APPENDIX B
Soil Bioassay Testing Report

BIOLOGICAL TESTING OF SOILS FROM GEOENGINEERS PROJECT SITE (CONFIDENTIAL) SEKIU, WA

JULY 2012

PREPARED FOR:
GEOENGINEERS, INC.
600 Stewart Street, Suite 1700
Seattle, WA 98101

PREPARED BY:
NEWFIELDS
PO Box 216
4729 View Drive
Port Gamble, Washington 98364



Contents

1.0 Introduction 3
2.0 Methods 3
2.1 Sample and Test Biota Receipt 3
2.2 Earthworm Bioassay 3
2.3 Data Management and Analysis 4
3.0 Results and Discussion 4
3.1 Earthworm Bioassay 4
4.0 Conclusion 7
5.0 References 7

Table 1. Sample Identification 3
Table 2. Earthworm Dilution Series Survival Results – TP1 5
Table 3. Earthworm Dilution Series Survival Results – TP3 5
Table 4. Test Condition Summary for the 14-Day *E. foetida* Survival Test. 6
Table 5. Statistical Analysis Results 6

1.0 INTRODUCTION

GeoEngineers, Inc. requested NewFields Northwest (NewFields) in Port Gamble, Washington to evaluate soil samples from a project site in Sekiu, Washington. NewFields was requested to perform a suite of soil toxicity tests to aid developing soil cleanup levels for the project site.

2.0 METHODS

This section summarizes the test methods that were followed for this biological characterization. Test methods followed guidance provided by the Washington State Department of Ecology. Soil toxicity was evaluated using the 14-day earthworm test.

2.1 SAMPLE AND TEST BIOTA RECEIPT

Two test soils and one background soil were collected by GeoEngineers personnel on June 27, 2012. The soil samples were hand delivered by GeoEngineers personnel to the NewFields laboratory on June 29, 2012. Sample descriptions and nomenclature are summarized in Table 1.

Table 1. Sample Identification

Sample ID	Abbreviation	Matrix	Type
GEI28BIO-SWW-062712-3	GEI28	Terrestrial Soil	Background
TP1BIO-SWN-062712-3	TP1	Terrestrial Soil	Project (Test) Soil
TP3BIO-SWS-062712-3	TP3	Terrestrial Soil	Project (Test) Soil

The earthworms *Eisenia foetida* were supplied by Aquatic Research Organisms in Hampton, New Hampshire and held in moist peat moss at 20°C prior to test initiation.

2.2 EARTHWORM BIOASSAY

The 14-day earthworm bioassay was performed on two soil samples collected from the project site. A dilution series was prepared for each soil to determine a dose-response relationship between Total Petroleum Hydrocarbon (TPH as Bunker C) concentrations and worm survival. The soil dilution series were prepared by mixing the test soils with a soil spatially separated from the investigation site, and identified as having non-detectable concentrations of the target analyte (TPH as Bunker C). Dilution series were prepared for sample TP1 (100, 50, and 25 percent) and for sample TP3 (100, 50, 25, 12.5, and 6.25 percent). After preparation, sub-samples of all soil dilutions were collected in 16 oz pre-cleaned glass jars and shipped to OnSite Environmental, Inc. for subsequent chemical analysis.

Test exposures were prepared with approximately 200g of soil placed in clean, acid and solvent-rinsed 300-mL glass jars. Three replicate chambers were prepared for each test treatment, background, and laboratory control soil. The laboratory control soil was a fabricated (artificial) soil prepared following procedures detailed in the method guidance document (WDOE 1996). All soils were hydrated with deionized laboratory water to approximately 35-45 percent moisture prior to organism addition.

Test chambers were placed in randomly assigned positions in a temperature controlled environmental space at 22°C under continuous lighting. The soil pH was measured on each treatment prior to test initiation and at test termination. Soil pH was measured by combining 25mL of soil and 25mL of deionized laboratory water and mixing thoroughly. Measurements were taken immediately upon mixing and again after approximately 30 minutes. Temperature of the environmental space was monitored daily until test termination.

The tests were initiated by randomly allocating 10 *E. foetida* into each test chamber, ensuring that each of the worms successfully buried into the soil. Worms that did not bury within approximately one hour were replaced with healthy animals. The 14-day bioassays were conducted as static tests with no feeding during the exposure period. At test termination, soil from each test chamber was wet-sieved through a 0.5-mm screen and all recovered animals transferred to a Petri dish. The number of surviving and dead worms was determined.

2.3 Data Management and Analysis

Endpoint data were calculated for each replicate and the mean value and standard deviation were determined for each test treatment. All hand-entered data were reviewed for data entry errors, which were corrected prior to summary calculations. A minimum of 10% of all calculations and data sorting were reviewed for errors. Review counts were conducted on any apparent outliers.

Statistical comparisons were made according to the WDOE guidance and were performed using CETIS™ software (Version 1.8.5.1; CETIS 2012).

3.0 Results and Discussion

3.1 Earthworm Bioassay

The soil toxicity test with *E. foetida* was initiated on July 3, 2012 and was validated by 100% survival in the laboratory control (artificial soil), meeting the acceptability criterion of ≥90%. Survival results for samples TP1 and TP3 are summarized in Table 2 and Table 3, respectively. The test conditions are summarized in Table 4.

Mean survival in the background soil (GEI28) was 96.7%. No statistically significant difference was detected between the control and the background mean survival. This indicates that the background soil was unlikely to contribute to any negative biological response observed in the diluted test treatments. Mean survival in the undiluted (100%) treatments of samples TP1 and TP3 were 100 and 93.3%, respectively. Results of the statistical analyses performed on samples TP1 and TP3 are summarized in Table 5.

Results of the chemical analyses (OnSite Environmental) performed on the soil dilutions were matched with their respective treatments. These values were reported as mg/kg of total petroleum hydrocarbons (TPH as Bunker C) analyzed by method NWTPH-Dx. The TPH concentrations observed in the undiluted (100%) treatments of samples TP1 and TP3 were 1,700 and 11,000 mg/kg, respectively.

Temperature and soil pH values were within the acceptable limits throughout the duration of the test.

A reference-toxicant test (positive control) was performed on the batch of test organisms utilized for this study. The LC_{50} value was well within control chart limits (±2 standard deviations from the laboratory historical mean). This indicates that the test organisms used in this study were of similar sensitivity to those previously tested at NewFields.

Table 2. Earthworm Dilution Series Survival Results – TP1

Treatment	Rep	Initial #	Final #	% Survival	Mean % Survival	Total TPH (mg/kg)
Laboratory Control	1	10	10	100	100	--
	2	10	10	100		
	3	10	10	100		
GEI28 - Background	1	10	9	90	96.7	--
	2	10	10	100		
	3	10	10	100		
TP1 25%	1	10	10	100	93.3	770
	2	10	9	90		
	3	10	9	90		
TP1 50%	1	10	10	100	100	1,200
	2	10	10	100		
	3	10	10	100		
TP1 100%	1	10	10	100	100	1,700
	2	10	10	100		
	3	10	10	100		

Table 3. Earthworm Dilution Series Survival Results – TP3

Treatment	Rep	Initial #	Final #	% Survival	Mean % Survival	Total TPH (mg/kg)
Laboratory Control	1	10	10	100	100	--
	2	10	10	100		
	3	10	10	100		
GEI28 - Background	1	10	9	90	96.7	--
	2	10	10	100		
	3	10	10	100		
TP3 6.25%	1	10	9	100	96.7	260
	2	10	10	100		
	3	10	10	100		
TP3 12.5%	1	10	10	100	100	460
	2	10	10	100		
	3	10	10	100		
TP3 25%	1	10	10	100	96.7	1,900
	2	10	9	90		
	3	10	10	100		
TP3 50%	1	10	9	90	90	3,200
	2	10	8	80		
	3	10	10	100		
TP3 100%	1	10	9	90	93.3	11,000
	2	10	9	90		
	3	10	10	100		

Table 4. Test Condition Summary for the 14-Day *E. foetida* Survival Test.

Test Duration / Type	14-Day; Static	
Sample Identification	TP1, TP3, GEI28, and Control	
Date sampled	June 27, 2012	
Date received	June 29, 2012	
Sample storage conditions	4°C, dark	
Test dates	July 3 – 17, 2012	
Days of holding Recommended: ≤14 days	6 days	
Species	*Eisenia foetida*	
Supplier	Aquatic Research Organisms, Hampton, New Hampshire	
Date acquired	July 3, 2012	
Age at test initiation	Adult; fully clitellated	
Test Procedures	WDOE June 1996; Pub. No. 96-327	
Test location	NewFields, Port Gamble, WA	
Control sediment	Artificial Soil	
Diluent	Background Soil: GEI28	
Test Lighting	24 hour light	
Test Chamber	300mL Chamber	
Exposure volume	200g	
Replicates/treatment	3	
Organisms/replicate	10	
Feeding	None	
Test solution renewal	None	
Test Observations		
Test Temperature	Recommended: 22 ± 2°C	Actual: 20.5 – 22.5 °C
Test Soil pH	Recommended: 5 – 9	Actual: 5.7 – 8.2
Quality Assurance		
Control performance standard	Recommended: ≥ 90% survival	Actual: 100%, Pass
Reference Toxicant Date	July 3, 2012	
Reference Toxicant LC_{50}	14.9 mg 2-chloroacetamide / kg	
Laboratory Mean LC_{50}	13.0 mg 2-chloroacetamide / kg	
Acceptable Range LC_{50} (± 2 sd)	7.20 – 18.7 mg 2-chloroacetamide / kg (Within Range)	
Deviations from Test Protocol	None	

Table 5. Statistical Analysis Results

Sample	**Statistical Method**	**NOEL**	**LOEL**	**LC_{50} (linear Interpolation)**
TP1	Dunnett's	1,700 mg/kg	>1,700 mg/kg	>1,700 mg/kg
TP3	Dunnett's	11,000 mg/kg	>11,000 mg/kg	>11,000 mg/kg

NOEL = No Observed Effect Concentration
LOEC = Lowest Observed Effect Concentration

4.0 CONCLUSION

No positive correlations were made between the earthworm bioassay results and the measured TPH concentrations. Statistically significant differences were not detected between the undiluted samples and the negative control. The results of this study suggest that TPH values below 11,000 mg/kg would be unlikely to negatively impact the soil biota.

5.0 REFERENCES

Washington State Department of Ecology (WDOE). 1996. Earthworm Bioassay Protocol for Soil Toxicity Screening. WDOE Environmental Investigation and Laboratory Services Program Publication No. 96-327.

APPENDICES

A. LABORATORY DOCUMENTS

B. STATISTICAL COMPARISONS

C. CHAIN-OF-CUSTODY FORMS

APPENDIX A

LABORATORY DOCUMENTS

***Eisenia foetida* – 14 Day Earthworm Bioassay:**

Laboratory Data Sheets… A.1.1

Reference Toxicant Test… A.1.2

APPENDIX A.1.1

Eisenia foetida

Earthworm Bioassay

Laboratory Data Sheets

NEWFIELDS

14-DAY SOIL TOXICITY TEST OBSERVATION DATA SHEET 3

CLIENT	PROJECT	NEWFIELDS JOB N0.	PROJECT MANAGER	NEWFIELDS LABORATORY	PROTOCOL	SPECIES	
Geoengineers	Confidential		B. Hester	Bath 3	WDOE 96-327	*Eisinia foetida*	

Observation Key

#S= Number on the Surface (surface of soil)
#M= Number of Mortality (Dead on surface)
#A = Avoidance (Avoiding soil, on sides or chamber)
N=Normal

INITIAL # OF ORGANISMS: 10

ENDPOINT DATA & OBSERVATIONS

CLIENT / NEWFIELDS ID	REP	INITIAL # IF DIFF	Jar #	DATE / TECHN.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Number Remaining	
			Day		7/04 JL	7/5 CR	7/6 CR	7/07 JL	7/8	7/9 CR	7/10 CR	7/11 CR	7/12 MMB	7/13 JL	7/14 JL	7/15 JL	7/16 MMB	7.17 BH		
Control	1		10		N	N	N	N	N	N	N	N	N	N	N	N	N	N	10	
Control	2		22															N	10	
Control	3		11																10	
Background	1		25		3S	3S	3S	2S	2S	1S	1S				1S				9	1M
Background	2		5		4S	2S	N	N	N	N	N				N				10	
Background	3		4		6S	3S	2S	1S	N	1S									10	
TP3 6.25%	1		13		3S	N	N	N	N	N					2S		2S		9	1M
TP3 6.25%	2		27		N										N		N		10	
TP3 6.25%	3		12		1S														10	
TP3 12.5%	1		3		N														10	
TP3 12.5%	2		2															2S	10	
TP3 12.5%	3		15		1S										1S			1S	10	
TP3 25%	1		14		N										N			N	10	
TP3 25%	2		9															N	9	
TP3 25%	3		20															N	10	

NEWFIELDS

14-DAY SOIL TOXICITY TEST OBSERVATION DATA SHEET 3

CLIENT	PROJECT	NEWFIELDS JOB NO.	PROJECT MANAGER	NEWFIELDS LABORATORY	PROTOCOL	SPECIES	
Geoengineers	Confidential	.	B. Hester	Bath 3	WDOE 96-327	*Eisinia foetida*	

Observation Key

#S= Number on the Surface (surface of soil)
#M= Number of Mortality (Dead on surface)
#A = Avoidance (Avoiding soil, on sides of chamber)
N=Normal

INITIAL # OF ORGANISMS: 10

ENDPOINT DATA & OBSERVATIONS

CLIENT / NEWFIELDS ID	REP	INITIAL # IF DIFF	Jar #	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Number Remaining
			DATE / TECHN.		7/04 JL	7/5 CR	7/6 CR	7/07 JL	7/8 JL	7/9 CR	7/10 CR	7/11 CR	7/12 MMB	7/13 JL	7/14 JL	7/15 JL	7/16 MMB	7.17 BH	
TP3 50%	1		23		N	N	N	2S	1S	N	N	N	3S	5S	4S	3S	4S	N	9
TP3 50%	2		18		7S	4S	2S	2S	2S	↓	4S	4S	3S	3S	2S	5S	3S	↓	10
TP3 50%	3		17		3S	N	N	2S	3S	↓	N	N	N	1S	1S	2S	1S	↓	8
TP3 100%	1		19		N	5S	2S	2S	3S	2S	2S	2S	N	1S	1S	1S	1S	↓	9
TP3 100%	2		8		4S	1S	N	1S	N	N	N	N	↓	N	1S	1S	N	↓	9
TP3 100%	3		7		6S	4S	3S	4S	6S	3S	2S	3S	↓	7S	4S	4S	4S	↓	10
TP1 25%	1		24		9S	3S	N	2S	1S	N	N	N	↓	N	N	N	N	↓	10
TP1 25%	2		28		5S	N	↓	N	N	↓	↓	↓	↓	1S	↓	↓	↓	↓	9
TP1 25%	3		1		7S	↓	↓	↓	1S	↓	↓	↓	↓	N	1S	↓	↓	↓	9
TP1 50%	1		6		N	↓	↓	↓	1S	↓	↓	↓	↓	↓	N	↓	↓	↓	10
TP1 50%	2		29		1S	↓	↓	↓	N	↓	↓	↓	↓	↓	↓	↓	1S	↓	10
TP1 50%	3		16		2S	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N	↓	10
TP1 100%	1		30		N	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	10
TP1 100%	2		26		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	10
TP1 100%	3		21		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	10

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
	B. Hester		3-Jul-2012 1630	17-Jul-2012 1430

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
Control	0	2	6.7	6.7	3	20.5	BH	7.3.12	
Control	1				3	21.2	JL	7/04/12	
Control	2				3	21.0	JL	7/05/12	
Control	3				3	21.4	CR	7/6/12	
Control	4				3	21.5	JL	7/07/12	
Control	5				3	22.5	[illegible]	7/8/12	
Control	6				3	21.4	CR	7/9/12	
Control	7				3	21.3	CR	7/10/12	
Control	8				3	21.9	CR	7/11/12	
Control	9				3	21.8	CR	7/12/12	
Control	10				3	21.9	JL	7/13/12	
Control	11				3	21.5	JL	7/14/12	
Control	12				3	21.6	JL	7/15/12	
Control	13				3	21.5	MMS	7/16/12	
Control	14	2	8.2	7.9	3	21.4	BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
Background	0	2	5.9	6.6			BH	7.3.12	
Background	1								
Background	2								
Background	3								
Background	4								
Background	5								
Background	6								
Background	7								
Background	8								
Background	9								
Background	10								
Background	11								
Background	12								
Background	13								
Background	14	2	8.1	7.9			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
.	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP3 6.25%	0	2	6.0	5.7			7.3.12	BH	
TP3 6.25%	1								
TP3 6.25%	2								
TP3 6.25%	3								
TP3 6.25%	4								
TP3 6.25%	5								
TP3 6.25%	6								
TP3 6.25%	7								
TP3 6.25%	8								
TP3 6.25%	9								
TP3 6.25%	10								
TP3 6.25%	11								
TP3 6.25%	12								
TP3 6.25%	13								
TP3 6.25%	14	2	7.4	7.3			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
.	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP3 12.5%	0	2	5.9	5.8			BH	7.7.12	
TP3 12.5%	1								
TP3 12.5%	2								
TP3 12.5%	3								
TP3 12.5%	4								
TP3 12.5%	5								
TP3 12.5%	6								
TP3 12.5%	7								
TP3 12.5%	8								
TP3 12.5%	9								
TP3 12.5%	10								
TP3 12.5%	11								
TP3 12.5%	12								
TP3 12.5%	13								
TP3 12.5%	14	2	7.2	7.0			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
.	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP3 25%	0	2	5.9	5.8			BH	7.3.12	
TP3 25%	1								
TP3 25%	2								
TP3 25%	3								
TP3 25%	4								
TP3 25%	5								
TP3 25%	6								
TP3 25%	7								
TP3 25%	8								
TP3 25%	9								
TP3 25%	10								
TP3 25%	11								
TP3 25%	12								
TP3 25%	13								
TP3 25%	14	2	6.9	6.4			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP3 50%	0	2	6.2	6.0			BH	7.3.12	
TP3 50%	1								
TP3 50%	2								
TP3 50%	3								
TP3 50%	4								
TP3 50%	5								
TP3 50%	6								
TP3 50%	7								
TP3 50%	8								
TP3 50%	9								
TP3 50%	10								
TP3 50%	11								
TP3 50%	12								
TP3 50%	13								
TP3 50%	14	2	6.6	6.2			BH	7.3.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
.	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP3 100%	0	7	6.2	6.3			BH	7.3.12	
TP3 100%	1								
TP3 100%	2								
TP3 100%	3								
TP3 100%	4								
TP3 100%	5								
TP3 100%	6								
TP3 100%	7								
TP3 100%	8								
TP3 100%	9								
TP3 100%	10								
TP3 100%	11								
TP3 100%	12								
TP3 100%	13								
TP3 100%	14	7	6.6	6.2			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
.	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP1 25%	0	2	6.3	6.1			BH	7.3.12	
TP1 25%	1								
TP1 25%	2								
TP1 25%	3								
TP1 25%	4								
TP1 25%	5								
TP1 25%	6								
TP1 25%	7								
TP1 25%	8								
TP1 25%	9								
TP1 25%	10								
TP1 25%	11								
TP1 25%	12								
TP1 25%	13								
TP1 25%	14	2	6.5	6.1			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP1 50%	0	7	6.3	6.1			BH	7.3.12	
TP1 50%	1								
TP1 50%	2								
TP1 50%	3								
TP1 50%	4								
TP1 50%	5								
TP1 50%	6								
TP1 50%	7								
TP1 50%	8								
TP1 50%	9								
TP1 50%	10								
TP1 50%	11								
TP1 50%	12								
TP1 50%	13								
TP1 50%	14	7	6.4	6.1			BH	7.17.12	

NEWFIELDS

14-DAY SOIL TOXICITY DATA SHEET

CLIENT	PROJECT	SPECIES 1	NEWFIELDS LABORATORY	PROTOCOL
Geoengineers	Confidential	*Eisinia foetida*	Port Gamble Bath 3	WDOE 96-327
NEWFIELDS JOB NUMBER	**PROJECT MANAGER**		**TEST START DATE**	**TEST END DATE**
	B. Hester		3-Jul-2012	17-Jul-2012

SOIL QUALITY DATA

TEST CONDITIONS		pH			TEMP (°C)				
		5 - 9			22±2				
CLIENT/NEWFIELDS ID	DAY	pH			TEMP		Tech	Date	Comments
		meter	T^{0min}	T^{30min}	meter	°C			
TP1 100%	0	7	6.8	6.6			BH	7.3.12	
TP1 100%	1								
TP1 100%	2								
TP1 100%	3								
TP1 100%	4								
TP1 100%	5								
TP1 100%	6								
TP1 100%	7								
TP1 100%	8								
TP1 100%	9								
TP1 100%	10								
TP1 100%	11								
TP1 100%	12								
TP1 100%	13								
TP1 100%	14	7	6.1	5.9			BH	7.17.12	

APPENDIX A.1.2

Eisenia foetida

Earthworm Bioassay

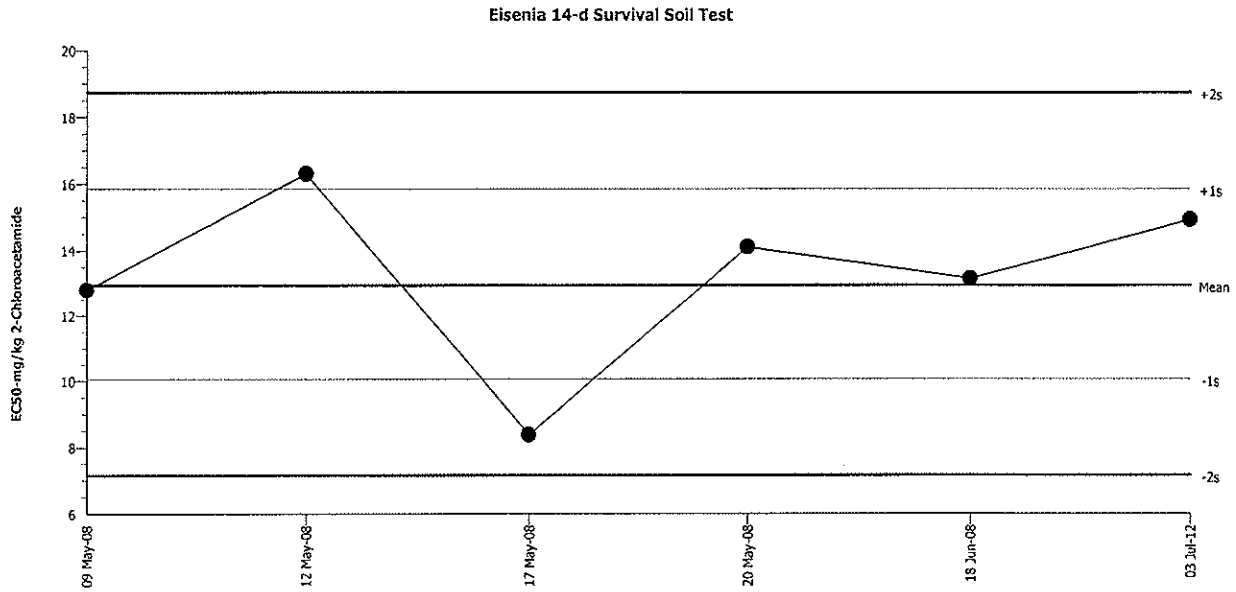
Reference Toxicant Test

CETIS QC Plot

Report Date: 23 Jul-12 13:55 (1 of 1)

Eisenia 14-d Survival Soil Test — NewFields

Test Type:	Survival	**Organism:**	Eisenia fetida (Red worm)	**Material:**	2-Chloroacetamide
Protocol:	WDOE 1996	**Endpoint:**	Proportion Survived	**Source:**	Reference Toxicant-REF



Mean:	12.95	**Count:**	5	**-1s Warning Limit:**	10.05	**-2s Action Limit:**	7.156
Sigma:	2.897	**CV:**	22.40%	**+1s Warning Limit:**	15.85	**+2s Action Limit:**	18.74

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2008	May	9	0:00	12.8	-0.1508	-0.05205			03-7045-3312	08-0293-7348
2			12	0:00	16.3	3.354	1.158	(+)		06-6813-2369	06-8879-9526
3			17	0:00	8.375	-4.575	-1.579	(-)		04-0646-2279	11-4335-9796
4			20	0:00	14.1	1.153	0.3979			02-7999-0777	20-6103-4174
5		Jun	18	0:00	13.16	0.207	0.07146			15-7464-3863	11-8764-3791
6	2012	Jul	3	16:30	14.94	1.991	0.6872			13-0900-8909	14-6931-2807

CETIS Summary Report

Eisenia 14-d Survival Soil Test — **NewFields**

Batch ID:	13-8262-7401	**Test Type:**	Survival	**Analyst:**	
Start Date:	03 Jul-12 16:30	**Protocol:**	WDOE 1996	**Diluent:**	Deionized Water
Ending Date:	17 Jul-12 16:00	**Species:**	Eisenia fetida	**Brine:**	Not Applicable
Duration:	13d 23h	**Source:**	Aquatic Research Organisms, NH	**Age:**	

Sample ID:	17-6588-8569	**Code:**	69415239	**Client:**	Internal Lab
Sample Date:	07 May-08	**Material:**	2-Chloroacetamide	**Project:**	Reference Toxicant
Receive Date:	07 May-08	**Source:**	Reference Toxicant		
Sample Age:	1518d 16h	**Station:**	P080507.06		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
18-7231-7206	Proportion Survived	10	20	14.14	17.1%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	mg/kg	95% LCL	95% UCL	TU	Method
14-6931-2807	Proportion Survived	EC50	14.94	14.07	15.87		Spearman-Kärber

Proportion Survived Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	3	1	1	1	1	1	0	0	0.0%	0.0%
10		3	1	1	1	1	1	0	0	0.0%	0.0%
20		3	0.1	0.03532	0.1647	0	0.3	0.1	0.1732	173.2%	90.0%
30		3	0	0	0	0	0	0	0		100.0%
40		3	0	0	0	0	0	0	0		100.0%

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1	1	1
10		1	1	1
20		0	0	0.3
30		0	0	0
40		0	0	0

Proportion Survived Binomials

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	10/10	10/10	10/10
10		10/10	10/10	10/10
20		0/10	0/10	3/10
30		0/10	0/10	0/10
40		0/10	0/10	0/10

CETIS Test Data Worksheet

Eisenia 14-d Survival Soil Test — **NewFields**

Start Date:	03 Jul-12 16:30	**Species:**	Eisenia fetida	**Sample Code:**	69415239
End Date:	17 Jul-12 16:00	**Protocol:**	WDOE 1996	**Sample Source:**	Reference Toxicant
Sample Date:	07 May-08	**Material:**	2-Chloroacetamide	**Sample Station:**	P080507.06

C-mg/kg	Code	Rep	Pos	# Exposed	# Survived	Notes
0	N	1	5	10	10	
0	N	2	10	10	10	
0	N	3	6	10	10	
10		1	3	10	10	
10		2	8	10	10	
10		3	15	10	10	
20		1	13	10	0	
20		2	9	10	0	
20		3	14	10	3	
30		1	11	10	0	
30		2	12	10	0	
30		3	7	10	0	
40		1	2	10	0	
40		2	1	10	0	
40		3	4	10	0	

Analyst: BH QA: BH

NEWFIELDS

Eisinia foetida
Reference Toxicant Test

Test ID:	Replicates:	Study Director:	Location:
P080507.06	3	BH	Bath 3
Dry Weight of Soil: 600g (200g/rep)	**Organism Batch:** ARO 0121	**Associated Test(s):** Geoengineers	**No. of Organisms:** 10
Toxicant: 2-Chloroacetamide	**Lot Number:** 126K0689	**Date Dilutions Prepared:** 7.3.12	**Initials:** BH

Stock Preparation:
4.5g of 2-Chloroacetamide / 200mL DI

	Quantity of Artificial Soil:	Quantity of Stock Target:	Quantity of Diluent (DI) Target: (270 mL – Stock Soln.)
Target Concentration: **10 mg/kg**	**600 g**	**0.27 mL**	**269.73 mL**
	Actual: 600.0	Actual: 0.270	Actual: 269.75
Target Concentration: **20 mg/kg**	**600 g**	**0.53 mL**	**269.47 mL**
	Actual: 600.0	Actual: 0.530	Actual: 269.45
Target Concentration: **30 mg/kg**	**600 g**	**0.80 mL**	**269.20 mL**
	Actual: 600.0	Actual: 0.800	Actual: 269.20
Target Concentration: **40 mg/kg**	**600 g**	**1.07 mL**	**268.93 mL**
	Actual: 600.0	Actual: 1.07	Actual: 268.93

Activity:	Date:	Time:	Technician:
Test Initiation:	7.3.12	1630	BH / ER
Test Termination:	7.17.12	1600	BH

pH Measurement: 5 – 9; (6.5 – 7.5 Ideal) 50% soil/DI slurry	Control	Highest Concentration (40mg/kg)
Initial (Day 0)	6.7 / 6.7	—
Final (Day 14)	8.2 / 7.9	—

Initial Worm Wet Weight (subsample of 10) (3-6g)	4.52 g
Mean Wet Weight: Recommended ~~(3 – 6 g)~~ 0.3-0.6g	0.45 g

NEWFIELDS

Eisinia foetida
Reference Toxicant Test

Observations / Treatment	Day / Rep	1	2	3	4	5	6	7	8	9	10	11	12	13	14 (# Alive)
Control	1	N	N	N	N	N	N	N	N	N	N	N	N	N	10
Control	2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	10
Control	3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	10
10 mg/kg	1	2S	4S	3S	4S	3S	3S	2S	3S	3S	1S	3S	2S	1S	10
10 mg/kg	2	3S	3S	3S	4S	4S	2S	2S	4S	5S	5S	6S	4S	5S	10
10 mg/kg	3	3S	3S	N	N	N	N	N	N	N	N	N	N	N	10
20 mg/kg	1	9S	7M,1S	10M	10m	10m	*	*	*	*	*	*	*	*	0
20 mg/kg	2	10S	6M,4S	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
20mg/kg	3	9S	4M,4S	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	3
30mg/kg	1	10S	10M	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
30mg/kg	2	10S	8M,2S	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
30mg/kg	3	10S	10M	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
40mg/kg	1	9S	10M	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
40mg/kg	2	10S	10M	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0
40mg/kg	3	8S	10M	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0

Observation Key: **#S**: # on surface, **#M**: # mortality on surface, **B**: worms balled on surface

* Worms degraded on surface, unable to count CR 7/9

APPENDIX B

STATISTICAL COMPARISONS

Eisenia 14-d Survival Soil Test NewFields

Analysis ID:	20-2157-2928	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes
Batch ID:	00-7080-4471	**Test Type:**	Survival	**Analyst:**	
Start Date:	03 Jul-12 16:30	**Protocol:**	WDOE 1996	**Diluent:**	Not Applicable
Ending Date:	17 Jul-12 14:30	**Species:**	Eisenia fetida	**Brine:**	Not Applicable
Duration:	13d 22h	**Source:**	Aquatic Research Organisms, NH	**Age:**	
Sample ID:	02-3466-4319	**Code:**	DFCB17F	**Client:**	Geoengineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Project:**	GeoEngineers Sekiu Project
Receive Date:	29 Jun-12 10:40	**Source:**	GeoEngineers		
Sample Age:	6d 7h	**Station:**	TP3BIO-SWS-062712-3		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	7.35%	Passes proportion survived

Equal Variance t Two-Sample Test

Control	vs	Control	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		Background	1	2.132	0.116	4	0.1870	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.004426555	0.004426555	1	1	0.3739	Non-Significant Effect
Error	0.01770622	0.004426555	4			
Total	0.02213278		5			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	98.5	0.4226	Equal Variances
Variances	Levene Equality of Variance	16	21.2	0.0161	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8137	0.43	0.0778	Normal Distribution

Proportion Survived Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	3	1	1	1	1	1	1	0	0.0%	0.0%
0	Background	3	0.9667	0.8232	1	1	0.9	1	0.03333	5.97%	3.33%

Angular (Corrected) Transformed Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%
0	Background	3	1.358	1.124	1.591	1.412	1.249	1.412	0.05432	6.93%	3.85%

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Background	0.9	1	1
0	Negative Control	1	1	1

Angular (Corrected) Transformed Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Background	1.249	1.412	1.412
0	Negative Control	1.412	1.412	1.412

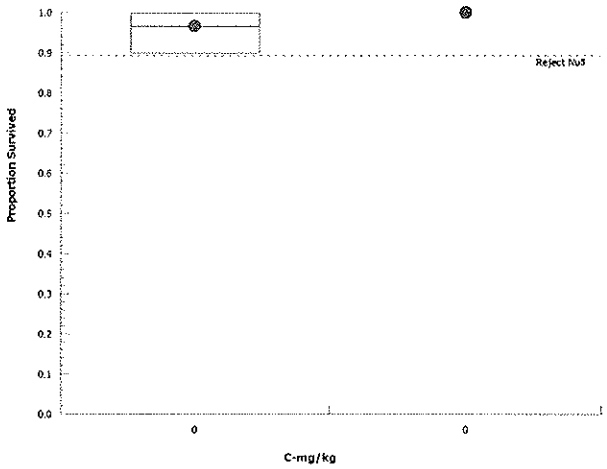
Proportion Survived Binomials

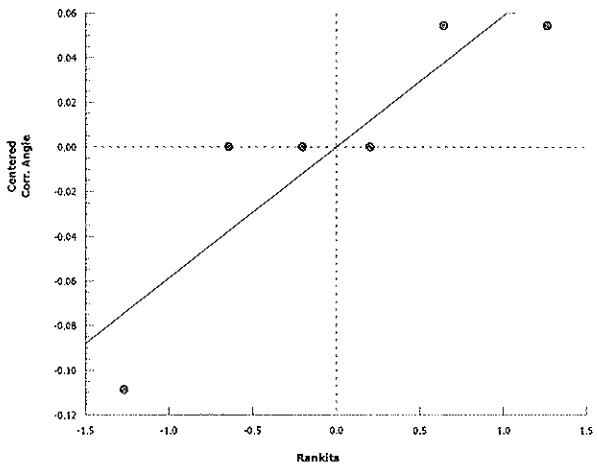
C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Background	9/10	10/10	10/10
0	Negative Control	10/10	10/10	10/10

Eisenia 14-d Survival Soil Test **NewFields**

Analysis ID:	20-2157-2928	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Graphics





Eisenia 14-d Survival Soil Test — **NewFields**

Analysis ID:	19-2909-3283	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:31	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes
Batch ID:	09-1207-3957	**Test Type:**	Survival	**Analyst:**	
Start Date:	03 Jul-12 16:31	**Protocol:**	WDOE 1996	**Diluent:**	Not Applicable
Ending Date:	17 Jul-12 14:31	**Species:**	Eisenia fetida	**Brine:**	Not Applicable
Duration:	13d 22h	**Source:**	Aquatic Research Organisms, NH	**Age:**	
Sample ID:	06-5785-9887	**Code:**	2736252F	**Client:**	Geoengineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Project:**	GeoEngineers Sekiu Project
Receive Date:	29 Jun-12 10:40	**Source:**	GeoEngineers		
Sample Age:	6d 7h	**Station:**	TP1BIO-SWN-062712-3		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.2%	1700	>1700	NA	

Dunnett Multiple Comparison Test

Control	vs	C-mg/kg	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		770*	2.828	2.417	0.093	4	0.0271	CDF	Significant Effect
		1200	0	2.417	0.093	4	0.7500	CDF	Non-Significant Effect
		1700	0	2.417	0.093	4	0.7500	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02655933	0.00885311	3	4	0.0519	Non-Significant Effect
Error	0.01770622	0.002213278	8			
Total	0.04426555		11			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	16.69	0.4789	Equal Variances
Variances	Levene Equality of Variance	16	7.591	0.0010	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.65	0.8025	0.0003	Non-normal Distribution

Proportion Survived Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	3	1	1	1	1	1	1	0	0.0%	0.0%
770		3	0.9333	0.7899	1	0.9	0.9	1	0.03333	6.19%	6.67%
1200		3	1	1	1	1	1	1	0	0.0%	0.0%
1700		3	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%
770		3	1.303	1.07	1.537	1.249	1.249	1.412	0.05432	7.22%	7.69%
1200		3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%
1700		3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1	1	1
770		1	0.9	0.9
1200		1	1	1
1700		1	1	1

Eisenia 14-d Survival Soil Test — NewFields

Analysis ID:	19-2909-3283	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:31	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

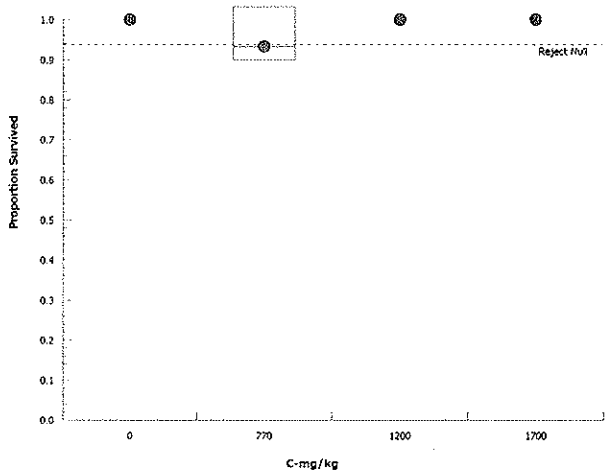
Angular (Corrected) Transformed Detail

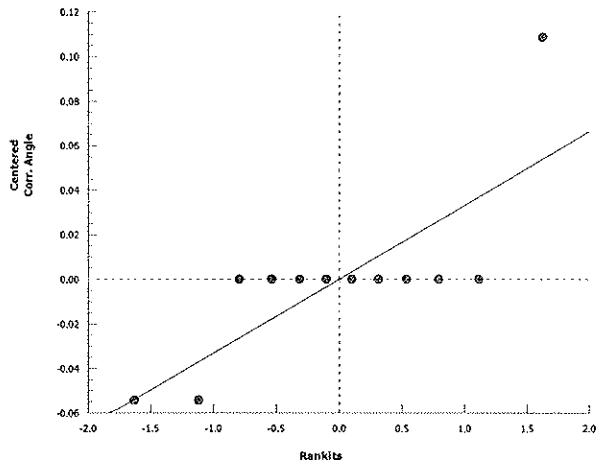
C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1.412	1.412	1.412
770		1.412	1.249	1.249
1200		1.412	1.412	1.412
1700		1.412	1.412	1.412

Proportion Survived Binomials

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	10/10	10/10	10/10
770		10/10	9/10	9/10
1200		10/10	10/10	10/10
1700		10/10	10/10	10/10

Graphics





Eisenia 14-d Survival Soil Test **NewFields**

Analysis ID:	05-9436-3717	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:31	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Batch ID:	09-1207-3957	**Test Type:**	Survival	**Analyst:**	
Start Date:	03 Jul-12 16:31	**Protocol:**	WDOE 1996	**Diluent:**	Not Applicable
Ending Date:	17 Jul-12 14:31	**Species:**	Eisenia fetida	**Brine:**	Not Applicable
Duration:	13d 22h	**Source:**	Aquatic Research Organisms, NH	**Age:**	
Sample ID:	06-5785-9887	**Code:**	2736252F	**Client:**	Geoengineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Project:**	GeoEngineers Sekiu Project
Receive Date:	29 Jun-12 10:40	**Source:**	GeoEngineers		
Sample Age:	6d 7h	**Station:**	TP1BIO-SWN-062712-3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	696359	200	Yes	Two-Point Interpolation

Point Estimates

Level	mg/kg	95% LCL	95% UCL
EC5	>1700	N/A	N/A
EC10	>1700	N/A	N/A
EC15	>1700	N/A	N/A
EC20	>1700	N/A	N/A
EC25	>1700	N/A	N/A
EC40	>1700	N/A	N/A
EC50	>1700	N/A	N/A

Proportion Survived Summary

			Calculated Variate(A/B)								
C-mg/kg	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	3	1	1	1	0	0	0.0%	0.0%	30	30
770		3	0.9333	0.9	1	0.03333	0.05773	6.19%	6.67%	28	30
1200		3	1	1	1	0	0	0.0%	0.0%	30	30
1700		3	1	1	1	0	0	0.0%	0.0%	30	30

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1	1	1
770		1	0.9	0.9
1200		1	1	1
1700		1	1	1

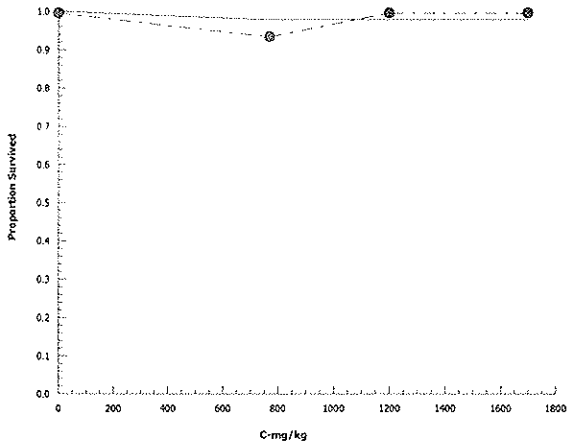
Proportion Survived Binomials

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	10/10	10/10	10/10
770		10/10	9/10	9/10
1200		10/10	10/10	10/10
1700		10/10	10/10	10/10

Eisenia 14-d Survival Soil Test — **NewFields**

Analysis ID:	05-9436-3717	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:31	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Graphics



CETIS Test Data Worksheet

Eisenia 14-d Survival Soil Test — **NewFields**

Start Date:	03 Jul-12 16:31	**Species:**	Eisenia fetida	**Sample Code:**	2736252F
End Date:	17 Jul-12 14:31	**Protocol:**	WDOE 1996	**Sample Source:**	GeoEngineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Sample Station:**	TP1BIO-SWN-062712-3

C-mg/kg	Code	Rep	Pos	# Exposed	# Survived	Notes
0	BG	1	4	10	9	
0	BG	2	7	10	10	
0	BG	3	15	10	10	
0	N	1	12	10	10	
0	N	2	6	10	10	
0	N	3	2	10	10	
770		1	14	10	10	
770		2	13	10	9	
770		3	1	10	9	
1200		1	10	10	10	
1200		2	5	10	10	
1200		3	3	10	10	
1700		1	11	10	10	
1700		2	8	10	10	
1700		3	9	10	10	

Eisenia 14-d Survival Soil Test NewFields

Analysis ID:	02-5512-6508	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:35	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes
Batch ID:	00-7080-4471	**Test Type:**	Survival	**Analyst:**	
Start Date:	03 Jul-12 16:30	**Protocol:**	WDOE 1996	**Diluent:**	Not Applicable
Ending Date:	17 Jul-12 14:30	**Species:**	Eisenia fetida	**Brine:**	Not Applicable
Duration:	13d 22h	**Source:**	Aquatic Research Organisms, NH	**Age:**	
Sample ID:	02-3466-4319	**Code:**	DFCB17F	**Client:**	Geoengineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Project:**	GeoEngineers Sekiu Project
Receive Date:	29 Jun-12 10:40	**Source:**	GeoEngineers		
Sample Age:	6d 7h	**Station:**	TP3BIO-SWS-062712-3		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	11.4%	11000	>11000	NA	

Dunnett Multiple Comparison Test

Control	vs	C-mg/kg	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		260	0.7301	2.502	0.186	4	0.5464	CDF	Non-Significant Effect
		460	0	2.502	0.186	4	0.8333	CDF	Non-Significant Effect
		1900	0.7301	2.502	0.186	4	0.5464	CDF	Non-Significant Effect
		3200	2.096	2.502	0.186	4	0.0979	CDF	Non-Significant Effect
		11000	1.46	2.502	0.186	4	0.2485	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.05642211	0.01128442	5	1.359	0.3060	Non-Significant Effect
Error	0.09966474	0.008305395	12			
Total	0.1560868		17			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.013	8.746	0.4839	Equal Variances
Variances	Levene Equality of Variance	3.361	5.064	0.0396	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9508	0.8546	0.4377	Normal Distribution

Proportion Survived Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	3	1	1	1	1	1	1	0	0.0%	0.0%
260		3	0.9667	0.8232	1	1	0.9	1	0.03333	5.97%	3.33%
460		3	1	1	1	1	1	1	0	0.0%	0.0%
1900		3	0.9667	0.8232	1	1	0.9	1	0.03333	5.97%	3.33%
3200		3	0.9	0.6516	1	0.9	0.8	1	0.05774	11.11%	10.0%
11000		3	0.9333	0.7899	1	0.9	0.9	1	0.03333	6.19%	6.67%

Angular (Corrected) Transformed Summary

C-mg/kg	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%
260		3	1.358	1.124	1.591	1.412	1.249	1.412	0.05432	6.93%	3.85%
460		3	1.412	1.411	1.413	1.412	1.412	1.412	0	0.0%	0.0%
1900		3	1.358	1.124	1.591	1.412	1.249	1.412	0.05432	6.93%	3.85%
3200		3	1.256	0.8771	1.635	1.249	1.107	1.412	0.08808	12.15%	11.04%
11000		3	1.303	1.07	1.537	1.249	1.249	1.412	0.05432	7.22%	7.69%

Eisenia 14-d Survival Soil Test **NewFields**

Analysis ID:	02-5512-6508	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:35	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1	1	1
260		0.9	1	1
460		1	1	1
1900		1	0.9	1
3200		0.9	1	0.8
11000		0.9	0.9	1

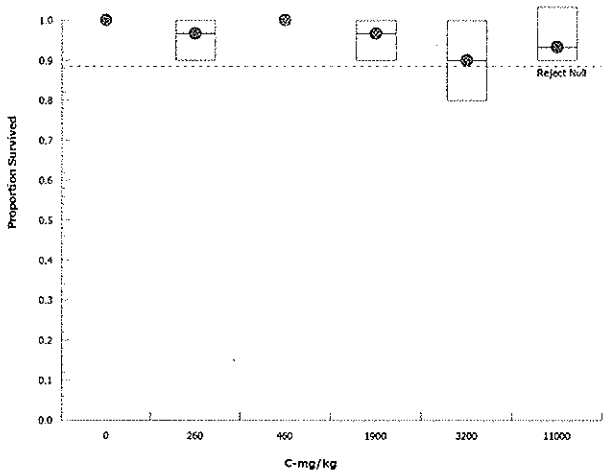
Angular (Corrected) Transformed Detail

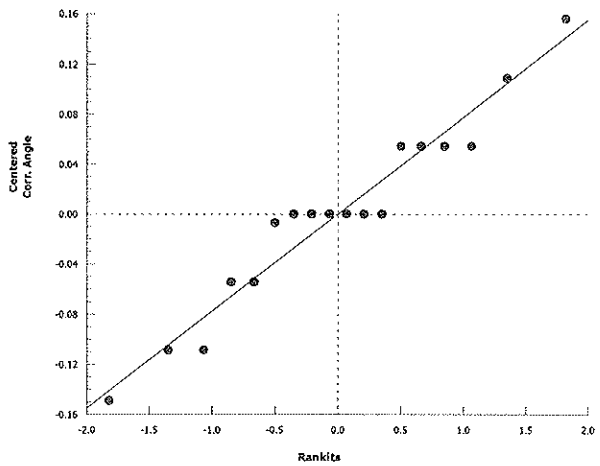
C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1.412	1.412	1.412
260		1.249	1.412	1.412
460		1.412	1.412	1.412
1900		1.412	1.249	1.412
3200		1.249	1.412	1.107
11000		1.249	1.249	1.412

Proportion Survived Binomials

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	10/10	10/10	10/10
260		9/10	10/10	10/10
460		10/10	10/10	10/10
1900		10/10	9/10	10/10
3200		9/10	10/10	8/10
11000		9/10	9/10	10/10

Graphics





Eisenia 14-d Survival Soil Test — NewFields

Analysis ID:	10-6331-4187	Endpoint:	Proportion Survived	CETIS Version:	CETISv1.8.5
Analyzed:	23 Jul-12 14:35	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	00-7080-4471	Test Type:	Survival	Analyst:	
Start Date:	03 Jul-12 16:30	Protocol:	WDOE 1996	Diluent:	Not Applicable
Ending Date:	17 Jul-12 14:30	Species:	Eisenia fetida	Brine:	Not Applicable
Duration:	13d 22h	Source:	Aquatic Research Organisms, NH	Age:	
Sample ID:	02-3466-4319	Code:	DFCB17F	Client:	Geoengineers
Sample Date:	27 Jun-12 10:00	Material:	Total TPH	Project:	GeoEngineers Sekiu Project
Receive Date:	29 Jun-12 10:40	Source:	GeoEngineers		
Sample Age:	6d 7h	Station:	TP3BIO-SWS-062712-3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	1401337	200	Yes	Two-Point Interpolation

Point Estimates

Level	mg/kg	95% LCL	95% UCL
EC5	2261	N/A	N/A
EC10	>11000	N/A	N/A
EC15	>11000	N/A	N/A
EC20	>11000	N/A	N/A
EC25	>11000	N/A	N/A
EC40	>11000	N/A	N/A
EC50	>11000	N/A	N/A

Proportion Survived Summary

			Calculated Variate(A/B)								
C-mg/kg	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	3	1	1	1	0	0	0.0%	0.0%	30	30
260		3	0.9667	0.9	1	0.03333	0.05773	5.97%	3.33%	29	30
460		3	1	1	1	0	0	0.0%	0.0%	30	30
1900		3	0.9667	0.9	1	0.03333	0.05773	5.97%	3.33%	29	30
3200		3	0.9	0.8	1	0.05774	0.1	11.11%	10.0%	27	30
11000		3	0.9333	0.9	1	0.03333	0.05773	6.19%	6.67%	28	30

Proportion Survived Detail

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	1	1	1
260		0.9	1	1
460		1	1	1
1900		1	0.9	1
3200		0.9	1	0.8
11000		0.9	0.9	1

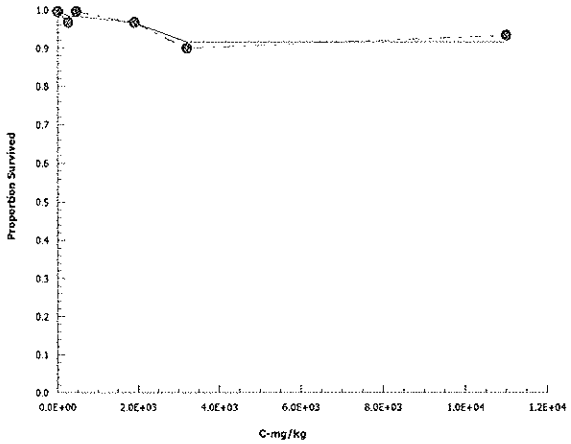
Proportion Survived Binomials

C-mg/kg	Control Type	Rep 1	Rep 2	Rep 3
0	Negative Control	10/10	10/10	10/10
260		9/10	10/10	10/10
460		10/10	10/10	10/10
1900		10/10	9/10	10/10
3200		9/10	10/10	8/10
11000		9/10	9/10	10/10

Eisenia 14-d Survival Soil Test **NewFields**

Analysis ID:	10-6331-4187	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.5
Analyzed:	23 Jul-12 14:35	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Graphics



CETIS Test Data Worksheet

Eisenia 14-d Survival Soil Test				NewFields
Start Date:	03 Jul-12 16:30	**Species:**	Eisenia fetida	**Sample Code:** DFCB17F
End Date:	17 Jul-12 14:30	**Protocol:**	WDOE 1996	**Sample Source:** GeoEngineers
Sample Date:	27 Jun-12 10:00	**Material:**	Total TPH	**Sample Station:** TP3BIO-SWS-062712-3

C-mg/kg	Code	Rep	Pos	# Exposed	# Survived	Notes
0	BG	1	8	10	9	
0	BG	2	17	10	10	
0	BG	3	13	10	10	
0	N	1	21	10	10	
0	N	2	4	10	10	
0	N	3	10	10	10	
260		1	7	10	9	
260		2	9	10	10	
260		3	16	10	10	
460		1	19	10	10	
460		2	3	10	10	
460		3	12	10	10	
1900		1	15	10	10	
1900		2	14	10	9	
1900		3	2	10	10	
3200		1	5	10	9	
3200		2	18	10	10	
3200		3	1	10	8	
11000		1	20	10	9	
11000		2	11	10	9	
11000		3	6	10	10	

APPENDIX C

CHAIN-OF-CUSTODY FORMS

NEWFIELDS

NewFields Northwest, LLC.
Shipping: 4725 View Dr.
Mailing: P.O. Box 216
Port Gamble, WA. 98364
Tel: (360) 297-6040, Fax: (360)297-7268

CHAIN OF CUSTODY

13890

Destination Lab: NewFields	Sample Originator: GeoEngineers	Report Results To: Rob GeoEngineers	Phone:
Destination Contact: B. Hester	Contact Name: Rob Leet	Contact Name: Rob Leet	Fax:
Date: 6.29.12	Address:	Address:	Email:
Turn-Around-Time			
Project Name	Phone: (206)728-2674	Analysis	Invoicing To:
	Fax:		Comments or Special Instructions:
Contract/PO:	E-mail: rleet@geoengineers.com		

No.	Sample ID	Matrix	No. & Type of Container	Date & Time	Analysis: 14d Extension LC50	Preservation	Sample Temp Upon Receipt	LAB ID
1	GEI2BB10-SWW-062712-3	Soil	1 bag	6.27.12 1000		Ice		P120629.01
2	TP3B10-SWS-062712-3	Soil	1 bag	↓		↓		P120629.02
3	TP1B10-SWN-062712-3	Soil		↓		↓		P120629.03
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Relinquished by:	Recieved by:	Relinquished by:	Recieved by:	Matrix Codes
Print Name: Aaron Waggoner	Print Name: Brian Hester	Print Name:	Print Name:	FW = Fresh Water
Signature:	Signature:	Signature:	Signature:	WW = Waste Water
Affiliation: GeoEngineers	Affiliation: NewFields	Affiliation:	Affiliation:	SB = Salt & Brackish Water
Date/Time: 6/29/12 / 1040	Date/Time: 6.29.12 1040	Date/Time:	Date/Time:	SS = Soil & Sediment
				TS = plant & Animal Tissue
				OT = Other

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

APPENDIX G
Laboratory Analytical Reports and Analytical Data Quality Review

APPENDIX G
LABORATORY ANALYTICAL REPORTS AND ANALYTICAL DATA QUALITY REVIEW

General

Chain-of-custody procedures were followed during the transfer of field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The laboratory analytical reports, including analytical methods reference and laboratory quality assurance/quality control (QA/QC) records, are included in this appendix.

Analytical Data Quality Review

The analytical laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of method blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries, blank spike duplicate recoveries, control samples, and control sample duplicates to assess the quality of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The laboratory's data quality goals are included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report.

GeoEngineers validated the laboratory analytical data in accordance with U.S. Environmental Protection Agency guidance. The data validation reports are included in this appendix. Based on the results of the data validation, it is our opinion that the analytical data are of acceptable quality for their intended use.

Data Validation Report

Plaza 600 Building, 600 Stewart Street, Suite 1700, Seattle, WA 98101, Telephone: 206.728.2674, Fax: 206.728.2732 www.geoengineers.com

Project:	Rayonier Sekiu Log Sorting Yard Cleanup Action – 2012 Soil Samples
GEI File No:	00137-018-03
Date:	October 16, 2013

GENERAL

This report presents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2A validation (USEPA Document EPA-540-R-08-005; USEPA, 2009) of analytical data from the analyses of soil samples obtained in 2012 from the Former Sekiu Log Sorting Yard Site in Sekiu, Washington. The Stage 2A validation was modified to include additional quality control elements.

Objective and Quality Control (QC) Elements

The objective of the data validation was to review laboratory analytical procedures and QC results to evaluate whether:

- The samples were analyzed using well-defined and acceptable methods that provide quantitation limits below applicable regulatory criteria;
- The precision and accuracy of the data are well defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

The laboratory data were reviewed for the following QC elements:

- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Internal Standards
- Instrument Continuing Calibration (CCALs)
- Miscellaneous

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Chemical Analysis Performed:

The soil samples obtained were submitted to OnSite Environmental, Inc. (OnSite), located in Redmond, Washington for chemical analysis using one or more of the following analyses:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Method SW8270-SIM; and
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx

OnSite Sample Delivery Groups (SDGs)

The following laboratory SDGs were delivered by OnSite and were reviewed by GeoEngineers for QC elements listed above:

- 1206-045
- 1206-059
- 1206-070
- 1206-119
- 1206-225
- 1206-226
- 1206-226B
- 1207-044

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below. The data validation was performed using guidance in *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA, 2008).

Chain-of-Custody Documentation

Chain-of-custody forms were provided with the laboratory analytical reports. No transcription errors were found and the appropriate signatures were applied. There were no anomalies mentioned in the sample receipt forms, as the samples were transported to the laboratory at the appropriate temperatures of between 2 and 6 degrees Celsius, with the following exception:

- SDG 1206-070: The sample cooler temperature recorded at the laboratory was 0 degrees Celsius. The sample cooler was received by the laboratory within 12 hours of the sampling event, therefore no qualifiers were required for this outlier.
- SDG 1206-119: The sample cooler temperature recorded at the laboratory was 13 degrees Celsius. The sample cooler was received by the laboratory within 12 hours of the sampling event, with the exception of two samples, TP1EX-SWN-061412-3 and TP11EX-SWW-061412-3. These samples were

collected more than 24 hours prior to receipt by the laboratory and for this reason, the positive results for Bunker C were qualified as estimated (J) in Samples TP1EX-SWN-061412-3 and TP11EX-SWW-061412-3.

Holding Times and Sample Preservation

The holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time and sample preservation criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Recommended holding times and sample preservation were met for all analyses.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added at a known concentration and percent recoveries (%R) are calculated following analysis. All surrogate recoveries for field samples were within the laboratory control limits, with the following exceptions:

- SDG 1206-059: (PAHs) The %R value for the surrogate 2-Fluorobiphenyl was less than the control limit in Sample TP3EX-SWS-060712-2. However, the sample was spiked with a total of three base-neutral surrogates. In this case, there were at least two other surrogates that exhibited %R values within their respective control limits. No action was required for this outlier.
- SDG 1206-070: (NWTPH-Dx) The surrogate o-terphenyl in Sample TP11EX-BASE-060712-6.5 was not recoverable because of sample dilution (100X). The surrogate is added to the sample when it is extracted. If the sample is diluted 10X or more, recovery of the surrogate is often not possible because the surrogate is also diluted below the linear calibration range of the instrument. No action was required for this outlier.
- SDG 1206-226: (NWTPH-Dx) The surrogate o-terphenyl in Samples TP11B1-062812-5.5-6, TP1B3-062812-3, TP3B2-062812-4, and TP3B3-062812-3 was not recoverable because of sample dilution (10X). The surrogate is added to the sample when it is extracted. If the sample is diluted 10X or more, recovery of the surrogate is often not possible because the surrogate is also diluted below the linear calibration range of the instrument. No action was required for these outliers.
- SDG 1206-226B: (NWTPH-Dx) The surrogate o-terphenyl in Samples TP11B2-062812-5.5-6, TP1B6-062812-3.5, TP1B6-062812-5.5-6, TP3B5-062812-2, TP3B5-062812-5.5-6, and TP3B7-062812-2.5 was not recoverable because of sample dilutions (ranging from 10X to 100X). The surrogate is added to the sample when it is extracted. If the sample is diluted 10X or more, recovery of the surrogate is often not possible because the surrogate is also diluted below the linear calibration range of the instrument. No action was required for these outliers.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. Method blanks were analyzed with each batch of samples, at a frequency of one per twenty samples. In cases were target analytes are qualified as non-detected because of blank contamination, the new reporting limit is elevated to the level of the concentration reported in the sample. No method blank detections were reported by the testing laboratory.

Matrix Spikes/Matrix Spike Duplicates

There were no matrix spike/matrix spike duplicates performed on the associated batch samples.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R value is calculated. Laboratory control sample duplicate (LCSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as an LCS. Using the reported concentrations for the LCS and LCSD, the relative percent difference (RPD) is calculated. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every twenty project samples, whichever is more frequent. The %R and RPD values for all target analytes in the LCS/LCSD analyses were within the laboratory control limits.

Laboratory Duplicates (Fuels analyses only)

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 50 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exception:

- SDG 1206-119: (NWTPH-Dx) A laboratory duplicate analysis was performed on Sample TP1EX-SWN-061412-3. The RPD was greater than the control limit, therefore the positive result for Bunker C was qualified as estimated (J) in Sample TP1EX-SWN-061412-3.

Field Duplicates

Field duplicate samples are obtained and analyzed along with the primary project samples. The duplicate samples are analyzed for the same parameters as the associated primary samples. The RPD between the primary and duplicate samples is used to assess sample heterogeneity and laboratory precision, unless one or more of the samples used has a concentration greater than five times the method reporting limit for that sample. In such cases, the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 50 percent.

There were no field duplicate samples collected for this sampling event.

Internal Standards

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken

place. Internal standards are representative of the target analytes that are similar in retention time to the standard itself. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50% to 200% of the calibration standard. All internal standard recoveries were within the control limits, with the following exceptions:

- SDG 1206-045: (PAHs) The internal standard recoveries for chrysene-d12 and perylene-d12 were less than the control limits for Samples GEI32EX-SWE-06012-3, GEI32EX-SWW-060612-4, GEI32EX-SWN-060612-3, and GEI32EX-SWS-060612-3. The samples were re-analyzed at a dilution (5X) and in all cases the internal standard recoveries were within the control limits. Both sets of data were reported by laboratory, but only the diluted sample results were used for the purposes of this assessment; the reporting limits for these results were elevated. No action was required for these outliers. All of the initial target analyte results were qualified as do-not-report (DNR) and should not be used for any purpose. These database qualifiers were assigned so that only one set of target analyte results would be displayed for the data user.
- SDG 1206-059: (PAHs) The internal standards recoveries for chrysene-d12 and perylene-d12 were less than the control limits for Samples TP1EX-BASE-060612-6.5, TP1EX-SWS-060612-3, TP1EX-SWN-060612-3, and TP3EX-SWE-060712-2. The samples were re-analyzed at a dilution (5X) and in all cases the internal standard recoveries were within the control limits. Both sets of data were reported by laboratory, but only the diluted sample results were used for the purposes of this assessment; the reporting limits for these results were elevated. No action was required for these outliers. All of the initial target analyte results were qualified as DNR and should not be used for any purpose. These database qualifiers were assigned so that only one set of target analyte results would be displayed for the data user.

Instrument Continuing Calibration (CCALs)

All continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. For the organics analyses, all percent difference (%D) values were less than +/- 25% and all relative response factors (RRF) were greater than 0.05.

Miscellaneous

- SDG 1206-226: (NWTPH-Dx) The chromatographic pattern did not match the calibration standard for Bunker C in Samples TP3B3-062812-5.5-6 and TP1B6-062812-3.5. Instead these samples were quantitated using the typical hydrocarbon ranges (diesel and lube oil) specified in the NWTPH-Dx method. Even though the Bunker C reporting limits exceeded the action level, it was determined through professional judgment that the samples were qualitatively assessed by the laboratory in the appropriate manner (i.e., Bunker C could not be identified in these samples).

OVERALL ASSESSMENT

The results of this modified Stage 2A data validation indicate that the laboratory followed the specified analytical methods. The accuracy of the data is acceptable, as demonstrated by the surrogate and LCS/LCSD %R values, with the exceptions noted above. The precision of the data is acceptable, as demonstrated by the LCS/LCSD and laboratory duplicate RPD values, with the exceptions noted above.

Selected data were qualified as estimated (J) because of sample temperature and laboratory duplicate RPD outliers. Selected data were also qualified as do-not-report (DNR) in order to avoid two sets of results being reported for the same sample.

Based on the data validation results, it is our opinion that the analytical data, including data qualified as noted above, are of acceptable quality for their intended use.

REFERENCES

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.

U.S. Environmental Protection Agency (USEPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

Data Validation Report

Plaza 600 Building, 600 Stewart Street, Suite 1700, Seattle, WA 98101, Telephone: 206.728.2674, Fax: 206.728.2732 www.geoengineers.com

Project:	Rayonier Sekiu Log Sorting Yard Cleanup Action – 2013 Soil Samples
GEI File No:	00137-018-03
Date:	October 16, 2013

GENERAL

This report presents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2A validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of soil samples obtained in 2013 from the Former Sekiu Log Sorting Yard Site in Sekiu, Washington. The Stage 2A validation was modified to include additional quality control elements.

Objective and Quality Control (QC) Elements

The objective of the data validation was to review laboratory analytical procedures and QC results to evaluate whether:

- The samples were analyzed using well-defined and acceptable methods that provide quantitation limits below applicable regulatory criteria;
- The precision and accuracy of the data are well defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

The laboratory data was reviewed for the following QC elements:

- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Internal Standards
- Instrument Continuing Calibration (CCALs)
- Miscellaneous

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Chemical Analysis Performed:

The soil samples obtained were submitted to OnSite Environmental, Inc. (OnSite), located in Redmond, Washington for chemical analysis using one or more of the following analyses:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Method SW8270-SIM; and
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx

OnSite Sample Delivery Groups (SDGs)

The following laboratory SDGs were delivered by OnSite and were reviewed by GeoEngineers for QC elements listed above:

- 1305-146
- 1306-118
- 1306-197
- 1306-274

DATA VALIDATION SUMMARY

The results for each of the QC elements are summarized below. The data validation was performed using guidance in *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 2008).

Chain-of-Custody Documentation

Chain-of-custody forms were provided with the laboratory analytical reports. No transcription errors were found and the appropriate signatures were applied. There were no anomalies mentioned in the sample receipt forms, as the samples were transported to the laboratory at the appropriate temperatures of between 2 and 6 degrees Celsius.

Holding Times and Sample Preservation

The holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time and sample preservation criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Recommended holding times and sample preservation were met for all analyses.

Surrogate Recoveries

A surrogate compound is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Surrogates are used for organic analyses and are added to all samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are

added at a known concentration and percent recoveries (%R) are calculated following analysis. All surrogate recoveries for field samples were within the laboratory control limits, with the following exceptions:

- SDG 1305-146: (PAHs) The %R values for the surrogates pyrene-d10 and terphenyl-d14 were less than their control limits in Sample PCSB12-2-6 Comp. The reporting limits for all target analytes were qualified as estimated (UJ) in this sample.

  Also, the %R value for the surrogate 2-Fluorobiphenyl was less than the control limit in Sample PCSB08-1.5. However, the sample was spiked with a total of three base-neutral surrogates. In this case, there were at least two other surrogates that exhibited %R values within their respective control limits. No action was required for this outlier.

  (NWTPH-Dx) The surrogate o-terphenyl in Samples PCSB10-1.5 and PCSB10-4.5 was not recoverable because of sample dilution (10X). The surrogate is added to the sample when it is extracted. If the sample is diluted 10X or more, recovery of the surrogate is often not possible because the surrogate is also diluted below the linear calibration range of the instrument. No action was required for these outliers.

- SDG 1306-118: (NWTPH-Dx) The surrogate o-terphenyl in Samples PCSB03EX-SWSW-061113-2, PCSB10EX-SWW-061213-5, PCSB10EX-BASE-061213-6, PCSB10EX-SWE-061213-5, PCSB10EX-SWSW-061213-5, TP3EX-SWN-061213-1.5, TP3EX-SWNW-061213-1.5, TP3EX-SWE-061313-5, and TP3EX-BASE-061313-6 was not recoverable because of sample dilution (ranging from 10X to 50X). The surrogate is added to the sample when it is extracted. If the sample is diluted 10X or more, recovery of the surrogate is often not possible because the surrogate is also diluted below the linear calibration range of the instrument. No action was required for these outliers.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. Method blanks were analyzed with each batch of samples, at a frequency of one per twenty samples. In cases were target analytes are qualified as non-detected because of blank contamination, the new reporting limit is elevated to the level of the concentration reported in the sample. No method blank detections were reported by the testing laboratory.

Matrix Spikes/Matrix Spike Duplicates

There were no matrix spike/matrix spike duplicates performed on the associated batch samples.

Laboratory Control Samples/Laboratory Control Sample Duplicates

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R value is calculated. Laboratory control sample duplicate (LCSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as an LCS. Using the reported concentrations for the LCS and LCSD, the relative percent difference (RPD) is calculated. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every twenty project samples, whichever is more frequent. The %R and RPD values for all target analytes in the LCS/LCSD analyses were within the laboratory control limits.

Laboratory Duplicates (Fuels analyses only)

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 50 percent. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the following exception:

- SDG 1306-274: (NWTPH-Dx) A laboratory duplicate analysis was performed on Sample 25% PCSBIOEX-SWE-061913-5. The RPD was greater than the control limit, therefore the positive result for Bunker C was qualified as estimated (J) in Sample 25% PCSBIOEX-SWE-061913-5. Sample 25% PCSBIOEX-SWE-061913-5 was analyzed for the planned 2013 bioassay testing program. However, the 2013 bioassay testing program was aborted, so the sample result was not used.

Field Duplicates

Field duplicate samples are obtained and analyzed along with the primary project samples. The duplicate samples are analyzed for the same parameters as the associated primary samples. The RPD between the primary and duplicate samples is used to assess sample heterogeneity and laboratory precision, unless one or more of the samples used has a concentration greater than five times the method reporting limit for that sample. In such cases, the absolute difference is used instead of the RPD. The RPD control limit for soil samples is 50 percent.

There were no field duplicate samples collected for this sampling event.

Internal Standards

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in any environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. Internal standards are representative of the target analytes that are similar in retention time to the standard itself. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50% to 200% of the calibration standard. All internal standard recoveries were within the control limits, with the following exceptions:

- SDG 1305-146: (PAHs) The internal standard recoveries for perylene-d12 were less than the control limits for Samples PCSB09-1.5 and PCSB05-1.5. The reporting limits for benzo(b)fluoranthene, benzo(j,k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, and dibenz(a,h)anthracene were qualified as estimated (UJ) in these samples.

  Also, the internal standard recoveries for chrysene-d12 and perylene-d12 were less than the control limits for Samples PCSB12-1.5, PCSB07-1.5, PCSB02-6 and PCSB05-2-6 Comp. The positive results and the reporting limits for benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(j,k)fluoran-

thene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, and dibenz(a,h)anthracene were qualified as estimated (J, UJ) in these samples.

Instrument Continuing Calibration (CCALs)

All continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. For the organics analyses, all percent difference (%D) values were less than +/- 25% and all relative response factors (RRF) were greater than 0.05.

Miscellaneous

- SDG 1305-146: (NWTPH-Dx) The laboratory reported two sets of Bunker C results for Samples PCSB03-1.5 (an initial result and a dilution [5X] result) and PCSB04-1.5 (a dilution [5X] result and a re-analysis result). The dilution result for Sample PCSB03-1.5 and the re-analysis result for Sample PCSB04-1.5 were qualified as do-not-report (DNR) and should not be used for any purpose. These database qualifiers were assigned so that only one set of target analyte results would be displayed for the data user.

OVERALL ASSESSMENT

The results of this modified Stage 2A data validation indicate that the laboratory followed the specified analytical methods. The accuracy of the data is acceptable, as demonstrated by the surrogate and LCS/LCSD %R values, with the exceptions noted above. The precision of the data is acceptable, as demonstrated by the LCS/LCSD and laboratory duplicate RPD values, with the exceptions noted above.

Selected data were qualified as estimated (J, UJ) because of surrogate %R, laboratory duplicate RPD, and internal standard outliers. Data were also qualified as do-not-report (DNR) in order to avoid two sets of results being reported for the same sample.

Based on the data validation results, it is our opinion that the analytical data, including data qualified as noted above, are of acceptable quality for their intended use.

REFERENCES

U.S. Environmental Protection Agency (USEPA). "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," EPA-540-R-08-01. June 2008.

U.S. Environmental Protection Agency (USEPA). "Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use," EPA-540-R-08-005. January 2009.

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 11, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-045

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 7, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

Case Narrative

Samples were collected on June 6, 2012 and received by the laboratory on June 7, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

cPAHs EPA 8270D/SIM Analysis

Due to the matrix of samples GEI32EX-SWE-06012-3, GEI32EX-SWW-060612-4, GEI32EX-SWN-060612-3, and GEI32EX-SWS-060612-3, the last two internal standards were recovered outside of method specified QC limits.

The samples were diluted 5x to eliminate the matrix effect, however this also caused an increase in the PQLs resulting in many of the analytes being reported as non-detect. Reported are both sets of data, the 5x dilution and non-diluted samples. The reports for the non-diluted data are flagged with an "E1" indicator and should be considered estimates.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

NWTPH-Dx Analysis

Please note that the samples are reported as bunker C. However, the chromatographic pattern of the Bunker C standard does not exactly match the chromatograms of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GEI32EX-SWE-060612-3	06-045-01	Soil	6-6-12	6-7-12	
GEI32EX-SWW-060612-4	06-045-02	Soil	6-6-12	6-7-12	
GEI32EX-SWN-060612-3	06-045-03	Soil	6-6-12	6-7-12	
GEI32EX-SWS-060612-3	06-045-04	Soil	6-6-12	6-7-12	
GEI32EX-BASE-060612-6.5	06-045-05	Soil	6-6-12	6-7-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWE-060612-3**					
Laboratory ID:	06-045-01					
Benzo[a]anthracene	**0.070**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.10**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**0.043**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**0.045**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.038	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***48***	***43 - 109***				
Pyrene-d10	***44***	***38 - 128***				
Terphenyl-d14	***54***	***33 - 119***				
Client ID:	**GEI32EX-SWE-060612-3**					
Laboratory ID:	06-045-01					
Benzo[a]anthracene	**0.071**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.11**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.045**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**0.0079**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.047**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.020**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**0.014**	0.0076	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***50***	***43 - 109***				
Pyrene-d10	***42***	***38 - 128***				
Terphenyl-d14	***55***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWW-060612-4**					
Laboratory ID:	06-045-02					
Benzo[a]anthracene	**0.068**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.14**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**0.065**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***55***	***43 - 109***				
Pyrene-d10	***52***	***38 - 128***				
Terphenyl-d14	***63***	***33 - 119***				
Client ID:	**GEI32EX-SWW-060612-4**					
Laboratory ID:	06-045-02					
Benzo[a]anthracene	**0.069**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.15**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.067**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**0.0090**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.037**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.023**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**0.015**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***58***	***43 - 109***				
Pyrene-d10	***50***	***38 - 128***				
Terphenyl-d14	***63***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWN-060612-3**					
Laboratory ID:	06-045-03					
Benzo[a]anthracene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.069**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***48***	***43 - 109***				
Pyrene-d10	***45***	***38 - 128***				
Terphenyl-d14	***54***	***33 - 119***				
Client ID:	**GEI32EX-SWN-060612-3**					
Laboratory ID:	06-045-03					
Benzo[a]anthracene	**0.046**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.071**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.036**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.019**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.014**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***50***	***43 - 109***				
Pyrene-d10	***42***	***38 - 128***				
Terphenyl-d14	***55***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWS-060612-3**					
Laboratory ID:	06-045-04					
Benzo[a]anthracene	**0.048**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.075**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**0.043**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.043	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***52***	***43 - 109***				
Pyrene-d10	***51***	***38 - 128***				
Terphenyl-d14	***60***	***33 - 119***				
Client ID:	**GEI32EX-SWS-060612-3**					
Laboratory ID:	06-045-04					
Benzo[a]anthracene	**0.051**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.084**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.044**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.028**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.017**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***57***	***43 - 109***				
Pyrene-d10	***50***	***38 - 128***				
Terphenyl-d14	***61***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-BASE-060612-6.5**					
Laboratory ID:	06-045-05					
Benzo[a]anthracene	**0.016**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.032**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**0.014**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***73***	***43 - 109***				
Pyrene-d10	***69***	***38 - 128***				
Terphenyl-d14	***85***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWE-060612-3**					
Laboratory ID:	06-045-01					
Bunker C	**440**	57	NWTPH-Dx	6-7-12	6-8-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***104***	***50-150***				
Client ID:	**GEI32EX-SWW-060612-4**					
Laboratory ID:	06-045-02					
Bunker C	**830**	64	NWTPH-Dx	6-7-12	6-8-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***104***	***50-150***				
Client ID:	**GEI32EX-SWN-060612-3**					
Laboratory ID:	06-045-03					
Bunker C	**1100**	64	NWTPH-Dx	6-7-12	6-8-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***115***	***50-150***				
Client ID:	**GEI32EX-SWS-060612-3**					
Laboratory ID:	06-045-04					
Bunker C	**880**	321	NWTPH-Dx	6-7-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**GEI32EX-BASE-060612-6.5**					
Laboratory ID:	06-045-05					
Bunker C	**1600**	354	NWTPH-Dx	6-7-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***122***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0608S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Chrysene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***86***	***43 - 109***				
Pyrene-d10	***76***	***38 - 128***				
Terphenyl-d14	***90***	***33 - 119***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0608S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0914**	**0.0890**	0.0833	0.0833	110	107	63 - 116	3	12	
Chrysene	**0.0781**	**0.0783**	0.0833	0.0833	94	94	67 - 118	0	12	
Benzo[b]fluoranthene	**0.111**	**0.101**	0.0833	0.0833	133	121	58 - 133	9	20	
Benzo(j,k)fluoranthene	**0.108**	**0.0924**	0.0833	0.0833	130	111	42 - 134	16	26	
Benzo[a]pyrene	**0.0874**	**0.0816**	0.0833	0.0833	105	98	55 - 111	7	19	
Indeno(1,2,3-c,d)pyrene	**0.0693**	**0.0771**	0.0833	0.0833	83	93	60 - 125	11	20	
Dibenz[a,h]anthracene	**0.0899**	**0.0974**	0.0833	0.0833	108	117	62 - 125	8	19	
Surrogate:										
2-Fluorobiphenyl					***85***	***87***	***43 - 109***			
Pyrene-d10					***97***	***96***	***38 - 128***			
Terphenyl-d14					***95***	***92***	***33 - 119***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0607S2					
Bunker C	**ND**	50	NWTPH-Dx	6-7-12	6-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***129***	***50-150***				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-047-02							
	ORIG	DUP						
Mineral Oil	**9980**	**7490**				29	NA	
Lube Oil	**2100**	**1850**				13	NA	
Surrogate:								
o-Terphenyl			***138***	***119***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0608F-V1	100	110	-10.0	+/-15%
BC-CCV0608F-V2	100	109	-9.0	+/-15%
BC-CCV0611F-V1	100	86.2	13.8	+/-15%
BC-CCV0611F-V2	100	93.6	6.4	+/-15%
BC-CCV0611F-V3	100	88.6	11.4	+/-15%
BC-CCV0611R-V1	100	103	-3.0	+/-15%
BC-CCV0611R-V2	100	111	-11.0	+/-15%
BC-CCV0611R-V3	100	110	-10.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2012
Samples Submitted: June 7, 2012
Laboratory Reference: 1206-045
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-7-12

Client ID	Lab ID	% Moisture
GEI32EX-SWE-060612-3	06-045-01	13
GEI32EX-SWW-060612-4	06-045-02	22
GEI32EX-SWN-060612-3	06-045-03	22
GEI32EX-SWS-060612-3	06-045-04	22
GEI32EX-BASE-060612-6.5	06-045-05	29

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

E1 - The value reported should be considered an estimate, due to the percent recovery of the internal standards being outside of the control limits.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-045

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogenic only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH - Bunker C				% Moisture
1	GEI32EX-SWE-060612-3	6/6/12	1130	S	1								X									X				X
2	GEI32EX-SWW-060612-4		1240										X									X				X
3	GEI32EX-SWN-060612-3		1245										X									X				X
4	GEI32EX-SWS-060612-3		1250										X									X				X
5	GEI32EX-BASE-060612-6.5		1255										X									X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/6/12	1410
Received			6/7/12	930
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒

Sample/Cooler Receipt and Acceptance Checklist

Client: CES

Client Project Name/Number: C137-018-03

OnSite Project Number: 06-045

Initiated by: Blair Goodrow

Date Initiated: 6/7/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 2°C	
1.6 Have shipping bills (if any) been attached to the back of this form?	(Yes)	N/A		
1.7 How were the samples delivered?	Client	Courier	(UPS/FedEx)	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	(N/A)	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- cPAHs EPA 8270D/SIM Data
- NWTPH-Dx Data

cPAHs Data

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611009.D
Acq On : 11 Jun 2012 12:01 pm
Operator :
Sample : 06-045-01 5x
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 12:15:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

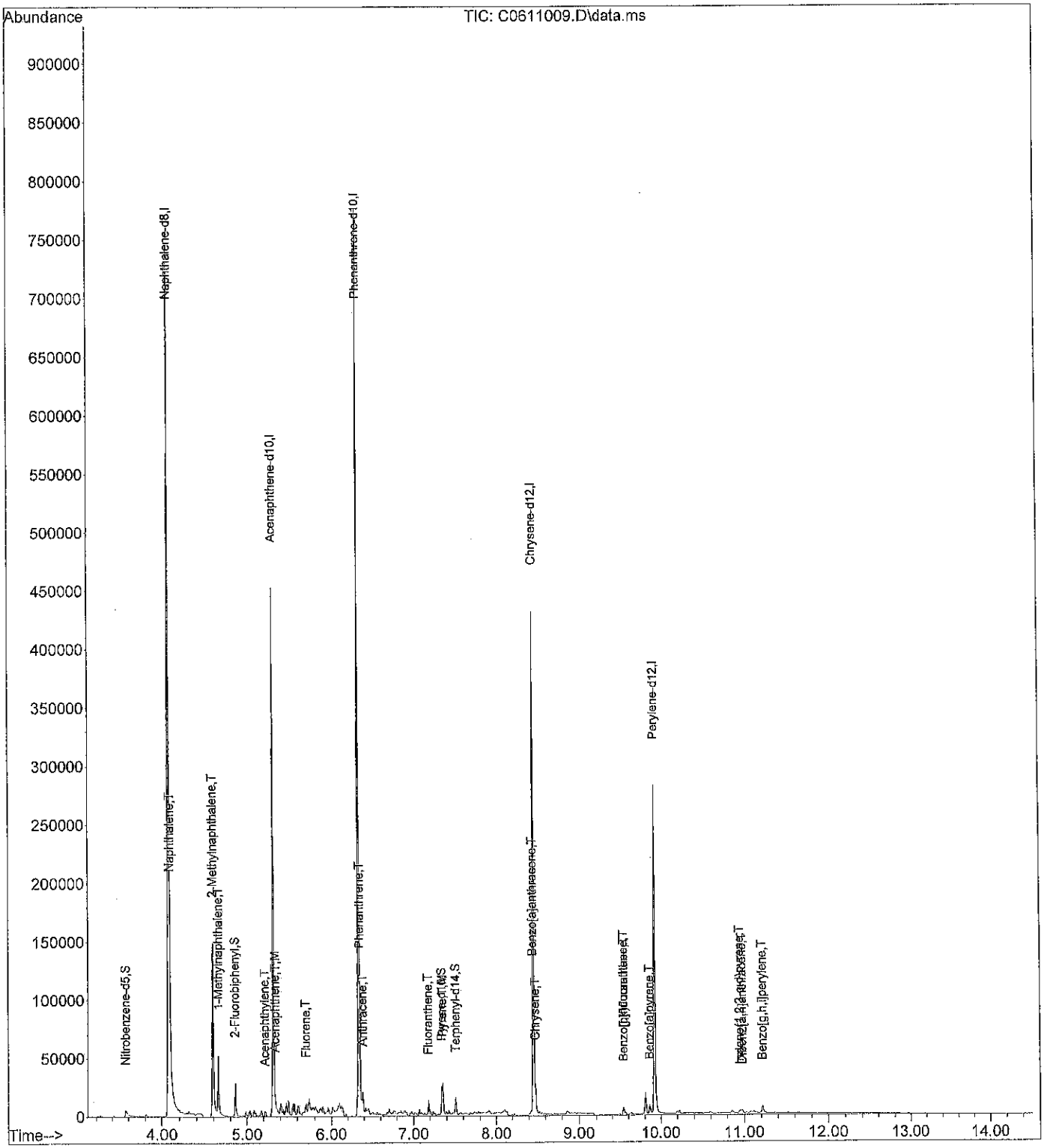
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	738123	2000.00	ppb	0.00
6) Acenaphthene-d10	5.318	164	351780	2000.00	ppb	0.00
10) Phenanthrene-d10	6.335	188	547283	2000.00	ppb	0.00
17) Chrysene-d12	8.458	240	378198	2000.00	ppb	0.01
21) Perylene-d12	9.923	264	290929	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.566	82	8338	103.98	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 10.40%#			
7) 2-Fluorobiphenyl	4.859	172	26147	96.88	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 9.69%#			
11) Pyrene-d10	7.342	212	18359	87.42	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 8.74%#			
18) Terphenyl-d14	7.510	244	12531	107.36	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 10.74%#			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	86271	217.70	ppb	100
4) 2-Methylnaphthalene	4.593	142	146505	675.63	ppb	100
5) 1-Methylnaphthalene	4.660	142	53978	204.44	ppb	100
8) Acenaphthylene	5.218	152	3501	9.63	ppb	100
9) Acenaphthene	5.341	153	7387	30.88	ppb	100
12) Fluorene	5.703	166	10797	44.68	ppb	100
13) Phenanthrene	6.351	178	62564	181.66	ppb	100
14) Anthracene	6.386	178	12829	36.55	ppb	100
15) Fluoranthene	7.179	202	11127	34.72	ppb	100
16) Pyrene	7.354	202	22678	65.95	ppb	100
19) Benzo[a]anthracene	8.447	228	14239	73.58	ppb	100
20) Chrysene	8.478	228	24432	107.17	ppb	100
22) Benzo[b]fluoranthene	9.541	252	9928	~~54.82~~	ppb	45.43 100
23) Benzo(j,k)fluoranthene	9.~~54~~ 541	252	9928	~~46.68~~	ppb	9.25 100
24) Benzo[a]pyrene	9.861	252	8996	47.29	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	4585	20.23	ppb	100
26) Dibenz[a,h]anthracene	10.976	278	2510	13.62	ppb	100
27) Benzo[g,h,i]perylene	11.214	276	9170	48.72	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611009.D
Acq On : 11 Jun 2012 12:01 pm
Operator :
Sample : 06-045-01 5x
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 11 12:15:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611014.D
Acq On : 11 Jun 2012 1:48 pm
Operator :
Sample : 06-045-01
Misc : rr
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 11 14:03:06 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

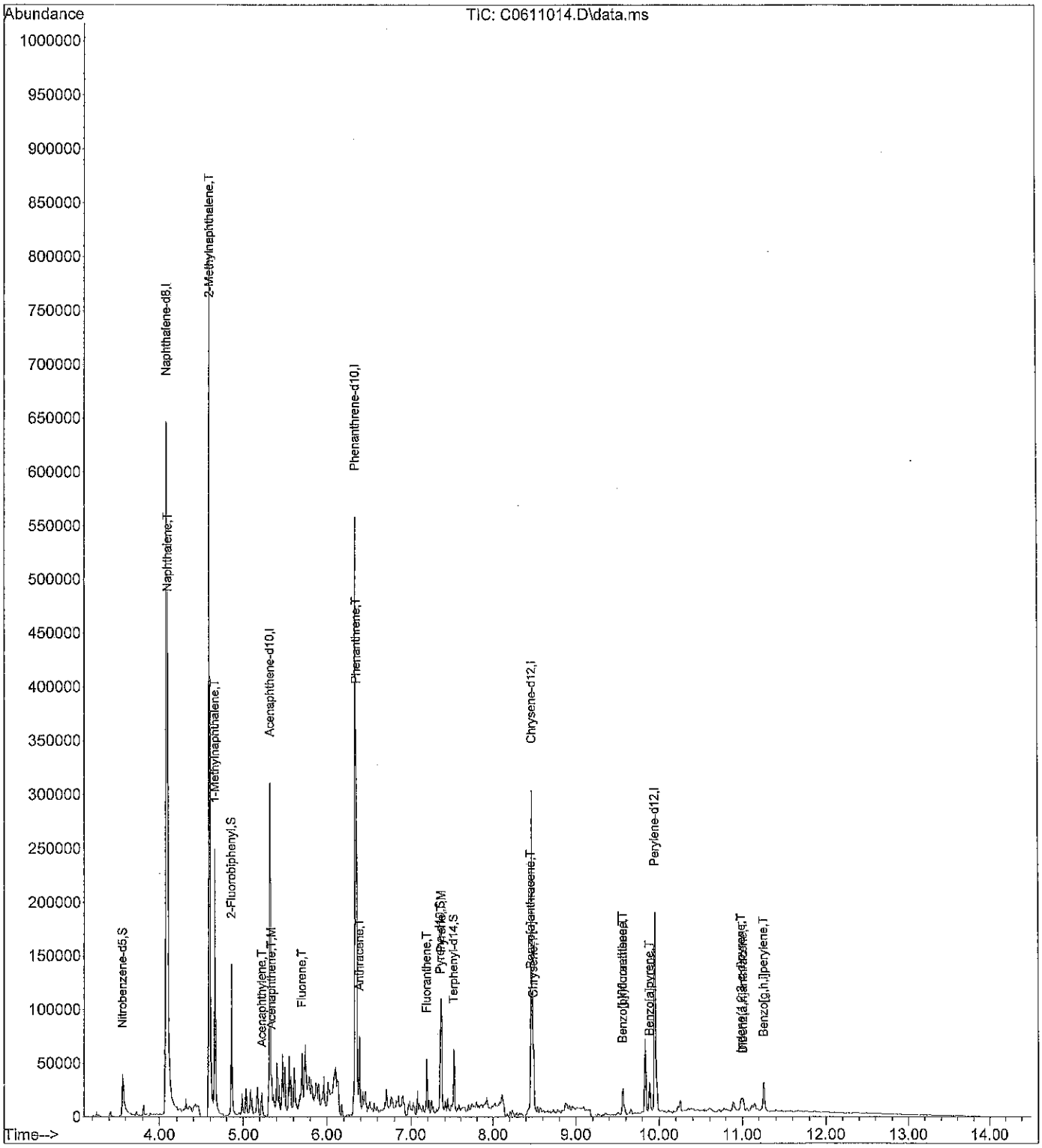
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	653179	2000.00	ppb	0.00
6) Acenaphthene-d10	5.324	164	304454	2000.00	ppb	0.00
10) Phenanthrene-d10	6.339	188	402041	2000.00	ppb	0.01
17) Chrysene-d12	8.470	240	~~263276~~	2000.00	ppb	0.02
21) Perylene-d12	9.951	264	~~226477~~ out	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.560	82	46336	653.01	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 65.30%			
7) 2-Fluorobiphenyl	4.859	172	117243	501.94	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 50.19%			
11) Pyrene-d10	7.349	212	64852	420.37	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 42.04%			
18) Terphenyl-d14	7.511	244	44746	550.70	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 55.07%			
Target Compounds						Qvalue
3) Naphthalene	4.095	128	395708	1128.43	ppb	100
4) 2-Methylnaphthalene	4.594	142	693707	3615.15	ppb	100
5) 1-Methylnaphthalene	4.660	142	227693	974.52	ppb	100
8) Acenaphthylene	5.224	152	15493	49.22	ppb	100
9) Acenaphthene	5.340	153	33895	163.73	ppb	100
12) Fluorene	5.702	166	40391	227.54	ppb	100
13) Phenanthrene	6.351	178	247495	978.22	ppb	100
14) Anthracene	6.386	178	53719	208.36	ppb	100
15) Fluoranthene	7.186	202	41105	174.58	ppb	100
16) Pyrene	7.360	202	85042	336.68	ppb	100
19) Benzo[a]anthracene	8.459	228	49788	369.57	ppb	100
20) Chrysene	8.490	228	87466	551.13	ppb	100
22) Benzo[b]fluoranthene	9.565	252	38296	~~269.19~~	ppb	237.00 100
23) Benzo(j,k)fluoranthene	9.565	252	38296	~~231.30~~	ppb	41.32 100
24) Benzo[a]pyrene	9.889	252	36561	246.88	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.988	276	18888	107.07	ppb	100
26) Dibenz[a,h]anthracene	11.011	278	10260	71.51	ppb	100
27) Benzo[g,h,i]perylene	11.257	276	40052	273.36	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611014.D
Acq On : 11 Jun 2012 1:48 pm
Operator :
Sample : 06-045-01
Misc : rr
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 11 14:03:06 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611012.D
Acq On : 11 Jun 2012 1:05 pm
Operator :
Sample : 06-045-02 5x
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 11 13:20:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

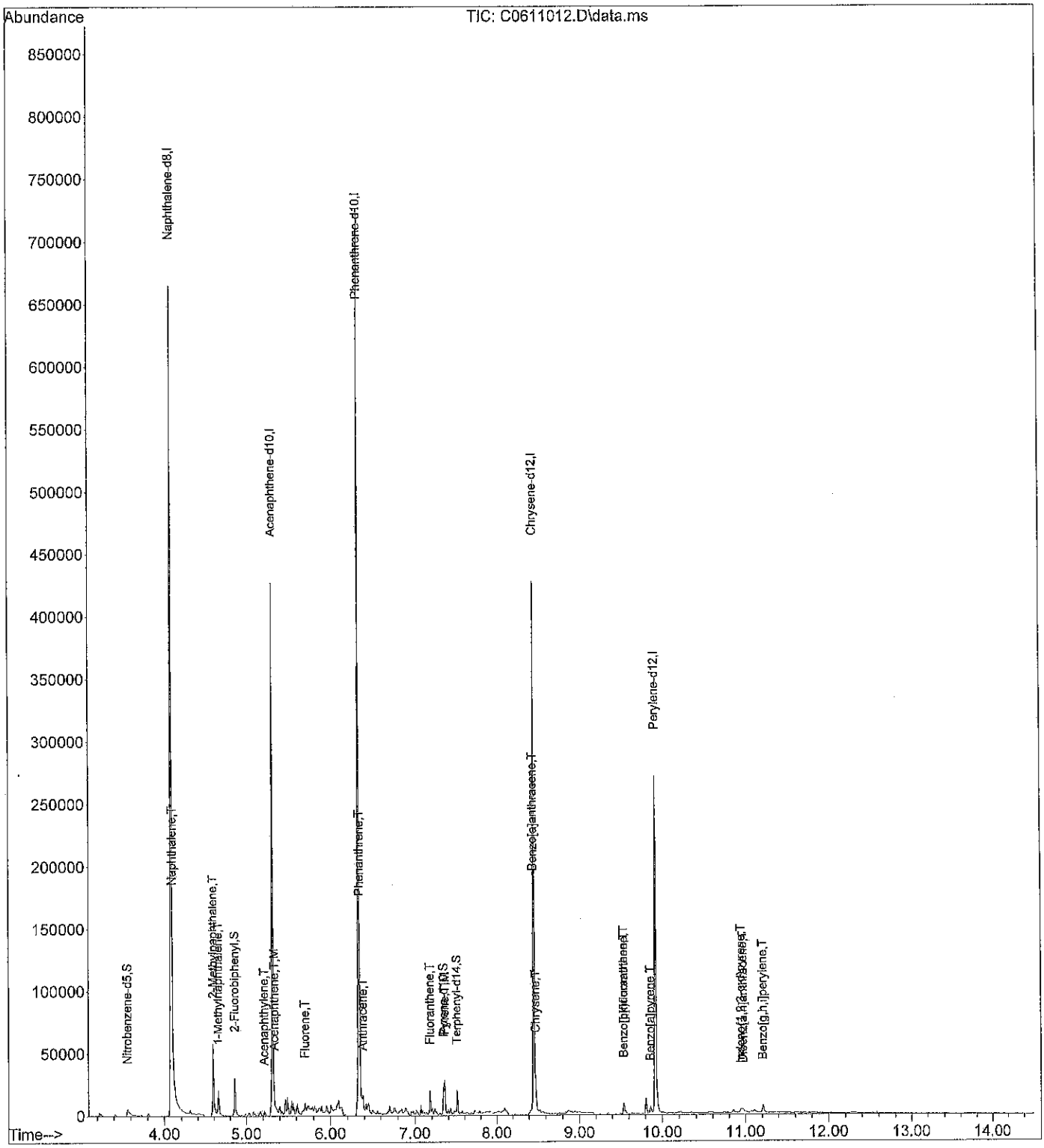
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.076	136	715819	2000.00	ppb	0.00
6) Acenaphthene-d10	5.316	164	347411	2000.00	ppb	0.00
10) Phenanthrene-d10	6.335	188	514651	2000.00	ppb	0.00
17) Chrysene-d12	8.455	240	371758	2000.00	ppb	0.00
21) Perylene-d12	9.920	264	289790	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.565	82	8962	115.25	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 11.53%#			
7) 2-Fluorobiphenyl	4.859	172	29225	109.65	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 10.97%#			
11) Pyrene-d10	7.342	212	20634	104.48	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.45%#			
18) Terphenyl-d14	7.505	244	14536	126.69	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 12.67%#			
Target Compounds						Qvalue
3) Naphthalene	4.093	128	61533	160.12	ppb	100
4) 2-Methylnaphthalene	4.590	142	57738	274.56	ppb	100
5) 1-Methylnaphthalene	4.656	142	24239	94.66	ppb	100
8) Acenaphthylene	5.216	152	3455	9.62	ppb	100
9) Acenaphthene	5.339	153	4558	19.30	ppb	100
12) Fluorene	5.701	166	9584	42.18	ppb	100
13) Phenanthrene	6.347	178	75580	233.36	ppb	100
14) Anthracene	6.386	178	10452	31.67	ppb	100
15) Fluoranthene	7.180	202	15405	51.11	ppb	100
16) Pyrene	7.354	202	22409	69.30	ppb	100
19) Benzo[a]anthracene	8.447	228	12044	63.31	ppb	100
20) Chrysene	8.478	228	29964	133.71	ppb	100
22) Benzo[b]fluoranthene	9.537	252	11100	60.98	ppb	100
23) Benzo(j,k)fluoranthene	9.537 56	252	11100	~~52.39~~	ppb 11.83	100
24) Benzo[a]pyrene	9.861	252	6832	36.05	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	4668	20.68	ppb	100
26) Dibenz[a,h]anthracene	10.972	278	2639	14.38	ppb	100
27) Benzo[g,h,i]perylene	11.210	276	8764	46.75	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611012.D
Acq On : 11 Jun 2012 1:05 pm
Operator :
Sample : 06-045-02 5x
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 11 13:20:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611006.D
Acq On : 11 Jun 2012 10:56
Operator :
Sample : 06-045-02
Misc : rr
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 11 11:11:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

5X

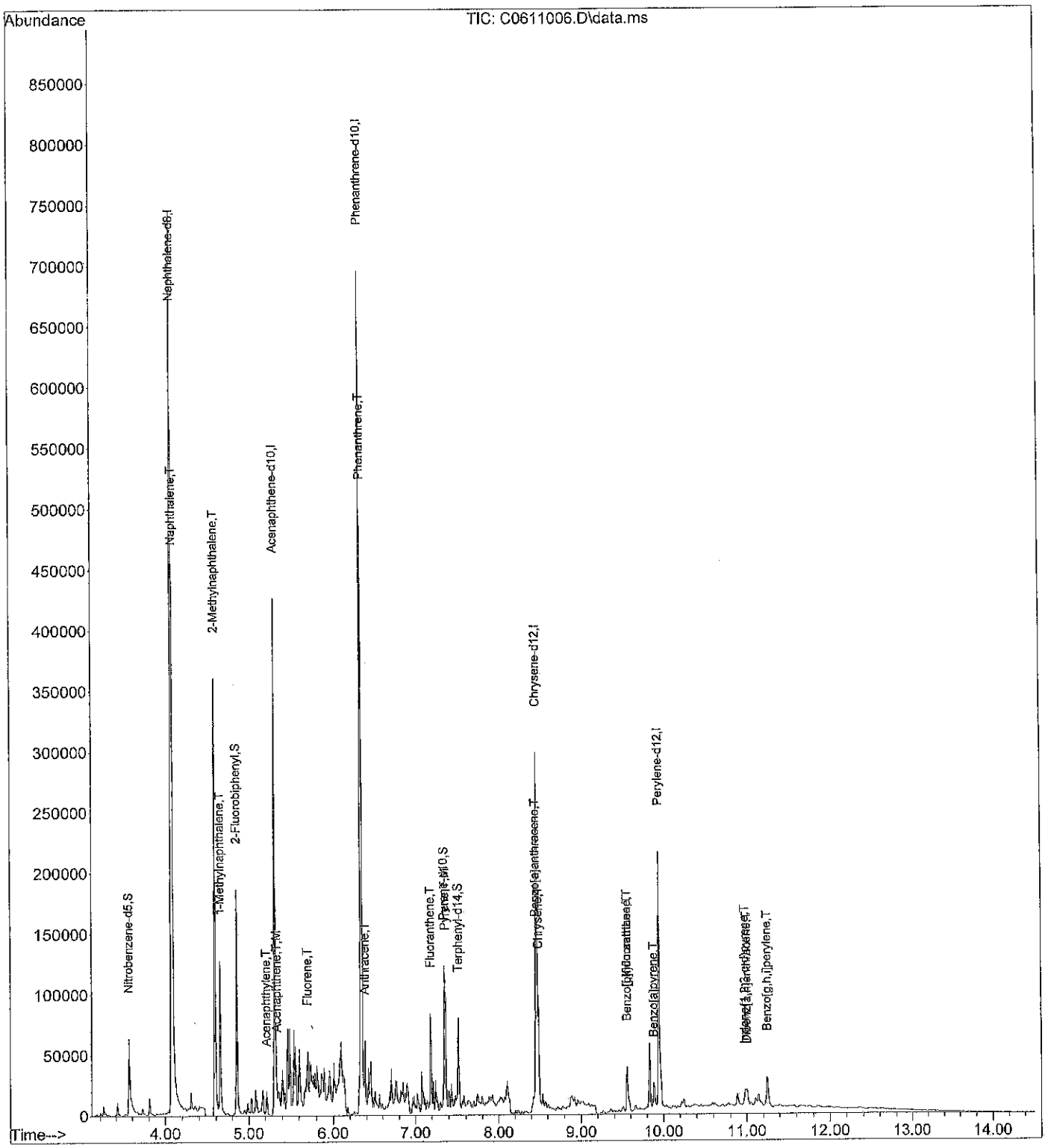
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.081	136	751521	2000.00	ppb	0.00
6) Acenaphthene-d10	5.317	164	352390	2000.00	ppb	0.00
10) Phenanthrene-d10	6.336	188	454048	2000.00	ppb	0.00
17) Chrysene-d12	8.467	240	~~293243~~	2000.00	ppb	0.02
21) Perylene-d12	9.943	264	~~252216~~ out	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.558	82	61646	755.09	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 75.51%			
7) 2-Fluorobiphenyl	4.857	172	157845	583.84	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 58.38%			
11) Pyrene-d10	7.347	212	87274	500.91	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.09%			
18) Terphenyl-d14	7.515	244	56947	629.24	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 62.92%			
Target Compounds						Qvalue
3) Naphthalene	4.092	128	330939	820.23	ppb	100
4) 2-Methylnaphthalene	4.592	142	327144	1481.77	ppb	100
5) 1-Methylnaphthalene	4.658	142	111295	414.01	ppb	100
8) Acenaphthylene	5.217	152	14184	38.93	ppb	100
9) Acenaphthene	5.340	153	22799	95.15	ppb	100
12) Fluorene	5.702	166	48776	243.31	ppb	100
13) Phenanthrene	6.348	178	351180	1229.05	ppb	100
14) Anthracene	6.387	178	42379	145.55	ppb	100
15) Fluoranthene	7.184	202	61297	230.52	ppb	100
16) Pyrene	7.359	202	96877	339.60	ppb	100
19) Benzo[a]anthracene	8.455	228	48488	323.14	ppb	100
20) Chrysene	8.490	228	123015	695.92	ppb	100
22) Benzo[b]fluoranthene	9.557	252	55680	~~351.44~~	ppb	311.18 100
23) Benzo(j,k)fluoranthene	9.~~557~~ 580	252	55680	~~301.97~~	ppb	42.07 100
24) Benzo[a]pyrene	9.881	252	28686	173.94	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.979	276	21104	107.42	ppb	100
26) Dibenz[a,h]anthracene	11.002	278	11392	71.30	ppb	100
27) Benzo[g,h,i]perylene	11.248	276	39916	244.63	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12
C

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611006.D
Acq On : 11 Jun 2012 10:56
Operator :
Sample : 06-045-02
Misc : rr
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 11 11:11:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611008.D
Acq On : 11 Jun 2012 11:39 am
Operator :
Sample : 06-045-03 5x
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 11:54:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

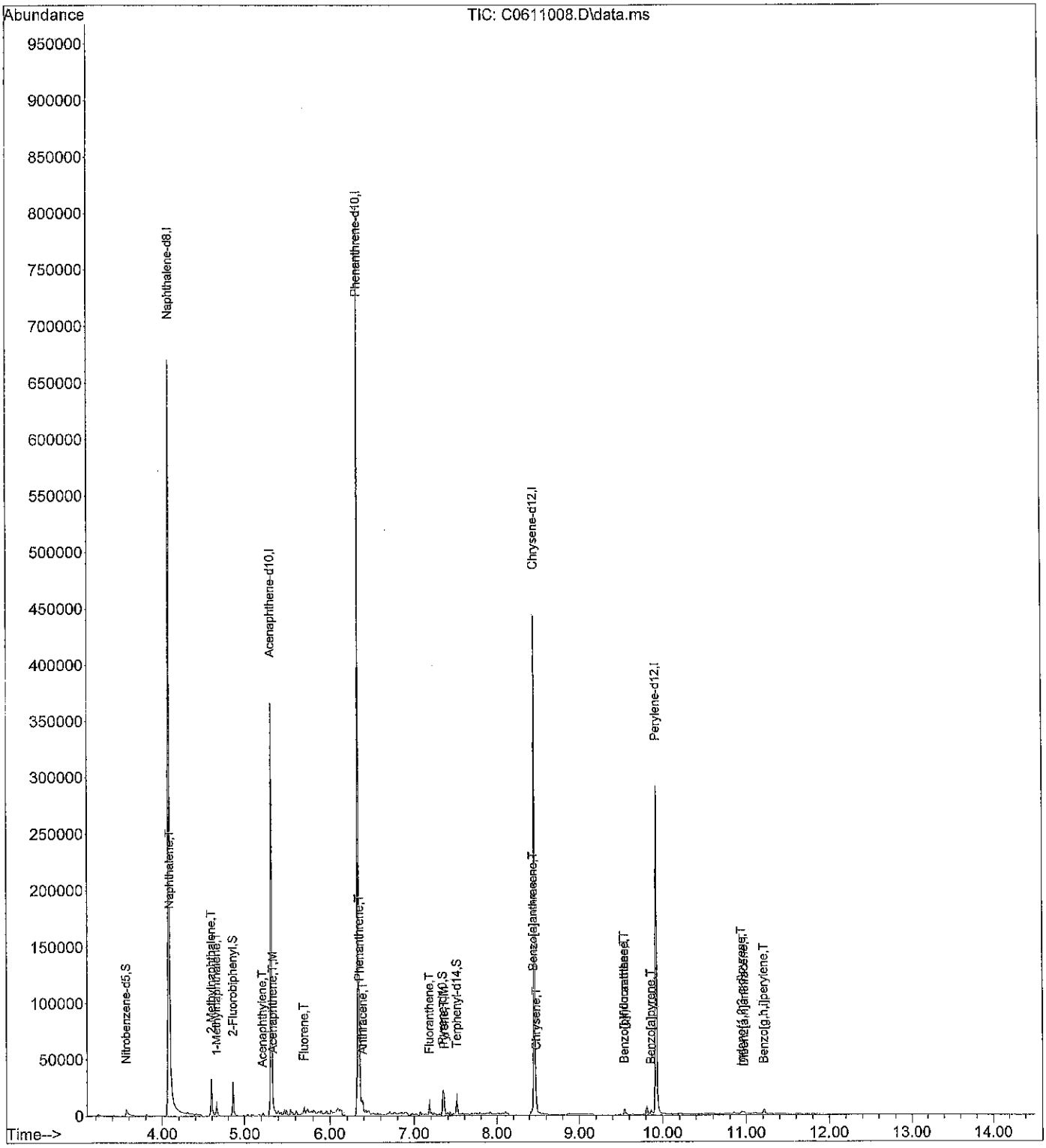
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.082	136	757245	2000.00	ppb	0.00
6) Acenaphthene-d10	5.316	164	368289	2000.00	ppb	0.00
10) Phenanthrene-d10	6.335	188	562807	2000.00	ppb	0.00
17) Chrysene-d12	8.460	240	395650	2000.00	ppb	0.01
21) Perylene-d12	9.924	264	300642	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.566	82	10023	121.84	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 12.18%#			
7) 2-Fluorobiphenyl	4.860	172	27136	96.04	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 9.60%#			
11) Pyrene-d10	7.342	212	19503	90.31	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.03%#			
18) Terphenyl-d14	7.510	244	13271	108.68	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 10.87%#			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	46029	113.22	ppb	100
4) 2-Methylnaphthalene	4.594	142	34452	154.87	ppb	100
5) 1-Methylnaphthalene	4.661	142	12477	46.06	ppb	100
8) Acenaphthylene	5.216	152	2538	6.67	ppb	100
9) Acenaphthene	5.340	153	3067	12.25	ppb	100
12) Fluorene	5.702	166	6881	27.69	ppb	100
13) Phenanthrene	6.351	178	40126	113.29	ppb	100
14) Anthracene	6.386	178	7625	21.13	ppb	100
15) Fluoranthene	7.185	202	11251	34.13	ppb	100
16) Pyrene	7.359	202	14834	41.95	ppb	100
19) Benzo[a]anthracene	8.448	228	7907	39.06	ppb	100
20) Chrysene	8.483	228	15452	64.79	ppb	100
22) Benzo[b]fluoranthene	9.541	252	6336	33.55	ppb	100
23) Benzo(j,k)fluoranthene	9.541 9.565	252	6336	~~28.83~~	ppb 6.43	100
24) Benzo[a]pyrene	9.861	252	4408	22.42	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	3300	14.09	ppb	100
26) Dibenz[a,h]anthracene	10.975	278	1497	7.86	ppb	100
27) Benzo[g,h,i]perylene	11.213	276	5665	29.13	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611008.D
Acq On : 11 Jun 2012 11:39 am
Operator :
Sample : 06-045-03 5x
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 11 11:54:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611013.D
Acq On : 11 Jun 2012 1:26 pm
Operator :
Sample : 06-045-03
Misc : rr
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 11 13:41:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	658012	2000.00	ppb	0.00
6) Acenaphthene-d10	5.318	164	313796	2000.00	ppb	0.00
10) Phenanthrene-d10	6.335	188	417897	2000.00	ppb	0.00
17) Chrysene-d12	8.466	240	~~266535~~	2000.00	ppb	0.02
21) Perylene-d12	9.943	264	~~224466~~ out	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.560	82	47872	669.71	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 66.97%			
7) 2-Fluorobiphenyl	4.858	172	121207	503.47	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 50.35%			
11) Pyrene-d10	7.348	212	67705	422.21	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 42.22%			
18) Terphenyl-d14	7.517	244	44880	545.60	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 54.56%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	203342	575.60	ppb	100
4) 2-Methylnaphthalene	4.593	142	163952	848.14	ppb	100
5) 1-Methylnaphthalene	4.659	142	53711	228.19	ppb	100
8) Acenaphthylene	5.217	152	9666	29.80	ppb	100
9) Acenaphthene	5.341	153	17545	82.23	ppb	100
12) Fluorene	5.703	166	28932	156.81	ppb	100
13) Phenanthrene	6.351	178	157856	600.25	ppb	100
14) Anthracene	6.386	178	29761	111.05	ppb	100
15) Fluoranthene	7.186	202	45322	185.18	ppb	100
16) Pyrene	7.360	202	54565	207.83	ppb	100
19) Benzo[a]anthracene	8.455	228	29237	214.37	ppb	100
20) Chrysene	8.490	228	53531	333.18	ppb	100
22) Benzo[b]fluoranthene	9.556	252	27820	~~197.30~~	ppb	100
23) Benzo(j,k)fluoranthene	9.~~556~~ 580	252	27820	~~169.53~~	ppb	100
24) Benzo[a]pyrene	9.880	252	13305	90.65	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.975	276	11616	66.44	ppb	100
26) Dibenz[a,h]anthracene	10.999	278	5190	36.50	ppb	100
27) Benzo[g,h,i]perylene	11.245	276	22032	151.72	ppb	100

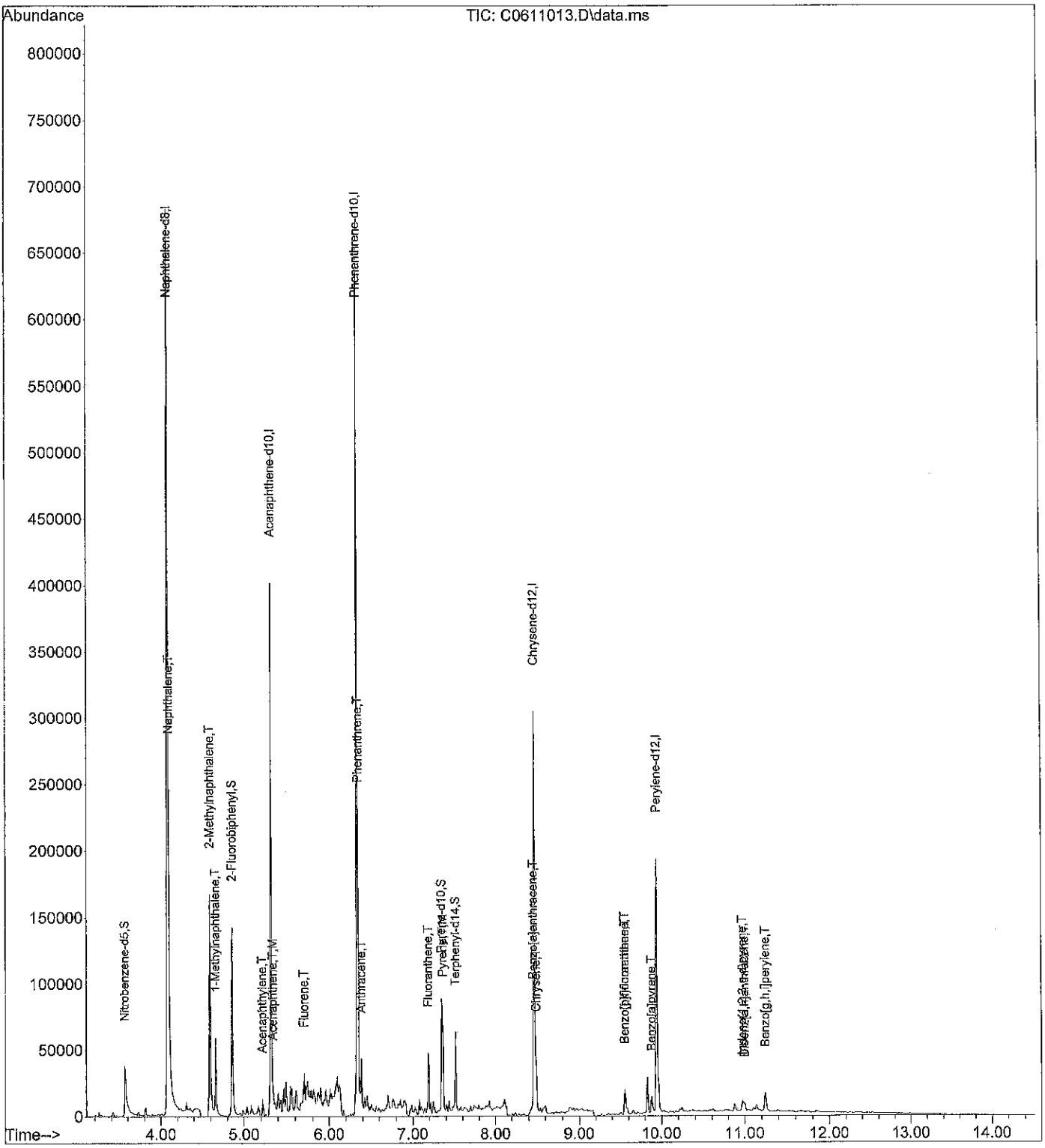
166.02 29.29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611013.D
Acq On : 11 Jun 2012 1:26 pm
Operator :
Sample : 06-045-03
Misc : rr
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 11 13:41:38 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611011.D
Acq On : 11 Jun 2012 12:44 pm
Operator :
Sample : 06-045-04 5x
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 11 12:58:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

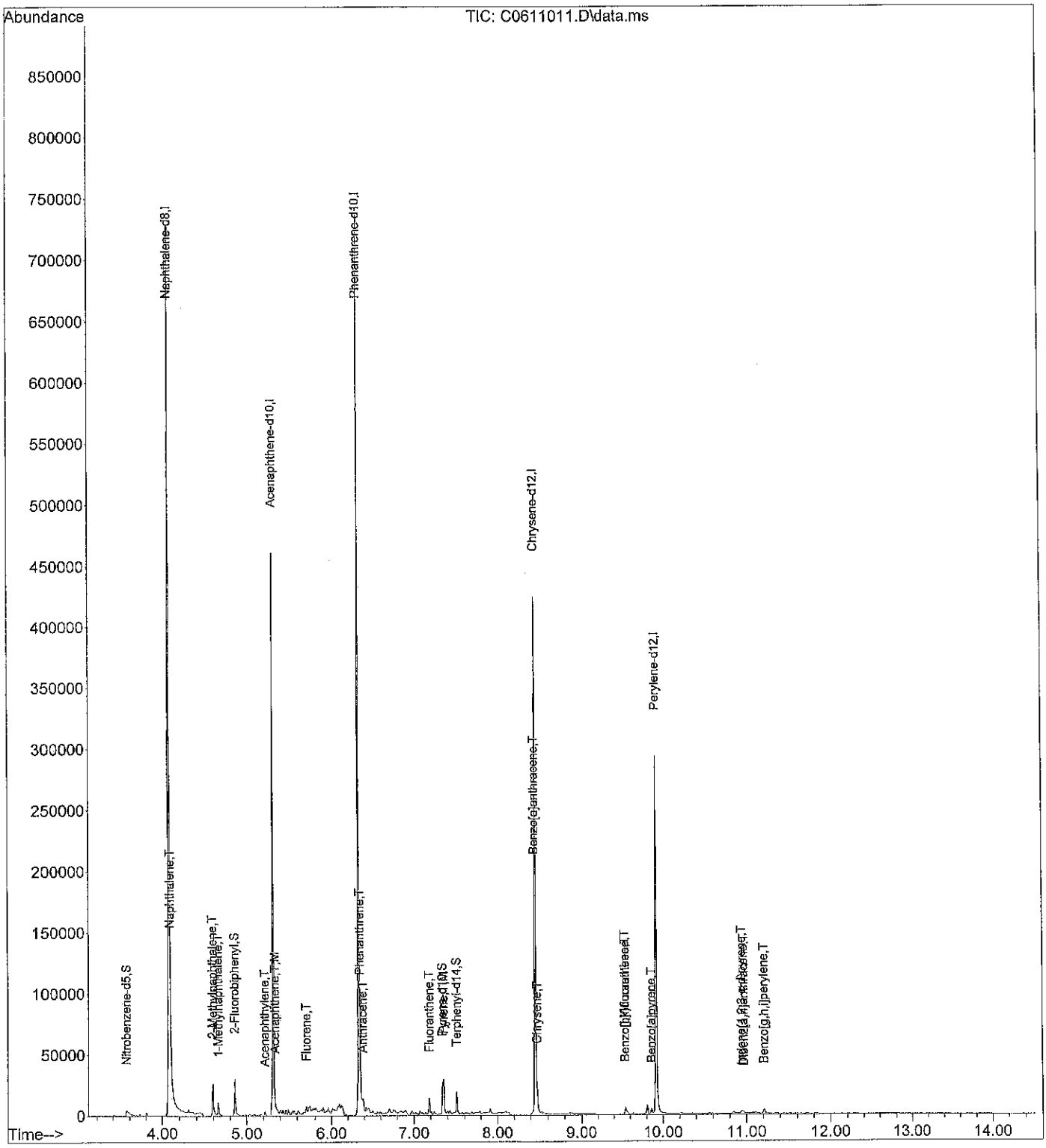
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.076	136	714633	2000.00	ppb	0.00
6) Acenaphthene-d10	5.317	164	349757	2000.00	ppb	0.00
10) Phenanthrene-d10	6.333	188	534877	2000.00	ppb	0.00
17) Chrysene-d12	8.456	240	387973	2000.00	ppb	0.00
21) Perylene-d12	9.919	264	305593	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.565	82	7925	102.08	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 10.21%#			
7) 2-Fluorobiphenyl	4.858	172	28085	104.66	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 10.47%#			
11) Pyrene-d10	7.342	212	20813	101.40	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.14%#			
18) Terphenyl-d14	7.510	244	14425	120.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 12.05%#			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	29280	76.32	ppb	100
4) 2-Methylnaphthalene	4.593	142	27716	132.02	ppb	100
5) 1-Methylnaphthalene	4.659	142	10730	41.97	ppb	100
8) Acenaphthylene	5.217	152	2595	7.18	ppb	100
9) Acenaphthene	5.340	153	4634	19.49	ppb	100
12) Fluorene	5.703	166	6795	28.77	ppb	100
13) Phenanthrene	6.348	178	36064	107.14	ppb	100
14) Anthracene	6.383	178	6098	17.78	ppb	100
15) Fluoranthene	7.185	202	14275	45.57	ppb	100
16) Pyrene	7.353	202	23480	69.87	ppb	100
19) Benzo[a]anthracene	8.448	228	8863	44.64	ppb	100
20) Chrysene	8.479	228	16363	69.97	ppb	100
22) Benzo[b]fluoranthene	9.537	252	9610	~~50.06~~	ppb	40.13 100
23) Benzo(j,k)fluoranthene	9.537	252	9610	~~43.02~~	ppb	10.39 100
24) Benzo[a]pyrene	9.860	252	5332	26.68	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	3364	14.13	ppb	100
26) Dibenz[a,h]anthracene	10.971	278	1293	6.68	ppb	100
27) Benzo[g,h,i]perylene	11.209	276	5228	26.44	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611011.D
Acq On : 11 Jun 2012 12:44 pm
Operator :
Sample : 06-045-04 5x
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 11 12:58:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611005.D
Acq On : 11 Jun 2012 10:34 am
Operator :
Sample : 06-045-04
Misc : rr
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 11 10:49:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

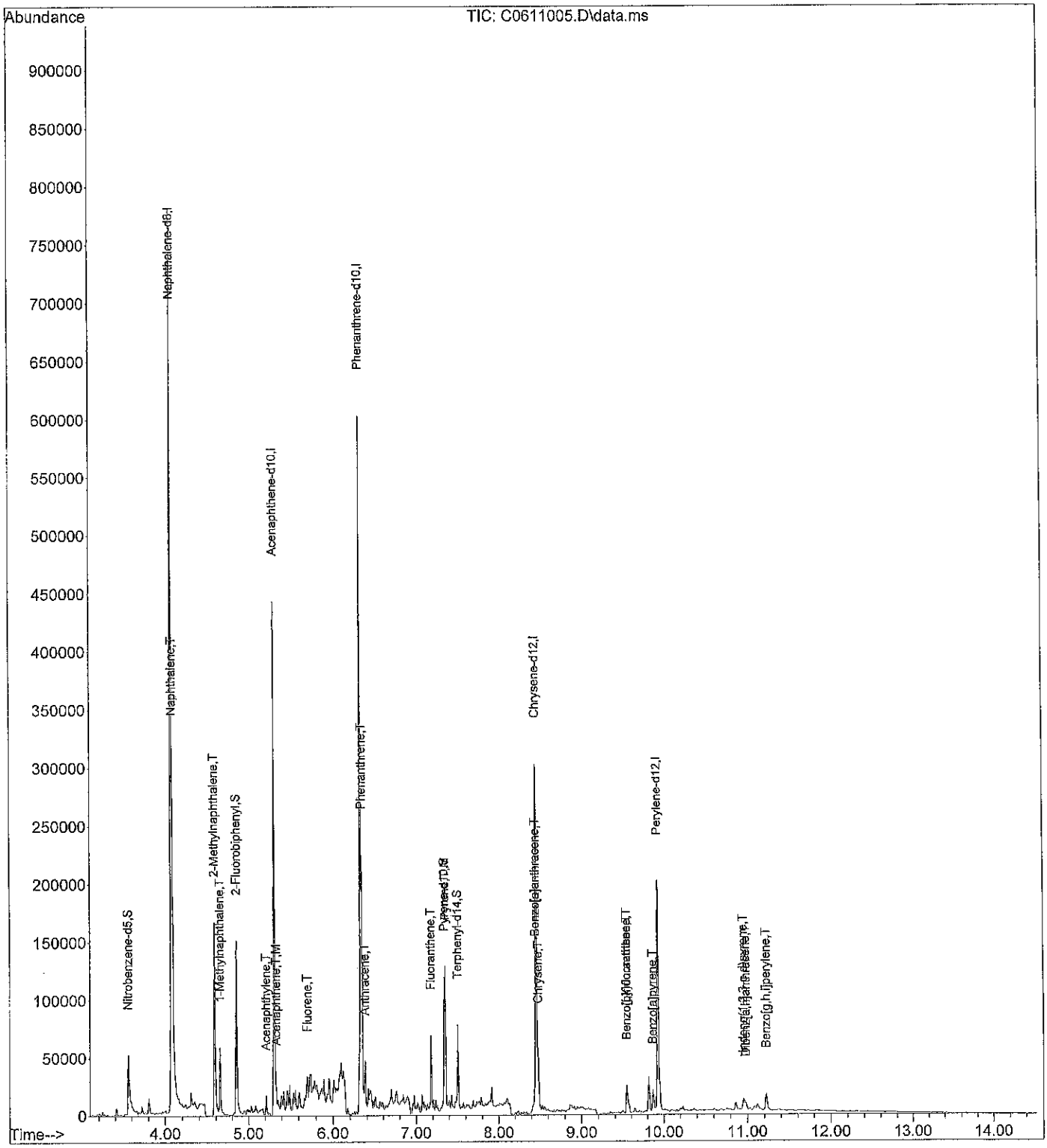
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.075	136	739776	2000.00	ppb	-0.04
6) Acenaphthene-d10	5.317	164	341092	2000.00	ppb	-0.03
10) Phenanthrene-d10	6.332	188	440693	2000.00	ppb	-0.03
17) Chrysene-d12	8.455	240	~~288376~~	2000.00	ppb	-0.05
21) Perylene-d12	9.927	264	~~251515~~ out	2000.00	ppb	-0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.559	82	55948	739.70	ppb	-0.04
Spiked Amount 1000.000	Range 24 - 92		Recovery = 73.97%			
7) 2-Fluorobiphenyl	4.858	172	148937	566.59	ppb	-0.03
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.66%			
11) Pyrene-d10	7.342	212	84213	500.69	ppb	-0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.07%			
18) Terphenyl-d14	7.504	244	53938	609.17	ppb	-0.04
Spiked Amount 1000.000	Range 39 - 92		Recovery = 60.92%			
Target Compounds						Qvalue
3) Naphthalene	4.087	128	155683	395.84	ppb	100
4) 2-Methylnaphthalene	4.589	142	155296	722.38	ppb	100
5) 1-Methylnaphthalene	4.655	142	56021	213.52	ppb	100
8) Acenaphthylene	5.217	152	12644	36.41	ppb	100
9) Acenaphthene	5.340	153	21300	~~92.07~~ 26.49	ppb	100
12) Fluorene	5.702	166	27875	143.74	ppb	100
13) Phenanthrene	6.348	178	161713	587.14	ppb	100
14) Anthracene	6.383	178	25774	91.22	ppb	100
15) Fluoranthene	7.179	202	49460	192.47	ppb	100
16) Pyrene	7.354	202	95591	347.34	ppb	100
19) Benzo[a]anthracene	8.447	228	34968	237.08	ppb	100
20) Chrysene	8.482	228	67903	390.65	ppb	100
22) Benzo[b]fluoranthene	9.544	252	38791	~~245.83~~ 205.20	ppb	100
23) Benzo(j,k)fluoranthene	9.544	252	38791	~~212.18~~ 38.10	ppb	100
24) Benzo[a]pyrene	9.868	252	21460	130.82	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.956	276	15400	78.92	ppb	100
26) Dibenz[a,h]anthracene	10.983	278	5995	37.77	ppb	100
27) Benzo[g,h,i]perylene	11.225	276	22643	139.47	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611005.D
Acq On : 11 Jun 2012 10:34 am
Operator :
Sample : 06-045-04
Misc : rr
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 11 10:49:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611004.D
Acq On : 11 Jun 2012 10:12 am
Operator :
Sample : 06-045-05
Misc : rr
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 11 10:27:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.078	136	785093	2000.00	ppb	-0.03
6) Acenaphthene-d10	5.317	164	386052	2000.00	ppb	-0.03
10) Phenanthrene-d10	6.328	188	560023	2000.00	ppb	-0.04
17) Chrysene-d12	8.447	240	374702	2000.00	ppb	-0.05
21) Perylene-d12	9.913	264	296012	2000.00	ppb	-0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.555	82	79341	988.43	ppb	-0.04
Spiked Amount 1000.000	Range 24 - 92		Recovery =	98.84%#		
7) 2-Fluorobiphenyl	4.854	172	216209	726.72	ppb	-0.04
Spiked Amount 1000.000	Range 25 - 89		Recovery =	72.67%		
11) Pyrene-d10	7.336	212	147296	689.15	ppb	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery =	68.91%		
18) Terphenyl-d14	7.504	244	98343	854.79	ppb	-0.04
Spiked Amount 1000.000	Range 39 - 92		Recovery =	85.48%		
Target Compounds						Qvalue
3) Naphthalene	4.089	128	90244	216.21	ppb	100
4) 2-Methylnaphthalene	4.589	142	70762	310.16	ppb	100
5) 1-Methylnaphthalene	4.655	142	25971	93.27	ppb	100
8) Acenaphthylene	5.217	152	3076	7.83	ppb	100
9) Acenaphthene	5.333	153	4265	16.29	ppb	100
12) Fluorene	5.695	166	11575	46.97	ppb	100
13) Phenanthrene	6.344	178	80863	231.03	ppb	100
14) Anthracene	6.379	178	11820	32.92	ppb	100
15) Fluoranthene	7.179	202	15297	46.84	ppb	100
16) Pyrene	7.347	202	24145	69.04	ppb	100
19) Benzo[a]anthracene	8.439	228	13018	67.93	ppb	100
20) Chrysene	8.471	228	30983	137.18	ppb	100
22) Benzo[b]fluoranthene	9.530	252	13468	~~72.52~~	ppb	10.98 100
23) Benzo(j,k)fluoranthene	9.~~530~~550	252	13468	~~62.59~~	ppb	11.80 100
24) Benzo[a]pyrene	9.854	252	7182	37.20	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.940	276	5391	23.47	ppb	100
26) Dibenz[a,h]anthracene	10.967	278	2570	13.76	ppb	100
27) Benzo[g,h,i]perylene	11.201	276	9948	52.06	ppb	100

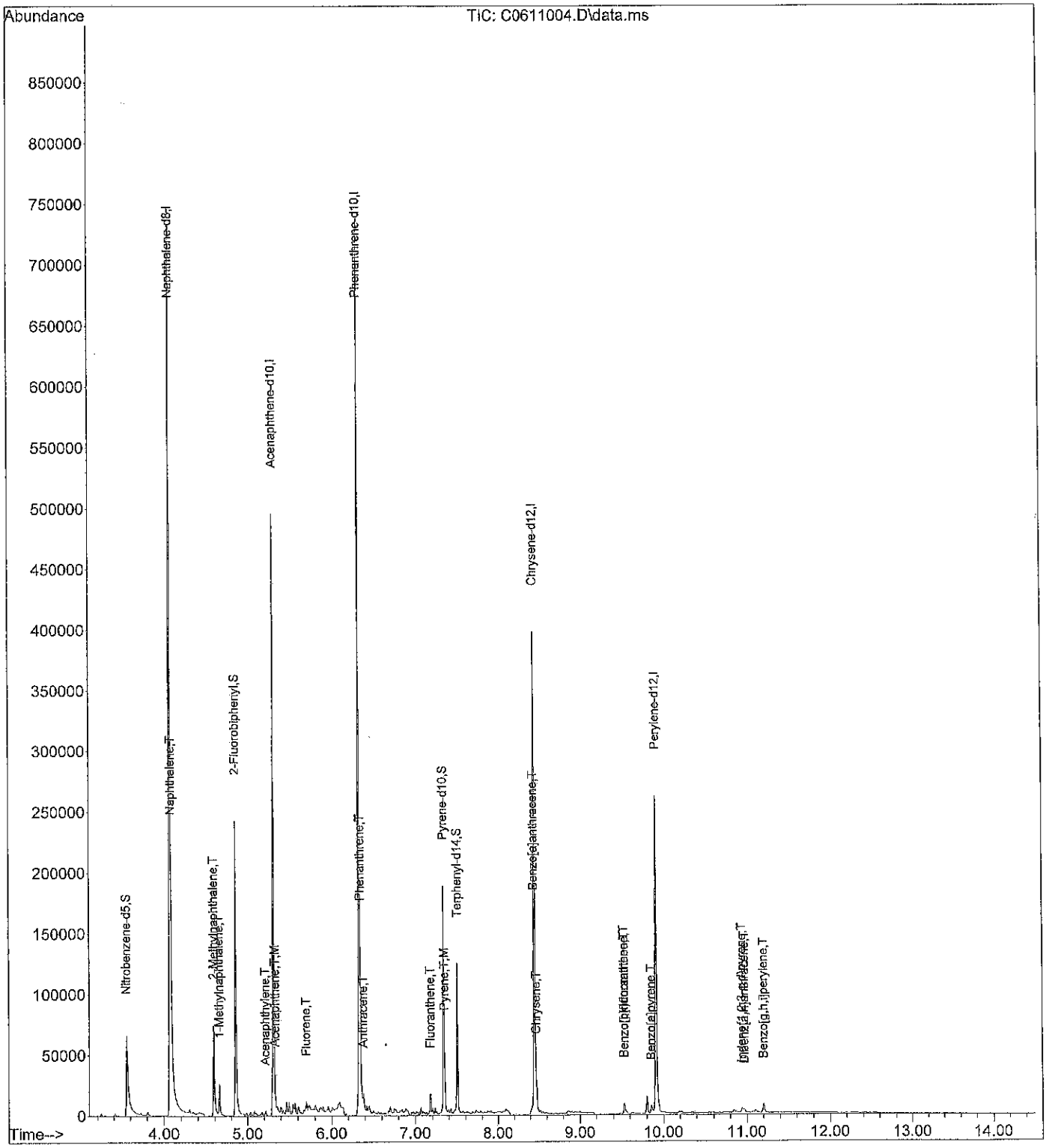
(#) = qualifier out of range (m) = manual integration (+) = signals summed

OK

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611004.D
Acq On : 11 Jun 2012 10:12 am
Operator :
Sample : 06-045-05
Misc : rr
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 11 10:27:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608017.D
Acq On : 8 Jun 2012 4:18 pm
Operator :
Sample : MB0608S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:33:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

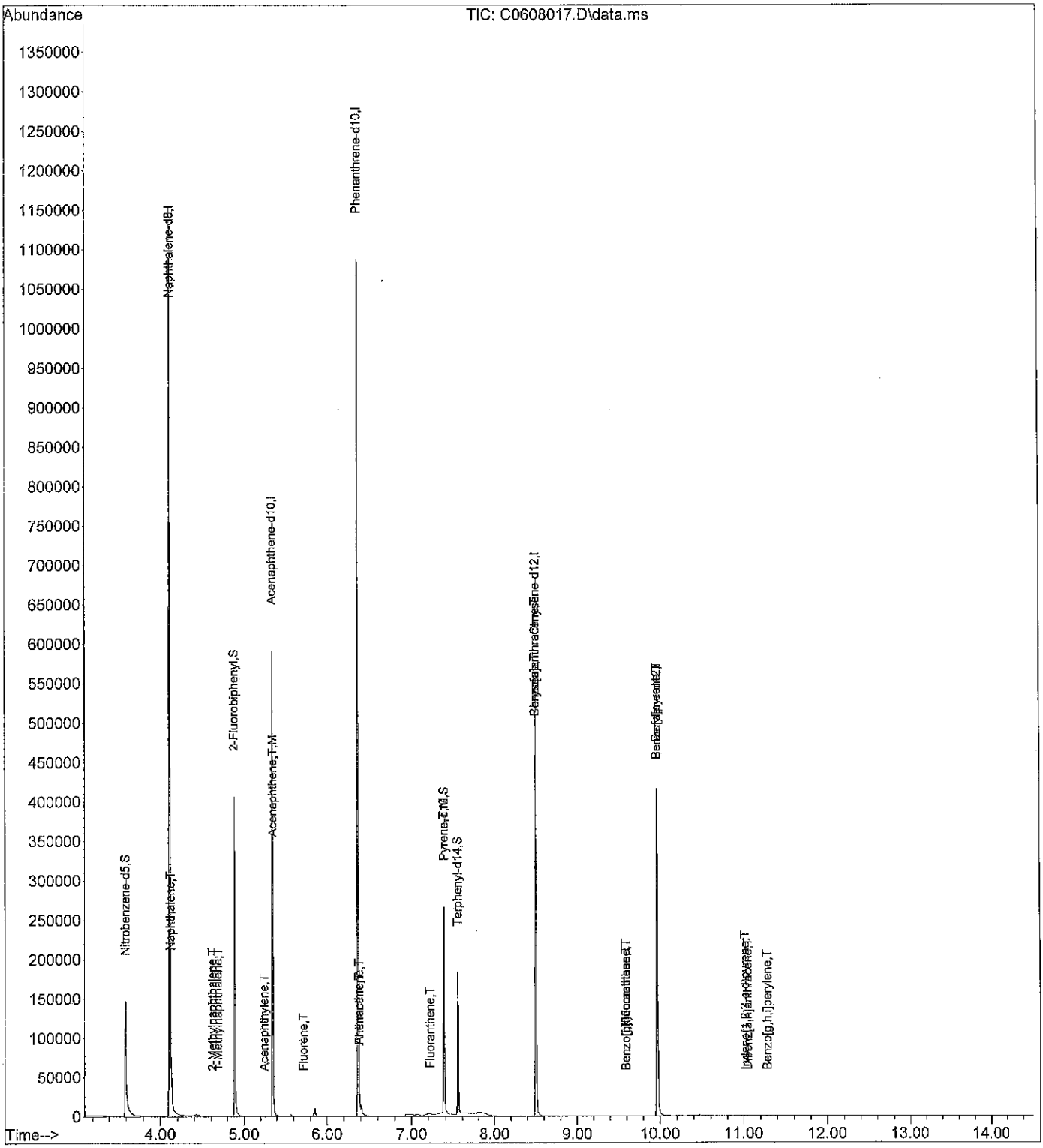
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	905563	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	449113	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	690413	2000.00	ppb	0.00
17) Chrysene-d12	8.501	240	491942	2000.00	ppb	0.00
21) Perylene-d12	9.970	264	458536	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.594	82	102059	1102.31	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 110.23%#			
7) 2-Fluorobiphenyl	4.886	172	297667	860.03	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.00%			
11) Pyrene-d10	7.383	212	201216	763.63	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 76.36%			
18) Terphenyl-d14	7.545	244	136296	902.34	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 90.23%			
Target Compounds						Qvalue
3) Naphthalene	4.122	128	1049	2.18	ppb	100
4) 2-Methylnaphthalene	4.621	142	259	0.98	ppb	100
5) 1-Methylnaphthalene	4.687	142	211	0.66	ppb	100
8) Acenaphthylene	5.247	152	136	0.30	ppb	100
9) Acenaphthene	5.355	153	250	0.82	ppb	100
12) Fluorene	5.717	166	223	0.73	ppb	100
13) Phenanthrene	6.382	178	2190	5.08	ppb	100
14) Anthracene	6.382	178	2190	4.95	ppb	100
15) Fluoranthene	7.220	202	253	0.63	ppb	100
16) Pyrene	7.383	202	531	1.23	ppb	100
19) Benzo[a]anthracene	8.497	228	1777	7.06	ppb	100
~~20) Chrysene~~	8.497	228	1777	5.99	ppb	100
22) Benzo[b]fluoranthene	9.592	252	174	0.60	ppb	100
~~23) Benzo(j,k)fluoranthene~~	9.592	252	174	0.52	ppb	100
~~24) Benzo[a]pyrene~~	9.966	252	2048	6.85	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.019	276	58	0.16	ppb	100
26) Dibenz[a,h]anthracene	11.050	278	73	0.25	ppb	100
27) Benzo[g,h,i]perylene	11.284	276	66	0.22	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608017.D
Acq On : 8 Jun 2012 4:18 pm
Operator :
Sample : MB0608S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:33:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608018.D
Acq On : 8 Jun 2012 4:40 pm
Operator :
Sample : SB0608S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:55:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

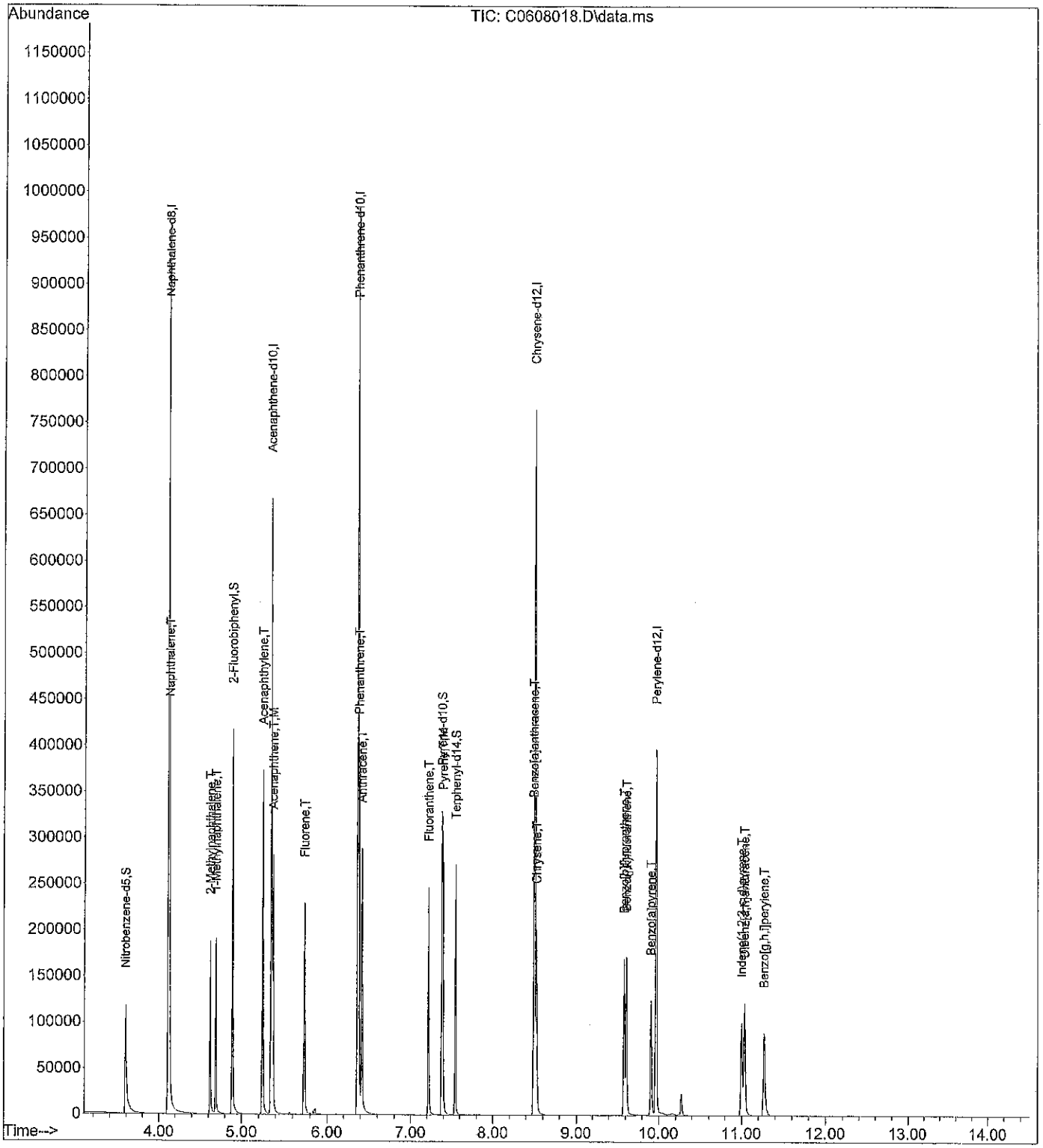
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	892391	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	459154	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	715891	2000.00	ppb	0.00
17) Chrysene-d12	8.498	240	645975	2000.00	ppb	0.00
21) Perylene-d12	9.966	264	398506	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.588	82	105275	1153.83	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 115.38%#			
7) 2-Fluorobiphenyl	4.886	172	301726	852.69	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 85.27%			
11) Pyrene-d10	7.377	212	265718	972.53	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 97.25%			
18) Terphenyl-d14	7.545	244	189392	954.88	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 95.49%#			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	227768	480.08	ppb	100
4) 2-Methylnaphthalene	4.621	142	143989	555.24	ppb	100
5) 1-Methylnaphthalene	4.687	142	148270	468.46	ppb	100
8) Acenaphthylene	5.247	152	230008	492.04	ppb	100
9) Acenaphthene	5.370	153	145843	468.29	ppb	100
12) Fluorene	5.732	166	157921	501.31	ppb	100
13) Phenanthrene	6.378	178	221410	494.86	ppb	100
14) Anthracene	6.413	178	223753	487.47	ppb	100
15) Fluoranthene	7.215	202	203019	486.33	ppb	100
16) Pyrene	7.389	202	224382	501.90	ppb	100
19) Benzo[a]anthracene	8.486	228	181262	548.61	ppb	100
20) Chrysene	8.521	228	182374	468.39	ppb	100
22) Benzo[b]fluoranthene	9.584	252	168755	~~674.97~~ 450.70	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	187496	647.29	ppb	100
24) Benzo[a]pyrene	9.904	252	136317	524.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.999	276	128475	415.55	ppb	100
26) Dibenz[a,h]anthracene	11.034	278	135590	539.17	ppb	100
27) Benzo[g,h,i]perylene	11.268	276	138746	539.36	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608018.D
Acq On : 8 Jun 2012 4:40 pm
Operator :
Sample : SB0608S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:55:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608019.D
Acq On : 8 Jun 2012 5:02 pm
Operator :
Sample : SB0608S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 17:16:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

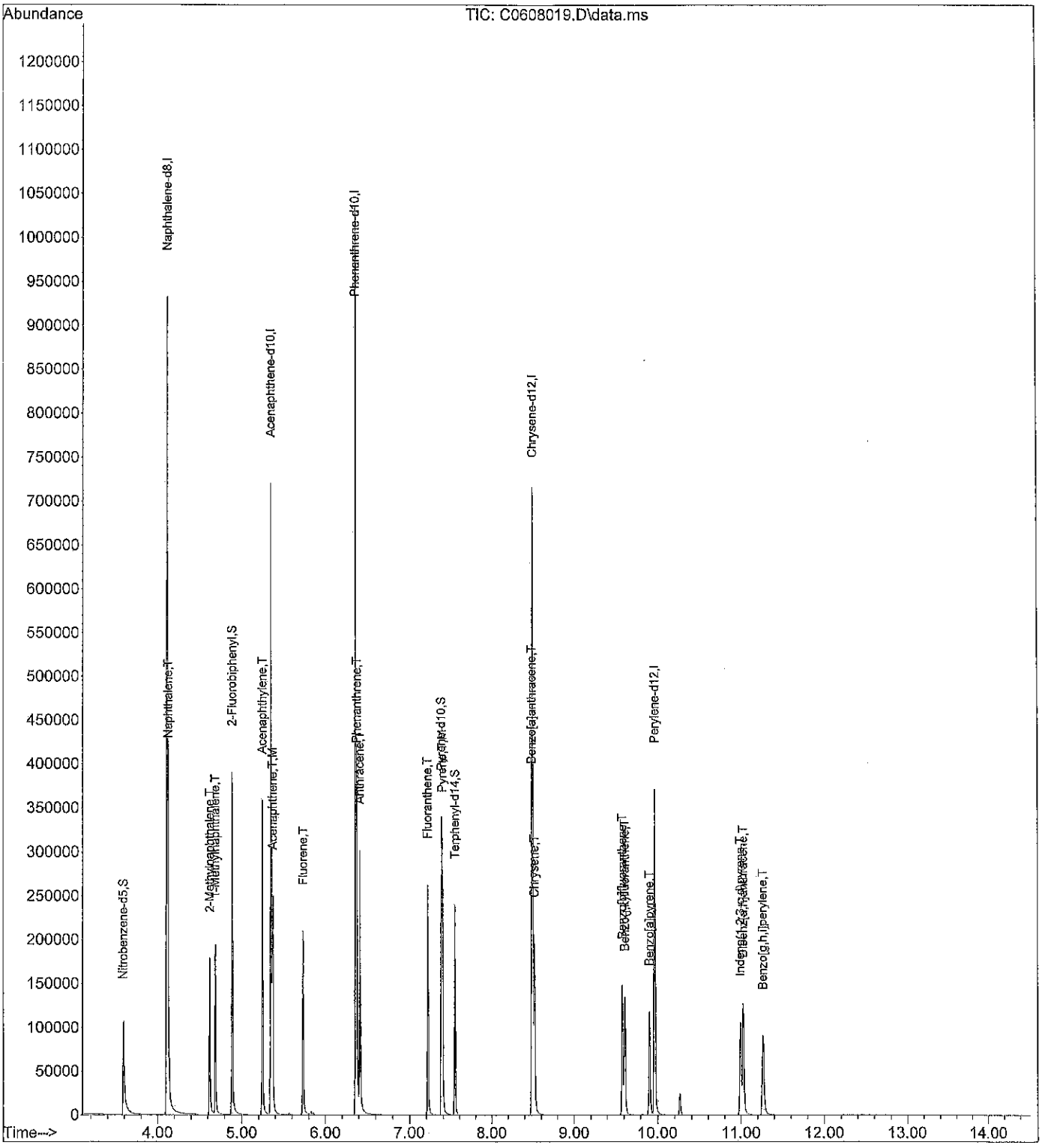
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	894656	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	457540	2000.00	ppb	0.00
10) Phenanthrene-d10	6.363	188	702053	2000.00	ppb	0.00
17) Chrysene-d12	8.498	240	636428	2000.00	ppb	0.00
21) Perylene-d12	9.963	264	380256	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.588	82	100586	1099.64	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 109.96%#			
7) 2-Fluorobiphenyl	4.886	172	308463	874.81	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 87.48%			
11) Pyrene-d10	7.377	212	256579	957.59	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 95.76%			
18) Terphenyl-d14	7.546	244	180537	923.89	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 92.39%#			
Target Compounds						Qvalue
3) Naphthalene	4.122	128	220790	464.19	ppb	100
4) 2-Methylnaphthalene	4.621	142	138342	532.12	ppb	100
5) 1-Methylnaphthalene	4.687	142	144071	454.05	ppb	100
8) Acenaphthylene	5.247	152	221199	474.87	ppb	100
9) Acenaphthene	5.370	153	139769	450.37	ppb	100
12) Fluorene	5.732	166	150383	486.79	ppb	100
13) Phenanthrene	6.378	178	214959	489.91	ppb	100
14) Anthracene	6.413	178	216467	480.89	ppb	100
15) Fluoranthene	7.215	202	198401	484.64	ppb	100
16) Pyrene	7.389	202	219556	500.79	ppb	100
19) Benzo[a]anthracene	8.487	228	173758	533.79	ppb	100
20) Chrysene	8.518	228	180129	469.57	ppb	100
22) Benzo[b]fluoranthene	9.580	252	145128	608.33	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	153171	554.17	ppb	100
24) Benzo[a]pyrene	9.904	252	121477	489.80	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.995	276	136422	462.44	ppb	100
26) Dibenz[a,h]anthracene	11.030	278	140299	584.67	ppb	100
27) Benzo[g,h,i]perylene	11.264	276	145285	591.89	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608019.D
Acq On : 8 Jun 2012 5:02 pm
Operator :
Sample : SB0608S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 17:16:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 15:13
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:32:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	91	0.00
2	S	Nitrobenzene-d5	500.000	450.362	9.9	90	0.00
3	T	Naphthalene	500.000	475.543	4.9	89	0.00
4	T	2-Methylnaphthalene	500.000	467.258	6.5	86	0.00
5	T	1-Methylnaphthalene	500.000	505.106	-1.0	94	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	94	0.00
7	S	2-Fluorobiphenyl	500.000	471.357	5.7	88	0.00
8	T	Acenaphthylene	500.000	466.701	6.7	87	0.00
9	T,M	Acenaphthene	500.000	461.587	7.7	87	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	475.243	5.0	90	0.00
12	T	Fluorene	500.000	471.101	5.8	89	0.00
13	T	Phenanthrene	500.000	462.962	7.4	89	0.00
14	T	Anthracene	500.000	487.972	2.4	90	0.00
15	T	Fluoranthene	500.000	470.460	5.9	90	0.00
16	T,M	Pyrene	500.000	481.831	3.6	89	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	93	0.00
18	S	Terphenyl-d14	500.000	471.144	5.8	90	0.00
19	T	Benzo[a]anthracene	500.000	497.060	0.6	87	0.00
20	T	Chrysene	500.000	488.827	2.2	92	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	91	0.00
22	T	Benzo[b]fluoranthene	500.000	477.759	4.4	86	0.00
23	T	Benzo(j,k)fluoranthene	500.000	500.895	-0.2	93	0.00
24	T	Benzo[a]pyrene	500.000	471.316	5.7	89	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	487.301	2.5	91	0.00
26	T	Dibenz[a,h]anthracene	500.000	492.803	1.4	91	0.00
27	T	Benzo[g,h,i]perylene	500.000	493.246	1.4	92	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 3:13 pm
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration

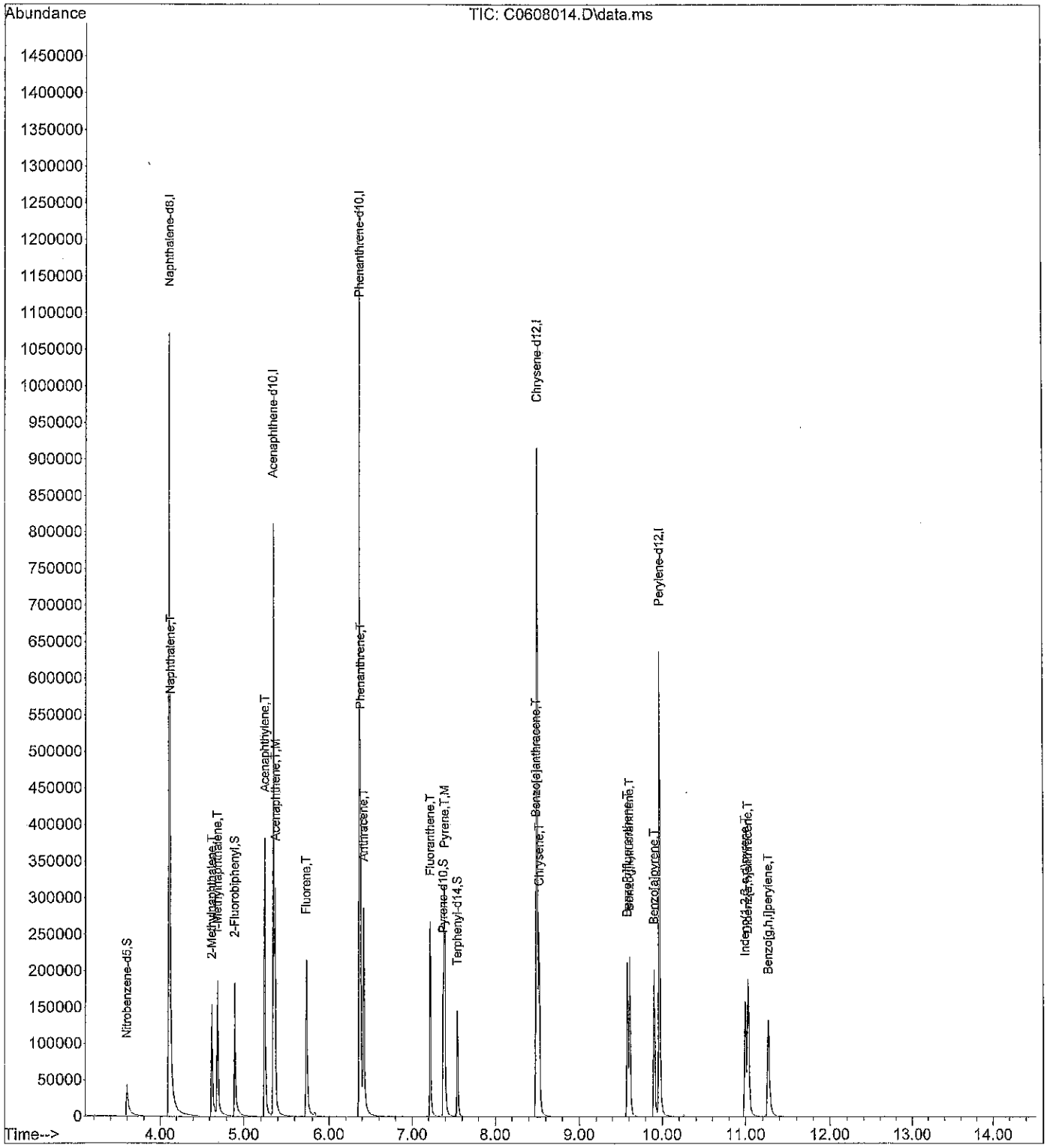
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.112	136	1175196	2000.00	ppb	0.00
6) Acenaphthene-d10	5.348	164	586831	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	957522	2000.00	ppb	0.00
17) Chrysene-d12	8.497	240	842923	2000.00	ppb	0.00
21) Perylene-d12	9.966	264	730336	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.595	82	54113	450.36	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 45.04%			
7) 2-Fluorobiphenyl	4.889	172	213169	471.36	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.14%			
11) Pyrene-d10	7.377	212	173674	475.24	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 47.52%			
18) Terphenyl-d14	7.545	244	121938	471.14	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.11%			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	297116	475.54	ppb	100
4) 2-Methylnaphthalene	4.624	142	159573	467.26	ppb	100
5) 1-Methylnaphthalene	4.690	142	210530	505.11	ppb	100
8) Acenaphthylene	5.248	152	278827	466.70	ppb	100
9) Acenaphthene	5.371	153	183729	461.59	ppb	100
12) Fluorene	5.733	166	198496	471.10	ppb	100
13) Phenanthrene	6.378	178	277052	462.96	ppb	100
14) Anthracene	6.417	178	299583	487.97	ppb	100
15) Fluoranthene	7.220	202	262681	470.46	ppb	100
16) Pyrene	7.394	202	288115	481.83	ppb	100
19) Benzo[a]anthracene	8.485	228	225981	497.06	ppb	100
20) Chrysene	8.521	228	248359	488.83	ppb	100
22) Benzo[b]fluoranthene	9.584	252	218910	477.76	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	265904	500.89	ppb	100
24) Benzo[a]pyrene	9.904	252	224507	471.32	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.996	276	212235	~~374.57~~ 486.72	ppb	100
26) Dibenz[a,h]anthracene	11.031	278	227124	492.80	ppb	100
27) Benzo[g,h,i]perylene	11.269	276	232536	493.25	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/8/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 3:13 pm
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 11 10:06:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	62	-0.04
2	S	Nitrobenzene-d5	500.000	708.224	-41.6#	96	-0.04
3	T	Naphthalene	500.000	527.776	-5.6	67	-0.04
4	T	2-Methylnaphthalene	500.000	539.892	-8.0	68	-0.04
5	T	1-Methylnaphthalene	500.000	523.899	-4.8	67	-0.04
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	65	-0.03
7	S	2-Fluorobiphenyl	500.000	484.377	3.1	63	-0.04
8	T	Acenaphthylene	500.000	562.460	-12.5	73	-0.03
9	T,M	Acenaphthene	500.000	507.506	-1.5	67	-0.04
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	66	-0.04
11	S	Pyrene-d10	500.000	516.575	-3.3	69	-0.05
12	T	Fluorene	500.000	511.612	-2.3	68	-0.04
13	T	Phenanthrene	500.000	515.639	-3.1	70	-0.04
14	T	Anthracene	500.000	511.727	-2.3	66	-0.04
15	T	Fluoranthene	500.000	510.739	-2.1	69	-0.04
16	T,M	Pyrene	500.000	531.189	-6.2	69	-0.05
17	I	Chrysene-d12	2000.000	2000.000	0.0	68	-0.05
18	S	Terphenyl-d14	500.000	508.674	-1.7	70	-0.04
19	T	Benzo[a]anthracene	500.000	580.166	-16.0	70	-0.05
20	T	Chrysene	500.000	495.745	0.9	68	-0.05
21	I	Perylene-d12	2000.000	2000.000	0.0	68	-0.06
22	T	Benzo[b]fluoranthene	500.000	515.844	-3.2	69	-0.06
23	T	Benzo(j,k)fluoranthene	500.000	518.104	-3.6	71	-0.06
24	T	Benzo[a]pyrene	500.000	492.100	1.6	69	-0.06
25	T	Indeno(1,2,3-c,d)pyrene	500.000	507.309	-1.5	70	-0.08
26	T	Dibenz[a,h]anthracene	500.000	508.022	-1.6	70	-0.08
27	T	Benzo[g,h,i]perylene	500.000	498.912	0.2	69	-0.09

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50 am
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 11 10:05:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

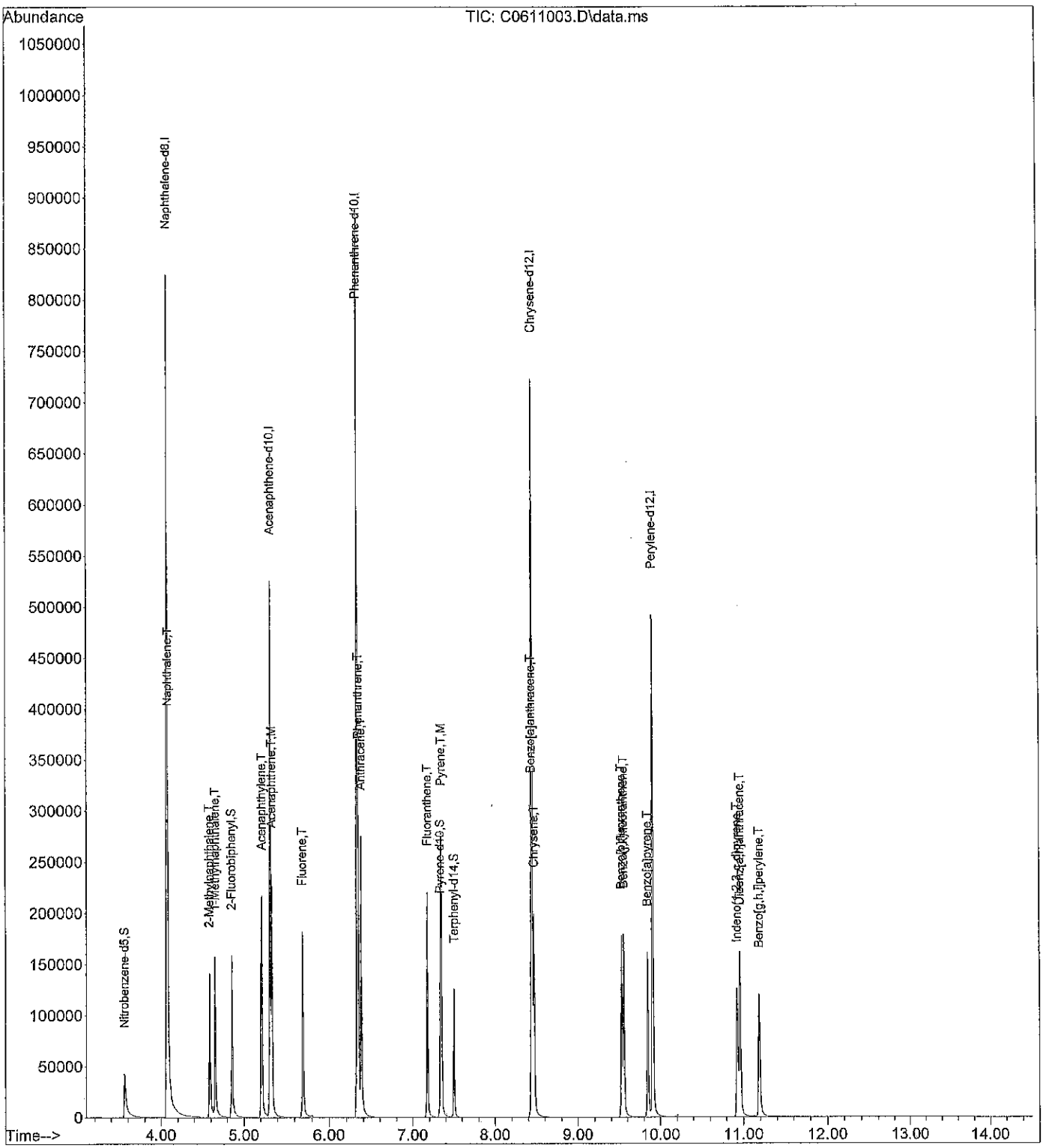
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.075	136	799113	2000.00	ppb	-0.04
6) Acenaphthene-d10	5.317	164	409871	2000.00	ppb	-0.03
10) Phenanthrene-d10	6.328	188	675931	2000.00	ppb	-0.04
17) Chrysene-d12	8.448	240	613346	2000.00	ppb	-0.05
21) Perylene-d12	9.903	264	543233	2000.00	ppb	-0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.558	82	57864	708.22	ppb	-0.04
Spiked Amount 1000.000	Range 24 - 92		Recovery = 70.82%			
7) 2-Fluorobiphenyl	4.854	172	153000	484.38	ppb	-0.04
Spiked Amount 1000.000	Range 25 - 89		Recovery = 48.44%			
11) Pyrene-d10	7.336	212	133262	516.57	ppb	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery = 51.66%			
18) Terphenyl-d14	7.504	244	95795	508.67	ppb	-0.04
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.87%			
Target Compounds						Qvalue
3) Naphthalene	4.086	128	224225	527.78	ppb	100
4) 2-Methylnaphthalene	4.588	142	125374	539.89	ppb	100
5) 1-Methylnaphthalene	4.655	142	148483	523.90	ppb	100
8) Acenaphthylene	5.217	152	234705	562.46	ppb	100
9) Acenaphthene	5.332	153	141091	507.51	ppb	100
12) Fluorene	5.695	166	152171	511.61	ppb	100
13) Phenanthrene	6.343	178	217829	515.64	ppb	100
14) Anthracene	6.379	178	221776	511.73	ppb	100
15) Fluoranthene	7.179	202	201307	510.74	ppb	100
16) Pyrene	7.348	202	224220	531.19	ppb	100
19) Benzo[a]anthracene	8.436	228	182005	580.17	ppb	100
20) Chrysene	8.471	228	183274	495.75	ppb	100
22) Benzo[b]fluoranthene	9.524	252	175808	515.84	ppb	100
23) Benzo(j,k)fluoranthene	9.552	252	204578	518.10	ppb	100
24) Benzo[a]pyrene	9.844	252	174355	492.10	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.924	276	168334	~~399.42~~ 507.31	ppb	100
26) Dibenz[a,h]anthracene	10.959	278	174155	508.02	ppb	100
27) Benzo[g,h,i]perylene	11.185	276	174950	498.91	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50 am
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

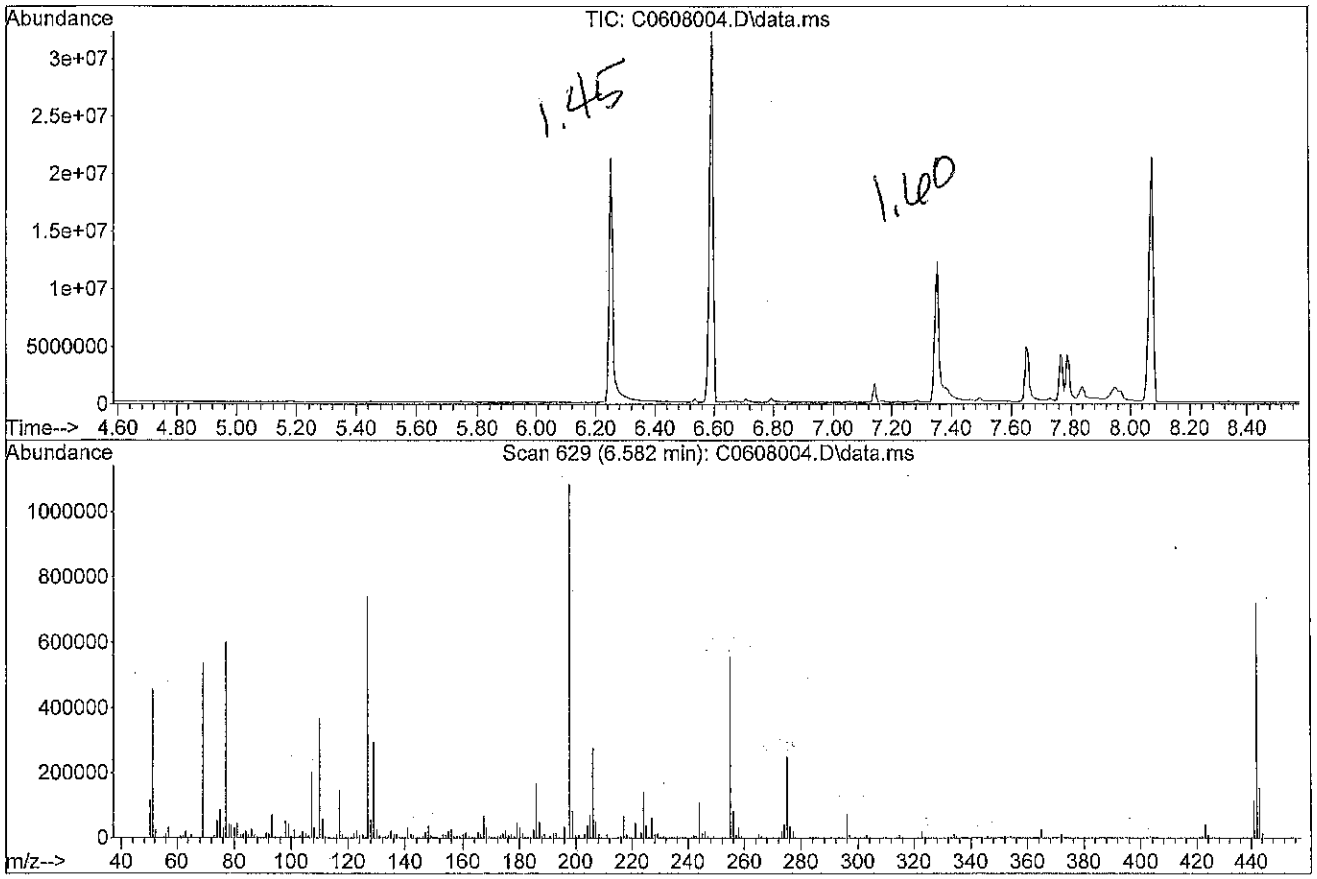
Quant Time: Jun 11 10:05:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C120608\
Data File : C0608004.D
Acq On : 8 Jun 2012 11:35
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Title : PAH'S BY SIMS
Last Update : Fri Jun 08 11:30:57 2012



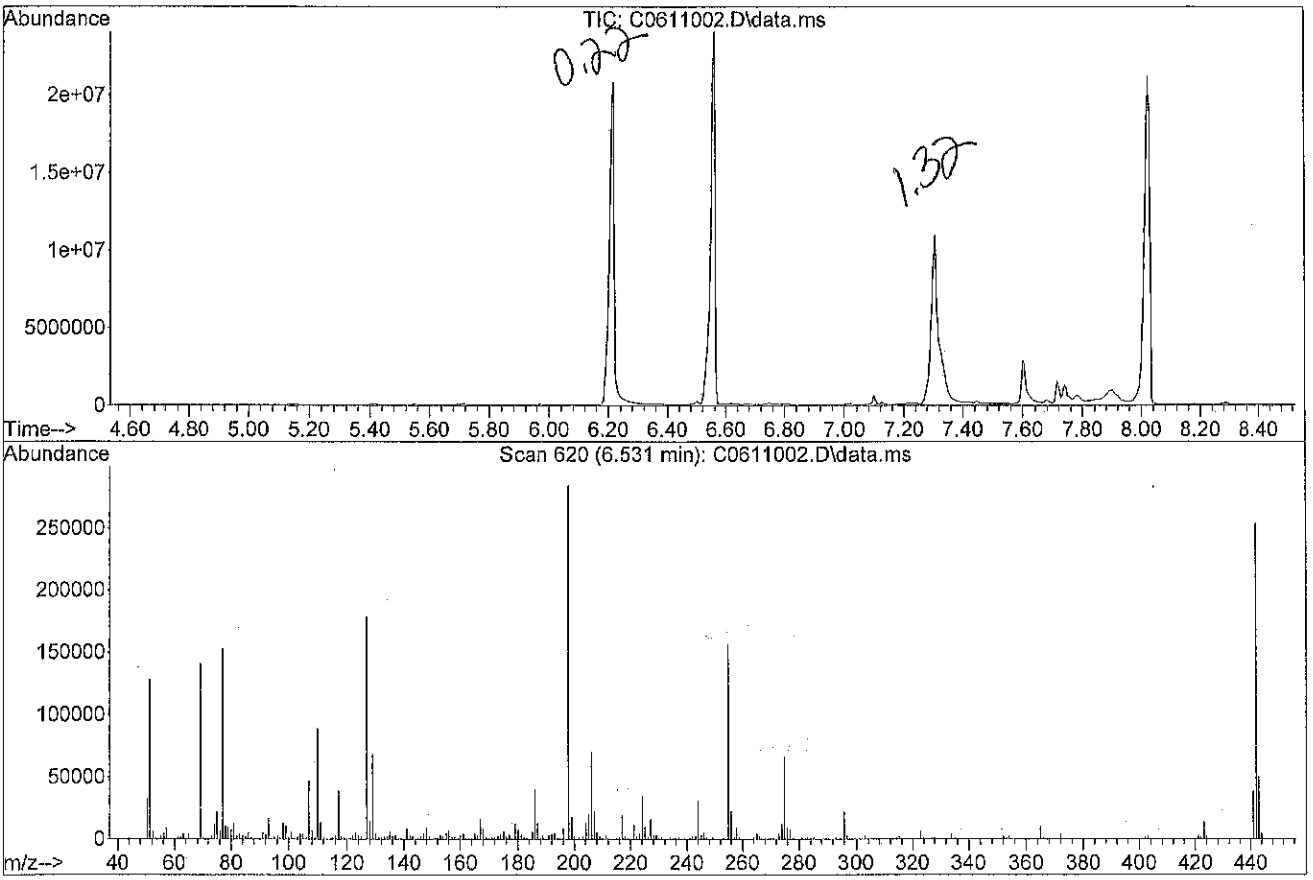
Spectrum Information: Scan 629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	42.3	460928	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	538432	PASS
70	69	0.00	2	0.7	3627	PASS
127	198	25	75	68.1	741568	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1089024	PASS
199	198	5	9	7.7	84032	PASS
275	198	10	30	23.3	253504	PASS
365	198	0.75	100	2.5	27104	PASS
441	443	0.01	100	75.4	116472	PASS
442	198	40	110	66.1	720000	PASS
443	442	15	24	21.5	154496	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611002.D
Acq On : 11 Jun 2012 9:29
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Title : PAH'S BY SIMS
Last Update : Mon Jun 11 09:08:40 2012



Spectrum Information: Scan 620

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	45.0	128544	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	140992	PASS
70	69	0.00	2	1.0	1475	PASS
127	198	25	75	62.5	178432	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	285696	PASS
199	198	5	9	6.3	18048	PASS
275	198	10	30	23.3	66640	PASS
365	198	0.75	100	3.8	10747	PASS
441	443	0.01	100	77.1	38864	PASS
442	198	40	110	88.9	254016	PASS
443	442	15	24	19.9	50424	PASS

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120608\C0608004.D
Tune Time : 8 Jun 2012 11:35

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120608\C0608014.D

(PRY)	(NPT)	(ACE)	(PHN)
	1175200	586831	957522

(CRY)	(PRY)
842923	730336

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0608017.D							
	MB0608S1	110*	86	76	90	905563	449113	690413
			491942		458536			
C0608018.D							
	SB0608S1	115*	85	97	95*	892391	459154	715891
			645975		398506			
C0608019.D							
	SB0608S1 D	110*	87	96	92*	894656	457540	702053
			636428		380256			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Jun 11 11:15:10 2012 COREY

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120611\C0611002.D
Tune Time : 11 Jun 2012 9:29

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120611\C0611003.D

(PRY)	(NPT)	(ACE)	(PHN)
	799113	409871	675931

(CRY)	(PRY)
613346	543233

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0611004.D								
	06-045-05	99*	73	69	85	785093	386052	560023
			374702		296012			
C0611005.D								
	06-045-04	74	57	50	61	739776	341092	440693
			288376*		251515*			
C0611006.D								
	06-045-02	76	58	50	63	751521	352390	454048
			293243*		252216*			
C0611008.D								
	06-045-03	12*	10*	9*	11*	757245	368289	562807
			395650		300642			
C0611009.D								
	06-045-01	10*	10*	9*	11*	738123	351780	547283
			378198		290929			
C0611011.D								
	06-045-04	10*	10*	10*	12*	714633	349757	534877
			387973		305593			
C0611012.D								
	06-045-02	12*	11*	10*	13*	715819	347411	514651
			371758		289790			
C0611013.D								
	06-045-03	67	50	42	55	658012	313796	417897
			266535*		224466*			
C0611014.D								
	06-045-01	65	50	42	55	653179	304454	402041
			263276*		226477*			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Jun 11 14:12:22 2012 COREY

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0608-V10.D
Sample : 06-045-01

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 16:56
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 17:32:17 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.489	132030692	52.109	PPM
Spiked Amount		50.000		Recovery =	104.22%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9349223	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	96356376	37.409	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	177037699	70.910	PPM
6)	H	Oil	22.000	537468577	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	538549672	243.190	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	132468192	54.606	PPM
9)	H	Oil Combo	22.000	496682201	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	498556924	228.963	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	184982667	70.655	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	328250261	295.511	PPM
13)	H	Mineral Oil (03-13-12)	16.000	272526499	105.271	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	622016026	385.185	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	636225124	8078.814	PPM
16)	H	Mineral Oil Combo (0...	16.000	154105963	61.213	PPM
17)	H	Oil Acid Clean MO Com...	22.000	461107506	218.136	PPM

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

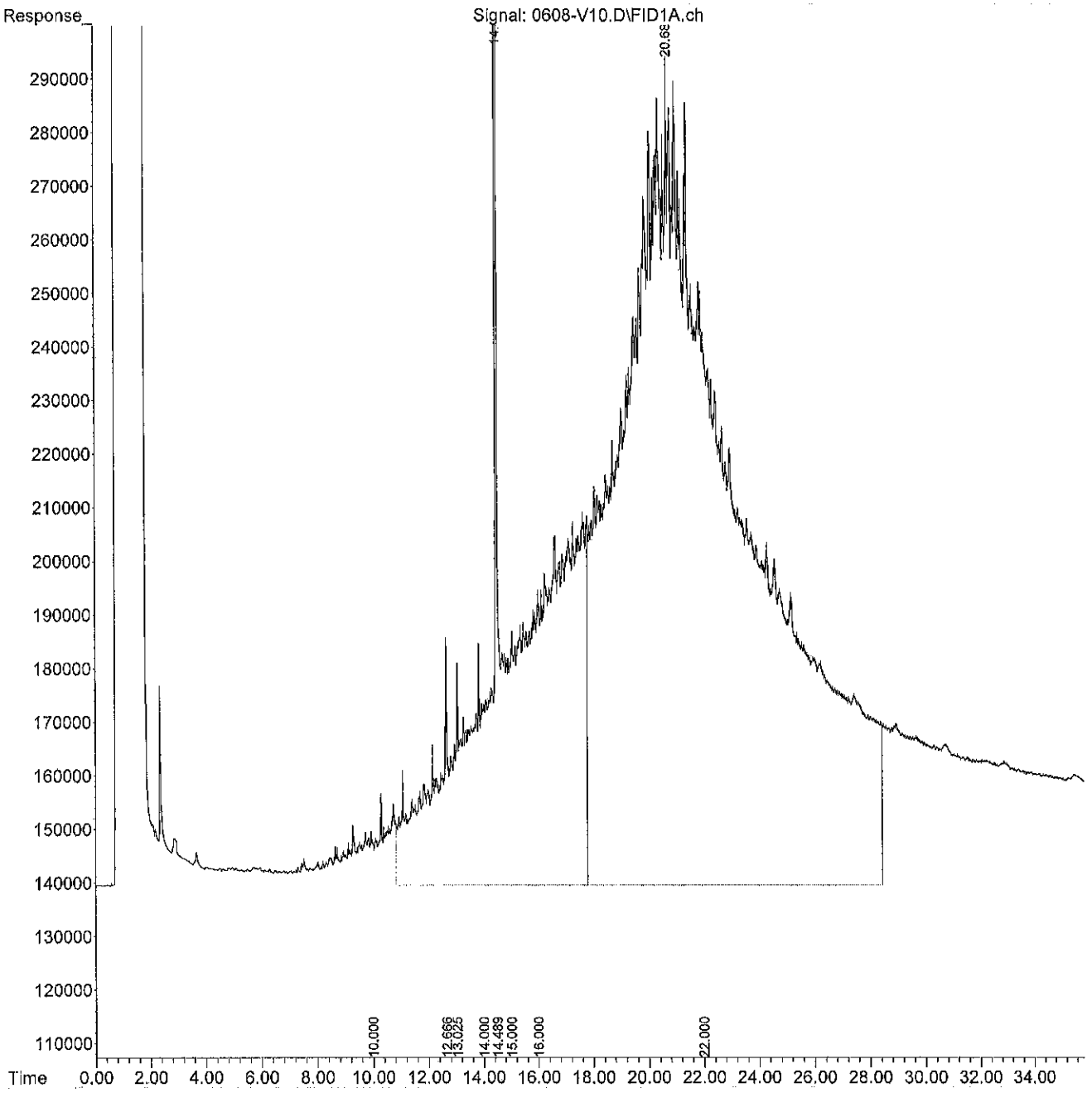
Quantitation Report (Not Reviewed)

Data File : 0608-V10.D
Sample : 06-045-01

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 16:56
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 17:32:17 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0608-V12.D
Sample : 06-045-02

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 18:16
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 18:52:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-13-12)	14.487	131596898	51.938	PPM
Spiked Amount	50.000		Recovery =	103.88%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9316336	NoCal	PPM
4) H	Diesel Fuel #1 (03-1...	10.000	124985545	50.069	PPM
5) H	Diesel Fuel #2 (03-...	14.000	260480443	106.145	PPM
6) H	Oil	22.000	884519406	NoCal	PPM
7) H	Oil Acid Clean (06-...	22.000	884284405	412.682	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	186000206	78.082	PPM
9) H	Oil Combo	22.000	818493042	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	819253835	389.693	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	273593453	105.745	PPM
12) H	Alaska 103 Oil (06-2...	22.000	556668067	506.336	PPM
13) H	Mineral Oil (03-13-12)	16.000	438252831	172.743	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	992733654	644.687	PPM
15) H	ALKANE C9-C40 10-26-07	12.666	1011236081	12853.680	PPM
16) H	Mineral Oil Combo (0...	16.000	234479268	94.516	PPM
17) H	Oil Acid Clean MO Com...	22.000	756753794	371.666	PPM

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

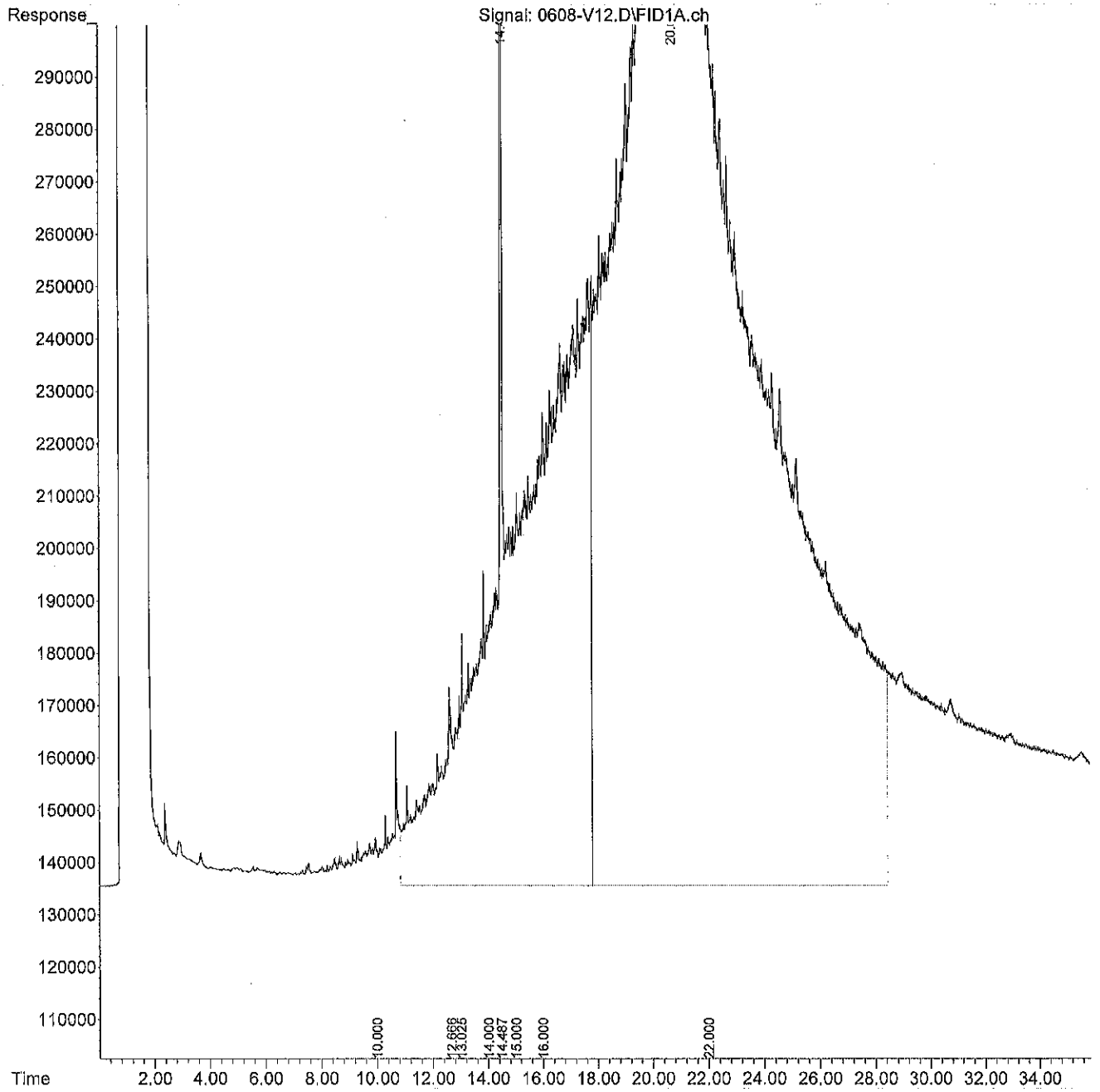
Quantitation Report (Not Reviewed)

Data File : 0608-V12.D
Sample : 06-045-02

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 18:16
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 18:52:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0608-V14.D
Sample : 06-045-03

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 19:35
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 20:11:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.488	145498894	57.432	PPM
Spiked Amount		50.000		Recovery =	114.86%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12029164	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	202363711	84.285	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	404650301	167.024	PPM
6)	H	Oil	22.000	1164167213	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	1159332742	547.520	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	295532973	126.116	PPM
9)	H	Oil Combo	22.000	1063691174	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1060949922	510.828	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	423453199	165.088	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	723927376	660.713	PPM
13)	H	Mineral Oil (03-13-12)	16.000	642802626	256.020	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1341790980	889.026	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	1364039422	17345.786	PPM
16)	H	Mineral Oil Combo (0...	16.000	360825704	146.869	PPM
17)	H	Oil Acid Clean MO Com...	22.000	969138486	481.958	PPM

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

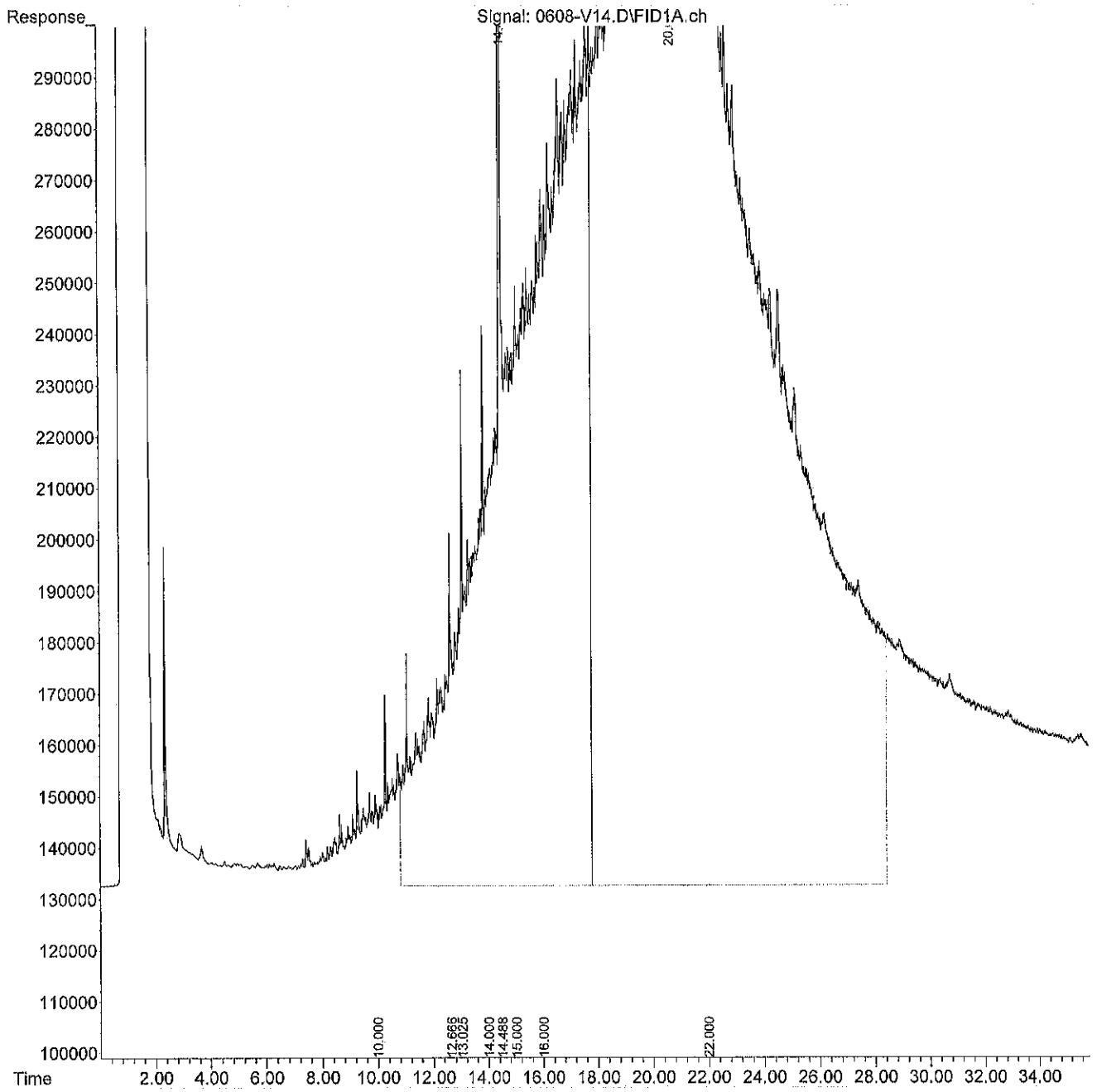
Quantitation Report (Not Reviewed)

Data File : 0608-V14.D
Sample : 06-045-03

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 19:35
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 20:11:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V52.D
Sample : 06-045-04 5X

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 10:52
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 11:28:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.642	27899421	9.476	PPM
Spiked Amount		50.000		Recovery =	18.95%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5913473	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	39638705	15.609	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	64293224	25.570	PPM
6)	H	Oil	22.000	190603396	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	197422219	80.532	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	51012775	21.073	PPM
9)	H	Oil Combo	22.000	176684213	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	183719659	75.525	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	68152998	21.095	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	108228655	84.512	PPM
13)	H	Mineral Oil (03-14-12)	16.000	90516423	28.007	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	233148437	137.638	PPM
15)	H	ALKANE C9-C40	12.666	232412112	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	54015688	16.279	PPM
17)	H	Oil Acid Clean MO Com...	22.000	171335085	71.991	PPM

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

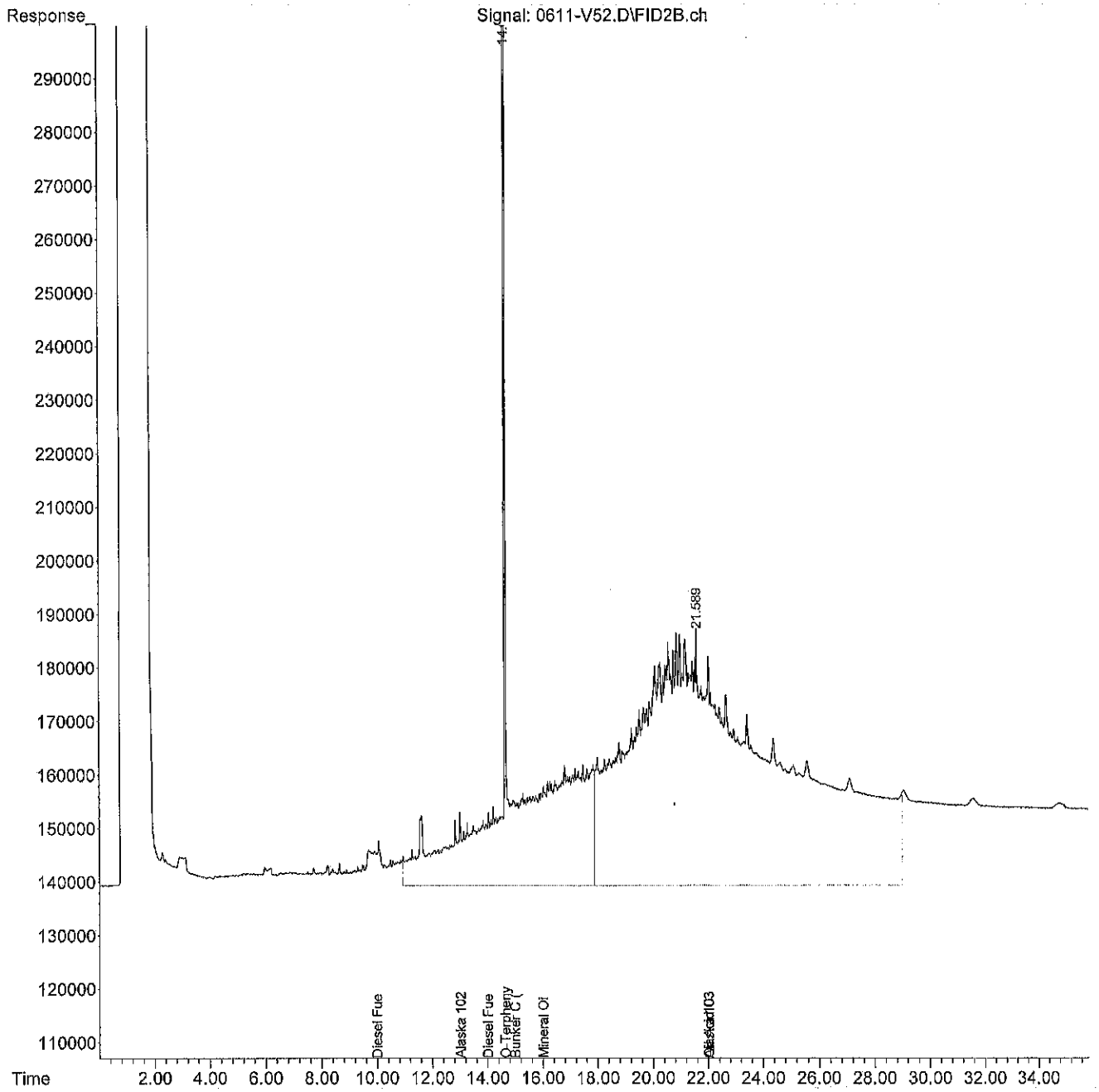
Quantitation Report (Not Reviewed)

Data File : 0611-V52.D
Sample : 06-045-04 5X

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 10:52
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 11:28:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V02.D
Sample : 06-045-05 5X

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 10:52
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 11:28:33 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.476	31105739	12.220	PPM
Spiked Amount		50.000		Recovery =	24.44%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9684706	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	59907900	21.292	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	105413929	40.666	PPM
6)	H	Oil	22.000	348127736	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	351620427	151.550	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	79167934	31.232	PPM
9)	H	Oil Combo	22.000	324217066	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	328126805	143.546	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	110270255	41.070	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	204092171	180.915	PPM
13)	H	Mineral Oil (03-13-12)	16.000	159460271	59.240	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	399253050	229.252	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	412665729	5232.320	PPM
16)	H	Mineral Oil Combo (0...	16.000	89567121	34.471	PPM
17)	H	Oil Acid Clean MO Com...	22.000	306106398	137.644	PPM

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

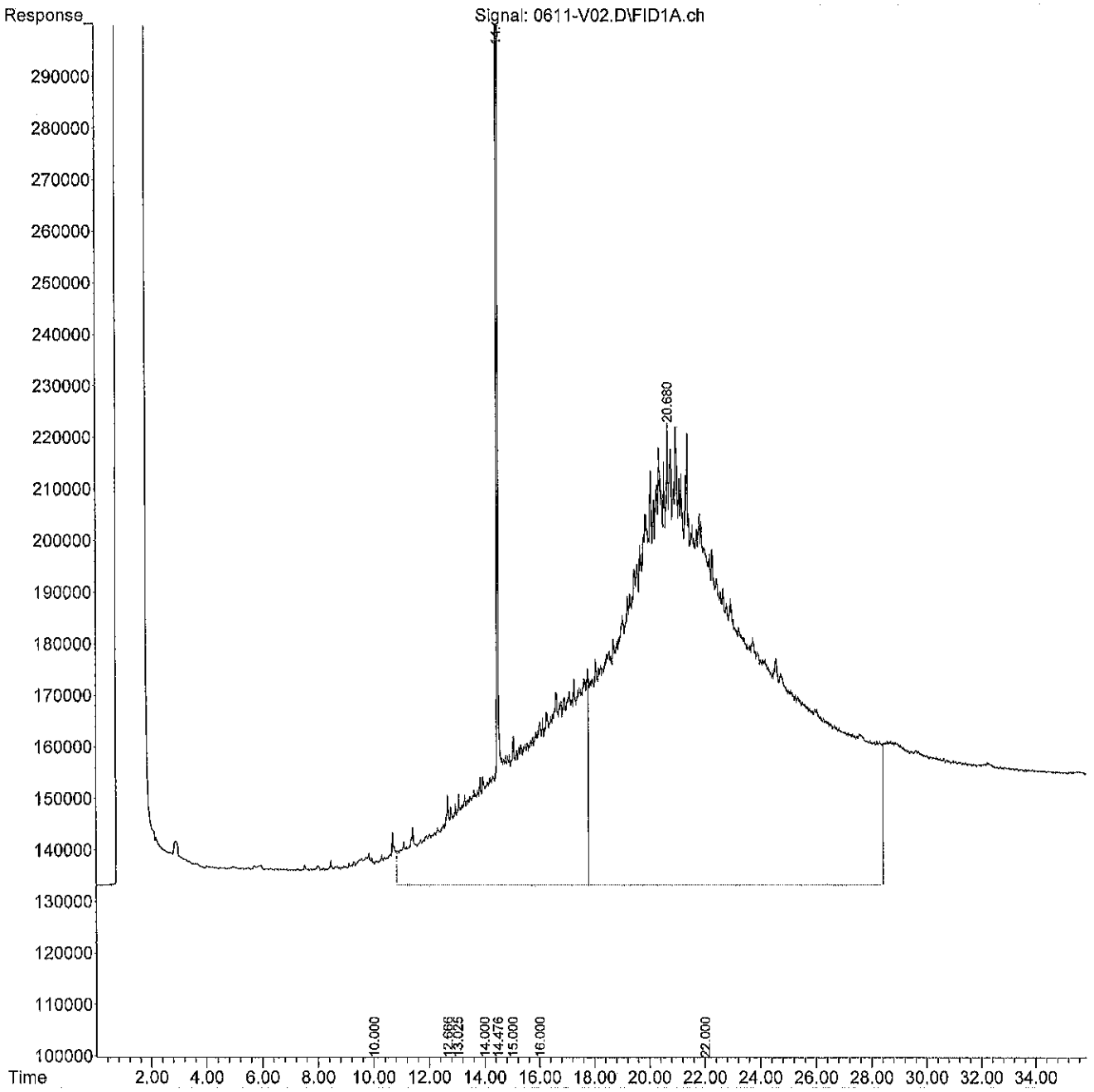
Quantitation Report (Not Reviewed)

Data File : 0611-V02.D
Sample : 06-045-05 5X

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 10:52
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 11:28:33 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V07.D
Sample : MB0607S2

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 14:21
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:57:01 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.492	163333073	64.481	PPM
Spiked Amount		50.000		Recovery =	128.96%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9064037	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	17242991	2.425	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	17977771	3.744	PPM
6)	H	Oil	22.000	83334826	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	87517922	22.077	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	15723566	3.409	PPM
9)	H	Oil Combo	22.000	80862099	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	85162411	21.775	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	18677907	4.800	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	37226748	26.902	PPM
13)	H	Mineral Oil (03-13-12)	16.000	17643683	1.503	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	96287670	17.177	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	105191209	1317.369	PPM
16)	H	Mineral Oil Combo (0...	16.000	11547119	2.143	PPM
17)	H	Oil Acid Clean MO Com...	22.000	83277528	21.928	PPM

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

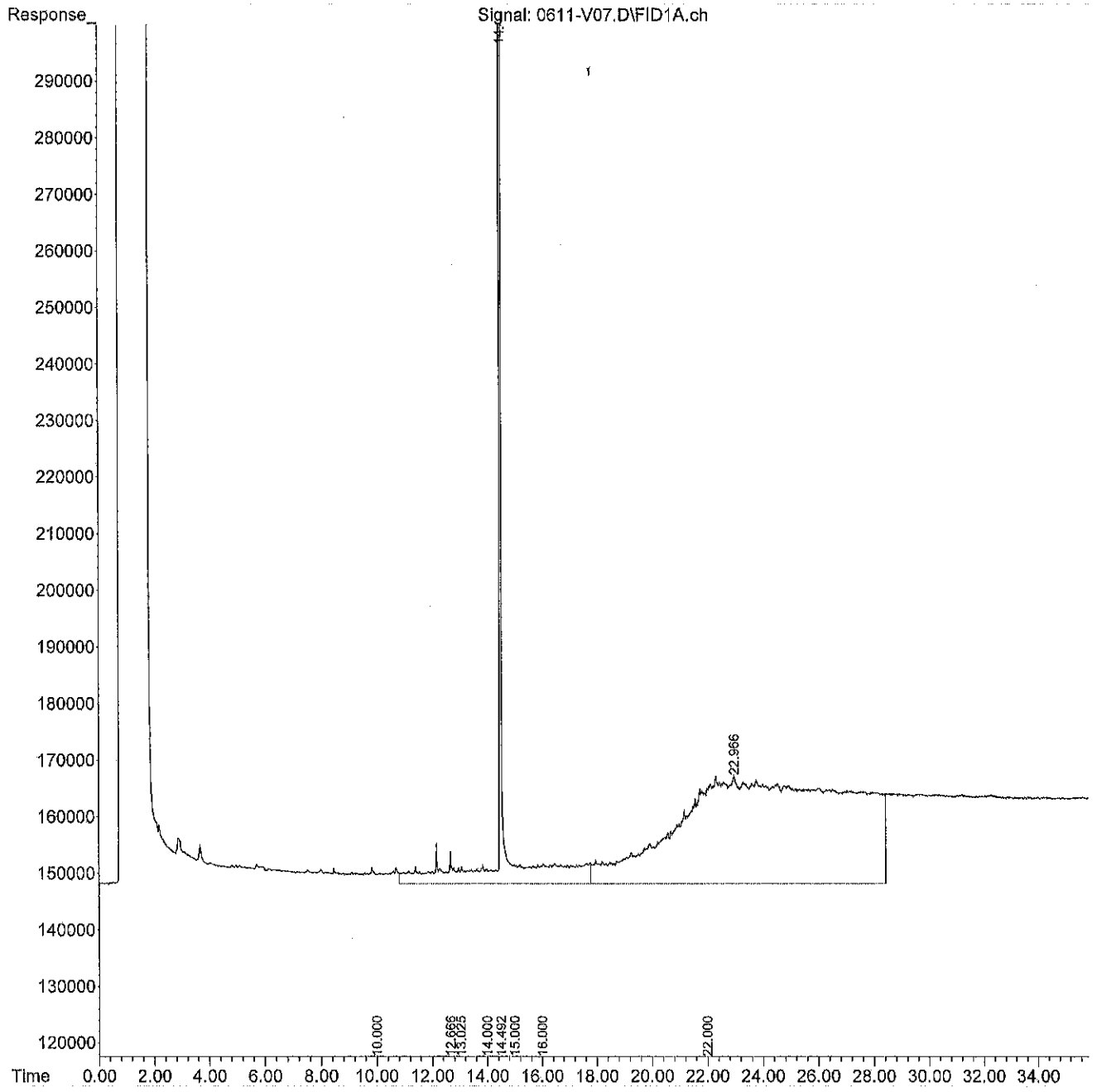
Quantitation Report (Not Reviewed)

Data File : 0611-V07.D
Sample : MB0607S2

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 14:21
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:57:01 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : 0611-V06.D
Sample : 06-047-02 5X

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 13:40
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:18:53 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	O-Terphenyl (03-13-12)	14.483	27087035	10.632	PPM	m
Spiked Amount		50.000		Recovery =	21.26%		
Target Compounds							
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM	
3)	H	Gasoline	3.500	9796548	NoCal	PPM	
4)	H	Diesel Fuel #1 (03-1...	10.000	3417732460	1506.112	PPM	
5)	H	Diesel Fuel #2 (03-...	14.000	4811949113	2028.086	PPM	
6)	H	Oil	22.000	2384821452	NoCal	PPM	
7)	H	Oil Acid Clean (06-...	22.000	2144158976	1030.319	PPM	
8)	H	Diesel Fuel #2 Combo ...	14.000	4329672751	1895.229	PPM	
9)	H	Oil Combo	22.000	1339915149	NoCal	PPM	
10)	H	Oil Acid Clean Combo ...	22.000	1228765360	594.935	PPM	
11)	H	Alaska 102 DF2 (06-2...	13.025	4858125138	1921.180	PPM	
12)	H	Alaska 103 Oil (06-2...	22.000	580382576	528.224	PPM	
13)	H	Mineral Oil (03-13-12)	16.000	5020351123	2038.223	PPM	
14)	H	Bunker C (Fuel Oil #6...	15.000	5551144108	3835.564	PPM	
15)	H	ALKANE C9-C40 10-26-07	12.666	5565969918	70847.307	PPM	
16)	H	Mineral Oil Combo (0...	16.000	4621194994	1912.185	PPM	
17)	H	Oil Acid Clean MO Com...	22.000	798265146	393.223	PPM	

ZT 6-11-12

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

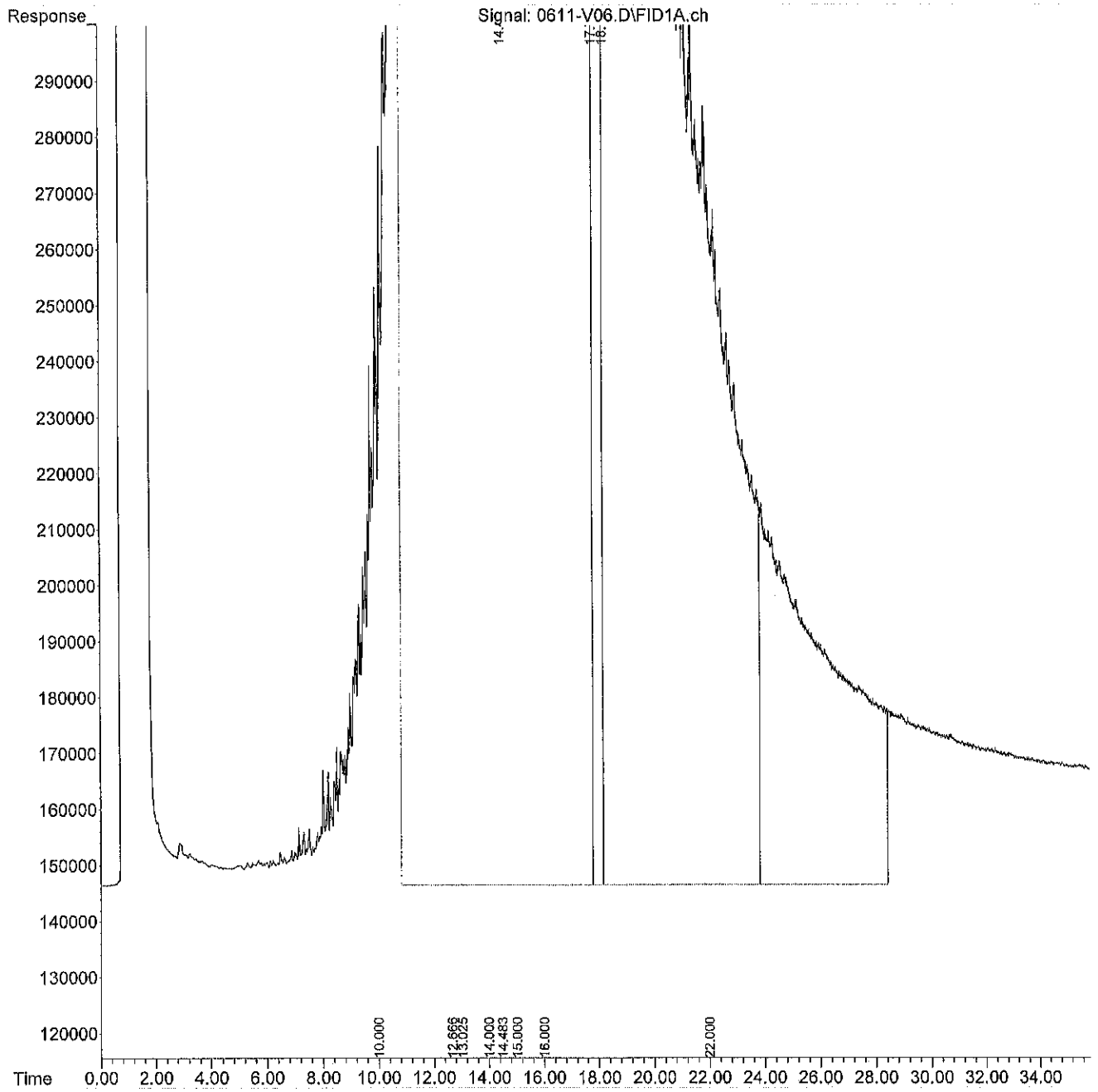
Quantitation Report (QT Reviewed)

Data File : 0611-V06.D
Sample : 06-047-02 5X

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 13:40
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:18:53 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V56.D
Sample : 06-047-02 SX DUP

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 13:40
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:17:02 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.650	30438467	10.319	PPM
Spiked Amount		50.000		Recovery =	20.64%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4633439	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	2582664079	1104.339	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	3704288423	1447.519	PPM
6)	H	Oil	22.000	2092739007	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	1839521883	901.609	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	3320117703	1345.456	PPM
9)	H	Oil Combo	22.000	1231483147	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1100972889	542.678	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	3763905272	1445.294	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	536369423	460.091	PPM
13)	H	Mineral Oil (03-14-12)	16.000	3939608429	1433.725	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	4420003861	3036.758	PPM
15)	H	ALKANE C9-C40	12.666	4416406798	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	3592573802	1358.583	PPM
17)	H	Oil Acid Clean MO Com...	22.000	735169649	368.525	PPM

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

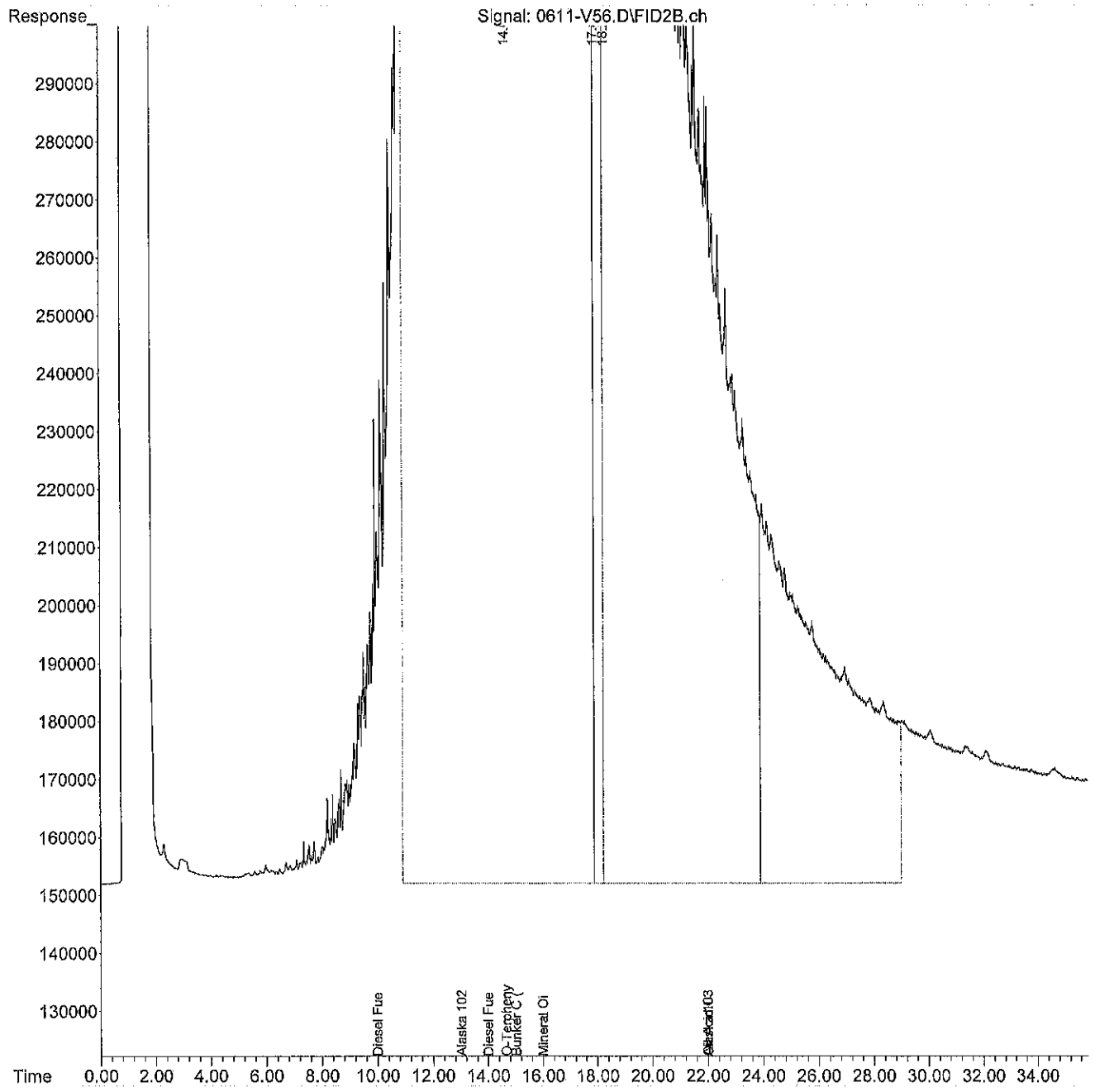
Quantitation Report (Not Reviewed)

Data File : 0611-V56.D
Sample : 06-047-02 5X DUP

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 13:40
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 14:17:02 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0608-V09.D
Sample : BC-CCV0608F-V1

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 16:10
Operator :
Misc : SV2-100-22
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 16:46:21 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10421843	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	69818764	25.674	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	91575668	34.822	PPM
6)	H	Oil	22.000	166813158	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	169113026	62.078	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	78260491	30.834	PPM
9)	H	Oil Combo	22.000	152617445	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	156051570	57.304	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	94165987	34.693	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	85025681	71.019	PPM
13)	H	Mineral Oil (03-13-12)	16.000	96710652	33.693	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	229205850	110.219	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	239573734	3028.408	PPM
16)	H	Mineral Oil Combo (0...	16.000	66829638	25.049	PPM
17)	H	Oil Acid Clean MO Com...	22.000	144597910	53.772	PPM

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

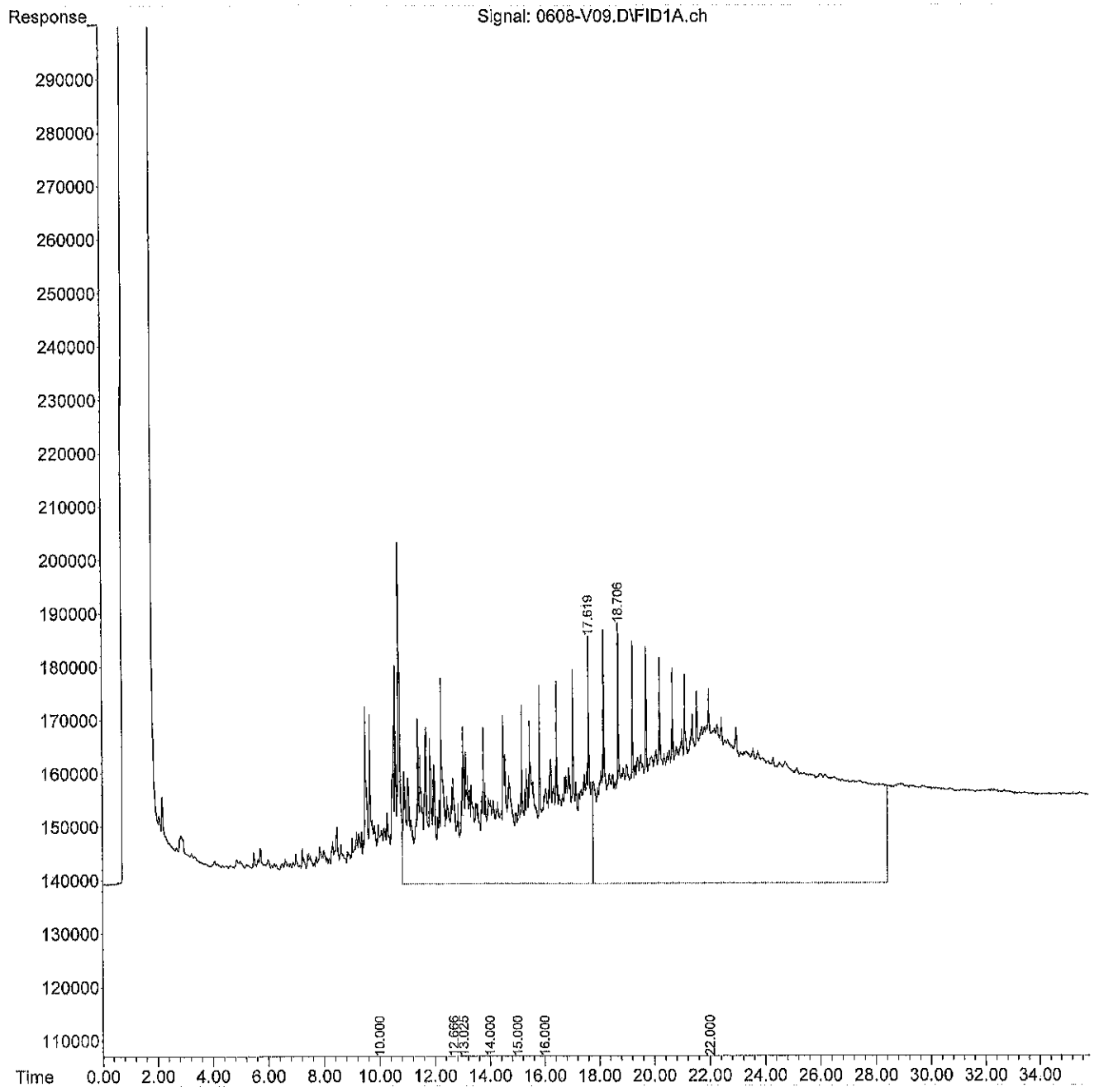
Quantitation Report (Not Reviewed)

Data File : 0608-V09.D
Sample : BC-CCV0608F-V1

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 16:10
Operator :
Misc : SV2-100-22
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 16:46:21 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0608-V16.D
Sample : BC-CCV0608F-V2

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 20:55
Operator :
Misc : SV2-100-22
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 21:31:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9965099	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	67770392	24.768	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	89236061	33.834	PPM
6)	H	Oil	22.000	167379216	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	169716424	62.374	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	76235836	29.946	PPM
9)	H	Oil Combo	22.000	153532731	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	156994528	57.777	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	91681718	33.709	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	85847301	71.778	PPM
13)	H	Mineral Oil (03-13-12)	16.000	94758256	32.898	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	228052109	109.412	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	238147010	3010.243	PPM
16)	H	Mineral Oil Combo (0...	16.000	65298552	24.415	PPM
17)	H	Oil Acid Clean MO Com...	22.000	145805046	54.399	PPM

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

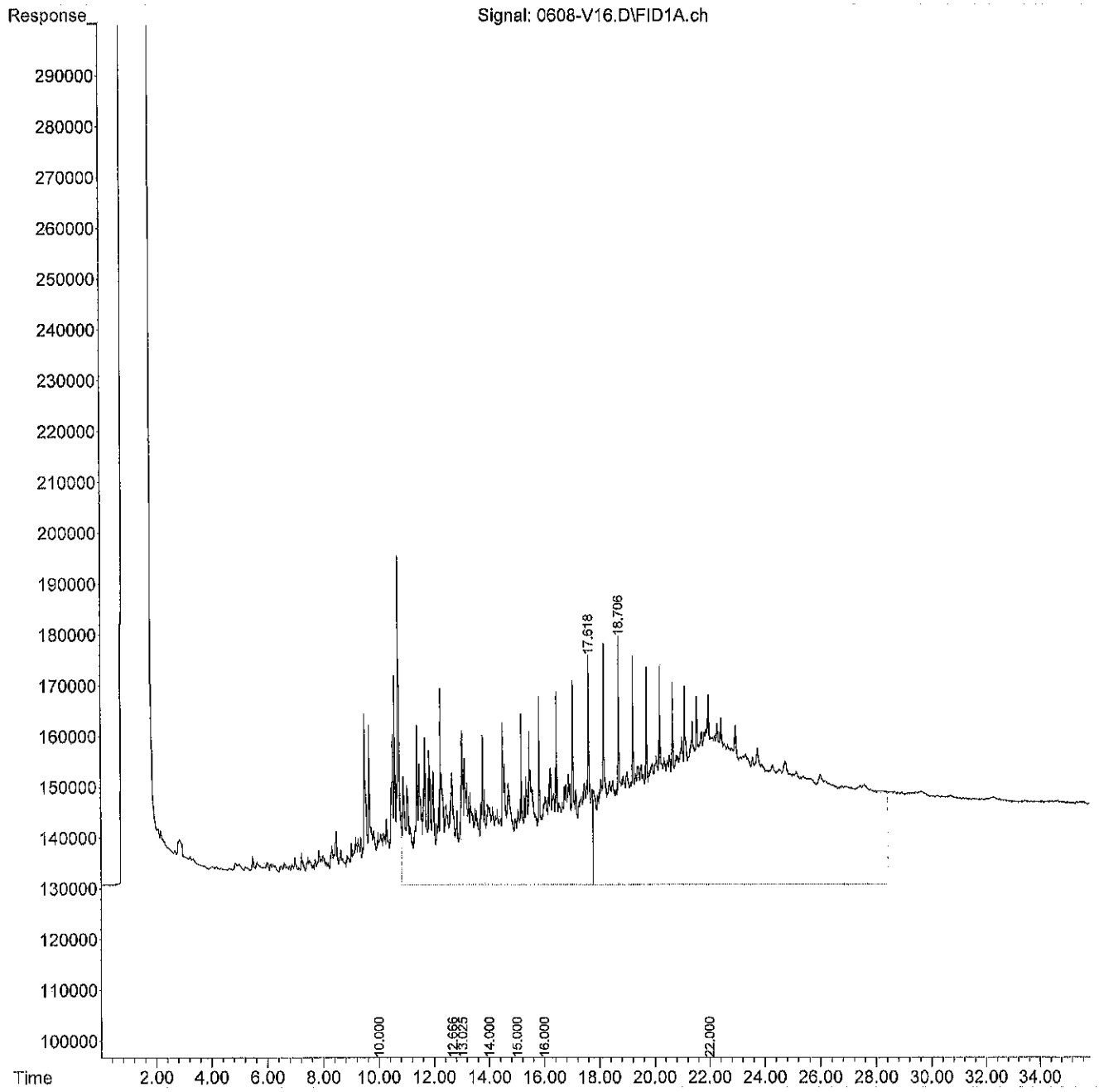
Quantitation Report (Not Reviewed)

Data File : 0608-V16.D
Sample : BC-CCV0608F-V2

Data Path : C:\msdchem\2\DATA\V120608\
Signal(s) : FID1A.ch
Acq On : 8 Jun 2012 20:55
Operator :
Misc : SV2-100-22
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 21:31:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V01.D
Sample : BC-CCV0611F-V1

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 9:47
Operator :
Misc : SV2-100-22
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 10:23:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10984142	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	67004471	24.430	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	83193710	31.283	PPM
6)	H	Oil	22.000	135001851	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	137750417	46.703	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	73005701	28.530	PPM
9)	H	Oil Combo	22.000	123258051	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	126953662	42.721	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	85209688	31.146	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	63909980	51.530	PPM
13)	H	Mineral Oil (03-13-12)	16.000	79932701	26.862	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	194863679	86.180	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	205353955	2592.702	PPM
16)	H	Mineral Oil Combo (0...	16.000	58574525	21.629	PPM
17)	H	Oil Acid Clean MO Com...	22.000	118257271	40.094	PPM

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

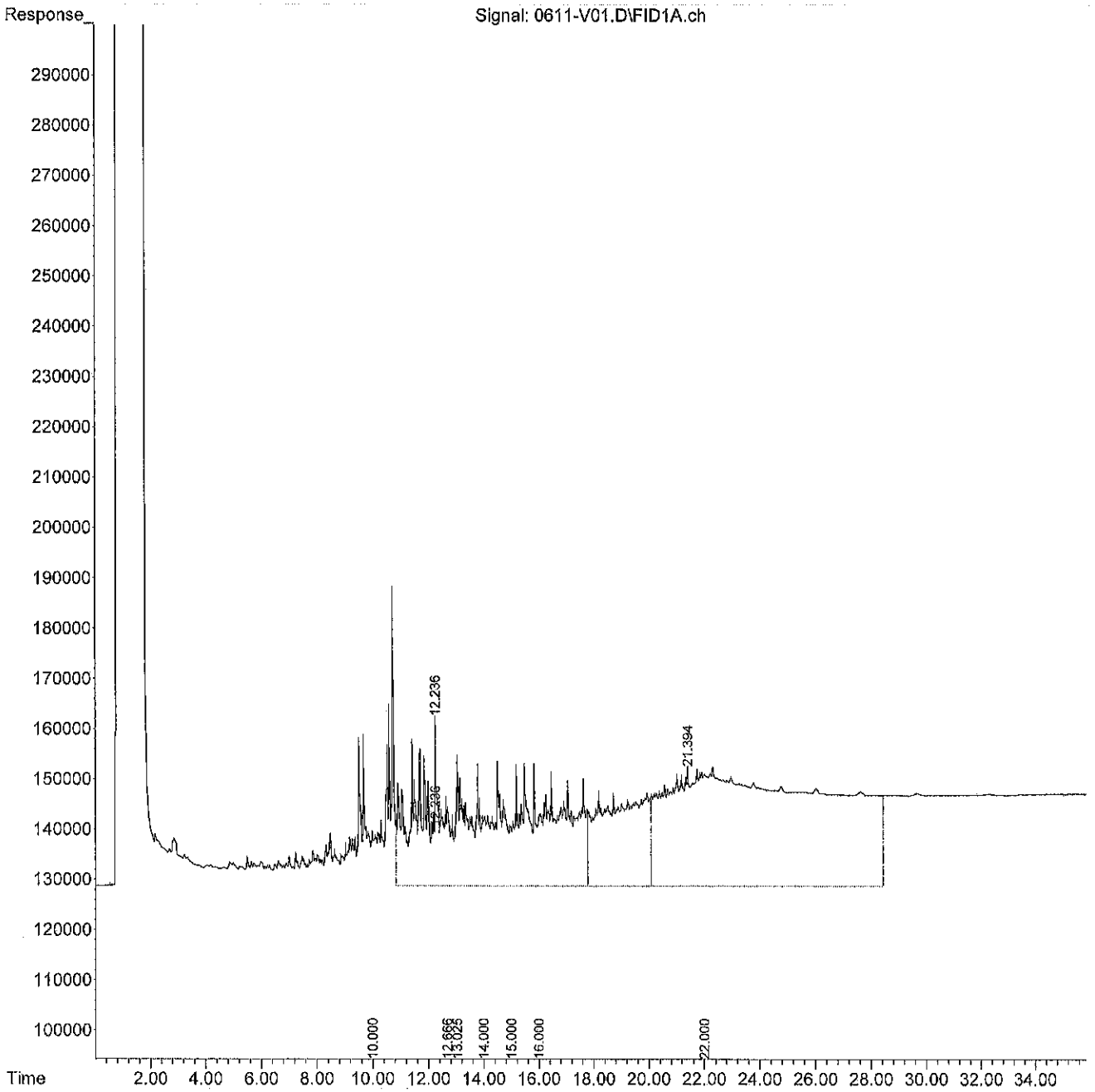
Quantitation Report (Not Reviewed)

Data File : 0611-V01.D
Sample : BC-CCV0611F-V1

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 9:47
Operator :
Misc : SV2-100-22
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 10:23:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V04.D
Sample : BC-CCV0611F-V2

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 12:12
Operator :
Misc : SV2-100-22
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 12:48:38 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10819318	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	69372333	25.477	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	88986946	33.729	PPM
6)	H	Oil	22.000	143337271	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	145142155	50.327	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	76783457	30.186	PPM
9)	H	Oil Combo	22.000	129957043	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	132788917	45.645	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	91567532	33.664	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	71351704	58.399	PPM
13)	H	Mineral Oil (03-13-12)	16.000	89918757	30.928	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	205414149	93.565	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	215023211	2715.816	PPM
16)	H	Mineral Oil Combo (0...	16.000	63918375	23.843	PPM
17)	H	Oil Acid Clean MO Com...	22.000	122316330	42.201	PPM

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

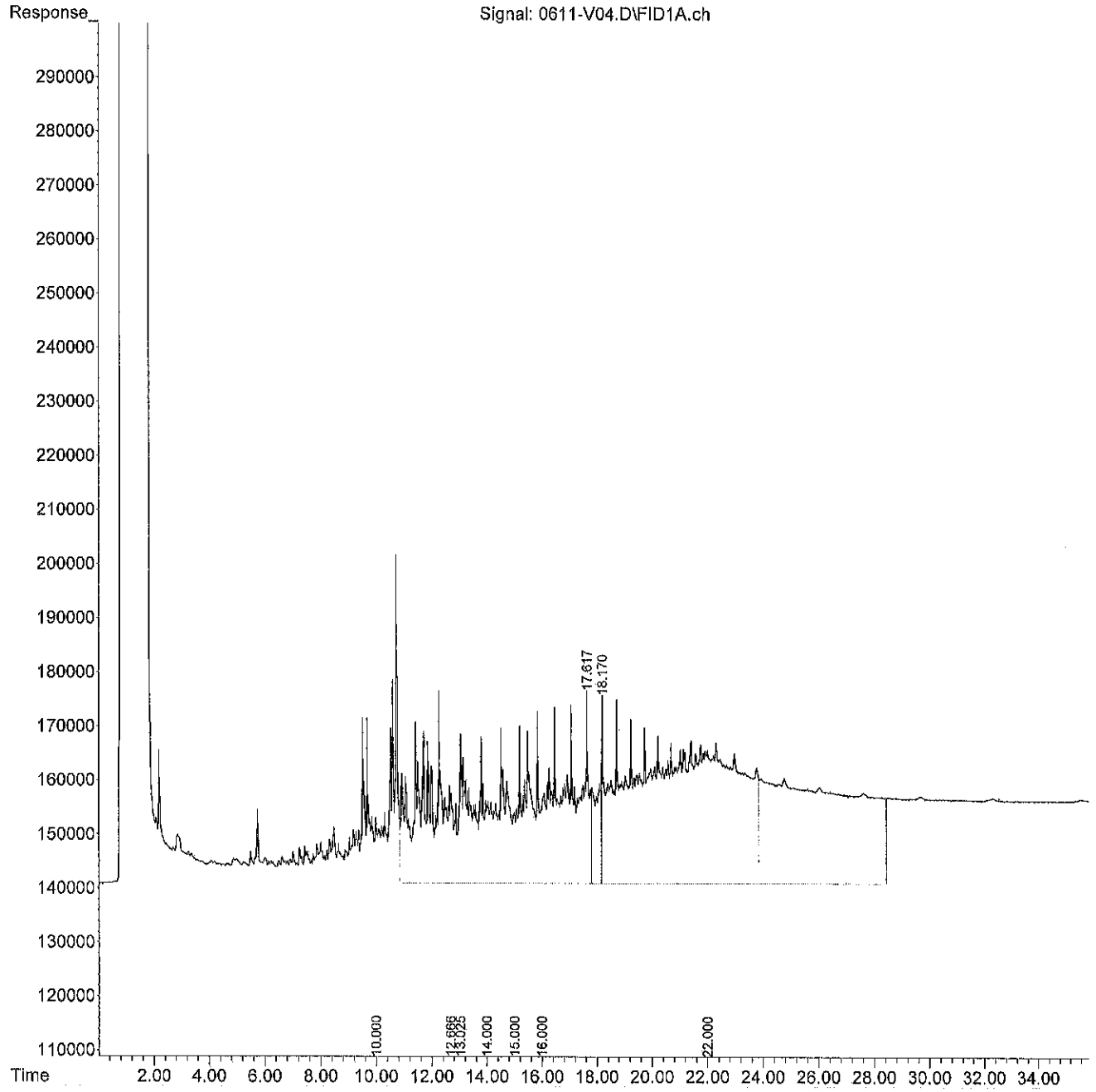
Quantitation Report (Not Reviewed)

Data File : 0611-V04.D
Sample : BC-CCV0611F-V2

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 12:12
Operator :
Misc : SV2-100-22
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 12:48:38 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V08.D
Sample : BC-CCV0611F-V3

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9130354	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	63792208	23.009	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	83623337	31.464	PPM
6)	H	Oil	22.000	141107450	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	142737457	49.148	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	71731544	27.971	PPM
9)	H	Oil Combo	22.000	128194482	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	130816375	44.657	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	85833707	31.393	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	71700353	58.720	PPM
13)	H	Mineral Oil (03-13-12)	16.000	86901978	29.699	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	198367631	88.632	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	207024845	2613.976	PPM
16)	H	Mineral Oil Combo (0...	16.000	61037189	22.649	PPM
17)	H	Oil Acid Clean MO Com...	22.000	120586359	41.303	PPM

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

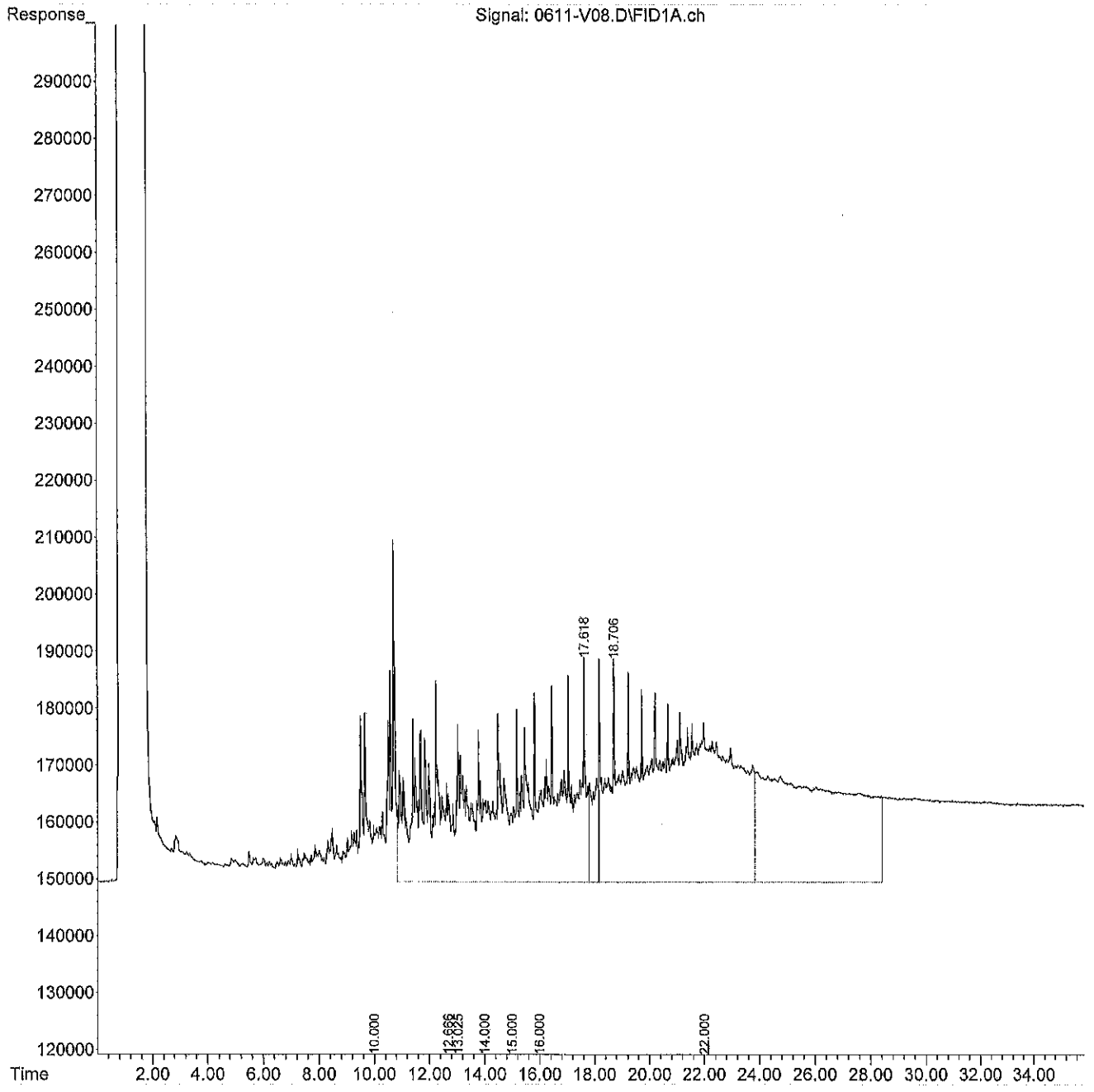
Quantitation Report (Not Reviewed)

Data File : 0611-V08.D
Sample : BC-CCV0611F-V3

Data Path : C:\msdchem\2\DATA\V120611\
Signal(s) : FID1A.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V51.D
Sample : BC-CCV0611R-V1

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 9:47
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 10:23:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4236084	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	54232442	21.857	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	74857621	29.697	PPM
6)	H	Oil	22.000	126731550	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	131476471	47.558	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	64357120	26.479	PPM
9)	H	Oil Combo	22.000	114822402	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	120047127	43.097	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	77524237	24.706	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	66062666	47.522	PPM
13)	H	Mineral Oil (03-14-12)	16.000	81916036	24.866	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	183187326	103.043	PPM
15)	H	ALKANE C9-C40	12.666	182086355	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	57209042	17.491	PPM
17)	H	Oil Acid Clean MO Com...	22.000	110186555	39.832	PPM

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

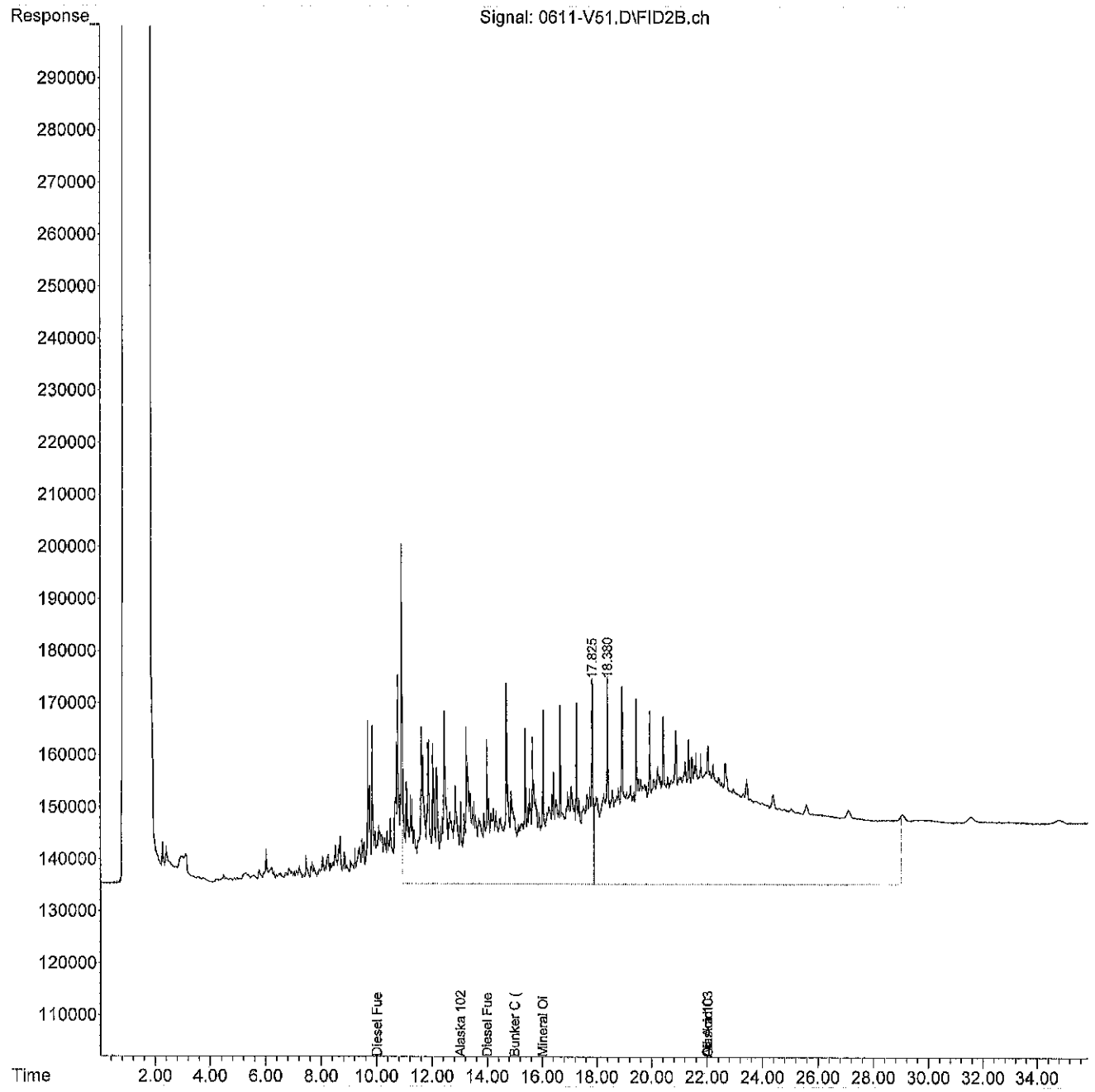
Quantitation Report (Not Reviewed)

Data File : 0611-V51.D
Sample : BC-CCV0611R-V1

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 9:47
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 10:23:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V54.D
Sample : BC-CCV0611R-V2

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 12:12
Operator :
Misc : SV2-100-22
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 12:48:47 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6595387	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	62048671	25.203	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	83242561	32.973	PPM
6)	H	Oil	22.000	131777761	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	136085530	49.863	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	71879390	29.526	PPM
9)	H	Oil Combo	22.000	118822376	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	123661987	44.938	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	86315799	28.094	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	68938956	50.046	PPM
13)	H	Mineral Oil (03-14-12)	16.000	88701868	27.345	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	194426189	110.825	PPM
15)	H	ALKANE C9-C40	12.666	194673880	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	62208588	19.387	PPM
17)	H	Oil Acid Clean MO Com...	22.000	112990242	41.306	PPM

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

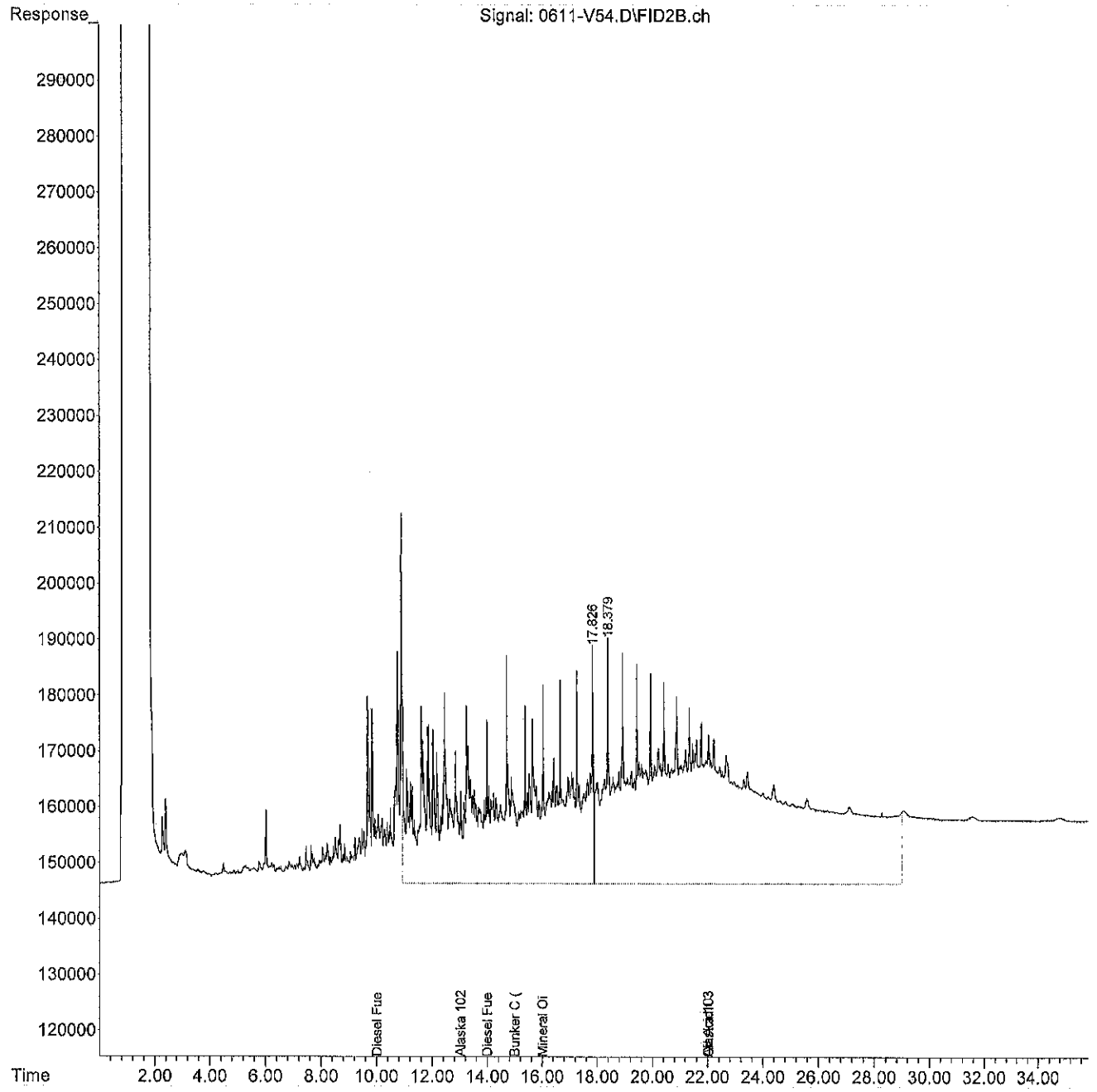
Quantitation Report (Not Reviewed)

Data File : 0611-V54.D
Sample : BC-CCV0611R-V2

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 12:12
Operator :
Misc : SV2-100-22
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 12:48:47 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V58.D
Sample : BC-CCV0611R-V3

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5340292	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	56194701	22.697	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	77239318	30.628	PPM
6)	H	Oil	22.000	135394860	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	140081751	51.861	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66246556	27.244	PPM
9)	H	Oil Combo	22.000	122943276	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	128087748	47.192	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	80092404	25.696	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	71165240	51.999	PPM
13)	H	Mineral Oil (03-14-12)	16.000	85271850	26.092	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	193163162	109.951	PPM
15)	H	ALKANE C9-C40	12.666	192745830	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	59170531	18.235	PPM
17)	H	Oil Acid Clean MO Com...	22.000	117747437	43.808	PPM

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

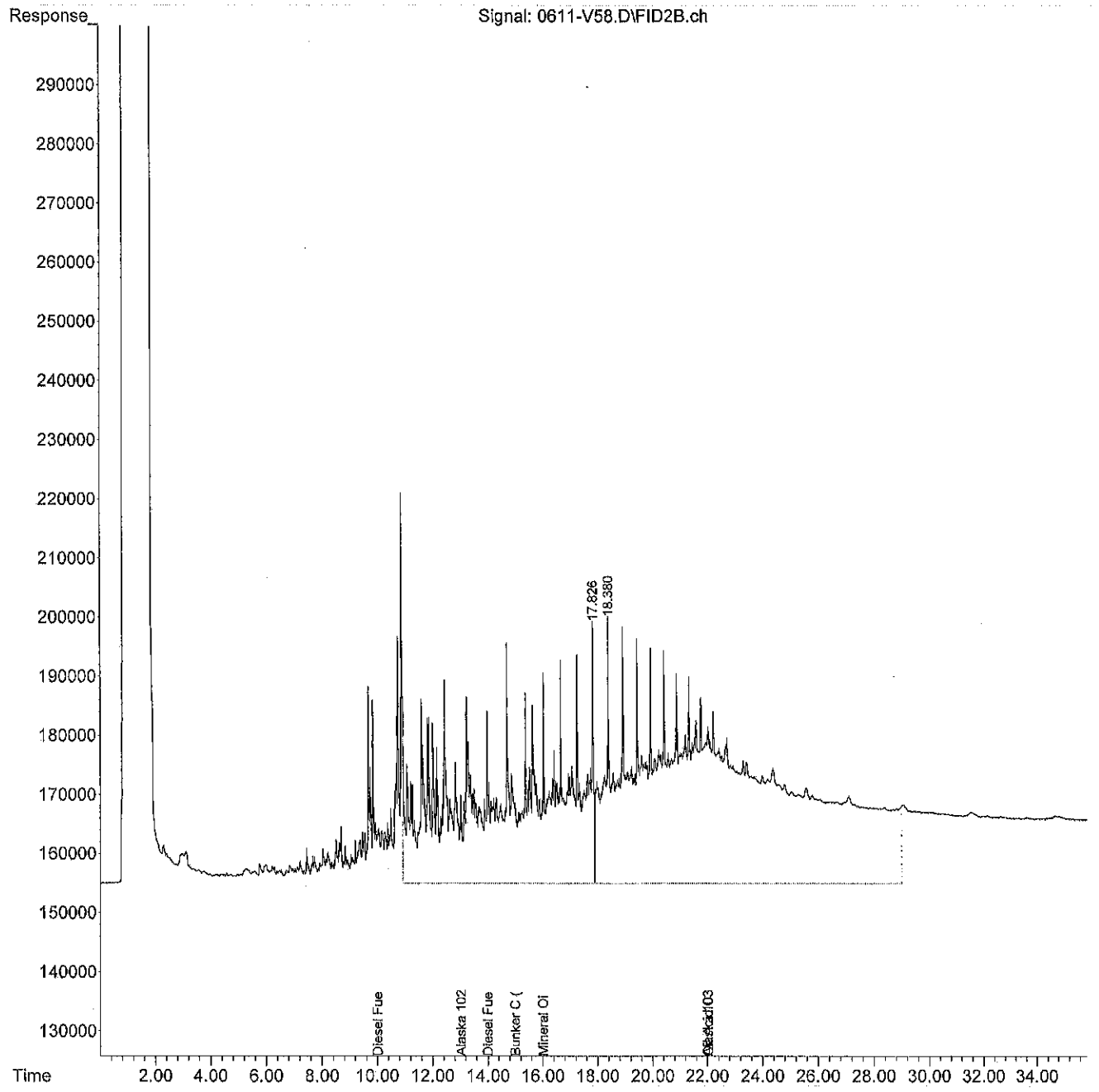
Quantitation Report (Not Reviewed)

Data File : 0611-V58.D
Sample : BC-CCV0611R-V3

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 12, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-059

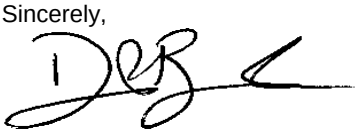
Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 8, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

Case Narrative

Samples were collected on June 6 and 7, 2012 and received by the laboratory on June 8, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Dx Analysis

Please note that the samples are reported as Bunker C. However, the chromatographic pattern of the Bunker C standard does not exactly match the chromatograms of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

cPAHs EPA 8270D/SIM Analysis

Due to the matrix of samples TP1EX-BASE-060612-6.5, TP1EX-SWS-060612-3, TP1EX-SWN-060612-3 and TP3EX-SWE-060712-2, the last two internal standards were recovered outside of method specified QC limits.

The samples were diluted 5x to eliminate the matrix effect, however this also caused an increase in the PQLs resulting in many of the analytes being reported as non-detect. Reported are both sets of data, the 5x dilution and non-diluted samples. The reports for the non-diluted data are flagged with an “E1” indicator and should be considered estimates..

Sample TP3EX-SWS-060712-2 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP1EX-BASE-060612-6.5	06-059-01	Soil	6-6-12	6-8-12	
TP1EX-SWW-060612-3	06-059-02	Soil	6-6-12	6-8-12	
TP1EX-SWS-060612-3	06-059-03	Soil	6-6-12	6-8-12	
TP1EX-SWN-060612-3	06-059-04	Soil	6-6-12	6-8-12	
TP1EX-SWE-060612-3	06-059-05	Soil	6-6-12	6-8-12	
TP3EX-BASE-060712-4.5	06-059-06	Soil	6-7-12	6-8-12	
TP3EX-SWS-060712-2	06-059-07	Soil	6-7-12	6-8-12	
TP3EX-SWN-060712-2	06-059-08	Soil	6-7-12	6-8-12	
TP3EX-SWW-060712-2	06-059-09	Soil	6-7-12	6-8-12	
TP3EX-SWE-060712-2	06-059-10	Soil	6-7-12	6-8-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-BASE-060612-6.5**					
Laboratory ID:	06-059-01					
Benzo[a]anthracene	**0.047**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Chrysene	**0.051**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[b]fluoranthene	**ND**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Benzo(j,k)fluoranthene	**ND**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[a]pyrene	**ND**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Dibenz[a,h]anthracene	**ND**	0.040	EPA 8270/SIM	6-8-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*43 - 109*				
Pyrene-d10	*83*	*38 - 128*				
Terphenyl-d14	*91*	*33 - 119*				
Client ID:	**TP1EX-BASE-060612-6.5**					
Laboratory ID:	06-059-01					
Benzo[a]anthracene	**0.038**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.049**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.016**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.018**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**ND**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.0080	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*43 - 109*				
Pyrene-d10	*78*	*38 - 128*				
Terphenyl-d14	*92*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWW-060612-3**					
Laboratory ID:	06-059-02					
Benzo[a]anthracene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*43 - 109*				
Pyrene-d10	*86*	*38 - 128*				
Terphenyl-d14	*98*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWS-060612-3**					
Laboratory ID:	06-059-03					
Benzo[a]anthracene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.037	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*71*	*43 - 109*				
Pyrene-d10	*68*	*38 - 128*				
Terphenyl-d14	*80*	*33 - 119*				
Client ID:	**TP1EX-SWS-060612-3**					
Laboratory ID:	06-059-03					
Benzo[a]anthracene	**0.016**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.018**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.019**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.013**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.0092**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.0073	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*75*	*43 - 109*				
Pyrene-d10	*71*	*38 - 128*				
Terphenyl-d14	*92*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWN-060612-3**					
Laboratory ID:	06-059-04					
Benzo[a]anthracene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Chrysene	**0.039**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[a]pyrene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270/SIM	6-8-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*43 - 109*				
Pyrene-d10	*55*	*38 - 128*				
Terphenyl-d14	*61*	*33 - 119*				
Client ID:	**TP1EX-SWN-060612-3**					
Laboratory ID:	06-059-04					
Benzo[a]anthracene	**0.029**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.041**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.031**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.021**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.013**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*58*	*43 - 109*				
Pyrene-d10	*50*	*38 - 128*				
Terphenyl-d14	*70*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWE-060612-3**					
Laboratory ID:	06-059-05					
Benzo[a]anthracene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.0089	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*43 - 109*				
Pyrene-d10	*66*	*38 - 128*				
Terphenyl-d14	*76*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-BASE-060712-4.5**					
Laboratory ID:	06-059-06					
Benzo[a]anthracene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Chrysene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270/SIM	6-8-12	6-8-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*43 - 109*				
Pyrene-d10	*66*	*38 - 128*				
Terphenyl-d14	*70*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWS-060712-2**					
Laboratory ID:	06-059-07					
Benzo[a]anthracene	**0.90**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**0.80**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**1.1**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**0.37**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**1.1**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**0.63**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**0.10**	0.0096	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*42*	*43 - 109*				Q
Pyrene-d10	*42*	*38 - 128*				
Terphenyl-d14	*42*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWN-060712-2**					
Laboratory ID:	06-059-08					
Benzo[a]anthracene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Chrysene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[b]fluoranthene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Benzo(j,k)fluoranthene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[a]pyrene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Dibenz[a,h]anthracene	**ND**	0.0077	EPA 8270/SIM	6-8-12	6-8-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*43 - 109*				
Pyrene-d10	*74*	*38 - 128*				
Terphenyl-d14	*78*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWW-060712-2**					
Laboratory ID:	06-059-09					
Benzo[a]anthracene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Chrysene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270/SIM	6-8-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*86*	*43 - 109*				
Pyrene-d10	*82*	*38 - 128*				
Terphenyl-d14	*89*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWE-060712-2**					
Laboratory ID:	06-059-10					
Benzo[a]anthracene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Chrysene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[b]fluoranthene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Benzo(j,k)fluoranthene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Benzo[a]pyrene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Dibenz[a,h]anthracene	**ND**	0.052	EPA 8270/SIM	6-8-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*52*	*43 - 109*				
Pyrene-d10	*44*	*38 - 128*				
Terphenyl-d14	*53*	*33 - 119*				
Client ID:	**TP3EX-SWE-060712-2**					
Laboratory ID:	06-059-10					
Benzo[a]anthracene	**0.030**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Chrysene	**0.047**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[b]fluoranthene	**0.035**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Benzo[a]pyrene	**0.021**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Indeno(1,2,3-c,d)pyrene	**0.015**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270/SIM	6-8-12	6-11-12	E1
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*43 - 109*				
Pyrene-d10	*40*	*38 - 128*				
Terphenyl-d14	*58*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-BASE-060612-6.5**					
Laboratory ID:	06-059-01					
Bunker C	**2000**	60	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**TP1EX-SWW-060612-3**					
Laboratory ID:	06-059-02					
Bunker C	**ND**	54	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**TP1EX-SWS-060612-3**					
Laboratory ID:	06-059-03					
Bunker C	**210**	55	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**TP1EX-SWN-060612-3**					
Laboratory ID:	06-059-04					
Bunker C	**730**	58	NWTPH-Dx	6-11-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**TP1EX-SWE-060612-3**					
Laboratory ID:	06-059-05					
Bunker C	**ND**	67	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**TP3EX-BASE-060712-4.5**					
Laboratory ID:	06-059-06					
Bunker C	**ND**	64	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWS-060712-2**					
Laboratory ID:	06-059-07					
Bunker C	**ND**	72	NWTPH-Dx	6-11-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**TP3EX-SWN-060712-2**					
Laboratory ID:	06-059-08					
Bunker C	**ND**	58	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**TP3EX-SWW-060712-2**					
Laboratory ID:	06-059-09					
Bunker C	**ND**	54	NWTPH-Dx	6-11-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**TP3EX-SWE-060712-2**					
Laboratory ID:	06-059-10					
Bunker C	**1600**	78	NWTPH-Dx	6-11-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0608S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Chrysene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270/SIM	6-8-12	6-8-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*86*	*43 - 109*				
Pyrene-d10	*76*	*38 - 128*				
Terphenyl-d14	*90*	*33 - 119*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0608S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0914**	**0.0890**	0.0833	0.0833	110	107	63 - 116	3	12	
Chrysene	**0.0781**	**0.0783**	0.0833	0.0833	94	94	67 - 118	0	12	
Benzo[b]fluoranthene	**0.111**	**0.101**	0.0833	0.0833	133	121	58 - 133	9	20	
Benzo(j,k)fluoranthene	**0.108**	**0.0924**	0.0833	0.0833	130	111	42 - 134	16	26	
Benzo[a]pyrene	**0.0874**	**0.0816**	0.0833	0.0833	105	98	55 - 111	7	19	
Indeno(1,2,3-c,d)pyrene	**0.0693**	**0.0771**	0.0833	0.0833	83	93	60 - 125	11	20	
Dibenz[a,h]anthracene	**0.0899**	**0.0974**	0.0833	0.0833	108	117	62 - 125	8	19	
Surrogate:										
2-Fluorobiphenyl					*85*	*87*	*43 - 109*			
Pyrene-d10					*97*	*96*	*38 - 128*			
Terphenyl-d14					*95*	*92*	*33 - 119*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0611S2					
Bunker C	**ND**	50	NWTPH-Dx	6-11-12	6-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*104*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-059-10							
	ORIG	DUP						
Bunker C	**997**	**862**				15	NA	
Surrogate:								
o-Terphenyl			*92*	*101*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0611R-V3	100	110	-10.0	+/-15%
BC-CCV0611R-V4	100	91.6	8.4	+/-15%
BC-CCV0611R-V5	100	106	-6.0	+/-15%
BC-CCV0612R-V1	100	103	-3.0	+/-15%
BC-CCV0612R-V2	100	112	-12.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 12, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-059
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-8-12

Client ID	Lab ID	% Moisture
TP1EX-BASE-060612-6.5	06-059-01	17
TP1EX-SWW-060612-3	06-059-02	7
TP1EX-SWS-060612-3	06-059-03	9
TP1EX-SWN-060612-3	06-059-04	14
TP1EX-SWE-060612-3	06-059-05	25
TP3EX-BASE-060712-4.5	06-059-06	22
TP3EX-SWS-060712-2	06-059-07	31
TP3EX-SWN-060712-2	06-059-08	13
TP3EX-SWW-060712-2	06-059-09	7
TP3EX-SWE-060712-2	06-059-10	36

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

E1 - The value reported should be considered an estimate, due to the percent recovery of the internal standards being outside of the control limits.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 06-059

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH- Bunker C				% Moisture
1	TP1EX-BASE-060612-6.5	6/6/12	1520	Soil	1								X									X				X
2	TP1EX-SWW-060612-3		1525		1								X									X				
3	TP1EX-SWS-060612-3		1530		1								X									X				
4	TP1EX-SWN-060612-3		1535		1								X									X				
5	TP1EX-SWE-060612-3		1540		1								X									X				
6	~~MW1~~ TP3EX-BASE-060712-4.5	6/7/12	0820		1								X									X				
7	TP3EX-SWS-060712-2		0825		1								X									X				
8	TP3EX-SWN-060712-2		0830		1								X									X				
9	TP3EX-SWW-060712-2		0835		1								X									X				
10	TP3EX-SWE-060712-2		0840		1								X									X				

	Signature	Company	Date	Time
Relinquished	[signature]	GeoEngineers	6/7/12	1420
Received	[signature]	OSE	6/8/12	1100
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-059

Initiated by: JMV

Date Initiated: 6/8/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 5	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup / Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- cPAHs EPA 8270D/SIM Data
- NWTPH-Dx Data

cPAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612014.D
Acq On : 12 Jun 2012 14:09
Operator :
Sample : 06-059-01 5x
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 12 15:13:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration

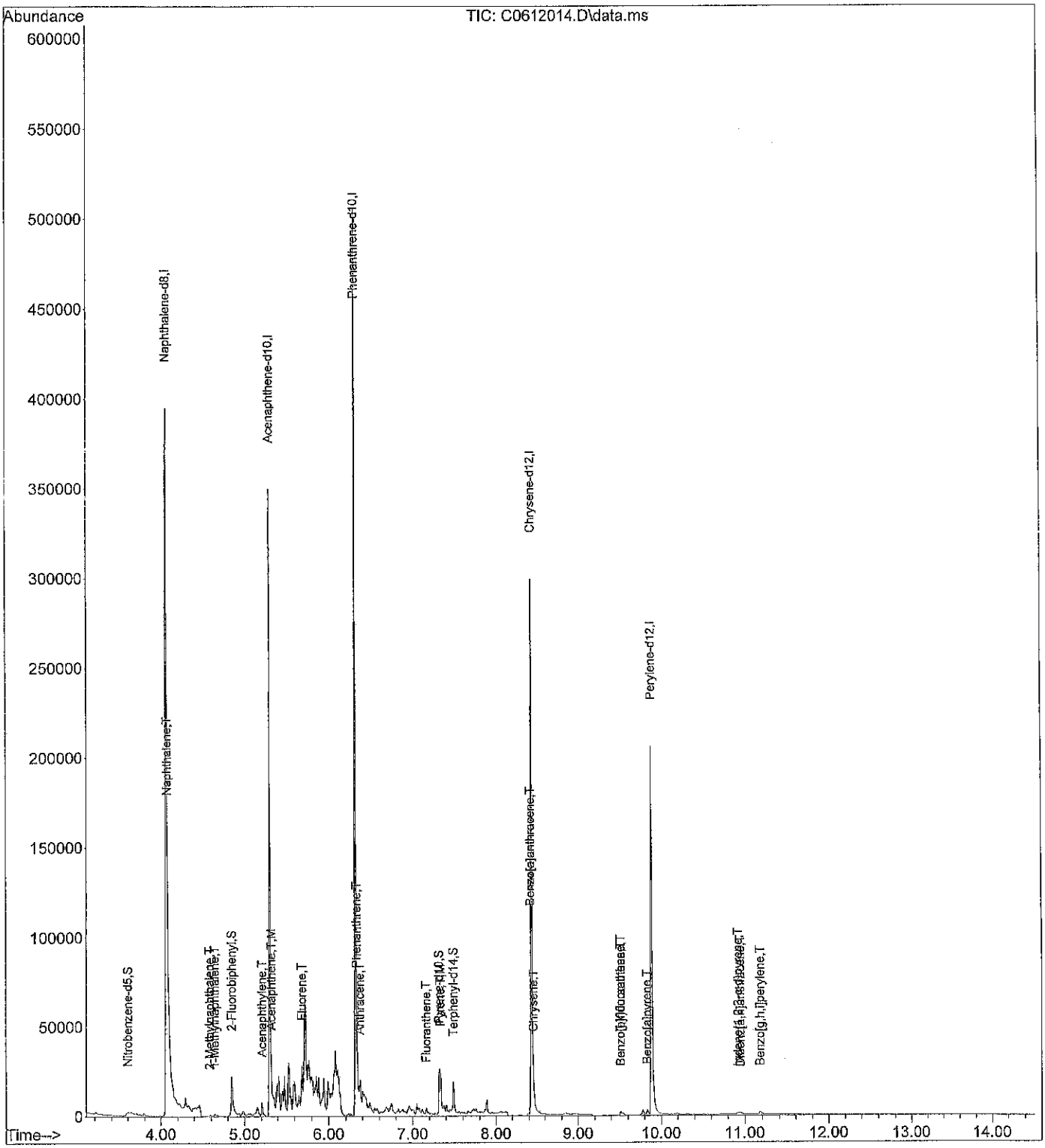
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.064	136	628084	2000.00	ppb	0.00
6) Acenaphthene-d10	5.300	164	278920	2000.00	ppb	0.00
10) Phenanthrene-d10	6.315	188	410131	2000.00	ppb	0.00
17) Chrysene-d12	8.424	240	310253	2000.00	ppb	0.00
21) Perylene-d12	9.884	264	255573	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.600	82	7568	79.64	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.96%#			
7) 2-Fluorobiphenyl	4.847	172	31542	167.18	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 16.72%#			
11) Pyrene-d10	7.319	212	24699	165.20	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 16.52%#			
18) Terphenyl-d14	7.487	244	16618	181.75	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 18.18%#			
Target Compounds						Qvalue
3) Naphthalene	4.076	128	4000	12.22	ppb	100
4) 2-Methylnaphthalene	4.585	142	1997	14.05	ppb	100
5) 1-Methylnaphthalene	4.644	142	1468	5.84	ppb	100
8) Acenaphthylene	5.208	152	5276	17.88	ppb	100
9) Acenaphthene	5.323	153	10501	56.51	ppb	100
12) Fluorene	5.686	166	17994	104.20	ppb	100
13) Phenanthrene	6.331	178	13236	56.13	ppb	100
14) Anthracene	6.370	178	10240	38.77	ppb	100
15) Fluoranthene	7.162	202	5328	23.34	ppb	100
16) Pyrene	7.330	202	21446	88.40	ppb	100
19) Benzo[a]anthracene	8.416	228	7678	46.74	ppb	100
20) Chrysene	8.451	228	9352	51.04	ppb	100
22) Benzo[b]fluoranthene	9.513	252	2932	11.43	ppb	100
23) Benzo(j,k)fluoranthene	9.513	252	2932	~~15.16~~ 7.69	ppb	100
24) Benzo[a]pyrene	9.829	252	3776	25.53	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.921	276	2066	10.88	ppb	100
26) Dibenz[a,h]anthracene	10.948	278	1288	8.41	ppb	100
27) Benzo[g,h,i]perylene	11.178	276	2624	17.81	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612014.D
Acq On : 12 Jun 2012 14:09
Operator :
Sample : 06-059-01 5x
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 12 15:13:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611020.D
Acq On : 11 Jun 2012 3:57 pm
Operator :
Sample : 06-059-01
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 11 16:12:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

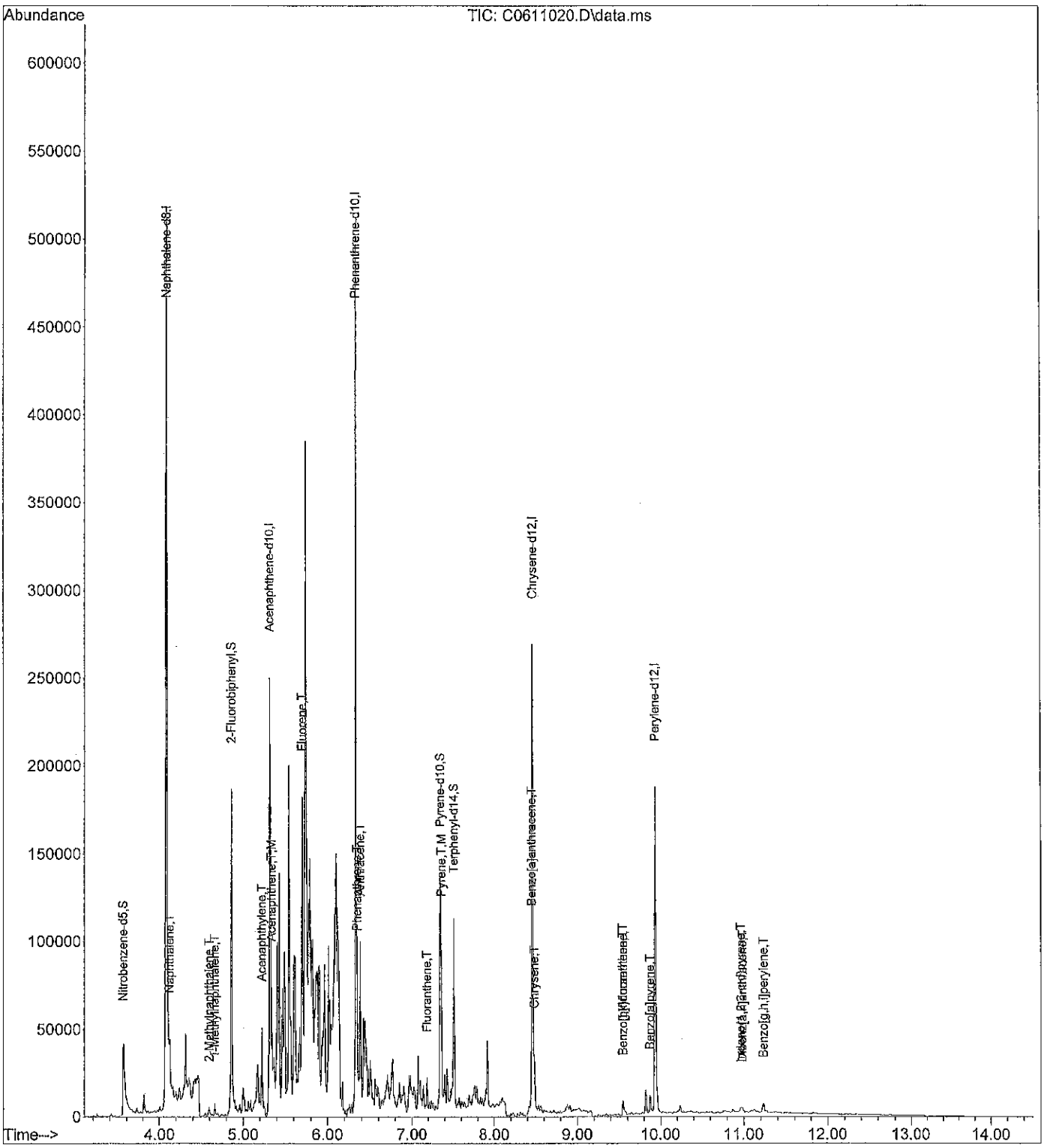
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.082	136	567794	2000.00	ppb	0.00
6) Acenaphthene-d10	5.317	164	248363	2000.00	ppb	0.00
10) Phenanthrene-d10	6.336	188	341297	2000.00	ppb	0.00
17) Chrysene-d12	8.463	240	~~249393~~	2000.00	ppb	0.02
21) Perylene-d12	9.930	264	~~206199~~ out	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.560	82	57919	939.00	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 93.90%#			
7) 2-Fluorobiphenyl	4.858	172	159900	839.17	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 83.92%			
11) Pyrene-d10	7.348	212	102590	783.34	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 78.33%			
18) Terphenyl-d14	7.510	244	70463	915.48	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.55%			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	30111	98.78	ppb	100
4) 2-Methylnaphthalene	4.593	142	5844	35.03	ppb	100
5) 1-Methylnaphthalene	4.659	142	5834	28.72	ppb	100
8) Acenaphthylene	5.225	152	26663	103.84	ppb	100
9) Acenaphthene	5.340	153	44336	262.54	ppb	100
12) Fluorene	5.703	166	95120	631.24	ppb	100
13) Phenanthrene	6.352	178	56209	261.71	ppb	100
14) Anthracene	6.387	178	65130	297.58	ppb	100
15) Fluoranthene	7.185	202	16274	81.42	ppb	100
16) Pyrene	7.359	202	84102	392.22	ppb	100
19) Benzo[a]anthracene	8.452	228	23952	187.69	ppb	100
20) Chrysene	8.483	228	36592	243.41	ppb	100
22) Benzo[b]fluoranthene	9.548	252	12724	~~98.23~~ 80.01	ppb	100
23) Benzo(j,k)fluoranthene	9.548 571	252	12724	~~84.41~~ 17.57	ppb	100
24) Benzo[a]pyrene	9.872	252	12006	89.04	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.964	276	4549	28.32	ppb	100
26) Dibenz[a,h]anthracene	10.983	278	2003	15.33	ppb	100
27) Benzo[g,h,i]perylene	11.229	276	7968	59.73	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611020.D
Acq On : 11 Jun 2012 3:57 pm
Operator :
Sample : 06-059-01
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 11 16:12:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611016.D
Acq On : 11 Jun 2012 2:31 pm
Operator :
Sample : 06-059-02
Misc : rr
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 11 14:46:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

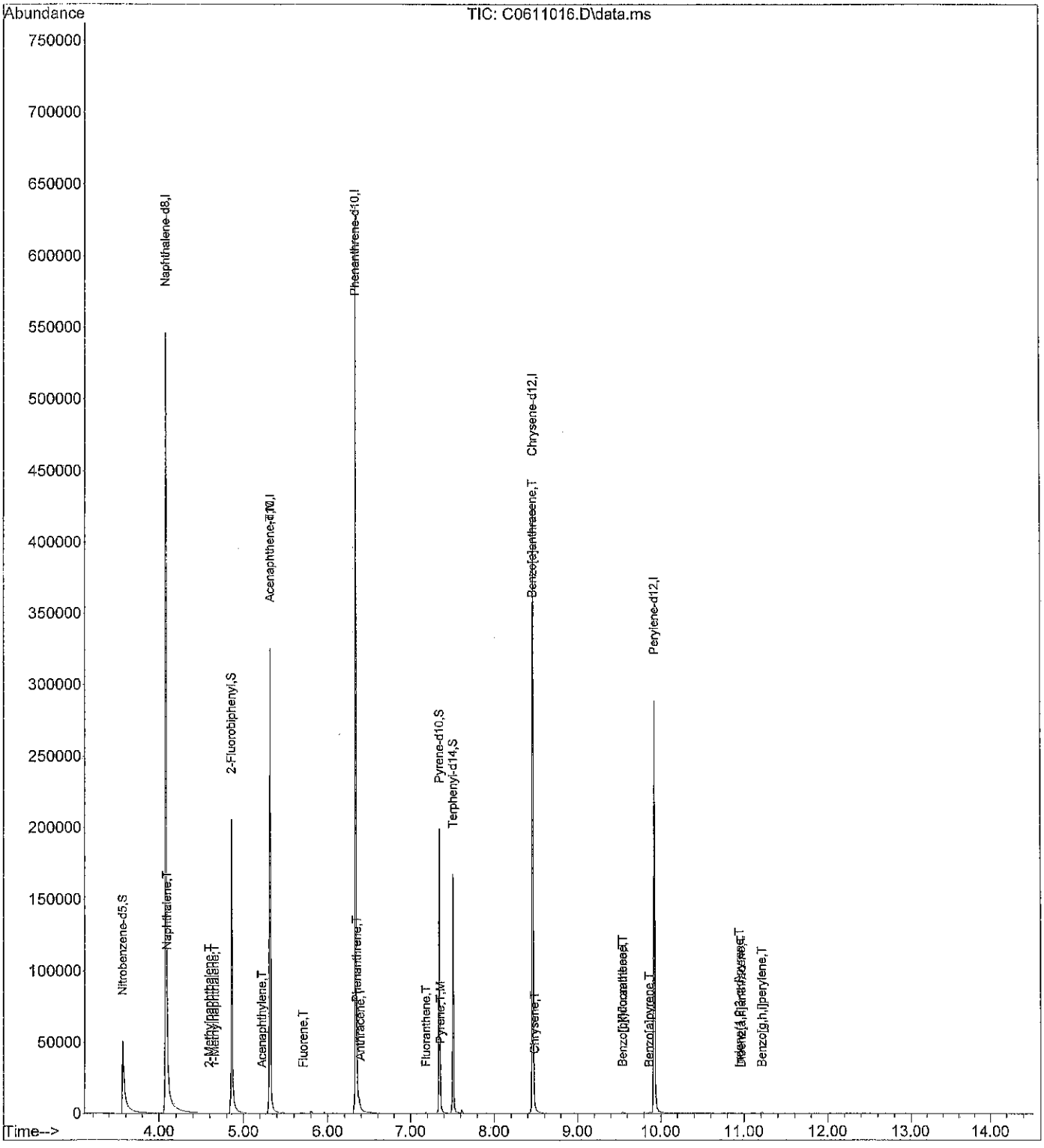
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	611045	2000.00	ppb	0.00
6) Acenaphthene-d10	5.324	164	299920	2000.00	ppb	0.00
10) Phenanthrene-d10	6.335	188	489622	2000.00	ppb	0.00
17) Chrysene-d12	8.459	240	388265	2000.00	ppb	0.01
21) Perylene-d12	9.924	264	292914	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.561	82	74735	1125.87	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 112.59%#			
7) 2-Fluorobiphenyl	4.859	172	193709	841.85	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.19%			
11) Pyrene-d10	7.347	212	161837	861.38	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 86.14%			
18) Terphenyl-d14	7.510	244	117101	977.25	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 97.72%#			
Target Compounds						Qvalue
3) Naphthalene	4.095	128	2123	6.47	ppb	100
4) 2-Methylnaphthalene	4.594	142	859	4.79	ppb	100
5) 1-Methylnaphthalene	4.660	142	746	3.41	ppb	100
8) Acenaphthylene	5.224	152	434	1.40	ppb	100
9) Acenaphthene	5.324	153	252	1.24	ppb	100
12) Fluorene	5.709	166	529	2.45	ppb	100
13) Phenanthrene	6.351	178	2969	9.64	ppb	100
14) Anthracene	6.390	178	306	0.97	ppb	100
15) Fluoranthene	7.185	202	953	3.32	ppb	100
16) Pyrene	7.359	202	1493	4.85	ppb	100
19) Benzo[a]anthracene	8.455	228	2326	11.71	ppb	100
20) Chrysene	8.482	228	708	3.03	ppb	100
22) Benzo[b]fluoranthene	9.545	252	1140	6.20	ppb	100
23) Benzo(j,k)fluoranthene	9.545	252	1140	5.32	ppb	100
24) Benzo[a]pyrene	9.865	252	654	3.41	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	763	3.34	ppb	100
26) Dibenz[a,h]anthracene	10.972	278	129	0.70	ppb	100
27) Benzo[g,h,i]perylene	11.214	276	862	4.55	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611016.D
Acq On : 11 Jun 2012 2:31 pm
Operator :
Sample : 06-059-02
Misc : rr
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 11 14:46:01 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611028.D
Acq On : 11 Jun 2012 6:50 pm
Operator :
Sample : 06-059-03 5X
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 11 19:05:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

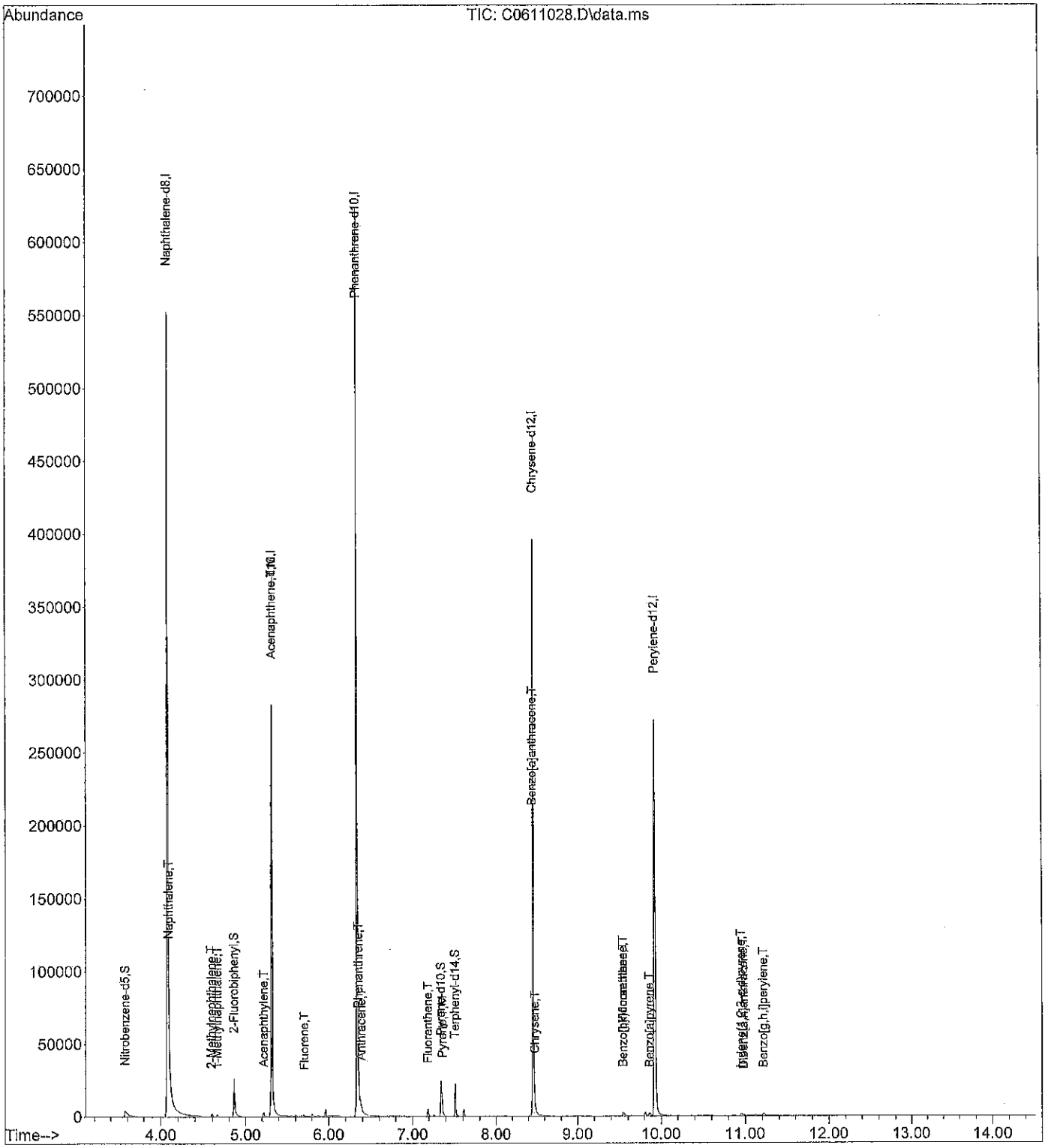
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.082	136	580543	2000.00	ppb	0.00
6) Acenaphthene-d10	5.324	164	281981	2000.00	ppb	0.00
10) Phenanthrene-d10	6.336	188	455899	2000.00	ppb	0.00
17) Chrysene-d12	8.459	240	357025	2000.00	ppb	0.01
21) Perylene-d12	9.924	264	292536	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.571	82	9777	155.03	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery =	15.50%#		
7) 2-Fluorobiphenyl	4.859	172	30901	142.84	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	14.28%#		
11) Pyrene-d10	7.343	212	23811	136.11	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	13.61%#		
18) Terphenyl-d14	7.511	244	17569	159.45	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	15.94%#		
Target Compounds						Qvalue
3) Naphthalene	4.093	128	3348	10.74	ppb	100
4) 2-Methylnaphthalene	4.594	142	2852	16.72	ppb	100
5) 1-Methylnaphthalene	4.660	142	1707	8.22	ppb	100
8) Acenaphthylene	5.224	152	3819	13.10	ppb	100
9) Acenaphthene	5.324	153	213	1.11	ppb	100
12) Fluorene	5.709	166	813	4.04	ppb	100
13) Phenanthrene	6.351	178	6187	21.57	ppb	100
14) Anthracene	6.386	178	1033	3.53	ppb	100
15) Fluoranthene	7.186	202	4699	17.60	ppb	100
16) Pyrene	7.360	202	5988	20.91	ppb	100
19) Benzo[a]anthracene	8.451	228	4274	23.39	ppb	100
20) Chrysene	8.482	228	3487	16.20	ppb	100
22) Benzo[b]fluoranthene	9.541	252	4718	~~25.67~~	ppb	18.37 100
23) Benzo(j,k)fluoranthene	9.541	252	4718	~~22.06~~	ppb	4.54 100
24) Benzo[a]pyrene	9.861	252	2399	12.54	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.953	276	1985	8.71	ppb	100
26) Dibenz[a,h]anthracene	10.980	278	374	2.02	ppb	100
27) Benzo[g,h,i]perylene	11.214	276	2691	14.22	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611028.D
Acq On : 11 Jun 2012 6:50 pm
Operator :
Sample : 06-059-03 5X
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 11 19:05:17 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611023.D
Acq On : 11 Jun 2012 5:02 pm
Operator :
Sample : 06-059-03
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 11 17:17:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

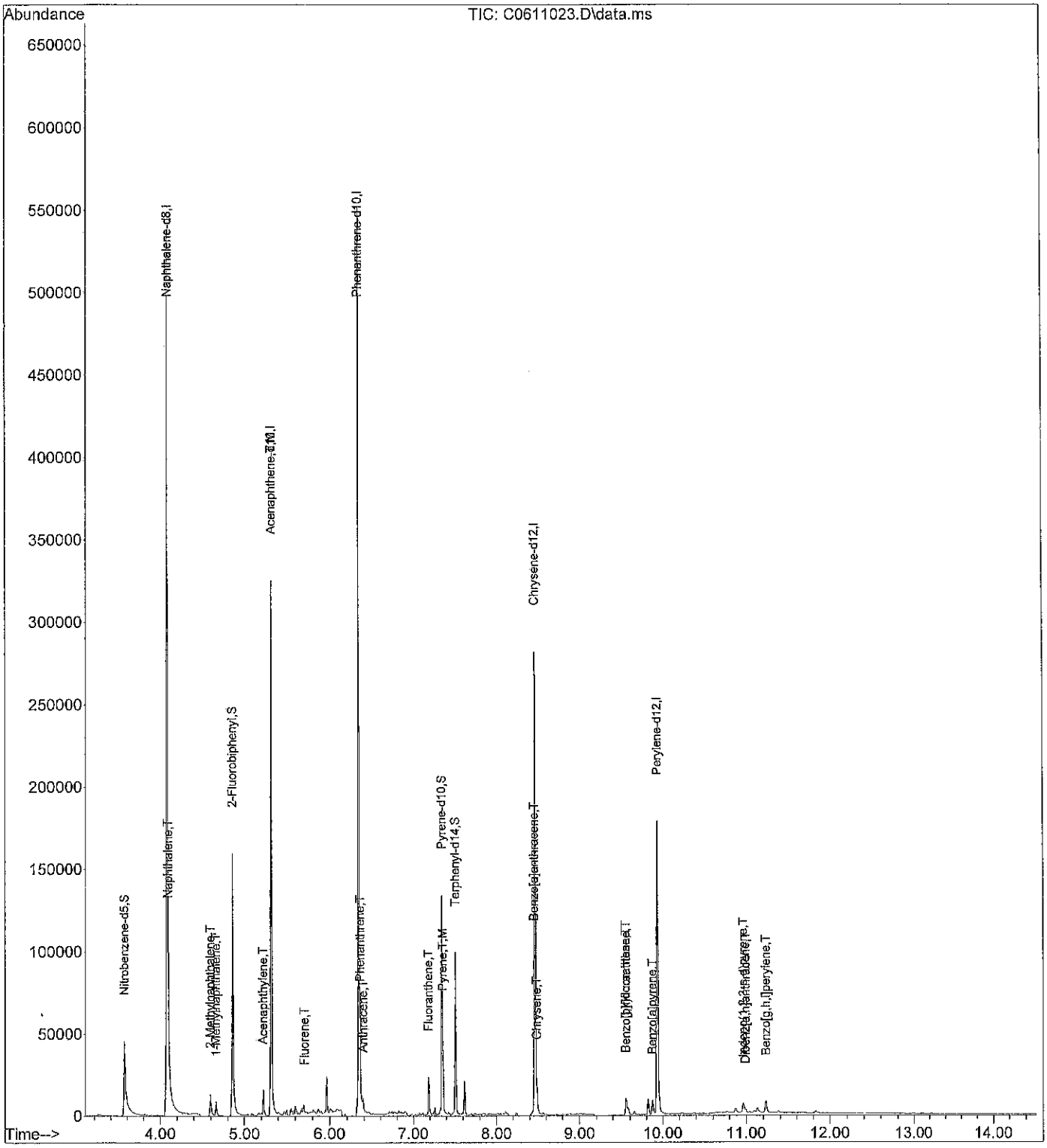
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.082	136	538023	2000.00	ppb	0.00
6) Acenaphthene-d10	5.324	164	267121	2000.00	ppb	0.00
10) Phenanthrene-d10	6.339	188	381784	2000.00	ppb	0.01
17) Chrysene-d12	8.462	240	~~260248~~	2000.00	ppb	0.01
21) Perylene-d12	9.936	264	~~204547~~ out	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.565	82	56599	968.38	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 96.84%#			
7) 2-Fluorobiphenyl	4.859	172	153923	751.08	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 75.11%			
11) Pyrene-d10	7.348	212	104612	714.07	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 71.41%			
18) Terphenyl-d14	7.511	244	73684	917.40	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.74%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	15832	54.81	ppb	100
4) 2-Methylnaphthalene	4.593	142	14973	94.73	ppb	100
5) 1-Methylnaphthalene	4.660	142	8651	44.95	ppb	100
8) Acenaphthylene	5.224	152	16176	58.58	ppb	100
9) Acenaphthene	5.324	153	1025	5.64	ppb	100
12) Fluorene	5.709	166	3049	18.09	ppb	100
13) Phenanthrene	6.355	178	27837	115.86	ppb	100
14) Anthracene	6.390	178	4728	19.31	ppb	100
15) Fluoranthene	7.186	202	20644	92.33	ppb	100
16) Pyrene	7.360	202	24987	104.17	ppb	100
19) Benzo[a]anthracene	8.455	228	11783	88.48	ppb	100
20) Chrysene	8.486	228	15753	100.42	ppb	100
22) Benzo[b]fluoranthene	9.549	252	13391	104.22	ppb	100
23) Benzo(j,k)fluoranthene	~~9.549~~ 9.571	252	13391	~~89.55~~	ppb 30.80	100
24) Benzo[a]pyrene	9.873	252	9442	70.59	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.964	276	7983	50.10	ppb	100
26) Dibenz[a,h]anthracene	10.992	278	1531	11.82	ppb	100
27) Benzo[g,h,i]perylene	11.233	276	10191	77.01	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611023.D
Acq On : 11 Jun 2012 5:02 pm
Operator :
Sample : 06-059-03
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 11 17:17:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612016.D
Acq On : 12 Jun 2012 14:52
Operator :
Sample : 06-059-04 5x
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 15:13:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration

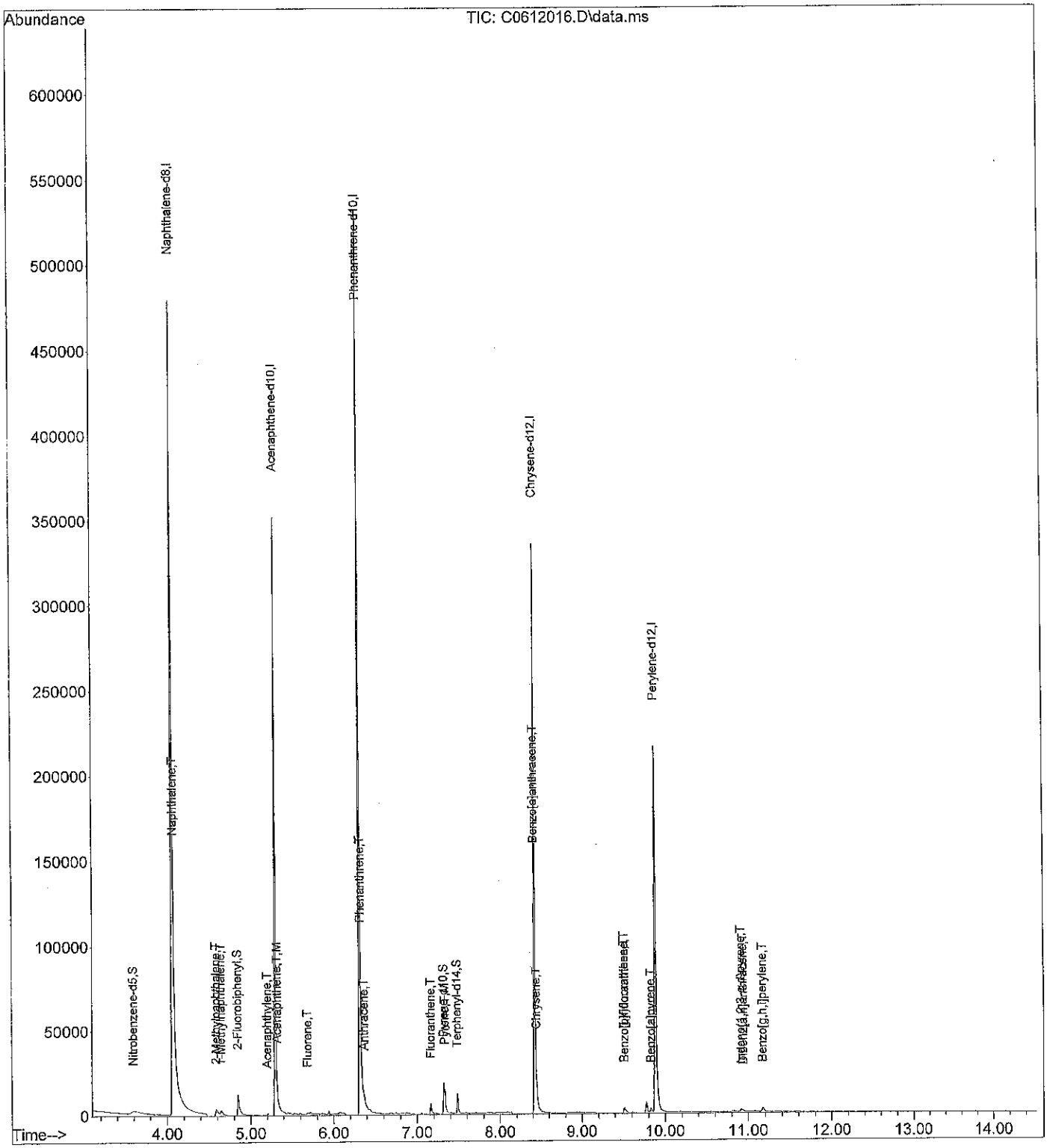
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.059	136	670867	2000.00	ppb	0.00
6) Acenaphthene-d10	5.300	164	306169	2000.00	ppb	0.00
10) Phenanthrene-d10	6.312	188	471174	2000.00	ppb	0.00
17) Chrysene-d12	8.424	240	333698	2000.00	ppb	0.00
21) Perylene-d12	9.881	264	265033	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.594	82	8603	84.76	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 8.48%#			
7) 2-Fluorobiphenyl	4.843	172	24463	118.12	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 11.81%#			
11) Pyrene-d10	7.319	212	18824	109.59	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.96%#			
18) Terphenyl-d14	7.482	244	11965	121.67	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 12.17%#			
Target Compounds						Qvalue
3) Naphthalene	4.076	128	13558	38.77	ppb	100
4) 2-Methylnaphthalene	4.585	142	8920	58.74	ppb	100
5) 1-Methylnaphthalene	4.644	142	7381	27.47	ppb	100
8) Acenaphthylene	5.200	152	1601	4.94	ppb	100
9) Acenaphthene	5.323	153	1403	6.88	ppb	100
12) Fluorene	5.686	166	1780	8.97	ppb	100
13) Phenanthrene	6.327	178	17879	66.00	ppb	100
14) Anthracene	6.370	178	2663	8.78	ppb	100
15) Fluoranthene	7.163	202	7837	29.88	ppb	100
16) Pyrene	7.331	202	11063	39.69	ppb	100
19) Benzo[a]anthracene	8.416	228	5627	31.85	ppb	100
20) Chrysene	8.447	228	7901	40.09	ppb	100
22) Benzo[b]fluoranthene	9.510	252	6521	~~24.50~~	ppb	18.48 100
23) Benzo(j,k)fluoranthene	9.~~510~~ 531	252	6521	~~32.52~~	ppb	8.52 100
24) Benzo[a]pyrene	9.830	252	3507	22.86	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.917	276	2553	12.96	ppb	100
26) Dibenz[a,h]anthracene	10.941	278	793	4.99	ppb	100
27) Benzo[g,h,i]perylene	11.171	276	4455	29.16	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612016.D
Acq On : 12 Jun 2012 14:52
Operator :
Sample : 06-059-04 5x
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 15:13:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611022.D
Acq On : 11 Jun 2012 4:40 pm
Operator :
Sample : 06-059-04
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 11 16:55:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

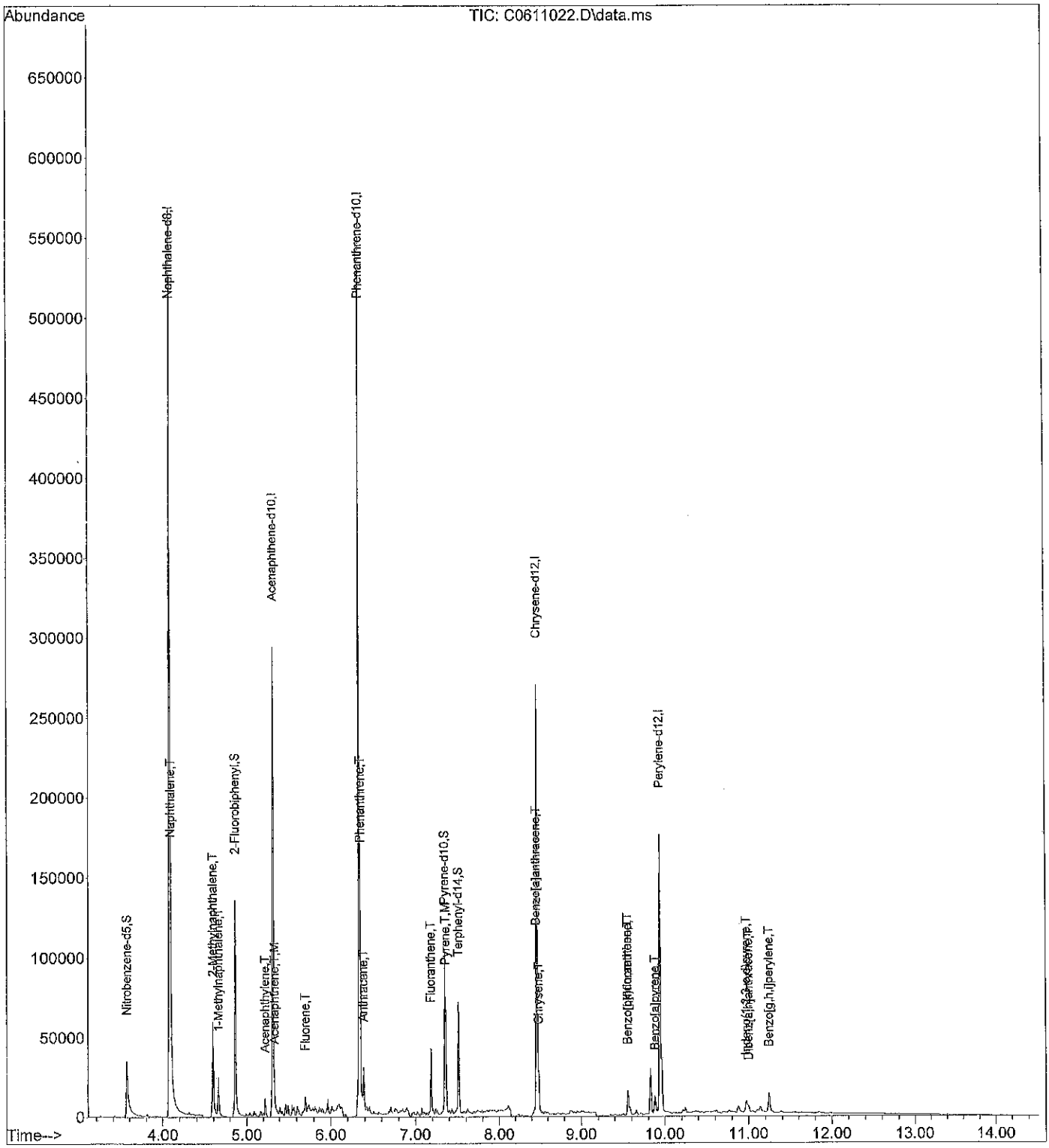
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.082	136	558221	2000.00	ppb	0.00
6) Acenaphthene-d10	5.324	164	271326	2000.00	ppb	0.00
10) Phenanthrene-d10	6.339	188	410665	2000.00	ppb	0.01
17) Chrysene-d12	8.467	240	~~253770~~	2000.00	ppb	0.02
21) Perylene-d12	9.939	264	~~202367~~ out	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.565	82	44416	732.44	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 73.24%			
7) 2-Fluorobiphenyl	4.859	172	119695	575.01	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 57.50%			
11) Pyrene-d10	7.348	212	78976	501.17	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.12%			
18) Terphenyl-d14	7.510	244	54799	699.69	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 69.97%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	62096	207.20	ppb	100
4) 2-Methylnaphthalene	4.594	142	56805	346.39	ppb	100
5) 1-Methylnaphthalene	4.660	142	26679	133.61	ppb	100
8) Acenaphthylene	5.224	152	14997	53.46	ppb	100
9) Acenaphthene	5.339	153	7431	40.28	ppb	100
12) Fluorene	5.702	166	10608	58.51	ppb	100
13) Phenanthrene	6.351	178	84014	325.09	ppb	100
14) Anthracene	6.386	178	18556	70.46	ppb	100
15) Fluoranthene	7.185	202	32919	136.87	ppb	100
16) Pyrene	7.359	202	45289	175.53	ppb	100
19) Benzo[a]anthracene	8.455	228	19549	150.54	ppb	100
20) Chrysene	8.486	228	32319	211.27	ppb	100
22) Benzo[b]fluoranthene	9.553	252	24831	~~195.33~~	ppb	156.98 100
23) Benzo(j,k)fluoranthene	9.~~553~~580	252	24831	~~167.84~~	ppb	33.86 100
24) Benzo[a]pyrene	9.881	252	13974	105.60	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.972	276	10693	67.84	ppb	100
26) Dibenz[a,h]anthracene	11.000	278	3793	29.59	ppb	100
27) Benzo[g,h,i]perylene	11.242	276	19149	146.27	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611022.D
Acq On : 11 Jun 2012 4:40 pm
Operator :
Sample : 06-059-04
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 11 16:55:28 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611017.D
Acq On : 11 Jun 2012 2:52 pm
Operator :
Sample : 06-059-05
Misc : rr
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 11 15:07:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

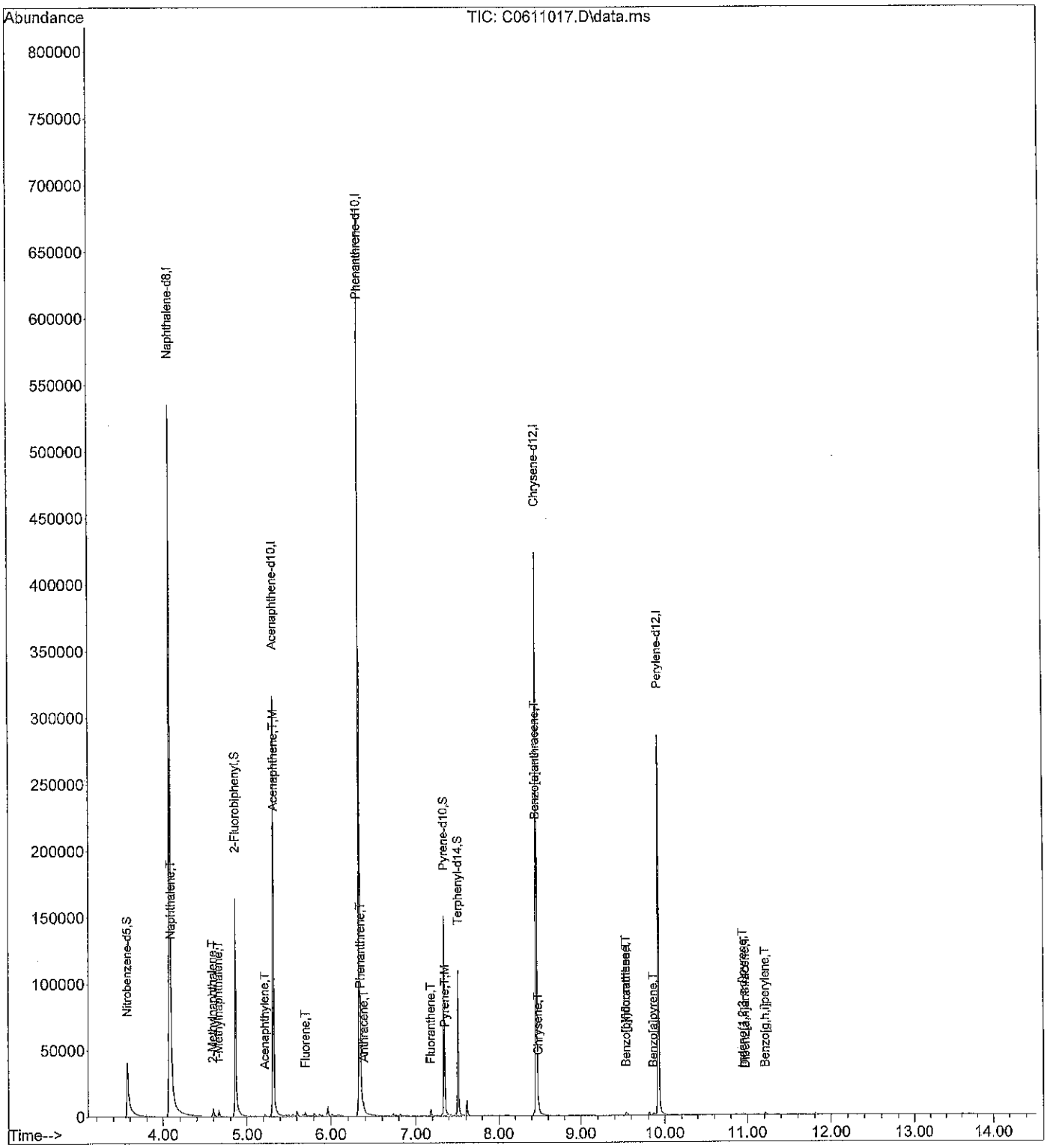
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	615485	2000.00	ppb	0.00
6) Acenaphthene-d10	5.318	164	297220	2000.00	ppb	0.00
10) Phenanthrene-d10	6.337	188	489056	2000.00	ppb	0.00
17) Chrysene-d12	8.459	240	383837	2000.00	ppb	0.01
21) Perylene-d12	9.923	264	301096	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.566	82	59242	886.03	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 88.60%			
7) 2-Fluorobiphenyl	4.858	172	158369	694.52	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.45%			
11) Pyrene-d10	7.343	212	123775	659.56	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 65.96%			
18) Terphenyl-d14	7.511	244	89535	755.82	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 75.58%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	15869	48.02	ppb	100
4) 2-Methylnaphthalene	4.593	142	7708	42.63	ppb	100
5) 1-Methylnaphthalene	4.659	142	6535	29.68	ppb	100
8) Acenaphthylene	5.217	152	1483	4.83	ppb	100
9) Acenaphthene	5.325	153	542	2.68	ppb	100
12) Fluorene	5.703	166	1187	5.50	ppb	100
13) Phenanthrene	6.349	178	10018	32.55	ppb	100
14) Anthracene	6.388	178	1071	3.41	ppb	100
15) Fluoranthene	7.186	202	5098	17.80	ppb	100
16) Pyrene	7.354	202	6038	19.65	ppb	100
19) Benzo[a]anthracene	8.451	228	3886	19.78	ppb	100
20) Chrysene	8.482	228	3857	16.67	ppb	100
22) Benzo[b]fluoranthene	9.541	252	3915	~~20.70~~	ppb	15.46 100
23) Benzo(j,k)fluoranthene	9.541	252	3915	~~17.79~~	ppb	4.72 100
24) Benzo[a]pyrene	9.861	252	1724	8.76	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	1322	5.64	ppb	100
26) Dibenz[a,h]anthracene	10.976	278	321	1.68	ppb	100
27) Benzo[g,h,i]perylene	11.214	276	1555	7.98	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611017.D
Acq On : 11 Jun 2012 2:52 pm
Operator :
Sample : 06-059-05
Misc : rr
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 11 15:07:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608035.D
Acq On : 8 Jun 2012 10:49 pm
Operator :
Sample : 06-059-06
Misc :
ALS Vial : 32 Sample Multiplier: 1

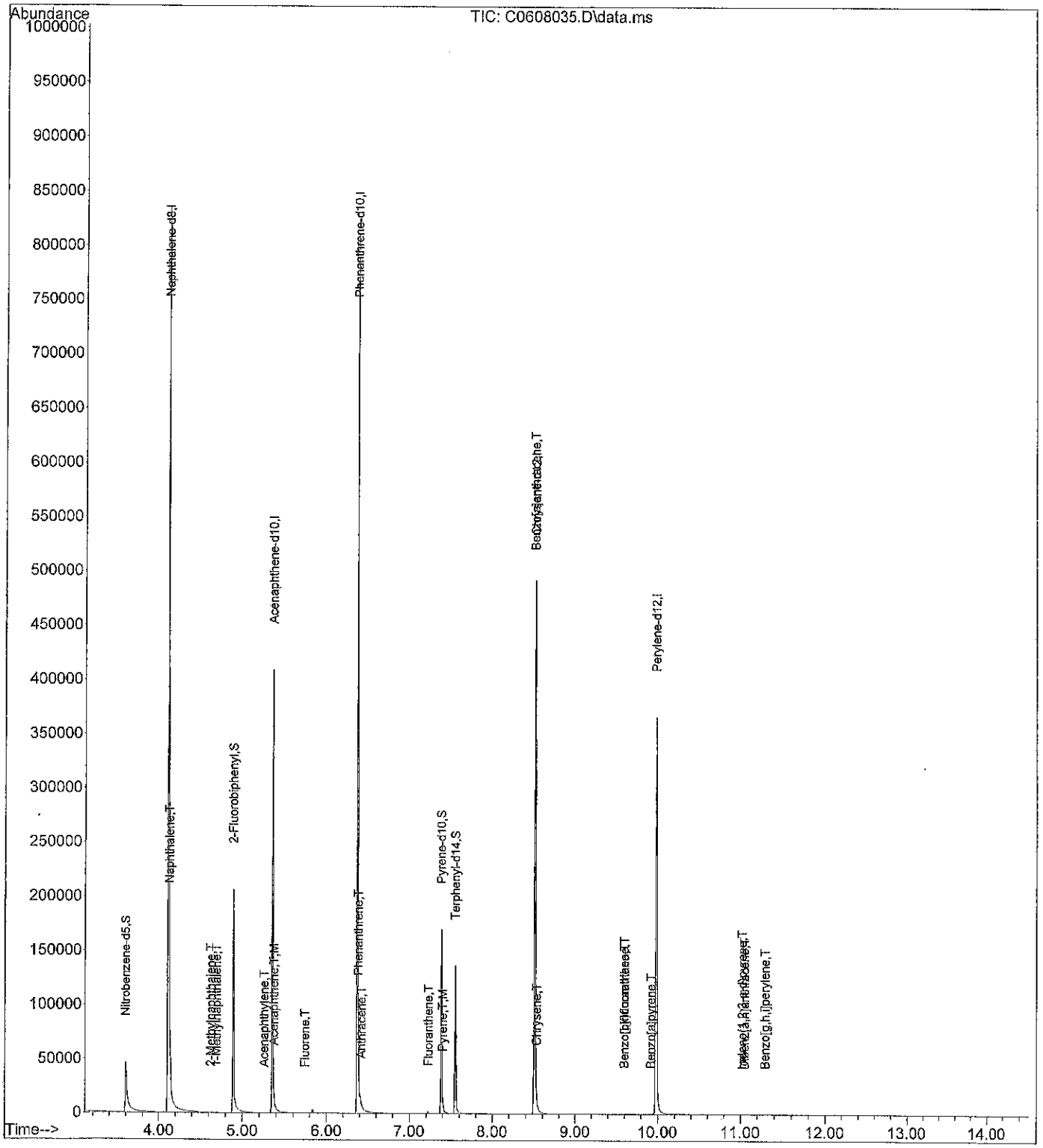
Quant Time: Jun 08 23:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.112	136	752170	2000.00	ppb	0.00
6) Acenaphthene-d10	5.355	164	361729	2000.00	ppb	0.00
10) Phenanthrene-d10	6.370	188	594720	2000.00	ppb	0.00
17) Chrysene-d12	8.510	240	499368	2000.00	ppb	0.00
21) Perylene-d12	9.978	264	397268	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.595	82	61461	799.20	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 79.92%			
7) 2-Fluorobiphenyl	4.890	172	194422	697.43	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.74%			
11) Pyrene-d10	7.383	212	150626	663.62	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 66.36%			
18) Terphenyl-d14	7.551	244	107223	699.31	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 69.93%			
Target Compounds						Qvalue
3) Naphthalene	4.124	128	2251	5.63	ppb	100
4) 2-Methylnaphthalene	4.625	142	1173	5.37	ppb	100
5) 1-Methylnaphthalene	4.691	142	707	2.65	ppb	100
8) Acenaphthylene	5.255	152	526	1.43	ppb	100
9) Acenaphthene	5.370	153	468	1.91	ppb	100
12) Fluorene	5.740	166	711	2.72	ppb	100
13) Phenanthrene	6.382	178	4650	12.51	ppb	100
14) Anthracene	6.421	178	449	1.18	ppb	100
15) Fluoranthene	7.226	202	2237	6.45	ppb	100
16) Pyrene	7.400	202	2657	7.15	ppb	100
19) Benzo[a]anthracene	8.506	228	2682	10.50	ppb	100
20) Chrysene	8.529	228	1079	3.58	ppb	100
22) Benzo[b]fluoranthene	9.600	252	1283	5.15	ppb	100
23) Benzo(j,k)fluoranthene	9.600	252	1283	4.44	ppb	100
24) Benzo[a]pyrene	9.920	252	627	2.42	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.022	276	496	1.61	ppb	100
26) Dibenz[a,h]anthracene	11.049	278	137	0.55	ppb	100
27) Benzo[g,h,i]perylene	11.291	276	775	3.02	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608035.D
Acq On : 8 Jun 2012 10:49 pm
Operator :
Sample : 06-059-06
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 08 23:04:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611019.D
Acq On : 11 Jun 2012 3:35 pm
Operator :
Sample : 06-059-07
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 11 15:50:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

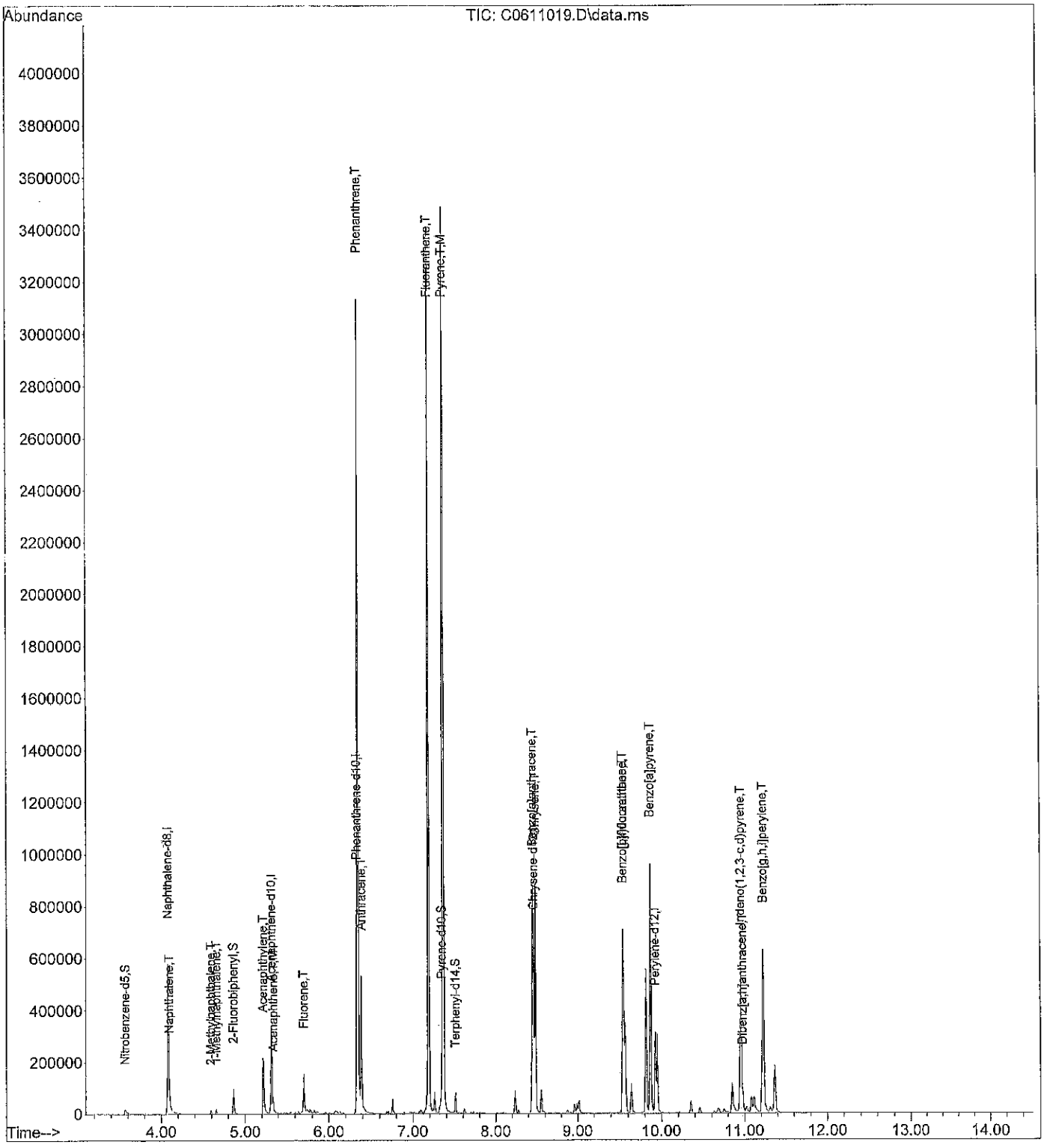
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	618360	2000.00	ppb	0.00
6) Acenaphthene-d10	5.317	164	302184	2000.00	ppb	0.00
10) Phenanthrene-d10	6.336	188	490933	2000.00	ppb	0.00
17) Chrysene-d12	8.463	240	420809	2000.00	ppb	0.02
21) Perylene-d12	9.924	264	335739	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.566	82	29896	445.05	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 44.51%			
7) 2-Fluorobiphenyl	4.858	172	96229	415.07	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 41.51%			
11) Pyrene-d10	7.348	212	78370	416.01	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 41.60%			
18) Terphenyl-d14	7.510	244	55184	424.91	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 42.49%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	71095	214.16	ppb	100
4) 2-Methylnaphthalene	4.592	142	17438	95.99	ppb	100
5) 1-Methylnaphthalene	4.659	142	19131	86.49	ppb	100
8) Acenaphthylene	5.216	152	234941	752.04	ppb	100
9) Acenaphthene	5.340	153	34087	165.90	ppb	100
12) Fluorene	5.702	166	117498	542.08	ppb	100
13) Phenanthrene	6.351	178	2316660	7498.62	ppb	100
14) Anthracene	6.386	178	412805	1311.21	ppb	100
15) Fluoranthene	7.191	202	2890513	10053.48	ppb	100
16) Pyrene	7.365	202	3751792	12163.84	ppb	100
19) Benzo[a]anthracene	8.451	228	801834	3723.73	ppb	100
20) Chrysene	8.487	228	842716	3322.20	ppb	100
22) Benzo[b]fluoranthene	9.546	252	932285	4420.49	ppb	100
23) Benzo(j,k)fluoranthene	9.54657	252	932285	~~3798.31~~	ppb 1547.88	100
24) Benzo[a]pyrene	9.869	252	1014900	4622.95	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.957	276	689557	2636.77	ppb	100
26) Dibenz[a,h]anthracene	10.976	278	90129	423.76	ppb	100
27) Benzo[g,h,i]perylene	11.226	276	888231	4089.46	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611019.D
Acq On : 11 Jun 2012 3:35 pm
Operator :
Sample : 06-059-07
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 11 15:50:31 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608036.D
Acq On : 8 Jun 2012 11:11 pm
Operator :
Sample : 06-059-08
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jun 08 23:26:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

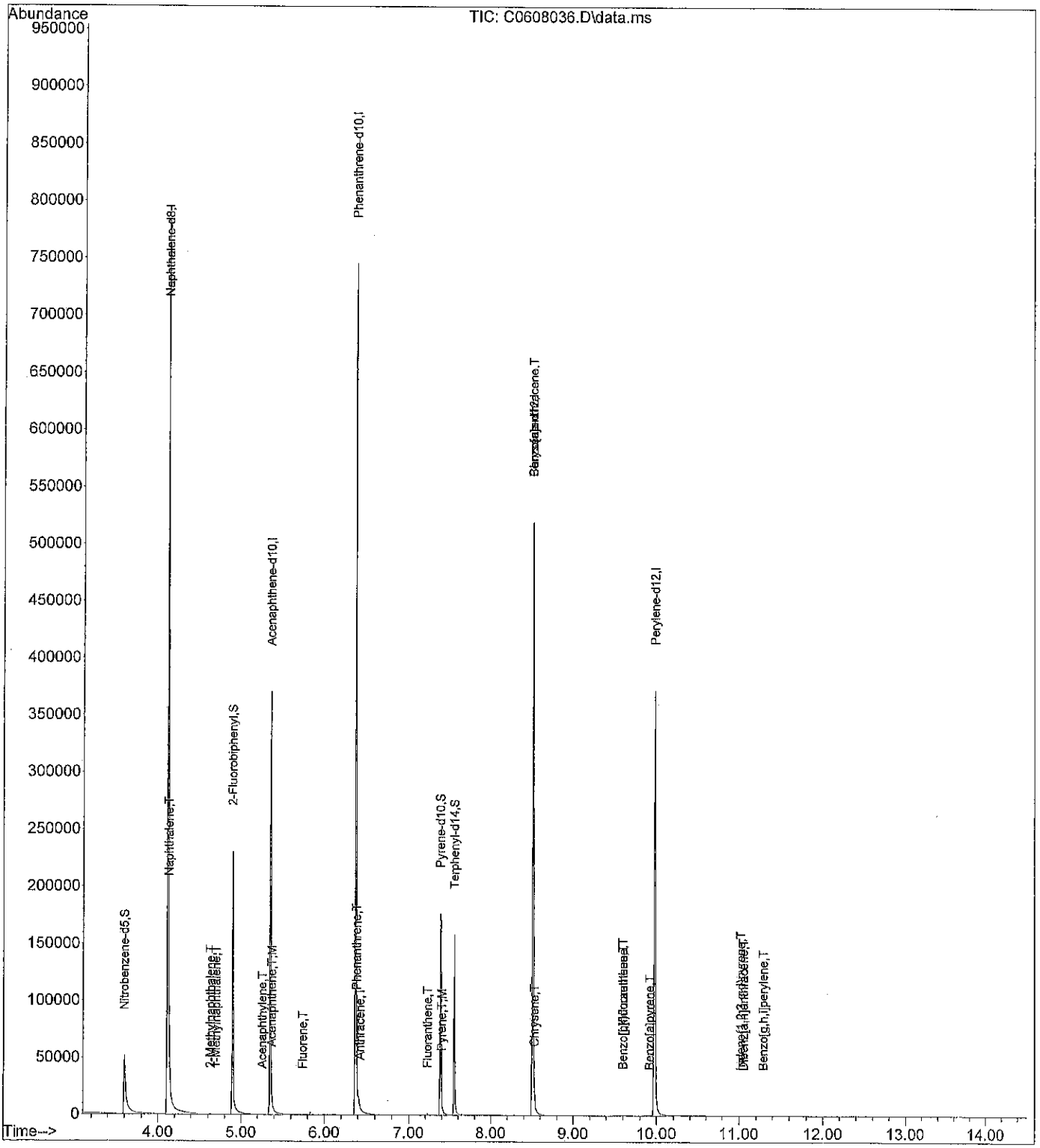
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.112	136	737333	2000.00	ppb	0.00
6) Acenaphthene-d10	5.355	164	355553	2000.00	ppb	0.00
10) Phenanthrene-d10	6.371	188	587918	2000.00	ppb	0.00
17) Chrysene-d12	8.505	240	502334	2000.00	ppb	0.00
21) Perylene-d12	9.978	264	411291	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.595	82	68997	915.24	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 91.52%			
7) 2-Fluorobiphenyl	4.890	172	198984	726.19	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 72.62%			
11) Pyrene-d10	7.382	212	165724	738.58	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 73.86%			
18) Terphenyl-d14	7.551	244	119754	776.43	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 77.64%			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	2585	6.59	ppb	100
4) 2-Methylnaphthalene	4.625	142	722	3.37	ppb	100
5) 1-Methylnaphthalene	4.691	142	567	2.17	ppb	100
8) Acenaphthylene	5.255	152	553	1.53	ppb	100
9) Acenaphthene	5.370	153	460	1.91	ppb	100
12) Fluorene	5.740	166	652	2.52	ppb	100
13) Phenanthrene	6.383	178	3587	9.76	ppb	100
14) Anthracene	6.422	178	289	0.77	ppb	100
15) Fluoranthene	7.225	202	1620	4.73	ppb	100
16) Pyrene	7.400	202	2310	6.29	ppb	100
19) Benzo[a]anthracene	8.505	228	2436	9.48	ppb	100
20) Chrysene	8.529	228	918	3.03	ppb	100
22) Benzo[b]fluoranthene	9.600	252	1419	5.50	ppb	100
23) Benzo(j,k)fluoranthene	9.600	252	1419	4.75	ppb	100
24) Benzo[a]pyrene	9.920	252	608	2.27	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.023	276	507	1.59	ppb	100
26) Dibenz[a,h]anthracene	11.054	278	75	0.29	ppb	100
27) Benzo[g,h,i]perylene	11.292	276	526	1.98	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608036.D
Acq On : 8 Jun 2012 11:11 pm
Operator :
Sample : 06-059-08
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jun 08 23:26:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611018.D
Acq On : 11 Jun 2012 3:14 pm
Operator :
Sample : 06-059-09
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 11 15:29:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

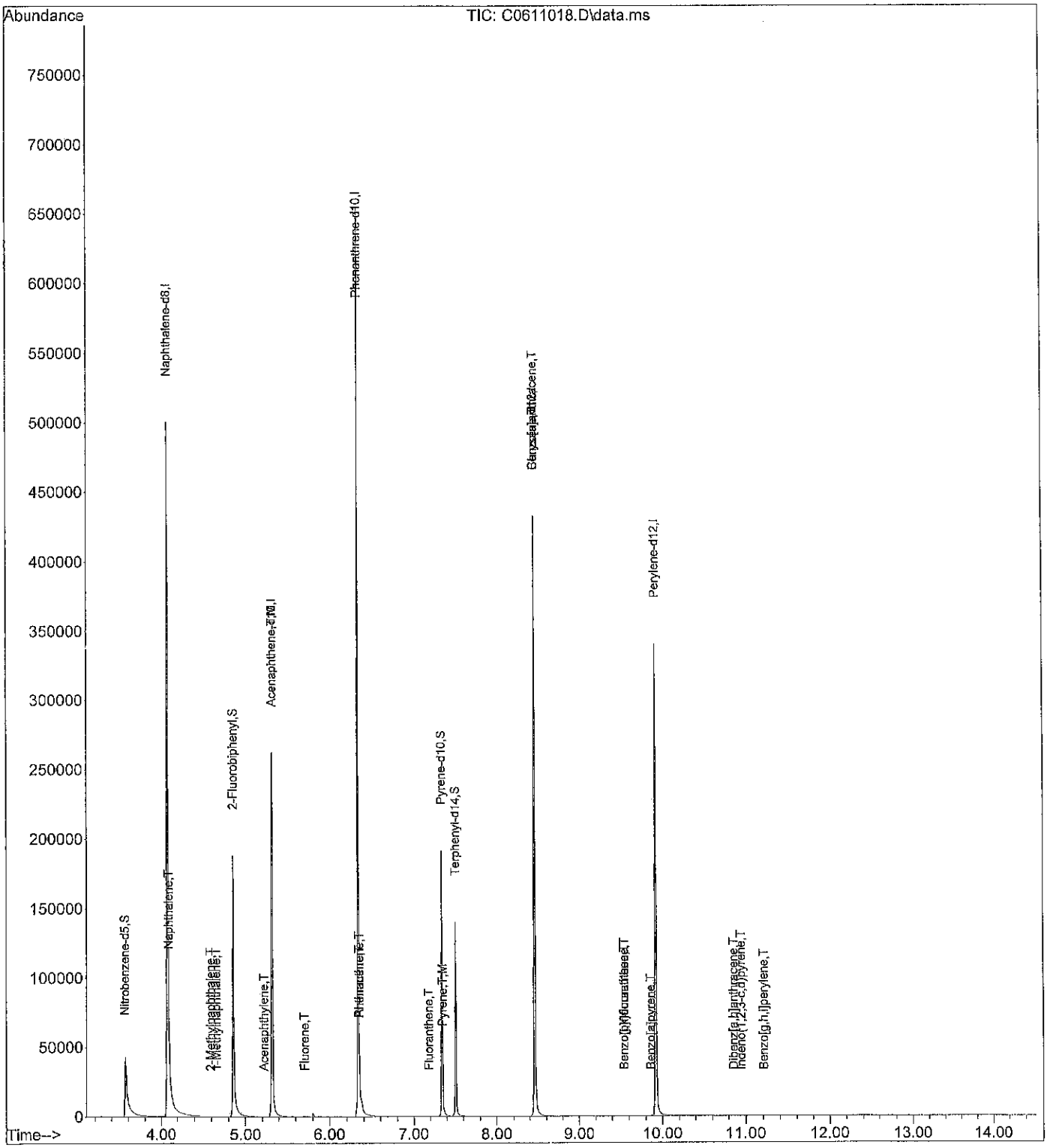
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	4.076	136	607662	2000.00 ppb	0.00
6) Acenaphthene-d10	5.324	164	296688	2000.00 ppb	0.00
10) Phenanthrene-d10	6.335	188	493520	2000.00 ppb	0.00
17) Chrysene-d12	8.455	240	424950	2000.00 ppb	0.00
21) Perylene-d12	9.920	264	350082	2000.00 ppb	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5	3.559	82	68294	1034.56 ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 103.46%#		
7) 2-Fluorobiphenyl	4.859	172	196426	862.96 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.30%		
11) Pyrene-d10	7.343	212	155858	823.00 ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 82.30%		
18) Terphenyl-d14	7.511	244	116075	885.06 ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 88.51%		
Target Compounds					Qvalue
3) Naphthalene	4.093	128	1180	3.62 ppb	100
4) 2-Methylnaphthalene	4.594	142	197	1.10 ppb	100
5) 1-Methylnaphthalene	4.660	142	295	1.36 ppb	100
8) Acenaphthylene	5.224	152	256	0.83 ppb	100
9) Acenaphthene	5.324	153	193	0.96 ppb	100
12) Fluorene	5.709	166	349	1.60 ppb	100
13) Phenanthrene	6.351	178	1902	6.12 ppb	100
14) Anthracene	6.351	178	1902	6.01 ppb	100
15) Fluoranthene	7.186	202	349	1.21 ppb	100
16) Pyrene	7.354	202	618	1.99 ppb	100
19) Benzo[a]anthracene	8.455	228	1552	7.14 ppb	100
~~20) Chrysene~~	8.455	228	1552	6.06 ppb	100
22) Benzo[b]fluoranthene	9.541	252	297	1.35 ppb	100
~~23) Benzo(j,k)fluoranthene~~	9.541	252	297	1.16 ppb	100
24) Benzo[a]pyrene	9.861	252	142	0.62 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.948	276	129	0.47 ppb	100
26) Dibenz[a,h]anthracene	10.858	278	18	0.08 ppb	100
27) Benzo[g,h,i]perylene	11.210	276	127	0.56 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611018.D
Acq On : 11 Jun 2012 3:14 pm
Operator :
Sample : 06-059-09
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 11 15:29:04 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612015.D
Acq On : 12 Jun 2012 14:31
Operator :
Sample : 06-059-10 5x
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 12 15:13:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration

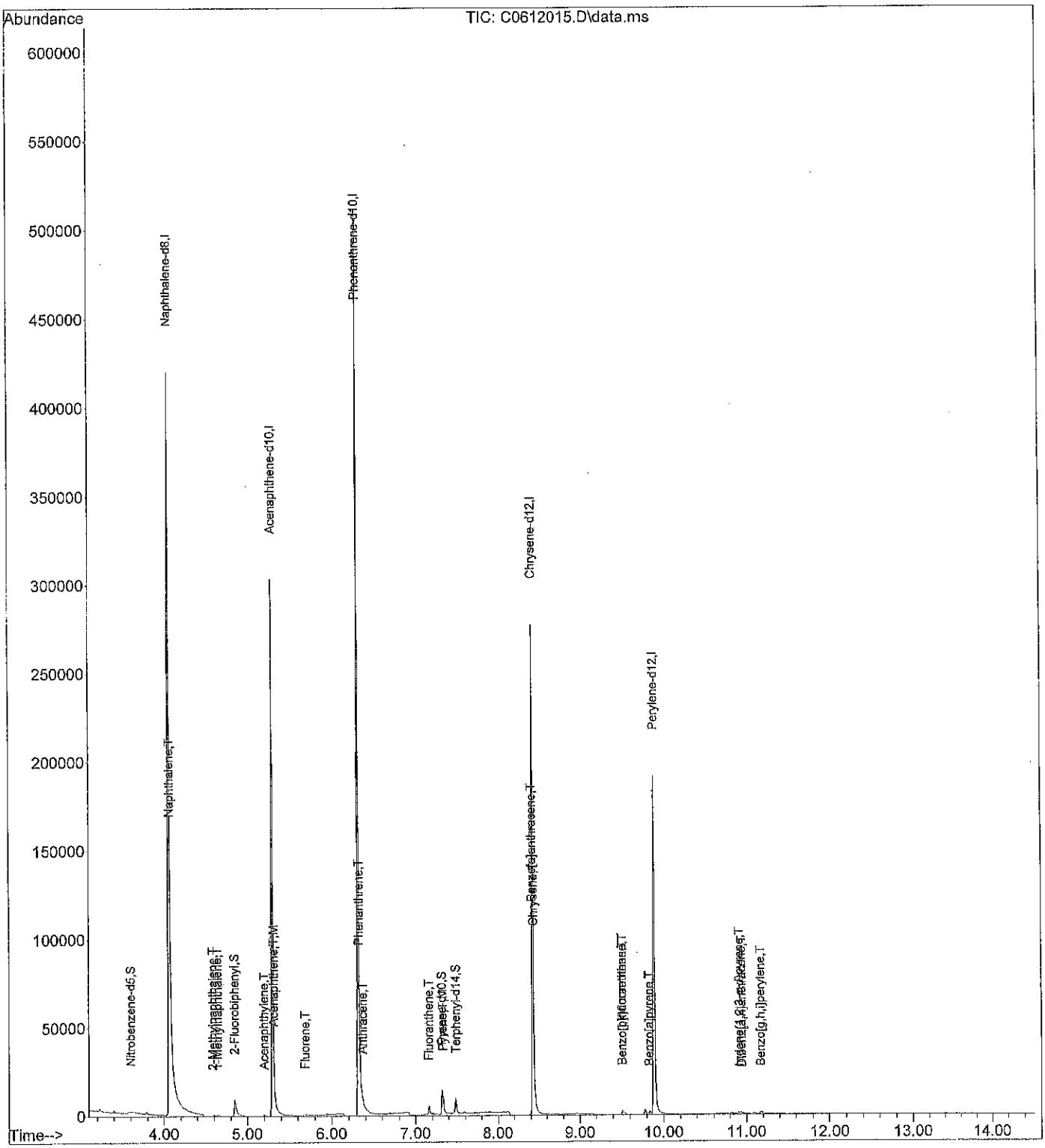
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	4.063	136	637797	2000.00 ppb	0.00
6) Acenaphthene-d10	5.301	164	284084	2000.00 ppb	0.00
10) Phenanthrene-d10	6.312	188	445374	2000.00 ppb	0.00
17) Chrysene-d12	8.424	240	285144	2000.00 ppb	0.00
21) Perylene-d12	9.887	264	232654	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	3.604	82	1913	19.82 ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	1.98%#	
7) 2-Fluorobiphenyl	4.846	172	19970	103.92 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	10.39%#	
11) Pyrene-d10	7.319	212	14177	87.32 ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	8.73%#	
18) Terphenyl-d14	7.487	244	8886	105.74 ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	10.57%#	
Target Compounds					Qvalue
3) Naphthalene	4.075	128	4875	14.66 ppb	100
4) 2-Methylnaphthalene	4.588	142	1497	10.37 ppb	100
5) 1-Methylnaphthalene	4.643	142	2017	7.90 ppb	100
8) Acenaphthylene	5.201	152	1314	4.37 ppb	100
9) Acenaphthene	5.317	153	507	2.68 ppb	100
12) Fluorene	5.686	166	1219	6.50 ppb	100
13) Phenanthrene	6.328	178	7612	29.73 ppb	100
14) Anthracene	6.371	178	882	3.07 ppb	100
15) Fluoranthene	7.162	202	5959	24.03 ppb	100
16) Pyrene	7.330	202	7188	27.29 ppb	100
19) Benzo[a]anthracene	8.417	228	3712	24.59 ppb	100
20) Chrysene	8.436	228	5726	34.00 ppb	100
22) Benzo[b]fluoranthene	9.509	252	4795	~~20.53~~ ppb 13.89	100
23) Benzo(j,k)fluoranthene	9.~~509~~	252	4795	~~27.24~~ ppb 9.06	100
24) Benzo[a]pyrene	9.829	252	2258	16.77 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.916	276	1986	11.49 ppb	100
26) Dibenz[a,h]anthracene	10.943	278	390	2.80 ppb	100
27) Benzo[g,h,i]perylene	11.174	276	2299	17.14 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612015.D
Acq On : 12 Jun 2012 14:31
Operator :
Sample : 06-059-10 5x
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 12 15:13:39 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 15:13:23 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611021.D
Acq On : 11 Jun 2012 4:18 pm
Operator :
Sample : 06-059-10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 11 16:33:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration

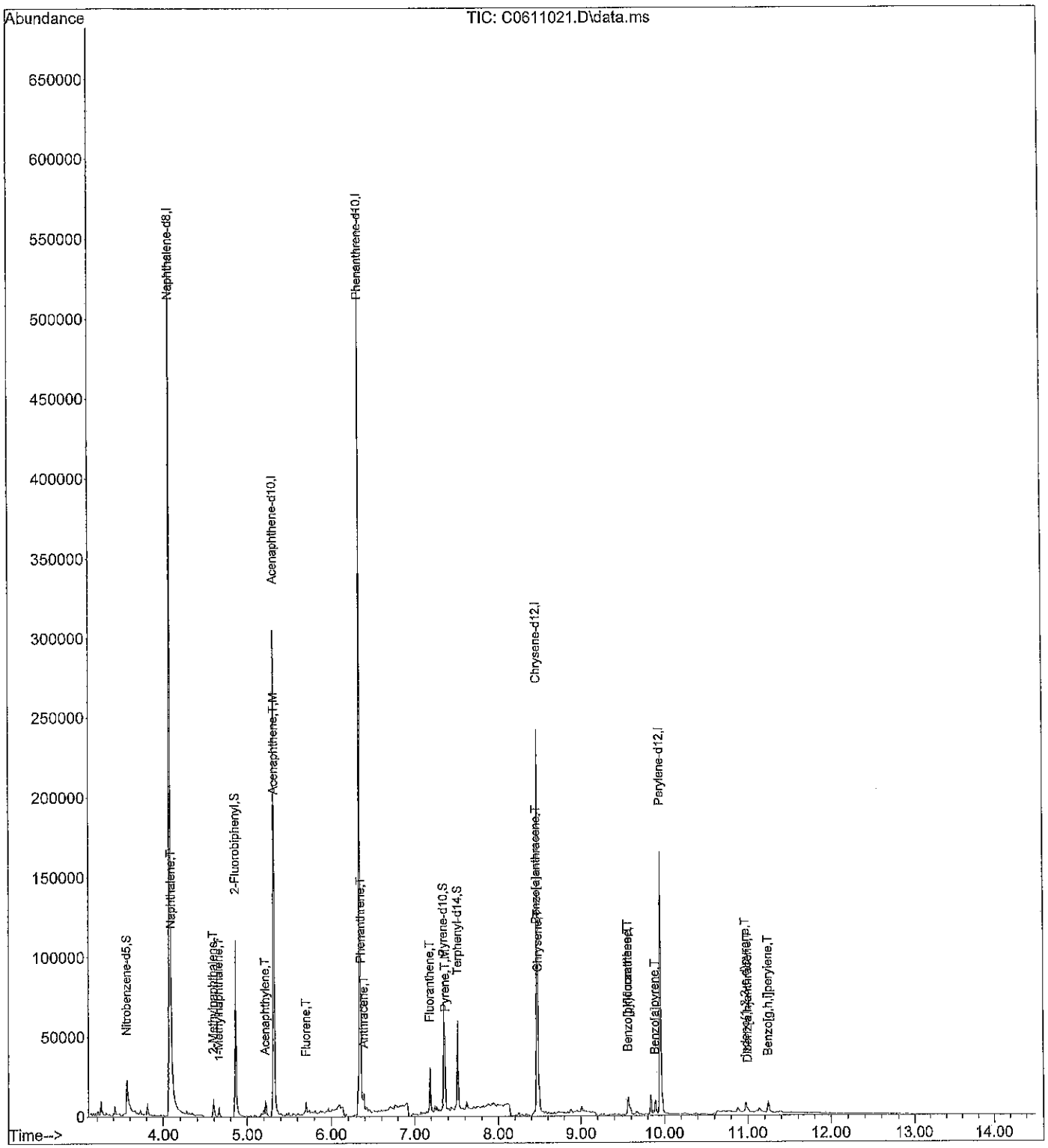
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.077	136	552996	2000.00	ppb	0.00
6) Acenaphthene-d10	5.317	164	273346	2000.00	ppb	0.00
10) Phenanthrene-d10	6.337	188	393479	2000.00	ppb	0.00
17) Chrysene-d12	8.470	240	~~225533~~	2000.00	ppb	0.02
21) Perylene-d12	9.951	264	~~189058~~ out	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.560	82	31703	527.73	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 52.77%			
7) 2-Fluorobiphenyl	4.858	172	99863	476.19	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.62%			
11) Pyrene-d10	7.348	212	61021	404.14	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 40.41%			
18) Terphenyl-d14	7.516	244	40111	576.27	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 57.63%			
Target Compounds						Qvalue
3) Naphthalene	4.094	128	22782	76.74	ppb	100
4) 2-Methylnaphthalene	4.593	142	11256	69.29	ppb	100
5) 1-Methylnaphthalene	4.659	142	6841	34.58	ppb	100
8) Acenaphthylene	5.217	152	16689	59.06	ppb	100
9) Acenaphthene	5.325	153	1396	7.51	ppb	100
12) Fluorene	5.703	166	7432	42.78	ppb	100
13) Phenanthrene	6.352	178	39062	157.75	ppb	100
14) Anthracene	6.387	178	6240	24.73	ppb	100
15) Fluoranthene	7.185	202	25230	109.49	ppb	100
16) Pyrene	7.365	202	29980	121.27	ppb	100
19) Benzo[a]anthracene	8.463	228	13350	115.68	ppb	100
20) Chrysene	8.482	228	24721	181.84	ppb	100
22) Benzo[b]fluoranthene	9.564	252	19754	~~166.33~~ 132.48	ppb	100
23) Benzo(j,k)fluoranthene	9.564	252	19754	~~142.92~~ 30.29	ppb	100
24) Benzo[a]pyrene	9.888	252	10096	81.67	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.975	276	8284	56.25	ppb	100
26) Dibenz[a,h]anthracene	11.002	278	1979	16.52	ppb	100
27) Benzo[g,h,i]perylene	11.244	276	10246	83.77	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611021.D
Acq On : 11 Jun 2012 4:18 pm
Operator :
Sample : 06-059-10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 11 16:33:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 11 11:05:07 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608017.D
Acq On : 8 Jun 2012 4:18 pm
Operator :
Sample : MB0608S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:33:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

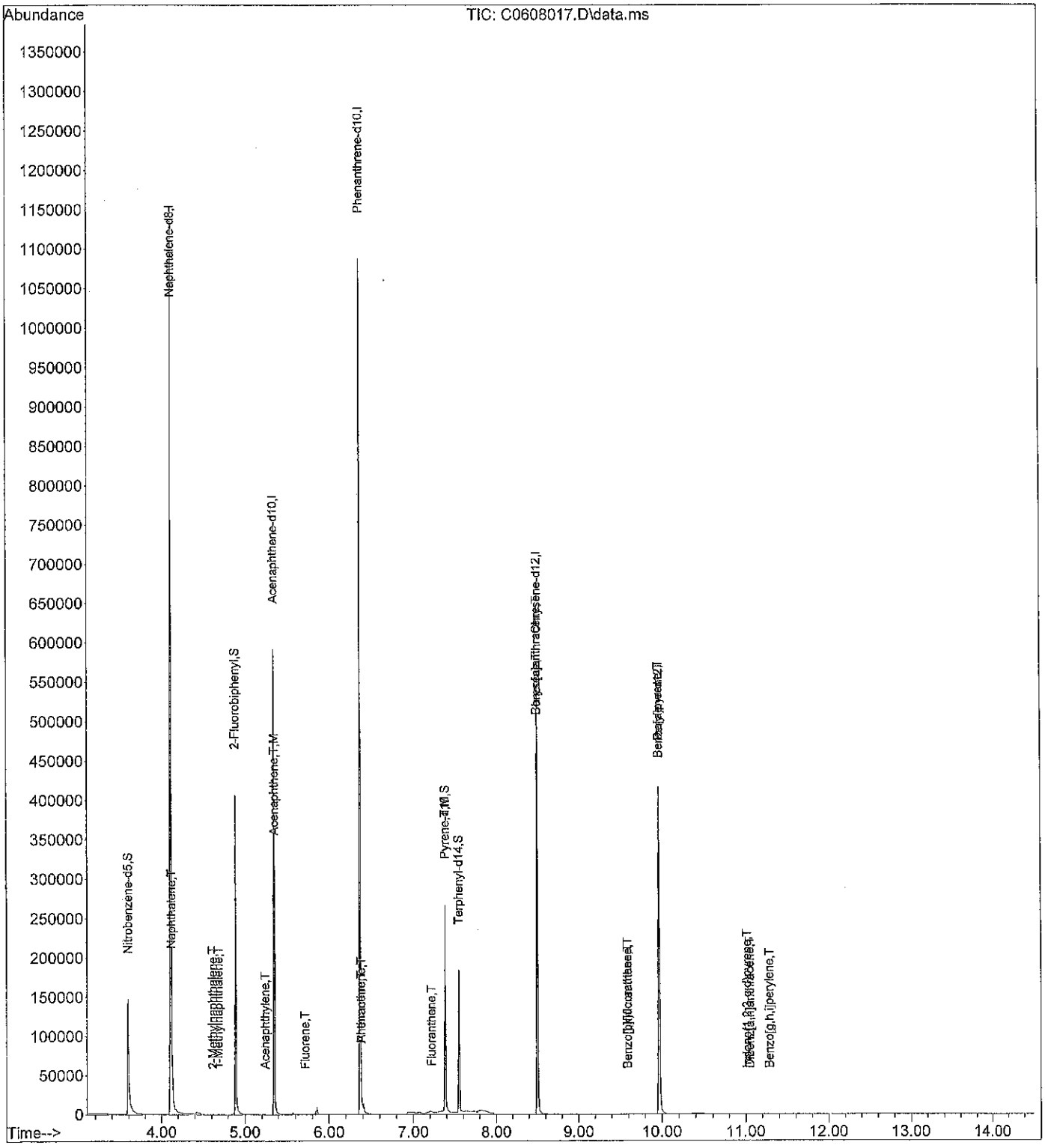
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	905563	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	449113	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	690413	2000.00	ppb	0.00
17) Chrysene-d12	8.501	240	491942	2000.00	ppb	0.00
21) Perylene-d12	9.970	264	458536	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.594	82	102059	1102.31	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 110.23%#			
7) 2-Fluorobiphenyl	4.886	172	297667	860.03	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.00%			
11) Pyrene-d10	7.383	212	201216	763.63	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 76.36%			
18) Terphenyl-d14	7.545	244	136296	902.34	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 90.23%			
Target Compounds						Qvalue
3) Naphthalene	4.122	128	1049	2.18	ppb	100
4) 2-Methylnaphthalene	4.621	142	259	0.98	ppb	100
5) 1-Methylnaphthalene	4.687	142	211	0.66	ppb	100
8) Acenaphthylene	5.247	152	136	0.30	ppb	100
9) Acenaphthene	5.355	153	250	0.82	ppb	100
12) Fluorene	5.717	166	223	0.73	ppb	100
13) Phenanthrene	6.382	178	2190	5.08	ppb	100
14) Anthracene	6.382	178	2190	4.95	ppb	100
15) Fluoranthene	7.220	202	253	0.63	ppb	100
16) Pyrene	7.383	202	531	1.23	ppb	100
19) Benzo[a]anthracene	8.497	228	1777	7.06	ppb	100
~~20) Chrysene~~	8.497	228	1777	5.99	ppb	100
22) Benzo[b]fluoranthene	9.592	252	174	0.60	ppb	100
~~23) Benzo(j,k)fluoranthene~~	9.592	252	174	0.52	ppb	100
~~24) Benzo[a]pyrene~~	9.966	252	2048	6.85	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.019	276	58	0.16	ppb	100
26) Dibenz[a,h]anthracene	11.050	278	73	0.25	ppb	100
27) Benzo[g,h,i]perylene	11.284	276	66	0.22	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608017.D
Acq On : 8 Jun 2012 4:18 pm
Operator :
Sample : MB0608S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:33:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608018.D
Acq On : 8 Jun 2012 4:40 pm
Operator :
Sample : SB0608S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:55:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

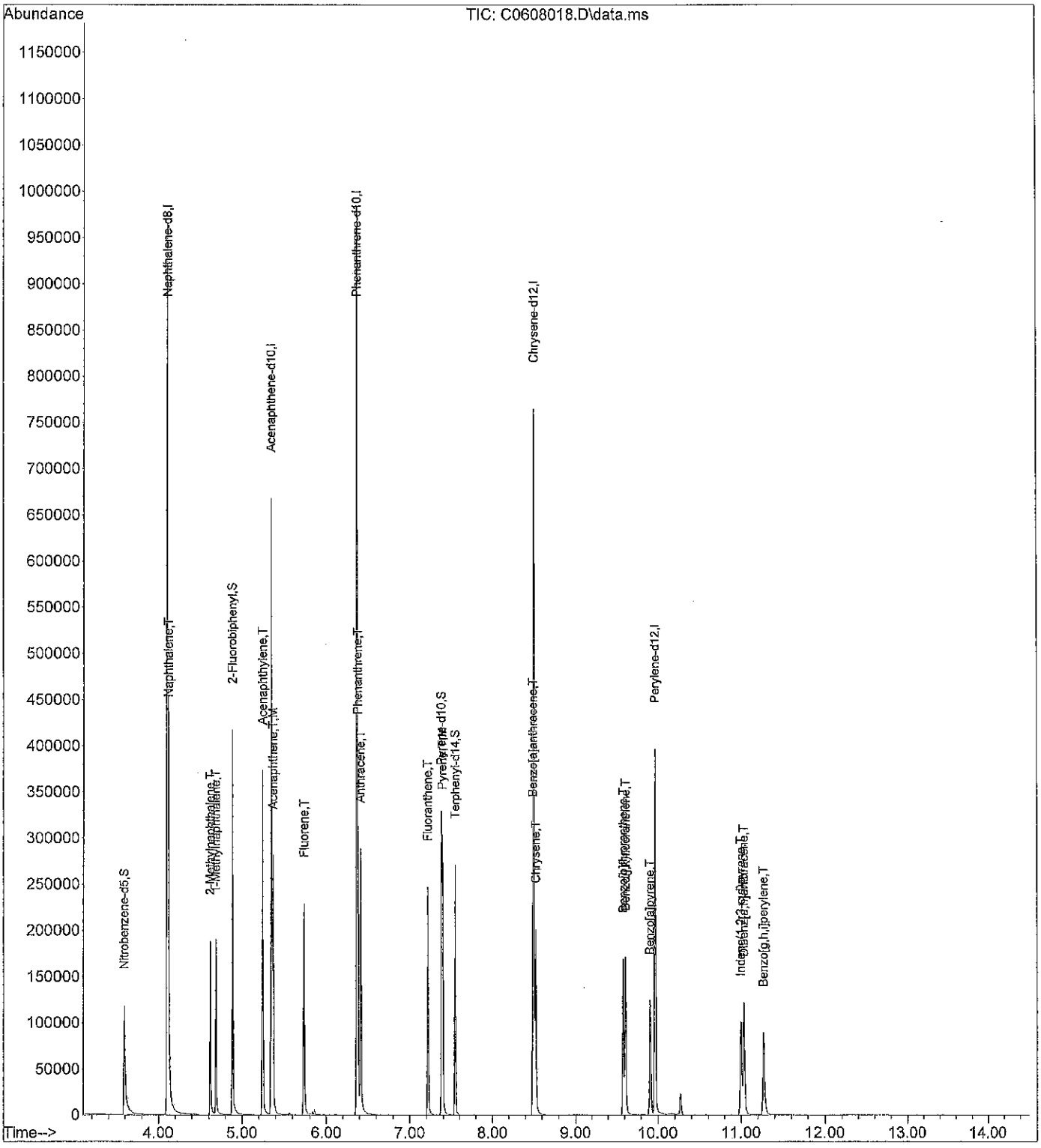
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	892391	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	459154	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	715891	2000.00	ppb	0.00
17) Chrysene-d12	8.498	240	645975	2000.00	ppb	0.00
21) Perylene-d12	9.966	264	398506	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.588	82	105275	1153.83	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 115.38%#			
7) 2-Fluorobiphenyl	4.886	172	301726	852.69	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 85.27%			
11) Pyrene-d10	7.377	212	265718	972.53	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 97.25%			
18) Terphenyl-d14	7.545	244	189392	954.88	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 95.49%#			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	227768	480.08	ppb	100
4) 2-Methylnaphthalene	4.621	142	143989	555.24	ppb	100
5) 1-Methylnaphthalene	4.687	142	148270	468.46	ppb	100
8) Acenaphthylene	5.247	152	230008	492.04	ppb	100
9) Acenaphthene	5.370	153	145843	468.29	ppb	100
12) Fluorene	5.732	166	157921	501.31	ppb	100
13) Phenanthrene	6.378	178	221410	494.86	ppb	100
14) Anthracene	6.413	178	223753	487.47	ppb	100
15) Fluoranthene	7.215	202	203019	486.33	ppb	100
16) Pyrene	7.389	202	224382	501.90	ppb	100
19) Benzo[a]anthracene	8.486	228	181262	548.61	ppb	100
20) Chrysene	8.521	228	182374	468.39	ppb	100
22) Benzo[b]fluoranthene	9.584	252	168755	~~674.97~~ 450.70	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	187496	647.29	ppb	100
24) Benzo[a]pyrene	9.904	252	136317	524.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.999	276	128475	415.55	ppb	100
26) Dibenz[a,h]anthracene	11.034	278	135590	539.17	ppb	100
27) Benzo[g,h,i]perylene	11.268	276	138746	539.36	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608018.D
Acq On : 8 Jun 2012 4:40 pm
Operator :
Sample : SB0608S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:55:25 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608019.D
Acq On : 8 Jun 2012 5:02 pm
Operator :
Sample : SB0608S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 17:16:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

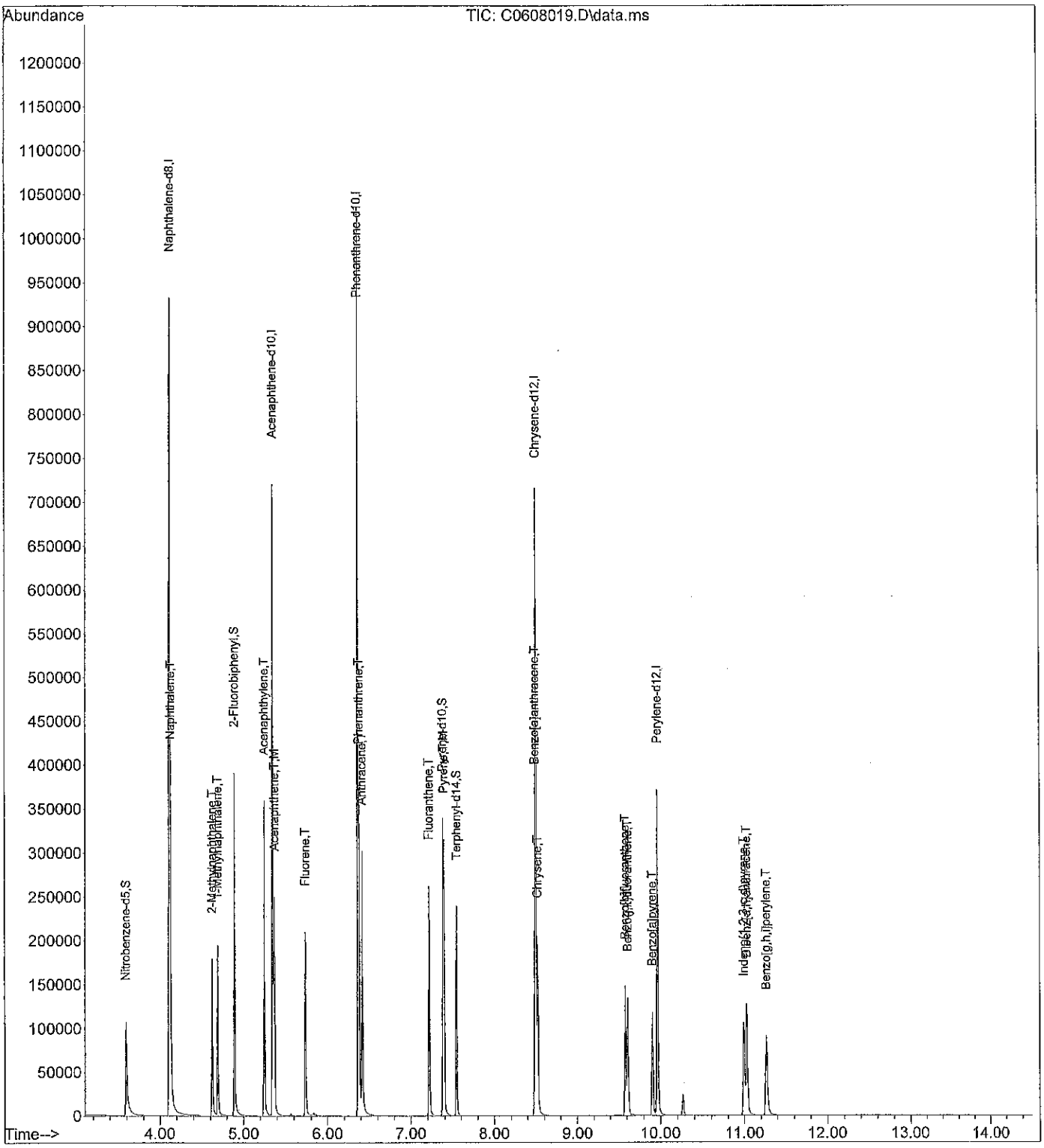
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	894656	2000.00	ppb	0.00
6) Acenaphthene-d10	5.347	164	457540	2000.00	ppb	0.00
10) Phenanthrene-d10	6.363	188	702053	2000.00	ppb	0.00
17) Chrysene-d12	8.498	240	636428	2000.00	ppb	0.00
21) Perylene-d12	9.963	264	380256	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.588	82	100586	1099.64	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 109.96%#			
7) 2-Fluorobiphenyl	4.886	172	308463	874.81	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 87.48%			
11) Pyrene-d10	7.377	212	256579	957.59	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 95.76%			
18) Terphenyl-d14	7.546	244	180537	923.89	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 92.39%#			
Target Compounds						Qvalue
3) Naphthalene	4.122	128	220790	464.19	ppb	100
4) 2-Methylnaphthalene	4.621	142	138342	532.12	ppb	100
5) 1-Methylnaphthalene	4.687	142	144071	454.05	ppb	100
8) Acenaphthylene	5.247	152	221199	474.87	ppb	100
9) Acenaphthene	5.370	153	139769	450.37	ppb	100
12) Fluorene	5.732	166	150383	486.79	ppb	100
13) Phenanthrene	6.378	178	214959	489.91	ppb	100
14) Anthracene	6.413	178	216467	480.89	ppb	100
15) Fluoranthene	7.215	202	198401	484.64	ppb	100
16) Pyrene	7.389	202	219556	500.79	ppb	100
19) Benzo[a]anthracene	8.487	228	173758	533.79	ppb	100
20) Chrysene	8.518	228	180129	469.57	ppb	100
22) Benzo[b]fluoranthene	9.580	252	145128	608.33	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	153171	554.17	ppb	100
24) Benzo[a]pyrene	9.904	252	121477	489.80	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.995	276	136422	462.44	ppb	100
26) Dibenz[a,h]anthracene	11.030	278	140299	584.67	ppb	100
27) Benzo[g,h,i]perylene	11.264	276	145285	591.89	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608019.D
Acq On : 8 Jun 2012 5:02 pm
Operator :
Sample : SB0608S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 17:16:58 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 15:13
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:32:50 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	91	0.00
2	S	Nitrobenzene-d5	500.000	450.362	9.9	90	0.00
3	T	Naphthalene	500.000	475.543	4.9	89	0.00
4	T	2-Methylnaphthalene	500.000	467.258	6.5	86	0.00
5	T	1-Methylnaphthalene	500.000	505.106	-1.0	94	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	94	0.00
7	S	2-Fluorobiphenyl	500.000	471.357	5.7	88	0.00
8	T	Acenaphthylene	500.000	466.701	6.7	87	0.00
9	T,M	Acenaphthene	500.000	461.587	7.7	87	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	475.243	5.0	90	0.00
12	T	Fluorene	500.000	471.101	5.8	89	0.00
13	T	Phenanthrene	500.000	462.962	7.4	89	0.00
14	T	Anthracene	500.000	487.972	2.4	90	0.00
15	T	Fluoranthene	500.000	470.460	5.9	90	0.00
16	T,M	Pyrene	500.000	481.831	3.6	89	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	93	0.00
18	S	Terphenyl-d14	500.000	471.144	5.8	90	0.00
19	T	Benzo[a]anthracene	500.000	497.060	0.6	87	0.00
20	T	Chrysene	500.000	488.827	2.2	92	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	91	0.00
22	T	Benzo[b]fluoranthene	500.000	477.759	4.4	86	0.00
23	T	Benzo(j,k)fluoranthene	500.000	500.895	-0.2	93	0.00
24	T	Benzo[a]pyrene	500.000	471.316	5.7	89	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	487.301	2.5	91	0.00
26	T	Dibenz[a,h]anthracene	500.000	492.803	1.4	91	0.00
27	T	Benzo[g,h,i]perylene	500.000	493.246	1.4	92	0.00

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

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 3:13 pm
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration

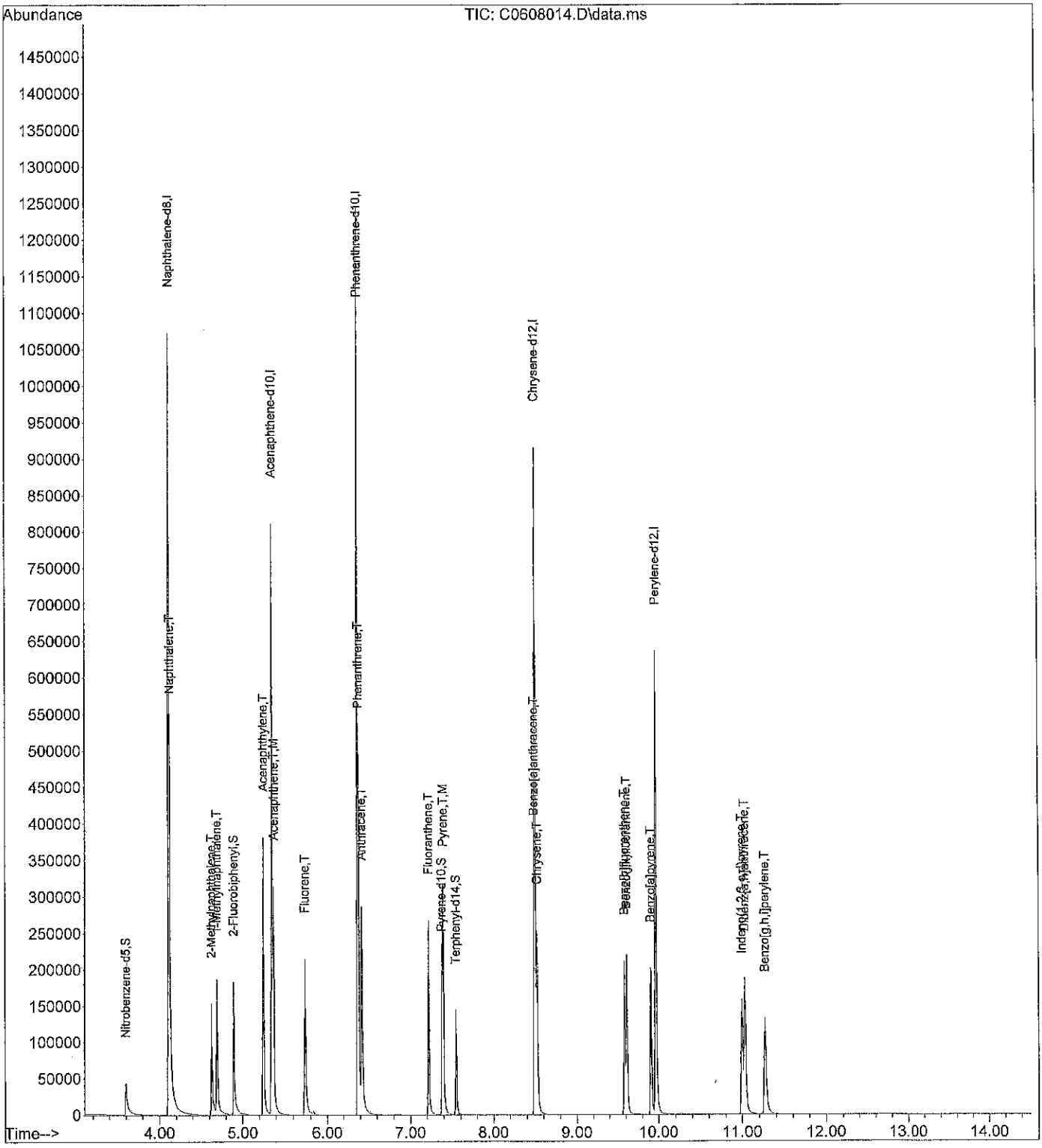
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.112	136	1175196	2000.00	ppb	0.00
6) Acenaphthene-d10	5.348	164	586831	2000.00	ppb	0.00
10) Phenanthrene-d10	6.366	188	957522	2000.00	ppb	0.00
17) Chrysene-d12	8.497	240	842923	2000.00	ppb	0.00
21) Perylene-d12	9.966	264	730336	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.595	82	54113	450.36	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 45.04%			
7) 2-Fluorobiphenyl	4.889	172	213169	471.36	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.14%			
11) Pyrene-d10	7.377	212	173674	475.24	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 47.52%			
18) Terphenyl-d14	7.545	244	121938	471.14	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.11%			
Target Compounds						Qvalue
3) Naphthalene	4.123	128	297116	475.54	ppb	100
4) 2-Methylnaphthalene	4.624	142	159573	467.26	ppb	100
5) 1-Methylnaphthalene	4.690	142	210530	505.11	ppb	100
8) Acenaphthylene	5.248	152	278827	466.70	ppb	100
9) Acenaphthene	5.371	153	183729	461.59	ppb	100
12) Fluorene	5.733	166	198496	471.10	ppb	100
13) Phenanthrene	6.378	178	277052	462.96	ppb	100
14) Anthracene	6.417	178	299583	487.97	ppb	100
15) Fluoranthene	7.220	202	262681	470.46	ppb	100
16) Pyrene	7.394	202	288115	481.83	ppb	100
19) Benzo[a]anthracene	8.485	228	225981	497.06	ppb	100
20) Chrysene	8.521	228	248359	488.83	ppb	100
22) Benzo[b]fluoranthene	9.584	252	218910	477.76	ppb	100
23) Benzo(j,k)fluoranthene	9.611	252	265904	500.89	ppb	100
24) Benzo[a]pyrene	9.904	252	224507	471.32	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.996	276	212235	~~374.57~~ 486.72	ppb	100
26) Dibenz[a,h]anthracene	11.031	278	227124	492.80	ppb	100
27) Benzo[g,h,i]perylene	11.269	276	232536	493.25	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/8/12

Data Path : C:\MSDCHEM\1\DATA\C120608\
Data File : C0608014.D
Acq On : 8 Jun 2012 3:13 pm
Operator :
Sample : PAHCCV0608
Misc : SV3-24-20
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 15:28:45 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 14:49:20 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 11 10:06:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	62	-0.04
2	S	Nitrobenzene-d5	500.000	708.224	-41.6#	96	-0.04
3	T	Naphthalene	500.000	527.776	-5.6	67	-0.04
4	T	2-Methylnaphthalene	500.000	539.892	-8.0	68	-0.04
5	T	1-Methylnaphthalene	500.000	523.899	-4.8	67	-0.04
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	65	-0.03
7	S	2-Fluorobiphenyl	500.000	484.377	3.1	63	-0.04
8	T	Acenaphthylene	500.000	562.460	-12.5	73	-0.03
9	T,M	Acenaphthene	500.000	507.506	-1.5	67	-0.04
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	66	-0.04
11	S	Pyrene-d10	500.000	516.575	-3.3	69	-0.05
12	T	Fluorene	500.000	511.612	-2.3	68	-0.04
13	T	Phenanthrene	500.000	515.639	-3.1	70	-0.04
14	T	Anthracene	500.000	511.727	-2.3	66	-0.04
15	T	Fluoranthene	500.000	510.739	-2.1	69	-0.04
16	T,M	Pyrene	500.000	531.189	-6.2	69	-0.05
17	I	Chrysene-d12	2000.000	2000.000	0.0	68	-0.05
18	S	Terphenyl-d14	500.000	508.674	-1.7	70	-0.04
19	T	Benzo[a]anthracene	500.000	580.166	-16.0	70	-0.05
20	T	Chrysene	500.000	495.745	0.9	68	-0.05
21	I	Perylene-d12	2000.000	2000.000	0.0	68	-0.06
22	T	Benzo[b]fluoranthene	500.000	515.844	-3.2	69	-0.06
23	T	Benzo(j,k)fluoranthene	500.000	518.104	-3.6	71	-0.06
24	T	Benzo[a]pyrene	500.000	492.100	1.6	69	-0.06
25	T	Indeno(1,2,3-c,d)pyrene	500.000	507.309	-1.5	70	-0.08
26	T	Dibenz[a,h]anthracene	500.000	508.022	-1.6	70	-0.08
27	T	Benzo[g,h,i]perylene	500.000	498.912	0.2	69	-0.09

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50 am
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 11 10:05:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration

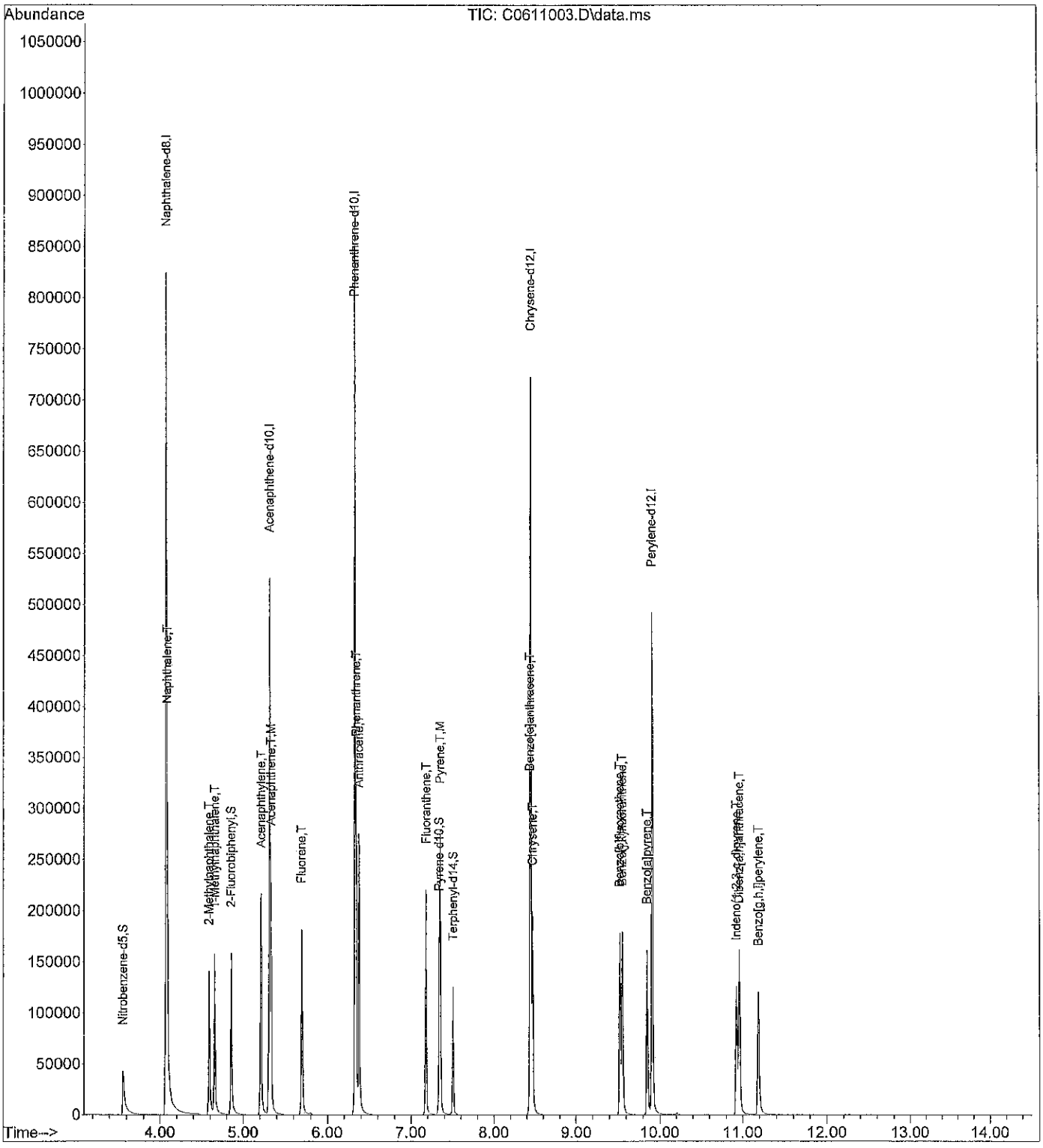
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.075	136	799113	2000.00	ppb	-0.04
6) Acenaphthene-d10	5.317	164	409871	2000.00	ppb	-0.03
10) Phenanthrene-d10	6.328	188	675931	2000.00	ppb	-0.04
17) Chrysene-d12	8.448	240	613346	2000.00	ppb	-0.05
21) Perylene-d12	9.903	264	543233	2000.00	ppb	-0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.558	82	57864	708.22	ppb	-0.04
Spiked Amount 1000.000	Range 24 - 92		Recovery = 70.82%			
7) 2-Fluorobiphenyl	4.854	172	153000	484.38	ppb	-0.04
Spiked Amount 1000.000	Range 25 - 89		Recovery = 48.44%			
11) Pyrene-d10	7.336	212	133262	516.57	ppb	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery = 51.66%			
18) Terphenyl-d14	7.504	244	95795	508.67	ppb	-0.04
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.87%			
Target Compounds						Qvalue
3) Naphthalene	4.086	128	224225	527.78	ppb	100
4) 2-Methylnaphthalene	4.588	142	125374	539.89	ppb	100
5) 1-Methylnaphthalene	4.655	142	148483	523.90	ppb	100
8) Acenaphthylene	5.217	152	234705	562.46	ppb	100
9) Acenaphthene	5.332	153	141091	507.51	ppb	100
12) Fluorene	5.695	166	152171	511.61	ppb	100
13) Phenanthrene	6.343	178	217829	515.64	ppb	100
14) Anthracene	6.379	178	221776	511.73	ppb	100
15) Fluoranthene	7.179	202	201307	510.74	ppb	100
16) Pyrene	7.348	202	224220	531.19	ppb	100
19) Benzo[a]anthracene	8.436	228	182005	580.17	ppb	100
20) Chrysene	8.471	228	183274	495.75	ppb	100
22) Benzo[b]fluoranthene	9.524	252	175808	515.84	ppb	100
23) Benzo(j,k)fluoranthene	9.552	252	204578	518.10	ppb	100
24) Benzo[a]pyrene	9.844	252	174355	492.10	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.924	276	168334	~~399.42~~ 507.31	ppb	100
26) Dibenz[a,h]anthracene	10.959	278	174155	508.02	ppb	100
27) Benzo[g,h,i]perylene	11.185	276	174950	498.91	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/11/12

Data Path : C:\MSDCHEM\1\DATA\C120611\
Data File : C0611003.D
Acq On : 11 Jun 2012 9:50 am
Operator :
Sample : PAHCCV0611
Misc : SV3-24-32
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 11 10:05:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri Jun 08 15:52:24 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612013.D
Acq On : 12 Jun 2012 13:47
Operator :
Sample : PAHCCV0612
Misc : SV3-25-11
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 14:03:18 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 13:51:48 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	148	0.00
2	S	Nitrobenzene-d5	500.000	374.121	25.2#	130	0.00
3	T	Naphthalene	500.000	478.811	4.2	142	0.00
4	T	2-Methylnaphthalene	500.000	457.510	8.5	128	0.00
5	T	1-Methylnaphthalene	500.000	477.856	4.4	145	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	131	0.00
7	S	2-Fluorobiphenyl	500.000	476.486	4.7	128	0.00
8	T	Acenaphthylene	500.000	478.266	4.3	130	0.00
9	T,M	Acenaphthene	500.000	490.901	1.8	132	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	129	0.00
11	S	Pyrene-d10	500.000	461.607	7.7	123	0.00
12	T	Fluorene	500.000	483.282	3.3	126	0.00
13	T	Phenanthrene	500.000	460.387	7.9	124	0.00
14	T	Anthracene	500.000	490.090	2.0	128	0.00
15	T	Fluoranthene	500.000	464.779	7.0	126	0.00
16	T,M	Pyrene	500.000	482.557	3.5	128	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	128	0.00
18	S	Terphenyl-d14	500.000	451.708	9.7	113	0.00
19	T	Benzo[a]anthracene	500.000	452.150	9.6	127	0.00
20	T	Chrysene	500.000	514.059	-2.8	133	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	127	0.00
22	T	Benzo[b]fluoranthene	500.000	421.482	15.7	150	0.00
23	T	Benzo(j,k)fluoranthene	500.000	475.289	4.9	123	0.00
24	T	Benzo[a]pyrene	500.000	516.622	-3.3	124	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	490.240	2.0	125	0.00
26	T	Dibenz[a,h]anthracene	500.000	493.174	1.4	125	0.00
27	T	Benzo[g,h,i]perylene	500.000	538.806	-7.8	129	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120612\
Data File : C0612013.D
Acq On : 12 Jun 2012 1:47 pm
Operator :
Sample : PAHCCV0612
Misc : SV3-25-11
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 12 14:02:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 13:51:48 2012
Response via : Initial Calibration

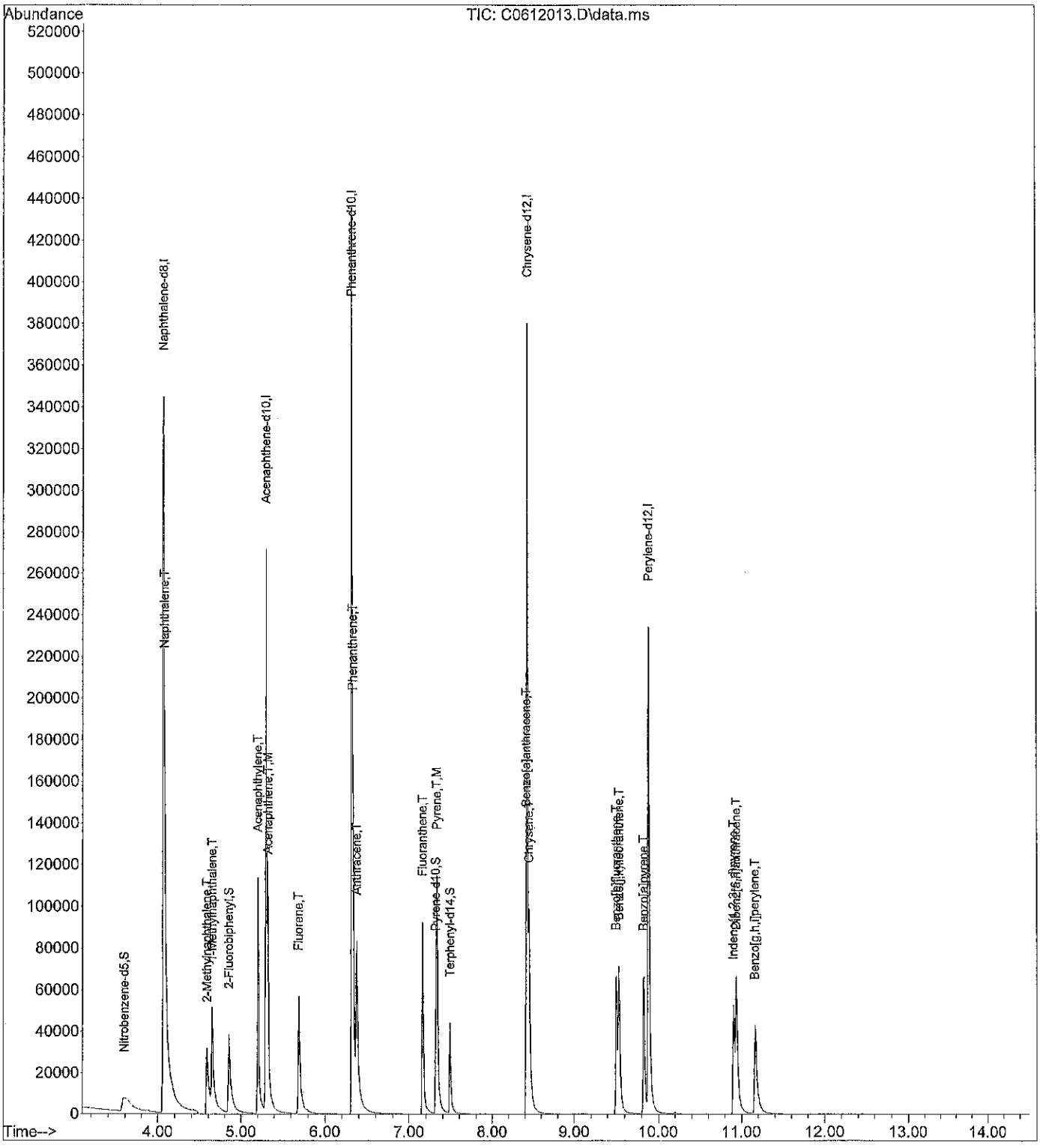
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.065	136	569654	2000.00	ppb	0.00
6) Acenaphthene-d10	5.301	164	261550	2000.00	ppb	0.00
10) Phenanthrene-d10	6.316	188	425365	2000.00	ppb	0.00
17) Chrysene-d12	8.424	240	369453	2000.00	ppb	0.00
21) Perylene-d12	9.881	264	316297	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.589	82	32245	374.12	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 37.41%			
7) 2-Fluorobiphenyl	4.848	172	84301	476.49	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.65%			
11) Pyrene-d10	7.318	212	71580	461.61	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 46.16%			
18) Terphenyl-d14	7.486	244	49182	451.71	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 45.17%			
Target Compounds						Qvalue
3) Naphthalene	4.076	128	142176	478.81	ppb	100
4) 2-Methylnaphthalene	4.582	142	58989	457.51	ppb	100
5) 1-Methylnaphthalene	4.645	142	109029	477.86	ppb	100
8) Acenaphthylene	5.201	152	132304	478.27	ppb	100
9) Acenaphthene	5.324	153	85546	490.90	ppb	100
12) Fluorene	5.686	166	86556	483.28	ppb	100
13) Phenanthrene	6.328	178	112588	460.39	ppb	100
14) Anthracene	6.371	178	134264	490.09	ppb	100
15) Fluoranthene	7.161	202	110062	464.78	ppb	100
16) Pyrene	7.330	202	121414	482.56	ppb	100
19) Benzo[a]anthracene	8.412	228	88440	452.15	ppb	100
20) Chrysene	8.447	228	112170	514.06	ppb	100
22) Benzo[b]fluoranthene	9.502	252	81868	~~358.06~~ 421.48	ppb	100
23) Benzo(j,k)fluoranthene	9.534	252	113744	475.29	ppb	100
24) Benzo[a]pyrene	9.826	252	94576	516.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.902	276	115226	490.24	ppb	100
26) Dibenz[a,h]anthracene	10.938	278	93495	493.17	ppb	100
27) Benzo[g,h,i]perylene	11.164	276	98254	538.81	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/12/12

Data Path : C:\MSDCHEM\1\DATA\C120612\
Data File : C0612013.D
Acq On : 12 Jun 2012 1:47 pm
Operator :
Sample : PAHCCV0612
Misc : SV3-25-11
ALS Vial : 3 Sample Multiplier: 1

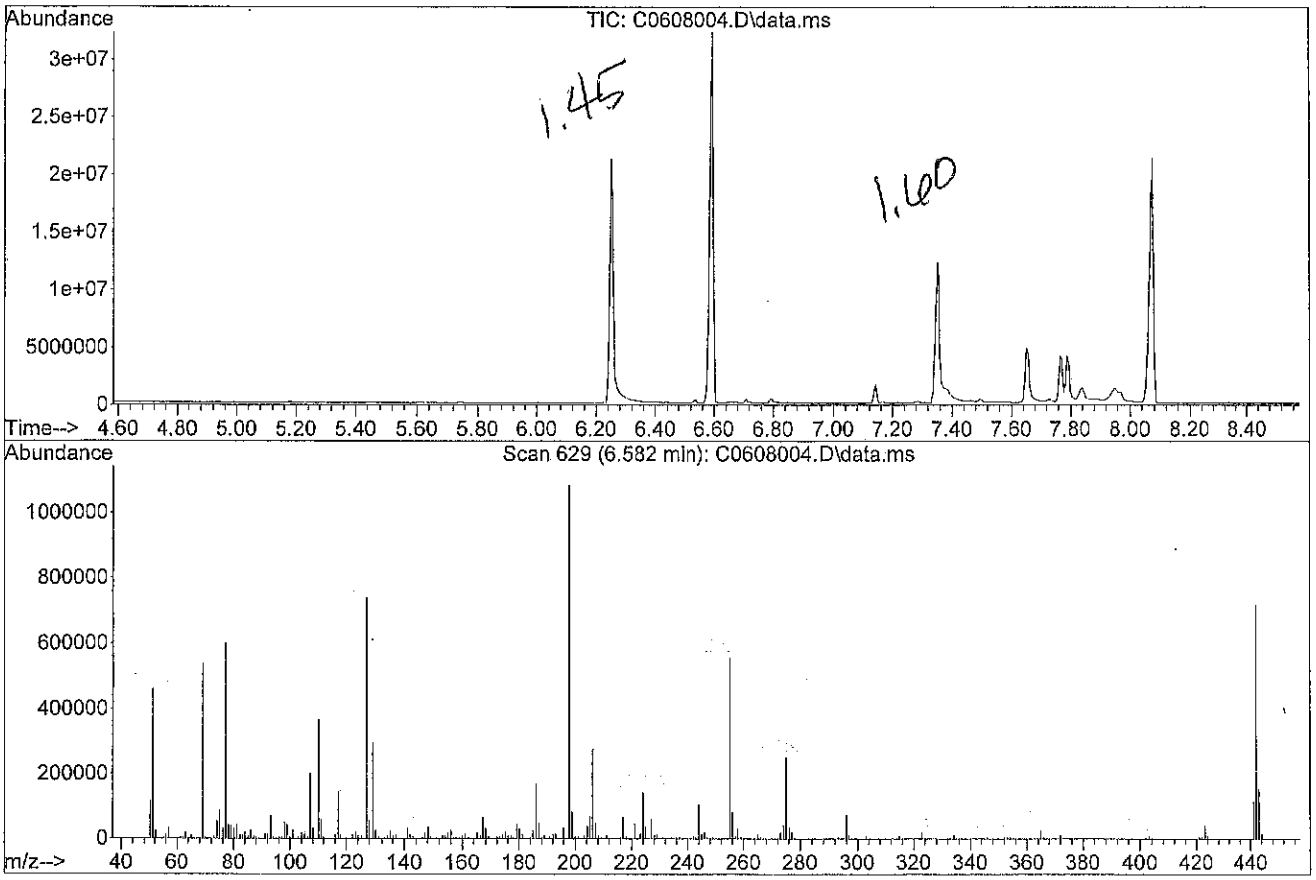
Quant Time: Jun 12 14:02:56 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 12 13:51:48 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C120608\
Data File : C0608004.D
Acq On : 8 Jun 2012 11:35
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Title : PAH'S BY SIMS
Last Update : Fri Jun 08 11:30:57 2012



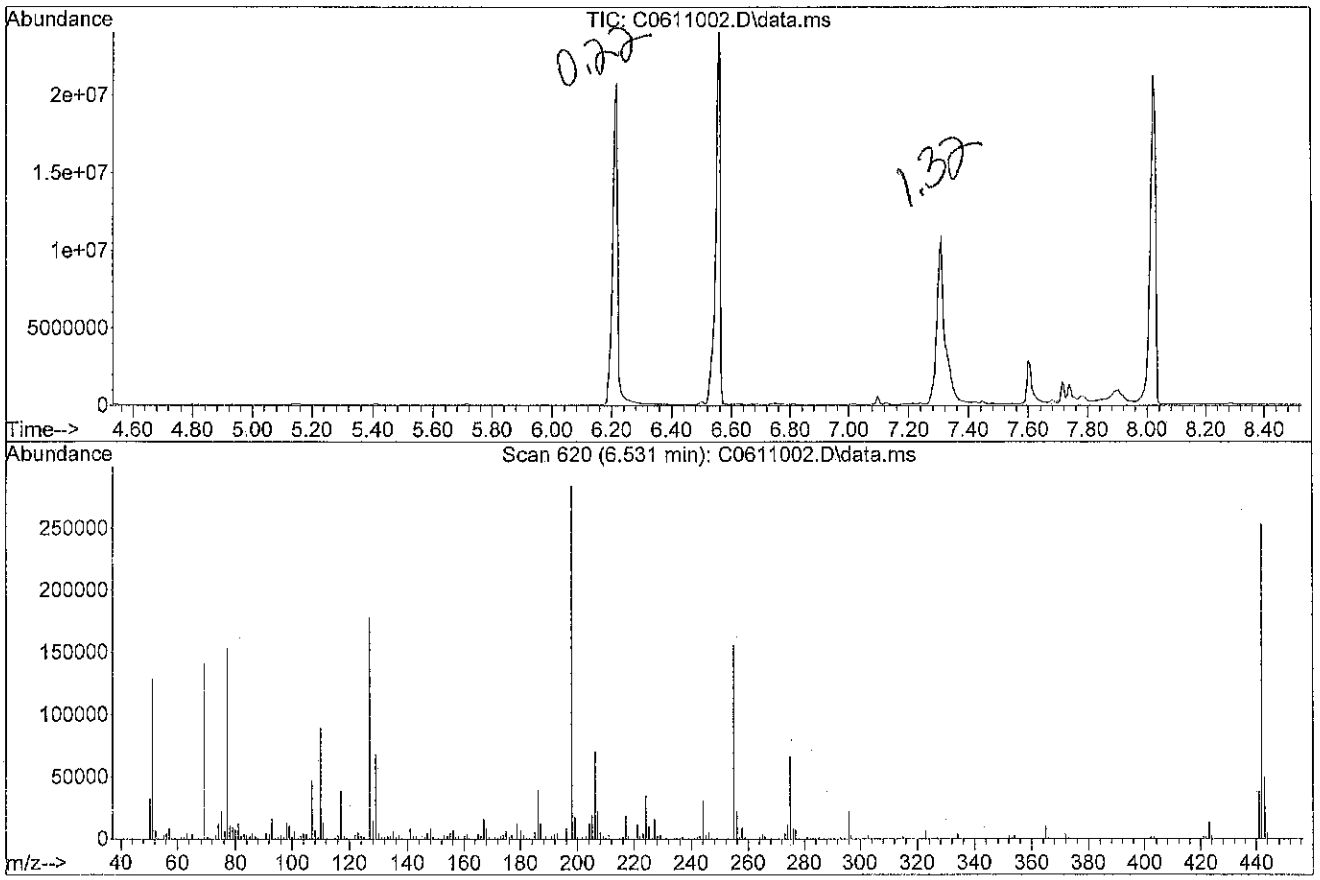
Spectrum Information: Scan 629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	42.3	460928	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	538432	PASS
70	69	0.00	2	0.7	3627	PASS
127	198	25	75	68.1	741568	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1089024	PASS
199	198	5	9	7.7	84032	PASS
275	198	10	30	23.3	253504	PASS
365	198	0.75	100	2.5	27104	PASS
441	443	0.01	100	75.4	116472	PASS
442	198	40	110	66.1	720000	PASS
443	442	15	24	21.5	154496	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C120611\
Data File : C0611002.D
Acq On : 11 Jun 2012 9:29
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0608.M
Title : PAH'S BY SIMS
Last Update : Mon Jun 11 09:08:40 2012



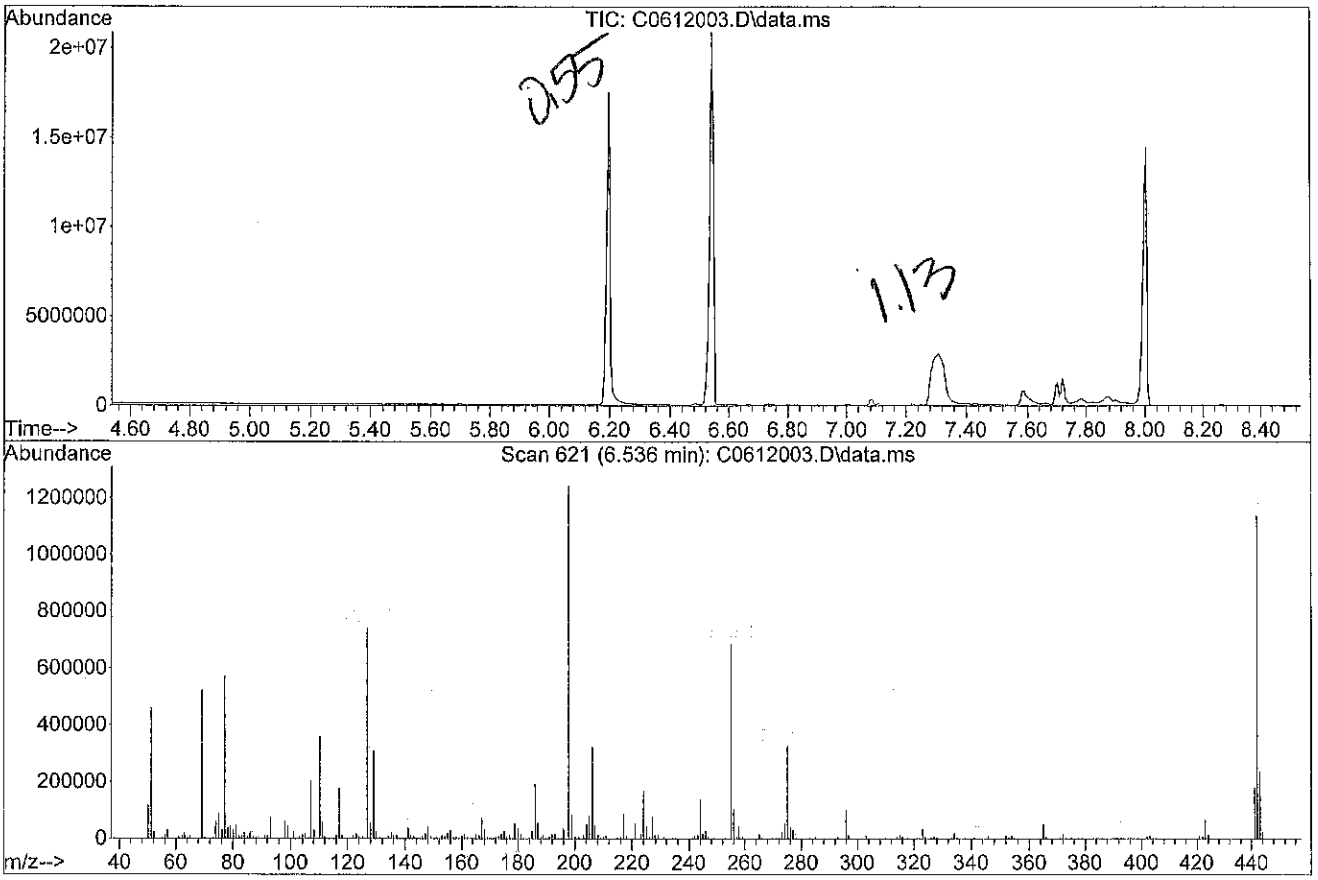
Spectrum Information: Scan 620

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	45.0	128544	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.4	140992	PASS
70	69	0.00	2	1.0	1475	PASS
127	198	25	75	62.5	178432	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	285696	PASS
199	198	5	9	6.3	18048	PASS
275	198	10	30	23.3	66640	PASS
365	198	0.75	100	3.8	10747	PASS
441	443	0.01	100	77.1	38864	PASS
442	198	40	110	88.9	254016	PASS
443	442	15	24	19.9	50424	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C120612\
Data File : C0612003.D
Acq On : 12 Jun 2012 10:11
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0612.M
Title : PAH'S BY SIMS
Last Update : Mon Jun 11 11:05:07 2012



Spectrum Information: Scan 621

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	36.9	461248	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.9	523776	PASS
70	69	0.00	2	0.9	4559	PASS
127	198	25	75	59.4	741888	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1249280	PASS
199	198	5	9	6.9	85688	PASS
275	198	10	30	26.2	326784	PASS
365	198	0.75	100	4.3	53552	PASS
441	443	0.01	100	76.4	182208	PASS
442	198	40	110	91.4	1141760	PASS
443	442	15	24	20.9	238464	PASS

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120608\C0608004.D
Tune Time : 8 Jun 2012 11:35

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120608\C0608014.D

			(PRY)			(NPT)	(ACE)	(PHN)	
						1175200	586831	957522	
						(CRY)	(PRY)		
						842923	730336		
File	Sample	Surrogate Recovery %				Internal Standard Responses			
C0608017.D									
	MB0608S1	110*	86	76	90	905563	449113	690413	
				491942		458536			
C0608018.D									
	SB0608S1	115*	85	97	95*	892391	459154	715891	
				645975		398506			
C0608019.D									
	SB0608S1 D	110*	87	96	92*	894656	457540	702053	
				636428		380256			
C0608035.D									
	06-059-06	80	70	66	70	752170	361729	594720	
				499368		397268			
C0608036.D									
	06-059-08	92	73	74	78	737333	355553	587918	
				502334		411291			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Jun 11 11:15:46 2012 COREY

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120611\C0611002.D
Tune Time : 11 Jun 2012 9:29

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120611\C0611003.D

			(PRY)			(NPT)	(ACE)	(PHN)	
						799113	409871	675931	
						(CRY)	(PRY)		
						613346	543233		
File	Sample	Surrogate Recovery %				Internal Standard Responses			
C0611016.D									
	06-059-02	113*	84	86	98*	611045	299920	489622	
				388265		292914			
C0611017.D									
	06-059-05	89	69	66	76	615485	297220	489056	
				383837		301096			
C0611018.D									
	06-059-09	103*	86	82	89	607662	296688	493520	
				424950		350082			
C0611019.D									
	06-059-07	45	42	42	42	618360	302184	490933	
				420809		335739			
C0611020.D									
	06-059-01	94*	84	78	92	567794	248363	341297	
				249393*		206199*			
C0611021.D									
	06-059-10	53	48	40	58	552996	273346	393479	
				225533*		189058*			
C0611022.D									
	06-059-04	73	58	50	70	558221	271326	410665	
				253770*		202367*			
C0611023.D									
	06-059-03	97*	75	71	92	538023	267121	381784	
				260248*		204547*			
C0611025.D									
	06-059-01	16*	16*	16*	19*	560535	270389	422758	
				325258		260136*			
C0611026.D									
	06-059-10	7*	9*	8*	11*	599208	293072	470787	
				312582		246450*			
C0611027.D									
	06-059-04	11*	11*	10*	12*	575481	278137	454518	
				338436		267103*			
C0611028.D									
	06-059-03	16*	14*	14*	16*	580543	281981	455899	
				357025		292536			
C0611029.D									
	MB0611S1	122*	102*	104	112*	518788	251511	411557	
				356630		302350			
C0611030.D									

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120612\C0612003.D
Tune Time : 12 Jun 2012 10:11

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120612\C0612013.D

	(PRY)	(NPT)	(ACE)	(PHN)
		569654	261550	425365
		(CRY)	(PRY)	
		369453	316297	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0612014.D							
	06-059-01	8*	17*	17* 18*	628084	278920	410131
			310253	255573			
C0612015.D							
	06-059-10	2*	10*	9* 11*	637797	284084	445374
			285144	232654			
C0612016.D							
	06-059-04	8*	12*	11* 12*	670867	306169	471174
			333698	265033			

(fails) - fails 12hr time check * - fails criteria

Created: Tue Jun 12 15:12:17 2012 COREY

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0612-V58.D
Sample : 06-059-01 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 14:02
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

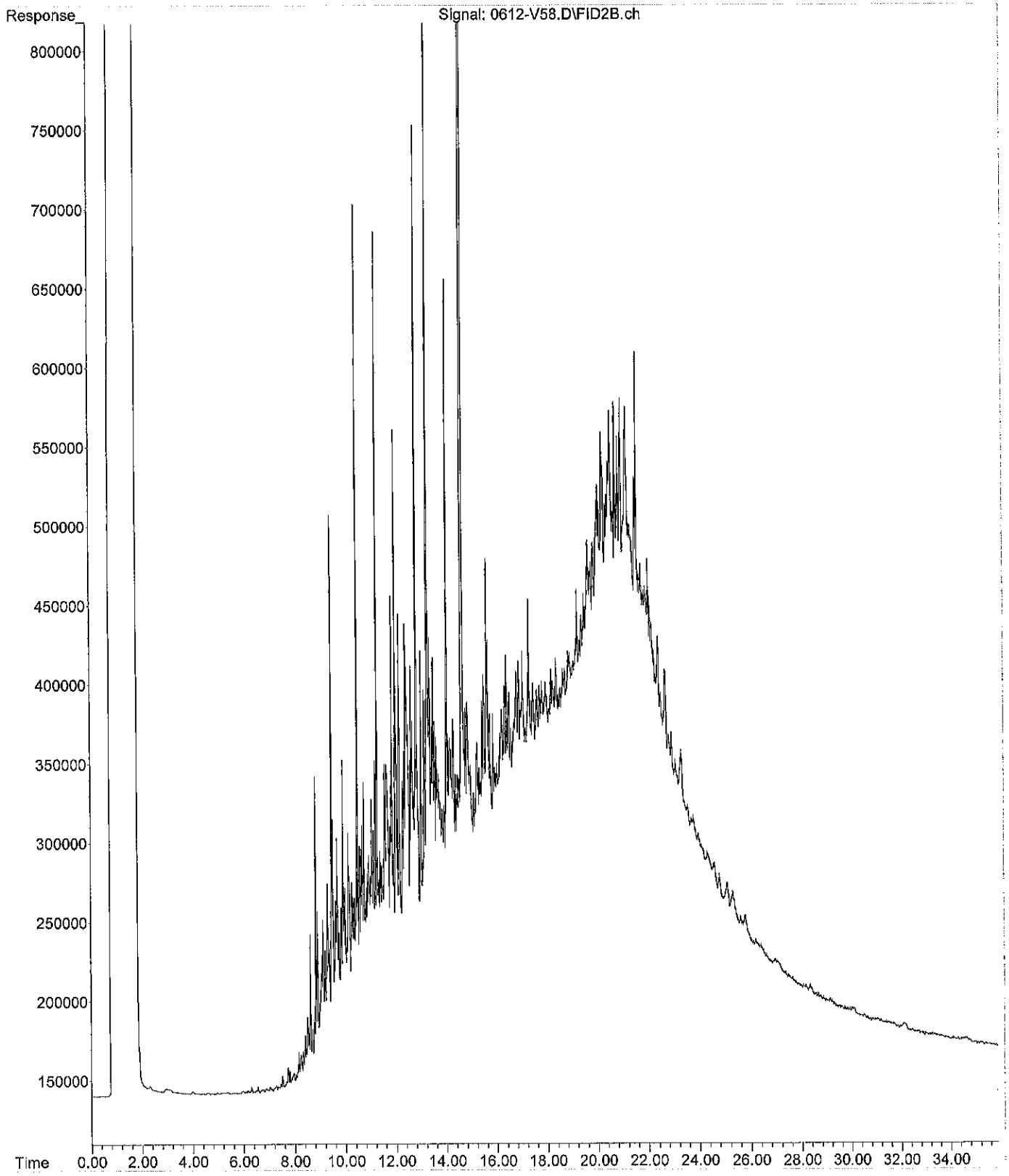
Integration File: events.e
Quant Time: Jun 12 14:39:04 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.652	135011739	45.055	PPM
Spiked Amount	50.000		Recovery =	90.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5751834	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	724921192	308.995	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	1055382039	412.735	PPM
6) H	Oil	22.000	1677060868	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	1668757167	816.224	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	896976393	363.790	PPM
9) H	Oil Combo	22.000	1495229883	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	1494553101	743.126	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	1095141575	416.856	PPM
12) H	Alaska 103 Oil (06-2...	22.000	995361308	862.734	PPM
13) H	Mineral Oil (03-14-12)	16.000	1268465902	458.203	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	2385798034	1628.205	PPM
15) H	ALKANE C9-C40	12.666	2376249076	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	879205701	329.304	PPM
17) H	Oil Acid Clean MO Com...	22.000	1346546445	690.063	PPM

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

```
File        :C:\msdchem\2\DATA\V120612.SEC\0612-V58.D
Operator    :
Acquired    : 12 Jun 2012   14:02      using AcqMethod V120607F.M
Instrument  :    VIGO
Sample Name: 06-059-01 RC
Misc Info   :
Vial Number: 58
```



Quantitation Report (Not Reviewed)

Data File : 0612-V57.D
Sample : 06-059-02 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 13:22
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 13:59:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	128793027	42.990	PPM
Spiked Amount		50.000		Recovery =	85.98%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4473087	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6516568	1.429	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	10152092	4.420	PPM
6)	H	Oil	22.000	70080191	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	75327005	19.482	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	7256897	3.346	PPM
9)	H	Oil Combo	22.000	68024971	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	73146360	19.210	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	11197475	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	39730547	24.423	PPM
13)	H	Mineral Oil (03-14-12)	16.000	19005606	1.891	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	79508628	31.253	PPM
15)	H	ALKANE C9-C40	12.666	79366718	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	8266805	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	70458027	18.938	PPM

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

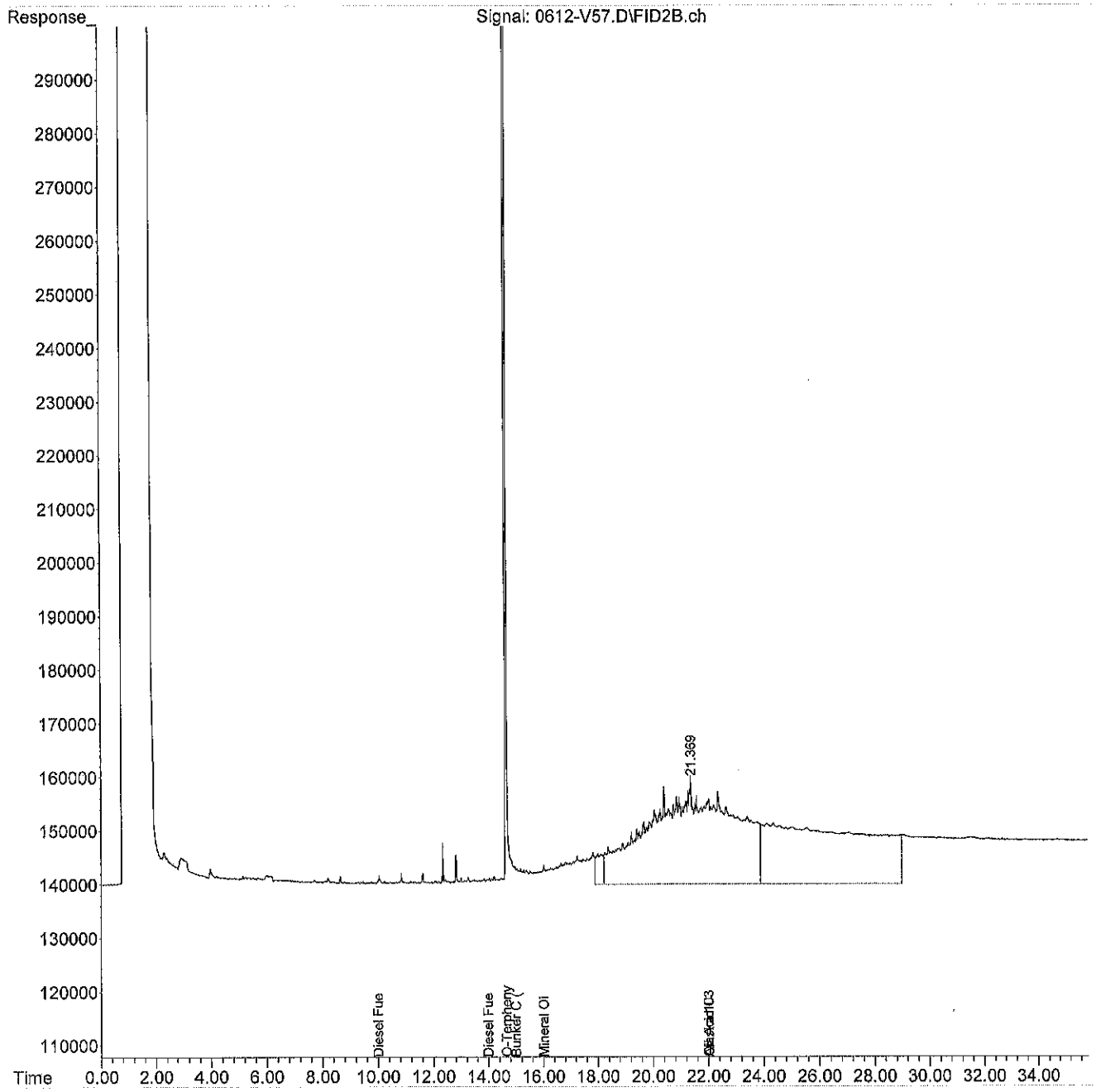
Quantitation Report (Not Reviewed)

Data File : 0612-V57.D
Sample : 06-059-02 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 13:22
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 13:59:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V56.D
Sample : 06-059-03 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 12:42
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 13:19:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	128731886	42.969	PPM
Spiked Amount		50.000		Recovery =	85.94%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4745599	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	39617005	15.600	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	76852805	30.477	PPM
6)	H	Oil	22.000	273740058	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	277815820	120.730	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	57866439	23.849	PPM
9)	H	Oil Combo	22.000	253126209	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	257996077	113.353	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	81908523	26.396	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	170108969	138.795	PPM
13)	H	Mineral Oil (03-14-12)	16.000	127559155	41.535	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	314415207	193.910	PPM
15)	H	ALKANE C9-C40	12.666	313291647	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	72655483	23.350	PPM
17)	H	Oil Acid Clean MO Com...	22.000	240265274	108.243	PPM

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

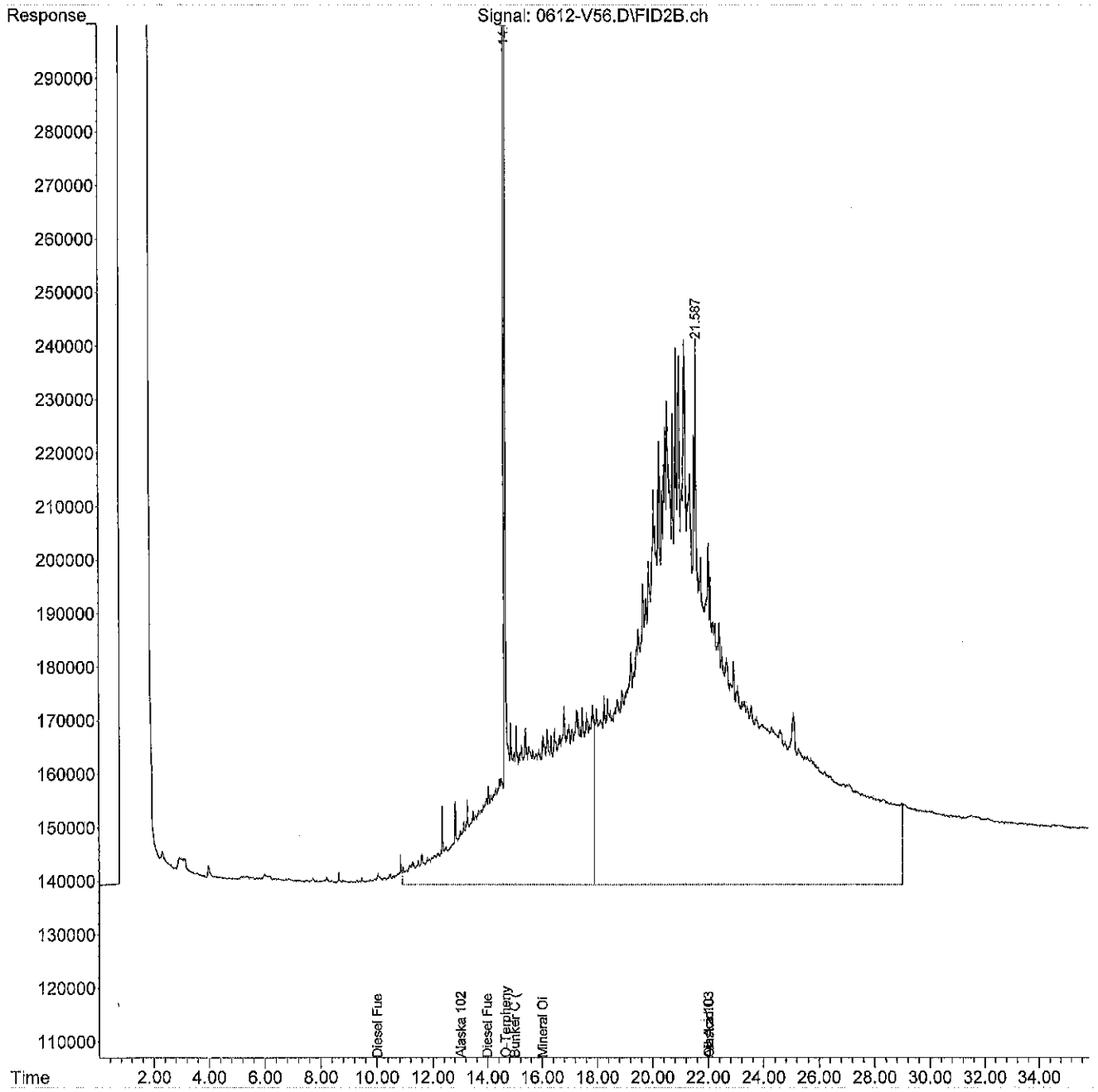
Quantitation Report (Not Reviewed)

Data File : 0612-V56.D
Sample : 06-059-03 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 12:42
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 13:19:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V70.D
Sample : 06-059-04

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 23:24
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

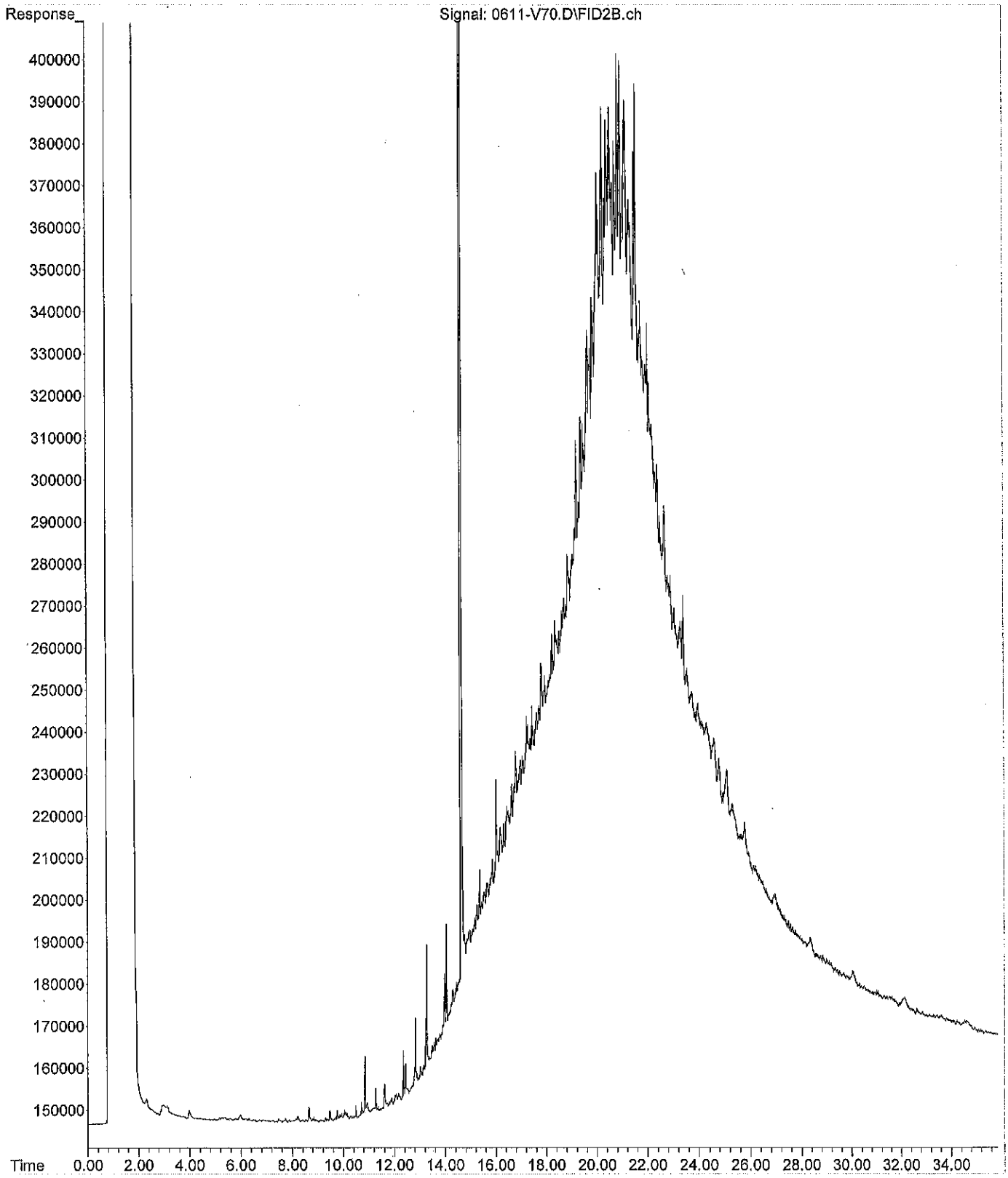
Integration File: events.e
Quant Time: Jun 12 00:00:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	148017548	49.375	PPM
Spiked Amount		50.000		Recovery =	98.75%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4381379	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	64624041	26.306	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	175114159	68.862	PPM
6)	H	Oil	22.000	856201696	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	870526078	417.095	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	115340870	47.133	PPM
9)	H	Oil Combo	22.000	805940001	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	818220384	398.673	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	191903214	68.783	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	553178996	474.837	PPM
13)	H	Mineral Oil (03-14-12)	16.000	360599941	126.644	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	929689611	619.947	PPM
15)	H	ALKANE C9-C40	12.666	923843802	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	166799423	59.062	PPM
17)	H	Oil Acid Clean MO Com...	22.000	762661379	382.984	PPM

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

```
File         :C:\msdchem\2\DATA\V120611.SEC\0611-V70.D
Operator     :
Acquired     : 11 Jun 2012   23:24      using AcqMethod V120607F.M
Instrument   :    VIGO
Sample Name: 06-059-04
Misc Info    :
Vial Number: 70
```



Quantitation Report (Not Reviewed)

Data File : 0612-V55.D
Sample : 06-059-05 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 12:03
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 12:39:08 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.653	116935213	39.051	PPM
Spiked Amount		50.000		Recovery =	78.10%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4184703	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	7520911	1.859	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	15913700	6.671	PPM
6)	H	Oil	22.000	86390464	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	90437230	27.038	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	10578126	4.692	PPM
9)	H	Oil Combo	22.000	82238225	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	86063361	25.789	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	17537064	1.589	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	52309290	35.458	PPM
13)	H	Mineral Oil (03-14-12)	16.000	32005450	6.639	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	95871203	42.583	PPM
15)	H	ALKANE C9-C40	12.666	95785411	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	14407939	1.255	PPM
17)	H	Oil Acid Clean MO Com...	22.000	81092838	24.531	PPM

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

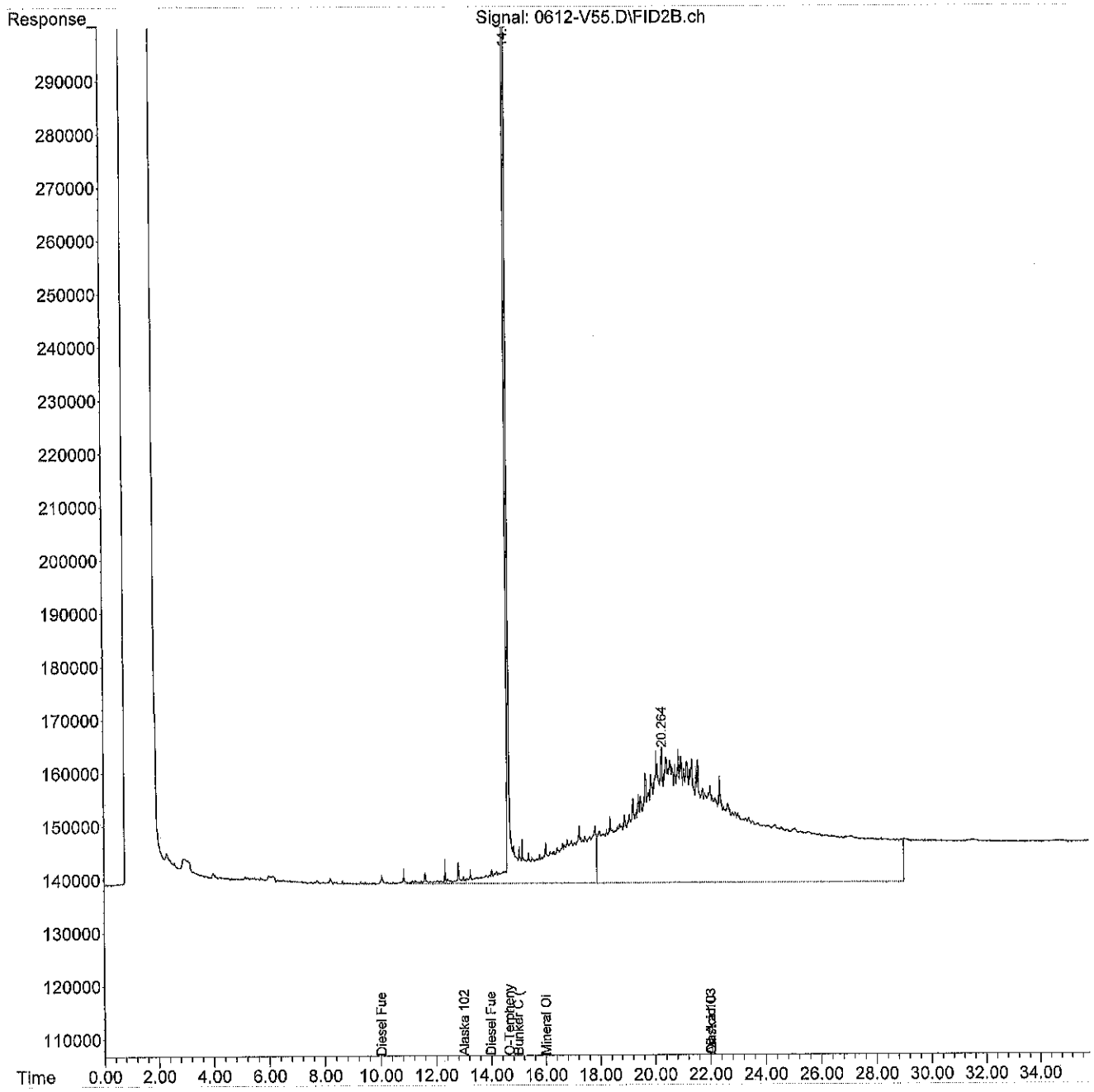
Quantitation Report (Not Reviewed)

Data File : 0612-V55.D
Sample : 06-059-05 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 12:03
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 12:39:08 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V52.D
Sample : 06-059-06 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 10:02
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 10:39:03 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	132910053	44.357	PPM
Spiked Amount		50.000		Recovery =	88.71%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4348724	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6186841	1.287	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	7440101	3.361	PPM
6)	H	Oil	22.000	47867038	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	53133564	8.385	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	6192614	2.915	PPM
9)	H	Oil Combo	22.000	46458817	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	51769883	8.323	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	7922772	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	22255242	9.093	PPM
13)	H	Mineral Oil (03-14-12)	16.000	9553768	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	57064961	15.712	PPM
15)	H	ALKANE C9-C40	12.666	56875189	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	5758234	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	50603674	8.496	PPM

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

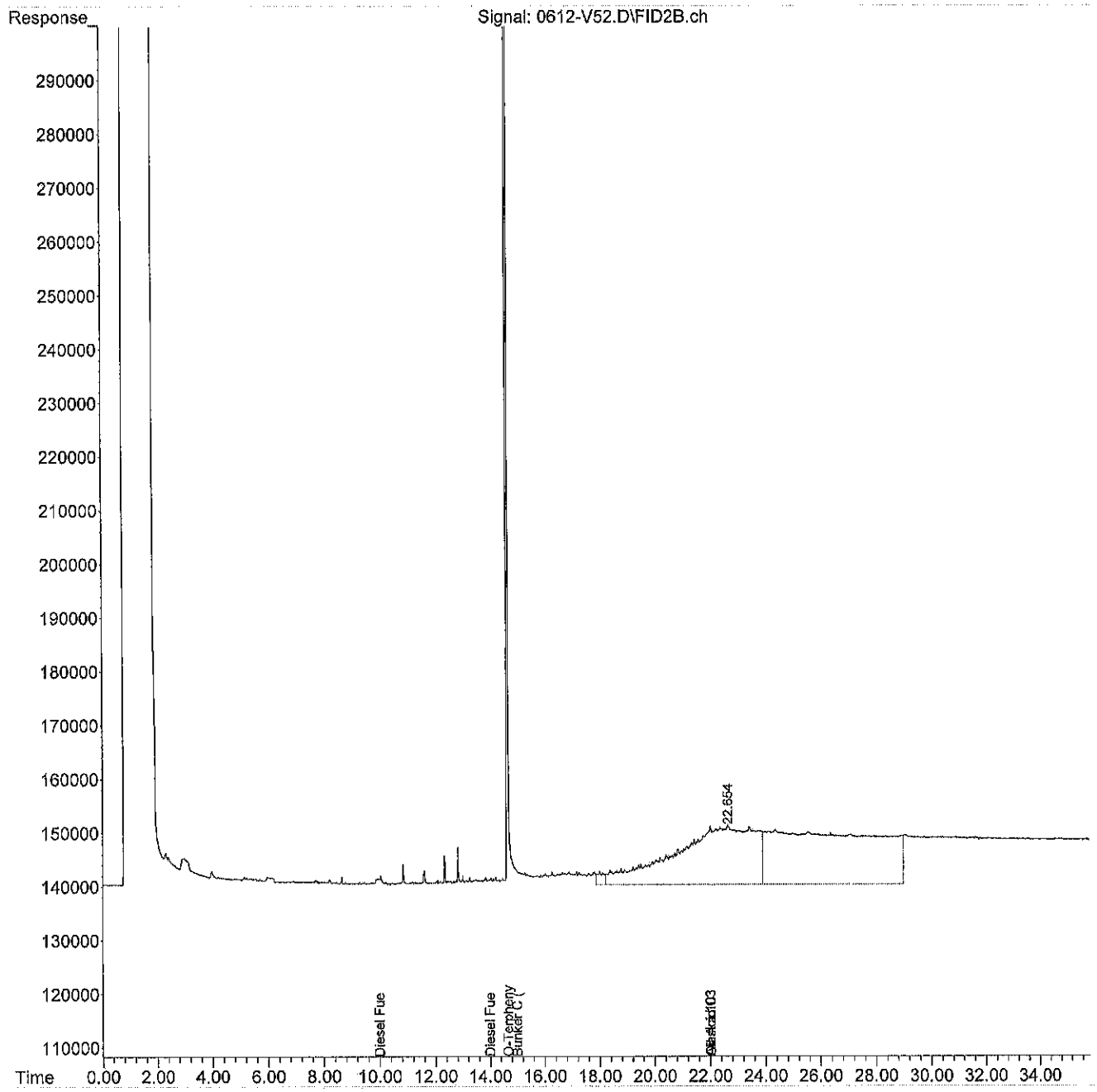
Quantitation Report (Not Reviewed)

Data File : 0612-V52.D
Sample : 06-059-06 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 10:02
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 10:39:03 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V63.D
Sample : 06-059-07

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 18:43
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 19:19:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.656	130640316	43.603	PPM
Spiked Amount	50.000		Recovery =	87.21%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	3210841	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	6759161	1.532	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	15943551	6.683	PPM
6) H	Oil	22.000	88301460	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	91564024	27.601	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	11461477	5.050	PPM
9) H	Oil Combo	22.000	82785815	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	85942020	25.727	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	17403344	1.538	PPM
12) H	Alaska 103 Oil (06-2...	22.000	55517555	38.272	PPM
13) H	Mineral Oil (03-14-12)	16.000	32950506	6.984	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	96737264	43.182	PPM
15) H	ALKANE C9-C40	12.666	96451394	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	15089267	1.513	PPM
17) H	Oil Acid Clean MO Com...	22.000	81759109	24.881	PPM

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

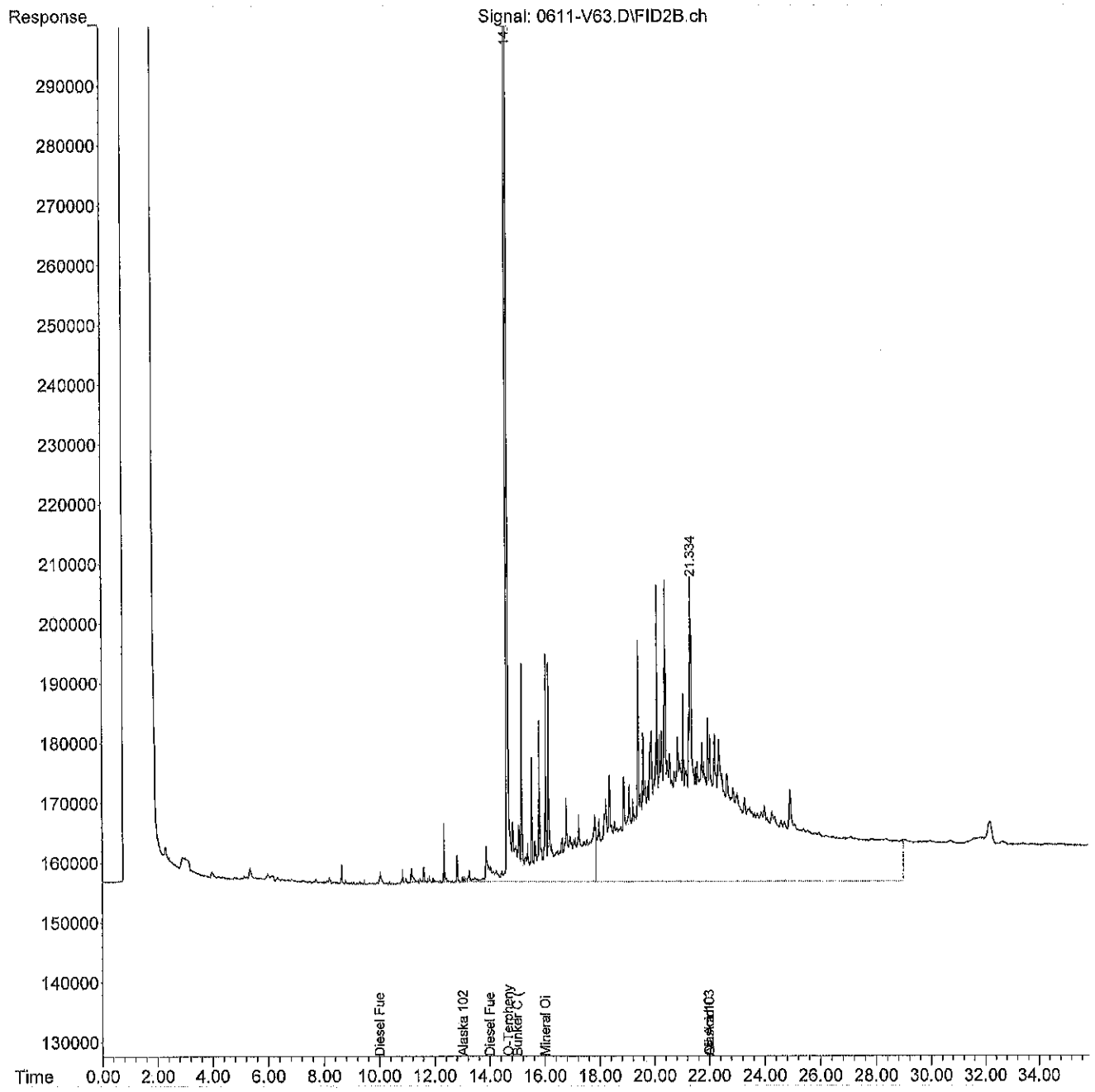
Quantitation Report (Not Reviewed)

Data File : 0611-V63.D
Sample : 06-059-07

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 18:43
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 19:19:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V53.D
Sample : 06-059-08 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 10:43
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 11:19:14 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	134899621	45.018	PPM
Spiked Amount		50.000		Recovery =	90.04%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3808094	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	3299895	0.051	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	4165195	2.082	PPM
6)	H	Oil	22.000	44602845	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	49191703	6.414	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	3017436	1.629	PPM
9)	H	Oil Combo	22.000	43858650	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	48376609	6.595	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	4627781	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	22799630	9.571	PPM
13)	H	Mineral Oil (03-14-12)	16.000	7926238	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	50656730	11.275	PPM
15)	H	ALKANE C9-C40	12.666	50511489	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	3584091	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	47308901	6.763	PPM

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

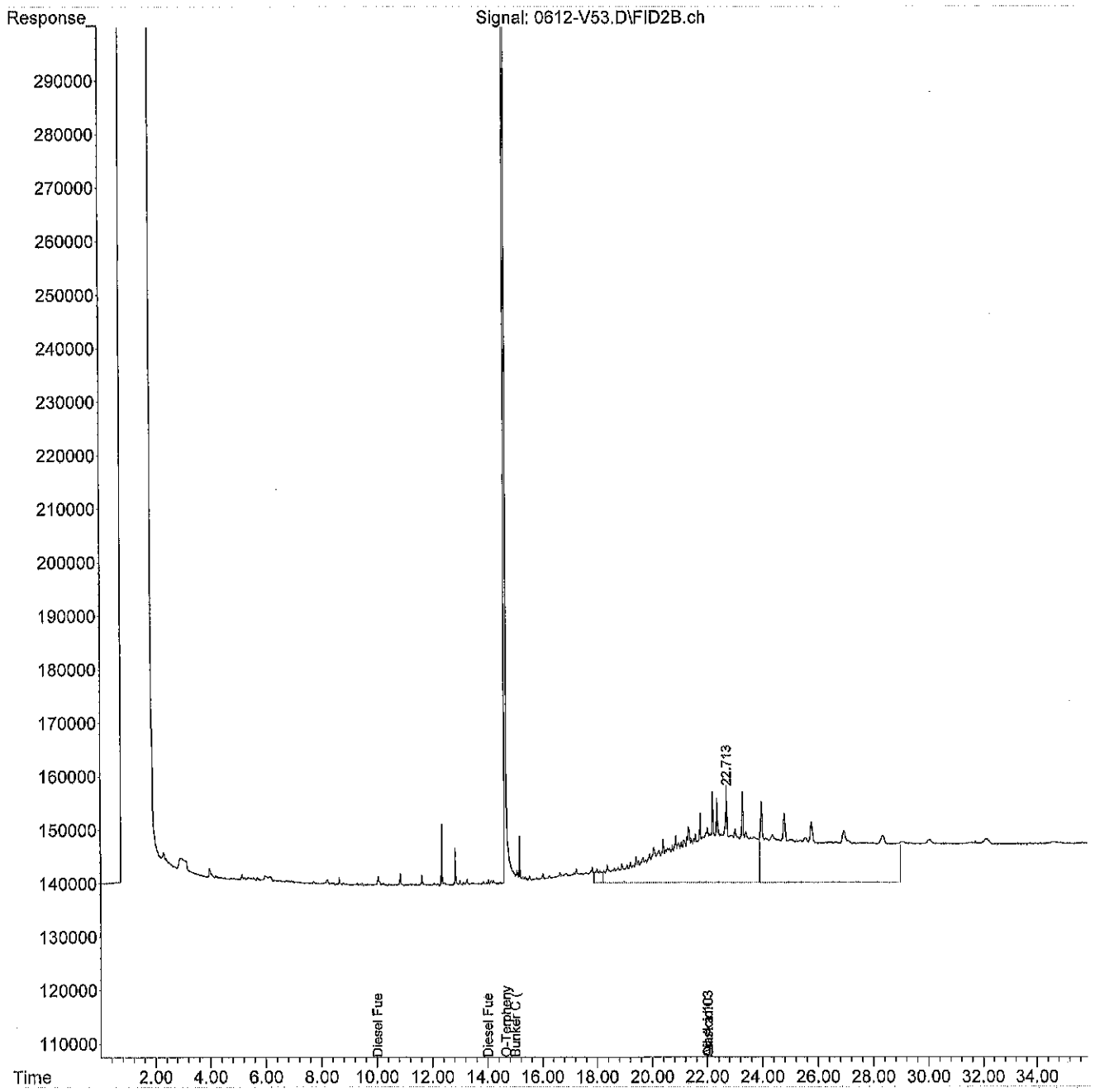
Quantitation Report (Not Reviewed)

Data File : 0612-V53.D
Sample : 06-059-08 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 10:43
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 11:19:14 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V54.D
Sample : 06-059-09 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 11:23
Operator :
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 11:59:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	127630777	42.603	PPM
Spiked Amount		50.000		Recovery =	85.21%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4892710	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6771287	1.538	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	6851665	3.131	PPM
6)	H	Oil	22.000	35934978	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	40086762	1.862	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	6045875	2.856	PPM
9)	H	Oil Combo	22.000	34927668	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	39158866	1.900	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	7280436	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	16332257	3.897	PPM
13)	H	Mineral Oil (03-14-12)	16.000	7020529	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	44521577	7.026	PPM
15)	H	ALKANE C9-C40	12.666	44993354	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	4664253	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	38406062	2.081	PPM

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

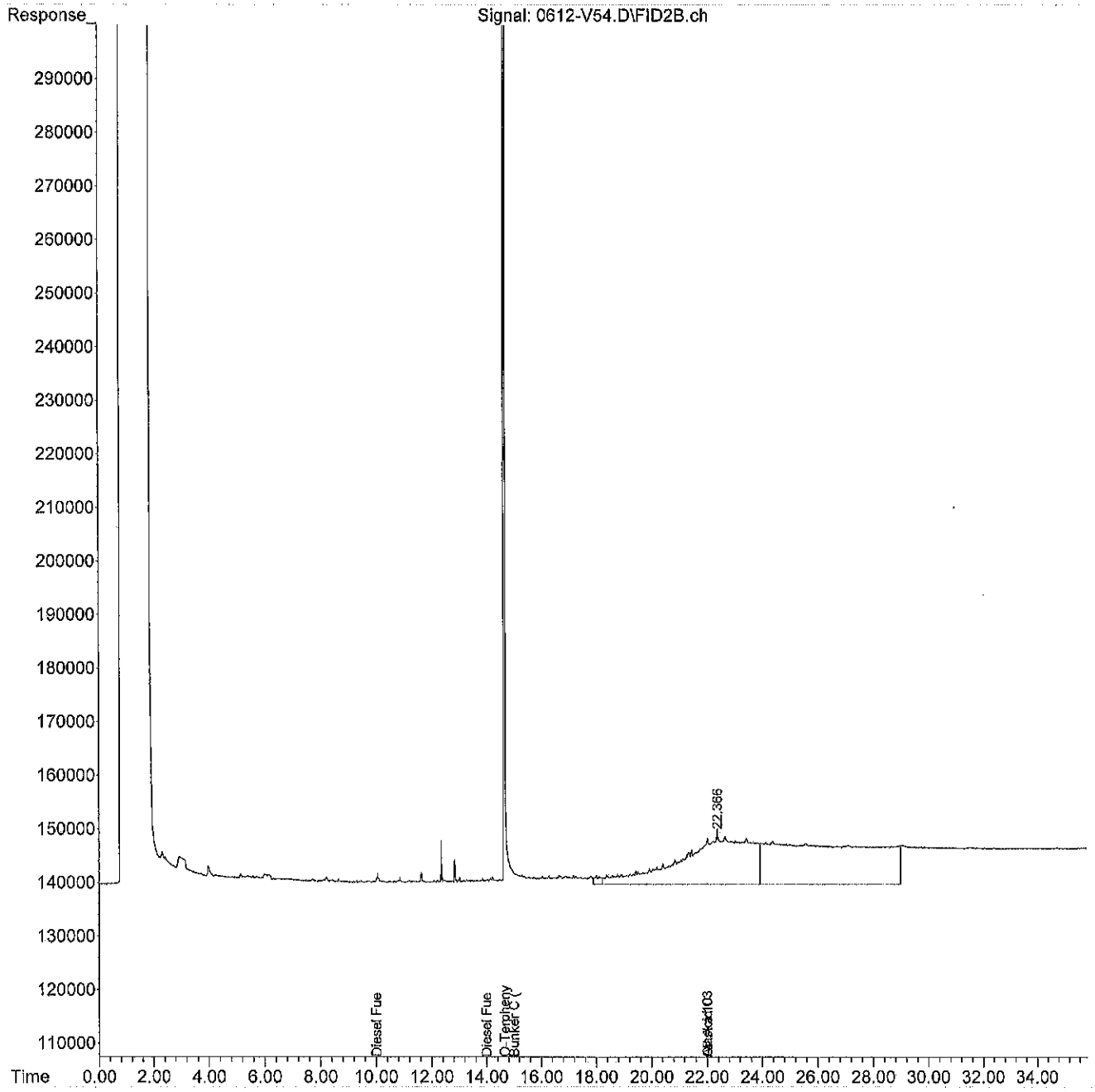
Quantitation Report (Not Reviewed)

Data File : 0612-V54.D
Sample : 06-059-09 RC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 11:23
Operator :
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 11:59:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V66.D
Sample : 06-059-10

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 20:43
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

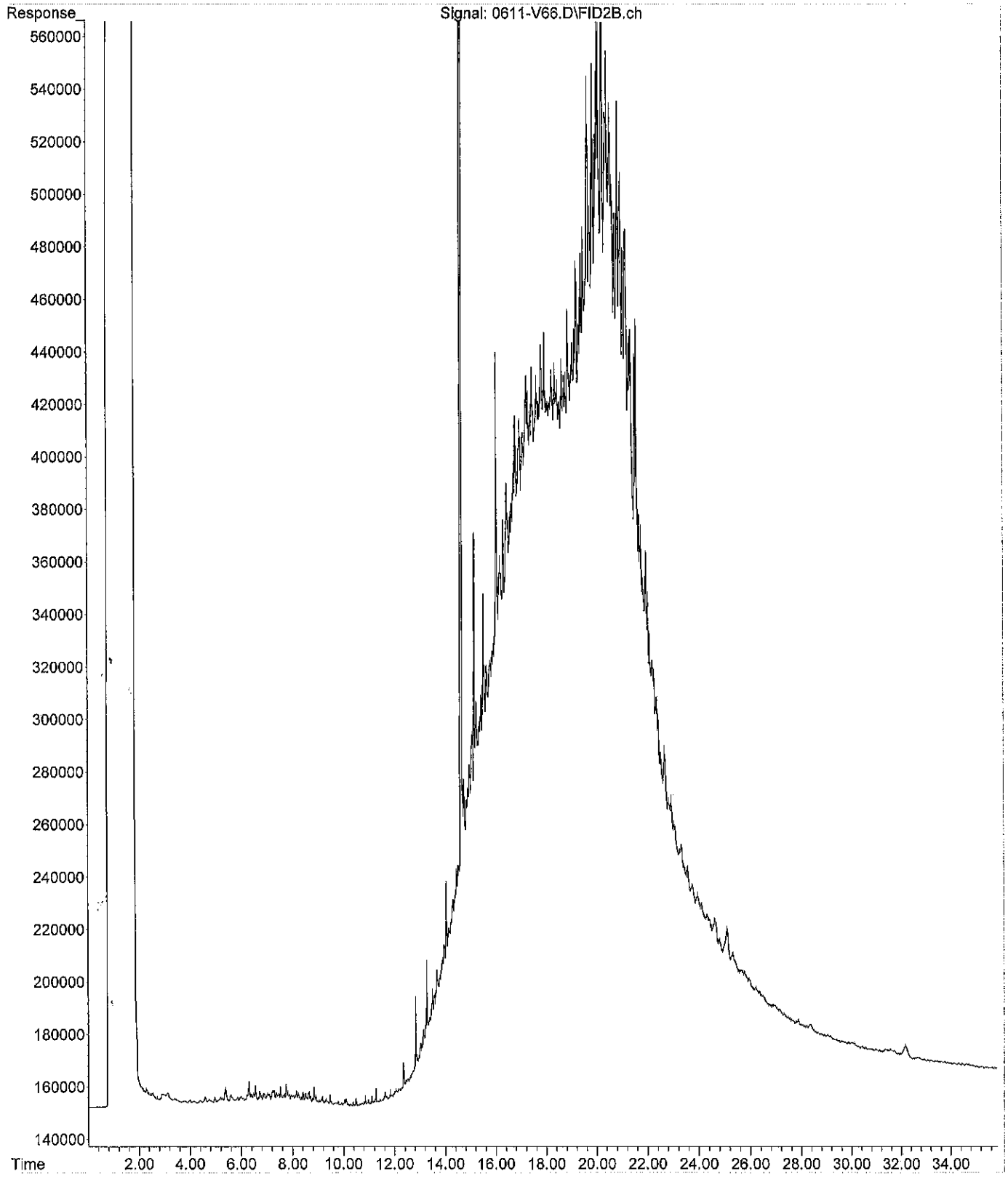
Integration File: events.e
Quant Time: Jun 11 21:19:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.656	137529586	45.892	PPM
Spiked Amount		50.000		Recovery =	91.78%	
Target Compounds						
2)		1-Chlorooctadecane (...	16.047	2562037	1.146	PPM
3)	H	Gasoline	3.500	7670528	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	155210515	65.088	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	476853616	186.735	PPM
6)	H	Oil	22.000	1341454227	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	1324877438	644.278	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	307223055	124.869	PPM
9)	H	Oil Combo	22.000	1192821199	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1169376199	577.515	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	520384180	195.367	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	815746199	705.169	PPM
13)	H	Mineral Oil (03-14-12)	16.000	864600062	310.708	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1474460793	997.164	PPM
15)	H	ALKANE C9-C40	12.666	1472476489	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	455815890	168.697	PPM
17)	H	Oil Acid Clean MO Com...	22.000	1011003290	513.593	PPM

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

```
File        :C:\msdchem\2\DATA\V120611.SEC\0611-V66.D
Operator    :
Acquired    : 11 Jun 2012   20:43      using AcqMethod V120607F.M
Instrument  :    VIGO
Sample Name: 06-059-10
Misc Info   :
Vial Number: 66
```



Quantitation Report (Not Reviewed)

Data File : 0611-V62.D
Sample : MB0611S2

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 18:02
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 18:38:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.659	156430204	52.170	PPM
Spiked Amount	50.000		Recovery =	104.34%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	3521844	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	3222602	0.018	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	2861328	1.572	PPM
6) H	Oil	22.000	28769131	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	32636219	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2632899	1.473	PPM
9) H	Oil Combo	22.000	28339269	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	32233206	N.D.	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	3044173	N.D.	PPM
12) H	Alaska 103 Oil (06-2...	22.000	12265487	0.330	PPM
13) H	Mineral Oil (03-14-12)	16.000	2995431	N.D.	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	34230307	N.D.	PPM
15) H	ALKANE C9-C40	12.666	34184816	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	2221387	N.D.	PPM
17) H	Oil Acid Clean MO Com...	22.000	32024511	N.D.	PPM

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

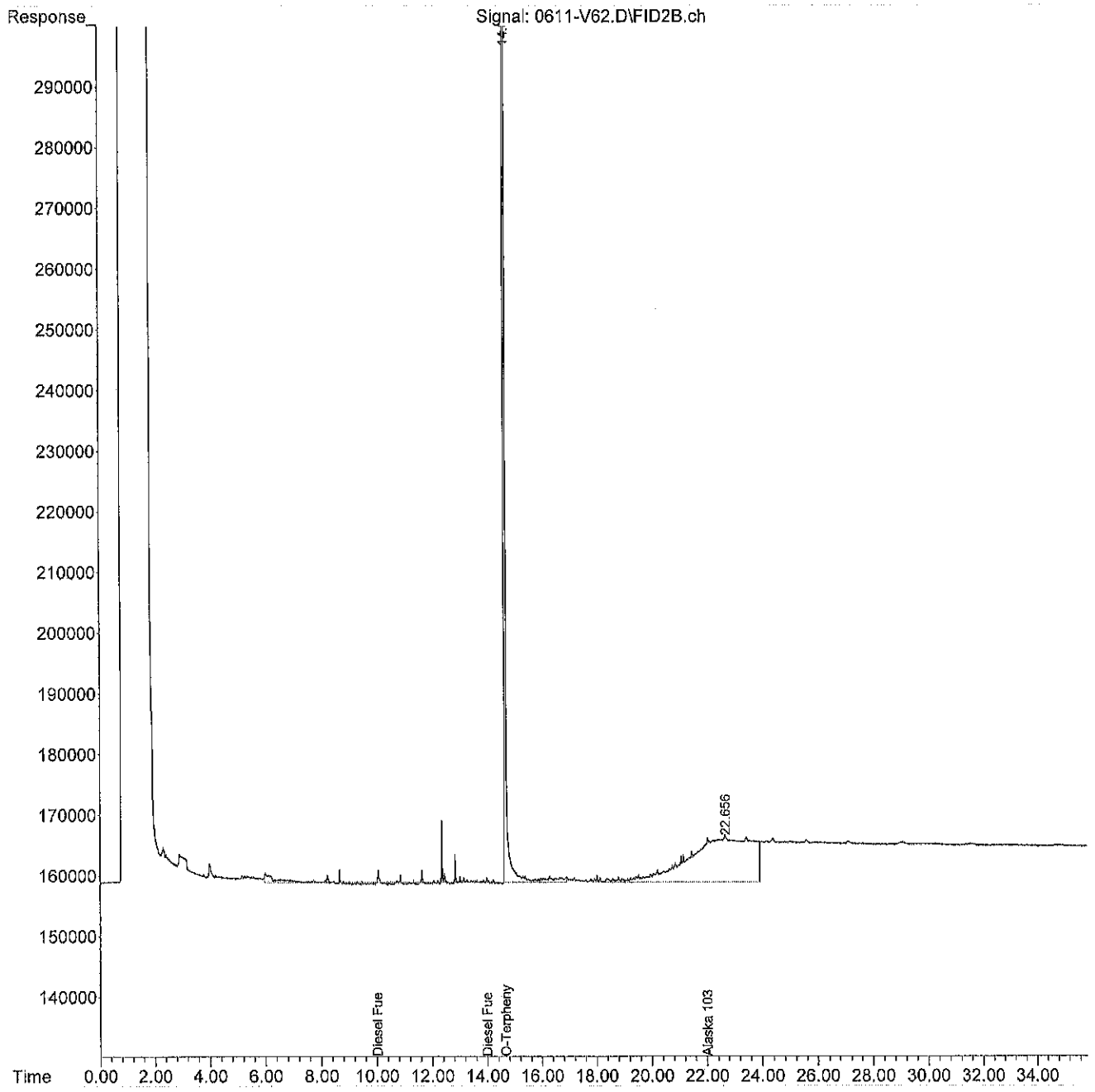
Quantitation Report (Not Reviewed)

Data File : 0611-V62.D
Sample : MB0611S2

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 18:02
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 18:38:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V68.D
Sample : 06-059-10 DUP

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 22:04
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 22:40:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.657	151827615	50.641	PPM
Spiked Amount		50.000		Recovery =	101.28%	
Target Compounds						
2)		1-Chlorooctadecane (...	16.047	2359705	1.072	PPM
3)	H	Gasoline	3.500	10083503	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	139600843	58.405	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	410595602	160.852	PPM
6)	H	Oil	22.000	1159071900	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	1147168724	555.421	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	267359099	108.719	PPM
9)	H	Oil Combo	22.000	1032900130	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1015207643	498.998	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	447664477	167.344	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	702819148	606.106	PPM
13)	H	Mineral Oil (03-14-12)	16.000	736616197	263.968	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1280460688	862.832	PPM
15)	H	ALKANE C9-C40	12.666	1279375504	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	388080112	143.002	PPM
17)	H	Oil Acid Clean MO Com...	22.000	881531266	445.501	PPM

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

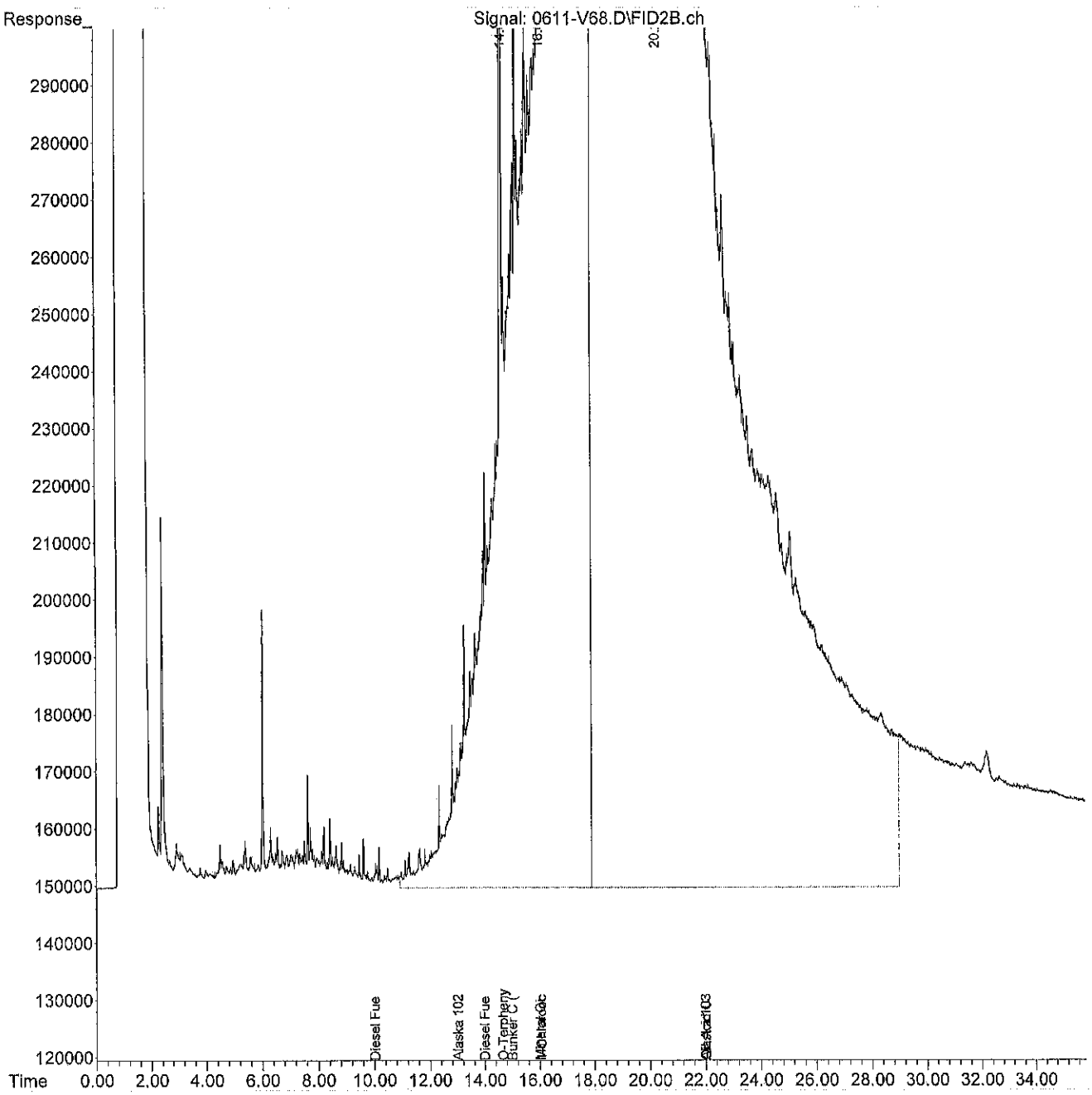
Quantitation Report (Not Reviewed)

Data File : 0611-V68.D
Sample : 06-059-10 DUP

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 22:04
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 22:40:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V58.D
Sample : BC-CCV0611R-V3

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5340292	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	56194701	22.697	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	77239318	30.628	PPM
6)	H	Oil	22.000	135394860	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	140081751	51.861	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66246556	27.244	PPM
9)	H	Oil Combo	22.000	122943276	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	128087748	47.192	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	80092404	25.696	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	71165240	51.999	PPM
13)	H	Mineral Oil (03-14-12)	16.000	85271850	26.092	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	193163162	109.951	PPM
15)	H	ALKANE C9-C40	12.666	192745830	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	59170531	18.235	PPM
17)	H	Oil Acid Clean MO Com...	22.000	117747437	43.808	PPM

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

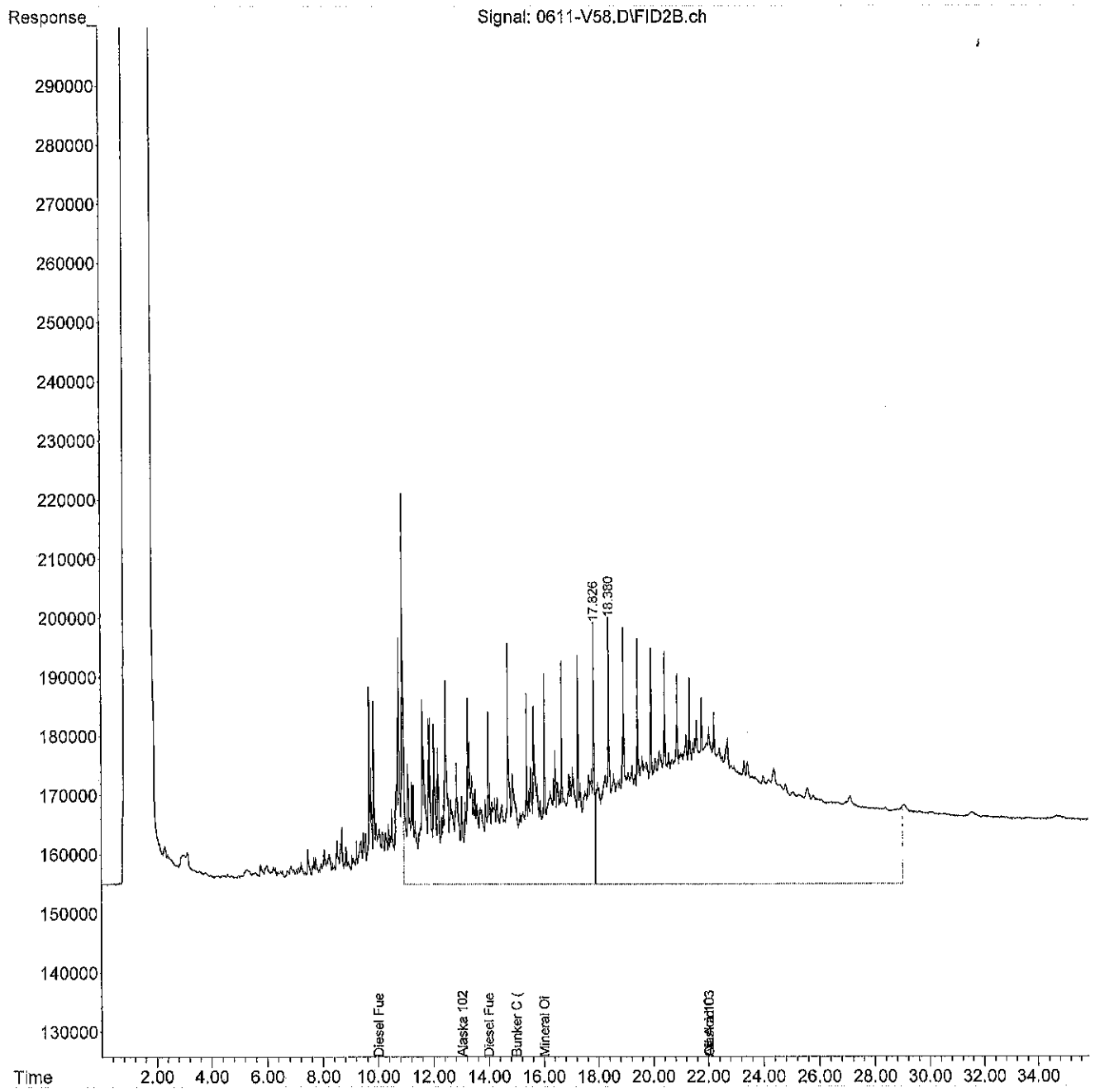
Quantitation Report (Not Reviewed)

Data File : 0611-V58.D
Sample : BC-CCV0611R-V3

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 15:01
Operator :
Misc : SV2-100-22
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 15:37:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V65.D
Sample : BC-CCV0611R-V4

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 20:03
Operator :
Misc : SV2-100-22
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 20:39:41 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4845608	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	54284326	21.879	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	74673026	29.625	PPM
6)	H	Oil	22.000	112801507	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	114825146	39.232	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	64149237	26.395	PPM
9)	H	Oil Combo	22.000	100808527	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	103284783	34.560	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	77324461	24.629	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	60819245	42.923	PPM
13)	H	Mineral Oil (03-14-12)	16.000	81642975	24.767	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	166723154	91.643	PPM
15)	H	ALKANE C9-C40	12.666	166851660	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	57234779	17.501	PPM
17)	H	Oil Acid Clean MO Com...	22.000	93379229	30.993	PPM

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

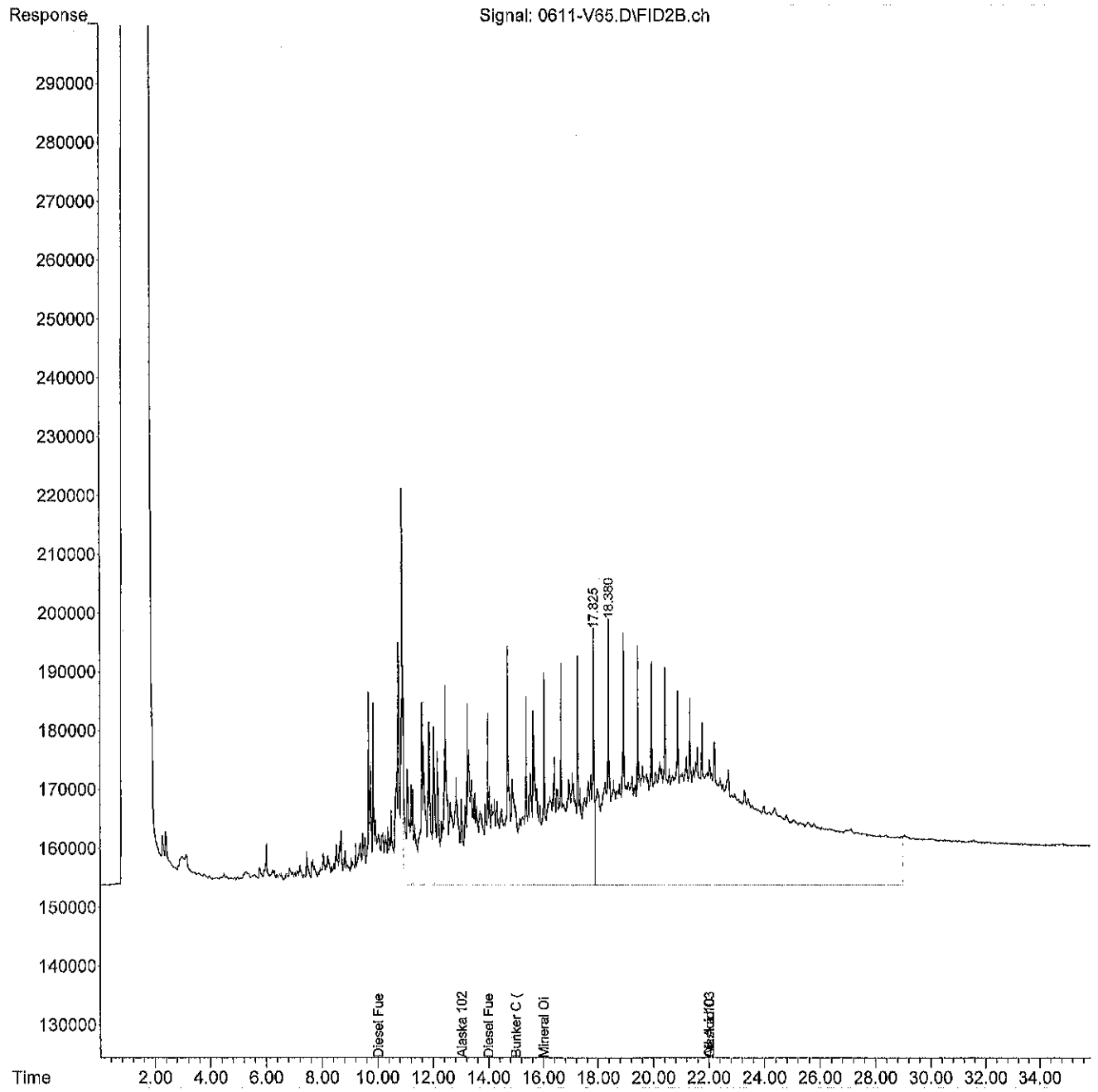
Quantitation Report (Not Reviewed)

Data File : 0611-V65.D
Sample : BC-CCV0611R-V4

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 11 Jun 2012 20:03
Operator :
Misc : SV2-100-22
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 11 20:39:41 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0611-V73.D
Sample : BC-CCV0611R-V5

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 1:24
Operator :
Misc : SV2-100-22
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 02:01:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5081083	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	56305259	22.744	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	77258017	30.635	PPM
6)	H	Oil	22.000	130289114	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	134153305	48.896	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66346947	27.285	PPM
9)	H	Oil Combo	22.000	117996574	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	122331411	44.260	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	80019577	25.668	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	69565445	50.595	PPM
13)	H	Mineral Oil (03-14-12)	16.000	85491922	26.172	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	187651760	106.134	PPM
15)	H	ALKANE C9-C40	12.666	187322524	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	59512293	18.365	PPM
17)	H	Oil Acid Clean MO Com...	22.000	112067302	40.821	PPM

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

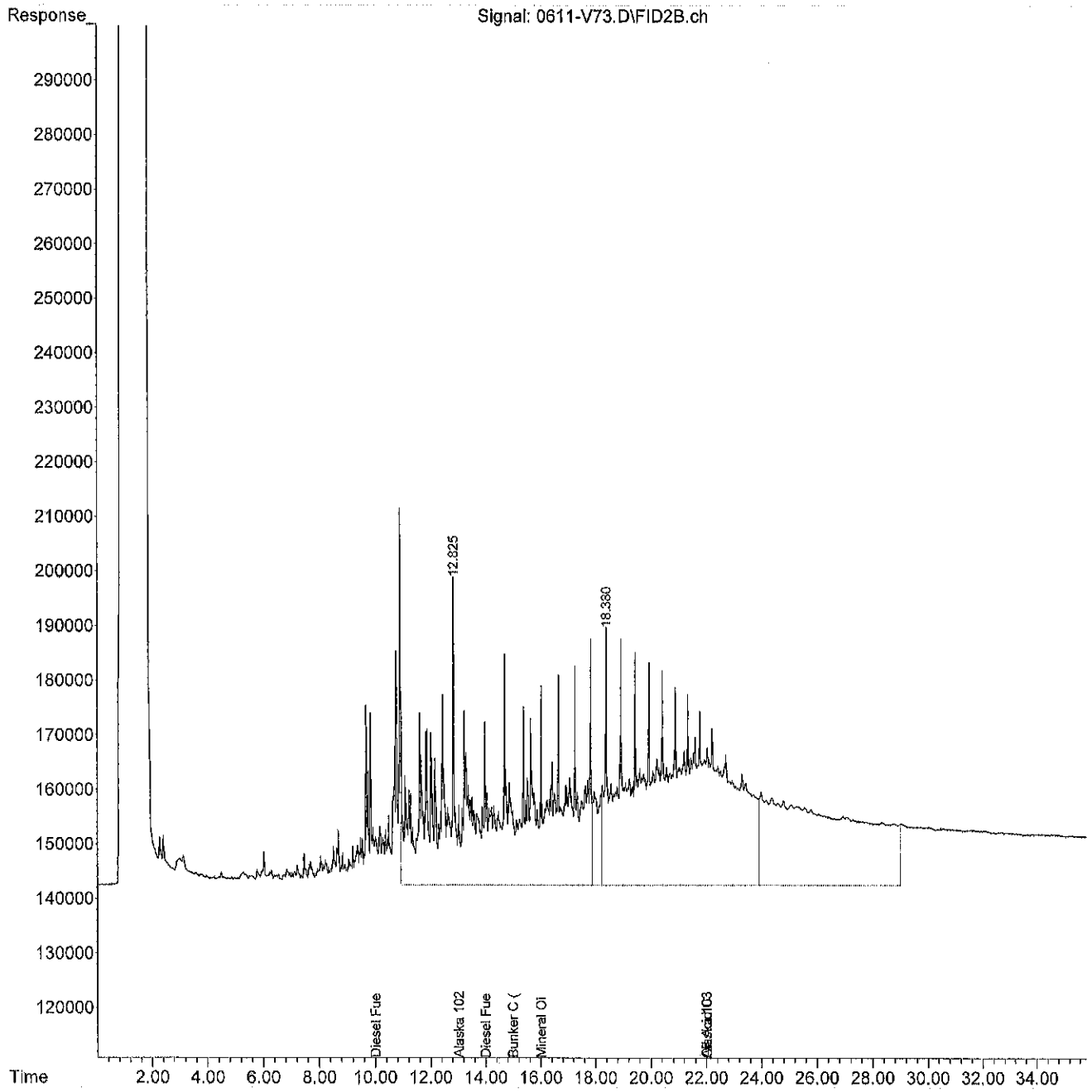
Quantitation Report (Not Reviewed)

Data File : 0611-V73.D
Sample : BC-CCV0611R-V5

Data Path : C:\msdchem\2\DATA\V120611.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 1:24
Operator :
Misc : SV2-100-22
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 02:01:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V51.D
Sample : BC-CCV0612R-V1

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 9:12
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 09:48:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5745214	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	55698812	22.485	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	75887653	30.100	PPM
6)	H	Oil	22.000	126793683	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	130869094	47.254	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	65277884	26.852	PPM
9)	H	Oil Combo	22.000	114683122	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	119275303	42.703	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	78640335	25.136	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	66645758	48.034	PPM
13)	H	Mineral Oil (03-14-12)	16.000	83299260	25.371	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	183485097	103.249	PPM
15)	H	ALKANE C9-C40	12.666	183356471	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	58061793	17.814	PPM
17)	H	Oil Acid Clean MO Com...	22.000	109301131	39.366	PPM

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

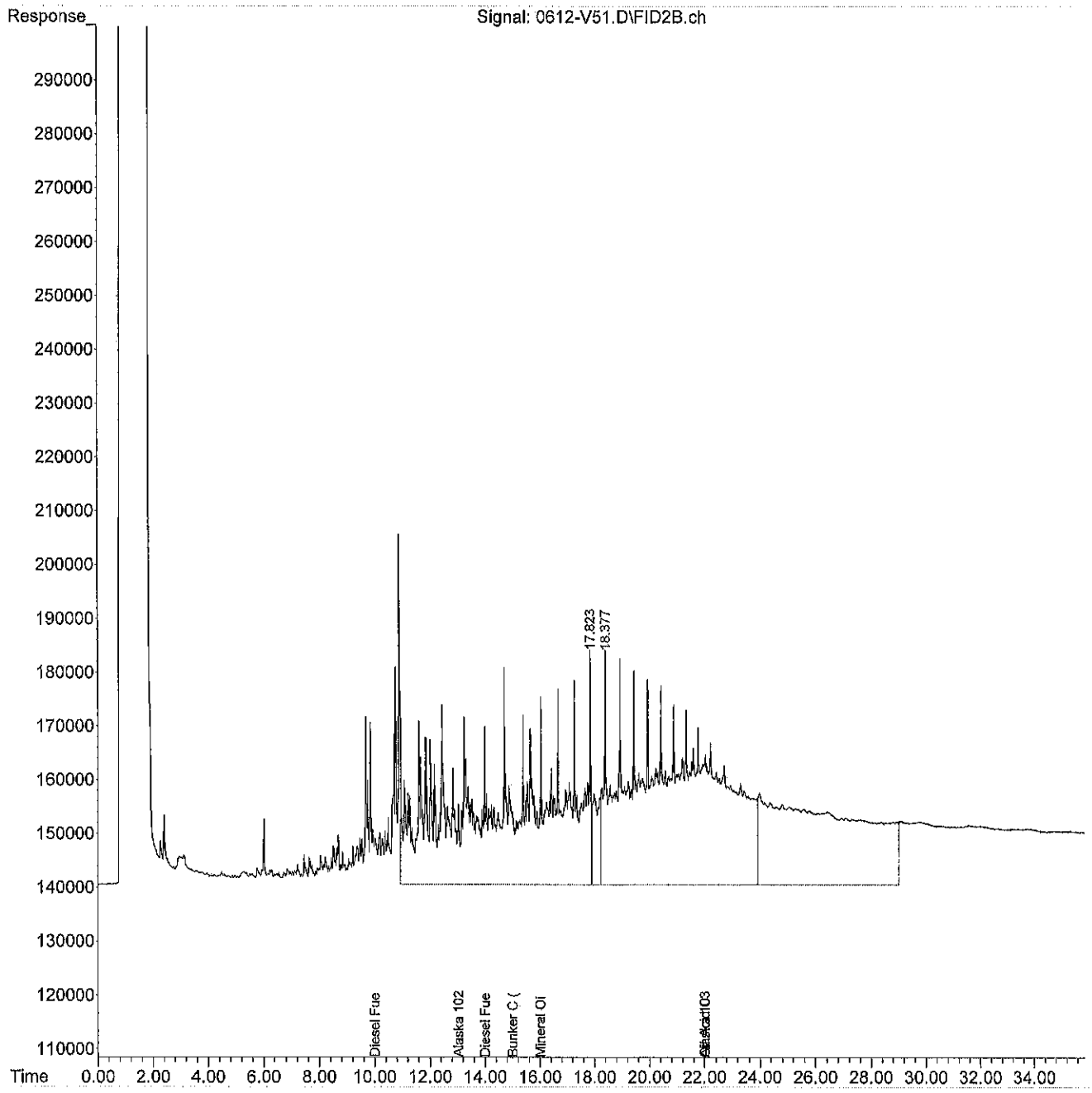
Quantitation Report (Not Reviewed)

Data File : 0612-V51.D
Sample : BC-CCV0612R-V1

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 9:12
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 09:48:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V61.D
Sample : BC-CCV0612R-V2

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:03
Operator :
Misc : SV2-100-22
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 16:39:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5185977	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	56107001	22.659	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	77167905	30.600	PPM
6)	H	Oil	22.000	138295504	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	143495970	53.568	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66173339	27.215	PPM
9)	H	Oil Combo	22.000	125882343	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	131569557	48.965	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	79986726	25.655	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	72446442	53.123	PPM
13)	H	Mineral Oil (03-14-12)	16.000	85511886	26.179	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	196481071	112.248	PPM
15)	H	ALKANE C9-C40	12.666	195818944	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	59272141	18.273	PPM
17)	H	Oil Acid Clean MO Com...	22.000	121229617	45.640	PPM

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

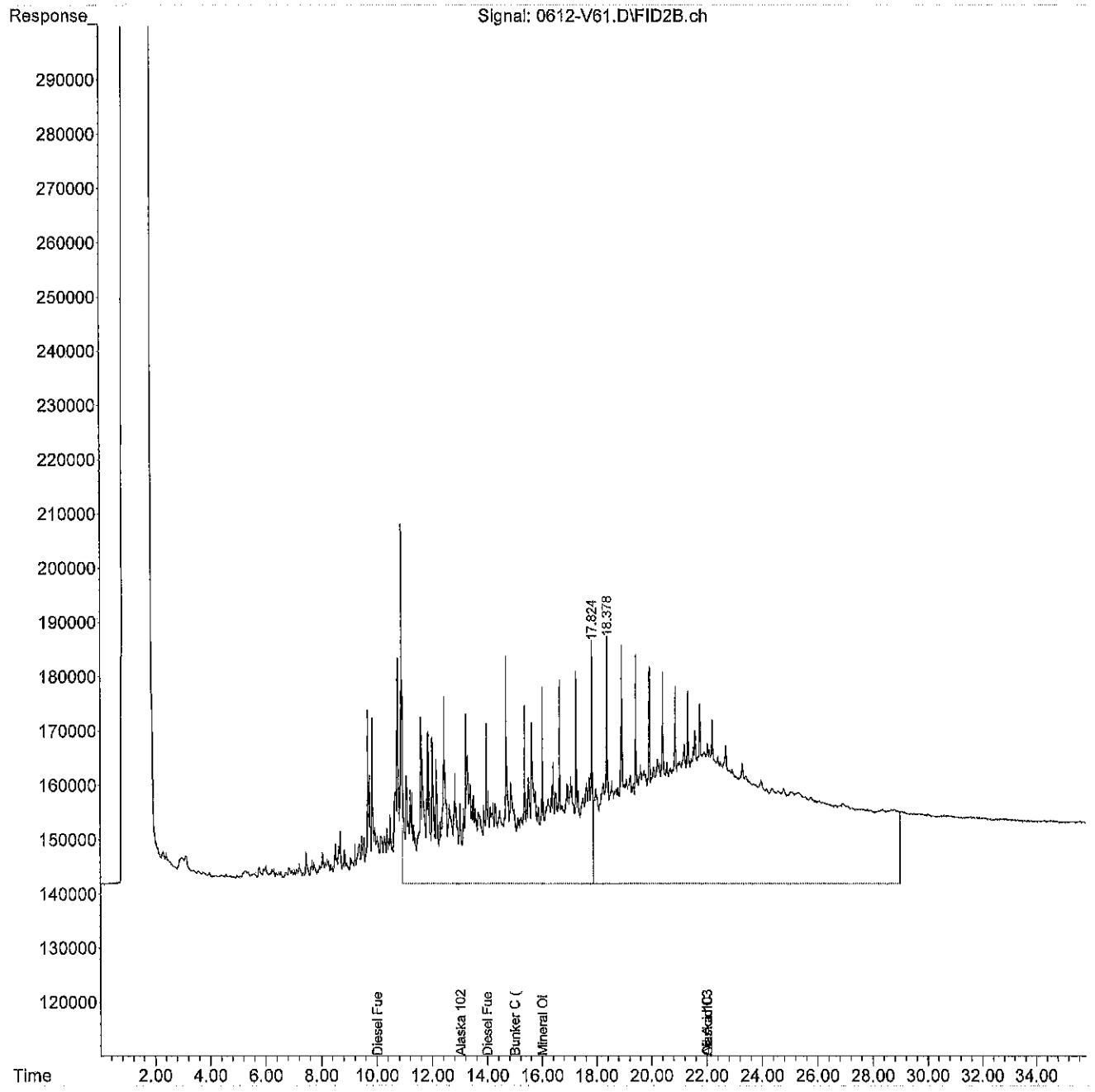
Quantitation Report (Not Reviewed)

Data File : 0612-V61.D
Sample : BC-CCV0612R-V2

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:03
Operator :
Misc : SV2-100-22
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 16:39:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 15, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-070

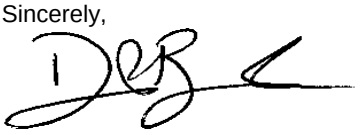
Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 8, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

Case Narrative

Samples were collected on June 7 and 8, 2012 and received by the laboratory on June 8, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Dx Analysis

Please note that the samples are reported as Bunker C. However, the chromatographic pattern of the Bunker C standard does not exactly match the chromatograms of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP11EX-BASE-060712-6.5	06-070-01	Soil	6-7-12	6-8-12	
TP11EX-SWE-060712-3	06-070-02	Soil	6-7-12	6-8-12	
TP11EX-SWW-060712-3	06-070-03	Soil	6-7-12	6-8-12	
TP11EX-SWS-060712-3	06-070-04	Soil	6-7-12	6-8-12	
TP11EX-SWN-060712-3	06-070-05	Soil	6-7-12	6-8-12	
GEI28EX-BASE-060712-4.5	06-070-06	Soil	6-7-12	6-8-12	
GEI28EX-SWN-060712-3	06-070-07	Soil	6-7-12	6-8-12	
GEI28EX-SWW-060712-3	06-070-08	Soil	6-7-12	6-8-12	
GEI28EX-SWS-060712-3	06-070-09	Soil	6-7-12	6-8-12	
GEI28EX-SWE-060712-2.5	06-070-10	Soil	6-7-12	6-8-12	
STK-OB1-060812	06-070-12	Soil	6-8-12	6-8-12	
STK-OB2-060812	06-070-13	Soil	6-8-12	6-8-12	
STK-OB3-060812	06-070-14	Soil	6-8-12	6-8-12	
STK-OB4-060812	06-070-15	Soil	6-8-12	6-8-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11EX-BASE-060712-6.5**					
Laboratory ID:	06-070-01					
Bunker C	**63000**	3800	NWTPH-Dx	6-12-12	6-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**TP11EX-SWE-060712-3**					
Laboratory ID:	06-070-02					
Bunker C	**220**	70	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**TP11EX-SWW-060712-3**					
Laboratory ID:	06-070-03					
Bunker C	**220**	70	NWTPH-Dx	6-12-12	6-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**TP11EX-SWS-060712-3**					
Laboratory ID:	06-070-04					
Bunker C	**1500**	72	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**TP11EX-SWN-060712-3**					
Laboratory ID:	06-070-05					
Bunker C	**4300**	69	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**GEI28EX-BASE-060712-4.5**					
Laboratory ID:	06-070-06					
Bunker C	**ND**	59	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				
Client ID:	**GEI28EX-SWN-060712-3**					
Laboratory ID:	06-070-07					
Bunker C	**ND**	55	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-SWW-060712-3**					
Laboratory ID:	06-070-08					
Bunker C	**ND**	70	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**GEI28EX-SWS-060712-3**					
Laboratory ID:	06-070-09					
Bunker C	**ND**	70	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**GEI28EX-SWE-060712-2.5**					
Laboratory ID:	06-070-10					
Bunker C	**ND**	68	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**STK-OB1-060812**					
Laboratory ID:	06-070-12					
Bunker C	**ND**	57	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**STK-OB2-060812**					
Laboratory ID:	06-070-13					
Bunker C	**760**	57	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**STK-OB3-060812**					
Laboratory ID:	06-070-14					
Bunker C	**ND**	62	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**STK-OB4-060812**					
Laboratory ID:	06-070-15					
Bunker C	**530**	62	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11EX-SWE-060712-3**					
Laboratory ID:	06-070-02					
Benzo[a]anthracene	**0.051**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**0.11**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**0.022**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**0.031**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**0.0095**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*95*	*43 - 116*				
Pyrene-d10	*111*	*38 - 125*				
Terphenyl-d14	*101*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11EX-SWW-060712-3**					
Laboratory ID:	06-070-03					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*91*	*43 - 116*				
Pyrene-d10	*105*	*38 - 125*				
Terphenyl-d14	*98*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-BASE-060712-4.5**					
Laboratory ID:	06-070-06					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*43 - 116*				
Pyrene-d10	*109*	*38 - 125*				
Terphenyl-d14	*91*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-SWN-060712-3**					
Laboratory ID:	06-070-07					
Benzo[a]anthracene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*43 - 116*				
Pyrene-d10	*110*	*38 - 125*				
Terphenyl-d14	*92*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-SWW-060712-3**					
Laboratory ID:	06-070-08					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*43 - 116*				
Pyrene-d10	*105*	*38 - 125*				
Terphenyl-d14	*94*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-SWS-060712-3**					
Laboratory ID:	06-070-09					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*43 - 116*				
Pyrene-d10	*103*	*38 - 125*				
Terphenyl-d14	*86*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI28EX-SWE-060712-2.5**					
Laboratory ID:	06-070-10					
Benzo[a]anthracene	**ND**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**0.0096**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**0.011**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0091	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*43 - 116*				
Pyrene-d10	*99*	*38 - 125*				
Terphenyl-d14	*94*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**STK-OB1-060812**					
Laboratory ID:	06-070-12					
Benzo[a]anthracene	**0.035**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**0.031**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**0.052**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**0.014**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**0.035**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**0.026**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0075	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*95*	*43 - 116*				
Pyrene-d10	*114*	*38 - 125*				
Terphenyl-d14	*96*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**STK-OB3-060812**					
Laboratory ID:	06-070-14					
Benzo[a]anthracene	**0.015**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**0.017**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**0.052**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**0.012**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**0.042**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**0.050**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0083	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*43 - 116*				
Pyrene-d10	*108*	*38 - 125*				
Terphenyl-d14	*95*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612S1					
Bunker C	**ND**	50	NWTPH-Dx	6-12-12	6-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-070-02							
	ORIG	DUP						
Bunker C	**157**	**97.9**				46	NA	
Surrogate:								
o-Terphenyl			*91*	*89*	*50-150*			
Laboratory ID:	06-070-03							
	ORIG	DUP						
Bunker C	**160**	**156**				3	NA	
Surrogate:								
o-Terphenyl			*98*	*96*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0612F-V3	100	101	-1.0	+/-15%
BC-CCV0612F-V4	100	95.2	4.8	+/-15%
BC-CCV0612F-V5	100	90.8	9.2	+/-15%
BC-CCV0612R-V2	100	112	-12.0	+/-15%
BC-CCV0612R-V3	100	94.3	5.7	+/-15%
BC-CCV0612R-V4	100	93.2	6.8	+/-15%
BC-CCV0612R-V5	100	96.9	3.1	+/-15%
BC-CCV0613F-V1	100	113	-13.0	+/-15%
BC-CCV0613F-V2	100	101	-1.0	+/-15%
BC-CCV0613R-V1	100	86.8	13.2	+/-15%
BC-CCV0613R-V2	100	107	-7.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0614S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Chrysene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270/SIM	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*83*	*43 - 116*				
Pyrene-d10	*109*	*38 - 125*				
Terphenyl-d14	*98*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0614S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0941**	**0.0916**	0.0833	0.0833	113	110	58 - 115	3	13	
Chrysene	**0.0842**	**0.0829**	0.0833	0.0833	101	100	64 - 114	2	11	
Benzo[b]fluoranthene	**0.112**	**0.107**	0.0833	0.0833	125	120	52 - 125	4	19	
Benzo(j,k)fluoranthene	**0.0928**	**0.0861**	0.0833	0.0833	111	103	50 - 126	7	22	
Benzo[a]pyrene	**0.0853**	**0.0825**	0.0833	0.0833	102	99	43 - 123	3	16	
Indeno(1,2,3-c,d)pyrene	**0.0797**	**0.0773**	0.0833	0.0833	96	93	55 - 118	3	16	
Dibenz[a,h]anthracene	**0.101**	**0.0944**	0.0833	0.0833	120	113	57 - 120	7	15	
Surrogate:										
2-Fluorobiphenyl					*90*	*88*	*43 - 116*			
Pyrene-d10					*115*	*113*	*38 - 125*			
Terphenyl-d14					*98*	*93*	*33 - 124*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 15, 2012
Samples Submitted: June 8, 2012
Laboratory Reference: 1206-070
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-12-12

Client ID	Lab ID	% Moisture
TP11EX-BASE-060712-6.5	06-070-01	33
TP11EX-SWE-060712-3	06-070-02	29
TP11EX-SWW-060712-3	06-070-03	28
TP11EX-SWS-060712-3	06-070-04	31
TP11EX-SWN-060712-3	06-070-05	28
GEI28EX-BASE-060712-4.5	06-070-06	15
GEI28EX-SWN-060712-3	06-070-07	10
GEI28EX-SWW-060712-3	06-070-08	29
GEI28EX-SWS-060712-3	06-070-09	29
GEI28EX-SWE-060712-2.5	06-070-10	27
STK-OB1-060812	06-070-12	11
STK-OB2-060812	06-070-13	13
STK-OB3-060812	06-070-14	20
STK-OB4-060812	06-070-15	19

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 2

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Geoengineers
Project Number: 0137-018-03
Project Name: Rugonier Sehi
Project Manager: Rob Leet
Sampled by: Aaron Wagoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-070

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH - Bunker C				% Moisture
1	TP11EX-BASE-060712-6.5'	6/7/12	1500	Soil	1								X	NO								X				↓
2	TP11EX-SWE-060712-3		1525										✱									X				
3	TP11EX-SWW-060712-3		1530										✱									X				
4	TP11EX-SWS-060712-3		1535										X	NO								X				
5	TP11EX-SWN-060712-3		1540										X	NO								X				
6	GEI28EX-BASE-060712-4.5		1630										✱									X				
7	GEI28EX-SWN-060712-3		1635										✱									X				
8	GEI28EX-SWW-060712-3		1640										✱									X				
9	GEI28EX-SWS-060712-3		1645										✱									X				
10	GEI28EX-SWE-060712-2.5		1650										✱									X				

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/8/12	1600
Received		SPEEDY	6/8/12	1600
Relinquished		"	6/8/12	1755
Received		QSE	6/8/12	1755
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

* Hold PAHs pending Bunker C results.

✱ Added 6/13/12. 4:41 pm (5 days TAT)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 2 of 2

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-070

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH-Bunker C		HOLD		% Moisture
11	GEI-EX-SWE-060812-205	6/8/12	1100	Soil	1								X	20								X		⊗		
12	STK-OB1-060812		1015										⊛									X				
13	STK-OB2-060812		1030										X	20								X				
14	STK-OB3-060812		1040										⊛									X				
15	STK-OB4-060812		1050										X	20								X				

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/8/12	1600
Received		SPEEDY	6/8/12	1600
Relinquished		SPEEDY	6/8/12	1755
Received		OSE	6/8/12	1755
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

⊗ requested 6/11/12. DB

⊛ Added 6/13/12. DB (1 day TAT) 4:41pm

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-070

Initiated by: JMV

Date Initiated: 6/8/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 0	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- PAHs EPA 8270D/SIM Data
- NWTPH-Dx Data

PAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614028.D
Acq On : 14 Jun 2012 7:22 pm
Operator :
Sample : 06-070-02
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 19:37:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

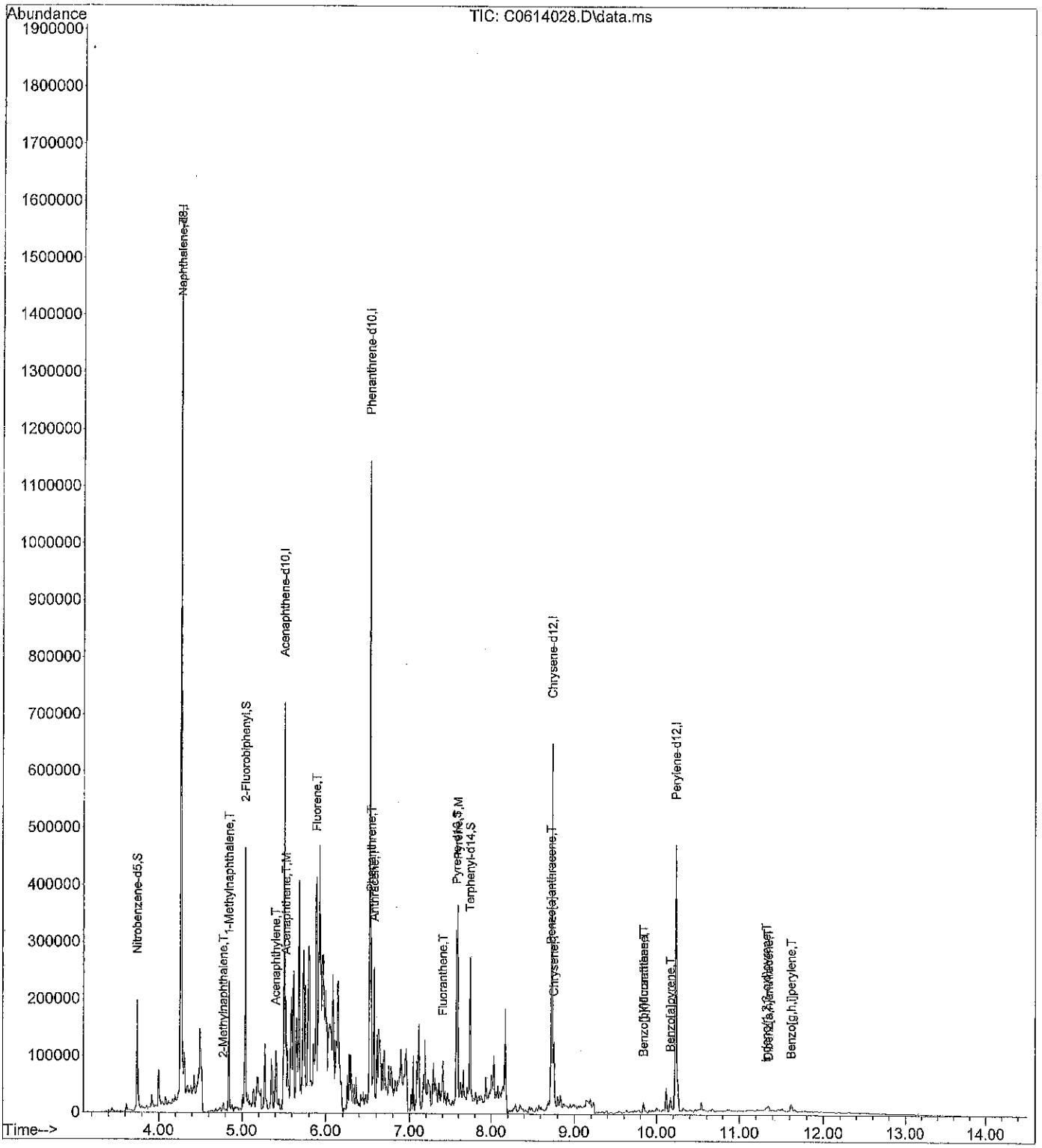
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.264	136	1171319	2000.00	ppb	0.00
6) Acenaphthene-d10	5.505	164	446835	2000.00	ppb	0.00
10) Phenanthrene-d10	6.526	188	656943	2000.00	ppb	0.02
17) Chrysene-d12	8.732	240	559810	2000.00	ppb	0.04
21) Perylene-d12	10.229	264	495575	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.741	82	112393	1138.19	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 113.82%#			
7) 2-Fluorobiphenyl	5.038	172	320447	946.09	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 94.61%#			
11) Pyrene-d10	7.571	212	228421	1109.32	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 110.93%#			
18) Terphenyl-d14	7.740	244	155288	1012.85	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 101.29%#			
Target Compounds						Qvalue
3) Naphthalene	4.264	128	52366	84.33	ppb	100
4) 2-Methylnaphthalene	4.773	142	12474	34.45	ppb	100
5) 1-Methylnaphthalene	4.843	142	154895	419.70	ppb	100
8) Acenaphthylene	5.405	152	51406	125.37	ppb	100
9) Acenaphthene	5.528	153	167182	519.74	ppb	100
12) Fluorene	5.891	166	223446	752.01	ppb	100
13) Phenanthrene	6.542	178	223151	498.59	ppb	100
14) Anthracene	6.577	178	160917	439.64	ppb	100
15) Fluoranthene	7.403	202	65418	197.75	ppb	100
16) Pyrene	7.589	202	296290	792.16	ppb	100
19) Benzo[a]anthracene	8.720	228	62684	219.83	ppb	100
20) Chrysene	8.755	228	140684	455.24	ppb	100
22) Benzo[b]fluoranthene	9.839	252	21883	93.27	ppb	100
23) Benzo(j,k)fluoranthene	9.839	252	21883	~~84.25~~ 79.49	ppb	100
24) Benzo[a]pyrene	10.167	252	34340	131.69	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.320	276	11578	40.75	ppb	100
26) Dibenz[a,h]anthracene	11.347	278	7835	33.35	ppb	100
27) Benzo[g,h,i]perylene	11.616	276	19380	75.35	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614028.D
Acq On : 14 Jun 2012 7:22 pm
Operator :
Sample : 06-070-02
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 19:37:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614026.D
Acq On : 14 Jun 2012 6:38 pm
Operator :
Sample : 06-070-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 14 18:53:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

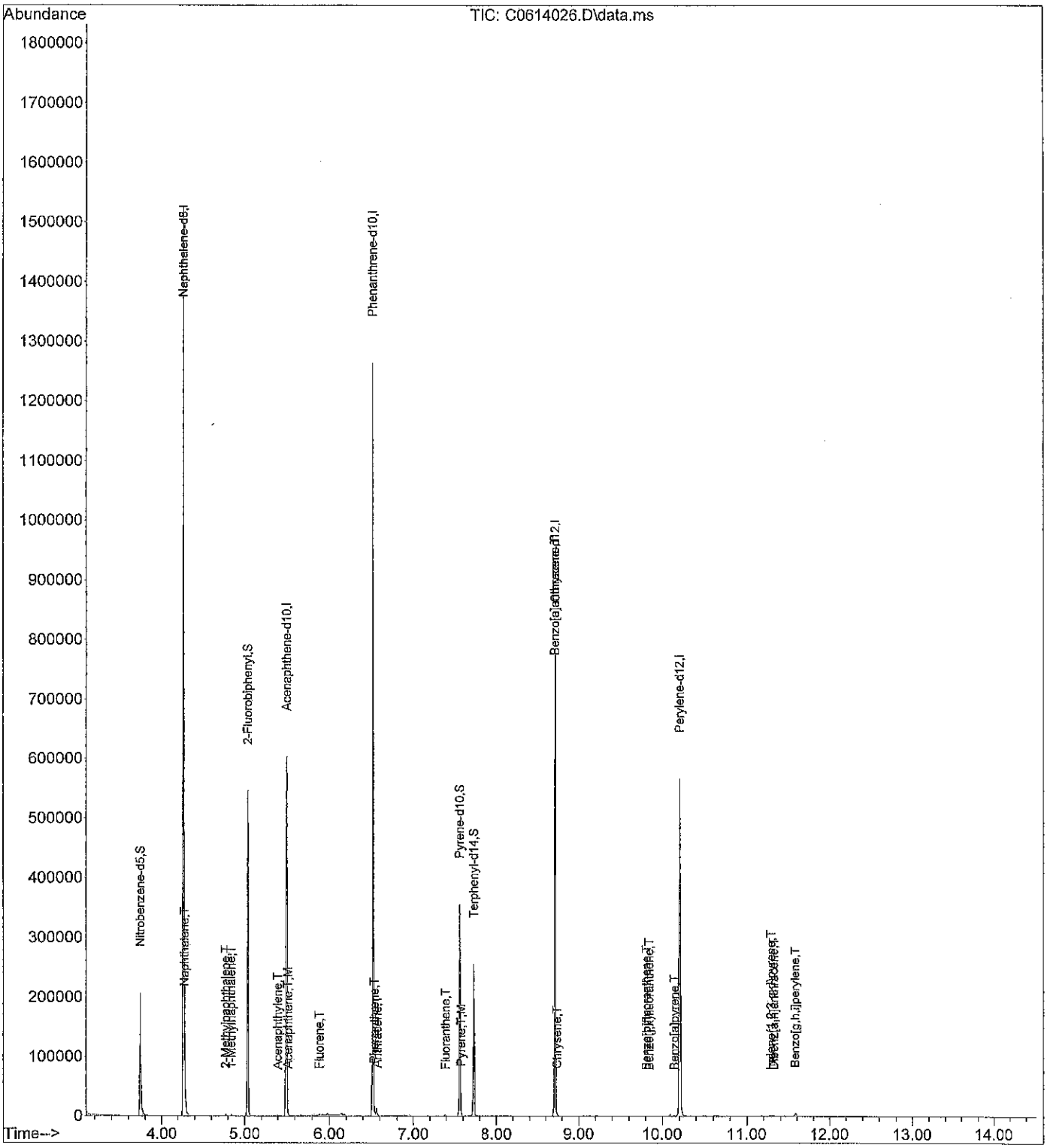
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	4.262	136	1198453	2000.00 ppb	0.00
6) Acenaphthene-d10	5.506	164	524273	2000.00 ppb	0.00
10) Phenanthrene-d10	6.519	188	819028	2000.00 ppb	0.00
17) Chrysene-d12	8.715	240	647082	2000.00 ppb	0.02
21) Perylene-d12	10.208	264	552823	2000.00 ppb	0.03
System Monitoring Compounds					
2) Nitrobenzene-d5	3.740	82	105855	1047.71 ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 104.77%#		
7) 2-Fluorobiphenyl	5.037	172	363170	913.85 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 91.39%#		
11) Pyrene-d10	7.560	212	270167	1052.40 ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 105.24%		
18) Terphenyl-d14	7.729	244	173903	981.29 ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 98.13%#		
Target Compounds					Qvalue
3) Naphthalene	4.274	128	4602	7.24 ppb	100
4) 2-Methylnaphthalene	4.771	142	2607	7.04 ppb	100
5) 1-Methylnaphthalene	4.842	142	2141	5.67 ppb	100
8) Acenaphthylene	5.398	152	1137	2.36 ppb	100
9) Acenaphthene	5.521	153	1233	3.27 ppb	100
12) Fluorene	5.883	166	1591	4.29 ppb	100
13) Phenanthrene	6.535	178	4657	8.35 ppb	100
14) Anthracene	6.570	178	1652	3.62 ppb	100
15) Fluoranthene	7.392	202	1341	3.25 ppb	100
16) Pyrene	7.578	202	4155	8.91 ppb	100
19) Benzo[a]anthracene	8.711	228	3578	10.86 ppb	100
20) Chrysene	8.738	228	1173	3.28 ppb	100
22) Benzo[b]fluoranthene	9.814	252	679	2.59 ppb	100
23) Benzo(j,k)fluoranthene	9.846	252	267	0.92 ppb	100
24) Benzo[a]pyrene	10.146	252	1135	3.90 ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.288	276	2066	6.52 ppb	100
26) Dibenz[a,h]anthracene	11.319	278	719	2.74 ppb	100
27) Benzo[g,h,i]perylene	11.580	276	5994	20.89 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614026.D
Acq On : 14 Jun 2012 6:38 pm
Operator :
Sample : 06-070-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 14 18:53:29 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614019.D
Acq On : 14 Jun 2012 4:06 pm
Operator :
Sample : 06-070-06
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 14 16:21:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

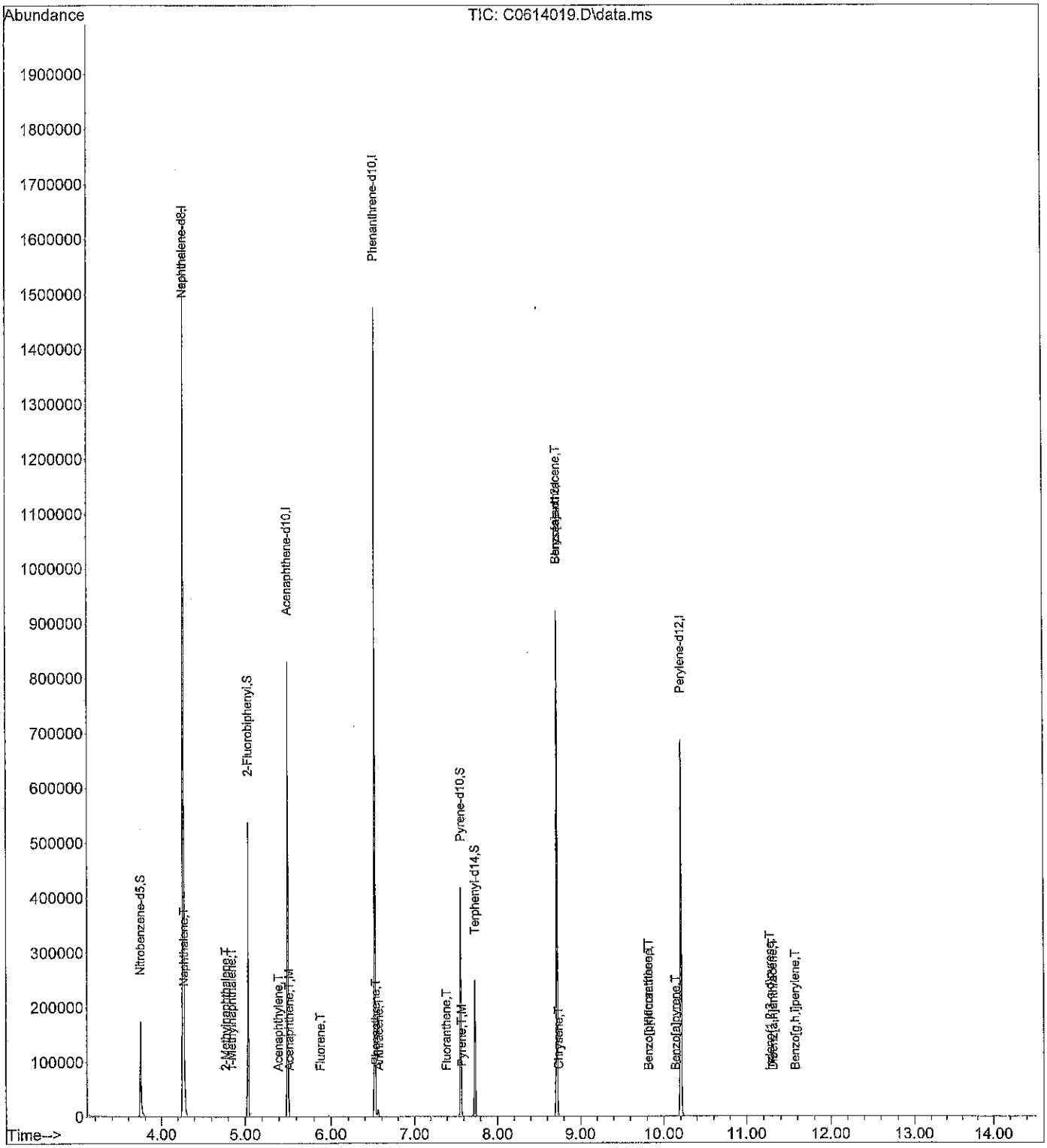
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.263	136	1249653	2000.00	ppb	0.00
6) Acenaphthene-d10	5.504	164	571388	2000.00	ppb	0.00
10) Phenanthrene-d10	6.522	188	890841	2000.00	ppb	0.01
17) Chrysene-d12	8.715	240	776637	2000.00	ppb	0.02
21) Perylene-d12	10.205	264	671136	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	90488	858.92	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.89%			
7) 2-Fluorobiphenyl	5.037	172	337877	780.10	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 78.01%			
11) Pyrene-d10	7.567	212	305747	1094.99	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 109.50%			
18) Terphenyl-d14	7.735	244	193389	909.21	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 90.92%			
Target Compounds						Qvalue
3) Naphthalene	4.274	128	2702	4.08	ppb	100
4) 2-Methylnaphthalene	4.772	142	1146	2.97	ppb	100
5) 1-Methylnaphthalene	4.842	142	779	1.98	ppb	100
8) Acenaphthylene	5.397	152	334	0.64	ppb	100
9) Acenaphthene	5.520	153	325	0.79	ppb	100
12) Fluorene	5.882	166	744	1.85	ppb	100
13) Phenanthrene	6.533	178	2169	3.57	ppb	100
14) Anthracene	6.568	178	241	0.49	ppb	100
15) Fluoranthene	7.393	202	670	1.49	ppb	100
16) Pyrene	7.578	202	1235	2.43	ppb	100
19) Benzo[a]anthracene	8.715	228	2737	6.92	ppb	100
20) Chrysene	8.739	228	331	0.77	ppb	100
22) Benzo[b]fluoranthene	9.819	252	611	1.92	ppb	100
~~23) Benzo~~(j,k)fluoranthene	9.819	252	611	~~1.74~~ ppb		100
24) Benzo[a]pyrene	10.143	252	528	1.50	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.280	276	738	1.92	ppb	100
26) Dibenz[a,h]anthracene	11.315	278	528	1.66	ppb	100
27) Benzo[g,h,i]perylene	11.576	276	1005	2.89	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614019.D
Acq On : 14 Jun 2012 4:06 pm
Operator :
Sample : 06-070-06
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 14 16:21:07 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614020.D
Acq On : 14 Jun 2012 4:28 pm
Operator :
Sample : 06-070-07
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 14 16:42:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

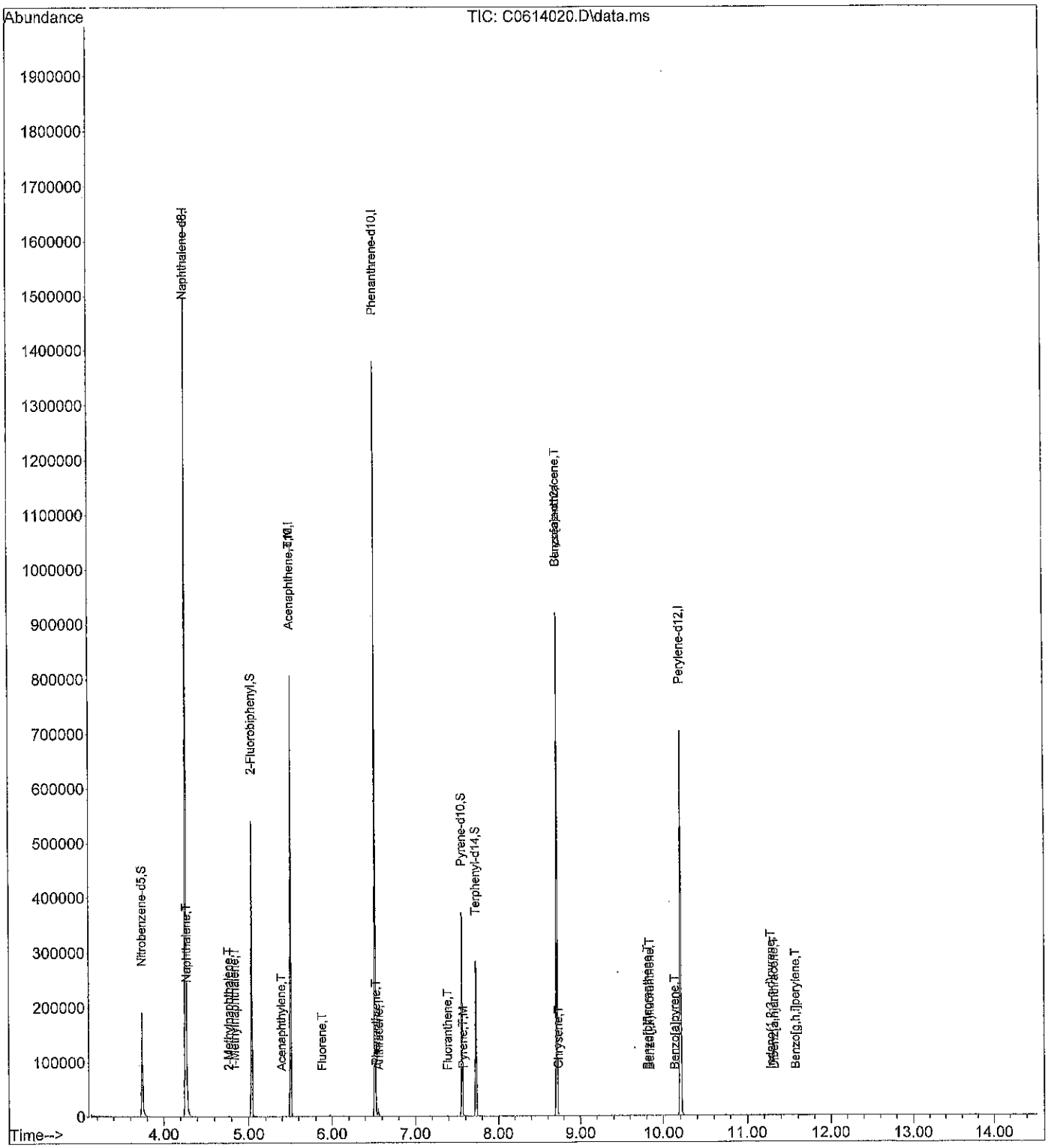
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.262	136	1259548	2000.00	ppb	0.00
6) Acenaphthene-d10	5.505	164	569162	2000.00	ppb	0.00
10) Phenanthrene-d10	6.522	188	900255	2000.00	ppb	0.01
17) Chrysene-d12	8.712	240	786482	2000.00	ppb	0.02
21) Perylene-d12	10.205	264	690492	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	96141	905.41	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 90.54%			
7) 2-Fluorobiphenyl	5.038	172	350178	811.66	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 81.17%			
11) Pyrene-d10	7.560	212	310613	1100.79	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 110.08%#			
18) Terphenyl-d14	7.728	244	197342	916.18	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.62%			
Target Compounds						Qvalue
3) Naphthalene	4.274	128	2847	4.26	ppb	100
4) 2-Methylnaphthalene	4.773	142	1130	2.90	ppb	100
5) 1-Methylnaphthalene	4.839	142	633	1.60	ppb	100
8) Acenaphthylene	5.397	152	330	0.63	ppb	100
9) Acenaphthene	5.505	153	230	0.56	ppb	100
12) Fluorene	5.882	166	639	1.57	ppb	100
13) Phenanthrene	6.534	178	2239	3.65	ppb	100
14) Anthracene	6.569	178	373	0.74	ppb	100
15) Fluoranthene	7.391	202	688	1.52	ppb	100
16) Pyrene	7.577	202	1277	2.49	ppb	100
19) Benzo[a]anthracene	8.712	228	2725	6.80	ppb	100
20) Chrysene	8.735	228	334	0.77	ppb	100
22) Benzo[b]fluoranthene	9.815	252	546	1.67	ppb	100
23) Benzo(j,k)fluoranthene	9.842	252	214	0.59	ppb	100
24) Benzo[a]pyrene	10.139	252	323	0.89	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.280	276	539	1.36	ppb	100
26) Dibenz[a,h]anthracene	11.319	278	417	1.27	ppb	100
27) Benzo[g,h,i]perylene	11.573	276	696	1.94	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614020.D
Acq On : 14 Jun 2012 4:28 pm
Operator :
Sample : 06-070-07
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 14 16:42:55 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614021.D
Acq On : 14 Jun 2012 4:49 pm
Operator :
Sample : 06-070-08
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 17:04:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

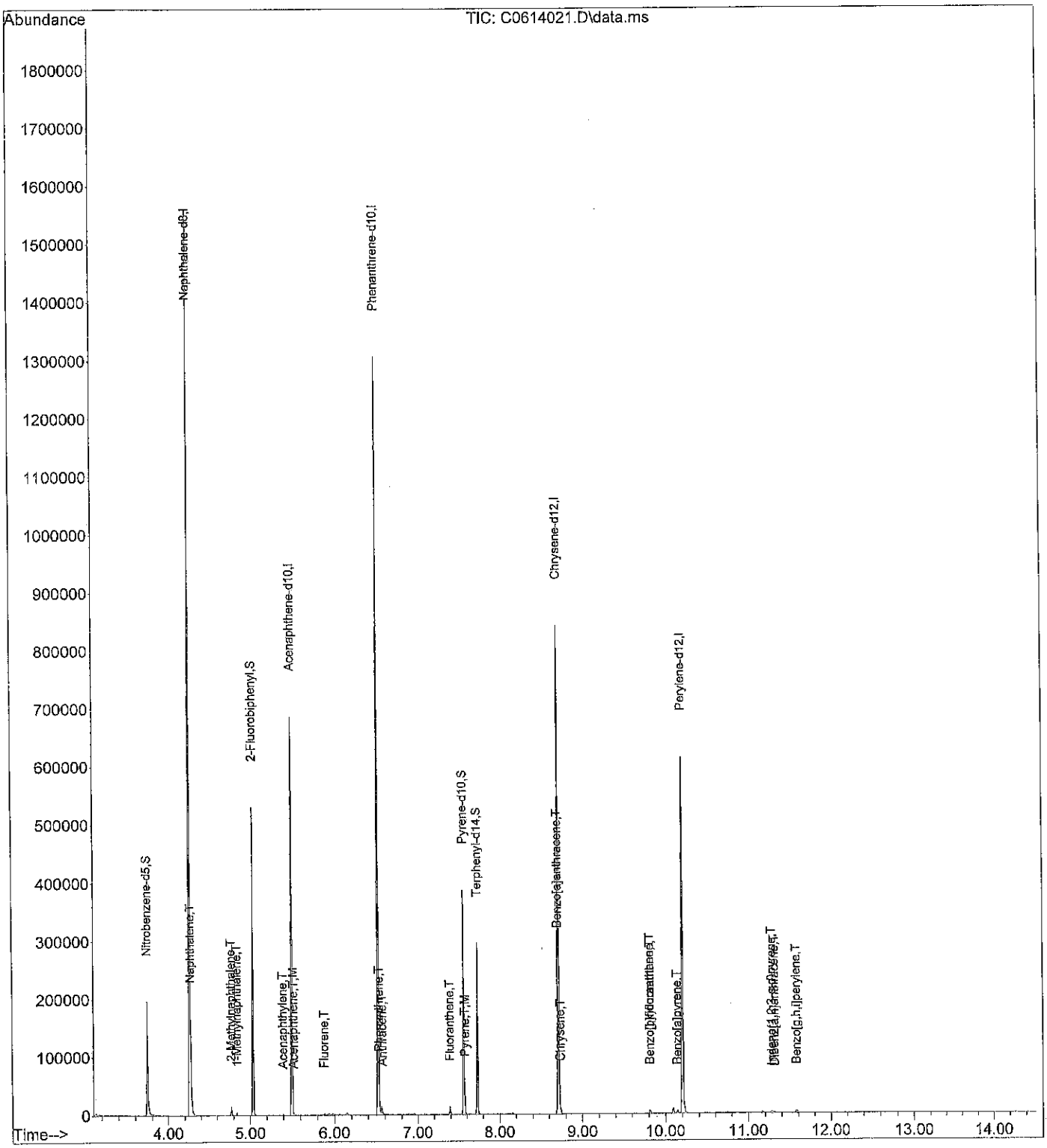
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.263	136	1223633	2000.00	ppb	0.00
6) Acenaphthene-d10	5.505	164	552573	2000.00	ppb	0.00
10) Phenanthrene-d10	6.518	188	874361	2000.00	ppb	0.00
17) Chrysene-d12	8.712	240	732447	2000.00	ppb	0.02
21) Perylene-d12	10.206	264	623569	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.741	82	100130	970.65	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 97.06%#			
7) 2-Fluorobiphenyl	5.035	172	356988	852.29	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 85.23%			
11) Pyrene-d10	7.561	212	288472	1052.60	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 105.26%			
18) Terphenyl-d14	7.729	244	187604	935.22	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 93.52%#			
Target Compounds						Qvalue
3) Naphthalene	4.275	128	8276	12.76	ppb	100
4) 2-Methylnaphthalene	4.773	142	11089	29.31	ppb	100
5) 1-Methylnaphthalene	4.840	142	4050	10.50	ppb	100
8) Acenaphthylene	5.397	152	1496	2.95	ppb	100
9) Acenaphthene	5.521	153	616	1.55	ppb	100
12) Fluorene	5.883	166	1820	4.60	ppb	100
13) Phenanthrene	6.534	178	14905	25.02	ppb	100
14) Anthracene	6.569	178	2561	5.26	ppb	100
15) Fluoranthene	7.392	202	9132	20.74	ppb	100
16) Pyrene	7.578	202	16835	33.82	ppb	100
19) Benzo[a]anthracene	8.704	228	6907	18.51	ppb	100
20) Chrysene	8.735	228	11260	27.85	ppb	100
22) Benzo[b]fluoranthene	9.816	252	7085	24.00	ppb	100
23) Benzo(j,k)fluoranthene	9.843	252	7085	~~21.68~~ 6.00	ppb	100
24) Benzo[a]pyrene	10.143	252	4930	15.03	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.284	276	3855	10.78	ppb	100
26) Dibenz[a,h]anthracene	11.315	278	1453	4.92	ppb	100
27) Benzo[g,h,i]perylene	11.581	276	6424	19.85	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614021.D
Acq On : 14 Jun 2012 4:49 pm
Operator :
Sample : 06-070-08
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 17:04:54 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614022.D
Acq On : 14 Jun 2012 5:11 pm
Operator :
Sample : 06-070-09
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 17:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

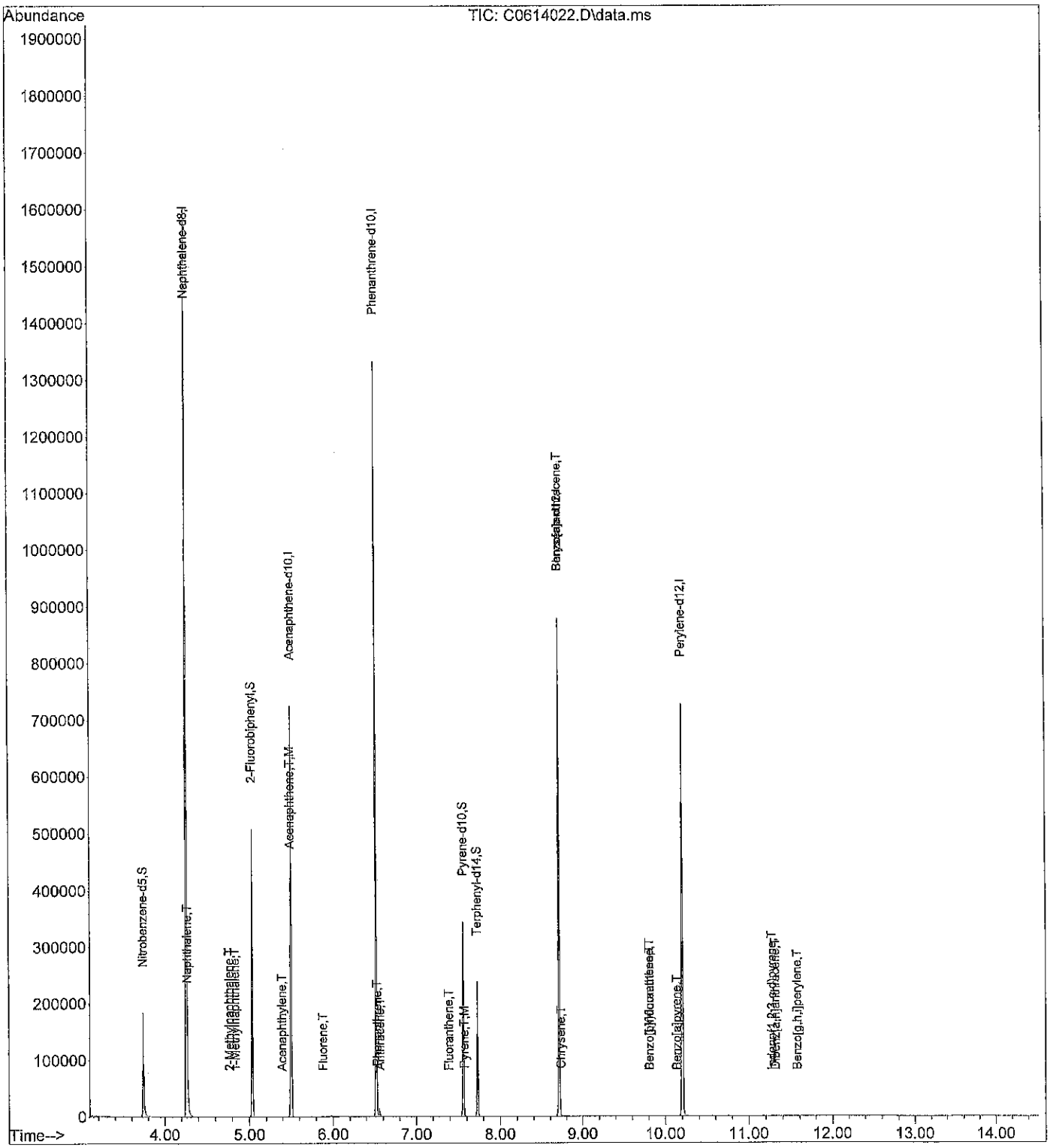
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.262	136	1238243	2000.00	ppb	0.00
6) Acenaphthene-d10	5.505	164	564117	2000.00	ppb	0.00
10) Phenanthrene-d10	6.519	188	887819	2000.00	ppb	0.00
17) Chrysene-d12	8.712	240	775357	2000.00	ppb	0.02
21) Perylene-d12	10.205	264	693960	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	93920	899.71	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 89.97%			
7) 2-Fluorobiphenyl	5.038	172	330401	772.67	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 77.27%			
11) Pyrene-d10	7.565	212	285553	1026.15	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 102.62%			
18) Terphenyl-d14	7.727	244	182564	859.73	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 85.97%			
Target Compounds						Qvalue
3) Naphthalene	4.274	128	2710	4.13	ppb	100
4) 2-Methylnaphthalene	4.773	142	924	2.41	ppb	100
5) 1-Methylnaphthalene	4.839	142	574	1.47	ppb	100
8) Acenaphthylene	5.397	152	300	0.58	ppb	100
9) Acenaphthene	5.497	153	219	0.54	ppb	100
12) Fluorene	5.882	166	584	1.45	ppb	100
13) Phenanthrene	6.534	178	2107	3.48	ppb	100
14) Anthracene	6.569	178	187	0.38	ppb	100
15) Fluoranthene	7.391	202	778	1.74	ppb	100
16) Pyrene	7.576	202	1366	2.70	ppb	100
19) Benzo[a]anthracene	8.712	228	2599	6.58	ppb	100
20) Chrysene	8.736	228	375	0.88	ppb	100
22) Benzo[b]fluoranthene	9.811	252	615	1.87	ppb	100
23) Benzo(j,k)fluoranthene	9.811	252	615	1.69	ppb	100
24) Benzo[a]pyrene	10.139	252	337	0.92	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.277	276	290	0.73	ppb	100
26) Dibenz[a,h]anthracene	11.316	278	195	0.59	ppb	100
27) Benzo[g,h,i]perylene	11.573	276	398	1.11	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614022.D
Acq On : 14 Jun 2012 5:11 pm
Operator :
Sample : 06-070-09
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 17:26:46 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614023.D
Acq On : 14 Jun 2012 5:33 pm
Operator :
Sample : 06-070-10
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 14 17:48:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

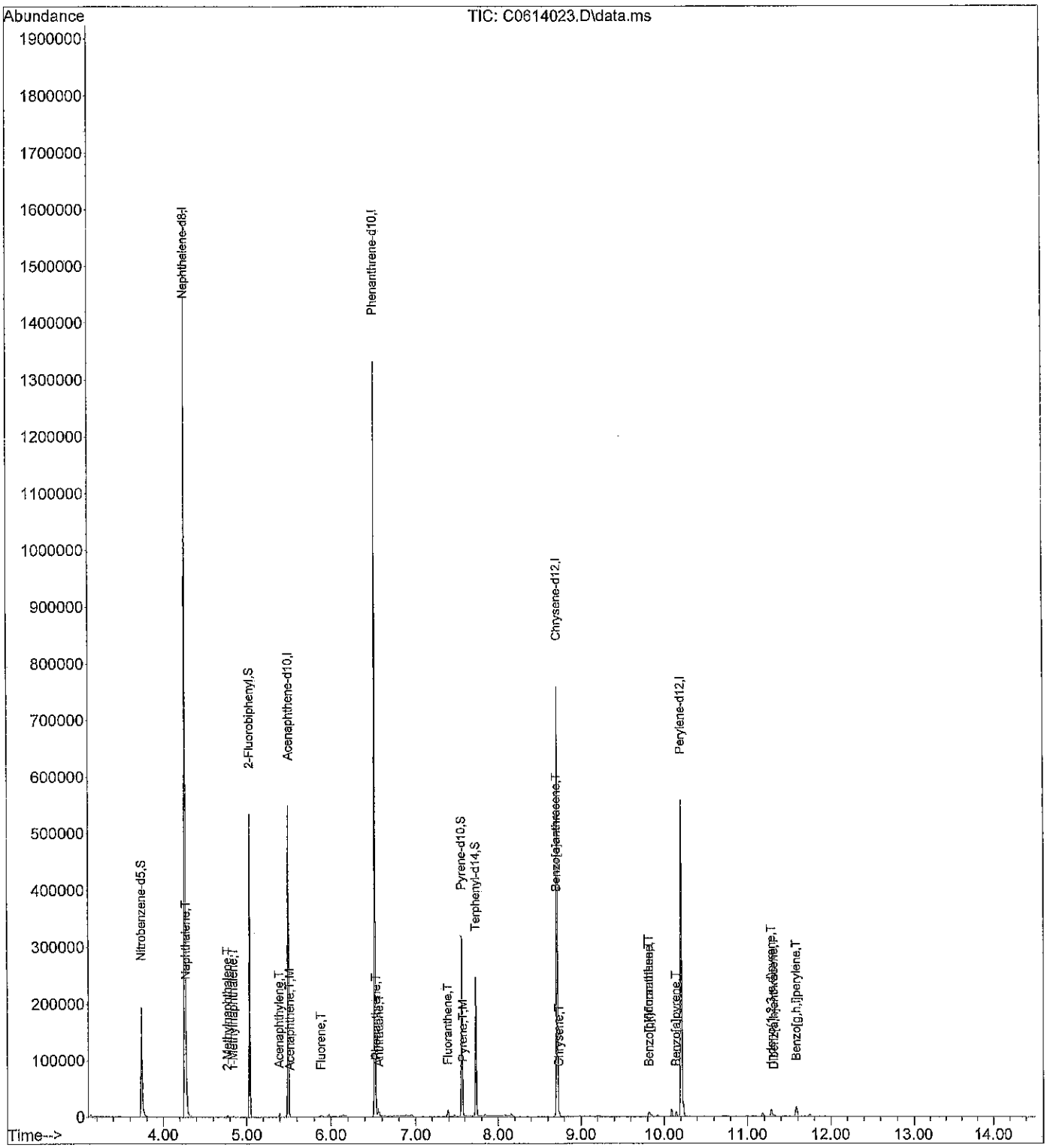
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.262	136	1225126	2000.00	ppb	0.00
6) Acenaphthene-d10	5.506	164	543883	2000.00	ppb	0.00
10) Phenanthrene-d10	6.519	188	861040	2000.00	ppb	0.00
17) Chrysene-d12	8.715	240	642406	2000.00	ppb	0.02
21) Perylene-d12	10.208	264	546358	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	99974	967.96	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 96.80%#			
7) 2-Fluorobiphenyl	5.038	172	349290	847.23	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.72%			
11) Pyrene-d10	7.561	212	267822	992.37	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 99.24%			
18) Terphenyl-d14	7.729	244	165998	943.50	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 94.35%#			
Target Compounds						Qvalue
3) Naphthalene	4.274	128	3797	5.85	ppb	100
4) 2-Methylnaphthalene	4.772	142	2247	5.93	ppb	100
5) 1-Methylnaphthalene	4.839	142	1167	3.02	ppb	100
8) Acenaphthylene	5.398	152	4338	8.69	ppb	100
9) Acenaphthene	5.522	153	1055	2.69	ppb	100
12) Fluorene	5.884	166	2154	5.53	ppb	100
13) Phenanthrene	6.535	178	9663	16.47	ppb	100
14) Anthracene	6.570	178	4064	8.47	ppb	100
15) Fluoranthene	7.392	202	7592	17.51	ppb	100
16) Pyrene	7.578	202	10785	22.00	ppb	100
19) Benzo[a]anthracene	8.708	228	6661	20.36	ppb	100
20) Chrysene	8.739	228	4351	12.27	ppb	100
22) Benzo[b]fluoranthene	9.822	252	13912	~~53.79~~	ppb	42.30 100
23) Benzo(j,k)fluoranthene	9.~~822~~ 816	252	13912	~~48.59~~	ppb	10.31 100
24) Benzo[a]pyrene	10.146	252	8787	30.57	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.287	276	15782	50.38	ppb	100
26) Dibenz[a,h]anthracene	11.319	278	2274	8.78	ppb	100
27) Benzo[g,h,i]perylene	11.584	276	23643	83.38	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614023.D
Acq On : 14 Jun 2012 5:33 pm
Operator :
Sample : 06-070-10
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 14 17:48:32 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614024.D
Acq On : 14 Jun 2012 5:55 pm
Operator :
Sample : 06-070-12
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 18:10:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

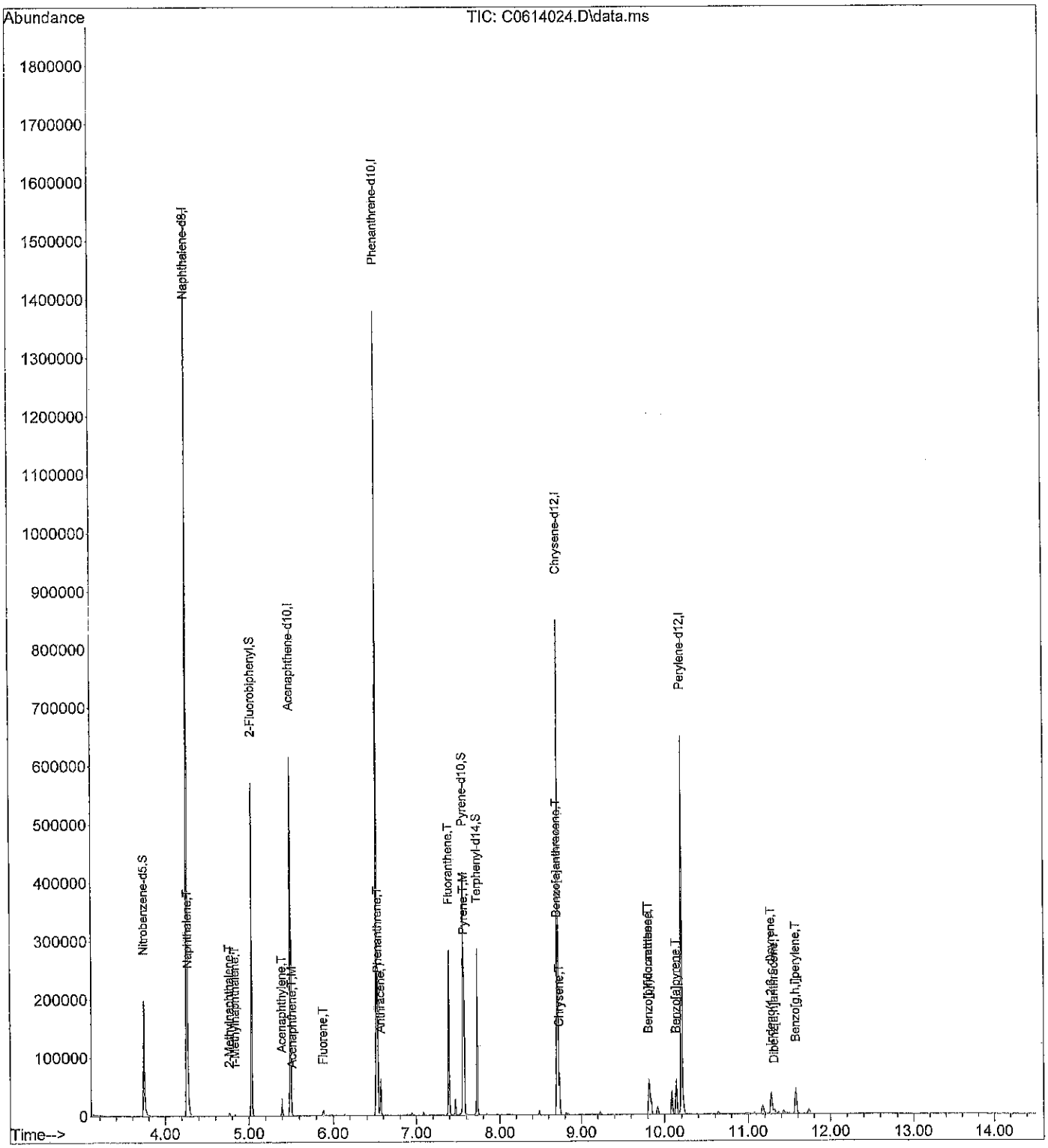
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.261	136	1207363	2000.00	ppb	0.00
6) Acenaphthene-d10	5.499	164	519372	2000.00	ppb	0.00
10) Phenanthrene-d10	6.519	188	848271	2000.00	ppb	0.00
17) Chrysene-d12	8.715	240	703257	2000.00	ppb	0.02
21) Perylene-d12	10.205	264	611963	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.739	82	106218	1043.54	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 104.35%#			
7) 2-Fluorobiphenyl	5.037	172	373375	948.40	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 94.84%#			
11) Pyrene-d10	7.561	212	301991	1135.82	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 113.58%#			
18) Terphenyl-d14	7.729	244	185240	961.77	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 96.18%#			
Target Compounds						Qvalue
3) Naphthalene	4.273	128	5283	8.25	ppb	100
4) 2-Methylnaphthalene	4.772	142	4192	11.23	ppb	100
5) 1-Methylnaphthalene	4.838	142	1637	4.30	ppb	100
8) Acenaphthylene	5.399	152	17927	37.61	ppb	100
9) Acenaphthene	5.522	153	1971	5.27	ppb	100
12) Fluorene	5.884	166	7244	18.88	ppb	100
13) Phenanthrene	6.535	178	100979	174.73	ppb	100
14) Anthracene	6.570	178	36773	77.81	ppb	100
15) Fluoranthene	7.392	202	191807	449.02	ppb	100
16) Pyrene	7.572	202	165680	343.05	ppb	100
19) Benzo[a]anthracene	8.703	228	65698	183.40	ppb	100
20) Chrysene	8.735	228	63590	163.80	ppb	100
22) Benzo[b]fluoranthene	9.814	252	79743	275.25	ppb	100
23) Benzo(j,k)fluoranthene	9.814 9.842	252	79743	~~248.64~~	ppb 73.77	100
24) Benzo[a]pyrene	10.142	252	59199	183.85	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.280	276	48969	139.57	ppb	100
26) Dibenz[a,h]anthracene	11.315	278	9326	32.15	ppb	100
27) Benzo[g,h,i]perylene	11.576	276	58753	184.99	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614024.D
Acq On : 14 Jun 2012 5:55 pm
Operator :
Sample : 06-070-12
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 18:10:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614025.D
Acq On : 14 Jun 2012 6:16 pm
Operator :
Sample : 06-070-14
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 18:31:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

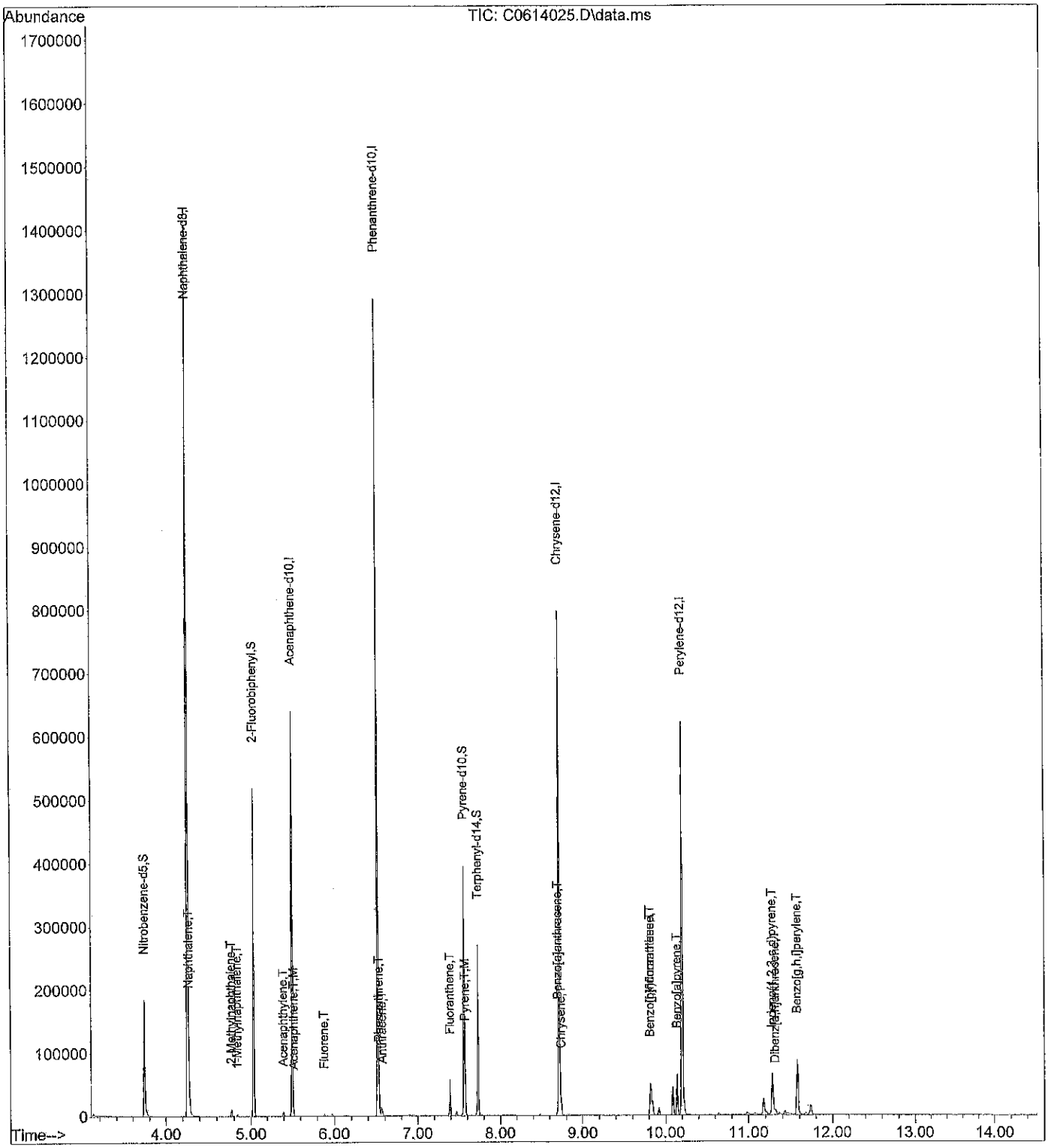
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.263	136	1199528	2000.00	ppb	0.00
6) Acenaphthene-d10	5.505	164	540416	2000.00	ppb	0.00
10) Phenanthrene-d10	6.519	188	842200	2000.00	ppb	0.00
17) Chrysene-d12	8.712	240	683884	2000.00	ppb	0.02
21) Perylene-d12	10.205	264	592055	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.741	82	98070	969.79	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 96.98%#			
7) 2-Fluorobiphenyl	5.038	172	345327	843.00	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.30%			
11) Pyrene-d10	7.561	212	284179	1076.53	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 107.65%			
18) Terphenyl-d14	7.730	244	178773	954.49	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 95.45%#			
Target Compounds						Qvalue
3) Naphthalene	4.275	128	7905	12.43	ppb	100
4) 2-Methylnaphthalene	4.773	142	8383	22.61	ppb	100
5) 1-Methylnaphthalene	4.839	142	2621	6.93	ppb	100
8) Acenaphthylene	5.397	152	5628	11.35	ppb	100
9) Acenaphthene	5.520	153	1203	3.09	ppb	100
12) Fluorene	5.882	166	2225	5.84	ppb	100
13) Phenanthrene	6.534	178	23839	41.55	ppb	100
14) Anthracene	6.569	178	5773	12.30	ppb	100
15) Fluoranthene	7.393	202	39179	92.38	ppb	100
16) Pyrene	7.573	202	43285	90.27	ppb	100
19) Benzo[a]anthracene	8.700	228	25377	72.85	ppb	100
20) Chrysene	8.735	228	31256	82.79	ppb	100
22) Benzo[b]fluoranthene	9.815	252	69815	249.08	ppb	100
23) Benzo(j,k)fluoranthene	9.815 842	252	69815	225.00	ppb 59.88	100
24) Benzo[a]pyrene	10.143	252	62914	201.95	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.280	276	81182	239.16	ppb	100
26) Dibenz[a,h]anthracene	11.316	278	10266	36.58	ppb	100
27) Benzo[g,h,i]perylene	11.577	276	115813	376.91	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/15/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614025.D
Acq On : 14 Jun 2012 6:16 pm
Operator :
Sample : 06-070-14
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 18:31:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614016.D
Acq On : 14 Jun 2012 3:01 pm
Operator :
Sample : MB0614S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 15:16:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

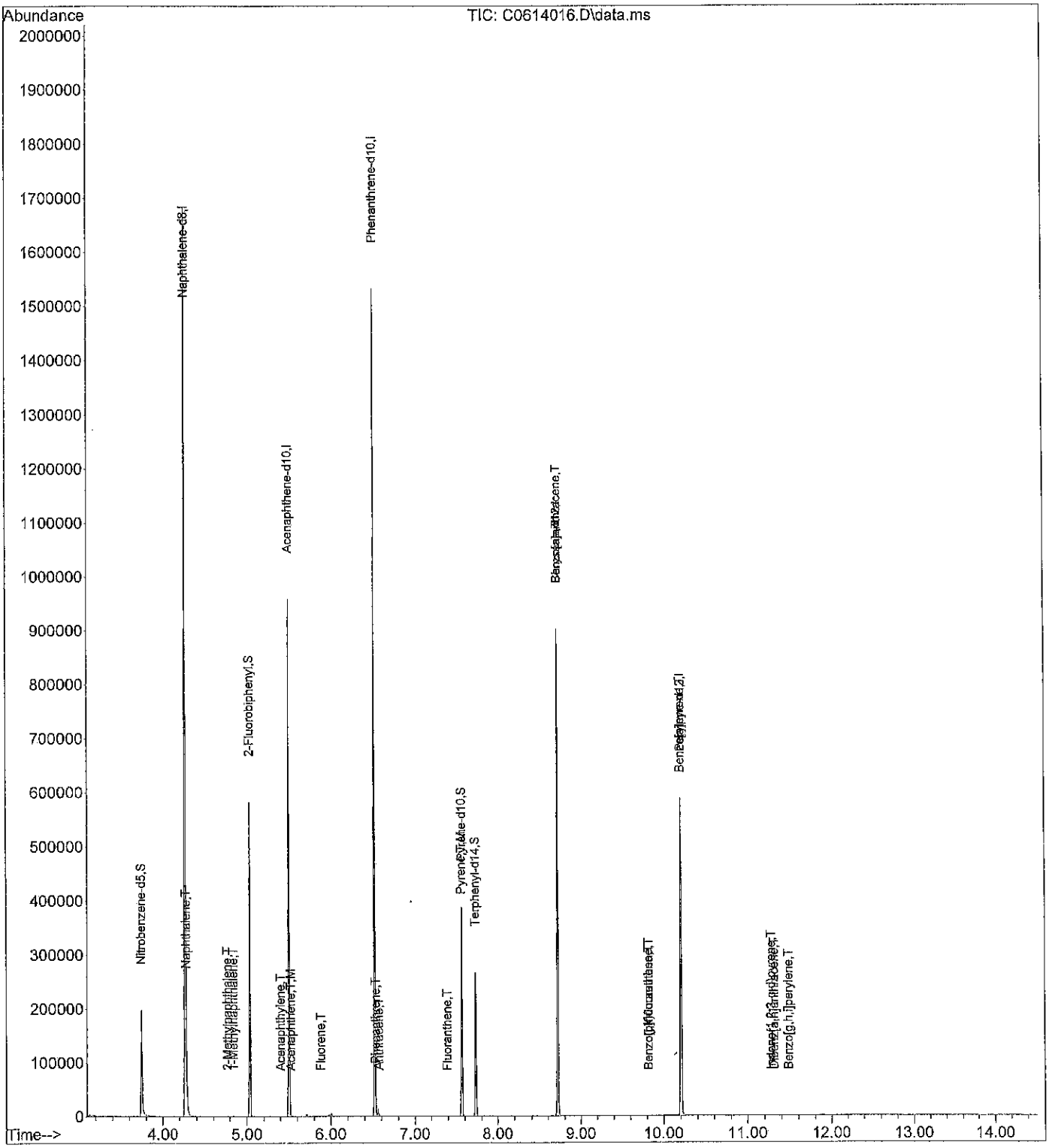
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.263	136	1283078	2000.00	ppb	0.00
6) Acenaphthene-d10	5.504	164	593085	2000.00	ppb	0.00
10) Phenanthrene-d10	6.522	188	906818	2000.00	ppb	0.01
17) Chrysene-d12	8.716	240	737054	2000.00	ppb	0.02
21) Perylene-d12	10.209	264	579881	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	102876	951.07	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 95.11%#			
7) 2-Fluorobiphenyl	5.037	172	375264	834.72	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 83.47%			
11) Pyrene-d10	7.567	212	310802	1093.48	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 109.35%			
18) Terphenyl-d14	7.729	244	197515	978.48	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 97.85%#			
Target Compounds						Qvalue
3) Naphthalene	4.275	128	2766	4.07	ppb	100
4) 2-Methylnaphthalene	4.772	142	1203	3.03	ppb	100
5) 1-Methylnaphthalene	4.842	142	947	2.34	ppb	100
8) Acenaphthylene	5.404	152	410	0.75	ppb	100
9) Acenaphthene	5.527	153	846	1.98	ppb	100
12) Fluorene	5.882	166	912	2.22	ppb	100
13) Phenanthrene	6.534	178	2045	3.31	ppb	100
14) Anthracene	6.569	178	196	0.39	ppb	100
15) Fluoranthene	7.392	202	466	1.02	ppb	100
16) Pyrene	7.561	202	1083	2.10	ppb	100
19) Benzo[a]anthracene	8.716	228	2442	6.50	ppb	100
~~20) Chrysene~~	8.716	228	2442	~~6.00~~	ppb	100
22) Benzo[b]fluoranthene	9.818	252	232	0.85	ppb	100
~~23) Benzo~~(j,k)fluoranthene	9.818	252	232	~~0.76~~	ppb	100
~~24) Benzo~~[a]pyrene	10.205	252	2455	~~8.05~~	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.280	276	189	0.57	ppb	100
26) Dibenz[a,h]anthracene	11.315	278	338	1.23	ppb	100
27) Benzo[g,h,i]perylene	11.483	276	429	1.43	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614016.D
Acq On : 14 Jun 2012 3:01 pm
Operator :
Sample : MB0614S1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 15:16:02 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614017.D
Acq On : 14 Jun 2012 3:22 pm
Operator :
Sample : SB0614S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 15:37:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

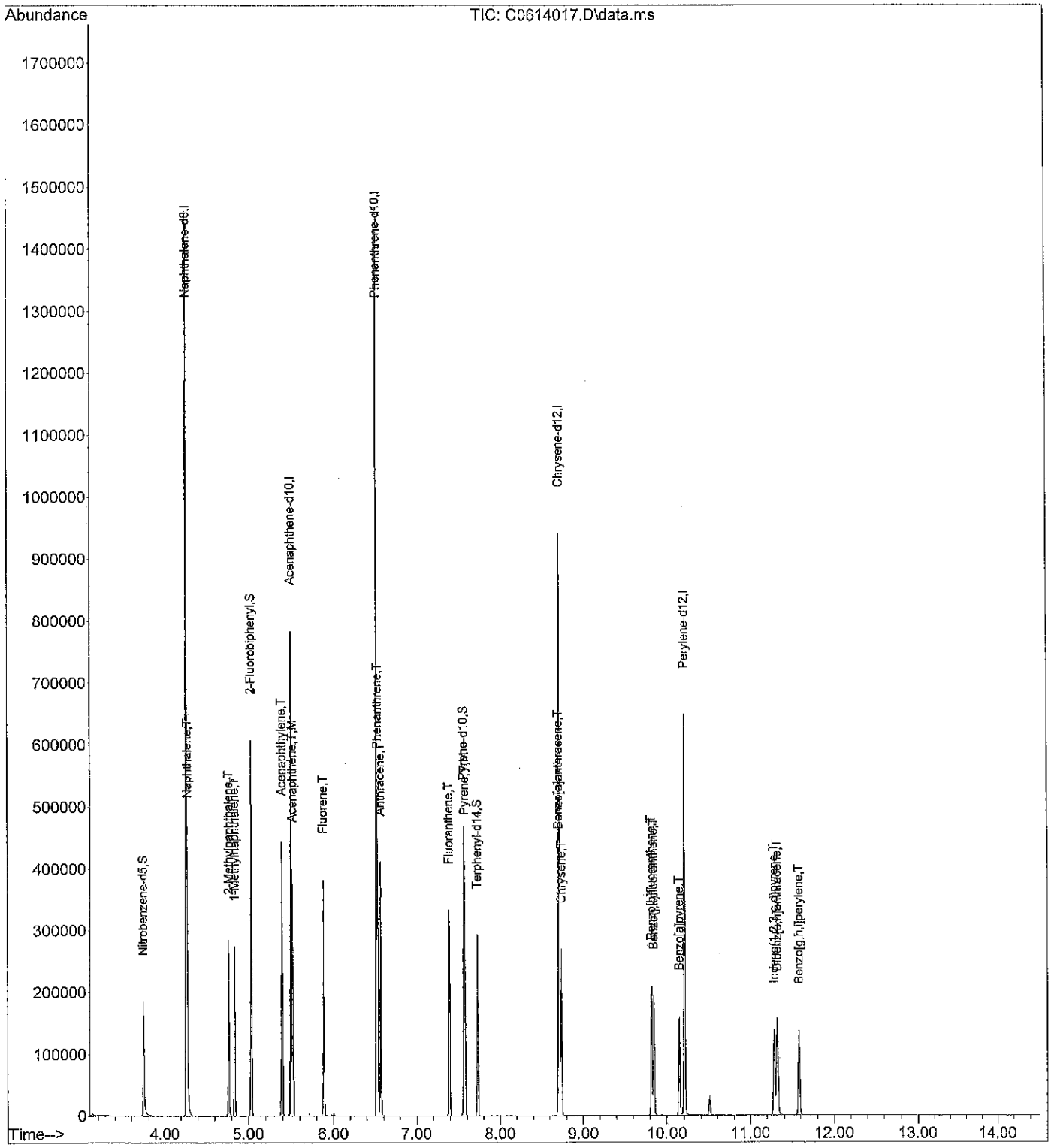
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	4.261	136	1252626	2000.00 ppb	0.00
6) Acenaphthene-d10	5.506	164	576903	2000.00 ppb	0.00
10) Phenanthrene-d10	6.523	188	899522	2000.00 ppb	0.01
17) Chrysene-d12	8.716	240	764223	2000.00 ppb	0.02
21) Perylene-d12	10.208	264	626441	2000.00 ppb	0.03
System Monitoring Compounds					
2) Nitrobenzene-d5	3.738	82	108728	1029.60 ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 102.96%#		
7) 2-Fluorobiphenyl	5.037	172	394690	902.56 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 90.26%#		
11) Pyrene-d10	7.566	212	323530	1147.50 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 114.75%#		
18) Terphenyl-d14	7.729	244	206148	984.94 ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 98.49%#		
Target Compounds					Qvalue
3) Naphthalene	4.278	128	308466	464.53 ppb	100
4) 2-Methylnaphthalene	4.772	142	202743	523.55 ppb	100
5) 1-Methylnaphthalene	4.842	142	194084	491.76 ppb	100
8) Acenaphthylene	5.398	152	306584	579.10 ppb	100
9) Acenaphthene	5.521	153	191214	460.43 ppb	100
12) Fluorene	5.883	166	212285	521.78 ppb	100
13) Phenanthrene	6.534	178	303059	494.53 ppb	100
14) Anthracene	6.569	178	258827	516.44 ppb	100
15) Fluoranthene	7.392	202	262725	580.00 ppb	100
16) Pyrene	7.578	202	287275	560.93 ppb	100
19) Benzo[a]anthracene	8.705	228	219813	564.68 ppb	100
20) Chrysene	8.740	228	213020	504.94 ppb	100
22) Benzo[b]fluoranthene	9.818	252	198460	~~669.20~~ ppb 426.85	100
23) Benzo(j,k)fluoranthene	9.845	252	182718	556.54 ppb	100
24) Benzo[a]pyrene	10.146	252	168698	511.79 ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.283	276	171699	478.05 ppb	100
26) Dibenz[a,h]anthracene	11.323	278	179796	605.43 ppb	100
27) Benzo[g,h,i]perylene	11.580	276	183392	564.08 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614017.D
Acq On : 14 Jun 2012 3:22 pm
Operator :
Sample : SB0614S1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 15:37:53 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614018.D
Acq On : 14 Jun 2012 3:44 pm
Operator :
Sample : SB0614S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 15:59:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

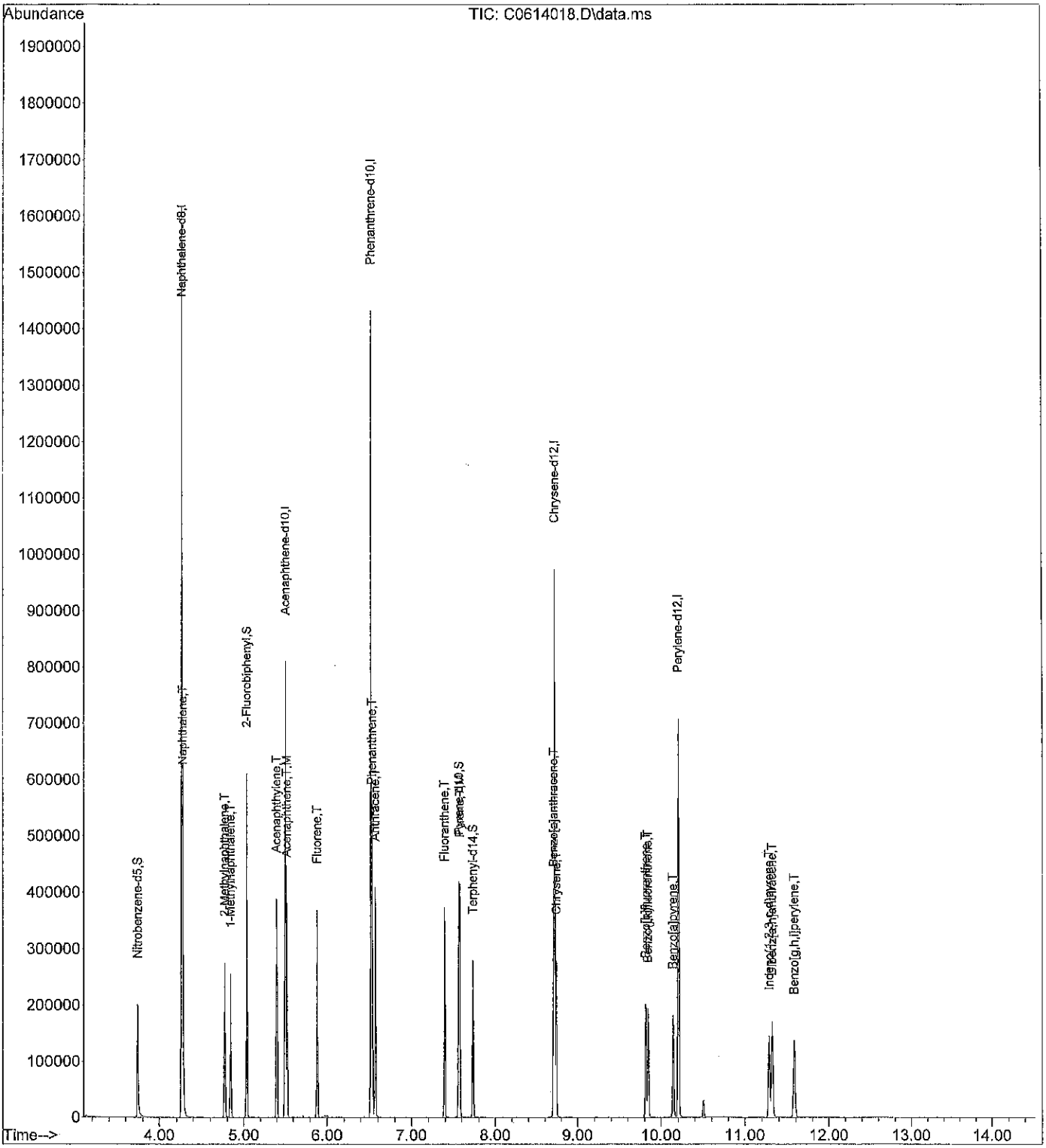
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.262	136	1237611	2000.00	ppb	0.00
6) Acenaphthene-d10	5.506	164	569560	2000.00	ppb	0.00
10) Phenanthrene-d10	6.522	188	889224	2000.00	ppb	0.01
17) Chrysene-d12	8.716	240	780473	2000.00	ppb	0.02
21) Perylene-d12	10.206	264	664750	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.740	82	103698	993.88	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 99.39%#			
7) 2-Fluorobiphenyl	5.038	172	381811	884.37	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 88.44%			
11) Pyrene-d10	7.566	212	314939	1129.96	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 113.00%#			
18) Terphenyl-d14	7.729	244	197852	925.62	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 92.56%#			
Target Compounds						Qvalue
3) Naphthalene	4.274	128	301064	458.89	ppb	100
4) 2-Methylnaphthalene	4.773	142	197045	515.01	ppb	100
5) 1-Methylnaphthalene	4.839	142	189559	486.12	ppb	100
8) Acenaphthylene	5.398	152	296493	567.26	ppb	100
9) Acenaphthene	5.521	153	185584	452.63	ppb	100
12) Fluorene	5.883	166	207050	514.80	ppb	100
13) Phenanthrene	6.534	178	296506	489.44	ppb	100
14) Anthracene	6.569	178	251666	507.96	ppb	100
15) Fluoranthene	7.392	202	260029	580.70	ppb	100
16) Pyrene	7.578	202	285473	563.87	ppb	100
19) Benzo[a]anthracene	8.704	228	218592	549.85	ppb	100
20) Chrysene	8.739	228	214364	497.54	ppb	100
22) Benzo[b]fluoranthene	9.816	252	201517	~~640.35~~ 600.74	ppb	100
23) Benzo(j,k)fluoranthene	9.843	252	180007	516.69	ppb	100
24) Benzo[a]pyrene	10.143	252	173085	494.84	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.285	276	176765	463.80	ppb	100
26) Dibenz[a,h]anthracene	11.320	278	178446	566.26	ppb	100
27) Benzo[g,h,i]perylene	11.581	276	189294	548.68	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614018.D
Acq On : 14 Jun 2012 3:44 pm
Operator :
Sample : SB0614S1 DUP
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 15:59:33 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120614\
Data File : C0614013.D
Acq On : 14 Jun 2012 13:55
Operator :
Sample : PAHCCV0614
Misc : SV3-26-03
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 14 14:10:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	91	0.00
2	S	Nitrobenzene-d5	500.000	453.156	9.4	91	0.00
3	T	Naphthalene	500.000	512.280	-2.5	94	0.00
4	T	2-Methylnaphthalene	500.000	501.413	-0.3	91	0.00
5	T	1-Methylnaphthalene	500.000	505.267	-1.1	91	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	89	0.00
7	S	2-Fluorobiphenyl	500.000	499.889	0.0	92	0.00
8	T	Acenaphthylene	500.000	520.074	-4.0	91	0.00
9	T,M	Acenaphthene	500.000	486.686	2.7	89	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	89	0.00
11	S	Pyrene-d10	500.000	544.857	-9.0	92	0.00
12	T	Fluorene	500.000	526.768	-5.4	93	0.00
13	T	Phenanthrene	500.000	515.198	-3.0	92	0.00
14	T	Anthracene	500.000	562.155	-12.4	94	0.00
15	T	Fluoranthene	500.000	547.671	-9.5	93	0.00
16	T,M	Pyrene	500.000	570.468	-14.1	93	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	89	0.00
18	S	Terphenyl-d14	500.000	530.745	-6.1	94	0.00
19	T	Benzo[a]anthracene	500.000	473.324	5.3	93	0.00
20	T	Chrysene	500.000	532.132	-6.4	93	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	90	0.00
22	T	Benzo[b]fluoranthene	500.000	585.243	-17.0	96	0.00
23	T	Benzo(j,k)fluoranthene	500.000	578.560	-15.7	90	0.00
24	T	Benzo[a]pyrene	500.000	428.014	14.4	93	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	430.729	13.9	95	0.00
26	T	Dibenz[a,h]anthracene	500.000	588.679	-17.7	94	0.00
27	T	Benzo[g,h,i]perylene	500.000	567.206	-13.4	94	0.00

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

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614013.D
Acq On : 14 Jun 2012 1:55 pm
Operator :
Sample : PAHCCV0614
Misc : SV3-26-03
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 14 14:10:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

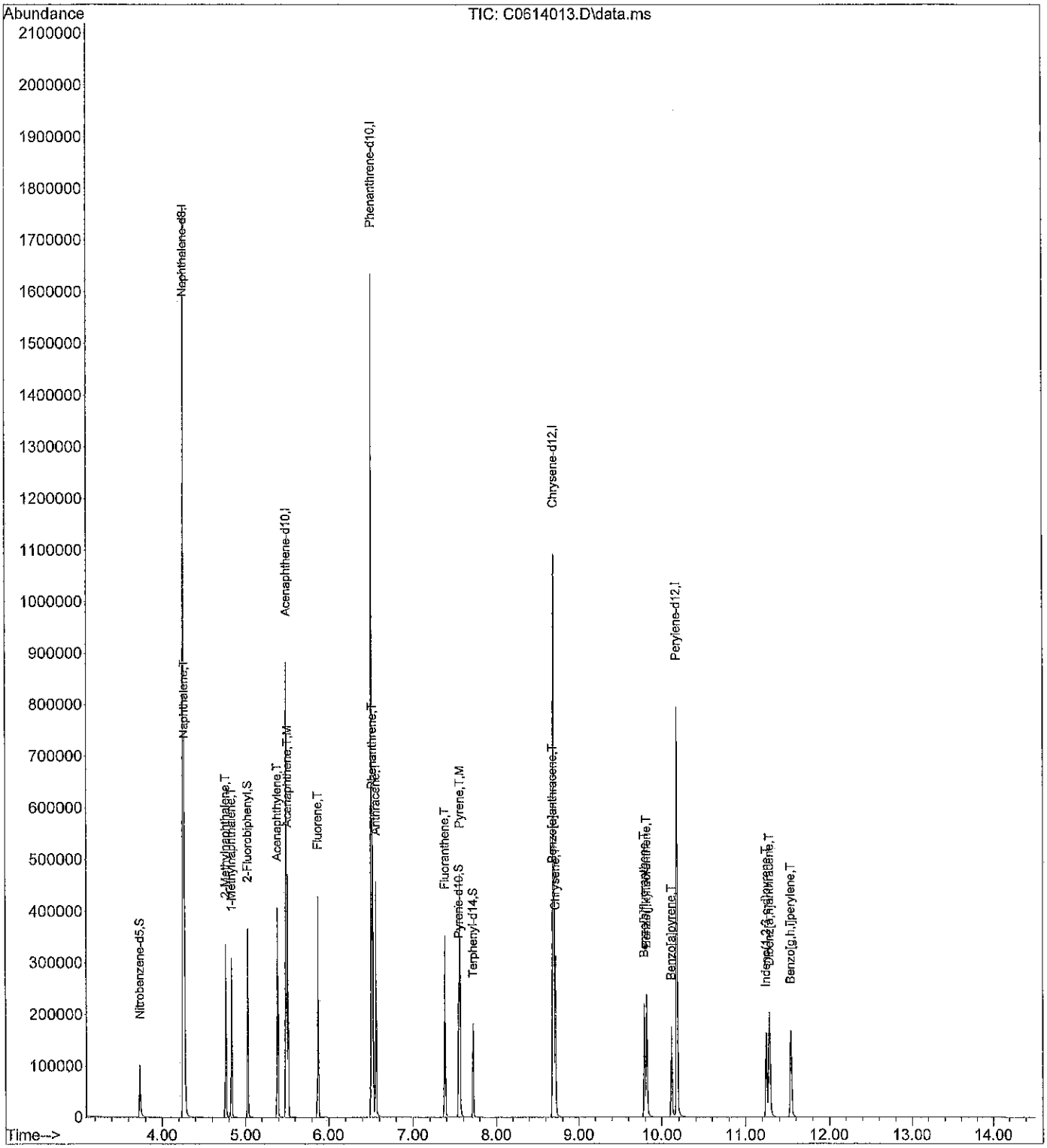
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.257	136	1496530	2000.00	ppb	0.00
6) Acenaphthene-d10	5.497	164	640730	2000.00	ppb	0.00
10) Phenanthrene-d10	6.510	188	988178	2000.00	ppb	0.00
17) Chrysene-d12	8.696	240	870236	2000.00	ppb	0.00
21) Perylene-d12	10.178	264	752362	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.735	82	57172	453.16	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 45.32%			
7) 2-Fluorobiphenyl	5.030	172	242787	499.89	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 49.99%			
11) Pyrene-d10	7.549	212	168760	544.86	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 54.49%			
18) Terphenyl-d14	7.718	244	126495	530.75	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 53.08%			
Target Compounds						Qvalue
3) Naphthalene	4.269	128	406408	512.28	ppb	100
4) 2-Methylnaphthalene	4.765	142	231978	501.41	ppb	100
5) 1-Methylnaphthalene	4.835	142	238246	505.27	ppb	100
8) Acenaphthylene	5.389	152	305795	520.07	ppb	100
9) Acenaphthene	5.512	153	224482	486.69	ppb	100
12) Fluorene	5.875	166	235439	526.77	ppb	100
13) Phenanthrene	6.522	178	346845	515.20	ppb	100
14) Anthracene	6.561	178	309508	562.15	ppb	100
15) Fluoranthene	7.381	202	272531	547.67	ppb	100
16) Pyrene	7.561	202	320953	570.47	ppb	100
19) Benzo[a]anthracene	8.685	228	209811	473.32	ppb	100
20) Chrysene	8.720	228	255634	532.13	ppb	100
22) Benzo[b]fluoranthene	9.791	252	208450	585.24	ppb	100
23) Benzo(j,k)fluoranthene	9.819	252	228128	578.56	ppb	100
24) Benzo[a]pyrene	10.115	252	169441	428.01	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.245	276	185798	430.73	ppb	100
26) Dibenz[a,h]anthracene	11.284	278	209961	588.68	ppb	100
27) Benzo[g,h,i]perylene	11.538	276	221478	567.21	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/12

Data Path : C:\MSDCHEM\1\DATA\C120614\
Data File : C0614013.D
Acq On : 14 Jun 2012 1:55 pm
Operator :
Sample : PAHCCV0614
Misc : SV3-26-03
ALS Vial : 3 Sample Multiplier: 1

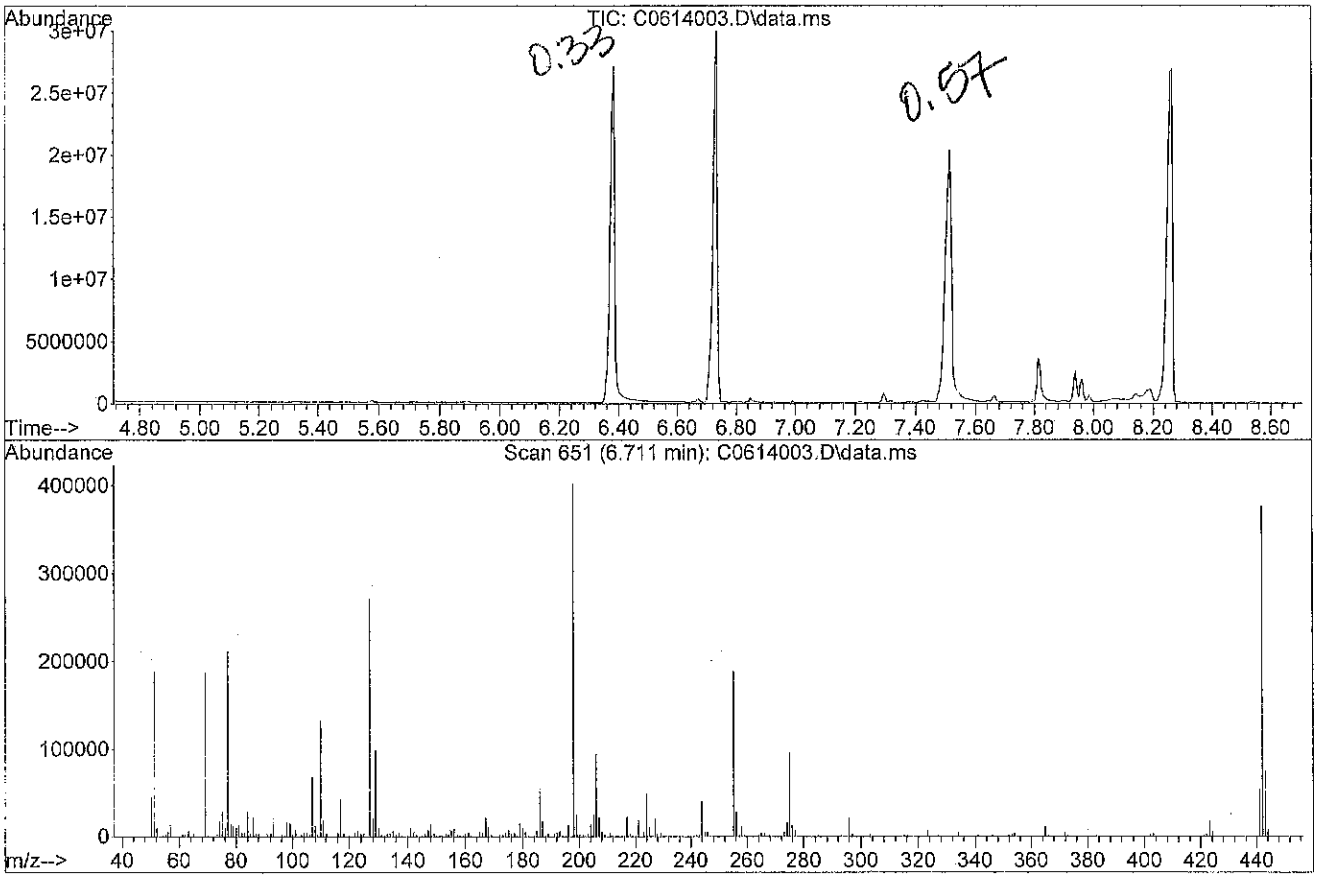
Quant Time: Jun 14 14:10:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C120614\
Data File : C0614003.D
Acq On : 14 Jun 2012 10:18
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Title : PAH'S BY SIMS
Last Update : Thu Jun 14 10:13:25 2012



Spectrum Information: Scan 651

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	47.0	189696	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.6	188160	PASS
70	69	0.00	2	1.2	2211	PASS
127	198	25	75	67.4	272128	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	403648	PASS
199	198	5	9	6.5	26240	PASS
275	198	10	30	24.0	96904	PASS
365	198	0.75	100	3.0	12247	PASS
441	443	0.01	100	71.0	53904	PASS
442	198	40	110	93.3	376704	PASS
443	442	15	24	20.1	75880	PASS

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120614\C0614003.D
Tune Time : 14 Jun 2012 10:18

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120614\C0614013.D

	(PRY)	(NPT)	(ACE)	(PHN)
		1496530	640730	988178
		(CRY)	(PRY)	
		870236	752362	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0614014.D								
	06-058-03	95*	100*	112*	125*	1320540	570227	790271
			536728		443329			
C0614016.D								
	MB0614S1	95*	83	109	98*	1283078	593085	906818
			737054		579881			
C0614017.D								
	SB0614S1	103*	90*	115*	98*	1252626	576903	899522
			764223		626441			
C0614018.D								
	SB0614S1 D	99*	88	113*	93*	1237611	569560	889224
			780473		664750			
C0614019.D								
	06-070-06	86	78	109	91	1249653	571388	890841
			776637		671136			
C0614020.D								
	06-070-07	91	81	110*	92	1259548	569162	900255
			786482		690492			
C0614021.D								
	06-070-08	97*	85	105	94*	1223633	552573	874361
			732447		623569			
C0614022.D								
	06-070-09	90	77	103	86	1238243	564117	887819
			775357		693960			
C0614023.D								
	06-070-10	97*	85	99	94*	1225126	543883	861040
			642406		546358			
C0614024.D								
	06-070-12	104*	95*	114*	96*	1207363	519372	848271
			703257		611963			
C0614025.D								
	06-070-14	97*	84	108	95*	1199528	540416	842200
			683884		592055			
C0614026.D								
	06-070-03	105*	91*	105	98*	1198453	524273	819028
			647082		552823			
C0614028.D								
	06-070-02	114*	95*	111*	101*	1171319	446835	656943
			559810		495575			
C0614029.D								

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0613-V52.D
Sample : 06-070-01 50X

Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 11:32
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 12:08:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.639	3361530	1.325	PPM
Spiked Amount		50.000		Recovery =	2.65%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6641504	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	480520213	204.361	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	657297101	257.225	PPM
6)	H	Oil	22.000	772771885	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	763415551	363.538	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	576908254	234.124	PPM
9)	H	Oil Combo	22.000	666312616	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	664413914	320.340	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	676738112	255.620	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	423625367	361.188	PPM
13)	H	Mineral Oil (03-14-12)	16.000	686068859	245.507	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1238658772	833.887	PPM
15)	H	ALKANE C9-C40	12.666	1235334466	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	510144907	189.306	PPM
17)	H	Oil Acid Clean MO Com...	22.000	589149183	291.730	PPM

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

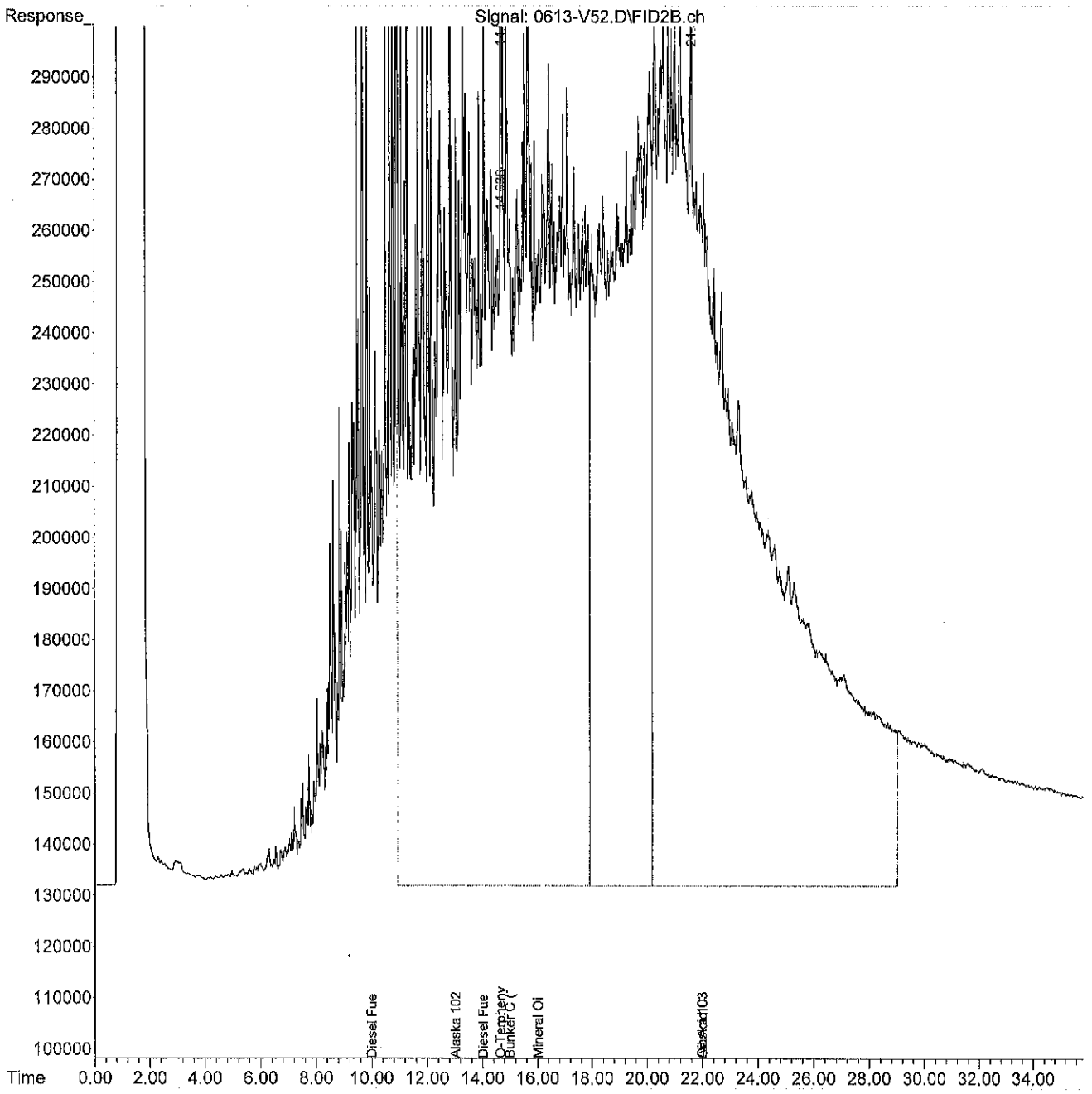
Quantitation Report (Not Reviewed)

Data File : 0613-V52.D
Sample : 06-070-01 50X

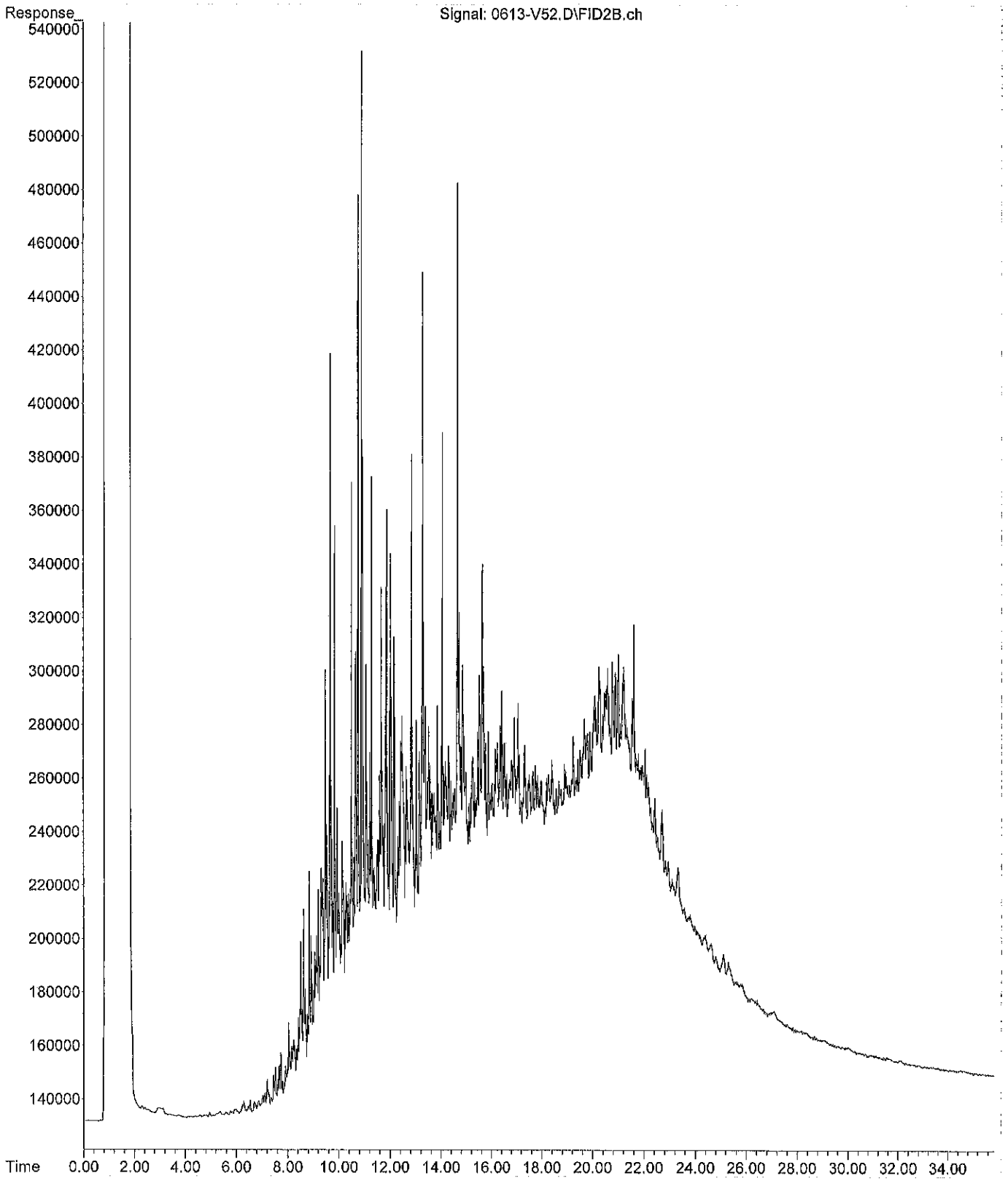
Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 11:32
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 12:08:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



```
File         :C:\msdchem\2\DATA\V120613.SEC\0613-V52.D
Operator     :
Acquired     : 13 Jun 2012  11:32      using AcqMethod V120607F.M
Instrument   :   VIGO
Sample Name: 06-070-01 50X
Misc Info    :
Vial Number: 52
```



Quantitation Report (Not Reviewed)

Data File : 0612-V74.D
Sample : 06-070-02

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 00:56
Operator :
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 01:32:52 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	135713452	45.288	PPM
Spiked Amount		50.000		Recovery =	90.58%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3929517	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	58900924	23.856	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	95037629	37.581	PPM
6)	H	Oil	22.000	202555119	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	204434066	84.038	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	77360078	31.747	PPM
9)	H	Oil Combo	22.000	182135685	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	184757378	76.053	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	99572102	33.202	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	115787141	91.142	PPM
13)	H	Mineral Oil (03-14-12)	16.000	128628652	41.926	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	261036749	156.949	PPM
15)	H	ALKANE C9-C40	12.666	260219563	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	85601443	28.261	PPM
17)	H	Oil Acid Clean MO Com...	22.000	168236831	70.362	PPM

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

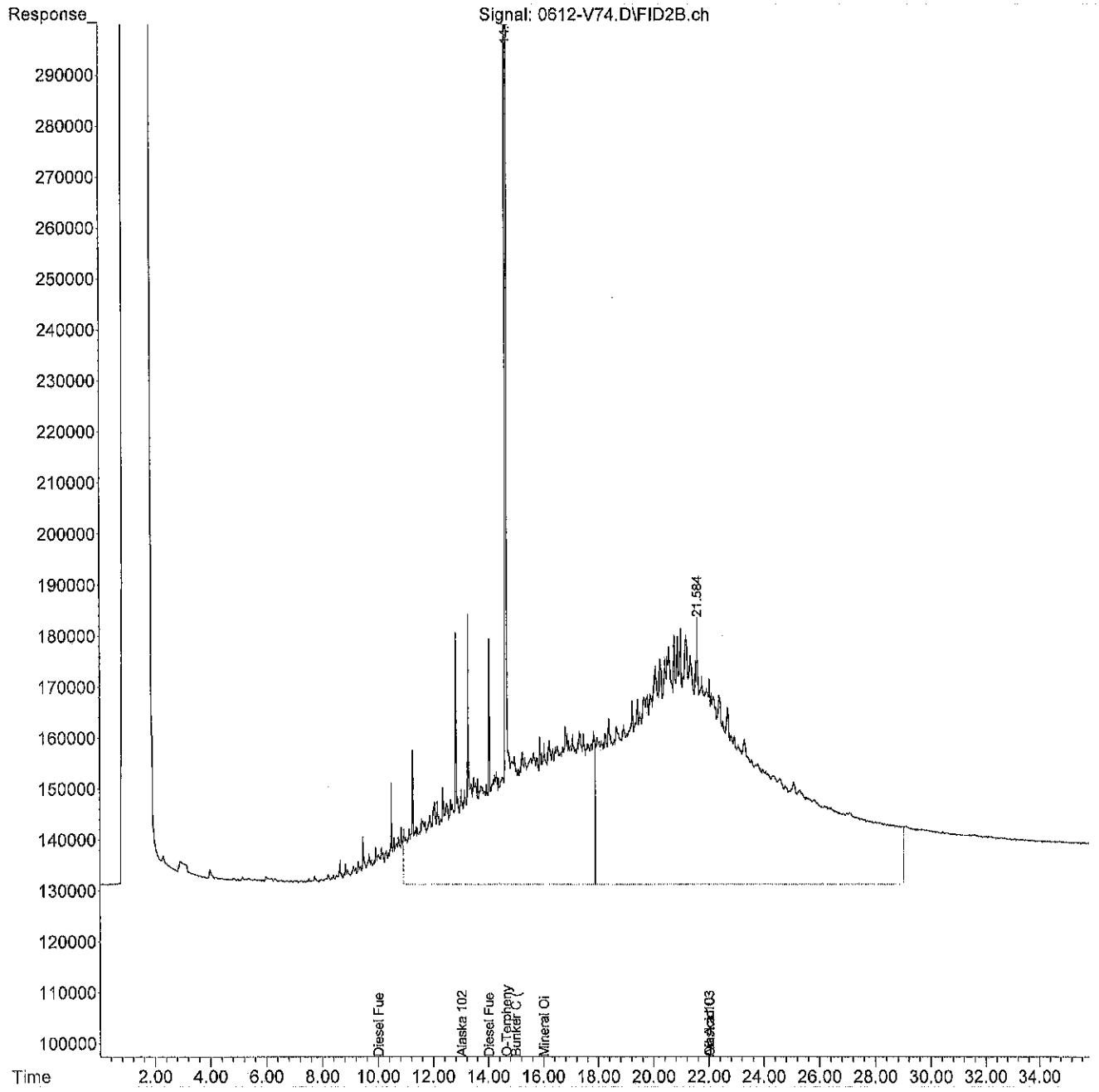
Quantitation Report (Not Reviewed)

Data File : 0612-V74.D
Sample : 06-070-02

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 00:56
Operator :
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 01:32:52 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V02.D
Sample : 06-070-03

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 11:32
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 12:08:49 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.486	124593474	49.170	PPM
Spiked Amount		50.000		Recovery =	98.34%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7720803	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	38213462	11.698	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	70110595	25.758	PPM
6)	H	Oil	22.000	268866521	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	272953384	112.984	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	51661140	19.169	PPM
9)	H	Oil Combo	22.000	251966987	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	256301754	107.548	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	73436629	26.484	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	152166917	132.989	PPM
13)	H	Mineral Oil (03-13-12)	16.000	108809570	38.618	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	300600910	160.195	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	312151185	3952.508	PPM
16)	H	Mineral Oil Combo (0...	16.000	61451919	22.821	PPM
17)	H	Oil Acid Clean MO Com...	22.000	240827302	103.744	PPM

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

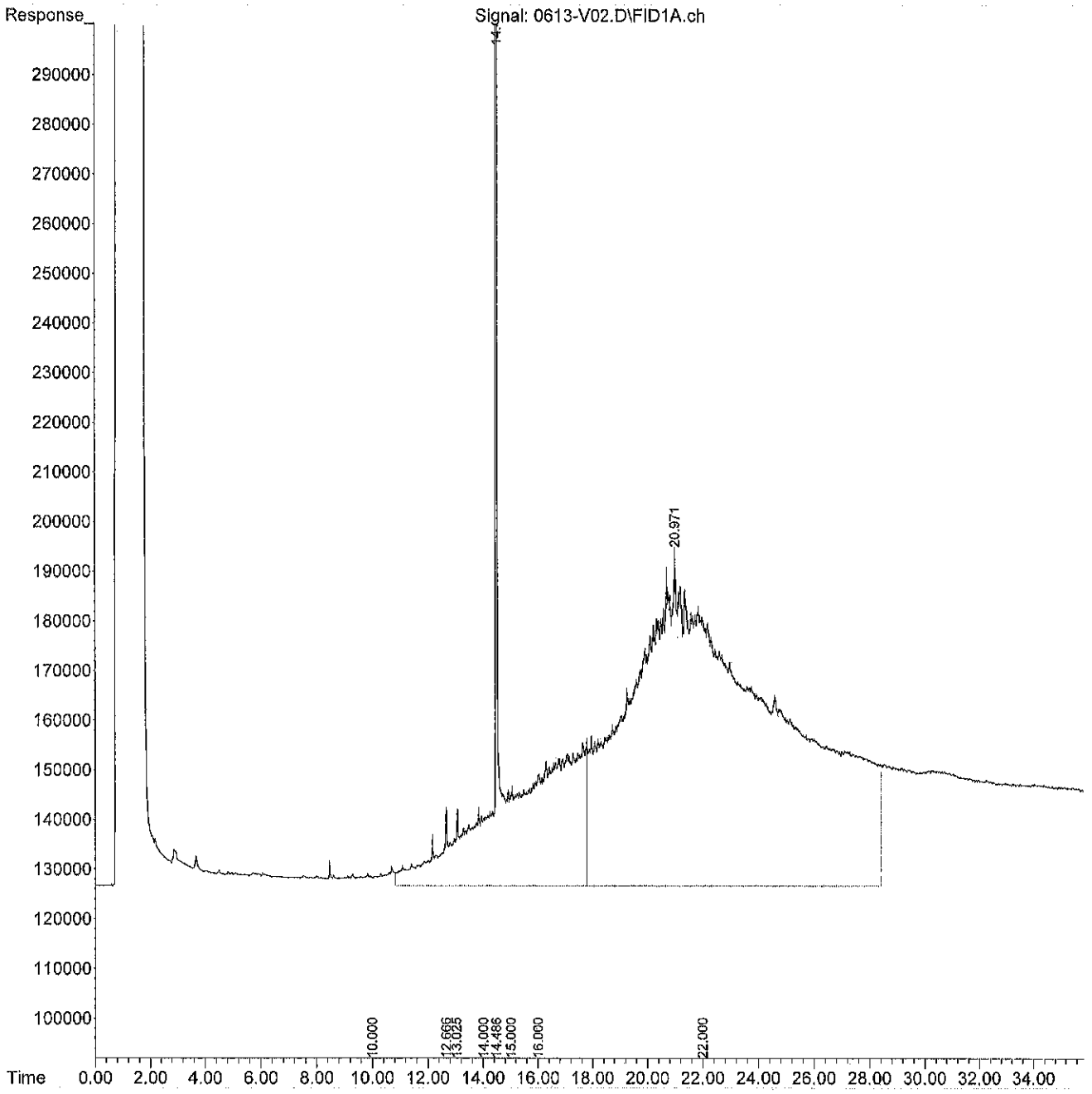
Quantitation Report (Not Reviewed)

Data File : 0613-V02.D
Sample : 06-070-03

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 11:32
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 12:08:49 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V19.D
Sample : 06-070-04

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 21:36
Operator :
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:12:28 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-13-12)	14.485	124049987	48.955	PPM
Spiked Amount		50.000		Recovery =	97.91%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8320698	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	227450957	95.379	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	451185702	186.674	PPM
6)	H	Oil	22.000	1311252786	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	1305658571	619.255	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	334359420	143.143	PPM
9)	H	Oil Combo	22.000	1197299994	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1195142747	578.083	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	470677230	183.788	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	810414173	740.539	PPM
13)	H	Mineral Oil (03-13-12)	16.000	718106788	286.678	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1511907430	1008.107	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	1536053491	19535.973	PPM
16)	H	Mineral Oil Combo (0...	16.000	419997679	171.387	PPM
17)	H	Oil Acid Clean MO Com...	22.000	1096632625	548.166	PPM

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

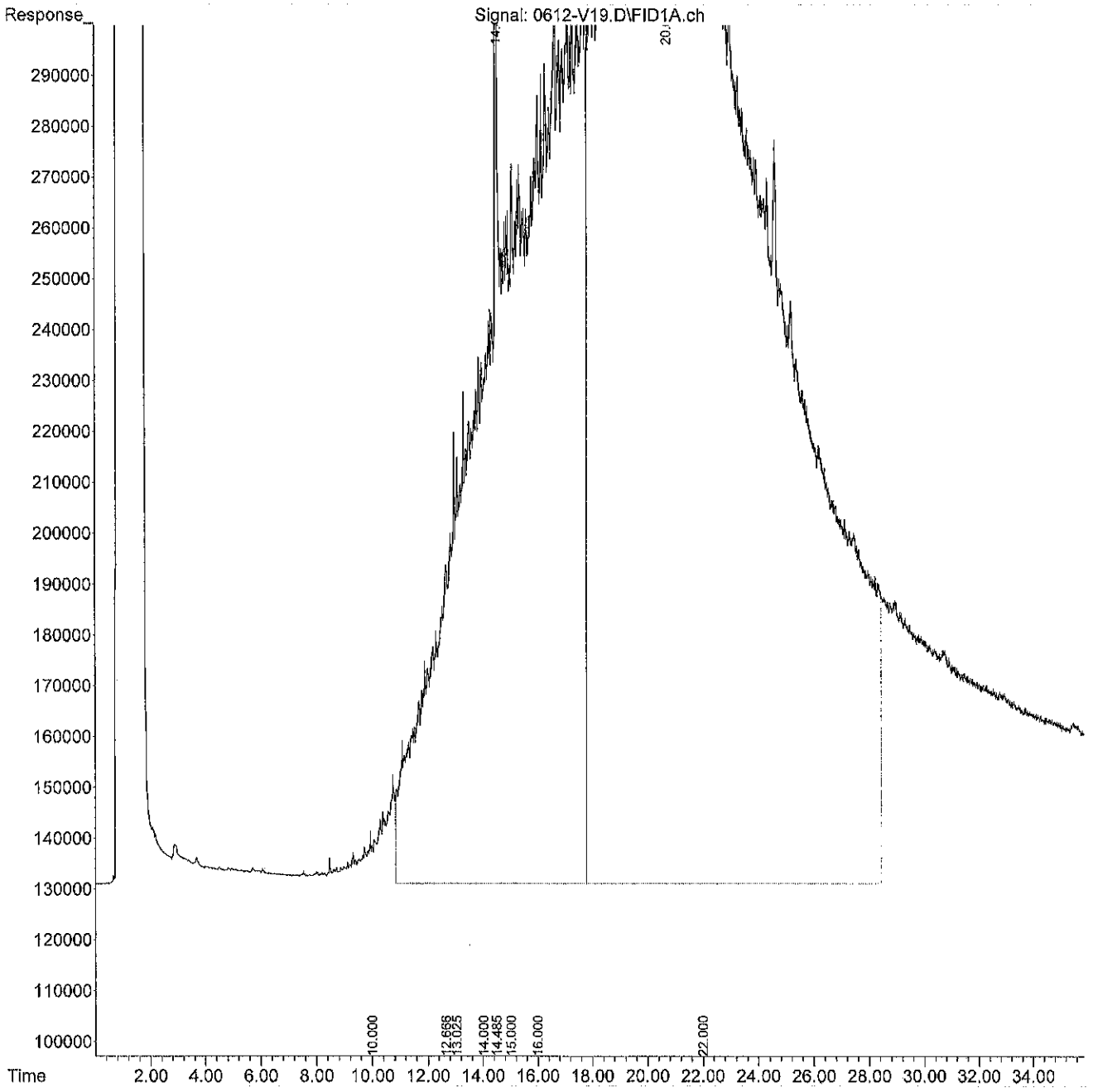
Quantitation Report (Not Reviewed)

Data File : 0612-V19.D
Sample : 06-070-04

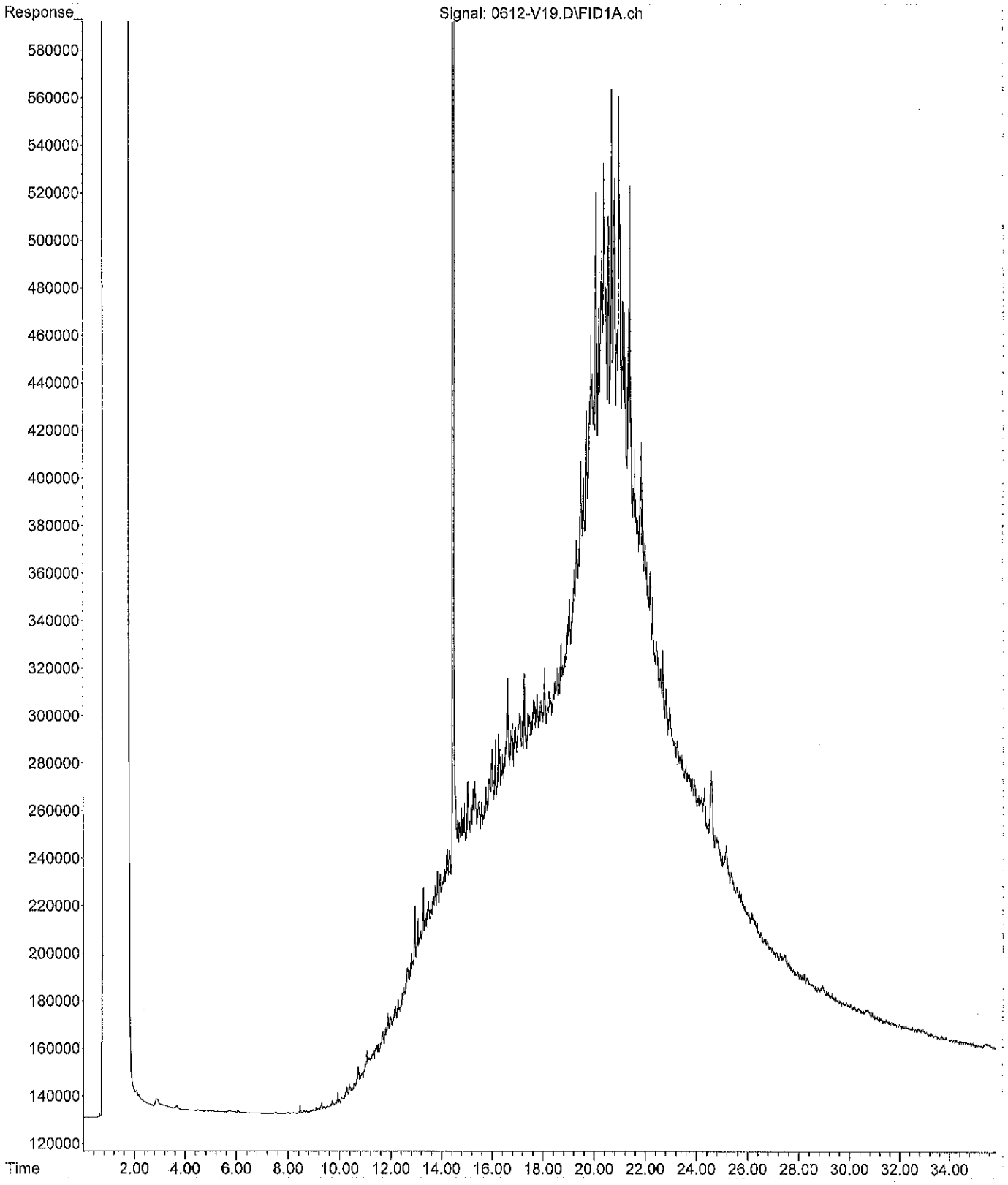
Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 21:36
Operator :
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:12:28 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



File :C:\msdchem\2\DATA\V120612\0612-V19.D
Operator :
Acquired : 12 Jun 2012 21:36 using AcqMethod V120607F.M
Instrument : VIGO
Sample Name: 06-070-04
Misc Info :
Vial Number: 19



Quantitation Report (Not Reviewed)

Data File : 0612-V76.D
Sample : 06-070-05

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 2:16
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 02:52:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.652	119506100	39.905	PPM
Spiked Amount		50.000		Recovery =	79.81%	
Target Compounds						
2)		1-Chlorooctadecane (...	16.063	3097583	1.343	PPM
3)	H	Gasoline	3.500	9222200	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	784134696	334.346	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	1927336664	753.360	PPM
6)	H	Oil	22.000	3876015150	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	3728645005	1846.202	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	1385209939	561.584	PPM
9)	H	Oil Combo	22.000	3252927567	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	3123661960	1572.824	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	2051341758	785.339	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	2249659107	1963.045	PPM
13)	H	Mineral Oil (03-14-12)	16.000	3000829079	1090.875	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	4507708640	3097.488	PPM
15)	H	ALKANE C9-C40	12.666	4505736092	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	1879467807	708.740	PPM
17)	H	Oil Acid Clean MO Com...	22.000	2615028470	1357.188	PPM

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

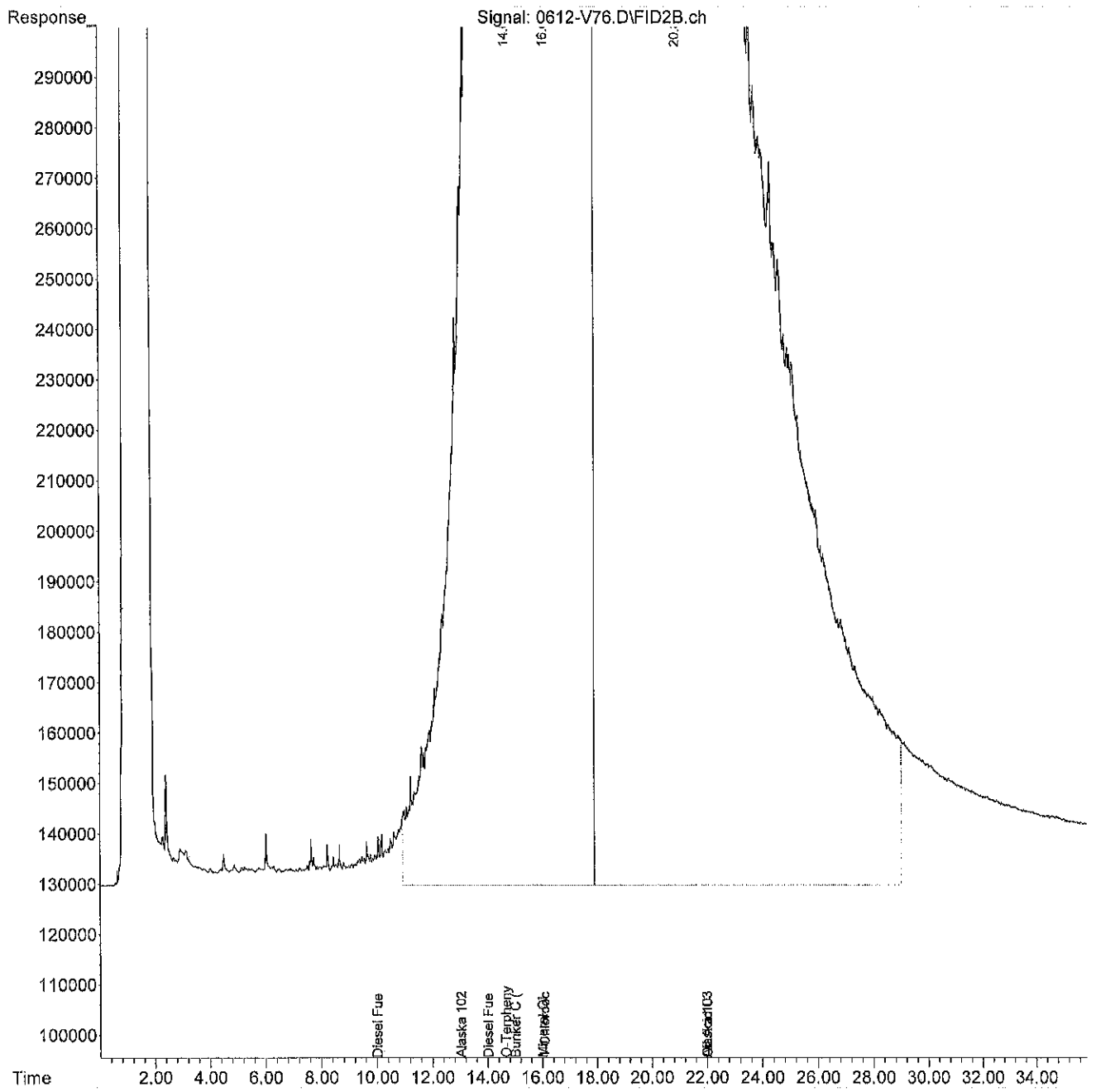
Quantitation Report (Not Reviewed)

Data File : 0612-V76.D
Sample : 06-070-05

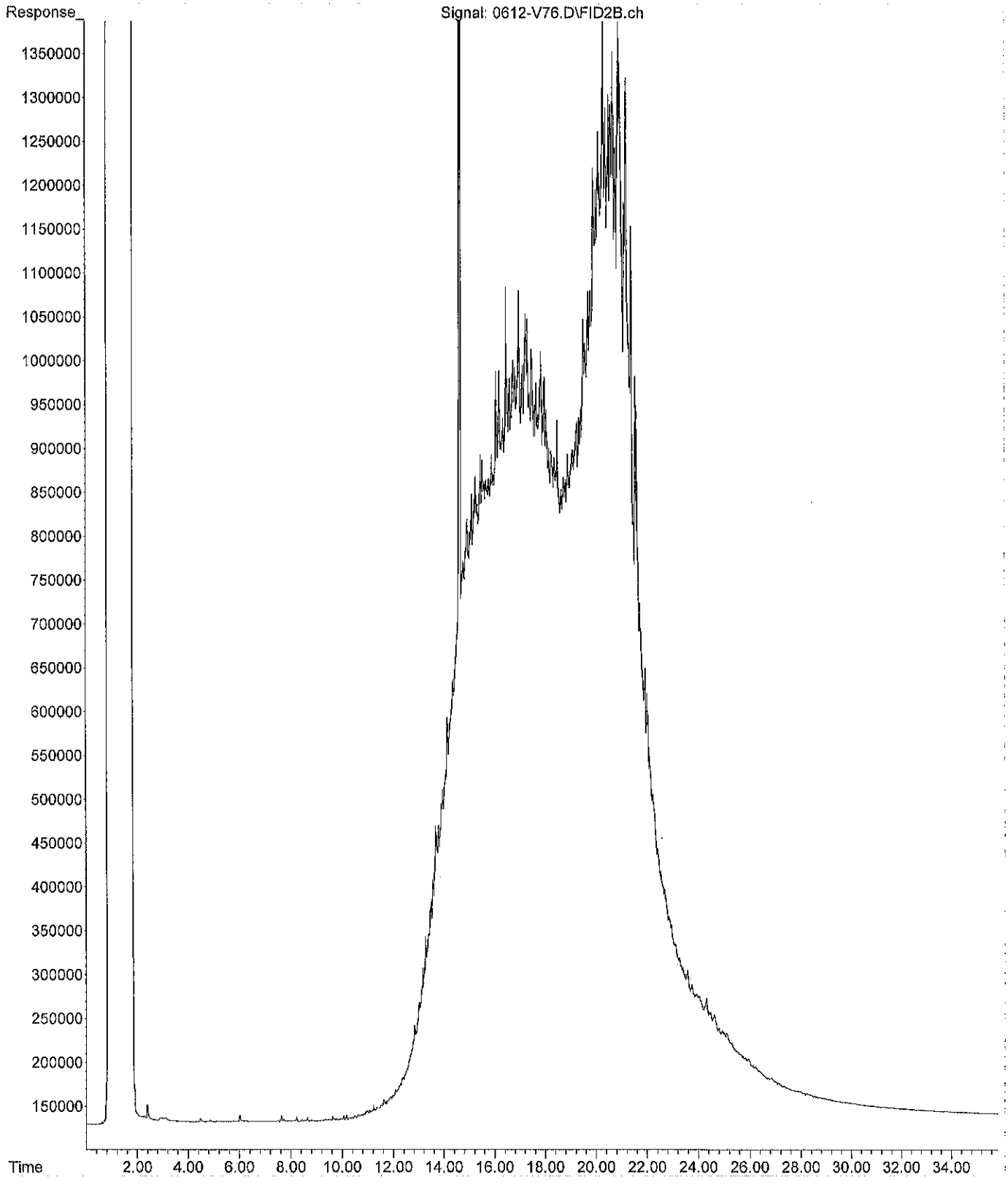
Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 2:16
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 02:52:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



```
File        :C:\msdchem\2\DATA\V120612.SEC\0612-V76.D
Operator    :
Acquired    : 13 Jun 2012    2:16      using AcqMethod V120607F.M
Instrument  :    VIGO
Sample Name: 06-070-05
Misc Info   :
Vial Number: 76
```



Quantitation Report (Not Reviewed)

Data File : 0612-V69.D
Sample : 06-070-06

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 21:36
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:12:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.652	115604217	38.609	PPM
Spiked Amount		50.000		Recovery =	77.22%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3666974	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	3173339	N.D.	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	3598882	1.860	PPM
6)	H	Oil	22.000	35907351	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	39809881	1.723	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	2826489	1.551	PPM
9)	H	Oil Combo	22.000	35165666	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	39080075	1.860	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	3952138	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	17670120	5.071	PPM
13)	H	Mineral Oil (03-14-12)	16.000	5811078	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	41254730	4.764	PPM
15)	H	ALKANE C9-C40	12.666	41192146	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	2836913	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	38359543	2.056	PPM

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

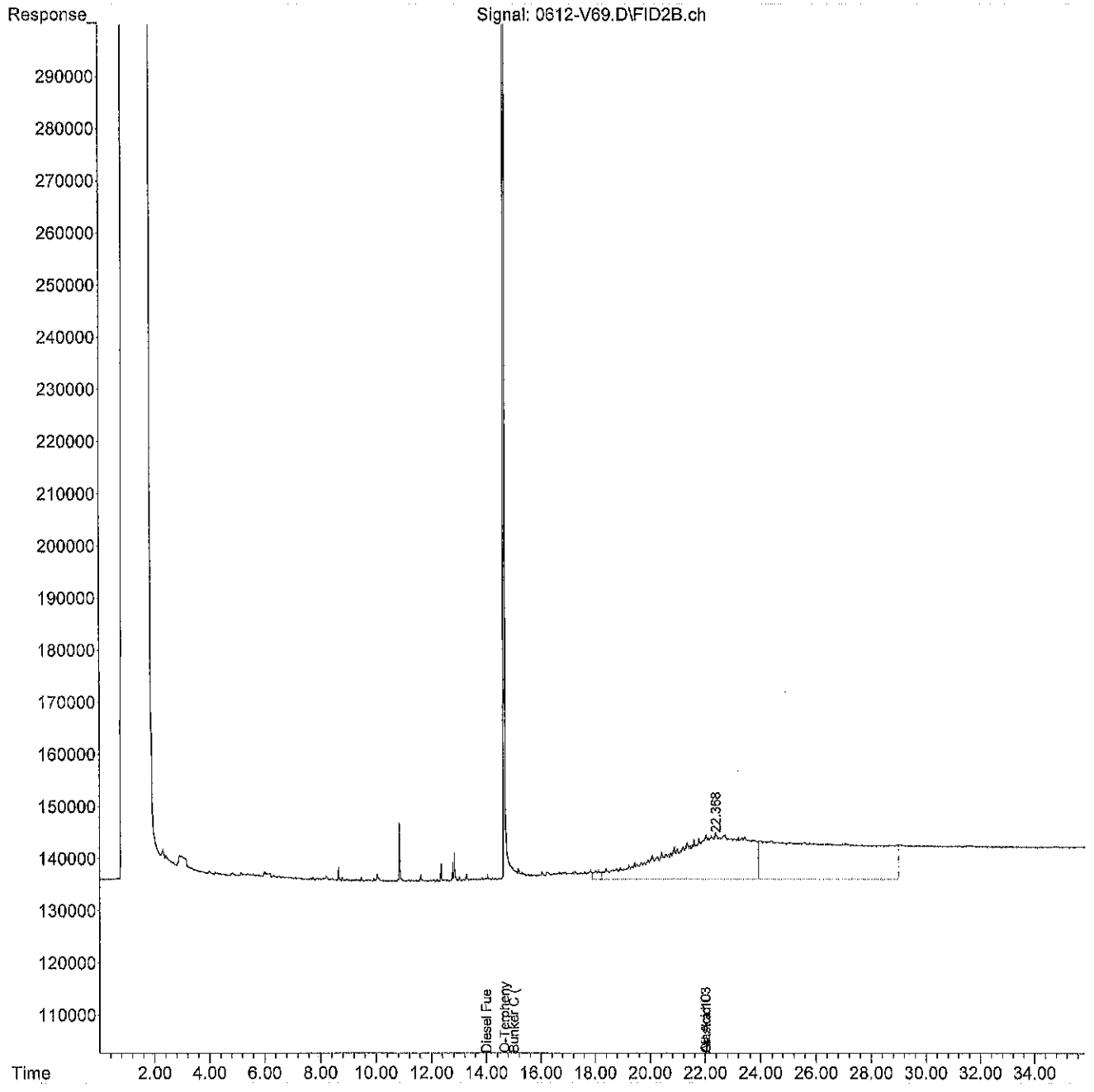
Quantitation Report (Not Reviewed)

Data File : 0612-V69.D
Sample : 06-070-06

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 21:36
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:12:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V70.D
Sample : 06-070-07

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 22:16
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:52:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.653	121412546	40.538	PPM
Spiked Amount		50.000		Recovery =	81.08%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3715025	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	2920769	N.D.	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	3210165	1.709	PPM
6)	H	Oil	22.000	36215531	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	39908577	1.773	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	2461462	1.404	PPM
9)	H	Oil Combo	22.000	35603556	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	39280647	1.962	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	3555016	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	18850395	6.106	PPM
13)	H	Mineral Oil (03-14-12)	16.000	5933167	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	41135633	4.682	PPM
15)	H	ALKANE C9-C40	12.666	41213084	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	2543403	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	38583709	2.174	PPM

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

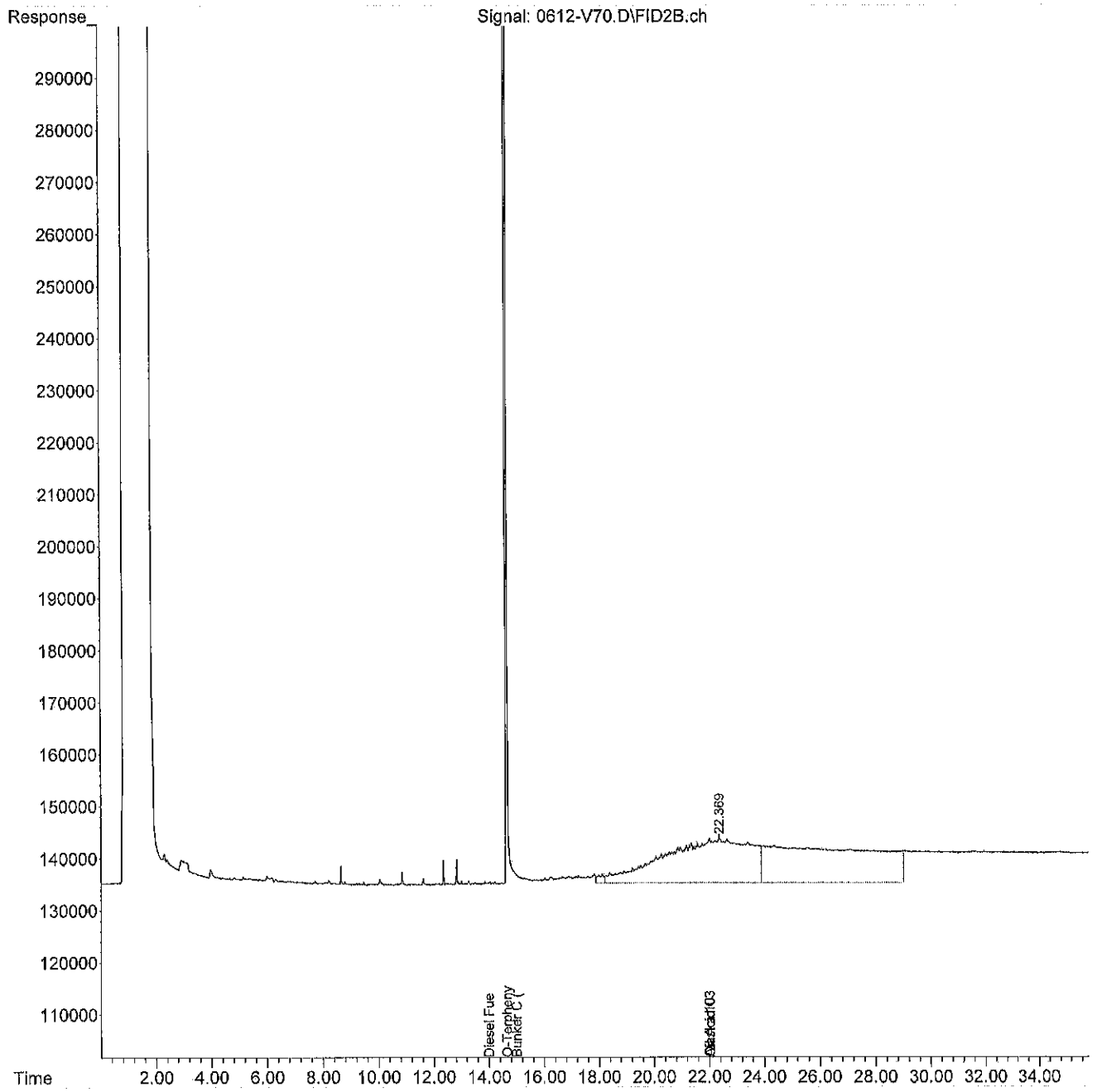
Quantitation Report (Not Reviewed)

Data File : 0612-V70.D
Sample : 06-070-07

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 22:16
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 22:52:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V71.D
Sample : 06-070-08

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 22:56
Operator :
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 23:33:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	128501756	42.893	PPM
Spiked Amount		50.000		Recovery =	85.79%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3946596	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6810749	1.555	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	13168709	5.599	PPM
6)	H	Oil	22.000	87303911	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	91326026	27.482	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9370838	4.203	PPM
9)	H	Oil Combo	22.000	83487038	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	87589924	26.566	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	14334778	0.355	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	53058451	36.115	PPM
13)	H	Mineral Oil (03-14-12)	16.000	25880646	4.402	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	96189495	42.803	PPM
15)	H	ALKANE C9-C40	12.666	96023583	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	12253856	0.438	PPM
17)	H	Oil Acid Clean MO Com...	22.000	84051444	26.087	PPM

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

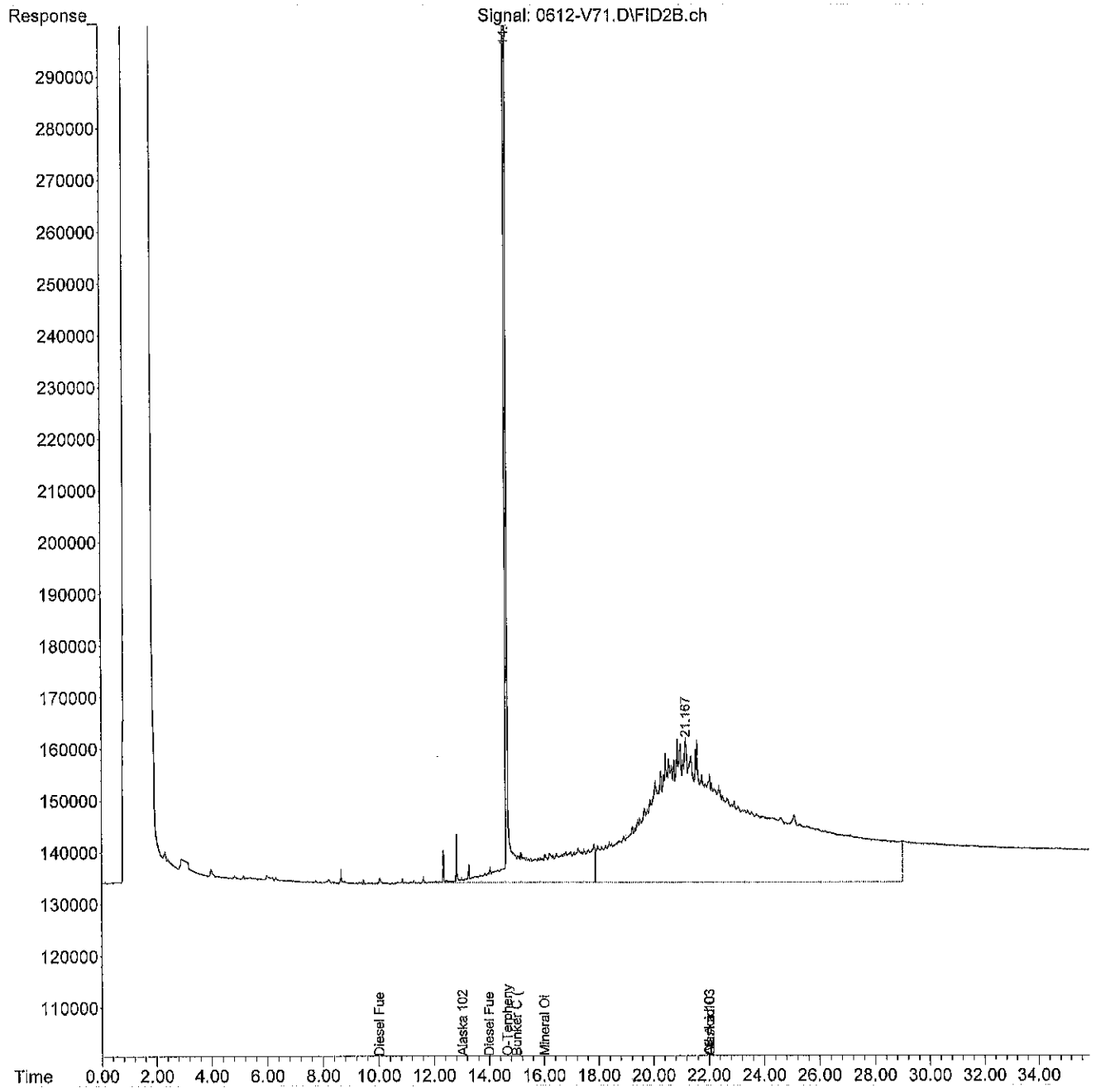
Quantitation Report (Not Reviewed)

Data File : 0612-V71.D
Sample : 06-070-08

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 22:56
Operator :
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 23:33:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V62.D
Sample : 06-070-09

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:43
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 17:19:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.656	134888652	45.014	PPM
Spiked Amount		50.000		Recovery =	90.03%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4230774	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	4743611	0.670	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	4953665	2.390	PPM
6)	H	Oil	22.000	49625584	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	55667294	9.652	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	4183469	2.101	PPM
9)	H	Oil Combo	22.000	48805317	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	54886747	9.911	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	5344034	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	23095370	9.830	PPM
13)	H	Mineral Oil (03-14-12)	16.000	6620101	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	58063883	16.403	PPM
15)	H	ALKANE C9-C40	12.666	57667639	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	3552519	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	54168733	10.371	PPM

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

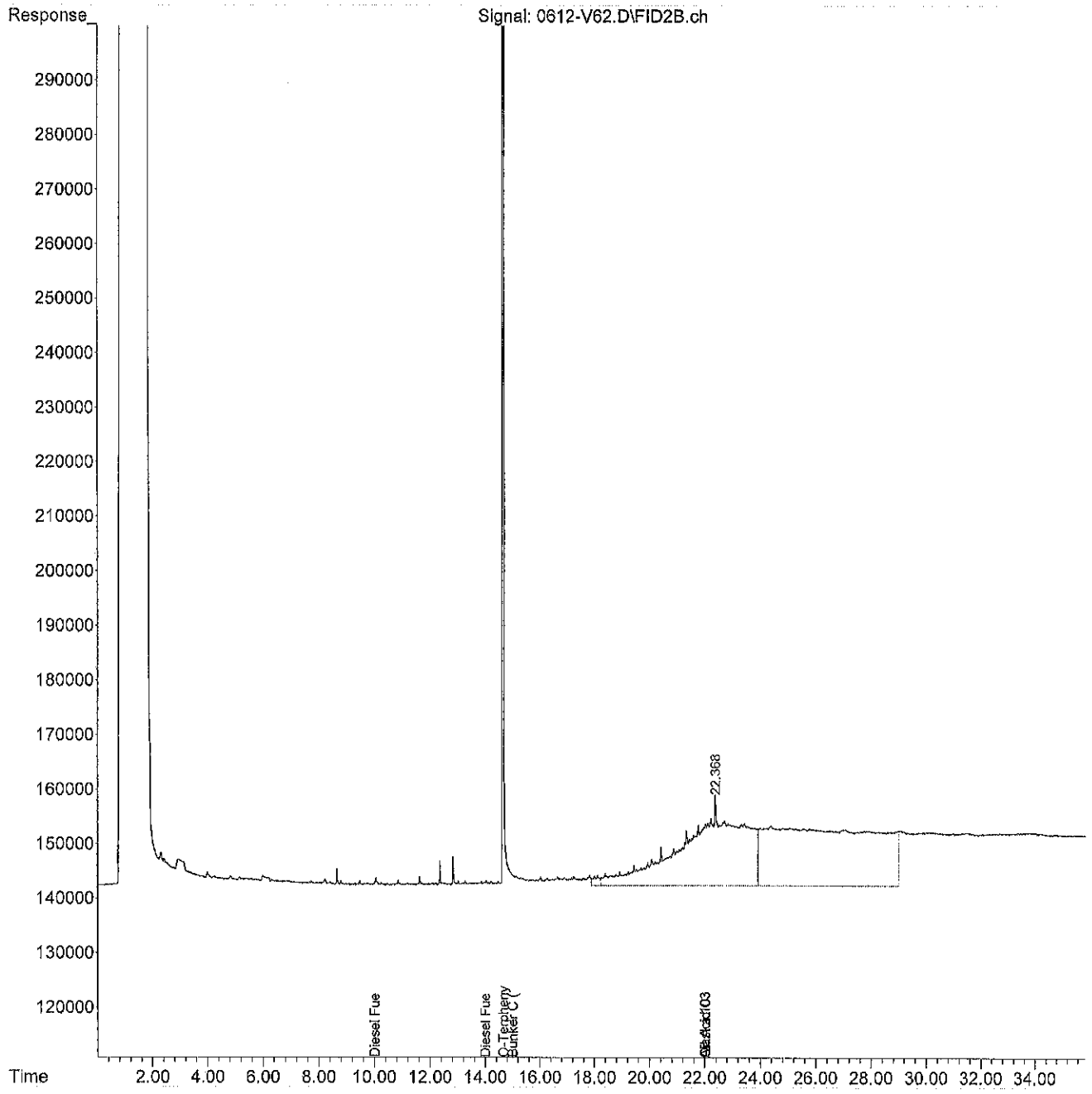
Quantitation Report (Not Reviewed)

Data File : 0612-V62.D
Sample : 06-070-09

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:43
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 17:19:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V65.D
Sample : 06-070-10

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 18:56
Operator :
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 19:32:35 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	126843556	42.342	PPM
Spiked Amount		50.000		Recovery =	84.68%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3741545	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6024649	1.218	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	14235456	6.016	PPM
6)	H	Oil	22.000	71976894	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	75329904	19.484	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9436958	4.229	PPM
9)	H	Oil Combo	22.000	67658861	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	70851592	18.041	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	15593166	0.840	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	41230338	25.739	PPM
13)	H	Mineral Oil (03-14-12)	16.000	26804718	4.739	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	79610072	31.323	PPM
15)	H	ALKANE C9-C40	12.666	79529051	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	13435030	0.886	PPM
17)	H	Oil Acid Clean MO Com...	22.000	66370619	16.788	PPM

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

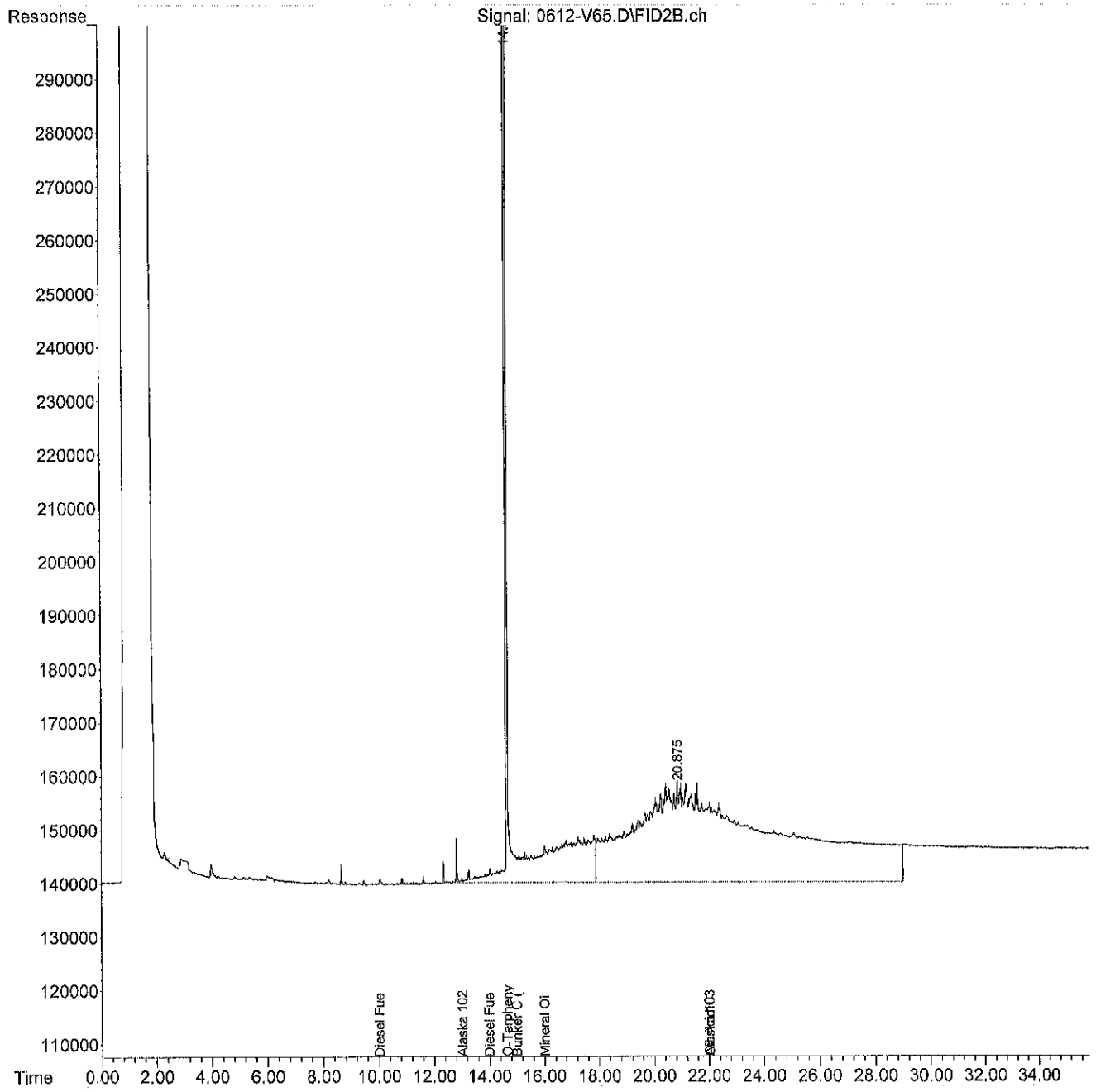
Quantitation Report (Not Reviewed)

Data File : 0612-V65.D
Sample : 06-070-10

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 18:56
Operator :
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 19:32:35 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V66.D
Sample : 06-070-12

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 19:36
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:12:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	134504777	44.887	PPM
Spiked Amount		50.000		Recovery =	89.77%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3885254	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6989600	1.631	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	13600219	5.767	PPM
6)	H	Oil	22.000	65163283	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	68825707	16.232	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9762210	4.361	PPM
9)	H	Oil Combo	22.000	61269974	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	64889556	15.005	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	14715214	0.502	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	35689313	20.878	PPM
13)	H	Mineral Oil (03-14-12)	16.000	23230371	3.434	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	73938501	27.396	PPM
15)	H	ALKANE C9-C40	12.666	73884389	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	12644006	0.586	PPM
17)	H	Oil Acid Clean MO Com...	22.000	61305066	14.124	PPM

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

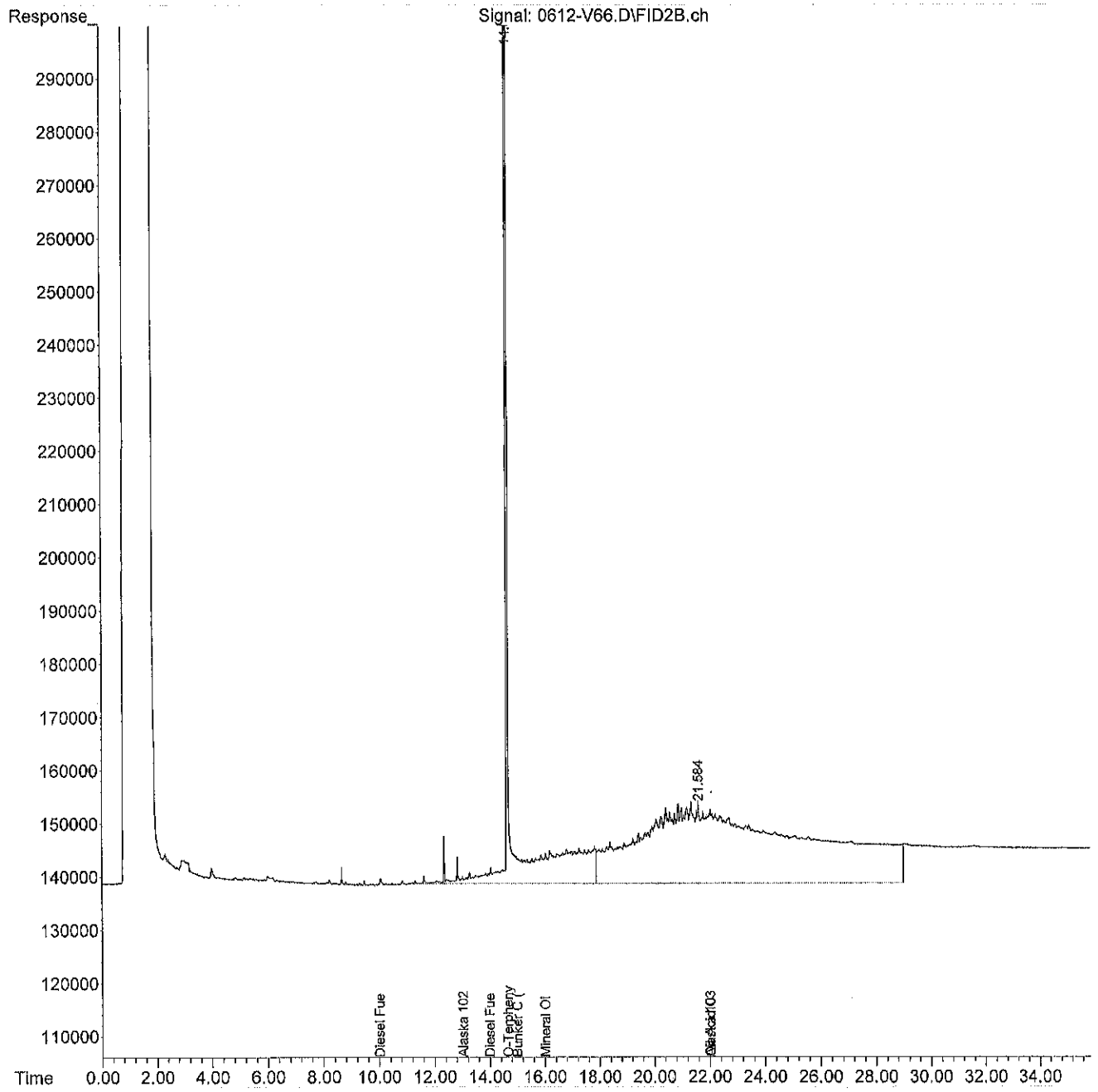
Quantitation Report (Not Reviewed)

Data File : 0612-V66.D
Sample : 06-070-12

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 19:36
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:12:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V13.D
Sample : 06-070-13

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 17:36
Operator :
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 18:12:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-13-12)	14.484	124500235	49.133	PPM
Spiked Amount		50.000		Recovery =	98.27%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8270691	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	116869753	46.480	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	249675679	101.583	PPM
6)	H	Oil	22.000	926390455	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	926444164	433.350	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	177342782	74.285	PPM
9)	H	Oil Combo	22.000	860274484	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	862482422	411.358	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	262601836	101.392	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	586713263	534.067	PPM
13)	H	Mineral Oil (03-13-12)	16.000	435851194	171.765	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1025996483	667.971	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	1045530691	13290.340	PPM
16)	H	Mineral Oil Combo (0...	16.000	227967108	91.818	PPM
17)	H	Oil Acid Clean MO Com...	22.000	801877870	395.099	PPM

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

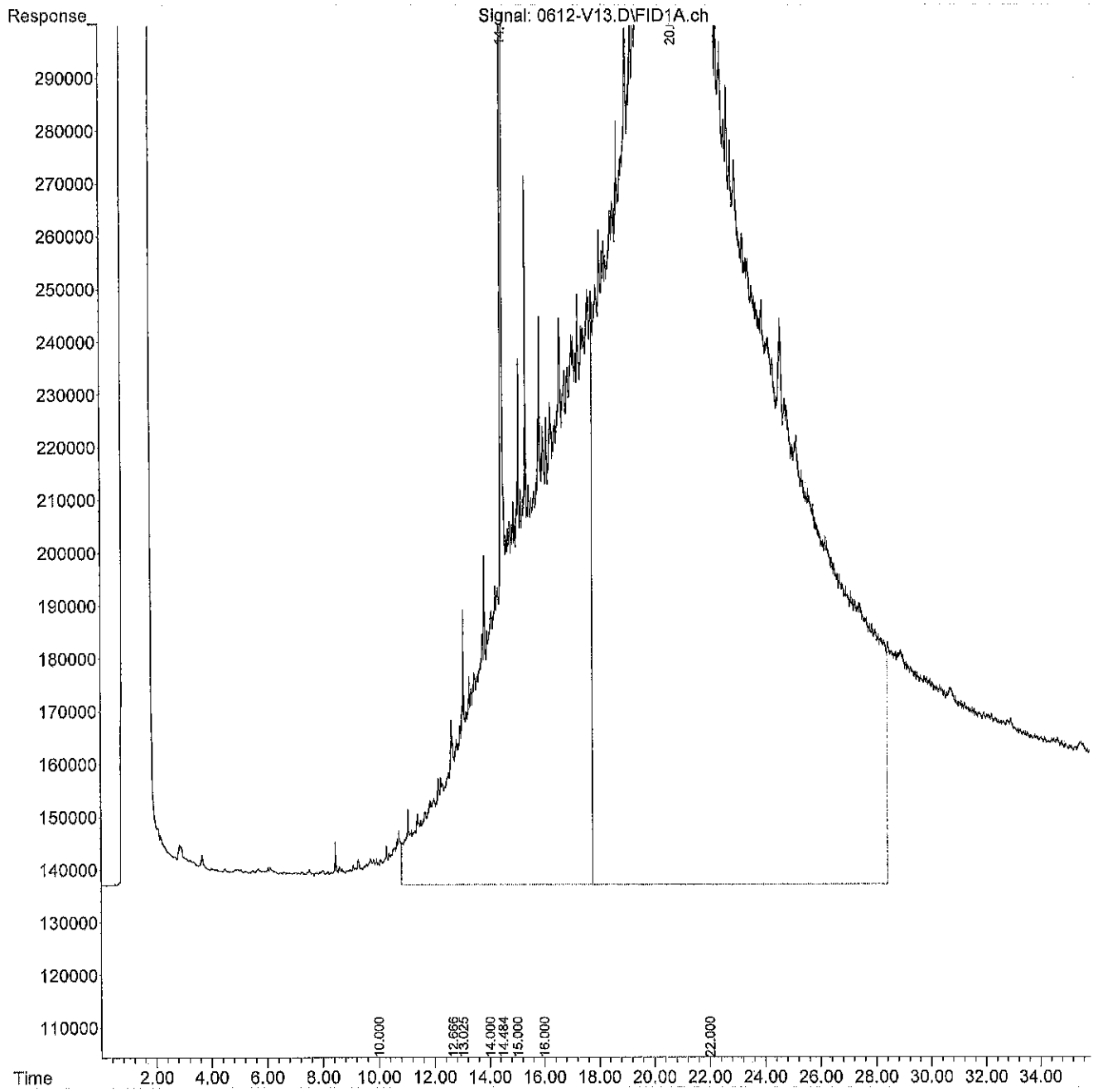
Quantitation Report (Not Reviewed)

Data File : 0612-V13.D
Sample : 06-070-13

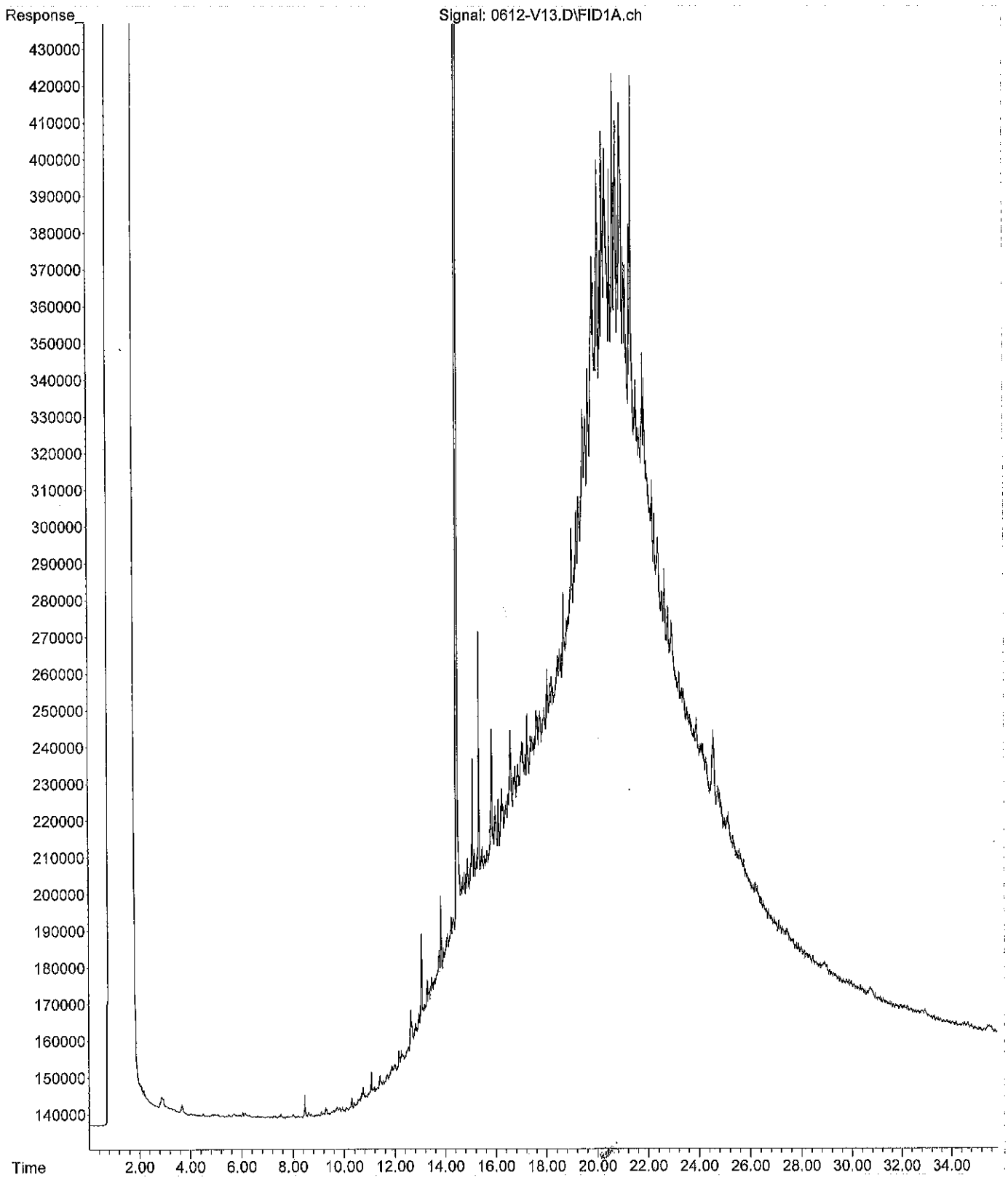
Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 17:36
Operator :
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 18:12:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



```
File         :C:\msdchem\2\DATA\V120612\0612-V13.D
Operator     :
Acquired     : 12 Jun 2012   17:36      using AcqMethod V120607F.M
Instrument   :    VIGO
Sample Name: 06-070-13
Misc Info    :
Vial Number: 13
```



Quantitation Report (Not Reviewed)

Data File : 0612-V68.D
Sample : 06-070-14

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 20:56
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 21:32:41 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.655	135827357	45.326	PPM
Spiked Amount		50.000		Recovery =	90.65%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3863074	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	6259101	1.318	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	13682371	5.800	PPM
6)	H	Oil	22.000	72398536	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	76185242	19.911	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9366844	4.201	PPM
9)	H	Oil Combo	22.000	68304834	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	71962747	18.607	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	14939461	0.588	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	40825706	25.384	PPM
13)	H	Mineral Oil (03-14-12)	16.000	25274218	4.180	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	80593551	32.004	PPM
15)	H	ALKANE C9-C40	12.666	80499416	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	12738221	0.621	PPM
17)	H	Oil Acid Clean MO Com...	22.000	67941069	17.614	PPM

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

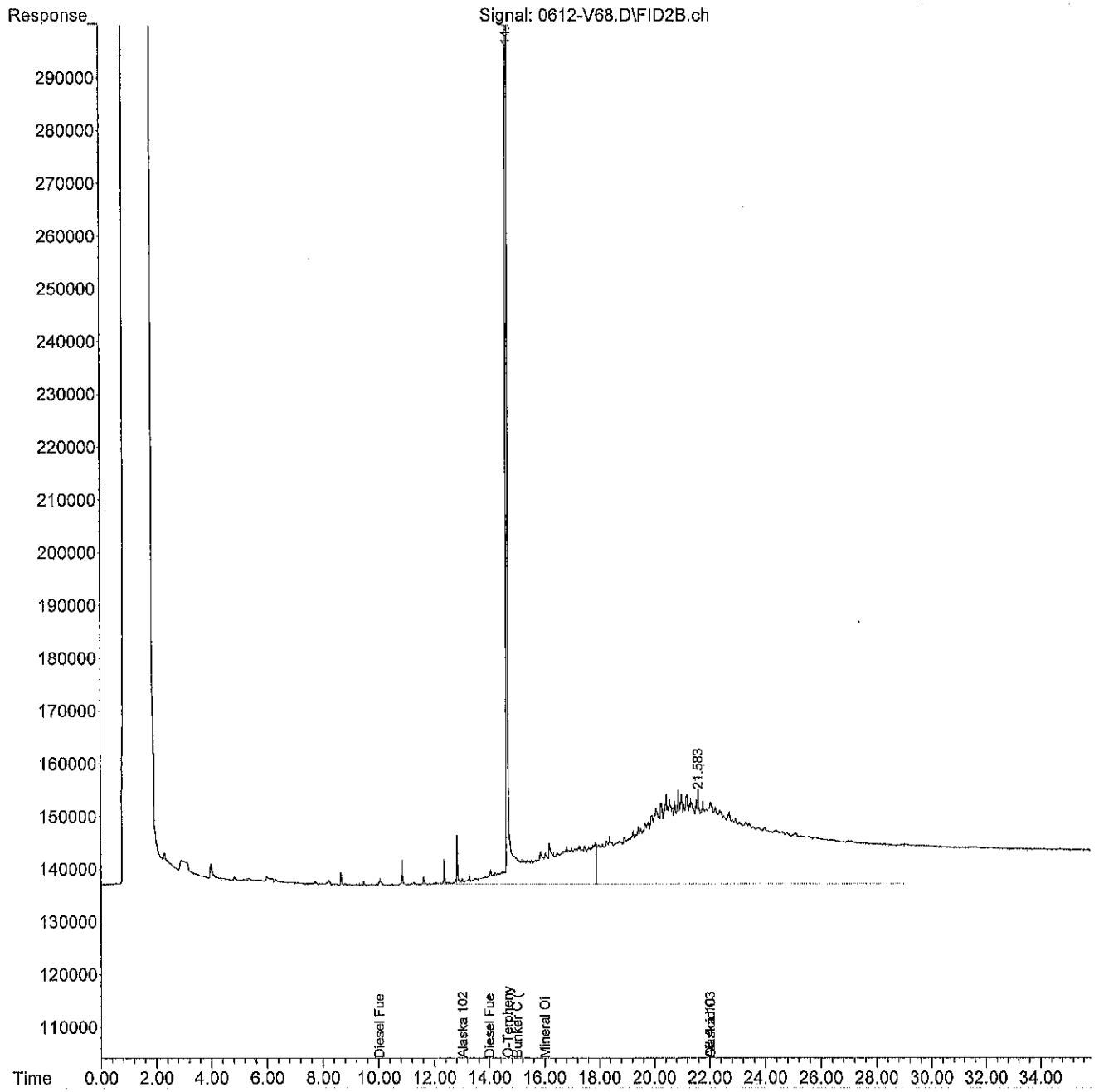
Quantitation Report (Not Reviewed)

Data File : 0612-V68.D
Sample : 06-070-14

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 20:56
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 21:32:41 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V15.D
Sample : 06-070-15

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 18:56
Operator :
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 19:32:26 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.485	127363614	50.265	PPM
Spiked Amount		50.000		Recovery =	100.53%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9557108	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	71818758	26.558	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	150493553	59.701	PPM
6)	H	Oil	22.000	625810814	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	628230054	287.154	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	105980702	42.990	PPM
9)	H	Oil Combo	22.000	586989247	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	590001238	274.794	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	158775302	60.277	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	400702973	362.383	PPM
13)	H	Mineral Oil (03-13-12)	16.000	270455128	104.428	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	685995280	429.971	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	701489998	8909.806	PPM
16)	H	Mineral Oil Combo (0...	16.000	135216865	53.386	PPM
17)	H	Oil Acid Clean MO Com...	22.000	552814623	265.760	PPM

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

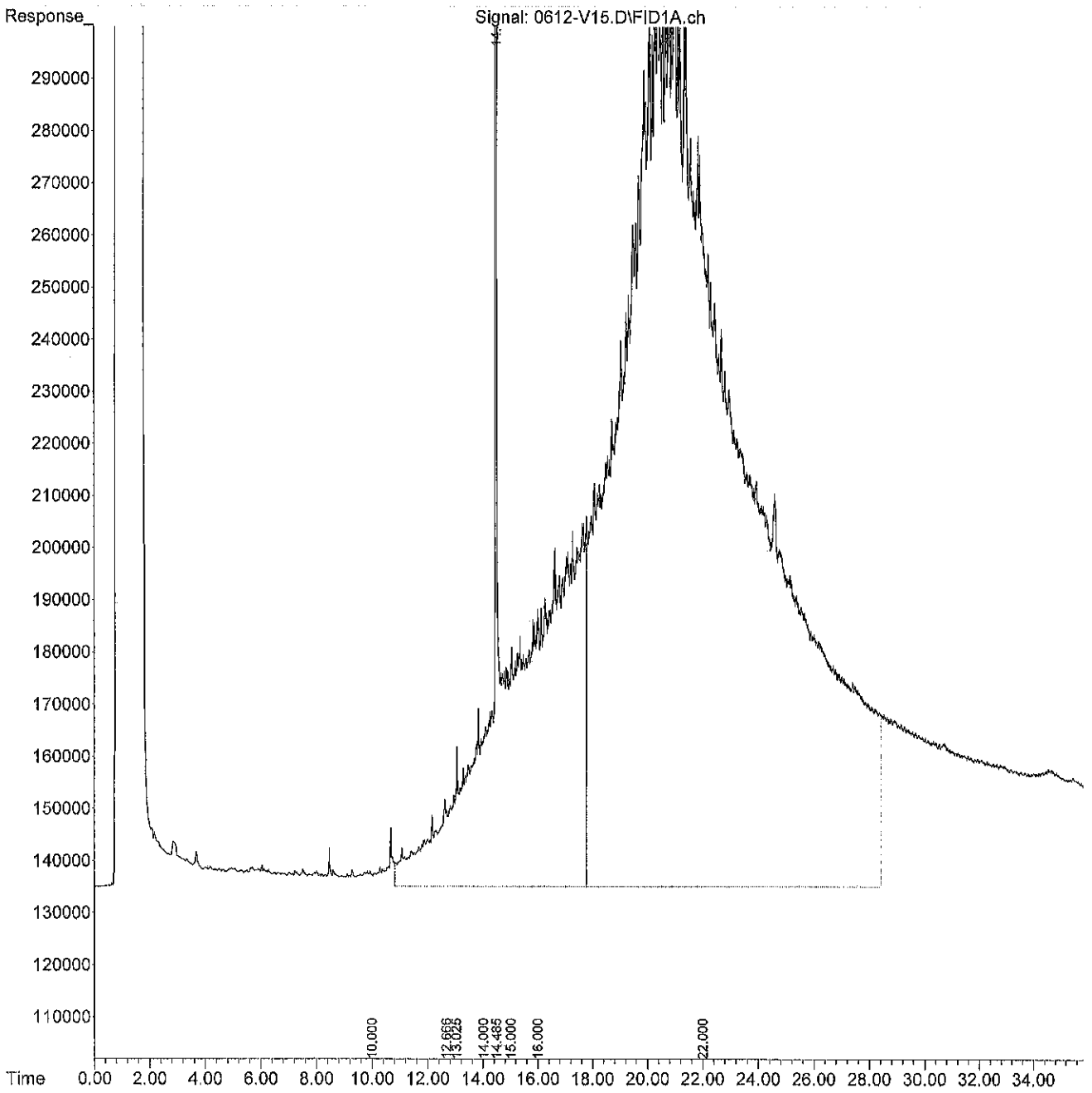
Quantitation Report (Not Reviewed)

Data File : 0612-V15.D
Sample : 06-070-15

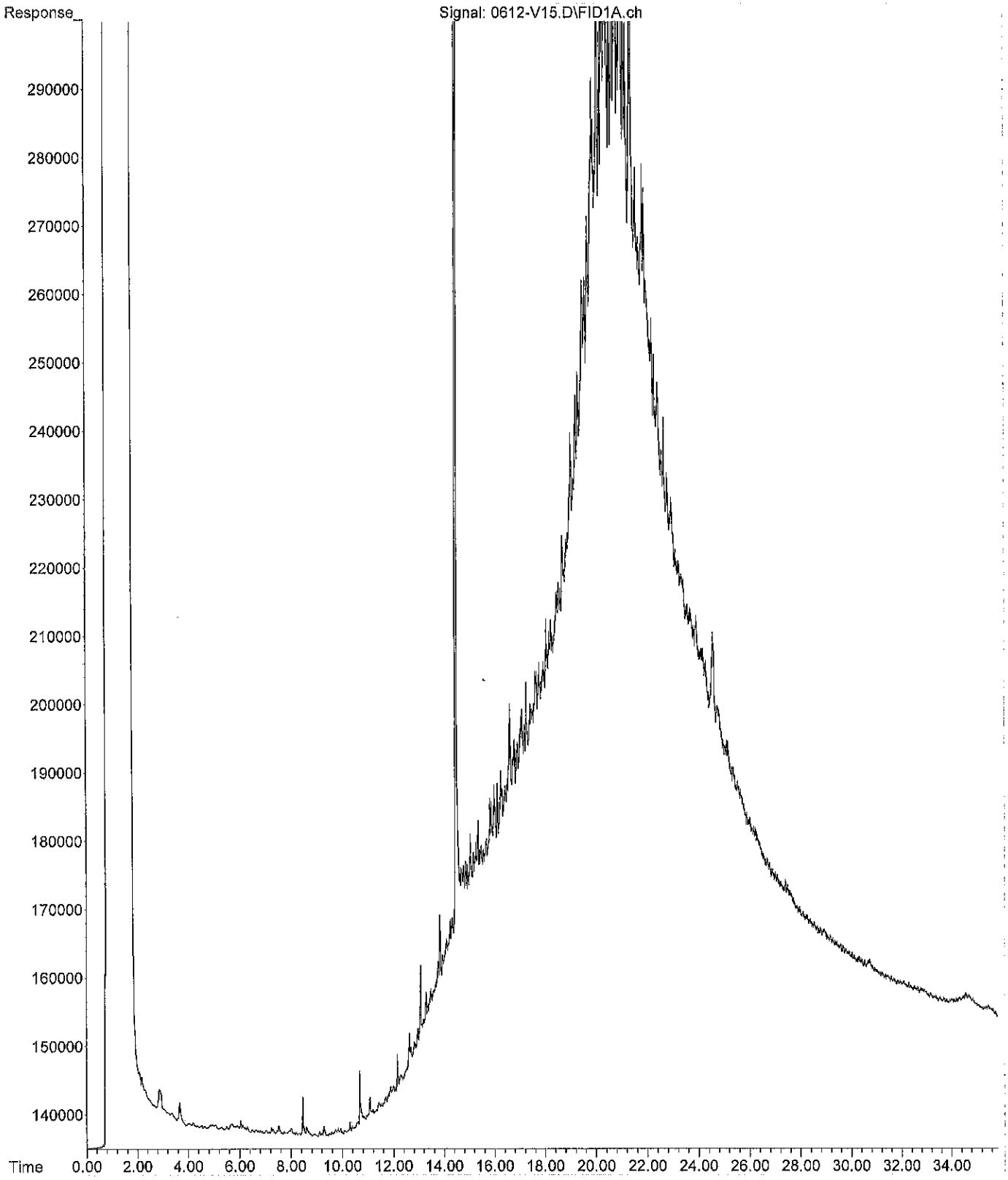
Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 18:56
Operator :
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 19:32:26 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



```
File         :C:\msdchem\2\DATA\V120612\0612-V15.D
Operator     :
Acquired     : 12 Jun 2012  18:56      using AcqMethod V120607F.M
Instrument   :   VIGO
Sample Name: 06-070-15
Misc Info    :
Vial Number: 15
```



Quantitation Report (Not Reviewed)

Data File : 0612-V64.D
Sample : MB0612S1 BC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 18:16
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 18:52:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.657	150084896	50.062	PPM
Spiked Amount		50.000		Recovery =	100.12%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3578818	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	2637895	N.D.	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	1711882	1.123	PPM
6)	H	Oil	22.000	26792108	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	30699833	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	1706884	1.098	PPM
9)	H	Oil Combo	22.000	26682769	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	30658328	N.D.	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	1818760	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	11318612	N.D.	PPM
13)	H	Mineral Oil (03-14-12)	16.000	1580834	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	31718113	N.D.	PPM
15)	H	ALKANE C9-C40	12.666	31706013	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	1268934	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	30653727	N.D.	PPM

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

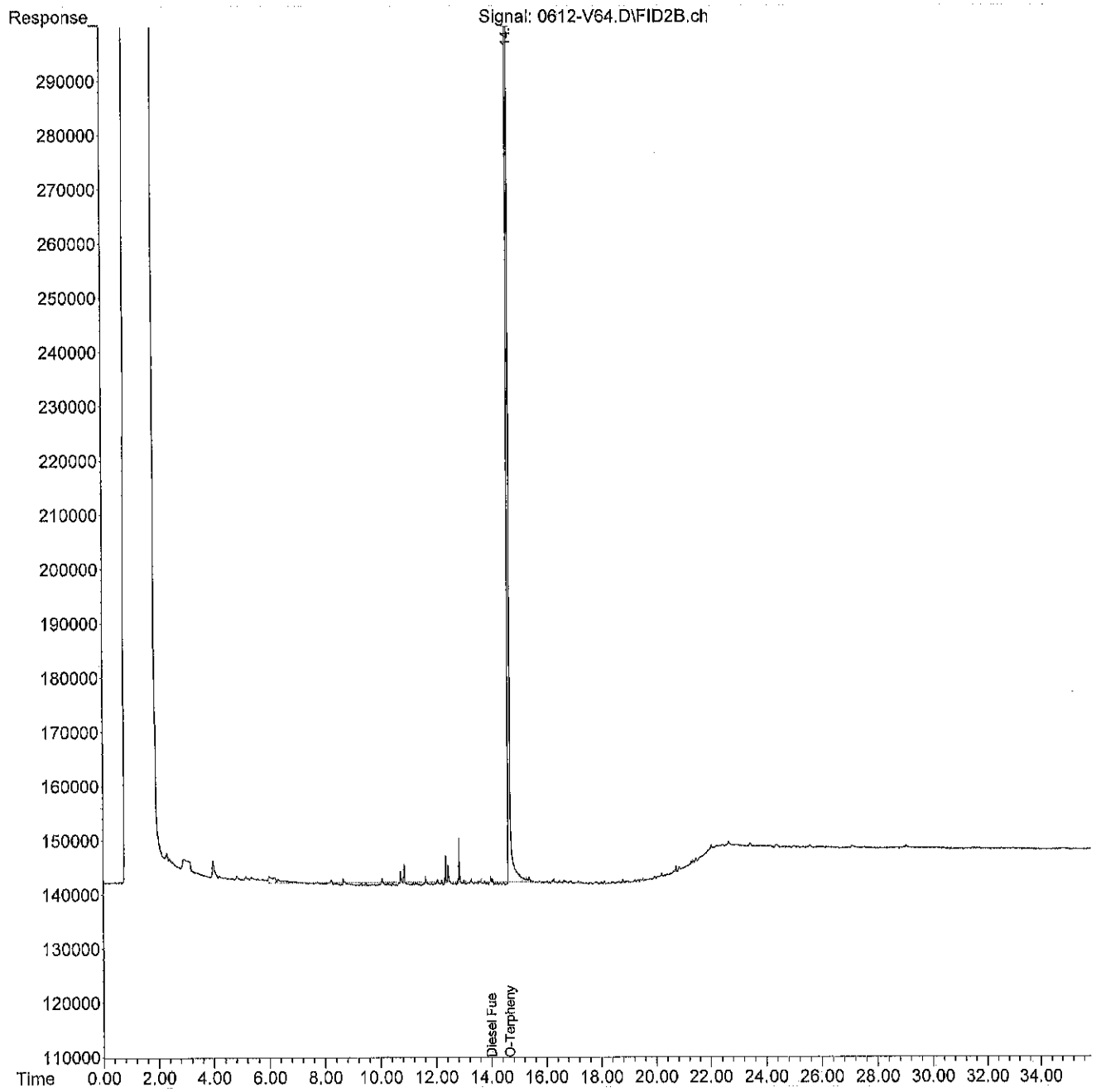
Quantitation Report (Not Reviewed)

Data File : 0612-V64.D
Sample : MB0612S1 BC

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 18:16
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 18:52:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V73.D
Sample : 06-070-02 DUP

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 00:16
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:52:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	133187439	44.449	PPM
Spiked Amount		50.000		Recovery =	88.90%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3959965	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	41688641	16.487	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	63513356	25.266	PPM
6)	H	Oil	22.000	133486255	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	135939052	49.789	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	52628844	21.727	PPM
9)	H	Oil Combo	22.000	120829222	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	123779370	44.997	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	66363574	20.405	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	74902891	55.277	PPM
13)	H	Mineral Oil (03-14-12)	16.000	80404187	24.314	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	175533475	97.743	PPM
15)	H	ALKANE C9-C40	12.666	175154137	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	53820761	16.206	PPM
17)	H	Oil Acid Clean MO Com...	22.000	113607962	41.631	PPM

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

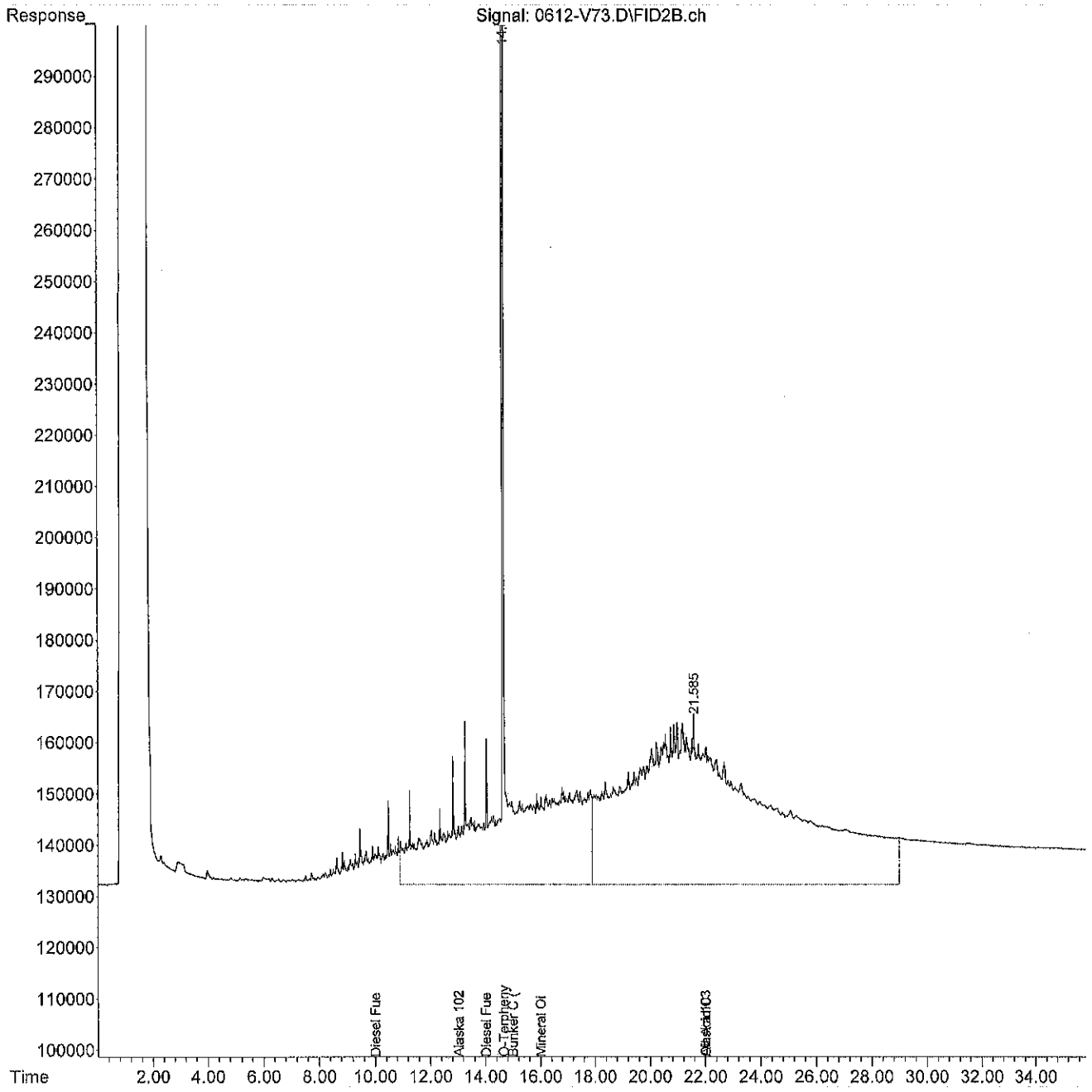
Quantitation Report (Not Reviewed)

Data File : 0612-V73.D
Sample : 06-070-02 DUP

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 00:16
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:52:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V21.D
Sample : 06-070-03 DUP

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 22:56
Operator :
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 23:32:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.485	121788593	48.061	PPM
Spiked Amount		50.000		Recovery =	96.12%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8303188	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	36021994	10.729	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	67141169	24.504	PPM
6)	H	Oil	22.000	264503132	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	268046396	110.579	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	48912212	17.964	PPM
9)	H	Oil Combo	22.000	247920876	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	251670060	105.227	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	70443771	25.299	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	152061026	132.892	PPM
13)	H	Mineral Oil (03-13-12)	16.000	106932862	37.854	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	293904446	155.508	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	304920911	3860.448	PPM
16)	H	Mineral Oil Combo (0...	16.000	59623534	22.063	PPM
17)	H	Oil Acid Clean MO Com...	22.000	236373059	101.431	PPM

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

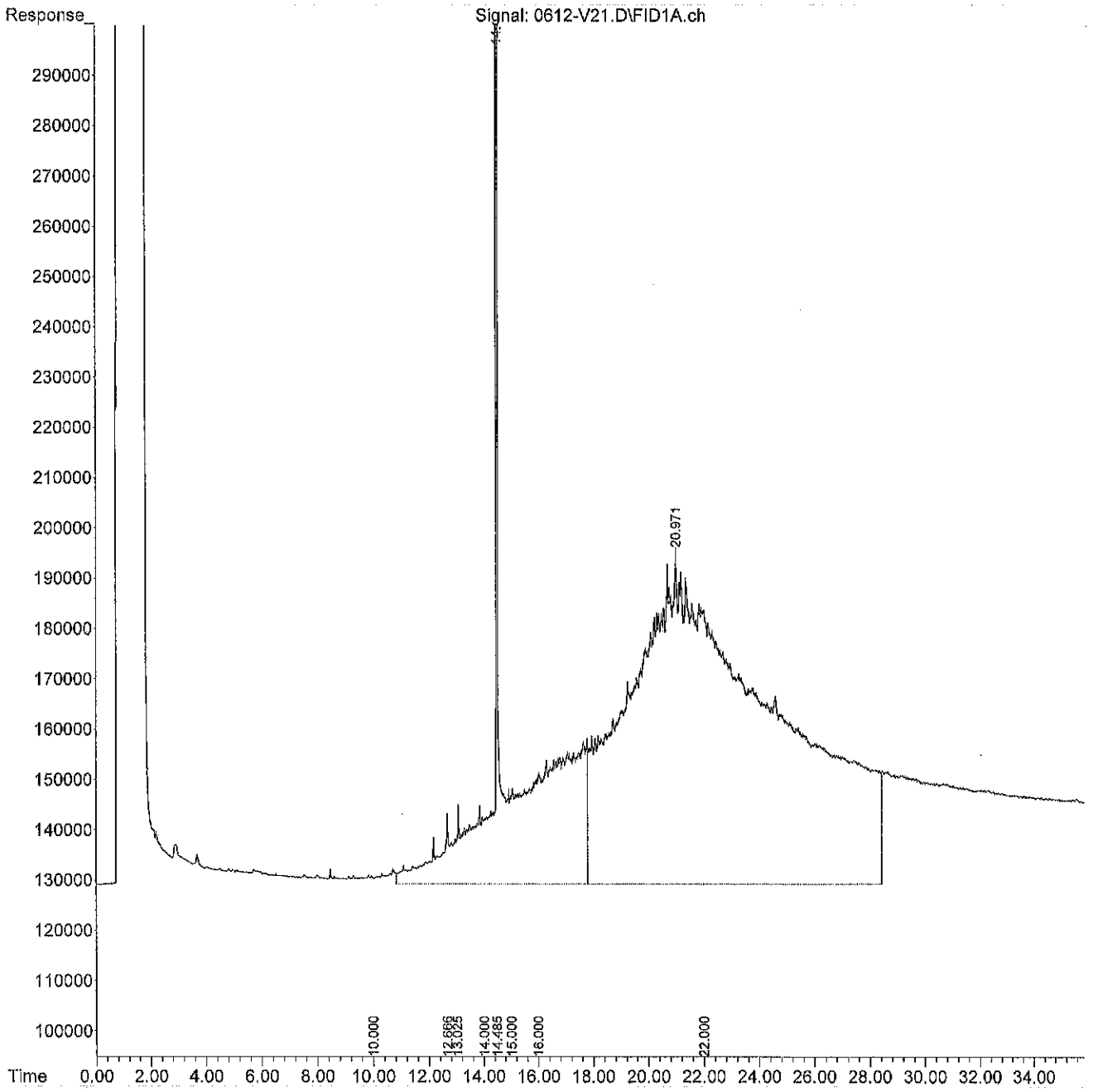
Quantitation Report (Not Reviewed)

Data File : 0612-V21.D
Sample : 06-070-03 DUP

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 22:56
Operator :
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 23:32:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V12.D
Sample : BC-CCV0612F-V3

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 16:43
Operator :
Misc : SV2-100-22
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 17:19:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10031758	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	67227230	24.528	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	88116851	33.362	PPM
6)	H	Oil	22.000	155831788	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	157687550	56.477	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	75365672	29.565	PPM
9)	H	Oil Combo	22.000	142241703	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	145147973	51.839	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	90542895	33.258	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	79974719	66.357	PPM
13)	H	Mineral Oil (03-13-12)	16.000	92747433	32.079	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	215993941	100.971	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	225451547	2848.596	PPM
16)	H	Mineral Oil Combo (0...	16.000	64279031	23.992	PPM
17)	H	Oil Acid Clean MO Com...	22.000	134206871	48.376	PPM

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

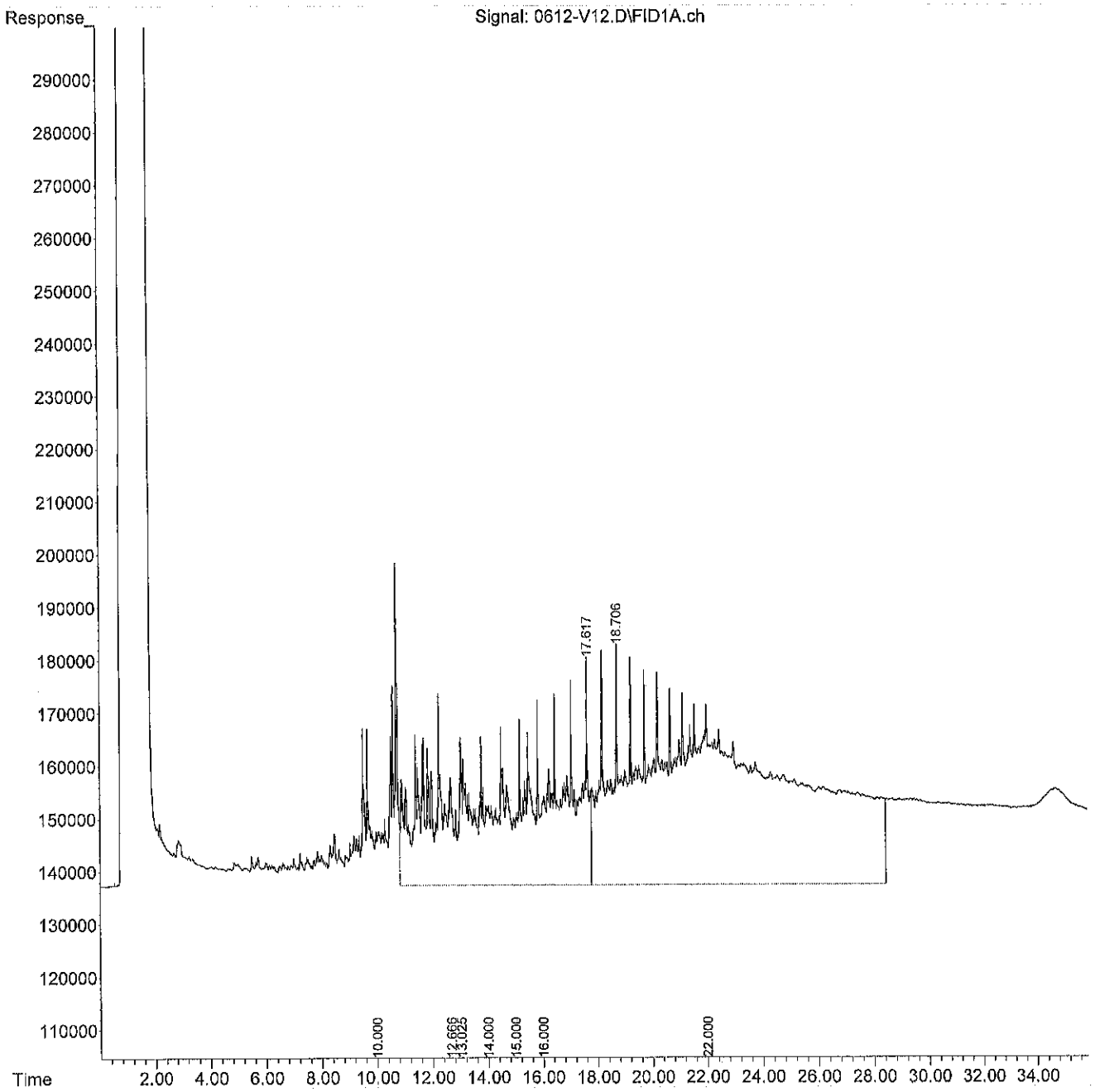
Quantitation Report (Not Reviewed)

Data File : 0612-V12.D
Sample : BC-CCV0612F-V3

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 16:43
Operator :
Misc : SV2-100-22
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 17:19:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V17.D
Sample : BC-CCV0612F-V4

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 20:16
Operator :
Misc : SV2-100-22
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:52:33 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9741659	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	65470856	23.751	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	85774027	32.372	PPM
6)	H	Oil	22.000	149115867	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	150728469	53.065	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	73377382	28.693	PPM
9)	H	Oil Combo	22.000	135899182	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	138554266	48.535	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	88159276	32.314	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	77078487	63.684	PPM
13)	H	Mineral Oil (03-13-12)	16.000	90286324	31.077	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	207760744	95.208	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	216690751	2737.048	PPM
16)	H	Mineral Oil Combo (0...	16.000	62716424	23.345	PPM
17)	H	Oil Acid Clean MO Com...	22.000	127904913	45.104	PPM

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

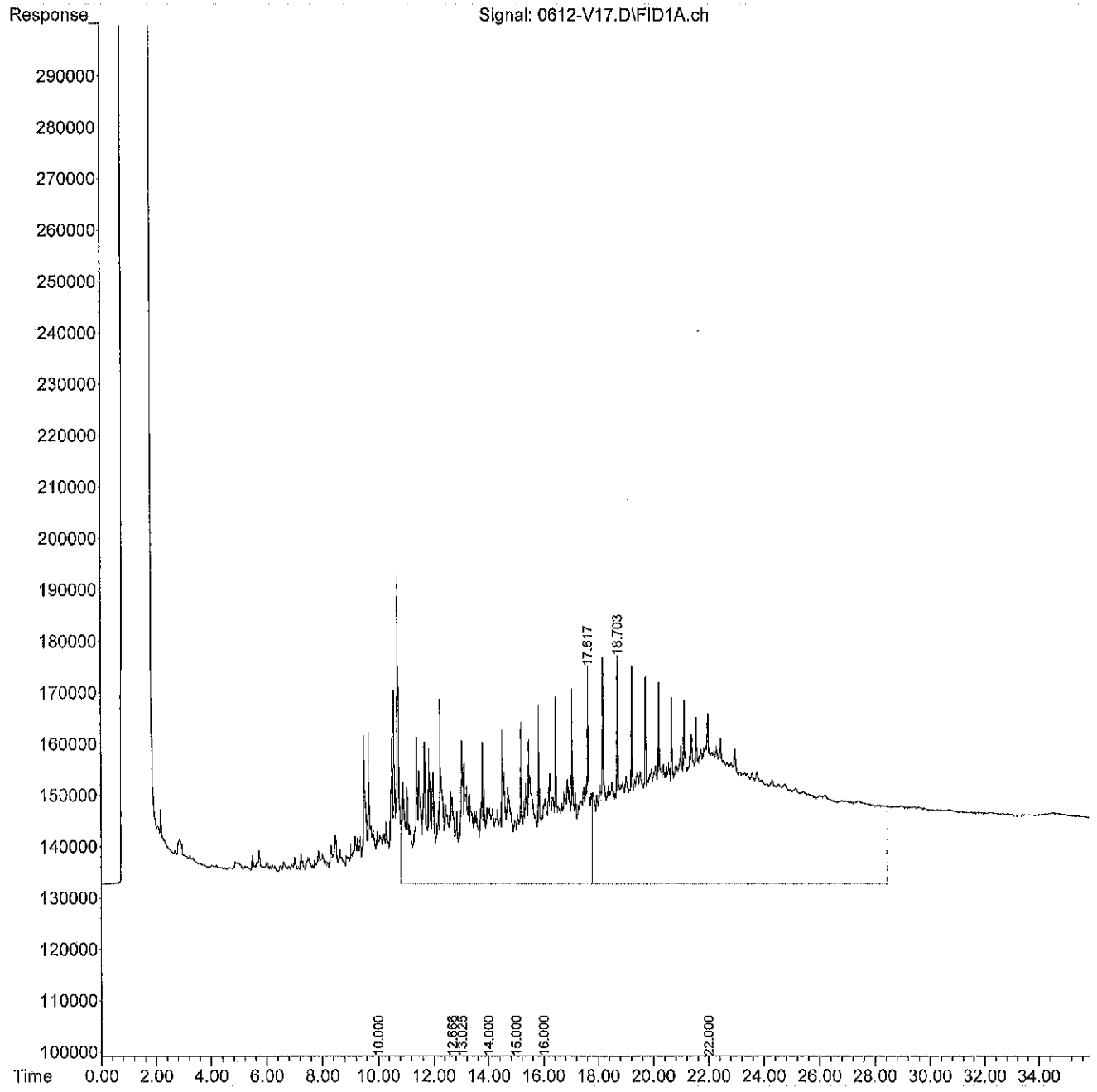
Quantitation Report (Not Reviewed)

Data File : 0612-V17.D
Sample : BC-CCV0612F-V4

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 12 Jun 2012 20:16
Operator :
Misc : SV2-100-22
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:52:33 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V23.D
Sample : BC-CCV0612F-V5

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 00:16
Operator :
Misc : SV2-100-22
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:52:50 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9318207	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	64383296	23.271	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	84602505	31.878	PPM
6)	H	Oil	22.000	143702262	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	145098991	50.305	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	72373293	28.252	PPM
9)	H	Oil Combo	22.000	130640113	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	133078528	45.790	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	86872876	31.805	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	74463396	61.271	PPM
13)	H	Mineral Oil (03-13-12)	16.000	89195382	30.633	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	201446037	90.787	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	209929447	2650.959	PPM
16)	H	Mineral Oil Combo (0...	16.000	62127701	23.101	PPM
17)	H	Oil Acid Clean MO Com...	22.000	122570301	42.333	PPM

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

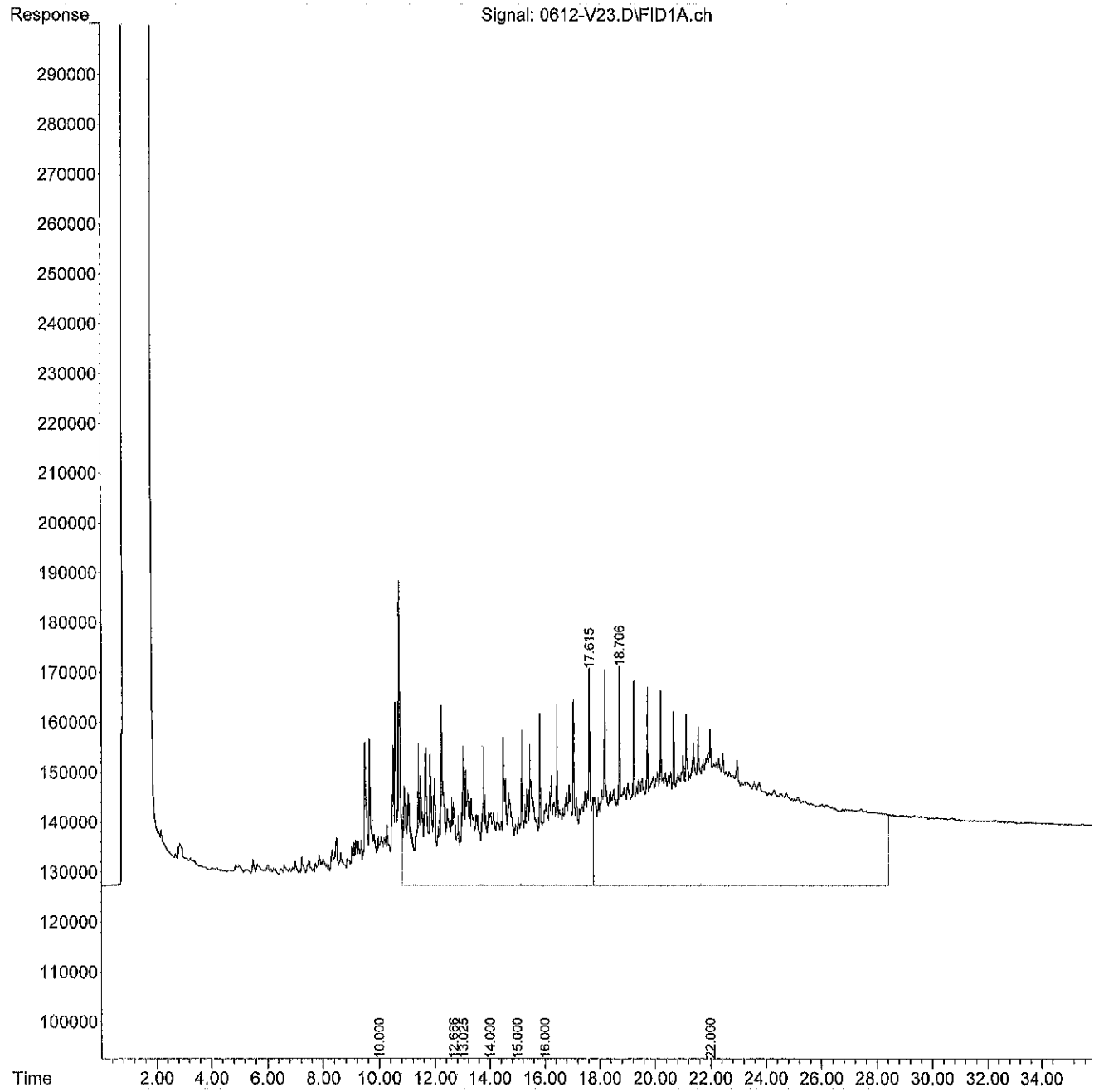
Quantitation Report (Not Reviewed)

Data File : 0612-V23.D
Sample : BC-CCV0612F-V5

Data Path : C:\msdchem\2\DATA\V120612\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 00:16
Operator :
Misc : SV2-100-22
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:52:50 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V61.D
Sample : BC-CCV0612R-V2

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:03
Operator :
Misc : SV2-100-22
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 16:39:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5185977	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	56107001	22.659	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	77167905	30.600	PPM
6)	H	Oil	22.000	138295504	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	143495970	53.568	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66173339	27.215	PPM
9)	H	Oil Combo	22.000	125882343	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	131569557	48.965	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	79986726	25.655	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	72446442	53.123	PPM
13)	H	Mineral Oil (03-14-12)	16.000	85511886	26.179	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	196481071	112.248	PPM
15)	H	ALKANE C9-C40	12.666	195818944	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	59272141	18.273	PPM
17)	H	Oil Acid Clean MO Com...	22.000	121229617	45.640	PPM

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

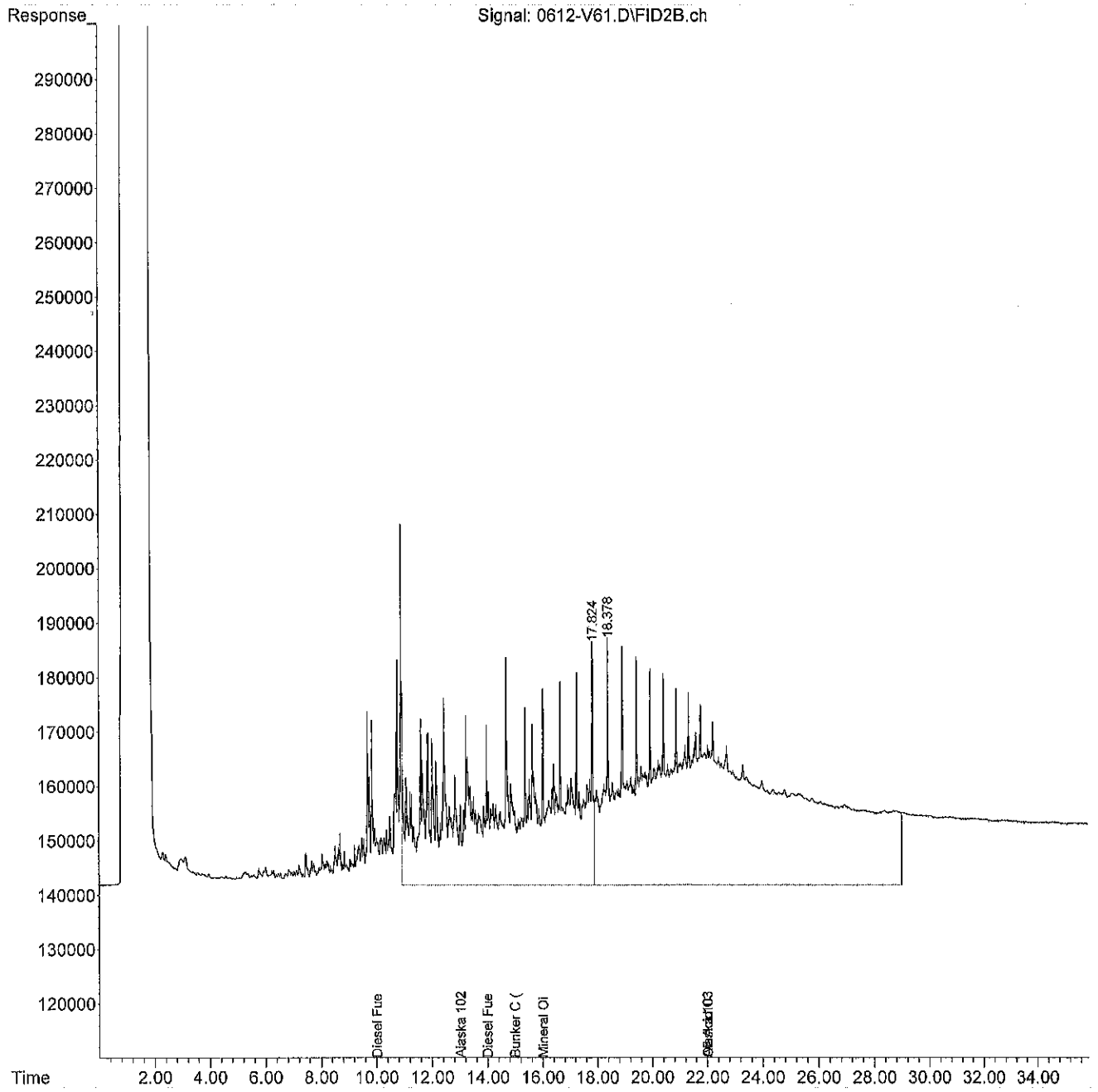
Quantitation Report (Not Reviewed)

Data File : 0612-V61.D
Sample : BC-CCV0612R-V2

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 16:03
Operator :
Misc : SV2-100-22
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 16:39:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V67.D
Sample : BC-CCV0612R-V3

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 20:16
Operator :
Misc : SV2-100-22
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:52:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5143144	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	55015764	22.192	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	75425654	29.919	PPM
6)	H	Oil	22.000	115680553	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	118100139	40.870	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	64826707	26.669	PPM
9)	H	Oil Combo	22.000	103580936	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	106491300	36.193	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	78115522	24.934	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	62072830	44.022	PPM
13)	H	Mineral Oil (03-14-12)	16.000	82682341	25.146	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	170530643	94.279	PPM
15)	H	ALKANE C9-C40	12.666	170681168	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	57967162	17.778	PPM
17)	H	Oil Acid Clean MO Com...	22.000	96519569	32.644	PPM

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

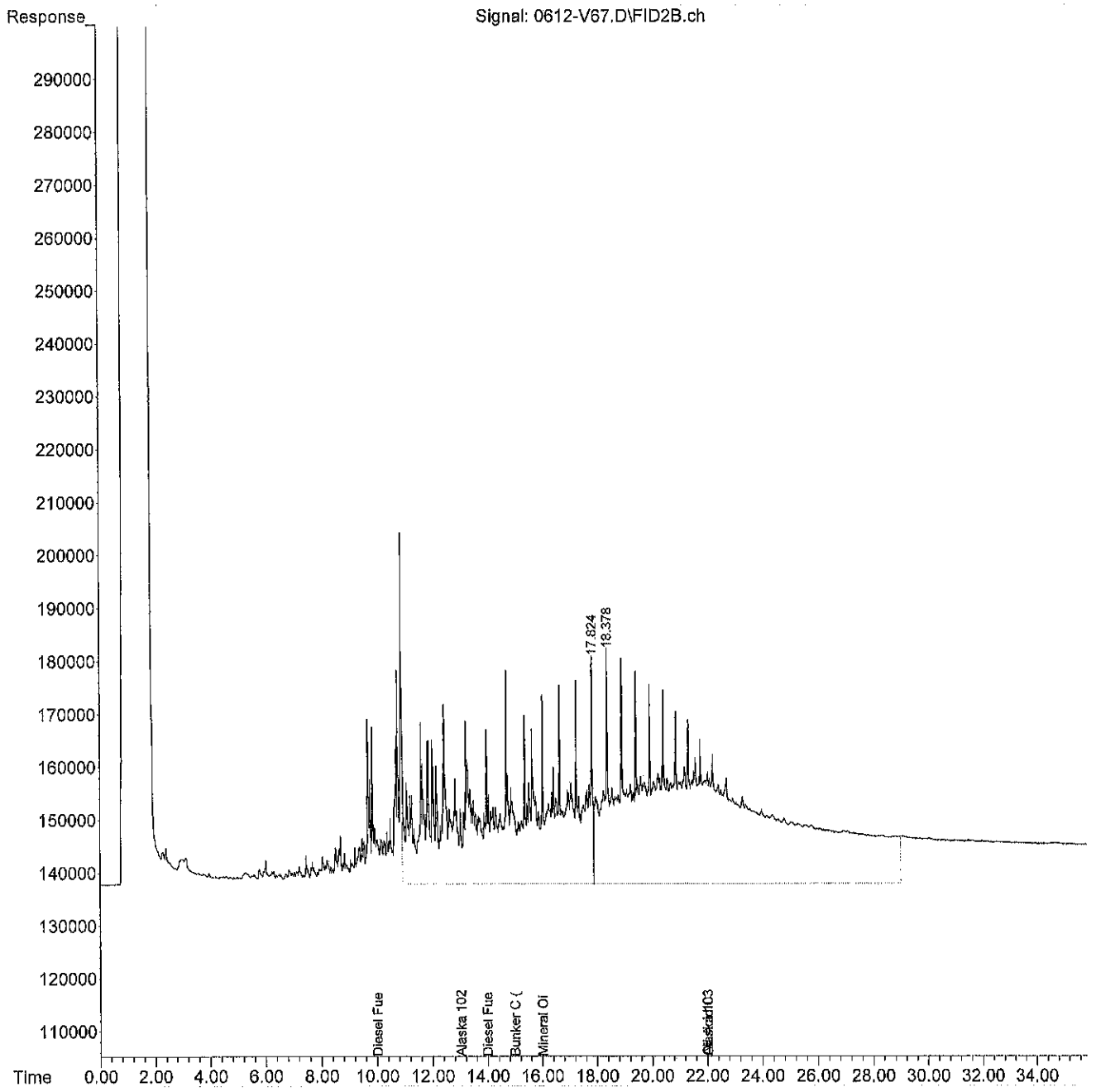
Quantitation Report (Not Reviewed)

Data File : 0612-V67.D
Sample : BC-CCV0612R-V3

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 20:16
Operator :
Misc : SV2-100-22
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 12 20:52:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V72.D
Sample : BC-CCV0612R-V4

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 23:36
Operator :
Misc : SV2-100-22
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:13:00 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5536339	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	55654911	22.466	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	75892843	30.102	PPM
6)	H	Oil	22.000	113904758	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	116069961	39.854	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	65307616	26.864	PPM
9)	H	Oil Combo	22.000	101795769	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	104459529	35.158	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	78597695	25.120	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	61281495	43.328	PPM
13)	H	Mineral Oil (03-14-12)	16.000	82629694	25.127	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	169032827	93.242	PPM
15)	H	ALKANE C9-C40	12.666	169438529	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	58034800	17.804	PPM
17)	H	Oil Acid Clean MO Com...	22.000	94496674	31.580	PPM

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

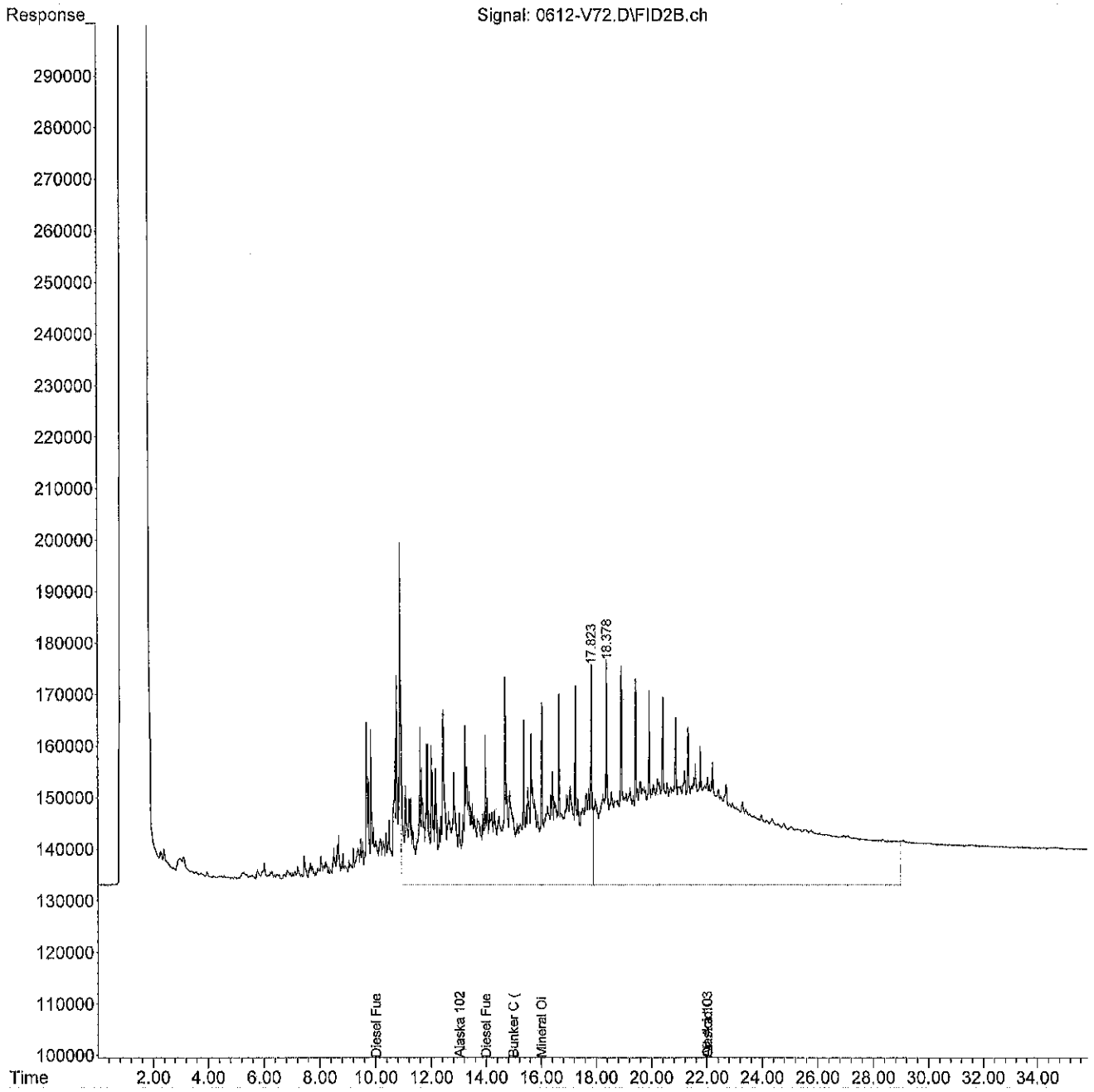
Quantitation Report (Not Reviewed)

Data File : 0612-V72.D
Sample : BC-CCV0612R-V4

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 12 Jun 2012 23:36
Operator :
Misc : SV2-100-22
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 00:13:00 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0612-V79.D
Sample : BC-CCV0612R-V5

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 4:16
Operator :
Misc : SV2-100-22
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 04:52:09 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6265566	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	59407504	24.073	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	80422315	31.871	PPM
6)	H	Oil	22.000	116125382	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	117985933	40.812	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	69278505	28.473	PPM
9)	H	Oil Combo	22.000	103350639	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	105768731	35.825	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	83336457	26.946	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	62405613	44.314	PPM
13)	H	Mineral Oil (03-14-12)	16.000	86848548	26.668	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	174359884	96.931	PPM
15)	H	ALKANE C9-C40	12.666	175141971	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	61206418	19.007	PPM
17)	H	Oil Acid Clean MO Com...	22.000	95287941	31.996	PPM

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

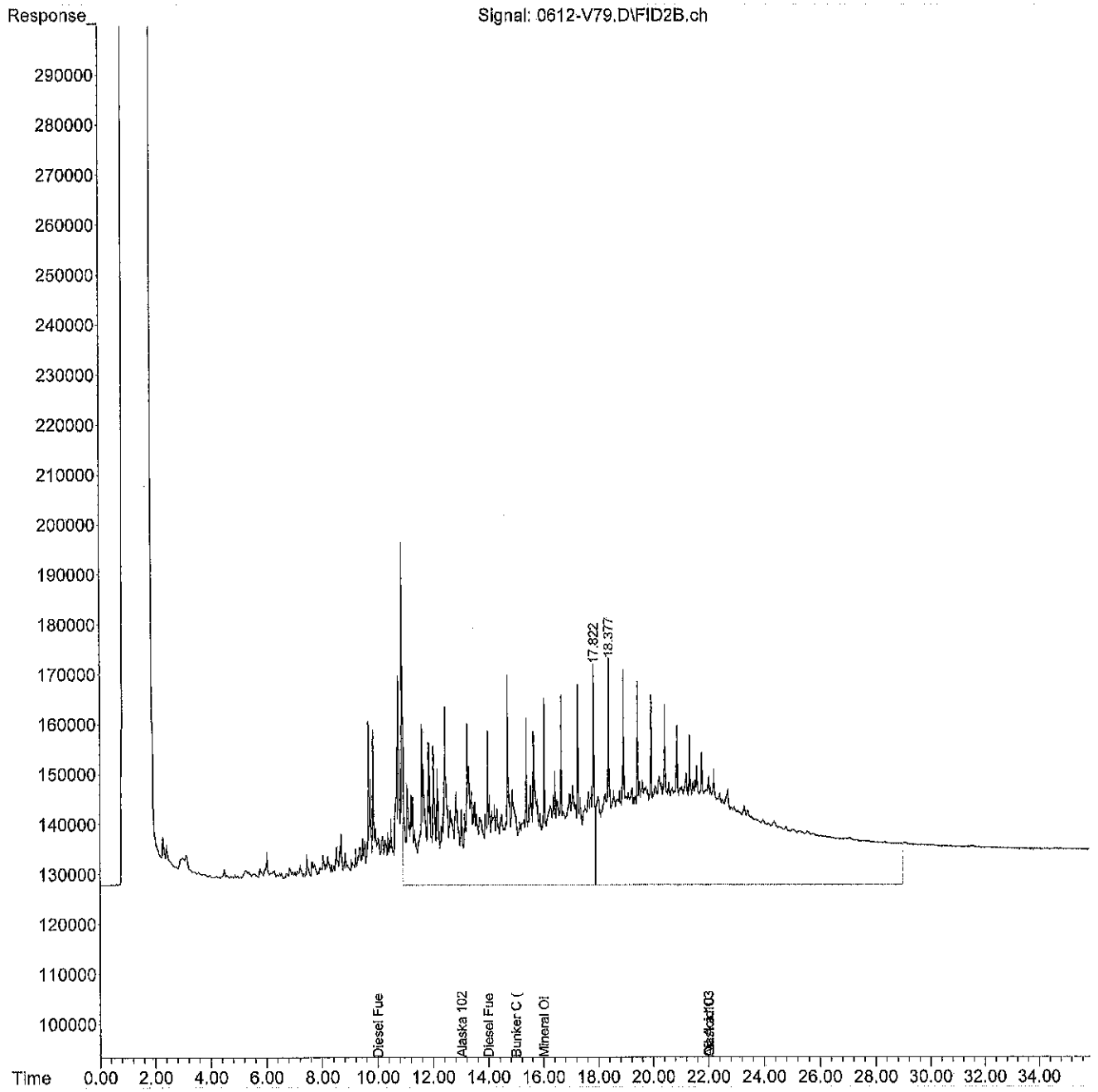
Quantitation Report (Not Reviewed)

Data File : 0612-V79.D
Sample : BC-CCV0612R-V5

Data Path : C:\msdchem\2\DATA\V120612.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 4:16
Operator :
Misc : SV2-100-22
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 04:52:09 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V01.D
Sample : BC-CCV0613F-V1

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 10:45
Operator :
Misc : SV2-100-22
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 11:21:38 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9979599	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	66937665	24.400	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	87409274	33.063	PPM
6)	H	Oil	22.000	173550385	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	176646064	65.771	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	74840893	29.335	PPM
9)	H	Oil Combo	22.000	160208479	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	164382909	61.480	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	89824855	32.974	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	87128819	72.961	PPM
13)	H	Mineral Oil (03-13-12)	16.000	92286869	31.892	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	233387234	113.146	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	244344410	3089.152	PPM
16)	H	Mineral Oil Combo (0...	16.000	63843229	23.812	PPM
17)	H	Oil Acid Clean MO Com...	22.000	153611116	58.453	PPM

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

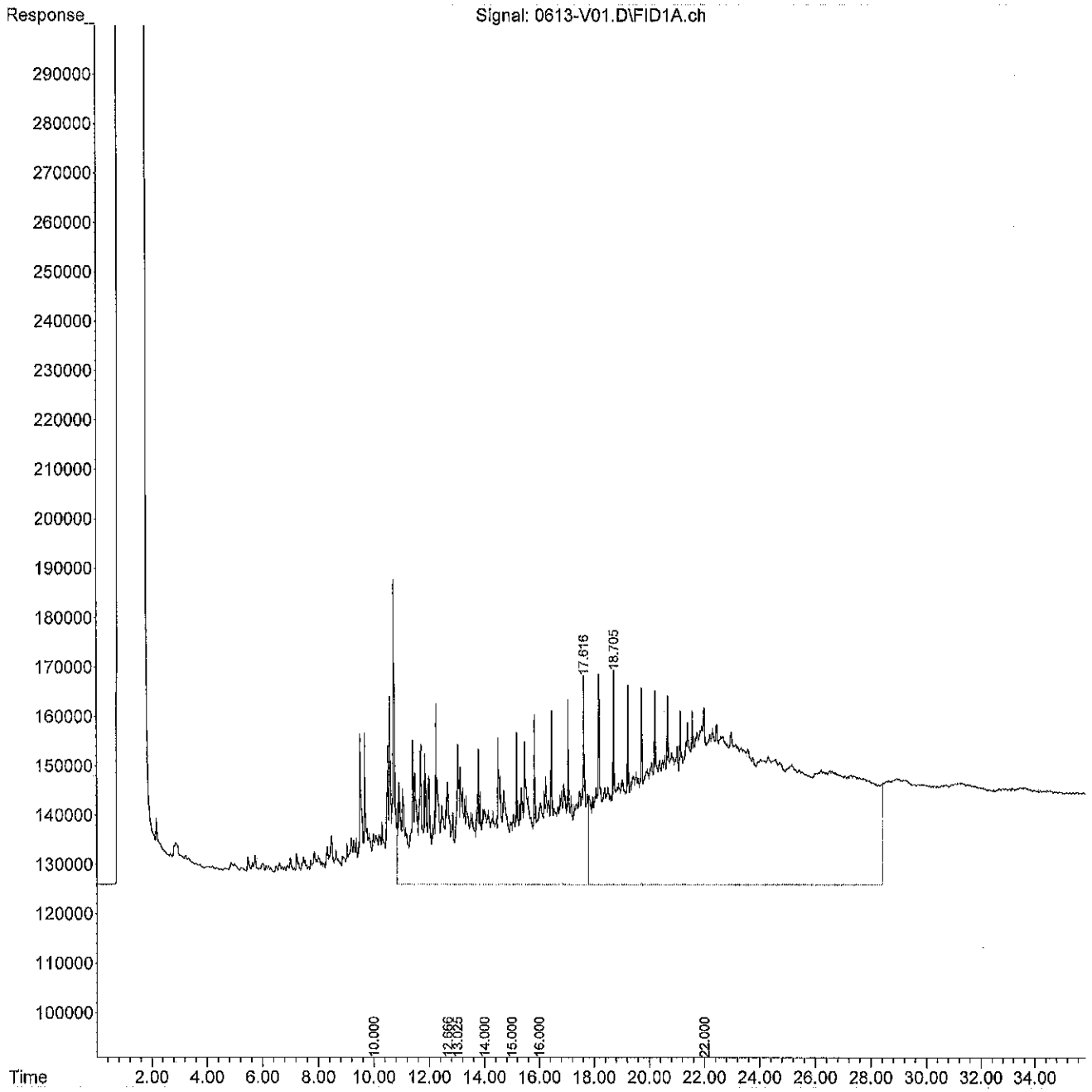
Quantitation Report (Not Reviewed)

Data File : 0613-V01.D
Sample : BC-CCV0613F-V1

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 10:45
Operator :
Misc : SV2-100-22
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 11:21:38 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V04.D
Sample : BC-CCV0613F-V2

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 12:52
Operator :
Misc : SV2-100-22
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 13:28:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10091562	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	68132583	24.928	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	89090350	33.773	PPM
6)	H	Oil	22.000	155615052	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	157438946	56.355	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	76245114	29.950	PPM
9)	H	Oil Combo	22.000	141967751	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	144883708	51.707	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	91542228	33.654	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	80567411	66.904	PPM
13)	H	Mineral Oil (03-13-12)	16.000	94069386	32.617	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	216584356	101.384	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	226105267	2856.920	PPM
16)	H	Mineral Oil Combo (0...	16.000	64973317	24.280	PPM
17)	H	Oil Acid Clean MO Com...	22.000	133870251	48.201	PPM

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

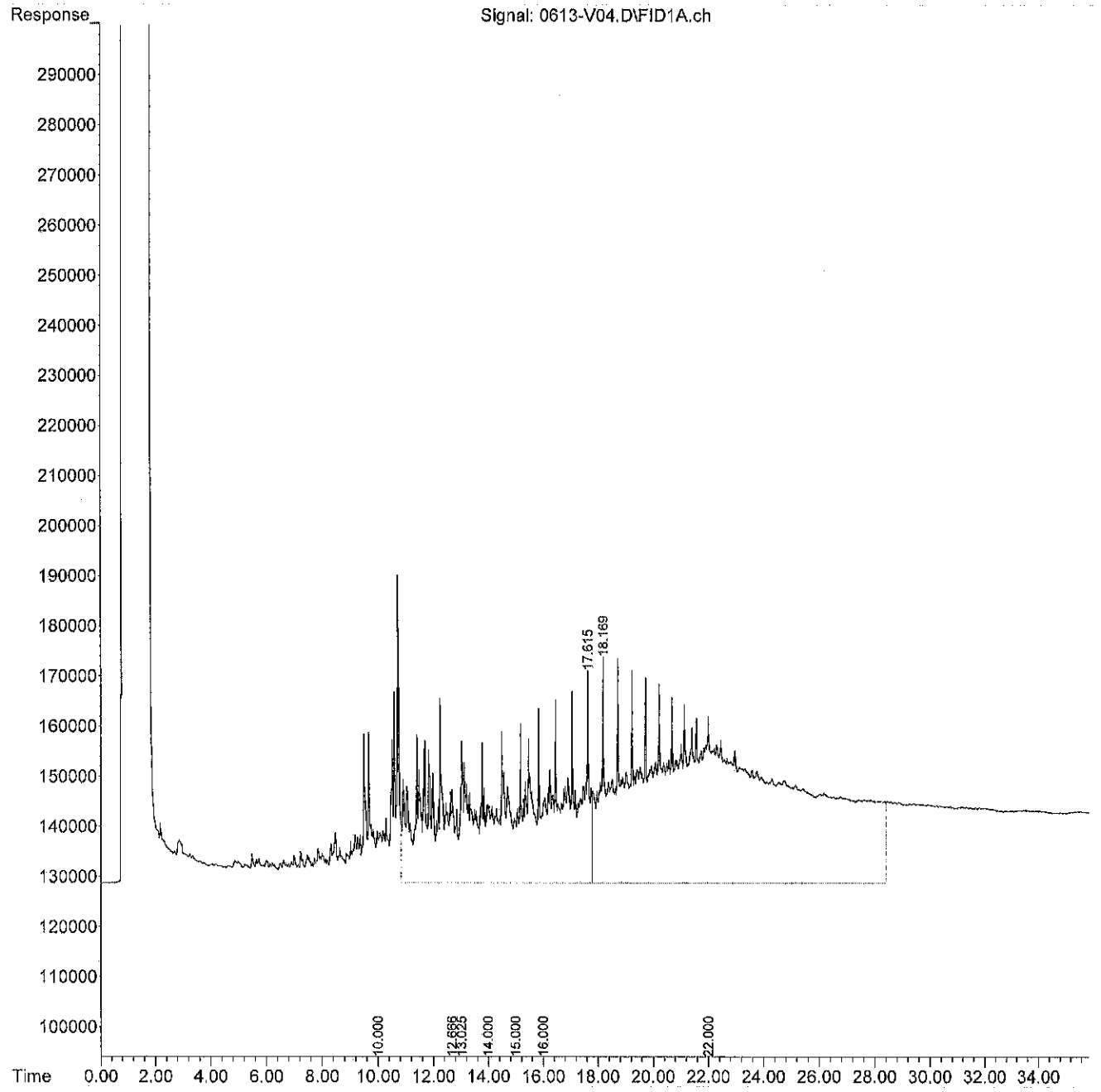
Quantitation Report (Not Reviewed)

Data File : 0613-V04.D
Sample : BC-CCV0613F-V2

Data Path : C:\msdchem\2\DATA\V120613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2012 12:52
Operator :
Misc : SV2-100-22
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 13:28:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V51.D
Sample : BC-CCV0613R-V1

Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 10:45
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 11:21:47 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4132538	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	53031244	21.343	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	73363596	29.114	PPM
6)	H	Oil	22.000	106796077	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	108697628	36.168	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	63075757	25.960	PPM
9)	H	Oil Combo	22.000	94944295	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	97311831	31.518	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	75903850	24.082	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	56889634	39.476	PPM
13)	H	Mineral Oil (03-14-12)	16.000	80299187	24.276	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	159679902	86.766	PPM
15)	H	ALKANE C9-C40	12.666	159528849	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	56883352	17.367	PPM
17)	H	Oil Acid Clean MO Com...	22.000	87636605	27.972	PPM

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

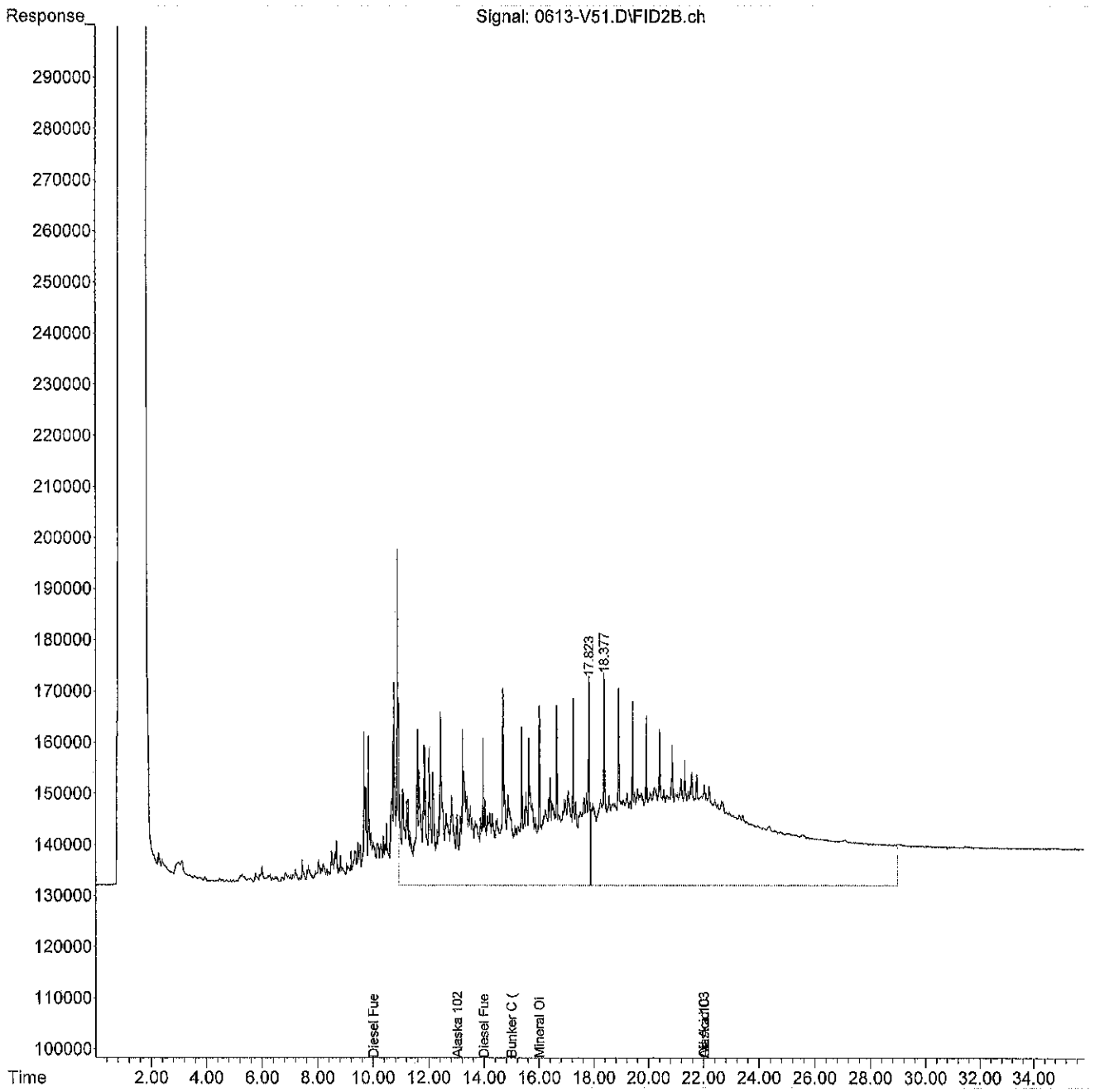
Quantitation Report (Not Reviewed)

Data File : 0613-V51.D
Sample : BC-CCV0613R-V1

Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 10:45
Operator :
Misc : SV2-100-22
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 11:21:47 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V54.D
Sample : BC-CCV0613R-V2

Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 12:52
Operator :
Misc : SV2-100-22
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 13:28:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5927727	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	59238150	24.000	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	80630540	31.953	PPM
6)	H	Oil	22.000	129814701	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	133337946	48.489	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	69355120	28.504	PPM
9)	H	Oil Combo	22.000	116958126	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	121007986	43.586	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	83547560	27.027	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	69018517	50.115	PPM
13)	H	Mineral Oil (03-14-12)	16.000	87970499	27.077	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	189389485	107.338	PPM
15)	H	ALKANE C9-C40	12.666	189590409	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	61565707	19.143	PPM
17)	H	Oil Acid Clean MO Com...	22.000	110404287	39.946	PPM

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

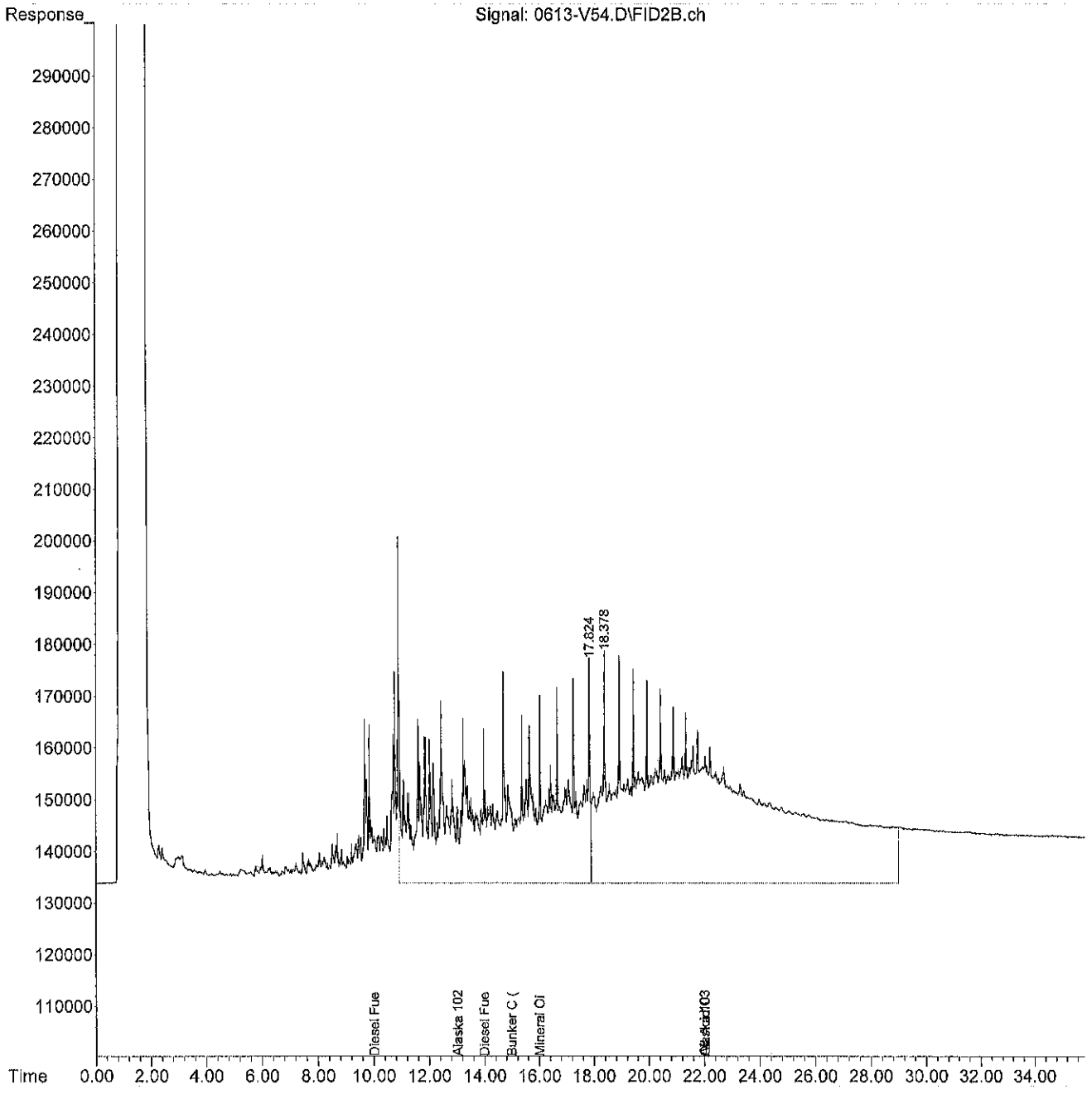
Quantitation Report (Not Reviewed)

Data File : 0613-V54.D
Sample : BC-CCV0613R-V2

Data Path : C:\msdchem\2\DATA\V120613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2012 12:52
Operator :
Misc : SV2-100-22
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 13:28:45 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 26, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-119

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 18, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

Case Narrative

Samples were collected on June 14 and 15, 2012 and received by the laboratory on June 18, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Dx Analysis

Please note that the samples are reported as Bunker C. However, the chromatographic pattern of the Bunker C standard does not exactly match the chromatograms of the samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP1EX-SWN-061412-3	06-119-01	Soil	6-14-12	6-18-12	
TP11EX-SWW-061412-3	06-119-02	Soil	6-14-12	6-18-12	
TP11EX-SWN-061512-3	06-119-03	Soil	6-15-12	6-18-12	
TP3EX-SWW-061512-3	06-119-04	Soil	6-15-12	6-18-12	
TP3EX-SWE-061512-3	06-119-05	Soil	6-15-12	6-18-12	
TP3EX-BASE-061512-6.5	06-119-06	Soil	6-15-12	6-18-12	
GEI32EX-SWN-061512-3	06-119-07	Soil	6-15-12	6-18-12	
STK-OB5-061512	06-119-08	Soil	6-15-12	6-18-12	
STK-OB6-061512	06-119-09	Soil	6-15-12	6-18-12	
STK-OB7-061512	06-119-10	Soil	6-15-12	6-18-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWN-061412-3**					
Laboratory ID:	06-119-01					
Bunker C	**4100**	350	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**TP11EX-SWW-061412-3**					
Laboratory ID:	06-119-02					
Bunker C	**1600**	350	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				
Client ID:	**TP11EX-SWN-061512-3**					
Laboratory ID:	06-119-03					
Bunker C	**ND**	77	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**TP3EX-SWW-061512-3**					
Laboratory ID:	06-119-04					
Bunker C	**570**	57	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**TP3EX-SWE-061512-3**					
Laboratory ID:	06-119-05					
Bunker C	**880**	66	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**TP3EX-BASE-061512-6.5**					
Laboratory ID:	06-119-06					
Bunker C	**1600**	61	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32EX-SWN-061512-3**					
Laboratory ID:	06-119-07					
Bunker C	**3300**	330	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**STK-OB5-061512**					
Laboratory ID:	06-119-08					
Bunker C	**1200**	280	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**STK-OB6-061512**					
Laboratory ID:	06-119-09					
Bunker C	**1900**	280	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**STK-OB7-061512**					
Laboratory ID:	06-119-10					
Bunker C	**420**	63	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11EX-SWN-061512-3**					
Laboratory ID:	06-119-03					
Benzo[a]anthracene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Chrysene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Benzo[a]pyrene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270/SIM	6-19-12	6-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*43 - 116*				
Pyrene-d10	*79*	*38 - 125*				
Terphenyl-d14	*78*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**STK-OB7-061512**					
Laboratory ID:	06-119-10					
Benzo[a]anthracene	**0.016**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Chrysene	**0.022**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Benzo[b]fluoranthene	**0.021**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Benzo(j,k)fluoranthene	**ND**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Benzo[a]pyrene	**0.014**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Indeno(1,2,3-c,d)pyrene	**0.010**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Dibenz[a,h]anthracene	**ND**	0.0084	EPA 8270/SIM	6-19-12	6-20-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*92*	*43 - 116*				
Pyrene-d10	*101*	*38 - 125*				
Terphenyl-d14	*120*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0618S2					
Bunker C	**ND**	50	NWTPH-Dx	6-18-12	6-18-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-119-01							
	ORIG	DUP						
Bunker C	**2930**	**1720**				52	NA	
Surrogate:								
o-Terphenyl			*95*	*91*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC0618R-V2	200	176	12.0	+/-15%
BC0618R-V3	200	202	-1.0	+/-15%
BC0618R-V4	200	208	-4.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0619S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Chrysene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270/SIM	6-19-12	6-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*79*	*43 - 116*				
Pyrene-d10	*92*	*38 - 125*				
Terphenyl-d14	*98*	*33 - 124*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

cPAHs by EPA 8270D/SIM
MS/MSD QUALITY CONTROL
(with silica gel clean-up)

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	06-124-03										
	MS	MSD	MS	MSD		MS	MSD				
Benzo[a]anthracene	**0.0779**	**0.0708**	0.0833	0.0833	ND	94	85	33 - 126	10	26	
Chrysene	**0.0682**	**0.0651**	0.0833	0.0833	ND	82	78	35 - 123	5	25	
Benzo[b]fluoranthene	**0.0858**	**0.0795**	0.0833	0.0833	ND	103	95	30 - 125	8	28	
Benzo(j,k)fluoranthene	**0.0716**	**0.0663**	0.0833	0.0833	ND	86	80	31 - 122	8	30	
Benzo[a]pyrene	**0.0678**	**0.0622**	0.0833	0.0833	ND	81	75	29 - 125	9	28	
Indeno(1,2,3-c,d)pyrene	**0.0682**	**0.0633**	0.0833	0.0833	ND	82	76	28 - 125	7	27	
Dibenz[a,h]anthracene	**0.0883**	**0.0807**	0.0833	0.0833	ND	106	97	32 - 124	9	27	
Surrogate:											
2-Fluorobiphenyl						*79*	*74*	*43 - 116*			
Pyrene-d10						*99*	*91*	*38 - 125*			
Terphenyl-d14						*99*	*91*	*33 - 124*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx (re-extract)
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP1EX-SWN-061412-3**					
Laboratory ID:	06-119-01					
Bunker C	**3000**	350	NWTPH-Dx	6-22-12	6-22-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**TP11EX-SWW-061412-3**					
Laboratory ID:	06-119-02					
Bunker C	**1200**	350	NWTPH-Dx	6-22-12	6-22-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				
Client ID:	**GEI32EX-SWN-061512-3**					
Laboratory ID:	06-119-07					
Bunker C	**2700**	330	NWTPH-Dx	6-22-12	6-22-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0622S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-22-12	6-22-12	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-22-12	6-22-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-145-01							
	ORIG	DUP						
Diesel Range Organics	**92.4**	**81.3**				13	NA	
Lube Oil	**263**	**240**				9	NA	
Surrogate:								
o-Terphenyl			*102*	*109*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 26, 2012
Samples Submitted: June 18, 2012
Laboratory Reference: 1206-119
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-18-12

Client ID	Lab ID	% Moisture
TP1EX-SWN-061412-3	06-119-01	29
TP11EX-SWW-061412-3	06-119-02	29
TP11EX-SWN-061512-3	06-119-03	35
TP3EX-SWW-061512-3	06-119-04	13
TP3EX-SWE-061512-3	06-119-05	24
TP3EX-BASE-061512-6.5	06-119-06	18
GEI32EX-SWN-061512-3	06-119-07	24
STK-OB5-061512	06-119-08	9
STK-OB6-061512	06-119-09	12
STK-OB7-061512	06-119-10	21

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ruyomier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☒ 1 Day
- ☒ ~~2 Days~~ arrived 6/15/12
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-119

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C		TPH-Bunker C- Re-ext.		% Moisture
1	TP1EX-SWN-061412-3	6/14/12	1125	Soil	1								H									X		⊗		5
2	TP1EX-SWW-061412-3	6/14/12	1440	Soil	1								H									X		⊗		
3	TP1EX-SWN-061512-3	6/15/12	0740	Soil	1								●									X				
4	TP3EX-SWW-061512-3		0910	Soil	1								H									X				
5	TP3 EX-SWE-061512-3		0915	Soil	1								H									X				
6	TP3 EX-BASE-061512-6.5		0920	Soil	1								H									X				
7	GEI32EX-SWN-061512-3		1250	Soil	1								H									X		⊗		
8	STK-OB5-061512		1125	Soil	1								H									X				
9	STK-OB6-061512		1130	Soil	1								H									X				
10	STK-OB7-061512		1135	Soil	1								●									X				

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/15/12	1330
Received		OSE	6/18/12	930
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold
● Requested 6/19/12. DB (1 day TAT)
⊗ Added 6/22/12. DB (ASAP)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-119

Initiated by: MN

Date Initiated: 6/18/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 13	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- cPAHs EPA 8270D/SIM Data
- NWTPH-Dx Data

cPAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619015.D
Acq On : 19 Jun 2012 6:15 pm
Operator :
Sample : 06-119-03
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 19 18:30:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

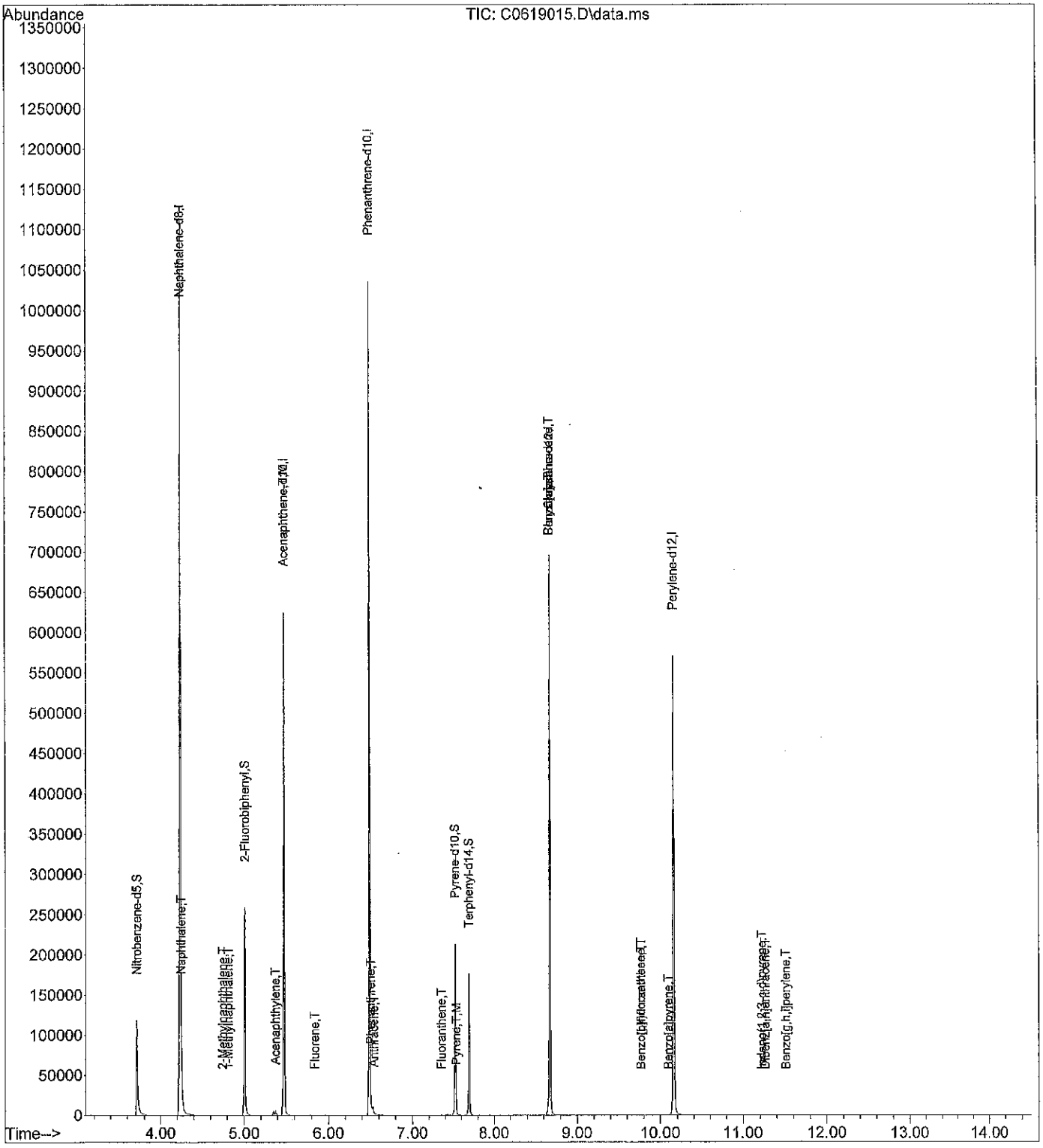
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.233	136	977681	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.475	164	447900	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.491	188	689397	2000.00	ppb	-0.02
17) Chrysene-d12	8.673	240	617520	2000.00	ppb	-0.02
21) Perylene-d12	10.158	264	567247	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.711	82	73289	889.18	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 88.92%			
7) 2-Fluorobiphenyl	5.011	172	225839	665.18	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 66.52%			
11) Pyrene-d10	7.525	212	171702	794.61	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 79.46%			
18) Terphenyl-d14	7.694	244	132486	783.37	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 78.34%			
Target Compounds						Qvalue
3) Naphthalene	4.245	128	2136	4.12	ppb	100
4) 2-Methylnaphthalene	4.745	142	973	3.22	ppb	100
5) 1-Methylnaphthalene	4.812	142	463	1.50	ppb	100
8) Acenaphthylene	5.374	152	5461	13.29	ppb	100
9) Acenaphthene	5.475	153	560	1.74	ppb	100
12) Fluorene	5.837	166	1663	5.33	ppb	100
13) Phenanthrene	6.502	178	1825	3.89	ppb	100
14) Anthracene	6.541	178	202	0.53	ppb	100
15) Fluoranthene	7.357	202	952	2.74	ppb	100
16) Pyrene	7.543	202	1427	3.64	ppb	100
19) Benzo[a]anthracene	8.669	228	2035	6.47	ppb	100
20) Chrysene	8.669	228	2035	5.97	ppb	100
22) Benzo[b]fluoranthene	9.768	252	339	1.26	ppb	100
23) Benzo(j,k)fluoranthene	9.768	252	339	1.14	ppb	100
24) Benzo[a]pyrene	10.096	252	132	0.44	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.222	276	98	0.30	ppb	100
26) Dibenz[a,h]anthracene	11.261	278	60	0.22	ppb	100
27) Benzo[g,h,i]perylene	11.507	276	133	0.45	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619015.D
Acq On : 19 Jun 2012 6:15 pm
Operator :
Sample : 06-119-03
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 19 18:30:30 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120620\
Data File : C0620004.D
Acq On : 20 Jun 2012 9:59 am
Operator :
Sample : 06-119-10 rr
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:14:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

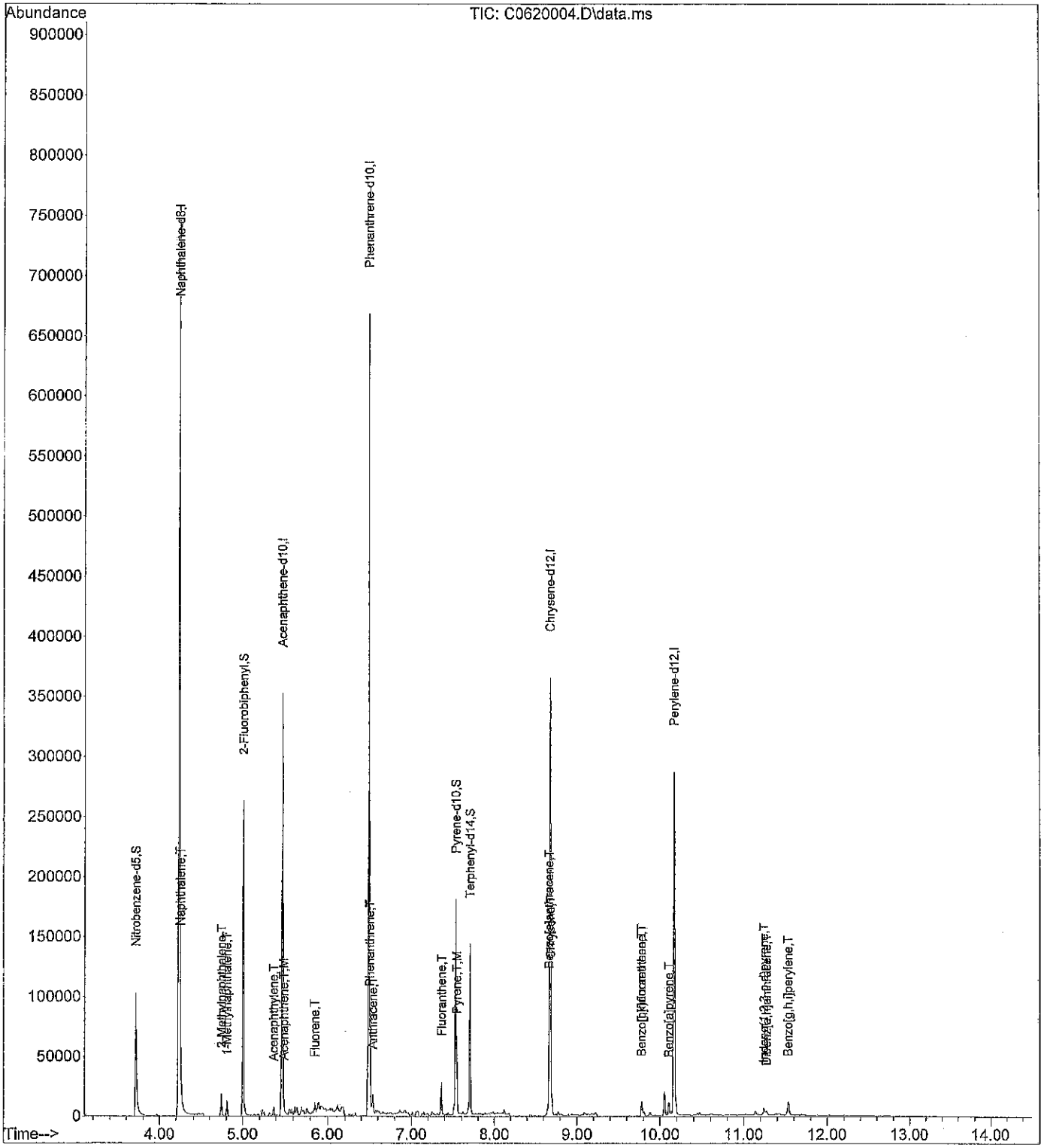
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	4.232	136	665516	2000.00 ppb	-0.03
6) Acenaphthene-d10	5.475	164	296971	2000.00 ppb	-0.02
10) Phenanthrene-d10	6.492	188	438510	2000.00 ppb	-0.02
17) Chrysene-d12	8.677	240	314214	2000.00 ppb	-0.02
21) Perylene-d12	10.169	264	305541	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	3.710	82	66954	1193.35 ppb	-0.03
Spiked Amount 1000.000	Range 24 - 92		Recovery = 119.33%#		
7) 2-Fluorobiphenyl	5.010	172	206777	918.57 ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 91.86%#		
11) Pyrene-d10	7.531	212	139392	1014.16 ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 101.42%		
18) Terphenyl-d14	7.699	244	103624	1204.16 ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 120.42%#		
Target Compounds					Qvalue
3) Naphthalene	4.244	128	11460	32.48 ppb	100
4) 2-Methylnaphthalene	4.745	142	16865	81.97 ppb	100
5) 1-Methylnaphthalene	4.811	142	10608	50.59 ppb	100
8) Acenaphthylene	5.375	152	5782	21.22 ppb	100
9) Acenaphthene	5.491	153	4563	21.34 ppb	100
12) Fluorene	5.853	166	7733	38.99 ppb	100
13) Phenanthrene	6.504	178	39418	131.94 ppb	100
14) Anthracene	6.539	178	10164	41.60 ppb	100
15) Fluoranthene	7.362	202	23368	105.82 ppb	100
16) Pyrene	7.542	202	30533	122.30 ppb	100
19) Benzo[a]anthracene	8.666	228	12403	77.49 ppb	100
20) Chrysene	8.685	228	5666	~~32.67~~ ppb 103.39	100
22) Benzo[b]fluoranthene	9.778	252	14434	99.79 ppb	100
23) Benzo(j,k)fluoranthene	~~9.778~~ 9.780	252	14434	~~90.14~~ ppb 22.43	100
24) Benzo[a]pyrene	10.106	252	10934	68.01 ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.241	276	8431	48.13 ppb	100
26) Dibenz[a,h]anthracene	11.272	278	3074	21.22 ppb	100
27) Benzo[g,h,i]perylene	11.533	276	15106	95.26 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120620\
Data File : C0620004.D
Acq On : 20 Jun 2012 9:59 am
Operator :
Sample : 06-119-10 rr
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 10:14:08 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619004.D
Acq On : 19 Jun 2012 2:13 pm
Operator :
Sample : MB0619S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 14:28:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

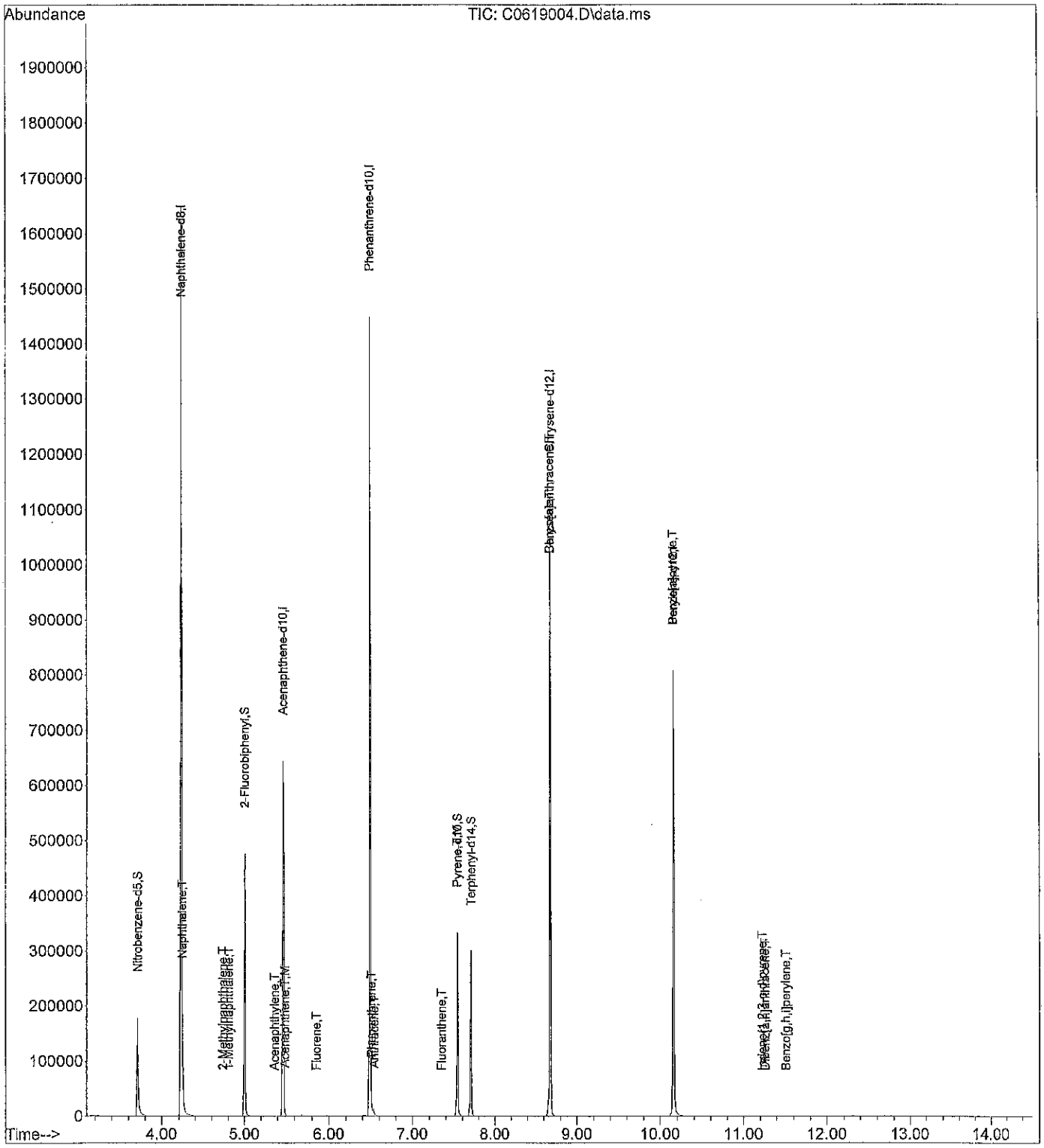
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.229	136	1584021	2000.00	ppb	-0.03
6) Acenaphthene-d10	5.467	164	701809	2000.00	ppb	-0.03
10) Phenanthrene-d10	6.491	188	1117758	2000.00	ppb	-0.02
17) Chrysene-d12	8.681	240	979620	2000.00	ppb	-0.01
21) Perylene-d12	10.161	264	824651	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.707	82	112518	842.58	ppb	-0.03
Spiked Amount 1000.000	Range 24 - 92		Recovery = 84.26%			
7) 2-Fluorobiphenyl	5.005	172	420985	791.35	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 79.14%			
11) Pyrene-d10	7.543	212	323084	922.18	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 92.22%			
18) Terphenyl-d14	7.711	244	263422	981.85	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 98.19%#			
Target Compounds						Qvalue
3) Naphthalene	4.241	128	2085	2.48	ppb	100
4) 2-Methylnaphthalene	4.740	142	926	1.89	ppb	100
5) 1-Methylnaphthalene	4.810	142	486	0.97	ppb	100
8) Acenaphthylene	5.367	152	130	0.20	ppb	100
9) Acenaphthene	5.490	153	548	1.08	ppb	100
12) Fluorene	5.853	166	450	0.89	ppb	100
13) Phenanthrene	6.507	178	1911	2.51	ppb	100
14) Anthracene	6.542	178	420	0.67	ppb	100
15) Fluoranthene	7.351	202	146	0.26	ppb	100
16) Pyrene	7.537	202	876	1.38	ppb	100
19) Benzo[a]anthracene	8.678	228	2803	5.62	ppb	100
20) Chrysene	8.678	228	2803	5.18	ppb	100
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	10.157	252	2749	6.34	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.225	276	207	0.44	ppb	100
26) Dibenz[a,h]anthracene	11.260	278	198	0.51	ppb	100
27) Benzo[g,h,i]perylene	11.510	276	211	0.49	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619004.D
Acq On : 19 Jun 2012 2:13 pm
Operator :
Sample : MB0619S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 19 14:28:20 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619012.D
Acq On : 19 Jun 2012 5:09 pm
Operator :
Sample : 06-124-03
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 17:24:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.233	136	986995	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.475	164	451742	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.491	188	690742	2000.00	ppb	-0.02
17) Chrysene-d12	8.673	240	616685	2000.00	ppb	-0.02
21) Perylene-d12	10.159	264	566707	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.711	82	76955	924.85	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	92.48%#		
7) 2-Fluorobiphenyl	5.009	172	251283	733.83	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery =	73.38%		
11) Pyrene-d10	7.526	212	207050	956.33	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	95.63%		
18) Terphenyl-d14	7.694	244	165859	982.03	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery =	98.20%#		
Target Compounds						Qvalue
3) Naphthalene	4.245	128	2487	4.75	ppb	100
4) 2-Methylnaphthalene	4.744	142	1236	4.05	ppb	100
5) 1-Methylnaphthalene	4.810	142	552	1.78	ppb	100
8) Acenaphthylene	5.352	152	11350	27.38	ppb	100
9) Acenaphthene	5.475	153	1749	5.38	ppb	100
12) Fluorene	5.837	166	3834	12.27	ppb	100
13) Phenanthrene	6.507	178	2086	4.43	ppb	100
14) Anthracene	6.542	178	675	1.75	ppb	100
15) Fluoranthene	7.357	202	631	1.81	ppb	100
16) Pyrene	7.537	202	1597	4.06	ppb	100
19) Benzo[a]anthracene	8.669	228	2234	7.11	ppb	100
~~20) Chrysene~~	8.669	228	2234	6.56	ppb	100
22) Benzo[b]fluoranthene	9.773	252	480	1.79	ppb	100
~~23) Benzo(j,k)fluoranthene~~	9.773	252	512	1.72	ppb	100
24) Benzo[a]pyrene	10.097	252	261	0.88	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.225	276	296	0.91	ppb	100
26) Dibenz[a,h]anthracene	11.264	278	56	0.21	ppb	100
27) Benzo[g,h,i]perylene	11.513	276	269	0.91	ppb	100

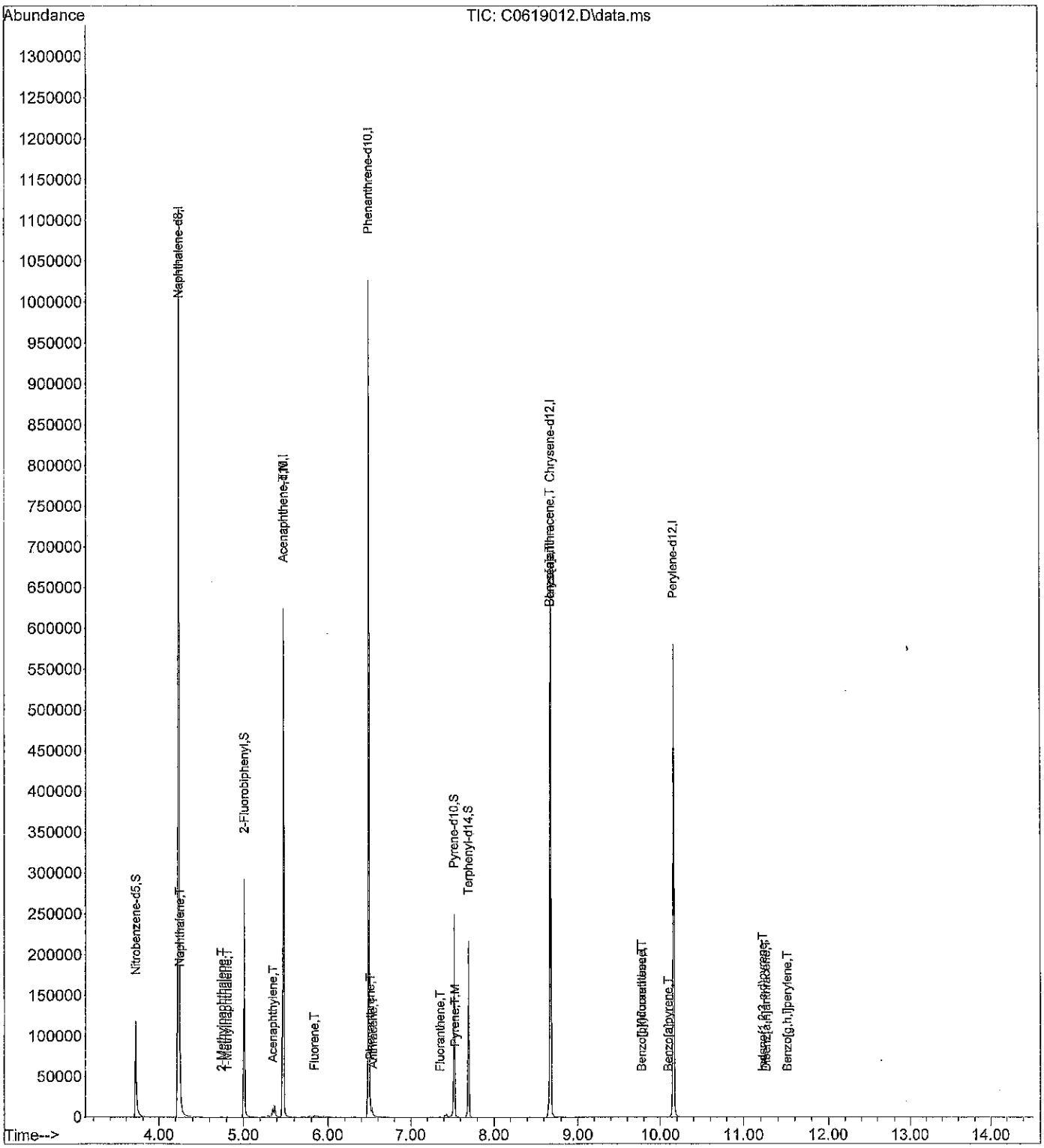
(#) = qualifier out of range (m) = manual integration (+) = signals summed

27.38 ppb 24.24

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619012.D
Acq On : 19 Jun 2012 5:09 pm
Operator :
Sample : 06-124-03
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 19 17:24:19 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619013.D
Acq On : 19 Jun 2012 5:31 pm
Operator :
Sample : 06-124-03 MS
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 17:46:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

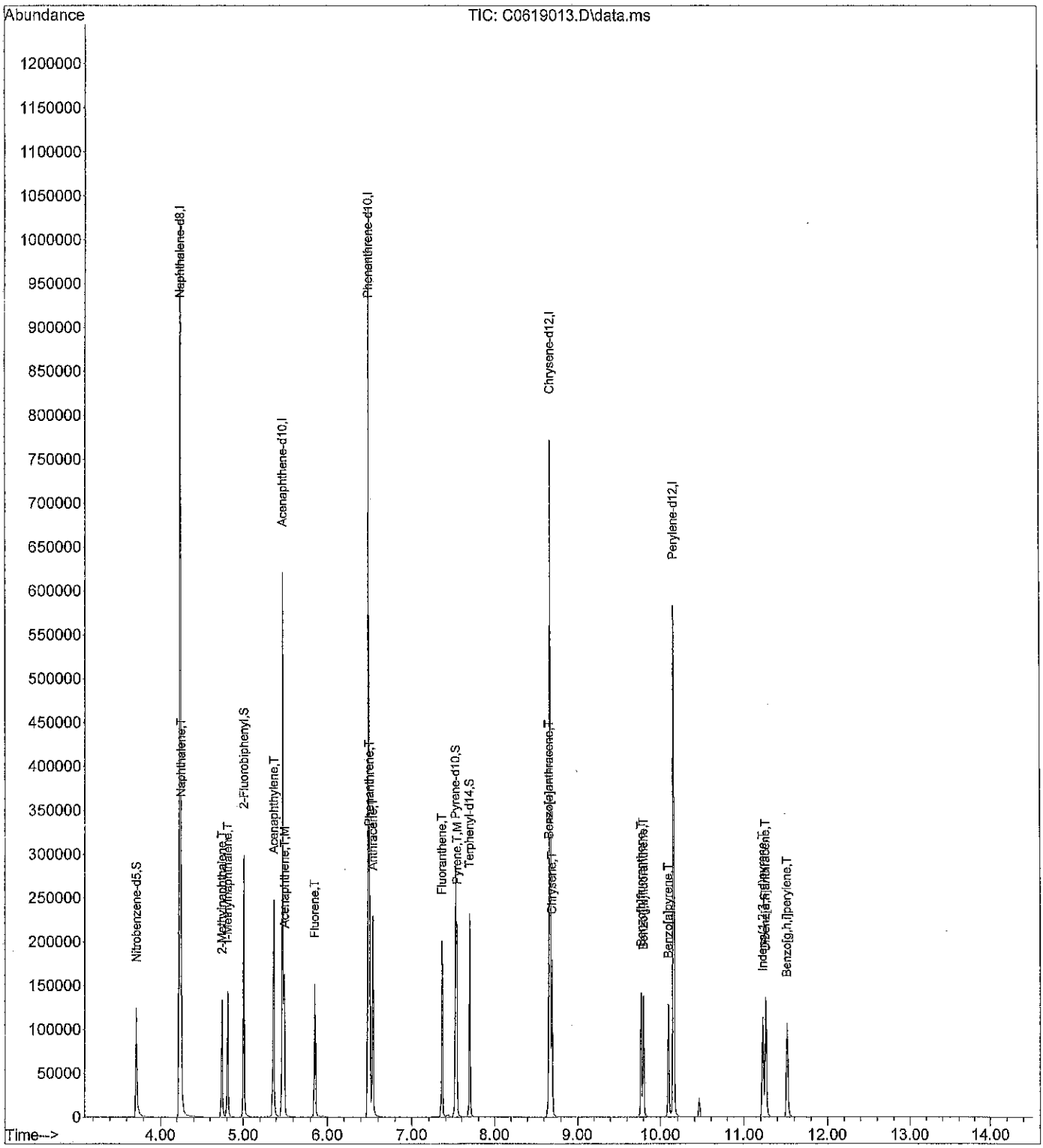
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.234	136	963265	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.474	164	453887	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.491	188	694959	2000.00	ppb	-0.02
17) Chrysene-d12	8.673	240	632442	2000.00	ppb	-0.02
21) Perylene-d12	10.159	264	580381	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.712	82	80315	989.01	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 98.90%#			
7) 2-Fluorobiphenyl	5.010	172	270967	787.57	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 78.76%			
11) Pyrene-d10	7.526	212	216061	991.90	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 99.19%			
18) Terphenyl-d14	7.694	244	171766	991.67	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 99.17%#			
Target Compounds						Qvalue
3) Naphthalene	4.246	128	187302	366.80	ppb	100
4) 2-Methylnaphthalene	4.745	142	121796	409.00	ppb	100
5) 1-Methylnaphthalene	4.811	142	122391	403.26	ppb	100
8) Acenaphthylene	5.374	152	222598	534.42	ppb	100
9) Acenaphthene	5.497	153	125142	383.00	ppb	100
12) Fluorene	5.852	166	136205	433.32	ppb	100
13) Phenanthrene	6.502	178	202335	427.35	ppb	100
14) Anthracene	6.541	178	172981	446.74	ppb	100
15) Fluoranthene	7.358	202	170324	486.69	ppb	100
16) Pyrene	7.543	202	194605	491.84	ppb	100
19) Benzo[a]anthracene	8.661	228	150643	467.62	ppb	100
20) Chrysene	8.696	228	142883	409.26	ppb	100
22) Benzo[b]fluoranthene	9.772	252	141521	515.07	ppb	100
23) Benzo(j,k)fluoranthene	9.800	252	130665	429.58	ppb	100
24) Benzo[a]pyrene	10.096	252	124149	406.53	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.225	276	136198	409.31	ppb	100
26) Dibenz[a,h]anthracene	11.260	278	145833	530.04	ppb	100
27) Benzo[g,h,i]perylene	11.514	276	149100	495.00	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619013.D
Acq On : 19 Jun 2012 5:31 pm
Operator :
Sample : 06-124-03 MS
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 19 17:46:49 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619014.D
Acq On : 19 Jun 2012 5:53 pm
Operator :
Sample : 06-124-03 MSD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 19 18:08:26 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

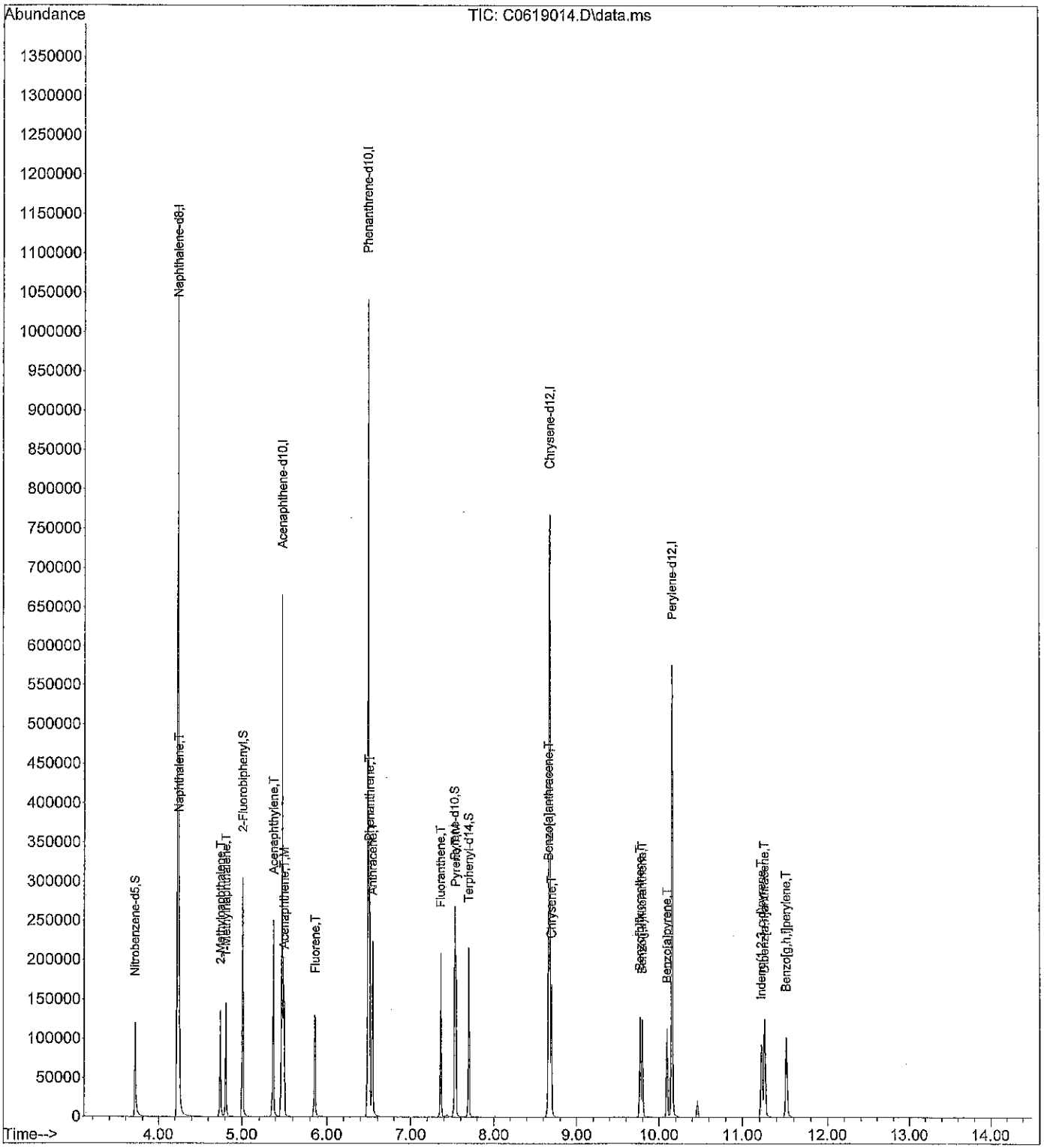
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.233	136	951144	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.474	164	450106	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.491	188	689720	2000.00	ppb	-0.02
17) Chrysene-d12	8.673	240	626265	2000.00	ppb	-0.02
21) Perylene-d12	10.158	264	572053	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.710	82	74358	927.32	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	92.73%#		
7) 2-Fluorobiphenyl	5.010	172	251263	736.44	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery =	73.64%		
11) Pyrene-d10	7.527	212	196283	907.94	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	90.79%		
18) Terphenyl-d14	7.695	244	156730	913.78	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery =	91.38%		
Target Compounds						Qvalue
3) Naphthalene	4.244	128	174038	345.17	ppb	100
4) 2-Methylnaphthalene	4.745	142	111957	380.75	ppb	100
5) 1-Methylnaphthalene	4.811	142	112282	374.67	ppb	100
8) Acenaphthylene	5.374	152	190360	460.86	ppb	100
9) Acenaphthene	5.497	153	116705	360.18	ppb	100
12) Fluorene	5.859	166	123982	397.43	ppb	100
13) Phenanthrene	6.506	178	186733	397.39	ppb	100
14) Anthracene	6.541	178	158555	412.60	ppb	100
15) Fluoranthene	7.358	202	156434	450.40	ppb	100
16) Pyrene	7.538	202	176585	449.68	ppb	100
19) Benzo[a]anthracene	8.661	228	135544	424.90	ppb	100
20) Chrysene	8.696	228	135096	390.77	ppb	100
22) Benzo[b]fluoranthene	9.768	252	129103	476.72	ppb	100
23) Benzo(j,k)fluoranthene	9.795	252	119333	398.03	ppb	100
24) Benzo[a]pyrene	10.096	252	112309	373.12	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.222	276	124630	379.99	ppb	100
26) Dibenz[a,h]anthracene	11.261	278	131339	484.31	ppb	100
27) Benzo[g,h,i]perylene	11.514	276	135320	455.79	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619014.D
Acq On : 19 Jun 2012 5:53 pm
Operator :
Sample : 06-124-03 MSD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 19 18:08:26 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120619\
Data File : C0619003.D
Acq On : 19 Jun 2012 10:37
Operator :
Sample : PAHCCV0619
Misc : SV3-26-11
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 10:52:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	96	-0.02
2	S	Nitrobenzene-d5	500.000	591.336	-18.3	124	-0.02
3	T	Naphthalene	500.000	476.974	4.6	92	-0.02
4	T	2-Methylnaphthalene	500.000	476.810	4.6	91	-0.02
5	T	1-Methylnaphthalene	500.000	496.603	0.7	94	-0.02
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	98	-0.02
7	S	2-Fluorobiphenyl	500.000	501.046	-0.2	101	-0.02
8	T	Acenaphthylene	500.000	500.446	-0.1	96	-0.02
9	T,M	Acenaphthene	500.000	477.552	4.5	96	-0.02
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	101	-0.02
11	S	Pyrene-d10	500.000	532.304	-6.5	102	-0.02
12	T	Fluorene	500.000	491.588	1.7	98	-0.02
13	T	Phenanthrene	500.000	478.815	4.2	97	-0.02
14	T	Anthracene	500.000	504.598	-0.9	95	-0.02
15	T	Fluoranthene	500.000	518.151	-3.6	100	-0.02
16	T,M	Pyrene	500.000	526.621	-5.3	98	-0.02
17	I	Chrysene-d12	2000.000	2000.000	0.0	106	-0.03
18	S	Terphenyl-d14	500.000	509.488	-1.9	107	-0.02
19	T	Benzo[a]anthracene	500.000	447.505	10.5	104	-0.02
20	T	Chrysene	500.000	477.701	4.5	99	-0.02
21	I	Perylene-d12	2000.000	2000.000	0.0	109	-0.02
22	T	Benzo[b]fluoranthene	500.000	545.746	-9.1	108	-0.03
23	T	Benzo(j,k)fluoranthene	500.000	532.350	-6.5	101	-0.02
24	T	Benzo[a]pyrene	500.000	404.648	19.1	107	-0.02
25	T	Indeno(1,2,3-c,d)pyrene	500.000	451.943	9.6	121	-0.03
26	T	Dibenz[a,h]anthracene	500.000	584.111	-16.8	114	-0.03
27	T	Benzo[g,h,i]perylene	500.000	564.545	-12.9	113	-0.03

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619003.D
Acq On : 19 Jun 2012 10:37 am
Operator :
Sample : PAHCCV0619
Misc : SV3-26-11
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 10:52:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

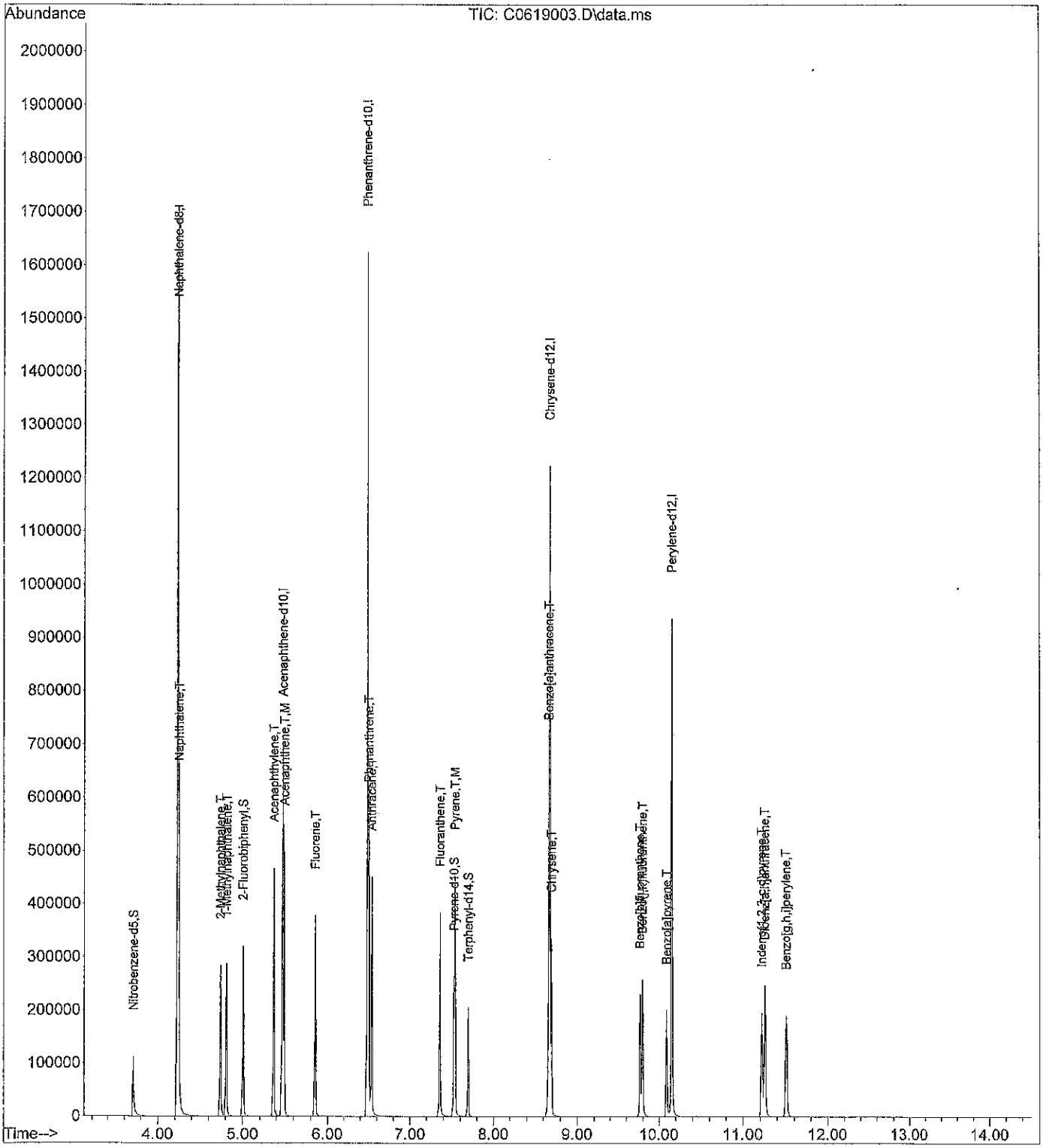
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.233	136	1567935	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.476	164	705906	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.488	188	1119608	2000.00	ppb	-0.02
17) Chrysene-d12	8.668	240	1036268	2000.00	ppb	-0.03
21) Perylene-d12	10.154	264	912372	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.711	82	78165	591.34	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 59.13%			
7) 2-Fluorobiphenyl	5.006	172	268103	501.05	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 50.10%			
11) Pyrene-d10	7.526	212	186800	532.30	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 53.23%			
18) Terphenyl-d14	7.694	244	144596	509.49	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.95%			
Target Compounds						Qvalue
3) Naphthalene	4.245	128	396453	476.97	ppb	100
4) 2-Methylnaphthalene	4.741	142	231121	476.81	ppb	100
5) 1-Methylnaphthalene	4.811	142	245333	496.60	ppb	100
8) Acenaphthylene	5.368	152	324186	500.45	ppb	100
9) Acenaphthene	5.491	153	242675	477.55	ppb	100
12) Fluorene	5.853	166	248938	491.59	ppb	100
13) Phenanthrene	6.503	178	365224	478.81	ppb	100
14) Anthracene	6.539	178	314769	504.60	ppb	100
15) Fluoranthene	7.357	202	292135	518.15	ppb	100
16) Pyrene	7.537	202	335690	526.62	ppb	100
19) Benzo[a]anthracene	8.661	228	236212	447.50	ppb	100
20) Chrysene	8.692	228	273269	477.70	ppb	100
22) Benzo[b]fluoranthene	9.764	252	235723	545.75	ppb	100
23) Benzo(j,k)fluoranthene	9.795	252	254550	532.35	ppb	100
24) Benzo[a]pyrene	10.092	252	194260	404.65	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.217	276	236410	451.94	ppb	100
26) Dibenz[a,h]anthracene	11.252	278	252639	584.11	ppb	100
27) Benzo[g,h,i]perylene	11.506	276	267321	564.54	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/19/12

Data Path : C:\MSDCHEM\1\DATA\C120619\
Data File : C0619003.D
Acq On : 19 Jun 2012 10:37 am
Operator :
Sample : PAHCCV0619
Misc : SV3-26-11
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 19 10:52:48 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C120620\
Data File : C0620003.D
Acq On : 20 Jun 2012 9:37 am
Operator :
Sample : PAHCCV0620
Misc : SV3-26-16
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 20 09:52:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	58	-0.02
2	S	Nitrobenzene-d5	500.000	558.196	-11.6	71	-0.02
3	T	Naphthalene	500.000	438.153	12.4	51	-0.02
4	T	2-Methylnaphthalene	500.000	428.071	14.4	49	-0.02
5	T	1-Methylnaphthalene	500.000	454.723	9.1	52	-0.02
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	60	-0.02
7	S	2-Fluorobiphenyl	500.000	455.472	8.9	56	-0.02
8	T	Acenaphthylene	500.000	487.218	2.6	57	-0.02
9	T,M	Acenaphthene	500.000	415.779	16.8	51	-0.02
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	60	-0.02
11	S	Pyrene-d10	500.000	488.757	2.2	56	-0.02
12	T	Fluorene	500.000	445.029	11.0	53	-0.02
13	T	Phenanthrene	500.000	426.086	14.8	51	-0.02
14	T	Anthracene	500.000	513.969	-2.8	58	-0.02
15	T	Fluoranthene	500.000	486.337	2.7	56	-0.02
16	T,M	Pyrene	500.000	486.790	2.6	54	-0.02
17	I	Chrysene-d12	2000.000	2000.000	0.0	63	-0.02
18	S	Terphenyl-d14	500.000	458.113	8.4	57	-0.02
19	T	Benzo[a]anthracene	500.000	449.541	10.1	62	-0.02
20	T	Chrysene	500.000	431.801	13.6	53	-0.02
21	I	Perylene-d12	2000.000	2000.000	0.0	67	-0.02
22	T	Benzo[b]fluoranthene	500.000	533.965	-6.8	65	-0.02
23	T	Benzo(j,k)fluoranthene	500.000	497.871	0.4	58	-0.02
24	T	Benzo[a]pyrene	500.000	440.206	12.0	72	-0.02
25	T	Indeno(1,2,3-c,d)pyrene	500.000	423.468	15.3	70	-0.02
26	T	Dibenz[a,h]anthracene	500.000	530.701	-6.1	63	-0.02
27	T	Benzo[g,h,i]perylene	500.000	512.415	-2.5	63	-0.02

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C120620\
Data File : C0620003.D
Acq On : 20 Jun 2012 9:37 am
Operator :
Sample : PAHCCV0620
Misc : SV3-26-16
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 20 09:52:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration

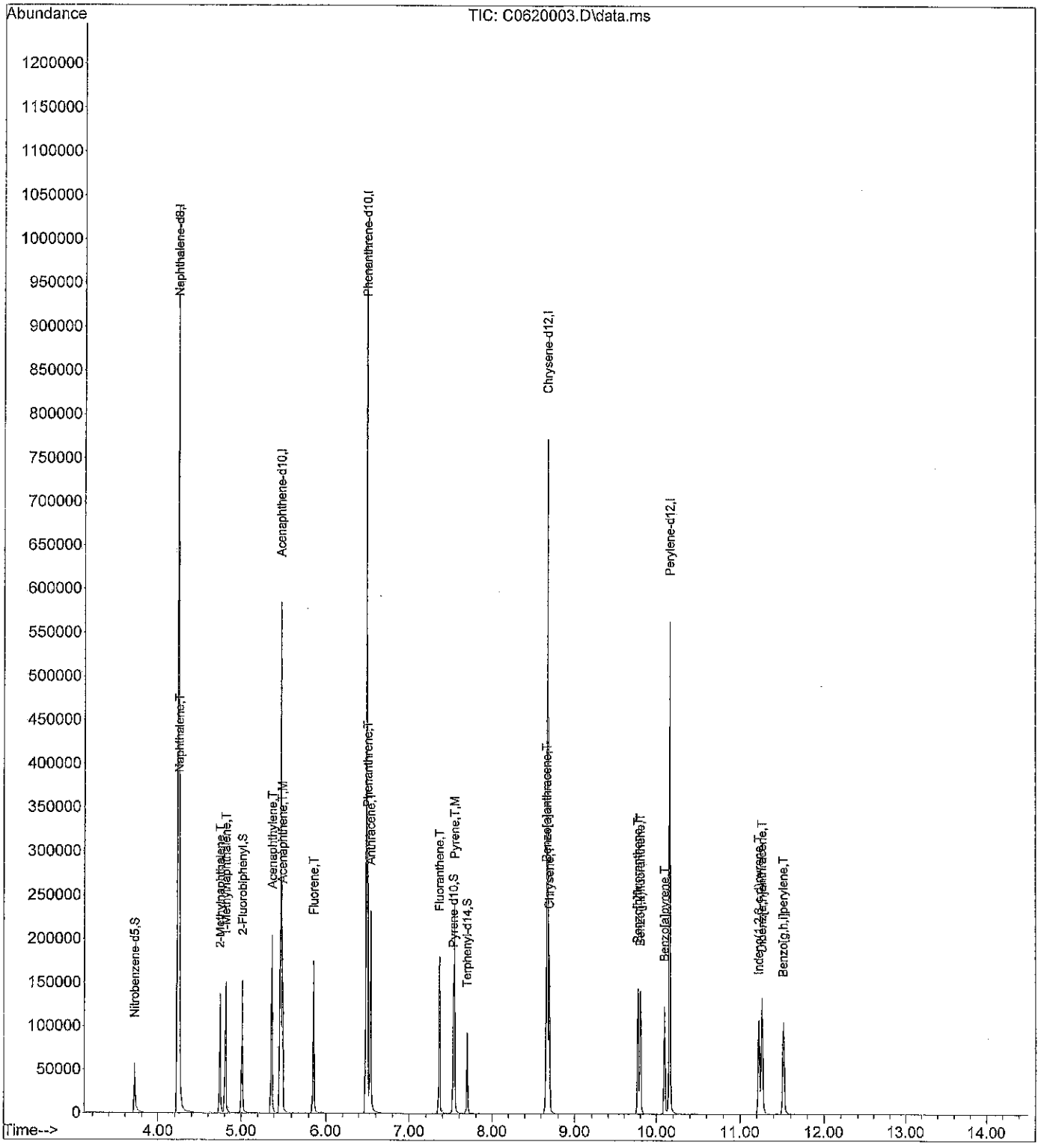
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.233	136	944551	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.474	164	430535	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.491	188	666020	2000.00	ppb	-0.02
17) Chrysene-d12	8.673	240	617598	2000.00	ppb	-0.02
21) Perylene-d12	10.159	264	560163	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.711	82	44449	558.20	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 55.82%			
7) 2-Fluorobiphenyl	5.011	172	148644	455.47	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 45.55%			
11) Pyrene-d10	7.531	212	102031	488.76	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.88%			
18) Terphenyl-d14	7.694	244	77487	458.11	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 45.81%			
Target Compounds						Qvalue
3) Naphthalene	4.245	128	219392	438.15	ppb	100
4) 2-Methylnaphthalene	4.742	142	124999	428.07	ppb	100
5) 1-Methylnaphthalene	4.812	142	135329	454.72	ppb	100
8) Acenaphthylene	5.374	152	192496	487.22	ppb	100
9) Acenaphthene	5.490	153	128863	415.78	ppb	100
12) Fluorene	5.852	166	134060	445.03	ppb	100
13) Phenanthrene	6.503	178	193335	426.09	ppb	100
14) Anthracene	6.538	178	190724	513.97	ppb	100
15) Fluoranthene	7.363	202	163112	486.34	ppb	100
16) Pyrene	7.543	202	184588	486.79	ppb	100
19) Benzo[a]anthracene	8.661	228	141419	449.54	ppb	100
20) Chrysene	8.697	228	147215	431.80	ppb	100
22) Benzo[b]fluoranthene	9.768	252	141601	533.96	ppb	100
23) Benzo(j,k)fluoranthene	9.800	252	146162	497.87	ppb	100
24) Benzo[a]pyrene	10.096	252	129749	440.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.226	276	136002	423.47	ppb	100
26) Dibenz[a,h]anthracene	11.261	278	140928	530.70	ppb	100
27) Benzo[g,h,i]perylene	11.515	276	148970	512.41	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/20/12

Data Path : C:\MSDCHEM\1\DATA\C120620\
Data File : C0620003.D
Acq On : 20 Jun 2012 9:37 am
Operator :
Sample : PAHCCV0620
Misc : SV3-26-16
ALS Vial : 3 Sample Multiplier: 1

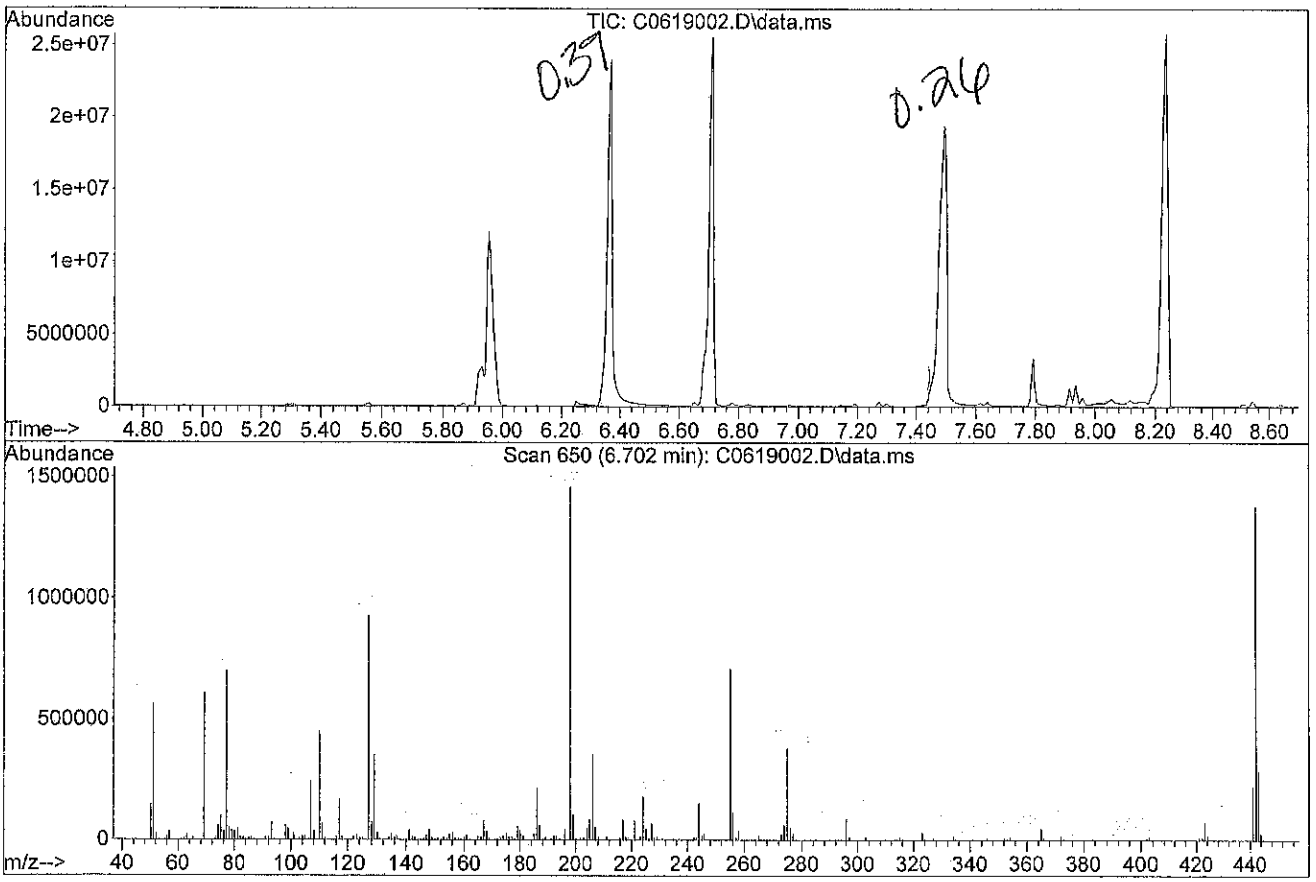
Quant Time: Jun 20 09:52:16 2012
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Jun 14 13:31:25 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C120619\
Data File : C0619002.D
Acq On : 19 Jun 2012 10:16
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Title : PAH'S BY SIMS
Last Update : Mon Jun 18 13:17:42 2012



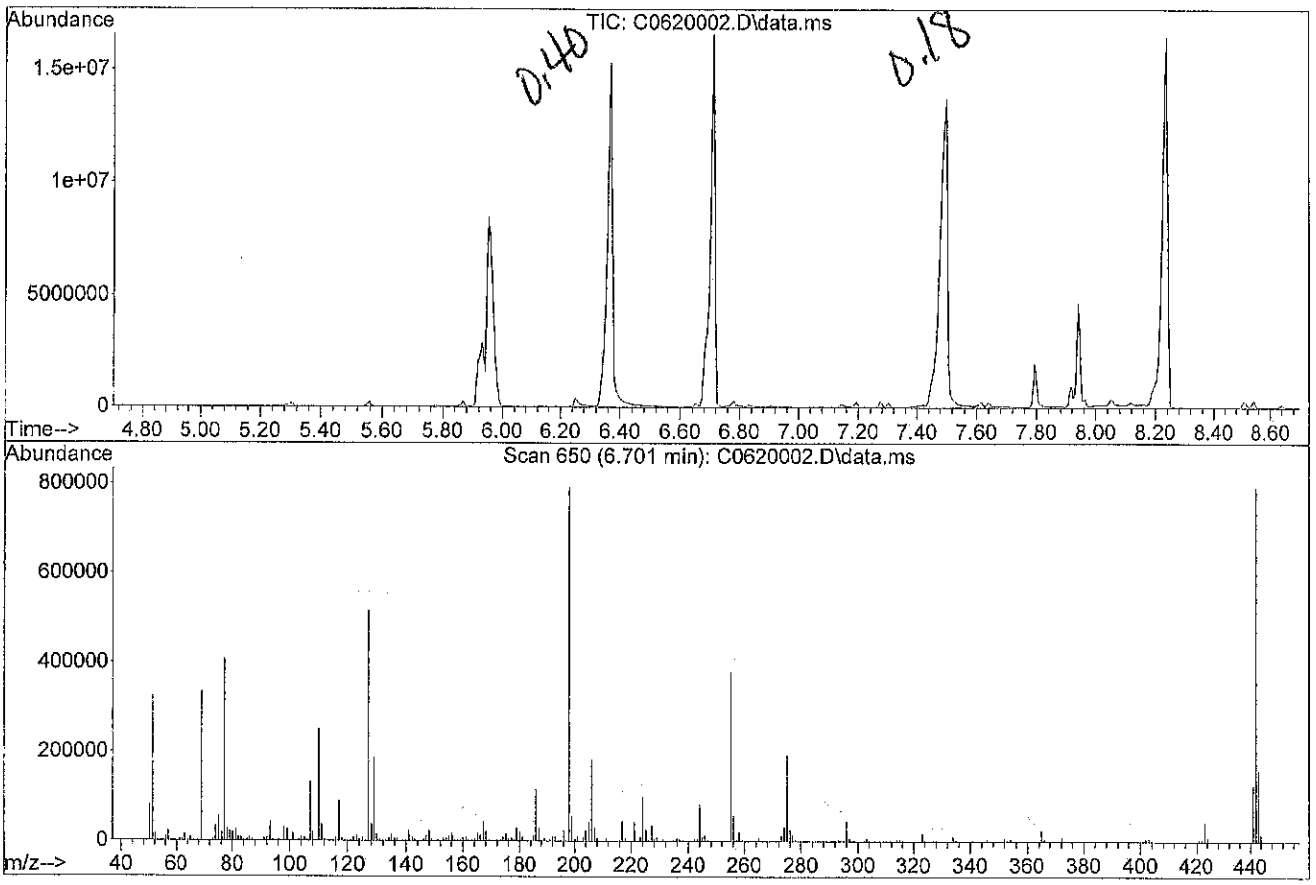
Spectrum Information: Scan 650

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	38.6	565696	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.7	610624	PASS
70	69	0.00	2	0.5	3095	PASS
127	198	25	75	63.5	930176	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1465856	PASS
199	198	5	9	7.2	105240	PASS
275	198	10	30	25.9	379136	PASS
365	198	0.75	100	3.4	49672	PASS
441	443	0.01	100	77.2	222720	PASS
442	198	40	110	94.2	1380864	PASS
443	442	15	24	20.9	288576	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C120620\
Data File : C0620002.D
Acq On : 20 Jun 2012 8:54 am
Operator :
Sample : DFTPP
Misc : SV3-23-17
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SSIM0614.M
Title : PAH'S BY SIMS
Last Update : Thu Jun 14 13:31:25 2012



Spectrum Information: Scan 650

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	41.1	326464	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.5	337664	PASS
70	69	0.00	2	0.6	1907	PASS
127	198	25	75	65.0	516160	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	794624	PASS
199	198	5	9	7.2	56920	PASS
275	198	10	30	24.4	194112	PASS
365	198	0.75	100	3.1	25008	PASS
441	443	0.01	100	78.1	125736	PASS
442	198	40	110	100.1	795776	PASS
443	442	15	24	20.2	160960	PASS

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120619\C0619002.D
Tune Time : 19 Jun 2012 10:16 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120619\C0619003.D

	(PRY)	(NPT)	(ACE)	(PHN)
		1567940	705906	1119610
		(CRY)	(PRY)	
		1036270	912372	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0619004.D								
	MB0619S1	84	79	92	98*	1584021	701809	1117758
			979620		824651			
C0619012.D								
	06-124-03	92*	73	96	98*	986995	451742	690742
			616685		566707			
C0619013.D								
	06-124-03	99*	79	99	99*	963265	453887	694959
			632442		580381			
C0619014.D								
	06-124-03	93*	74	91	91	951144	450106	689720
			626265		572053			
C0619015.D								
	06-119-03	89	67	79	78	977681	447900	689397
			617520		567247			

(fails) - fails 12hr time check * - fails criteria

Created: Wed Jun 20 10:16:00 2012 COREY

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C120620\C0620002.D
Tune Time : 20 Jun 2012 8:54 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C120620\C0620003.D

(PRY)	(NPT)	(ACE)	(PHN)
	944551	430535	666020

(CRY)	(PRY)
617598	560163

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0620004.D								
	06-119-10	119*	92*	101	120*	665516	296971	438510
			314214		305541			

(fails) - fails 12hr time check * - fails criteria

Created: Wed Jun 20 10:15:09 2012 COREY

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0618-V61.D
Sample : 06-119-01 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 17:50
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 18:26:49 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.639	27933311	9.487	PPM
Spiked Amount		50.000		Recovery =	18.97%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4187250	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	116980439	48.721	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	246785408	96.860	PPM
6)	H	Oil	22.000	764327982	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	767341963	365.501	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	181697242	74.016	PPM
9)	H	Oil Combo	22.000	697805269	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	701265668	339.108	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	263561309	96.398	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	474147754	405.508	PPM
13)	H	Mineral Oil (03-14-12)	16.000	409461477	144.488	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	880033093	585.563	PPM
15)	H	ALKANE C9-C40	12.666	875582722	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	234974121	84.924	PPM
17)	H	Oil Acid Clean MO Com...	22.000	640494243	318.733	PPM

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

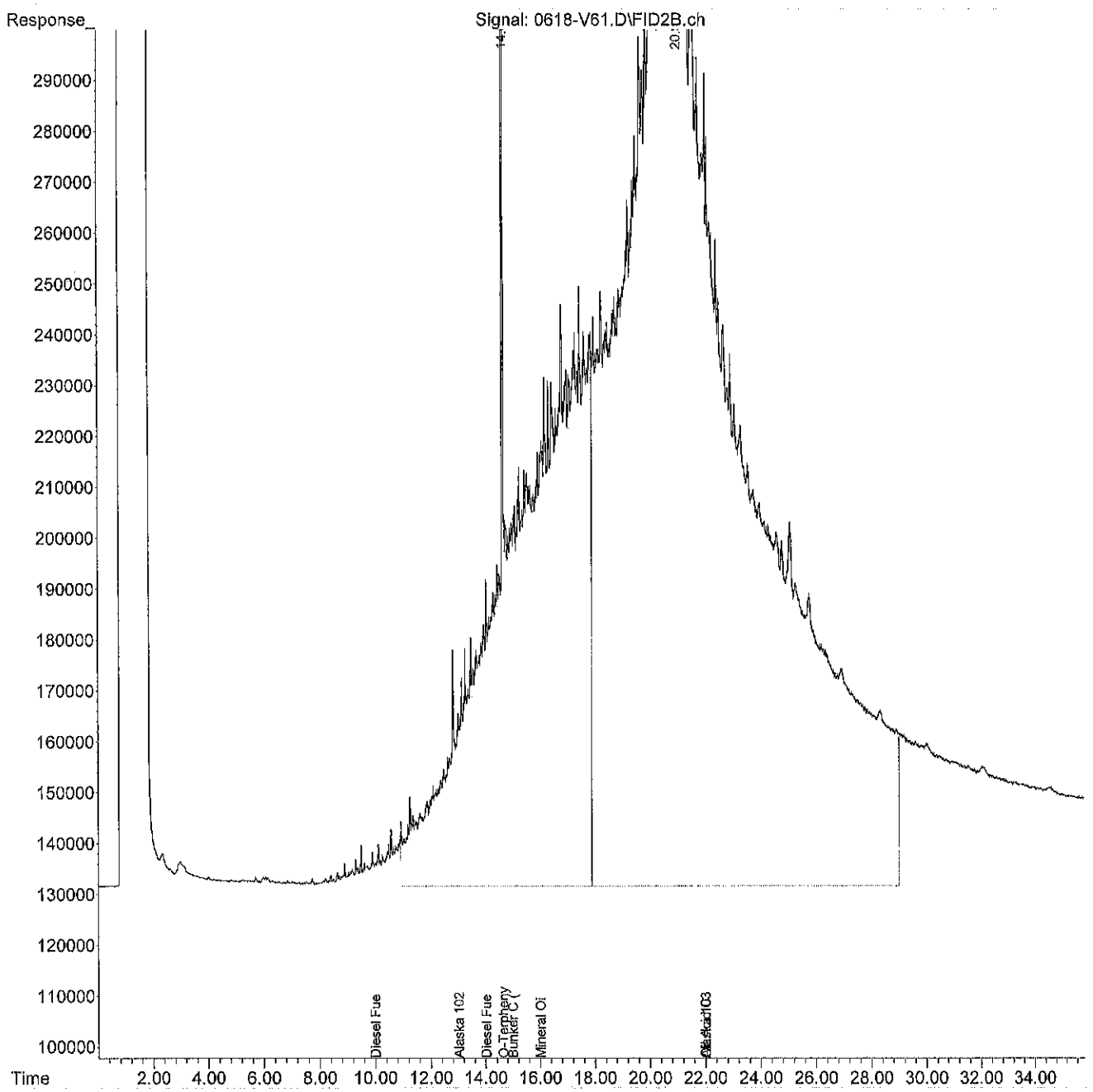
Quantitation Report (Not Reviewed)

Data File : 0618-V61.D
Sample : 06-119-01 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 17:50
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 18:26:49 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V64.D
Sample : 06-119-02 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 19:50
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 20:26:32 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.639	30128017	10.216	PPM
Spiked Amount		50.000		Recovery =	20.43%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3821308	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	42664518	16.904	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	88106625	34.873	PPM
6)	H	Oil	22.000	307605805	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	313195702	138.421	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	64977860	26.730	PPM
9)	H	Oil Combo	22.000	284125304	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	289743305	129.522	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	94076358	31.085	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	185612533	152.395	PPM
13)	H	Mineral Oil (03-14-12)	16.000	146966138	48.623	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	352936436	220.583	PPM
15)	H	ALKANE C9-C40	12.666	350683382	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	85223068	28.118	PPM
17)	H	Oil Acid Clean MO Com...	22.000	268116277	122.891	PPM

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

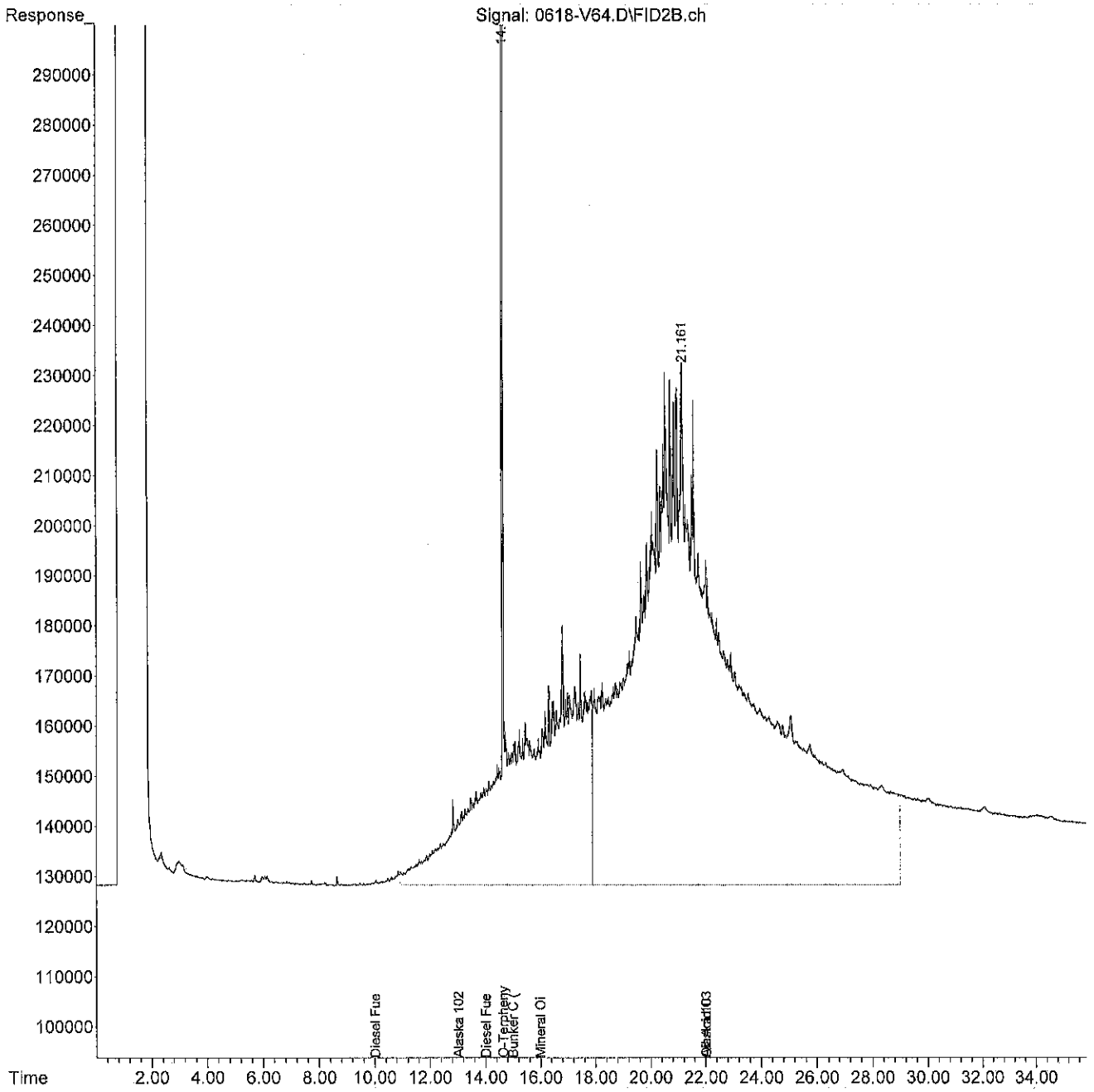
Quantitation Report (Not Reviewed)

Data File : 0618-V64.D
Sample : 06-119-02 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 19:50
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 20:26:32 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V59.D
Sample : 06-119-03

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 16:30
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 17:06:52 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.652	133825892	44.661	PPM
Spiked Amount	50.000		Recovery =	89.32%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4057565	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	2357194	N.D.	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	1322894	0.971	PPM
6) H	Oil	22.000	35556344	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	40455471	2.046	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1271141	0.921	PPM
9) H	Oil Combo	22.000	35486636	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	40375500	2.520	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	1514492	N.D.	PPM
12) H	Alaska 103 Oil (06-2...	22.000	15936696	3.550	PPM
13) H	Mineral Oil (03-14-12)	16.000	1818148	N.D.	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	40872932	4.500	PPM
15) H	ALKANE C9-C40	12.666	40678939	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	771567	N.D.	PPM
17) H	Oil Acid Clean MO Com...	22.000	40325908	3.091	PPM

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

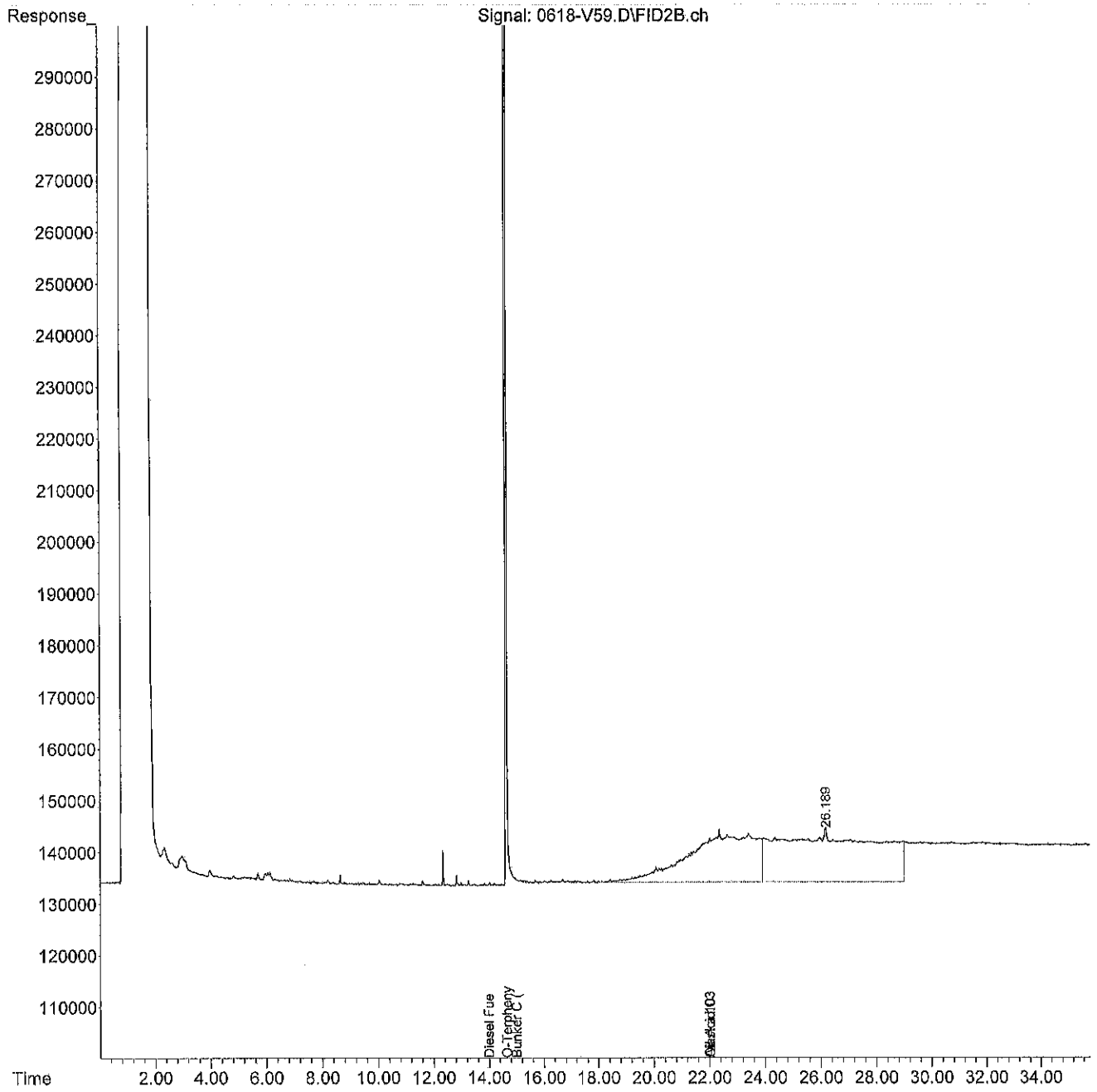
Quantitation Report (Not Reviewed)

Data File : 0618-V59.D
Sample : 06-119-03

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 16:30
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 17:06:52 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V66.D
Sample : 06-119-04

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 21:10
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 21:46:14 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.649	129330428	43.168	PPM
Spiked Amount		50.000		Recovery =	86.34%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4692530	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	49559890	19.857	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	156396969	61.550	PPM
6)	H	Oil	22.000	697405918	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	703296970	333.478	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	96692754	39.579	PPM
9)	H	Oil Combo	22.000	652289734	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	654523615	315.303	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	172970607	61.487	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	464770016	397.282	PPM
13)	H	Mineral Oil (03-14-12)	16.000	333774167	116.847	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	748952013	494.798	PPM
15)	H	ALKANE C9-C40	12.666	745997340	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	148841405	52.250	PPM
17)	H	Oil Acid Clean MO Com...	22.000	598979112	296.900	PPM

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

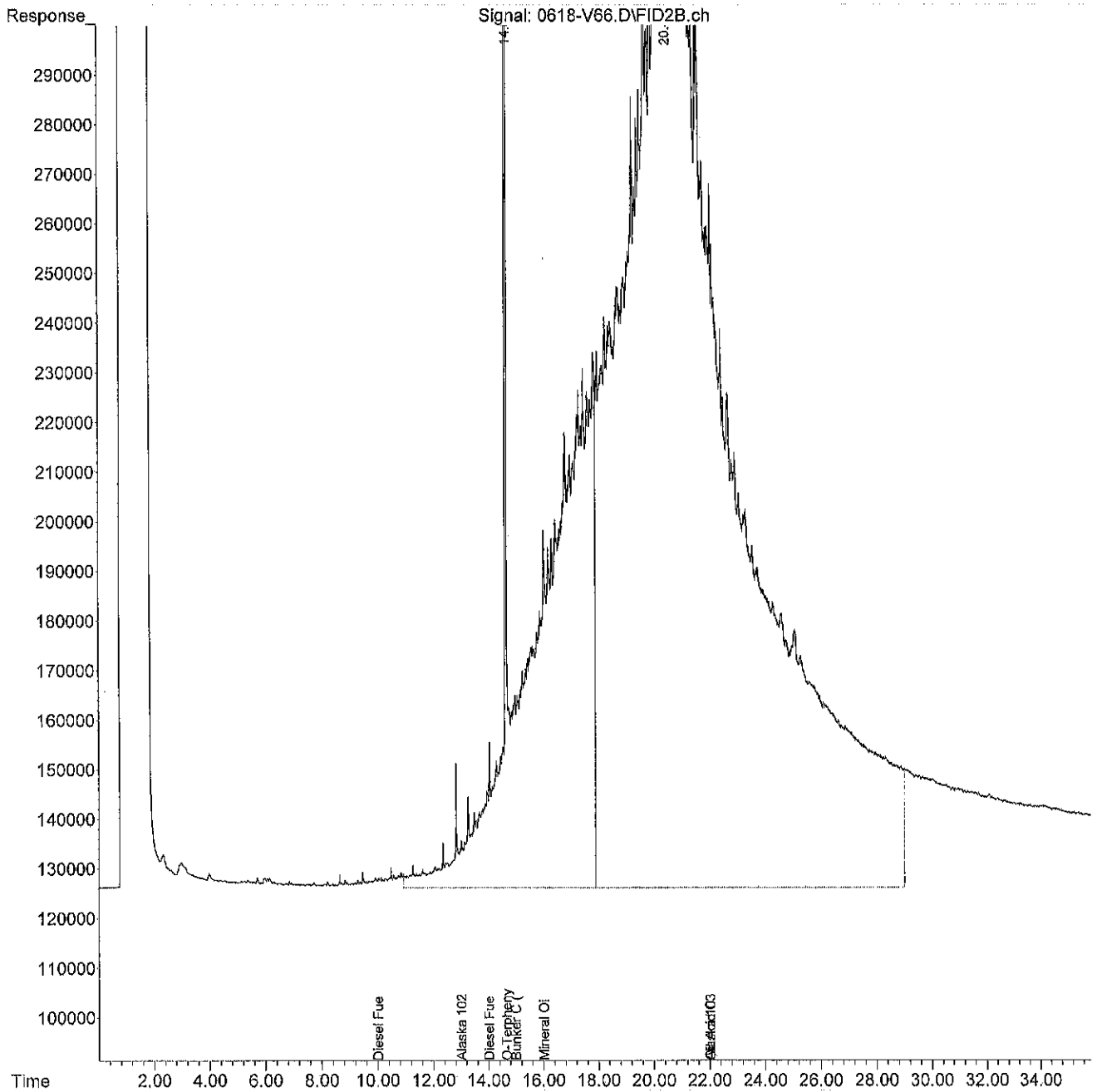
Quantitation Report (Not Reviewed)

Data File : 0618-V66.D
Sample : 06-119-04

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 21:10
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 21:46:14 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V75.D
Sample : 06-119-05

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 3:08
Operator :
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 03:44:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.648	131406668	43.858	PPM
Spiked Amount		50.000		Recovery =	87.72%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5948608	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	266351413	112.670	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	419425119	164.301	PPM
6)	H	Oil	22.000	745101074	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	743281955	353.471	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	344133526	139.822	PPM
9)	H	Oil Combo	22.000	662939267	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	663312453	319.779	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	438877783	163.958	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	432805018	369.241	PPM
13)	H	Mineral Oil (03-14-12)	16.000	530512573	188.697	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1004698186	671.885	PPM
15)	H	ALKANE C9-C40	12.666	1001110044	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	348588621	128.022	PPM
17)	H	Oil Acid Clean MO Com...	22.000	593042927	293.778	PPM

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

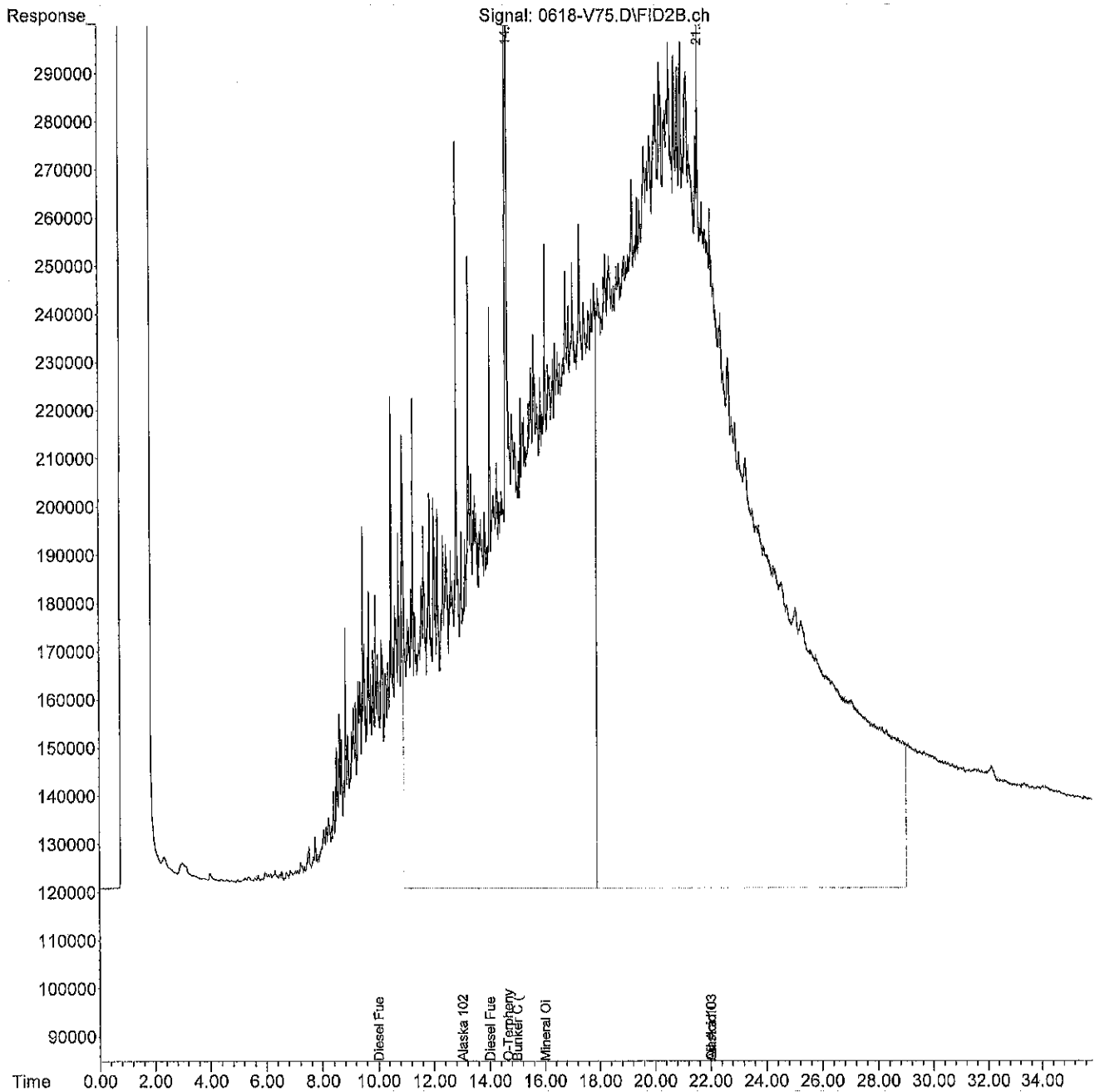
Quantitation Report (Not Reviewed)

Data File : 0618-V75.D
Sample : 06-119-05

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 3:08
Operator :
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 03:44:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V77.D
Sample : 06-119-06

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 4:28
Operator :
Misc :
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 05:04:18 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.649	147065372	49.059	PPM
Spiked Amount	50.000		Recovery =	98.12%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	7617547	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	601486248	256.149	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	913807359	357.430	PPM
6) H	Oil	22.000	1345121537	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	1327720267	645.700	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	768372582	311.690	PPM
9) H	Oil Combo	22.000	1167003382	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	1157835490	571.637	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	949530467	360.743	PPM
12) H	Alaska 103 Oil (06-2...	22.000	754868395	651.765	PPM
13) H	Mineral Oil (03-14-12)	16.000	1098611658	396.171	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	1921937341	1307.012	PPM
15) H	ALKANE C9-C40	12.666	1915876516	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	773892598	289.355	PPM
17) H	Oil Acid Clean MO Com...	22.000	1021822539	519.283	PPM

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

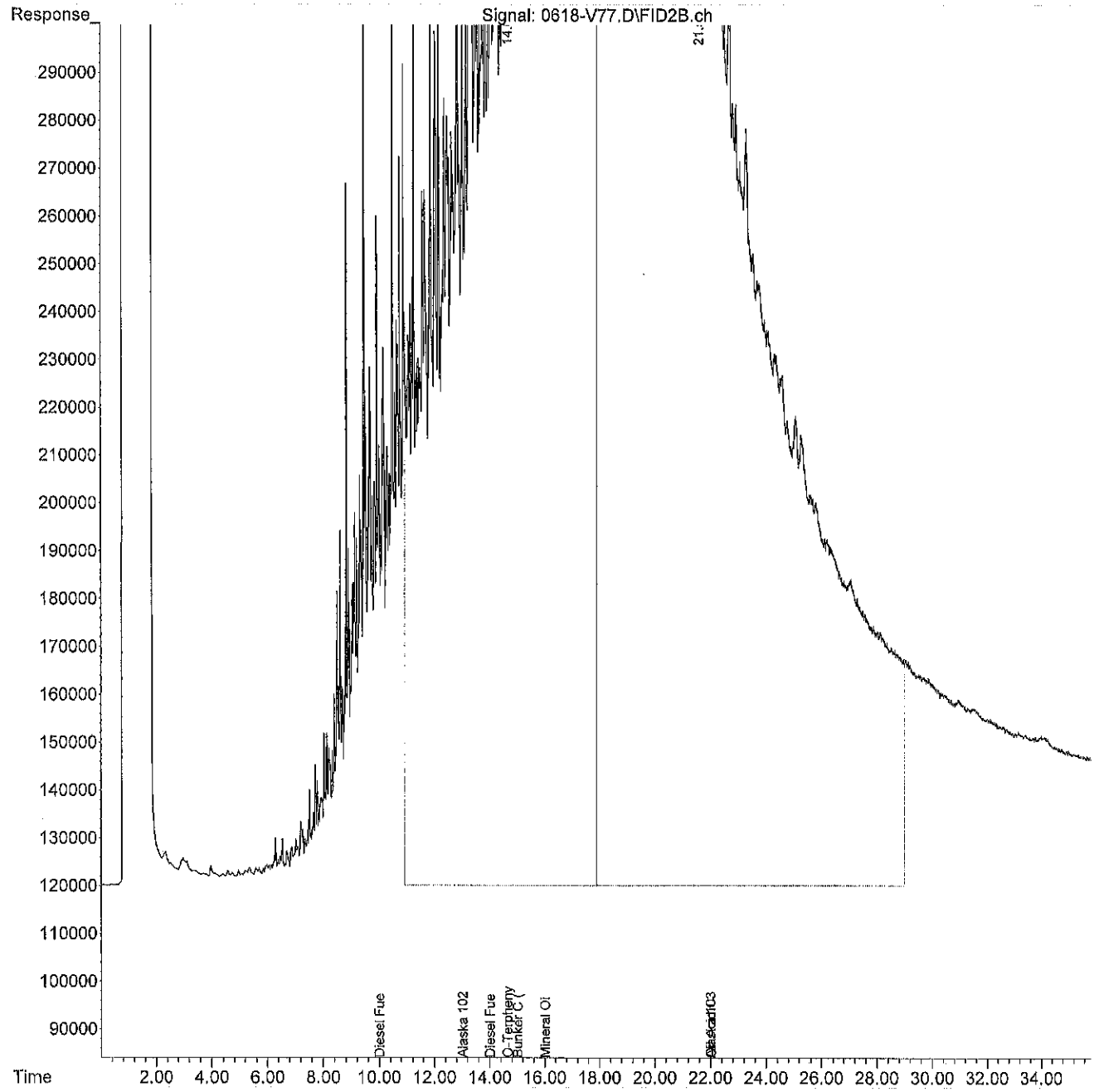
Quantitation Report (Not Reviewed)

Data File : 0618-V77.D
Sample : 06-119-06

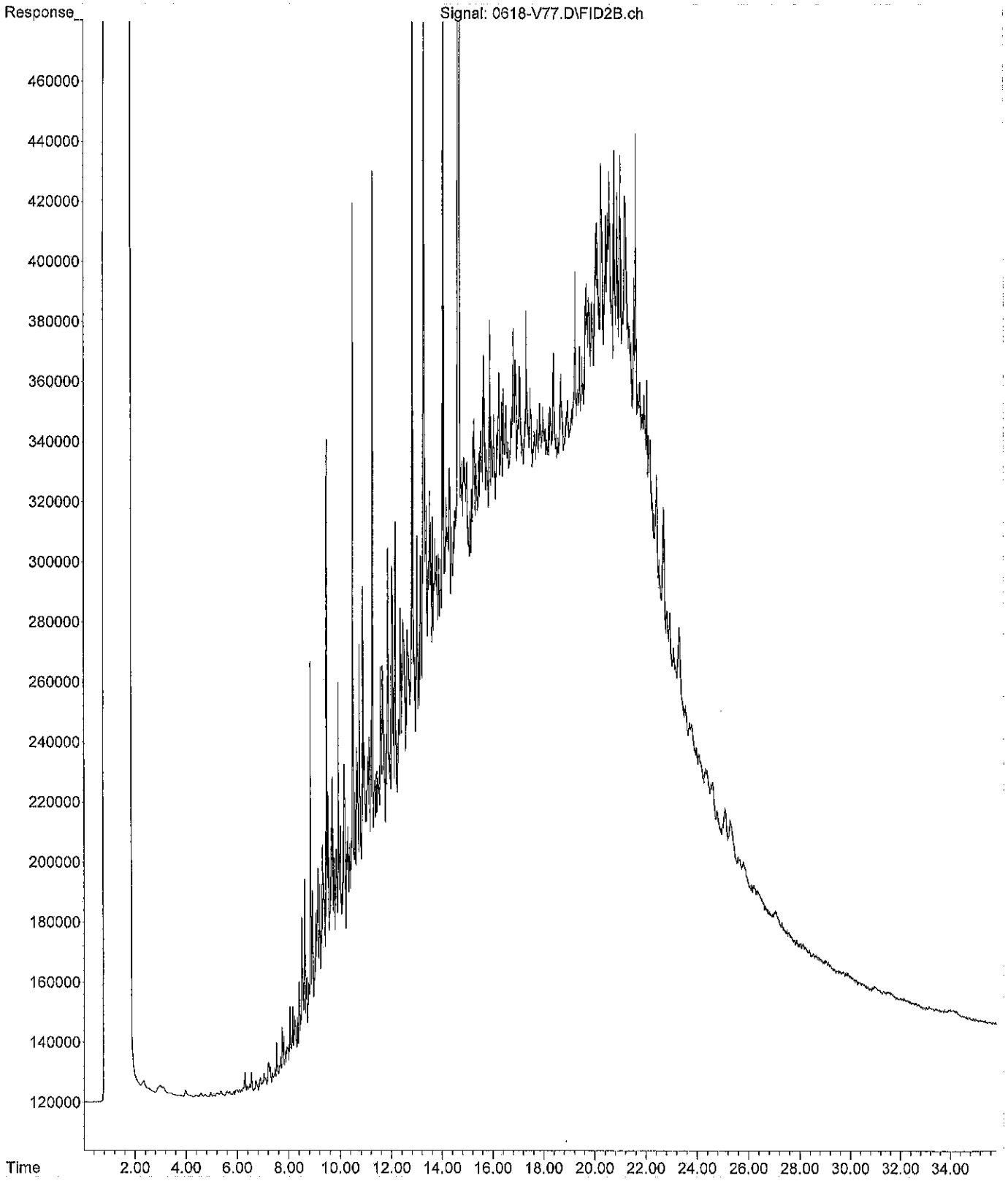
Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 4:28
Operator :
Misc :
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 05:04:18 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



```
File        :C:\msdchem\2\DATA\V120618.SEC\0618-V77.D
Operator    :
Acquired    : 19 Jun 2012    4:28      using AcqMethod V120607F.M
Instrument  :    VIGO
Sample Name: 06-119-06
Misc Info   :
Vial Number: 77
```



Quantitation Report (Not Reviewed)

Data File : 0618-V60.D
Sample : 06-119-07 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 17:10
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 17:46:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.640	26856278	9.129	PPM
Spiked Amount		50.000		Recovery =	18.26%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4037845	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	74032754	30.334	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	172983574	68.030	PPM
6)	H	Oil	22.000	674911892	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	678498724	321.078	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	121714302	49.715	PPM
9)	H	Oil Combo	22.000	625893428	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	629523300	302.570	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	186650062	66.759	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	444215368	379.250	PPM
13)	H	Mineral Oil (03-14-12)	16.000	319292555	111.558	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	748891173	494.756	PPM
15)	H	ALKANE C9-C40	12.666	745532755	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	168289929	59.628	PPM
17)	H	Oil Acid Clean MO Com...	22.000	581735397	287.831	PPM

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

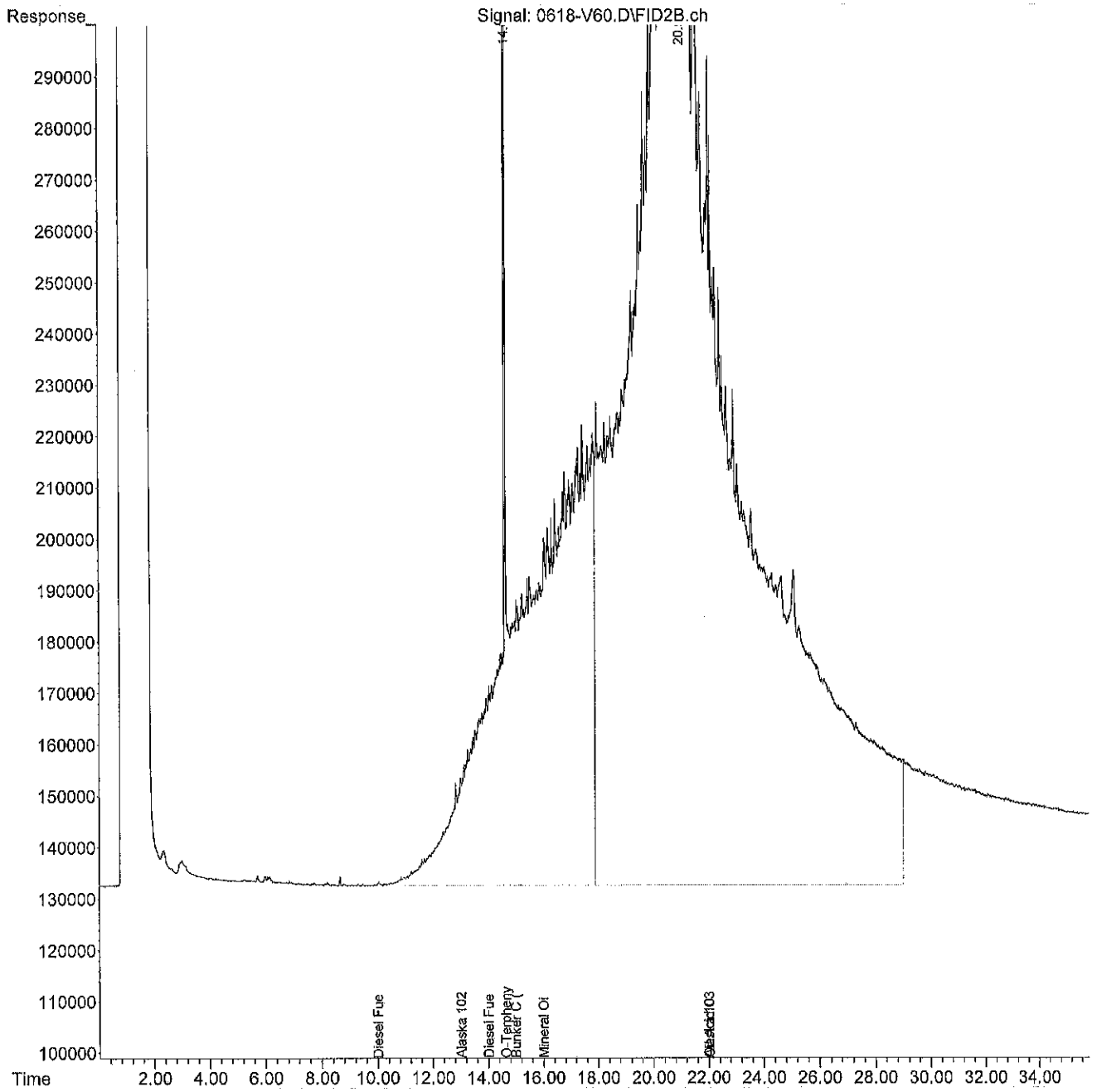
Quantitation Report (Not Reviewed)

Data File : 0618-V60.D
Sample : 06-119-07 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 17:10
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 17:46:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V72.D
Sample : 06-119-08 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 1:09
Operator :
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 01:45:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.638	28961393	9.828	PPM
Spiked Amount		50.000		Recovery =	19.66%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4116365	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	18368482	6.503	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	44050720	17.663	PPM
6)	H	Oil	22.000	318195551	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	331519454	147.583	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	29500182	12.357	PPM
9)	H	Oil Combo	22.000	306184500	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	319080795	144.463	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	48466394	13.508	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	197618185	162.927	PPM
13)	H	Mineral Oil (03-14-12)	16.000	96361727	30.142	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	346085353	215.839	PPM
15)	H	ALKANE C9-C40	12.666	342777211	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	41090260	11.376	PPM
17)	H	Oil Acid Clean MO Com...	22.000	305592783	142.601	PPM

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

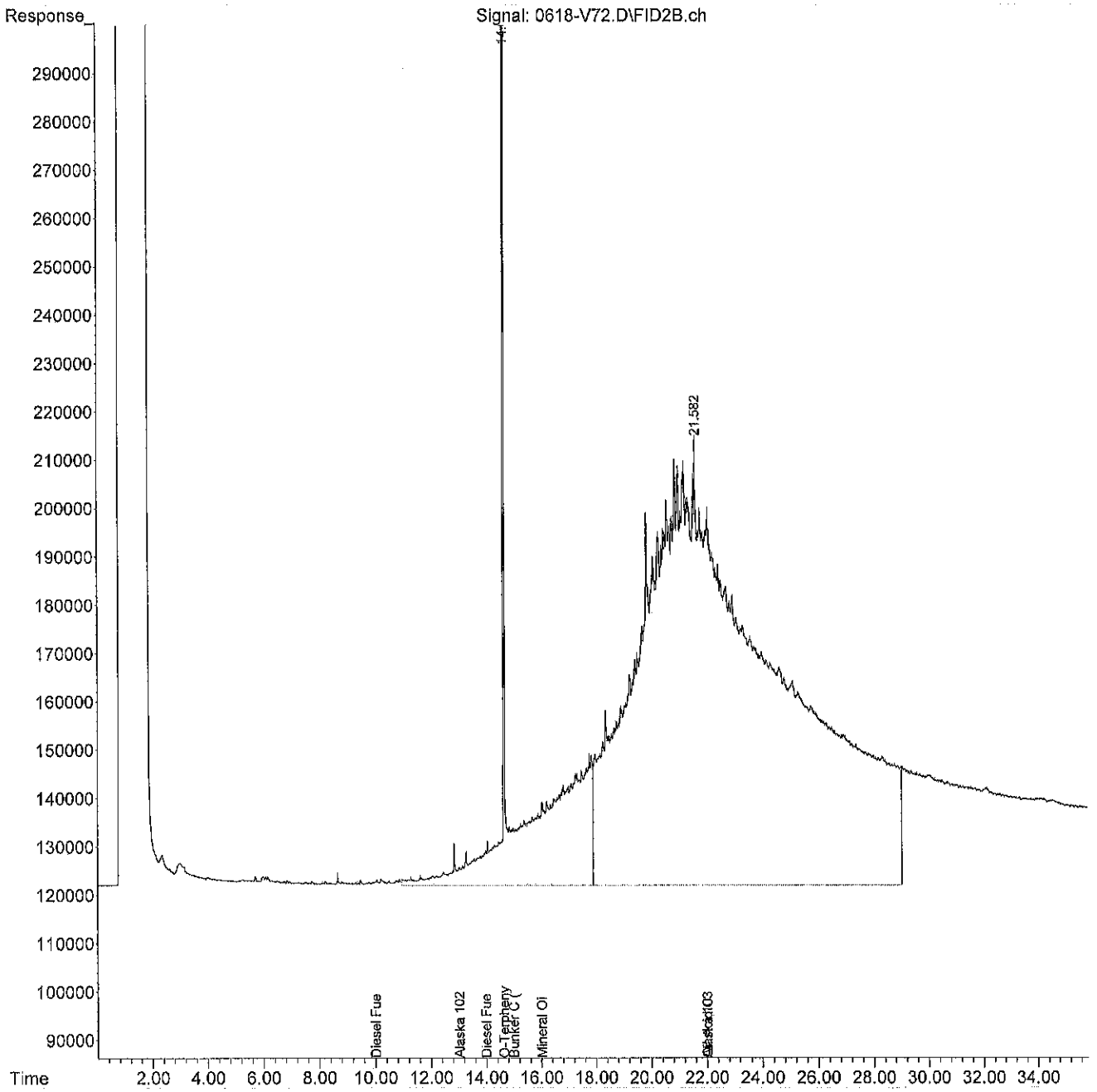
Quantitation Report (Not Reviewed)

Data File : 0618-V72.D
Sample : 06-119-08 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 1:09
Operator :
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 01:45:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V73.D
Sample : 06-119-09 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 1:49
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 02:25:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.637	27985730	9.504	PPM
Spiked Amount		50.000		Recovery =	19.01%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4747678	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	35416303	13.801	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	86960312	34.425	PPM
6)	H	Oil	22.000	477659980	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	492571451	228.111	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	58203505	23.986	PPM
9)	H	Oil Combo	22.000	454301837	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	468172338	220.395	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	95379714	31.587	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	299474895	252.279	PPM
13)	H	Mineral Oil (03-14-12)	16.000	178162778	60.016	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	523283310	338.537	PPM
15)	H	ALKANE C9-C40	12.666	519002523	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	81683545	26.775	PPM
17)	H	Oil Acid Clean MO Com...	22.000	441503448	214.079	PPM

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

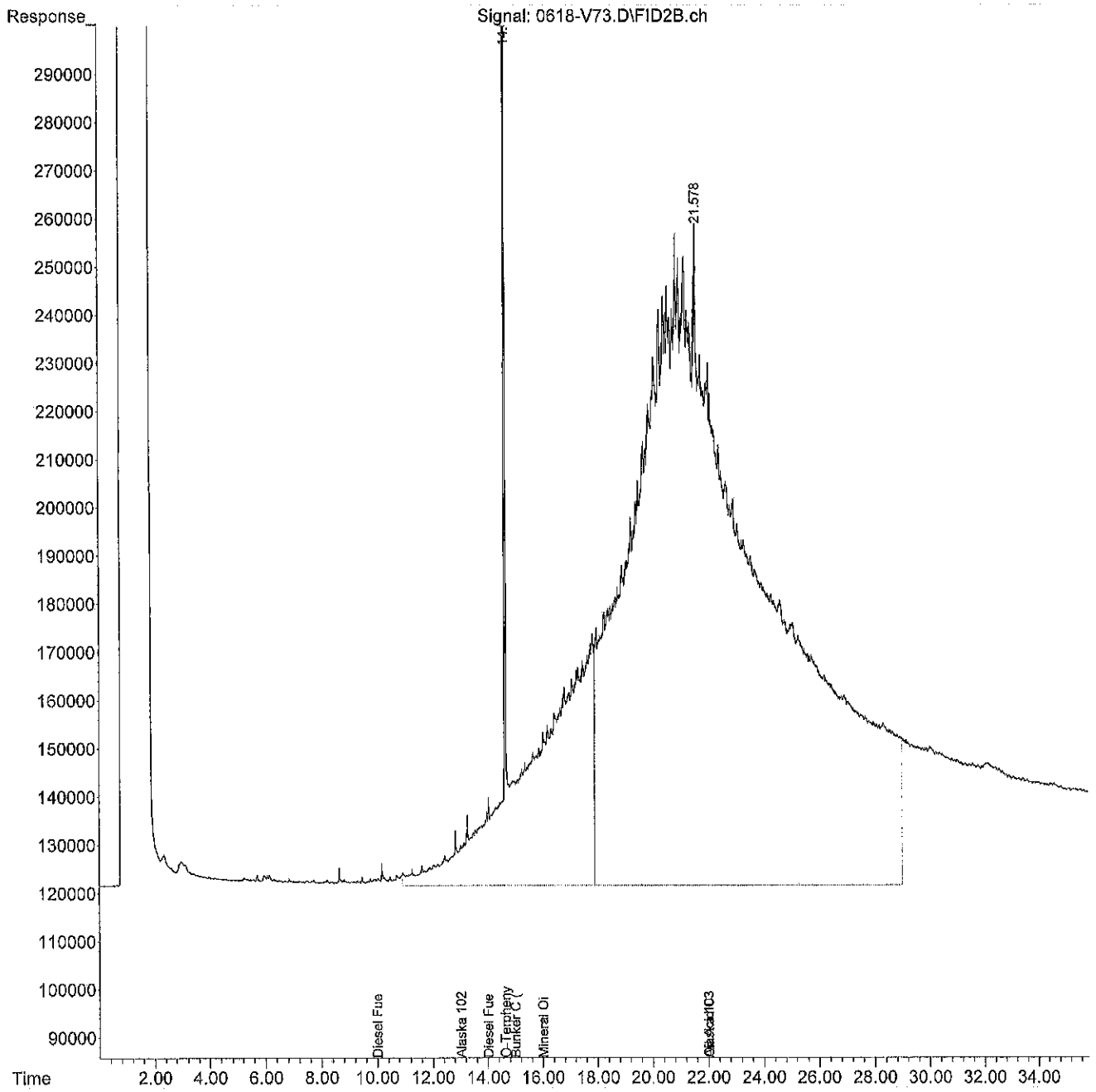
Quantitation Report (Not Reviewed)

Data File : 0618-V73.D
Sample : 06-119-09 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 1:49
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 02:25:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V69.D
Sample : 06-119-10

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 23:10
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 23:46:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.650	140650699	46.928	PPM
Spiked Amount		50.000		Recovery =	93.86%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6103923	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	66922976	27.290	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	128840787	50.786	PPM
6)	H	Oil	22.000	437641420	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	445521908	204.586	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	96786073	39.616	PPM
9)	H	Oil Combo	22.000	405360353	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	413493732	192.548	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	137396203	47.778	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	266552967	223.399	PPM
13)	H	Mineral Oil (03-14-12)	16.000	209706991	71.536	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	507874394	327.867	PPM
15)	H	ALKANE C9-C40	12.666	505487377	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	119956242	41.293	PPM
17)	H	Oil Acid Clean MO Com...	22.000	383596484	183.625	PPM

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

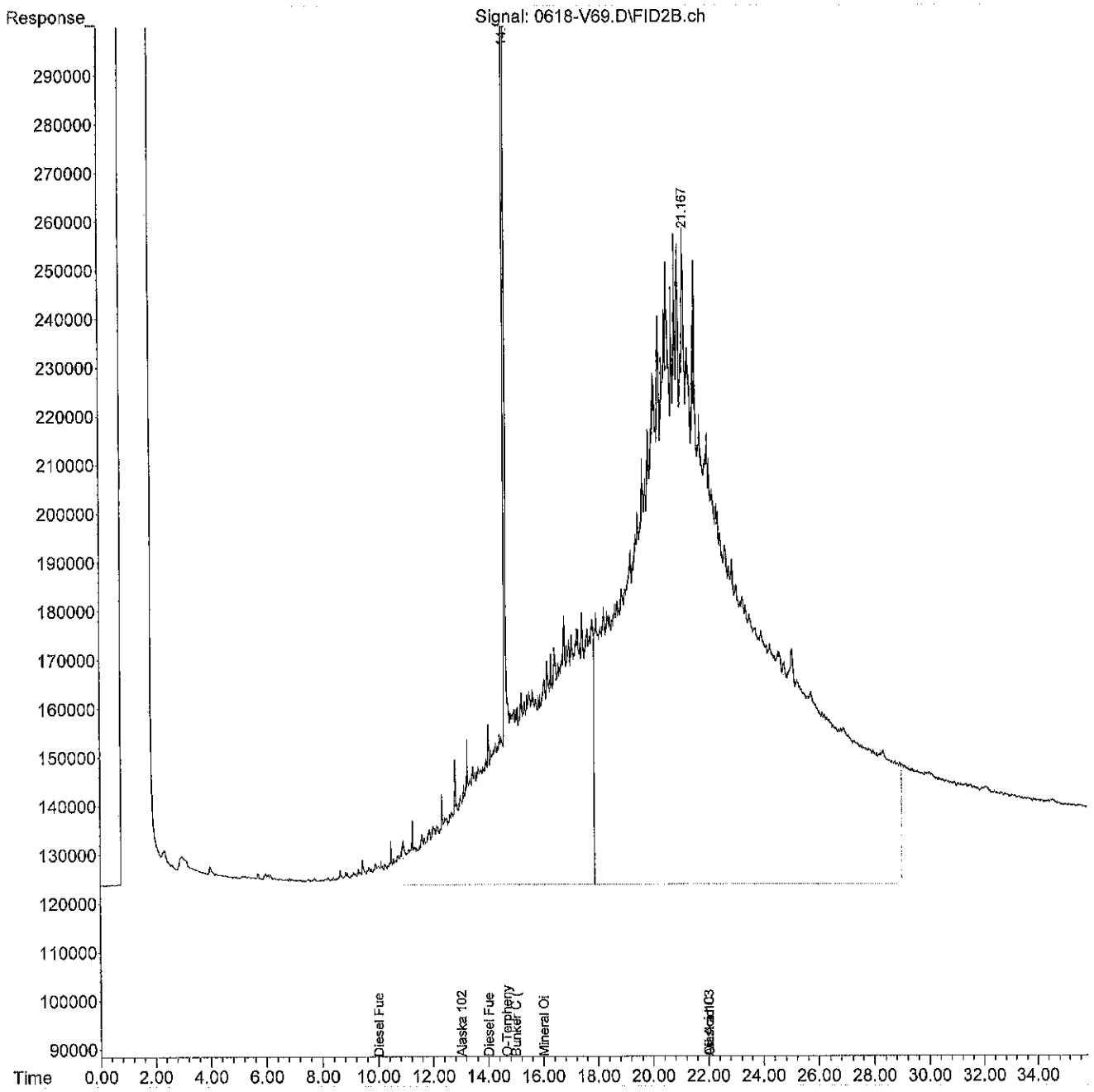
Quantitation Report (Not Reviewed)

Data File : 0618-V69.D
Sample : 06-119-10

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 23:10
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 23:46:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V57.D
Sample : MB0618S2

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 15:10
Operator :
Misc : SV2-100-19
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 15:46:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.654	144206647	48.109	PPM
Spiked Amount		50.000		Recovery =	96.22%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4268036	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	3472236	0.125	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	3440137	1.798	PPM
6)	H	Oil	22.000	76308301	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	85330479	24.484	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	2816798	1.547	PPM
9)	H	Oil Combo	22.000	75677461	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	84693172	25.091	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	3863790	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	36864260	21.909	PPM
13)	H	Mineral Oil (03-14-12)	16.000	6593895	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	86021254	35.762	PPM
15)	H	ALKANE C9-C40	12.666	84833672	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	2501217	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	84119510	26.123	PPM

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

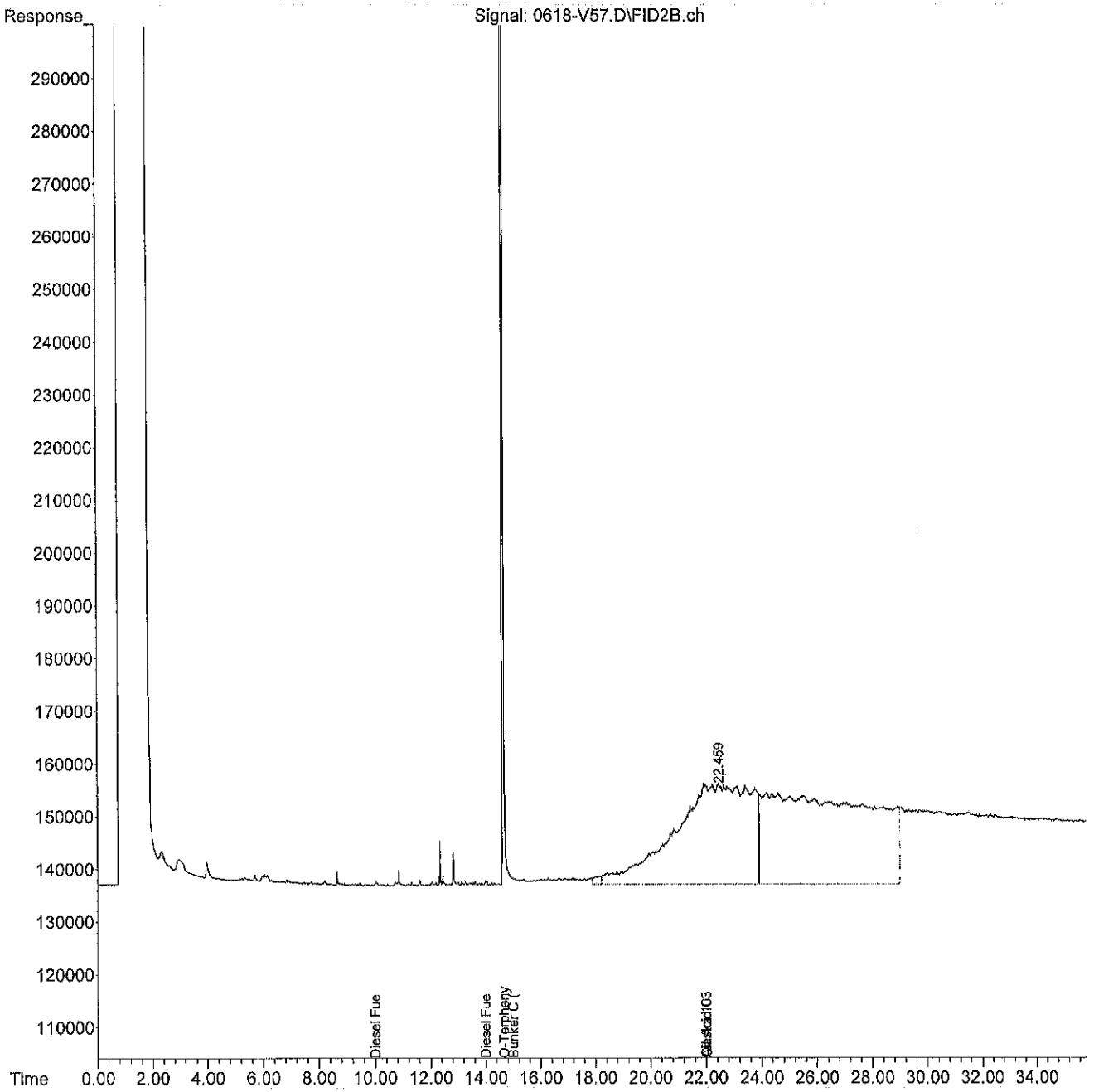
Quantitation Report (Not Reviewed)

Data File : 0618-V57.D
Sample : MB0618S2

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 15:10
Operator :
Misc : SV2-100-19
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 15:46:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V62.D
Sample : 06-119-01 DUP 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 18:30
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 19:06:44 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.639	26862279	9.131	PPM
Spiked Amount		50.000		Recovery =	18.26%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3770491	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	68153007	27.817	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	140971255	55.524	PPM
6)	H	Oil	22.000	461081642	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	466742709	215.197	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	104482037	42.734	PPM
9)	H	Oil Combo	22.000	423119659	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	429248246	200.571	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	150422934	52.798	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	280567636	235.693	PPM
13)	H	Mineral Oil (03-14-12)	16.000	233179866	80.109	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	531401443	344.158	PPM
15)	H	ALKANE C9-C40	12.666	528097068	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	134711670	46.890	PPM
17)	H	Oil Acid Clean MO Com...	22.000	395180000	189.717	PPM

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

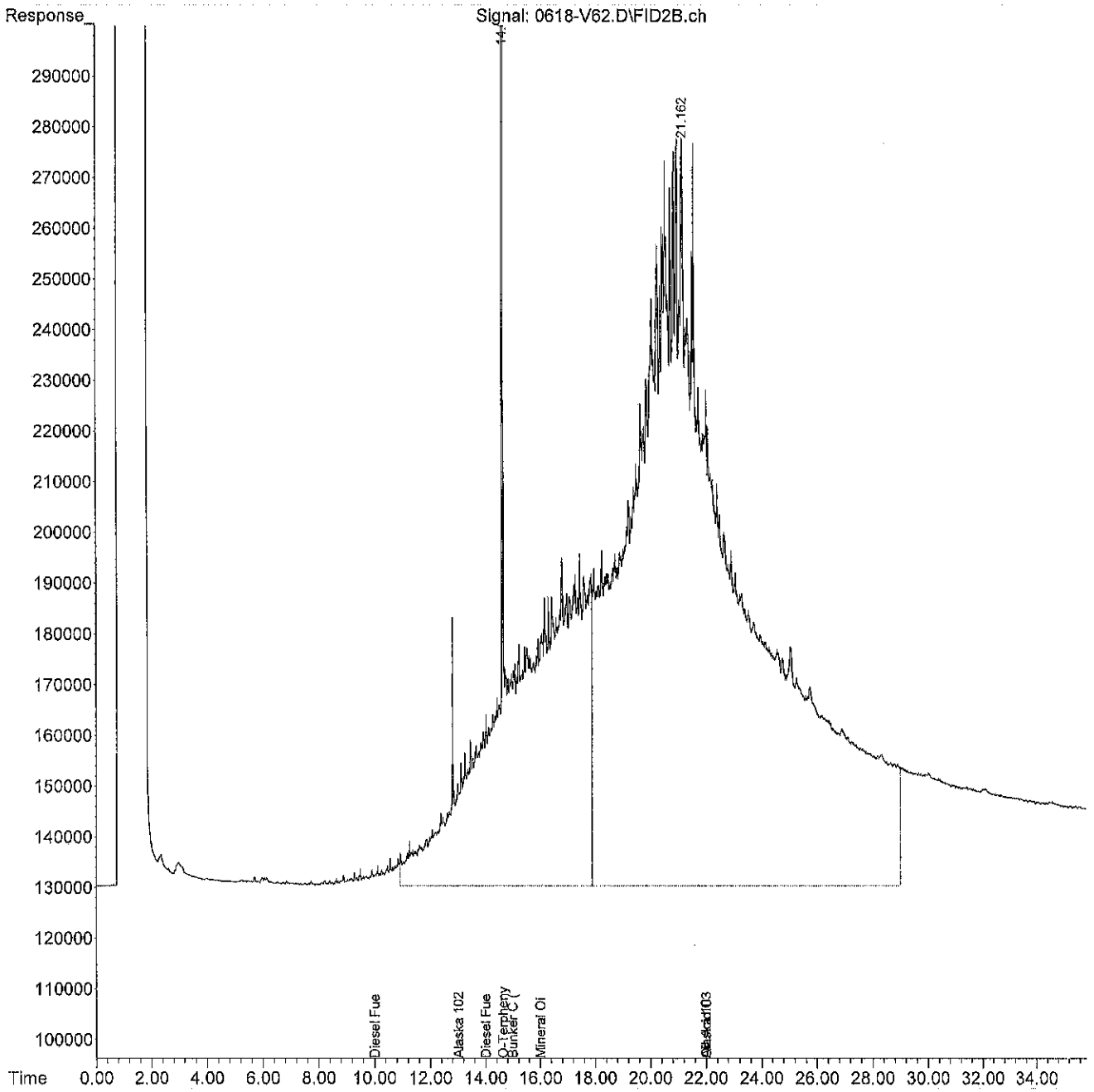
Quantitation Report (Not Reviewed)

Data File : 0618-V62.D
Sample : 06-119-01 DUP 5X

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 18:30
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 19:06:44 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V70.D
Sample : 06-119-10 DUP

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 23:49
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 00:25:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (03-14-12)	14.650	137887863	46.011	PPM
Spiked Amount	50.000		Recovery =	92.02%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4245871	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	40116478	15.814	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	82230412	32.578	PPM
6) H	Oil	22.000	330640996	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	339701235	151.674	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	60296030	24.834	PPM
9) H	Oil Combo	22.000	309085304	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	318172916	144.001	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	88128340	28.793	PPM
12) H	Alaska 103 Oil (06-2...	22.000	199831710	164.869	PPM
13) H	Mineral Oil (03-14-12)	16.000	140875776	46.399	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	376238509	236.718	PPM
15) H	ALKANE C9-C40	12.666	373425639	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	77743665	25.280	PPM
17) H	Oil Acid Clean MO Com...	22.000	297715268	138.458	PPM

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

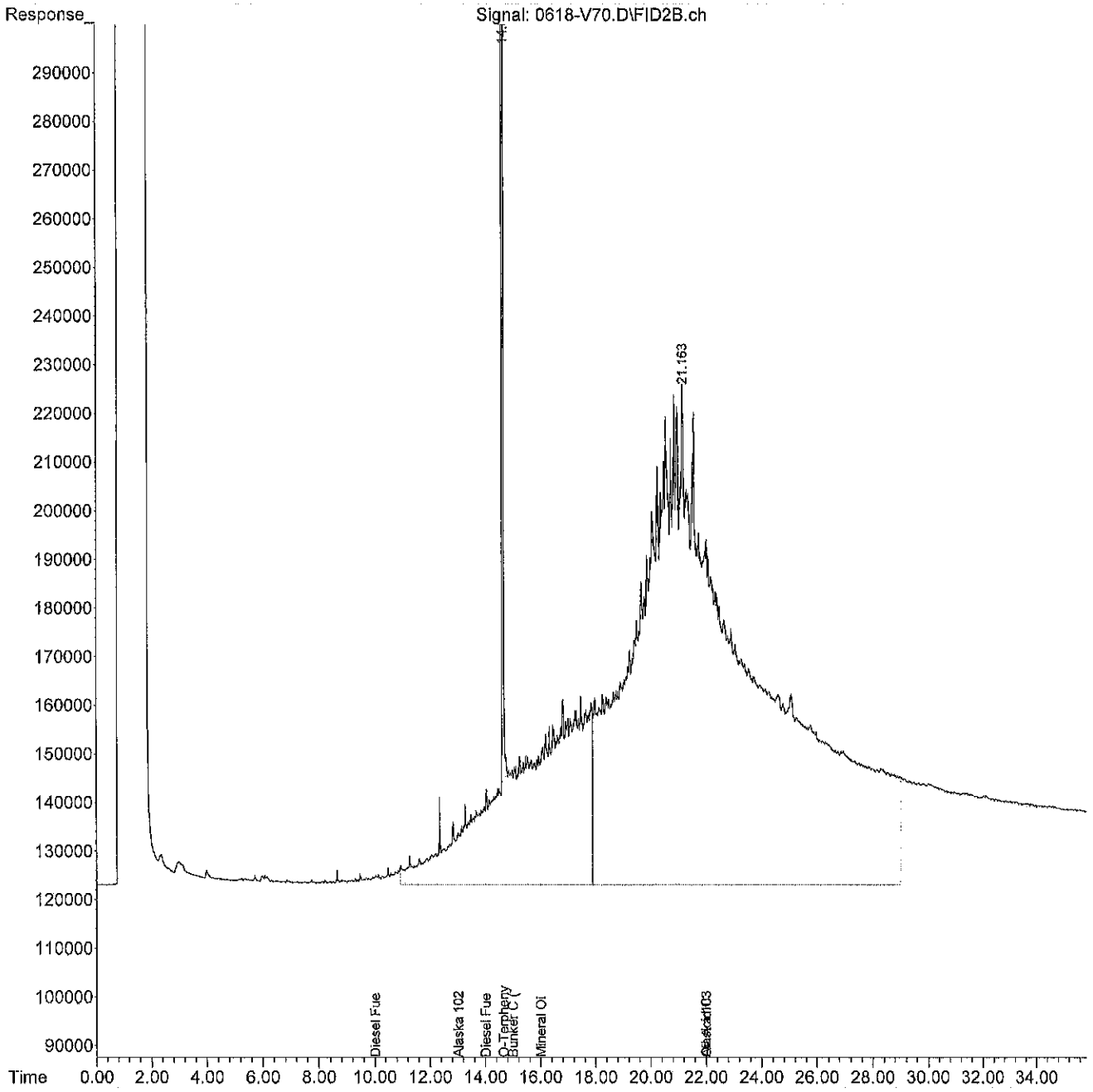
Quantitation Report (Not Reviewed)

Data File : 0618-V70.D
Sample : 06-119-10 DUP

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 23:49
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 00:25:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V55.D
Sample : BC0618R-V2 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 13:50
Operator :
Misc : SV2-100-15
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 14:26:27 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6815242	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	102518512	42.529	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	139566625	54.976	PPM
6) H	Oil	22.000	187609354	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	189318078	76.480	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	120678431	49.296	PPM
9) H	Oil Combo	22.000	165678872	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	168359947	67.702	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	144422403	50.486	PPM
12) H	Alaska 103 Oil (06-2...	22.000	101360398	78.487	PPM
13) H	Mineral Oil (03-14-12)	16.000	149329256	49.486	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	288067701	175.666	PPM
15) H	ALKANE C9-C40	12.666	288553836	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	106446548	36.168	PPM
17) H	Oil Acid Clean MO Com...	22.000	150610162	61.092	PPM

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

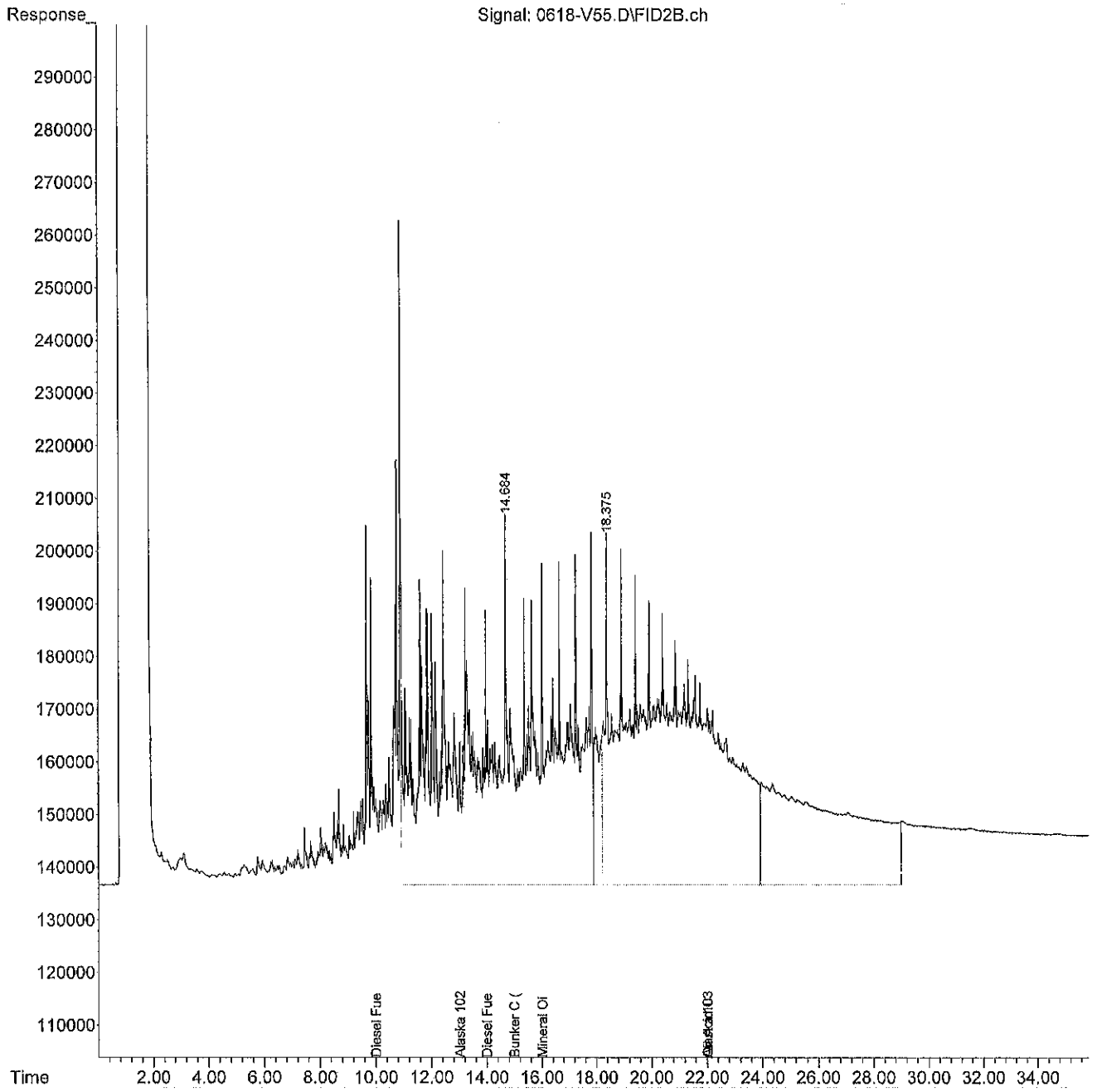
Quantitation Report (Not Reviewed)

Data File : 0618-V55.D
Sample : BC0618R-V2 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 13:50
Operator :
Misc : SV2-100-15
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 14:26:27 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V68.D
Sample : BC0618R-V3 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 22:30
Operator :
Misc : SV2-100-15
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 23:06:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7801407	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	107595143	44.703	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	147876674	58.222	PPM
6)	H	Oil	22.000	219169283	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	222163057	92.903	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	127087755	51.892	PPM
9)	H	Oil Combo	22.000	195553753	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	199587008	83.606	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	153154851	53.851	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	119646889	94.528	PPM
13)	H	Mineral Oil (03-14-12)	16.000	162278656	54.215	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	325436122	201.541	PPM
15)	H	ALKANE C9-C40	12.666	325753175	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	113640178	38.897	PPM
17)	H	Oil Acid Clean MO Com...	22.000	180038204	76.569	PPM

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

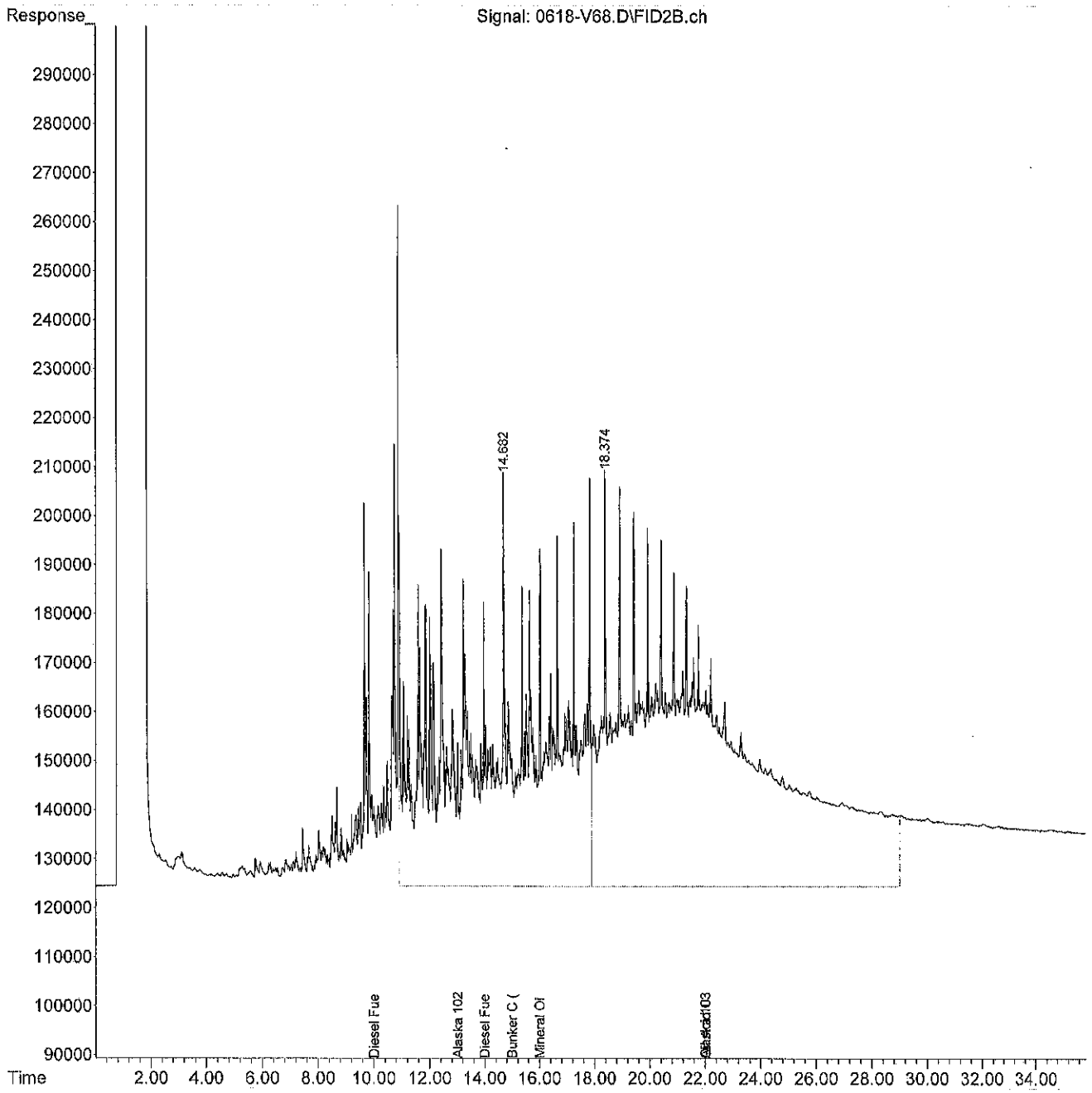
Quantitation Report (Not Reviewed)

Data File : 0618-V68.D
Sample : BC0618R-V3 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 18 Jun 2012 22:30
Operator :
Misc : SV2-100-15
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 18 23:06:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0618-V80.D
Sample : BC0618R-V4 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 6:27
Operator :
Misc : SV2-100-15
ALS Vial : 80 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 07:03:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7079568	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	106097122	44.061	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	146577006	57.714	PPM
6)	H	Oil	22.000	229038547	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	233520532	98.582	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	125764170	51.356	PPM
9)	H	Oil Combo	22.000	205516234	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	211033434	89.435	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	151860857	53.353	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	124169393	98.496	PPM
13)	H	Mineral Oil (03-14-12)	16.000	161855990	54.061	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	335316722	208.383	PPM
15)	H	ALKANE C9-C40	12.666	334897324	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	112712241	38.545	PPM
17)	H	Oil Acid Clean MO Com...	22.000	191470641	82.581	PPM

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

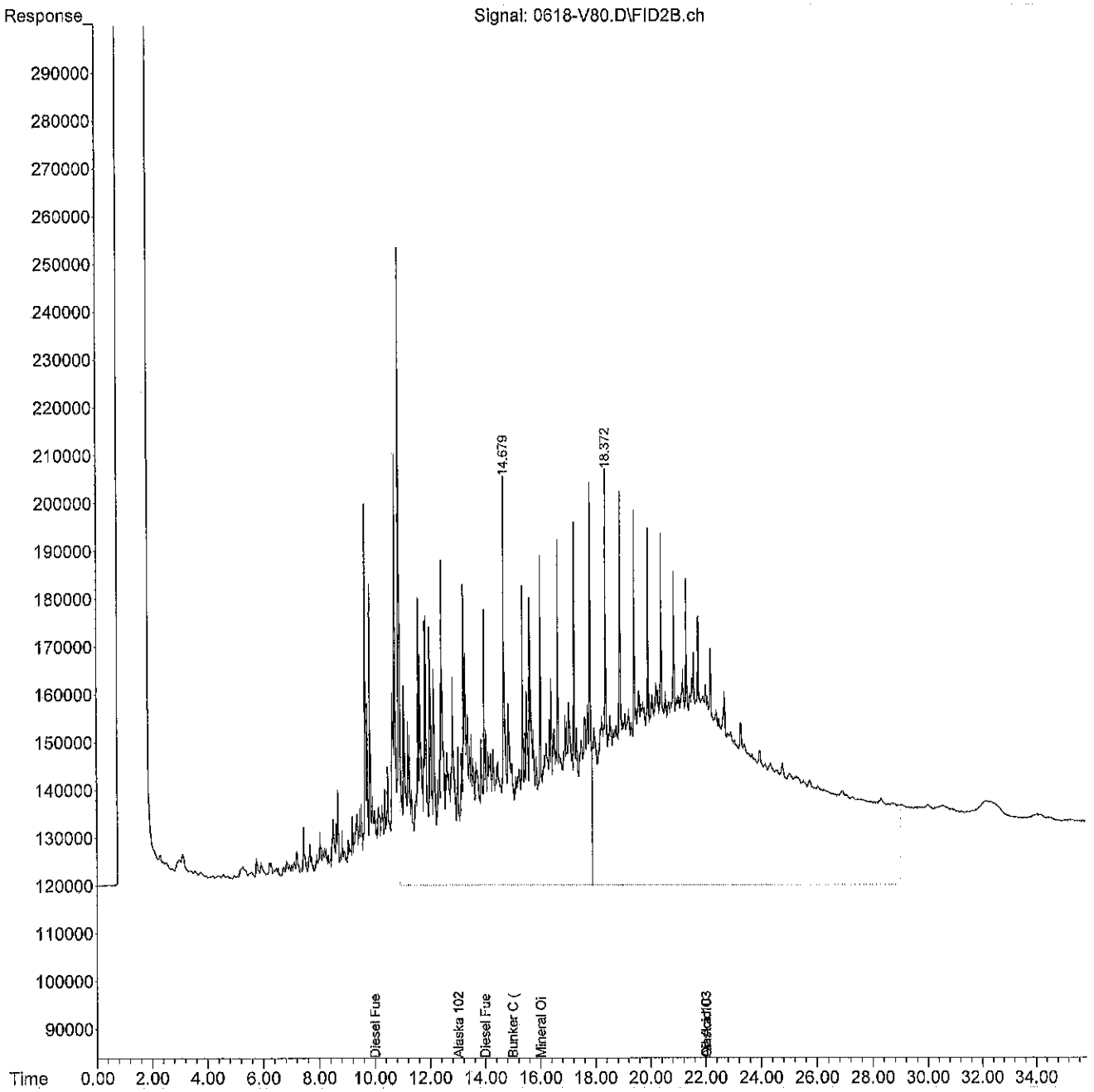
Quantitation Report (Not Reviewed)

Data File : 0618-V80.D
Sample : BC0618R-V4 (200ppm)

Data Path : C:\msdchem\2\DATA\V120618.SEC\
Signal(s) : FID2B.ch
Acq On : 19 Jun 2012 6:27
Operator :
Misc : SV2-100-15
ALS Vial : 80 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 19 07:03:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 3, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-225

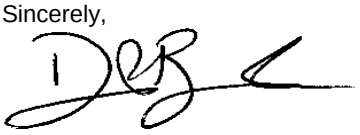
Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 29, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

Case Narrative

Samples were collected on June 27, 2012 and received by the laboratory on June 29, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP3BIO-SWS-062712-3	06-225-01	SOil	6-27-12	6-29-12	
TP1BIO-SWN-062712-3	06-225-02	SOil	6-27-12	6-29-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3BIO-SWS-062712-3**					
Laboratory ID:	06-225-01					
Bunker C	**6900**	330	NWTPH-Dx	6-29-12	6-29-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**TP1BIO-SWN-062712-3**					
Laboratory ID:	06-225-02					
Bunker C	**1100**	69	NWTPH-Dx	6-29-12	6-29-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0629S1					
Diesel Range Organics	**ND**	2.5	NWTPH-Dx	6-29-12	6-29-12	
Lube Oil Range Organics	**ND**	10	NWTPH-Dx	6-29-12	6-29-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							
Laboratory ID:	06-222-01						
	ORIG	DUP					
Diesel Range Organics	**ND**	**ND**			NA	NA	
Lube Oil Range Organics	**ND**	**ND**			NA	NA	
Surrogate:							
o-Terphenyl			*87* *89*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
CCV0629R-V1	100	108	-8.0	+/-15%
CCV0629R-V2	100	110	-10.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 3, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-225
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-29-12

Client ID	Lab ID	% Moisture
TP3BIO-SWS-062712-3	06-225-01	25
TP1BIO-SWN-062712-3	06-225-02	28

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-225

Company: GeoEngineers
Project Number: 0137-019-03
Project Name: Ravonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogenic only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Burner C				% Moisture
	~~GEI 28 BIO-SW~~ aw																									
1	TP3BIO-SWS-062712-3	6/27/12	1045	Soil	1								H									X				X
2	TP1BIO-SWN-062712-3	6/27/12	1300	Soil	1								H									X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received			6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 10, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-226

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 29, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

Case Narrative

Samples were collected on June 28, 2012 and received by the laboratory on June 29, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Dx (as Bunker C) Analysis

For sample TP3 B3-062812-5.5-6, the PQL for bunker C was raised due to the presence of diesel range organics. Also, we have reported a value for the Diesel range hydrocarbons in the sample.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GEI32 B1-062812-3	06-226-01	Soil	6-28-12	6-29-12	
GEI32 B1-062812-5.5-6	06-226-02	Soil	6-28-12	6-29-12	
GEI32 B2-062812-3	06-226-03	Soil	6-28-12	6-29-12	
GEI32 B2-062812-5.5-6	06-226-04	Soil	6-28-12	6-29-12	
GEI32 B3-062812-2	06-226-05	Soil	6-28-12	6-29-12	
GEI32 B3-062812-5.5-6	06-226-06	Soil	6-28-12	6-29-12	
TP11 B1-062812-3	06-226-07	Soil	6-28-12	6-29-12	
TP11 B1-062812-5.5-6	06-226-08	Soil	6-28-12	6-29-12	
TP1 B1-062812-4.5	06-226-09	Soil	6-28-12	6-29-12	
TP1 B1-062812-5.5-6	06-226-10	Soil	6-28-12	6-29-12	
TP1 B2-062812-3	06-226-11	Soil	6-28-12	6-29-12	
TP1 B2-062812-5.5-6	06-226-12	Soil	6-28-12	6-29-12	
TP1 B3-062812-3	06-226-13	Soil	6-28-12	6-29-12	
TP1 B3-062812-5.5-6	06-226-14	Soil	6-28-12	6-29-12	
TP3 B1-062812-3	06-226-15	Soil	6-28-12	6-29-12	
TP3 B1-062812-5.5-6	06-226-16	Soil	6-28-12	6-29-12	
TP3 B2-062812-4	06-226-17	Soil	6-28-12	6-29-12	
TP3 B2-062812-5.5-6	06-226-18	Soil	6-28-12	6-29-12	
TP3 B3-062812-3	06-226-19	Soil	6-28-12	6-29-12	
TP3 B3-062812-5.5-6	06-226-20	Soil	6-28-12	6-29-12	
TP3 B4-062812-3	06-226-21	Soil	6-28-12	6-29-12	
TP3 B4-062812-5.5-6	06-226-22	Soil	6-28-12	6-29-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GEI32 B1-062812-3**					
Laboratory ID:	06-226-01					
Bunker C	**ND**	71	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**GEI32 B1-062812-5.5-6**					
Laboratory ID:	06-226-02					
Bunker C	**ND**	66	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**GEI32 B2-062812-3**					
Laboratory ID:	06-226-03					
Bunker C	**ND**	71	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*64*	*50-150*				
Client ID:	**GEI32 B2-062812-5.5-6**					
Laboratory ID:	06-226-04					
Bunker C	**ND**	65	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				
Client ID:	**GEI32 B3-062812-2**					
Laboratory ID:	06-226-05					
Bunker C	**820**	68	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**GEI32 B3-062812-5.5-6**					
Laboratory ID:	06-226-06					
Bunker C	**490**	72	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*69*	*50-150*				
Client ID:	**TP11 B1-062812-3**					
Laboratory ID:	06-226-07					
Bunker C	**100**	67	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11 B1-062812-5.5-6**					
Laboratory ID:	06-226-08					
Bunker C	**7200**	590	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**TP1 B1-062812-4.5**					
Laboratory ID:	06-226-09					
Bunker C	**1400**	65	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**TP1 B1-062812-5.5-6**					
Laboratory ID:	06-226-10					
Bunker C	**850**	70	NWTPH-Dx	7-5-12	7-5-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**TP1 B2-062812-3**					
Laboratory ID:	06-226-11					
Bunker C	**660**	59	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**TP1 B2-062812-5.5-6**					
Laboratory ID:	06-226-12					
Bunker C	**360**	58	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**TP1 B3-062812-3**					
Laboratory ID:	06-226-13					
Bunker C	**7900**	620	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**TP1 B3-062812-5.5-6**					
Laboratory ID:	06-226-14					
Bunker C	**4400**	62	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3 B1-062812-3**					
Laboratory ID:	06-226-15					
Bunker C	**3200**	350	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**TP3 B1-062812-5.5-6**					
Laboratory ID:	06-226-16					
Bunker C	**ND**	77	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				
Client ID:	**TP3 B2-062812-4**					
Laboratory ID:	06-226-17					
Bunker C	**8400**	710	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TP3 B2-062812-5.5-6**					
Laboratory ID:	06-226-18					
Bunker C	**ND**	64	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				
Client ID:	**TP3 B3-062812-3**					
Laboratory ID:	06-226-19					
Bunker C	**11000**	670	NWTPH-Dx	7-5-12	7-9-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TP3 B3-062812-5.5-6**					
Laboratory ID:	06-226-20					
Diesel Range Organics	**240**	37	NWTPH-Dx	7-5-12	7-6-12	
Bunker C	**ND**	420	NWTPH-Dx	7-5-12	7-6-12	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**TP3 B4-062812-3**					
Laboratory ID:	06-226-21					
Bunker C	**1100**	61	NWTPH-Dx	7-5-12	7-5-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3 B4-062812-5.5-6**					
Laboratory ID:	06-226-22					
Bunker C	**ND**	67	NWTPH-Dx	7-5-12	7-5-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0705S1					
Bunker C	**ND**	50	NWTPH-Dx	7-5-12	7-6-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Laboratory ID:	MB0705S2					
Bunker C	**ND**	50	NWTPH-Dx	7-5-12	7-5-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-226-01							
	ORIG	DUP						
Bunker C	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*78*	*79*	*50-150*			
Laboratory ID:	06-226-02							
	ORIG	DUP						
Bunker C	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*88*	*66*	*50-150*			
Laboratory ID:	06-212-03							
	ORIG	DUP						
Bunker C	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*93*	*99*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0705R-V3	100	106	-6.0	+/-15%
BC-CCV0705R-V4	100	110	-10.0	+/-15%
BC-CCV0706R-V1	200	197	1.5	+/-15%
BC-CCV0706R-V2	200	179	10.5	+/-15%
BC-CCV0706R-V3	200	190	5.0	+/-15%
BC-CCV0706R-V4	200	226	-13.0	+/-15%
BC-CCV0709R-V1	200	196	2.0	+/-15%
BC-CCV0709R-V2	200	171	14.5	+/-15%
BC-CCV0709R-V3	200	194	3.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 10, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226
Project: 0137-018-03

% MOISTURE

Date Analyzed: 7-5-12

Client ID	Lab ID	% Moisture
GEI32 B1-062812-3	06-226-01	29
GEI32 B1-062812-5.5-6	06-226-02	25
GEI32 B2-062812-3	06-226-03	29
GEI32 B2-062812-5.5-6	06-226-04	23
GEI32 B3-062812-2	06-226-05	26
GEI32 B3-062812-5.5-6	06-226-06	30
TP11 B1-062812-3	06-226-07	25
TP11 B1-062812-5.5-6	06-226-08	15
TP1 B1-062812-4.5	06-226-09	23
TP1 B1-062812-5.5-6	06-226-10	28
TP1 B2-062812-3	06-226-11	15
TP1 B2-062812-5.5-6	06-226-12	13
TP1 B3-062812-3	06-226-13	20
TP1 B3-062812-5.5-6	06-226-14	20
TP3 B1-062812-3	06-226-15	28
TP3 B1-062812-5.5-6	06-226-16	35
TP3 B2-062812-4	06-226-17	29
TP3 B2-062812-5.5-6	06-226-18	22
TP3 B3-062812-3	06-226-19	25
TP3 B3-062812-5.5-6	06-226-20	32
TP3 B4-062812-3	06-226-21	17
TP3 B4-062812-5.5-6	06-226-22	26

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C				% Moisture
1	GEI32B1-062812-3	6/28/12	0840	Soil	1								H									X				X
2	GEI32B1-062812-5.5-6		0845										H									X				X
3	GEI32B2-062812-3		0855										H									X				X
4	GEI32B2-062812-5.5-6		0900										H									X				X
5	GEI32B3-062812-2		0940										H									X				X
6	GEI32B3-062812-5.5-6		0945										H									X				X
7	TP11B1-062812-3		1100										H									X				X
8	TP11B1-062812-5.5-6		1105										H									X				X
9	TP1B1-062812-4.5		1210										H									X				X
10	TP1B1-062812-5.5-6		1215										H									X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		GSC	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold

H - Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ruggiero Seitu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C				% Moisture
11	TP1 B2-062812-3	6/28/12	1125	Soil	1								H									X				X
12	TP1 B2-062812-5.5-6		1130										H									X				X
13	TP1 B3-062812-3		1230										H									X				X
14	TP1 B3-062812-5.5-6		1235										H									X				X
15	TP3 B1-062812-3		1435										H									X				X
16	TP3 B1-062812-5.5-6		1440										H									X				X
17	TP3 B2-062812-4		1505										H									X				X
18	TP3B2-062812-5.5-6		1510										H									X				X
19	TP3 B3-062812-3		1535										H									X				X
20	TP3 B3-062812-5.5-6	↓	1540	↓	↓								H									X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold

H- Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Ieet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) ePAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold			% Moisture
21	TP3 B4-062812-3	6/28/12	1605	Soil	1								H									X				X
22	TP3 B4-062812-5.5-6	6/28/12	1610										H									X				X
23	GEI32B4-062812-3		0815										H									H	X			X
24	GEI32B4-062812-5.5-6		0820										H									H	X			X
25	GEI32B5-062812-3		0915										H									H	X			X
26	GEI32B5-062812-5.5-6		0920										H									H	X			X
27	GEI32B6-062812-3		0955										H									H	X			X
28	GEI32B6-062812-5.5-6		1000										H									H	X			X
29	GEI32B7-062812-3		1015										H									H	X			X
30	GEI32B7-062812-5.5-6	↓	1020	↓	↓								H									H	X			X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H= Hold

H- Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 4 of 5

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ragonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) cPAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold DO			% Moisture
31	TP11B2-062812-3	6/28/12	1125	Soil	1								H									H	X			X
32	TP11B2-062812-5.5-6		1130										H									H	X			X
33	TP1B4-062812-4		1320										H									H	X			X
34	TP1B4-062812-5.5-6		1325										H									H	X			X
35	TP1B5-062812-3		1305										H									H	X			X
36	TP1B5-062812-5.5-6		1310										H									H	X			X
37	TP1B6-062812-3.5		1245										H									H	X			X
38	TP1B6-062812-5.5-6		1250										W									H	X			X
39	TP3B5-062812-2		1450										H									H	X			X
40	TP3B5-062812-5.5-6		1455										H									H	X			X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H-Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 5 of 5

Laboratory Number: 06-226

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Selah
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) cPAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold D3			% Moisture
41	TP3B6-062812-4	6/28/12	1520	Soil	1								H									H	X			X
42	TP3B6-062812-5.5-6		1525										H									H	X			X
43	TP3B7-062812-2.5		1420										H									H	X			X
44	TP3B7-062812-5.5-6		1425										H									H	X			X
45	TP3B8-062812-3		1545										H									H	X			X
46	TP3B8-062812-5.5-6		1550										H									H	X			X
47	TP3B9-062812-3		1555										H									H	X			X
48	TP3B9-062812-5.5-6		1600										H									H	X			X
													H													

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H- Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-226

Initiated by: MV

Date Initiated: 6/29/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup / Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- NWTPH-Dx Data

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0706-V57.D
Sample : 06-226-01 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 15:42
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 16:18:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	14.572	116044206	38.755	PPM
Spiked Amount		50.000		Recovery =	77.51%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2827466	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	8280424	2.184	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	8656680	3.836	PPM
6)	H	Oil	22.000	31191773	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	34908005	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	8135541	3.702	PPM
9)	H	Oil Combo	22.000	30521328	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34247510	N.D.	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	8911801	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	14692192	2.459	PPM
13)	H	Mineral Oil (03-14-12)	16.000	9421542	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	41808006	5.147	PPM
15)	H	ALKANE C9-C40	12.666	41439366	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	7553502	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	33761719	N.D.	PPM

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

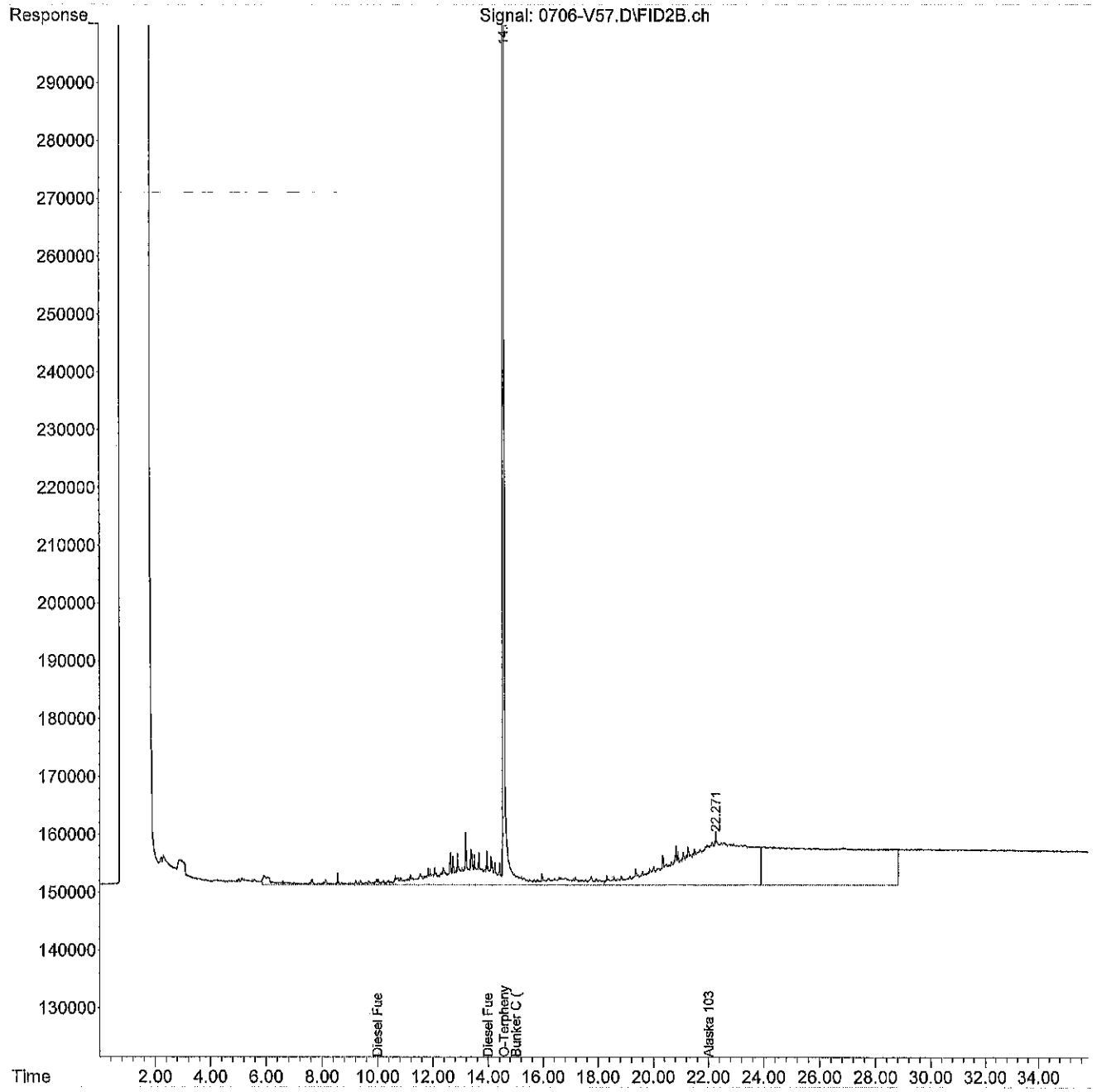
Quantitation Report (Not Reviewed)

Data File : 0706-V57.D
Sample : 06-226-01 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 15:42
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 16:18:34 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V66.D
Sample : 06-226-02 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 21:45
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 22:21:39 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.574	131942329	44.036	PPM
Spiked Amount		50.000		Recovery =	88.07%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2658422	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	2749162	N.D.	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	2527349	1.442	PPM
6)	H	Oil	22.000	31206578	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	35196919	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	2270217	1.326	PPM
9)	H	Oil Combo	22.000	31039120	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34979371	N.D.	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	2677616	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	15170032	2.878	PPM
13)	H	Mineral Oil (03-14-12)	16.000	3610075	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	36643166	1.571	PPM
15)	H	ALKANE C9-C40	12.666	36150435	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	2198527	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	34740526	0.153	PPM

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

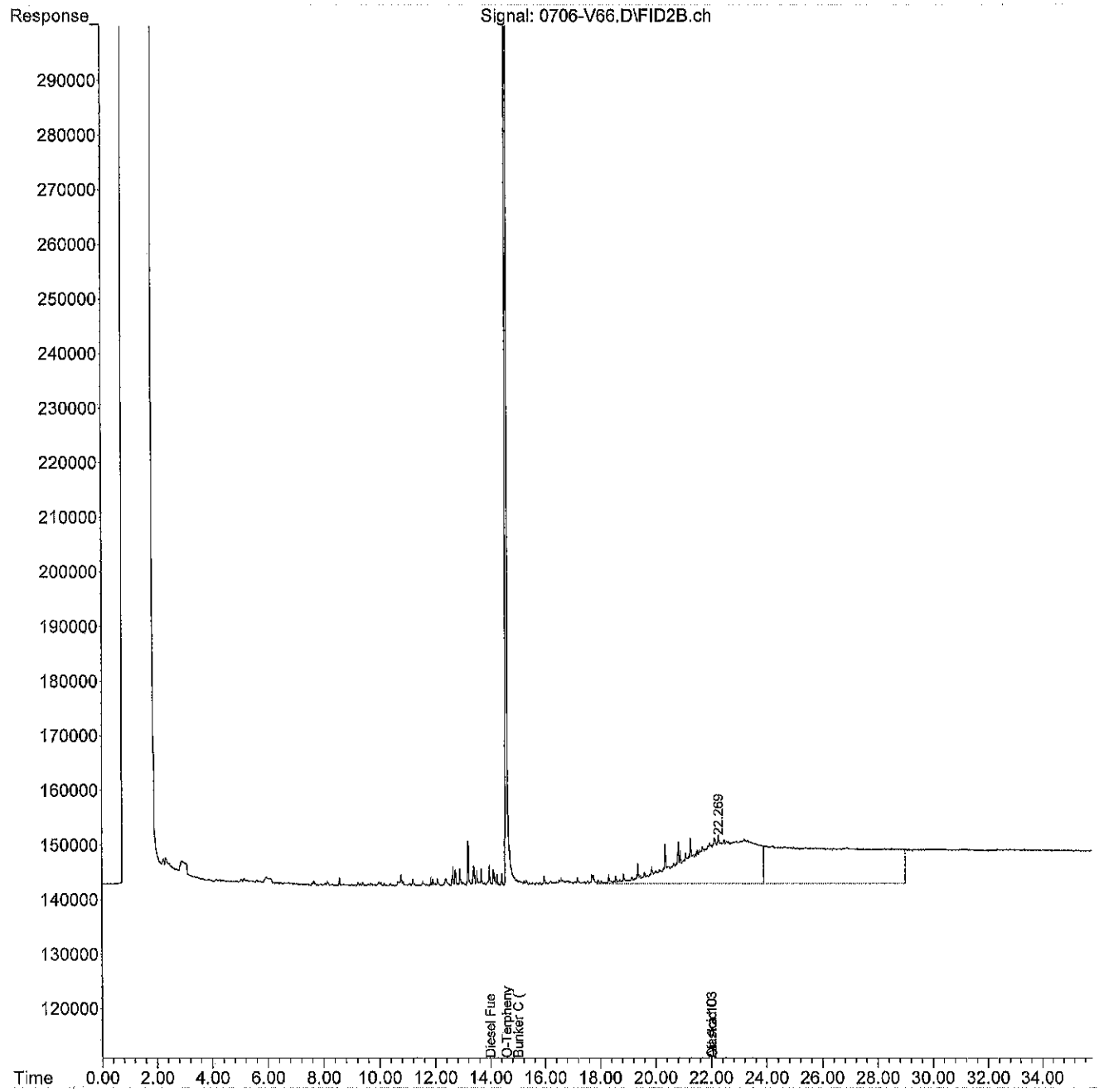
Quantitation Report (Not Reviewed)

Data File : 0706-V66.D
Sample : 06-226-02 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 21:45
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 22:21:39 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V59.D
Sample : 06-226-03 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 17:03
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 17:39:17 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.570	96053804	32.114	PPM
Spiked Amount		50.000		Recovery =	64.23%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3461925	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	9257667	2.602	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	10724518	4.644	PPM
6)	H	Oil	22.000	40778462	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	45491001	4.564	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9497445	4.254	PPM
9)	H	Oil Combo	22.000	39412077	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	44099072	4.417	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	11209666	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	18699612	5.974	PPM
13)	H	Mineral Oil (03-14-12)	16.000	11533318	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	52849340	12.793	PPM
15)	H	ALKANE C9-C40	12.666	52487754	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	8114011	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	42952864	4.472	PPM

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

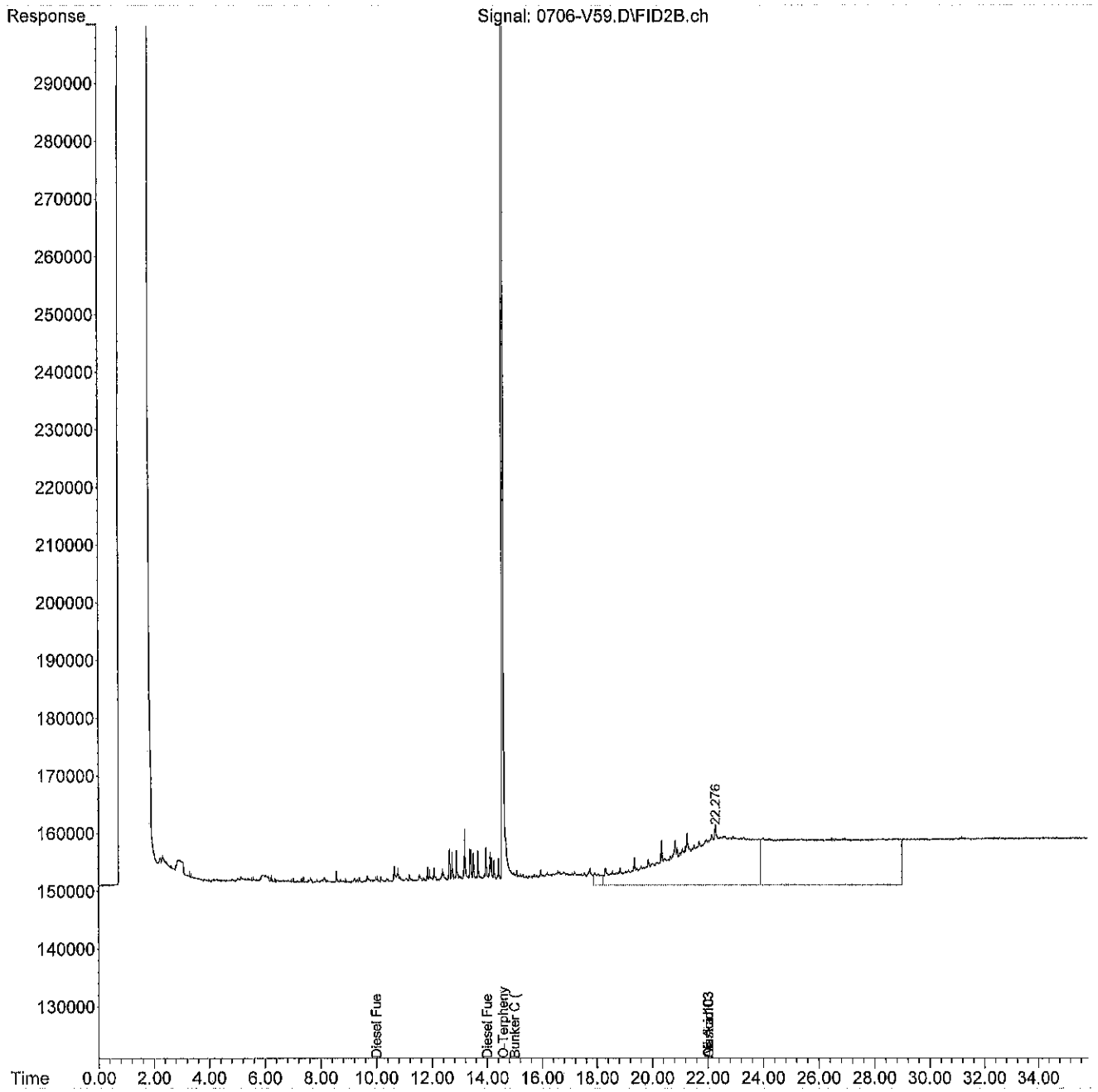
Quantitation Report (Not Reviewed)

Data File : 0706-V59.D
Sample : 06-226-03 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 17:03
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 17:39:17 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V68.D
Sample : 06-226-04 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 23:06
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 23:42:23 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.571	110478135	36.906	PPM
Spiked Amount		50.000		Recovery =	73.81%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3227186	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	4123647	0.404	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	3614859	1.867	PPM
6)	H	Oil	22.000	27870517	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	31558027	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	3383326	1.777	PPM
9)	H	Oil Combo	22.000	27658906	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	31308134	N.D.	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	3791442	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	13013917	0.986	PPM
13)	H	Mineral Oil (03-14-12)	16.000	4045781	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	34145240	N.D.	PPM
15)	H	ALKANE C9-C40	12.666	34037123	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	2783806	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	31091356	N.D.	PPM

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

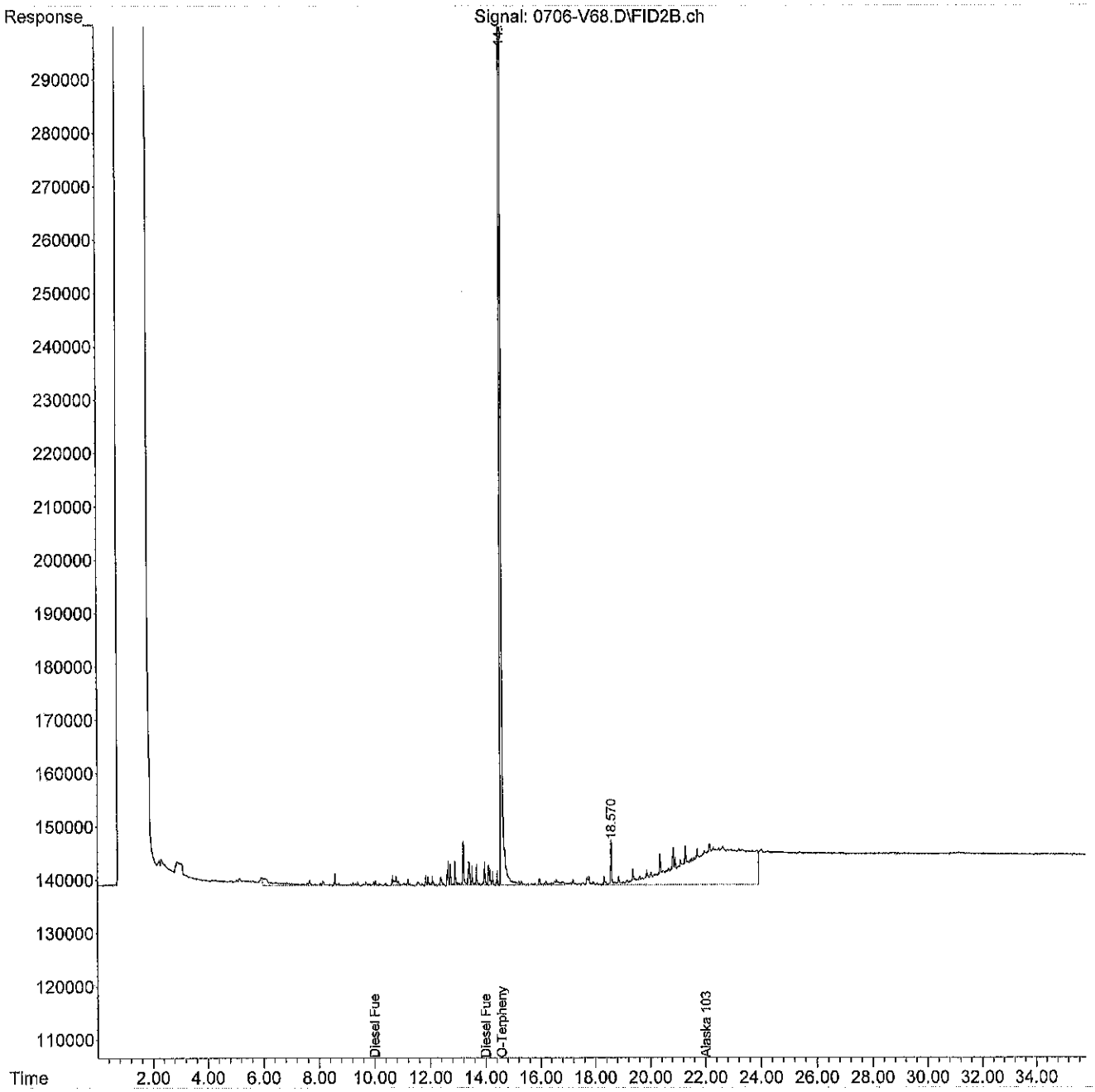
Quantitation Report (Not Reviewed)

Data File : 0706-V68.D
Sample : 06-226-04 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 23:06
Operator :
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 23:42:23 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V73.D
Sample : 06-226-05 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 2:26
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 03:02:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.573	128544189	42.907	PPM
Spiked Amount		50.000		Recovery =	85.81%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5354164	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	172330400	72.417	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	296665129	116.346	PPM
6)	H	Oil	22.000	738130456	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	739434845	351.547	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	234601941	95.449	PPM
9)	H	Oil Combo	22.000	672259008	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	675060904	325.763	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	313226466	115.537	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	458099451	391.430	PPM
13)	H	Mineral Oil (03-14-12)	16.000	436341696	154.305	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	907040799	604.264	PPM
15)	H	ALKANE C9-C40	12.666	903595829	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	263751522	95.840	PPM
17)	H	Oil Acid Clean MO Com...	22.000	617110106	306.435	PPM

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

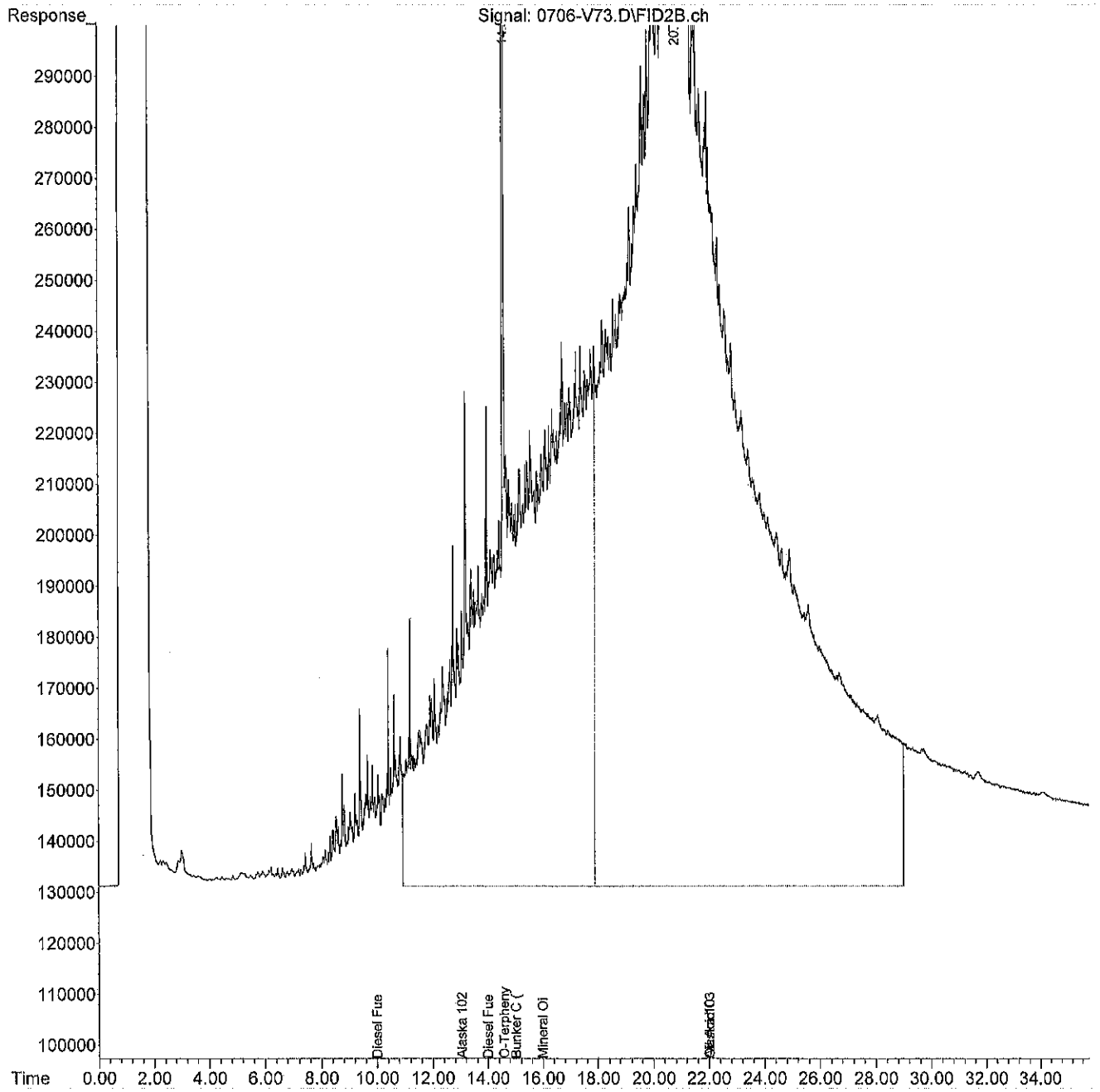
Quantitation Report (Not Reviewed)

Data File : 0706-V73.D
Sample : 06-226-05 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 2:26
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 03:02:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V75.D
Sample : 06-226-06 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 3:46
Operator :
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 04:22:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.569	102758691	34.342	PPM
Spiked Amount		50.000		Recovery =	68.68%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3199041	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	82368725	33.903	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	156465791	61.577	PPM
6)	H	Oil	22.000	441954133	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	445930755	204.790	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	120622536	49.273	PPM
9)	H	Oil Combo	22.000	401317945	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	406636600	189.055	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	165174630	58.483	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	260104801	217.743	PPM
13)	H	Mineral Oil (03-14-12)	16.000	242076253	83.358	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	525103904	339.798	PPM
15)	H	ALKANE C9-C40	12.666	521809165	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	152266240	53.549	PPM
17)	H	Oil Acid Clean MO Com...	22.000	373127227	178.119	PPM

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

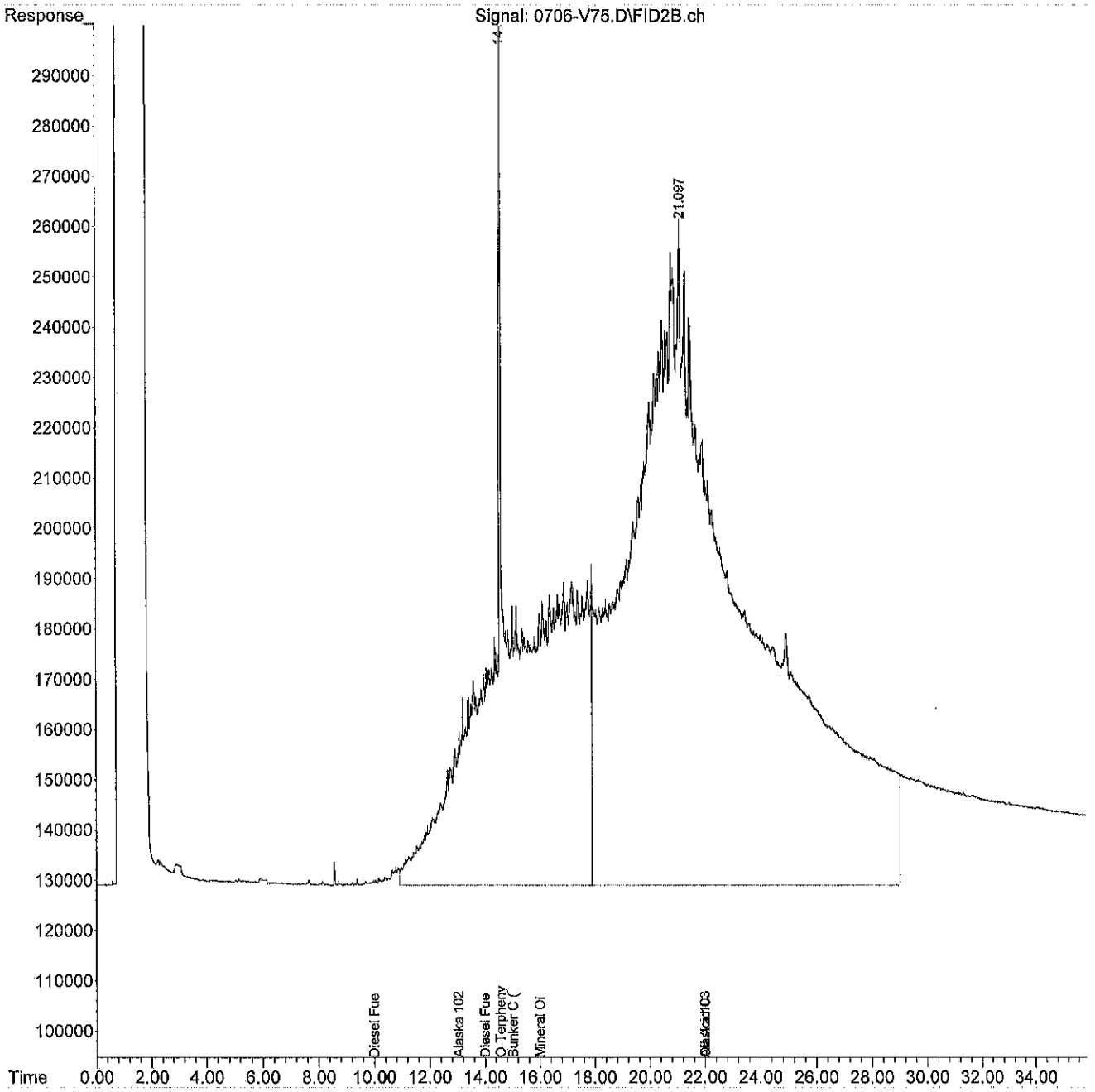
Quantitation Report (Not Reviewed)

Data File : 0706-V75.D
Sample : 06-226-06 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 3:46
Operator :
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 04:22:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V69.D
Sample : 06-226-07 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 23:46
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 00:22:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.571	115134712	38.453	PPM
Spiked Amount		50.000		Recovery =	76.91%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2997150	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	16094933	5.529	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	32005647	12.957	PPM
6)	H	Oil	22.000	124304953	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	127741175	45.690	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	23603885	9.969	PPM
9)	H	Oil Combo	22.000	115949389	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	119345856	42.739	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	34197383	8.010	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	76132155	56.356	PPM
13)	H	Mineral Oil (03-14-12)	16.000	54829382	14.974	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	142133888	74.616	PPM
15)	H	ALKANE C9-C40	12.666	141374418	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	30472973	7.349	PPM
17)	H	Oil Acid Clean MO Com...	22.000	111487204	40.516	PPM

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

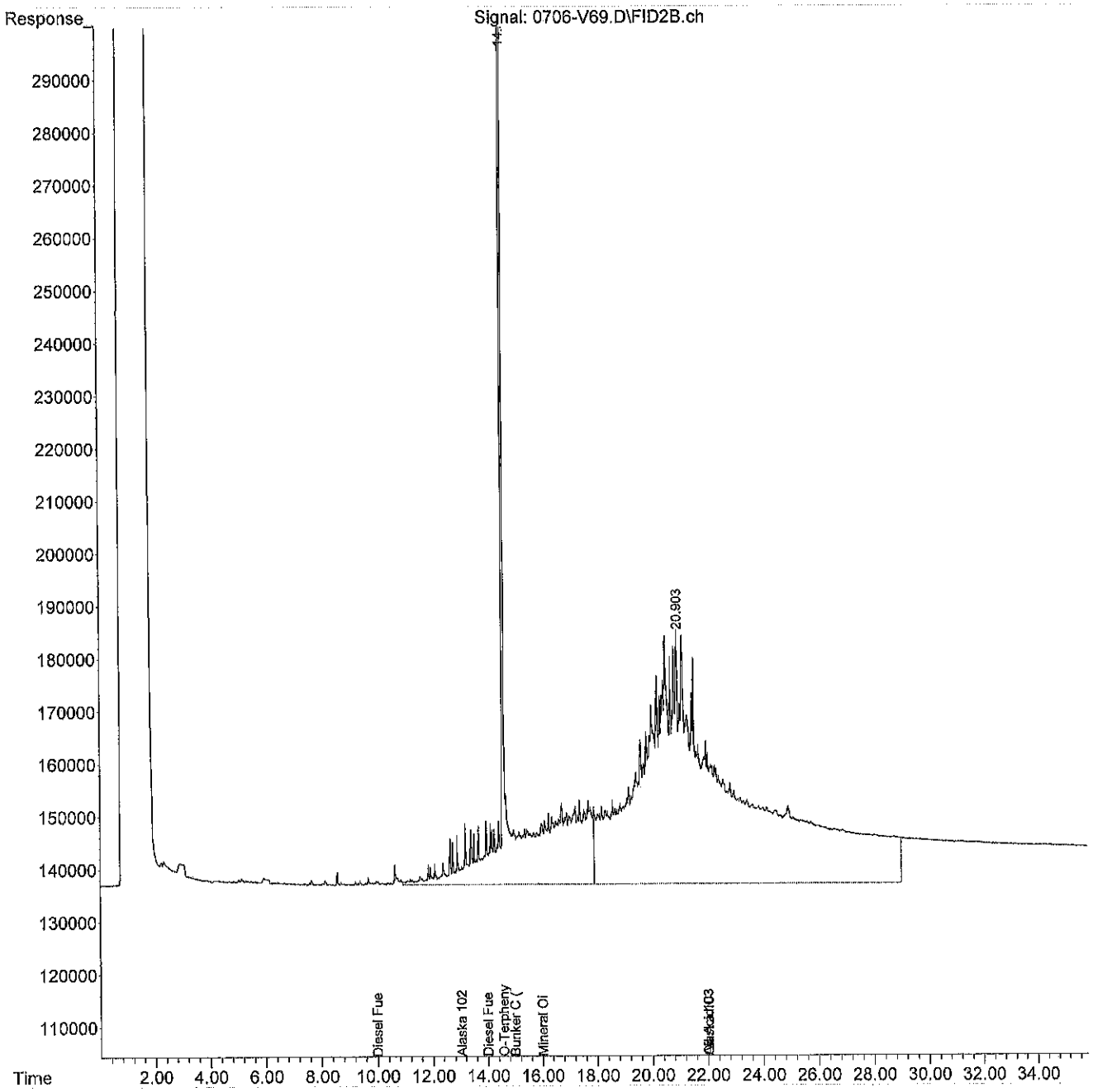
Quantitation Report (Not Reviewed)

Data File : 0706-V69.D
Sample : 06-226-07 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 23:46
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 00:22:25 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V59.D
Sample : 06-226-08 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 14:58
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 15:35:00 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.560	11330219	3.972	PPM
Spiked Amount	50.000		Recovery =	7.94%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2888580	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	155268815	65.113	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	291903477	114.485	PPM
6) H	Oil	22.000	771439529	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	776554216	370.108	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	223712029	91.037	PPM
9) H	Oil Combo	22.000	701497301	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	707043327	342.051	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	309946004	114.272	PPM
12) H	Alaska 103 Oil (06-2...	22.000	463383068	396.065	PPM
13) H	Mineral Oil (03-14-12)	16.000	452361951	160.156	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	927365738	618.337	PPM
15) H	ALKANE C9-C40	12.666	921589288	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	271966597	98.956	PPM
17) H	Oil Acid Clean MO Com...	22.000	643418641	320.271	PPM

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

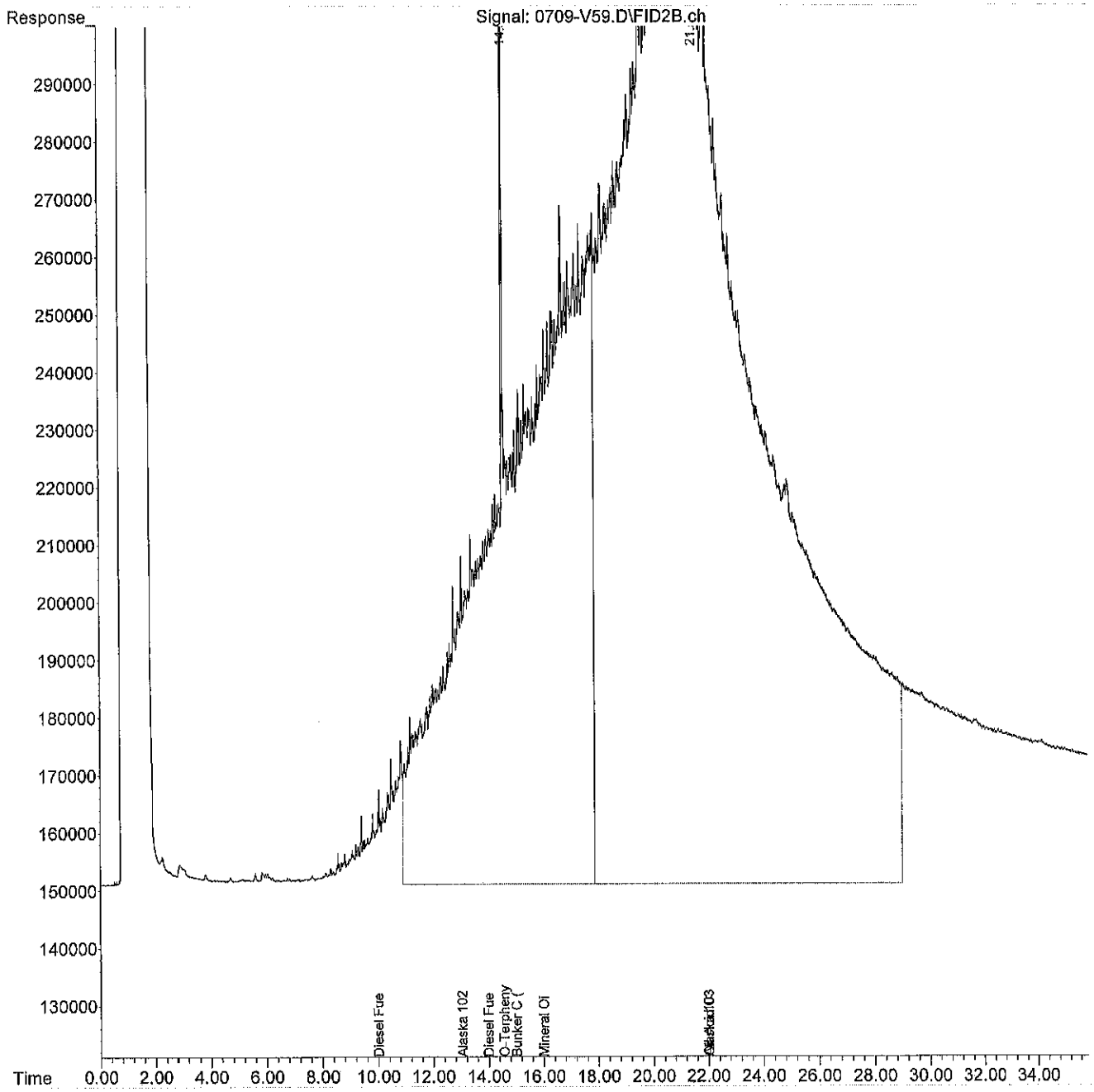
Quantitation Report (Not Reviewed)

Data File : 0709-V59.D
Sample : 06-226-08 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 14:58
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 15:35:00 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V60.D
Sample : 06-226-09

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 17:43
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 18:19:44 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.575	138248813	46.130	PPM
Spiked Amount		50.000		Recovery =	92.26%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8593840	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	295538196	125.166	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	527525750	206.530	PPM
6)	H	Oil	22.000	1269525061	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	1263971438	613.824	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	412304396	167.440	PPM
9)	H	Oil Combo	22.000	1147073237	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1143635566	564.405	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	558540168	210.071	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	790109080	682.680	PPM
13)	H	Mineral Oil (03-14-12)	16.000	785236779	281.724	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1552376418	1051.116	PPM
15)	H	ALKANE C9-C40	12.666	1547966603	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	472193128	174.909	PPM
17)	H	Oil Acid Clean MO Com...	22.000	1036010599	526.745	PPM

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

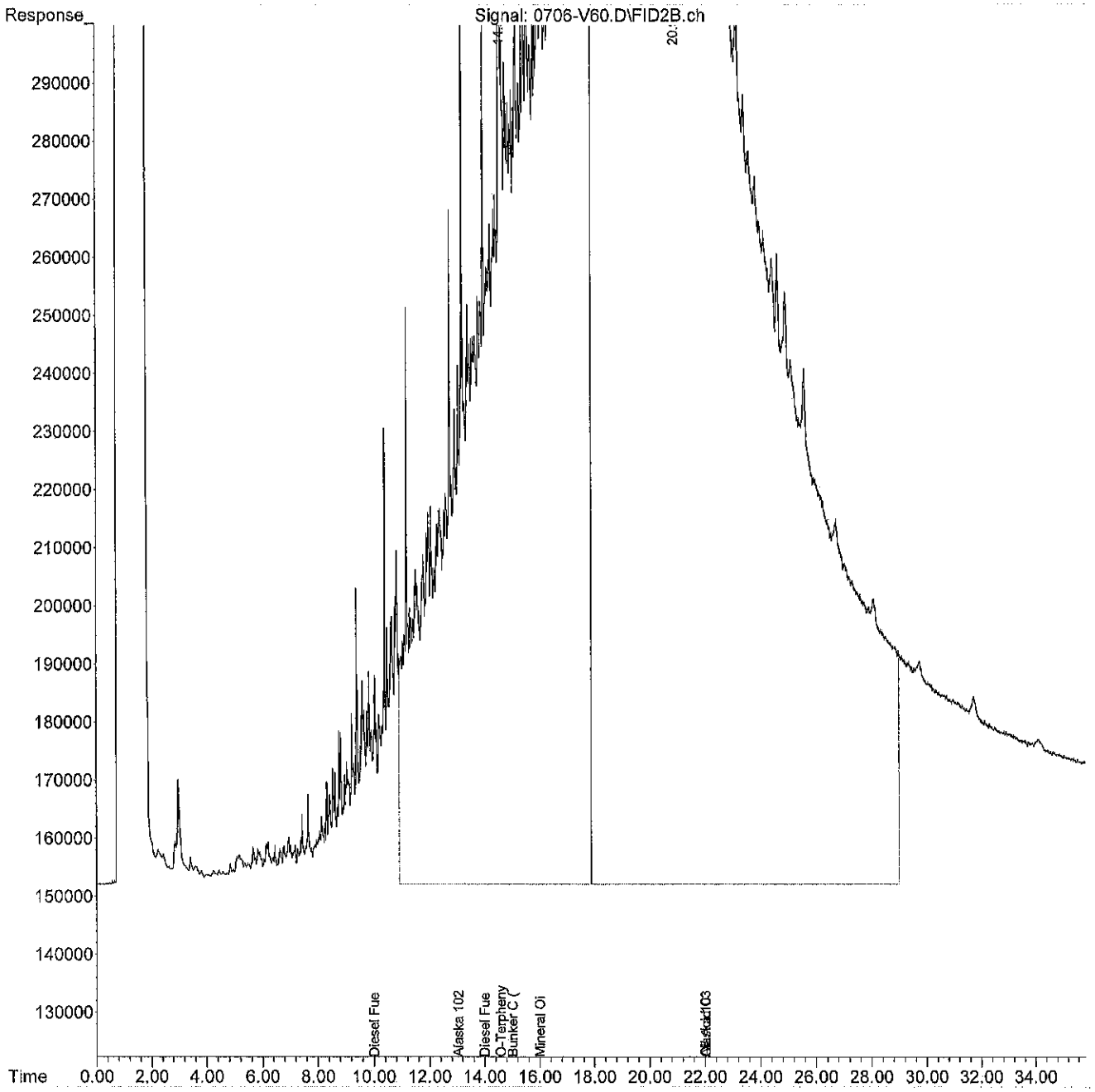
Quantitation Report (Not Reviewed)

Data File : 0706-V60.D
Sample : 06-226-09

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 17:43
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 18:19:44 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V85.D
Sample : 06-226-10

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 8:36
Operator :
Misc :
ALS Vial : 85 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 09:12:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.573	123875866	41.356	PPM
Spiked Amount		50.000		Recovery =	82.71%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6919595	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	167187763	70.216	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	303426875	118.987	PPM
6)	H	Oil	22.000	754496910	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	754768989	359.215	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	234789432	95.524	PPM
9)	H	Oil Combo	22.000	683441069	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	684190846	330.412	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	321979228	118.910	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	463548840	396.210	PPM
13)	H	Mineral Oil (03-14-12)	16.000	452194079	160.095	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	916475668	610.797	PPM
15)	H	ALKANE C9-C40	12.666	913852126	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	268961397	97.816	PPM
17)	H	Oil Acid Clean MO Com...	22.000	620046805	307.980	PPM

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

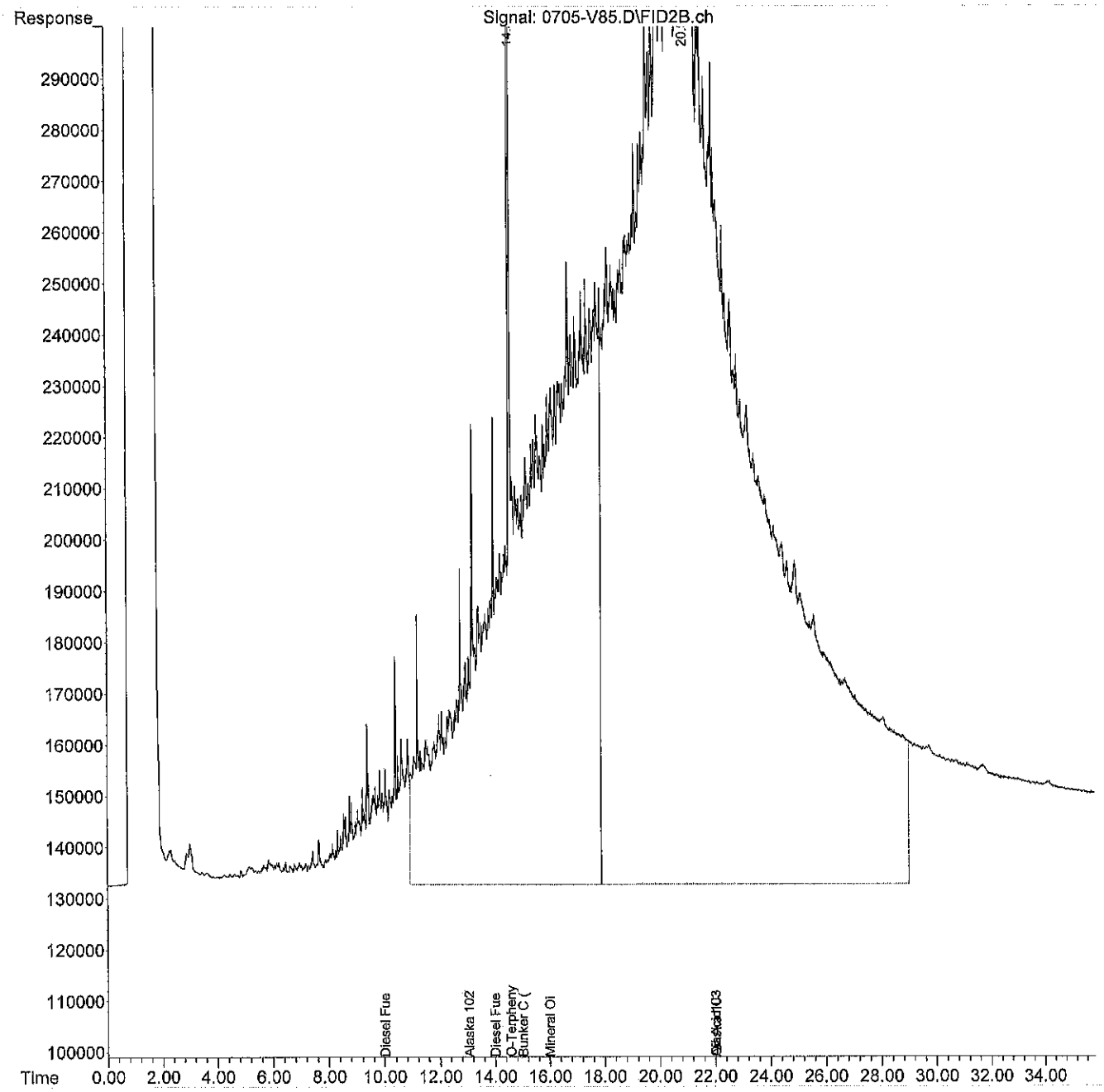
Quantitation Report (Not Reviewed)

Data File : 0705-V85.D
Sample : 06-226-10

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 8:36
Operator :
Misc :
ALS Vial : 85 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 09:12:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V71.D
Sample : 06-226-11 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 1:06
Operator :
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 01:42:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.574	136745089	45.631	PPM
Spiked Amount	50.000		Recovery =	91.26%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4591004	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	106788228	44.357	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	235785886	92.563	PPM
6) H	Oil	22.000	740950371	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	737303158	350.481	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	169116459	68.919	PPM
9) H	Oil Combo	22.000	677083101	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	673157057	324.793	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	254172002	92.779	PPM
12) H	Alaska 103 Oil (06-2...	22.000	488265209	417.892	PPM
13) H	Mineral Oil (03-14-12)	16.000	420148538	148.391	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	840666583	558.304	PPM
15) H	ALKANE C9-C40	12.666	838733315	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	221414534	79.780	PPM
17) H	Oil Acid Clean MO Com...	22.000	610997570	303.220	PPM

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

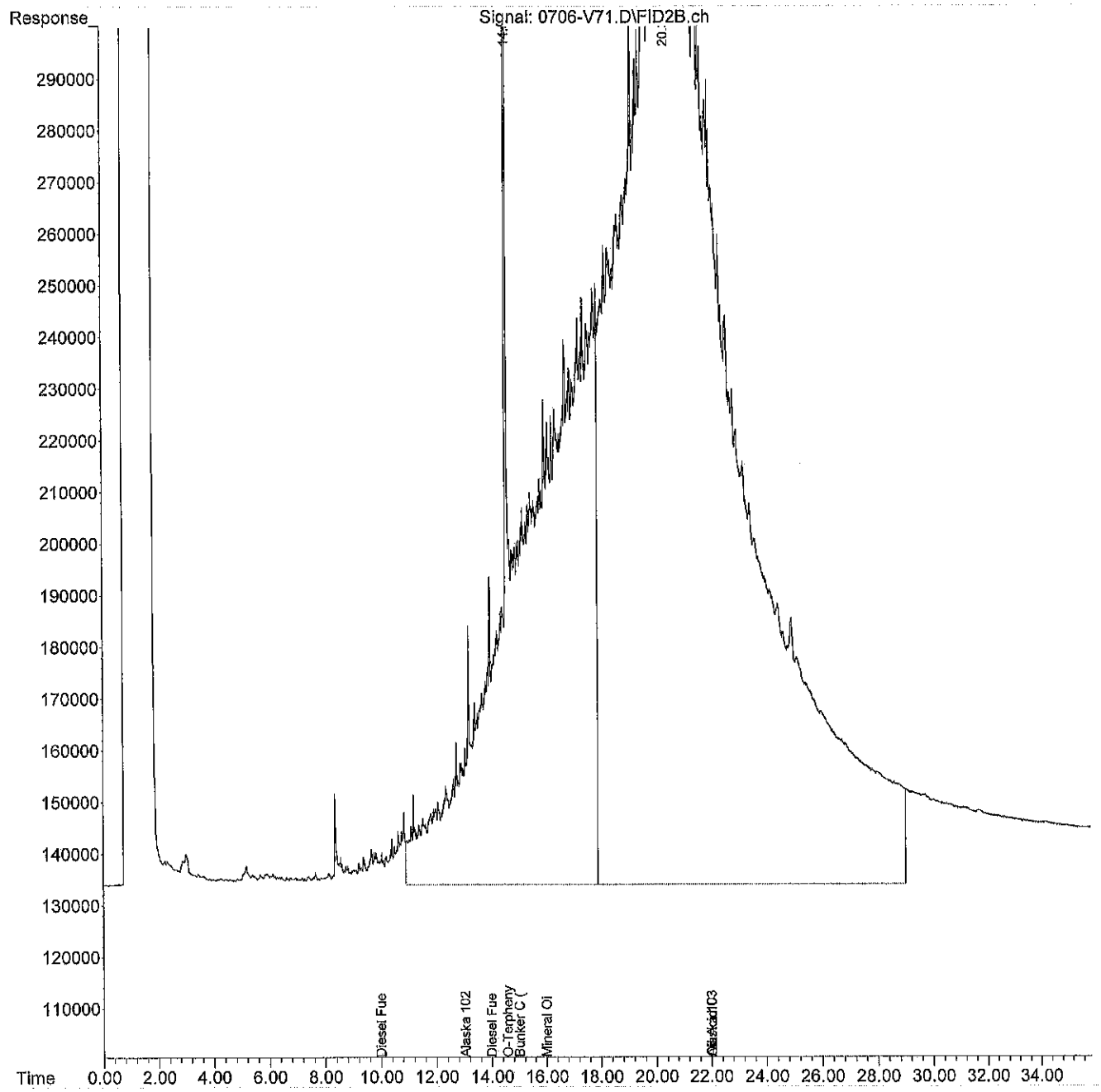
Quantitation Report (Not Reviewed)

Data File : 0706-V71.D
Sample : 06-226-11 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 1:06
Operator :
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 01:42:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V52.D
Sample : 06-226-12 RR

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 10:15
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 10:51:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.573	122489496	40.896	PPM
Spiked Amount		50.000		Recovery =	81.79%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4272035	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	63110415	25.658	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	123719541	48.785	PPM
6)	H	Oil	22.000	414943580	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	421698862	192.674	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	92863769	38.027	PPM
9)	H	Oil Combo	22.000	383138636	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	390156535	180.662	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	131851061	45.642	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	254402676	212.740	PPM
13)	H	Mineral Oil (03-14-12)	16.000	202135967	68.771	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	480824917	309.137	PPM
15)	H	ALKANE C9-C40	12.666	478159870	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	116115897	39.836	PPM
17)	H	Oil Acid Clean MO Com...	22.000	361352141	171.926	PPM

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

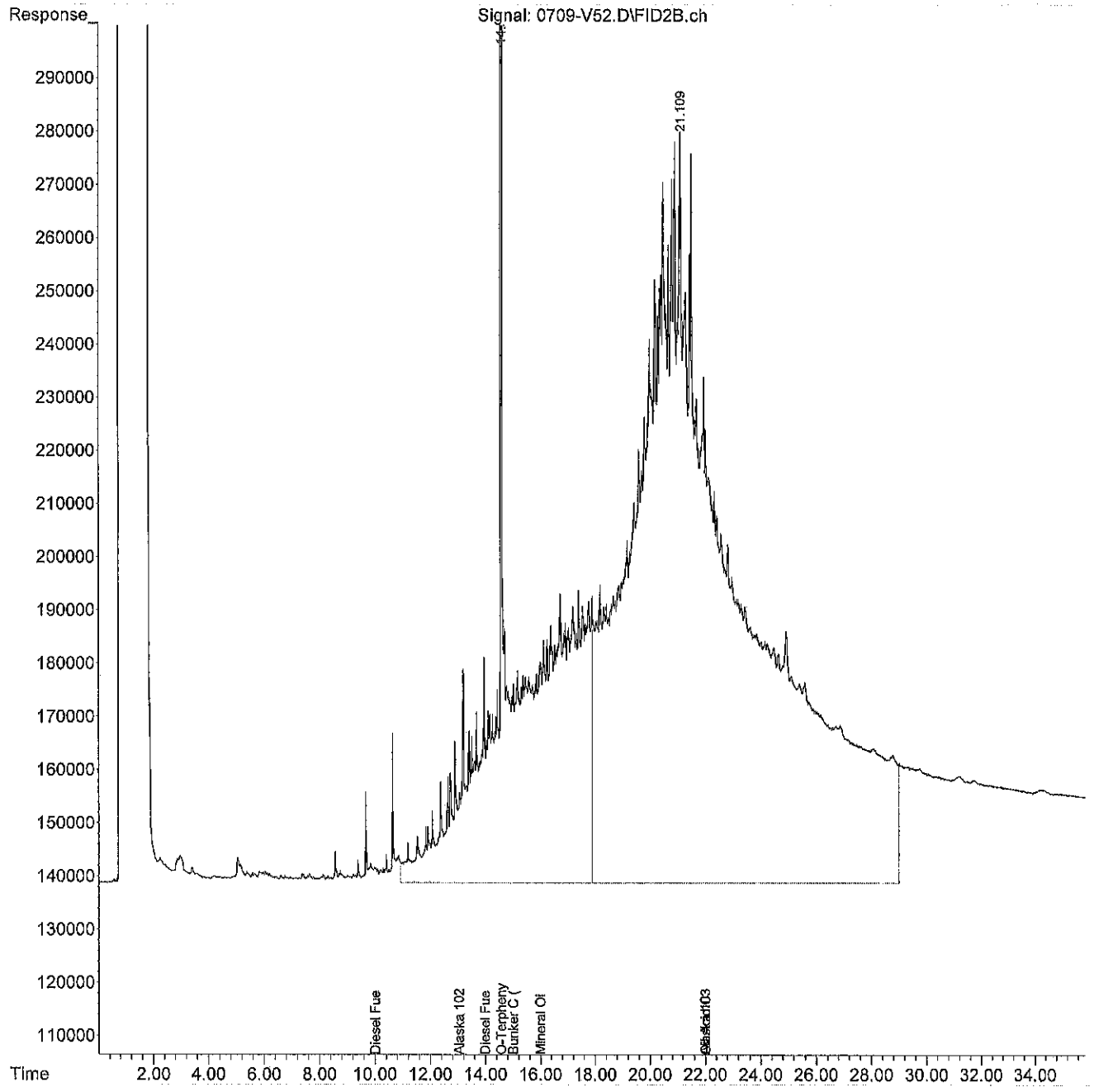
Quantitation Report (Not Reviewed)

Data File : 0709-V52.D
Sample : 06-226-12 RR

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 10:15
Operator :
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 10:51:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V70.D
Sample : 06-226-13 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 22:35
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 23:11:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.560	16124055	5.564	PPM
Spiked Amount		50.000		Recovery =	11.13%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4110048	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	150962968	63.270	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	306117936	120.038	PPM
6)	H	Oil	22.000	810215472	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	805484423	384.573	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	228798729	93.098	PPM
9)	H	Oil Combo	22.000	730057680	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	726046275	351.729	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	326696680	120.727	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	506227832	433.650	PPM
13)	H	Mineral Oil (03-14-12)	16.000	494412930	175.513	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	952683877	635.869	PPM
15)	H	ALKANE C9-C40	12.666	949534484	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	284286712	103.630	PPM
17)	H	Oil Acid Clean MO Com...	22.000	653816971	325.740	PPM

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

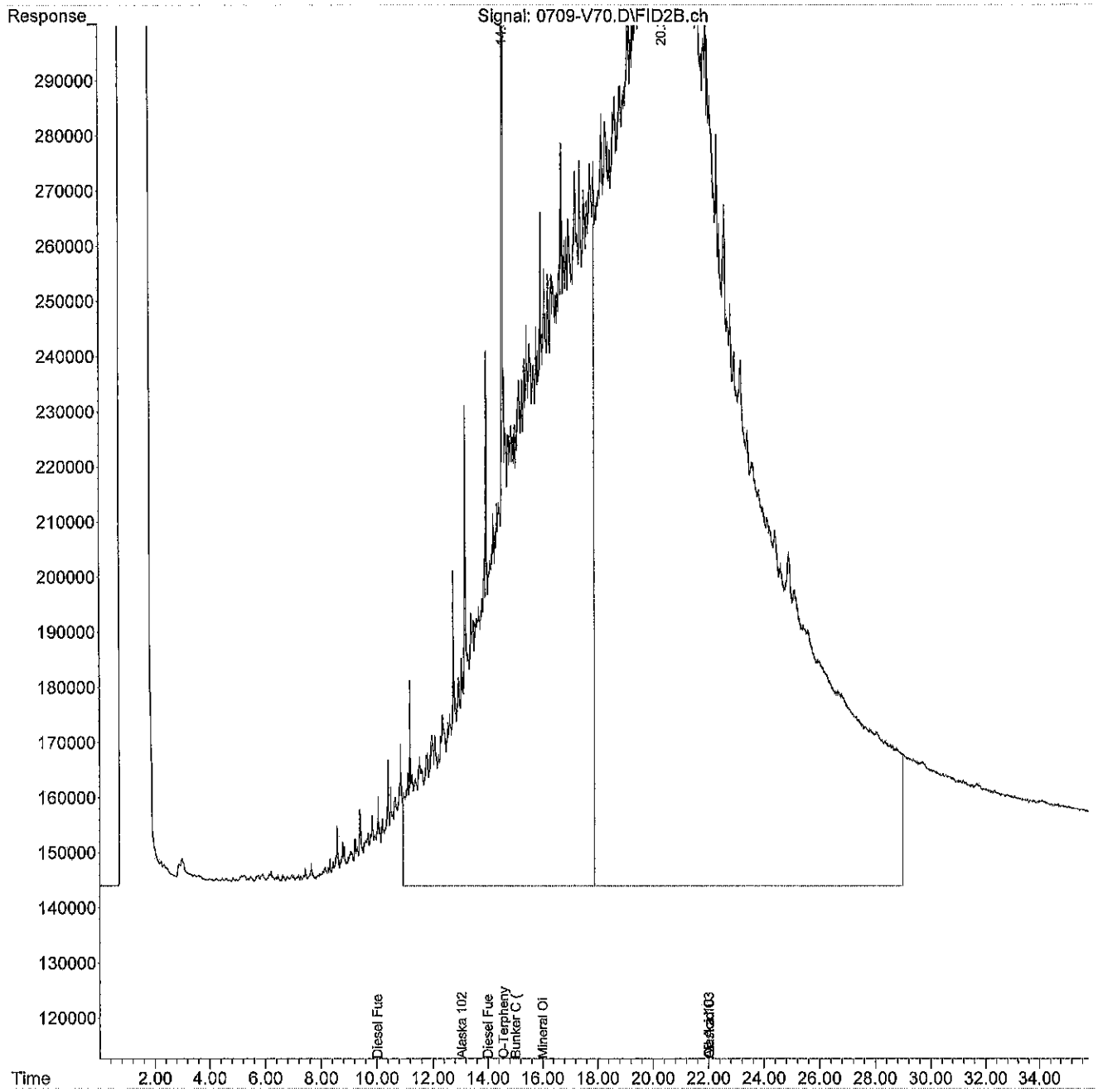
Quantitation Report (Not Reviewed)

Data File : 0709-V70.D
Sample : 06-226-13 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 22:35
Operator :
Misc :
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 23:11:22 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : 0706-V77.D
Sample : 06-226-14

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 5:06
Operator :
Misc :
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 15:46:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds							
1)	S	O-Terphenyl (03-14-12)	14.572	119655245	39.954	PPM	m
Spiked Amount		50.000		Recovery =	79.91%		
Target Compounds							
2)		1-Chlorooctadecane (...	15.962	6498179	2.594	PPM	
3)	H	Gasoline	3.500	13288172	NoCal	PPM	
4)	H	Diesel Fuel #1 (06-0...	10.000	905670825	386.378	PPM	
5)	H	Diesel Fuel #2 (06-0...	14.000	1772525874	692.884	PPM	
6)	H	Oil	22.000	4273390039	NoCal	PPM	
7)	H	Oil Acid Clean (03-1...	22.000	4207333549	2085.554	PPM	
8)	H	Diesel Fuel #2 Combo ...	14.000	1351025640	547.735	PPM	
9)	H	Oil Combo	22.000	3810419775	NoCal	PPM	
10)	H	Oil Acid Clean Combo ...	22.000	3754928708	1894.325	PPM	
11)	H	Alaska 102 DF2 (06-2...	13.025	1885650335	721.488	PPM	
12)	H	Alaska 103 Oil (06-2...	22.000	2715977971	2372.115	PPM	
13)	H	Mineral Oil (03-14-12)	16.000	2783419458	1011.476	PPM	
14)	H	Bunker C (Fuel Oil #6...	15.000	5099014103	3506.927	PPM	
15)	H	ALKANE C9-C40	12.666	5089687903	NoCal	PPM	
16)	H	Mineral Oil Combo (03...	16.000	1629548922	613.936	PPM	
17)	H	Oil Acid Clean MO Com...	22.000	3361278673	1749.659	PPM	

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

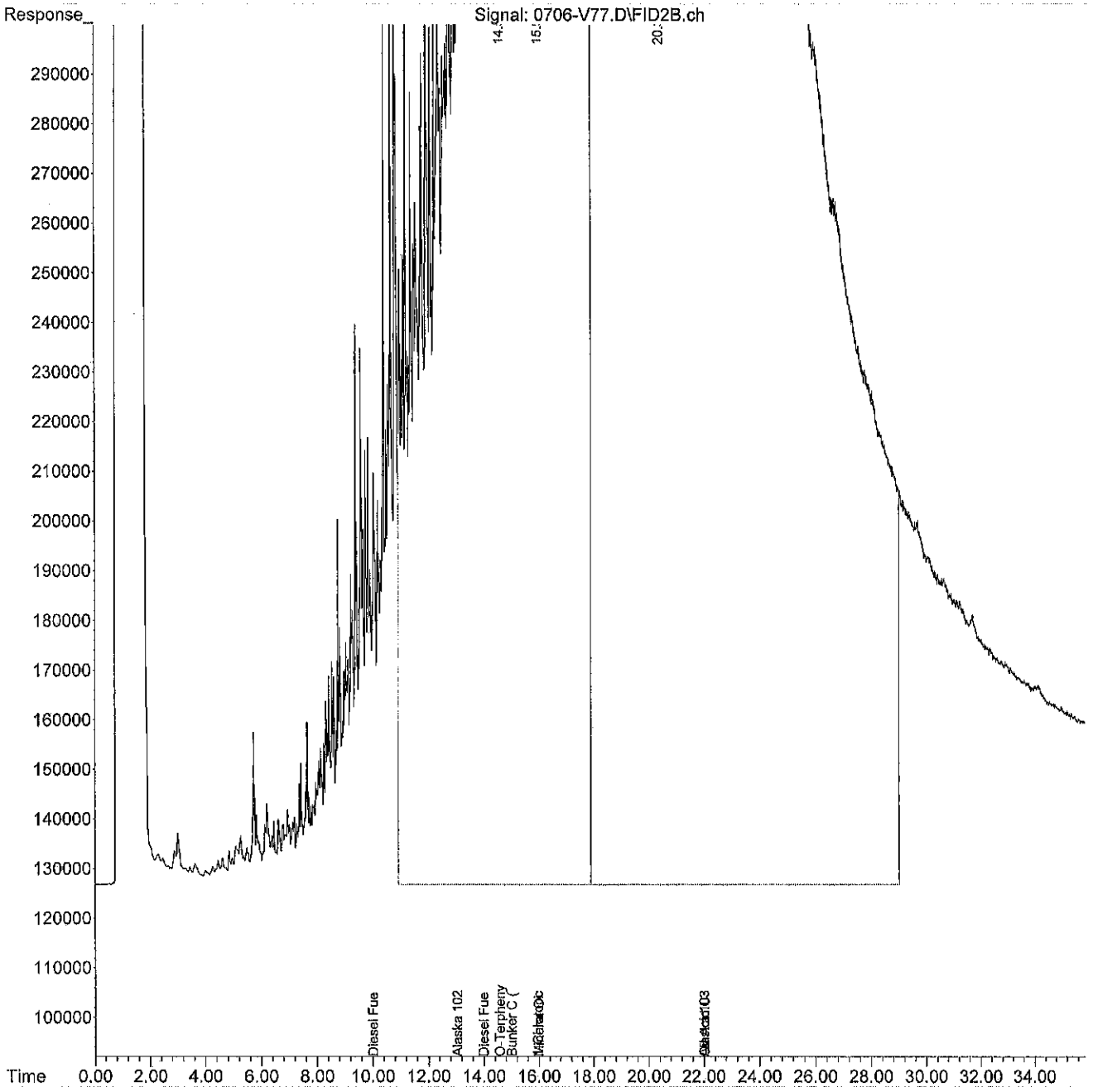
Quantitation Report (QT Reviewed)

Data File : 0706-V77.D
Sample : 06-226-14

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 5:06
Operator :
Misc :
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 15:46:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V53.D
Sample : 06-226-15 5X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 10:57
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 11:33:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.561	22938780	7.828	PPM
Spiked Amount		50.000		Recovery =	15.66%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9911097	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	270978673	114.651	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	364250643	142.748	PPM
6)	H	Oil	22.000	436801137	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	435535891	199.593	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	319425776	129.812	PPM
9)	H	Oil Combo	22.000	380931357	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	382703462	176.866	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	376015017	139.733	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	239384440	199.566	PPM
13)	H	Mineral Oil (03-14-12)	16.000	370040624	130.092	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	700282994	461.098	PPM
15)	H	ALKANE C9-C40	12.666	700324348	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	268820157	97.763	PPM
17)	H	Oil Acid Clean MO Com...	22.000	340769971	161.101	PPM

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

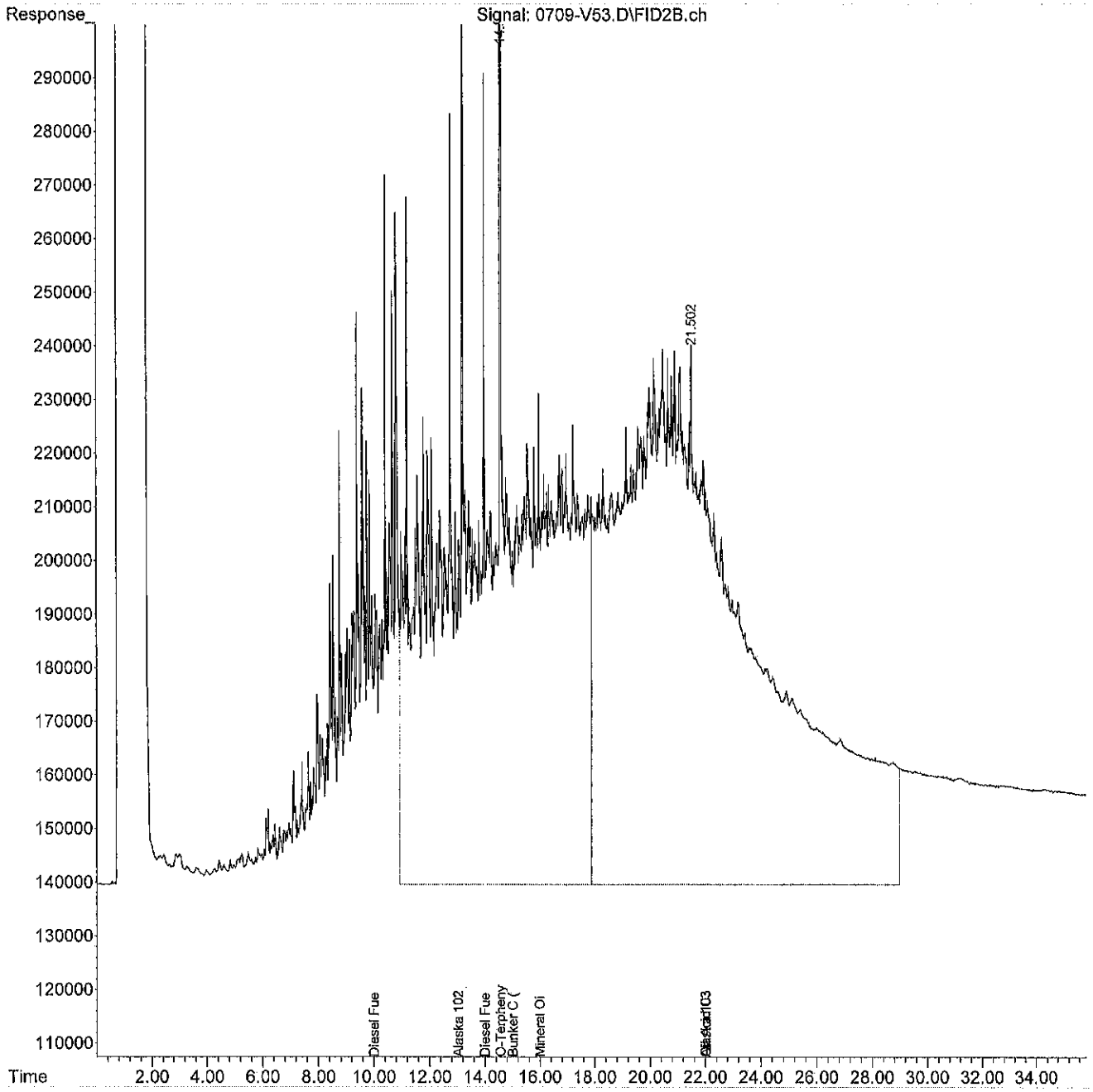
Quantitation Report (Not Reviewed)

Data File : 0709-V53.D
Sample : 06-226-15 5X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 10:57
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 11:33:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V63.D
Sample : 06-226-16 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 19:44
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 20:20:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (03-14-12)	14.571	109488910	36.577 PPM
Spiked Amount	50.000		Recovery =	73.15%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	3757372	NoCal PPM
4) H	Diesel Fuel #1 (06-0...	10.000	20624696	7.469 PPM
5) H	Diesel Fuel #2 (06-0...	14.000	22550209	9.264 PPM
6) H	Oil	22.000	48249467	NoCal PPM
7) H	Oil Acid Clean (03-1...	22.000	52935966	8.286 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	21498342	9.116 PPM
9) H	Oil Combo	22.000	46050810	NoCal PPM
10) H	Oil Acid Clean Combo ...	22.000	50900127	7.880 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	22989313	3.690 PPM
12) H	Alaska 103 Oil (06-2...	22.000	23091378	9.827 PPM
13) H	Mineral Oil (03-14-12)	16.000	15384384	0.568 PPM
14) H	Bunker C (Fuel Oil #6...	15.000	71616074	25.787 PPM
15) H	ALKANE C9-C40	12.666	71182008	NoCal PPM
16) H	Mineral Oil Combo (03...	16.000	11938768	0.318 PPM
17) H	Oil Acid Clean MO Com...	22.000	49917575	8.135 PPM

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

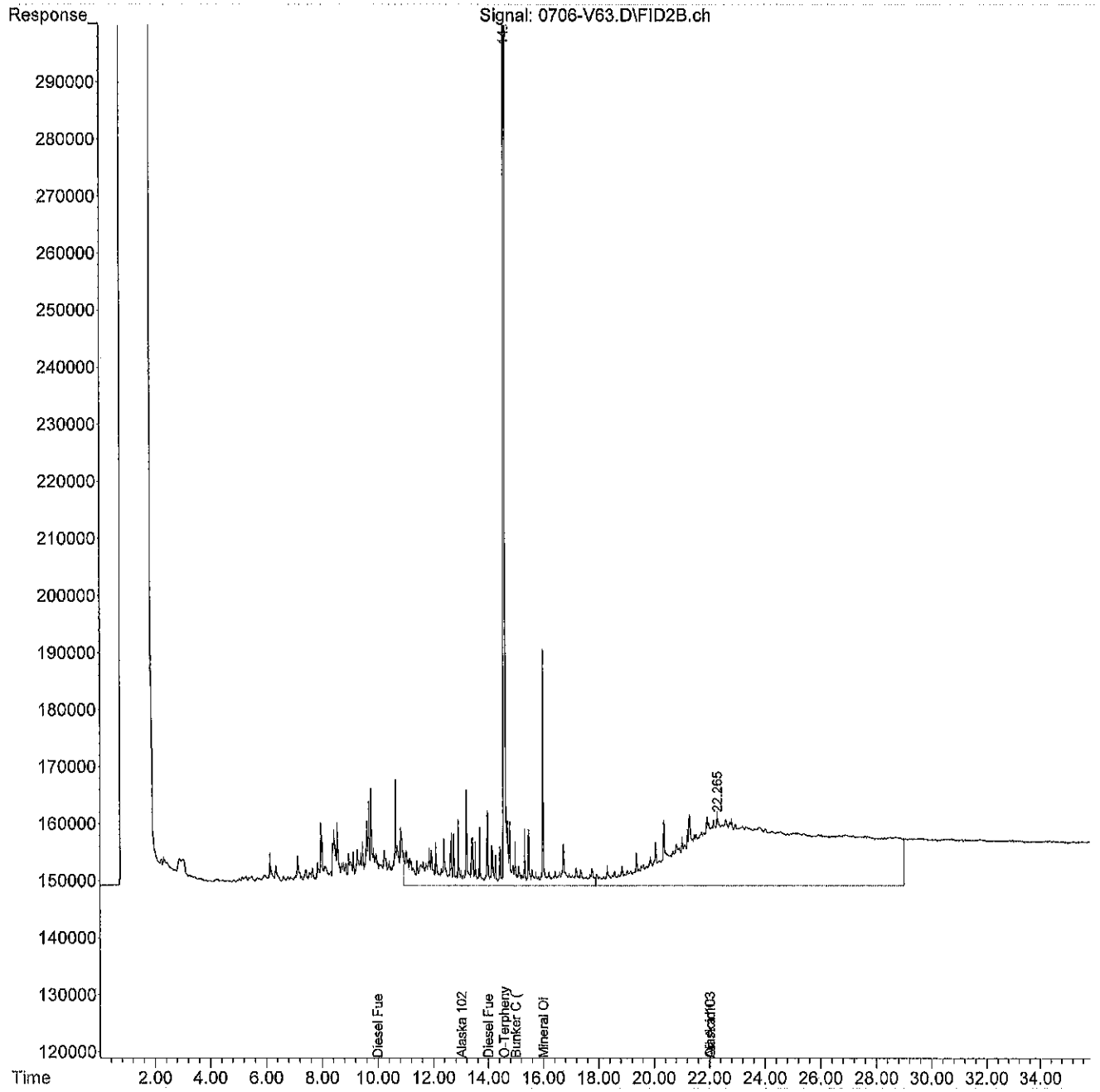
Quantitation Report (Not Reviewed)

Data File : 0706-V63.D
Sample : 06-226-16 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 19:44
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 20:20:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V55.D
Sample : 06-226-17 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 12:17
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 12:53:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.561	13960105	4.845	PPM
Spiked Amount	50.000		Recovery =	9.69%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6135281	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	300060062	127.102	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	435648056	170.639	PPM
6) H	Oil	22.000	604713564	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	599620773	281.638	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	369461008	150.083	PPM
9) H	Oil Combo	22.000	529743000	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	527673488	250.699	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	452877172	169.353	PPM
12) H	Alaska 103 Oil (06-2...	22.000	342853975	290.333	PPM
13) H	Mineral Oil (03-14-12)	16.000	496470832	176.265	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	895088299	595.987	PPM
15) H	ALKANE C9-C40	12.666	892988466	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	341740287	125.424	PPM
17) H	Oil Acid Clean MO Com...	22.000	465878610	226.899	PPM

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

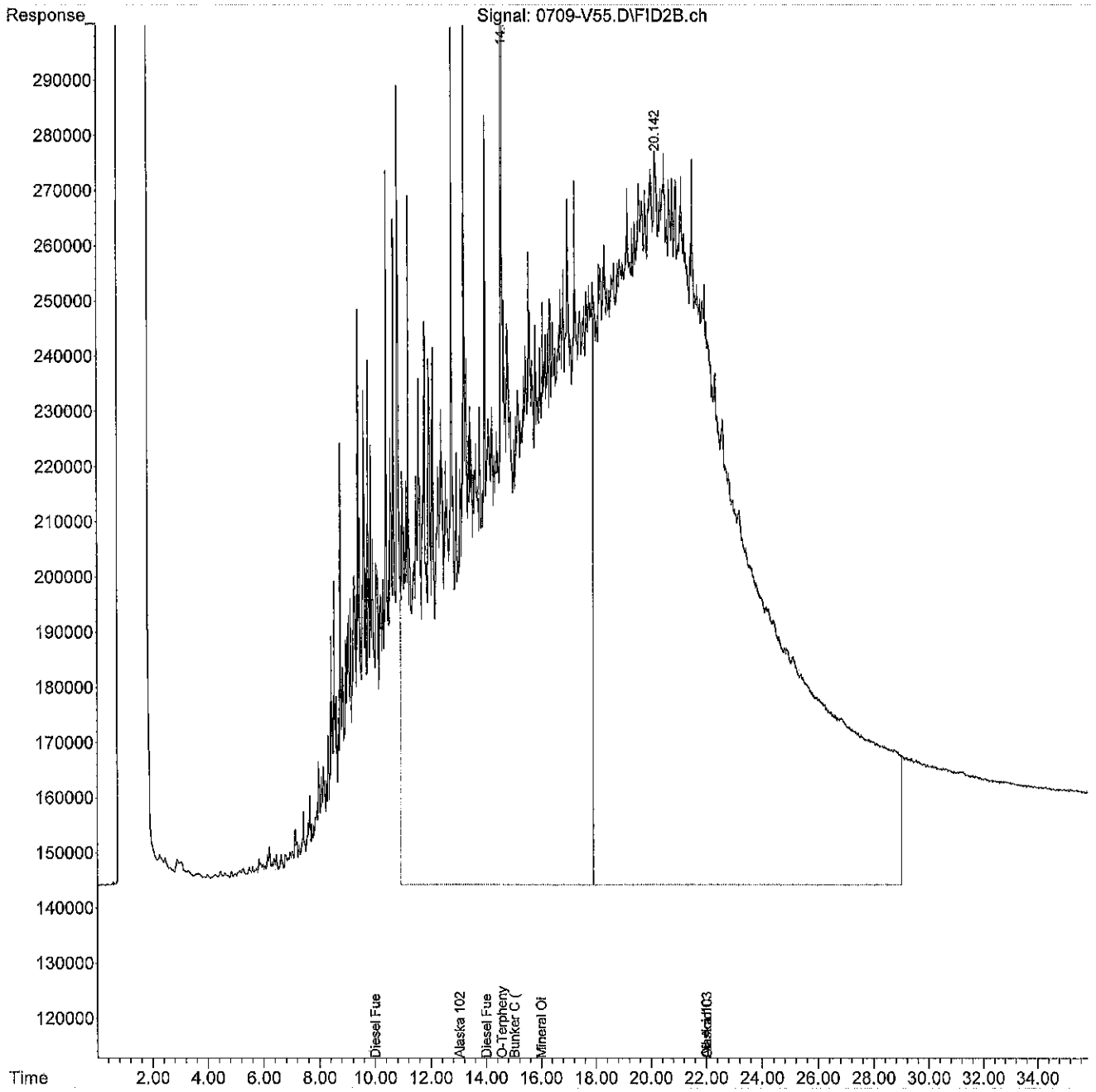
Quantitation Report (Not Reviewed)

Data File : 0709-V55.D
Sample : 06-226-17 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 12:17
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 12:53:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V64.D
Sample : 06-226-18 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 20:25
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 21:01:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.575	139423030	46.521	PPM
Spiked Amount		50.000		Recovery =	93.04%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3996844	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	19922998	7.168	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	24001140	9.830	PPM
6)	H	Oil	22.000	60520609	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	64321661	13.979	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	21631194	9.170	PPM
9)	H	Oil Combo	22.000	57082410	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	61236103	13.144	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	24772924	4.378	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	34033911	19.426	PPM
13)	H	Mineral Oil (03-14-12)	16.000	22944352	3.329	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	82178243	33.101	PPM
15)	H	ALKANE C9-C40	12.666	82093042	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	14914412	1.447	PPM
17)	H	Oil Acid Clean MO Com...	22.000	59035941	12.931	PPM

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

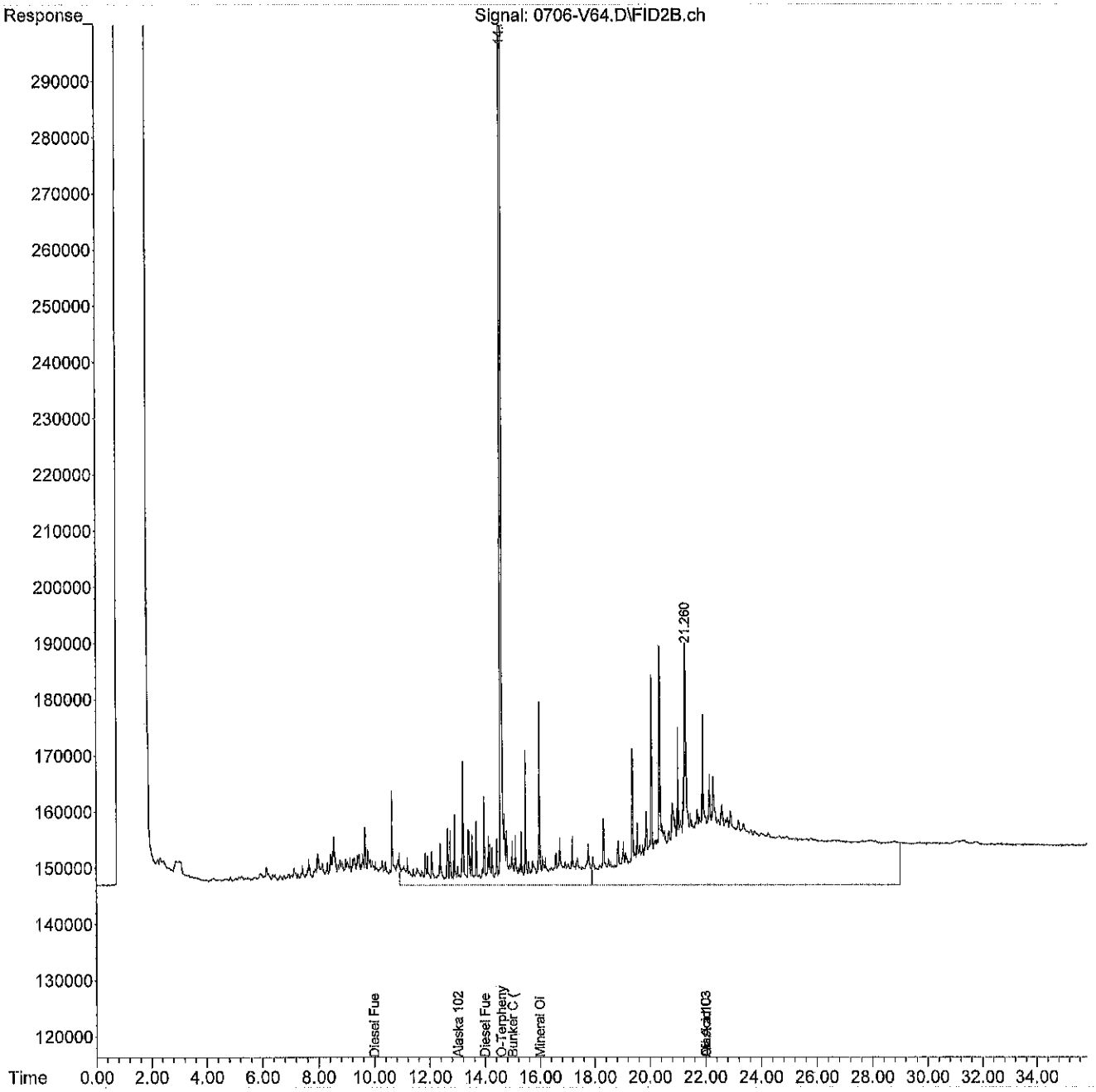
Quantitation Report (Not Reviewed)

Data File : 0706-V64.D
Sample : 06-226-18 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 20:25
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 21:01:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V57.D
Sample : 06-226-19 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 13:38
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 14:14:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.560	13825321	4.801	PPM
Spiked Amount	50.000		Recovery =	9.60%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	7110559	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	152497068	63.926	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	342850402	134.388	PPM
6) H	Oil	22.000	1089575952	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	1092096751	527.884	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	242809194	98.773	PPM
9) H	Oil Combo	22.000	997237920	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	998369165	490.422	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	369962178	137.400	PPM
12) H	Alaska 103 Oil (06-2...	22.000	681435562	587.348	PPM
13) H	Mineral Oil (03-14-12)	16.000	598030864	213.355	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	1237597816	833.153	PPM
15) H	ALKANE C9-C40	12.666	1233317347	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	324796495	118.996	PPM
17) H	Oil Acid Clean MO Com...	22.000	905102374	457.897	PPM

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

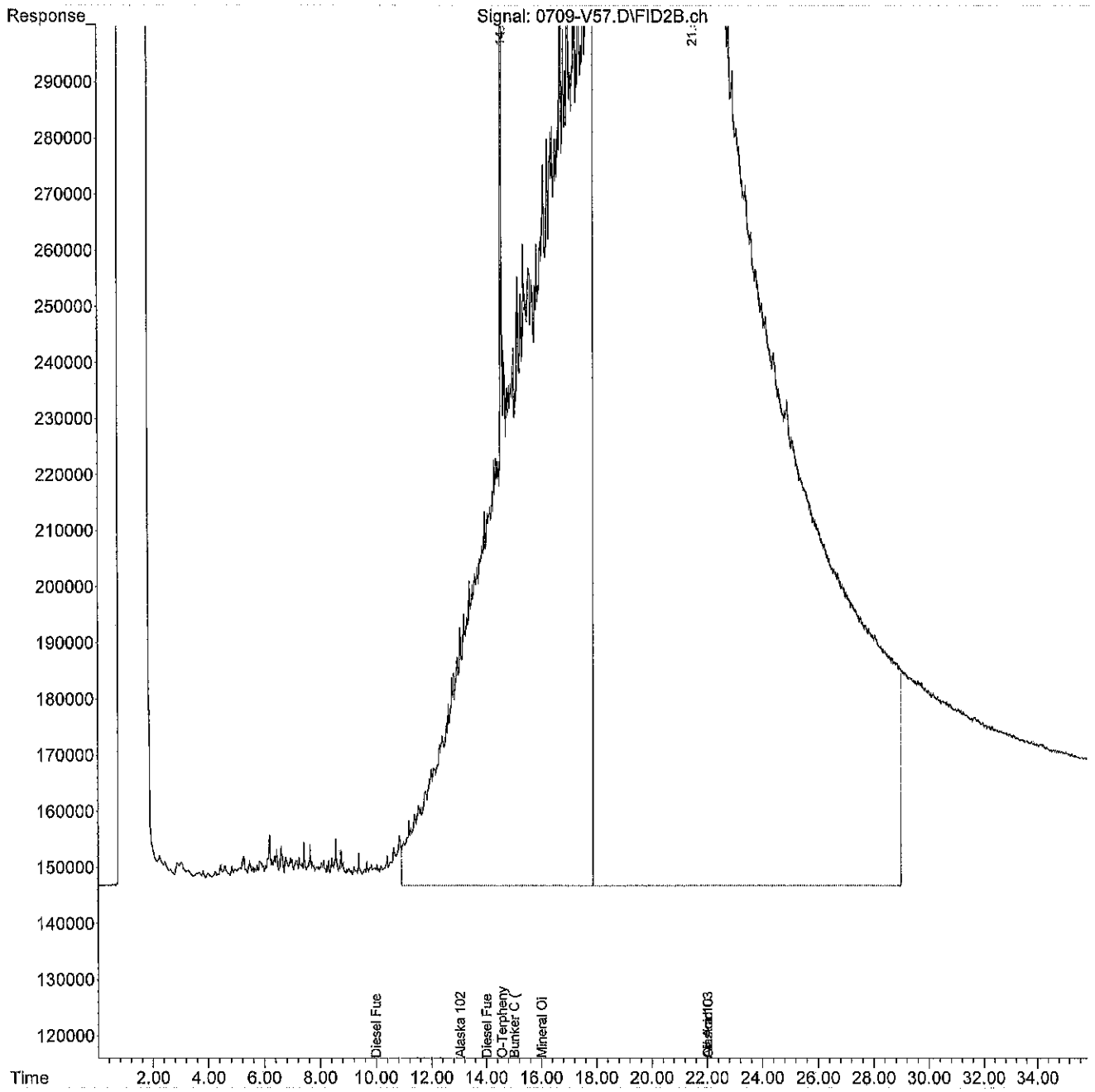
Quantitation Report (Not Reviewed)

Data File : 0709-V57.D
Sample : 06-226-19 10X

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 13:38
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 14:14:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V65.D
Sample : 06-226-20 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 21:05
Operator :
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 21:41:28 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.573	120176426	40.127	PPM
Spiked Amount		50.000		Recovery =	80.25%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	25561745	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	385258109	163.577	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	381424701	149.457	PPM
6)	H	Oil	22.000	65297105	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	68601288	16.119	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	378221001	153.632	PPM
9)	H	Oil Combo	22.000	60236631	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	64176505	14.642	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	384692512	143.077	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	34622875	19.942	PPM
13)	H	Mineral Oil (03-14-12)	16.000	124562577	40.441	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	442503314	282.602	PPM
15)	H	ALKANE C9-C40	12.666	451979513	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	115247987	39.507	PPM
17)	H	Oil Acid Clean MO Com...	22.000	61175707	14.056	PPM

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

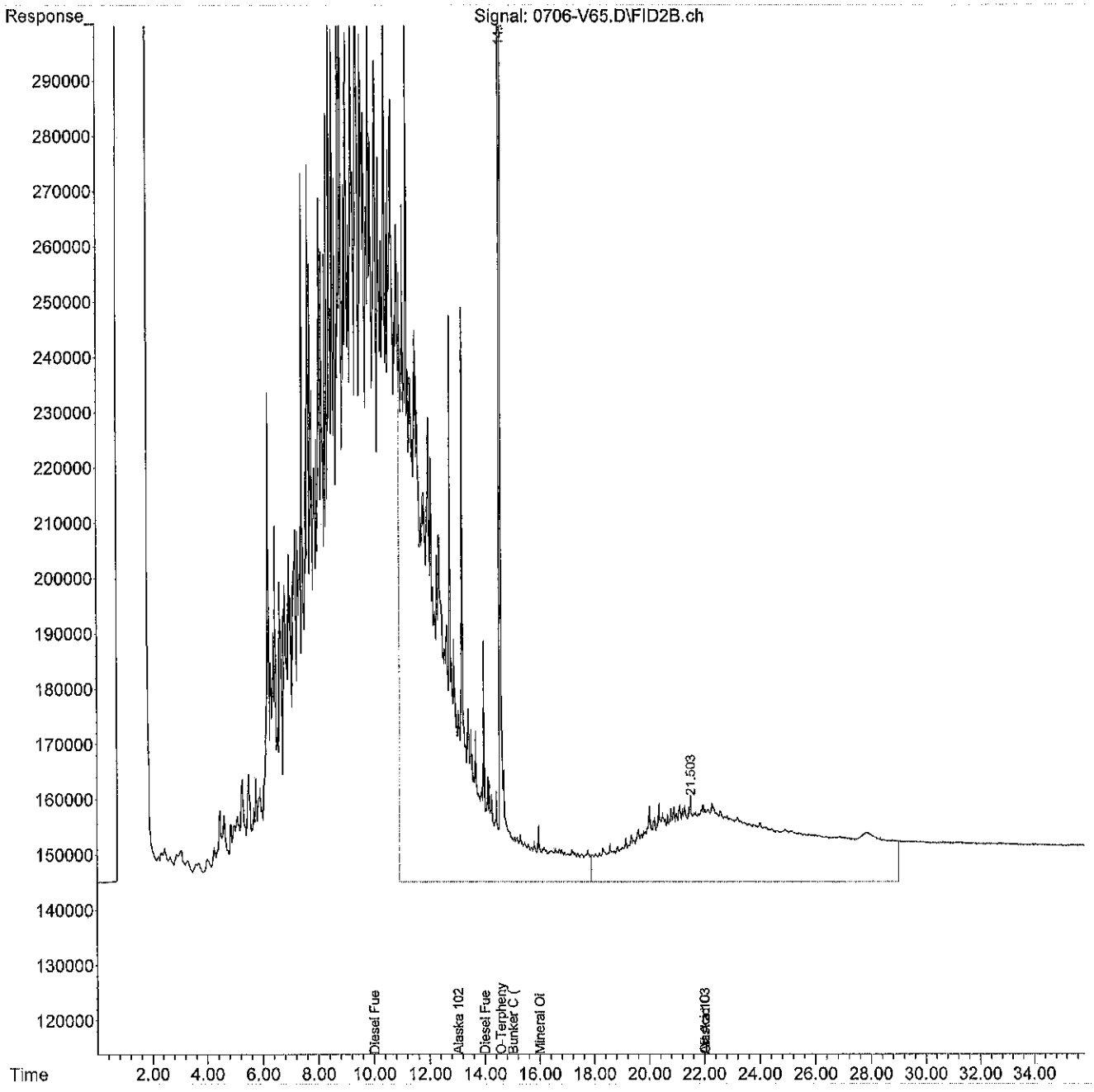
Quantitation Report (Not Reviewed)

Data File : 0706-V65.D
Sample : 06-226-20 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 21:05
Operator :
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 21:41:28 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V82.D
Sample : 06-226-21

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 6:36
Operator :
Misc :
ALS Vial : 82 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 07:12:40 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.574	137685324	45.943	PPM
Spiked Amount	50.000		Recovery =	91.89%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4825649	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	117706904	49.032	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	359574188	140.921	PPM
6) H	Oil	22.000	1216783740	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	1209695517	586.685	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	233011129	94.804	PPM
9) H	Oil Combo	22.000	1105430232	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	1092416325	538.320	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	392831566	146.213	PPM
12) H	Alaska 103 Oil (06-2...	22.000	782436728	675.949	PPM
13) H	Mineral Oil (03-14-12)	16.000	690132766	246.992	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	1323036239	892.313	PPM
15) H	ALKANE C9-C40	12.666	1319330740	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	346270755	127.142	PPM
17) H	Oil Acid Clean MO Com...	22.000	974259061	494.268	PPM

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

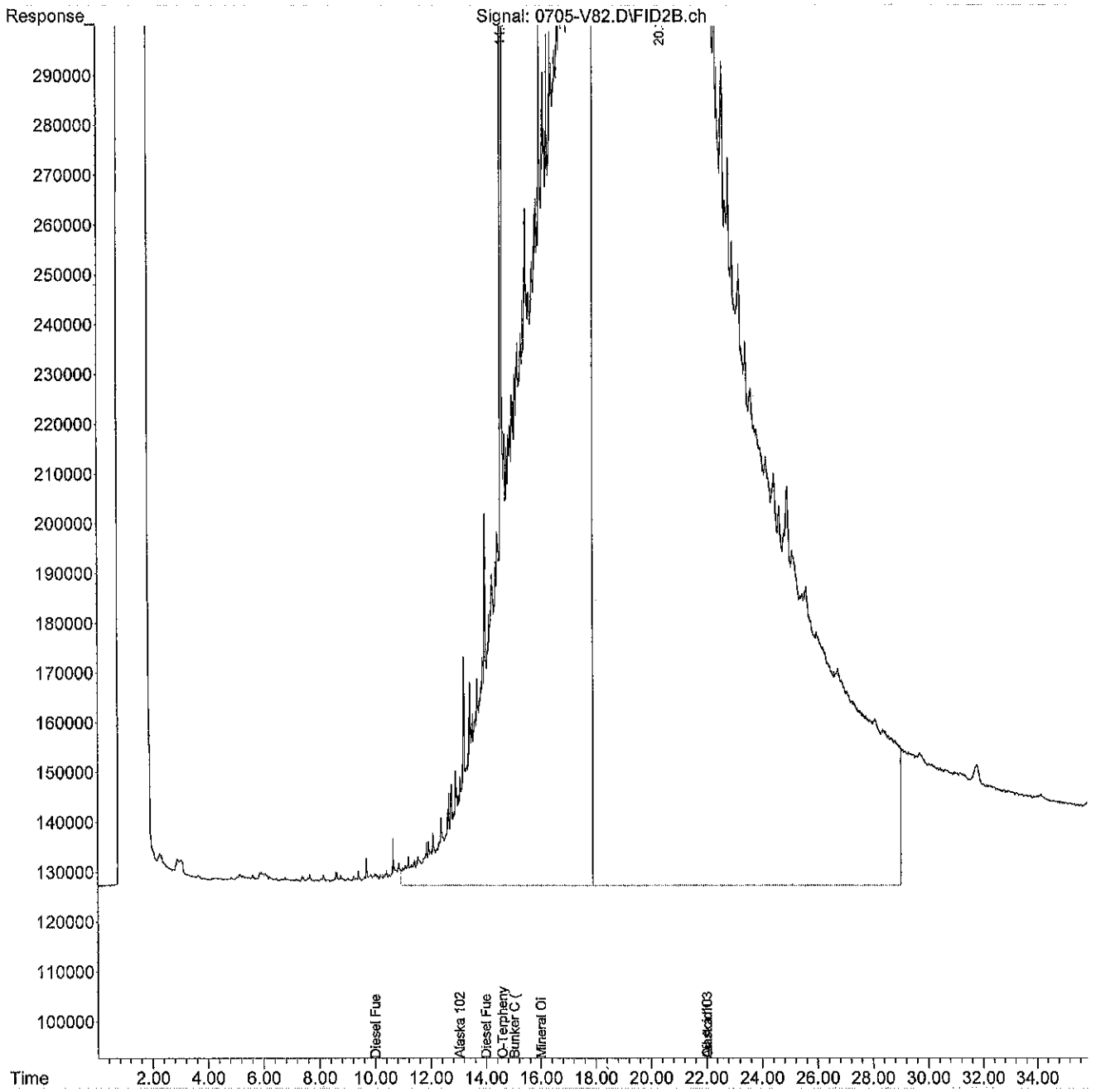
Quantitation Report (Not Reviewed)

Data File : 0705-V82.D
Sample : 06-226-21

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 6:36
Operator :
Misc :
ALS Vial : 82 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 07:12:40 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V81.D
Sample : 06-226-22

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 5:56
Operator :
Misc :
ALS Vial : 81 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 06:32:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.572	115578875	38.600	PPM
Spiked Amount		50.000		Recovery =	77.20%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4529600	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	8999822	2.492	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	10003972	4.363	PPM
6)	H	Oil	22.000	40242168	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	44791509	4.214	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	8779449	3.963	PPM
9)	H	Oil Combo	22.000	38828106	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	43448761	4.085	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	10575407	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	18225301	5.558	PPM
13)	H	Mineral Oil (03-14-12)	16.000	10417837	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	51541129	11.887	PPM
15)	H	ALKANE C9-C40	12.666	51594725	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	7133556	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	42304580	4.131	PPM

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

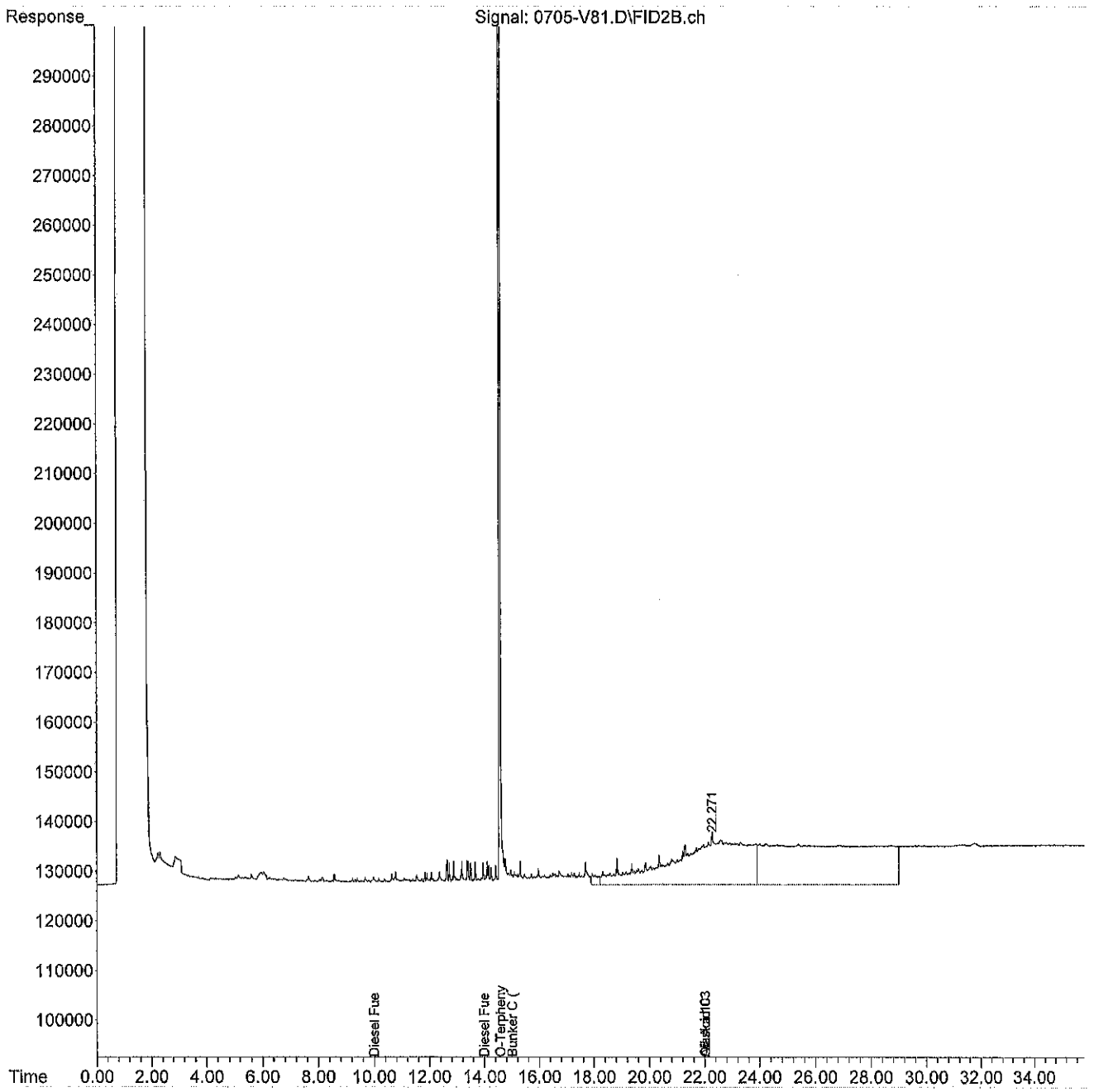
Quantitation Report (Not Reviewed)

Data File : 0705-V81.D
Sample : 06-226-22

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 5:56
Operator :
Misc :
ALS Vial : 81 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 06:32:48 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V56.D
Sample : MB0705S1 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 15:02
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 15:38:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.576	146516059	48.877	PPM
Spiked Amount		50.000		Recovery =	97.75%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2414241	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	11758663	3.673	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	14710143	6.201	PPM
6)	H	Oil	22.000	48449245	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	54092049	8.864	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	13072663	5.702	PPM
9)	H	Oil Combo	22.000	46442318	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	52093772	8.488	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	15272887	0.717	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	20867536	7.876	PPM
13)	H	Mineral Oil (03-14-12)	16.000	15061092	0.450	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	64232163	20.675	PPM
15)	H	ALKANE C9-C40	12.666	63021042	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	11007655	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	50563545	8.475	PPM

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

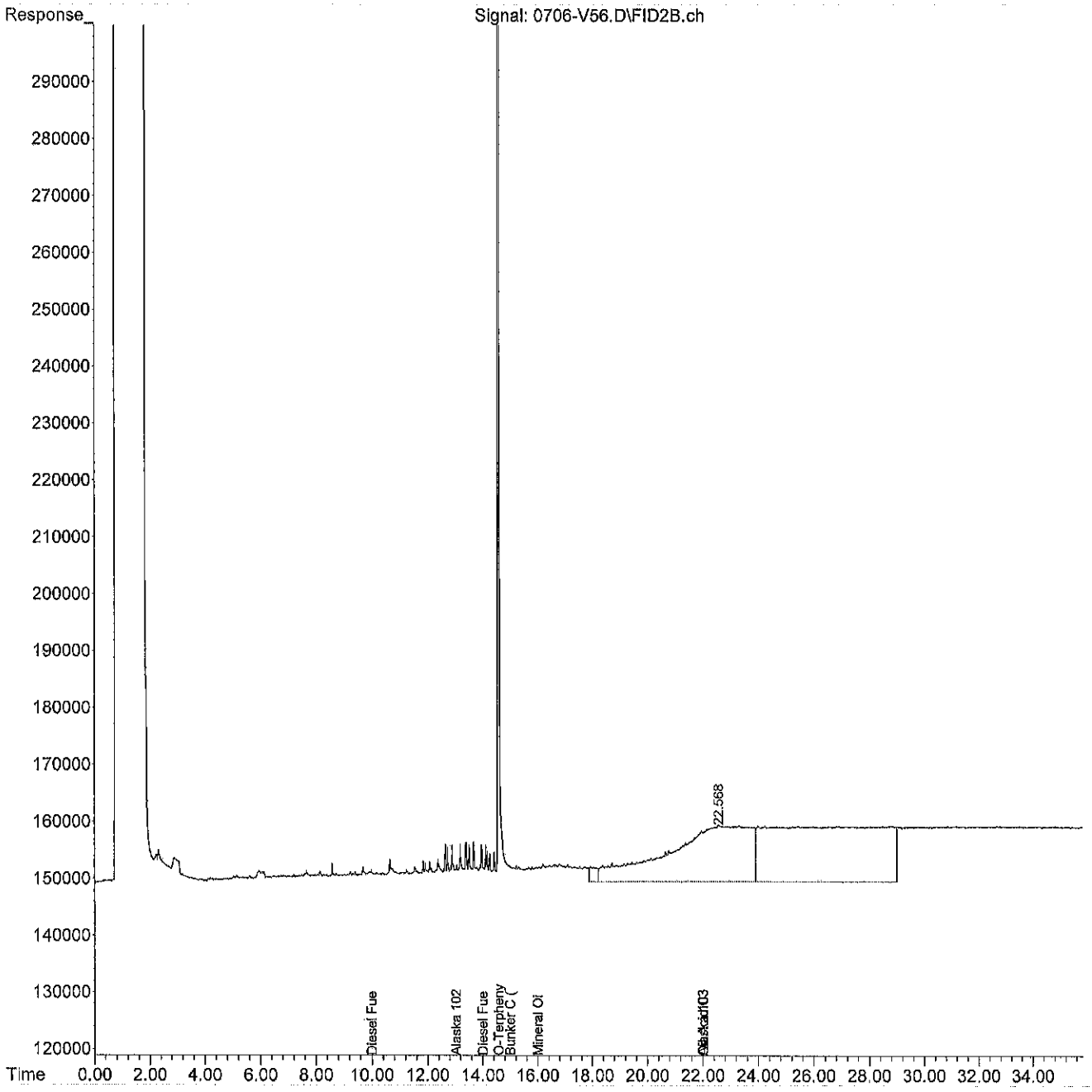
Quantitation Report (Not Reviewed)

Data File : 0706-V56.D
Sample : MB0705S1 RR

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 15:02
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 15:38:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V84.D
Sample : MB0705S2

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 7:56
Operator :
Misc :
ALS Vial : 84 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 08:32:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.576	153124147	51.072	PPM
Spiked Amount		50.000		Recovery =	102.14%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4993206	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	10517709	3.142	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	11699318	5.025	PPM
6)	H	Oil	22.000	52617182	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	58869482	11.253	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	10262747	4.564	PPM
9)	H	Oil Combo	22.000	51018266	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	57317681	11.149	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	12385637	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	23949449	10.579	PPM
13)	H	Mineral Oil (03-14-12)	16.000	12073565	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	66612856	22.323	PPM
15)	H	ALKANE C9-C40	12.666	66407651	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	8182766	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	55975689	11.321	PPM

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

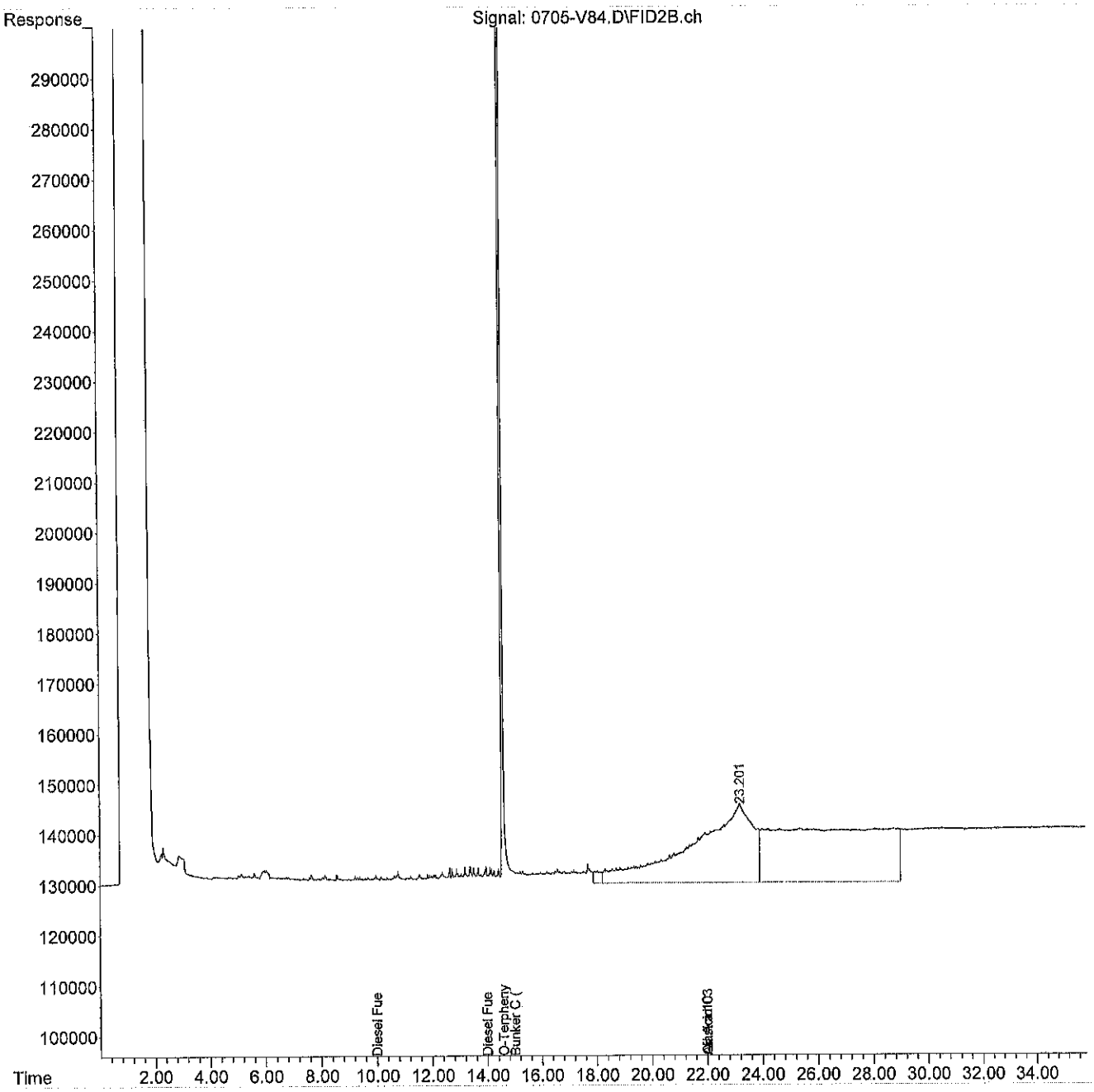
Quantitation Report (Not Reviewed)

Data File : 0705-V84.D
Sample : MB0705S2

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 7:56
Operator :
Misc :
ALS Vial : 84 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 08:32:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V58.D
Sample : 06-226-01 RR DUP

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 16:22
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 16:58:55 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.572	118165929	39.460	PPM
Spiked Amount		50.000		Recovery =	78.92%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3031816	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	14663374	4.916	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	16293379	6.819	PPM
6)	H	Oil	22.000	40436386	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	45073492	4.355	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	15139598	6.540	PPM
9)	H	Oil Combo	22.000	38945196	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	43646277	4.186	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	16732829	1.279	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	18542667	5.836	PPM
13)	H	Mineral Oil (03-14-12)	16.000	16761347	1.071	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	58021678	16.374	PPM
15)	H	ALKANE C9-C40	12.666	57457588	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	13484587	0.905	PPM
17)	H	Oil Acid Clean MO Com...	22.000	42568154	4.270	PPM

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

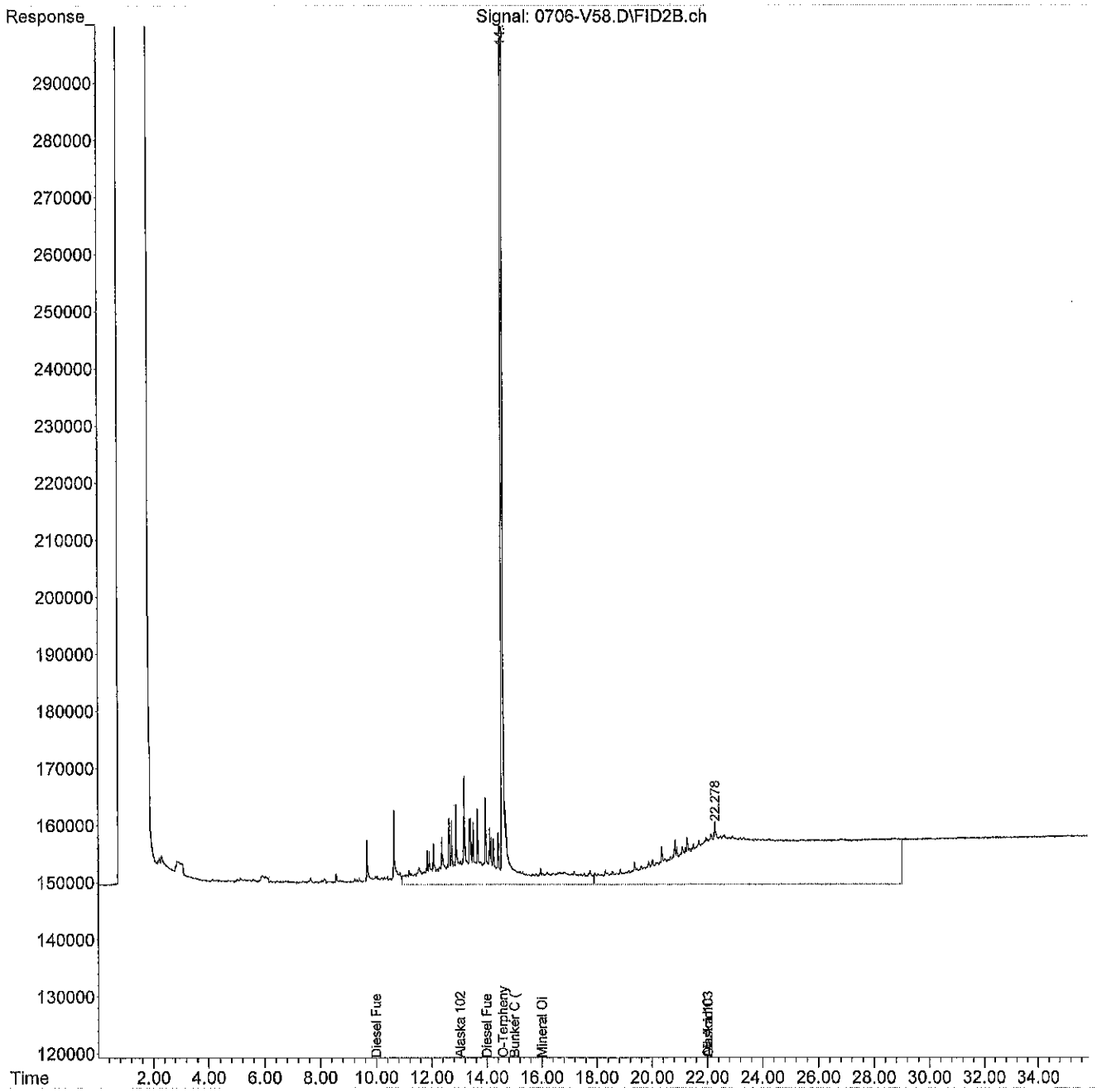
Quantitation Report (Not Reviewed)

Data File : 0706-V58.D
Sample : 06-226-01 RR DUP

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 16:22
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 16:58:55 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V67.D
Sample : 06-226-02 RR DUP

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 22:26
Operator :
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 23:02:18 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.570	98418363	32.900	PPM
Spiked Amount	50.000		Recovery =	65.80%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2873445	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	2920573	N.D.	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	2479378	1.423	PPM
6) H	Oil	22.000	29413602	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	33388482	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2277231	1.329	PPM
9) H	Oil Combo	22.000	29280148	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	33205716	N.D.	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	2629882	N.D.	PPM
12) H	Alaska 103 Oil (06-2...	22.000	13635220	1.531	PPM
13) H	Mineral Oil (03-14-12)	16.000	3187535	N.D.	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	34891525	0.358	PPM
15) H	ALKANE C9-C40	12.666	34534889	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	2108200	N.D.	PPM
17) H	Oil Acid Clean MO Com...	22.000	33017969	N.D.	PPM

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

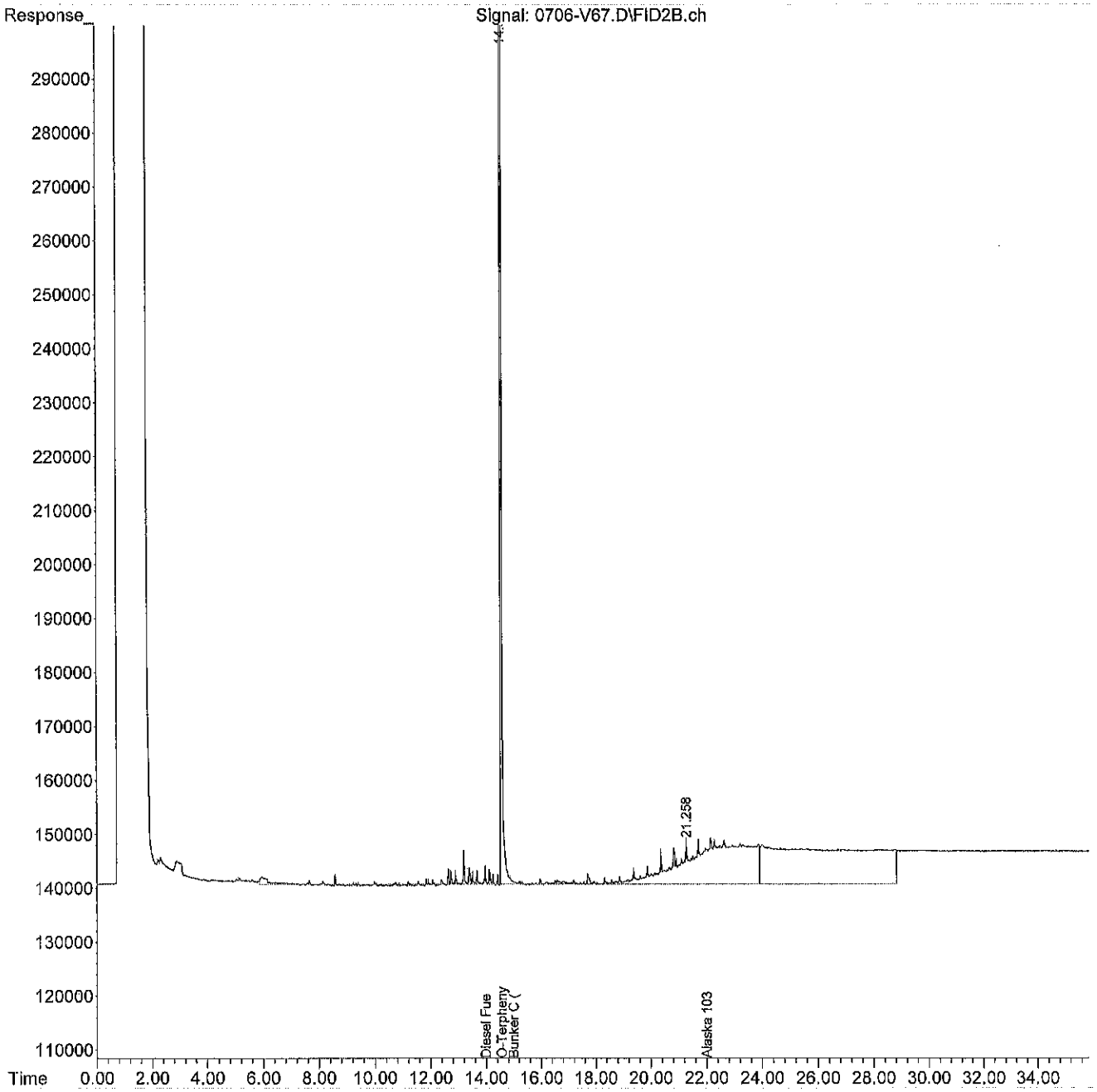
Quantitation Report (Not Reviewed)

Data File : 0706-V67.D
Sample : 06-226-02 RR DUP

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 22:26
Operator :
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 23:02:18 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V79.D
Sample : 06-212-03

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 4:36
Operator :
Misc :
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 05:13:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	14.574	139967285	46.701	PPM
Spiked Amount		50.000		Recovery =	93.40%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4043208	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	7331445	1.777	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	7664441	3.449	PPM
6)	H	Oil	22.000	43477382	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	48559110	6.098	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	6789243	3.157	PPM
9)	H	Oil Combo	22.000	42743927	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	47806590	6.305	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	8151955	N.D.	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	20746124	7.769	PPM
13)	H	Mineral Oil (03-14-12)	16.000	8941732	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	53835000	13.475	PPM
15)	H	ALKANE C9-C40	12.666	53530114	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	5621615	N.D.	PPM
17)	H	Oil Acid Clean MO Com...	22.000	46994394	6.598	PPM

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

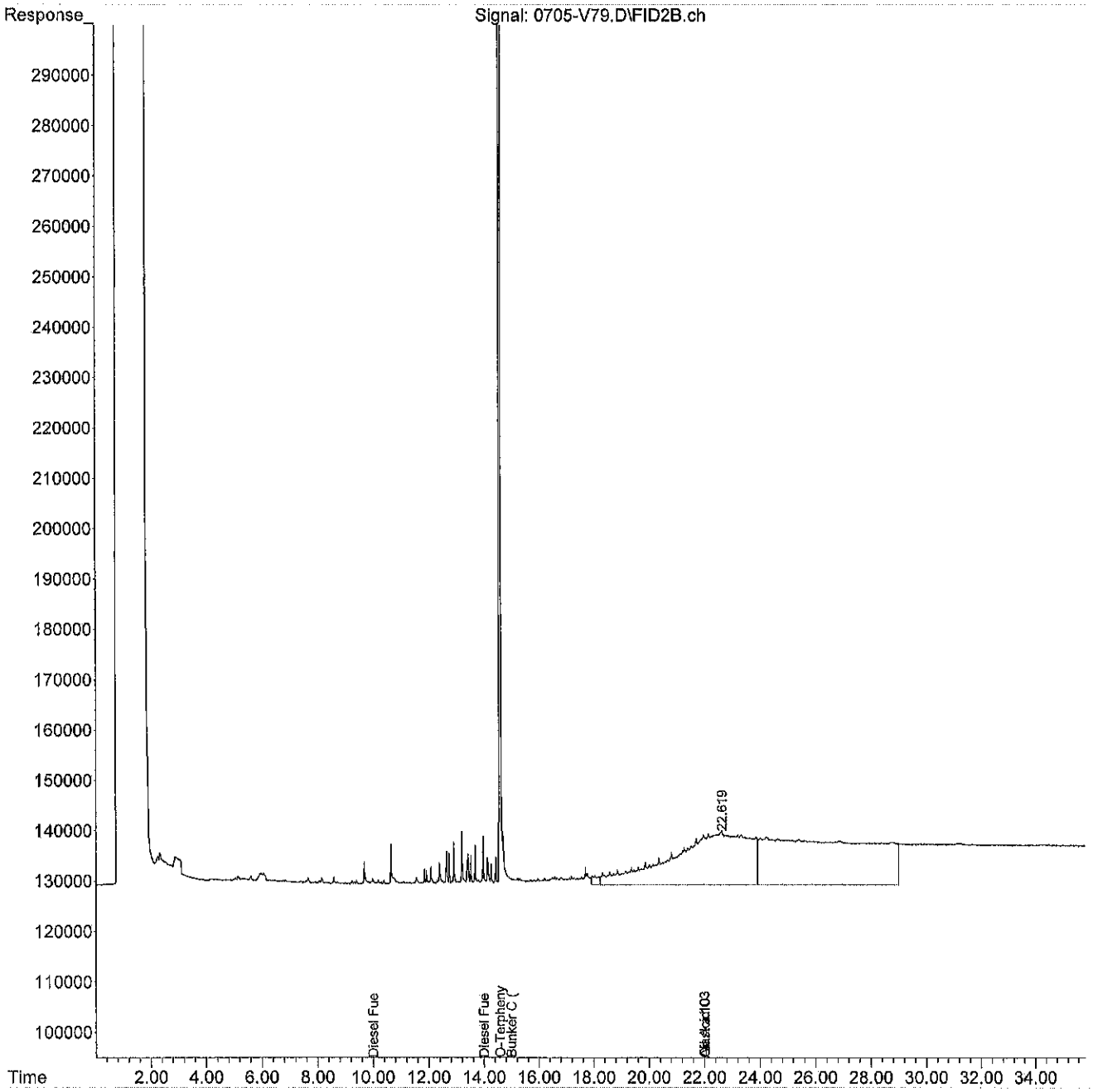
Quantitation Report (Not Reviewed)

Data File : 0705-V79.D
Sample : 06-212-03

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 4:36
Operator :
Misc :
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 05:13:05 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V80.D
Sample : 06-212-03 DUP

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 5:16
Operator :
Misc :
ALS Vial : 80 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 05:52:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-14-12)	14.575	148786609	49.631	PPM
Spiked Amount	50.000		Recovery =	99.26%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4598931	NoCal	PPM
4) H	Diesel Fuel #1 (06-0...	10.000	8007896	2.067	PPM
5) H	Diesel Fuel #2 (06-0...	14.000	8062052	3.604	PPM
6) H	Oil	22.000	39452281	NoCal	PPM
7) H	Oil Acid Clean (03-1...	22.000	44122528	3.880	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7239041	3.339	PPM
9) H	Oil Combo	22.000	38681324	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	43353186	4.037	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	8568206	N.D.	PPM
12) H	Alaska 103 Oil (06-2...	22.000	18535700	5.830	PPM
13) H	Mineral Oil (03-14-12)	16.000	8603044	N.D.	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	49917611	10.763	PPM
15) H	ALKANE C9-C40	12.666	49979119	NoCal	PPM
16) H	Mineral Oil Combo (03...	16.000	5643649	N.D.	PPM
17) H	Oil Acid Clean MO Com...	22.000	42588381	4.280	PPM

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

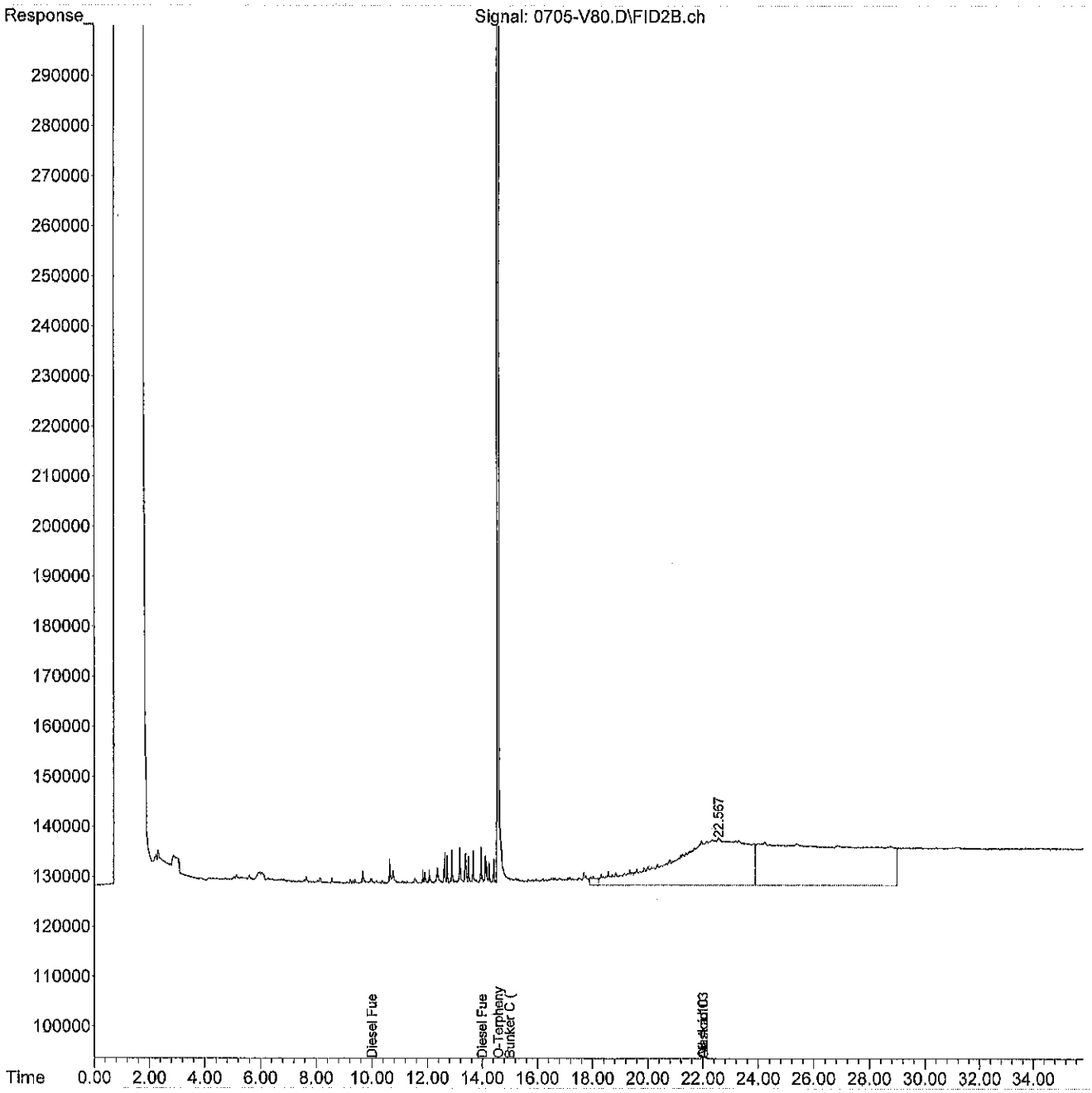
Quantitation Report (Not Reviewed)

Data File : 0705-V80.D
Sample : 06-212-03 DUP

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 5:16
Operator :
Misc :
ALS Vial : 80 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 05:52:58 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V78.D
Sample : BC-CCV0705R-V3

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 3:57
Operator :
Misc : SV2-100-22
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 04:33:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5767474	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	63084653	25.647	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	84562347	33.488	PPM
6)	H	Oil	22.000	124951392	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	127307794	45.474	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	73146780	30.040	PPM
9)	H	Oil Combo	22.000	111346131	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	115033876	40.543	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	87635192	28.602	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	66086896	47.544	PPM
13)	H	Mineral Oil (03-14-12)	16.000	90425434	27.974	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	187354579	105.929	PPM
15)	H	ALKANE C9-C40	12.666	187602082	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	63840530	20.006	PPM
17)	H	Oil Acid Clean MO Com...	22.000	104316717	36.745	PPM

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

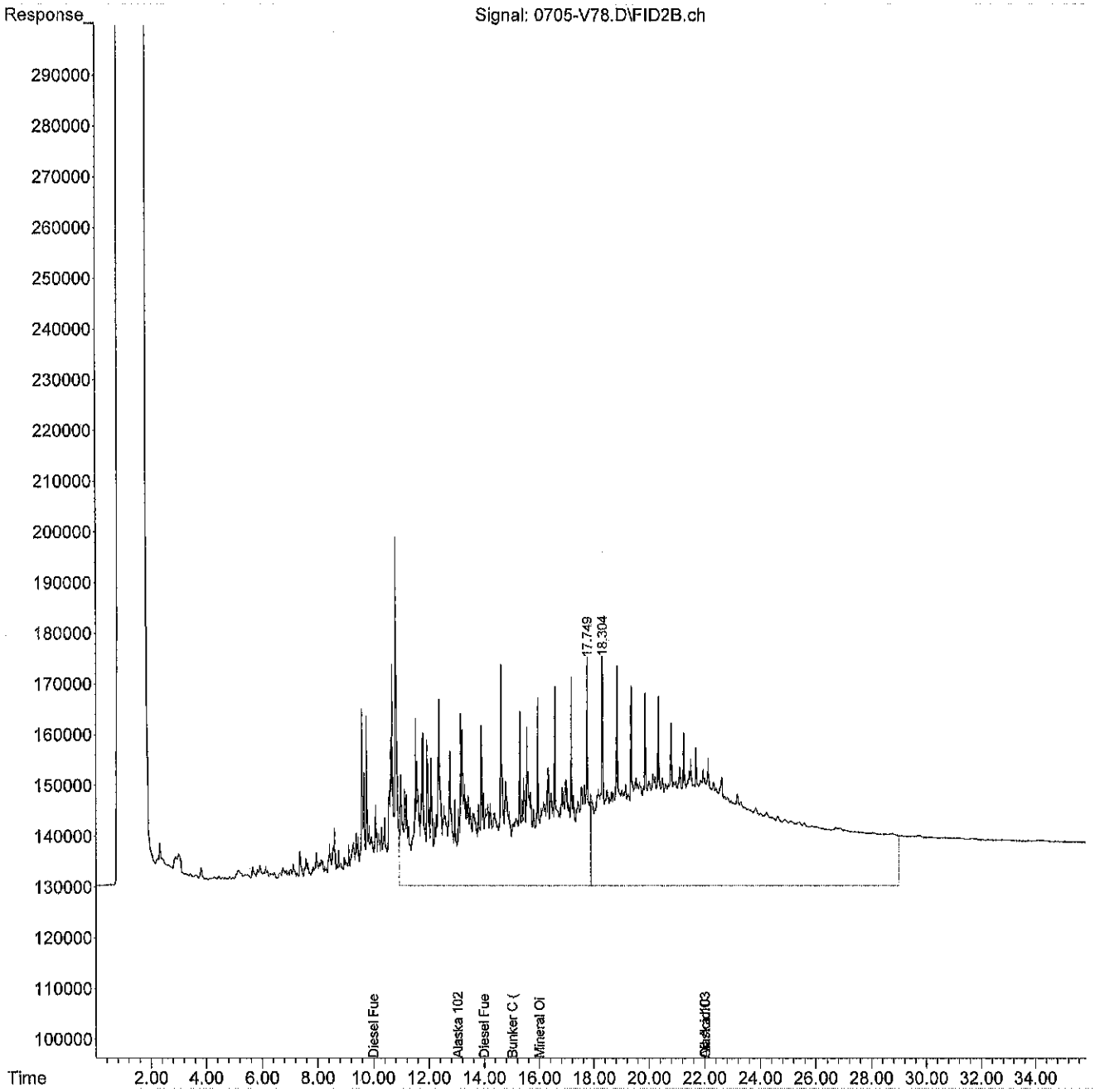
Quantitation Report (Not Reviewed)

Data File : 0705-V78.D
Sample : BC-CCV0705R-V3

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 3:57
Operator :
Misc : SV2-100-22
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 04:33:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0705-V88.D
Sample : BC-CCV0705R-V4

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 10:36
Operator :
Misc : SV2-100-22
ALS Vial : 88 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 11:12:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5656738	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	62323919	25.321	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	83911047	33.234	PPM
6)	H	Oil	22.000	130086270	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	133739127	48.689	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	72431860	29.750	PPM
9)	H	Oil Combo	22.000	116490267	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	121391519	43.781	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	87005980	28.360	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	67310212	48.617	PPM
13)	H	Mineral Oil (03-14-12)	16.000	90095329	27.853	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	192786493	109.690	PPM
15)	H	ALKANE C9-C40	12.666	192693150	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	63489883	19.873	PPM
17)	H	Oil Acid Clean MO Com...	22.000	110618438	40.059	PPM

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

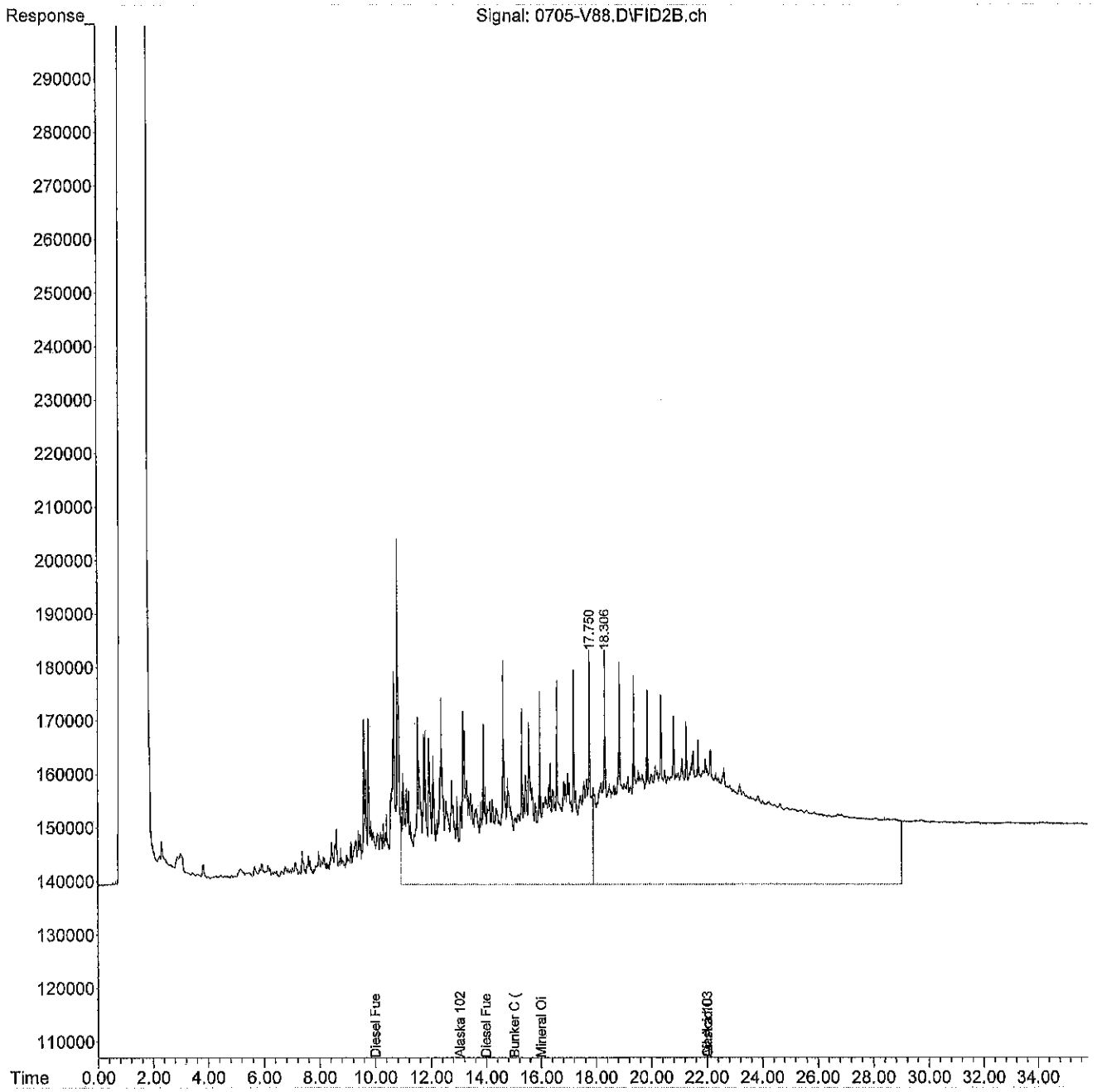
Quantitation Report (Not Reviewed)

Data File : 0705-V88.D
Sample : BC-CCV0705R-V4

Data Path : C:\msdchem\2\DATA\V120705.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 10:36
Operator :
Misc : SV2-100-22
ALS Vial : 88 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 11:12:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V54.D
Sample : BC-CCV0706R-V1 200PPM

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 13:28
Operator :
Misc : SV2-100-15
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 14:04:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6418089	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	113539467	47.248	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	155097319	61.043	PPM
6)	H	Oil	22.000	208943481	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	209787641	86.715	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	133747069	54.590	PPM
9)	H	Oil Combo	22.000	183515687	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	186879958	77.134	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	160562719	56.706	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	112772735	88.498	PPM
13)	H	Mineral Oil (03-14-12)	16.000	167621022	56.166	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	319510280	197.438	PPM
15)	H	ALKANE C9-C40	12.666	319641702	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	118412097	40.707	PPM
17)	H	Oil Acid Clean MO Com...	22.000	166803634	69.608	PPM

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

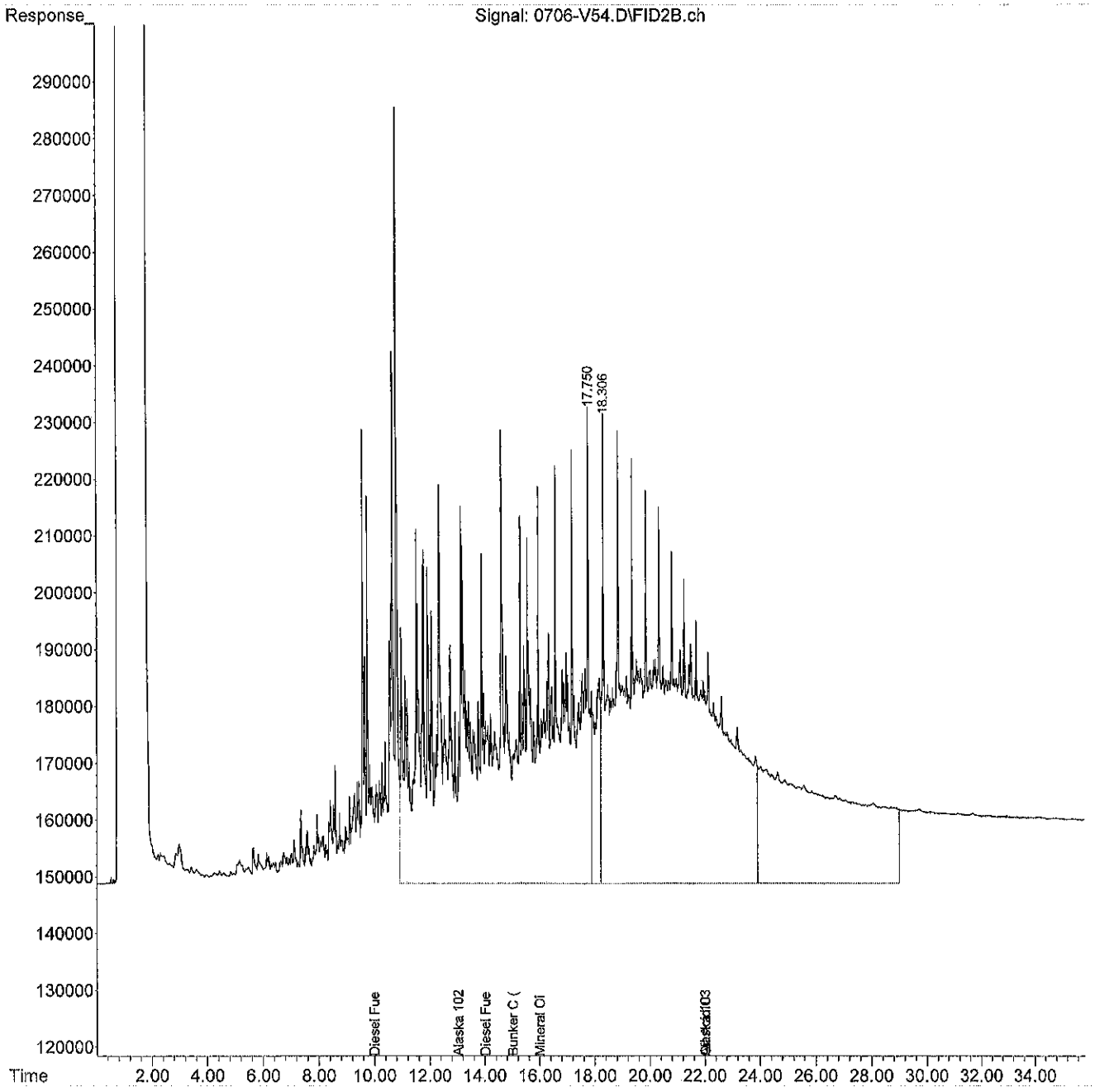
Quantitation Report (Not Reviewed)

Data File : 0706-V54.D
Sample : BC-CCV0706R-V1 200PPM

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 13:28
Operator :
Misc : SV2-100-15
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 14:04:10 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V62.D
Sample : BC-CCV0706R-V2

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 19:04
Operator :
Misc : SV2-100-15
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 19:40:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4961538	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	98679081	40.886	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	135819689	53.512	PPM
6)	H	Oil	22.000	196223733	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	197887084	80.764	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	116874024	47.754	PPM
9)	H	Oil Combo	22.000	173850512	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	177702656	72.460	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	140576796	49.004	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	106549581	83.039	PPM
13)	H	Mineral Oil (03-14-12)	16.000	148435930	49.160	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	293420846	179.373	PPM
15)	H	ALKANE C9-C40	12.666	292893423	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	104192303	35.313	PPM
17)	H	Oil Acid Clean MO Com...	22.000	159884902	65.970	PPM

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

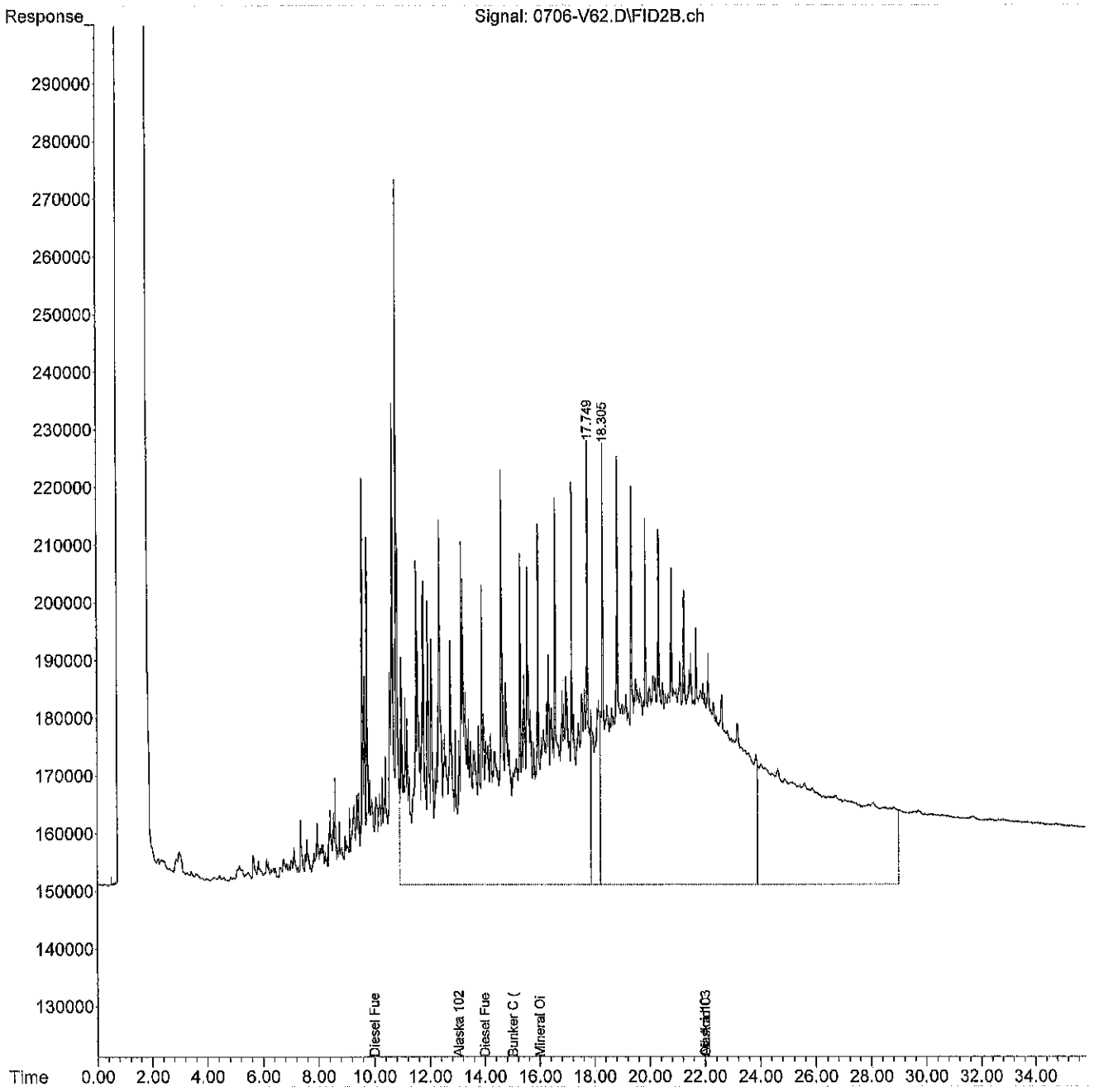
Quantitation Report (Not Reviewed)

Data File : 0706-V62.D
Sample : BC-CCV0706R-V2

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 6 Jul 2012 19:04
Operator :
Misc : SV2-100-15
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 06 19:40:42 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V70.D
Sample : BC-CCV0706R-V3

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 00:26
Operator :
Misc : SV2-100-15
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 01:02:29 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6044781	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	110640856	46.007	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	151485304	59.632	PPM
6)	H	Oil	22.000	201461109	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	201155304	82.399	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	130531667	53.287	PPM
9)	H	Oil Combo	22.000	176565887	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	178785160	73.012	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	156790783	55.252	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	110401530	86.418	PPM
13)	H	Mineral Oil (03-14-12)	16.000	164451366	55.009	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	308399460	189.744	PPM
15)	H	ALKANE C9-C40	12.666	308706436	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	115990008	39.789	PPM
17)	H	Oil Acid Clean MO Com...	22.000	159085697	65.549	PPM

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

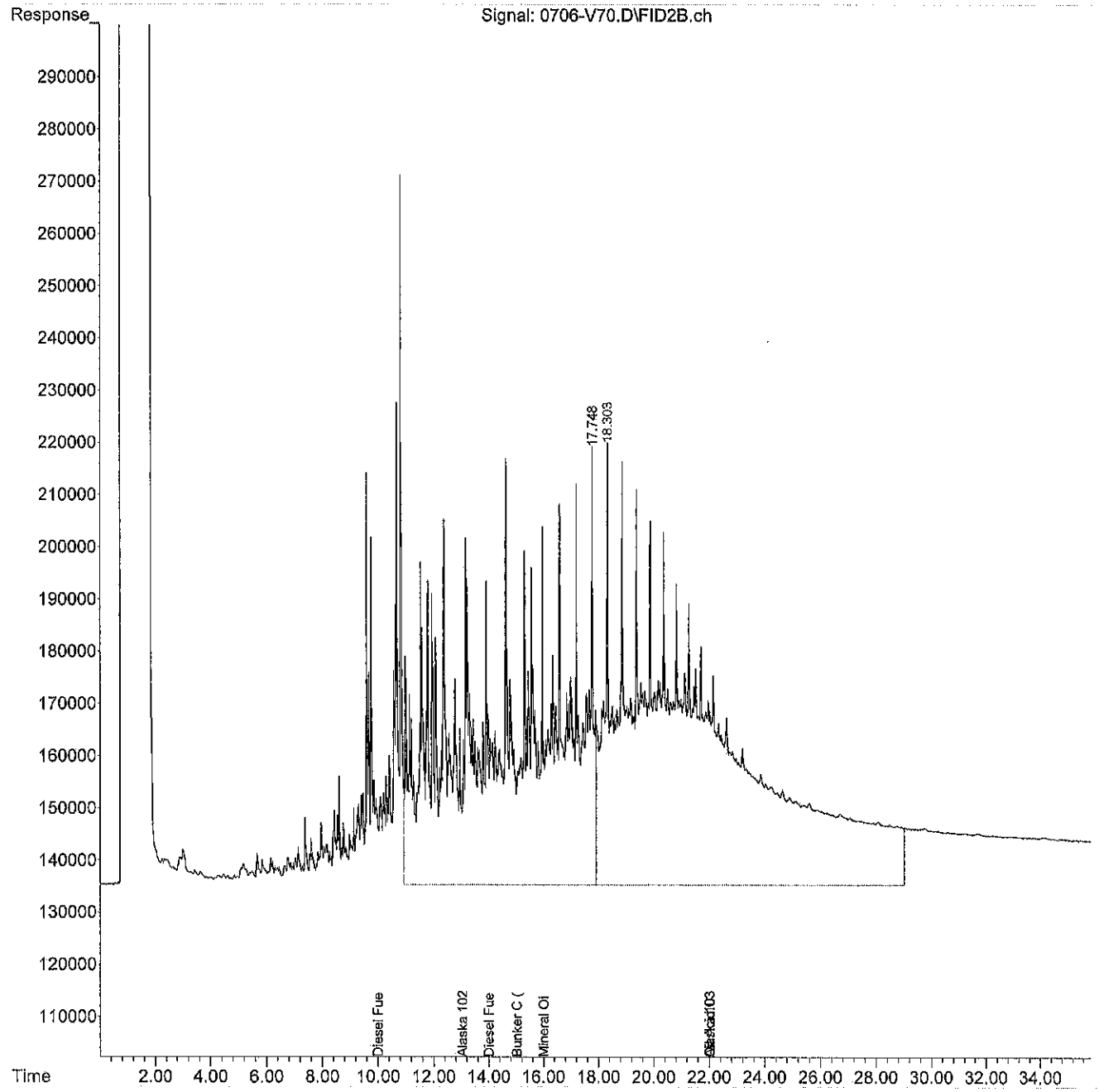
Quantitation Report (Not Reviewed)

Data File : 0706-V70.D
Sample : BC-CCV0706R-V3

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 00:26
Operator :
Misc : SV2-100-15
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 01:02:29 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0706-V79.D
Sample : BC-CCV0706R-V4

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 6:25
Operator :
Misc : SV2-100-15
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 07:01:55 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6995320	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	118131922	49.214	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	161415618	63.511	PPM
6)	H	Oil	22.000	243468387	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	246761504	105.202	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	138994099	56.716	PPM
9)	H	Oil Combo	22.000	217047413	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	222994647	95.527	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	167210348	59.268	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	132193726	105.535	PPM
13)	H	Mineral Oil (03-14-12)	16.000	176536442	59.422	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	360419432	225.765	PPM
15)	H	ALKANE C9-C40	12.666	359947722	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	123207161	42.526	PPM
17)	H	Oil Acid Clean MO Com...	22.000	201936975	88.086	PPM

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

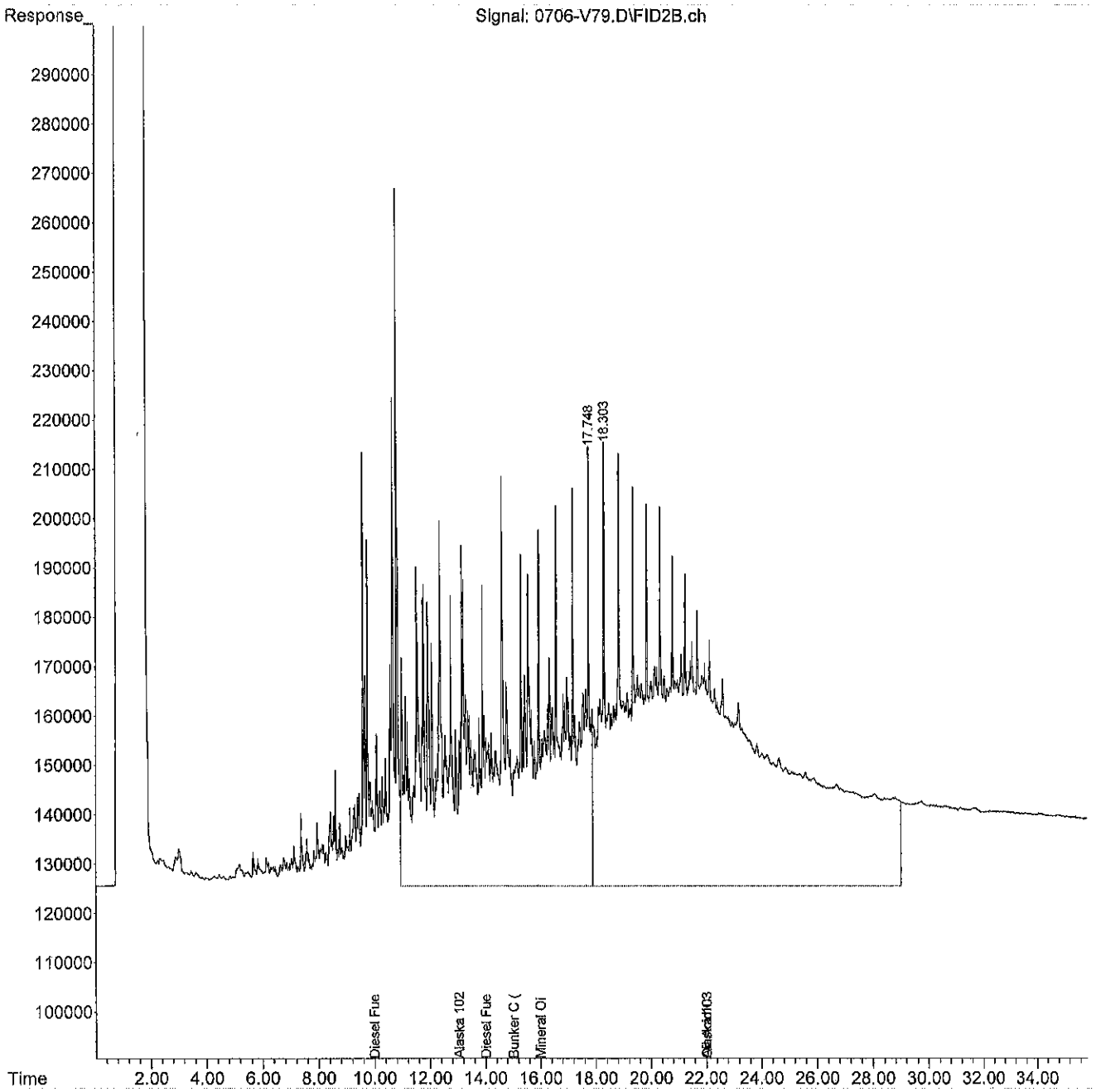
Quantitation Report (Not Reviewed)

Data File : 0706-V79.D
Sample : BC-CCV0706R-V4

Data Path : C:\msdchem\2\DATA\V120706.SEC\
Signal(s) : FID2B.ch
Acq On : 7 Jul 2012 6:25
Operator :
Misc : SV2-100-15
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 07 07:01:55 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V51.D
Sample : BC-CCV0709R-V1

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 9:26
Operator :
Misc : SV2-100-15
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 10:03:04 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3749084	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	105179441	43.669	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	145050666	57.118	PPM
6)	H	Oil	22.000	211499164	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	214579411	89.111	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	125159651	51.111	PPM
9)	H	Oil Combo	22.000	187723204	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	193171473	80.338	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	149956215	52.619	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	112455715	88.220	PPM
13)	H	Mineral Oil (03-14-12)	16.000	157502886	52.471	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	316808826	195.567	PPM
15)	H	ALKANE C9-C40	12.666	315121150	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	111715329	38.167	PPM
17)	H	Oil Acid Clean MO Com...	22.000	174489650	73.650	PPM

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

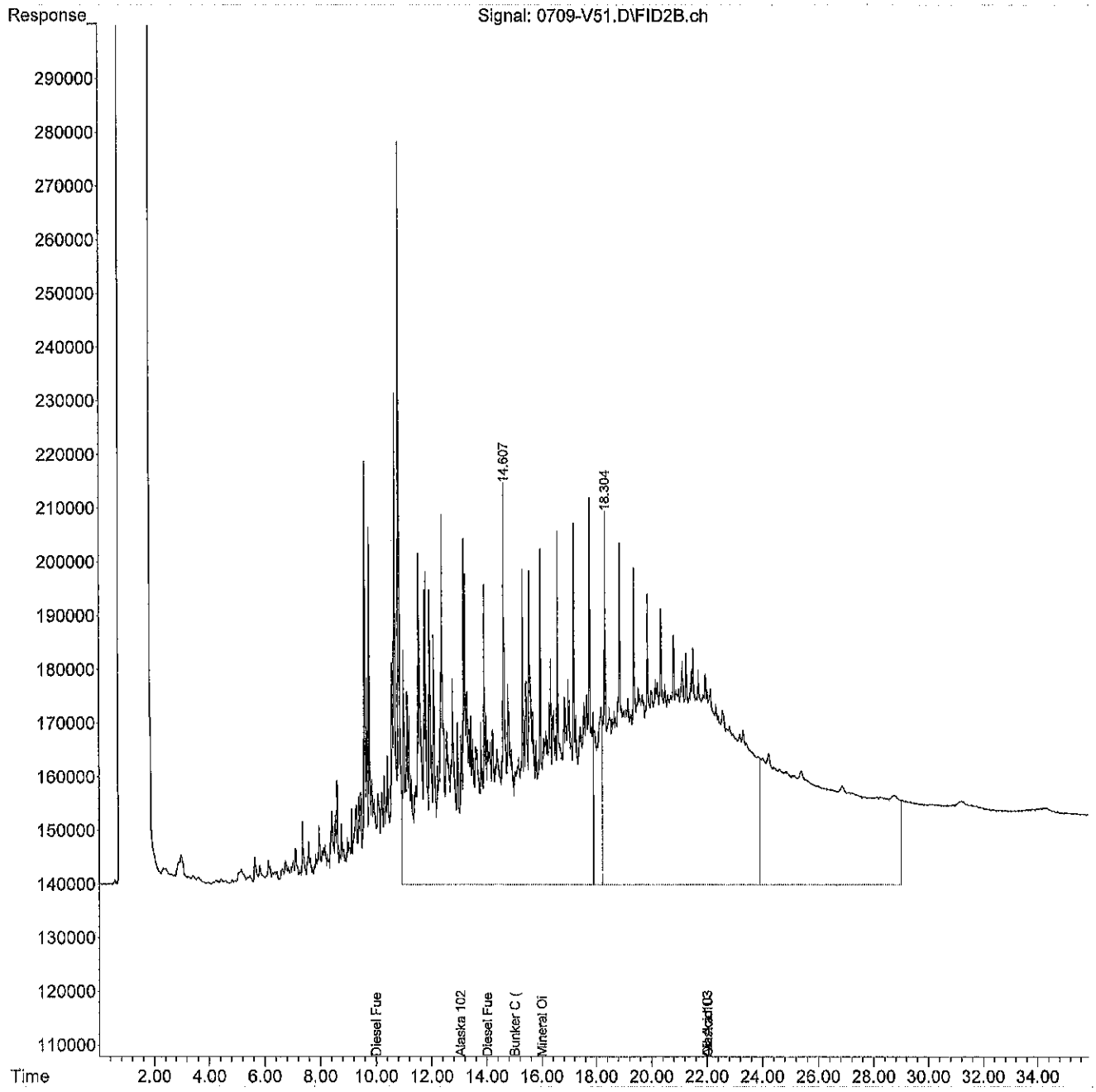
Quantitation Report (Not Reviewed)

Data File : 0709-V51.D
Sample : BC-CCV0709R-V1

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 9:26
Operator :
Misc : SV2-100-15
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 10:03:04 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V66.D
Sample : BC-CCV0709R-V2

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 19:53
Operator :
Misc : SV2-100-15
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 20:29:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3941461	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	90474059	37.373	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	125197108	49.362	PPM
6)	H	Oil	22.000	190485039	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	193470025	78.556	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	107654598	44.019	PPM
9)	H	Oil Combo	22.000	169751066	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	174717157	70.940	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	129556567	44.757	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	102255778	79.272	PPM
13)	H	Mineral Oil (03-14-12)	16.000	137477008	45.158	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	281061058	170.814	PPM
15)	H	ALKANE C9-C40	12.666	279920517	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	96321721	32.328	PPM
17)	H	Oil Acid Clean MO Com...	22.000	158220658	65.094	PPM

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

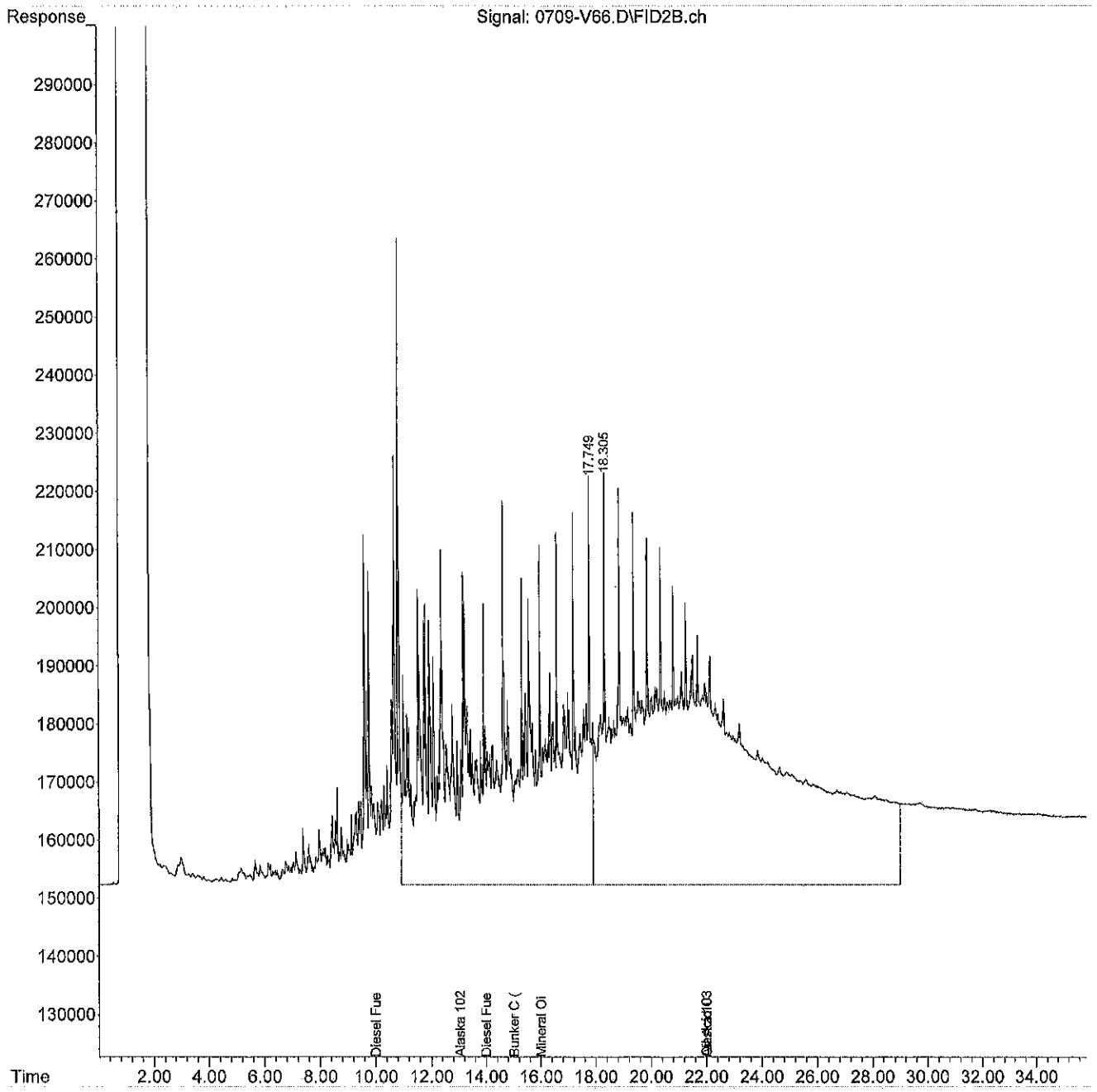
Quantitation Report (Not Reviewed)

Data File : 0709-V66.D
Sample : BC-CCV0709R-V2

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 9 Jul 2012 19:53
Operator :
Misc : SV2-100-15
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 09 20:29:30 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0709-V77.D
Sample : BC-CCV0709R-V3

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 10 Jul 2012 3:16
Operator :
Misc : SV2-100-15
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 10 03:52:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5521121	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	107412767	44.625	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	147524650	58.084	PPM
6)	H	Oil	22.000	208626694	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	209935583	86.789	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	126974012	51.846	PPM
9)	H	Oil Combo	22.000	184334223	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	188088797	77.750	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	152692883	53.673	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	113538764	89.170	PPM
13)	H	Mineral Oil (03-14-12)	16.000	161210776	53.825	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	313883778	193.542	PPM
15)	H	ALKANE C9-C40	12.666	313612614	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	113238756	38.745	PPM
17)	H	Oil Acid Clean MO Com...	22.000	168769227	70.642	PPM

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

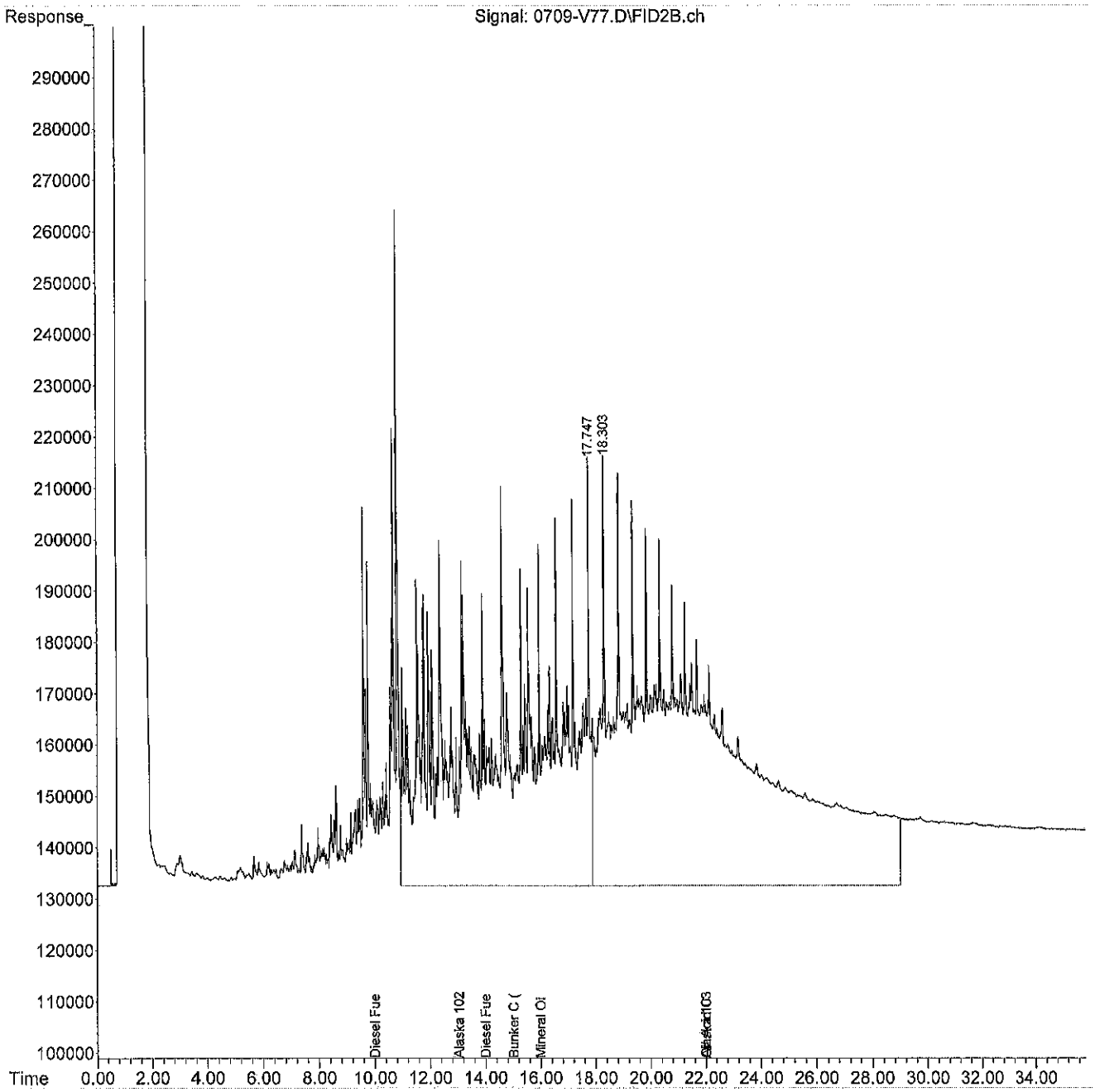
Quantitation Report (Not Reviewed)

Data File : 0709-V77.D
Sample : BC-CCV0709R-V3

Data Path : C:\msdchem\2\DATA\V120709.SEC\
Signal(s) : FID2B.ch
Acq On : 10 Jul 2012 3:16
Operator :
Misc : SV2-100-15
ALS Vial : 77 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 10 03:52:12 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120607R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 30, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1206-226B

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 29, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

Case Narrative

Samples were collected on June 28, 2012 and received by the laboratory on June 29, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Dx (as Bunker C) Analysis

For sample TP1 B6-062812-3.5, the PQL for bunker C was raised due to the presence of lube oil.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP11 B2-062812-3	06-226-31	Soil	6-28-12	6-29-12	
TP11 B2-062812-5.5-6	06-226-32	Soil	6-28-12	6-29-12	
TP1 B6-062812-3.5	06-226-37	Soil	6-28-12	6-29-12	
TP1 B6-062812-5.5-6	06-226-38	Soil	6-28-12	6-29-12	
TP3 B5-062812-2	06-226-39	Soil	6-28-12	6-29-12	
TP3 B5-062812-5.5-6	06-226-40	Soil	6-28-12	6-29-12	
TP3 B7-062812-2.5	06-226-43	Soil	6-28-12	6-29-12	
TP3 B7-062812-5.5-6	06-226-44	Soil	6-28-12	6-29-12	
TP3 B8-062812-3	06-226-45	Soil	6-28-12	6-29-12	
TP3 B8-062812-5.5-6	06-226-46	Soil	6-28-12	6-29-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP11 B2-062812-3**					
Laboratory ID:	06-226-31					
Bunker C	**3100**	270	NWTPH-Dx	7-10-12	7-27-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***80***	***50-150***				
Client ID:	**TP11 B2-062812-5.5-6**					
Laboratory ID:	06-226-32					
Bunker C	**21000**	5500	NWTPH-Dx	7-10-12	7-26-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP1 B6-062812-3.5**					
Laboratory ID:	06-226-37					
Lube Oil	**2000**	580	NWTPH-Dx	7-10-12	7-26-12	
Bunker C	**ND**	2700	NWTPH-Dx	7-10-12	7-26-12	U1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP1 B6-062812-5.5-6**					
Laboratory ID:	06-226-38					
Bunker C	**11000**	620	NWTPH-Dx	7-10-12	7-26-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3 B5-062812-2**					
Laboratory ID:	06-226-39					
Bunker C	**25000**	3100	NWTPH-Dx	7-10-12	7-27-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3 B5-062812-5.5-6**					
Laboratory ID:	06-226-40					
Bunker C	**20000**	3300	NWTPH-Dx	7-10-12	7-27-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3 B7-062812-2.5**					
Laboratory ID:	06-226-43					
Bunker C	**8900**	630	NWTPH-Dx	7-11-12	7-27-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3 B7-062812-5.5-6**					
Laboratory ID:	06-226-44					
Bunker C	**300**	67	NWTPH-Dx	7-11-12	7-25-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***71***	***50-150***				
Client ID:	**TP3 B8-062812-3**					
Laboratory ID:	06-226-45					
Bunker C	**2000**	84	NWTPH-Dx	7-11-12	7-25-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				
Client ID:	**TP3 B8-062812-5.5-6**					
Laboratory ID:	06-226-46					
Bunker C	**1300**	71	NWTPH-Dx	7-11-12	7-25-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***54***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0710S3					
Bunker C	**ND**	50	NWTPH-Dx	7-10-12	7-25-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Laboratory ID:	MB0711S1					
Bunker C	**ND**	50	NWTPH-Dx	7-11-12	7-25-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***89***	***50-150***				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-226-37							
	ORIG	DUP						
Lube Oil	**1700**	**1160**				38	NA	
Bunker C	**ND**	**ND**				NA	NA	U1
Surrogate:								
o-Terphenyl			***---***	***---***	***50-150***			S,S
Laboratory ID:	07-027-03							
	ORIG	DUP						
Bunker C	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			***89***	***81***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0725F-V1	200	228	-14.0	+/-15%
BC-CCV0725F-V2	200	193	3.5	+/-15%
BC-CCV0725F-V3	200	223	-11.5	+/-15%
BC-CCV0726R-V1	200	189	5.5	+/-15%
BC-CCV0726R-V2	200	215	-7.5	+/-15%
BC-CCV0726R-V3	200	206	-3.0	+/-15%
BC-CCV0727R-V1	200	218	-9.0	+/-15%
BC-CCV0727R-V2	200	208	-4.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 30, 2012
Samples Submitted: June 29, 2012
Laboratory Reference: 1206-226B
Project: 0137-018-03

% MOISTURE

Date Analyzed: 7-25-12

Client ID	Lab ID	% Moisture
TP11 B2-062812-3	06-226-31	7
TP11 B2-062812-5.5-6	06-226-32	9
TP1 B6-062812-3.5	06-226-37	13
TP1 B6-062812-5.5-6	06-226-38	19
TP3 B5-062812-2	06-226-39	20
TP3 B5-062812-5.5-6	06-226-40	24
TP3 B7-062812-2.5	06-226-43	21
TP3 B7-062812-5.5-6	06-226-44	26
TP3 B8-062812-3	06-226-45	40
TP3 B8-062812-5.5-6	06-226-46	29

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 5

Laboratory Number: 06-226

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ruggonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C			% Moisture
1	GEI32B1-062812-3	6/28/12	0840	Soil	1								H									X			X
2	GEI32B1-062812-5.5-6		0845										H									X			X
3	GEI32B2-062812-3		0855										H									X			X
4	GEI32B2-062812-5.5-6		0900										H									X			X
5	GEI32B3-062812-2		0940										H									X			X
6	GEI32B3-062812-5.5-6		0945										H									X			X
7	TP11B1-062812-3		1100										H									X			X
8	TP11B1-062812-5.5-6		1105										H									X			X
9	TP1B1-062812-4.5		1210										H									X			X
10	TP1B1-062812-5.5-6		1215										H									X			X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		GSC	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold
⊗ Reavested 7/19/12 - DB (STA)
H - Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ruggonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C				% Moisture
11	TP1 B2-062812-3	6/28/12	1125	Soil	1								H									X				X
12	TP1 B2-062812-5.5-6		1130										H									X				X
13	TP1 B3-062812-3		1230										H									X				X
14	TP1 B3-062812-5.5-6		1235										H									X				X
15	TP3 B1-062812-3		1435										H									X				X
16	TP3 B1-062812-5.5-6		1440										H									X				X
17	TP3 B2-062812-4		1505										H									X				X
18	TP3B2-062812-5.5-6		1510										H									X				X
19	TP3 B3-062812-3		1535										H									X				X
20	TP3 B3-062812-5.5-6		1540										H									X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		GE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold

H- Extract then hold

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Ivest
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) ePAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold			% Moisture
21	TP3 B4-062812-3	6/28/12	1605	Soil	1								H									X				X
22	TP3 B4-062812-5.5-6	6/28/12	1610										H									X				X
23	GEI32B4-062812-3		0815										H									H	X OR			X
24	GEI32B4-062812-5.5-6		0820										H									H	X			X
25	GEI32B5-062812-3		0915										H									H	X			X
26	GEI32B5-062812-5.5-6		0920										H									H	X			X
27	GEI32B6-062812-3		0955										H									H	X			X
28	GEI32B6-062812-5.5-6		1000										H									H	X			X
29	GEI32B7-062812-3		1015										H									H	X			X
30	GEI32B7-062812-5.5-6	↓	1020	↓	↓								H									H	X			X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

H= Hold

H- Extract then hold

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ragonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) <PAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold DB			% Moisture
31	TP11B2-062812-3	6/28/12	1125	Soil	1								H									●	X			●
32	TP11B2-062812-5.5-6		1130										H									●	X			●
33	TP1B4-062812-4		1320										H									H	X			X
34	TP1B4-062812-5.5-6		1325										H									H	X			X
35	TP1B5-062812-3		1305										H									H	X			X
36	TP1B5-062812-5.5-6		1310										H									H	X			X
37	TP1B6-062812-3.5		1245										H									●	X			●
38	TP1B6-062812-5.5-6		1250										H									●	X			●
39	TP3B5-062812-2		1450										H									●	X			●
40	TP3B5-062812-5.5-6		1455										H									●	X			●

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H-Extract then hold
● Requested 7/19/12 - DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 5 of 5

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ravenna Select
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 06-226

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) cPAHs only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	TPH Bunker C	Hold DB			% Moisture
41	TP3B6-062812-4	6/28/12	1520	Soil	1								H									H	X			X
42	TP3B6-062812-5.5-6		1525										H									H	X			X
43	TP3B7-062812-2.5		1420										H									●	X			●
44	TP3B7-062812-5.5-6		1425										H									●	X			●
45	TP3B8-062812-3		1545										H									●	X			●
46	TP3B9-062812-5.5-6		1550										H									●	X			●
47	TP3B9-062812-3		1555										H									H	X			X
48	TP3B9-062812-5.5-6		1600										H									H	X			X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/29/12	1240
Received		OSE	6/29/12	1240
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H- Extract then hold

● Requested 7/19/12. DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-226

Initiated by: MV

Date Initiated: 6/29/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup / Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- NWTPH-Dx Data

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0727-V08.D
Sample : 06-226-31 5X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 15:19
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 15:55:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.453	20323634	7.958	PPM
Spiked Amount		50.000		Recovery =	15.92%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7239318	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	113103200	44.814	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	231174587	93.770	PPM
6)	H	Oil	22.000	698844610	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	696623934	320.683	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	168831078	70.553	PPM
9)	H	Oil Combo	22.000	638469736	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	638003753	298.852	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	241682769	93.108	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	430977886	390.326	PPM
13)	H	Mineral Oil (03-13-12)	16.000	373952935	146.565	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	796991991	577.899	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	811353274	10308.651	PPM
16)	H	Mineral Oil Combo (0...	16.000	214731730	86.334	PPM
17)	H	Oil Acid Clean MO Com...	22.000	585358079	282.660	PPM

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

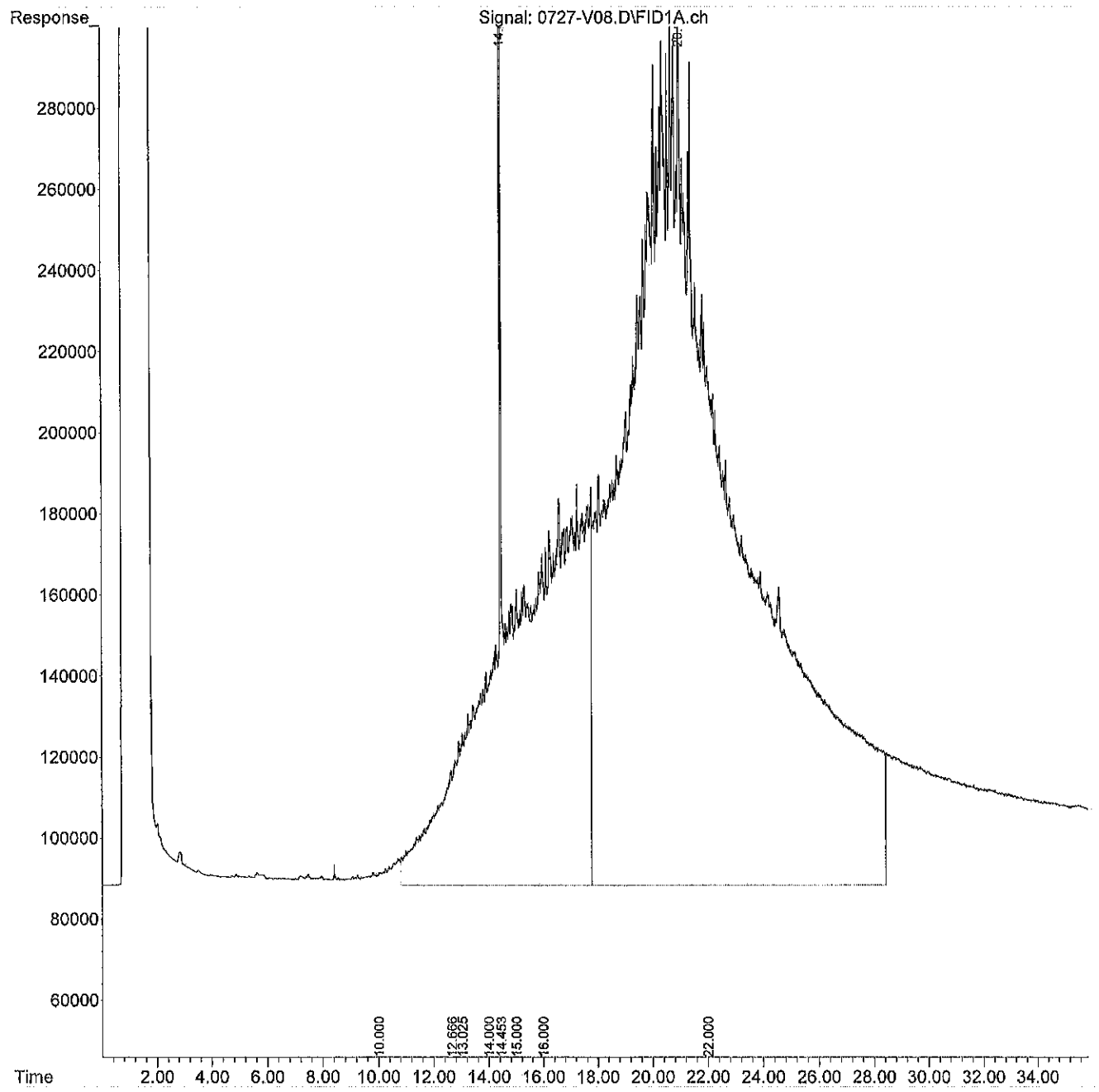
Quantitation Report (Not Reviewed)

Data File : 0727-V08.D
Sample : 06-226-31 5X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 15:19
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 15:55:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V73.D
Sample : 06-226-32 100X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 23:52
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 00:28:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4703226	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	112891920	46.970	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	153946231	60.593	PPM
6)	H	Oil	22.000	227398676	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	231480451	97.562	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	134093100	54.730	PPM
9)	H	Oil Combo	22.000	203190899	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	208459889	88.125	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	159166924	56.168	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	121511359	96.164	PPM
13)	H	Mineral Oil (03-14-12)	16.000	162456990	54.280	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	341018389	192.574	PPM
15)	H	ALKANE C9-C40	12.666	339574745	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	116837261	40.110	PPM
17)	H	Oil Acid Clean MO Com...	22.000	189898307	81.754	PPM

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

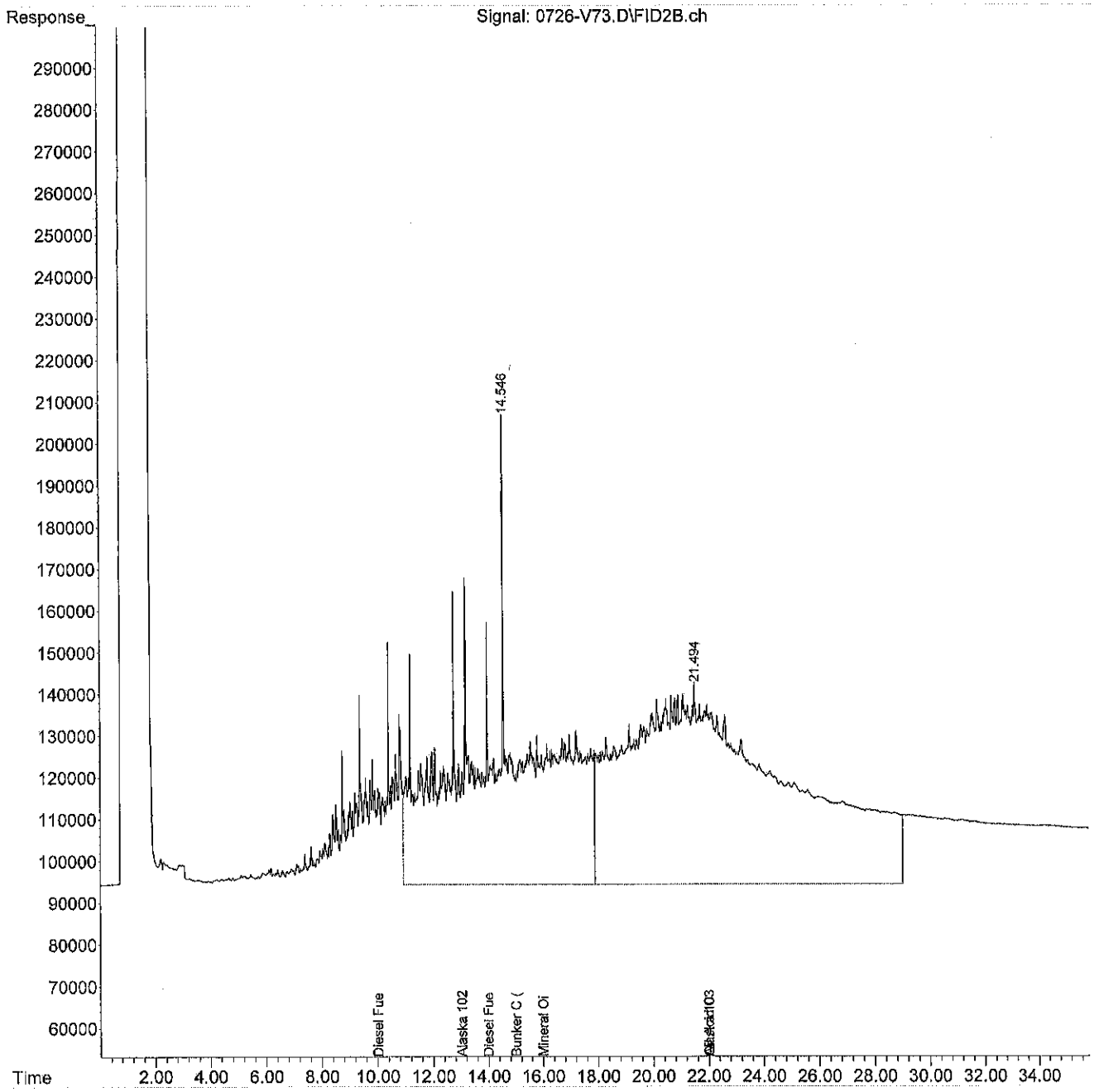
Quantitation Report (Not Reviewed)

Data File : 0726-V73.D
Sample : 06-226-32 100X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 23:52
Operator :
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 00:28:46 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V66.D
Sample : 06-226-37 10X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 19:10
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 19:46:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2798699	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	28458911	10.823	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	57816729	23.040	PPM
6)	H	Oil	22.000	360638834	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	376398135	170.023	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	40343295	16.750	PPM
9)	H	Oil Combo	22.000	349035983	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	363536368	167.104	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	63517311	19.308	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	228783268	190.266	PPM
13)	H	Mineral Oil (03-14-12)	16.000	125231344	40.685	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	401086057	234.887	PPM
15)	H	ALKANE C9-C40	12.666	396702897	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	53500308	16.084	PPM
17)	H	Oil Acid Clean MO Com...	22.000	347373758	164.574	PPM

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

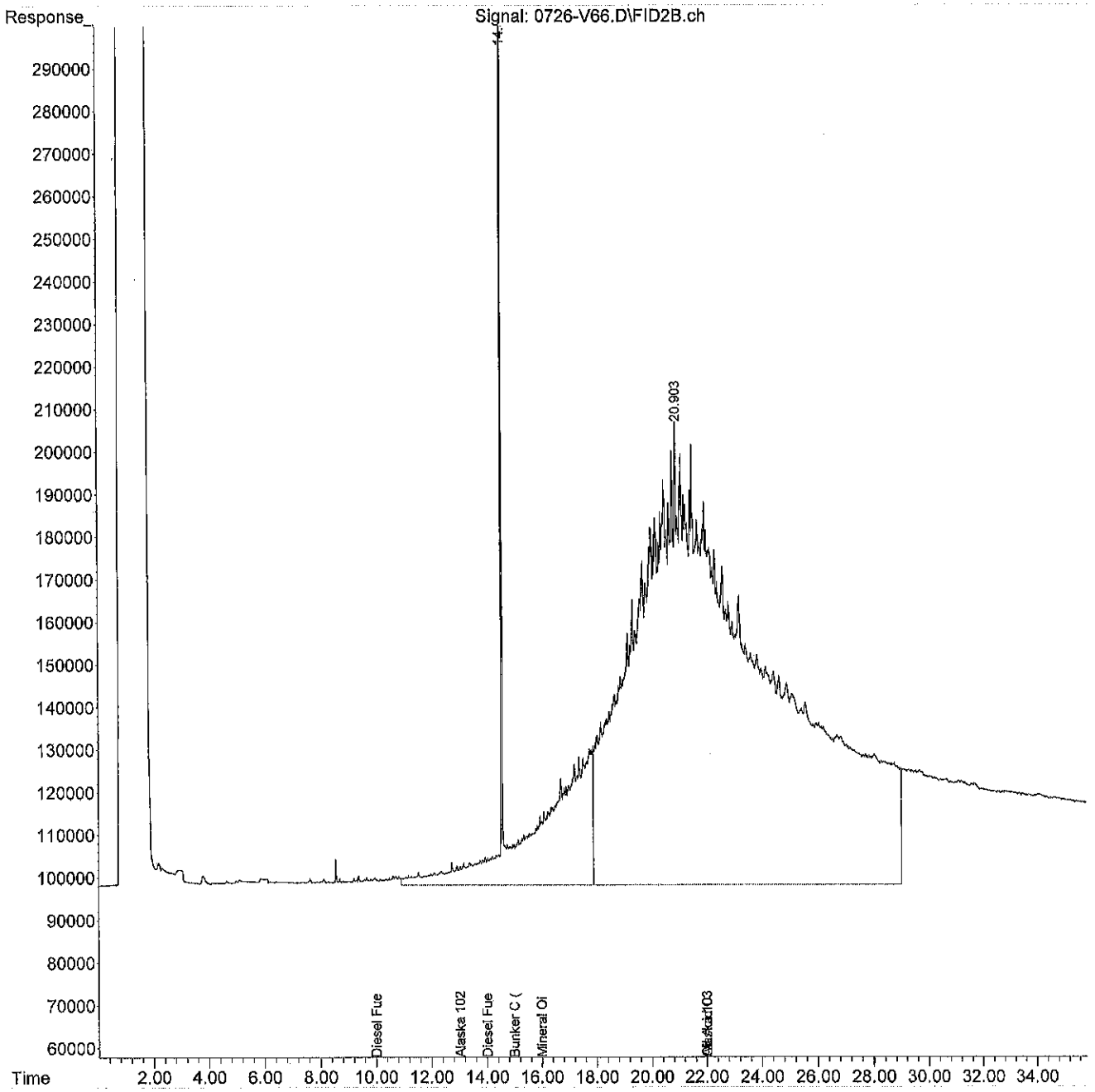
Quantitation Report (Not Reviewed)

Data File : 0726-V66.D
Sample : 06-226-37 10X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 19:10
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 19:46:59 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V76.D
Sample : 06-226-38 10X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 27 Jul 2012 1:53
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 02:29:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7521997	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	273149685	115.581	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	496696866	194.487	PPM
6)	H	Oil	22.000	1103894757	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	1090332016	527.002	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	387936170	157.567	PPM
9)	H	Oil Combo	22.000	981479822	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	971974867	476.979	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	525692155	197.413	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	681208767	587.149	PPM
13)	H	Mineral Oil (03-14-12)	16.000	744726061	266.930	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1357408253	908.538	PPM
15)	H	ALKANE C9-C40	12.666	1355129998	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	454706676	168.276	PPM
17)	H	Oil Acid Clean MO Com...	22.000	870338752	439.614	PPM

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

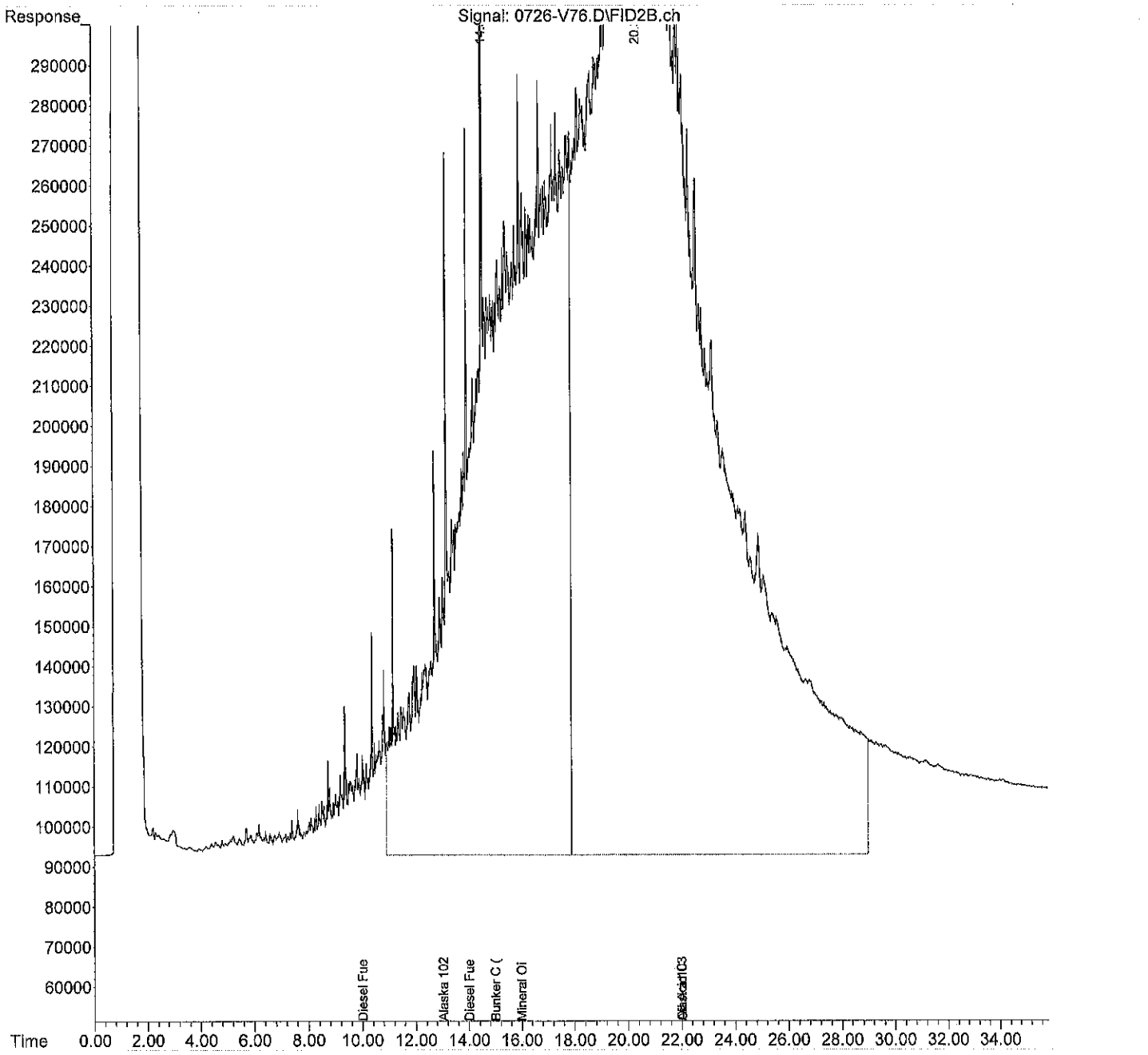
Quantitation Report (Not Reviewed)

Data File : 0726-V76.D
Sample : 06-226-38 10X

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 27 Jul 2012 1:53
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 02:29:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0727-V02.D
Sample : 06-226-39 50X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 11:11
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 11:47:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.453	1913410	0.682	PPM
Spiked Amount		50.000		Recovery =	1.36%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	11658527	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	114846237	45.585	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	180447647	72.350	PPM
6)	H	Oil	22.000	462072501	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	462100370	205.711	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	144053020	59.686	PPM
9)	H	Oil Combo	22.000	426571645	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	427947764	193.575	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	187214335	71.539	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	284221968	254.874	PPM
13)	H	Mineral Oil (03-13-12)	16.000	239103033	91.664	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	565086298	396.341	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	577976709	7337.160	PPM
16)	H	Mineral Oil Combo (0...	16.000	142166165	56.266	PPM
17)	H	Oil Acid Clean MO Com...	22.000	397352849	185.029	PPM

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

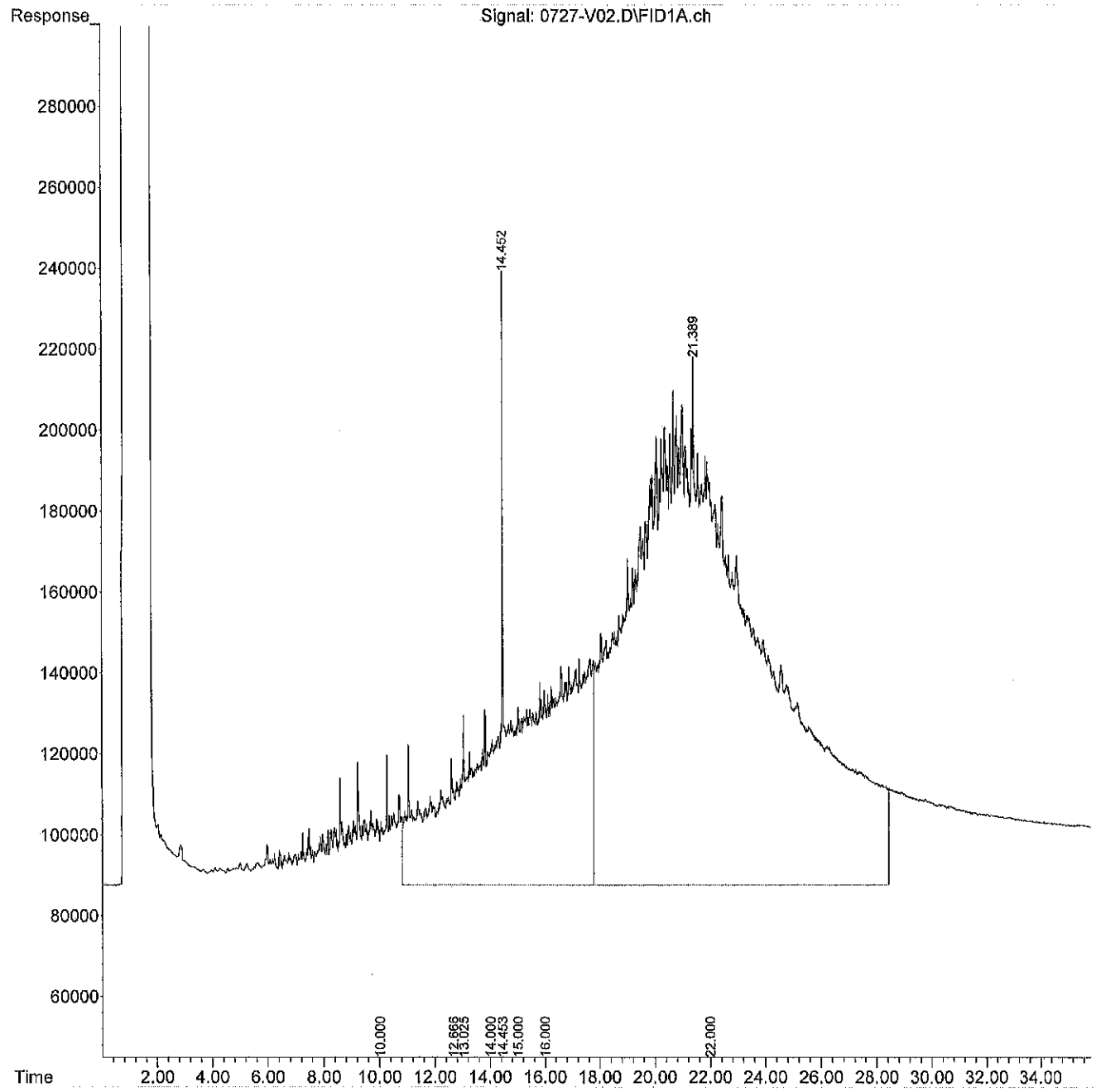
Quantitation Report (Not Reviewed)

Data File : 0727-V02.D
Sample : 06-226-39 50X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 11:11
Operator :
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 11:47:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0727-V04.D
Sample : 06-226-40 50X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 12:32
Operator :
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 13:08:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.453	2111717	0.760	PPM
Spiked Amount		50.000		Recovery =	1.52%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	11463499	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	161237924	66.099	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	219540268	88.857	PPM
6)	H	Oil	22.000	297720556	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	295363442	123.971	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	188885308	79.347	PPM
9)	H	Oil Combo	22.000	263469834	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	263012260	110.912	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	224914913	86.468	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	166403566	146.130	PPM
13)	H	Mineral Oil (03-13-12)	16.000	226977995	86.728	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	447410369	304.213	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	457245688	5799.939	PPM
16)	H	Mineral Oil Combo (0...	16.000	160444427	63.839	PPM
17)	H	Oil Acid Clean MO Com...	22.000	237026082	101.770	PPM

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

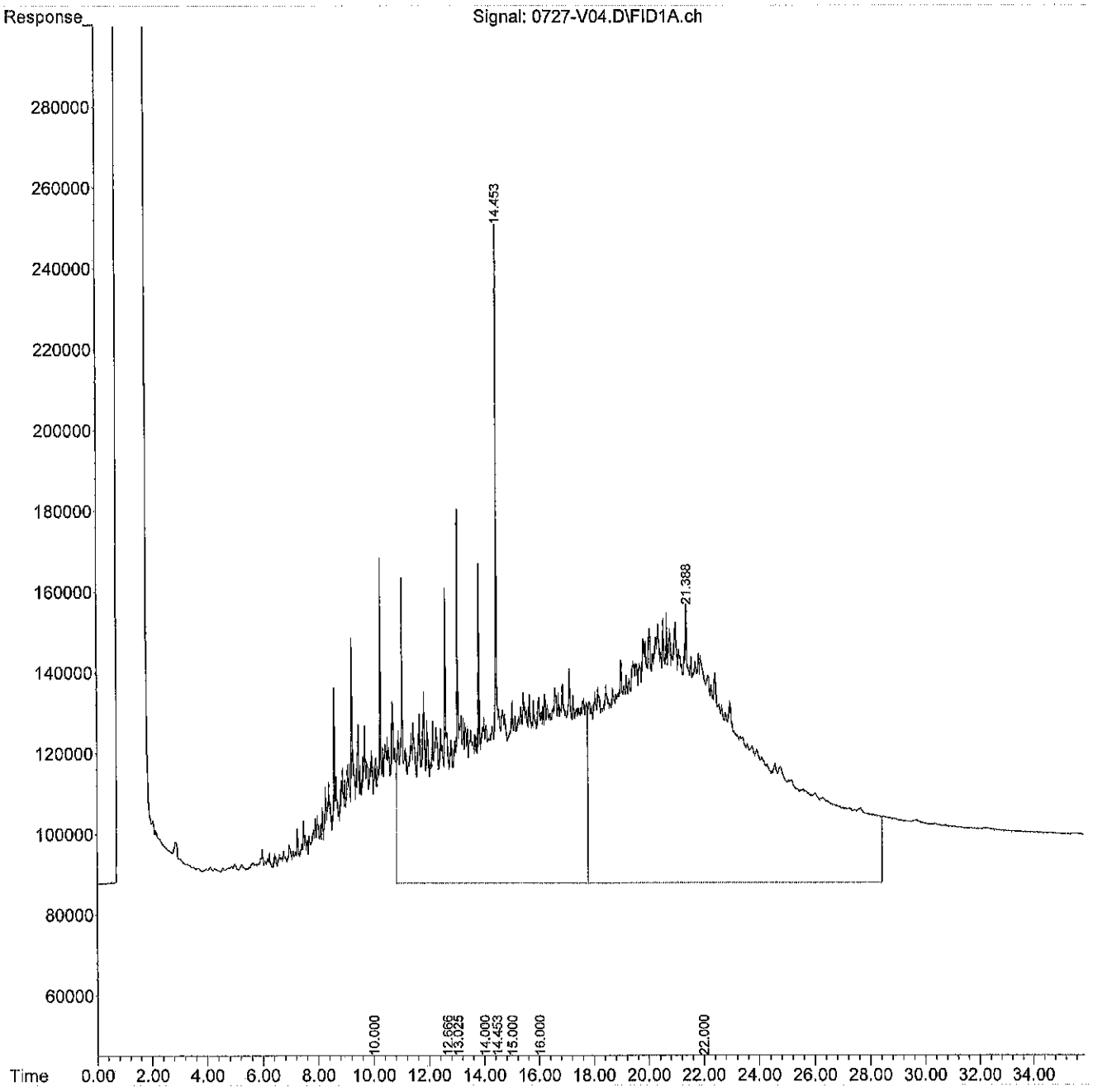
Quantitation Report (Not Reviewed)

Data File : 0727-V04.D
Sample : 06-226-40 50X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 12:32
Operator :
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 13:08:06 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0727-V06.D
Sample : 06-226-43 10X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 13:59
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 14:35:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.455	14674818	5.726	PPM
Spiked Amount		50.000		Recovery =	11.45%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12749037	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	139503769	56.489	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	245910415	99.993	PPM
6)	H	Oil	22.000	838266078	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	838223426	390.101	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	187432042	78.710	PPM
9)	H	Oil Combo	22.000	782178626	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	783985623	372.017	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	256747277	99.074	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	544812416	495.393	PPM
13)	H	Mineral Oil (03-13-12)	16.000	383717065	150.540	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	960582973	705.974	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	979485371	12449.411	PPM
16)	H	Mineral Oil Combo (0...	16.000	212598958	85.450	PPM
17)	H	Oil Acid Clean MO Com...	22.000	734817118	360.275	PPM

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

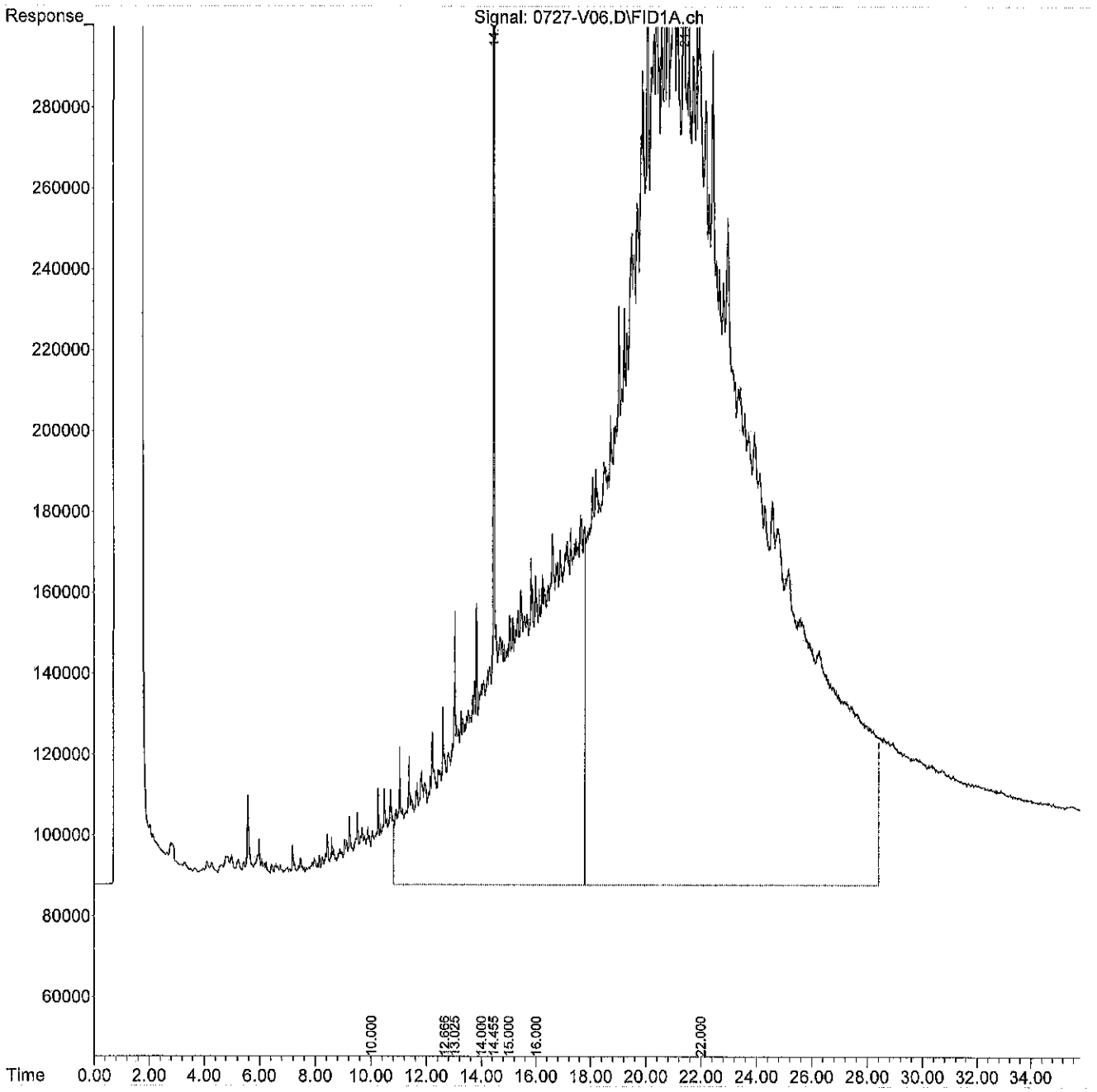
Quantitation Report (Not Reviewed)

Data File : 0727-V06.D
Sample : 06-226-43 10X

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 13:59
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 14:35:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V16.D
Sample : 06-226-44

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 23:09
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 23:45:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-13-12)	14.464	89526564	35.310	PPM
Spiked Amount	50.000		Recovery =	70.62%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.951	3079142	1.576	PPM
3) H	Gasoline	3.500	11038770	NoCal	PPM
4) H	Diesel Fuel #1 (03-1...	10.000	110565896	43.692	PPM
5) H	Diesel Fuel #2 (03-...	14.000	154831067	61.533	PPM
6) H	Oil	22.000	237977473	NoCal	PPM
7) H	Oil Acid Clean (06-...	22.000	237439277	95.574	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	134797191	55.627	PPM
9) H	Oil Combo	22.000	208741783	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	208958842	83.821	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	160243153	60.859	PPM
12) H	Alaska 103 Oil (06-2...	22.000	132368662	114.716	PPM
13) H	Mineral Oil (03-13-12)	16.000	154489432	57.216	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	339788626	219.956	PPM
15) H	ALKANE C9-C40 10-26-07	12.666	348544031	4415.884	PPM
16) H	Mineral Oil Combo (0...	16.000	104996154	40.864	PPM
17) H	Oil Acid Clean MO Com...	22.000	191843767	78.307	PPM

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

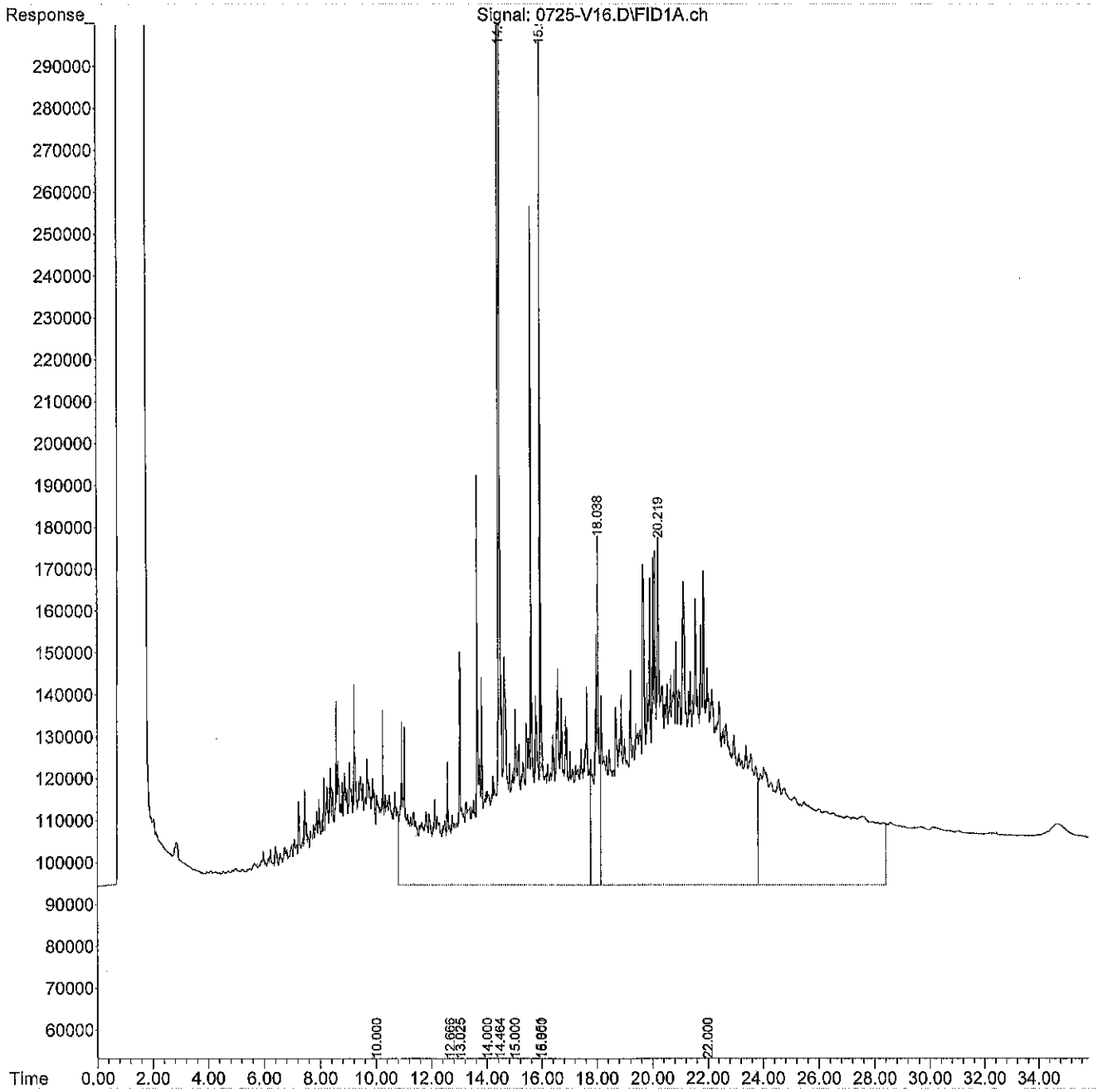
Quantitation Report (Not Reviewed)

Data File : 0725-V16.D
Sample : 06-226-44

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 23:09
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 23:45:51 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V18.D
Sample : 06-226-45

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 26 Jul 2012 00:29
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 01:05:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.466	113687030	44.859	PPM
Spiked Amount		50.000		Recovery =	89.72%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	23593716	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	265137636	112.044	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	456150228	188.770	PPM
6)	H	Oil	22.000	1305624743	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	1302668455	617.789	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	352737747	151.202	PPM
9)	H	Oil Combo	22.000	1207268832	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1205823223	583.436	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	476563464	186.119	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	857463853	783.965	PPM
13)	H	Mineral Oil (03-13-12)	16.000	660626128	263.276	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1543081078	1162.010	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	1569956577	19967.648	PPM
16)	H	Mineral Oil Combo (0...	16.000	352701575	143.502	PPM
17)	H	Oil Acid Clean MO Com...	22.000	1118876648	559.718	PPM

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

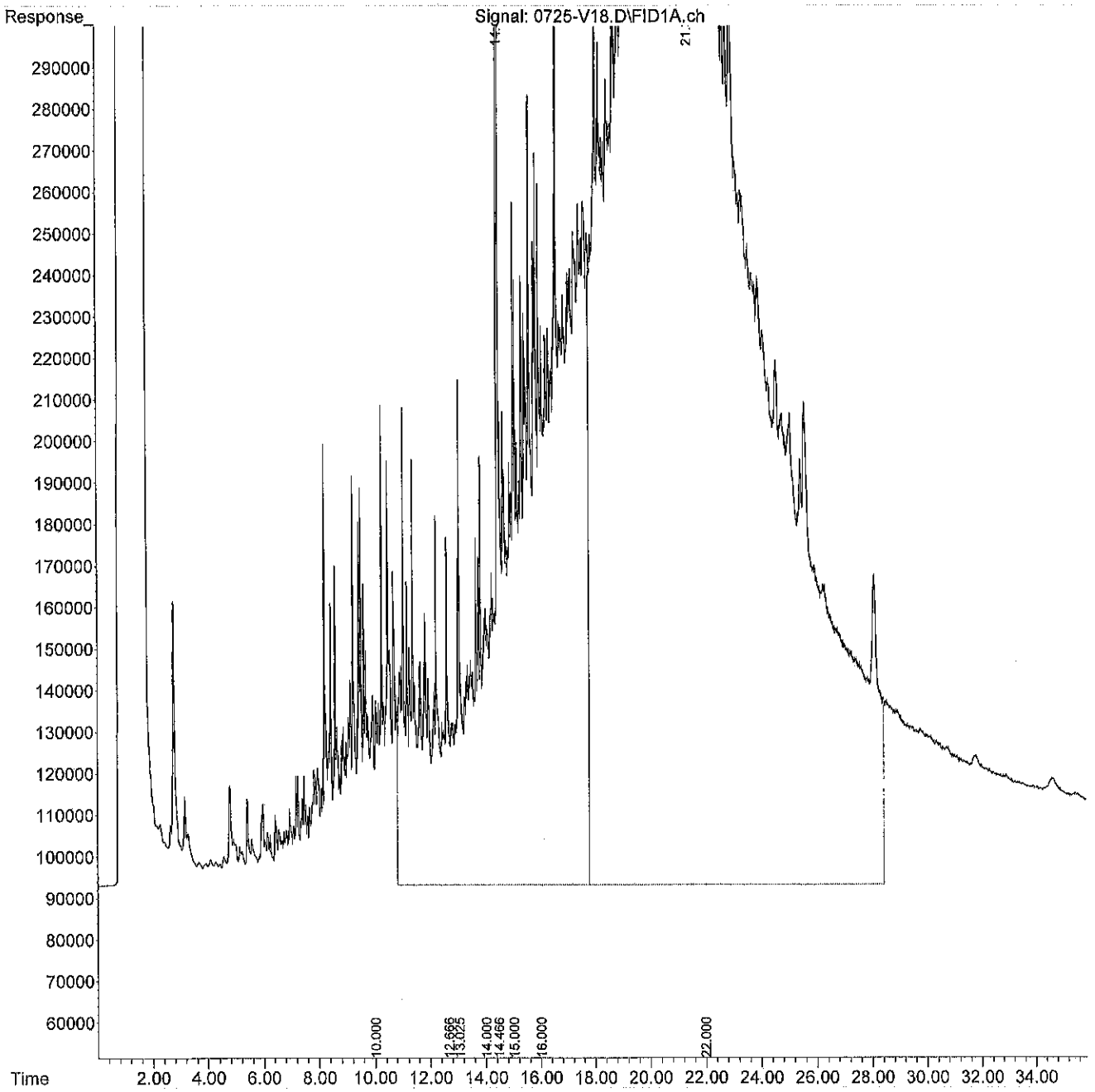
Quantitation Report (Not Reviewed)

Data File : 0725-V18.D
Sample : 06-226-45

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 26 Jul 2012 00:29
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 01:05:56 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V14.D
Sample : 06-226-46

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 21:49
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 22:25:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.462	68339727	26.936	PPM
Spiked Amount		50.000		Recovery =	53.87%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8956812	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	208086687	86.816	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	479865914	198.785	PPM
6)	H	Oil	22.000	1033150862	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	1014829294	476.679	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	339328586	145.322	PPM
9)	H	Oil Combo	22.000	896185205	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	879992459	420.134	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	502833442	196.522	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	606224685	552.076	PPM
13)	H	Mineral Oil (03-13-12)	16.000	744363257	297.367	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	1212215096	902.976	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	1224311083	15566.680	PPM
16)	H	Mineral Oil Combo (0...	16.000	441440113	180.272	PPM
17)	H	Oil Acid Clean MO Com...	22.000	761063810	373.905	PPM

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

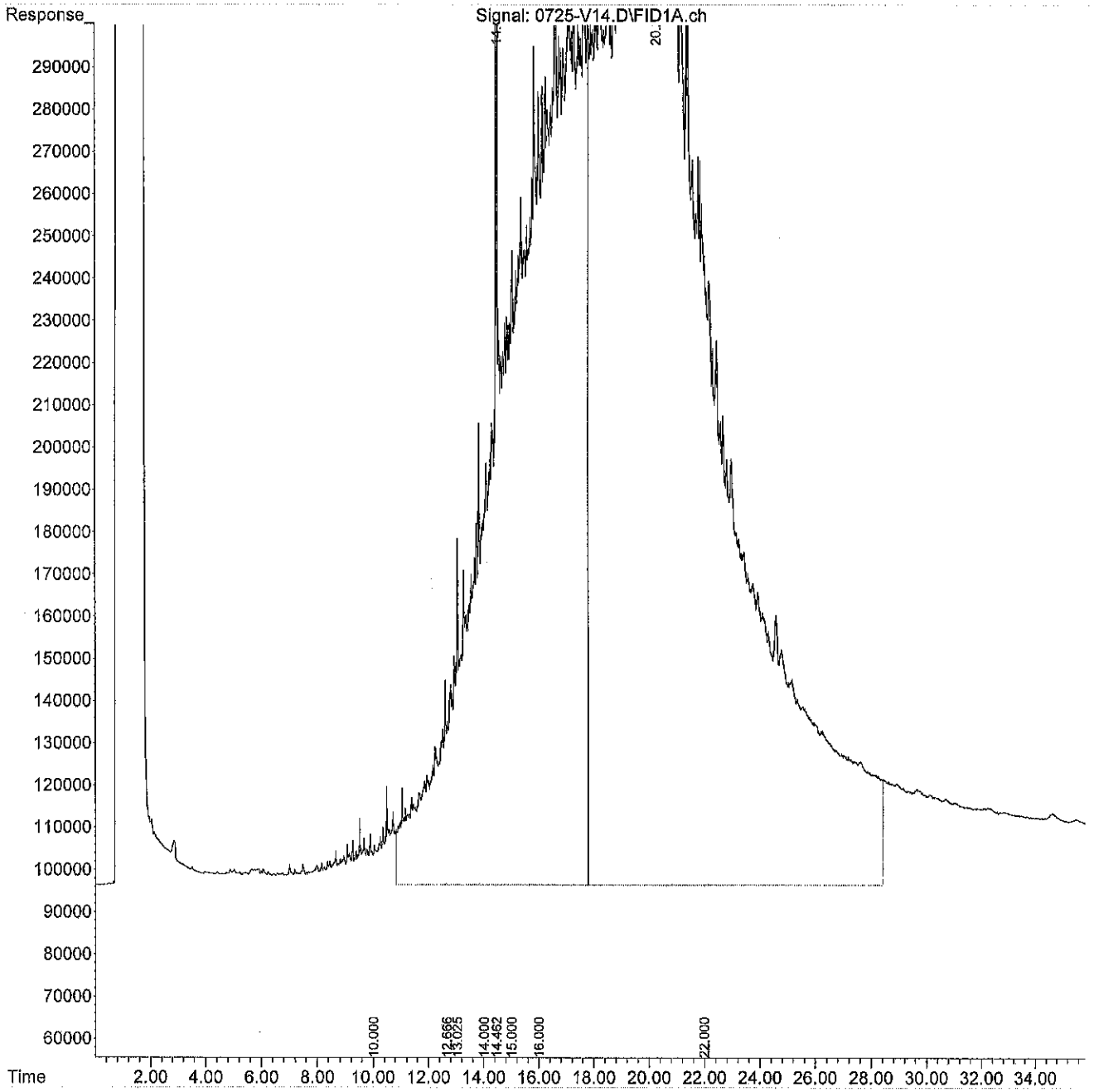
Quantitation Report (Not Reviewed)

Data File : 0725-V14.D
Sample : 06-226-46

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 21:49
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 22:25:36 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V09.D
Sample : MB0710S3 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 18:28
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 19:04:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (03-13-12)	14.467	117825135	46.495	PPM
Spiked Amount	50.000		Recovery =	92.99%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11786080	NoCal	PPM
4) H	Diesel Fuel #1 (03-1...	10.000	17893678	2.713	PPM
5) H	Diesel Fuel #2 (03-...	14.000	17921353	3.720	PPM
6) H	Oil	22.000	57455300	NoCal	PPM
7) H	Oil Acid Clean (06-...	22.000	60265008	8.717	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	15863943	3.471	PPM
9) H	Oil Combo	22.000	55194681	NoCal	PPM
10) H	Oil Acid Clean Combo ...	22.000	58070129	8.197	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	18605935	4.772	PPM
12) H	Alaska 103 Oil (06-2...	22.000	24811964	15.443	PPM
13) H	Mineral Oil (03-13-12)	16.000	15455515	0.612	PPM
14) H	Bunker C (Fuel Oil #6...	15.000	70949021	9.483	PPM
15) H	ALKANE C9-C40 10-26-07	12.666	78363058	975.777	PPM
16) H	Mineral Oil Combo (0...	16.000	10887795	1.869	PPM
17) H	Oil Acid Clean MO Com...	22.000	56311018	7.925	PPM

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

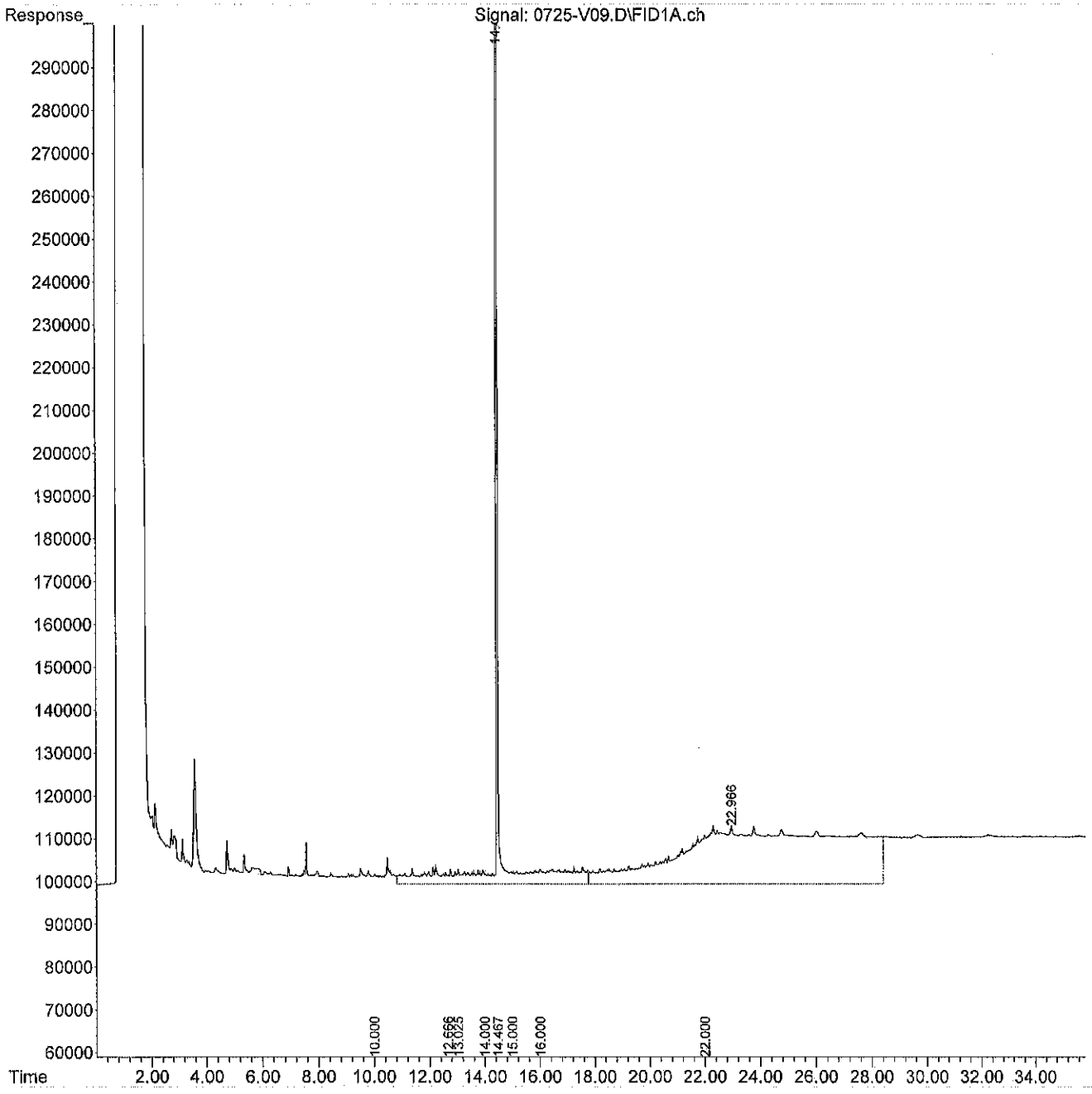
Quantitation Report (Not Reviewed)

Data File : 0725-V09.D
Sample : MB0710S3 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 18:28
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 19:04:16 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V10.D
Sample : MB0711S1 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 19:08
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 19:44:32 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.467	112533883	44.403	PPM
Spiked Amount		50.000		Recovery =	88.81%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6505215	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	10381013	N.D.	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	10765723	0.699	PPM
6)	H	Oil	22.000	48395084	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	50988530	4.169	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	9455397	0.661	PPM
9)	H	Oil Combo	22.000	46849012	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	49485523	3.895	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	11239042	1.854	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	20637127	11.590	PPM
13)	H	Mineral Oil (03-13-12)	16.000	10084073	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	56217411	N.D.	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	61704693	763.672	PPM
16)	H	Mineral Oil Combo (0...	16.000	7030241	0.271	PPM
17)	H	Oil Acid Clean MO Com...	22.000	48355100	3.793	PPM

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

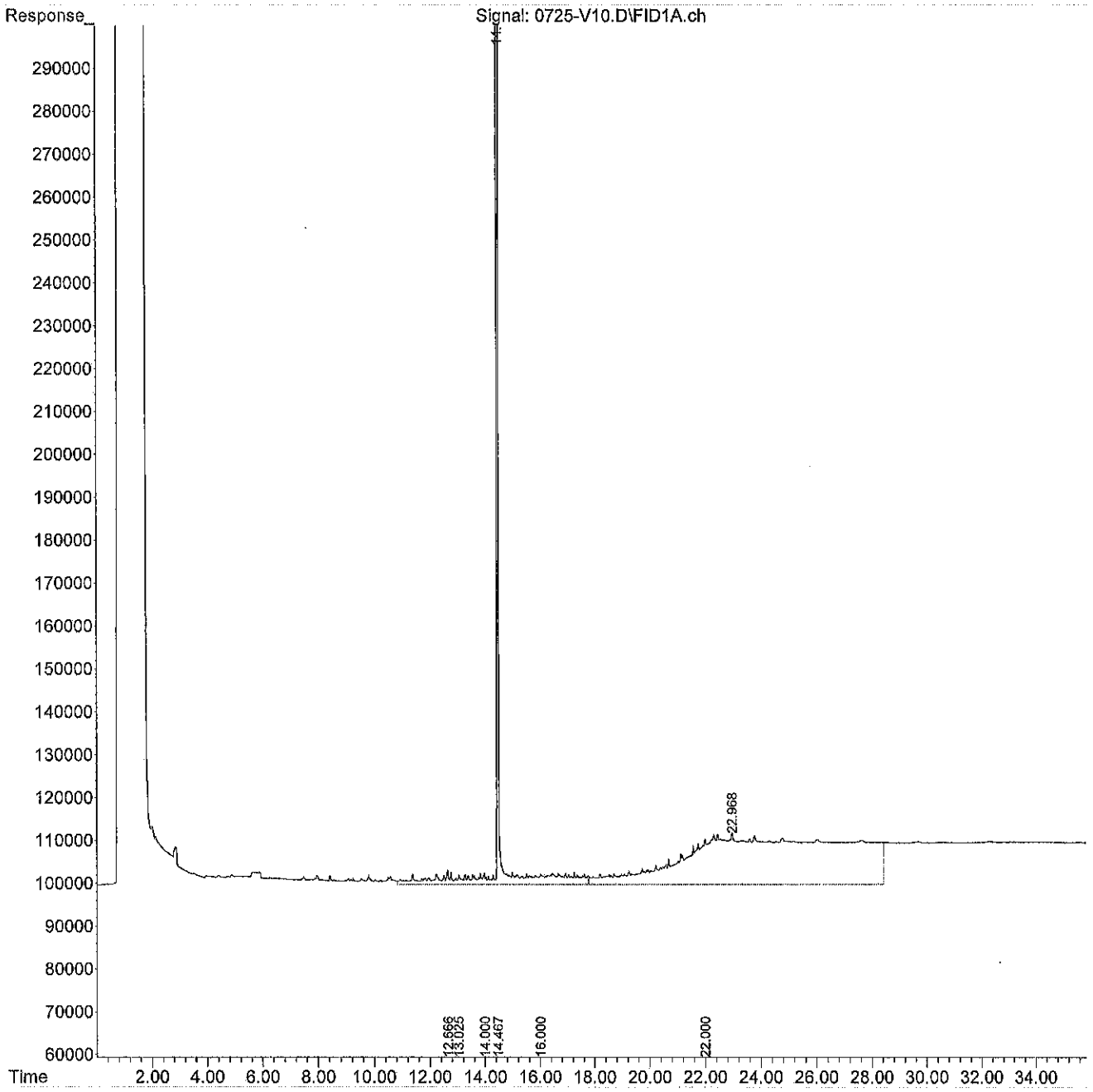
Quantitation Report (Not Reviewed)

Data File : 0725-V10.D
Sample : MB0711S1 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 19:08
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 19:44:32 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V11.D
Sample : 07-027-03 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 19:48
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 20:24:54 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.468	112925478	44.558	PPM
Spiked Amount		50.000		Recovery =	89.12%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8753636	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	13515714	0.777	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	14796874	2.401	PPM
6)	H	Oil	22.000	53483080	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	55857913	6.556	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	12628003	2.052	PPM
9)	H	Oil Combo	22.000	51288461	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	53359883	5.836	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	15414069	3.508	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	24115163	14.800	PPM
13)	H	Mineral Oil (03-13-12)	16.000	14343532	0.159	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	63467868	3.626	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	69577854	863.918	PPM
16)	H	Mineral Oil Combo (0...	16.000	10019359	1.510	PPM
17)	H	Oil Acid Clean MO Com...	22.000	51469116	5.410	PPM

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

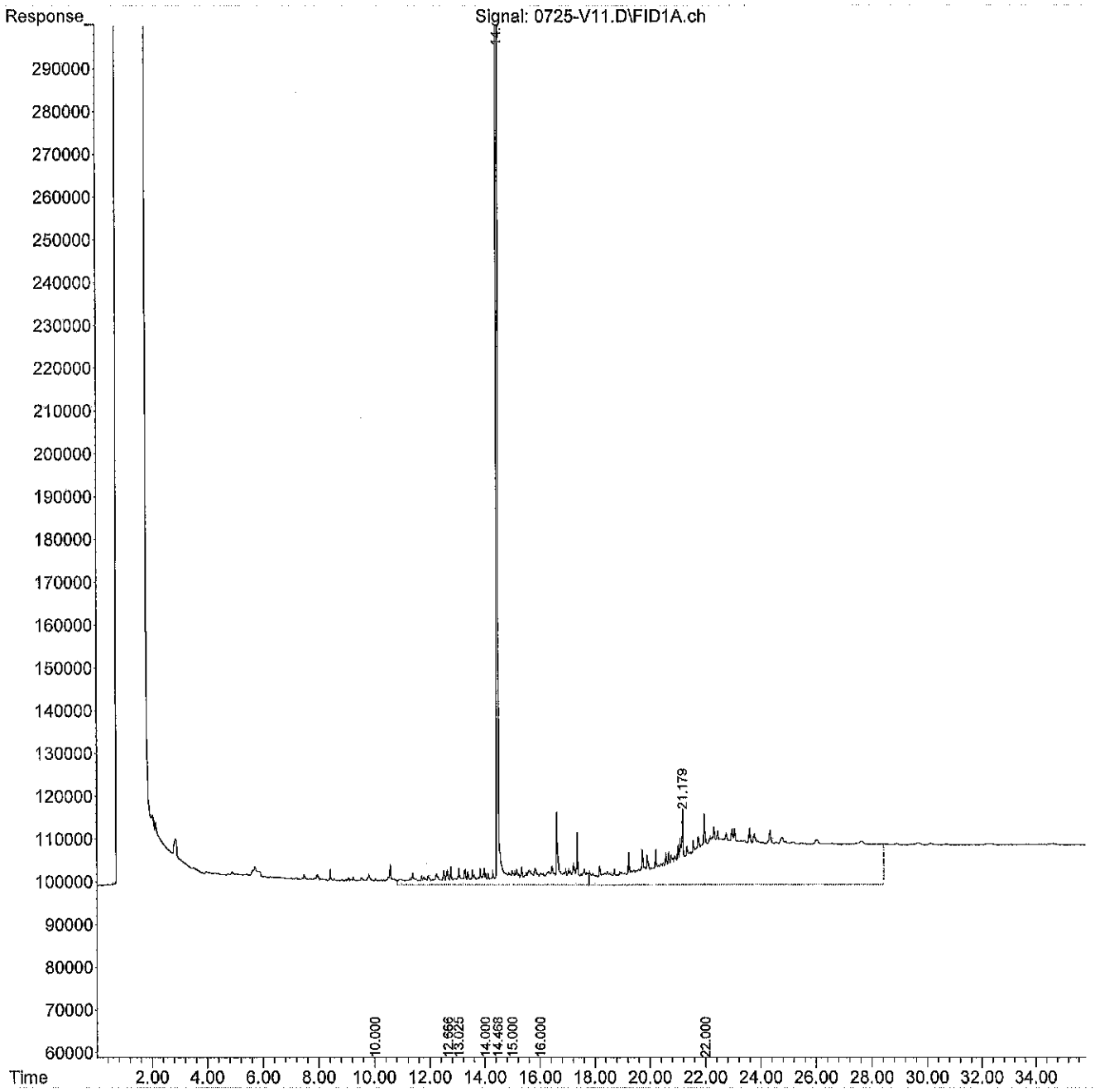
Quantitation Report (Not Reviewed)

Data File : 0725-V11.D
Sample : 07-027-03 BC

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 19:48
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 20:24:54 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V12.D
Sample : 07-027-03 BC DUP

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 20:29
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 21:05:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	14.466	103157077	40.697	PPM
Spiked Amount		50.000		Recovery =	81.39%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6902624	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	11136592	N.D.	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	12018043	1.227	PPM
6)	H	Oil	22.000	49790927	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	52135990	4.732	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	10375011	1.064	PPM
9)	H	Oil Combo	22.000	47992182	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	50298411	4.302	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	12507023	2.356	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	22525706	13.333	PPM
13)	H	Mineral Oil (03-13-12)	16.000	11835439	N.D.	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	58165370	N.D.	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	63534404	786.969	PPM
16)	H	Mineral Oil Combo (0...	16.000	8033543	0.687	PPM
17)	H	Oil Acid Clean MO Com...	22.000	48893226	4.073	PPM

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

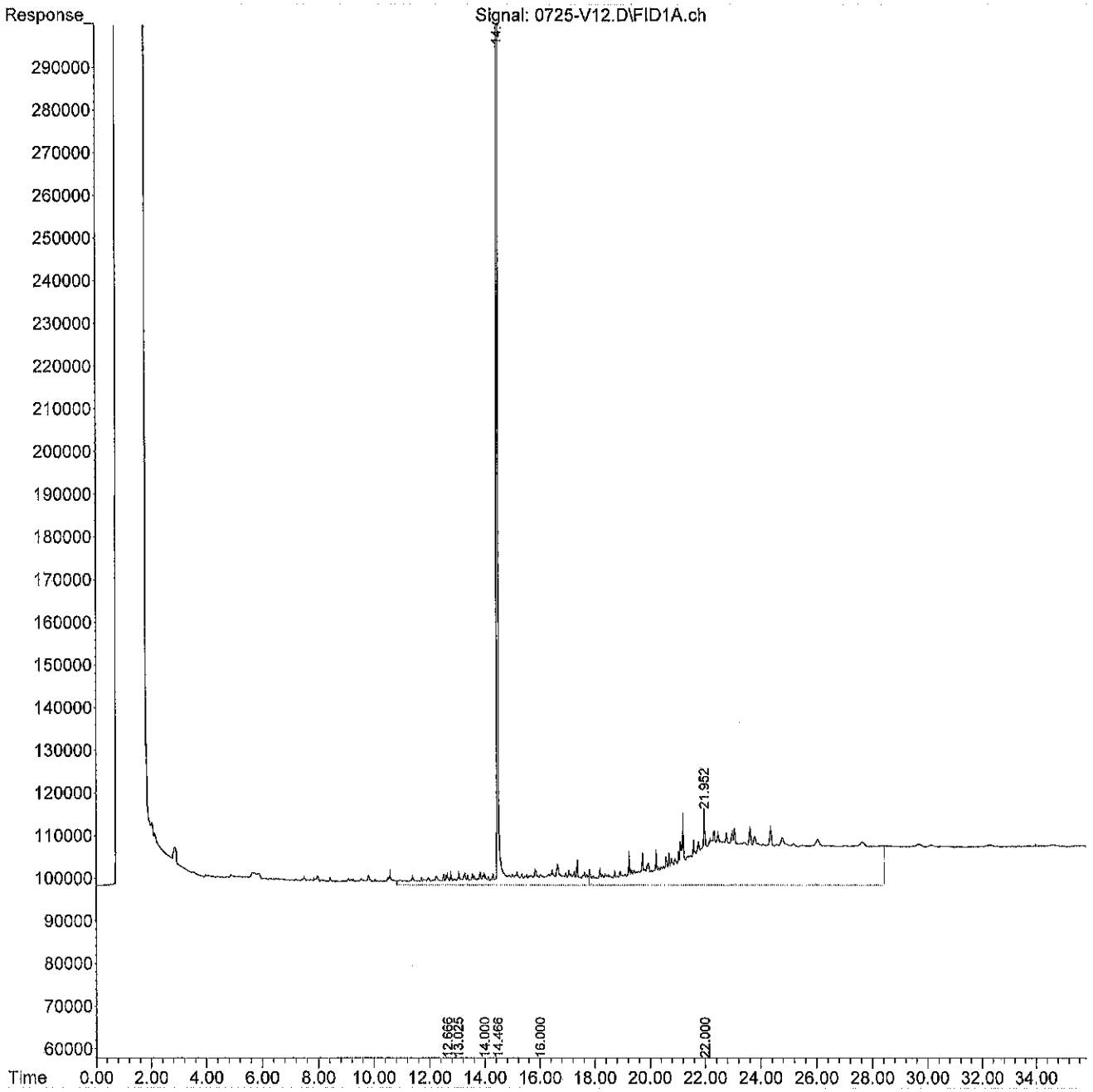
Quantitation Report (Not Reviewed)

Data File : 0725-V12.D
Sample : 07-027-03 BC DUP

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 20:29
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 21:05:13 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V69.D
Sample : 06-226-37 10X DUP

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 21:11
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 21:47:54 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2785924	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	27022600	10.208	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	47054054	18.836	PPM
6)	H	Oil	22.000	256084225	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	268677098	116.161	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	35368786	14.735	PPM
9)	H	Oil Combo	22.000	247504764	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	259375814	114.056	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	50809270	14.411	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	157822224	128.017	PPM
13)	H	Mineral Oil (03-14-12)	16.000	90016446	27.825	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	292513967	158.407	PPM
15)	H	ALKANE C9-C40	12.666	289160065	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	43464725	12.277	PPM
17)	H	Oil Acid Clean MO Com...	22.000	248545152	112.598	PPM

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

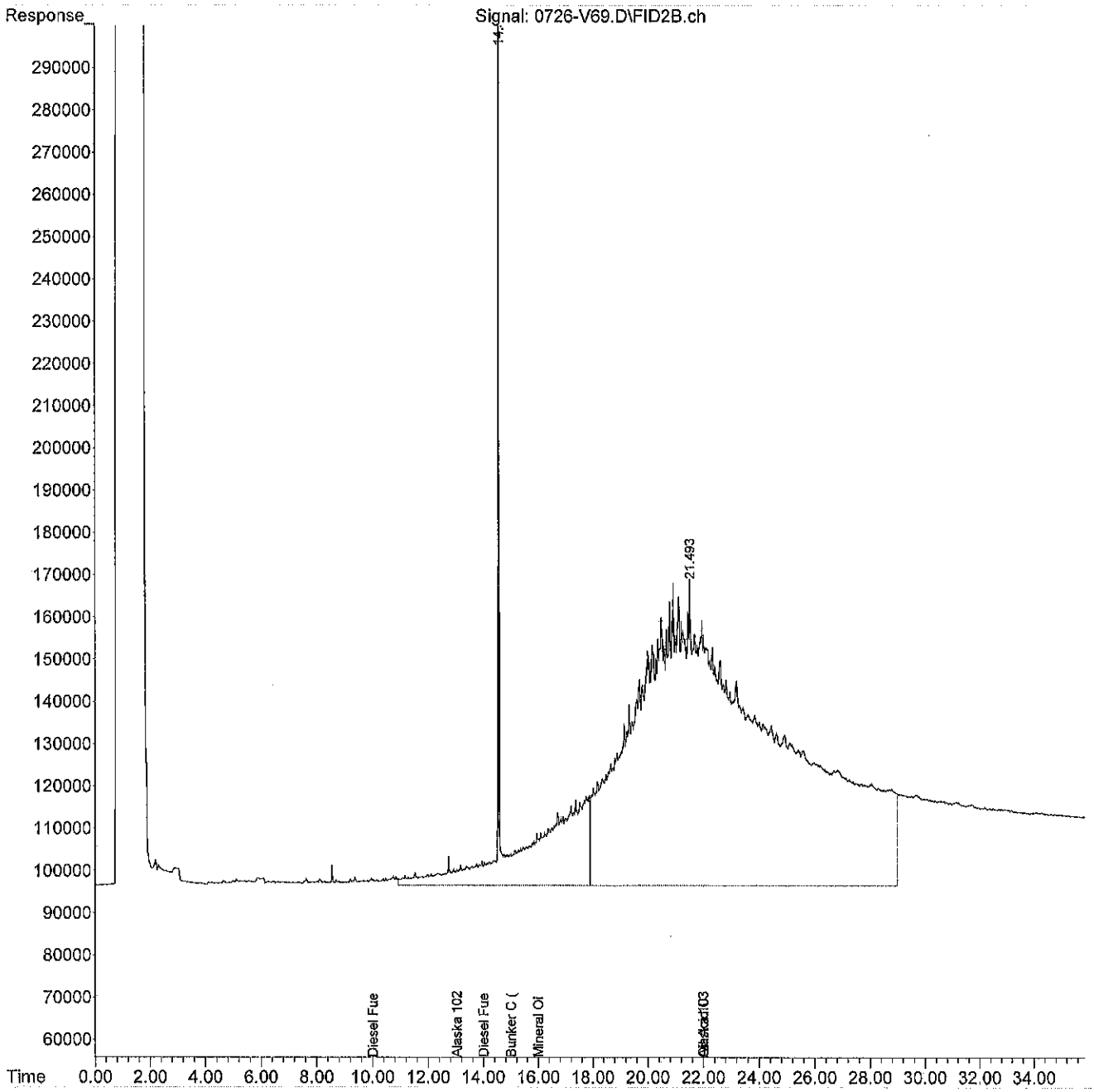
Quantitation Report (Not Reviewed)

Data File : 0726-V69.D
Sample : 06-226-37 10X DUP

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 21:11
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 21:47:54 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V06.D
Sample : BC-CCV0725F-V1

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 16:27
Operator :
Misc : SV3-01-13
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 17:03:26 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10719571	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	121146863	48.371	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	165071938	65.857	PPM
6)	H	Oil	22.000	238938659	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	238011979	95.855	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	140772436	58.248	PPM
9)	H	Oil Combo	22.000	212474032	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	213964871	86.330	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	169347553	64.464	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	128094519	110.771	PPM
13)	H	Mineral Oil (03-13-12)	16.000	176819083	66.307	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	349872197	227.851	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	359864675	4560.025	PPM
16)	H	Mineral Oil Combo (0...	16.000	124010122	48.742	PPM
17)	H	Oil Acid Clean MO Com...	22.000	192959521	78.887	PPM

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

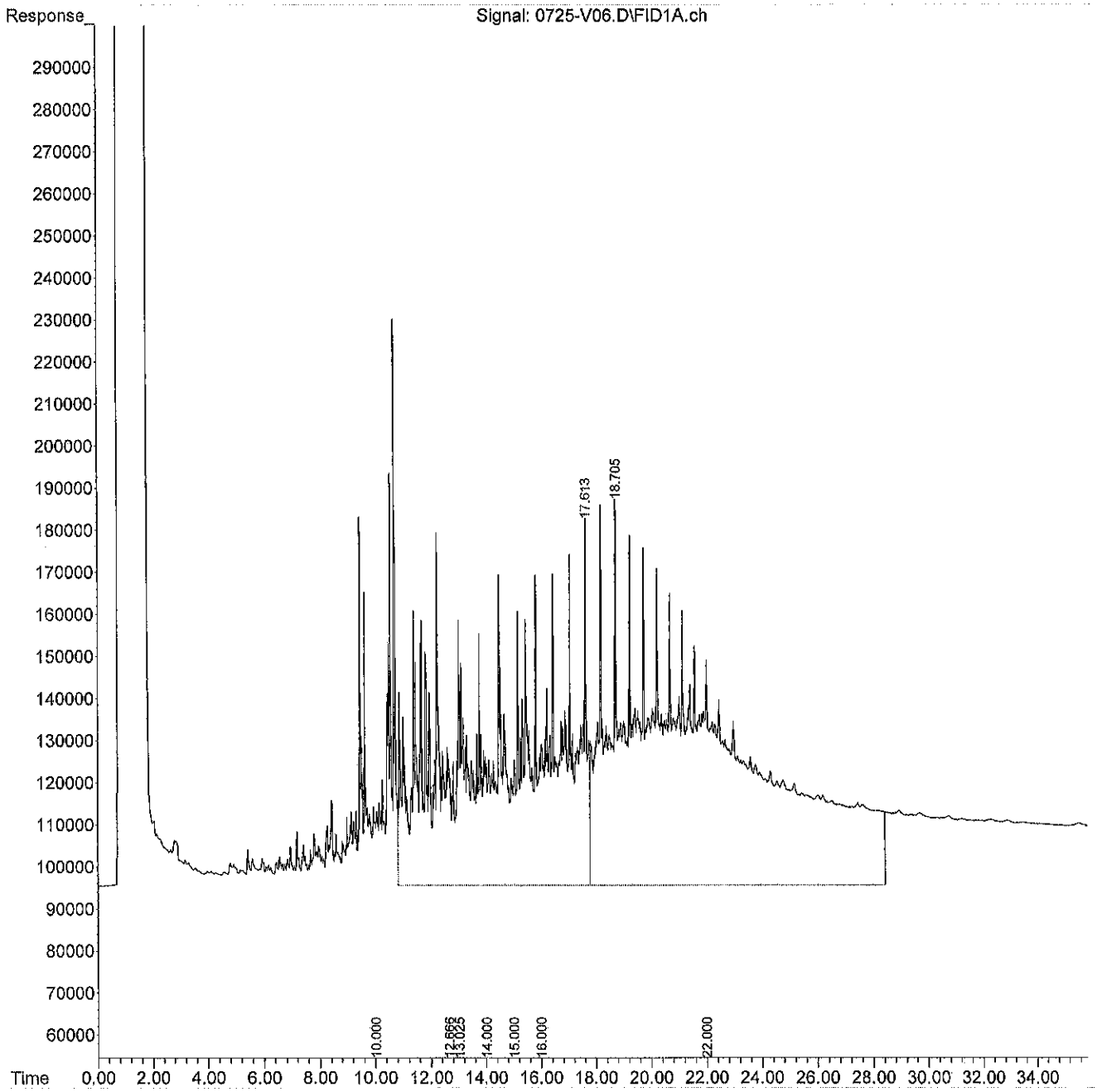
Quantitation Report (Not Reviewed)

Data File : 0725-V06.D
Sample : BC-CCV0725F-V1

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 16:27
Operator :
Misc : SV3-01-13
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 17:03:26 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V13.D
Sample : BC-CCV0725F-V2

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 21:09
Operator :
Misc : SV3-01-13
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 21:45:27 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9467641	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	108164438	42.630	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	147389572	58.391	PPM
6)	H	Oil	22.000	206206294	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	204905873	79.625	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	125738247	51.655	PPM
9)	H	Oil Combo	22.000	182544379	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	183388703	71.005	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	151171169	57.266	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	111216027	95.193	PPM
13)	H	Mineral Oil (03-13-12)	16.000	157506373	58.444	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	305304549	192.959	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	313618870	3971.196	PPM
16)	H	Mineral Oil Combo (0...	16.000	110725102	43.238	PPM
17)	H	Oil Acid Clean MO Com...	22.000	164665337	64.193	PPM

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

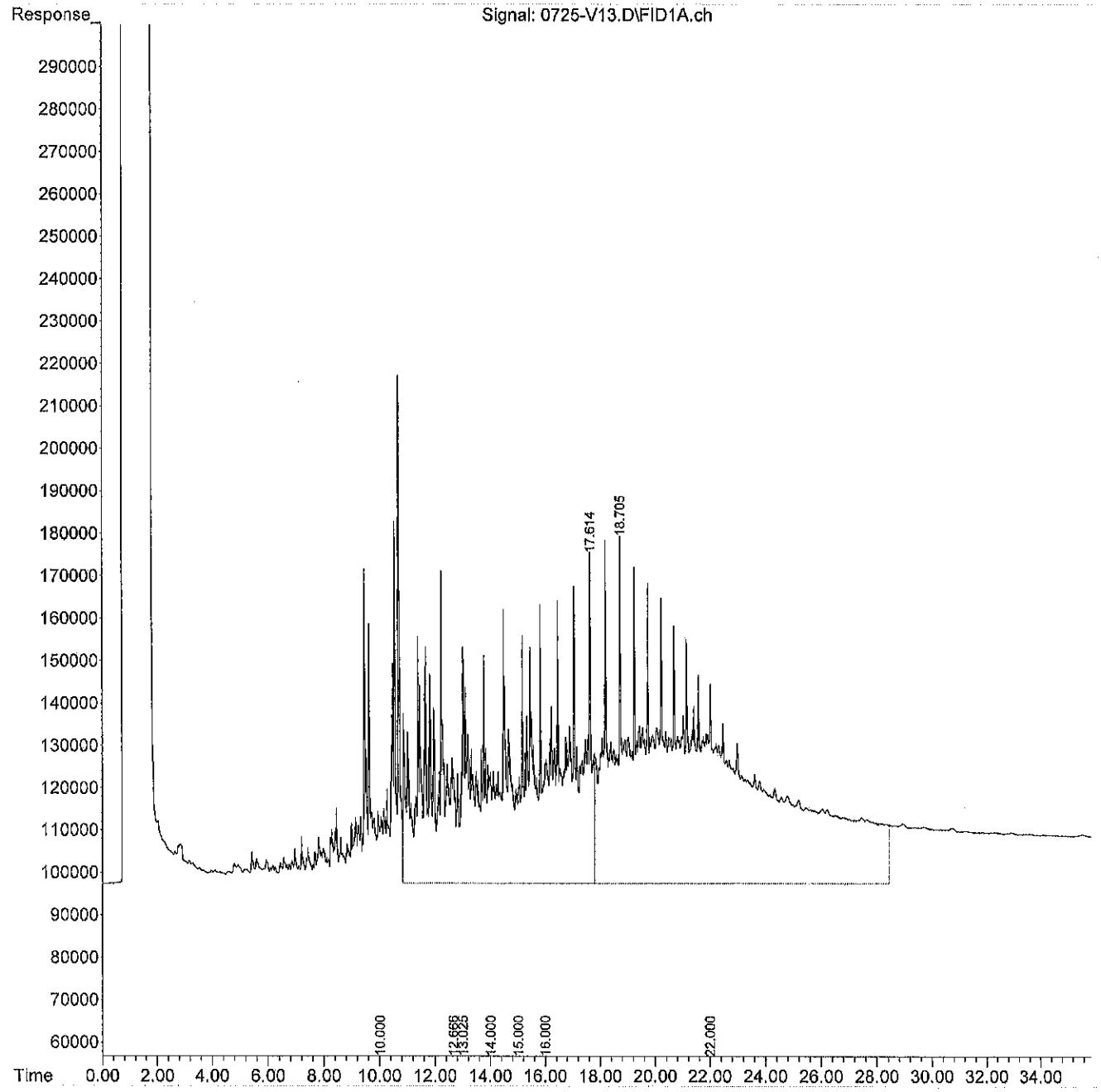
Quantitation Report (Not Reviewed)

Data File : 0725-V13.D
Sample : BC-CCV0725F-V2

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 25 Jul 2012 21:09
Operator :
Misc : SV3-01-13
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 21:45:27 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0725-V20.D
Sample : BC-CCV0725F-V3

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 26 Jul 2012 1:49
Operator :
Misc : SV3-01-13
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 02:25:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9996464	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	118362730	47.140	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	161604026	64.393	PPM
6)	H	Oil	22.000	235625104	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	234558425	94.162	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	137703882	56.902	PPM
9)	H	Oil Combo	22.000	209741387	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	211039431	84.863	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	165814362	63.065	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	127005812	109.766	PPM
13)	H	Mineral Oil (03-13-12)	16.000	174111384	65.204	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	344110258	223.340	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	353591989	4480.158	PPM
16)	H	Mineral Oil Combo (0...	16.000	121501455	47.703	PPM
17)	H	Oil Acid Clean MO Com...	22.000	190381601	77.548	PPM

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

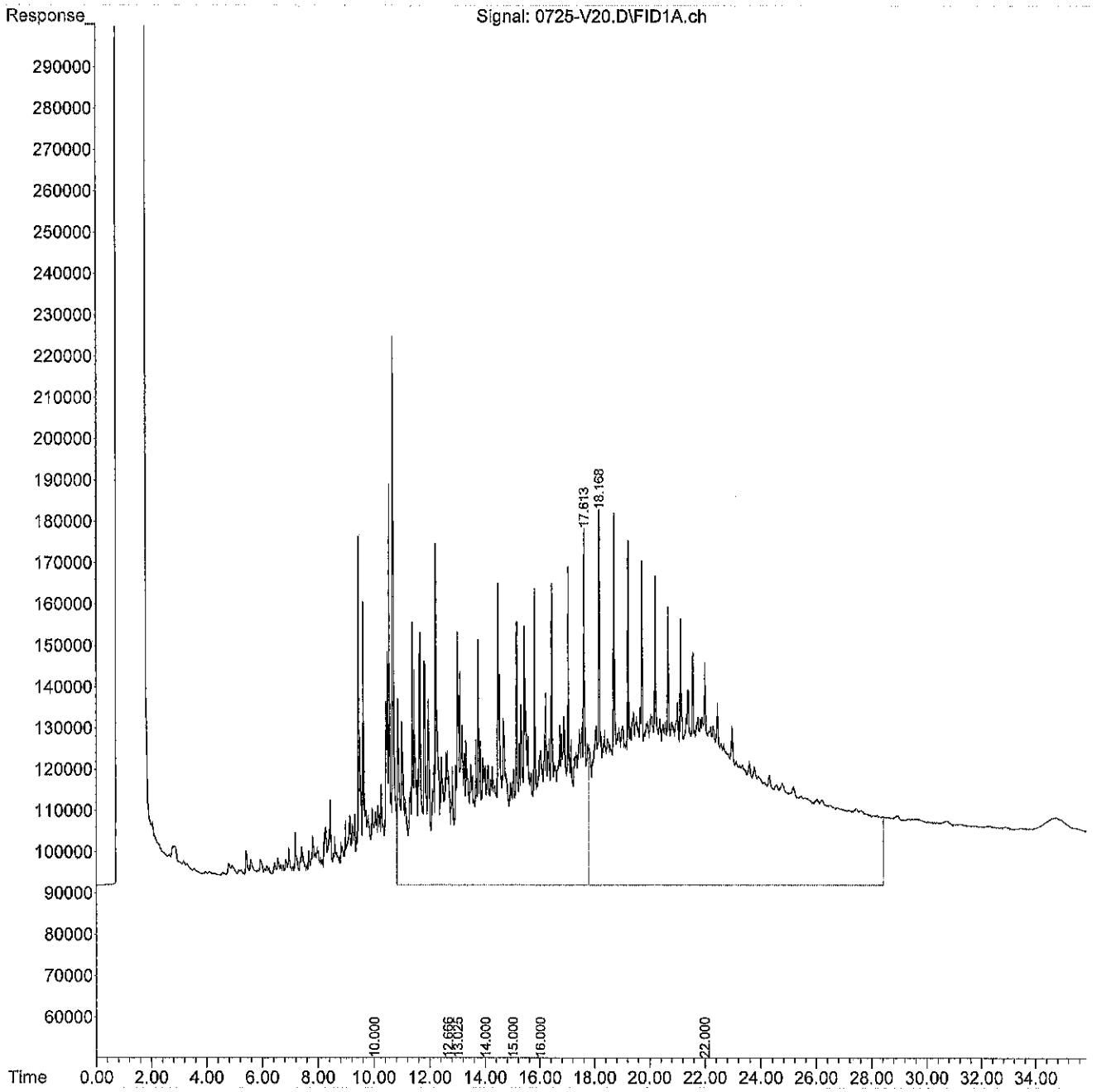
Quantitation Report (Not Reviewed)

Data File : 0725-V20.D
Sample : BC-CCV0725F-V3

Data Path : C:\msdchem\2\DATA\V120725\
Signal(s) : FID1A.ch
Acq On : 26 Jul 2012 1:49
Operator :
Misc : SV3-01-13
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 02:25:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V65.D
Sample : BC-CCV0726R-V1

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 18:30
Operator :
Misc : SV3-01-13
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 19:06:40 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5495028	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	105751368	43.913	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	145574299	57.323	PPM
6)	H	Oil	22.000	229986466	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	234355553	98.999	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	125143718	51.105	PPM
9)	H	Oil Combo	22.000	205784851	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	212600124	90.233	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	150848927	52.963	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	123211141	97.655	PPM
13)	H	Mineral Oil (03-14-12)	16.000	160318730	53.500	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	336086811	189.100	PPM
15)	H	ALKANE C9-C40	12.666	334925054	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	111528940	38.096	PPM
17)	H	Oil Acid Clean MO Com...	22.000	193375345	83.583	PPM

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

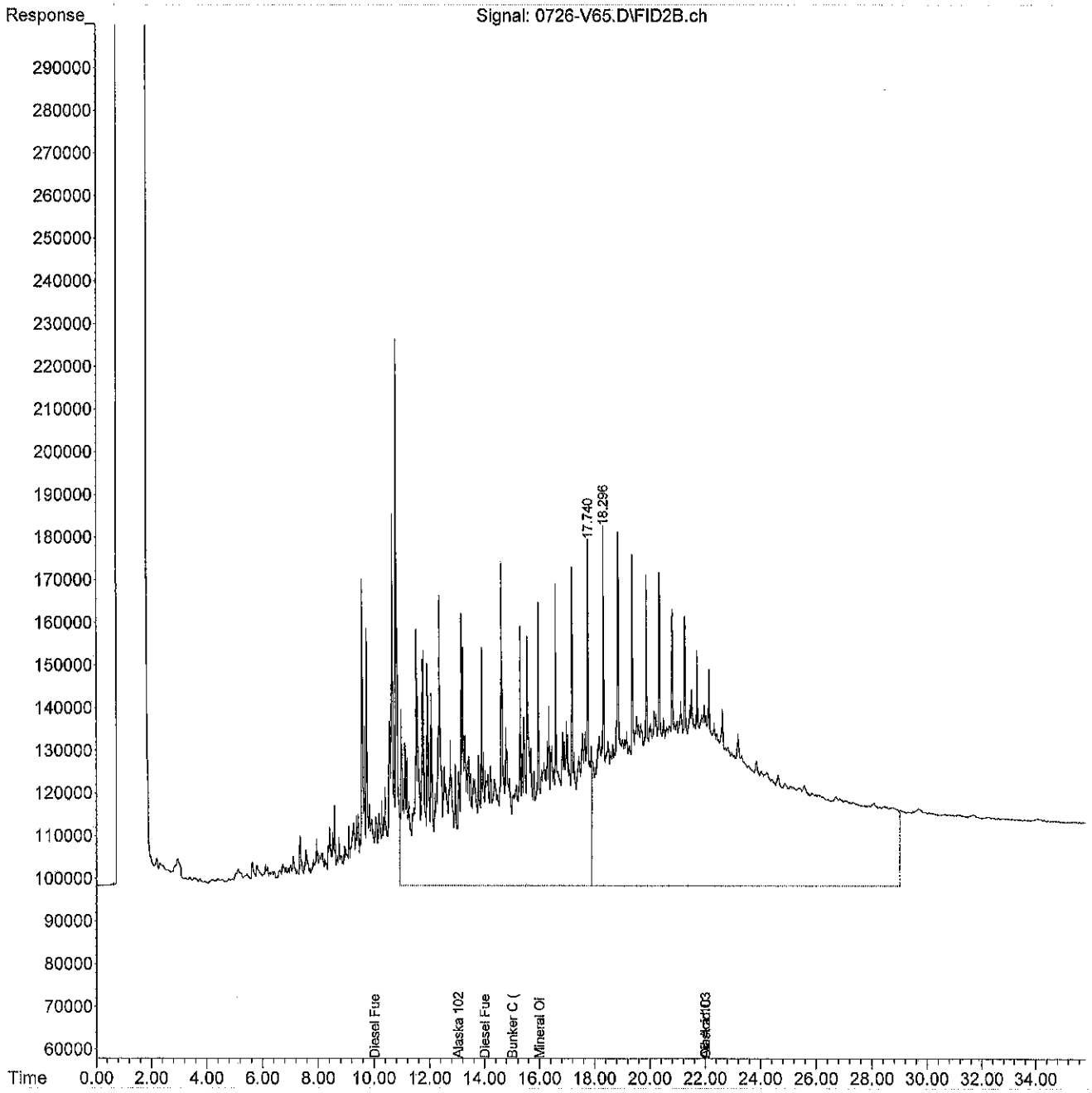
Quantitation Report (Not Reviewed)

Data File : 0726-V65.D
Sample : BC-CCV0726R-V1

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 18:30
Operator :
Misc : SV3-01-13
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 19:06:40 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V72.D
Sample : BC-CCV0726R-V2

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 23:12
Operator :
Misc : SV3-01-13
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 23:48:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6556811	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	123149224	51.362	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	169256346	66.574	PPM
6)	H	Oil	22.000	251208354	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	253762506	108.703	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	145560233	59.376	PPM
9)	H	Oil Combo	22.000	223087093	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	228554795	98.359	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	175395139	62.422	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	136445944	109.265	PPM
13)	H	Mineral Oil (03-14-12)	16.000	186076054	62.906	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	372582485	214.809	PPM
15)	H	ALKANE C9-C40	12.666	372010543	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	129734267	45.002	PPM
17)	H	Oil Acid Clean MO Com...	22.000	206246299	90.352	PPM

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

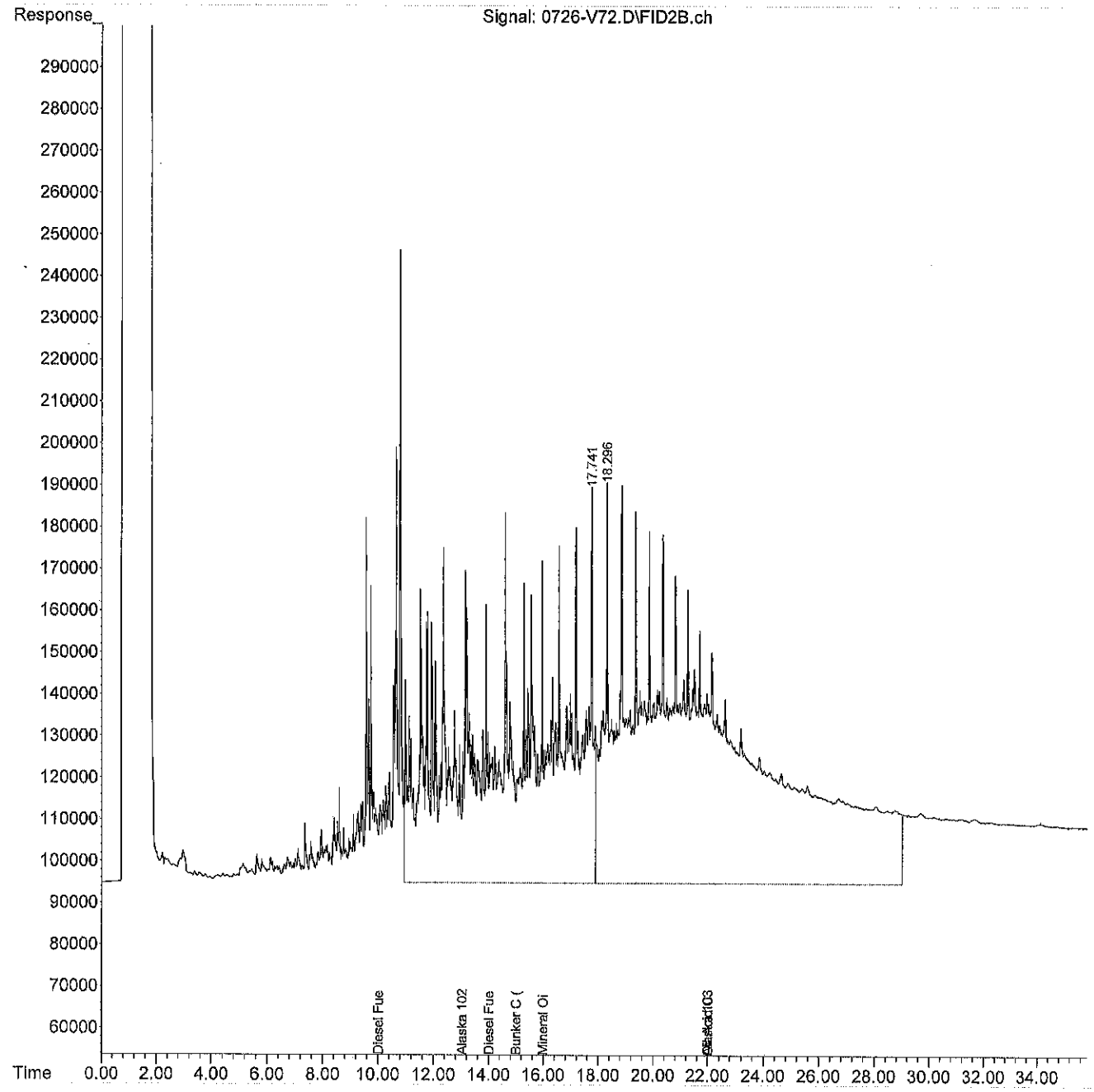
Quantitation Report (Not Reviewed)

Data File : 0726-V72.D
Sample : BC-CCV0726R-V2

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jul 2012 23:12
Operator :
Misc : SV3-01-13
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 23:48:37 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0726-V79.D
Sample : BC-CCV0726R-V3

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 27 Jul 2012 3:53
Operator :
Misc : SV3-01-13
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 04:29:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-14-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6338153	NoCal	PPM
4)	H	Diesel Fuel #1 (06-0...	10.000	120822438	50.366	PPM
5)	H	Diesel Fuel #2 (06-0...	14.000	165827737	65.234	PPM
6)	H	Oil	22.000	242001610	NoCal	PPM
7)	H	Oil Acid Clean (03-1...	22.000	244052737	103.848	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	142692489	58.214	PPM
9)	H	Oil Combo	22.000	214535042	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	219441960	93.718	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	171813360	61.041	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	131667977	105.074	PPM
13)	H	Mineral Oil (03-14-12)	16.000	181822042	61.353	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	360716204	206.450	PPM
15)	H	ALKANE C9-C40	12.666	360310962	NoCal	PPM
16)	H	Mineral Oil Combo (03...	16.000	127012464	43.970	PPM
17)	H	Oil Acid Clean MO Com...	22.000	197664688	85.839	PPM

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

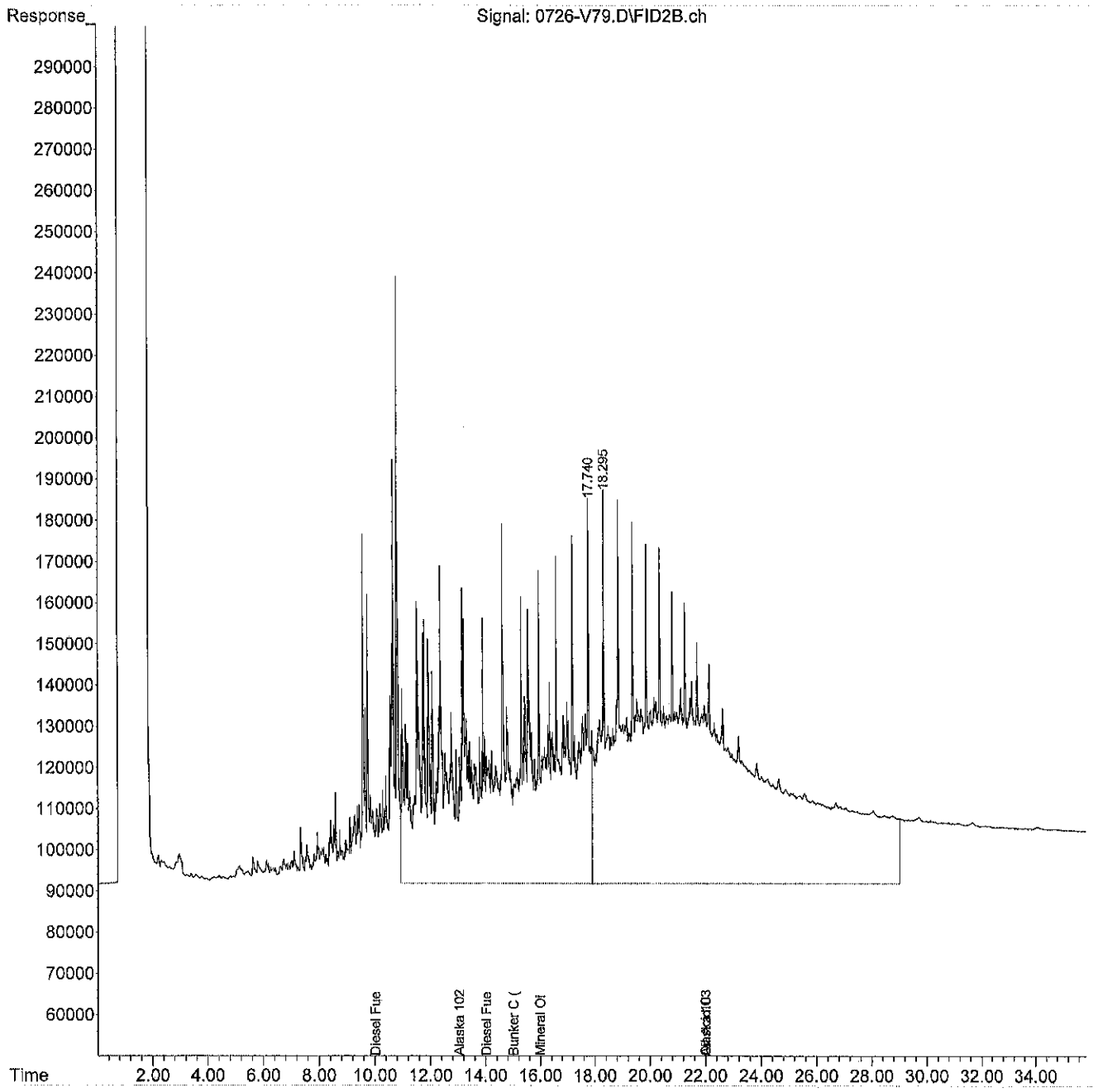
Quantitation Report (Not Reviewed)

Data File : 0726-V79.D
Sample : BC-CCV0726R-V3

Data Path : C:\msdchem\2\DATA\V120726.SEC\
Signal(s) : FID2B.ch
Acq On : 27 Jul 2012 3:53
Operator :
Misc : SV3-01-13
ALS Vial : 79 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 04:29:57 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120725R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0727-V01.D
Sample : BC-CCV0727F-V1

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 10:31
Operator :
Misc : SV3-01-13
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 11:07:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10218265	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	121311996	48.444	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	165610615	66.085	PPM
6)	H	Oil	22.000	226144353	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	224323235	89.144	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	141272368	58.467	PPM
9)	H	Oil Combo	22.000	199531106	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	200148194	79.405	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	169871680	64.672	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	122366809	105.484	PPM
13)	H	Mineral Oil (03-13-12)	16.000	177238029	66.477	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	337433891	218.113	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	346214471	4386.223	PPM
16)	H	Mineral Oil Combo (0...	16.000	124754542	49.051	PPM
17)	H	Oil Acid Clean MO Com...	22.000	179103752	71.691	PPM

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

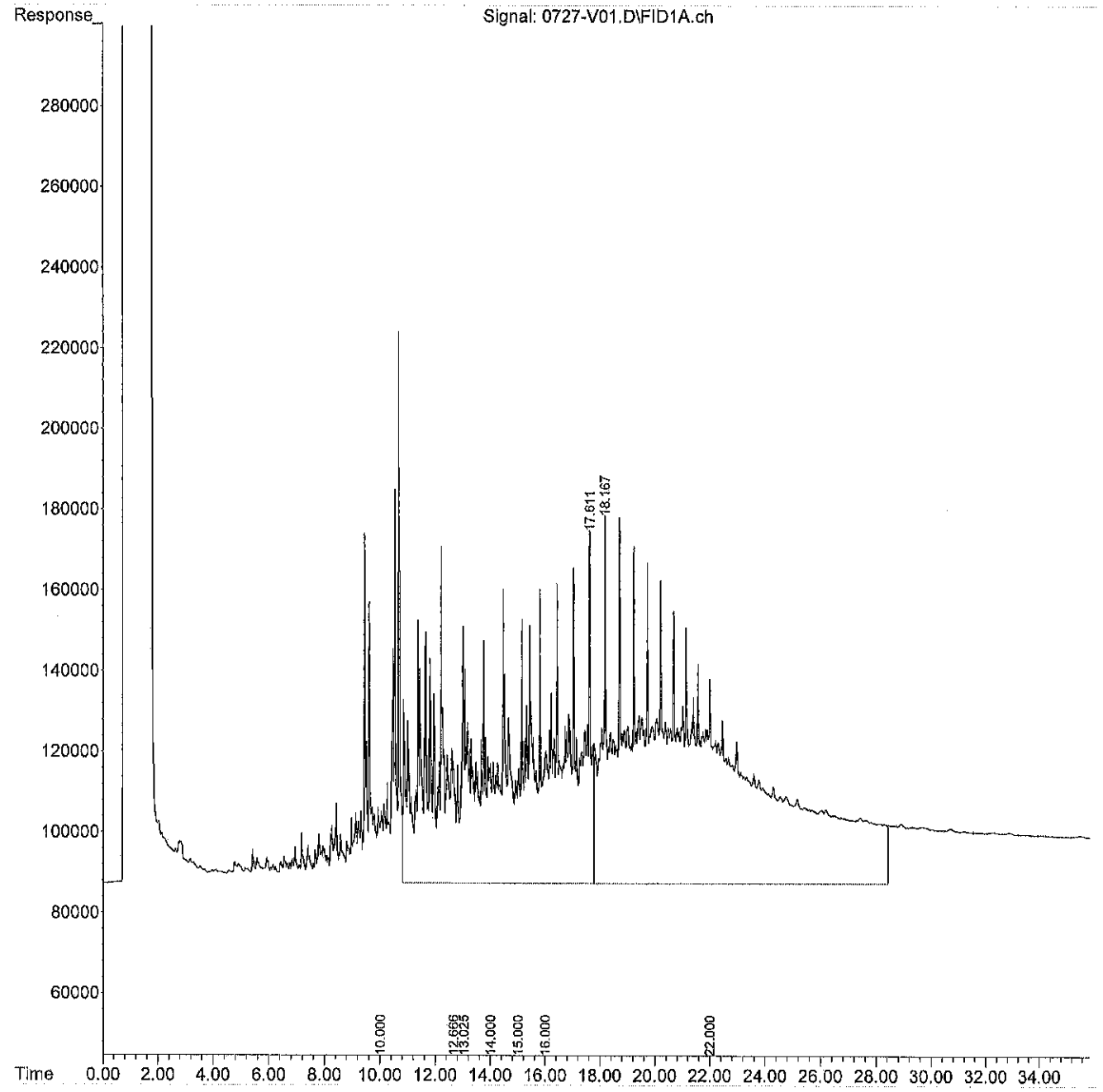
Quantitation Report (Not Reviewed)

Data File : 0727-V01.D
Sample : BC-CCV0727F-V1

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 10:31
Operator :
Misc : SV3-01-13
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 11:07:15 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0727-V11.D
Sample : BC-CCV0727F-V2

Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 17:20
Operator :
Misc : SV3-01-13
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 17:56:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (03-13-12)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9913964	NoCal	PPM
4)	H	Diesel Fuel #1 (03-1...	10.000	114566958	45.462	PPM
5)	H	Diesel Fuel #2 (03-...	14.000	156584906	62.273	PPM
6)	H	Oil	22.000	220005328	NoCal	PPM
7)	H	Oil Acid Clean (06-...	22.000	218643482	86.360	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	133391811	55.011	PPM
9)	H	Oil Combo	22.000	194772274	NoCal	PPM
10)	H	Oil Acid Clean Combo ...	22.000	195685589	77.168	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	160649454	61.020	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	118703776	102.104	PPM
13)	H	Mineral Oil (03-13-12)	16.000	168250931	62.818	PPM
14)	H	Bunker C (Fuel Oil #6...	15.000	324944049	208.335	PPM
15)	H	ALKANE C9-C40 10-26-07	12.666	333797413	4228.121	PPM
16)	H	Mineral Oil Combo (0...	16.000	118043267	46.270	PPM
17)	H	Oil Acid Clean MO Com...	22.000	175637156	69.891	PPM

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

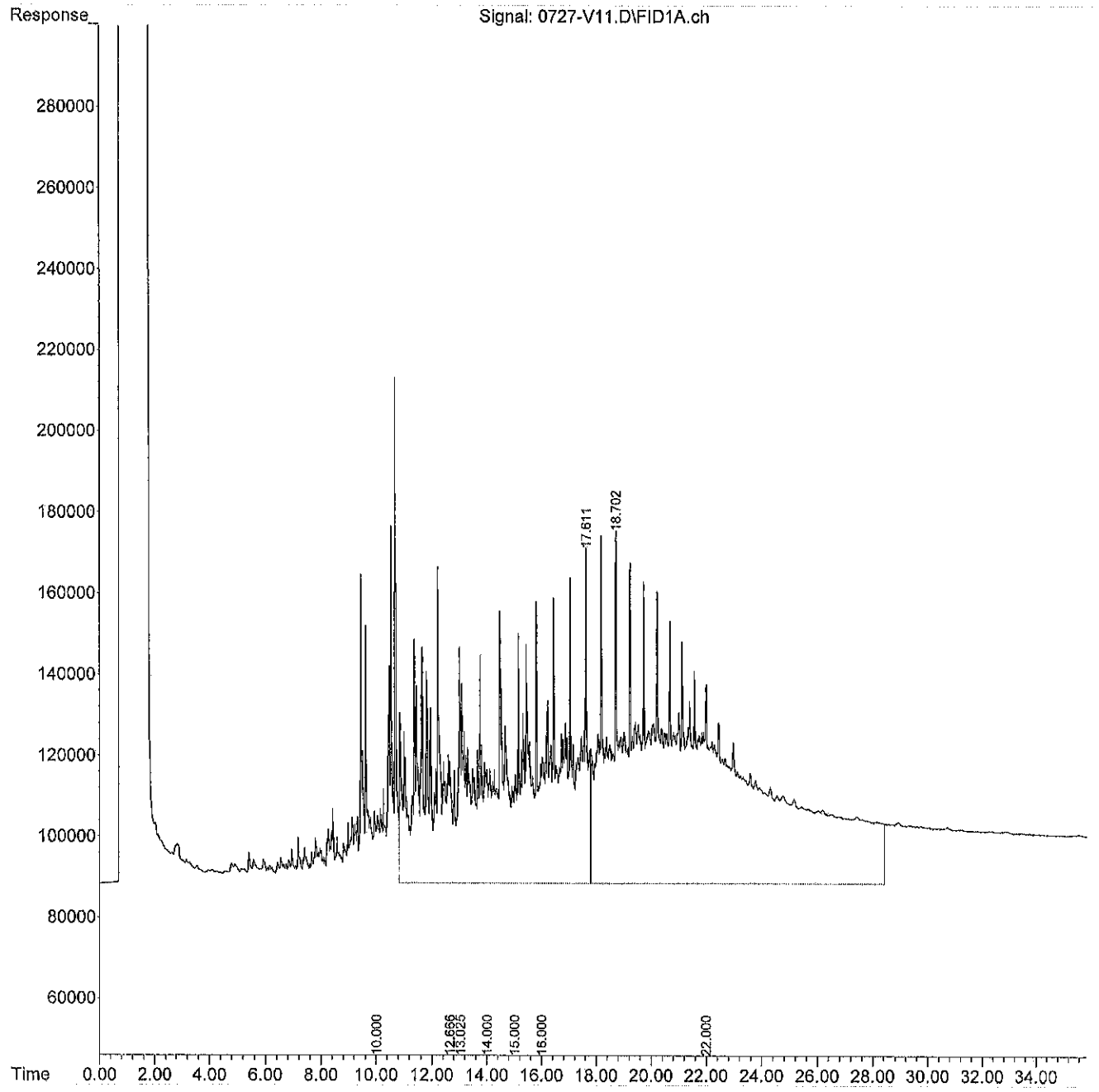
Quantitation Report (Not Reviewed)

Data File : 0727-V11.D
Sample : BC-CCV0727F-V2

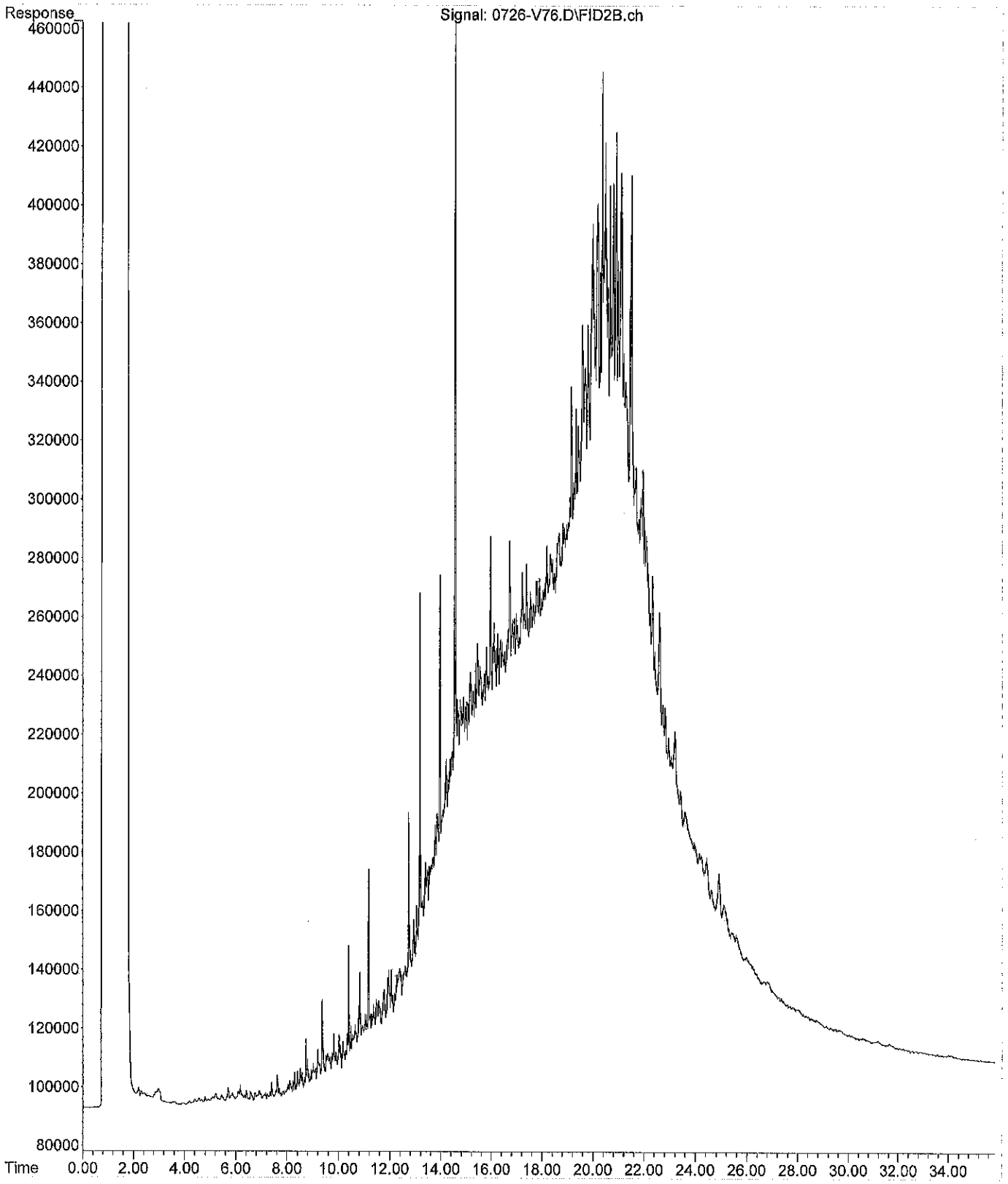
Data Path : C:\msdchem\2\DATA\V120727\
Signal(s) : FID1A.ch
Acq On : 27 Jul 2012 17:20
Operator :
Misc : SV3-01-13
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 27 17:56:11 2012
Quant Method : C:\MSDCHEM\2\METHODS\V120720F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

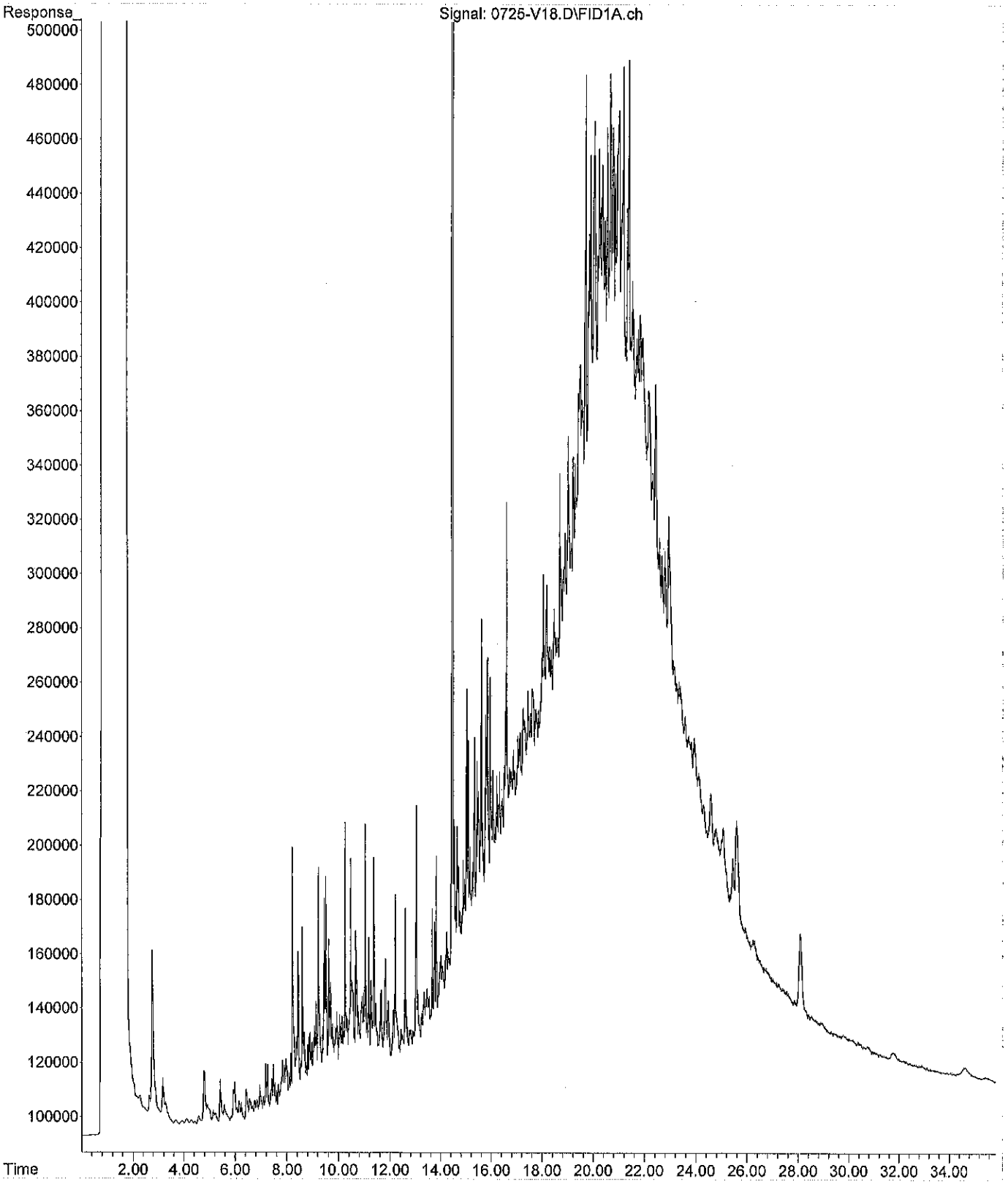
Volume Inj. :
Signal Phase :
Signal Info :



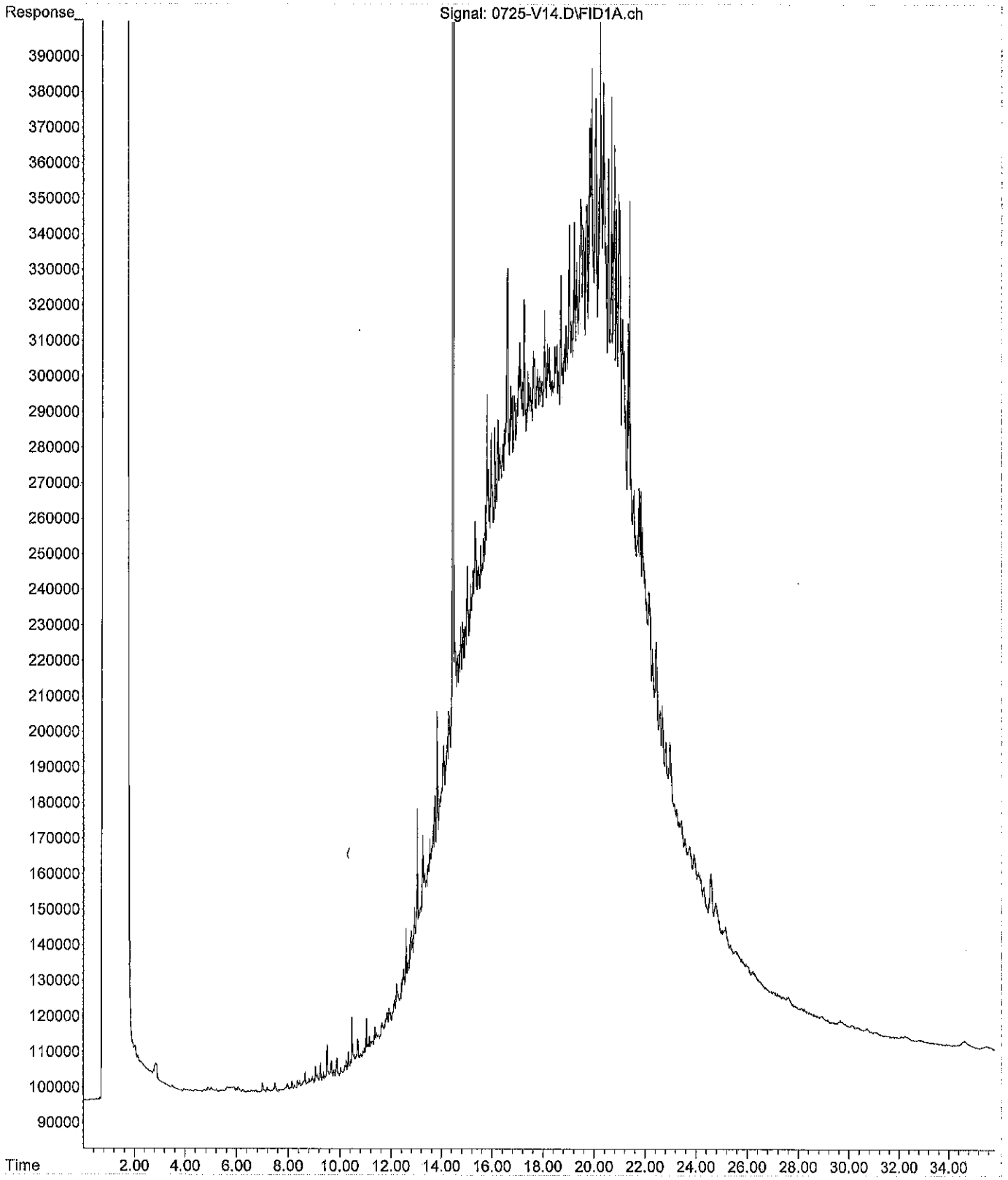
File :C:\msdchem\2\DATA\V120726.SEC\0726-V76.D
Operator :
Acquired : 27 Jul 2012 1:53 using AcqMethod V120720F.M
Instrument : VIGO
Sample Name: 06-226-38 10X
Misc Info :
Vial Number: 76



```
File        :C:\msdchem\2\DATA\V120725\0725-V18.D
Operator    :
Acquired    : 26 Jul 2012  00:29      using AcqMethod V120720F.M
Instrument  :   VIGO
Sample Name: 06-226-45
Misc Info   :
Vial Number: 18
```



```
File        :C:\msdchem\2\DATA\V120725\0725-V14.D
Operator    :
Acquired    : 25 Jul 2012  21:49      using AcqMethod V120720F.M
Instrument  :   VIGO
Sample Name: 06-226-46
Misc Info   :
Vial Number: 14
```



OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 13, 2012

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project Rayonier Sekiu
Laboratory Reference No. 1207-044

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on July 6, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

Case Narrative

Samples were collected on July 3, 2012 and received by the laboratory on July 6, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP3BIO-SWS-062712-3 100%	07-044-01	Soil	7-3-12	7-6-12	
TP3BIO-SWS-062712-3 50%	07-044-02	Soil	7-3-12	7-6-12	
TP3BIO-SWS-062712-3 25%	07-044-03	Soil	7-3-12	7-6-12	
TP3BIO-SWS-062712-3 12.5%	07-044-04	Soil	7-3-12	7-6-12	
TP3BIO-SWS-062712-3 6.25%	07-044-05	Soil	7-3-12	7-6-12	
TP1BIO-SWN-062712-3 100%	07-044-06	Soil	7-3-12	7-6-12	
TP1BIO-SWN-062712-3 50%	07-044-07	Soil	7-3-12	7-6-12	
TP1BIO-SWN-062712-3 25%	07-044-08	Soil	7-3-12	7-6-12	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3BIO-SWS-062712-3 100%**					
Laboratory ID:	07-044-01					
Bunker C	**11000**	660	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**TP3BIO-SWS-062712-3 50%**					
Laboratory ID:	07-044-02					
Bunker C	**3200**	360	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***92***	***50-150***				
Client ID:	**TP3BIO-SWS-062712-3 25%**					
Laboratory ID:	07-044-03					
Bunker C	**1900**	360	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				
Client ID:	**TP3BIO-SWS-062712-3 12.5%**					
Laboratory ID:	07-044-04					
Bunker C	**460**	72	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**TP3BIO-SWS-062712-3 6.25%**					
Laboratory ID:	07-044-05					
Bunker C	**260**	76	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***94***	***50-150***				
Client ID:	**TP1BIO-SWN-062712-3 100%**					
Laboratory ID:	07-044-06					
Bunker C	**1700**	360	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***94***	***50-150***				
Client ID:	**TP1BIO-SWN-062712-3 50%**					
Laboratory ID:	07-044-07					
Bunker C	**1200**	74	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***100***	***50-150***				
Client ID:	**TP1BIO-SWN-062712-3 25%**					
Laboratory ID:	07-044-08					
Bunker C	**770**	76	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0711S3					
Bunker C	**ND**	50	NWTPH-Dx	7-11-12	7-11-12	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***100***	***50-150***				

Analyte	Result		Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							
Laboratory ID:	07-044-05						
	ORIG	DUP					
Bunker C	**172**	**141**			20	NA	
Surrogate:							
o-Terphenyl			***94*** ***97***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY
(with acid/silica gel clean-up)

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BC-CCV0711R-V1	200	197	1.5	+/-15%
BC-CCV0711R-V2	200	203	-1.5	+/-15%
BC-CCV0711R-V3	200	218	-9.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2012
Samples Submitted: July 6, 2012
Laboratory Reference: 1207-044
Project: Rayonier Sekiu

% MOISTURE

Date Analyzed: 7-9-12

Client ID	Lab ID	% Moisture
TP3BIO-SWS-062712-3 100%	07-044-01	24
TP3BIO-SWS-062712-3 50%	07-044-02	30
TP3BIO-SWS-062712-3 25%	07-044-03	31
TP3BIO-SWS-062712-3 12.5%	07-044-04	30
TP3BIO-SWS-062712-3 6.25%	07-044-05	34
TP1BIO-SWN-062712-3 100%	07-044-06	30
TP1BIO-SWN-062712-3 50%	07-044-07	33
TP1BIO-SWN-062712-3 25%	07-044-08	34

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

NEWFIELDS

NewFields Northwest, LLC.
Shipping: 4729 NE View Dr.
Mailing: P.O. Box 216
Port Gamble, WA. 98364
Tel: (360) 297-6040, Fax: (360)297-7268

CHAIN OF CUSTODY

07-044

13894

Destination Lab: OnSite	**Sample Originator:** NewFields	**Report Results To:** GeoEngineers	Phone:
Destination Contact: David Baumeister	**Contact Name:** Brian Hester	**Contact Name:** Rob Leet	Fax:
Date:	**Address:**	**Address:**	Email:
Turn-Around-Time STANDARD			
Project Name GeoEngineers Sekiu Project	Phone:		
	Fax:		
Contract/PO:	E-mail		

Invoicing To: GeoEngineers

Comments or Special Instructions: quantify as bunker C

No.	Sample ID	Matrix	No. & Type of Container	Date & Time	Analysis: NWTPH-DX	Analysis: TPH as Bunker C	Analysis: % Moisture	Preservation	Sample Temp Upon Receipt	LAB ID
1	TP3B10-SWS-062712-3 100%	SS	1G Bot	7.3.12	X		X	4°C		
2	" " 50%									
3	" " 25%									
4	" " 12.5%									
5	" " 6.25%									
6	TP1B10-SWN-062712-3 100%									
7	" " 50%									
8	" " 25%									
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Relinquished by:	Recieved by:	Relinquished by:	Recieved by:	Matrix Codes
Print Name: Brian Hester	Print Name: M. VOUN	Print Name:	Print Name:	FW = Fresh Water
Signature:	Signature:	Signature:	Signature:	WW = Waste Water
Affiliation: NewFields	Affiliation: OTC	Affiliation:	Affiliation:	SB = Salt & Brackish Water
Date/Time: 7.5.12 1200	Date/Time: 7/6/12 1300	Date/Time:	Date/Time:	SS = Soil & Sediment
				TS = plant & Animal Tissue
				OT = Other

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: Sekiu Project

OnSite Project Number: 07-044

Initiated by: MV

Date Initiated: 7/6/12

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 6	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

2.4) Sample 1) TP3B10-SWS-062712-3 100% on COC
TP3B10 - 100% on jar
Sample 6) TP1B10-SWN-062712-3 100% on COC
TP1B10 - 100% on jar

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 4, 2013

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1305-146

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on May 15, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

Case Narrative

Samples were collected on May 13, 2013 and received by the laboratory on May 15, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PAHs EPA 8270D/SIM Analysis

Sample PCSB08-1.5 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Sample PCSB12-2-6 Comp. had two surrogate recoveries out of control limits due to sample matrix effects, no further action was taken.

Internal Standard Perylene-d12 does not meet acceptance criteria for samples PCSB09-1.5 and PCSB05-1.5 due to sample matrix effects. The samples were diluted with similar results. All results, including Practical Quantitation Limits, from Benzo[b]fluoranthene onward should be considered estimates.

Internal Standard Chrysene-d12 and Perylene-d12 does not meet acceptance criteria for samples PCSB12-1.5, PCSB07-1.5, PCSB02-6 and PCSB05-2-6 Comp. due to sample matrix effects. The samples were diluted with similar results. All results, including Practical Quantitation Limits, from Benzo[a]anthracene onward should be considered estimates.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
PCSB12-1.5	05-146-01	Soil	5-13-13	5-15-13	
PCSB12-2-6 Comp.	05-146-02,03,04 Comp.	Soil	5-13-13	5-15-13	
PCSB12-4.5	05-146-03	Soil	5-13-13	5-15-13	
PCSB13-1.5	05-146-05	Soil	5-13-13	5-15-13	
PCSB09-1.5	05-146-06	Soil	5-13-13	5-15-13	
PCSB10-1.5	05-146-07	Soil	5-13-13	5-15-13	
PCSB10-2-6 Comp.	05-146-08,09,10 Comp.	Soil	5-13-13	5-15-13	
PCSB10-4.5	05-146-09	Soil	5-13-13	5-15-13	
PCSB11-1.5	05-146-11	Soil	5-13-13	5-15-13	
PCSB11-2-6 Comp.	05-146-12,13,14 Comp.	Soil	5-13-13	5-15-13	
PCSB11-9	05-146-15	Soil	5-13-13	5-15-13	
PCSB11-13	05-146-16	Soil	5-13-13	5-15-13	
PCSB11-15	05-146-17	Soil	5-13-13	5-15-13	
PCSB08-1.5	05-146-18	Soil	5-13-13	5-15-13	
PCSB07-1.5	05-146-19	Soil	5-13-13	5-15-13	
PCSB03-1.5	05-146-20	Soil	5-13-13	5-15-13	
PCSB06-1.5	05-146-21	Soil	5-13-13	5-15-13	
PCSB06-2-6 Comp.	05-146-22,23,24 Comp.	Soil	5-13-13	5-15-13	
PCSB02-1.5	05-146-25	Soil	5-13-13	5-15-13	
PCSB02-2-6 Comp.	05-146-26,27,28 Comp.	Soil	5-13-13	5-15-13	
PCSB02-6	05-146-28	Soil	5-13-13	5-15-13	
PCSB05-1.5	05-146-29	Soil	5-13-13	5-15-13	
PCSB05-2-6 Comp.	05-146-30,31,32 Comp.	Soil	5-13-13	5-15-13	
PCSB01-1.5	05-146-33	Soil	5-13-13	5-15-13	
PCSB04-1.5	05-146-34	Soil	5-13-13	5-15-13	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB12-1.5**					
Laboratory ID:	05-146-01					
Bunker C	**810**	58	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***89***	***50-150***				
Client ID:	**PCSB12-2-6 Comp.**					
Laboratory ID:	05-146-02,03,04 Comp.					
Bunker C	**1200**	63	NWTPH-Dx	5-20-13	5-21-13	M1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***62***	***50-150***				
Client ID:	**PCSB12-4.5**					
Laboratory ID:	05-146-03					
Bunker C	**1100**	67	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***57***	***50-150***				
Client ID:	**PCSB12-4.5**					
Laboratory ID:	05-146-03					
Bunker C	**910**	67	NWTPH-Dx	5-20-13	5-20-13	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***62***	***50-150***				
Client ID:	**PCSB13-1.5**					
Laboratory ID:	05-146-05					
Bunker C	**370**	58	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***96***	***50-150***				
Client ID:	**PCSB09-1.5**					
Laboratory ID:	05-146-06					
Bunker C	**760**	61	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***82***	***50-150***				
Client ID:	**PCSB10-1.5**					
Laboratory ID:	05-146-07					
Bunker C	**15000**	580	NWTPH-Dx	5-20-13	5-23-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB10-2-6 Comp.**					
Laboratory ID:	05-146-08,09,10 Comp.					
Bunker C	**5800**	310	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***67***	***50-150***				
Client ID:	**PCSB10-4.5**					
Laboratory ID:	05-146-09					
Bunker C	**17000**	640	NWTPH-Dx	5-20-13	5-23-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**PCSB11-1.5**					
Laboratory ID:	05-146-11					
Bunker C	**610**	58	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***86***	***50-150***				
Client ID:	**PCSB11-2-6 Comp.**					
Laboratory ID:	05-146-12,13,14 Comp.					
Bunker C Range	**ND**	58	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**PCSB11-9**					
Laboratory ID:	05-146-15					
Bunker C Range	**ND**	54	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**PCSB11-13**					
Laboratory ID:	05-146-16					
Bunker C	**6000**	350	NWTPH-Dx	5-20-13	5-23-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***72***	***50-150***				
Client ID:	**PCSB11-15**					
Laboratory ID:	05-146-17					
Bunker C Range	**ND**	63	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***88***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB08-1.5**					
Laboratory ID:	05-146-18					
Bunker C	**1300**	61	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***86***	***50-150***				
Client ID:	**PCSB07-1.5**					
Laboratory ID:	05-146-19					
Bunker C	**2300**	52	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***102***	***50-150***				
Client ID:	**PCSB03-1.5**					
Laboratory ID:	05-146-20					
Bunker C	**3000**	64	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**PCSB06-1.5**					
Laboratory ID:	05-146-21					
Bunker C Range	**ND**	53	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				
Client ID:	**PCSB06-2-6 Comp.**					
Laboratory ID:	05-146-22,23,24 Comp.					
Bunker C Range	**ND**	70	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***69***	***50-150***				
Client ID:	**PCSB02-1.5**					
Laboratory ID:	05-146-25					
Bunker C	**780**	60	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**PCSB02-2-6 Comp.**					
Laboratory ID:	05-146-26,27,28 Comp.					
Bunker C	**1600**	55	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***81***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB02-6**					
Laboratory ID:	05-146-28					
Bunker C	**1900**	54	NWTPH-Dx	5-20-13	5-23-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***91***	***50-150***				
Client ID:	**PCSB05-1.5**					
Laboratory ID:	05-146-29					
Bunker C	**64**	54	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**PCSB05-2-6 Comp.**					
Laboratory ID:	05-146-30,31,32 Comp.					
Bunker C	**2600**	64	NWTPH-Dx	5-20-13	5-21-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***79***	***50-150***				
Client ID:	**PCSB01-1.5**					
Laboratory ID:	05-146-33					
Bunker C	**110**	67	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***64***	***50-150***				
Client ID:	**PCSB04-1.5**					
Laboratory ID:	05-146-34					
Bunker C	**3400**	290	NWTPH-Dx	5-20-13	5-23-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***96***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx
(re-analysis)

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB03-1.5**					
Laboratory ID:	05-146-20					
Bunker C	**1600**	320	NWTPH-Dx	5-24-13	5-24-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***82***	***50-150***				
Client ID:	**PCSB04-1.5**					
Laboratory ID:	05-146-34					
Bunker C	**2300**	290	NWTPH-Dx	5-24-13	5-24-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***78***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB12-1.5**					
Laboratory ID:	05-146-01					
Benzo[a]anthracene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Chrysene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[b]fluoranthene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo(j,k)fluoranthene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[a]pyrene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Dibenz[a,h]anthracene	**ND**	0.039	EPA 8270D/SIM	5-22-13	5-31-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***47***	***43 - 116***				
Pyrene-d10	***45***	***33 - 124***				
Terphenyl-d14	***68***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB12-2-6 Comp.**					
Laboratory ID:	05-146-02,03,04 Comp.					
Benzo[a]anthracene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Chrysene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[b]fluoranthene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo(j,k)fluoranthene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[a]pyrene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Dibenz[a,h]anthracene	**ND**	0.0084	EPA 8270D/SIM	5-21-13	5-29-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***48***	***43 - 116***				
Pyrene-d10	***29***	***33 - 124***				Q
Terphenyl-d14	***33***	***38 - 125***				Q

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB13-1.5**					
Laboratory ID:	05-146-05					
Benzo[a]anthracene	**ND**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**0.0083**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**0.0097**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0077	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***49***	***43 - 116***				
Pyrene-d10	***53***	***33 - 124***				
Terphenyl-d14	***51***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB09-1.5**					
Laboratory ID:	05-146-06					
Benzo[a]anthracene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Chrysene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[b]fluoranthene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo(j,k)fluoranthene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[a]pyrene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Dibenz[a,h]anthracene	**ND**	0.041	EPA 8270D/SIM	5-22-13	5-31-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***51***	***43 - 116***				
Pyrene-d10	***50***	***33 - 124***				
Terphenyl-d14	***76***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB11-1.5**					
Laboratory ID:	05-146-11					
Benzo[a]anthracene	**0.012**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**0.022**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**0.029**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**0.013**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**0.011**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***62***	***43 - 116***				
Pyrene-d10	***61***	***33 - 124***				
Terphenyl-d14	***70***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB11-2-6 Comp.**					
Laboratory ID:	05-146-12,13,14 Comp.					
Benzo[a]anthracene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Chrysene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[b]fluoranthene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo(j,k)fluoranthene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[a]pyrene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Dibenz[a,h]anthracene	**ND**	0.0077	EPA 8270D/SIM	5-21-13	5-29-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***70***	***43 - 116***				
Pyrene-d10	***71***	***33 - 124***				
Terphenyl-d14	***74***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB08-1.5**					
Laboratory ID:	05-146-18					
Benzo[a]anthracene	**0.019**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**0.026**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**0.027**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**0.015**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**0.013**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***39***	***43 - 116***				Q
Pyrene-d10	***41***	***33 - 124***				
Terphenyl-d14	***43***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB07-1.5**					
Laboratory ID:	05-146-19					
Benzo[a]anthracene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0069	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***65***	***43 - 116***				
Pyrene-d10	***64***	***33 - 124***				
Terphenyl-d14	***80***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB06-1.5**					
Laboratory ID:	05-146-21					
Benzo[a]anthracene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0071	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***69***	***43 - 116***				
Pyrene-d10	***73***	***33 - 124***				
Terphenyl-d14	***79***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB06-2-6 Comp.**					
Laboratory ID:	05-146-22,23,24 Comp.					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Chrysene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[b]fluoranthene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[a]pyrene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270D/SIM	5-21-13	5-29-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***60***	***43 - 116***				
Pyrene-d10	***62***	***33 - 124***				
Terphenyl-d14	***64***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB02-1.5**					
Laboratory ID:	05-146-25					
Benzo[a]anthracene	**0.079**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Chrysene	**0.14**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Benzo[b]fluoranthene	**0.066**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Benzo(j,k)fluoranthene	**ND**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Benzo[a]pyrene	**0.042**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Dibenz[a,h]anthracene	**ND**	0.040	EPA 8270D/SIM	5-22-13	5-29-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***64***	***43 - 116***				
Pyrene-d10	***49***	***33 - 124***				
Terphenyl-d14	***68***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB02-6**					
Laboratory ID:	05-146-28					
Benzo[a]anthracene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Chrysene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[b]fluoranthene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo(j,k)fluoranthene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[a]pyrene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Dibenz[a,h]anthracene	**ND**	0.036	EPA 8270D/SIM	5-22-13	5-31-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***62***	***43 - 116***				
Pyrene-d10	***51***	***33 - 124***				
Terphenyl-d14	***62***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB05-1.5**					
Laboratory ID:	05-146-29					
Benzo[a]anthracene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Chrysene	**0.0078**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270D/SIM	5-22-13	5-31-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***65***	***43 - 116***				
Pyrene-d10	***66***	***33 - 124***				
Terphenyl-d14	***70***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB05-2-6 Comp.**					
Laboratory ID:	05-146-30,31,32 Comp.					
Benzo[a]anthracene	**0.028**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Chrysene	**0.062**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[b]fluoranthene	**0.024**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Benzo[a]pyrene	**0.019**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Indeno(1,2,3-c,d)pyrene	**0.013**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	5-21-13	5-29-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***54***	***43 - 116***				
Pyrene-d10	***43***	***33 - 124***				
Terphenyl-d14	***55***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB01-1.5**					
Laboratory ID:	05-146-33					
Benzo[a]anthracene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0090	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***66***	***43 - 116***				
Pyrene-d10	***68***	***33 - 124***				
Terphenyl-d14	***76***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB03-1.5**					
Laboratory ID:	05-146-20					
Benzo[a]anthracene	**0.087**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Chrysene	**0.17**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo[b]fluoranthene	**0.098**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo(j,k)fluoranthene	**ND**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo[a]pyrene	**0.067**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Indeno(1,2,3-c,d)pyrene	**0.052**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Dibenz[a,h]anthracene	**ND**	0.043	EPA 8270D/SIM	5-22-13	6-4-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***46***	***43 - 116***				
Pyrene-d10	***46***	***33 - 124***				
Terphenyl-d14	***48***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB04-1.5**					
Laboratory ID:	05-146-34					
Benzo[a]anthracene	**0.13**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Chrysene	**0.25**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo[b]fluoranthene	**0.13**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo(j,k)fluoranthene	**ND**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Benzo[a]pyrene	**0.10**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Indeno(1,2,3-c,d)pyrene	**0.072**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Dibenz[a,h]anthracene	**0.053**	0.038	EPA 8270D/SIM	5-22-13	6-4-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***61***	***43 - 116***				
Pyrene-d10	***64***	***33 - 124***				
Terphenyl-d14	***67***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0520S2					
Bunker C Range	**ND**	50	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***92***	***50-150***				
Laboratory ID:	MB0520S3					
Bunker C Range	**ND**	50	NWTPH-Dx	5-20-13	5-20-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***94***	***50-150***				
Laboratory ID:	MB0520S3					
Bunker C Range	**ND**	50	NWTPH-Dx	5-20-13	5-20-13	X1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	05-146-01							
	ORIG	DUP						
Bunker C	**702**	**624**				12	NA	
Surrogate:								
o-Terphenyl			***89***	***83***	***50-150***			
Laboratory ID:	05-146-05							
	ORIG	DUP						
Bunker C	**322**	**264**				20	NA	
Surrogate:								
o-Terphenyl			***96***	***67***	***50-150***			
Laboratory ID:	05-146-22,23,24 Comp.							
	ORIG	DUP						
Bunker C Range	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			***69***	***68***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BUNKCCV0520F-V3	100	87.2	12.8	+/-15%
BUNKCCV0520F-V5	500	472	5.6	+/-15%
BUNKCCV0520F-V6	500	533	-6.6	+/-15%
BUNKCCV0520R-V2	100	90.9	9.1	+/-15%
BUNKCCV0520R-V4	500	472	5.6	+/-15%
BUNKCCV0520R-V5	500	505	-1.0	+/-15%
BUNKCCV0521F-V1	500	531	-6.2	+/-15%
BUNKCCV0521F-V2	500	494	1.2	+/-15%
BUNKCCV0521F-V3	500	520	-4.0	+/-15%
BUNKCCV0521R-V1	500	511	-2.2	+/-15%
BUNKCCV0521R-V2	500	508	-1.6	+/-15%
BUNKCCV0521R-V3	500	524	-4.8	+/-15%
BUNKCCV0523F-V1	500	438	12.4	+/-15%
BUNKCCV0523F-V2	500	490	2.0	+/-15%
BUNKCCV0523R-V2	500	444	11.2	+/-15%
BUNKCCV0523R-V3	500	498	0.4	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0524S3					
Bunker C Range	**ND**	50	NWTPH-Dx	5-24-13	5-24-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***88***	***50-150***				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	05-146-20							
	ORIG	DUP						
Bunker C	**1270**	**1140**				11	NA	
Surrogate:								
o-Terphenyl			***82***	***88***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BUNKCCV0524F-V1	500	447	11	+/-15%
BUNKCCV0524F-V2	500	478	4.4	+/-15%
BUNKCCV0524R-V1	500	441	12	+/-15%
BUNKCCV0524R-V2	500	477	4.6	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0521S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-21-13	5-22-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***84***	***43 - 116***				
Pyrene-d10	***89***	***33 - 124***				
Terphenyl-d14	***94***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0522S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***80***	***43 - 116***				
Pyrene-d10	***87***	***33 - 124***				
Terphenyl-d14	***89***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0521S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0709**	**0.0691**	0.0833	0.0833	85	83	58 - 115	3	13	
Chrysene	**0.0758**	**0.0748**	0.0833	0.0833	91	90	64 - 114	1	11	
Benzo[b]fluoranthene	**0.0717**	**0.0712**	0.0833	0.0833	86	85	52 - 125	1	19	
Benzo(j,k)fluoranthene	**0.0696**	**0.0715**	0.0833	0.0833	84	86	50 - 126	3	22	
Benzo[a]pyrene	**0.0727**	**0.0713**	0.0833	0.0833	87	86	43 - 123	2	16	
Indeno(1,2,3-c,d)pyrene	**0.0690**	**0.0691**	0.0833	0.0833	83	83	55 - 118	0	16	
Dibenz[a,h]anthracene	**0.0709**	**0.0706**	0.0833	0.0833	85	85	57 - 120	0	15	
Surrogate:										
2-Fluorobiphenyl					***83***	***82***	***43 - 116***			
Pyrene-d10					***88***	***88***	***33 - 124***			
Terphenyl-d14					***94***	***96***	***38 - 125***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0522S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0801**	**0.0792**	0.0833	0.0833	96	95	58 - 115	1	13	
Chrysene	**0.0661**	**0.0673**	0.0833	0.0833	79	81	64 - 114	2	11	
Benzo[b]fluoranthene	**0.0821**	**0.0787**	0.0833	0.0833	99	94	52 - 125	4	19	
Benzo(j,k)fluoranthene	**0.0705**	**0.0734**	0.0833	0.0833	85	88	50 - 126	4	22	
Benzo[a]pyrene	**0.0835**	**0.0844**	0.0833	0.0833	100	101	43 - 123	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0668**	**0.0676**	0.0833	0.0833	80	81	55 - 118	1	16	
Dibenz[a,h]anthracene	**0.0613**	**0.0633**	0.0833	0.0833	74	76	57 - 120	3	15	
Surrogate:										
2-Fluorobiphenyl					***75***	***80***	***43 - 116***			
Pyrene-d10					***90***	***94***	***33 - 124***			
Terphenyl-d14					***85***	***87***	***38 - 125***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0522S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	5-22-13	5-28-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***80***	***43 - 116***				
Pyrene-d10	***87***	***33 - 124***				
Terphenyl-d14	***89***	***38 - 125***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0522S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0801**	**0.0792**	0.0833	0.0833	96	95	58 - 115	1	13	
Chrysene	**0.0661**	**0.0673**	0.0833	0.0833	79	81	64 - 114	2	11	
Benzo[b]fluoranthene	**0.0821**	**0.0787**	0.0833	0.0833	99	94	52 - 125	4	19	
Benzo(j,k)fluoranthene	**0.0705**	**0.0734**	0.0833	0.0833	85	88	50 - 126	4	22	
Benzo[a]pyrene	**0.0835**	**0.0844**	0.0833	0.0833	100	101	43 - 123	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0668**	**0.0676**	0.0833	0.0833	80	81	55 - 118	1	16	
Dibenz[a,h]anthracene	**0.0613**	**0.0633**	0.0833	0.0833	74	76	57 - 120	3	15	
Surrogate:										
2-Fluorobiphenyl					***75***	***80***	***43 - 116***			
Pyrene-d10					***90***	***94***	***33 - 124***			
Terphenyl-d14					***85***	***87***	***38 - 125***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2013
Samples Submitted: May 15, 2013
Laboratory Reference: 1305-146
Project: 0137-018-03

% MOISTURE

Date Analyzed: 5-20-13

Client ID	Lab ID	% Moisture
PCSB12-1.5	05-146-01	14
PCSB12-2.7	05-146-02	18
PCSB12-4.5	05-146-03	25
PCSB12-5.3	05-146-04	19
PCSB13-1.5	05-146-05	14
PCSB09-1.5	05-146-06	18
PCSB10-1.5	05-146-07	14
PCSB10-2.7	05-146-08	19
PCSB10-4.5	05-146-09	22
PCSB10-5.3	05-146-10	20
PCSB11-1.5	05-146-11	14
PCSB11-2.7	05-146-12	10
PCSB11-4	05-146-13	13
PCSB11-5.3	05-146-14	16
PCSB11-9	05-146-15	6
PCSB11-13	05-146-16	29
PCSB11-15	05-146-17	20
PCSB08-1.5	05-146-18	18
PCSB07-1.5	05-146-19	3
PCSB03-1.5	05-146-20	22
PCSB06-1.5	05-146-21	6
PCSB06-2.7	05-146-22	27
PCSB06-4	05-146-23	29
PCSB06-5.3	05-146-24	29
PCSB02-1.5	05-146-25	17
PCSB02-2.5	05-146-26	11
PCSB02-4	05-146-27	9
PCSB02-6	05-146-28	8
PCSB05-1.5	05-146-29	8
PCSB05-3.5	05-146-30	19
PCSB05-4.5	05-146-31	21
PCSB05-5.5	05-146-32	24
PCSB01-1.5	05-146-33	26
PCSB04-1.5	05-146-34	13

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 1 of 4

Laboratory Number: 05-146

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ragonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Composite* Bunker C	Bunker C	Bunker C w/ Silica Acid Gel cleanup				% Moisture
1	PCSB12-1.5	5/13/13	1010	Soil	1								H									X					
2	PCSB12-2.7		1035		1								H		comp.						X						
3	PCSB12-4.5		1040		2								H		comp.						X	X					
4	PCSB12-5.3		1045		1								H		comp.						X						
5	PCSB13-1.5		1110		1								H								X						
6	PCSB09-1.5		1125		1								H								X						
7	PCSB10-1.5		1135		1								H								X						
8	PCSB10-2.7		1150		1																						
9	PCSB10-4.5		1155		2								H								X						
10	PCSB10-5.3		1200		1																						

	Signature	Company	Date	Time
Relinquished		GeoEngineers	5/15/13	1005
Received		Speedy Messenger	5/15/13	1005
Relinquished		Speedy Messenger	5/15/13	1128
Received		ORE	5/15/13	1128
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = extract and hold pending results of Bunker C analysis. Run cPAHs if Bunker C results are less than 2,640 mg/kg.

* Composite these Discrete Samples to create The PCSB##-2-6 samples, extract and hold for cPAHs as above. Samples w/ second Jar are for Discrete and Composite analysis.

● Request 5/20/13. DB (STAT)

☒ Analyze 5/24/13. DB

○ Request 5/24/13. (3 days) (STAT)

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Equis 5

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Ragonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 05-146

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Composite * Bunker C	Bunker C	Bunker C w/ Silica Gel cleanup	Bunker C reanalysis **		% Moisture
11	PCSB11-1.5	5/13/13	1220	Soil	1								H									X				
12	PCSB11-2.7	↓	1225	↓	1								H													
13	PCSB11-4		1228		1								H		comp.											
14	PCSB11-5.3		1230		1								H													
15	PCSB11-9		1235		1								H									X				
16	PCSB11-13		1245		1								H									X				
17	PCSB11-15		1300		1								H									X				
18	PCSB08-1.5		1325		1								H									X				
19	PCSB07-1.5		1345		1								H									X				
20	PCSB03-1,5	↓	1405	↓	1								●									X			0	

	Signature	Company	Date	Time
Relinquished		GeoEngineers	5/15/13	1005
Received		Speedy messenger	5/15/13	10:05
Relinquished		Speedy messenger	5/15/13	11:28
Received		ORE	5/15/13	1128
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = extract & Hold see page 1 Note

* = see Composite Note on page 1

** - HOMOGENIZE ENTIRE JAR FIRST -
O - Added 5/24/13. DB (2 day TAT)

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Equis

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 05-146

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Composite * Bunker C	Bunker C	Bunker C w/ Silica Gel Acid Cleanup		% Moisture
21	PCSB06-1.5	5/13/13	1425	Soil	1								H										X			X
22	PCSB06-2.7		1430		1								H		comp.							X				X
23	PCSB06-4		1435		1								H		comp.							X				X
24	PCSB06-5.3		1440		1								H		comp.							X				X
25	PCSB02-1.5		1445		1								H										X			X
26	PCSB02-2.5		1450		1																	X				X
27	PCSB02-4		1453		1																	X				X
28	PCSB02-6		1455		2								H									X	X			X
29	PCSB05-1.5		1510		1								H										X			X
30	PCSB05-3.5		1530		1								H		-Run Composite w/ #31,32							X				X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	5/15/13	1005
Received		Speedy messenger	5/15/13	1005
Relinquished		Speedy messenger	5/15/13	11:28
Received			5/15/13	1128
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = extract & Hold see Page 1 Note

* see Composite Note on Page 1

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Equis 5

Chain of Custody

Page 4 of 4

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 05-146

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.
31	PCSB@5-4.5	5/13/13	1535	Soil	1
32	PCSB@5-5.5		1540		1
33	PCSB@1-1.5		1550		1
34	PCSB@4-1.5		1605		1

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Composite* Bunker C	Bunker C	Bunker C w/ silica gel cleanup	Bunker C - remove sulfur**	% Moisture
31								X									X				X
32																					X
33								H										X			X
34								●										X		0	X

Comp #1 #30 — Chemistry only

	Signature	Company	Date	Time
Relinquished		GeoEngineers	5/15/13	1005
Received		Speedy messenger	5/15/13	1005
Relinquished		Speedy messenger	5/15/13	11:23
Received		OSE	5/15/13	1128
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = extract & Hold See page 1 Note

* = See composite Note on page 1

** - HOMOGENIZE JAR FIRST

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Equis

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 05-146

Initiated by: MV

Date Initiated: 5/15/13

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 5	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup / Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- cPAHs EPA 8270D/SIM Data
- cPAHs EPA 8270D/SIM Data
- NWTPH-Dx (Bunker-C) Data
- NWTPH-Dx (Bunker-C) re-analysis Data

cPAHs Data

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531026.D
Acq On : 31 May 2013 7:13 pm
Operator :
Sample : 05-146-01 5X
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 03 08:40:53 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.861	136	178269	2000.00	ppb	0.00
6) Acenaphthene-d10	5.104	164	93623	2000.00	ppb	0.00
10) Phenanthrene-d10	6.117	188	139166	2000.00	ppb	0.00
17) Chrysene-d12	8.148	240	78831	2000.00	ppb	0.00
21) Perylene-d12	9.564	264	~~60607~~ OVX	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.339	82	2361	105.13	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	10.51%#		
7) 2-Fluorobiphenyl	4.653	172	6514	94.17	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	9.42%#		
11) Pyrene-d10	7.088	212	5488	90.90	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	9.09%#		
18) Terphenyl-d14	7.251	244	4413	135.87	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	13.59%#		
Target Compounds						Qvalue
3) Naphthalene	3.879	128	2927	27.20	ppb	100
4) 2-Methylnaphthalene	4.379	142	4159	58.51	ppb	100
5) 1-Methylnaphthalene	4.446	142	1552	21.88	ppb	100
8) Acenaphthylene	5.003	152	467	4.70	ppb	100
9) Acenaphthene	5.127	153	284	3.80	ppb	100
12) Fluorene	5.489	166	457	6.25	ppb	100
13) Phenanthrene	6.128	178	4328	45.54	ppb	100
14) Anthracene	6.164	178	927	9.67	ppb	100
15) Fluoranthene	6.937	202	1632	17.86	ppb	100
16) Pyrene	7.100	202	2170	22.74	ppb	100
19) Benzo[a]anthracene	8.140	228	1413	34.36	ppb	100
20) Chrysene	8.167	228	1692	37.13	ppb	100
22) Benzo[b]fluoranthene	9.193	252	974	26.51	ppb	100
23) Benzo(j,k)fluoranthene	~~9.193~~ 9.216	252	974	~~27.21~~	ppb 26.96	100
24) Benzo[a]pyrene	9.505	252	607	14.94	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.556	276	379	10.12	ppb	100
26) Dibenz[a,h]anthracene	10.583	278	199	6.46	ppb	100
27) Benzo[g,h,i]perylene	10.778	276	749	31.25	ppb	100

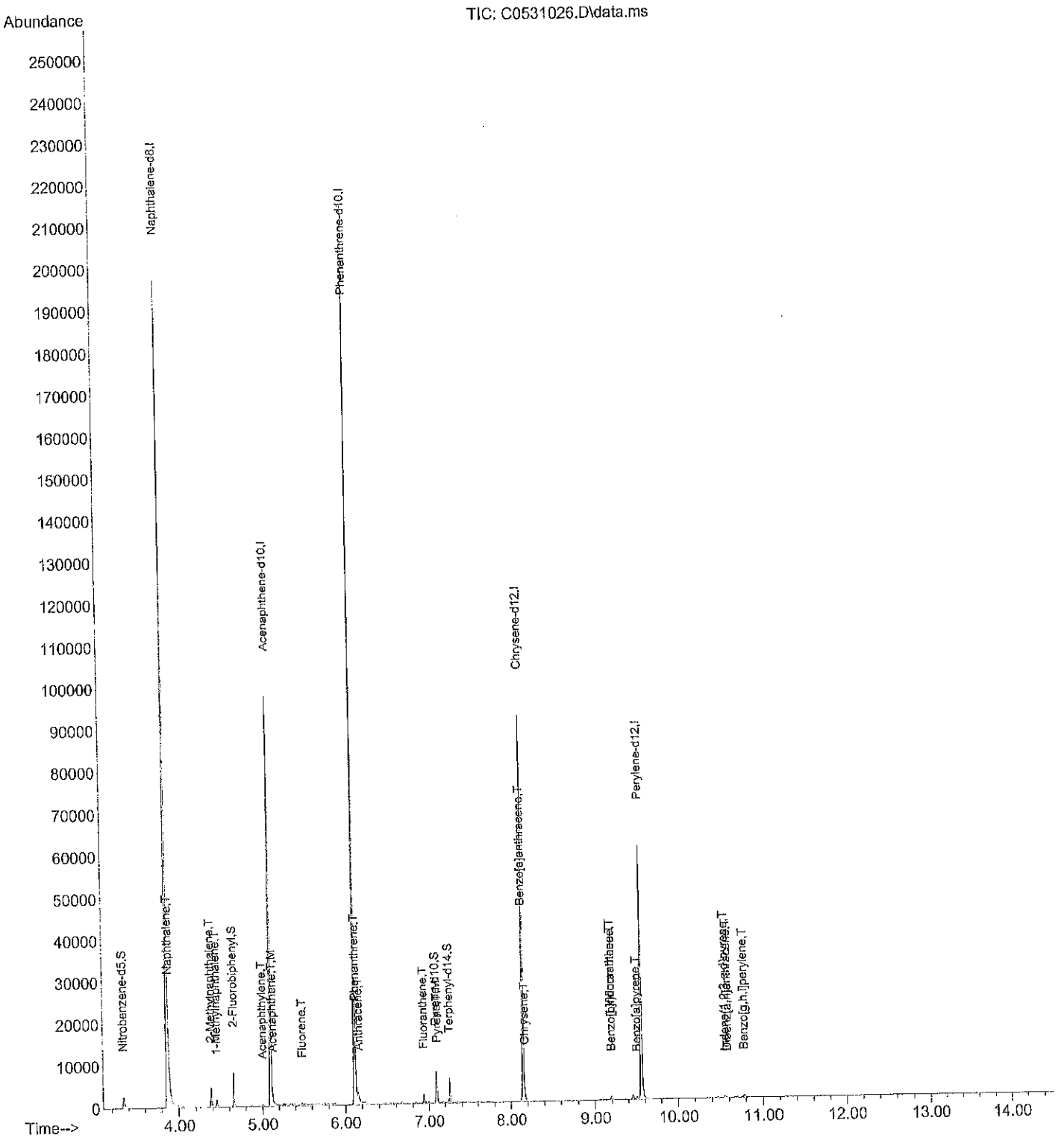
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/3/13

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531026.D
Acq On : 31 May 2013 7:13 pm
Operator :
Sample : 05-146-01 5X
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 03 08:40:53 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration



SSIM0531.M Mon Jun 03 08:40:52 2013 Page: 2

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528030.D
Acq On : 29 May 2013 12:20 am
Operator :
Sample : 05-146-02,03,04 Comp.
Misc :
ALS Vial : 29 Sample Multiplier: 1

8142
7490
8077
23729/3 .7909

Quant Time: May 29 00:35:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.954	136	205733	2000.00	ppb	0.02
6) Acenaphthene-d10	5.197	164	105692	2000.00	ppb	0.02
10) Phenanthrene-d10	6.213	188	158557	2000.00	ppb	0.03
17) Chrysene-d12	8.292	240	143365	2000.00	ppb	0.05
21) Perylene-d12	9.735	264	115156	2000.00	ppb	0.07
System Monitoring Compounds						
2) Nitrobenzene-d5	3.431	82	17329	670.80	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 67.08%			
7) 2-Fluorobiphenyl	4.738	172	42285	479.15	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.91%			
11) Pyrene-d10	7.204	212	18456	285.06	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 28.51%#			
18) Terphenyl-d14	7.366	244	18828	325.95	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 32.59%#			
Target Compounds						Qvalue
3) Naphthalene	3.965	128	26233	207.32	ppb	100
4) 2-Methylnaphthalene	4.469	142	28439	389.47	ppb	100
5) 1-Methylnaphthalene	4.535	142	14626	191.57	ppb	100
8) Acenaphthylene	5.097	152	3349	27.48	ppb	100
9) Acenaphthene	5.220	153	4192	51.50	ppb	100
12) Fluorene	5.582	166	5382	67.61	ppb	100
13) Phenanthrene	6.225	178	17784	170.72	ppb	100
14) Anthracene	6.264	178	5547	53.08	ppb	100
15) Fluoranthene	7.047	202	12980	135.32	ppb	100
16) Pyrene	7.215	202	12207	120.80	ppb	100
19) Benzo[a]anthracene	8.280	228	2527	33.15	ppb	100
20) Chrysene	8.311	228	3185	38.54	ppb	100
22) Benzo[b]fluoranthene	9.356	252	2620	~~38.64~~	ppb	100
23) Benzo(j,k)fluoranthene	9.356	252	2620	~~34.58~~	ppb	100
24) Benzo[a]pyrene	9.673	252	1279	21.05	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.739	276	665	8.21	ppb	100
26) Dibenz[a,h]anthracene	10.767	278	241	3.35	ppb	100
27) Benzo[g,h,i]perylene	10.985	276	1048	14.10	ppb	100

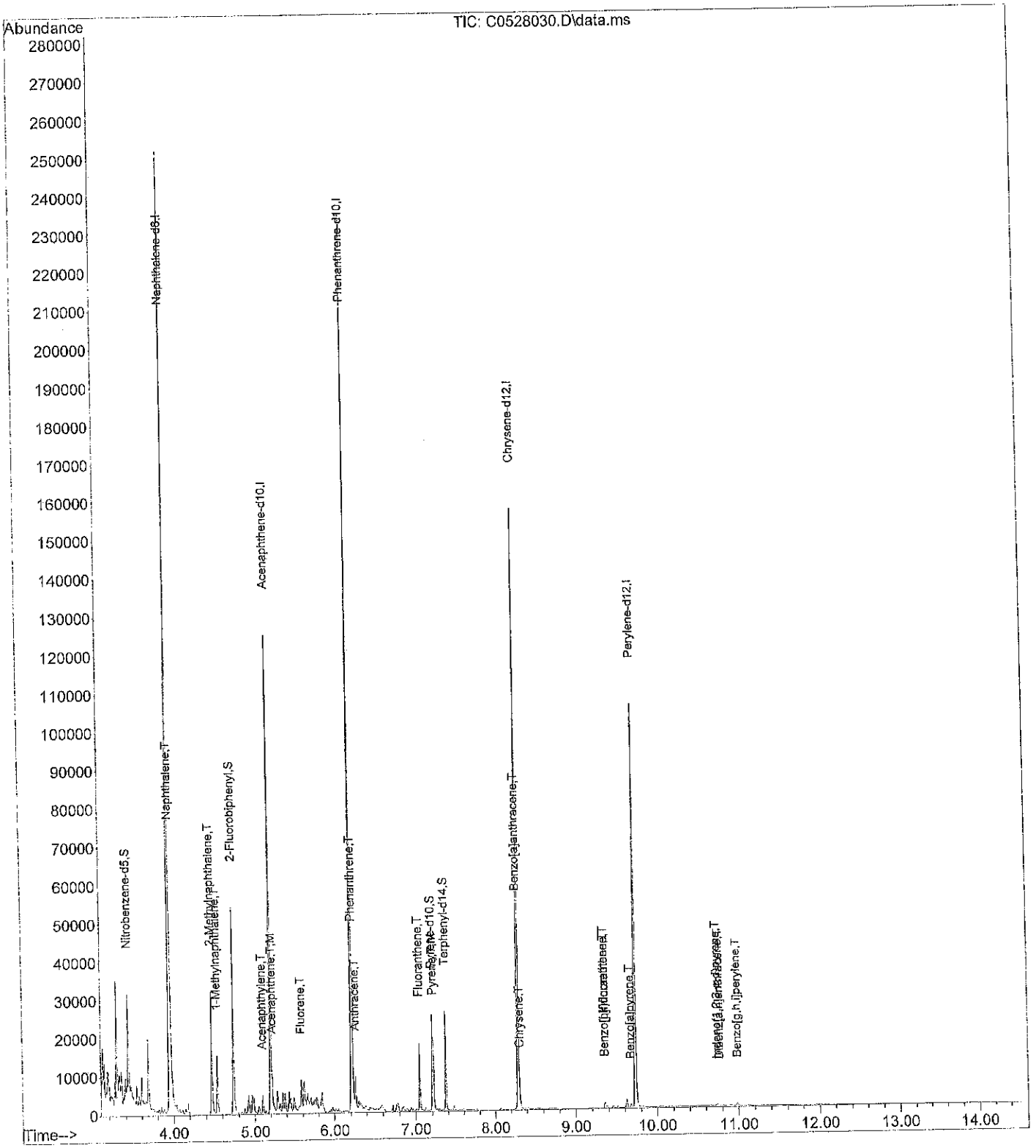
38.54 32.12 16.81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528030.D
Acq On : 29 May 2013 12:20 am
Operator :
Sample : 05-146-02,03,04 Comp.
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 29 00:35:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528017.D
Acq On : 28 May 2013 7:34 pm
Operator :
Sample : 05-146-05
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 28 19:49:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

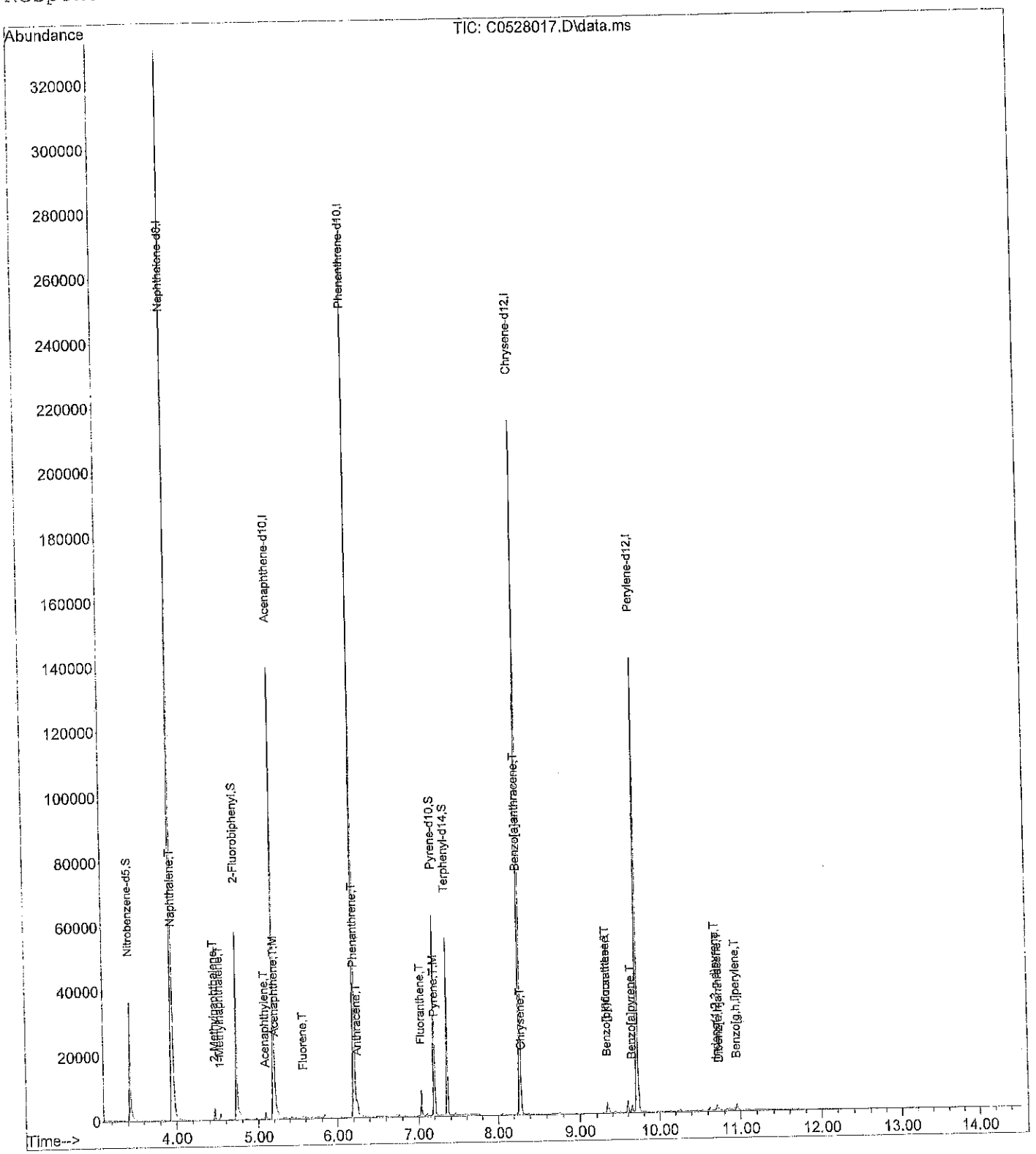
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.949	136	269029	2000.00 ppb	0.01
6) Acenaphthene-d10	5.189	164	142787	2000.00 ppb	0.00
10) Phenanthrene-d10	6.206	188	221322	2000.00 ppb	0.02
17) Chrysene-d12	8.272	240	191404	2000.00 ppb	0.03
21) Perylene-d12	9.712	264	153152	2000.00 ppb	0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	3.426	82	22245	658.50 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 65.85%		
7) 2-Fluorobiphenyl	4.734	172	58918	494.18 ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 49.42%		
11) Pyrene-d10	7.192	212	48130	532.57 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 53.26%		
18) Terphenyl-d14	7.355	244	39560	512.98 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 51.30%		
Target Compounds					Qvalue
3) Naphthalene	3.960	128	3558	21.50 ppb	100
4) 2-Methylnaphthalene	4.465	142	3285	34.40 ppb	100
5) 1-Methylnaphthalene	4.532	142	1601	16.04 ppb	100
8) Acenaphthylene	5.089	152	1714	10.41 ppb	100
9) Acenaphthene	5.212	153	333	3.03 ppb	100
12) Fluorene	5.574	166	814	7.33 ppb	100
13) Phenanthrene	6.218	178	5074	34.90 ppb	100
14) Anthracene	6.253	178	2421	16.60 ppb	100
15) Fluoranthene	7.035	202	6447	48.15 ppb	100
16) Pyrene	7.204	202	7363	52.20 ppb	100
19) Benzo[a]anthracene	8.264	228	3763	36.97 ppb	100
20) Chrysene	8.296	228	4751	43.06 ppb	100
22) Benzo[b]fluoranthene	9.337	252	4510	50.01 ppb	100
23) Benzo(j,k)fluoranthene	9.337	252	4510	~~44.75~~ ppb	100
24) Benzo[a]pyrene	9.653	252	2664	32.97 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.712	276	2115	19.62 ppb	100
26) Dibenz[a,h]anthracene	10.739	278	751	7.86 ppb	100
27) Benzo[g,h,i]perylene	10.954	276	2726	27.58 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528017.D
Acq On : 28 May 2013 7:34 pm
Operator :
Sample : 05-146-05
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 28 19:49:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531027.D
Acq On : 31 May 2013 7:35 pm
Operator :
Sample : 05-146-06 5X
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 03 08:41:00 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

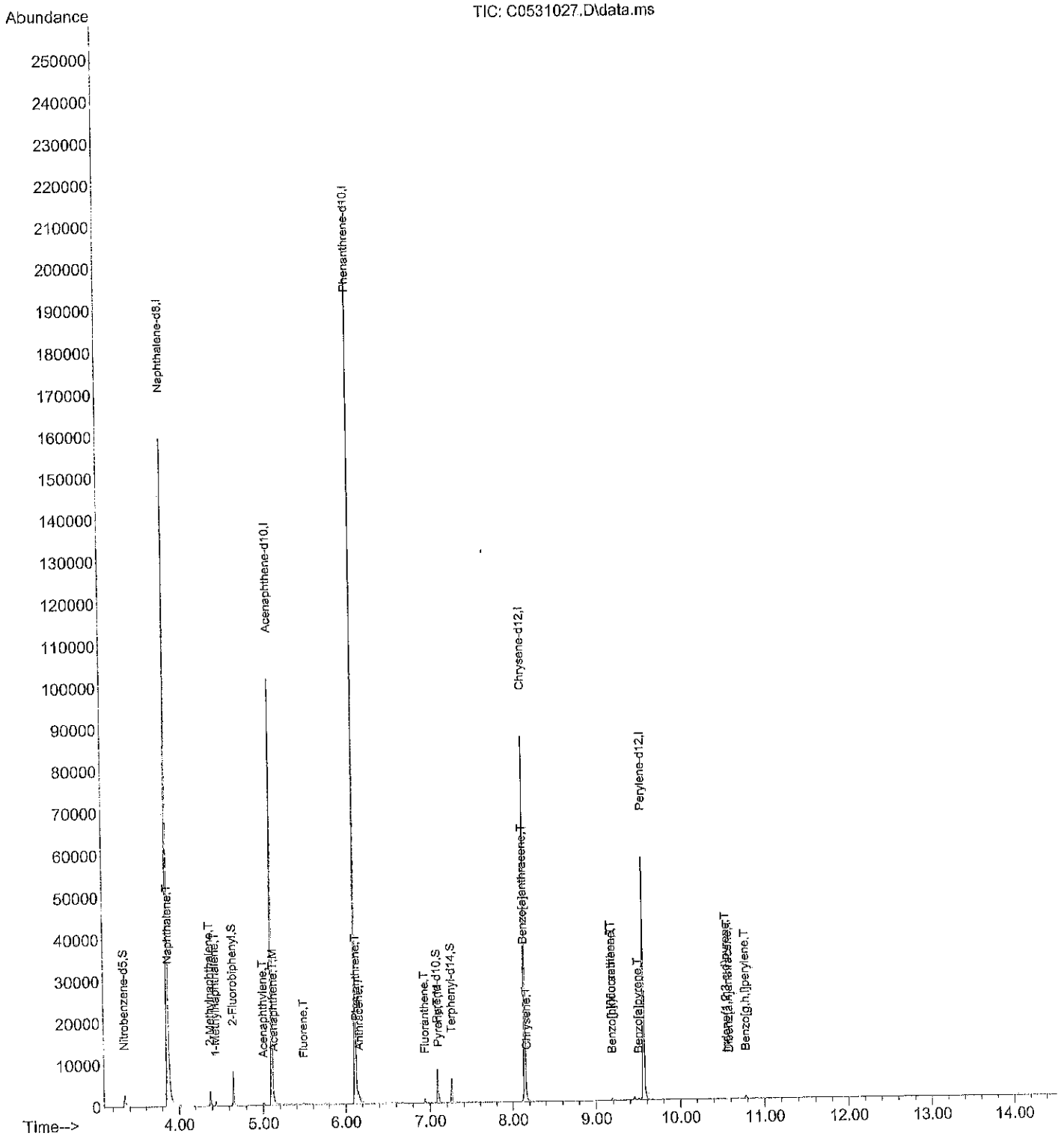
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.861	136	169661	2000.00	ppb	0.00
6) Acenaphthene-d10	5.104	164	90417	2000.00	ppb	0.00
10) Phenanthrene-d10	6.116	188	135414	2000.00	ppb	0.00
17) Chrysene-d12	8.147	240	73815	2000.00	ppb	0.00
21) Perylene-d12	9.566	264	~~57998~~ out	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.339	82	2438	114.06	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 11.41%#			
7) 2-Fluorobiphenyl	4.652	172	6847	102.49	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 10.25%#			
11) Pyrene-d10	7.088	212	5878	100.06	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.01%#			
18) Terphenyl-d14	7.256	244	4599	151.21	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 15.12%#			
Target Compounds						Qvalue
3) Naphthalene	3.878	128	2305	22.51	ppb	100
4) 2-Methylnaphthalene	4.379	142	3463	51.19	ppb	100
5) 1-Methylnaphthalene	4.446	142	1119	16.57	ppb	100
8) Acenaphthylene	5.004	152	534	5.56	ppb	100
9) Acenaphthene	5.127	153	190	2.63	ppb	100
12) Fluorene	5.489	166	306	4.30	ppb	100
13) Phenanthrene	6.131	178	2716	29.37	ppb	100
14) Anthracene	6.166	178	776	8.32	ppb	100
15) Fluoranthene	6.943	202	968	10.88	ppb	100
16) Pyrene	7.099	202	1311	14.12	ppb	100
19) Benzo[a]anthracene	8.139	228	737	19.14	ppb	100
20) Chrysene	8.170	228	973	22.80	ppb	100
22) Benzo[b]fluoranthene	9.192	252	602	17.12	ppb	100
23) Benzo(j,k)fluoranthene	9.~~192~~25	252	602	~~17.57~~	ppb 4.03	100
24) Benzo[a]pyrene	9.504	252	355	9.13	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.556	276	379	10.58	ppb	100
26) Dibenz[a,h]anthracene	10.583	278	129	4.37	ppb	100
27) Benzo[g,h,i]perylene	10.782	276	662	28.86	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/3/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531027.D
Acq On : 31 May 2013 7:35 pm
Operator :
Sample : 05-146-06 5X
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 03 08:41:00 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528020.D
Acq On : 28 May 2013 8:40 pm
Operator :
Sample : 05-146-11
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 28 20:55:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

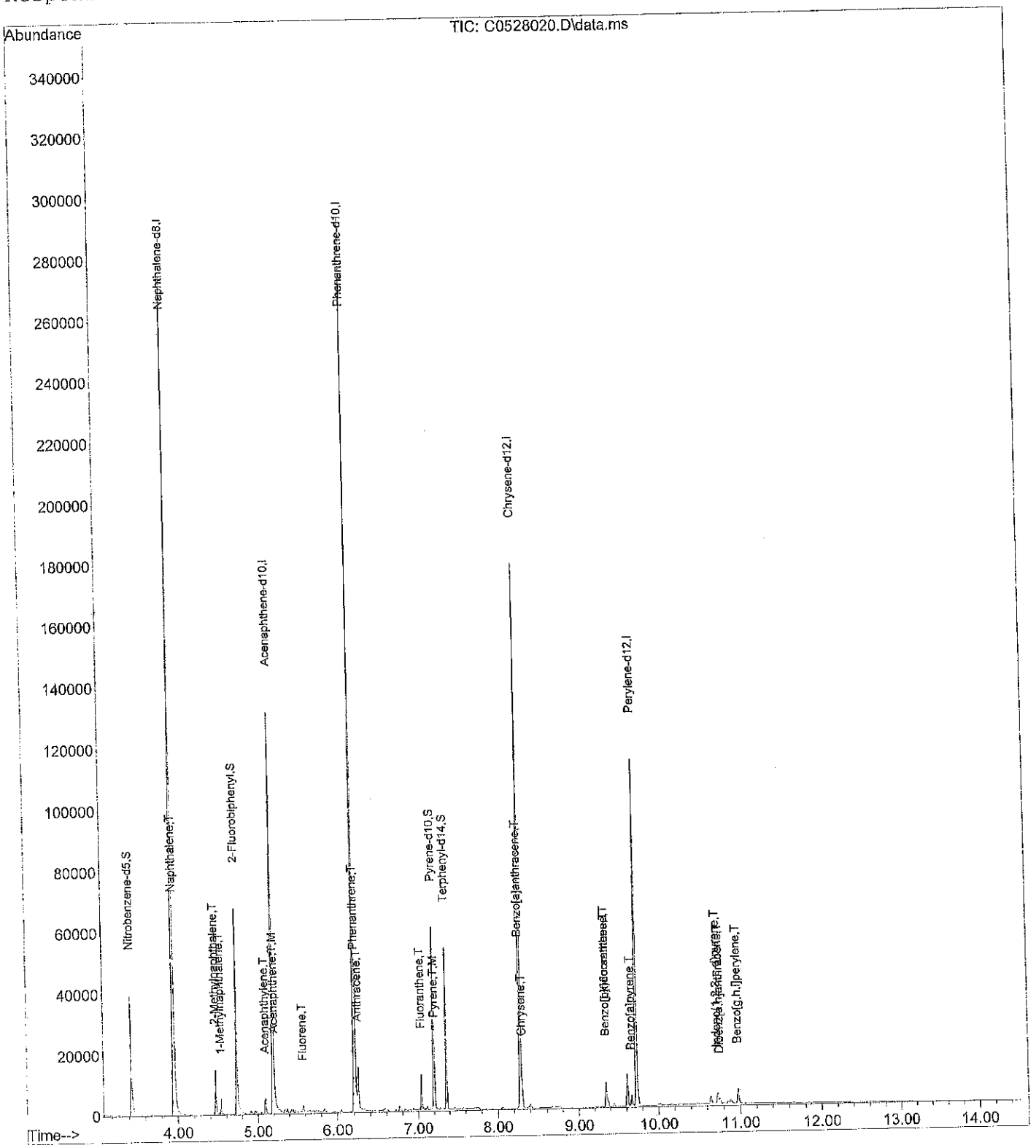
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.949	136	241117	2000.00	ppb	0.01
6) Acenaphthene-d10	5.197	164	132413	2000.00	ppb	0.02
10) Phenanthrene-d10	6.206	188	207878	2000.00	ppb	0.02
17) Chrysene-d12	8.281	240	154595	2000.00	ppb	0.04
21) Perylene-d12	9.726	264	122644	2000.00	ppb	0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.426	82	25077	828.27	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 82.83%			
7) 2-Fluorobiphenyl	4.735	172	68122	616.14	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 61.61%			
11) Pyrene-d10	7.199	212	52166	614.56	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 61.46%			
18) Terphenyl-d14	7.362	244	43879	704.46	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 70.45%			
Target Compounds						Qvalue
3) Naphthalene	3.960	128	9344	63.01	ppb	100
4) 2-Methylnaphthalene	4.466	142	12024	140.50	ppb	100
5) 1-Methylnaphthalene	4.532	142	4614	51.56	ppb	100
8) Acenaphthylene	5.097	152	5306	34.76	ppb	100
9) Acenaphthene	5.212	153	1244	12.20	ppb	100
12) Fluorene	5.575	166	2532	24.26	ppb	100
13) Phenanthrene	6.222	178	16337	119.62	ppb	100
14) Anthracene	6.257	178	9440	68.90	ppb	100
15) Fluoranthene	7.042	202	10065	80.03	ppb	100
16) Pyrene	7.211	202	10581	79.87	ppb	100
19) Benzo[a]anthracene	8.269	228	5231	63.64	ppb	100
20) Chrysene	8.300	228	9991	112.12	ppb	100
22) Benzo[b]fluoranthene	9.344	252	12212	~~169.09~~ 147.44	ppb	100
23) Benzo(j,k)fluoranthene	9.~~344~~ 347	252	12212	~~151.33~~ 28.95	ppb	100
24) Benzo[a]pyrene	9.664	252	4345	67.15	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.724	276	4893	56.69	ppb	100
26) Dibenz[a,h]anthracene	10.751	278	1702	22.24	ppb	100
27) Benzo[g,h,i]perylene	10.970	276	6679	84.38	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528020.D
Acq On : 28 May 2013 8:40 pm
Operator :
Sample : 05-146-11
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 28 20:55:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528031.D
Acq On : 29 May 2013 12:42 am
Operator :
Sample : 05-146-12,13,14 Comp.
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 29 00:56:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

8953 8698 8435 / 8695 / 8660 / 3

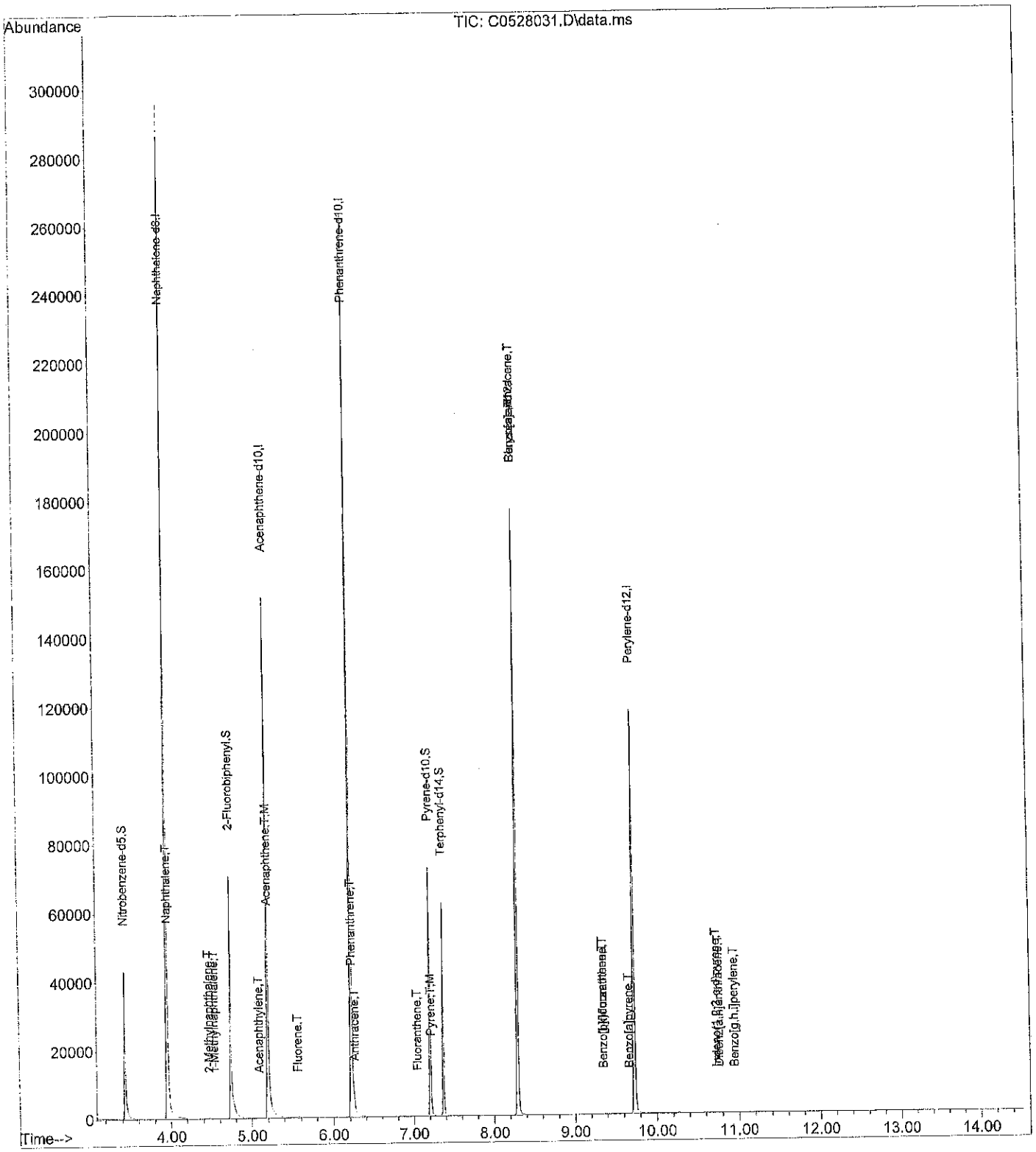
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.953	136	252111	2000.00	ppb	0.02
6) Acenaphthene-d10	5.197	164	145059	2000.00	ppb	0.02
10) Phenanthrene-d10	6.213	188	233908	2000.00	ppb	0.03
17) Chrysene-d12	8.286	240	179032	2000.00	ppb	0.05
21) Perylene-d12	9.726	264	144608	2000.00	ppb	0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.430	82	29347	927.04	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 92.70%#			
7) 2-Fluorobiphenyl	4.739	172	84440	697.15	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.71%			
11) Pyrene-d10	7.204	212	67489	706.60	ppb	0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 70.66%			
18) Terphenyl-d14	7.367	244	53121	736.42	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 73.64%			
Target Compounds						Qvalue
3) Naphthalene	3.965	128	883	5.69	ppb	100
4) 2-Methylnaphthalene	4.470	142	345	3.86	ppb	100
5) 1-Methylnaphthalene	4.540	142	249	2.66	ppb	100
8) Acenaphthylene	5.097	152	187	1.12	ppb	100
9) Acenaphthene	5.205	153	114	1.02	ppb	100
12) Fluorene	5.567	166	141	1.20	ppb	100
13) Phenanthrene	6.228	178	897	5.84	ppb	100
14) Anthracene	6.263	178	142	0.92	ppb	100
15) Fluoranthene	7.048	202	241	1.70	ppb	100
16) Pyrene	7.216	202	437	2.93	ppb	100
19) Benzo[a]anthracene	8.286	228	684	7.19	ppb	100
20) Chrysene	8.~~286~~ 310	228	684	~~6.63~~	ppb 1.68	100
22) Benzo[b]fluoranthene	9.351	252	189	2.22	ppb	100
~~23) Benzo(j,k)fluoranthene~~	9.351	252	189	1.99	ppb	100
24) Benzo[a]pyrene	9.667	252	128	1.68	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.734	276	103	1.01	ppb	100
26) Dibenz[a,h]anthracene	10.762	278	39	0.43	ppb	100
27) Benzo[g,h,i]perylene	10.945	276	12	0.13	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528031.D
Acq On : 29 May 2013 12:42 am
Operator :
Sample : 05-146-12,13,14 Comp.
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 29 00:56:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528021.D
Acq On : 28 May 2013 9:02 pm
Operator :
Sample : 05-146-18
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 28 21:17:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

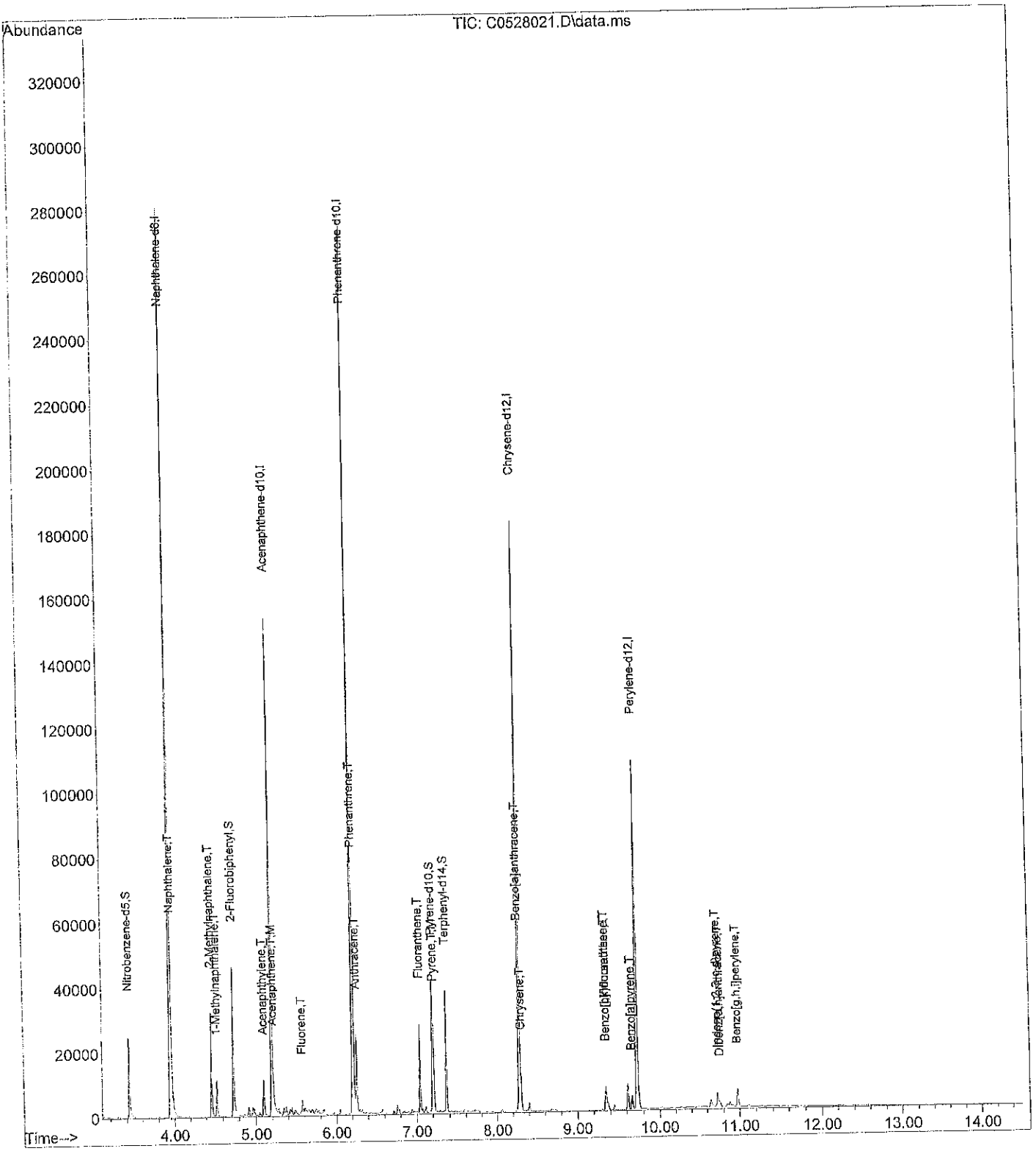
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.949	136	236893	2000.00	ppb	0.01
6) Acenaphthene-d10	5.196	164	133636	2000.00	ppb	0.01
10) Phenanthrene-d10	6.209	188	196228	2000.00	ppb	0.02
17) Chrysene-d12	8.282	240	155397	2000.00	ppb	0.04
21) Perylene-d12	9.726	264	119045	2000.00	ppb	0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.426	82	16525	555.54	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 55.55%			
7) 2-Fluorobiphenyl	4.736	172	43576	390.52	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 39.05%			
11) Pyrene-d10	7.199	212	32477	405.32	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 40.53%			
18) Terphenyl-d14	7.361	244	27066	432.29	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 43.23%			
Target Compounds						Qvalue
3) Naphthalene	3.966	128	26923	184.79	ppb	100
4) 2-Methylnaphthalene	4.466	142	24776	294.67	ppb	100
5) 1-Methylnaphthalene	4.533	142	9786	111.31	ppb	100
8) Acenaphthylene	5.096	152	10063	65.31	ppb	100
9) Acenaphthene	5.212	153	3279	31.86	ppb	100
12) Fluorene	5.574	166	4918	49.92	ppb	100
13) Phenanthrene	6.221	178	34897	270.69	ppb	100
14) Anthracene	6.256	178	16800	129.90	ppb	100
15) Fluoranthene	7.042	202	20965	176.61	ppb	100
16) Pyrene	7.210	202	17958	143.59	ppb	100
19) Benzo[a]anthracene	8.271	228	7613	92.14	ppb	100
20) Chrysene	8.302	228	11556	129.01	ppb	100
22) Benzo[b]fluoranthene	9.347	252	11816	~~168.55~~	ppb	135.46 100
23) Benzo(j,k)fluoranthene	9.347(m)	252	11816	~~150.85~~	ppb	24.46 100
24) Benzo[a]pyrene	9.663	252	4785	76.19	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.727	276	5360	63.98	ppb	100
26) Dibenz[a,h]anthracene	10.754	278	1468	19.76	ppb	100
27) Benzo[g,h,i]perylene	10.972	276	7340	95.53	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528021.D
Acq On : 28 May 2013 9:02 pm
Operator :
Sample : 05-146-18
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 28 21:17:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528022.D
Acq On : 28 May 2013 9:24 pm
Operator :
Sample : 05-146-19
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 28 21:39:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

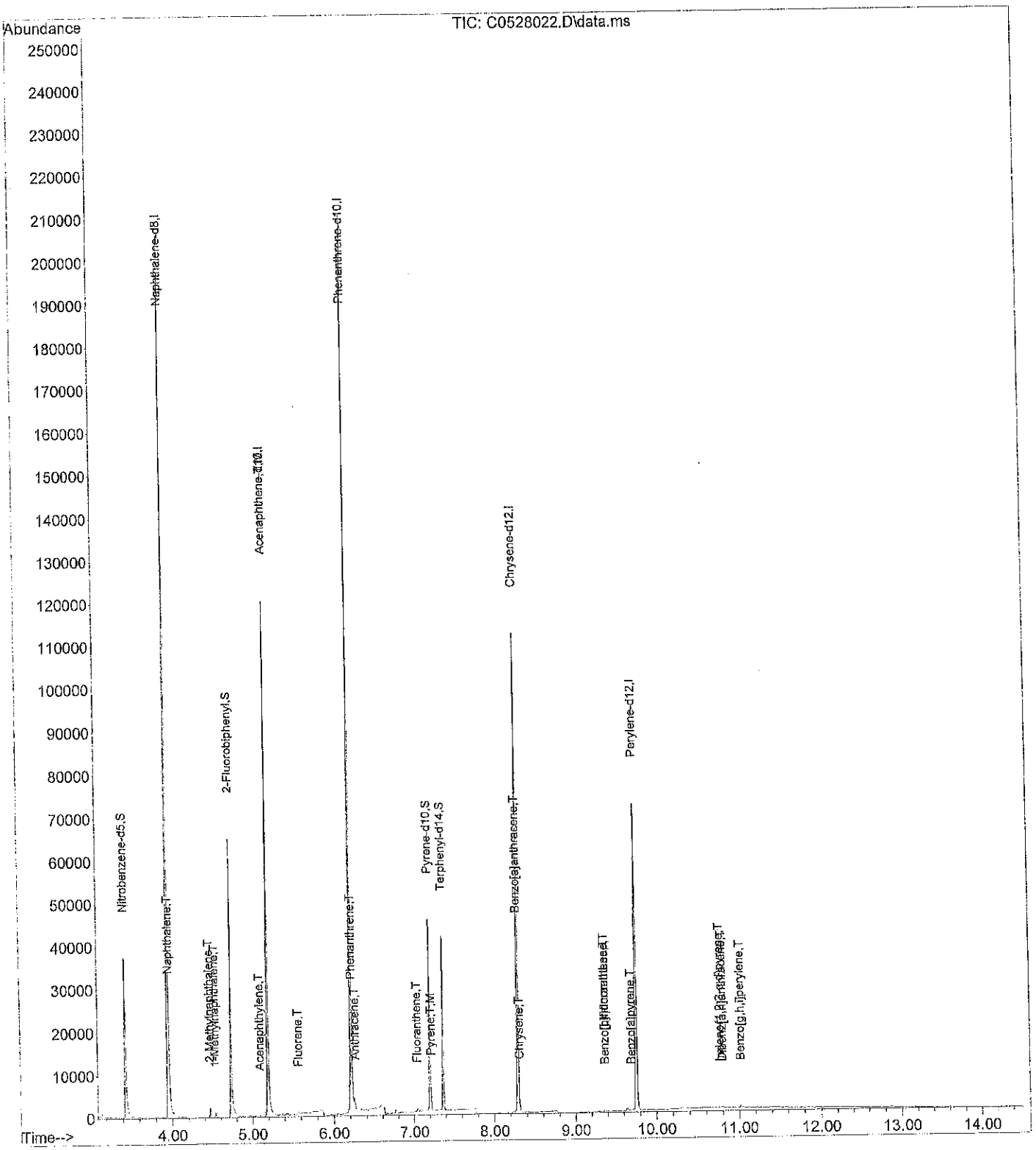
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.953	136	190267	2000.00	ppb	0.02
6) Acenaphthene-d10	5.196	164	99645	2000.00	ppb	0.02
10) Phenanthrene-d10	6.209	188	149270	2000.00	ppb	0.02
17) Chrysene-d12	8.290	240	~~99919~~	2000.00	ppb	0.05
21) Perylene-d12	9.754	264	~~83766~~	2000.00	ppb	0.09
System Monitoring Compounds						
2) Nitrobenzene-d5	3.425	82	26644	1115.22	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 111.52%#			
7) 2-Fluorobiphenyl	4.736	172	53900	647.83	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 64.78%			
11) Pyrene-d10	7.199	212	38812	636.76	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 63.68%			
18) Terphenyl-d14	7.367	244	32115	797.72	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 79.77%			
Target Compounds						Qvalue
3) Naphthalene	3.965	128	1493	12.76	ppb	100
4) 2-Methylnaphthalene	4.466	142	1934	28.64	ppb	100
5) 1-Methylnaphthalene	4.533	142	1129	15.99	ppb	100
8) Acenaphthylene	5.096	152	349	3.04	ppb	100
9) Acenaphthene	5.196	153	151	1.97	ppb	100
12) Fluorene	5.574	166	696	9.29	ppb	100
13) Phenanthrene	6.221	178	4014	40.93	ppb	100
14) Anthracene	6.260	178	536	5.45	ppb	100
15) Fluoranthene	7.042	202	751	8.32	ppb	100
16) Pyrene	7.216	202	1016	10.68	ppb	100
19) Benzo[a]anthracene	8.283	228	1035	19.48	ppb	100
20) Chrysene	8.314	228	1472	25.56	ppb	100
22) Benzo[b]fluoranthene	9.367	252	827	16.77	ppb	100
23) Benzo(j,k)fluoranthene	9.367	252	827	15.00	ppb	100
24) Benzo[a]pyrene	9.695	252	306	6.92	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.770	276	435	7.38	ppb	100
26) Dibenz[a,h]anthracene	10.797	278	194	3.71	ppb	100
27) Benzo[g,h,i]perylene	11.020	276	891	16.48	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/31/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528022.D
Acq On : 28 May 2013 9:24 pm
Operator :
Sample : 05-146-19
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 28 21:39:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528025.D
Acq On : 28 May 2013 10:30 pm
Operator :
Sample : 05-146-21
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 28 22:45:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

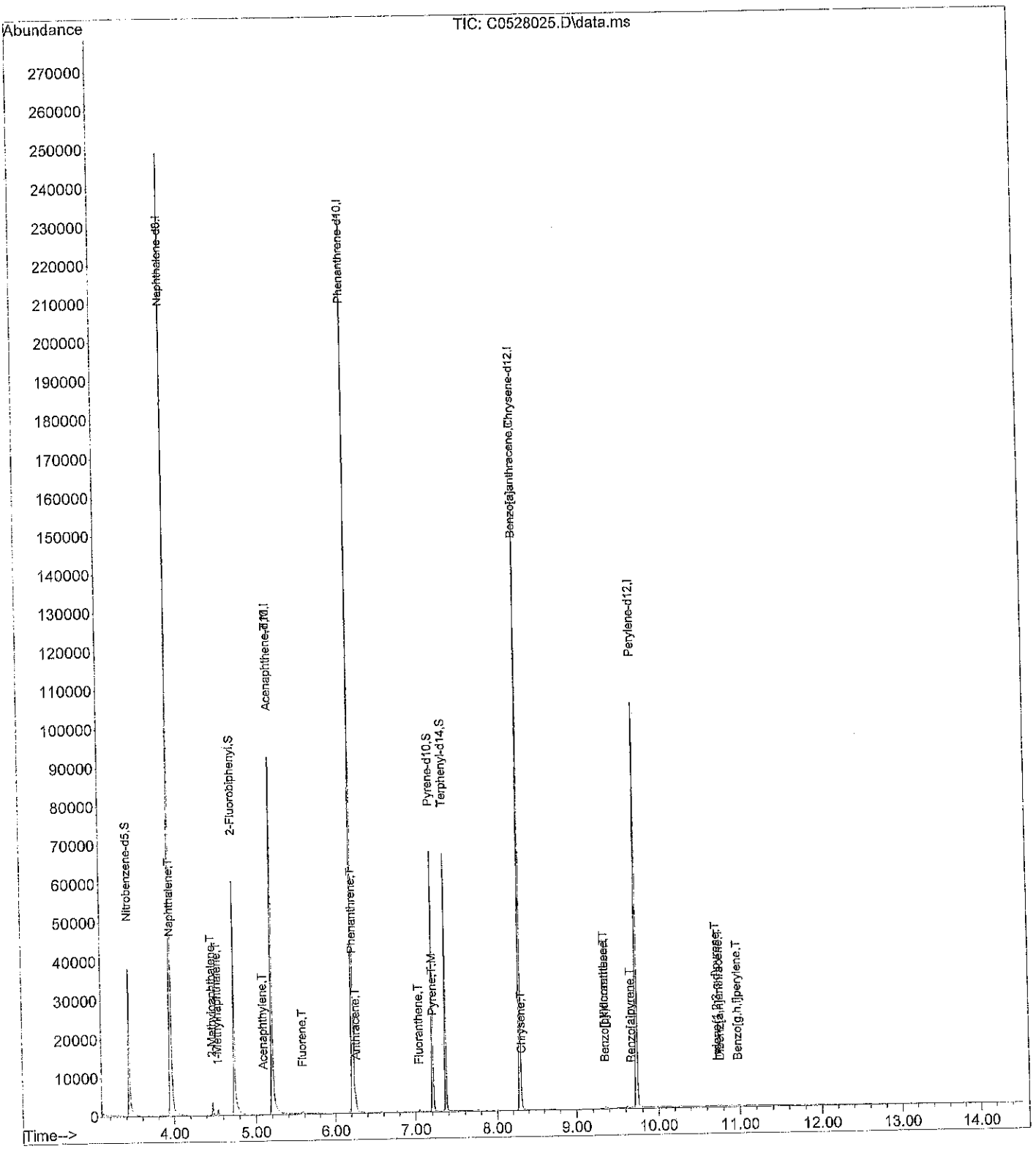
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.956	136	205732	2000.00	ppb	0.02
6) Acenaphthene-d10	5.204	164	114327	2000.00	ppb	0.02
10) Phenanthrene-d10	6.215	188	191546	2000.00	ppb	0.03
17) Chrysene-d12	8.292	240	151872	2000.00	ppb	0.05
21) Perylene-d12	9.733	264	118773	2000.00	ppb	0.07
System Monitoring Compounds						
2) Nitrobenzene-d5	3.434	82	25203	975.61	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 97.56%#			
7) 2-Fluorobiphenyl	4.739	172	65991	691.29	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.13%			
11) Pyrene-d10	7.205	212	56859	726.96	ppb	0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 72.70%			
18) Terphenyl-d14	7.367	244	48532	793.13	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 79.31%			
Target Compounds						Qvalue
3) Naphthalene	3.968	128	2355	18.61	ppb	100
4) 2-Methylnaphthalene	4.473	142	3044	41.69	ppb	100
5) 1-Methylnaphthalene	4.540	142	1380	18.07	ppb	100
8) Acenaphthylene	5.096	152	258	1.96	ppb	100
9) Acenaphthene	5.204	153	276	3.13	ppb	100
12) Fluorene	5.581	166	718	7.47	ppb	100
13) Phenanthrene	6.230	178	6209	49.34	ppb	100
14) Anthracene	6.265	178	371	2.94	ppb	100
15) Fluoranthene	7.048	202	711	6.14	ppb	100
16) Pyrene	7.216	202	888	7.27	ppb	100
19) Benzo[a]anthracene	8.288	228	688	8.52	ppb	100
20) Chrysene	8.316	228	930	10.62	ppb	100
22) Benzo[b]fluoranthene	9.355	252	675	9.65	ppb	100
23) Benzo(j,k)fluoranthene	9.355	252	675	8.64	ppb	100
24) Benzo[a]pyrene	9.675	252	151	2.41	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.734	276	196	2.34	ppb	100
26) Dibenz[a,h]anthracene	10.765	278	188	2.54	ppb	100
27) Benzo[g,h,i]perylene	10.980	276	285	3.72	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528025.D
Acq On : 28 May 2013 10:30 pm
Operator :
Sample : 05-146-21
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 28 22:45:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528032.D
Acq On : 29 May 2013 1:03 am
Operator :
Sample : 05-146-22,23,24 Comp.
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: May 29 01:19:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

7254 7126 7126 7172 215746/3

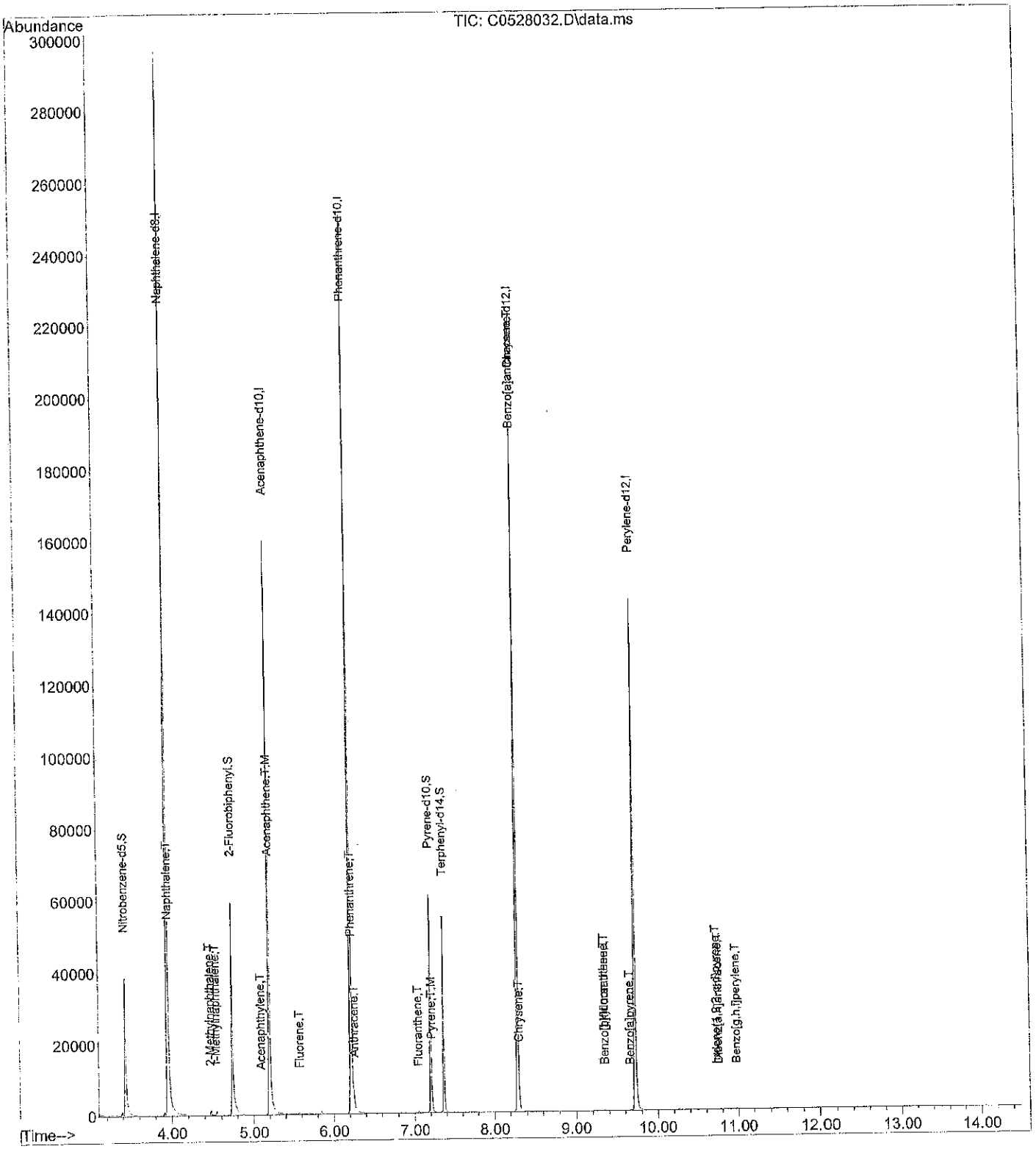
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.954	136	276829	2000.00	ppb	0.02
6) Acenaphthene-d10	5.196	164	149626	2000.00	ppb	0.02
10) Phenanthrene-d10	6.210	188	236990	2000.00	ppb	0.02
17) Chrysene-d12	8.287	240	187265	2000.00	ppb	0.05
21) Perylene-d12	9.727	264	154634	2000.00	ppb	0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.431	82	25890	744.81	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 74.48%			
7) 2-Fluorobiphenyl	4.740	172	75457	603.97	ppb	0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 60.40%			
11) Pyrene-d10	7.198	212	60136	621.43	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 62.14%			
18) Terphenyl-d14	7.366	244	48528	643.17	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 64.32%			
Target Compounds						Qvalue
3) Naphthalene	3.965	128	2642	15.52	ppb	100
4) 2-Methylnaphthalene	4.471	142	1585	16.13	ppb	100
5) 1-Methylnaphthalene	4.537	142	1338	13.02	ppb	100
8) Acenaphthylene	5.096	152	169	0.98	ppb	100
9) Acenaphthene	5.204	153	192	1.67	ppb	100
12) Fluorene	5.582	166	344	2.89	ppb	100
13) Phenanthrene	6.225	178	1253	8.05	ppb	100
14) Anthracene	6.260	178	197	1.26	ppb	100
15) Fluoranthene	7.047	202	408	2.85	ppb	100
16) Pyrene	7.215	202	545	3.61	ppb	100
19) Benzo[a]anthracene	8.283	228	789	7.92	ppb	100
20) Chrysene	8.307	228	361	3.34	ppb	100
22) Benzo[b]fluoranthene	9.348	252	427	4.69	ppb	100
23) Benzo(j,k)fluoranthene	9.348	252	427	4.20	ppb	100
24) Benzo[a]pyrene	9.664	252	147	1.80	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.731	276	122	1.12	ppb	100
26) Dibenz[a,h]anthracene	10.755	278	42	0.44	ppb	100
27) Benzo[g,h,i]perylene	10.977	276	212	2.12	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528032.D
Acq On : 29 May 2013 1:03 am
Operator :
Sample : 05-146-22,23,24 Comp.
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: May 29 01:19:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529017.D
Acq On : 29 May 2013 4:38 pm
Operator :
Sample : 05-146-25 5X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 08:36:33 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration

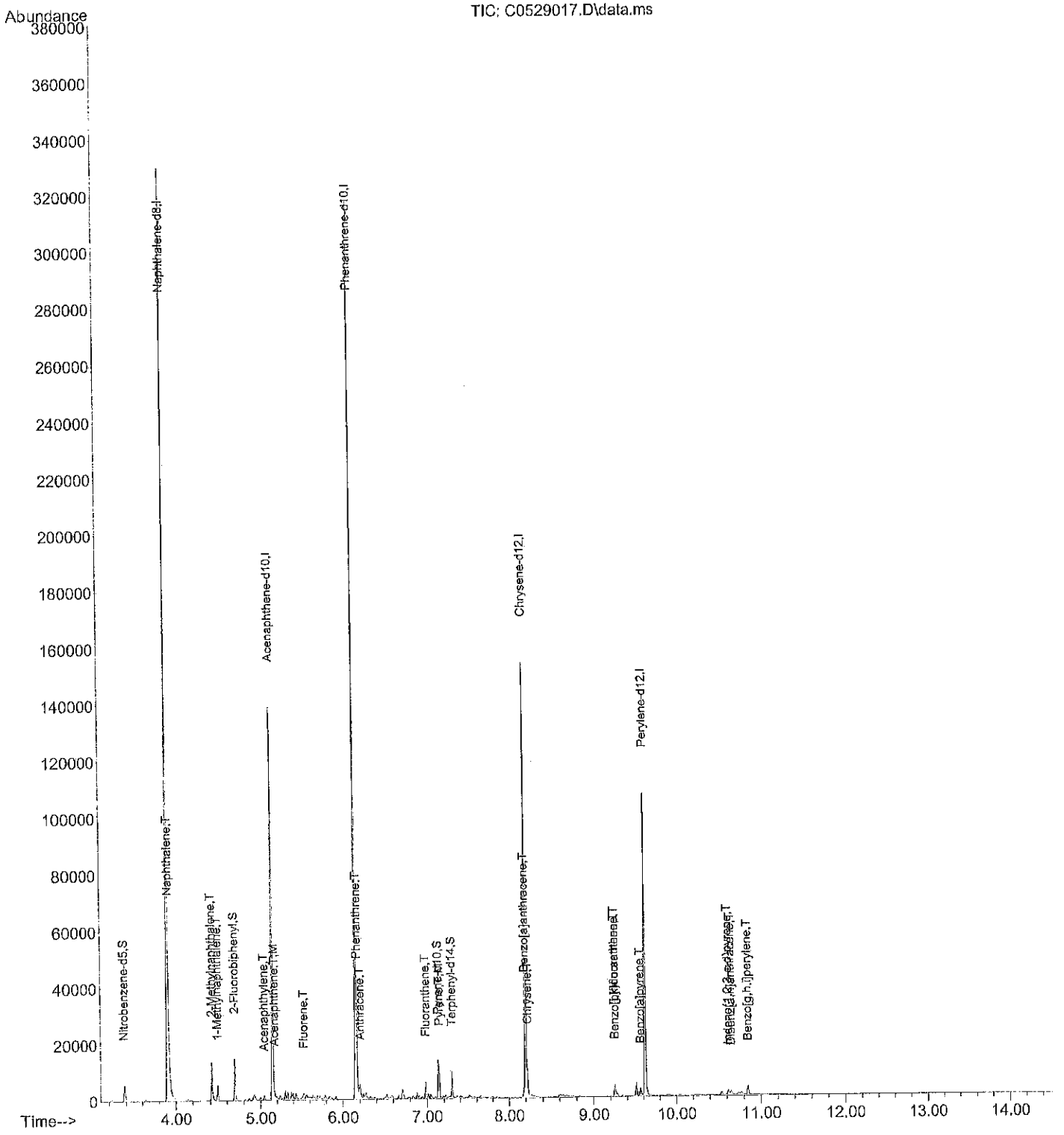
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.904	136	263515	2000.00	ppb	0.00
6) Acenaphthene-d10	5.143	164	131926	2000.00	ppb	0.00
10) Phenanthrene-d10	6.155	188	202159	2000.00	ppb	0.00
17) Chrysene-d12	8.202	240	132016	2000.00	ppb	0.00
21) Perylene-d12	9.625	264	109394	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.381	82	4826	122.15	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	12.22%#		
7) 2-Fluorobiphenyl	4.688	172	12488	127.31	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	12.73%#		
11) Pyrene-d10	7.134	212	9056	98.61	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	9.86%#		
18) Terphenyl-d14	7.297	244	7438	136.50	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	13.65%#		
Target Compounds						Qvalue
3) Naphthalene	3.915	128	8289	50.15	ppb	100
4) 2-Methylnaphthalene	4.419	142	11604	107.29	ppb	100
5) 1-Methylnaphthalene	4.485	142	4810	45.68	ppb	100
8) Acenaphthylene	5.043	152	1215	8.64	ppb	100
9) Acenaphthene	5.166	153	873	8.59	ppb	100
12) Fluorene	5.528	166	1902	17.91	ppb	100
13) Phenanthrene	6.171	178	20319	147.43	ppb	100
14) Anthracene	6.206	178	3287	27.40	ppb	100
15) Fluoranthene	6.984	202	4770	35.76	ppb	100
16) Pyrene	7.146	202	6600	47.21	ppb	100
19) Benzo[a]anthracene	8.190	228	5606	79.54	ppb	100
20) Chrysene	8.225	228	10121	137.06	ppb	100
22) Benzo[b]fluoranthene	9.251	252	5039	66.40	ppb	100
23) Benzo(j,k)fluoranthene	9.251	252	5039	~~67.79~~	ppb	12.98 100
24) Benzo[a]pyrene	9.563	252	2958	41.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.614	276	1991	~~26.93~~	ppb	33.10 100
26) Dibenz[a,h]anthracene	10.646	278	1260	21.78	ppb	100
27) Benzo[g,h,i]perylene	10.845	276	3608	64.03	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/31/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529017.D
Acq On : 29 May 2013 4:38 pm
Operator :
Sample : 05-146-25 5X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 31 08:36:33 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531030.D
Acq On : 31 May 2013 8:40 pm
Operator :
Sample : 05-146-28 5X
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 03 08:41:28 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

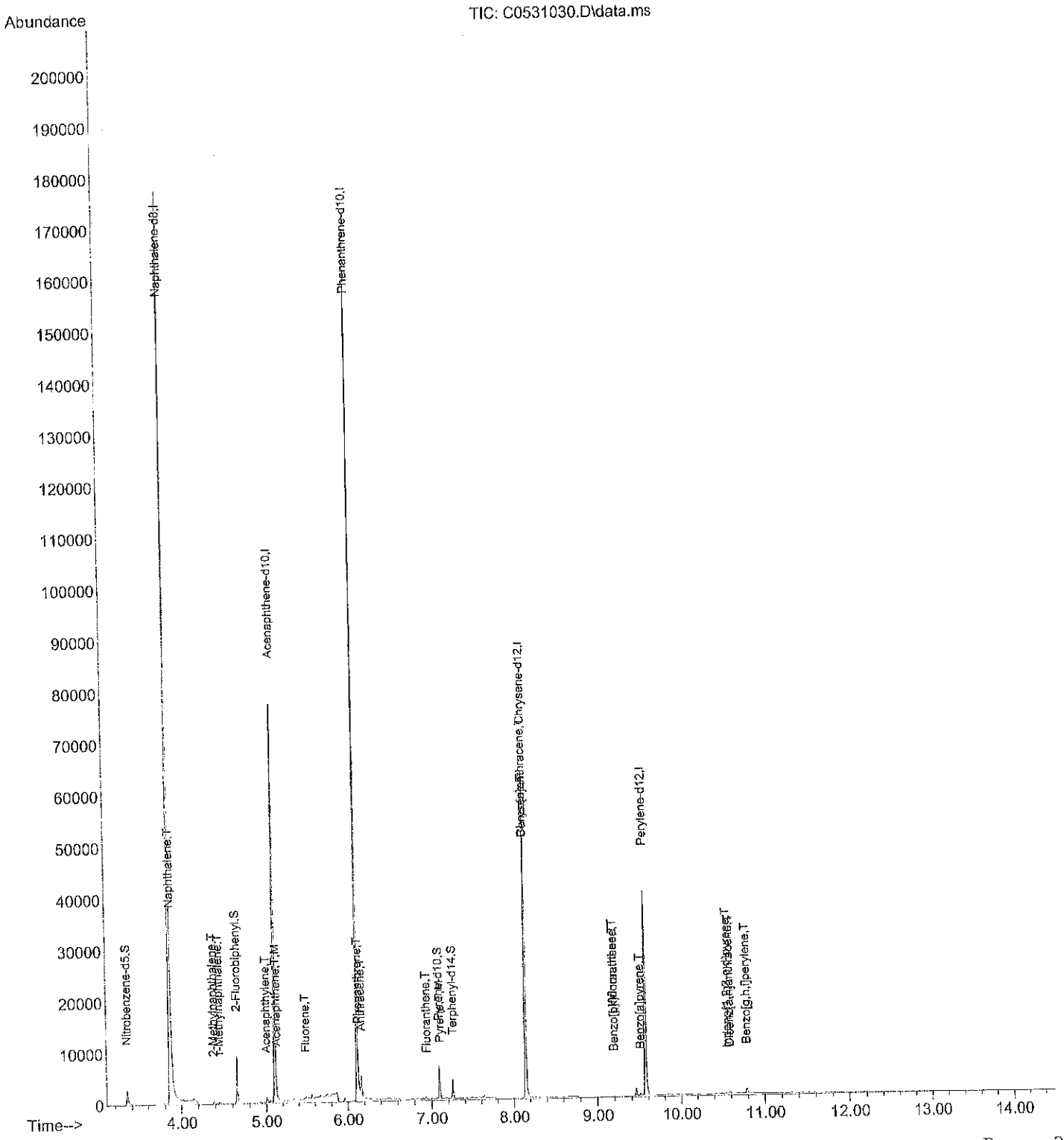
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.866	136	172355	2000.00	ppb	0.00
6) Acenaphthene-d10	5.111	164	82361	2000.00	ppb	0.00
10) Phenanthrene-d10	6.115	188	111483	2000.00	ppb	0.00
17) Chrysene-d12	8.146	240	~~58885~~	2000.00	ppb	0.00
21) Perylene-d12	9.565	264	~~45036~~ 62K	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.343	82	2965	136.55	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 13.66%#			
7) 2-Fluorobiphenyl	4.653	172	7554	124.14	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 12.41%#			
11) Pyrene-d10	7.088	212	4915	101.62	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.16%#			
18) Terphenyl-d14	7.257	244	3032	124.97	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 12.50%#			
Target Compounds						Qvalue
3) Naphthalene	3.877	128	1321	12.70	ppb	100
4) 2-Methylnaphthalene	4.380	142	673	9.79	ppb	100
5) 1-Methylnaphthalene	4.446	142	413	6.02	ppb	100
8) Acenaphthylene	5.003	152	976	11.15	ppb	100
9) Acenaphthene	5.127	153	146	2.22	ppb	100
12) Fluorene	5.489	166	551	9.41	ppb	100
13) Phenanthrene	6.131	178	796	10.45	ppb	100
14) Anthracene	6.166	178	2798	36.43	ppb	100
15) Fluoranthene	6.943	202	299	4.08	ppb	100
16) Pyrene	7.100	202	1243	16.26	ppb	100
19) Benzo[a]anthracene	8.142	228	1269	~~41.31~~	ppb 19.48	100
20) Chrysene	8.~~142~~ 158	228	1269	~~37.28~~	ppb 19.42	100
22) Benzo[b]fluoranthene	9.195	252	218	7.99	ppb	100
23) Benzo(j,k)fluoranthene	9.195	252	218	~~8.19~~	ppb 0	100
24) Benzo[a]pyrene	9.507	252	533	17.65	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.559	276	240	8.63	ppb	100
26) Dibenz[a,h]anthracene	10.586	278	215	9.39	ppb	100
27) Benzo[g,h,i]perylene	10.785	276	1265	71.03	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531030.D
Acq On : 31 May 2013 8:40 pm
Operator :
Sample : 05-146-28 5X
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 03 08:41:28 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531028.D
Acq On : 31 May 2013 7:57 pm
Operator :
Sample : 05-146-29 ~~5X~~ 1:1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 03 08:41:07 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

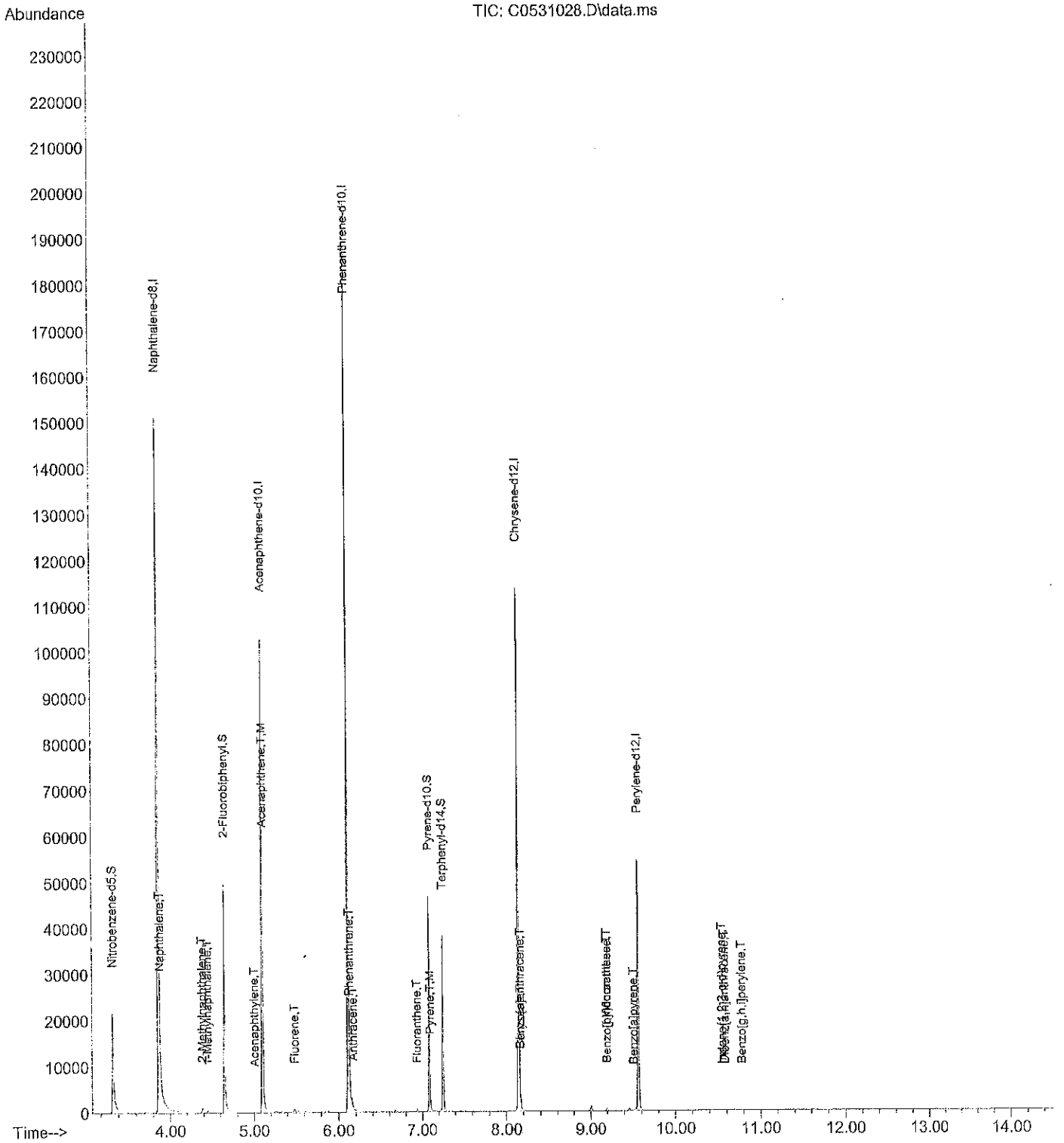
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.861	136	157788	2000.00	ppb	0.00
6) Acenaphthene-d10	5.104	164	84970	2000.00	ppb	0.00
10) Phenanthrene-d10	6.116	188	128149	2000.00	ppb	0.00
17) Chrysene-d12	8.147	240	100814	2000.00	ppb	0.00
21) Perylene-d12	9.567	264	~~56621~~ OK	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.339	82	16354	822.71	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 82.27%			
7) 2-Fluorobiphenyl	4.653	172	40520	645.44	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 64.54%			
11) Pyrene-d10	7.088	212	36560	657.61	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 65.76%			
18) Terphenyl-d14	7.256	244	28955	697.07	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 69.71%			
Target Compounds						Qvalue
3) Naphthalene	3.879	128	1045	10.97	ppb	100
4) 2-Methylnaphthalene	4.380	142	1330	21.14	ppb	100
5) 1-Methylnaphthalene	4.446	142	515	8.20	ppb	100
8) Acenaphthylene	5.004	152	239	2.65	ppb	100
9) Acenaphthene	5.112	153	234	3.45	ppb	100
12) Fluorene	5.489	166	812	12.07	ppb	100
13) Phenanthrene	6.128	178	5453	62.30	ppb	100
14) Anthracene	6.167	178	358	4.05	ppb	100
15) Fluoranthene	6.937	202	615	7.31	ppb	100
16) Pyrene	7.099	202	988	11.24	ppb	100
19) Benzo[a]anthracene	8.166 ~~8.160~~	228	3269	~~62.15~~	ppb 14.16	100
20) Chrysene	8.166	228	3269	~~56.09~~	ppb 43.27	100
22) Benzo[b]fluoranthene	9.196	252	693	~~20.19~~	ppb 18.85	100
23) Benzo(j,k)fluoranthene	9.196 ~~9.162~~	252	693	~~20.72~~	ppb 1.95	100
24) Benzo[a]pyrene	9.508	252	129	3.40	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.552	276	96	2.74	ppb	100
26) Dibenz[a,h]anthracene	10.579	278	110	3.82	ppb	100
27) Benzo[g,h,i]perylene	10.778	276	229	10.23	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5 6/3/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531028.D
Acq On : 31 May 2013 7:57 pm
Operator :
Sample : 05-146-29 ~~5X~~ 1:1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 03 08:41:07 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529021.D
Acq On : 29 May 2013 6:04 pm
Operator :
Sample : 05-146-30,31,32 Comp.
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 31 08:38:11 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration

8081
7921
7631
2540 22/3
7877

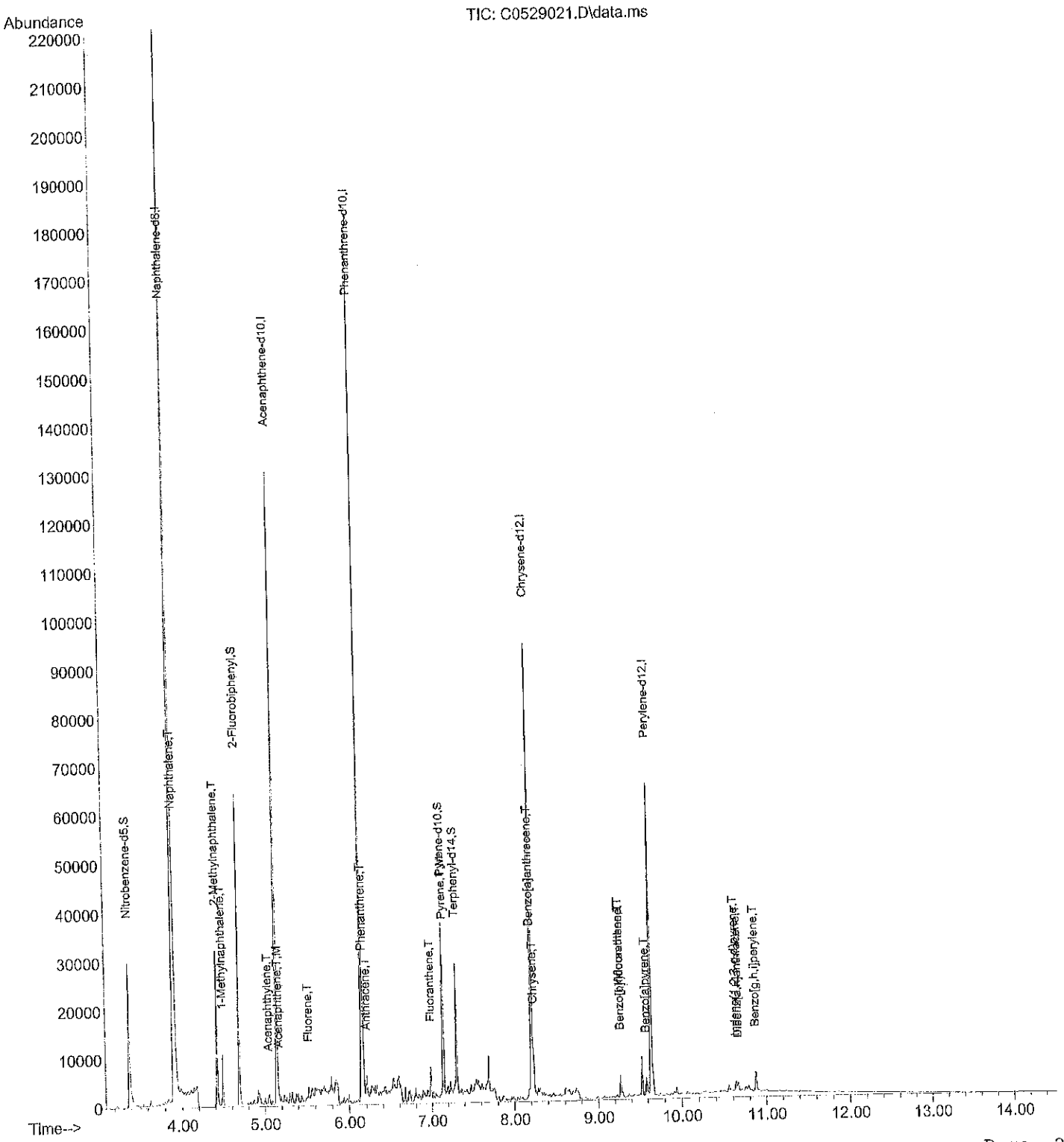
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.902	136	252143	2000.00	ppb	0.00
6) Acenaphthene-d10	5.151	164	112522	2000.00	ppb	0.00
10) Phenanthrene-d10	6.160	188	123351	2000.00	ppb	0.00
17) Chrysene-d12	8.214	240	~~81885~~	2000.00	ppb	0.00
21) Perylene-d12	9.643	264	~~69526~~	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.380	82	20752	548.96	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 54.90%			
7) 2-Fluorobiphenyl	4.692	172	45194	540.17	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 54.02%			
11) Pyrene-d10	7.140	212	24003	428.36	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 42.84%			
18) Terphenyl-d14	7.303	244	18740	554.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 55.45%			
Target Compounds						Qvalue
3) Naphthalene	3.920	128	21685	137.13	ppb	100
4) 2-Methylnaphthalene	4.423	142	26646	257.48	ppb	100
5) 1-Methylnaphthalene	4.489	142	8763	86.98	ppb	100
8) Acenaphthylene	5.043	152	1853	15.44	ppb	100
9) Acenaphthene	5.167	153	1201	13.86	ppb	100
12) Fluorene	5.529	166	2179	33.64	ppb	100
13) Phenanthrene	6.171	178	12504	148.69	ppb	100
14) Anthracene	6.207	178	3336	45.58	ppb	100
15) Fluoranthene	6.989	202	5273	64.79	ppb	100
16) Pyrene	7.152	202	19798	232.08	ppb	100
19) Benzo[a]anthracene	8.203	228	5760	131.76	ppb	100
20) Chrysene	8.234	228	13449	293.62	ppb	100
22) Benzo[b]fluoranthene	9.269	252	5421	112.39	ppb	100
23) Benzo(j,k)fluoranthene	9.269292	252	5421	~~114.74~~	ppb 99.53	100
24) Benzo[a]pyrene	9.581	252	4135	91.54	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.638	276	2942	62.62	ppb	100
26) Dibenz[a,h]anthracene	10.666	278	1365	37.12	ppb	100
27) Benzo[g,h,i]perylene	10.872	276	5138	143.47	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/3/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529021.D
Acq On : 29 May 2013 6:04 pm
Operator :
Sample : 05-146-30,31,32 Comp.
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 31 08:38:11 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528029.D
Acq On : 28 May 2013 11:58 pm
Operator :
Sample : 05-146-33
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 29 00:13:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

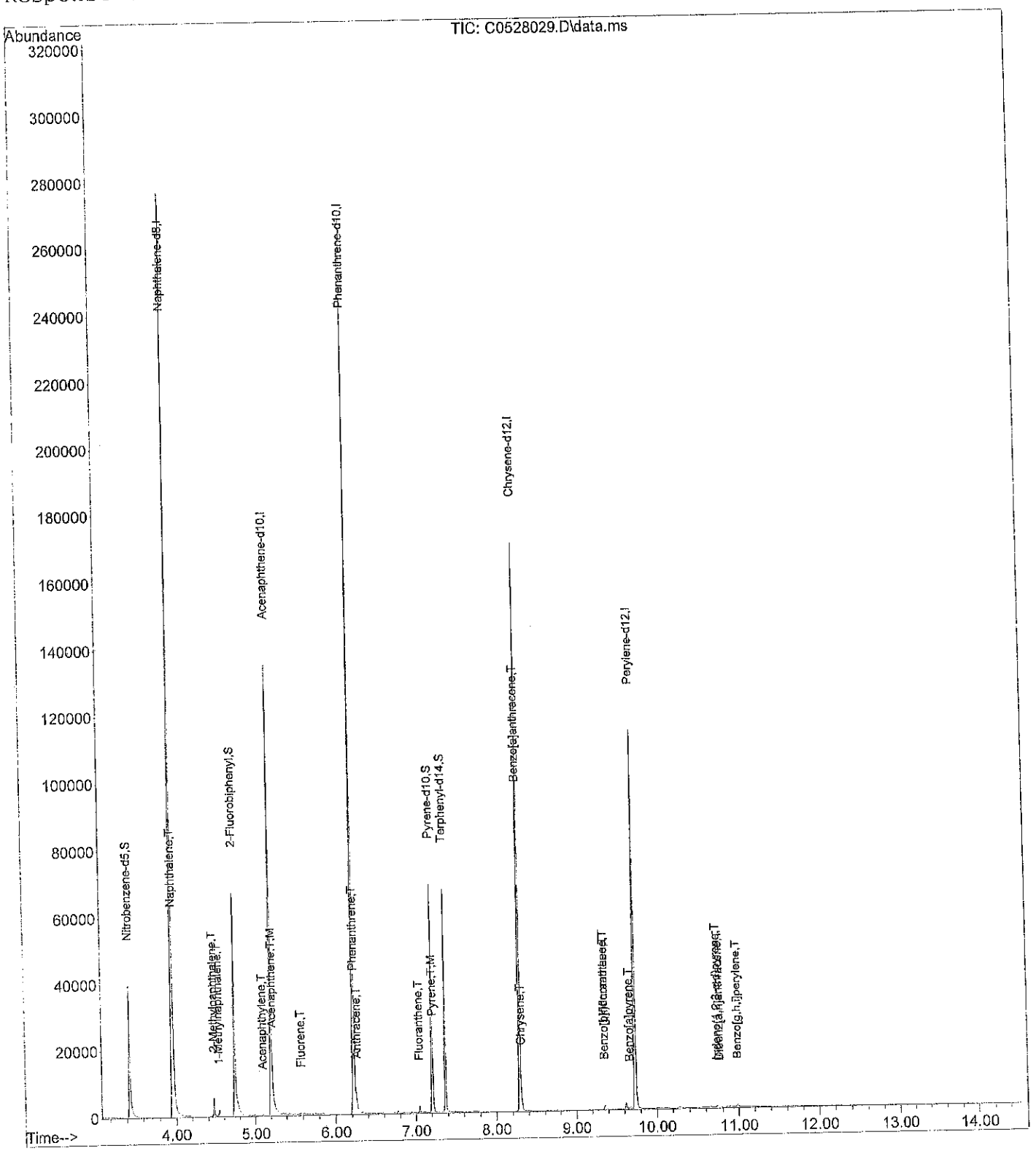
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.954	136	248487	2000.00	ppb	0.02
6) Acenaphthene-d10	5.197	164	137826	2000.00	ppb	0.02
10) Phenanthrene-d10	6.213	188	210467	2000.00	ppb	0.03
17) Chrysene-d12	8.291	240	160212	2000.00	ppb	0.05
21) Perylene-d12	9.734	264	124692	2000.00	ppb	0.07
System Monitoring Compounds						
2) Nitrobenzene-d5	3.432	82	25839	828.13	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 82.81%			
7) 2-Fluorobiphenyl	4.740	172	76247	662.55	ppb	0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 66.25%			
11) Pyrene-d10	7.204	212	58543	681.20	ppb	0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 68.12%			
18) Terphenyl-d14	7.367	244	49130	761.10	ppb	0.03
Spiked Amount 1000.000	Range 39 - 92		Recovery = 76.11%			
Target Compounds						Qvalue
3) Naphthalene	3.966	128	5207	34.07	ppb	100
4) 2-Methylnaphthalene	4.470	142	5694	64.56	ppb	100
5) 1-Methylnaphthalene	4.537	142	2457	26.64	ppb	100
8) Acenaphthylene	5.096	152	482	3.03	ppb	100
9) Acenaphthene	5.220	153	317	2.99	ppb	100
12) Fluorene	5.582	166	943	8.92	ppb	100
13) Phenanthrene	6.229	178	5920	42.81	ppb	100
14) Anthracene	6.264	178	894	6.45	ppb	100
15) Fluoranthene	7.047	202	2195	17.24	ppb	100
16) Pyrene	7.216	202	2554	19.04	ppb	100
19) Benzo[a]anthracene	8.284	228	1493	17.53	ppb	100
20) Chrysene	8.311	228	3189	34.53	ppb	100
22) Benzo[b]fluoranthene	9.356	252	2140	~~29.14~~	ppb	24.70 100
23) Benzo(j,k)fluoranthene	~~9.356~~ 9.357	252	2140	~~26.08~~	ppb	4.51 100
24) Benzo[a]pyrene	9.672	252	761	11.57	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.739	276	796	9.07	ppb	100
26) Dibenz[a,h]anthracene	10.762	278	324	4.16	ppb	100
27) Benzo[g,h,i]perylene	10.985	276	1406	17.47	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528029.D
Acq On : 28 May 2013 11:58 pm
Operator :
Sample : 05-146-33
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 29 00:13:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : d:\RALPH\data\R130525\R0522004.D
Acq On : 22 May 2013 10:08 am
Sample : MB0521S1
Misc :
MS Integration Params: rteint.p
Quant Time: May 22 10:34 2013

Vial: 4
Operator: em
Inst : Ralph
Multiplr: 1.00

Quant Results File: SIM0520.RES

Quant Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration
DataAcq Meth : SIM0520

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	8.27	136	212390	2000.00 ppb	0.00
6) Acenaphthene-d10	10.50	164	91178	2000.00 ppb	0.00
10) Phenanthrene-d10	12.46	188	142405	2000.00 ppb	0.00
17) Chrysene-d12	17.22	240	132387	2000.00 ppb	0.00
21) Perylene-d12	20.52	264	117691	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	7.34	82	42299	1029.78 ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 102.98%#		
7) 2-Fluorobiphenyl	9.61	172	70119	838.24 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 83.82%		
11) Pyrene-d10	14.79	212	51000	892.67 ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 89.27%		
18) Terphenyl-d14	15.06	244	41598	936.11 ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 93.61%#		
Target Compounds					Qvalue
3) Naphthalene	8.29	128	91	0.65 ppb	100
4) 2-Methylnaphthalene	9.17	142	25	0.31 ppb	100
5) 1-Methylnaphthalene	9.24	142	7	0.09 ppb	100
8) Acenaphthylene	0.00	152	0	N.D.	
9) Acenaphthene	10.51	153	64	0.96 ppb	100
12) Fluorene	11.38	166	67	0.90 ppb	100
13) Phenanthrene	12.49	178	114	1.14 ppb	100
14) Anthracene	12.56	178	50	0.55 ppb	100
15) Fluoranthene	14.40	202	34	0.35 ppb	100
16) Pyrene	14.79	202	72	0.71 ppb	100
19) Benzo[a]anthracene	17.22	228	343	3.96 ppb	100
~~20) Chrysene~~	17.22	228	343	~~4.54 ppb~~	100
22) Benzo[b]fluoranthene	19.53	252	15	0.15 ppb	100
23) Benzo(j,k)fluoranthene	19.59	252	9	0.09 ppb	100
24) Benzo[a]pyrene	20.42	252	19	0.20 ppb	100
25) Indeno(1,2,3-c,d)pyrene	23.98	276	13	0.12 ppb	100
26) Dibenz[a,h]anthracene	24.07	278	8	0.10 ppb	100
27) Benzo[g,h,i]perylene	25.05	276	19	0.23 ppb	100

5/22/13

(#) = qualifier out of range (m) = manual integration
R0522004.D SIM0520.M Wed May 22 10:34:47 2013 Page 1

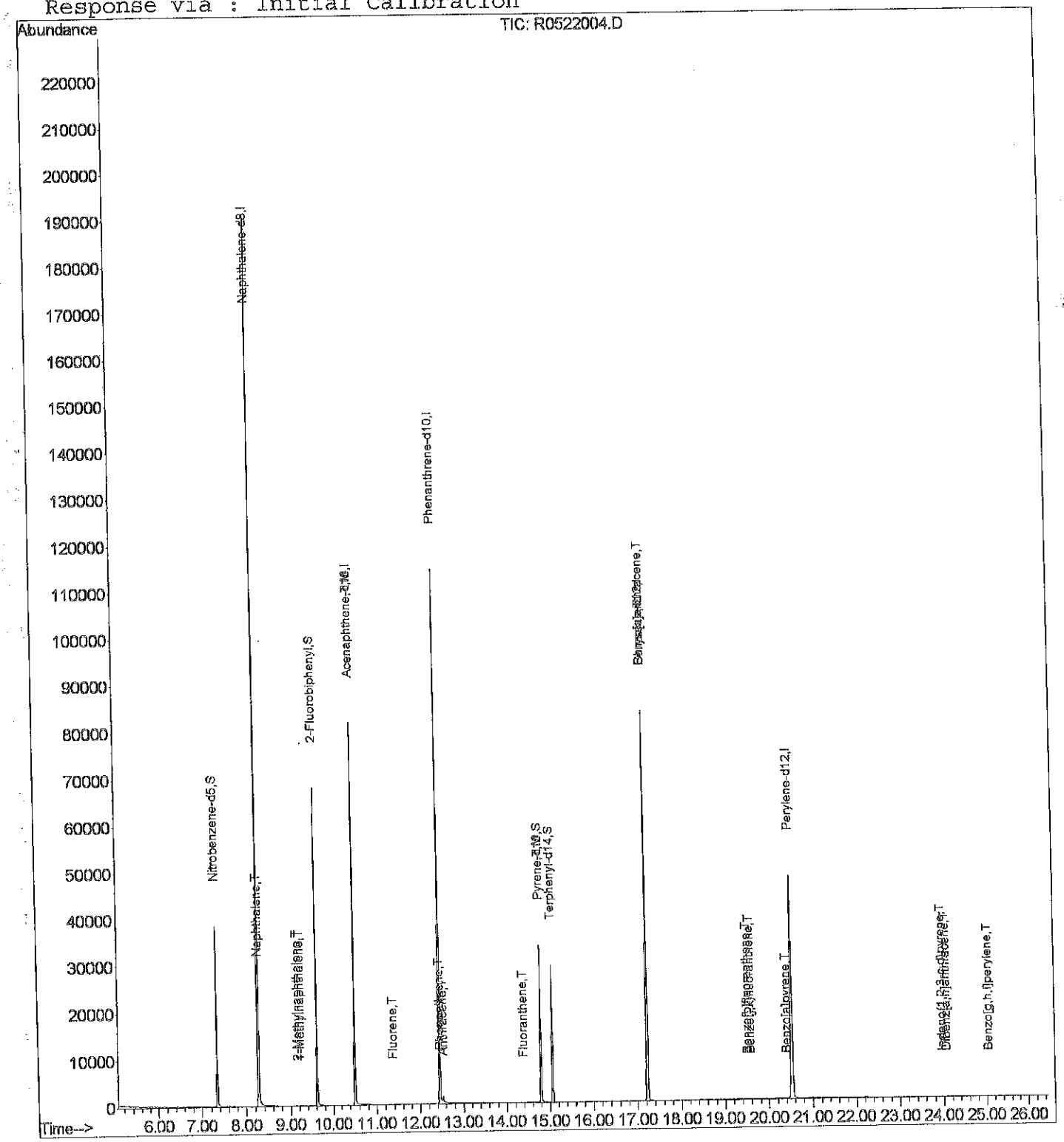
Quantitation Report

Data File : d:\RALPH\data\R130525\R0522004.D
Acq On : 22 May 2013 10:08 am
Sample : MB0521S1
Misc :
MS Integration Params: rteint.p
Quant Time: May 22 10:34 2013

Vial: 4
Operator: em
Inst : Ralph
Multiplr: 1.00

Quant Results File: SIM0520.RES

Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528014.D
Acq On : 28 May 2013 6:28 pm
Operator :
Sample : MB0522S1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 28 18:43:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

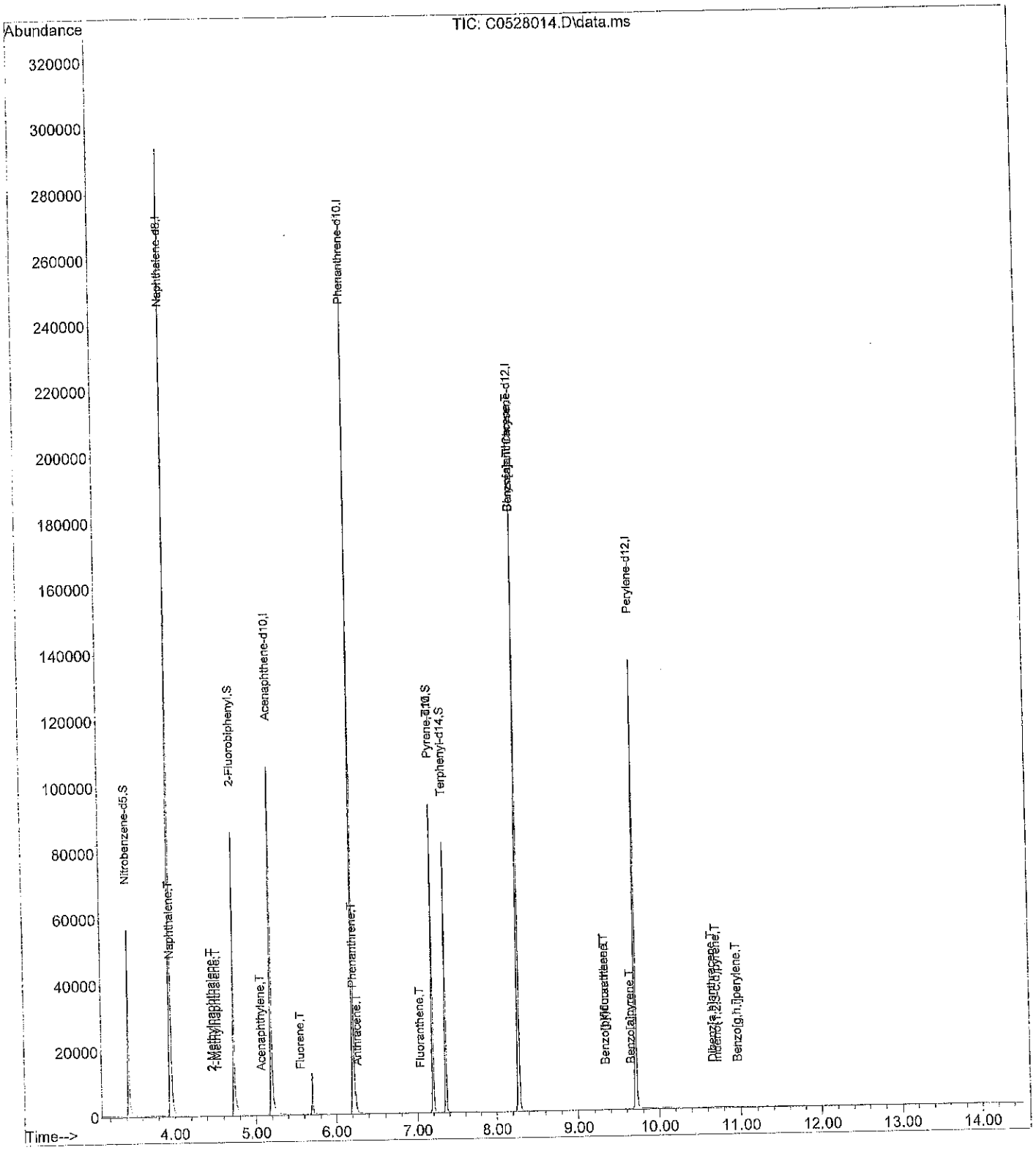
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.950	136	238240	2000.00 ppb	0.01
6) Acenaphthene-d10	5.197	164	127804	2000.00 ppb	0.02
10) Phenanthrene-d10	6.206	188	216796	2000.00 ppb	0.02
17) Chrysene-d12	8.276	240	180736	2000.00 ppb	0.04
21) Perylene-d12	9.712	264	148690	2000.00 ppb	0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	3.427	82	33594	1122.98 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 112.30%#		
7) 2-Fluorobiphenyl	4.736	172	85864	804.62 ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 80.46%		
11) Pyrene-d10	7.193	212	77217	872.26 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.23%		
18) Terphenyl-d14	7.355	244	64727	888.86 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 88.89%		
Target Compounds					Qvalue
3) Naphthalene	3.961	128	549	3.75 ppb	100
4) 2-Methylnaphthalene	4.466	142	116	1.37 ppb	100
5) 1-Methylnaphthalene	4.533	142	112	1.27 ppb	100
8) Acenaphthylene	5.074	152	97	0.66 ppb	100
9) Acenaphthene	0.000		0	N.D.	
12) Fluorene	5.559	166	260	2.39 ppb	100
13) Phenanthrene	6.222	178	190	1.33 ppb	100
14) Anthracene	6.268	178	41	0.29 ppb	100
15) Fluoranthene	7.042	202	133	1.01 ppb	100
16) Pyrene	7.193	202	296	2.14 ppb	100
19) Benzo[a]anthracene	8.273	228	577	6.00 ppb	100
20) Chrysene	8.273	228	577	5.54 ppb	100
22) Benzo[b]fluoranthene	9.337	252	58	0.66 ppb	100
23) Benzo(j,k)fluoranthene	9.337	252	58	0.59 ppb	100
24) Benzo[a]pyrene	9.653	252	54	0.69 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.724	276	49	0.47 ppb	100
26) Dibenz[a,h]anthracene	10.665	278	31	0.33 ppb	100
27) Benzo[g,h,i]perylene	10.966	276	34	0.35 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528014.D
Acq On : 28 May 2013 6:28 pm
Operator :
Sample : MB0522S1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 28 18:43:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : d:\RALPH\data\R130525\R0522005.D
Acq On : 22 May 2013 10:41 am
Sample : SB0521S1
Misc :
MS Integration Params: rteint.p
Quant Time: May 22 11:08 2013

Vial: 5
Operator: em
Inst : Ralph
Multiplr: 1.00

Quant Results File: SIM0520.RES

Quant Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration
DataAcq Meth : SIM0520

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	8.27	136	221302	2000.00	ppb	0.00
6) Acenaphthene-d10	10.50	164	96146	2000.00	ppb	0.00
10) Phenanthrene-d10	12.46	188	149794	2000.00	ppb	0.00
17) Chrysene-d12	17.22	240	138069	2000.00	ppb	0.00
21) Perylene-d12	20.52	264	120943	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	7.34	82	43362	1013.15	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 101.32%#			
7) 2-Fluorobiphenyl	9.61	172	72850	825.89	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.59%			
11) Pyrene-d10	14.79	212	53001	881.93	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 88.19%			
18) Terphenyl-d14	15.06	244	43665	942.19	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 94.22%#			
Target Compounds						Qvalue
3) Naphthalene	8.30	128	63152	432.35	ppb	100
4) 2-Methylnaphthalene	9.17	142	36258	436.44	ppb	100
5) 1-Methylnaphthalene	9.30	142	34371	441.91	ppb	100
8) Acenaphthylene	10.33	152	53087	505.30	ppb	100
9) Acenaphthene	10.54	153	33248	470.99	ppb	100
12) Fluorene	11.20	166	37111	473.77	ppb	100
13) Phenanthrene	12.49	178	49236	469.02	ppb	100
14) Anthracene	12.56	178	47284	491.69	ppb	100
15) Fluoranthene	14.40	202	45952	453.35	ppb	100
16) Pyrene	14.82	202	47994	448.30	ppb	100
19) Benzo[a]anthracene	17.19	228	38447	425.19	ppb	100
20) Chrysene	17.27	228	35842	454.90	ppb	100
22) Benzo[b]fluoranthene	19.53	252	43124	430.28	ppb	100
23) Benzo(j,k)fluoranthene	19.60	252	40909	417.57	ppb	100
24) Benzo[a]pyrene	20.37	252	42161	436.14	ppb	100
25) Indeno(1,2,3-c,d)pyrene	23.98	276	37610	~~340.36~~ 413.85	ppb	100
26) Dibenz[a,h]anthracene	24.08	278	35777	425.13	ppb	100
27) Benzo[g,h,i]perylene	25.06	276	38318	444.56	ppb	100

5/22/13

(#) = qualifier out of range (m) = manual integration

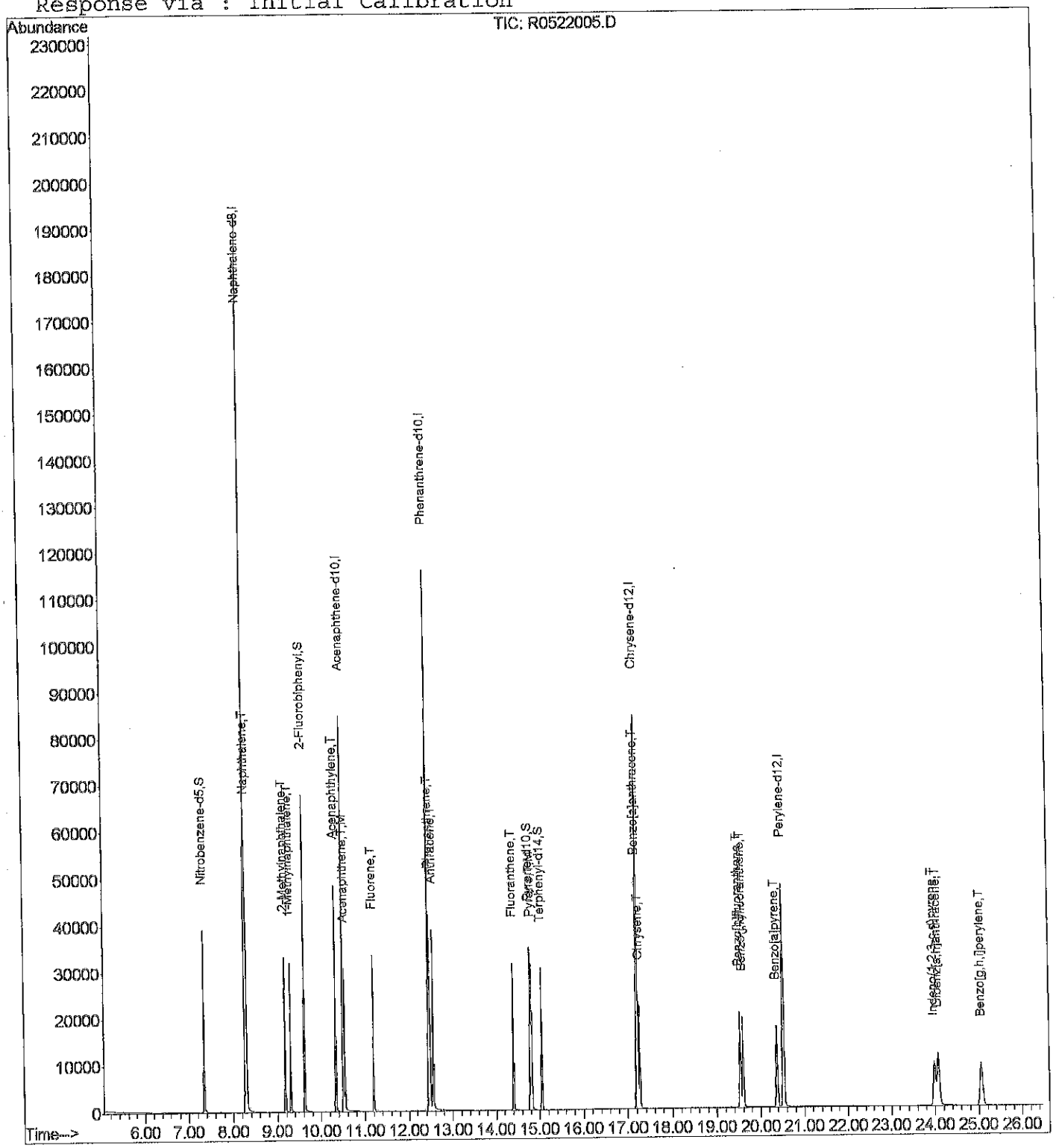
Quantitation Report

Data File : d:\RALPH\data\R130525\R0522005.D
Acq On : 22 May 2013 10:41 am
Sample : SB0521S1
Misc :
MS Integration Params: rteint.p
Quant Time: May 22 11:08 2013

Vial: 5
Operator: em
Inst : Ralph
Multiplr: 1.00

Quant Results File: SIM0520.RES

Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : d:\RALPH\data\R130525\R0522006.D Vial: 6
Acq On : 22 May 2013 11:14 am Operator: em
Sample : SB0521S1 DUP Inst : Ralph
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 22 11:41 2013 Quant Results File: SIM0520.RES

Quant Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration
DataAcq Meth : SIM0520

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	8.27	136	222291	2000.00	ppb	0.00
6) Acenaphthene-d10	10.50	164	97257	2000.00	ppb	0.00
10) Phenanthrene-d10	12.45	188	152382	2000.00	ppb	0.00
17) Chrysene-d12	17.22	240	141046	2000.00	ppb	0.00
21) Perylene-d12	20.52	264	122648	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	7.34	82	44096	1025.72	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 102.57%#			
7) 2-Fluorobiphenyl	9.62	172	73406	822.69	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.27%			
11) Pyrene-d10	14.79	212	53747	879.16	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.92%			
18) Terphenyl-d14	15.06	244	45686	964.99	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 96.50%#			
Target Compounds						Qvalue
3) Naphthalene	8.29	128	63565	433.24	ppb	100
4) 2-Methylnaphthalene	9.17	142	36271	434.65	ppb	100
5) 1-Methylnaphthalene	9.30	142	34195	437.69	ppb	100
8) Acenaphthylene	10.33	152	52793	496.76	ppb	100
9) Acenaphthene	10.54	153	33131	463.97	ppb	100
12) Fluorene	11.19	166	37022	464.60	ppb	100
13) Phenanthrene	12.49	178	49256	461.24	ppb	100
14) Anthracene	12.56	178	47723	487.83	ppb	100
15) Fluoranthene	14.40	202	46354	449.55	ppb	100
16) Pyrene	14.82	202	48413	444.53	ppb	100
19) Benzo[a]anthracene	17.19	228	38320	414.84	ppb	100
20) Chrysene	17.27	228	36127	448.84	ppb	100
22) Benzo[b]fluoranthene	19.53	252	43447	427.48	ppb	100
23) Benzo(j,k)fluoranthene	19.59	252	42648	429.26	ppb	100
24) Benzo[a]pyrene	20.37	252	41930	427.72	ppb	100
25) Indeno(1,2,3-c,d)pyrene	23.99	276	37872	~~337.97~~	ppb	100
26) Dibenz[a,h]anthracene	24.07	278	36132	423.38	ppb	100
27) Benzo[g,h,i]perylene	25.06	276	38319	438.39	ppb	100

414.52

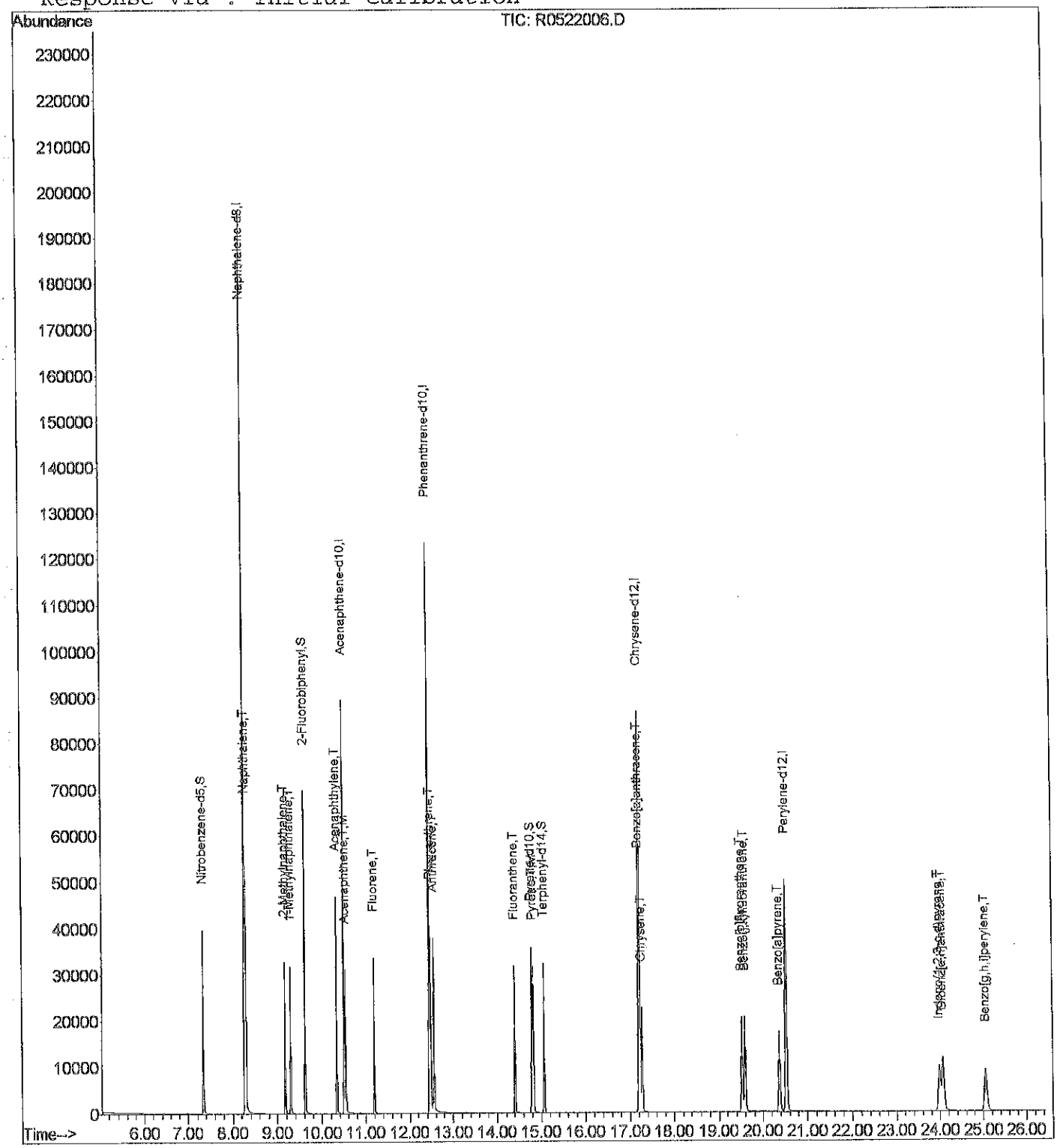
5/22/13

(#) = qualifier out of range (m) = manual integration
R0522006.D SIM0520.M Wed May 22 11:41:24 2013 Page 1

Quantitation Report

Data File : d:\RALPH\data\R130525\R0522006.D Vial: 6
Acq On : 22 May 2013 11:14 am Operator: em
Sample : SB0521S1 DUP Inst : Ralph
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 22 11:41 2013 Quant Results File: SIM0520.RES

Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Mon May 20 16:16:11 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528015.D
Acq On : 28 May 2013 6:50 pm
Operator :
Sample : SB0522S1
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 28 19:05:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

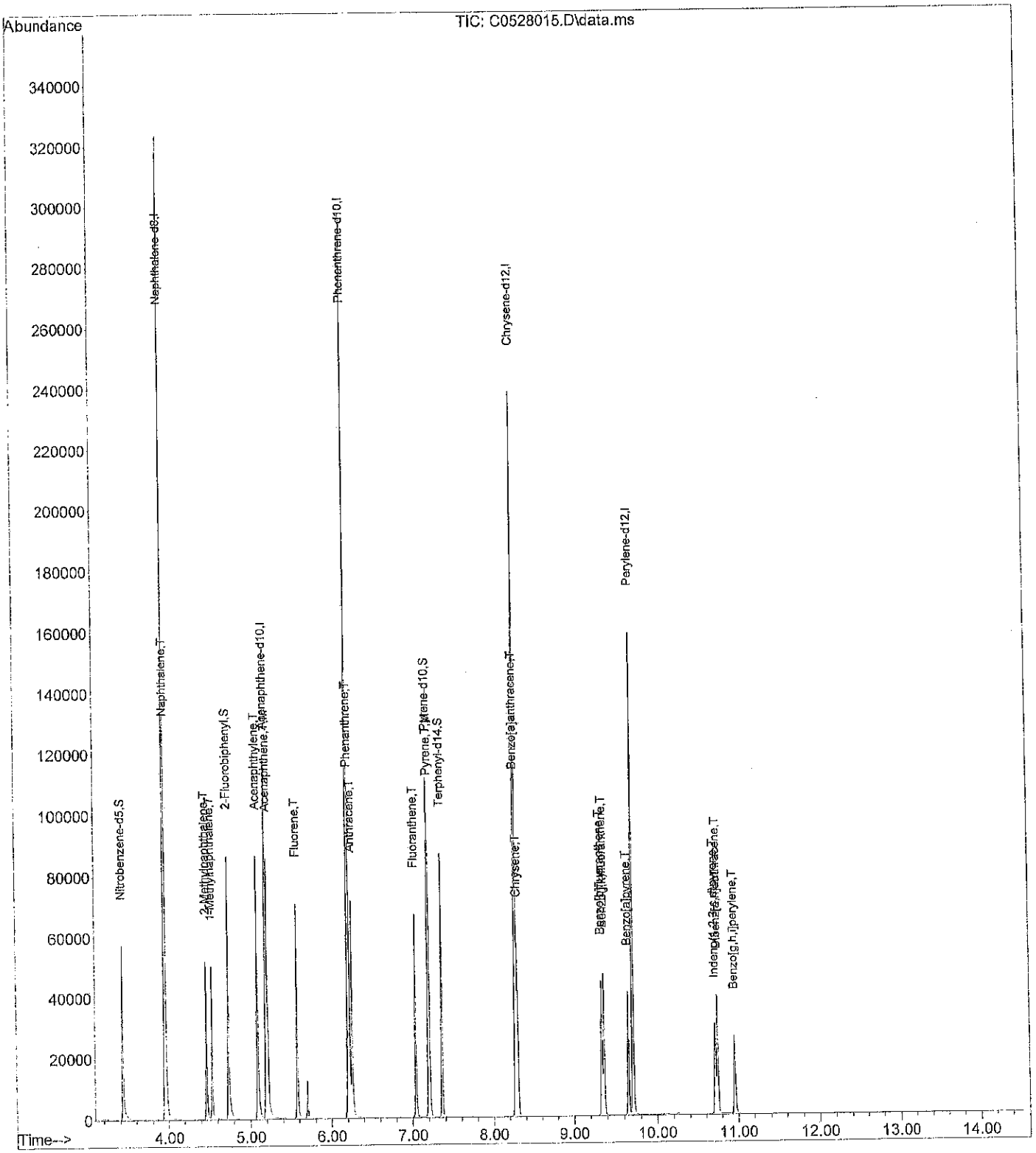
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.948	136	268329	2000.00 ppb	0.01
6) Acenaphthene-d10	5.189	164	137572	2000.00 ppb	0.00
10) Phenanthrene-d10	6.206	188	231230	2000.00 ppb	0.02
17) Chrysene-d12	8.275	240	209656	2000.00 ppb	0.04
21) Perylene-d12	9.711	264	172597	2000.00 ppb	0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	3.426	82	33848	1004.59 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 100.46%#		
7) 2-Fluorobiphenyl	4.735	172	86193	750.35 ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 75.04%		
11) Pyrene-d10	7.192	212	84856	898.72 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 89.87%		
18) Terphenyl-d14	7.355	244	71511	846.56 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 84.66%		
Target Compounds					Qvalue
3) Naphthalene	3.960	128	63565	385.17 ppb	100
4) 2-Methylnaphthalene	4.465	142	41290	433.55 ppb	100
5) 1-Methylnaphthalene	4.532	142	42474	426.53 ppb	100
8) Acenaphthylene	5.089	152	71598	451.41 ppb	100
9) Acenaphthene	5.212	153	43345	409.14 ppb	100
12) Fluorene	5.574	166	49424	425.73 ppb	100
13) Phenanthrene	6.221	178	63029	414.90 ppb	100
14) Anthracene	6.256	178	63862	419.06 ppb	100
15) Fluoranthene	7.036	202	63594	454.61 ppb	100
16) Pyrene	7.204	202	65696	445.80 ppb	100
19) Benzo[a]anthracene	8.264	228	53590	480.72 ppb	100
20) Chrysene	8.295	228	47941	396.69 ppb	100
22) Benzo[b]fluoranthene	9.333	252	50071	492.63 ppb	100
23) Benzo(j,k)fluoranthene	9.360	252	48030	422.93 ppb	100
24) Benzo[a]pyrene	9.649	252	45601	500.79 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.711	276	39123	~~322.09~~ ppb 480.81	100
26) Dibenz[a,h]anthracene	10.739	278	39625	367.95 ppb	100
27) Benzo[g,h,i]perylene	10.950	276	38221	343.11 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528015.D
Acq On : 28 May 2013 6:50 pm
Operator :
Sample : SB0522S1
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 28 19:05:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528016.D
Acq On : 28 May 2013 7:12 pm
Operator :
Sample : SB0522S1 DUP
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 28 19:27:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

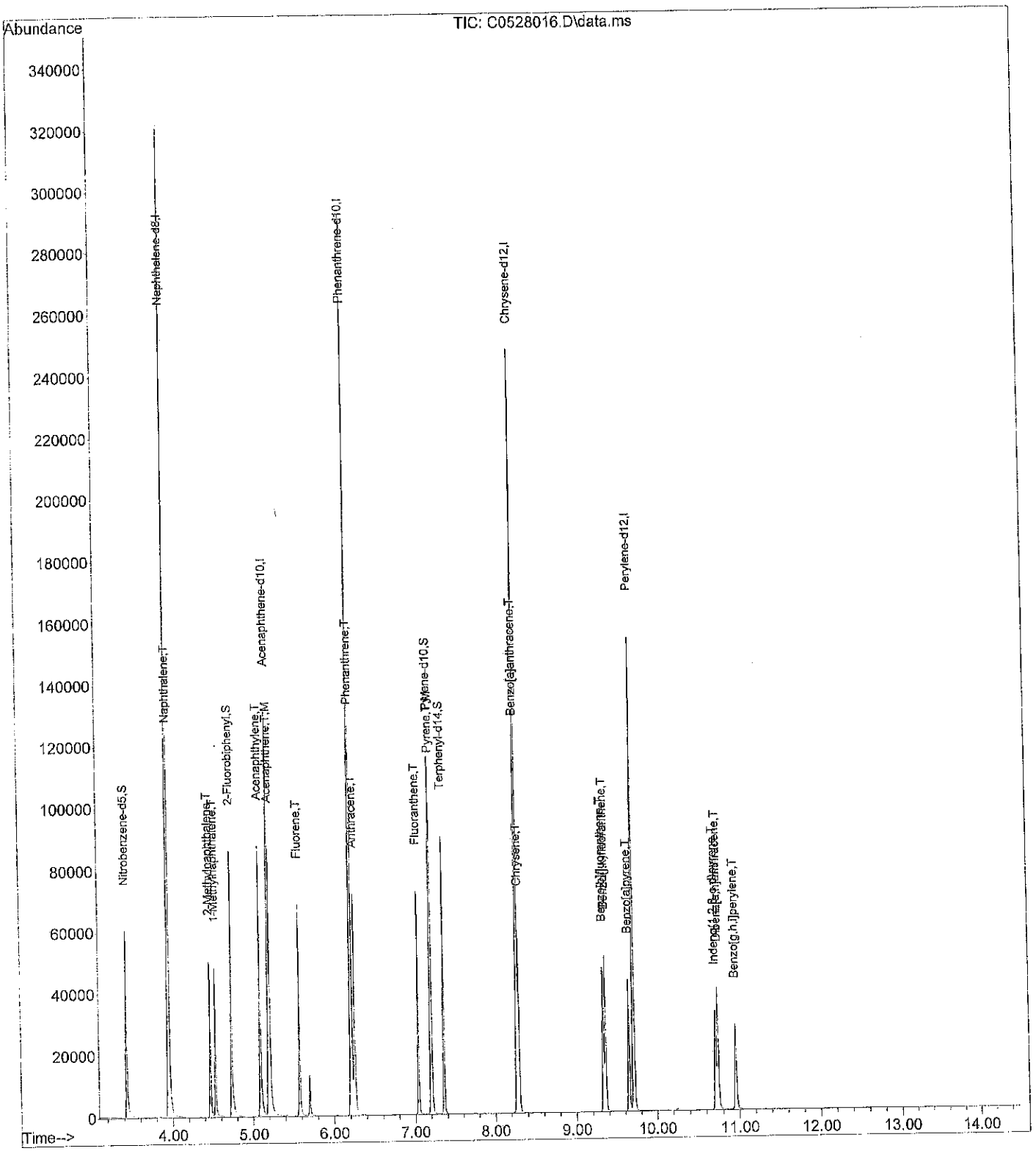
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.949	136	265573	2000.00	ppb	0.01
6) Acenaphthene-d10	5.189	164	138311	2000.00	ppb	0.00
10) Phenanthrene-d10	6.206	188	234470	2000.00	ppb	0.02
17) Chrysene-d12	8.276	240	214135	2000.00	ppb	0.04
21) Perylene-d12	9.707	264	179798	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.427	82	36455	1093.20	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 109.32%#			
7) 2-Fluorobiphenyl	4.732	172	91965	796.33	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 79.63%			
11) Pyrene-d10	7.192	212	89533	935.15	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.51%			
18) Terphenyl-d14	7.355	244	74878	867.88	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.79%			
Target Compounds						Qvalue
3) Naphthalene	3.961	128	65661	402.00	ppb	100
4) 2-Methylnaphthalene	4.463	142	42828	454.37	ppb	100
5) 1-Methylnaphthalene	4.533	142	44192	448.39	ppb	100
8) Acenaphthylene	5.089	152	71608	449.06	ppb	100
9) Acenaphthene	5.212	153	44937	421.90	ppb	100
12) Fluorene	5.574	166	48790	414.46	ppb	100
13) Phenanthrene	6.218	178	63454	411.93	ppb	100
14) Anthracene	6.257	178	63949	413.83	ppb	100
15) Fluoranthene	7.035	202	62207	438.55	ppb	100
16) Pyrene	7.204	202	66849	447.35	ppb	100
19) Benzo[a]anthracene	8.264	228	54129	475.39	ppb	100
20) Chrysene	8.296	228	49838	403.76	ppb	100
22) Benzo[b]fluoranthene	9.333	252	50021	472.43	ppb	100
23) Benzo(j,k)fluoranthene	9.360	252	52093	440.33	ppb	100
24) Benzo[a]pyrene	9.649	252	48022	506.26	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.707	276	40582	~~320.72~~ 405.62	ppb	100
26) Dibenz[a,h]anthracene	10.739	278	42600	379.73	ppb	100
27) Benzo[g,h,i]perylene	10.949	276	40586	349.75	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528016.D
Acq On : 28 May 2013 7:12 pm
Operator :
Sample : SB0522S1 DUP
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 28 19:27:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : X:\SEMIVOLS\RALPH\DATA\R130525\R0522003.D Vial: 3
Acq On : 22 May 2013 9:34 am Operator: em
Sample : PAH CCV0522 Inst : Ralph
Misc : SV3-68-25 Multiplr: 1.00
MS Integration Params: rteint.p

Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Wed May 22 10:03:30 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	74	0.00
2	S	Nitrobenzene-d5	500.000	585.372	-17.1	86	0.00
3	T	Naphthalene	500.000	480.830	3.8	72	0.00
4	T	2-Methylnaphthalene	500.000	475.835	4.8	71	0.00
5	T	1-Methylnaphthalene	500.000	459.788	8.0	68	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	72	0.00
7	S	2-Fluorobiphenyl	500.000	462.334	7.5	70	0.00
8	T	Acenaphthylene	500.000	514.785	-3.0	75	0.00
9	T,M	Acenaphthene	500.000	479.746	4.1	68	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	70	0.00
11	S	Pyrene-d10	500.000	481.572	3.7	68	0.00
12	T	Fluorene	500.000	484.061	3.2	67	0.00
13	T	Phenanthrene	500.000	474.898	5.0	67	0.00
14	T	Anthracene	500.000	411.141	17.8	56	0.00
15	T	Fluoranthene	500.000	454.471	9.1	64	0.00
16	T,M	Pyrene	500.000	459.253	8.1	65	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	65	0.00
18	S	Terphenyl-d14	500.000	466.986	6.6	59	0.00
19	T	Benzo[a]anthracene	500.000	415.496	16.9	52	0.00
20	T	Chrysene	500.000	484.356	3.1	61	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	61	0.00
22	T	Benzo[b]fluoranthene	500.000	429.124	14.2	53	0.00
23	T	Benzo(j,k)fluoranthene	500.000	446.244	10.8	54	0.00
24	T	Benzo[a]pyrene	500.000	446.508	10.7	54	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	412.196	17.6	53	0.01
26	T	Dibenz[a,h]anthracene	500.000	423.984	15.2	54	0.01
27	T	Benzo[g,h,i]perylene	500.000	439.837	12.0	53	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
R0522003.D SIM0520.M Wed May 22 10:04:13 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : X:\SEMIVOLS\RALPH\DATA\R130525\R0522003.D Vial: 3
Acq On : 22 May 2013 9:34 am Operator: em
Sample : PAH CCV0522 Inst : Ralph
Misc : SV3-68-25 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 22 10:03 2013 Quant Results File: SIM0520.RES

Quant Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Wed May 22 10:03:30 2013
Response via : Initial Calibration
DataAcq Meth : SIM0520

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	8.27	136	237101	2000.00	ppb	0.00
6) Acenaphthene-d10	10.50	164	102574	2000.00	ppb	0.00
10) Phenanthrene-d10	12.46	188	156607	2000.00	ppb	0.00
17) Chrysene-d12	17.22	240	149641	2000.00	ppb	0.00
21) Perylene-d12	20.52	264	133083	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	7.34	82	26842	585.37	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 58.54%			
7) 2-Fluorobiphenyl	9.61	172	43508	462.33	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 46.23%			
11) Pyrene-d10	14.79	212	30257	481.57	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.16%			
18) Terphenyl-d14	15.06	244	23456	466.99	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 46.70%			
Target Compounds						Qvalue
3) Naphthalene	8.30	128	75247	480.83	ppb	100
4) 2-Methylnaphthalene	9.17	142	42353	475.83	ppb	100
5) 1-Methylnaphthalene	9.30	142	38315	459.79	ppb	100
8) Acenaphthylene	10.33	152	57699	514.78	ppb	100
9) Acenaphthene	10.54	153	36130	479.75	ppb	100
12) Fluorene	11.19	166	39642	484.06	ppb	100
13) Phenanthrene	12.49	178	52121	474.90	ppb	100
14) Anthracene	12.56	178	41336m	411.14	ppb	
15) Fluoranthene	14.40	202	48161	454.47	ppb	100
16) Pyrene	14.82	202	51403	459.25	ppb	100
19) Benzo[a]anthracene	17.19	228	36976	415.50	ppb	100
20) Chrysene	17.27	228	41361	484.36	ppb	100
22) Benzo[b]fluoranthene	19.52	252	47325	429.12	ppb	100
23) Benzo(j,k)fluoranthene	19.60	252	48107	446.24	ppb	100
24) Benzo[a]pyrene	20.37	252	47496	446.51	ppb	100
25) Indeno(1,2,3-c,d)pyrene	23.99	276	50120m	412.20	ppb	
26) Dibenz[a,h]anthracene	24.08	278	39262	423.98	ppb	100
27) Benzo[g,h,i]perylene	25.06	276	41716	439.84	ppb	100

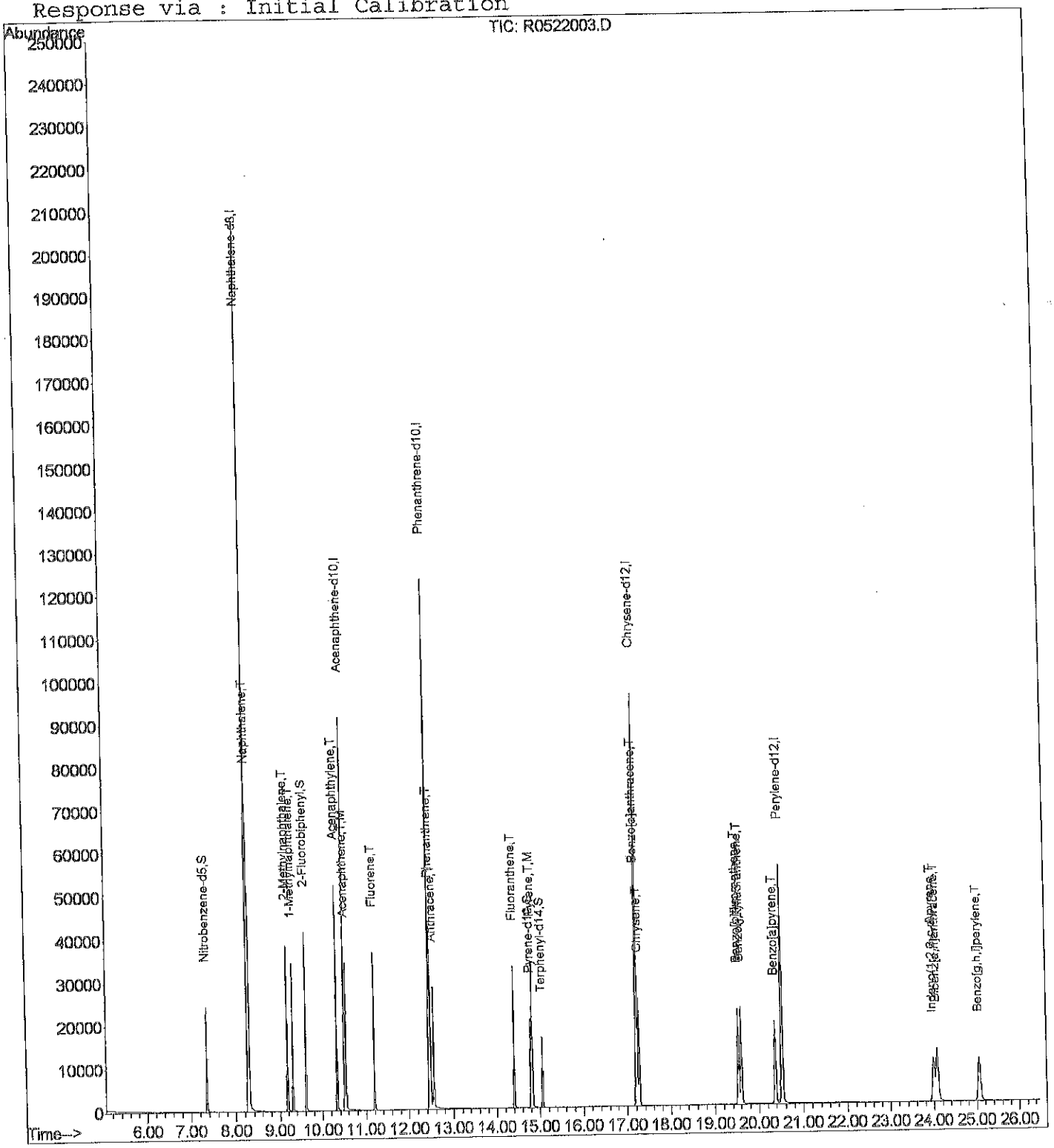
5/22/13

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : X:\SEMIVOLS\RALPH\DATA\R130525\R0522003.D Vial: 3
Acq On : 22 May 2013 9:34 am Operator: em
Sample : PAH CCV0522 Inst : Ralph
Misc : SV3-68-25 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 22 10:03 2013 Quant Results File: SIM0520.RES

Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS
Last Update : Wed May 22 10:03:30 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:07:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	92	0.00
2	S	Nitrobenzene-d5	500.000	519.707	-3.9	113	0.00
3	T	Naphthalene	500.000	452.723	9.5	88	0.00
4	T	2-Methylnaphthalene	500.000	443.812	11.2	85	0.00
5	T	1-Methylnaphthalene	500.000	435.662	12.9	86	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	89	0.00
7	S	2-Fluorobiphenyl	500.000	446.674	10.7	87	0.00
8	T	Acenaphthylene	500.000	428.093	14.4	82	0.00
9	T,M	Acenaphthene	500.000	451.004	9.8	86	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	459.367	8.1	92	0.00
12	T	Fluorene	500.000	437.087	12.6	86	0.00
13	T	Phenanthrene	500.000	421.962	15.6	88	0.00
14	T	Anthracene	500.000	432.881	13.4	87	0.00
15	T	Fluoranthene	500.000	441.194	11.8	90	0.00
16	T,M	Pyrene	500.000	458.982	8.2	92	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	111	0.00
18	S	Terphenyl-d14	500.000	416.396	16.7	101	0.00
19	T	Benzo[a]anthracene	500.000	424.770	15.0	95	0.00
20	T	Chrysene	500.000	465.024	7.0	110	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	106	0.00
22	T	Benzo[b]fluoranthene	500.000	449.189	10.2	98	0.00
23	T	Benzo(j,k)fluoranthene	500.000	485.780	2.8	107	0.00
24	T	Benzo[a]pyrene	500.000	441.577	11.7	90	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	478.030	4.4	135	0.00
26	T	Dibenz[a,h]anthracene	500.000	462.863	7.4	94	0.00
27	T	Benzo[g,h,i]perylene	500.000	456.893	8.6	97	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

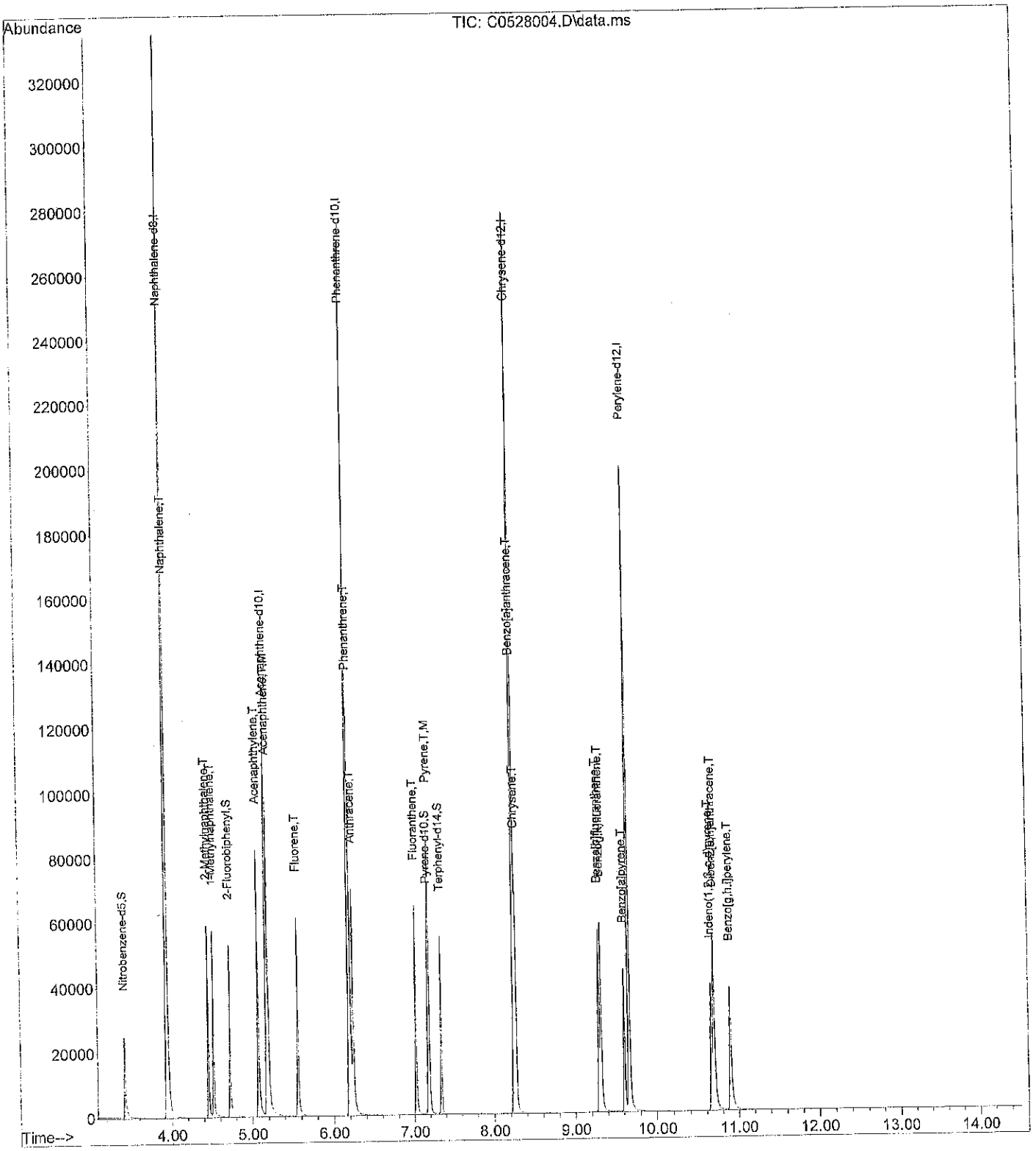
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.936	136	318429	2000.00	ppb	0.00
6) Acenaphthene-d10	5.174	164	144942	2000.00	ppb	0.00
10) Phenanthrene-d10	6.185	188	245827	2000.00	ppb	0.00
17) Chrysene-d12	8.243	240	261018	2000.00	ppb	0.00
21) Perylene-d12	9.663	264	230094	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.413	82	20780	519.71	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.97%			
7) 2-Fluorobiphenyl	4.723	172	54058	446.67	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.67%			
11) Pyrene-d10	7.170	212	46111	459.37	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.94%			
18) Terphenyl-d14	7.338	244	43791	416.40	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 41.64%			
Target Compounds						Qvalue
3) Naphthalene	3.947	128	88663	452.72	ppb	100
4) 2-Methylnaphthalene	4.450	142	50159	443.81	ppb	100
5) 1-Methylnaphthalene	4.520	142	51483	435.66	ppb	100
8) Acenaphthylene	5.074	152	71537	428.09	ppb	100
9) Acenaphthene	5.197	153	50340	451.00	ppb	100
12) Fluorene	5.559	166	53946	437.09	ppb	100
13) Phenanthrene	6.201	178	68148	421.96	ppb	100
14) Anthracene	6.236	178	70133	432.88	ppb	100
15) Fluoranthene	7.019	202	65613	441.19	ppb	100
16) Pyrene	7.181	202	71909	458.98	ppb	100
19) Benzo[a]anthracene	8.232	228	58954	424.77	ppb	100
20) Chrysene	8.263	228	69967	465.02	ppb	100
22) Benzo[b]fluoranthene	9.293	252	60865	449.19	ppb	100
23) Benzo(j,k)fluoranthene	9.320	252	73546	485.78	ppb	100
24) Benzo[a]pyrene	9.605	252	53604	441.58	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.656	276	51306	~~316.84~~ 478.83	ppb	100
26) Dibenz[a,h]anthracene	10.691	278	66452	462.86	ppb	100
27) Benzo[g,h,i]perylene	10.890	276	67851	456.89	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/28/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529016.D
Acq On : 29 May 2013 4:16 pm
Operator :
Sample : ICVPAH0529
Misc : SV3-69-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 31 08:35:42 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	101	0.00
2	S	Nitrobenzene-d5	500.000	497.831	0.4	94	0.00
3	T	Naphthalene	500.000	438.713	12.3	94	0.00
4	T	2-Methylnaphthalene	500.000	434.844	13.0	93	0.00
5	T	1-Methylnaphthalene	500.000	428.773	14.2	90	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	96	0.00
7	S	2-Fluorobiphenyl	500.000	459.081	8.2	95	0.00
8	T	Acenaphthylene	500.000	517.750	-3.5	94	0.00
9	T,M	Acenaphthene	500.000	449.326	10.1	94	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	98	0.00
11	S	Pyrene-d10	500.000	453.953	9.2	94	0.00
12	T	Fluorene	500.000	442.401	11.5	90	0.00
13	T	Phenanthrene	500.000	442.468	11.5	92	0.00
14	T	Anthracene	500.000	358.323	28.3#	62	0.00
15	T	Fluoranthene	500.000	429.670	14.1	89	0.00
16	T,M	Pyrene	500.000	445.095	11.0	92	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	97	0.00
18	S	Terphenyl-d14	500.000	397.046	20.6#	84	0.00
19	T	Benzo[a]anthracene	500.000	451.241	9.8	78	0.00
20	T	Chrysene	500.000	480.888	3.8	96	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	102	0.00
22	T	Benzo[b]fluoranthene	500.000	408.268	18.3	87	0.00
23	T	Benzo(j,k)fluoranthene	500.000	443.005	11.4	95	0.00
24	T	Benzo[a]pyrene	500.000	436.200	12.8	93	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	471.633	5.7	97	-0.01
26	T	Dibenz[a,h]anthracene	500.000	490.821	1.8	102	0.00
27	T	Benzo[g,h,i]perylene	500.000	513.928	-2.8	109	0.00

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

Onsite Environmental Inc. Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529016.D
Acq On : 29 May 2013 4:16 pm
Operator :
Sample : ICVPAH0529
Misc : SV3-69-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 31 08:35:42 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration

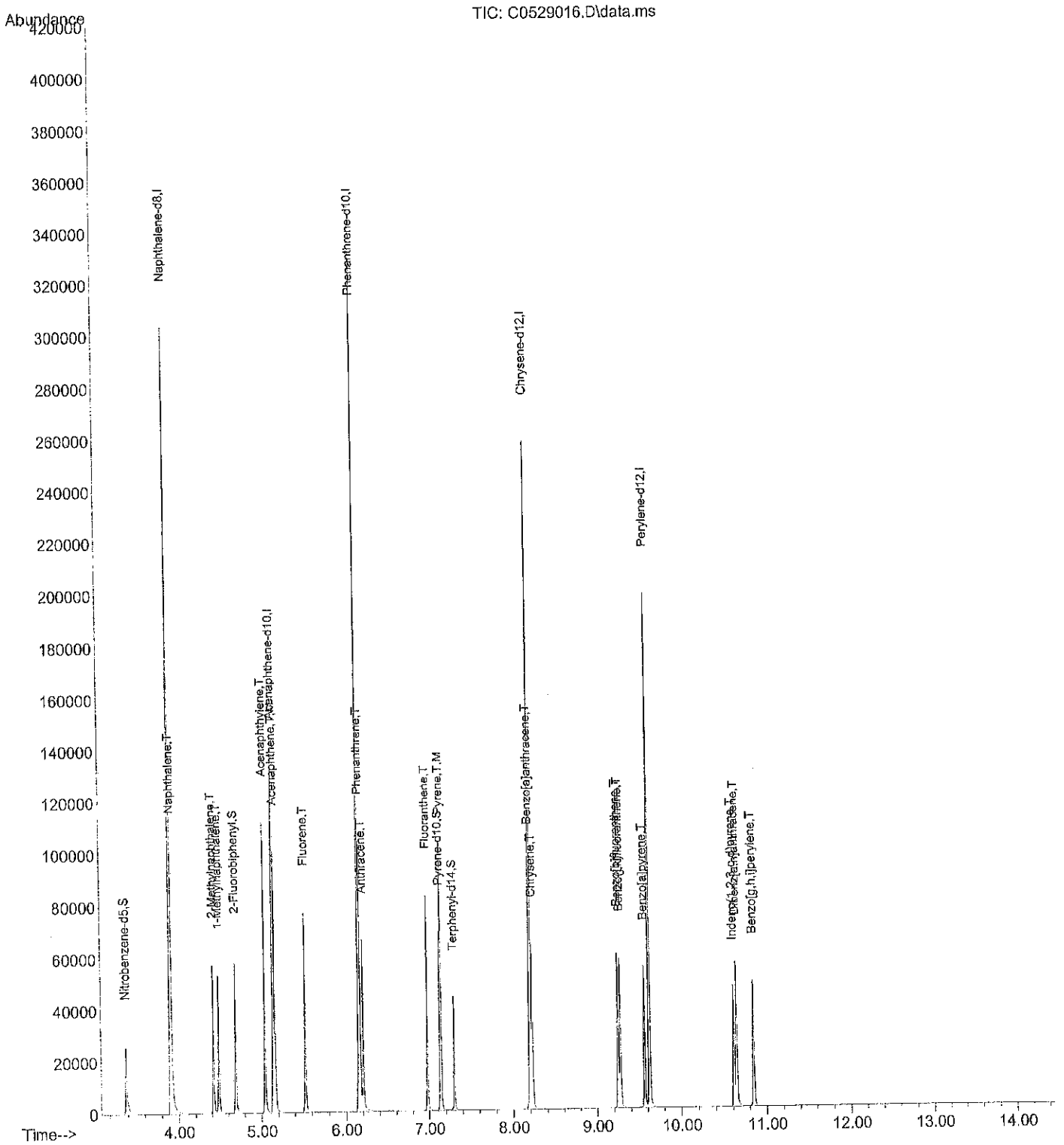
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.903	136	272895	2000.00	ppb	0.00
6) Acenaphthene-d10	5.151	164	138502	2000.00	ppb	0.00
10) Phenanthrene-d10	6.156	188	221727	2000.00	ppb	0.00
17) Chrysene-d12	8.202	240	208922	2000.00	ppb	0.00
21) Perylene-d12	9.624	264	201656	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.380	82	20368	497.83	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 49.78%			
7) 2-Fluorobiphenyl	4.692	172	47278	459.08	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 45.91%			
11) Pyrene-d10	7.135	212	45724	453.95	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.39%			
18) Terphenyl-d14	7.298	244	34238	397.05	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 39.70%			
Target Compounds						Qvalue
3) Naphthalene	3.920	128	75088	438.71	ppb	100
4) 2-Methylnaphthalene	4.419	142	48705	434.84	ppb	100
5) 1-Methylnaphthalene	4.489	142	46751	428.77	ppb	100
8) Acenaphthylene	5.043	152	76474	517.75	ppb	100
9) Acenaphthene	5.166	153	47927	449.33	ppb	100
12) Fluorene	5.529	166	51516	442.40	ppb	100
13) Phenanthrene	6.172	178	66886	442.47	ppb	100
14) Anthracene	6.207	178	47141	358.32	ppb	100
15) Fluoranthene	6.984	202	62855	429.67	ppb	100
16) Pyrene	7.147	202	68251	445.10	ppb	100
19) Benzo[a]anthracene	8.191	228	50331	451.24	ppb	100
20) Chrysene	8.226	228	56198	480.89	ppb	100
22) Benzo[b]fluoranthene	9.249	252	57116	408.27	ppb	100
23) Benzo(j,k)fluoranthene	9.277	252	60706	443.00	ppb	100
24) Benzo[a]pyrene	9.562	252	57150	436.20	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.609	276	64269m	471.63	ppb	
26) Dibenz[a,h]anthracene	10.644	278	52348	490.82	ppb	100
27) Benzo[g,h,i]perylene	10.843	276	53384	513.93	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

39% okay
5/31/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529016.D
Acq On : 29 May 2013 4:16 pm
Operator :
Sample : ICVPAH0529
Misc : SV3-69-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 31 08:35:42 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0529.M
Quant Title : PAH'S BY SIMS
QLast Update : Fri May 31 08:35:21 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531021.D
Acq On : 31 May 2013 5:25 pm
Operator :
Sample : ICVPAH0531
Misc : SV3-70-06
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 03 08:38:21 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	97	0.00
2	S	Nitrobenzene-d5	500.000	487.845	2.4	82	0.00
3	T	Naphthalene	500.000	428.795	14.2	87	0.00
4	T	2-Methylnaphthalene	500.000	413.731	17.3	87	0.00
5	T	1-Methylnaphthalene	500.000	423.376	15.3	88	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	100	0.00
7	S	2-Fluorobiphenyl	500.000	406.251	18.7	88	0.00
8	T	Acenaphthylene	500.000	476.257	4.7	87	0.00
9	T,M	Acenaphthene	500.000	407.446	18.5	89	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	97	0.00
11	S	Pyrene-d10	500.000	441.321	11.7	92	0.00
12	T	Fluorene	500.000	425.624	14.9	90	0.00
13	T	Phenanthrene	500.000	414.807	17.0	90	0.00
14	T	Anthracene	500.000	440.367	11.9	90	0.00
15	T	Fluoranthene	500.000	425.336	14.9	91	0.00
16	T,M	Pyrene	500.000	423.228	15.4	91	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	97	0.00
18	S	Terphenyl-d14	500.000	410.198	18.0	91	0.00
19	T	Benzo[a]anthracene	500.000	526.992	-5.4	91	0.00
20	T	Chrysene	500.000	437.627	12.5	92	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	97	0.00
22	T	Benzo[b]fluoranthene	500.000	482.111	3.6	90	0.00
23	T	Benzo(j,k)fluoranthene	500.000	526.826	-5.4	92	0.00
24	T	Benzo[a]pyrene	500.000	427.970	14.4	91	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	402.270	19.5	95	0.00
26	T	Dibenz[a,h]anthracene	500.000	477.893	4.4	121	0.00
27	T	Benzo[g,h,i]perylene	500.000	543.911	-8.8	113	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531021.D
Acq On : 31 May 2013 5:25 pm
Operator :
Sample : ICVPAH0531
Misc : SV3-70-06
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 03 08:38:21 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration

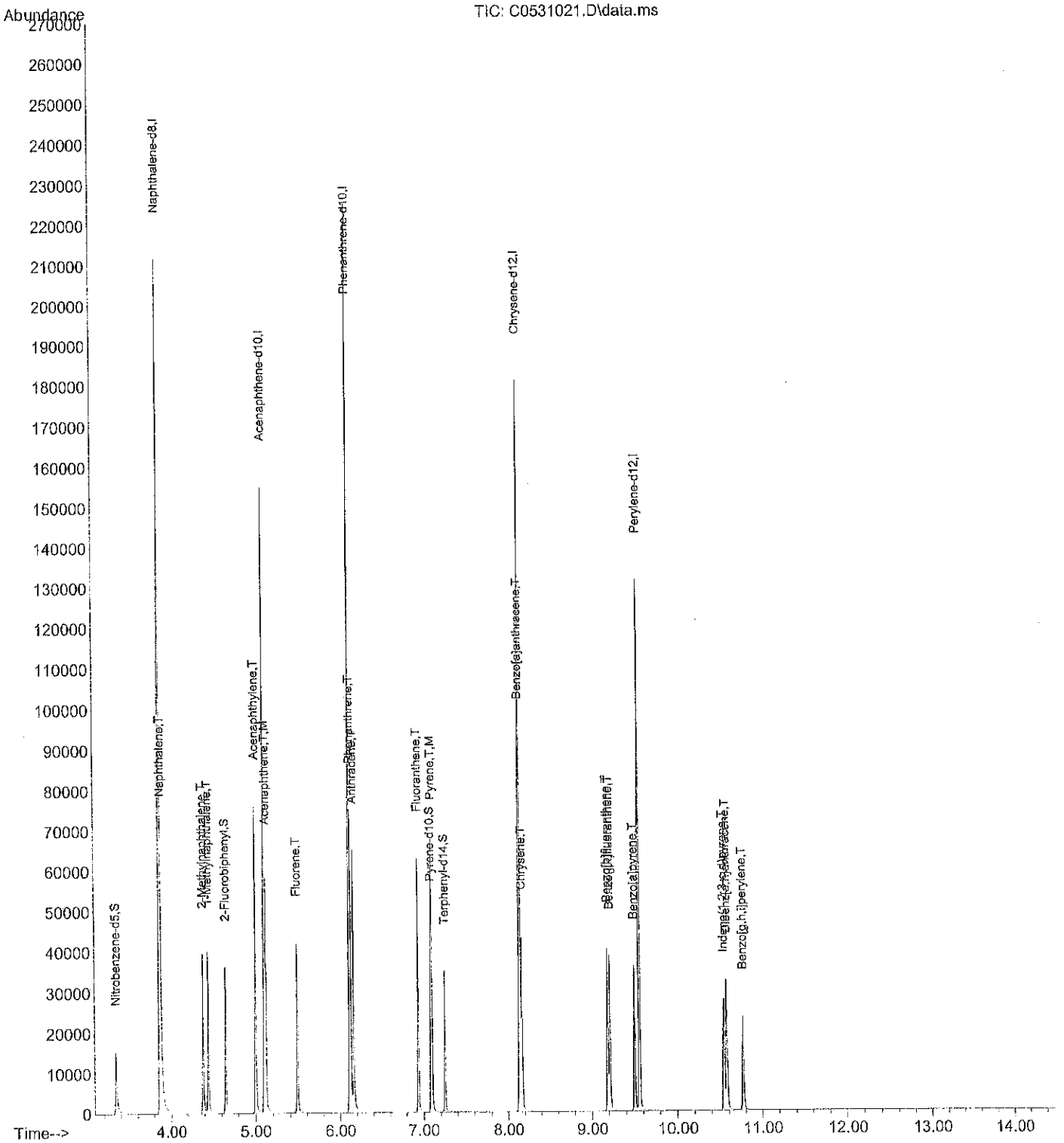
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.861	136	198685	2000.00	ppb	0.00
6) Acenaphthene-d10	5.104	164	103637	2000.00	ppb	0.00
10) Phenanthrene-d10	6.116	188	157470	2000.00	ppb	0.00
17) Chrysene-d12	8.143	240	143587	2000.00	ppb	0.00
21) Perylene-d12	9.555	264	129526	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.339	82	12211	487.84	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 48.78%			
7) 2-Fluorobiphenyl	4.652	172	31107	406.25	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 40.63%			
11) Pyrene-d10	7.088	212	30149	441.32	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 44.13%			
18) Terphenyl-d14	7.250	244	24268	410.20	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 41.02%			
Target Compounds						Qvalue
3) Naphthalene	3.879	128	51424	428.80	ppb	100
4) 2-Methylnaphthalene	4.379	142	32777	413.73	ppb	100
5) 1-Methylnaphthalene	4.446	142	33476	423.38	ppb	100
8) Acenaphthylene	5.004	152	52436	476.26	ppb	100
9) Acenaphthene	5.127	153	33701	407.45	ppb	100
12) Fluorene	5.482	166	35199	425.62	ppb	100
13) Phenanthrene	6.128	178	44611	414.81	ppb	100
14) Anthracene	6.163	178	47779	440.37	ppb	100
15) Fluoranthene	6.937	202	43990	425.34	ppb	100
16) Pyrene	7.099	202	45702	423.23	ppb	100
19) Benzo[a]anthracene	8.135	228	39478	526.99	ppb	100
20) Chrysene	8.166	228	36326	437.63	ppb	100
22) Benzo[b]fluoranthene	9.184	252	37850	482.11	ppb	100
23) Benzo(j,k)fluoranthene	9.211	252	40309	526.83	ppb	100
24) Benzo[a]pyrene	9.496	252	37173	427.97	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.544	276	32185	~~402.27~~ 504.03	ppb	100
26) Dibenz[a,h]anthracene	10.579	278	31479	477.89	ppb	100
27) Benzo[g,h,i]perylene	10.770	276	27859	543.91	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/3/13

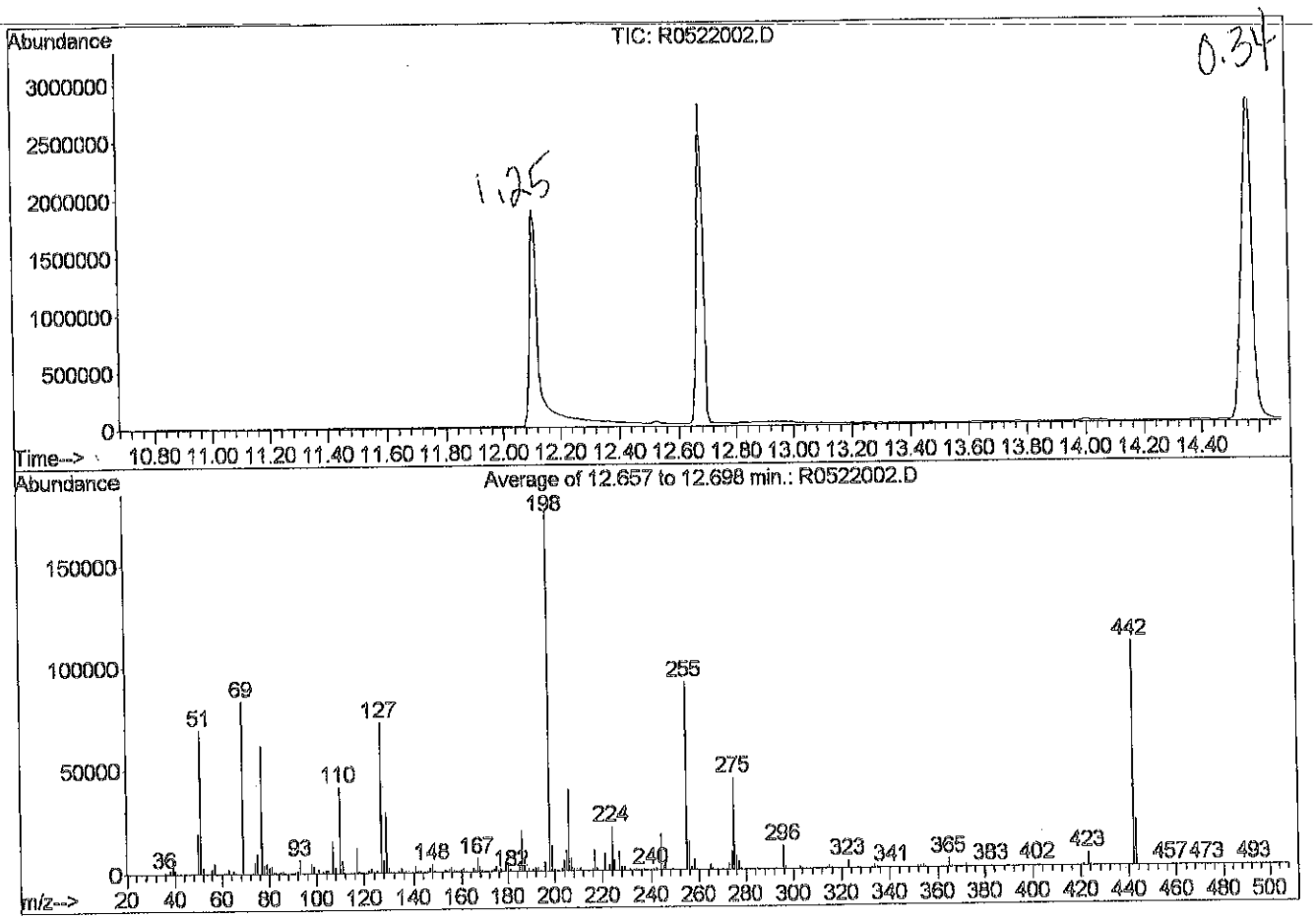
Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531021.D
Acq On : 31 May 2013 5:25 pm
Operator :
Sample : ICVPAH0531
Misc : SV3-70-06
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 03 08:38:21 2013
Quant Method : C:\msdchem\1\METHODS\SSIM0531.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jun 03 08:38:03 2013
Response via : Initial Calibration



DFTPP

Data File : X:\SEMIVOLS\RALPH\DATA\R130525\R0522002.D Vial: 2
Acq On : 22 May 2013 8:59 am Operator: em
Sample : DFTPP Inst : Ralph
Misc : SV3-67-11 Multiplr: 1.00
MS Integration Params: rteint.p
Method : D:\RALPH\METHODS\SIM0520.M (RTE Integrator)
Title : PAH'S BY SIMS



Spectrum Information: Average of 12.657 to 12.698 min.

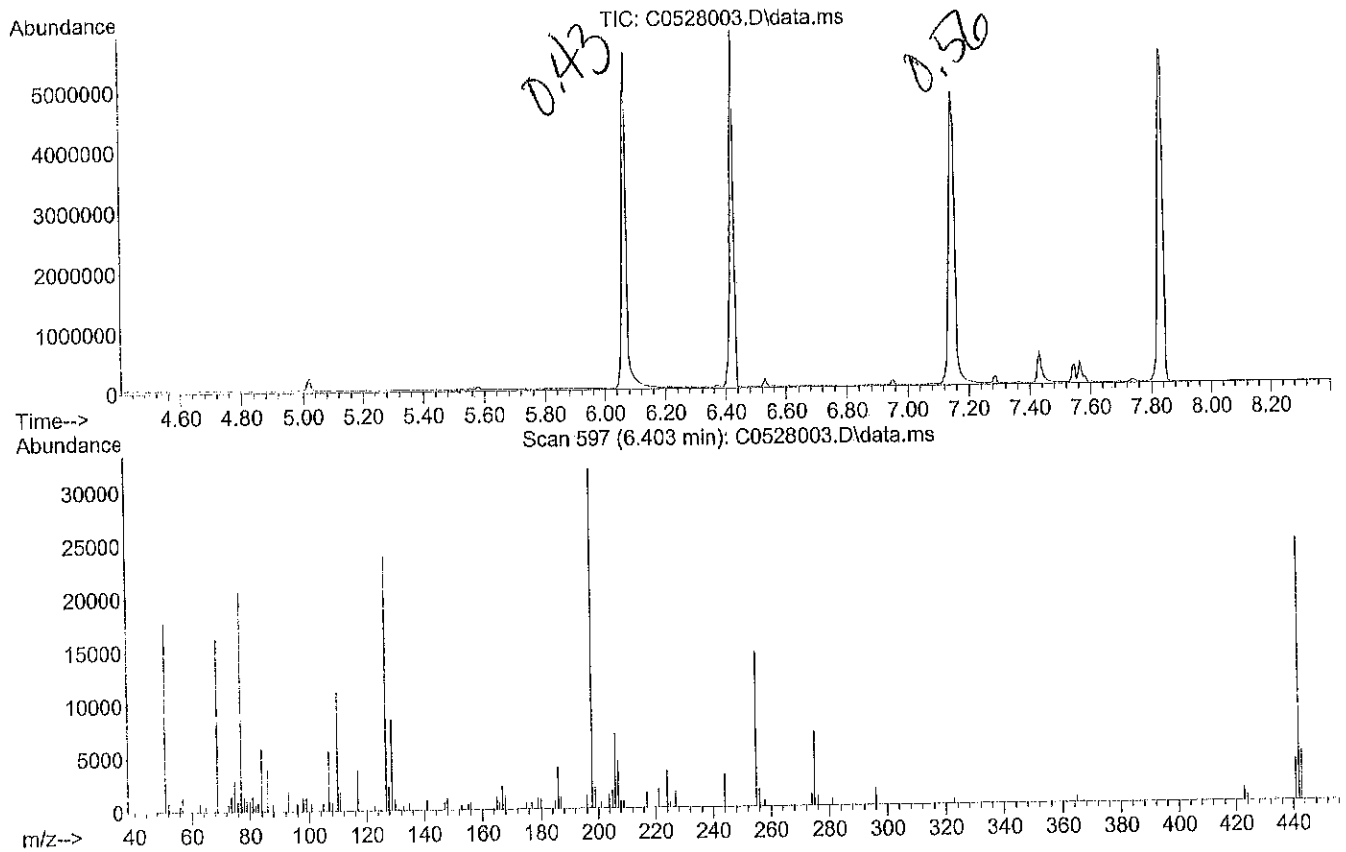
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	39.4	69394	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.3	83343	PASS
70	69	0.00	2	0.0	12	PASS
127	198	25	75	41.1	72521	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	176329	PASS
199	198	5	9	6.9	12104	PASS
275	198	10	30	25.2	44367	PASS
365	198	0.75	100	2.4	4288	PASS
441	443	0.01	100	1.6	356	PASS
442	198	40	110	61.9	109134	PASS
443	442	15	24	20.4	22310	PASS

R0522002.D SIM0520.M Wed May 22 09:29:07 2013

Data Path : X:\SEMIVOLS\COREY\DATA\C130528\
Data File : C0528003.D
Acq On : 28 May 2013 2:29 pm
Operator :
Sample : DFTPP
Misc : sv3-69-11
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\SSIM0522.M
Title : PAH'S BY SIMS
Last Update : Wed May 22 15:56:47 2013



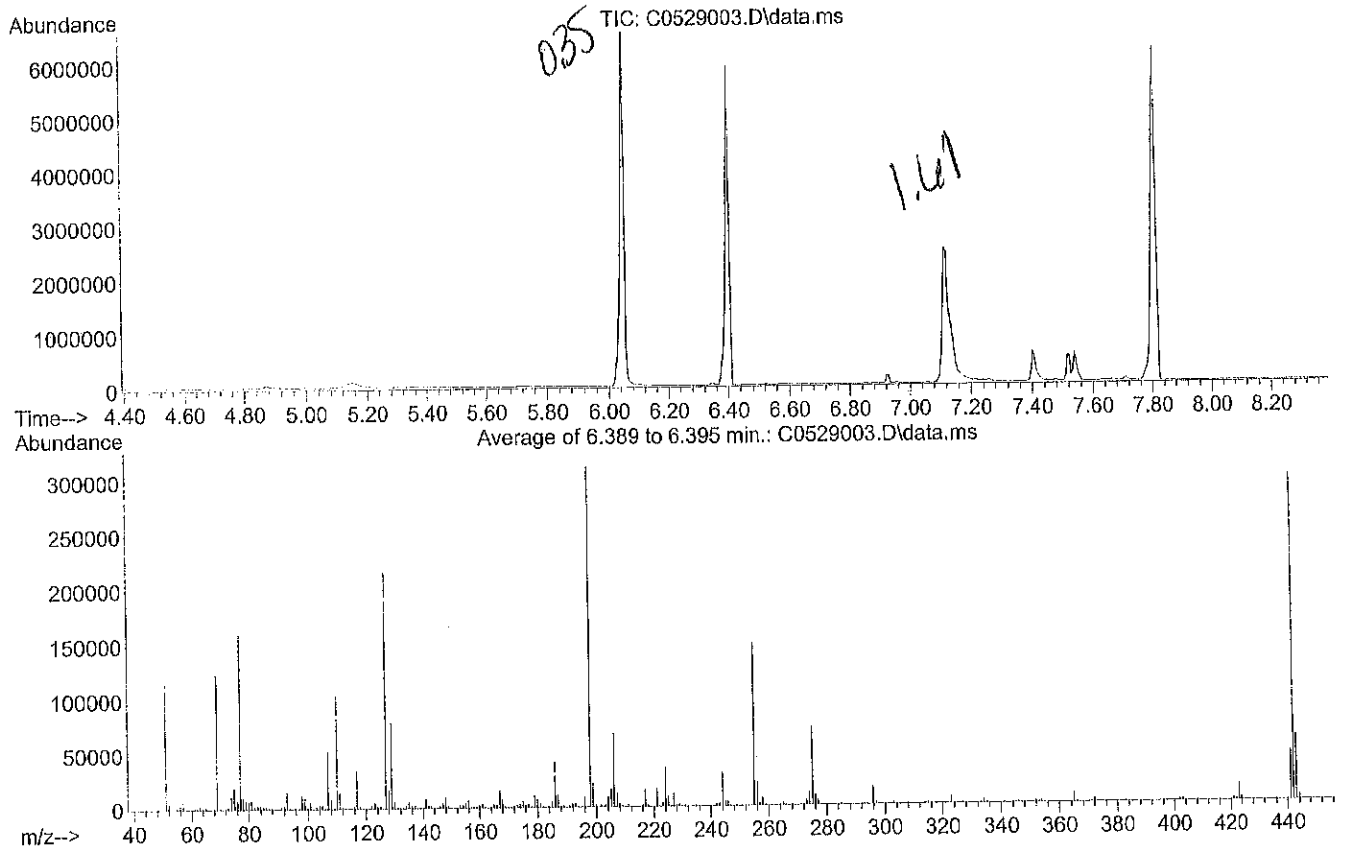
Spectrum Information: Scan 597

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	55.5	17728	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.1	16318	PASS
70	69	0.00	2	0.0	0	PASS
127	198	25	75	74.9	23936	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	31960	PASS
199	198	5	9	6.3	2014	PASS
275	198	10	30	22.0	7030	PASS
365	198	0.75	100	1.9	618	PASS
441	443	0.01	100	82.4	3898	PASS
442	198	40	110	77.0	24616	PASS
443	442	15	24	19.2	4728	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C130529\
Data File : C0529003.D
Acq On : 29 May 2013 11:13 am
Operator :
Sample : DFTPP
Misc : sv3-69-11
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\SSIM0522.M
Title : PAH'S BY SIMS
Last Update : Wed May 22 15:56:47 2013



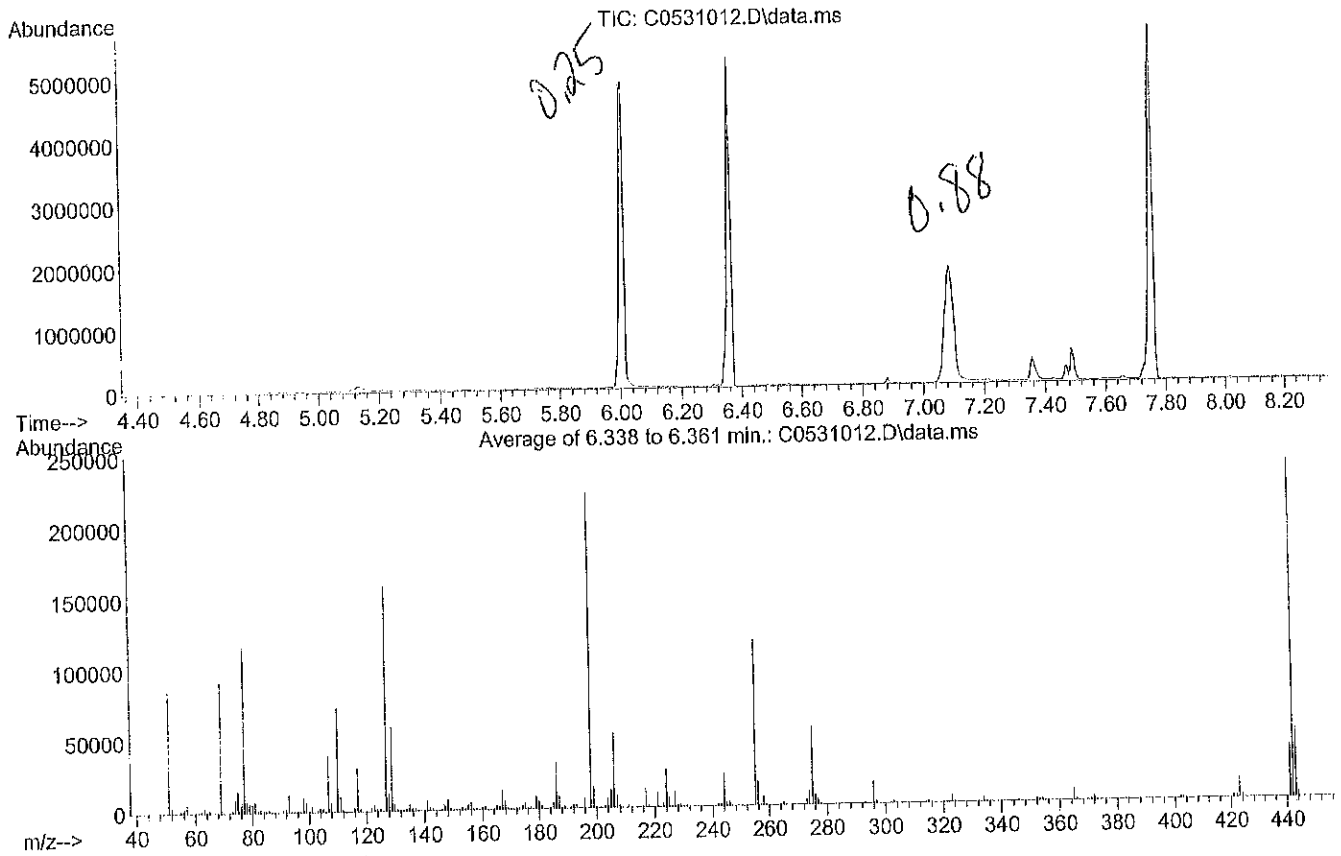
Spectrum Information: Average of 6.389 to 6.395 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	37.2	116328	PASS
68	69	0.00	2	0.7	897	PASS
69	198	0.00	100	39.8	124696	PASS
70	69	0.00	2	0.8	940	PASS
127	198	25	75	69.7	218176	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	312992	PASS
199	198	5	9	7.1	22312	PASS
275	198	10	30	23.1	72228	PASS
365	198	0.75	100	2.9	9065	PASS
441	443	0.01	100	75.5	46036	PASS
442	198	40	110	95.7	299520	PASS
443	442	15	24	20.4	60968	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C130531\
Data File : C0531012.D
Acq On : 31 May 2013 2:10 pm
Operator :
Sample : DFTPP
Misc : sv3-69-11
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\SSIM0531.M
Title : PAH'S BY SIMS
Last Update : Fri May 31 14:07:49 2013



Spectrum Information: Average of 6.338 to 6.361 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	39.0	86910	PASS
68	69	0.00	2	0.2	175	PASS
69	198	0.00	100	41.6	92681	PASS
70	69	0.00	2	1.2	1156	PASS
127	198	25	75	71.3	158830	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	222897	PASS
199	198	5	9	6.9	15300	PASS
275	198	10	30	25.0	55691	PASS
365	198	0.75	100	4.0	8930	PASS
441	443	0.01	100	76.7	37437	PASS
442	198	40	110	107.7	240146	PASS
443	442	15	24	20.3	48838	PASS

cPAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604014.D
Acq On : 4 Jun 2013 12:56 pm
Operator :
Sample : 05-146-20 5X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 04 13:11:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration

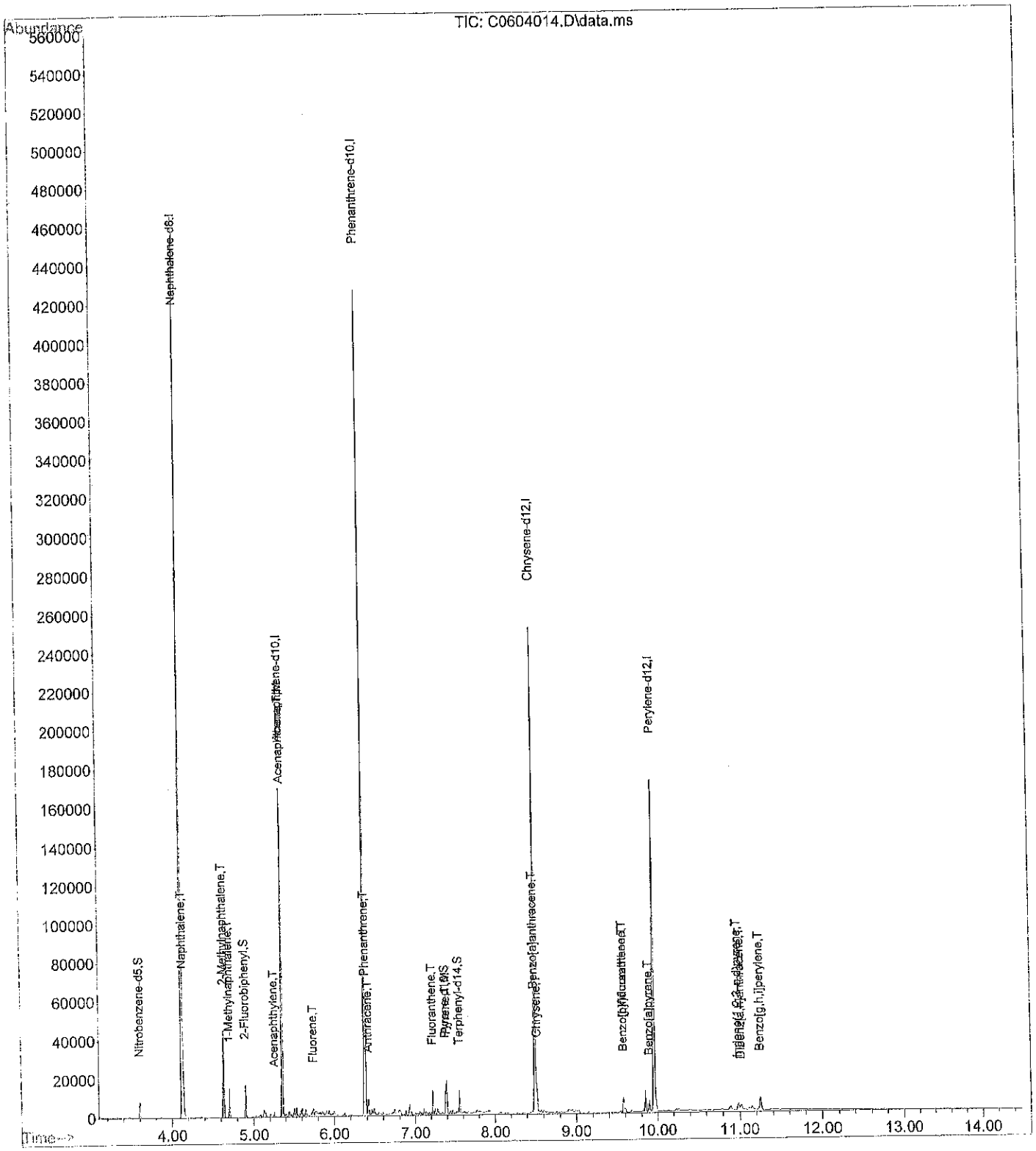
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.123	136	331740	2000.00	ppb	0.00
6) Acenaphthene-d10	5.357	164	157260	2000.00	ppb	0.00
10) Phenanthrene-d10	6.373	188	252696	2000.00	ppb	0.00
17) Chrysene-d12	8.498	240	202770	2000.00	ppb	0.00
21) Perylene-d12	9.961	264	170091	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.601	82	4707	110.61	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	11.06%#		
7) 2-Fluorobiphenyl	4.899	172	10806	91.26	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	9.13%#		
11) Pyrene-d10	7.382	212	9432	92.89	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	9.29%#		
18) Terphenyl-d14	7.550	244	7640	96.20	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	9.62%#		
Target Compounds						Qvalue
3) Naphthalene	4.135	128	18403	91.65	ppb	100
4) 2-Methylnaphthalene	4.634	142	30256	232.90	ppb	100
5) 1-Methylnaphthalene	4.700	142	9915	80.23	ppb	100
8) Acenaphthylene	5.257	152	1477	8.55	ppb	100
9) Acenaphthene	5.365	153	697	6.03	ppb	100
12) Fluorene	5.742	166	3366	28.06	ppb	100
13) Phenanthrene	6.384	178	26721	157.11	ppb	100
14) Anthracene	6.419	178	5317	33.35	ppb	100
15) Fluoranthene	7.219	202	8325	54.88	ppb	100
16) Pyrene	7.393	202	12814	79.52	ppb	100
19) Benzo[a]anthracene	8.486	228	8659	81.51	ppb	100
20) Chrysene	8.521	228	18003	155.55	ppb	100
22) Benzo[b]fluoranthene	9.579	252	9447	91.68	ppb	100
23) Benzo(j,k)fluoranthene	9.579	252	9447	~~88.19~~	ppb	14.20 100
24) Benzo[a]pyrene	9.899	252	5809	63.00	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.983	276	4116	~~38.24~~	ppb	48.44 100
26) Dibenz[a,h]anthracene	11.015	278	2260	25.83	ppb	100
27) Benzo[g,h,i]perylene	11.249	276	8727	91.92	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/14/13

Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604014.D
Acq On : 4 Jun 2013 12:56 pm
Operator :
Sample : 05-146-20 5X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 04 13:11:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604017.D
Acq On : 4 Jun 2013 2:01 pm
Operator :
Sample : 05-146-34 5X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 04 14:16:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration

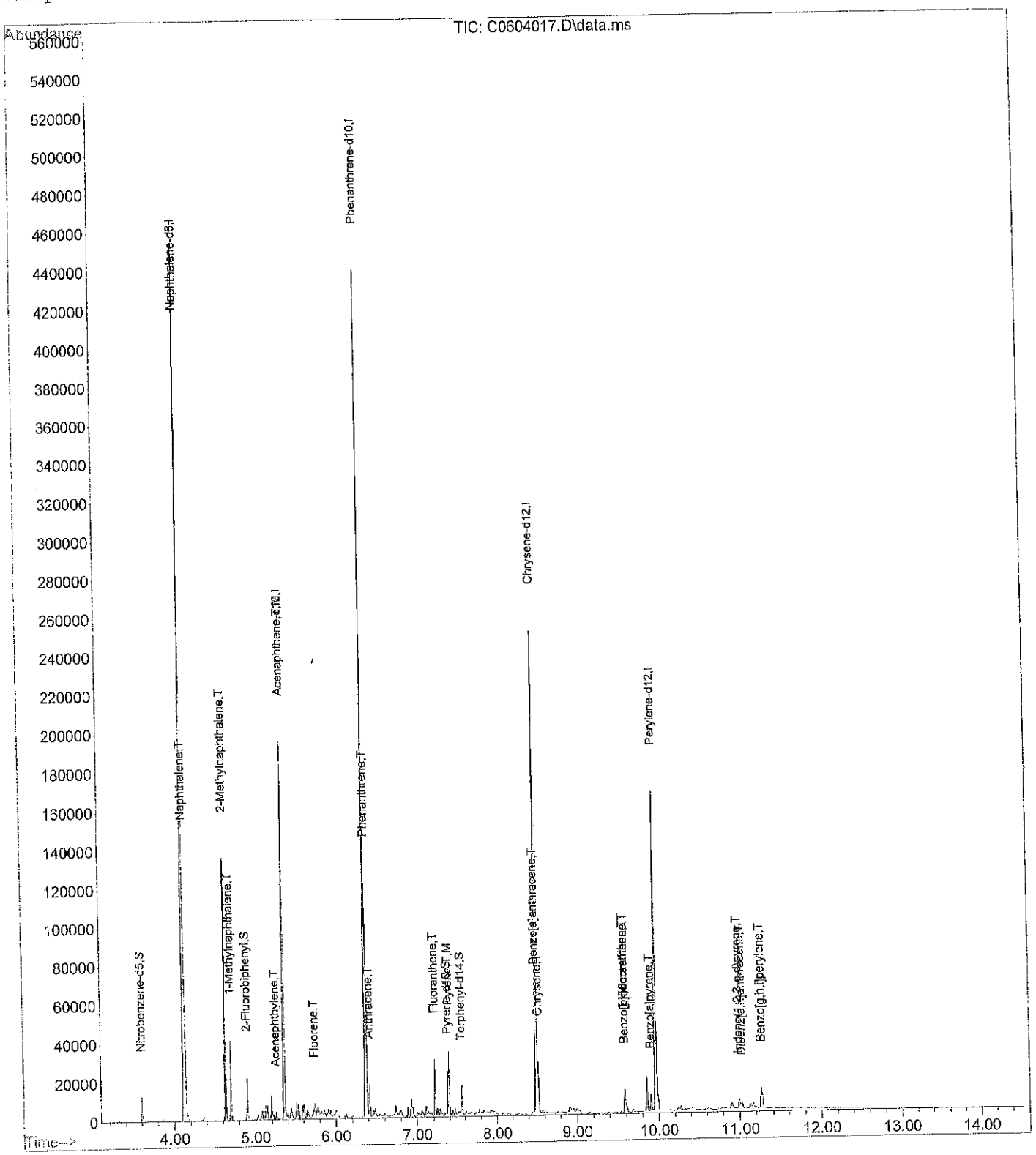
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.121	136	347157	2000.00	ppb	0.00
6) Acenaphthene-d10	5.364	164	166334	2000.00	ppb	0.00
10) Phenanthrene-d10	6.372	188	259456	2000.00	ppb	0.00
17) Chrysene-d12	8.501	240	206023	2000.00	ppb	0.00
21) Perylene-d12	9.970	264	172308	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.599	82	6834	153.46	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	15.35%#		
7) 2-Fluorobiphenyl	4.899	172	15397	122.94	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	12.29%#		
11) Pyrene-d10	7.380	212	13278	127.36	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	12.74%#		
18) Terphenyl-d14	7.555	244	10770	133.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	13.35%#		
Target Compounds						Qvalue
3) Naphthalene	4.133	128	72616	345.57	ppb	100
4) 2-Methylnaphthalene	4.634	142	91421	672.49	ppb	100
5) 1-Methylnaphthalene	4.700	142	27581	213.26	ppb	100
8) Acenaphthylene	5.257	152	2867	15.69	ppb	100
9) Acenaphthene	5.364	153	1584	12.97	ppb	100
12) Fluorene	5.742	166	5902	47.92	ppb	100
13) Phenanthrene	6.388	178	74256	425.23	ppb	100
14) Anthracene	6.419	178	11046	67.48	ppb	100
15) Fluoranthene	7.224	202	21831	140.15	ppb	100
16) Pyrene	7.398	202	26147	158.02	ppb	100
19) Benzo[a]anthracene	8.490	228	14835	137.44	ppb	100
20) Chrysene	8.525	228	30484	259.24	ppb	100
22) Benzo[b]fluoranthene	9.583	252	14486	138.78	ppb	100
23) Benzo(j,k)fluoranthene	9.583	252	14486	~~133.49~~	ppb	23.30 100
24) Benzo[a]pyrene	9.903	252	9882	105.80	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.991	276	6353	~~58.27~~	ppb	75.20 100
26) Dibenz[a,h]anthracene	11.026	278	4903	55.31	ppb	100
27) Benzo[g,h,i]perylene	11.261	276	15243	158.49	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/4/13

Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604017.D
Acq On : 4 Jun 2013 2:01 pm
Operator :
Sample : 05-146-34 5X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 04 14:16:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528014.D
Acq On : 28 May 2013 6:28 pm
Operator :
Sample : MB0522S1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 28 18:43:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

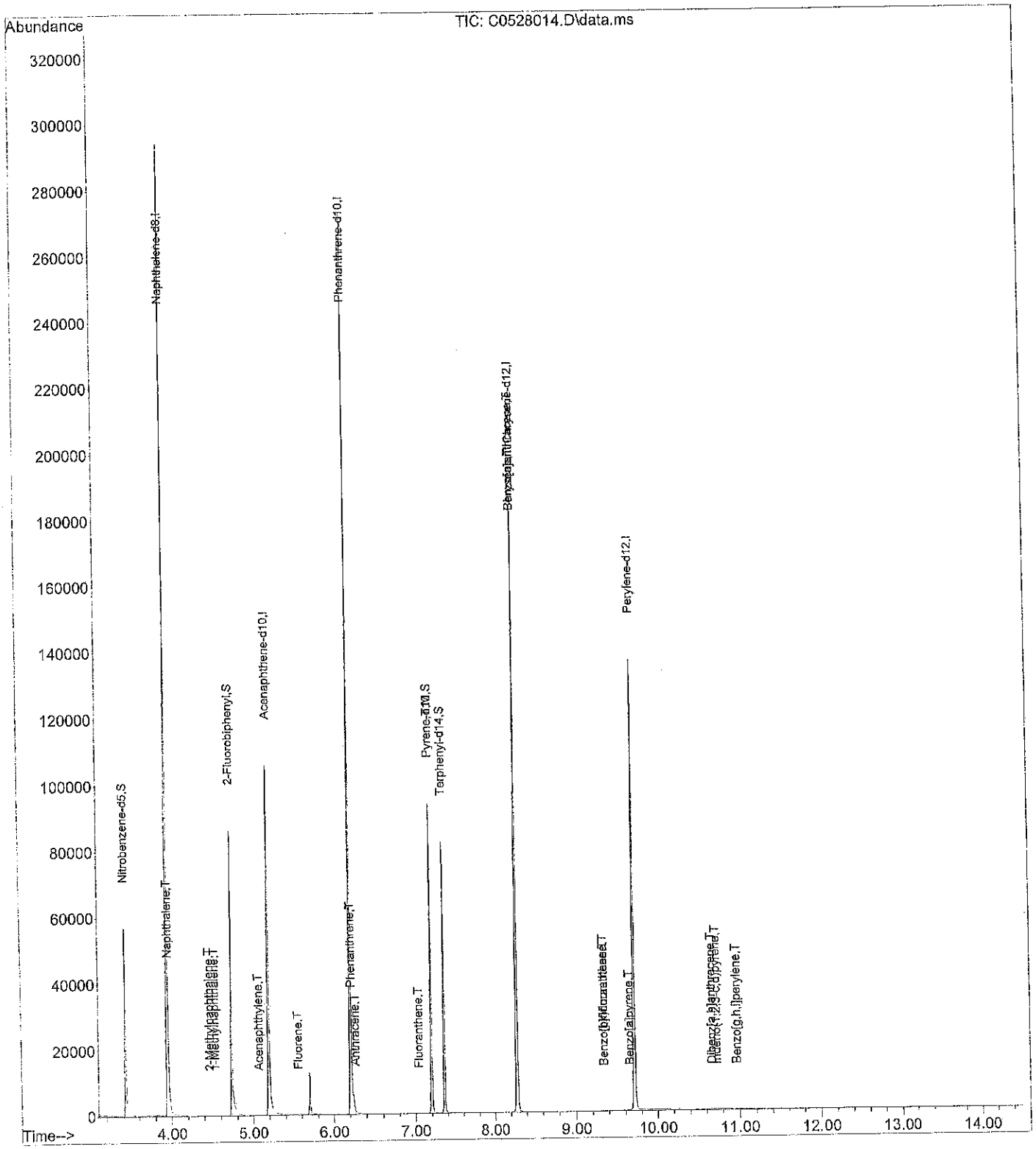
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.950	136	238240	2000.00 ppb	0.01
6) Acenaphthene-d10	5.197	164	127804	2000.00 ppb	0.02
10) Phenanthrene-d10	6.206	188	216796	2000.00 ppb	0.02
17) Chrysene-d12	8.276	240	180736	2000.00 ppb	0.04
21) Perylene-d12	9.712	264	148690	2000.00 ppb	0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	3.427	82	33594	1122.98 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 112.30%#		
7) 2-Fluorobiphenyl	4.736	172	85864	804.62 ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 80.46%		
11) Pyrene-d10	7.193	212	77217	872.26 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.23%		
18) Terphenyl-d14	7.355	244	64727	888.86 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 88.89%		
Target Compounds					Qvalue
3) Naphthalene	3.961	128	549	3.75 ppb	100
4) 2-Methylnaphthalene	4.466	142	116	1.37 ppb	100
5) 1-Methylnaphthalene	4.533	142	112	1.27 ppb	100
8) Acenaphthylene	5.074	152	97	0.66 ppb	100
9) Acenaphthene	0.000		0	N.D.	
12) Fluorene	5.559	166	260	2.39 ppb	100
13) Phenanthrene	6.222	178	190	1.33 ppb	100
14) Anthracene	6.268	178	41	0.29 ppb	100
15) Fluoranthene	7.042	202	133	1.01 ppb	100
16) Pyrene	7.193	202	296	2.14 ppb	100
19) Benzo[a]anthracene	8.273	228	577	6.00 ppb	100
20) Chrysene	8.273	228	577	5.54 ppb	100
22) Benzo[b]fluoranthene	9.337	252	58	0.66 ppb	100
23) Benzo(j,k)fluoranthene	9.337	252	58	0.59 ppb	100
24) Benzo[a]pyrene	9.653	252	54	0.69 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.724	276	49	0.47 ppb	100
26) Dibenz[a,h]anthracene	10.665	278	31	0.33 ppb	100
27) Benzo[g,h,i]perylene	10.966	276	34	0.35 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528014.D
Acq On : 28 May 2013 6:28 pm
Operator :
Sample : MB0522S1
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 28 18:43:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528015.D
Acq On : 28 May 2013 6:50 pm
Operator :
Sample : SB0522S1
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 28 19:05:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

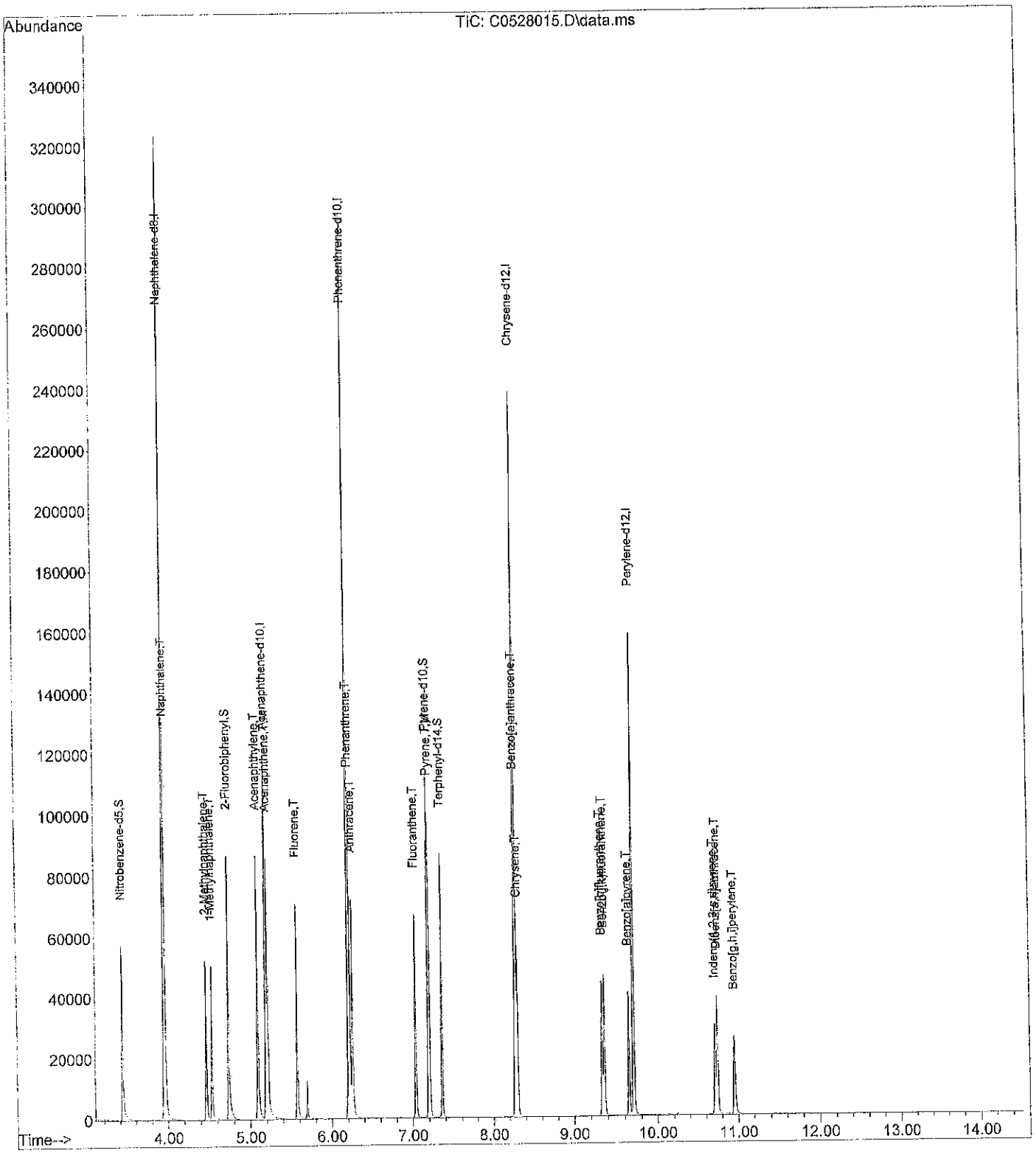
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.948	136	268329	2000.00 ppb	0.01
6) Acenaphthene-d10	5.189	164	137572	2000.00 ppb	0.00
10) Phenanthrene-d10	6.206	188	231230	2000.00 ppb	0.02
17) Chrysene-d12	8.275	240	209656	2000.00 ppb	0.04
21) Perylene-d12	9.711	264	172597	2000.00 ppb	0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	3.426	82	33848	1004.59 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 100.46%#		
7) 2-Fluorobiphenyl	4.735	172	86193	750.35 ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 75.04%		
11) Pyrene-d10	7.192	212	84856	898.72 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 89.87%		
18) Terphenyl-d14	7.355	244	71511	846.56 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 84.66%		
Target Compounds					Qvalue
3) Naphthalene	3.960	128	63565	385.17 ppb	100
4) 2-Methylnaphthalene	4.465	142	41290	433.55 ppb	100
5) 1-Methylnaphthalene	4.532	142	42474	426.53 ppb	100
8) Acenaphthylene	5.089	152	71598	451.41 ppb	100
9) Acenaphthene	5.212	153	43345	409.14 ppb	100
12) Fluorene	5.574	166	49424	425.73 ppb	100
13) Phenanthrene	6.221	178	63029	414.90 ppb	100
14) Anthracene	6.256	178	63862	419.06 ppb	100
15) Fluoranthene	7.036	202	63594	454.61 ppb	100
16) Pyrene	7.204	202	65696	445.80 ppb	100
19) Benzo[a]anthracene	8.264	228	53590	480.72 ppb	100
20) Chrysene	8.295	228	47941	396.69 ppb	100
22) Benzo[b]fluoranthene	9.333	252	50071	492.63 ppb	100
23) Benzo(j,k)fluoranthene	9.360	252	48030	422.93 ppb	100
24) Benzo[a]pyrene	9.649	252	45601	500.79 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.711	276	39123	~~322.09~~ ppb 480.81	100
26) Dibenz[a,h]anthracene	10.739	278	39625	367.95 ppb	100
27) Benzo[g,h,i]perylene	10.950	276	38221	343.11 ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528015.D
Acq On : 28 May 2013 6:50 pm
Operator :
Sample : SB0522S1
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 28 19:05:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528016.D
Acq On : 28 May 2013 7:12 pm
Operator :
Sample : SB0522S1 DUP
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 28 19:27:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

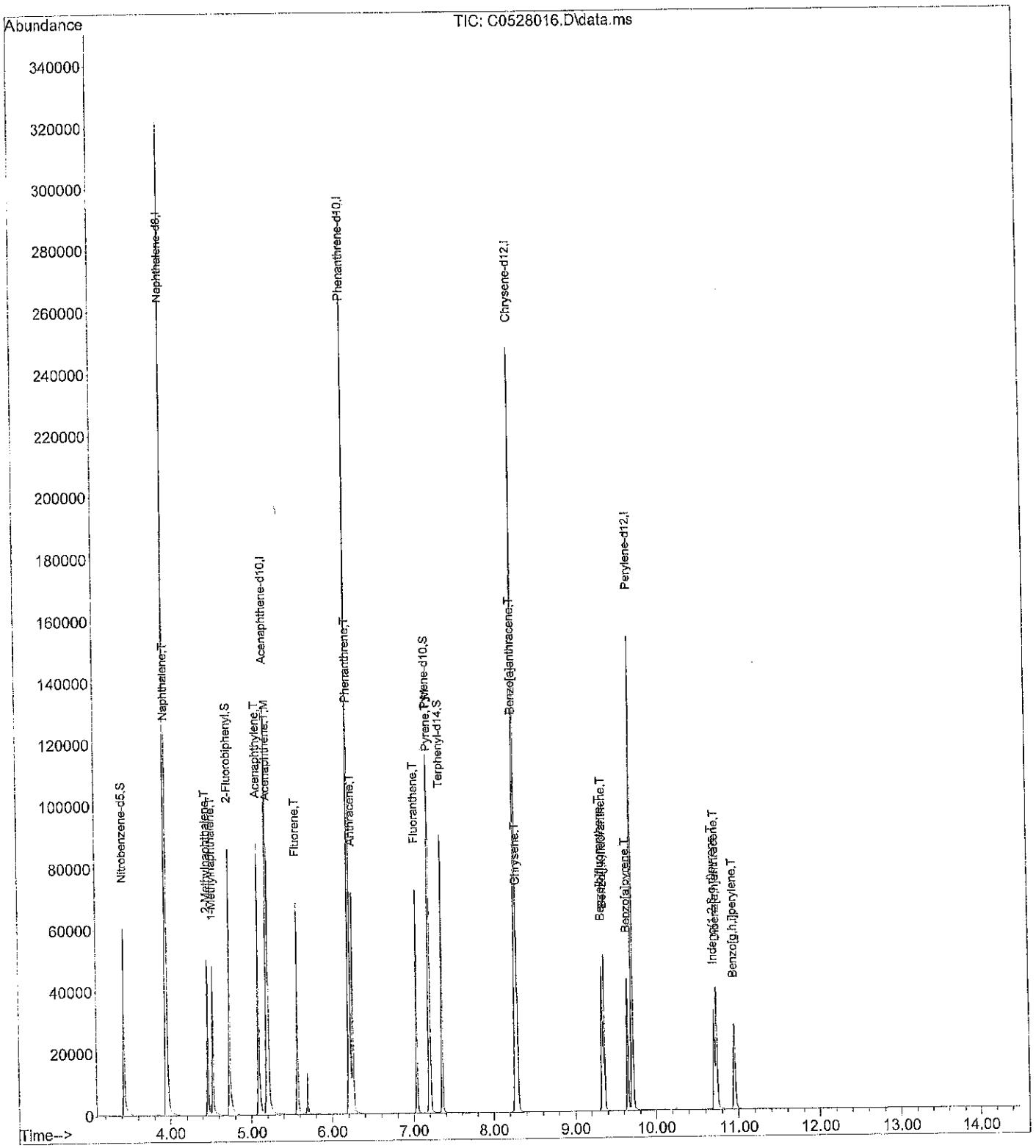
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.949	136	265573	2000.00	ppb	0.01
6) Acenaphthene-d10	5.189	164	138311	2000.00	ppb	0.00
10) Phenanthrene-d10	6.206	188	234470	2000.00	ppb	0.02
17) Chrysene-d12	8.276	240	214135	2000.00	ppb	0.04
21) Perylene-d12	9.707	264	179798	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.427	82	36455	1093.20	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 109.32%#			
7) 2-Fluorobiphenyl	4.732	172	91965	796.33	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 79.63%			
11) Pyrene-d10	7.192	212	89533	935.15	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.51%			
18) Terphenyl-d14	7.355	244	74878	867.88	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.79%			
Target Compounds						Qvalue
3) Naphthalene	3.961	128	65661	402.00	ppb	100
4) 2-Methylnaphthalene	4.463	142	42828	454.37	ppb	100
5) 1-Methylnaphthalene	4.533	142	44192	448.39	ppb	100
8) Acenaphthylene	5.089	152	71608	449.06	ppb	100
9) Acenaphthene	5.212	153	44937	421.90	ppb	100
12) Fluorene	5.574	166	48790	414.46	ppb	100
13) Phenanthrene	6.218	178	63454	411.93	ppb	100
14) Anthracene	6.257	178	63949	413.83	ppb	100
15) Fluoranthene	7.035	202	62207	438.55	ppb	100
16) Pyrene	7.204	202	66849	447.35	ppb	100
19) Benzo[a]anthracene	8.264	228	54129	475.39	ppb	100
20) Chrysene	8.296	228	49838	403.76	ppb	100
22) Benzo[b]fluoranthene	9.333	252	50021	472.43	ppb	100
23) Benzo(j,k)fluoranthene	9.360	252	52093	440.33	ppb	100
24) Benzo[a]pyrene	9.649	252	48022	506.26	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.707	276	40582	~~320.72~~ 405.62	ppb	100
26) Dibenz[a,h]anthracene	10.739	278	42600	379.73	ppb	100
27) Benzo[g,h,i]perylene	10.949	276	40586	349.75	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/29/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528016.D
Acq On : 28 May 2013 7:12 pm
Operator :
Sample : SB0522S1 DUP
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 28 19:27:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:07:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	92	0.00
2	S	Nitrobenzene-d5	500.000	519.707	-3.9	113	0.00
3	T	Naphthalene	500.000	452.723	9.5	88	0.00
4	T	2-Methylnaphthalene	500.000	443.812	11.2	85	0.00
5	T	1-Methylnaphthalene	500.000	435.662	12.9	86	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	89	0.00
7	S	2-Fluorobiphenyl	500.000	446.674	10.7	87	0.00
8	T	Acenaphthylene	500.000	428.093	14.4	82	0.00
9	T,M	Acenaphthene	500.000	451.004	9.8	86	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	459.367	8.1	92	0.00
12	T	Fluorene	500.000	437.087	12.6	86	0.00
13	T	Phenanthrene	500.000	421.962	15.6	88	0.00
14	T	Anthracene	500.000	432.881	13.4	87	0.00
15	T	Fluoranthene	500.000	441.194	11.8	90	0.00
16	T,M	Pyrene	500.000	458.982	8.2	92	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	111	0.00
18	S	Terphenyl-d14	500.000	416.396	16.7	101	0.00
19	T	Benzo[a]anthracene	500.000	424.770	15.0	95	0.00
20	T	Chrysene	500.000	465.024	7.0	110	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	106	0.00
22	T	Benzo[b]fluoranthene	500.000	449.189	10.2	98	0.00
23	T	Benzo(j,k)fluoranthene	500.000	485.780	2.8	107	0.00
24	T	Benzo[a]pyrene	500.000	441.577	11.7	90	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	478.030	4.4	135	0.00
26	T	Dibenz[a,h]anthracene	500.000	462.863	7.4	94	0.00
27	T	Benzo[g,h,i]perylene	500.000	456.893	8.6	97	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration

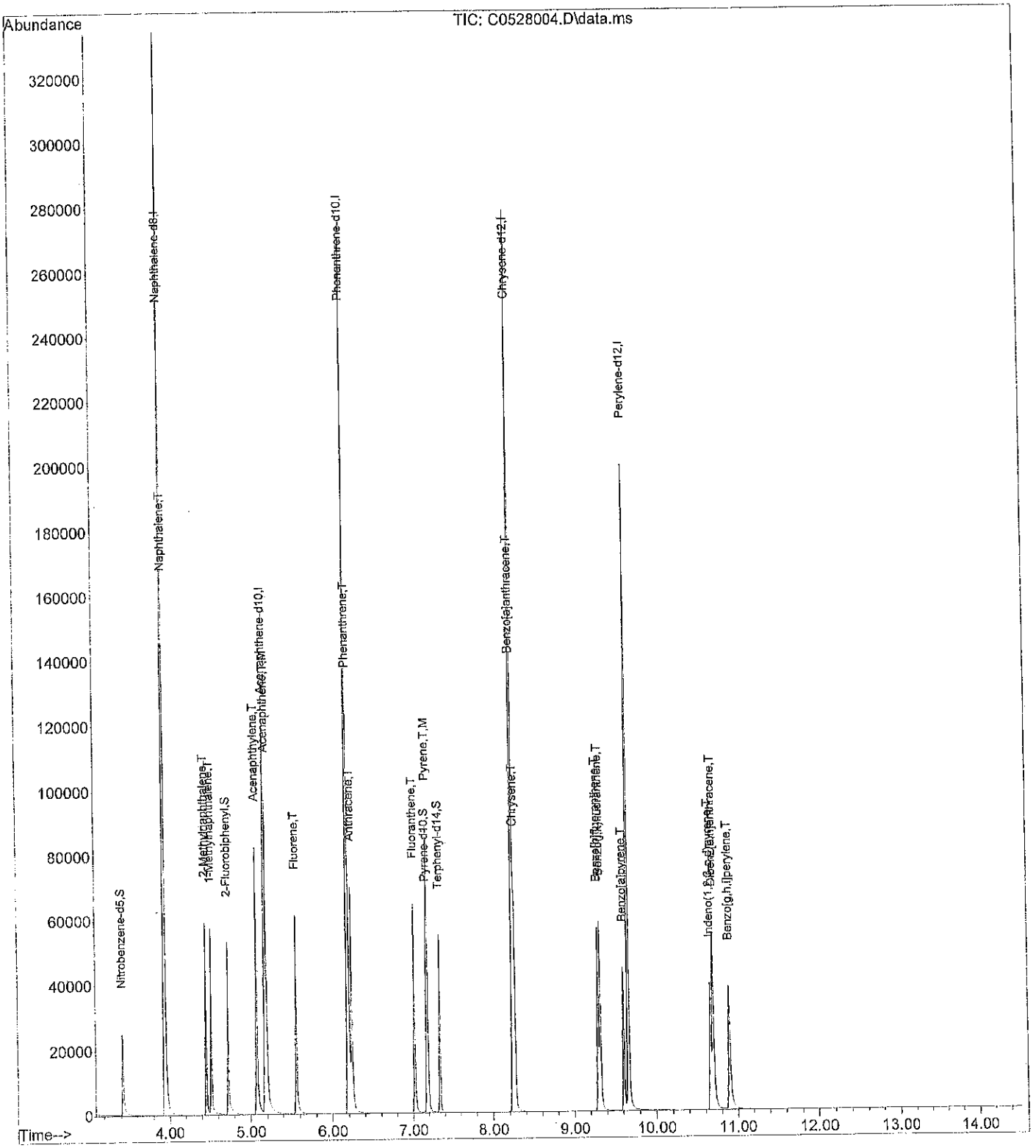
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.936	136	318429	2000.00	ppb	0.00
6) Acenaphthene-d10	5.174	164	144942	2000.00	ppb	0.00
10) Phenanthrene-d10	6.185	188	245827	2000.00	ppb	0.00
17) Chrysene-d12	8.243	240	261018	2000.00	ppb	0.00
21) Perylene-d12	9.663	264	230094	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.413	82	20780	519.71	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.97%			
7) 2-Fluorobiphenyl	4.723	172	54058	446.67	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.67%			
11) Pyrene-d10	7.170	212	46111	459.37	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.94%			
18) Terphenyl-d14	7.338	244	43791	416.40	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 41.64%			
Target Compounds						Qvalue
3) Naphthalene	3.947	128	88663	452.72	ppb	100
4) 2-Methylnaphthalene	4.450	142	50159	443.81	ppb	100
5) 1-Methylnaphthalene	4.520	142	51483	435.66	ppb	100
8) Acenaphthylene	5.074	152	71537	428.09	ppb	100
9) Acenaphthene	5.197	153	50340	451.00	ppb	100
12) Fluorene	5.559	166	53946	437.09	ppb	100
13) Phenanthrene	6.201	178	68148	421.96	ppb	100
14) Anthracene	6.236	178	70133	432.88	ppb	100
15) Fluoranthene	7.019	202	65613	441.19	ppb	100
16) Pyrene	7.181	202	71909	458.98	ppb	100
19) Benzo[a]anthracene	8.232	228	58954	424.77	ppb	100
20) Chrysene	8.263	228	69967	465.02	ppb	100
22) Benzo[b]fluoranthene	9.293	252	60865	449.19	ppb	100
23) Benzo(j,k)fluoranthene	9.320	252	73546	485.78	ppb	100
24) Benzo[a]pyrene	9.605	252	53604	441.58	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.656	276	51306	~~316.84~~ 478.03	ppb	100
26) Dibenz[a,h]anthracene	10.691	278	66452	462.86	ppb	100
27) Benzo[g,h,i]perylene	10.890	276	67851	456.89	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

5/28/13

Data Path : C:\MSDCHEM\1\DATA\C130528\
Data File : C0528004.D
Acq On : 28 May 2013 2:50 pm
Operator :
Sample : PAHCCV0528
Misc : sv3-69-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 28 15:05:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\SSIM0522.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 22 15:56:47 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130604\
Data File : C0604003.D
Acq On : 4 Jun 2013 8:56 am
Operator :
Sample : PAHCCV0603
Misc : SV3-70-07
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 04 09:12:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	85	0.00
2	S	Nitrobenzene-d5	500.000	468.864	6.2	86	0.00
3	T	Naphthalene	500.000	478.091	4.4	88	0.00
4	T	2-Methylnaphthalene	500.000	464.902	7.0	85	0.00
5	T	1-Methylnaphthalene	500.000	470.084	6.0	87	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	83	0.00
7	S	2-Fluorobiphenyl	500.000	472.720	5.5	88	0.00
8	T	Acenaphthylene	500.000	467.412	6.5	84	0.00
9	T,M	Acenaphthene	500.000	502.743	-0.5	91	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	81	0.00
11	S	Pyrene-d10	500.000	494.344	1.1	86	0.00
12	T	Fluorene	500.000	485.562	2.9	84	0.00
13	T	Phenanthrene	500.000	495.042	1.0	88	0.00
14	T	Anthracene	500.000	490.700	1.9	84	0.00
15	T	Fluoranthene	500.000	496.983	0.6	84	0.00
16	T,M	Pyrene	500.000	524.580	-4.9	88	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	87	0.00
18	S	Terphenyl-d14	500.000	479.320	4.1	91	0.00
19	T	Benzo[a]anthracene	500.000	489.435	2.1	83	0.00
20	T	Chrysene	500.000	502.065	-0.4	90	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	81	0.00
22	T	Benzo[b]fluoranthene	500.000	483.980	3.2	82	0.00
23	T	Benzo(j,k)fluoranthene	500.000	546.287	-9.3	89	0.00
24	T	Benzo[a]pyrene	500.000	498.004	0.4	82	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	511.897	-2.4	87	0.00
26	T	Dibenz[a,h]anthracene	500.000	538.470	-7.7	89	0.00
27	T	Benzo[g,h,i]perylene	500.000	538.497	-7.7	90	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604003.D
Acq On : 4 Jun 2013 8:56 am
Operator :
Sample : PAHCCV0603
Misc : SV3-70-07
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 04 09:11:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration

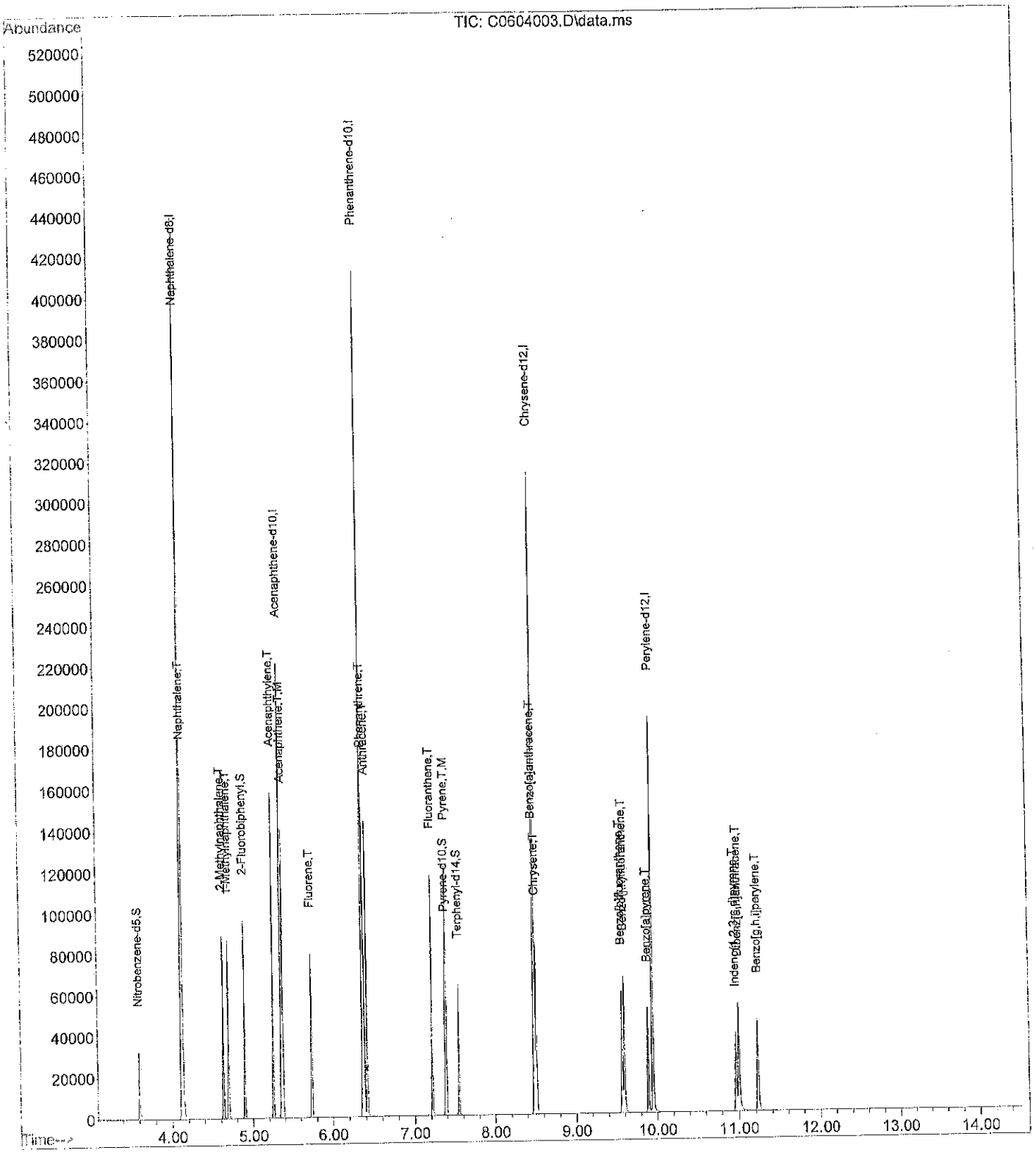
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.123	136	358094	2000.00	ppb	0.00
6) Acenaphthene-d10	5.357	164	175128	2000.00	ppb	0.00
10) Phenanthrene-d10	6.372	188	272363	2000.00	ppb	0.00
17) Chrysene-d12	8.493	240	243928	2000.00	ppb	0.00
21) Perylene-d12	9.950	264	187615	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.595	82	21537	468.86	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 46.89%			
7) 2-Fluorobiphenyl	4.899	172	62331	472.72	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.27%			
11) Pyrene-d10	7.381	212	54104	494.34	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 49.43%			
18) Terphenyl-d14	7.550	244	45795	479.32	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.93%			
Target Compounds						Qvalue
3) Naphthalene	4.135	128	103628	478.09	ppb	100
4) 2-Methylnaphthalene	4.630	142	65192	464.90	ppb	100
5) 1-Methylnaphthalene	4.700	142	62710	470.08	ppb	100
8) Acenaphthylene	5.256	152	89935	467.41	ppb	100
9) Acenaphthene	5.380	153	64666	502.74	ppb	100
12) Fluorene	5.734	166	62775	485.56	ppb	100
13) Phenanthrene	6.383	178	90748	495.04	ppb	100
14) Anthracene	6.418	178	84317	490.70	ppb	100
15) Fluoranthene	7.219	202	81263	496.98	ppb	100
16) Pyrene	7.393	202	91116	524.58	ppb	100
19) Benzo[a]anthracene	8.481	228	62548	489.44	ppb	100
20) Chrysene	8.512	228	69901	502.07	ppb	100
22) Benzo[b]fluoranthene	9.567	252	55007	483.98	ppb	100
23) Benzo(j,k)fluoranthene	9.594	252	64547	546.29	ppb	100
24) Benzo[a]pyrene	9.887	252	50649	498.00	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.968	276	44993	~~379.01~~ 511.90	ppb	100
26) Dibenz[a,h]anthracene	11.003	278	51972	538.47	ppb	100
27) Benzo[g,h,i]perylene	11.229	276	56390	538.50	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/4/13

Data Path : C:\MSDCHEM\1\DATA\C130604\
Data File : C0604003.D
Acq On : 4 Jun 2013 8:56 am
Operator :
Sample : PAHCCV0603
Misc : SV3-70-07
ALS Vial : 3 Sample Multiplier: 1

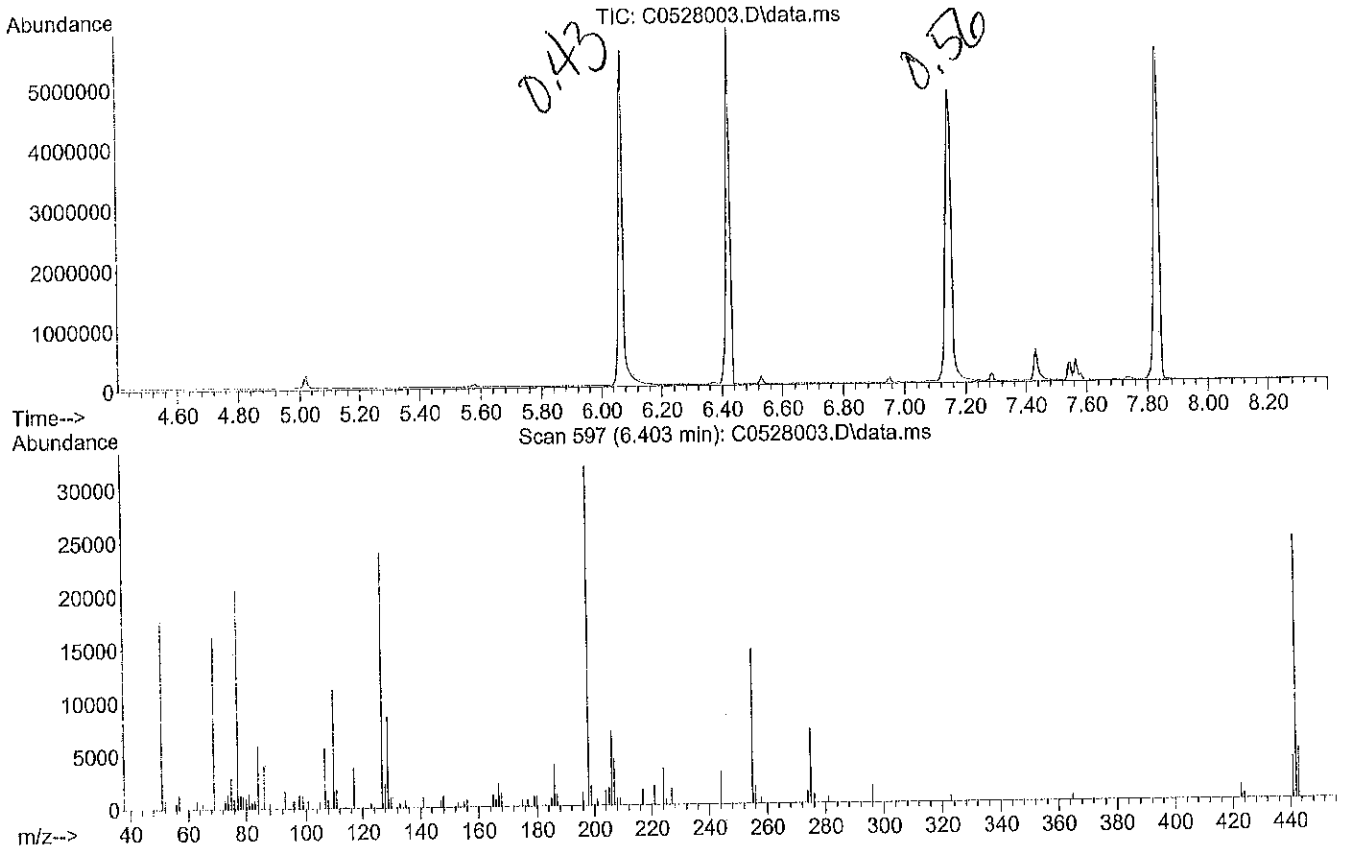
Quant Time: Jun 04 09:11:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0603.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 04 08:36:16 2013
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C130528\
Data File : C0528003.D
Acq On : 28 May 2013 2:29 pm
Operator :
Sample : DFTPP
Misc : sv3-69-11
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\SSIM0522.M
Title : PAH'S BY SIMS
Last Update : Wed May 22 15:56:47 2013



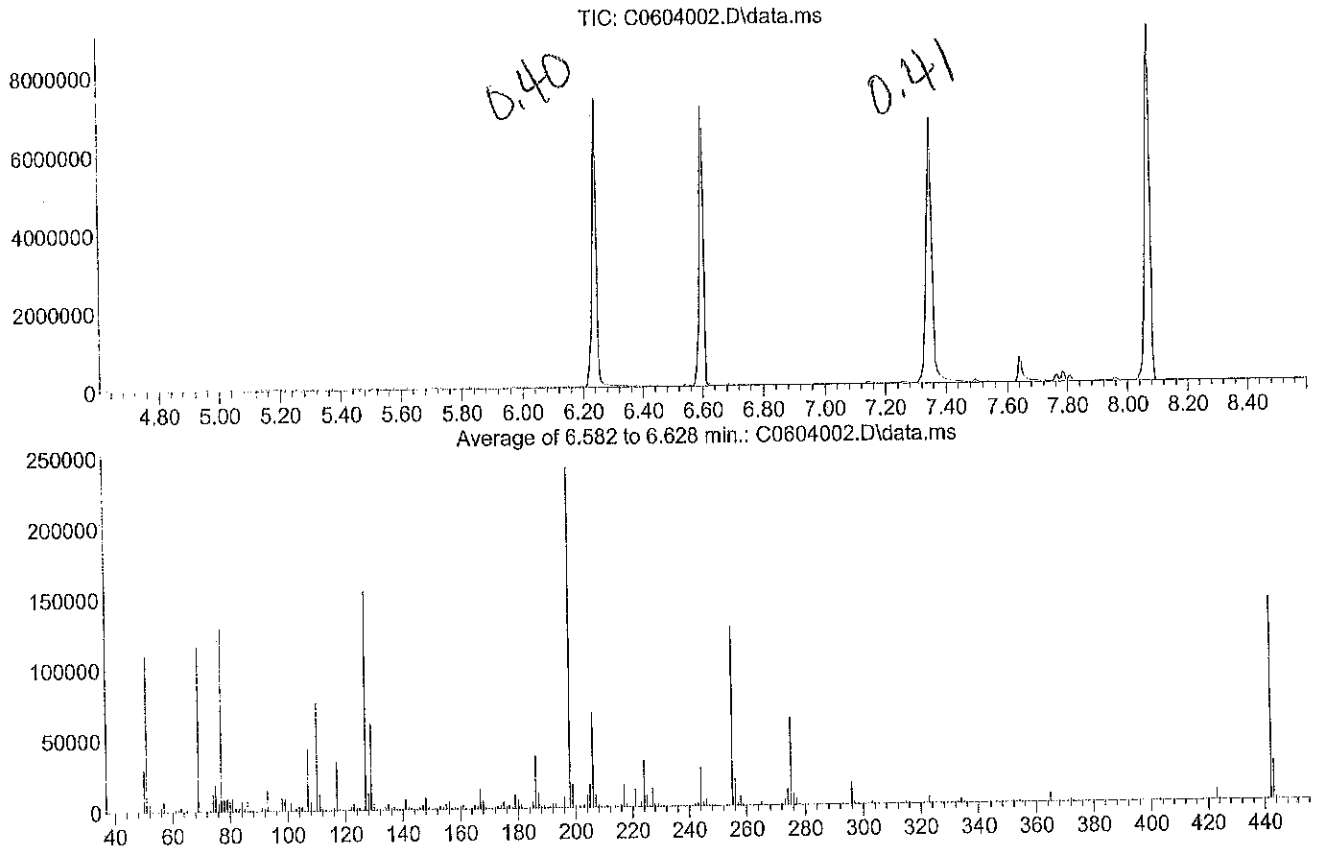
Spectrum Information: Scan 597

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	55.5	17728	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.1	16318	PASS
70	69	0.00	2	0.0	0	PASS
127	198	25	75	74.9	23936	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	31960	PASS
199	198	5	9	6.3	2014	PASS
275	198	10	30	22.0	7030	PASS
365	198	0.75	100	1.9	618	PASS
441	443	0.01	100	82.4	3898	PASS
442	198	40	110	77.0	24616	PASS
443	442	15	24	19.2	4728	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C130604\
Data File : C0604002.D
Acq On : 4 Jun 2013 8:35 am
Operator :
Sample : DFTPP
Misc : sv3-69-11
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM0603.M
Title : PAH'S BY SIMS
Last Update : Tue Jun 04 08:36:16 2013



Spectrum Information: Average of 6.582 to 6.628 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	45.8	110285	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	48.5	116747	PASS
70	69	0.00	2	0.5	625	PASS
127	198	25	75	64.3	154993	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	240862	PASS
199	198	5	9	7.0	16901	PASS
275	198	10	30	25.6	61630	PASS
365	198	0.75	100	2.8	6689	PASS
441	443	0.01	100	1.7	489	PASS
442	198	40	110	59.4	143150	PASS
443	442	15	24	19.6	28125	PASS

NWTPH-Diesel (Bunker-C) Data

Quantitation Report (Not Reviewed)

Data File : 0521-V53.D
Sample : 05-146-01 RR

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 14:31
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 15:08:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.705	122851402	44.444	PPM
Spiked Amount	50.000		Recovery =	88.89%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	14658434	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	84137699	37.801	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	170564275	76.956	PPM
6) H	Oil (04-04-13)	22.000	910562591	478.083	PPM
7) H	Oil Acid Clean (02-0...	22.000	910562591	486.215	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	118904350	54.383	PPM
9) H	Oil Combo (04-04-13)	22.000	870263326	466.145	PPM
10) H	Oil Acid Clean Combo ...	22.000	870263326	473.832	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	180876152	64.534	PPM
12) H	Alaska 103 Oil (06-2...	22.000	554892305	476.340	PPM
13) H	Mineral Oil (01-29-13)	16.000	310005822	121.656	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	984785142	674.435	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	984785142	701.838	PPM
16) H	ALKANE C9-C40	12.666	989454813	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	144436428	57.674	PPM
18) H	Oil Acid Clean MO Com...	22.000	827494536	465.595	PPM
19) H	Oil MO Combo (04-04-13)	22.000	827494536	458.378	PPM

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

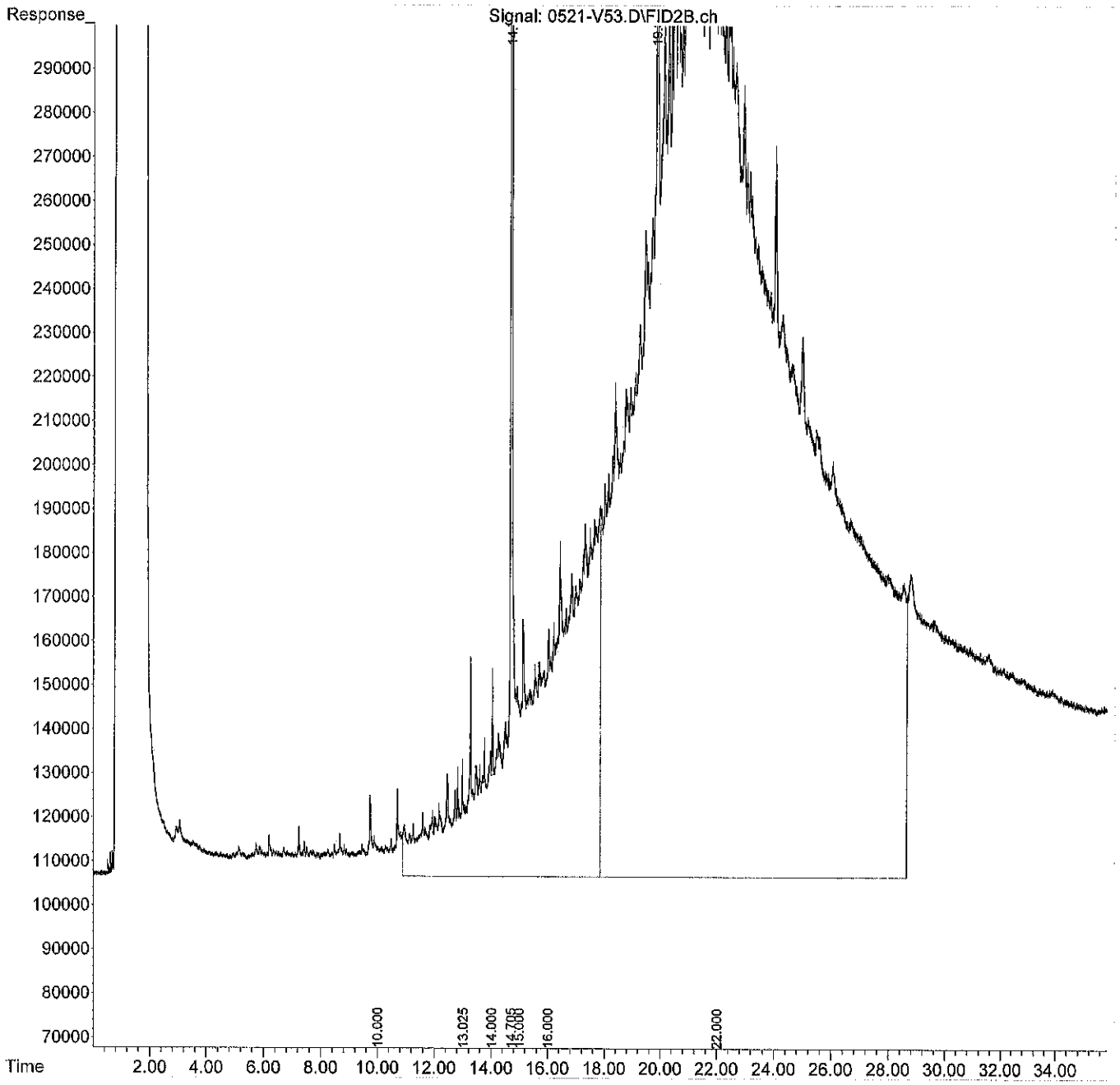
Quantitation Report (Not Reviewed)

Data File : 0521-V53.D
Sample : 05-146-01 RR

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 14:31
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 15:08:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V11.D
Sample : 05-146-02,03,04 COMP. RR

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 19:59
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 20:35:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.703	96051559	30.888 PPM
Spiked Amount	50.000		Recovery =	61.78%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	177138084	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	534564455	215.004 PPM
5) H	Diesel Fuel #2 (01-...	14.000	577200256	238.356 PPM
6) H	Oil (04-04-13)	22.000	1004677561	490.693 PPM
7) H	Oil Acid Clean (02-...	22.000	1004677561	500.467 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	499823873	210.687 PPM
9) H	Oil Combo (04-04-13)	22.000	929549377	463.244 PPM
10) H	Oil Acid Clean Combo ...	22.000	929549377	472.022 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	605998162	237.374 PPM
12) H	Alaska 103 Oil (06-2...	22.000	630442053	574.428 PPM
13) H	Mineral Oil (01-29-13)	16.000	608108572	212.689 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	1432672044	966.254 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1432672044	970.375 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1536294060	19539.036 PPM
17) H	Mineral Oil Combo (0...	16.000	379180135	139.061 PPM
18) H	Oil Acid Clean MO Com...	22.000	865007338	454.090 PPM
19) H	Oil MO Combo (04-04-13)	22.000	865007338	446.048 PPM

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

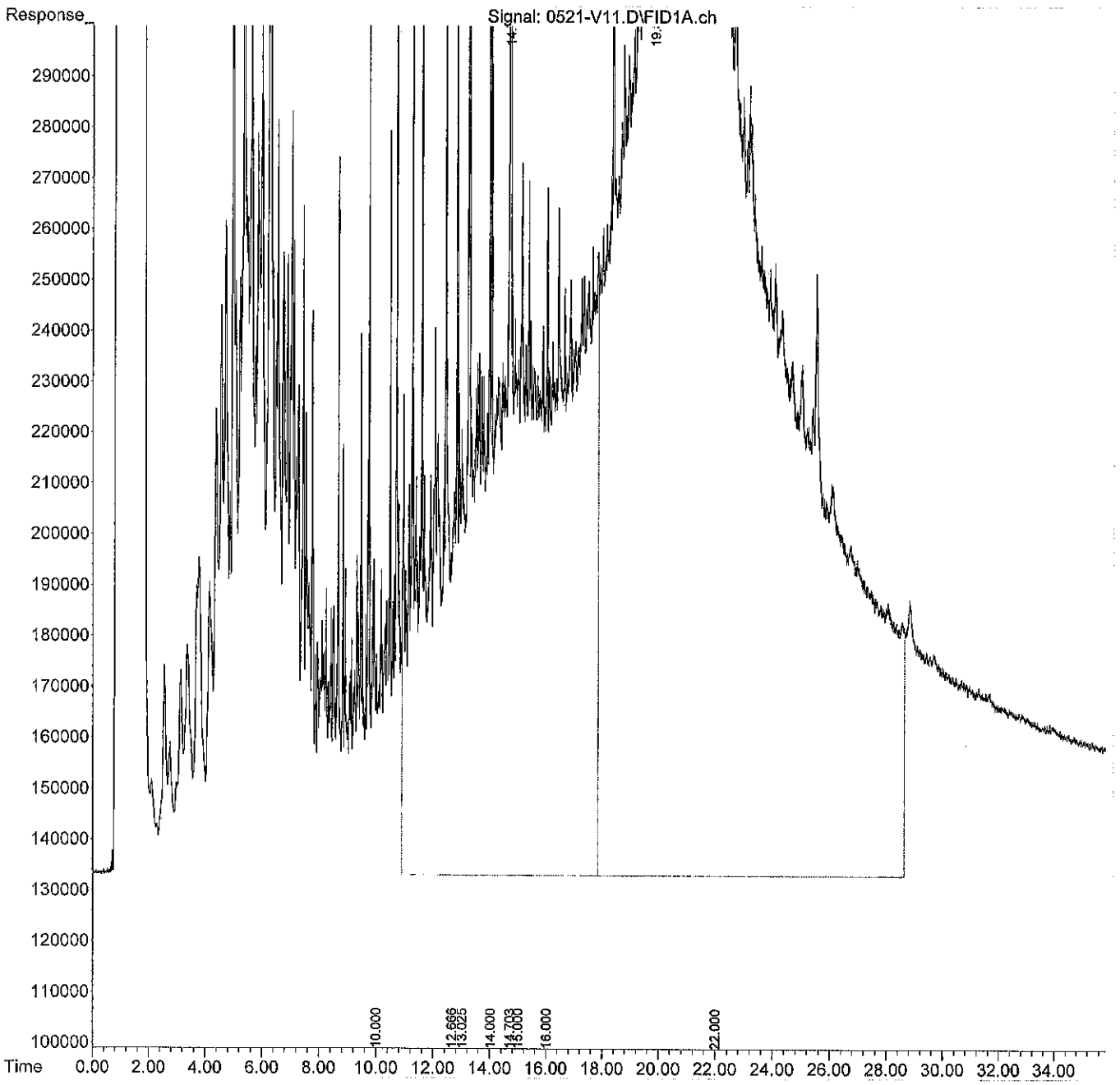
Quantitation Report (Not Reviewed)

Data File : 0521-V11.D
Sample : 05-146-02,03,04 COMP. RR

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 19:59
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 20:35:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V66.D
Sample : 05-146-03

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 22:51
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 23:27:43 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.700	79542024	28.610 PPM
Spiked Amount	50.000		Recovery =	57.22%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	19748173	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	320983482	141.228 PPM
5) H	Diesel Fuel #2 (01-2...	14.000	468669556	214.380 PPM
6) H	Oil (04-04-13)	22.000	796556709	417.050 PPM
7) H	Oil Acid Clean (02-0...	22.000	796556709	423.967 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	394065894	183.926 PPM
9) H	Oil Combo (04-04-13)	22.000	715143800	381.398 PPM
10) H	Oil Acid Clean Combo ...	22.000	715143800	387.442 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	482204452	180.654 PPM
12) H	Alaska 103 Oil (06-2...	22.000	483867178	414.034 PPM
13) H	Mineral Oil (01-29-13)	16.000	573887133	228.596 PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	1107466373	762.468 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1107466373	795.450 PPM
16) H	ALKANE C9-C40	12.666	1115125552	NoCal PPM
17) H	Mineral Oil Combo (01...	16.000	393412939	162.633 PPM
18) H	Oil Acid Clean MO Com...	22.000	652023021	364.531 PPM
19) H	Oil MO Combo (04-04-13)	22.000	652023021	359.161 PPM

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

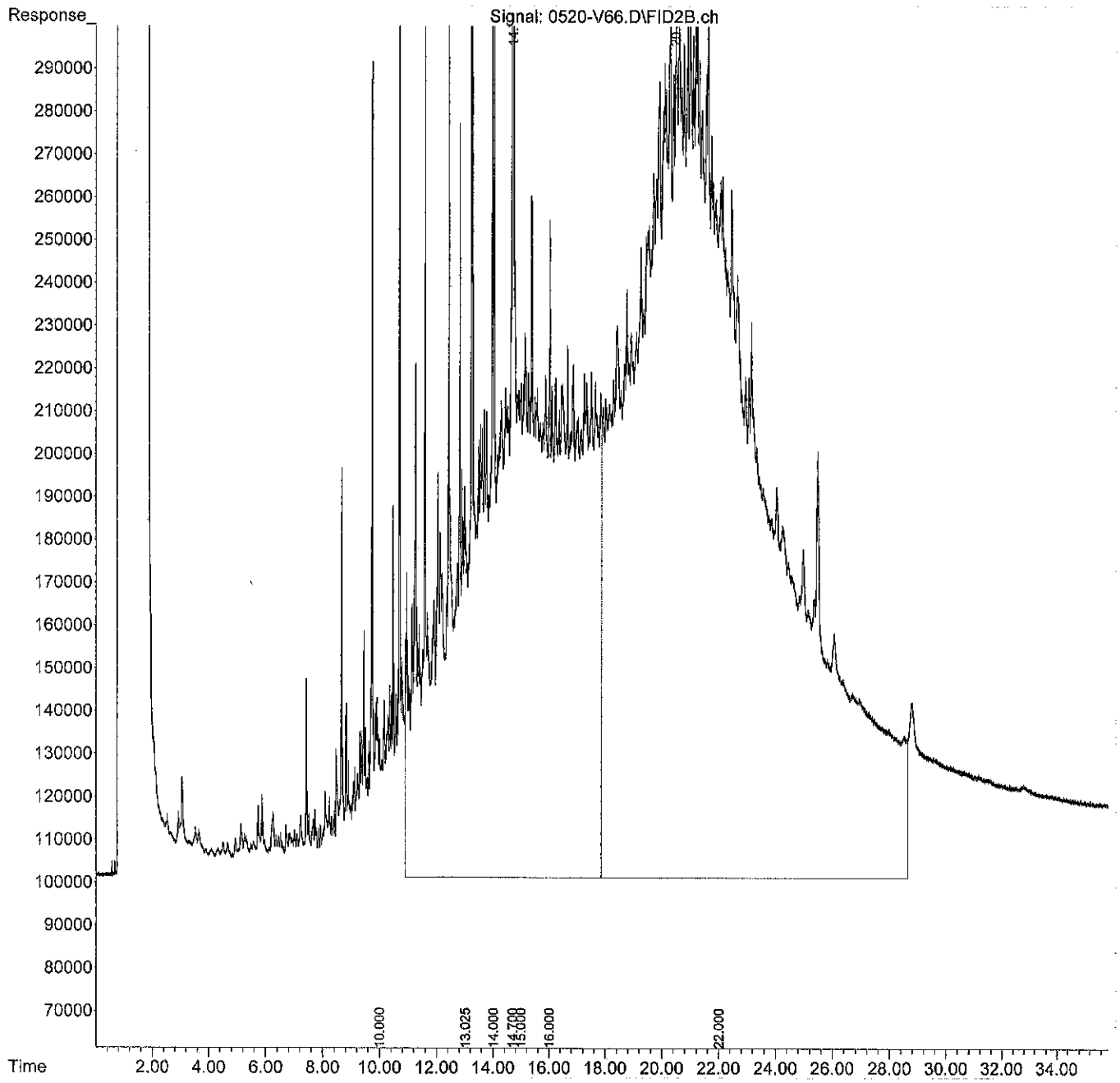
Quantitation Report (Not Reviewed)

Data File : 0520-V66.D
Sample : 05-146-03

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 22:51
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 23:27:43 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V64.D
Sample : 05-146-03 ACU

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 21:29
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 22:05:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.702	85666869	30.850	PPM
Spiked Amount	50.000		Recovery =	61.70%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	19036330	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	327556653	144.098	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	464694976	212.548	PPM
6) H	Oil (04-04-13)	22.000	675677155	352.337	PPM
7) H	Oil Acid Clean (02-0...	22.000	675677155	357.966	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	397272496	185.436	PPM
9) H	Oil Combo (04-04-13)	22.000	597978884	317.388	PPM
10) H	Oil Acid Clean Combo ...	22.000	597978884	322.190	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	476750389	178.552	PPM
12) H	Alaska 103 Oil (06-2...	22.000	410435467	349.618	PPM
13) H	Mineral Oil (01-29-13)	16.000	548794143	218.427	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	994133947	681.144	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	994133947	708.972	PPM
16) H	ALKANE C9-C40	12.666	1001531571	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	390237388	161.295	PPM
18) H	Oil Acid Clean MO Com...	22.000	540819104	300.483	PPM
19) H	Oil MO Combo (04-04-13)	22.000	540819104	296.283	PPM

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

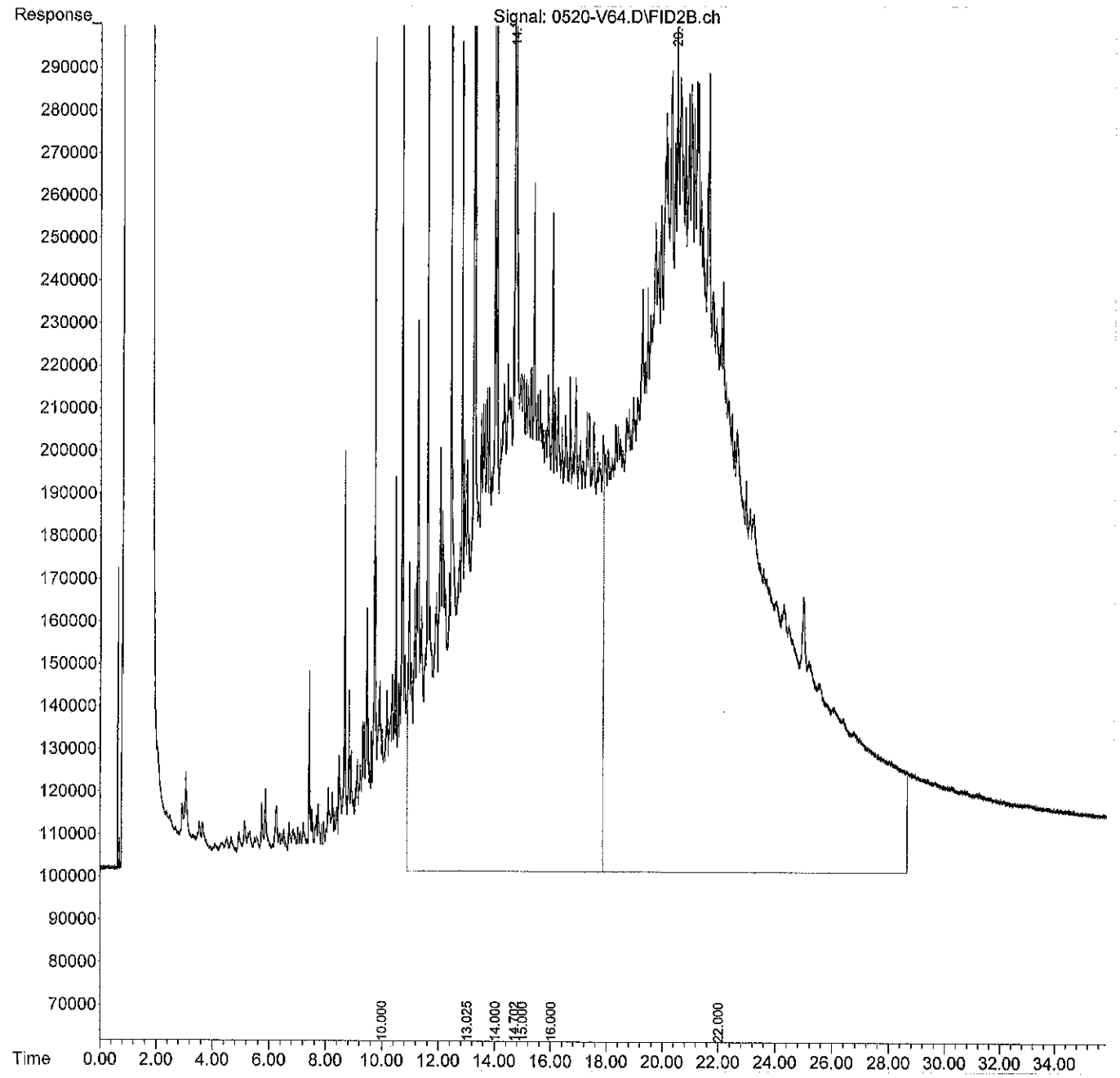
Quantitation Report (Not Reviewed)

Data File : 0520-V64.D
Sample : 05-146-03 ACU

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 21:29
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 22:05:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V72.D
Sample : 05-146-05

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 2:56
Operator :
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 03:33:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.706	132172010	47.852	PPM
Spiked Amount	50.000		Recovery =	95.70%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12303146	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	50231504	22.995	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	97895004	43.456	PPM
6) H	Oil (04-04-13)	22.000	442840763	227.688	PPM
7) H	Oil Acid Clean (02-0...	22.000	442840763	230.836	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	68164267	30.495	PPM
9) H	Oil Combo (04-04-13)	22.000	420569612	220.463	PPM
10) H	Oil Acid Clean Combo ...	22.000	420569612	223.386	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	103935884	34.884	PPM
12) H	Alaska 103 Oil (06-2...	22.000	273581398	229.565	PPM
13) H	Mineral Oil (01-29-13)	16.000	172193845	65.807	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	486887783	317.158	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	486887783	321.917	PPM
16) H	ALKANE C9-C40	12.666	490896282	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	81021109	30.940	PPM
18) H	Oil Acid Clean MO Com...	22.000	395971406	217.057	PPM
19) H	Oil MO Combo (04-04-13)	22.000	395971406	214.382	PPM

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

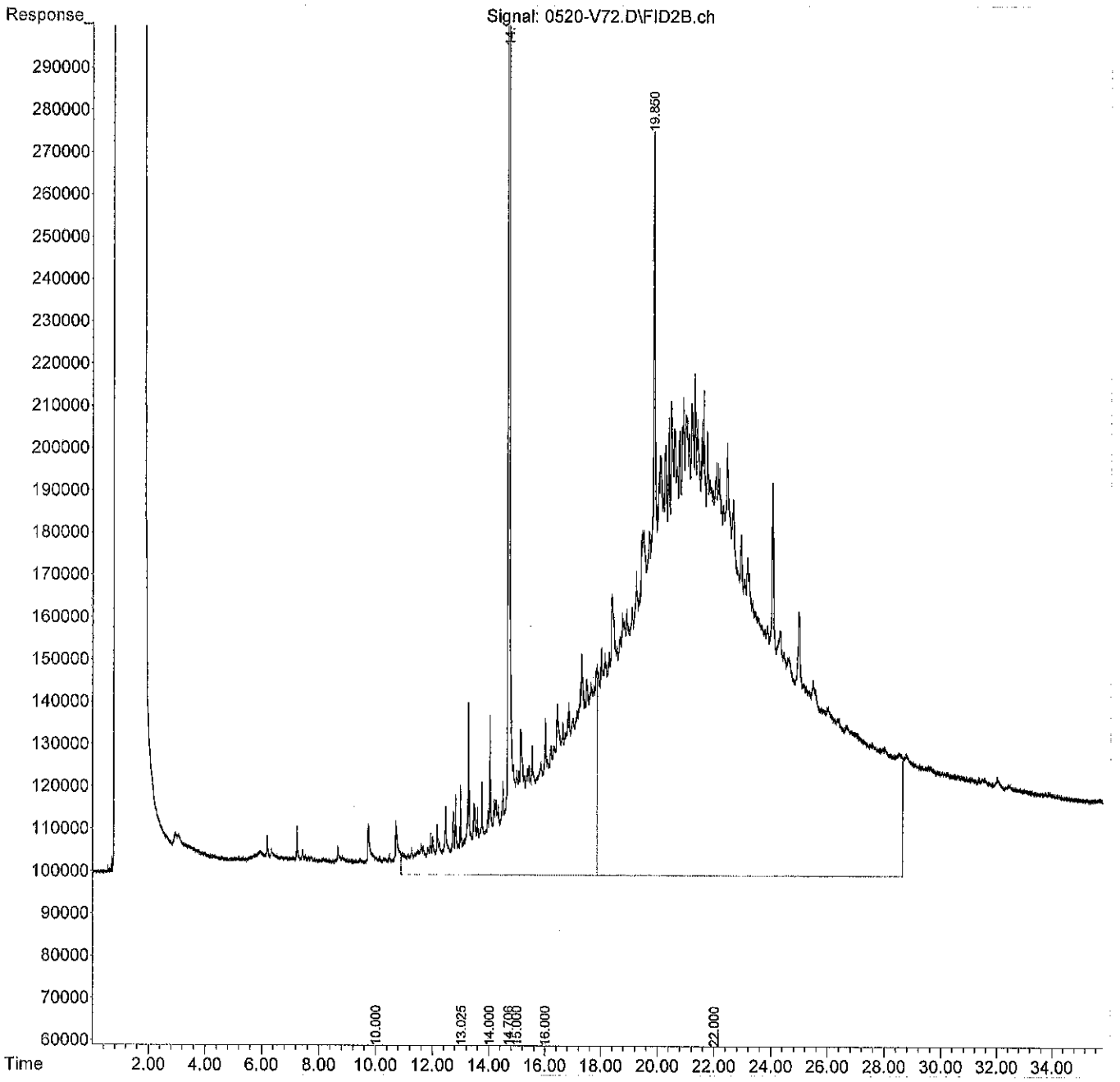
Quantitation Report (Not Reviewed)

Data File : 0520-V72.D
Sample : 05-146-05

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 2:56
Operator :
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 03:33:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V06.D
Sample : 05-146-06 RR

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 16:34
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 17:10:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.708	126515452	40.767 PPM
Spiked Amount	50.000		Recovery =	81.53%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	8456795	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	66004481	27.722 PPM
5) H	Diesel Fuel #2 (01-...	14.000	166115112	67.948 PPM
6) H	Oil (04-04-13)	22.000	866811749	423.271 PPM
7) H	Oil Acid Clean (02-...	22.000	866811749	430.857 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	106127006	44.037 PPM
9) H	Oil Combo (04-04-13)	22.000	822963754	410.095 PPM
10) H	Oil Acid Clean Combo ...	22.000	822963754	417.118 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	174696675	66.582 PPM
12) H	Alaska 103 Oil (06-2...	22.000	541187341	492.048 PPM
13) H	Mineral Oil (01-29-13)	16.000	329028767	114.408 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	928093524	618.714 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	928093524	620.807 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	929045209	11807.176 PPM
17) H	Mineral Oil Combo (0...	16.000	144885234	51.389 PPM
18) H	Oil Acid Clean MO Com...	22.000	773752504	405.445 PPM
19) H	Oil MO Combo (04-04-13)	22.000	773752504	398.980 PPM

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

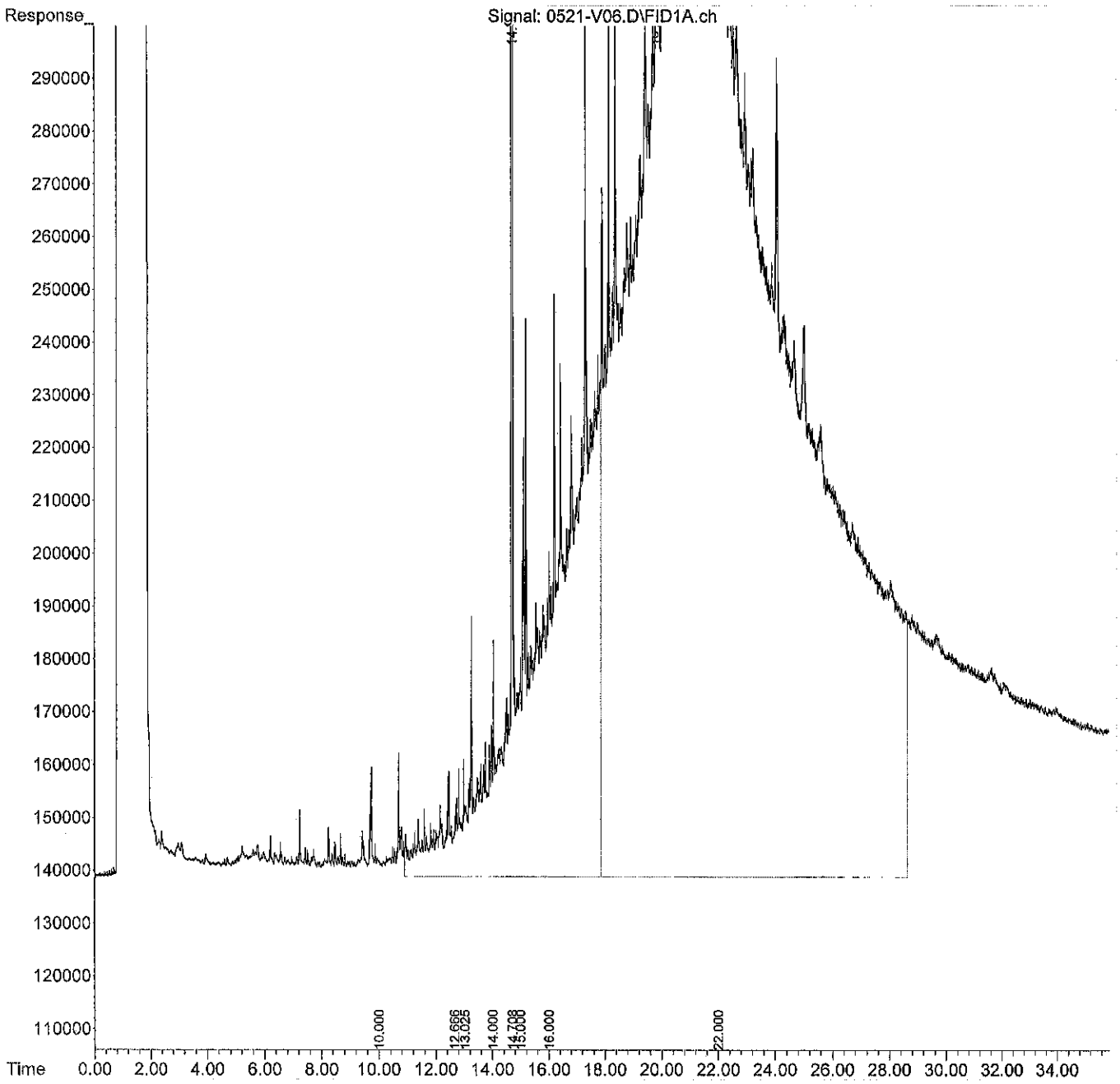
Quantitation Report (Not Reviewed)

Data File : 0521-V06.D
Sample : 05-146-06 RR

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 16:34
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 17:10:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V54.D
Sample : 05-146-07 10X

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 11:28
Operator :
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 12:04:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.692	14343738	4.774	PPM
Spiked Amount	50.000		Recovery =	9.55%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	15172614	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	146764816	65.149	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	434535473	198.645	PPM
6) H	Oil (04-04-13)	22.000	1622042572	858.975	PPM
7) H	Oil Acid Clean (02-0...	22.000	1622042572	874.688	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	270876699	125.930	PPM
9) H	Oil Combo (04-04-13)	22.000	1492261830	805.962	PPM
10) H	Oil Acid Clean Combo ...	22.000	1492261830	820.240	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	462956593	173.237	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1070774019	928.888	PPM
13) H	Mineral Oil (01-29-13)	16.000	813579459	325.733	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	1760040107	1230.736	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1760040107	1293.398	PPM
16) H	ALKANE C9-C40	12.666	1765167091	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	393319195	162.594	PPM
18) H	Oil Acid Clean MO Com...	22.000	1355750882	769.846	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1355750882	757.069	PPM

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

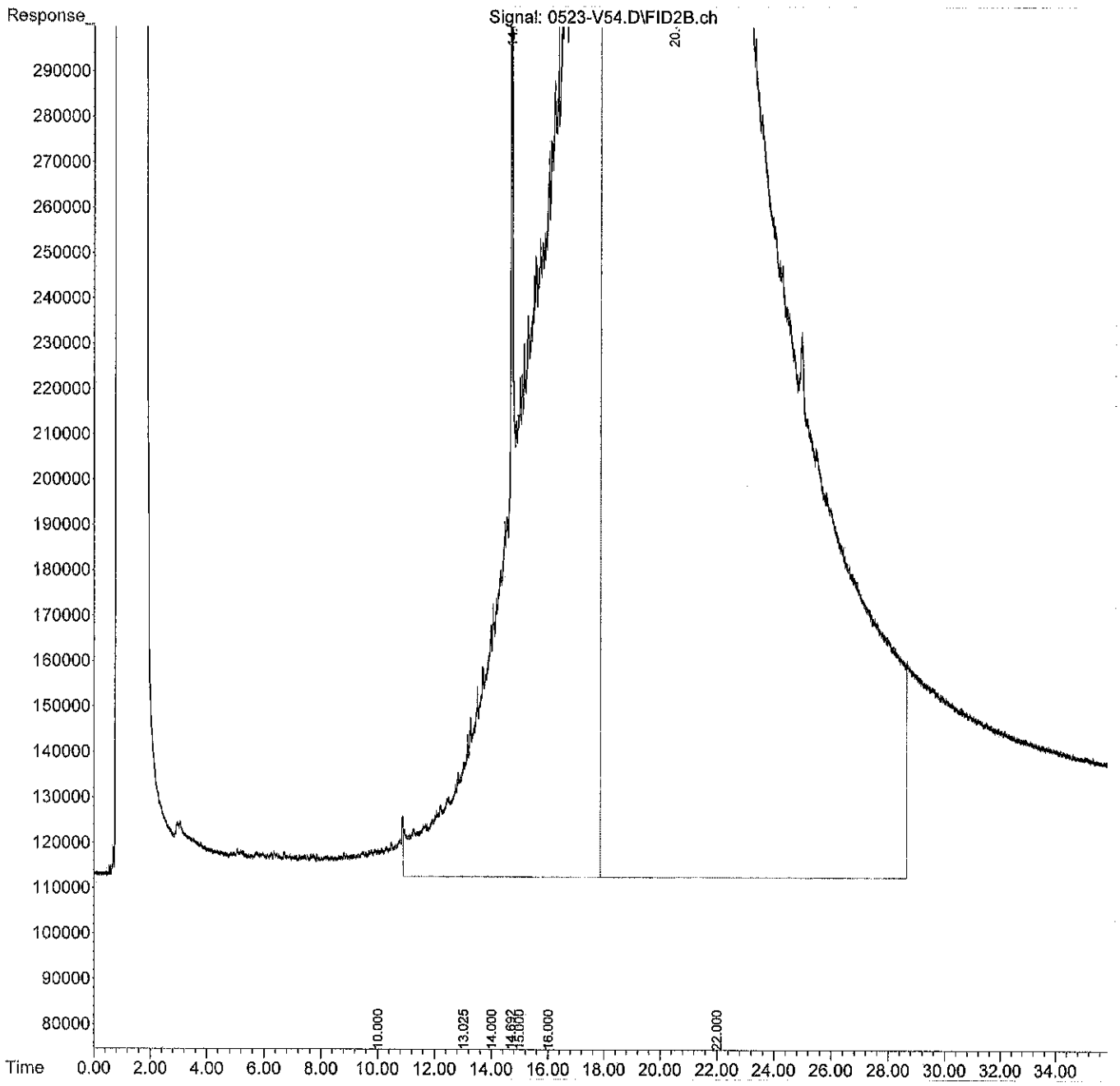
Quantitation Report (Not Reviewed)

Data File : 0523-V54.D
Sample : 05-146-07 10X

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 11:28
Operator :
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 12:04:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V61.D
Sample : 05-146-08,09,10 COMP. 5X

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 19:59
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 20:35:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.693	19589428	6.692	PPM
Spiked Amount		50.000		Recovery =	13.38%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12552140	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	399603704	175.560	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	603277458	276.434	PPM
6)	H	Oil (04-04-13)	22.000	885155505	464.481	PPM
7)	H	Oil Acid Clean (02-0...	22.000	885155505	472.343	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	500830735	234.190	PPM
9)	H	Oil Combo (04-04-13)	22.000	779339134	416.470	PPM
10)	H	Oil Acid Clean Combo ...	22.000	779339134	423.194	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	619870835	233.705	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	502638303	430.501	PPM
13)	H	Mineral Oil (01-29-13)	16.000	704194541	281.404	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	1277592909	884.546	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	1277592909	925.266	PPM
16)	H	ALKANE C9-C40	12.666	1281714362	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	489397486	203.097	PPM
18)	H	Oil Acid Clean MO Com...	22.000	692756042	387.992	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	692756042	382.193	PPM

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

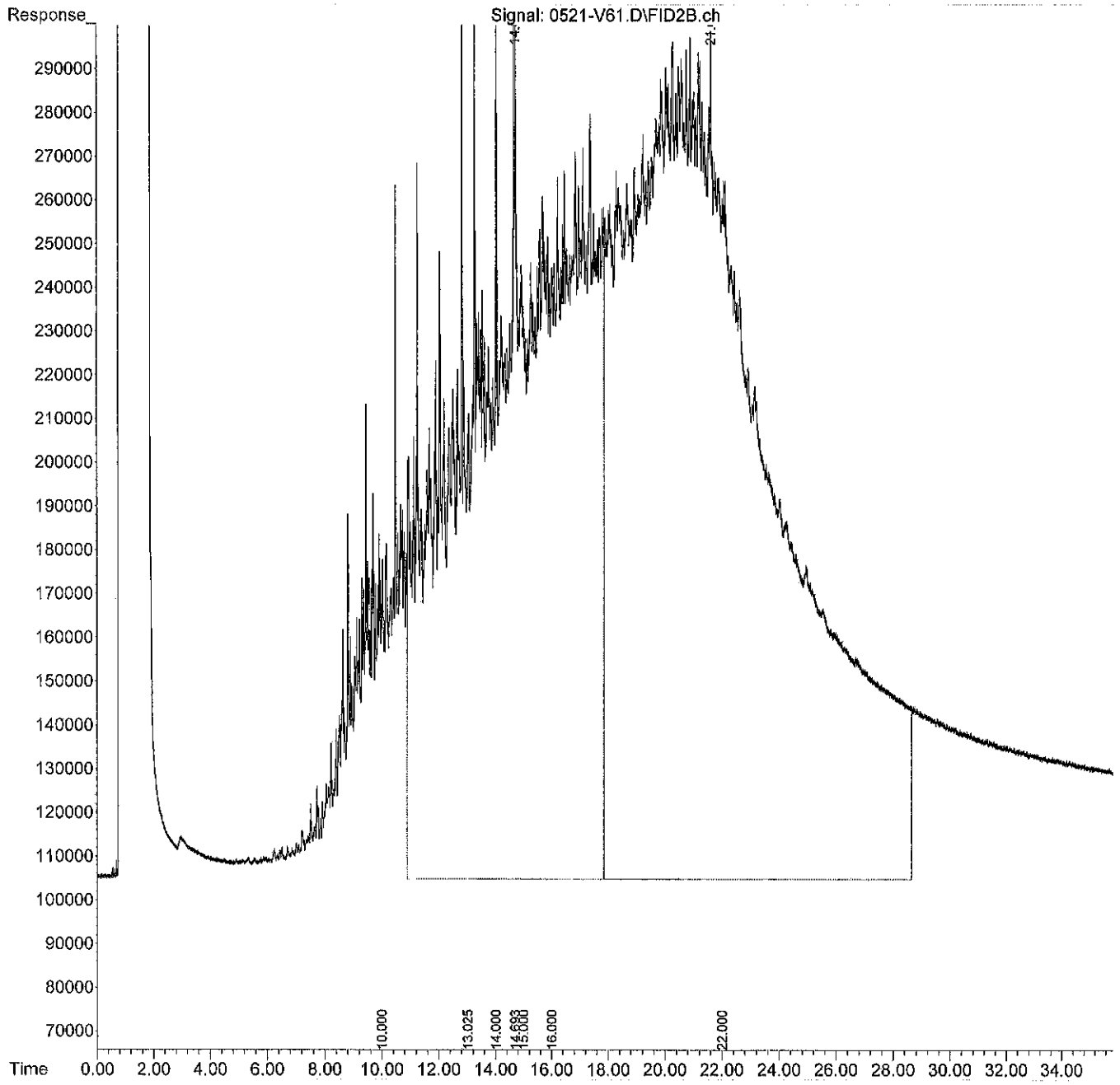
Quantitation Report (Not Reviewed)

Data File : 0521-V61.D
Sample : 05-146-08,09,10 COMP. 5X

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 19:59
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 20:35:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V05.D
Sample : 05-146-09 10X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 12:16
Operator :
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 12:52:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.695	16871084	5.209	PPM
Spiked Amount		50.000		Recovery =	10.42%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8456275	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	665273474	267.248	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	1002403241	414.616	PPM
6)	H	Oil (04-04-13)	22.000	1304689422	637.409	PPM
7)	H	Oil Acid Clean (02-...	22.000	1304689422	651.946	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	835942446	352.964	PPM
9)	H	Oil Combo (04-04-13)	22.000	1130492986	563.446	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1130492986	575.531	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	1019359393	401.062	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	760184384	694.178	PPM
13)	H	Mineral Oil (01-29-13)	16.000	1150721196	403.776	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	1965820162	1333.472	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1965820162	1339.737	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1967084969	25024.126	PPM
17)	H	Mineral Oil Combo (0...	16.000	808816671	299.827	PPM
18)	H	Oil Acid Clean MO Com...	22.000	989654150	520.535	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	989654150	510.339	PPM

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

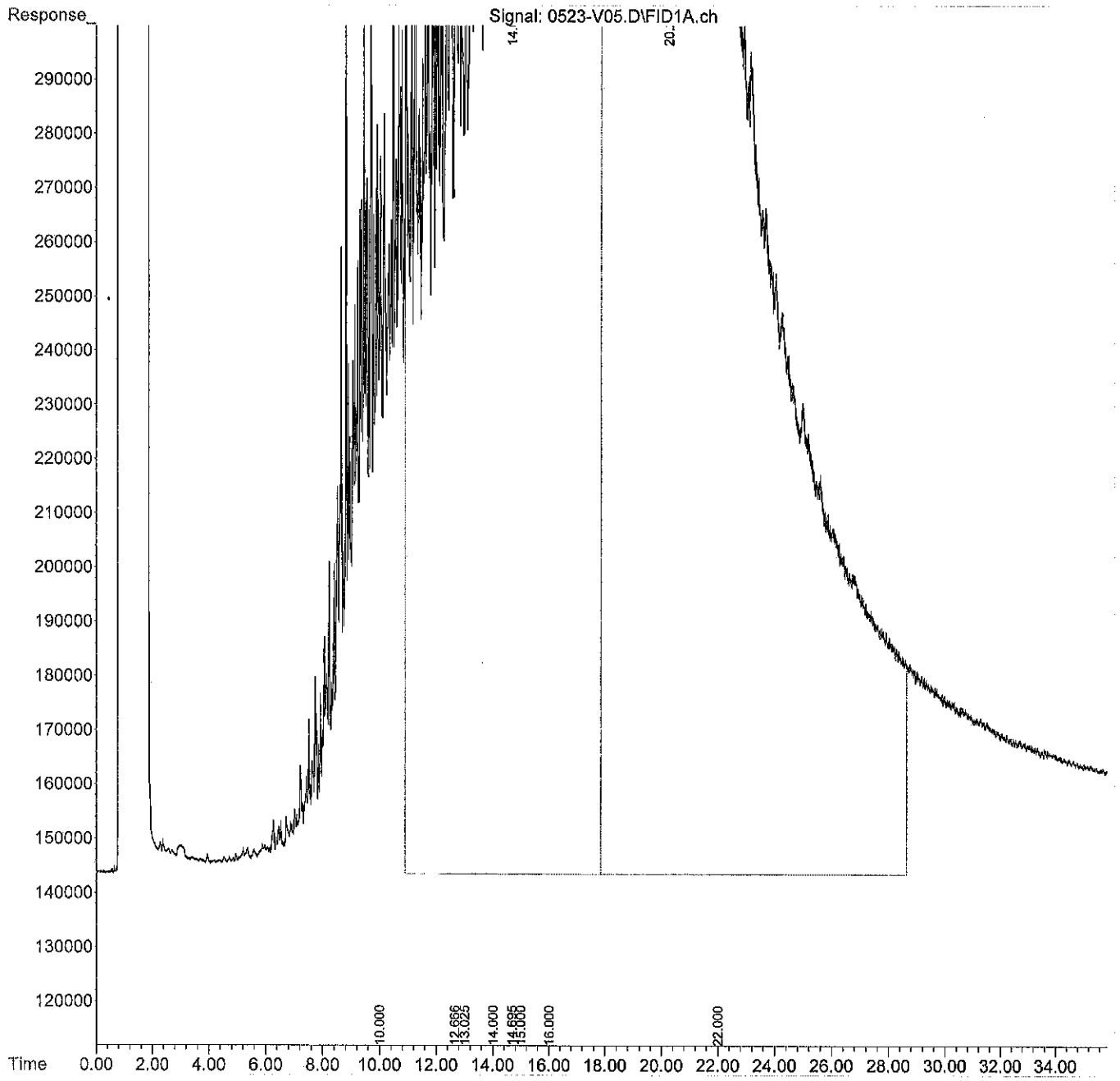
Quantitation Report (Not Reviewed)

Data File : 0523-V05.D
Sample : 05-146-09 10X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 12:16
Operator :
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 12:52:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V76.D
Sample : 05-146-11

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 5:39
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 06:16:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.703	119347777	43.163 PPM
	Spiked Amount 50.000		Recovery =	86.33%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3)	H Gasoline	3.500	15355842	NoCal PPM
4)	H Diesel Fuel #1 (01-2...	10.000	63464687	28.774 PPM
5)	H Diesel Fuel #2 (01-2...	14.000	126156137	56.484 PPM
6)	H Oil (04-04-13)	22.000	691177688	360.635 PPM
7)	H Oil Acid Clean (02-0...	22.000	691177688	366.429 PPM
8)	H Diesel Fuel #2 Combo ...	14.000	87507549	39.602 PPM
9)	H Oil Combo (04-04-13)	22.000	661360902	352.015 PPM
10)	H Oil Acid Clean Combo ...	22.000	661360902	357.489 PPM
11)	H Alaska 102 DF2 (06-2...	13.025	134279572	46.577 PPM
12)	H Alaska 103 Oil (06-2...	22.000	423437400	361.023 PPM
13)	H Mineral Oil (01-29-13)	16.000	227941671	88.399 PPM
14)	H Bunker C-ACU- (Fuel O...	15.000	745641839	502.833 PPM
15)	H Bunker C- (Fuel Oil #...	15.000	745641839	519.360 PPM
16)	H ALKANE C9-C40	12.666	750797180	NoCal PPM
17)	H Mineral Oil Combo (01...	16.000	103449714	40.396 PPM
18)	H Oil Acid Clean MO Com...	22.000	629448449	351.529 PPM
19)	H Oil MO Combo (04-04-13)	22.000	629448449	346.397 PPM

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

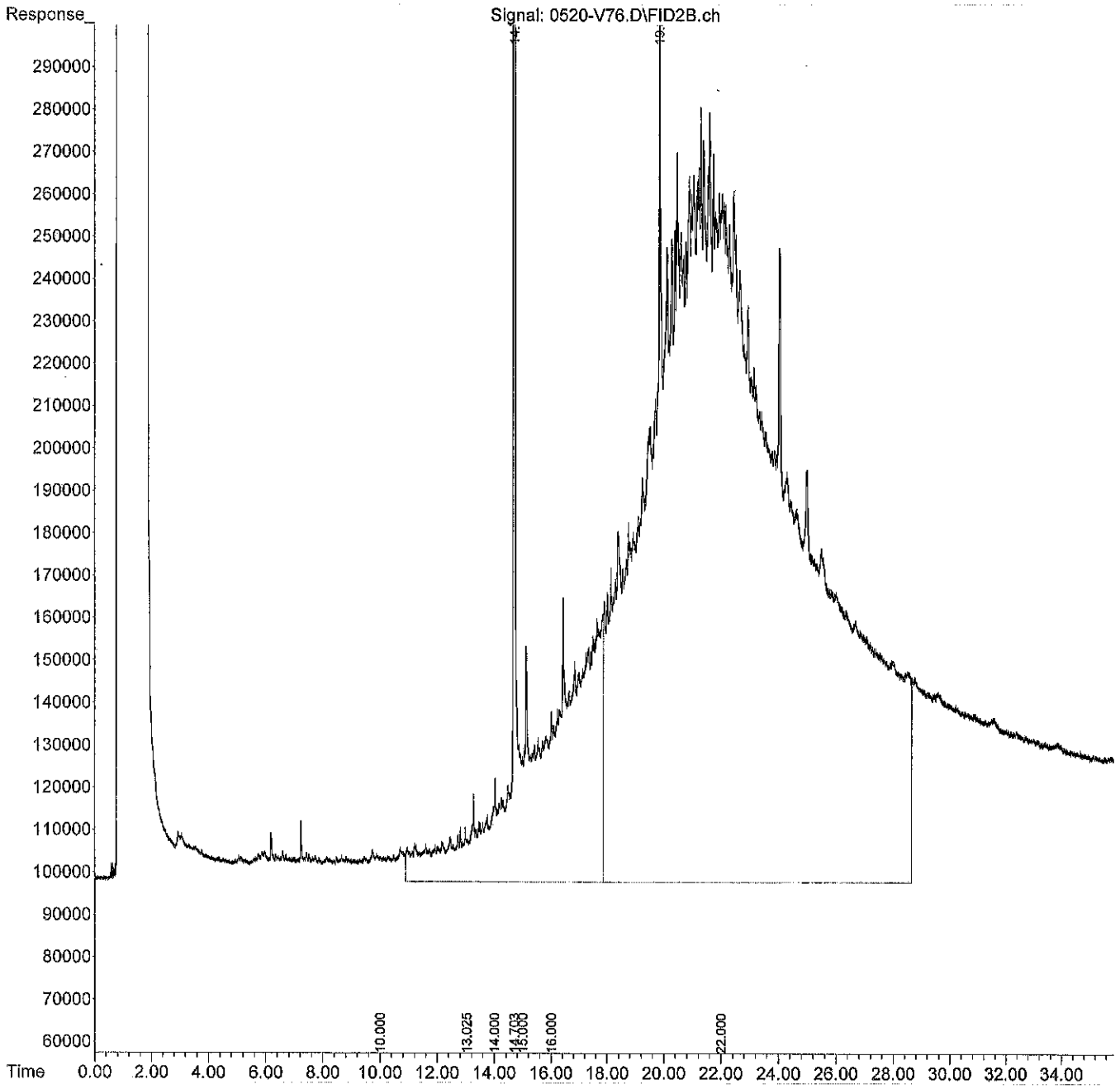
Quantitation Report (Not Reviewed)

Data File : 0520-V76.D
Sample : 05-146-11

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 5:39
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 06:16:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V11.D
Sample : 05-146-12,13,14 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 19:26
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:02:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.709	130387478	42.023	PPM
Spiked Amount		50.000		Recovery =	84.05%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	3925208	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	15209617	7.420	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	19022805	6.974	PPM
6)	H	Oil (04-04-13)	22.000	44372547	21.070	PPM
7)	H	Oil Acid Clean (02-...	22.000	44372547	15.599	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	16389764	6.052	PPM
9)	H	Oil Combo (04-04-13)	22.000	41889964	20.609	PPM
10)	H	Oil Acid Clean Combo ...	22.000	41889964	14.775	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	19469088	5.113	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	22512030	13.320	PPM
13)	H	Mineral Oil (01-29-13)	16.000	20927883	5.908	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	58191611	19.550	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	58191611	18.145	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	59195699	731.726	PPM
17)	H	Mineral Oil Combo (0...	16.000	14515903	2.606	PPM
18)	H	Oil Acid Clean MO Com...	22.000	39676195	14.134	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	39676195	20.354	PPM

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

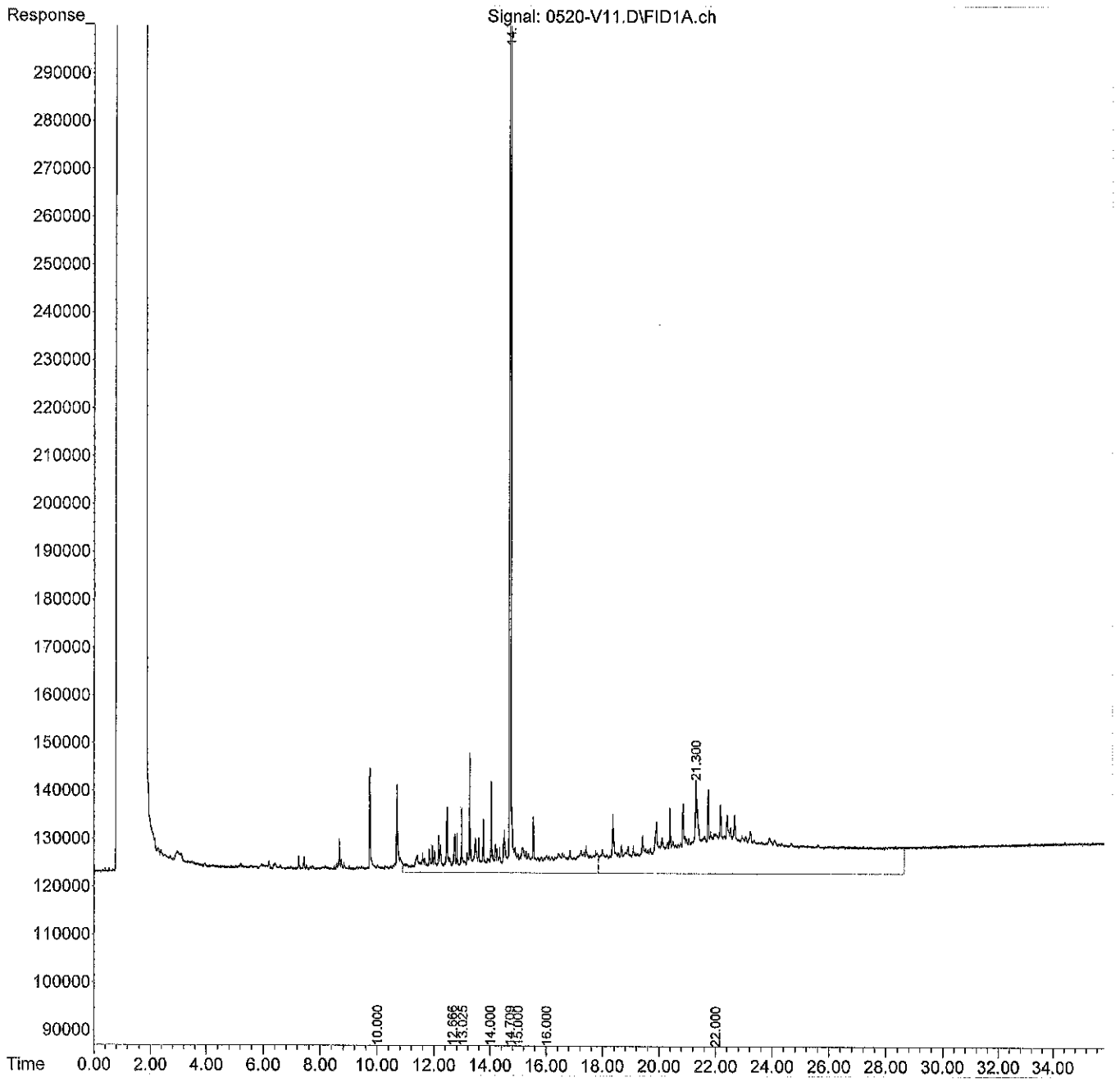
Quantitation Report (Not Reviewed)

Data File : 0520-V11.D
Sample : 05-146-12,13,14 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 19:26
Operator :
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:02:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V60.D
Sample : 05-146-15

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 18:45
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 19:22:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.708	130785175	47.345 PPM
Spiked Amount	50.000		Recovery =	94.69%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	11177421	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	25265646	12.093 PPM
5) H	Diesel Fuel #2 (01-2...	14.000	26037735	10.331 PPM
6) H	Oil (04-04-13)	22.000	58755346	22.067 PPM
7) H	Oil Acid Clean (02-0...	22.000	58755346	21.122 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	23871545	9.642 PPM
9) H	Oil Combo (04-04-13)	22.000	56308541	21.456 PPM
10) H	Oil Acid Clean Combo ...	22.000	56308541	20.519 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	26901904	5.198 PPM
12) H	Alaska 103 Oil (06-2...	22.000	25673815	12.092 PPM
13) H	Mineral Oil (01-29-13)	16.000	22473316	5.132 PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	79609550	24.907 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	79609550	11.143 PPM
16) H	ALKANE C9-C40	12.666	83464341	NoCal PPM
17) H	Mineral Oil Combo (01...	16.000	16943424	3.928 PPM
18) H	Oil Acid Clean MO Com...	22.000	54490111	20.380 PPM
19) H	Oil MO Combo (04-04-13)	22.000	54490111	21.298 PPM

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

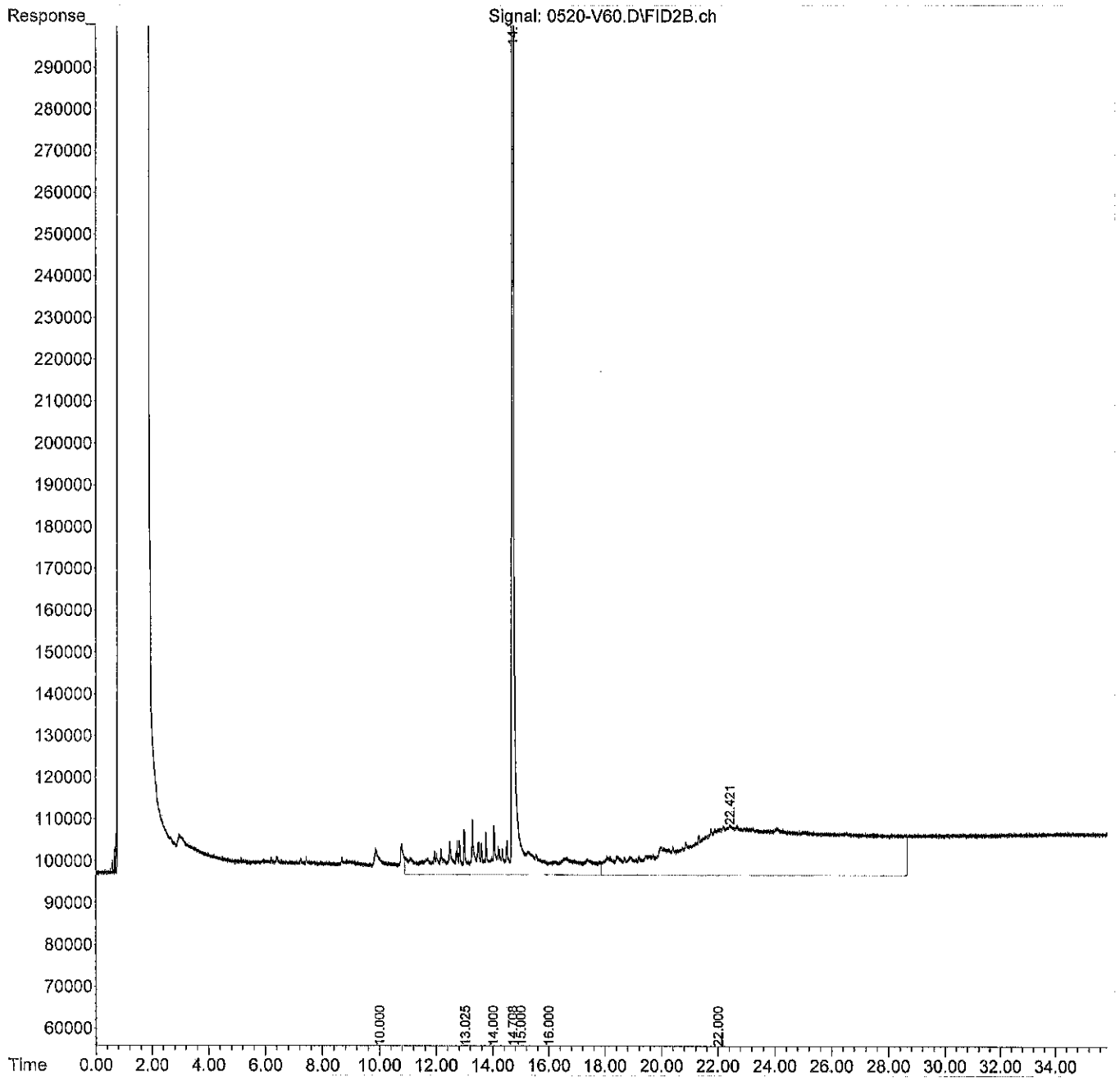
Quantitation Report (Not Reviewed)

Data File : 0520-V60.D
Sample : 05-146-15

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 18:45
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 19:22:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V03.D
Sample : 05-146-16 5X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 10:47
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 11:23:17 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.694	23040951	7.210 PPM
Spiked Amount	50.000		Recovery =	14.42%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	6543201	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	400067483	161.246 PPM
5) H	Diesel Fuel #2 (01-...	14.000	626519116	258.800 PPM
6) H	Oil (04-04-13)	22.000	854107482	417.059 PPM
7) H	Oil Acid Clean (02-...	22.000	854107482	424.443 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	514405840	216.860 PPM
9) H	Oil Combo (04-04-13)	22.000	737370761	367.414 PPM
10) H	Oil Acid Clean Combo ...	22.000	737370761	373.027 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	637398574	249.808 PPM
12) H	Alaska 103 Oil (06-2...	22.000	496579908	450.876 PPM
13) H	Mineral Oil (01-29-13)	16.000	738984518	258.779 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	1251411984	841.407 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1251411984	844.800 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1252455008	15925.026 PPM
17) H	Mineral Oil Combo (0...	16.000	516521419	190.453 PPM
18) H	Oil Acid Clean MO Com...	22.000	642421235	335.437 PPM
19) H	Oil MO Combo (04-04-13)	22.000	642421235	331.241 PPM

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

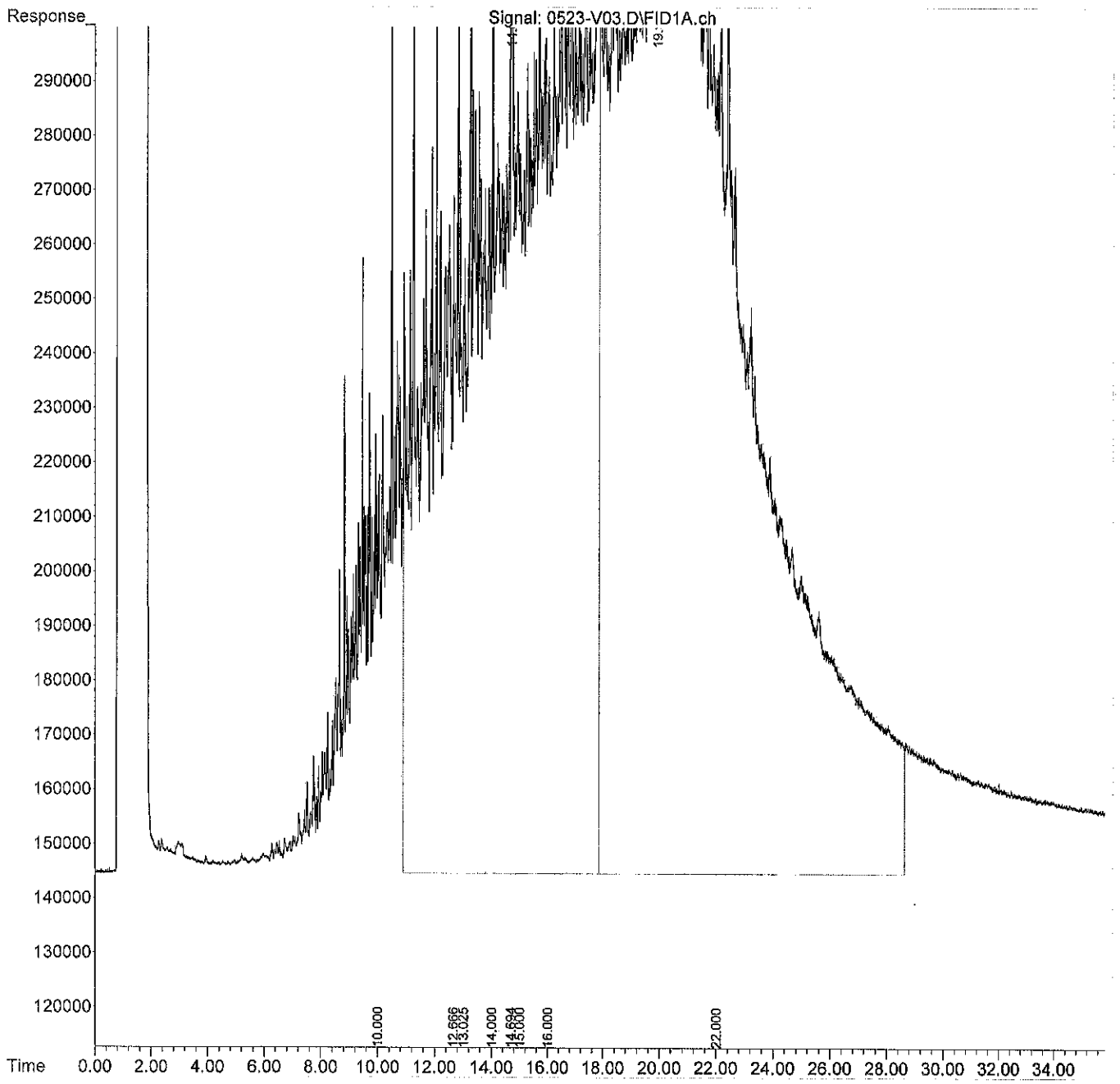
Quantitation Report (Not Reviewed)

Data File : 0523-V03.D
Sample : 05-146-16 5X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 10:47
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 11:23:17 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V61.D
Sample : 05-146-17

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 19:26
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:03:13 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.707	121992546	44.130 PPM
Spiked Amount	50.000		Recovery =	88.26%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	10887293	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	23090616	11.143 PPM
5) H	Diesel Fuel #2 (01-2...	14.000	24305146	9.532 PPM
6) H	Oil (04-04-13)	22.000	58593826	21.980 PPM
7) H	Oil Acid Clean (02-0...	22.000	58593826	21.034 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	21985665	8.755 PPM
9) H	Oil Combo (04-04-13)	22.000	56031670	21.305 PPM
10) H	Oil Acid Clean Combo ...	22.000	56031670	20.365 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	25106984	4.507 PPM
12) H	Alaska 103 Oil (06-2...	22.000	23897339	10.534 PPM
13) H	Mineral Oil (01-29-13)	16.000	20828990	4.465 PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	77386437	23.312 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	77386437	9.446 PPM
16) H	ALKANE C9-C40	12.666	81035631	NoCal PPM
17) H	Mineral Oil Combo (01...	16.000	15869537	3.475 PPM
18) H	Oil Acid Clean MO Com...	22.000	54063120	20.134 PPM
19) H	Oil MO Combo (04-04-13)	22.000	54063120	21.057 PPM

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

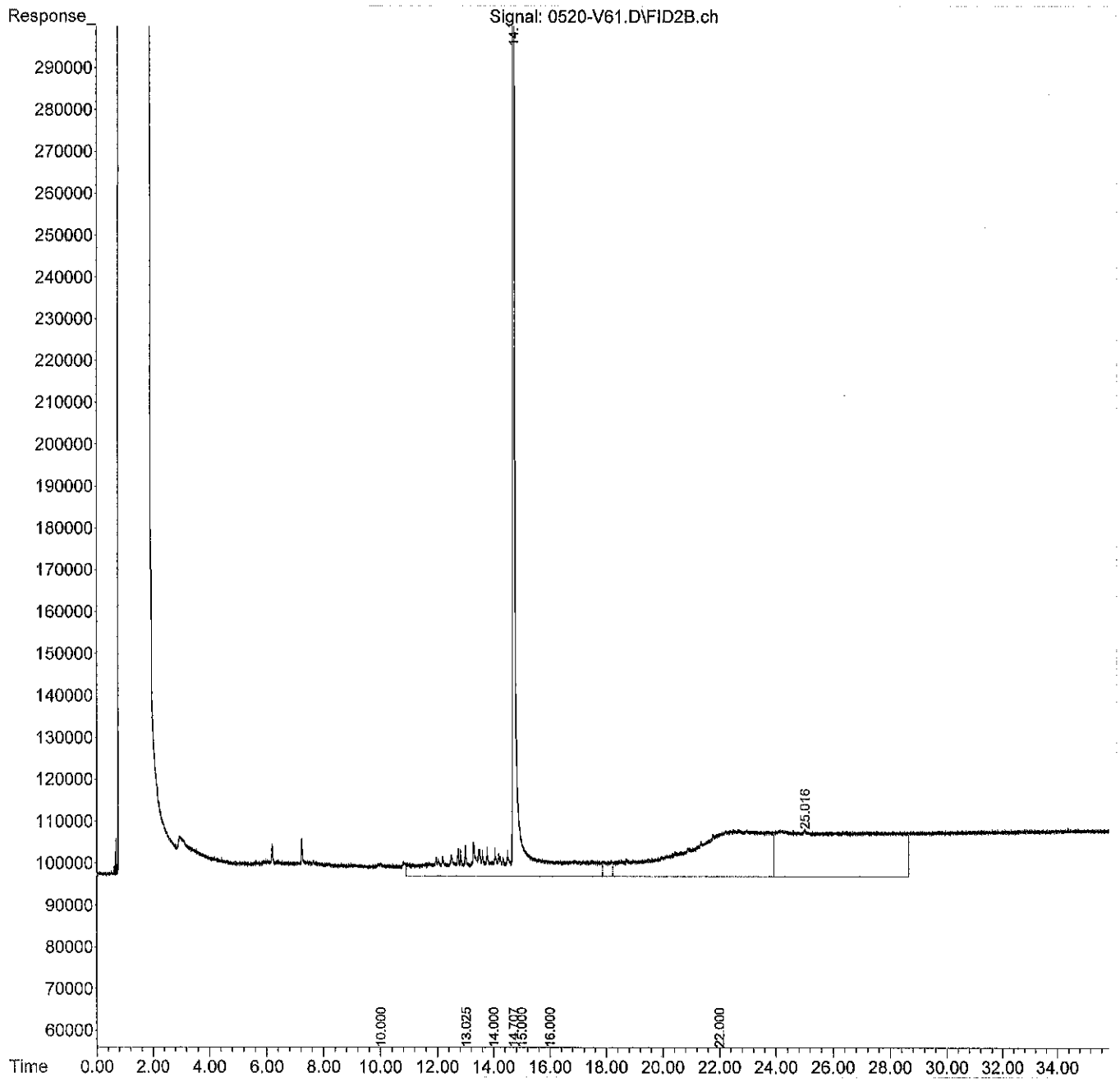
Quantitation Report (Not Reviewed)

Data File : 0520-V61.D
Sample : 05-146-17

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 19:26
Operator :
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:03:13 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V03.D
Sample : 05-146-18

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 14:31
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 15:07:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.709	133851022	43.146	PPM
Spiked Amount		50.000		Recovery =	86.29%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10401814	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	130976072	53.691	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	309654690	127.450	PPM
6)	H	Oil (04-04-13)	22.000	1501933544	733.868	PPM
7)	H	Oil Acid Clean (02-...	22.000	1501933544	751.537	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	207073312	86.767	PPM
9)	H	Oil Combo (04-04-13)	22.000	1421204027	708.410	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1421204027	725.280	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	321916700	124.880	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	971795126	889.490	PPM
13)	H	Mineral Oil (01-29-13)	16.000	593256667	207.459	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	1626780628	1099.951	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1626780628	1104.853	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1627208214	20696.610	PPM
17)	H	Mineral Oil Combo (0...	16.000	272309679	99.070	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1336297503	705.318	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1336297503	689.133	PPM

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

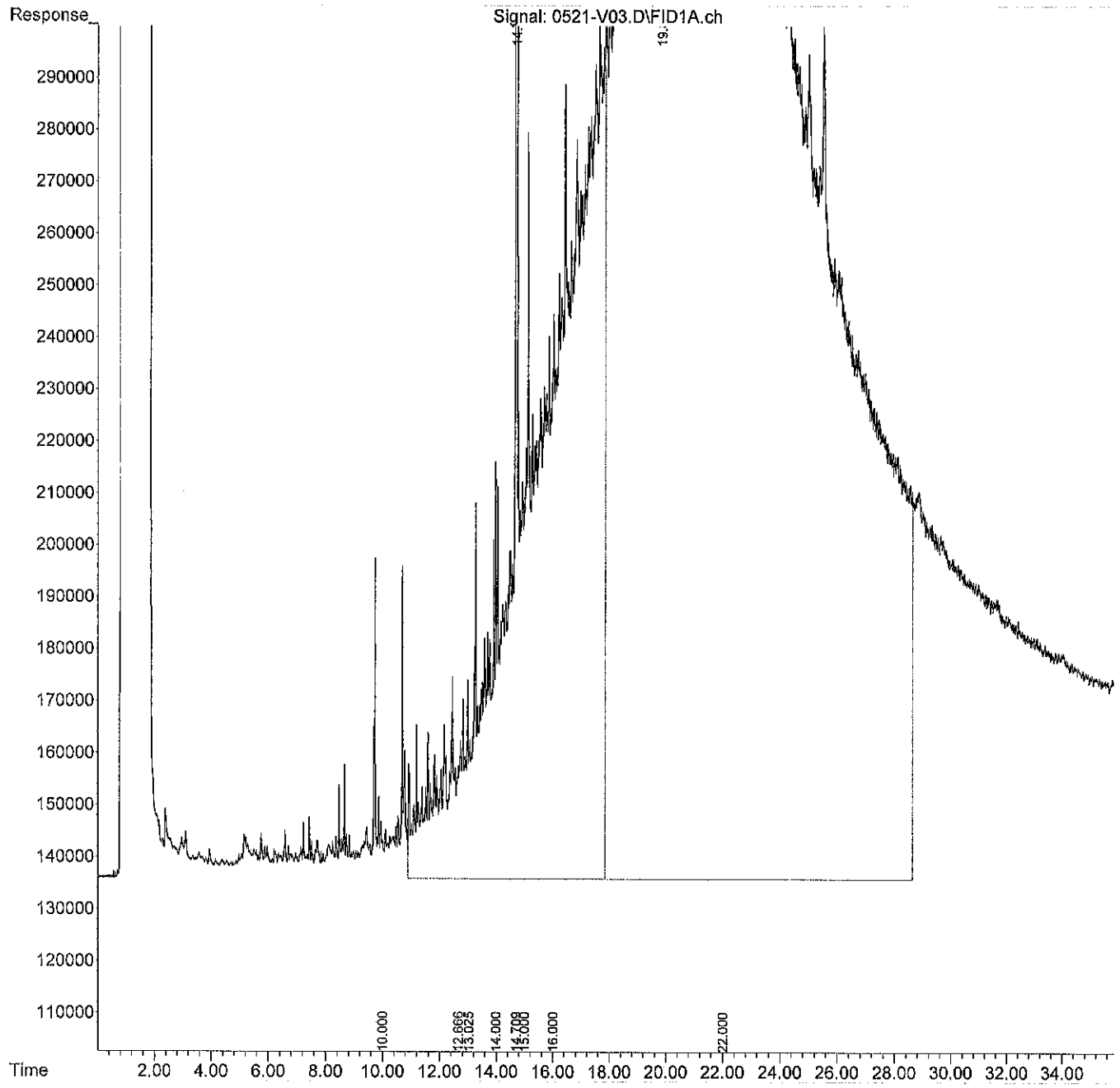
Quantitation Report (Not Reviewed)

Data File : 0521-V03.D
Sample : 05-146-18

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 14:31
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 15:07:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V22.D
Sample : 05-146-19

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 2:56
Operator :
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 03:32:50 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.709	158802089	51.237	PPM
Spiked Amount		50.000		Recovery =	102.47%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20774216	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	182096625	74.124	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	559305228	230.938	PPM
6)	H	Oil (04-04-13)	22.000	3016912597	1474.746	PPM
7)	H	Oil Acid Clean (02-...	22.000	3016912597	1516.465	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	336249096	141.447	PPM
9)	H	Oil Combo (04-04-13)	22.000	2854399877	1423.079	PPM
10)	H	Oil Acid Clean Combo ...	22.000	2854399877	1463.541	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	586022462	229.464	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1933005969	1776.669	PPM
13)	H	Mineral Oil (01-29-13)	16.000	1164880426	408.762	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	3187232681	2174.747	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	3187232681	2185.923	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	3186437867	40549.665	PPM
17)	H	Mineral Oil Combo (0...	16.000	493222709	181.734	PPM
18)	H	Oil Acid Clean MO Com...	22.000	2670023889	1416.282	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	2670023889	1377.050	PPM

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

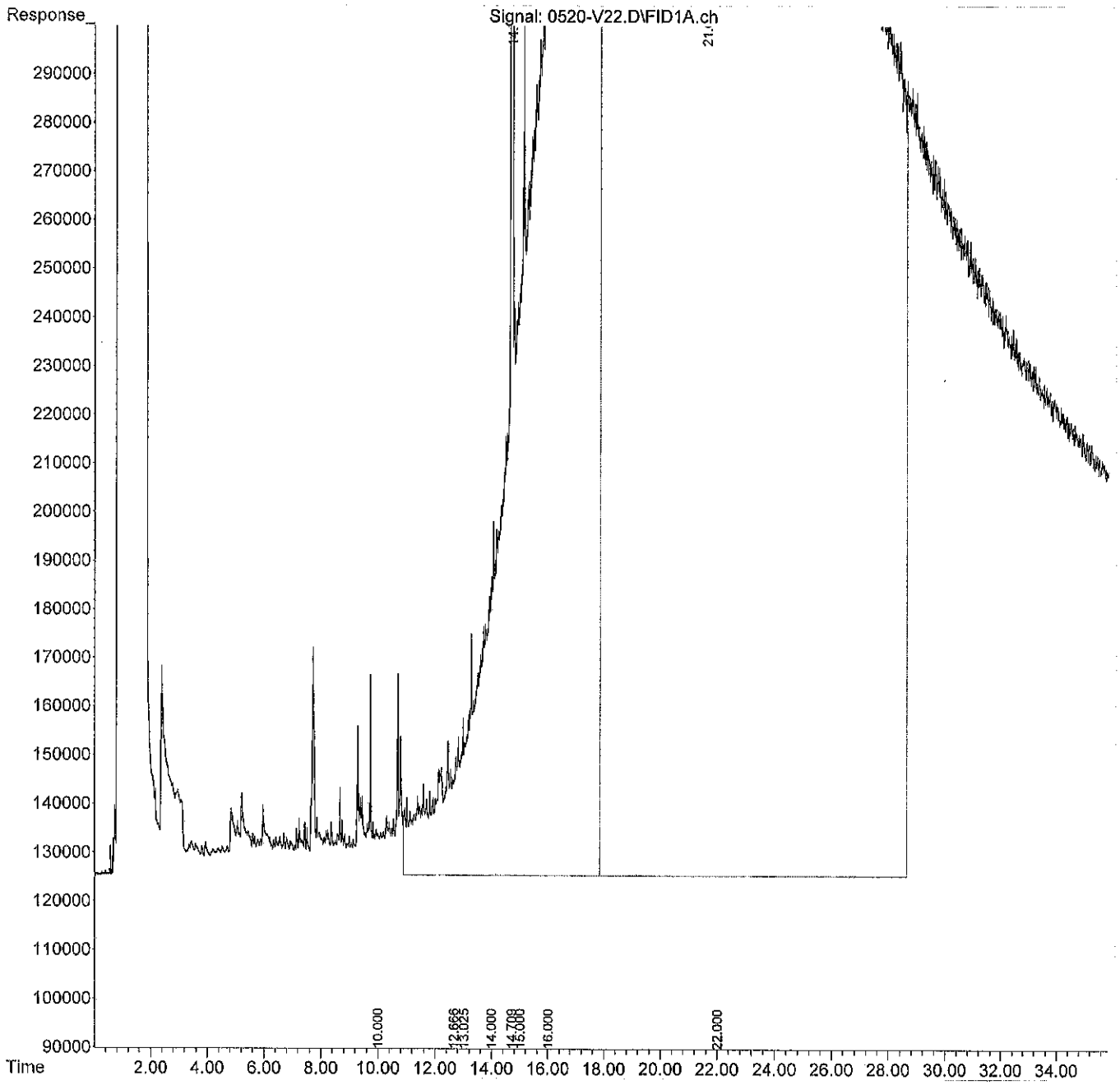
Quantitation Report (Not Reviewed)

Data File : 0520-V22.D
Sample : 05-146-19

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 2:56
Operator :
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 03:32:50 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V14.D
Sample : 05-146-20

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 22:01
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 22:37:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.707	129333131	41.681	PPM
Spiked Amount		50.000		Recovery =	83.36%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	16113567	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	321116370	129.690	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	782368683	323.404	PPM
6)	H	Oil (04-04-13)	22.000	3134854563	1532.423	PPM
7)	H	Oil Acid Clean (02-...	22.000	3134854563	1576.015	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	522794528	220.410	PPM
9)	H	Oil Combo (04-04-13)	22.000	2925865961	1458.716	PPM
10)	H	Oil Acid Clean Combo ...	22.000	2925865961	1500.354	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	812055069	318.971	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	2040233159	1875.637	PPM
13)	H	Mineral Oil (01-29-13)	16.000	1450346788	509.292	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	3445872793	2352.892	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	3445872793	2365.107	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	3445385171	43846.739	PPM
17)	H	Mineral Oil Combo (0...	16.000	701166498	259.545	PPM
18)	H	Oil Acid Clean MO Com...	22.000	2710100531	1437.645	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	2710100531	1397.721	PPM

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

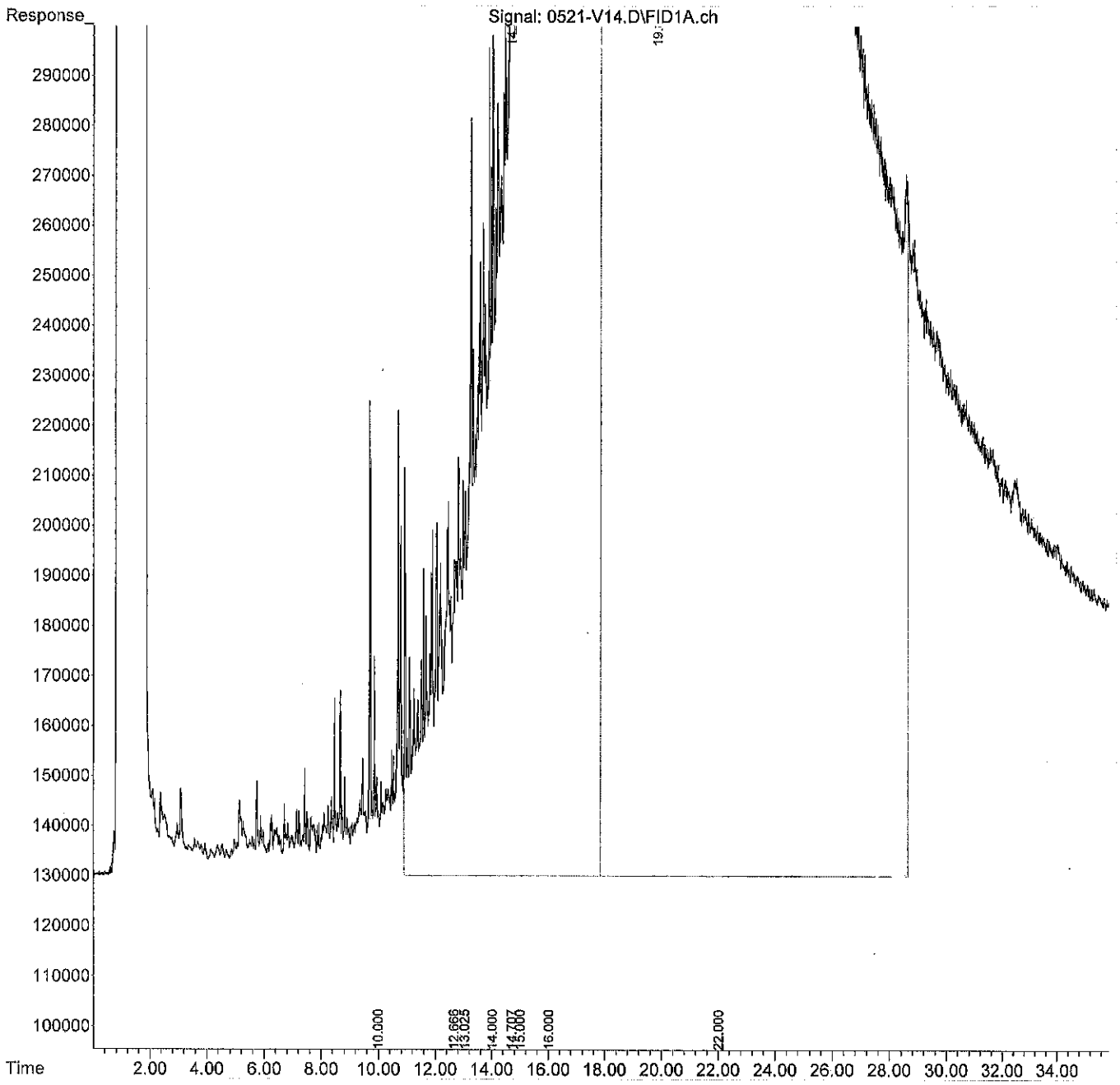
Quantitation Report (Not Reviewed)

Data File : 0521-V14.D
Sample : 05-146-20

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 22:01
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 22:37:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V62.D
Sample : 05-146-21

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 20:07
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:44:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.706	124293207	44.972	PPM
Spiked Amount	50.000		Recovery =	89.94%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11578445	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	26621528	12.685	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	28937213	11.667	PPM
6) H	Oil (04-04-13)	22.000	75614829	31.093	PPM
7) H	Oil Acid Clean (02-0...	22.000	75614829	30.328	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	25764298	10.534	PPM
9) H	Oil Combo (04-04-13)	22.000	72413463	30.255	PPM
10) H	Oil Acid Clean Combo ...	22.000	72413463	29.488	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	29958839	6.376	PPM
12) H	Alaska 103 Oil (06-2...	22.000	34799913	20.098	PPM
13) H	Mineral Oil (01-29-13)	16.000	27720762	7.258	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	97492383	37.739	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	97492383	24.788	PPM
16) H	ALKANE C9-C40	12.666	101498983	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	19151828	4.859	PPM
18) H	Oil Acid Clean MO Com...	22.000	69742764	29.165	PPM
19) H	Oil MO Combo (04-04-13)	22.000	69742764	29.922	PPM

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

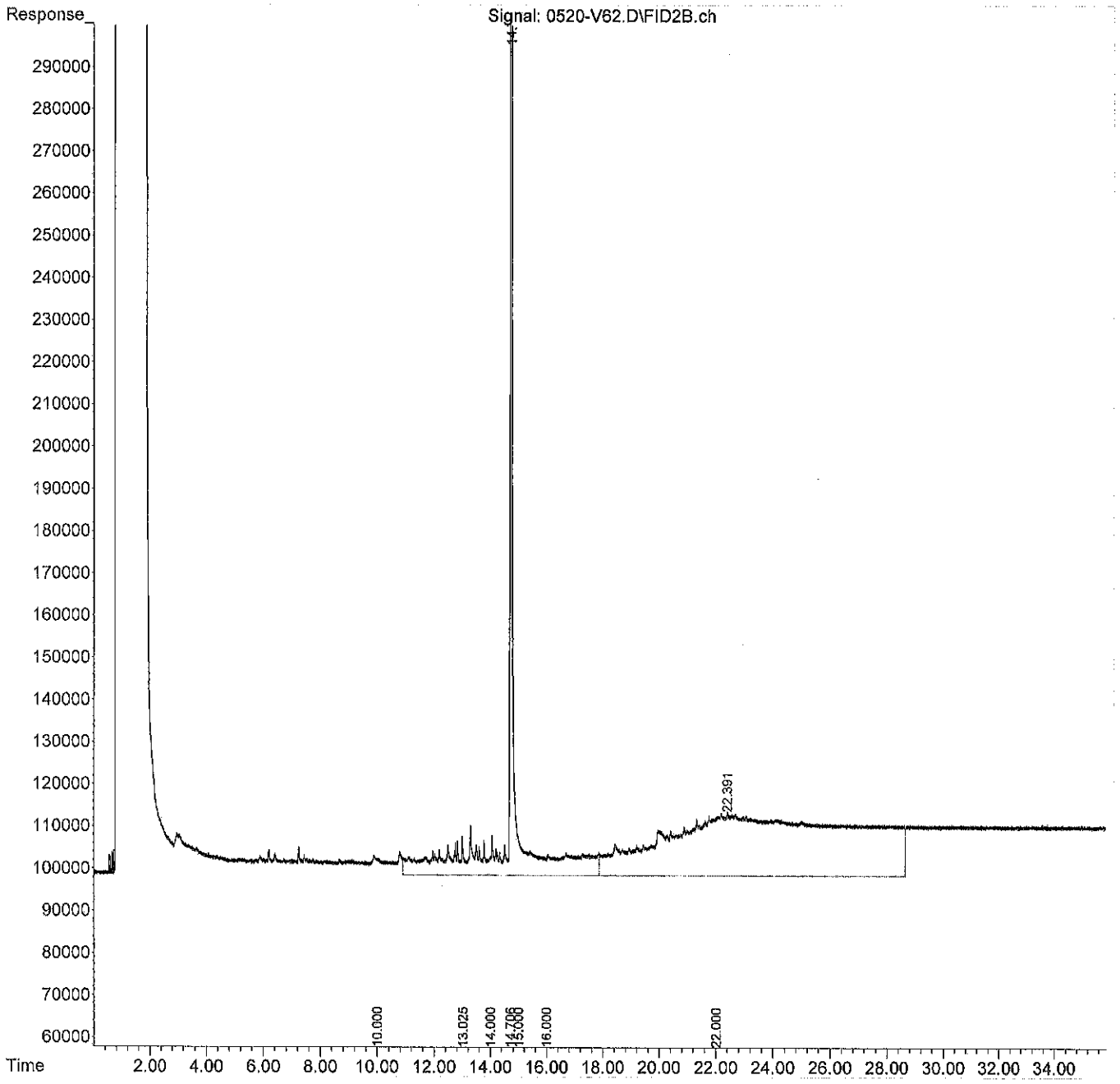
Quantitation Report (Not Reviewed)

Data File : 0520-V62.D
Sample : 05-146-21

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 20:07
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:44:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V12.D
Sample : 05-146-22,23,24 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 20:07
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:43:48 2013
Quant_Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.706	106569636	34.299 PPM
	Spiked Amount 50.000		Recovery =	68.60%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3)	H Gasoline	3.500	5107837	NoCal PPM
4)	H Diesel Fuel #1 (01-2...	10.000	27278030	12.244 PPM
5)	H Diesel Fuel #2 (01-...	14.000	31106012	11.982 PPM
6)	H Oil (04-04-13)	22.000	53617987	25.591 PPM
7)	H Oil Acid Clean (02-...	22.000	53617987	20.268 PPM
8)	H Diesel Fuel #2 Combo ...	14.000	28111381	11.014 PPM
9)	H Oil Combo (04-04-13)	22.000	50767307	25.036 PPM
10)	H Oil Acid Clean Combo ...	22.000	50767307	19.348 PPM
11)	H Alaska 102 DF2 (06-2...	13.025	31767006	9.983 PPM
12)	H Alaska 103 Oil (06-2...	22.000	26530902	17.030 PPM
13)	H Mineral Oil (01-29-13)	16.000	30359668	9.229 PPM
14)	H Bunker C-ACU (Fuel Oi...	15.000	78788359	33.736 PPM
15)	H Bunker C (Fuel Oil #6...	15.000	78788359	32.414 PPM
16)	H ALKANE C9-C40 10-26-07	12.666	80405241	1001.779 PPM
17)	H Mineral Oil Combo (0...	16.000	22117761	5.451 PPM
18)	H Oil Acid Clean MO Com...	22.000	48307809	18.736 PPM
19)	H Oil MO Combo (04-04-13)	22.000	48307809	24.806 PPM

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

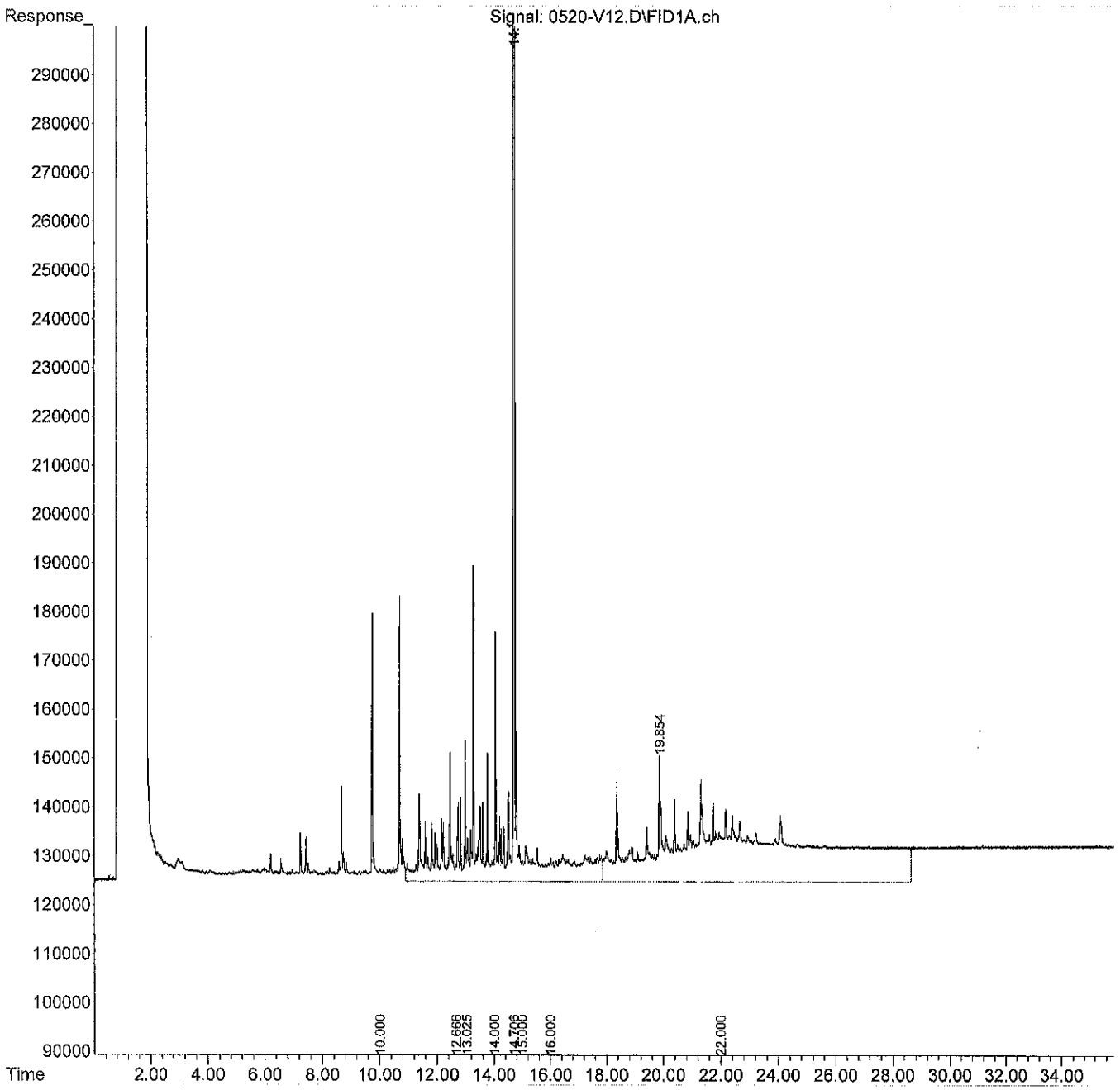
Quantitation Report (Not Reviewed)

Data File : 0520-V12.D
Sample : 05-146-22,23,24 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 20:07
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 20:43:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V78.D
Sample : 05-146-25

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 7:01
Operator :
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 07:37:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.704	116232923	42.025	PPM
Spiked Amount		50.000		Recovery =	84.05%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	16626867	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	95365708	42.704	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	188218172	85.095	PPM
6)	H	Oil (04-04-13)	22.000	830232038	435.078	PPM
7)	H	Oil Acid Clean (02-0...	22.000	830232038	442.354	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	134057130	61.517	PPM
9)	H	Oil Combo (04-04-13)	22.000	785263111	419.707	PPM
10)	H	Oil Acid Clean Combo ...	22.000	785263111	426.493	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	198765060	71.428	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	510690651	437.565	PPM
13)	H	Mineral Oil (01-29-13)	16.000	321998682	126.516	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	915918841	625.019	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	915918841	649.290	PPM
16)	H	ALKANE C9-C40	12.666	921463781	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	158001985	63.393	PPM
18)	H	Oil Acid Clean MO Com...	22.000	740139800	415.282	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	740139800	408.985	PPM

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

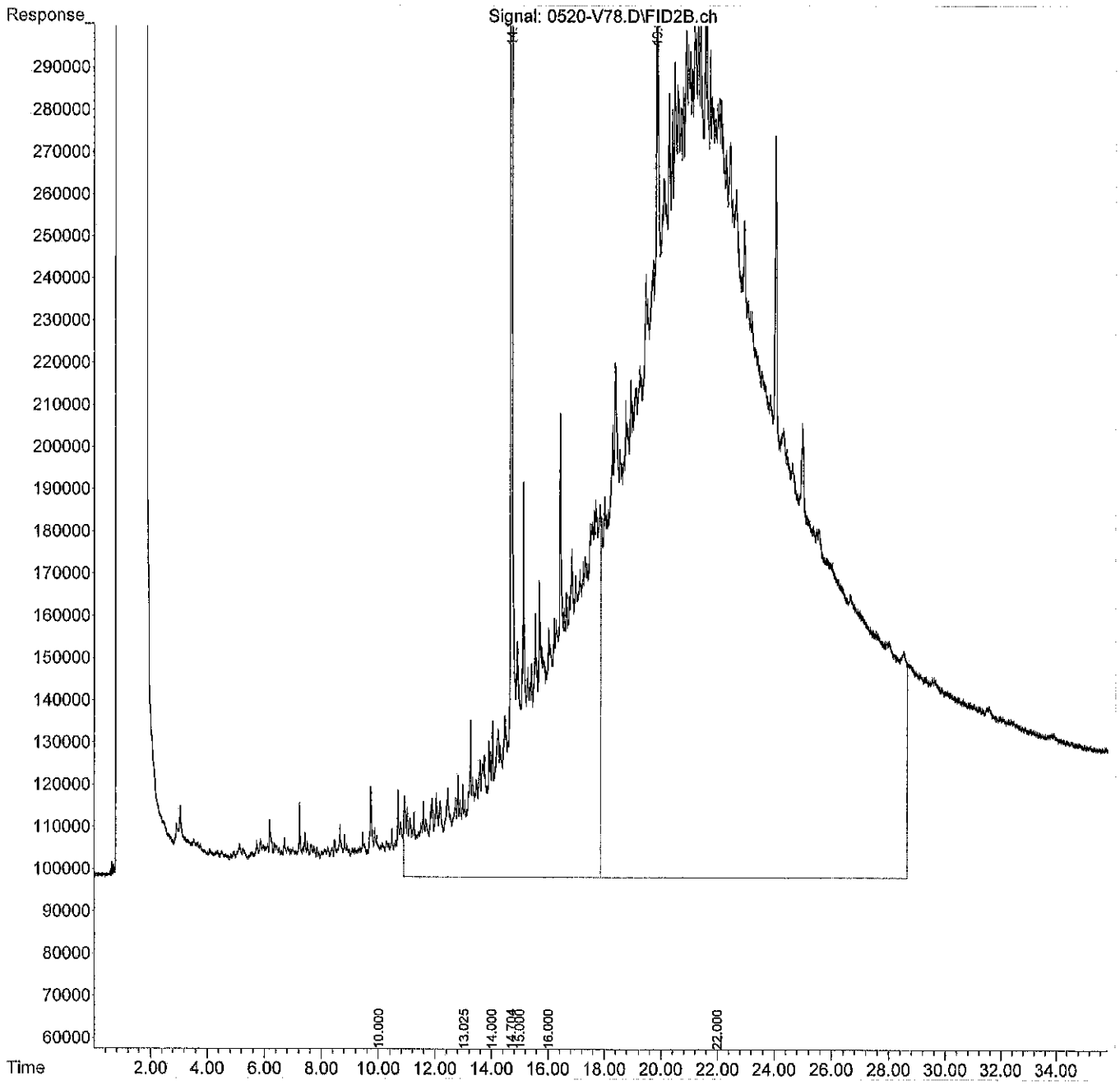
Quantitation Report (Not Reviewed)

Data File : 0520-V78.D
Sample : 05-146-25

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 7:01
Operator :
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 07:37:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V17.D
Sample : 05-146-26,27,28 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 22 May 2013 00:03
Operator :
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 00:39:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.707	126336293	40.709 PPM
Spiked Amount	50.000		Recovery =	81.42%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	6988545	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	426281829	171.724 PPM
5) H	Diesel Fuel #2 (01-...	14.000	659413255	272.435 PPM
6) H	Oil (04-04-13)	22.000	1650781663	806.660 PPM
7) H	Oil Acid Clean (02-...	22.000	1650781663	826.692 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	540795163	228.030 PPM
9) H	Oil Combo (04-04-13)	22.000	1533506856	764.410 PPM
10) H	Oil Acid Clean Combo ...	22.000	1533506856	783.129 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	672287892	263.624 PPM
12) H	Alaska 103 Oil (06-2...	22.000	1004061054	919.271 PPM
13) H	Mineral Oil (01-29-13)	16.000	887145091	310.955 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	2072331135	1406.834 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2072331135	1413.527 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2070025185	26334.824 PPM
17) H	Mineral Oil Combo (0...	16.000	571362517	210.974 PPM
18) H	Oil Acid Clean MO Com...	22.000	1434813789	757.834 PPM
19) H	Oil MO Combo (04-04-13)	22.000	1434813789	739.946 PPM

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

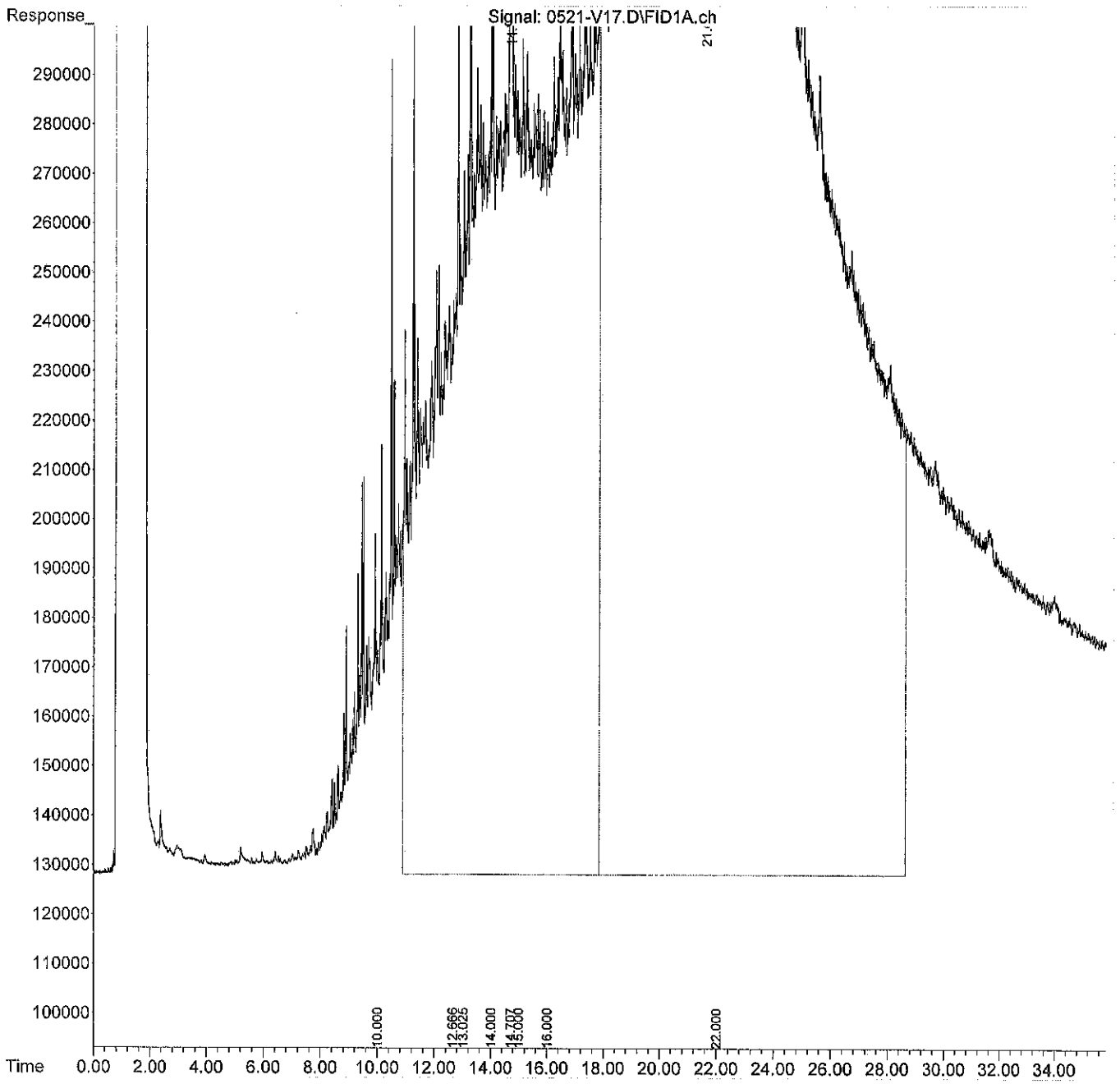
Quantitation Report (Not Reviewed)

Data File : 0521-V17.D
Sample : 05-146-26,27,28 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 22 May 2013 00:03
Operator :
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 00:39:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V56.D
Sample : 05-146-28 RR

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 12:57
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 13:33:30 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.703	125389876	45.372	PPM
Spiked Amount	50.000		Recovery =	90.74%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13432882	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	553111059	242.594	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	839022513	385.110	PPM
6) H	Oil (04-04-13)	22.000	1815232589	962.400	PPM
7) H	Oil Acid Clean (02-0...	22.000	1815232589	980.172	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	697757811	326.901	PPM
9) H	Oil Combo (04-04-13)	22.000	1665981723	900.871	PPM
10) H	Oil Acid Clean Combo ...	22.000	1665981723	916.989	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	861766964	326.923	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1071451556	929.482	PPM
13) H	Mineral Oil (01-29-13)	16.000	1063028953	426.824	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	2356680897	1658.869	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	2356680897	1748.666	PPM
16) H	ALKANE C9-C40	12.666	2359951406	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	726572212	303.081	PPM
18) H	Oil Acid Clean MO Com...	22.000	1547293707	880.166	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1547293707	865.373	PPM

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

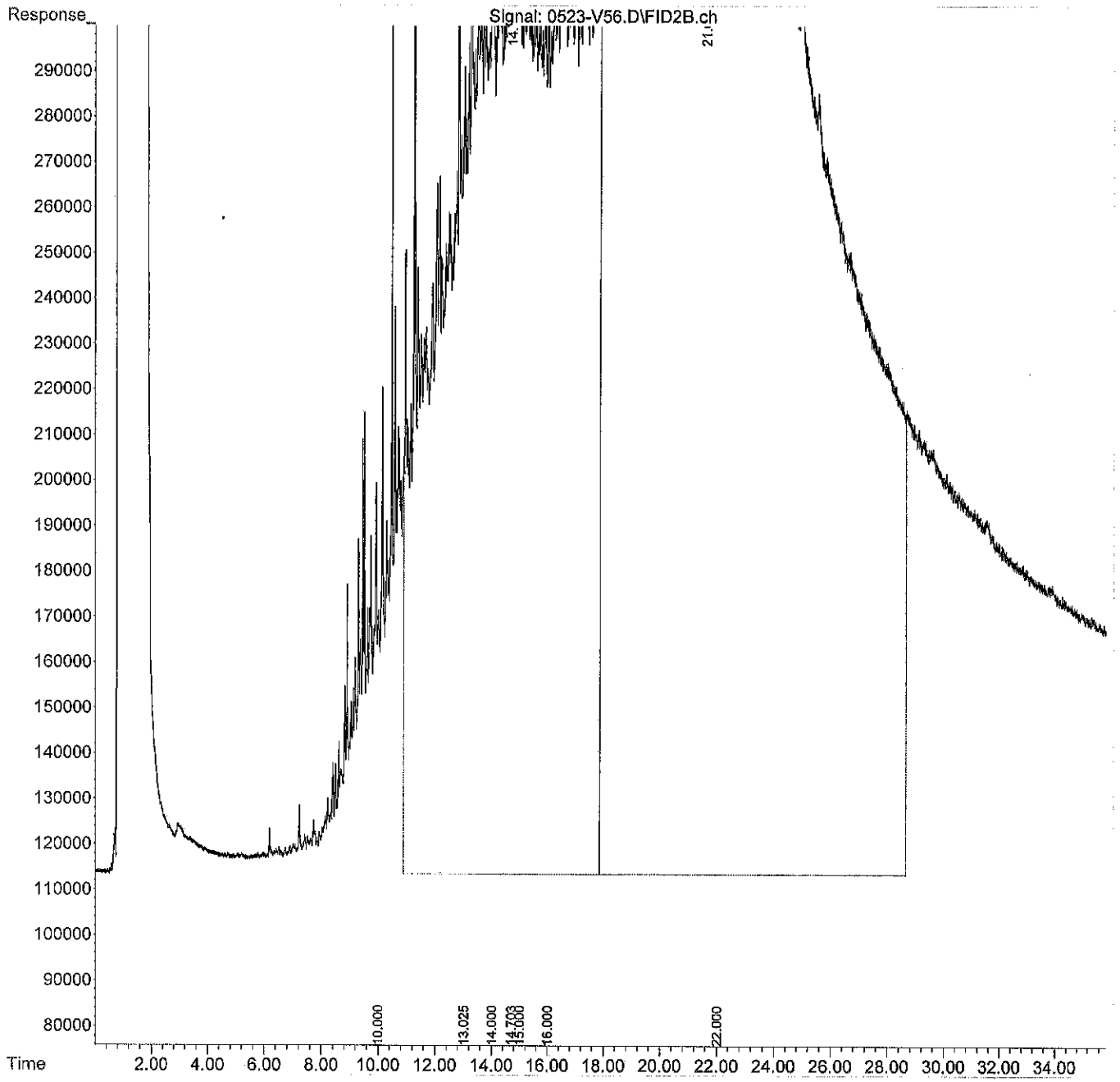
Quantitation Report (Not Reviewed)

Data File : 0523-V56.D
Sample : 05-146-28 RR

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 12:57
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 13:33:30 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V14.D
Sample : 05-146-29

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 21:29
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 22:05:40 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.712	147958555	47.721	PPM
Spiked Amount		50.000		Recovery =	95.44%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5906585	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	22455733	10.316	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	29440032	11.292	PPM
6)	H	Oil (04-04-13)	22.000	96918081	46.767	PPM
7)	H	Oil Acid Clean (02-...	22.000	96918081	42.130	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	24229858	9.370	PPM
9)	H	Oil Combo (04-04-13)	22.000	93046978	46.119	PPM
10)	H	Oil Acid Clean Combo ...	22.000	93046978	41.127	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	30202706	9.364	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	68628492	55.885	PPM
13)	H	Mineral Oil (01-29-13)	16.000	65331425	21.545	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	117233036	60.216	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	117233036	59.048	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	119058763	1493.939	PPM
17)	H	Mineral Oil Combo (0...	16.000	22336768	5.533	PPM
18)	H	Oil Acid Clean MO Com...	22.000	88453242	40.136	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	88453242	45.513	PPM

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

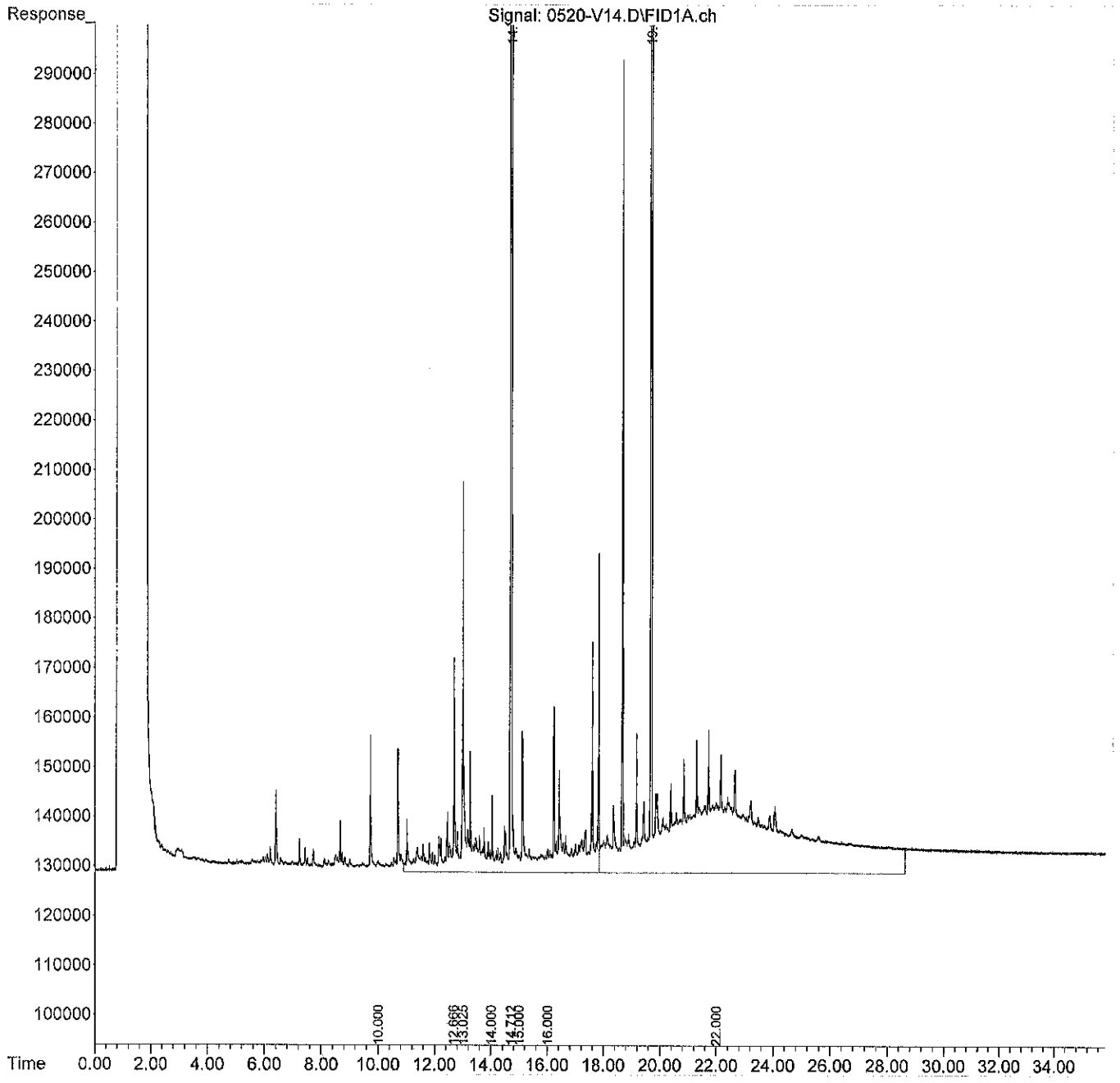
Quantitation Report (Not Reviewed)

Data File : 0520-V14.D
Sample : 05-146-29

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 21:29
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 22:05:40 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V67.D
Sample : 05-146-30,31,32 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 22 May 2013 00:03
Operator :
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 00:39:51 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.702	108889520	39.340	PPM
Spiked Amount	50.000		Recovery =	78.68%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	16516500	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	500905459	219.797	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	929804566	426.960	PPM
6) H	Oil (04-04-13)	22.000	2277089486	1209.655	PPM
7) H	Oil Acid Clean (02-0...	22.000	2277089486	1232.349	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	700200586	328.051	PPM
9) H	Oil Combo (04-04-13)	22.000	2071539294	1122.440	PPM
10) H	Oil Acid Clean Combo ...	22.000	2071539294	1142.855	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	968178371	367.930	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1378880419	1199.169	PPM
13) H	Mineral Oil (01-29-13)	16.000	1323043473	532.197	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	2765024908	1951.885	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	2765024908	2060.253	PPM
16) H	ALKANE C9-C40	12.666	2769872317	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	786219247	328.226	PPM
18) H	Oil Acid Clean MO Com...	22.000	1878825847	1071.113	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1878825847	1052.832	PPM

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

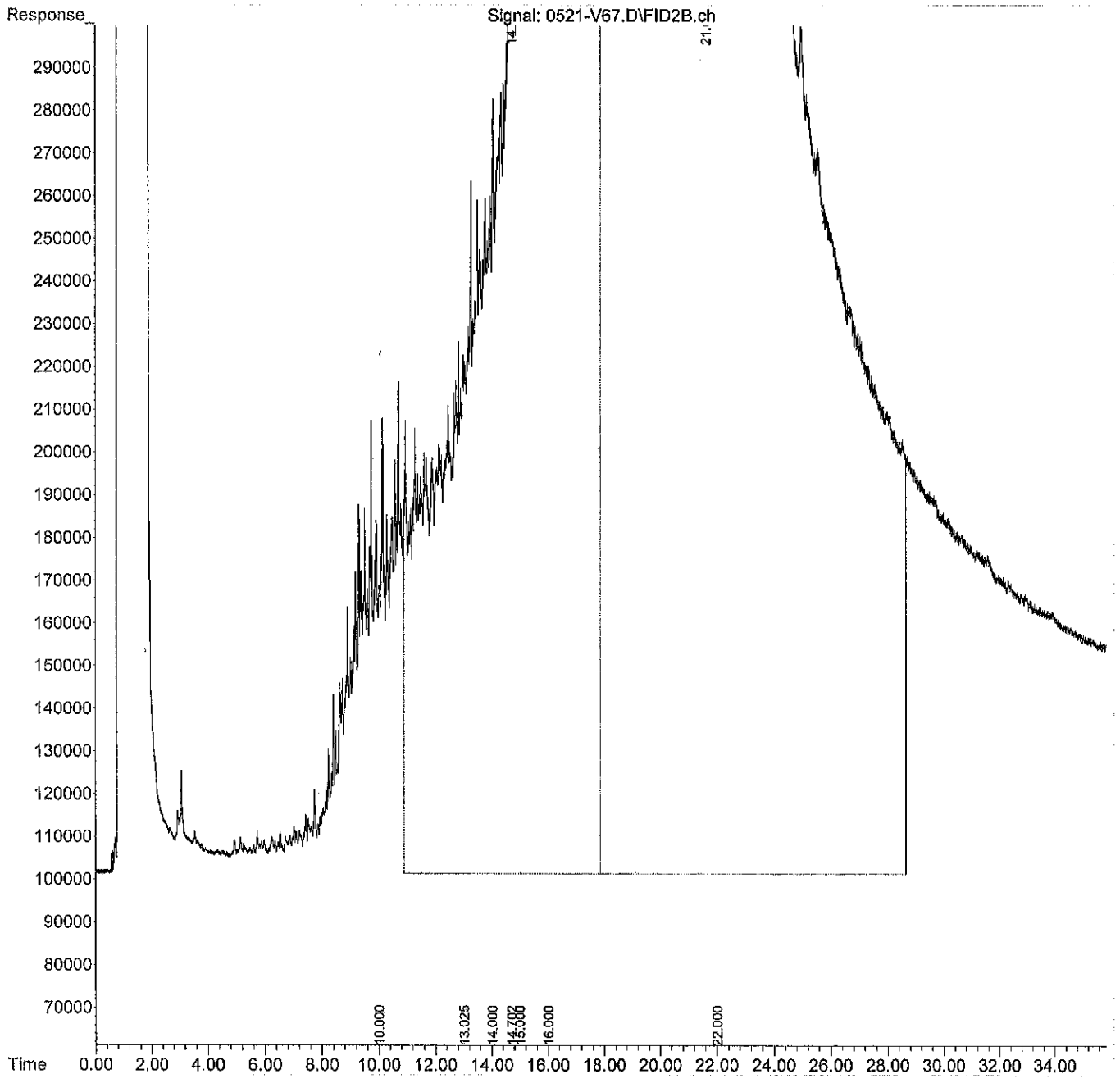
Quantitation Report (Not Reviewed)

Data File : 0521-V67.D
Sample : 05-146-30,31,32 COMP.

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 22 May 2013 00:03
Operator :
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 00:39:51 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V16.D
Sample : 05-146-33

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 22:51
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 23:27:27 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.705	99197443	31.908	PPM
Spiked Amount 50.000				Recovery =	63.82%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	4891249	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	21639179	9.990	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	35959401	13.994	PPM
6)	H	Oil (04-04-13)	22.000	125747793	60.865	PPM
7)	H	Oil Acid Clean (02-...	22.000	125747793	56.687	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	27292430	10.667	PPM
9)	H	Oil Combo (04-04-13)	22.000	118284372	58.704	PPM
10)	H	Oil Acid Clean Combo ...	22.000	118284372	54.127	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	37220489	12.143	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	78559555	65.051	PPM
13)	H	Mineral Oil (01-29-13)	16.000	55755082	18.172	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	145472991	79.667	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	145472991	78.613	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	146906047	1848.507	PPM
17)	H	Mineral Oil Combo (0...	16.000	29334703	8.151	PPM
18)	H	Oil Acid Clean MO Com...	22.000	111156430	52.238	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	111156430	57.222	PPM

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

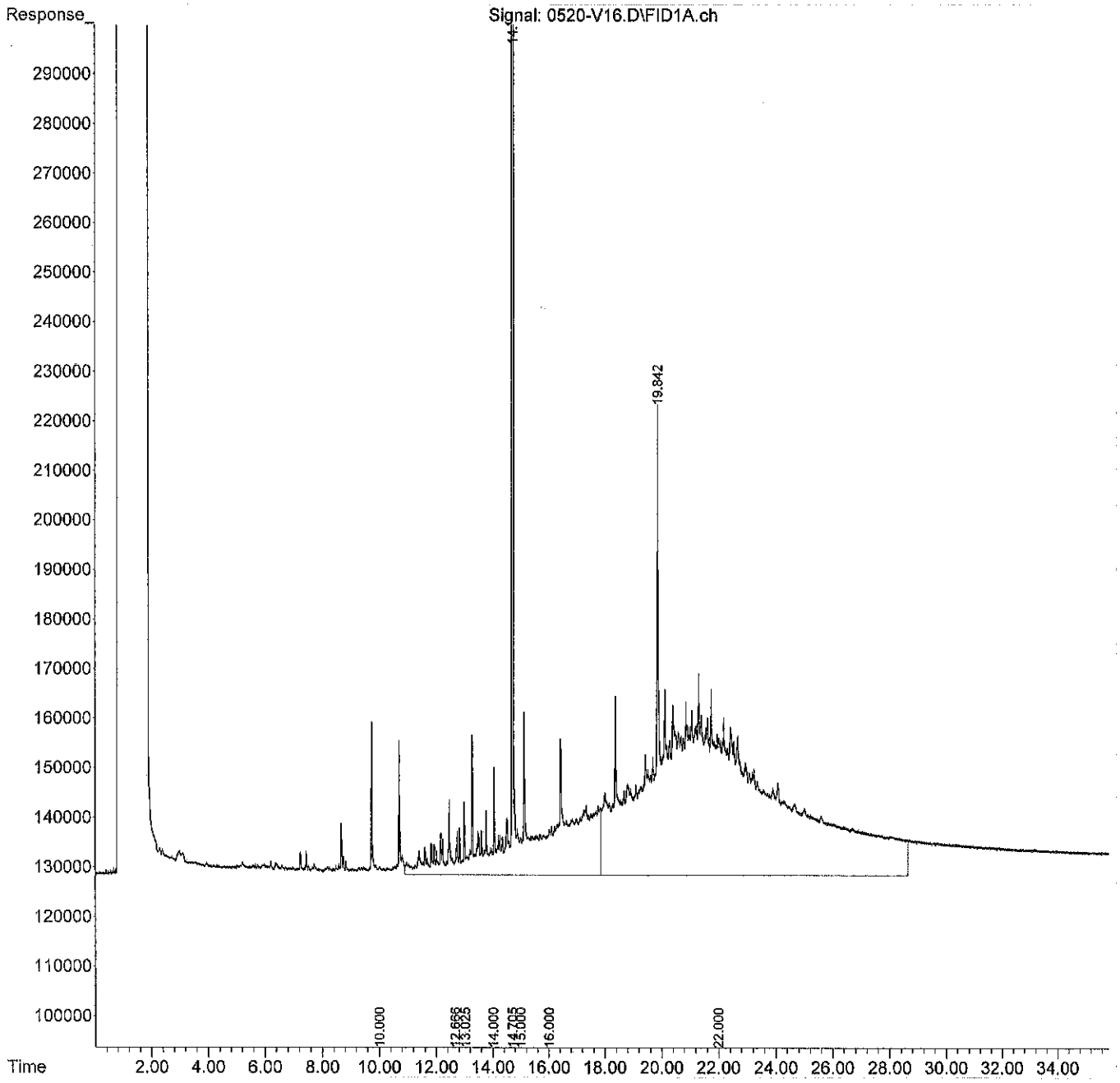
Quantitation Report (Not Reviewed)

Data File : 0520-V16.D
Sample : 05-146-33

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 22:51
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 23:27:27 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V08.D
Sample : 05-146-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 14:19
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 14:55:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.695	30451350	9.614	PPM
Spiked Amount		50.000		Recovery =	19.23%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8940558	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	81224155	33.806	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	185815966	76.115	PPM
6)	H	Oil (04-04-13)	22.000	820097152	400.426	PPM
7)	H	Oil Acid Clean (02-...	22.000	820097152	407.271	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	125785256	52.358	PPM
9)	H	Oil Combo (04-04-13)	22.000	771621832	384.493	PPM
10)	H	Oil Acid Clean Combo ...	22.000	771621832	390.671	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	192993027	73.827	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	517482823	470.169	PPM
13)	H	Mineral Oil (01-29-13)	16.000	336345538	116.985	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	896633426	597.046	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	896633426	599.012	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	898251767	11415.096	PPM
17)	H	Mineral Oil Combo (0...	16.000	163538727	58.369	PPM
18)	H	Oil Acid Clean MO Com...	22.000	721751885	377.725	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	721751885	372.159	PPM

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

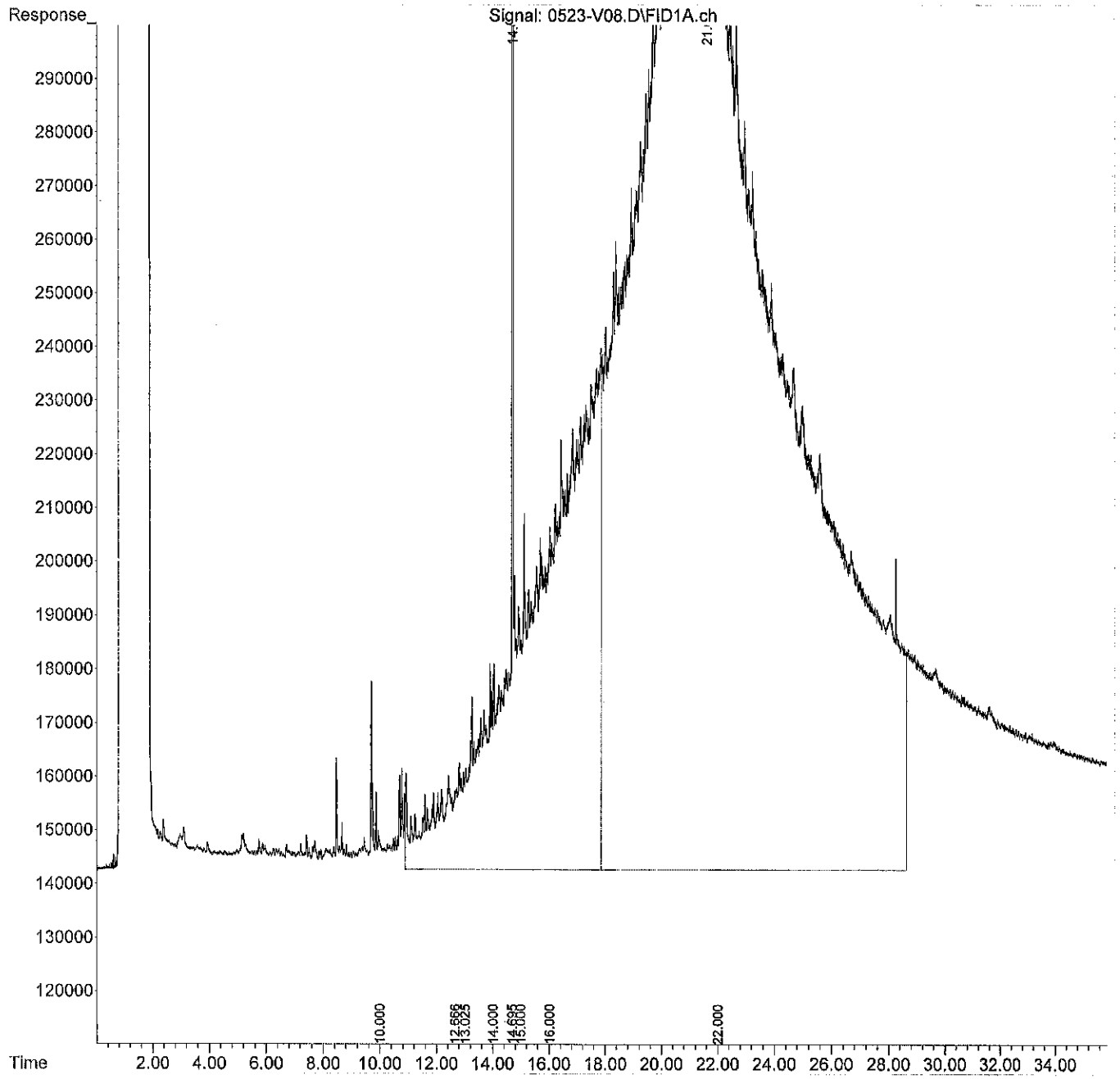
Quantitation Report (Not Reviewed)

Data File : 0523-V08.D
Sample : 05-146-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 14:19
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 14:55:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V59.D
Sample : MB0520S2

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 18:05
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 18:41:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.709	127751593	46.236	PPM
Spiked Amount	50.000		Recovery =	92.47%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11650849	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	25300979	12.108	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	26512284	10.549	PPM
6) H	Oil (04-04-13)	22.000	63964299	24.856	PPM
7) H	Oil Acid Clean (02-0...	22.000	63964299	23.966	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	23944838	9.677	PPM
9) H	Oil Combo (04-04-13)	22.000	61232870	24.146	PPM
10) H	Oil Acid Clean Combo ...	22.000	61232870	23.261	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	27691983	5.503	PPM
12) H	Alaska 103 Oil (06-2...	22.000	26879461	13.150	PPM
13) H	Mineral Oil (01-29-13)	16.000	22374948	5.092	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	84580048	28.473	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	84580048	14.935	PPM
16) H	ALKANE C9-C40	12.666	88636033	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	16168470	3.601	PPM
18) H	Oil Acid Clean MO Com...	22.000	59170933	23.076	PPM
19) H	Oil MO Combo (04-04-13)	22.000	59170933	23.945	PPM

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

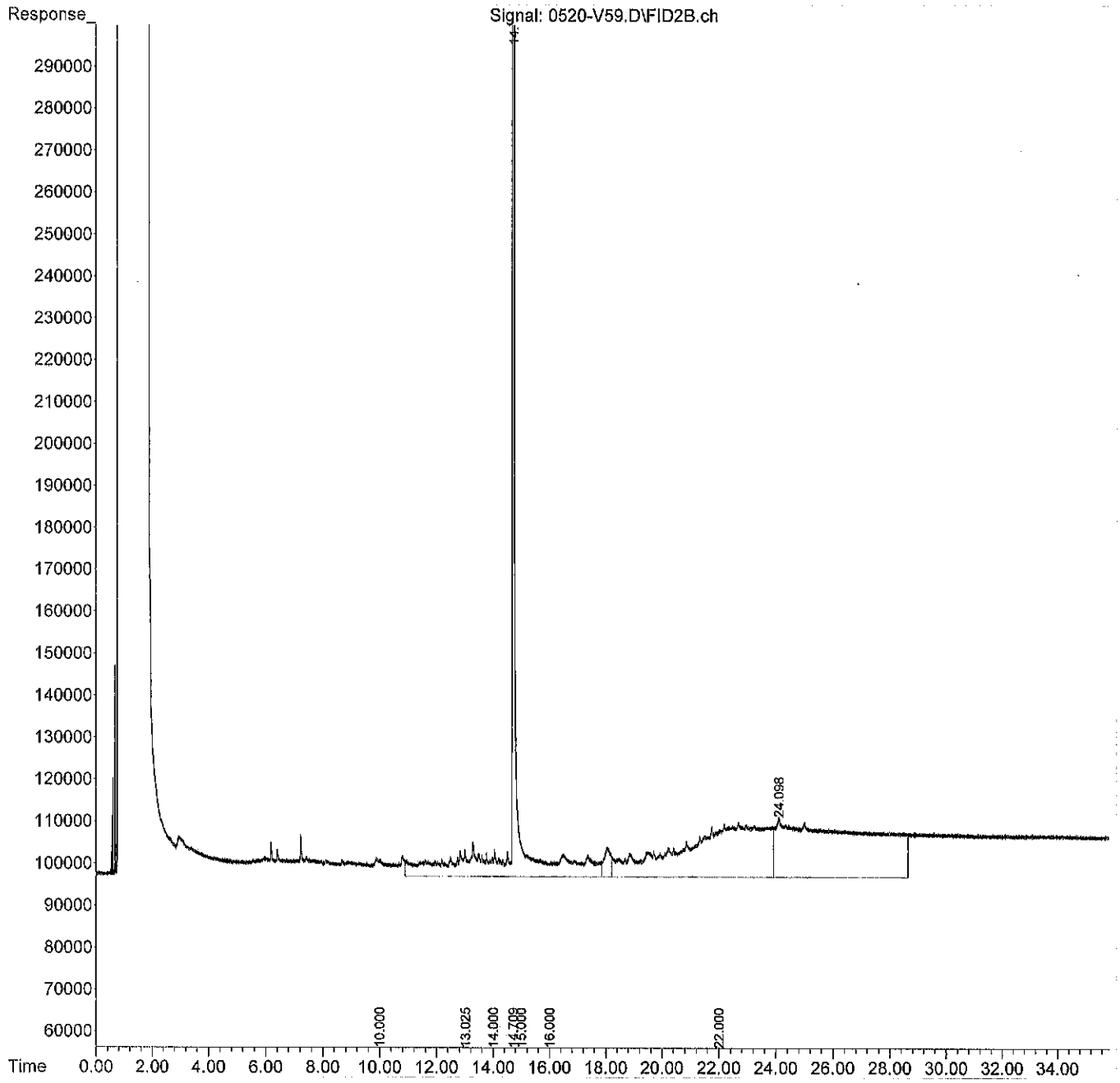
Quantitation Report (Not Reviewed)

Data File : 0520-V59.D
Sample : MB0520S2

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 18:05
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 18:41:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V10.D
Sample : MB0520S3

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 18:45
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 19:22:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.711	145514216	46.928	PPM
Spiked Amount		50.000		Recovery =	93.86%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6345327	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	20035260	9.349	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	20522875	7.595	PPM
6)	H	Oil (04-04-13)	22.000	28705340	13.408	PPM
7)	H	Oil Acid Clean (02-...	22.000	28705340	7.689	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	19156355	7.223	PPM
9)	H	Oil Combo (04-04-13)	22.000	27219558	13.294	PPM
10)	H	Oil Acid Clean Combo ...	22.000	27219558	7.218	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	21098828	5.759	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	12846944	4.400	PPM
13)	H	Mineral Oil (01-29-13)	16.000	15263706	3.913	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	46365697	11.405	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	46365697	9.952	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	48480170	595.290	PPM
17)	H	Mineral Oil Combo (0...	16.000	12253152	1.759	PPM
18)	H	Oil Acid Clean MO Com...	22.000	26058671	6.875	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	26058671	13.330	PPM

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

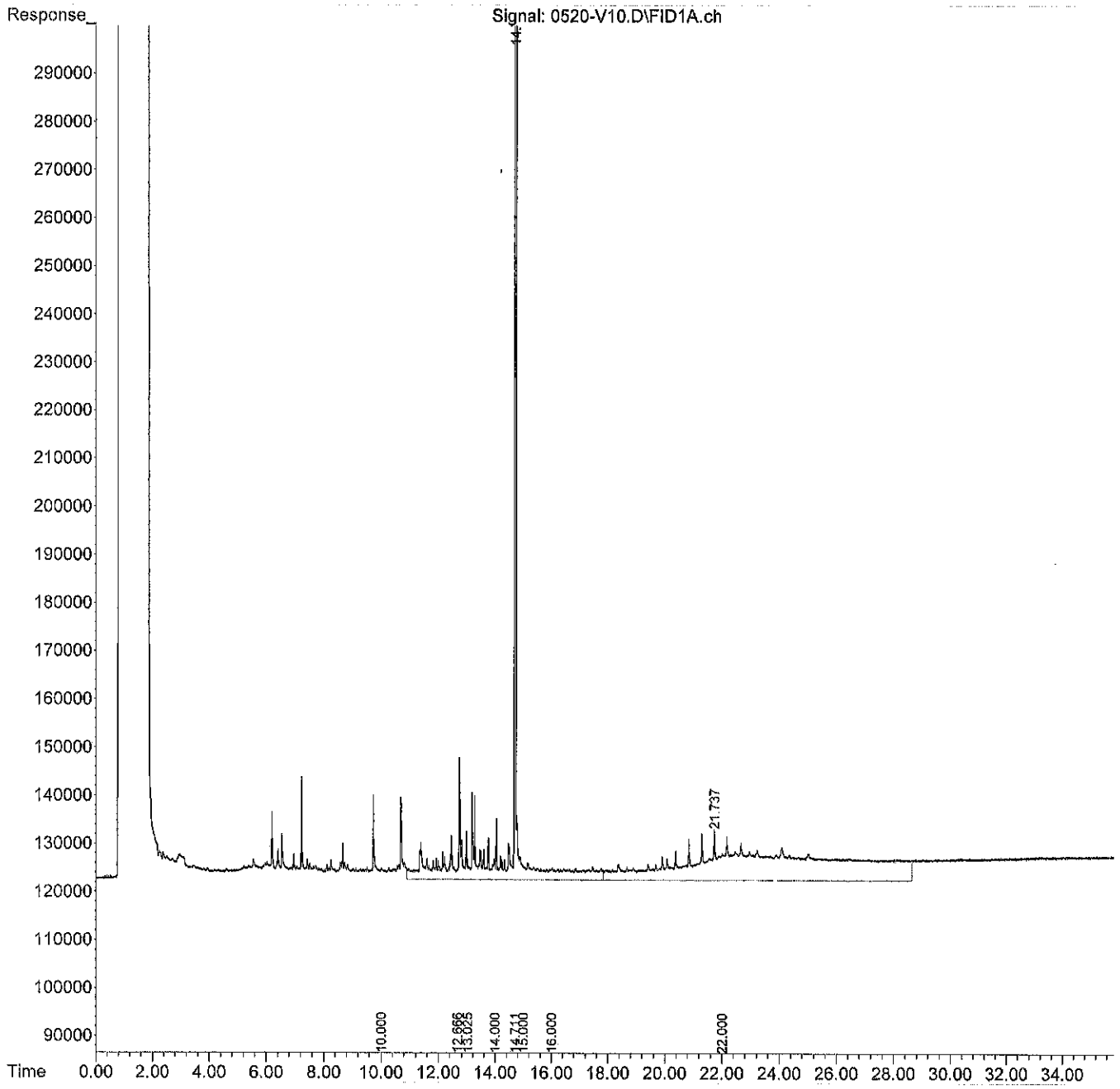
Quantitation Report (Not Reviewed)

Data File : 0520-V10.D
Sample : MB0520S3

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 18:45
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 19:22:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V63.D
Sample : MB0520S3 ACU

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 20:48
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 21:25:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.710	141584634	51.293 PPM
Spiked Amount	50.000		Recovery =	102.59%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	16001922	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	23027643	11.116 PPM
5) H	Diesel Fuel #2 (01-2...	14.000	20363627	7.715 PPM
6) H	Oil (04-04-13)	22.000	51435238	18.148 PPM
7) H	Oil Acid Clean (02-0...	22.000	51435238	17.125 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	18871327	7.288 PPM
9) H	Oil Combo (04-04-13)	22.000	49702743	17.847 PPM
10) H	Oil Acid Clean Combo ...	22.000	49702743	16.840 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	21213164	3.006 PPM
12) H	Alaska 103 Oil (06-2...	22.000	20642714	7.679 PPM
13) H	Mineral Oil (01-29-13)	16.000	15625670	2.357 PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	68050341	16.612 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	68050341	2.322 PPM
16) H	ALKANE C9-C40	12.666	74037786	NoCal PPM
17) H	Mineral Oil Combo (01...	16.000	12111391	1.891 PPM
18) H	Oil Acid Clean MO Com...	22.000	48446523	16.899 PPM
19) H	Oil MO Combo (04-04-13)	22.000	48446523	17.881 PPM

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

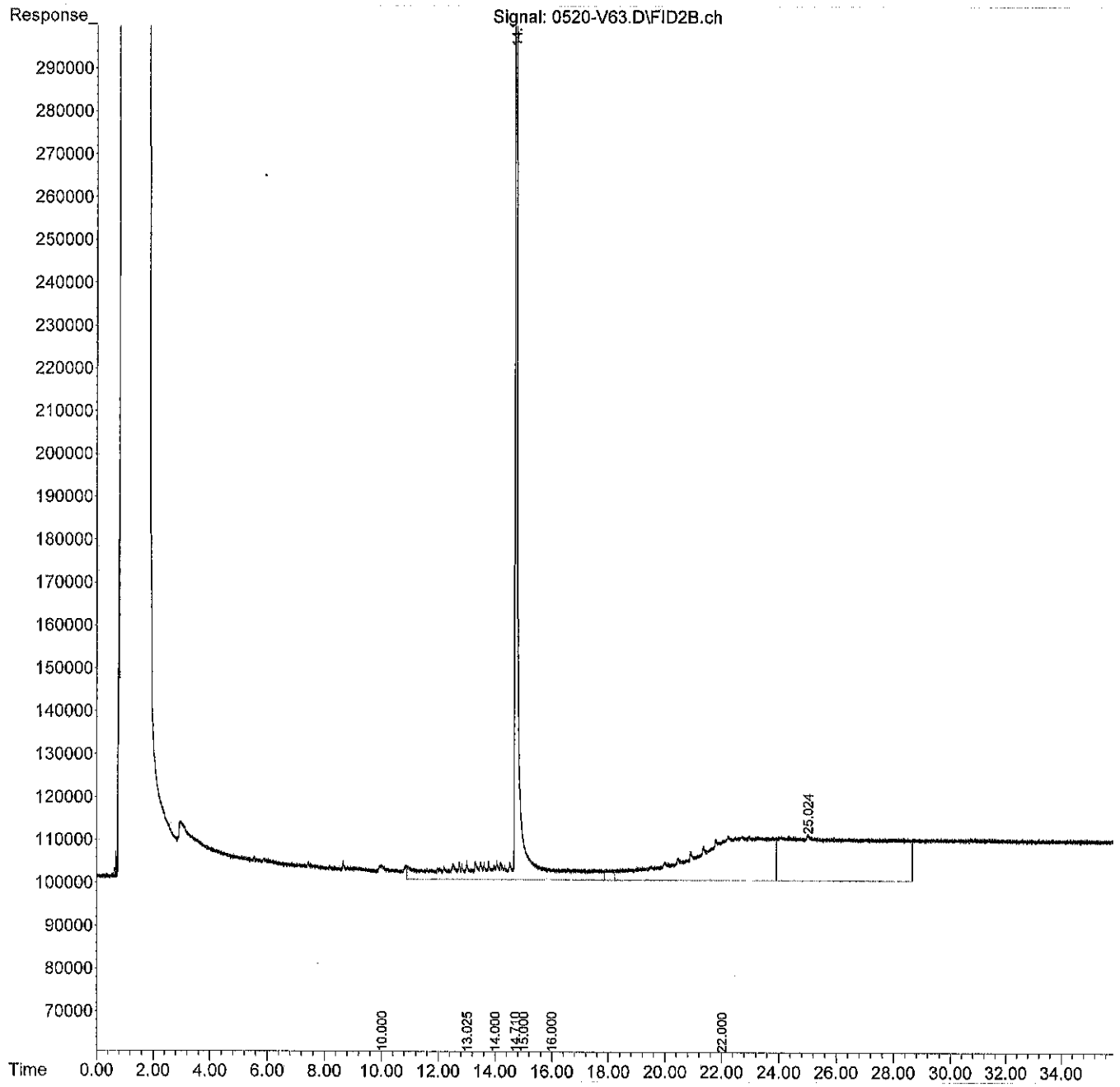
Quantitation Report (Not Reviewed)

Data File : 0520-V63.D
Sample : MB0520S3 ACU

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 20:48
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 21:25:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V56.D
Sample : 05-146-01 RR DUP

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 16:34
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 17:10:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.704	115027196	41.584	PPM
Spiked Amount		50.000		Recovery =	83.17%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	14111680	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	72592833	32.760	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	149160156	67.089	PPM
6)	H	Oil (04-04-13)	22.000	819461565	429.312	PPM
7)	H	Oil Acid Clean (02-0...	22.000	819461565	436.473	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	103843528	47.292	PPM
9)	H	Oil Combo (04-04-13)	22.000	782974623	418.457	PPM
10)	H	Oil Acid Clean Combo ...	22.000	782974623	425.219	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	158265688	55.821	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	496782686	425.364	PPM
13)	H	Mineral Oil (01-29-13)	16.000	273455121	106.844	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	882837159	601.280	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	882837159	624.047	PPM
16)	H	ALKANE C9-C40	12.666	887299765	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	126543525	50.131	PPM
18)	H	Oil Acid Clean MO Com...	22.000	745505723	418.373	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	745505723	412.019	PPM

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

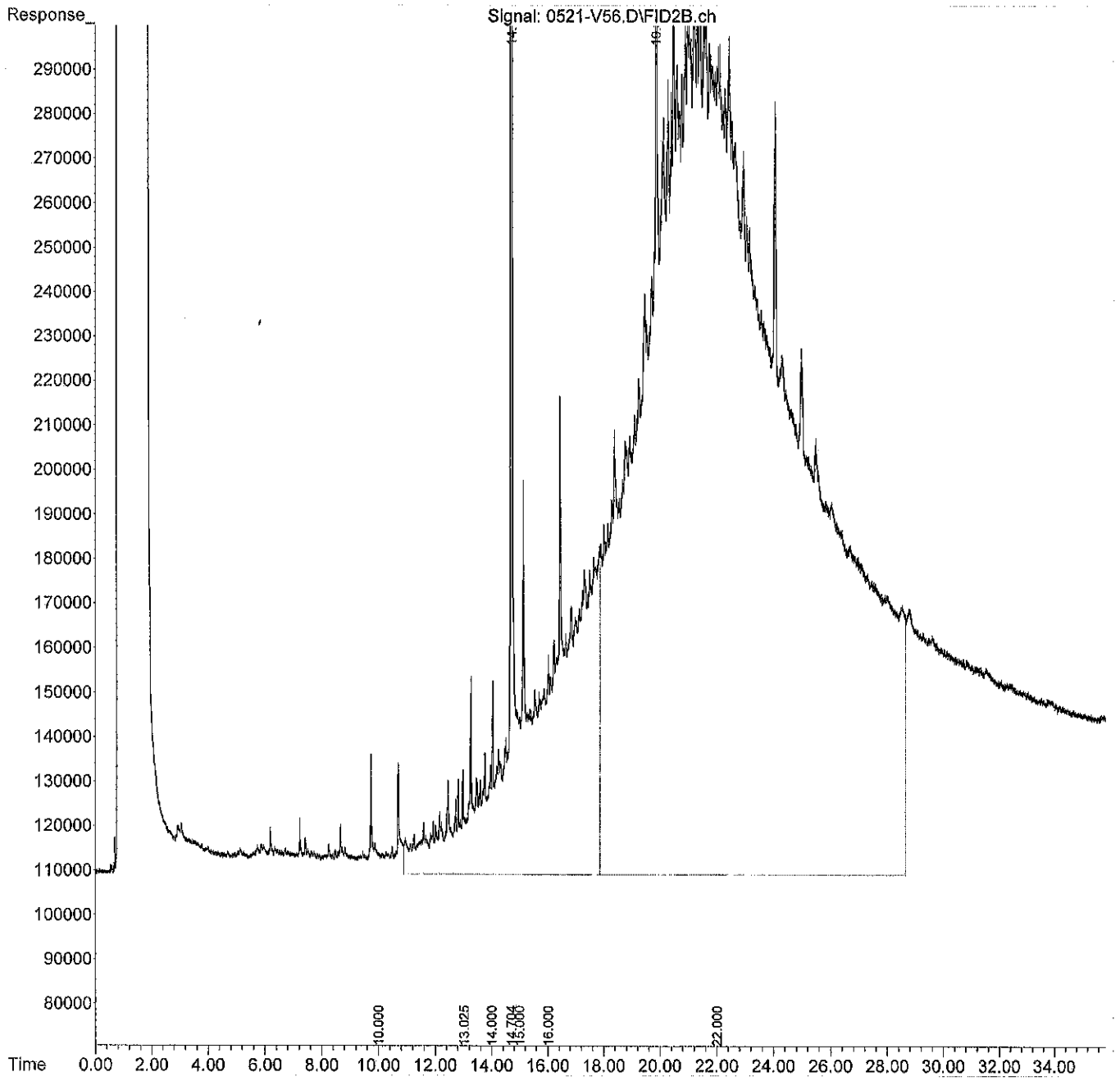
Quantitation Report (Not Reviewed)

Data File : 0521-V56.D
Sample : 05-146-01 RR DUP

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 16:34
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 17:10:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V74.D
Sample : 05-146-05 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 4:18
Operator :
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 04:54:34 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.702	93383049	33.671	PPM
Spiked Amount	50.000		Recovery =	67.34%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12148701	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	38339723	17.802	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	70167311	30.674	PPM
6) H	Oil (04-04-13)	22.000	379239478	193.639	PPM
7) H	Oil Acid Clean (02-0...	22.000	379239478	196.109	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	48913204	21.432	PPM
9) H	Oil Combo (04-04-13)	22.000	364345339	189.746	PPM
10) H	Oil Acid Clean Combo ...	22.000	364345339	192.073	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	74852678	23.677	PPM
12) H	Alaska 103 Oil (06-2...	22.000	232361726	193.405	PPM
13) H	Mineral Oil (01-29-13)	16.000	127433174	47.667	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	411440894	263.020	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	411440894	264.347	PPM
16) H	ALKANE C9-C40	12.666	415450249	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	55347929	20.118	PPM
18) H	Oil Acid Clean MO Com...	22.000	346918219	188.805	PPM
19) H	Oil MO Combo (04-04-13)	22.000	346918219	186.646	PPM

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

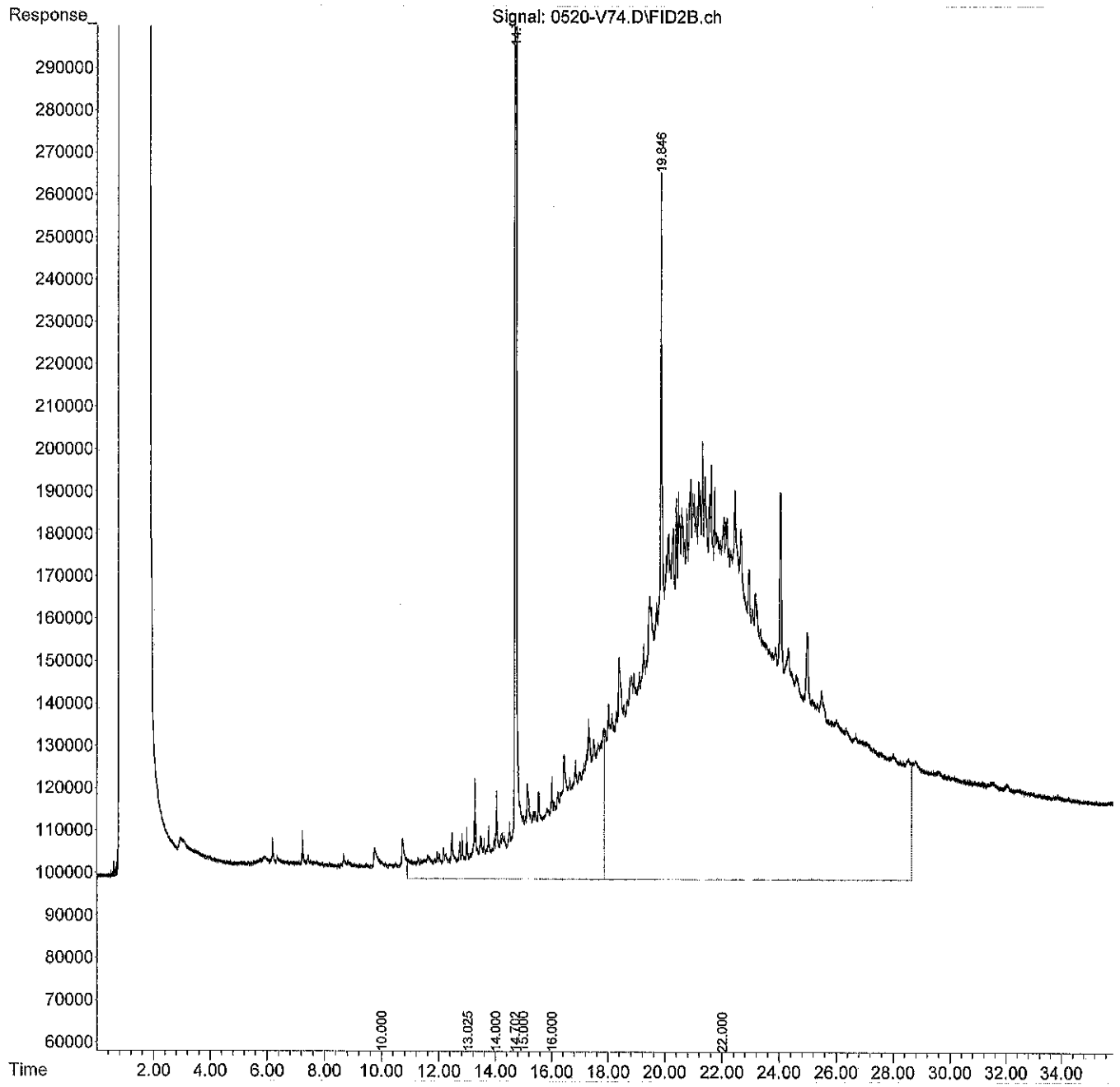
Quantitation Report (Not Reviewed)

Data File : 0520-V74.D
Sample : 05-146-05 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 4:18
Operator :
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 04:54:34 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V13.D
Sample : 05-146-22,23,24 COMP. DUP

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 20:48
Operator :
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 21:24:45 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.706	106046357	34.129 PPM
	Spiked Amount 50.000		Recovery =	68.26%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	5283777	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	19501414	9.135 PPM
5) H	Diesel Fuel #2 (01-...	14.000	22872684	8.569 PPM
6) H	Oil (04-04-13)	22.000	45307066	21.527 PPM
7) H	Oil Acid Clean (02-...	22.000	45307066	16.071 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	20006251	7.583 PPM
9) H	Oil Combo (04-04-13)	22.000	42815660	21.071 PPM
10) H	Oil Acid Clean Combo ...	22.000	42815660	15.252 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	23535594	6.724 PPM
12) H	Alaska 103 Oil (06-2...	22.000	24300493	14.971 PPM
13) H	Mineral Oil (01-29-13)	16.000	23883283	6.948 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	62770284	22.704 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	62770284	21.317 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	64500365	799.268 PPM
17) H	Mineral Oil Combo (0...	16.000	15789944	3.083 PPM
18) H	Oil Acid Clean MO Com...	22.000	40740148	14.702 PPM
19) H	Oil MO Combo (04-04-13)	22.000	40740148	20.903 PPM

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

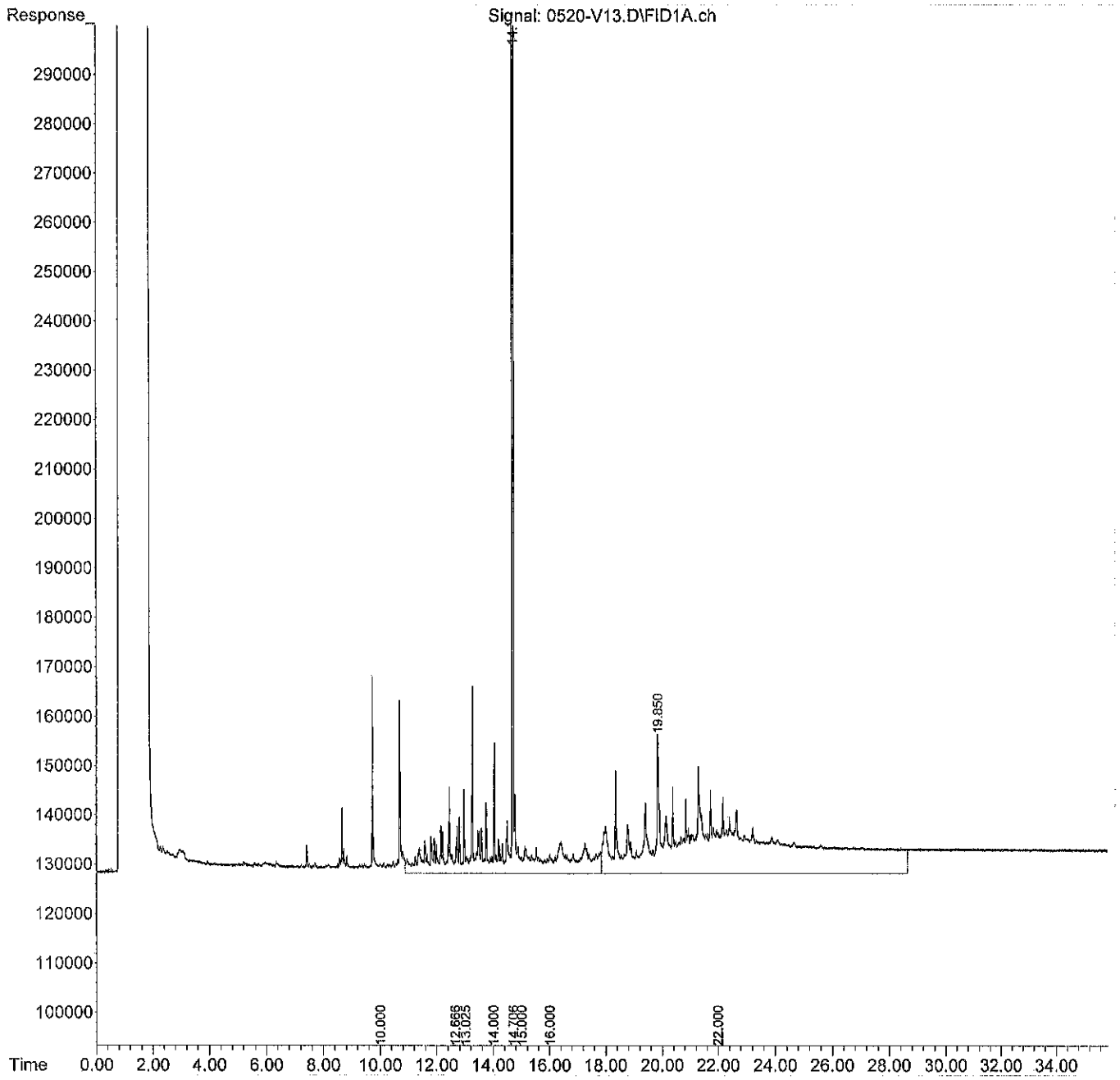
Quantitation Report (Not Reviewed)

Data File : 0520-V13.D
Sample : 05-146-22,23,24 COMP. DUP

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 20:48
Operator :
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 21:24:45 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V08.D
Sample : BUNKC0520F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 17:16
Operator :
Misc : SV3-05-05
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 17:52:13 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5106507	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	56741780	24.020	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	77586450	31.250	PPM
6)	H	Oil (04-04-13)	22.000	103169885	49.824	PPM
7)	H	Oil Acid Clean (02-...	22.000	103169885	45.287	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66381538	27.213	PPM
9)	H	Oil Combo (04-04-13)	22.000	91488846	45.342	PPM
10)	H	Oil Acid Clean Combo ...	22.000	91488846	40.324	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	79012966	28.692	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	56067496	44.292	PPM
13)	H	Mineral Oil (01-29-13)	16.000	83197968	27.837	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	157840614	88.185	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	157840614	87.181	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	159458413	2008.332	PPM
17)	H	Mineral Oil Combo (0...	16.000	59656963	19.498	PPM
18)	H	Oil Acid Clean MO Com...	22.000	81937219	36.662	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	81937219	42.152	PPM

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

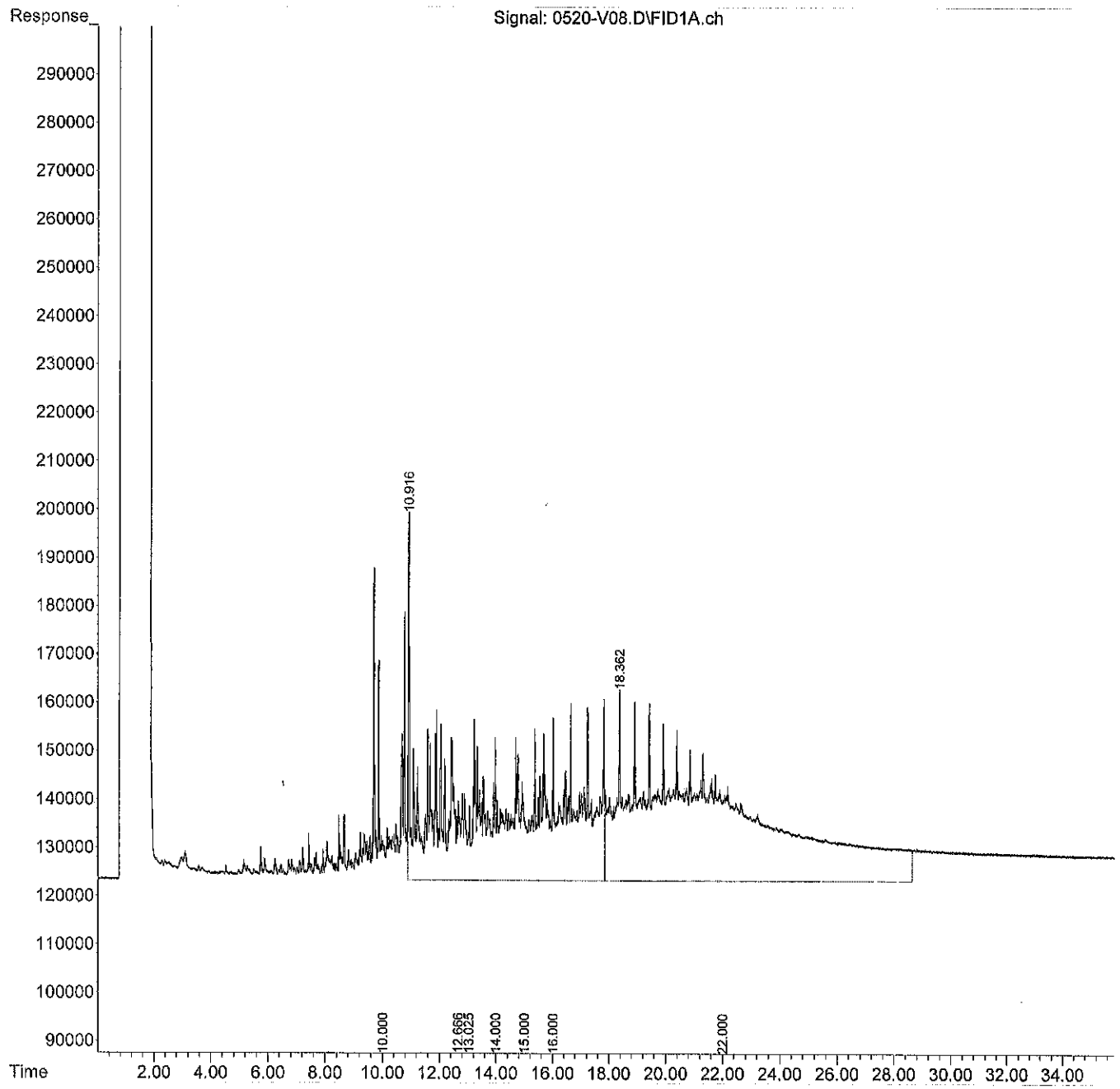
Quantitation Report (Not Reviewed)

Data File : 0520-V08.D
Sample : BUNKC0520F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 20 May 2013 17:16
Operator :
Misc : SV3-05-05
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 17:52:13 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed).

Data File : 0520-V20.D
Sample : BUNKER5020F-V5

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 1:35
Operator :
Misc : SV3-05-04
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 02:11:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.677	1436036	0.204	PPM
Spiked Amount		50.000		Recovery =	0.41%	
		Target Compounds				
2)		1-Chlorooctadecane (...	15.671	1115465	0.742	PPM
3)	H	Gasoline	3.500	11960603	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	263667924	106.728	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	371177409	152.953	PPM
6)	H	Oil (04-04-13)	22.000	455079546	221.920	PPM
7)	H	Oil Acid Clean (02-...	22.000	455079546	222.970	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	315037292	132.468	PPM
9)	H	Oil Combo (04-04-13)	22.000	398119468	198.245	PPM
10)	H	Oil Acid Clean Combo ...	22.000	398119468	198.274	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	377576091	146.921	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	263581502	235.823	PPM
13)	H	Mineral Oil (01-29-13)	16.000	408556474	142.415	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	713254624	470.739	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	713254624	471.968	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	717527985	9114.011	PPM
17)	H	Mineral Oil Combo (0...	16.000	288471977	105.118	PPM
18)	H	Oil Acid Clean MO Com...	22.000	350164099	179.645	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	350164099	180.499	PPM

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

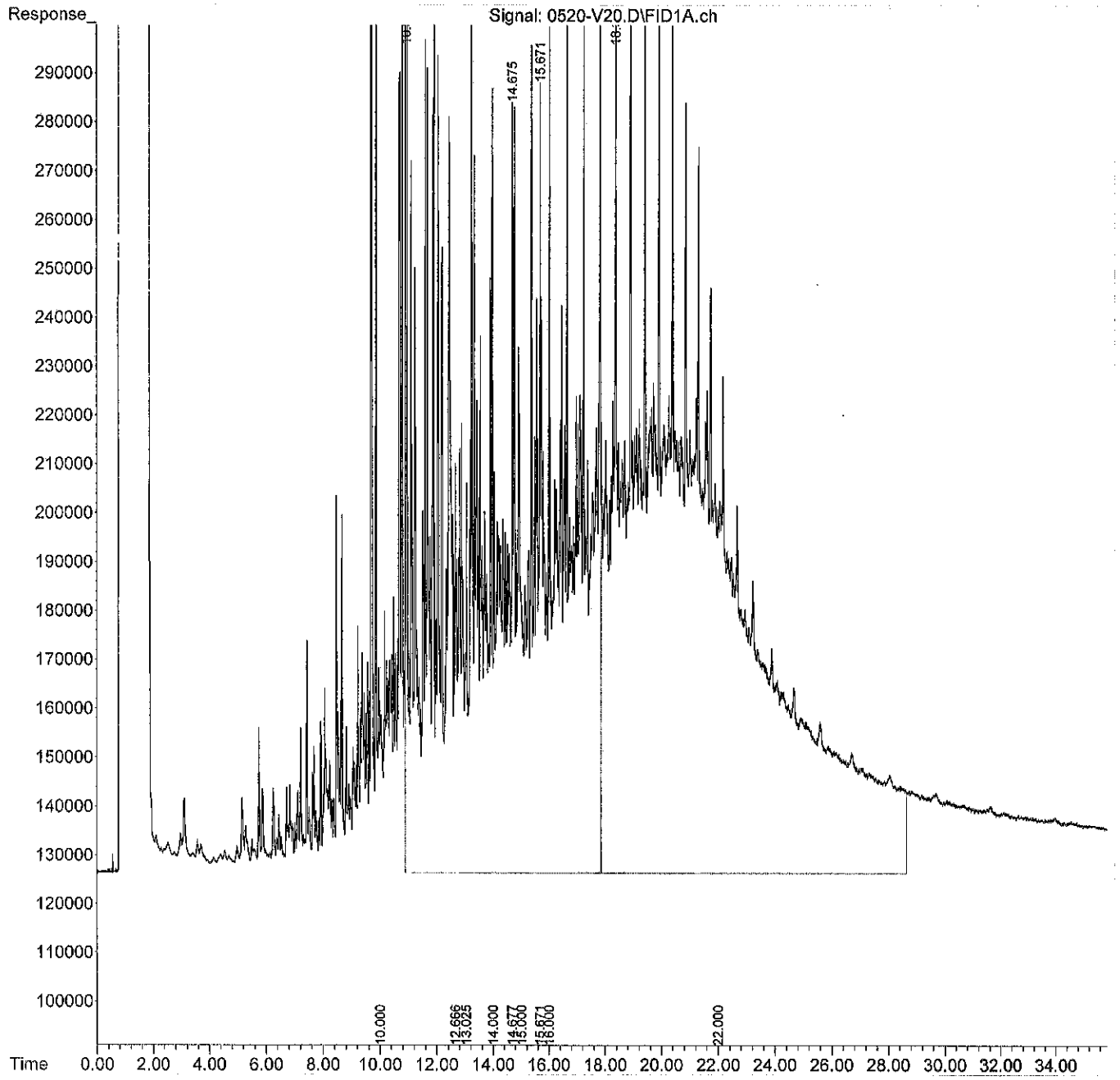
Quantitation Report (Not Reviewed)

Data File : 0520-V20.D
Sample : BUNKER5020F-V5

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 1:35
Operator :
Misc : SV3-05-04
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 02:11:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V34.D
Sample : BUNKER5020F-V6

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 11:05
Operator :
Misc : SV3-05-04
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 11:41:38 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.761	1716731	0.295	PPM
Spiked Amount		50.000		Recovery =	0.59%	
Target Compounds						
2)		1-Chlorooctadecane (...	15.671	1131444	0.749	PPM
3)	H	Gasoline	3.500	13236083	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	275248509	111.357	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	387663463	159.787	PPM
6)	H	Oil (04-04-13)	22.000	531833042	259.455	PPM
7)	H	Oil Acid Clean (02-...	22.000	531833042	261.723	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	328705081	138.253	PPM
9)	H	Oil Combo (04-04-13)	22.000	472242726	235.206	PPM
10)	H	Oil Acid Clean Combo ...	22.000	472242726	236.456	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	394465510	153.609	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	297025986	266.691	PPM
13)	H	Mineral Oil (01-29-13)	16.000	428565543	149.461	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	800780634	531.025	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	800780634	532.605	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	804875773	10226.176	PPM
17)	H	Mineral Oil Combo (0...	16.000	300650129	109.675	PPM
18)	H	Oil Acid Clean MO Com...	22.000	421886846	217.878	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	421886846	217.493	PPM

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

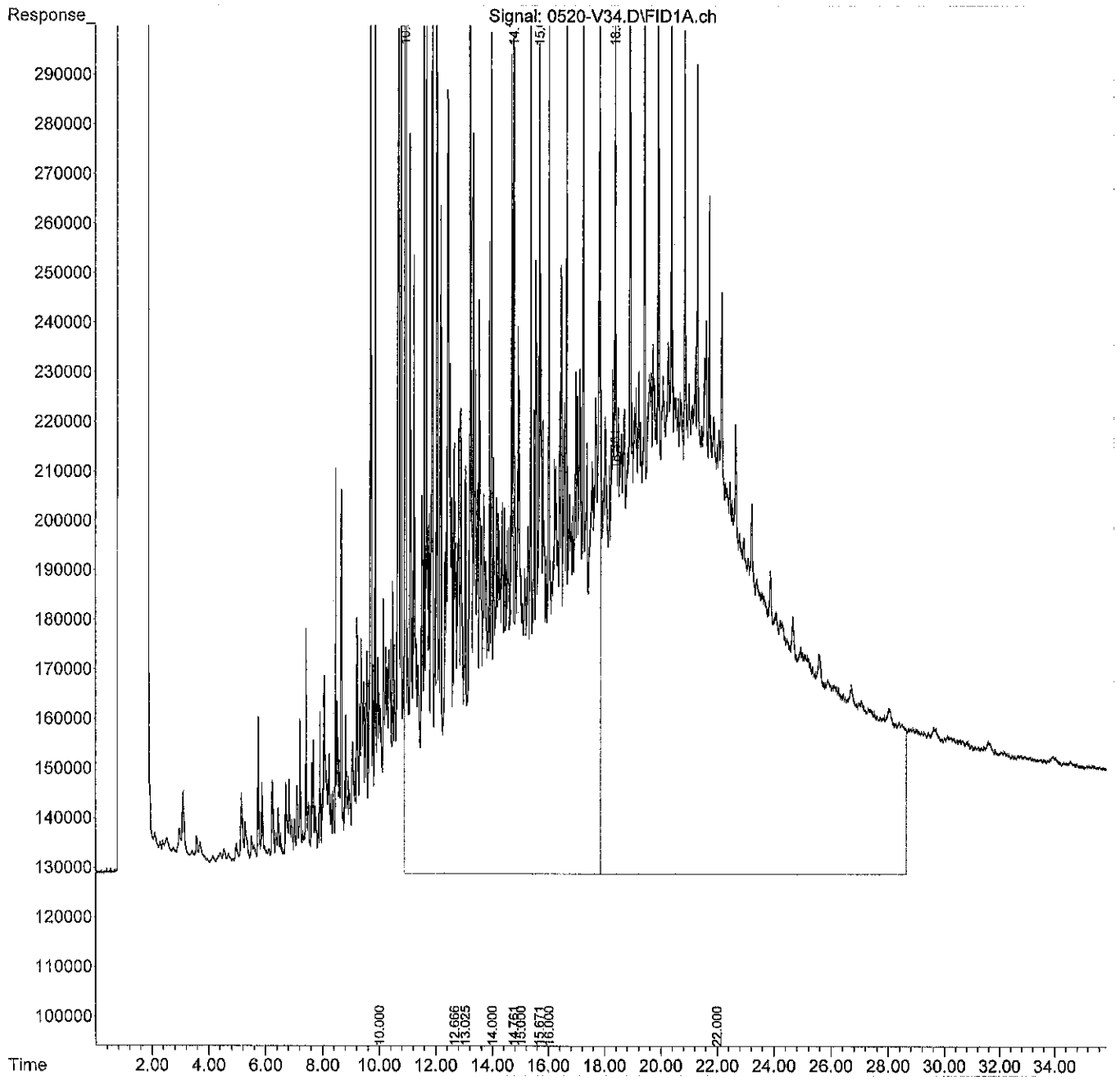
Quantitation Report (Not Reviewed)

Data File : 0520-V34.D
Sample : BUNKER5020F-V6

Data Path : X:\DIESELS\VIGO\DATA\V130520\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 11:05
Operator :
Misc : SV3-05-04
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 11:41:38 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V57.D
Sample : BUNKC0520R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 16:24
Operator :
Misc : SV3-05-05
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 17:00:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12536014	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	60448718	27.457	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	77221478	33.926	PPM
6)	H	Oil (04-04-13)	22.000	129259686	59.811	PPM
7)	H	Oil Acid Clean (02-0...	22.000	129259686	59.618	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	66645263	29.780	PPM
9)	H	Oil Combo (04-04-13)	22.000	118262435	55.303	PPM
10)	H	Oil Acid Clean Combo ...	22.000	118262435	55.023	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	79499912	25.467	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	64041388	45.749	PPM
13)	H	Mineral Oil (01-29-13)	16.000	79790808	28.360	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	184121542	99.902	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	184121542	90.891	PPM
16)	H	ALKANE C9-C40	12.666	188829598	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	57094187	20.854	PPM
18)	H	Oil Acid Clean MO Com...	22.000	109331613	51.966	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	109331613	52.307	PPM

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

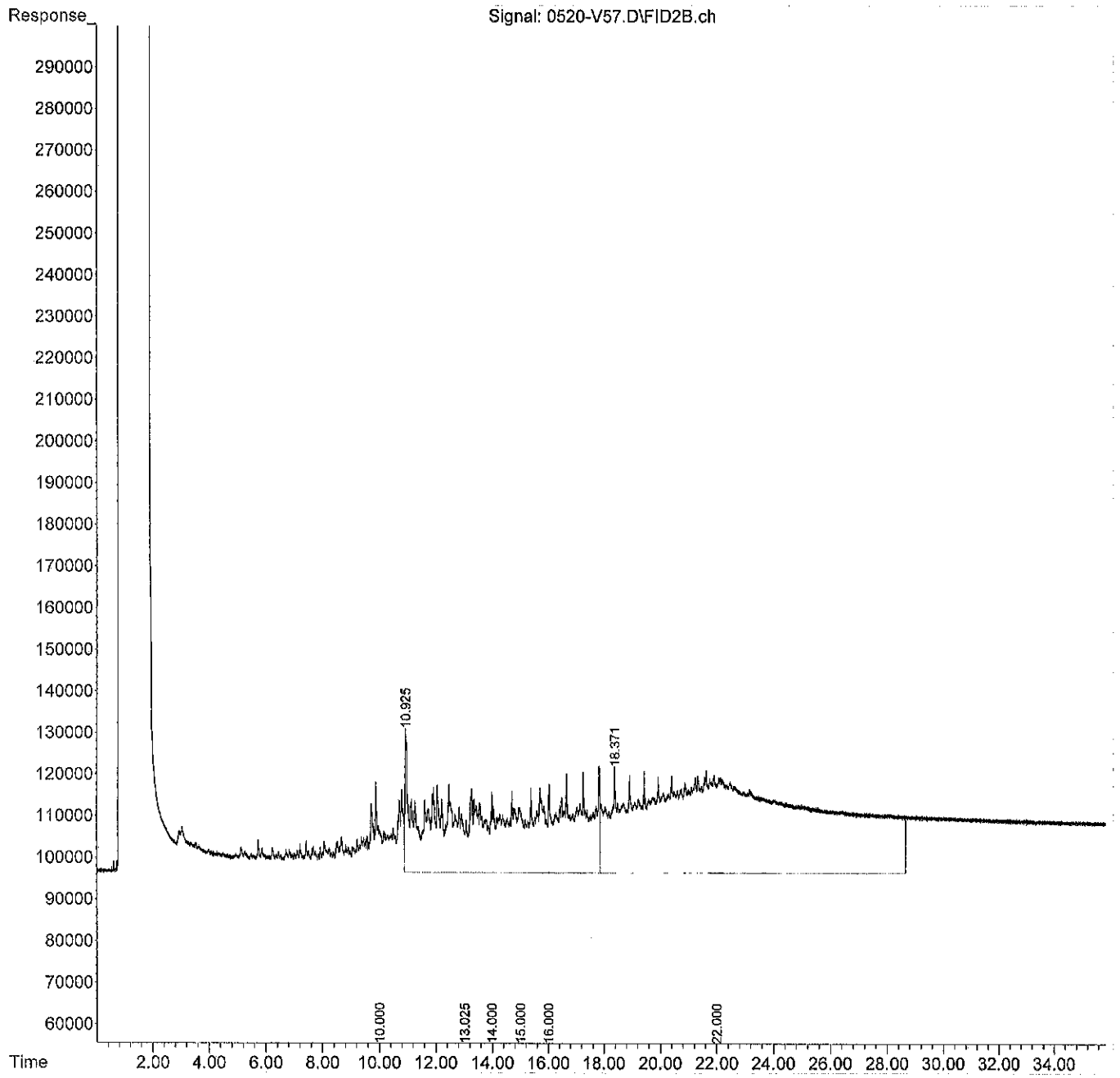
Quantitation Report (Not Reviewed)

Data File : 0520-V57.D
Sample : BUNKC0520R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 20 May 2013 16:24
Operator :
Misc : SV3-05-05
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 20 17:00:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V70.D
Sample : BUNKER5020R-V4

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 1:35
Operator :
Misc : SV3-05-04
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 02:11:33 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	17728385	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	245699544	108.353	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	340450813	155.273	PPM
6)	H	Oil (04-04-13)	22.000	446381803	229.583	PPM
7)	H	Oil Acid Clean (02-0...	22.000	446381803	232.769	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	289500893	134.698	PPM
9)	H	Oil Combo (04-04-13)	22.000	395158451	206.580	PPM
10)	H	Oil Acid Clean Combo ...	22.000	395158451	209.233	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	349204595	129.401	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	251023679	209.776	PPM
13)	H	Mineral Oil (01-29-13)	16.000	373017789	147.192	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	683499717	458.241	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	683499717	471.942	PPM
16)	H	ALKANE C9-C40	12.666	690434075	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	263483406	107.860	PPM
18)	H	Oil Acid Clean MO Com...	22.000	351735127	191.579	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	351735127	189.369	PPM

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

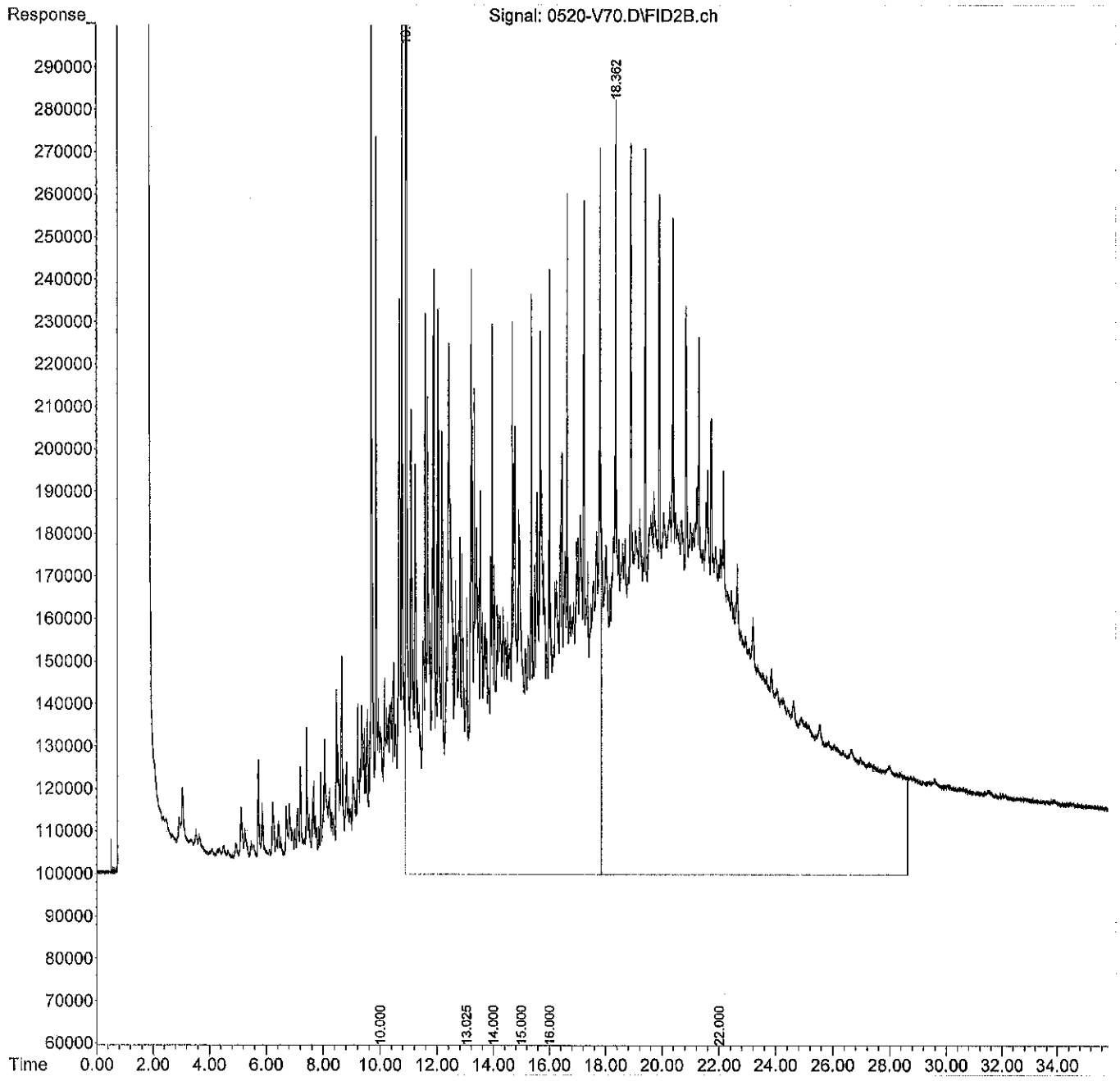
Quantitation Report (Not Reviewed)

Data File : 0520-V70.D
Sample : BUNKER5020R-V4

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 1:35
Operator :
Misc : SV3-05-04
ALS Vial : 70 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 02:11:33 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0520-V84.D
Sample : BUNKER5020R-V5

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 11:05
Operator :
Misc : SV3-05-04
ALS Vial : 84 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 11:41:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	18893515	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	251820408	111.025	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	348881325	159.159	PPM
6)	H	Oil (04-04-13)	22.000	484031803	249.739	PPM
7)	H	Oil Acid Clean (02-0...	22.000	484031803	253.326	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	296447139	137.968	PPM
9)	H	Oil Combo (04-04-13)	22.000	431455394	226.411	PPM
10)	H	Oil Acid Clean Combo ...	22.000	431455394	229.448	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	357935273	132.766	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	268253593	224.891	PPM
13)	H	Mineral Oil (01-29-13)	16.000	383426859	151.411	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	726353371	488.992	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	726353371	504.642	PPM
16)	H	ALKANE C9-C40	12.666	733746501	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	269598278	110.438	PPM
18)	H	Oil Acid Clean MO Com...	22.000	386751845	211.747	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	386751845	209.169	PPM

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

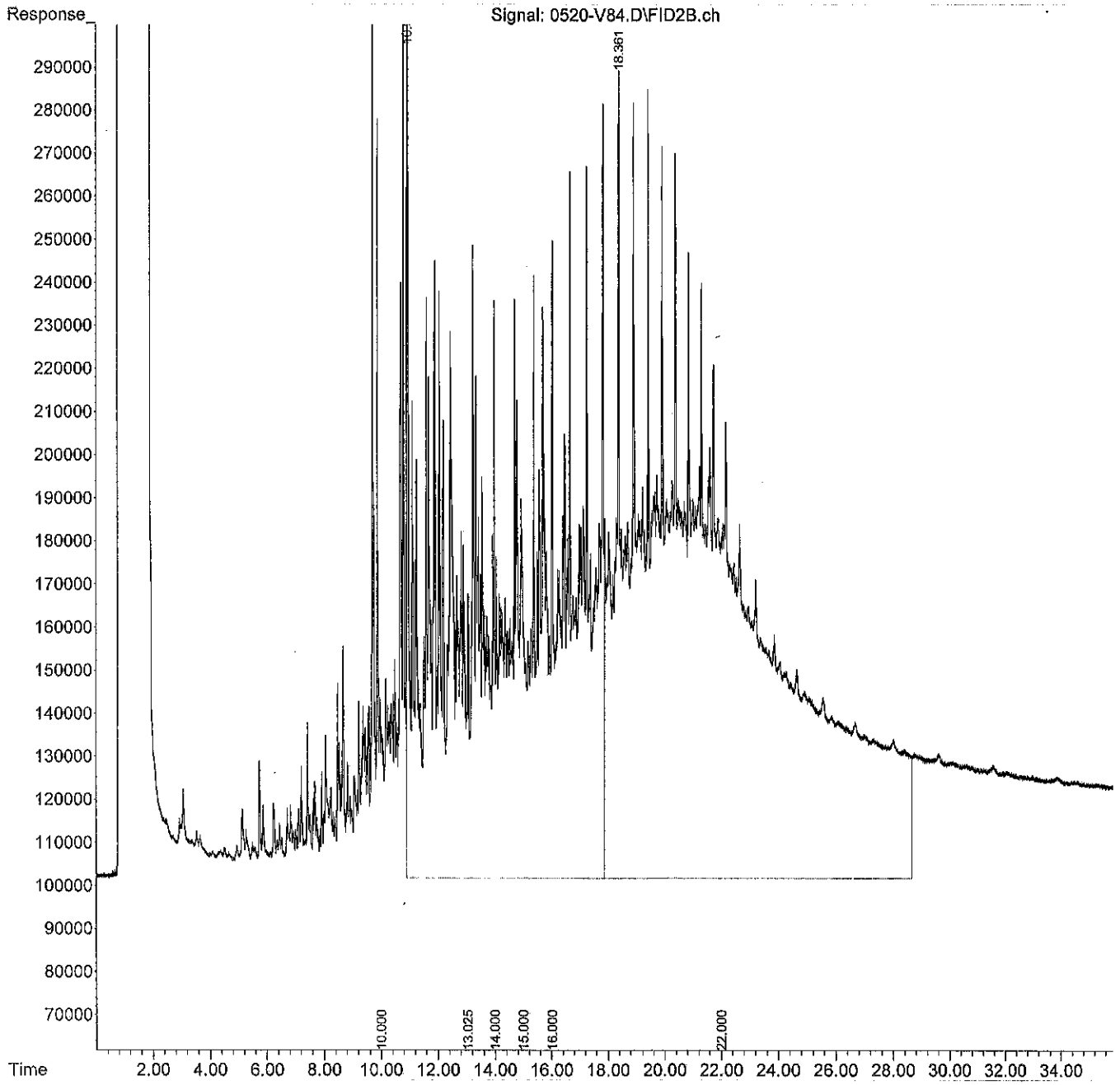
Quantitation Report (Not Reviewed)

Data File : 0520-V84.D
Sample : BUNKER5020R-V5

Data Path : X:\DIESELS\VIGO\DATA\V130520.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 11:05
Operator :
Misc : SV3-05-04
ALS Vial : 84 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 11:41:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V01.D
Sample : BUNKCCV0521F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 12:00
Operator :
Misc : SV3-05-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 12:36:49 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.760	1702334	0.290	PPM
Spiked Amount		50.000		Recovery =	0.58%	
		Target Compounds				
2)		1-Chlorooctadecane (...	15.671	1114298	0.741	PPM
3)	H	Gasoline	3.500	13528760	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	274939235	111.233	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	387077952	159.544	PPM
6)	H	Oil (04-04-13)	22.000	530188943	258.651	PPM
7)	H	Oil Acid Clean (02-...	22.000	530188943	260.893	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	328204562	138.041	PPM
9)	H	Oil Combo (04-04-13)	22.000	470689764	234.432	PPM
10)	H	Oil Acid Clean Combo ...	22.000	470689764	235.656	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	393878664	153.376	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	296653106	266.347	PPM
13)	H	Mineral Oil (01-29-13)	16.000	428205803	149.335	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	798733291	529.615	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	798733291	531.187	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	802957366	10201.750	PPM
17)	H	Mineral Oil Combo (0...	16.000	300162804	109.493	PPM
18)	H	Oil Acid Clean MO Com...	22.000	420384400	217.077	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	420384400	216.718	PPM

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

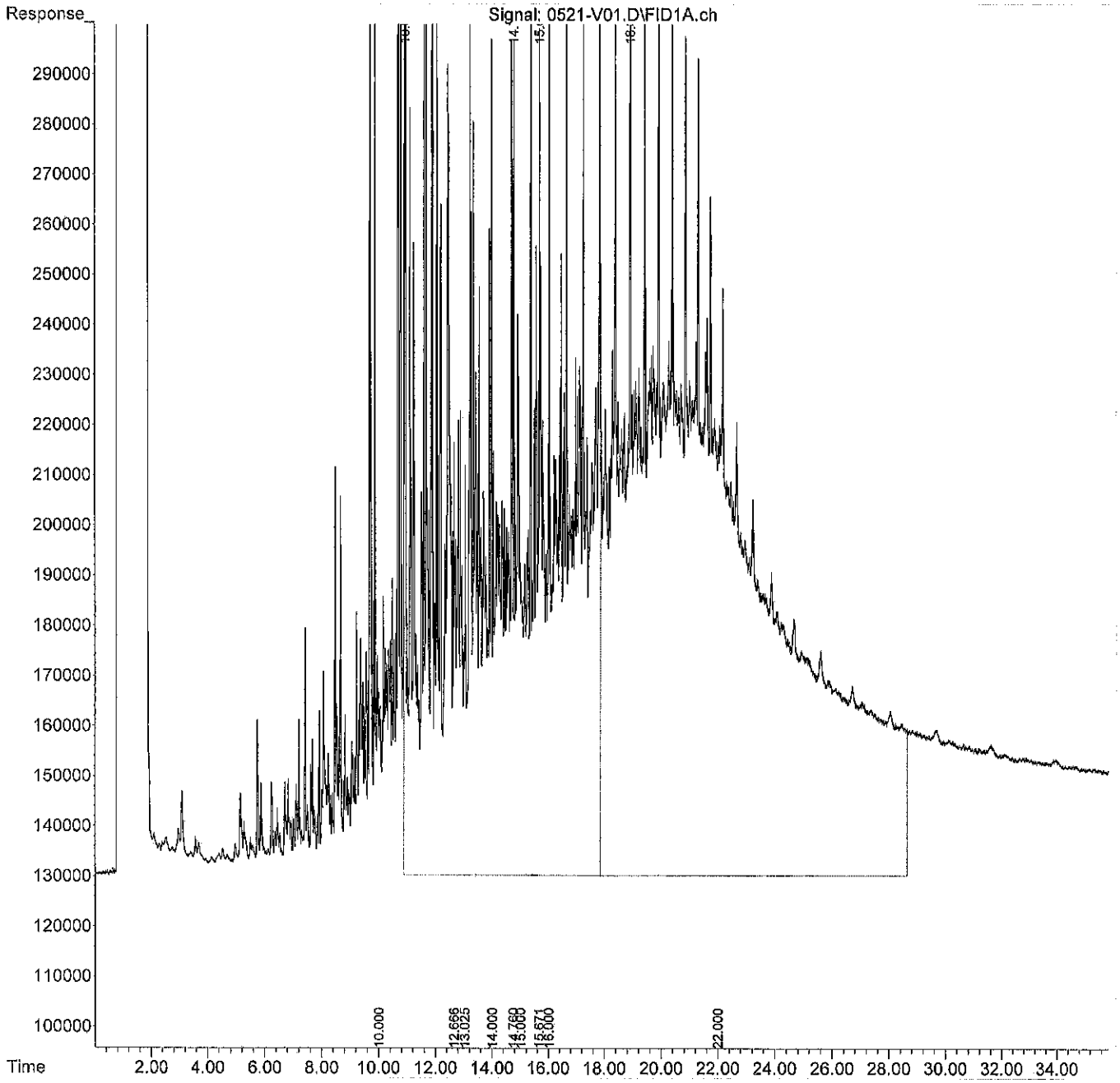
Quantitation Report (Not Reviewed)

Data File : 0521-V01.D
Sample : BUNKCCV0521F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 12:00
Operator :
Misc : SV3-05-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 12:36:49 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V09.D
Sample : BUNKCCV0521F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 18:37
Operator :
Misc : SV3-05-04
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 19:13:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.677	1435439	0.204	PPM
Spiked Amount		50.000		Recovery =	0.41%	
Target Compounds						
2)		1-Chlorooctadecane (...	15.671	1110733	0.740	PPM
3)	H	Gasoline	3.500	12178273	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	262483894	106.255	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	369652421	152.321	PPM
6)	H	Oil (04-04-13)	22.000	488241615	238.137	PPM
7)	H	Oil Acid Clean (02-...	22.000	488241615	239.713	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	313640251	131.876	PPM
9)	H	Oil Combo (04-04-13)	22.000	431488303	214.884	PPM
10)	H	Oil Acid Clean Combo ...	22.000	431488303	215.463	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	376078286	146.328	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	276513887	247.759	PPM
13)	H	Mineral Oil (01-29-13)	16.000	408099810	142.254	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	745071893	492.654	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	745071893	494.011	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	748963316	9514.265	PPM
17)	H	Mineral Oil Combo (0...	16.000	287051706	104.587	PPM
18)	H	Oil Acid Clean MO Com...	22.000	383623081	197.481	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	383623081	197.757	PPM

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

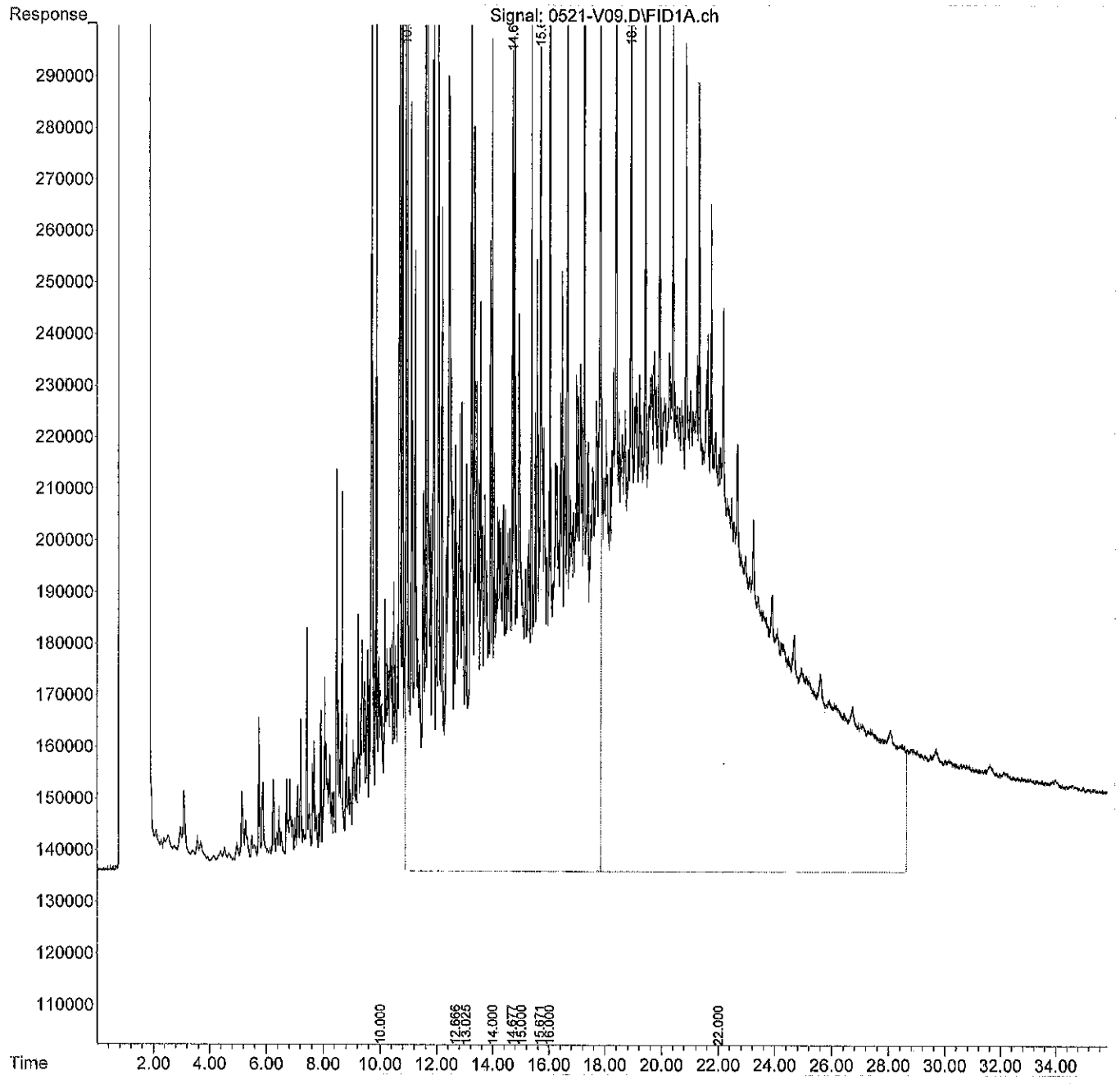
Quantitation Report (Not Reviewed)

Data File : 0521-V09.D
Sample : BUNKCCV0521F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 21 May 2013 18:37
Operator :
Misc : SV3-05-04
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 19:13:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V21.D
Sample : BUNKCCV0521F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 22 May 2013 2:46
Operator :
Misc : SV3-05-04
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 03:22:43 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.761	1719372	0.296 PPM
Spiked Amount	50.000		Recovery =	0.59%
	Target Compounds			
2)	1-Chlorooctadecane (...	15.670	1146950	0.755 PPM
3) H	Gasoline	3.500	13448455	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	274768775	111.165 PPM
5) H	Diesel Fuel #2 (01-...	14.000	386815584	159.435 PPM
6) H	Oil (04-04-13)	22.000	514396454	250.928 PPM
7) H	Oil Acid Clean (02-...	22.000	514396454	252.919 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	328152179	138.019 PPM
9) H	Oil Combo (04-04-13)	22.000	454892848	226.555 PPM
10) H	Oil Acid Clean Combo ...	22.000	454892848	227.519 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	393581760	153.259 PPM
12) H	Alaska 103 Oil (06-2...	22.000	290138993	260.335 PPM
13) H	Mineral Oil (01-29-13)	16.000	426716297	148.810 PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	782969240	518.757 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	782969240	520.266 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	787251540	10001.774 PPM
17) H	Mineral Oil Combo (0...	16.000	300044641	109.449 PPM
18) H	Oil Acid Clean MO Com...	22.000	404780053	208.759 PPM
19) H	Oil MO Combo (04-04-13)	22.000	404780053	208.669 PPM

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

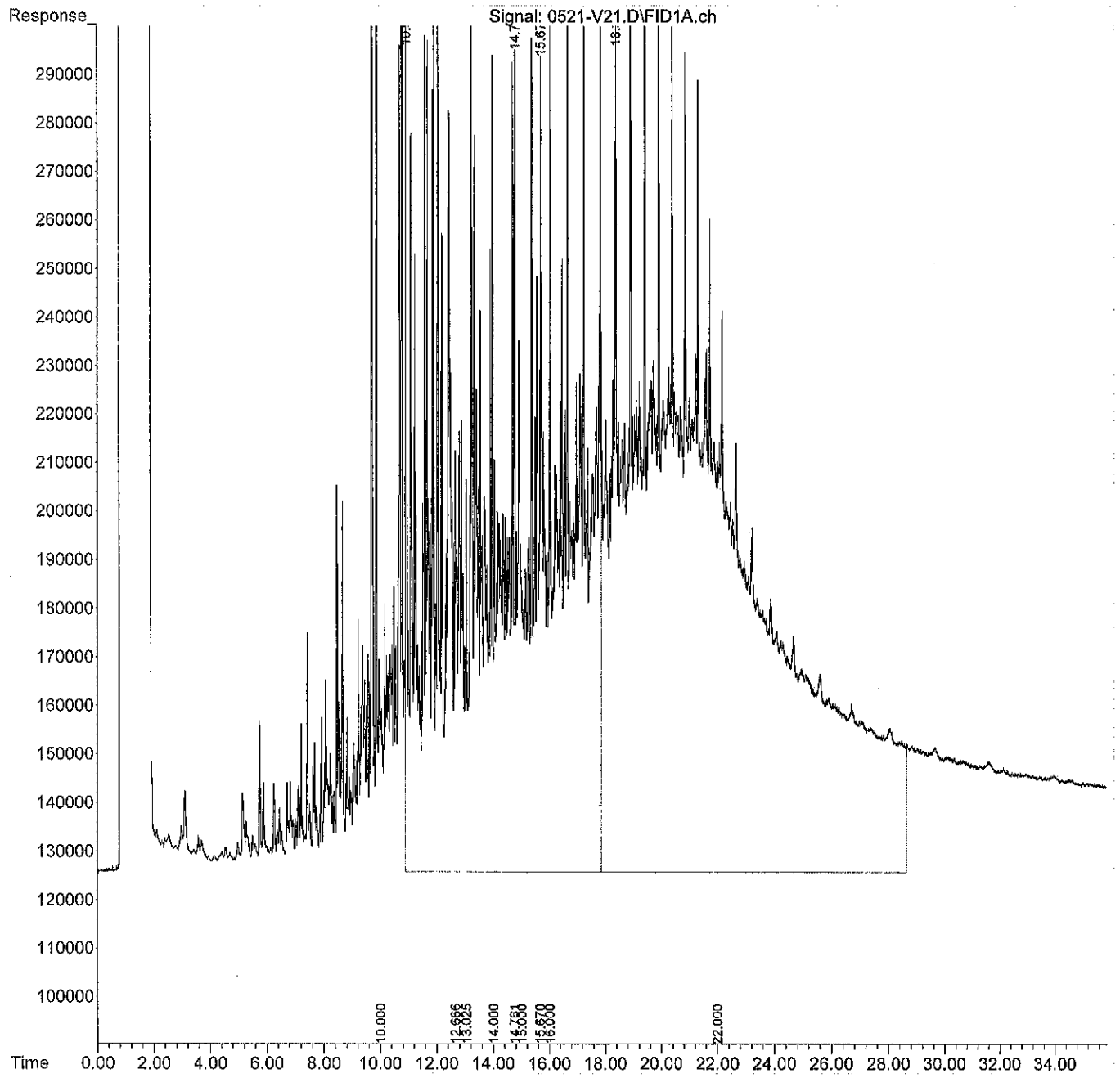
Quantitation Report (Not Reviewed)

Data File : 0521-V21.D
Sample : BUNKCCV0521F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130521\
Signal(s) : FID1A.ch
Acq On : 22 May 2013 2:46
Operator :
Misc : SV3-05-04
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 03:22:43 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V51.D
Sample : BUNKCCV0521R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 12:00
Operator :
Misc : SV3-05-04
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 12:37:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	18680563	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	251729268	110.986	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	349202971	159.307	PPM
6)	H	Oil (04-04-13)	22.000	492429929	254.235	PPM
7)	H	Oil Acid Clean (02-0...	22.000	492429929	257.912	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	296546114	138.015	PPM
9)	H	Oil Combo (04-04-13)	22.000	439740019	230.937	PPM
10)	H	Oil Acid Clean Combo ...	22.000	439740019	234.062	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	358305855	132.908	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	272183392	228.338	PPM
13)	H	Mineral Oil (01-29-13)	16.000	384577288	151.877	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	734633045	494.933	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	734633045	510.959	PPM
16)	H	ALKANE C9-C40	12.666	741930058	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	269988745	110.602	PPM
18)	H	Oil Acid Clean MO Com...	22.000	394851359	216.412	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	394851359	213.748	PPM

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

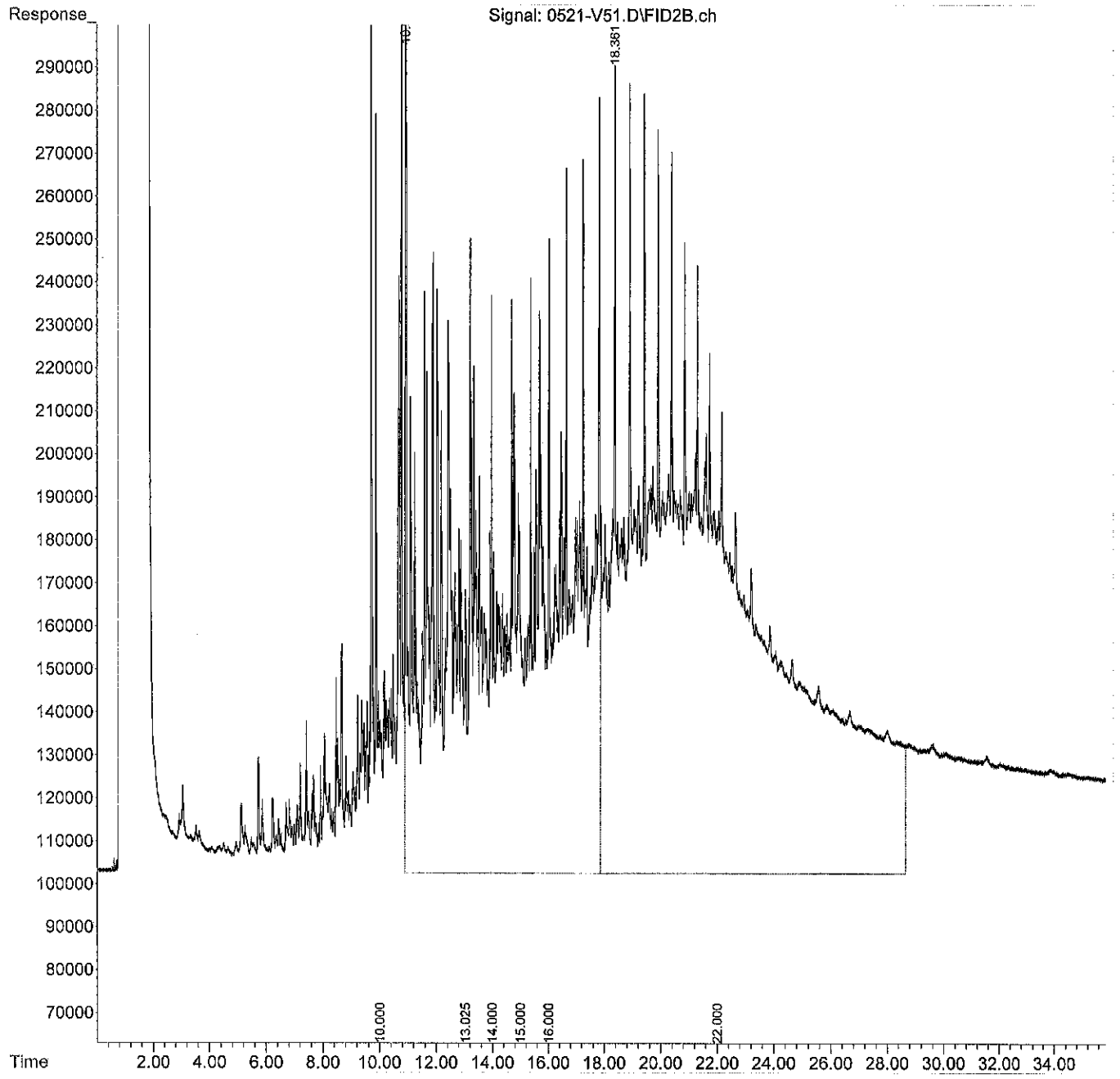
Quantitation Report (Not Reviewed)

Data File : 0521-V51.D
Sample : BUNKCCV0521R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 12:00
Operator :
Misc : SV3-05-04
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 12:37:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V59.D
Sample : BUNKCCV0521R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 18:37
Operator :
Misc : SV3-05-04
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 19:13:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	18159882	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	249072830	109.826	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	345925126	157.796	PPM
6) H	Oil (04-04-13)	22.000	491272770	253.616	PPM
7) H	Oil Acid Clean (02-0...	22.000	491272770	257.280	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	293744811	136.696	PPM
9) H	Oil Combo (04-04-13)	22.000	439041417	230.555	PPM
10) H	Oil Acid Clean Combo ...	22.000	439041417	233.673	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	354873025	131.586	PPM
12) H	Alaska 103 Oil (06-2...	22.000	272109787	228.274	PPM
13) H	Mineral Oil (01-29-13)	16.000	381742230	150.728	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	731139689	492.426	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	731139689	508.294	PPM
16) H	ALKANE C9-C40	12.666	738124342	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	267922171	109.731	PPM
18) H	Oil Acid Clean MO Com...	22.000	394547119	216.237	PPM
19) H	Oil MO Combo (04-04-13)	22.000	394547119	213.576	PPM

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

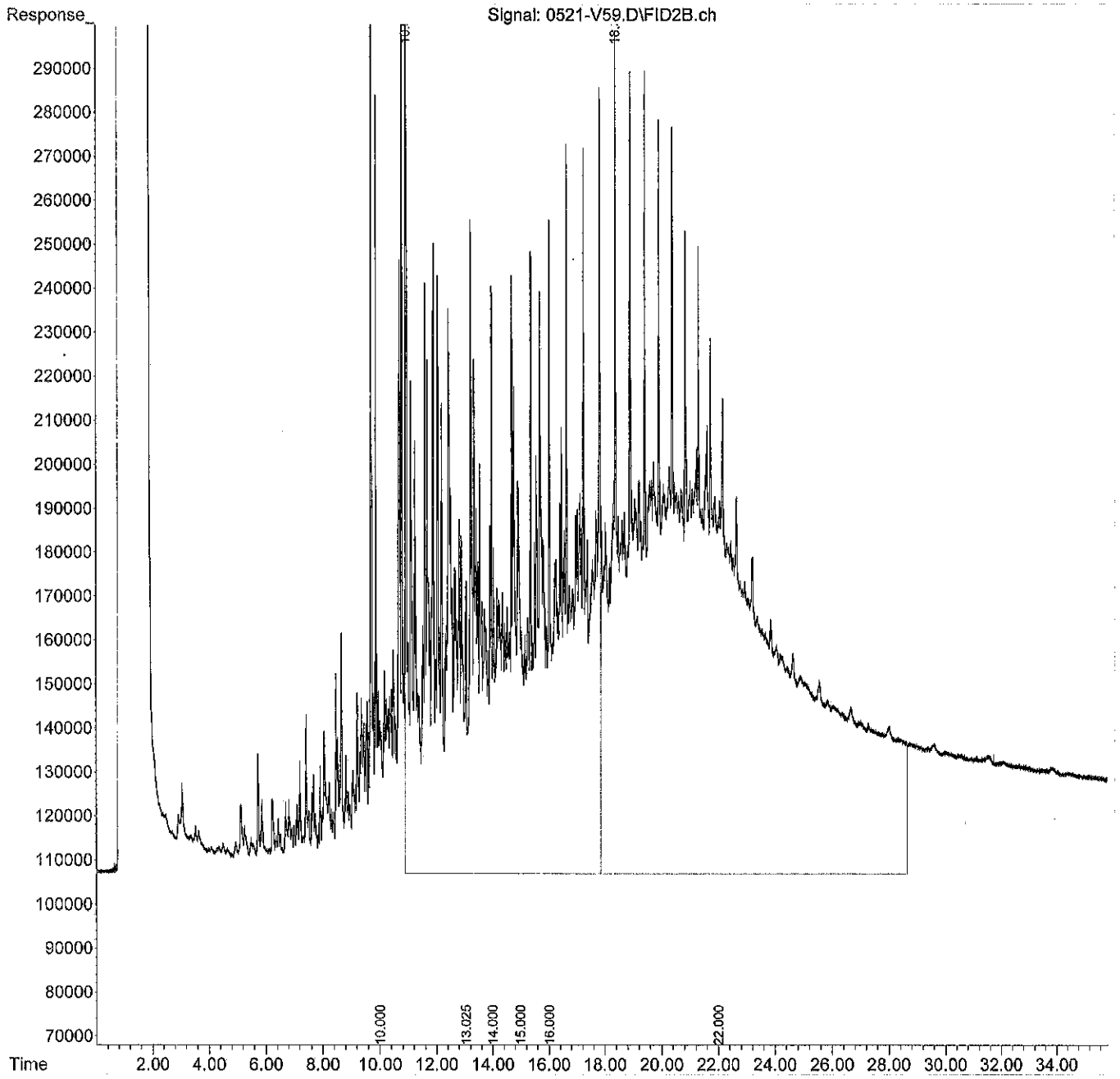
Quantitation Report (Not Reviewed)

Data File : 0521-V59.D
Sample : BUNKCCV0521R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 21 May 2013 18:37
Operator :
Misc : SV3-05-04
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 21 19:13:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0521-V71.D
Sample : BUNKCCV0521R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 22 May 2013 2:46
Operator :
Misc : SV3-05-04
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 03:22:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20010539	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	254446300	112.172	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	352344043	160.755	PPM
6)	H	Oil (04-04-13)	22.000	506860353	261.961	PPM
7)	H	Oil Acid Clean (02-0...	22.000	506860353	265.791	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	299253820	139.289	PPM
9)	H	Oil Combo (04-04-13)	22.000	453734802	238.583	PPM
10)	H	Oil Acid Clean Combo ...	22.000	453734802	241.856	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	361537523	134.154	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	279133282	234.435	PPM
13)	H	Mineral Oil (01-29-13)	16.000	388749160	153.567	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	751190191	506.814	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	751190191	523.593	PPM
16)	H	ALKANE C9-C40	12.666	758937146	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	272576863	111.693	PPM
18)	H	Oil Acid Clean MO Com...	22.000	408461313	224.251	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	408461313	221.444	PPM

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

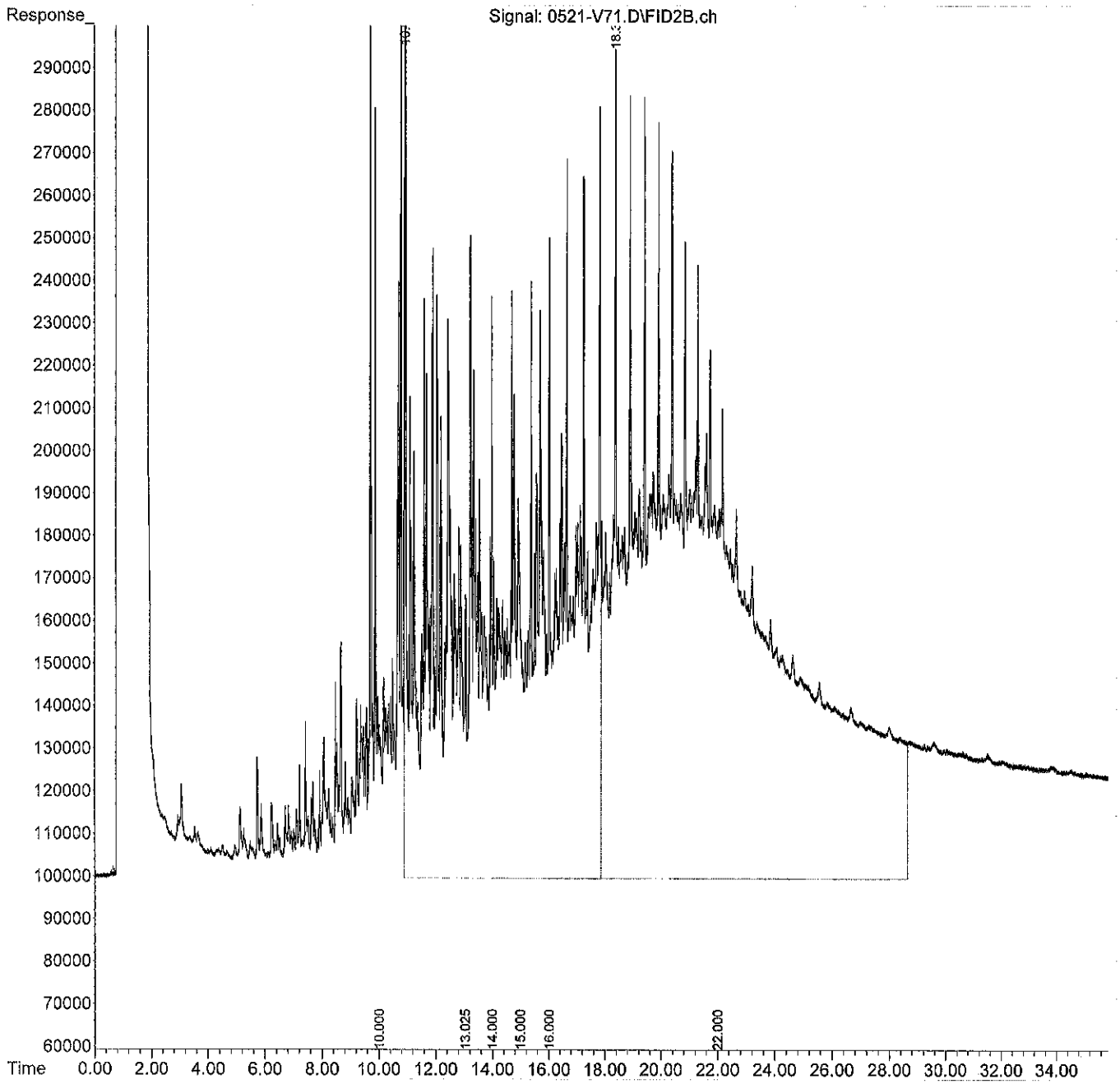
Quantitation Report (Not Reviewed)

Data File : 0521-V71.D
Sample : BUNKCCV0521R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130521.SEC\
Signal(s) : FID2B.ch
Acq On : 22 May 2013 2:46
Operator :
Misc : SV3-05-04
ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 22 03:22:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V01.D
Sample : BUNKCCV0523F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 9:24
Operator :
Misc : SV3-05-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 10:00:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	16.010	2078208	1.151	PPM
3) H	Gasoline	3.500	13669580	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	261433728	105.835	PPM
5) H	Diesel Fuel #2 (01-...	14.000	362281995	149.265	PPM
6) H	Oil (04-04-13)	22.000	409385467	199.574	PPM
7) H	Oil Acid Clean (02-...	22.000	409385467	199.898	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	309759739	130.234	PPM
9) H	Oil Combo (04-04-13)	22.000	354967995	176.727	PPM
10) H	Oil Acid Clean Combo ...	22.000	354967995	176.046	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	368515802	143.333	PPM
12) H	Alaska 103 Oil (06-2...	22.000	232719615	207.338	PPM
13) H	Mineral Oil (01-29-13)	16.000	388499786	135.352	PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	664858845	437.406	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	664858845	438.440	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	669722530	8505.323	PPM
17) H	Mineral Oil Combo (0...	16.000	280214165	102.028	PPM
18) H	Oil Acid Clean MO Com...	22.000	310175348	158.328	PPM
19) H	Oil MO Combo (04-04-13)	22.000	310175348	159.874	PPM

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

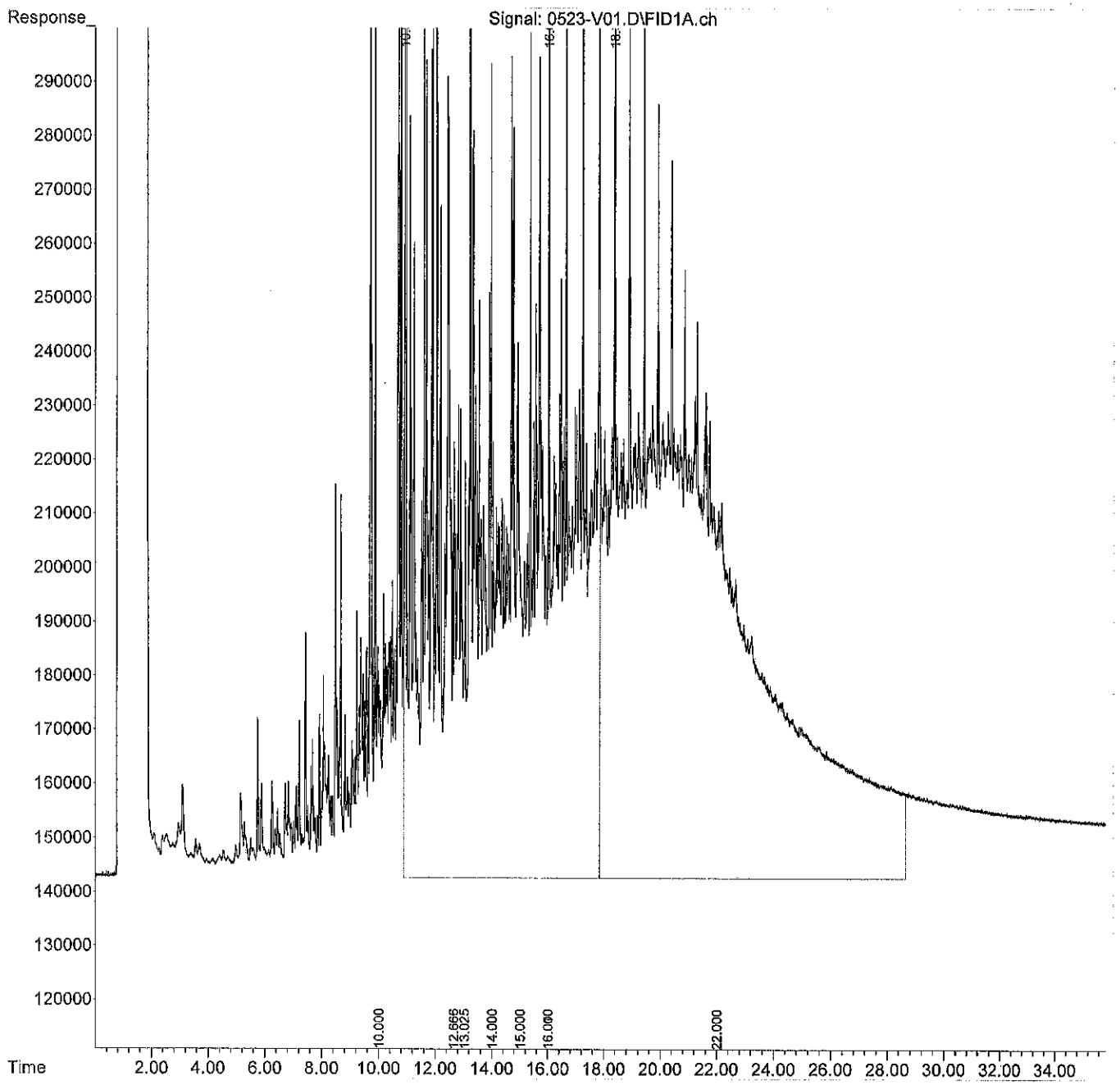
Quantitation Report (Not Reviewed)

Data File : 0523-V01.D
Sample : BUNKCCV0523F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 9:24
Operator :
Misc : SV3-05-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 10:00:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V10.D
Sample : BUNKCCV0523F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 15:41
Operator :
Misc : SV3-05-04
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 16:17:06 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.676	1444288	0.207	PPM
Spiked Amount		50.000		Recovery =	0.41%	
Target Compounds						
2)		1-Chlorooctadecane (...	15.670	1031564	0.706	PPM
3)	H	Gasoline	3.500	12566019	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	265907047	107.623	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	374517365	154.337	PPM
6)	H	Oil (04-04-13)	22.000	479906505	234.061	PPM
7)	H	Oil Acid Clean (02-...	22.000	479906505	235.505	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	317730281	133.608	PPM
9)	H	Oil Combo (04-04-13)	22.000	422242356	210.274	PPM
10)	H	Oil Acid Clean Combo ...	22.000	422242356	210.700	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	381037086	148.291	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	274312302	245.727	PPM
13)	H	Mineral Oil (01-29-13)	16.000	413082212	144.009	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	739983702	489.150	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	739983702	490.486	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	744287407	9454.728	PPM
17)	H	Mineral Oil Combo (0...	16.000	291205027	106.141	PPM
18)	H	Oil Acid Clean MO Com...	22.000	373749006	192.217	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	373749006	192.664	PPM

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

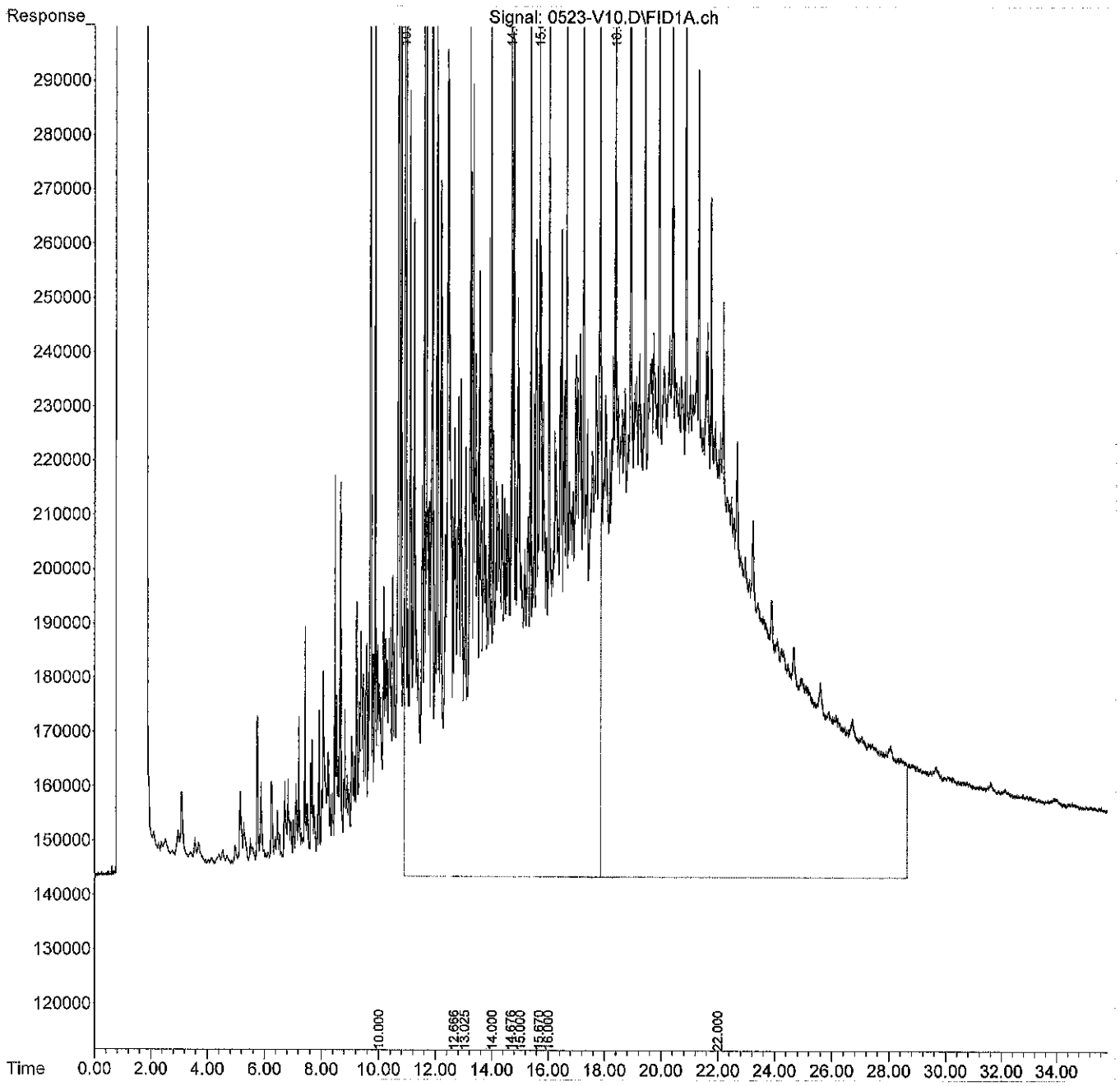
Quantitation Report (Not Reviewed)

Data File : 0523-V10.D
Sample : BUNKCCV0523F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130523\
Signal(s) : FID1A.ch
Acq On : 23 May 2013 15:41
Operator :
Misc : SV3-05-04
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 16:17:06 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V53.D
Sample : BUNKCCV0523R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 10:47
Operator :
Misc : SV3-05-04
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 11:23:34 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	19600526	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	239939920	105.837	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	330349166	150.616	PPM
6) H	Oil (04-04-13)	22.000	415624477	213.117	PPM
7) H	Oil Acid Clean (02-0...	22.000	415624477	215.975	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	281535447	130.948	PPM
9) H	Oil Combo (04-04-13)	22.000	365918177	190.606	PPM
10) H	Oil Acid Clean Combo ...	22.000	365918177	192.949	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	338975657	125.459	PPM
12) H	Alaska 103 Oil (06-2...	22.000	233059167	194.017	PPM
13) H	Mineral Oil (01-29-13)	16.000	358838233	141.446	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	646475951	431.674	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	646475951	443.691	PPM
16) H	ALKANE C9-C40	12.666	654222135	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	255875438	104.653	PPM
18) H	Oil Acid Clean MO Com...	22.000	324464017	175.872	PPM
19) H	Oil MO Combo (04-04-13)	22.000	324464017	173.949	PPM

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

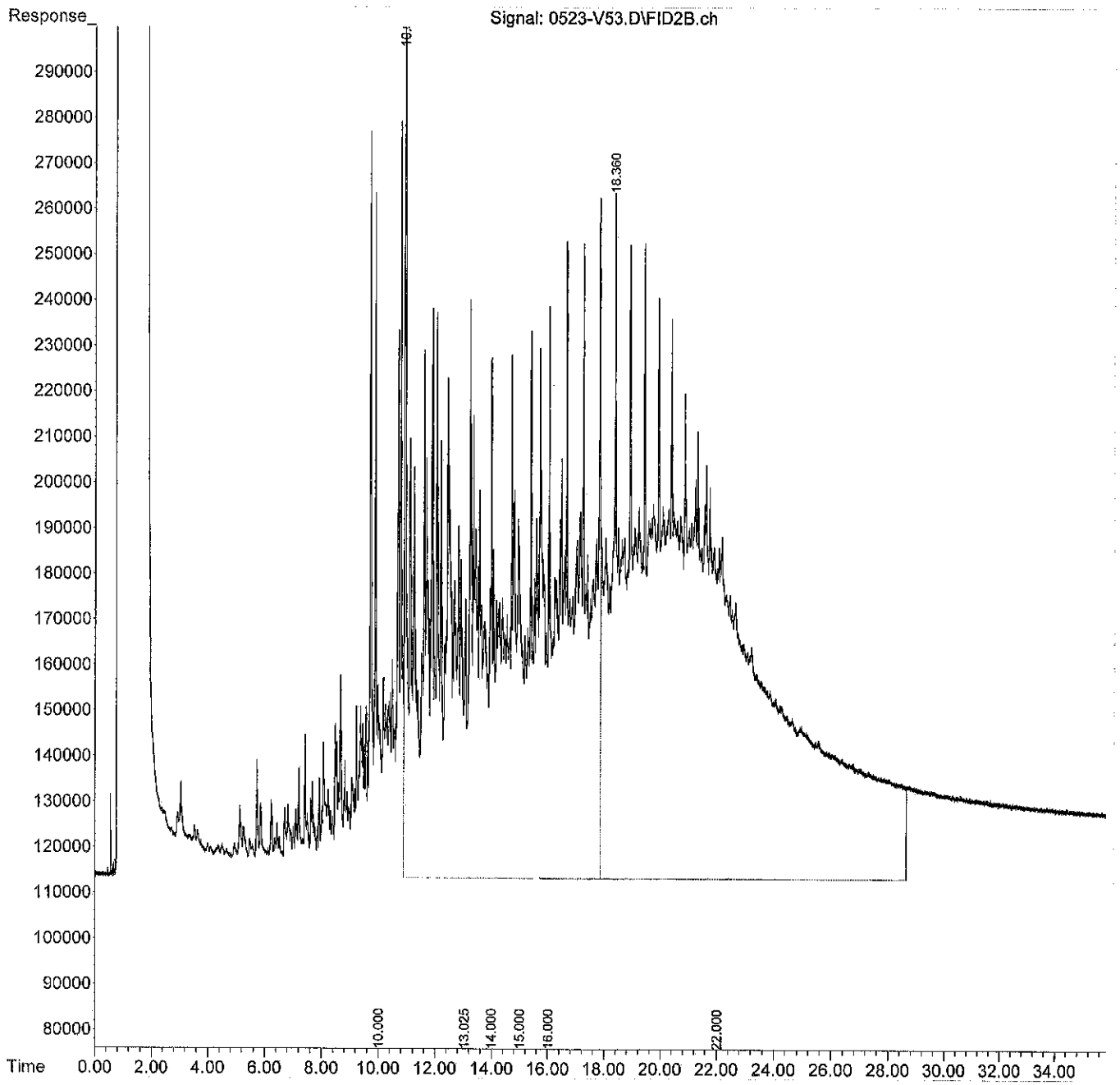
Quantitation Report (Not Reviewed)

Data File : 0523-V53.D
Sample : BUNKCCV0523R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 10:47
Operator :
Misc : SV3-05-04
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 11:23:34 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0523-V60.D
Sample : BUNKCCV0523R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 15:41
Operator :
Misc : SV3-05-04
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 16:17:23 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	18628803	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	245707411	108.356	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	340567116	155.326	PPM
6)	H	Oil (04-04-13)	22.000	481570714	248.422	PPM
7)	H	Oil Acid Clean (02-0...	22.000	481570714	251.982	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	289495360	134.695	PPM
9)	H	Oil Combo (04-04-13)	22.000	430113636	225.678	PPM
10)	H	Oil Acid Clean Combo ...	22.000	430113636	228.701	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	349461625	129.500	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	264487520	221.587	PPM
13)	H	Mineral Oil (01-29-13)	16.000	374488588	147.788	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	717926216	482.945	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	717926216	498.211	PPM
16)	H	ALKANE C9-C40	12.666	725054699	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	263993662	108.075	PPM
18)	H	Oil Acid Clean MO Com...	22.000	386683073	211.708	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	386683073	209.130	PPM

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

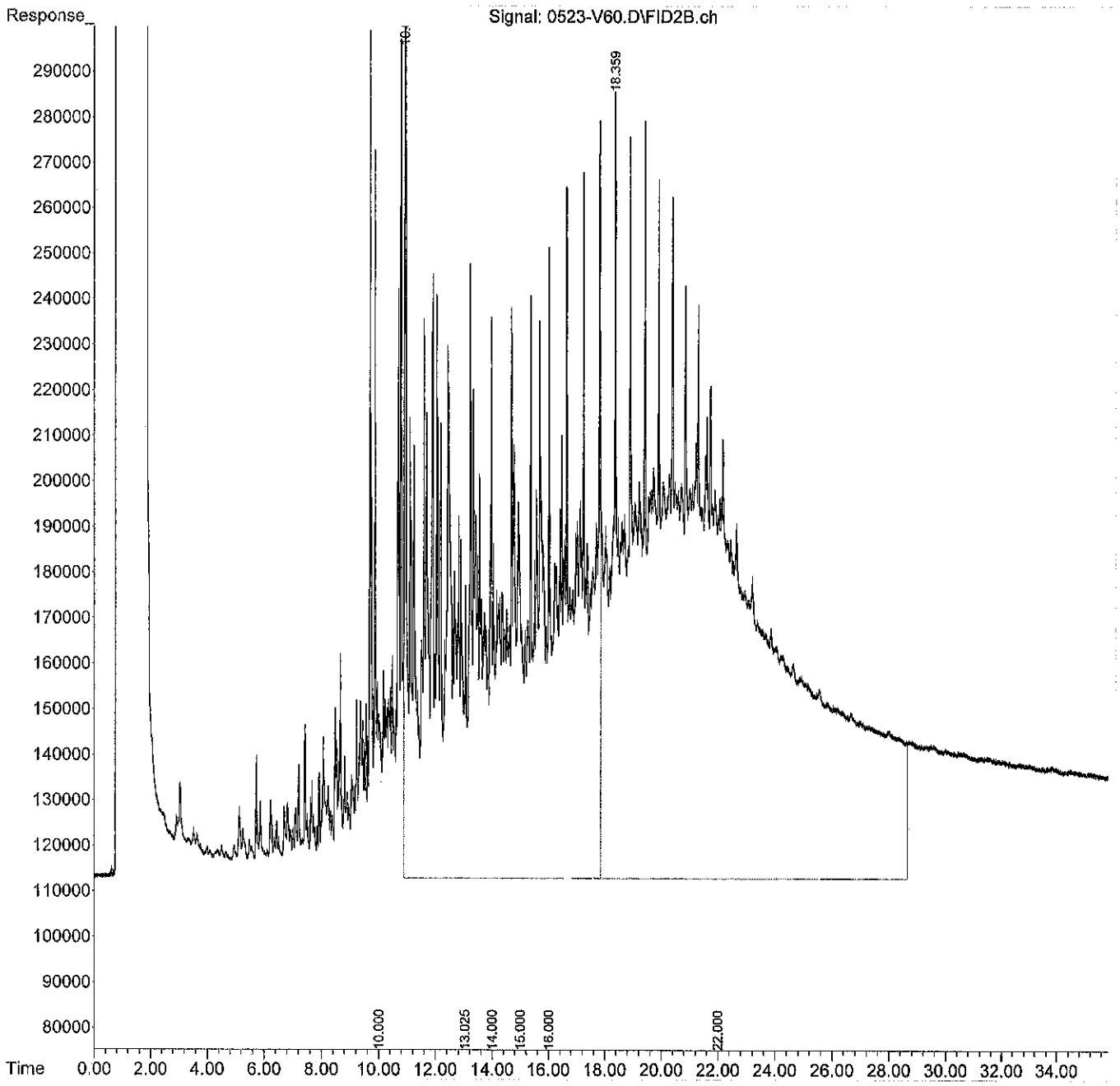
Quantitation Report (Not Reviewed)

Data File : 0523-V60.D
Sample : BUNKCCV0523R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130523.SEC\
Signal(s) : FID2B.ch
Acq On : 23 May 2013 15:41
Operator :
Misc : SV3-05-04
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 23 16:17:23 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



NWTPH-Diesel (Bunker C re-analysis) Data

Quantitation Report (Not Reviewed)

Data File : 0524-V06.D
Sample : 05-146-20 5X

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 15:01
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 15:37:06 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.696	26219003	8.241	PPM
Spiked Amount		50.000		Recovery =	16.48%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6183739	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	40163274	17.394	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	85513336	34.536	PPM
6)	H	Oil (04-04-13)	22.000	360751642	175.790	PPM
7)	H	Oil Acid Clean (02-...	22.000	360751642	175.342	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	58967149	24.075	PPM
9)	H	Oil Combo (04-04-13)	22.000	339238370	168.883	PPM
10)	H	Oil Acid Clean Combo ...	22.000	339238370	167.944	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	88840319	32.584	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	224630102	199.871	PPM
13)	H	Mineral Oil (01-29-13)	16.000	148101804	50.693	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	397829494	253.483	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	397829494	253.444	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	399412095	5063.567	PPM
17)	H	Mineral Oil Combo (0...	16.000	73143874	24.544	PPM
18)	H	Oil Acid Clean MO Com...	22.000	317182764	162.064	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	317182764	163.488	PPM

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

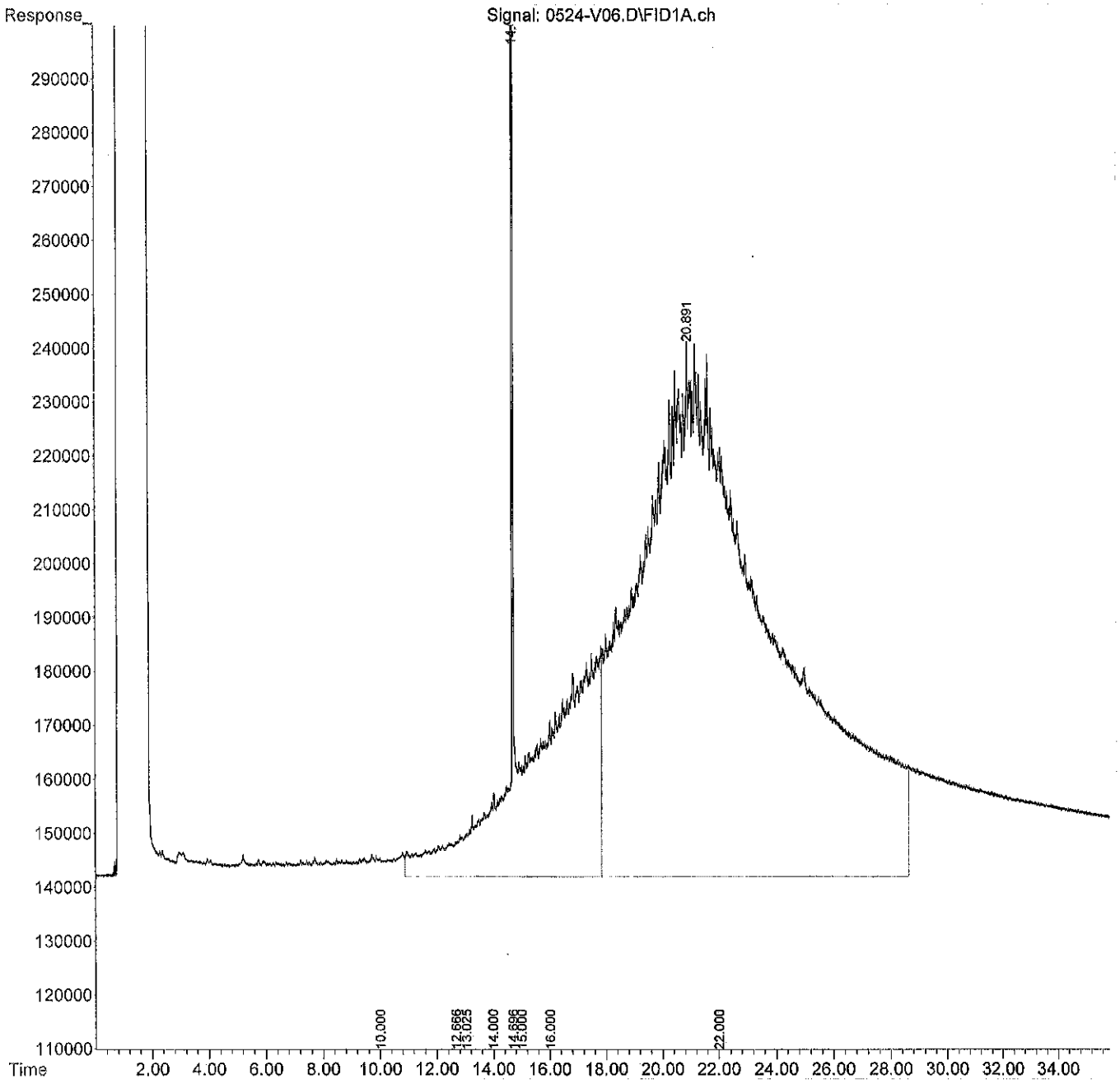
Quantitation Report (Not Reviewed)

Data File : 0524-V06.D
Sample : 05-146-20 5X

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 15:01
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 15:37:06 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V58.D
Sample : 05-146-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 16:22
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:59:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.694	22729983	7.840	PPM
Spiked Amount		50.000		Recovery =	15.68%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12878549	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	53526510	24.434	PPM
5)	H	Diesel Fuel #2 (01-2...	14.000	110541227	49.286	PPM
6)	H	Oil (04-04-13)	22.000	550450242	285.296	PPM
7)	H	Oil Acid Clean (02-0...	22.000	550450242	289.591	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	76040214	34.203	PPM
9)	H	Oil Combo (04-04-13)	22.000	523154330	276.509	PPM
10)	H	Oil Acid Clean Combo ...	22.000	523154330	280.518	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	117249950	40.015	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	332227759	281.011	PPM
13)	H	Mineral Oil (01-29-13)	16.000	194519565	74.855	PPM
14)	H	Bunker C-ACU- (Fuel O...	15.000	596714858	395.967	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	596714858	405.721	PPM
16)	H	ALKANE C9-C40	12.666	601110189	NoCal	PPM
17)	H	Mineral Oil Combo (01...	16.000	94869310	36.778	PPM
18)	H	Oil Acid Clean MO Com...	22.000	494481421	273.795	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	494481421	270.082	PPM

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

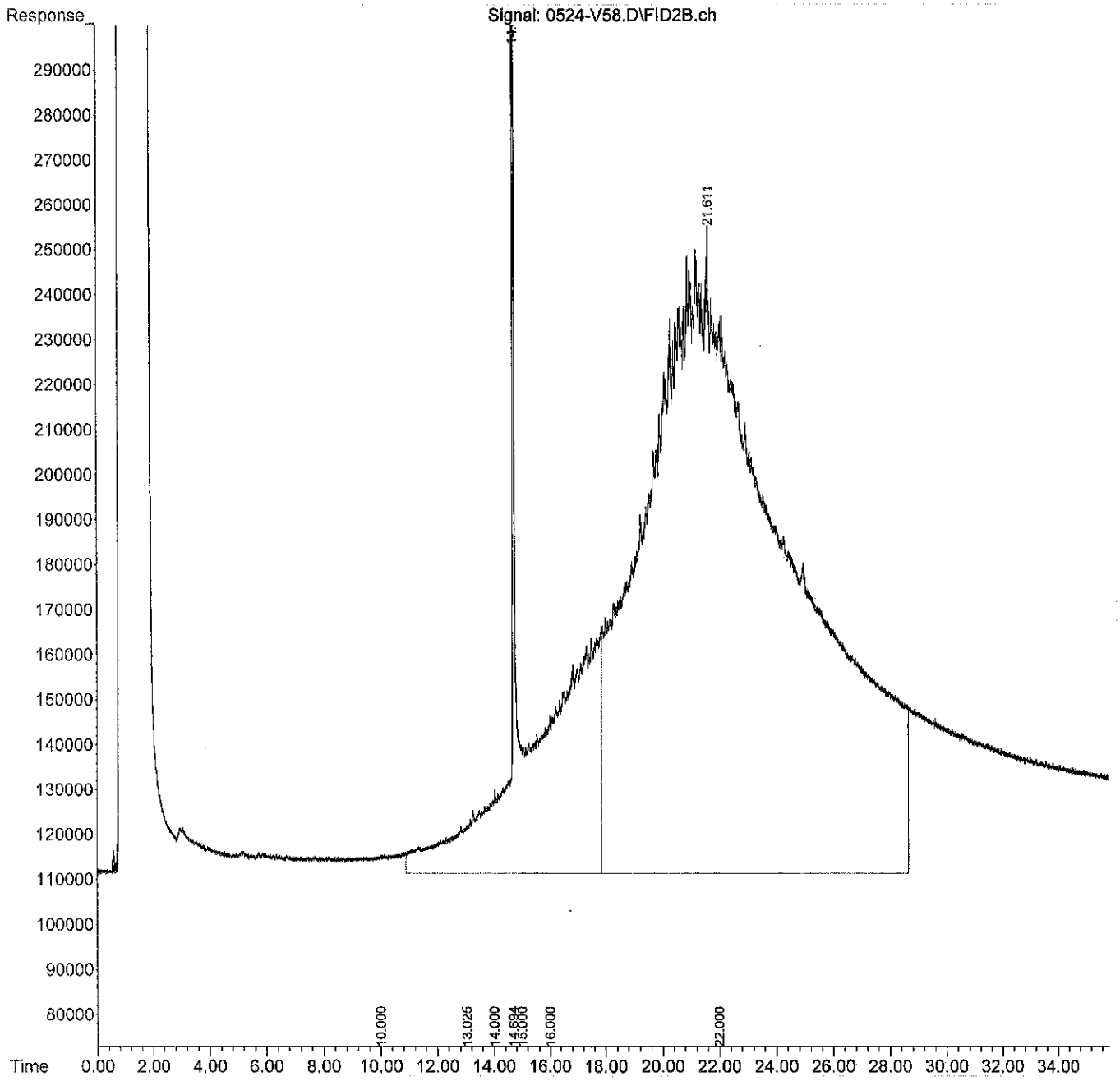
Quantitation Report (Not Reviewed)

Data File : 0524-V58.D
Sample : 05-146-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 16:22
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:59:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V57.D
Sample : MB0524S3

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 15:41
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:18:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.704	121796269	44.059	PPM
Spiked Amount	50.000		Recovery =	88.12%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	15565246	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	24249916	11.649	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	21064794	8.038	PPM
6) H	Oil (04-04-13)	22.000	60498892	23.000	PPM
7) H	Oil Acid Clean (02-0...	22.000	60498892	22.074	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	20159077	7.895	PPM
9) H	Oil Combo (04-04-13)	22.000	58874772	22.858	PPM
10) H	Oil Acid Clean Combo ...	22.000	58874772	21.948	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	21823284	3.241	PPM
12) H	Alaska 103 Oil (06-2...	22.000	23563076	10.240	PPM
13) H	Mineral Oil (01-29-13)	16.000	15012593	2.108	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	78299967	23.967	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	78299967	10.143	PPM
16) H	ALKANE C9-C40	12.666	84101976	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	12222516	1.938	PPM
18) H	Oil Acid Clean MO Com...	22.000	58109779	22.465	PPM
19) H	Oil MO Combo (04-04-13)	22.000	58109779	23.345	PPM

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

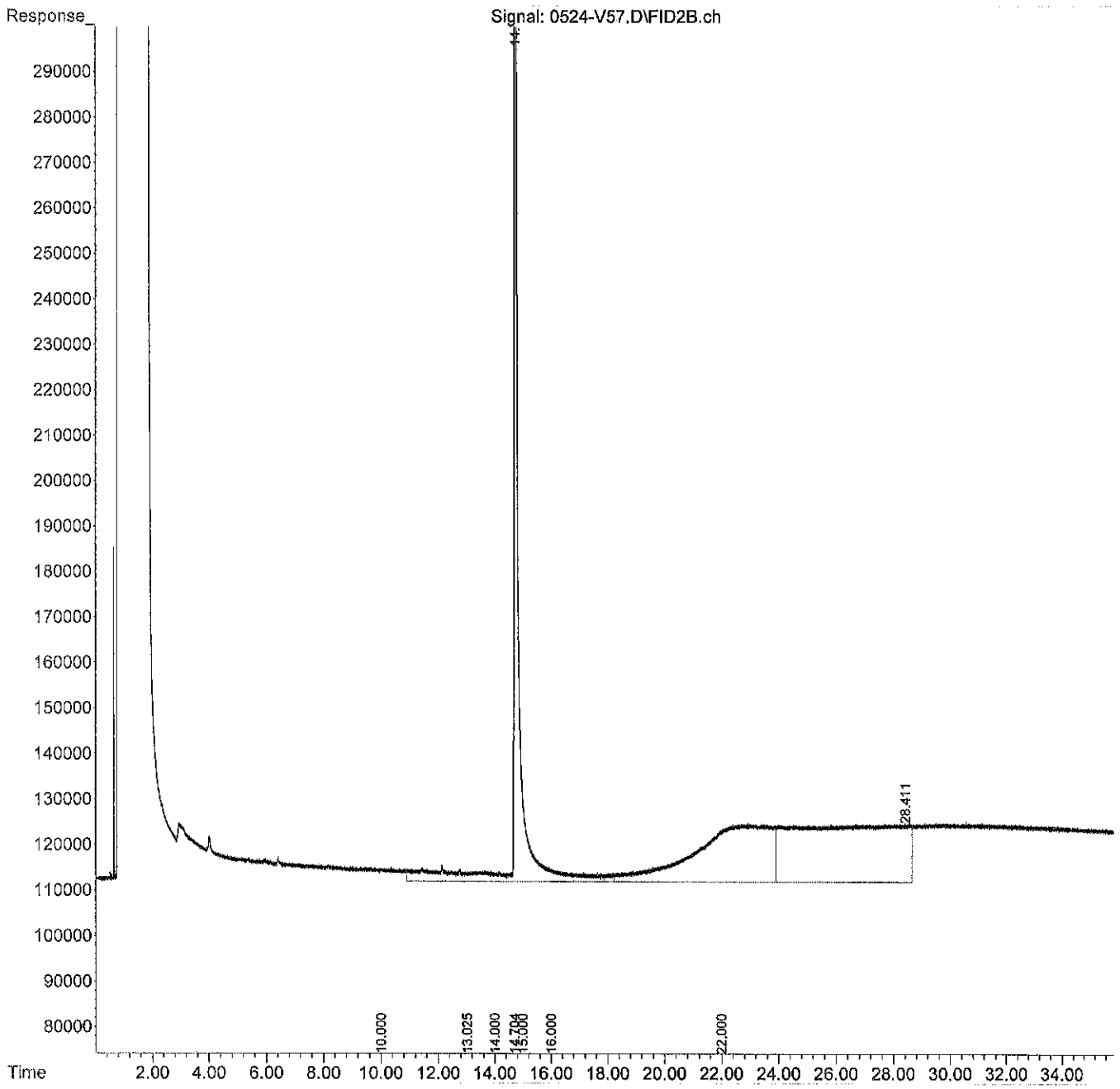
Quantitation Report (Not Reviewed)

Data File : 0524-V57.D
Sample : MB0524S3

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 15:41
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:18:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V08.D
Sample : 05-146-20 5X DUP

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 16:22
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:59:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.695	27836794	8.766	PPM
Spiked Amount	50.000		Recovery =	17.53%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6324451	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	36075542	15.760	PPM
5) H	Diesel Fuel #2 (01-...	14.000	76866559	30.952	PPM
6) H	Oil (04-04-13)	22.000	328345393	159.943	PPM
7) H	Oil Acid Clean (02-...	22.000	328345393	158.980	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	52819296	21.472	PPM
9) H	Oil Combo (04-04-13)	22.000	308877293	153.744	PPM
10) H	Oil Acid Clean Combo ...	22.000	308877293	152.304	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	79913177	29.049	PPM
12) H	Alaska 103 Oil (06-2...	22.000	205145258	181.887	PPM
13) H	Mineral Oil (01-29-13)	16.000	134239977	45.812	PPM
14) H	Bunker C-ACU (Fuel Oi...	15.000	361384181	228.381	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	361384181	228.195	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	363129535	4601.596	PPM
17) H	Mineral Oil Combo (0...	16.000	65832972	21.809	PPM
18) H	Oil Acid Clean MO Com...	22.000	288910537	146.993	PPM
19) H	Oil MO Combo (04-04-13)	22.000	288910537	148.906	PPM

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

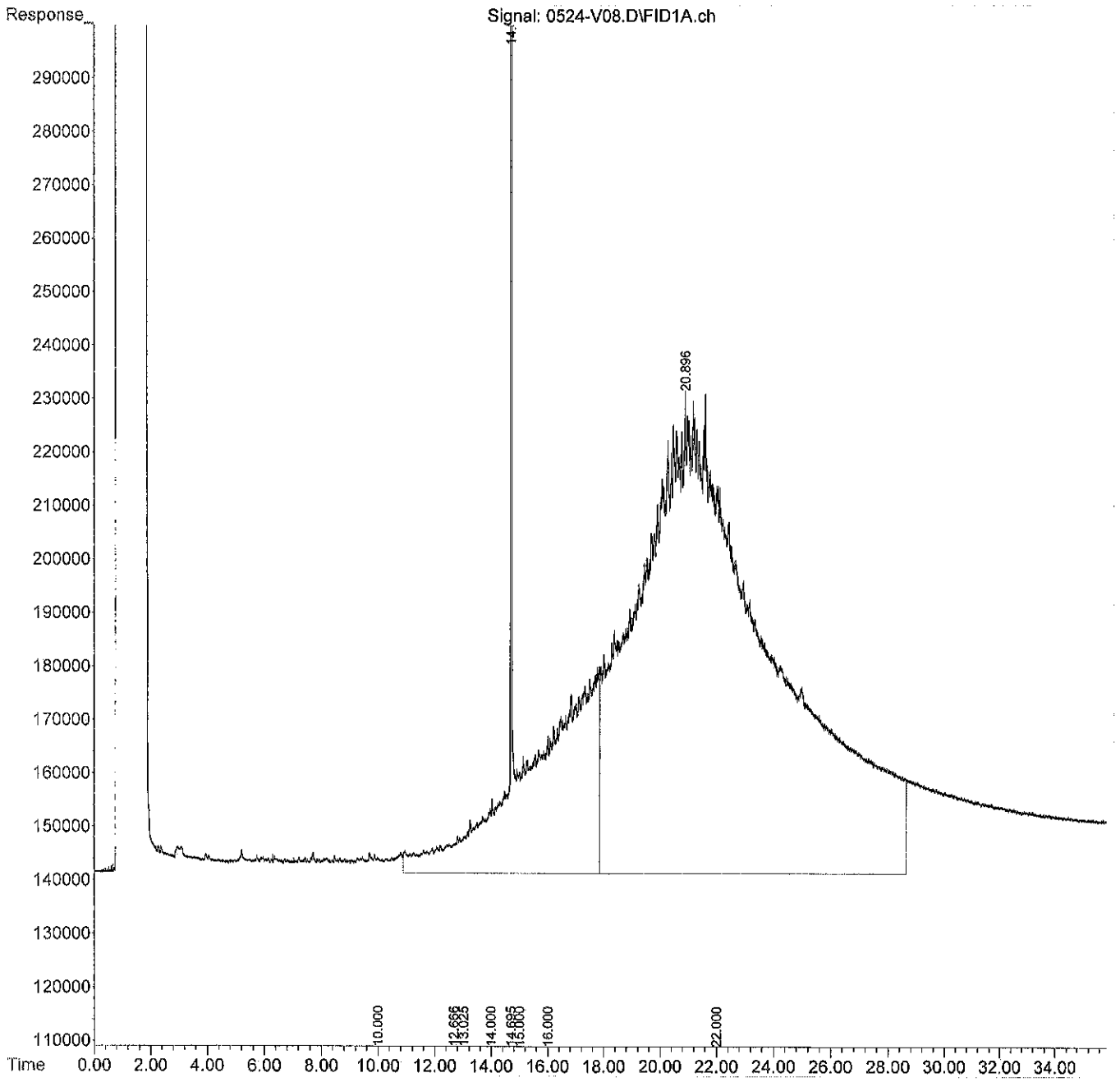
Quantitation Report (Not Reviewed)

Data File : 0524-V08.D
Sample : 05-146-20 5X DUP

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 16:22
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 16:59:03 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V05.D
Sample : BUNKCCV0524F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 14:05
Operator :
Misc : SV3-05-04
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 14:41:45 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.678	1378738	0.185	PPM
Spiked Amount		50.000		Recovery =	0.37%	
Target Compounds						
2)		1-Chlorooctadecane (...	16.011	2349042	1.266	PPM
3)	H	Gasoline	3.500	12260957	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	254673199	103.133	PPM
5)	H	Diesel Fuel #2 (01-...	14.000	357379714	147.233	PPM
6)	H	Oil (04-04-13)	22.000	428648443	208.994	PPM
7)	H	Oil Acid Clean (02-...	22.000	428648443	209.624	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	303719527	127.677	PPM
9)	H	Oil Combo (04-04-13)	22.000	373947475	186.191	PPM
10)	H	Oil Acid Clean Combo ...	22.000	373947475	185.823	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	363627742	141.397	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	247997270	221.439	PPM
13)	H	Mineral Oil (01-29-13)	16.000	391330454	136.349	PPM
14)	H	Bunker C-ACU (Fuel Oi...	15.000	677799318	446.319	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	677799318	447.405	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	682275463	8665.155	PPM
17)	H	Mineral Oil Combo (0...	16.000	278126834	101.247	PPM
18)	H	Oil Acid Clean MO Com...	22.000	328184389	167.928	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	328184389	169.162	PPM

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

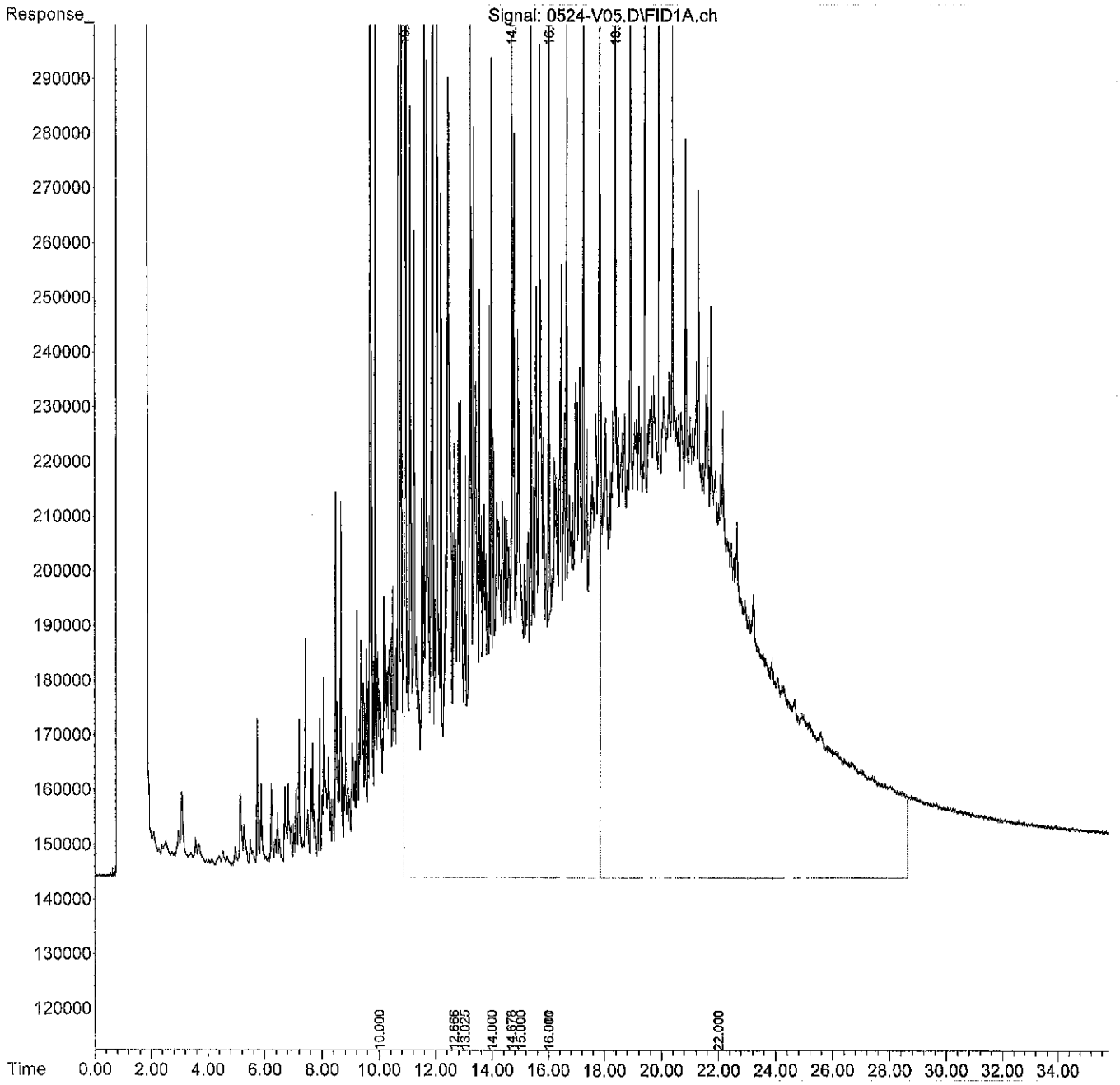
Quantitation Report (Not Reviewed)

Data File : 0524-V05.D
Sample : BUNKCCV0524F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 14:05
Operator :
Misc : SV3-05-04
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 14:41:45 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V11.D
Sample : BUNKCCV0524F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 18:25
Operator :
Misc : SV3-05-04
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 19:01:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.676	1438141	0.205 PPM
	Spiked Amount 50.000		Recovery =	0.41%
	Target Compounds			
2)	1-Chlorooctadecane (...	16.010	2500487	1.330 PPM
3)	H Gasoline	3.500	10566597	NoCal PPM
4)	H Diesel Fuel #1 (01-2...	10.000	263550077	106.681 PPM
5)	H Diesel Fuel #2 (01-...	14.000	372959807	153.692 PPM
6)	H Oil (04-04-13)	22.000	463385140	225.982 PPM
7)	H Oil Acid Clean (02-...	22.000	463385140	227.163 PPM
8)	H Diesel Fuel #2 Combo ...	14.000	316260302	132.986 PPM
9)	H Oil Combo (04-04-13)	22.000	405832871	202.091 PPM
10)	H Oil Acid Clean Combo ...	22.000	405832871	202.247 PPM
11)	H Alaska 102 DF2 (06-2...	13.025	379336472	147.618 PPM
12)	H Alaska 103 Oil (06-2...	22.000	267448286	239.392 PPM
13)	H Mineral Oil (01-29-13)	16.000	412112343	143.667 PPM
14)	H Bunker C-ACU (Fuel Oi...	15.000	722146569	476.864 PPM
15)	H Bunker C (Fuel Oil #6...	15.000	722146569	478.128 PPM
16)	H ALKANE C9-C40 10-26-07	12.666	725625843	9217.118 PPM
17)	H Mineral Oil Combo (0...	16.000	291110461	106.106 PPM
18)	H Oil Acid Clean MO Com...	22.000	357449678	183.529 PPM
19)	H Oil MO Combo (04-04-13)	22.000	357449678	184.257 PPM

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

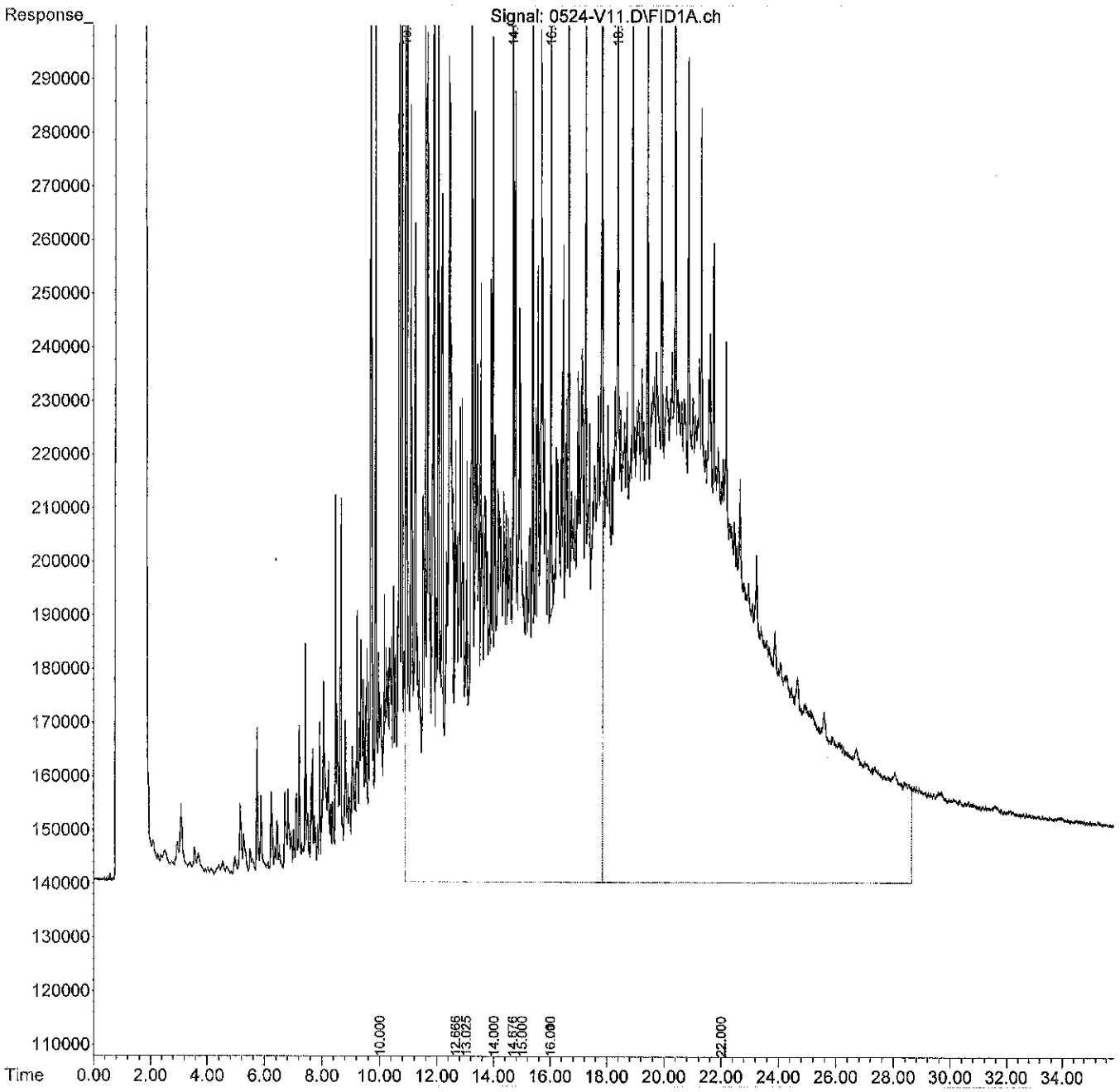
Quantitation Report (Not Reviewed)

Data File : 0524-V11.D
Sample : BUNKCCV0524F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130524\
Signal(s) : FID1A.ch
Acq On : 24 May 2013 18:25
Operator :
Misc : SV3-05-04
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 19:01:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V55.D
Sample : BUNKCCV0524R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 14:05
Operator :
Misc : SV3-05-04
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 14:42:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	21308335	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	236954950	104.534	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	323544576	147.479	PPM
6) H	Oil (04-04-13)	22.000	415360140	212.976	PPM
7) H	Oil Acid Clean (02-0...	22.000	415360140	215.831	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	276211115	128.441	PPM
9) H	Oil Combo (04-04-13)	22.000	367297238	191.359	PPM
10) H	Oil Acid Clean Combo ...	22.000	367297238	193.717	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	332194079	122.846	PPM
12) H	Alaska 103 Oil (06-2...	22.000	230490970	191.764	PPM
13) H	Mineral Oil (01-29-13)	16.000	349406654	137.624	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	642408359	428.755	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	642408359	440.587	PPM
16) H	ALKANE C9-C40	12.666	650882345	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	249657074	102.031	PPM
18) H	Oil Acid Clean MO Com...	22.000	327233285	177.467	PPM
19) H	Oil MO Combo (04-04-13)	22.000	327233285	175.515	PPM

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

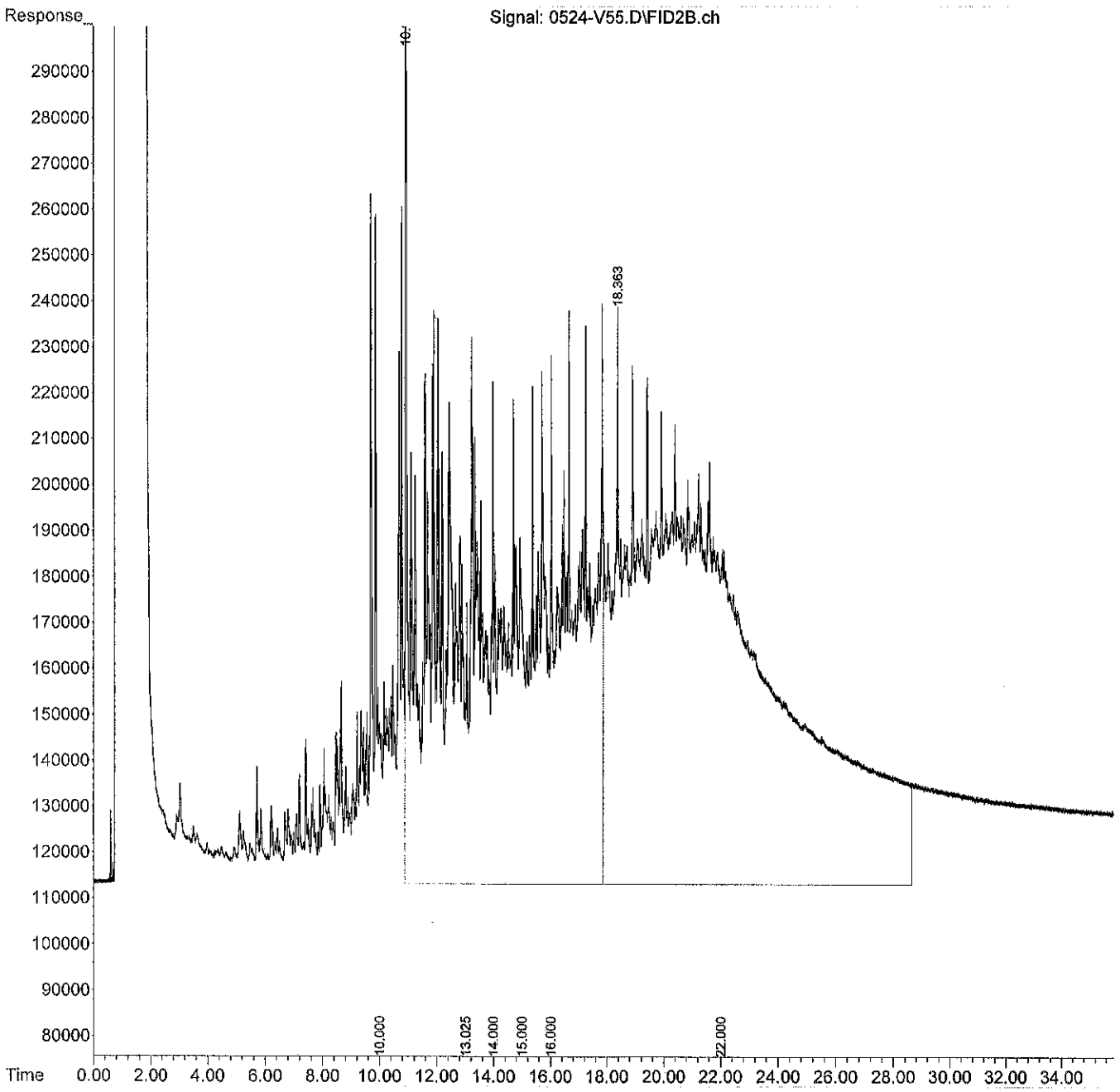
Quantitation Report (Not Reviewed)

Data File : 0524-V55.D
Sample : BUNKCCV0524R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 14:05
Operator :
Misc : SV3-05-04
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 14:42:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0524-V61.D
Sample : BUNKCCV0524R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 18:25
Operator :
Misc : SV3-05-04
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 19:02:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	17923355	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	244622557	107.882	PPM
5) H	Diesel Fuel #2 (01-2...	14.000	340537322	155.312	PPM
6) H	Oil (04-04-13)	22.000	454582604	233.974	PPM
7) H	Oil Acid Clean (02-0...	22.000	454582604	237.247	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	289170875	134.543	PPM
9) H	Oil Combo (04-04-13)	22.000	402807877	210.760	PPM
10) H	Oil Acid Clean Combo ...	22.000	402807877	213.494	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	349436170	129.490	PPM
12) H	Alaska 103 Oil (06-2...	22.000	254436799	212.770	PPM
13) H	Mineral Oil (01-29-13)	16.000	375193089	148.074	PPM
14) H	Bunker C-ACU- (Fuel O...	15.000	690711906	463.417	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	690711906	477.445	PPM
16) H	ALKANE C9-C40	12.666	697500940	NoCal	PPM
17) H	Mineral Oil Combo (01...	16.000	265180997	108.575	PPM
18) H	Oil Acid Clean MO Com...	22.000	359159823	195.856	PPM
19) H	Oil MO Combo (04-04-13)	22.000	359159823	193.567	PPM

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

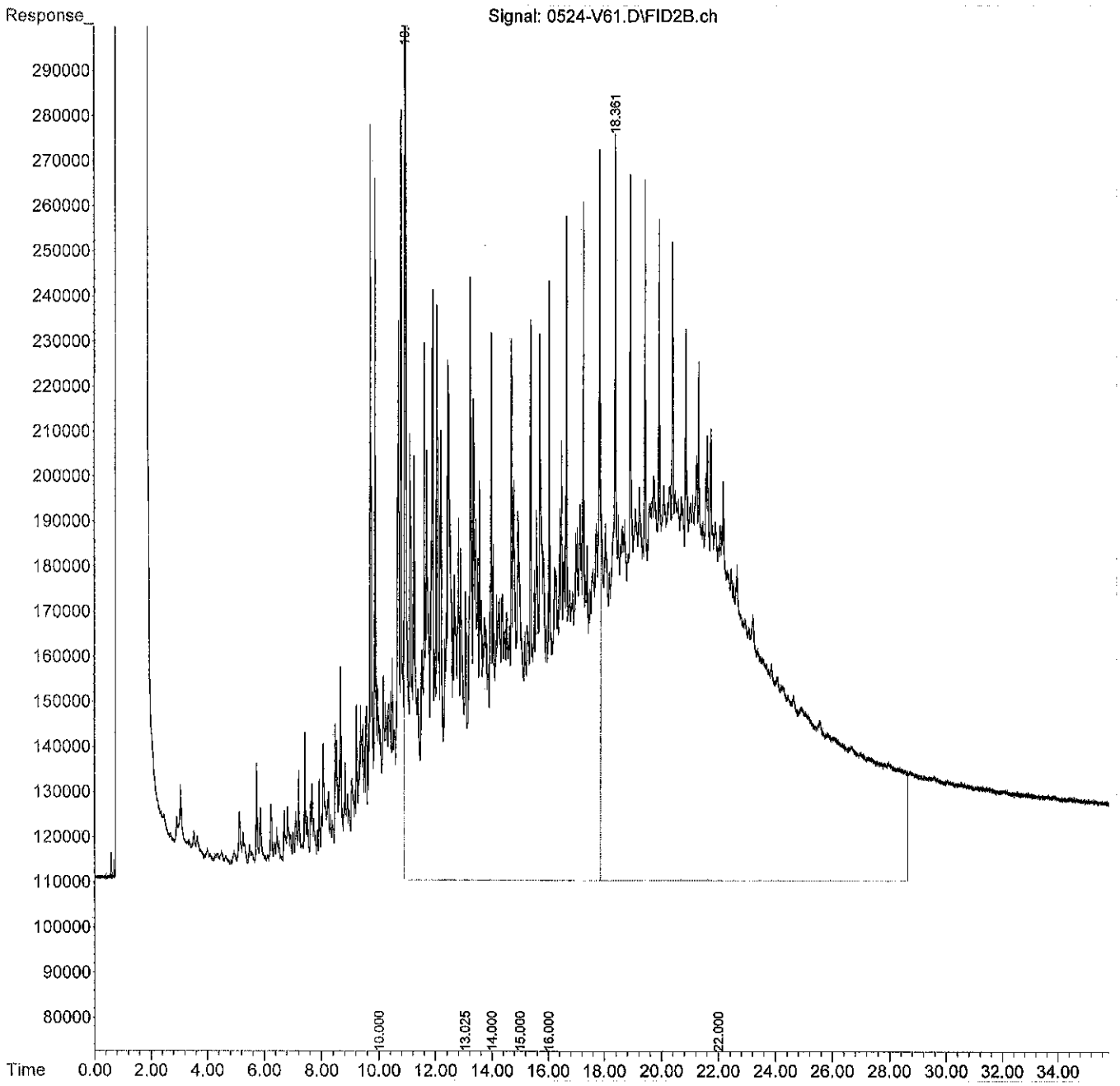
Quantitation Report (Not Reviewed)

Data File : 0524-V61.D
Sample : BUNKCCV0524R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130524.SEC\
Signal(s) : FID2B.ch
Acq On : 24 May 2013 18:25
Operator :
Misc : SV3-05-04
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 24 19:02:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130517R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 17, 2013

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1306-118

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 13, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

Case Narrative

Samples were collected on June 11, 12, and 13, 2013 and received by the laboratory on June 13, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
PCS B04EX-SWN-061113-2	06-118-01	Soil	6-11-13	6-13-13	
PCS B04EX-SWE-061113-2	06-118-02	Soil	6-11-13	6-13-13	
PCS B04EX-SWW-061113-2	06-118-03	Soil	6-11-13	6-13-13	
PCS B04EX-SWS-061113-2	06-118-04	Soil	6-11-13	6-13-13	
PCS B04EX-BASE-061113-2	06-118-05	Soil	6-11-13	6-13-13	
PCS B03EX-SWNW-061113-2	06-118-06	Soil	6-11-13	6-13-13	
PCS B03EX-SWNE-061113-2	06-118-07	Soil	6-11-13	6-13-13	
PCS B03EX-SWSW-061113-2	06-118-08	Soil	6-11-13	6-13-13	
PCS B03EX-SWSE-061113-2	06-118-09	Soil	6-11-13	6-13-13	
PCS B03EX-BASE-061113-2	06-118-10	Soil	6-11-13	6-13-13	
PCS B10EX-SWNW-061213-5	06-118-11	Soil	6-12-13	6-13-13	
PCS B10EX-SWW-061213-5	06-118-12	Soil	6-12-13	6-13-13	
PCS B10EX-SWNE-061213-5	06-118-13	Soil	6-12-13	6-13-13	
PCS B10EX-BASE-061213-6	06-118-14	Soil	6-12-13	6-13-13	
PCS B10EX-SWE-061213-5	06-118-15	Soil	6-12-13	6-13-13	
PCS B10EX-SWS-061213-5	06-118-16	Soil	6-12-13	6-13-13	
PCS B10EX-SWSE-061213-5	06-118-17	Soil	6-12-13	6-13-13	
PCS B10EX-SWSW-061213-5	06-118-18	Soil	6-12-13	6-13-13	
TP3EX-SWN-061213-5	06-118-19	Soil	6-12-13	6-13-13	
TP3EX-SWN-061213-1.5	06-118-20	Soil	6-12-13	6-13-13	
TP3EX-SWNW-061213-5	06-118-21	Soil	6-12-13	6-13-13	
TP3EX-SWNW-061213-1.5	06-118-22	Soil	6-12-13	6-13-13	
PCS B10EX-SWNW-061213-1.5	06-118-23	Soil	6-12-13	6-13-13	
PCS B10EX-SWW-061213-1.5	06-118-24	Soil	6-12-13	6-13-13	
PCS B10EX-SWNE-061213-1.5	06-118-25	Soil	6-12-13	6-13-13	
PCS B10EX-SWE-061213-1.5	06-118-26	Soil	6-12-13	6-13-13	
PCS B10EX-SWS-061213-1.5	06-118-27	Soil	6-12-13	6-13-13	
PCS B10EX-SWSE-061213-1.5	06-118-28	Soil	6-12-13	6-13-13	
PCS B10EX-SWSW-061213-1.5	06-118-29	Soil	6-12-13	6-13-13	
TP3EX-SWE-061313-5	06-118-30	Soil	6-13-13	6-13-13	
TP3EX-SWE-061313-1.5	06-118-31	Soil	6-13-13	6-13-13	
TP3EX-SWSE-061313-5	06-118-32	Soil	6-13-13	6-13-13	
TP3EX-SWSE-061313-1.5	06-118-33	Soil	6-13-13	6-13-13	
TP3EX-SWS-061313-5	06-118-34	Soil	6-13-13	6-13-13	
TP3EX-SWS-061313-1.5	06-118-35	Soil	6-13-13	6-13-13	
TP3EX-BASE-061313-6	06-118-36	Soil	6-13-13	6-13-13	
OB1-061313	06-118-37	Soil	6-13-13	6-13-13	
OB2-061313	06-118-38	Soil	6-13-13	6-13-13	
OB3-061313	06-118-39	Soil	6-13-13	6-13-13	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCS B04EX-SWN-061113-2**					
Laboratory ID:	06-118-01					
Bunker C	**2200**	62	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***85***	***50-150***				
Client ID:	**PCS B04EX-SWE-061113-2**					
Laboratory ID:	06-118-02					
Bunker C	**1500**	59	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Client ID:	**PCS B04EX-SWW-061113-2**					
Laboratory ID:	06-118-03					
Bunker C	**1600**	60	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***94***	***50-150***				
Client ID:	**PCS B04EX-SWS-061113-2**					
Laboratory ID:	06-118-04					
Bunker C	**2500**	62	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Client ID:	**PCS B04EX-BASE-061113-2**					
Laboratory ID:	06-118-05					
Bunker C	**2500**	310	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***99***	***50-150***				
Client ID:	**PCS B03EX-SWNW-061113-2**					
Laboratory ID:	06-118-06					
Bunker C	**2500**	61	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				
Client ID:	**PCS B03EX-SWNE-061113-2**					
Laboratory ID:	06-118-07					
Bunker C	**1800**	65	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***81***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCS B03EX-SWSW-061113-2**					
Laboratory ID:	06-118-08					
Bunker C	**6800**	620	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**PCS B03EX-SWSE-061113-2**					
Laboratory ID:	06-118-09					
Bunker C	**2300**	67	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***73***	***50-150***				
Client ID:	**PCS B03EX-BASE-061113-2**					
Laboratory ID:	06-118-10					
Bunker C	**4000**	340	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**PCS B10EX-SWNW-061213-5**					
Laboratory ID:	06-118-11					
Bunker C Range	**ND**	52	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***98***	***50-150***				
Client ID:	**PCS B10EX-SWW-061213-5**					
Laboratory ID:	06-118-12					
Bunker C	**13000**	1100	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**PCS B10EX-SWNE-061213-5**					
Laboratory ID:	06-118-13					
Bunker C	**260**	67	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***77***	***50-150***				
Client ID:	**PCS B10EX-BASE-061213-6**					
Laboratory ID:	06-118-14					
Bunker C	**12000**	570	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCS B10EX-SWE-061213-5**					
Laboratory ID:	06-118-15					
Bunker C	**52000**	1400	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**PCS B10EX-SWS-061213-5**					
Laboratory ID:	06-118-16					
Bunker C	**170**	63	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**PCS B10EX-SWSE-061213-5**					
Laboratory ID:	06-118-17					
Bunker C Range	**ND**	69	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**PCS B10EX-SWSW-061213-5**					
Laboratory ID:	06-118-18					
Bunker C	**19000**	1100	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3EX-SWN-061213-5**					
Laboratory ID:	06-118-19					
Bunker C	**6300**	360	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Client ID:	**TP3EX-SWN-061213-1.5**					
Laboratory ID:	06-118-20					
Bunker C	**12000**	1200	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3EX-SWNW-061213-5**					
Laboratory ID:	06-118-21					
Bunker C	**650**	71	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWNW-061213-1.5**					
Laboratory ID:	06-118-22					
Bunker C	**29000**	1200	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**PCS B10EX-SWNW-061213-1.5**					
Laboratory ID:	06-118-23					
Bunker C	**940**	61	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***107***	***50-150***				
Client ID:	**PCS B10EX-SWW-061213-1.5**					
Laboratory ID:	06-118-24					
Bunker C	**430**	61	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**PCS B10EX-SWNE-061213-1.5**					
Laboratory ID:	06-118-25					
Bunker C	**770**	64	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**PCS B10EX-SWE-061213-1.5**					
Laboratory ID:	06-118-26					
Bunker C	**1200**	60	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				
Client ID:	**PCS B10EX-SWS-061213-1.5**					
Laboratory ID:	06-118-27					
Bunker C	**750**	56	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***108***	***50-150***				
Client ID:	**PCS B10EX-SWSE-061213-1.5**					
Laboratory ID:	06-118-28					
Bunker C	**960**	58	NWTPH-Dx	6-14-13	6-16-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCS B10EX-SWSW-061213-1.5**					
Laboratory ID:	06-118-29					
Bunker C	**1100**	61	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***98***	***50-150***				
Client ID:	**TP3EX-SWE-061313-5**					
Laboratory ID:	06-118-30					
Bunker C	**11000**	700	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**TP3EX-SWE-061313-1.5**					
Laboratory ID:	06-118-31					
Bunker C	**69**	51	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***95***	***50-150***				
Client ID:	**TP3EX-SWSE-061313-5**					
Laboratory ID:	06-118-32					
Bunker C	**5100**	380	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***82***	***50-150***				
Client ID:	**TP3EX-SWSE-061313-1.5**					
Laboratory ID:	06-118-33					
Bunker C	**84**	51	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***103***	***50-150***				
Client ID:	**TP3EX-SWS-061313-5**					
Laboratory ID:	06-118-34					
Bunker C	**9300**	350	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***77***	***50-150***				
Client ID:	**TP3EX-SWS-061313-1.5**					
Laboratory ID:	06-118-35					
Bunker C	**5700**	290	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***75***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-BASE-061313-6**					
Laboratory ID:	06-118-36					
Bunker C	**53000**	3500	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**OB1-061313**					
Laboratory ID:	06-118-37					
Bunker C	**1700**	58	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				
Client ID:	**OB2-061313**					
Laboratory ID:	06-118-38					
Bunker C	**1600**	55	NWTPH-Dx	6-13-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***85***	***50-150***				
Client ID:	**OB3-061313**					
Laboratory ID:	06-118-39					
Bunker C	**400**	55	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0613S3					
Bunker C Range	**ND**	50	NWTPH-Dx	6-13-13	6-13-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***97***	***50-150***				
Laboratory ID:	MB0614S2					
Bunker C Range	**ND**	50	NWTPH-Dx	6-14-13	6-14-13	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***101***	***50-150***				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-118-03							
	ORIG	DUP						
Bunker C	**1310**	**808**				47	NA	
Surrogate:								
o-Terphenyl			***94***	***62***	***50-150***			
Laboratory ID:	06-118-20							
	ORIG	DUP						
Bunker C	**9540**	**8170**				15	NA	
Surrogate:								
o-Terphenyl			***---***	***---***	***50-150***			S,S
Laboratory ID:	06-118-31							
	ORIG	DUP						
Bunker C	**67.3**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			***95***	***97***	***50-150***			
Laboratory ID:	06-118-33							
	ORIG	DUP						
Bunker C	**82.9**	**62.2**				29	NA	
Surrogate:								
o-Terphenyl			***103***	***101***	***50-150***			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BUNKCCV0613F-V1	500	458	8.4	+/-15%
BUNKCCV0613F-V2	500	504	-0.8	+/-15%
BUNKCCV0613F-V3	500	574	-15	+/-15%
BUNKCCV0613R-V1	500	466	6.8	+/-15%
BUNKCCV0613R-V2	500	490	2.0	+/-15%
BUNKCCV0614F-V1	500	539	-7.8	+/-15%
BUNKCCV0614F-V2	500	503	-0.6	+/-15%
BUNKCCV0614F-V3	500	566	-13	+/-15%
BUNKCCV0614F-V4	500	555	-11	+/-15%
BUNKCCV0614F-V5	500	569	-14	+/-15%
BUNKCCV0614F-V6	500	563	-13	+/-15%
BUNKCCV0614R-V1	500	574	-15	+/-15%
BUNKCCV0614R-V2	500	507	-1.4	+/-15%
BUNKCCV0614R-V3	500	544	-8.8	+/-15%
BUNKCCV0614R-V4	500	571	-14	+/-15%
BUNKCCV0614R-V5	500	536	-7.2	+/-15%
BUNKCCV0614R-V6	500	484	3.2	+/-15%
BUNKCCV0616F-V1	500	461	7.8	+/-15%
BUNKCCV0616F-V2	500	500	0.0	+/-15%
BUNKCCV0616R-V1	500	431	14	+/-15%
BUNKCCV0616R-V2	500	511	-2.2	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-13&14-13

Client ID	Lab ID	% Moisture
PCS B04EX-SWN-061113-2	06-118-01	20
PCS B04EX-SWE-061113-2	06-118-02	15
PCS B04EX-SWW-061113-2	06-118-03	17
PCS B04EX-SWS-061113-2	06-118-04	19
PCS B04EX-BASE-061113-2	06-118-05	20
PCS B03EX-SWNW-061113-2	06-118-06	18
PCS B03EX-SWNE-061113-2	06-118-07	24
PCS B03EX-SWSW-061113-2	06-118-08	20
PCS B03EX-SWSE-061113-2	06-118-09	25
PCS B03EX-BASE-061113-2	06-118-10	27
PCS B10EX-SWNW-061213-5	06-118-11	3
PCS B10EX-SWW-061213-5	06-118-12	7
PCS B10EX-SWNE-061213-5	06-118-13	25
PCS B10EX-BASE-061213-6	06-118-14	12
PCS B10EX-SWE-061213-5	06-118-15	26
PCS B10EX-SWS-061213-5	06-118-16	21
PCS B10EX-SWSE-061213-5	06-118-17	27
PCS B10EX-SWSW-061213-5	06-118-18	9
TP3EX-SWN-061213-5	06-118-19	30
TP3EX-SWN-061213-1.5	06-118-20	19
TP3EX-SWNW-061213-5	06-118-21	29
TP3EX-SWNW-061213-1.5	06-118-22	15
PCS B10EX-SWNW-061213-1.5	06-118-23	18
PCS B10EX-SWW-061213-1.5	06-118-24	18
PCS B10EX-SWNE-061213-1.5	06-118-25	21
PCS B10EX-SWE-061213-1.5	06-118-26	16
PCS B10EX-SWS-061213-1.5	06-118-27	11

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-118
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-13&14-13

Client ID	Lab ID	% Moisture
PCS B10EX-SWSE-061213-1.5	06-118-28	14
PCS B10EX-SWSW-061213-1.5	06-118-29	17
TP3EX-SWE-061313-5	06-118-30	28
TP3EX-SWE-061313-1.5	06-118-31	3
TP3EX-SWSE-061313-5	06-118-32	34
TP3EX-SWSE-061313-1.5	06-118-33	2
TP3EX-SWS-061313-5	06-118-34	29
TP3EX-SWS-061313-1.5	06-118-35	14
TP3EX-BASE-061313-6	06-118-36	28
OB1-061313	06-118-37	14
OB2-061313	06-118-38	9
OB3-061313	06-118-39	9

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Page 1 of 4

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sewer
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
~~☐ 2 Days~~ new
☐ 3 Days
☐ Standard (7 Days)
(TPH analysis 5 Days)
5 Day TAT for cPAHs
☒ By fri 6/14 Afternoon
(other) for Priority 1 Samples

Laboratory Number: 06-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx Bunker Range Hydrocarbons	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	* Priority Level	% Moisture
1	PCSB04EX-SWN-061113-2	6/11/13	0945	Soil	1				X				H								3	X
2	PCSB04EX-SWE-061113-2		0950		1				X				H								3	X
3	PCSB04EX-SWW-061113-2		0955		1				X				H								3	X
4	PCSB04EX-SWS-061113-2		1000		1				X				H								3	X
5	PCSB04EX-BASE-061113-2		1005		1				X				H								3	X
6	PCSB03EX-SWNW061113-2		1010		1				X				H								3	X
7	PCSB03EX-SWNE061113-2		1015		1				X				H								3	X
8	PCSB03EX-SWSW-061113-2		1020		1				X				H								3	X
9	PCSB03EX-SWSE-061113-2		1025		1				X				H								3	X
10	PCSB03EX-BASE-061113-2		1030		1				X				H								3	X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/13/13	1545
Received		OSE	6/13/13	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
H=Hold pending TPH results. If Bunker is below site cleanup level of 2640 mg/kg then extract and analyze for cPAHs.
* Priority Level order for analysis 1 through 4.
cPAHs will be on 5 Day TAT only

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐
Electronic Data Deliverables (EDDs) ☒ Equis 5

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☒ 5 Day for cPAHs By Fri Afternoon 6/14 (other) for Priority 1 Samples

Laboratory Number: 06-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx Bunker C	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogens only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Priority Level *						% Moisture
11	PCSB10EX-SWNW-061213-5	6/12/13	1140	Soil	1				X				H								1						X
12	PCSB10EX-SWW-061213-5		1145		1				X				H								1						X
13	PCSB10EX-SWNE-061213-5		1150		1				X				H								1						X
14	PCSB10EX-BASE-061213-6		1155		1				X				H								4						X
15	PCSB10EX-SWE-061213-5		1200		1				X				H								1						X
16	PCSB10EX-SWS-061213-5		1215		1				X				H								1						X
17	PCSB10EX-SWSE-061213-5		1220		1				X				H								1						X
18	PCSB10EX-SWSW-061213-5		1230		1				X				H								1						X
19	TP3EX-SWN-061213-5		1415		1				X				H								1						X
20	TP3EX-SWN-061213-1.5		1420		1				X				H								3						X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/13/13	1545
Received		ORE	6/13/13	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
H: Hold Pending TPH Results If TPH ~~exceeds~~ is less than 2,640 mg/kg then extract and run cPAHs.
* Priority Level order for analysis 1 through 4.
cPAHs will be on 5 Day TAT Only

Chromatograms with final report ☐

Data Package: Level II ☒ Level IV ☐
Electronic Data Deliverables (EDDs) ☒ Equis 5

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sediu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
5 Day TAT for cPAHs
☒ By Fri. Afternoon 6/14
(other) for Priority 1 Samples

Laboratory Number: 06-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx Bunker C	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogenic only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Priority Level *						% Moisture
21	TP3EX-SWNW-061213-5	6/12/13	1425	Soil	1				X				H								1						X
22	TP3EX-SWNW-061213-1.5	6/12/13	1430		1				X				H								3						X
23	PCSB10EX-SWNW-061213-1.5		1515		1				X				H								3						X
24	PCSB10EX-SW W -061213-1.5		1520		1				X				H								3						X
25	PCSB10EX-SW NE-061213-1.5		1525		1				X				H								3						X
26	PCSB10EX-SW E -061213-1.5		1530		1				X				H								3						X
27	PCSB10EX-SW S -061213-1.5		1535		1				X				H								3						X
28	PCSB10EX-SW SE -061213-1.5		1540		1				X				H								3						X
29	PCSB10EX-SWSW-061213-1.5		1545		1				X				H								3						X
30	TP3EX-SWE-061313-5	6/13/13	0830		1				X				H								1						X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/13/13	1545
Received		ORE	6/13/13	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
H = Hold Pending TPH results. If TPH is less than 2,640 mg/kg then extract and analyze for cPAHs
* Priority Level order for analysis 1 through 4.
cPAHs will be on 5 Day TAT only

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐
Electronic Data Deliverables (EDDs) ☒ Equis

Chain of Custody

Page 4 of 4

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
5 Day TAT for cPAHs
☒ By Fri 6/14 COB
(other) for Priority 1 Samples

Laboratory Number: 06-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx Bunker C	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) carcinogens only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Priority Level	% Moisture
31	TP3EX-SWE-061313-1.5	6/13/13	0835	Soil	1				X				H								3	X
32	TP3EX-SWSE-061313-5		0840		1				X				H								1	X
33	TP3EX-SWSE-061313-1.5		0845		1				X				H								3	X
34	TP3EX-SWS-061313-5		0850		1				X				H								1	X
35	TP3EX-SWS-061313-1.5		0855		1				X				H								3	X
36	TP3EX-BASE-061313-6		0900		1				X				H								4	X
37	OB1-061313		1000		1				X				H								2	X
38	OB2-061313		1005		1				X				H								2	X
39	OB3-061313		1010		1				X				H								2	X

	Signature	Company	Date	Time
Relinquished		GeoEngineers	6/13/13	1545
Received		OSE	6/13/13	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

H = Hold Pending TPH results. If Bunker results are below 2,640 mg/kg then extract and Hold for cPAHs

* Priority Level order for analysis 1 through 4.

cPAHs will be on 5 Day TAT only

Chromatograms with final report ☐

Data Package: Level III ☒ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Equis 5

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-118

Initiated by: MM

Date Initiated: 6/13/13

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No	1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No	1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No	1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No	1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No	1 2 3 4	
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

24) Sample 11) PCSBIOEX-SWNW-061213-5 6/12/13 1140 on COC
PCSBIOEX-SWNW-5 6/12/13 1140 on label
Sample 12) PCSBIOEX-SWW-061213-5 6/12/13 1145 on COC
PCSBIOEX-SWW-5 6/12/13 1145 on label
Sample 13) PCSBIOEX-SWNE-061213-5 6/12/13 1150 on COC
PCSBIOEX-SWNE-5 6/12/13 1150 on label

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- NWTPH-Dx (Bunker Range) Data

NWTPH-Diesel Data

Quantitation Report (Not Reviewed)

Data File : 0614-V47.D
Sample : 06-118-01

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 18:40
Operator :
Misc :
ALS Vial : 47 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 19:16:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.697	131334440	42.330	PPM
Spiked Amount		50.000		Recovery =	84.66%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	13731469	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	162568139	66.319	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	422379646	181.113	PPM
6)	H	Oil (04-04-13)	22.000	2380536084	1163.535	PPM
7)	H	Oil Acid Clean (02-...	22.000	2380536084	1195.152	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	270347273	118.376	PPM
9)	H	Oil Combo (04-04-13)	22.000	2267294557	1130.317	PPM
10)	H	Oil Acid Clean Combo ...	22.000	2267294557	1161.114	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	440288685	171.754	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1538746218	1412.775	PPM
13)	H	Mineral Oil (06-06-13)	16.000	849854650	328.574	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	2533900155	1816.014	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	2533900155	1764.591	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	2529772995	32188.611	PPM
17)	H	Mineral Oil Combo (0...	16.000	372381195	150.530	PPM
18)	H	Oil Acid Clean MO Com...	22.000	2141475050	1134.531	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	2141475050	1104.432	PPM

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

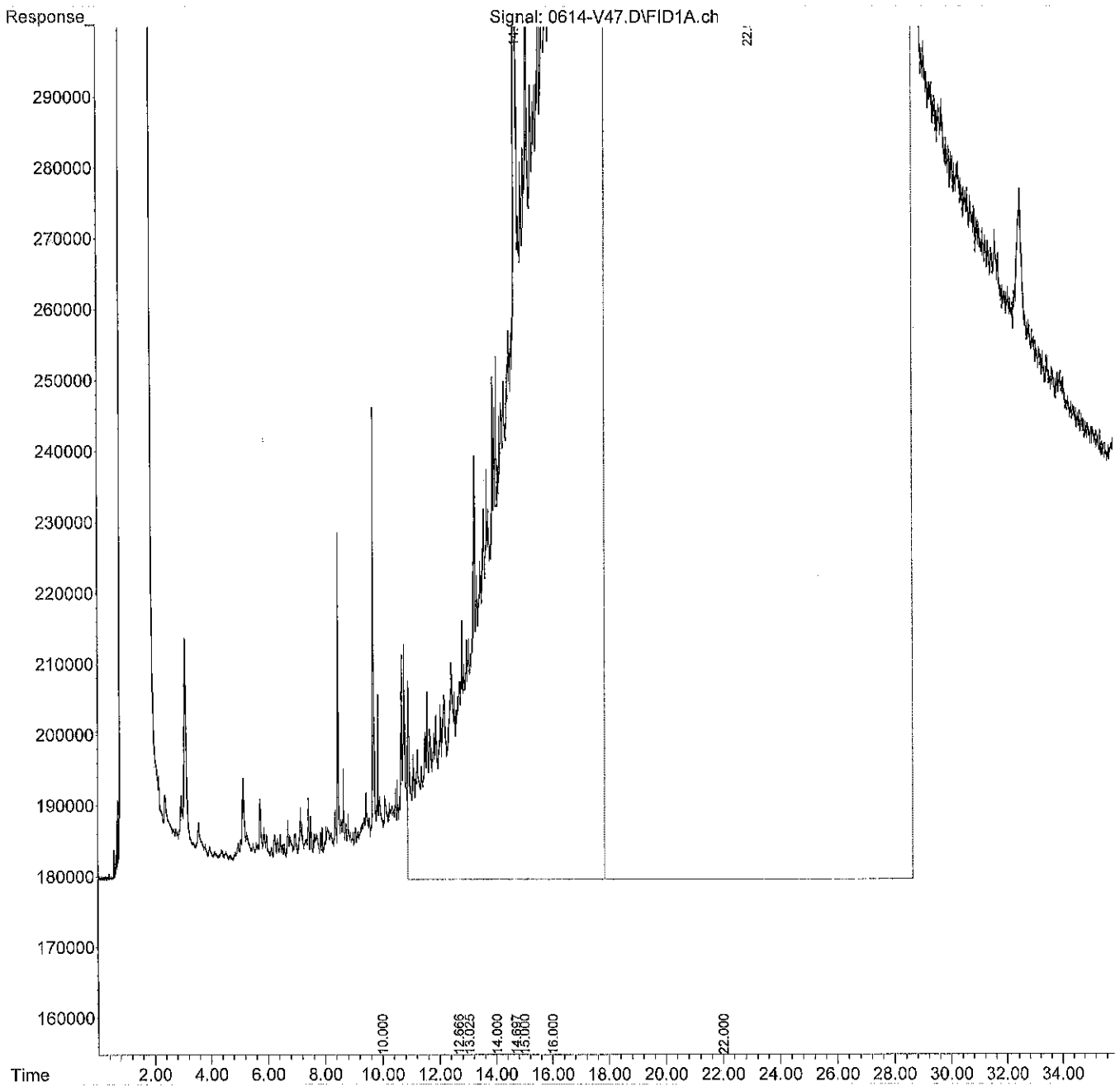
Quantitation Report (Not Reviewed)

Data File : 0614-V47.D
Sample : 06-118-01

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 18:40
Operator :
Misc :
ALS Vial : 47 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 19:16:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V56.D
Sample : 06-118-02 RR

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 22:16
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 22:52:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.634	129126317	46.739	PPM
Spiked Amount	50.000		Recovery =	93.48%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11125899	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	153087277	67.910	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	355612228	164.919	PPM
6) H	Oil (04-04-13)	22.000	1538464741	814.232	PPM
7) H	Oil Acid Clean (02-0...	22.000	1538464741	829.054	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	239948770	112.879	PPM
9) H	Oil Combo (04-04-13)	22.000	1447155501	781.319	PPM
10) H	Oil Acid Clean Combo ...	22.000	1447155501	795.119	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	377255495	140.211	PPM
12) H	Alaska 103 Oil (06-2...	22.000	994889523	862.320	PPM
13) H	Mineral Oil (06-06-13)	16.000	651178440	272.247	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1682305366	1231.796	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1682305366	1272.461	PPM
16) H	ALKANE C9-C40	12.666	1685716214	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	314641952	136.914	PPM
18) H	Oil Acid Clean MO Com...	22.000	1350837540	767.016	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1350837540	754.291	PPM

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

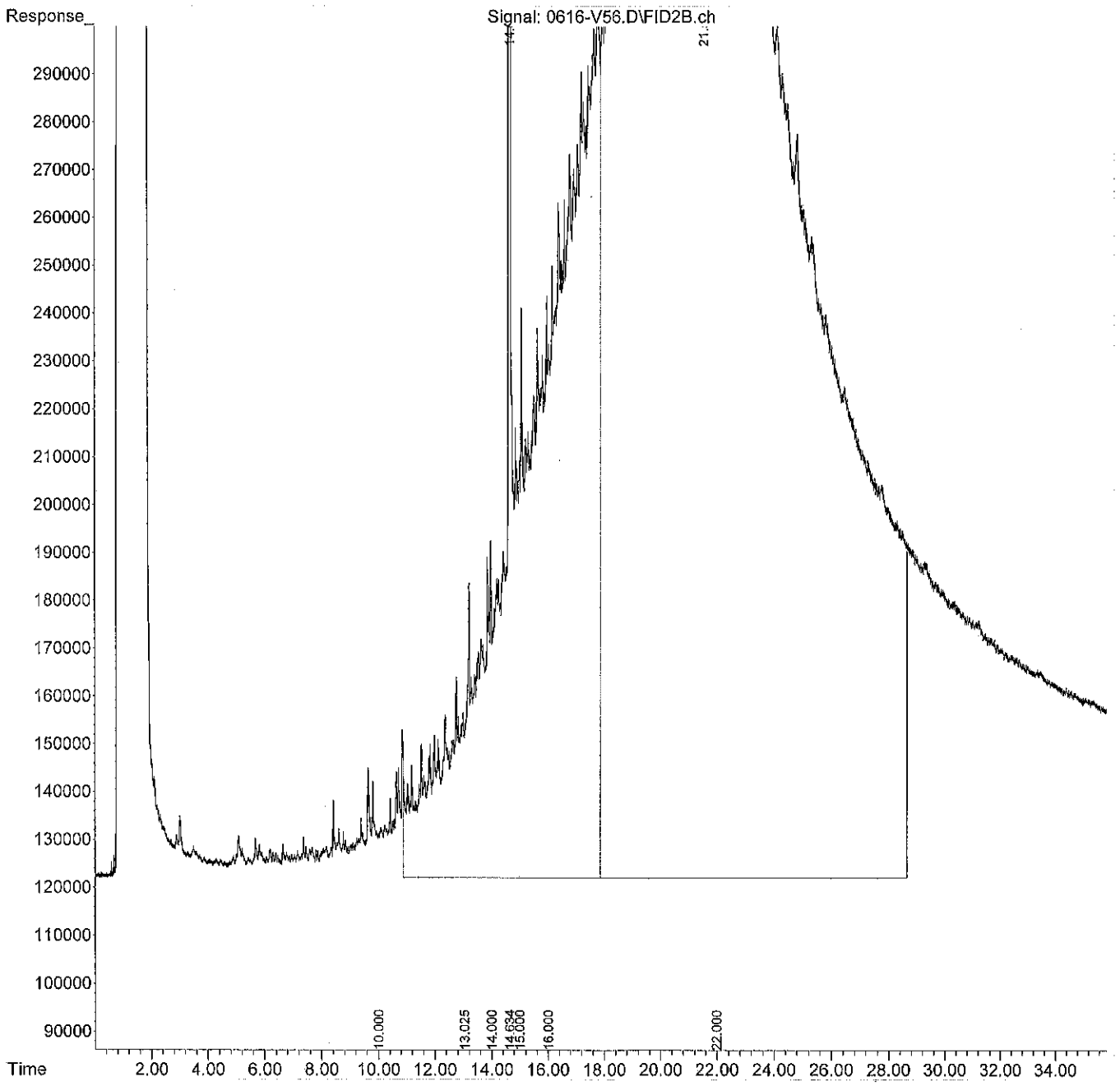
Quantitation Report (Not Reviewed)

Data File : 0616-V56.D
Sample : 06-118-02 RR

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 22:16
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 22:52:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V35.D
Sample : 06-118-03

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 10:23
Operator :
Misc :
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 10:59:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.697	146264141	47.171 PPM
Spiked Amount	50.000		Recovery =	94.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	13372200	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	147266677	60.203 PPM
5) H	Diesel Fuel #2 (06-...	14.000	353108501	151.501 PPM
6) H	Oil (04-04-13)	22.000	1746890446	853.661 PPM
7) H	Oil Acid Clean (02-...	22.000	1746890446	875.218 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	233001757	102.082 PPM
9) H	Oil Combo (04-04-13)	22.000	1655311729	825.149 PPM
10) H	Oil Acid Clean Combo ...	22.000	1655311729	845.873 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	367580707	142.963 PPM
12) H	Alaska 103 Oil (06-2...	22.000	1117138392	1023.639 PPM
13) H	Mineral Oil (06-06-13)	16.000	669517833	259.289 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1886467421	1347.763 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1886467421	1311.615 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1886878987	24002.895 PPM
17) H	Mineral Oil Combo (0...	16.000	307582278	124.861 PPM
18) H	Oil Acid Clean MO Com...	22.000	1555615576	822.229 PPM
19) H	Oil MO Combo (04-04-13)	22.000	1555615576	802.254 PPM

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

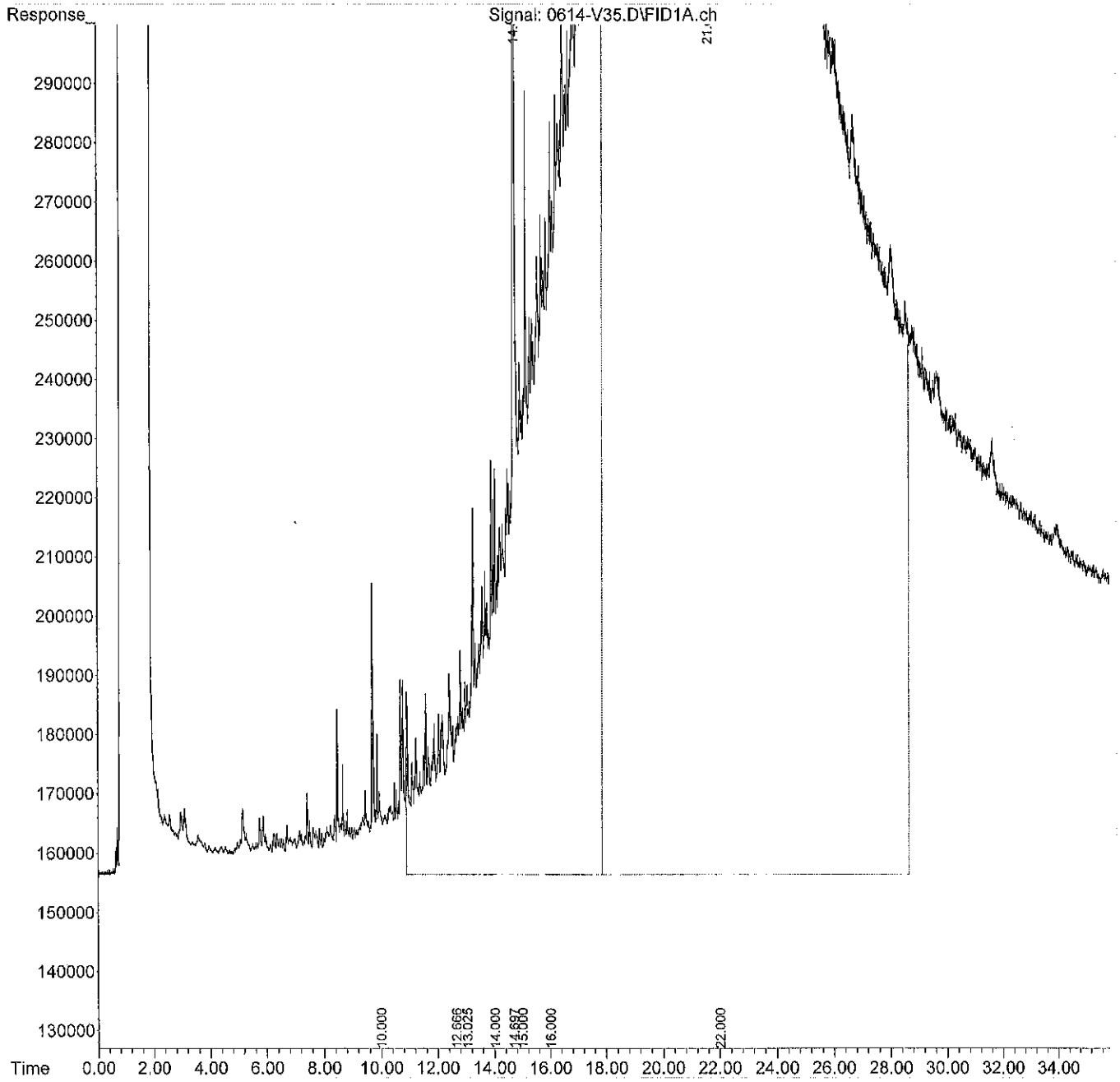
Quantitation Report (Not Reviewed)

Data File : 0614-V35.D
Sample : 06-118-03

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 10:23
Operator :
Misc :
ALS Vial : 35 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 10:59:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V87.D
Sample : 06-118-04

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 11:45
Operator :
Misc :
ALS Vial : 87 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 12:22:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.634	128688654	46.579	PPM
Spiked Amount	50.000		Recovery =	93.16%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	16326080	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	272867601	120.216	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	590919691	275.698	PPM
6) H	Oil (04-04-13)	22.000	2434536939	1293.945	PPM
7) H	Oil Acid Clean (02-0...	22.000	2434536939	1318.316	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	412307226	195.596	PPM
9) H	Oil Combo (04-04-13)	22.000	2287939246	1240.666	PPM
10) H	Oil Acid Clean Combo ...	22.000	2287939246	1263.374	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	624426664	235.461	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1556246809	1354.761	PPM
13) H	Mineral Oil (06-06-13)	16.000	1040001250	435.174	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	2692003733	1998.417	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	2692003733	2045.195	PPM
16) H	ALKANE C9-C40	12.666	2697355452	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	520209863	226.167	PPM
18) H	Oil Acid Clean MO Com...	22.000	2138803069	1220.848	PPM
19) H	Oil MO Combo (04-04-13)	22.000	2138803069	1199.830	PPM

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

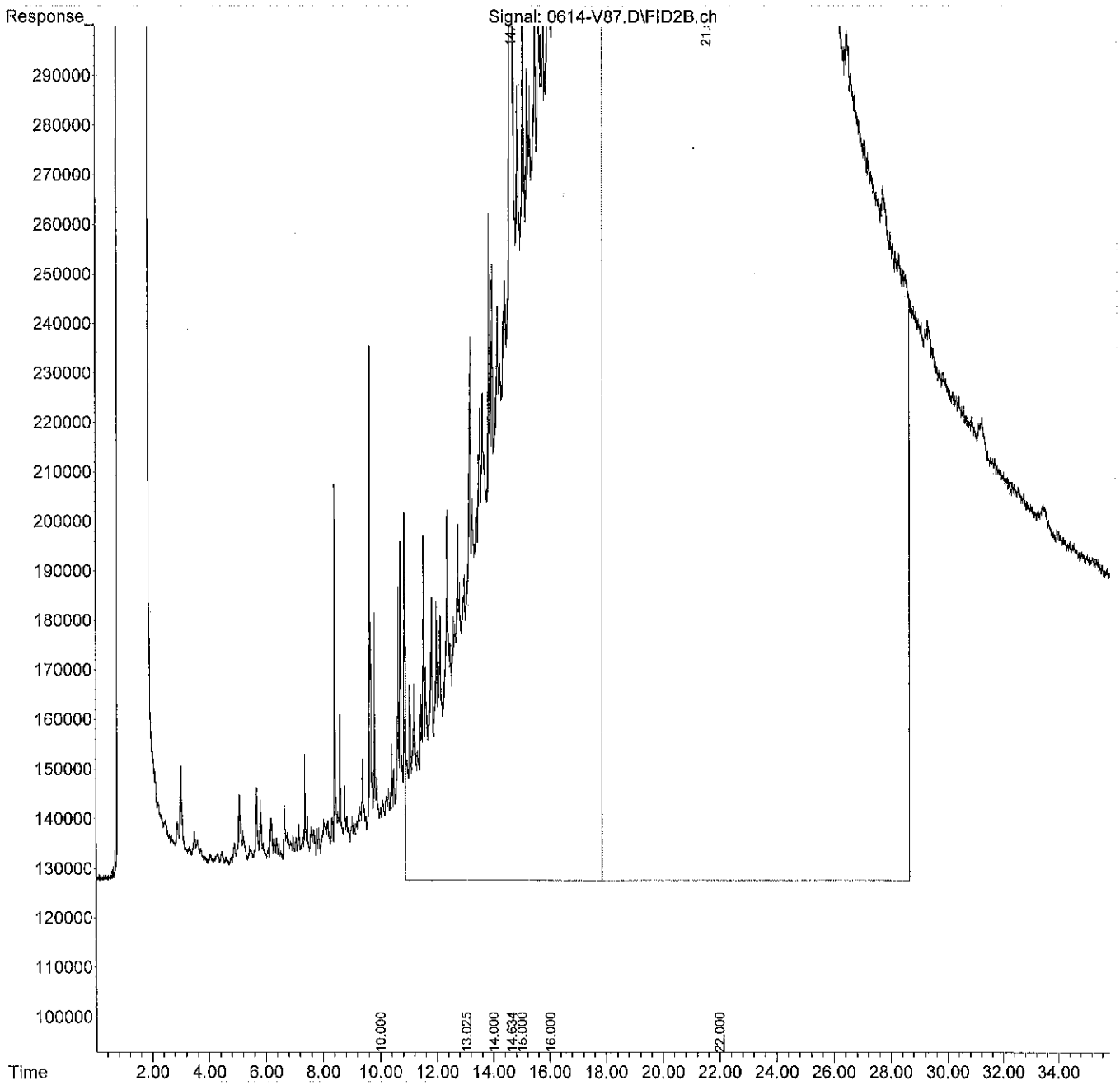
Quantitation Report (Not Reviewed)

Data File : 0614-V87.D
Sample : 06-118-04

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 11:45
Operator :
Misc :
ALS Vial : 87 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 12:22:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V12.D
Sample : 06-118-05 5X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 2:22
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 02:58:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.685	31425153	9.929	PPM
Spiked Amount	50.000		Recovery =	19.86%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8126921	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	49973832	21.315	PPM
5) H	Diesel Fuel #2 (06-...	14.000	110485860	47.788	PPM
6) H	Oil (04-04-13)	22.000	531146230	259.119	PPM
7) H	Oil Acid Clean (02-...	22.000	531146230	261.376	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	74396716	32.881	PPM
9) H	Oil Combo (04-04-13)	22.000	503600279	250.843	PPM
10) H	Oil Acid Clean Combo ...	22.000	503600279	252.609	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	115053897	42.964	PPM
12) H	Alaska 103 Oil (06-2...	22.000	333072751	299.962	PPM
13) H	Mineral Oil (06-06-13)	16.000	202971872	80.043	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	577402673	400.994	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	577402673	395.728	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	578764953	7347.196	PPM
17) H	Mineral Oil Combo (0...	16.000	95070433	40.679	PPM
18) H	Oil Acid Clean MO Com...	22.000	473691523	245.493	PPM
19) H	Oil MO Combo (04-04-13)	22.000	473691523	244.213	PPM

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

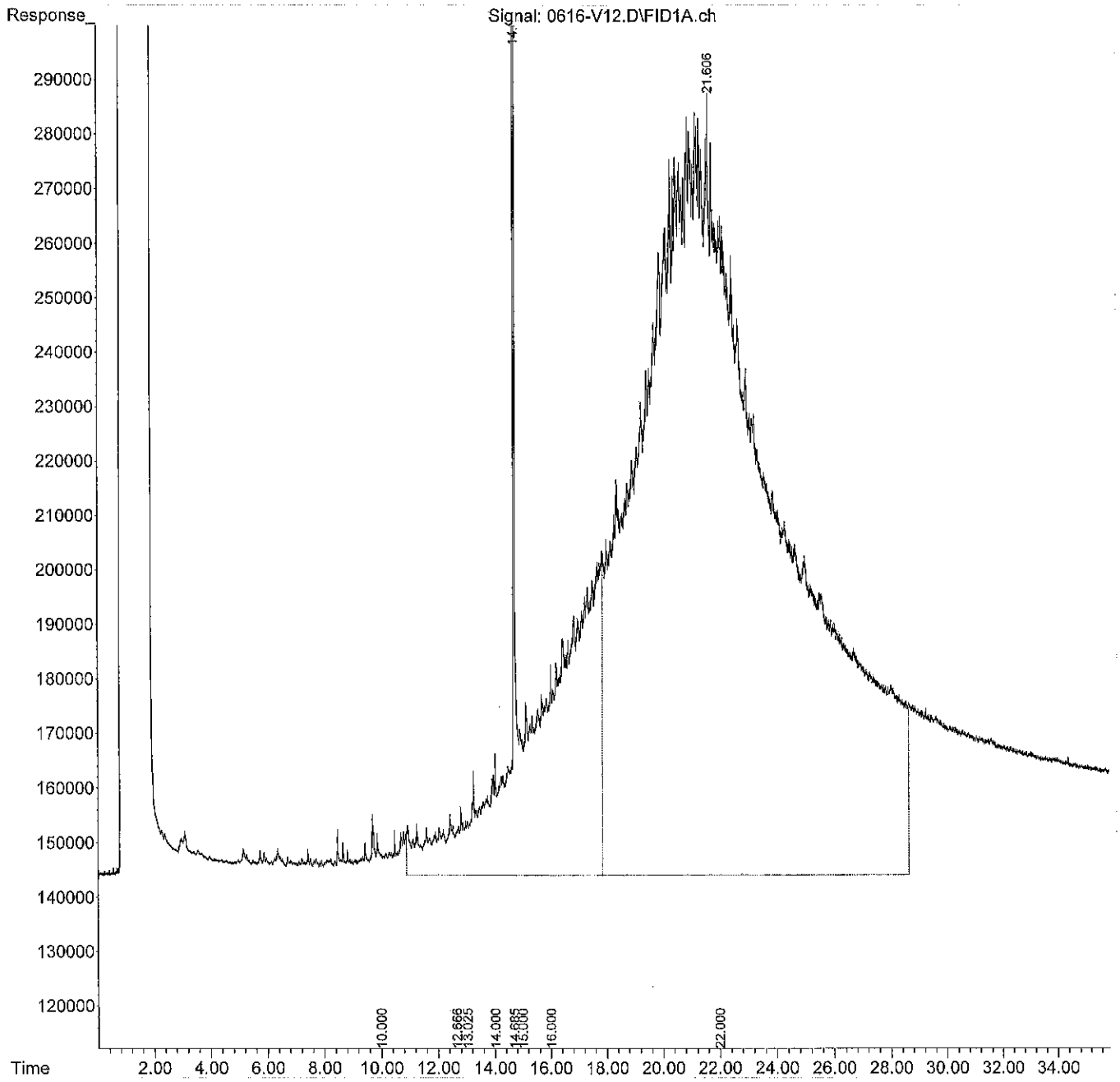
Quantitation Report (Not Reviewed)

Data File : 0616-V12.D
Sample : 06-118-05 5X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 2:22
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 02:58:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V26.D
Sample : 06-118-06

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 4:15
Operator :
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 04:51:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.696	139146402	44.863	PPM
Spiked Amount		50.000		Recovery =	89.73%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12211481	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	227741503	92.368	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	564674717	241.939	PPM
6)	H	Oil (04-04-13)	22.000	2654855419	1297.687	PPM
7)	H	Oil Acid Clean (02-...	22.000	2654855419	1333.659	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	373507516	163.386	PPM
9)	H	Oil Combo (04-04-13)	22.000	2504005629	1248.354	PPM
10)	H	Oil Acid Clean Combo ...	22.000	2504005629	1283.048	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	586801657	229.772	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1706494892	1567.603	PPM
13)	H	Mineral Oil (06-06-13)	16.000	1065586034	411.458	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	2874858553	2062.609	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	2874858553	2003.143	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	2872685486	36554.780	PPM
17)	H	Mineral Oil Combo (0...	16.000	507650051	204.114	PPM
18)	H	Oil Acid Clean MO Com...	22.000	2345425033	1243.249	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	2345425033	1209.626	PPM

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

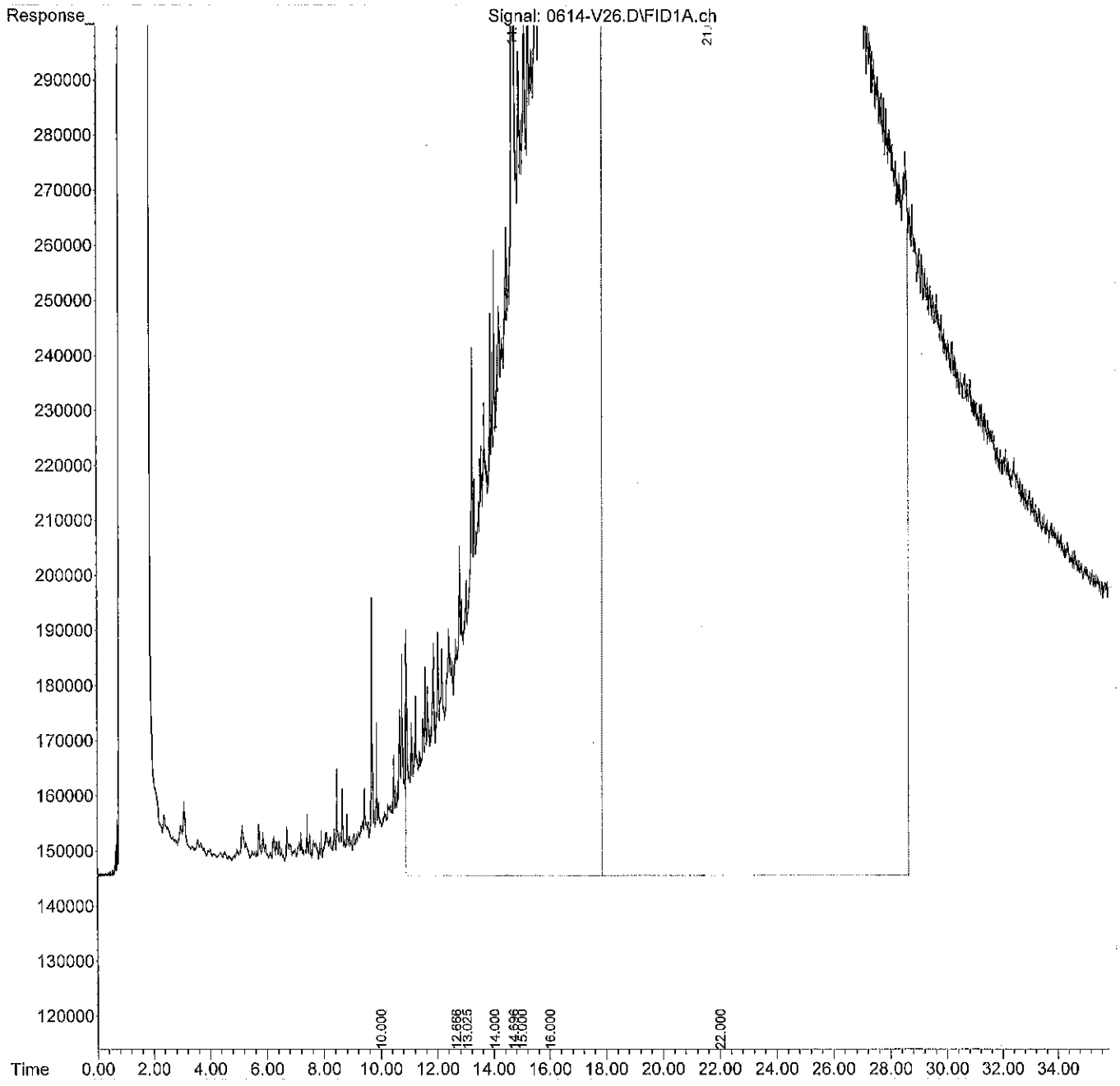
Quantitation Report (Not Reviewed)

Data File : 0614-V26.D
Sample : 06-118-06

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 4:15
Operator :
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 04:51:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V14.D
Sample : 06-118-07

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 20:04
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 20:40:11 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.695	126097680	40.631 PPM
Spiked Amount	50.000		Recovery =	81.26%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	7862291	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	146468131	59.883 PPM
5) H	Diesel Fuel #2 (06-...	14.000	475735684	203.921 PPM
6) H	Oil (04-04-13)	22.000	1868932232	913.343 PPM
7) H	Oil Acid Clean (02-...	22.000	1868932232	936.838 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	285199442	124.856 PPM
9) H	Oil Combo (04-04-13)	22.000	1727128051	860.960 PPM
10) H	Oil Acid Clean Combo ...	22.000	1727128051	882.866 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	496954876	194.194 PPM
12) H	Alaska 103 Oil (06-2...	22.000	1253560771	1149.554 PPM
13) H	Mineral Oil (06-06-13)	16.000	963001146	372.045 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	2010332265	1437.348 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2010332265	1398.277 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2006603678	25527.303 PPM
17) H	Mineral Oil Combo (0...	16.000	434194192	175.016 PPM
18) H	Oil Acid Clean MO Com...	22.000	1567974023	828.817 PPM
19) H	Oil MO Combo (04-04-13)	22.000	1567974023	808.628 PPM

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

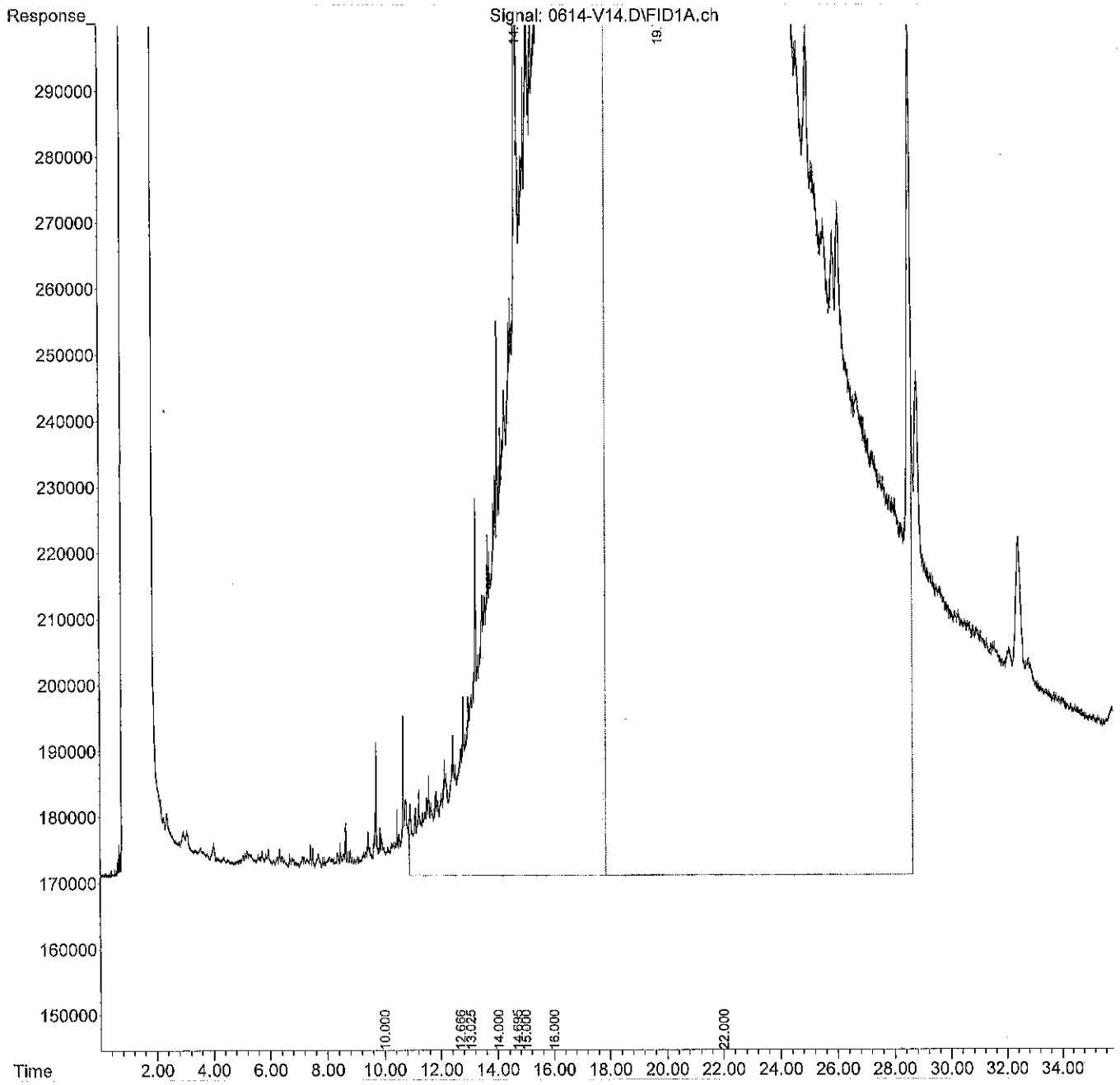
Quantitation Report (Not Reviewed)

Data File : 0614-V14.D
Sample : 06-118-07

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 20:04
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 20:40:11 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V53.D
Sample : 06-118-08 10X

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 20:12
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 20:48:42 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.623	15202489	5.088	PPM
Spiked Amount	50.000		Recovery =	10.18%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5866954	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	81535924	36.665	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	235997860	108.606	PPM
6) H	Oil (04-04-13)	22.000	656211365	341.916	PPM
7) H	Oil Acid Clean (02-0...	22.000	656211365	347.337	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	152631399	70.975	PPM
9) H	Oil Combo (04-04-13)	22.000	583206885	309.317	PPM
10) H	Oil Acid Clean Combo ...	22.000	583206885	313.963	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	250109851	91.214	PPM
12) H	Alaska 103 Oil (06-2...	22.000	407709822	347.227	PPM
13) H	Mineral Oil (06-06-13)	16.000	409761781	171.088	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	734685952	512.309	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	734685952	547.237	PPM
16) H	ALKANE C9-C40	12.666	736355275	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	219210880	95.479	PPM
18) H	Oil Acid Clean MO Com...	22.000	513019643	284.472	PPM
19) H	Oil MO Combo (04-04-13)	22.000	513019643	280.564	PPM

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

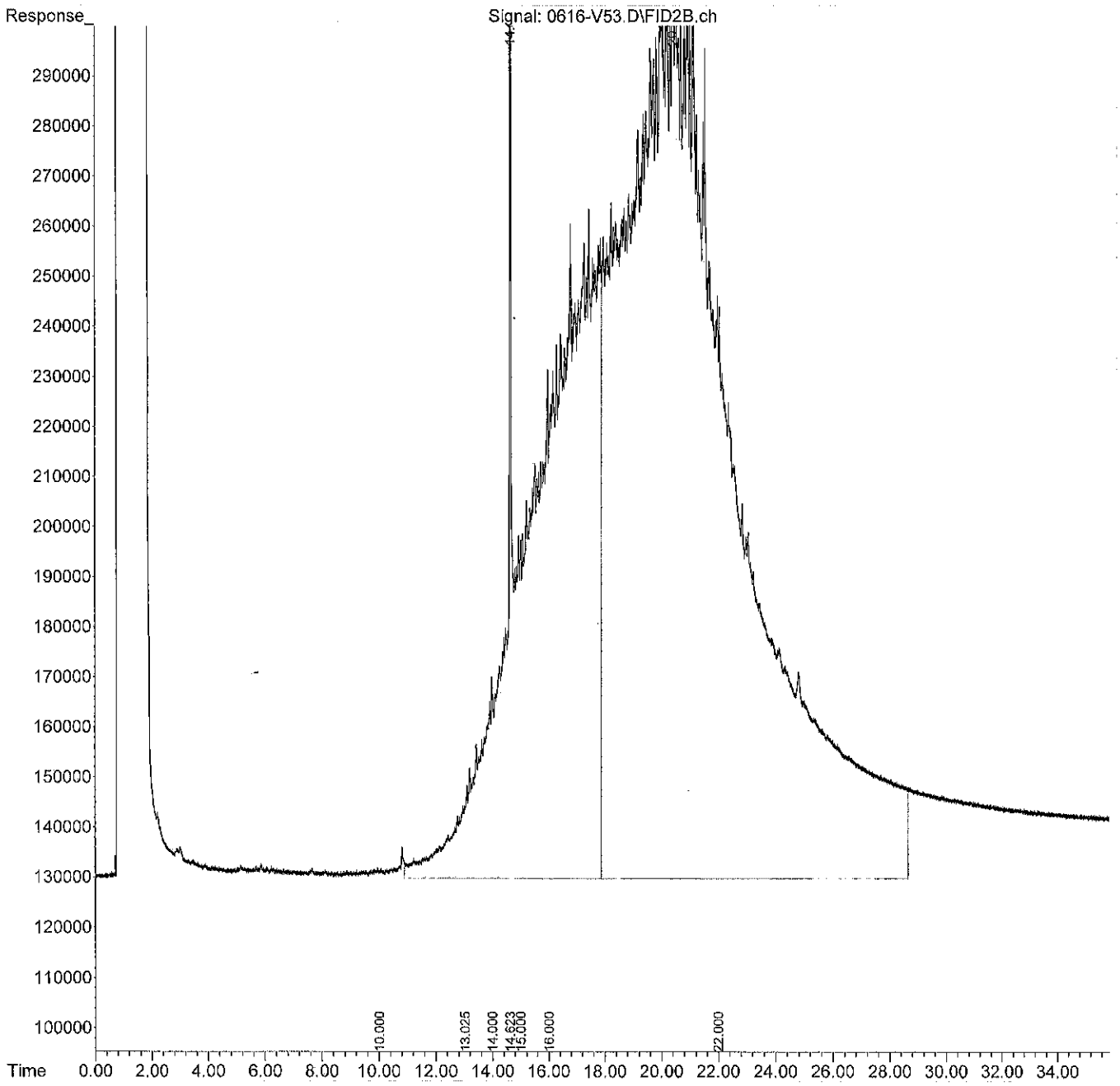
Quantitation Report (Not Reviewed)

Data File : 0616-V53.D
Sample : 06-118-08 10X

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 20:12
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 20:48:42 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V20.D
Sample : 06-118-09

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 00:11
Operator :
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 00:47:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.693	112664604	36.275	PPM
Spiked Amount		50.000		Recovery =	72.55%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	13129201	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	209842609	85.214	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	563436949	241.410	PPM
6)	H	Oil (04-04-13)	22.000	2233271974	1091.518	PPM
7)	H	Oil Acid Clean (02-...	22.000	2233271974	1120.797	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	363506321	159.023	PPM
9)	H	Oil Combo (04-04-13)	22.000	2073873065	1033.866	PPM
10)	H	Oil Acid Clean Combo ...	22.000	2073873065	1061.480	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	586192709	229.531	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1461201604	1341.203	PPM
13)	H	Mineral Oil (06-06-13)	16.000	1059190045	409.000	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	2435135999	1744.583	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	2435135999	1695.491	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	2433655242	30964.781	PPM
17)	H	Mineral Oil Combo (0...	16.000	506404256	203.621	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1907127366	1009.608	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1907127366	983.559	PPM

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

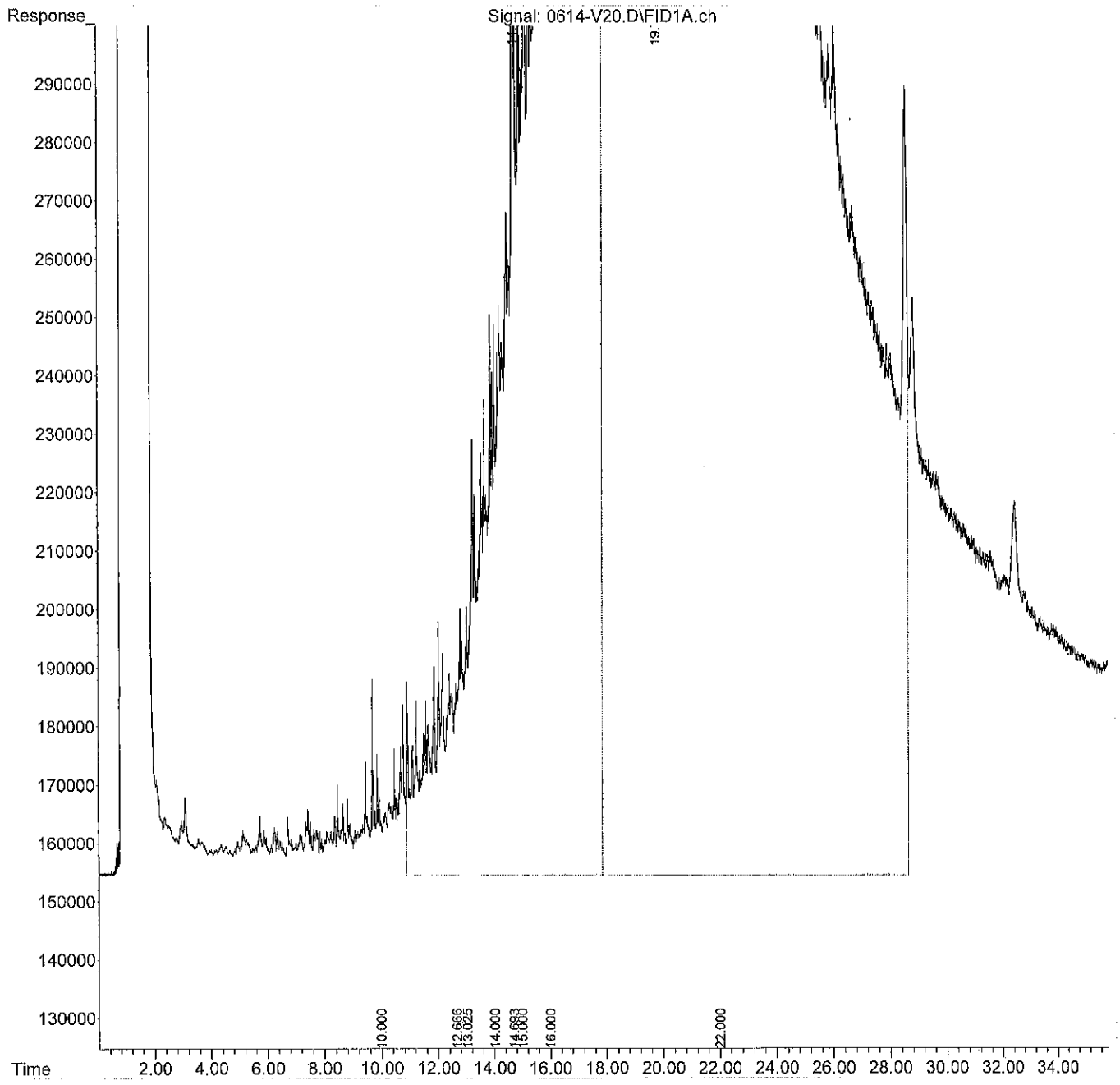
Quantitation Report (Not Reviewed)

Data File : 0614-V20.D
Sample : 06-118-09

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 00:11
Operator :
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 00:47:07 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V03.D
Sample : 06-118-10 5X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 20:12
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 20:48:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.687	26450345	8.316	PPM
Spiked Amount		50.000		Recovery =	16.63%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5805870	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	65260523	27.425	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	193261190	83.172	PPM
6)	H	Oil (04-04-13)	22.000	778571052	380.119	PPM
7)	H	Oil Acid Clean (02-...	22.000	778571052	386.304	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	121529986	53.446	PPM
9)	H	Oil Combo (04-04-13)	22.000	720293589	358.898	PPM
10)	H	Oil Acid Clean Combo ...	22.000	720293589	364.231	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	201265597	77.103	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	502519118	456.358	PPM
13)	H	Mineral Oil (06-06-13)	16.000	369075757	143.860	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	841253757	591.822	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	841253757	580.331	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	841676881	10694.750	PPM
17)	H	Mineral Oil Combo (0...	16.000	178400126	73.688	PPM
18)	H	Oil Acid Clean MO Com...	22.000	660504146	345.076	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	660504146	340.568	PPM

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

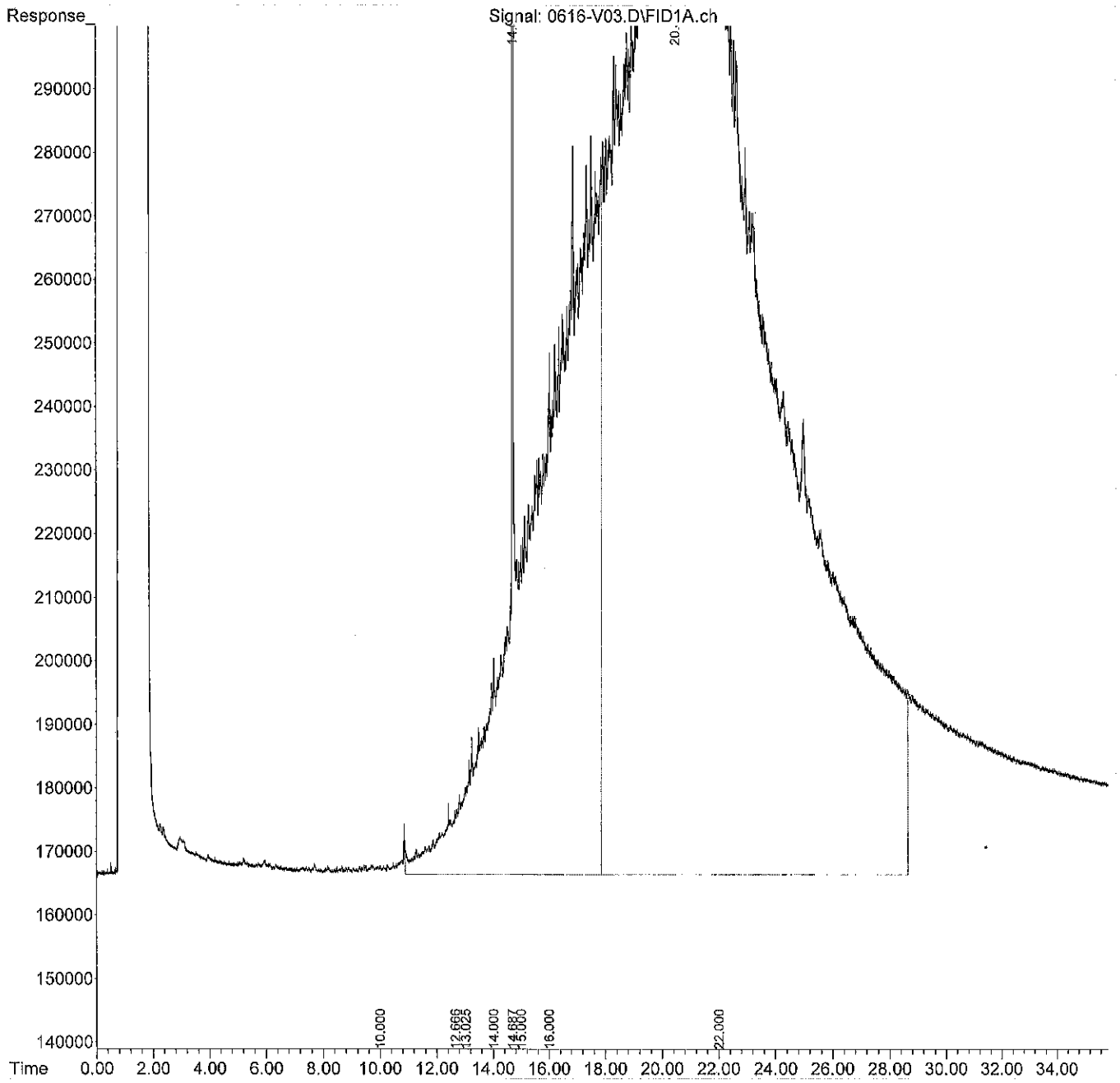
Quantitation Report (Not Reviewed)

Data File : 0616-V03.D
Sample : 06-118-10 5X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 20:12
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 20:48:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V06.D
Sample : 06-118-11

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 19:19
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 19:55:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.704	151404908	48.839	PPM
Spiked Amount	50.000		Recovery =	97.68%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6460419	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	13709746	6.820	PPM
5) H	Diesel Fuel #2 (06-...	14.000	16225193	7.495	PPM
6) H	Oil (04-04-13)	22.000	47460276	22.580	PPM
7) H	Oil Acid Clean (02-...	22.000	47460276	17.158	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	13725705	6.410	PPM
9) H	Oil Combo (04-04-13)	22.000	45081515	22.201	PPM
10) H	Oil Acid Clean Combo ...	22.000	45081515	16.419	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	16782723	4.050	PPM
12) H	Alaska 103 Oil (06-2...	22.000	22900039	13.679	PPM
13) H	Mineral Oil (06-06-13)	16.000	17721068	8.870	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	58724655	25.864	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	58724655	32.834	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60772996	751.809	PPM
17) H	Mineral Oil Combo (0...	16.000	11582710	7.607	PPM
18) H	Oil Acid Clean MO Com...	22.000	42964872	15.888	PPM
19) H	Oil MO Combo (04-04-13)	22.000	42964872	22.050	PPM

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

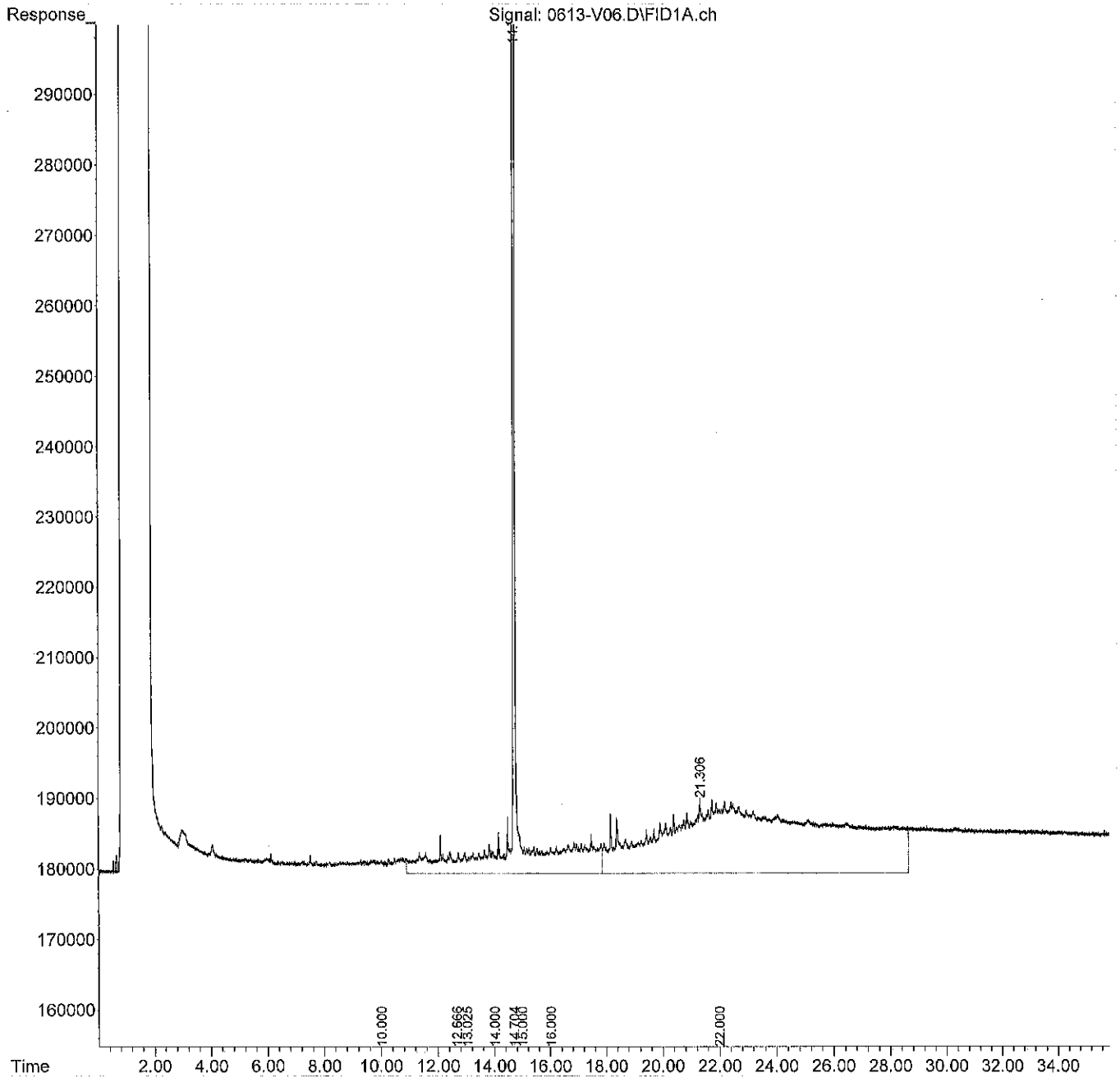
Quantitation Report (Not Reviewed)

Data File : 0613-V06.D
Sample : 06-118-11

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 19:19
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 19:55:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V58.D
Sample : 06-118-12 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 15:36
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 16:12:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.622	6718044	1.986	PPM
Spiked Amount	50.000		Recovery =	3.97%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6312924	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	92576792	41.486	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	197719239	90.585	PPM
6) H	Oil (04-04-13)	22.000	699044126	364.846	PPM
7) H	Oil Acid Clean (02-0...	22.000	699044126	370.724	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	139657935	64.749	PPM
9) H	Oil Combo (04-04-13)	22.000	649676694	345.632	PPM
10) H	Oil Acid Clean Combo ...	22.000	649676694	350.981	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	208328648	75.113	PPM
12) H	Alaska 103 Oil (06-2...	22.000	436583217	372.555	PPM
13) H	Mineral Oil (06-06-13)	16.000	336514586	140.395	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	786940916	551.984	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	786940916	587.228	PPM
16) H	ALKANE C9-C40	12.666	788729678	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	179775151	78.357	PPM
18) H	Oil Acid Clean MO Com...	22.000	601248105	335.287	PPM
19) H	Oil MO Combo (04-04-13)	22.000	601248105	330.451	PPM

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

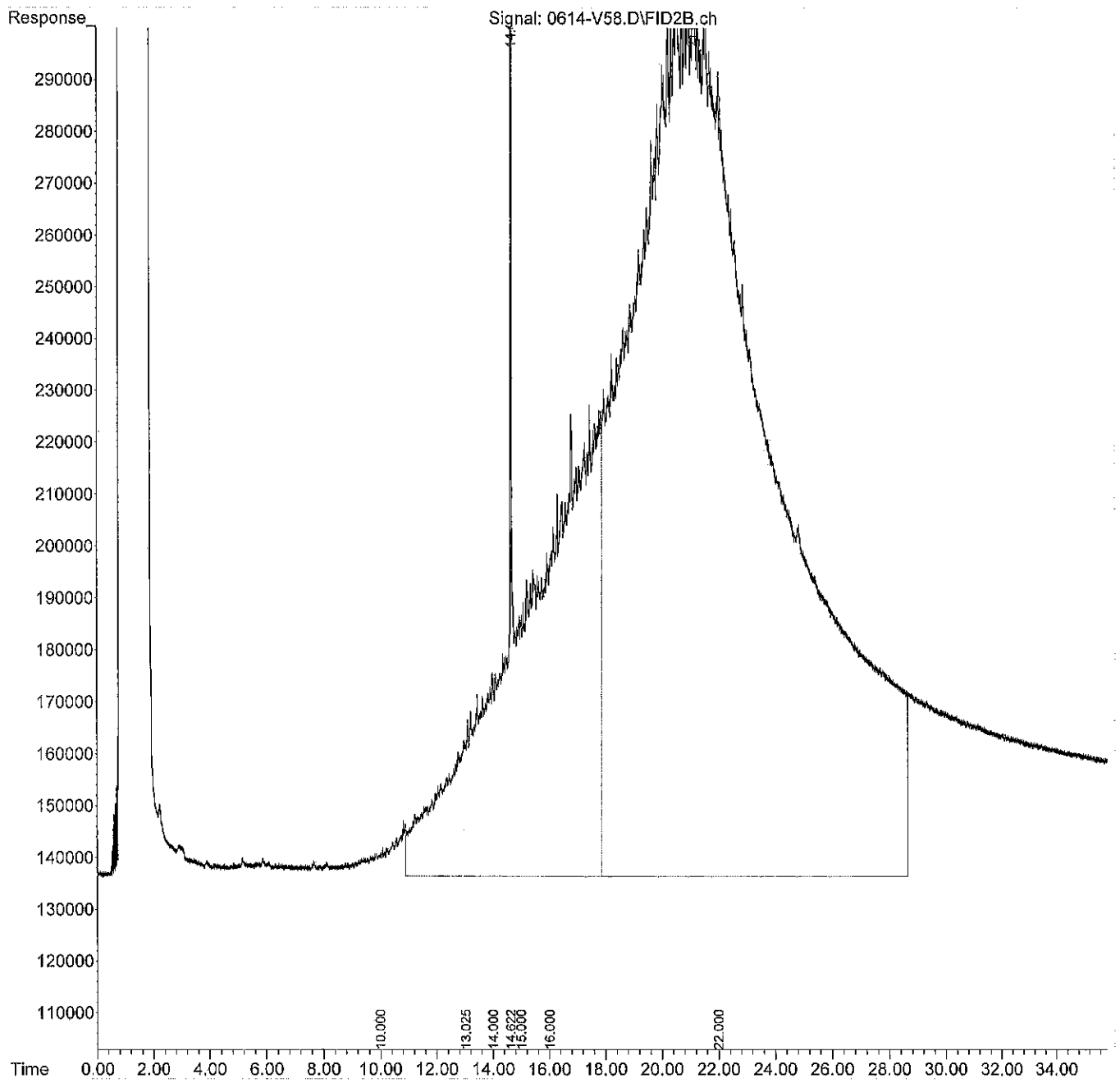
Quantitation Report (Not Reviewed)

Data File : 0614-V58.D
Sample : 06-118-12 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 15:36
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 16:12:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V10.D
Sample : 06-118-13

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 22:04
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 22:40:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.696	120011766	38.658	PPM
Spiked Amount		50.000		Recovery =	77.32%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5621377	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	28799250	12.852	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	75129982	32.674	PPM
6)	H	Oil (04-04-13)	22.000	261797704	127.399	PPM
7)	H	Oil Acid Clean (02-...	22.000	261797704	125.380	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	49106591	21.847	PPM
9)	H	Oil Combo (04-04-13)	22.000	239514388	119.155	PPM
10)	H	Oil Acid Clean Combo ...	22.000	239514388	116.574	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	78091910	28.328	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	176406869	155.362	PPM
13)	H	Mineral Oil (06-06-13)	16.000	139393527	55.617	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	288530564	192.069	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	288530564	193.618	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	290147518	3672.344	PPM
17)	H	Mineral Oil Combo (0...	16.000	68043128	29.973	PPM
18)	H	Oil Acid Clean MO Com...	22.000	217951936	109.167	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	217951936	112.306	PPM

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

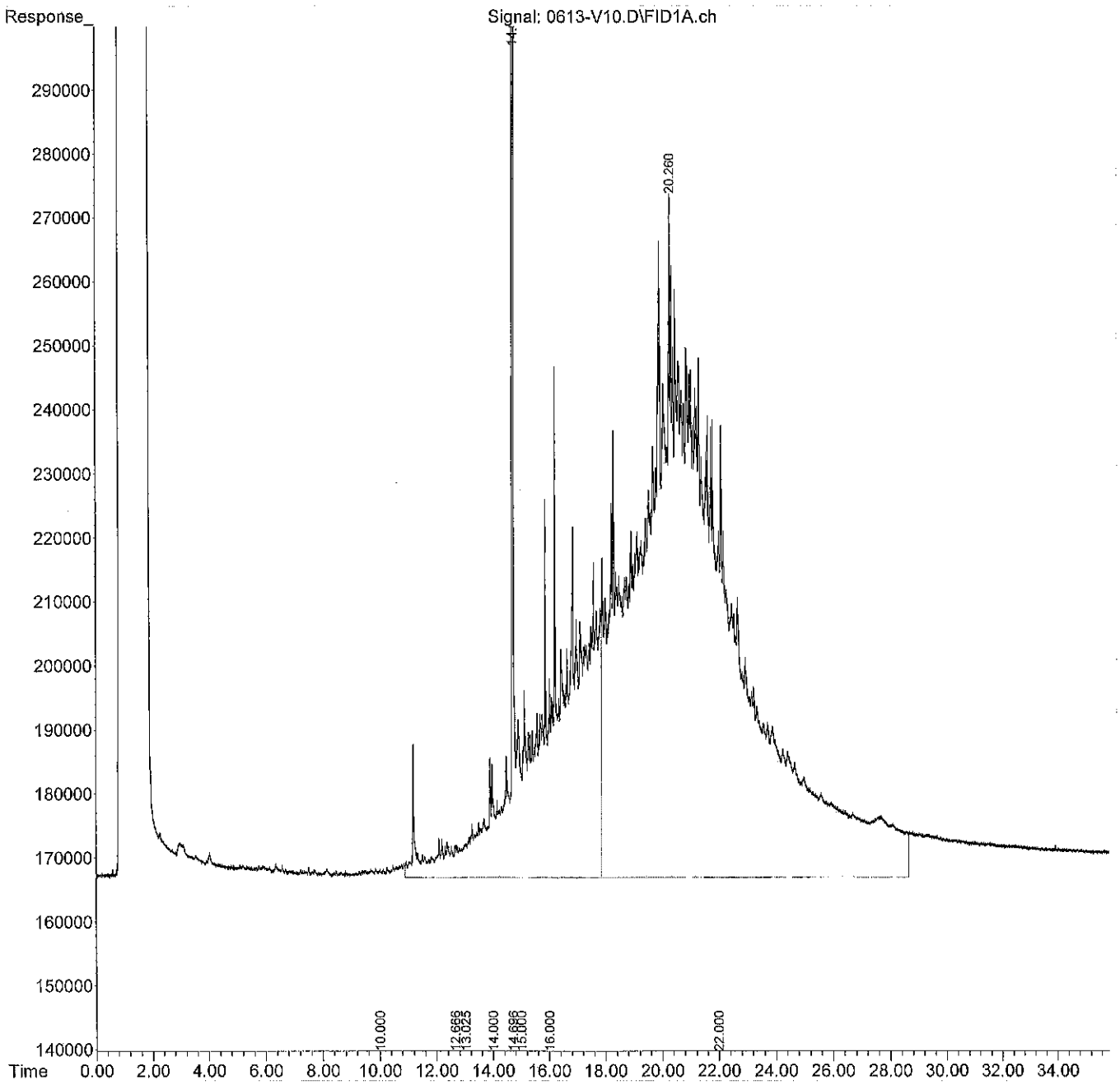
Quantitation Report (Not Reviewed)

Data File : 0613-V10.D
Sample : 06-118-13

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 22:04
Operator :
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 22:40:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V97.D
Sample : 06-118-14 10X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 18:40
Operator :
Misc :
ALS Vial : 97 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 19:16:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.622	15354547	5.143 PPM
Spiked Amount	50.000		Recovery =	10.29%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	7160152	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	161485679	71.578 PPM
5) H	Diesel Fuel #2 (06-1...	14.000	348382233	161.515 PPM
6) H	Oil (04-04-13)	22.000	1245581689	657.436 PPM
7) H	Oil Acid Clean (02-0...	22.000	1245581689	669.138 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	244982754	115.295 PPM
9) H	Oil Combo (04-04-13)	22.000	1159534126	624.183 PPM
10) H	Oil Acid Clean Combo ...	22.000	1159534126	634.935 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	367153999	136.318 PPM
12) H	Alaska 103 Oil (06-2...	22.000	791681207	684.059 PPM
13) H	Mineral Oil (06-06-13)	16.000	598381596	250.124 PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1400623181	1017.927 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1400623181	1056.886 PPM
16) H	ALKANE C9-C40	12.666	1402373071	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	316350924	137.656 PPM
18) H	Oil Acid Clean MO Com...	22.000	1073441383	607.249 PPM
19) H	Oil MO Combo (04-04-13)	22.000	1073441383	597.443 PPM

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

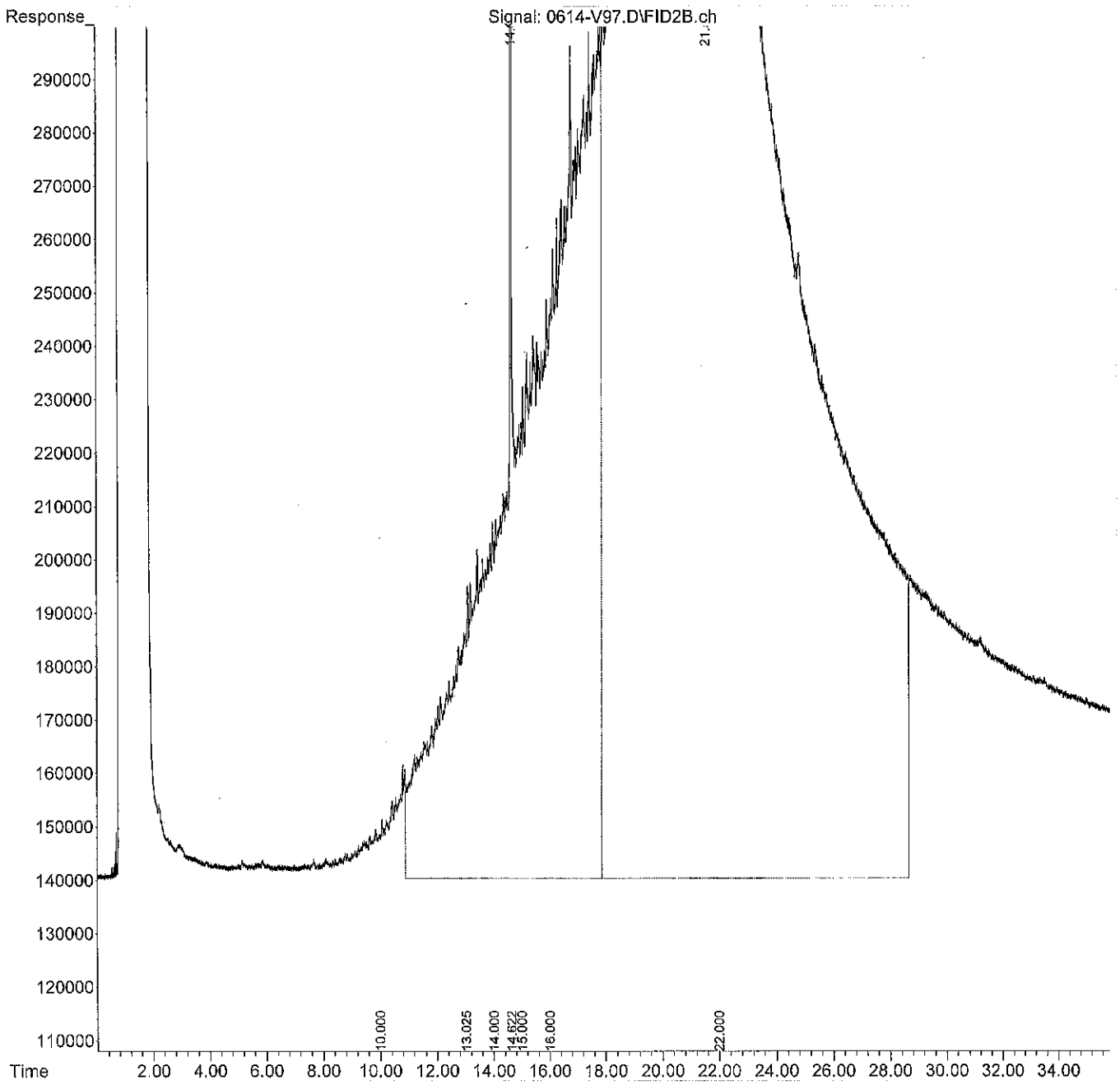
Quantitation Report (Not Reviewed)

Data File : 0614-V97.D
Sample : 06-118-14 10X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 18:40
Operator :
Misc :
ALS Vial : 97 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 19:16:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V60.D
Sample : 06-118-15 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 16:58
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 17:34:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.621	7295949	2.197	PPM
Spiked Amount	50.000		Recovery =	4.39%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	7427570	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	463059846	203.270	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	886333969	414.775	PPM
6) H	Oil (04-04-13)	22.000	2085038025	1106.840	PPM
7) H	Oil Acid Clean (02-0...	22.000	2085038025	1127.487	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	661959313	315.406	PPM
9) H	Oil Combo (04-04-13)	22.000	1883424890	1019.667	PPM
10) H	Oil Acid Clean Combo ...	22.000	1883424890	1038.089	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	924454209	351.080	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1274712411	1107.790	PPM
13) H	Mineral Oil (06-06-13)	16.000	1309818736	548.235	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	2540053275	1883.048	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	2540053275	1928.905	PPM
16) H	ALKANE C9-C40	12.666	2541631476	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	781231368	339.497	PPM
18) H	Oil Acid Clean MO Com...	22.000	1695481364	965.515	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1695481364	949.163	PPM

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

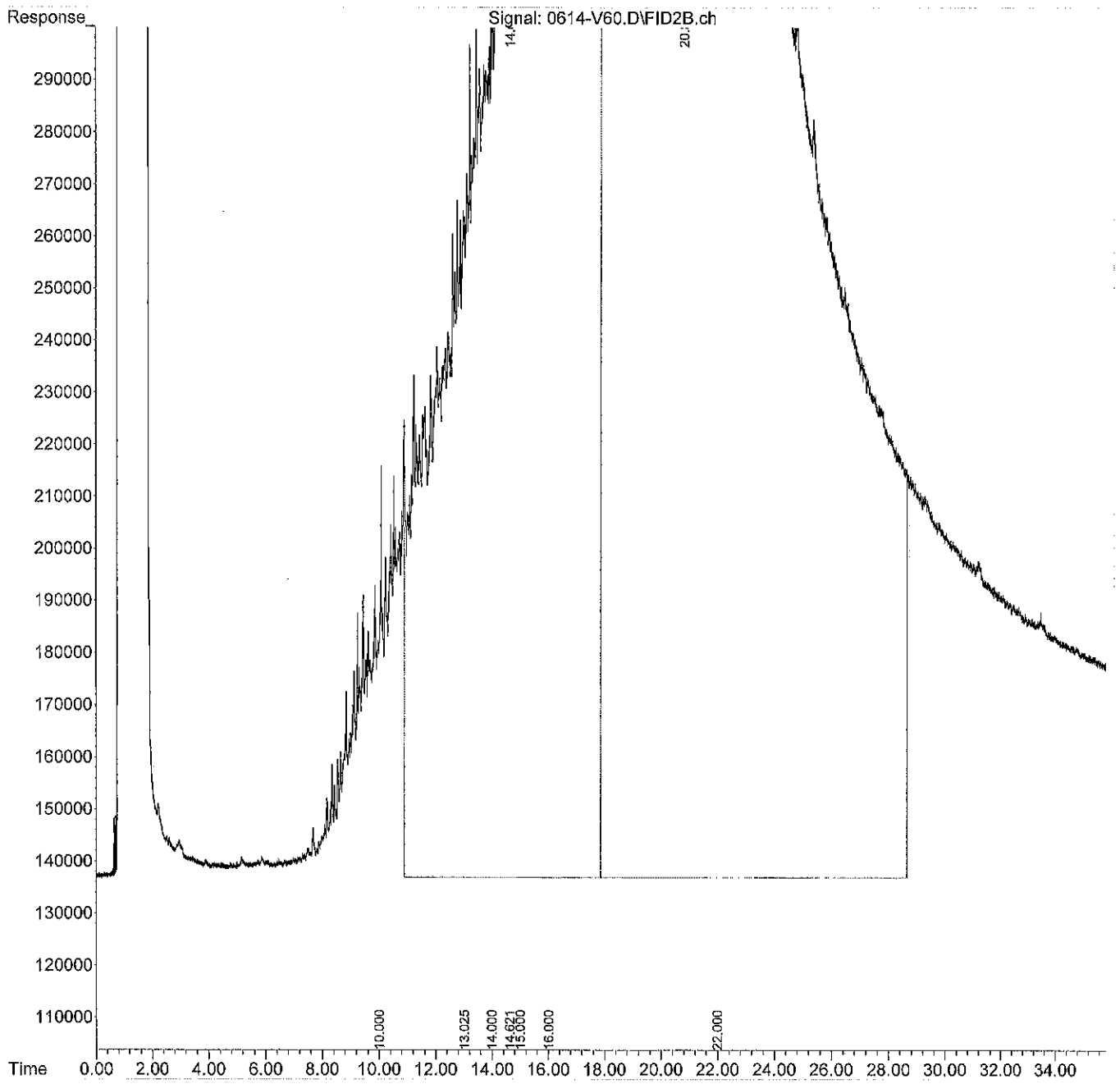
Quantitation Report (Not Reviewed)

Data File : 0614-V60.D
Sample : 06-118-15 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 16:58
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 17:34:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V58.D
Sample : 06-118-16

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 20:41
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:18:11 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.636	116782462	42.226	PPM
Spiked Amount	50.000		Recovery =	84.45%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5727531	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	12390505	6.471	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	31848526	12.495	PPM
6) H	Oil (04-04-13)	22.000	188279872	91.408	PPM
7) H	Oil Acid Clean (02-0...	22.000	188279872	91.843	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	19272811	6.975	PPM
9) H	Oil Combo (04-04-13)	22.000	179650375	88.842	PPM
10) H	Oil Acid Clean Combo ...	22.000	179650375	89.211	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	34337338	8.064	PPM
12) H	Alaska 103 Oil (06-2...	22.000	125439171	99.609	PPM
13) H	Mineral Oil (06-06-13)	16.000	67079440	27.495	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	198339690	105.084	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	198339690	136.765	PPM
16) H	ALKANE C9-C40	12.666	200032974	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	28001612	12.460	PPM
18) H	Oil Acid Clean MO Com...	22.000	169234751	86.467	PPM
19) H	Oil MO Combo (04-04-13)	22.000	169234751	86.178	PPM

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

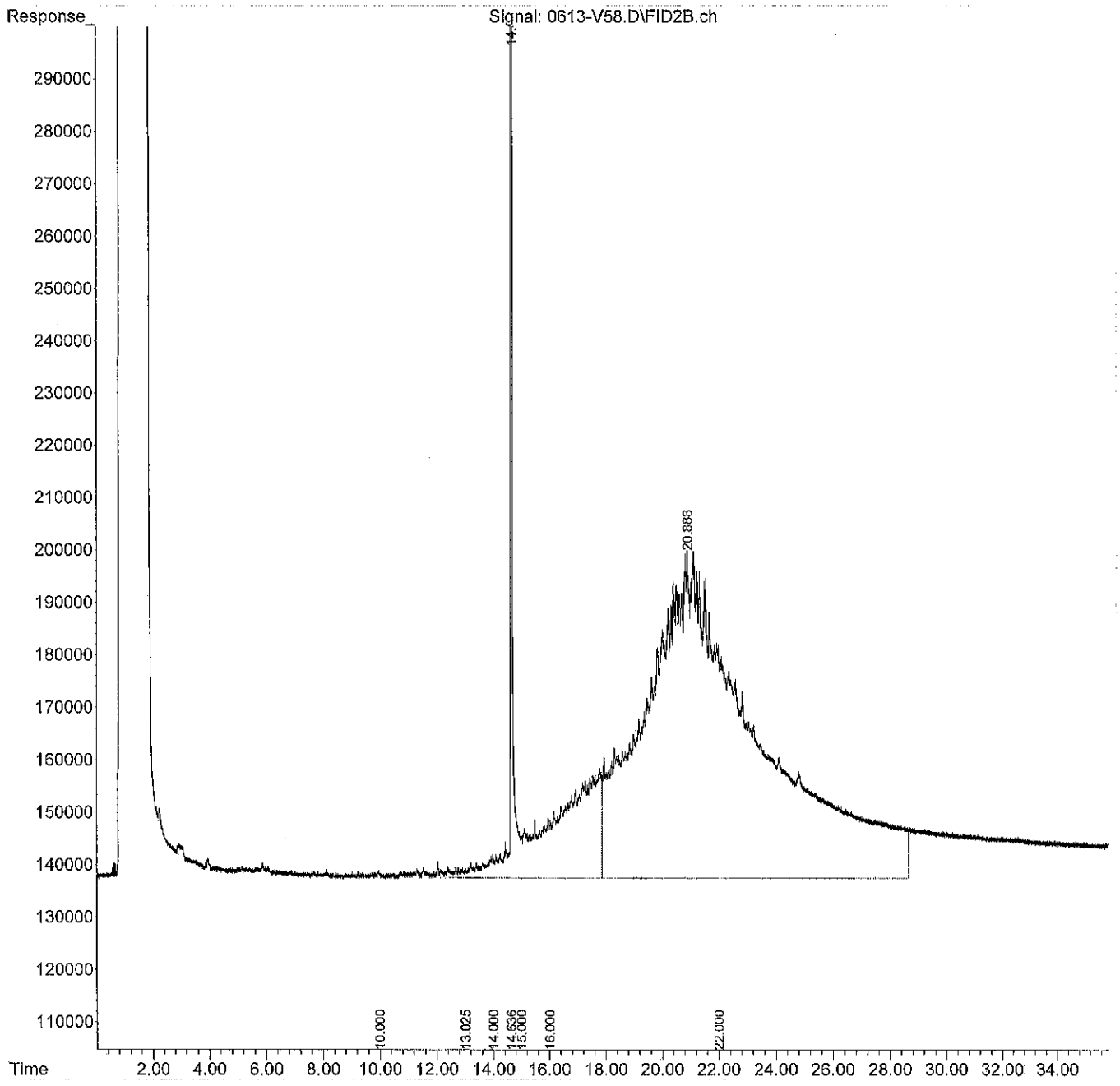
Quantitation Report (Not Reviewed)

Data File : 0613-V58.D
Sample : 06-118-16

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 20:41
Operator :
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:18:11 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V07.D
Sample : 06-118-17

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 20:00
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 20:36:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.698	130003403	41.898	PPM
Spiked Amount		50.000		Recovery =	83.80%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	5404660	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	6415136	3.905	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	7667817	3.837	PPM
6)	H	Oil (04-04-13)	22.000	27623060	12.879	PPM
7)	H	Oil Acid Clean (02-...	22.000	27623060	7.142	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	6264921	3.155	PPM
9)	H	Oil Combo (04-04-13)	22.000	25956169	12.664	PPM
10)	H	Oil Acid Clean Combo ...	22.000	25956169	6.567	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	7979345	0.564	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	13344143	4.859	PPM
13)	H	Mineral Oil (06-06-13)	16.000	8941446	5.497	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	32192494	6.675	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	32192494	14.271	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	33859533	409.131	PPM
17)	H	Mineral Oil Combo (0...	16.000	6380868	5.547	PPM
18)	H	Oil Acid Clean MO Com...	22.000	24708037	6.155	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	24708037	12.634	PPM

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

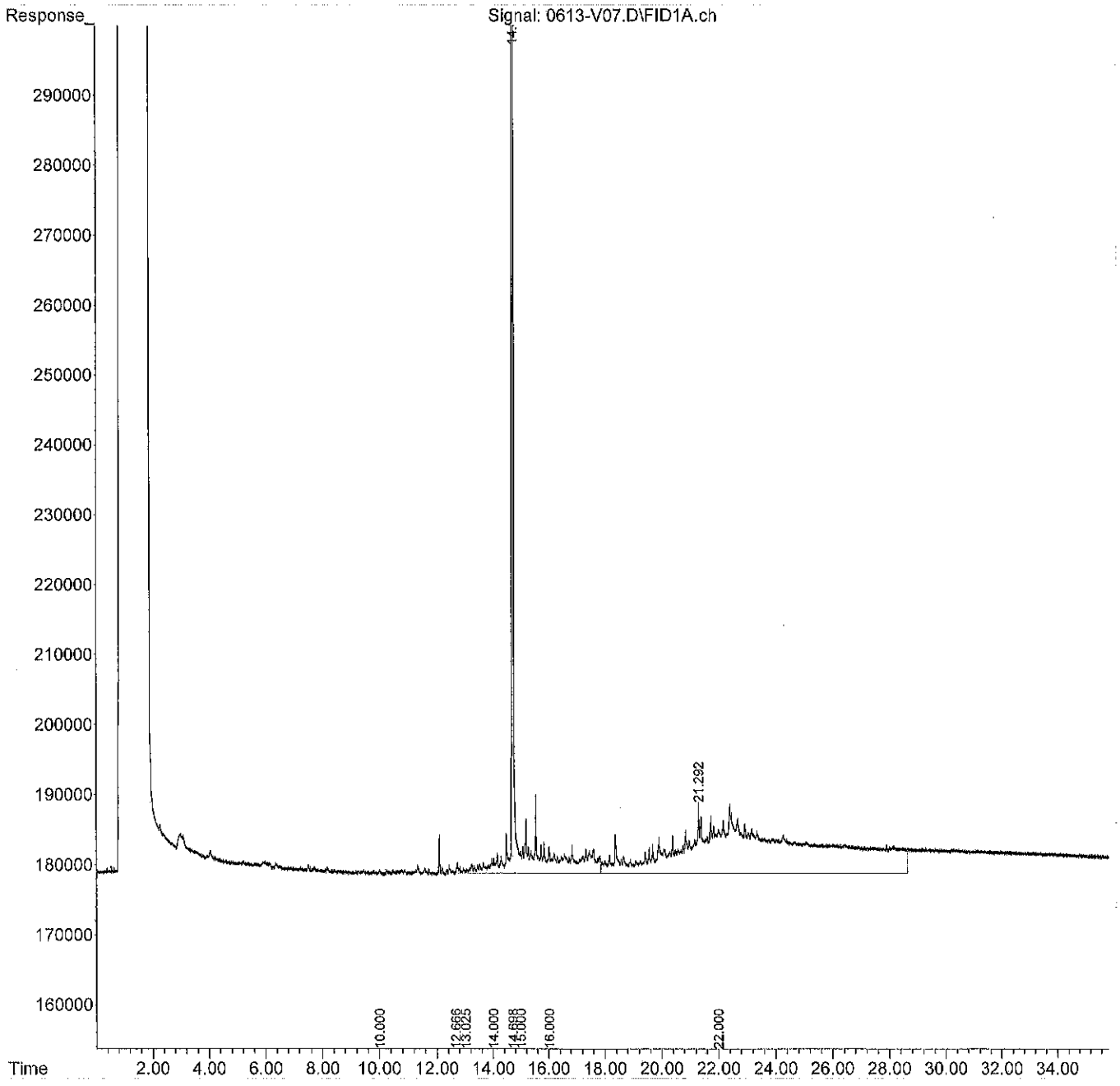
Quantitation Report (Not Reviewed)

Data File : 0613-V07.D
Sample : 06-118-17

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 20:00
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 20:36:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V55.D
Sample : 06-118-18 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 13:31
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 14:07:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.621	7685078	2.339	PPM
Spiked Amount	50.000		Recovery =	4.68%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	7240544	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	200656532	88.683	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	380929631	176.838	PPM
6) H	Oil (04-04-13)	22.000	975926706	513.076	PPM
7) H	Oil Acid Clean (02-0...	22.000	975926706	521.904	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	284059620	134.049	PPM
9) H	Oil Combo (04-04-13)	22.000	889868010	476.856	PPM
10) H	Oil Acid Clean Combo ...	22.000	889868010	484.750	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	397936678	148.181	PPM
12) H	Alaska 103 Oil (06-2...	22.000	594985877	511.511	PPM
13) H	Mineral Oil (06-06-13)	16.000	574024096	239.918	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1170958778	843.553	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1170958778	881.121	PPM
16) H	ALKANE C9-C40	12.666	1172991192	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	335787353	146.095	PPM
18) H	Oil Acid Clean MO Com...	22.000	808872891	454.870	PPM
19) H	Oil MO Combo (04-04-13)	22.000	808872891	447.849	PPM

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

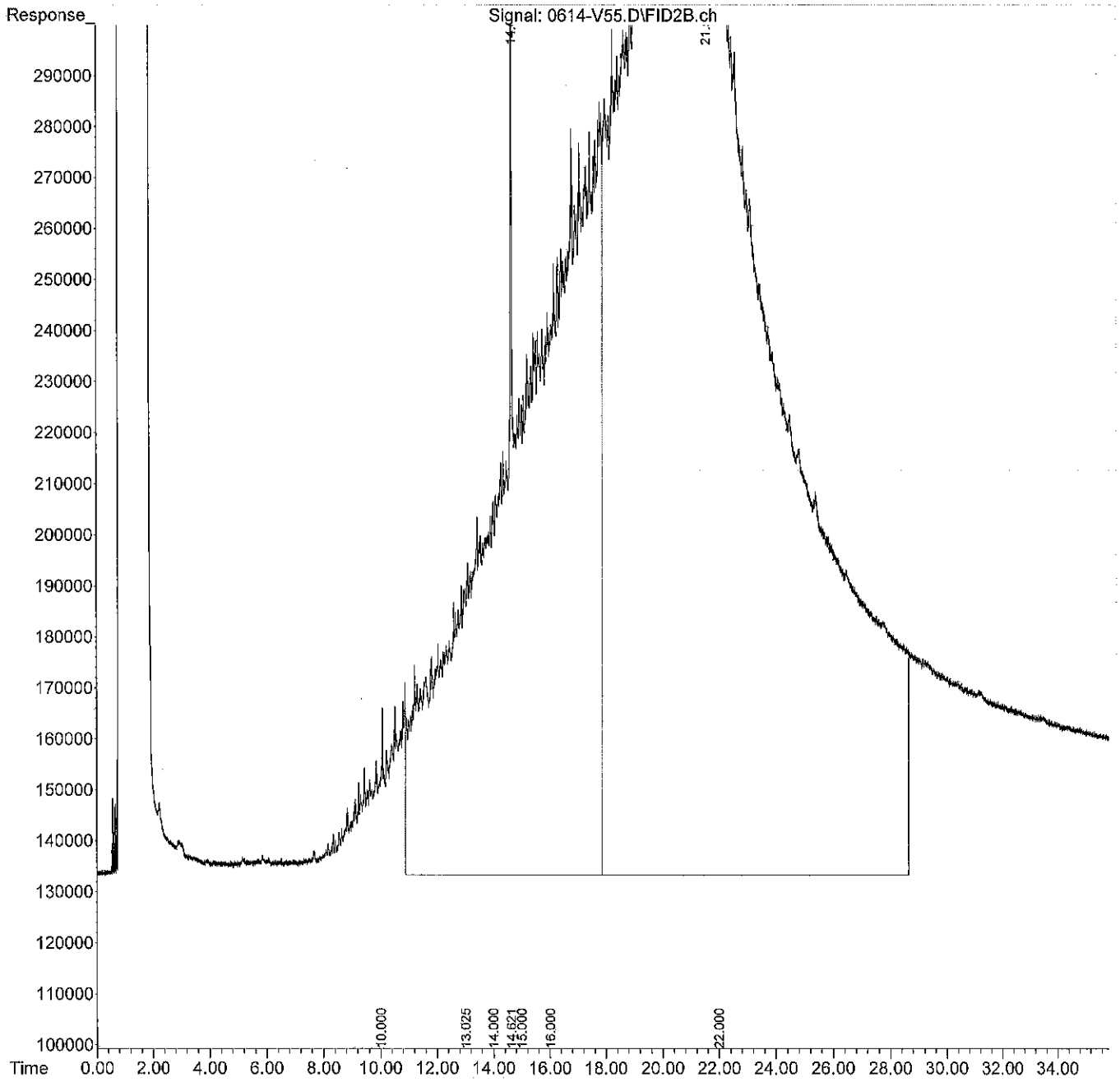
Quantitation Report (Not Reviewed)

Data File : 0614-V55.D
Sample : 06-118-18 20X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 13:31
Operator :
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 14:07:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V09.D
Sample : 06-118-19 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 16:17
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 16:53:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.685	29597723	9.337	PPM
Spiked Amount		50.000		Recovery =	18.67%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	12224842	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	192987937	78.477	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	378174590	162.216	PPM
6)	H	Oil (04-04-13)	22.000	1088227550	531.551	PPM
7)	H	Oil Acid Clean (02-...	22.000	1088227550	542.652	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	277367766	121.439	PPM
9)	H	Oil Combo (04-04-13)	22.000	998247852	497.501	PPM
10)	H	Oil Acid Clean Combo ...	22.000	998247852	507.409	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	389771926	151.750	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	665170467	606.482	PPM
13)	H	Mineral Oil (06-06-13)	16.000	582579217	225.888	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	1274666290	905.284	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1274666290	883.568	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1277319399	16241.614	PPM
17)	H	Mineral Oil Combo (0...	16.000	333567517	135.155	PPM
18)	H	Oil Acid Clean MO Com...	22.000	913866327	480.135	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	913866327	471.249	PPM

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

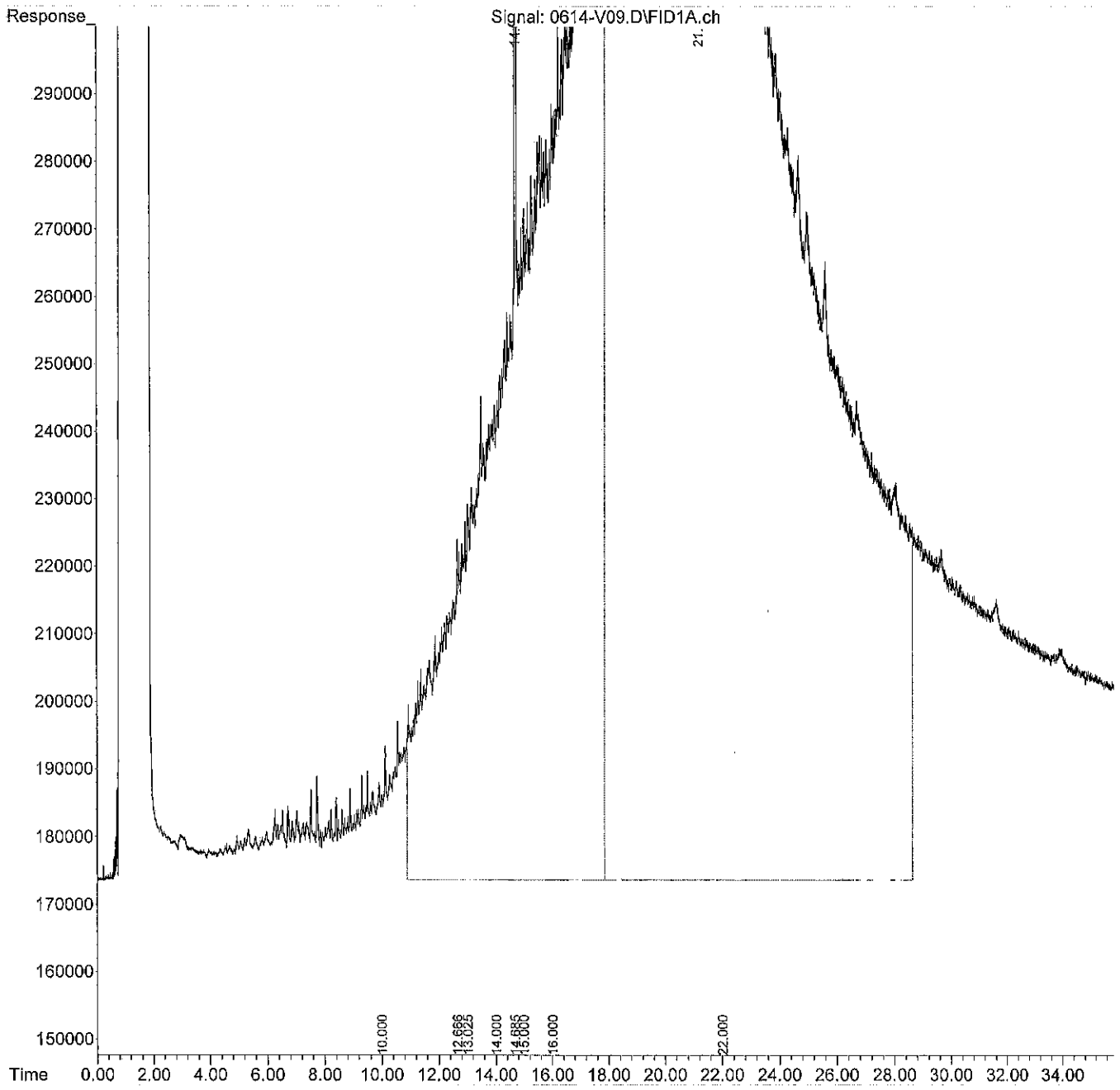
Quantitation Report (Not Reviewed)

Data File : 0614-V09.D
Sample : 06-118-19 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 16:17
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 16:53:20 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V09.D
Sample : 06-118-20 20X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 00:19
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 00:55:38 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.684	7195297	2.072	PPM
Spiked Amount		50.000		Recovery =	4.14%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6828627	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	72913134	30.484	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	146626412	63.237	PPM
6)	H	Oil (04-04-13)	22.000	624502339	304.774	PPM
7)	H	Oil Acid Clean (02-...	22.000	624502339	308.513	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	104110485	45.846	PPM
9)	H	Oil Combo (04-04-13)	22.000	590763431	294.307	PPM
10)	H	Oil Acid Clean Combo ...	22.000	590763431	297.508	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	151669425	57.464	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	389437967	351.986	PPM
13)	H	Mineral Oil (06-06-13)	16.000	248589019	97.569	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	694125050	485.412	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	694125050	477.392	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	694657162	8822.806	PPM
17)	H	Mineral Oil Combo (0...	16.000	126078703	52.962	PPM
18)	H	Oil Acid Clean MO Com...	22.000	555484254	289.094	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	555484254	286.400	PPM

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

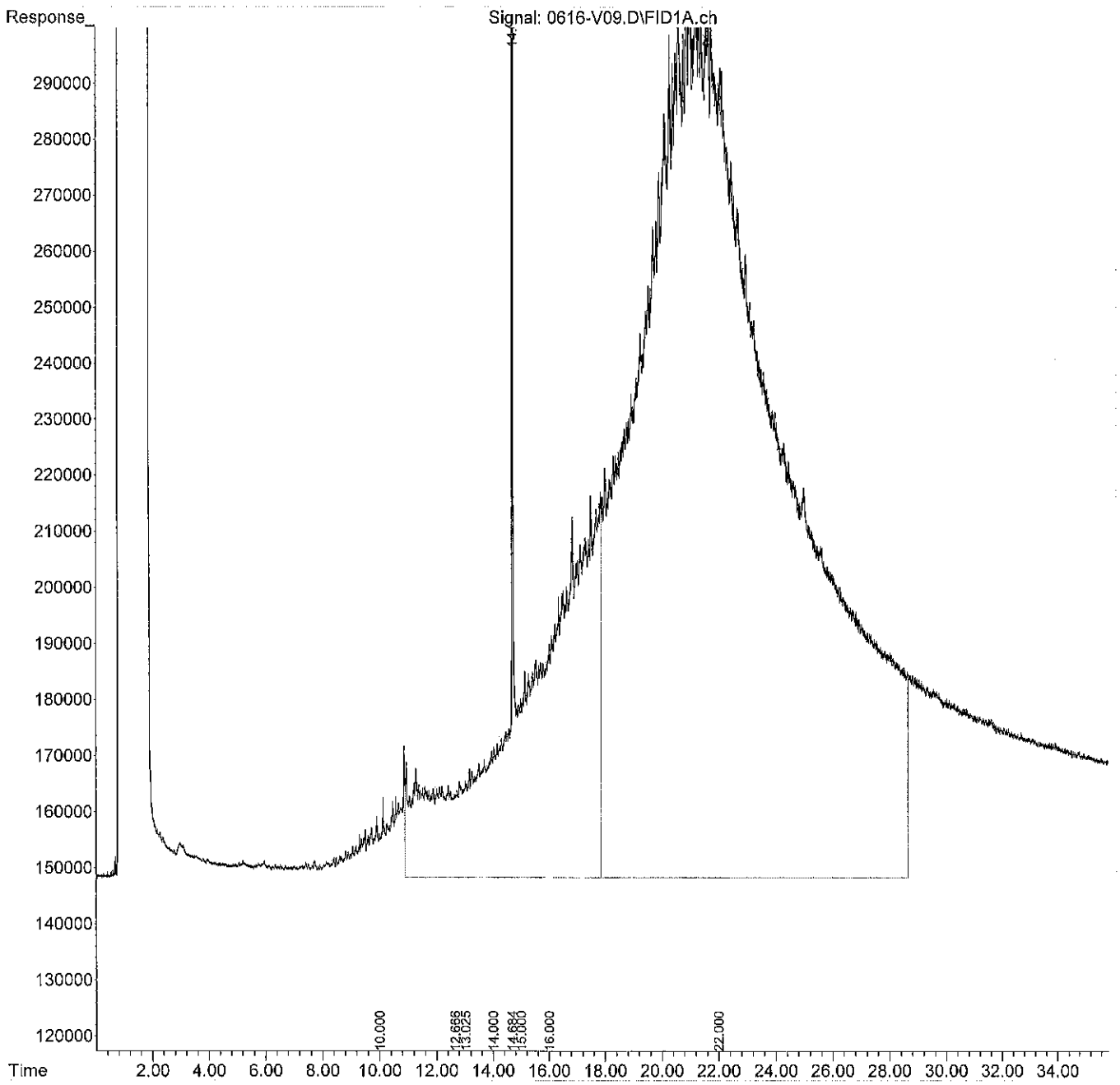
Quantitation Report (Not Reviewed)

Data File : 0616-V09.D
Sample : 06-118-20 20X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 00:19
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 00:55:38 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V60.D
Sample : 06-118-21

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 22:04
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 22:40:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.636	119741748	43.308	PPM
Spiked Amount		50.000		Recovery =	86.62%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	7152284	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	169702553	75.166	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	263580377	121.591	PPM
6)	H	Oil (04-04-13)	22.000	450415874	231.743	PPM
7)	H	Oil Acid Clean (02-0...	22.000	450415874	234.972	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	215697499	101.241	PPM
9)	H	Oil Combo (04-04-13)	22.000	401852714	210.238	PPM
10)	H	Oil Acid Clean Combo ...	22.000	401852714	212.962	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	271596339	99.494	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	265845657	222.779	PPM
13)	H	Mineral Oil (06-06-13)	16.000	323588261	134.979	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	616405146	422.504	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	616405146	456.715	PPM
16)	H	ALKANE C9-C40	12.666	618756709	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	217298457	94.649	PPM
18)	H	Oil Acid Clean MO Com...	22.000	361396587	197.144	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	361396587	194.832	PPM

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

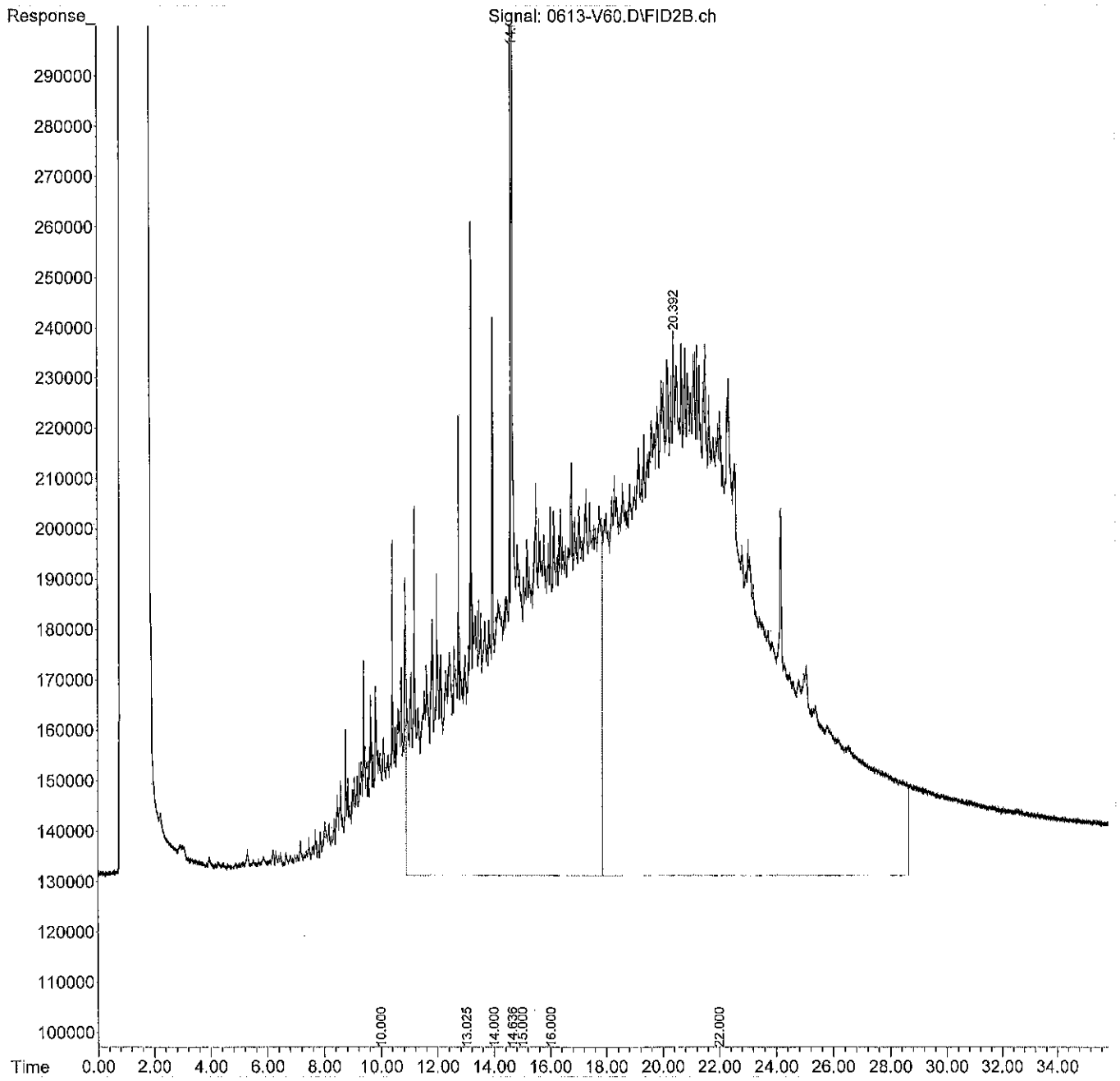
Quantitation Report (Not Reviewed)

Data File : 0613-V60.D
Sample : 06-118-21

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 22:04
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 22:40:52 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V06.D
Sample : 06-118-22 20X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 22:16
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 22:52:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.683	6382050	1.808	PPM
Spiked Amount		50.000		Recovery =	3.62%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10536774	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	400811432	161.544	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	671316617	287.525	PPM
6)	H	Oil (04-04-13)	22.000	1352719838	660.897	PPM
7)	H	Oil Acid Clean (02-...	22.000	1352719838	676.197	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	532662685	232.827	PPM
9)	H	Oil Combo (04-04-13)	22.000	1216355102	606.261	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1216355102	619.759	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	686429474	269.224	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	825516861	754.478	PPM
13)	H	Mineral Oil (06-06-13)	16.000	895280132	346.027	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	1748140719	1247.720	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1748140719	1214.834	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1749666572	22255.824	PPM
17)	H	Mineral Oil Combo (0...	16.000	568374047	228.169	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1099562647	579.123	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1099562647	567.028	PPM

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

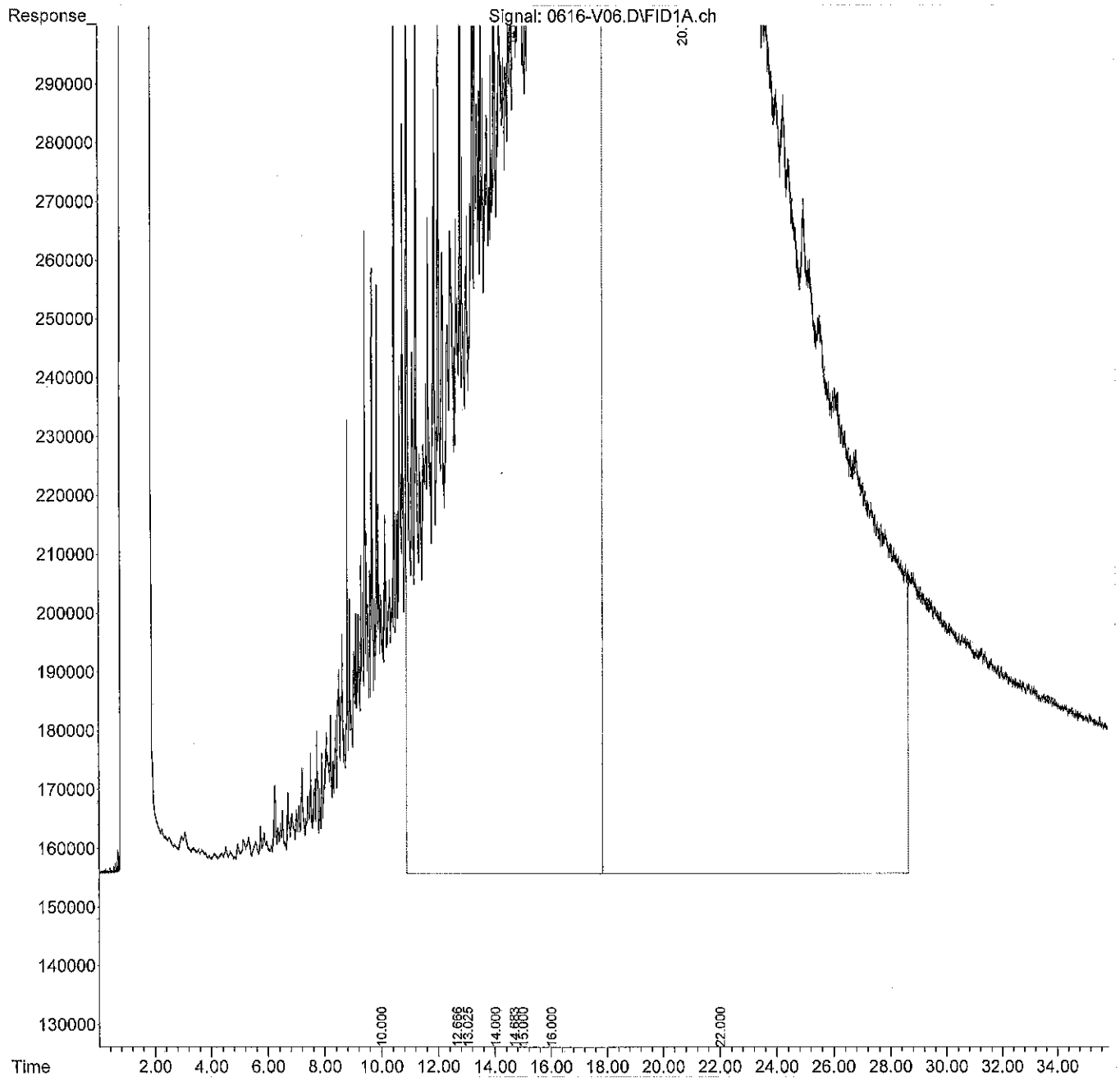
Quantitation Report (Not Reviewed)

Data File : 0616-V06.D
Sample : 06-118-22 20X

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 22:16
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 22:52:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V85.D
Sample : 06-118-23

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 10:23
Operator :
Misc :
ALS Vial : 85 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 10:59:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.637	147210236	53.350	PPM
Spiked Amount	50.000		Recovery =	106.70%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10502953	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	84083991	37.778	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	180237853	82.355	PPM
6) H	Oil (04-04-13)	22.000	950451887	499.438	PPM
7) H	Oil Acid Clean (02-0...	22.000	950451887	507.995	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	124391095	57.422	PPM
9) H	Oil Combo (04-04-13)	22.000	906052837	485.698	PPM
10) H	Oil Acid Clean Combo ...	22.000	906052837	493.764	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	191225965	68.522	PPM
12) H	Alaska 103 Oil (06-2...	22.000	604045323	519.458	PPM
13) H	Mineral Oil (06-06-13)	16.000	334411217	139.514	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1026520670	733.887	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1026520670	770.581	PPM
16) H	ALKANE C9-C40	12.666	1029794723	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	154780095	67.505	PPM
18) H	Oil Acid Clean MO Com...	22.000	859696041	484.141	PPM
19) H	Oil MO Combo (04-04-13)	22.000	859696041	476.585	PPM

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

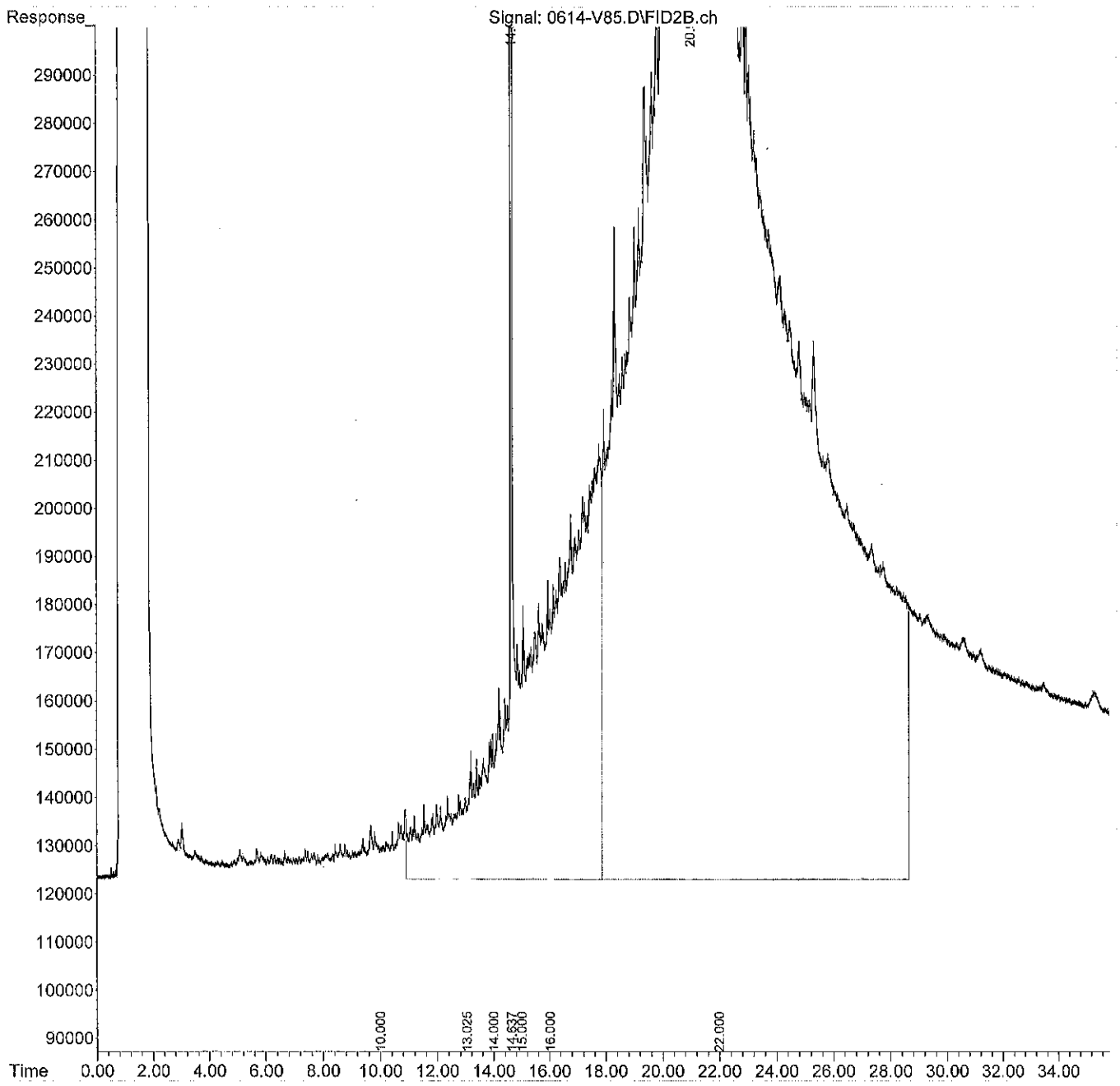
Quantitation Report (Not Reviewed)

Data File : 0614-V85.D
Sample : 06-118-23

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 10:23
Operator :
Misc :
ALS Vial : 85 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 10:59:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V18.D
Sample : 06-118-24

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 22:48
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 23:25:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.696	128724947	41.483	PPM
Spiked Amount	50.000		Recovery =	82.97%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6464035	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	34333460	15.064	PPM
5) H	Diesel Fuel #2 (06-...	14.000	85241624	36.997	PPM
6) H	Oil (04-04-13)	22.000	484659850	236.386	PPM
7) H	Oil Acid Clean (02-...	22.000	484659850	237.905	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	55056788	24.443	PPM
9) H	Oil Combo (04-04-13)	22.000	461582175	229.891	PPM
10) H	Oil Acid Clean Combo ...	22.000	461582175	230.965	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	89134364	32.700	PPM
12) H	Alaska 103 Oil (06-2...	22.000	305523390	274.534	PPM
13) H	Mineral Oil (06-06-13)	16.000	169619932	67.229	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	516053476	356.623	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	516053476	352.805	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	516775943	6557.915	PPM
17) H	Mineral Oil Combo (0...	16.000	74814981	32.655	PPM
18) H	Oil Acid Clean MO Com...	22.000	436716208	225.783	PPM
19) H	Oil MO Combo (04-04-13)	22.000	436716208	225.142	PPM

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

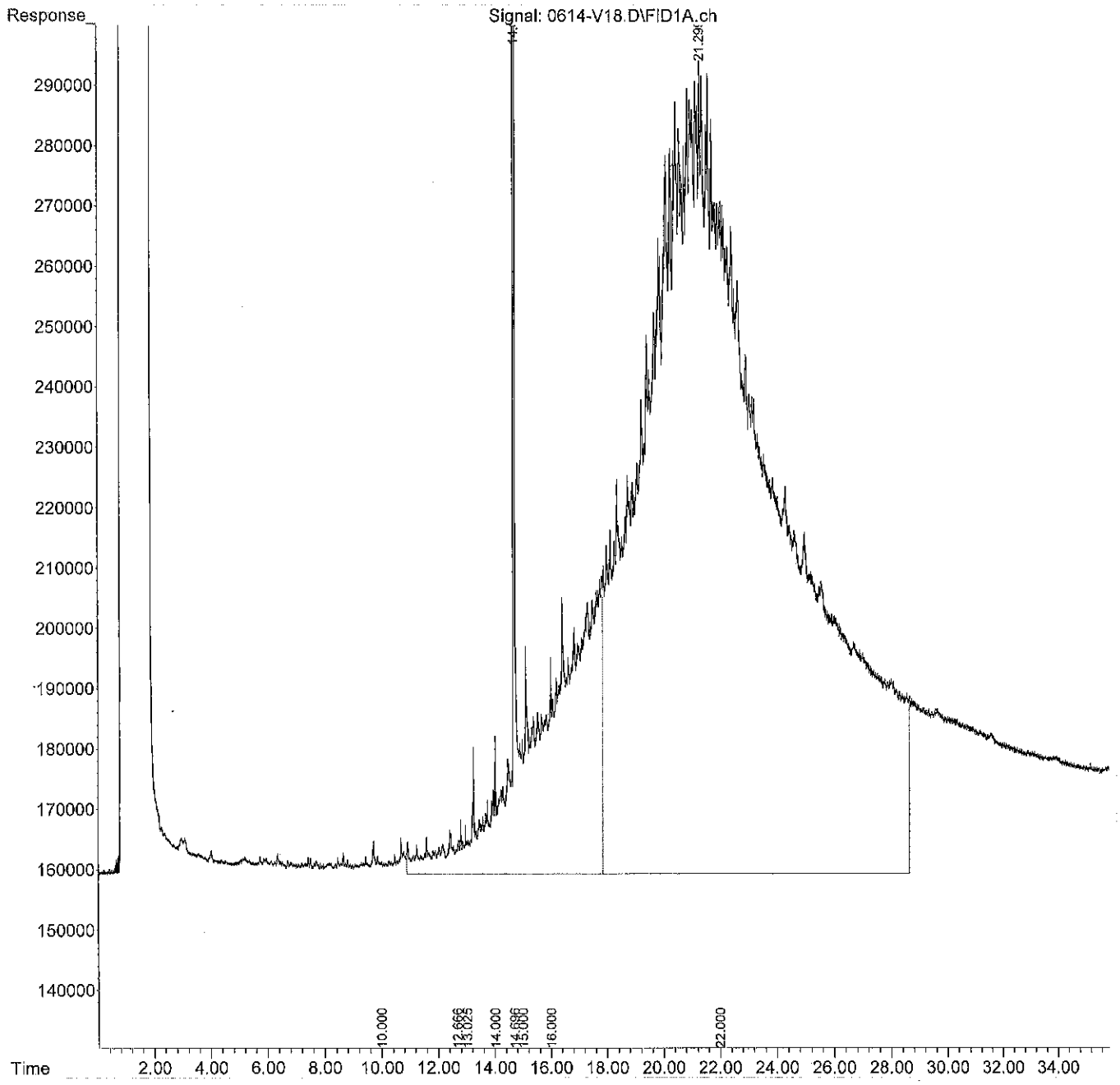
Quantitation Report (Not Reviewed)

Data File : 0614-V18.D
Sample : 06-118-24

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 22:48
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 23:25:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V24.D
Sample : 06-118-25

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 2:54
Operator :
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 03:30:23 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.696	130413582	42.031	PPM
Spiked Amount		50.000		Recovery =	84.06%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8521210	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	52757143	22.428	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	130205698	56.218	PPM
6)	H	Oil (04-04-13)	22.000	828013605	404.298	PPM
7)	H	Oil Acid Clean (02-...	22.000	828013605	411.268	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	82638266	36.477	PPM
9)	H	Oil Combo (04-04-13)	22.000	794832992	396.067	PPM
10)	H	Oil Acid Clean Combo ...	22.000	794832992	402.627	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	136285275	51.372	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	549462703	499.686	PPM
13)	H	Mineral Oil (06-06-13)	16.000	274888604	107.673	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	876571836	617.365	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	876571836	605.041	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	877391770	11149.494	PPM
17)	H	Mineral Oil Combo (0...	16.000	111951033	47.366	PPM
18)	H	Oil Acid Clean MO Com...	22.000	755816379	395.884	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	755816379	389.729	PPM

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

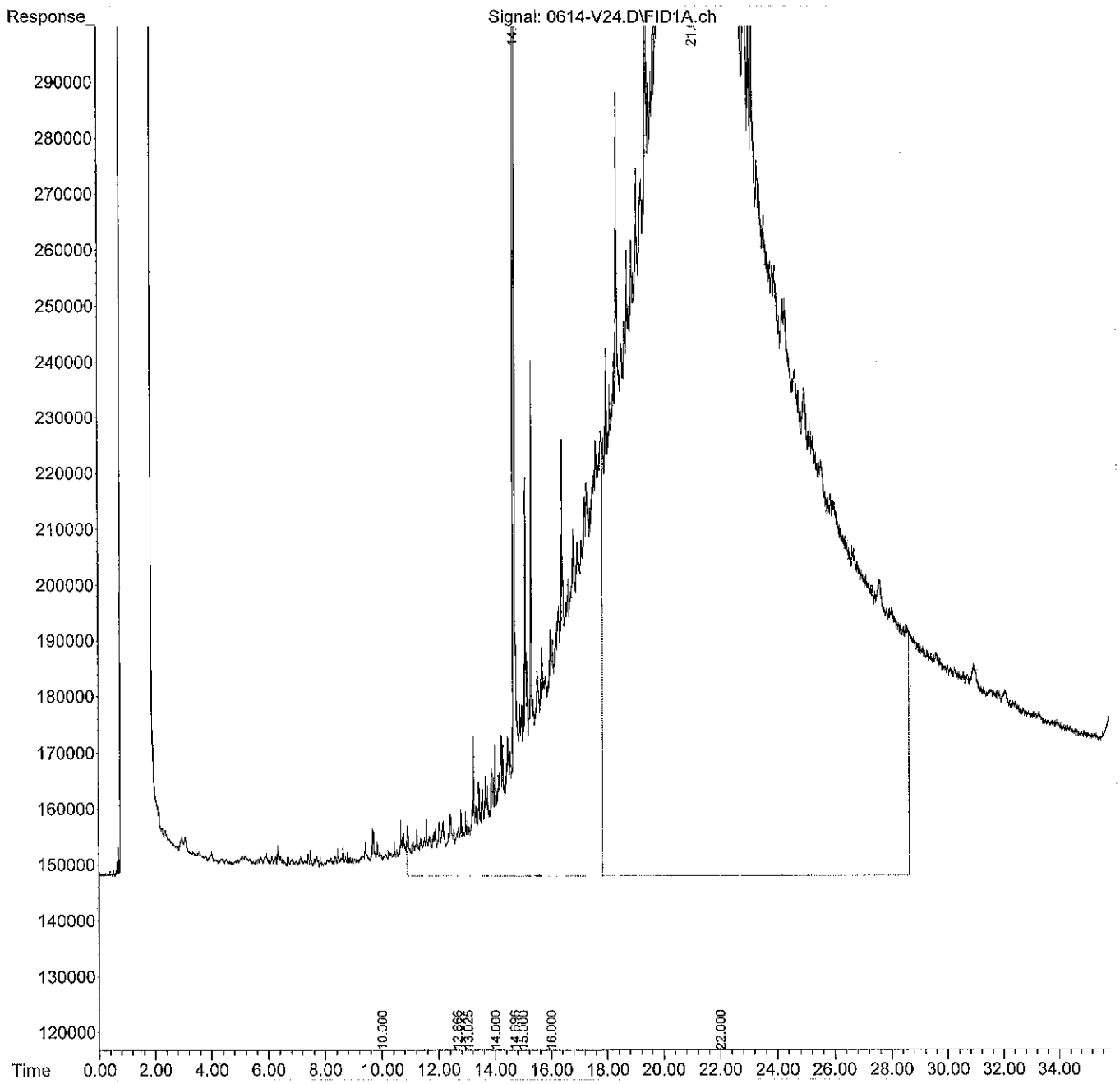
Quantitation Report (Not Reviewed)

Data File : 0614-V24.D
Sample : 06-118-25

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 2:54
Operator :
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 03:30:23 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V76.D
Sample : 06-118-26

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 4:15
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 04:52:09 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.633	124394797	45.009	PPM
Spiked Amount		50.000		Recovery =	90.02%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9869778	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	91869700	41.178	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	223403827	102.677	PPM
6)	H	Oil (04-04-13)	22.000	1243985186	656.581	PPM
7)	H	Oil Acid Clean (02-0...	22.000	1243985186	668.266	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	146919227	68.234	PPM
9)	H	Oil Combo (04-04-13)	22.000	1185189042	638.199	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1185189042	649.223	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	238260384	86.648	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	815298242	704.776	PPM
13)	H	Mineral Oil (06-06-13)	16.000	448160699	187.178	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	1327788470	962.627	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	1327788470	1001.145	PPM
16)	H	ALKANE C9-C40	12.666	1330933377	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	196108137	85.449	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1121777379	635.088	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1121777379	624.774	PPM

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

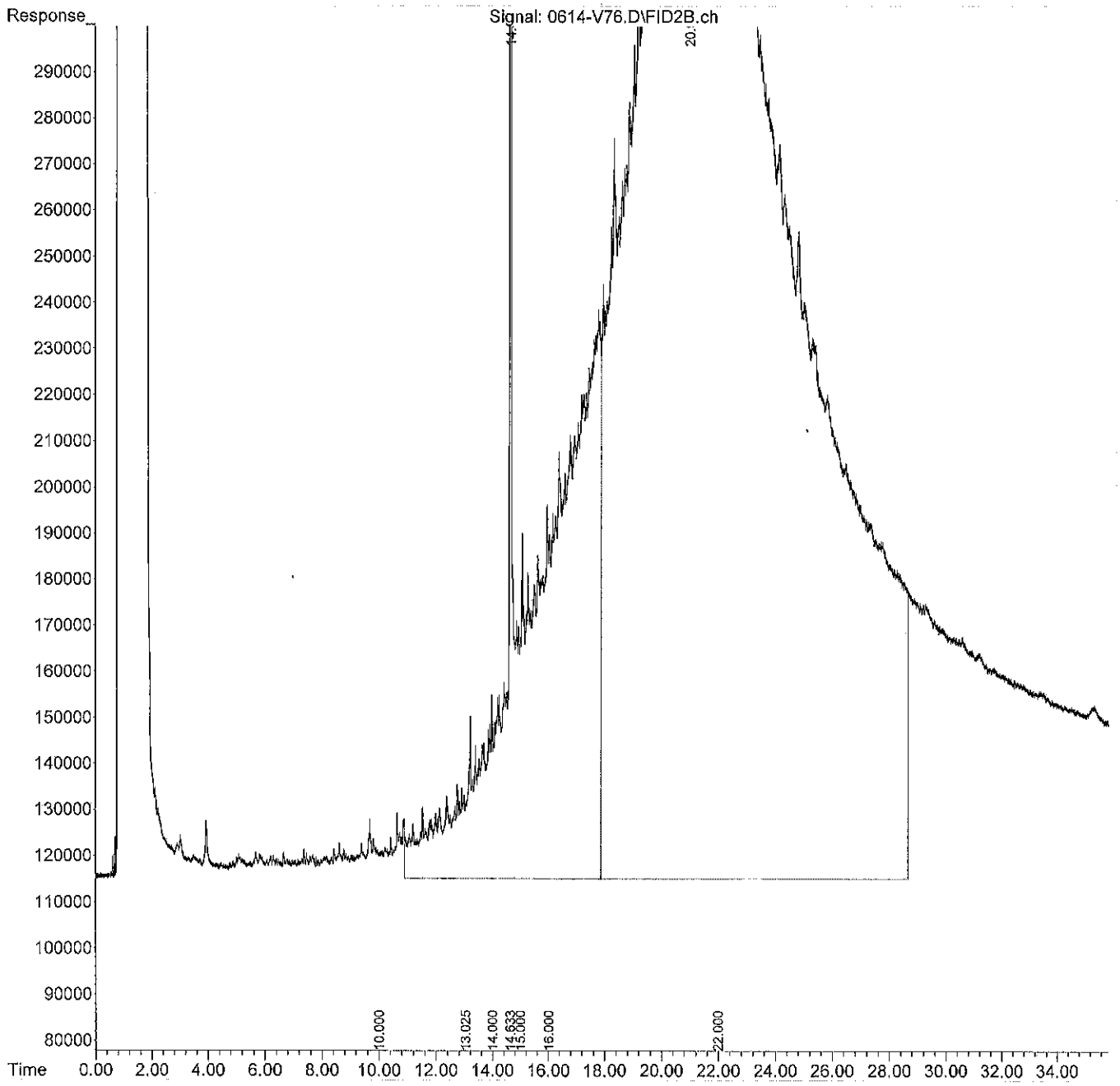
Quantitation Report (Not Reviewed)

Data File : 0614-V76.D
Sample : 06-118-26

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 4:15
Operator :
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 04:52:09 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V83.D
Sample : 06-118-27

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 9:01
Operator :
Misc :
ALS Vial : 83 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 09:37:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.637	149286419	54.109	PPM
Spiked Amount		50.000		Recovery =	108.22%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8655910	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	62717711	28.448	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	149941265	68.092	PPM
6)	H	Oil (04-04-13)	22.000	838171317	439.328	PPM
7)	H	Oil Acid Clean (02-0...	22.000	838171317	446.689	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	99262063	45.362	PPM
9)	H	Oil Combo (04-04-13)	22.000	798386229	426.876	PPM
10)	H	Oil Acid Clean Combo ...	22.000	798386229	433.802	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	159570332	56.323	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	530328569	454.792	PPM
13)	H	Mineral Oil (06-06-13)	16.000	287173686	119.720	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	894137576	633.374	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	894137576	669.267	PPM
16)	H	ALKANE C9-C40	12.666	896643505	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	130413450	56.925	PPM
18)	H	Oil Acid Clean MO Com...	22.000	756210450	424.538	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	756210450	418.072	PPM

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

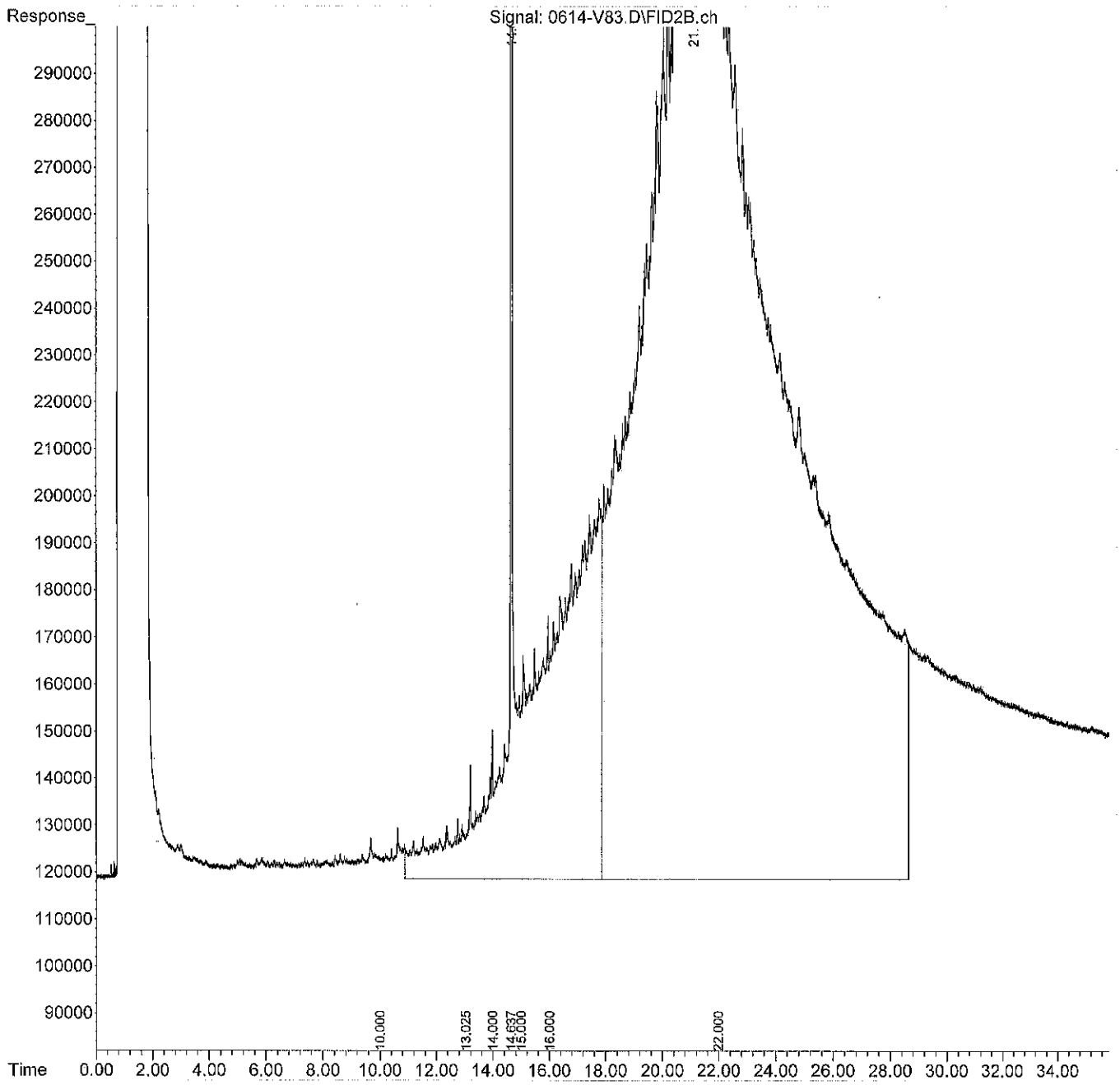
Quantitation Report (Not Reviewed)

Data File : 0614-V83.D
Sample : 06-118-27

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 9:01
Operator :
Misc :
ALS Vial : 83 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 09:37:35 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V60.D
Sample : 06-118-28 RR

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 17 Jun 2013 1:00
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 01:36:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.632	114766390	41.489	PPM
Spiked Amount	50.000		Recovery =	82.98%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9675285	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	84090925	37.781	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	188113282	86.062	PPM
6) H	Oil (04-04-13)	22.000	1028044683	540.977	PPM
7) H	Oil Acid Clean (02-0...	22.000	1028044683	550.361	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	127974347	59.142	PPM
9) H	Oil Combo (04-04-13)	22.000	980519866	526.382	PPM
10) H	Oil Acid Clean Combo ...	22.000	980519866	535.237	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	199655935	71.771	PPM
12) H	Alaska 103 Oil (06-2...	22.000	644527667	554.971	PPM
13) H	Mineral Oil (06-06-13)	16.000	349549126	145.857	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1104133921	792.815	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1104133921	829.980	PPM
16) H	ALKANE C9-C40	12.666	1106878679	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	163214392	71.167	PPM
18) H	Oil Acid Clean MO Com...	22.000	930644647	525.004	PPM
19) H	Oil MO Combo (04-04-13)	22.000	930644647	516.702	PPM

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

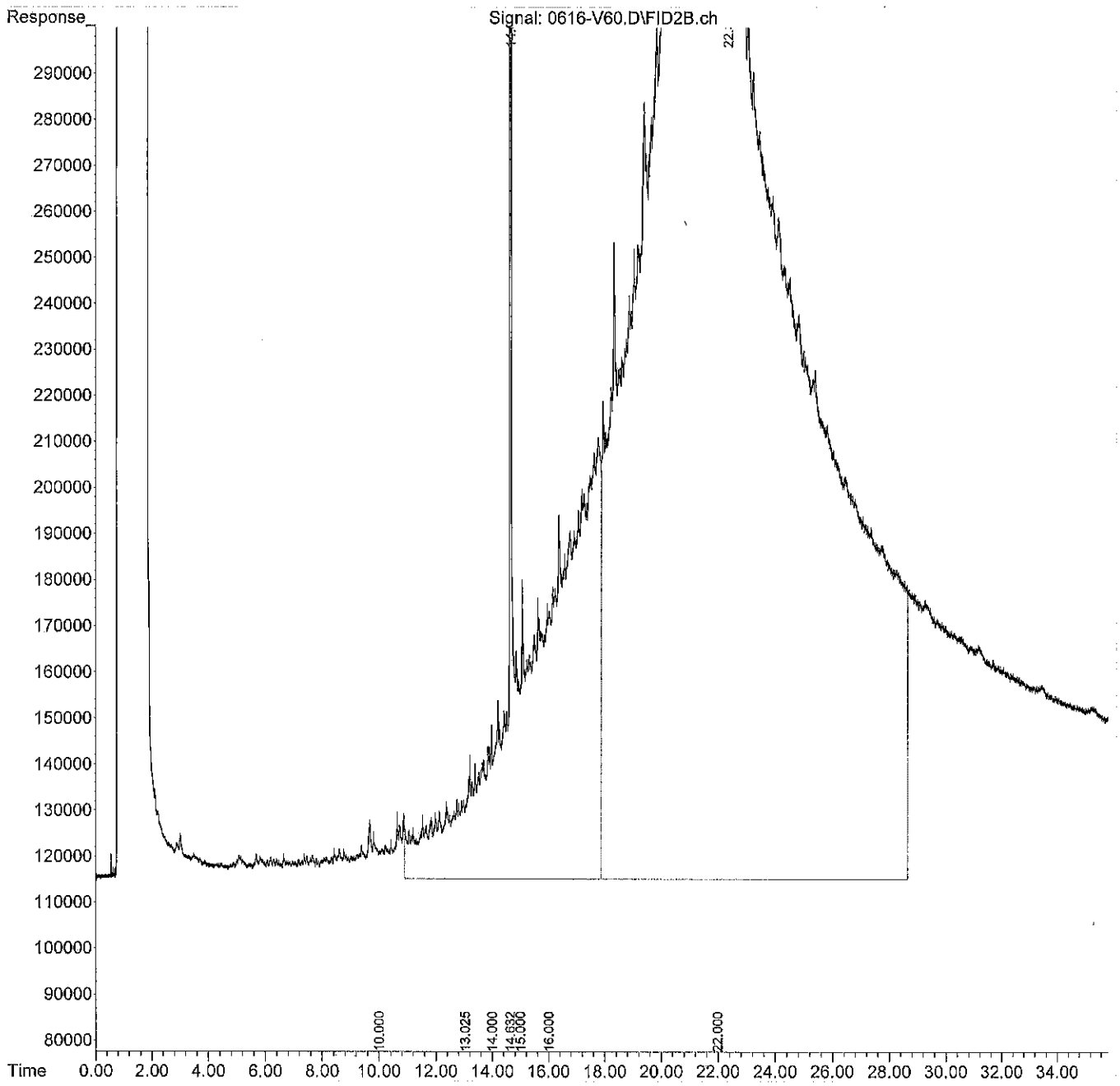
Quantitation Report (Not Reviewed)

Data File : 0616-V60.D
Sample : 06-118-28 RR

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 17 Jun 2013 1:00
Operator :
Misc :
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 01:36:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V78.D
Sample : 06-118-29

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 5:37
Operator :
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 06:13:33 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.635	135881346	49.208	PPM
Spiked Amount	50.000		Recovery =	98.42%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8668289	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	74998806	33.810	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	187098137	85.584	PPM
6) H	Oil (04-04-13)	22.000	1091213814	574.795	PPM
7) H	Oil Acid Clean (02-0...	22.000	1091213814	584.852	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	120585174	55.596	PPM
9) H	Oil Combo (04-04-13)	22.000	1042353230	560.163	PPM
10) H	Oil Acid Clean Combo ...	22.000	1042353230	569.674	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	199451475	71.692	PPM
12) H	Alaska 103 Oil (06-2...	22.000	707272067	610.012	PPM
13) H	Mineral Oil (06-06-13)	16.000	372423024	155.442	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1158819355	834.336	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1158819355	871.831	PPM
16) H	ALKANE C9-C40	12.666	1161223214	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	163862713	71.448	PPM
18) H	Oil Acid Clean MO Com...	22.000	986888653	557.398	PPM
19) H	Oil MO Combo (04-04-13)	22.000	986888653	548.504	PPM

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

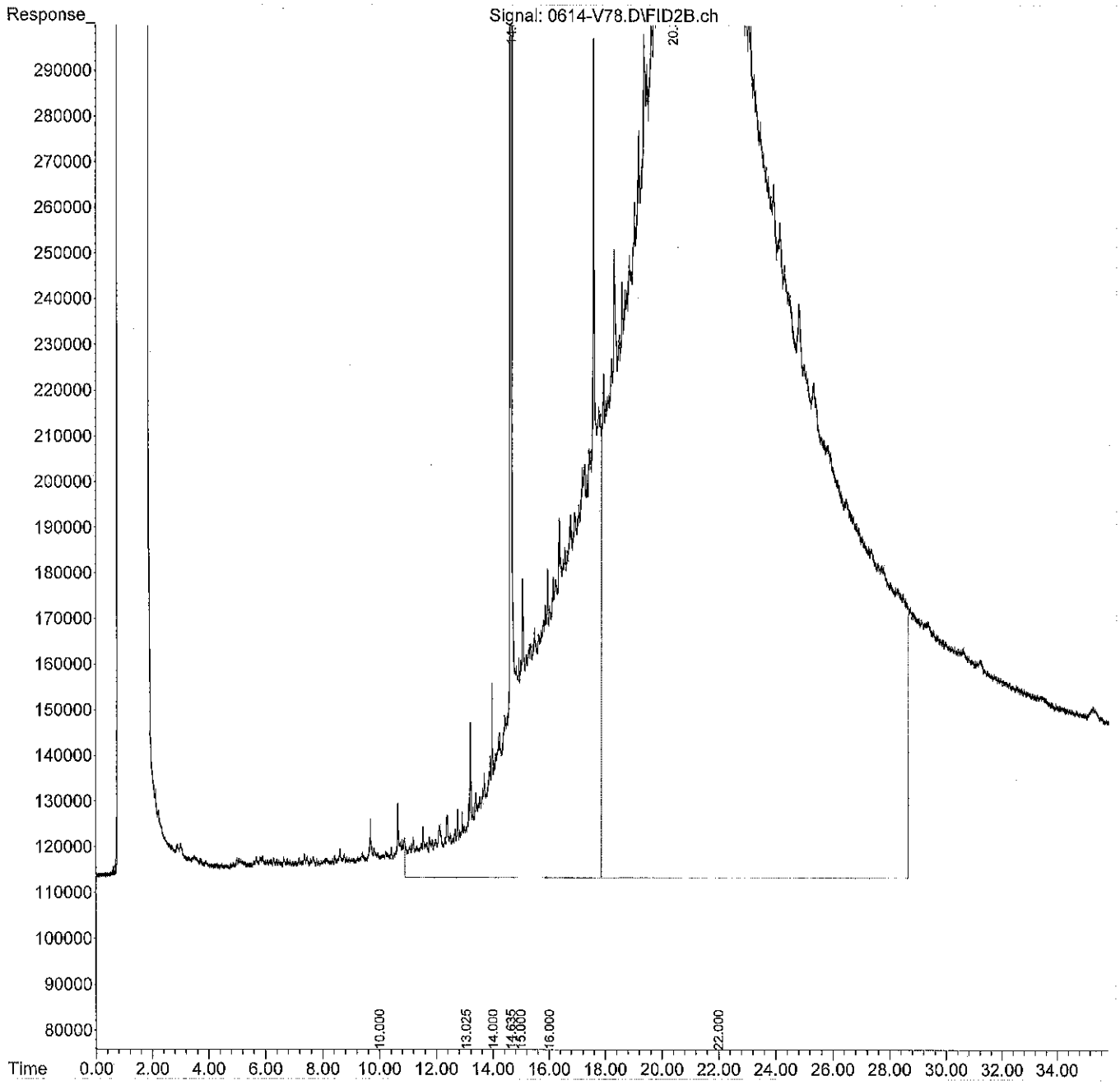
Quantitation Report (Not Reviewed)

Data File : 0614-V78.D
Sample : 06-118-29

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 5:37
Operator :
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 06:13:33 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V03.D
Sample : 06-118-30 10X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 12:08
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 12:45:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.683	15097502	4.634 PPM
Spiked Amount	50.000		Recovery =	9.27%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	9471287	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	190665561	77.549 PPM
5) H	Diesel Fuel #2 (06-...	14.000	350998104	150.599 PPM
6) H	Oil (04-04-13)	22.000	928914606	453.642 PPM
7) H	Oil Acid Clean (02-...	22.000	928914606	462.214 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	264485723	115.819 PPM
9) H	Oil Combo (04-04-13)	22.000	851156212	424.153 PPM
10) H	Oil Acid Clean Combo ...	22.000	851156212	431.640 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	360620305	140.206 PPM
12) H	Alaska 103 Oil (06-2...	22.000	569276221	517.973 PPM
13) H	Mineral Oil (06-06-13)	16.000	517226024	200.779 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1114820820	789.677 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1114820820	771.732 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1116329719	14191.796 PPM
17) H	Mineral Oil Combo (0...	16.000	302542467	122.865 PPM
18) H	Oil Acid Clean MO Com...	22.000	778713167	408.089 PPM
19) H	Oil MO Combo (04-04-13)	22.000	778713167	401.539 PPM

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

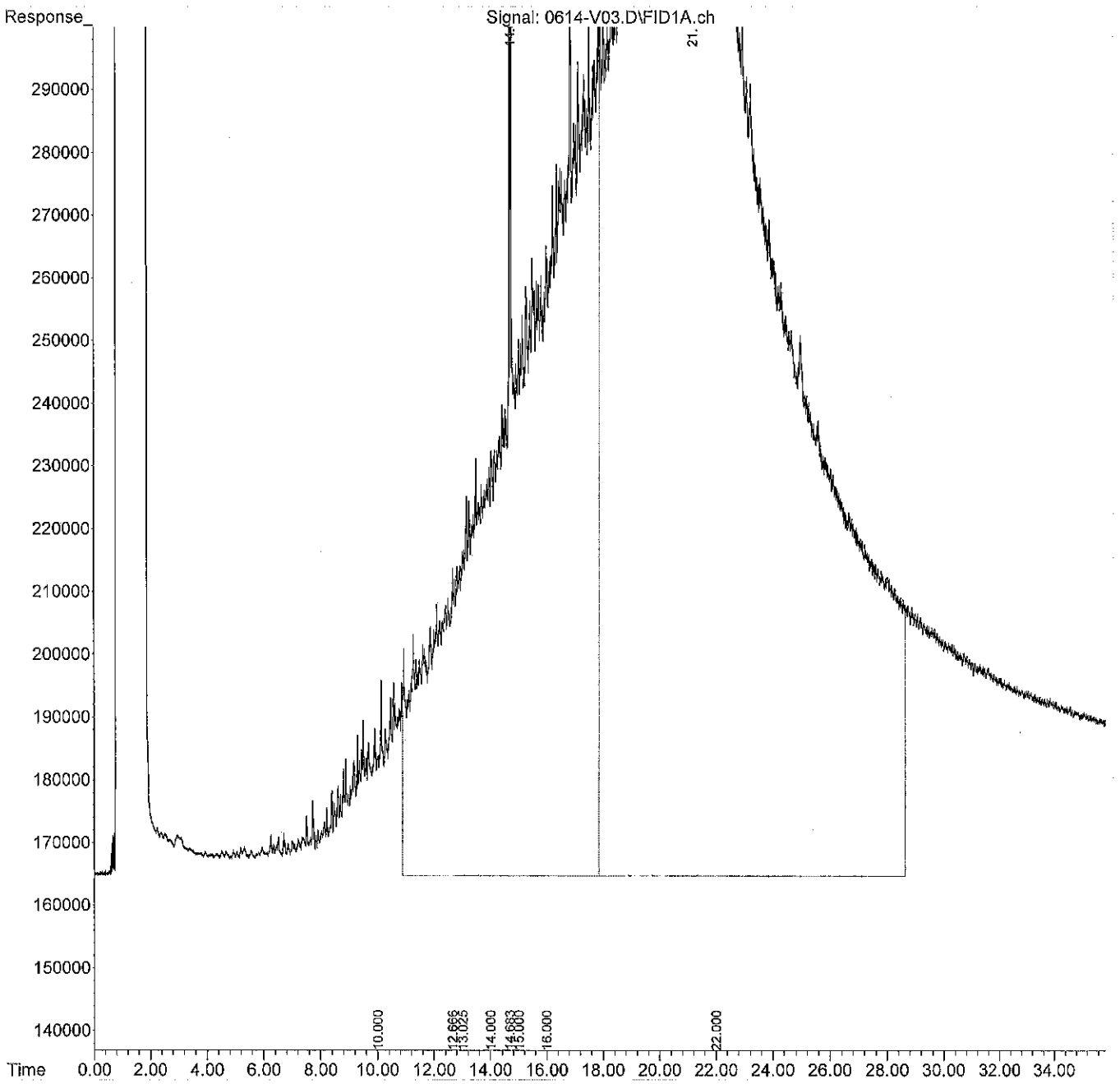
Quantitation Report (Not Reviewed)

Data File : 0614-V03.D
Sample : 06-118-30 10X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 12:08
Operator :
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 12:45:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V09.D
Sample : 06-118-31

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 21:22
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:59:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.700	147028519	47.419	PPM
Spiked Amount	50.000		Recovery =	94.84%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5987781	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	26494541	11.931	PPM
5) H	Diesel Fuel #2 (06-...	14.000	39150950	17.295	PPM
6) H	Oil (04-04-13)	22.000	83570052	40.239	PPM
7) H	Oil Acid Clean (02-...	22.000	83570052	35.391	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	31961438	14.366	PPM
9) H	Oil Combo (04-04-13)	22.000	76046182	37.641	PPM
10) H	Oil Acid Clean Combo ...	22.000	76046182	32.369	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	40086005	13.278	PPM
12) H	Alaska 103 Oil (06-2...	22.000	51176310	39.777	PPM
13) H	Mineral Oil (06-06-13)	16.000	51734950	21.938	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	107976516	61.485	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	107976516	67.293	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	109864618	1376.874	PPM
17) H	Mineral Oil Combo (0...	16.000	32882316	16.045	PPM
18) H	Oil Acid Clean MO Com...	22.000	70028914	30.314	PPM
19) H	Oil MO Combo (04-04-13)	22.000	70028914	36.010	PPM

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

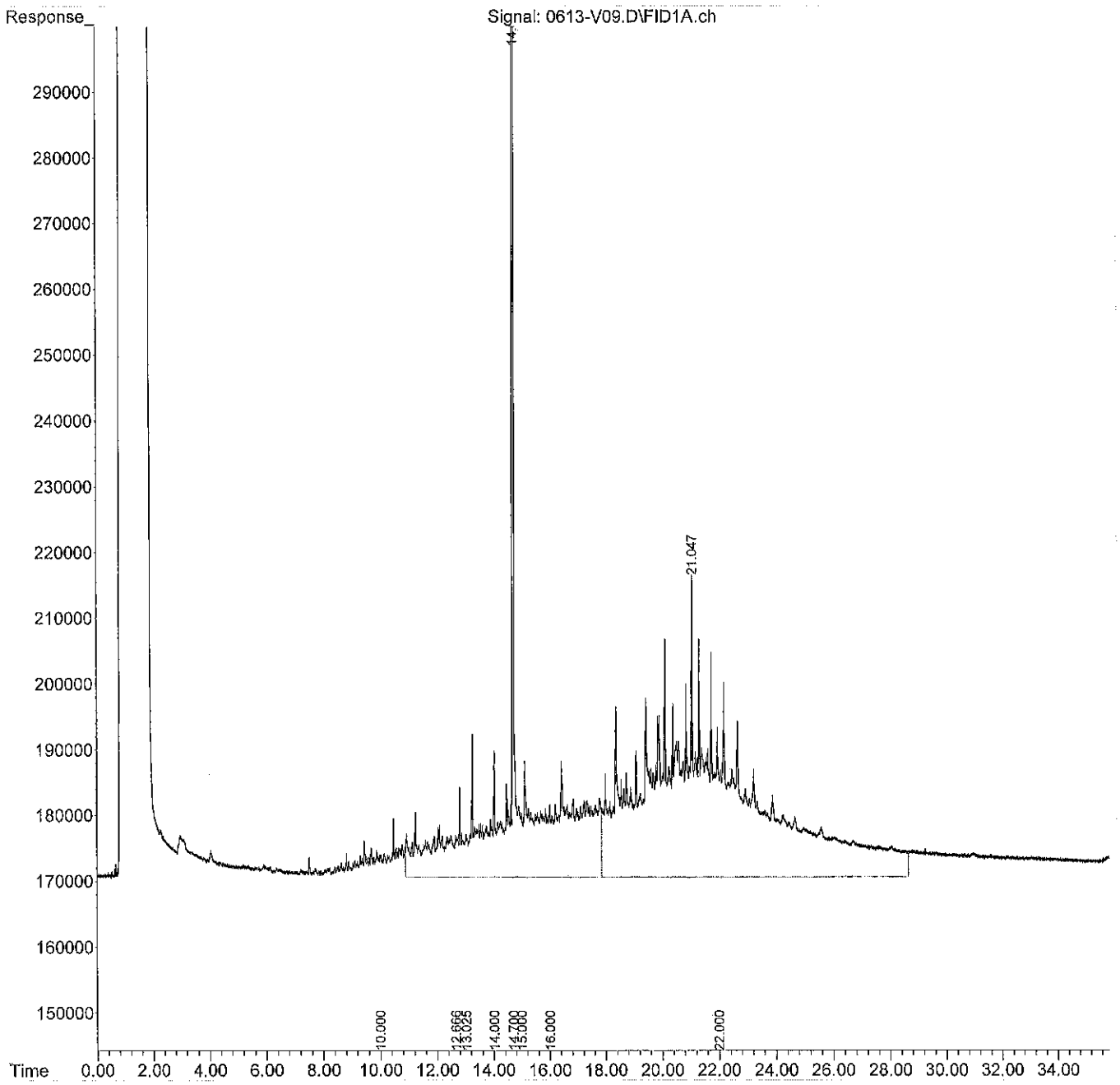
Quantitation Report (Not Reviewed)

Data File : 0613-V09.D
Sample : 06-118-31

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 21:22
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:59:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V53.D
Sample : 06-118-32 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 12:08
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 12:45:17 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.624	23776682	8.223	PPM
Spiked Amount	50.000		Recovery =	16.45%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	52614889	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	517745156	227.150	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	568184284	264.994	PPM
6) H	Oil (04-04-13)	22.000	404636826	207.235	PPM
7) H	Oil Acid Clean (02-0...	22.000	404636826	209.976	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	530767642	252.446	PPM
9) H	Oil Combo (04-04-13)	22.000	365918192	190.606	PPM
10) H	Oil Acid Clean Combo ...	22.000	365918192	192.949	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	578030273	217.582	PPM
12) H	Alaska 103 Oil (06-2...	22.000	227216071	188.891	PPM
13) H	Mineral Oil (06-06-13)	16.000	341041816	142.292	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	895874069	634.693	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	895874069	670.596	PPM
16) H	ALKANE C9-C40	12.666	920636079	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	257592465	112.144	PPM
18) H	Oil Acid Clean MO Com...	22.000	334231878	181.498	PPM
19) H	Oil MO Combo (04-04-13)	22.000	334231878	179.472	PPM

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

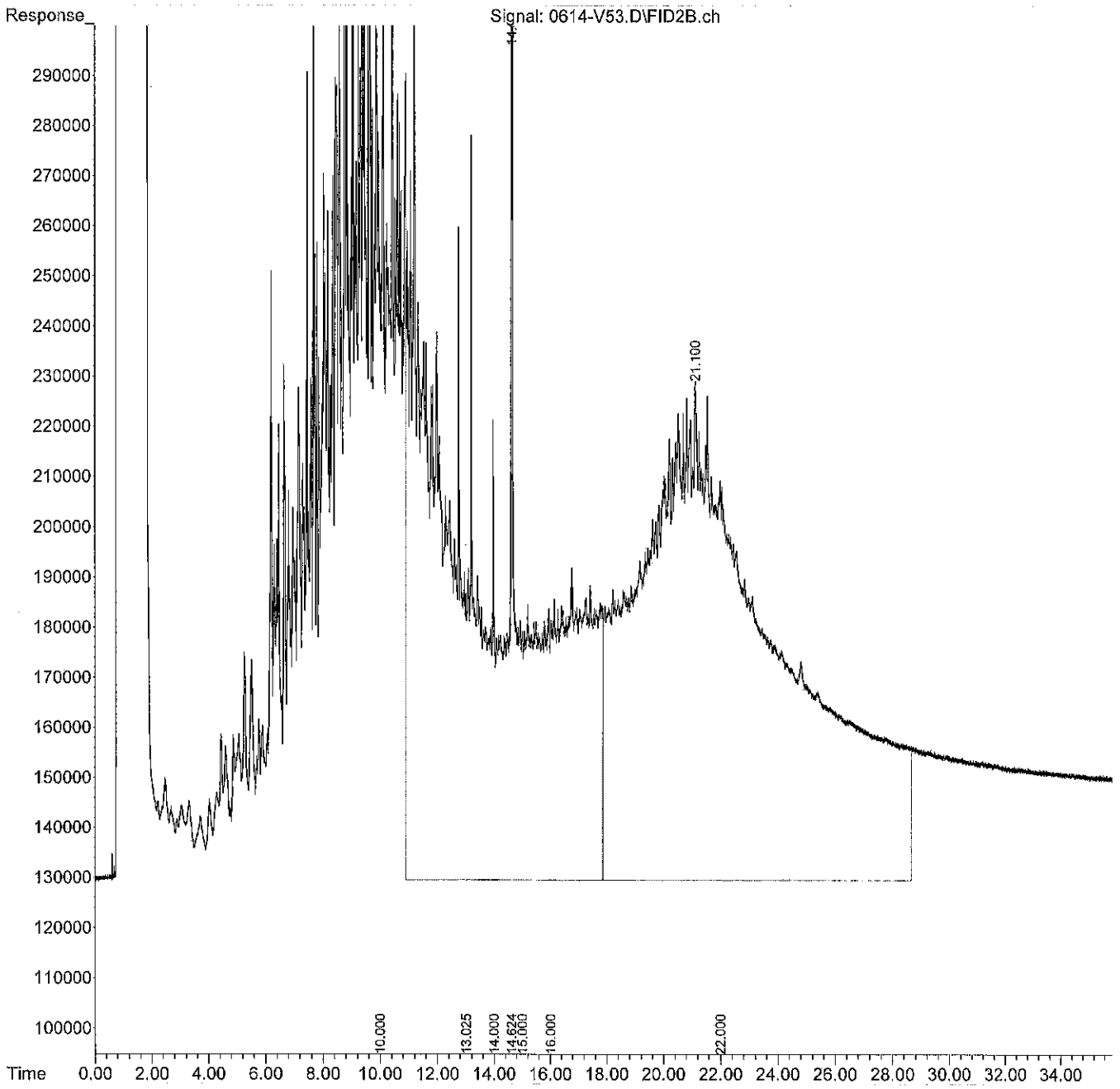
Quantitation Report (Not Reviewed)

Data File : 0614-V53.D
Sample : 06-118-32 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 12:08
Operator :
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 12:45:17 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V63.D
Sample : 06-118-33

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 00:07
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:43:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.639	142181245	51.511 PPM
Spiked Amount	50.000		Recovery =	103.02%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	6307944	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	15030260	7.623 PPM
5) H	Diesel Fuel #2 (06-1...	14.000	24863654	9.207 PPM
6) H	Oil (04-04-13)	22.000	115507294	52.449 PPM
7) H	Oil Acid Clean (02-0...	22.000	115507294	52.109 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	18444613	6.577 PPM
9) H	Oil Combo (04-04-13)	22.000	110064573	50.825 PPM
10) H	Oil Acid Clean Combo ...	22.000	110064573	50.457 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	26299840	4.966 PPM
12) H	Alaska 103 Oil (06-2...	22.000	67287013	48.596 PPM
13) H	Mineral Oil (06-06-13)	16.000	40475962	16.347 PPM
14) H	Bunker C-ACU (Fuel O...	15.000	127879519	51.587 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	127879519	82.841 PPM
16) H	ALKANE C9-C40	12.666	129837539	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	20451202	9.182 PPM
18) H	Oil Acid Clean MO Com...	22.000	104711298	49.305 PPM
19) H	Oil MO Combo (04-04-13)	22.000	104711298	49.695 PPM

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

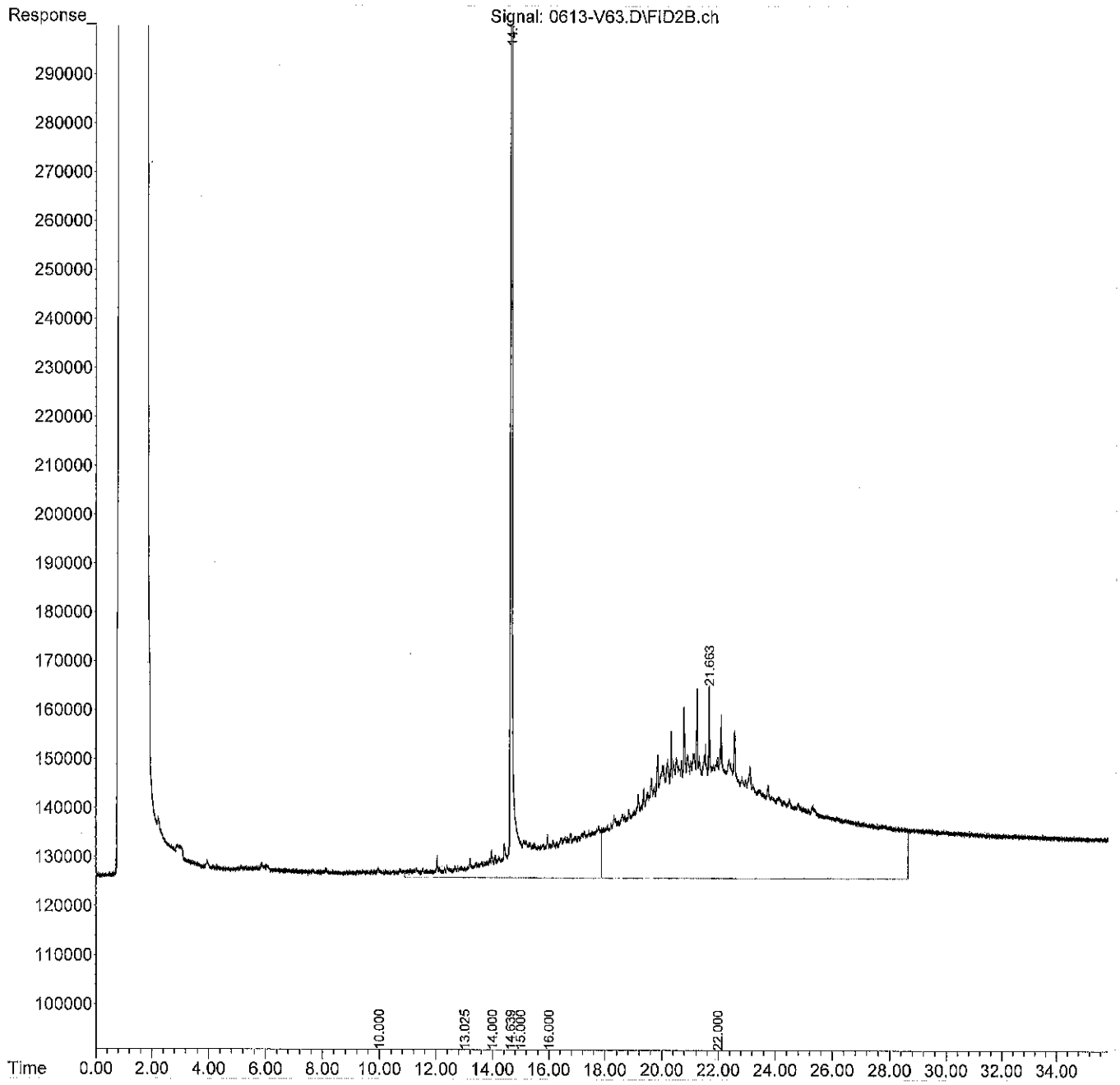
Quantitation Report (Not Reviewed)

Data File : 0613-V63.D
Sample : 06-118-33

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 00:07
Operator :
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:43:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V06.D
Sample : 06-118-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 14:12
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 14:48:39 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.685	24563488	7.704 PPM
Spiked Amount	50.000		Recovery =	15.41%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	15700614	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	726424475	291.690 PPM
5) H	Diesel Fuel #2 (06-...	14.000	1015132821	434.496 PPM
6) H	Oil (04-04-13)	22.000	1185833730	579.284 PPM
7) H	Oil Acid Clean (02-...	22.000	1185833730	591.935 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	872102395	380.928 PPM
9) H	Oil Combo (04-04-13)	22.000	1033388424	515.024 PPM
10) H	Oil Acid Clean Combo ...	22.000	1033388424	525.511 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	1030403297	405.435 PPM
12) H	Alaska 103 Oil (06-2...	22.000	678968607	619.217 PPM
13) H	Mineral Oil (06-06-13)	16.000	1058726613	408.822 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1904809342	1361.029 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1904809342	1324.448 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1908943194	24283.830 PPM
17) H	Mineral Oil Combo (0...	16.000	763239949	305.361 PPM
18) H	Oil Acid Clean MO Com...	22.000	912256268	479.277 PPM
19) H	Oil MO Combo (04-04-13)	22.000	912256268	470.418 PPM

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

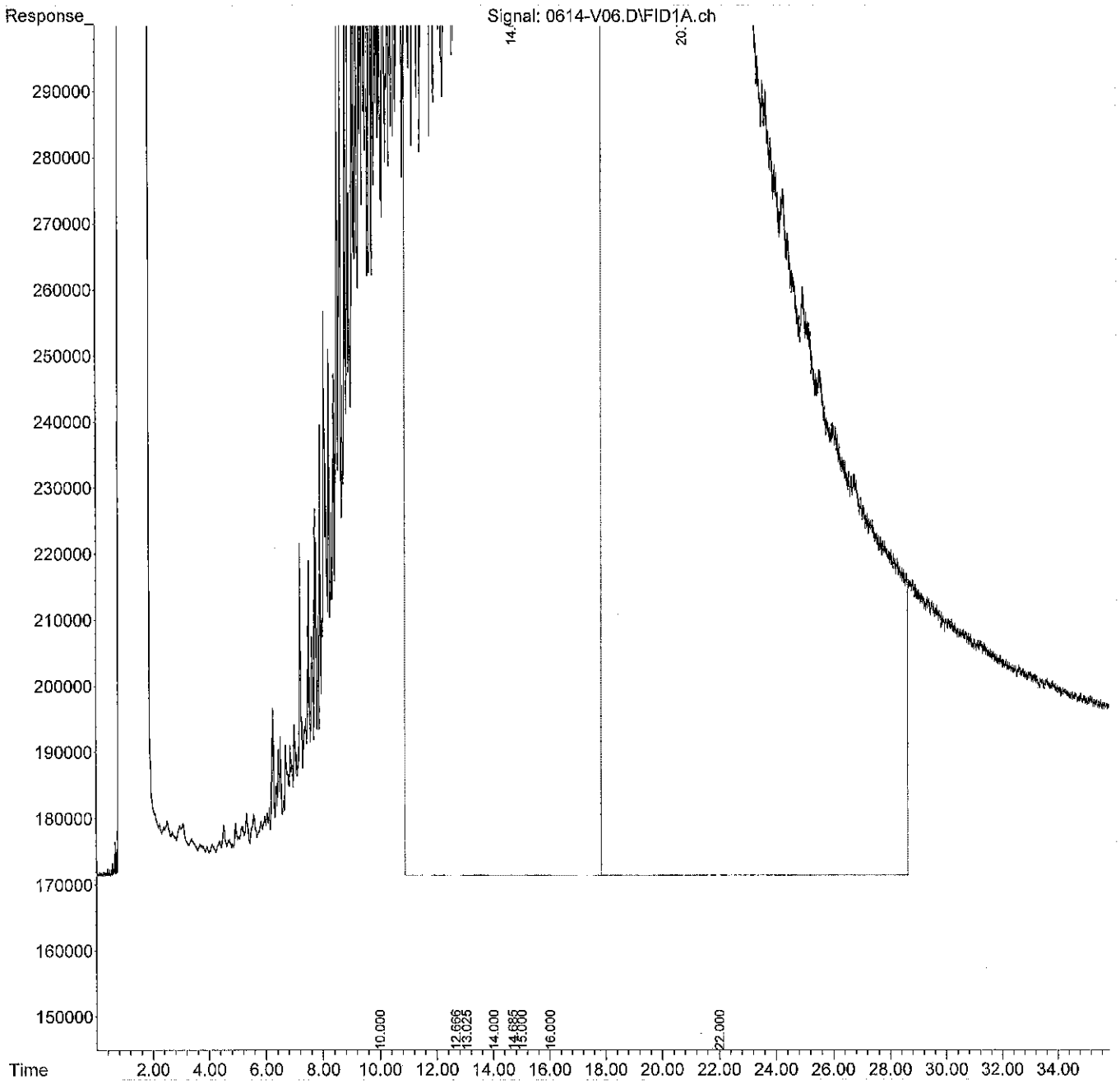
Quantitation Report (Not Reviewed)

Data File : 0614-V06.D
Sample : 06-118-34 5X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 14:12
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 14:48:39 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V18.D
Sample : 06-118-35 5X

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 3:31
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 04:07:47 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.684	23891110	7.486 PPM
	Spiked Amount 50.000		Recovery =	14.97%
	Target Compounds			
2)	1-Chlorooctadecane (...	15.842	5888230	2.768 PPM
3) H	Gasoline	3.500	15718628	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	386519147	155.831 PPM
5) H	Diesel Fuel #2 (06-...	14.000	539906337	231.351 PPM
6) H	Oil (04-04-13)	22.000	1042971626	509.420 PPM
7) H	Oil Acid Clean (02-...	22.000	1042971626	519.802 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	461308665	201.695 PPM
9) H	Oil Combo (04-04-13)	22.000	961153711	479.004 PPM
10) H	Oil Acid Clean Combo ...	22.000	961153711	488.301 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	549635938	215.055 PPM
12) H	Alaska 103 Oil (06-2...	22.000	641906433	585.009 PPM
13) H	Mineral Oil (06-06-13)	16.000	588010283	227.974 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1421571796	1011.532 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1421571796	986.351 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1425417385	18127.287 PPM
17) H	Mineral Oil Combo (0...	16.000	374149507	151.231 PPM
18) H	Oil Acid Clean MO Com...	22.000	895455086	470.321 PPM
19) H	Oil MO Combo (04-04-13)	22.000	895455086	461.753 PPM

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

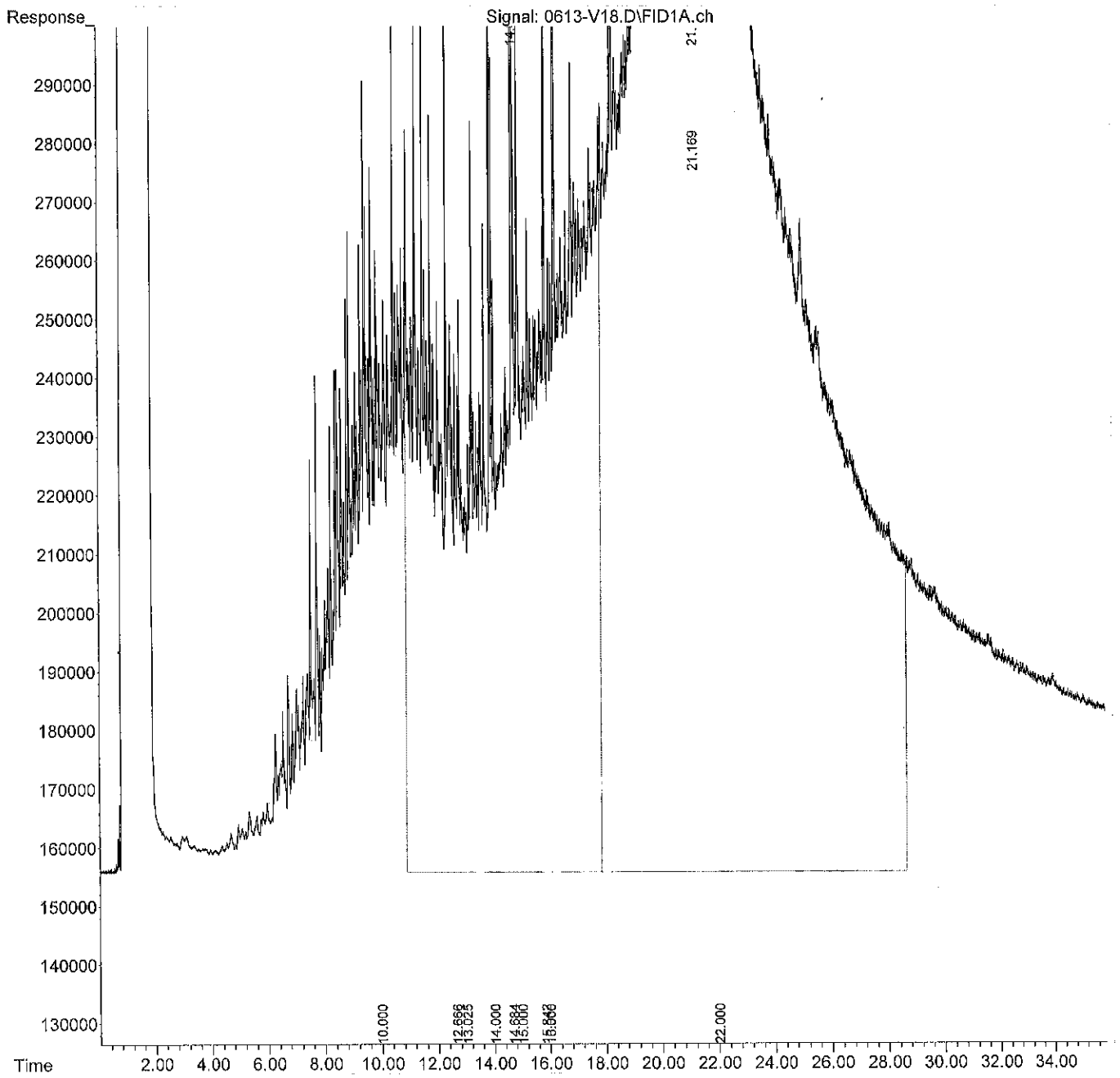
Quantitation Report (Not Reviewed)

Data File : 0613-V18.D
Sample : 06-118-35 5X

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 3:31
Operator :
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 04:07:47 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V16.D
Sample : 06-118-36 50X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 21:26
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 22:02:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.682	3545170	0.888 PPM
Spiked Amount	50.000		Recovery =	1.78%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	8012955	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	364303829	146.952 PPM
5) H	Diesel Fuel #2 (06-...	14.000	533592685	228.653 PPM
6) H	Oil (04-04-13)	22.000	738231413	360.391 PPM
7) H	Oil Acid Clean (02-...	22.000	738231413	365.936 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	449423566	196.509 PPM
9) H	Oil Combo (04-04-13)	22.000	650042739	323.867 PPM
10) H	Oil Acid Clean Combo ...	22.000	650042739	328.044 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	542455221	212.211 PPM
12) H	Alaska 103 Oil (06-2...	22.000	426302019	386.011 PPM
13) H	Mineral Oil (06-06-13)	16.000	602136350	233.401 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1098939026	778.190 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1098939026	760.620 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1100247065	13987.022 PPM
17) H	Mineral Oil Combo (0...	16.000	422583544	170.417 PPM
18) H	Oil Acid Clean MO Com...	22.000	578844736	301.547 PPM
19) H	Oil MO Combo (04-04-13)	22.000	578844736	298.449 PPM

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

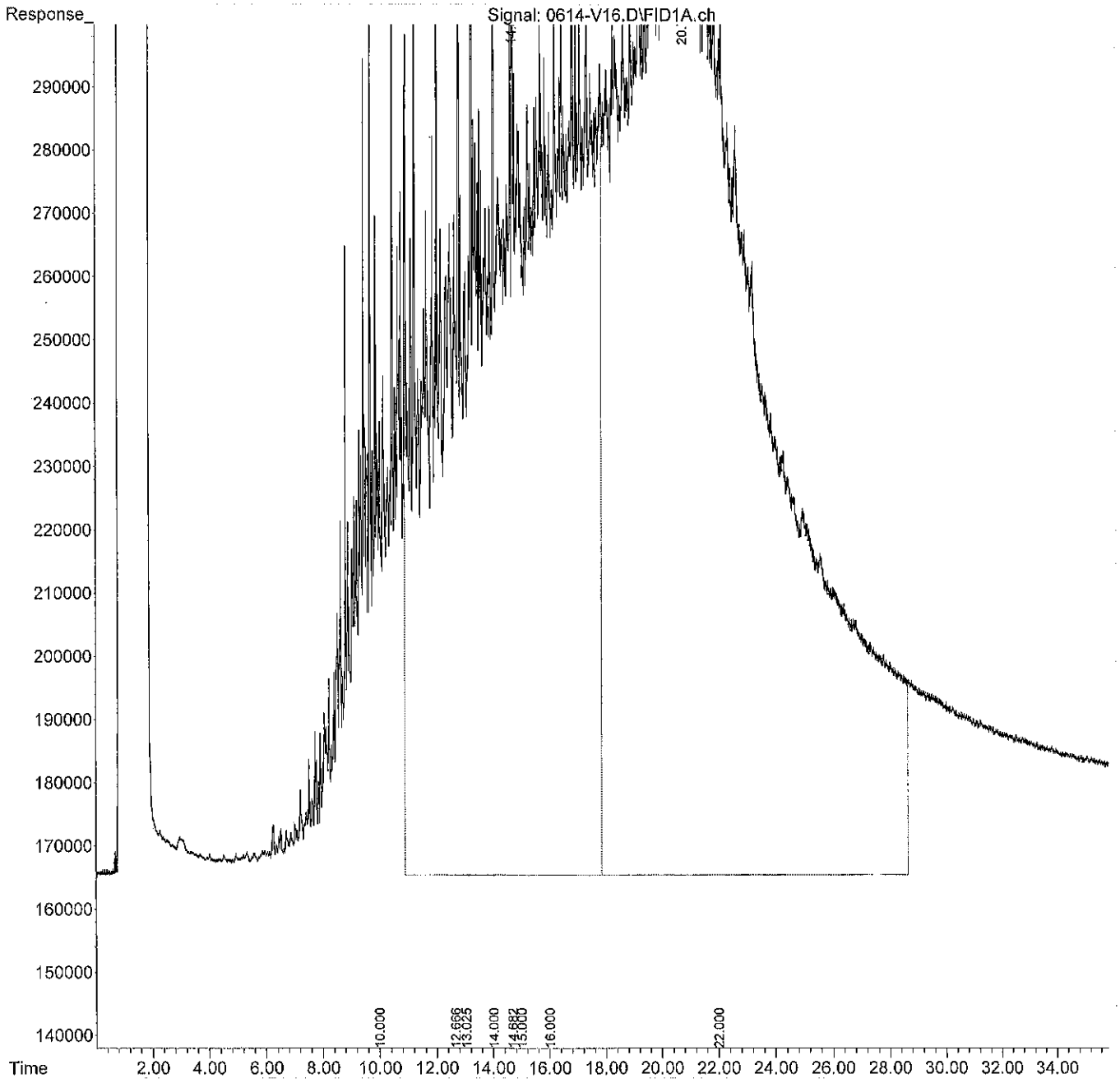
Quantitation Report (Not Reviewed)

Data File : 0614-V16.D
Sample : 06-118-36 50X

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 21:26
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 22:02:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V16.D
Sample : 06-118-37

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 2:09
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 02:46:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	14.697	134257381	43.278	PPM
Spiked Amount		50.000		Recovery =	86.56%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8923708	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	139739888	57.194	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	402633799	172.672	PPM
6)	H	Oil (04-04-13)	22.000	1908594469	932.739	PPM
7)	H	Oil Acid Clean (02-...	22.000	1908594469	956.864	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	252266011	110.487	PPM
9)	H	Oil Combo (04-04-13)	22.000	1792455268	893.536	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1792455268	916.517	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	420155093	163.782	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1296232521	1188.939	PPM
13)	H	Mineral Oil (06-06-13)	16.000	818096799	316.373	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	2043348247	1461.226	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	2043348247	1421.376	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	2043095022	25991.932	PPM
17)	H	Mineral Oil Combo (0...	16.000	365969644	147.990	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1668013157	882.145	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1668013157	860.227	PPM

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

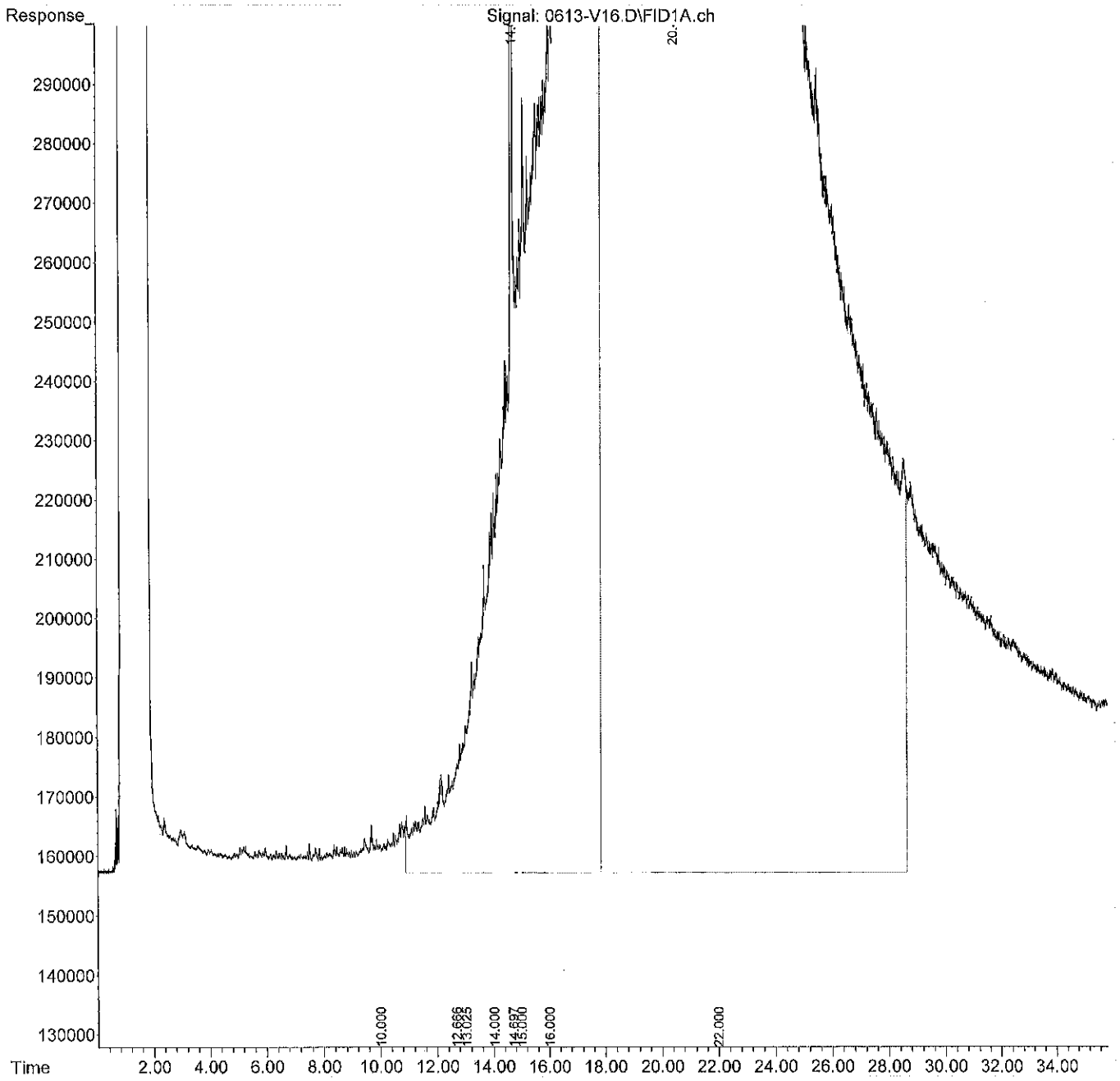
Quantitation Report (Not Reviewed)

Data File : 0613-V16.D
Sample : 06-118-37

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 2:09
Operator :
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 02:46:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V69.D
Sample : 06-118-38 RC

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 23:30
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 00:06:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.634	117100063	42.342	PPM
Spiked Amount	50.000		Recovery =	84.68%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8209251	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	150473884	66.769	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	418301907	194.432	PPM
6) H	Oil (04-04-13)	22.000	1825657800	967.981	PPM
7) H	Oil Acid Clean (02-0...	22.000	1825657800	985.864	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	267844952	126.267	PPM
9) H	Oil Combo (04-04-13)	22.000	1705163147	922.277	PPM
10) H	Oil Acid Clean Combo ...	22.000	1705163147	938.810	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	445978640	166.694	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1227666865	1066.520	PPM
13) H	Mineral Oil (06-06-13)	16.000	822734624	344.134	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	1968644704	1449.202	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	1968644704	1491.600	PPM
16) H	ALKANE C9-C40	12.666	1970855934	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	382897701	166.549	PPM
18) H	Oil Acid Clean MO Com...	22.000	1579979128	898.991	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1579979128	883.855	PPM

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

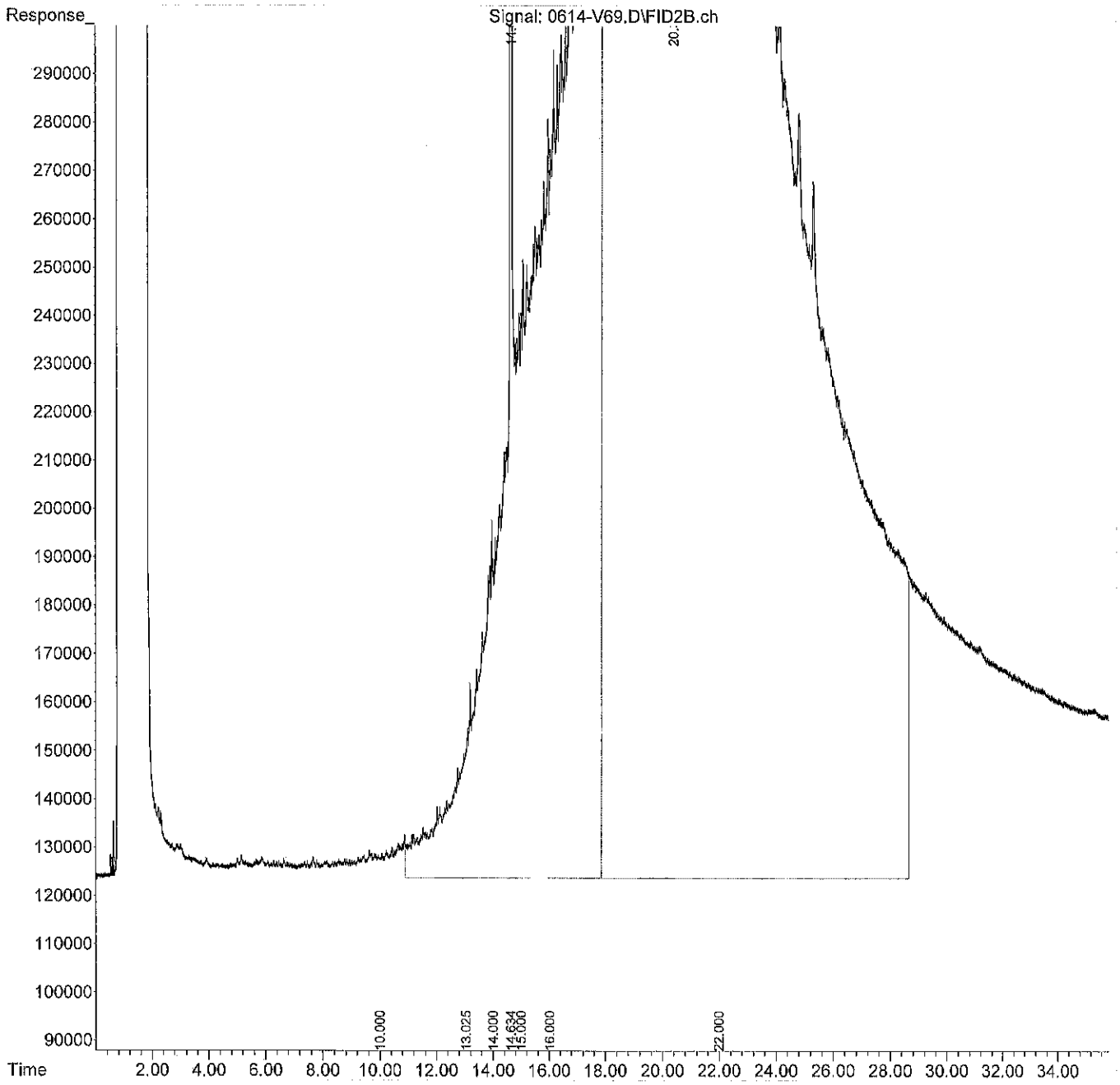
Quantitation Report (Not Reviewed)

Data File : 0614-V69.D
Sample : 06-118-38 RC

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 23:30
Operator :
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 00:06:28 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V12.D
Sample : 06-118-39

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 23:26
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:02:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.698	139530852	44.988	PPM
Spiked Amount	50.000		Recovery =	89.98%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6364462	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	26461620	11.917	PPM
5) H	Diesel Fuel #2 (06-...	14.000	63159219	27.557	PPM
6) H	Oil (04-04-13)	22.000	513334871	250.409	PPM
7) H	Oil Acid Clean (02-...	22.000	513334871	252.383	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	40597413	18.134	PPM
9) H	Oil Combo (04-04-13)	22.000	496849044	247.476	PPM
10) H	Oil Acid Clean Combo ...	22.000	496849044	249.131	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	66115975	23.585	PPM
12) H	Alaska 103 Oil (06-2...	22.000	318913715	286.893	PPM
13) H	Mineral Oil (06-06-13)	16.000	136983261	54.691	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	536700881	371.556	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	536700881	367.251	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	537118082	6816.923	PPM
17) H	Mineral Oil Combo (0...	16.000	55316949	24.932	PPM
18) H	Oil Acid Clean MO Com...	22.000	478338617	247.970	PPM
19) H	Oil MO Combo (04-04-13)	22.000	478338617	246.610	PPM

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

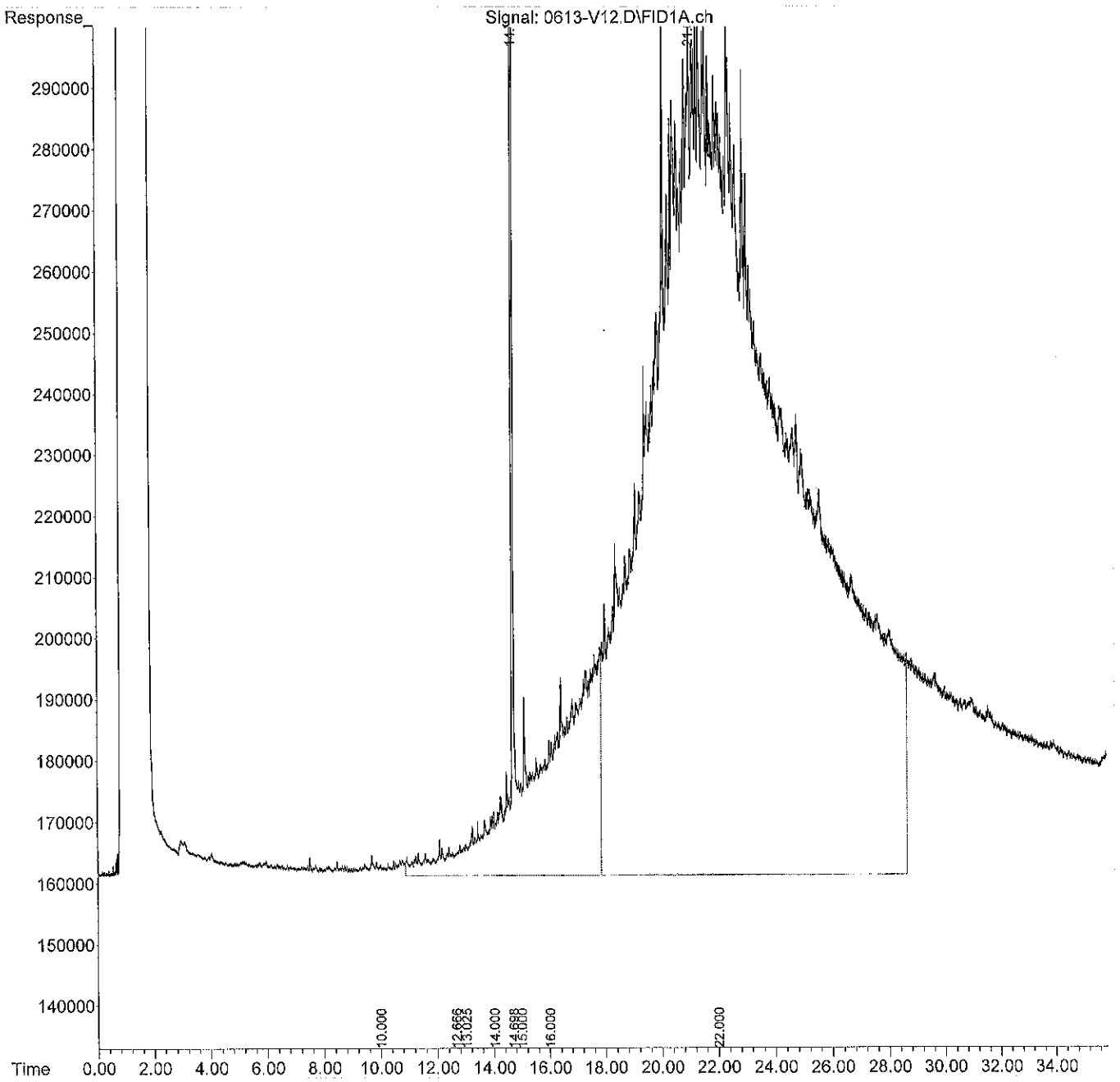
Quantitation Report (Not Reviewed)

Data File : 0613-V12.D
Sample : 06-118-39

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 23:26
Operator :
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:02:16 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V57.D
Sample : MB0613S3

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 20:00
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 20:37:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.639	134507958	48.706	PPM
Spiked Amount	50.000		Recovery =	97.41%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	6284999	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	9015140	4.997	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	8878210	1.681	PPM
6) H	Oil (04-04-13)	22.000	37466343	10.670	PPM
7) H	Oil Acid Clean (02-0...	22.000	37466343	9.498	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	8179987	1.651	PPM
9) H	Oil Combo (04-04-13)	22.000	36428290	10.595	PPM
10) H	Oil Acid Clean Combo ...	22.000	36428290	9.447	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	9247085	N.D.	PPM
12) H	Alaska 103 Oil (06-2...	22.000	15100059	2.816	PPM
13) H	Mineral Oil (06-06-13)	16.000	8362774	2.891	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	44201060	N.D.	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	44201060	18.801	PPM
16) H	ALKANE C9-C40	12.666	46034622	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	6433308	3.096	PPM
18) H	Oil Acid Clean MO Com...	22.000	35818090	9.626	PPM
19) H	Oil MO Combo (04-04-13)	22.000	35818090	10.740	PPM

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

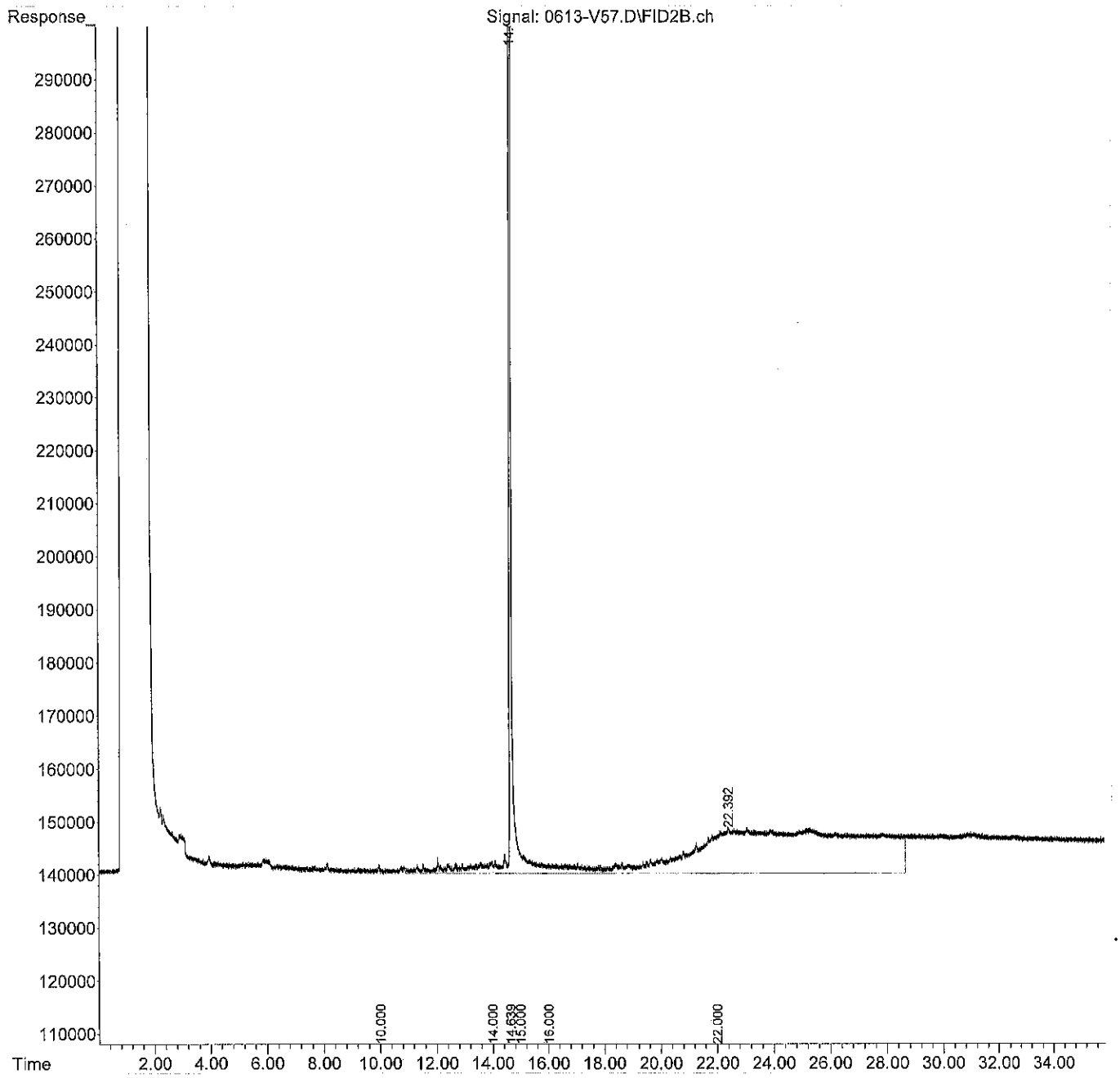
Quantitation Report (Not Reviewed)

Data File : 0613-V57.D
Sample : MB0613S3

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 20:00
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 20:37:00 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V66.D
Sample : MB0614S2

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 21:26
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 22:02:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.639	139405549	50.497 PPM
Spiked Amount	50.000		Recovery =	100.99%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	6661184	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	9814412	5.346 PPM
5) H	Diesel Fuel #2 (06-1...	14.000	10174658	2.291 PPM
6) H	Oil (04-04-13)	22.000	69228613	27.674 PPM
7) H	Oil Acid Clean (02-0...	22.000	69228613	26.841 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	8962763	2.027 PPM
9) H	Oil Combo (04-04-13)	22.000	68086440	27.891 PPM
10) H	Oil Acid Clean Combo ...	22.000	68086440	27.078 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	10724757	N.D. PPM
12) H	Alaska 103 Oil (06-2...	22.000	29847270	15.753 PPM
13) H	Mineral Oil (06-06-13)	16.000	11118608	4.046 PPM
14) H	Bunker C-ACU (Fuel O...	15.000	76255484	12.391 PPM
15) H	Bunker C- (Fuel Oil #...	15.000	76255484	43.332 PPM
16) H	ALKANE C9-C40	12.666	78071032	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	6782627	3.248 PPM
18) H	Oil Acid Clean MO Com...	22.000	67106804	27.646 PPM
19) H	Oil MO Combo (04-04-13)	22.000	67106804	28.432 PPM

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

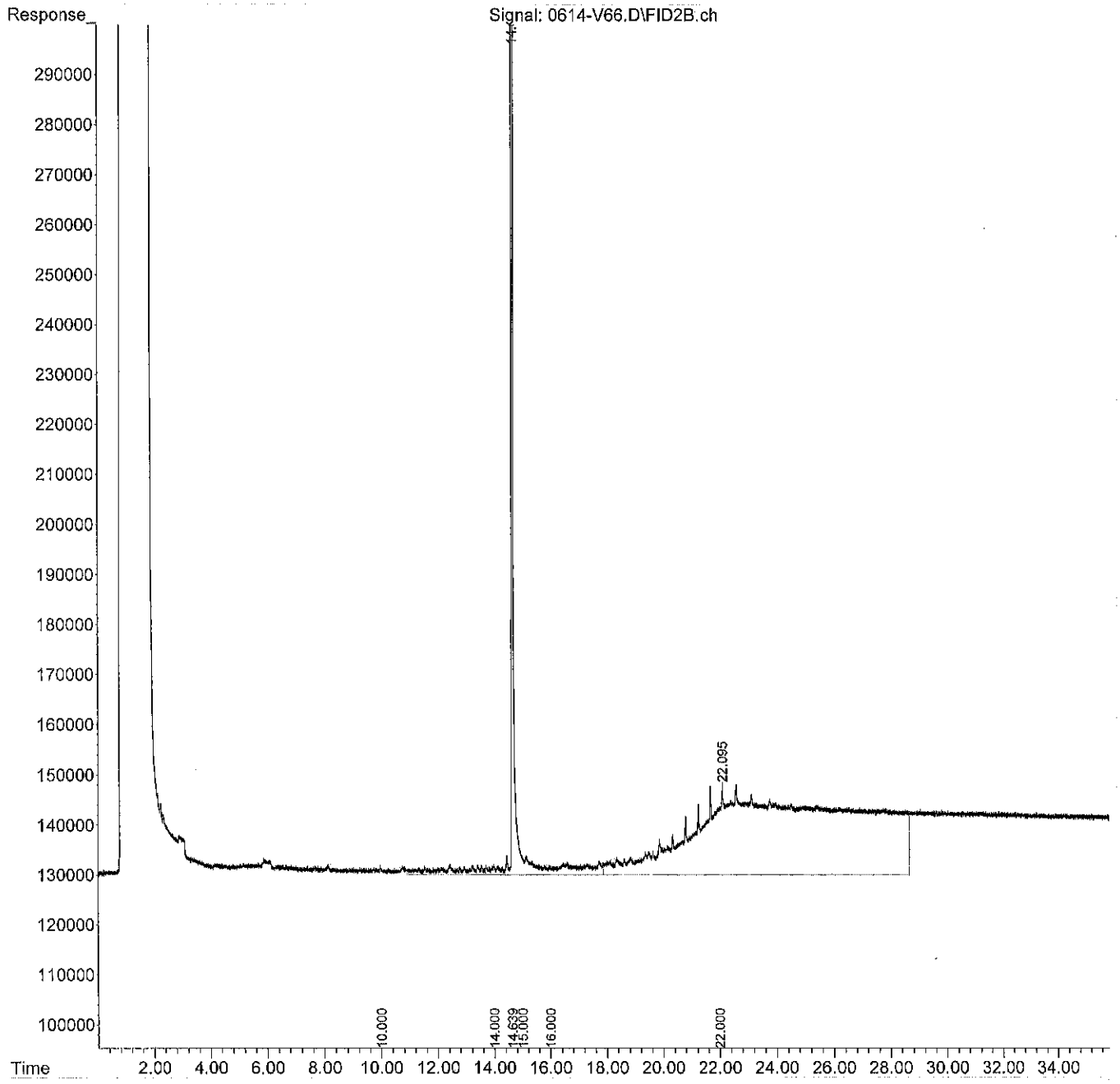
Quantitation Report (Not Reviewed)

Data File : 0614-V66.D
Sample : MB0614S2

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 21:26
Operator :
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 22:02:57 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V33.D
Sample : 06-118-03 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 9:01
Operator :
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 09:37:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.693	96252683	30.953 PPM
Spiked Amount	50.000		Recovery =	61.91%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	10566980	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	97993177	40.508 PPM
5) H	Diesel Fuel #2 (06-...	14.000	228596226	98.276 PPM
6) H	Oil (04-04-13)	22.000	1073718752	524.456 PPM
7) H	Oil Acid Clean (02-...	22.000	1073718752	535.327 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	152855038	67.113 PPM
9) H	Oil Combo (04-04-13)	22.000	1014411559	505.561 PPM
10) H	Oil Acid Clean Combo ...	22.000	1014411559	515.735 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	237654934	91.513 PPM
12) H	Alaska 103 Oil (06-2...	22.000	679853838	620.034 PPM
13) H	Mineral Oil (06-06-13)	16.000	422252281	164.290 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1166062208	826.737 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1166062208	807.583 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1167065419	14837.794 PPM
17) H	Mineral Oil Combo (0...	16.000	198670261	81.718 PPM
18) H	Oil Acid Clean MO Com...	22.000	951498978	500.196 PPM
19) H	Oil MO Combo (04-04-13)	22.000	951498978	490.659 PPM

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

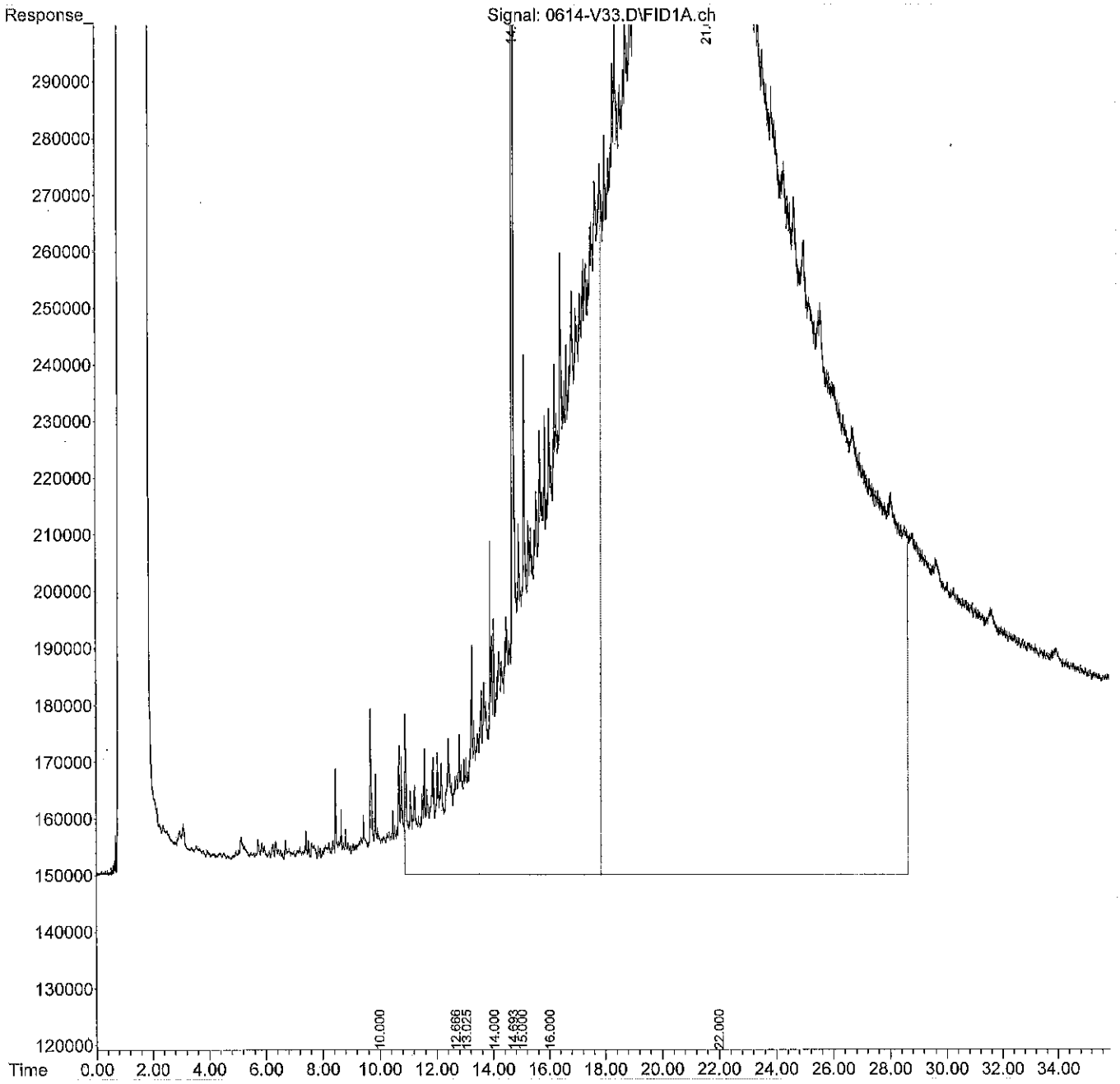
Quantitation Report (Not Reviewed)

Data File : 0614-V33.D
Sample : 06-118-03 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 9:01
Operator :
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 09:37:19 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V94.D
Sample : 06-118-20 20X DUP

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 16:35
Operator :
Misc :
ALS Vial : 94 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 17:12:01 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.622	6289740	1.829	PPM
Spiked Amount	50.000		Recovery =	3.66%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	7484445	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	58938375	26.797	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	112164139	50.307	PPM
6) H	Oil (04-04-13)	22.000	499047836	257.778	PPM
7) H	Oil Acid Clean (02-0...	22.000	499047836	261.525	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	81432663	36.806	PPM
9) H	Oil Combo (04-04-13)	22.000	473921709	249.611	PPM
10) H	Oil Acid Clean Combo ...	22.000	473921709	253.099	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	118075873	40.333	PPM
12) H	Alaska 103 Oil (06-2...	22.000	301743207	254.269	PPM
13) H	Mineral Oil (06-06-13)	16.000	186156331	77.391	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	552957164	374.330	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	552957164	408.158	PPM
16) H	ALKANE C9-C40	12.666	555116150	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	95944351	41.960	PPM
18) H	Oil Acid Clean MO Com...	22.000	448347897	247.224	PPM
19) H	Oil MO Combo (04-04-13)	22.000	448347897	243.997	PPM

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

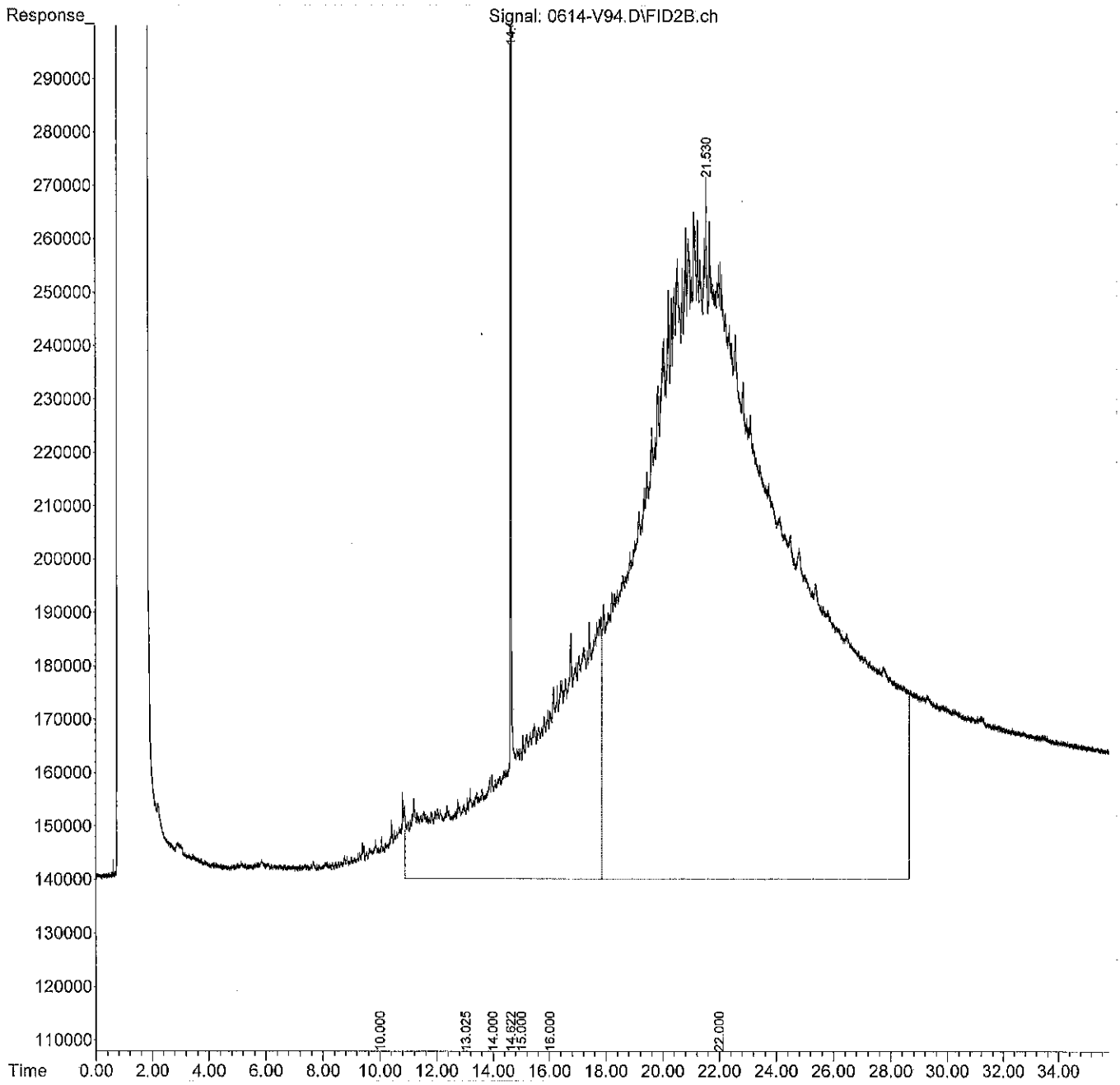
Quantitation Report (Not Reviewed)

Data File : 0614-V94.D
Sample : 06-118-20 20X DUP

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 16:35
Operator :
Misc :
ALS Vial : 94 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 17:12:01 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V08.D
Sample : 06-118-31 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 20:41
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:17:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.700	149935390	48.362 PPM
Spiked Amount	50.000		Recovery =	96.72%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	4988702	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	4729630	3.231 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6555121	3.361 PPM
6) H	Oil (04-04-13)	22.000	33388361	15.698 PPM
7) H	Oil Acid Clean (02-...	22.000	33388361	10.053 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4776812	2.505 PPM
9) H	Oil Combo (04-04-13)	22.000	31806644	15.581 PPM
10) H	Oil Acid Clean Combo ...	22.000	31806644	9.581 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	6901392	0.137 PPM
12) H	Alaska 103 Oil (06-2...	22.000	21344367	12.243 PPM
13) H	Mineral Oil (06-06-13)	16.000	11710309	6.561 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36577447	9.846 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36577447	17.339 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38054823	462.548 PPM
17) H	Mineral Oil Combo (0...	16.000	5943847	5.373 PPM
18) H	Oil Acid Clean MO Com...	22.000	30320628	9.147 PPM
19) H	Oil MO Combo (04-04-13)	22.000	30320628	15.529 PPM

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

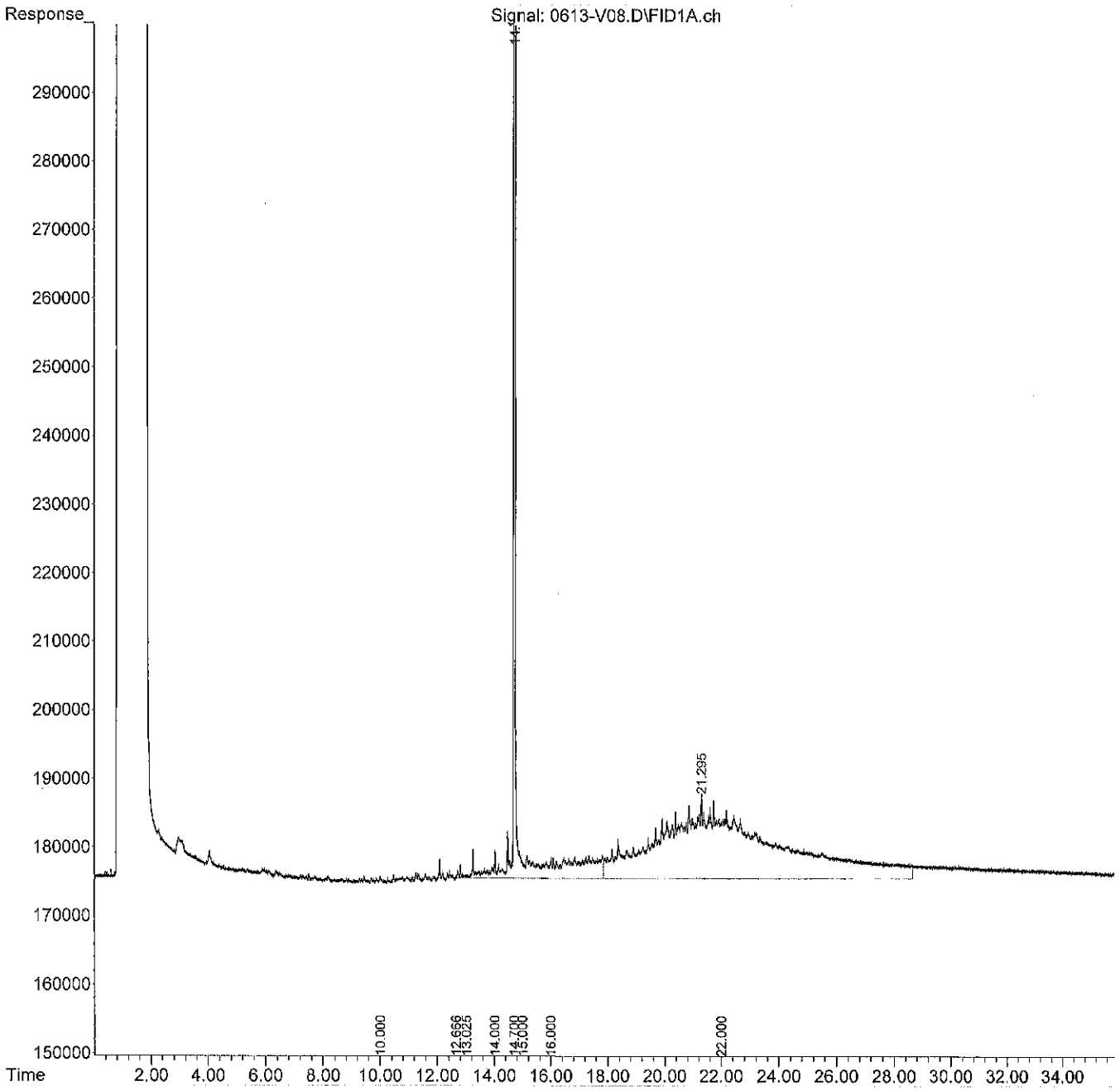
Quantitation Report (Not Reviewed)

Data File : 0613-V08.D
Sample : 06-118-31 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 20:41
Operator :
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 21:17:55 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V62.D
Sample : 06-118-33 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 23:26
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:02:32 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.638	139803482	50.642	PPM
Spiked Amount		50.000		Recovery =	101.28%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	6051128	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	12027443	6.312	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	19055661	6.472	PPM
6)	H	Oil (04-04-13)	22.000	91408682	39.548	PPM
7)	H	Oil Acid Clean (02-0...	22.000	91408682	38.951	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	14358459	4.616	PPM
9)	H	Oil Combo (04-04-13)	22.000	87168788	38.316	PPM
10)	H	Oil Acid Clean Combo ...	22.000	87168788	37.706	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	20165914	2.602	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	51054418	34.357	PPM
13)	H	Mineral Oil (06-06-13)	16.000	30035852	11.973	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	100956683	31.146	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	100956683	62.236	PPM
16)	H	ALKANE C9-C40	12.666	102794709	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	15390507	6.985	PPM
18)	H	Oil Acid Clean MO Com...	22.000	83246953	36.942	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	83246953	37.558	PPM

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

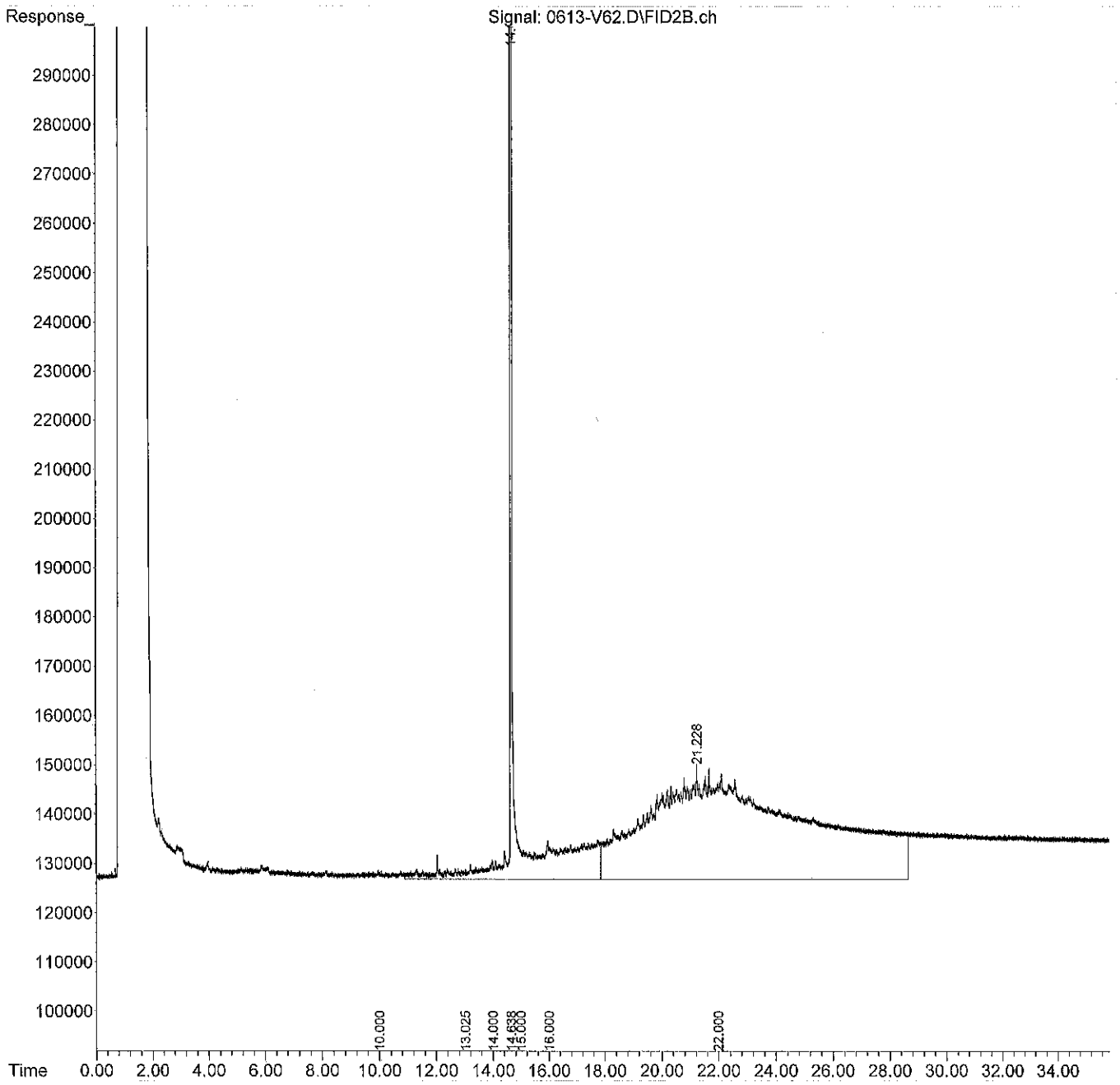
Quantitation Report (Not Reviewed)

Data File : 0613-V62.D
Sample : 06-118-33 DUP

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 23:26
Operator :
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 00:02:32 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V04.D
Sample : BUNKCCV0613F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 16:39
Operator :
Misc : SV3-05-23
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 17:15:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
	Spiked Amount 50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	16.002	2395172	1.285	PPM
3)	H Gasoline	3.500	12739670	NoCal	PPM
4)	H Diesel Fuel #1 (01-2...	10.000	250974490	101.654	PPM
5)	H Diesel Fuel #2 (06-...	14.000	352209867	151.117	PPM
6)	H Oil (04-04-13)	22.000	421544288	205.520	PPM
7)	H Oil Acid Clean (02-...	22.000	421544288	206.037	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	299273510	130.997	PPM
9)	H Oil Combo (04-04-13)	22.000	367559643	183.006	PPM
10)	H Oil Acid Clean Combo ...	22.000	367559643	182.532	PPM
11)	H Alaska 102 DF2 (06-2...	13.025	358273479	139.277	PPM
12)	H Alaska 103 Oil (06-2...	22.000	243012011	216.838	PPM
13)	H Mineral Oil (06-06-13)	16.000	386084138	150.395	PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	666896955	465.720	PPM
15)	H Bunker C (Fuel Oil #6...	15.000	666896955	458.342	PPM
16)	H ALKANE C9-C40 10-26-07	12.666	671427072	8527.026	PPM
17)	H Mineral Oil Combo (0...	16.000	273894410	111.517	PPM
18)	H Oil Acid Clean MO Com...	22.000	322280478	164.781	PPM
19)	H Oil MO Combo (04-04-13)	22.000	322280478	166.117	PPM

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

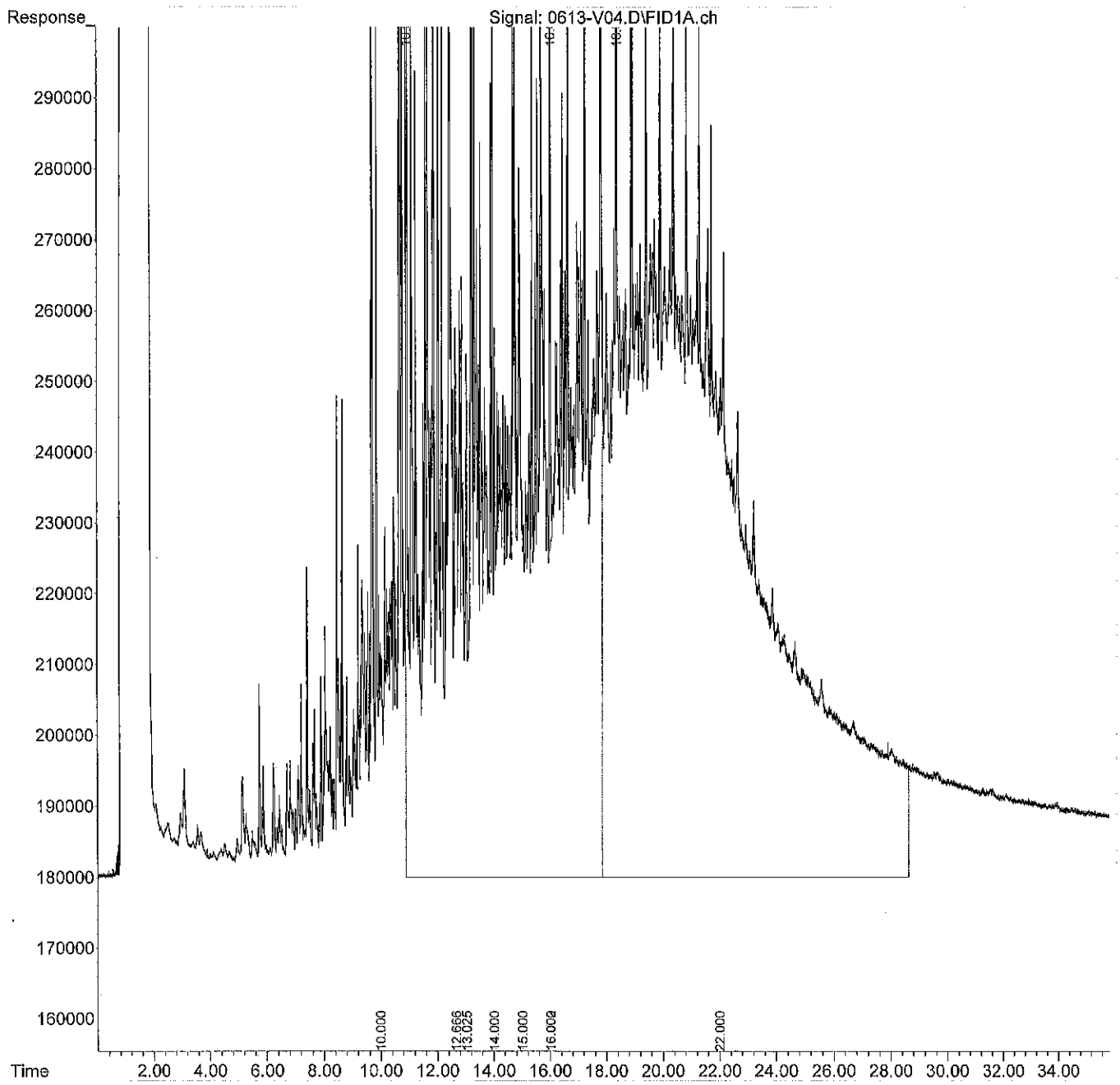
Quantitation Report (Not Reviewed)

Data File : 0613-V04.D
Sample : BUNKCCV0613F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 13 Jun 2013 16:39
Operator :
Misc : SV3-05-23
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 17:15:36 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V14.D
Sample : BUNKCCV0613F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 00:48
Operator :
Misc : SV3-05-23
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 01:24:08 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.666	1387250	0.188	PPM
Spiked Amount	50.000		Recovery =	0.38%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.660	1008902	0.697	PPM
3) H	Gasoline	3.500	13295468	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	257124913	104.113	PPM
5) H	Diesel Fuel #2 (06-...	14.000	363690920	156.025	PPM
6) H	Oil (04-04-13)	22.000	480444420	234.324	PPM
7) H	Oil Acid Clean (02-...	22.000	480444420	235.777	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	307686501	134.668	PPM
9) H	Oil Combo (04-04-13)	22.000	423876420	211.088	PPM
10) H	Oil Acid Clean Combo ...	22.000	423876420	211.542	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	370067012	143.947	PPM
12) H	Alaska 103 Oil (06-2...	22.000	273977818	245.418	PPM
13) H	Mineral Oil (06-06-13)	16.000	404190351	157.351	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	731486325	512.433	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	731486325	503.532	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	735968708	9348.810	PPM
17) H	Mineral Oil Combo (0...	16.000	283183054	115.196	PPM
18) H	Oil Acid Clean MO Com...	22.000	375947304	193.389	PPM
19) H	Oil MO Combo (04-04-13)	22.000	375947304	193.798	PPM

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

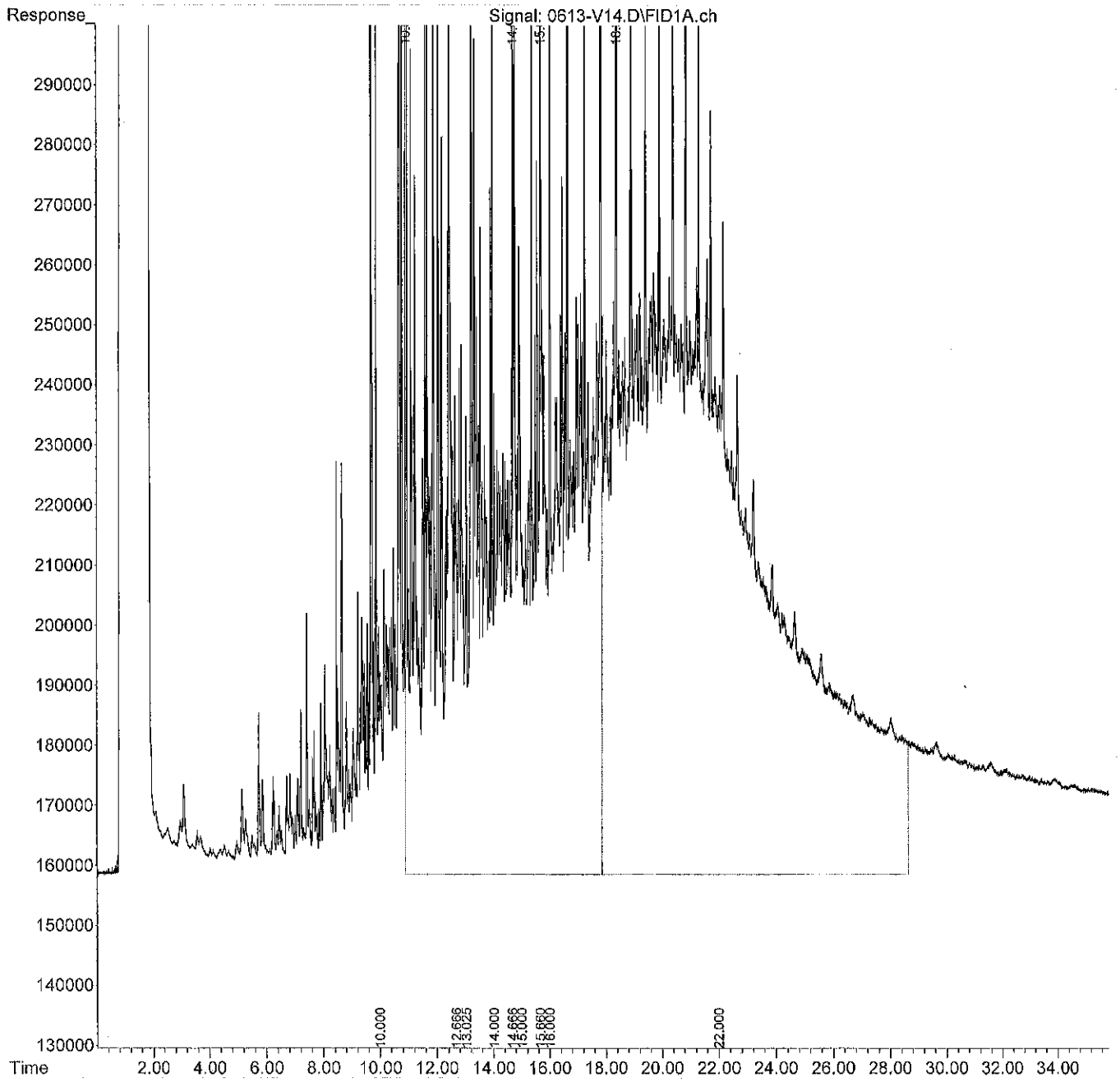
Quantitation Report (Not Reviewed)

Data File : 0613-V14.D
Sample : BUNKCCV0613F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 00:48
Operator :
Misc : SV3-05-23
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 01:24:08 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V24.D
Sample : BUNKCCV0613F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 7:36
Operator :
Misc : SV3-05-23
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 08:12:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.667	1336102	0.171 PPM
Spiked Amount	50.000		Recovery =	0.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	15.662	1046542	0.713 PPM
3)	H Gasoline	3.500	14243024	NoCal PPM
4)	H Diesel Fuel #1 (01-2...	10.000	266577888	107.891 PPM
5)	H Diesel Fuel #2 (06-...	14.000	377710325	162.018 PPM
6)	H Oil (04-04-13)	22.000	572827106	279.503 PPM
7)	H Oil Acid Clean (02-...	22.000	572827106	282.422 PPM
8)	H Diesel Fuel #2 Combo ...	14.000	319050268	139.626 PPM
9)	H Oil Combo (04-04-13)	22.000	513893782	255.976 PPM
10)	H Oil Acid Clean Combo ...	22.000	513893782	257.911 PPM
11)	H Alaska 102 DF2 (06-2...	13.025	384485097	149.657 PPM
12)	H Alaska 103 Oil (06-2...	22.000	313535578	281.929 PPM
13)	H Mineral Oil (06-06-13)	16.000	422690967	164.459 PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	832533563	585.515 PPM
15)	H Bunker C (Fuel Oil #6...	15.000	832533563	574.230 PPM
16)	H ALKANE C9-C40 10-26-07	12.666	836592951	10630.018 PPM
17)	H Mineral Oil Combo (0...	16.000	293907383	119.444 PPM
18)	H Oil Acid Clean MO Com...	22.000	463776754	240.208 PPM
19)	H Oil MO Combo (04-04-13)	22.000	463776754	239.099 PPM

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

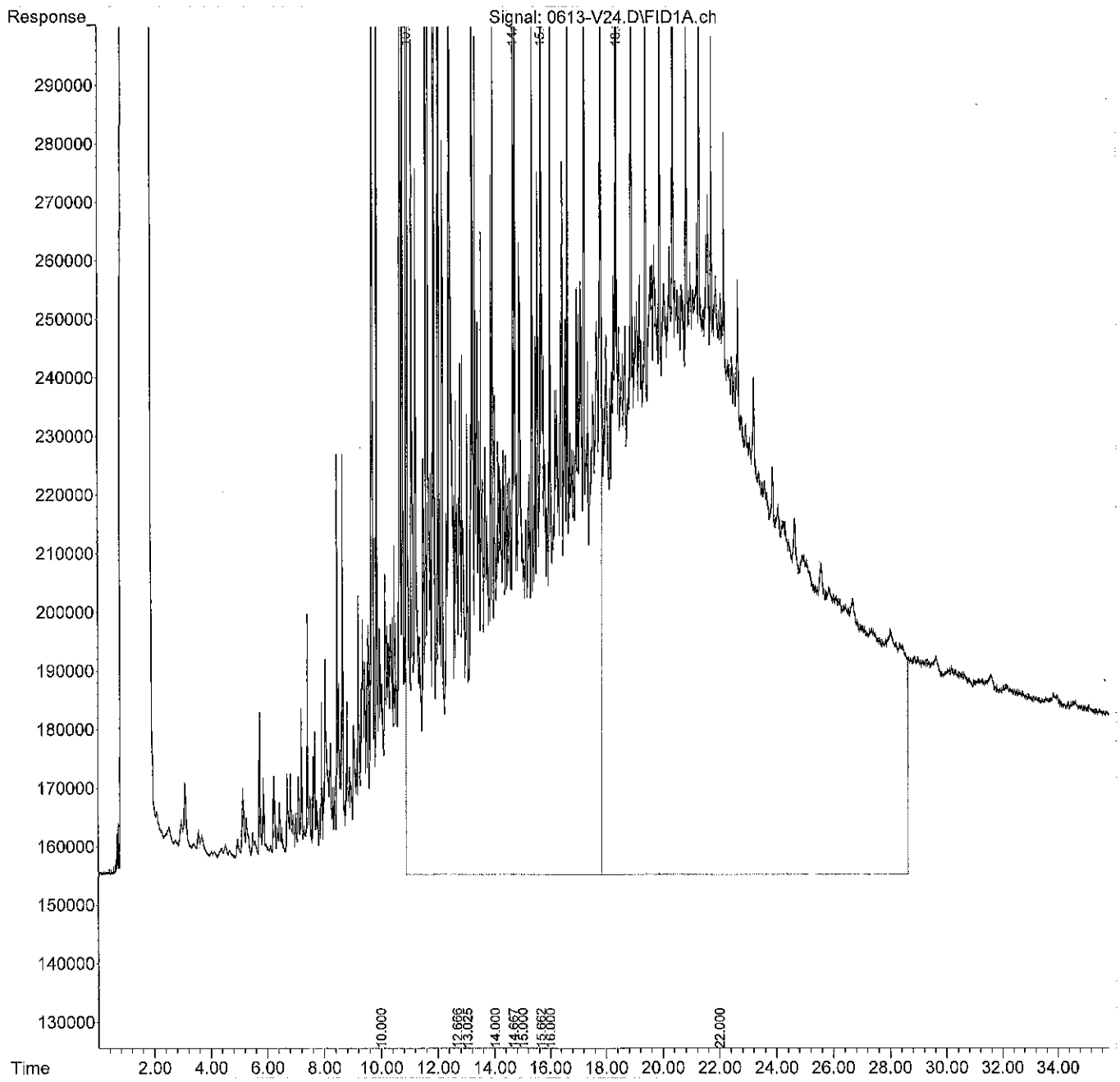
Quantitation Report (Not Reviewed)

Data File : 0613-V24.D
Sample : BUNKCCV0613F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130613\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 7:36
Operator :
Misc : SV3-05-23
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 08:12:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V54.D
Sample : BUNKCCV0613R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 16:39
Operator :
Misc : SV3-05-23
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 17:15:53 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13695572	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	237101475	104.598	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	329199596	152.484	PPM
6) H	Oil (04-04-13)	22.000	398268796	203.826	PPM
7) H	Oil Acid Clean (02-0...	22.000	398268796	206.499	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	280554256	132.366	PPM
9) H	Oil Combo (04-04-13)	22.000	348971423	181.347	PPM
10) H	Oil Acid Clean Combo ...	22.000	348971423	183.511	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	337609439	124.933	PPM
12) H	Alaska 103 Oil (06-2...	22.000	225743248	187.599	PPM
13) H	Mineral Oil (06-06-13)	16.000	352764437	147.204	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	628526119	431.707	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	628526119	465.991	PPM
16) H	ALKANE C9-C40	12.666	634084636	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	249966803	108.833	PPM
18) H	Oil Acid Clean MO Com...	22.000	307198616	165.928	PPM
19) H	Oil MO Combo (04-04-13)	22.000	307198616	164.187	PPM

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

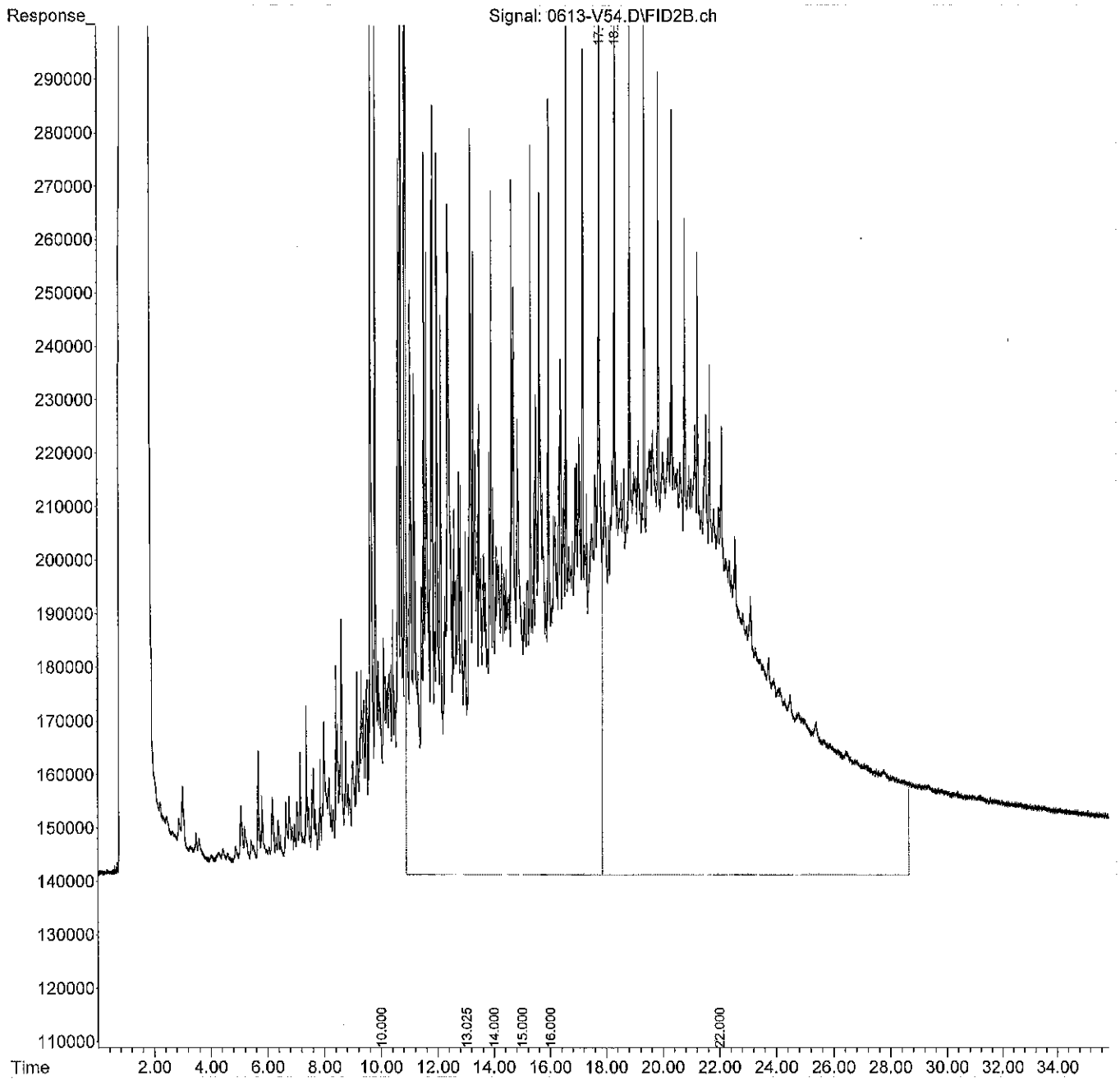
Quantitation Report (Not Reviewed)

Data File : 0613-V54.D
Sample : BUNKCCV0613R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 13 Jun 2013 16:39
Operator :
Misc : SV3-05-23
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 13 17:15:53 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0613-V64.D
Sample : BUNKCCV0613R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 00:48
Operator :
Misc : SV3-05-23
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 01:24:24 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13276639	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	242842741	107.105	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	338796370	157.002	PPM
6) H	Oil (04-04-13)	22.000	423788921	217.488	PPM
7) H	Oil Acid Clean (02-0...	22.000	423788921	220.433	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	288133580	136.004	PPM
9) H	Oil Combo (04-04-13)	22.000	372764794	194.346	PPM
10) H	Oil Acid Clean Combo ...	22.000	372764794	196.762	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	347558800	128.767	PPM
12) H	Alaska 103 Oil (06-2...	22.000	239887499	200.007	PPM
13) H	Mineral Oil (06-06-13)	16.000	365599820	152.583	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	659744839	455.410	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	659744839	489.883	PPM
16) H	ALKANE C9-C40	12.666	665171384	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	257570924	112.135	PPM
18) H	Oil Acid Clean MO Com...	22.000	329257073	178.633	PPM
19) H	Oil MO Combo (04-04-13)	22.000	329257073	176.660	PPM

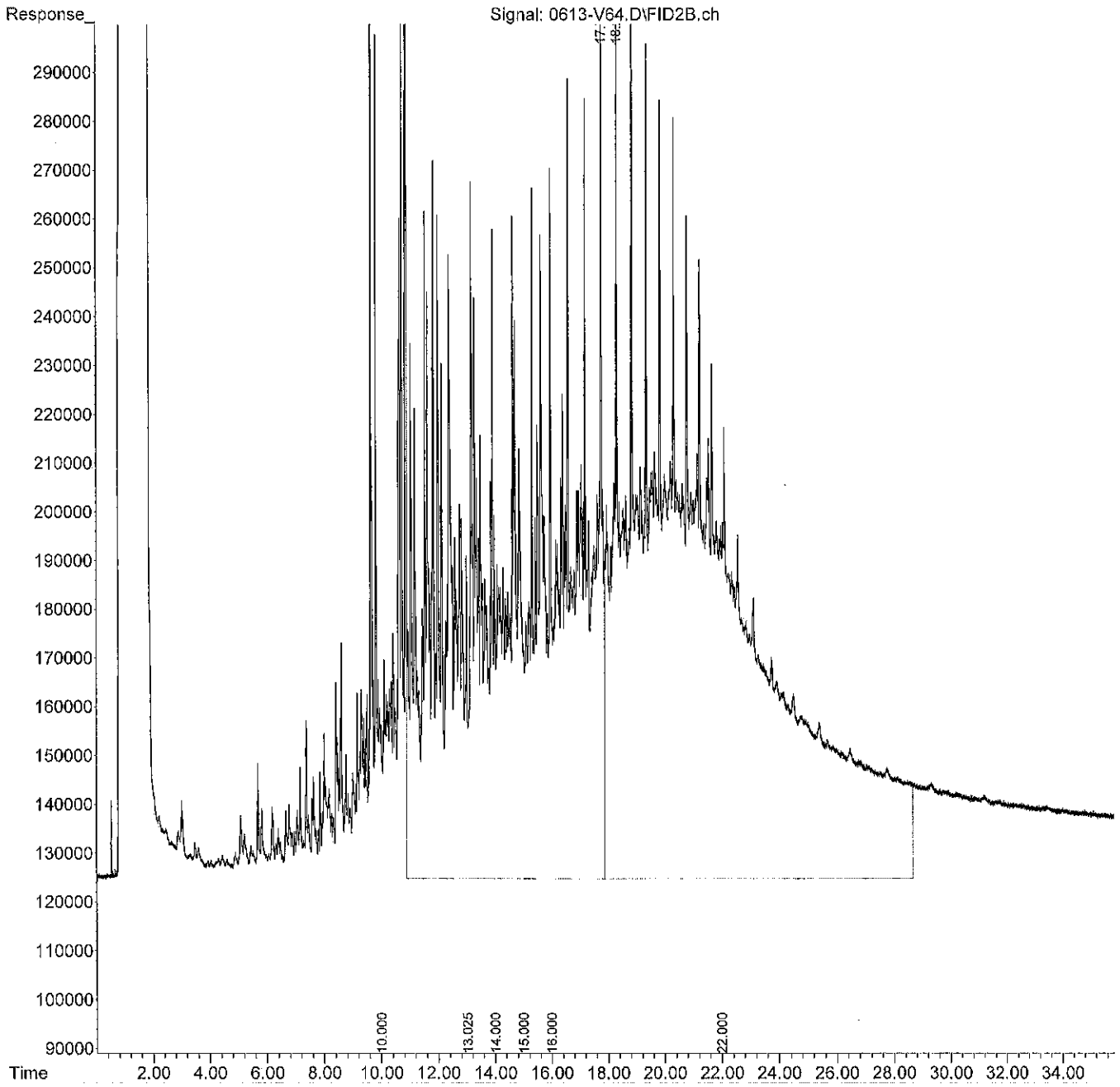
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : 0613-V64.D
Sample : BUNKCCV0613R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130613.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 00:48
Operator :
Misc : SV3-05-23
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 01:24:24 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V01.D
Sample : BUNKCCV0614F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 10:26
Operator :
Misc : SV3-05-23
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 11:02:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.667	1367481	0.182 PPM
Spiked Amount	50.000		Recovery =	0.36%
	Target Compounds			
2)	1-Chlorooctadecane (...	15.661	1043538	0.711 PPM
3) H	Gasoline	3.500	14059368	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	269338053	108.994 PPM
5) H	Diesel Fuel #2 (06-...	14.000	380813280	163.344 PPM
6) H	Oil (04-04-13)	22.000	519917931	253.628 PPM
7) H	Oil Acid Clean (02-...	22.000	519917931	255.707 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	322218893	141.008 PPM
9) H	Oil Combo (04-04-13)	22.000	460702089	229.452 PPM
10) H	Oil Acid Clean Combo ...	22.000	460702089	230.511 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	387567879	150.877 PPM
12) H	Alaska 103 Oil (06-2...	22.000	292314504	262.343 PPM
13) H	Mineral Oil (06-06-13)	16.000	423856453	164.907 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	782758145	549.515 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	782758145	539.405 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	787261862	10001.905 PPM
17) H	Mineral Oil Combo (0...	16.000	296473836	120.461 PPM
18) H	Oil Acid Clean MO Com...	22.000	410596360	211.859 PPM
19) H	Oil MO Combo (04-04-13)	22.000	410596360	211.669 PPM

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

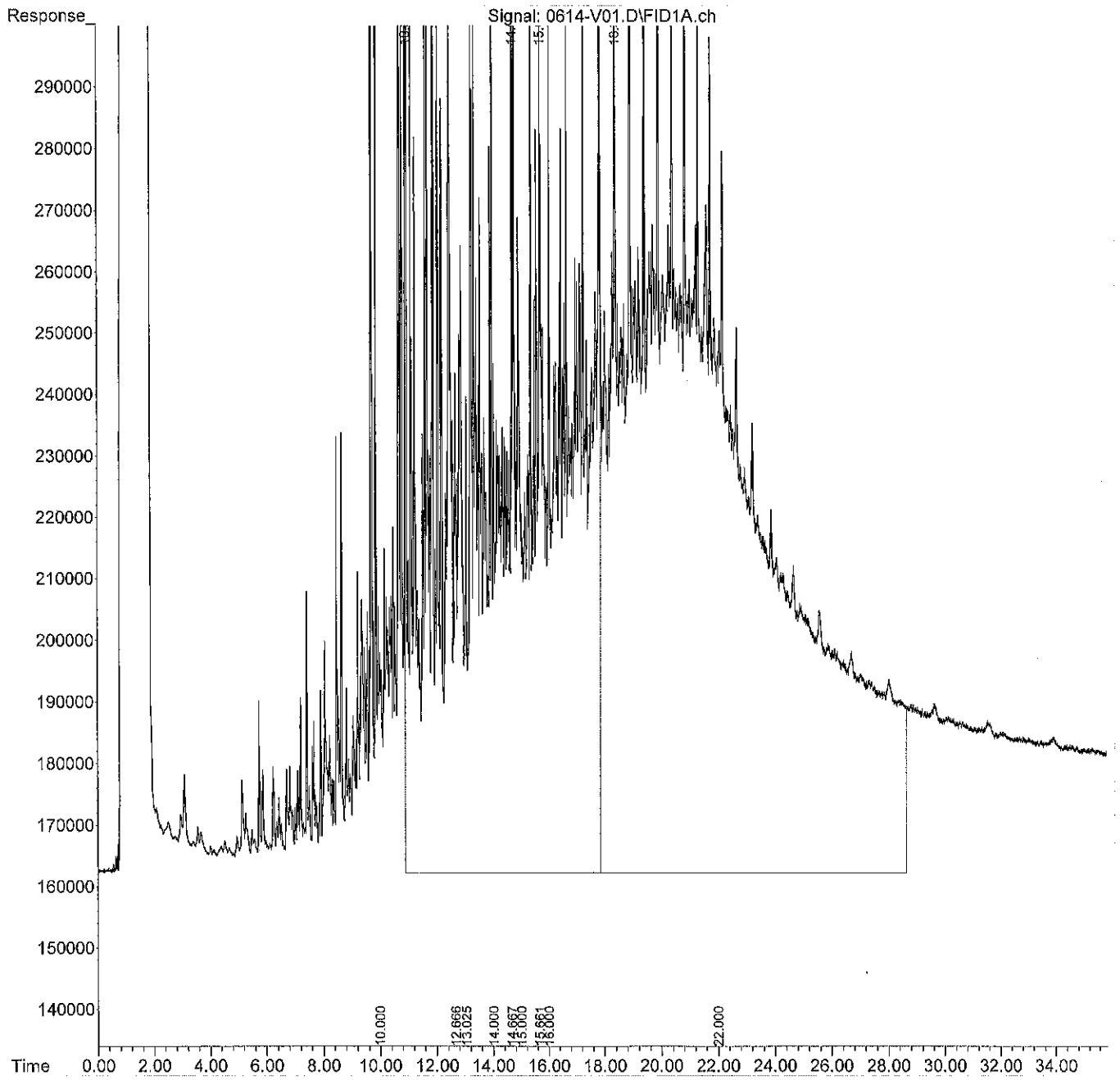
Quantitation Report (Not Reviewed)

Data File : 0614-V01.D
Sample : BUNKCCV0614F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 10:26
Operator :
Misc : SV3-05-23
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 11:02:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V12.D
Sample : BUNKCCV0614F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 18:41
Operator :
Misc : SV3-05-23
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 19:17:39 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	16.001	1666669	0.976	PPM
3)	H	Gasoline	3.500	14839595	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	255430381	103.435	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	359374438	154.180	PPM
6)	H	Oil (04-04-13)	22.000	481421433	234.802	PPM
7)	H	Oil Acid Clean (02-...	22.000	481421433	236.270	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	304392080	133.230	PPM
9)	H	Oil Combo (04-04-13)	22.000	425872167	212.084	PPM
10)	H	Oil Acid Clean Combo ...	22.000	425872167	212.570	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	365768904	142.245	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	273151462	244.656	PPM
13)	H	Mineral Oil (06-06-13)	16.000	398539998	155.180	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	730182367	511.490	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	730182367	502.620	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	735178774	9338.752	PPM
17)	H	Mineral Oil Combo (0...	16.000	279205603	113.620	PPM
18)	H	Oil Acid Clean MO Com...	22.000	378865215	194.944	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	378865215	195.303	PPM

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

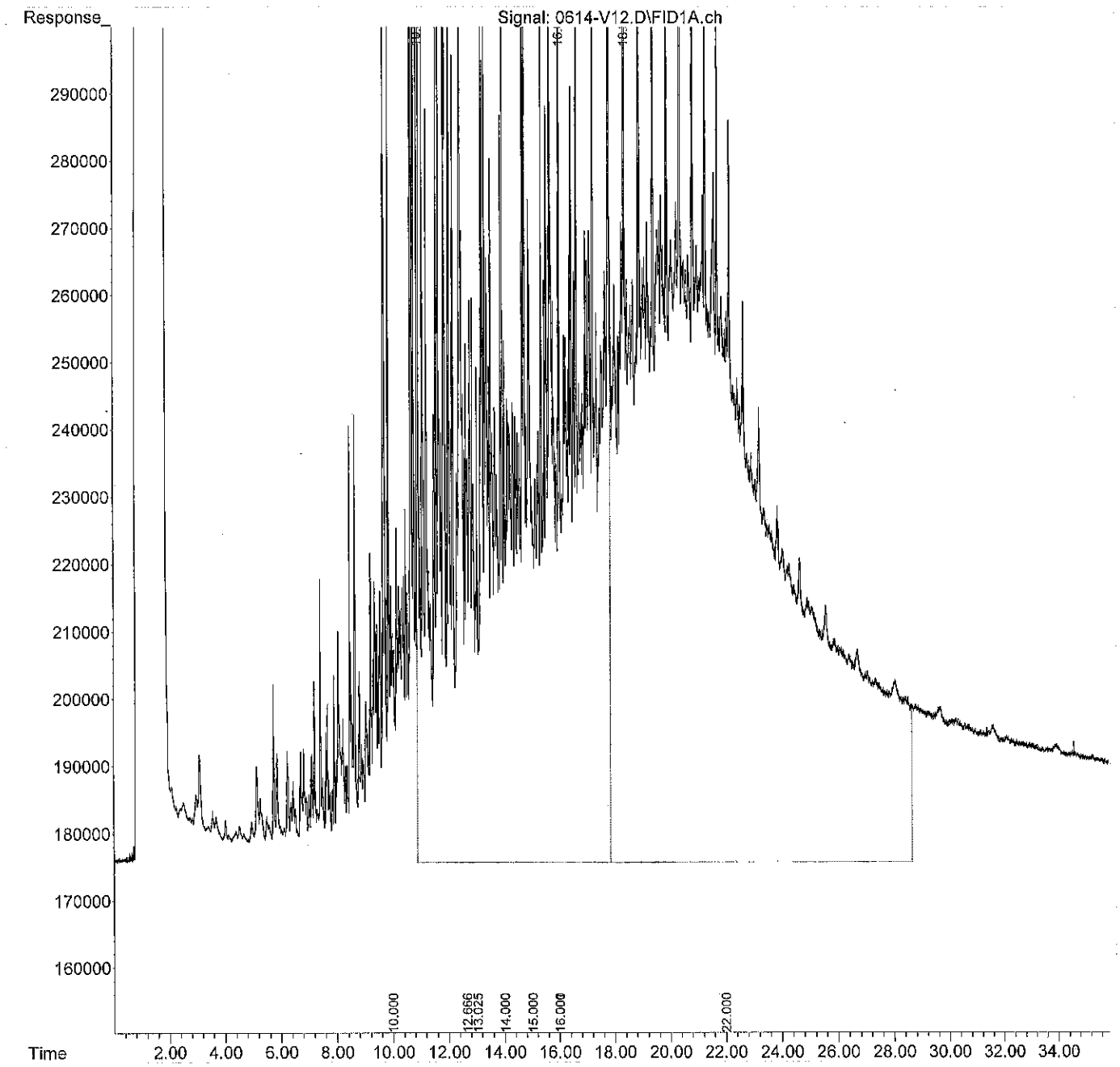
Quantitation Report (Not Reviewed)

Data File : 0614-V12.D
Sample : BUNKCCV0614F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 14 Jun 2013 18:41
Operator :
Misc : SV3-05-23
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 19:17:39 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V22.D
Sample : BUNKCCV0614F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 1:32
Operator :
Misc : SV3-05-23
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 02:08:49 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.667	1499640	0.225 PPM
Spiked Amount	50.000		Recovery =	0.45%
	Target Compounds			
2)	1-Chlorooctadecane (...	15.662	1024718	0.703 PPM
3) H	Gasoline	3.500	14020519	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	274843175	111.194 PPM
5) H	Diesel Fuel #2 (06-...	14.000	389901880	167.229 PPM
6) H	Oil (04-04-13)	22.000	552397733	269.512 PPM
7) H	Oil Acid Clean (02-...	22.000	552397733	272.107 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	329477042	144.175 PPM
9) H	Oil Combo (04-04-13)	22.000	491423317	244.771 PPM
10) H	Oil Acid Clean Combo ...	22.000	491423317	246.336 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	396776941	154.524 PPM
12) H	Alaska 103 Oil (06-2...	22.000	311588249	280.132 PPM
13) H	Mineral Oil (06-06-13)	16.000	436546716	169.782 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	820671167	576.935 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	820671167	565.930 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	825034699	10482.852 PPM
17) H	Mineral Oil Combo (0...	16.000	304124112	123.491 PPM
18) H	Oil Acid Clean MO Com...	22.000	439751942	227.401 PPM
19) H	Oil MO Combo (04-04-13)	22.000	439751942	226.707 PPM

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

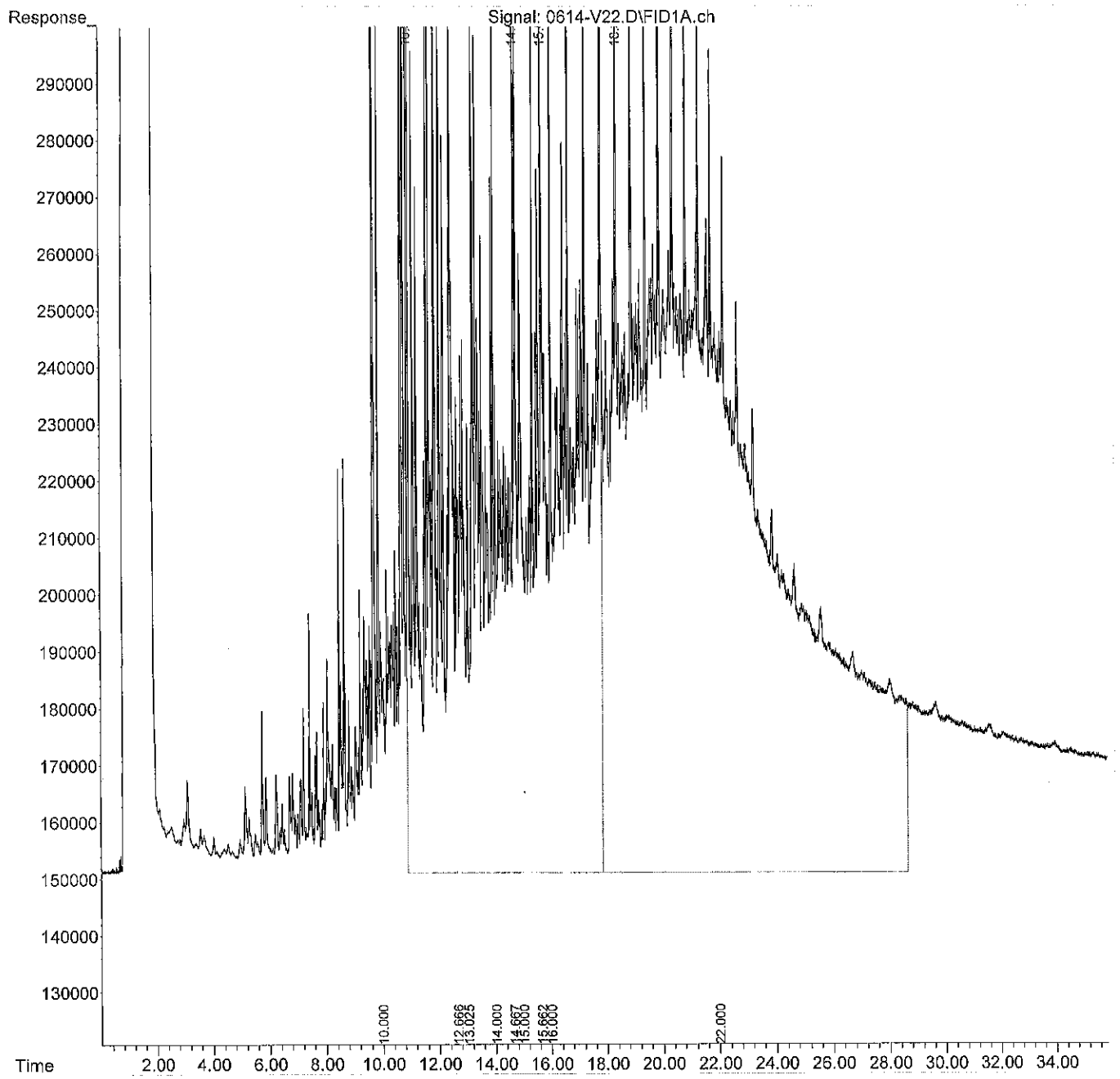
Quantitation Report (Not Reviewed)

Data File : 0614-V22.D
Sample : BUNKCCV0614F-V3

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 1:32
Operator :
Misc : SV3-05-23
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 02:08:49 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V31.D
Sample : BUNKCCV0614F-V4

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 7:39
Operator :
Misc : SV3-05-23
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 08:15:32 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.667	1404051	0.194 PPM
Spiked Amount	50.000		Recovery =	0.39%
	Target Compounds			
2)	1-Chlorooctadecane (...	16.001	1702193	0.991 PPM
3) H	Gasoline	3.500	14546794	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	265936360	107.634 PPM
5) H	Diesel Fuel #2 (06-...	14.000	375876994	161.234 PPM
6) H	Oil (04-04-13)	22.000	546570276	266.662 PPM
7) H	Oil Acid Clean (02-...	22.000	546570276	269.164 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	317865688	139.109 PPM
9) H	Oil Combo (04-04-13)	22.000	488036596	243.082 PPM
10) H	Oil Acid Clean Combo ...	22.000	488036596	244.592 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	382618899	148.918 PPM
12) H	Alaska 103 Oil (06-2...	22.000	301481987	270.804 PPM
13) H	Mineral Oil (06-06-13)	16.000	418933106	163.015 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	805554585	566.003 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	805554585	555.354 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	809907171	10290.239 PPM
17) H	Mineral Oil Combo (0...	16.000	292221235	118.776 PPM
18) H	Oil Acid Clean MO Com...	22.000	438479688	226.723 PPM
19) H	Oil MO Combo (04-04-13)	22.000	438479688	226.051 PPM

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

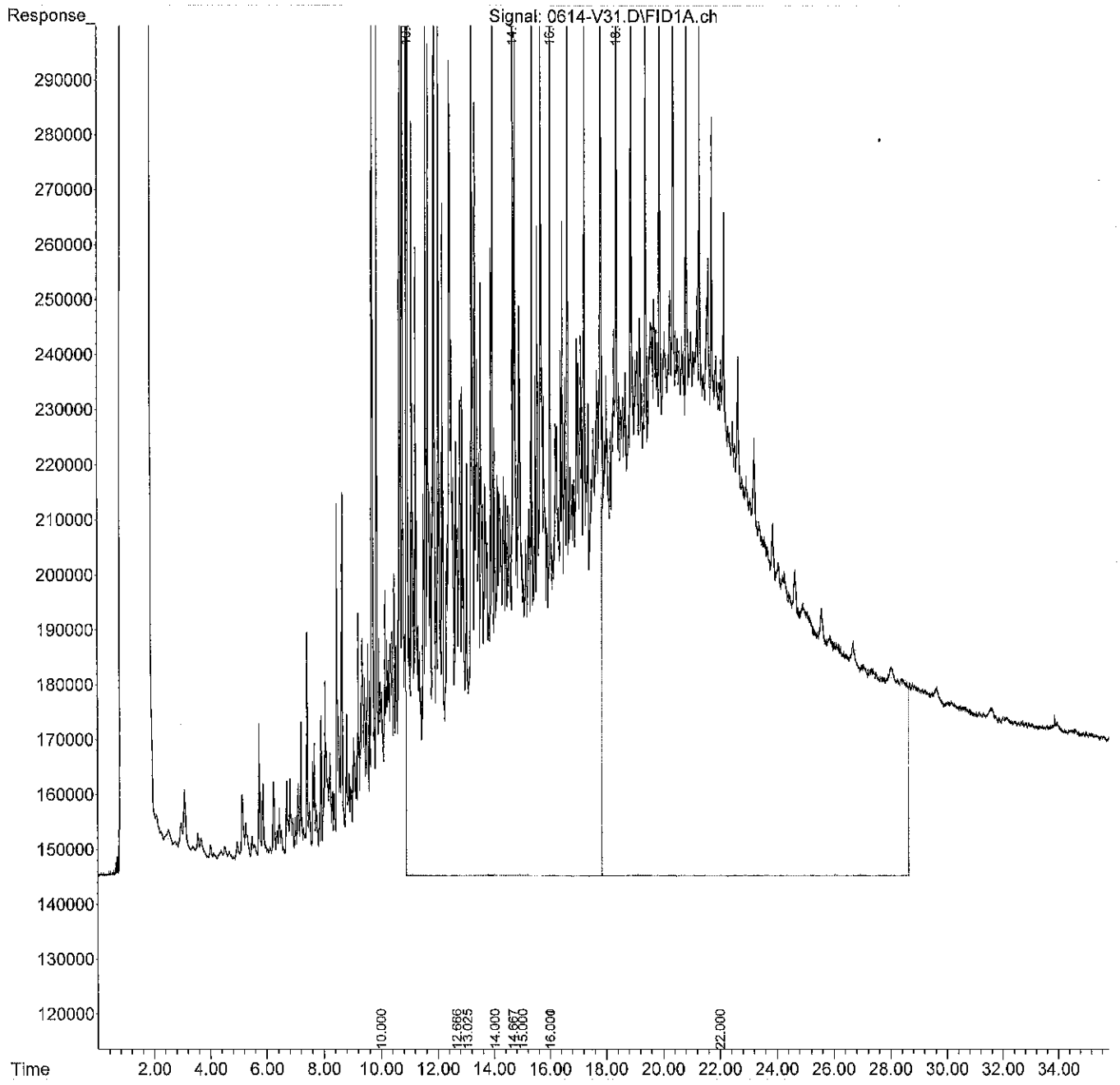
Quantitation Report (Not Reviewed)

Data File : 0614-V31.D
Sample : BUNKCCV0614F-V4

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 7:39
Operator :
Misc : SV3-05-23
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 08:15:32 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V42.D
Sample : BUNKCCV0614F-V5

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 15:12
Operator :
Misc : SV3-05-23
ALS Vial : 42 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 15:48:46 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (01-29-13)	14.668	1405163	0.194 PPM
Spiked Amount	50.000		Recovery =	0.39%
	Target Compounds			
2)	1-Chlorooctadecane (...	16.002	1699165	0.990 PPM
3) H	Gasoline	3.500	14691777	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	267567450	108.286 PPM
5) H	Diesel Fuel #2 (06-...	14.000	377247784	161.820 PPM
6) H	Oil (04-04-13)	22.000	563906737	275.140 PPM
7) H	Oil Acid Clean (02-...	22.000	563906737	277.918 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	319453684	139.802 PPM
9) H	Oil Combo (04-04-13)	22.000	505334729	251.708 PPM
10) H	Oil Acid Clean Combo ...	22.000	505334729	253.502 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	384034271	149.478 PPM
12) H	Alaska 103 Oil (06-2...	22.000	308778300	277.539 PPM
13) H	Mineral Oil (06-06-13)	16.000	420065340	163.450 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	824400647	579.633 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	824400647	568.540 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	828683572	10529.311 PPM
17) H	Mineral Oil Combo (0...	16.000	292572634	118.916 PPM
18) H	Oil Acid Clean MO Com...	22.000	455971789	236.047 PPM
19) H	Oil MO Combo (04-04-13)	22.000	455971789	235.073 PPM

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

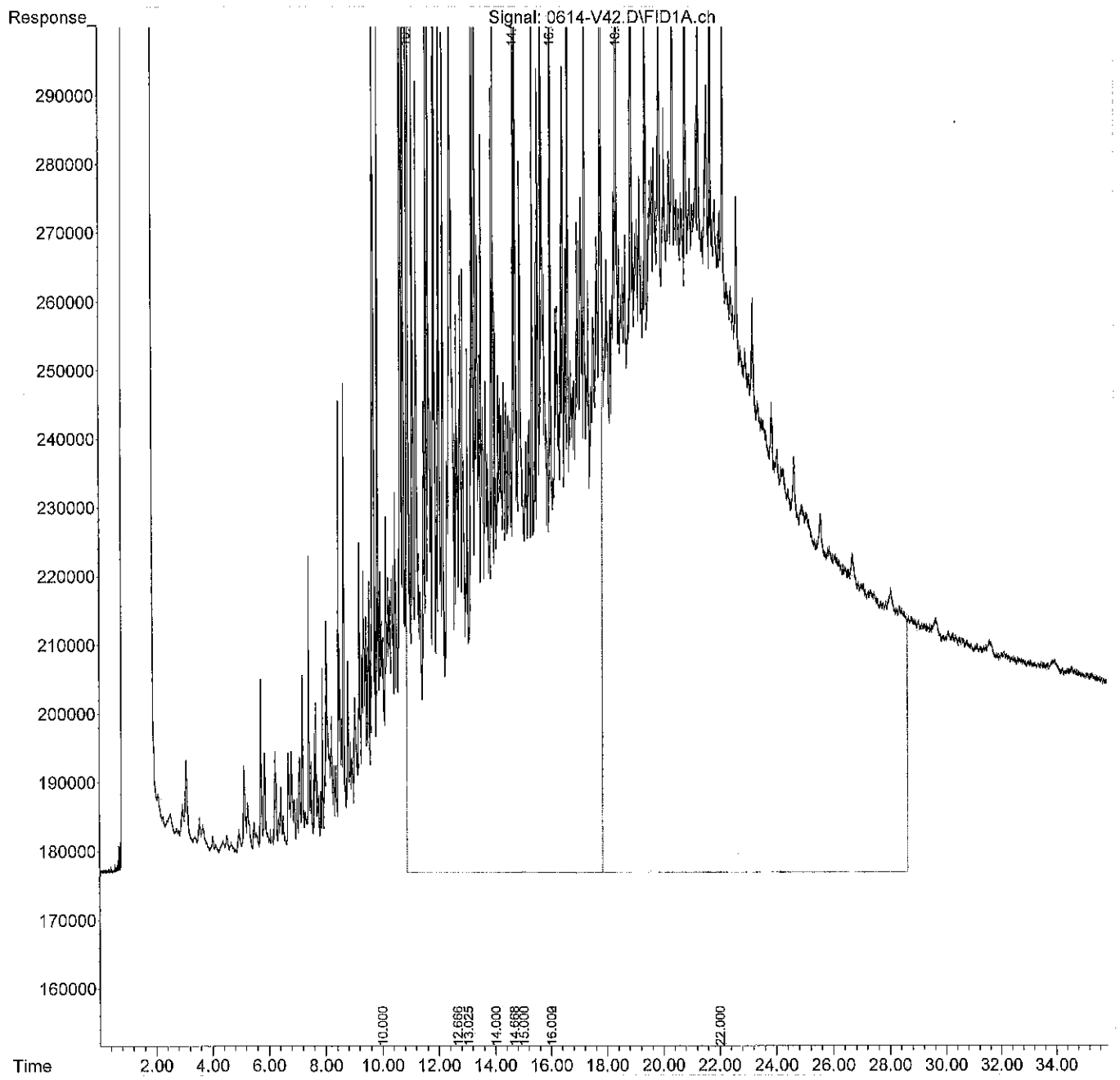
Quantitation Report (Not Reviewed)

Data File : 0614-V42.D
Sample : BUNKCCV0614F-V5

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 15:12
Operator :
Misc : SV3-05-23
ALS Vial : 42 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 15:48:46 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V50.D
Sample : BUNKCCV0614F-V6

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 20:44
Operator :
Misc : SV3-05-23
ALS Vial : 50 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 21:20:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.668	1243985	0.142 PPM
Spiked Amount	50.000		Recovery =	0.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	16.002	2629333	1.385 PPM
3) H	Gasoline	3.500	14043110	NoCal PPM
4) H	Diesel Fuel #1 (01-2...	10.000	267179743	108.131 PPM
5) H	Diesel Fuel #2 (06-...	14.000	378681217	162.433 PPM
6) H	Oil (04-04-13)	22.000	556199848	271.371 PPM
7) H	Oil Acid Clean (02-...	22.000	556199848	274.026 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	320177744	140.118 PPM
9) H	Oil Combo (04-04-13)	22.000	496948398	247.526 PPM
10) H	Oil Acid Clean Combo ...	22.000	496948398	249.182 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	385415787	150.025 PPM
12) H	Alaska 103 Oil (06-2...	22.000	312209426	280.705 PPM
13) H	Mineral Oil (06-06-13)	16.000	428246702	166.593 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	816848790	574.171 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	816848790	563.256 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	820979319	10431.216 PPM
17) H	Mineral Oil Combo (0...	16.000	295056575	119.900 PPM
18) H	Oil Acid Clean MO Com...	22.000	446969031	231.248 PPM
19) H	Oil MO Combo (04-04-13)	22.000	446969031	230.430 PPM

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

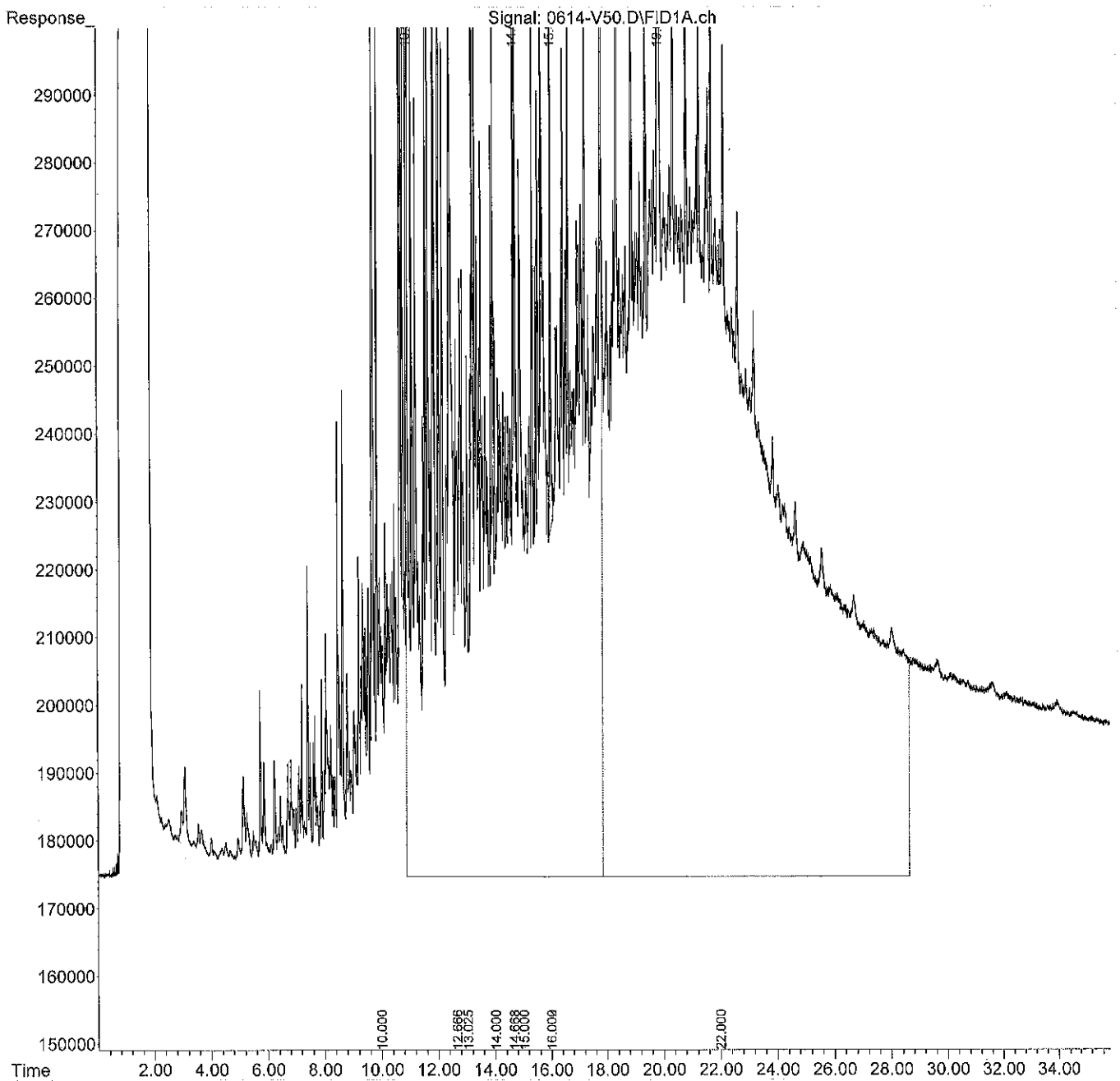
Quantitation Report (Not Reviewed)

Data File : 0614-V50.D
Sample : BUNKCCV0614F-V6

Data Path : X:\DIESELS\VIGO\DATA\V130614\
Signal(s) : FID1A.ch
Acq On : 15 Jun 2013 20:44
Operator :
Misc : SV3-05-23
ALS Vial : 50 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 21:20:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V51.D
Sample : BUNKCCV0614R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 10:26
Operator :
Misc : SV3-05-23
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 11:03:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	14092712	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	254905830	112.373	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	357925557	166.008	PPM
6) H	Oil (04-04-13)	22.000	523102323	270.656	PPM
7) H	Oil Acid Clean (02-0...	22.000	523102323	274.659	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	303256138	143.261	PPM
9) H	Oil Combo (04-04-13)	22.000	468651567	246.732	PPM
10) H	Oil Acid Clean Combo ...	22.000	468651567	250.164	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	367480917	136.444	PPM
12) H	Alaska 103 Oil (06-2...	22.000	286752636	241.119	PPM
13) H	Mineral Oil (06-06-13)	16.000	391644356	163.496	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	769729527	538.916	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	769729527	574.056	PPM
16) H	ALKANE C9-C40	12.666	775305223	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	272415429	118.580	PPM
18) H	Oil Acid Clean MO Com...	22.000	421746893	231.903	PPM
19) H	Oil MO Combo (04-04-13)	22.000	421746893	228.956	PPM

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

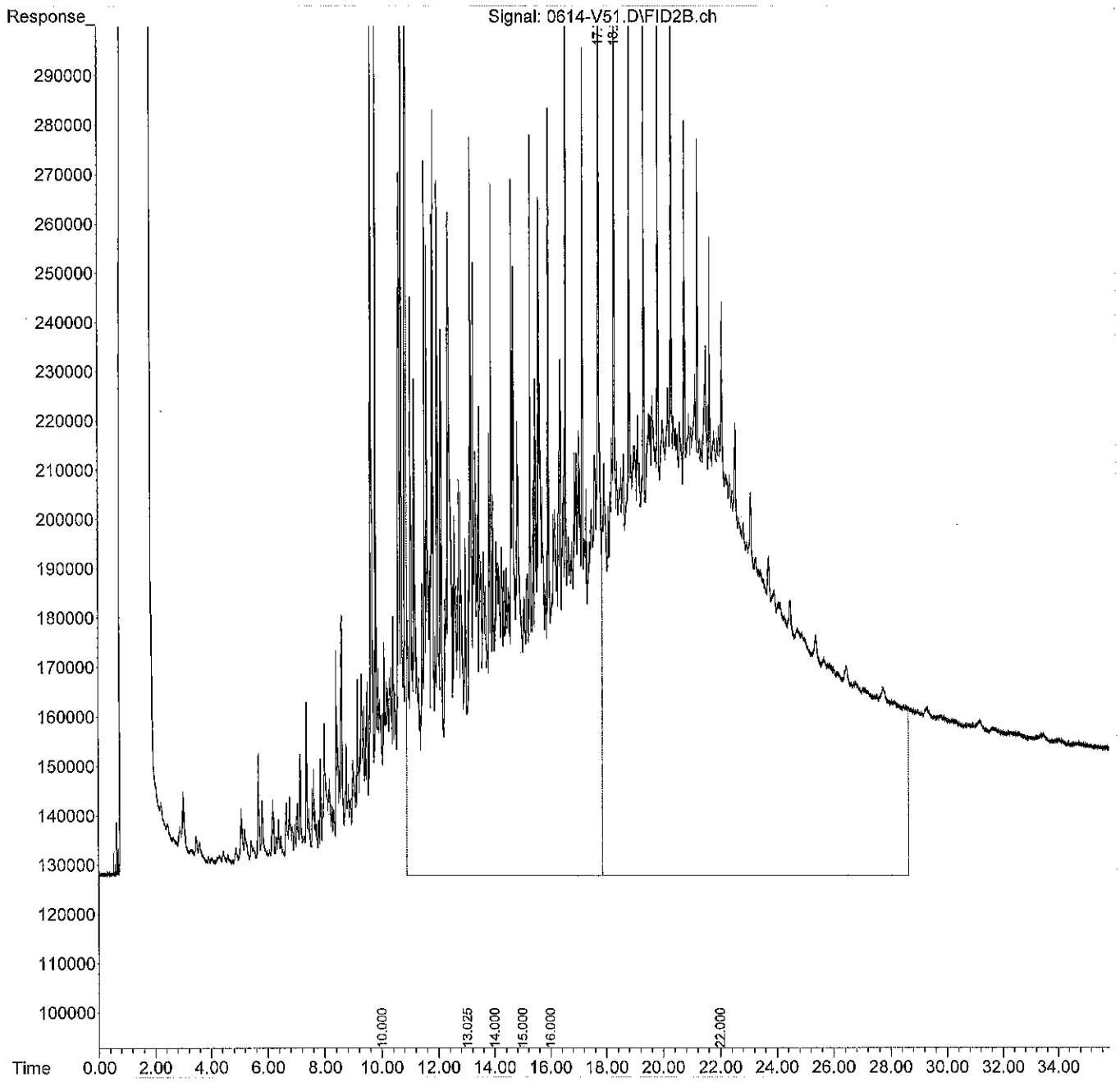
Quantitation Report (Not Reviewed)

Data File : 0614-V51.D
Sample : BUNKCCV0614R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 10:26
Operator :
Misc : SV3-05-23
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 11:03:14 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V64.D
Sample : BUNKCCV0614R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 20:04
Operator :
Misc : SV3-05-23
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 20:40:27 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12820629	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	239774306	105.765	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	335969603	155.671	PPM
6) H	Oil (04-04-13)	22.000	449778701	231.402	PPM
7) H	Oil Acid Clean (02-0...	22.000	449778701	234.624	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	285227933	134.609	PPM
9) H	Oil Combo (04-04-13)	22.000	398889497	208.619	PPM
10) H	Oil Acid Clean Combo ...	22.000	398889497	211.311	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	344718506	127.672	PPM
12) H	Alaska 103 Oil (06-2...	22.000	251032971	209.784	PPM
13) H	Mineral Oil (06-06-13)	16.000	365392711	152.496	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	682608465	472.769	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	682608465	507.381	PPM
16) H	ALKANE C9-C40	12.666	687670667	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	256222044	111.549	PPM
18) H	Oil Acid Clean MO Com...	22.000	355311650	193.639	PPM
19) H	Oil MO Combo (04-04-13)	22.000	355311650	191.392	PPM

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

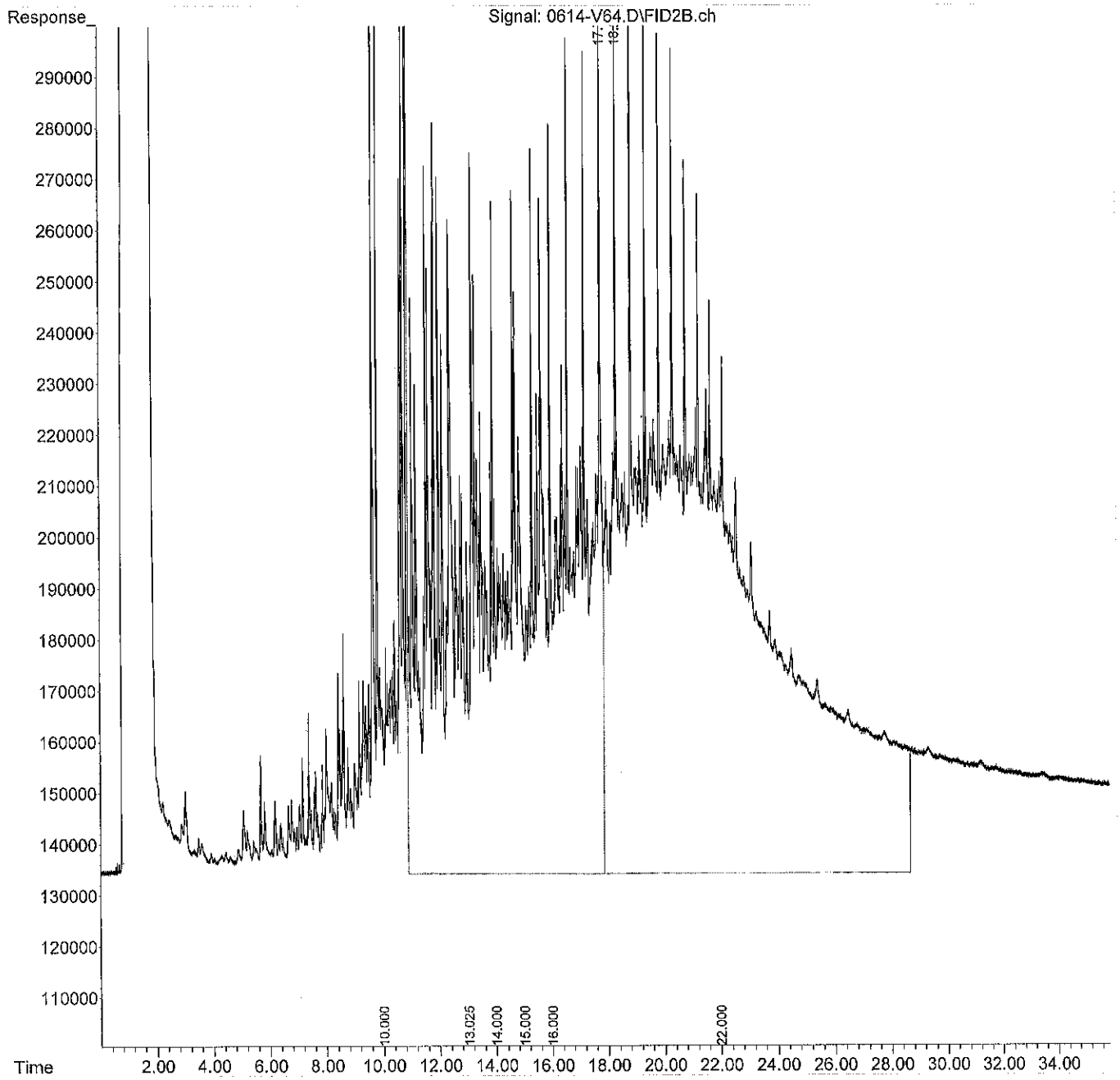
Quantitation Report (Not Reviewed)

Data File : 0614-V64.D
Sample : BUNKCCV0614R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 14 Jun 2013 20:04
Operator :
Misc : SV3-05-23
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 14 20:40:27 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V72.D
Sample : BUNKCCV0614R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 1:32
Operator :
Misc : SV3-05-23
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 02:09:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	13538208	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	250493687	110.446	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	351087936	162.789	PPM
6)	H	Oil (04-04-13)	22.000	487311345	251.495	PPM
7)	H	Oil Acid Clean (02-0...	22.000	487311345	255.117	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	297900888	140.691	PPM
9)	H	Oil Combo (04-04-13)	22.000	434038836	227.822	PPM
10)	H	Oil Acid Clean Combo ...	22.000	434038836	230.887	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	360299000	133.677	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	268737941	225.316	PPM
13)	H	Mineral Oil (06-06-13)	16.000	382547447	159.684	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	730150495	508.866	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	730150495	543.766	PPM
16)	H	ALKANE C9-C40	12.666	735574933	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	267507183	116.449	PPM
18)	H	Oil Acid Clean MO Com...	22.000	388371985	212.680	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	388371985	210.085	PPM

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

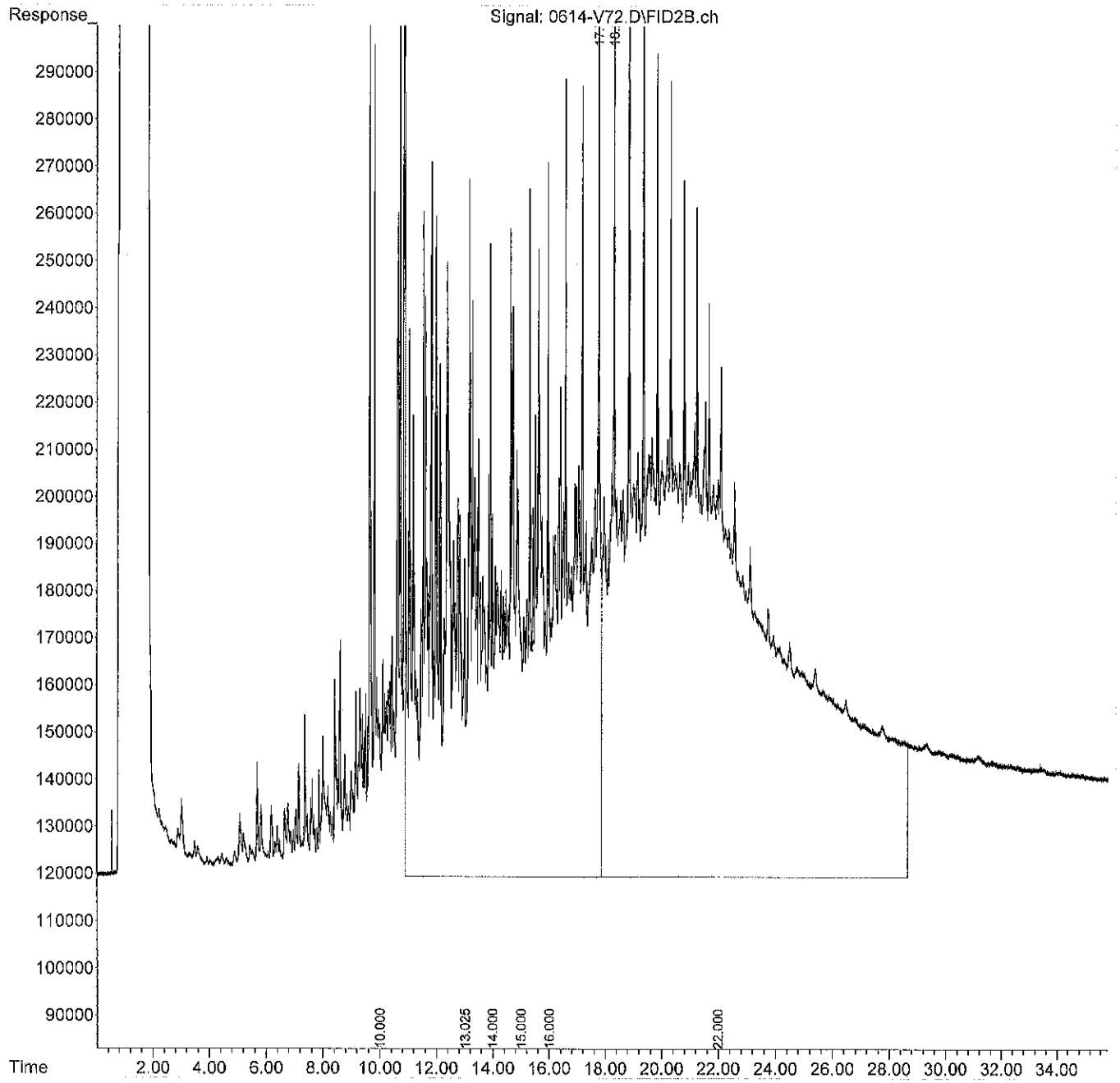
Quantitation Report (Not Reviewed)

Data File : 0614-V72.D
Sample : BUNKCCV0614R-V3

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 1:32
Operator :
Misc : SV3-05-23
ALS Vial : 72 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 02:09:05 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V81.D
Sample : BUNKCCV0614R-V4

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 7:39
Operator :
Misc : SV3-05-23
ALS Vial : 81 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 08:15:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.940	2264806	1.037	PPM
3) H	Gasoline	3.500	14376418	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	263323609	116.049	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	368420676	170.949	PPM
6) H	Oil (04-04-13)	22.000	510077070	263.683	PPM
7) H	Oil Acid Clean (02-0...	22.000	510077070	267.547	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	312754423	147.819	PPM
9) H	Oil Combo (04-04-13)	22.000	454320848	238.903	PPM
10) H	Oil Acid Clean Combo ...	22.000	454320848	242.183	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	378095695	140.535	PPM
12) H	Alaska 103 Oil (06-2...	22.000	281125060	236.182	PPM
13) H	Mineral Oil (06-06-13)	16.000	400555157	167.230	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	765111958	535.410	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	765111958	570.522	PPM
16) H	ALKANE C9-C40	12.666	770967823	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	280196855	121.958	PPM
18) H	Oil Acid Clean MO Com...	22.000	406525760	223.136	PPM
19) H	Oil MO Combo (04-04-13)	22.000	406525760	220.350	PPM

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

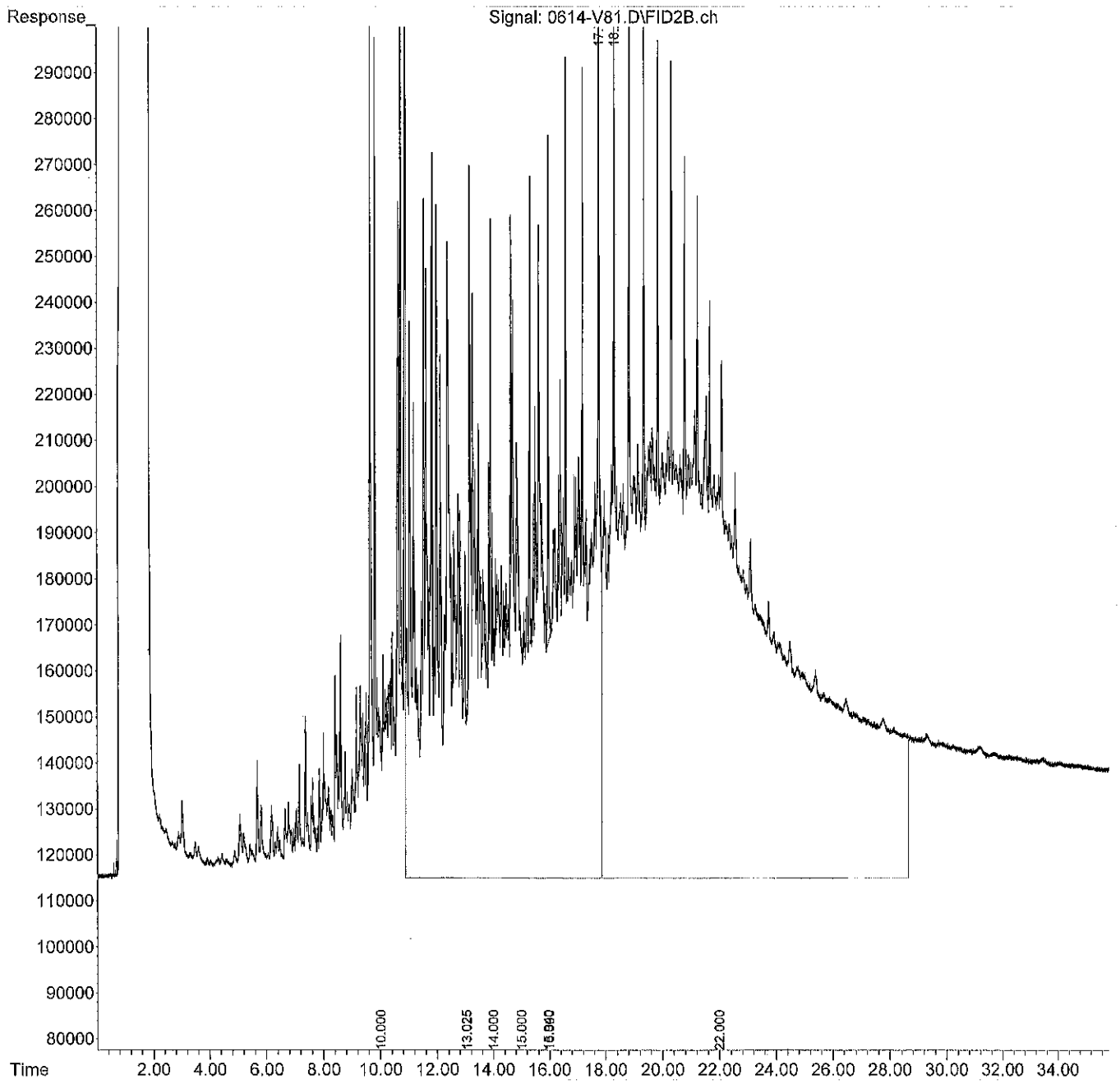
Quantitation Report (Not Reviewed)

Data File : 0614-V81.D
Sample : BUNKCCV0614R-V4

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 7:39
Operator :
Misc : SV3-05-23
ALS Vial : 81 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 08:15:48 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V92.D
Sample : BUNKCCV0614R-V5

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 15:12
Operator :
Misc : SV3-05-23
ALS Vial : 92 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 15:49:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount 50.000				Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	15645331	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	245133560	108.105	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	341613409	158.328	PPM
6)	H	Oil (04-04-13)	22.000	482994347	249.184	PPM
7)	H	Oil Acid Clean (02-0...	22.000	482994347	252.760	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	290081479	136.938	PPM
9)	H	Oil Combo (04-04-13)	22.000	431373632	226.366	PPM
10)	H	Oil Acid Clean Combo ...	22.000	431373632	229.403	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	350629504	129.950	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	264247748	221.377	PPM
13)	H	Mineral Oil (06-06-13)	16.000	371095621	154.885	PPM
14)	H	Bunker C-ACU (Fuel O...	15.000	719502293	500.781	PPM
15)	H	Bunker C- (Fuel Oil #...	15.000	719502293	535.616	PPM
16)	H	ALKANE C9-C40	12.666	725742008	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	259549347	112.994	PPM
18)	H	Oil Acid Clean MO Com...	22.000	387134763	211.968	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	387134763	209.385	PPM

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

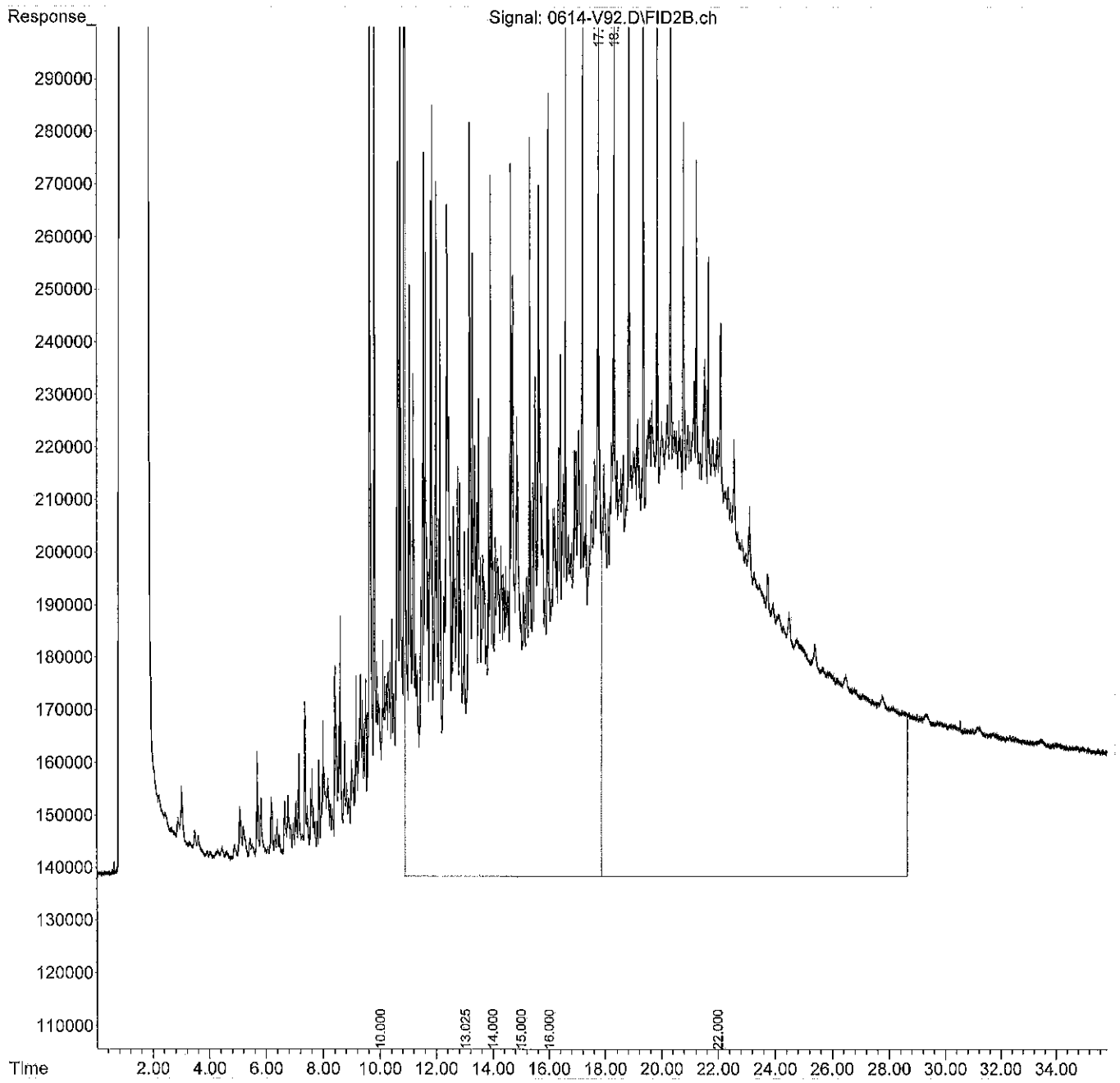
Quantitation Report (Not Reviewed)

Data File : 0614-V92.D
Sample : BUNKCCV0614R-V5

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 15:12
Operator :
Misc : SV3-05-23
ALS Vial : 92 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 15:49:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0614-V100.D
Sample : BUNKCCV0614R-V6

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 20:44
Operator :
Misc : SV3-05-23
ALS Vial : 100 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 21:21:04 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12160612	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	227737549	100.509	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	318426430	147.412	PPM
6) H	Oil (04-04-13)	22.000	431172618	221.441	PPM
7) H	Oil Acid Clean (02-0...	22.000	431172618	224.465	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	270659747	127.618	PPM
9) H	Oil Combo (04-04-13)	22.000	383074318	199.979	PPM
10) H	Oil Acid Clean Combo ...	22.000	383074318	202.503	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	326600885	120.691	PPM
12) H	Alaska 103 Oil (06-2...	22.000	238751981	199.011	PPM
13) H	Mineral Oil (06-06-13)	16.000	345339153	144.093	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	652180276	449.666	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	652180276	484.094	PPM
16) H	ALKANE C9-C40	12.666	656972048	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	242687612	105.673	PPM
18) H	Oil Acid Clean MO Com...	22.000	342055412	186.004	PPM
19) H	Oil MO Combo (04-04-13)	22.000	342055412	183.896	PPM

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

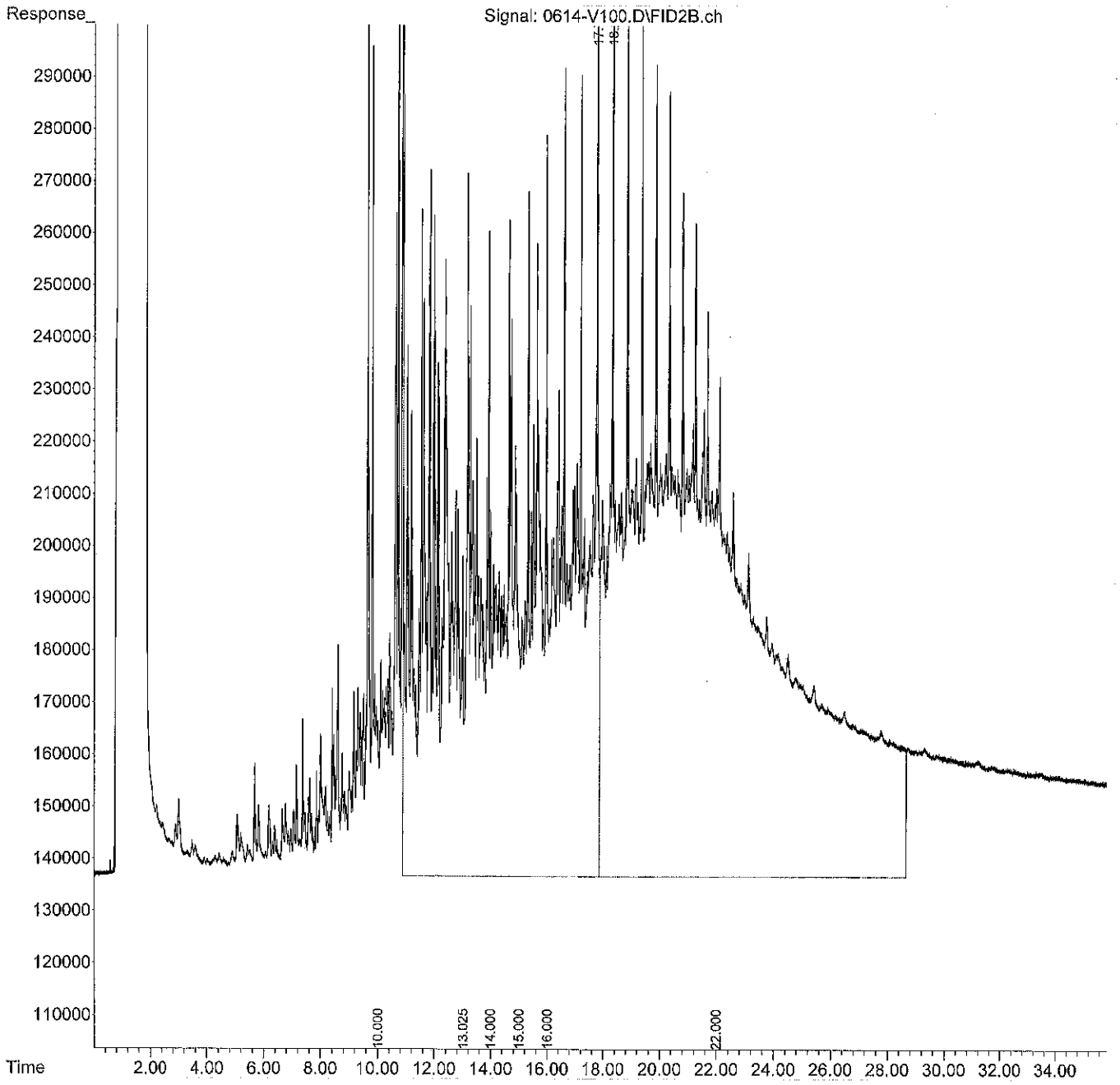
Quantitation Report (Not Reviewed)

Data File : 0614-V100.D
Sample : BUNKCCV0614R-V6

Data Path : X:\DIESELS\VIGO\DATA\V130614.SEC\
Signal(s) : FID2B.ch
Acq On : 15 Jun 2013 20:44
Operator :
Misc : SV3-05-23
ALS Vial : 100 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 15 21:21:04 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V01.D
Sample : BUNKCCV0616F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 18:49
Operator :
Misc : SV3-05-23
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 19:25:24 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	16.002	2313648	1.251	PPM
3) H	Gasoline	3.500	13499228	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	245750877	99.566	PPM
5) H	Diesel Fuel #2 (06-...	14.000	341869040	146.697	PPM
6) H	Oil (04-04-13)	22.000	430916386	210.103	PPM
7) H	Oil Acid Clean (02-...	22.000	430916386	210.769	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	291641197	127.667	PPM
9) H	Oil Combo (04-04-13)	22.000	379041044	188.731	PPM
10) H	Oil Acid Clean Combo ...	22.000	379041044	188.446	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	347805996	135.132	PPM
12) H	Alaska 103 Oil (06-2...	22.000	238651254	212.813	PPM
13) H	Mineral Oil (06-06-13)	16.000	370790898	144.519	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	670584930	468.387	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	670584930	460.923	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	675008636	8572.629	PPM
17) H	Mineral Oil Combo (0...	16.000	265080366	108.025	PPM
18) H	Oil Acid Clean MO Com...	22.000	336169888	172.185	PPM
19) H	Oil MO Combo (04-04-13)	22.000	336169888	173.281	PPM

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

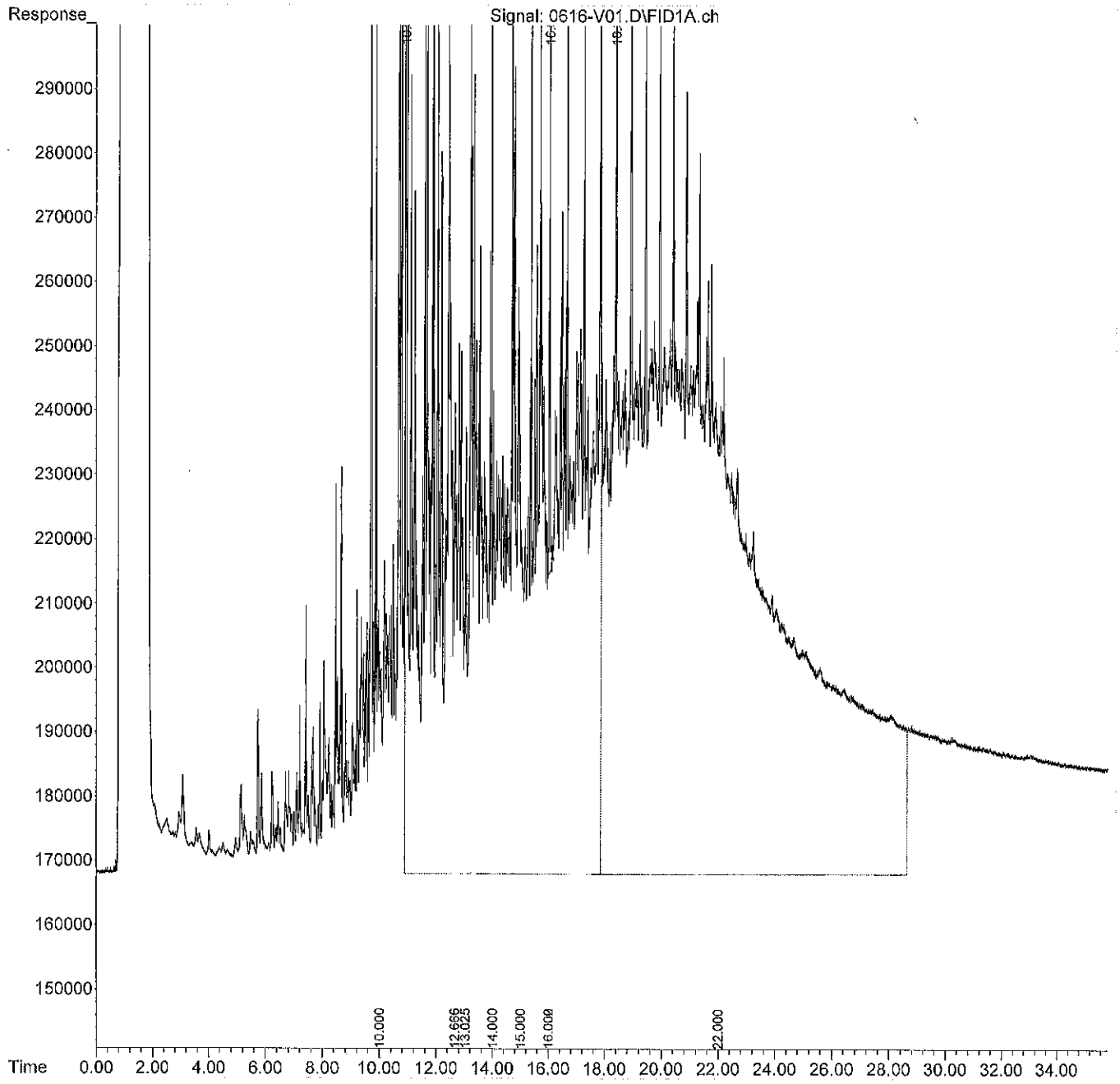
Quantitation Report (Not Reviewed)

Data File : 0616-V01.D
Sample : BUNKCCV0616F-V1

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 16 Jun 2013 18:49
Operator :
Misc : SV3-05-23
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 19:25:24 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V15.D
Sample : BUNKCCV0616F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 4:25
Operator :
Misc : SV3-05-23
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 05:01:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	16.001	2097228	1.159	PPM
3) H	Gasoline	3.500	13686533	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	259705782	105.144	PPM
5) H	Diesel Fuel #2 (06-...	14.000	364407380	156.331	PPM
6) H	Oil (04-04-13)	22.000	473298622	230.830	PPM
7) H	Oil Acid Clean (02-...	22.000	473298622	232.169	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	309542297	135.478	PPM
9) H	Oil Combo (04-04-13)	22.000	417304339	207.811	PPM
10) H	Oil Acid Clean Combo ...	22.000	417304339	208.156	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	370774983	144.228	PPM
12) H	Alaska 103 Oil (06-2...	22.000	266347995	238.376	PPM
13) H	Mineral Oil (06-06-13)	16.000	400823199	156.057	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	726733806	508.996	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	726733806	500.207	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	731288785	9289.222	PPM
17) H	Mineral Oil Combo (0...	16.000	283483820	115.315	PPM
18) H	Oil Acid Clean MO Com...	22.000	370465073	190.467	PPM
19) H	Oil MO Combo (04-04-13)	22.000	370465073	190.970	PPM

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

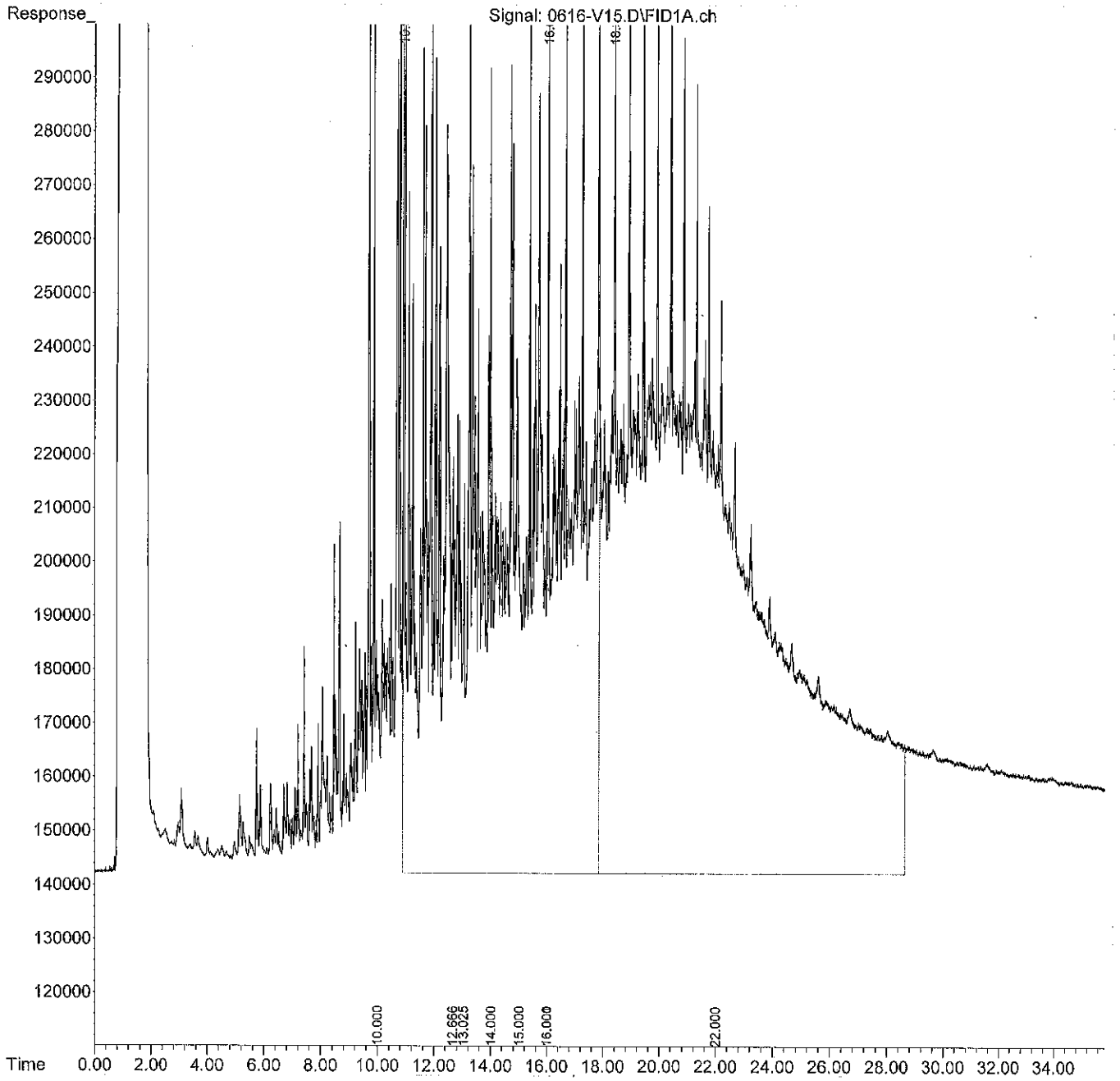
Quantitation Report (Not Reviewed)

Data File : 0616-V15.D
Sample : BUNKCCV0616F-V2

Data Path : X:\DIESELS\VIGO\DATA\V130616\
Signal(s) : FID1A.ch
Acq On : 17 Jun 2013 4:25
Operator :
Misc : SV3-05-23
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 05:01:26 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V51.D
Sample : BUNKCCV0616R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 18:49
Operator :
Misc : SV3-05-23
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 19:25:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	14989722	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	226604260	100.014	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	309711365	143.309	PPM
6) H	Oil (04-04-13)	22.000	364005725	185.483	PPM
7) H	Oil Acid Clean (02-0...	22.000	364005725	187.791	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	265910531	125.339	PPM
9) H	Oil Combo (04-04-13)	22.000	318609849	164.760	PPM
10) H	Oil Acid Clean Combo ...	22.000	318609849	166.602	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	317308711	117.110	PPM
12) H	Alaska 103 Oil (06-2...	22.000	197952847	163.221	PPM
13) H	Mineral Oil (06-06-13)	16.000	323228973	134.828	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	583333891	397.394	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	583333891	431.405	PPM
16) H	ALKANE C9-C40	12.666	589167417	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	233662797	101.754	PPM
18) H	Oil Acid Clean MO Com...	22.000	281059724	150.873	PPM
19) H	Oil MO Combo (04-04-13)	22.000	281059724	149.407	PPM

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

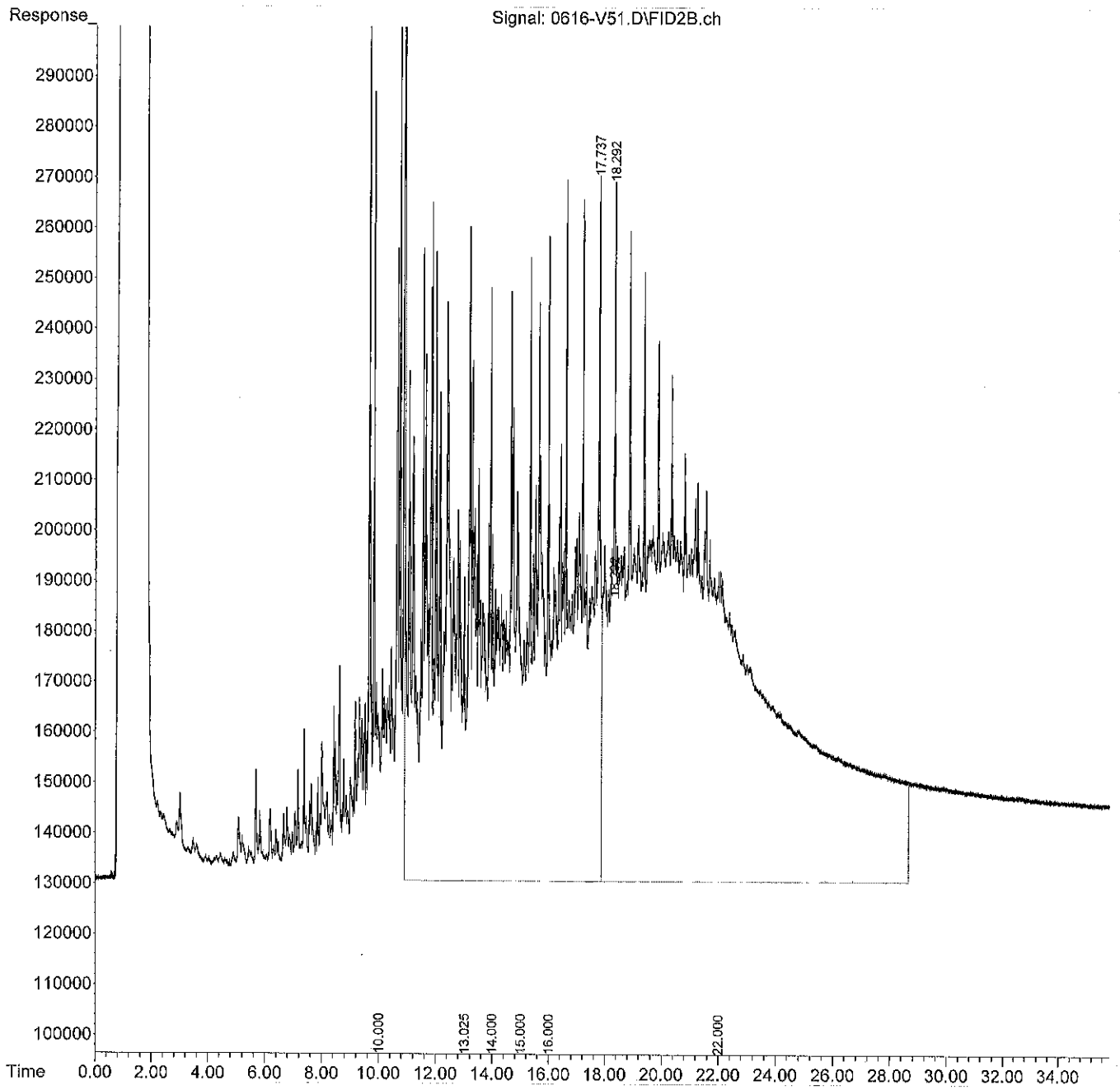
Quantitation Report (Not Reviewed)

Data File : 0616-V51.D
Sample : BUNKCCV0616R-V1

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 16 Jun 2013 18:49
Operator :
Misc : SV3-05-23
ALS Vial : 51 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 16 19:25:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0616-V65.D
Sample : BUNKCCV0616R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 17 Jun 2013 4:25
Operator :
Misc : SV3-05-23
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 05:01:42 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	14011006	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	249891445	110.183	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	347408708	161.056	PPM
6) H	Oil (04-04-13)	22.000	445451196	229.085	PPM
7) H	Oil Acid Clean (02-0...	22.000	445451196	232.261	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	295996733	139.777	PPM
9) H	Oil Combo (04-04-13)	22.000	393350735	205.593	PPM
10) H	Oil Acid Clean Combo ...	22.000	393350735	208.227	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	356272016	132.125	PPM
12) H	Alaska 103 Oil (06-2...	22.000	246983874	206.232	PPM
13) H	Mineral Oil (06-06-13)	16.000	372768115	155.586	PPM
14) H	Bunker C-ACU (Fuel O...	15.000	687867326	476.762	PPM
15) H	Bunker C- (Fuel Oil #...	15.000	687867326	511.406	PPM
16) H	ALKANE C9-C40	12.666	693520659	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	263965119	114.911	PPM
18) H	Oil Acid Clean MO Com...	22.000	349236507	190.140	PPM
19) H	Oil MO Combo (04-04-13)	22.000	349236507	187.957	PPM

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

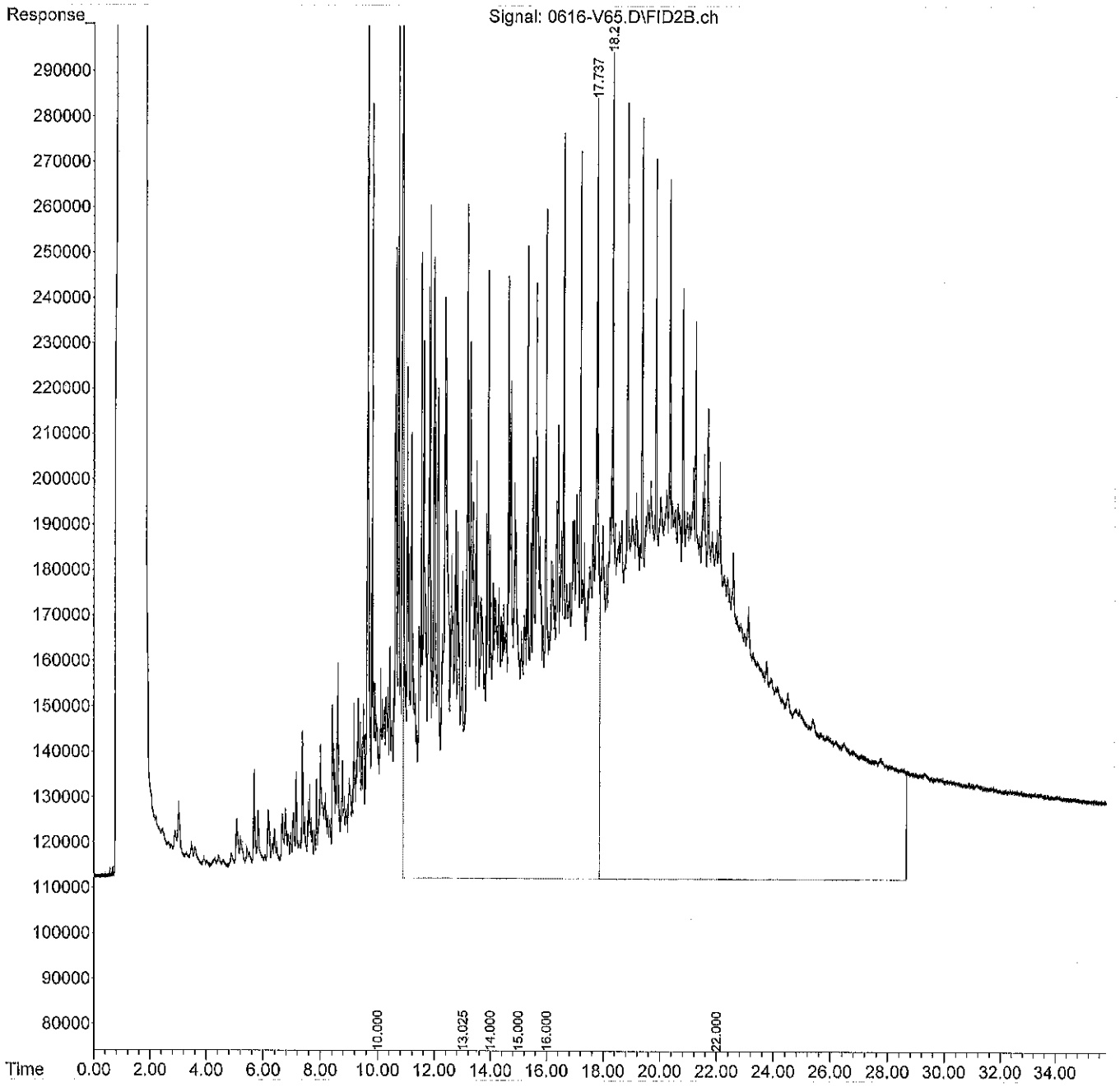
Quantitation Report (Not Reviewed)

Data File : 0616-V65.D
Sample : BUNKCCV0616R-V2

Data Path : X:\DIESELS\VIGO\DATA\V130616.SEC\
Signal(s) : FID2B.ch
Acq On : 17 Jun 2013 4:25
Operator :
Misc : SV3-05-23
ALS Vial : 65 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 17 05:01:42 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130612R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 8, 2013

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1306-197

Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on June 21, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

Case Narrative

Samples were collected on June 19, 2013 and received by the laboratory on June 21, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TP3EX-SWS-061913-1.5	06-197-01	Soil	6-19-13	6-21-13	
TP3EX-SWN-061913-1.5	06-197-02	Soil	6-19-13	6-21-13	
PCSB03EX-SWSW-061913-1.5	06-197-03	Soil	6-19-13	6-21-13	
TP3EX-SWNE-061913-1.5	06-197-04	Soil	6-19-13	6-21-13	
TP3EX-SWNW-061913-1.5	06-197-05	Soil	6-19-13	6-21-13	
TP3EX-SWW-061913-1.5	06-197-06	Soil	6-19-13	6-21-13	
TP3EX-BASE-061913-2	06-197-07	Soil	6-19-13	6-21-13	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWS-061913-1.5**					
Laboratory ID:	06-197-01					
Bunker C	**1400**	55	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**TP3EX-SWN-061913-1.5**					
Laboratory ID:	06-197-02					
Bunker C	**2600**	56	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*68*	*50-150*				
Client ID:	**PCSB03EX-SWSW-061913-1.5**					
Laboratory ID:	06-197-03					
Bunker C	**1500**	63	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**TP3EX-SWNE-061913-1.5**					
Laboratory ID:	06-197-04					
Bunker C	**2000**	57	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**TP3EX-SWNW-061913-1.5**					
Laboratory ID:	06-197-05					
Bunker C	**1900**	65	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				
Client ID:	**TP3EX-SWW-061913-1.5**					
Laboratory ID:	06-197-06					
Bunker C	**300**	59	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**TP3EX-BASE-061913-2**					
Laboratory ID:	06-197-07					
Bunker C	**220**	75	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-BASE-061913-2**					
Laboratory ID:	06-197-07					
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Chrysene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	6-26-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*43 - 116*				
Pyrene-d10	*67*	*33 - 124*				
Terphenyl-d14	*64*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWS-061913-1.5**					
Laboratory ID:	06-197-01					
Benzo[a]anthracene	**0.068**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Chrysene	**0.082**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo[b]fluoranthene	**0.056**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo(j,k)fluoranthene	**0.014**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo[a]pyrene	**0.036**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Indeno(1,2,3-c,d)pyrene	**0.028**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Dibenz[a,h]anthracene	**0.011**	0.0073	EPA 8270D/SIM	7-1-13	7-5-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*43 - 116*				
Pyrene-d10	*90*	*33 - 124*				
Terphenyl-d14	*98*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWN-061913-1.5**					
Laboratory ID:	06-197-02					
Benzo[a]anthracene	**0.13**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Chrysene	**0.23**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[b]fluoranthene	**0.13**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo(j,k)fluoranthene	**0.041**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[a]pyrene	**0.082**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Indeno(1,2,3-c,d)pyrene	**0.089**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Dibenz[a,h]anthracene	**0.045**	0.037	EPA 8270D/SIM	7-1-13	7-3-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*43 - 116*				
Pyrene-d10	*83*	*33 - 124*				
Terphenyl-d14	*88*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**PCSB03EX-SWSW-061913-1.5**					
Laboratory ID:	06-197-03					
Benzo[a]anthracene	**0.077**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Chrysene	**0.12**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[b]fluoranthene	**0.089**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo(j,k)fluoranthene	**ND**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[a]pyrene	**0.054**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Indeno(1,2,3-c,d)pyrene	**0.059**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Dibenz[a,h]anthracene	**ND**	0.042	EPA 8270D/SIM	7-1-13	7-3-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*43 - 116*				
Pyrene-d10	*77*	*33 - 124*				
Terphenyl-d14	*78*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWNE-061913-1.5**					
Laboratory ID:	06-197-04					
Benzo[a]anthracene	**0.077**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Chrysene	**0.11**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[b]fluoranthene	**0.13**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo(j,k)fluoranthene	**0.035**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Benzo[a]pyrene	**0.086**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Indeno(1,2,3-c,d)pyrene	**0.081**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Dibenz[a,h]anthracene	**0.027**	0.0075	EPA 8270D/SIM	7-1-13	7-3-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*43 - 116*				
Pyrene-d10	*79*	*33 - 124*				
Terphenyl-d14	*69*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWNW-061913-1.5**					
Laboratory ID:	06-197-05					
Benzo[a]anthracene	**0.10**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Chrysene	**0.16**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo[b]fluoranthene	**0.082**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo(j,k)fluoranthene	**0.018**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Benzo[a]pyrene	**0.058**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Indeno(1,2,3-c,d)pyrene	**0.040**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Dibenz[a,h]anthracene	**0.019**	0.0087	EPA 8270D/SIM	7-1-13	7-5-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*43 - 116*				
Pyrene-d10	*74*	*33 - 124*				
Terphenyl-d14	*80*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP3EX-SWW-061913-1.5**					
Laboratory ID:	06-197-06					
Benzo[a]anthracene	**0.024**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Chrysene	**0.043**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo[b]fluoranthene	**0.029**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo[a]pyrene	**0.018**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Indeno(1,2,3-c,d)pyrene	**0.014**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	7-1-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*43 - 116*				
Pyrene-d10	*93*	*33 - 124*				
Terphenyl-d14	*90*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0625S1					
Bunker C Range	**ND**	50	NWTPH-Dx	6-25-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-197-03							
	ORIG	DUP						
Bunker C	**1210**	**1060**				13	NA	
Surrogate:								
o-Terphenyl			*78*	*68*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

NWTPH-Dx
(with acid/silica gel clean-up)
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BUNKCCV0626F-V1	500	481	3.8	+/-15%
BUNKCCV0626F-V2	500	534	-6.8	+/-15%
BUNKCCV0626F-V3	500	525	-5.0	+/-15%
BUNKCCV0626R-V1	500	533	-6.6	+/-15%
BUNKCCV0626R-V2	500	534	-6.8	+/-15%
BUNKCCV0626R-V3	500	520	-4.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0626S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	6-26-13	6-26-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*87*	*43 - 116*				
Pyrene-d10	*84*	*33 - 124*				
Terphenyl-d14	*84*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0626S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0686**	**0.0691**	0.0833	0.0833	82	83	58 - 115	1	13	
Chrysene	**0.0739**	**0.0741**	0.0833	0.0833	89	89	64 - 114	0	11	
Benzo[b]fluoranthene	**0.0770**	**0.0731**	0.0833	0.0833	92	88	52 - 125	5	19	
Benzo(j,k)fluoranthene	**0.0765**	**0.0721**	0.0833	0.0833	92	87	50 - 126	6	22	
Benzo[a]pyrene	**0.0812**	**0.0801**	0.0833	0.0833	97	96	43 - 123	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0771**	**0.0750**	0.0833	0.0833	93	90	55 - 118	3	16	
Dibenz[a,h]anthracene	**0.0794**	**0.0781**	0.0833	0.0833	95	94	57 - 120	2	15	
Surrogate:										
2-Fluorobiphenyl					*83*	*86*	*43 - 116*			
Pyrene-d10					*80*	*80*	*33 - 124*			
Terphenyl-d14					*78*	*74*	*38 - 125*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0701S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-1-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*91*	*43 - 116*				
Pyrene-d10	*113*	*33 - 124*				
Terphenyl-d14	*100*	*38 - 125*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

PAHs by EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0701S2									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	**0.0941**	**0.0952**	0.0833	0.0833	113	114	58 - 115	1	13	
Chrysene	**0.0841**	**0.0852**	0.0833	0.0833	101	102	64 - 114	1	11	
Benzo[b]fluoranthene	**0.0885**	**0.0926**	0.0833	0.0833	106	111	52 - 125	5	19	
Benzo(j,k)fluoranthene	**0.0901**	**0.0895**	0.0833	0.0833	108	107	50 - 126	1	22	
Benzo[a]pyrene	**0.0832**	**0.0839**	0.0833	0.0833	100	101	43 - 123	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0978**	**0.0974**	0.0833	0.0833	117	117	55 - 118	0	16	
Dibenz[a,h]anthracene	**0.0959**	**0.0961**	0.0833	0.0833	115	115	57 - 120	0	15	
Surrogate:										
2-Fluorobiphenyl					*84*	*85*	*43 - 116*			
Pyrene-d10					*99*	*101*	*33 - 124*			
Terphenyl-d14					*94*	*94*	*38 - 125*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 8, 2013
Samples Submitted: June 21, 2013
Laboratory Reference: 1306-197
Project: 0137-018-03

% MOISTURE

Date Analyzed: 6-25-13

Client ID	Lab ID	% Moisture
TP3EX-SWS-061913-1.5	06-197-01	9
TP3EX-SWN-061913-1.5	06-197-02	11
PCSB03EX-SWSW-061913-1.5	06-197-03	21
TP3EX-SWNE-061913-1.5	06-197-04	12
TP3EX-SWNW-061913-1.5	06-197-05	23
TP3EX-SWW-061913-1.5	06-197-06	15
TP3EX-BASE-061913-2	06-197-07	33

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Laboratory Number: 06-197

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Rayonier Sekiu
Project Manager: Rob Leet
Sampled by: Aaron Waggoner

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx Bunker C	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level) Carcinogenz only	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	TP3EX-SWS-061913-1.5	6/19/13	0750	Soil	1				X				(H)								X
2	TP3EX-SWN-061913-1.5		0830		1				X				(H)								X
3	PCSB03EX-SWSW-061913-1.5		1600		1				X				(H)								X
4	TP3EX-SWNE-061913-1.5		1615		1				X				(H)								X
5	TP3EX-SWNW-061913-1.5		1620		1				X				(H)								X
6	TP3EX-SWW-061913-1.5		1625		1				X				(H)								X
7	TP3EX-BASE-061913-2		1630		1				X				X	aw							X

	Signature	Company	Date	Time
Relinquished	Andrea Brown	GeoEngineers	6/21/13	9:00
Received		Speedy Hsngr	6-21-13	1040
Relinquished		" "	" "	1250
Received		OSE	6/21/13	1250
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
H = Hold Pending Bunker C Results. If Bunker C detected below 2,640 mg/kg Run the Sample for cPAHs.
(H) Added 6/27/13. DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☒ Egis 5

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0137-018-03

OnSite Project Number: 06-197

Initiated by: MM

Date Initiated: 6/21/13

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	(N/A)	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(N/A)	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 0	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)		
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	(N/A)	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

2.4) Sample 3) PCSB03EX-SWSW-061913-1.5 6/19/13 1600 on COC
PCSB03EX-SWSW-061913-2 " " on label

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

//SERVER\OSE\Administration\forms\cooler_checklist.xls

RAW DATA

- NWTPH-Dx (Bunker-C) Data
- cPAHs EPA 8270D/SIM Data
- cPAHs EPA 8270D/SIM Data

NWTPH-Diesel (Bunker-C) Data

Quantitation Report (Not Reviewed)

Data File : 0626-V59.D
Sample : 06-197-01

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 15:09
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 15:45:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.637	123035349	44.512	PPM
Spiked Amount	50.000		Recovery =	89.02%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11405431	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	152697176	67.740	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	335374914	155.391	PPM
6) H	Oil (04-04-13)	22.000	1546907160	818.751	PPM
7) H	Oil Acid Clean (02-0...	22.000	1546907160	833.664	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	232533728	109.321	PPM
9) H	Oil Combo (04-04-13)	22.000	1462879778	789.910	PPM
10) H	Oil Acid Clean Combo ...	22.000	1462879778	803.876	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	354653233	131.501	PPM
12) H	Alaska 103 Oil (06-2...	22.000	999684136	866.526	PPM
13) H	Mineral Oil (06-06-13)	16.000	611465074	255.606	PPM
14) H	Bunker C ACU (Fuel O...	15.000	1690055282	1237.680	PPM
15) H	Bunker C (Fuel Oil #...	15.000	1690055282	1278.392	PPM
16) H	ALKANE C9-C40	12.666	1693198001	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	292899245	127.473	PPM
18) H	Oil Acid Clean MO Com...	22.000	1377232730	782.219	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1377232730	769.216	PPM

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

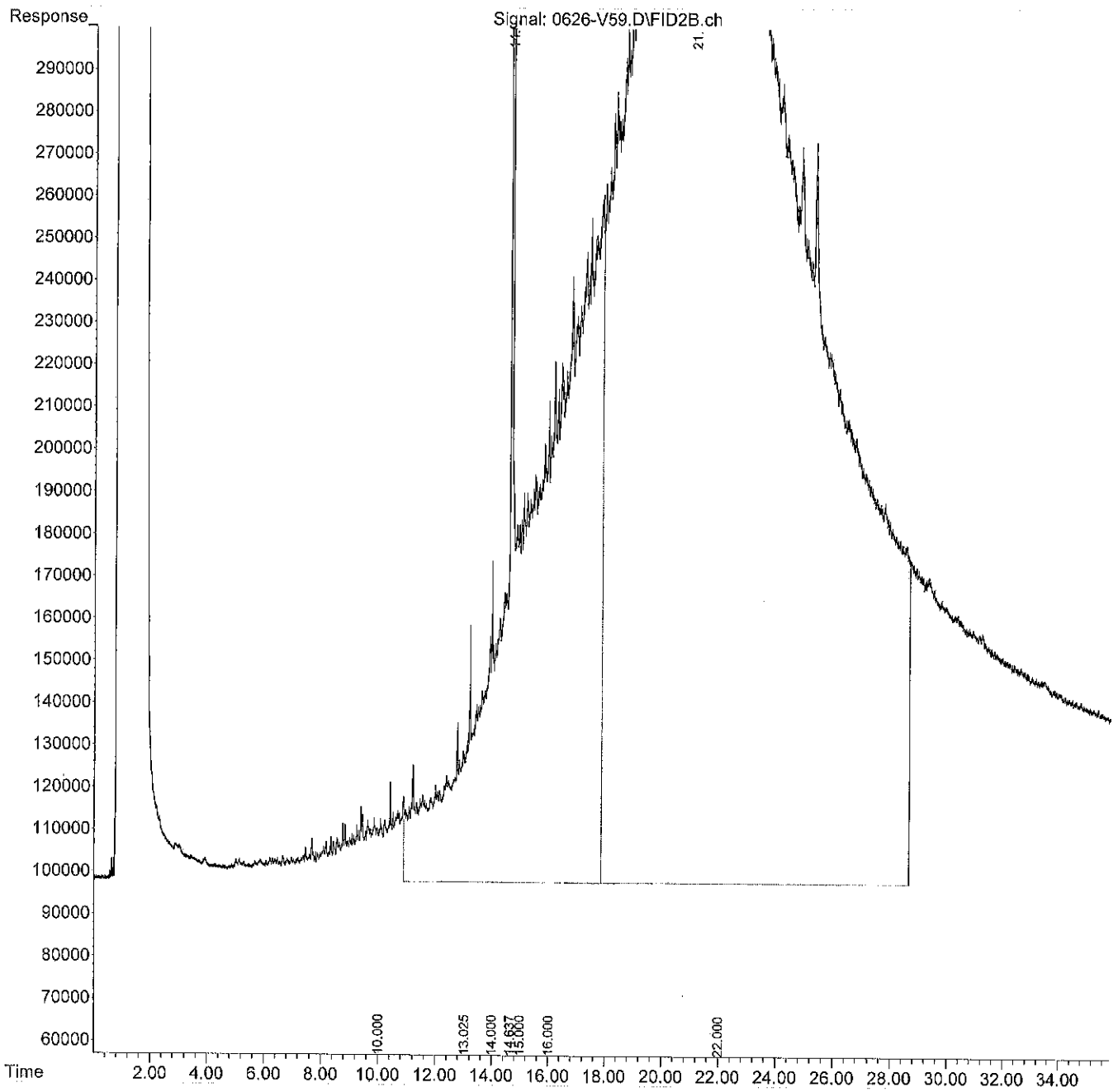
Quantitation Report (Not Reviewed)

Data File : 0626-V59.D
Sample : 06-197-01

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 15:09
Operator :
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 15:45:59 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V14.D
Sample : 06-197-02

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 18:37
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 19:13:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.693	105470362	33.942 PPM
Spiked Amount	50.000		Recovery =	67.88%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	12031208	NoCal PPM
4) H	Diesel Fuel #1 (06-1...	10.000	360175535	157.084 PPM
5) H	Diesel Fuel #2 (06-...	14.000	797527108	341.476 PPM
6) H	Oil (04-04-13)	22.000	2947375188	1440.739 PPM
7) H	Oil Acid Clean (02-...	22.000	2947375188	1481.355 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	557550377	243.686 PPM
9) H	Oil Combo (04-04-13)	22.000	2745064644	1368.559 PPM
10) H	Oil Acid Clean Combo ...	22.000	2745064644	1407.221 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	824244179	323.798 PPM
12) H	Alaska 103 Oil (06-2...	22.000	1914500142	1759.588 PPM
13) H	Mineral Oil (06-06-13)	16.000	1396954023	538.769 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	3300244831	2370.266 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	3300244831	2300.764 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	3298813151	41980.495 PPM
17) H	Mineral Oil Combo (0...	16.000	729244484	291.894 PPM
18) H	Oil Acid Clean MO Com...	22.000	2545054435	1349.665 PPM
19) H	Oil MO Combo (04-04-13)	22.000	2545054435	1312.592 PPM

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

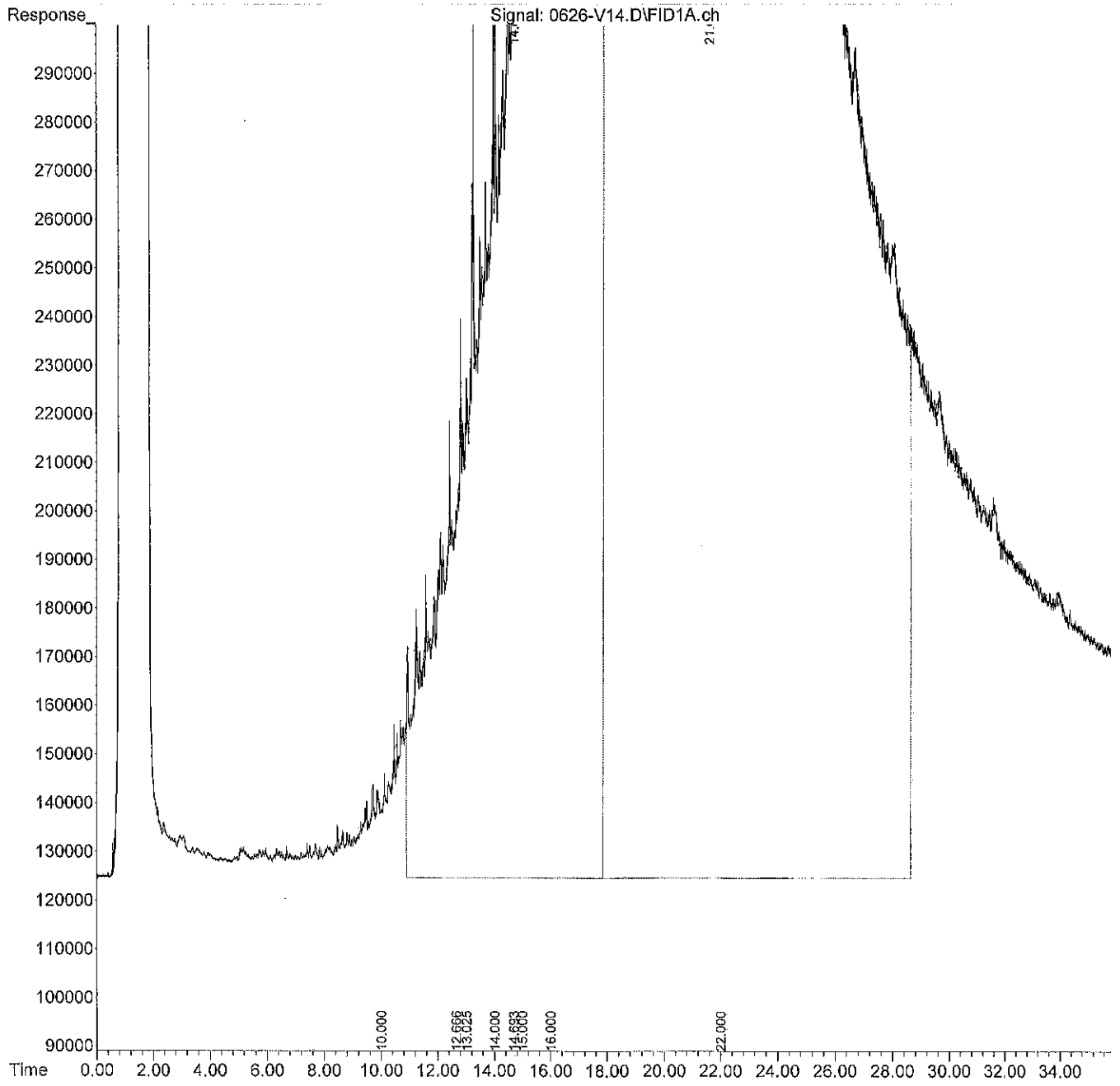
Quantitation Report (Not Reviewed)

Data File : 0626-V14.D
Sample : 06-197-02

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 18:37
Operator :
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 19:13:31 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V07.D
Sample : 06-197-03

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 13:46
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 14:22:46 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	14.693	120495770	38.815	PPM
Spiked Amount	50.000		Recovery =	77.63%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	11239698	NoCal	PPM
4) H	Diesel Fuel #1 (06-1...	10.000	117930655	49.238	PPM
5) H	Diesel Fuel #2 (06-...	14.000	325078078	139.519	PPM
6) H	Oil (04-04-13)	22.000	1621314121	792.249	PPM
7) H	Oil Acid Clean (02-...	22.000	1621314121	811.813	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	204513604	89.652	PPM
9) H	Oil Combo (04-04-13)	22.000	1530019752	762.672	PPM
10) H	Oil Acid Clean Combo ...	22.000	1530019752	781.333	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	339384982	131.797	PPM
12) H	Alaska 103 Oil (06-2...	22.000	1074653387	984.426	PPM
13) H	Mineral Oil (06-06-13)	16.000	661208396	256.097	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1733032389	1236.793	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1733032389	1204.264	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1733370937	22048.338	PPM
17) H	Mineral Oil Combo (0...	16.000	290612216	118.139	PPM
18) H	Oil Acid Clean MO Com...	22.000	1430226864	755.389	PPM
19) H	Oil MO Combo (04-04-13)	22.000	1430226864	737.580	PPM

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

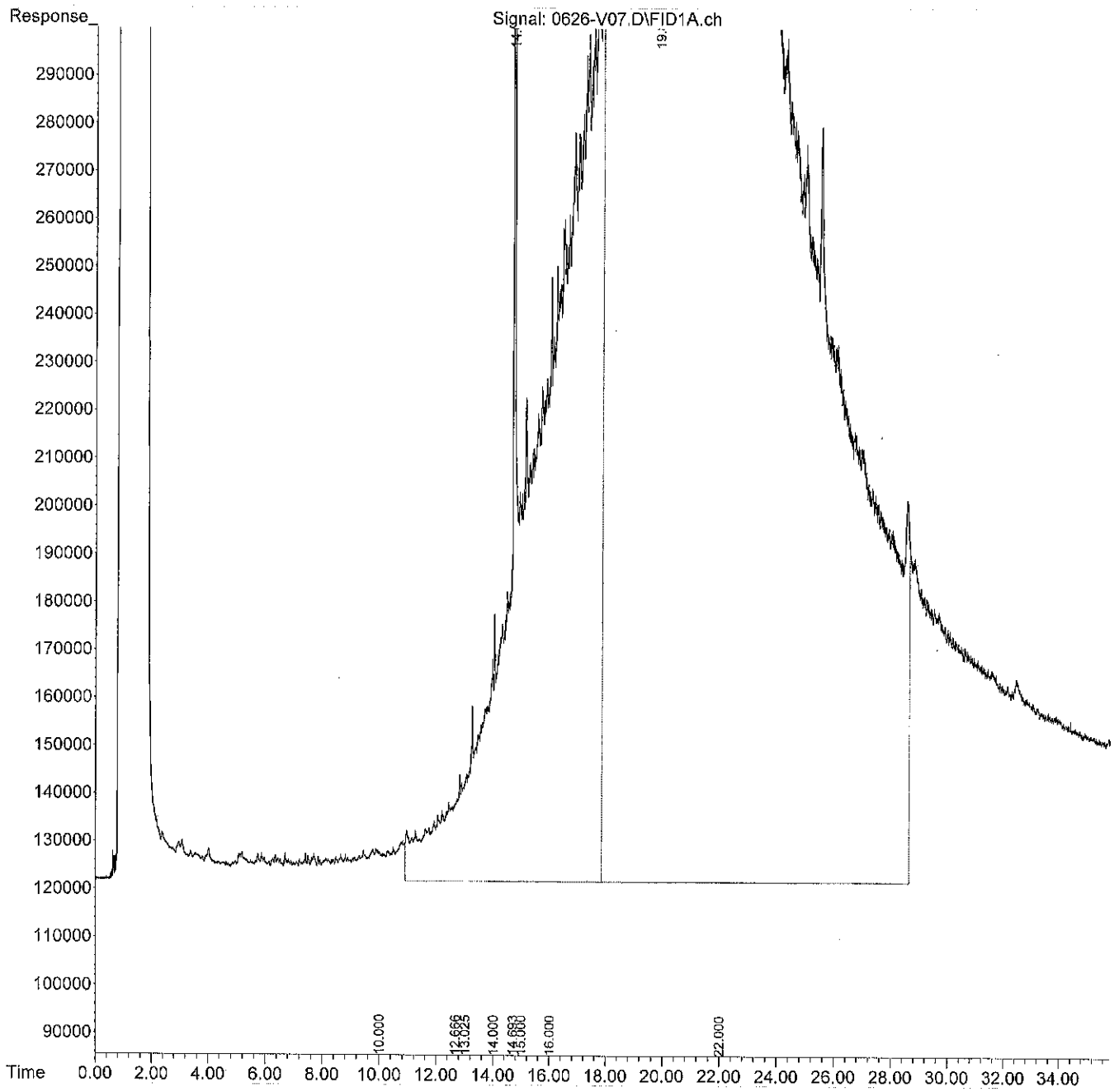
Quantitation Report (Not Reviewed)

Data File : 0626-V07.D
Sample : 06-197-03

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 13:46
Operator :
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 14:22:46 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V57.D
Sample : 06-197-04

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 13:46
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 14:23:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.636	119698385	43.292	PPM
Spiked Amount	50.000		Recovery =	86.58%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	23245940	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	1421517060	621.812	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	1538910280	721.999	PPM
6) H	Oil (04-04-13)	22.000	860878020	451.484	PPM
7) H	Oil Acid Clean (02-0...	22.000	860878020	459.087	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1478710654	707.373	PPM
9) H	Oil Combo (04-04-13)	22.000	793966354	424.462	PPM
10) H	Oil Acid Clean Combo ...	22.000	793966354	431.340	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	1551572056	592.747	PPM
12) H	Alaska 103 Oil (06-2...	22.000	539184599	462.560	PPM
13) H	Mineral Oil (06-06-13)	16.000	1088893795	455.661	PPM
14) H	Bunker C ACU (Fuel O...	15.000	2270093326	1678.079	PPM
15) H	Bunker C (Fuel Oil #...	15.000	2270093326	1722.302	PPM
16) H	ALKANE C9-C40	12.666	2278969406	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	918272602	398.998	PPM
18) H	Oil Acid Clean MO Com...	22.000	743320152	417.114	PPM
19) H	Oil MO Combo (04-04-13)	22.000	743320152	410.783	PPM

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

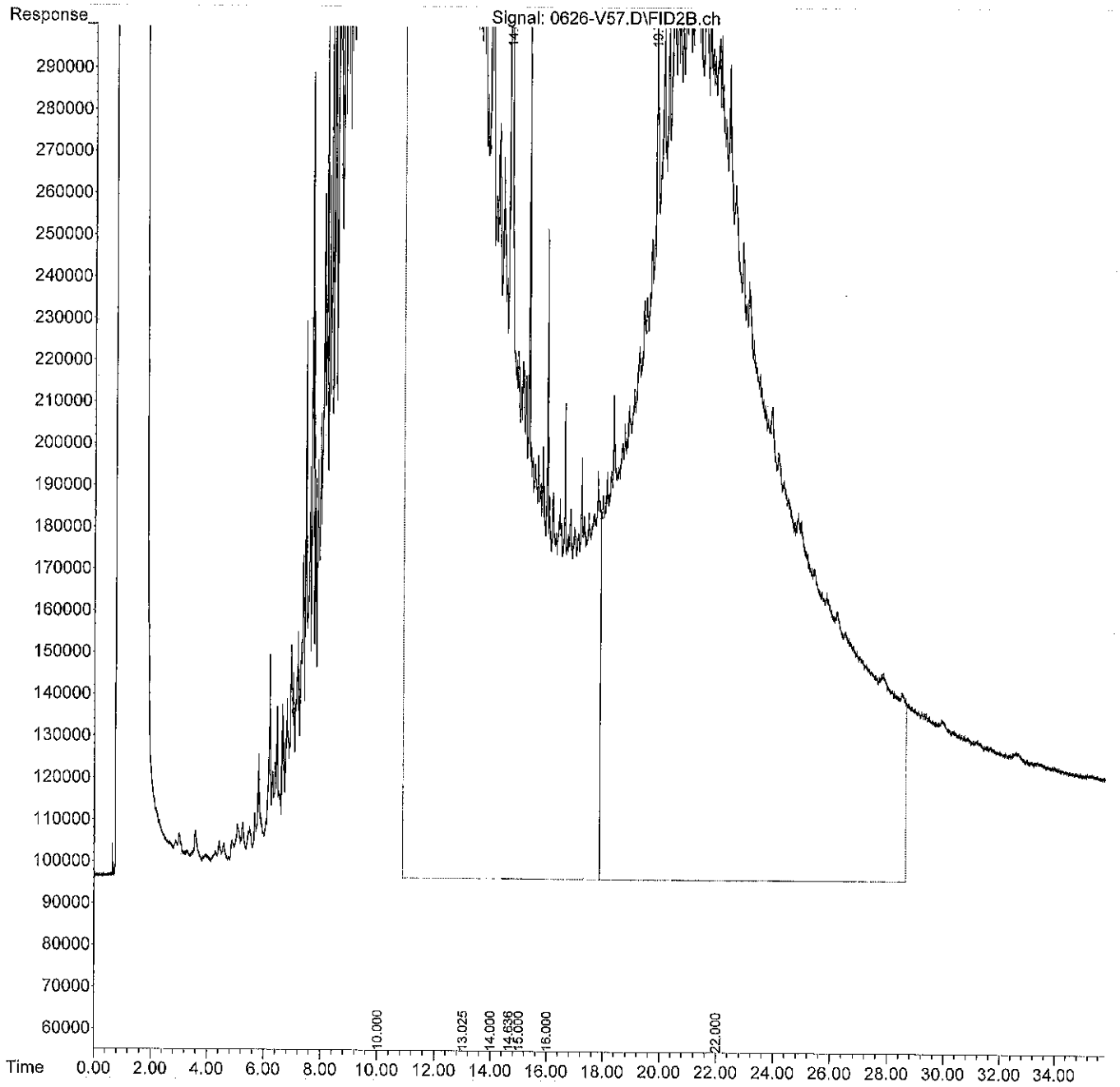
Quantitation Report (Not Reviewed)

Data File : 0626-V57.D
Sample : 06-197-04

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 13:46
Operator :
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 14:23:02 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V64.D
Sample : 06-197-05

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 18:37
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 19:13:47 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.634	102400659	36.968	PPM
Spiked Amount		50.000		Recovery =	73.94%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9876995	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	182109023	80.584	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	434717612	202.160	PPM
6)	H	Oil (04-04-13)	22.000	1772011236	939.261	PPM
7)	H	Oil Acid Clean (02-0...	22.000	1772011236	956.572	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	293193061	138.432	PPM
9)	H	Oil Combo (04-04-13)	22.000	1657287658	896.121	PPM
10)	H	Oil Acid Clean Combo ...	22.000	1657287658	912.147	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	460542288	172.306	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	1125207595	976.639	PPM
13)	H	Mineral Oil (06-06-13)	16.000	792287931	331.376	PPM
14)	H	Bunker C ACU (Fuel O...	15.000	1944831905	1431.122	PPM
15)	H	Bunker C (Fuel Oil #...	15.000	1944831905	1473.376	PPM
16)	H	ALKANE C9-C40	12.666	1947344297	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	396917452	172.636	PPM
18)	H	Oil Acid Clean MO Com...	22.000	1539379002	875.607	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	1539379002	860.898	PPM

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

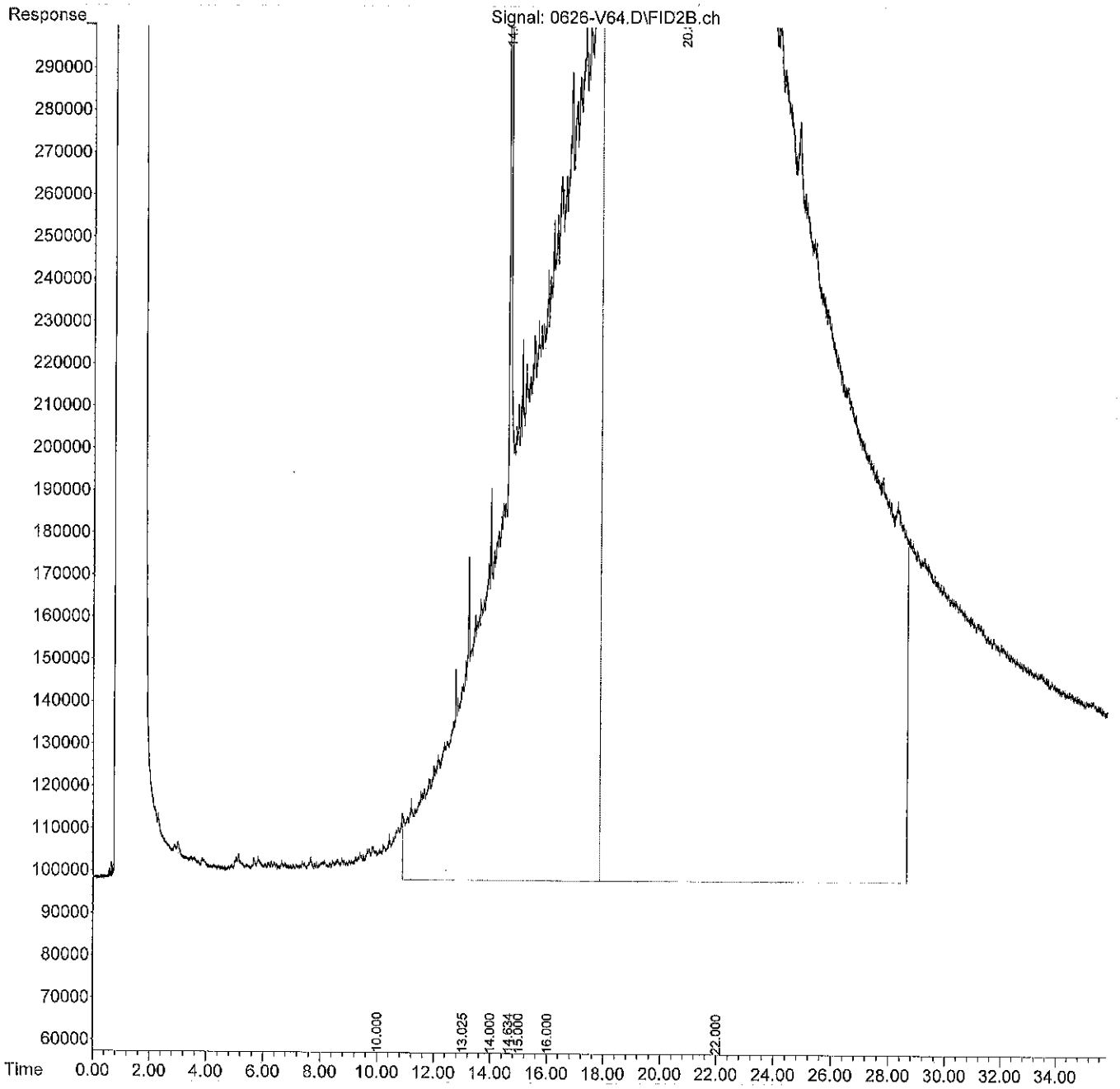
Quantitation Report (Not Reviewed)

Data File : 0626-V64.D
Sample : 06-197-05

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 18:37
Operator :
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 19:13:47 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V06.D
Sample : 06-197-06

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 13:05
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 13:41:25 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.694	124680505	40.172	PPM
Spiked Amount		50.000		Recovery =	80.34%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	8685816	NoCal	PPM
4)	H	Diesel Fuel #1 (06-1...	10.000	37693177	13.517	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	86201258	37.407	PPM
6)	H	Oil (04-04-13)	22.000	343856033	167.528	PPM
7)	H	Oil Acid Clean (02-...	22.000	343856033	166.812	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	57013292	25.297	PPM
9)	H	Oil Combo (04-04-13)	22.000	321231699	159.904	PPM
10)	H	Oil Acid Clean Combo ...	22.000	321231699	158.668	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	90104608	33.084	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	221228673	196.732	PPM
13)	H	Mineral Oil (06-06-13)	16.000	156884972	62.337	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	377970679	256.756	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	377970679	256.195	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	380371428	4821.130	PPM
17)	H	Mineral Oil Combo (0...	16.000	73796626	32.252	PPM
18)	H	Oil Acid Clean MO Com...	22.000	297103560	151.360	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	297103560	153.131	PPM

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

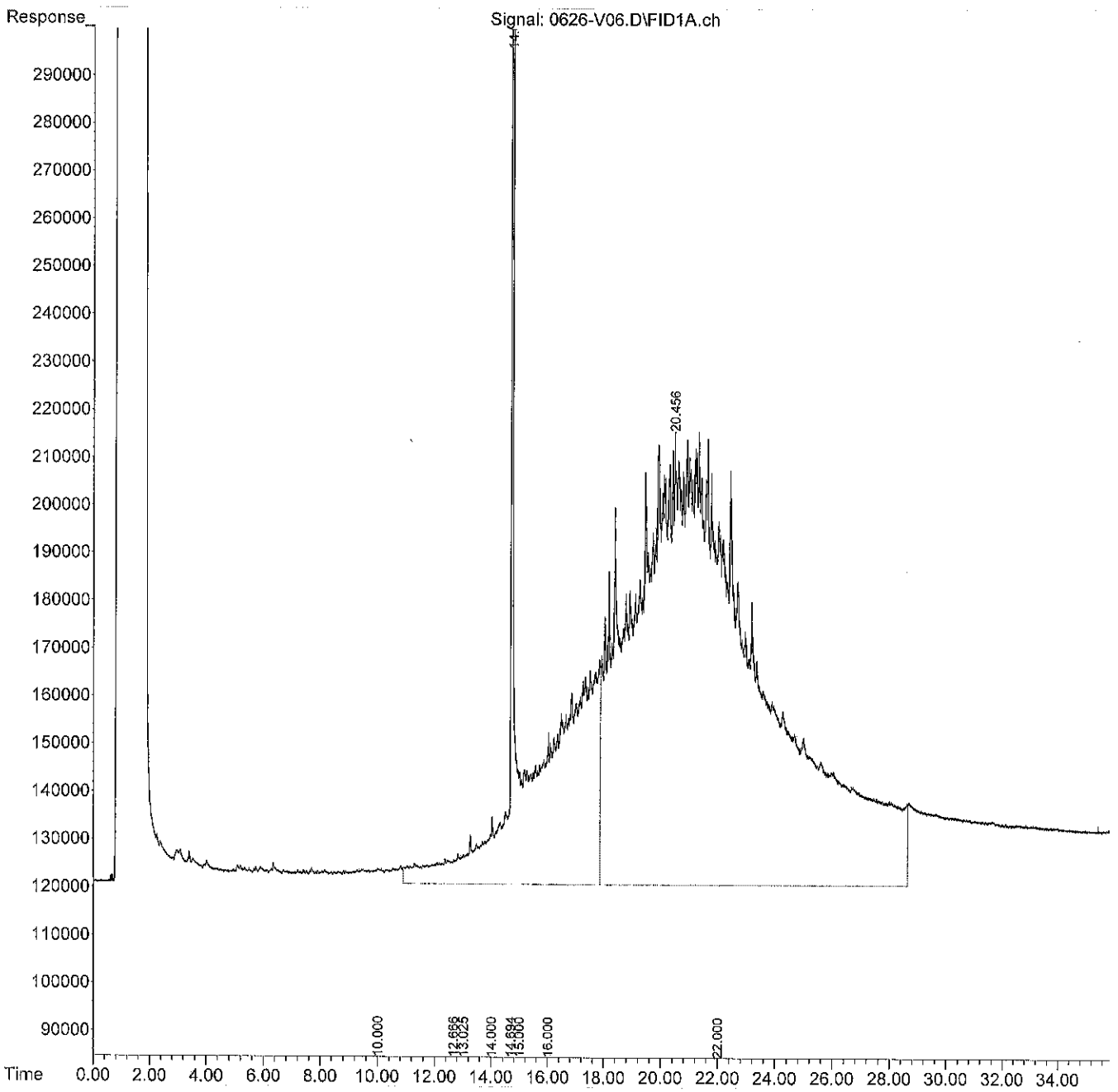
Quantitation Report (Not Reviewed)

Data File : 0626-V06.D
Sample : 06-197-06

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 13:05
Operator :
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 13:41:25 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V56.D
Sample : 06-197-07

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 13:05
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 13:41:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (01-29-13)	14.636	105130484	37.966	PPM
Spiked Amount		50.000		Recovery =	75.93%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9466162	NoCal	PPM
4)	H	Diesel Fuel #1 (01-2...	10.000	39148512	18.155	PPM
5)	H	Diesel Fuel #2 (06-1...	14.000	57307984	24.481	PPM
6)	H	Oil (04-04-13)	22.000	178591422	86.221	PPM
7)	H	Oil Acid Clean (02-0...	22.000	178591422	86.553	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	45996744	19.800	PPM
9)	H	Oil Combo (04-04-13)	22.000	168411381	82.701	PPM
10)	H	Oil Acid Clean Combo ...	22.000	168411381	82.952	PPM
11)	H	Alaska 102 DF2 (06-2...	13.025	59789977	17.872	PPM
12)	H	Alaska 103 Oil (06-2...	22.000	98690746	76.145	PPM
13)	H	Mineral Oil (06-06-13)	16.000	74568627	30.633	PPM
14)	H	Bunker C ACU (Fuel O...	15.000	213294687	116.439	PPM
15)	H	Bunker C (Fuel Oil #...	15.000	213294687	148.210	PPM
16)	H	ALKANE C9-C40	12.666	216450929	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	44251218	19.516	PPM
18)	H	Oil Acid Clean MO Com...	22.000	158852498	80.488	PPM
19)	H	Oil MO Combo (04-04-13)	22.000	158852498	80.308	PPM

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

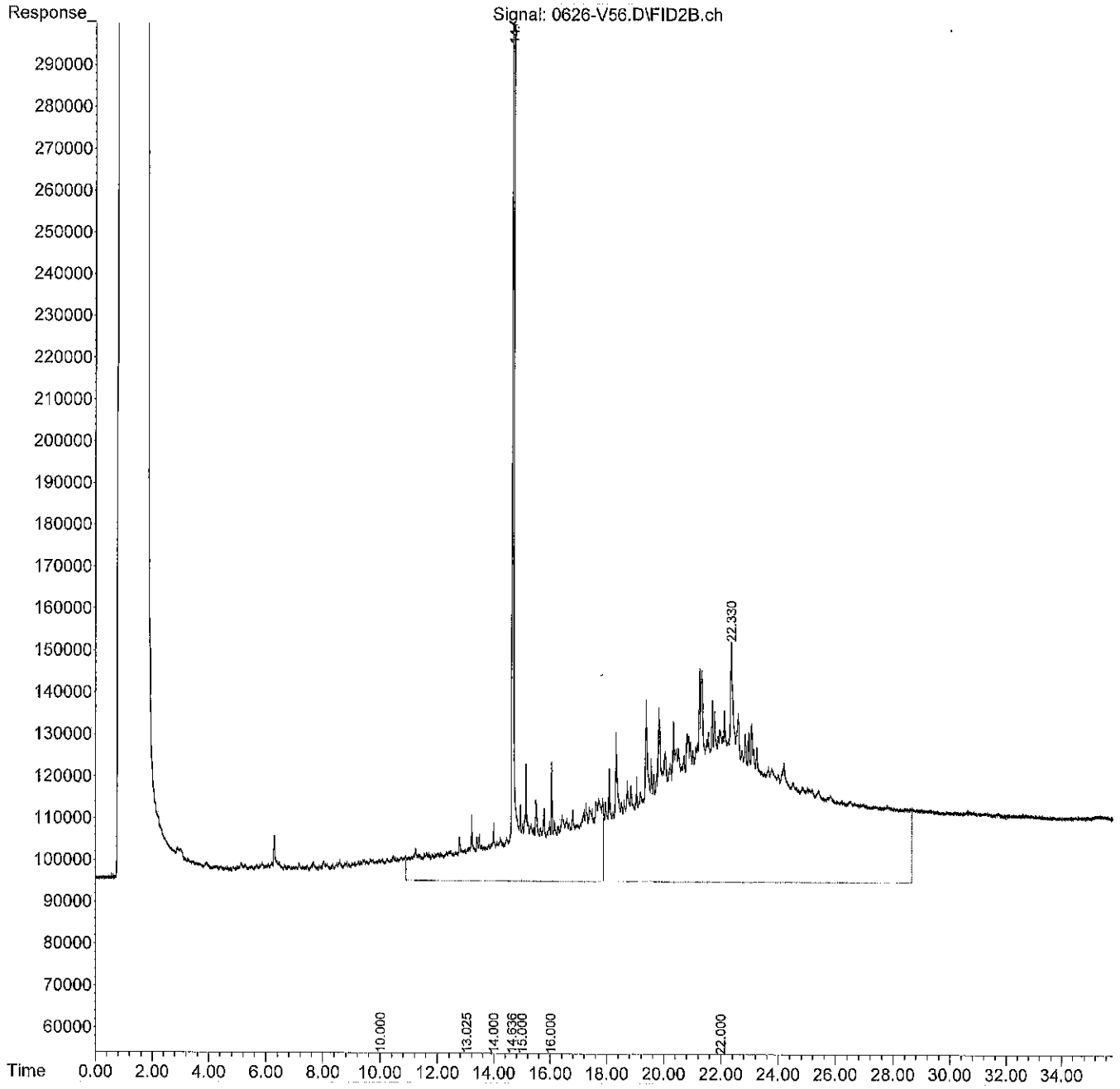
Quantitation Report (Not Reviewed)

Data File : 0626-V56.D
Sample : 06-197-07

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 13:05
Operator :
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 13:41:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V05.D
Sample : MB0625S1

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 12:18
Operator :
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 12:54:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	14.694	136786880	44.098	PPM
Spiked Amount	50.000		Recovery =	88.20%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8039099	NoCal	PPM
4) H	Diesel Fuel #1 (06-1...	10.000	15793776	3.768	PPM
5) H	Diesel Fuel #2 (06-...	14.000	20132416	9.165	PPM
6) H	Oil (04-04-13)	22.000	66830405	32.053	PPM
7) H	Oil Acid Clean (02-...	22.000	66830405	26.939	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	16429083	7.589	PPM
9) H	Oil Combo (04-04-13)	22.000	63211464	31.241	PPM
10) H	Oil Acid Clean Combo ...	22.000	63211464	25.758	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	20849817	5.660	PPM
12) H	Alaska 103 Oil (06-2...	22.000	30407660	20.608	PPM
13) H	Mineral Oil (06-06-13)	16.000	21009718	10.134	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	79505937	40.894	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	79505937	47.374	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	81987786	1021.929	PPM
17) H	Mineral Oil Combo (0...	16.000	14091386	8.601	PPM
18) H	Oil Acid Clean MO Com...	22.000	60276119	25.116	PPM
19) H	Oil MO Combo (04-04-13)	22.000	60276119	30.979	PPM

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

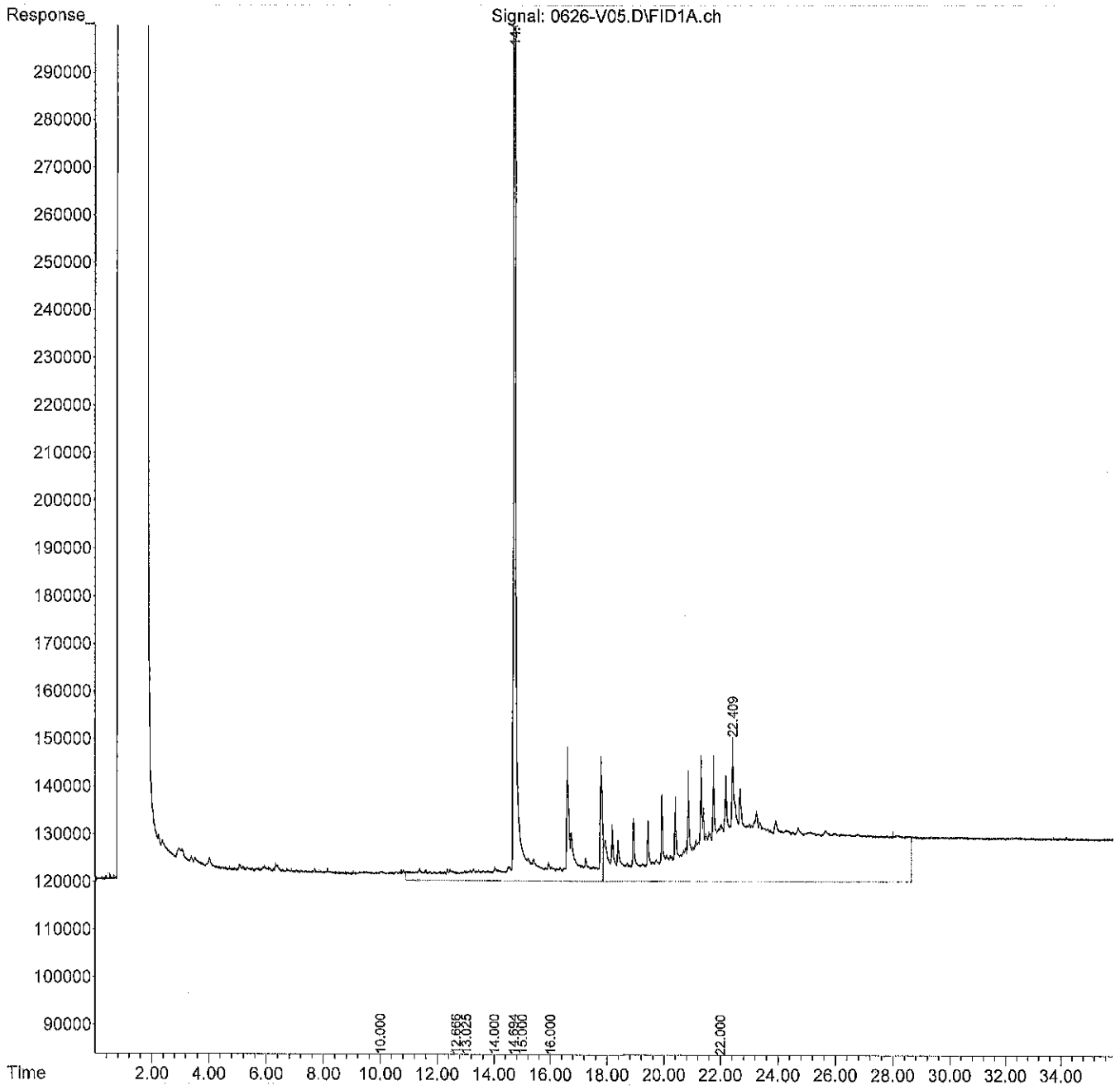
Quantitation Report (Not Reviewed)

Data File : 0626-V05.D
Sample : MB0625S1

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 12:18
Operator :
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 12:54:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V09.D
Sample : 06-197-03 DUP

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 15:09
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 15:45:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (01-29-13)	14.692	106304408	34.213 PPM
Spiked Amount	50.000		Recovery =	68.43%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	10562169	NoCal PPM
4) H	Diesel Fuel #1 (06-1...	10.000	102767708	42.488 PPM
5) H	Diesel Fuel #2 (06-...	14.000	278215873	119.487 PPM
6) H	Oil (04-04-13)	22.000	1418908998	693.266 PPM
7) H	Oil Acid Clean (02-...	22.000	1418908998	709.617 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	176127315	77.267 PPM
9) H	Oil Combo (04-04-13)	22.000	1341221051	668.526 PPM
10) H	Oil Acid Clean Combo ...	22.000	1341221051	684.080 PPM
11) H	Alaska 102 DF2 (06-2...	13.025	290346782	112.379 PPM
12) H	Alaska 103 Oil (06-2...	22.000	930152430	851.055 PPM
13) H	Mineral Oil (06-06-13)	16.000	561414169	217.756 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1515837063	1079.708 PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1515837063	1052.303 PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1515879085	19279.100 PPM
17) H	Mineral Oil Combo (0...	16.000	247815686	101.186 PPM
18) H	Oil Acid Clean MO Com...	22.000	1256663891	662.868 PPM
19) H	Oil MO Combo (04-04-13)	22.000	1256663891	648.059 PPM

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

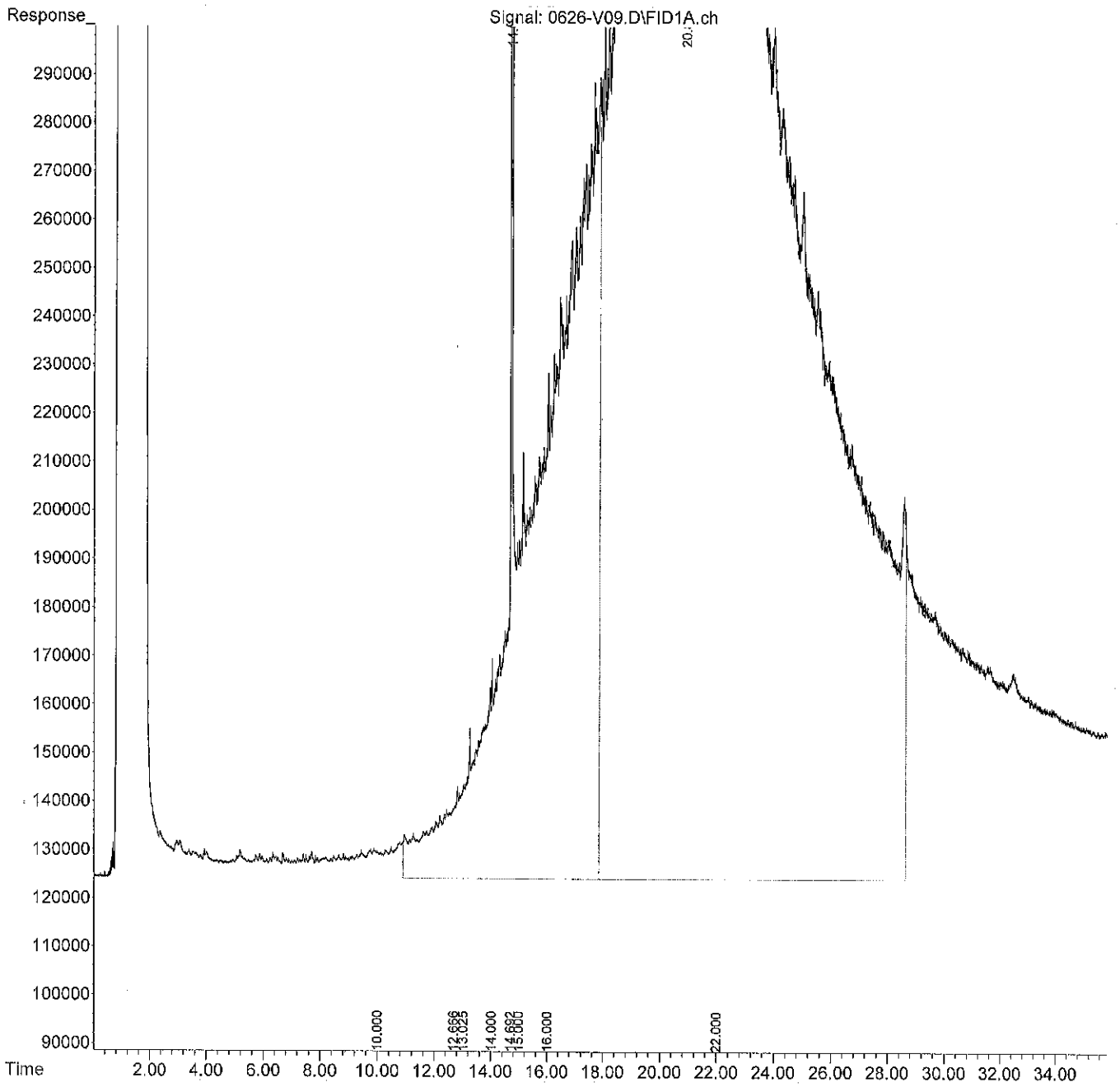
Quantitation Report (Not Reviewed)

Data File : 0626-V09.D
Sample : 06-197-03 DUP

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 15:09
Operator :
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 15:45:41 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V03.D
Sample : BUNKCCV0626F-V1

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 10:56
Operator :
Misc : SV3-05-23
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 11:32:09 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	15296815	NoCal	PPM
4) H	Diesel Fuel #1 (06-1...	10.000	255004954	110.263	PPM
5) H	Diesel Fuel #2 (06-...	14.000	357802694	153.508	PPM
6) H	Oil (04-04-13)	22.000	451686776	220.261	PPM
7) H	Oil Acid Clean (02-...	22.000	451686776	221.257	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	303379321	132.789	PPM
9) H	Oil Combo (04-04-13)	22.000	396359041	197.367	PPM
10) H	Oil Acid Clean Combo ...	22.000	396359041	197.367	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	364366667	141.690	PPM
12) H	Alaska 103 Oil (06-2...	22.000	257633145	230.333	PPM
13) H	Mineral Oil (06-06-13)	16.000	394742811	153.721	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	699681923	489.431	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	699681923	481.280	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	705335248	8958.766	PPM
17) H	Mineral Oil Combo (0...	16.000	278554367	113.363	PPM
18) H	Oil Acid Clean MO Com...	22.000	349958538	179.535	PPM
19) H	Oil MO Combo (04-04-13)	22.000	349958538	180.393	PPM

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

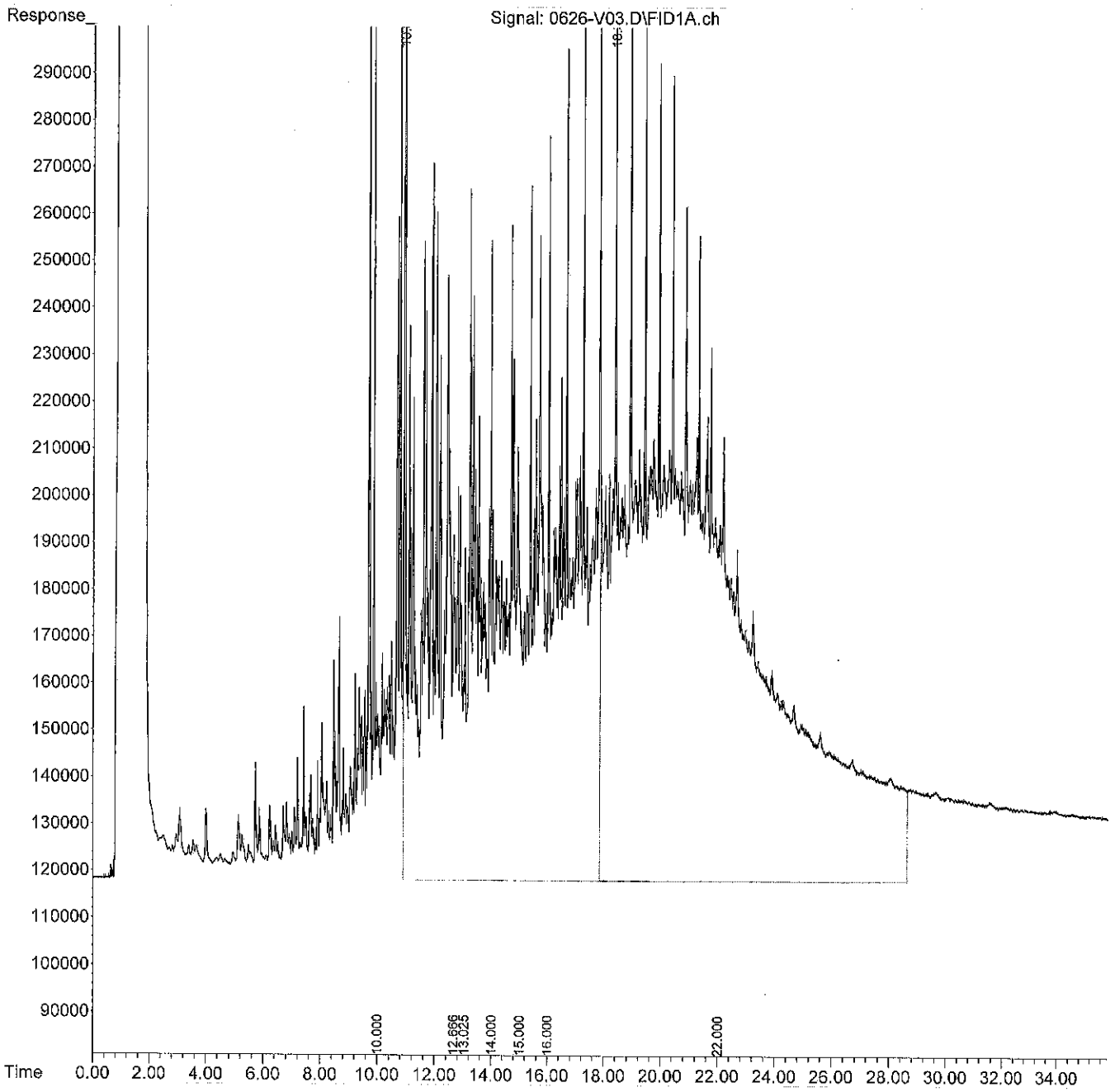
Quantitation Report (Not Reviewed)

Data File : 0626-V03.D
Sample : BUNKCCV0626F-V1

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 10:56
Operator :
Misc : SV3-05-23
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 11:32:09 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V12.D
Sample : BUNKCCV0626F-V2

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 17:14
Operator :
Misc : SV3-05-23
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 17:50:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	16.000	2529232	1.342	PPM
3) H	Gasoline	3.500	16807135	NoCal	PPM
4) H	Diesel Fuel #1 (06-1...	10.000	276296523	119.742	PPM
5) H	Diesel Fuel #2 (06-...	14.000	388430403	166.600	PPM
6) H	Oil (04-04-13)	22.000	506835644	247.231	PPM
7) H	Oil Acid Clean (02-...	22.000	506835644	249.102	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	328931624	143.937	PPM
9) H	Oil Combo (04-04-13)	22.000	446518684	222.379	PPM
10) H	Oil Acid Clean Combo ...	22.000	446518684	223.205	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	395525027	154.028	PPM
12) H	Alaska 103 Oil (06-2...	22.000	287632440	258.021	PPM
13) H	Mineral Oil (06-06-13)	16.000	430288311	167.378	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	775313553	544.131	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	775313553	534.196	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	781414158	9927.448	PPM
17) H	Mineral Oil Combo (0...	16.000	302457966	122.831	PPM
18) H	Oil Acid Clean MO Com...	22.000	395773090	203.957	PPM
19) H	Oil MO Combo (04-04-13)	22.000	395773090	204.024	PPM

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

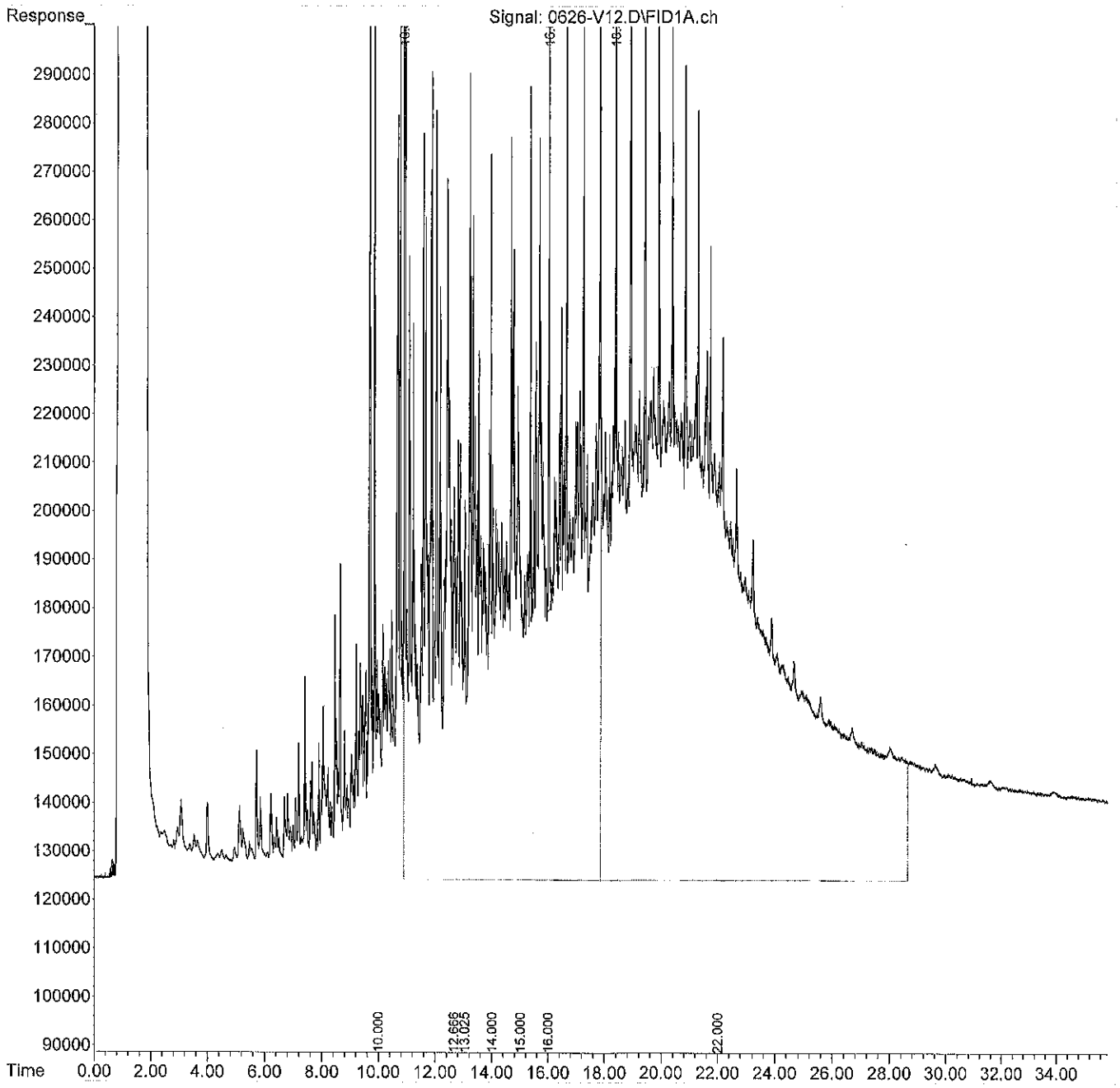
Quantitation Report (Not Reviewed)

Data File : 0626-V12.D
Sample : BUNKCCV0626F-V2

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 17:14
Operator :
Misc : SV3-05-23
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 17:50:21 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V17.D
Sample : BUNKCCV0626F-V3

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 20:41
Operator :
Misc : SV3-05-23
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 21:17:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.999	2467613	1.316	PPM
3) H	Gasoline	3.500	15868356	NoCal	PPM
4) H	Diesel Fuel #1 (06-1...	10.000	265912656	115.119	PPM
5) H	Diesel Fuel #2 (06-...	14.000	374423428	160.613	PPM
6) H	Oil (04-04-13)	22.000	503876575	245.784	PPM
7) H	Oil Acid Clean (02-...	22.000	503876575	247.608	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	316905264	138.690	PPM
9) H	Oil Combo (04-04-13)	22.000	445676756	221.959	PPM
10) H	Oil Acid Clean Combo ...	22.000	445676756	222.772	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	381245480	148.374	PPM
12) H	Alaska 103 Oil (06-2...	22.000	284749322	255.360	PPM
13) H	Mineral Oil (06-06-13)	16.000	415990291	161.884	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	762404908	534.795	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	762404908	525.164	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	767989940	9756.523	PPM
17) H	Mineral Oil Combo (0...	16.000	291681709	118.563	PPM
18) H	Oil Acid Clean MO Com...	22.000	396592538	204.394	PPM
19) H	Oil MO Combo (04-04-13)	22.000	396592538	204.446	PPM

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

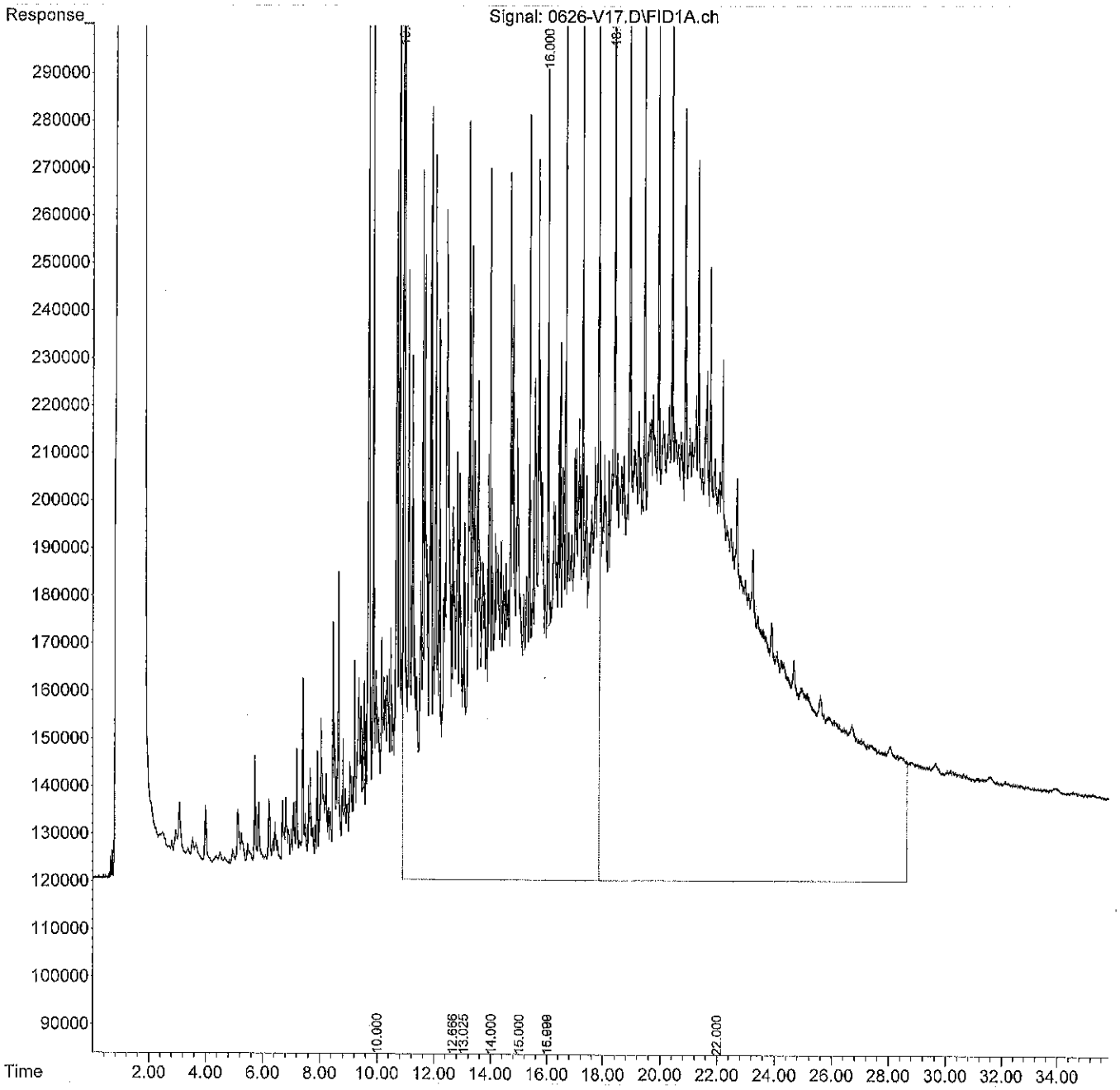
Quantitation Report (Not Reviewed)

Data File : 0626-V17.D
Sample : BUNKCCV0626F-V3

Data Path : C:\msdchem\2\DATA\V130626\
Signal(s) : FID1A.ch
Acq On : 26 Jun 2013 20:41
Operator :
Misc : SV3-05-23
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 21:17:56 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V54.D
Sample : BUNKCCV0626R-V1

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 11:37
Operator :
Misc : SV3-05-23
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 12:13:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	15353363	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	250333527	110.376	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	348699264	161.664	PPM
6) H	Oil (04-04-13)	22.000	474303804	244.531	PPM
7) H	Oil Acid Clean (02-0...	22.000	474303804	248.015	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	296351813	139.948	PPM
9) H	Oil Combo (04-04-13)	22.000	421812579	221.142	PPM
10) H	Oil Acid Clean Combo ...	22.000	421812579	224.078	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	357669488	132.663	PPM
12) H	Alaska 103 Oil (06-2...	22.000	261704788	219.146	PPM
13) H	Mineral Oil (06-06-13)	16.000	377400702	157.527	PPM
14) H	Bunker C ACU (Fuel O...	15.000	716404354	498.429	PPM
15) H	Bunker C (Fuel Oil #...	15.000	716404354	533.246	PPM
16) H	ALKANE C9-C40	12.666	722552544	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	265395828	115.532	PPM
18) H	Oil Acid Clean MO Com...	22.000	376943774	206.098	PPM
19) H	Oil MO Combo (04-04-13)	22.000	376943774	203.623	PPM

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

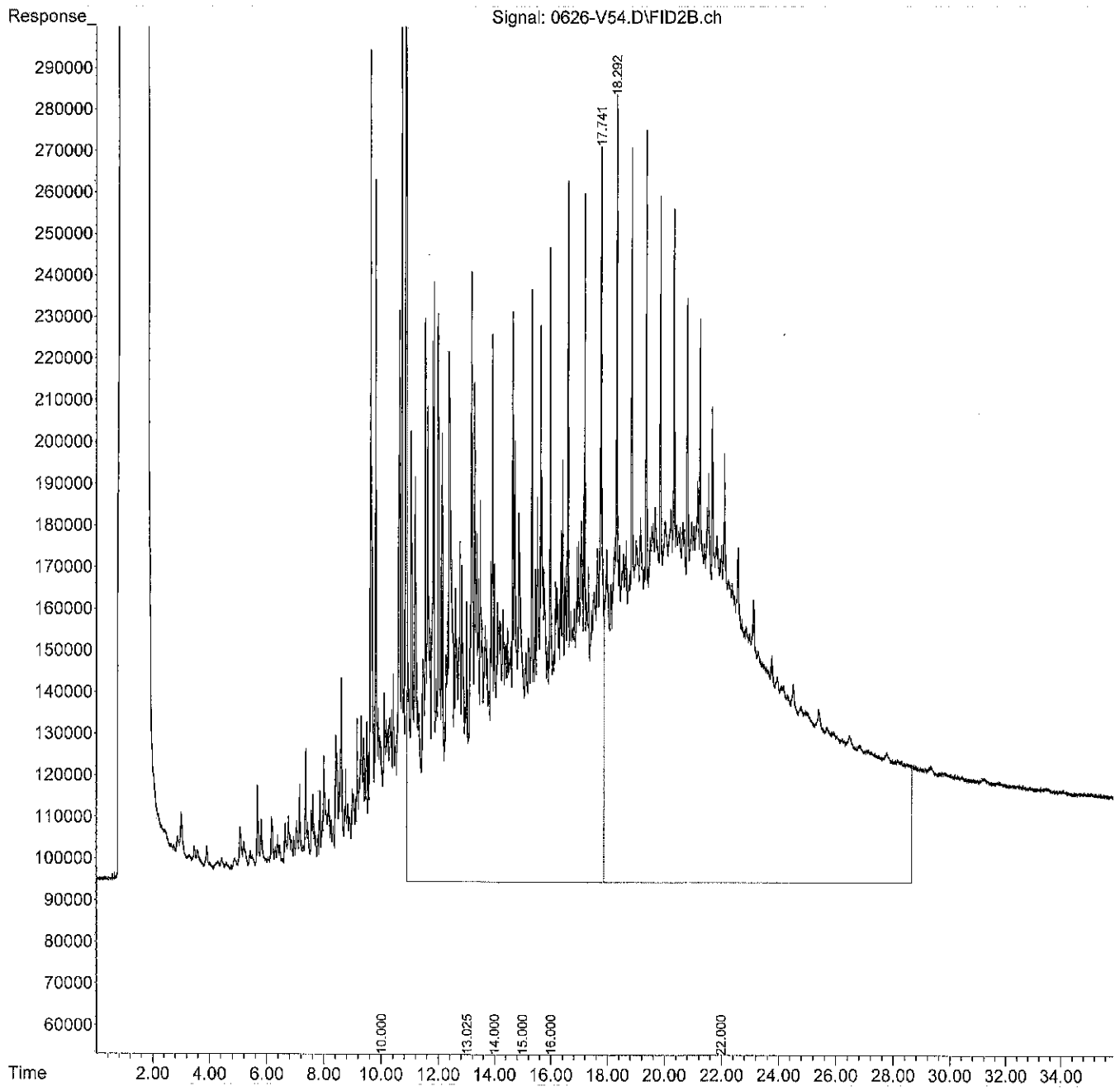
Quantitation Report (Not Reviewed)

Data File : 0626-V54.D
Sample : BUNKCCV0626R-V1

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 11:37
Operator :
Misc : SV3-05-23
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 12:13:44 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V62.D
Sample : BUNKCCV0626R-V2

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 17:14
Operator :
Misc : SV3-05-23
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 17:50:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.945	1966692	0.927	PPM
3)	H Gasoline	3.500	15553792	NoCal	PPM
4)	H Diesel Fuel #1 (01-2...	10.000	250414806	110.412	PPM
5)	H Diesel Fuel #2 (06-1...	14.000	349490423	162.036	PPM
6)	H Oil (04-04-13)	22.000	475669008	245.262	PPM
7)	H Oil Acid Clean (02-0...	22.000	475669008	248.760	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	296783901	140.155	PPM
9)	H Oil Combo (04-04-13)	22.000	422812574	221.689	PPM
10)	H Oil Acid Clean Combo ...	22.000	422812574	224.635	PPM
11)	H Alaska 102 DF2 (06-2...	13.025	358489821	132.979	PPM
12)	H Alaska 103 Oil (06-2...	22.000	263330171	220.572	PPM
13)	H Mineral Oil (06-06-13)	16.000	379218543	158.289	PPM
14)	H Bunker C ACU (Fuel O...	15.000	717894640	499.560	PPM
15)	H Bunker C (Fuel Oil #...	15.000	717894640	534.386	PPM
16)	H ALKANE C9-C40	12.666	724090742	NoCal	PPM
17)	H Mineral Oil Combo (06...	16.000	266266704	115.910	PPM
18)	H Oil Acid Clean MO Com...	22.000	377603102	206.478	PPM
19)	H Oil MO Combo (04-04-13)	22.000	377603102	203.996	PPM

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

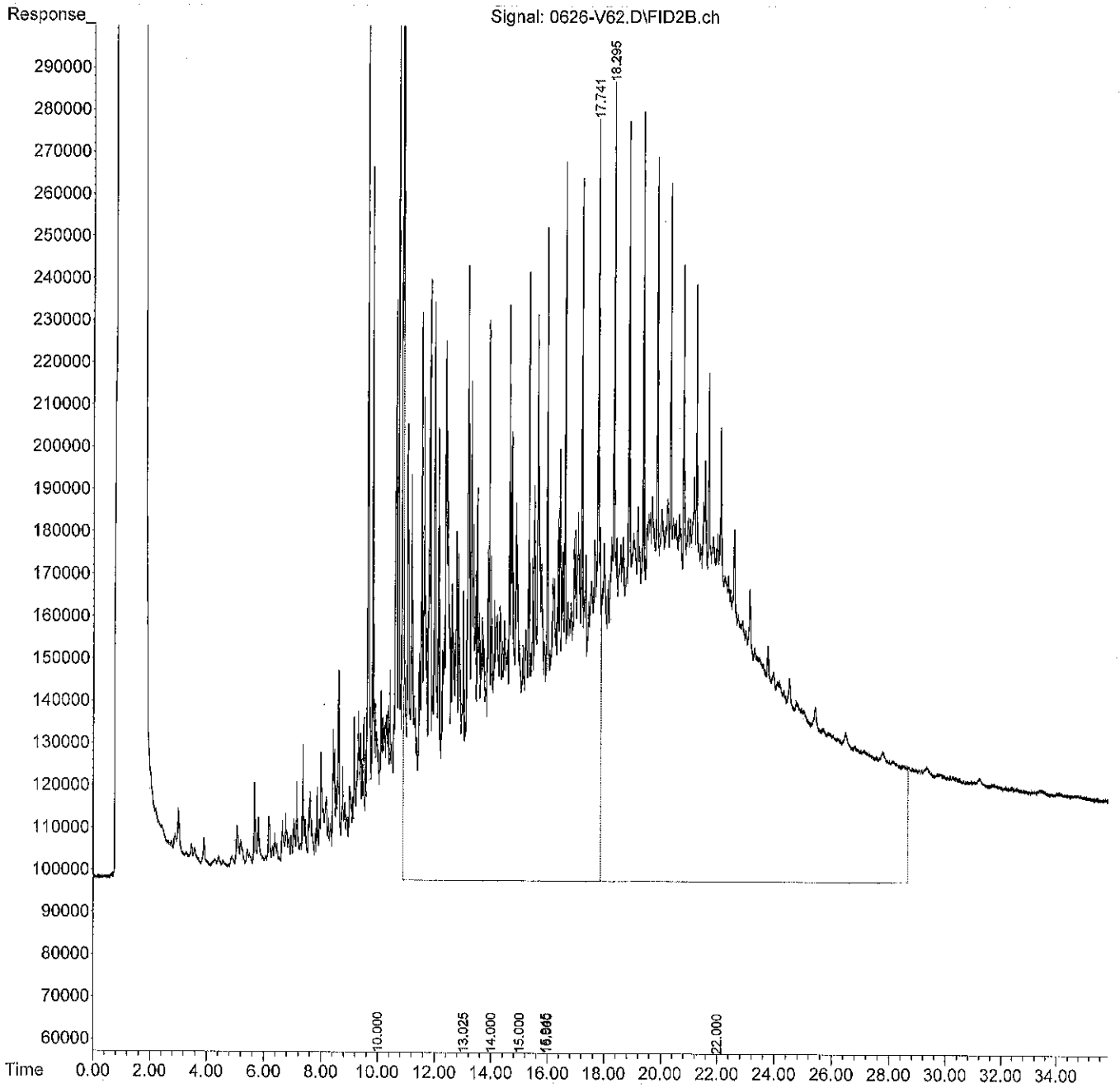
Quantitation Report (Not Reviewed)

Data File : 0626-V62.D
Sample : BUNKCCV0626R-V2

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 17:14
Operator :
Misc : SV3-05-23
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 17:50:37 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : 0626-V67.D
Sample : BUNKCCV0626R-V3

Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 20:41
Operator :
Misc : SV3-05-23
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 21:18:12 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (01-29-13)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	15000284	NoCal	PPM
4) H	Diesel Fuel #1 (01-2...	10.000	243974830	107.599	PPM
5) H	Diesel Fuel #2 (06-1...	14.000	340522811	157.815	PPM
6) H	Oil (04-04-13)	22.000	463177958	238.575	PPM
7) H	Oil Acid Clean (02-0...	22.000	463177958	241.940	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	289233608	136.532	PPM
9) H	Oil Combo (04-04-13)	22.000	411724344	215.631	PPM
10) H	Oil Acid Clean Combo ...	22.000	411724344	218.459	PPM
11) H	Alaska 102 DF2 (06-2...	13.025	349268885	129.426	PPM
12) H	Alaska 103 Oil (06-2...	22.000	256611932	214.678	PPM
13) H	Mineral Oil (06-06-13)	16.000	369499953	154.217	PPM
14) H	Bunker C ACU (Fuel O...	15.000	699301659	485.444	PPM
15) H	Bunker C (Fuel Oil #...	15.000	699301659	520.157	PPM
16) H	ALKANE C9-C40	12.666	705207702	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	259368883	112.915	PPM
18) H	Oil Acid Clean MO Com...	22.000	367727050	200.790	PPM
19) H	Oil MO Combo (04-04-13)	22.000	367727050	198.412	PPM

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

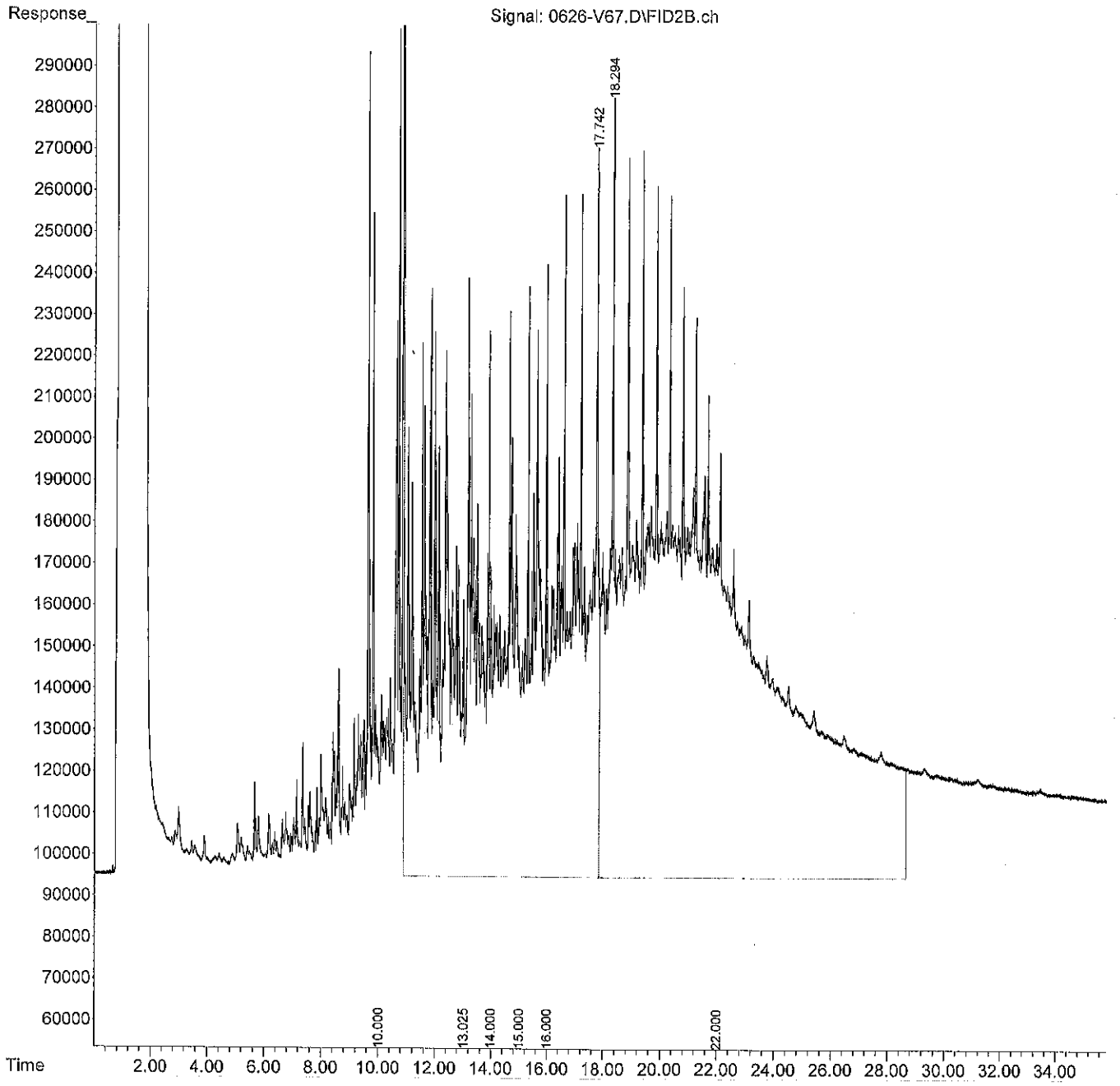
Quantitation Report (Not Reviewed)

Data File : 0626-V67.D
Sample : BUNKCCV0626R-V3

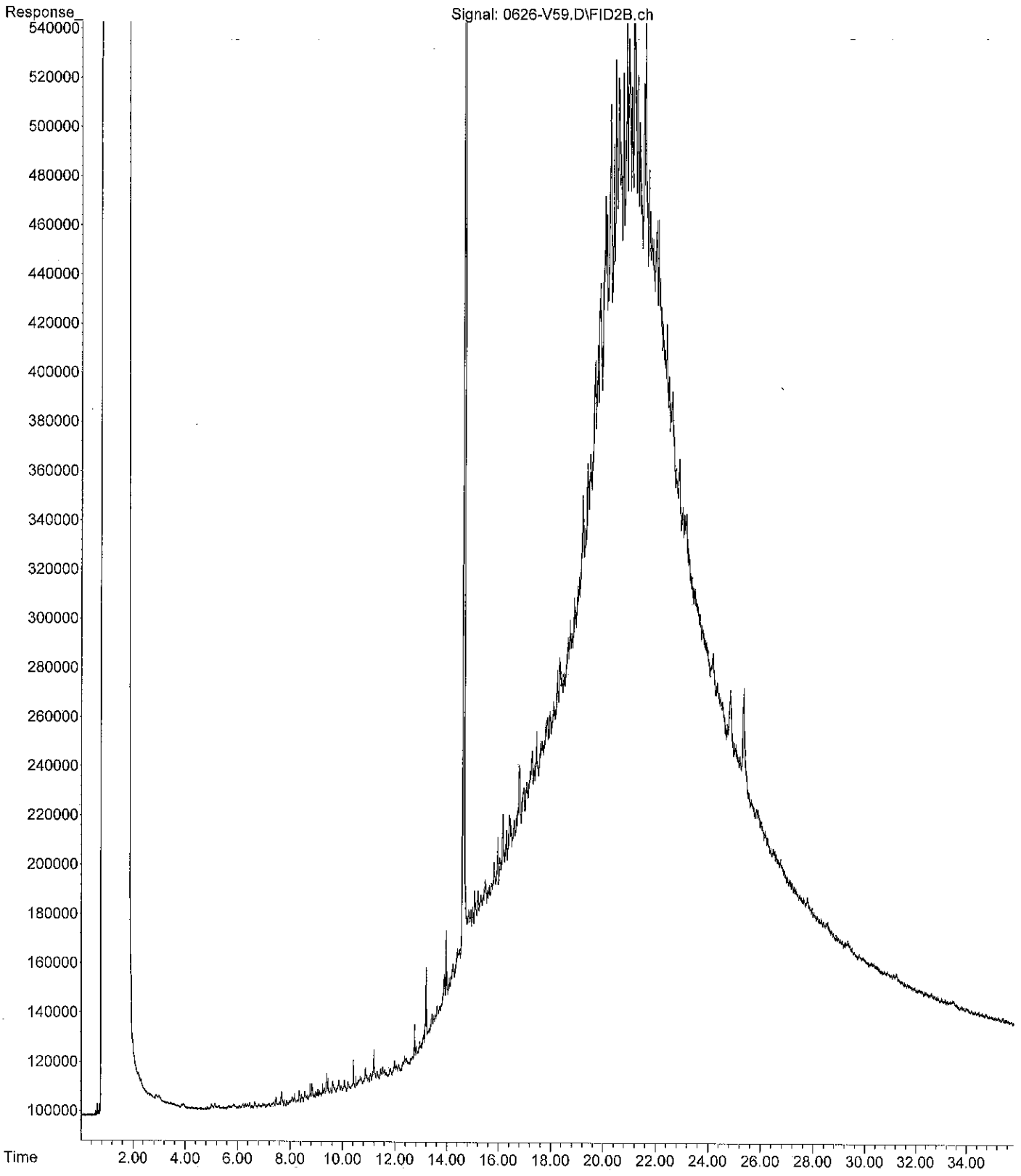
Data Path : C:\msdchem\2\DATA\V130626.SEC\
Signal(s) : FID2B.ch
Acq On : 26 Jun 2013 20:41
Operator :
Misc : SV3-05-23
ALS Vial : 67 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 26 21:18:12 2013
Quant Method : C:\MSDCHEM\2\METHODS\V130618R.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

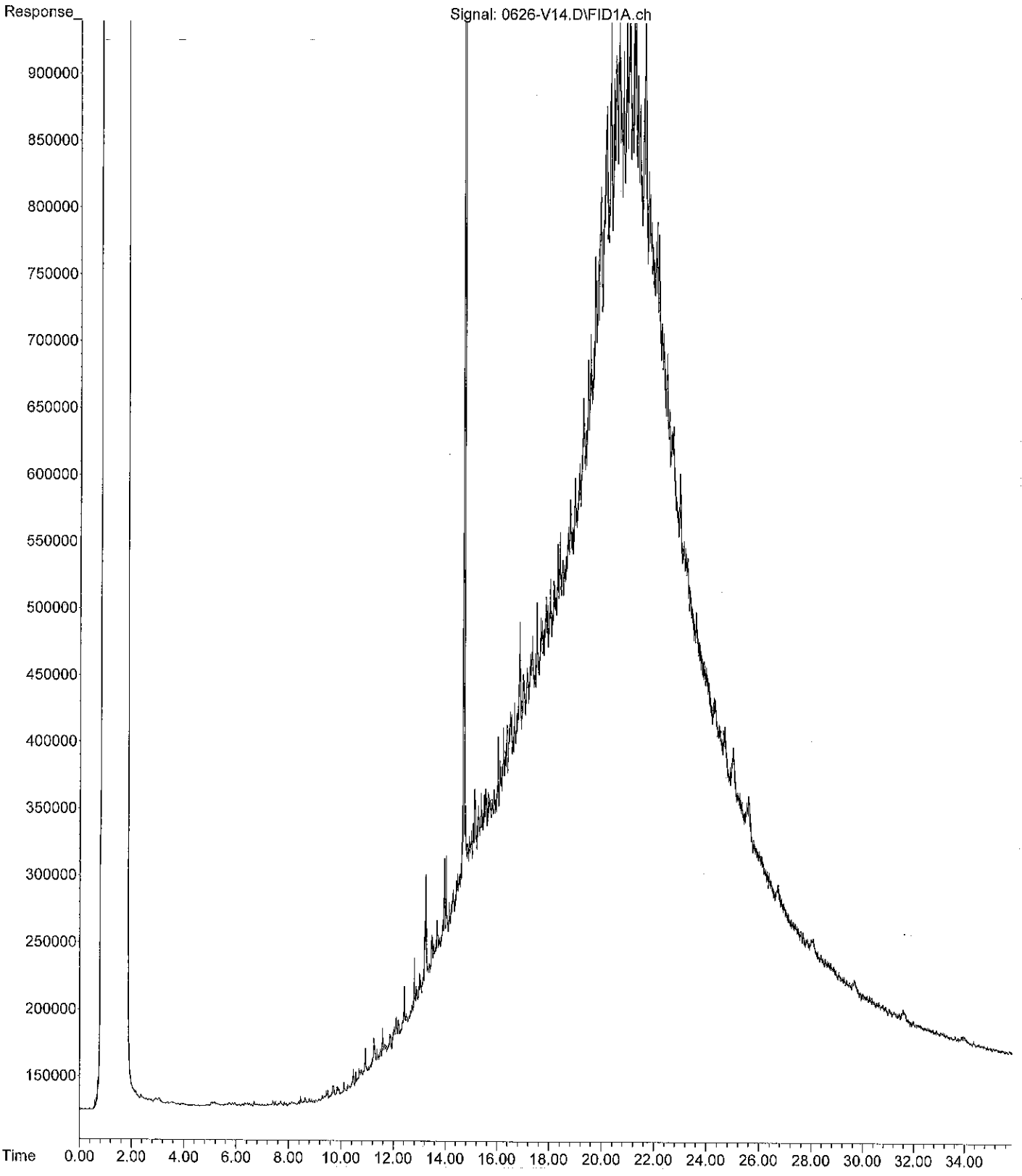
Volume Inj. :
Signal Phase :
Signal Info :



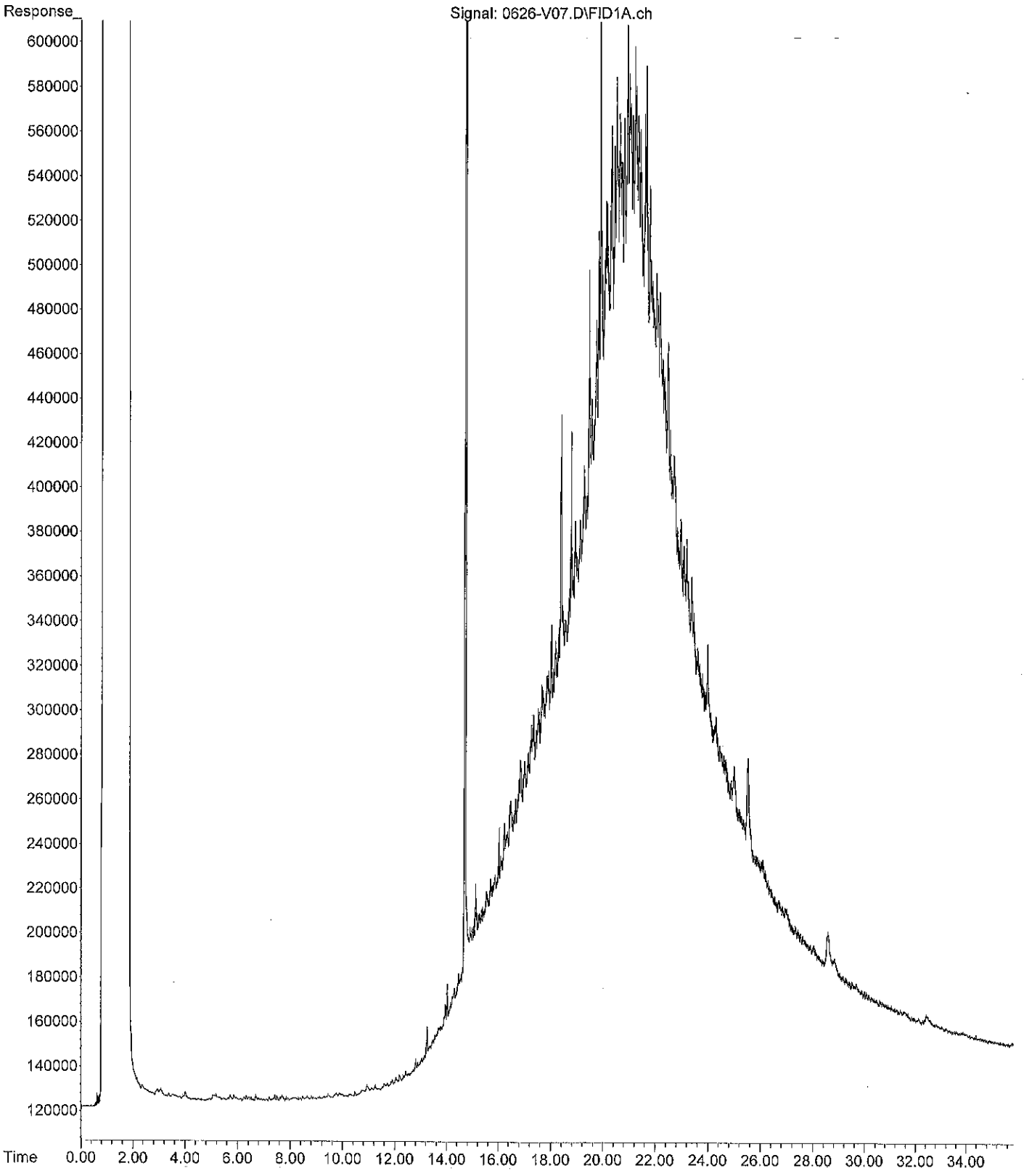
File :C:\msdchem\2\DATA\V130626.SEC\0626-V59.D
Operator :
Acquired : 26 Jun 2013 15:09 using AcqMethod V130618F.M
Instrument : Vigo
Sample Name: 06-197-01
Misc Info :
Vial Number: 59



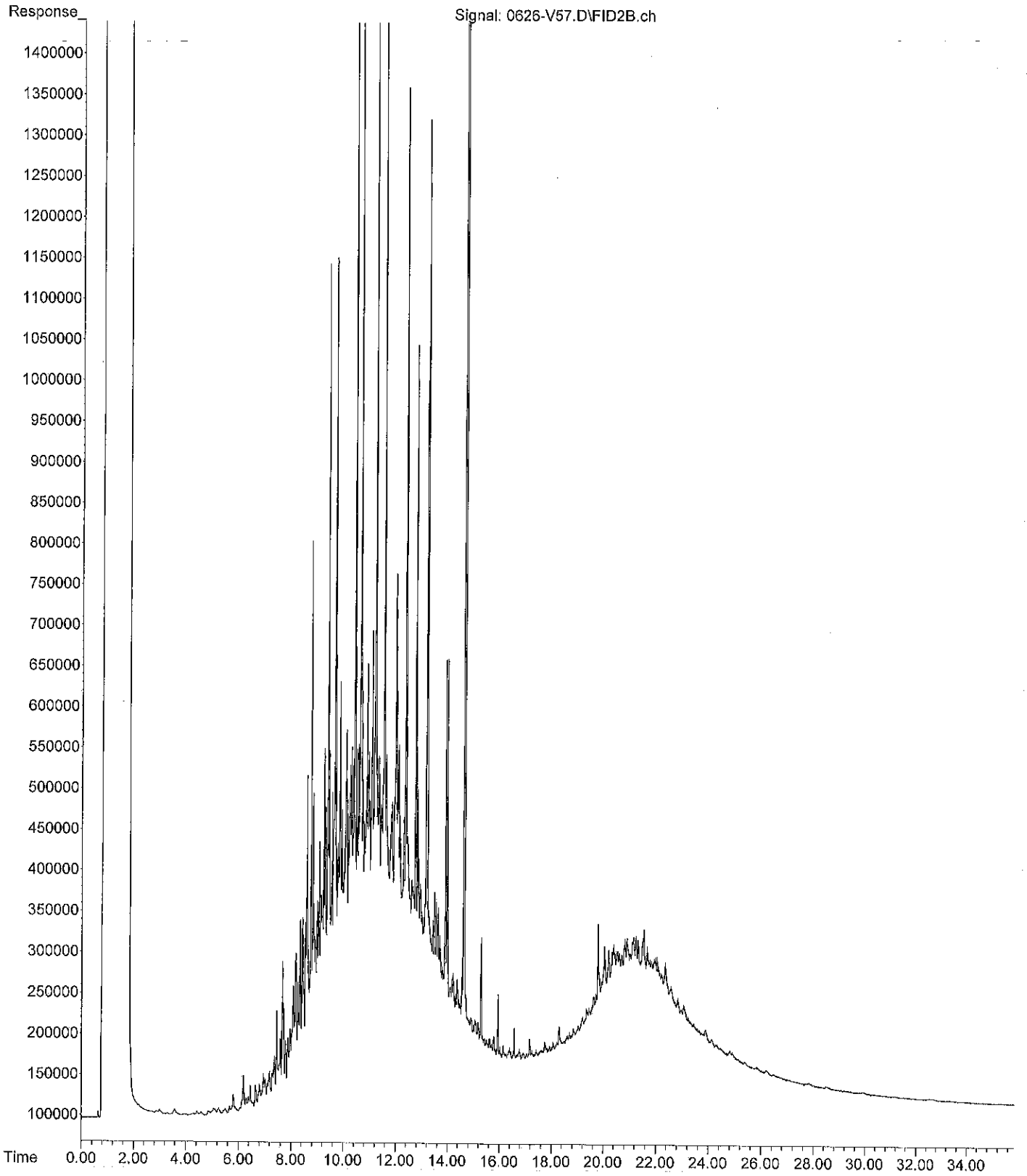
File : C:\msdchem\2\DATA\V130626\0626-V14.D
Operator :
Acquired : 26 Jun 2013 18:37 using AcqMethod V130618F.M
Instrument : Vigo
Sample Name: 06-197-02
Misc Info :
Vial Number: 14



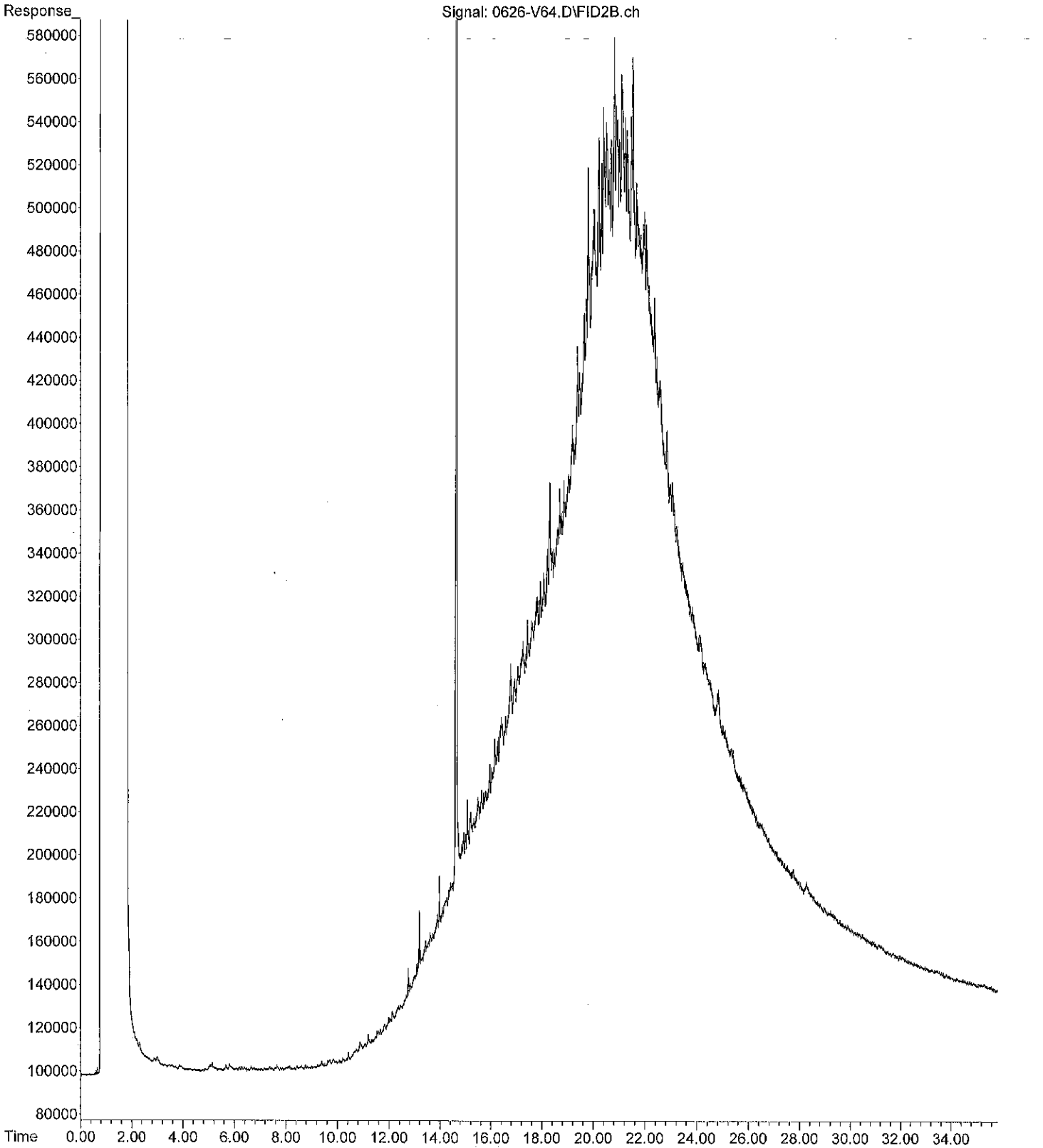
```
File        :C:\msdchem\2\DATA\V130626\0626-V07.D
Operator    :
Acquired    : 26 Jun 2013  13:46      using AcqMethod V130618F.M
Instrument  :   Vigo
Sample Name: 06-197-03
Misc Info   :
Vial Number: 7
```



File : C:\msdchem\2\DATA\V130626.SEC\0626-V57.D
Operator :
Acquired : 26 Jun 2013 13:46 using AcqMethod V130618F.M
Instrument : Vigo
Sample Name: 06-197-04
Misc Info :
Vial Number: 57



File :C:\msdchem\2\DATA\V130626.SEC\0626-V64.D
Operator :
Acquired : 26 Jun 2013 18:37 using AcqMethod V130618F.M
Instrument : Vigo
Sample Name: 06-197-05
Misc Info :
Vial Number: 64



cPAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626007.D
Acq On : 26 Jun 2013 4:26 pm
Operator :
Sample : 06-197-07
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 26 16:41:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

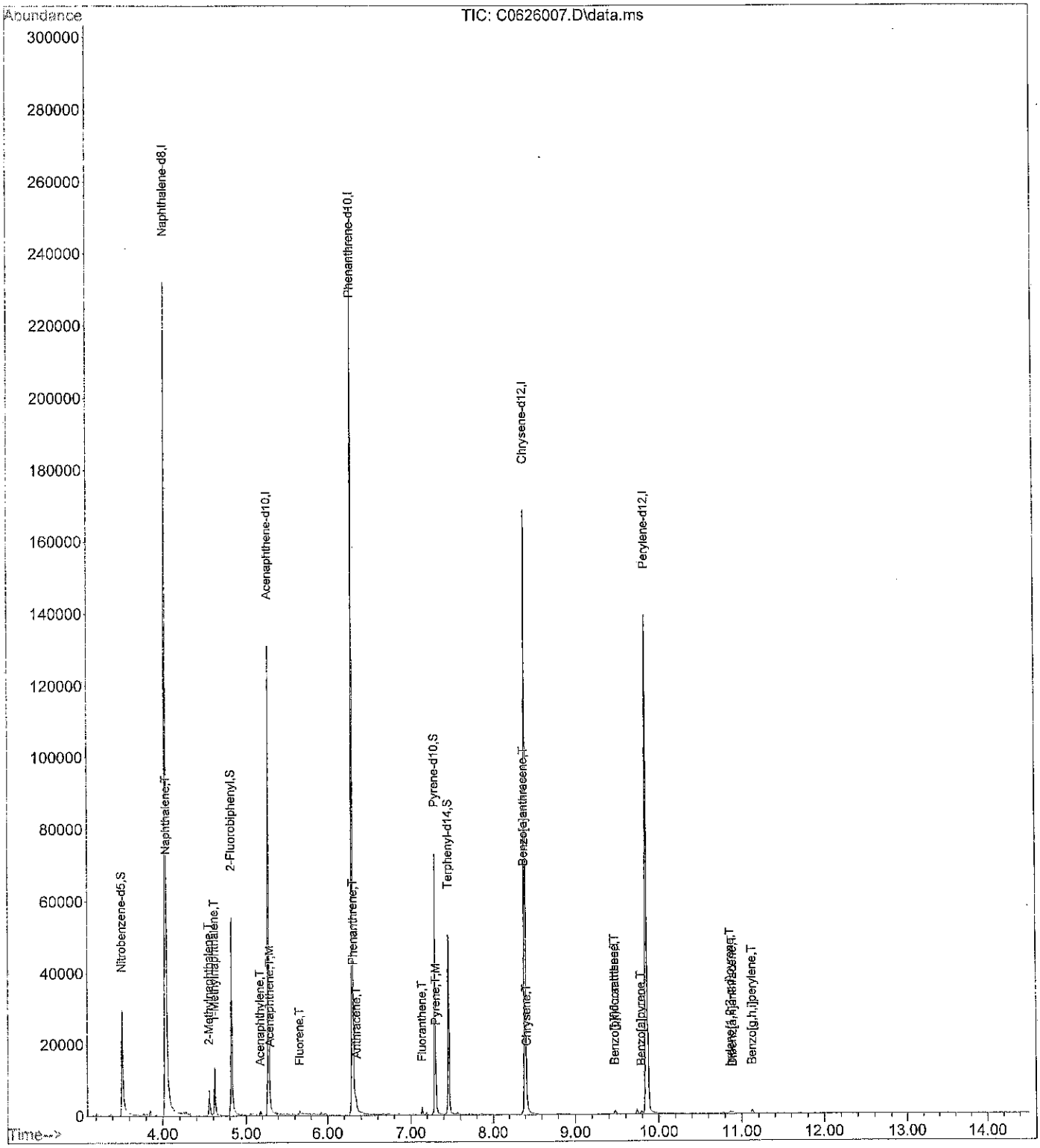
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.040	136	219162	2000.00	ppb	-0.01
6) Acenaphthene-d10	5.283	164	117441	2000.00	ppb	0.00
10) Phenanthrene-d10	6.295	188	194082	2000.00	ppb	0.00
17) Chrysene-d12	8.396	240	168054	2000.00	ppb	0.00
21) Perylene-d12	9.851	264	157797	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.512	82	27639	841.86	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 84.19%			
7) 2-Fluorobiphenyl	4.823	172	53662	661.13	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 66.11%			
11) Pyrene-d10	7.296	212	58669	669.36	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 66.94%			
18) Terphenyl-d14	7.459	244	45913	638.50	ppb	-0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 63.85%			
Target Compounds						Qvalue
3) Naphthalene	4.052	128	31108	258.28	ppb	100
4) 2-Methylnaphthalene	4.553	142	7393	94.55	ppb	100
5) 1-Methylnaphthalene	4.620	142	12851	166.17	ppb	100
8) Acenaphthylene	5.176	152	1388	12.46	ppb	100
9) Acenaphthene	5.299	153	687	9.04	ppb	100
12) Fluorene	5.661	166	1283	15.19	ppb	100
13) Phenanthrene	6.307	178	6161	51.29	ppb	100
14) Anthracene	6.346	178	736	6.24	ppb	100
15) Fluoranthene	7.140	202	2051	17.81	ppb	100
16) Pyrene	7.308	202	2809	23.18	ppb	100
19) Benzo[a]anthracene	8.388	228	1644	15.79	ppb	100
20) Chrysene	8.419	228	2651	27.23	ppb	100
22) Benzo[b]fluoranthene	9.473	252	1642	~~17.29~~	ppb 13.88	100
23) Benzo(j,k)fluoranthene	9.~~473~~ 500	252	1642	~~16.77~~	ppb 3.01	100
24) Benzo[a]pyrene	9.789	252	799	9.26	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.866	276	880	8.59	ppb	100
26) Dibenz[a,h]anthracene	10.894	278	373	4.48	ppb	100
27) Benzo[g,h,i]perylene	11.124	276	1427	15.99	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/27/13

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626007.D
Acq On : 26 Jun 2013 4:26 pm
Operator :
Sample : 06-197-07
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 26 16:41:42 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626004.D
Acq On : 26 Jun 2013 3:21 pm
Operator :
Sample : MB0626S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 15:36:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

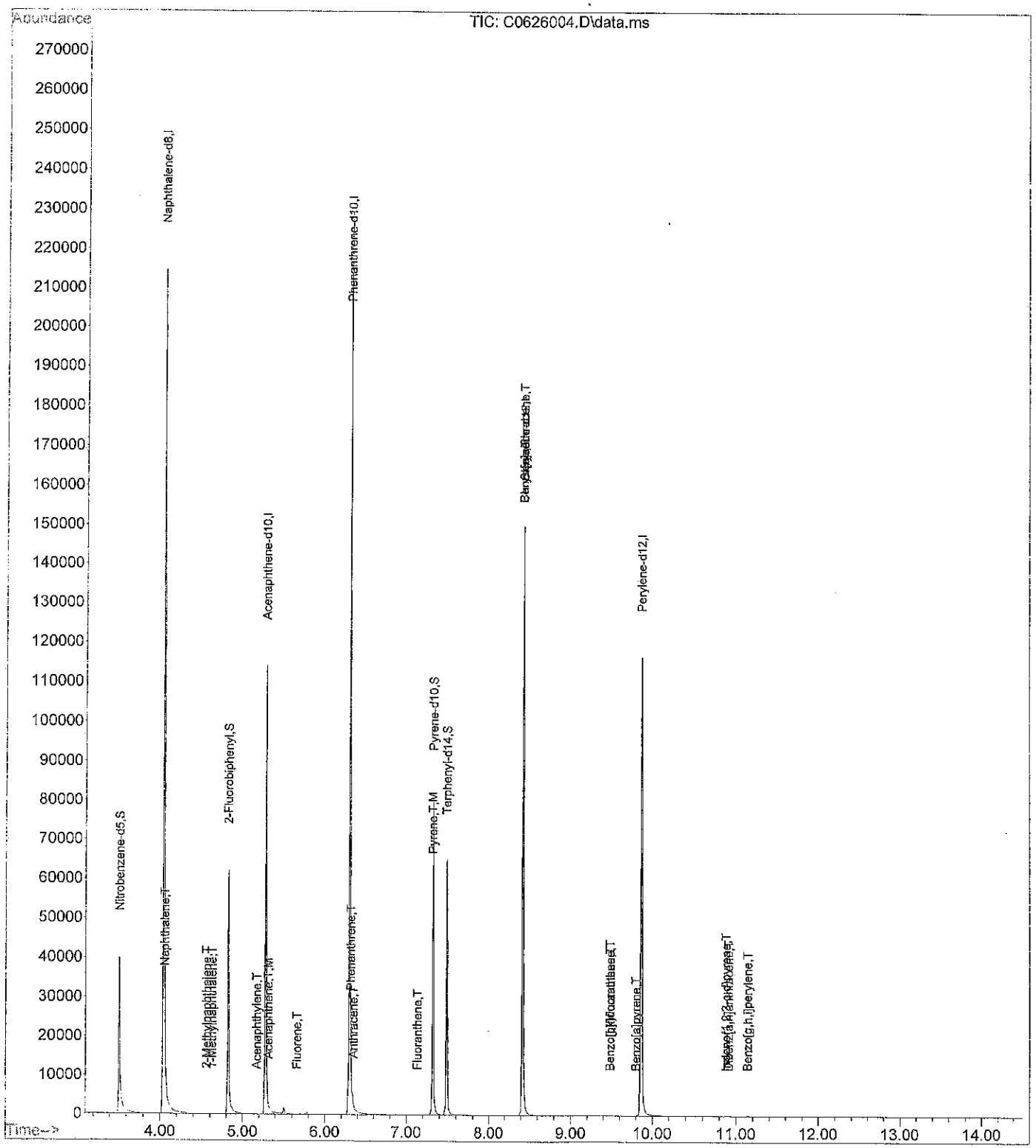
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.036	136	223732	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.284	164	113623	2000.00	ppb	0.00
10) Phenanthrene-d10	6.300	188	192718	2000.00	ppb	0.00
17) Chrysene-d12	8.418	240	162386	2000.00	ppb	0.01
21) Perylene-d12	9.859	264	145464	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.513	82	33468	998.58	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	99.86%#		
7) 2-Fluorobiphenyl	4.822	172	68642	874.11	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery =	87.41%		
11) Pyrene-d10	7.321	212	72698	835.29	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	83.53%		
18) Terphenyl-d14	7.483	244	58537	842.47	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery =	84.25%		
Target Compounds						Qvalue
3) Naphthalene	4.053	128	209	1.70	ppb	100
4) 2-Methylnaphthalene	4.556	142	75	0.94	ppb	100
5) 1-Methylnaphthalene	4.623	142	66	0.84	ppb	100
8) Acenaphthylene	5.176	152	36	0.33	ppb	100
9) Acenaphthene	5.315	153	112	1.52	ppb	100
12) Fluorene	5.662	166	65	0.78	ppb	100
13) Phenanthrene	6.315	178	238	2.00	ppb	100
14) Anthracene	6.350	178	20	0.17	ppb	100
15) Fluoranthene	7.135	202	30	0.26	ppb	100
16) Pyrene	7.315	202	198	1.65	ppb	100
19) Benzo[a]anthracene	8.414	228	510	5.07	ppb	100
20) Chrysene	8.414	228	510	~~5.42~~	ppb	100
22) Benzo[b]fluoranthene	9.484	252	38	0.43	ppb	100
23) Benzo(j,k)fluoranthene	9.484	252	38	0.42	ppb	100
24) Benzo[a]pyrene	9.800	252	44	0.55	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.881	276	249	2.64	ppb	100
26) Dibenz[a,h]anthracene	10.908	278	168	2.19	ppb	100
27) Benzo[g,h,i]perylene	11.139	276	313	3.80	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/27/13

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626004.D
Acq On : 26 Jun 2013 3:21 pm
Operator :
Sample : MB0626S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 15:36:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626005.D
Acq On : 26 Jun 2013 3:43 pm
Operator :
Sample : SB0626S1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 26 15:58:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

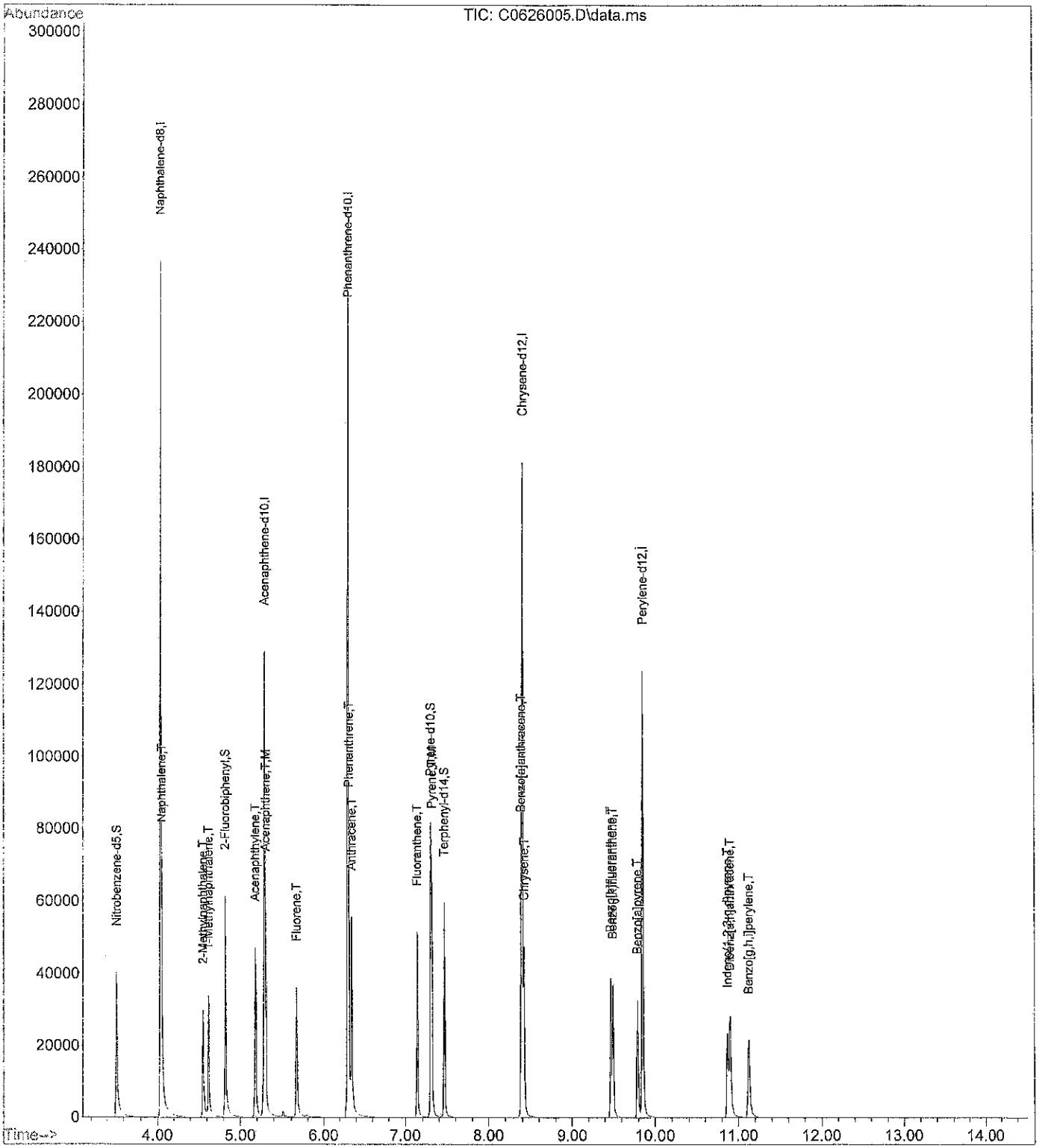
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.036	136	220797	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.283	164	114369	2000.00	ppb	0.00
10) Phenanthrene-d10	6.295	188	192742	2000.00	ppb	0.00
17) Chrysene-d12	8.399	240	168582	2000.00	ppb	0.00
21) Perylene-d12	9.851	264	149704	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.513	82	32286	976.12	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 97.61%#			
7) 2-Fluorobiphenyl	4.822	172	65255	825.55	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.56%			
11) Pyrene-d10	7.298	212	69795	801.83	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 80.18%			
18) Terphenyl-d14	7.460	244	55907	775.05	ppb	-0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 77.50%			
Target Compounds						Qvalue
3) Naphthalene	4.053	128	53710	442.64	ppb	100
4) 2-Methylnaphthalene	4.553	142	30352	385.29	ppb	100
5) 1-Methylnaphthalene	4.619	142	34537	443.28	ppb	100
8) Acenaphthylene	5.175	152	47925	441.68	ppb	100
9) Acenaphthene	5.298	153	32380	437.43	ppb	100
12) Fluorene	5.660	166	37389	445.76	ppb	100
13) Phenanthrene	6.310	178	48432	406.01	ppb	100
14) Anthracene	6.345	178	52358	447.24	ppb	100
15) Fluoranthene	7.135	202	50517	441.61	ppb	100
16) Pyrene	7.309	202	53558	445.03	ppb	100
19) Benzo[a]anthracene	8.387	228	43000	411.78	ppb	100
20) Chrysene	8.422	228	43305	443.35	ppb	100
22) Benzo[b]fluoranthene	9.468	252	41635	462.08	ppb	100
23) Benzo(j,k)fluoranthene	9.496	252	42641	459.11	ppb	100
24) Benzo[a]pyrene	9.788	252	39907	487.46	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.866	276	44962	462.43	ppb	100
26) Dibenz[a,h]anthracene	10.897	278	37682	476.57	ppb	100
27) Benzo[g,h,i]perylene	11.123	276	38104	449.94	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/27/13

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626005.D
Acq On : 26 Jun 2013 3:43 pm
Operator :
Sample : SB0626S1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 26 15:58:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626006.D
Acq On : 26 Jun 2013 4:04 pm
Operator :
Sample : SB0626S1 DUP
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 26 16:20:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

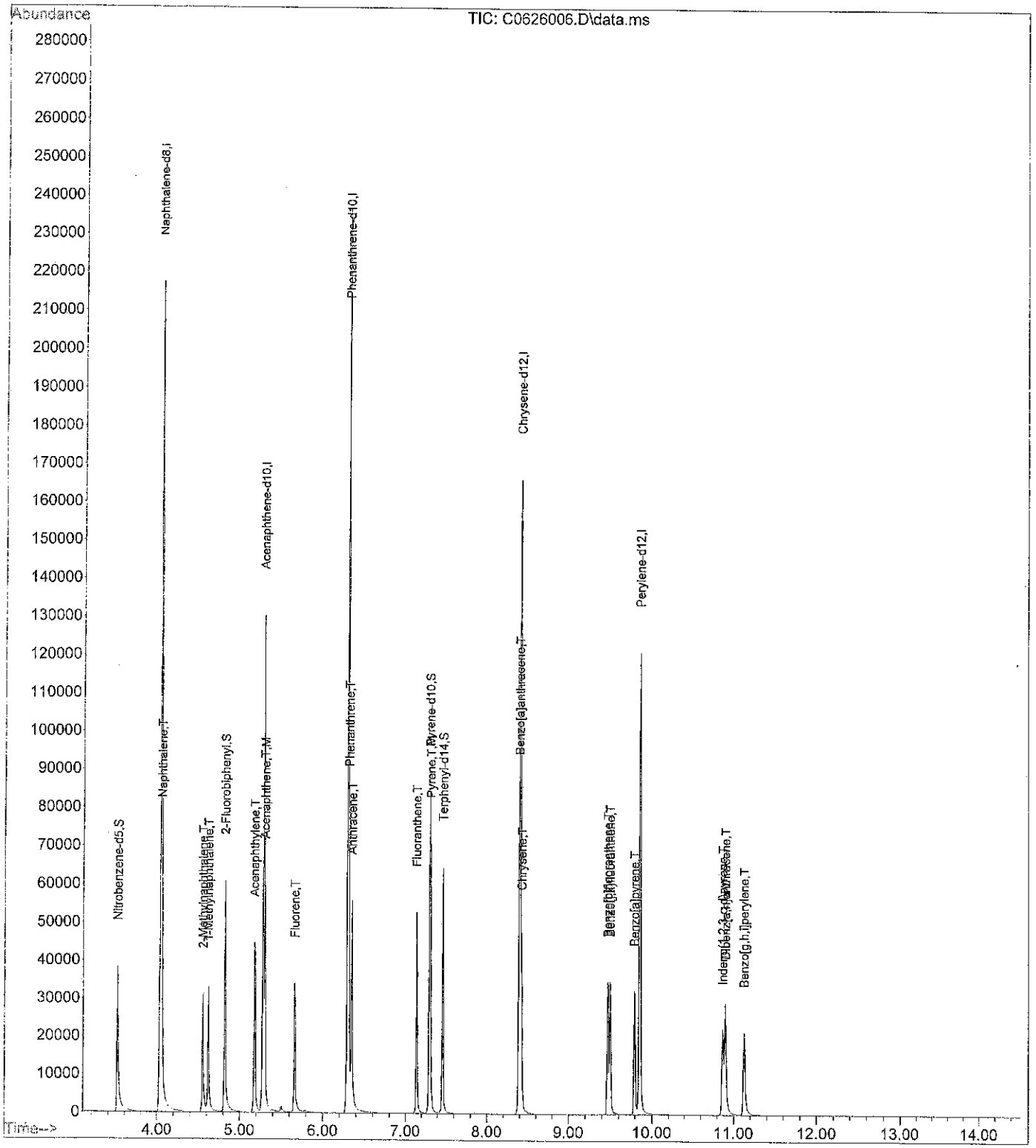
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.036	136	220881	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.283	164	113443	2000.00	ppb	0.00
10) Phenanthrene-d10	6.294	188	194337	2000.00	ppb	0.00
17) Chrysene-d12	8.398	240	168556	2000.00	ppb	0.00
21) Perylene-d12	9.847	264	149992	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.513	82	32464	981.13	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 98.11%#			
7) 2-Fluorobiphenyl	4.822	172	67453	860.33	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.03%			
11) Pyrene-d10	7.297	212	69832	795.67	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 79.57%			
18) Terphenyl-d14	7.460	244	53371	740.00	ppb	-0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 74.00%			
Target Compounds						Qvalue
3) Naphthalene	4.053	128	54699	450.62	ppb	100
4) 2-Methylnaphthalene	4.553	142	30974	393.04	ppb	100
5) 1-Methylnaphthalene	4.619	142	35363	453.71	ppb	100
8) Acenaphthylene	5.175	152	48658	452.09	ppb	100
9) Acenaphthene	5.298	153	32921	448.37	ppb	100
12) Fluorene	5.660	166	37358	441.74	ppb	100
13) Phenanthrene	6.310	178	49486	411.44	ppb	100
14) Anthracene	6.345	178	52182	442.08	ppb	100
15) Fluoranthene	7.135	202	50985	442.05	ppb	100
16) Pyrene	7.309	202	53720	442.72	ppb	100
19) Benzo[a]anthracene	8.387	228	43298	414.70	ppb	100
20) Chrysene	8.422	228	43416	444.56	ppb	100
22) Benzo[b]fluoranthene	9.468	252	39621	438.89	ppb	100
23) Benzo(j,k)fluoranthene	9.495	252	40241	432.43	ppb	100
24) Benzo[a]pyrene	9.788	252	39408	480.44	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.865	276	43824	449.86	ppb	100
26) Dibenz[a,h]anthracene	10.897	278	37116	468.51	ppb	100
27) Benzo[g,h,i]perylene	11.123	276	37994	447.78	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/27/13

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626006.D
Acq On : 26 Jun 2013 4:04 pm
Operator :
Sample : SB0626S1 DUP
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 26 16:20:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130626\
Data File : C0626003.D
Acq On : 26 Jun 2013 1:47 pm
Operator :
Sample : PAHCCV0626
Misc : SV3-71-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 26 14:02:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	58	-0.01
2	S	Nitrobenzene-d5	500.000	567.378	-13.5	68	-0.02
3	T	Naphthalene	500.000	497.799	0.4	60	-0.01
4	T	2-Methylnaphthalene	500.000	429.524	14.1	52	0.00
5	T	1-Methylnaphthalene	500.000	519.651	-3.9	63	-0.01
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	56	0.00
7	S	2-Fluorobiphenyl	500.000	479.778	4.0	55	-0.01
8	T	Acenaphthylene	500.000	488.030	2.4	58	-0.02
9	T,M	Acenaphthene	500.000	489.841	2.0	58	-0.02
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	58	0.00
11	S	Pyrene-d10	500.000	457.075	8.6	54	0.00
12	T	Fluorene	500.000	487.147	2.6	59	0.00
13	T	Phenanthrene	500.000	442.137	11.6	54	0.00
14	T	Anthracene	500.000	508.469	-1.7	59	0.00
15	T	Fluoranthene	500.000	479.845	4.0	57	0.00
16	T,M	Pyrene	500.000	479.737	4.1	56	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	55	0.00
18	S	Terphenyl-d14	500.000	449.431	10.1	53	0.00
19	T	Benzo[a]anthracene	500.000	452.953	9.4	56	0.00
20	T	Chrysene	500.000	484.364	3.1	56	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	56	0.00
22	T	Benzo[b]fluoranthene	500.000	506.169	-1.2	57	0.00
23	T	Benzo(j,k)fluoranthene	500.000	535.552	-7.1	59	0.00
24	T	Benzo[a]pyrene	500.000	540.535	-8.1	59	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	516.955	-3.4	58	0.01
26	T	Dibenz[a,h]anthracene	500.000	521.920	-4.4	58	0.00
27	T	Benzo[g,h,i]perylene	500.000	497.025	0.6	57	0.02

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626003.D
Acq On : 26 Jun 2013 1:47 pm
Operator :
Sample : PAHCCV0626
Misc : SV3-71-13
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 26 14:02:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

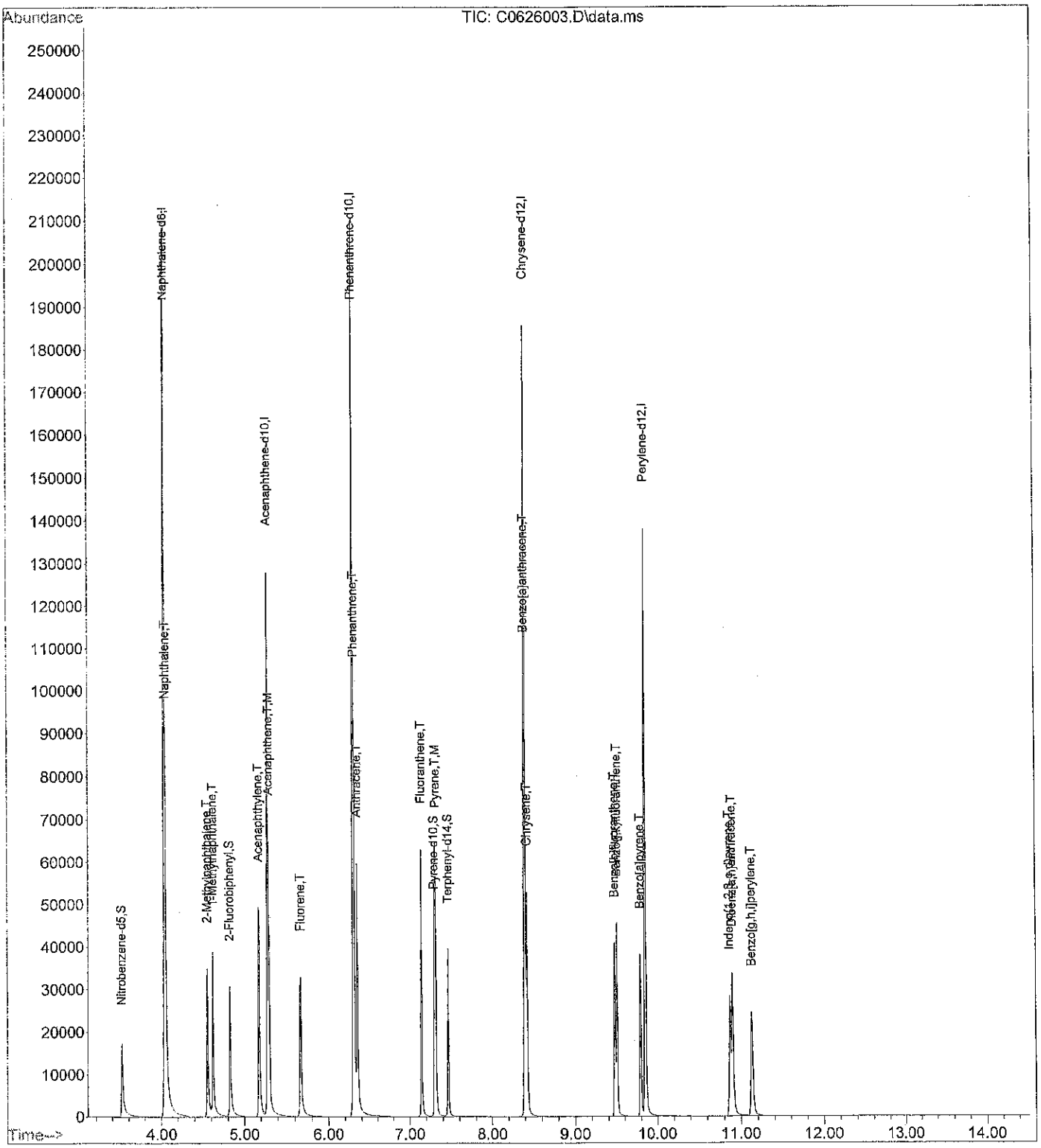
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.042	136	217709	2000.00	ppb	-0.01
6) Acenaphthene-d10	5.284	164	113897	2000.00	ppb	0.00
10) Phenanthrene-d10	6.295	188	187506	2000.00	ppb	0.00
17) Chrysene-d12	8.399	240	163641	2000.00	ppb	0.00
21) Perylene-d12	9.852	264	148617	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.514	82	18504	567.38	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 56.74%			
7) 2-Fluorobiphenyl	4.821	172	37767	479.78	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.98%			
11) Pyrene-d10	7.297	212	38705	457.08	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.71%			
18) Terphenyl-d14	7.465	244	31469	449.43	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 44.94%			
Target Compounds						Qvalue
3) Naphthalene	4.054	128	59558	497.80	ppb	100
4) 2-Methylnaphthalene	4.556	142	33363	429.52	ppb	100
5) 1-Methylnaphthalene	4.622	142	39921	519.65	ppb	100
8) Acenaphthylene	5.176	152	52736	488.03	ppb	100
9) Acenaphthene	5.299	153	36110	489.84	ppb	100
12) Fluorene	5.669	166	39750	487.15	ppb	100
13) Phenanthrene	6.311	178	51309	442.14	ppb	100
14) Anthracene	6.346	178	57909	508.47	ppb	100
15) Fluoranthene	7.140	202	53399	479.84	ppb	100
16) Pyrene	7.314	202	56166	479.74	ppb	100
19) Benzo[a]anthracene	8.392	228	45913	452.95	ppb	100
20) Chrysene	8.423	228	45924	484.36	ppb	100
22) Benzo[b]fluoranthene	9.473	252	45276	506.17	ppb	100
23) Benzo(j,k)fluoranthene	9.500	252	49380	535.55	ppb	100
24) Benzo[a]pyrene	9.789	252	43931	540.54	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.866	276	49899	516.96	ppb	100
26) Dibenz[a,h]anthracene	10.898	278	40968	521.92	ppb	100
27) Benzo[g,h,i]perylene	11.124	276	41786	497.03	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

6/26/13

Data Path : C:\MSDCHEM\1\DATA\C130626\
Data File : C0626003.D
Acq On : 26 Jun 2013 1:47 pm
Operator :
Sample : PAHCCV0626
Misc : SV3-71-13
ALS Vial : 3 Sample Multiplier: 1

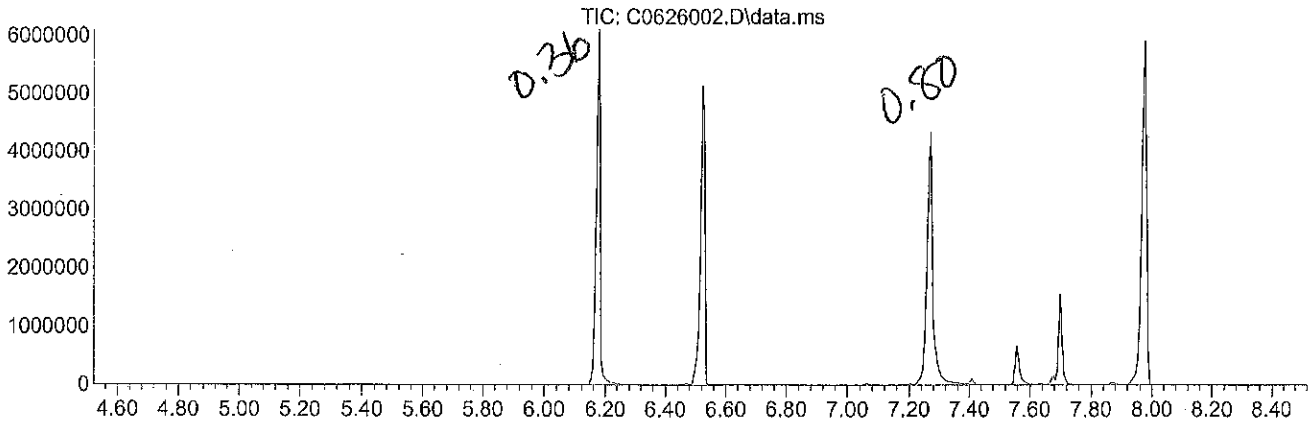
Quant Time: Jun 26 14:02:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0617.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jun 18 08:45:18 2013
Response via : Initial Calibration

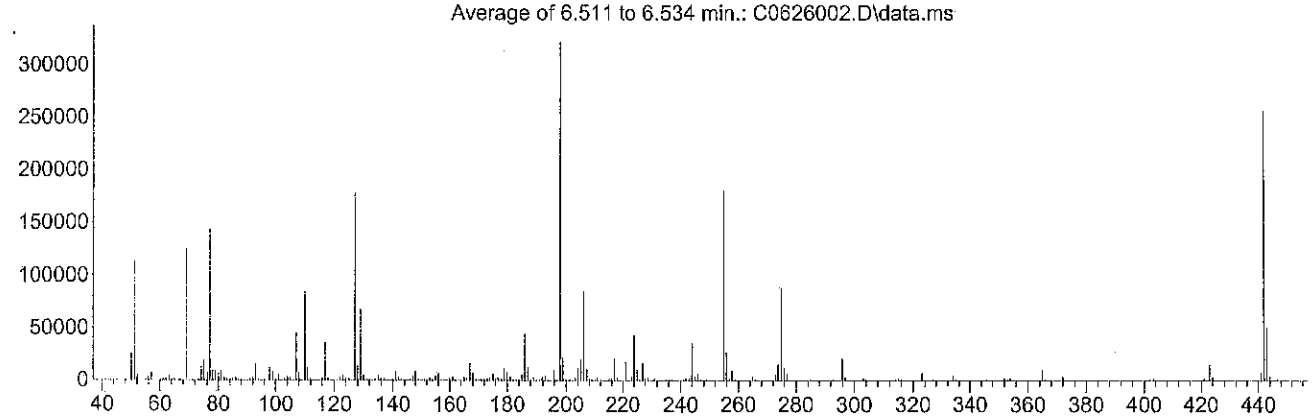


Data Path : X:\SEMIVOLS\COREY\DATA\C130626\
Data File : C0626002.D
Acq On : 26 Jun 2013 1:25 pm
Operator :
Sample : DFTPP
Misc : SV3-71-05
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM0617.M
Title : PAHS BY SIMS
Last Update : Tue Jun 18 08:45:18 2013





Spectrum Information: Average of 6.511 to 6.534 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	35.2	113701	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.0	126175	PASS
70	69	0.00	2	0.5	626	PASS
127	198	25	75	55.3	178569	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	323119	PASS
199	198	5	9	6.9	22315	PASS
275	198	10	30	27.3	88079	PASS
365	198	0.75	100	3.4	10838	PASS
441	443	0.01	100	15.3	7921	PASS
442	198	40	110	79.7	257411	PASS
443	442	15	24	20.1	51674	PASS

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C130626\C0626002.D
Tune Time : 26 Jun 2013 1:25 pm

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C130626\C0626003.D

	(PRY)	(NPT)	(ACE)	(PHN)
		217709	113897	187506
		(CRY)	(PRY)	
		163641	148617	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0626004.D							
	MB0626S1	100*	87	84	223732	113623	192718
			162386	145464			
C0626005.D							
	SB0626S1	98*	83	80	220797	114369	192742
			168582	149704			
C0626006.D							
	SB0626S1 D	98*	86	80	220881	113443	194337
			168556	149992			
C0626007.D							
	06-197-07	84	66	67	219162	117441	194082
			168054	157797			

(fails) - fails 12hr time check * - fails criteria

Created: Thu Jun 27 10:35:33 2013 COREY

cPAHs Data

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705017.D
Acq On : 5 Jul 2013 7:15 pm
Operator :
Sample : 06-197-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 08:49:52 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.111	136	316970	2000.00	ppb	0.00
6) Acenaphthene-d10	5.358	164	176752	2000.00	ppb	0.00
10) Phenanthrene-d10	6.379	188	271140	2000.00	ppb	0.00
17) Chrysene-d12	8.541	240	214540	2000.00	ppb	0.03
21) Perylene-d12	10.049	264	203193	2000.00	ppb	0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.588	82	49123	872.42	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	87.24%		
7) 2-Fluorobiphenyl	4.890	172	86451	835.18	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	83.52%		
11) Pyrene-d10	7.403	212	96000	897.39	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery =	89.74%		
18) Terphenyl-d14	7.565	244	72544	982.48	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery =	98.25%#		
Target Compounds						Qvalue
3) Naphthalene	4.122	128	53686	348.01	ppb	100
4) 2-Methylnaphthalene	4.625	142	55154	594.30	ppb	100
5) 1-Methylnaphthalene	4.691	142	20103	215.93	ppb	100
8) Acenaphthylene	5.258	152	11414	79.72	ppb	100
9) Acenaphthene	5.373	153	28093	298.61	ppb	100
12) Fluorene	5.736	166	30408	278.66	ppb	100
13) Phenanthrene	6.391	178	118016	833.92	ppb	100
14) Anthracene	6.426	178	31180	227.87	ppb	100
15) Fluoranthene	7.240	202	129950	921.13	ppb	100
16) Pyrene	7.414	202	128860	870.73	ppb	100
19) Benzo[a]anthracene	8.529	228	35767	372.41	ppb	100
20) Chrysene	8.565	228	44236	449.21	ppb	100
22) Benzo[b]fluoranthene	9.651	252	39998	~~371.22~~	ppb 302.85	100
23) Benzo(j,k)fluoranthene	9.651M	252	39998	~~380.85~~	ppb 76.78	100
24) Benzo[a]pyrene	9.987	252	20491	197.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.111	276	19029	151.46	ppb	100
26) Dibenz[a,h]anthracene	11.135	278	6623	60.63	ppb	100
27) Benzo[g,h,i]perylene	11.404	276	44037	407.58	ppb	100

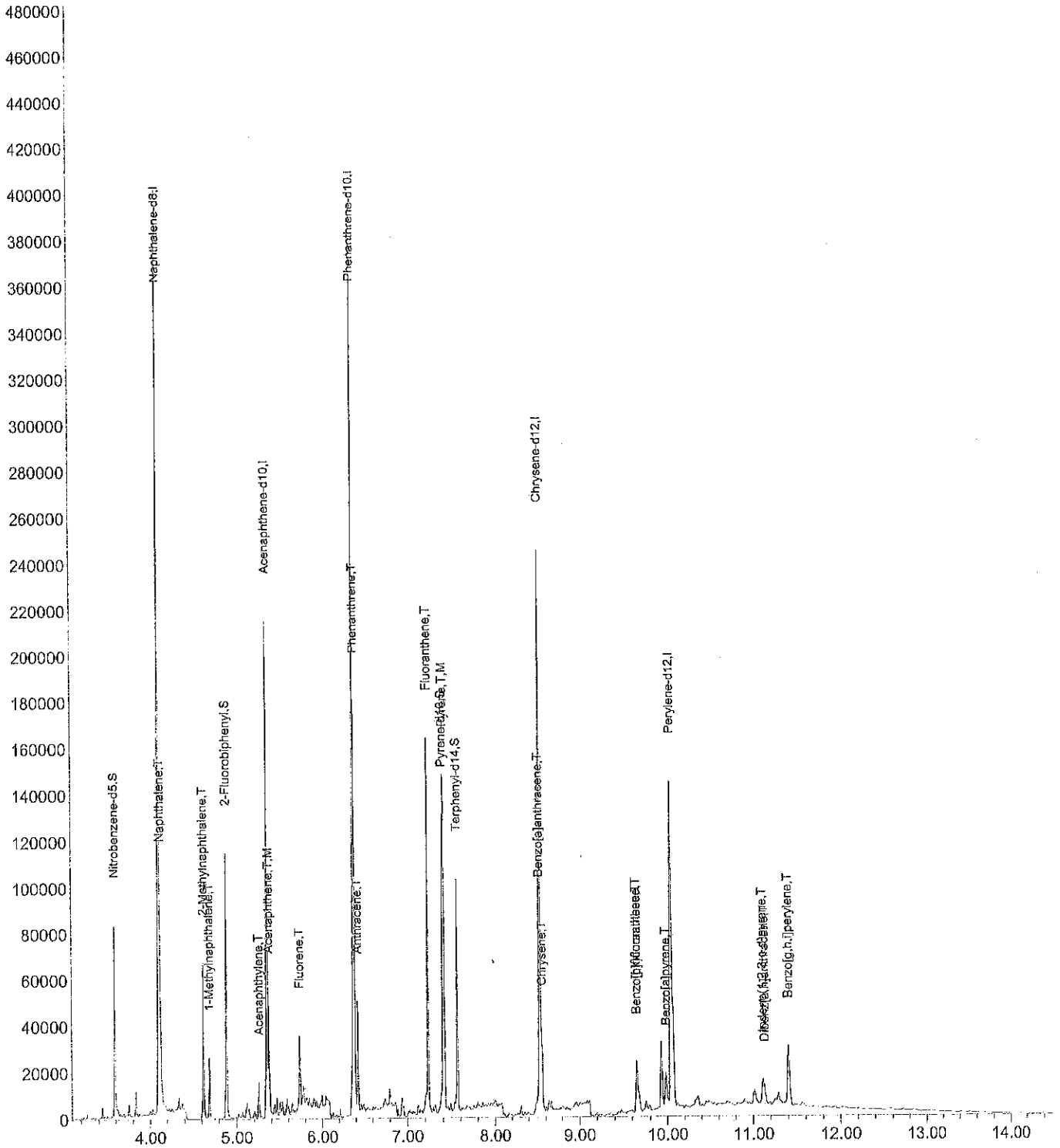
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/8/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705017.D
Acq On : 5 Jul 2013 7:15 pm
Operator :
Sample : 06-197-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 08:49:52 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

TIC: C0705017.D\data.ms



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703027.D
Acq On : 3 Jul 2013 7:40 pm
Operator :
Sample : 06-197-02 5x
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 03 19:55:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

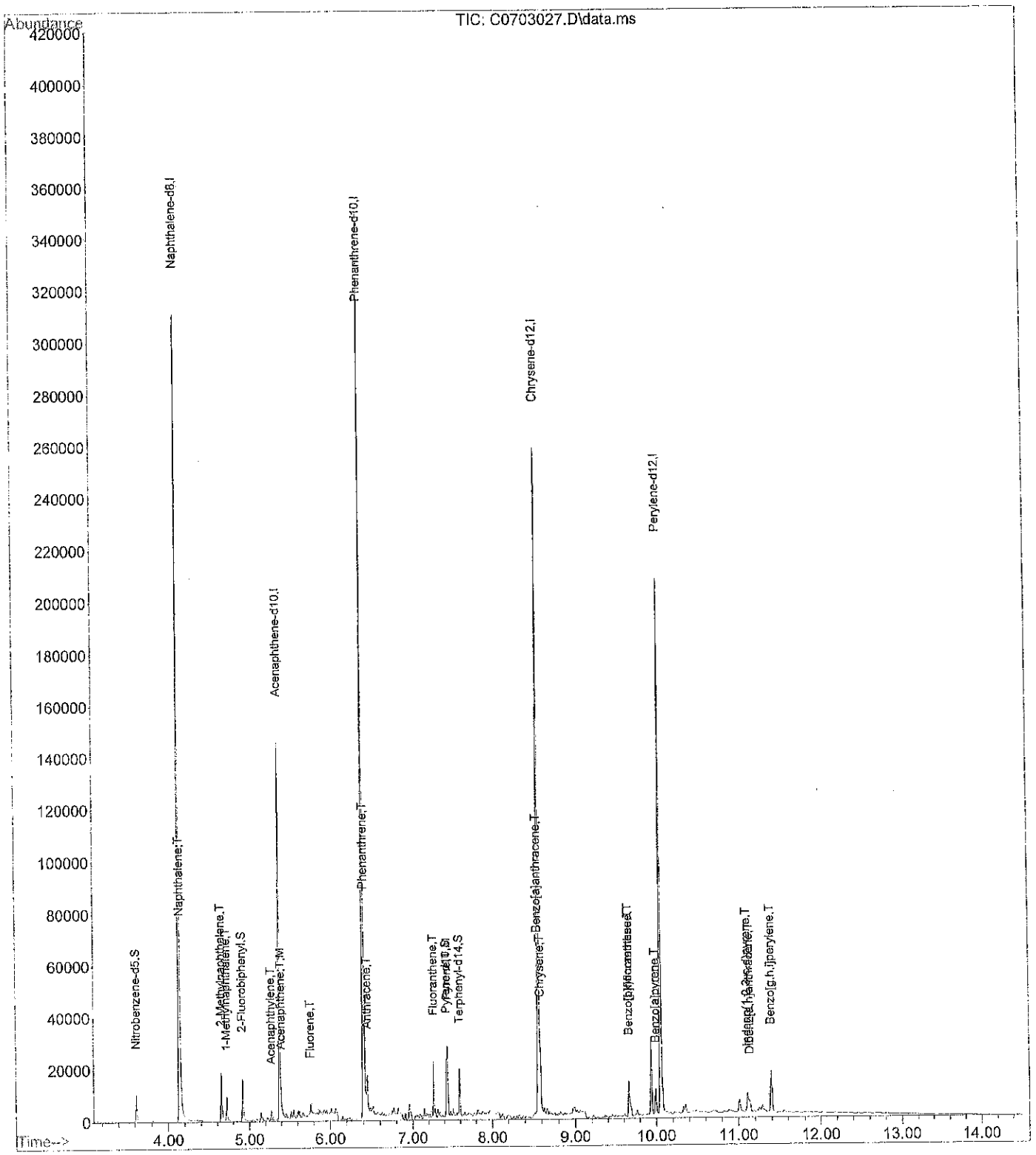
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.135	136	264394	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.375	164	145486	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.399	188	271491	2000.00	ppb	-0.02
17) Chrysene-d12	8.564	240	240403	2000.00	ppb	-0.02
21) Perylene-d12	10.057	264	213916	2000.00	ppb	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.619	82	6597	155.72	ppb	-0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery =	15.57%#		
7) 2-Fluorobiphenyl	4.914	172	16668	139.78	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery =	13.98%#		
11) Pyrene-d10	7.426	212	17694	166.94	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	16.69%#		
18) Terphenyl-d14	7.594	244	14781	175.12	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery =	17.51%#		
Target Compounds						Qvalue
3) Naphthalene	4.147	128	14577	102.45	ppb	100
4) 2-Methylnaphthalene	4.648	142	18102	178.49	ppb	100
5) 1-Methylnaphthalene	4.715	142	9880	101.46	ppb	100
8) Acenaphthylene	5.275	152	3695	27.14	ppb	100
9) Acenaphthene	5.399	153	2869	27.12	ppb	100
12) Fluorene	5.761	166	4834	40.57	ppb	100
13) Phenanthrene	6.415	178	36674	210.21	ppb	100
14) Anthracene	6.450	178	8480	61.77	ppb	100
15) Fluoranthene	7.263	202	19952	126.35	ppb	100
16) Pyrene	7.438	202	22767	133.08	ppb	100
19) Benzo[a]anthracene	8.553	228	16640	134.48	ppb	100
20) Chrysene	8.588	228	34647	246.68	ppb	100
22) Benzo[b]fluoranthene	9.667	252	16624	140.57	ppb	100
23) Benzo(j,k)fluoranthene	9.667	252	16624	~~131.60~~ 43.71	ppb	100
24) Benzo[a]pyrene	9.994	252	10962	88.23	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.108	276	11623	95.85	ppb	100
26) Dibenz[a,h]anthracene	11.139	278	4872	47.75	ppb	100
27) Benzo[g,h,i]perylene	11.396	276	22590	200.13	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/5/13

Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703027.D
Acq On : 3 Jul 2013 7:40 pm
Operator :
Sample : 06-197-02 5x
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 03 19:55:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703026.D
Acq On : 3 Jul 2013 7:19 pm
Operator :
Sample : 06-197-03 5x
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 03 19:34:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

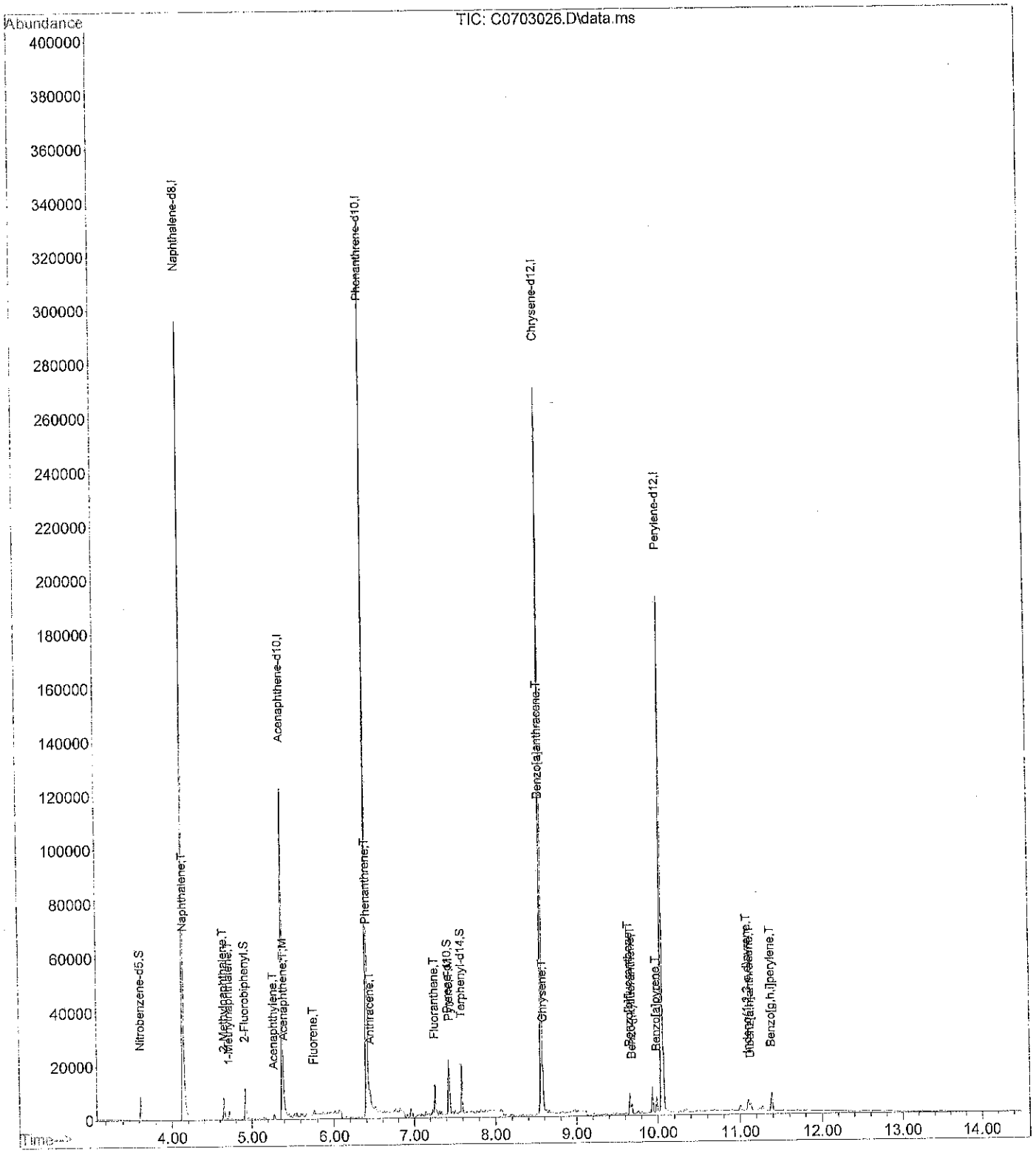
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.134	136	249017	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.382	164	140086	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.400	188	257449	2000.00	ppb	-0.02
17) Chrysene-d12	8.561	240	242119	2000.00	ppb	-0.02
21) Perylene-d12	10.053	264	216885	2000.00	ppb	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.618	82	5529	138.57	ppb	-0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 13.86%#			
7) 2-Fluorobiphenyl	4.914	172	14172	123.43	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 12.34%#			
11) Pyrene-d10	7.426	212	15562	154.83	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 15.48%#			
18) Terphenyl-d14	7.589	244	13183	155.08	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 15.51%#			
Target Compounds						Qvalue
3) Naphthalene	4.146	128	6786	50.64	ppb	100
4) 2-Methylnaphthalene	4.648	142	9105	95.32	ppb	100
5) 1-Methylnaphthalene	4.715	142	4223	46.05	ppb	100
8) Acenaphthylene	5.274	152	1872	14.28	ppb	100
9) Acenaphthene	5.397	153	1545	15.17	ppb	100
12) Fluorene	5.759	166	2588	22.90	ppb	100
13) Phenanthrene	6.411	178	17220	104.09	ppb	100
14) Anthracene	6.450	178	4859	37.32	ppb	100
15) Fluoranthene	7.258	202	11794	78.76	ppb	100
16) Pyrene	7.438	202	12922	79.65	ppb	100
19) Benzo[a]anthracene	8.553	228	9071	72.79	ppb	100
20) Chrysene	8.584	228	15900	112.40	ppb	100
22) Benzo[b]fluoranthene	9.659	252	10084	84.10	ppb	100
23) Benzo(j,k)fluoranthene	9.686	252	2752	21.49	ppb	100
24) Benzo[a]pyrene	9.986	252	6434	51.08	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.099	276	6891	56.05	ppb	100
26) Dibenz[a,h]anthracene	11.131	278	3044	29.42	ppb	100
27) Benzo[g,h,i]perylene	11.384	276	9769	85.36	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/5/13

Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703026.D
Acq On : 3 Jul 2013 7:19 pm
Operator :
Sample : 06-197-03 5x
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 03 19:34:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703030.D
Acq On : 3 Jul 2013 8:45 pm
Operator :
Sample : 06-197-04
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 03 21:00:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

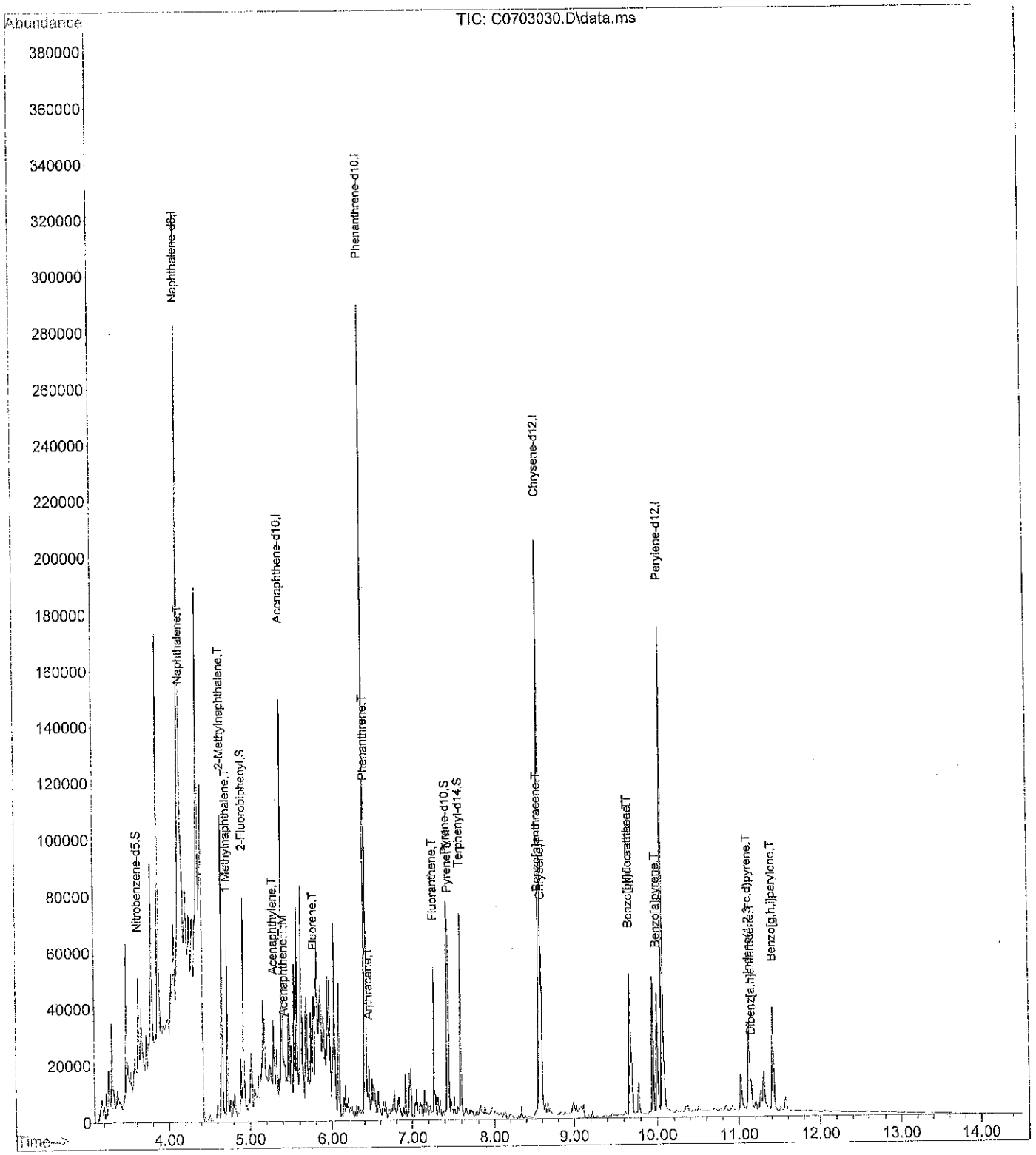
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.139	136	238413	2000.00	ppb	-0.01
6) Acenaphthene-d10	5.390	164	103628	2000.00	ppb	0.00
10) Phenanthrene-d10	6.411	188	196661	2000.00	ppb	0.00
17) Chrysene-d12	8.573	240	200704	2000.00	ppb	-0.01
21) Perylene-d12	10.068	264	184510	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.617	82	27229	712.77	ppb	-0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 71.28%			
7) 2-Fluorobiphenyl	4.921	172	55915	658.32	ppb	-0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 65.83%			
11) Pyrene-d10	7.432	212	60780	791.65	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 79.16%			
18) Terphenyl-d14	7.594	244	48397	686.81	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 68.68%			
Target Compounds						Qvalue
3) Naphthalene	4.157	128	74840	583.30	ppb	100
4) 2-Methylnaphthalene	4.660	142	87154	953.01	ppb	100
5) 1-Methylnaphthalene	4.726	142	50627	576.58	ppb	100
8) Acenaphthylene	5.290	152	14536	149.88	ppb	100
9) Acenaphthene	5.414	153	17538	232.76	ppb	100
12) Fluorene	5.776	166	19925	230.85	ppb	100
13) Phenanthrene	6.423	178	68913	545.31	ppb	100
14) Anthracene	6.458	178	10092	101.48	ppb	100
15) Fluoranthene	7.269	202	44389	388.08	ppb	100
16) Pyrene	7.449	202	53270	429.86	ppb	100
19) Benzo[a]anthracene	8.557	228	42265	409.15	ppb	100
20) Chrysene	8.596	228	71181	607.04	ppb	100
22) Benzo[b]fluoranthene	9.674	252	69156	677.99	ppb	100
23) Benzo(j,k)fluoranthene	9.674	252	69156	~~634.73~~	ppb	185.93 100
24) Benzo[a]pyrene	10.002	252	48824	455.61	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.127	276	44622	426.61	ppb	100
26) Dibenz[a,h]anthracene	11.154	278	12698	144.28	ppb	100
27) Benzo[g,h,i]perylene	11.415	276	53235	546.79	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/5/13

Data Path : C:\MSDCHEM\1\DATA\C130703\
Data File : C0703030.D
Acq On : 3 Jul 2013 8:45 pm
Operator :
Sample : 06-197-04
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 03 21:00:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705015.D
Acq On : 5 Jul 2013 6:32 pm
Operator :
Sample : 06-197-05
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 08 08:48:29 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.107	136	309164	2000.00	ppb	0.00
6) Acenaphthene-d10	5.351	164	182510	2000.00	ppb	0.00
10) Phenanthrene-d10	6.376	188	282788	2000.00	ppb	0.00
17) Chrysene-d12	8.538	240	238008	2000.00	ppb	0.02
21) Perylene-d12	10.042	264	204430	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.584	82	40605	739.35	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 73.94%			
7) 2-Fluorobiphenyl	4.887	172	73629	688.87	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 68.89%			
11) Pyrene-d10	7.401	212	82272	737.39	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 73.74%			
18) Terphenyl-d14	7.564	244	65780	803.03	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 80.30%			
Target Compounds						Qvalue
3) Naphthalene	4.118	128	92243	613.05	ppb	100
4) 2-Methylnaphthalene	4.622	142	139568	1541.86	ppb	100
5) 1-Methylnaphthalene	4.688	142	46970	517.25	ppb	100
8) Acenaphthylene	5.251	152	7467	50.51	ppb	100
9) Acenaphthene	5.374	153	2719	27.99	ppb	100
12) Fluorene	5.736	166	21156	185.89	ppb	100
13) Phenanthrene	6.387	178	116291	787.88	ppb	100
14) Anthracene	6.423	178	20893	146.40	ppb	100
15) Fluoranthene	7.233	202	37485	254.76	ppb	100
16) Pyrene	7.413	202	70080	454.04	ppb	100
19) Benzo[a]anthracene	8.526	228	51213	480.65	ppb	100
20) Chrysene	8.561	228	79772	730.19	ppb	100
22) Benzo[b]fluoranthene	9.647	252	48191	~~444.50~~	ppb	375.87 100
23) Benzo(j,k)fluoranthene	9.~~647~~	252	48191	~~456.09~~	ppb	81.77 100
24) Benzo[a]pyrene	9.979	252	27977	268.18	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.108	276	23501	185.92	ppb	100
26) Dibenz[a,h]anthracene	11.128	278	9505	86.49	ppb	100
27) Benzo[g,h,i]perylene	11.393	276	42184	388.07	ppb	100

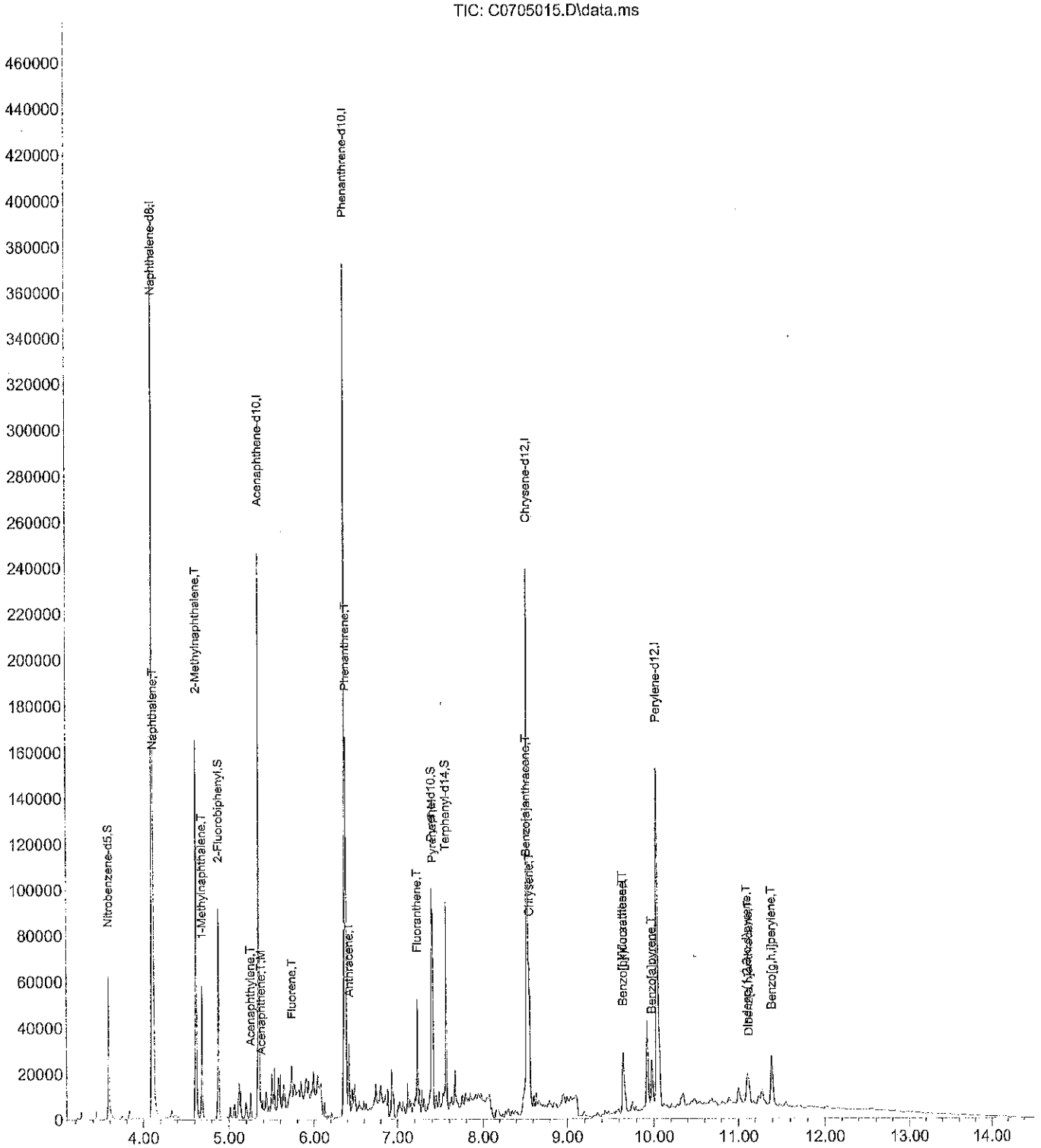
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/8/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705015.D
Acq On : 5 Jul 2013 6:32 pm
Operator :
Sample : 06-197-05
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 08 08:48:29 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

TIC: C0705015.D\data.ms



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702030.D
Acq On : 2 Jul 2013 9:09 pm
Operator :
Sample : 06-197-06
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 02 21:24:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

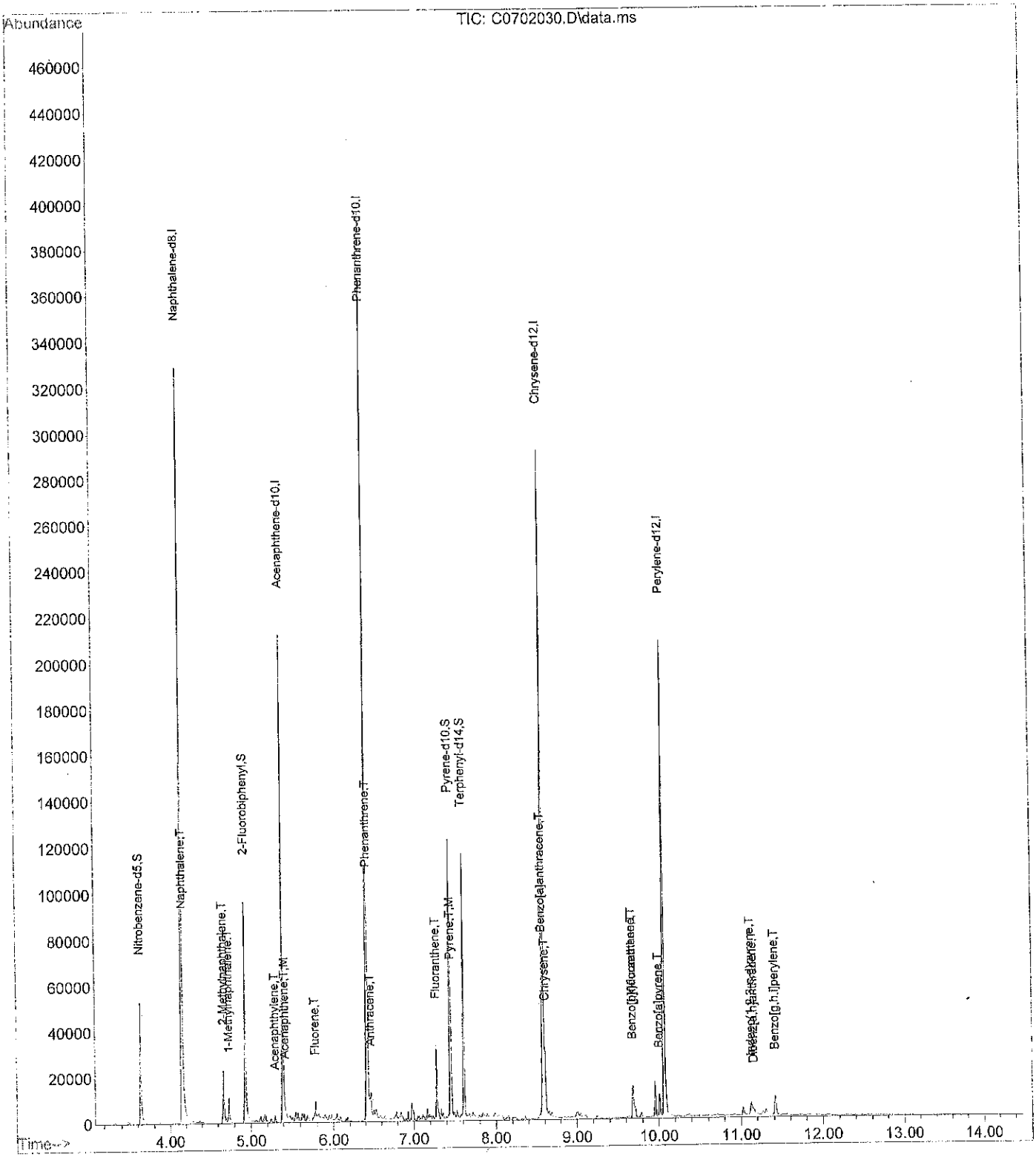
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.152	136	289134	2000.00	ppb	0.00
6) Acenaphthene-d10	5.397	164	159095	2000.00	ppb	0.00
10) Phenanthrene-d10	6.418	188	275464	2000.00	ppb	0.00
17) Chrysene-d12	8.584	240	266710	2000.00	ppb	0.00
21) Perylene-d12	10.073	264	227624	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.629	82	35436	764.88	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 76.49%			
7) 2-Fluorobiphenyl	4.934	172	101435	777.88	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 77.79%			
11) Pyrene-d10	7.449	212	99925	929.18	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 92.92%			
18) Terphenyl-d14	7.612	244	83864	895.59	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 89.56%			
Target Compounds						Qvalue
3) Naphthalene	4.164	128	21228	136.43	ppb	100
4) 2-Methylnaphthalene	4.669	142	25457	229.53	ppb	100
5) 1-Methylnaphthalene	4.735	142	12754	119.77	ppb	100
8) Acenaphthylene	5.297	152	2215	14.88	ppb	100
9) Acenaphthene	5.420	153	3614	31.24	ppb	100
12) Fluorene	5.782	166	7899	65.34	ppb	100
13) Phenanthrene	6.430	178	48036	271.37	ppb	100
14) Anthracene	6.469	178	7748	55.62	ppb	100
15) Fluoranthene	7.281	202	26724	166.80	ppb	100
16) Pyrene	7.461	202	33415	192.50	ppb	100
19) Benzo[a]anthracene	8.573	228	16786	122.28	ppb	100
20) Chrysene	8.608	228	34163	219.24	ppb	100
22) Benzo[b]fluoranthene	9.682	252	18567	147.55	ppb	100
23) Benzo(j,k)fluoranthene	9.682 710	252	18567	~~138.13~~	ppb 33.84	100
24) Benzo[a]pyrene	10.010	252	11914	90.12	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.127	276	9016	69.87	ppb	100
26) Dibenz[a,h]anthracene	11.155	278	3188	29.36	ppb	100
27) Benzo[g,h,i]perylene	11.412	276	12050	100.33	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/3/13

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702030.D
Acq On : 2 Jul 2013 9:09 pm
Operator :
Sample : 06-197-06
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 02 21:24:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702025.D
Acq On : 2 Jul 2013 7:20 pm
Operator :
Sample : MB0701S2
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 02 19:35:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

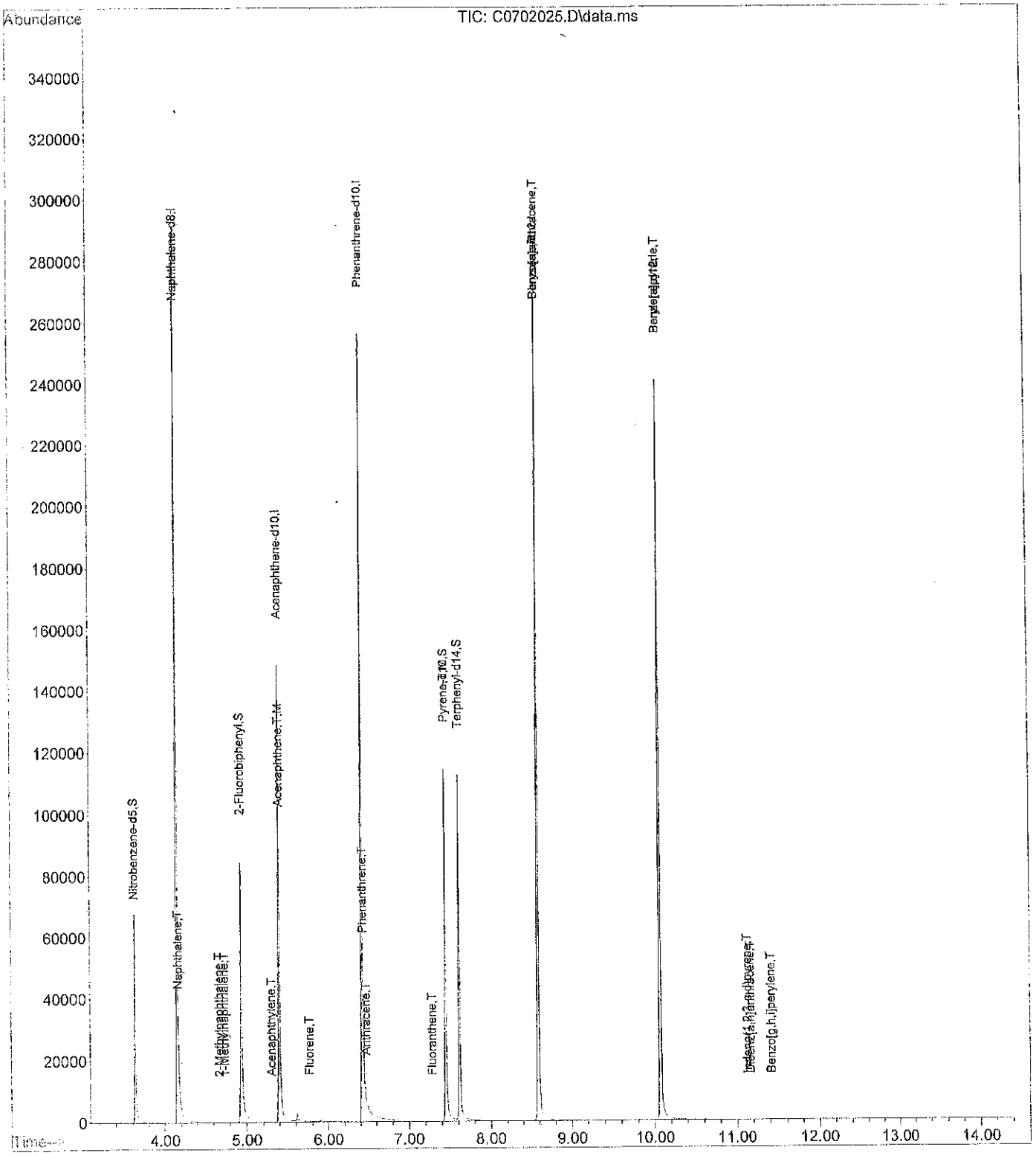
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.152	136	295393	2000.00	ppb	0.00
6) Acenaphthene-d10	5.397	164	155356	2000.00	ppb	0.00
10) Phenanthrene-d10	6.422	188	272393	2000.00	ppb	0.00
17) Chrysene-d12	8.584	240	296729	2000.00	ppb	0.00
21) Perylene-d12	10.069	264	282936	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.629	82	42614	900.32	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 90.03%			
7) 2-Fluorobiphenyl	4.938	172	116096	911.74	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 91.17%#			
11) Pyrene-d10	7.448	212	120508	1133.21	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 113.32%#			
18) Terphenyl-d14	7.616	244	104612	1004.14	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 100.41%#			
Target Compounds						Qvalue
3) Naphthalene	4.169	128	161	1.01	ppb	100
4) 2-Methylnaphthalene	4.673	142	100	0.88	ppb	100
5) 1-Methylnaphthalene	4.739	142	52	0.48	ppb	100
8) Acenaphthylene	5.304	152	66	0.45	ppb	100
9) Acenaphthene	5.405	153	50	0.44	ppb	100
12) Fluorene	5.767	166	92	0.77	ppb	100
13) Phenanthrene	6.434	178	384	2.19	ppb	100
14) Anthracene	6.473	178	22	0.16	ppb	100
15) Fluoranthene	7.285	202	61	0.39	ppb	100
16) Pyrene	7.448	202	264	1.54	ppb	100
19) Benzo[a]anthracene	8.584	228	951	6.23	ppb	100
20) Chrysene	8.584	228	951	5.49	ppb	100
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	10.069	252	1145	6.97	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.131	276	51	0.32	ppb	100
26) Dibenz[a,h]anthracene	11.166	278	21	0.16	ppb	100
27) Benzo[g,h,i]perylene	11.412	276	35	0.23	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/3/13

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702025.D
Acq On : 2 Jul 2013 7:20 pm
Operator :
Sample : MB0701S2
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 02 19:35:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702026.D
Acq On : 2 Jul 2013 7:42 pm
Operator :
Sample : SB0701S2
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 19:57:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

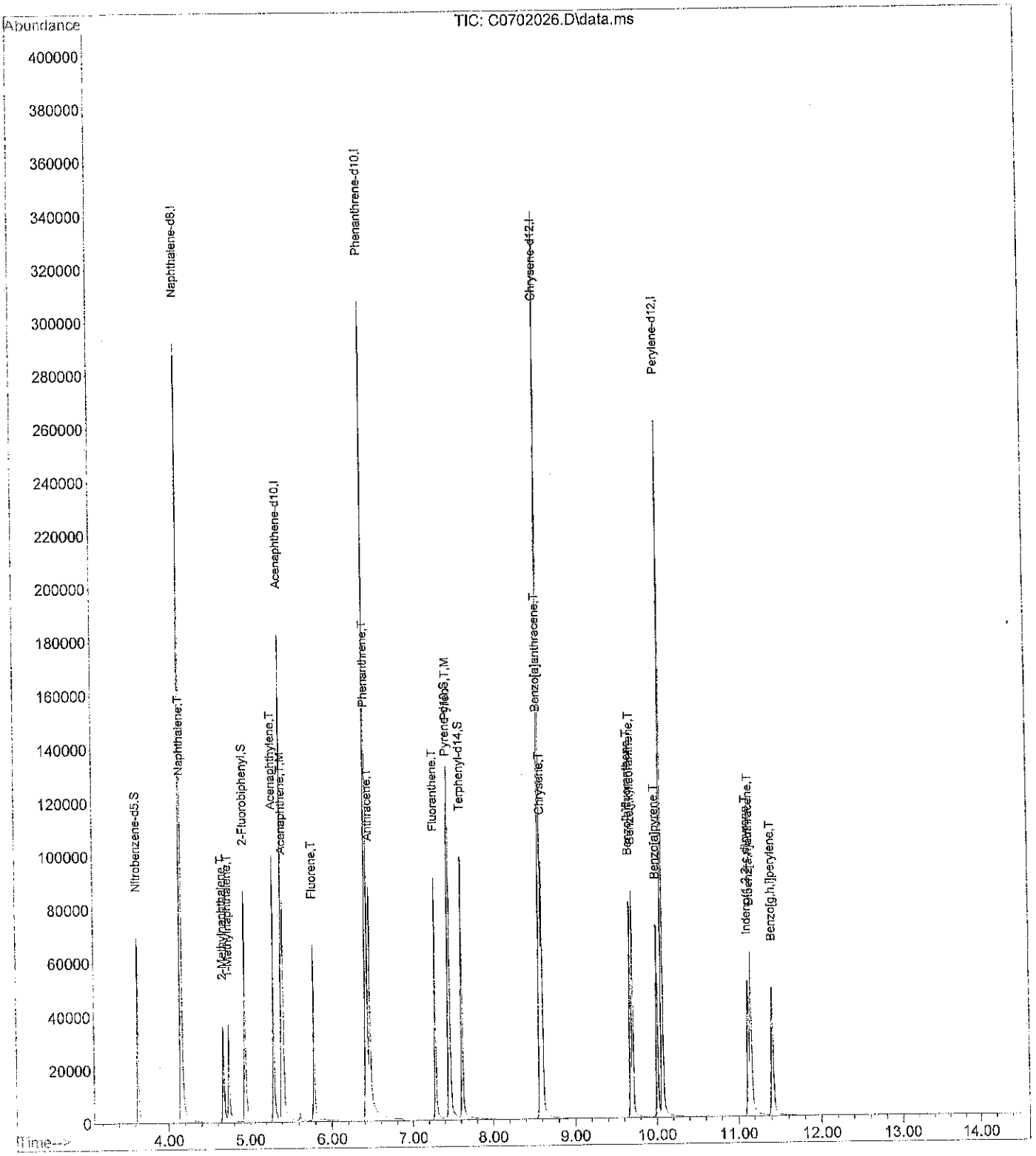
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.151	136	307748	2000.00	ppb	0.00
6) Acenaphthene-d10	5.398	164	162129	2000.00	ppb	0.00
10) Phenanthrene-d10	6.419	188	299019	2000.00	ppb	0.00
17) Chrysene-d12	8.585	240	308815	2000.00	ppb	0.00
21) Perylene-d12	10.068	264	294117	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.634	82	40400	819.28	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 81.93%			
7) 2-Fluorobiphenyl	4.937	172	111324	837.74	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 83.77%			
11) Pyrene-d10	7.449	212	116146	994.93	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 99.49%			
18) Terphenyl-d14	7.617	244	101798	938.89	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 93.89%#			
Target Compounds						Qvalue
3) Naphthalene	4.168	128	79735	481.44	ppb	100
4) 2-Methylnaphthalene	4.668	142	44425	376.33	ppb	100
5) 1-Methylnaphthalene	4.738	142	50238	443.24	ppb	100
8) Acenaphthylene	5.298	152	80444	530.15	ppb	100
9) Acenaphthene	5.421	153	51968	440.83	ppb	100
12) Fluorene	5.784	166	61894	471.62	ppb	100
13) Phenanthrene	6.434	178	79280	412.59	ppb	100
14) Anthracene	6.469	178	95205	629.64	ppb	100
15) Fluoranthene	7.286	202	98257	564.97	ppb	100
16) Pyrene	7.460	202	102848	545.83	ppb	100
19) Benzo[a]anthracene	8.573	228	89782	564.87	ppb	100
20) Chrysene	8.609	228	91058	504.70	ppb	100
22) Benzo[b]fluoranthene	9.678	252	86364	531.16	ppb	100
23) Benzo(j,k)fluoranthene	9.709	252	93942	540.90	ppb	100
24) Benzo[a]pyrene	10.006	252	85276	499.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.123	276	74199	~~445.02~~ 587.02	ppb	100
26) Dibenz[a,h]anthracene	11.158	278	80755	575.61	ppb	100
27) Benzo[g,h,i]perylene	11.411	276	81337	524.10	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/3/13

Data Path : C:\MSDCHEM\1\DATA\C130702\
Data File : C0702026.D
Acq On : 2 Jul 2013 7:42 pm
Operator :
Sample : SB0701S2
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 19:57:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Onsite Environmental Inc. Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702027.D
Acq On : 2 Jul 2013 8:04 pm
Operator :
Sample : SB0701S2 DUP
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 03 10:22:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

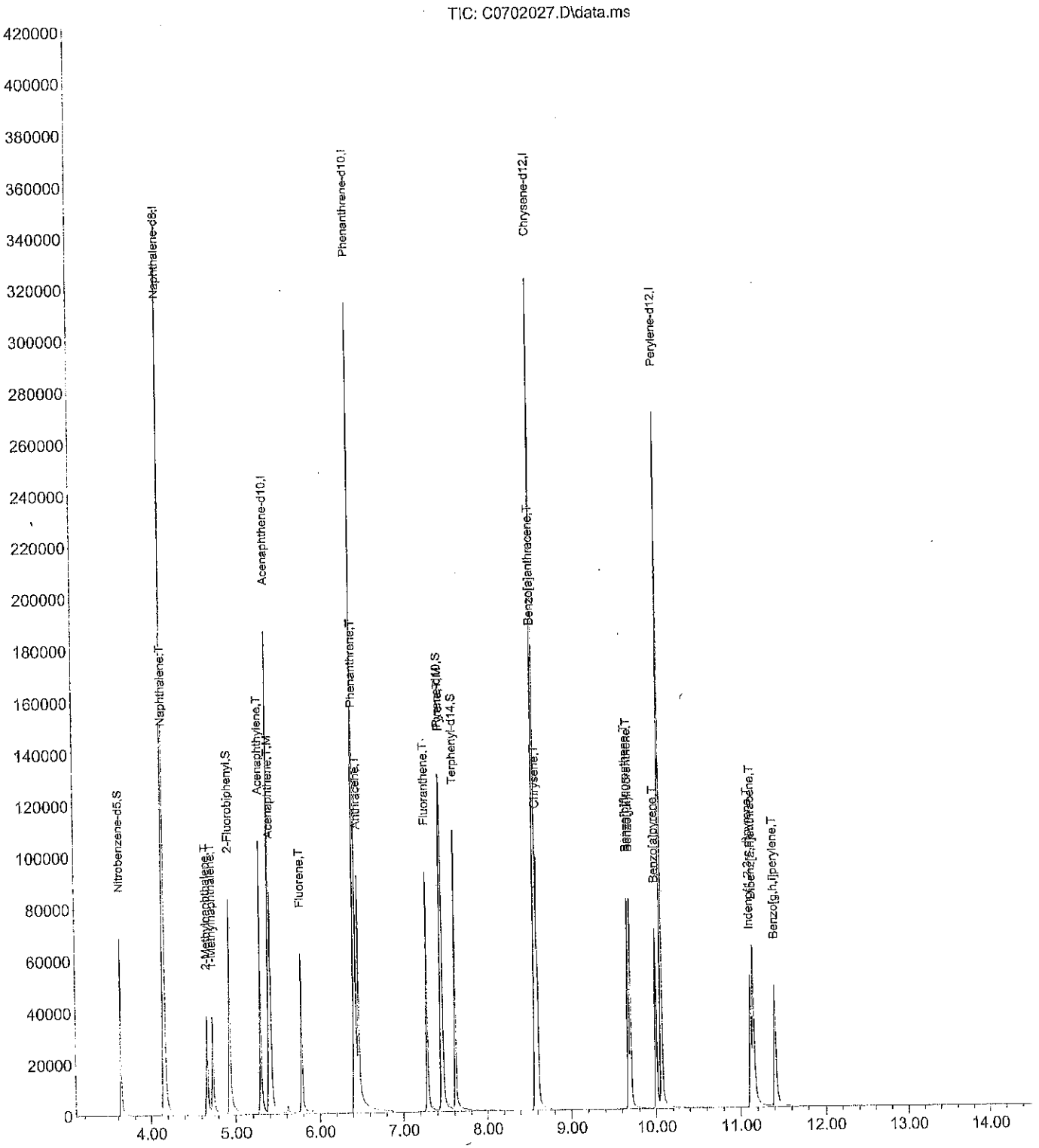
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.152	136	306710	2000.00	ppb	0.00
6) Acenaphthene-d10	5.397	164	166295	2000.00	ppb	0.00
10) Phenanthrene-d10	6.418	188	301039	2000.00	ppb	0.00
17) Chrysene-d12	8.585	240	313420	2000.00	ppb	0.00
21) Perylene-d12	10.069	264	298326	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.630	82	42062	855.87	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.59%			
7) 2-Fluorobiphenyl	4.938	172	116103	851.82	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 85.18%			
11) Pyrene-d10	7.449	212	118894	1011.64	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 101.16%			
18) Terphenyl-d14	7.617	244	103859	943.82	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 94.38%#			
Target Compounds						Qvalue
3) Naphthalene	4.164	128	82460	499.57	ppb	100
4) 2-Methylnaphthalene	4.669	142	45750	388.87	ppb	100
5) 1-Methylnaphthalene	4.735	142	53938	477.50	ppb	100
8) Acenaphthylene	5.297	152	83967	539.50	ppb	100
9) Acenaphthene	5.420	153	53803	444.97	ppb	100
12) Fluorene	5.783	166	63149	477.95	ppb	100
13) Phenanthrene	6.434	178	82897	428.52	ppb	100
14) Anthracene	6.469	178	94953	623.76	ppb	100
15) Fluoranthene	7.280	202	100328	573.01	ppb	100
16) Pyrene	7.460	202	104569	551.24	ppb	100
19) Benzo[a]anthracene	8.573	228	92169	571.37	ppb	100
20) Chrysene	8.608	228	93623	511.29	ppb	100
22) Benzo[b]fluoranthene	9.679	252	91659	555.77	ppb	100
23) Benzo(j,k)fluoranthene	9.706	252	94614	537.08	ppb	100
24) Benzo[a]pyrene	10.003	252	87173	503.12	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.120	276	98839m	584.43	ppb	
26) Dibenz[a,h]anthracene	11.155	278	82038	576.51	ppb	100
27) Benzo[g,h,i]perylene	11.408	276	84517	536.91	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/3/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702027.D
Acq On : 2 Jul 2013 8:04 pm
Operator :
Sample : SB0701S2 DUP
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 03 10:22:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702003.D
Acq On : 2 Jul 2013 11:13 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 02 11:32:16 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast_Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	100	0.00
2	S	Nitrobenzene-d5	500.000	441.989	11.6	100	0.00
3	T	Naphthalene	500.000	466.901	6.6	100	0.00
4	T	2-Methylnaphthalene	500.000	415.638	16.9	100	0.00
5	T	1-Methylnaphthalene	500.000	439.540	12.1	100	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	100	0.00
7	S	2-Fluorobiphenyl	500.000	459.438	8.1	100	0.00
8	T	Acenaphthylene	500.000	527.174	-5.4	100	0.00
9	T,M	Acenaphthene	500.000	417.034	16.6	100	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	100	0.00
11	S	Pyrene-d10	500.000	500.723	-0.1	100	0.00
12	T	Fluorene	500.000	455.633	8.9	100	0.00
13	T	Phenanthrene	500.000	445.187	11.0	100	0.00
14	T	Anthracene	500.000	567.648	-13.5	100	0.00
15	T	Fluoranthene	500.000	530.875	-6.2	100	0.00
16	T,M	Pyrene	500.000	512.714	-2.5	100	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	100	0.00
18	S	Terphenyl-d14	500.000	464.868	7.0	100	0.00
19	T	Benzo[a]anthracene	500.000	554.168	-10.8	100	0.00
20	T	Chrysene	500.000	451.765	9.6	100	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	100	0.00
22	T	Benzo[b]fluoranthene	500.000	537.890	-7.6	100	0.00
23	T	Benzo(j,k)fluoranthene	500.000	493.010	1.4	100	0.00
24	T	Benzo[a]pyrene	500.000	480.255	3.9	100	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	565.673	-13.1	100	0.00
26	T	Dibenz[a,h]anthracene	500.000	539.082	-7.8	100	0.00
27	T	Benzo[g,h,i]perylene	500.000	504.773	-1.0	100	0.00

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

Onsite Environmental Inc. Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702003.D
Acq On : 2 Jul 2013 11:13 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 02 11:31:45 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.151	136	368321	2000.00	ppb	0.00
6) Acenaphthene-d10	5.398	164	199034	2000.00	ppb	0.00
10) Phenanthrene-d10	6.419	188	351555	2000.00	ppb	0.00
17) Chrysene-d12	8.584	240	355907	2000.00	ppb	0.00
21) Perylene-d12	10.068	264	332091	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.629	82	26085	441.99	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 44.20%			
7) 2-Fluorobiphenyl	4.933	172	74950	459.44	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 45.94%			
11) Pyrene-d10	7.449	212	68723	500.72	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.07%			
18) Terphenyl-d14	7.612	244	58089	464.87	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 46.49%			
Target Compounds						Qvalue
3) Naphthalene	4.169	128	92548	466.90	ppb	100
4) 2-Methylnaphthalene	4.668	142	58722	415.64	ppb	100
5) 1-Methylnaphthalene	4.734	142	59624	439.54	ppb	100
8) Acenaphthylene	5.298	152	98201	527.17	ppb	100
9) Acenaphthene	5.422	153	60353	417.03	ppb	100
12) Fluorene	5.784	166	70302	455.63	ppb	100
13) Phenanthrene	6.434	178	100572	445.19	ppb	100
14) Anthracene	6.469	178	100912	567.65	ppb	100
15) Fluoranthene	7.281	202	108549	530.87	ppb	100
16) Pyrene	7.461	202	113582	512.71	ppb	100
19) Benzo[a]anthracene	8.576	228	101513	554.17	ppb	100
20) Chrysene	8.607	228	93937	451.77	ppb	100
22) Benzo[b]fluoranthene	9.678	252	98750	537.89	ppb	100
23) Benzo(j,k)fluoranthene	9.709	252	96680	493.01	ppb	100
24) Benzo[a]pyrene	10.006	252	92630	480.26	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.123	276	86882	~~461.50~~ 505.67	ppb	100
26) Dibenz[a,h]anthracene	11.158	278	85395	539.08	ppb	100
27) Benzo[g,h,i]perylene	11.408	276	88452	504.77	ppb	100

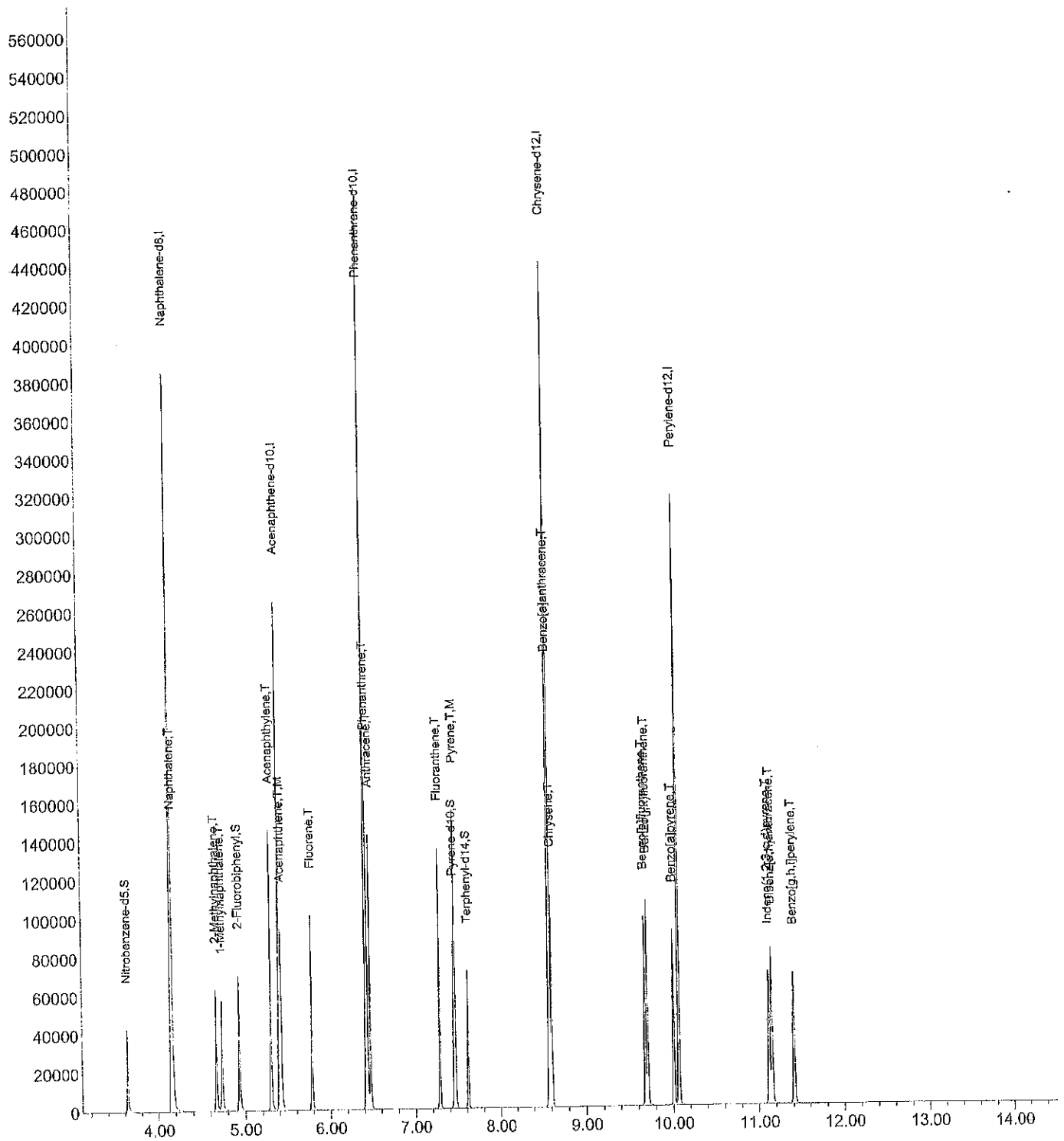
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/2/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702003.D
Acq On : 2 Jul 2013 11:13 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 02 11:31:45 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Tue Jul 02 11:31:18 2013
Response via : Initial Calibration

TIC: C0702003.D\data.ms



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130703\
Data File : C0703003.D
Acq On : 3 Jul 2013 10:44 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 03 11:01:18 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Jul 03 11:00:42 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	88	-0.02
2	S	Nitrobenzene-d5	500.000	447.200	10.6	89	-0.02
3	T	Naphthalene	500.000	471.389	5.7	89	-0.02
4	T	2-Methylnaphthalene	500.000	420.348	15.9	89	-0.02
5	T	1-Methylnaphthalene	500.000	438.805	12.2	88	-0.02
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	87	-0.02
7	S	2-Fluorobiphenyl	500.000	471.428	5.7	89	-0.02
8	T	Acenaphthylene	500.000	538.629	-7.7	89	-0.02
9	T,M	Acenaphthene	500.000	436.784	12.6	91	-0.02
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	90	-0.02
11	S	Pyrene-d10	500.000	528.185	-5.6	95	-0.02
12	T	Fluorene	500.000	470.955	5.8	93	-0.02
13	T	Phenanthrene	500.000	455.810	8.8	92	-0.02
14	T	Anthracene	500.000	596.963	-19.4	97	-0.02
15	T	Fluoranthene	500.000	570.240	-14.0	96	-0.02
16	T,M	Pyrene	500.000	553.728	-10.7	97	-0.02
17	I	Chrysene-d12	2000.000	2000.000	0.0	94	-0.03
18	S	Terphenyl-d14	500.000	466.309	6.7	94	-0.02
19	T	Benzo[a]anthracene	500.000	575.546	-15.1	98	-0.03
20	T	Chrysene	500.000	465.971	6.8	97	-0.03
21	I	Perylene-d12	2000.000	2000.000	0.0	96	-0.04
22	T	Benzo[b]fluoranthene	500.000	548.747	-9.7	98	-0.03
23	T	Benzo(j,k)fluoranthene	500.000	517.106	-3.4	101	-0.04
24	T	Benzo[a]pyrene	500.000	502.128	-0.4	101	-0.04
25	T	Indeno(1,2,3-c,d)pyrene	500.000	596.323	-19.3	102	-0.04
26	T	Dibenz[a,h]anthracene	500.000	567.166	-13.4	101	-0.05
27	T	Benzo[g,h,i]perylene	500.000	534.616	-6.9	102	-0.05

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

Data Path : X:\SEMIVOLS\COREY\DATA\C130703\
Data File : C0703003.D
Acq On : 3 Jul 2013 10:44 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 03 11:01:18 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Jul 03 11:00:42 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.129	136	325624	2000.00	ppb	-0.02
6) Acenaphthene-d10	5.375	164	172776	2000.00	ppb	-0.02
10) Phenanthrene-d10	6.396	188	315144	2000.00	ppb	-0.02
17) Chrysene-d12	8.557	240	334724	2000.00	ppb	-0.03
21) Perylene-d12	10.033	264	320101	2000.00	ppb	-0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	3.613	82	23333	447.20	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 44.72%			
7) 2-Fluorobiphenyl	4.914	172	66760	471.43	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 47.14%			
11) Pyrene-d10	7.426	212	64984	528.19	ppb	-0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 52.82%			
18) Terphenyl-d14	7.589	244	54801	466.31	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 46.63%			
Target Compounds						Qvalue
3) Naphthalene	4.147	128	82606	471.39	ppb	100
4) 2-Methylnaphthalene	4.645	142	52503	420.35	ppb	100
5) 1-Methylnaphthalene	4.715	142	52624	438.80	ppb	100
8) Acenaphthylene	5.275	152	87098	538.63	ppb	100
9) Acenaphthene	5.398	153	54872	436.78	ppb	100
12) Fluorene	5.761	166	65140	470.96	ppb	100
13) Phenanthrene	6.411	178	92307	455.81	ppb	100
14) Anthracene	6.446	178	97738	596.96	ppb	100
15) Fluoranthene	7.258	202	104522	570.24	ppb	100
16) Pyrene	7.438	202	109963	553.73	ppb	100
19) Benzo[a]anthracene	8.545	228	99154	575.55	ppb	100
20) Chrysene	8.580	228	91124	465.97	ppb	100
22) Benzo[b]fluoranthene	9.647	252	97106	548.75	ppb	100
23) Benzo(j,k)fluoranthene	9.674	252	97744	517.11	ppb	100
24) Benzo[a]pyrene	9.971	252	93352	502.13	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.080	276	108211m	596.32	ppb	
26) Dibenz[a,h]anthracene	11.111	278	86600	567.17	ppb	100
27) Benzo[g,h,i]perylene	11.361	276	90299	534.62	ppb	100

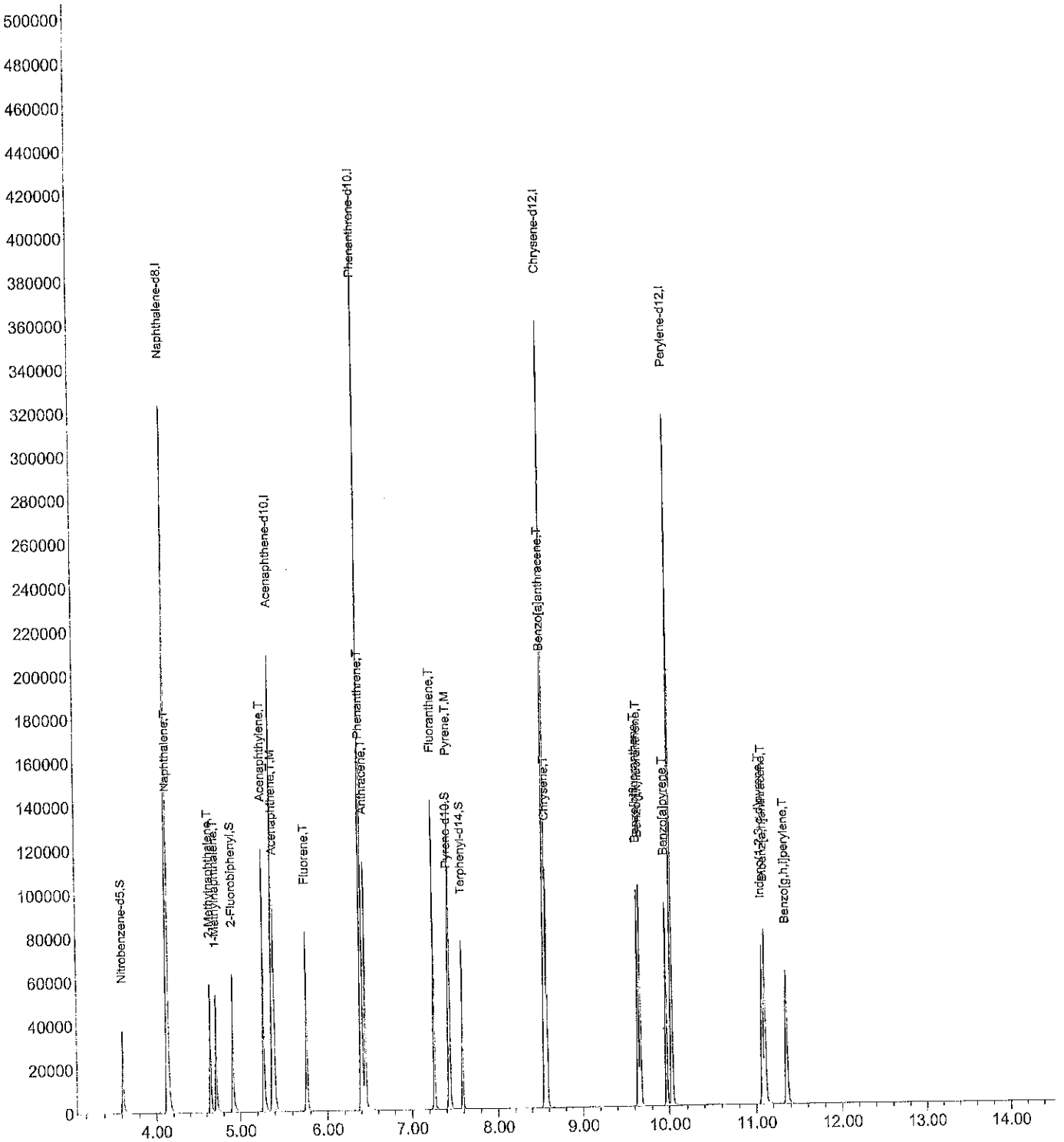
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/3/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130703\
Data File : C0703003.D
Acq On : 3 Jul 2013 10:44 am
Operator :
Sample : PAHCCV0702
Misc : SV3-72-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 03 11:01:18 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0702.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Jul 03 11:00:42 2013
Response via : Initial Calibration

TIC: C0703003.D\data.ms



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705014.D
Acq On : 5 Jul 2013 6:10 pm
Operator :
Sample : ICVPAH0705
Misc : SV3-72-07
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 08 08:47:55 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	94	0.00
2	S	Nitrobenzene-d5	500.000	463.871	7.2	97	0.00
3	T	Naphthalene	500.000	455.377	8.9	94	0.00
4	T	2-Methylnaphthalene	500.000	465.948	6.8	94	0.00
5	T	1-Methylnaphthalene	500.000	470.948	5.8	94	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	95	0.00
7	S	2-Fluorobiphenyl	500.000	448.233	10.4	95	0.00
8	T	Acenaphthylene	500.000	436.101	12.8	94	0.00
9	T,M	Acenaphthene	500.000	432.675	13.5	92	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	91	0.00
11	S	Pyrene-d10	500.000	495.365	0.9	100	0.00
12	T	Fluorene	500.000	467.880	6.4	97	0.00
13	T	Phenanthrene	500.000	444.325	11.1	91	0.00
14	T	Anthracene	500.000	466.087	6.8	95	0.00
15	T	Fluoranthene	500.000	477.522	4.5	100	0.00
16	T,M	Pyrene	500.000	479.202	4.2	100	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	94	0.00
18	S	Terphenyl-d14	500.000	487.133	2.6	99	0.00
19	T	Benzo[a]anthracene	500.000	520.423	-4.1	98	0.00
20	T	Chrysene	500.000	465.735	6.9	96	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	91	0.00
22	T	Benzo[b]fluoranthene	500.000	479.211	4.2	98	0.00
23	T	Benzo(j,k)fluoranthene	500.000	484.230	3.2	99	0.00
24	T	Benzo[a]pyrene	500.000	466.044	6.8	95	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	438.452	12.3	91	0.00
26	T	Dibenz[a,h]anthracene	500.000	418.150	16.4	90	0.00
27	T	Benzo[g,h,i]perylene	500.000	427.599	14.5	91	0.00

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

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705014.D
Acq On : 5 Jul 2013 6:10 pm
Operator :
Sample : ICVPAH0705
Misc : SV3-72-07
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 08 08:47:18 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

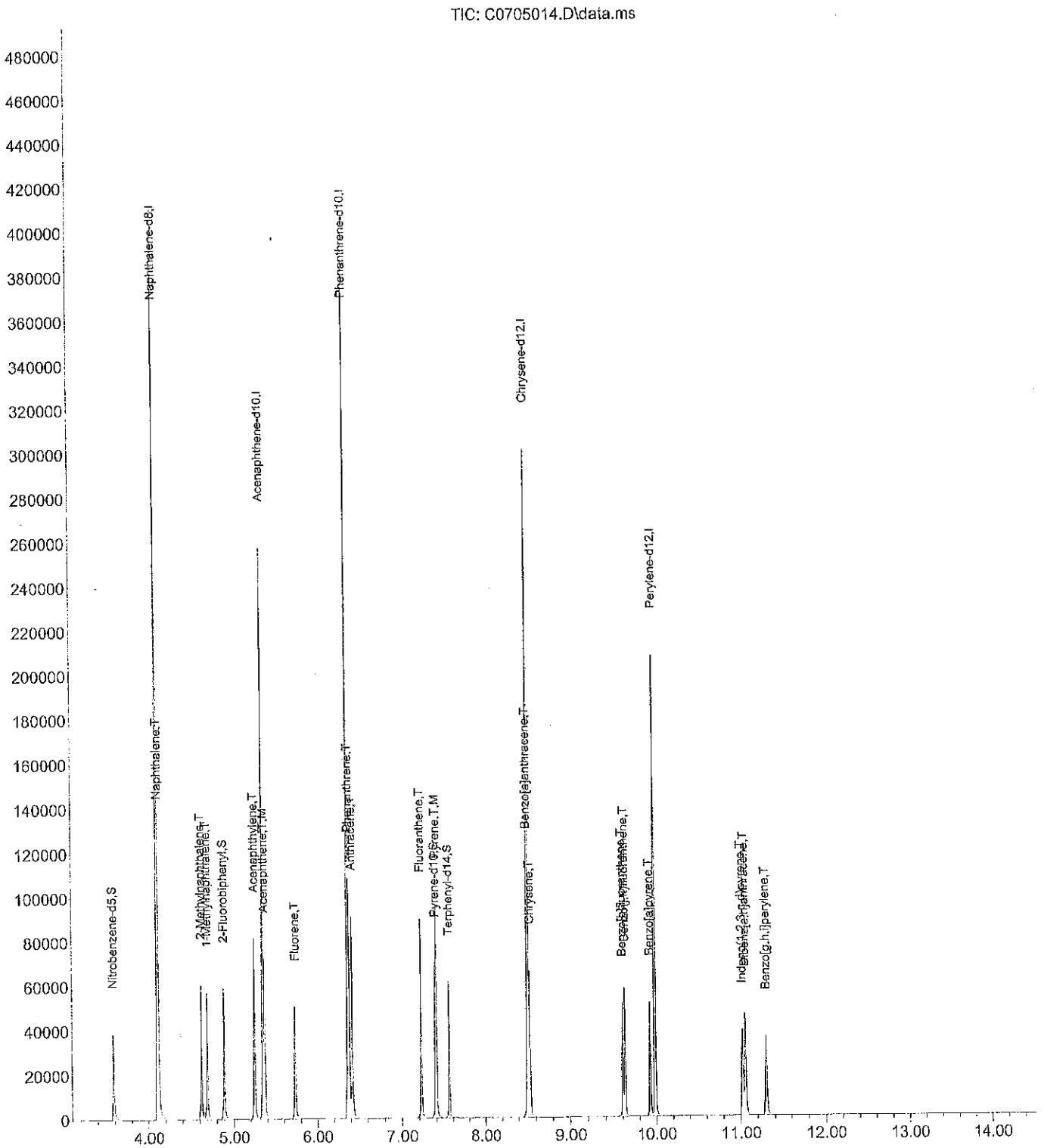
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.106	136	334553	2000.00	ppb	0.00
6) Acenaphthene-d10	5.352	164	185931	2000.00	ppb	0.00
10) Phenanthrene-d10	6.368	188	276725	2000.00	ppb	0.00
17) Chrysene-d12	8.515	240	250664	2000.00	ppb	0.00
21) Perylene-d12	9.990	264	217618	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.583	82	27568	463.87	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 46.39%			
7) 2-Fluorobiphenyl	4.886	172	48807	448.23	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.82%			
11) Pyrene-d10	7.391	212	54084	495.37	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 49.54%			
18) Terphenyl-d14	7.553	244	42025	487.13	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 48.71%			
Target Compounds						Qvalue
3) Naphthalene	4.117	128	74145	455.38	ppb	100
4) 2-Methylnaphthalene	4.621	142	45641	465.95	ppb	100
5) 1-Methylnaphthalene	4.687	142	46277	470.95	ppb	100
8) Acenaphthylene	5.252	152	65684	436.10	ppb	100
9) Acenaphthene	5.368	153	42820	432.68	ppb	100
12) Fluorene	5.737	166	52107	467.88	ppb	100
13) Phenanthrene	6.384	178	64176	444.32	ppb	100
14) Anthracene	6.419	178	65089	466.09	ppb	100
15) Fluoranthene	7.222	202	68755	477.52	ppb	100
16) Pyrene	7.402	202	72378	479.20	ppb	100
19) Benzo[a]anthracene	8.504	228	58399	520.42	ppb	100
20) Chrysene	8.539	228	53586	465.73	ppb	100
22) Benzo[b]fluoranthene	9.600	252	55299	479.21	ppb	100
23) Benzo(j,k)fluoranthene	9.631	252	54465	484.23	ppb	100
24) Benzo[a]pyrene	9.927	252	51754	466.04	ppb	100
25) Indeno(1,2,3-c,d)pyrene	11.021	276	~~46870~~ 58990	~~348.33~~ 438.45	ppb	100
26) Dibenz[a,h]anthracene	11.056	278	48919	418.15	ppb	100
27) Benzo[g,h,i]perylene	11.298	276	49480	427.60	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/8/13

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705014.D
Acq On : 5 Jul 2013 6:10 pm
Operator :
Sample : ICVPAH0705
Misc : SV3-72-07
ALS Vial : 14 Sample Multiplier: 1

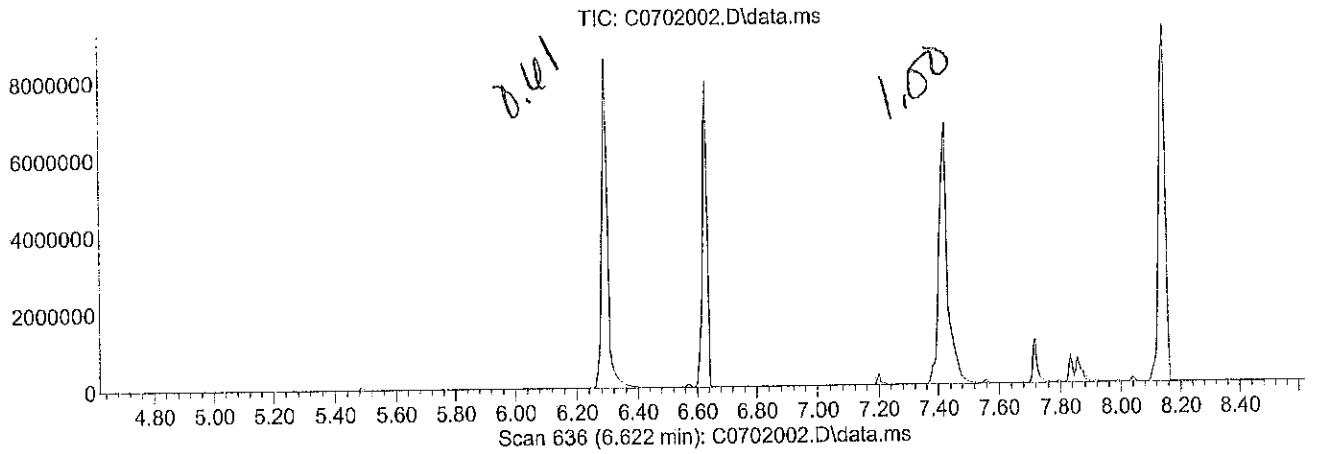
Quant Time: Jul 08 08:47:18 2013
Quant Method : C:\msdchem\1\METHODS\CSIM0705.M
Quant Title : PAH'S BY SIMS
QLast Update : Mon Jul 08 08:47:01 2013
Response via : Initial Calibration

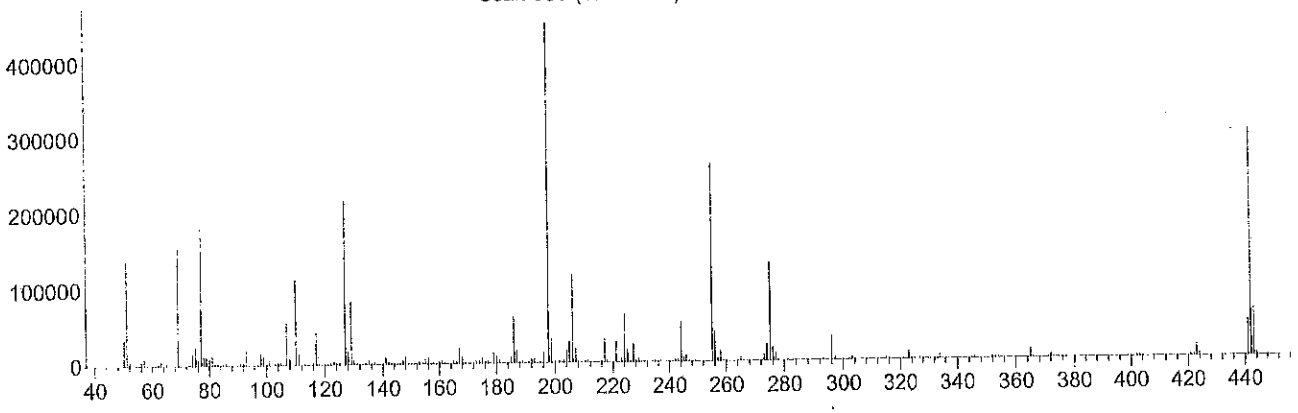


Data Path : X:\SEMIVOLS\COREY\DATA\C130702\
Data File : C0702002.D
Acq On : 2 Jul 2013 10:51 am
Operator :
Sample : DFTPP
Misc : SV3-71-05
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM0628.M
Title : PAH'S BY SIMS
Last Update : Mon Jul 01 08:36:48 2013





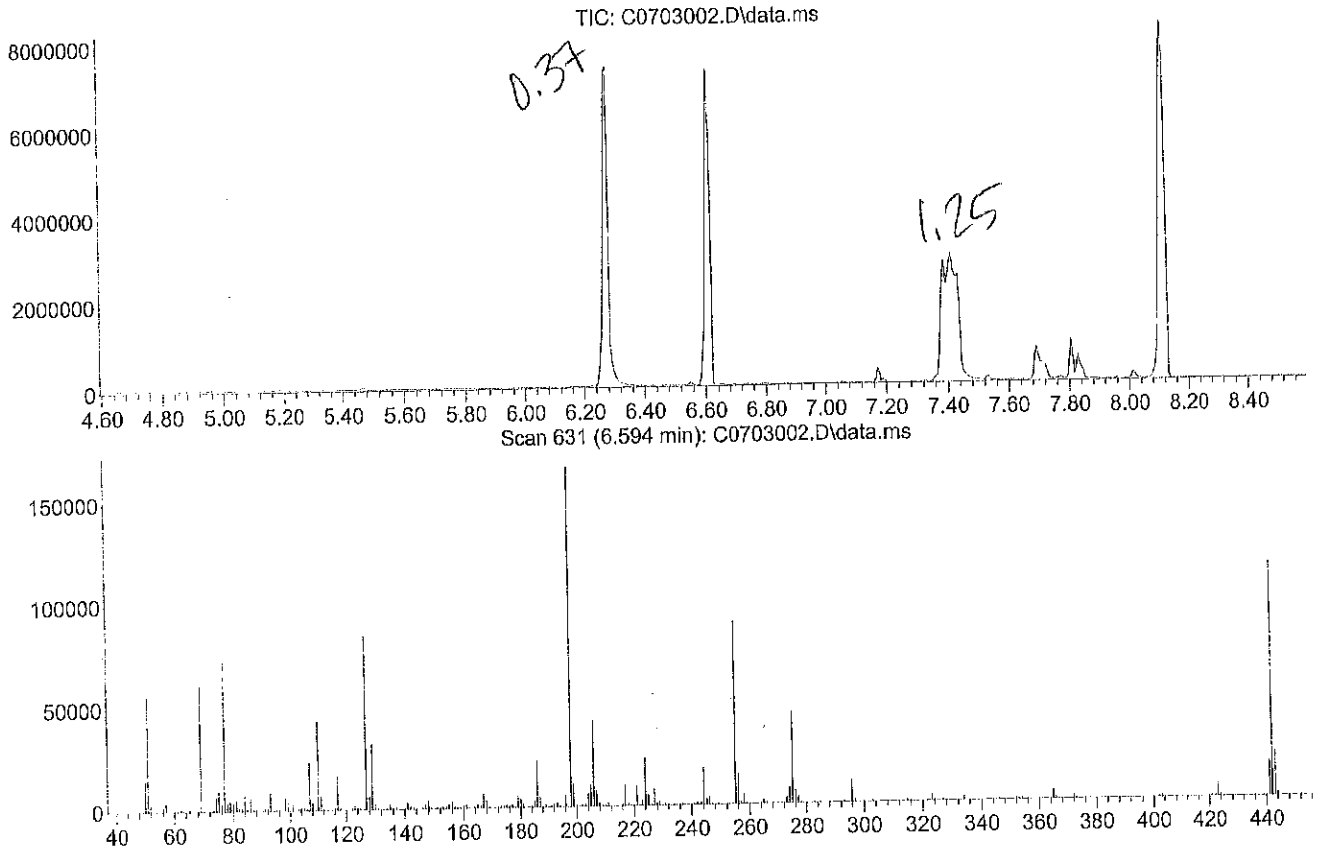
Spectrum Information: Scan 636

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	30.8	139328	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	34.3	155264	PASS
70	69	0.00	2	0.6	859	PASS
127	198	25	75	48.2	218304	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	452480	PASS
199	198	5	9	7.1	32192	PASS
275	198	10	30	28.9	130736	PASS
365	198	0.75	100	2.9	13040	PASS
441	443	0.01	100	75.6	47960	PASS
442	198	40	110	67.9	307008	PASS
443	442	15	24	20.7	63424	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C130703\
Data File : C0703002.D
Acq On : 3 Jul 2013 10:22 am
Operator :
Sample : DFTPP
Misc : SV3-71-05
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM0702.M
Title : PAH'S BY SIMS
Last Update : Tue Jul 02 11:31:18 2013



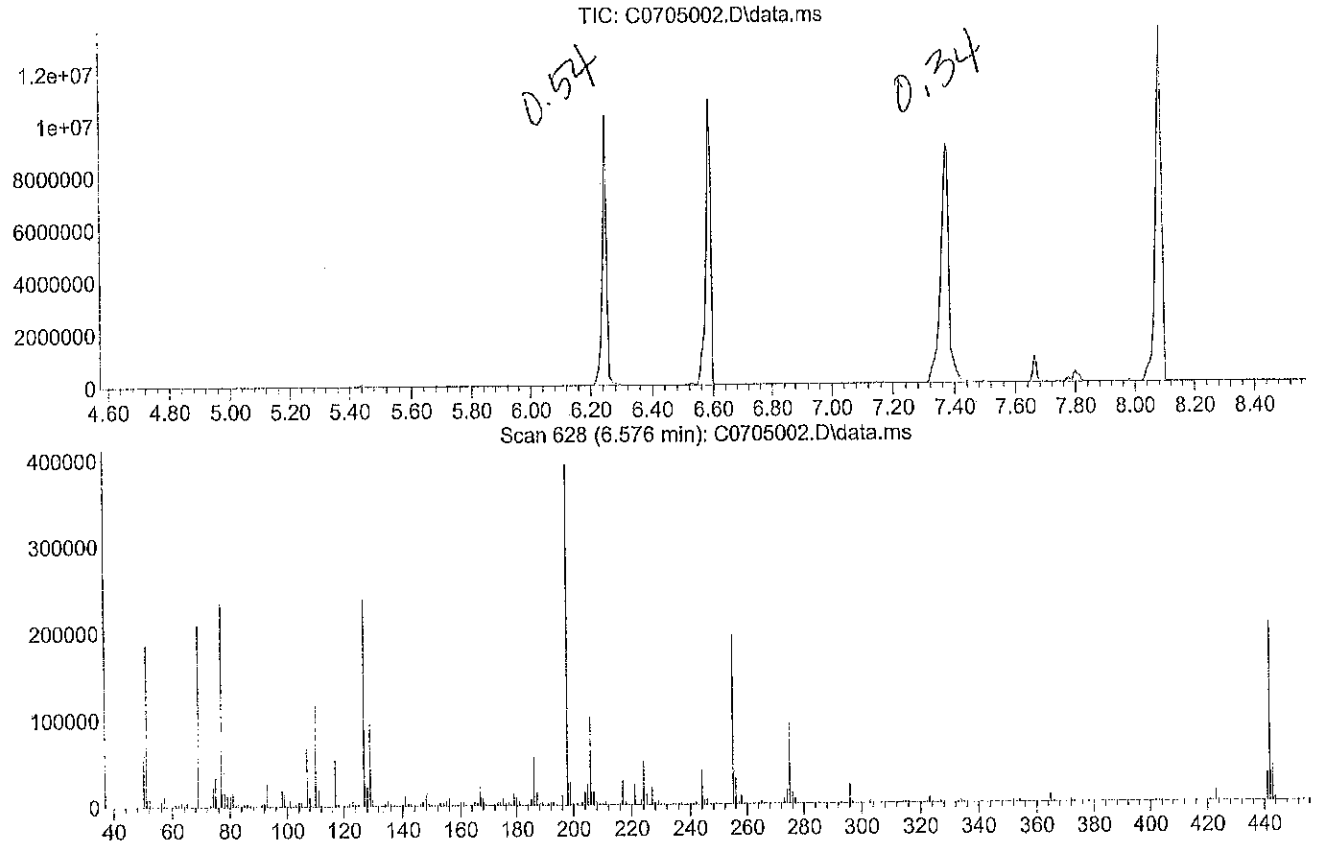
Spectrum Information: Scan 631

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	56000	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.0	64944	PASS
70	69	0.00	2	0.9	562	PASS
127	198	25	75	51.0	84912	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	166336	PASS
199	198	5	9	7.0	11668	PASS
275	198	10	30	27.0	44872	PASS
365	198	0.75	100	3.1	5112	PASS
441	443	0.01	100	78.4	17560	PASS
442	198	40	110	68.6	114160	PASS
443	442	15	24	19.6	22392	PASS

Data Path : X:\SEMIVOLS\COREY\DATA\C130705\
Data File : C0705002.D
Acq On : 5 Jul 2013 1:49 pm
Operator :
Sample : DFTPP
Misc : SV3-71-05
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\CSIM0702.M
Title : PAH'S BY SIMS
Last Update : Tue Jul 02 11:31:18 2013



Spectrum Information: Scan 628

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	47.6	187264	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.4	209920	PASS
70	69	0.00	2	0.7	1435	PASS
127	198	25	75	60.7	238400	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	393024	PASS
199	198	5	9	6.8	26872	PASS
275	198	10	30	23.6	92704	PASS
365	198	0.75	100	2.6	10053	PASS
441	443	0.01	100	77.1	32232	PASS
442	198	40	110	52.6	206912	PASS
443	442	15	24	20.2	41784	PASS

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 5, 2013

Aaron Waggoner
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1306-274

Dear Aaron:

Enclosed are the analytical results and associated quality control data for samples submitted on June 29, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

Case Narrative

Samples were collected on June 27, 2013 and received by the laboratory on June 29, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Background GEI28EX-SWS-061913-2	06-274-01	Soil	6-27-13	6-29-13	
6.25% PCSBIOEX-SWE-061913-5	06-274-02	Soil	6-27-13	6-29-13	
12.5% PCSBIOEX-SWE-061913-5	06-274-03	Soil	6-27-13	6-29-13	
25% PCSBIOEX-SWE-061913-5	06-274-04	Soil	6-27-13	6-29-13	
50% PCSBIOEX-SWE-061913-5	06-274-05	Soil	6-27-13	6-29-13	
100% PCSBIOEX-SWE-061913-5	06-274-06	Soil	6-27-13	6-29-13	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Background GEI28EX-SWS-061913-2**					
Laboratory ID:	06-274-01					
Bunker C	**300**	72	NWTPH-Dx	7-2-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**6.25% PCSBIOEX-SWE-061913-5**					
Laboratory ID:	06-274-02					
Bunker C	**660**	72	NWTPH-Dx	7-2-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**12.5% PCSBIOEX-SWE-061913-5**					
Laboratory ID:	06-274-03					
Bunker C	**580**	67	NWTPH-Dx	7-2-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**25% PCSBIOEX-SWE-061913-5**					
Laboratory ID:	06-274-04					
Bunker C	**2200**	71	NWTPH-Dx	7-2-13	7-2-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**50% PCSBIOEX-SWE-061913-5**					
Laboratory ID:	06-274-05					
Bunker C	**5500**	320	NWTPH-Dx	7-2-13	7-3-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**100% PCSBIOEX-SWE-061913-5**					
Laboratory ID:	06-274-06					
Bunker C	**6900**	330	NWTPH-Dx	7-2-13	7-3-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*69*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0702S2					
Bunker C Range	**ND**	50	NWTPH-Dx	7-2-13	7-5-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							
Laboratory ID:	06-274-04						
	ORIG	DUP					
Bunker C	**1550**	**837**			60	NA	
Surrogate:							
o-Terphenyl			*76* *66*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
BUNKCCV0702R-V1	500	568	-13.6	+/-15%
BUNKCCV0702R-V2	500	572	-14.4	+/-15%
BUNKCCV0703F-V2	500	531	-6.2	+/-15%
BUNKCCV0703F-V3	500	540	-8.0	+/-15%
BUNKCCV0703R-V2	500	520	-4.0	+/-15%
BUNKCCV0703R-V3	500	549	-9.8	+/-15%
BUNKCCV0705R-V1	500	530	-6.0	+/-15%
BUNKCCV0705R-V2	500	519	-3.8	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 5, 2013
Samples Submitted: June 29, 2013
Laboratory Reference: 1306-274
Project: 0137-018-03

% MOISTURE

Date Analyzed: 7-2-13

Client ID	Lab ID	% Moisture
Background GEI28EX-SWS-061913-2	06-274-01	30
6.25% PCSBIOEX-SWE-061913-5	06-274-02	30
12.5% PCSBIOEX-SWE-061913-5	06-274-03	26
25% PCSBIOEX-SWE-061913-5	06-274-04	29
50% PCSBIOEX-SWE-061913-5	06-274-05	21
100% PCSBIOEX-SWE-061913-5	06-274-06	25

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

CHAIN OF CUSTODY

06-274

NewFields
Shipping: 4770 NE View Dr. Mailing: P.O. Box 216
Port Gamble, WA. 98364
Tel: (360) 297-6045, Fax: (360)297-6901

Destination Lab: OnSite Environmental	Sample Originator: NewFields	Report Results To: GeoEngineers	Phone: 253.383.4940
Destination Contact: David Baumeister	Contact Name: Brian Hester	Contact Name: Aaron Waggoner	Fax:
Date: 6/28/13	Address: 4770 NE View Dr. Port Gamble, WA 98364	Address:	Email: awaggoner@geoengineers.com
Turn-Around-Time			
Project Name: Sekiu Project	Phone: 360-297-6045	Analysis: Bunker C; % Moisture	Invoicing To: GeoEngineers
Contract/PO: GeoEngineers File No. 0137-018-03	Fax:		Comments or Special Instructions: Samples originally collected 6/19/13
	E-mail: bhester@newfields.com		

No.	Sample ID	Matrix	No. & Type of Container	Date & Time	Bunker C	% Moisture	Preservation	Sample Temp Upon Receipt	LAB ID
1	Background GEI28EX-SWS-061913-2	SS	1-8oz Glass	6/27/13 1500	X	X	4 Degrees C		
2	6.25% PCSBIOEX-SWE-061913-5	SS	1-8oz Glass	6/27/13 1500			4 Degrees C		
3	12.5% PCSBIOEX-SWE-061913-5	SS	1-8oz Glass	6/27/13 1500			4 Degrees C		
4	25% PCSBIOEX-SWE-061913-5	SS	1-8oz Glass	6/27/13 1500			4 Degrees C		
5	50% PCSBIOEX-SWE-061913-5	SS	1-8oz Glass	6/27/13 1500			4 Degrees C		*
6	100% PCSBIOEX-SWE-061913-5	SS	1-8oz Glass	6/27/13 1500			4 Degrees C		3 Day TAT
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Relinquished by:	Recieved by:	Relinquished by:	Recieved by:	Matrix Codes
Print Name: Brian Hester	Print Name: P MC KALSON	Print Name:	Print Name:	FW = Fresh Water
Signature:	Signature: P McKalson	Signature:	Signature:	WW = Waste Water
Affiliation: NewFields	Affiliation: OSE	Affiliation:	Affiliation:	SB = Salt & Brackish Water
Date/Time: 6.28.13 1355	Date/Time: 6.29.13 2:30p	Date/Time:	Date/Time:	SS = Soil & Sediment
Print Name:	Print Name:	Print Name:	Print Name:	TS = plant & Animal Tissue
Signature:	Signature:	Signature:	Signature:	OT = Other
Affiliation:	Affiliation:	Affiliation:	Affiliation:	
Date/Time:	Date/Time:	Date/Time:	Date/Time:	

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 10, 2013

Rob Leet
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 0137-018-03
Laboratory Reference No. 1309-018

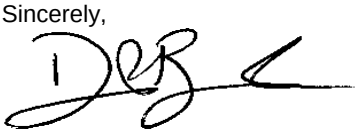
Dear Rob:

Enclosed are the analytical results and associated quality control data for samples submitted on September 4, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

Case Narrative

Samples were collected on September 3, 2013 and received by the laboratory on September 4, 2013. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Native soil	09-018-01	Soil	9-3-13	9-4-13	
Gravel fill and Residual Stockpiled Soil Mix	09-018-02	Soil	9-3-13	9-4-13	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Native soil**					
Laboratory ID:	09-018-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-6-13	9-6-13	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	9-6-13	9-6-13	
Bunker C Range	**ND**	56	NWTPH-Dx	9-6-13	9-6-13	U1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**Gravel fill and Residual Stockpiled Soil Mix**					
Laboratory ID:	09-018-02					
Diesel Range Organics	**110**	29	NWTPH-Dx	9-6-13	9-6-13	
Lube Oil	**590**	58	NWTPH-Dx	9-6-13	9-6-13	
Bunker C	**1000**	58	NWTPH-Dx	9-6-13	9-6-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*67*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0906S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-6-13	9-6-13	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-6-13	9-6-13	
Bunker C Range	**ND**	50	NWTPH-Dx	9-6-13	9-6-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-022-11							
	ORIG	DUP						
Diesel Range Organics	**ND**	**ND**				NA	NA	
Lube Oil Range Organics	**ND**	**ND**				NA	NA	
Bunker C Range	**ND**	**ND**				NA	NA	U1
Surrogate:								
o-Terphenyl			*75*	*81*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Contol Limits
CCV0906R-V1	100	97.4	2.6	+/-15%
CCV0906R-V2	100	100	0.0	+/-15%

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 10, 2013
Samples Submitted: September 4, 2013
Laboratory Reference: 1309-018
Project: 0137-018-03

% MOISTURE

Date Analyzed: 9-6-13

Client ID	Lab ID	% Moisture
Native soil	09-018-01	10
Gravel fill and Residual Stockpiled Soil Mix	09-018-02	14

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0137-018-03
Project Name: Residual Stockpiled Soil
Project Manager: Rob Leet
Sampled by: Randy Boston

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 09-018

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Extend. as Diesel, Heavy Oil, Bunker C)	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	Native soil	9/3/13	1000	soil	1				X												X
2	Gravel fill and Residual Stockpiled Soil Mix	9/3/13	↓	soil	1				X												X

	Signature	Company	Date	Time
Relinquished	Randy Boston	GeoEngineers OSC	9/3/13	1400
Received			9/4/13	1745
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Samples Taken at Sappho borrow Pit where Soil from Sekiu Cleanup Site. For Rayonier.

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: Residual Stockpiled Soil

OnSite Project Number: 09-018

Initiated by: MW

Date Initiated: 9/4/13

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	(No)	Temperature: 16	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup (Other)

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	(N/A)	1 2 3 4
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	(No)	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

2.4) Sample 2) Gravel fill and Residual Stockpiled Soil Mix 9/3/13 on COC
Residual Stockpile Soil 9/3/13 1000 on label

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

PACIFIC RIM ENVIRONMENTAL, INC.

BULK SAMPLE ANALYSIS REPORT

CLIENT:	GeoEngineers, Inc. 8410 154th Avenue Redmond, WA 98052	PACRIM # :	2013.0491
		REPORT # :	2013-06-0109
		DATE RECEIVED :	6/13/2013
		ANALYST :	William F. Golloway
PROJECT #:	0137-018-03	DATE ANALYZED :	6/14/21013
PROJECT:	Rayonier Sekia Sekia, WA	REPORT BY :	Robin K. Sandstrom
		REPORT DATE :	6/14/2013
		TURNAROUND:	3-5 Days
SAMPLE DATE:	6/11/2013	PAGE :	1 of 2

Attached is the result of analysis of one bulk sample submitted for asbestos identification: lab ID # 2013-06-0109.

The sample was analyzed in accordance with method EPA-600/R-93/116: "Method for the Determination of Asbestos in Bulk Building Materials".

Unless otherwise noted, the sample was inhomogeneous; subsamples of components were analyzed to achieve representative analysis. Separate layers of layered samples are analyzed and reported separately. Unless otherwise stated, asbestos content was quantified by calibrated visual estimation (CVES). CVES concentrations are reported in 2 to 3 percent ranges for fiber concentrations ranging from 1-10%, and 5 percent ranges for concentrations greater than 10%. Samples in which asbestos was not observed are reported as "none detected".

Limitations and Uncertainty:

Factors such as sample quality, sample size, interfering matrix material, fiber size, and fiber concentration contribute to the uncertainty of asbestos concentration measurements in bulk materials. Relative errors exceeding 100% may occur in samples containing <1-10% asbestos. Relative errors are typically below 30% in samples with greater than 10% asbestos, and approach zero as the asbestos concentration approaches 100%.

Asbestos fibers with diameters below approximately 0.25 micrometers are not detectable by PLM. These extremely fine fibers may occur in such products as floor tile, adhesives, and cement products. This limitation can be overcome, however, by the use of alternate analytical methods, such as Transmission Electron Microscopy (TEM).

The sample analyzed in this report was provided by third parties not subject to control by Pacific Rim Environmental, Inc. (PRE). Consequently, the results presented represent microscopic examinations in PRE laboratory facilities and PRE makes no representation as to sample collection techniques or procedures. Test results pertain only to the samples submitted for analysis.

This report cannot be represented by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full without written permission from the laboratory.

NVLAP Accredited LAB #: 101631-0
Sample submitted by: Third Party

Reports Reviewed By: *Approved Signatory*

6510 Southcenter Blvd., Ste. #4
Seattle, WA 98188

www.pacrimenv.com

Phone: (206) 244-8965
Fax: (206) 244-9096

Pacific Rim Environmental, Inc.
BULK SAMPLE ANALYSIS REPORT

CLIENT:	GeoEngineers, Inc. 8410 154th Avenue Redmond, WA 98052	PACRIM # :	2013.0491
		REPORT # :	2013-06-0109
		DATE RECEIVED :	6/13/2013
		ANALYST :	William F. Golloway
PROJECT #:	0137-018-03	DATE ANALYZED :	6/14/21013
PROJECT:	Rayonier Sekia Sekia, WA	REPORT BY :	Robin K. Sandstrom
		REPORT DATE :	6/14/2013
		TURNAROUND:	3-5 Days
SAMPLE DATE:	6/11/2013	PAGE :	2 of 2

Client/Lab ID Number	Sample Location and Description	Asbestos Type(s) / %	Other Material(s)	Date Analyzed
PCSBIOEX 2013-06-0109	**Buried pipe (Tar paper pipe wrap).** Black tar paper (layer 1 & layer 2) on light grey paper-like, rust stained insulation (layer 3 through layer 8) on grey, paper like insulation (layer 9) on black and rusted material.	Layer 1 (Tar paper): **Chrysotile 45-50%** Layer 2 (Tar paper): **Chrysotile 45-50%** Layer 3 (Insulation): **Chrysotile 60-65%** Layer 4 (Insulation): **Chrysotile 60-65%** Layer 5 (Insulation): **Chrysotile 60-65%** Layer 6 (Insulation): **Chrysotile 60-65%** Layer 7 (Insulation): **Chrysotile 60-65%** Layer 8 (Insulation): **Chrysotile 60-65%** Layer 9 (Insulation): **Chrysotile 60-65%**	**Layer 1:** Cellulose (<1%), Tar, Mineral Aggregate. **Layer 2:** Cellulose (<1%), Tar, Mineral Aggregate. **Layer 3:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 4:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 5:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 6:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 7:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 8:** Cellulose (<1%), Binder, Mineral Aggregate. **Layer 9:** Cellulose (<1%), Binder, Mineral Aggregate.	6/14/13

This report shall not be reproduced, except in full, without written permission from Pacific Rim Environmental, Inc.

PacRim Chain of Custody

Client	**GeoEngineers, Inc.**			PacRim Job#:	2013.0491
Address	8410 154th Avenue			Client Project #	0137-018-03
City	Redmond			Client Project Name	Rayonier Sekiu
State	WA	Zip	98052	Client Project Location	Sekiu, WA
Contact					
Phone	425-861-6000			Cell	
Fax	425-861-6050			Email	rleet@geoengineers.com

Please Choose Sample Type		Please Choose Turnaround Time	
X	Asbestos Sample		Same Day
	Lead Sample		24 Hour
	Other: Tem, Mold, etc.		3 Working Days
		X	5 Working Days

Samples received after 4:00 pm will be calculated from 8:00 am the following morning.
***Samples include up to 3 layers, additional layers are charged at $5.00 per layer.**

Sample Date	Sample #	Sample Description/Comments
6/11/13	PCSB10BX-Pipe Insulation	Paper/Tarpaper Pipe wrap on buried Pipe

EMAILED 6/14/13 RPS

Special Instructions:

Released by Signature		Date	6/13/13	Time	1700
Received by Signature		Date	6/13/13	Time	5:00 pm

Pacific Rim Environmental, 6510 Southcenter Blvd. Suite 4, Seattle, WA 98188
Phone: (206) 244-8965 Fax: (206) 244-9096 Email: pre@pacrimenv.com