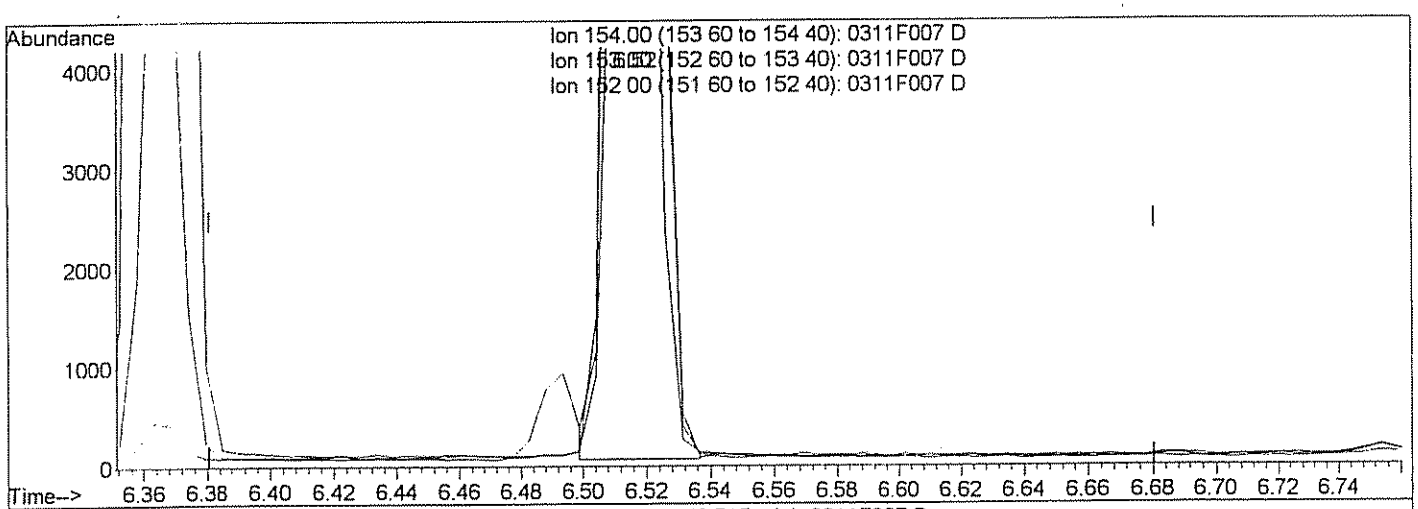
0311F007.D 0310ALK.M Fri Mar 11 09:32:17 2005

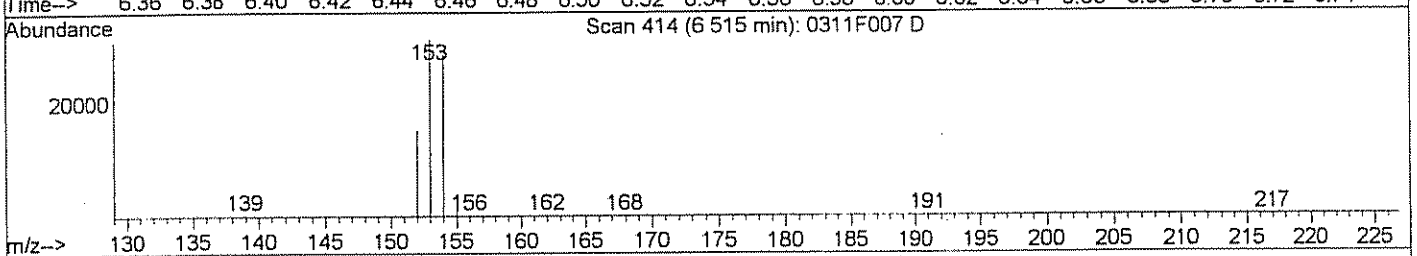
Quantitation Report (Qedit)

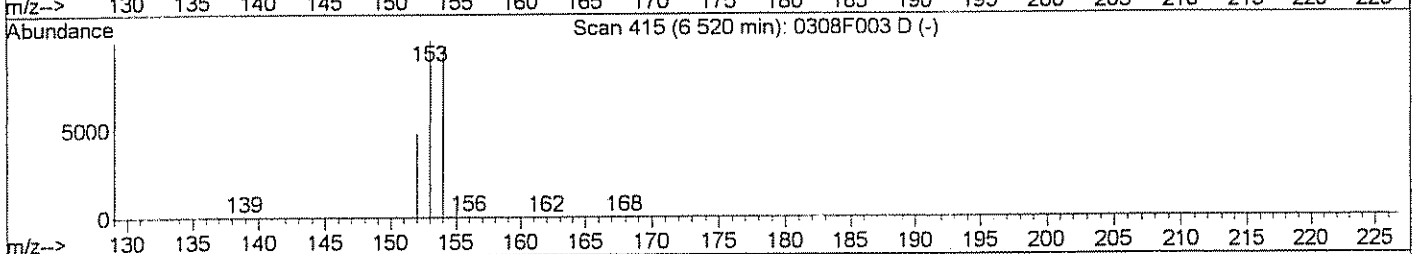
Data File : J:\MS11\DATA\031105\0311F007.D
Acq On : 11 Mar 2005 8:59 am
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F007.D

(12) Acenaphthene (T)

6.52min 21.47ng/ml m

response 23188

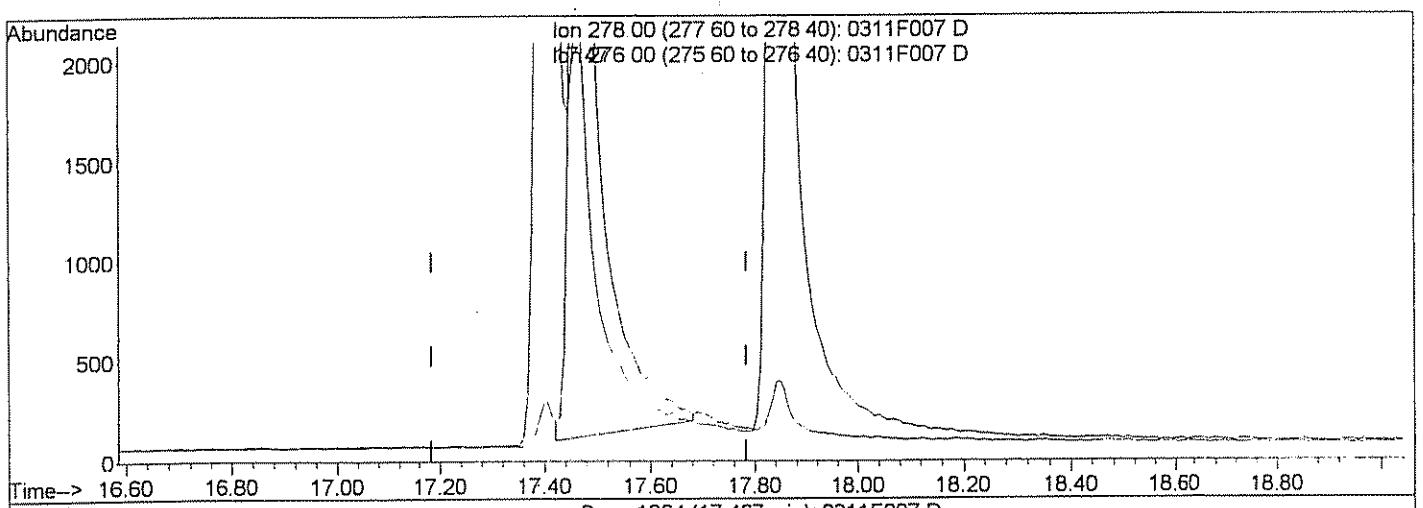
Ion	Exp%	Act%
154.00	100	100
153.00	103.00	109.16
152.00	47.80	53.47
0.00	0.00	0.00

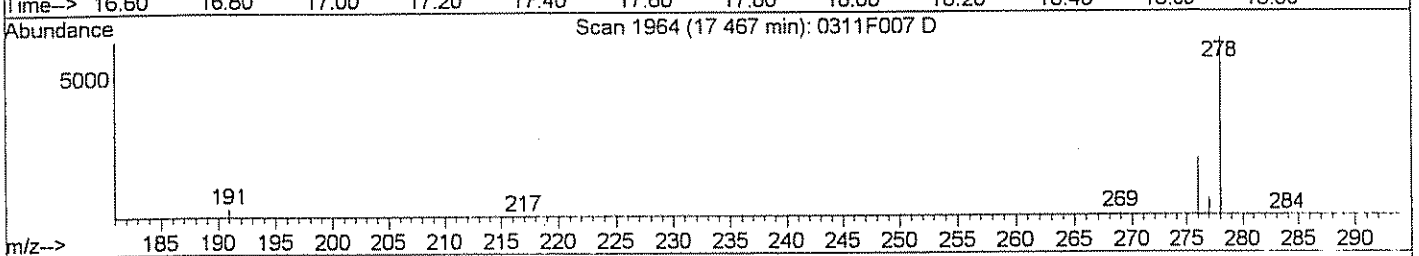
0311F007.D 0310ALK.M Fri Mar 11 09:32:21 2005

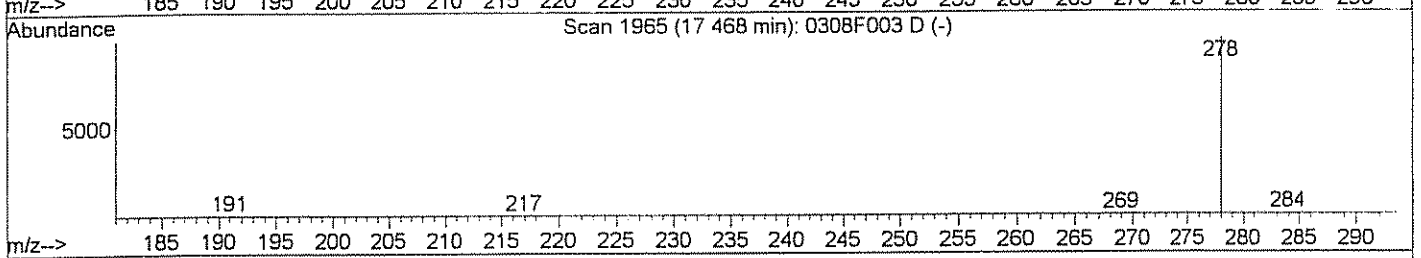
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F007.D Vial: 5
Acq On : 11 Mar 2005 8:59 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F007.D

(56) Dibenz(a.h)anthracene (T)

17.47min 18.00ng/ml

response 18051

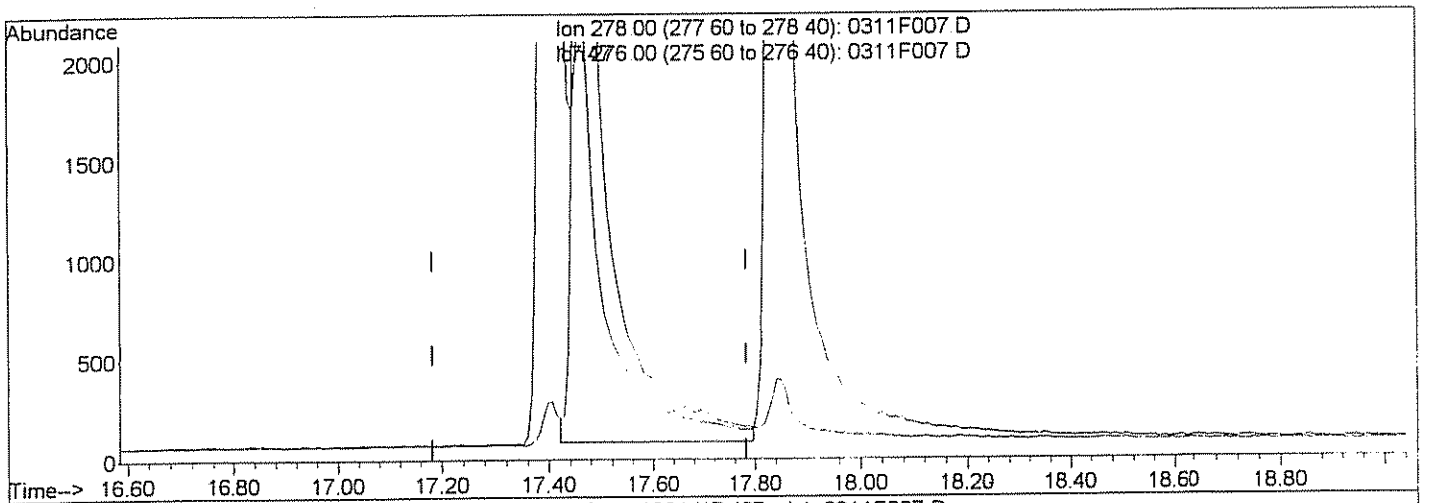
Ion	Exp%	Act%
278.00	100	100
276.00	25.30	32.18
0.00	0.00	0.00
0.00	0.00	0.00

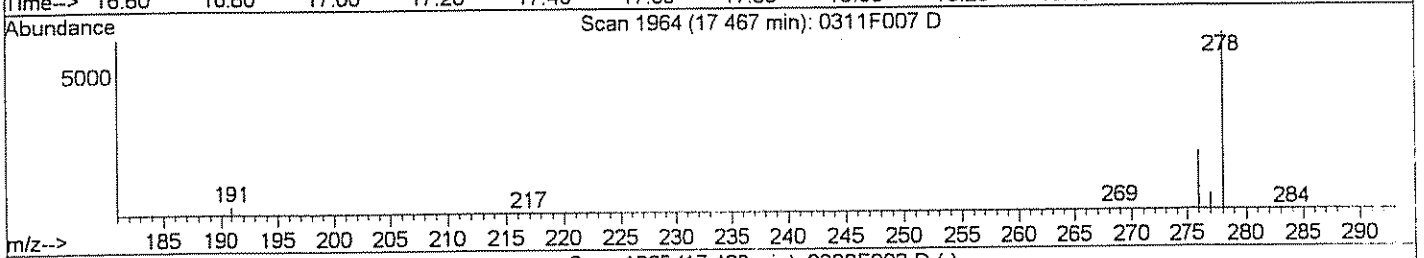
Quantitation Report (Qedit)

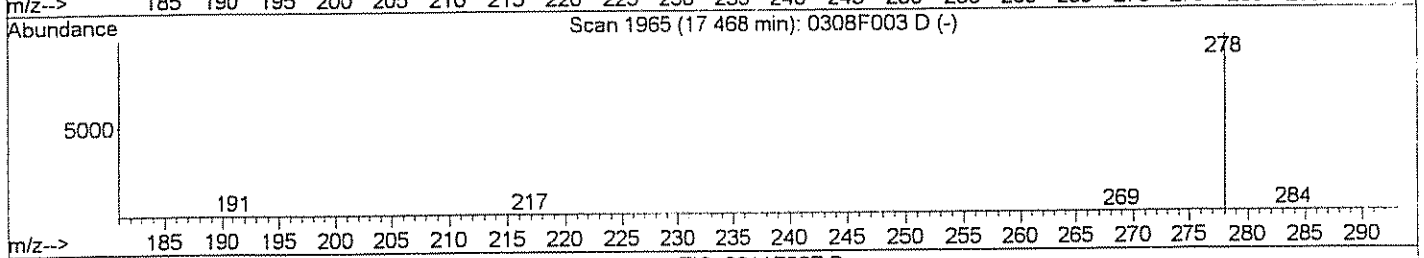
Data File : J:\MS11\DATA\031105\0311F007.D
Acq On : 11 Mar 2005 8:59 am
Sample : SIM-PAH ICAL @ 0.02/0.4ug/mL | SVM19-11C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 9:32 2005

Vial: 5
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 06:45:27 2005
Response via : Multiple Level Calibration







TIC: 0311F007.D

(56) Dibenz(a,h)anthracene (T)

17.47min 19.77ng/ml m

response 19832

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	34.34
0.00	0.00	0.00
0.00	0.00	0.00

0311F007.D 0310ALK.M Fri Mar 11 09:32:48 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F008.D Vial: 1
Acq On : 11 Mar 2005 9:53 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-11D Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:13:30 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 09:36:38 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	249141	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	190049	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	315002	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	272625	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	230246	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	128849	95.62	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 9.56%			
20) 2,4,6 Tribromophenol	7.15	330	20297	81.14	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 8.11%			
36) Fluoranthene-d10	8.72	212	201794	93.68	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.37%			
42) Terphenyl-d14	9.13	244	141640	91.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.12%			
Target Compounds						Qvalue
2) Naphthalene	5.07	128	138561	95.90	ng/ml	100
3) 2-Methylnaphthalene	5.63	142	117385	92.95	ng/ml	96
4) 1-Methylnaphthalene	5.71	142	105291	92.13	ng/ml	98
5) Biphenyl	6.00	154	144466	91.65	ng/ml	95
6) 2,6-Dimethylnaphthalene	6.13	156	103312	91.86	ng/ml	97
11) Acenaphthylene	6.36	152	183422	95.18	ng/ml	98
12) Acenaphthene	6.51	154	109218	96.02	ng/ml	92
13) Dibenzofuran	6.65	168	159750	96.15	ng/ml	87
14) 2,3,5-Trimethylnaphthalene	6.83	170	96747	95.04	ng/ml	99
16) Fluorene	6.93	166	129989	95.63	ng/ml	99
21) Pentachlorophenol	7.60	266	154561	580.44	ng/ml	97
23) Dibenzothiophene	7.63	184	166537	92.28	ng/ml	80
27) Phenanthrene	7.73	178	179777	89.41	ng/ml	99
28) Anthracene	7.77	178	167601	89.38	ng/ml	99
29) Carbazole	7.90	167	145179	90.30	ng/ml	97
30) 1-Methylphenanthrene	8.24	192	120249	89.97	ng/ml	99
35) Fluoranthene	8.74	202	184581	93.79	ng/ml	100
38) Pyrene	8.96	202	191666	97.54	ng/ml	99
43) Benz(a)anthracene	10.59	228	146101	79.15	ng/ml	98
44) Chrysene	10.66	228	156289	86.34	ng/ml	100
50) Benzo(b)fluoranthene	13.24	252	138632	84.42	ng/ml	99
51) Benzo(k)fluoranthene	13.32	252	140867	86.35	ng/ml	100
52) Benzo(e)pyrene	14.16	252	133254	86.16	ng/ml	99
53) Benzo(a)pyrene	14.34	252	120660	82.84	ng/ml	100
54) Perylene	14.66	252	127651	86.90	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F008.D Vial: 1
Acq On : 11 Mar 2005 9:53 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-11D Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:13:30 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 09:36:38 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

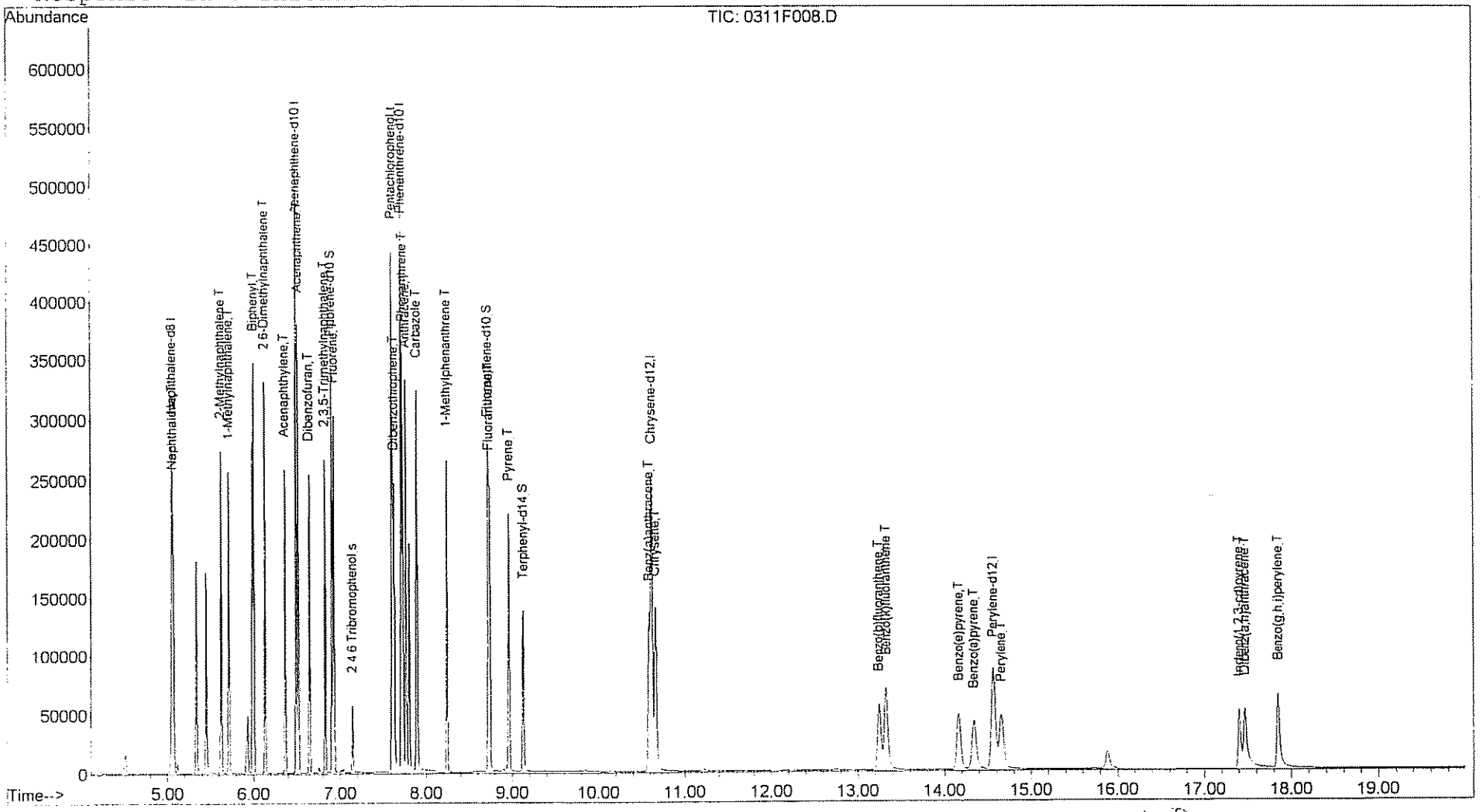
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.40	276	96350	76.51 ng/ml	99
56)	Dibenz(a,h)anthracene	17.47	278	110831m	83.65 ng/ml	
57)	Benzo(g,h,i)perylene	17.85	276	128653	85.03 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311F008.D Vial: 1
Acq On : 11 Mar 2005 9:53 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-1D Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:14 2005 Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 09:36:38 2005
Response via : Initial Calibration

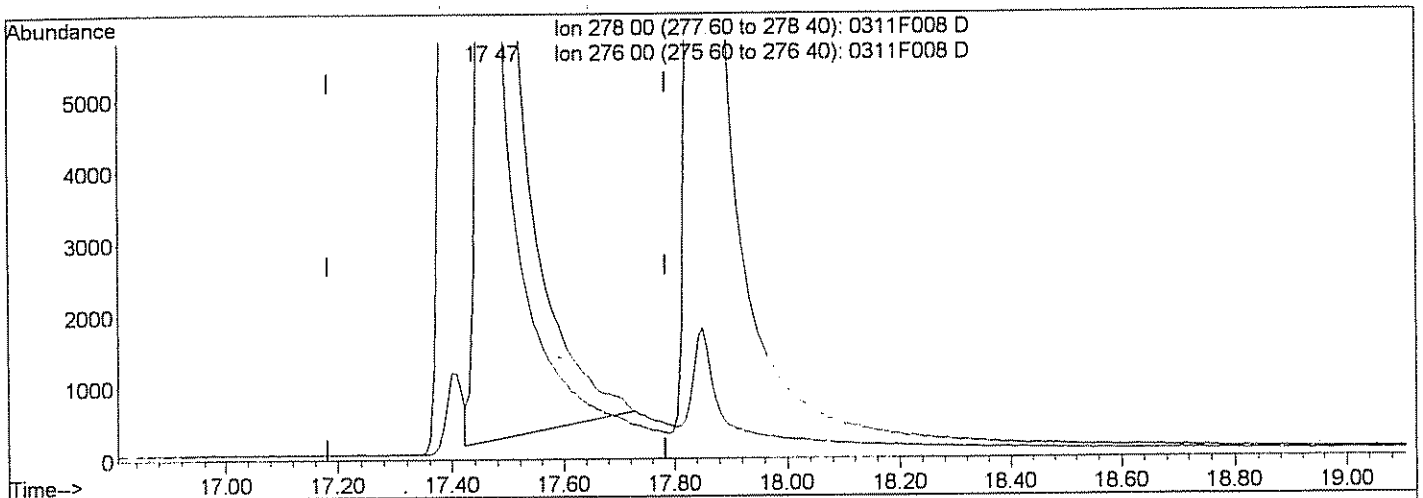


Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F008.D
Acq On : 11 Mar 2005 9:53 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-1D
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:13 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 09:36:38 2005
Response via : Multiple Level Calibration



(56) Dibenz(a.h)anthracene (T)

17 47min 77 56ng/ml

response 102763

Ion	Exp%	Act%
278 00	100	100
276 00	25 30	33 11
0 00	0 00	0 00
0 00	0 00	0 00

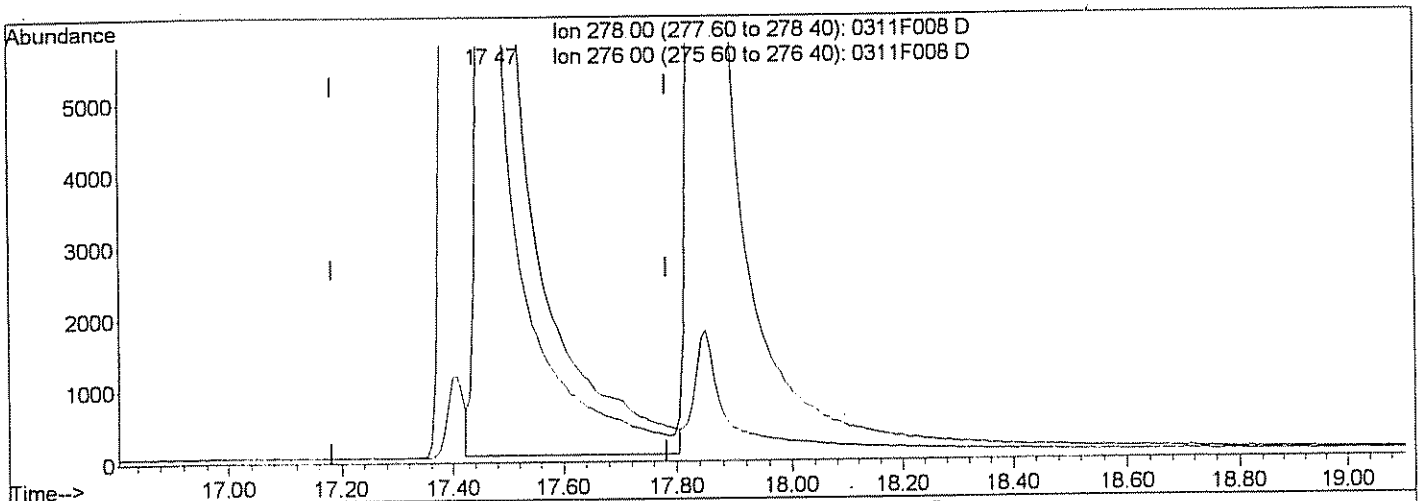
0311F008.D 0310ALK.M Fri Mar 11 10:14:16 2005

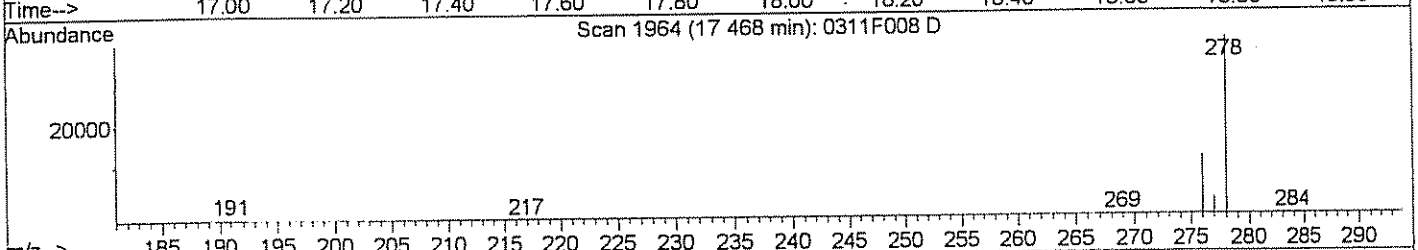
Quantitation Report (Qedit)

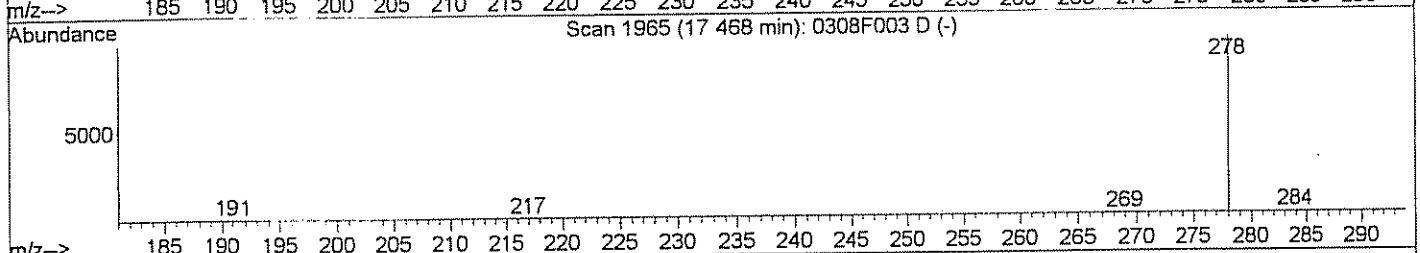
Data File : J:\MS11\DATA\031105\0311F008.D
Acq On : 11 Mar 2005 9:53 am
Sample : SIM-PAH ICAL @ 0.1/0.6ug/mL | SVM19-11D
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:14 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 09:36:38 2005
Response via : Multiple Level Calibration







TIC: 0311F008.D

(56) Dibenz(a,h)anthracene (T)

17.47min 83.65ng/ml m

response 110831

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	33.80
0.00	0.00	0.00
0.00	0.00	0.00

0311F008.D 0310ALK.M Fri Mar 11 10:14:25 2005

Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031105\0311F009.D Vial: 2
Acq On : 11 Mar 2005 10:20 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-~~1~~12E Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:40:24 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:15:03 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.05	136	245465	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	191170	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	322201	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	290333	200.00	ng/ml	-0.01
49) Perylene-d12	14.56	264	243506	200.00	ng/ml	-0.02
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	269692	199.94	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 19.99%			
20) 2,4,6 Tribromophenol	7.15	330	44746	181.63	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 18.16%			
36) Fluoranthene-d10	8.72	212	422550	193.13	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 19.31%			
42) Terphenyl-d14	9.13	244	296848	181.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 18.12%			

Target Compounds						Qvalue
2) Naphthalene	5.07	128	275002	194.06	ng/ml	98
3) 2-Methylnaphthalene	5.62	142	238849	193.48	ng/ml	99
4) 1-Methylnaphthalene	5.71	142	216138	193.64	ng/ml	98
5) Biphenyl	6.00	154	295980	192.37	ng/ml	98
6) 2,6-Dimethylnaphthalene	6.13	156	214458	195.31	ng/ml	100
11) Acenaphthylene	6.37	152	380633	197.42	ng/ml	99
12) Acenaphthene	6.52	154	226508	198.85	ng/ml	99
13) Dibenzofuran	6.65	168	328757	197.55	ng/ml	99
14) 2,3,5-Trimethylnaphthalene	6.83	170	202567	198.93	ng/ml	96
16) Fluorene	6.93	166	269373	197.97	ng/ml	100
21) Pentachlorophenol	7.60	266	219639	822.98	ng/ml	97
23) Dibenzothiophene	7.63	184	350565	191.55	ng/ml	77
27) Phenanthrene	7.73	178	369438	181.78	ng/ml	100
28) Anthracene	7.77	178	351166	185.27	ng/ml	99
29) Carbazole	7.90	167	300883	184.97	ng/ml	98
30) 1-Methylphenanthrene	8.24	192	253138	187.25	ng/ml	99
35) Fluoranthene	8.74	202	389753	195.13	ng/ml	100
38) Pyrene	8.96	202	401316	192.37	ng/ml	99
43) Benz(a)anthracene	10.59	228	315447	164.28	ng/ml	99
44) Chrysene	10.66	228	335479	176.71	ng/ml	100
50) Benzo(b)fluoranthene	13.25	252	293176	171.77	ng/ml	100
51) Benzo(k)fluoranthene	13.32	252	322781	189.97	ng/ml	100
52) Benzo(e)pyrene	14.16	252	292377	181.54	ng/ml	99
53) Benzo(a)pyrene	14.34	252	264584	175.10	ng/ml	99
54) Perylene	14.66	252	280744	183.38	ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031105\0311F009.D Vial: 2
Acq On : 11 Mar 2005 10:20 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-11E Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:40:24 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:15:03 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	210044	161.95 ng/ml	99
56)	Dibenz(a,h)anthracene	17.47	278	229158	166.57 ng/ml	85
57)	Benzo(g,h,i)perylene	17.85	276	279452	177.59 ng/ml	99

(#) = qualifier out of range (m) = manual integration

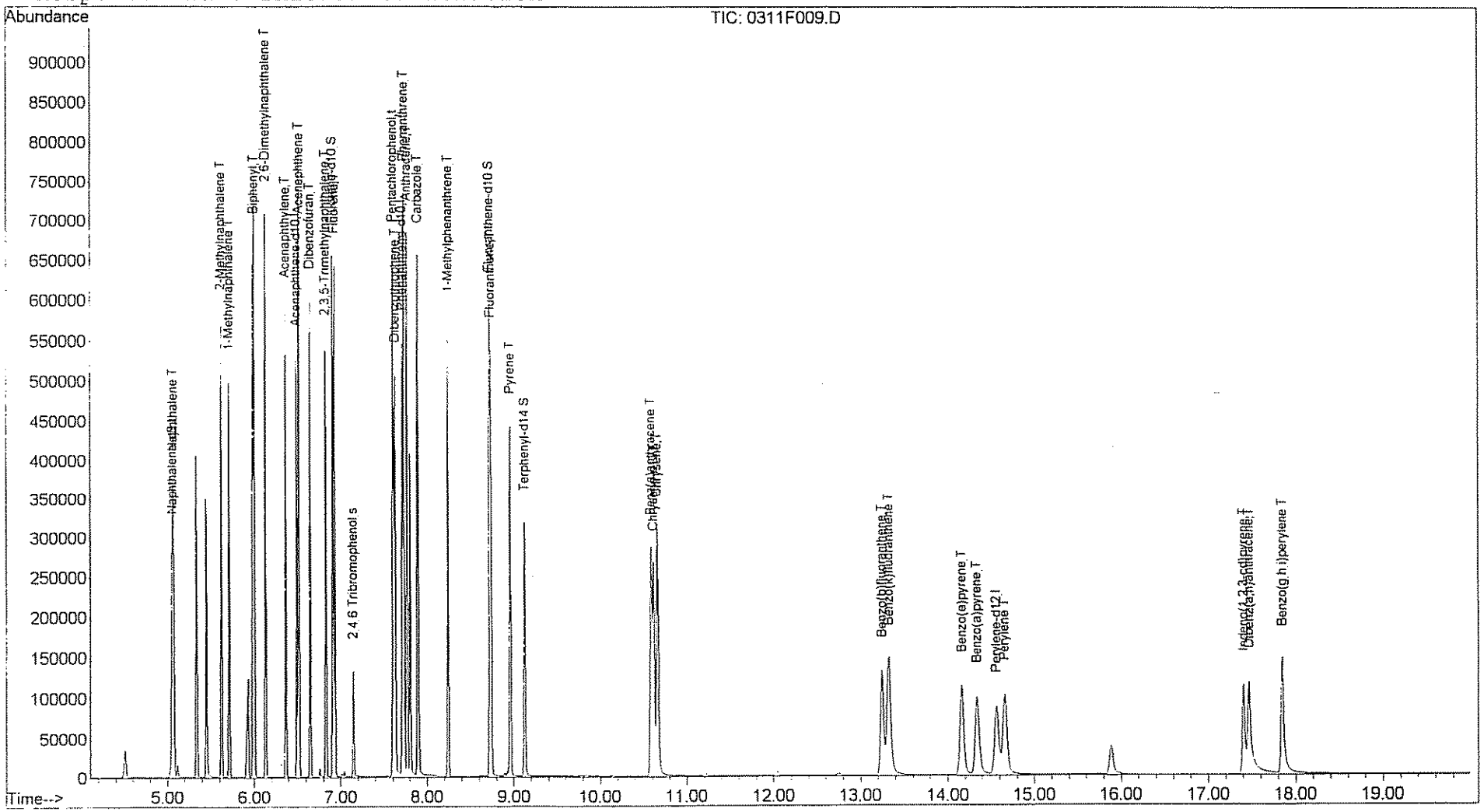
Quantitation Report (Not Reviewed)

Data File : J:\MS11\DATA\031105\0311F009.D
Acq On : 11 Mar 2005 10:20 am
Sample : SIM-PAH ICAL @ 0.2/0.8ug/mL | SVM19-11E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 10:40 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

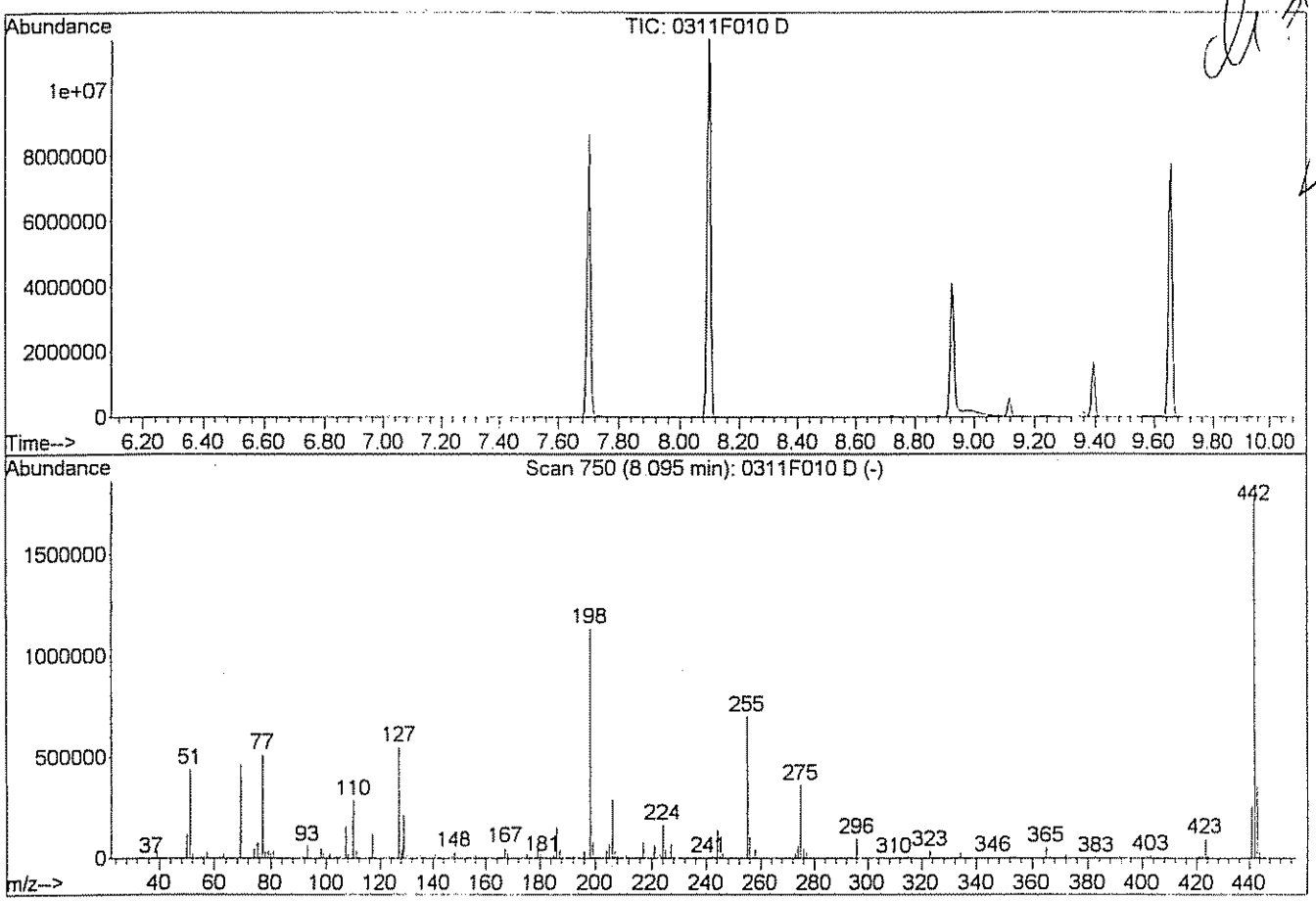
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration



DFTPP

Data File : J:\MS11\DATA\031105\0311F010.D Vial: 1
Acq On : 11 Mar 2005 10:47 am Operator: LWeiskopf
Sample : DFTPP @ 50ug/mL | SVM19-9C Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS



Spectrum Information: Scan 750

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	38.6	438080	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2619	PASS
127	198	10	80	48.6	550656	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	63.9	1133568	PASS
199	198	5	9	7.2	81528	PASS
275	198	10	60	31.8	360576	PASS
365	442	1	50	3.0	53256	PASS
441	443	0.01	100	72.1	258624	PASS
442	442	30	100	100.0	1774080	PASS
443	442	15	24	20.2	358912	PASS

0311F010.D DFTPPPAH.M Tue Mar 15 08:28:52 2005

Scan 750 (8.095 min): 0311F010 D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	630	55.10	2331	70.00	2619	83.10	8227
37.10	2379	56.10	13399	73.10	4025	84.10	863
38.10	6010	57.10	30224	74.10	49648	85.10	6974
39.10	35888	58.10	1352	75.10	77816	86.10	11141
40.10	2074	61.10	5984	76.10	28200	87.10	4974
41.10	1055	62.10	6684	77.10	513408	88.10	1914
45.10	909	63.10	19144	78.10	35000	89.10	830
50.10	119288	64.20	2586	79.10	37104	91.10	8951
51.10	438080	65.10	8707	80.10	27824	92.10	9548
52.10	23392	66.10	611	81.10	38312	93.10	60968
53.10	909	69.10	464896	82.10	9075	94.10	4391

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.10	908	108.10	24384	122.00	10975	134.00	6611
96.10	2500	110.00	286144	123.00	16052	135.10	18240
98.10	48872	111.10	44176	124.00	6923	136.00	7044
99.10	34616	112.10	5362	125.10	6909	137.10	8902
100.10	3348	113.00	1784	127.10	550656	138.00	1791
101.10	21112	116.10	9637	128.10	43608	139.00	1244
102.10	1103	117.00	125680	129.00	219968	140.10	2800
103.10	6586	118.00	8975	130.00	19408	141.00	28776
104.00	13140	119.00	1272	131.10	3512	142.10	9430
105.10	12391	120.00	2393	132.10	1954	143.00	6321
107.10	158528	121.00	780	132.80	942	144.10	1709

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.10	1433	157.10	4923	168.00	24880	179.00	41088
146.00	5322	158.00	5319	169.10	4628	180.00	27656
147.00	14714	159.00	4150	170.00	1986	181.00	12130
148.00	31888	160.00	9402	171.00	2568	182.00	2198
149.00	6527	161.00	12897	172.00	5374	183.00	1034
150.00	1656	162.00	3896	173.00	6683	184.00	3275
151.20	3505	163.20	965	174.00	11804	185.10	20320
153.00	8824	164.10	1563	175.10	22440	186.10	156352
154.00	6561	165.00	11138	176.10	6712	187.10	44264
155.10	15466	166.10	8399	177.00	10253	188.10	4969
156.10	23840	167.10	52984	178.10	3160	189.00	9886

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.00	2069	203.00	7350	217.00	79520	230.00	2056
191.10	4647	204.00	40192	218.00	9710	231.00	6255
192.00	13292	205.10	71896	219.00	790	232.10	1287
193.00	14617	206.10	289920	221.00	62112	233.00	1488
194.10	3349	207.10	38664	223.00	16952	234.00	4213
195.10	1752	208.00	10266	224.10	165504	235.00	5641
196.00	33832	209.00	3344	225.00	42984	236.00	3375
198.00	1133568	211.10	12163	226.00	5084	237.10	5505
199.00	81528	213.00	1045	227.00	72824	238.00	859
200.00	6170	215.00	3418	228.00	9940	239.10	2570
201.50	5404	216.10	6738	229.00	14260	240.10	2030

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
241.00	4009	252.00	1436	266.00	2974	282.00	667
242.10	9496	253.10	2620	270.00	1040	283.10	3284
243.10	10079	255.00	701568	271.00	1639	284.00	2339
244.10	140416	256.00	108368	272.10	1817	285.00	5397
245.10	17944	257.00	8920	273.00	23224	286.00	984
246.00	26648	258.00	42520	274.00	61232	289.00	1459
247.00	5794	259.00	6941	275.00	360576	290.00	1052
248.00	1430	260.00	1125	276.00	48008	291.10	650
249.00	5722	261.00	1474	277.00	28992	292.10	1350
250.00	978	263.90	1387	278.00	4788	293.00	6759
251.00	1264	265.00	16976	279.00	945	294.00	1978

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.00	97400	314.00	5043	328.10	3269	346.00	8693
297.00	13329	315.00	11461	329.00	647	347.00	1480
298.00	1003	316.00	7711	332.00	2522	351.00	786
301.00	1473	317.10	1085	333.00	3278	352.10	11840
302.00	1775	321.10	3996	334.10	23960	353.00	7705
303.00	12377	322.00	1761	335.00	6671	354.00	13520
304.10	3248	323.10	35960	336.10	834	355.10	2233
308.00	1384	324.10	6621	339.00	575	359.00	849
309.00	929	325.00	639	340.10	759	365.00	53256
310.00	1356	325.90	725	341.00	4442	366.00	7818
313.00	1108	327.00	5582	342.10	1224	367.00	732

Scan 750 (8.095 min): 0311F010.D
DFTPP @ 50ug/mL | SVM19-9C
Modified:subtracted

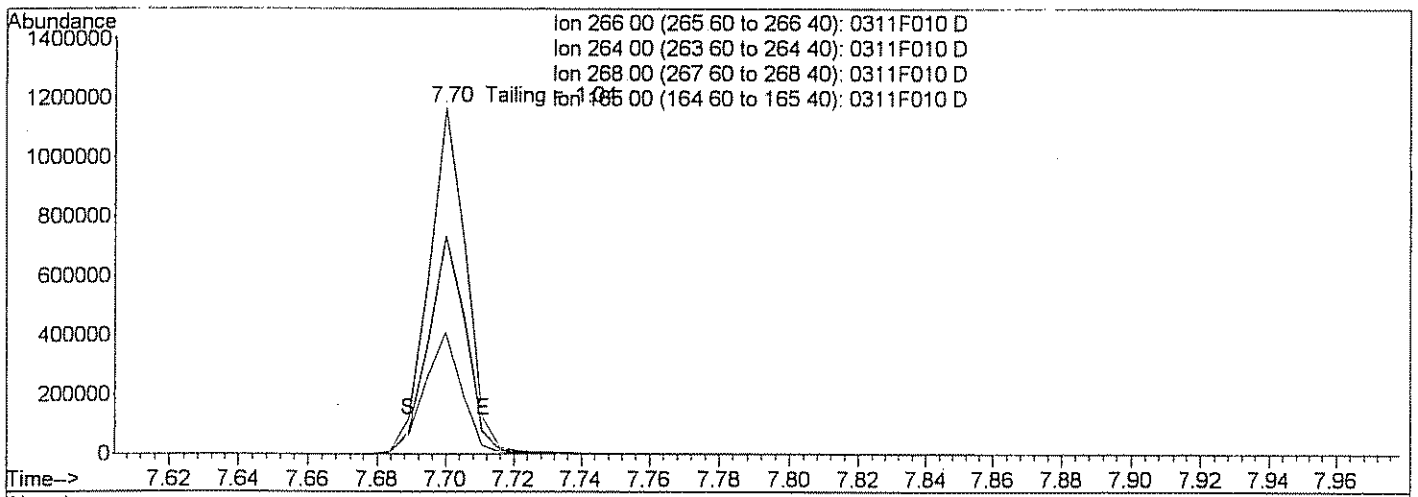
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.00	1277	401.10	1534	441.10	258624		
371.00	3057	402.10	10432	442.10	1774080		
372.00	22216	403.10	14604	443.10	358912		
373.10	5677	404.10	5473	444.10	33280		
374.00	650	405.00	751	445.00	1934		
377.00	554	415.10	790				
383.00	5641	421.00	13514				
384.00	2013	422.10	12479				
390.00	2935	423.10	96936				
391.00	2059	424.10	20656				
392.00	1935	425.00	1841				

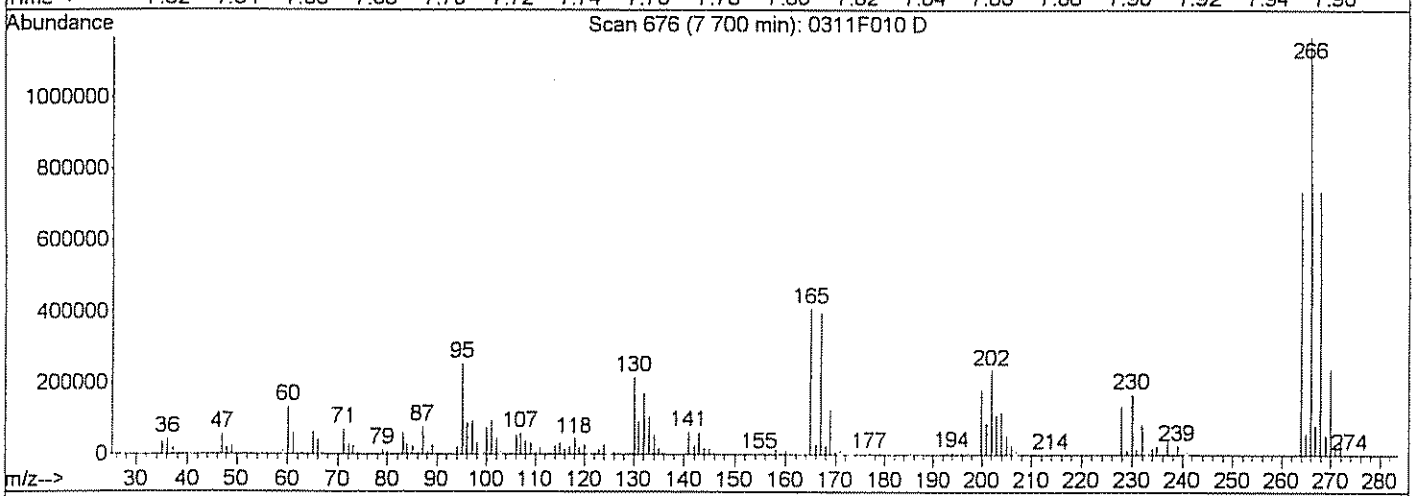
Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311F010.D
Acq On : 11 Mar 2005 10:47 am
Sample : DFTPP @ 50ug/mL | SVM19-9C
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 11 11:08 2005

Vial: 1
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\DFTPPPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Oct 12 13:33:42 2004
Response via : Single Level Calibration





TIC: 0311F010 D

(1) Pentachlorophenol

6 94min 0 00ng/ml

response 0

Ion	Exp%	Act%
266 00	100	0 00
264 00	64 50	0 00#
268 00	63 70	0 00#
165 00	28 70	0 00

0311F010.D DFTPPPAH.M Tue Mar 15 08:29:06 2005

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311G011.D Vial: 2
Acq On : 11 Mar 2005 11:05 am Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 08:32:47 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	235316	200.00	ng/ml	-0.02
10) Acenaphthene-d10	6.49	164	184121	200.00	ng/ml	-0.01
22) Phenanthrene-d10	7.71	188	292551	200.00	ng/ml	0.00
37) Chrysene-d12	10.62	240	260695	200.00	ng/ml	0.00
49) Perylene-d12	14.57	264	216413	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	268329	206.55	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.66%			
20) 2,4,6 Tribromophenol	7.15	330	47706	202.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.29%			
36) Fluoranthene-d10	8.72	212	419996	212.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 21.22%			
42) Terphenyl-d14	9.13	244	302927	207.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.78%			

Target Compounds						Qvalue
2) Naphthalene	5.07	128	262700	193.95	ng/ml	100
3) 2-Methylnaphthalene	5.63	142	222235	188.40	ng/ml	96
4) 1-Methylnaphthalene	5.71	142	214390	201.00	ng/ml	97
5) Biphenyl	6.00	154	287700	195.80	ng/ml	98
6) 2,6-Dimethylnaphthalene	6.13	156	207033	197.14	ng/ml	99
11) Acenaphthylene	6.37	152	358315	193.21	ng/ml	99
12) Acenaphthene	6.52	154	213638	194.84	ng/ml	100
13) Dibenzofuran	6.65	168	320632	200.29	ng/ml	96
14) 2,3,5-Trimethylnaphthalene	6.83	170	195383	199.32	ng/ml	83
16) Fluorene	6.93	166	258046	197.10	ng/ml	97
21) Pentachlorophenol	7.61	266	255647	991.72	ng/ml	90
23) Dibenzothiophene	7.63	184	347807	210.19	ng/ml	80
27) Phenanthrene	7.73	178	368716	201.65	ng/ml	100
28) Anthracene	7.77	178	353469m	206.91	ng/ml	
29) Carbazole	7.90	167	302273	206.20	ng/ml	97
30) 1-Methylphenanthrene	8.24	192	249244	204.36	ng/ml	93
35) Fluoranthene	8.74	202	380455	210.35	ng/ml	98
38) Pyrene	8.96	202	390139	209.16	ng/ml	97
43) Benz(a)anthracene	10.59	228	311949	184.22	ng/ml	99
44) Chrysene	10.67	228	330533	196.18	ng/ml	99
50) Benzo(b)fluoranthene	13.26	252	296269	198.11	ng/ml	100
51) Benzo(k)fluoranthene	13.33	252	310705	206.79	ng/ml	99
52) Benzo(e)pyrene	14.17	252	293741	207.13	ng/ml	100
53) Benzo(a)pyrene	14.35	252	262235	197.73	ng/ml	100
54) Perylene	14.67	252	286820	212.57	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311G011.D Vial: 2
Acq On : 11 Mar 2005 11:05 am Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 08:32:47 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

3/11/05

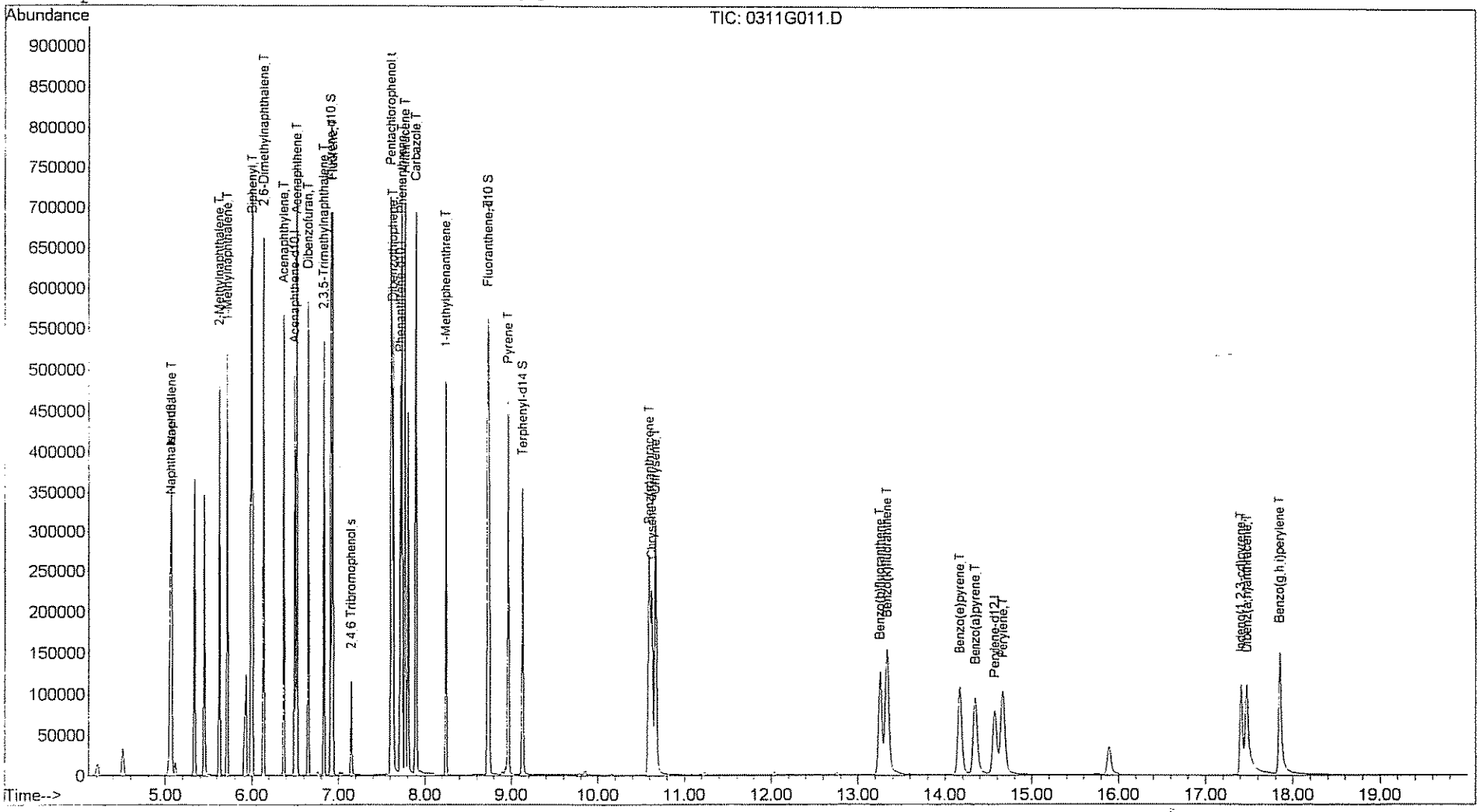
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	201017	177.77 ng/ml	100
56)	Dibenz(a,h)anthracene	17.48	278	224201	186.49 ng/ml	86
57)	Benzo(g,h,i)perylene	17.85	276	276699	200.09 ng/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031105\0311G011.D Vial: 2
Acq On : 11 Mar 2005 11:05 am Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 8:33 2005 Quant Results File: 0310ALK.RES

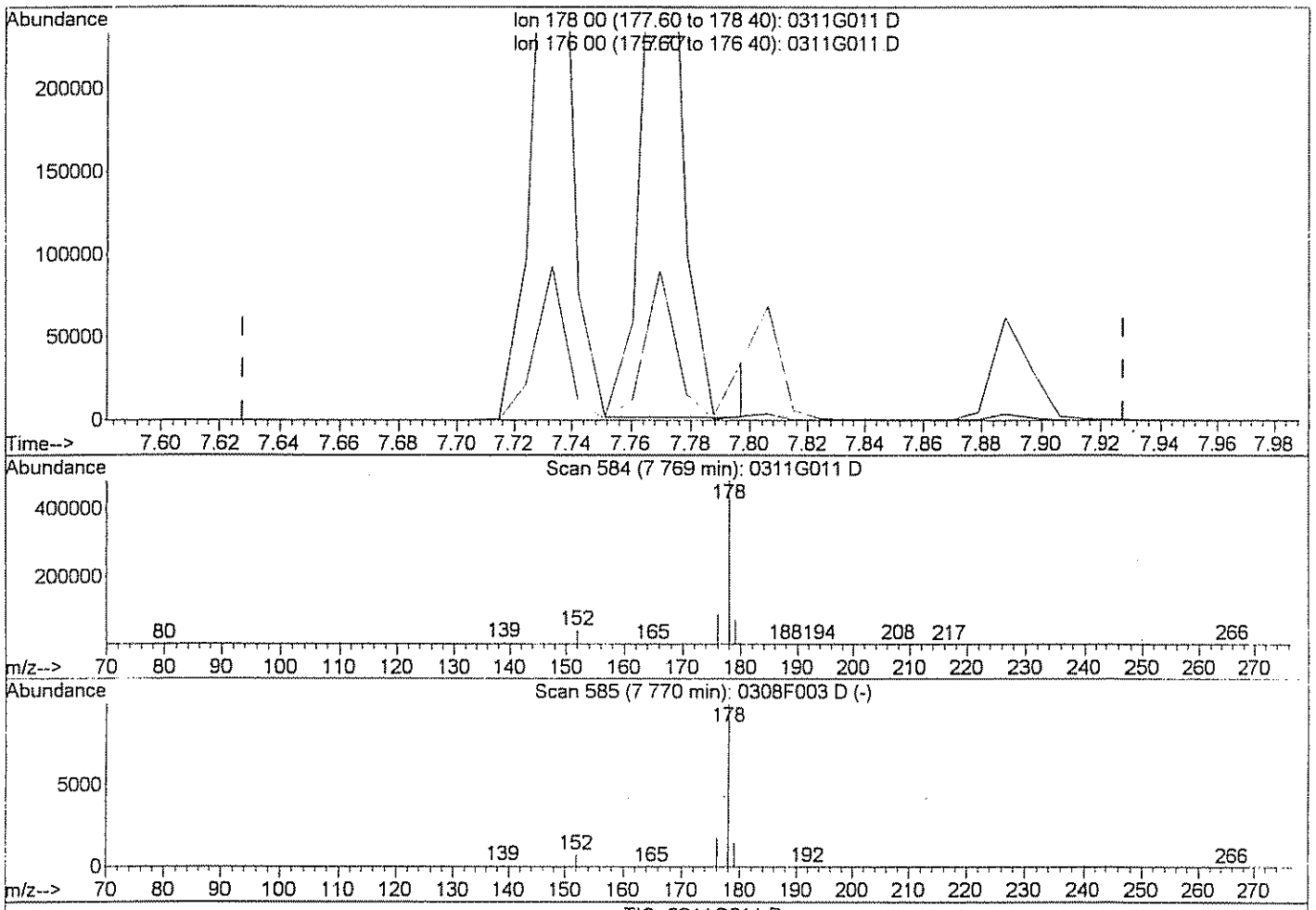
Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\MS11\DATA\031105\0311G011.D Vial: 2
Acq On : 11 Mar 2005 11:05 am Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 15 8:32 2005 Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Multiple Level Calibration



(28) Anthracene (T)

7 77min 214 88ng/ml

response 367087

Ion	Exp%	Act%
178.00	100	100
176 00	17 70	18 58
0 00	0 00	0 00
0.00	0 00	0 00

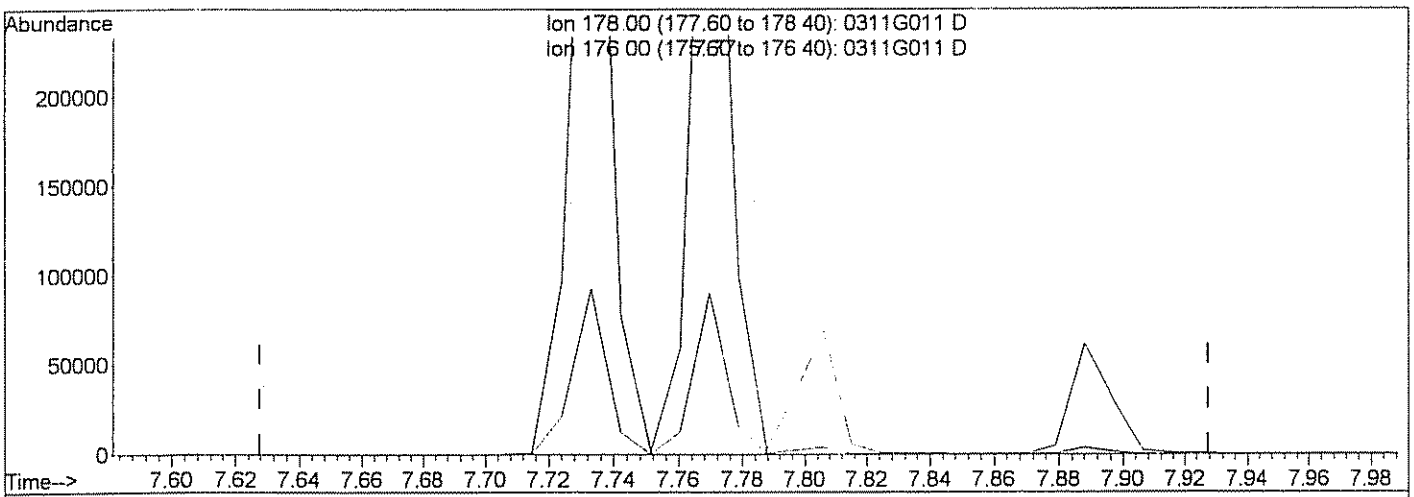
0311G011.D 0310ALK.M Tue Mar 15 08:33:06 2005

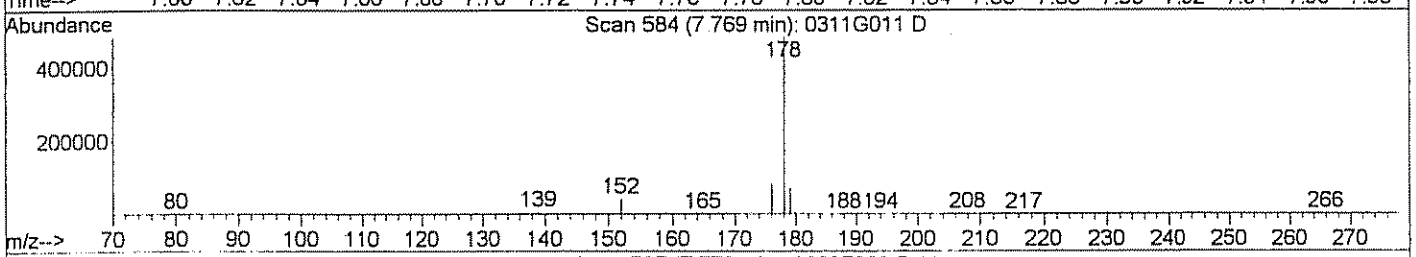
Quantitation Report (Qedit)

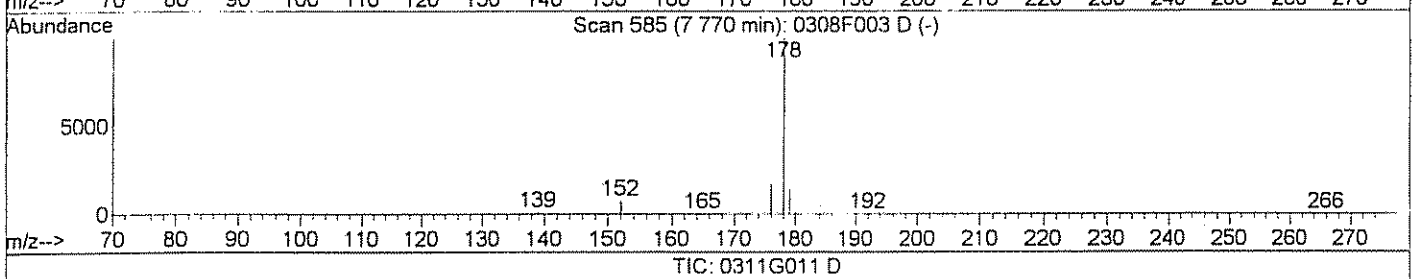
Data File : J:\MS11\DATA\031105\0311G011.D
Acq On : 11 Mar 2005 11:05 am
Sample : SIM-PAH ICV @ 0.2/1.0ug/mL | SVM19-10L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 15 8:33 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Multiple Level Calibration







TIC: 0311G011.D

(28) Anthracene (T)

7.77min 206.91ng/ml m

response 353469

Ion	Exp%	Act%
178.00	100	100
176.00	17.70	18.59
0.00	0.00	0.00
0.00	0.00	0.00

0311G011.D 0310ALK.M Tue Mar 15 08:33:10 2005

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/15/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504292
Units: ng/ml

File ID: J:\MS11\DATA\031505\0315F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	0.01	1.15	1.10	-5	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.956	-5	NA	± 20 %	AverageRF
Acenaphthylene	200	200	0.01	2.01	1.98	-2	NA	± 20 %	AverageRF
Acenaphthene	200	200	0.01	1.19	1.18	-1	NA	± 20 %	AverageRF
Dibenzofuran	200	200	0.01	1.74	1.74	0	NA	± 20 %	AverageRF
Fluorene	200	200	0.01	1.42	1.41	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	0.01	1.25	1.25	0	NA	± 20 %	AverageRF
Anthracene	200	210	0.01	1.17	1.22	5	NA	± 20 %	AverageRF
Fluoranthene	200	220	0.01	1.24	1.34	8	NA	± 20 %	AverageRF
Pyrene	200	200	0.01	1.43	1.46	2	NA	± 20 %	AverageRF
Benz(a)anthracene	200	200	0.01	1.30	1.27	-2	NA	± 20 %	AverageRF
Chrysene	200	190	0.01	1.29	1.25	-3	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.36	-2	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	0.01	1.39	1.38	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.09	4	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.11	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.32	3	NA	± 20 %	AverageRF
Fluorene-d10	200	200	0.01	1.41	1.44	2	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.49	10	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.15	3	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Exception Report

Data File: J:\MS11\DATA\031505\0315F002 D
Lab ID: KWG0504292-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/15/2005 07:04
Date Quantitated: 03/15/2005 07:22
Batch ID: KWG0504292
Analysis Method: 8270C SIM
MethodJoinID: MJ138

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	2,4,6-Tribromophenol	Calc	0 00	207 13	NT
	Pentachlorophenol	Calc	0 00	926 63	—

Primary Review: 3/17/05

Secondary Review: 3/17/5

Printed: 03/17/2005 10:14:26
u \Stealth\Crystal rpt\except2 rpt

Quantitation Report

Bottle ID:		Tier:		Matrix:	WATER
Prod Code:	SIM-PAH	Collect Date:		Receive Date:	03/17/2005

Analysis Lot:	KWG0504292	Prep Lot:		Report Group:	
Analysis Method:	8270C SIM	Prep Method:			
Prep Ref:		Prep Date:			

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	Calibration ID:	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031505\0315F001 D	Method ID:	MJ532
MB Ref:		Quant based on Method	

Data File:	J:\MS11\DATA\031505\0315F002 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:04	Quant Date:	03/15/2005 07:22	Vial:	2
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504292-2			Soln Conc Units:	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 01	136	211050	200 00	OK
2	Acenaphthene-d10	6 50	0 01	164	167917	200 00	OK
3	Phenanthrene-d10	7 71	0 00	188	265653	200 00	OK
4	Chrysene-d12	10 63	0 01	240	246310	200 00	OK
5	Perylene-d12	14 59	0 03	264	229170	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 91			176	242378	204 58		37-107	NA
3	Fluoranthene-d10	8 73			212	396563	220 60		18-137	NA
4	Terphenyl-d14	9 13			244	284373	206 51		18-153	NA

Final Conc. Units: ug/L

Target Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 07			128	231846	190 85			
1	2-Methylnaphthalene	5 62			142	201832	190 77			
1	1-Methylnaphthalene	5 72			142	193397	202 16			
1	Biphenyl	6 00			154	262893	199 49			
1	2,6-Dimethylnaphthalene	6 13			156	191070	202 86			
2	Acenaphthylene	6 37			152	332940	196 85			
2	Acenaphthene	6 52			154	197977	197 98			
2	Dibenzofuran	6 65			168	292453	200 32			
2	2,3,5-Trimethylnaphthalene	6 83			170	184301	206 16			
2	Fluorene	6 93			166	237292	198 74			
3	Dibenzothiophene	7 63			184	310537	206 67			
3	Phenanthrene	7 73			178	331498	199 65			
3	Anthracene	7 77			178	325364	209 75			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

* Result fails acceptance criteria
#: Acceptance criteria not applicable
? Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031505\0315F002 D			Instrument:	MS11
Acqu Date:	03/15/2005 07:04	Quant Date:	03/15/2005 07:22	Vial:	2
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504292-2			Soln Conc Units:	ng/ml

Target Compounds Final Conc Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 91			167	277088	208 16			
3	1-Methylphenanthrene	8 25			192	237400	214 35			
3	Fluoranthene	8 75			202	355076	216 20			
4	Pyrene	8 96			202	359099	203 76			
4	Benz(a)anthracene	10 60			228	313188	195 75			
4	Chrysene	10 67			228	307539	193 20			
5	Benzo(b)fluoranthene	13 28			252	311682	196 82			
5	Benzo(k)fluoranthene	13 35			252	316683	199 04			
5	Benzo(e)pyrene	14 19			252	313724	208 90			
5	Benzo(a)pyrene	14 37			252	275427	196 12			
5	Perylene	14 69			252	297409	208 15			
5	Indeno(1,2,3-cd)pyrene	17 41			276	249968	208 76			
5	Dibenz(a,h)anthracene	17 48			278	254433	199 85			
5	Benzo(g,h,i)perylene	17 87			276	302858	206 82			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
e: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F002.D
Acq On : 15 Mar 2005 7:04 am
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 15 07:22:50 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	211050	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	167917	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.71	188	265653	200.00	ng/ml	0.00
37) Chrysene-d12	10.63	240	246310	200.00	ng/ml	0.00
49) Perylene-d12	14.59	264	229170	200.00	ng/ml	0.01
System Monitoring Compounds						
15) Fluorene-d10	6.91	176	242378	204.58	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.46%			
20) 2,4,6 Tribromophenol	7.15	330	44410	207.13	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.71%			
36) Fluoranthene-d10	8.73	212	396563	220.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 22.06%			
42) Terphenyl-d14	9.13	244	284373	206.51	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.65%			
Target Compounds						Qvalue
2) Naphthalene	5.07	128	231846	190.85	ng/ml	100
3) 2-Methylnaphthalene	5.62	142	201832	190.77	ng/ml	96
4) 1-Methylnaphthalene	5.72	142	193397	202.16	ng/ml	93
5) Biphenyl	6.00	154	262893	199.49	ng/ml	100
6) 2,6-Dimethylnaphthalene	6.13	156	191070	202.86	ng/ml	98
11) Acenaphthylene	6.37	152	332940	196.85	ng/ml	99
12) Acenaphthene	6.52	154	197977	197.98	ng/ml	96
13) Dibenzofuran	6.65	168	292453	200.32	ng/ml	77
14) 2,3,5-Trimethylnaphthalene	6.83	170	184301	206.16	ng/ml	68
16) Fluorene	6.93	166	237292	198.74	ng/ml	93
21) Pentachlorophenol	7.61	266	217845	926.63	ng/ml	98
23) Dibenzothiophene	7.63	184	310537	206.67	ng/ml	87
27) Phenanthrene	7.73	178	331498	199.65	ng/ml	97
28) Anthracene	7.77	178	325364	209.75	ng/ml	96
29) Carbazole	7.91	167	277088	208.16	ng/ml	98
30) 1-Methylphenanthrene	8.25	192	237400	214.35	ng/ml	98
35) Fluoranthene	8.75	202	355076	216.20	ng/ml	93
38) Pyrene	8.96	202	359099	203.76	ng/ml	93
43) Benz(a)anthracene	10.60	228	313188	195.75	ng/ml	97
44) Chrysene	10.67	228	307539	193.20	ng/ml	100
50) Benzo(b)fluoranthene	13.28	252	311682	196.82	ng/ml	99
51) Benzo(k)fluoranthene	13.35	252	316683	199.04	ng/ml	99
52) Benzo(e)pyrene	14.19	252	313724	208.90	ng/ml	100
53) Benzo(a)pyrene	14.37	252	275427	196.12	ng/ml	99
54) Perylene	14.69	252	297409	208.15	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F002.D
Acq On : 15 Mar 2005 7:04 am
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 15 07:22:50 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Mar 11 10:41:15 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.41	276	249968	208.76 ng/ml	100
56)	Dibenz(a,h)anthracene	17.48	278	254433	199.85 ng/ml	98
57)	Benzo(g,h,i)perylene	17.87	276	302858	206.82 ng/ml	99

(#) = qualifier out of range (m) = manual integration

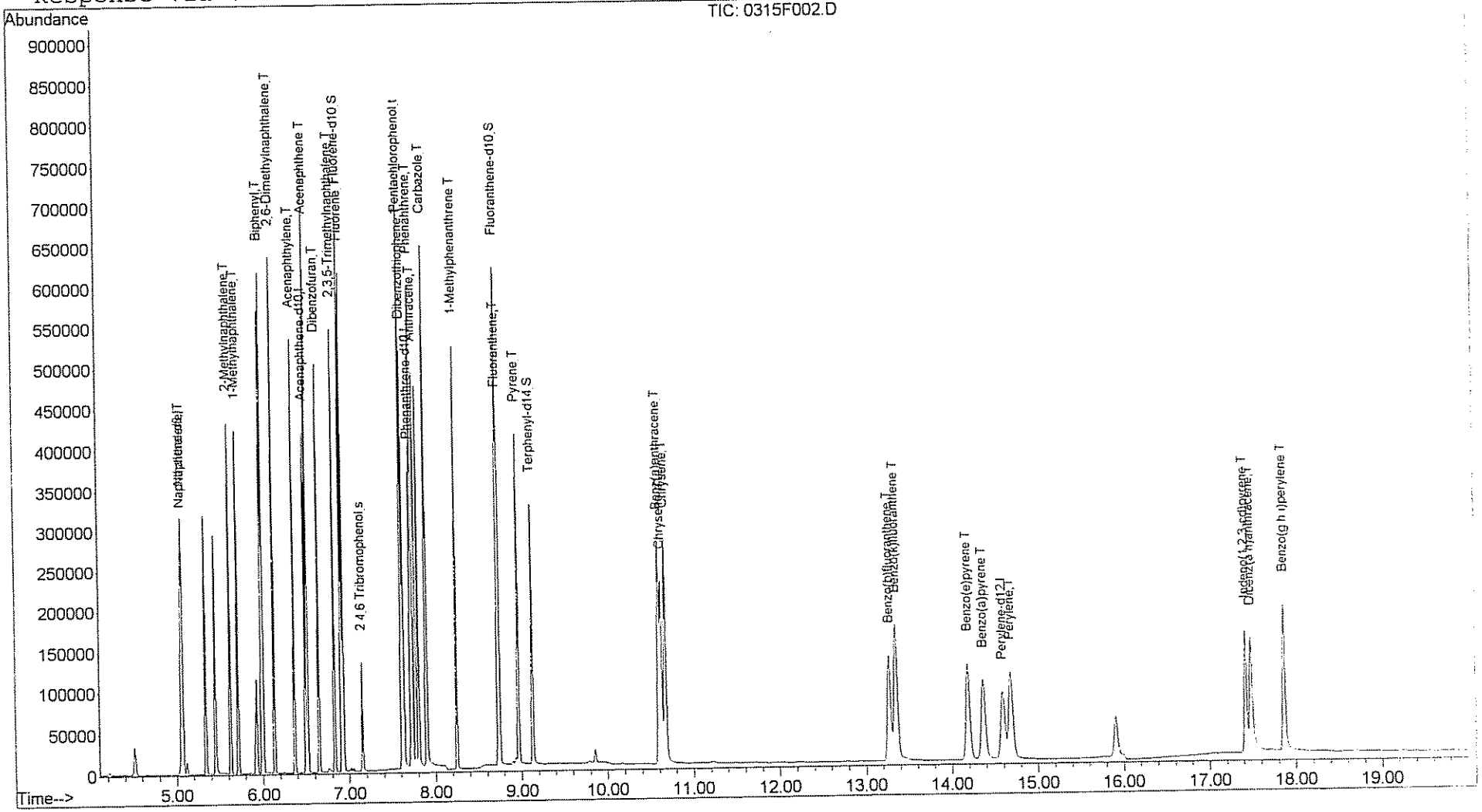
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031505\0315F002.D
Acq On : 15 Mar 2005 7:04 am
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 15 7:22 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 07:19:27 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/16/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504293
Units: ng/ml

File ID: J:\MS11\DATA\031605\0316F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	190	0.01	1.15	1.10	-4	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.952	-5	NA	± 20 %	AverageRF
Acenaphthylene	200	200	0.01	2.01	1.99	-1	NA	± 20 %	AverageRF
Acenaphthene	200	200	0.01	1.19	1.17	-2	NA	± 20 %	AverageRF
Dibenzofuran	200	200	0.01	1.74	1.71	-2	NA	± 20 %	AverageRF
Fluorene	200	200	0.01	1.42	1.41	-1	NA	± 20 %	AverageRF
Phenanthrene	200	200	0.01	1.25	1.24	-1	NA	± 20 %	AverageRF
Anthracene	200	220	0.01	1.17	1.27	9	NA	± 20 %	AverageRF
Fluoranthene	200	220	0.01	1.24	1.37	11	NA	± 20 %	AverageRF
Pyrene	200	210	0.01	1.43	1.50	5	NA	± 20 %	AverageRF
Benz(a)anthracene	200	200	0.01	1.30	1.29	-1	NA	± 20 %	AverageRF
Chrysene	200	200	0.01	1.29	1.26	-2	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.39	1	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	190	0.01	1.39	1.34	-4	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.11	6	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.11	0	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.34	5	NA	± 20 %	AverageRF
Fluorene-d10	200	200	0.01	1.41	1.44	2	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.50	11	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.17	4	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

Exception Report

Data File: J:\MS11\DATA\031605\0316F002 D
Lab ID: KWG0504293-2
RunType: CCV
Matrix: WATER

Date Acquired: 03/16/2005 07:03
Date Quantitated: 03/16/2005 07:31
Batch ID: KWG0504293
Analysis Method: 8270C SIM
MethodJoinID: MJ138

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	2,4,6-Tribromophenol	Calc	0 00	212 89	N,T
	Pentachlorophenol	Calc	0 00	965 75	—

Primary Review: 03/17/15

Secondary Review: 3/17/15

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/17/2005

Analysis Lot:	KWG0504293	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	**Calibration ID:**	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031605\0316F001 D	**Method ID:**	MJ532
MB Ref:		**Quant based on Method**	

Data File:	J:\MS11\DATA\031605\0316F002 D			**Instrument:**	MS11
Acqu Date:	03/16/2005 07:03	**Quant Date:**	03/16/2005 07:31	**Vial:**	2
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0504293-2			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 06	0 01	136	211488	200 00	OK
2	Acenaphthene-d10	6 50	0 01	164	166555	200 00	OK
3	Phenanthrene-d10	7 72	0 01	188	263269	200 00	OK
4	Chrysene-d12	10 64	0 02	240	243898	200 00	OK
5	Perylene-d12	14 62	0 06	264	235707	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 92			176	239193	203 54		37-107	NA
3	Fluoranthene-d10	8 74			212	394294	221 32		18-137	NA
4	Terphenyl-d14	9 13			244	284177	208 40		18-153	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 08			128	232947	191 36			
1	2-Methylnaphthalene	5 63			142	201392	189 96			
1	1-Methylnaphthalene	5 72			142	192214	200 51			
1	Biphenyl	6 02			154	258665	195 87			
1	2,6-Dimethylnaphthalene	6 14			156	190345	201 68			
2	Acenaphthylene	6 37			152	331400	197 54			
2	Acenaphthene	6 53			154	194674	196 27			
2	Dibenzofuran	6 66			168	284074	196 17			
2	2,3,5-Trimethylnaphthalene	6 84			170	182924	206 29			
2	Fluorene	6 94			166	234937	198 38			
3	Dibenzothiophene	7 64			184	301941	202 77			
3	Phenanthrene	7 74			178	326788	198 59			
3	Anthracene	7 78			178	334481	217 58			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031605\0316F002 D			**Instrument:**	MS11
Acqu Date:	03/16/2005 07:03	**Quant Date:**	03/16/2005 07:31	**Vial:**	2
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0504293-2			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RI Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 91			167	271959	206 16			
3	1-Methylphenanthrene	8 25			192	233314	212 57			
3	Fluoranthene	8 75			202	361363	222 02			
4	Pyrene	8 98			202	365572	209 48			
4	Benz(a)anthracene	10 61			228	314824	198 72			
4	Chrysene	10 69			228	307694	195 20			
5	Benzo(b)fluoranthene	13 29			252	328175	201 49			
5	Benzo(k)fluoranthene	13 37			252	315596	192 85			
5	Benzo(e)pyrene	14 21			252	322118	208 54			
5	Benzo(a)pyrene	14 39			252	282971	195 90			
5	Perylene	14 71			252	306189	208 35			
5	Indeno(1,2,3-cd)pyrene	17 43			276	260637	211 63			
5	Dibenz(a,h)anthracene	17 50			278	260917	199 26			
5	Benzo(g,h,i)perylene	17 88			276	315246	209 31			

U Undetected at or above MDL
J Analyte detected above MDL but below MRL
B Hit above MRL also found in Method Blank
E Analyte concentration above high point of ICAL
N Presumptive evidence of compound

D Result from dilution
m Manual integration performed
d Compound manually deleted
NR Analyte not reported from this analysis

* Result fails acceptance criteria
# Acceptance criteria not applicable
? Insufficient information to determine acceptance
e Result >= MRL, but MRL less than low point of ICAL
c check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F002.D Vial: 2
Acq On : 16 Mar 2005 7:03 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 07:31:04 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 15 08:44:42 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.06	136	211488	200.00	ng/ml	-0.01
10) Acenaphthene-d10	6.50	164	166555	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.72	188	263269	200.00	ng/ml	0.00
37) Chrysene-d12	10.64	240	243898	200.00	ng/ml	0.01
49) Perylene-d12	14.62	264	235707	200.00	ng/ml	0.04
System Monitoring Compounds						
15) Fluorene-d10	6.92	176	239193	203.54	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.35%			
20) 2,4,6 Tribromophenol	7.16	330	45275	212.89	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 21.29%			
36) Fluoranthene-d10	8.74	212	394294	221.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 22.13%			
42) Terphenyl-d14	9.13	244	284177	208.40	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.84%			
Target Compounds						Qvalue
2) Naphthalene	5.08	128	232947	191.36	ng/ml	99
3) 2-Methylnaphthalene	5.63	142	201392	189.96	ng/ml	99
4) 1-Methylnaphthalene	5.72	142	192214	200.51	ng/ml	99
5) Biphenyl	6.02	154	258665	195.87	ng/ml	94
6) 2,6-Dimethylnaphthalene	6.14	156	190345	201.68	ng/ml	98
11) Acenaphthylene	6.37	152	331400	197.54	ng/ml	98
12) Acenaphthene	6.53	154	194674	196.27	ng/ml	94
13) Dibenzofuran	6.66	168	284074	196.17	ng/ml	84
14) 2,3,5-Trimethylnaphthalene	6.84	170	182924	206.29	ng/ml	65
16) Fluorene	6.94	166	234937	198.38	ng/ml	93
21) Pentachlorophenol	7.62	266	225200	965.75	ng/ml	92
23) Dibenzothiophene	7.64	184	301941	202.77	ng/ml	79
27) Phenanthrene	7.74	178	326788	198.59	ng/ml	100
28) Anthracene	7.78	178	334481	217.58	ng/ml	99
29) Carbazole	7.91	167	271959	206.16	ng/ml	92
30) 1-Methylphenanthrene	8.25	192	233314	212.57	ng/ml	99
35) Fluoranthene	8.75	202	361363	222.02	ng/ml	94
38) Pyrene	8.98	202	365572	209.48	ng/ml	96
43) Benz(a)anthracene	10.61	228	314824	198.72	ng/ml	99
44) Chrysene	10.69	228	307694	195.20	ng/ml	99
50) Benzo(b)fluoranthene	13.29	252	328175	201.49	ng/ml	99
51) Benzo(k)fluoranthene	13.37	252	315596	192.85	ng/ml	100
52) Benzo(e)pyrene	14.21	252	322118	208.54	ng/ml	100
53) Benzo(a)pyrene	14.39	252	282971	195.90	ng/ml	100
54) Perylene	14.71	252	306189	208.35	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F002.D Vial: 2
Acq On : 16 Mar 2005 7:03 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 16 07:31:04 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 15 08:44:42 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.43	276	260637	211.63 ng/ml	100
56)	Dibenz(a,h)anthracene	17.50	278	260917	199.26 ng/ml	99
57)	Benzo(g,h,i)perylene	17.88	276	315246	209.31 ng/ml	100

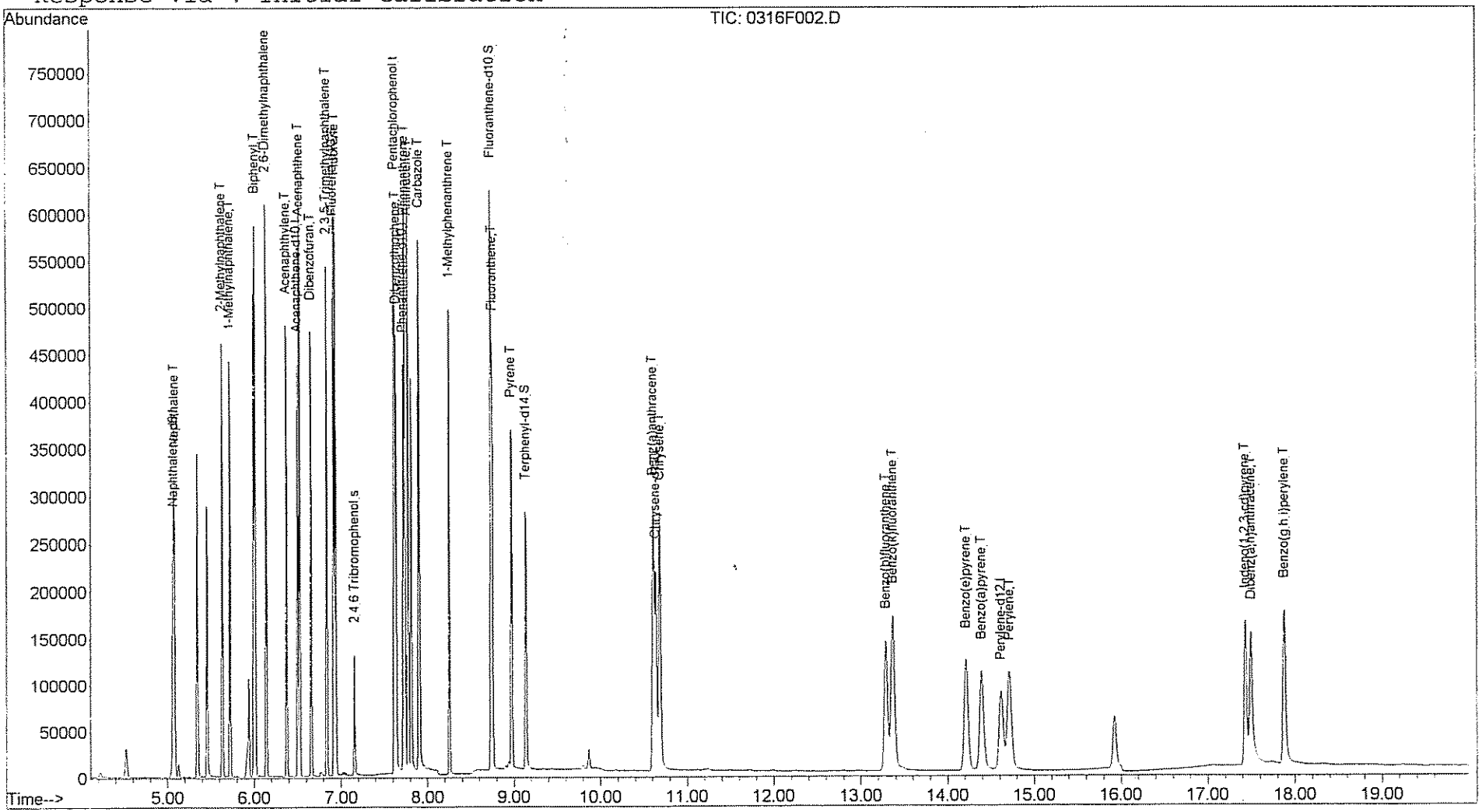
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031605\0316F002.D
Acq On : 16 Mar 2005 7:03 am
Sample : SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 16 7:31 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00
Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Navy Public Works Center
Project: UST 43435 Camp Pendelton/201-0105

Service Request: K2501630
Date Analyzed: 03/18/2005

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270C SIM

Calibration Date: 03/10/2005
Calibration ID: CAL4299
Analysis Lot: KWG0504491
Units: ng/ml

File ID: J:\MS11\DATA\031805\0318F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	200	180	0.01	1.15	1.06	-8	NA	± 20 %	AverageRF
2-Methylnaphthalene	200	190	0.01	1.00	0.966	-4	NA	± 20 %	AverageRF
Acenaphthylene	200	180	0.01	2.01	1.84	-9	NA	± 20 %	AverageRF
Acenaphthene	200	190	0.01	1.19	1.10	-7	NA	± 20 %	AverageRF
Dibenzofuran	200	180	0.01	1.74	1.61	-8	NA	± 20 %	AverageRF
Fluorene	200	190	0.01	1.42	1.33	-7	NA	± 20 %	AverageRF
Phenanthrene	200	190	0.01	1.25	1.16	-7	NA	± 20 %	AverageRF
Anthracene	200	190	0.01	1.17	1.11	-5	NA	± 20 %	AverageRF
Fluoranthene	200	200	0.01	1.24	1.24	0	NA	± 20 %	AverageRF
Pyrene	200	200	0.01	1.43	1.43	0	NA	± 20 %	AverageRF
Benz(a)anthracene	200	180	0.01	1.30	1.20	-8	NA	± 20 %	AverageRF
Chrysene	200	190	0.01	1.29	1.21	-7	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	200	200	0.01	1.38	1.38	0	NA	± 20 %	AverageRF
Benzo(k)fluoranthene	200	200	0.01	1.39	1.39	0	NA	± 20 %	AverageRF
Benzo(a)pyrene	200	200	0.01	1.23	1.20	-2	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	200	210	0.01	1.05	1.11	7	NA	± 20 %	AverageRF
Dibenz(a,h)anthracene	200	200	0.01	1.11	1.14	2	NA	± 20 %	AverageRF
Benzo(g,h,i)perylene	200	210	0.01	1.28	1.34	5	NA	± 20 %	AverageRF
Fluorene-d10	200	210	0.01	1.41	1.46	3	NA	± 20 %	AverageRF
Fluoranthene-d10	200	220	0.01	1.35	1.46	8	NA	± 20 %	AverageRF
Terphenyl-d14	200	210	0.01	1.12	1.19	6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Exception Report

Data File:	J:\MS11\DATA\031805\0318F002 D	**Date Acquired:**	03/18/2005 06:23
Lab ID:	KWG0504491-2	**Date Quantitated:**	03/18/2005 06:42
RunType:	CCV	**Batch ID:**	KWG0504491
Matrix:	WATER	**Analysis Method:**	8270C SIM
		MethodJoinID:	MJ138

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Average RSD	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	2,4,6-Tribromophenol	Calc	0 00	179 74	N.T
	Pentachlorophenol	Calc	0 00	861 33	

Primary Review: 3/22/5

Secondary Review: 3/22/5

Quantitation Report

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	SIM-PAH	**Collect Date:**		**Receive Date:**	03/22/2005

Analysis Lot:	KWG0504491	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270C SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS11\METHODS\SIM\0310ALK M	**Calibration ID:**	CAL4299
Title:			
Tune Ref:	J:\MS11\DATA\031805\0318F001 D	**Method ID:**	MJ532
MB Ref:		**Quant based on Method**	

Data File:	J:\MS11\DATA\031805\0318F002 D			**Instrument:**	MS11
Acqu Date:	03/18/2005 06:23	**Quant Date:**	03/18/2005 06:42	**Vial:**	2
Run Type:	CCV			**Dilution:**	1 0
Lab ID:	KWG0504491-2			**Soln Conc. Units:**	ng/ml

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5 04	-0 01	136	166708	200 00	OK
2	Acenaphthene-d10	6 48	-0 01	164	143907	200 00	OK
3	Phenanthrene-d10	7 70	-0 01	188	226082	200 00	OK
4	Chrysene-d12	10 57	-0 05	240	202156	200 00	OK
5	Perylene-d12	14 48	-0 08	264	174056	200 00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6 89			176	210099	206 92		37-107	NA
3	Fluoranthene-d10	8 70			212	330664	216 13		18-137	NA
4	Terphenyl-d14	9 09			244	240663	212 94		18-153	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5 06			128	176715	184 16			
1	2-Methylnaphthalene	5 61			142	161103	192 78			
1	1-Methylnaphthalene	5 70			142	153150	202 67			
1	Biphenyl	5 99			154	211459	203 14			
1	2,6-Dimethylnaphthalene	6 12			156	156620	210 52			
2	Acenaphthylene	6 35			152	264928	182 77			
2	Acenaphthene	6 51			154	158644	185 12			
2	Dibenzofuran	6 64			168	231311	184 87			
2	2,3,5-Trimethylnaphthalene	6 81			170	151336	197 53			
2	Fluorene	6 92			166	190783	186 45			
3	Dibenzothiophene	7 61			184	234720	183 56			
3	Phenanthrene	7 71			178	262960	186 09			
3	Anthracene	7 75			178	250847	190 01			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS11\DATA\031805\0318F002 D			Instrument:	MS11
Acqu Date:	03/18/2005 06:23	Quant Date:	03/18/2005 06:42	Vial:	2
Run Type:	CCV			Dilution:	1 0
Lab ID:	KWG0504491-2			Soln Conc Units:	ng/ml

Target Compounds Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7 88			167	215506	190 24			
3	1-Methylphenanthrene	8 22			192	187825	199 28			
3	Fluoranthene	8 71			202	280803	200 90			
4	Pyrene	8 94			202	288841	199 69			
4	Benz(a)anthracene	10 55			228	242172	184 42			
4	Chrysene	10 62			228	243674	186 51			
5	Benzo(b)fluoranthene	13 18			252	239833	199 40			
5	Benzo(k)fluoranthene	13 26			252	241696	200 01			
5	Benzo(e)pyrene	14 09			252	235463	206 44			
5	Benzo(a)pyrene	14 26			252	209629	196 53			
5	Perylene	14 57			252	222323	204 87			
5	Indeno(1,2,3-cd)pyrene	17 35			276	194028	213 35			
5	Dibenz(a,h)anthracene	17 42			278	198023	204 80			
5	Benzo(g,h,i)perylene	17 80			276	233082	209 57			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F002.D Vial: 2
Acq On : 18 Mar 2005 6:23 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.2ug/mL | SVM19-13E Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 06:42:35 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.04	136	166708	200.00	ng/ml	0.00
10) Acenaphthene-d10	6.48	164	143907	200.00	ng/ml	0.00
22) Phenanthrene-d10	7.70	188	226082	200.00	ng/ml	0.00
37) Chrysene-d12	10.57	240	202156	200.00	ng/ml	0.00
49) Perylene-d12	14.48	264	174056	200.00	ng/ml	0.00
System Monitoring Compounds						
15) Fluorene-d10	6.89	176	210099	206.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.69%			
20) 2,4,6 Tribromophenol	7.13	330	33027	179.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 17.97%			
36) Fluoranthene-d10	8.70	212	330664	216.13	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 21.61%			
42) Terphenyl-d14	9.09	244	240663	212.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 21.29%			
Target Compounds						Qvalue
2) Naphthalene	5.06	128	176715	184.16	ng/ml	100
3) 2-Methylnaphthalene	5.61	142	161103	192.78	ng/ml	99
4) 1-Methylnaphthalene	5.70	142	153150	202.67	ng/ml	100
5) Biphenyl	5.99	154	211459	203.14	ng/ml	98
6) 2,6-Dimethylnaphthalene	6.12	156	156620	210.52	ng/ml	99
11) Acenaphthylene	6.35	152	264928	182.77	ng/ml	100
12) Acenaphthene	6.51	154	158644	185.12	ng/ml	98
13) Dibenzofuran	6.64	168	231311	184.87	ng/ml	95
14) 2,3,5-Trimethylnaphthalene	6.81	170	151336	197.53	ng/ml#	43
16) Fluorene	6.92	166	190783	186.45	ng/ml	97
21) Pentachlorophenol	7.59	266	173540	861.33	ng/ml	99
23) Dibenzothiophene	7.61	184	234720	183.56	ng/ml	100
27) Phenanthrene	7.71	178	262960	186.09	ng/ml	98
28) Anthracene	7.75	178	250847	190.01	ng/ml	99
29) Carbazole	7.88	167	215506	190.24	ng/ml	99
30) 1-Methylphenanthrene	8.22	192	187825	199.28	ng/ml	96
35) Fluoranthene	8.71	202	280803	200.90	ng/ml	99
38) Pyrene	8.94	202	288841	199.69	ng/ml	98
43) Benz(a)anthracene	10.55	228	242172	184.42	ng/ml	99
44) Chrysene	10.62	228	243674	186.51	ng/ml	98
50) Benzo(b)fluoranthene	13.18	252	239833	199.40	ng/ml	100
51) Benzo(k)fluoranthene	13.26	252	241696	200.01	ng/ml	100
52) Benzo(e)pyrene	14.09	252	235463	206.44	ng/ml	100
53) Benzo(a)pyrene	14.26	252	209629	196.53	ng/ml	100
54) Perylene	14.57	252	222323	204.87	ng/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F002.D Vial: 2
Acq On : 18 Mar 2005 6:23 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.2ug/mL | SVM19-13E Inst : MS11
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 18 06:42:35 2005 Quant Results File: 0310ALK.RES

Quant Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Mar 17 08:34:45 2005
Response via : Initial Calibration
DataAcq Meth : A_ALKHAT

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
55)	Indeno(1,2,3-cd)pyrene	17.35	276	194028	213.35	ng/ml	100
56)	Dibenz(a,h)anthracene	17.42	278	198023	204.80	ng/ml	96
57)	Benzo(g,h,i)perylene	17.80	276	233082	209.57	ng/ml	99

(#) = qualifier out of range (m) = manual integration

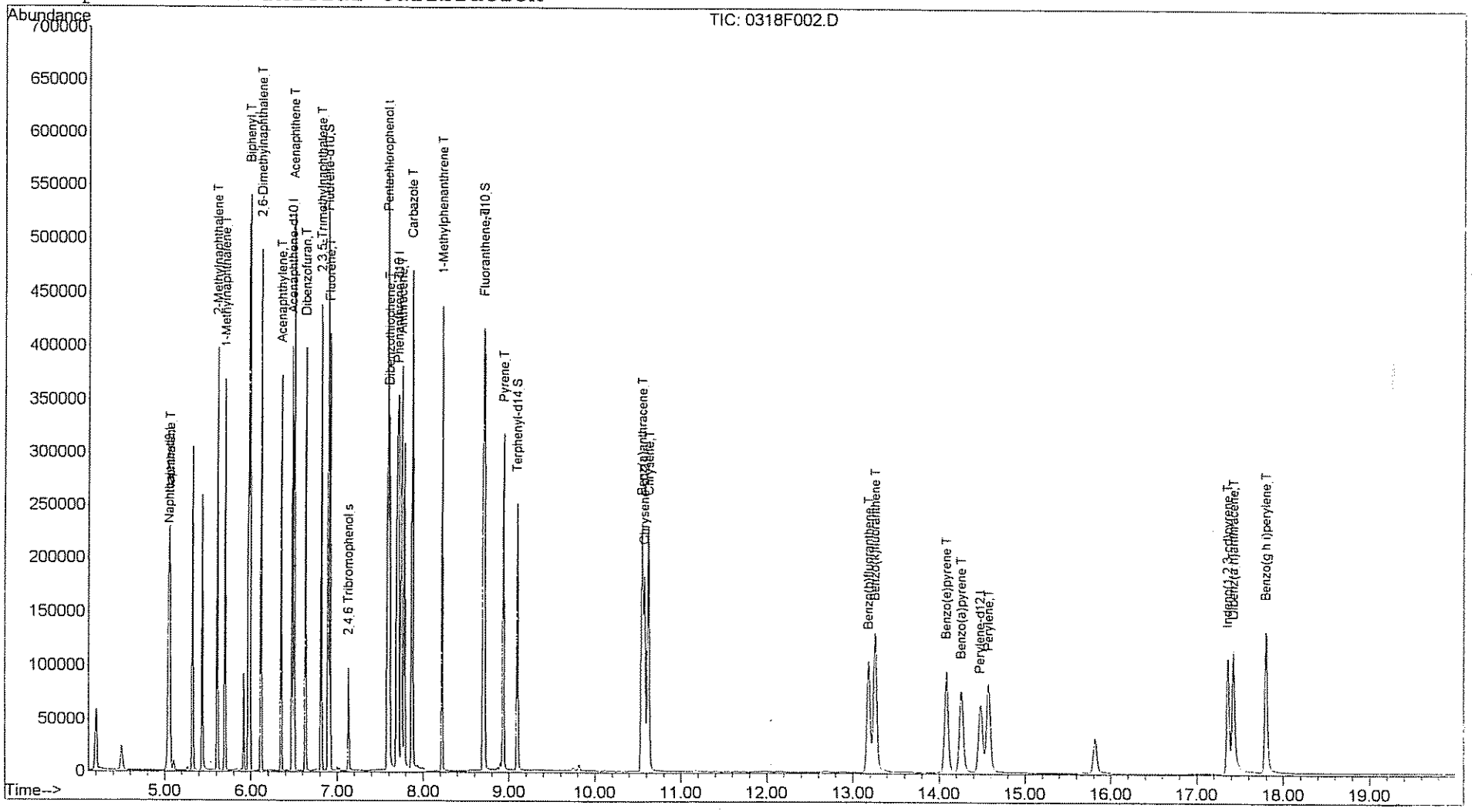
Quantitation Report (QT Reviewed)

Data File : J:\MS11\DATA\031805\0318F002.D
Acq On : 18 Mar 2005 6:23 am
Sample : SIM-PAH CCV @ 0.2ug/mL | SVM19-13E
Misc :
MS Integration Params: RTEINT.P
Quant Time: Mar 18 6:42 2005

Vial: 2
Operator: LWeiskopf
Inst : MS11
Multiplr: 1.00

Quant Results File: 0310ALK.RES

Method : J:\MS11\METHODS\SIM\0310ALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Mar 22 07:56:55 2005
Response via : Initial Calibration



Organic Analysis:
Polynuclear Aromatic Hydrocarbons

Validation Package

Sample Prep and Screen Data

Preparation Information

Group ID:	KWG0503769	**Prep Method:**	EPA 3535	**Prep Date:**	03/09/05 00:00
Department:	MSP				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K2501630-002	50425-02	SIM-PAH	WATER	1040ml	5ml
K2501656-001	W053A46L1001	SIM-PAH	WATER	1000ml	5ml
K2501656-002	W053A46L1002	SIM-PAH	WATER	1040ml	5ml
K2501656-003	W053A46L1003	SIM-PAH	WATER	1000ml	5ml
K2501656-004	W053A46L1004	SIM-PAH	WATER	1010ml	5ml
K2501657-005	W05SA46L1EB3	SIM-PAH	WATER	1040ml	5ml
KWG0503769-1	Matrix Spike	SIM-PAH	WATER	1020ml	5ml
KWG0503769-2	Duplicate Matrix Spike	SIM-PAH	WATER	1020ml	5ml
KWG0503769-3	Lab Control Sample	SIM-PAH	WATER	1000ml	5ml
KWG0503769-4	Method Blank	SIM-PAH	WATER	1040ml	5ml

Lab Code	Parent Lab Code	Comments
KWG0503769-1	K2501656-003	
KWG0503769-2	K2501656-003	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K2501630-002	366799	SVMP3-63B	20uL			CJones
K2501656-001	366795	SVMP3-63B	20uL			CJones
K2501656-002	366796	SVMP3-63B	20uL			CJones
K2501656-003	366797	SVMP3-63B	20uL			CJones
K2501656-004	366798	SVMP3-63B	20uL			CJones
K2501657-005	366794	SVMP3-63B	20uL			CJones
KWG0503769-1	366800	SVMP3-63B	20uL	SVMP3-66F	100uL	CJones
KWG0503769-2	366801	SVMP3-63B	20uL	SVMP3-66F	100uL	CJones
KWG0503769-3	366802	SVMP3-63B	20uL	SVMP3-66F	100uL	CJones
KWG0503769-4	366803	SVMP3-63B	20uL			CJones

Comments: JS = SVM18-72B

Started By: SMurray Assisted By: Training Yes No

Completed By: SMurray Assisted By: Yes No

Reviewed By: [illegible] Date: 3/15/5 Storage: AM11

Chain of Custody

Relinquished By: [illegible] Date: 3-10-05 Extracts Examined

Received By: [illegible] Date: 3/15/5 Yes No

Preparation Information

Group ID:	KWG0503769	**Prep Method:**	EPA 3535	**Prep Date:**	03/09/05 00:00
Department:	MSP				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext.	pH	Int. Vol.	Final Vol.	Surr. Added	Spike Added
1	K2501630-002	50425-02		√	SIM-PAH	WATER	1040	8	NA	5mL	20.0	
2	K2501656-001	W053A46L1001		√	SIM-PAH	WATER	1000					
3	K2501656-002	W053A46L1002		√	SIM-PAH	WATER	1040					
4	K2501656-003	W053A46L1003		√	SIM-PAH	WATER	1000					
5	K2501656-004	W053A46L1004		√	SIM-PAH	WATER	1010					
6	K2501657-005	W05SA46L1EB3		√	SIM-PAH	WATER	1040	6				
7	KWG0503769-1	Matrix Spike 1656-3		√	SIM-PAH	WATER	1020	8				100.0
8	KWG0503769-2	Duplicate Matrix Spike 1656-3		√	SIM-PAH	WATER						
9	KWG0503769-3	Lab Control Sample			SIM-PAH	WATER	1000	6				
10	KWG0503769-4	Method Blank			SIM-PAH	WATER	1040					

Comments:

Surrogate ID: SVMP3-LB 100/15ppm, 20.0 syringe XF: 7-28-05

Spike ID: SVMP3-66F, 25ppm, 100.0, Eppc, XF: 8-28-05

Witness: Carol Jones 3-9-05

Started By: SMurray Assisted By:

Completed By: SMurray Assisted By:

Additional Prep Information For Sim-Pah Water by 3535

Service Request # 1630, 1656, 1657 Work Group # KWG0503769

Solvents/Reagents used:

Acetone Lot # 44286 DCM Lot # 45014

C18xf extraction Disk Lot # AW3426

Dry Disk Lot # NA

Extraction Program # 8310 Purge Program # 8270.9

Start (Time/Date/Initial): 1 15 pm 3-9-05 SM

Stop (Time/Date/Initial):

Cleanups:

Clean-up #1: NA ☐ all samples ☐ some samples:

Comments/Observations:

Bench Sheet Review Check List
☑ Hold Times Met (if no, Reason:)
☑ Prep date, dept, method, product code correct in stealth
☑ Spike Information correct
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked—Bottle numbers appended if required
☑ Names present for: Started by, Completed by, relinquished by, and witnessed by.
☑ Training has been circled
☑ Extract Storage recorded
☐ Additional Prep Sheet completely filled out (NA or line out Blanks)
☑ All clean-ups have been noted on additional prep sheet
☐ Signed service request with Form V, if applicable, has been attached

X:\Solid Phase\sim-pah\Additional Prep Information SimPah Water3535 doc

Injection Log

Directory: J:\ms11\data\031505

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0315F001.D	1	DFTPP @ 50ug/mL | SVM19-9C		15 Mar 2005 06:4
2	2	0315F002.D	1	SIM-PAH CCV @ 0.2/1.0ug/mL | SVM19-10L		15 Mar 2005 07:0
3	1	0315F003.D	1	KWG0503769-4 MB		15 Mar 2005 07:3
4	2	0315F004.D	1	KWG0503795-3 MB 2X		15 Mar 2005 07:5
5	3	0315F005.D	1	K2501571-001		15 Mar 2005 08:2
6	4	0315F006.D	1	K2501588-001		15 Mar 2005 08:5
7	5	0315F007.D	1	K2501588-002		15 Mar 2005 09:2
8	6	0315F008.D	1	K2501588-003		15 Mar 2005 09:4
9	7	0315F009.D	1	K2501588-004		15 Mar 2005 10:1
10	8	0315F010.D	1	KWG0503769-3 LCS		15 Mar 2005 10:4
11	9	0315F011.D	1	KWG0503769-1 K2501656-003MS		15 Mar 2005 11:0
12	10	0315F012.D	1	KWG0503769-2 K2501656-003DMS		15 Mar 2005 11:3
13	17	0315F013.D	1	KWG0503795-1 LCS 10X		15 Mar 2005 12:3
14	18	0315F014.D	1	KWG0503795-2 DLCS 10X		15 Mar 2005 12:5
15	11	0315F015.D	1	K2501656-003		15 Mar 2005 13:2
16	12	0315F016.D	1	K2501656-001		15 Mar 2005 13:5
17	13	0315F017.D	1	K2501656-002		15 Mar 2005 14:2
18	14	0315F018.D	1	K2501656-004		15 Mar 2005 14:4
19	15	0315F019.D	1	K2501630-002		15 Mar 2005 15:1
20	16	0315F020.D	1	K2501657-005		15 Mar 2005 15:4
21	19	0315F021.D	1	KWG0503795-4 K2501655-002MS 10X		15 Mar 2005 16:0
22	20	0315F022.D	1	KWG0503795-5 K2501655-002DMS 10X		15 Mar 2005 16:3
23	21	0315F023.D	1	K2501655-002 2X		15 Mar 2005 17:0
24	22	0315F024.D	1	K2501655-001 2X		15 Mar 2005 17:3
25	23	0315F025.D	1	K2501655-003 2X		15 Mar 2005 17:5
26	24	0315F026.D	1	K2501655-004 2X		15 Mar 2005 18:2
27	25	0315F027.D	1	K2501655-005 2X		15 Mar 2005 18:5
28	26	0315E028.D	1	PR		15 Mar 2005 19:1
29	26	0315F029.D	1	PR		15 Mar 2005 19:4
30	26	0315F030.D	1	PR		15 Mar 2005 20:1
31	1	0315F100.D	1	PAH STD		15 Mar 2005 12:0

CAL 4299
3/17/05
3/17/5

Injection Log

Directory: J:\MS11\DATA\031605

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0316F001.D	1.	DFTPP @ 50ug/mL | SVM19-9C		16 Mar 2005 06:4
2	2	0316F002.D	1	SIM-PAH CCV @ 0 2/1 0ug/mL | SVM19-10L		16 Mar 2005 07:0
3	1	0316F003.D	1.	IB		16 Mar 2005 07:3
4	2	0316F004.D	1.	KWG0503769-3 LCS		16 Mar 2005 08:0
5	3	0316F005.D	1.	KWG0503769-1 K2501656-003MS		16 Mar 2005 08:2
6	4	0316F006.D	1	KWG0503769-2 K2501656-003DMS		16 Mar 2005 08:5
7	5	0316F007.D	1	KWG0503795-1 LCS 10X		16 Mar 2005 09:2
8	6	0316F008.D	1	KWG0503795-2 DLCS 10X		16 Mar 2005 09:4
9	7	0316F009.D	1.	K2501656-001		16 Mar 2005 10:1
10	8	0316F010.D	1.	K2501655-005DIL 2X		16 Mar 2005 10:4
~~11~~	~~9~~	~~0316F011.D~~	~~1.~~	~~KWG0504147-3 MB~~		~~16 Mar 2005 11:1~~
~~12~~	~~13~~	~~0316F015.D~~	~~1.~~	~~K2501813-002~~		~~16 Mar 2005 12:0~~
~~13~~	~~30~~	~~0316F100.D~~	~~1.~~	~~PR~~		~~16 Mar 2005 11:3~~

CA24299
3/17/05
3/17/05

Injection Log

Directory: J.\ms11\data\031805

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0318F001.D	1.	DFTPP @ 50ug/mL | SVM19-		18 Mar 2005 06:0
2	2	0318F002.D	1.	SIM-PAH CCV @ 0.2ug/mL | SVM19-13E		18 Mar 2005 06:2
3	1	0318F003.D	1.	KWG0504147-3 MB		18 Mar 2005 06:5
4	2	0318F004.D	1.	~~K2501721-001~~ K2501727-001		18 Mar 2005 07:1
5	3	0318F005.D	1.	3/21/05 KWG0504147-1 LCS		18 Mar 2005 07:4
6	4	0318F006.D	1.	KWG0504147-2 DLCS		18 Mar 2005 08:1
7	5	0318F007.D	1.	K2501656-003MS		18 Mar 2005 08:3
8	6	0318F008.D	1.	K2501656-003DMS		18 Mar 2005 09:0
9	7	0318F009.D	1.	K2501656-001		18 Mar 2005 09:3
10	8	0318F010.D	1.	K2501813-002		18 Mar 2005 10:0
11	9	0318F011.D	1.	K2501813-004		18 Mar 2005 10:3
12	10	0318F012.D	1.	K2501813-006		18 Mar 2005 10:5
13	11	0318F013.D	1.	K2501813-012		18 Mar 2005 11:2
14	12	0318F014.D	1.	K2501813-014		18 Mar 2005 11:5
15	13	0318F015.D	1.	K2501813-008		18 Mar 2005 12:2
16	14	0318F016.D	1.	K2501813-010		18 Mar 2005 12:5
17	15	0318F017.D	1.	K2501813-001DIL 10X NR		18 Mar 2005 13:2
18	16	0318F018.D	1.	K2501813-003DIL 10X		18 Mar 2005 13:5
19	17	0318F019.D	1.	K2501813-005DIL 10X		18 Mar 2005 14:1
20	18	0318F020.D	1.	K2501813-007DIL 10X		18 Mar 2005 14:4
21	19	0318F021.D	1.	K2501813-009DIL 10X		18 Mar 2005 15:1
22	20	0318F022.D	1.	K2501813-011DIL 10X		18 Mar 2005 15:4
23	21	0318F023.D	1.	K2501813-013		18 Mar 2005 16:1
24	22	0318F024.D	1.	K2501655-005DIL 2X		18 Mar 2005 16:3
25	23	0318F025.D	1.	K2501812-001		18 Mar 2005 17:0
26	24	0318F026.D	1.	K2501812-004		18 Mar 2005 17:3
27	25	0318F027.D	1.	K2501812-005		18 Mar 2005 18:0
28	26	0318F028.D	1.	K2501812-007 NR		18 Mar 2005 18:2
29	27	0318F029.D	1.	PR		18 Mar 2005 18:5
30	27	0318F030.D	1.	PR		18 Mar 2005 19:2

CM 4299
3/22/05
3/22/05

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Facility Global ID: T0607301714

Facility Name: AREA 43

Submittal Title: Quarterly Groundwater Monitoring Report, UST Site 43435 MCB Camp Pendleton, California, July 2005

Submittal Type: GW Monitoring Report

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AREA 43
BLDG 43435 MCB
CAMP PENDLETON, CA 92055

Regional Board (lead agency) - Case #: 9UT2948
SAN DIEGO RWQCB (REGION 9) - **(BG)**
Local Agency - Case #: H05939-181
SAN DIEGO COUNTY LOP - **(ELS)**

CONF #	TITLE	QUARTER
1680449068	Quarterly Groundwater Monitoring Report, UST Site 43435 MCB Camp Pendleton, California, July 2005	Q1 2005

SUBMITTED BY	SUBMIT DATE	STATUS
Aaron J. Heidt	8/19/2005	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	5
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8270SIM,M8015,SW8260B
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- SW8260B REQUIRES XYLENES TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	Y	1
QCEB SAMPLES	Y	2
QCAB SAMPLES	N	0

Logged in as AHEIDT (CONTRACTOR) CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

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Confirmation Number: 6745180130

Date/Time of Submittal: 8/19/2005 1:47:26 PM

Facility Global ID: T0607301714

Facility Name: AREA 43

Submittal Title: Quarterly Groundwater Monitoring Report, UST Site 43435 MCB Camp Pendleton, California, July 2005

Submittal Type: GW Monitoring Report

Click here to view the detections report for this upload.

AREA 43
BLDG 43435 MCB
CAMP PENDLETON, CA 92055

Regional Board (lead agency) - Case #: 9UT2948
SAN DIEGO RWQCB (REGION 9) - **(BG)**
Local Agency - Case #: H05939-181
SAN DIEGO COUNTY LOP - **(ELS)**

CONF #	TITLE	QUARTER
6745180130	Quarterly Groundwater Monitoring Report, UST Site 43435 MCB Camp Pendleton, California, July 2005	Q1 2005

SUBMITTED BY	SUBMIT DATE	STATUS
Aaron J. Heidt	8/19/2005	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	2
# FIELD POINTS WITH DETECTIONS	0
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	0
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8270SIM,M8015,SW8260B
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- SW8260B REQUIRES XYLENES TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	Y	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as AHEIDT (CONTRACTOR) CONTACT SITE ADMINISTRATOR.

NAVY PUBLIC WORKS CENTER, SAN DIEGO

WASTE ACCEPTANCE FORM

~~BULK CONTROL NO.~~ 5067

CUSTOMER USE ONLY:

TRACK NO: _____ - _____ DATE: 3,8,05 TIME: _____

ACTIVITY NAME: PWC Code 980 BASE: CAMP Pendleton

BUILDING/LOCATION: UST SITE 43435 PHONE NUMBER: AARON HEIDT 40377

JOB ORDER NUMBER: 113623502008 UIC: N63387

WASTE DESCRIPTION: GROUNDWATER

NAD USE ONLY:

BOWSER ID: _____ TANK NO: _____ SHOP#: _____

PROCESS GENERATING WASTE: _____

SOURCE CODE: A99 FORM CODE: B205

APPLICABLE WASTE CODES: NONHAZARDOUS _____ EPA _____ CALIFORNIA _____

CONTAMINANTS AND CONCENTRATIONS (MG/L): 100% GROUNDWATER

WASTE PROFILE NUMBER: NW91 VOLUME (GALLONS): 30 LIQUID LEVEL _____

CODE 932 USE ONLY:

FACILITY: IWTP___ NI OWTP ✓ NS#1 OWTP___ NS#2 OWTP ___ SUBASE OWTP ___ NAB OWTP ___

MANIFEST#: N/A EPAGENID: _____ NON_HAZ_____ RECYCLE_____

TIME ARRIVED: 0925 PUMP START TIME: 0930 PUMP ENDTIME: 0940

PHYSICAL STATE: Liquid SLUDGE IN BOWSER: YES ___ NO ✓ VOLUME(GALLONS): 00 30

FIELD TEST RESULTS (MG/L):

Cr (VI) _____ CLOR-D-TECT _____ OTHER _____

Total Cr _____ HYDROCLOR-Q _____

CN _____

pH: _____ TREATMENT GROUP: 1 - OW ✓ 2 - CONTAMINATED OW/GIW ___
3 - CHROME ___ 4 - MIXED METALS ___
5 - CYANIDE ___ 6 - PHENOL ___ 7 -SPECIAL ___

05203050

TREATMENT TANK: T 4A BATCH NUMBER: _____

TREATMENT CODES (CHECK ALL APPLICABLE):

T22-CHEMICAL OXIDATION ___ T23-CHEMICAL PRECIPITATION ___ T24-CHEMICAL REDUCTION ___ T27-CYANIDE DESTRUCTN ___
T31-NEUTRALIZATION ___ T38-DECANTING ✓ T42-FLOTATION ✓ T44-SEDIMENTATION ✓

ACTIVITY REPRESENTATIVE NAME: Sheila Ausler / SHEILA AUSLER SIGNATURE AND DATE: 3/8/05

CODE 932 REPRESENTATIVE NAME: KJ KLINE SIGNATURE AND DATE: K J. Kline 08 MAR 2005