908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: 05233CA
DoD-ELAP Certificate number: ADE-1410

Data Validatable Report

December 12, 2011

Environet, Inc.
650 Iwilei Road, Suite 204
Honolulu, Hawaii 96817

Attn: Stacey Fineran

Title: Report of Data: Case 66102

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

Contract #: Prime contract # for DoD: N62742-08-D-1930, CTO HC21

Dear Ms. Fineran:

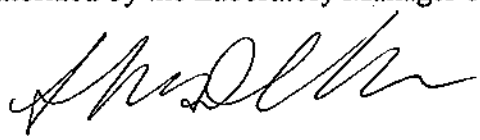
Samples were received October 26, 2011, in good condition. Written results for the requested analyses are provided on this December 12, 2011.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc.

If you have any questions or require further information, please contact your APPL Project Manager, Diane Anderson, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/rp
Enclosure
cc: File

Number of pages in this report: ___

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: 05233CA
DoD-ELAP Certificate number: ADE-1410

Data Validatable Report

December 12, 2011

Environet, Inc.
650 Iwilei Road, Suite 204
Honolulu, Hawaii 96817

Attn: Stacey Fineran

Title: Report of Data: Case 66102

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

Contract #: Prime contract # for DoD: N62742-08-D-1930, CTO HC21

Dear Ms. Fineran:

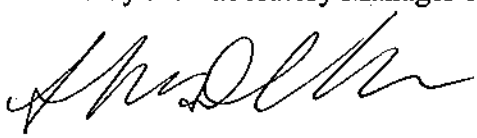
Samples were received October 26, 2011, in good condition. Written results for the requested analyses are provided on this December 12, 2011.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc.

If you have any questions or require further information, please contact your APPL Project Manager, Diane Anderson, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/rp
Enclosure
cc: File

Number of pages in this report: 483

Data Validation Package
for
LTM Red Hill Bulk Fuel Storage Facility
SDG 66102
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 66102

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample Receipt Information:

The samples were received on October 26, 2011, at 2.5°C, 3.0°C, and 3.0°C. The samples were assigned Analytical Request Form (ARF) number 66102. The sample numbers and requested analyses were compared to the chains of custody and email communications. Four bottles arrived broken for sample ES047; the client was notified. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES046	AY49333	WATER	10/24/2011	10/26/2011
ES047	AY49334	WATER	10/24/2011	10/26/2011
ES048	AY49335	WATER	10/24/2011	10/26/2011
ES049	AY49336	WATER	10/24/2011	10/26/2011

Samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

APPL's laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc. Their report is included.

CASE NARRATIVE

EPA Method 8015B

Total Petroleum Hydrocarbons – Diesel

Sample Preparation:

The water samples were extracted according to EPA method 3510C. The samples were extracted within holding time.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a flame ionization detector.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limit in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

Sample ES047 was designated by the client for MS/MSD analysis. Diesel fuel recovers below the 61% lower recovery limit in the MS at 33.5% and in the MSD at 30.0%.

Surrogates:

The surrogate recoveries are summarized on the form 2 & 8. All surrogate recoveries were within control limits.

Summary:

No other problem was encountered

EPA Method 8270D SIM

Polynuclear Aromatic Hydrocarbons

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8270D using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector in selective ion monitoring mode.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All spike criteria were met.

Sample ES047 was designated by the client for MS/MSD analysis. For the MSD, Acenaphthene recovered below the 45% lower control limit at 42.0%, Acenaphthylene below the 50% lower control limit at 45.6%, and Anthracene below the 55% lower control limit at 50.5%. The RPD for Naphthalene exceeded the 25% limit at 36.4%. All other recoveries met acceptance criteria.

Surrogates

Surrogate recoveries are summarized on the forms 2&8. All surrogate recoveries were within control limits.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

No other problem was encountered.

EPA Method 8260B
Volatile Organic Analysis

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector. All samples were listed as non-preserved; they were injected within the seven day holding time. All holding times were met. Manual integrations were performed in accordance to APPL's SOP. All points of the gasoline curve, the gasoline second-source, and the gasoline LCS required manual integrations because the integration did not follow the baseline. Chromatograms of prior to and after manual integrations are enclosed.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method. All system performance check compounds and calibration check compounds met DoD acceptance criteria. All calibration criteria were met except for acetone in continuing calibration 1030C27W.D; acetone recovered above the 20% Drift limit at 28% Drift. Acetone recovered within the control limits of the following LCS and was not detected in any sample.

Blanks:

No target analyte was detected above the detection limits in the method blanks.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. A second-source standard was used for the LCS. All LCS recoveries were acceptable.

Sample ES047 was designated by the client for MS/MSD analysis. All spike criteria were met except for gasoline, which recovered above the 125% upper control limit at 126% in the MSD.

Surrogates:

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within the acceptance limits.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No other problem was encountered. The data generated are acceptable.

EPA Method 6020
Dissolved Lead

Digestion Information:

The water samples were digested according to EPA methods 3015. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed for dissolved lead according to EPA method 6020 using an Agilent 7500CX ICP-MS.

Calibrations:

The initial and continuing calibrations were analyzed according to the DoD QSM. The initial calibration verification is prepared from a second source standard.

Blanks:

No metal was detected at or above one-half the LOQ in the method blank.

Spikes:

Laboratory Control Spike (LCS), matrix spikes (MS/MSD), post digestion spike (PDS), and serial dilution were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES047 was designated by the client for MS/MSD analysis. All acceptance criteria were met in the MS/MSD, PDS, and DT.

Summary:

No analytical exception is noted.

Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
M1	Manual integration: integration does not follow baseline
M2	Manual integration: non-target peak interference
M3	Manual integration: to split a peak that was integrated as one peak by the computer
M4	Manual integration: to integrate a split peak
M5	Manual integration: the whole peak or part of the peak was not integrated
M6	Manual integration: computer integrated wrong peak
M7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION

APPL - Analysis Request Form 66102

Client: Environet, Inc.
Address: 650 Iwilei Rd, #204
Honolulu, HI 96817
Attn: Stacy Fineran
Phone: 808-833-2225 Fax: 808-833-2231
Job: RED HILL/1022-024
PO #: 1022-015
Chain of Custody (Y/N): Y # 35457
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 2 WEEKS

Received by: TBV
Date Received: 10/26/11 Time: 10:00
Delivered by: FED EX
Shuttle Custody Seals (Y/N): N Time Zone: HAST
Chest Temp(s): SEE CRF 2.5-3.0°C
Color: VOA,M-PURPINK,Q-ORYE
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Cynthia Clark
QC Report Type: DVP4/ADRDOD/HI
Due Date: 11/09/11

Comments:
14 day TAT for Form 1s & 30 day TAT for full package. VDupra@environetInc.com
1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11
Guidance: DOD QSM, EDD: Exce & ADR
DoD Forms, J flag to DL, U flag at LOD
EDD ADR A1/A3 (ADR 8.3a unchecked) to VDupra@ & sfineran@environetinc.com
metals 6020: report Lead with 0.5ug/L RL
TPH-Diesel only; VOCs: include gasoline by 8260B
MA-EPH subcontracted to Gulf Coast Analytical.

Sample Distribution:
GC: 3-$SIMHC12W, 3-$TPETD2
Extractions: 3-_SEP004S, 3-_SEP011
VOA: 4-$86RHBF
Metals: 3-$602D(Pb)
Other: 3-_M3015, 3-SUB

Charges:

Invoice To:
same

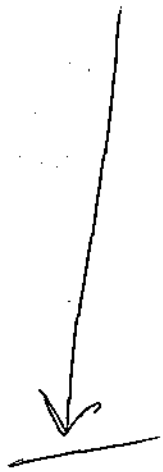
	Client ID		APPL ID	Sampled	Analyses Requested
1.	ES046		AY49333W	10/24/11 09:55	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- UN-PRESERVED VOA VIALS
2.	ES047	MS/MSD,LTDVOL	AY49334W	10/24/11 08:30	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- UN-PRESERVED VOA VIALS,LTD VOL on amber
3.	ES048		AY49335W	10/24/11 07:00	$86RHBF -- UN-PRESERVED VOA VIALS
4.	ES049		AY49336W	10/24/11 14:35	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- UN-PRESERVED VOA VIALS

APPL Sample Receipt Form

ARF# **66102**

Sample	Container Type	Count	pH
AY49333	[6] PL 500mL - HNO3	1	1.7
	[13] VOAs - HCL	3	na
	[15] VOAs - NP	4	na
	[17] Amber Liter	3	na
	[26] Other	2	1.7
AY49334	[6] PL 500mL - HNO3	4	1.7
	[13] VOAs - HCL	12	na
	[15] VOAs - NP	16	na
	[17] Amber Liter	9	na
	[26] Other	7	1.7
AY49335	[15] VOAs - NP	1	na
AY49336	[6] PL 500mL - HNO3	1	1.7
	[13] VOAs - HCL	3	na
	[15] VOAs - NP	4	na
	[17] Amber Liter	3	na
	[26] Other	2	1.7

Sample	Container Type	Count	pH
other - 1 Liter amber HCl			



66102
3.0

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611

Phone: (559) 275-2175
Fax: (559) 275-4422

CHAIN OF CUSTODY RECORD

C.O.C. 35457

Report to: PLEASE PRINT		Invoice to: PLEASE PRINT	
Company Name: Environet	Phone: 808 833-2225	Company Name: Environet	Phone: 808-833-2225
Address: 650 Iwilei Rd. #204 Honolulu, Hi	Fax: 808 833-2231	Address: 650 Iwilei Rd. #204 Honolulu, Hi	Fax: 808 833-2231
Attn: Stacey Fineran		Attn: A.P. Trisha Yosuda	

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
Red Hill /1022-024	Stacey Fineran		

Sample Identification	Location	Date Collected	Time Collected	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number: EPA 8015 B TPH DRO	EPA 8260 TPH-GRO	EPA 8260 VOC	EPA 8270C PAH	EPA 6020 Dissolved Lead	MADEP-EPH	MADEP-VPH
ES046	RHSF	10/24/11	0955	13	X			X	X	X	X	X	X	X
ES047MSMSD			0830	52	X			X	X	X	X	X	X	X
ES048			0700	1	X					X				
ES049	RHSF	10/24/11		13	X			X	X	X	X	X	X	X

Date Shipped: 10/25/2011
Carrier: Fed Express
Waybill No.:
Comments: *HCl was not rinsed out of VOAs

15

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☒ Standard (2-3 week) ☐ One week ☐ 24-48 hour

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
	10/25	1400	Fed Ex				
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					10/26/11	1000	

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM

1) Project: RED HILL / 1022-024 Date Received: 10/26/11

2) Coolers: Number of Coolers: 3

3) YES NO Were coolers and samples screened for radioactivity?

4) YES NO Were custody seals on outside of cooler? How many? _____ Date on seal? _____

5) Name on seal? _____

6) YES NO NA Were custody seals unbroken and intact at the time of arrival?

7) YES NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex

8) Shipping slip numbers: 1) 8768 4695 9176 (MASTER) 2) _____ 3) _____

9) YES NO NA Was the shipping slip scanned into the database?

10) YES NO NA If cooler belongs to APPL, has it been logged into the ice chest database?

11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): bubble bag in wet ice

12) YES NO NA For hand delivered samples was sufficient ice present to start the cooling process?

13) YES NO Was a temperature blank included in the cooler?

14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0

15) Cooler temp(s): 1) 2.5°C 2) 3.0°C 3) 3.0°C 4) _____ 5) _____ 6) _____ 7) _____ 8) _____

Chain of custody:

16) YES NO Was a chain of custody received?

17) YES NO Were the custody papers signed in the appropriate places?

18) YES NO Was the project identifiable from custody papers?

19) YES NO Did the chain of custody include date and time of sampling?

20) YES NO Is location where sample was taken listed on the chain of custody?

Sample Labels:

21) YES NO Were container labels in good condition?

22) YES NO Was the client ID on the label?

23) YES NO Was the date of sampling on the label?

24) YES NO Was the time of sampling on the label?

25) YES NO Did all container labels agree with custody papers?

Sample Containers:

26) YES NO Were all containers sealed in separate bags?

27) YES NO Did all containers arrive unbroken?

28) YES NO Was there any leakage from samples?

29) YES NO Were any of the lids cracked or broken?

30) YES NO Were correct containers used for the tests indicated?

31) YES NO Was a sufficient amount of sample sent for tests indicated?

32) YES NO NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:

Larger than a pea: YZ 10/26/11

Smaller than a pea: AY49333W03, ~~AY49334W30~~ AY49334W26-W29, AY49335W01

Preservation & Hold time:

33) YES NO NA Was a sufficient amount of holding time remaining to analyze the samples?

34) YES NO NA Do the sample containers contain the same preservative as what is stated on the COC?

35) YES NO NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

36) YES NO NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?

37) YES NO NA Unpreserved VOA Vials received? _____

38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF? _____

Lab notified if pH was not adequate: _____

Deficiencies: Received 4 Amber liter broken, 9 left for Sample ES047 ms/msd

Signature of personnel receiving samples: _____ Second reviewer: _____

Signature of project manager notified: Renée Date and Time of notification: 10-26-11

Name of client notified: _____ Date and Time of notification: _____

Information given to client: _____

_____ by whom (initials): _____

EPA 8015 Modified
Total Petroleum Hydrocarbons

EPA 8015 Modified
Total Petroleum Hydrocarbons
QC Summary

Method Blank
TPH Diesel Water

Blank Name/QCG: **111031W-49334 - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
BLANK	SURROGATE: OCTACOSANE (S)	71.2	28-142			%	10/31/11	11/06/11
BLANK	SURROGATE: ORTHO-TERPHEN	60.5	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106005
Instrument: Apollo
Sequence: 111106
Initials: LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 11:27:27 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 11/06/11

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	28-142	71.2		57-132	60.5	
AY49333	ES046	28-142	97.0		57-132	69.1	
AY49334-MS	Matrix Spike	28-142	87.3		57-132	72.0	
AY49334-MSD	Matrix SpikeD	28-142	83.3		57-132	59.5	
AY49334	ES047	28-142	107		57-132	72.2	
AY49336	ES049	28-142	106		57-132	63.4	
111031A-LCS	Lab Control Spike	28-142	83.3		57-132	98.0	

Comments: Batch: #TPETD-111031A

Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111031W-49334 LCS - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1520	76.0	61-143
SURROGATE: OCTACOSANE (S)	150	125	83.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	147	98.0	57-132

Comments:

Primary	SPK
Quant Method :	TPH8S15.M
Extraction Date :	10/31/11
Analysis Date :	11/29/11
Instrument :	Apollo
Run :	1129017
Initials :	LA

Printed: 11/30/11 11:27:20 AM

APPL Standard LCS

Matrix Spike Recoveries
TPH Diesel Water

APPL ID: **111031W-49334 MS - 160886**
Batch ID: #TPETD-111031A
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL FUEL	2000	730	1400	1330	33.5 #	30.0 #	61-143	5.1	30
SURROGATE: OCTACOSANE (S)	150	NA	131	125	87.3	83.3	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	108	89.3	72.0	59.5	57-132		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	TPH1028.M	TPH1028.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	11/06/11	11/06/11
Instrument :	Apollo	Apollo
Run :	1106014	1106015
Initials :	LA	

Printed: 11/30/11 11:27:17 AM
APPL MSD SCII

EPA 8015B-e

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 11/06/11

Matrix: WATER Instrument: Apollo

Blank ID: 111031A-BLK Time Analyzed: 1722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111031A-BLK	Blank	1106005	11/06/11 1722
AY49333	ES046	1106013	11/06/11 2030
111031A-MS	Matrix Spike	1106014	11/06/11 2053
111031A-MSD	Matrix SpikeD	1106015	11/06/11 2117
AY49334	ES047	1106016	11/06/11 2140
AY49336	ES049	1106019	11/06/11 2250
111031A-LCS	Lab Control Spike	1129017	11/29/11 1845

Comments: Batch: #TPETD-111031A

EPA 8015 Modified
Total Petroleum Hydrocarbons
Sample Data

TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES046
Sample Collection Date: 10/24/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66102
APPL ID: AY49333
QCG: #TPETD-111031A-160886

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	750 ++	150	80.8	40.4	ug/L	10/31/11	11/06/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	97.0	28-142			%	10/31/11	11/06/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	69.1	57-132			%	10/31/11	11/06/11

++(T7) The analyst has noted that the chromatogram of this sample closely resembles the boiling point hydrocarbon profile consistent with diesel fuel.

Quant Method: TPH1028.M
Run #: 1106013
Instrument: Apollo
Sequence: 111106
Dilution Factor: 1
Initials: LA

Printed: 11/30/11 11:27:24 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111106\1106013.D Vial: 13
Acq On : 11-6-11 20:30:17 Operator: LAC
Sample : AY49333W09 5/1030 Inst : Apollo
Misc : Water Multiplr: 4.85
IntFile : events.e
Quant Time: Nov 7 9:50 2011 Quant Results File: TPH1028.RES

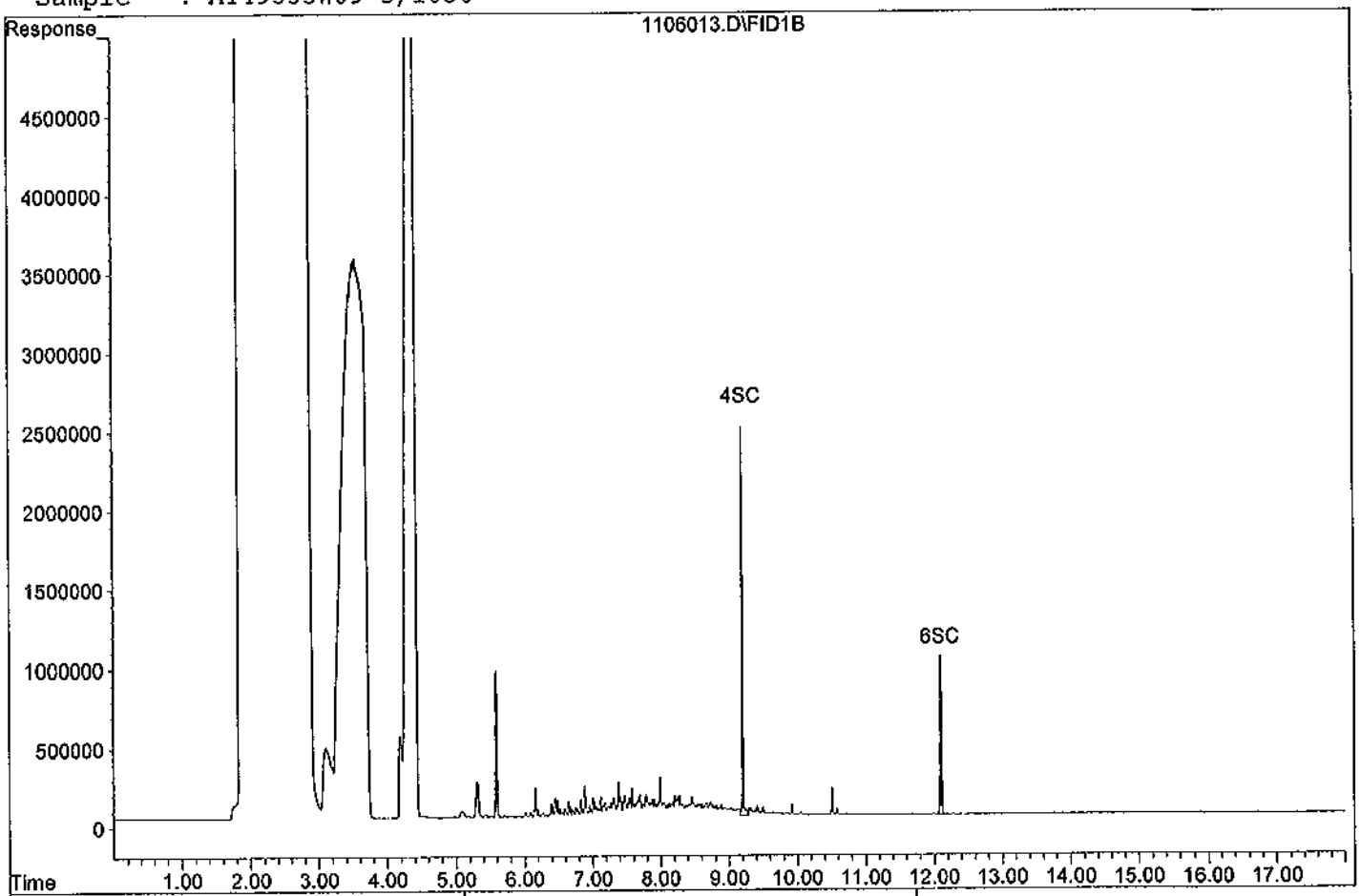
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

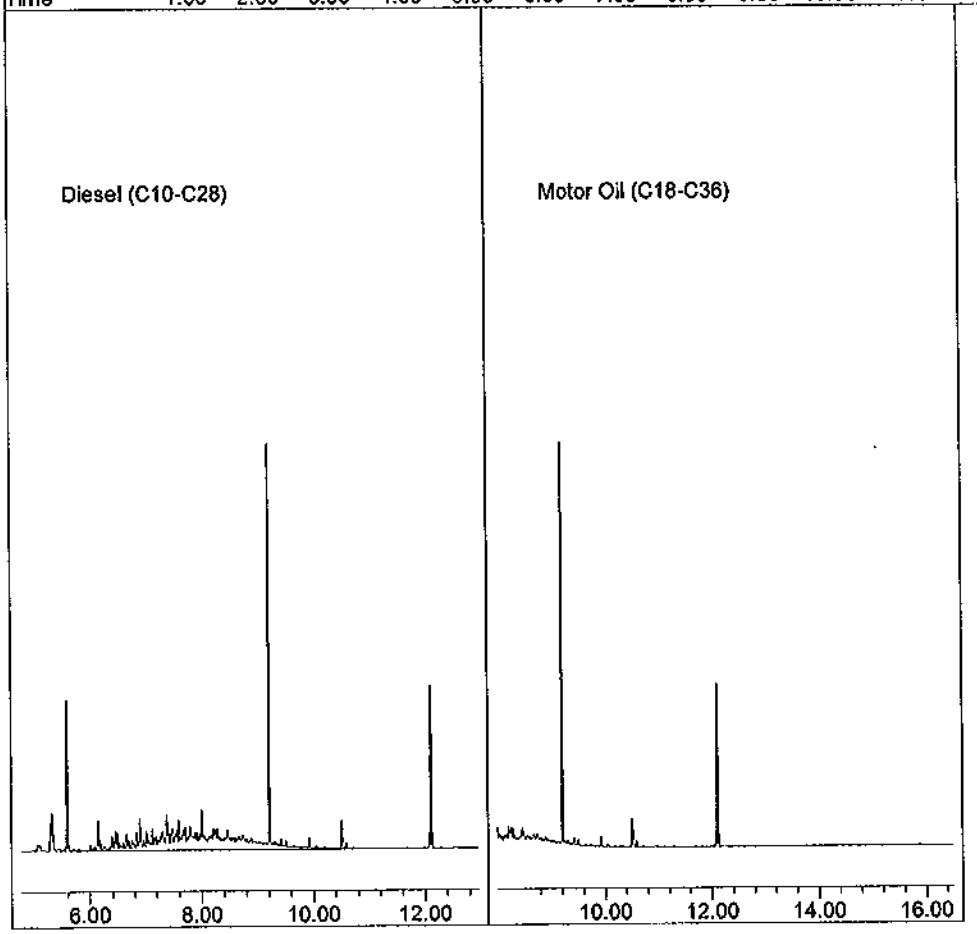
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	18082118	100.664 ppb
Surrogate Spike 145.631		Recovery =	69.12%
6) SC Octacosane(S)	12.10	13534363	141.185 ppb
Surrogate Spike 145.631		Recovery =	96.95%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	130505484	752.499 ppb

TT LAC 11/30/11

Data File: G:\APOLLO\DATA\111106\1106013.D
Sample : AY49333W09 5/1030





TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES047
Sample Collection Date: 10/24/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66102
APPL ID: AY49334
QCG: #TPETD-111031A-160886

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	730 ++	150	80.8	40.4	ug/L	10/31/11	11/06/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	107	28-142			%	10/31/11	11/06/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	72.2	57-132			%	10/31/11	11/06/11

++(T7) The analyst has noted that the chromatogram of this sample closely resembles the boiling point hydrocarbon profile consistent with diesel fuel.

Quant Method:	TPH1028.M
Run #:	1106016
Instrument:	Apollo
Sequence:	111106
Dilution Factor:	1
Initials:	LA

Printed: 11/30/11 11:27:24 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111106\1106016.D Vial: 16
Acq On : 11-6-11 21:40:27 Operator: LAC
Sample : AY49334W32 5/1030 Inst : Apollo
Misc : Water Multiplr: 4.85
IntFile : events.e
Quant Time: Nov 7 9:50 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

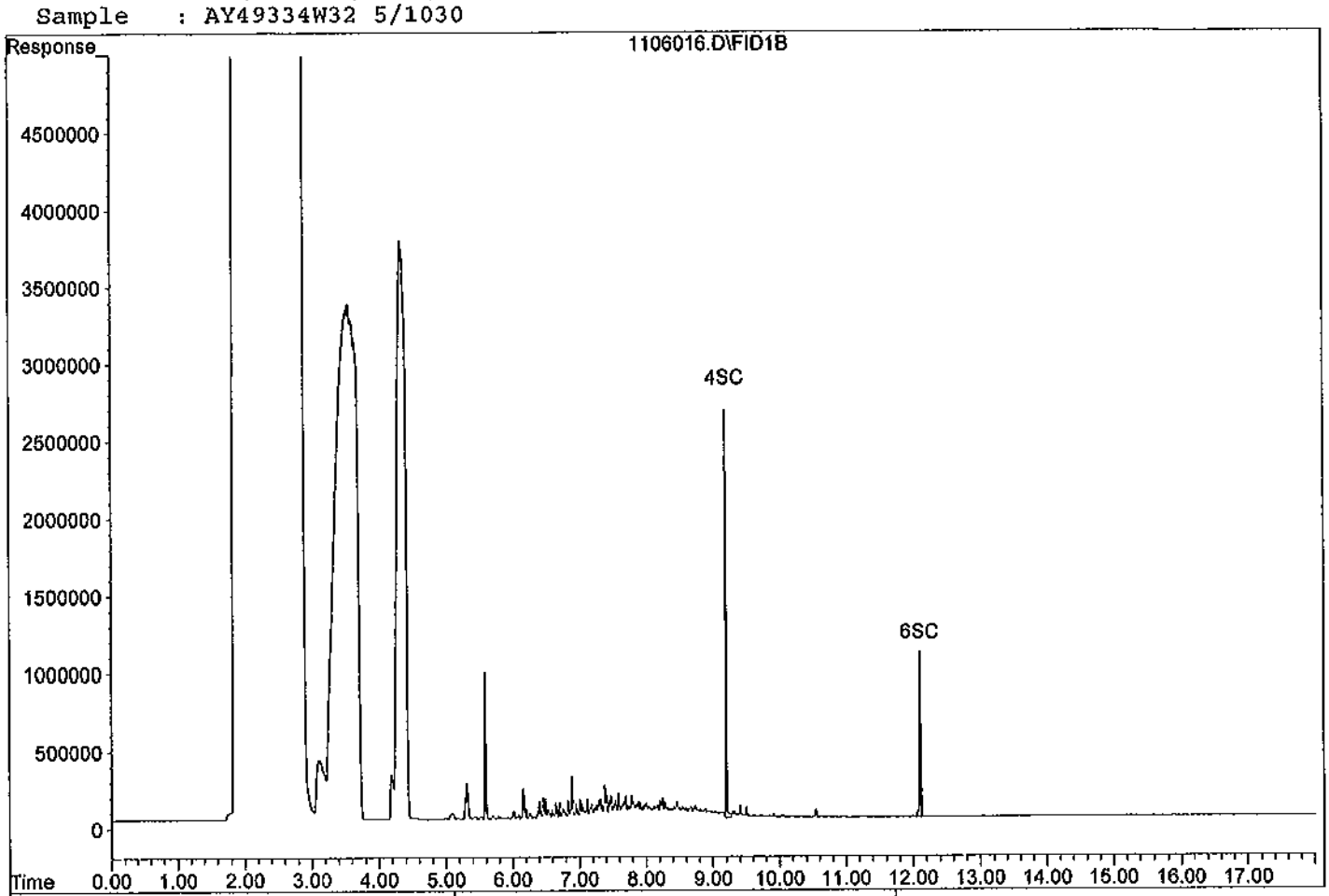
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

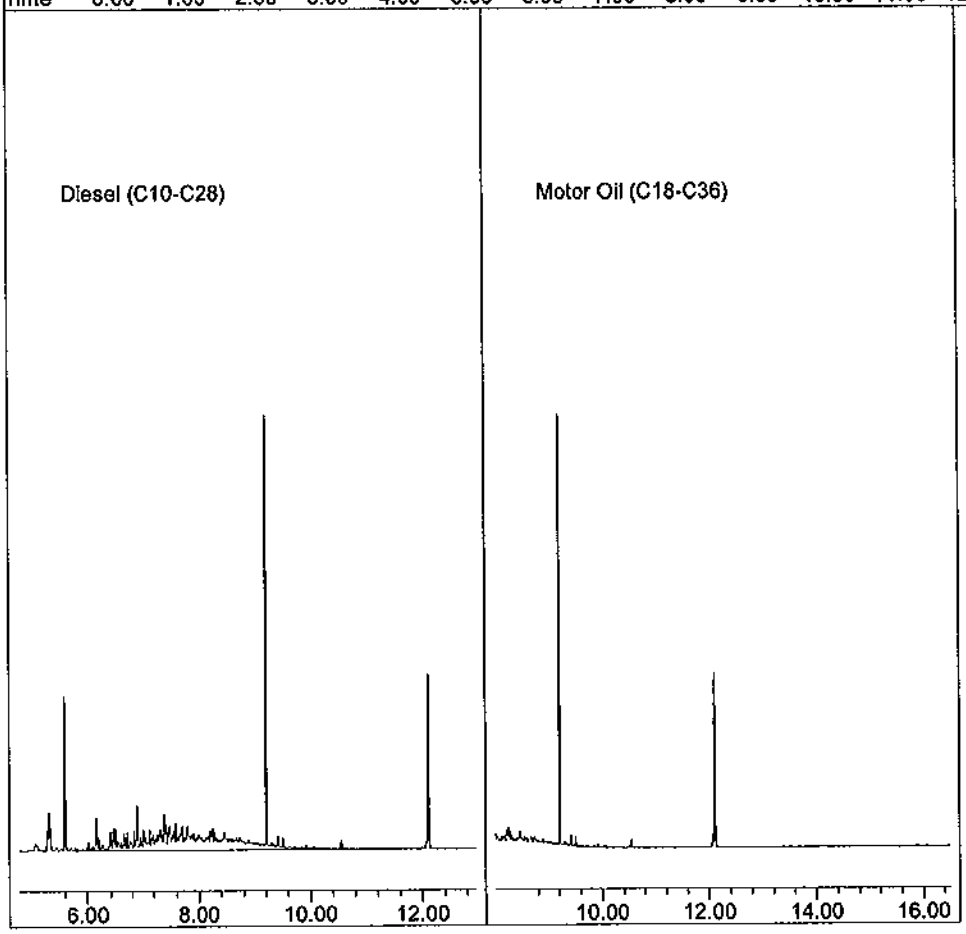
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	18885119	105.134 ppb
Surrogate Spike 145.631		Recovery =	72.19%
6) SC Octacosane(S)	12.10	14910092	155.536 ppb
Surrogate Spike 145.631		Recovery =	106.80%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	125913483	726.021 ppb

T7 LAC 11/30/11

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

Data File: G:\APOLLO\DATA\111106\1106016.D
Sample : AY49334W32 5/1030





TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES049
Sample Collection Date: 10/24/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66102
APPL ID: AY49336
QCG: #TPETD-111031A-160886

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	106	28-142			%	10/31/11	11/06/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	63.4	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106019
Instrument: Apollo
Sequence: 111106
Dilution Factor: 1
Initials: LA

Printed: 11/30/11 11:27:24 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

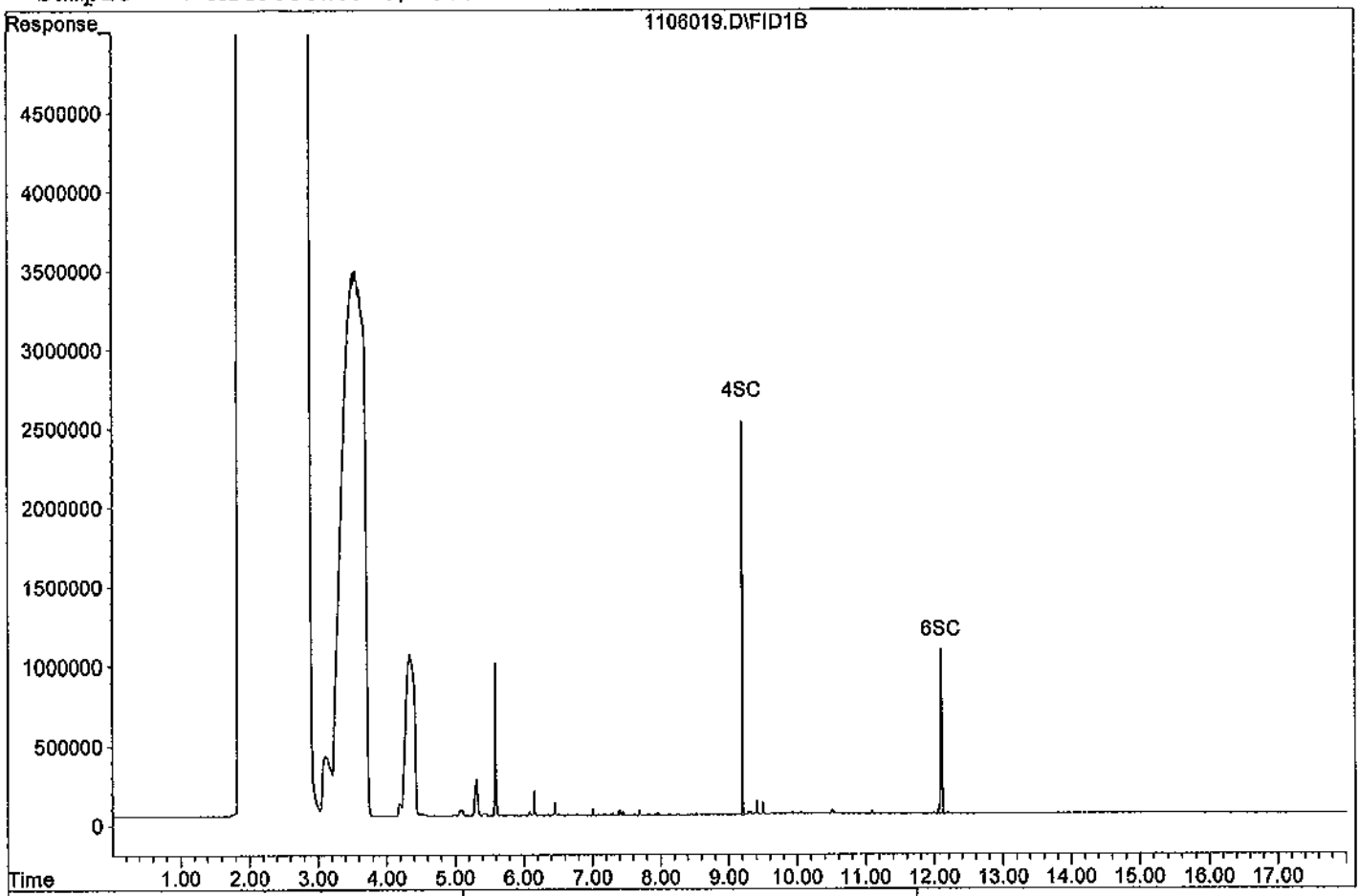
Data File : G:\APOLLO\DATA\111106\1106019.D Vial: 19
Acq On : 11-6-11 22:50:22 Operator: LAC
Sample : AY49336W09 5/1050 Inst : Apollo
Misc : Water Multiplr: 4.76
IntFile : events.e
Quant Time: Nov 7 10:06 2011 Quant Results File: TPH1028.RES

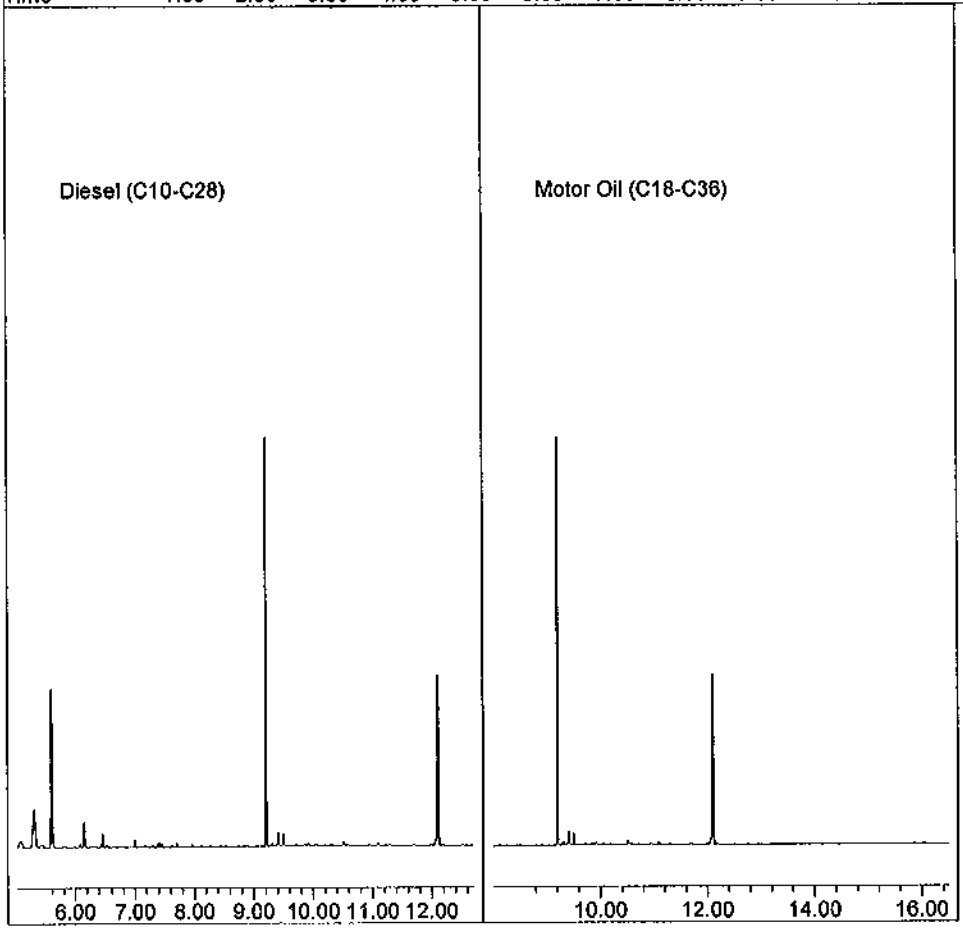
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	16586813	90.580 ppb
Surrogate Spike 142.857		Recovery =	63.41%
6) SC Octacosane(S)	12.10	14736715	150.799 ppb
Surrogate Spike 142.857		Recovery =	105.56%
Target Compounds			

Data File: G:\APOLLO\DATA\111106\1106019.D
Sample : AY49336W09 5/1050





EPA 8015 Modified
Total Petroleum Hydrocarbons

Calibration Data

TPH Extractables

TPH1028

Form 6

Initial Calibration

Lab Name: APPL, Inc. SDG No: 66102

Case No: Initial Cal. Date: 10/28/11

Matrix: Instrument: Apollo Initials: LAC

			1028016.D	1028017.D	1028018.D	1028019.D	1028020.D	1028021.D								
		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATM	Diesel (C10-C28)	442719	420460	472596	423976	425504	340418					420946	10	HATM	
2	HBTM	Motor Oil (C18-C36)	178423	183716	183814	180648	189866	171166					181272	3.5	HBTM	
3	SA	Not Used(S)	492314	497998	549709	499503	505363	680489					537563	14	SA	
4	SC	Ortho-Terphenyl(S)		432362	446201	461765	440594	399046					435993	5.3	SC	
5	SA	Not Used2(S)	246114	255075	272188	252864	246503	213571					247719	7.8	SA	
6	SC	Octacosane(S)		229602	230817	244618	233443	224899					232676	3.2	SC	
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

1.2501454

Quantitation Report (Not Reviewed)

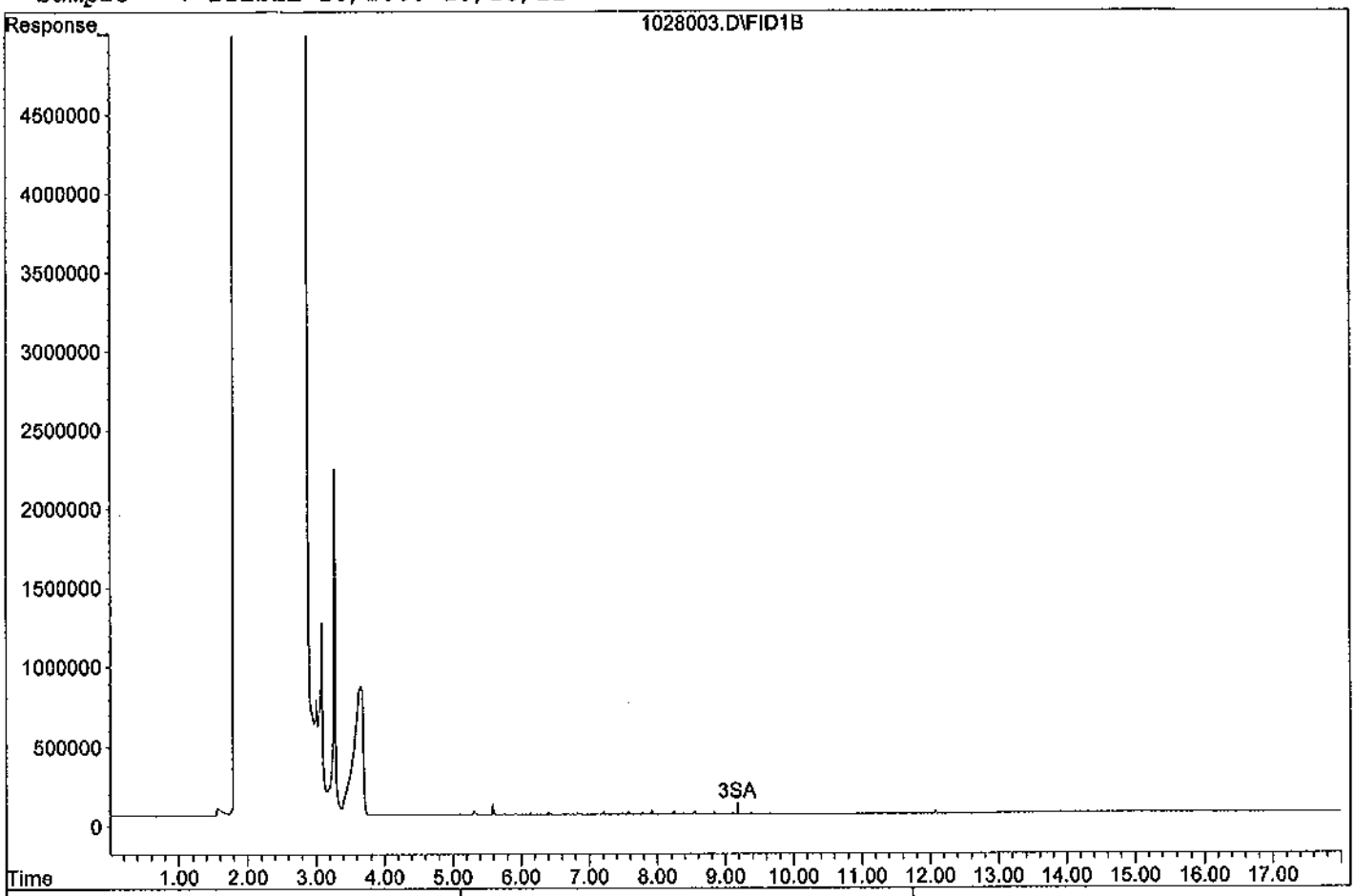
Data File : G:\APOLLO\DATA\111028\1028003.D Vial: 3
Acq On : 10-28-11 9:47:18 Operator: LAC
Sample : DIESEL 10/1000 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

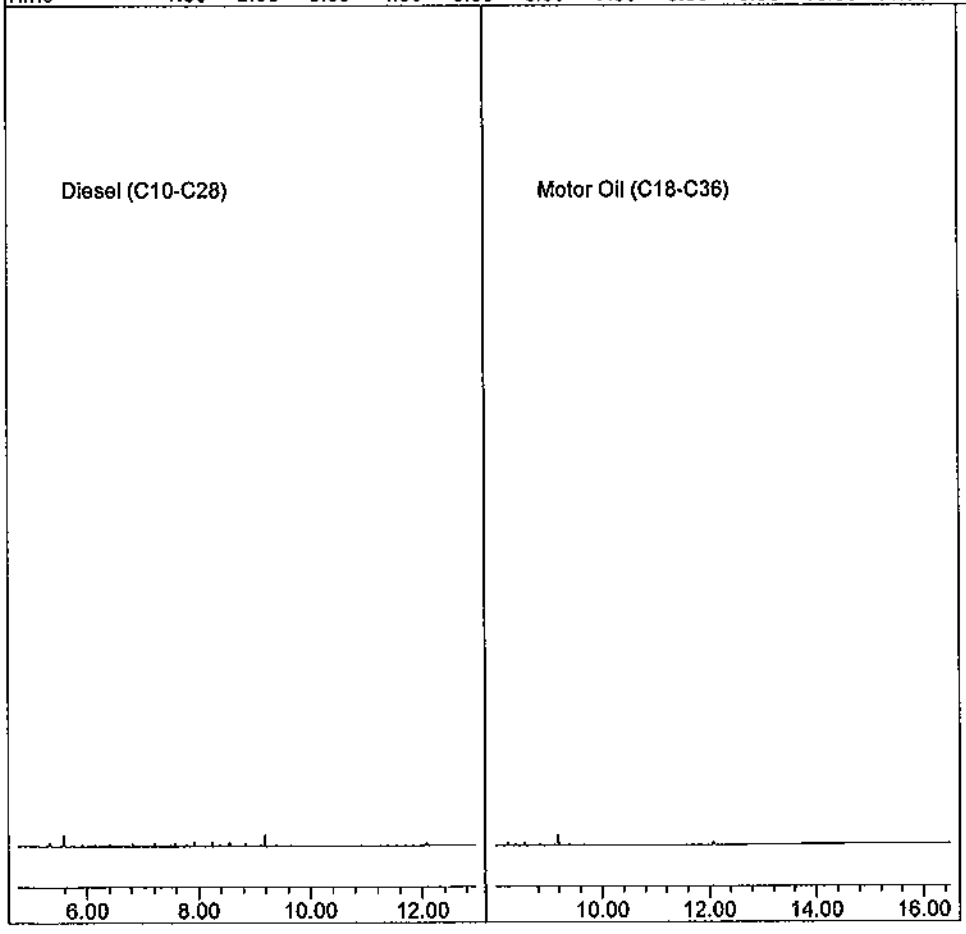
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.18	492314	0.777 ppb
Surrogate Spike 30.000	Recovery	=	2.59%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	8854372	10.215 ppb

Data File: G:\APOLLO\DATA\111028\1028003.D
Sample : DIESEL 10/1000 10/28/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028004.D Vial: 4
Acq On : 10-28-11 10:11:19 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

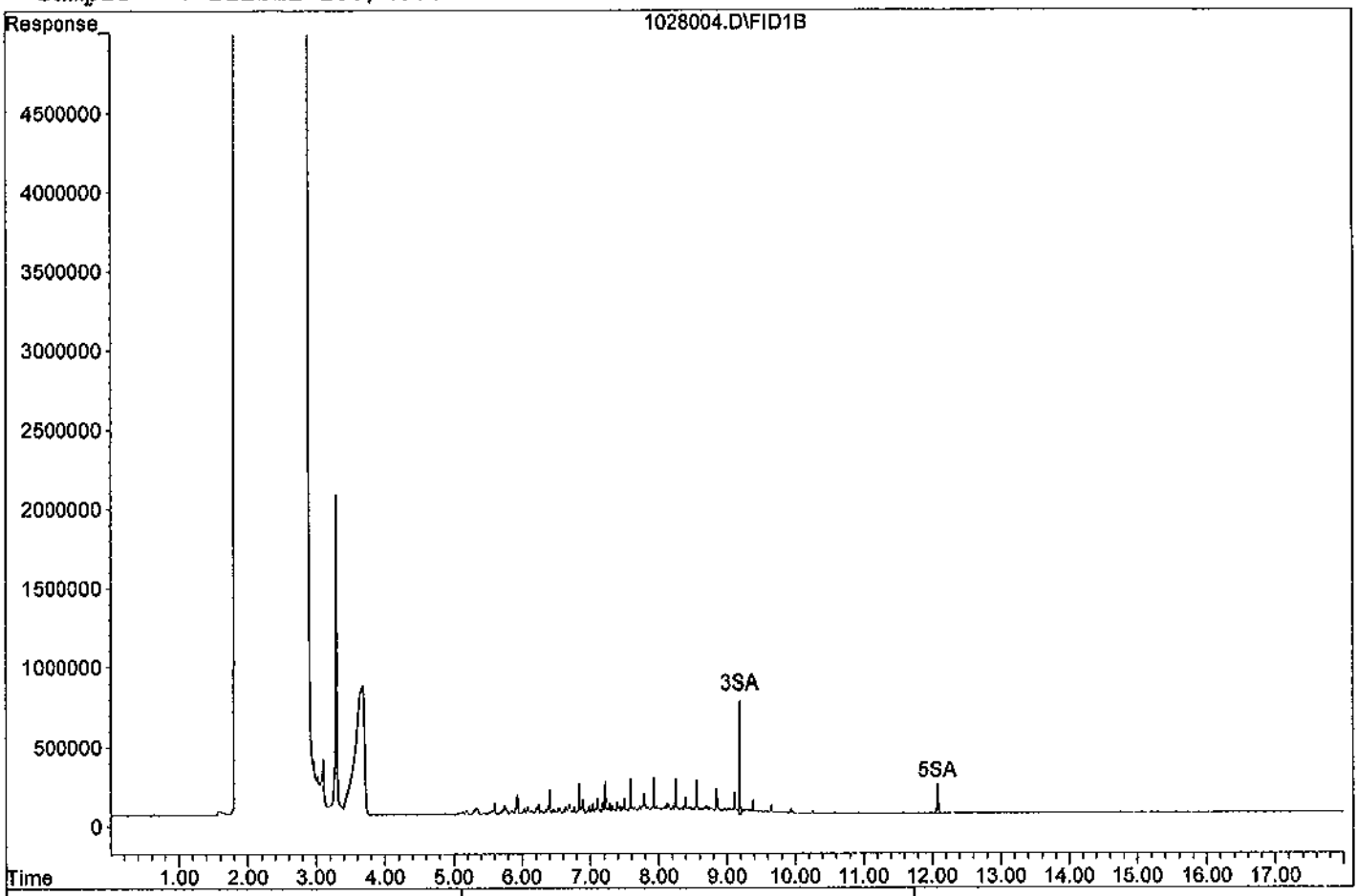
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

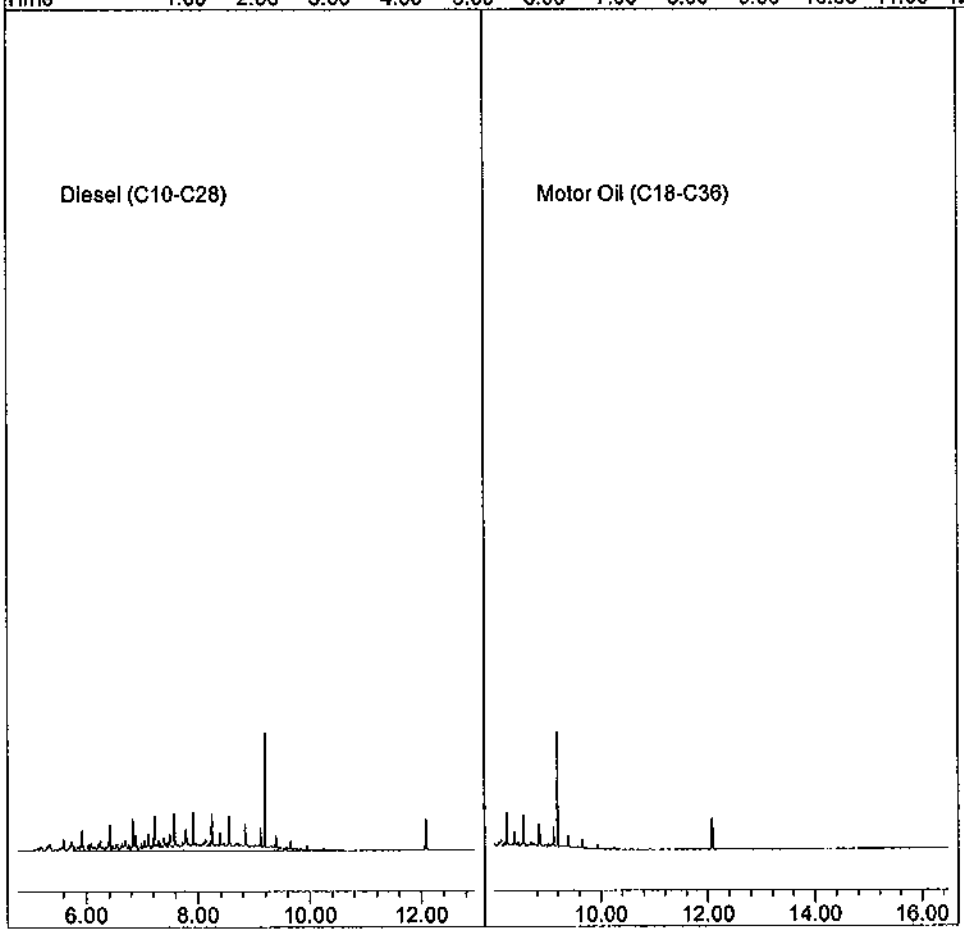
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.19	4979981	7.855 ppb
Surrogate Spike 30.000	Recovery =		26.18%
5) SA Not Used2(S)	12.08	2550752	9.065 ppb
Surrogate Spike 30.000	Recovery =		30.22%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	84092037	97.013 ppb

(f)=RT Delta > 1/2 Window 38 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028004.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028005.D Vial: 5
Acq On : 10-28-11 10:35:26 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

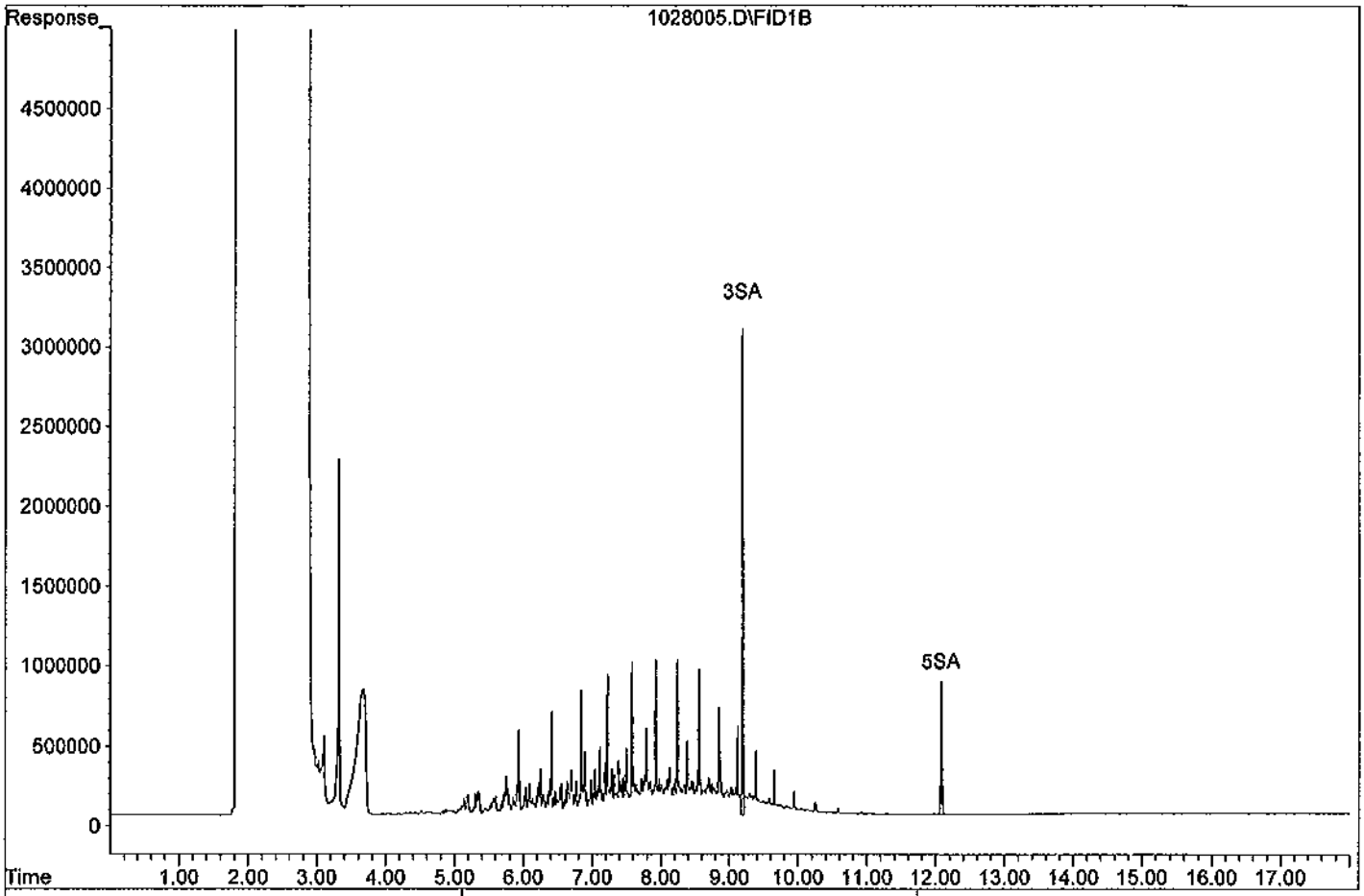
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

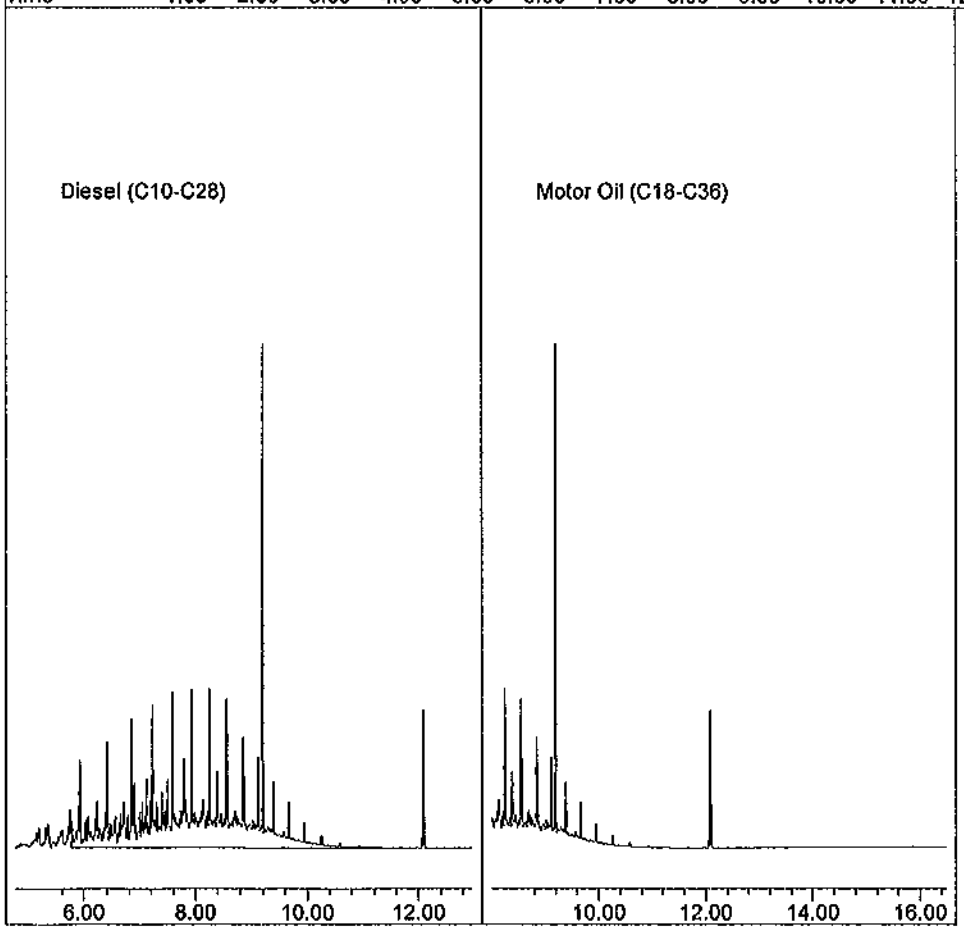
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.19	21988346	34.683 ppb
Surrogate Spike 30.000	Recovery =		115.61%
5) SA Not Used2(S)	12.09	10887525	43.308 ppb
Surrogate Spike 30.000	Recovery =		144.36%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	378076624	436.171 ppb

(f)=RT Delta > 1/2 Window 40 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028005.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028006.D Vial: 6
Acq On : 10-28-11 10:59:35 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

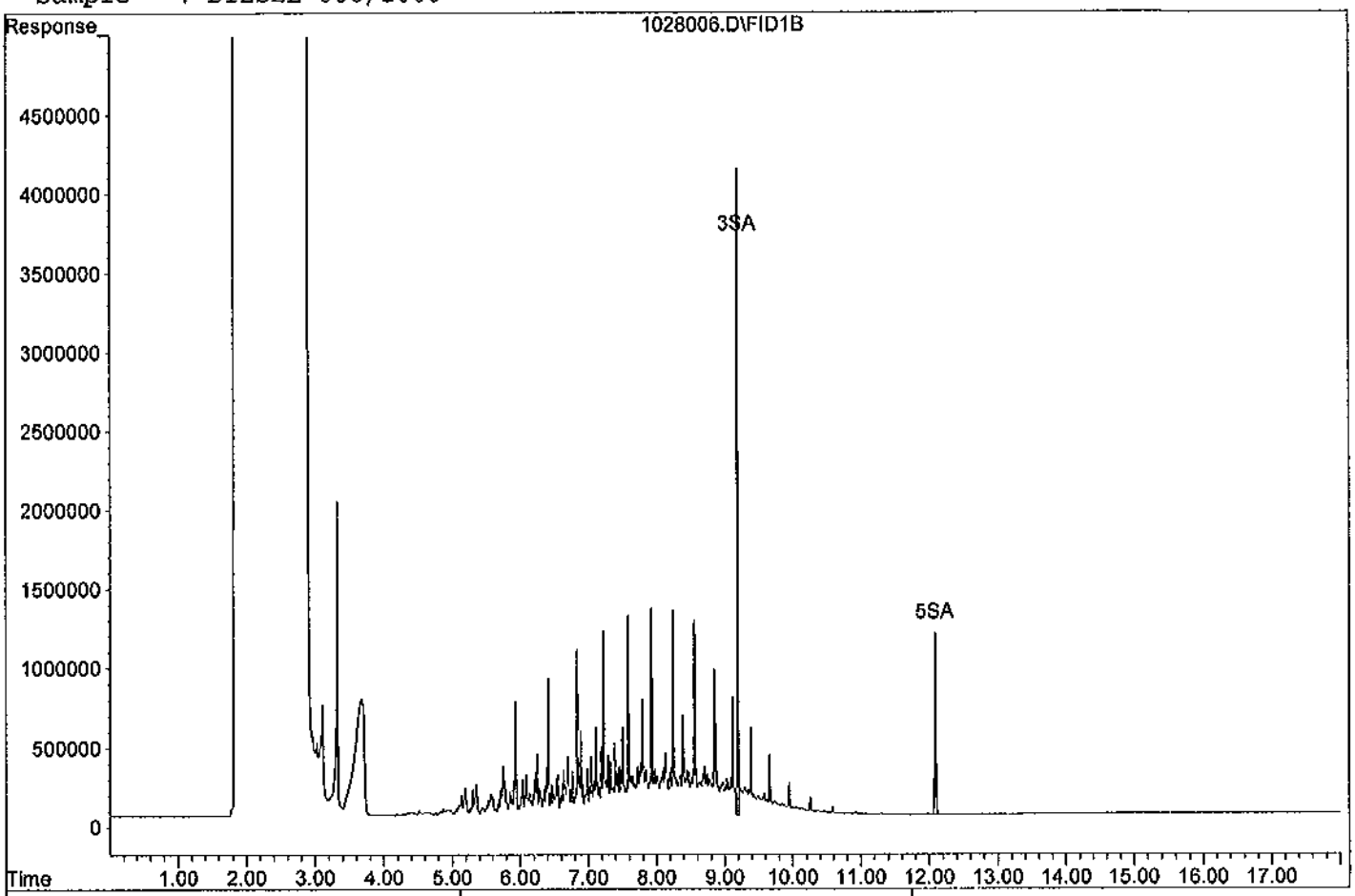
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

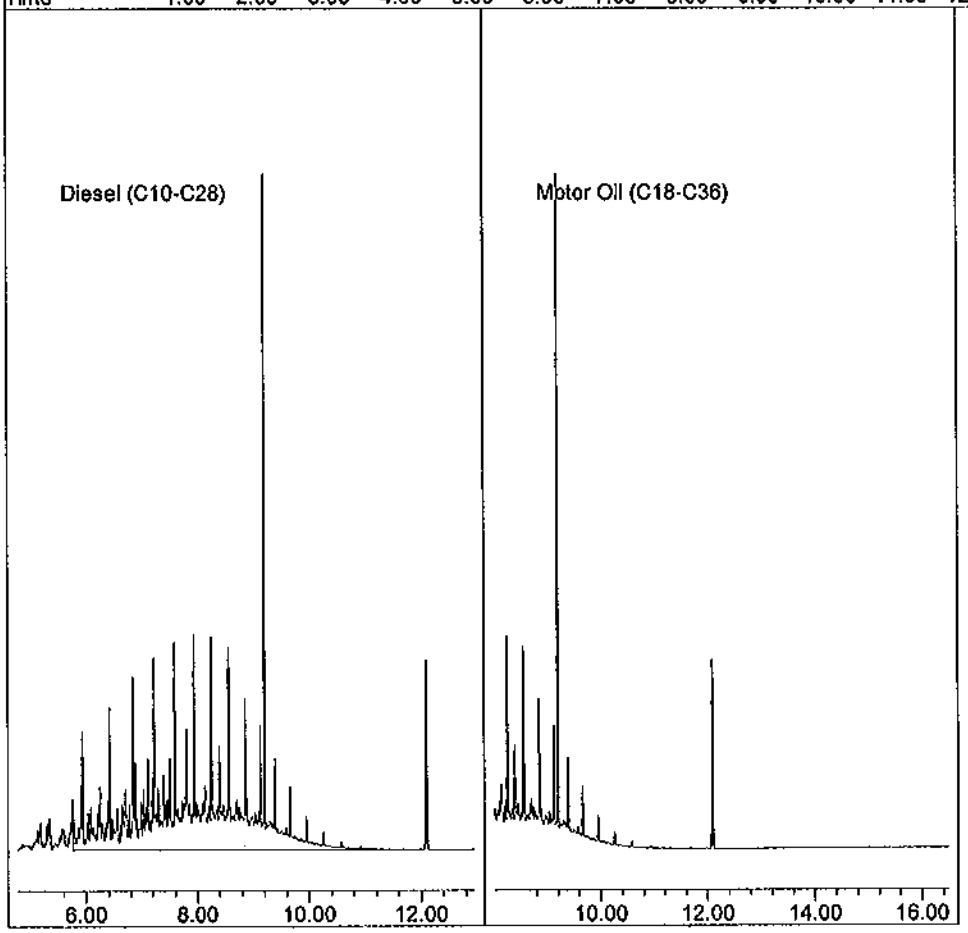
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	29970170	47.273 ppb
Surrogate Spike 30.000	Recovery =		157.58%
5) SA Not Used2(S)	12.09	15171855	60.906 ppb
Surrogate Spike 30.000	Recovery =		203.02%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	508771749	586.949 ppb

(f)=RT Delta > 1/2 Window 42 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028006.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028007.D Vial: 7
Acq On : 10-28-11 11:23:49 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

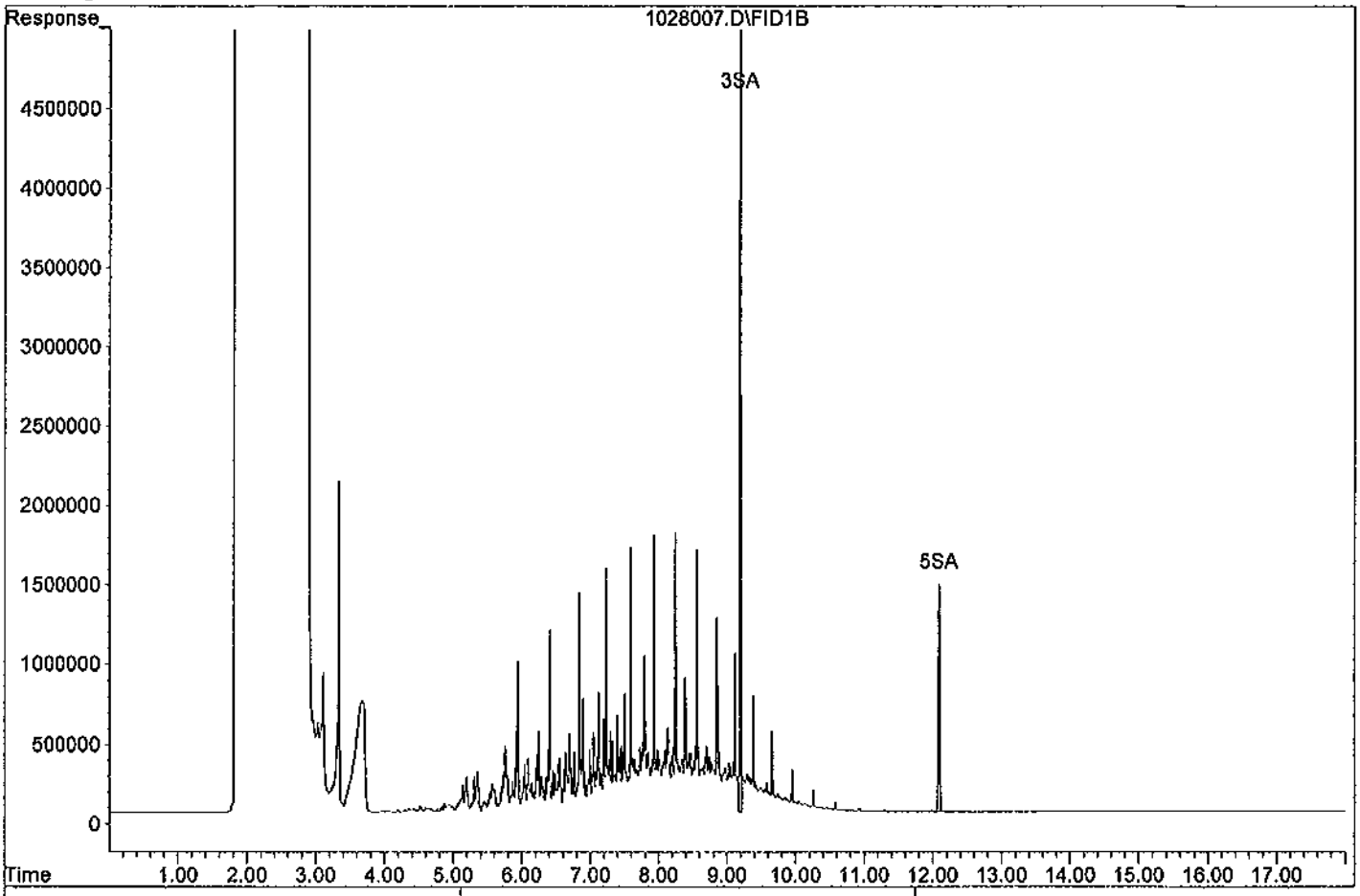
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

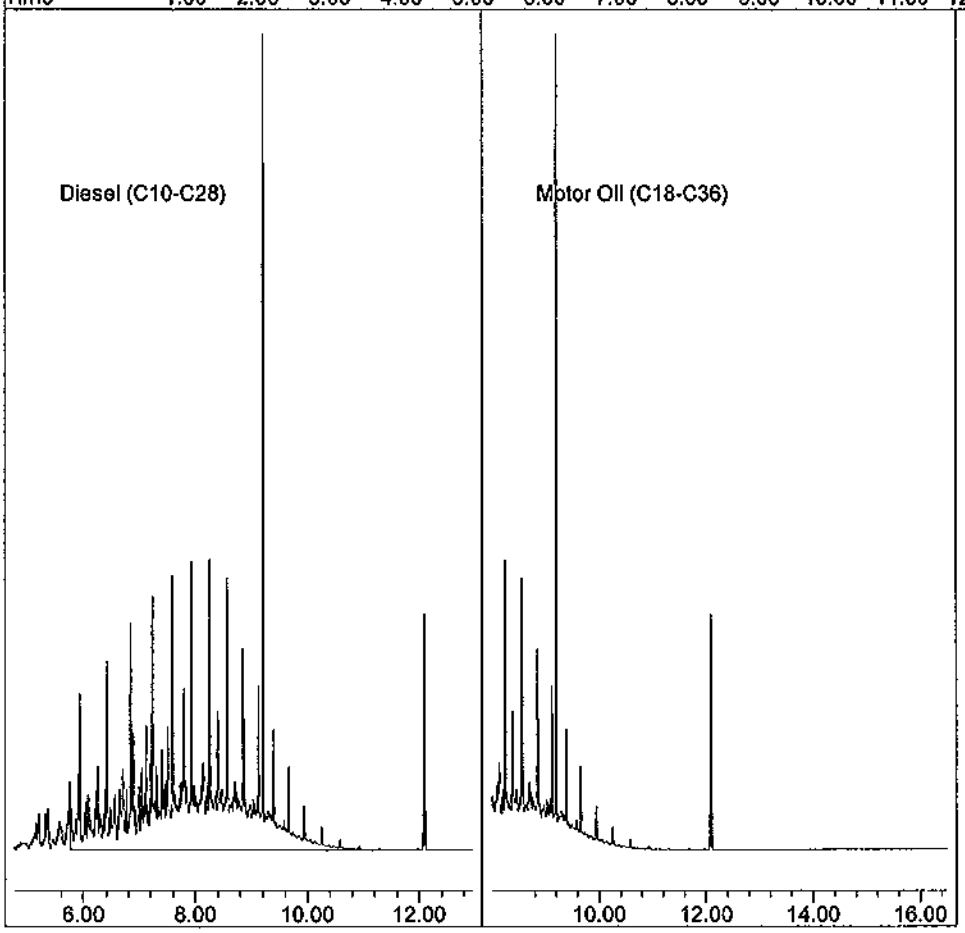
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	40429014	63.770 ppb
Surrogate Spike 30.000	Recovery =		212.57%
5) SA Not Used2(S)	12.10	19720236	79.588 ppb
Surrogate Spike 30.000	Recovery =		265.29%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	680806039	785.417 ppb

(f)=RT Delta > 1/2 Window 44 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028007.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

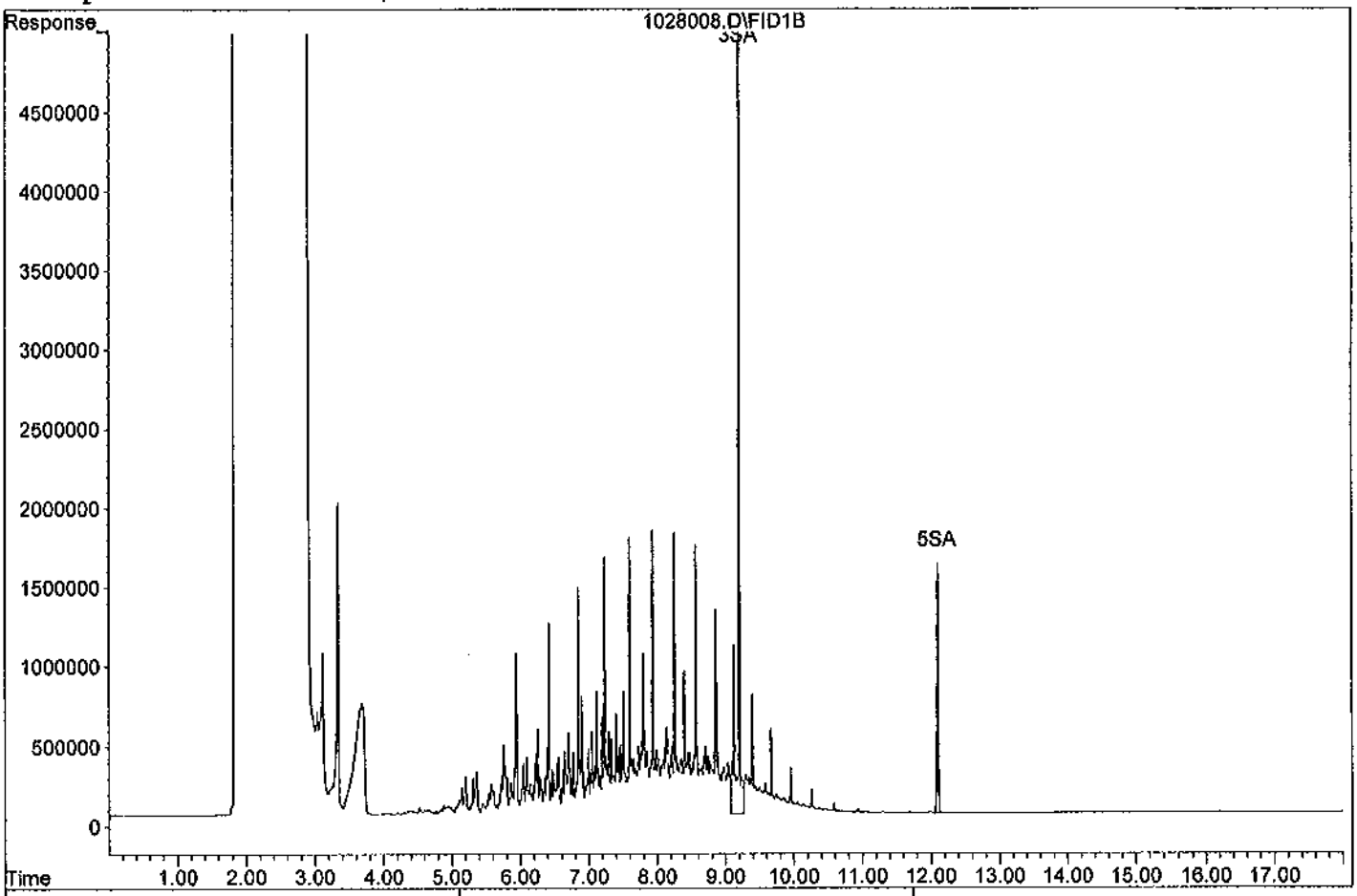
Data File : G:\APOLLO\DATA\111028\1028008.D Vial: 8
Acq On : 10-28-11 11:48:05 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

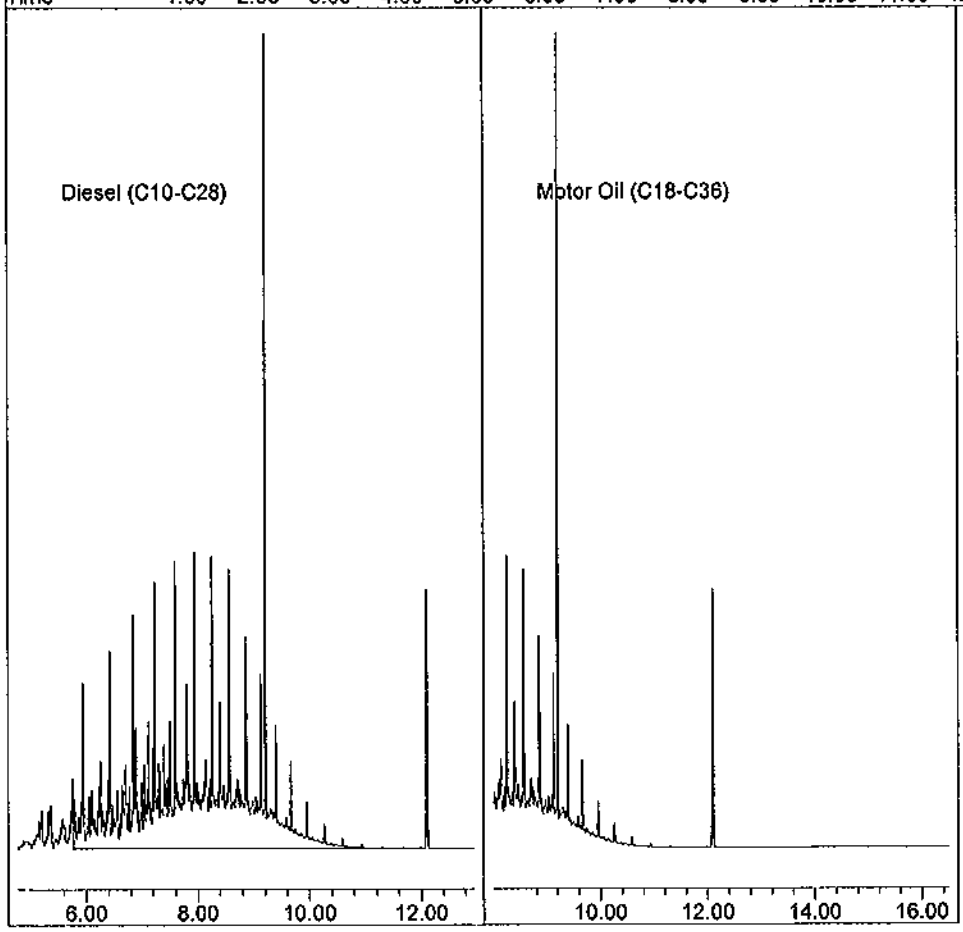
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	68048921	107.335 ppb
Surrogate Spike 30.000	Recovery =		357.78%
5) SA Not Used2(S)	12.10	21357059	86.311 ppb
Surrogate Spike 30.000	Recovery =		287.70%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	680836698	785.453 ppb

Data File: G:\APOLLO\DATA\111028\1028008.D
Sample : DIESEL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028009.D Vial: 9
Acq On : 10-28-11 12:12:27 Operator: LAC
Sample : MOTOR OIL 50/1000 10/28/11 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

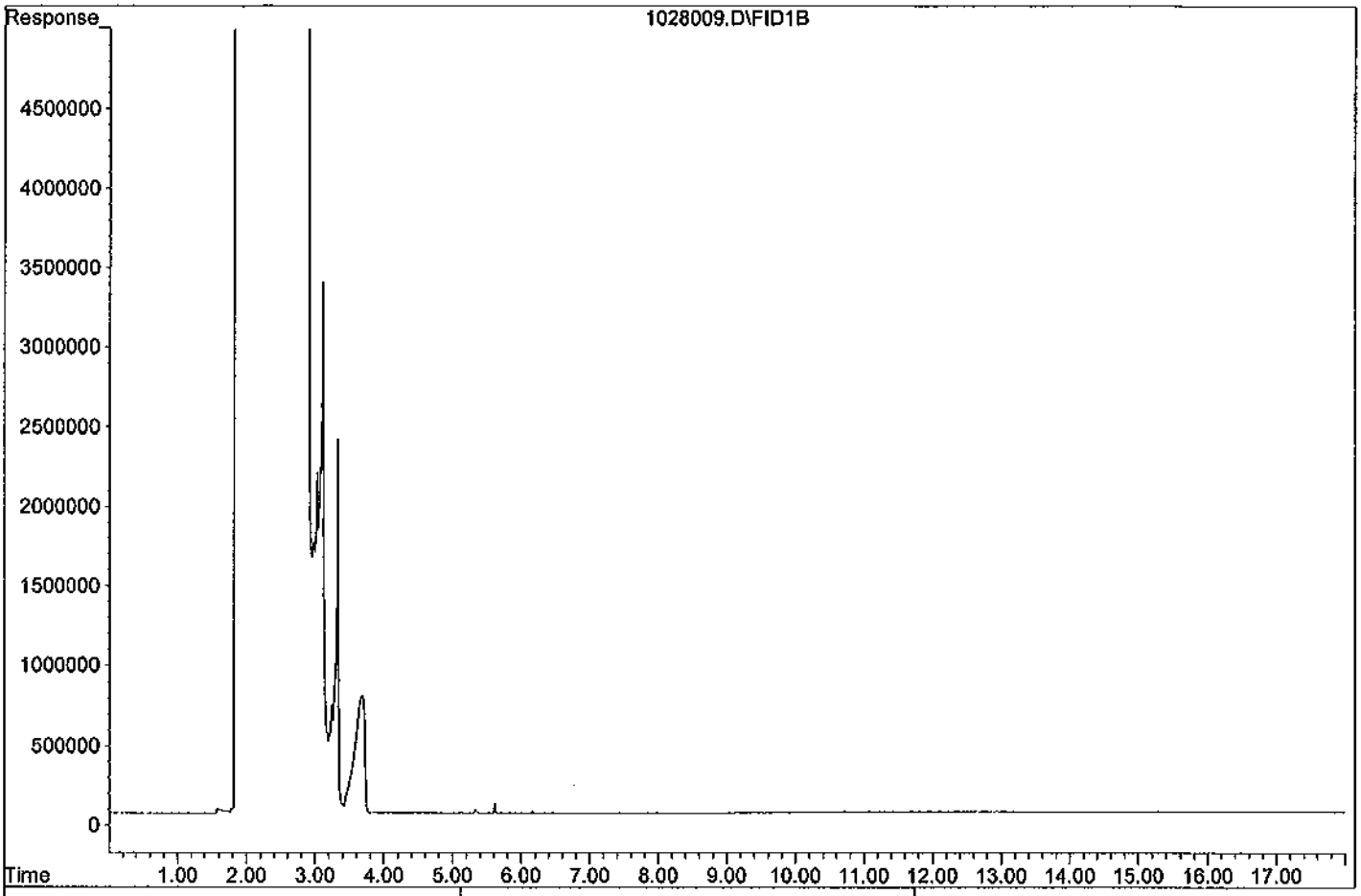
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

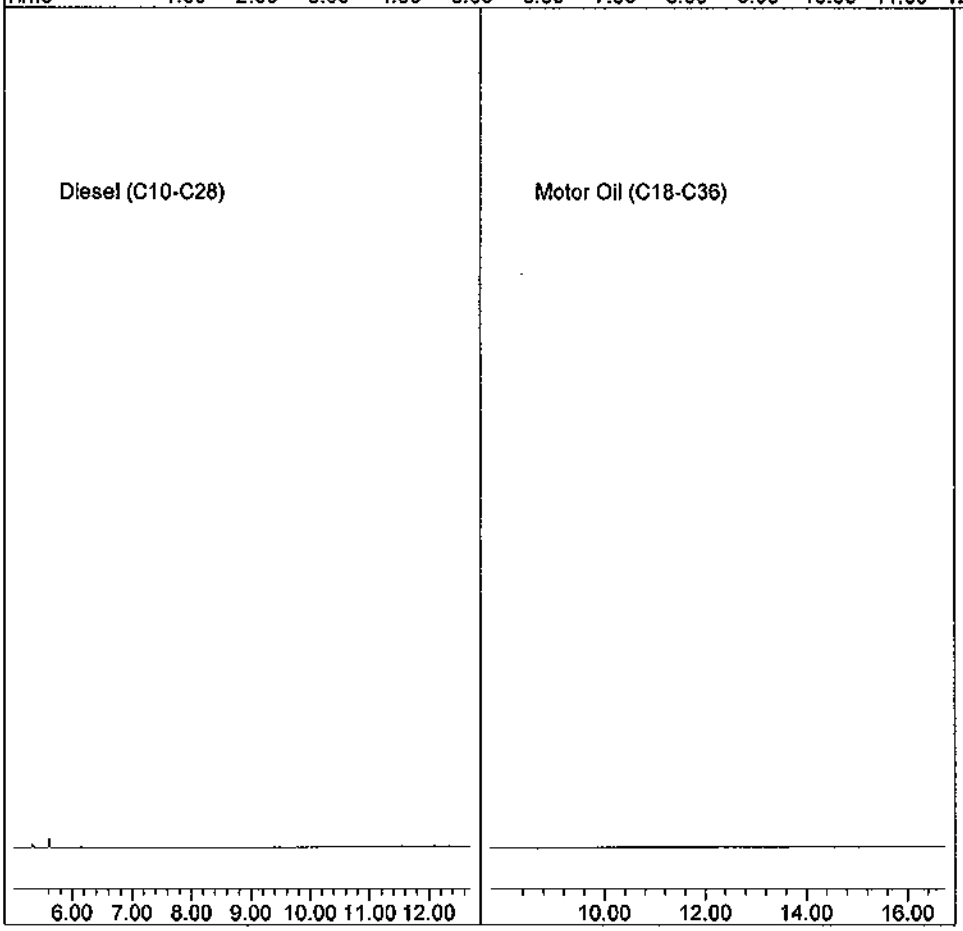
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	17842259	49.322 ppb

(f)=RT Delta > 1/2 Window 48 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028009.D
Sample : MOTOR OIL 50/1000 10/28/11





Quantitation Report (Not Reviewed)

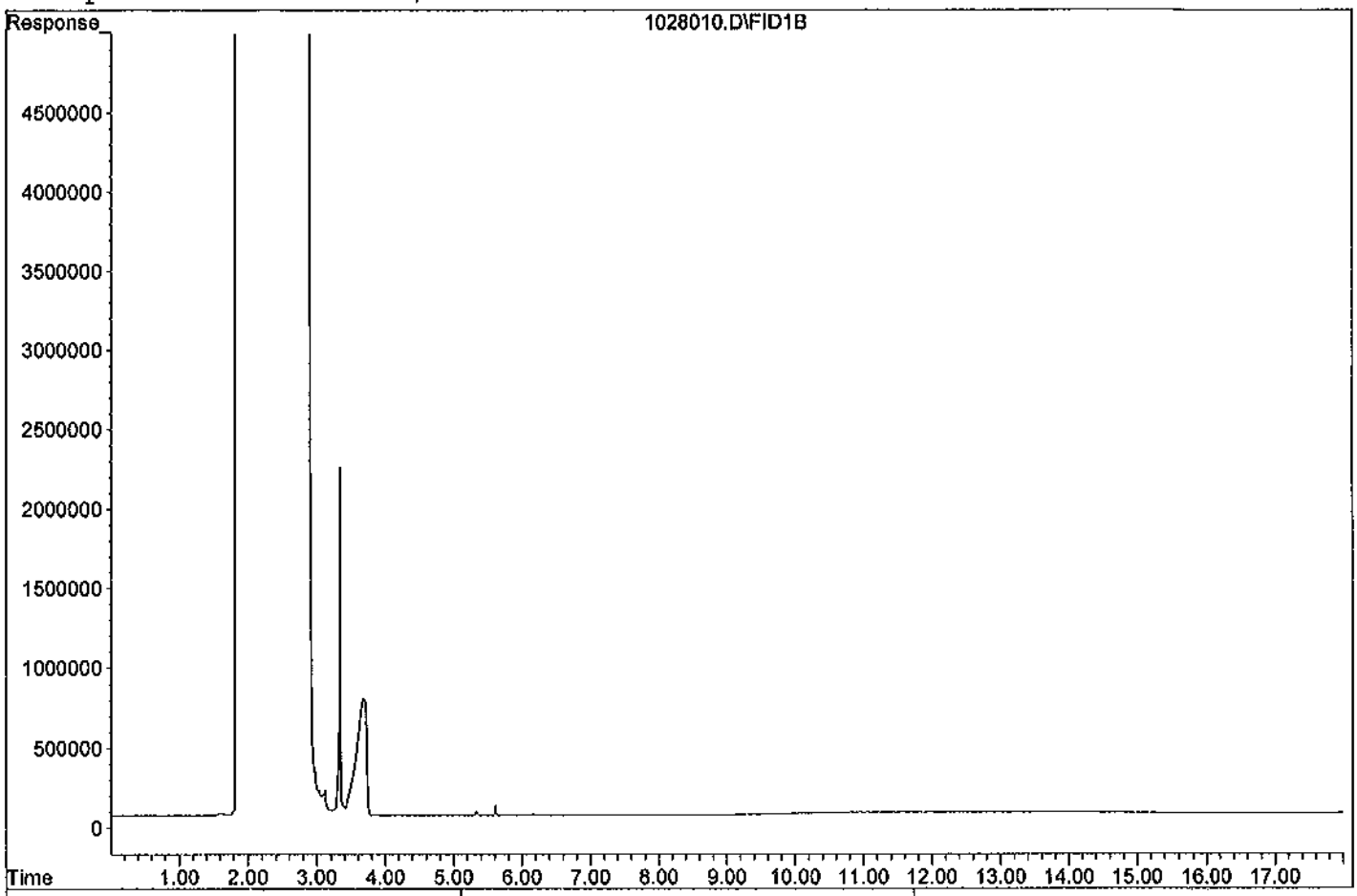
Data File : G:\APOLLO\DATA\111028\1028010.D Vial: 10
Acq On : 10-28-11 12:36:20 Operator: LAC
Sample : MOTOR OIL 100/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

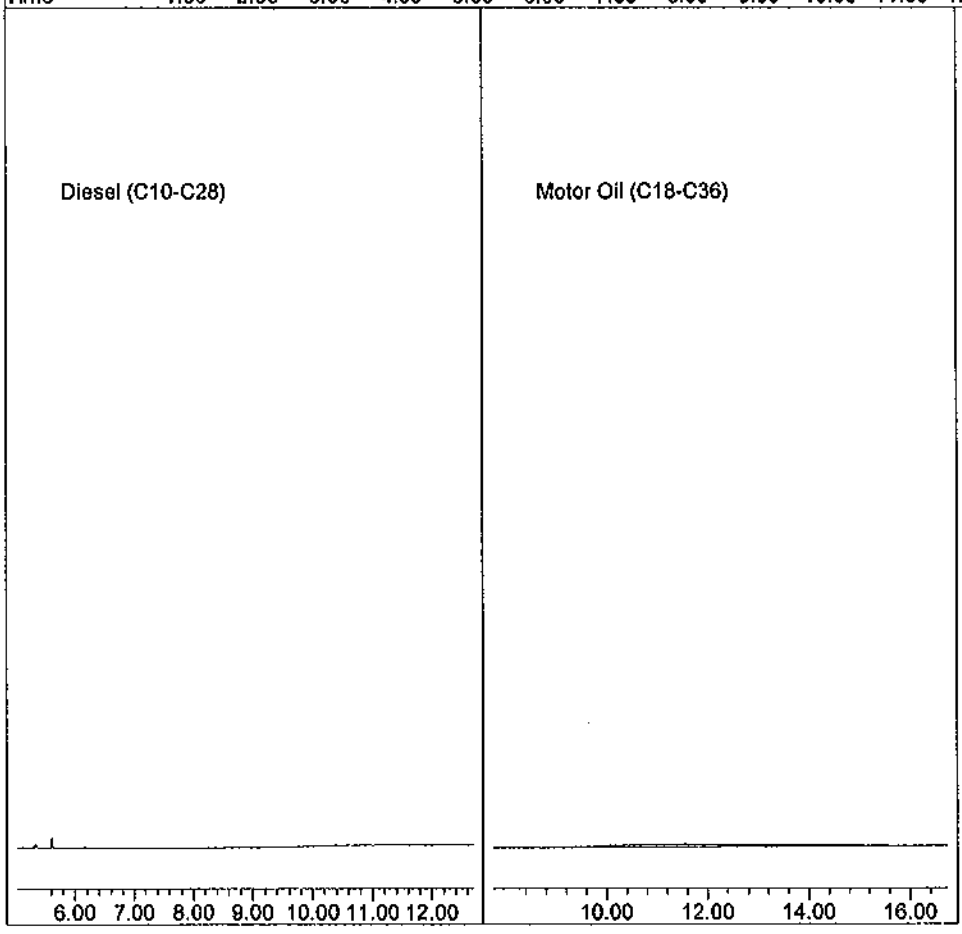
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	36743279	101.570 ppb

Data File: G:\APOLLO\DATA\111028\1028010.D
Sample : MOTOR OIL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028011.D Vial: 11
Acq On : 10-28-11 13:00:16 Operator: LAC
Sample : MOTOR OIL 400/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

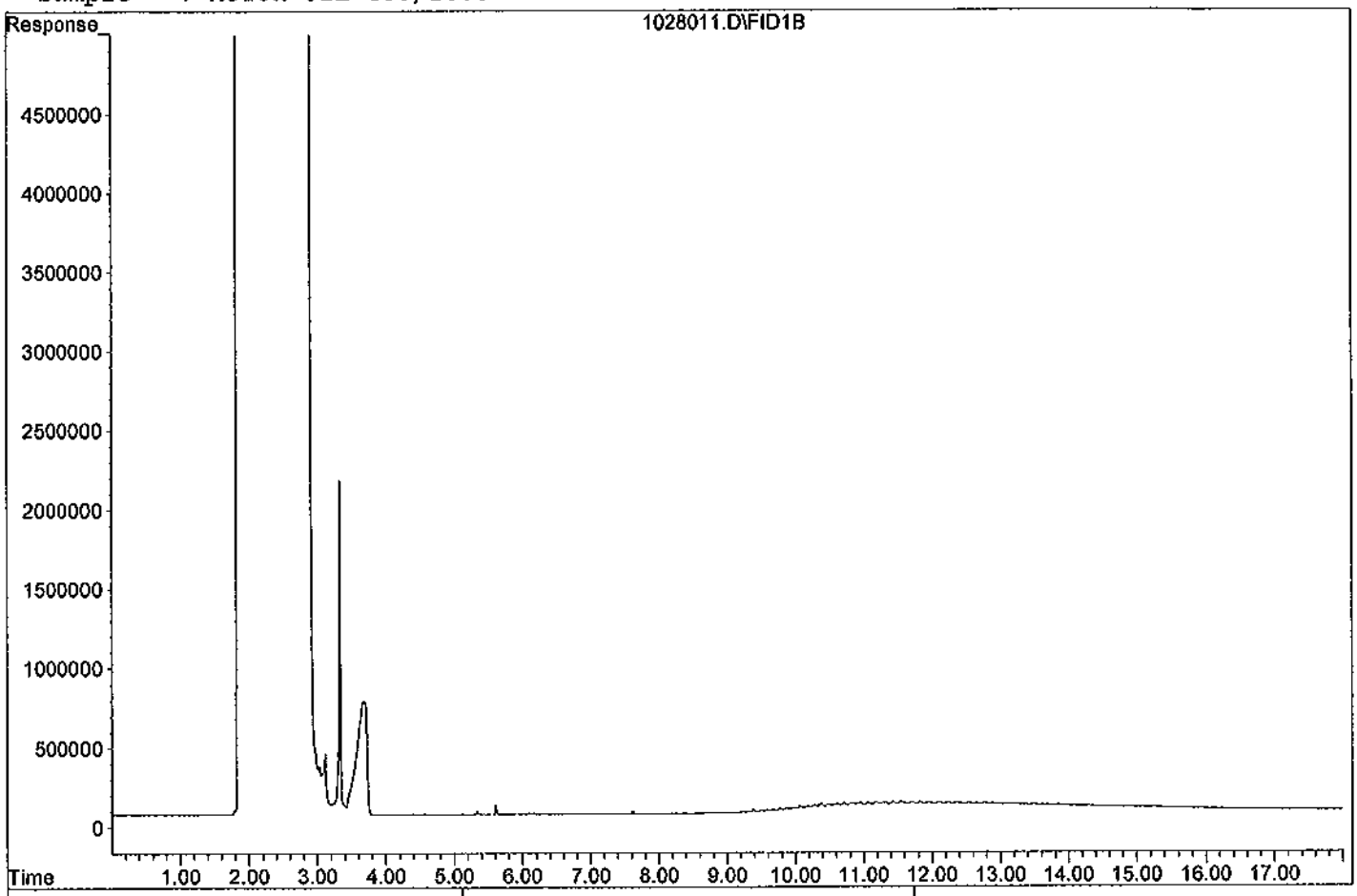
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

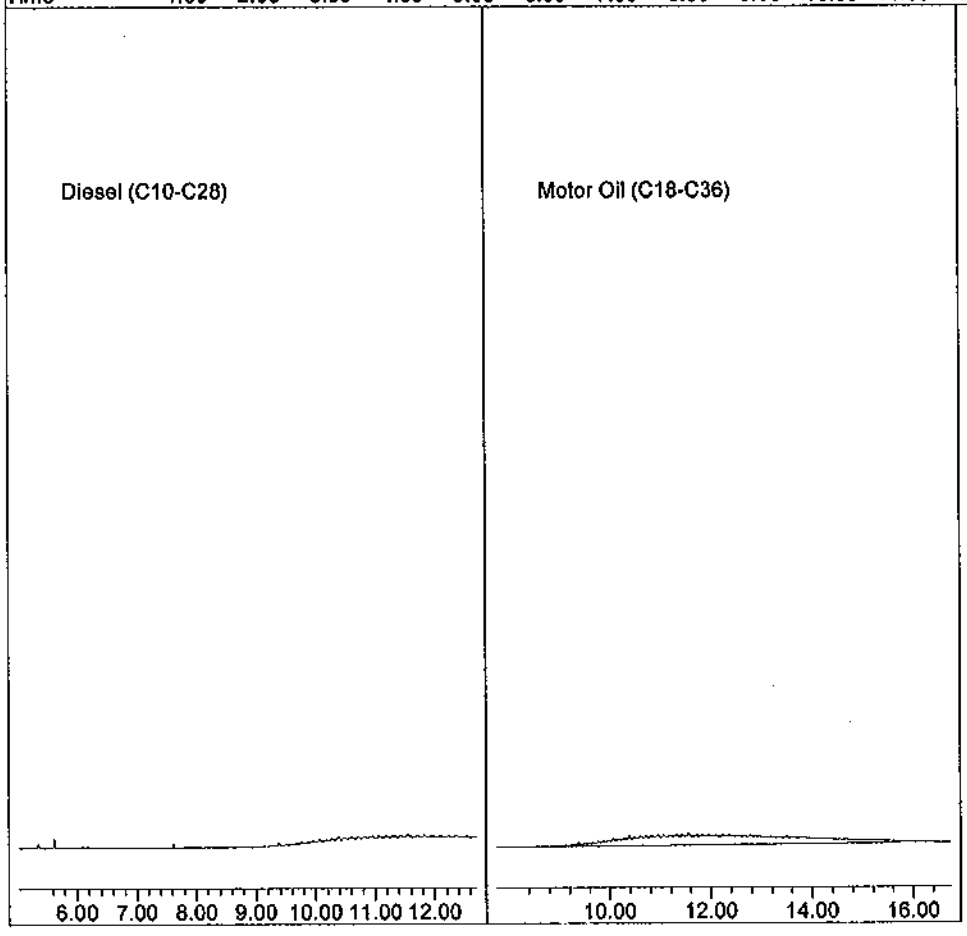
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	147050915	406.495 ppb

(f)=RT Delta > 1/2 Window 52 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028011.D
Sample : MOTOR OIL 400/1000





Quantitation Report (Not Reviewed)

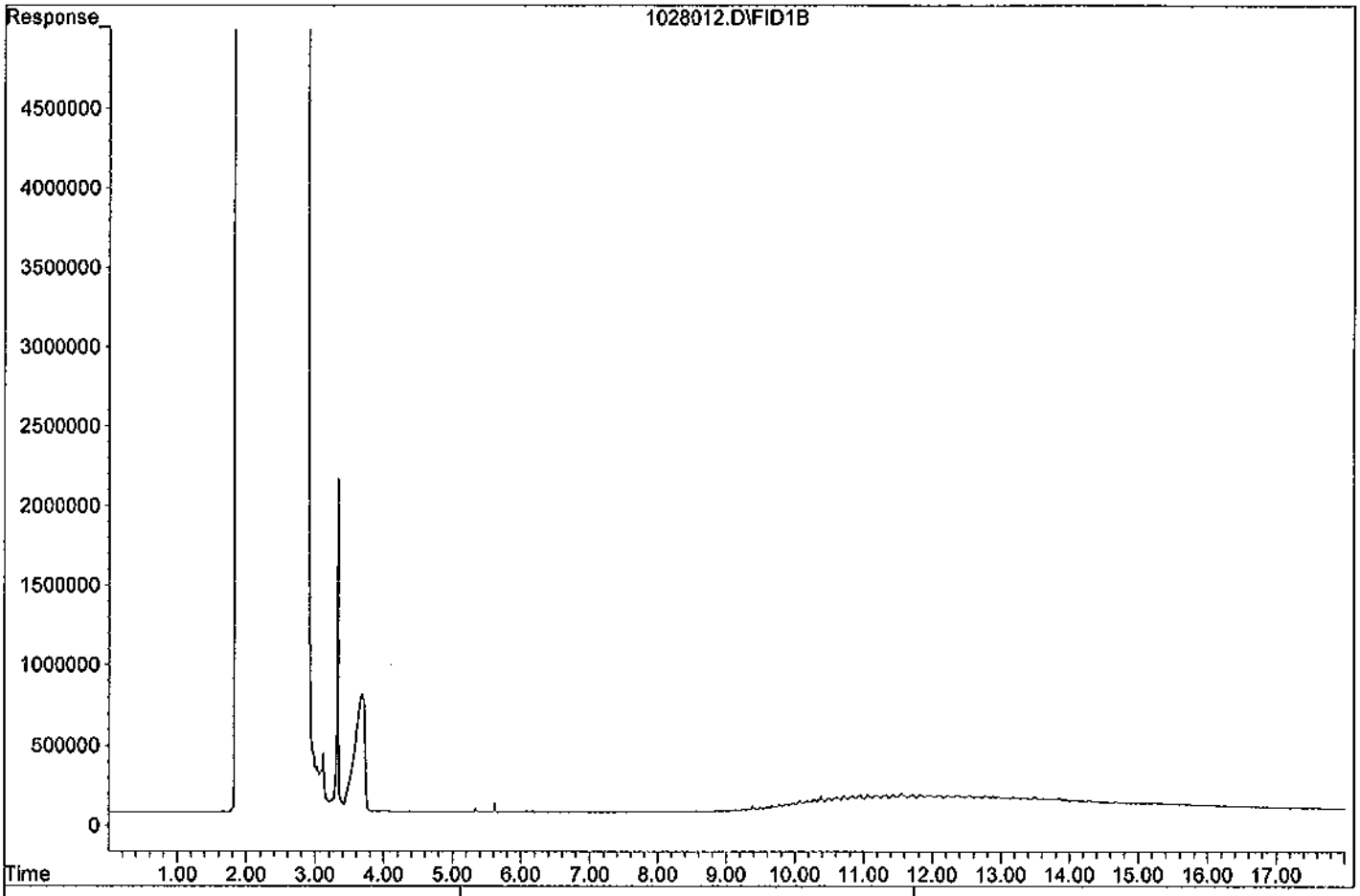
Data File : G:\APOLLO\DATA\111028\1028012.D Vial: 12
Acq On : 10-28-11 13:24:39 Operator: LAC
Sample : MOTOR OIL 600/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

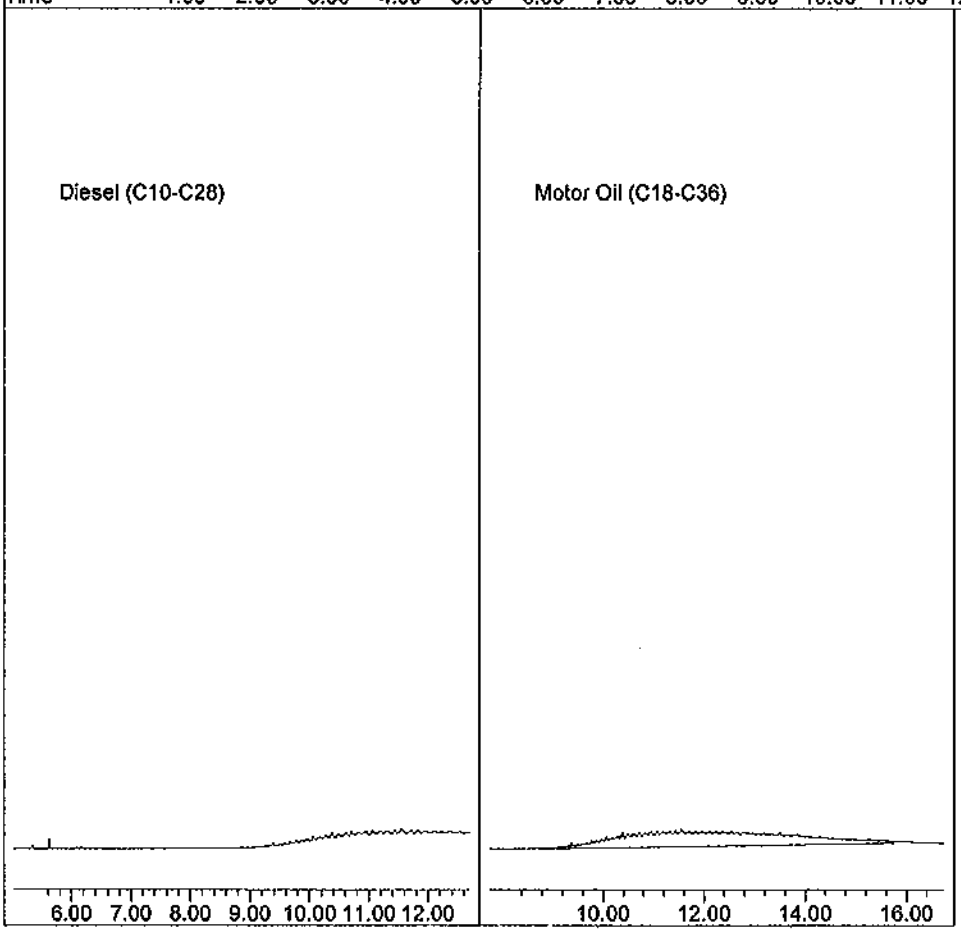
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	216778154	599.242 ppb

Data File: G:\APOLLO\DATA\111028\1028012.D
Sample : MOTOR OIL 600/1000





Quantitation Report (Not Reviewed)

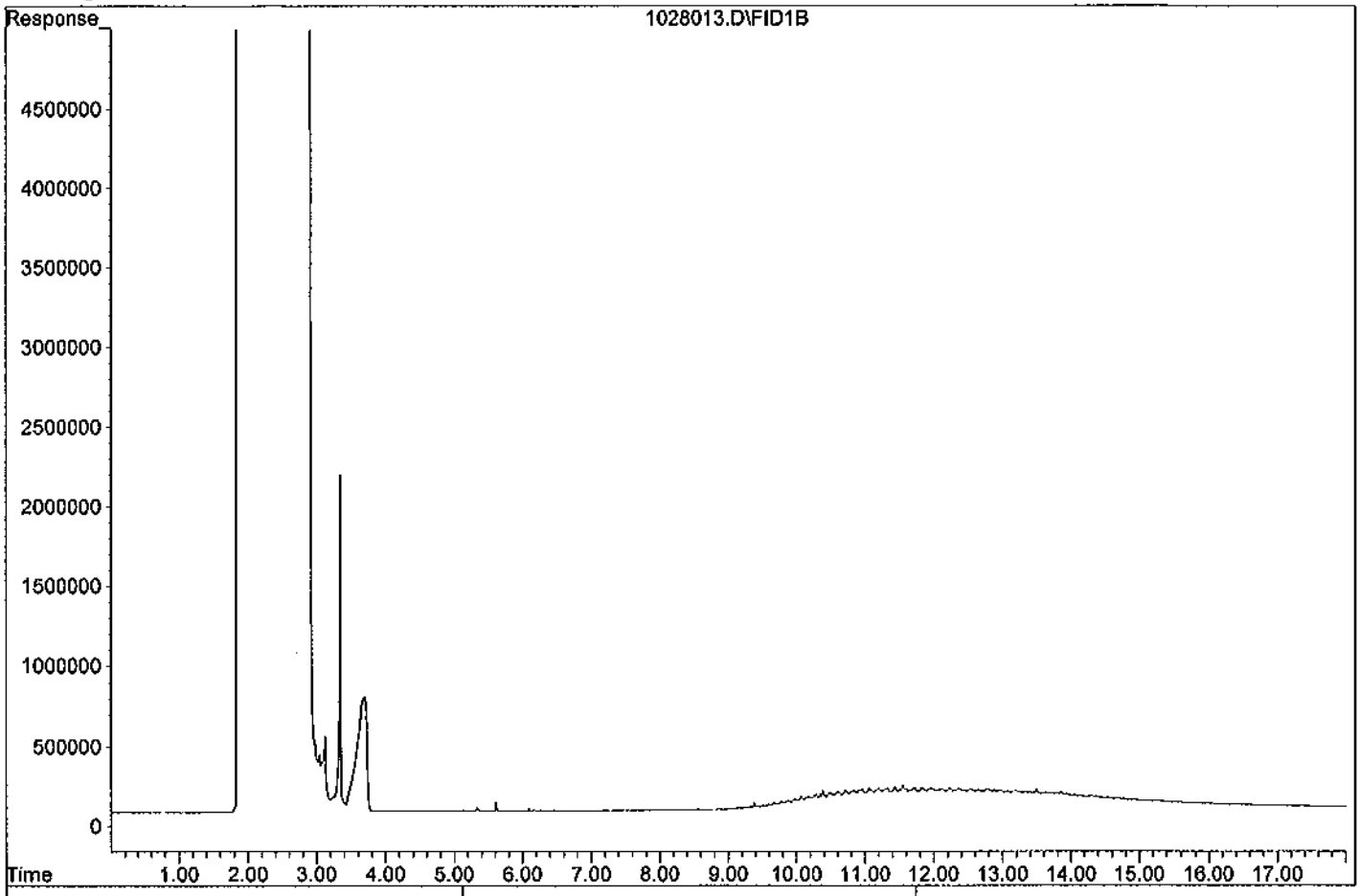
Data File : G:\APOLLO\DATA\111028\1028013.D Vial: 13
Acq On : 10-28-11 13:48:43 Operator: LAC
Sample : MOTOR OIL 800/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

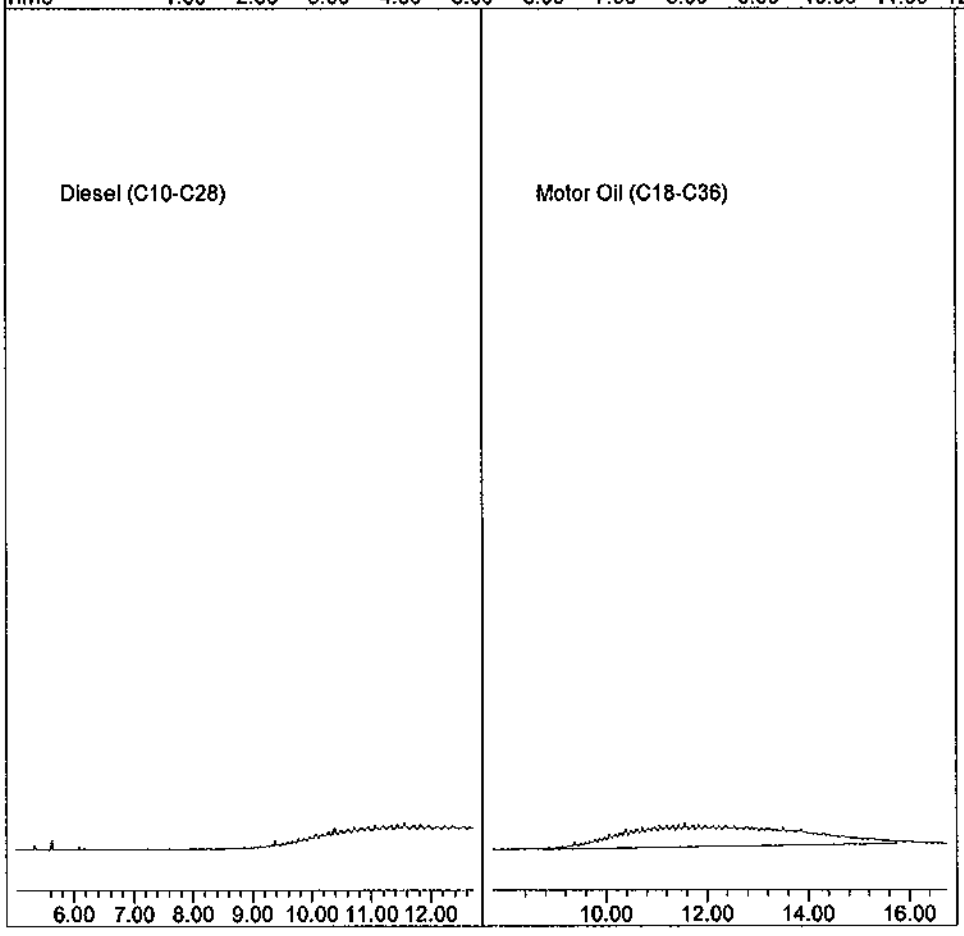
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	303785051	839.757 ppb

Data File: G:\APOLLO\DATA\111028\1028013.D
Sample : MOTOR OIL 800/1000





Quantitation Report (Not Reviewed)

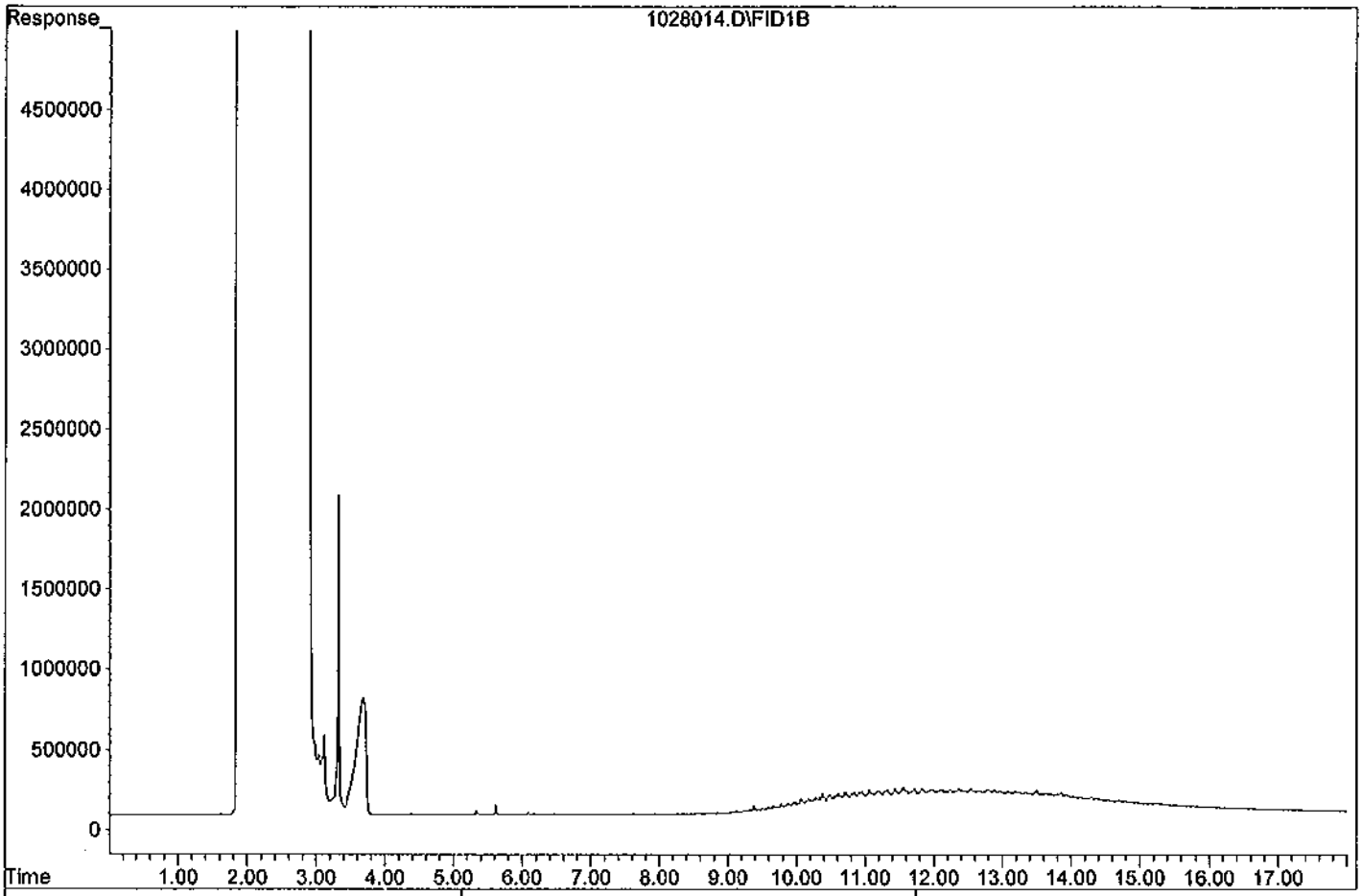
Data File : G:\APOLLO\DATA\111028\1028014.D Vial: 14
Acq On : 10-28-11 14:13:14 Operator: LAC
Sample : MOTOR OIL 1000/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

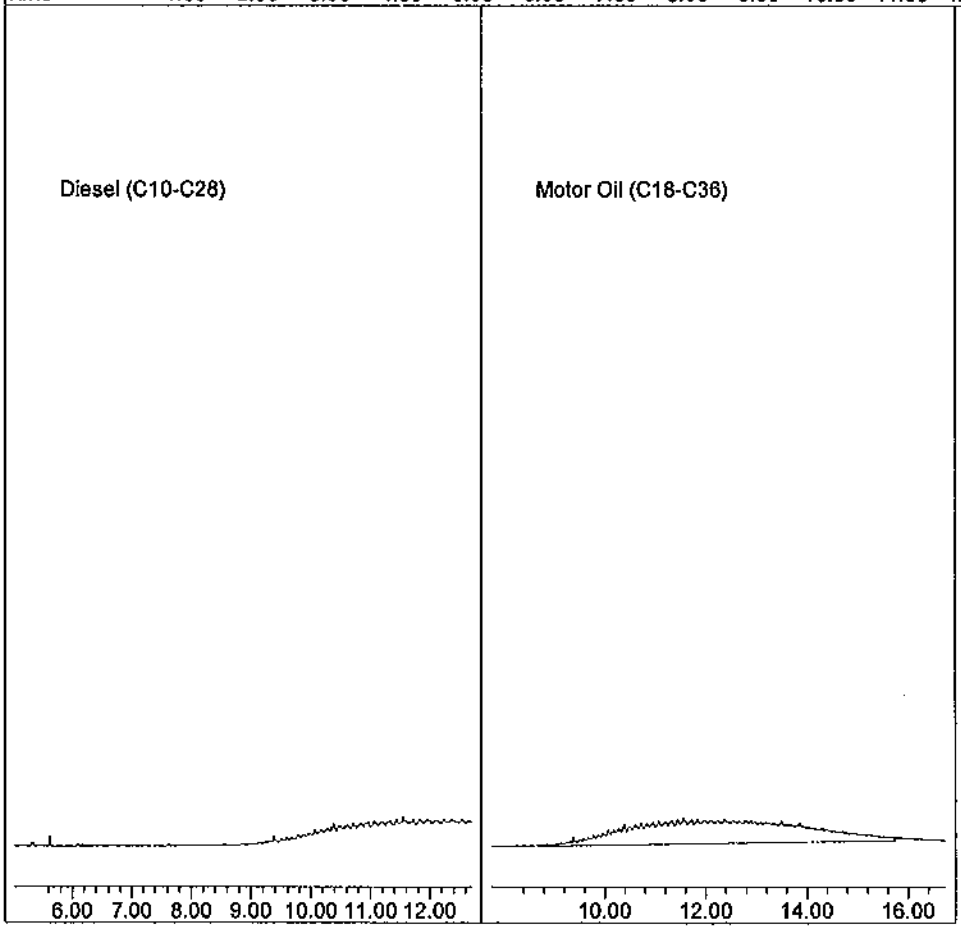
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	342332944	946.315 ppb

Data File: G:\APOLLO\DATA\111028\1028014.D
Sample : MOTOR OIL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028016.D Vial: 16
Acq On : 10-28-11 15:01:44 Operator: LAC
Sample : THC SURR 10/1000 10/28/11 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

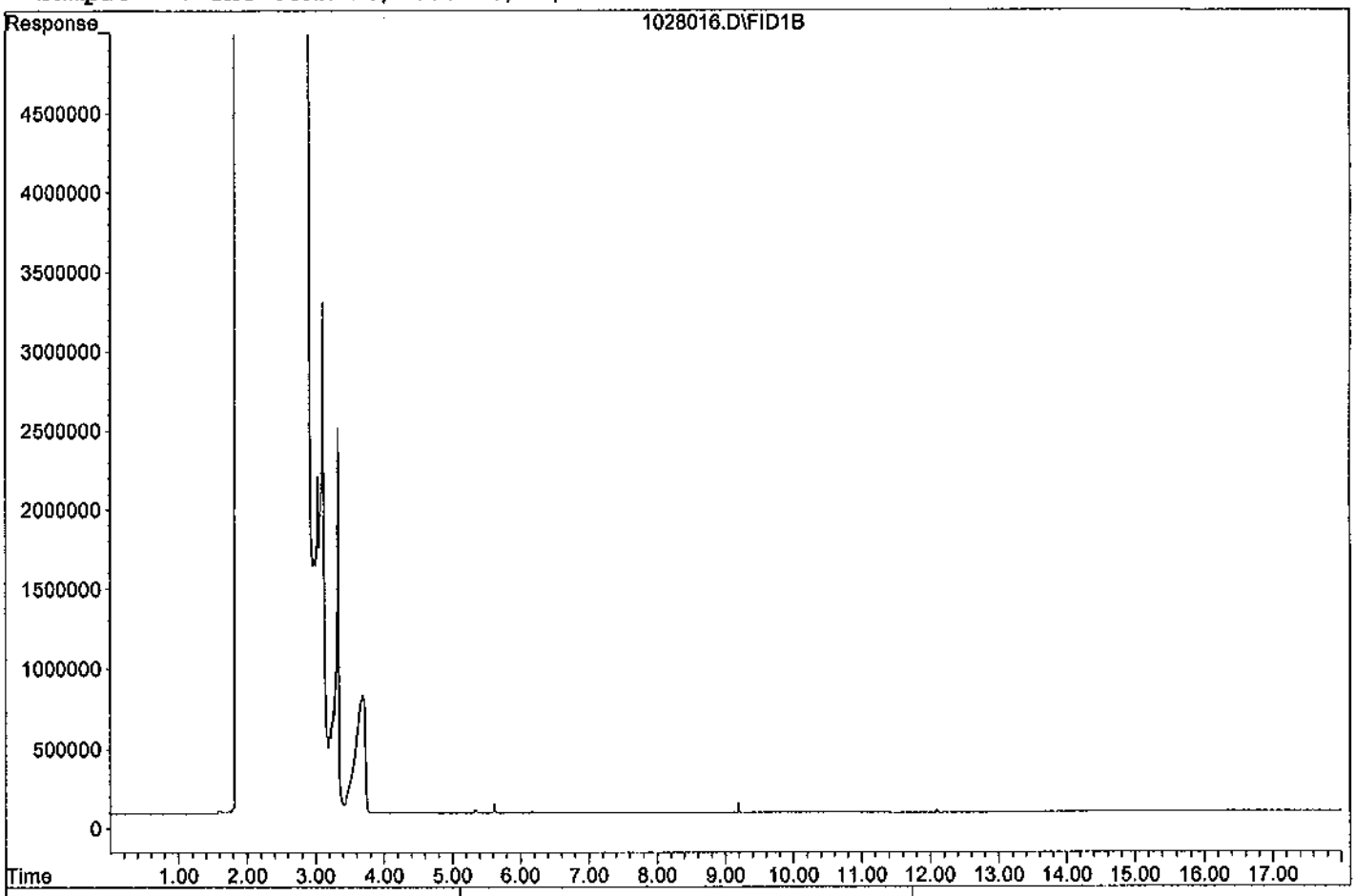
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

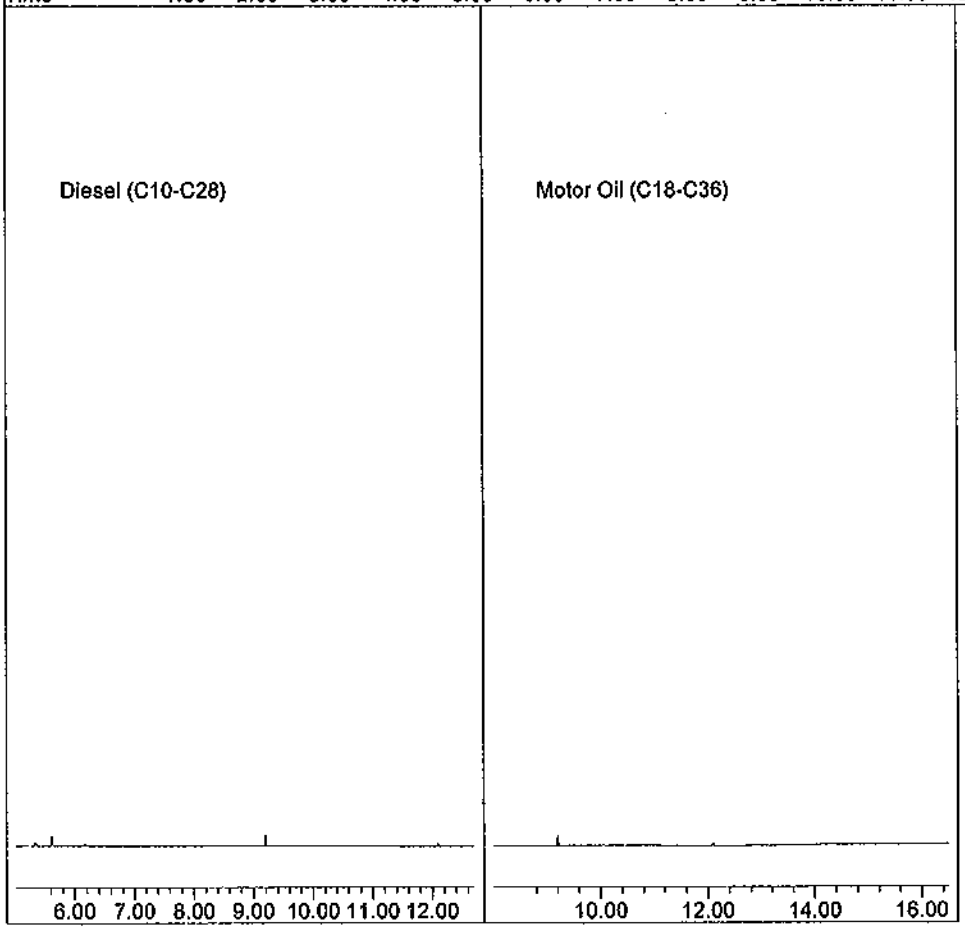
Compound	R.T.	Response	Conc Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028016.D
Sample : THC SURR 10/1000 10/28/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028017.D Vial: 17
Acq On : 10-28-11 15:25:58 Operator: LAC
Sample : THC SURR 100/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

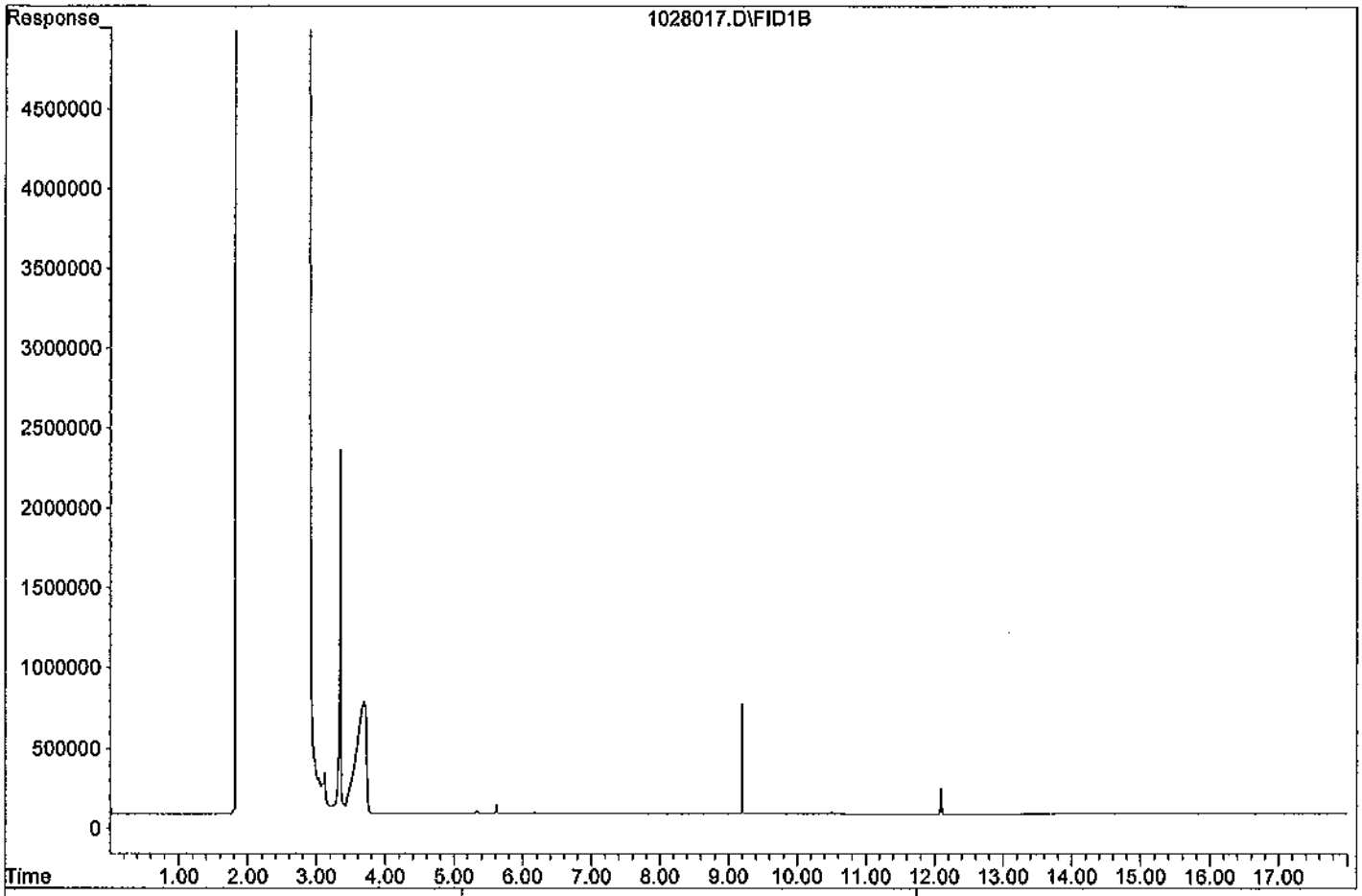
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

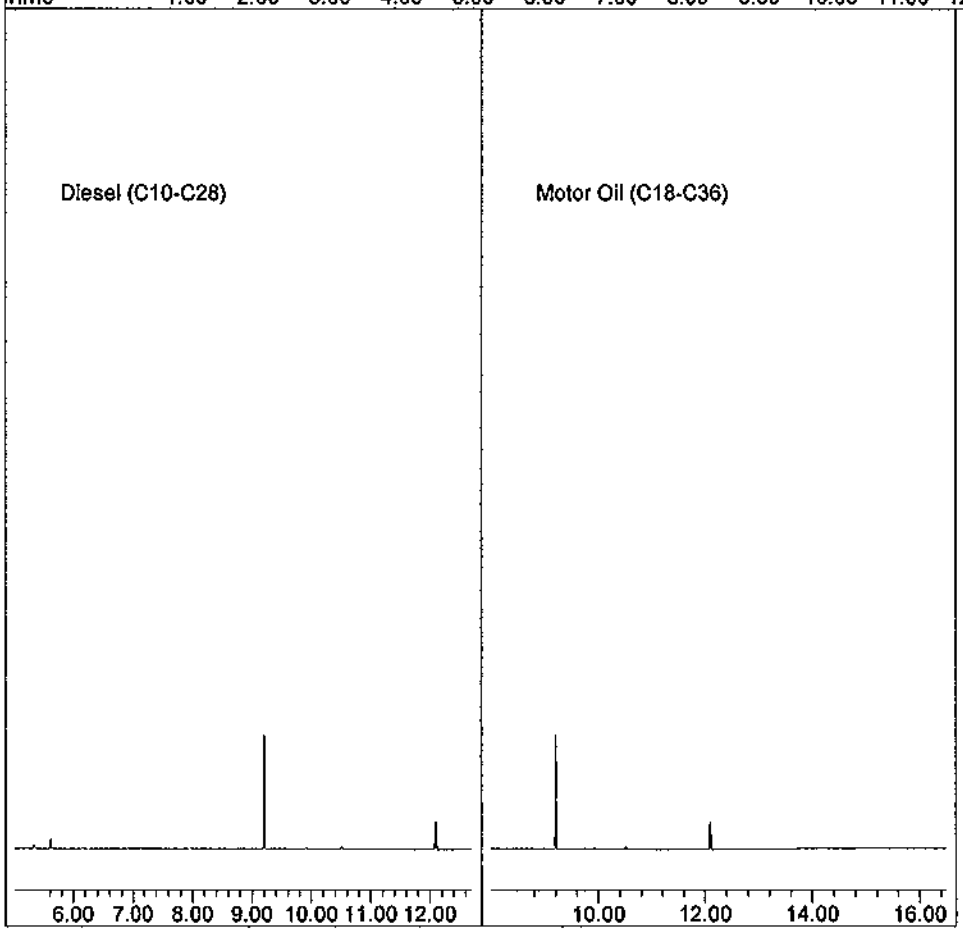
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028017.D
Sample : THC SURR 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028018.D Vial: 18
Acq On : 10-28-11 15:50:20 Operator: LAC
Sample : THC SURR 400/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

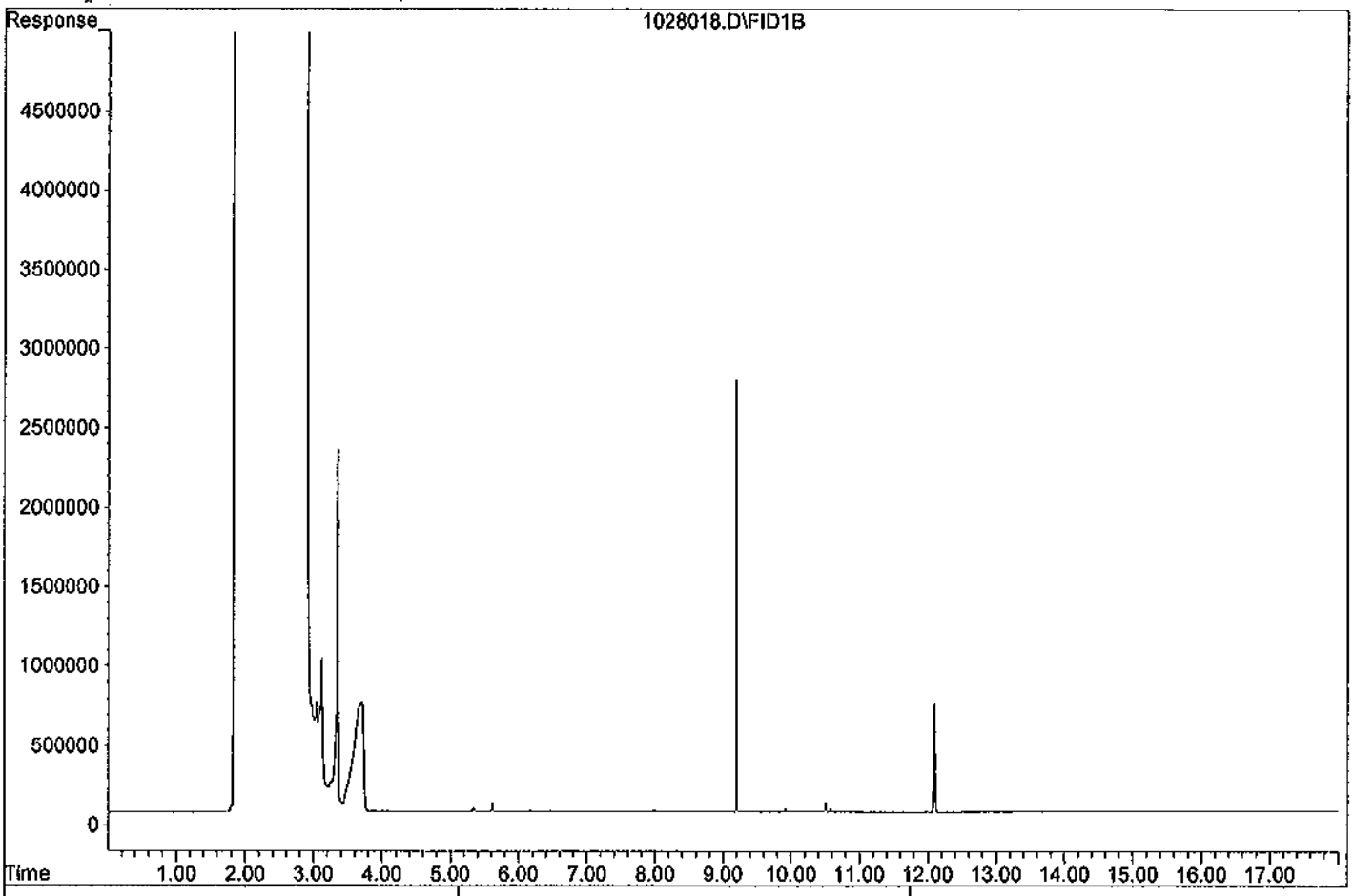
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

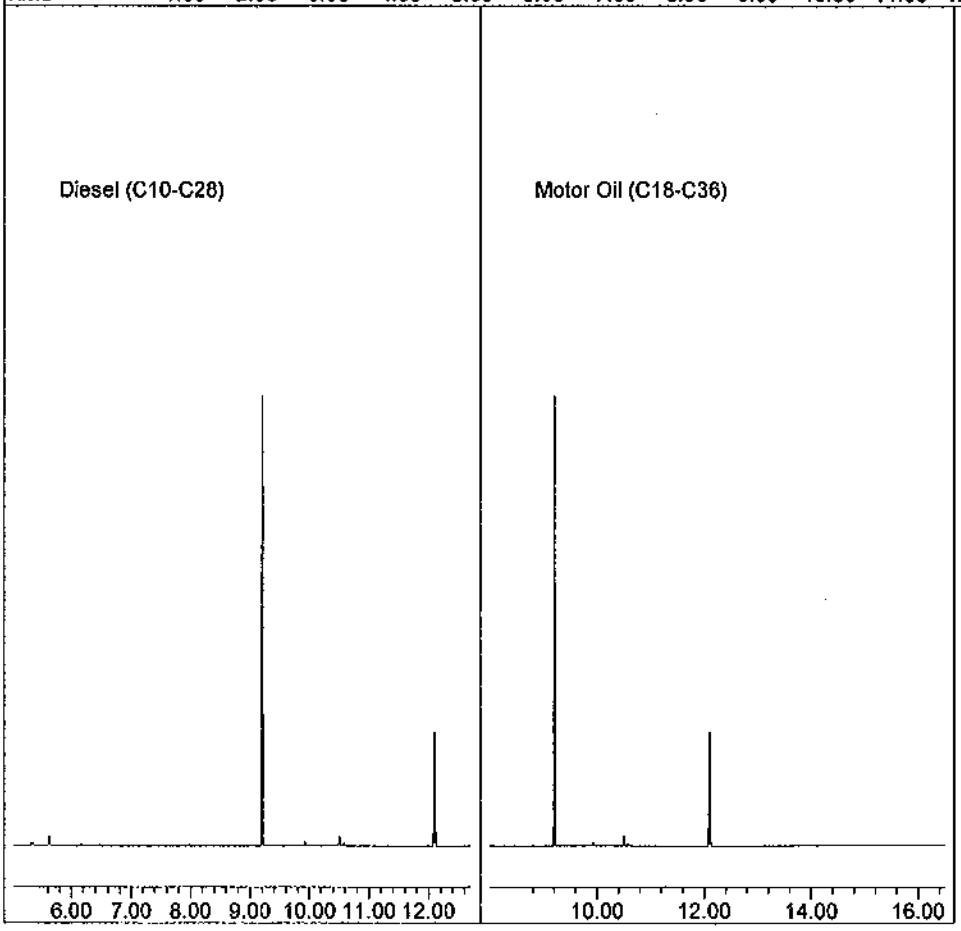
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028018.D
Sample : THC SURR 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028019.D Vial: 19
Acq On : 10-28-11 16:14:52 Operator: LAC
Sample : THC SURR 600/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

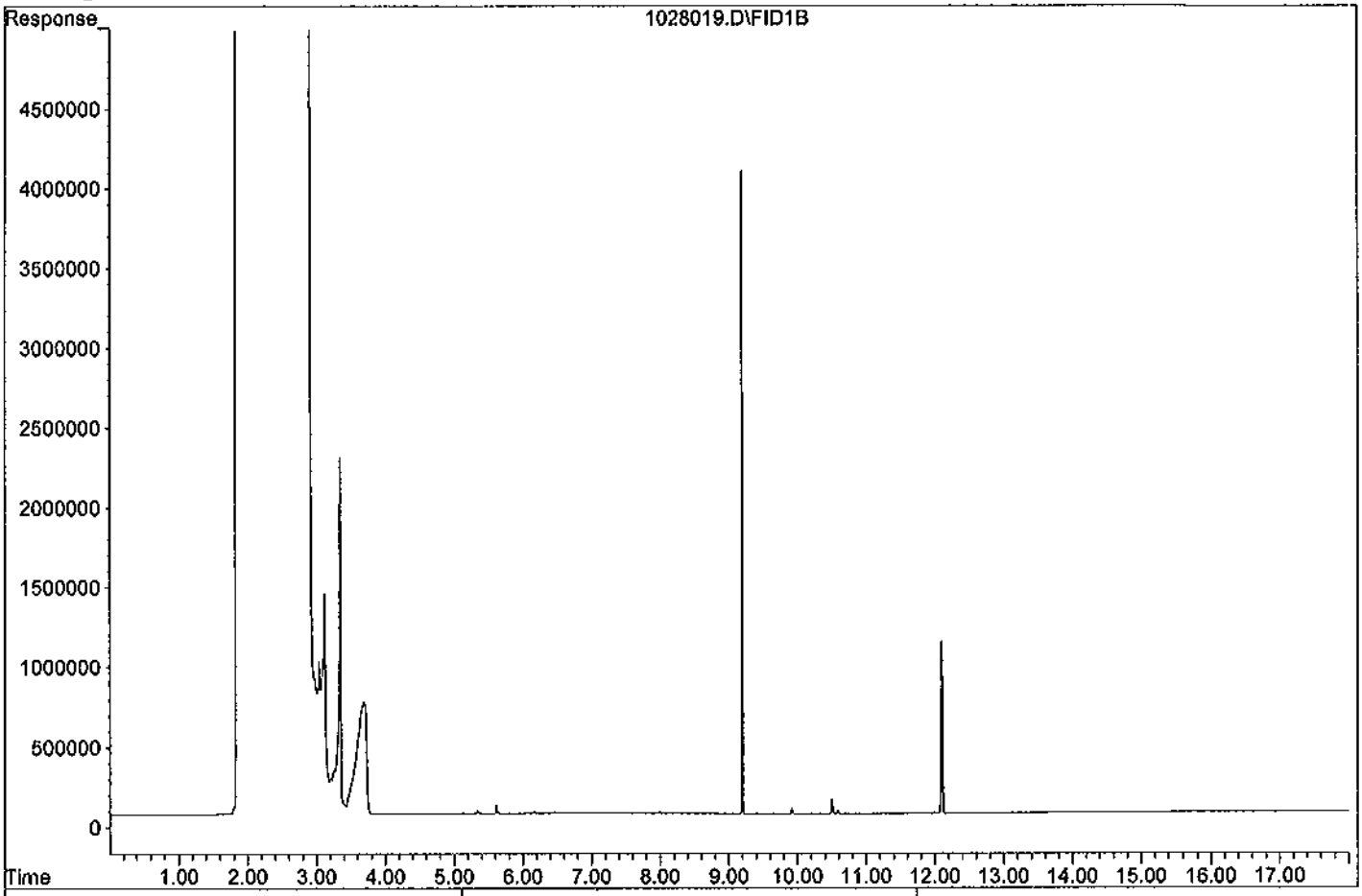
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

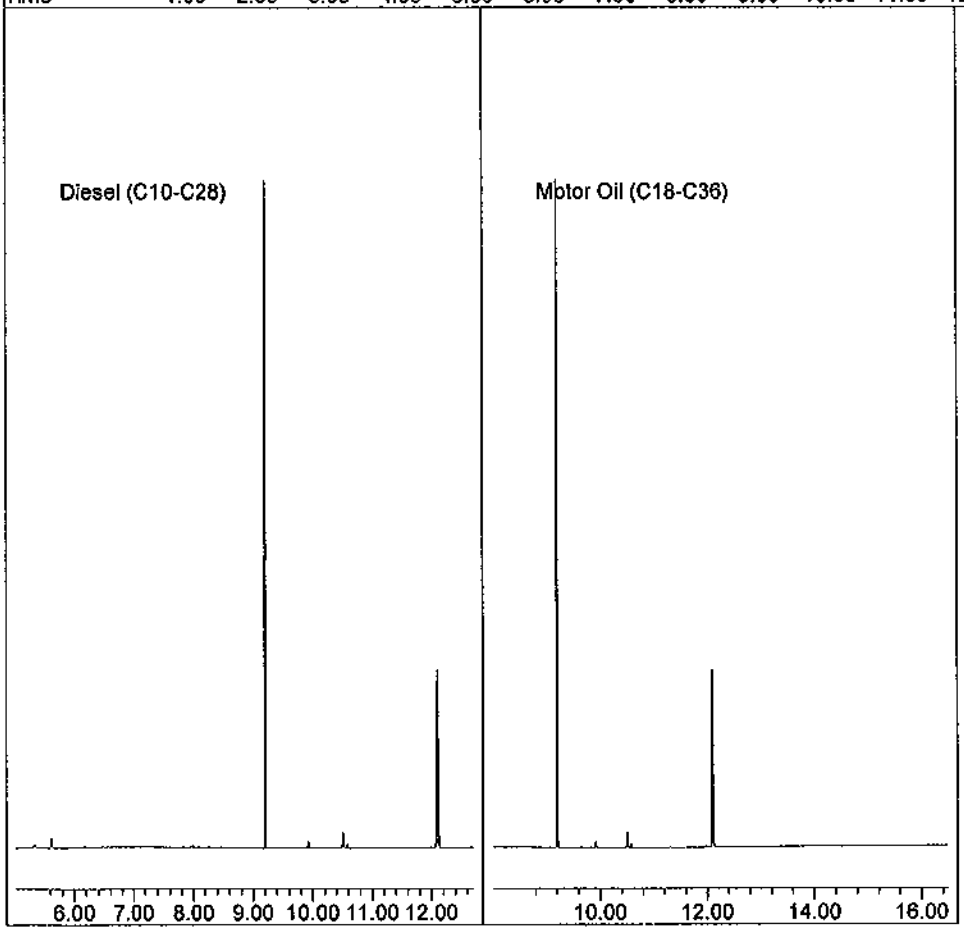
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028019.D
Sample : THC SURR 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028020.D Vial: 20
Acq On : 10-28-11 16:38:57 Operator: LAC
Sample : THC SURR 800/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

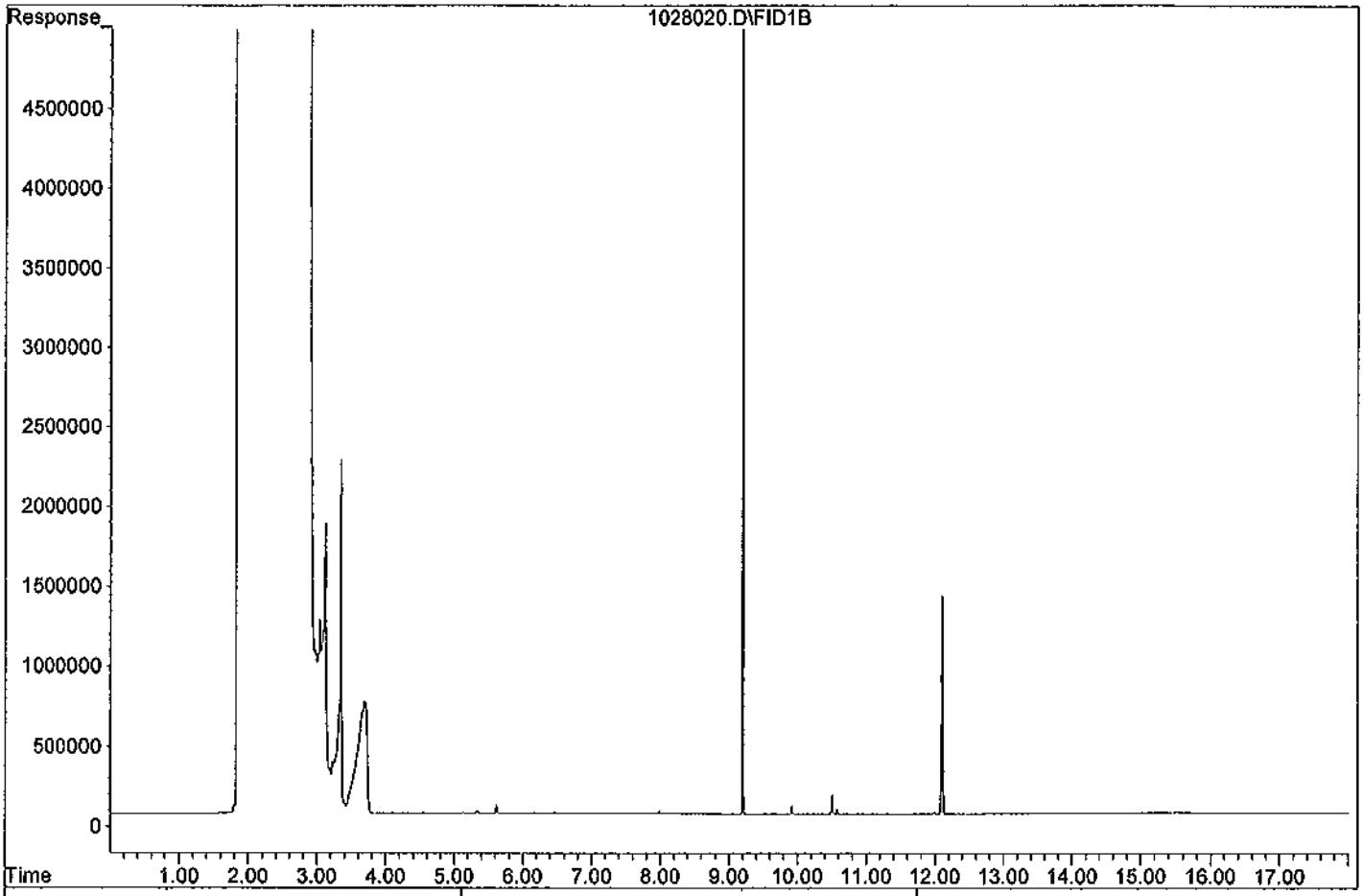
Compound	R.T.	Response	Conc	Units

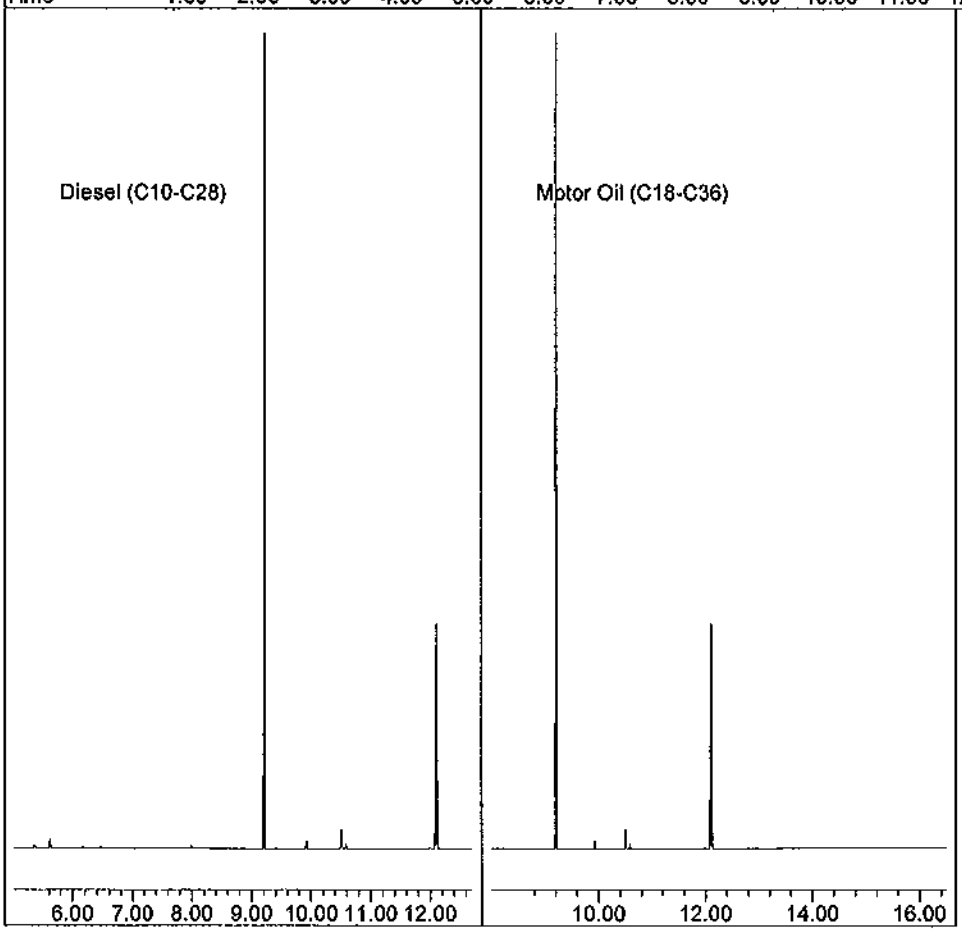
System Monitoring Compounds

Target Compounds

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

Data File: G:\APOLLO\DATA\111028\1028020.D
Sample : THC SURR 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028021.D Vial: 21
Acq On : 10-28-11 17:03:06 Operator: LAC
Sample : THC SURR 1000/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:00 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

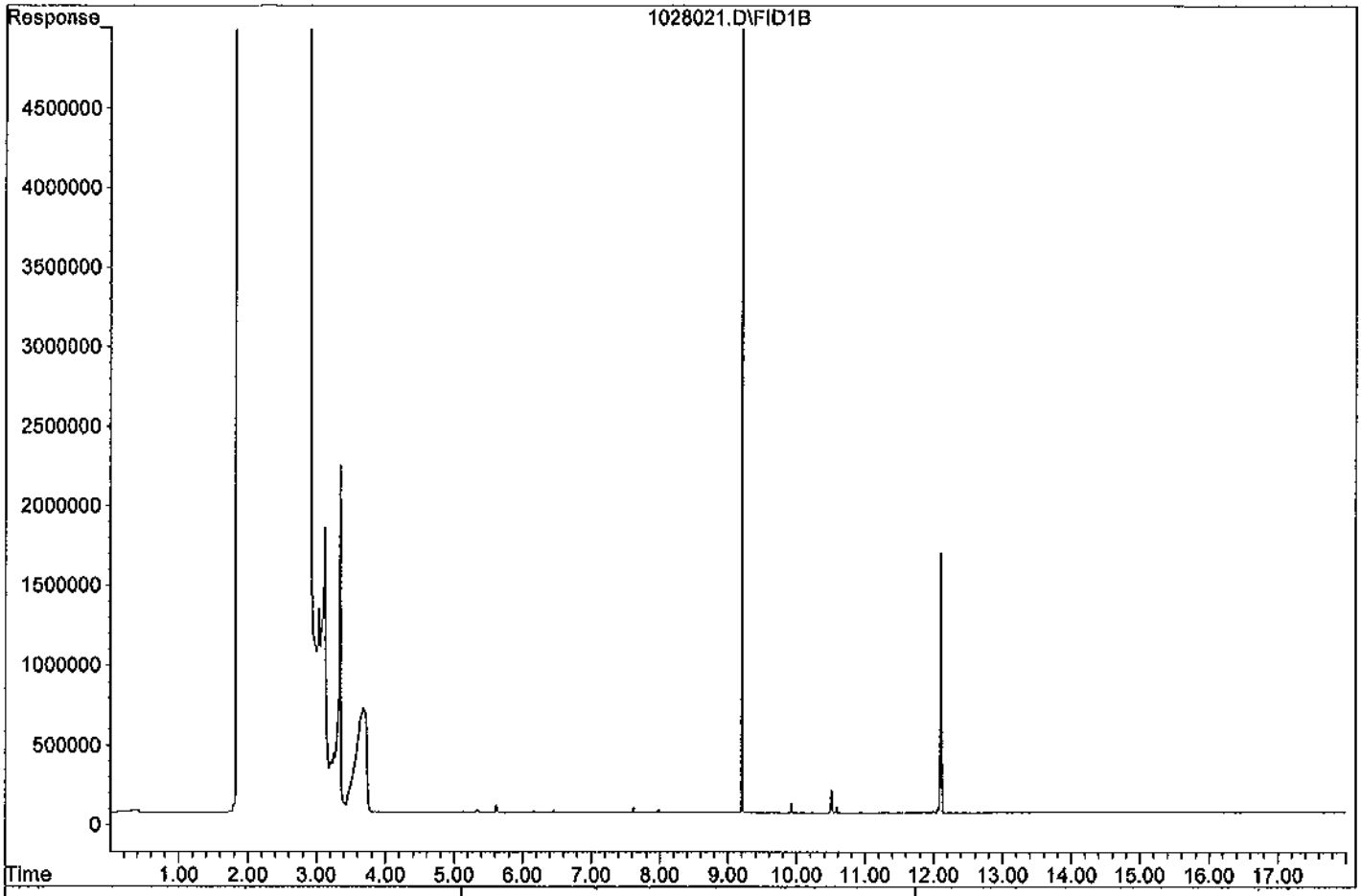
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

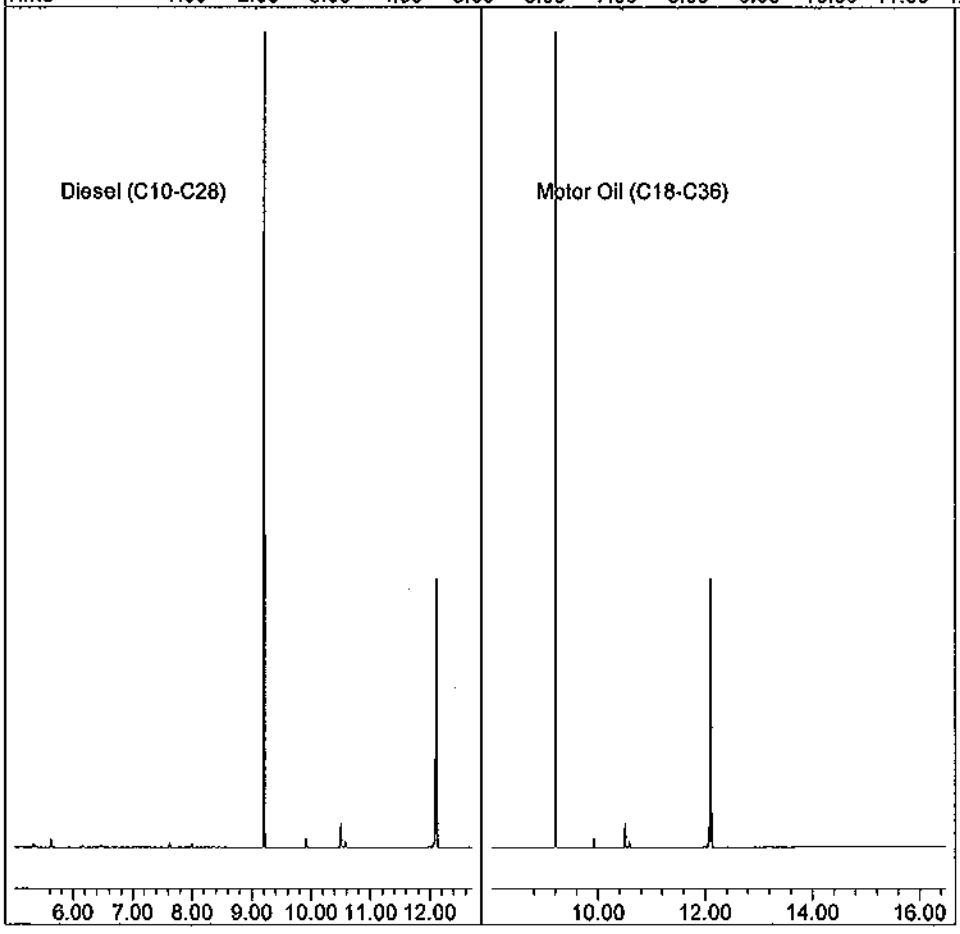
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028021.D
Sample : THC SURR 1000/1000





TPH Extractables
TPH1028

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 10/28/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1028015.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	437681	4.0	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028015.D Vial: 15
Acq On : 10-28-11 14:37:14 Operator: LAC
Sample : DIESEL 2ND SRC 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 14:00 2011 Quant Results File: TPH1028.RES

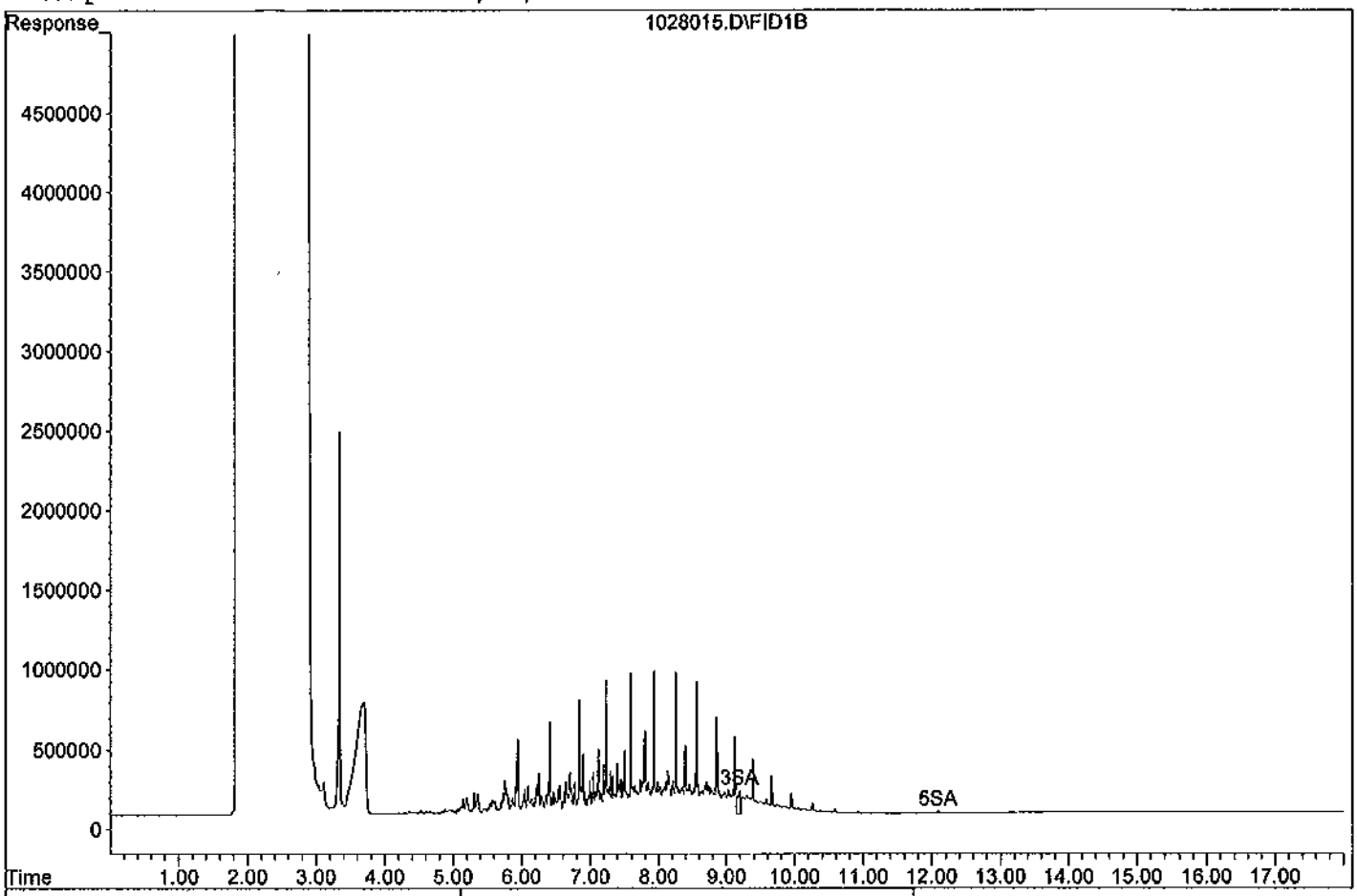
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

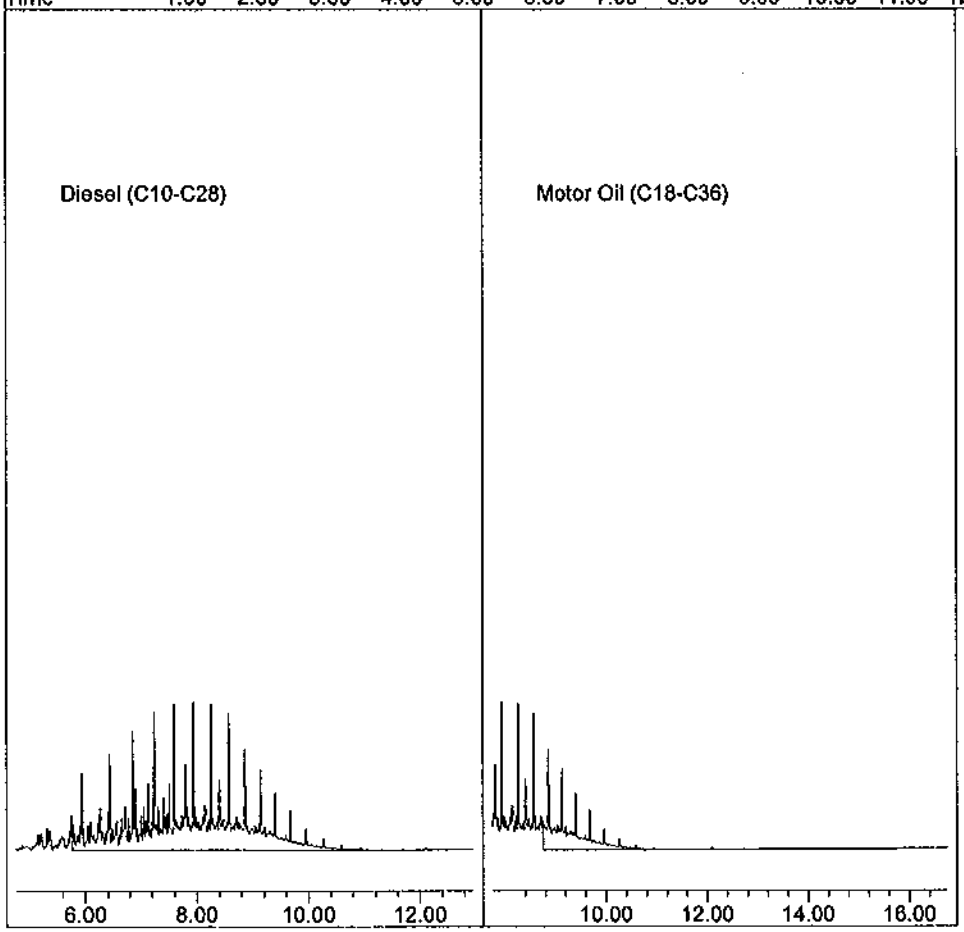
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	4372560	4.067 ppb
Surrogate Spike 30.000	Recovery =		13.56%
5) SA Not Used2(S)	12.09	211361	0.427 ppb
Surrogate Spike 30.000	Recovery =		1.42%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	350144889	415.903 ppb
2) HBTM Motor Oil (C18-C36)	12.25	92370482	254.784 ppb

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

Data File: G:\APOLLO\DATA\111028\1028015.D
Sample : DIESEL 2ND SRC 10/28/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/06/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106003.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	359274	15	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			15.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111106\1106003.D Vial: 3
Acq On : 11-6-11 16:34:49 Operator: LAC
Sample : DIESEL 400/1000 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:16 2011 Quant Results File: TPH1028.RES

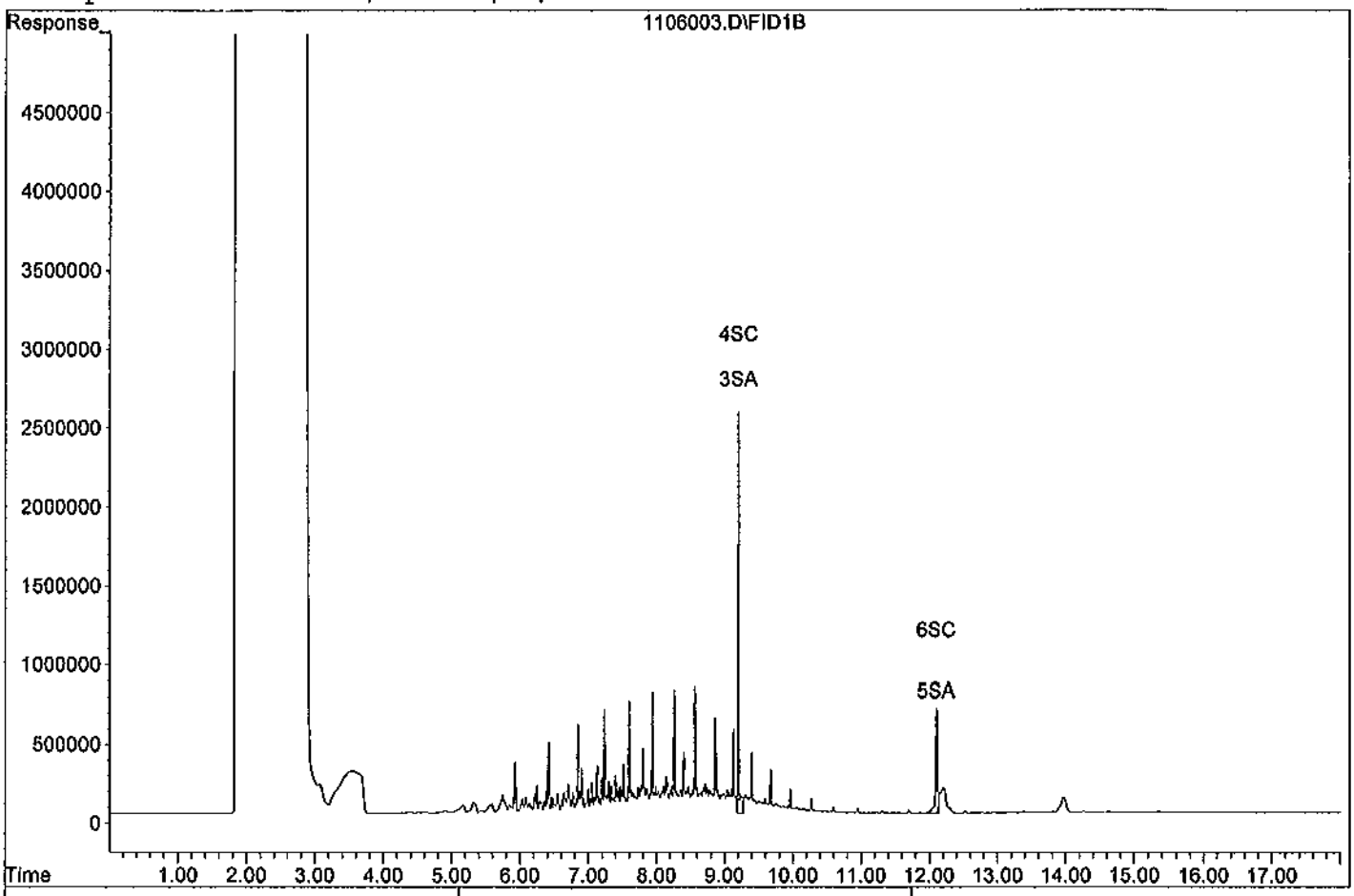
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

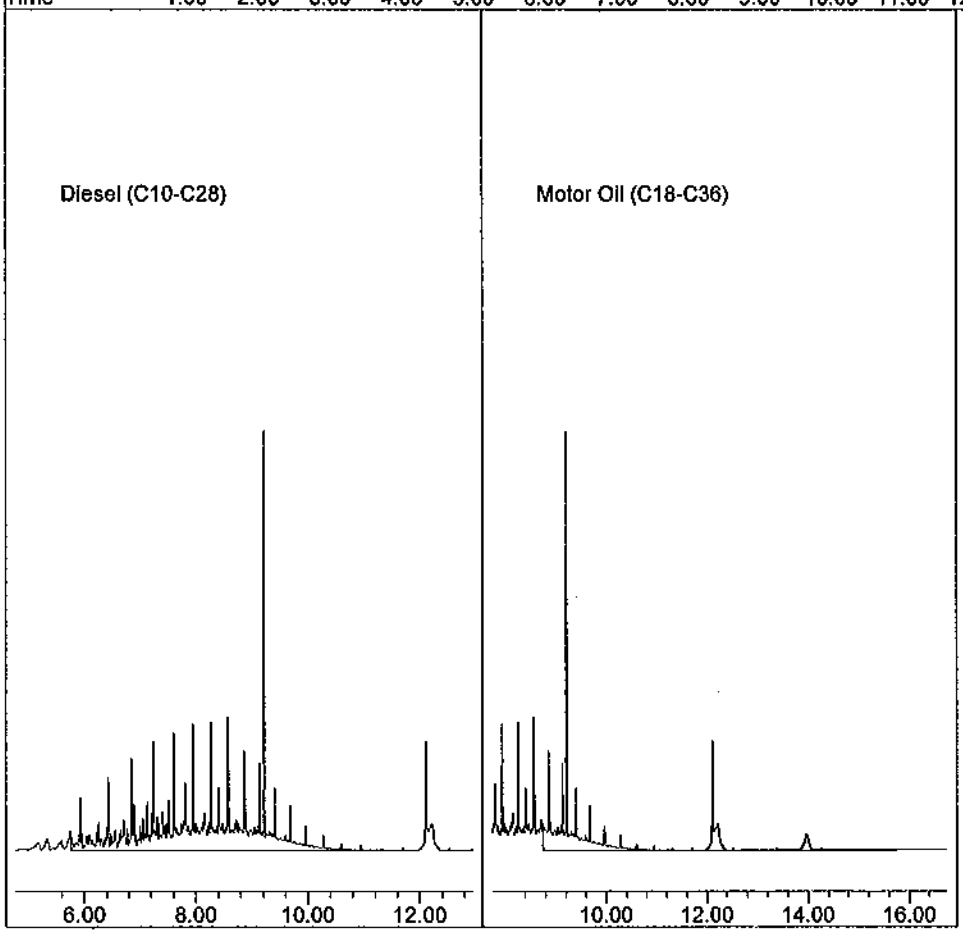
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	21346070	19.854 ppb
Surrogate Spike 30.000	Recovery =		66.18%
4) SC Ortho-Terphenyl(S)	9.21	21346070	24.480 ppb
Surrogate Spike 30.000	Recovery =		81.60%
5) SA Not Used2(S)	12.11	11940260	24.100 ppb
Surrogate Spike 30.000	Recovery =		80.33%
6) SC Octacosane(S)	12.11	11940260	25.659 ppb
Surrogate Spike 30.000	Recovery =		85.53%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	287418867	341.397 ppb
2) HBTM Motor Oil (C18-C36)	12.25	102192727	281.876 ppb

(f)=RT Delta > 1/2 Window 76 (m)=manual int.

Data File: G:\APOLLO\DATA\111106\1106003.D
Sample : DIESEL 400/1000 10/28/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/06/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106017.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	369827	12	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (Not Reviewed)

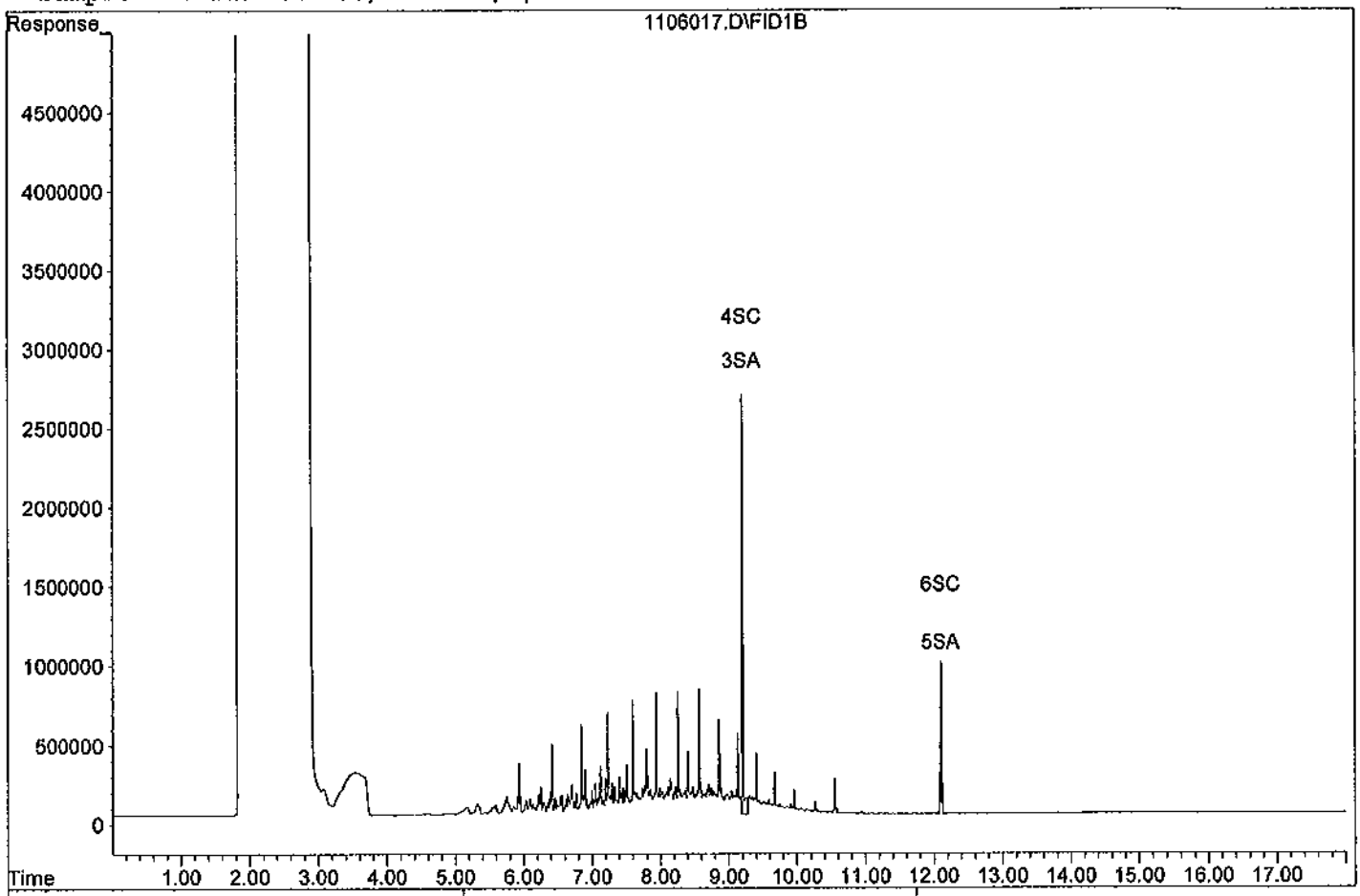
Data File : G:\APOLLO\DATA\111106\1106017.D Vial: 17
Acq On : 11-6-11 22:03:47 Operator: LAC
Sample : DIESEL 400/1000 11/2/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:17 2011 Quant Results File: TPH1028.RES

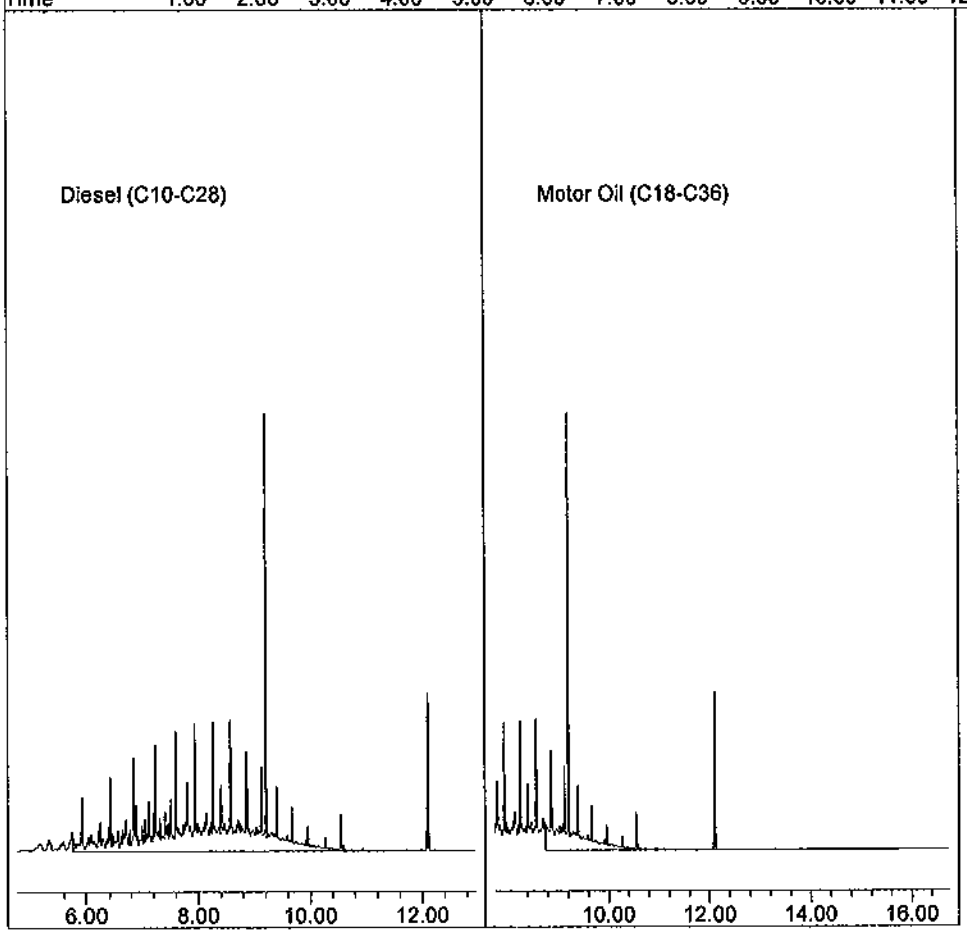
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	22135697	20.589 ppb
Surrogate Spike 30.000	Recovery =		68.63%
4) SC Ortho-Terphenyl(S)	9.21	22135697	25.385 ppb
Surrogate Spike 30.000	Recovery =		84.62%
5) SA Not Used2(S)	12.10	13104105	26.450 ppb
Surrogate Spike 30.000	Recovery =		88.17%
6) SC Octacosane(S)	12.10	13104105	28.160 ppb
Surrogate Spike 30.000	Recovery =		93.87%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	295861444	351.425 ppb
2) HBTM Motor Oil (C18-C36)	12.25	88714324	244.699 ppb

Data File: G:\APOLLO\DATA\111106\1106017.D
Sample : DIESEL 400/1000 11/2/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/07/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106027.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	339247	19	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			19.0		

Quantitation Report (Not Reviewed)

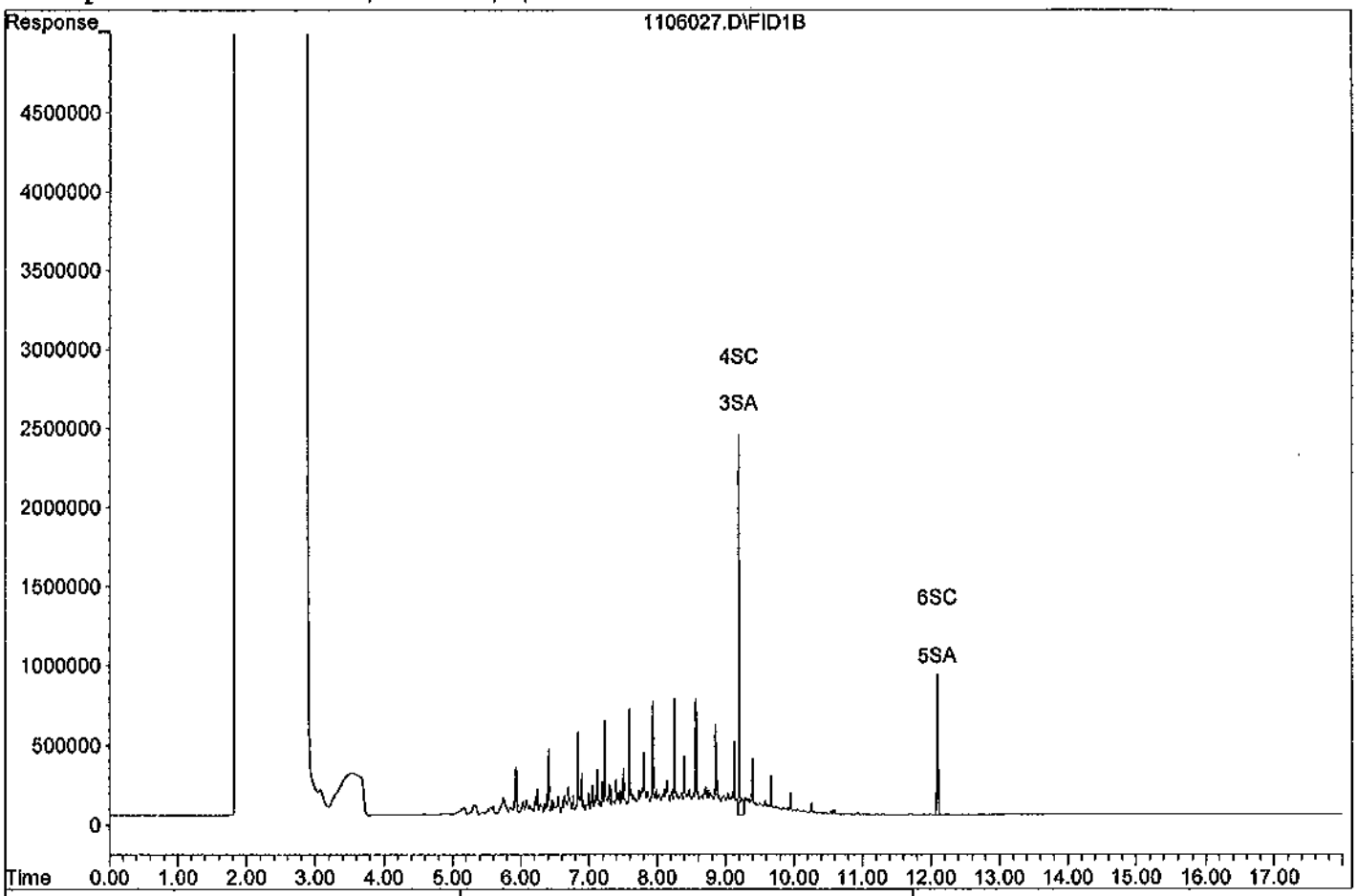
Data File : G:\APOLLO\DATA\111106\1106027.D Vial: 27
Acq On : 11-7-11 1:56:08 Operator: LAC
Sample : DIESEL 400/1000 11/2/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:17 2011 Quant Results File: TPH1028.RES

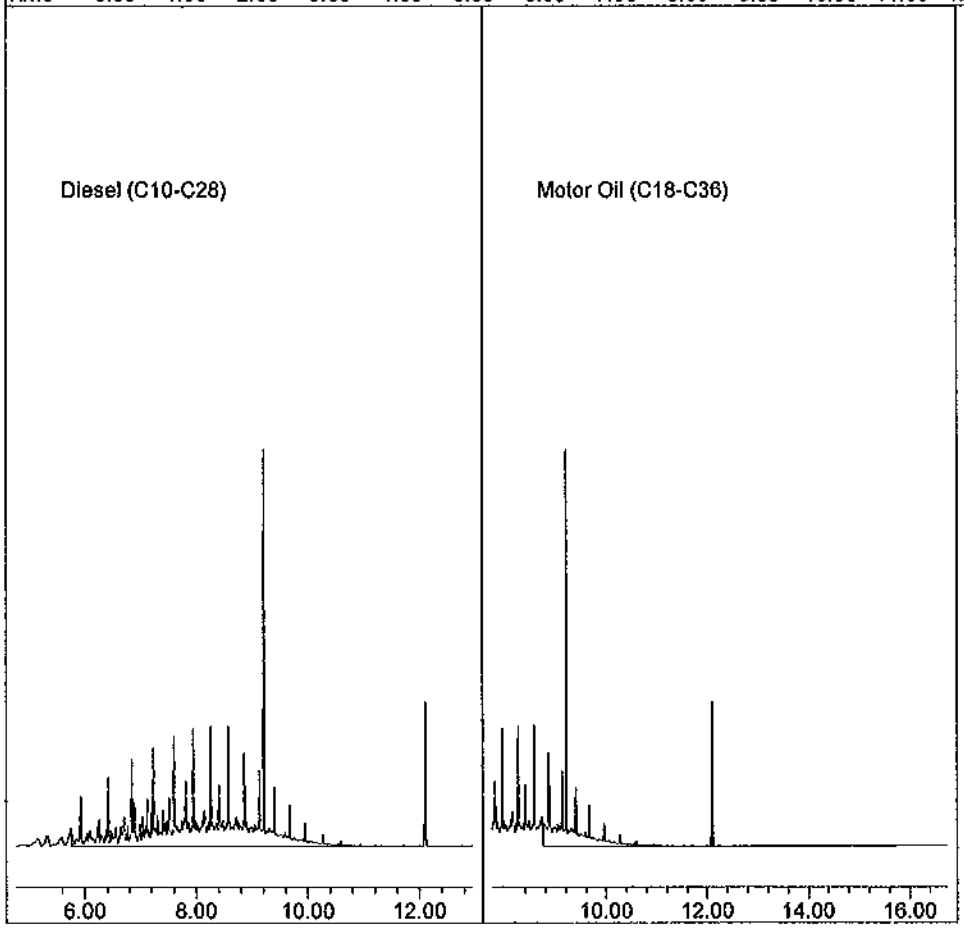
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	20565649	19.129 ppb
Surrogate Spike 30.000	Recovery =		63.76%
4) SC Ortho-Terphenyl(S)	9.21	20565649	23.585 ppb
Surrogate Spike 30.000	Recovery =		78.62%
5) SA Not Used2(S)	12.10	11836262	23.890 ppb
Surrogate Spike 30.000	Recovery =		79.63%
6) SC Octacosane(S)	12.10	11836262	25.435 ppb
Surrogate Spike 30.000	Recovery =		84.78%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	271397500	322.367 ppb
2) HBTM Motor Oil (C18-C36)	12.25	79648905	219.694 ppb

Data File: G:\APOLLO\DATA\111106\1106027.D
Sample : DIESEL 400/1000 11/2/11





TPH Extractables
TPH8S15

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66102
Case No: Initial Cal. Date: 11/08/11
Matrix: Instrument: Apollo Initials: LAC

			1115021.D	1115022.D	1115023.D	1115024.D	1115025.D	1115026.D								
		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATML	Diesel (C10-C28)	613132	243101	243681	243678	244044	245201					305473	49	HATML	1.000
2	HBTM	Motor Oil (C18-C36)	140437	99632	104190	111186	115800	125373					116103	13	HBTM	
3	SA	Not Used(S)	302444	320737	318016	323983	383528	387566					339379	11	SA	
4	SC	Ortho-Terphenyl(S)	356915	320797	300581	304073	324333	307361					319010	6.5	SC	
5	SA	Not Used2(S)		81698	75651	78041	78921	79877					78838	2.8	SA	
6	SC	Octacosane(S)		121445	115156	113245	126484	120297					119325	4.4	SC	
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

2.4787102

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108005.D Vial: 5
Acq On : 11-8-11 15:50:59 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

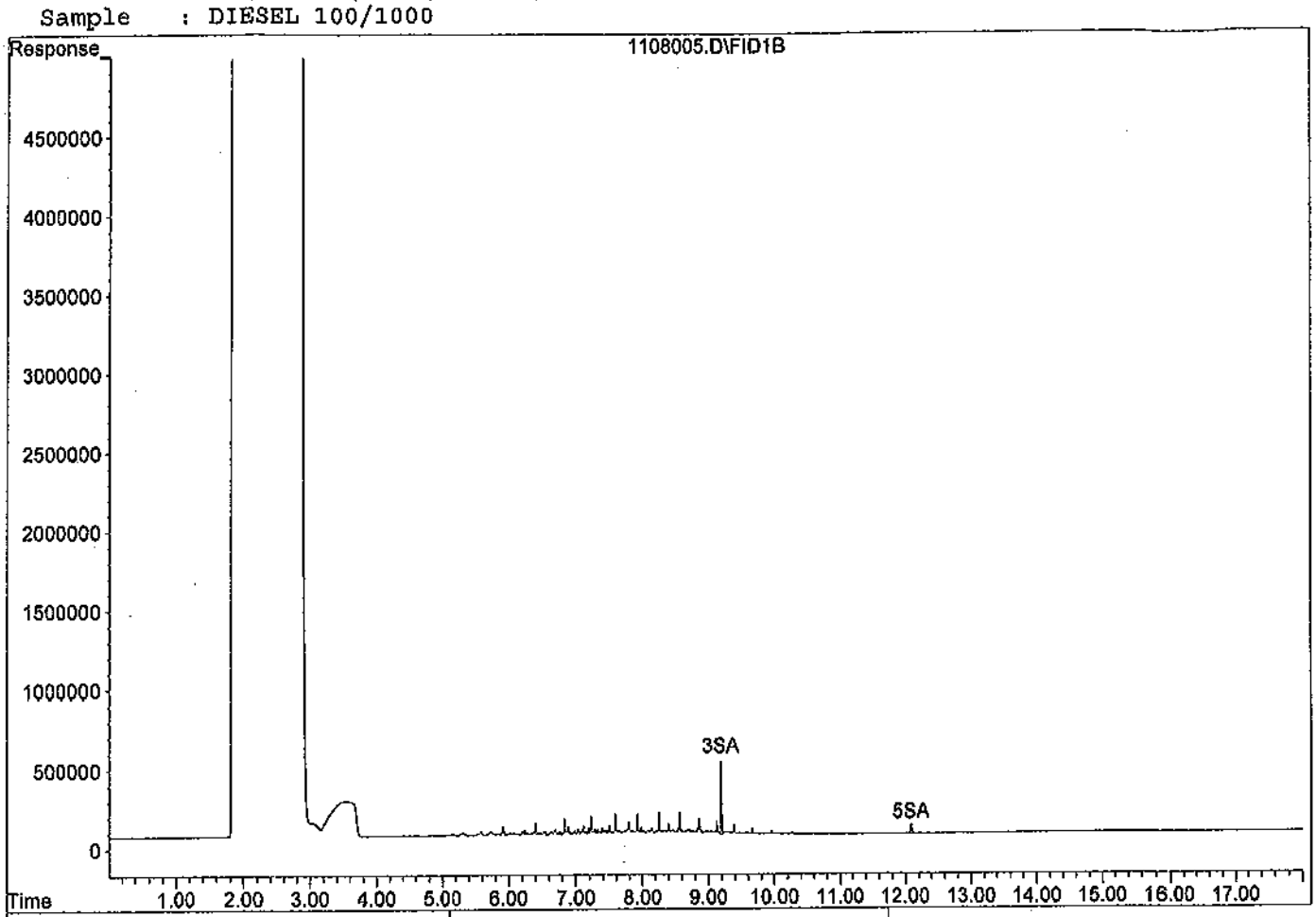
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

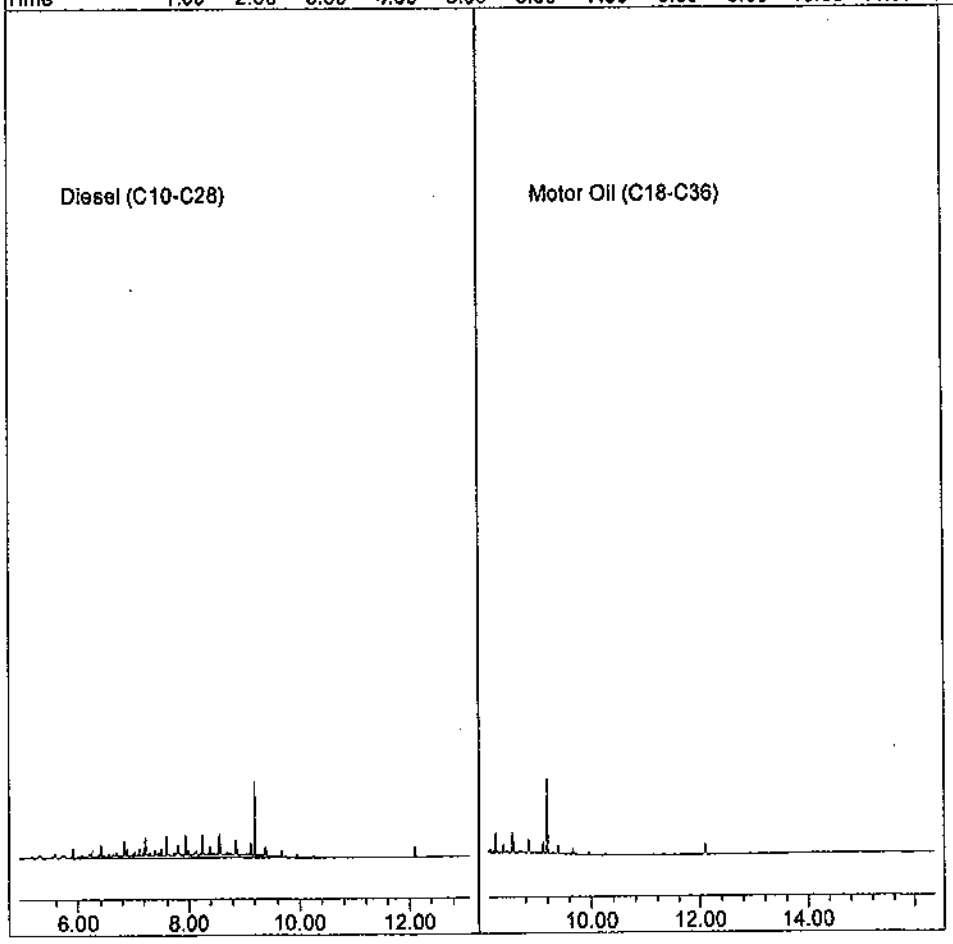
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	3207373	3.154	ppb
Surrogate Spike 30.000	Recovery =		10.51%	
5) SA Not Used2(S)	12.09	816983	2.773	ppb
Surrogate Spike 30.000	Recovery =		9.24%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	48620150	767.290	ppb

(f)=RT Delta > 1/2 Window 85 (m)=manual int.

Data File: G:\APOLLO\DATA\111108\1108005.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108006.D Vial: 6
Acq On : 11-8-11 16:14:36 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:52 2011 Quant Results File: TPH8S15.RES

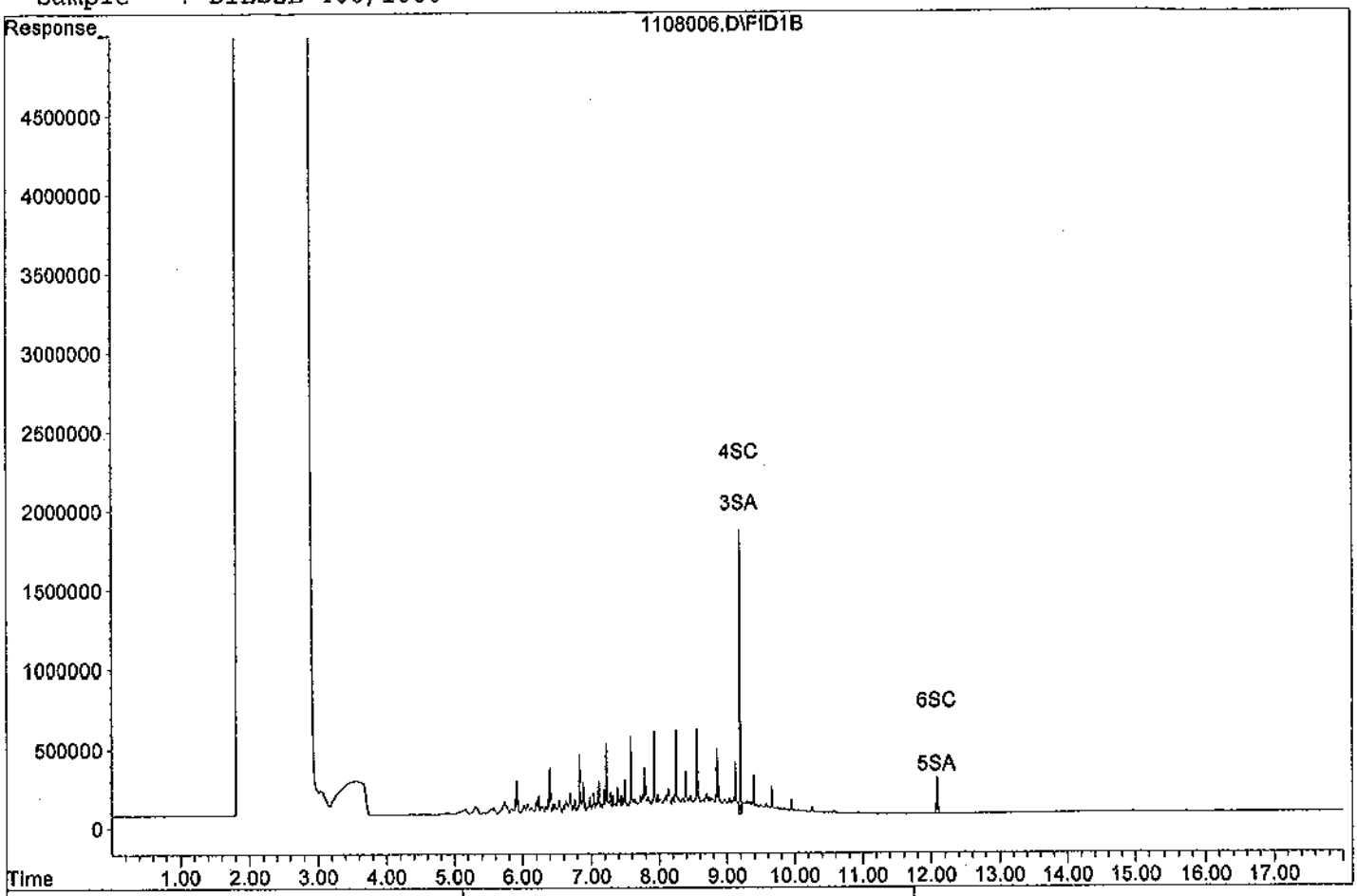
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

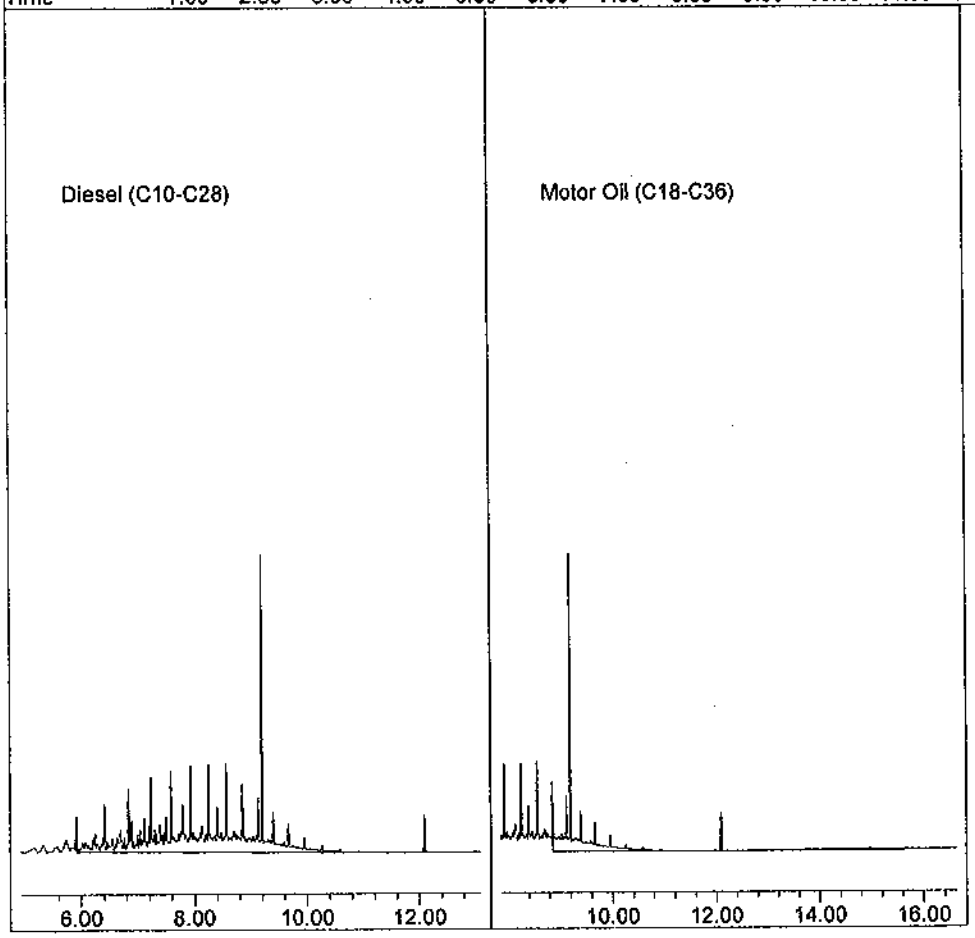
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	12720627	18.741 ppb
Surrogate Spike 30.000	Recovery =		62.47%
4) SC Ortho-Terphenyl(S)	9.20	12720627	19.938 ppb
Surrogate Spike 30.000	Recovery =		66.46%
5) SA Not Used2(S)	12.09	3026041	19.192 ppb
Surrogate Spike 30.000	Recovery =		63.97%
6) SC Octacosane(S)	12.09	3026041	12.960 ppb
Surrogate Spike 30.000	Recovery =		43.20%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	194945056	395.862 ppb
2) HBTM Motor Oil (C18-C36)	12.24	62241854	268.046 ppb

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

Data File: G:\APOLLO\DATA\111108\1108006.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108007.D Vial: 7
Acq On : 11-8-11 16:38:14 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

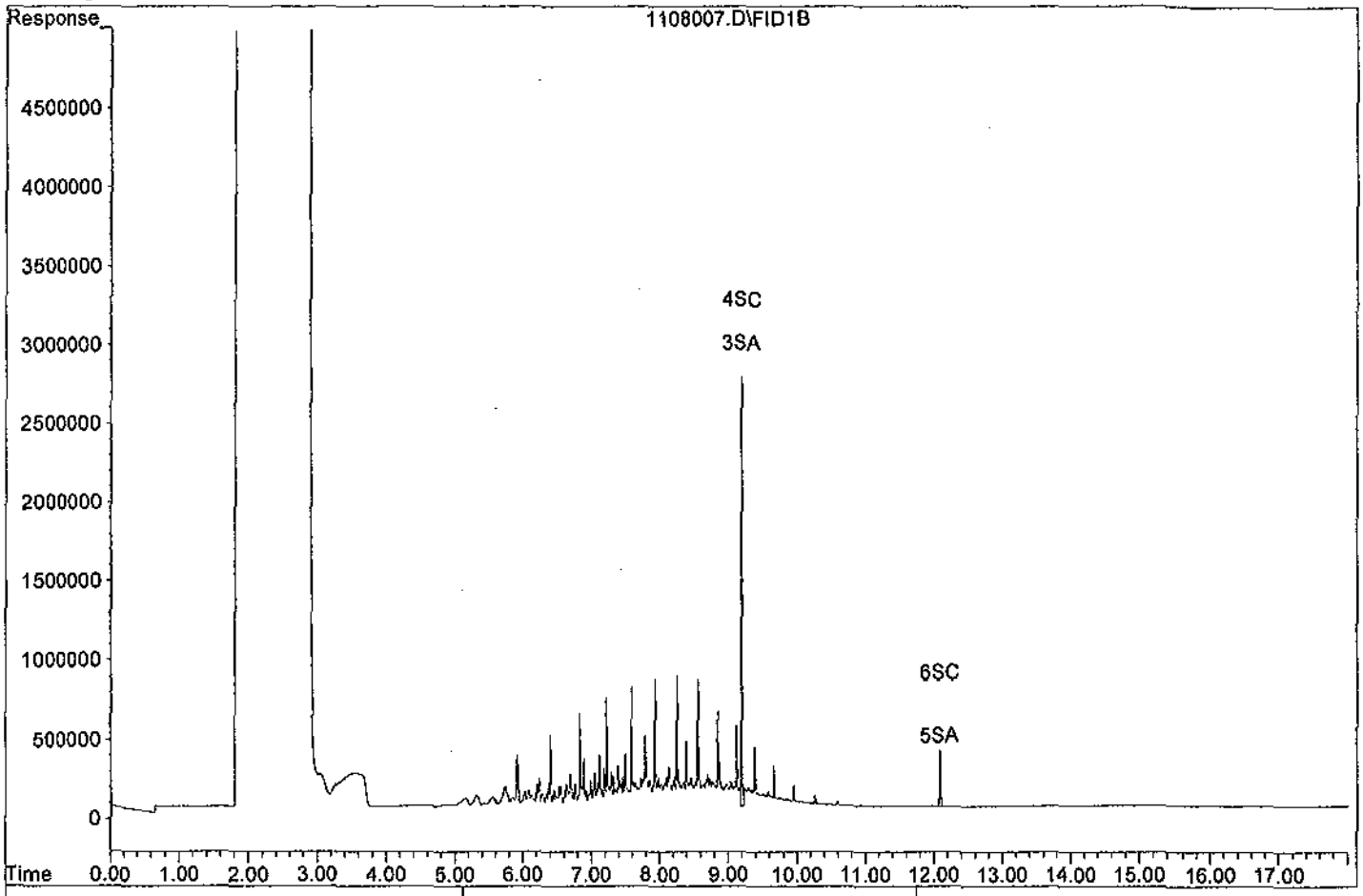
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

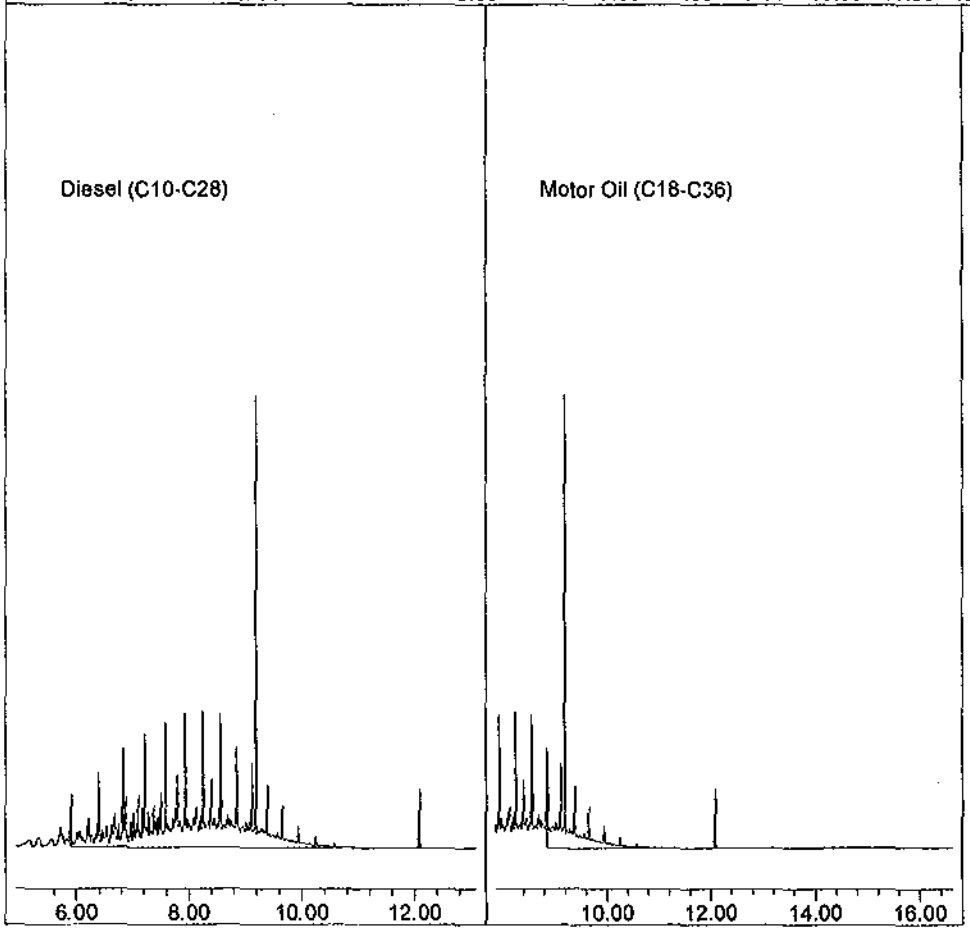
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	19438997	28.639	ppb
Surrogate Spike 30.000	Recovery =		95.46%	
4) SC Ortho-Terphenyl(S)	9.20	19438997	30.468	ppb
Surrogate Spike 30.000	Recovery =		101.56%	
5) SA Not Used2(S)	12.09	4682445	29.697	ppb
Surrogate Spike 30.000	Recovery =		98.99%	
6) SC Octacosane(S)	12.09	4682445	20.054	ppb
Surrogate Spike 30.000	Recovery =		66.85%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	292413883	596.788	ppb
2) HBTM Motor Oil (C18-C36)	12.24	77206924	332.493	ppb

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

Data File: G:\APOLLO\DATA\111108\1108007.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

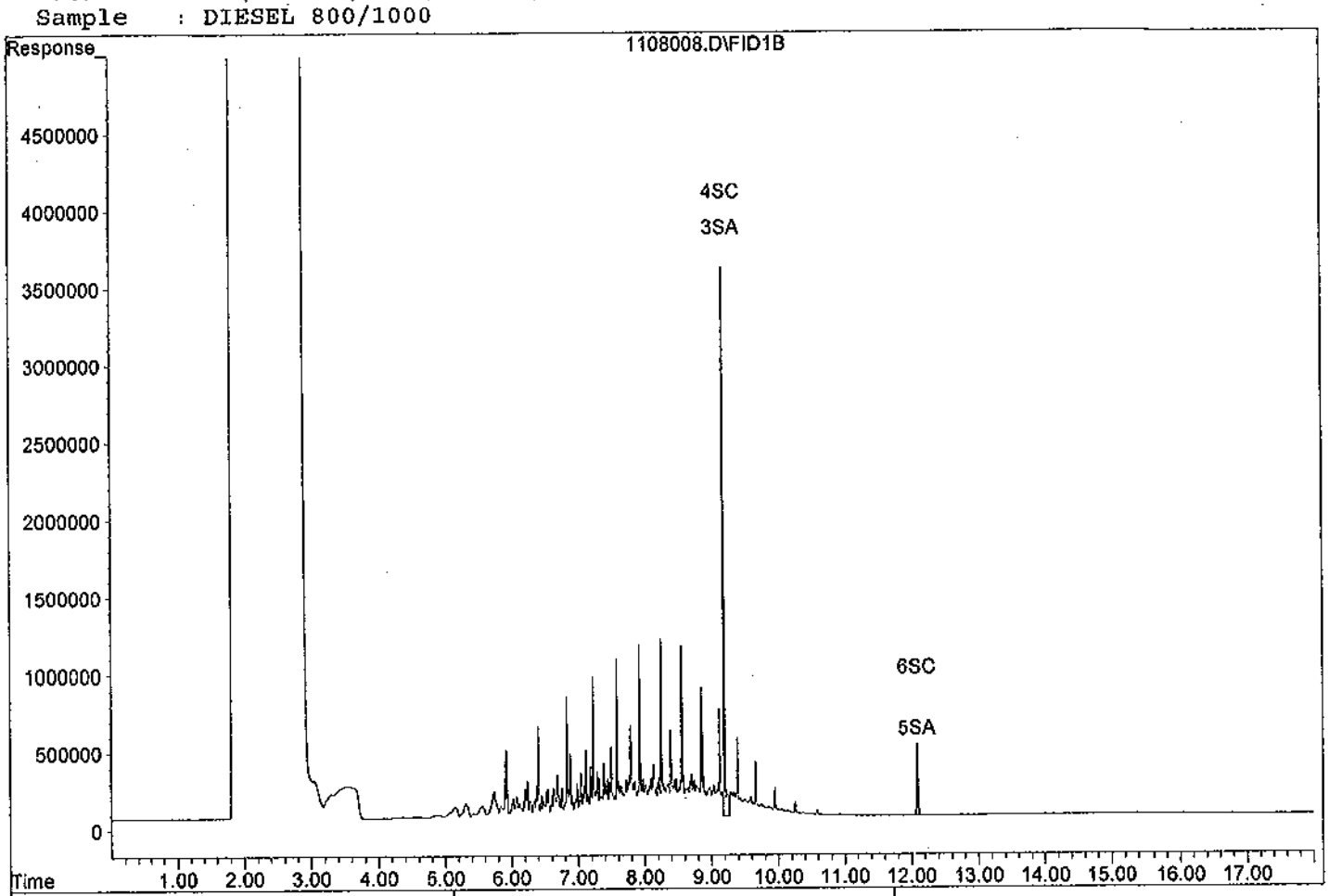
Data File : G:\APOLLO\DATA\111108\1108008.D Vial: 8
Acq On : 11-8-11 17:01:53 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

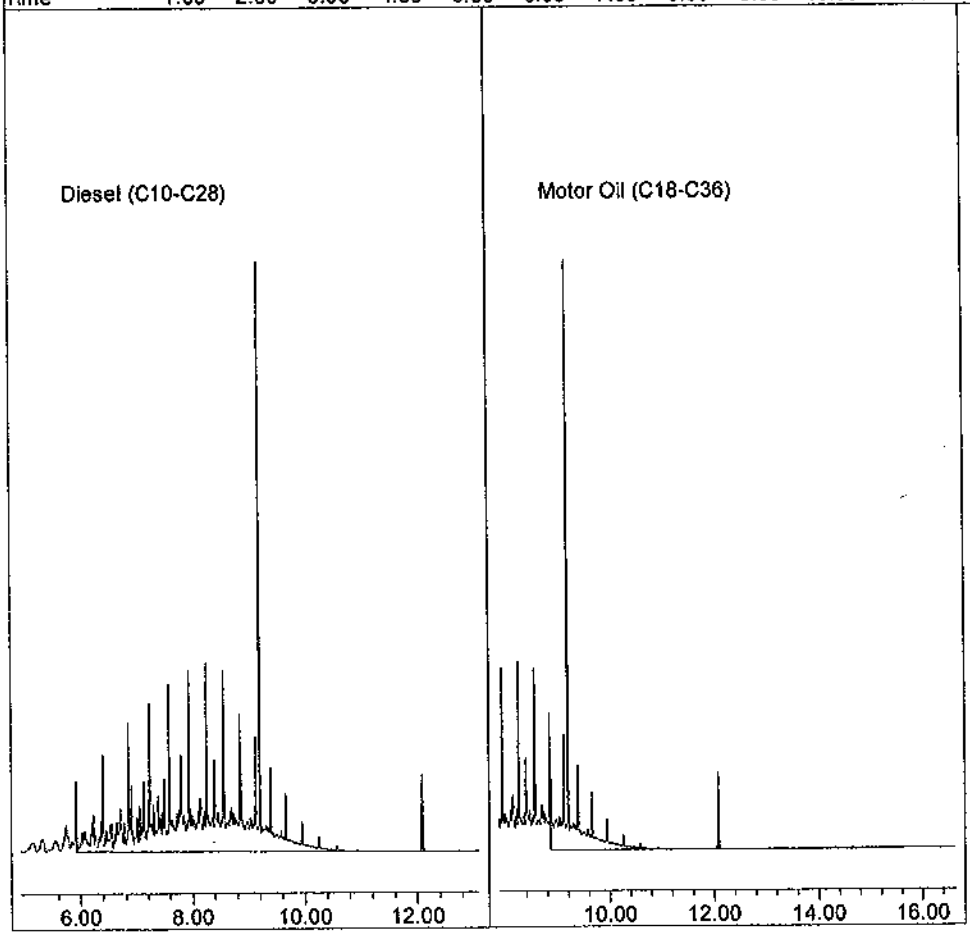
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	30682231	45.203	ppb
Surrogate Spike 30.000	Recovery =		150.68%	
4) SC Ortho-Terphenyl(S)	9.20	30682231	48.090	ppb
Surrogate Spike 30.000	Recovery =		160.30%	
5) SA Not Used2(S)	12.09	6313667	40.042	ppb
Surrogate Spike 30.000	Recovery =		133.47%	
6) SC Octacosane(S)	12.09	6313667	27.041	ppb
Surrogate Spike 30.000	Recovery =		90.14%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	390470225	798.924	ppb
2) HBTM Motor Oil (C18-C36)	12.24	99027136	426.462	ppb

Data File: G:\APOLLO\DATA\111108\1108008.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108009.D Vial: 9
Acq On : 11-8-11 17:25:32 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

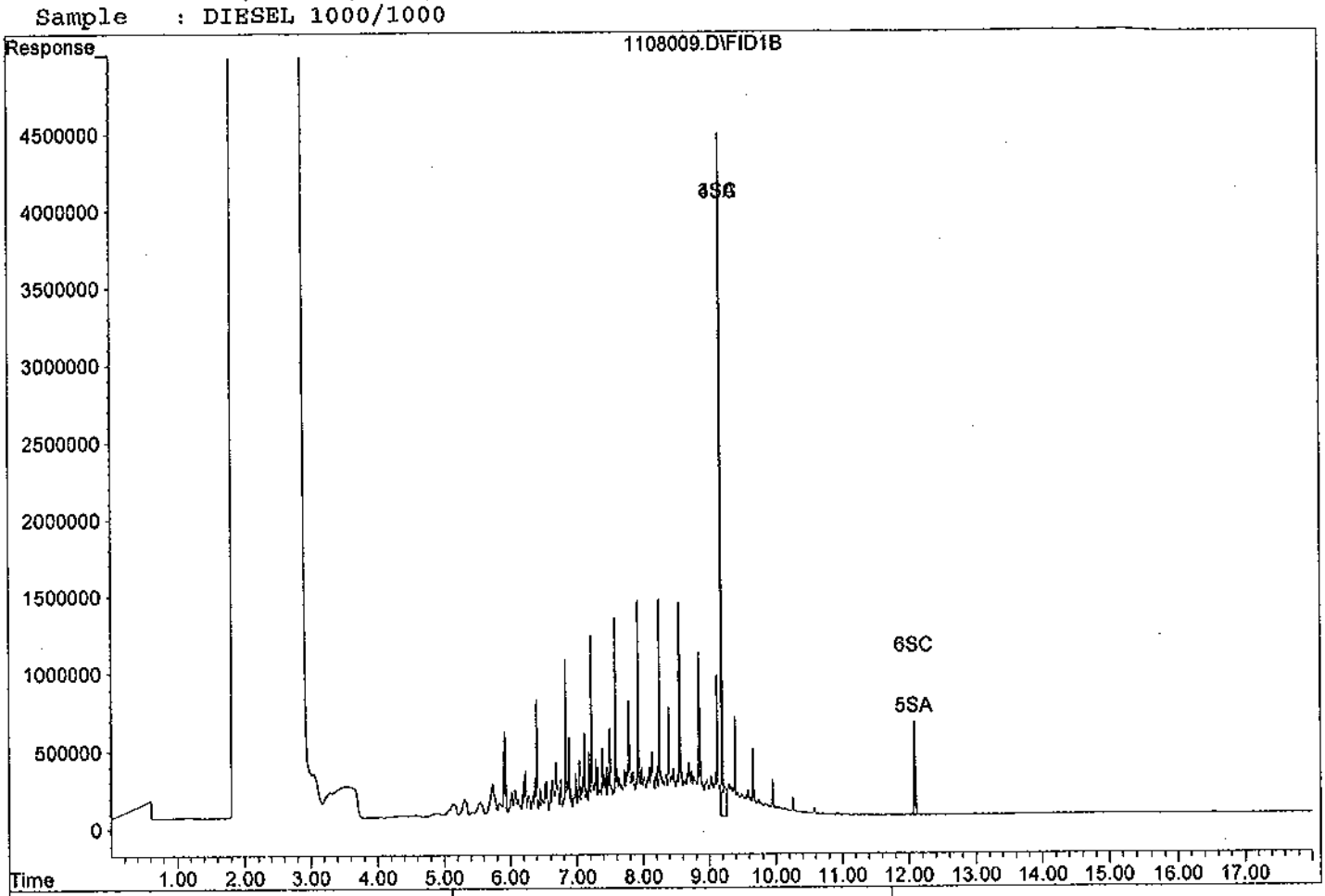
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

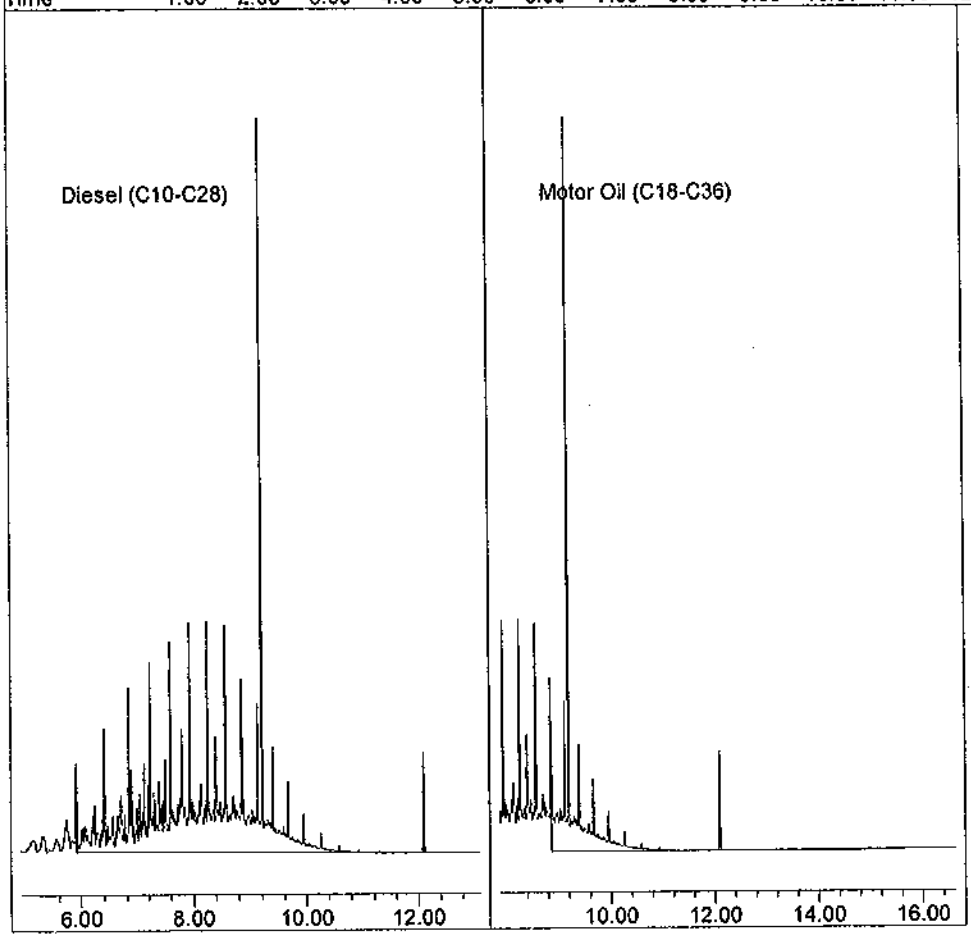
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	38756601	57.099	ppb
Surrogate Spike 30.000	Recovery =		190.33%	
4) SC Ortho-Terphenyl(S)	9.20	38756601	60.745	ppb
Surrogate Spike 30.000	Recovery =		202.48%	
5) SA Not Used2(S)	12.09	7987688	50.659	ppb
Surrogate Spike 30.000	Recovery =		168.86%	
6) SC Octacosane(S)	12.09	7987688	34.210	ppb
Surrogate Spike 30.000	Recovery =		114.03%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	490402243	1004.928	ppb
2) HBTM Motor Oil (C18-C36)	12.24	123592393	532.253	ppb

(f)=RT Delta > 1/2 Window 93 (m)=manual int.

Data File: G:\APOLLO\DATA\111108\1108009.D
Sample : DIESEL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108011.D Vial: 11
Acq On : 11-8-11 18:12:45 Operator: LAC
Sample : MOTOR OIL 50/1000 11/8/11 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

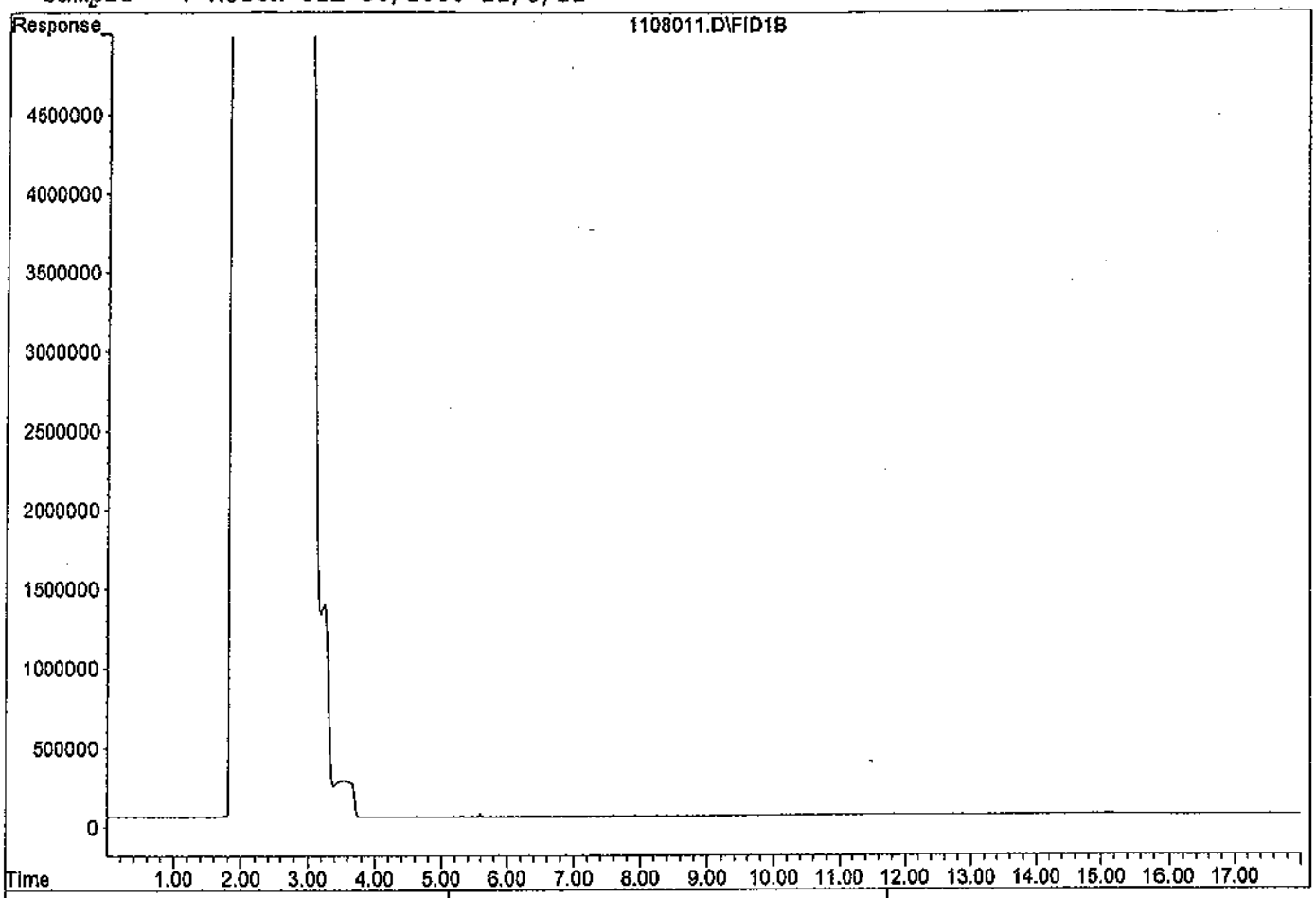
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

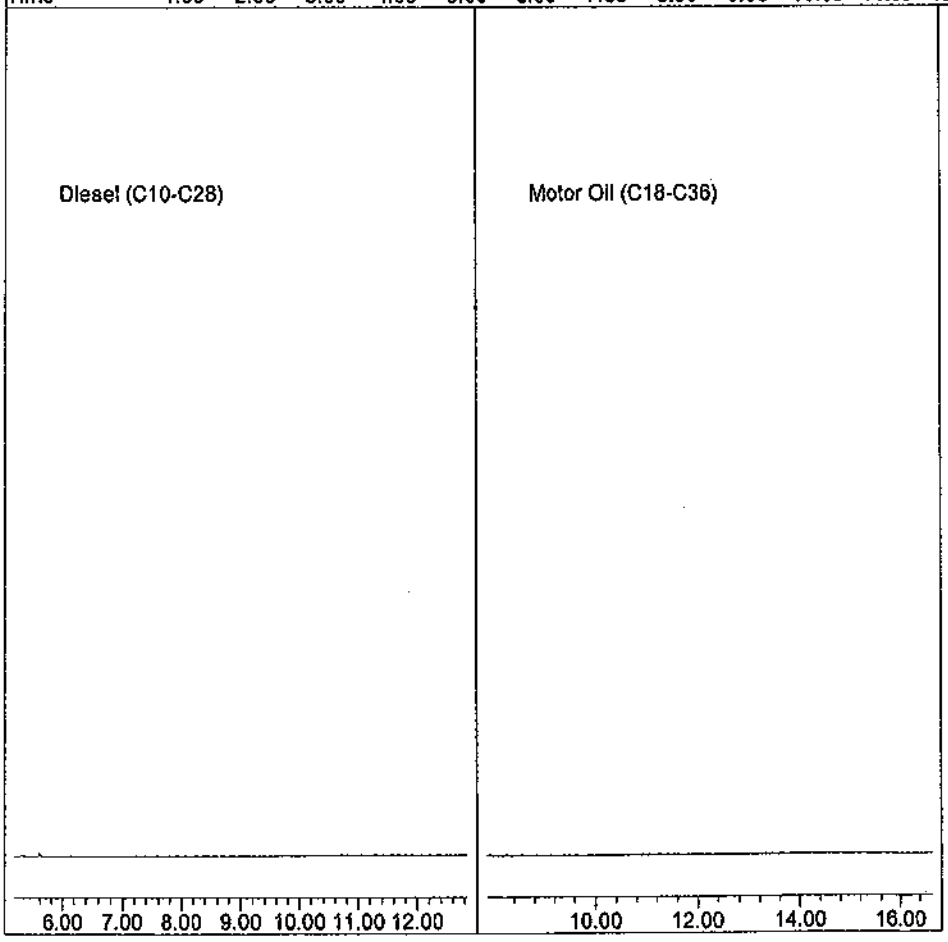
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	14043686	169.078 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108011.D
Sample : MOTOR OIL 50/1000 11/8/11





Quantitation Report (Not Reviewed)

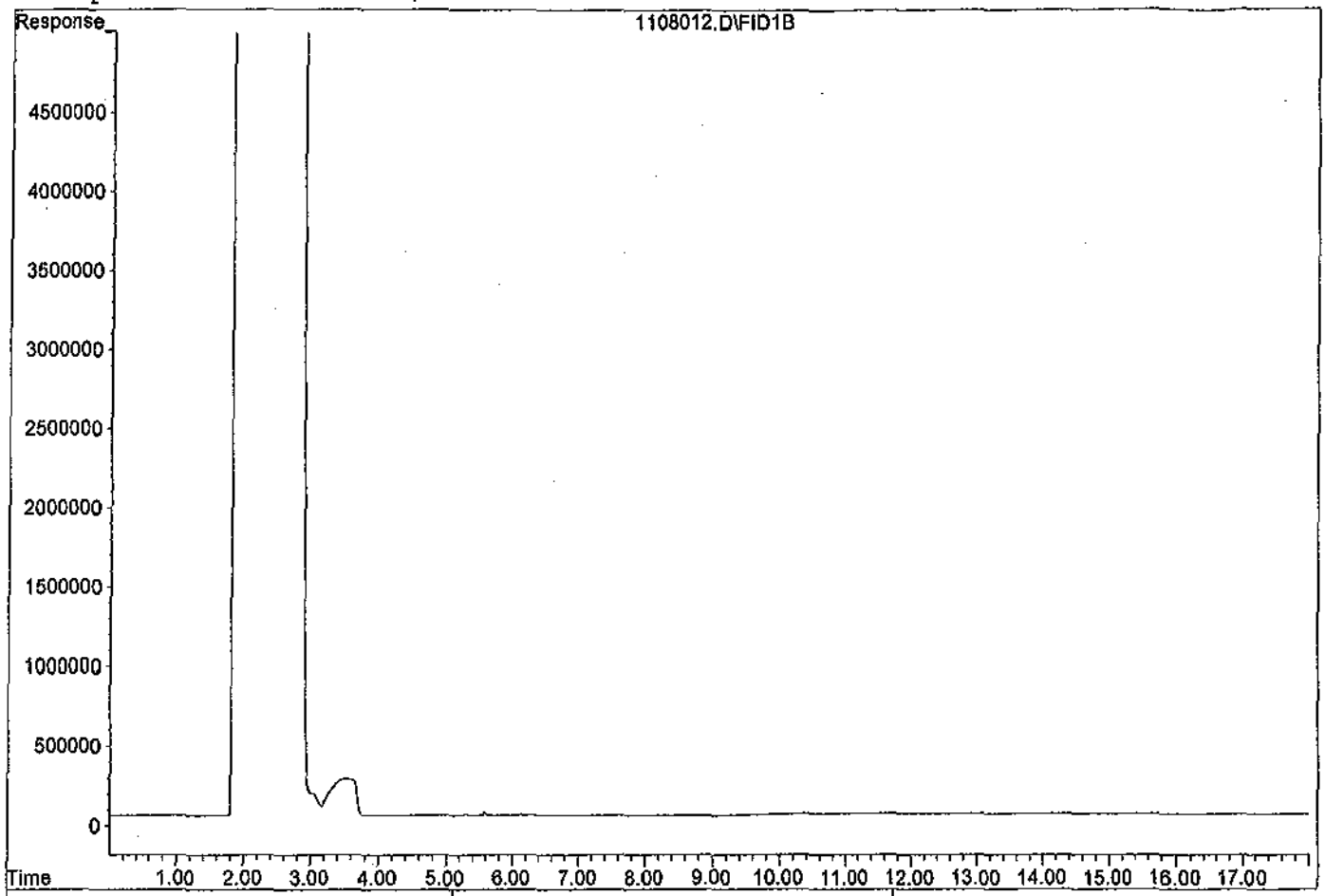
Data File : G:\APOLLO\DATA\111108\1108012.D Vial: 12
Acq On : 11-8-11 18:36:14 Operator: LAC
Sample : MOTOR OIL 100/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

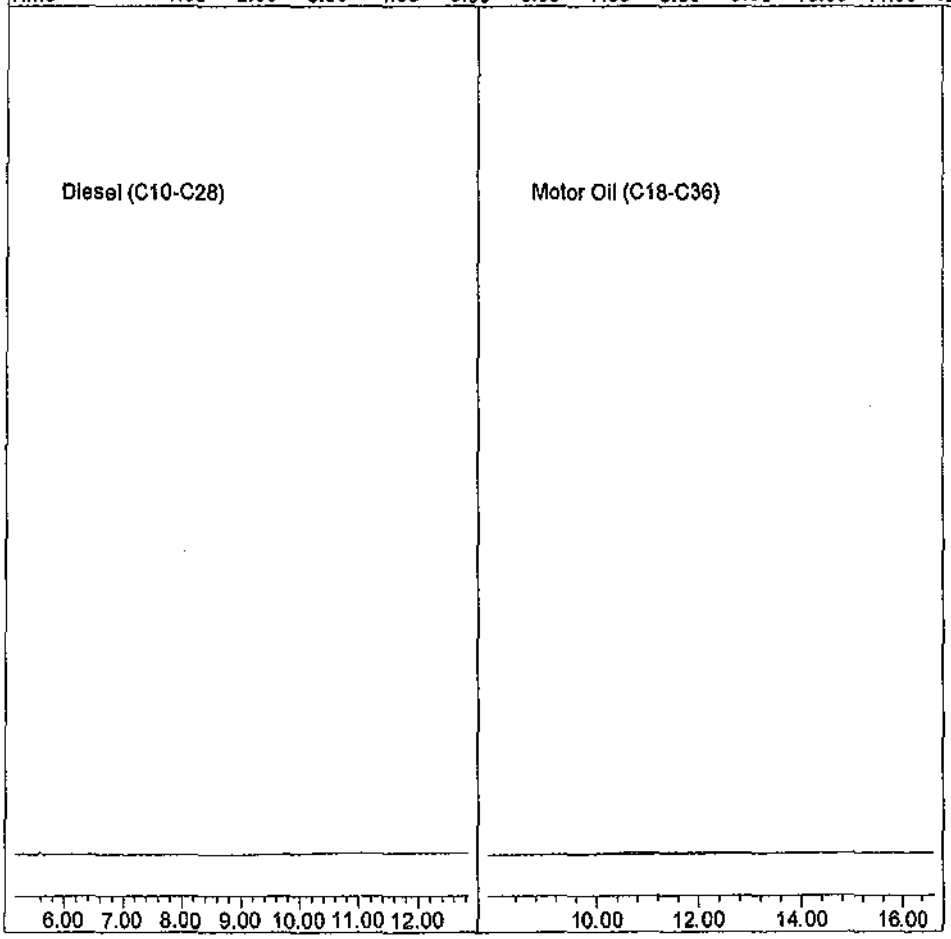
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	19926419	239.903 ppb

Data File: G:\APOLLO\DATA\111108\1108012.D
Sample : MOTOR OIL 100/1000





Quantitation Report (Not Reviewed)

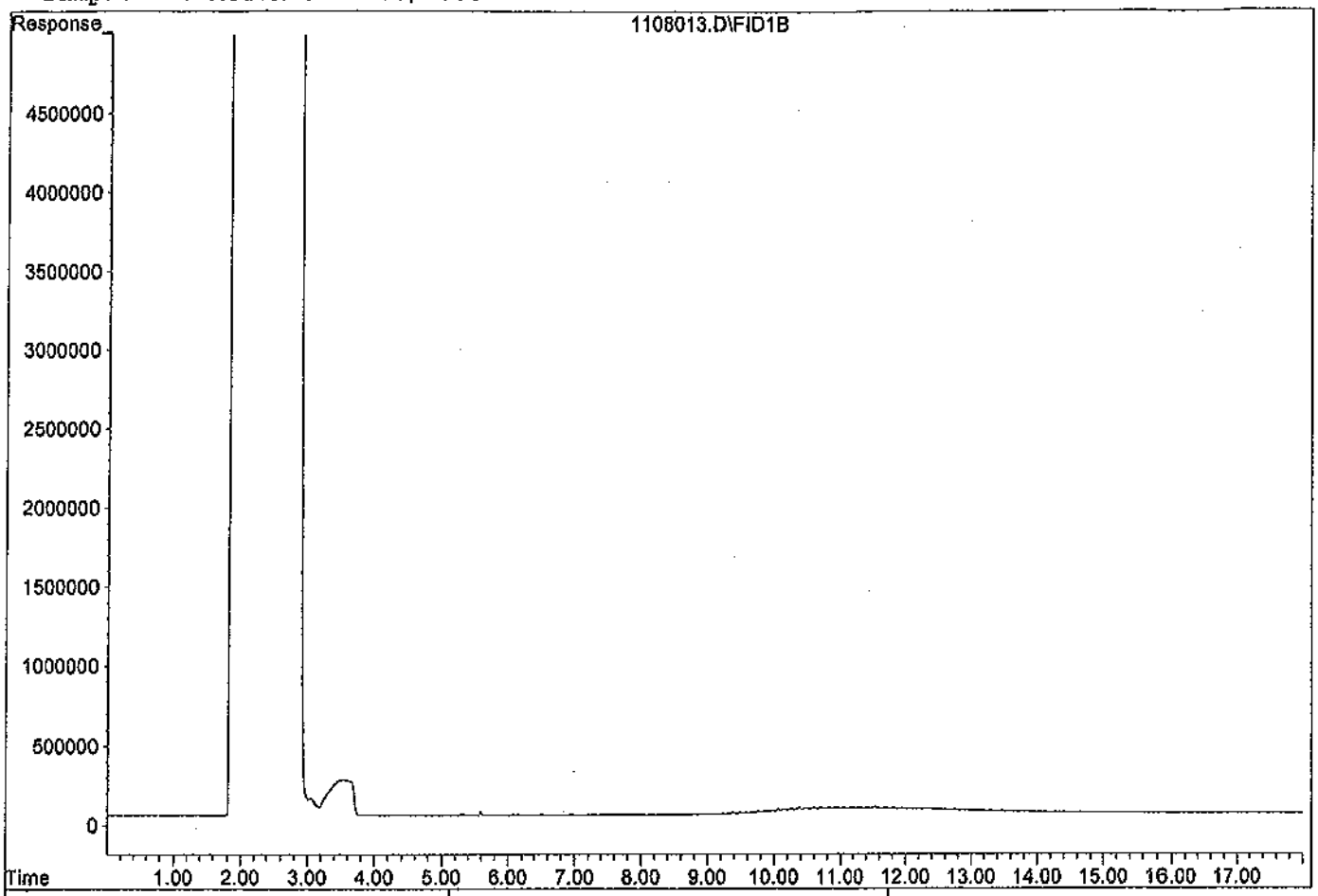
Data File : G:\APOLLO\DATA\111108\1108013.D Vial: 13
Acq On : 11-8-11 18:59:47 Operator: LAC
Sample : MOTOR OIL 400/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

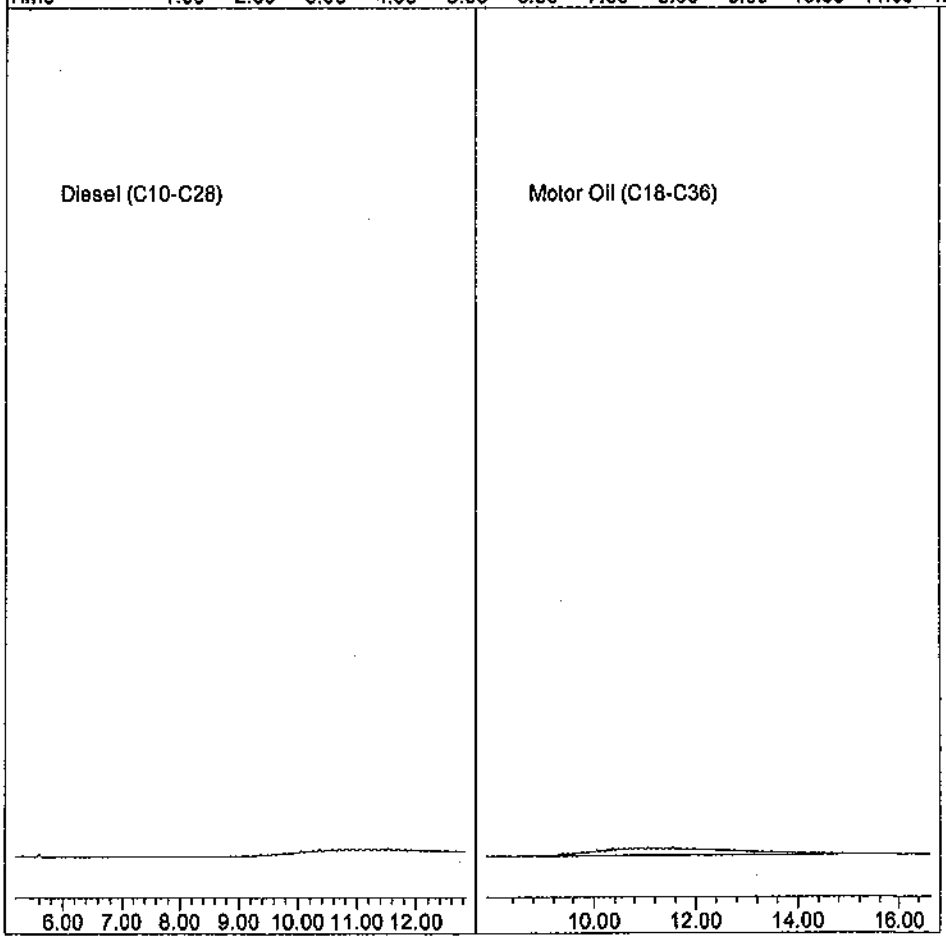
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	83351892	1003.512	ppb

Data File: G:\APOLLO\DATA\111108\1108013.D
Sample : MOTOR OIL 400/1000





Quantitation Report (Not Reviewed)

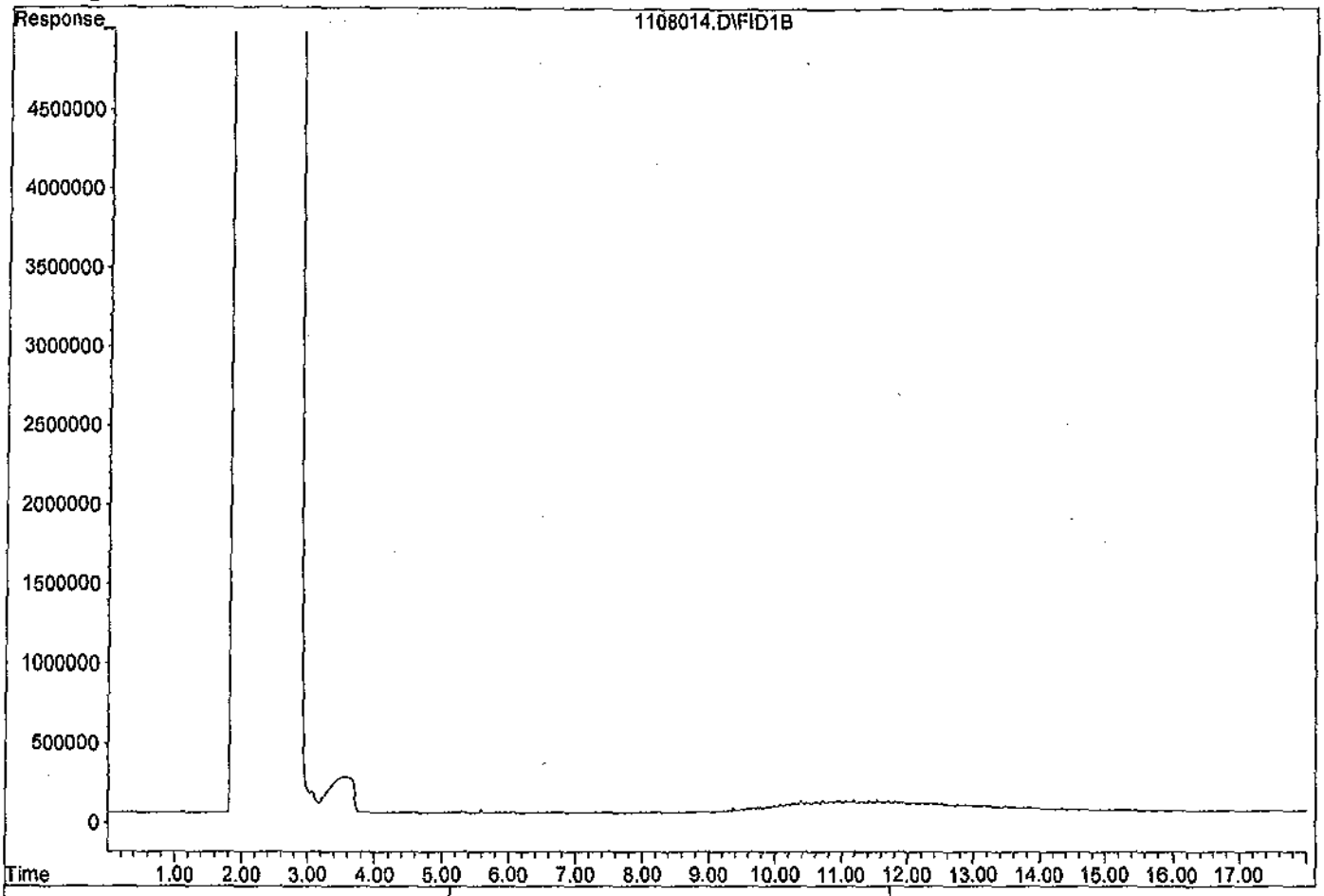
Data File : G:\APOLLO\DATA\111108\1108014.D Vial: 14
Acq On : 11-8-11 19:23:20 Operator: LAC
Sample : MOTOR OIL 600/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

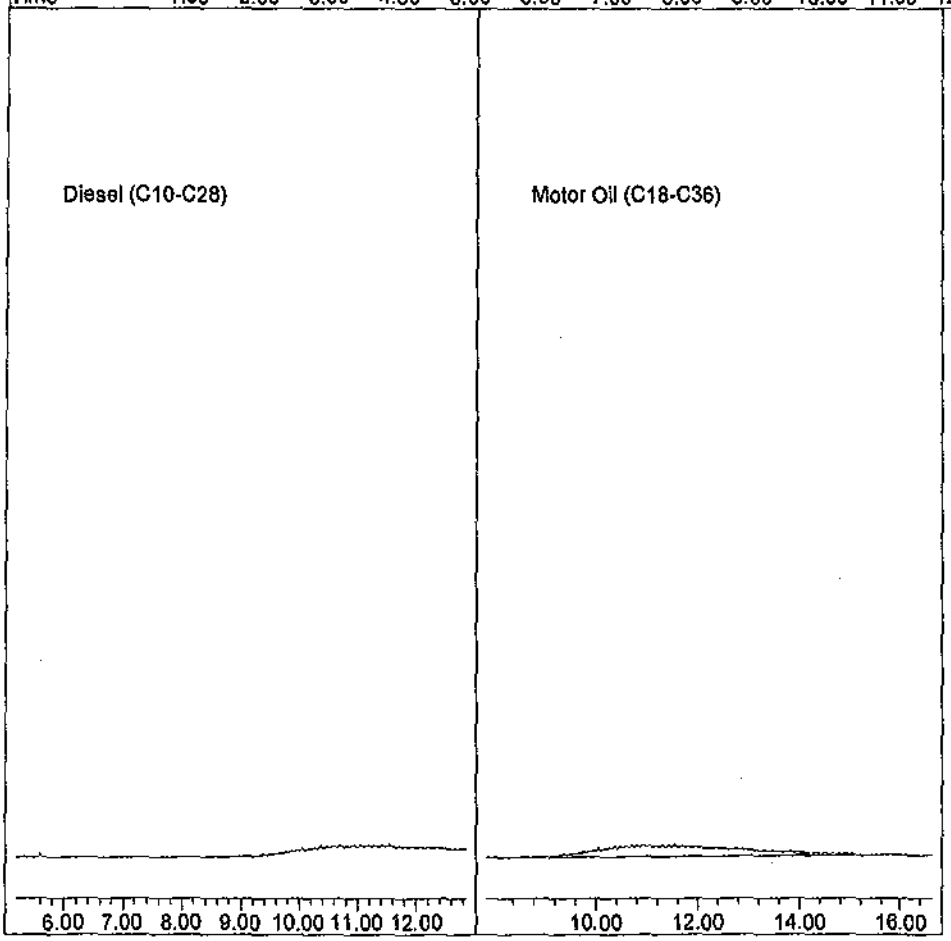
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	133423372	1606.346	ppb

Data File: G:\APOLLO\DATA\111108\1108014.D
Sample : MOTOR OIL 600/1000





Quantitation Report (Not Reviewed)

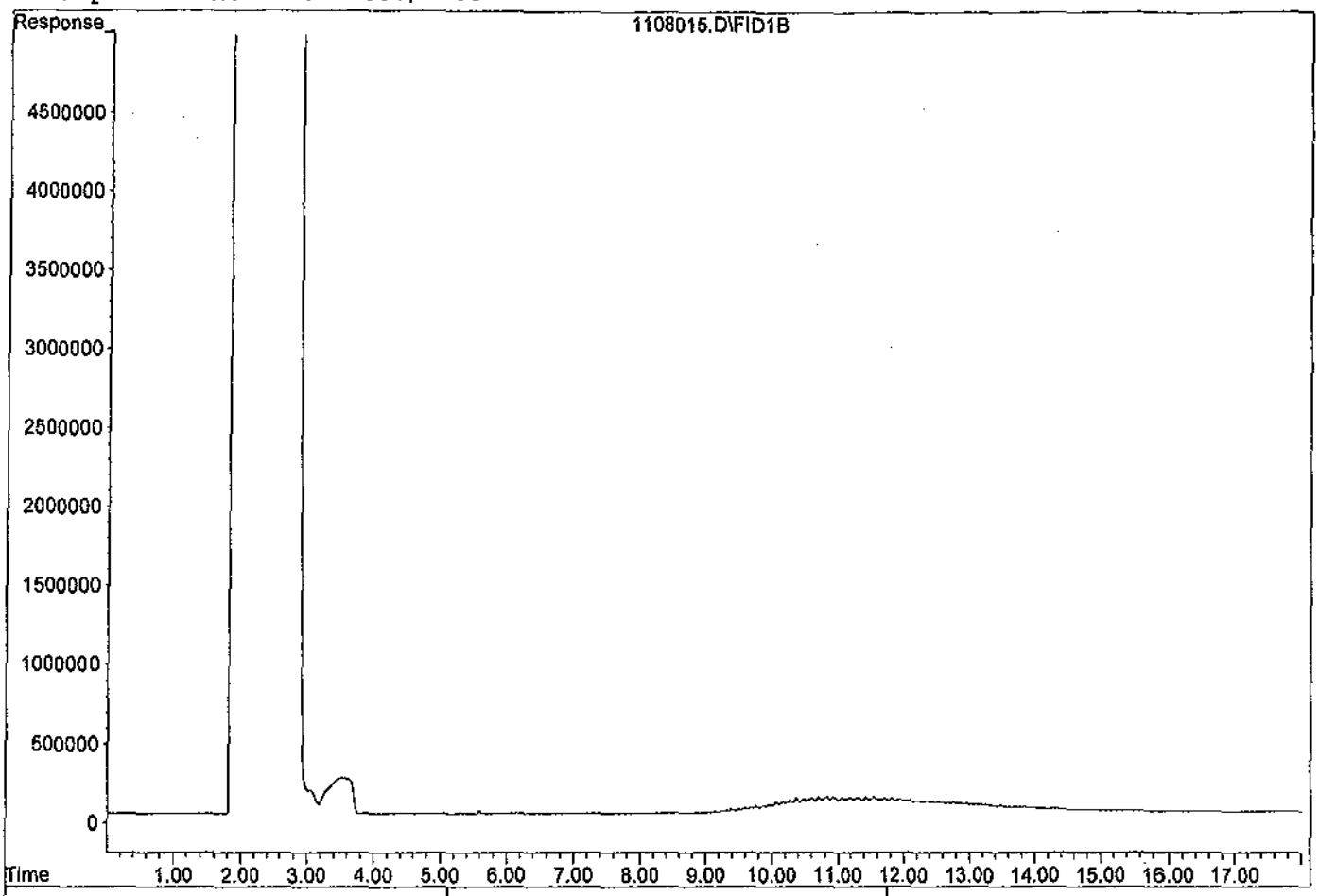
Data File : G:\APOLLO\DATA\111108\1108015.D Vial: 15
Acq On : 11-8-11 19:46:53 Operator: LAC
Sample : MOTOR OIL 800/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

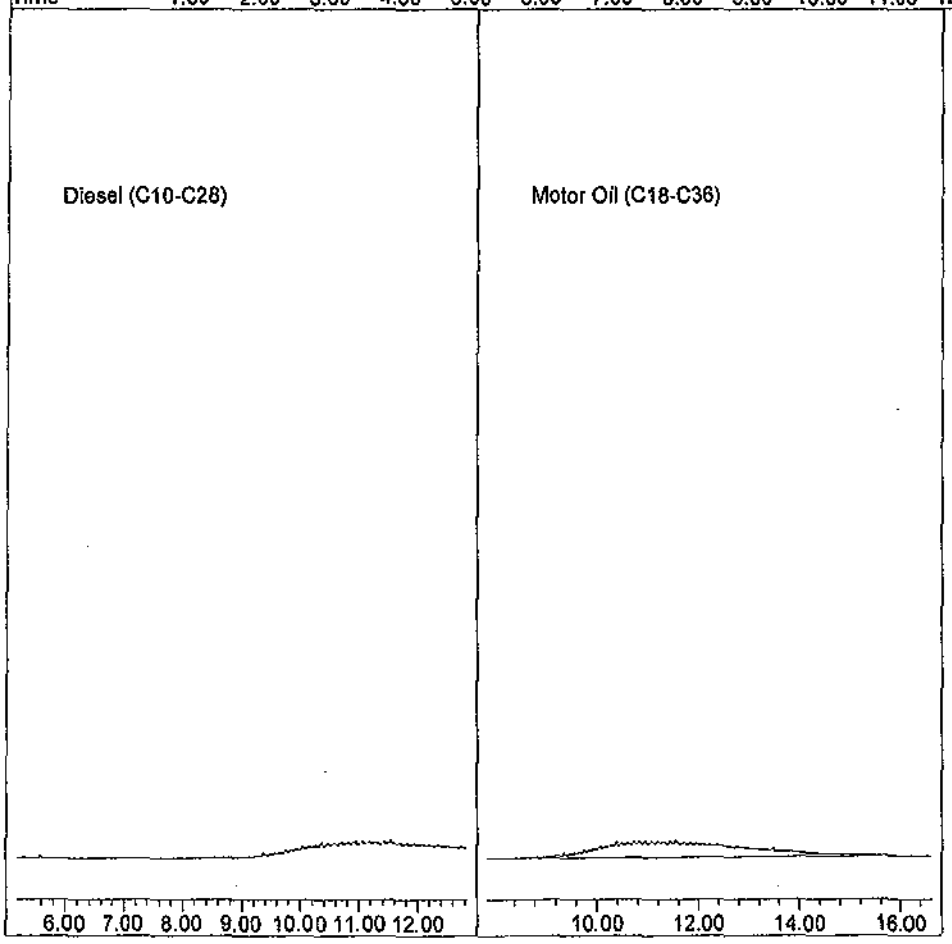
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	185280557	2230.679	ppb

Data File: G:\APOLLO\DATA\111108\1108015.D
Sample : MOTOR OIL 800/1000





Quantitation Report (Not Reviewed)

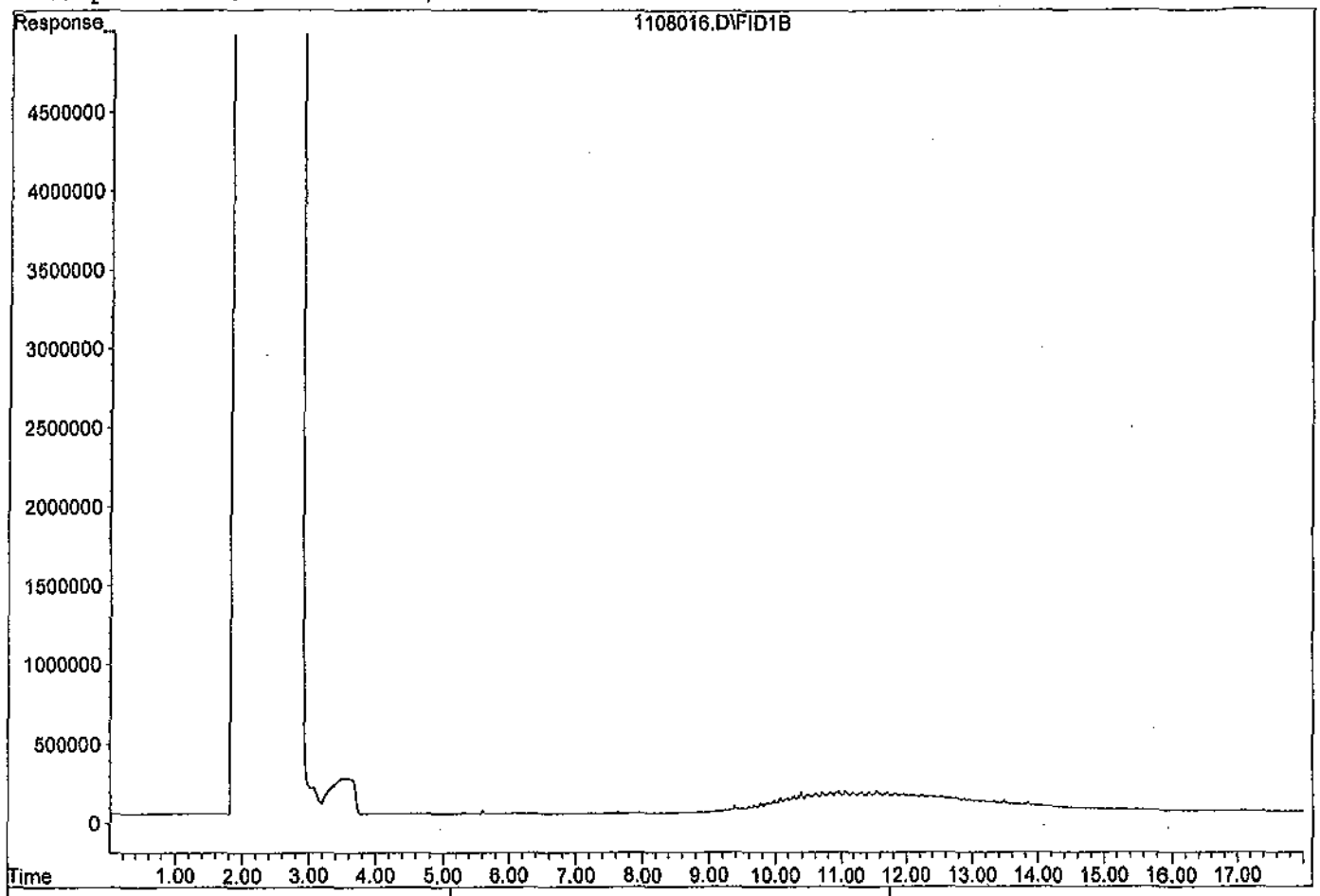
Data File : G:\APOLLO\DATA\111108\1108016.D Vial: 16
Acq On : 11-8-11 20:10:21 Operator: LAC
Sample : MOTOR OIL 1000/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

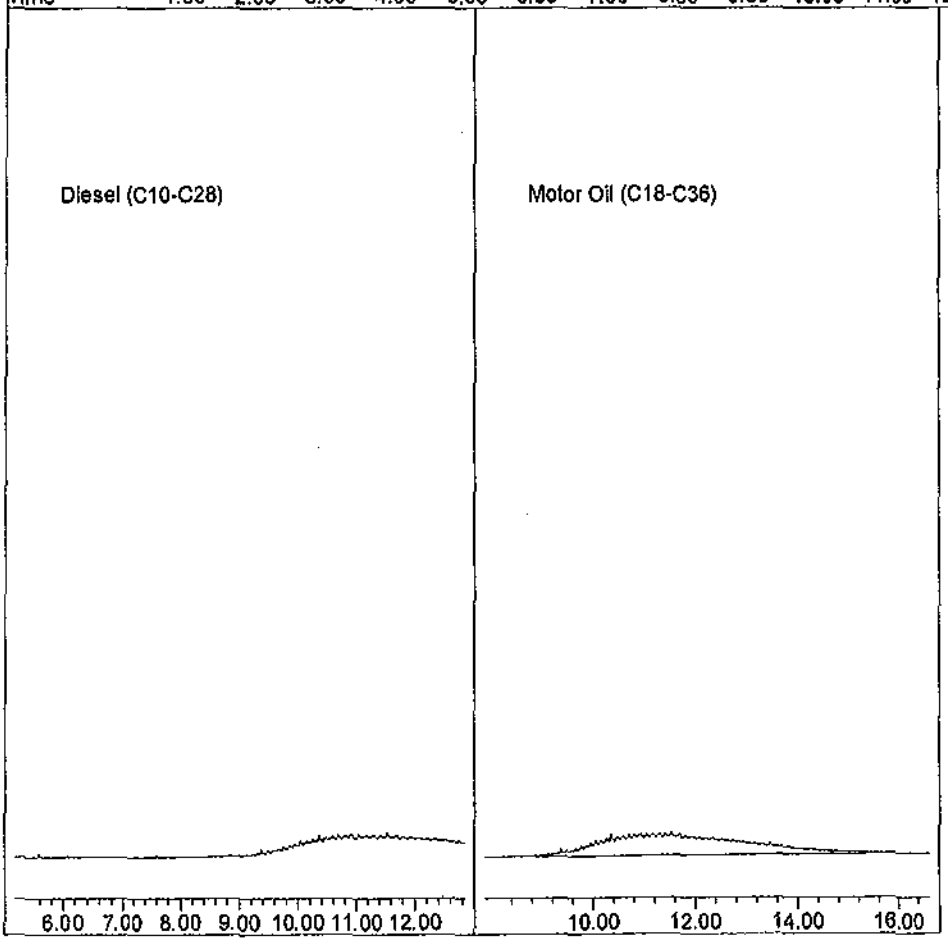
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	250746792	3018.857	ppb

Data File: G:\APOLLO\DATA\111108\1108016.D
Sample : MOTOR OIL 1000/1000





Quantitation Report (Not Reviewed)

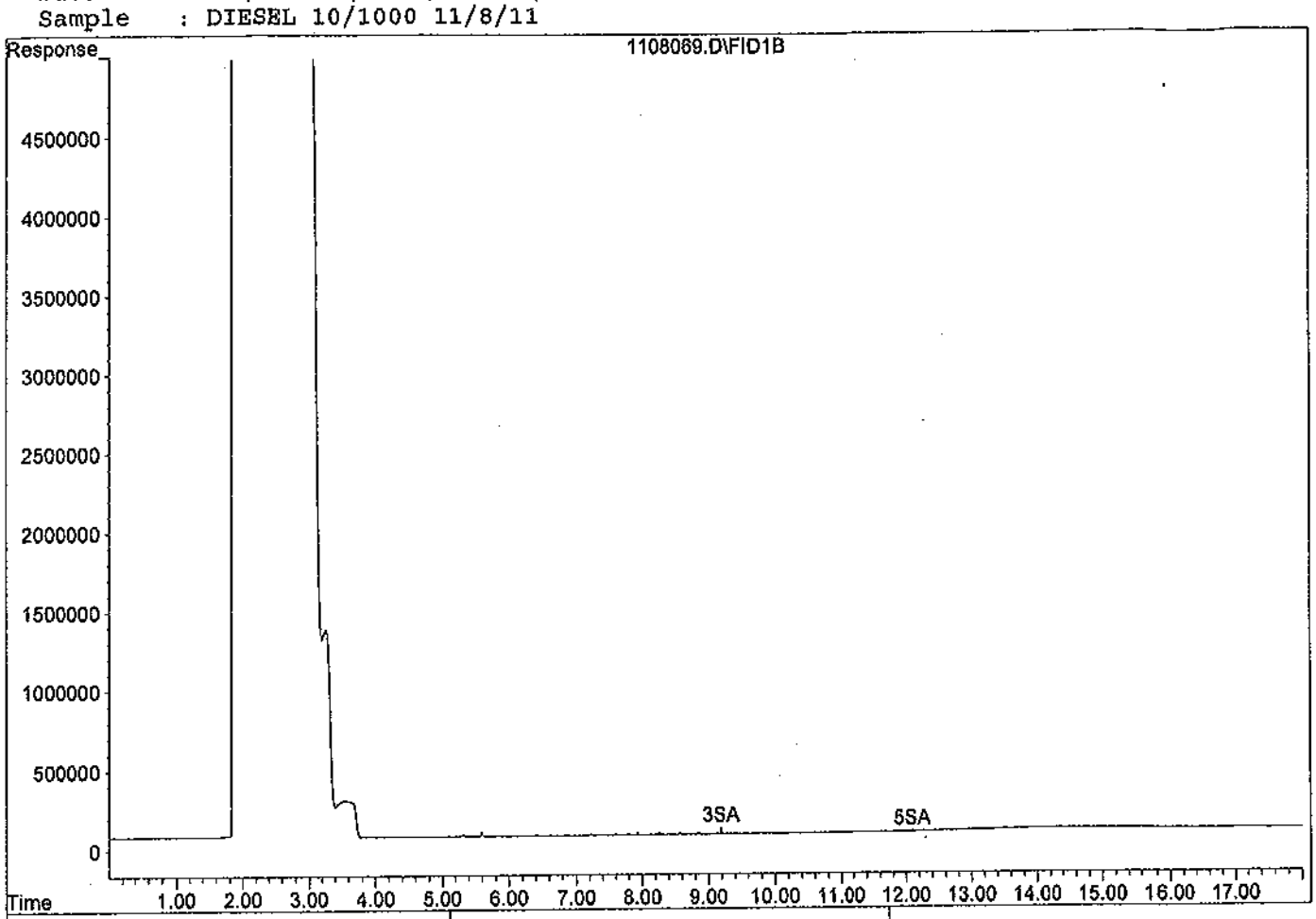
Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69
Acq On : 11-9-11 17:18:58 Operator: LAC
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

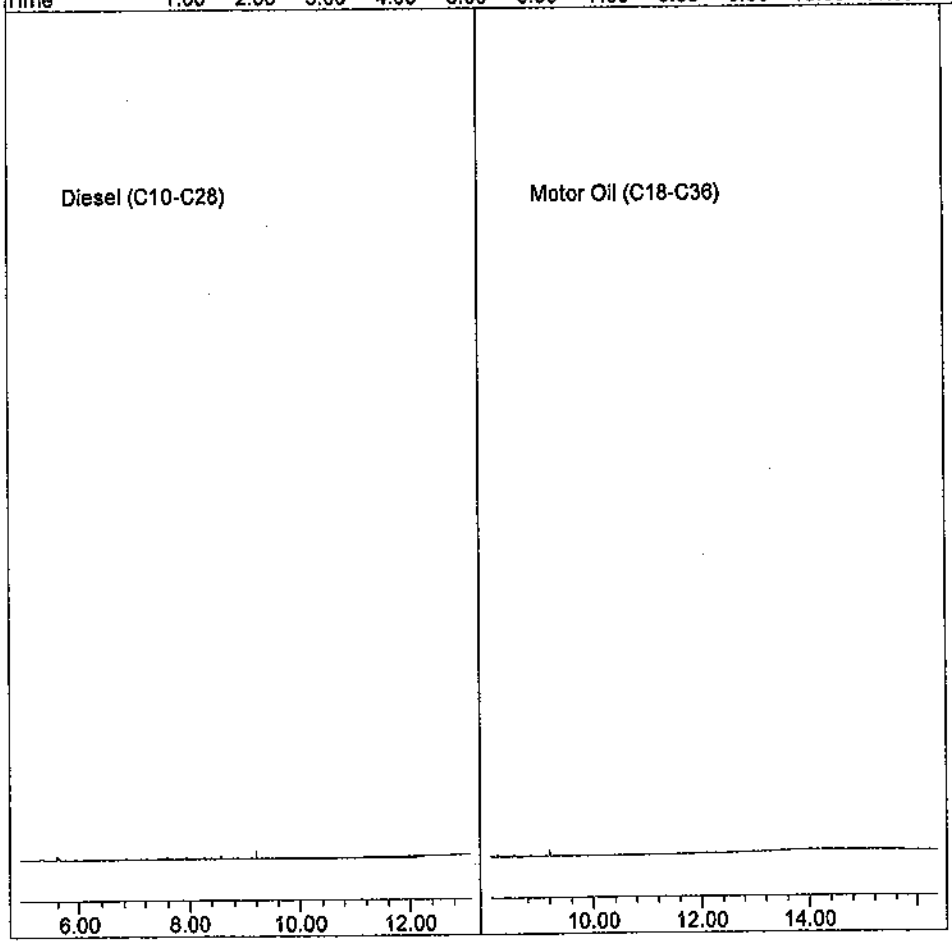
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	302444	0.297 ppb
Surrogate Spike 30.000	Recovery	=	0.99%
5) SA Not Used2(S)	12.10	625179	2.122 ppb
Surrogate Spike 30.000	Recovery	=	7.07%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	12262633	1055.198 ppb

Data File: G:\APOLLO\DATA\111108\1108069.D
Sample : DIESEL 10/1000 11/8/11





Quantitation Report (Not Reviewed)

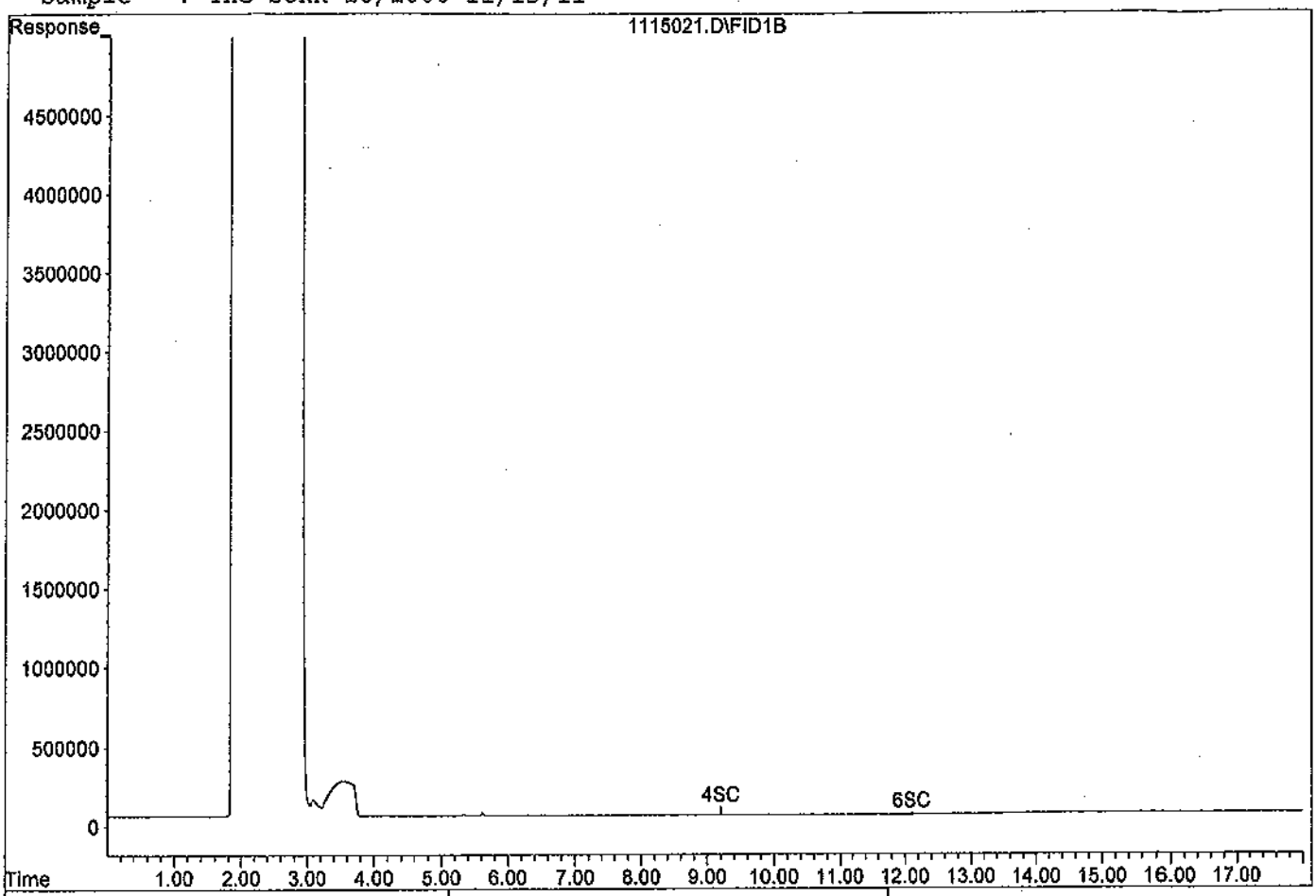
Data File : G:\APOLLO\DATA\111115\1115021.D Vial: 21
Acq On : 11-15-11 18:21:35 Operator: LAC
Sample : THC SURR 10/1000 11/15/11 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

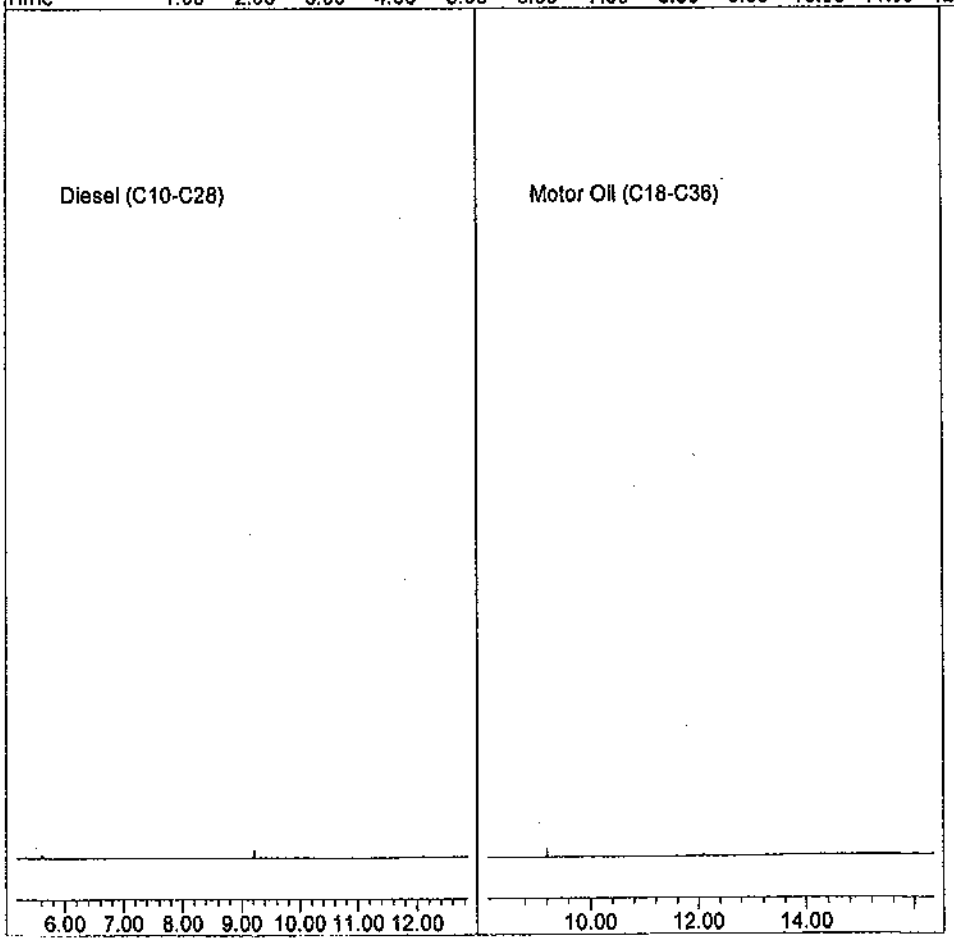
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	356915	0.559 ppb
Surrogate Spike 30.000	Recovery	=	1.86%
6) SC Octacosane(S)	12.10	279297	1.196 ppb
Surrogate Spike 30.000	Recovery	=	3.99%
Target Compounds			

Data File: G:\APOLLO\DATA\111115\1115021.D
Sample : THC SURR 10/1000 11/15/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111115\1115022.D Vial: 22
Acq On : 11-15-11 18:45:31 Operator: LAC
Sample : THC SURR 100/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

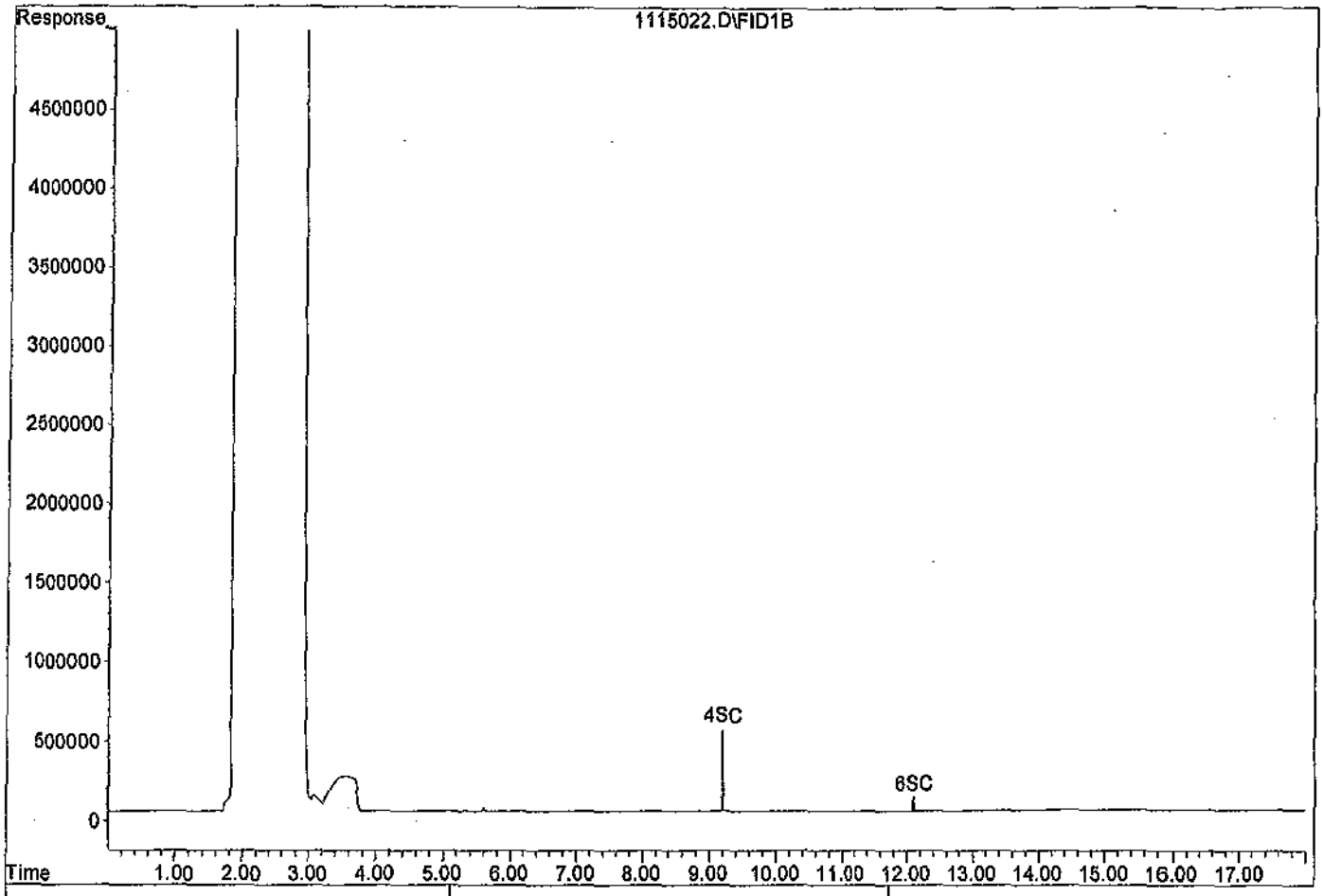
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

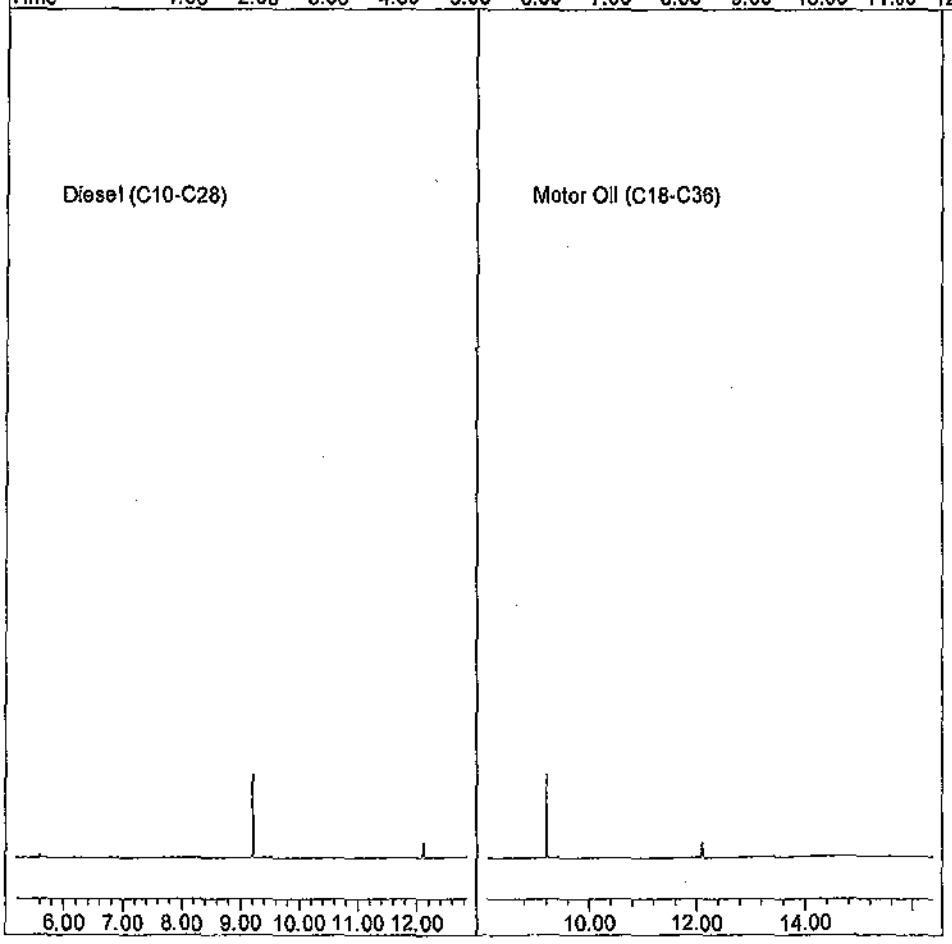
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	3207972	5.028	ppb
Surrogate Spike 30.000	Recovery =		16.76%	
6) SC Octacosane(S)	12.11	1214451	5.201	ppb
Surrogate Spike 30.000	Recovery =		17.34%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111115\1115022.D
Sample : THC SURR 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111115\1115023.D Vial: 23
Acq On : 11-15-11 19:09:25 Operator: LAC
Sample : THC SURR 400/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

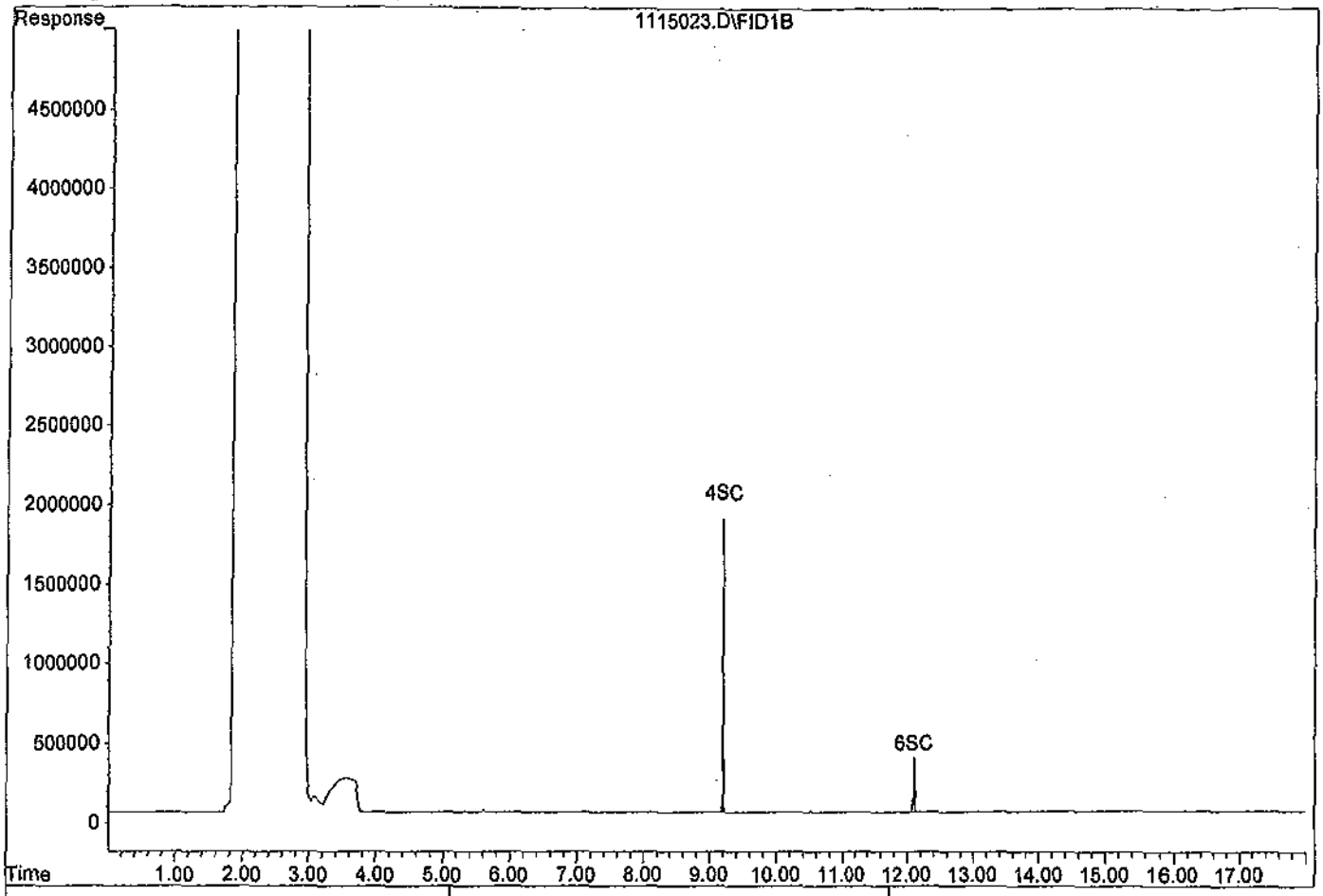
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

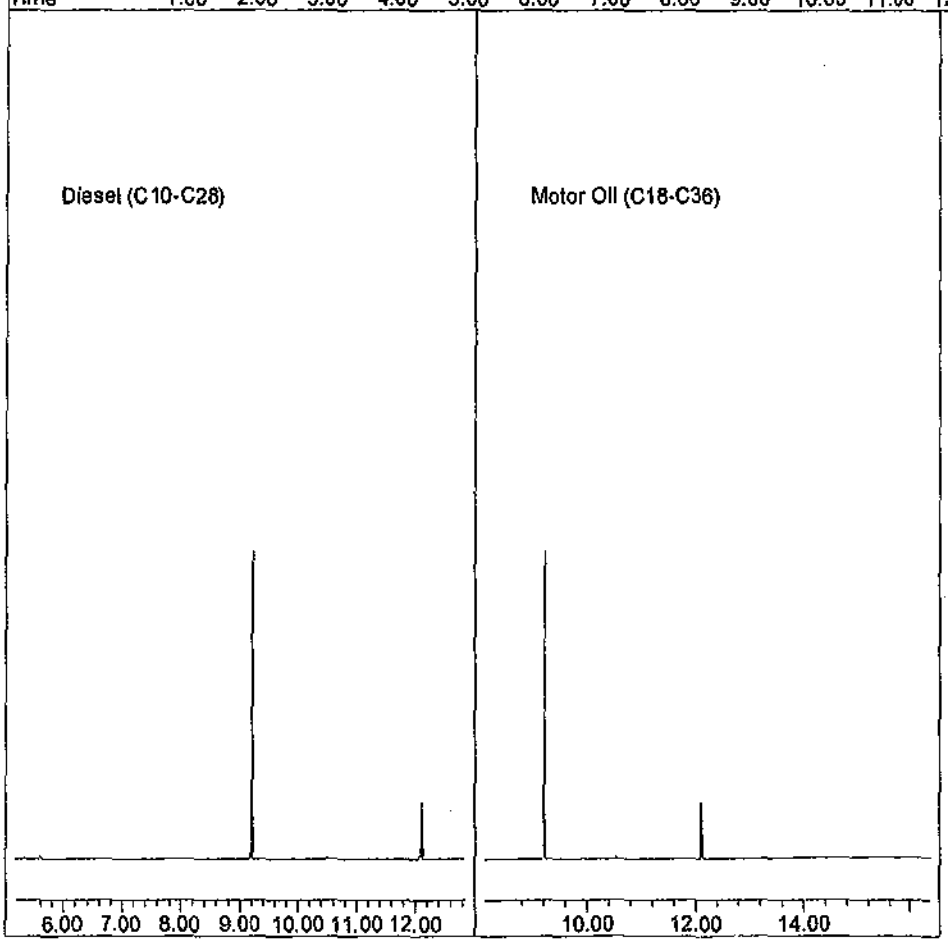
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	12023229	18.845	ppb
Surrogate Spike 30.000		Recovery =	62.82%	
6) SC Octacosane(S)	12.11	4606231	19.728	ppb
Surrogate Spike 30.000		Recovery =	65.76%	
Target Compounds				

(f)=RT Delta > 1/2 Window 113 (m)=manual int.

Data File: G:\APOLLO\DATA\111115\1115023.D
Sample : THC SURR 400/1000





Quantitation Report (Not Reviewed)

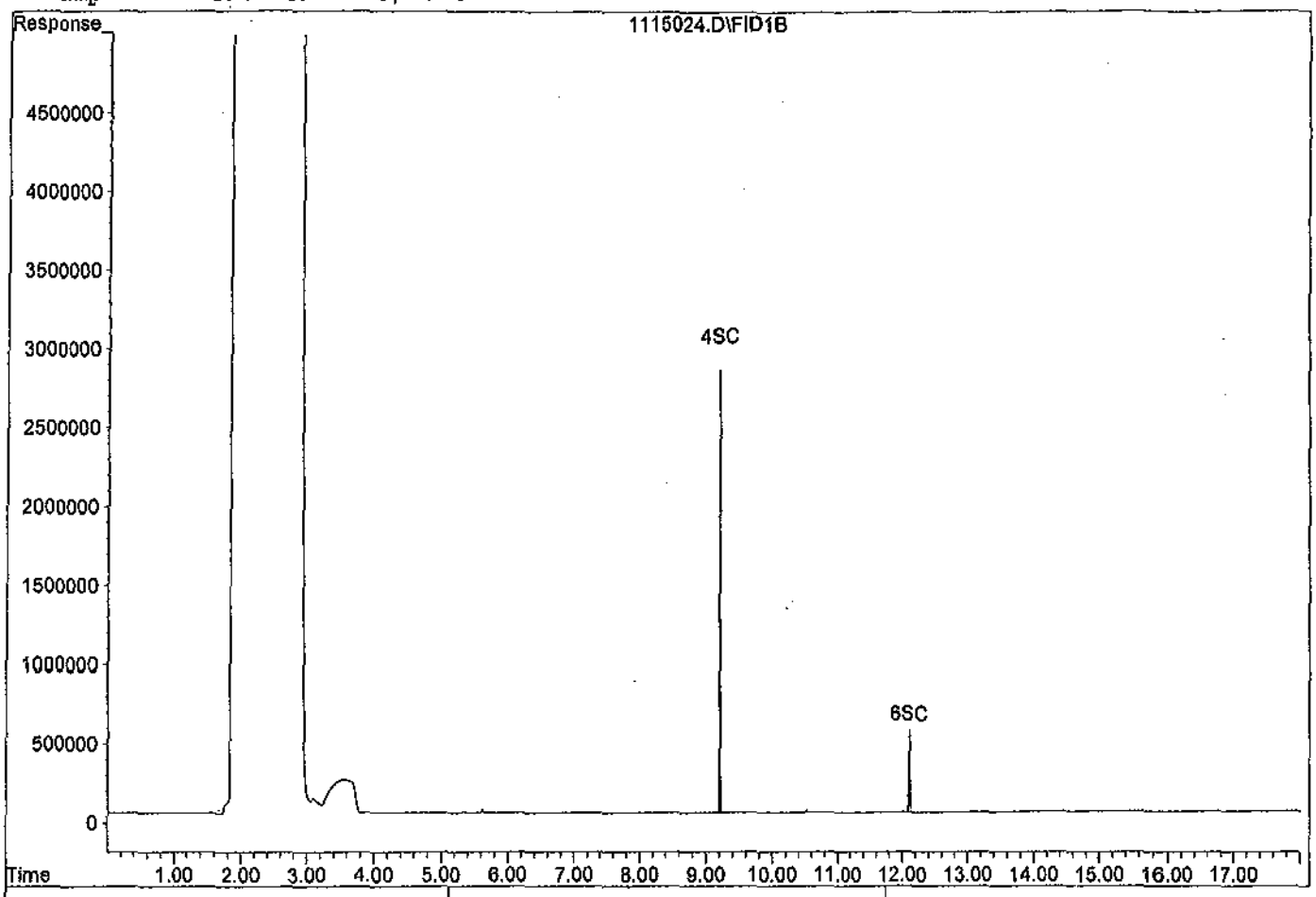
Data File : G:\APOLLO\DATA\111115\1115024.D Vial: 24
Acq On : 11-15-11 19:33:17 Operator: LAC
Sample : THC SURR 600/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

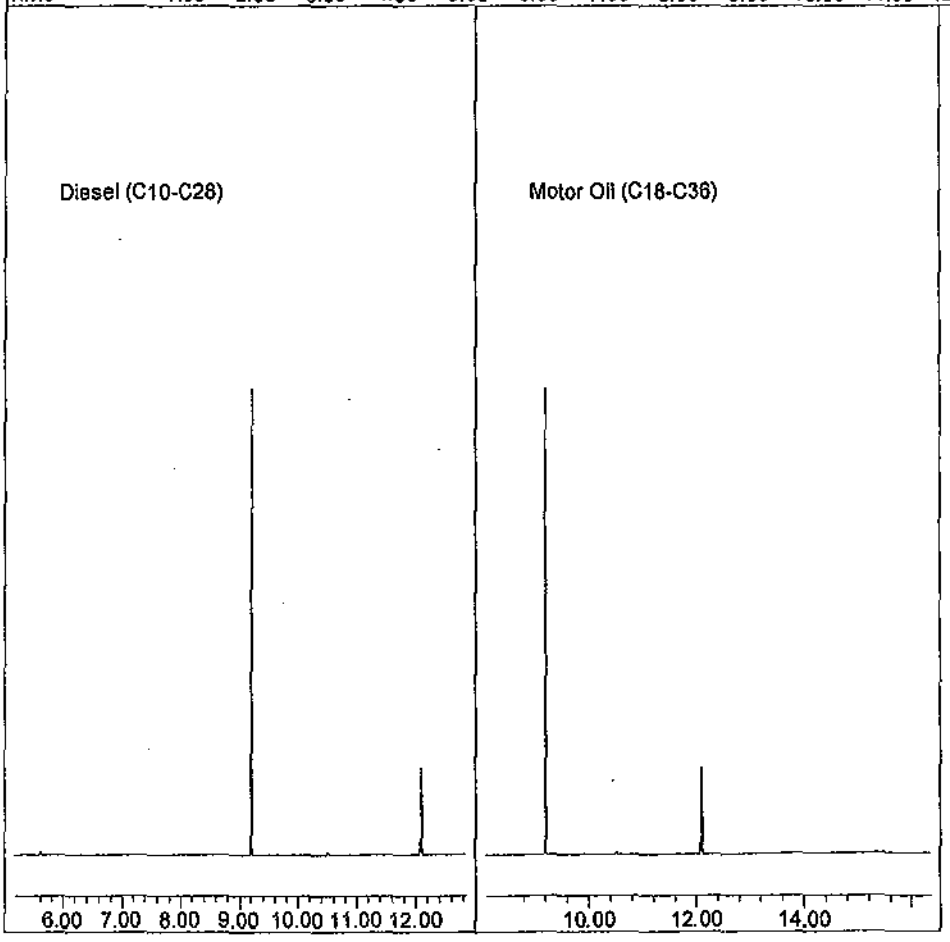
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	18244401	28.595	ppb
Surrogate Spike 30.000	Recovery =		95.32%	
6) SC Octacosane(S)	12.11	6794679	29.101	ppb
Surrogate Spike 30.000	Recovery =		97.00%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115024.D
Sample : THC SURR 600/1000





Quantitation Report (Not Reviewed)

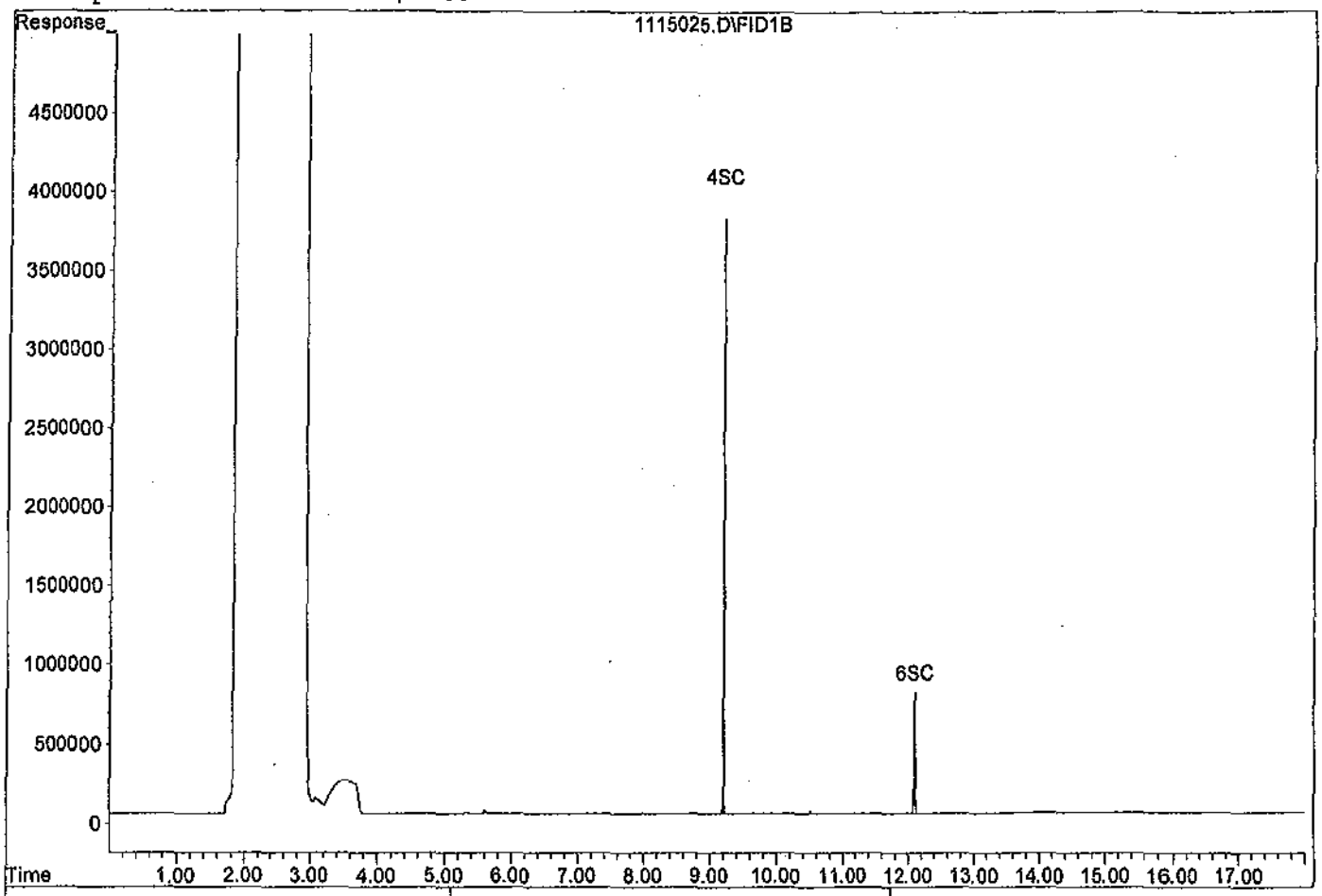
Data File : G:\APOLLO\DATA\111115\1115025.D Vial: 25
Acq On : 11-15-11 19:57:06 Operator: LAC
Sample : THC SURR 800/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

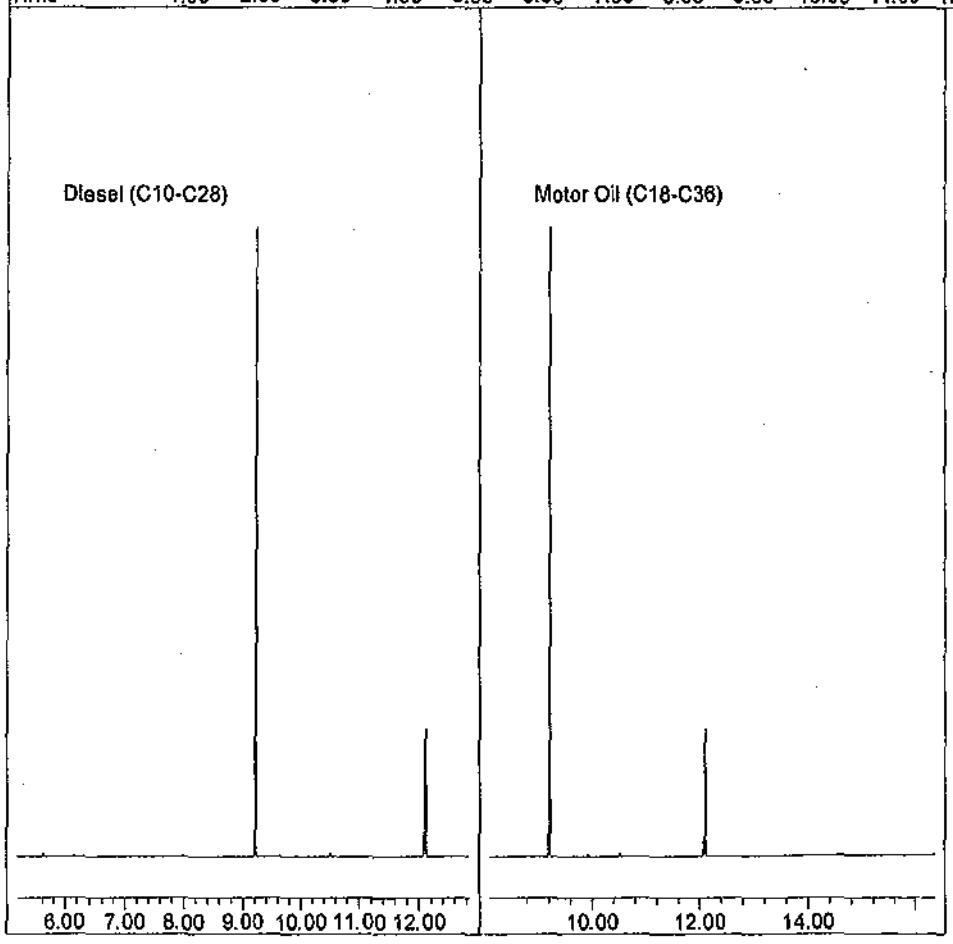
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	25946623	40.667	ppb
Surrogate Spike 30.000		Recovery =	135.56%	
6) SC Octacosane(S)	12.11	10118734	43.337	ppb
Surrogate Spike 30.000		Recovery =	144.46%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115025.D
Sample : THC SURR 800/1000





Quantitation Report (Not Reviewed)

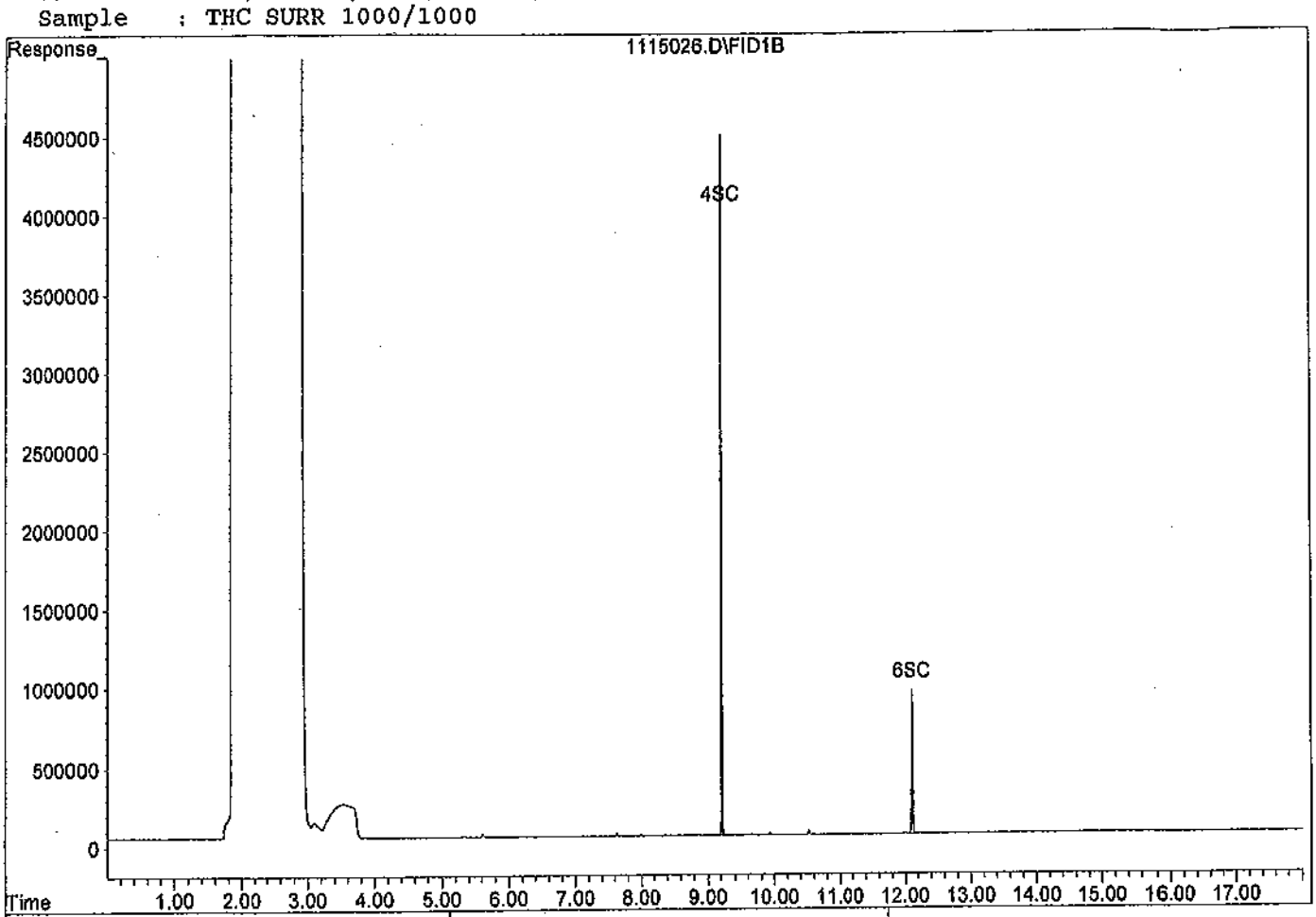
Data File : G:\APOLLO\DATA\111115\1115026.D Vial: 26
Acq On : 11-15-11 20:20:52 Operator: LAC
Sample : THC SURR 1000/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

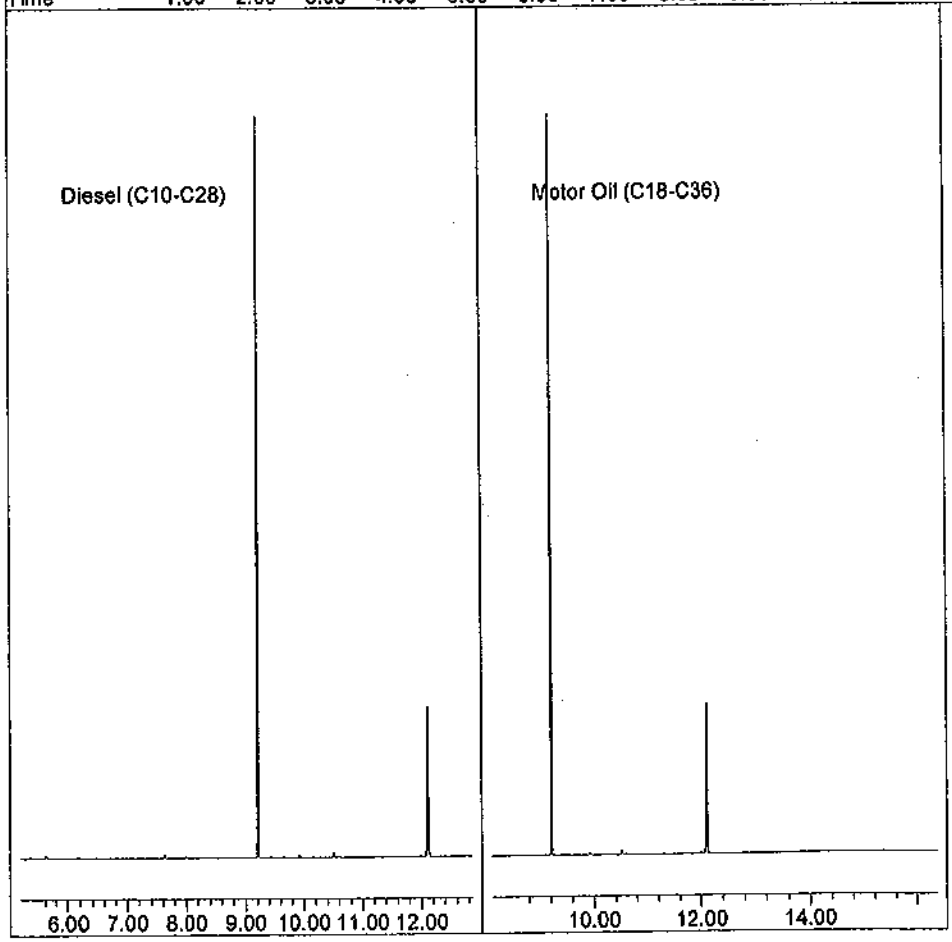
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	30736073	48.174	ppb
Surrogate Spike 30.000	Recovery =		160.58%	
6) SC Octacosane(S)	12.11	12029686	51.522	ppb
Surrogate Spike 30.000	Recovery =		171.74%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115026.D
Sample : THC SURR 1000/1000





Quantitation Report (Not Reviewed)

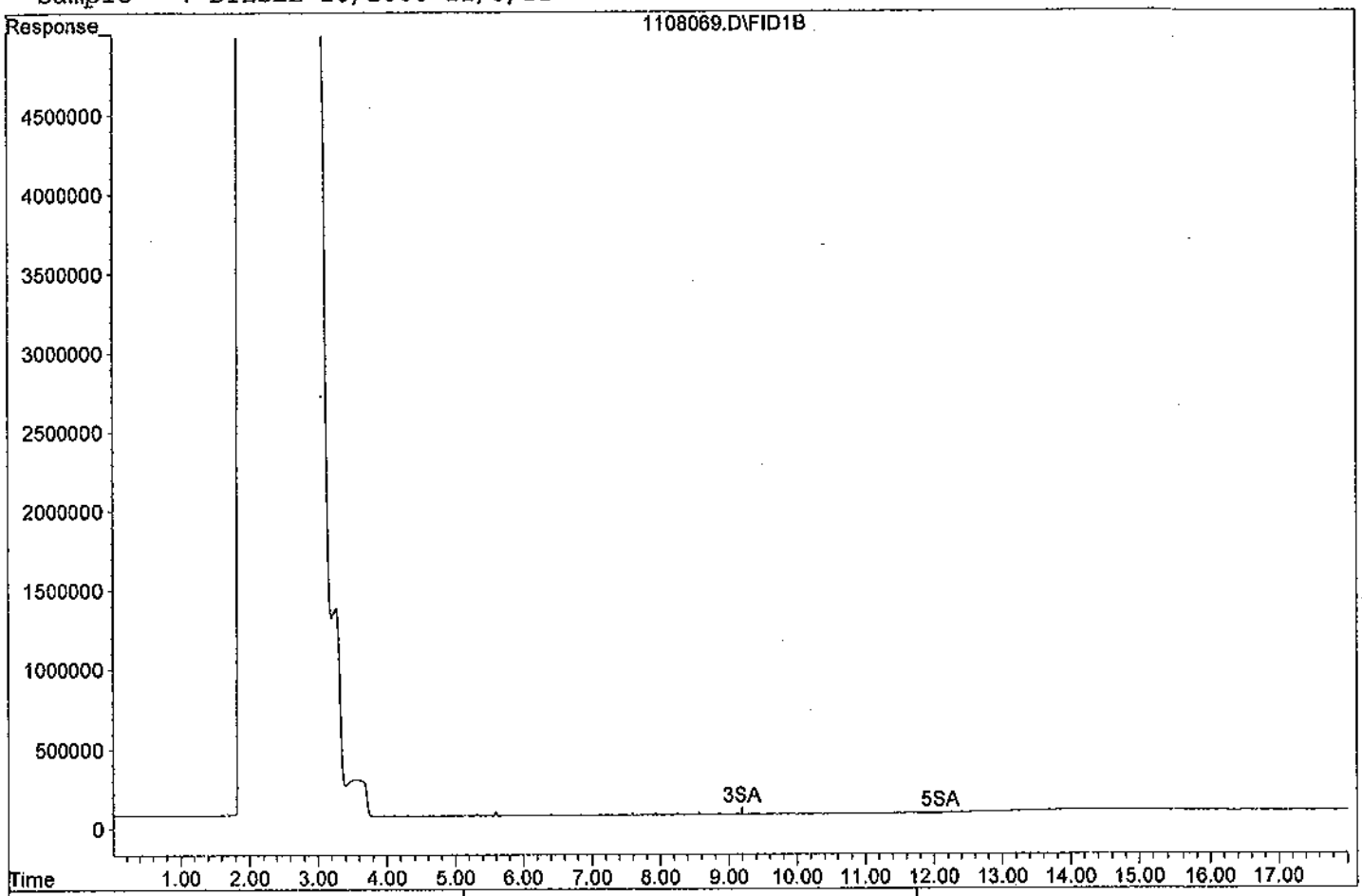
Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69
Acq On : 11-9-11 17:18:58 Operator: LAC
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

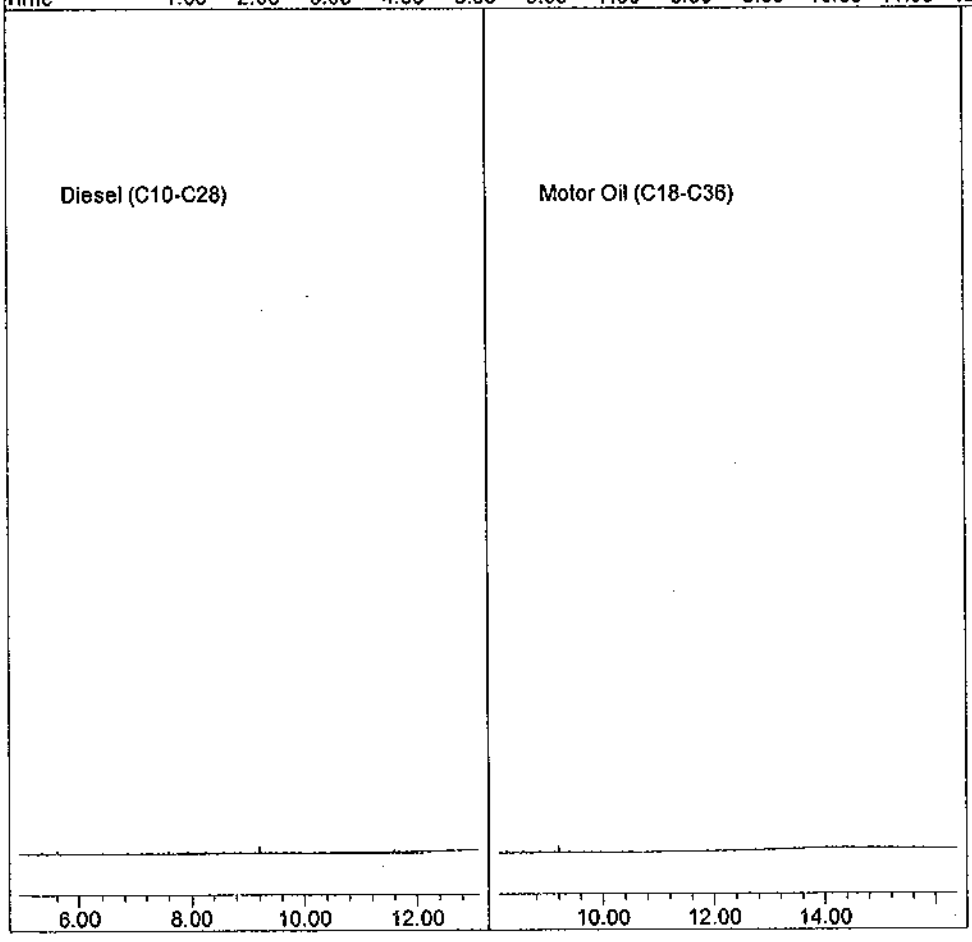
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 16 09:55:03 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	302444	0.297 ppb
Surrogate Spike 30.000	Recovery	=	0.99%
5) SA Not Used2(S)	12.10	625179	2.122 ppb
Surrogate Spike 30.000	Recovery	=	7.07%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	12262633	1055.198 ppb

Data File: G:\APOLLO\DATA\111108\1108069.D
Sample : DIESEL 10/1000 11/8/11





TPH Extractables
TPH8S15

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/09/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1108070.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	234327	23	HATML	4.9
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			23.0		

Quantitation Report (Not Reviewed)

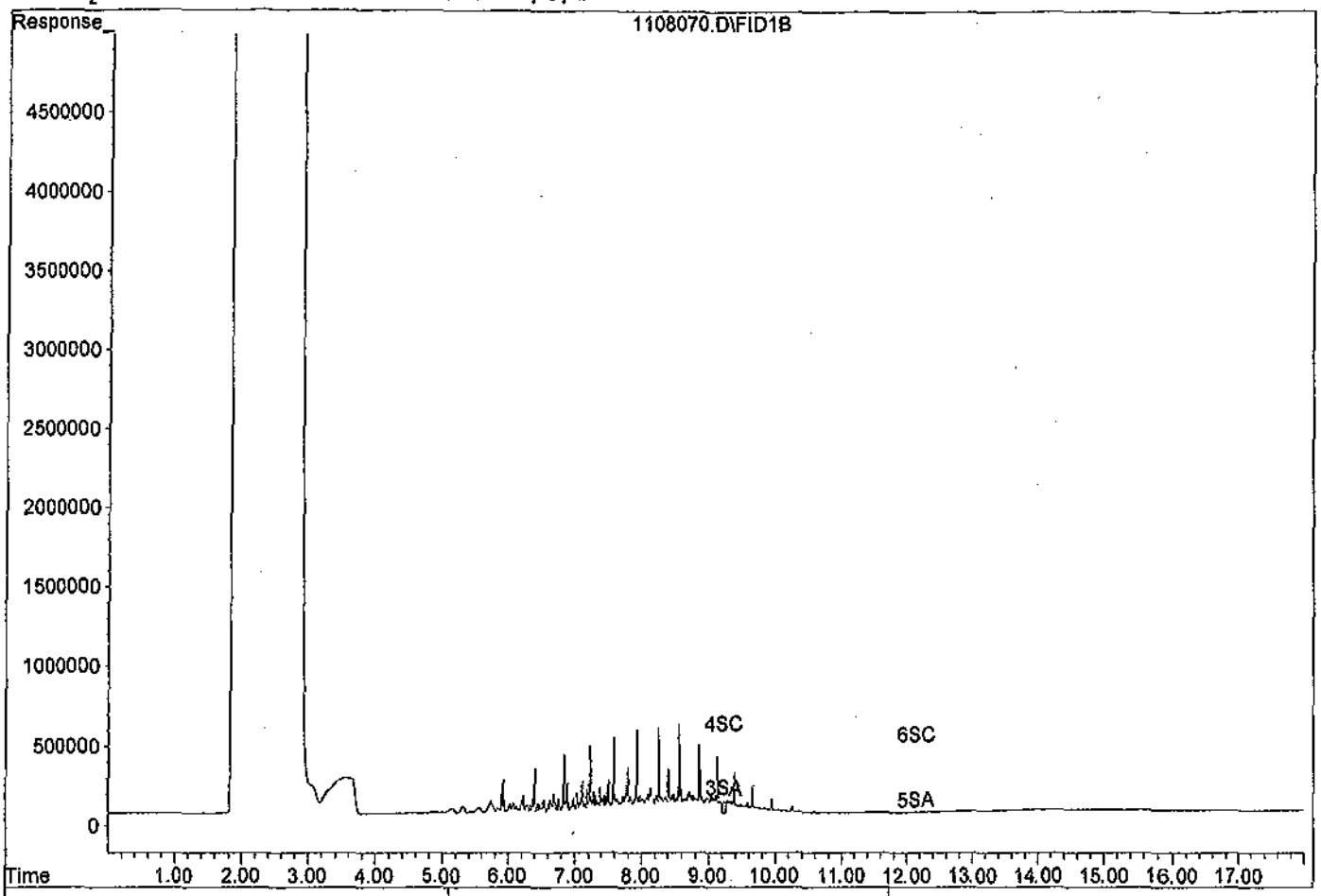
Data File : G:\APOLLO\DATA\111108\1108070.D Vial: 70
Acq On : 11-9-11 17:42:38 Operator: LAC
Sample : DIESEL 400 2ND SRC 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:52 2011 Quant Results File: TPH8S15.RES

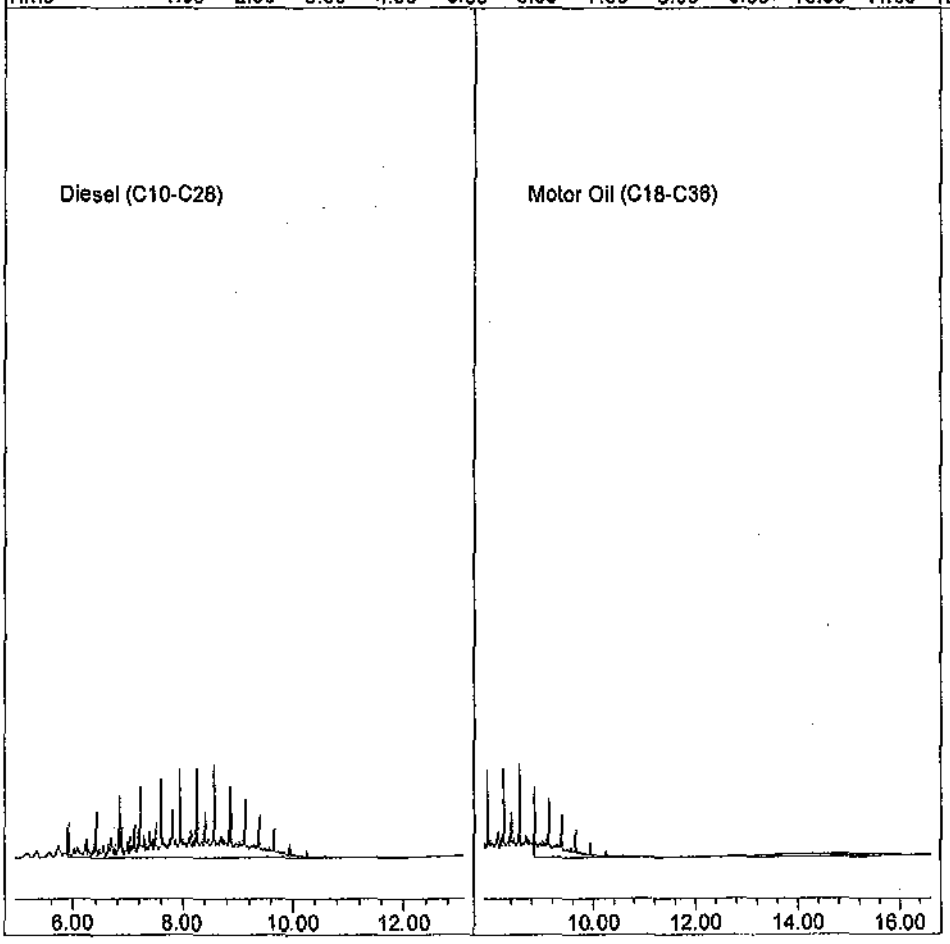
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	2204277	2.168	ppb
Surrogate Spike 30.000	Recovery =		7.23%	
4) SC Ortho-Terphenyl(S)	9.24	2204277	3.455	ppb
Surrogate Spike 30.000	Recovery =		11.52%	
5) SA Not Used2(S)	12.16	136311	0.463	ppb
Surrogate Spike 30.000	Recovery =		1.54%	
6) SC Octacosane(S)	12.16	136311	0.584	ppb
Surrogate Spike 30.000	Recovery =		1.95%	
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	65481078	788.357	ppb

Data File: G:\APOLLO\DATA\111108\1108070.D
Sample : DIESEL 400 2ND SRC 11/8/11





TPH Extractables
TPH8S15

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/29/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1129012.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	265441	13	HATML	7.9
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111129\1129012.D Vial: 12
Acq On : 11-29-11 13:06:20 Operator: LAC
Sample : DIESEL 400/1000 11/29/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 29 16:12 2011 Quant Results File: TPH8S15.RES

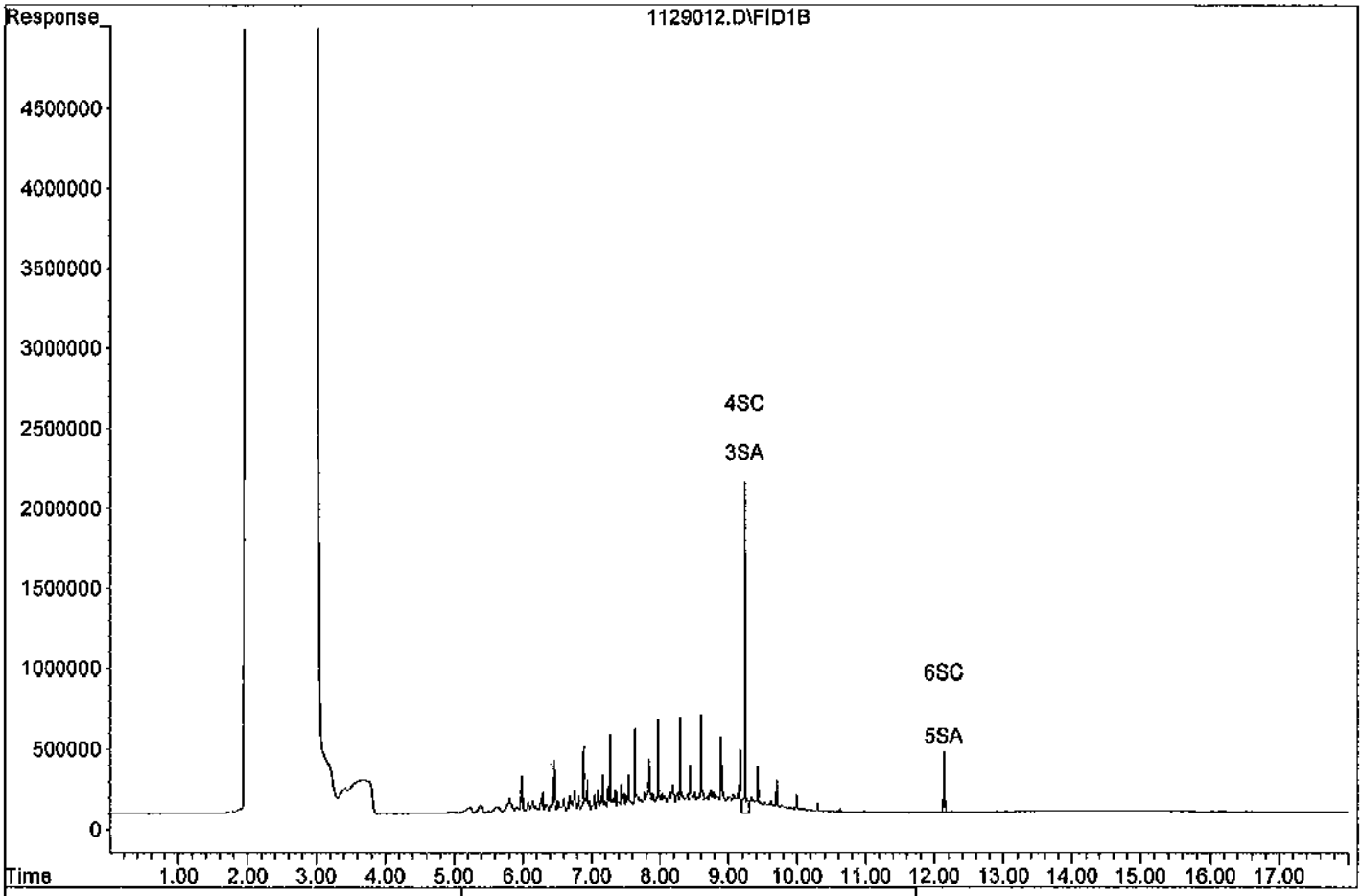
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

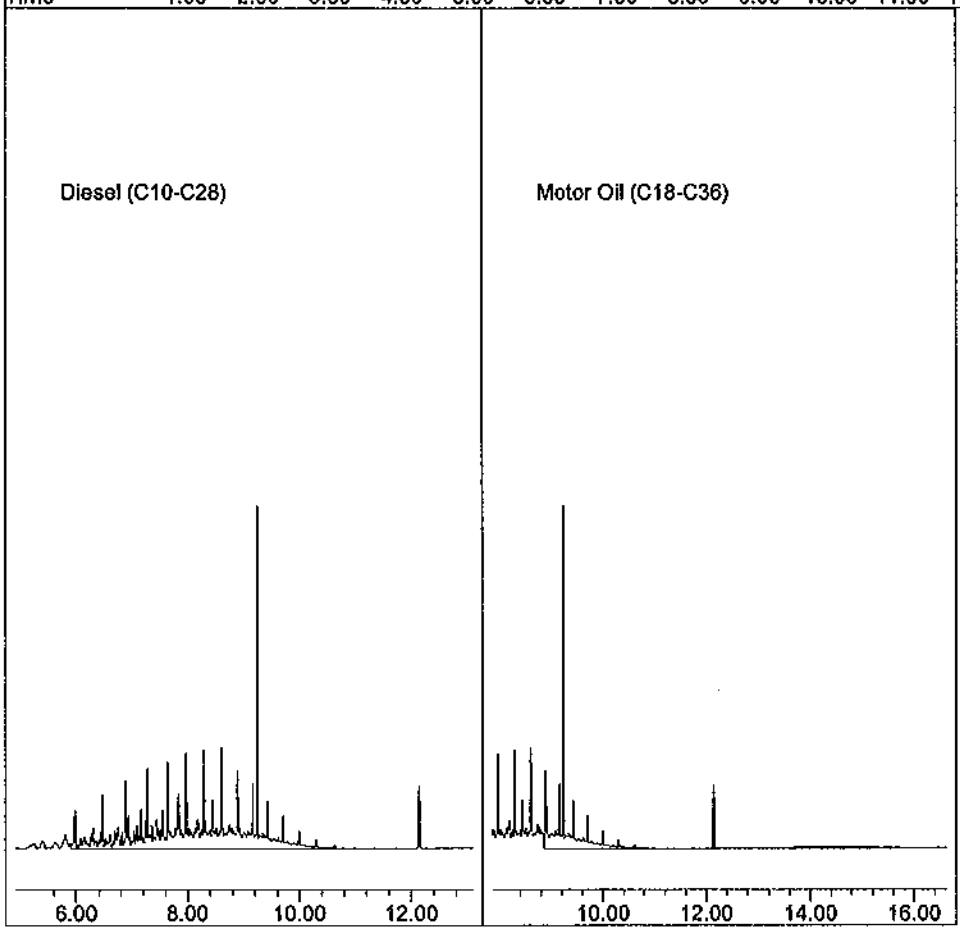
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	18448540	27.180	ppb
Surrogate Spike 30.000	Recovery =		90.60%	
4) SC Ortho-Terphenyl(S)	9.24	18448540	28.915	ppb
Surrogate Spike 30.000	Recovery =		96.38%	
5) SA Not Used2(S)	12.14	5020781	31.843	ppb
Surrogate Spike 30.000	Recovery =		106.14%	
6) SC Octacosane(S)	12.14	5020781	21.038	ppb
Surrogate Spike 30.000	Recovery =		70.13%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	212352743	431.747	ppb
2) HBTM Motor Oil (C18-C36)	12.24	65096224	280.338	ppb

(f)=RT Delta > 1/2 Window 127 (m)=manual int.

Data File: G:\APOLLO\DATA\111129\1129012.D
Sample : DIESEL 400/1000 11/29/11





TPH Extractables
TPH8S15

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 11/29/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1129024.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	305473	278570	8.8	HATML	13
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.8		

Quantitation Report (Not Reviewed)

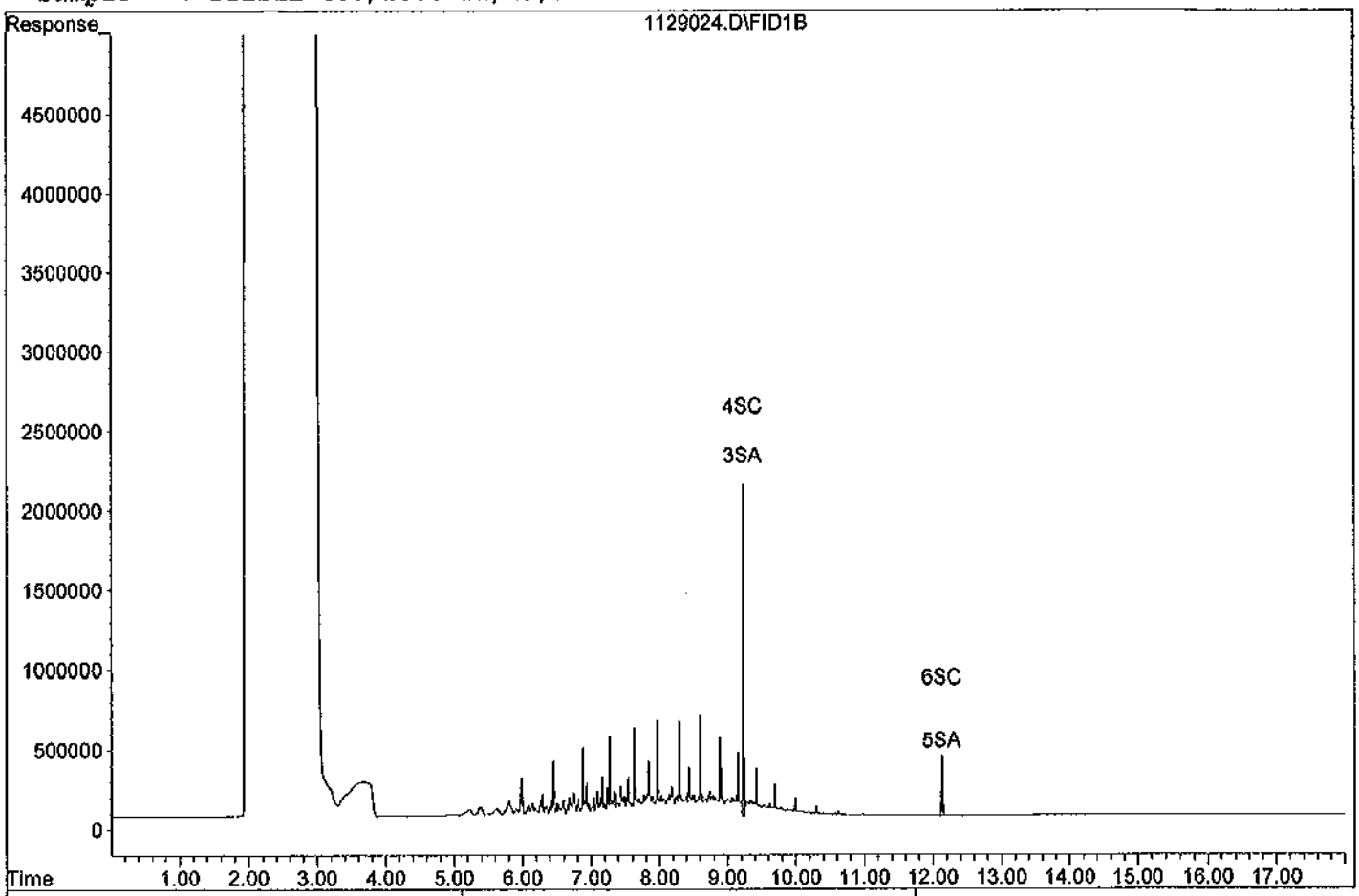
Data File : G:\APOLLO\DATA\111129\1129024.D Vial: 24
Acq On : 11-29-11 21:29:15 Operator: LAC
Sample : DIESEL 400/1000 11/29/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 8:35 2011 Quant Results File: TPH8S15.RES

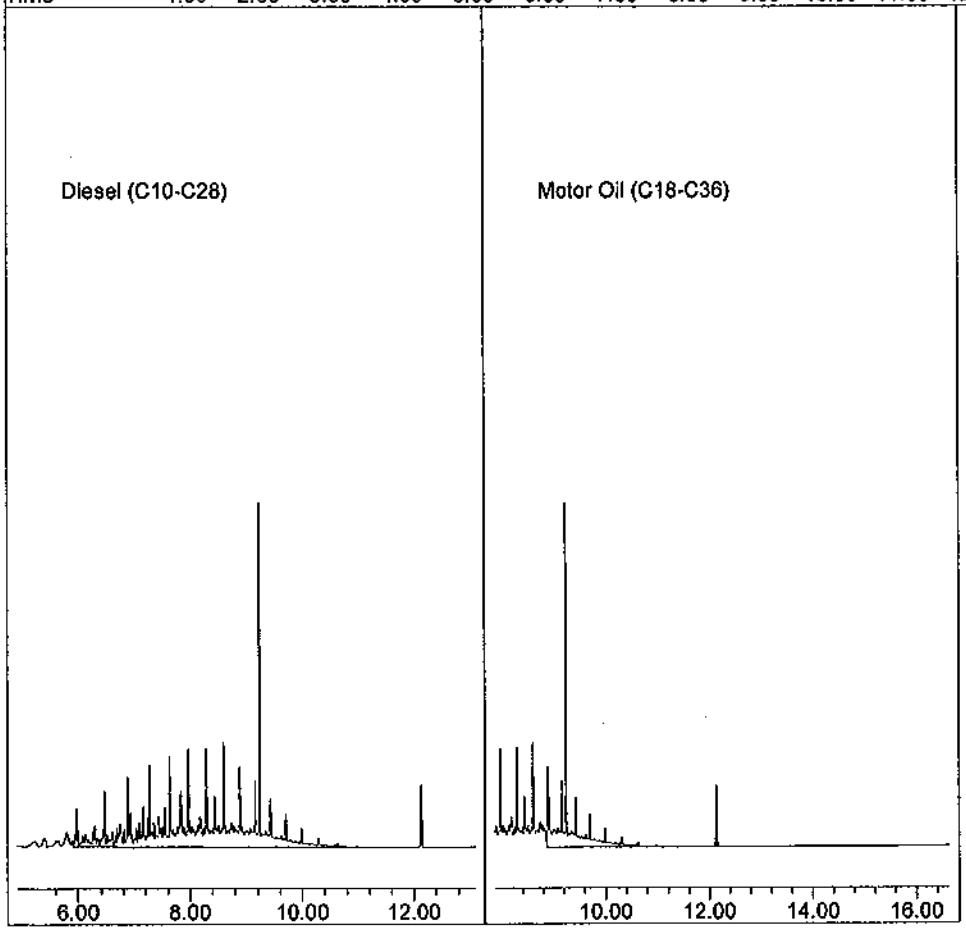
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	15158305	22.332	ppb
Surrogate Spike 30.000	Recovery =		74.44%	
4) SC Ortho-Terphenyl(S)	9.24	15158305	23.758	ppb
Surrogate Spike 30.000	Recovery =		79.19%	
5) SA Not Used2(S)	12.13	4847180	30.742	ppb
Surrogate Spike 30.000	Recovery =		102.47%	
6) SC Octacosane(S)	12.13	4847180	20.311	ppb
Surrogate Spike 30.000	Recovery =		67.70%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	222856237	453.399	ppb
2) HBTM Motor Oil (C18-C36)	12.24	69450604	299.090	ppb

Data File: G:\APOLLO\DATA\111129\1129024.D
Sample : DIESEL 400/1000 11/29/11





EPA 8015 Modified
Total Petroleum Hydrocarbons
Raw Data

Method Blank
TPH Diesel Water

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **111031W-49334 - 160886**
Batch ID: #TPETD-111031A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
BLANK	SURROGATE: OCTACOSANE (S)	71.2	28-142			%	10/31/11	11/06/11
BLANK	SURROGATE: ORTHO-TERPHEN	60.5	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106005
Instrument: Apollo
Sequence: 111106
Initials: LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 11:27:27 AM

Quantitation Report (QT Reviewed)

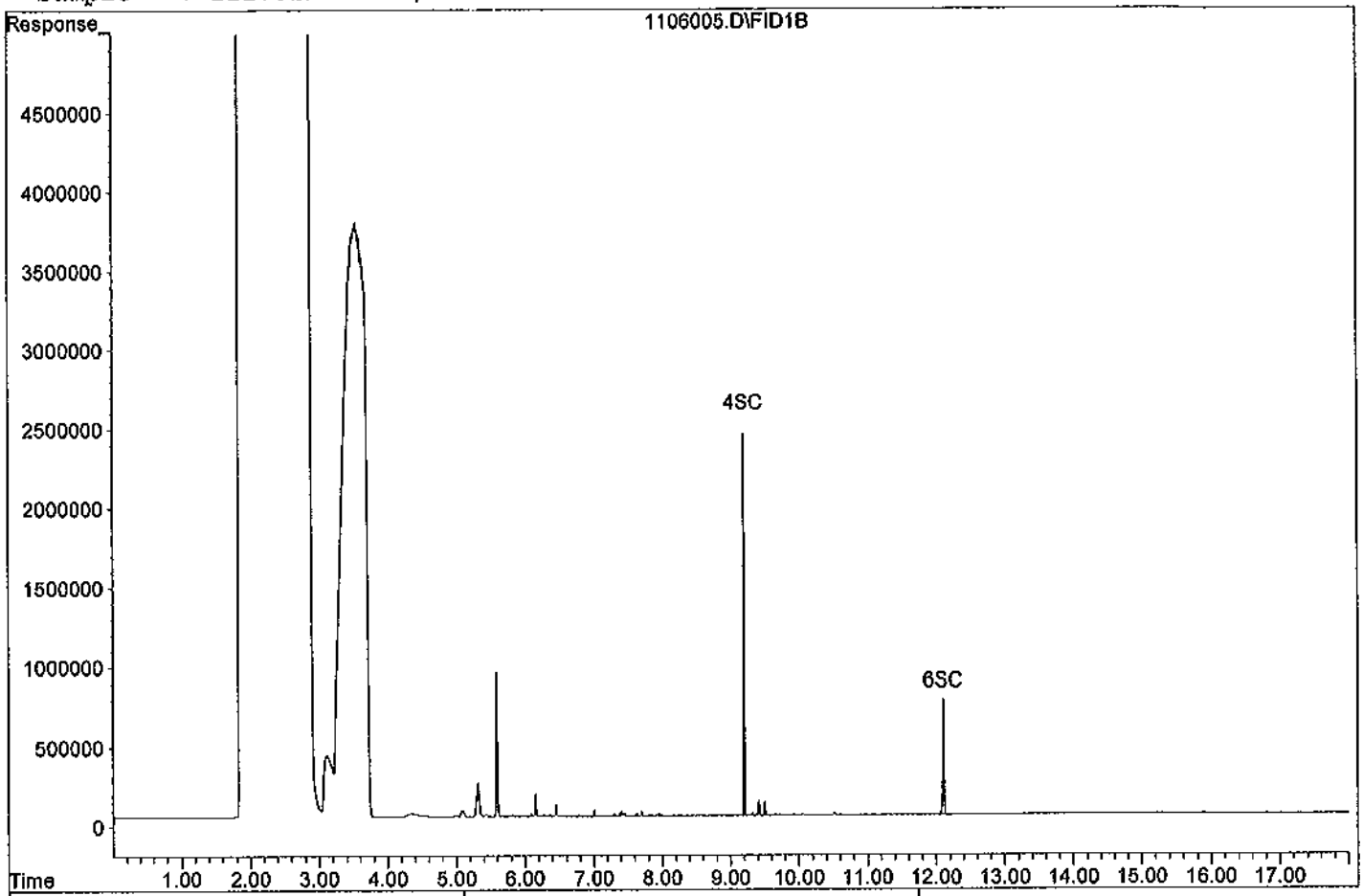
Data File : G:\APOLLO\DATA\111106\1106005.D Vial: 5
Acq On : 11-6-11 17:22:09 Operator: LAC
Sample : 111031A BLK 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 7 9:44 2011 Quant Results File: TPH1028.RES

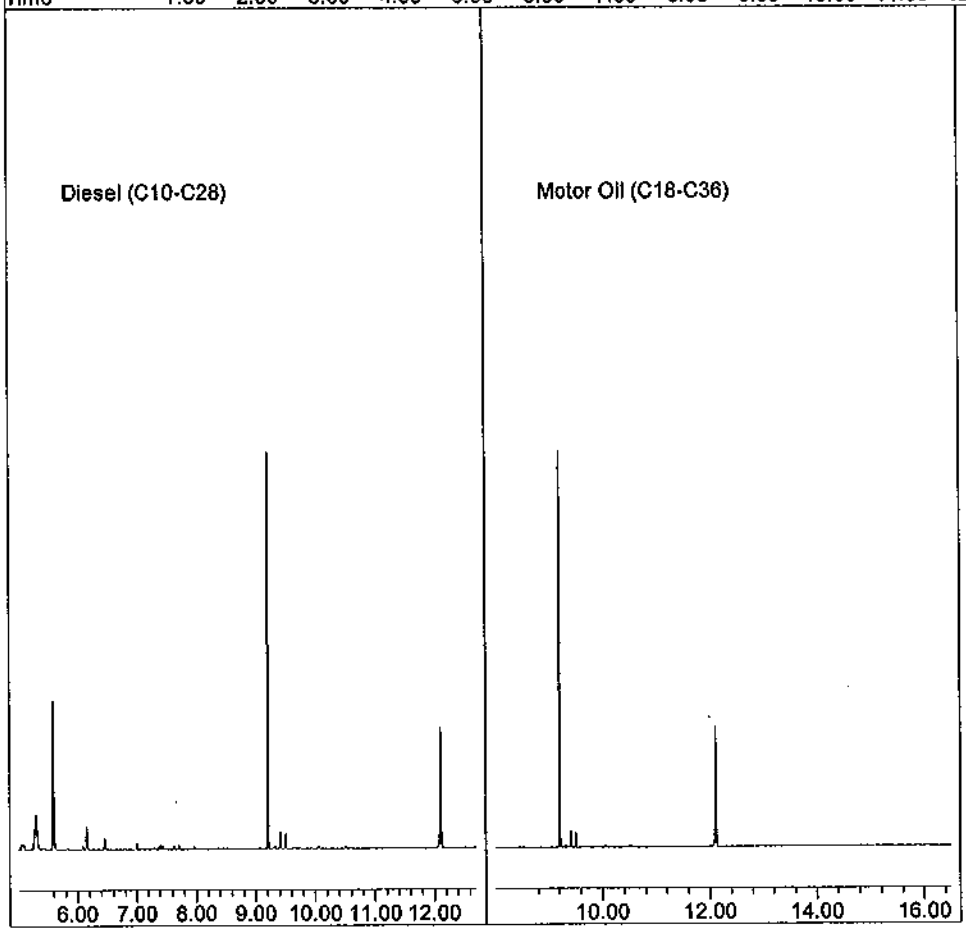
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	15818444	90.703 ppb
Surrogate Spike 150.000		Recovery =	60.47%
6) SC Octacosane(S)	12.11	9943034	106.834 ppb
Surrogate Spike 150.000		Recovery =	71.22%
Target Compounds			

Data File: G:\APOLLO\DATA\111106\1106005.D
Sample : 111031A BLK 5/1000





Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111031W-49334 LCS - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1520	76.0	61-143
SURROGATE: OCTACOSANE (S)	150	125	83.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	147	98.0	57-132

Comments:

Primary	SPK
Quant Method :	TPH8S15.M
Extraction Date :	10/31/11
Analysis Date :	11/29/11
Instrument :	Apollo
Run :	1129017
Initials :	LA

Printed: 11/30/11 11:27:21 AM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111129\1129017.D Vial: 17
Acq On : 11-29-11 18:45:15 Operator: LAC
Sample : 111031A LCS-1 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 30 10:29 2011 Quant Results File: TPH8S15.RES

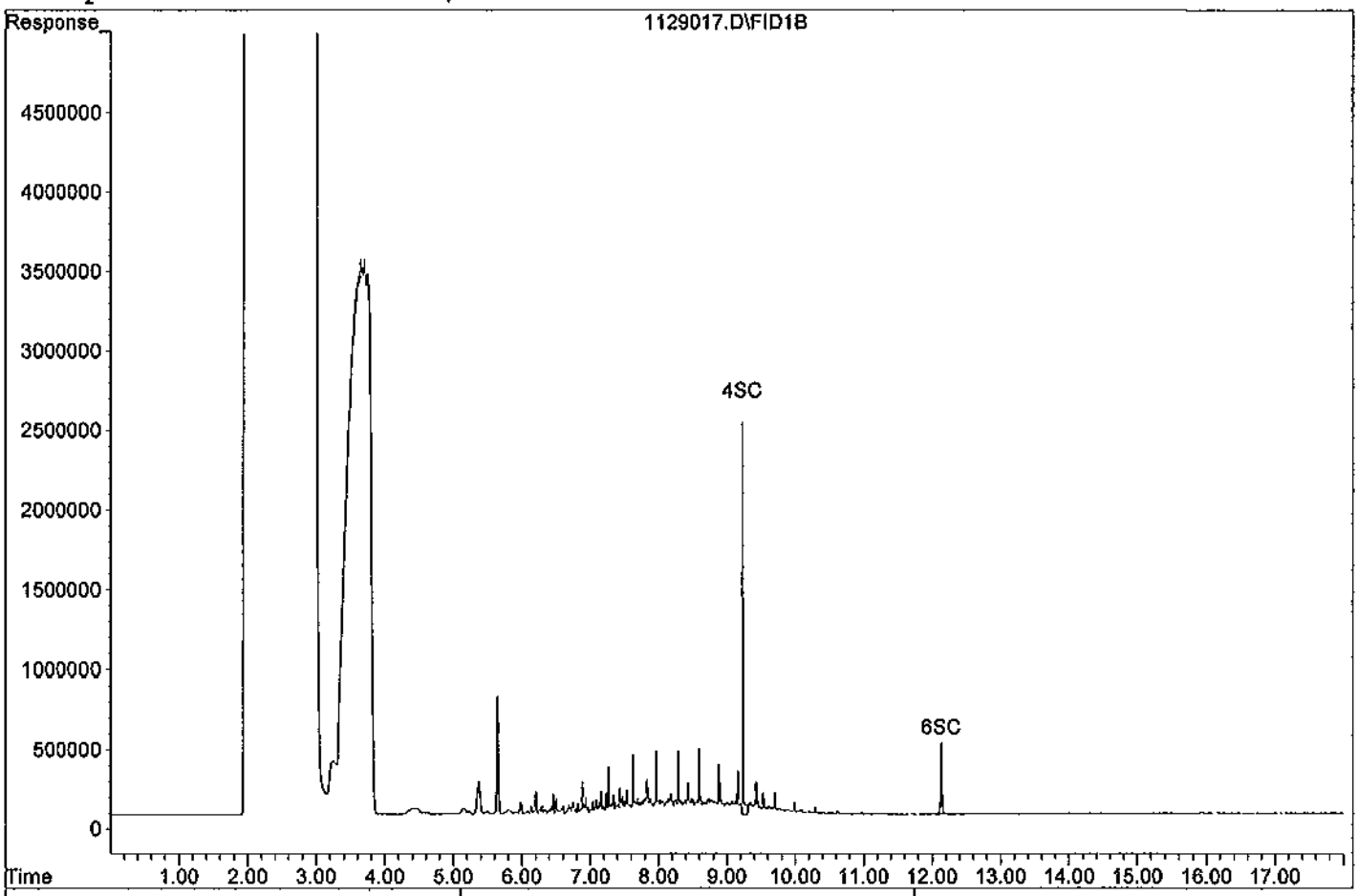
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

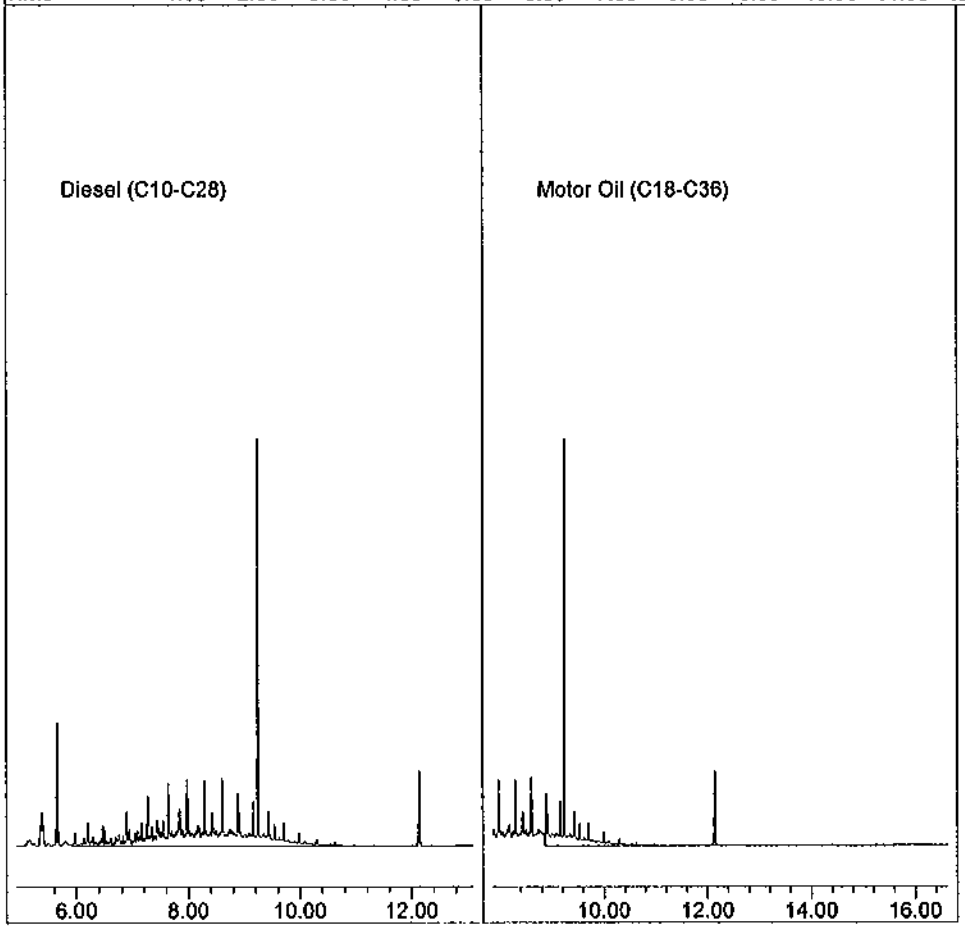
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.24	18706073	146.595 ppb
Surrogate Spike 150.000		Recovery =	97.73%
6) SC Octacosane(S)	12.14	5944718	124.549 ppb
Surrogate Spike 150.000		Recovery =	83.03%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	150395375	1520.130 ppb
2) HBTM Motor Oil (C18-C36)	12.24	50801855	1093.895 ppb

Algorithm Check: $\frac{(18706073)(5)}{(319010)(2)} = 146.594\,57227$ LAC 11/30/11 LAC 11/30/11

Data File: G:\APOLLO\DATA\111129\1129017.D
Sample : 111031A LCS-1 5/1000





Matrix Spike Recoveries
TPH Diesel Water

APPL ID: **111031W-49334 MS - 160886**
Batch ID: #TPETD-111031A
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL FUEL	2000	730	1400	1330	33.5 #	30.0 #	61-143	5.1	30
SURROGATE: OCTACOSANE (S)	150	NA	131	125	87.3	83.3	28-142		
SURROGATE: ORTHO-TERPHENYL (S)	150	NA	108	89.3	72.0	59.5	57-132		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	TPH1028.M	TPH1028.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	11/06/11	11/06/11
Instrument :	Apollo	Apollo
Run :	1106014	1106015
Initials :	LA	

Printed: 11/30/11 11:27:18 AM
APPL MSD SCII

Quantitation Report (QT Reviewed)

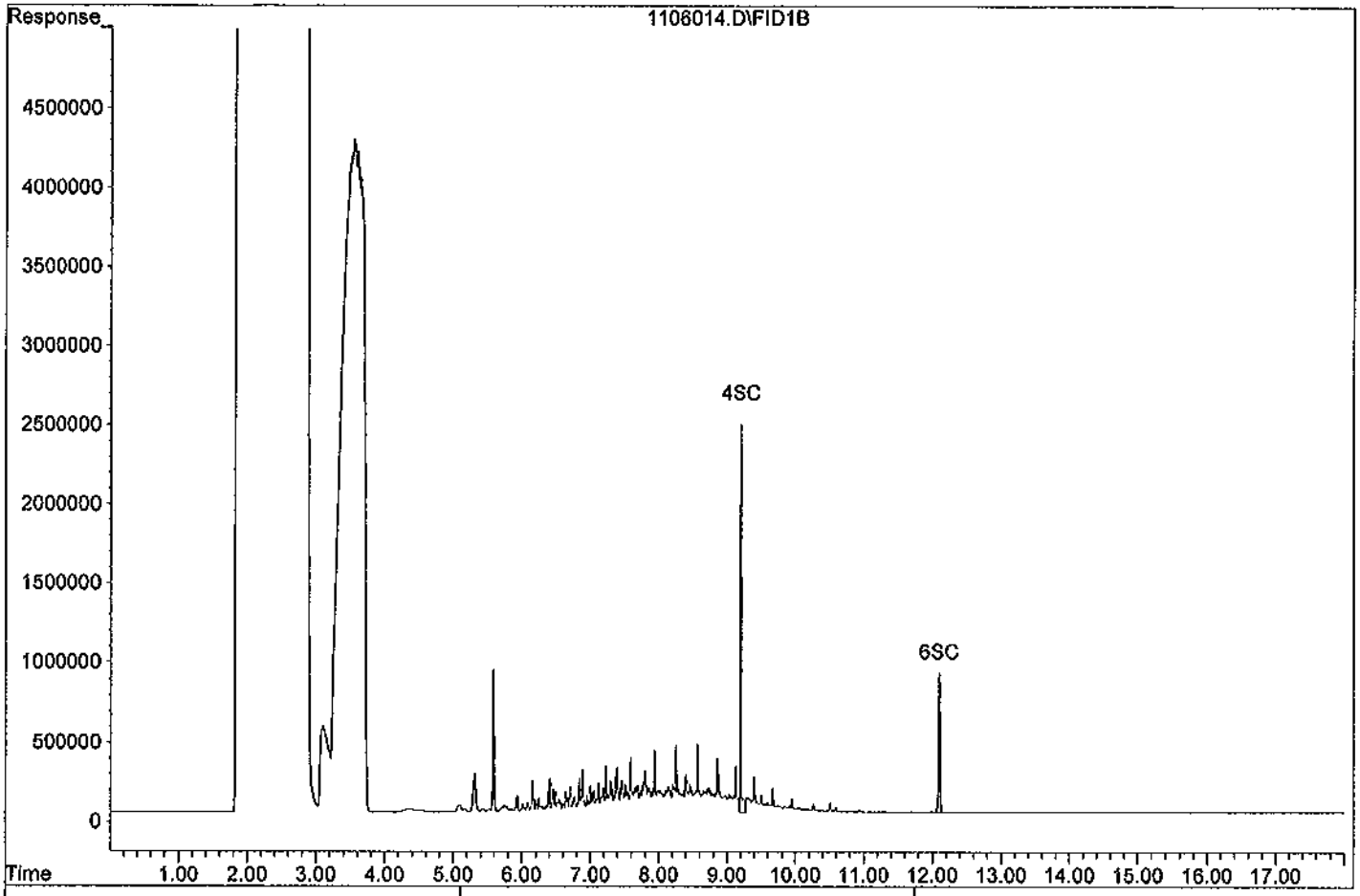
Data File : G:\APOLLO\DATA\111106\1106014.D Vial: 14
Acq On : 11-6-11 20:53:41 Operator: LAC
Sample : AY49334W35 MS-1 5/1030 Inst : Apollo
Misc : Water Multiplr: 4.85
IntFile : events.e
Quant Time: Nov 7 9:50 2011 Quant Results File: TPH1028.RES

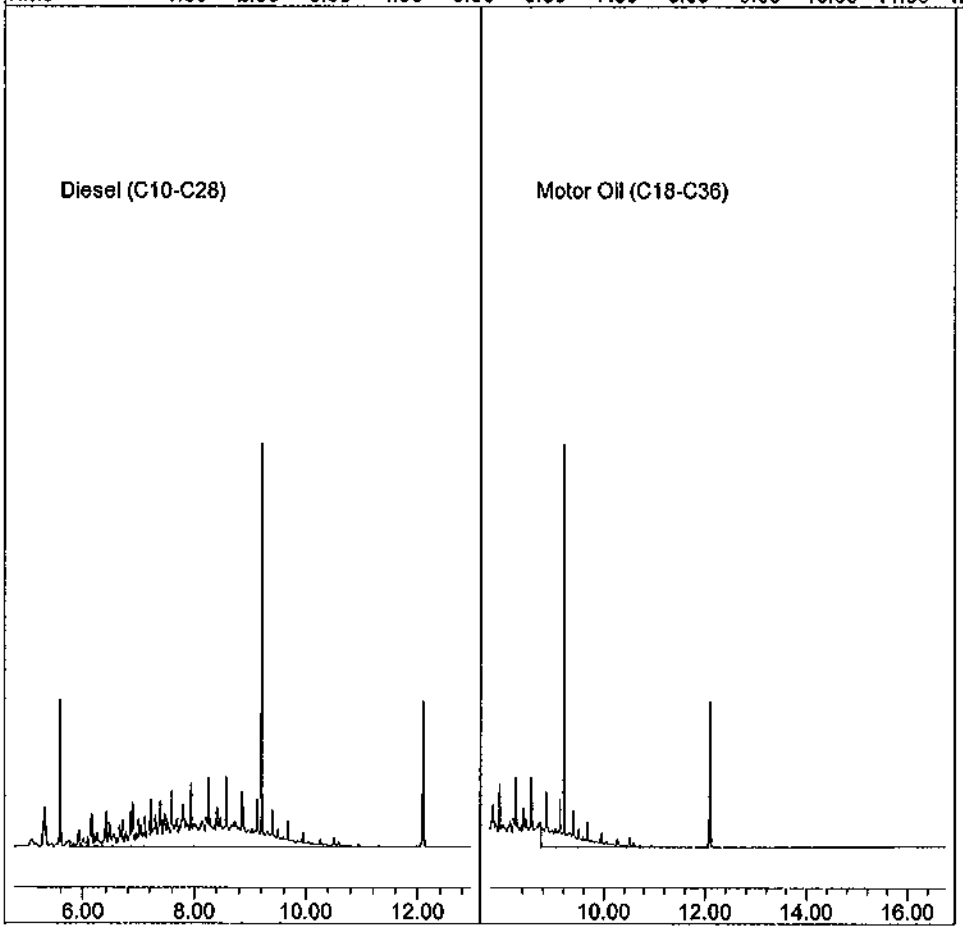
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	19333669	107.631 ppb
Surrogate Spike 145.631		Recovery =	73.91%
6) SC Octacosane(S)	12.10	12570361	131.129 ppb
Surrogate Spike 145.631		Recovery =	90.04%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	243258357	1402.635 ppb
2) HBTM Motor Oil (C18-C36)	12.25	67181515	899.542 ppb

Data File: G:\APOLLO\DATA\111106\1106014.D
Sample : AY49334W35 MS-1 5/1030





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111106\1106015.D Vial: 15
Acq On : 11-6-11 21:17:05 Operator: LAC
Sample : AY49334W36 MSD-1 5/1030 Inst : Apollo
Misc : Water Multiplr: 4.85
IntFile : events.e
Quant Time: Nov 7 9:50 2011 Quant Results File: TPH1028.RES

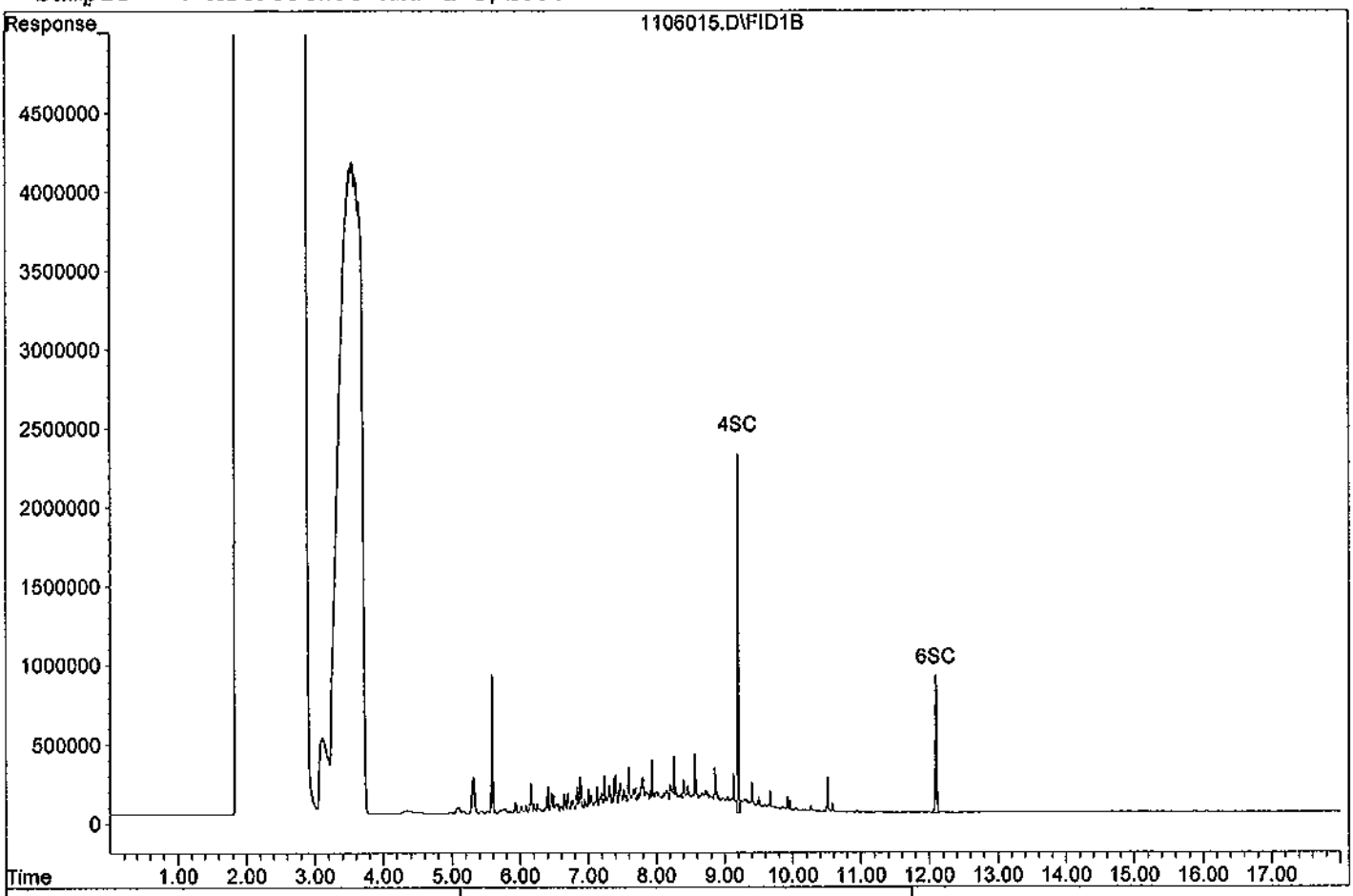
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

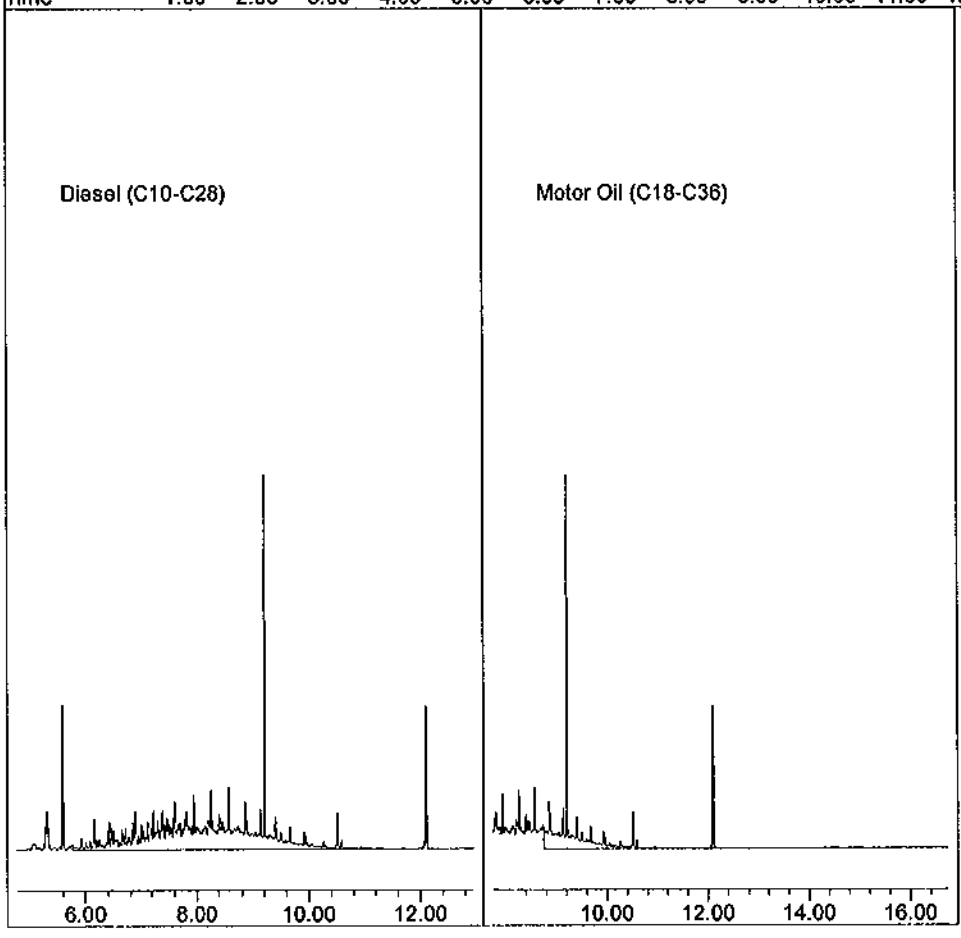
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	16036435	89.275 ppb
Surrogate Spike 145.631		Recovery =	61.30%
6) SC Octacosane(S)	12.10	11966186	124.827 ppb
Surrogate Spike 145.631		Recovery =	85.71%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	230106893	1326.804 ppb
2) HBTM Motor Oil (C18-C36)	12.25	67186331	899.607 ppb

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

Data File: G:\APOLLO\DATA\111106\1106015.D
Sample : AY49334W36 MSD-1 5/1030





STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #

029

MOTOR OIL SPIKE

MOTOR OIL — 50,000ug/ml | 0251 | 200ml | 50ML | 2000ug/ml | MC | #070111B | 8/5/11 | EX: 11/5/11

Motor Oil Composite, 50,000 mg/L, 1 ml
o2si smart solutions 116390-02 Storage: </= -10 Degrees C
Made in USA Lot No: 161898 Solvent: Methylene Chloride
Exp: 7/23/2013
Date Op: Motor Oil Composite
Lot #: 161898 - 28613
Rec: 4/14/11 MFR exp. 07/23/13

Motor Oil Composite, 50,000 mg/L, 1 ml
o2si smart solutions 116390-02 Storage: </= -10 Degrees C
Made in USA Lot No: 161898 Solvent: Methylene Chloride
Exp: 7/23/2013
Dat Motor Oil Composite
Lot #: 161898 - 28614
Rec: 4/14/11 MFR exp. 07/23/13

OCL/OP WATER SURROGATE

DBC, TCMX, DECA — 500ug/ml | 0251 | 30ml | 100ML | 1.5ug/ml | ACETONE | #011011C | 8/5/11 | EX: 11/5/11

Pesticide Surrogate Solution, 5,000 mg/L, 1 ml
o2si smart solutions
Cat. No: 130070-02 Exp: 12/19/2012
Lot No: 154164 -27593 Storage: </= Ambient
Solvent: Tol.:Hex. 1:1
Not for Human Consumption For Research Use Only
Made in USA Date Opened: 8/5/11 EX: 8/5/12

TBP, TPP — 100ug/ml | 0251 | 500ml | 5ug/ml

Tributyl- and Triphenylphosphate Soltuion, 1,000 mg/L, 1 ml
o2si smart solutions
Phone: (843) 763-4884 Fax: (843) 766-9182
Cat. No: 130161-02 Exp: 7/12/2012
Lot No: 148444 -27667 Storage: <10 Degrees C
Solvent: Acetone
Not for Human Consumption For Research Use Only
Made in USA Date Opened: 8/5/11 EX: 8/5/12

OCL/OP SOIL SURROGATE

DBC, DECA, TCMX — 500ug/ml | 0251 | 400ml | 100ML | 20ug/ml | ACETONE | #011011C | 8/5/11 | EX: 11/5/11
CAT: 130070-02
LOT: 154164-27593
OP: 8/5/11 EX: 8/5/12

TBP, TPP — 100ug/ml | 0251 | 500ml | 5ug/ml
CAT: 130161-02
LOT: 148444-27667
OP: 8/5/11
EX: 7/12/12

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	
		THC SURROGATE			(* GAVE TO EXTRACTION)		
O-TERPHENYL OCTACOSANE	600 µg/ml	0251 CAT: 110316-05 LOT: 170258-29333 OP: 8/8/11 EX: 8/8/12	N/A	25 mL	600 µg/ml	N/A	8/8/11 EX: 8/8/12
		THC SURROGATE					
O-TERPHENYL OCTACOSANE	600 µg/ml 8/8/11	0251 CAT: 110316-05 LOT: ~~1764~~ 176405-29334 THRU 176405-29337 OP: 8/8/11 EX: 8/8/12	N/A	25 mL	600 µg/ml	N/A	8/8/11 EX: 8/8/12
		OCL Degradation Check					
DDT DDD DDE ENDRIN ENDRIN KETONE ENDRIN ALDEHYDE	100 µg/ml	0251 CAT: 130109-01 LOT: OC Pesticide Degradation Check Lot #: 176400-29311 Rec: 8/8/11 MFR exp. 07/29/14 Op: 8/11/11 EX: 8/11/12	250 µl	50 mL 8/11/11	0.5 µg/ml	HEXANE # 082610B	8/11/11 EX: 2/11/12
		OCL STOCK					
VARIOUS Analytes	100 µg/ml	0251 Organochlorine Pesticide Solution 20, 100 mg/L, 1ml Lot # 176673 Storage ≤6 Degrees C Expiry 8/2/14 Organochlorine Pest Soln 20 Lot #: 176673-29347 Rec: 8/9/11 MFR exp. 08/02/14 OP: 8/11/11 EX: 8/11/12	1000 µl	10 mL	10 µg/ml	Hexane #082610B	8/11/11 EX: 8/11/12

STANDARD 052	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
DIESEL STANDARD							
DIESEL FUEL #2	50,000mg/L	0251	1000mL	50mL	1000mg/L	MC # 051711B	9/1/11 EX: 3/1/12
	Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml 911598-83 Lot # 167768 Storage 5-10 Degrees C Expiry 2/15/15 Made in the USA Solvent: Methylene Chloride Diesel Fuel #2 Composite OP: 9/1/11 Lot #: 167768 - 28176 EX: 9/1/12 Rec: 1/20/11 MFR exp. 02/15/15						
OCTACOSANE	1000mg/L	0251	4170mL		50mg/L		
O-TERPHENYL	CAT: 110316-05 LOT: 176405-29337 OP: 9/1/11 EX: 9/1/12						
MOTOR OIL STANDARD							
MOTOR OIL	50,000mg/L	0251	1000mL	50mL	1000mg/L	MC # 051711B	9/1/11 EX: 3/1/12
	O2si SMART SOLUTIONS 116390-02 Motor Oil Composite, 50,000 mg/L, 1 ml Made in USA Lot No: 161898 Exp: 7/23/2013 Storage: <= -10 Degrees C Solvent: Methylene Chloride Motor oil composite Lot #: 161898 - 28615 Rec: 4/14/11 MFR exp. 07/23/13 OP: 9/1/11 EX: 9/1/12						
DIESEL 2ND SOURCE							
DIESEL FUEL #2	50,000mg/L	0281	1000mL	50mL	1000mg/L	MC # 051711B	9/1/11 EX: 3/1/12
	Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml 911598-83 Lot # 167769 Storage 5-10 Degrees C Expiry 2/15/15 Made in the USA Solvent: Methylene Chloride Diesel Fuel #2 Composite OP: 9/1/11 Lot #: 167769 - 28397 EX: 9/1/12 Rec: 8/26/11 MFR exp. 02/15/15						

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOLVENT / LOT# | DATE / LOT#

KEROSENE/JP5 STD

STD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC	SOLVENT / LOT#
JP5/ KEROSENE	50,000 µg/mL	O2SI CAT #010597-S50 LOT# 159381 OP:4/18/11 EX: 4/18/12	500 µL	25 mL	1000 µg/mL	MC LOT# 032811C

LAC 10/18/11 EX: 4/18/12

KEROSENE/JP5 CURVE

STANDARD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
Kerosene	1000		10/18/2011	4/18/2012	50	100	400	600	800	1000
JP5	MC	032811C			950	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	1000

LAC 10/18/11 EX: 4/18/12

DIESEL CCV 400ug/ml

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		9/1/2011	3/1/2012			051711B

LAC 10/18/11 EX: 3/1/12

MOTOR OIL CCV 400UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		9/1/2011	3/1/2012			051711B

PRODIAMINE STANDARD

diamine | 1000µg/mL | O2SI | 10mL | 10mL | 1mL/mL | ACETONE

CAT: 031919-02
LOT: 161445-26939
OP: 10/19/11
EX: 7/1/12

#011011C

10/19/11 EX: 4/19/12

10/19/11

Prodiamine Curve

PREP DATE:	10/19/2011										
EXP:	4/19/2012										
SUPPLIER	ID#	µg/mL	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
	Prodiamine	1		10/19/2011	4/19/2012	5	50	100	150	200	250
	HEXANE		082610B			995	950	900	850	800	750
					Final VOL.	1000	1000	1000	1000	1000	1000

10/19/11 EX: 4/19/12

STANDARD 082	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS

DIESEL SPIKE

DIESEL FUEL #2	50,000mg/l	O2SI	2000ul	50mL	2000mg/l	MC #51204	10/21/11 EX: 1/21/12

OP: 10/21/11
EX: 10/21/12
Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
011593-03
Lot# 179635 Storage ≤ 10 Degrees C Expiry 11/8/15
Diesel Fuel #2 Composite
Lot #: 179635 - 29641
Rec: 10/13/11 MFR exp. 11/08/15

OP: 10/21/11
EX: 10/21/12
Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
011593-03
Lot# 179635 Storage ≤ 10 Degrees C Expiry 11/8/15
Diesel Fuel #2 Composite
Lot #: 179635 - 29642
Rec: 10/13/11 MFR exp. 11/08/15

10/21/11

508 AMPULE * GAVE TO EXTRACTION TO SPIKE *

VARIOUS Analytes	100/2000mg/l	O2SI	N/A	1mL	100/2000mg/l	N/A	10/21/11 EX: 10/21/12

o2si
OCC Pesticide Standard, 100/2000 mg/L, 1 ml
Cat. No: 130200-02
Lot No: 156275
Exp: 2/21/2013
Storage: </= 6 Degrees C
Solvent: Tol.:Hex, 1:1
For Research Use Only
OCC Pesticide 100/2000mg/L
Lot #: 156276 - 26160
Rec: 2/23/10 MFR exp: 02/21/13
Opened: 10/21/11 EX: 10/21/12

10/21/11

10/21/11

Compound	Conc. In Mix	Conc. Of Stock	Aliquot	stock source	Final Vol.	Solvent Lot#
		508 CALIBRATION CURVE				
alachlor	(1) 0.005/0.1	5/100ug/ml	10ul	508 stock	10 mL	Hexane
benfluralin	(2) 0.03/0.6	5/100ug/ml	60ul	prep: 4/8/11	10 mL	# 082610B
captan	(3) 0.05/1.0	5/100ug/ml	250ul	Exp: 1/26/12	25 mL	
carbophenothion	(4) 0.1/2.0	5/100ug/ml	200ul		10 mL	
chlorothalonil	(5) 0.15/3.0	5/100ug/ml	300ul		10 mL	
chlorthal(dacthal)	(6) 0.2/4.0	5/100ug/ml	400ul		10 mL	
2,6 dichlorobenzonitrile(dicofol)						
kelthane						
nitrofen						
oxadiazon						
oxyfluorfen						
propachlor						
op DDD						
op DDE						
op DDT						
bis(2-ethylhexyl)phthalate						

10/21/11
EX: 1/25/12

10/21/11

Compound	Init. Conc.	Stock Src	Aliquot	Final Vol	Final Conc.	Solvent Lot#
		508 2ND SRC				
See Above	5/100 ug/ml	508 2nd Src Stock	250 uL	25 mL	0.05/1 ug/ml	Hexane
		Prep: 10/21/11				082610B
		Exp: 4/8/12				

10/21/11
EX: 4/8/12

STANDARD 088

INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS

LAC 10/28/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400	600	800	1000
MC		61204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 10/28/11 EX: 4/17/12

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400	600	800	1000
MC		51204			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 10/28/11 EX: 4/26/12

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	9/1/2011				51204
	Exp:	3/1/2012				

LAC 10/28/11 EX: 3/1/12

LAC 10/28/11

KEROSENE/JP5 CURVE

STANDARD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
Kerosene	1000		10/18/2011	4/18/2012	50	100	400	600	800	1000
JP5	MC	51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	1000

LAC 10/28/11 EX: 4/18/12

11/1/11

PREP DATE:	11/1/2011					
OP 2ND SOURCE						
EXP:	4/19/2012					
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL
	OP 2ND SRC	5		10/19/2011	4/19/2012	500
VWR	HEXANE		0826108			500
					Final VOL.	1000

11/1/11 EX: 4/19/12

PREP DATE:	11/1/2011											
OPF CURVE												
EXP:	4/13/2012											
						IA	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	OPF STD	5		10/19/2011	4/13/2012	2	10	50	100	500	700	1000
	Hexane		0826108			998	990	950	900	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000	1000

11/1/11 EX: 4/13/12

PREP DATE:	11/1/2011										
OPC CURVE											
EXP:	3/15/2012										
						1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
	OPC STD	5		9/15/2011	3/15/2012	10	50	200	500	700	1000
	Hexane		0826108			990	950	800	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000

11/1/11

11/1/11 EX: 3/15/12

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
		DIESEL STANDARD					
DIESEL FUEL #2	50,000ug/ml	O2SI	1000ul	50ML	1000ug/ml	MC # 51204	10/26/11 ex: 4/26/12
		Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml; 111598-03; Lot # 167768; Storage 5-10 Degrees C; Expiry 2/15/15; Solvent Methylene Chloride; Made in the USA; Diesel Fuel #2 Composite OP: 10/26/11; Lot #: 167768 - 29406 EX: 10/26/12; Rec: 8/26/11 MFR exp. 02/15/15					
TERPHENYL HEXANE	600ug/ml	O2SI	4170ul		50ug/ml		
		CAT: 110316-05; LOT: 176405-29338; OP: 10/10/11; EX: 10/10/12					
		MOTOR OIL STANDARD					
MOTOR OIL	50,000ug/ml	O2SI	1000ul	50ML	1000ug/ml	MC # 51204	10/26/11 ex: 4/26/12
		OP: 10/26/11 EX: 10/26/12; o2si smart solutions; Motor Oil Composite, 50,000 mg/L, 1 ml; 116390-01; Storage: <= -10 Degrees C; Made in USA; Lot No: 161898; Solvent: Methylene Chloride; Exp: 7/23/2013; Motor oil composite; Lot #: 161898 - 28616; Rec: 4/14/11 MFR exp. 07/23/13					

		PAC ECO 2ND SOURCE			
DIAZINON	6ug/ml	200ug/ml	260ul	O2SI	10ml
DISULFOTON		200	CAT:	130169-01	HEXANE
MALATHION		200	LOT:	178204-28481	LOT#
MOLINATE		200	OP:	10/26/2011	082610B
PHORATE		200	EXP:	3/11/2012	
THIOBENCARB		200			
TRIBUTYL PHOSPHATE		200			
DEMETON		200			
DISCHLORVOS		200			
EPTC		200			
PARATHION		200			
AZINPHOS METHYL		200			
CHLORPYRIFOS		200			
DIMETHOATE		200			
METHIDATHION		200			
METHYL PARATHION		200			
ATRAZINE		200			
CYANIZINE		200			
TRIPHENYL PHOSPHATE		200			
PENDIMETHALIN (PROWL		200			
TRIFLURALIN		200			
SIMAZINE		200			

10/26/11
EX: 3/11/12

10/26/11

STANDARD

	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE: 0995

11/7/11

PREP:	11/7/2011												
PAC ECO CURVE													
EXP:	2/25/2012												
	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	5		10/26/2011	2/25/2012	2	10	50	200	500	700	1000
VWR	Hexane		010711A			998	990	950	800	500	300	N/A
					Final VOL.	1000	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC				DATE	EXP. DATE							
Prep: 11/7/11	Exp: 12/17/11	5	010711A	10/28/2011	12/17/2011	500/1000						

11/7/11 Ex: 2/25/12

11/7/11 Ex: 12/17/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 Ex: 4/17/12

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400	600	800	1000
MC		51204			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 Ex: 4/26/12

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	9/1/2011				51204
	Exp:	3/1/2012				

11/8/11 Ex: 3/1/12

11/9/11

PREP DATE:	11/9/2011											
TERBACIL CURVE												
EXP:	3/13/2012											
						0.05	0.25	1	2.5	3.5	5	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	
	TERBACIL STD	5		9/13/2011	3/13/2012	10	50	200	500	700	1000	
VWR	HEXANE		082810B			950	920	900	800	500	300	
					Final VOL.	1000	1000	1000	1000	1000	1000	

11/9/11 Ex: 3/13/12

PREP DATE:	11/9/2011					
OP 2ND SOURCE						
EXP:	4/19/2012					
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL
	OP 2ND SRC	5		10/19/2011	4/19/2012	500
VWR	HEXANE		082610B			500
					Final VOL.	1000

11/9/11 Ex: 4/19/12

11/9/11

PREP DATE:	11/9/2011											
OPF CURVE												
EXP:	2/7/2012											
						IA	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	OPF STD	5		11/3/2011	2/7/2012	2	10	50	200	500	700	1000
	Hexane		082610B			998	990	950	800	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000	1000

11/9/11 Ex: 2/7/12

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT #	DATE / INITIALS
				PCB SOIL SPIKE				
AR 1260	1000ng/mL	0251		1250mL	25mL	50ng/µL	ACETONE	
AR 1016	CAT: 130011-03						#	11/10/11
	LOT: 163607-27215							EX: 2/10/12
	OP: 11/10/11							
	EX: 11/10/12							
	AND							
	LOT: 152374-27210							
	OP: 3/2/11							
	EX: 3/2/12							
				PCB WATER SPIKE				
AR1016	1000ng/mL	0251		125mL	25mL	5ng/µL	ACETONE	
AR1260	CAT: 130011-03						#	11/10/11
	LOT: 163607-27214							EX: 2/10/12
	OP: 8/2/11							
	EX: 8/2/12							
				HERB 100/1000 (LVL 3) CCV				
VARIOUS	VARIOUS	HERB STD.		100µL	1mL	100ng/µL	MTBE	
SEE PG 075	PREP: 10/11/11						#	11/10/11
	EX: 4/11/12							EX: 4/11/12
				THC SURROGATE CAL. STD.				
D-TERPHENYL	1000ng/mL	0251		834µL	10mL	50ng/µL	MC	
DECACYCLENE	CAT: 110316-05						#	11/15/11
	LOT: 176405-29342							EX: 5/15/12
	OP: 10/10/11							
	EX: 10/10/12							

LAC 11/15/11

TCH SURROGATE CURVE											
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	LAC 11/15/11
THC SURR	50	176405	11/15/2011	5/15/2012	50	100	400	600	800	1000	EX 5/15/12
MC		51204			950	900	600	400	200	NA	
				Final VOL.	1000	1000	1,000	1000	1000	1000	

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOLVENT / LOT # | DATE / INITIALS

DIESEL CCV 400ug/ml							
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#	
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC	LAC 11/29/11
		10/26/11	04/26/12			51204	EXP 4/26/11

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/11	04/26/12			51204

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT #	DATE / INITIALS

OCL/OP WATER SURROGATE

DECA — 3000 mg/L — O2SI — 30 mL — 100 mL — 1.5 mg/L — ACETONE # 011011C — 11/2/11 — EX: 2/2/12

TCMX

DBC — CAT: 130010-02 — LOT: 154164-29416 — OP: 11/2/11 — EX: 11/2/12

TBP — 1000 mg/L — O2SI — 500 mL — 5 mg/L

TPP

Tributyl- and Triphenylphosphate Solution, 1,000 mg/L, 1 ml
Cat# 130161-02
Lot# 164817 Storage 5-10 Degrees C Expiry 10/19/13
Solv: Acetone
Tributyl and Triphenyl phosphate
Lot #: 164817-27660
Rec: 10/20/10 MFR exp. 10/19/13

OP: 11/2/11 EX: 11/2/12 — 11/2/11

OCL/OP WATER SURROGATE

DECA — 5000 mg/L — O2SI — 30 mL — 100 mL — 1.5 mg/L — ACETONE # 011011C — 11/3/11 — EX: 2/3/12

TCMX

DBC — CAT: 130010-02 — LOT: 154164-29416 — OP: 11/2/11 — EX: 11/2/12

TBP — 1000 mg/L — O2SI — 500 mL — 5 mg/L

TPP — CAT: 130161-02 — LOT: 164817-27660 — OP: 11/2/11 — EX: 11/2/12

* WAS NOT RECORDED ON 11/2/11 — 11/3/11

DIESEL CCV 400ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/2011	4/26/2012			51204

11/2/11 — EX: 4/26/12

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/2011	4/26/2012			51204

KEROSENE CCV 400 UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
KEROSENE /JP5 STD	1000UG/ML	O2SI	400 µL	1ML	400 UG/ML	MC
		10/18/2011	4/18/2012		1mL	010611B

11/2/11 — EX: 4/18/12

Organic Extraction Worksheet

Method	THC-Separatory Funnel Extraction 3510C	Extraction Set	111031A	Extraction Method	SEP011	Units	mL

Spiked ID 1	Diesel Spike 10/21/11 EX 1/21/12		Surrogate ID 1	THC Surrogate 176405-29339
Spiked ID 2	Motor Oil Spike 8/5/11 EX 11/5/11		Surrogate ID 2	
Spiked ID 3			Surrogate ID 3	
Spiked ID 4			Surrogate ID 4	
Spiked ID 5			Surrogate ID 5	
Spiked ID 6			Sufficient Vol for Matrix QC:	YES
Spiked ID 7			Ext. Start Time:	
Spiked ID 8			Ext. End Time:	
			GC Requires Extract By:	11/02/11 0:00

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111031A Blk				0.250	1 equip	1000 E-WB5	5	7	10/31/11 15:00	
2	111031A LCS-1		1	1	0.250	1 equip	1000 E-WB5	5	7	10/31/11 15:00	
3	111031A LCS-2		1	2	0.250	1 equip	1000 E-WB5	5	7	10/31/11 15:00	
4	AY49327	AY49327W05			0.250	1 equip	1040 E-WB5	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
5	AY49328	AY49328W05			0.250	1 equip	1000 E-WB5	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
6	AY49329	AY49329W05			0.250	1 equip	1010 E-WB5	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
7	AY49330	AY49330W04			0.250	1 equip	1040 E-WB5	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
8	AY49331	AY49331W04			0.250	1 equip	1030 E-WB5	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
9	AY49333	AY49333W09			0.250	1 equip	1030 E-WB5	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
10	AY49334 MS-1	AY49334W35	1	1	0.250	1 equip	1030 E-WB6	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
11	AY49334 MSD-1	AY49334W36	1	1	0.250	1 equip	1030 E-WB6	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
12	AY49334	AY49334W32			0.250	1 equip	1030 E-WB5	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
13	AY49336	AY49336W09			0.250	1 equip	1050 E-WB6	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter

Solvent and Lot#	
MC	BMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/2/11
Time	11:30
Refrigerator	Hob met

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW/CC/DL
Concentration	JL

Modified	10/31/2011 2:12:11 PM

Reviewed By: HW 155 **Date** 11/1/2011

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	111031A	Extraction Method	SBP011	Units	mL

Spiked ID 1	Diesel Spike 10/21/11 EX 1/21/12		Surrogate ID 1	THC Surrogate 176405-29339	
Spiked ID 2	Motor Oil Spike 8/5/11 EX 11/5/11		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY49481	AY49481W10			0.250	1	1040	5	7	10/31/11 15:00	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
15	AY49482	AY49482W10			0.250	1	1040	5	7	10/31/11 15:00	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

HW 11/1/11

Solvent and Lot#	
MC	BMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/2/11
Time	1120
Refrigerator	Upstairs

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW/CC/DL
Concentration	JL

Modified	10/31/2011 2:12:11 PM

Reviewed By: HW 156 **Date** 11/1/2011

Injection Log

Directory: G:\APOLLO\DATA\111028\111106\111108\111115\111129

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1028003.D	1	DIESEL 10/1000 10/28/11	Mix(A)	10-28-11 9:47:18
2	4	1028004.D	1	DIESEL 100/1000	Mix(A)	10-28-11 10:11:19
3	5	1028005.D	1	DIESEL 400/1000	Mix(A)	10-28-11 10:35:26
4	6	1028006.D	1	DIESEL 600/1000	Mix(A)	10-28-11 10:59:35
5	7	1028007.D	1	DIESEL 800/1000	Mix(A)	10-28-11 11:23:49
6	8	1028008.D	1	DIESEL 1000/1000	Mix(A)	10-28-11 11:48:05
7	9	1028009.D	1	MOTOR OIL 50/1000 10/28/11	Mix(B)	10-28-11 12:12:27
8	10	1028010.D	1	MOTOR OIL 100/1000	Mix(B)	10-28-11 12:36:20
9	11	1028011.D	1	MOTOR OIL 400/1000	Mix(B)	10-28-11 13:00:16
10	12	1028012.D	1	MOTOR OIL 600/1000	Mix(B)	10-28-11 13:24:39
11	13	1028013.D	1	MOTOR OIL 800/1000	Mix(B)	10-28-11 13:48:43
12	14	1028014.D	1	MOTOR OIL 1000/1000	Mix(B)	10-28-11 14:13:14
13	15	1028015.D	1	DIESEL 2ND SRC 10/28/11	Mix(A)	10-28-11 14:37:14
14	16	1028016.D	1	THC SURR 10/1000 10/28/11	Mix(C)	10-28-11 15:01:44
15	17	1028017.D	1	THC SURR 100/1000	Mix(C)	10-28-11 15:25:58
16	18	1028018.D	1	THC SURR 400/1000	Mix(C)	10-28-11 15:50:20
17	19	1028019.D	1	THC SURR 600/1000	Mix(C)	10-28-11 16:14:52
18	20	1028020.D	1	THC SURR 800/1000	Mix(C)	10-28-11 16:38:57
19	21	1028021.D	1	THC SURR 1000/1000	Mix(C)	10-28-11 17:03:06
20	3	1106003.D	1	DIESEL 400/1000 10/28/11	Mix(A)	11-6-11 16:34:49
21	5	1106005.D	5	111031A BLK 5/1000	Water	11-6-11 17:22:09
22	13	1106013.D	4.85437	AY49333W09 5/1030	Water	11-6-11 20:30:17
23	14	1106014.D	4.85437	AY49334W35 MS-1 5/1030	Water	11-6-11 20:53:41
24	15	1106015.D	4.85437	AY49334W36 MSD-1 5/1030	Water	11-6-11 21:17:05
25	16	1106016.D	4.85437	AY49334W32 5/1030	Water	11-6-11 21:40:27
26	17	1106017.D	1	DIESEL 400/1000 11/2/11	Mix(A)	11-6-11 22:03:47
27	19	1106019.D	4.7619	AY49336W09 5/1050	Water	11-6-11 22:50:22
28	27	1106027.D	1	DIESEL 400/1000 11/2/11	Mix(A)	11-7-11 1:56:08
29	5	1108005.D	1	DIESEL 100/1000	Mix(A)	11-8-11 15:50:59
30	6	1108006.D	1	DIESEL 400/1000	Mix(A)	11-8-11 16:14:36
31	7	1108007.D	1	DIESEL 600/1000	Mix(A)	11-8-11 16:38:14
32	8	1108008.D	1	DIESEL 800/1000	Mix(A)	11-8-11 17:01:53
33	9	1108009.D	1	DIESEL 1000/1000	Mix(A)	11-8-11 17:25:32
34	11	1108011.D	1	MOTOR OIL 50/1000 11/8/11	Mix(B)	11-8-11 18:12:45
35	12	1108012.D	1	MOTOR OIL 100/1000	Mix(B)	11-8-11 18:36:14
36	13	1108013.D	1	MOTOR OIL 400/1000	Mix(B)	11-8-11 18:59:47
37	14	1108014.D	1	MOTOR OIL 600/1000	Mix(B)	11-8-11 19:23:20
38	15	1108015.D	1	MOTOR OIL 800/1000	Mix(B)	11-8-11 19:46:53
39	16	1108016.D	1	MOTOR OIL 1000/1000	Mix(B)	11-8-11 20:10:21
40	69	1108069.D	1	DIESEL 10/1000 11/8/11	Mix(A)	11-9-11 17:18:58
41	70	1108070.D	1	DIESEL 400 2ND SRC 11/8/11	Mix(A)	11-9-11 17:42:38
42	21	1115021.D	1	THC SURR 10/1000 11/15/11	Mix(C)	11-15-11 18:21:35
43	22	1115022.D	1	THC SURR 100/1000	Mix(C)	11-15-11 18:45:31
44	23	1115023.D	1	THC SURR 400/1000	Mix(C)	11-15-11 19:09:25
45	24	1115024.D	1	THC SURR 600/1000	Mix(C)	11-15-11 19:33:17
46	25	1115025.D	1	THC SURR 800/1000	Mix(C)	11-15-11 19:57:06
47	26	1115026.D	1	THC SURR 1000/1000	Mix(C)	11-15-11 20:20:52
48	12	1129012.D	1	DIESEL 400/1000 11/29/11	Mix(A)	11-29-11 13:06:20
49	17	1129017.D	5	111031A LCS-1 5/1000	Water	11-29-11 18:45:15
50	24	1129024.D	1	DIESEL 400/1000 11/29/11	Mix(A)	11-29-11 21:29:15

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **111031W-49334 - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	SURROGATE: 2-FLUORBIPHENY	51.7	50-110			%	10/31/11	11/05/11
BLANK	SURROGATE: NITROBENZENE-	66.3	40-110			%	10/31/11	11/05/11
BLANK	SURROGATE: TERPHENYL-D14 (	54.5	50-135			%	10/31/11	11/05/11

Quant Method:SIM2.M
Run #:1105L028
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 11/09/11 3:58:52 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	50-110	51.7		40-110	66.3	
111031A-LCS	Lab Control Spike	50-110	55.5		40-110	57.0	
AY49333	ES046	50-110	54.0		40-110	61.9	
AY49334-MS	Matrix Spike	50-110	53.6		40-110	59.3	
AY49334-MSD	Matrix SpikeD	50-110	55.7		40-110	53.1	
AY49334	ES047	50-110	53.4		40-110	65.4	
AY49336	ES049	50-110	65.0		40-110	64.4	

Comments: Batch: #SIMHC-111031A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	50-135	54.5				
111031A-LCS	Lab Control Spike	50-135	53.0				
AY49333	ES046	50-135	50.3				
AY49334-MS	Matrix Spike	50-135	50.7				
AY49334-MSD	Matrix SpikeD	50-135	61.9				
AY49334	ES047	50-135	61.4				
AY49336	ES049	50-135	51.9				

Comments: Batch: #SIMHC-111031A

Laboratory Control Spike Recovery

EPA 8270D SIM

APPL ID: **111031W-49334 LCS - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.25	56.3	45-105
2-METHYLNAPHTHALENE	4.00	2.26	56.5	45-105
ACENAPHTHENE	4.00	2.55	63.7	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.47	61.8	55-110
BENZO(A)ANTHRACENE	4.00	2.74	68.5	55-110
BENZO(A)PYRENE	4.00	2.48	62.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.43	60.8	45-120
BENZO(GHI)PERYLENE	4.00	2.80	70.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.23	80.8	45-125
CHRYSENE	4.00	2.86	71.5	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.89	72.3	40-125
FLUORANTHENE	4.00	2.86	71.5	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.95	73.8	45-125
NAPHTHALENE	4.00	2.30	57.5	40-100
PHENANTHRENE	4.00	2.43	60.8	50-115
PYRENE	4.00	2.57	64.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.11	55.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.14	57.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.06	53.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	10/31/11
Analysis Date :	11/05/11
Instrument :	Linus
Run :	1105L029
Initials :	LF

Printed: 11/09/11 3:59:06 PM

APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D SIM

APPL ID: **111031W-49334 MS - 161019**
Batch ID: #SIMHC-111031A
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	3.88	0.62	2.88	2.71	58.2	53.9	45-105	6.1	25
2-METHYLNAPHTHALENE	3.88	0.20	2.26	1.98	53.1	45.9	45-105	13.2	25
ACENAPHTHENE	3.88	0.16	2.17	1.79	51.8	42.0 #	45-110	19.2	25
ACENAPHTHYLENE	3.88	ND	2.14	1.77	55.2	45.6 #	50-105	18.9	25
ANTHRACENE	3.88	ND	2.14	1.96	55.2	50.5 #	55-110	8.8	25
BENZO(A)ANTHRACENE	3.88	ND	3.04	2.84	78.4	73.2	55-110	6.8	25
BENZO(A)PYRENE	3.88	ND	2.62	2.30	67.5	59.3	55-110	13.0	25
BENZO(B)FLUORANTHENE	3.88	ND	2.72	2.34	70.1	60.3	45-120	15.0	25
BENZO(GHI)PERYLENE	3.88	ND	2.84	2.54	73.2	65.5	40-125	11.2	25
BENZO(K)FLUORANTHENE	3.88	ND	3.07	2.84	79.1	73.2	45-125	7.8	25
CHRYSENE	3.88	ND	2.75	2.56	70.9	66.0	55-110	7.2	25
DIBENZ(A,H)ANTHRACENE	3.88	ND	2.90	2.51	74.7	64.7	40-125	14.4	25
FLUORANTHENE	3.88	ND	2.84	2.59	73.2	66.8	55-115	9.2	25
FLUORENE	3.88	0.083	2.42	2.08	60.2	51.5	50-110	15.1	25
INDENO(1,2,3-CD)PYRENE	3.88	ND	2.93	2.71	75.5	69.8	45-125	7.8	25
NAPHTHALENE	3.88	1.0	3.70	2.56	69.6	40.2	40-100	36.4 #	25
PHENANTHRENE	3.88	ND	2.38	2.20	61.3	56.7	50-115	7.9	25
PYRENE	3.88	ND	2.63	2.45	67.8	63.1	50-130	7.1	25
SURROGATE: 2-FLUORBIPHENYL (S)	1.94	NA	1.04	1.08	53.6	55.7	50-110		
SURROGATE: NITROBENZENE-D5 (S)	1.94	NA	1.15	1.03	59.3	53.1	40-110		
SURROGATE: TERPHENYL-D14 (S)	1.94	NA	0.984	1.20	50.7	61.9	50-135		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	SIM2.M	SIM2.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	11/05/11	11/06/11
Instrument :	Linus	Linus
Run :	1105L036	1105L037
Initials :	LF	

Printed: 11/09/11 4:01:33 PM
APPL MSD SCII

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

Blank ID: 111031A-BLK Time Analyzed: 2015

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111031A-BLK	Blank	1105L028	11/05/11 2015
111031A-LCS	Lab Control Spike	1105L029	11/05/11 2041
AY49333	ES046	1105L035	11/05/11 2311
111031A-MS	Matrix Spike	1105L036	11/05/11 2336
111031A-MSD	Matrix SpikeD	1105L037	11/06/11 0001
AY49334	ES047	1105L038	11/06/11 0026
AY49336	ES049	1105L039	11/06/11 0051

Comments: Batch: #SIMHC-111031A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66102
Matrix: Water
ID: SVTUNE 10-27-11

SDG No: 66102
Date Analyzed: 11/05/11
Instrument: Linus
Time Analyzed: 16:36

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	111031A BLK 1/1000	1105L028.D	11/05/11 20:15
2	Lab Control Spike	111031A LCS-1 1/1000	1105L029.D	11/05/11 20:41
3	ES046	AY49333W10 1/1050	1105L035.D	11/05/11 23:11
4	Matrix Spike	AY49334W30 MS-1 1/10	1105L036.D	11/05/11 23:36
5	Matrix Spike Dup	AY49334W34 MSD-1 1/1	1105L037.D	11/06/11 0:01
6	ES047	AY49334W29 1/1050	1105L038.D	11/06/11 0:26
7	ES049	AY49336W10 1/1030	1105L039.D	11/06/11 0:51
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	59.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.6
127	40 - 60% of mass 198	55.1
197	0 - 1% of mass 198	0.5
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.2
365	1 - 100% of mass 198	1.9
441	0.01 - 100% of mass 443	73.0
442	40 - 150% of mass 198	58.8
443	17 - 23% of mass 442	19.7

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 66102

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: ID: Heated Purge: (Y/N)

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2479	6.12	1083	8.11	1851	9.85
	UPPER LIMIT	4958	6.62	2166	8.61	3702	10.35
	LOWER LIMIT	1240	5.62	542	7.61	926	9.35
	SAMPLE NO.						
01	111031A BLK 1/1000	2305	6.12	1068	8.11	2122	9.86
02	111031A LCS-1 1/1000	2079	6.12	961	8.11	1713	9.85
03	AY49333W10 1/1050	2476	6.11	1226	8.11	1995	9.83
04	AY49334W30 MS-1 1/1(	2236	6.11	1033	8.11	1791	9.84
05	AY49334W34 MSD-1 1/	2287	6.11	1131	8.11	1879	9.83
06	AY49334W29 1/1050	2328	6.11	1134	8.11	1938	9.84
07	AY49336W10 1/1030	2268	6.12	1052	8.11	1894	9.86
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 66102

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2378	12.93	1871	14.56		
	UPPER LIMIT	4756	13.43	3742	15.06		
	LOWER LIMIT	1189	12.43	936	14.06		
	SAMPLE NO.						
01	111031A BLK 1/1000	2454	12.94	2143	14.57		
02	111031A LCS-1 1/1000	2367	12.93	2017	14.56		
03	AY49333W10 1/1050	2680	12.94	2235	14.57		
04	AY49334W30 MS-1 1/1(	2429	12.93	2046	14.56		
05	AY49334W34 MSD-1 1/	2428	12.93	2160	14.56		
06	AY49334W29 1/1050	2444	12.94	2139	14.57		
07	AY49336W10 1/1030	2526	12.94	2131	14.57		
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Sample Data

APPL, INC.

EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES046
Sample Collection Date: 10/24/11

ARF: 66102
APPL ID: AY49333
QCG: #SIMHC-111031A-161019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.53	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	2-METHYLNAPHTHALENE	0.15 J	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	ACENAPHTHENE	0.17 J	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
8270D-SIM	FLUORENE	0.082 J	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
8270D-SIM	NAPHTHALENE	0.80	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	54.0	50-110			%	10/31/11	11/05/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	61.9	40-110			%	10/31/11	11/05/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	50.3	50-135			%	10/31/11	11/05/11

J = Estimated value.

Quant Method: SIM2.M
Run #: 1105L035
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 11/09/11 3:59:14 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L035.D
Acq On : 5 Nov 11 23:11
Sample : AY49333W10 1/1050
Misc :

Vial: 35
Operator: LF
Inst : Linus
Multiplr: 0.95

Quant Time: Nov 9 9:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2476	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.11	164	1226	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.83	188	1995	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	12.94	240	2680	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.57	264	2235	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.41	82	549	1.17909 ppb	-0.04
Spiked Amount 1.905			Recovery = 61.898%		
7) Surrogate Recovery (FBP)	7.35	172	1180	1.02825 ppb	0.00
Spiked Amount 1.905			Recovery = 53.970%		
17) Surrogate Recovery (TPH)	11.70	244	1161	0.95815 ppb	-0.01
Spiked Amount 1.905			Recovery = 50.295%		
Target Compounds					Qvalue
3) Naphthalene	6.13	128	1456	0.80384 ppb #	38
4) 2-Methylnaphthalene	6.93	142	142	0.15289 ppb	99
5) 1-Methylnaphthalene	7.02	142	568	0.52981 ppb	94
9) Acenaphthene	8.15	154	168	0.17136 ppb	92
10) Fluorene	8.75	166	88	0.08203 ppb	92

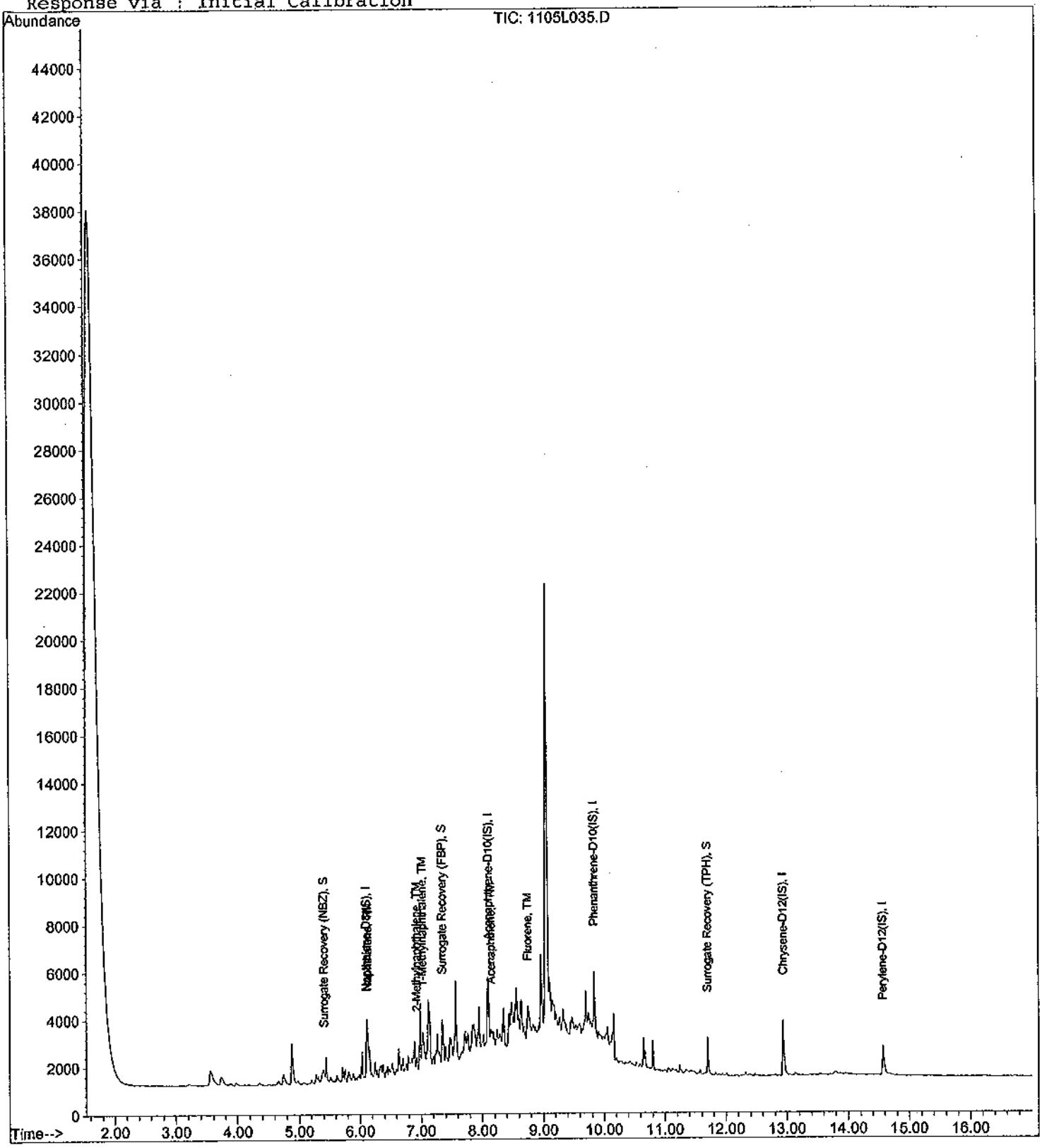
(#) = qualifier out of range (m) = manual integration

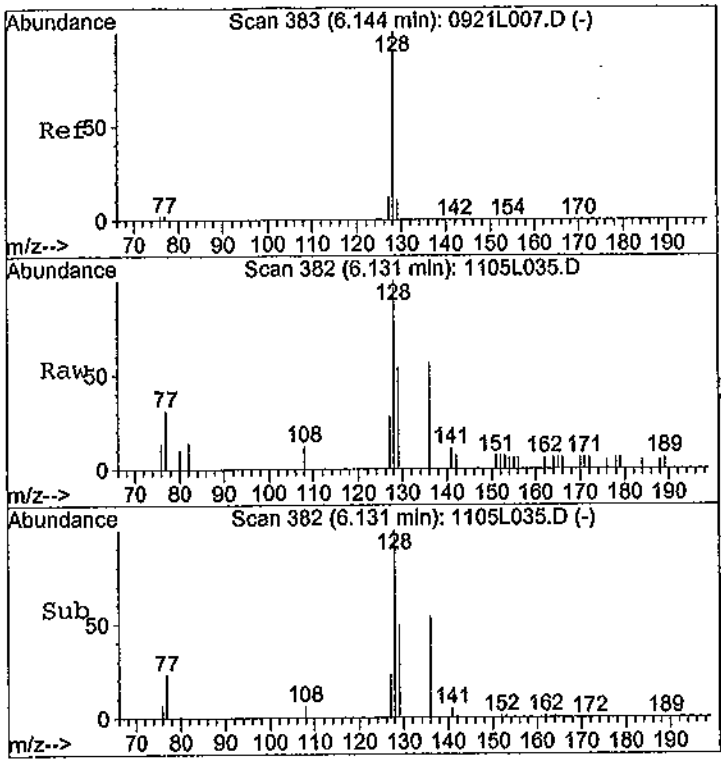
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L035.D Vial: 35
Acq On : 5 Nov 11 23:11 Operator: LF
Sample : AY49333W10 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 9 9:17 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration

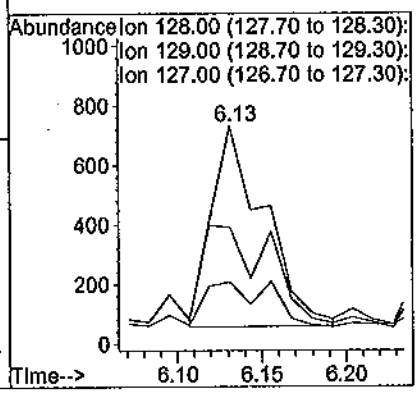


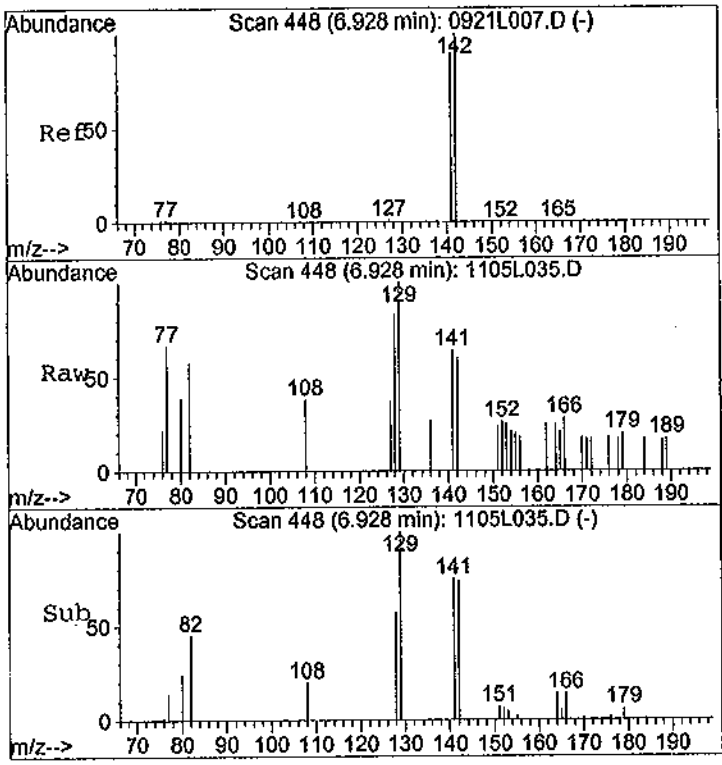


#3
Naphthalene
Concen: 0.80384 ppb
RT: 6.13 min Scan# 382
Delta R.T. -0.01 min
Lab File: 1105L035.D
Acq: 5 Nov 11 23:11

Tgt Ion:128 Resp: 1456

Ion	Ratio	Lower	Upper
128	100		
129	49.4	7.7	14.3#
127	23.0	8.6	16.0#

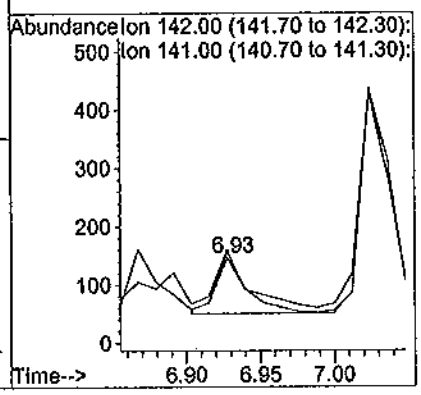


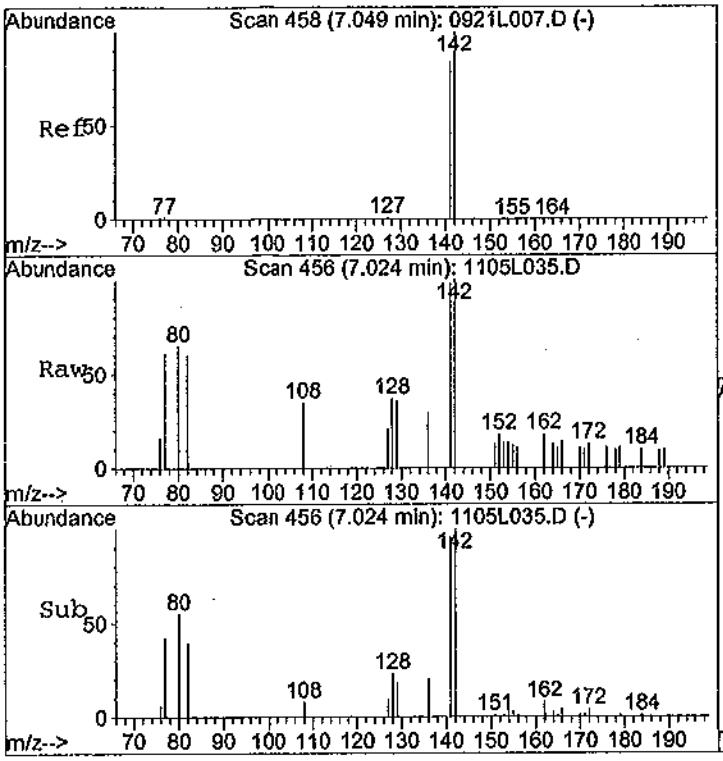


#4
2-Methylnaphthalene
Concen: 0.15289 ppb
RT: 6.93 min Scan# 448
Delta R.T. -0.04 min
Lab File: 1105L035.D
Acq: 5 Nov 11 23:11

Tgt Ion:142 Resp: 142

Ion	Ratio	Lower	Upper
142	100		
141	98.9	68.9	127.9

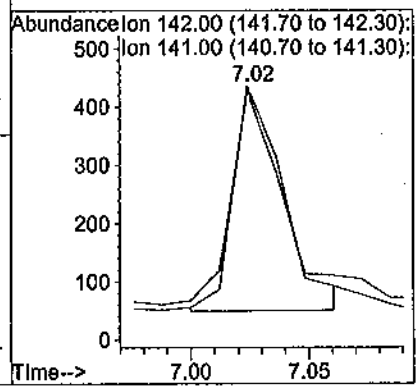


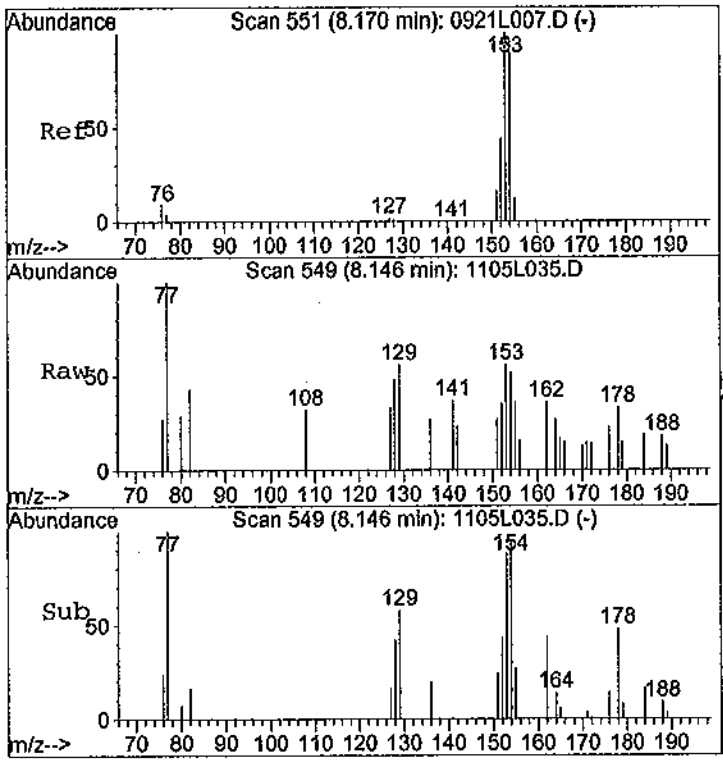


#5
1-Methylnaphthalene
Concen: 0.52981 ppb
RT: 7.02 min Scan# 456
Delta R.T. -0.02 min
Lab File: 1105L035.D
Acq: 5 Nov 11 23:11

Tgt Ion:142 Resp: 568

Ion	Ratio	Lower	Upper
142	100		
141	94.5	70.0	130.0

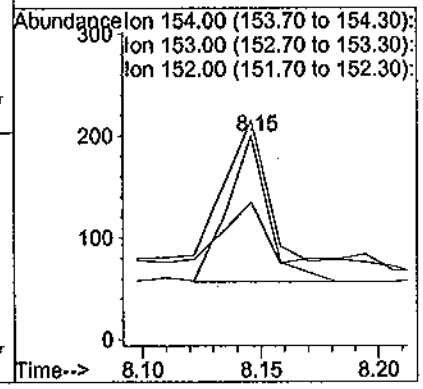


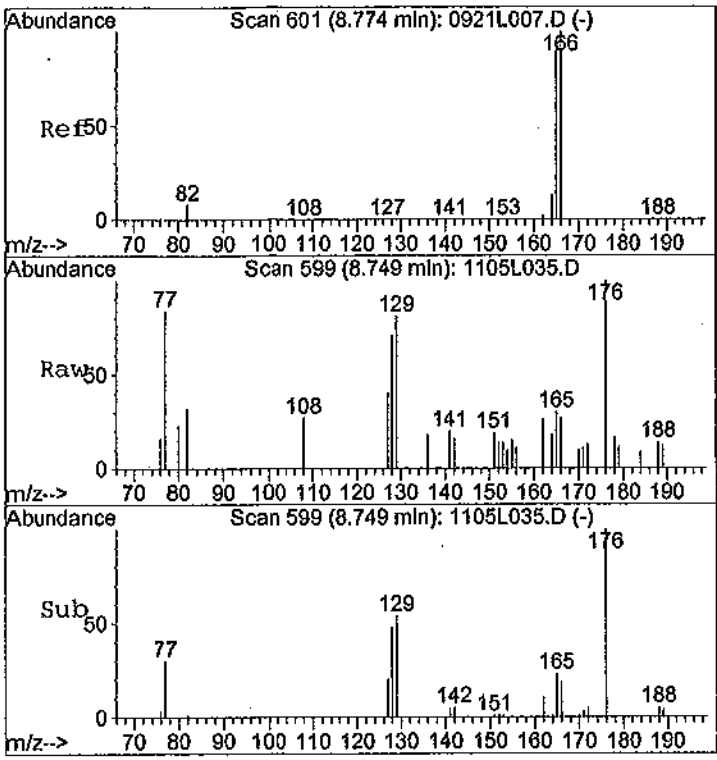


#9
Acenaphthene
Concen: 0.17136 ppb
RT: 8.15 min Scan# 549
Delta R.T. -0.00 min
Lab File: 1105L035.D
Acq: 5 Nov 11 23:11

Tgt Ion:154 Resp: 168

Ion	Ratio	Lower	Upper
154	100		
153	95.1	72.0	133.8
152	39.2	32.1	59.5

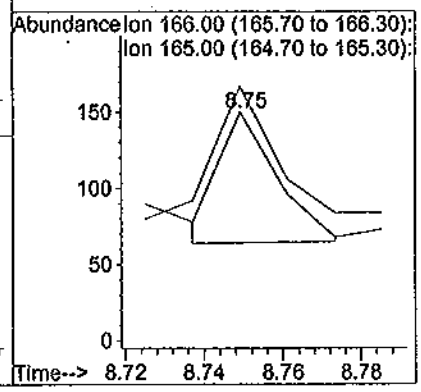




#10
Fluorene
Concen: 0.08203 ppb
RT: 8.75 min Scan# 599
Delta R.T. -0.01 min
Lab File: 1105L035.D
Acq: 5 Nov 11 23:11

Tgt Ion:166 Resp: 88

Ion	Ratio	Lower	Upper
166	100		
165	101.2	65.6	121.8



EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES047
Sample Collection Date: 10/24/11

ARF: 66102
APPL ID: AY49334
QCG: #SIMHC-111031A-161019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.62	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	2-METHYLNAPHTHALENE	0.20	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHENE	0.16 J	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORENE	0.083 J	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	NAPHTHALENE	1.0	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	53.4	50-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	65.4	40-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	61.4	50-135			%	10/31/11	11/06/11

J = Estimated value.

Quant Method: SIM2.M
Run #: 1105L038
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 11/09/11 3:59:14 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L038.D Vial: 38
Acq On : 6 Nov 11 00:26 Operator: LF
Sample : AY49334W29 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 9 9:19 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2328	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.11	164	1134	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.84	188	1938	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	12.94	240	2444	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.57	264	2139	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.41	82	545	1.24491 ppb	-0.04
Spiked Amount 1.905			Recovery = 65.363%		
7) Surrogate Recovery (FBP)	7.35	172	1080	1.01746 ppb	0.00
Spiked Amount 1.905			Recovery = 53.393%		
17) Surrogate Recovery (TPH)	11.70	244	1293	1.17013 ppb	-0.01
Spiked Amount 1.905			Recovery = 61.425%		
Target Compounds					Qvalue
3) Naphthalene	6.13	128	1754	1.02993 ppb #	54
4) 2-Methylnaphthalene	6.93	142	176	0.20154 ppb	94
5) 1-Methylnaphthalene	7.02	142	620	0.61508 ppb	93
9) Acenaphthene	8.15	154	143	0.15769 ppb	95
10) Fluorene	8.75	166	82	0.08264 ppb	92

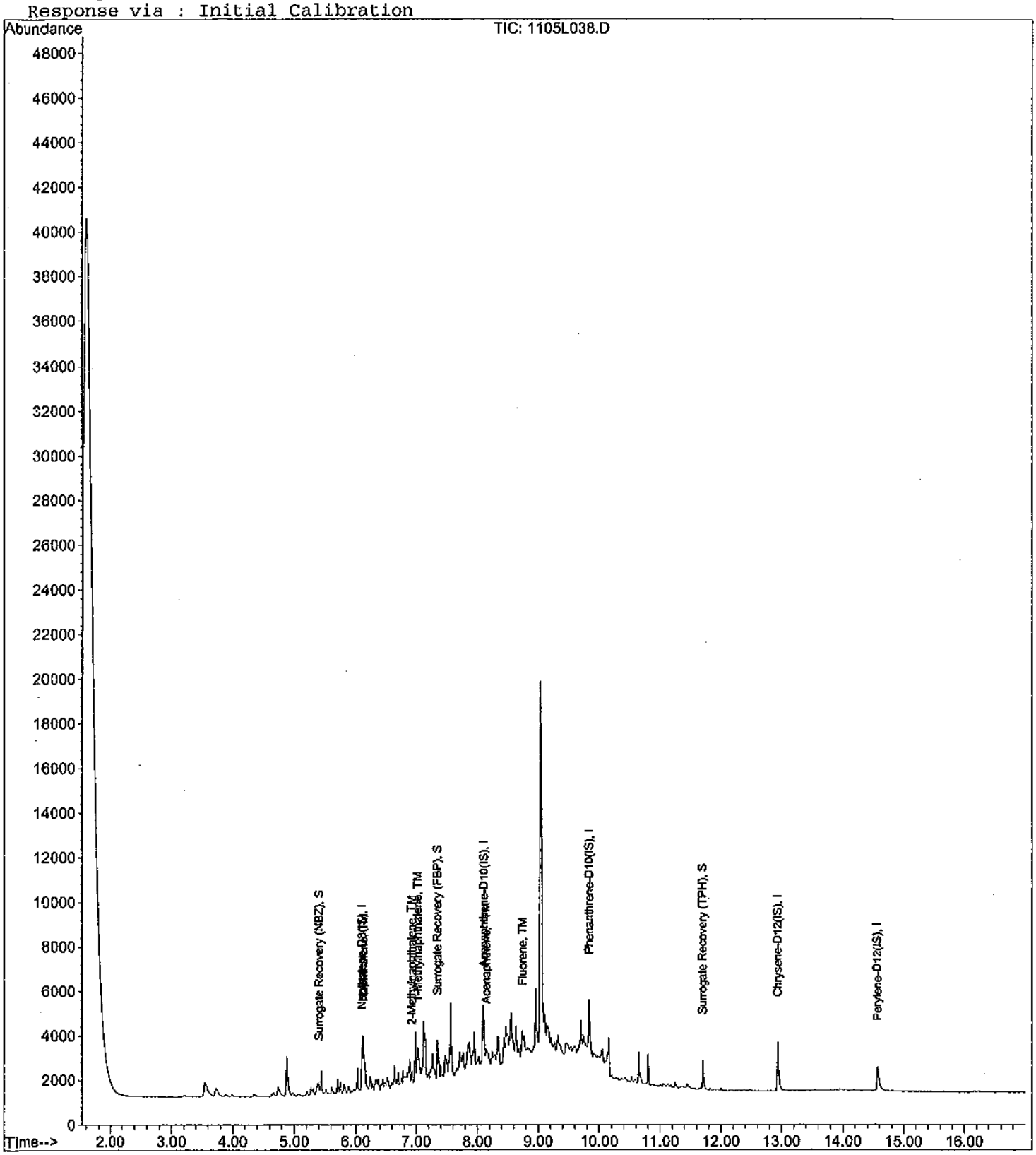
(#) = qualifier out of range (m) = manual integration

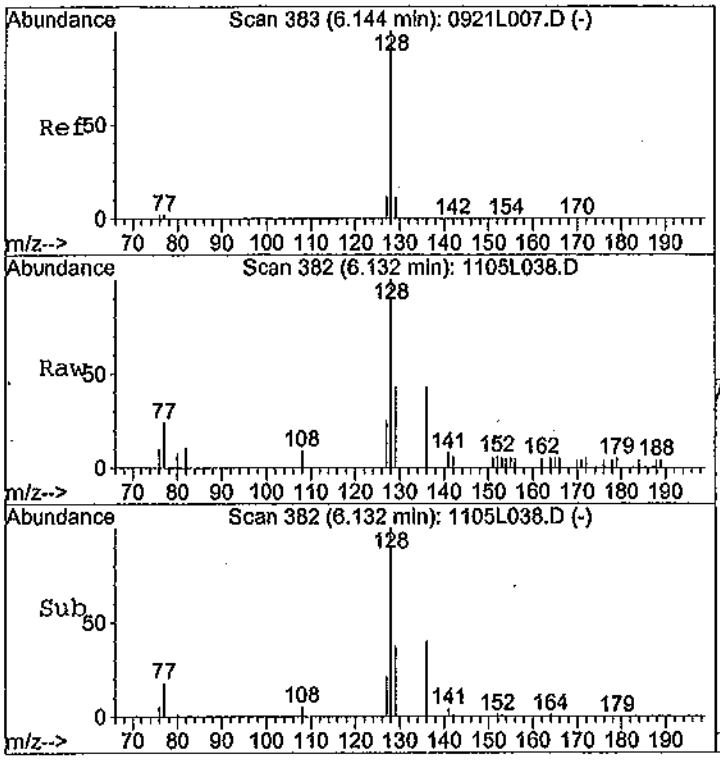
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L038.D Vial: 38
Acq On : 6 Nov 11 00:26 Operator: LF
Sample : AY49334W29 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 9 9:19 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration

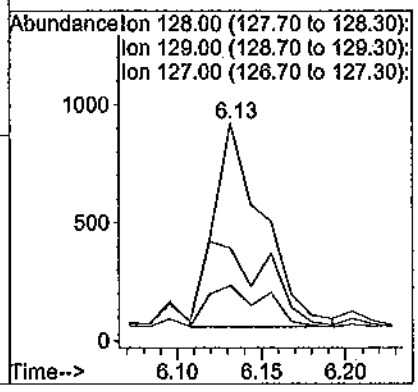


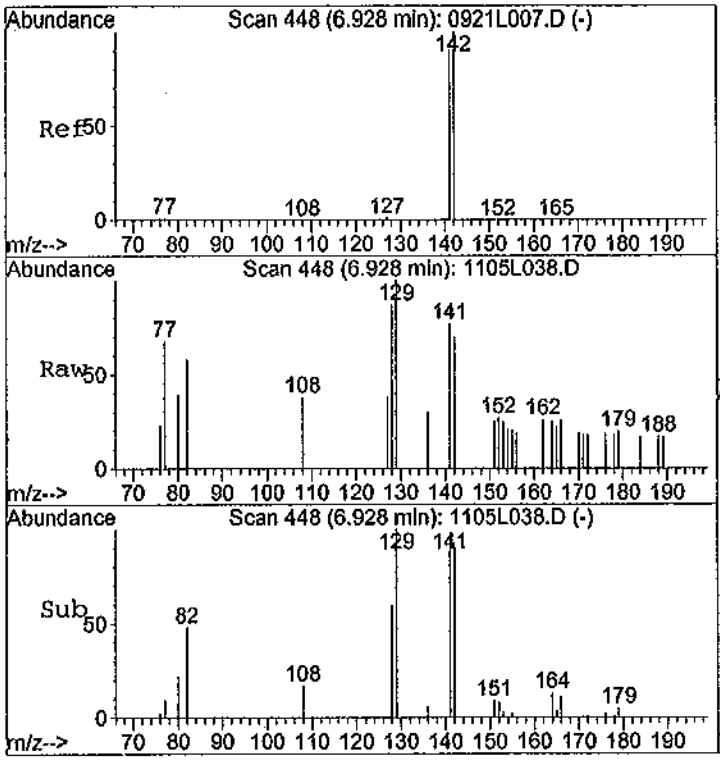


#3
Naphthalene
Concen: 1.02993 ppb
RT: 6.13 min Scan# 382
Delta R.T. -0.01 min
Lab File: 1105L038.D
Acq: 6 Nov 11 00:26

Tgt Ion:128 Resp: 1754

Ion	Ratio	Lower	Upper
128	100		
129	39.0	7.7	14.3#
127	20.8	8.6	16.0#

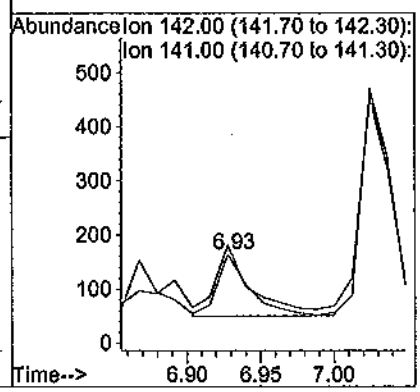


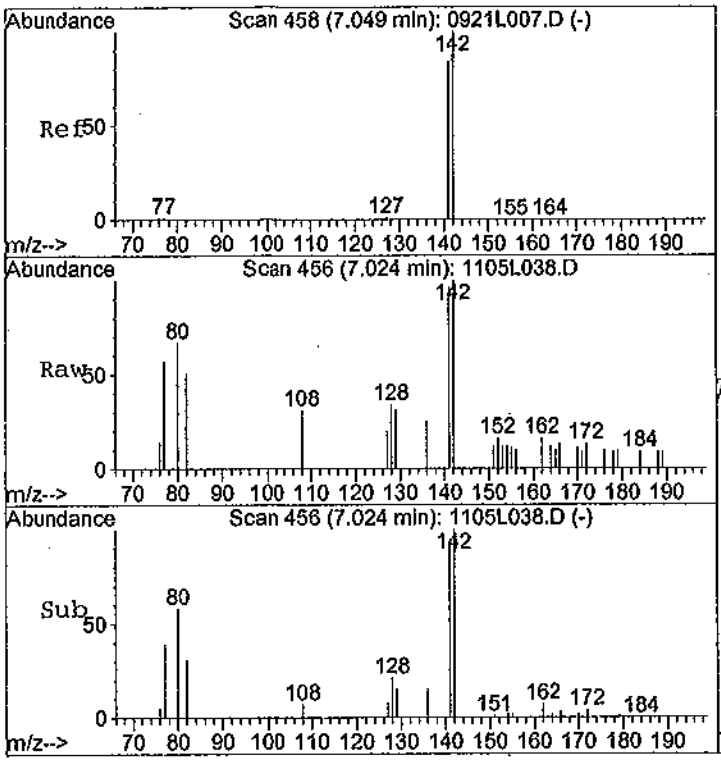


#4
2-Methylnaphthalene
Concen: 0.20154 ppb
RT: 6.93 min Scan# 448
Delta R.T. -0.04 min
Lab File: 1105L038.D
Acq: 6 Nov 11 00:26

Tgt Ion:142 Resp: 176

Ion	Ratio	Lower	Upper
142	100		
141	104.5	68.9	127.9

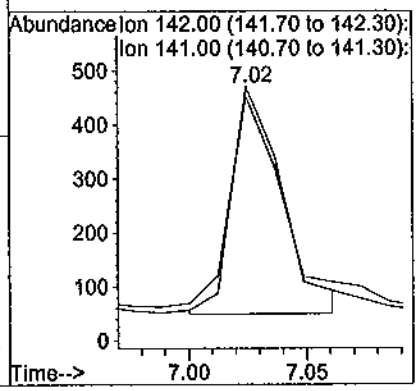


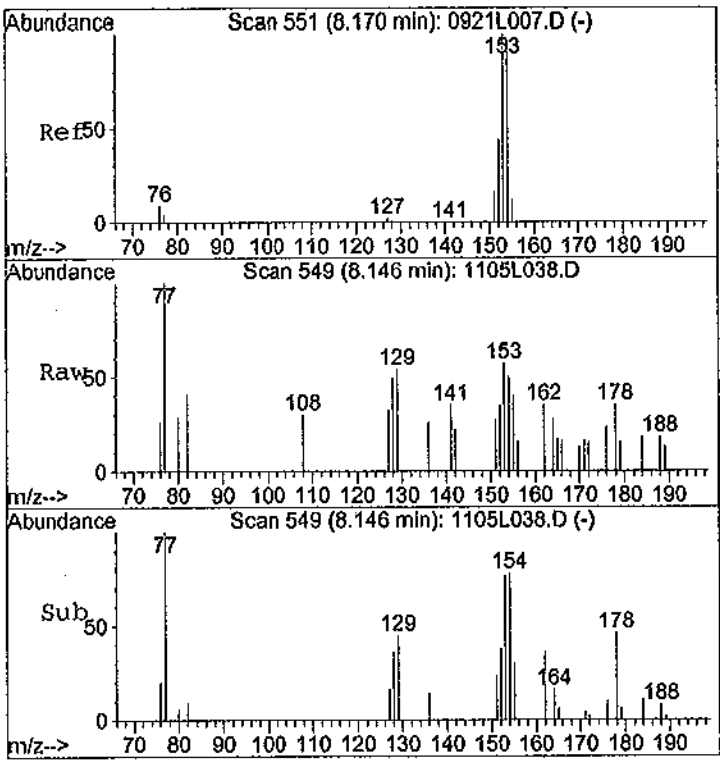


#5
1-Methylnaphthalene
Concen: 0.61508 ppb
RT: 7.02 min Scan# 456
Delta R.T. -0.02 min
Lab File: 1105L038.D
Acq: 6 Nov 11 00:26

Tgt Ion:142 Resp: 620

Ion	Ratio	Lower	Upper
142	100		
141	93.0	70.0	130.0

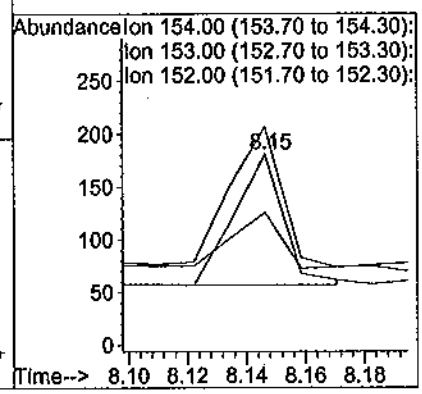


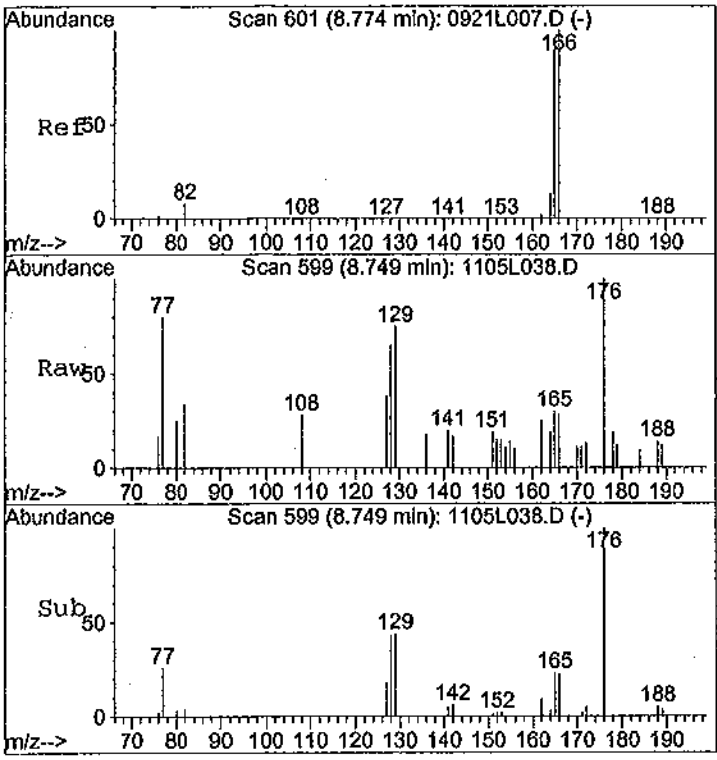


#9
Acenaphthene
Concen: 0.15769 ppb
RT: 8.15 min Scan# 549
Delta R.T. 0.00 min
Lab File: 1105L038.D
Acq: 6 Nov 11 00:26

Tgt Ion:154 Resp: 143

Ion	Ratio	Lower	Upper
154	100		
153	107.3	72.0	133.8
152	41.9	32.1	59.5

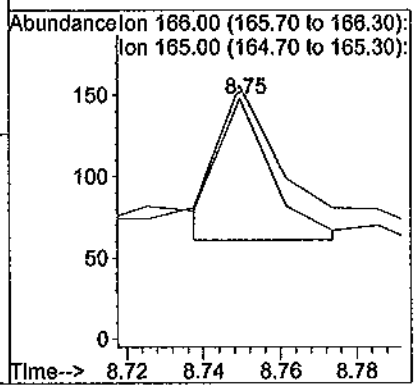




#10
Fluorene
Concen: 0.08264 ppb
RT: 8.75 min Scan# 599
Delta R.T. -0.01 min
Lab File: 1105L038.D
Acq: 6 Nov 11 00:26

Tgt Ion:166 Resp: 82

Ion	Ratio	Lower	Upper
166	100		
165	105.4	65.6	121.8



EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES049
Sample Collection Date: 10/24/11

ARF: 66102
APPL ID: AY49336
QCG: #SIMHC-111031A-161019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	65.0	50-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	64.4	40-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	51.9	50-135			%	10/31/11	11/06/11

Quant Method: SIM2.M
Run #: 1105L039
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 11/09/11 3:59:14 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L039.D Vial: 39
Acq On : 6 Nov 11 00:51 Operator: LF
Sample : AY49336W10 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:20 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2268	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	1052	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	1894	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.94	240	2526	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.57	264	2131	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.46	82	523	1.25007 ppb	0.01
Spiked Amount 1.942			Recovery = 64.375%		
7) Surrogate Recovery (FBP)	7.36	172	1220	1.26300 ppb	0.01
Spiked Amount 1.942			Recovery = 65.045%		
17) Surrogate Recovery (TPH)	11.71	244	1129	1.00774 ppb	0.00
Spiked Amount 1.942			Recovery = 51.912%		

Target Compounds Qvalue

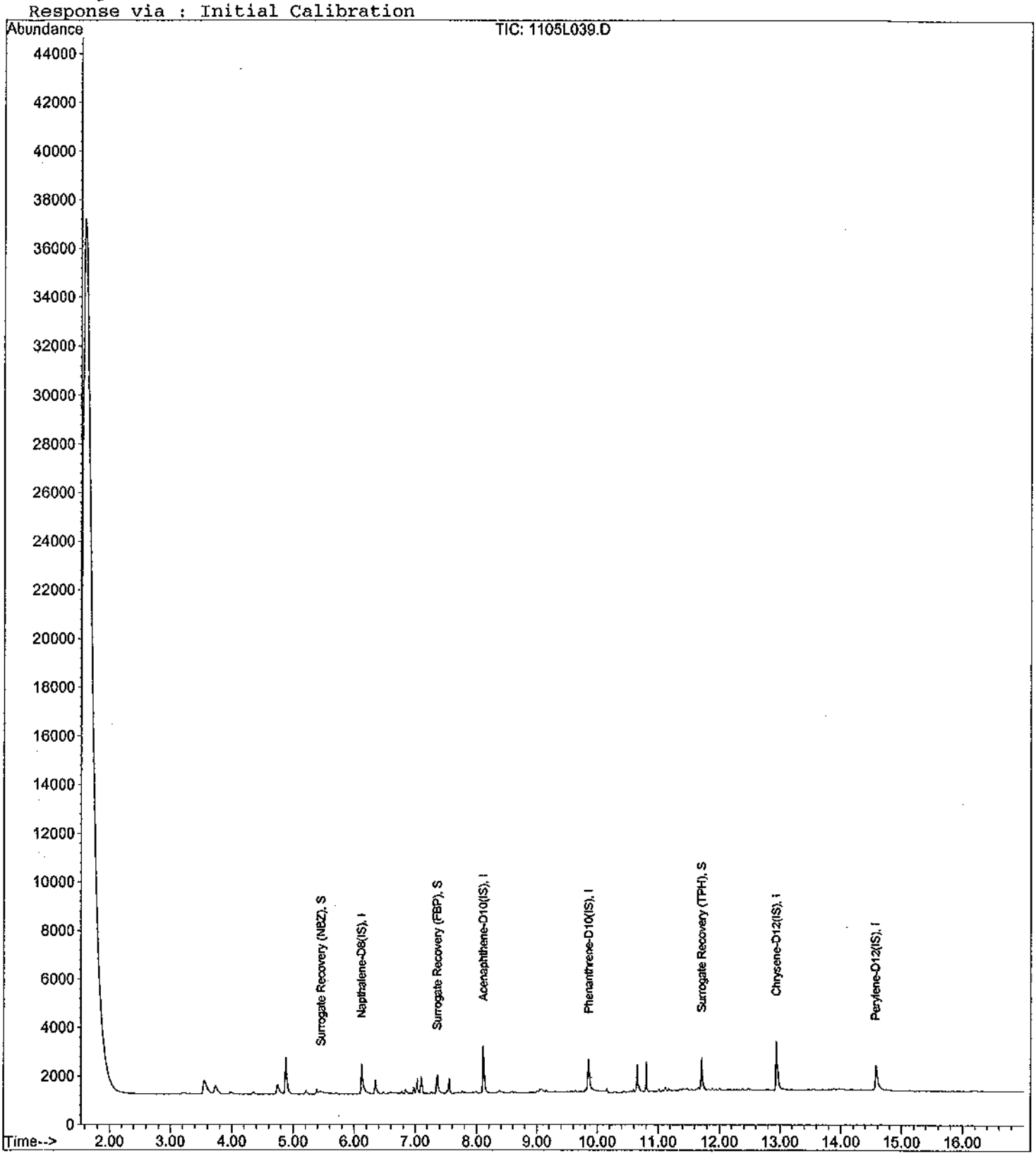
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L039.D Vial: 39
Acq On : 6 Nov 11 00:51 Operator: LF
Sample : AY49336W10 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:20 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

EPA 8270C SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 6612

Case No: Initial Cal. Date: 10/27/11

Matrix: Instrument: Linus

Initials:

			1027L003.D	1027L004.D	1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L009.D	1028L010.D						
		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.4127	0.4673	0.4981	0.4588	0.3927	0.4106	0.4509	0.4908			0.45	8.7	S	
3	TM	Naphthalene	1.848	2.053	1.897	1.975	1.484	1.725	1.497	1.455			1.7	14	TM	
4	TM	2-Methylnaphthalene	0.8339	0.8429	0.8095	0.9618	0.8735	1.026	0.9052	0.8919			0.89	8.0	TM	
5	TM	1-Methylnaphthalene	1.006	1.140	1.127	1.262	0.9445	1.066	0.8694	0.8324			1.0	14	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	2.266	2.373	2.477	2.606	2.184	2.112	1.948	1.864			2.2	11	S	
8	TM	Acenaphthylene	3.556	3.474	3.469	3.747	3.046	3.265	3.097	2.960			3.3	8.4	TM	
9	*TM	Acenaphthene	2.197	2.003	2.015	2.153	1.761	1.820	1.687	1.595			1.9	12	*TM	
10	TM	Fluorene	2.179	2.202	2.246	2.358	1.948	2.057	1.915	1.761			2.1	9.5	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.851	1.670	1.765	1.775	1.470	1.719	1.377	1.248			1.6	13	TM	
13	TM	Anthracene	1.736	1.681	1.869	1.846	1.493	1.754	1.415	1.278			1.6	13	TM	
14	*TM	Fluoranthene	3.116	3.004	3.048	3.052	2.530	3.014	2.407	2.162			2.8	13	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	2.537	2.408	2.291	2.412	2.045	2.168	1.892	1.849			2.2	12	TM	
17	S	Surrogate Recovery (TPH)	1.147	1.155	1.070	1.235	1.097	1.067	0.9366	0.9044			1.1	10	S	
18	TM	Benz (a) anthracene	1.767	1.435	1.243	1.561	1.267	1.372	1.372	1.578			1.4	12	TM	
19	TM	Chrysene	2.135	2.066	2.037	2.114	1.981	2.084	1.655	1.438			1.9	13	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.825	1.519	1.284	1.532	1.378	1.521	1.460	1.500			1.5	10	TM	
21	I	Perylene-D12(IS)														
22	TM	Benzo (b) fluoranthene	1.711	1.652	1.826	1.857	1.789	1.866	1.765	1.625			1.8	5.2	TM	
23	TM	Benzo (k) fluoranthene	2.136	1.797	1.882	1.854	1.869	1.935	1.561	1.548			1.8	11	TM	
24	*TM	Benzo (a) pyrene	2.001	1.899	1.650	1.686	1.673	1.757	1.585	1.533			1.7	9.2	*TM	
25	TM	Dibenz (a,h) anthracene	1.773	1.577	1.175	1.438	1.356	1.477	1.399	1.379			1.4	12	TM	
26	TM	Benzo (g,h,i) perylene	1.410	1.754	1.503	1.639	1.449	1.558	1.444	1.446			1.5	7.8	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3
Acq On : 27 Oct 11 19:12 Operator: LF
Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2908	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1434	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2391	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2986	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2411	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.61	82	48	0.74306 ppb		0.19
Spiked Amount 2.000			Recovery	= 37.150%		
7) Surrogate Recovery (FBP)	7.40	172	130	0.09815 ppb		0.05
Spiked Amount 2.000			Recovery	= 4.900%		
17) Surrogate Recovery (TPH)	11.74	244	137	0.09107 ppb		0.02
Spiked Amount 2.000			Recovery	= 4.550%		
Target Compounds						Qvalue
3) Naphthalene	6.17	128	215	0.10425 ppb		93
4) 2-Methylnaphthalene	7.01	142	97	0.09198 ppb		99
5) 1-Methylnaphthalene	7.08	142	117	0.09071 ppb		97
8) Acenaphthylene	7.99	152	204	0.10524 ppb		99
9) Acenaphthene	8.16	154	126	0.11351 ppb		94
10) Fluorene	8.81	166	125	0.10297 ppb		98
12) Phenanthrene	9.90	178	177	0.11216 ppb		95
13) Anthracene	9.99	178	166	0.10145 ppb		95
14) Fluoranthene	11.30	202	298	0.10883 ppb	#	90
16) Pyrene	11.56	202	303	0.11040 ppb		99
18) Benz (a) anthracene	12.95	228	211	0.11702 ppb		96
19) Chrysene	12.98	228	255	0.09385 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.19	276	218	0.11665 ppb	#	93
22) Benzo (b) fluoranthene	14.15	252	165	0.09422 ppb	#	95
23) Benzo (k) fluoranthene	14.19	252	206	0.11693 ppb		65
24) Benzo (a) pyrene	14.54	252	193	0.11081 ppb		95
25) Dibenz (a,h) anthracene	16.17	278	171	0.11827 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	136	0.08955 ppb	#	89

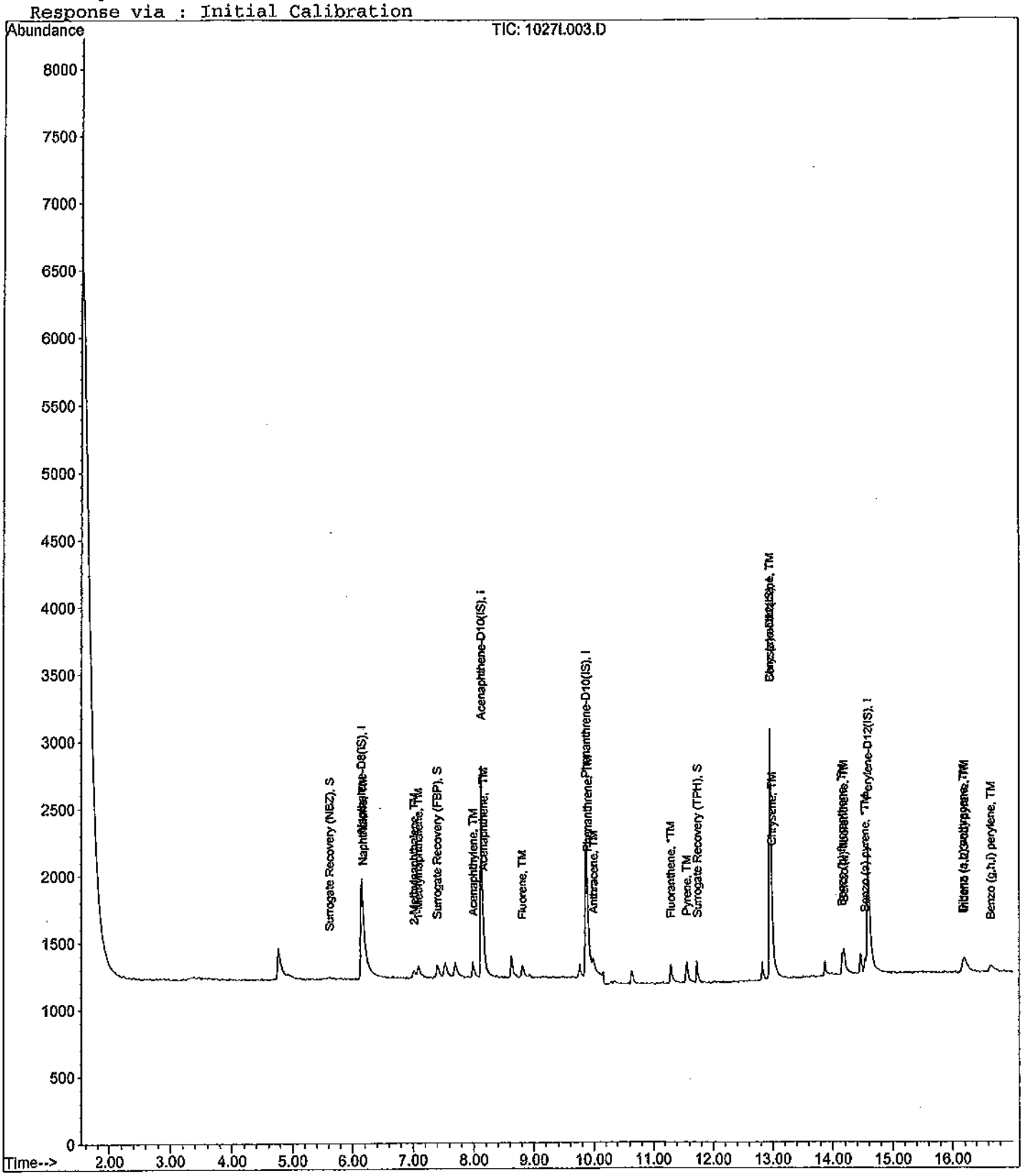
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3
Acq On : 27 Oct 11 19:12 Operator: LF
Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L004.D
Acq On : 27 Oct 11 19:38
Sample : 0.2ug/ml PAH
Misc :

Vial: 4
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2862	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1317	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2305	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2814	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2323	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.60	82	107	0.84083 ppb		0.18
Spiked Amount 2.000			Recovery = 42.050%			
7) Surrogate Recovery (FBP)	7.40	172	250	0.20995 ppb		0.05
Spiked Amount 2.000			Recovery = 10.500%			
17) Surrogate Recovery (TPH)	11.72	244	260	0.18421 ppb		0.01
Spiked Amount 2.000			Recovery = 9.200%			
Target Compounds						Qvalue
3) Naphthalene	6.17	128	470	0.23025 ppb		94
4) 2-Methylnaphthalene	7.00	142	193	0.18513 ppb		92
5) 1-Methylnaphthalene	7.07	142	261	0.20451 ppb		98
8) Acenaphthylene	7.99	152	366	0.20677 ppb		98
9) Acenaphthene	8.16	154	211	0.20826 ppb		87
10) Fluorene	8.81	166	232	0.20927 ppb		99
12) Phenanthrene	9.90	178	308	0.20239 ppb		96
13) Anthracene	9.99	178	310	0.19992 ppb		95
14) Fluoranthene	11.29	202	554	0.20981 ppb		95
16) Pyrene	11.55	202	542	0.21034 ppb	#	91
18) Benz (a) anthracene	12.95	228	323	0.19084 ppb		97
19) Chrysene	12.98	228	465	0.18296 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.17	276	342	0.19494 ppb	#	96
22) Benzo (b) fluoranthene	14.15	252	307	0.18266 ppb		97
23) Benzo (k) fluoranthene	14.19	252	334	0.18857 ppb		64
24) Benzo (a) pyrene	14.54	252	353	0.21468 ppb		96
25) Dibenz (a,h) anthracene	16.16	278	293	0.21252 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	326	0.22362 ppb		88

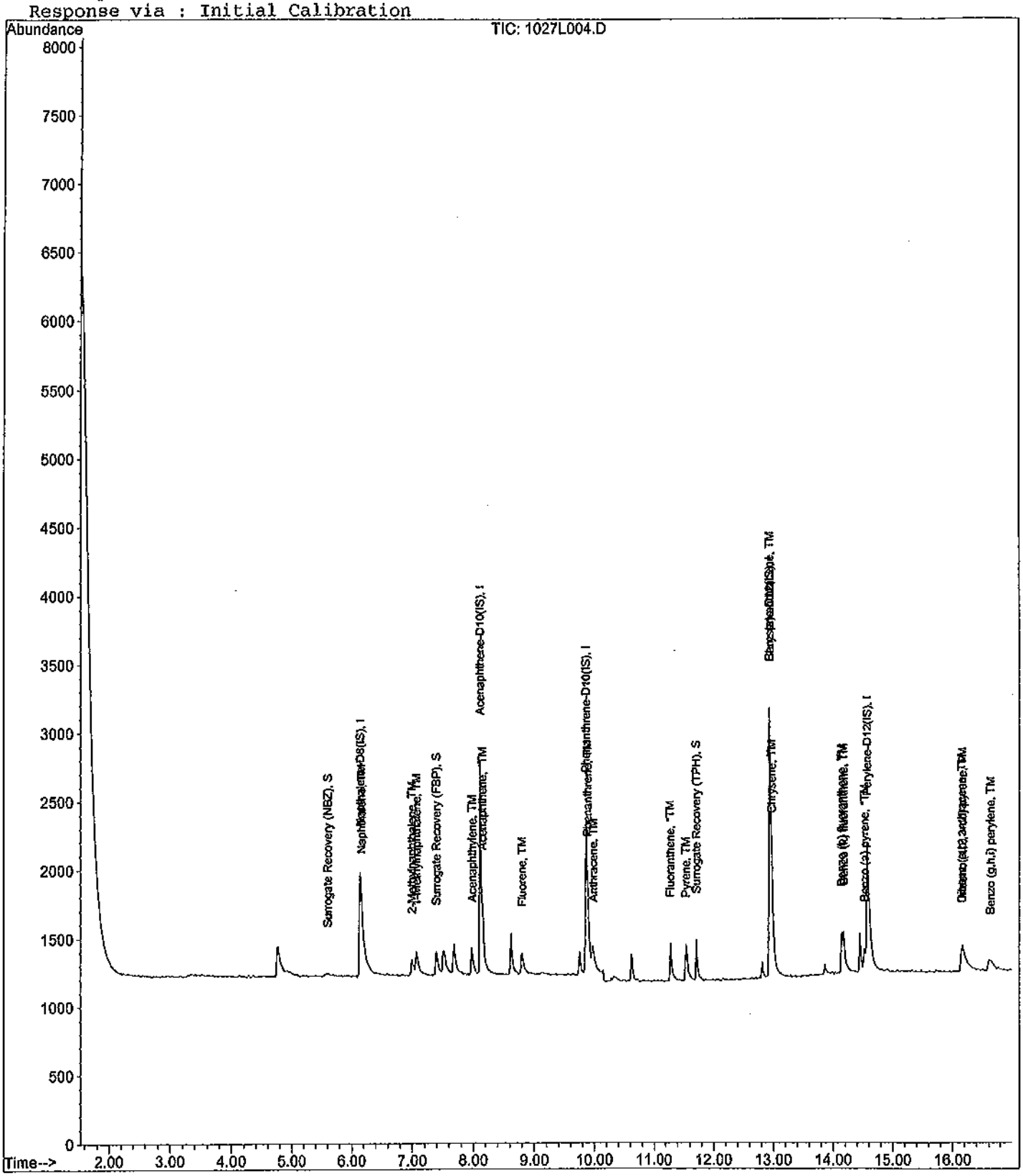
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L004.D Vial: 4
Acq On : 27 Oct 11 19:38 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L005.D Vial: 5
Acq On : 28 Oct 11 11:07 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Sep 29 11:47:40 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2409	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1104	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.87	188	1819	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.95	240	2477	2.50000 ppb		-0.01
21) Perylene-D12(IS)	14.57	264	2043	2.50000 ppb		-0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.60	82	240	1.15802 ppb		0.25
Spiked Amount 2.000			Recovery	= 57.900%		
7) Surrogate Recovery (FBP)	7.39	172	547	0.79241 ppb		0.01
Spiked Amount 2.000			Recovery	= 39.600%		
17) Surrogate Recovery (TPH)	11.74	244	530	0.66674 ppb		-0.02
Spiked Amount 2.000			Recovery	= 33.350%		
Target Compounds						Qvalue
3) Naphthalene	6.17	128	914	0.46769 ppb		98
4) 2-Methylnaphthalene	6.99	142	390	0.33945 ppb		96
5) 1-Methylnaphthalene	7.06	142	543	0.44086 ppb		95
8) Acenaphthylene	7.98	152	766	0.43771 ppb		99
9) Acenaphthene	8.16	154	445	0.43164 ppb		89
10) Fluorene	8.80	166	496	0.42124 ppb		99
12) Phenanthrene	9.90	178	642	0.38630 ppb		97
13) Anthracene	9.98	178	680	0.37229 ppb		95
14) Fluoranthene	11.29	202	1109	0.36672 ppb		96
16) Pyrene	11.55	202	1135	0.35574 ppb		97
18) Benz (a) anthracene	12.95	228	616	0.34309 ppb		98
19) Chrysene	12.98	228	1009	0.43128 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.15	276	636	0.45186 ppb	#	96
22) Benzo (b) fluoranthene	14.14	252	746	0.48527 ppb		98
23) Benzo (k) fluoranthene	14.17	252	769	0.37285 ppb		98
24) Benzo (a) pyrene	14.52	252	674	0.41516 ppb		94
25) Dibenz (a,h) anthracene	16.14	278	480	0.46345 ppb		95
26) Benzo (g,h,i) perylene	16.59	276	614	0.46797 ppb		92

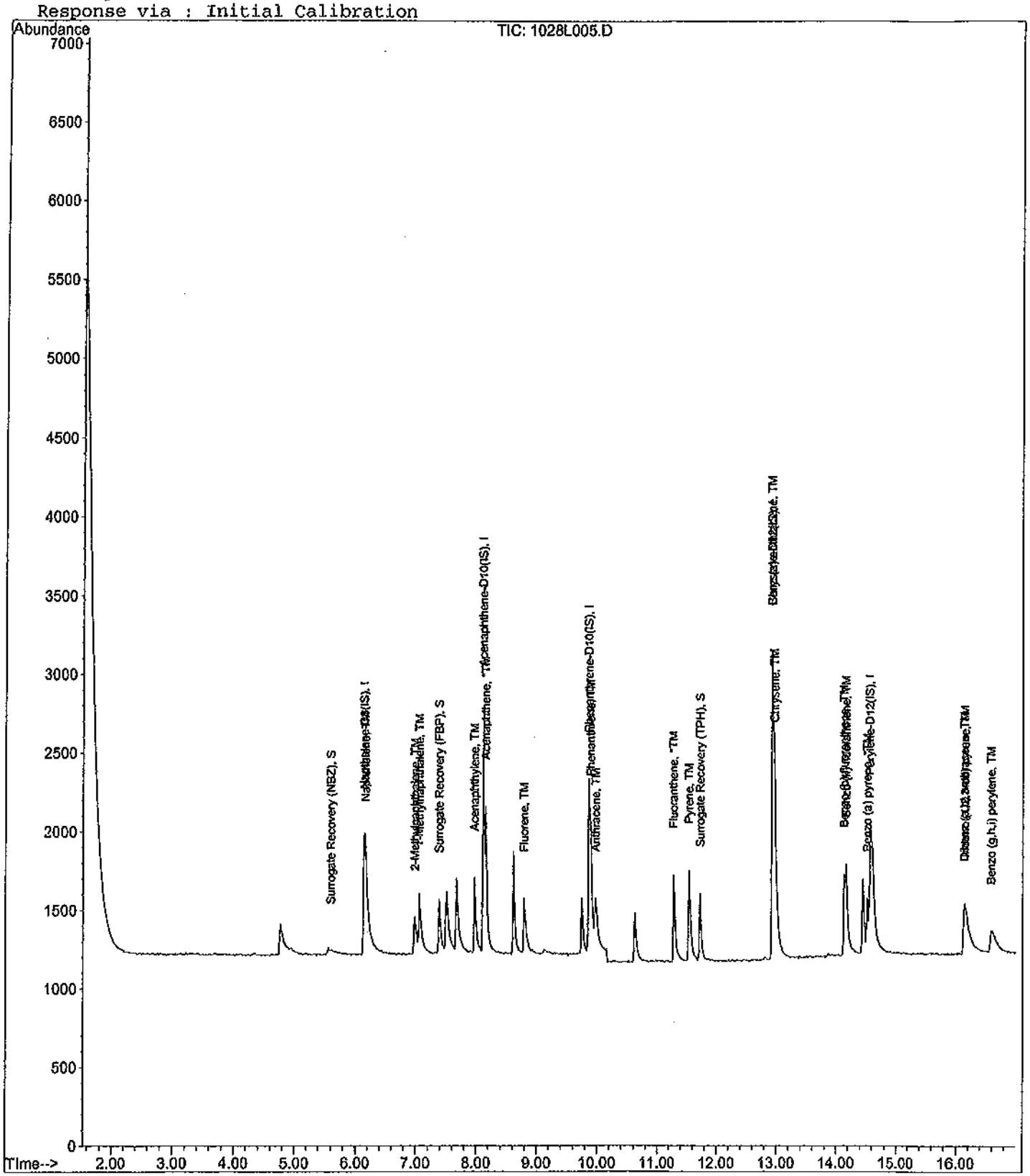
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L005.D Vial: 5
Acq On : 28 Oct 11 11:07 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2381	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.12	164	1089	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.86	188	1865	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	12.95	240	2449	2.50000 ppb		-0.01
21) Perylene-D12(IS)	14.57	264	2032	2.50000 ppb		-0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.54	82	437	1.90266 ppb		0.00
Spiked Amount 2.000			Recovery = 95.150%			
7) Surrogate Recovery (FBP)	7.37	172	1135	1.66686 ppb		0.00
Spiked Amount 2.000			Recovery = 83.350%			
17) Surrogate Recovery (TPH)	11.72	244	1210	1.53959 ppb		-0.04
Spiked Amount 2.000			Recovery = 77.000%			
Target Compounds						Qvalue
3) Naphthalene	6.16	128	1881	0.97382 ppb		98
4) 2-Methylnaphthalene	6.96	142	916	0.80665 ppb		94
5) 1-Methylnaphthalene	7.05	142	1202	0.98738 ppb		89
8) Acenaphthylene	7.96	152	1632	0.94540 ppb		98
9) Acenaphthene	8.16	154	938	0.92237 ppb		91
10) Fluorene	8.79	166	1027	0.88422 ppb		98
12) Phenanthrene	9.90	178	1324	0.77703 ppb		99
13) Anthracene	9.97	178	1377	0.73529 ppb		98
14) Fluoranthene	11.28	202	2277	0.73437 ppb	#	94
16) Pyrene	11.54	202	2363	0.74909 ppb		97
18) Benz (a) anthracene	12.94	228	1529	0.86133 ppb		99
19) Chrysene	12.97	228	2071	0.89534 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.12	276	1501	1.07861 ppb	#	92
22) Benzo (b) fluoranthene	14.13	252	1509	0.98690 ppb	#	96
23) Benzo (k) fluoranthene	14.16	252	1507	0.73463 ppb		96
24) Benzo (a) pyrene	14.51	252	1370	0.84844 ppb		98
25) Dibenz (a,h) anthracene	16.12	278	1169	1.13481 ppb		97
26) Benzo (g,h,i) perylene	16.58	276	1332	1.02070 ppb		98

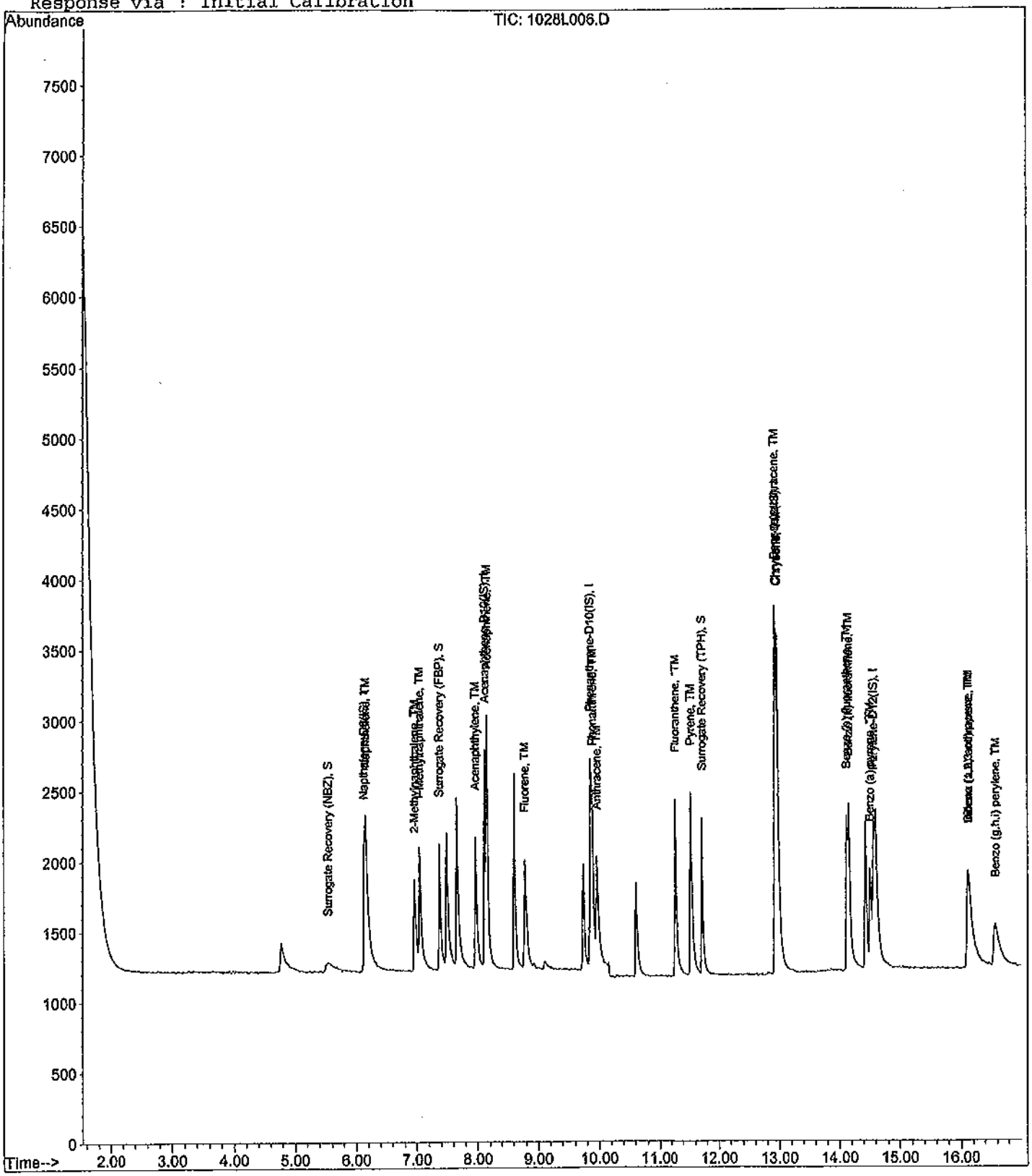
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L007.D Vial: 7
Acq On : 28 Oct 11 11:58 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2479	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1083	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1851	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.93	240	2378	2.50000 ppb		-0.04
21) Perylene-D12(IS)	14.56	264	1871	2.50000 ppb		-0.04
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.42	82	1947	7.24379 ppb		-0.12
Spiked Amount 2.000			Recovery	= 362.200%		
7) Surrogate Recovery (FBP)	7.35	172	4731	6.98644 ppb		-0.02
Spiked Amount 2.000			Recovery	= 349.300%		
17) Surrogate Recovery (TPH)	11.71	244	5216	6.83493 ppb		-0.05
Spiked Amount 2.000			Recovery	= 341.750%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7358	3.65875 ppb		99
4) 2-Methylnaphthalene	6.93	142	4331	3.66320 ppb		98
5) 1-Methylnaphthalene	7.04	142	4683	3.69477 ppb		97
8) Acenaphthylene	7.95	152	6597	3.84274 ppb		100
9) Acenaphthene	8.15	154	3814	3.77124 ppb		92
10) Fluorene	8.76	166	4219	3.65257 ppb		99
12) Phenanthrene	9.87	178	5443	3.21854 ppb		98
13) Anthracene	9.94	178	5527	2.97363 ppb		99
14) Fluoranthene	11.26	202	9367	3.04387 ppb		98
16) Pyrene	11.51	202	9724	3.17462 ppb		97
18) Benz (a) anthracene	12.91	228	6027	3.49657 ppb		98
19) Chrysene	12.96	228	9422	4.19498 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6554	4.85029 ppb		95
22) Benzo (b) fluoranthene	14.10	252	6693	4.75397 ppb	#	96
23) Benzo (k) fluoranthene	14.14	252	6995	3.70332 ppb		99
24) Benzo (a) pyrene	14.49	252	6259	4.20974 ppb		98
25) Dibenz (a,h) anthracene	16.08	278	5075	5.35048 ppb		97
26) Benzo (g,h,i) perylene	16.51	276	5423	4.51321 ppb		98

(#) = qualifier out of range (m) = manual integration

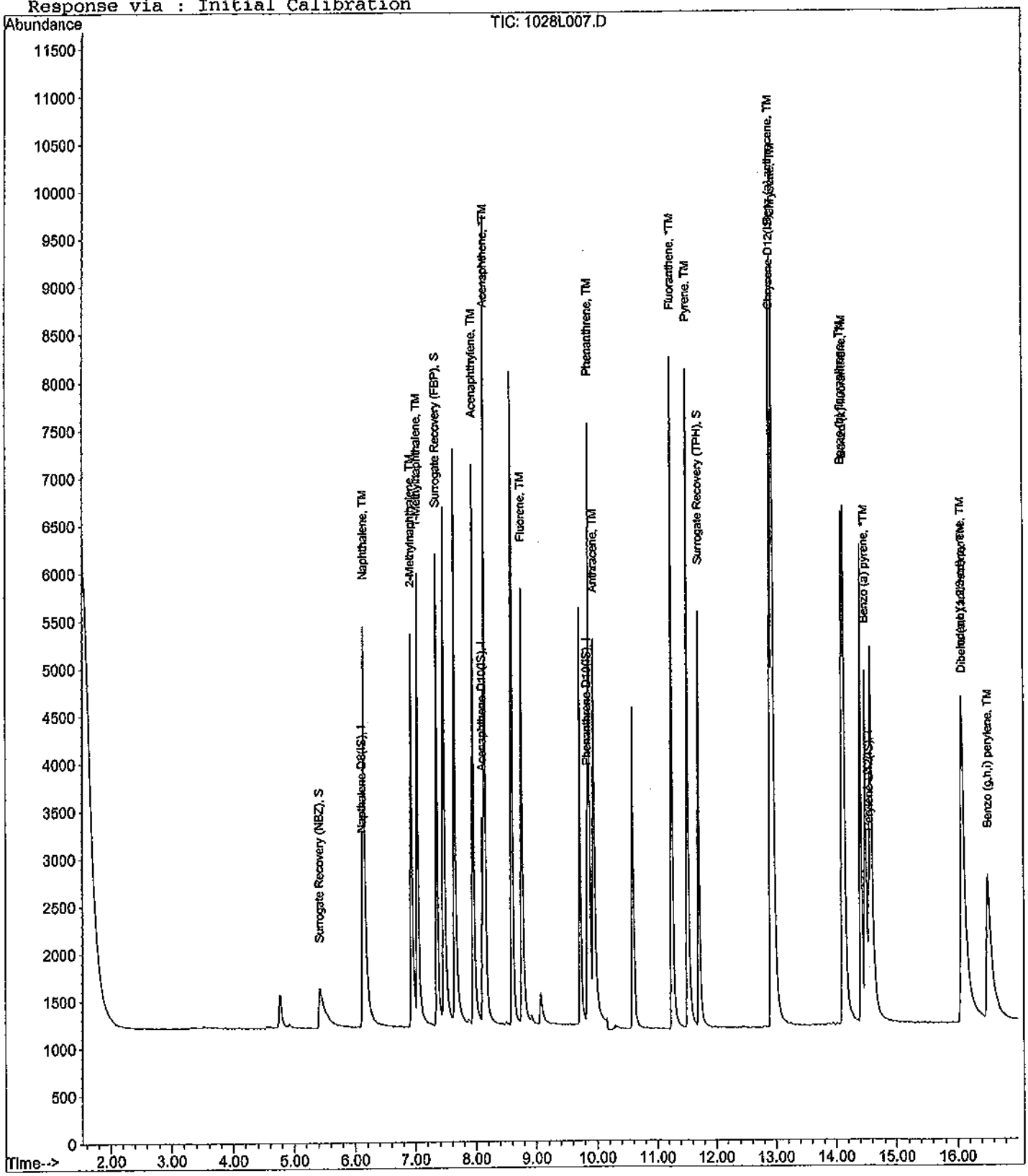
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L007.D
Acq On : 28 Oct 11 11:58
Sample : 5.0ug/ml PAH
Misc :

Vial: 7
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8
Acq On : 28 Oct 11 12:23 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2419	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1154	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1800	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.91	240	2580	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.55	264	2113	2.50000 ppb		-0.05
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	3973	14.84926 ppb		-0.16
Spiked Amount 2.000			Recovery = 742.450%			
7) Surrogate Recovery (FBP)	7.35	172	9747	13.50818 ppb		-0.02
Spiked Amount 2.000			Recovery = 675.400%			
17) Surrogate Recovery (TPH)	11.70	244	11014	13.30251 ppb		-0.06
Spiked Amount 2.000			Recovery = 665.150%			
Target Compounds						Qvalue
3) Naphthalene	6.13	128	16688	8.50390 ppb		99
4) 2-Methylnaphthalene	6.92	142	9930	8.60721 ppb		100
5) 1-Methylnaphthalene	7.02	142	10317	8.34175 ppb		92
8) Acenaphthylene	7.95	152	15071	8.23870 ppb		99
9) Acenaphthene	8.15	154	8403	7.79759 ppb		97
10) Fluorene	8.75	166	9496	7.71528 ppb		98
12) Phenanthrene	9.87	178	12375	7.52487 ppb		99
13) Anthracene	9.93	178	12631	6.98825 ppb		99
14) Fluoranthene	11.25	202	21698	7.25069 ppb	#	93
16) Pyrene	11.50	202	22373	6.73230 ppb	#	85
18) Benz (a) anthracene	12.91	228	14154	7.56854 ppb		100
19) Chrysene	12.95	228	21503	8.82425 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.03	276	15698	10.70773 ppb	#	96
22) Benzo (b) fluoranthene	14.09	252	15772	9.91966 ppb		96
23) Benzo (k) fluoranthene	14.13	252	16351	7.66517 ppb		98
24) Benzo (a) pyrene	14.48	252	14853	8.84584 ppb		98
25) Dibenz (a,h) anthracene	16.05	278	12481	11.65147 ppb		96
26) Benzo (g,h,i) perylene	16.47	276	13167	9.70302 ppb		97

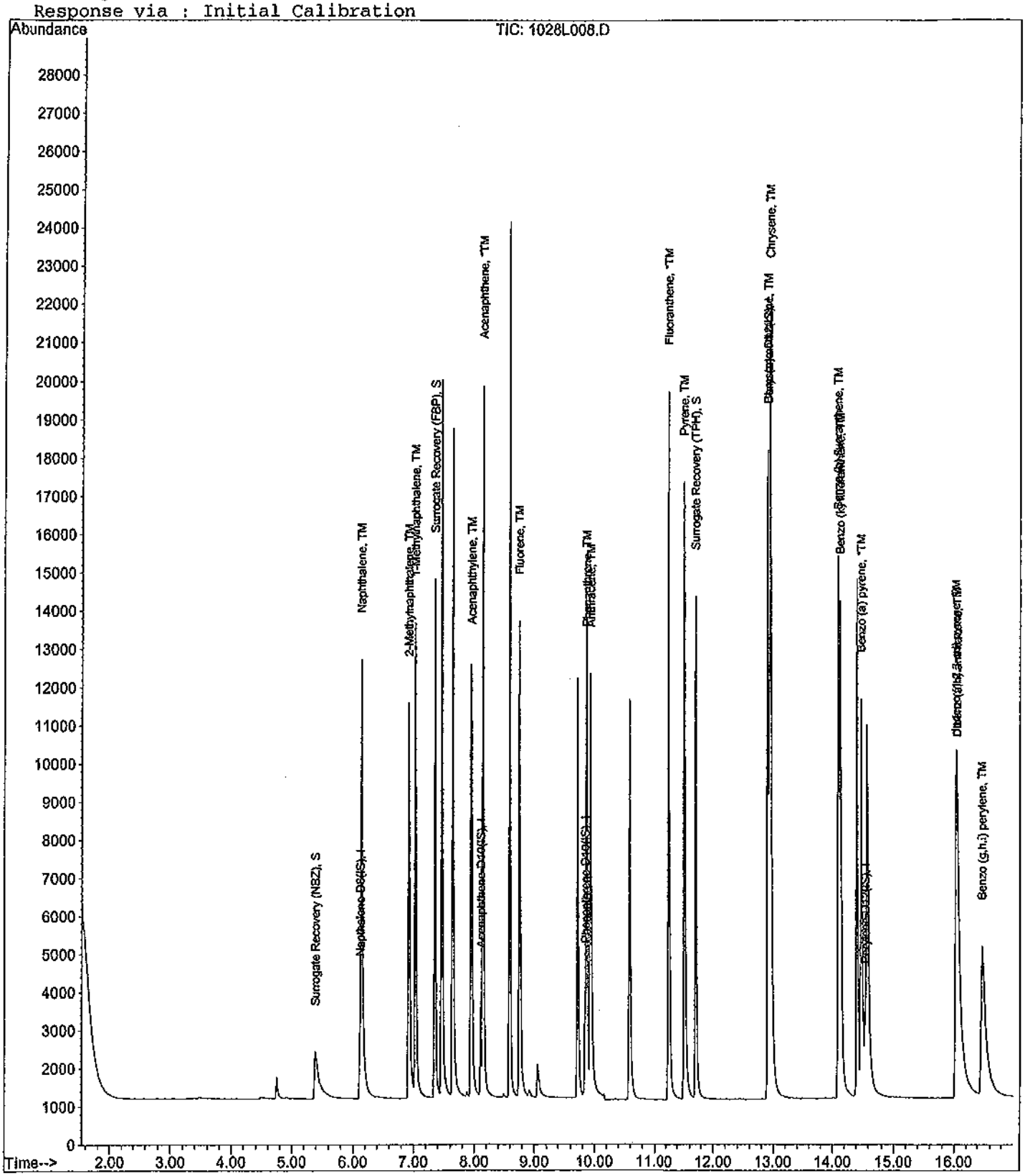
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8
Acq On : 28 Oct 11 12:23 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L009.D Vial: 9
Acq On : 28 Oct 11 12:49 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2170	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	955	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1764	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2325	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1951	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.34	82	19569	80.30257 ppb		0.00
Spiked Amount 2.000			Recovery	= 4015.150%		
7) Surrogate Recovery (FBP)	7.34	172	37203	62.30259 ppb		-0.04
Spiked Amount 2.000			Recovery	= 3115.150%		
17) Surrogate Recovery (TPH)	11.70	244	43552	58.37048 ppb		-0.06
Spiked Amount 2.000			Recovery	= 2918.500%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	64981	36.91273 ppb		98
4) 2-Methylnaphthalene	6.92	142	39285	37.95912 ppb		91
5) 1-Methylnaphthalene	7.02	142	37731	34.00777 ppb		98
8) Acenaphthylene	7.94	152	59152	39.07406 ppb		100
9) Acenaphthene	8.13	154	32228	36.13782 ppb		90
10) Fluorene	8.75	166	36584	35.91740 ppb		95
12) Phenanthrene	9.86	178	48574	30.13920 ppb		99
13) Anthracene	9.92	178	49934	28.19038 ppb		99
14) Fluoranthene	11.23	202	84927	28.95874 ppb	#	86
16) Pyrene	11.50	202	87985	29.37950 ppb		93
18) Benz (a) anthracene	12.90	228	63776	37.84310 ppb		99
19) Chrysene	12.94	228	76944	35.03889 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.01	276	67886	51.38427 ppb		97
22) Benzo (b) fluoranthene	14.09	252	68863	46.90706 ppb	#	96
23) Benzo (k) fluoranthene	14.12	252	60905	30.92236 ppb		100
24) Benzo (a) pyrene	14.45	252	61841	39.88811 ppb	#	94
25) Dibenz (a,h) anthracene	16.02	278	54590	55.19334 ppb		99
26) Benzo (g,h,i) perylene	16.44	276	56362	44.98303 ppb		98

(#) = qualifier out of range (m) = manual integration

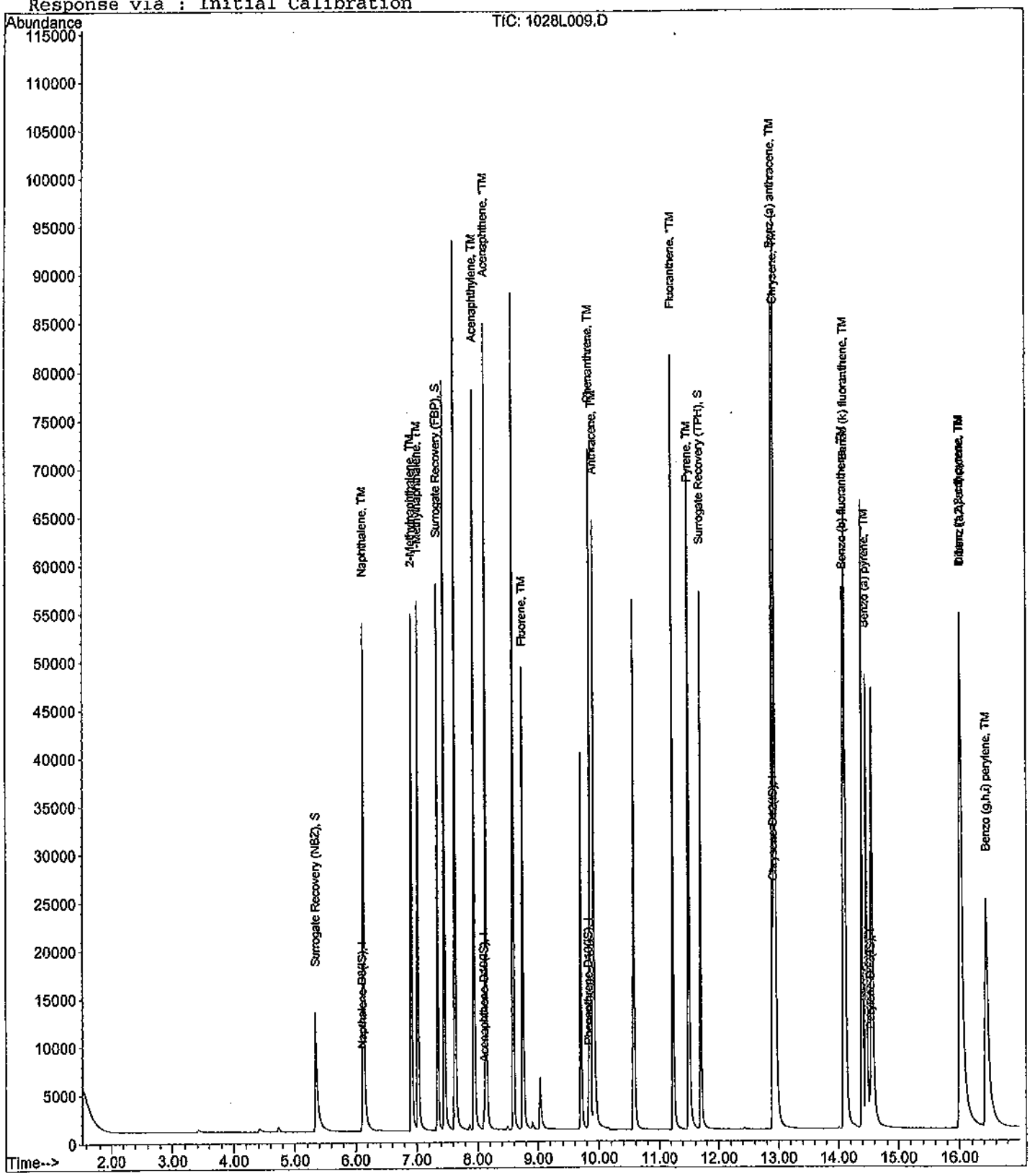
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L009.D
Acq On : 28 Oct 11 12:49
Sample : 50ug/ml PAH
Misc :

Vial: 9
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L010.D Vial: 10
Acq On : 28 Oct 11 13:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2028	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	919	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1786	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2218	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1949	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	39811	174.48341 ppb		-0.01
Spiked Amount 2.000			Recovery	= 8724.150%		
7) Surrogate Recovery (FBP)	7.34	172	68503	119.21355 ppb		-0.04
Spiked Amount 2.000			Recovery	= 5960.700%		
17) Surrogate Recovery (TPH)	11.70	244	80239	112.72808 ppb		-0.06
Spiked Amount 2.000			Recovery	= 5636.400%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	118023	71.73782 ppb		98
4) 2-Methylnaphthalene	6.92	142	72350	74.80311 ppb		91
5) 1-Methylnaphthalene	7.02	142	67525	65.12327 ppb		99
8) Acenaphthylene	7.94	152	108807	74.69023 ppb		99
9) Acenaphthene	8.13	154	58631	68.31936 ppb		89
10) Fluorene	8.75	166	64716	66.02573 ppb		95
12) Phenanthrene	9.86	178	89156	54.63809 ppb		98
13) Anthracene	9.92	178	91266	50.88980 ppb		98
14) Fluoranthene	11.23	202	154470	52.02296 ppb	#	84
16) Pyrene	11.50	202	164055	57.42311 ppb	#	90
18) Benz (a) anthracene	12.90	228	140011	87.08694 ppb		99
19) Chrysene	12.94	228	127613	60.91607 ppb	#	95
20) Indeno (1,2,3-cd) pyrene	16.02	276	133093	105.60065 ppb	#	87
22) Benzo (b) fluoranthene	14.09	252	126697	86.39011 ppb		96
23) Benzo (k) fluoranthene	14.12	252	120651	61.31914 ppb	#	94
24) Benzo (a) pyrene	14.47	252	119503	77.15982 ppb		95
25) Dibenz (a,h) anthracene	16.03	278	107509	108.80876 ppb		91
26) Benzo (g,h,i) perylene	16.44	276	112699	90.03841 ppb		99

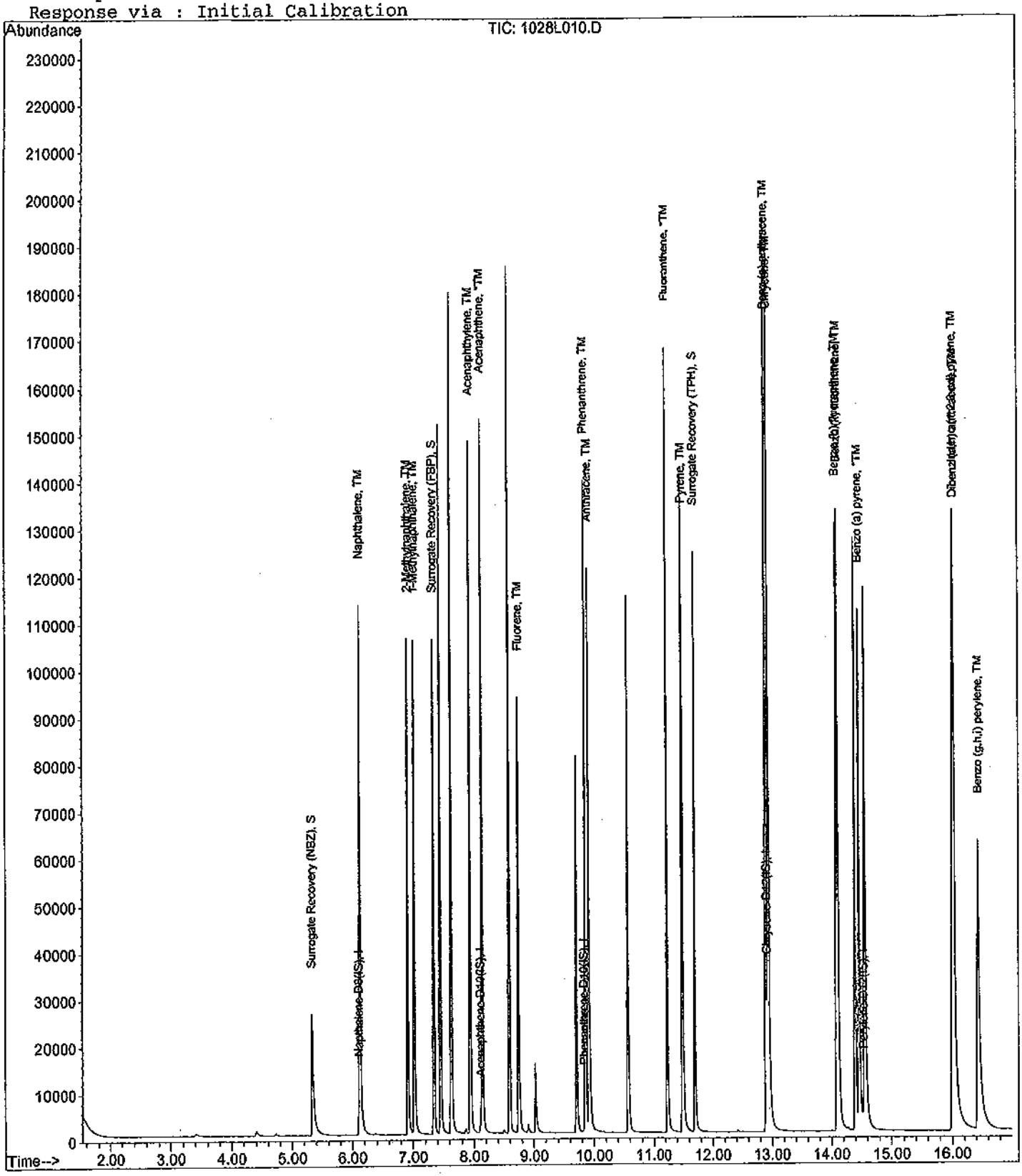
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L010.D Vial: 10
Acq On : 28 Oct 11 13:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66102
Date Analyzed: 10/28/11
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1028L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	TM	Naphthalene	1.742	1.546	11	TM	
3	TM	2-Methylnaphthalene	0.8931	0.8782	1.7	TM	
4	TM	1-Methylnaphthalene	1.031	1.007	2.4	TM	
5	I	Acenaphthene-D10(IS)	ISTD			I	
6	TM	Acenaphthylene	3.327	3.132	5.8	TM	
7	*TM	Acenaphthene	1.904	1.812	4.8	*TM	
8	TM	Fluorene	2.083	1.993	4.3	TM	
9	I	Phenanthrene-D10(IS)	ISTD			I	
10	TM	Phenanthrene	1.609	1.555	3.4	TM	
11	TM	Anthracene	1.634	1.624	0.64	TM	
12	*TM	Fluoranthene	2.792	2.916	4.4	*TM	
13	I	Chrysene-D12(IS)	ISTD			I	
14	TM	Pyrene	2.200	2.429	10	TM	
15	TM	Benz (a) anthracene	1.449	1.392	3.9	TM	
16	TM	Chrysene	1.939	2.190	13	TM	
17	TM	Indeno (1,2,3-cd) pyrene	1.502	1.468	2.3	TM	
18	I	Perylene-D12(IS)	ISTD			I	
19	TM	Benzo (b) fluoranthene	1.761	1.686	4.3	TM	
20	TM	Benzo (k) fluoranthene	1.823	2.176	19	TM	
21	*TM	Benzo (a) pyrene	1.723	1.689	1.9	*TM	
22	TM	Dibenz (a,h) anthracene	1.447	1.354	6.4	TM	
23	TM	Benzo (g,h,I) perylene	1.525	1.483	2.8	TM	
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.7		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L011.D Vial: 11
Acq On : 28 Oct 11 13:40 Operator: LF
Sample : 5.0ug/ml SS PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 11:15:17 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2295	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.11	164	1033	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1773	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2205	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	1840	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
17) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7095	4.43732 ppb		99
4) 2-Methylnaphthalene	6.93	142	4031	4.91655 ppb		99
5) 1-Methylnaphthalene	7.04	142	4620	4.88168 ppb		94
8) Acenaphthylene	7.95	152	6471	4.70758 ppb		99
9) Acenaphthene	8.15	154	3744	4.75904 ppb		91
10) Fluorene	8.76	166	4117	4.78272 ppb		99
12) Phenanthrene	9.87	178	5514	4.83130 ppb		99
13) Anthracene	9.94	178	5757	4.96794 ppb		98
14) Fluoranthene	11.26	202	10339	5.22192 ppb		93
16) Pyrene	11.51	202	10711	5.51952 ppb	#	91
18) Benz (a) anthracene	12.93	228	6140	4.80346 ppb		99
19) Chrysene	12.96	228	9659	5.64891 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6475	4.88617 ppb	#	91
22) Benzo (b) fluoranthene	14.12	252	6204	4.78607 ppb		99
23) Benzo (k) fluoranthene	14.14	252	8006	5.96784 ppb	#	65
24) Benzo (a) pyrene	14.49	252	6217	4.90268 ppb		97
25) Dibenz (a,h) anthracene	16.08	278	4984	4.68078 ppb		96
26) Benzo (g,h,i) perylene	16.52	276	5458	4.86160 ppb		99

(#) = qualifier out of range (m) = manual integration

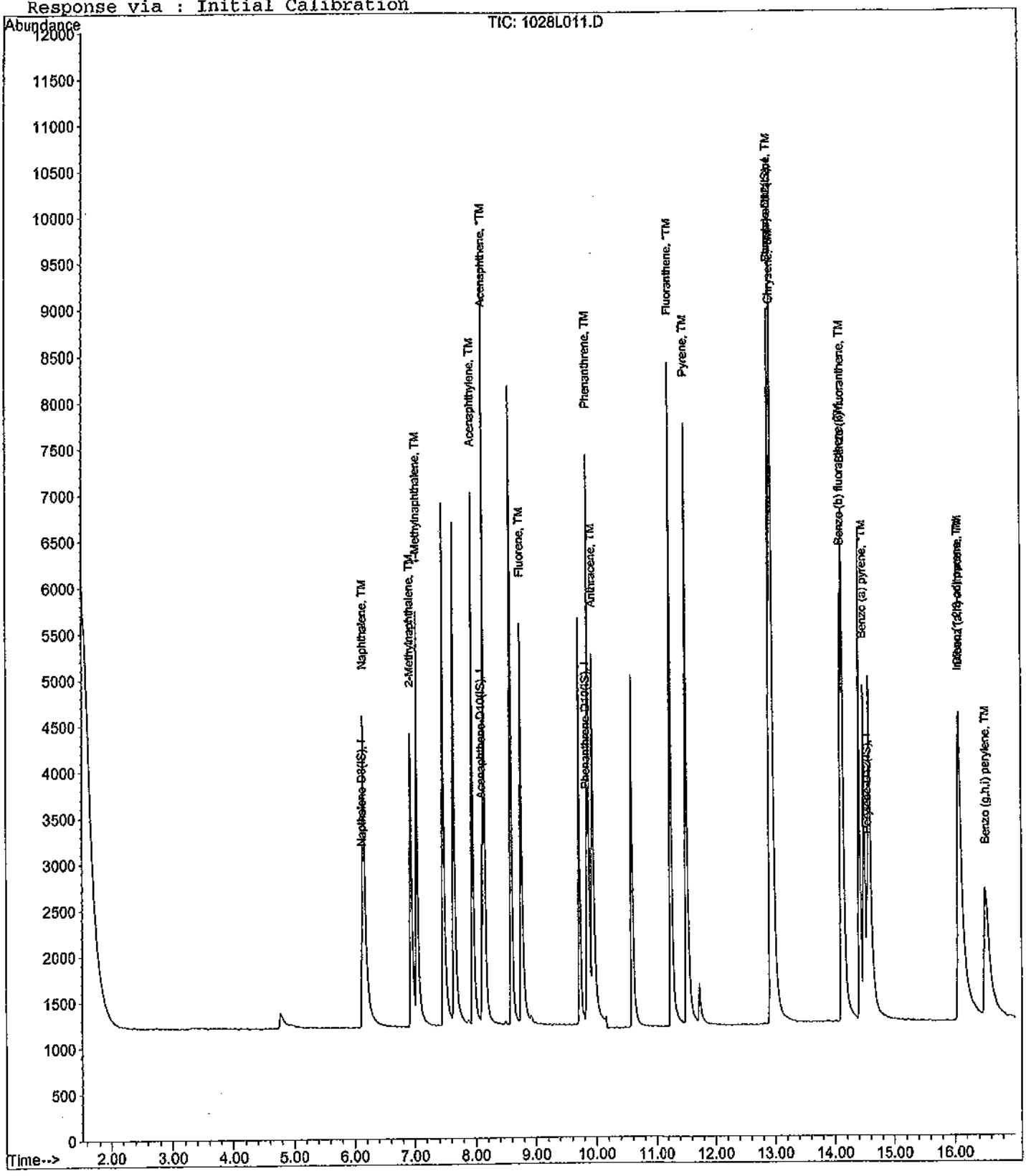
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L011.D
Acq On : 28 Oct 11 13:40
Sample : 5.0ug/ml SS PAH 10-27-11
Misc :

Vial: 11
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66602
Date Analyzed: 5 Nov 11 16:54
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1105L020.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4477	0.4479	0.03	S	
3	TM	Naphthalene	1.742	1.518	13	TM	
4	TM	2-Methylnaphthalene	0.8931	0.9102	1.9	TM	
5	TM	1-Methylnaphthalene	1.031	0.9456	8.3	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	2.229	2.036	8.6	S	
8	TM	Acenaphthylene	3.327	3.080	7.4	TM	
9	*TM	Acenaphthene	1.904	1.695	11	*TM	
10	TM	Fluorene	2.083	1.961	5.9	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.609	1.494	7.2	TM	
13	TM	Anthracene	1.634	1.588	2.8	TM	
14	*TM	Fluoranthene	2.792	2.868	2.7	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	2.200	2.193	0.31	TM	
17	S	Surrogate Recovery (TPH)	1.077	1.106	2.7	S	
18	TM	Benz (a) anthracene	1.449	1.737	20	TM	
19	TM	Chrysene	1.939	1.906	1.7	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.502	1.682	12	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.761	1.921	9.1	TM	
23	TM	Benzo (k) fluoranthene	1.823	1.713	6.0	TM	
24	*TM	Benzo (a) pyrene	1.723	1.698	1.4	*TM	
25	TM	Dibenz (a,h) anthracene	1.447	1.482	2.5	TM	
26	TM	Benzo (g,h,i) perylene	1.525	1.535	0.66	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L020.D Vial: 20
Acq On : 5 Nov 11 16:54 Operator: LF
Sample : 5.0ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 9:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.11	136	1948	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.11	164	877	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	1506	2.50000 ppb	0.00
15) Chrysene-D12(IS)	12.93	240	2029	2.50000 ppb	0.00
21) Perylene-D12(IS)	14.56	264	1837	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.38	82	1745	5.00173 ppb	-0.06
Spiked Amount 2.000			Recovery	= 250.100%	
7) Surrogate Recovery (FBP)	7.35	172	3572	4.56887 ppb	0.00
Spiked Amount 2.000			Recovery	= 228.450%	
17) Surrogate Recovery (TPH)	11.70	244	4488	5.13686 ppb	-0.01
Spiked Amount 2.000			Recovery	= 256.850%	
Target Compounds					Qvalue
3) Naphthalene	6.13	128	5914	4.35756 ppb	99
4) 2-Methylnaphthalene	6.92	142	3546	5.09542 ppb	94
5) 1-Methylnaphthalene	7.02	142	3684	4.58607 ppb	92
8) Acenaphthylene	7.95	152	5403	4.62980 ppb	99
9) Acenaphthene	8.15	154	2973	4.45122 ppb	95
10) Fluorene	8.75	166	3440	4.70710 ppb	96
12) Phenanthrene	9.87	178	4499	4.64084 ppb	100
13) Anthracene	9.93	178	4783	4.85919 ppb	97
14) Fluoranthene	11.26	202	8637	5.13568 ppb	98
16) Pyrene	11.51	202	8901	4.98467 ppb	97
18) Benz (a) anthracene	12.91	228	7049	5.99294 ppb	98
19) Chrysene	12.96	228	7735	4.91608 ppb	98
20) Indeno (1,2,3-cd) pyrene	16.06	276	6825	5.59703 ppb #	91
22) Benzo (b) fluoranthene	14.10	252	7058	5.45378 ppb	97
23) Benzo (k) fluoranthene	14.14	252	6292	4.69785 ppb	95
24) Benzo (a) pyrene	14.49	252	6239	4.92807 ppb	99
25) Dibenz (a,h) anthracene	16.06	278	5446	5.12302 ppb	99
26) Benzo (g,h,i) perylene	16.51	276	5641	5.03281 ppb	96

(#) = qualifier out of range (m) = manual integration

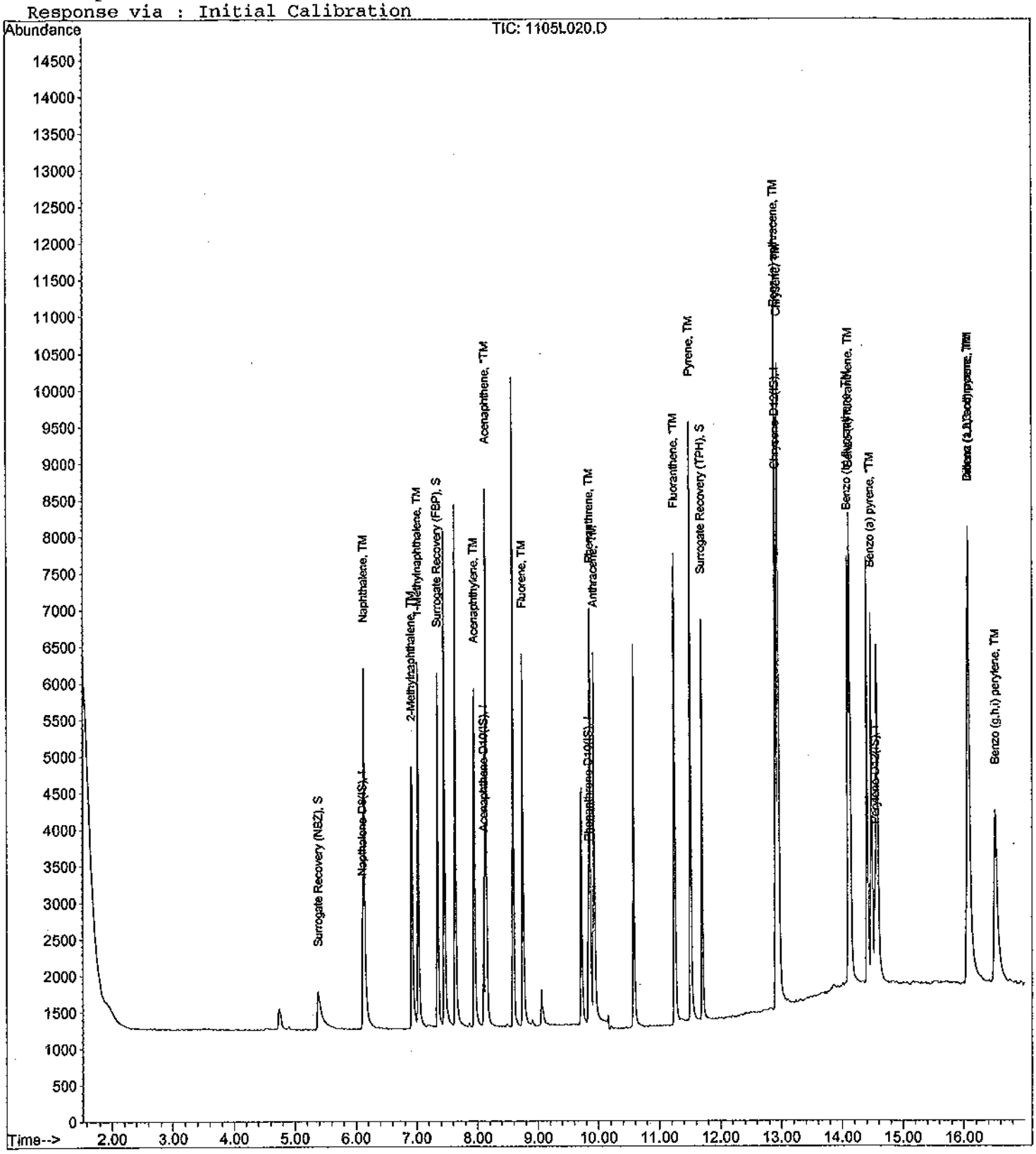
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L020.D
Acq On : 5 Nov 11 16:54
Sample : 5.0ug/ml PAH 10-27-11
Misc :

Vial: 20
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 8 9:47 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **111031W-49334 - 161019**
Batch ID: #SIMHC-111031A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	SURROGATE: 2-FLUORBIPHENY	51.7	50-110			%	10/31/11	11/05/11
BLANK	SURROGATE: NITROBENZENE-	66.3	40-110			%	10/31/11	11/05/11
BLANK	SURROGATE: TERPHENYL-D14 (	54.5	50-135			%	10/31/11	11/05/11

Quant Method:SIM2.M
Run #:1105L028
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 11/09/11 3:59:20 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L028.D
Acq On : 5 Nov 11 20:15
Sample : 111031A BLK 1/1000
Misc :

Vial: 28
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 9 8:48 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2305	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	1068	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	2122	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.94	240	2454	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.57	264	2143	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.42	82	547	1.32504 ppb	-0.02
Spiked Amount 2.000			Recovery = 66.250%		
7) Surrogate Recovery (FBP)	7.36	172	984	1.03352 ppb	0.01
Spiked Amount 2.000			Recovery = 51.700%		
17) Surrogate Recovery (TPH)	11.71	244	1151	1.08925 ppb	0.00
Spiked Amount 2.000			Recovery = 54.450%		

Target Compounds Qvalue

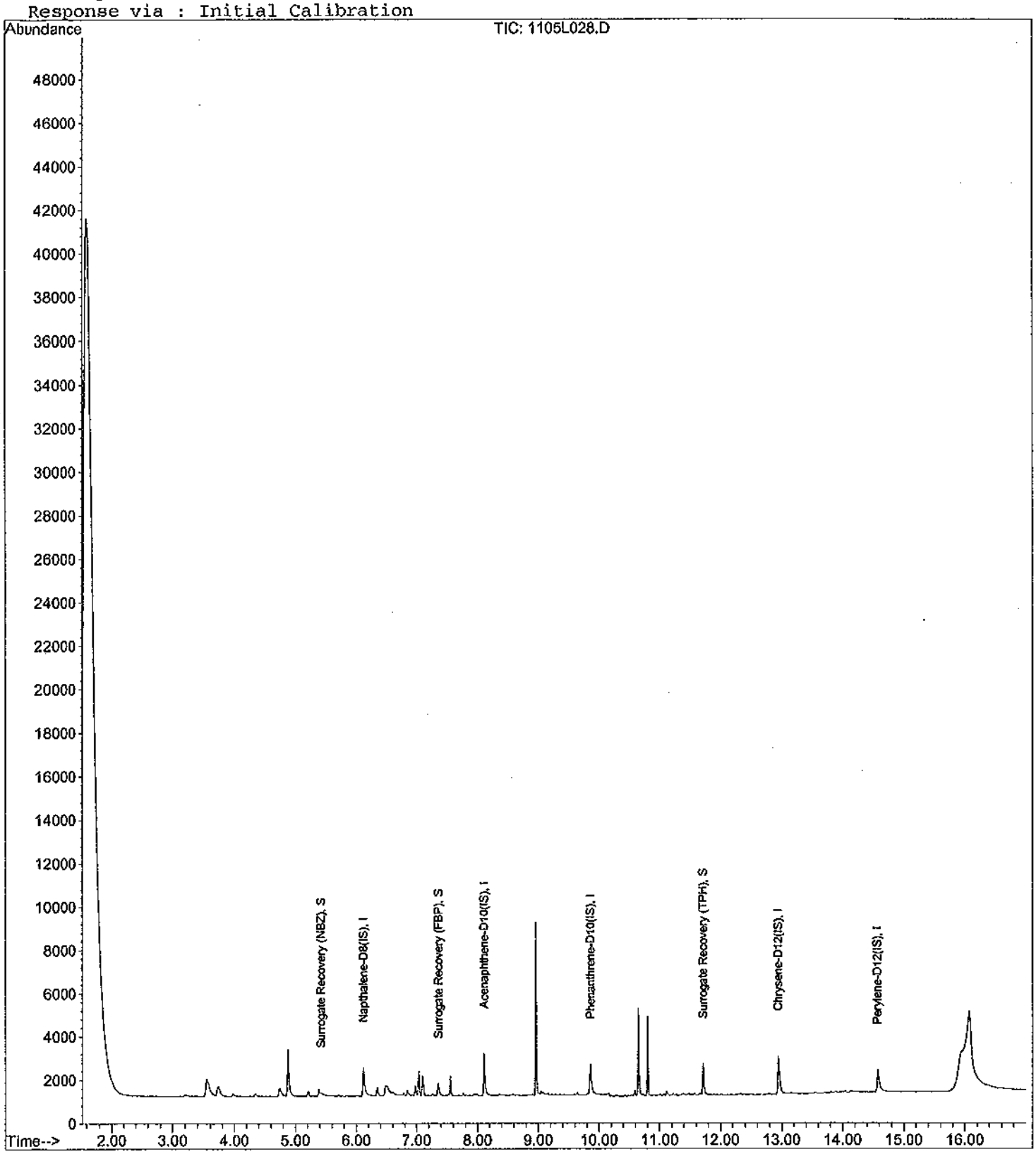
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L028.D Vial: 28
Acq On : 5 Nov 11 20:15 Operator: LF
Sample : 111031A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 9 8:48 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **111031W-49334 LCS - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.25	56.3	45-105
2-METHYLNAPHTHALENE	4.00	2.26	56.5	45-105
ACENAPHTHENE	4.00	2.55	63.7	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.47	61.8	55-110
BENZO(A)ANTHRACENE	4.00	2.74	68.5	55-110
BENZO(A)PYRENE	4.00	2.48	62.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.43	60.8	45-120
BENZO(GHI)PERYLENE	4.00	2.80	70.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.23	80.8	45-125
CHRYSENE	4.00	2.86	71.5	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.89	72.3	40-125
FLUORANTHENE	4.00	2.86	71.5	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.95	73.8	45-125
NAPHTHALENE	4.00	2.30	57.5	40-100
PHENANTHRENE	4.00	2.43	60.8	50-115
PYRENE	4.00	2.57	64.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.11	55.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.14	57.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.06	53.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	10/31/11
Analysis Date :	11/05/11
Instrument :	Linus
Run :	1105L029
Initials :	LF

Printed: 11/09/11 3:59:21 PM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L029.D Vial: 29
Acq On : 5 Nov 11 20:41 Operator: LF
Sample : 111031A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 9 8:50 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2079	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	961	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1713	2.50000	ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2367	2.50000	ppb		0.00
21) Perylene-D12(IS)	14.56	264	2017	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.43	82	426	1.14411	ppb		-0.01
Spiked Amount 2.000			Recovery = 57.200%				
7) Surrogate Recovery (FBP)	7.36	172	951	1.11008	ppb		0.01
Spiked Amount 2.000			Recovery = 55.500%				
17) Surrogate Recovery (TPH)	11.71	244	1078	1.05766	ppb		0.00
Spiked Amount 2.000			Recovery = 52.900%				
Target Compounds							Qvalue
3) Naphthalene	6.14	128	3335	2.30246	ppb		99
4) 2-Methylnaphthalene	6.93	142	1681	2.26331	ppb		89
5) 1-Methylnaphthalene	7.04	142	1929	2.25003	ppb		88
8) Acenaphthylene	7.95	152	3060	2.39290	ppb		99
9) Acenaphthene	8.15	154	1866	2.54960	ppb		93
10) Fluorene	8.76	166	2077	2.59363	ppb		97
12) Phenanthrene	9.87	178	2685	2.43497	ppb		98
13) Anthracene	9.94	178	2766	2.47049	ppb		99
14) Fluoranthene	11.26	202	5473	2.86107	ppb		94
16) Pyrene	11.51	202	5362	2.57400	ppb	#	87
18) Benz (a) anthracene	12.93	228	3766	2.74459	ppb		98
19) Chrysene	12.96	228	5250	2.86024	ppb		99
20) Indeno (1,2,3-cd) pyrene	16.09	276	4203	2.95460	ppb	#	95
22) Benzo (b) fluoranthene	14.12	252	3457	2.43287	ppb	#	91
23) Benzo (k) fluoranthene	14.15	252	4746	3.22732	ppb		95
24) Benzo (a) pyrene	14.50	252	3444	2.47758	ppb		98
25) Dibenz (a,h) anthracene	16.09	278	3371	2.88809	ppb		95
26) Benzo (g,h,i) perylene	16.53	276	3449	2.80253	ppb		98

$\frac{3335 \times 2.5}{2079 \times 1.742} = 2.30$ VF 11/9/11

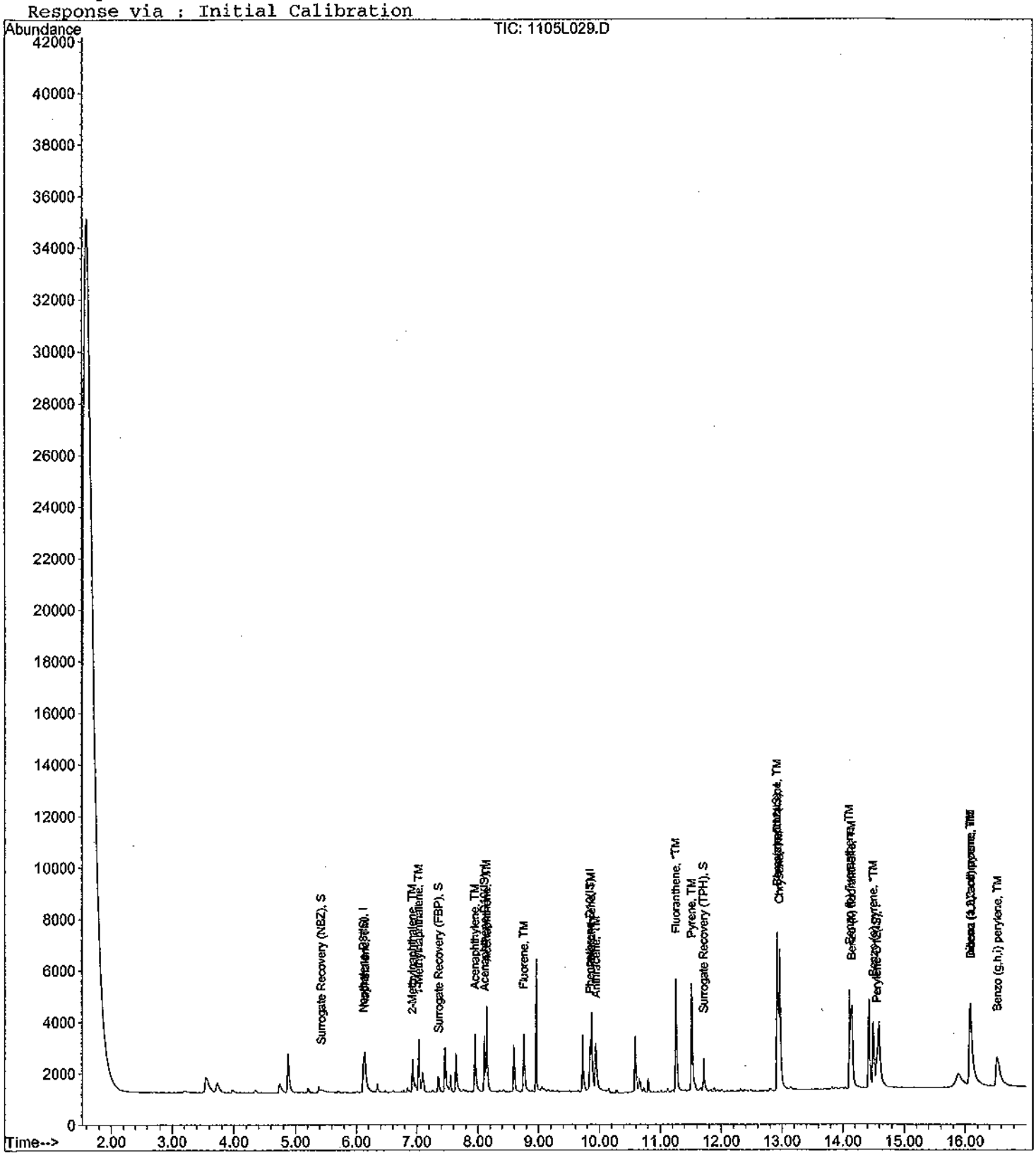
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L029.D Vial: 29
Acq On : 5 Nov 11 20:41 Operator: LF
Sample : 111031A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 9 8:50 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



Matrix Spike Recoveries

EPA 8270D SIM

APPL ID: **111031W-49334 MS - 161019**
Batch ID: #SIMHC-111031A
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	3.88	0.62	2.88	2.71	58.2	53.9	45-105	6.1	25
2-METHYLNAPHTHALENE	3.88	0.20	2.26	1.98	53.1	45.9	45-105	13.2	25
ACENAPHTHENE	3.88	0.16	2.17	1.79	51.8	42.0 #	45-110	19.2	25
ACENAPHTHYLENE	3.88	ND	2.14	1.77	55.2	45.6 #	50-105	18.9	25
ANTHRACENE	3.88	ND	2.14	1.96	55.2	50.5 #	55-110	8.8	25
BENZO(A)ANTHRACENE	3.88	ND	3.04	2.84	78.4	73.2	55-110	6.8	25
BENZO(A)PYRENE	3.88	ND	2.62	2.30	67.5	59.3	55-110	13.0	25
BENZO(B)FLUORANTHENE	3.88	ND	2.72	2.34	70.1	60.3	45-120	15.0	25
BENZO(GHI)PERYLENE	3.88	ND	2.84	2.54	73.2	65.5	40-125	11.2	25
BENZO(K)FLUORANTHENE	3.88	ND	3.07	2.84	79.1	73.2	45-125	7.8	25
CHRYSENE	3.88	ND	2.75	2.56	70.9	66.0	55-110	7.2	25
DIBENZ(A,H)ANTHRACENE	3.88	ND	2.90	2.51	74.7	64.7	40-125	14.4	25
FLUORANTHENE	3.88	ND	2.84	2.59	73.2	66.8	55-115	9.2	25
FLUORENE	3.88	0.083	2.42	2.08	60.2	51.5	50-110	15.1	25
INDENO(1,2,3-CD)PYRENE	3.88	ND	2.93	2.71	75.5	69.8	45-125	7.8	25
NAPHTHALENE	3.88	1.0	3.70	2.56	69.6	40.2	40-100	36.4 #	25
PHENANTHRENE	3.88	ND	2.38	2.20	61.3	56.7	50-115	7.9	25
PYRENE	3.88	ND	2.63	2.45	67.8	63.1	50-130	7.1	25
SURROGATE: 2-FLUORBIPHENYL (S)	1.94	NA	1.04	1.08	53.6	55.7	50-110		
SURROGATE: NITROBENZENE-D5 (S)	1.94	NA	1.15	1.03	59.3	53.1	40-110		
SURROGATE: TERPHENYL-D14 (S)	1.94	NA	0.984	1.20	50.7	61.9	50-135		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	SIM2.M	SIM2.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	11/05/11	11/06/11
Instrument :	Linus	Linus
Run :	1105L036	1105L037
Initials :	LF	

Printed: 11/09/11 4:01:35 PM
APPL MSD SCII

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L036.D Vial: 36
Acq On : 5 Nov 11 23:36 Operator: LF
Sample : AY49334W30 MS-1 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:18 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2236	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	1033	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.84	188	1791	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	12.93	240	2429	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	2046	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.41	82	474	1.14916 ppb		-0.04
Spiked Amount 1.942			Recovery = 59.174%			
7) Surrogate Recovery (FBP)	7.35	172	984	1.03741 ppb		0.00
Spiked Amount 1.942			Recovery = 53.406%			
17) Surrogate Recovery (TPH)	11.70	244	1060	0.98394 ppb		-0.01
Spiked Amount 1.942			Recovery = 50.676%			
Target Compounds						Qvalue
3) Naphthalene	6.13	128	5940	3.70192 ppb	#	90
4) 2-Methylnaphthalene	6.92	142	1859	2.25943 ppb		91
5) 1-Methylnaphthalene	7.02	142	2737	2.88187 ppb		92
8) Acenaphthylene	7.94	152	3027	2.13796 ppb		95
9) Acenaphthene	8.15	154	1758	2.16952 ppb		99
10) Fluorene	8.75	166	2145	2.41926 ppb		98
12) Phenanthrene	9.86	178	2830	2.38319 ppb		96
13) Anthracene	9.93	178	2585	2.14395 ppb		99
14) Fluoranthene	11.25	202	5849	2.83927 ppb	#	80
16) Pyrene	11.51	202	5786	2.62780 ppb		95
18) Benz (a) anthracene	12.91	228	4407	3.03859 ppb		97
19) Chrysene	12.96	228	5335	2.74985 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.08	276	4399	2.92567 ppb	#	93
22) Benzo (b) fluoranthene	14.12	252	4037	2.71919 ppb	#	91
23) Benzo (k) fluoranthene	14.14	252	4718	3.07067 ppb		96
24) Benzo (a) pyrene	14.50	252	3802	2.61781 ppb		97
25) Dibenz (a,h) anthracene	16.08	278	3537	2.90034 ppb		98
26) Benzo (g,h,i) perylene	16.53	276	3653	2.84098 ppb		99

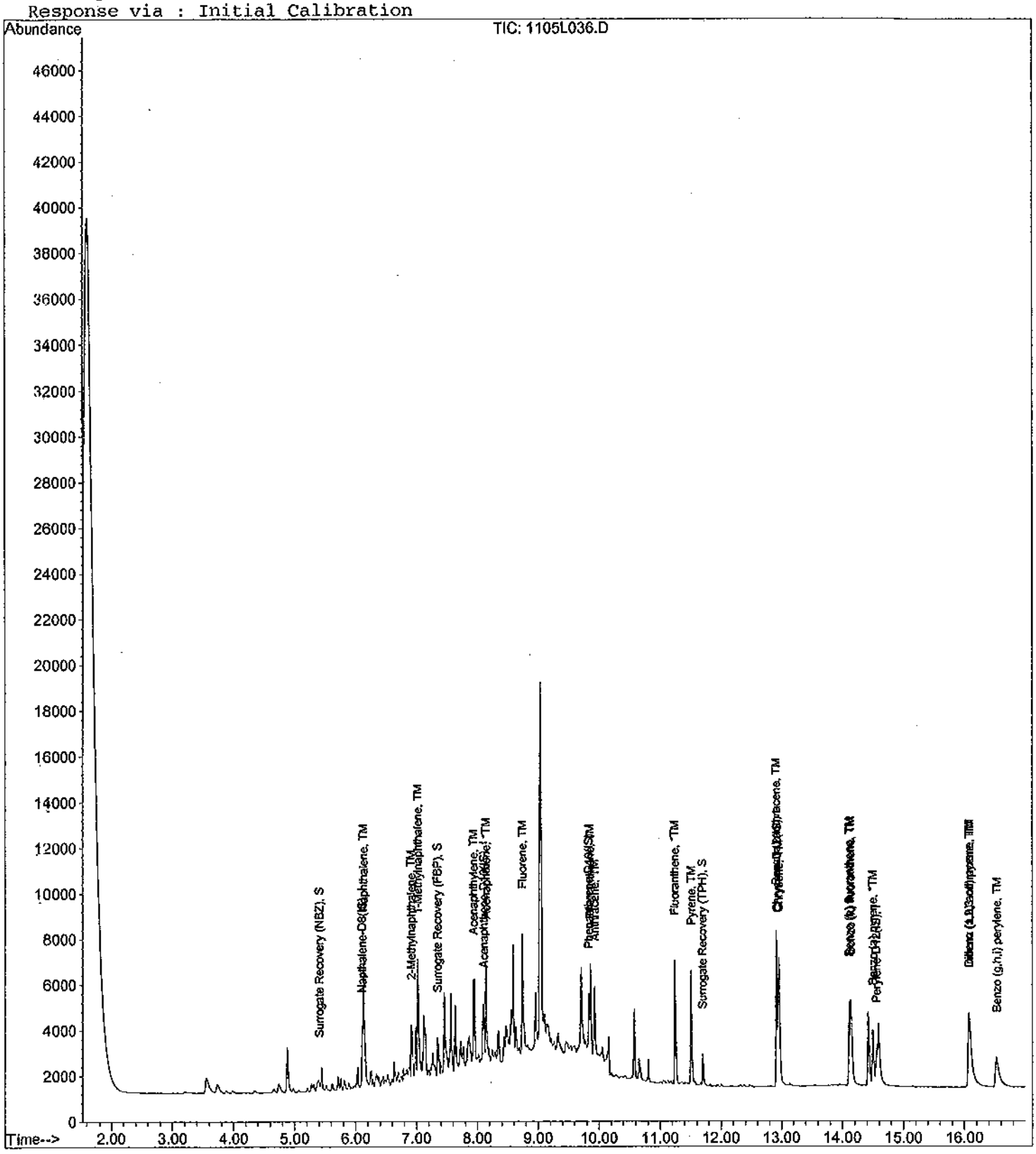
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L036.D Vial: 36
Acq On : 5 Nov 11 23:36 Operator: LF
Sample : AY49334W30 MS-1 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:18 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L037.D Vial: 37
Acq On : 6 Nov 11 00:01 Operator: LF
Sample : AY49334W34 MSD-1 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:19 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2287	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.11	164	1131	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.83	188	1879	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	12.93	240	2428	2.50000 ppb	0.00
21) Perylene-D12(IS)	14.56	264	2160	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.41	82	433	1.02635 ppb	-0.04
Spiked Amount 1.942			Recovery = 52.839%		
7) Surrogate Recovery (FBP)	7.35	172	1118	1.07656 ppb	0.00
Spiked Amount 1.942			Recovery = 55.466%		
17) Surrogate Recovery (TPH)	11.70	244	1293	1.20071 ppb	-0.01
Spiked Amount 1.942			Recovery = 61.852%		
Target Compounds					Qvalue
3) Naphthalene	6.13	128	4199	2.55854 ppb #	85
4) 2-Methylnaphthalene	6.92	142	1664	1.97733 ppb	92
5) 1-Methylnaphthalene	7.02	142	2628	2.70539 ppb	91
8) Acenaphthylene	7.94	152	2746	1.77144 ppb	94
9) Acenaphthene	8.15	154	1590	1.79217 ppb	99
10) Fluorene	8.75	166	2022	2.08293 ppb	98
12) Phenanthrene	9.86	178	2744	2.20254 ppb	96
13) Anthracene	9.93	178	2473	1.95500 ppb	99
14) Fluoranthene	11.25	202	5590	2.58646 ppb #	83
16) Pyrene	11.51	202	5394	2.45077 ppb	94
18) Benz (a) anthracene	12.91	228	4123	2.84394 ppb	98
19) Chrysene	12.96	228	4973	2.56432 ppb	99
20) Indeno (1,2,3-cd) pyrene	16.08	276	4079	2.71396 ppb #	90
22) Benzo (b) fluoranthene	14.12	252	3669	2.34088 ppb #	90
23) Benzo (k) fluoranthene	14.14	252	4610	2.84203 ppb	96
24) Benzo (a) pyrene	14.50	252	3531	2.30290 ppb	98
25) Dibenz (a,h) anthracene	16.08	278	3235	2.51269 ppb	99
26) Benzo (g,h,i) perylene	16.53	276	3447	2.53929 ppb	97

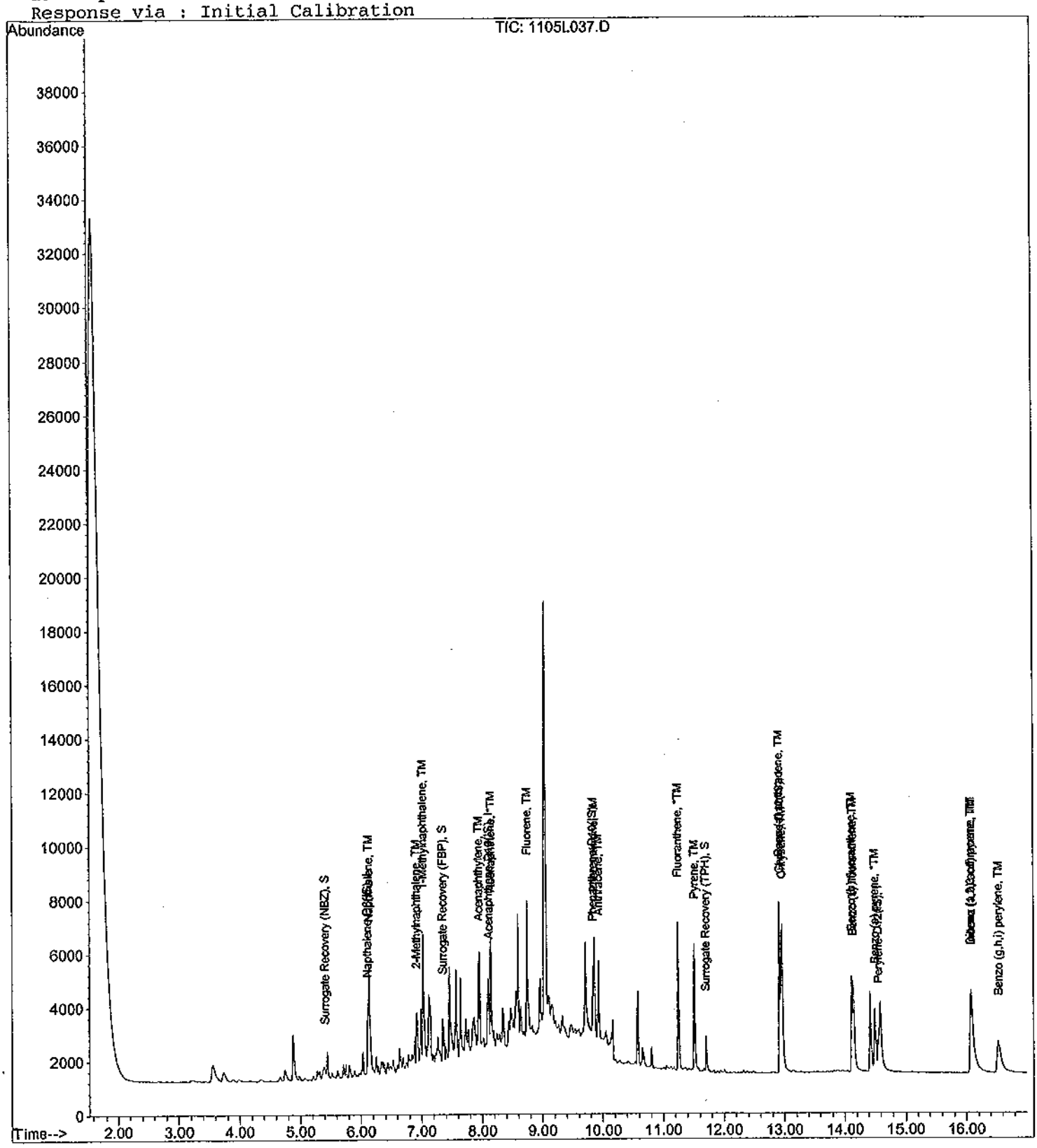
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L037.D Vial: 37
Acq On : 6 Nov 11 00:01 Operator: LF
Sample : AY49334W34 MSD-1 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:19 2011 Quant Results File: SIM2.RES

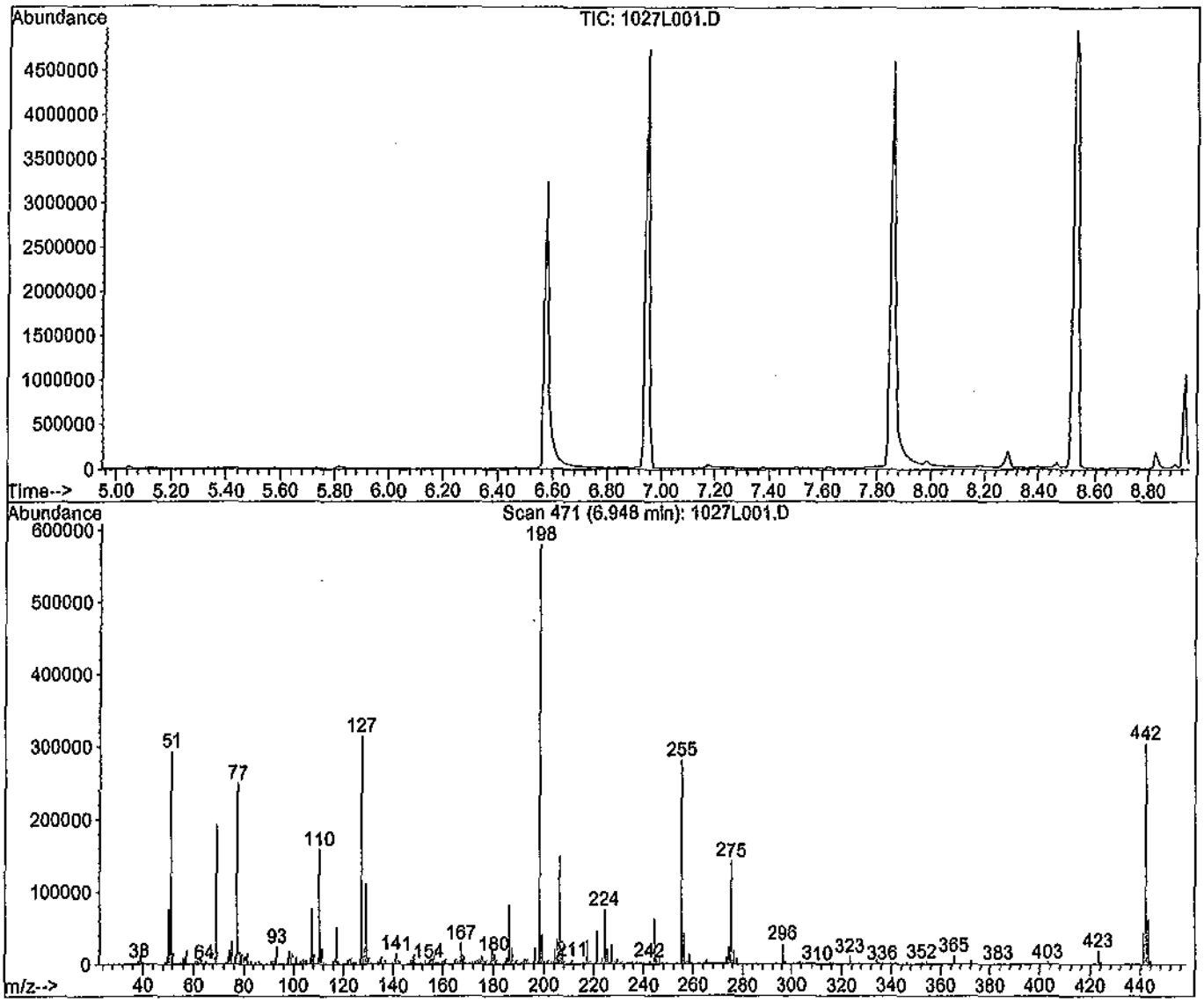
Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L111027\1027L001.D Vial: 1
Acq On : 27 Oct 11 18:29 Operator: LF
Sample : SVTUNE 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



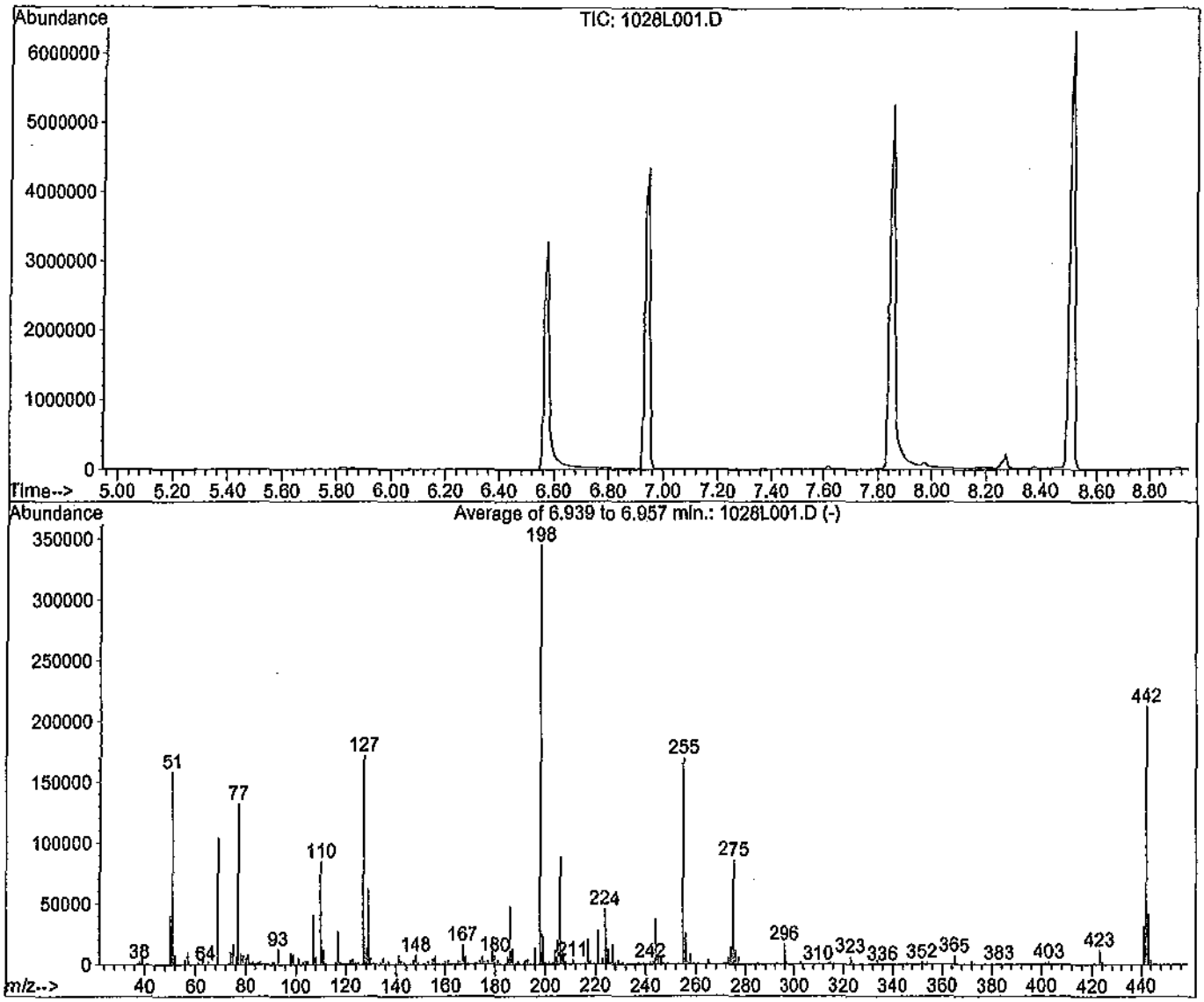
Spectrum Information: Scan 471

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.7	294016	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1188	PASS
127	198	40	60	54.3	314624	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	579520	PASS
199	198	5	9	7.0	40304	PASS
275	198	10	30	24.5	141888	PASS
365	198	1	100	2.0	11470	PASS
441	443	0.01	100	70.8	44728	PASS
442	198	40	150	52.6	304768	PASS
443	442	17	23	20.7	63176	PASS

DFTPP

Data File : M:\LINUS\DATA\L111027\1028L001.D Vial: 1
Acq On : 28 Oct 11 9:32 Operator: LF
Sample : SVTUNE 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



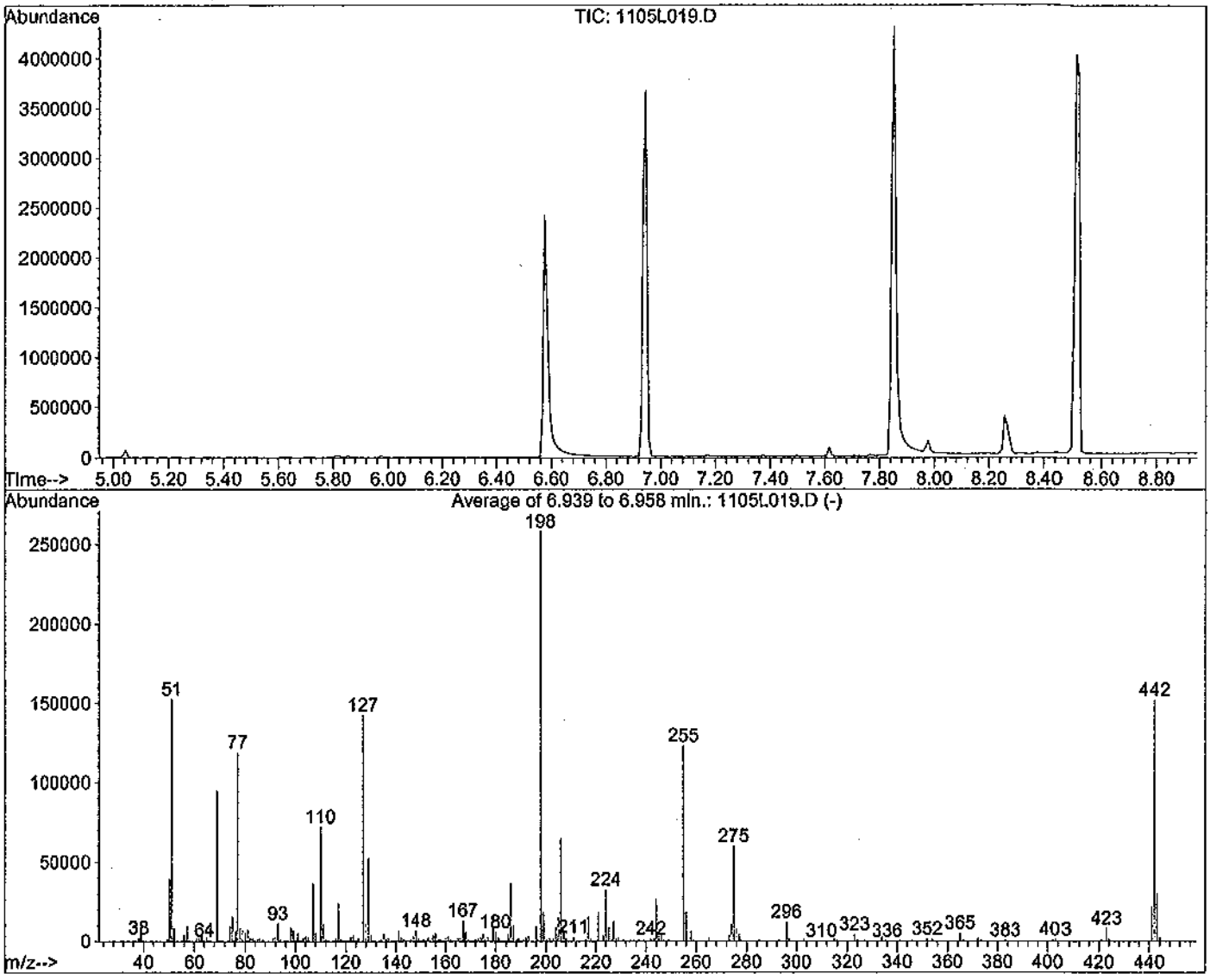
Spectrum Information: Average of 6.939 to 6.957 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.8	158326	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	519	PASS
127	198	40	60	49.8	171922	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	345360	PASS
199	198	5	9	7.1	24580	PASS
275	198	10	30	24.8	85541	PASS
365	198	1	100	2.0	6987	PASS
441	443	0.01	100	74.7	31248	PASS
442	198	40	150	61.5	212309	PASS
443	442	17	23	19.7	41843	PASS

DFTPP

Data File : M:\LINUS\DATA\L111027\1105L019.D Vial: 19
Acq On : 5 Nov 11 16:36 Operator: LF
Sample : SVTUNE 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 6.939 to 6.958 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.0	152381	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	557	PASS
127	198	40	60	55.1	142318	PASS
197	198	0.00	1	0.5	1197	PASS
198	198	100	100	100.0	258253	PASS
199	198	5	9	7.1	18230	PASS
275	198	10	30	23.2	59874	PASS
365	198	1	100	1.9	4901	PASS
441	443	0.01	100	73.0	21870	PASS
442	198	40	150	58.8	151760	PASS
443	442	17	23	19.7	29958	PASS

GC/MS STANDARD PREPARATION BOOK # J PAGE # 84

VF 1/17/11

PREP DATE:	01-17-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28092	01/17/11	03-20-12	1000
Absolute	10001	2000	032009-28091	01/17/11	03-20-12	1000
Absolute	10002	2000	073109-27974	01/17/11	07-31-12	1000
Absolute	10002	2000	073109-27973	01/17/11	07-31-12	1000
Absolute	10004	2000	101509-27979	01/17/11	10-15-14	1000
Absolute	10004	2000	101509-27978	01/17/11	10-15-14	1000
Absolute	10005	2000	061209-27984	01/17/11	06-12-14	1000
Absolute	10005	2000	061209-27983	01/17/11	06-12-14	1000
Absolute	10006	2000	120810-27989	01/17/11	12-08-13	1000
Absolute	10006	2000	120810-27988	01/17/11	12-08-13	1000
Absolute	10007	2000	100909-28010	01/17/11	10-09-14	1000
Absolute	10007	2000	100909-28013	01/17/11	10-09-14	1000
Absolute	10018	2000	073109-27994	01/17/11	07-31-14	1000
Absolute	10018	2000	073109-27993	01/17/11	07-31-14	1000
Absolute	70023	1000	080310-28008	01/17/11	08-03-15	1000
Absolute	70023	1000	080310-28009	01/17/11	08-03-15	1000
Absolute	82705	2000	121010-27999	01/17/11	12-10-13	1000
Absolute	82705	2000	121010-27998	01/17/11	12-10-13	1000
Absolute	94552	2000	052908-28004	01/17/11	05-29-11	1000
Absolute	94552	2000	052908-28003	01/17/11	05-29-11	1000
					Final Vol	20000

VF 4/5/11

PREP DATE:	01-25-11																
8270T STANDARD CURVE																	
Exp:	02-24-11						0.1	0.2	1	5	10	20	40	50	60	80	100
		Conc.		Date													
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date				µL	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		12/17/10	05-29-11		0	0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			01/25/11			0	0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			01/25/11			10	20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	160518-27570	11/11/10	11-11-11		0	0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080				90	80	80	190	90	80	60	50	40	20	0
					Final Vol.				100	200	100	100	100	100	100	100	100

VF 1/25/11

PREP DATE:	01-25-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 1/20/11

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 ml
110001-02

Lot #	Storage	Expiry
167766	5-10 Degrees C	4/20/13

Solvent: Methylene Chloride

8270 Internal Standard
Lot #: 167766 - 28148
Rec: 1/20/11 MFR exp. 04/20/13

agp 1/25/12

VF 1/25/11

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 ml
110001-02

Lot #	Storage	Expiry
167766	5-10 Degrees C	4/20/13

Solvent: Methylene Chloride

8270 Internal Standard
Lot #: 167766 - 28147
Rec: 1/20/11 MFR exp. 04/20/13

agp 1/25/12

GC/MS STANDARD PREPARATION BOOK # 5 PAGE # 89

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28001
Rec: 12/16/10 MFR exp. 05/29/11

LF exp 5/29/11

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28002
Rec: 12/16/10 MFR exp. 05/29/11

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27996
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDARDS, INC.

LF exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27997
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDAF

LF exp 5/29/11

LF 3/23/11

PREP DATE:	03-23-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28089	03/23/11	03-20-12	1000
Absolute	10001	2000	320009-28090	03/23/11	03-20-12	1000
Absolute	10002	2000	073109-27971	03/23/11	07-31-12	1000
Absolute	10002	2000	073109-27972	03/23/11	07-31-12	1000
Absolute	10004	2000	101509-27976	03/23/11	10-15-14	1000
Absolute	10004	2000	101509-27977	03/23/11	10-15-14	1000
Absolute	10005	2000	061209-27981	03/23/11	06-12-14	1000
Absolute	10005	2000	061209-27982	03/23/11	06-12-14	1000
Absolute	10006	2000	120810-27986	03/23/11	12-08-13	1000
Absolute	10006	2000	120810-27987	03/23/11	12-08-13	1000
Absolute	10007	2000	100909-28015	03/23/11	10-09-14	1000
Absolute	10007	2000	100909-28014	03/23/11	10-09-14	1000
Absolute	10018	2000	073109-27991	03/23/11	07-31-14	1000
Absolute	10018	2000	073109-27992	03/23/11	07-31-14	1000
Absolute	70023	1000	080310-28006	03/23/11	08-03-15	1000
Absolute	70023	1000	080310-28007	03/23/11	08-03-15	1000
Absolute	82705	2000	052908-28001	03/23/11	05-29-11	1000
Absolute	82705	2000	052908-28002	03/23/11	05-29-11	1000
Absolute	94552	2000	121010-27996	03/23/11	12-10-13	1000
Absolute	94552	2000	121010-27997	03/23/11	12-10-13	1000
					Final Vol	20000

LF 3/23/11

9IM IS exp 1/25/12
1500µL EM Science MC Lot #47088825
100µL 8270 IS opened 1/25/11 exp 1/25/12

GC/MS STANDARD PREPARATION BOOK # J PAGE # 90

VF 3/28/11

o2si smart solutions — 8270 BN:A (200:400) Surrogate Solution, 1 ml
110004-17 — Storage: <=-10 Degrees C
Made in USA — Lot No: 160538 — Solvent: Methylene Chloride
Exp: 4/10/2013
Date Opened:
8270 BN:A (200:400) Surrogate Solution
Lot #: 160538 - 27574
Rec: 10/18/10 MFR exp. 08/10/12

VF exp 3/28/12

VF 3/28/11

PREP DATE:	03-28-11															
8270T STANDARD CURVE																
Exp:	04-27-11						0.1	0.2	1	5	10	20	40	50	60	80	100
		Conc.		Date													
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date				µL	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		03/23/11	05-29-11	0	0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			03/28/11		0	0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			03/28/11		10	20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	160538-27574	03/28/11	03-28-12	0	0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0
					Final Vol.			100	200	100	100	100	100	100	100	100

VF 3/28/11

PREP DATE:	03-28-11					
8270 Second Source (SS) 50ug/mL						50 VF
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 4/18/11

GCM-150-1
Lot: CF-2995
Exp: 08/31/2011
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, No Kingstown, RI 02852 USA
ULTRA 1 mL
Semi-volatiles GC/MS Tuning Standard
Lot #: CF-2995 - 26131
Rec: 2/17/10 MFR exp. 08/31/11

VF exp 8/31/11

VF 4/13/11

PREP DATE:	04-13-11						
SV Tune Mix 50ug/ml							
Exp:	08-31-11						
		Conc.			Date	CODE:	B
Supplier	ID #	µg/mL	Lot #		Code	Exp.Date	µL
U. Scientific	GCM-150	1000	CF-2995-26131		04/13/11	08-31-11	1000
EM Science	MeCl2		47080				19000
						Final Vol	20000

exp 8/31/11

VF 4/20/11

8270D PAH SIM Solution, 200 mg/L, 1 ml
110780-01
Lot # 170253 — Storage <-10 Degrees C — Expiry 3/3/13
Solv Methylene Chloride
Made in the USA

VF exp 4/20/12

8270D PAH SIM
Lot #: 170253 - 28485
Rec: 3/10/11 MFR exp. 3/3/2013

VF 4/19/11

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 ml
110780-01-SS
Lot # 170256 — Storage <-10 Degrees C — Expiry 3/3/13
Solv Methylene Chloride
Made in the USA

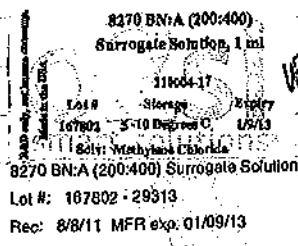
VF exp 4/20/12

8270D PAH SIM (SS)
Lot #: 170256 - 28487
Rec: 3/10/11 MFR exp. 3/3/2013

VF 8/16/11

PREP DATE:	08/16/11		exp:	08/23/11			
10ug/mL 1,2,3-TCP							
	50uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methonal Lot #			9077-02			
PREP DATE:	08/16/11		exp:	08/23/11			
1ug/mL 1,2,3-TCP							
	5uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methanol Lot #			JT Baker H46E44			
PREP DATE:	08/16/11		exp:	08/23/11			
2ug/mL 1,2,3-TCPd5							
	10uL of 2000ug/mL 1,2,3 TCP into a final volume of 10mL of P&T Methanol						
	2000ug/mL 1,2,3 TCP-d5 date code:			05/27/11			
	P & T Methanol Lot #			9077-02			

VF 8/22/11



VF exp 8/22/12

VF 8/22/11

PREP DATE:	08-22-11												
8270 STANDARD CURVE													
Exp:	08-29-11						5	10	20	40	50	60	80	100
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
						Final Vol.	200	100	100	100	100	100	100	100

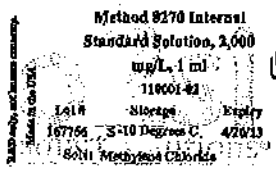
VF 8/22/11

PREP DATE:	08-22-11					
8270 Second Source (SS) 50ug/mL						
						50
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

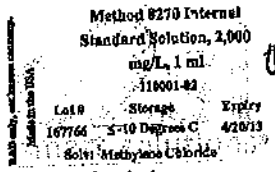
VF 8/24/11

PREP DATE:	09-21-11													
8270 SIM STANDARD CURVE														
							0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date		A µL	A µL	C µL	D µL	E µL	F µL	G µL	H µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12		0	0	0	0	5	5	25	50
	5.0ug/mL	5		09/21/11			0	0	10	20	0	0	0	0
	1.0ug/mL	1		09/21/11			10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-23-11		0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186				90	80	90	80	190	90	50	0
						Final Vol.	100	100	100	100	200	100	100	100

LF 10/18/11



8270 Internal Standard
Lot #: 167766 - 28149
Rec: 1/20/11 MFR exp. 04/20/13



8270 Internal Standard
Lot #: 167766 - 28150
Rec: 1/20/11 MFR exp. 04/20/13

exp 10/18/12

LF 10/27/11

GCM-160-1
Lot: CH-2137
Exp: 07/31/2013
ULTRA 1 mL
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

exp 10/27/12

50µg/mL SV Tune Mix: 1mL of GCM-160-1 Lot# CH2137 into 19mL of Eur Science MC Lot# 42080.

LF 10/27/11

PREP DATE:	10-27-11												
8270 SIM STANDARD CURVE													
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
		Conc.		Date	CODE:	A	A	C	D	E	F	G	H
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		10/27/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		10/27/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

LF 10/27/11

PREP DATE:	10-27-11					
SIM 8270 Second Source (5µg/mL)						
Exp:	11-10-11					
				Conc.	Date	CODE:	
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)		170256-28487	200	04/20/11	04-20-12	5
	MeCl2			Lot#47186			195
					Final Volume		200

LF 11/8/11

PREP DATE:	11-08-11													
8270 STANDARD CURVE														
Exp:	11-15-11						5	10	20	40	50	60	80	100
		Conc.		Date										
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		10/18/11	04-18-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
					Final Vol.		200	100	100	100	100	100	100	100

LF 11/8/11

PREP DATE:	11-08-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/11/11	04-12-12	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	111031A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 178987-29587		Surrogate ID 1	8270 SIM Surrogate 172835-28827	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1	2	31/2011 11:25:00 AM	Water Bath Temp Criteria	80 °C
pH2	14	0/31/2011 4:00:00 PM		
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111031A Blk				0.025	1	1000	1	2/1	10/31/11 11:20	
						equip	E-WB5				
2	111031A LCS-1		0.025	1	0.025	1	1000	1	2/1	10/31/11 11:20	
						equip	E-WB5				
3	AY49327	AY49327W08			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
4	AY49328	AY49328W04			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
5	AY49329	AY49329W04			0.025	1	1030	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
6	AY49330	AY49330W07			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
7	AY49331	AY49331W07			0.025	1	1030	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
8	AY49333	AY49333W10			0.025	1	1050	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
9	AY49334 MS-1	AY49334W30	0.025	1	0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
10	AY49334 MSD-1	AY49334W34	0.025	1	0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
11	AY49334	AY49334W29			0.025	1	1050	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
12	AY49336	AY49336W10			0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
13	AY49481	AY49481W08			0.025	1	1050	1	2/1	10/31/11 11:20	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/5/11
Time	802
Refrigerator	Hwang

	Technician's Initials
Scanned By	HW
Sample Preparation	CC
Extraction	HW/DL/JL
Concentration	JL

Modified	10/31/2011 10:48:43 AM

Reviewed By: HW 229 **Date** 11/1/2011

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	111031A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 178987-29587		Surrogate ID 1	8270 SIM Surrogate 172835-28827	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1	2	31/2011 11:25:00 AM	Water Bath Temp Criteria	80 °C
pH2	14	0/31/2011 4:00:00 PM		
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY49482	AY49482W08			0.025	1	1030	1	2/1	10/31/11 11:20	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

HW 11/1/11

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/1/11
Time	
Refrigerator	

	Technician's Initials
Scanned By	HW
Sample Preparation	CC
Extraction	HW/DL/JL
Concentration	JL

Modified	10/31/2011 10:48:43 AM

Reviewed By: HW 230 **Date** 11/1/2011

Injection Log

Directory: M:\LINUS\DATA\L111027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1027L001.D	1	SVTUNE 10-27-11		27 Oct 11 18:29
2	3	1027L003.D	1	0.1ug/ml PAH 10-27-11		27 Oct 11 19:12
3	4	1027L004.D	1	0.2ug/ml PAH		27 Oct 11 19:38
4	1	1028L001.D	1	SVTUNE 10-27-11		28 Oct 11 9:32
5	5	1028L005.D	1	0.5ug/ml PAH		28 Oct 11 11:07
6	6	1028L006.D	1	1.0ug/ml PAH		28 Oct 11 11:32
7	7	1028L007.D	1	5.0ug/ml PAH		28 Oct 11 11:58
8	8	1028L008.D	1	10ug/ml PAH		28 Oct 11 12:23
9	9	1028L009.D	1	50ug/ml PAH		28 Oct 11 12:49
10	10	1028L010.D	1	100ug/ml PAH		28 Oct 11 13:14
11	11	1028L011.D	1	5.0ug/ml SS PAH 10-27-11		28 Oct 11 13:40
12	19	1105L019.D	1	SVTUNE 10-27-11		5 Nov 11 16:36
13	20	1105L020.D	1	5.0ug/ml PAH 10-27-11		5 Nov 11 16:54
14	28	1105L028.D	1	111031A BLK 1/1000		5 Nov 11 20:15
15	29	1105L029.D	1	111031A LCS-1 1/1000		5 Nov 11 20:41
16	35	1105L035.D	0.95238	AY49333W10 1/1050		5 Nov 11 23:11
17	36	1105L036.D	0.97087	AY49334W30 MS-1 1/1030		5 Nov 11 23:36
18	37	1105L037.D	0.97087	AY49334W34 MSD-1 1/1030		6 Nov 11 00:01
19	38	1105L038.D	0.95238	AY49334W29 1/1050		6 Nov 11 00:26
20	39	1105L039.D	0.97087	AY49336W10 1/1030		6 Nov 11 00:51

EPA METHOD 8260B
Volatile Organic Compounds

APPL, INC.

EPA METHOD 8260B
Volatile Organic Compounds
QC Summary

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111030W-49334 - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C34
Instrument: Chico
Sequence: C111030
Initials: ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 3:06:05 PM

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111030W-49334 - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	SURROGATE: 1,2-DICHLOROET	109	70-120			%	10/31/11	10/31/11
BLANK	SURROGATE: 4-BROMOFLUORO	102	75-120			%	10/31/11	10/31/11
BLANK	SURROGATE: DIBROMOFLUOR	105	85-115			%	10/31/11	10/31/11
BLANK	SURROGATE: TOLUENE-D8 (S)	102	85-120			%	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C34
Instrument: Chlco
Sequence: C111030
Initials: ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 3:08:05 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 10/31/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111030AC-LCS	Lab Control Spike	70-120	101		75-120	109	
111030AC-BLK	Blank	70-120	109		75-120	102	
AY49335	ES048	70-120	108		75-120	102	
AY49333	ES046	70-120	114		75-120	103	
AY49334	ES047	70-120	104		75-120	98.9	
AY49336	ES049	70-120	98.1		75-120	102	
AY49334-MS	Matrix Spike	70-120	93.7		75-120	101	
AY49334-MSD	Matrix SpikeD	70-120	92.1		75-120	105	

Comments: Batch: #86RHB-111030AC

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 10/31/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111030AC-LCS	Lab Control Spike	85-115	100		85-120	104	
111030AC-BLK	Blank	85-115	105		85-120	102	
AY49335	ES048	85-115	105		85-120	99.0	
AY49333	ES046	85-115	105		85-120	98.9	
AY49334	ES047	85-115	102		85-120	97.6	
AY49336	ES049	85-115	100		85-120	101	
AY49334-MS	Matrix Spike	85-115	98.4		85-120	102	
AY49334-MSD	Matrix SpikeD	85-115	99.6		85-120	104	

Comments: Batch: #86RHB-111030AC

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 LCS - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	11.0	110	80-130
1,1,1-TRICHLOROETHANE	10.00	9.55	95.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.3	103	65-130
1,1,2-TRICHLOROETHANE	10.00	9.91	99.1	75-125
1,1-DICHLOROETHANE	10.00	9.98	99.8	70-135
1,1-DICHLOROETHENE	10.00	8.83	88.3	70-130
1,2,3-TRICHLOROPROPANE	10.00	11.8	118	75-125
1,2,4-TRICHLOROBENZENE	10.00	10.2	102	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	10.2	102	50-130
1,2-DIBROMOETHANE	10.00	10.7	107	70-130
1,2-DICHLOROBENZENE	10.00	10.1	101	70-120
1,2-DICHLOROETHANE	10.00	9.61	96.1	70-130
1,2-DICHLOROPROPANE	10.00	10.1	101	75-125
1,3-DICHLOROBENZENE	10.00	9.67	96.7	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	19.7	98.5	70-130
1,4-DICHLOROBENZENE	10.00	9.94	99.4	75-125
2-BUTANONE	10.00	10.5	105	30-150
4-METHYL-2-PENTANONE	10.00	9.78	97.8	60-135
ACETONE	10.00	13.0	130	40-140
BENZENE	10.00	9.48	94.8	80-120
BROMODICHLOROMETHANE	10.00	10.0	100	75-120
BROMOFORM	10.00	9.32	93.2	70-130
BROMOMETHANE	10.00	8.95	89.5	30-145
CARBON TETRACHLORIDE	10.00	9.77	97.7	65-140
CHLOROBENZENE	10.00	10.3	103	80-120
CHLORODIBROMOMETHANE	10.00	11.0	110	60-135

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1030C28
Initials :	ARS

Printed: 12/06/11 3:06:11 PM

APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 LCS - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	8.89	88.9	60-135
CHLOROFORM	10.00	9.79	97.9	65-135
CHLOROMETHANE	10.00	9.42	94.2	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.18	91.8	70-125
ETHYLBENZENE	10.00	10.1	101	75-125
GASOLINE	300	370	123	75-125
HEXACHLOROBUTADIENE	10.00	10.5	105	50-140
METHYL TERT-BUTYL ETHER	10.00	9.69	96.9	65-125
METHYLENE CHLORIDE	10.00	9.05	90.5	55-140
STYRENE	10.00	10.6	106	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	9.40	94.0	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.05	90.5	60-140
TRICHLOROETHENE	10.00	9.64	96.4	70-125
VINYL CHLORIDE	10.00	10.2	102	50-145
XYLENES (TOTAL)	30.0	30.3	101	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	24.4	101	70-120
SURROGATE: 4-BROMOFLUOROBENZE	25.5	27.7	109	75-120
SURROGATE: DIBROMOFLUOROMETH	25.1	25.2	100	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	26.9	104	85-120

Comments: _____

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1030C28
Initials :	ARS

Printed: 12/06/11 3:06:11 PM

APPL Standard LCS

Matrix Spike Recoveries

EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 MS - 161029**
Batch ID: #86RHB-111030AC
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	ND	10.9	11.2	109	112	80-130	2.7	30
1,1,1-TRICHLOROETHANE	10.00	ND	8.95	9.51	89.5	95.1	65-130	6.1	30
1,1,2,2-TETRACHLOROETHANE	10.00	ND	12.7	12.6	127	126	65-130	0.79	30
1,1,2-TRICHLOROETHANE	10.00	ND	10.6	10.6	106	106	75-125	0.0	30
1,1-DICHLOROETHANE	10.00	ND	9.46	9.94	94.6	99.4	70-135	4.9	30
1,1-DICHLOROETHENE	10.00	ND	8.96	9.50	89.6	95.0	70-130	5.9	30
1,2,3-TRICHLOROPROPANE	10.00	ND	11.6	11.4	116	114	75-125	1.7	30
1,2,4-TRICHLOROBENZENE	10.00	ND	9.55	10.1	95.5	101	65-135	5.6	30
1,2-DIBROMO-3-CHLOROPROPANE	10.00	ND	11.2	12.2	112	122	50-130	8.5	30
1,2-DIBROMOETHANE	10.00	ND	10.9	10.8	109	108	70-130	0.92	30
1,2-DICHLOROBENZENE	10.00	ND	9.85	10.2	98.5	102	70-120	3.5	30
1,2-DICHLOROETHANE	10.00	ND	8.97	9.48	89.7	94.8	70-130	5.5	30
1,2-DICHLOROPROPANE	10.00	ND	9.62	10.5	96.2	105	75-125	8.7	30
1,3-DICHLOROBENZENE	10.00	ND	9.68	10.1	96.8	101	75-125	4.2	30
1,3-DICHLOROPROPENE, TOTAL	20.0	ND	20.4	20.9	102	105	70-130	2.4	30
1,4-DICHLOROBENZENE	10.00	ND	9.80	10.2	98.0	102	75-125	4.0	30
2-BUTANONE	10.00	ND	10.5	10.2	105	102	30-150	2.9	30
4-METHYL-2-PENTANONE	10.00	ND	11.0	11.0	110	110	60-135	0.0	30
ACETONE	10.00	ND	11.9	13.6	119	136	40-140	13.3	30
BENZENE	10.00	ND	9.56	10.2	95.6	102	80-120	6.5	30
BROMODICHLOROMETHANE	10.00	ND	9.85	10.3	98.5	103	75-120	4.5	30
BROMOFORM	10.00	ND	9.59	10.1	95.9	101	70-130	5.2	30
BROMOMETHANE	10.00	ND	9.35	9.85	93.5	98.5	30-145	5.2	30
CARBON TETRACHLORIDE	10.00	ND	9.77	9.93	97.7	99.3	65-140	1.6	30
CHLOROBENZENE	10.00	ND	9.68	10.1	96.8	101	80-120	4.2	30

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	CALLW.M	CALLW.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	10/31/11	10/31/11
Instrument :	Chico	Chico
Run :	1030C39	1030C40
Initials :	ARS	

Printed: 12/06/11 3:06:12 PM
APPL MSD SCII

Matrix Spike Recoveries

EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 MS - 161029**
Batch ID: #86RHB-111030AC
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
CHLORODIBROMOMETHANE	10.00	ND	10.8	11.4	108	114	60-135	5.4	30
CHLOROETHANE	10.00	ND	8.88	9.26	88.8	92.6	60-135	4.2	30
CHLOROFORM	10.00	ND	9.21	9.65	92.1	96.5	65-135	4.7	30
CHLOROMETHANE	10.00	ND	8.69	9.03	86.9	90.3	40-125	3.8	30
CIS-1,2-DICHLOROETHENE	10.00	ND	9.19	9.57	91.9	95.7	70-125	4.1	30
ETHYLBENZENE	10.00	ND	9.73	10.3	97.3	103	75-125	5.7	30
GASOLINE	300	ND	374	377	125	126 #	75-125	0.80	30
HEXACHLOROBUTADIENE	10.00	ND	9.04	9.78	90.4	97.8	50-140	7.9	30
METHYL TERT-BUTYL ETHER	10.00	ND	10.1	10.2	101	102	65-125	0.99	30
METHYLENE CHLORIDE	10.00	ND	9.83	9.84	98.3	98.4	55-140	0.10	30
STYRENE	10.00	ND	10.2	10.6	102	106	65-135	3.8	30
TETRACHLOROETHENE	10.00	ND	9.48	10.3	94.8	103	45-150	8.3	30
TOLUENE	10.00	ND	9.46	10.4	94.6	104	75-120	9.5	30
TRANS-1,2-DICHLOROETHENE	10.00	ND	9.17	9.47	91.7	94.7	60-140	3.2	30
TRICHLOROETHENE	10.00	ND	9.00	9.38	90.0	93.8	70-125	4.1	30
VINYL CHLORIDE	10.00	ND	9.90	9.78	99.0	97.8	50-145	1.2	30
XYLENES (TOTAL)	30.0	ND	29.1	30.7	97.0	102	80-120	5.4	30
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	NA	22.7	22.3	93.7	92.1	70-120		
SURROGATE: 4-BROMOFLUOROBENZE	25.5	NA	25.8	26.7	101	105	75-120		
SURROGATE: DIBROMOFLUOROMETH	25.1	NA	24.7	25.0	98.4	99.6	85-115		
SURROGATE: TOLUENE-D8 (S)	25.8	NA	26.3	26.9	102	104	85-120		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	CALLW.M	CALLW.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	10/31/11	10/31/11
Instrument :	Chico	Chico
Run :	1030C39	1030C40
Initials :	ARS	

Printed: 12/06/11 3:06:12 PM
APPL MSD SCII

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66102

Case No: 66102 Date Analyzed: 10/31/11

Matrix: WATER Instrument: Chico

Blank ID: 111030AC-BLK Time Analyzed: 1302

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111030AC-LCS	Lab Control Spike	1030C28	10/31/11 0848
111030AC-BLK	Blank	1030C34	10/31/11 1302
AY49335	ES048	1030C35	10/31/11 1339
AY49333	ES046	1030C36	10/31/11 1416
AY49334	ES047	1030C37	10/31/11 1453
AY49336	ES049	1030C38	10/31/11 1531
111030AC-MS	Matrix Spike	1030C39	10/31/11 1608
111030AC-MSD	Matrix SpikeD	1030C40	10/31/11 1645

Comments: Batch: #86RHB-111030AC

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66102
Matrix: Water
ID: 20ug/mL BFB STD 10-19-11

SDG No: 66102
Date Analyzed: 10/31/11
Instrument: Chico
Time Analyzed: 7:21

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	111030A LCS-1WC (SS)	1030C28W.D	10/31/11 8:48
2	Lab Control Spike	GAS 300ug/L LCS-1WC	1030C31W.D	10/31/11 10:57
3	Blank	111030A BLk-1WC	1030C34W.D	10/31/11 13:02
4	ES048	AY49335W01	1030C35W.D	10/31/11 13:39
5	ES046	AY49333W04	1030C36W.D	10/31/11 14:16
6	ES047	AY49334W13	1030C37W.D	10/31/11 14:53
7	ES049	AY49336W04	1030C38W.D	10/31/11 15:31
8	Matrix Spike	AY49334W141516 MS-1W	1030C39W.D	10/31/11 16:08
9	Matrix Spike Dup	AY49334W141516 MSD-1	1030C40W.D	10/31/11 16:45
10	Matrix Spike	AY49334W161718 MS-1W	1030C41W.D	10/31/11 17:22
11	Matrix Spike Dup	AY49334W161718 MSD-1	1030C42W.D	10/31/11 17:59
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	20.6
75	30 - 60% of mass 95	49.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.6
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	91.6
175	5 - 9% of mass 174	6.9
176	95 - 101% of mass 174	97.7
177	5 - 9% of mass 176	6.7

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 66102

Lab File ID (Standard): 1030C20W.D Date Analyzed: 10/31/11

Instrument ID: Chico Time Analyzed: 3:03

GC Column: ID: Heated Purge: (Y/N)

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	556544	12.84	375296	18.04	203520	22.24
	UPPER LIMIT	1113088	13.34	750592	18.54	407040	22.74
	LOWER LIMIT	278272	12.34	187648	17.54	101760	21.74
	SAMPLE NO.						
01	111030A LCS-1WC (SS	600576	12.84	389760	18.04	212800	22.24
02	111030A BLk-1WC	564158	12.85	392640	18.05	207424	22.26
03	AY49335W01	576569	12.85	396544	18.05	214592	22.25
04	AY49333W04	558622	12.85	391168	18.05	206336	22.26
05	AY49334W13	617536	12.85	437056	18.05	232960	22.26
06	AY49336W04	662144	12.85	450969	18.05	251840	22.26
07	AY49334W141516 MS-	673315	12.85	444608	18.05	234048	22.26
08	AY49334W141516 MSD	673885	12.85	449984	18.05	240256	22.26
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8260B
Volatile Organic Compounds
Sample Data

APPL, INC.

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES046

APPL ID: AY49333

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C36
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM

APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES046

APPL ID: AY49333

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	114	70-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	103	75-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.9	85-120			%	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C36
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C36W.D Vial: 1
Acq On : 31 Oct 11 14:16 Operator: STC
Sample : AY49333W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:55 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	558622	25.00000 ppb		0.02
55) Chlorobenzene-D5 (IS)	18.05	117	391168	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	206336	25.00000 ppb		0.02
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	393930	26.47220 ppb		0.00
Spiked Amount 25.097			Recovery = 105.478%			
38) 1,2-DCA-D4(S)	12.23	65	365380	27.58295 ppb		0.00
Spiked Amount 24.225			Recovery = 113.860%			
56) Toluene-D8(S)	15.51	98	1404152	25.51187 ppb		0.02
Spiked Amount 25.808			Recovery = 98.852%			
64) 4-Bromofluorobenzene(S)	20.12	95	515677	26.14866 ppb		0.00
Spiked Amount 25.459			Recovery = 102.708%			
Target Compounds						Qvalue
73) Isopropylbenzene	19.75	105	376343	5.03244 ppb		100
78) n-Propylbenzene	20.46	91	491031	5.50399 ppb		99
83) Tert-Butylbenzene	21.38	119	58606	0.89124 ppb		96
85) Sec-Butylbenzene	21.76	105	425161	5.39136 ppb		96
91) n-Butylbenzene	22.71	91	175843	2.98472 ppb	#	87
96) Naphthalene	25.94	128	360908	14.38582 ppb		95

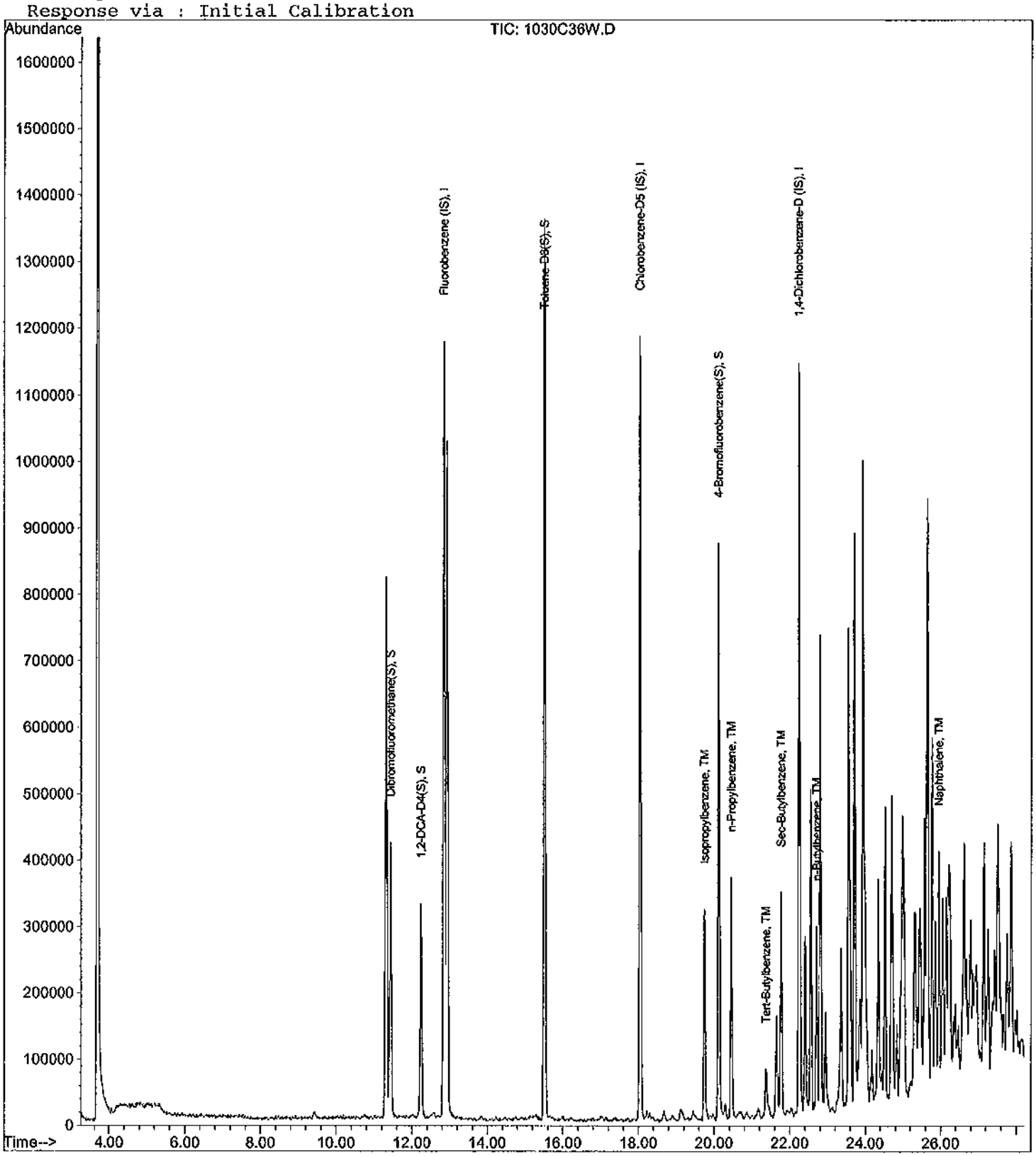
(#) = qualifier out of range (m) = manual integration

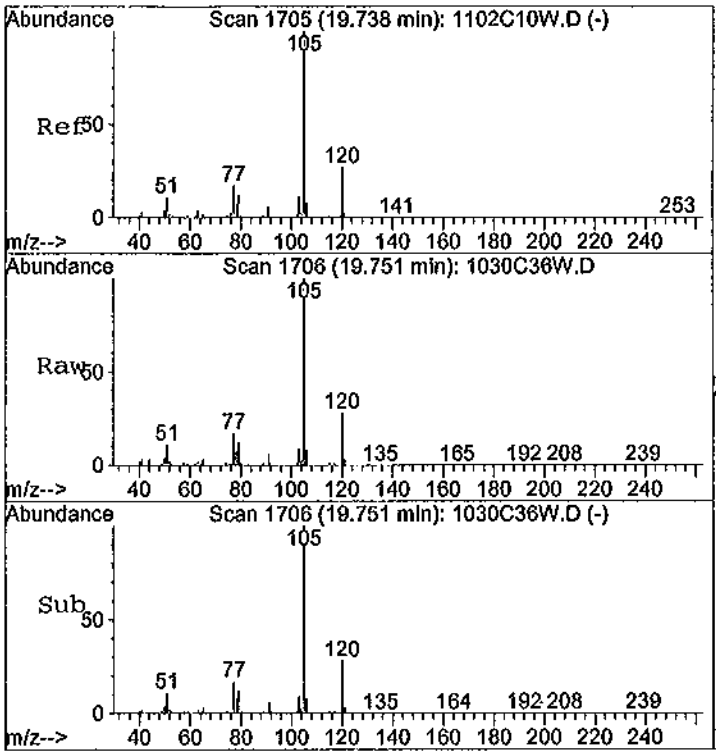
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C36W.D Vial: 1
Acq On : 31 Oct 11 14:16 Operator: STC
Sample : AY49333W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:55 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration

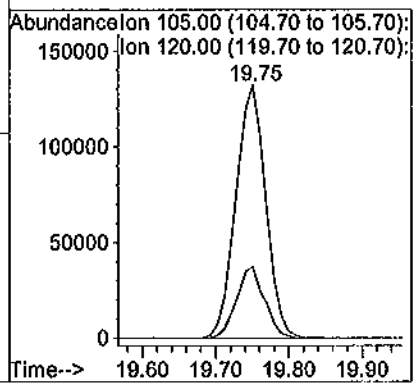


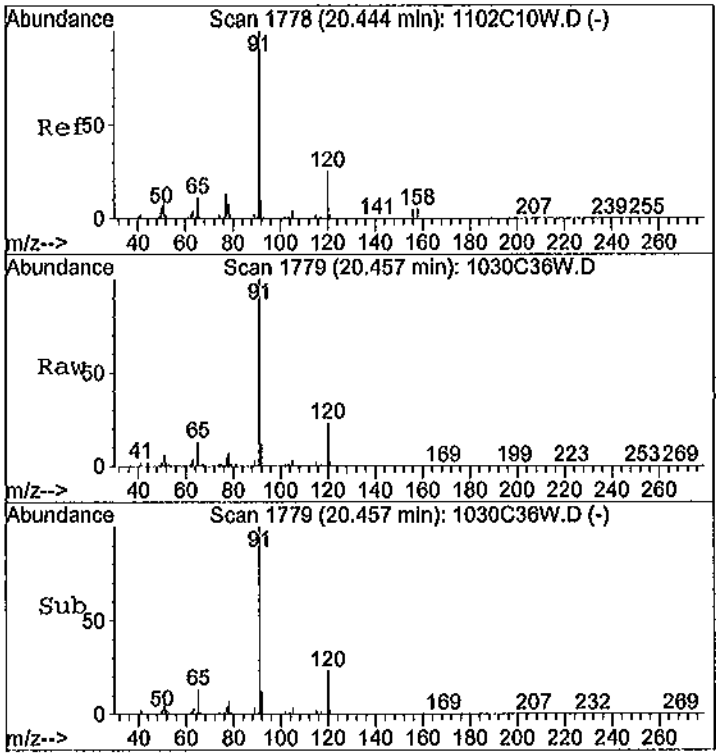


#73
Isopropylbenzene
Concen: 5.03244 ppb
RT: 19.75 min Scan# 1706
Delta R.T. 0.02 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion:105 Resp: 376343

Ion	Ratio	Lower	Upper
105	100		
120	28.1	22.6	33.8

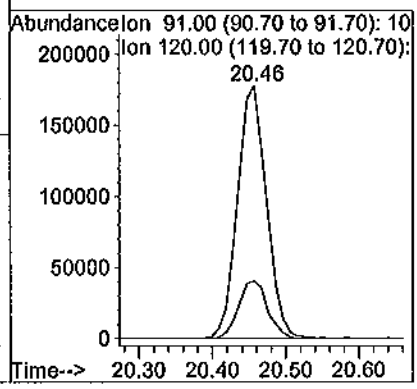


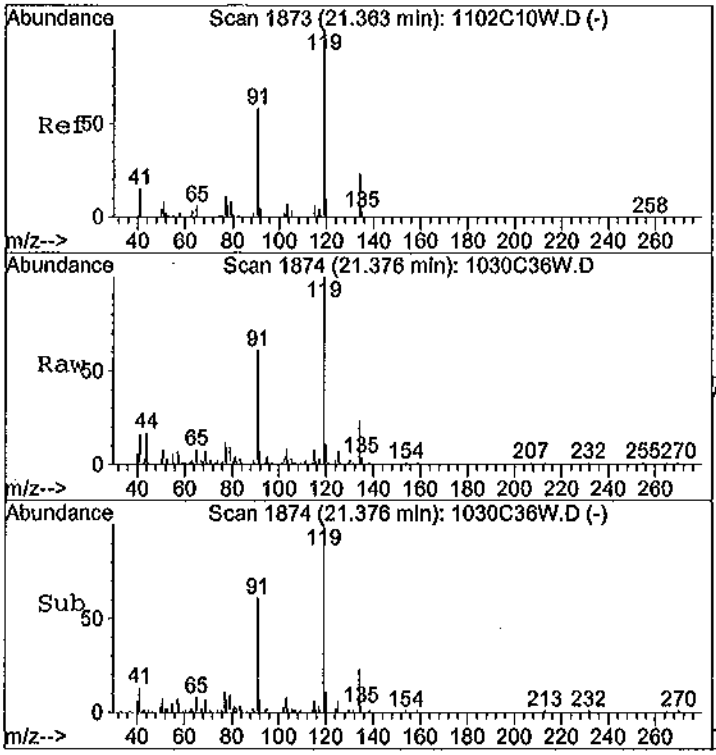


#78
n-Propylbenzene
Concen: 5.50399 ppb
RT: 20.46 min Scan# 1779
Delta R.T. 0.02 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion: 91 Resp: 491031

Ion	Ratio	Lower	Upper
91	100		
120	22.8	15.7	29.1

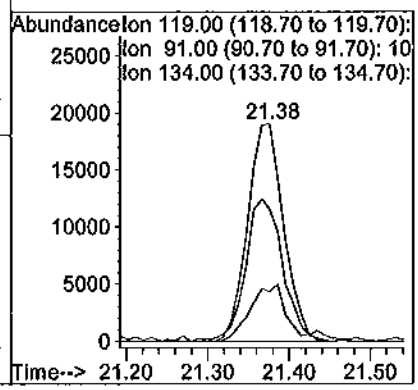


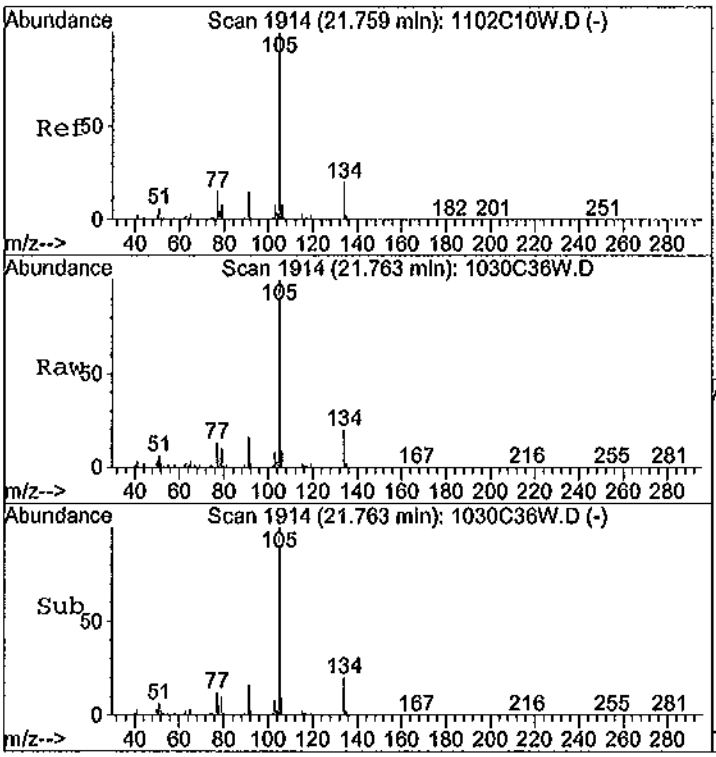


#83
Tert-Butylbenzene
Concen: 0.89124 ppb
RT: 21.38 min Scan# 1874
Delta R.T. 0.02 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion:119 Resp: 58606

Ion	Ratio	Lower	Upper
119	100		
91	60.7	43.5	80.7
134	22.8	18.8	34.8

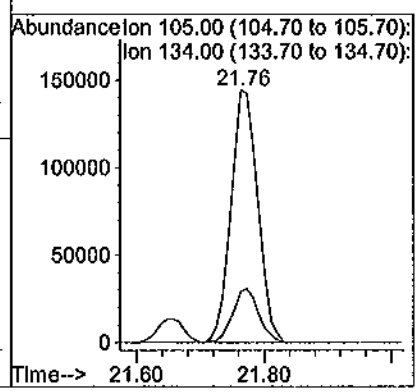


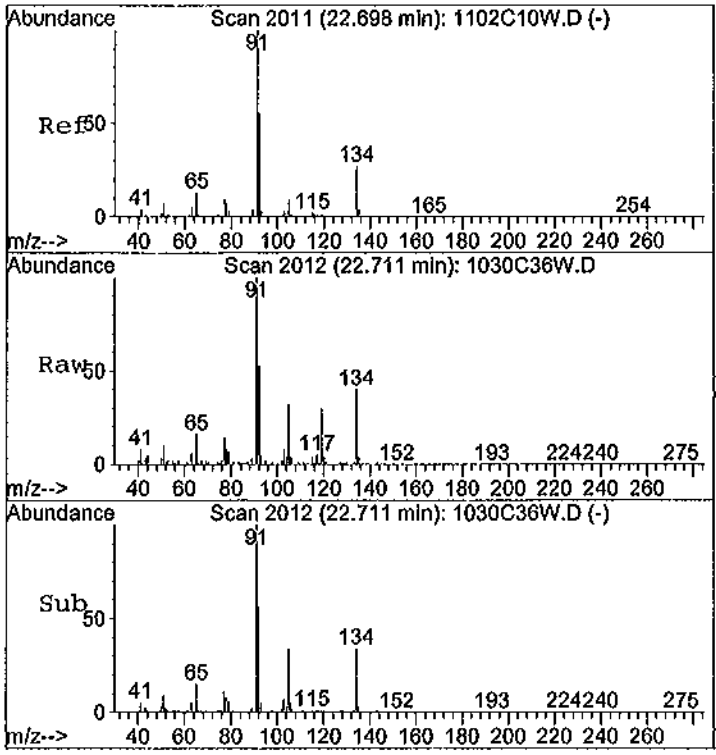


#85
Sec-Butylbenzene
Concen: 5.39136 ppb
RT: 21.76 min Scan# 1914
Delta R.T. 0.01 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion:105 Resp: 425161

Ion	Ratio	Lower	Upper
105	100		
134	20.2	15.3	28.5

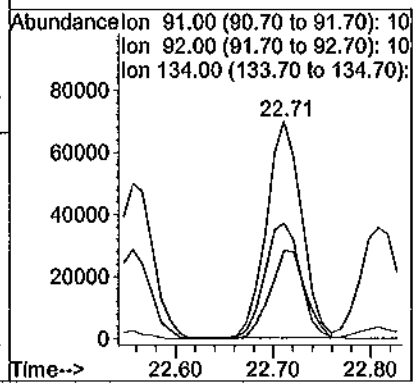


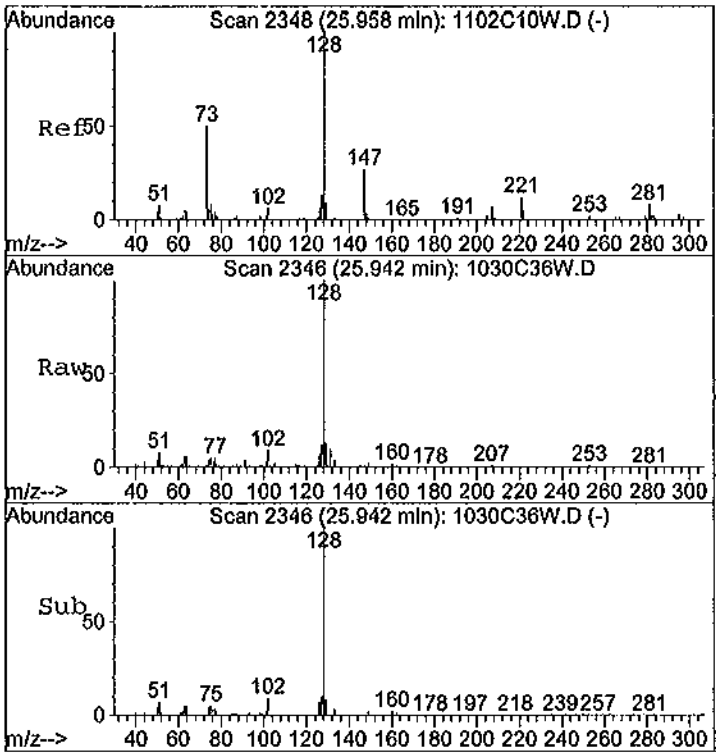


#91
n-Butylbenzene
Concen: 2.98472 ppb
RT: 22.71 min Scan# 2012
Delta R.T. 0.02 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion: 91 Resp: 175843

Ion	Ratio	Lower	Upper
91	100		
92	53.2	41.4	77.0
134	40.1	19.8	36.8#

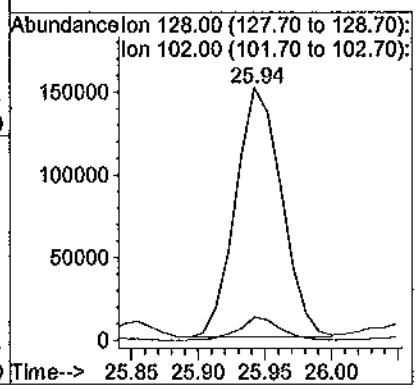




#96
Naphthalene
Concen: 14.38582 ppb
RT: 25.94 min Scan# 2346
Delta R.T. 0.01 min
Lab File: 1030C36W.D
Acq: 31 Oct 11 14:16

Tgt Ion:128 Resp: 360908

Ion	Ratio	Lower	Upper
128	100		
102	9.2	5.1	9.5



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C36W.D Vial: 1
Acq On : 31 Oct 11 14:16 Operator: STC
Sample : AY49333W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1167658	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1180896	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1128483	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

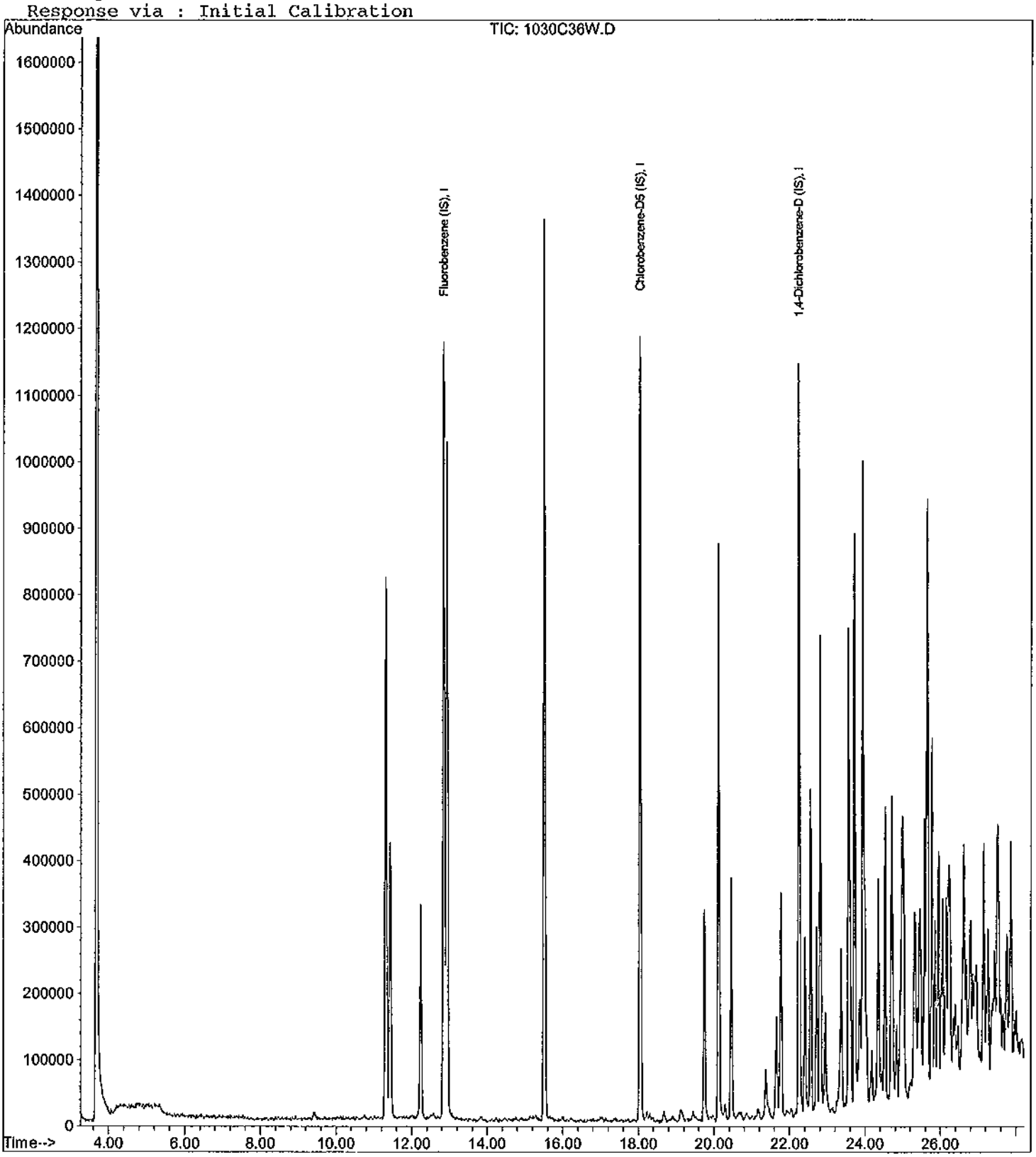
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C36W.D Vial: 1
Acq On : 31 Oct 11 14:16 Operator: STC
Sample : AY49333W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES047

APPL ID: AY49334

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C37
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM

APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES047

APPL ID: AY49334

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	104	70-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.9	75-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	102	85-115			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.6	85-120			%	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C37
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C37W.D Vial: 1
Acq On : 31 Oct 11 14:53 Operator: STC
Sample : AY49334W13 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	617536	25.00000 ppb	0.02
55) Chlorobenzene-D5 (IS)	18.05	117	437056	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	232960	25.00000 ppb	0.02
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	420841	25.58260 ppb	0.00
Spiked Amount 25.097			Recovery	= 101.935%	
38) 1,2-DCA-D4(S)	12.23	65	368967	25.19644 ppb	0.00
Spiked Amount 24.225			Recovery	= 104.007%	
56) Toluene-D8(S)	15.51	98	1549428	25.19567 ppb	0.02
Spiked Amount 25.808			Recovery	= 97.628%	
64) 4-Bromofluorobenzene(S)	20.13	95	554811	25.17926 ppb	0.02
Spiked Amount 25.459			Recovery	= 98.898%	
Target Compounds					Qvalue
73) Isopropylbenzene	19.75	105	388062	4.59610 ppb	99
78) n-Propylbenzene	20.46	91	482750	4.79275 ppb	100
83) Tert-Butylbenzene	21.37	119	65995	0.88891 ppb	94
85) Sec-Butylbenzene	21.77	105	453460	5.09305 ppb	97
96) Naphthalene	25.94	128	258129	9.11315 ppb	95

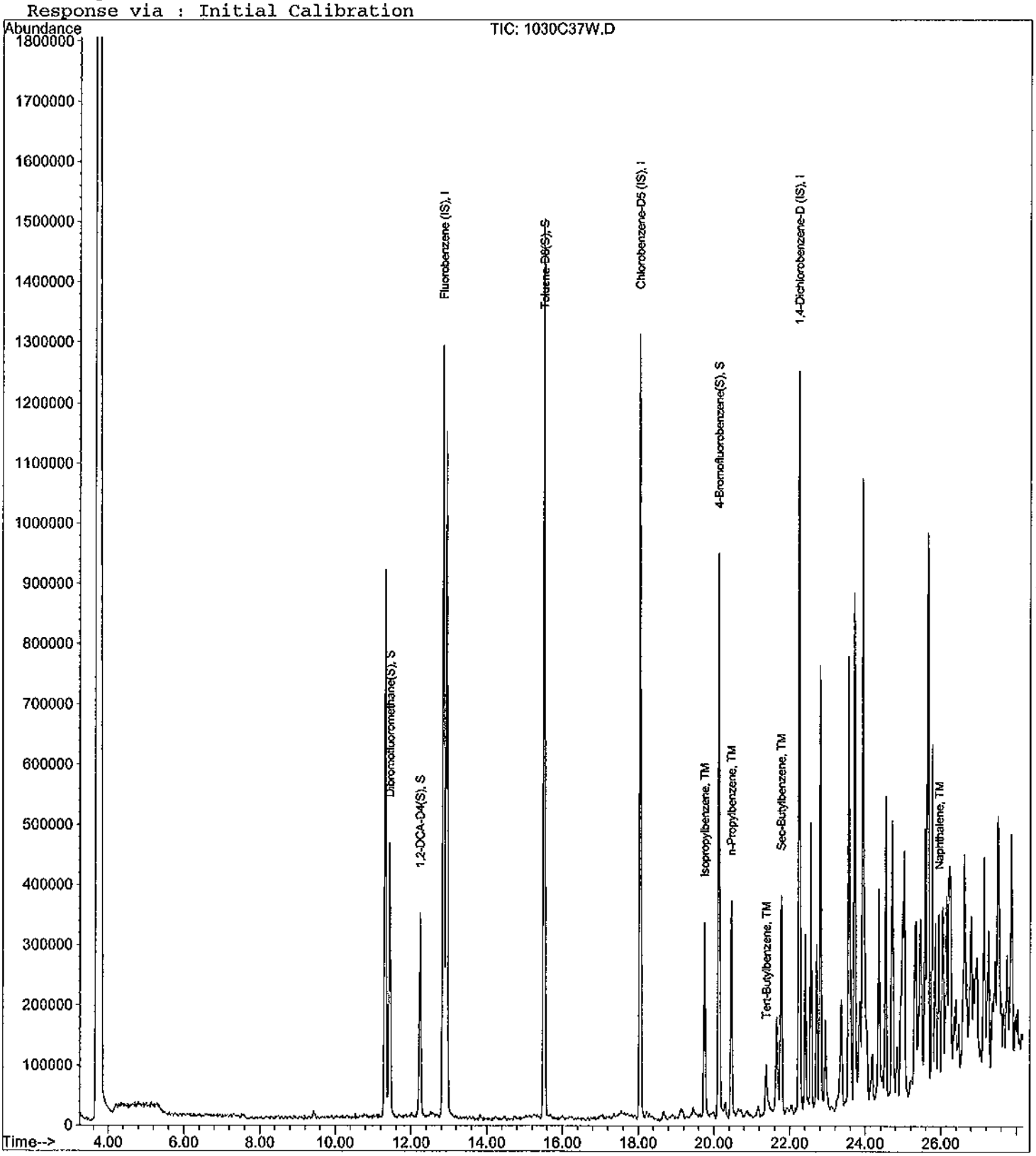
(#) = qualifier out of range (m) = manual integration

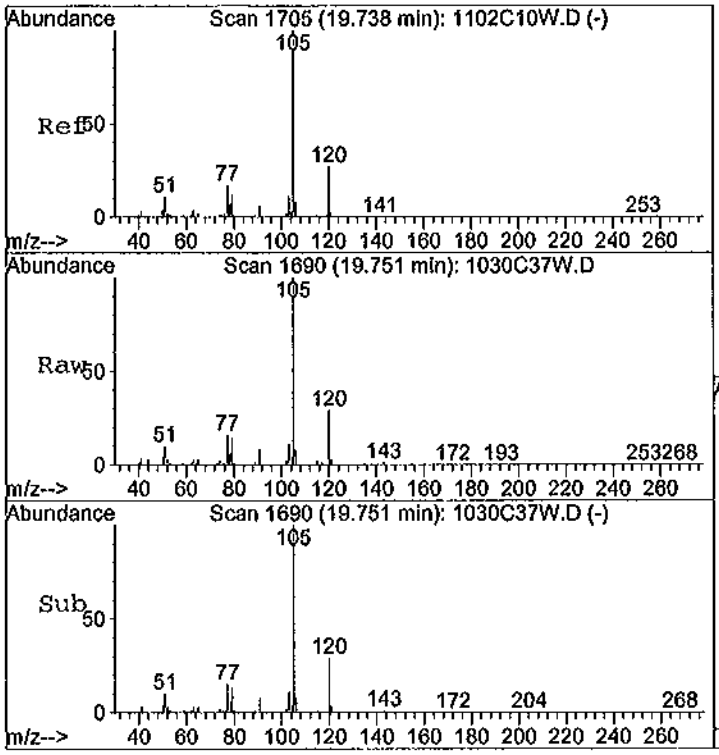
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C37W.D Vial: 1
Acq On : 31 Oct 11 14:53 Operator: STC
Sample : AY49334W13 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration

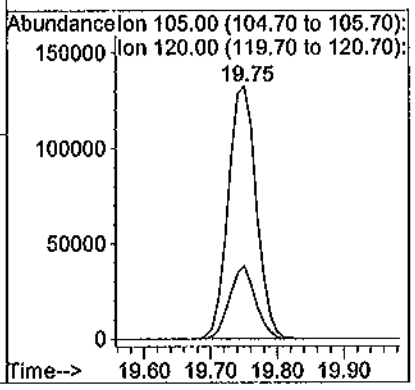


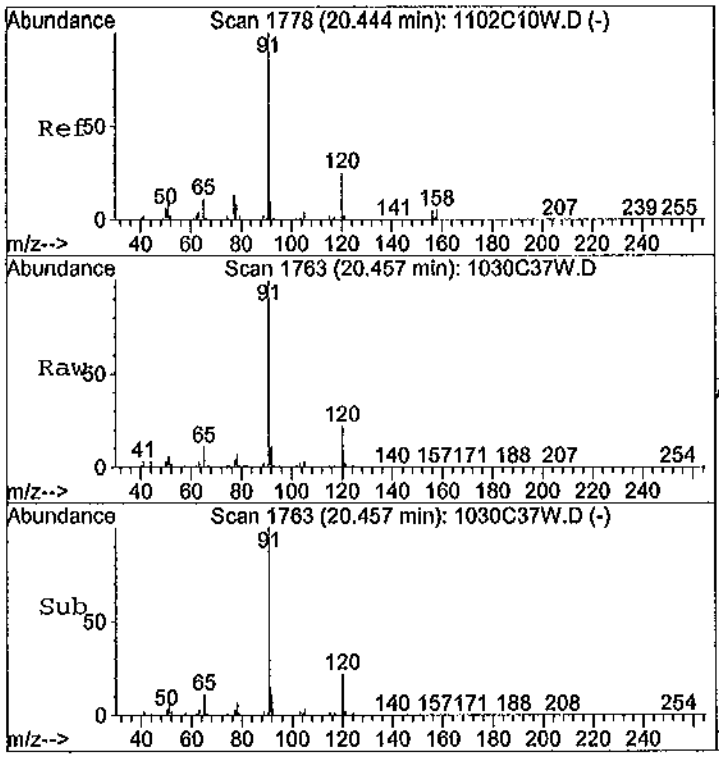


#73
Isopropylbenzene
Concen: 4.59610 ppb
RT: 19.75 min Scan# 1690
Delta R.T. 0.02 min
Lab File: 1030C37W.D
Acq: 31 Oct 11 14:53

Tgt Ion:105 Resp: 388062

Ion	Ratio	Lower	Upper
105	100		
120	28.8	22.6	33.8

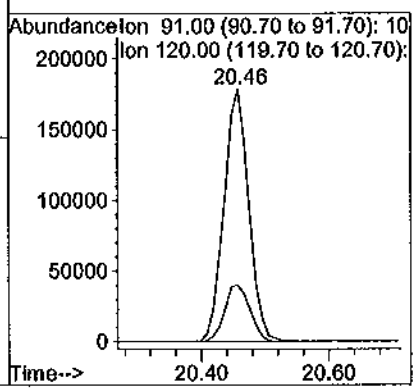


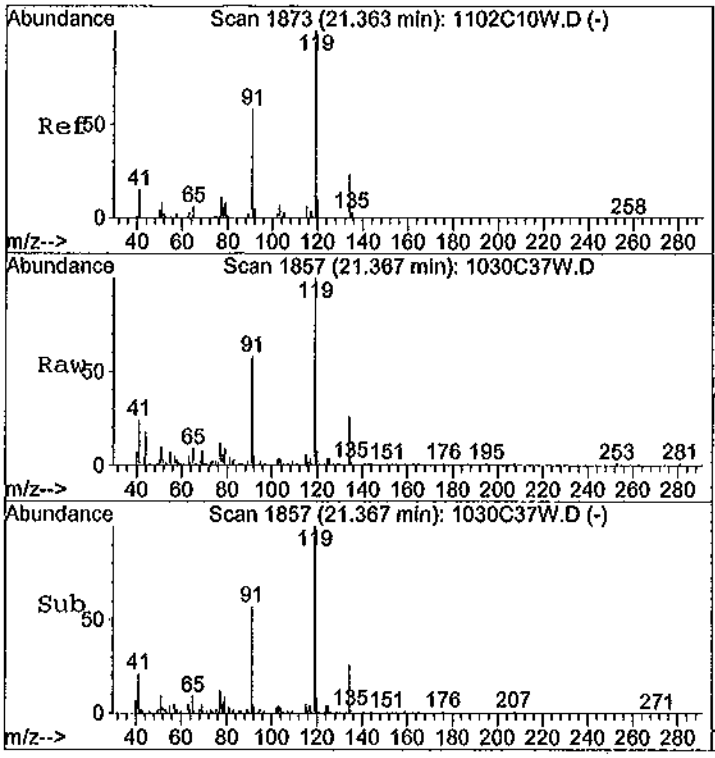


#78
n-Propylbenzene
Concen: 4.79275 ppb
RT: 20.46 min Scan# 1763
Delta R.T. 0.02 min
Lab File: 1030C37W.D
Acq: 31 Oct 11 14:53

Tgt Ion: 91 Resp: 482750

Ion	Ratio	Lower	Upper
91	100		
120	22.3	15.7	29.1

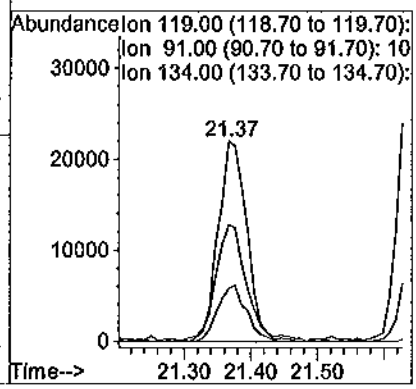


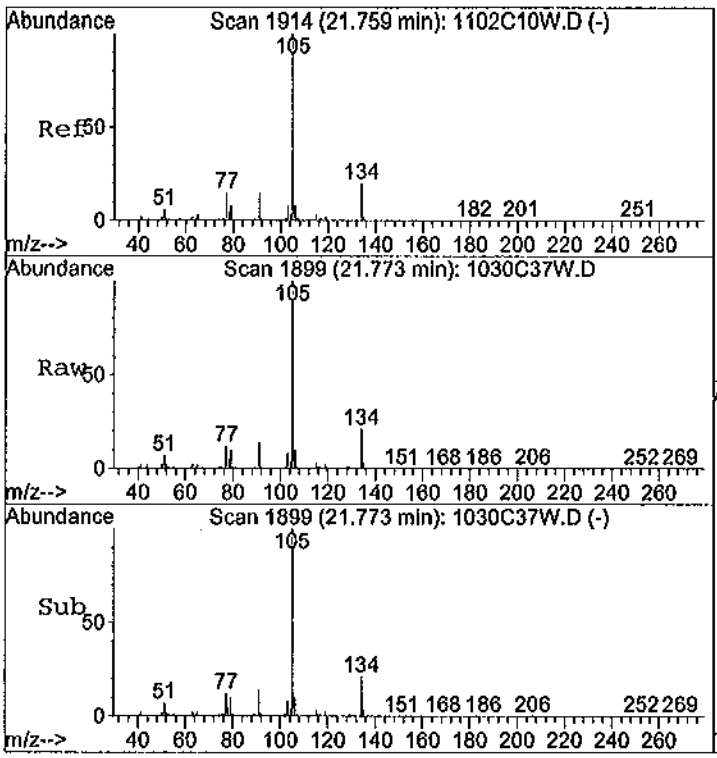


#83
Tert-Butylbenzene
Concen: 0.88891 ppb
RT: 21.37 min Scan# 1857
Delta R.T. 0.01 min
Lab File: 1030C37W.D
Acq: 31 Oct 11 14:53

Tgt Ion:119 Resp: 65995

Ion	Ratio	Lower	Upper
119	100		
91	56.1	43.5	80.7
134	26.3	18.8	34.8

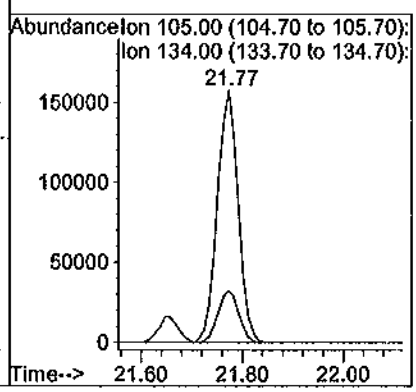


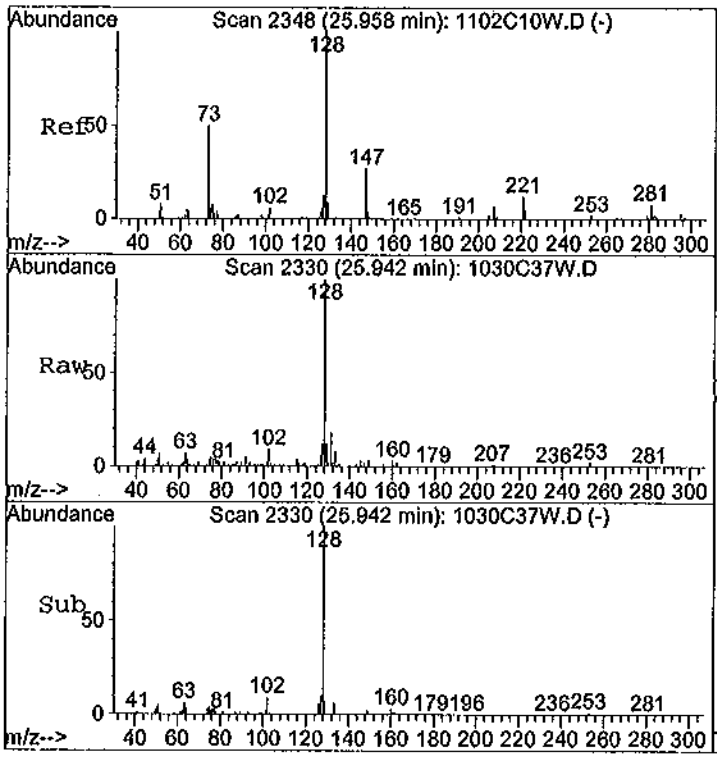


#85
Sec-Butylbenzene
Concen: 5.09305 ppb
RT: 21.77 min Scan# 1899
Delta R.T. 0.02 min
Lab File: 1030C37W.D
Acq: 31 Oct 11 14:53

Tgt Ion:105 Resp: 453460

Ion	Ratio	Lower	Upper
105	100		
134	20.6	15.3	28.5

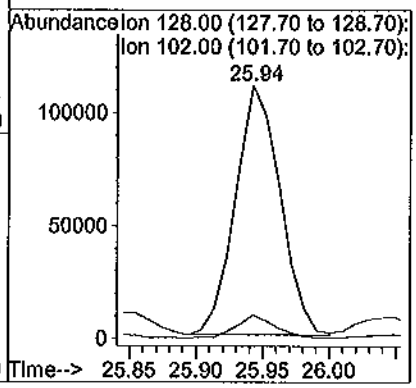




#96
Naphthalene
Concen: 9.11315 ppb
RT: 25.94 min Scan# 2330
Delta R.T. 0.01 min
Lab File: 1030C37W.D
Acq: 31 Oct 11 14:53

Tgt Ion:128 Resp: 258129

Ion	Ratio	Lower	Upper
128	100		
102	9.2	5.1	9.5



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C37W.D Vial: 1
Acq On : 31 Oct 11 14:53 Operator: STC
Sample : AY49334W13 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1282349	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1302320	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1229710	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds Qvalue

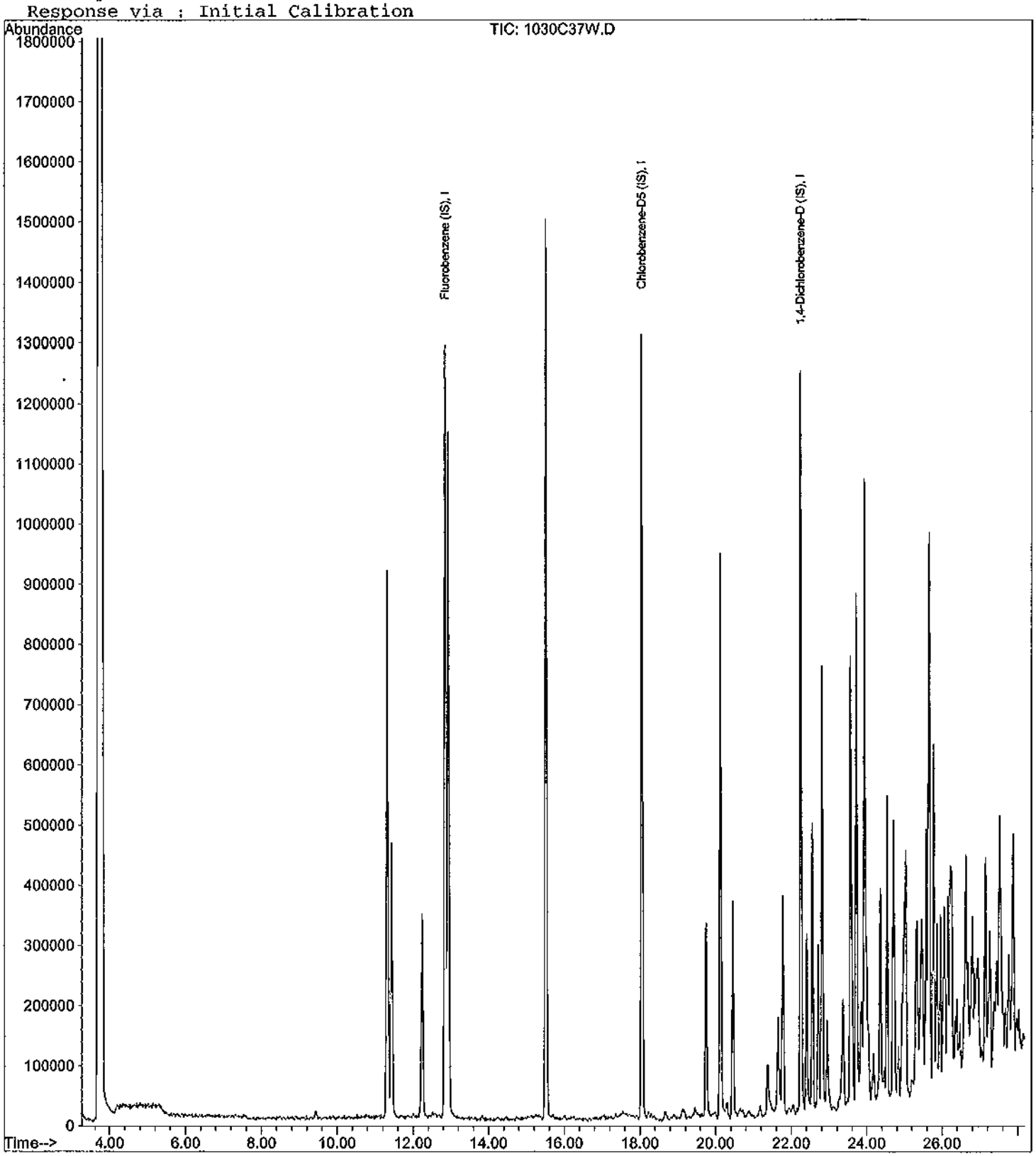
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C37W.D Vial: 1
Acq On : 31 Oct 11 14:53 Operator: STC
Sample : AY49334W13 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES048
Sample Collection Date: 10/24/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66102
APPL ID: AY49335
QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C35
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES048

APPL ID: AY49335

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	108	70-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	102	75-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.0	85-120			%	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C35
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C35W.D Vial: 1
Acq On : 31 Oct 11 13:39 Operator: STC
Sample : AY49335W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:52 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	576569	25.00000 ppb	0.01
55) Chlorobenzene-D5 (IS)	18.05	117	396544	25.00000 ppb	0.01
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	214592	25.00000 ppb	0.01
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	402959	26.23605 ppb	0.00
Spiked Amount 25.097			Recovery = 104.537%		
38) 1,2-DCA-D4(S)	12.23	65	357575	26.15350 ppb	0.00
Spiked Amount 24.225			Recovery = 107.958%		
56) Toluene-D8(S)	15.51	98	1425024	25.54008 ppb	0.01
Spiked Amount 25.808			Recovery = 98.960%		
64) 4-Bromofluorobenzene(S)	20.12	95	520964	26.05861 ppb	0.01
Spiked Amount 25.459			Recovery = 102.355%		

Target Compounds Qvalue

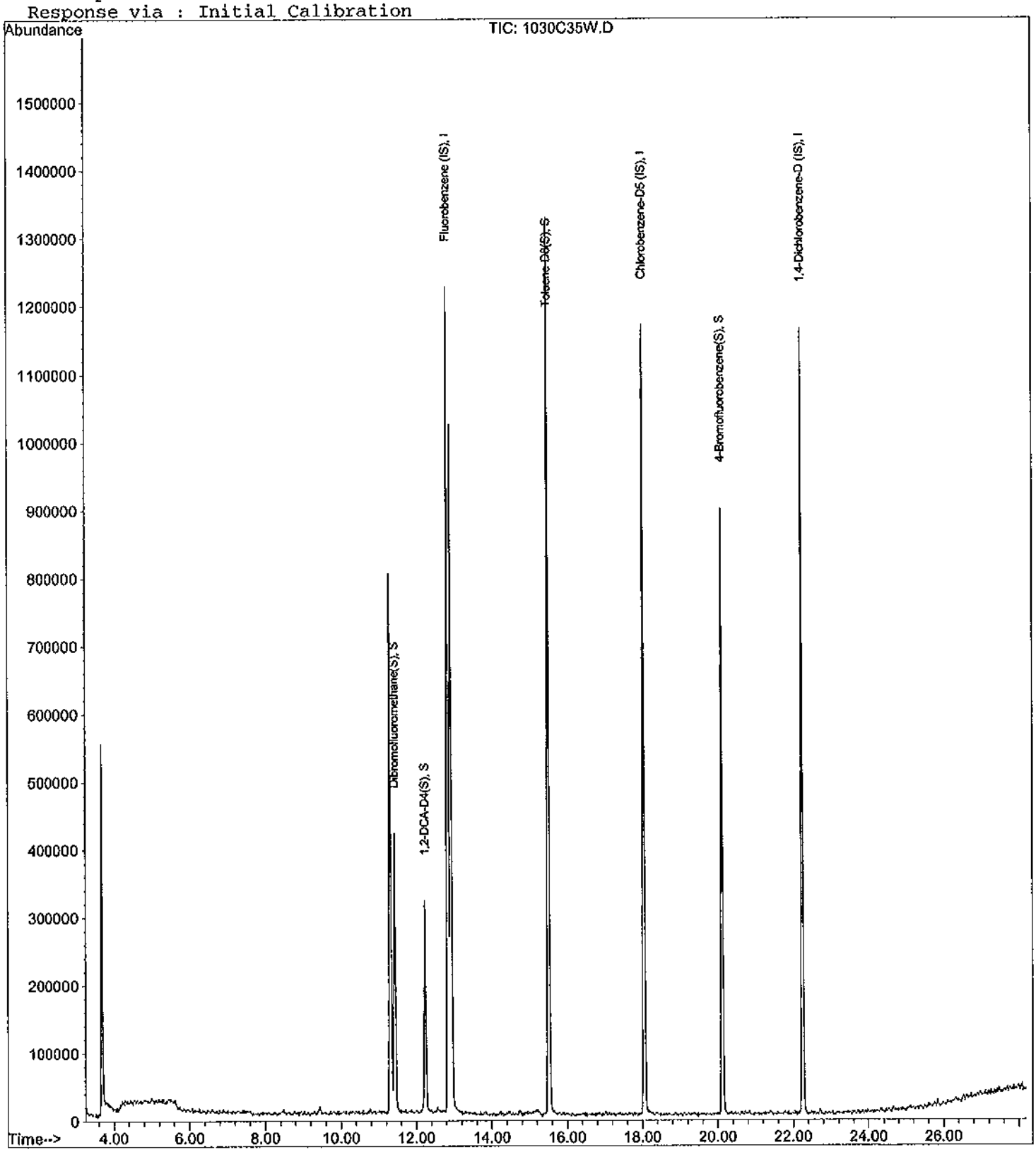
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C35W.D Vial: 1
Acq On : 31 Oct 11 13:39 Operator: STC
Sample : AY49335W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:52 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C35W.D Vial: 1
Acq On : 31 Oct 11 13:39 Operator: STC
Sample : AY49335W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1215846	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1162609	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1158136	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

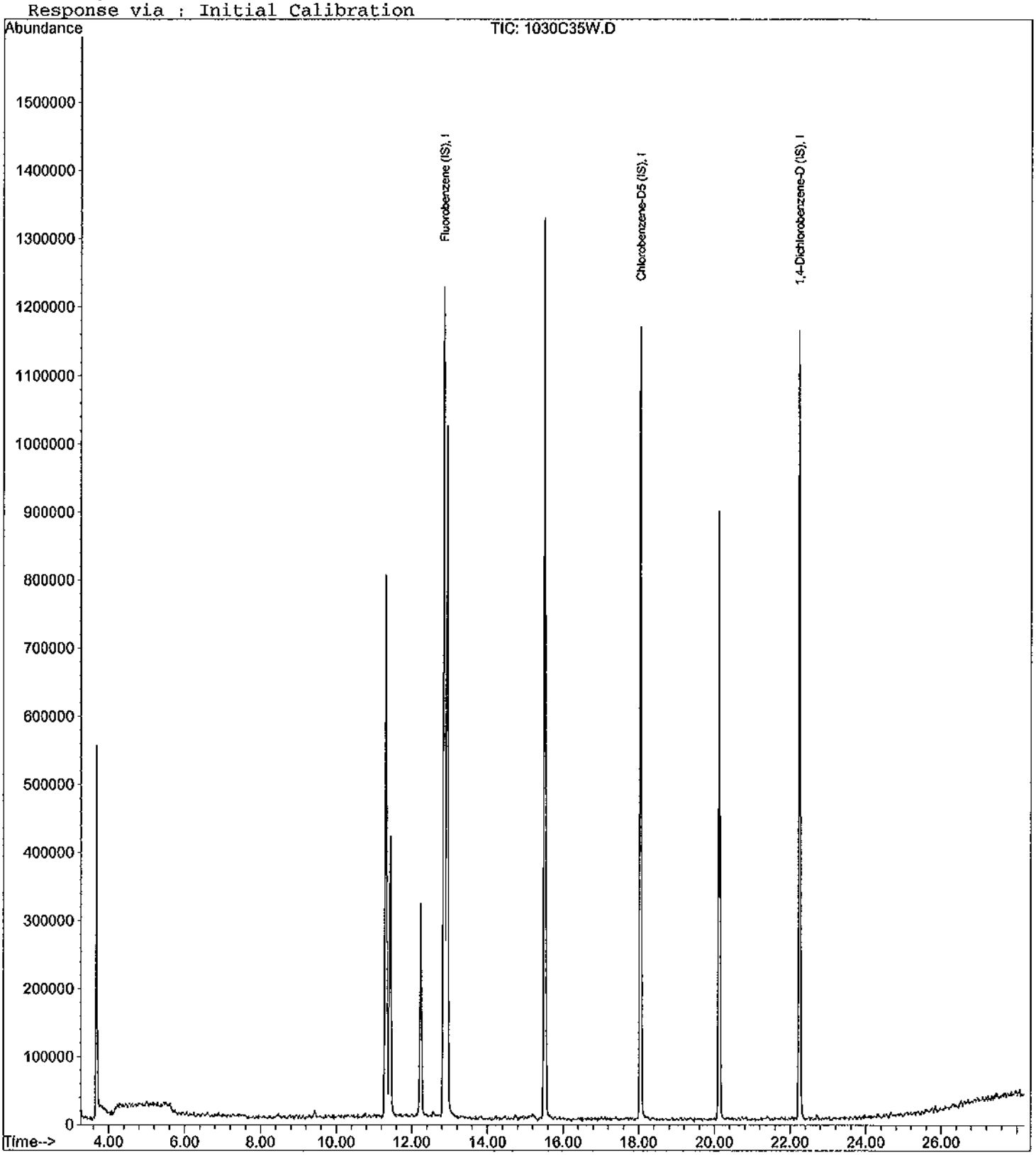
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C35W.D Vial: 1
Acq On : 31 Oct 11 13:39 Operator: STC
Sample : AY49335W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES049
Sample Collection Date: 10/24/11

ARF: 66102
APPL ID: AY49336
QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C38
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran

Project: RED HILL/1022-024

ARF: 66102

Sample ID: ES049

APPL ID: AY49336

Sample Collection Date: 10/24/11

QCG: #86RHB-111030AC-161029

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	98.1	70-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	102	75-120			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	85-115			%	10/31/11	10/31/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	10/31/11	10/31/11

Quant Method: CALLW.M
Run #: 1030C38
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 3:06:18 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C38W.D Vial: 1
Acq On : 31 Oct 11 15:31 Operator: STC
Sample : AY49336W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:04 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	662144	25.00000 ppb	0.02
55) Chlorobenzene-D5 (IS)	18.05	117	450969	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	251840	25.00000 ppb	0.02
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	443039	25.11762 ppb	0.00
Spiked Amount 25.097			Recovery = 100.083%		
38) 1,2-DCA-D4(S)	12.24	65	373247	23.77157 ppb	0.02
Spiked Amount 24.225			Recovery = 98.129%		
56) Toluene-D8(S)	15.51	98	1662069	26.19352 ppb	0.02
Spiked Amount 25.808			Recovery = 101.494%		
64) 4-Bromofluorobenzene(S)	20.13	95	588080	25.86573 ppb	0.02
Spiked Amount 25.459			Recovery = 101.597%		
Target Compounds					Qvalue
96) Naphthalene	25.95	128	17340	0.56629 ppb	# 89

N.D

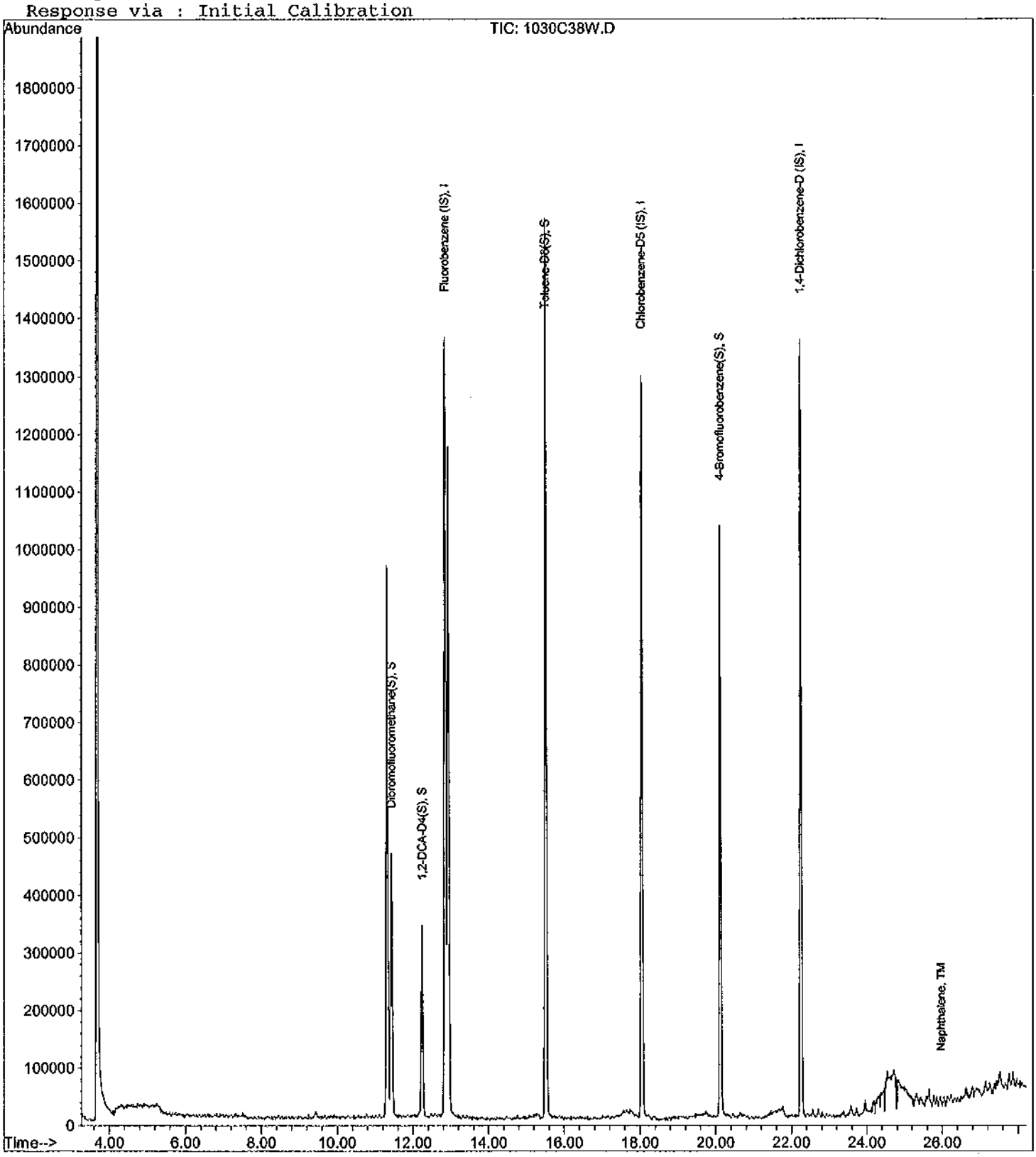
(#) = qualifier out of range (m) = manual integration

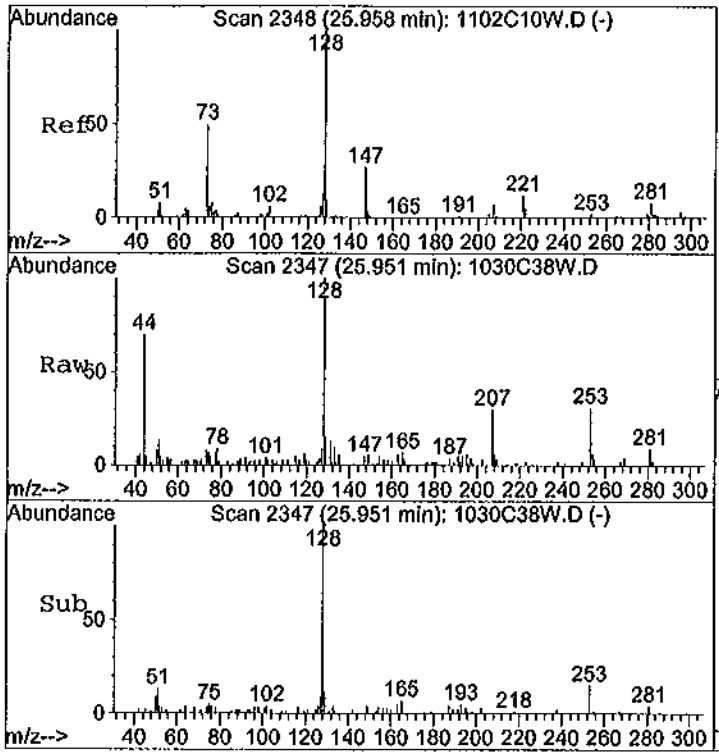
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C38W.D Vial: 1
Acq On : 31 Oct 11 15:31 Operator: STC
Sample : AY49336W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:04 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration

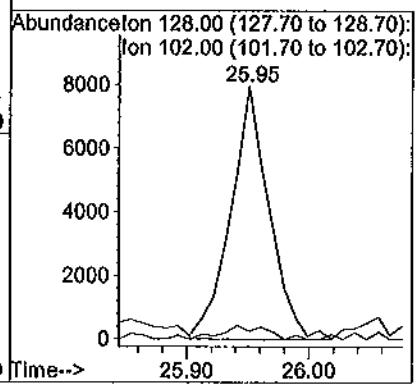




#96
Naphthalene
Concen: 0.56629 ppb
RT: 25.95 min Scan# 2347
Delta R.T. 0.02 min
Lab File: 1030C38W.D
Acq: 31 Oct 11 15:31

Tgt Ion:128 Resp: 17340

Ion	Ratio	Lower	Upper
128	100		
102	3.4	5.1	9.5#



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C38W.D Vial: 1
Acq On : 31 Oct 11 15:31 Operator: STC
Sample : AY49336W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1349909	25.00000 ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1288292	25.00000 ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1348071	25.00000 ppb	0.01

System Monitoring Compounds

Target Compounds Qvalue

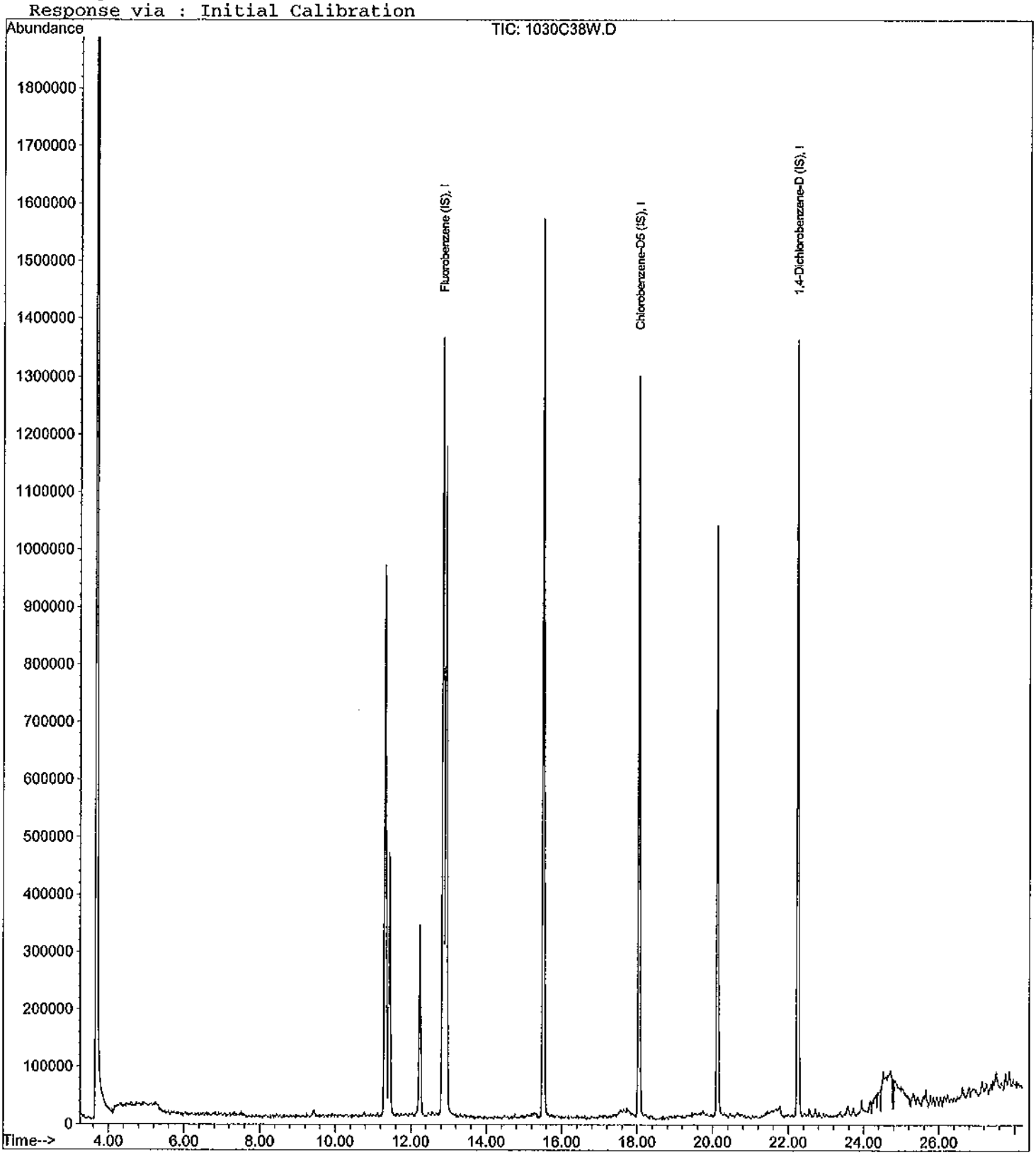
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C38W.D Vial: 1
Acq On : 31 Oct 11 15:31 Operator: STC
Sample : AY49336W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:23 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/11
Matrix: Instrument: Chico Initials:

			1030C15W.D	1030C16W.D	1030C17W.D	1030C18W.D	1030C19W.D	1030C20W.D	1030C21W.D	1030C22W.D	1030C23W.D					
		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
1	I	Fluorobenzene (IS)	ISTD													
2	TM	Dichlorodifluoromethane	0.9991	0.9593	0.9680	0.8471	0.8830	0.9152	0.9504	0.9592	0.8084		0.92	6.8	TM	
3	TM	Freon 114	0.5029	0.5470	0.6167	0.5799	0.5567	0.6260	0.6223	0.6040	0.5364		0.58	7.6	TM	
4	TM**	Chloromethane	1.389	1.171	1.239	1.184	1.061	1.077	1.079	1.076	0.9963		1.1	10	TM**	
5	TM*	Vinyl chloride		0.8227	0.9389	0.7274	0.8810	0.7956	0.7782	0.6322	0.5319		0.76	17	TM*	
6	TML	1,3-Butadiene													TML	
7	TM	Bromomethane	0.5647	0.5370	0.4933	0.6483	0.5131	0.5331	0.5691	0.5732	0.5561		0.55	8.0	TM	
8	TM	Chloroethane		0.7481	0.7782	0.6360	0.6082	0.5955	0.5730	0.5758	0.5302		0.63	14	TM	
9	TM	Dichlorofluoromethane	1.806	1.879	1.897	1.843	1.787	1.725	1.664	1.599	1.493		1.7	7.8	TM	
10	TM	Trichlorofluoromethane	1.219	0.9410	1.059	1.063	1.038	1.037	1.027	1.027	0.9025		1.0	8.5	TM	
11		Acetonitrile	0.0248	0.0305	0.0278	0.0270	0.0288	0.0267	0.0258	0.0269	0.0283		0.03	6.1		
12	TM	Acrolein	0.0160	0.0133	0.0127	0.0117	0.0124	0.0118	0.0112	0.0121	0.0115		0.01	12	TM	
13	TML	Acetone	0.2927	0.4962	0.2742	0.1724	0.1160	0.0970	0.0807	0.0738	0.0705		0.19	77	TML	1.000
14	TML	Freon-113		0.2687	0.6640	0.6219	0.6334	0.6298	0.6085	0.6058	0.5403		0.57	22	TML	0.999
15	TM*	1,1-DCE	0.8684	0.8302	0.7551	0.7075	0.7021	0.6844	0.6445	0.6344	0.5970		0.71	13	TM*	
16	TM	t-Butanol	0.0032	0.0028	0.0031	0.0037	0.0033	0.0035	0.0031	0.0036	0.0043		0.00	13	TM	
17	TML	Methyl Acetate		0.5858	0.4123	0.3223	0.1877	0.2224	0.2002	0.2076	0.2032		0.29	48	TML	1.000
18	TML	Iodomethane			0.1817	0.2265	0.2408	0.2984	0.3981	0.4959	0.6090		0.35	45	TML	0.997
19	TML	Acrylonitrile		0.0466	0.0701	0.0979	0.0824	0.0851	0.0770	0.0761	0.0758		0.08	19	TML	1.000
20	TM	Methylene chloride		0.8304	0.7142	0.7211	0.6635	0.6652	0.6531	0.6094	0.5892		0.68	11	TM	
21	TM	Carbon disulfide	0.8377	0.7169	0.7402	0.7186	0.6675	0.6811	0.6507	0.6311	0.5977		0.69	10	TM	
22	TM	Methyl t-butyl ether (MtBE)	1.160	1.072	1.146	1.130	1.059	1.101	1.037	1.041	0.9630		1.1	5.8	TM	
23	TM	Trans-1,2-DCE	0.9275	0.9146	0.8717	0.8807	0.8240	0.8200	0.7565	0.7483	0.7085		0.83	9.3	TM	
24	TM	Diisopropyl Ether	2.775	2.360	2.465	2.461	2.400	2.425	2.261	2.245	2.073		2.4	8.1	TM	
25	TM**	1,1-DCA	1.448	1.345	1.449	1.466	1.510	1.465	1.402	1.378	1.267		1.4	5.3	TM**	
26	TML	Vinyl Acetate		1.048	0.7027	0.5800	0.5004	0.4421	0.4155	0.4257	0.3841		0.56	40	TML	0.999
27	TM	Ethyl tert Butyl Ether	1.698	1.549	1.596	1.761	1.670	1.751	1.601	1.569	1.460		1.6	6.1	TM	
28	TML	MEK (2-Butanone)		0.5665	0.4588	0.3602	0.2874	0.2964	0.2742	0.2705			0.35	32	TML	1.000
29	TM	Cis-1,2-DCE	1.025	0.9874	0.8510	0.8618	0.8314	0.8432	0.7892	0.7602	0.7089		0.85	12	TM	
30	TM	2,2-Dichloropropane	1.246	1.113	0.9950	1.048	1.020	0.9872	0.9664	0.9254	0.8189		1.0	12	TM	
31	TM*	Chloroform	1.473	1.359	1.352	1.398	1.420	1.399	1.327	1.309	1.208		1.4	5.6	TM*	
32	TM	Bromochloromethane	0.2100	0.2283	0.2743	0.2327	0.2615	0.2451	0.2386	0.2267	0.2148		0.24	8.8	TM	
33	S	Dibromofluoromethane(S)	0.6664	0.6677	0.6754	0.6906	0.6830	0.6822	0.6563	0.6514	0.6207		0.67	3.2	S	
34	TM	1,1,1-TCA	1.307	1.226	1.269	1.241	1.235	1.281	1.263	1.210	1.104		1.2	4.7	TM	
35	TM	Cyclohexane	1.116	1.365	1.215	1.216	1.106	1.144	1.092	1.114	1.000		1.2	8.9	TM	

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/11
Matrix: Instrument: Chico Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
36	TM	1,1-Dichloropropene	1.089	1.043	1.238	1.061	1.080	1.064	1.039	0.9929	0.9342		1.1	7.8	TM	
37	TML	2,2,4-Trimethylpentane		4.510	2.958	2.198	1.929	1.816	1.761	1.722	1.632		2.3	42	TML	1.000
38	S	1,2-DCA-D4(S)	0.5562	0.6935	0.6364	0.6275	0.6073	0.5850	0.5554	0.5514	0.5227		0.59	9.0	S	
39	TM	Carbon Tetrachloride	0.7745	0.7961	0.7551	0.8397	0.8717	0.9031	0.9401	0.9166	0.8718		0.85	7.6	TM	
40	TM	Tert Amyl Methyl Ether	1.206	1.355	1.238	1.270	1.190	1.245	1.179	1.154	1.119		1.2	5.7	TM	
41	TM	1,2-DCA	0.8312	0.6440	0.6792	0.7198	0.7101	0.7316	0.6883	0.6614	0.6203		0.70	8.8	TM	
42	TM	Benzene	3.278	3.031	3.234	3.139	3.058	3.078	2.926	2.893	2.778		3.0	5.3	TM	
43	TM	TCE	0.7582	0.8575	0.9261	0.9155	0.8745	0.8692	0.8308	0.8139	0.7474		0.84	7.4	TM	
44	TM	2-Pentanone	0.1621	0.1829	0.1696	0.1839	0.1797	0.1849	0.1709	0.1792	0.1751		0.18	4.4	TM	
45	TM*	1,2-Dichloropropane	0.6688	0.7192	0.7502	0.6580	0.7308	0.7195	0.6791	0.6772	0.6288		0.69	5.7	TM*	
46	TM	Bromodichloromethane	0.7189	0.7057	0.8148	0.7719	0.8069	0.8660	0.8196	0.8390	0.7766		0.79	6.7	TM	
47	TM	Methyl Cyclohexane	1.113	1.125	0.9652	0.9330	0.9573	1.003	0.9550	0.9420	0.8802		0.99	8.3	TM	
48	TM	Dibromomethane	0.2413	0.2669	0.2816	0.2846	0.2915	0.3053	0.2877	0.2711	0.2623		0.28	6.8	TM	
49	TM	2-Chloroethyl vinyl ether	0.1532	0.1448	0.1599	0.1939	0.1910	0.1855	0.1751	0.1885	0.1924		0.18	11	TM	
50	TM	1-Bromo-2-chloroethane	0.6355	0.5704	0.5860	0.6008	0.6129	0.6029	0.5729	0.5868	0.5488		0.59	4.3	TM	
51	TM	Cis-1,3-Dichloropropene	0.7822	0.6621	0.7733	0.7420	0.7627	0.7998	0.7723	0.7726	0.7216		0.75	5.5	TM	
52	TM*	Toluene	3.411	3.085	2.935	3.035	3.024	3.066	2.913	2.874	2.698		3.0	6.5	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5191	0.5428	0.4995	0.5430	0.5365	0.5848	0.5511	0.5622	0.5483		0.54	4.5	TM	
54	TM	1,1,2-TCA	0.3181	0.2834	0.2608	0.3010	0.2945	0.3288	0.2891	0.2919	0.2665		0.29	7.5	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD													
56	S	Toluene-D8(S)	3.825	3.742	3.592	3.490	3.642	3.496	3.501	3.233	3.138		3.5	6.3	S	
57	TM	1,2-EDB	0.5186	0.3944	0.4412	0.4259	0.5017	0.5094	0.5156	0.5003	0.4752		0.48	9.4	TM	
58	TM	Tetrachloroethene	1.569	1.513	1.319	1.276	1.308	1.257	1.237	1.102	0.9877		1.3	14	TM	
59	TM	1-Chlorohexane	1.590	1.521	1.436	1.470	1.527	1.492	1.526	1.416	1.343		1.5	5.0	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.6133	0.6996	0.7082	0.7484	0.8608	0.9066	0.9437	0.9002	0.8611		0.80	14	TM	
61	TM	m&p-Xylene	2.262	1.857	1.843	1.755	1.899	1.909	1.977	1.824	1.763		1.9	8.1	TM	
62	TM	o-Xylene	1.911	1.844	1.639	1.684	1.946	1.920	1.973	1.805	1.714		1.8	6.7	TM	
63	TM	Styrene	2.668	2.626	2.667	2.614	2.923	2.903	3.005	2.787	2.612		2.8	5.5	TM	
64	S	4-Bromofluorobenzene(S)	1.386	1.298	1.312	1.224	1.272	1.281	1.253	1.176	1.141		1.3	5.8	S	
65	TM	2-Hexanone		0.2681	0.1979	0.2383	0.2161	0.2363	0.2325	0.2267	0.2142		0.23	9.1	TM	
66	TM	1,3-Dichloropropane	0.9515	0.9439	0.8870	0.9272	0.9571	1.037	0.9690	0.9322	0.8392		0.94	5.8	TM	
67	TM	Dibromochloromethane		0.4957	0.5504	0.5206	0.6049	0.6702	0.6987	0.6794	0.6801		0.61	13	TM	
68	TM**	Chlorobenzene	3.339	2.652	2.608	2.538	2.763	2.780	2.740	2.590	2.437		2.7	9.5	TM**	
69	TM*	Ethylbenzene	5.842	4.934	5.056	4.770	5.229	5.219	5.128	4.773	4.573		5.1	7.3	TM*	
70	TM**L	Bromoform		0.1505	0.1690	0.2072	0.2509	0.2961	0.3266	0.3337	0.3518		0.26	30	TM**L	1.000

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____
Case No: _____ Initial Cal. Date: 10/30/11
Matrix: _____ Instrument: Chico
Initials: _____

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
71	I	1,4-Dichlorobenzene-D (IS)	ISTD													
72	TM	MIBK (methyl isobutyl ketone)		0.7574	0.8768	0.8241	0.6092	0.6987	0.6391	0.6372	0.6432		0.71	14	TM	
73	TM	Isopropylbenzene	9.699	9.039	9.300	9.316	9.115	9.225	9.084	8.340	8.429		9.1	4.7	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7160	0.6740	0.7118	0.7852	0.7159	0.8359	0.8186	0.7717	0.7972		0.76	7.4	TM**	
75	TML	1,2,3-Trichloropropane		0.1080	0.1466	0.0826	0.0875	0.1024	0.0817	0.0773	0.0871		0.10	24	TML	0.999
76	TM	t-1,4-Dichloro-2-Butene			0.1384	0.1583	0.1653	0.1826	0.1817	0.1785	0.1992		0.17	12	TM	
77	TM	Bromobenzene	2.191	2.293	2.136	2.173	2.073	2.079	2.023	1.887	1.956		2.1	6.0	TM	
78	TM	n-Propylbenzene	10.7	10.8	11.2	11.8	11.0	11.1	10.9	9.840	10.0		11	5.5	TM	
79	TM	4-Ethyltoluene	8.877	7.431	7.642	7.504	7.338	7.570	7.245	6.748	6.966		7.5	8.0	TM	
80	TM	2-Chlorotoluene	7.018	7.963	7.290	7.456	7.317	7.299	7.188	6.487	6.411		7.2	6.7	TM	
81	TM	1,3,5-Trimethylbenzene	7.727	7.461	7.573	7.610	7.521	7.220	7.414	6.796	6.911		7.4	4.4	TM	
82	TM	4-Chlorotoluene	6.723	5.915	6.587	6.584	6.067	6.161	6.027	5.579	5.836		6.2	6.3	TM	
83	TM	Tert-Butylbenzene	7.797	8.301	7.989	8.311	8.009	8.197	8.168	7.421	7.513		8.0	4.1	TM	
84	TM	1,2,4-Trimethylbenzene	9.214	8.117	7.974	7.683	7.602	7.509	7.430	6.744	6.901		7.7	9.4	TM	
85	TM	Sec-Butylbenzene	9.285	9.224	9.540	9.998	9.615	10.0	10.0	9.119	9.181		9.6	3.9	TM	
86	TM	p-Isopropyltoluene	8.163	8.064	7.913	8.723	8.266	8.400	8.451	7.803	7.874		8.2	3.7	TM	
87	TM	Benzyl Chloride	1.279	1.152	0.9338	1.032	1.032	1.034	1.076	1.092	1.146		1.1	9.0	TM	
88	TM	1,3-DCB	4.734	4.325	4.213	4.479	4.312	4.203	4.279	3.938	3.986		4.3	5.6	TM	
89	TM	1,4-DCB	4.442	3.837	3.983	4.080	3.868	4.040	3.960	3.691	3.802		4.0	5.5	TM	
90	TML	Hexachloroethane		0.4249	0.7118	0.7588	0.9050	1.121	1.321	1.363	1.564		1.0	38	TML	0.999
91	TM	n-Butylbenzene	8.074	7.623	7.277	7.189	6.988	7.038	7.040	6.417	6.597		7.1	7.0	TM	
92	TM	1,2-DCB	3.608	3.335	3.210	3.537	3.348	3.563	3.491	3.215	3.291		3.4	4.5	TM	
93	TML	1,2-Dibromo-3-chloropropane			0.0874	0.0872	0.1047	0.1419	0.1157	0.1281	0.1388		0.11	20	TML	0.999
94	TM	1,2,4-Trichlorobenzene	2.498	2.793	2.514	2.479	2.457	2.481	2.418	2.256	2.277		2.5	6.3	TM	
95	TM	Hexachlorobutadiene		0.5819	0.4282	0.4193	0.3927	0.4607	0.4714	0.4161	0.4105		0.45	13	TM	
96	TM	Naphthalene	3.183	3.265	3.072	3.033	2.834	3.138	3.029	2.875	2.927		3.0	4.7	TM	
97	TM	1,2,3-Trichlorobenzene	1.684	1.977	1.763	2.168	1.821	1.952	1.854	1.766	1.787		1.9	7.9	TM	
98	TML	Dibromochlorobenzene													TML	
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	559104	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	374592	25.00000 ppb		-0.01
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	198336	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.41	111	8942	0.60039 ppb		-0.01
Spiked Amount 25.097			Recovery	= 2.391%		
38) 1,2-DCA-D4(S)	12.23	65	7464	0.56298 ppb		0.00
Spiked Amount 24.225			Recovery	= 2.324%		
56) Toluene-D8(S)	15.50	98	34391	0.65250 ppb		0.00
Spiked Amount 25.808			Recovery	= 2.526%		
64) 4-Bromofluorobenzene(S)	20.11	95	12464	0.65998 ppb		0.00
Spiked Amount 25.459			Recovery	= 2.592%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	6703	0.32540 ppb	#	80
3) Freon 114	4.33	85	3374	0.26153 ppb	#	70
4) Chloromethane	4.55	50	9320	0.36511 ppb		94
5) Vinyl chloride	4.83	62	6233	0.36505 ppb	#	76
6) 1,3-Butadiene	4.86	54	426	8.92736 ppb	#	41
7) Bromomethane	5.72	94	3789	0.30570 ppb		70
8) Chloroethane	5.92	64	6243	0.44265 ppb	#	55
9) Dichlorofluoromethane	6.01	67	12120	0.31081 ppb		86
10) Trichlorofluoromethane	6.51	101	8177	0.35336 ppb		78
11) Acetonitrile	7.67	41	8307	13.56274 ug/l		100
12) Acrolein	7.18	56	5382	19.20236 ppb	#	71
13) Acetone	7.26	43	1964	1.22606 ppb	#	75
14) Freon-113	7.48	101	3974	-0.83183 ppb	#	68
15) 1,1-DCE	7.68	96	5826	0.36499 ppb	#	38
16) t-Butanol	7.78	59	1058	13.95861 ppb		96
17) Methyl Acetate	8.17	43	2286	-0.18237 ppb	#	87
18) Iodomethane	8.17	142	479	3.85678 ppb	#	37
19) Acrylonitrile	8.56	53	560	-0.04894 ppb	#	5
20) Methylene chloride	8.46	84	7036	0.46214 ppb	#	60
21) Carbon disulfide	8.57	76	5620	0.36236 ppb		97
22) Methyl t-butyl ether (MtBE	8.91	73	7781	0.32251 ppb	#	64
23) Trans-1,2-DCE	9.09	96	6223	0.38166 ppb		92
24) Diisopropyl Ether	9.75	45	18616	0.34902 ppb	#	73
25) 1,1-DCA	9.78	63	9717	0.30719 ppb		95
26) Vinyl Acetate	9.43	43	9166	-0.47709 ppb	#	81
27) Ethyl tert Butyl Ether	10.45	59	11390	0.31279 ppb		93
28) MEK (2-Butanone)	10.45	43	4667	0.10206 ppb	#	76
29) Cis-1,2-DCE	10.80	96	6876	0.36134 ppb	#	67
30) 2,2-Dichloropropane	10.79	77	8357	0.36882 ppb		95
31) Chloroform	11.08	83	9885	0.32484 ppb		86
32) Bromochloromethane	11.31	128	1409	0.26596 ppb	#	1
34) 1,1,1-TCA	11.83	97	8769	0.31687 ppb	#	72
35) Cyclohexane	11.98	56	7488	0.29062 ppb	#	74
36) 1,1-Dichloropropene	12.10	75	7308	0.30819 ppb		86
37) 2,2,4-Trimethylpentane	12.17	57	48085	0.17131 ppb	#	87
39) Carbon Tetrachloride	12.31	117	5196	0.27267 ppb	#	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	8093	0.29724 ppb	#	82
41)	1,2-DCA	12.36	62	5577	0.35705 ppb	#	79
42)	Benzene	12.50	78	21995	0.32285 ppb		99
43)	TCE	13.53	95	5087	0.26961 ppb		88
44)	2-Pentanone	13.19	43	54377	13.77755 ppb		91
45)	1,2-Dichloropropane	13.76	63	4487	0.28977 ppb	#	81
46)	Bromodichloromethane	14.11	83	4823	0.27263 ppb	#	84
47)	Methyl Cyclohexane	13.81	83	7465	0.33857 ppb		81
48)	Dibromomethane	14.15	93	1619	0.26143 ppb	#	56
49)	2-Chloroethyl vinyl ether	14.57	63	1028	0.26114 ppb	#	71
50)	1-Bromo-2-chloroethane	14.89	63	4264	0.32272 ppb	#	76
51)	Cis-1,3-Dichloropropene	15.00	75	5248	0.31110 ppb		96
52)	Toluene	15.64	91	22887	0.34061 ppb		88
53)	Trans-1,3-Dichloropropene	15.80	75	3483	0.28679 ppb	#	72
54)	1,1,2-TCA	16.08	83	2134	0.32602 ppb		86
57)	1,2-EDB	17.33	107	2331	0.32696 ppb	#	72
58)	Tetrachloroethene	16.79	164	7051	0.36612 ppb	#	74
59)	1-Chlorohexane	17.71	91	7147	0.32226 ppb	#	70
60)	1,1,1,2-Tetrachloroethane	18.16	131	2757	0.22867 ppb		83
61)	m&p-Xylene	18.35	106	20335	0.71474 ppb		85
62)	o-Xylene	19.11	106	8588	0.31386 ppb		68
63)	Styrene	19.12	104	11993	0.29039 ppb		98
65)	2-Hexanone	16.12	43	2535	0.73958 ppb	#	73
66)	1,3-Dichloropropane	16.49	76	4277	0.30423 ppb		96
67)	Dibromochloromethane	16.98	129	1907	0.20779 ppb	#	39
68)	Chlorobenzene	18.10	112	15008	0.36875 ppb	#	68
69)	Ethylbenzene	18.21	91	26259	0.34648 ppb		89
70)	Bromoform	19.63	173	532	1.23415 ppb	#	37
72)	MIBK (methyl isobutyl keto	14.68	43	7070	1.25392 ppb		81
73)	Isopropylbenzene	19.72	105	23083	0.32111 ppb	#	81
74)	1,1,2,2-Tetrachloroethane	19.88	83	1704	0.28318 ppb	#	79
75)	1,2,3-Trichloropropane	20.14	110	346	0.59881 ppb	#	25
76)	t-1,4-Dichloro-2-Butene	20.24	53	170	0.12459 ppb	#	62
77)	Bromobenzene	20.49	156	5215	0.31451 ppb	#	54
78)	n-Propylbenzene	20.44	91	25363	0.29576 ppb		97
79)	4-Ethyltoluene	20.63	105	21128	0.35603 ppb		93
80)	2-Chlorotoluene	20.74	91	16704	0.29411 ppb		87
81)	1,3,5-Trimethylbenzene	20.72	105	18391	0.31501 ppb		98
82)	4-Chlorotoluene	20.81	91	16002	0.32720 ppb	#	74
83)	Tert-Butylbenzene	21.36	119	18557	0.29358 ppb		92
84)	1,2,4-Trimethylbenzene	21.41	105	21930	0.35965 ppb		91
85)	Sec-Butylbenzene	21.75	105	22099	0.29154 ppb		86
86)	p-Isopropyltoluene	21.99	119	19428	0.29923 ppb		97
87)	Benzyl Chloride	22.41	91	3043	0.35307 ppb	#	69
88)	1,3-DCB	22.12	146	11266	0.33224 ppb		92
89)	1,4-DCB	22.29	146	10573	0.33594 ppb		95
90)	Hexachloroethane	23.59	117	857	2.03197 ppb	#	50
91)	n-Butylbenzene	22.70	91	19217	0.33934 ppb		91
92)	1,2-DCB	22.92	146	8586	0.31833 ppb	#	78
93)	1,2-Dibromo-3-chloropropan	24.14	155	141	1.41683 ppb	#	27
94)	1,2,4-Trichlorobenzene	25.58	180	5945	0.30417 ppb	#	86

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.83	223	1530	0.43087	ppb	#	68
96) Naphthalene	25.92	128	7576	0.31416	ppb	#	79
97) 1,2,3-Trichlorobenzene	26.29	180	4008	0.27110	ppb		85

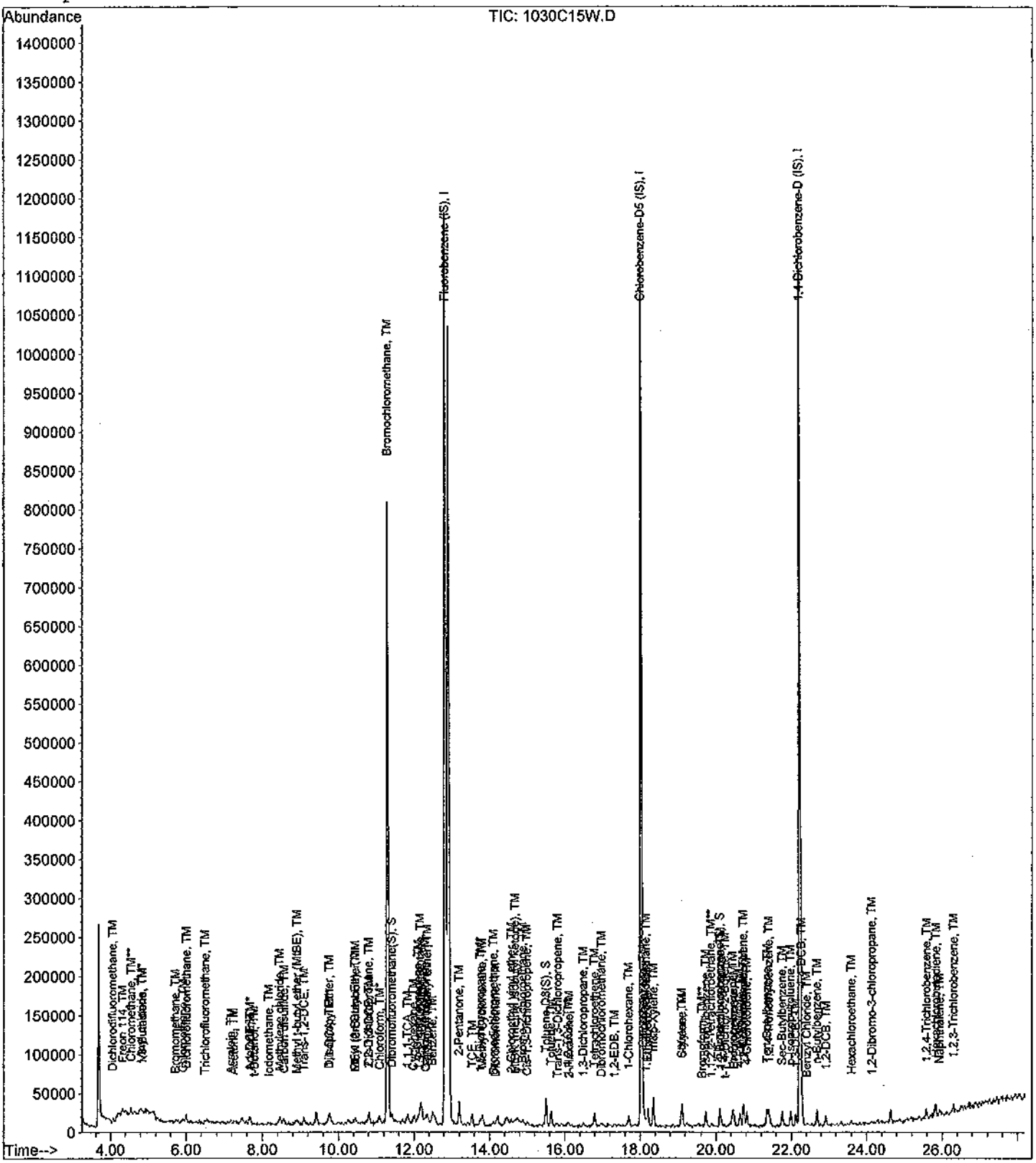
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	564160	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	384000	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	199104	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	15067	1.00257 ppb		0.00
Spiked Amount 25.097			Recovery =	3.996%		
38) 1,2-DCA-D4(S)	12.23	65	15649	1.16976 ppb		0.00
Spiked Amount 24.225			Recovery =	4.830%		
56) Toluene-D8(S)	15.51	98	57480	1.06384 ppb		0.01
Spiked Amount 25.808			Recovery =	4.123%		
64) 4-Bromofluorobenzene(S)	20.10	95	19938	1.02988 ppb		0.00
Spiked Amount 25.459			Recovery =	4.046%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	10824	0.52075 ppb		95
3) Freon 114	4.33	85	6172	0.47412 ppb		98
4) Chloromethane	4.55	50	13218	0.51317 ppb	#	72
5) Vinyl chloride	4.81	62	9283	0.53880 ppb	#	69
6) 1,3-Butadiene	4.79	54	547	11.36033 ppb		97
7) Bromomethane	5.73	94	6059	0.48447 ppb		87
8) Chloroethane	5.91	64	8441	0.59313 ppb	#	74
9) Dichlorofluoromethane	6.02	67	21197	0.53871 ppb	#	80
10) Trichlorofluoromethane	6.51	101	10617	0.45468 ppb		86
11) Acetonitrile	7.65	41	17187	27.80953 ug/l		100
12) Acrolein	7.15	56	7488	26.47690 ppb		95
13) Acetone	7.29	43	5599	3.46393 ppb		93
14) Freon-113	7.43	101	3032	-0.91166 ppb	#	70
15) 1,1-DCE	7.68	96	9367	0.58157 ppb		86
16) t-Butanol	7.75	59	1553	20.30572 ppb		100
17) Methyl Acetate	8.18	43	6610	0.76232 ppb	#	81
18) Iodomethane	8.16	142	1888	3.95744 ppb	#	59
19) Acrylonitrile	8.56	53	526	-0.07185 ppb	#	71
20) Methylene chloride	8.48	84	9369	0.60986 ppb		86
21) Carbon disulfide	8.56	76	8089	0.51688 ppb		94
22) Methyl t-butyl ether (MtBE	8.89	73	12097	0.49691 ppb		93
23) Trans-1,2-DCE	9.08	96	10320	0.62725 ppb		75
24) Diisopropyl Ether	9.74	45	26624	0.49469 ppb	#	77
25) 1,1-DCA	9.79	63	15171	0.47532 ppb	#	86
26) Vinyl Acetate	9.43	43	11823	-0.17906 ppb	#	82
27) Ethyl tert Butyl Ether	10.44	59	17474	0.47557 ppb		99
28) MEK (2-Butanone)	10.44	43	6392	0.38220 ppb	#	76
29) Cis-1,2-DCE	10.81	96	11141	0.58022 ppb	#	62
30) 2,2-Dichloropropane	10.83	77	12554	0.54909 ppb		96
31) Chloroform	11.09	83	15337	0.49949 ppb		92
32) Bromochloromethane	11.30	128	2576	0.48189 ppb	#	33
34) 1,1,1-TCA	11.83	97	13833	0.49538 ppb	#	82
35) Cyclohexane	11.99	56	15403	0.59245 ppb		78
36) 1,1-Dichloropropene	12.10	75	11774	0.49209 ppb	#	84
37) 2,2,4-Trimethylpentane	12.18	57	50886	0.23590 ppb		93
39) Carbon Tetrachloride	12.29	117	8982	0.46713 ppb		86

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.34	73	15291	0.55657 ppb	#	82
41) 1,2-DCA	12.36	62	7266	0.46101 ppb		99
42) Benzene	12.50	78	34203	0.49755 ppb	#	86
43) TCE	13.53	95	9675	0.50818 ppb	#	76
44) 2-Pentanone	13.21	43	103205	25.91480 ppb		91
45) 1,2-Dichloropropane	13.77	63	8115	0.51936 ppb		98
46) Bromodichloromethane	14.11	83	7962	0.44603 ppb	#	98
47) Methyl Cyclohexane	13.81	83	12697	0.57069 ppb		99
48) Dibromomethane	14.16	93	3011	0.48185 ppb	#	68
49) 2-Chloroethyl vinyl ether	14.58	63	1634	0.41135 ppb	#	59
50) 1-Bromo-2-chloroethane	14.88	63	6436	0.48274 ppb	#	66
51) Cis-1,3-Dichloropropene	15.00	75	7471	0.43891 ppb	#	75
52) Toluene	15.63	91	34808	0.51338 ppb		87
53) Trans-1,3-Dichloropropene	15.80	75	6124	0.49974 ppb	#	83
54) 1,1,2-TCA	16.08	83	3198	0.48419 ppb	#	78
57) 1,2-EDB	17.33	107	3029	0.41446 ppb	#	80
58) Tetrachloroethene	16.78	164	11617	0.58843 ppb		81
59) 1-Chlorohexane	17.70	91	11679	0.51371 ppb		93
60) 1,1,1,2-Tetrachloroethane	18.16	131	5373	0.43472 ppb		80
61) m&p-Xylene	18.36	106	28523	0.97798 ppb		92
62) o-Xylene	19.10	106	14161	0.50486 ppb		88
63) Styrene	19.13	104	20171	0.47643 ppb		89
65) 2-Hexanone	16.11	43	2059	0.58599 ppb	#	78
66) 1,3-Dichloropropane	16.50	76	7249	0.50300 ppb		84
67) Dibromochloromethane	16.95	129	3807	0.40465 ppb		74
68) Chlorobenzene	18.11	112	20370	0.48823 ppb	#	81
69) Ethylbenzene	18.21	91	37896	0.48777 ppb		98
70) Bromoform	19.62	173	1156	1.34654 ppb	#	37
72) MIBK (methyl isobutyl keto	14.67	43	3016	0.53285 ppb	#	51
73) Isopropylbenzene	19.73	105	35995	0.49881 ppb		90
74) 1,1,2,2-Tetrachloroethane	19.89	83	2684	0.44432 ppb	#	86
75) 1,2,3-Trichloropropane	20.15	110	430	0.71972 ppb	#	57
76) t-1,4-Dichloro-2-Butene	20.21	53	1066	0.77827 ppb	#	42
77) Bromobenzene	20.47	156	9129	0.54844 ppb	#	86
78) n-Propylbenzene	20.44	91	42985	0.49932 ppb		89
79) 4-Ethyltoluene	20.63	105	29592	0.49673 ppb		84
80) 2-Chlorotoluene	20.73	91	31711	0.55619 ppb	#	79
81) 1,3,5-Trimethylbenzene	20.71	105	29710	0.50692 ppb		88
82) 4-Chlorotoluene	20.82	91	23555	0.47979 ppb		86
83) Tert-Butylbenzene	21.36	119	33054	0.52092 ppb		95
84) 1,2,4-Trimethylbenzene	21.41	105	32321	0.52802 ppb	#	68
85) Sec-Butylbenzene	21.76	105	36729	0.48267 ppb		87
86) p-Isopropyltoluene	22.00	119	32111	0.49266 ppb		93
87) Benzyl Chloride	22.43	91	4589	0.53039 ppb		91
88) 1,3-DCB	22.11	146	17221	0.50589 ppb	#	84
89) 1,4-DCB	22.29	146	15280	0.48363 ppb		95
90) Hexachloroethane	23.59	117	1692	2.09850 ppb	#	60
91) n-Butylbenzene	22.70	91	30355	0.53395 ppb		90
92) 1,2-DCB	22.92	146	13282	0.49053 ppb		92
93) 1,2-Dibromo-3-chloropropan	24.16	155	468	1.71132 ppb	#	1
94) 1,2,4-Trichlorobenzene	25.58	180	11120	0.56675 ppb		82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.83	223	2317	0.64998	ppb	#	59
96) Naphthalene	25.93	128	13003	0.53713	ppb	#	92
97) 1,2,3-Trichlorobenzene	26.30	180	7873	0.53048	ppb	#	70

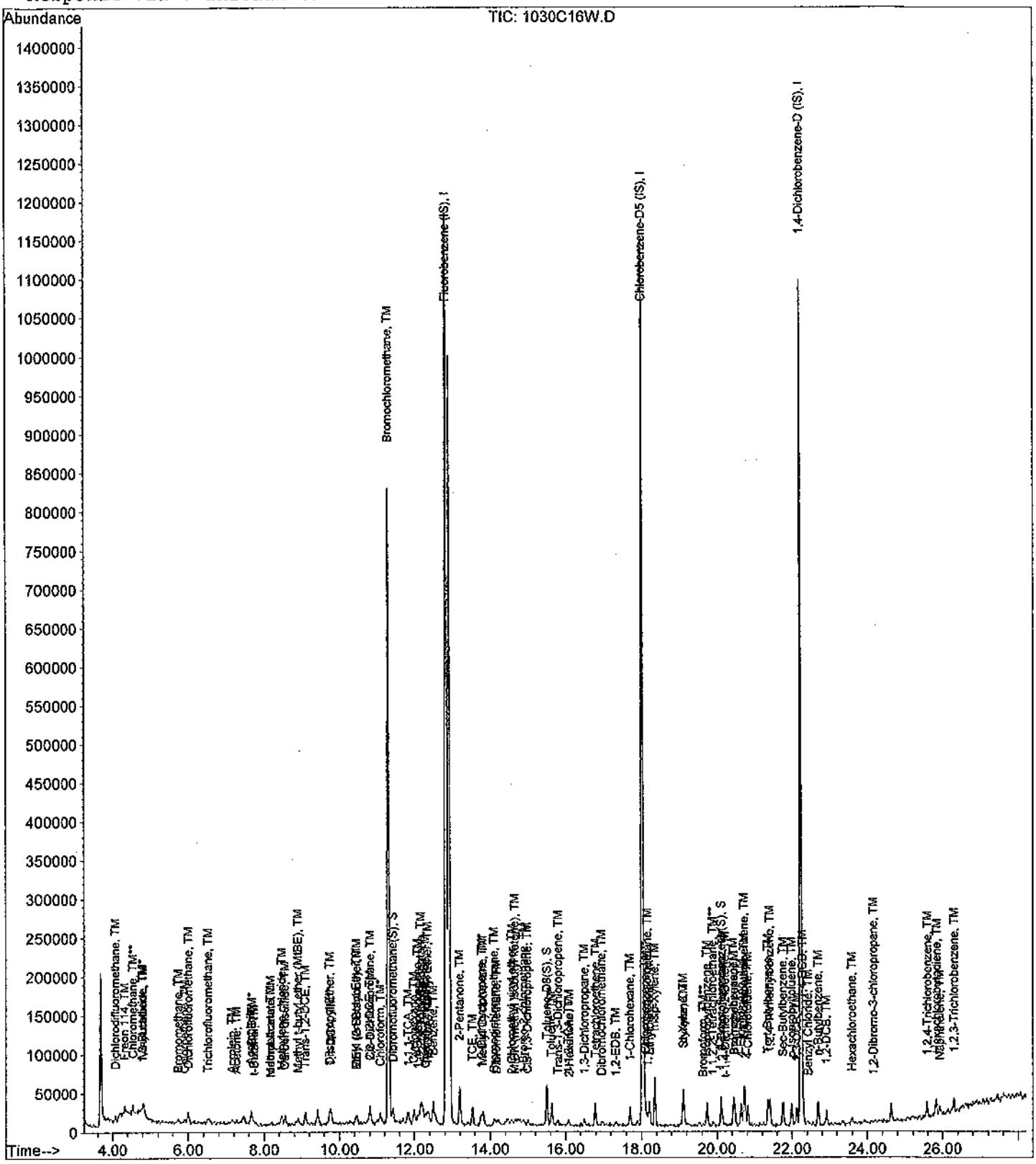
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	539200	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	383872	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	197760	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.42	111	29134	2.02833	ppb		0.00
Spiked Amount 25.097			Recovery = 8.081%				
38) 1,2-DCA-D4(S)	12.22	65	27452	2.14703	ppb		0.00
Spiked Amount 24.225			Recovery = 8.863%				
56) Toluene-D8(S)	15.50	98	110307	2.04225	ppb		0.00
Spiked Amount 25.808			Recovery = 7.912%				
64) 4-Bromofluorobenzene(S)	20.11	95	40278	2.08121	ppb		0.00
Spiked Amount 25.459			Recovery = 8.174%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	20878	1.05095	ppb	#	77
3) Freon 114	4.34	85	13301	1.06904	ppb		79
4) Chloromethane	4.55	50	26727	1.08568	ppb		96
5) Vinyl chloride	4.82	62	20250	1.22976	ppb		92
6) 1,3-Butadiene	4.82	54	298	6.47548	ppb	#	63
7) Bromomethane	5.73	94	10639	0.89005	ppb		88
8) Chloroethane	5.91	64	16785	1.23404	ppb		95
9) Dichlorofluoromethane	6.01	67	40917	1.08801	ppb		99
10) Trichlorofluoromethane	6.54	101	22833	1.02311	ppb	#	73
11) Acetonitrile	7.65	41	29961	50.72269	ug/l		100
12) Acrolein	7.16	56	13727	50.78428	ppb		87
13) Acetone	7.28	43	5913	3.82754	ppb	#	80
14) Freon-113	7.47	101	14321	0.06398	ppb	#	85
15) 1,1-DCE	7.68	96	16287	1.05802	ppb	#	61
16) t-Butanol	7.76	59	3312	45.30953	ppb		93
17) Methyl Acetate	8.19	43	8892	1.35363	ppb		91
18) Iodomethane	8.17	142	3919	4.11599	ppb	#	77
19) Acrylonitrile	8.55	53	1511	0.54689	ppb	#	42
20) Methylene chloride	8.47	84	15404	1.04912	ppb	#	71
21) Carbon disulfide	8.56	76	15964	1.06731	ppb		97
22) Methyl t-butyl ether (MtBE	8.89	73	24721	1.06247	ppb	#	90
23) Trans-1,2-DCE	9.10	96	18800	1.19557	ppb	#	91
24) Diisopropyl Ether	9.75	45	53157	1.03341	ppb		96
25) 1,1-DCA	9.78	63	31252	1.02448	ppb	#	91
26) Vinyl Acetate	9.41	43	15155	0.28793	ppb	#	78
27) Ethyl tert Butyl Ether	10.44	59	34422	0.98019	ppb		99
28) MEK (2-Butanone)	10.44	43	9896	1.04178	ppb	#	90
29) Cis-1,2-DCE	10.81	96	18355	1.00018	ppb		79
30) 2,2-Dichloropropane	10.81	77	21461	0.98211	ppb		96
31) Chloroform	11.09	83	29160	0.99364	ppb		95
32) Bromochloromethane	11.32	128	5916	1.15793	ppb		90
34) 1,1,1-TCA	11.83	97	27369	1.02550	ppb		88
35) Cyclohexane	12.00	56	26209	1.05474	ppb		95
36) 1,1-Dichloropropene	12.09	75	26709	1.16796	ppb	#	85
37) 2,2,4-Trimethylpentane	12.17	57	63801	0.66906	ppb		93
39) Carbon Tetrachloride	12.29	117	16287	0.88625	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	26700	1.01682	ppb		98
41)	1,2-DCA	12.38	62	14649	0.97246	ppb	#	86
42)	Benzene	12.49	78	69760	1.06177	ppb	#	93
43)	TCE	13.53	95	19974	1.09770	ppb		87
44)	2-Pentanone	13.20	43	182845	48.03774	ppb		99
45)	1,2-Dichloropropane	13.77	63	16180	1.08346	ppb		97
46)	Bromodichloromethane	14.12	83	17574	1.03007	ppb	#	98
47)	Methyl Cyclohexane	13.82	83	20818	0.97903	ppb		89
48)	Dibromomethane	14.16	93	6074	1.01701	ppb	#	71
49)	2-Chloroethyl vinyl ether	14.58	63	3448	0.90821	ppb		94
50)	1-Bromo-2-chloroethane	14.88	63	12639	0.99189	ppb	#	62
51)	Cis-1,3-Dichloropropene	15.01	75	16679	1.02522	ppb		86
52)	Toluene	15.63	91	63296	0.97675	ppb		83
53)	Trans-1,3-Dichloropropene	15.81	75	10774	0.91989	ppb		92
54)	1,1,2-TCA	16.09	83	5625	0.89108	ppb		89
57)	1,2-EDB	17.32	107	6774	0.92719	ppb	#	92
58)	Tetrachloroethene	16.79	164	20256	1.02636	ppb		96
59)	1-Chlorohexane	17.70	91	22047	0.97009	ppb		95
60)	1,1,1,2-Tetrachloroethane	18.16	131	10874	0.88009	ppb		87
61)	m&p-Xylene	18.35	106	56585	1.94079	ppb		87
62)	o-Xylene	19.10	106	25167	0.89753	ppb		93
63)	Styrene	19.12	104	40956	0.96769	ppb		88
65)	2-Hexanone	16.10	43	3038	0.86490	ppb	#	70
66)	1,3-Dichloropropane	16.49	76	13620	0.94539	ppb		85
67)	Dibromochloromethane	16.98	129	8452	0.89867	ppb	#	59
68)	Chlorobenzene	18.10	112	40045	0.96012	ppb		92
69)	Ethylbenzene	18.22	91	77629	0.99952	ppb		96
70)	Bromoform	19.64	173	2595	1.61154	ppb	#	81
72)	MIBK (methyl isobutyl keto	14.66	43	6936	1.23373	ppb	#	66
73)	Isopropylbenzene	19.74	105	73566	1.02638	ppb	#	82
74)	1,1,2,2-Tetrachloroethane	19.90	83	5631	0.93852	ppb		82
75)	1,2,3-Trichloropropane	20.15	110	1160	1.79904	ppb	#	72
76)	t-1,4-Dichloro-2-Butene	20.24	53	1095	0.80488	ppb	#	13
77)	Bromobenzene	20.48	156	16894	1.02183	ppb		83
78)	n-Propylbenzene	20.44	91	88461	1.03456	ppb		99
79)	4-Ethyltoluene	20.64	105	60450	1.02161	ppb		93
80)	2-Chlorotoluene	20.73	91	57667	1.01832	ppb		95
81)	1,3,5-Trimethylbenzene	20.71	105	59903	1.02902	ppb		95
82)	4-Chlorotoluene	20.81	91	52108	1.06859	ppb		96
83)	Tert-Butylbenzene	21.35	119	63199	1.00276	ppb		94
84)	1,2,4-Trimethylbenzene	21.42	105	63077	1.03747	ppb		94
85)	Sec-Butylbenzene	21.76	105	75467	0.99848	ppb		94
86)	p-Isopropyltoluene	21.99	119	62593	0.96686	ppb		95
87)	Benzyl Chloride	22.43	91	7387	0.85958	ppb	#	79
88)	1,3-DCB	22.14	146	33327	0.98569	ppb		96
89)	1,4-DCB	22.30	146	31510	1.00410	ppb		98
90)	Hexachloroethane	23.60	117	5631	2.41666	ppb	#	75
91)	n-Butylbenzene	22.70	91	57562	1.01941	ppb		93
92)	1,2-DCB	22.92	146	25391	0.94412	ppb	#	84
93)	1,2-Dibromo-3-chloropropan	24.15	155	691	1.91673	ppb	#	73
94)	1,2,4-Trichlorobenzene	25.59	180	19884	1.02031	ppb		78

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95)	Hexachlorobutadiene	25.84	223	3387	0.95661 ppb	84
96)	Naphthalene	25.94	128	24301	1.01065 ppb	97
97)	1,2,3-Trichlorobenzene	26.29	180	13947	0.94613 ppb	97

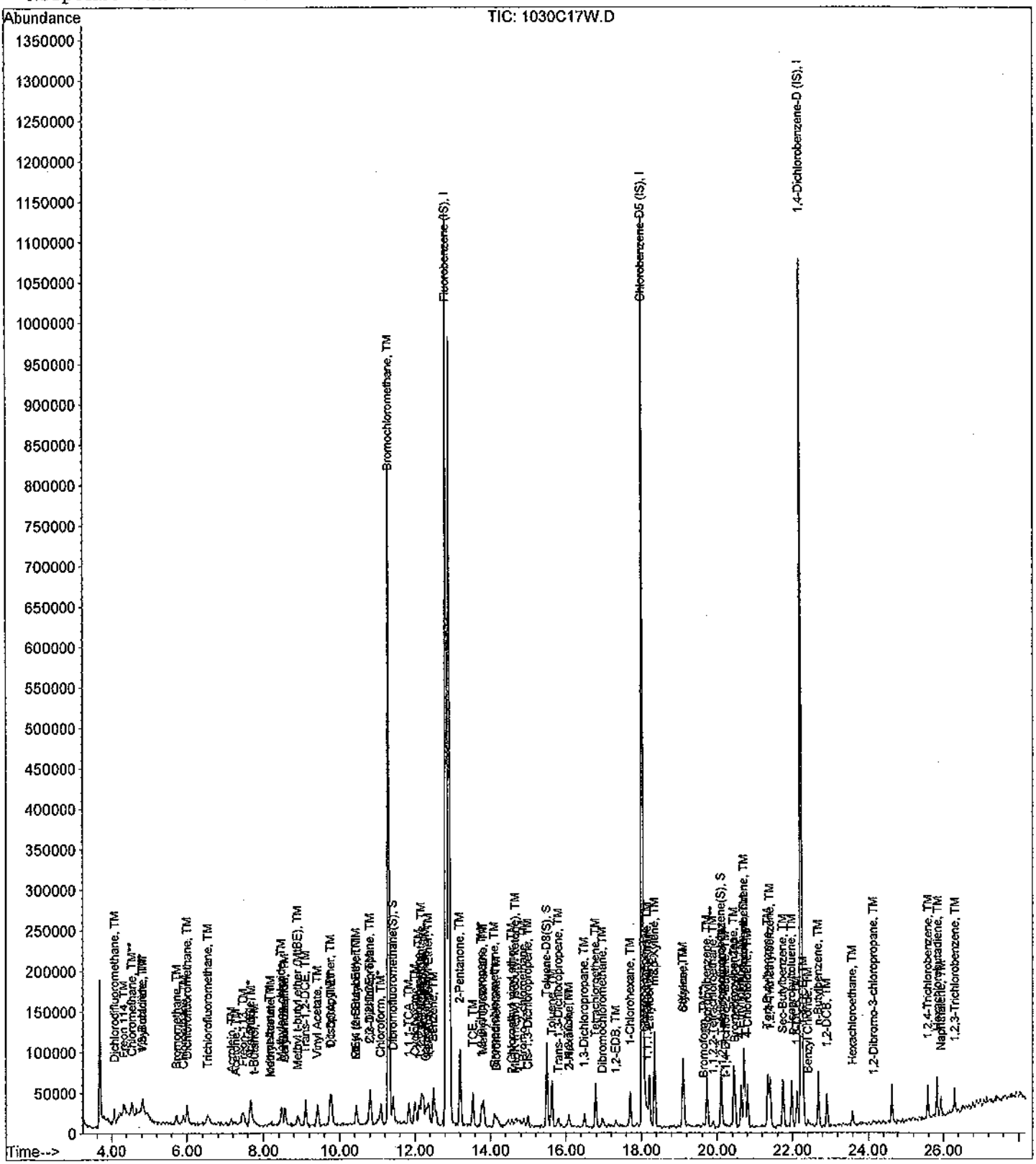
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	543693	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	392832	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	191296	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	60078	4.14811 ppb		0.00
Spiked Amount 25.097			Recovery = 16.528%			
38) 1,2-DCA-D4(S)	12.22	65	54589	4.23414 ppb		0.00
Spiked Amount 24.225			Recovery = 17.478%			
56) Toluene-D8(S)	15.50	98	219343	3.96834 ppb		0.00
Spiked Amount 25.808			Recovery = 15.375%			
64) 4-Bromofluorobenzene(S)	20.11	95	76951	3.88546 ppb		0.00
Spiked Amount 25.459			Recovery = 15.260%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	36846	1.83942 ppb		95
3) Freon 114	4.32	85	25225	2.01066 ppb		95
4) Chloromethane	4.55	50	51493	2.07441 ppb		100
5) Vinyl chloride	4.81	62	31638	1.90546 ppb		92
6) 1,3-Butadiene	4.84	54	317	6.83143 ppb	#	82
7) Bromomethane	5.71	94	28199	2.33962 ppb		74
8) Chloroethane	5.92	64	27665	2.01714 ppb		90
9) Dichlorofluoromethane	6.00	67	80153	2.11371 ppb		99
10) Trichlorofluoromethane	6.54	101	46217	2.05380 ppb		88
11) Acetonitrile	7.66	41	44013	73.89637 ug/l		100
12) Acrolein	7.16	56	19054	69.90947 ppb		98
13) Acetone	7.27	43	7499	4.81405 ppb	#	42
14) Freon-113	7.46	101	27051	1.13214 ppb		88
15) 1,1-DCE	7.68	96	30774	1.98259 ppb		95
16) t-Butanol	7.77	59	6037	81.90616 ppb	#	90
17) Methyl Acetate	8.19	43	14018	2.50439 ppb		92
18) Iodomethane	8.16	142	9850	4.55459 ppb	#	90
19) Acrylonitrile	8.55	53	4257	2.21042 ppb	#	19
20) Methylene chloride	8.48	84	31366	2.11859 ppb		85
21) Carbon disulfide	8.57	76	31256	2.07243 ppb		98
22) Methyl t-butyl ether (MtBE	8.91	73	49153	2.09506 ppb		96
23) Trans-1,2-DCE	9.10	96	38306	2.41590 ppb		94
24) Diisopropyl Ether	9.76	45	107058	2.06409 ppb		95
25) 1,1-DCA	9.80	63	63745	2.07237 ppb		98
26) Vinyl Acetate	9.41	43	25227	1.48278 ppb		94
27) Ethyl tert Butyl Ether	10.45	59	76607	2.16342 ppb		92
28) MEK (2-Butanone)	10.43	43	15669	2.02476 ppb		99
29) Cis-1,2-DCE	10.80	96	37483	2.02559 ppb		88
30) 2,2-Dichloropropane	10.81	77	45572	2.06826 ppb		95
31) Chloroform	11.08	83	60802	2.05473 ppb		96
32) Bromochloromethane	11.31	128	10121	1.96459 ppb		82
34) 1,1,1-TCA	11.83	97	53989	2.00623 ppb		93
35) Cyclohexane	12.00	56	52880	2.11050 ppb		95
36) 1,1-Dichloropropene	12.11	75	46149	2.00137 ppb		96
37) 2,2,4-Trimethylpentane	12.19	57	95598	1.55463 ppb		92
39) Carbon Tetrachloride	12.30	117	36525	1.97107 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.36	73	55233	2.08607 ppb	#	90
41) 1,2-DCA	12.38	62	31308	2.06118 ppb	#	89
42) Benzene	12.50	78	136536	2.06095 ppb		98
43) TCE	13.53	95	39821	2.17034 ppb		94
44) 2-Pentanone	13.20	43	299963	78.15618 ppb		98
45) 1,2-Dichloropropane	13.76	63	28619	1.90057 ppb		96
46) Bromodichloromethane	14.11	83	33573	1.95155 ppb		94
47) Methyl Cyclohexane	13.82	83	40581	1.89267 ppb		83
48) Dibromomethane	14.18	93	12379	2.05557 ppb		85
49) 2-Chloroethyl vinyl ether	14.57	63	8433	2.20290 ppb	#	78
50) 1-Bromo-2-chloroethane	14.88	63	26134	2.03401 ppb	#	77
51) Cis-1,3-Dichloropropene	15.00	75	32272	1.96729 ppb		92
52) Toluene	15.64	91	132018	2.02040 ppb		99
53) Trans-1,3-Dichloropropene	15.80	75	23617	1.99976 ppb		93
54) 1,1,2-TCA	16.07	83	13091	2.05665 ppb		90
57) 1,2-EDB	17.33	107	13384	1.79015 ppb	#	92
58) Tetrachloroethene	16.79	164	40109	1.98595 ppb		92
59) 1-Chlorohexane	17.70	91	46192	1.98613 ppb		96
60) 1,1,1,2-Tetrachloroethane	18.15	131	23520	1.86019 ppb		89
61) m&p-Xylene	18.36	106	110324	3.69766 ppb		95
62) o-Xylene	19.09	106	52936	1.84480 ppb		88
63) Styrene	19.12	104	82149	1.89672 ppb		97
65) 2-Hexanone	16.12	43	7490	2.08373 ppb		85
66) 1,3-Dichloropropane	16.50	76	29140	1.97652 ppb		91
67) Dibromochloromethane	16.96	129	16360	1.69982 ppb		100
68) Chlorobenzene	18.11	112	79768	1.86890 ppb		98
69) Ethylbenzene	18.21	91	149915	1.88621 ppb		93
70) Bromoform	19.64	173	6510	2.30500 ppb	#	44
72) MIBK (methyl isobutyl keto	14.67	43	12611	2.31897 ppb	#	76
73) Isopropylbenzene	19.73	105	142568	2.05630 ppb		95
74) 1,1,2,2-Tetrachloroethane	19.90	83	12016	2.07037 ppb	#	84
75) 1,2,3-Trichloropropane	20.16	110	1264	2.01509 ppb	#	74
76) t-1,4-Dichloro-2-Butene	20.21	53	2422	1.84044 ppb	#	55
77) Bromobenzene	20.48	156	33262	2.07982 ppb		93
78) n-Propylbenzene	20.45	91	180141	2.17796 ppb		94
79) 4-Ethyltoluene	20.64	105	114833	2.00627 ppb		95
80) 2-Chlorotoluene	20.74	91	114105	2.08302 ppb		94
81) 1,3,5-Trimethylbenzene	20.72	105	116458	2.06813 ppb		96
82) 4-Chlorotoluene	20.81	91	100754	2.13600 ppb		94
83) Tert-Butylbenzene	21.36	119	127189	2.08627 ppb		98
84) 1,2,4-Trimethylbenzene	21.41	105	117571	1.99911 ppb		93
85) Sec-Butylbenzene	21.75	105	153012	2.09286 ppb		92
86) p-Isopropyltoluene	21.99	119	133490	2.13166 ppb		95
87) Benzyl Chloride	22.42	91	15798	1.90043 ppb	#	85
88) 1,3-DCB	22.13	146	68550	2.09596 ppb		97
89) 1,4-DCB	22.29	146	62433	2.05672 ppb		94
90) Hexachloroethane	23.60	117	11613	2.93003 ppb		93
91) n-Butylbenzene	22.70	91	110023	2.01433 ppb		97
92) 1,2-DCB	22.93	146	54129	2.08070 ppb		92
93) 1,2-Dibromo-3-chloropropan	24.14	155	1335	2.54260 ppb		84
94) 1,2,4-Trichlorobenzene	25.58	180	37932	2.01219 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.84	223	6417	1.87363	ppb	#	88
96) Naphthalene	25.93	128	46421	1.99582	ppb		98
97) 1,2,3-Trichlorobenzene	26.30	180	33171	2.32627	ppb		93

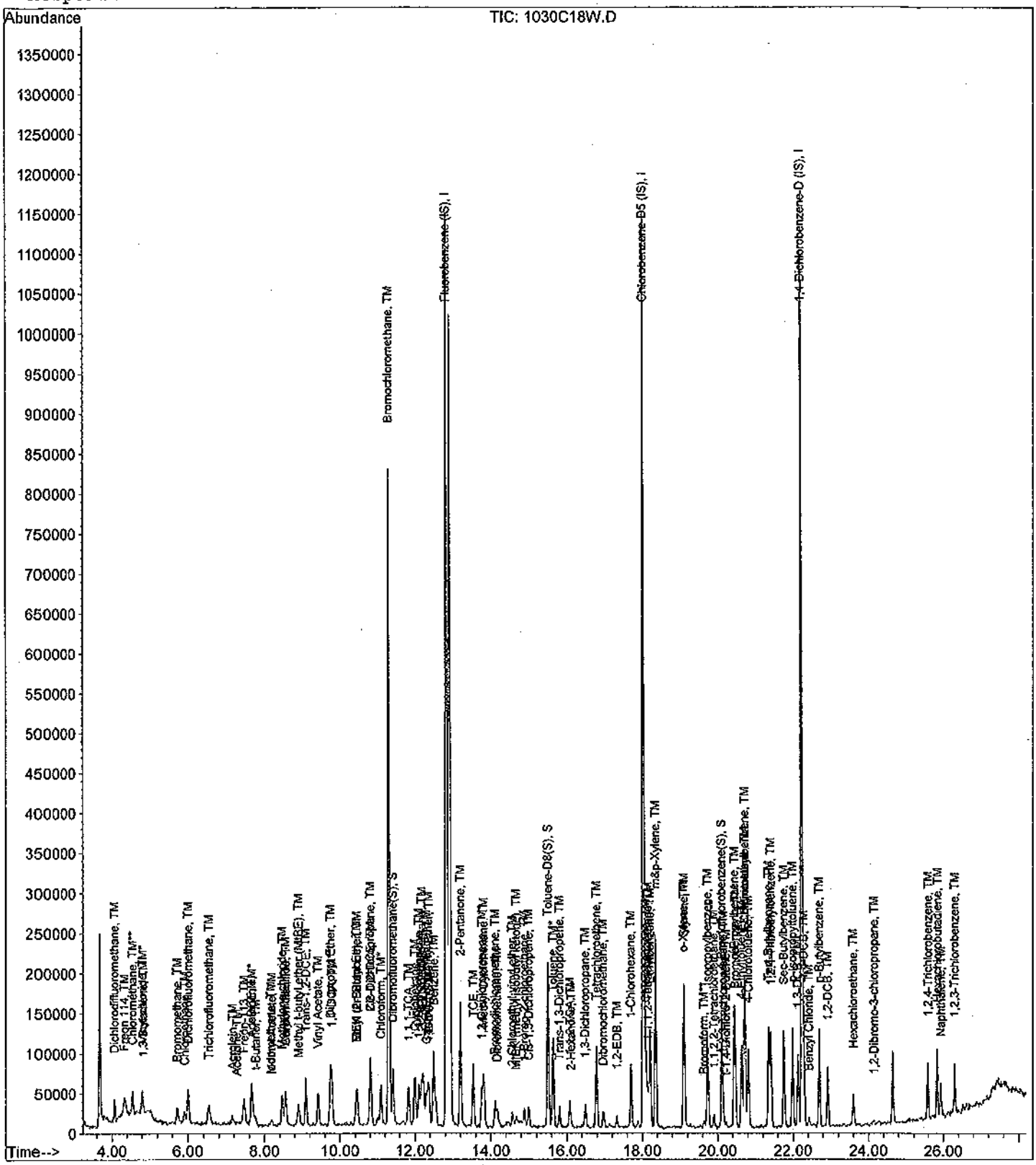
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	541888	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	369024	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	201600	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	148052	10.25637	ppb		0.00
Spiked Amount 25.097			Recovery = 40.865%				
38) 1,2-DCA-D4(S)	12.23	65	131632	10.24391	ppb		0.00
Spiked Amount 24.225			Recovery = 42.286%				
56) Toluene-D8(S)	15.50	98	537545	10.35266	ppb		0.00
Spiked Amount 25.808			Recovery = 40.115%				
64) 4-Bromofluorobenzene(S)	20.11	95	187725	10.09026	ppb		0.00
Spiked Amount 25.459			Recovery = 39.632%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	95693	4.79307	ppb		98
3) Freon 114	4.35	85	60331	4.82494	ppb		99
4) Chloromethane	4.55	50	115016	4.64888	ppb		98
5) Vinyl chloride	4.82	62	95476	5.76939	ppb		92
6) 1,3-Butadiene	4.78	54	267	5.77308	ppb	#	1
7) Bromomethane	5.73	94	55608	4.62906	ppb		89
8) Chloroethane	5.91	64	65920	4.82244	ppb		93
9) Dichlorofluoromethane	6.01	67	193619	5.12293	ppb		100
10) Trichlorofluoromethane	6.52	101	112493	5.01564	ppb		99
11) Acetonitrile	7.65	41	62470	105.23443	ug/l		100
12) Acrolein	7.15	56	26911	99.06583	ppb		94
13) Acetone	7.29	43	12573	8.09824	ppb		97
14) Freon-113	7.46	101	68643	4.67447	ppb		88
15) 1,1-DCE	7.67	96	76091	4.91843	ppb		89
16) t-Butanol	7.76	59	7217	98.24180	ppb		93
17) Methyl Acetate	8.19	43	20340	3.95990	ppb		95
18) Iodomethane	8.17	142	26092	5.76882	ppb		90
19) Acrylonitrile	8.56	53	8927	5.07063	ppb		92
20) Methylene chloride	8.48	84	71913	4.87349	ppb		94
21) Carbon disulfide	8.56	76	72344	4.81275	ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	114808	4.90979	ppb	#	90
23) Trans-1,2-DCE	9.10	96	89303	5.65097	ppb		95
24) Diisopropyl Ether	9.75	45	260084	5.03115	ppb		91
25) 1,1-DCA	9.79	63	163680	5.33900	ppb		96
26) Vinyl Acetate	9.42	43	54231	4.98892	ppb	#	79
27) Ethyl tert Butyl Ether	10.44	59	180946	5.12702	ppb		98
28) MEK (2-Butanone)	10.43	43	31144	4.71582	ppb	#	87
29) Cis-1,2-DCE	10.82	96	90101	4.88531	ppb		94
30) 2,2-Dichloropropane	10.82	77	110498	5.03159	ppb		99
31) Chloroform	11.10	83	153864	5.21698	ppb		100
32) Bromochloromethane	11.31	128	28344	5.52019	ppb		86
34) 1,1,1-TCA	11.84	97	133883	4.99165	ppb		96
35) Cyclohexane	12.00	56	119918	4.80199	ppb		98
36) 1,1-Dichloropropene	12.10	75	117037	5.09252	ppb		98
37) 2,2,4-Trimethylpentane	12.18	57	209064	4.78823	ppb		95
39) Carbon Tetrachloride	12.30	117	94473	5.11522	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.36	73	128972	4.88731 ppb		98
41) 1,2-DCA	12.38	62	76954	5.08320 ppb		98
42) Benzene	12.50	78	331433	5.01951 ppb		100
43) TCE	13.54	95	94771	5.18246 ppb		92
44) 2-Pentanone	13.20	43	389562	101.83954 ppb		98
45) 1,2-Dichloropropane	13.77	63	79197	5.27695 ppb		96
46) Bromodichloromethane	14.12	83	87445	5.09999 ppb		96
47) Methyl Cyclohexane	13.82	83	103751	4.85498 ppb		94
48) Dibromomethane	14.16	93	31588	5.26275 ppb		82
49) 2-Chloroethyl vinyl ether	14.58	63	20703	5.42613 ppb	#	92
50) 1-Bromo-2-chloroethane	14.88	63	66427	5.18724 ppb		82
51) Cis-1,3-Dichloropropene	15.01	75	82661	5.05577 ppb		98
52) Toluene	15.63	91	327752	5.03263 ppb		100
53) Trans-1,3-Dichloropropene	15.80	75	58149	4.94014 ppb		92
54) 1,1,2-TCA	16.08	83	31919	5.03132 ppb		92
57) 1,2-EDB	17.32	107	37026	5.27183 ppb	#	70
58) Tetrachloroethene	16.79	164	96522	5.08752 ppb		93
59) 1-Chlorohexane	17.70	91	112708	5.15879 ppb		93
60) 1,1,1,2-Tetrachloroethane	18.16	131	63531	5.34881 ppb		97
61) m&p-Xylene	18.36	106	280238	9.99854 ppb		95
62) o-Xylene	19.11	106	143606	5.32749 ppb		99
63) Styrene	19.12	104	215758	5.30297 ppb		96
65) 2-Hexanone	16.11	43	15947	4.72270 ppb		87
66) 1,3-Dichloropropane	16.50	76	70642	5.10067 ppb		92
67) Dibromochloromethane	16.97	129	44643	4.93770 ppb		89
68) Chlorobenzene	18.10	112	203928	5.08611 ppb		100
69) Ethylbenzene	18.22	91	385898	5.16857 ppb		100
70) Bromoform	19.63	173	18516	4.67993 ppb		89
72) MIBK (methyl isobutyl keto	14.68	43	24562	4.28572 ppb		100
73) Isopropylbenzene	19.74	105	367532	5.03008 ppb		99
74) 1,1,2,2-Tetrachloroethane	19.90	83	28865	4.71928 ppb	#	80
75) 1,2,3-Trichloropropane	20.15	110	3527	5.18588 ppb	#	55
76) t-1,4-Dichloro-2-Butene	20.22	53	6664	4.80505 ppb	#	82
77) Bromobenzene	20.48	156	83579	4.95894 ppb		96
78) n-Propylbenzene	20.44	91	444891	5.10396 ppb		99
79) 4-Ethyltoluene	20.64	105	295868	4.90496 ppb		95
80) 2-Chlorotoluene	20.73	91	295014	5.11030 ppb		95
81) 1,3,5-Trimethylbenzene	20.71	105	303247	5.11000 ppb		98
82) 4-Chlorotoluene	20.82	91	244634	4.92119 ppb		94
83) Tert-Butylbenzene	21.36	119	322939	5.02640 ppb		96
84) 1,2,4-Trimethylbenzene	21.42	105	306527	4.94563 ppb		98
85) Sec-Butylbenzene	21.76	105	387689	5.03168 ppb		98
86) p-Isopropyltoluene	21.99	119	333281	5.05005 ppb		97
87) Benzyl Chloride	22.43	91	41624	4.75127 ppb		92
88) 1,3-DCB	22.14	146	173843	5.04369 ppb		91
89) 1,4-DCB	22.30	146	155968	4.87542 ppb		94
90) Hexachloroethane	23.60	117	36490	4.84597 ppb		81
91) n-Butylbenzene	22.70	91	281770	4.89505 ppb		94
92) 1,2-DCB	22.93	146	134998	4.92405 ppb		97
93) 1,2-Dibromo-3-chloropropan	24.14	155	4220	5.04887 ppb		94
94) 1,2,4-Trichlorobenzene	25.59	180	99085	4.98753 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	15832	4.38634	ppb	86
96) Naphthalene	25.94	128	114277	4.66210	ppb	98
97) 1,2,3-Trichlorobenzene	26.29	180	73429	4.88636	ppb	92

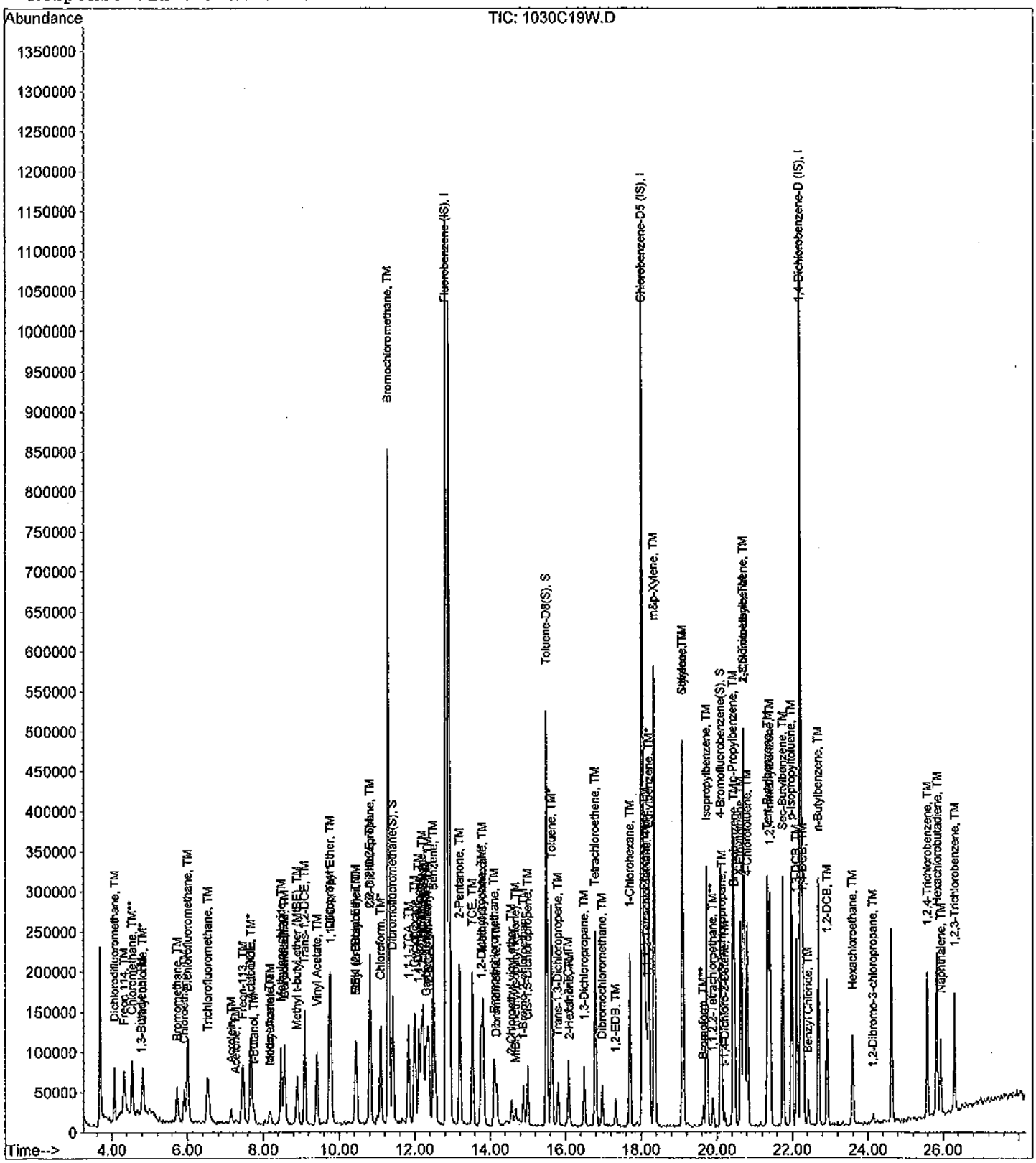
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	96	556544	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	18.04	117	375296	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	203520	25.00000 ppb	0.00
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	379665	25.60885 ppb	0.00
Spiked Amount 25.097			Recovery = 102.039%		
38) 1,2-DCA-D4(S)	12.23	65	325575	24.66979 ppb	0.00
Spiked Amount 24.225			Recovery = 101.836%		
56) Toluene-D8(S)	15.50	98	1312175	24.84903 ppb	0.00
Spiked Amount 25.808			Recovery = 96.283%		
64) 4-Bromofluorobenzene(S)	20.11	95	480879	25.41539 ppb	0.00
Spiked Amount 25.459			Recovery = 99.825%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.07	85	203737	9.93605 ppb	100
3) Freon 114	4.33	85	139352	10.85112 ppb	100
4) Chloromethane	4.55	50	239697	9.43328 ppb	100
5) Vinyl chloride	4.82	62	177123	10.42127 ppb	100
6) 1,3-Butadiene	4.83	54	475	10.00000 ppb	100
7) Bromomethane	5.73	94	118673	9.61873 ppb	100
8) Chloroethane	5.91	64	132559	9.44211 ppb	100
9) Dichlorofluoromethane	6.01	67	384006	9.89278 ppb	100
10) Trichlorofluoromethane	6.53	101	230965	10.02667 ppb	100
11) Acetonitrile	7.65	41	74340	121.93234 ug/l	100
12) Acrolein	7.16	56	32973	118.18505 ppb	100
13) Acetone	7.28	43	21604	13.54865 ppb	100
14) Freon-113	7.47	101	140200	10.44199 ppb	100
15) 1,1-DCE	7.68	96	152367	9.58945 ppb	100
16) t-Butanol	7.77	59	9738	129.06824 ppb	100
17) Methyl Acetate	8.19	43	49512	10.32908 ppb	100
18) Iodomethane	8.16	142	66421	8.64718 ppb	100
19) Acrylonitrile	8.56	53	18948	10.88495 ppb	100
20) Methylene chloride	8.47	84	148076	9.77073 ppb	100
21) Carbon disulfide	8.56	76	151616	9.82077 ppb	100
22) Methyl t-butyl ether (MtBE	8.89	73	244998	10.20148 ppb	100
23) Trans-1,2-DCE	9.10	96	182548	11.24718 ppb	100
24) Diisopropyl Ether	9.76	45	539900	10.16896 ppb	100
25) 1,1-DCA	9.79	63	326209	10.36025 ppb	100
26) Vinyl Acetate	9.42	43	98410	10.00173 ppb	100
27) Ethyl tert Butyl Ether	10.45	59	389708	10.75141 ppb	100
28) MEK (2-Butanone)	10.44	43	65986	10.45330 ppb	100
29) Cis-1,2-DCE	10.82	96	187720	9.91021 ppb	100
30) 2,2-Dichloropropane	10.81	77	219771	9.74386 ppb	100
31) Chloroform	11.09	83	311468	10.28266 ppb	100
32) Bromochloromethane	11.32	128	54568	10.34763 ppb	100
34) 1,1,1-TCA	11.84	97	285282	10.35627 ppb	100
35) Cyclohexane	12.00	56	254779	9.93369 ppb	100
36) 1,1-Dichloropropene	12.11	75	236871	10.03533 ppb	100
37) 2,2,4-Trimethylpentane	12.18	57	404324	10.03470 ppb	100
39) Carbon Tetrachloride	12.31	117	201043	10.59877 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40) Tert Amyl Methyl Ether	12.34	73	277234	10.22896 ppb	100
41) 1,2-DCA	12.38	62	162875	10.47539 ppb	100
42) Benzene	12.50	78	685232	10.10446 ppb	100
43) TCE	13.53	95	193489	10.30213 ppb	100
44) 2-Pentanone	13.20	43	514551	130.97195 ppb	100
45) 1,2-Dichloropropane	13.77	63	160165	10.39087 ppb	100
46) Bromodichloromethane	14.11	83	192788	10.94774 ppb	100
47) Methyl Cyclohexane	13.81	83	223185	10.16882 ppb	100
48) Dibromomethane	14.17	93	67961	11.02453 ppb	100
49) 2-Chloroethyl vinyl ether	14.58	63	41287	10.53611 ppb	100
50) 1-Bromo-2-chloroethane	14.89	63	134227	10.20568 ppb	100
51) Cis-1,3-Dichloropropene	15.00	75	178053	10.60342 ppb	100
52) Toluene	15.63	91	682617	10.20555 ppb	100
53) Trans-1,3-Dichloropropene	15.80	75	130192	10.76940 ppb	100
54) 1,1,2-TCA	16.08	83	73187	11.23251 ppb	100
57) 1,2-EDB	17.33	107	76477	10.70696 ppb	100
58) Tetrachloroethene	16.79	164	188693	9.77949 ppb	100
59) 1-Chlorohexane	17.70	91	223919	10.07778 ppb	100
60) 1,1,1,2-Tetrachloroethane	18.16	131	136098	11.26688 ppb	100
61) m&p-Xylene	18.36	106	573288	20.11236 ppb	100
62) o-Xylene	19.11	106	288268	10.51543 ppb	100
63) Styrene	19.13	104	435830	10.53295 ppb	100
65) 2-Hexanone	16.11	43	35479	10.33151 ppb	100
66) 1,3-Dichloropropane	16.49	76	155699	11.05429 ppb	100
67) Dibromochloromethane	16.98	129	100610	10.94190 ppb	100
68) Chlorobenzene	18.11	112	417306	10.23397 ppb	100
69) Ethylbenzene	18.22	91	783451	10.31788 ppb	100
70) Bromoform	19.64	173	44444	9.50336 ppb	100
72) MIBK (methyl isobutyl keto	14.68	43	56876	9.83043 ppb	100
73) Isopropylbenzene	19.73	105	751023	10.18160 ppb	100
74) 1,1,2,2-Tetrachloroethane	19.90	83	68052	11.02118 ppb	100
75) 1,2,3-Trichloropropane	20.16	110	8339	12.02369 ppb	100
76) t-1,4-Dichloro-2-Butene	20.24	53	14863	10.61580 ppb	100
77) Bromobenzene	20.48	156	169233	9.94627 ppb	100
78) n-Propylbenzene	20.44	91	904419	10.27795 ppb	100
79) 4-Ethyltoluene	20.63	105	616295	10.12067 ppb	100
80) 2-Chlorotoluene	20.74	91	594233	10.19632 ppb	100
81) 1,3,5-Trimethylbenzene	20.72	105	587753	9.81075 ppb	100
82) 4-Chlorotoluene	20.82	91	501553	9.99433 ppb	100
83) Tert-Butylbenzene	21.36	119	667298	10.28820 ppb	100
84) 1,2,4-Trimethylbenzene	21.42	105	611300	9.76991 ppb	100
85) Sec-Butylbenzene	21.76	105	815062	10.47861 ppb	100
86) p-Isopropyltoluene	21.99	119	683802	10.26358 ppb	100
87) Benzyl Chloride	22.42	91	84140	9.51375 ppb	100
88) 1,3-DCB	22.12	146	342186	9.83414 ppb	100
89) 1,4-DCB	22.30	146	328879	10.18349 ppb	100
90) Hexachloroethane	23.60	117	91222	9.10196 ppb	100
91) n-Butylbenzene	22.69	91	572922	9.85919 ppb	100
92) 1,2-DCB	22.93	146	290055	10.47995 ppb	100
93) 1,2-Dibromo-3-chloropropan	24.15	155	11552	11.48408 ppb	100
94) 1,2,4-Trichlorobenzene	25.59	180	201946	10.06924 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
95)	Hexachlorobutadiene	25.84	223	37504	10.29265	ppb	100
96)	Naphthalene	25.94	128	255426	10.32217	ppb	100
97)	1,2,3-Trichlorobenzene	26.29	180	158877	10.47278	ppb	100

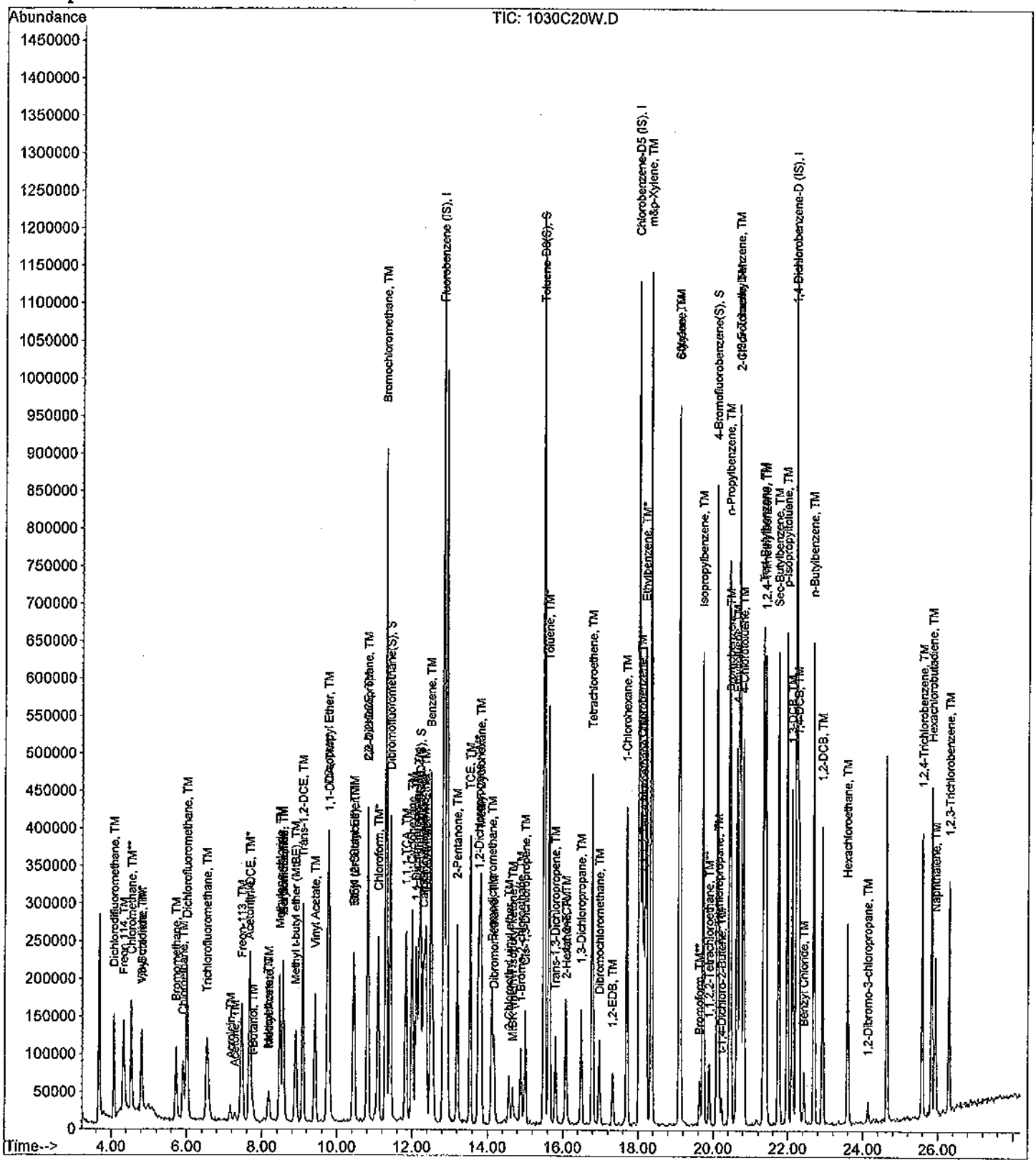
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	566784	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	371200	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	208640	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	595137	39.41743 ppb		0.00
Spiked Amount 25.097			Recovery = 157.057%			
38) 1,2-DCA-D4(S)	12.23	65	503677	37.47559 ppb		0.00
Spiked Amount 24.225			Recovery = 154.698%			
56) Toluene-D8(S)	15.50	98	2079192	39.80872 ppb		0.00
Spiked Amount 25.808			Recovery = 154.249%			
64) 4-Bromofluorobenzene(S)	20.11	95	744294	39.77146 ppb		0.00
Spiked Amount 25.459			Recovery = 156.213%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	430955	20.63753 ppb		98
3) Freon 114	4.34	85	282152	21.57379 ppb		99
4) Chloromethane	4.55	50	489131	18.90198 ppb		99
5) Vinyl chloride	4.81	62	352842	20.38487 ppb		100
6) 1,3-Butadiene	4.83	54	344	7.11126 ppb	#	70
7) Bromomethane	5.73	94	258043	20.53713 ppb		86
8) Chloroethane	5.91	64	259811	18.17186 ppb		97
9) Dichlorofluoromethane	6.01	67	754464	19.08539 ppb		99
10) Trichlorofluoromethane	6.53	101	465717	19.85247 ppb		94
11) Acetonitrile	7.65	41	87890	141.55257 ug/l		100
12) Acrolein	7.16	56	38144	134.24936 ppb		98
13) Acetone	7.28	43	36583	22.52802 ppb	#	68
14) Freon-113	7.46	101	275908	21.25897 ppb		94
15) 1,1-DCE	7.68	96	292224	18.05929 ppb		95
16) t-Butanol	7.77	59	10632	138.37146 ppb		91
17) Methyl Acetate	8.19	43	90758	19.14260 ppb		98
18) Iodomethane	8.16	142	180521	16.69886 ppb	#	89
19) Acrylonitrile	8.56	53	34895	19.99122 ppb		97
20) Methylene chloride	8.48	84	296145	19.18795 ppb		91
21) Carbon disulfide	8.56	76	295040	18.76564 ppb		100
22) Methyl t-butyl ether (MtBE	8.90	73	470382	19.23240 ppb		96
23) Trans-1,2-DCE	9.11	96	343023	20.75257 ppb		92
24) Diisopropyl Ether	9.75	45	1025315	18.96280 ppb		99
25) 1,1-DCA	9.79	63	635624	19.82242 ppb		97
26) Vinyl Acetate	9.42	43	188410	20.16485 ppb		92
27) Ethyl tert Butyl Ether	10.44	59	725972	19.66653 ppb		95
28) MEK (2-Butanone)	10.44	43	124340	19.92151 ppb		98
29) Cis-1,2-DCE	10.82	96	357838	18.54986 ppb		94
30) 2,2-Dichloropropane	10.81	77	438187	19.07664 ppb		93
31) Chloroform	11.09	83	601855	19.51038 ppb		94
32) Bromochloromethane	11.32	128	108166	20.14075 ppb		85
34) 1,1,1-TCA	11.83	97	572722	20.41525 ppb		94
35) Cyclohexane	12.00	56	494926	18.94826 ppb		96
36) 1,1-Dichloropropene	12.10	75	471318	19.60721 ppb		97
37) 2,2,4-Trimethylpentane	12.18	57	798347	20.53839 ppb		93
39) Carbon Tetrachloride	12.30	117	426253	22.06560 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	534720	19.37283	ppb		97
41)	1,2-DCA	12.37	62	312083	19.70915	ppb		98
42)	Benzene	12.50	78	1326677	19.20979	ppb		99
43)	TCE	13.54	95	376706	19.69496	ppb		91
44)	2-Pentanone	13.20	43	581100	145.23880	ppb		100
45)	1,2-Dichloropropane	13.76	63	307944	19.61725	ppb		95
46)	Bromodichloromethane	14.12	83	371635	20.72255	ppb	#	93
47)	Methyl Cyclohexane	13.82	83	433011	19.37253	ppb		97
48)	Dibromomethane	14.16	93	130449	20.77893	ppb		97
49)	2-Chloroethyl vinyl ether	14.58	63	79377	19.89041	ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	259762	19.39365	ppb		89
51)	Cis-1,3-Dichloropropene	15.01	75	350200	20.47835	ppb		91
52)	Toluene	15.63	91	1320740	19.38915	ppb		97
53)	Trans-1,3-Dichloropropene	15.80	75	249890	20.29730	ppb		96
54)	1,1,2-TCA	16.08	83	131106	19.75819	ppb		93
57)	1,2-EDB	17.33	107	153122	21.67400	ppb		94
58)	Tetrachloroethene	16.79	164	367302	19.24640	ppb		91
59)	1-Chlorohexane	17.70	91	453290	20.62604	ppb		98
60)	1,1,1,2-Tetrachloroethane	18.16	131	280249	23.45643	ppb		92
61)	m&p-Xylene	18.35	106	1173944	41.63932	ppb		100
62)	o-Xylene	19.11	106	585791	21.60426	ppb		95
63)	Styrene	19.12	104	892450	21.80633	ppb		99
65)	2-Hexanone	16.10	43	69030	20.32340	ppb		93
66)	1,3-Dichloropropane	16.50	76	287745	20.65470	ppb		99
67)	Dibromochloromethane	16.97	129	207497	22.81547	ppb		93
68)	Chlorobenzene	18.10	112	813528	20.17102	ppb		97
69)	Ethylbenzene	18.22	91	1522721	20.27519	ppb		95
70)	Bromoform	19.64	173	97001	19.60233	ppb		84
72)	MIBK (methyl isobutyl keto	14.68	43	106674	17.98505	ppb		92
73)	Isopropylbenzene	19.74	105	1516275	20.05166	ppb		98
74)	1,1,2,2-Tetrachloroethane	19.89	83	136632	21.58486	ppb		90
75)	1,2,3-Trichloropropane	20.15	110	13641	19.13172	ppb	#	42
76)	t-1,4-Dichloro-2-Butene	20.22	53	30320	21.12442	ppb	#	79
77)	Bromobenzene	20.48	156	337635	19.35675	ppb		93
78)	n-Propylbenzene	20.44	91	1817556	20.14810	ppb		97
79)	4-Ethyltoluene	20.64	105	1209221	19.37027	ppb		92
80)	2-Chlorotoluene	20.73	91	1199768	20.08139	ppb		99
81)	1,3,5-Trimethylbenzene	20.71	105	1237433	20.14832	ppb		99
82)	4-Chlorotoluene	20.82	91	1006043	19.55523	ppb		96
83)	Tert-Butylbenzene	21.36	119	1363292	20.50304	ppb		98
84)	1,2,4-Trimethylbenzene	21.42	105	1240098	19.33311	ppb		98
85)	Sec-Butylbenzene	21.76	105	1672276	20.97154	ppb		99
86)	p-Isopropyltoluene	21.99	119	1410527	20.65186	ppb		98
87)	Benzyl Chloride	22.43	91	179615	19.81078	ppb		96
88)	1,3-DCB	22.13	146	714268	20.02373	ppb		99
89)	1,4-DCB	22.30	146	661023	19.96579	ppb		96
90)	Hexachloroethane	23.60	117	220554	18.79960	ppb		91
91)	n-Butylbenzene	22.70	91	1175074	19.72516	ppb		100
92)	1,2-DCB	22.93	146	582656	20.53528	ppb		96
93)	1,2-Dibromo-3-chloropropan	24.14	155	19304	17.90735	ppb	#	68
94)	1,2,4-Trichlorobenzene	25.59	180	403670	19.63348	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	78688	21.06531 ppb	92
96) Naphthalene	25.94	128	505600	19.93070 ppb	99
97) 1,2,3-Trichlorobenzene	26.30	180	309459	19.89820 ppb	98

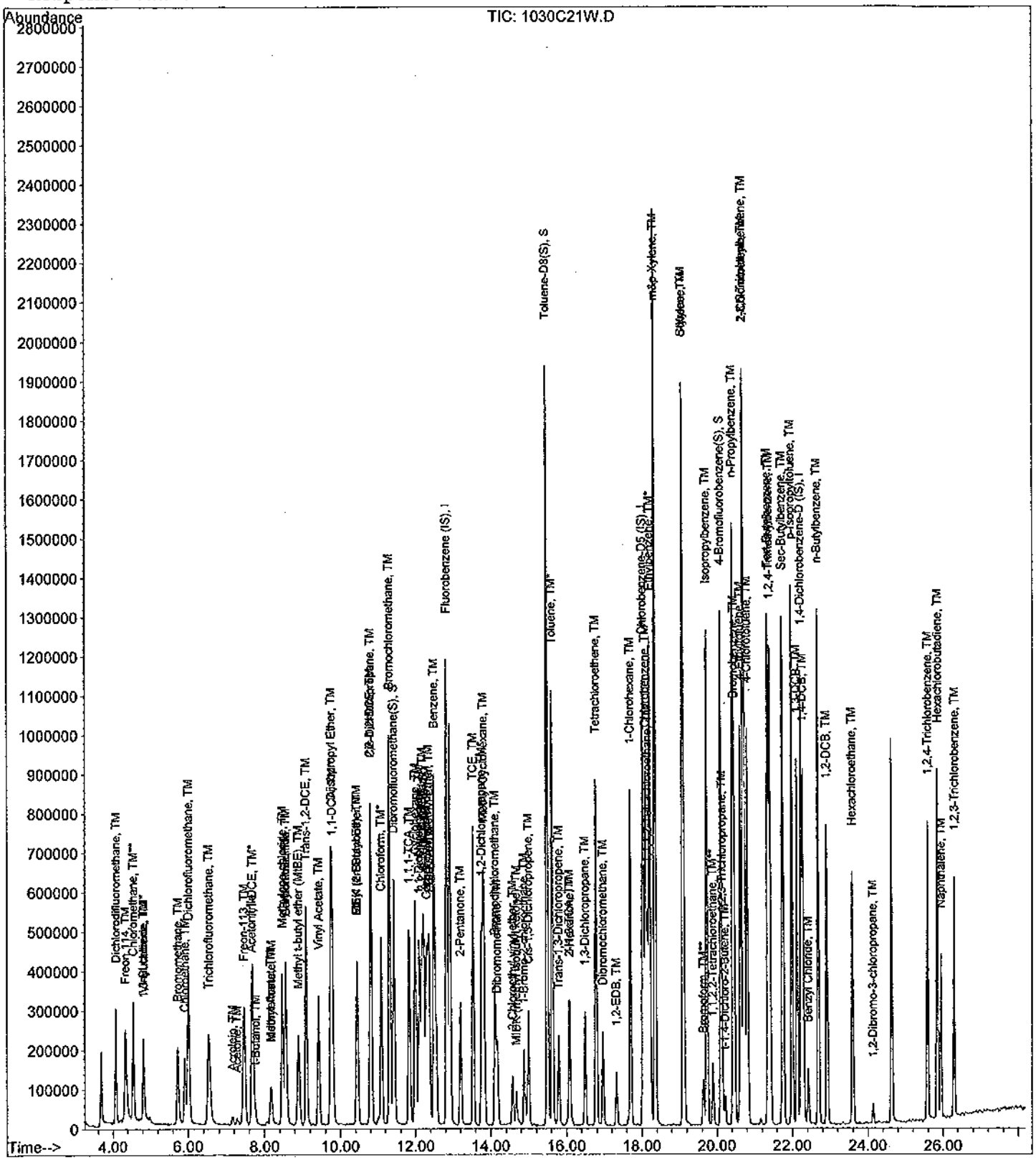
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	576384	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	400384	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	224000	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	1201490	78.25231	ppb		0.00
Spiked Amount 25.097			Recovery = 311.795%				
38) 1,2-DCA-D4(S)	12.23	65	1017043	74.41171	ppb		0.00
Spiked Amount 24.225			Recovery = 307.167%				
56) Toluene-D8(S)	15.50	98	4141980	73.52293	ppb		0.00
Spiked Amount 25.808			Recovery = 284.881%				
64) 4-Bromofluorobenzene(S)	20.11	95	1506838	74.64914	ppb		0.00
Spiked Amount 25.459			Recovery = 293.207%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	884588	41.65551	ppb		100
3) Freon 114	4.33	85	557051	41.88358	ppb		95
4) Chloromethane	4.55	50	992312	37.70822	ppb		99
5) Vinyl chloride	4.81	62	582991	33.12037	ppb		100
6) 1,3-Butadiene	4.80	54	564	11.46497	ppb		93
7) Bromomethane	5.73	94	528649	41.37336	ppb		93
8) Chloroethane	5.91	64	531050	36.52439	ppb		99
9) Dichlorofluoromethane	6.01	67	1474925	36.68918	ppb		98
10) Trichlorofluoromethane	6.53	101	946797	39.68761	ppb		99
11) Acetonitrile	7.66	41	108364	171.62043	ug/l		100
12) Acrolein	7.16	56	48720	168.61606	ppb		96
13) Acetone	7.28	43	68038	41.20035	ppb	#	70
14) Freon-113	7.47	101	558655	43.47676	ppb		95
15) 1,1-DCE	7.68	96	585091	35.55608	ppb		97
16) t-Butanol	7.76	59	14424	184.59628	ppb		98
17) Methyl Acetate	8.19	43	191479	40.45406	ppb		95
18) Iodomethane	8.17	142	457316	35.89956	ppb		95
19) Acrylonitrile	8.56	53	70209	39.92472	ppb		91
20) Methylene chloride	8.48	84	561985	35.80590	ppb		98
21) Carbon disulfide	8.56	76	582016	36.40182	ppb		99
22) Methyl t-butyl ether (MtBE	8.89	73	959832	38.59078	ppb		96
23) Trans-1,2-DCE	9.10	96	690130	41.05681	ppb		94
24) Diisopropyl Ether	9.75	45	2070362	37.65279	ppb		97
25) 1,1-DCA	9.79	63	1270640	38.96588	ppb		96
26) Vinyl Acetate	9.42	43	392586	42.94098	ppb		95
27) Ethyl tert Butyl Ether	10.45	59	1446892	38.54337	ppb		98
28) MEK (2-Butanone)	10.44	43	249429	39.96063	ppb	#	93
29) Cis-1,2-DCE	10.82	96	701038	35.73563	ppb		95
30) 2,2-Dichloropropane	10.81	77	853458	36.53678	ppb		99
31) Chloroform	11.10	83	1207454	38.49020	ppb		99
32) Bromochloromethane	11.32	128	209048	38.27688	ppb		92
34) 1,1,1-TCA	11.83	97	1115691	39.10753	ppb		98
35) Cyclohexane	12.00	56	1027386	38.67839	ppb		97
36) 1,1-Dichloropropene	12.10	75	915628	37.45644	ppb		98
37) 2,2,4-Trimethylpentane	12.18	57	1588067	41.27686	ppb		96
39) Carbon Tetrachloride	12.30	117	845279	43.02829	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.34	73	1064298	37.91715	ppb		95
41)	1,2-DCA	12.37	62	609966	37.87992	ppb		96
42)	Benzene	12.50	78	2667822	37.98569	ppb		98
43)	TCE	13.53	95	750591	38.58882	ppb		94
44)	2-Pentanone	13.20	43	723061	177.71021	ppb		99
45)	1,2-Dichloropropane	13.77	63	624547	39.12345	ppb		95
46)	Bromodichloromethane	14.12	83	773755	42.42635	ppb		95
47)	Methyl Cyclohexane	13.82	83	868699	38.21751	ppb		98
48)	Dibromomethane	14.17	93	250020	39.16182	ppb		86
49)	2-Chloroethyl vinyl ether	14.57	63	173802	42.82620	ppb		95
50)	1-Bromo-2-chloroethane	14.89	63	541199	39.73256	ppb		83
51)	Cis-1,3-Dichloropropene	15.00	75	712500	40.97032	ppb		95
52)	Toluene	15.63	91	2650413	38.26138	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	518508	41.41431	ppb		91
54)	1,1,2-TCA	16.08	83	269238	39.89943	ppb		93
57)	1,2-EDB	17.33	107	320516	42.06127	ppb		96
58)	Tetrachloroethene	16.79	164	705793	34.28742	ppb		95
59)	1-Chlorohexane	17.70	91	907243	38.27319	ppb		95
60)	1,1,1,2-Tetrachloroethane	18.16	131	576678	44.74892	ppb		93
61)	m&p-Xylene	18.35	106	2337444	76.86502	ppb		99
62)	o-Xylene	19.11	106	1156368	39.53885	ppb		94
63)	Styrene	19.13	104	1785628	40.45023	ppb		97
65)	2-Hexanone	16.10	43	145250	39.64659	ppb		96
66)	1,3-Dichloropropane	16.49	76	597192	39.74260	ppb		95
67)	Dibromochloromethane	16.97	129	435261	44.37095	ppb		90
68)	Chlorobenzene	18.10	112	1658874	38.13292	ppb		97
69)	Ethylbenzene	18.22	91	3057452	37.74292	ppb		98
70)	Bromoform	19.64	173	213787	38.87093	ppb	#	77
72)	MIBK (methyl isobutyl keto	14.67	43	228387	35.86526	ppb		86
73)	Isopropylbenzene	19.74	105	2989202	36.81944	ppb		100
74)	1,1,2,2-Tetrachloroethane	19.90	83	276570	40.69597	ppb		85
75)	1,2,3-Trichloropropane	20.15	110	27712	36.12043	ppb	#	64
76)	t-1,4-Dichloro-2-Butene	20.23	53	63970	41.51275	ppb	#	73
77)	Bromobenzene	20.47	156	676448	36.12176	ppb		94
78)	n-Propylbenzene	20.44	91	3526664	36.41330	ppb		96
79)	4-Ethyltoluene	20.64	105	2418588	36.08622	ppb		96
80)	2-Chlorotoluene	20.74	91	2324947	36.24591	ppb		98
81)	1,3,5-Trimethylbenzene	20.71	105	2435760	36.94036	ppb		97
82)	4-Chlorotoluene	20.82	91	1999529	36.20126	ppb		95
83)	Tert-Butylbenzene	21.36	119	2659556	37.25529	ppb		98
84)	1,2,4-Trimethylbenzene	21.42	105	2416954	35.09648	ppb		97
85)	Sec-Butylbenzene	21.76	105	3268087	38.17382	ppb		99
86)	p-Isopropyltoluene	21.99	119	2796609	38.13811	ppb		99
87)	Benzyl Chloride	22.42	91	391533	40.22322	ppb		98
88)	1,3-DCB	22.12	146	1411201	36.84871	ppb		99
89)	1,4-DCB	22.30	146	1322903	37.21752	ppb		96
90)	Hexachloroethane	23.60	117	488322	36.68408	ppb		93
91)	n-Butylbenzene	22.70	91	2299832	35.95845	ppb		98
92)	1,2-DCB	22.93	146	1152377	37.82968	ppb		95
93)	1,2-Dibromo-3-chloropropan	24.14	155	45893	38.08788	ppb		96
94)	1,2,4-Trichlorobenzene	25.59	180	808556	36.62946	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95)	Hexachlorobutadiene	25.84	223	149142	37.18851	ppb	98
96)	Naphthalene	25.94	128	1030307	37.82960	ppb	97
97)	1,2,3-Trichlorobenzene	26.29	180	633099	37.91681	ppb	96

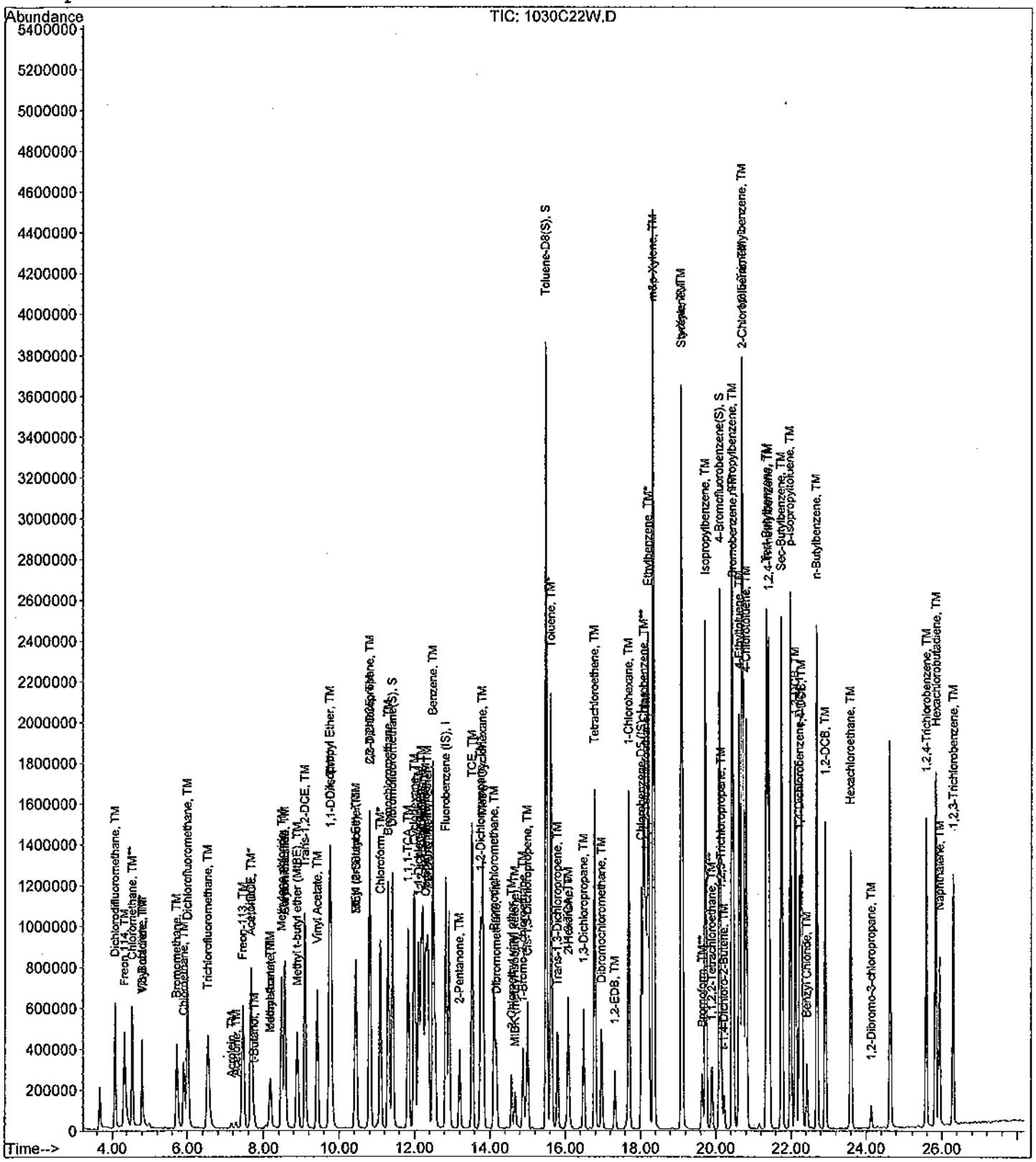
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	629184	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	438080	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	225856	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	1562107	93.20132 ppb		0.00
Spiked Amount 25.097			Recovery = 371.359%			
38) 1,2-DCA-D4(S)	12.22	65	1315432	88.16671 ppb		0.00
Spiked Amount 24.225			Recovery = 363.946%			
56) Toluene-D8(S)	15.50	98	5498133	89.19764 ppb		0.00
Spiked Amount 25.808			Recovery = 345.617%			
64) 4-Bromofluorobenzene(S)	20.11	95	1999086	90.51343 ppb		0.00
Spiked Amount 25.459			Recovery = 355.518%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	2034576	87.76868 ppb		100
3) Freon 114	4.33	85	1349868	92.97677 ppb		99
4) Chloromethane	4.55	50	2507323	87.28354 ppb		98
5) Vinyl chloride	4.80	62	1338572	69.66414 ppb		97
6) 1,3-Butadiene	4.78	54	294	5.47489 ppb	#	41
7) Bromomethane	5.72	94	1399435	100.33221 ppb		96
8) Chloroethane	5.92	64	1334347	84.07184 ppb		99
9) Dichlorofluoromethane	6.00	67	3757858	85.63331 ppb		99
10) Trichlorofluoromethane	6.53	101	2271251	87.21626 ppb		100
11) Acetonitrile	7.65	41	142197	206.30447 ug/l		100
12) Acrolein	7.15	56	57928	183.65994 ppb		89
13) Acetone	7.27	43	177387	98.40233 ppb	#	80
14) Freon-113	7.46	101	1359710	98.36336 ppb		98
15) 1,1-DCE	7.69	96	1502451	83.64213 ppb		95
16) t-Butanol	7.69	59	21608	253.32966 ppb	#	70
17) Methyl Acetate	8.19	43	511503	99.99402 ppb		97
18) Iodomethane	8.16	142	1532807	102.31499 ppb		90
19) Acrylonitrile	8.57	53	190766	99.94302 ppb		88
20) Methylene chloride	8.47	84	1482941	86.55417 ppb		98
21) Carbon disulfide	8.56	76	1504256	86.18747 ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	2423605	89.26566 ppb		93
23) Trans-1,2-DCE	9.10	96	1783146	97.17967 ppb		95
24) Diisopropyl Ether	9.75	45	5216937	86.91619 ppb		95
25) 1,1-DCA	9.80	63	3188094	89.56273 ppb		96
26) Vinyl Acetate	9.42	43	966738	98.81188 ppb		94
27) Ethyl tert Butyl Ether	10.44	59	3675155	89.68576 ppb		98
28) MEK (2-Butanone)	10.42	43	621214	92.04576 ppb	#	87
29) Cis-1,2-DCE	10.82	96	1784148	83.31536 ppb		92
30) 2,2-Dichloropropane	10.81	77	2060873	80.82274 ppb		96
31) Chloroform	11.09	83	3040045	88.77564 ppb		96
32) Bromochloromethane	11.32	128	540554	90.67004 ppb		82
34) 1,1,1-TCA	11.84	97	2777762	89.19608 ppb		98
35) Cyclohexane	12.00	56	2517542	86.82519 ppb		98
36) 1,1-Dichloropropene	12.11	75	2351054	88.10577 ppb		97
37) 2,2,4-Trimethylpentane	12.18	57	4108345	99.40223 ppb		96
39) Carbon Tetrachloride	12.30	117	2194045	102.31369 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLW/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	2816735	91.92902 ppb		99
41)	1,2-DCA	12.38	62	1561150	88.81419 ppb		98
42)	Benzene	12.49	78	6991851	91.19889 ppb		98
43)	TCE	13.54	95	1880975	88.58811 ppb		90
44)	2-Pentanone	13.20	43	881325	198.43021 ppb		99
45)	1,2-Dichloropropane	13.76	63	1582643	90.82163 ppb		96
46)	Bromodichloromethane	14.11	83	1954559	98.17824 ppb	#	91
47)	Methyl Cyclohexane	13.82	83	2215169	89.27589 ppb		99
48)	Dibromomethane	14.17	93	660037	94.70886 ppb		92
49)	2-Chloroethyl vinyl ether	14.57	63	484281	109.31668 ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	1381119	92.88701 ppb		92
51)	Cis-1,3-Dichloropropene	15.00	75	1816087	95.66550 ppb		93
52)	Toluene	15.64	91	6789315	89.78572 ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	1379809	100.95973 ppb		94
54)	1,1,2-TCA	16.08	83	670730	91.05678 ppb		90
57)	1,2-EDB	17.32	107	832657	99.86703 ppb		98
58)	Tetrachloroethene	16.79	164	1730703	76.84281 ppb		95
59)	1-Chlorohexane	17.71	91	2353794	90.75337 ppb		91
60)	1,1,1,2-Tetrachloroethane	18.16	131	1508942	107.01509 ppb		94
61)	m&p-Xylene	18.36	106	6180125	185.74112 ppb		97
62)	o-Xylene	19.10	106	3002956	93.84264 ppb		92
63)	Styrene	19.12	104	4577224	94.76663 ppb		100
65)	2-Hexanone	16.10	43	375289	93.62219 ppb		94
66)	1,3-Dichloropropane	16.49	76	1470502	89.43988 ppb		98
67)	Dibromochloromethane	16.97	129	1191759	111.03520 ppb		92
68)	Chlorobenzene	18.11	112	4271113	89.73276 ppb		97
69)	Ethylbenzene	18.22	91	8013287	90.40861 ppb		94
70)	Bromoform	19.64	173	616423	100.58038 ppb	#	81
72)	MIBK (methyl isobutyl keto	14.67	43	581084	90.50195 ppb		93
73)	Isopropylbenzene	19.74	105	7614687	93.02299 ppb		99
74)	1,1,2,2-Tetrachloroethane	19.90	83	720253	105.11090 ppb		88
75)	1,2,3-Trichloropropane	20.16	110	78648	101.50443 ppb	#	68
76)	t-1,4-Dichloro-2-Butene	20.22	53	179966	115.82759 ppb	#	75
77)	Bromobenzene	20.48	156	1766849	93.57294 ppb		97
78)	n-Propylbenzene	20.45	91	9038917	92.56114 ppb		95
79)	4-Ethyltoluene	20.64	105	6293560	93.13058 ppb		93
80)	2-Chlorotoluene	20.74	91	5791730	89.55104 ppb		98
81)	1,3,5-Trimethylbenzene	20.72	105	6243237	93.90589 ppb		96
82)	4-Chlorotoluene	20.81	91	5272321	94.67040 ppb		97
83)	Tert-Butylbenzene	21.36	119	6787695	94.30127 ppb		99
84)	1,2,4-Trimethylbenzene	21.41	105	6234859	89.79211 ppb		97
85)	Sec-Butylbenzene	21.76	105	8294079	96.08521 ppb		99
86)	p-Isopropyltoluene	21.99	119	7113742	96.21480 ppb		98
87)	Benzyl Chloride	22.43	91	1035237	105.47867 ppb		97
88)	1,3-DCB	22.13	146	3600903	93.25266 ppb		96
89)	1,4-DCB	22.29	146	3434577	95.83166 ppb		96
90)	Hexachloroethane	23.60	117	1413252	101.62319 ppb		97
91)	n-Butylbenzene	22.70	91	5960168	92.42293 ppb		99
92)	1,2-DCB	22.92	146	2973338	96.80520 ppb		95
93)	1,2-Dibromo-3-chloropropan	24.14	155	125399	101.01251 ppb		95
94)	1,2,4-Trichlorobenzene	25.58	180	2057289	92.43409 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) Hexachlorobutadiene	25.83	223	370844	91.70996 ppb	98
96) Naphthalene	25.93	128	2644717	96.30764 ppb	98
97) 1,2,3-Trichlorobenzene	26.30	180	1614041	95.87185 ppb	100

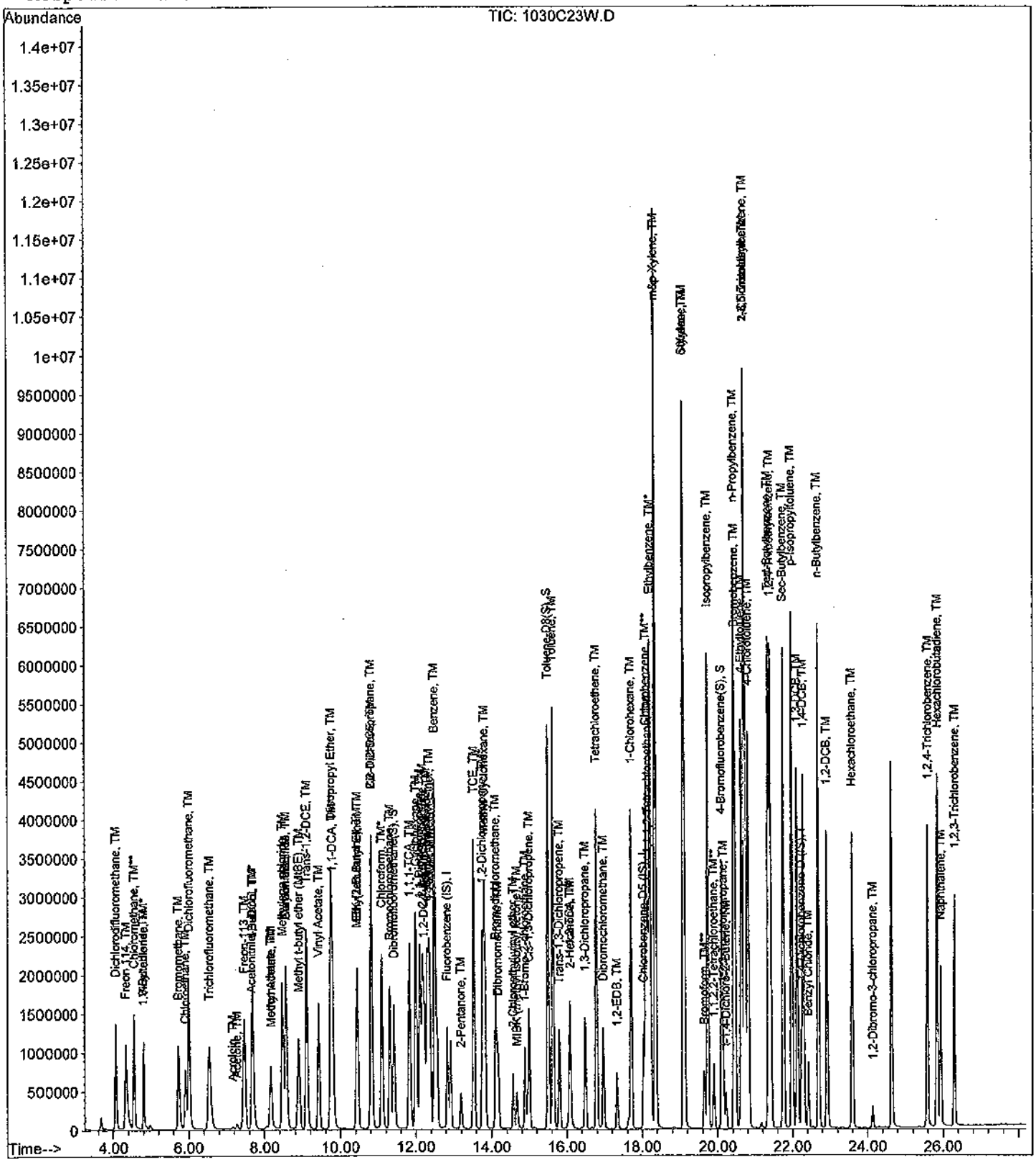
(#) = qualifier out of range (m) = manual integration

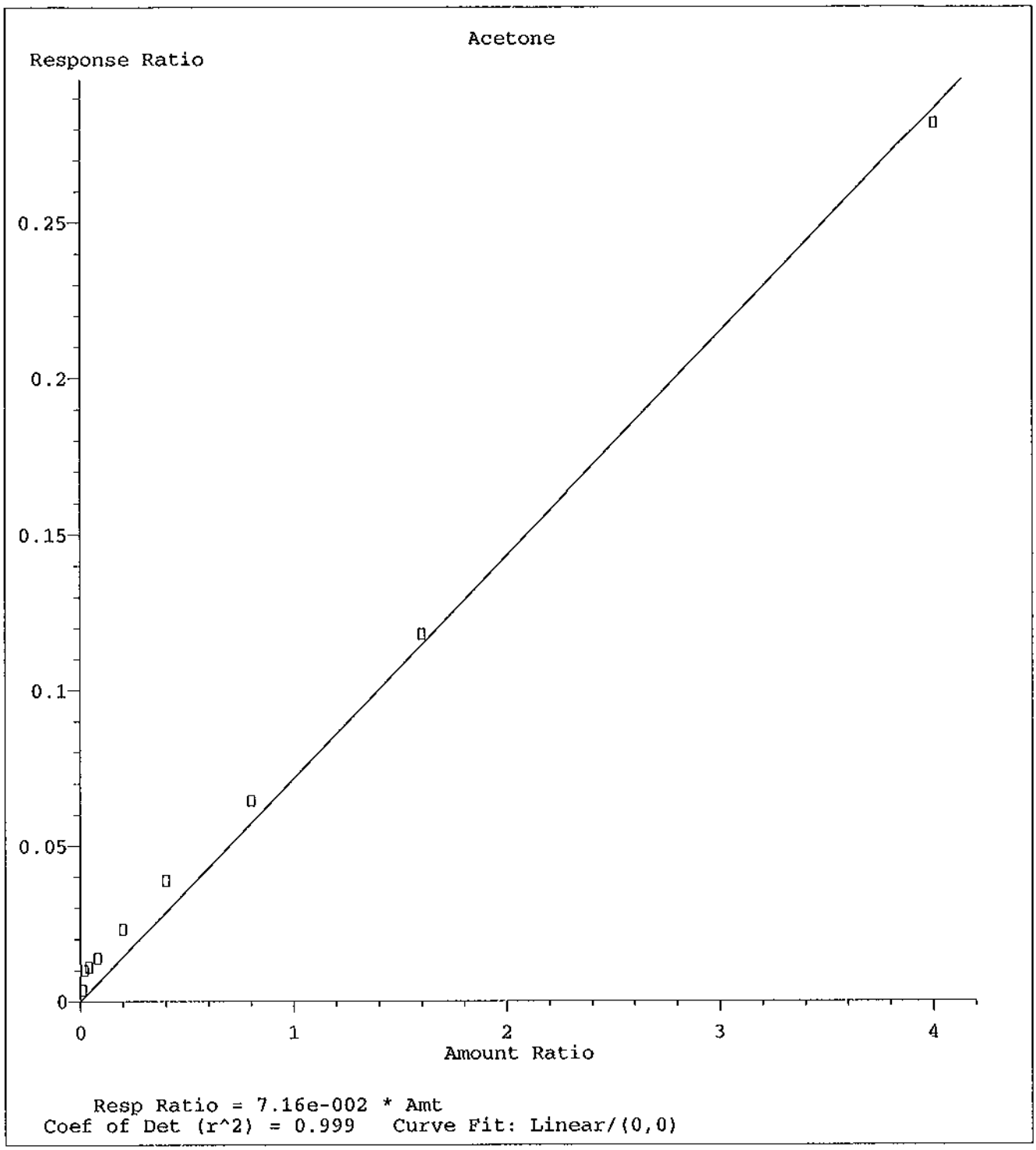
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

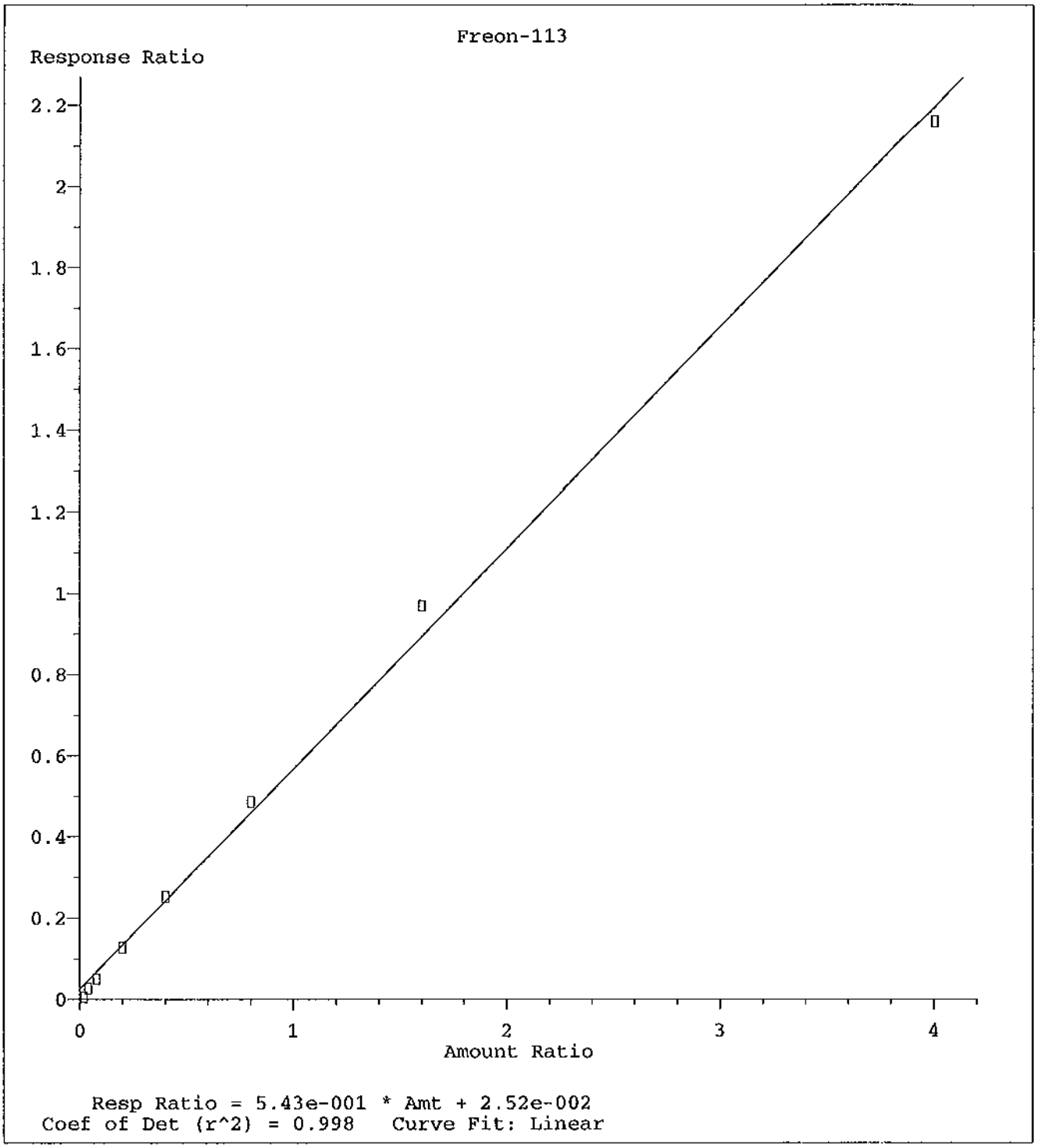
Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration

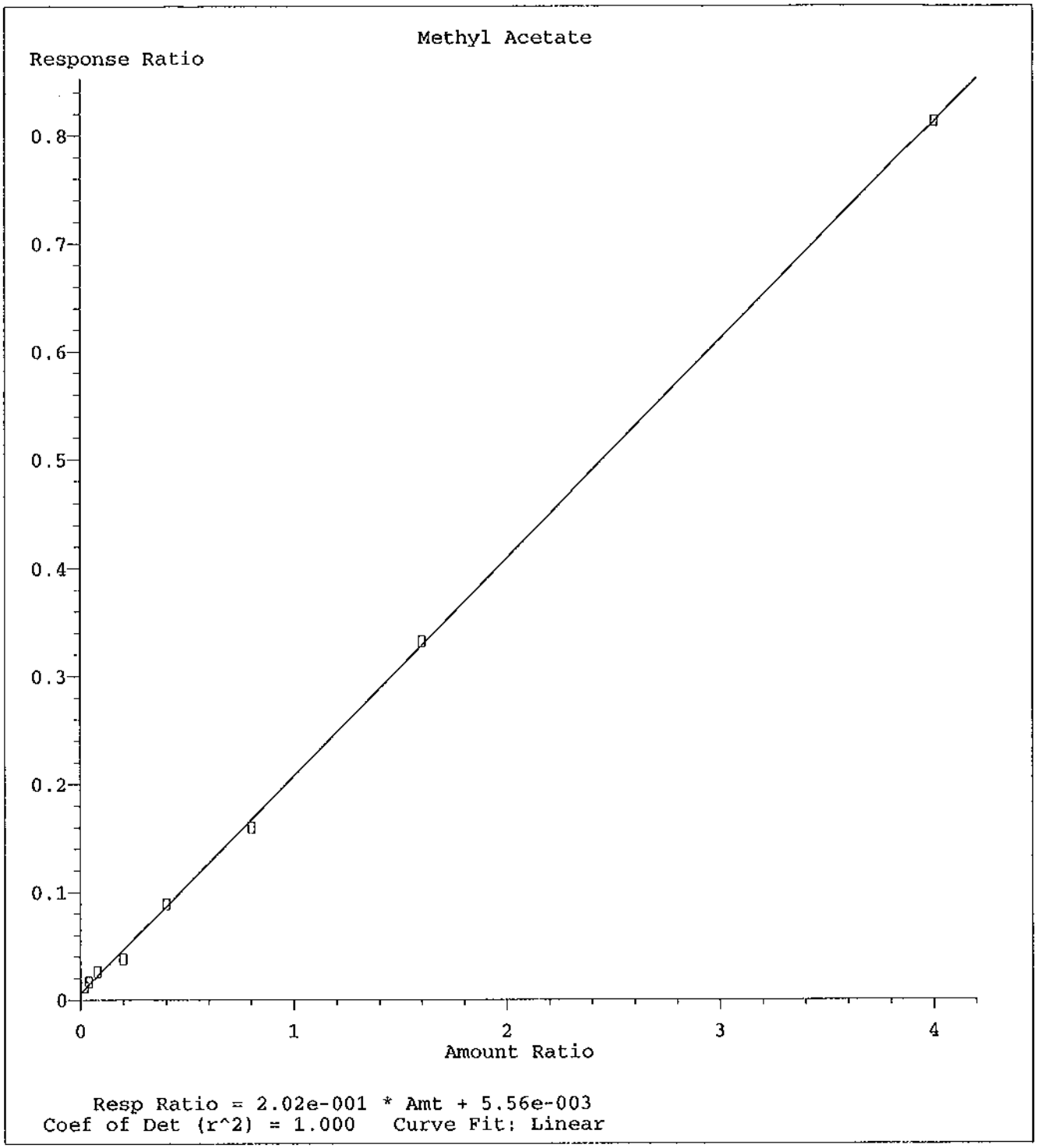




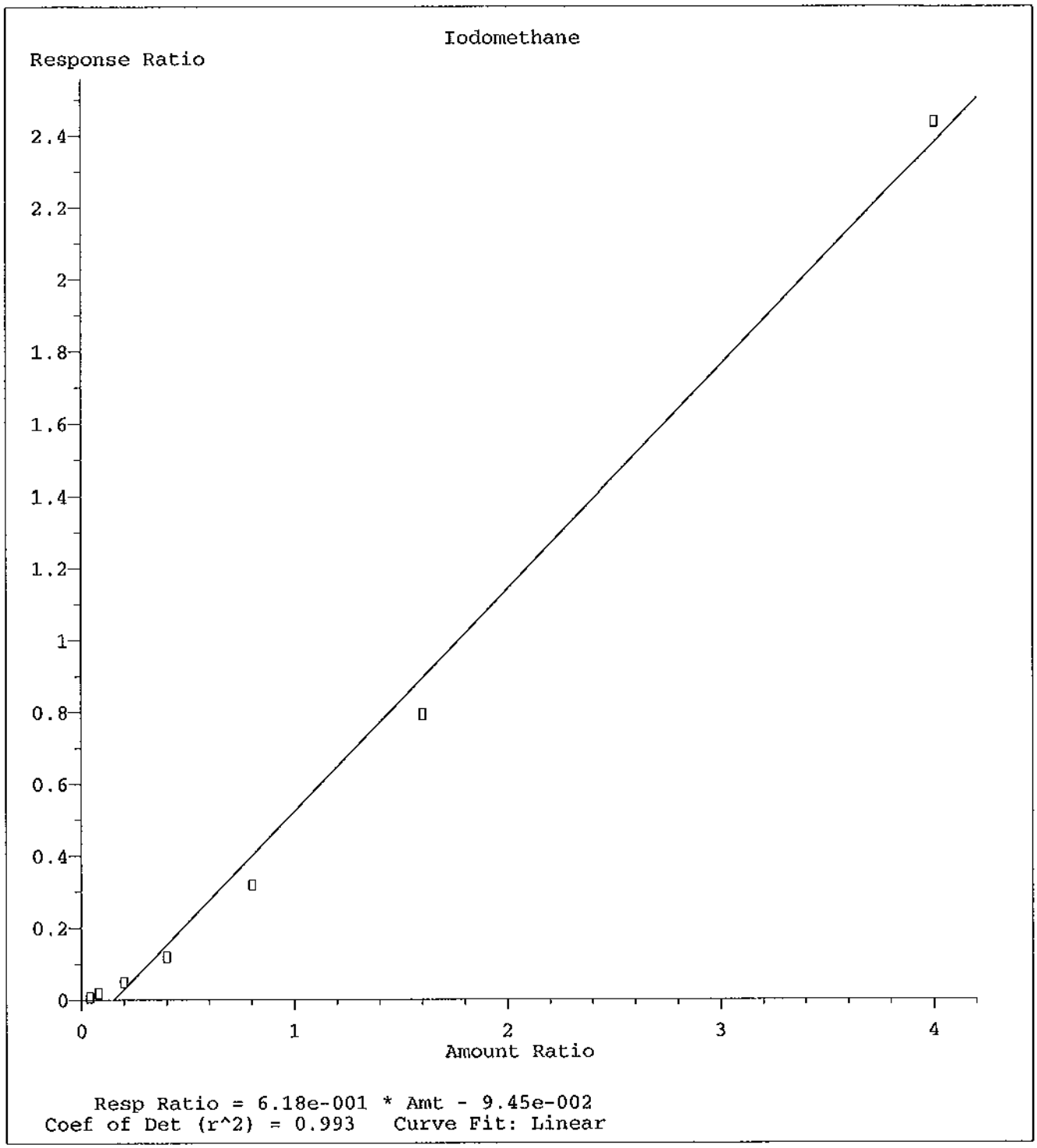
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



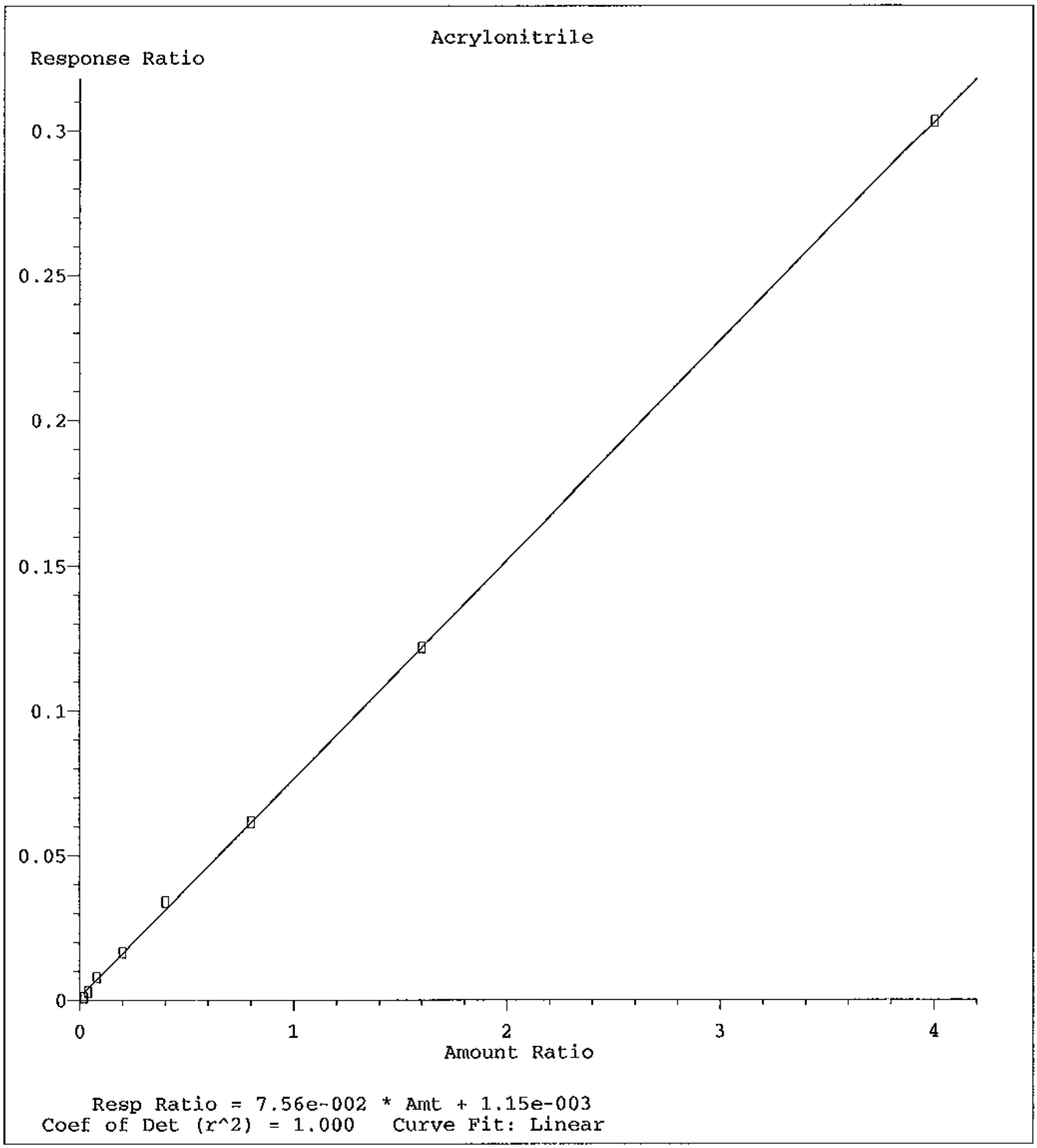
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



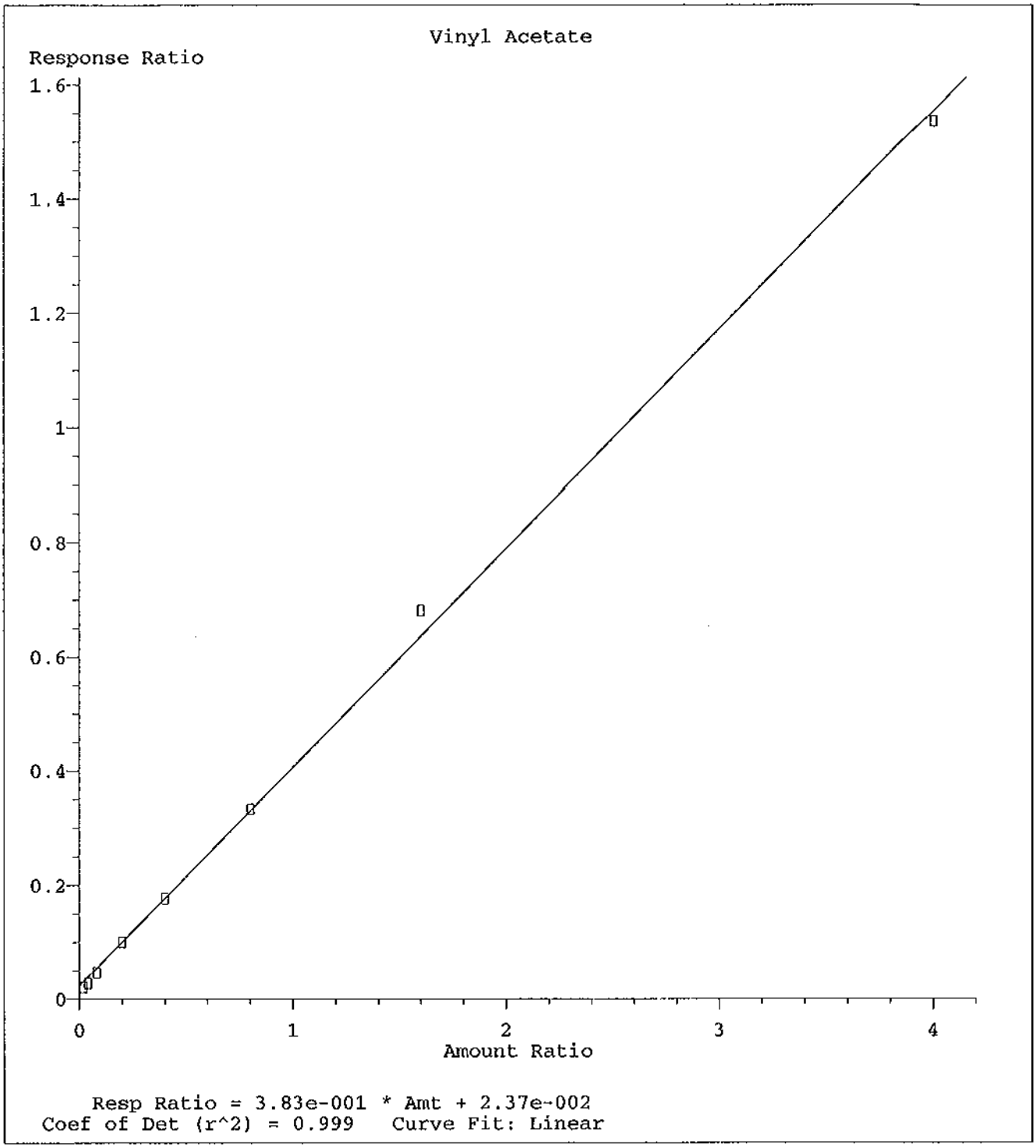
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



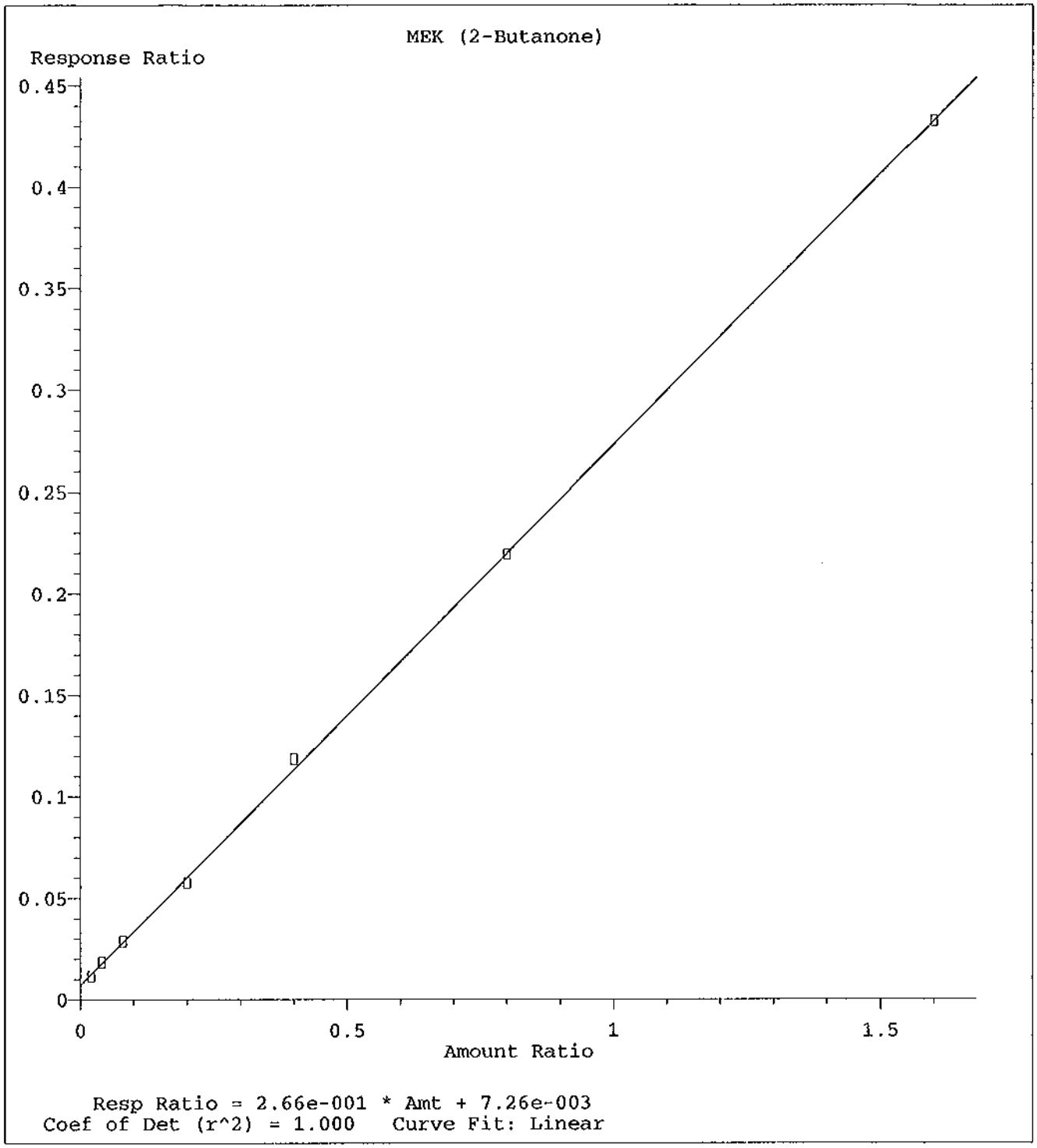
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



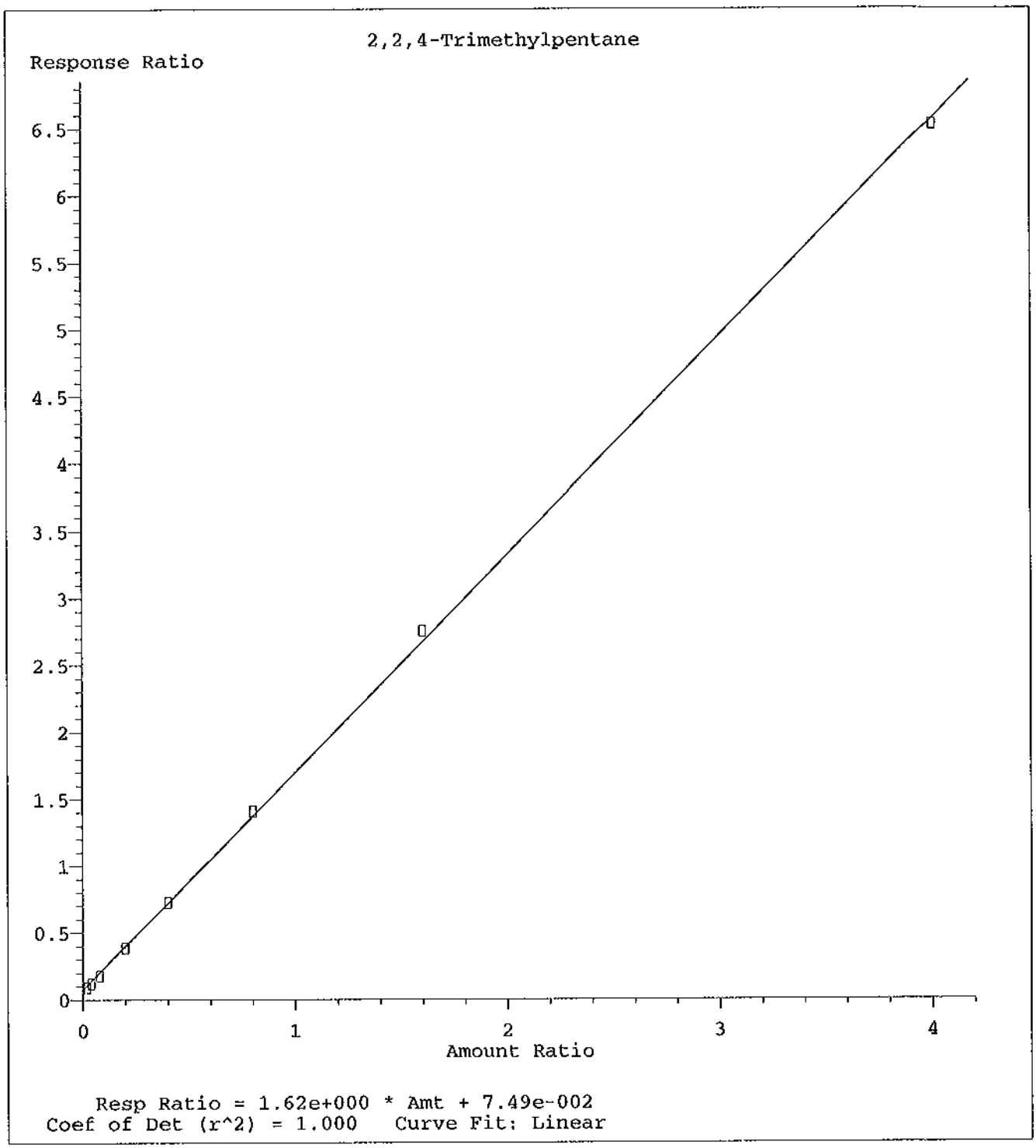
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



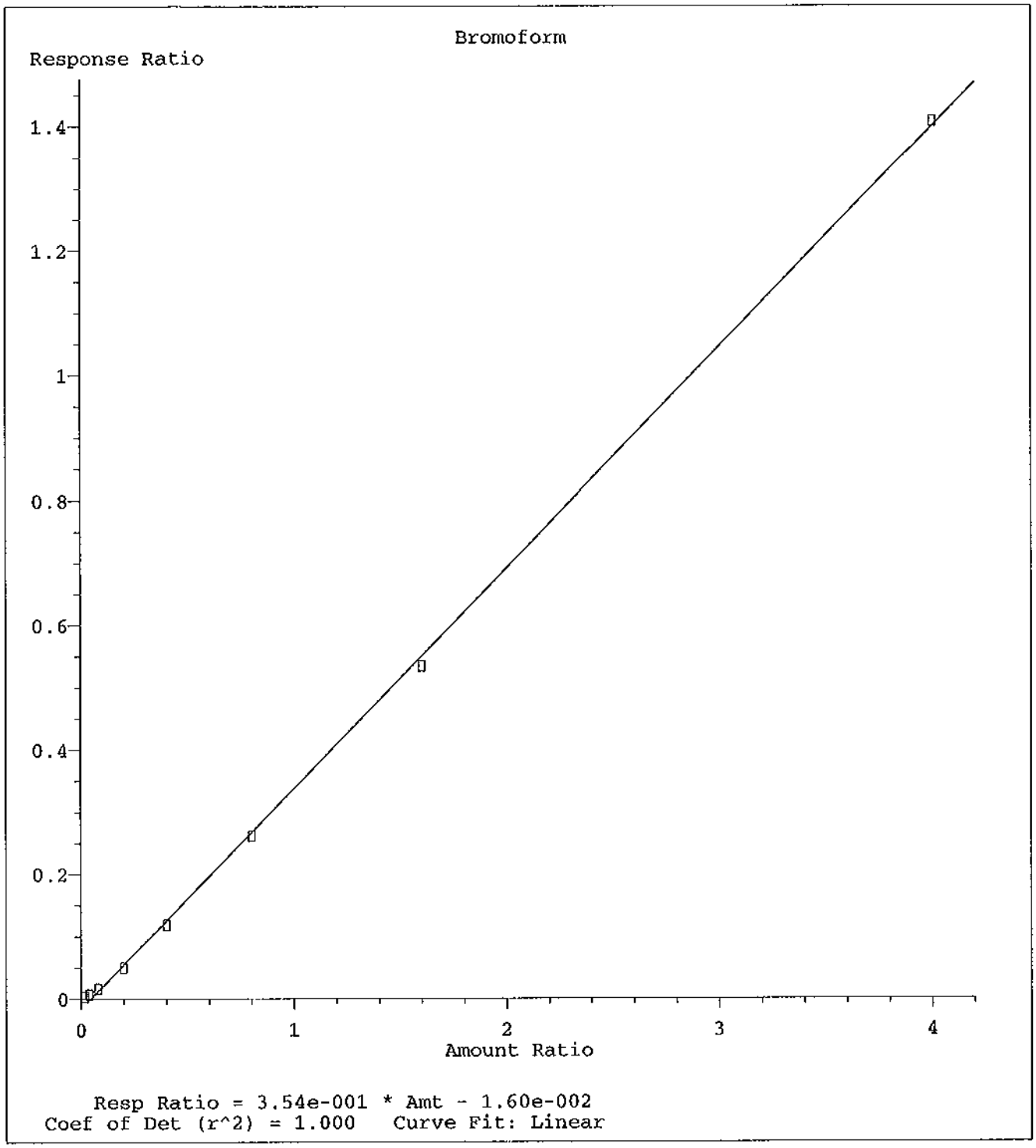
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



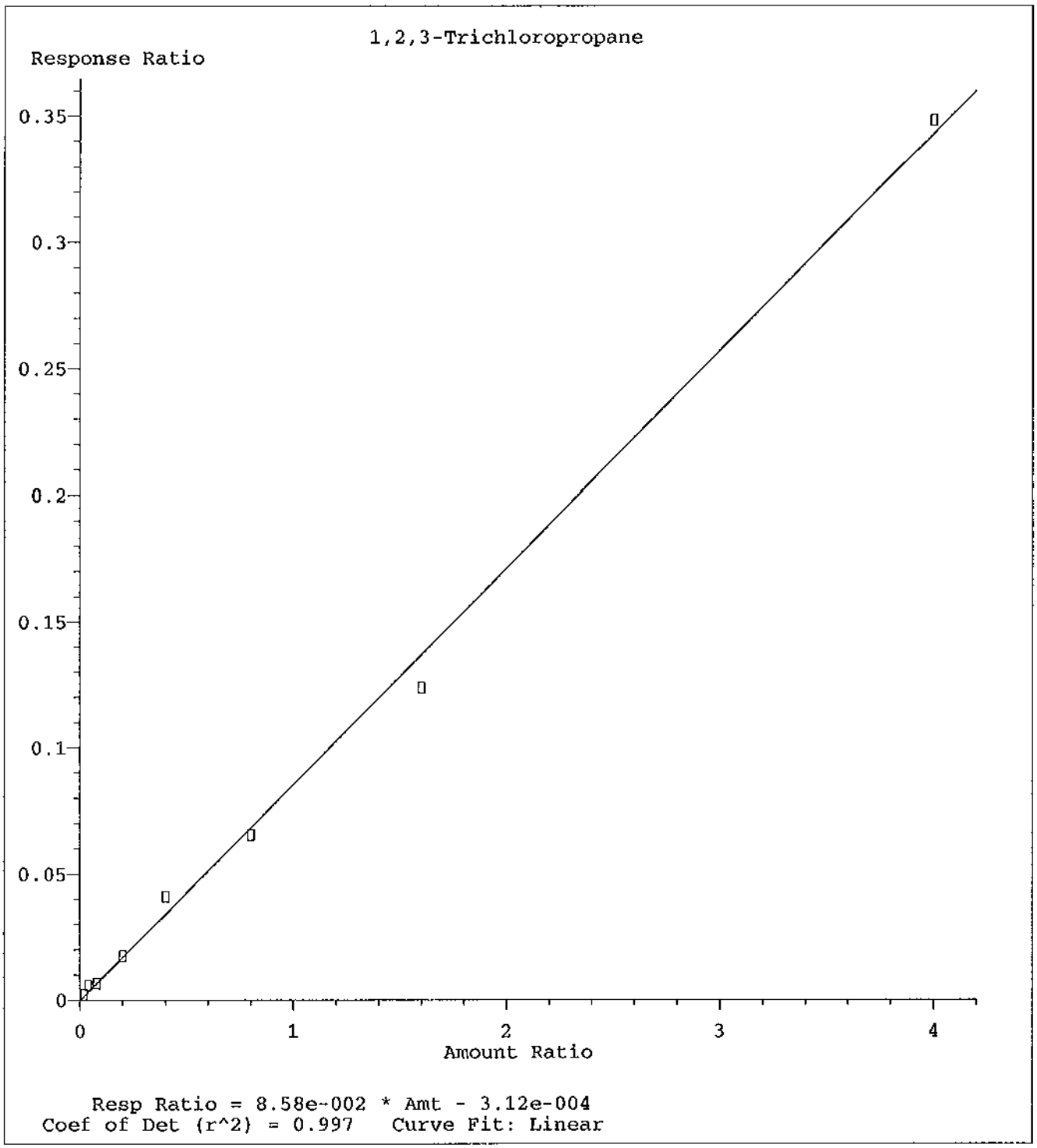
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



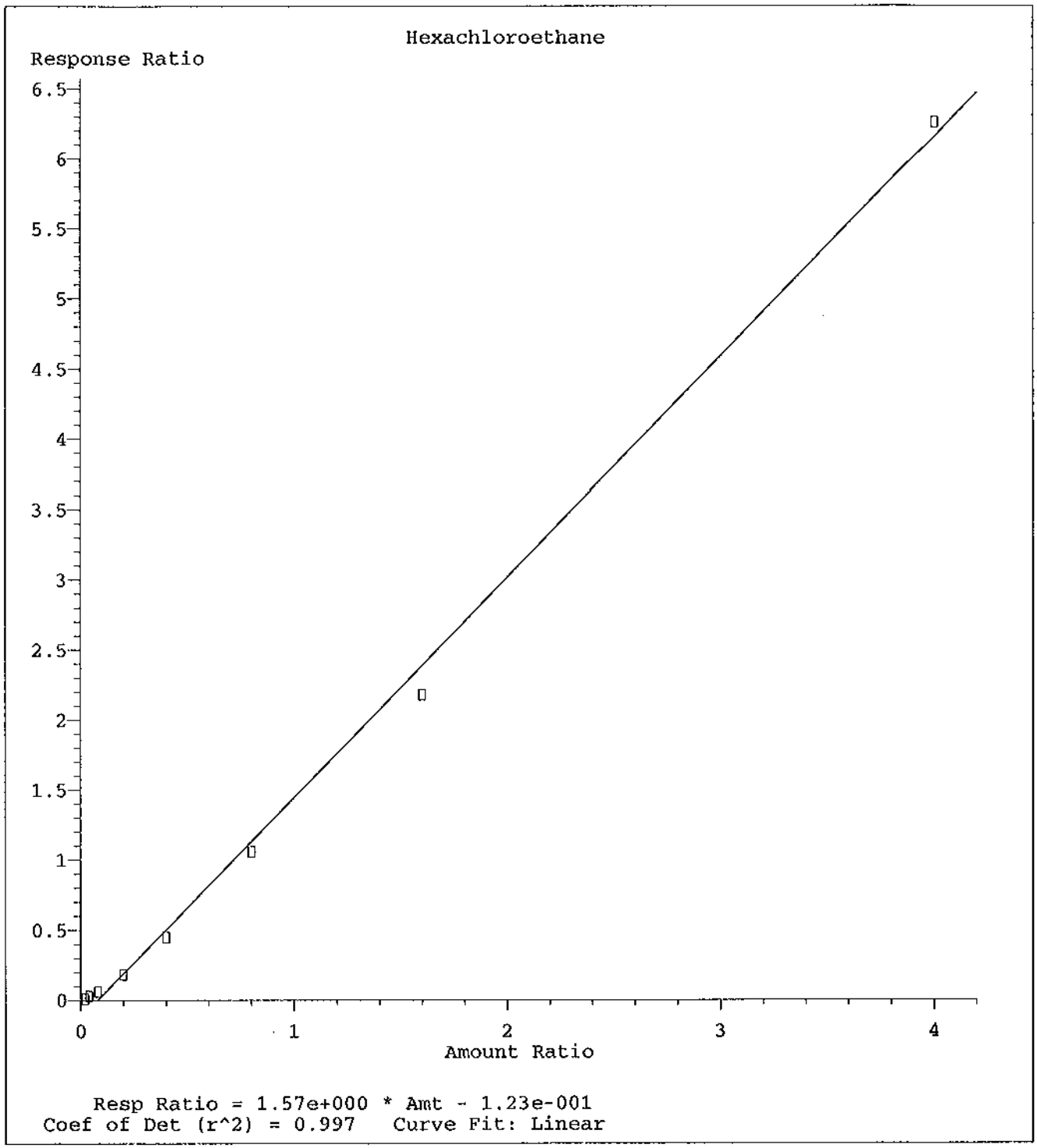
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



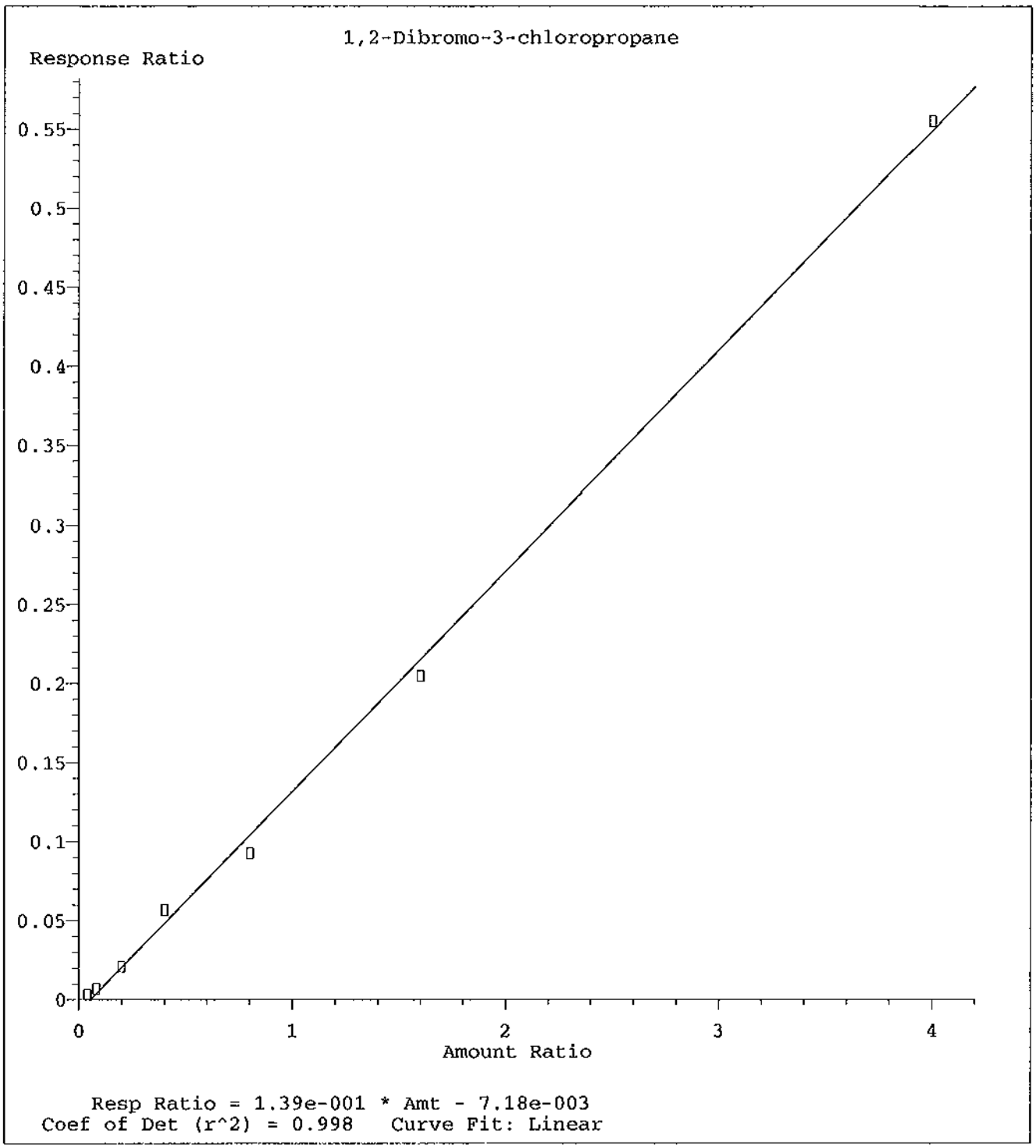
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/11
Instrument: Chico
Initial Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.9211	0.9249	0.42	TM		
3	TM	Freon 114	0.5769	0.6094	5.6	TM		
4	TM**	Chloromethane	1.141	1.076	5.8	TM**		
5	TM*	Vinyl chloride	0.7635	0.7773	1.8	TM*		
6	TML	1,3-Butadiene	0.0000	0.0015	0.00	TML		
7	TM	Bromomethane	0.5542	0.4961	10	TM		
8	TM	Chloroethane	0.6306	0.5609	11	TM		
9	TM	Dichlorofluoromethane	1.744	1.607	7.8	TM		
10	TM	Trichlorofluoromethane	1.035	1.006	2.8	TM		
11		Acetonitrile	0.0274	0.0263	4.1			
12	TM	Acrolein	0.0125	0.0115	8.4	TM		
13	TML	Acetone	0.1859	0.0931	50	TML	30	*
14	TML	Freon-113	0.5715	0.5758	0.75	TML	5.5	
15	TM*	1,1-DCE	0.7137	0.6303	12	TM*		
16	TM	t-Butanol	0.0034	0.0035	3.5	TM		
17	TML	Methyl Acetate	0.2927	0.2030	31	TML	6.3	
18	TML	Iodomethane	0.3500	0.4253	21	TML	7.0	
19	TML	Acrylonitrile	0.0764	0.0746	2.3	TML	5.1	
20	TM	Methylene chloride	0.6808	0.6159	9.5	TM		
21	TM	Carbon disulfide	0.6935	0.6450	7.0	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.079	1.046	3.1	TM		
23	TM	Trans-1,2-DCE	0.8280	0.7496	9.5	TM		
24	TM	Diisopropyl Ether	2.385	2.306	3.3	TM		
25	TM**	1,1-DCA	1.414	1.411	0.23	TM**		
26	TML	Vinyl Acetate	0.5623	0.4364	22	TML	1.5	
27	TM	Ethyl tert Butyl Ether	1.628	1.646	1.1	TM		
28	TML	MEK (2-Butanone)	0.3591	0.2972	17	TML	4.8	
29	TM	Cis-1,2-DCE	0.8509	0.7812	8.2	TM		
30	TM	2,2-Dichloropropane	1.013	0.8669	14	TM		
31	TM*	Chloroform	1.361	1.332	2.1	TM*		
32	TM	Bromochloromethane	0.2369	0.2434	2.8	TM		
33	S	Dibromofluoromethane(S)	0.6660	0.6700	0.60	S		
34	TM	1,1,1-TCA	1.237	1.182	4.5	TM		
35	TM	Cyclohexane	1.152	1.120	2.8	TM		
36	TM	1,1-Dichloropropene	1.060	0.9998	5.7	TM		
37	TML	2,2,4-Trimethylpentane	2.316	1.725	26	TML	5.3	
38	S	1,2-DCA-D4(S)	0.5928	0.5784	2.4	S		
39	TM	Carbon Tetrachloride	0.8521	0.8321	2.3	TM		
40	TM	Tert Amyl Methyl Ether	1.217	1.216	0.15	TM		
		Average			8.3			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/11
Instrument: Chico
Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	1,2-DCA	0.6984	0.6709	3.9	TM	
42	TM	Benzene	3.046	2.887	5.2	TM	
43	TM	TCE	0.8437	0.8134	3.6	TM	
44	TM	2-Pentanone	0.1765	0.1769	0.25	TM	
45	TM*	1,2-Dichloropropane	0.6924	0.6963	0.57	TM*	
46	TM	Bromodichloromethane	0.7910	0.7910	0.01	TM	
47	TM	Methyl Cyclohexane	0.9859	0.9347	5.2	TM	
48	TM	Dibromomethane	0.2769	0.2811	1.5	TM	
49	TM	2-Chloroethyl vinyl ether	0.1760	0.1764	0.23	TM	
50	TM	1-Bromo-2-chloroethane	0.5908	0.6129	3.7	TM	
51	TM	Cis-1,3-Dichloropropene	0.7543	0.7571	0.37	TM	
52	TM*	Toluene	3.005	2.824	6.0	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5430	0.5270	3.0	TM	
54	TM	1,1,2-TCA	0.2927	0.2901	0.90	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.518	3.782	7.5	S	
57	TM	1,2-EDB	0.4758	0.5074	6.6	TM	
58	TM	Tetrachloroethene	1.285	1.296	0.81	TM	
59	TM	1-Chlorohexane	1.480	1.493	0.86	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.8047	0.8891	10	TM	
61	TM	m&p-Xylene	1.899	1.889	0.49	TM	
62	TM	o-Xylene	1.826	1.894	3.7	TM	
63	TM	Styrene	2.756	2.935	6.5	TM	
64	S	4-Bromofluorobenzene(S)	1.260	1.394	11	S	
65	TM	2-Hexanone	0.2288	0.2487	8.7	TM	
66	TM	1,3-Dichloropropane	0.9383	0.9463	0.86	TM	
67	TM	Dibromochloromethane	0.6125	0.6760	10	TM	
68	TM**	Chlorobenzene	2.716	2.809	3.4	TM**	
69	TM*	Ethylbenzene	5.058	5.094	0.71	TM*	
70	TM**L	Bromoform	0.2607	0.2895	11	TM**L	6.8
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	MIBK (methyl isobutyl ketone)	0.7107	0.6949	2.2	TM	
73	TM	Isopropylbenzene	9.061	8.888	1.9	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7585	0.7787	2.7	TM**	
75	TML	1,2,3-Trichloropropane	0.0967	0.1006	4.1	TML	18
76	TM	t-1,4-Dichloro-2-Butene	0.1720	0.1758	2.2	TM	
77	TM	Bromobenzene	2.090	2.104	0.64	TM	
78	TM	n-Propylbenzene	10.8	10.6	2.1	TM	
79	TM	4-Ethyltoluene	7.480	6.973	6.8	TM	
80	TM	2-Chlorotoluene	7.159	7.027	1.8	TM	
		Average			3.7		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/11
Instrument: Chico
Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,3,5-Trimethylbenzene	7.359	7.258	1.4	TM	
82	TM	4-Chlorotoluene	6.164	5.899	4.3	TM	
83	TM	Tert-Butylbenzene	7.967	7.897	0.88	TM	
84	TM	1,2,4-Trimethylbenzene	7.686	7.097	7.7	TM	
85	TM	Sec-Butylbenzene	9.555	9.679	1.3	TM	
86	TM	p-Isopropyltoluene	8.184	8.031	1.9	TM	
87	TM	Benzyl Chloride	1.086	0.9559	12	TM	
88	TM	1,3-DCB	4.274	4.133	3.3	TM	
89	TM	1,4-DCB	3.967	3.945	0.56	TM	
90	TML	Hexachloroethane	1.021	1.085	6.2	TML	11
91	TM	n-Butylbenzene	7.138	6.849	4.1	TM	
92	TM	1,2-DCB	3.400	3.438	1.1	TM	
93	TML	1,2-Dibromo-3-chloropropane	0.1148	0.1240	8.0	TML	2.0
94	TM	1,2,4-Trichlorobenzene	2.464	2.504	1.7	TM	
95	TM	Hexachlorobutadiene	0.4476	0.4720	5.5	TM	
96	TM	Naphthalene	3.040	3.207	5.5	TM	
97	TM	1,2,3-Trichlorobenzene	1.864	2.025	8.7	TM	
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			4.4		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	600576	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	389760	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	212800	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	402364	25.15012 ppb		0.00
Spiked Amount 25.097			Recovery	= 100.210%		
38) 1,2-DCA-D4(S)	12.23	65	347346	24.38980 ppb		0.00
Spiked Amount 24.225			Recovery	= 100.680%		
56) Toluene-D8(S)	15.50	98	1474138	26.88019 ppb		0.00
Spiked Amount 25.808			Recovery	= 104.153%		
64) 4-Bromofluorobenzene(S)	20.11	95	543410	27.65447 ppb		0.00
Spiked Amount 25.459			Recovery	= 108.620%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	222193	10.04166 ppb		100
3) Freon 114	4.33	85	146402	10.56428 ppb		93
4) Chloromethane	4.55	50	258385	9.42321 ppb		99
5) Vinyl chloride	4.82	62	186738	10.18146 ppb		96
7) Bromomethane	5.72	94	119189	8.95228 ppb		94
8) Chloroethane	5.91	64	134747	8.89428 ppb		97
9) Dichlorofluoromethane	6.01	67	386134	9.21828 ppb		97
10) Trichlorofluoromethane	6.52	101	241622	9.72027 ppb		99
11) Acetonitrile	7.64	41	78885	119.90087 ug/l		100
12) Acrolein	7.16	56	34469	114.48914 ppb		96
13) Acetone	7.27	43	22365	12.99757 ppb	#	84
14) Freon-113	7.46	101	138327	9.44782 ppb		97
15) 1,1-DCE	7.67	96	151407	8.83040 ppb		96
16) t-Butanol	7.76	59	10529	129.32077 ppb		93
17) Methyl Acetate	8.18	43	48755	9.36519 ppb		96
18) Iodomethane	8.16	142	102169	10.69989 ppb		90
19) Acrylonitrile	8.56	53	17916	9.49044 ppb		79
20) Methylene chloride	8.47	84	147951	9.04673 ppb		99
21) Carbon disulfide	8.56	76	154944	9.30051 ppb		100
22) Methyl t-butyl ether (MtBE	8.89	73	251165	9.69151 ppb		96
23) Trans-1,2-DCE	9.10	96	180083	9.05360 ppb		88
24) Diisopropyl Ether	9.75	45	553904	9.66784 ppb		94
25) 1,1-DCA	9.79	63	339012	9.97748 ppb		99
26) Vinyl Acetate	9.42	43	104836	9.85383 ppb	#	83
27) Ethyl tert Butyl Ether	10.45	59	395408	10.10888 ppb		99
28) MEK (2-Butanone)	10.44	43	71405	10.48433 ppb		99
29) Cis-1,2-DCE	10.82	96	187663	9.18084 ppb		97
30) 2,2-Dichloropropane	10.82	77	208247	8.55600 ppb		97
31) Chloroform	11.10	83	320091	9.79258 ppb		99
32) Bromochloromethane	11.32	128	58472	10.27501 ppb		98
34) 1,1,1-TCA	11.84	97	283983	9.55329 ppb		96
35) Cyclohexane	12.00	56	268948	9.71733 ppb		94
36) 1,1-Dichloropropene	12.10	75	240188	9.42981 ppb		99
37) 2,2,4-Trimethylpentane	12.18	57	414455	9.47423 ppb		98
39) Carbon Tetrachloride	12.30	117	199898	9.76577 ppb		98
40) Tert Amyl Methyl Ether	12.34	73	292021	9.98459 ppb		99
41) 1,2-DCA	12.38	62	161160	9.60516 ppb		100
42) Benzene	12.50	78	693647	9.47863 ppb		96
43) TCE	13.53	95	195399	9.64105 ppb		91

Algorithm Check: $\frac{(222193)(25)}{(600576)(0.92079)} (1) = 10.04166034$ ✓ ARS 12/7/11

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.20	43	531259	125.31057	ppb		97
45)	1,2-Dichloropropane	13.76	63	167281	10.05687	ppb	#	94
46)	Bromodichloromethane	14.11	83	190021	9.99949	ppb	#	91
47)	Methyl Cyclohexane	13.82	83	224538	9.48040	ppb		99
48)	Dibromomethane	14.16	93	67527	10.15102	ppb		95
49)	2-Chloroethyl vinyl ether	14.57	63	42382	10.02259	ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	147231	10.37368	ppb	#	79
51)	Cis-1,3-Dichloropropene	15.00	75	181879	10.03716	ppb		100
52)	Toluene	15.63	91	678338	9.39804	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	126600	9.70449	ppb		98
54)	1,1,2-TCA	16.08	83	69681	9.91034	ppb		93
57)	1,2-EDB	17.33	107	79107	10.66417	ppb		94
58)	Tetrachloroethene	16.78	164	202010	10.08114	ppb		94
59)	1-Chlorohexane	17.70	91	232734	10.08580	ppb		97
60)	1,1,1,2-Tetrachloroethane	18.16	131	138607	11.04877	ppb		99
61)	m&p-Xylene	18.35	106	589147	19.90172	ppb		97
62)	o-Xylene	19.11	106	295217	10.36928	ppb		98
63)	Styrene	19.13	104	457607	10.64883	ppb		93
65)	2-Hexanone	16.11	43	38770	10.87089	ppb		95
66)	1,3-Dichloropropane	16.49	76	147530	10.08561	ppb		98
67)	Dibromochloromethane	16.97	129	105397	11.03714	ppb		82
68)	Chlorobenzene	18.10	112	437982	10.34243	ppb		97
69)	Ethylbenzene	18.22	91	794180	10.07104	ppb		100
70)	Bromoform	19.65	173	45131	9.31734	ppb		91
72)	MIBK (methyl isobutyl keto	14.68	43	59150	9.77763	ppb		87
73)	Isopropylbenzene	19.73	105	756513	9.80877	ppb		98
74)	1,1,2,2-Tetrachloroethane	19.90	83	66287	10.26718	ppb	#	74
75)	1,2,3-Trichloropropane	20.16	110	8565	11.81260	ppb		82
76)	t-1,4-Dichloro-2-Butene	20.23	53	14963	10.22116	ppb	#	92
77)	Bromobenzene	20.48	156	179052	10.06445	ppb		89
78)	n-Propylbenzene	20.44	91	900774	9.79012	ppb		100
79)	4-Ethyltoluene	20.63	105	593563	9.32229	ppb		97
80)	2-Chlorotoluene	20.74	91	598129	9.81561	ppb		98
81)	1,3,5-Trimethylbenzene	20.72	105	617840	9.86323	ppb		99
82)	4-Chlorotoluene	20.82	91	502123	9.56935	ppb		98
83)	Tert-Butylbenzene	21.36	119	672218	9.91209	ppb		97
84)	1,2,4-Trimethylbenzene	21.42	105	604092	9.23368	ppb		96
85)	Sec-Butylbenzene	21.76	105	823845	10.12964	ppb		96
86)	p-Isopropyltoluene	21.99	119	683604	9.81315	ppb		98
87)	Benzyl Chloride	22.42	91	81362	8.79846	ppb		94
88)	1,3-DCB	22.12	146	351790	9.66926	ppb		95
89)	1,4-DCB	22.30	146	335795	9.94420	ppb		96
90)	Hexachloroethane	23.59	117	92345	8.87470	ppb		87
91)	n-Butylbenzene	22.69	91	582962	9.59448	ppb		98
92)	1,2-DCB	22.93	146	292666	10.11316	ppb		97
93)	1,2-Dibromo-3-chloropropan	24.14	155	10559	10.20135	ppb		92
94)	1,2,4-Trichlorobenzene	25.59	180	213173	10.16551	ppb		98
95)	Hexachlorobutadiene	25.84	223	40176	10.54513	ppb		97
96)	Naphthalene	25.94	128	272964	10.54986	ppb		99
97)	1,2,3-Trichlorobenzene	26.29	180	172357	10.86589	ppb		99

(#) = qualifier out of range (m) = manual integration

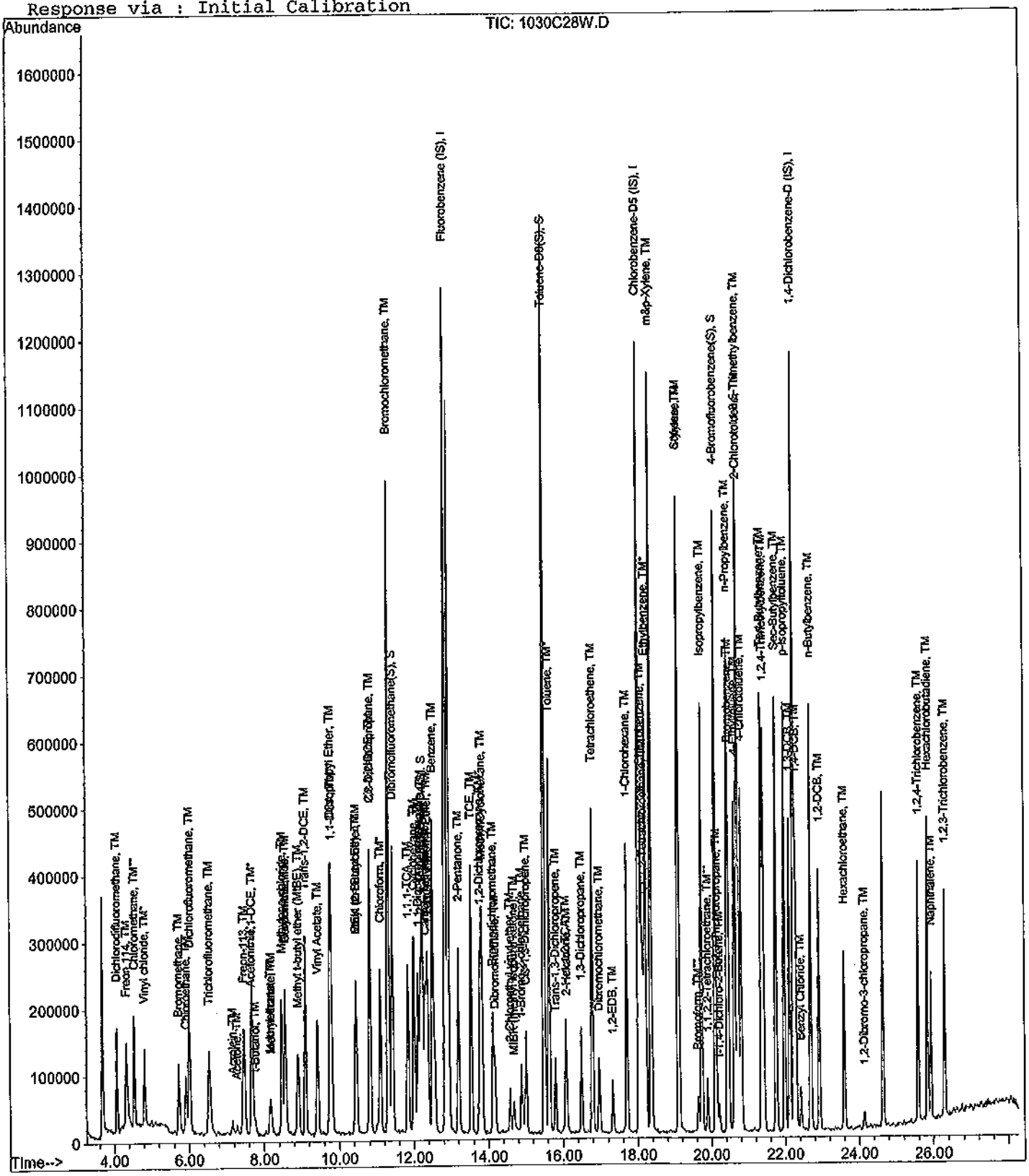
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C28W.D
Acq On : 31 Oct 11 8:48
Sample : 111030A LCS-1WC (SS)
Misc : Water 10mLw/ IS&S:10-30/10-26-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1030C27W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.9211	0.9607	4.3	TM		
3	TM	Freon 114	0.5769	0.6267	8.6	TM		
4	TM**	Chloromethane	1.141	1.117	2.2	TM**		
5	TM*	Vinyl chloride	0.7635	0.8485	11	TM*		
6	TML	1,3-Butadiene	0.0000	0.0009	0.00	TML		
7	TM	Bromomethane	0.5542	0.5584	0.75	TM		
8	TM	Chloroethane	0.6306	0.6136	2.7	TM		
9	TM	Dichlorofluoromethane	1.744	1.741	0.17	TM		
10	TM	Trichlorofluoromethane	1.035	1.087	5.1	TM		
11		Acetonitrile	0.0274	0.0255	6.7			
12	TM	Acrolein	0.0125	0.0117	6.4	TM		
13	TML	Acetone	0.1859	0.0914	51	TML	28	*
14	TML	Freon-113	0.5715	0.6270	9.7	TML	3.9	
15	TM*	1,1-DCE	0.7137	0.6880	3.6	TM*		
16	TM	t-Butanol	0.0034	0.0034	1.1	TM		
17	TML	Methyl Acetate	0.2927	0.2052	30	TML	5.2	
18	TML	Iodomethane	0.3500	0.4294	23	TML	7.7	
19	TML	Acrylonitrile	0.0764	0.0791	3.5	TML	0.85	
20	TM	Methylene chloride	0.6808	0.6482	4.8	TM		
21	TM	Carbon disulfide	0.6935	0.6961	0.37	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.079	1.106	2.6	TM		
23	TM	Trans-1,2-DCE	0.8280	0.7771	6.1	TM		
24	TM	Diisopropyl Ether	2.385	2.416	1.3	TM		
25	TM**	1,1-DCA	1.414	1.481	4.7	TM**		
26	TML	Vinyl Acetate	0.5623	0.4689	17	TML	7.0	
27	TM	Ethyl tert Butyl Ether	1.628	1.743	7.1	TM		
28	TML	MEK (2-Butanone)	0.3591	0.2865	20	TML	0.79	
29	TM	Cis-1,2-DCE	0.8509	0.8285	2.6	TM		
30	TM	2,2-Dichloropropane	1.013	0.9291	8.3	TM		
31	TM*	Chloroform	1.361	1.374	1.0	TM*		
32	TM	Bromochloromethane	0.2369	0.2573	8.6	TM		
33	S	Dibromofluoromethane(S)	0.6660	0.6943	4.3	S		
34	TM	1,1,1-TCA	1.237	1.277	3.2	TM		
35	TM	Cyclohexane	1.152	1.162	0.83	TM		
36	TM	1,1-Dichloropropene	1.060	1.091	2.9	TM		
37	TML	2,2,4-Trimethylpentane	2.316	1.777	23	TML	2.1	
38	S	1,2-DCA-D4(S)	0.5928	0.5850	1.3	S		
39	TM	Carbon Tetrachloride	0.8521	0.9156	7.5	TM		
40	TM	Tert Amyl Methyl Ether	1.217	1.268	4.1	TM		
		Average			7.7			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Cal. Date: 10/30/2011
Data File: 1030C27W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	1,2-DCA	0.6984	0.7162	2.5	TM	
42	TM	Benzene	3.046	3.004	1.4	TM	
43	TM	TCE	0.8437	0.8976	6.4	TM	
44	TM	2-Pentanone	0.1765	0.1801	2.0	TM	
45	TM*	1,2-Dichloropropane	0.6924	0.7108	2.7	TM*	
46	TM	Bromodichloromethane	0.7910	0.8325	5.2	TM	
47	TM	Methyl Cyclohexane	0.9859	0.9762	0.98	TM	
48	TM	Dibromomethane	0.2769	0.3053	10	TM	
49	TM	2-Chloroethyl vinyl ether	0.1760	0.1791	1.8	TM	
50	TM	1-Bromo-2-chloroethane	0.5908	0.6158	4.2	TM	
51	TM	Cis-1,3-Dichloropropene	0.7543	0.7871	4.4	TM	
52	TM*	Toluene	3.005	3.021	0.56	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5430	0.5626	3.6	TM	
54	TM	1,1,2-TCA	0.2927	0.3204	9.5	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.518	3.735	6.2	S	
57	TM	1,2-EDB	0.4758	0.5192	9.1	TM	
58	TM	Tetrachloroethene	1.285	1.322	2.9	TM	
59	TM	1-Chlorohexane	1.480	1.498	1.2	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.8047	0.9010	12	TM	
61	TM	m&p-Xylene	1.899	1.872	1.4	TM	
62	TM	o-Xylene	1.826	1.841	0.81	TM	
63	TM	Styrene	2.756	2.893	5.0	TM	
64	S	4-Bromofluorobenzene(S)	1.260	1.340	6.3	S	
65	TM	2-Hexanone	0.2288	0.2478	8.3	TM	
66	TM	1,3-Dichloropropane	0.9383	0.9771	4.1	TM	
67	TM	Dibromochloromethane	0.6125	0.6543	6.8	TM	
68	TM**	Chlorobenzene	2.716	2.717	0.01	TM**	
69	TM*	Ethylbenzene	5.058	5.085	0.53	TM*	
70	TM**L	Bromoform	0.2607	0.2986	15	TM**L	4.2
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	MIBK (methyl isobutyl ketone)	0.7107	0.6949	2.2	TM	
73	TM	Isopropylbenzene	9.061	9.158	1.1	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7585	0.7768	2.4	TM**	
75	TML	1,2,3-Trichloropropane	0.0967	0.1005	4.0	TML	18
76	TM	t-1,4-Dichloro-2-Butene	0.1720	0.1640	4.7	TM	
77	TM	Bromobenzene	2.090	2.096	0.30	TM	
78	TM	n-Propylbenzene	10.8	11.1	2.9	TM	
79	TM	4-Ethyltoluene	7.480	7.378	1.4	TM	
80	TM	2-Chlorotoluene	7.159	7.296	1.9	TM	
		Average			4.1		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Cal. Date: 10/30/2011
Data File: 1030C27W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,3,5-Trimethylbenzene	7.359	7.417	0.79	TM	
82	TM	4-Chlorotoluene	6.164	6.076	1.4	TM	
83	TM	Tert-Butylbenzene	7.967	8.229	3.3	TM	
84	TM	1,2,4-Trimethylbenzene	7.686	7.406	3.6	TM	
85	TM	Sec-Butylbenzene	9.555	9.767	2.2	TM	
86	TM	p-Isopropyltoluene	8.184	8.300	1.4	TM	
87	TM	Benzyl Chloride	1.086	0.9882	9.0	TM	
88	TM	1,3-DCB	4.274	4.305	0.72	TM	
89	TM	1,4-DCB	3.967	4.065	2.5	TM	
90	TML	Hexachloroethane	1.021	1.118	9.5	TML	9.2
91	TM	n-Butylbenzene	7.138	6.965	2.4	TM	
92	TM	1,2-DCB	3.400	3.527	3.7	TM	
93	TML	1,2-Dibromo-3-chloropropane	0.1148	0.1161	1.2	TML	3.7
94	TM	1,2,4-Trichlorobenzene	2.464	2.540	3.1	TM	
95	TM	Hexachlorobutadiene	0.4476	0.4532	1.2	TM	
96	TM	Naphthalene	3.040	3.215	5.8	TM	
97	TM	1,2,3-Trichlorobenzene	1.864	1.911	2.5	TM	
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			3.2		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C27W.D Vial: 1
Acq On : 31 Oct 11 8:05 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	583168	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	397504	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	209984	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	404916	26.06515	ppb		0.00
Spiked Amount 25.097			Recovery = 103.856%				
38) 1,2-DCA-D4(S)	12.23	65	341171	24.67132	ppb		0.00
Spiked Amount 24.225			Recovery = 101.840%				
56) Toluene-D8(S)	15.50	98	1484769	26.54660	ppb		0.00
Spiked Amount 25.808			Recovery = 102.862%				
64) 4-Bromofluorobenzene(S)	20.11	95	532764	26.58449	ppb		0.00
Spiked Amount 25.459			Recovery = 104.417%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.06	85	224089	10.42966	ppb		97
3) Freon 114	4.33	85	146183	10.86336	ppb		98
4) Chloromethane	4.55	50	260469	9.78278	ppb		98
5) Vinyl chloride	4.82	62	197919	11.11320	ppb		95
7) Bromomethane	5.72	94	130249	10.07502	ppb		89
8) Chloroethane	5.91	64	143140	9.73031	ppb		99
9) Dichlorofluoromethane	6.00	67	406047	9.98304	ppb		100
10) Trichlorofluoromethane	6.52	101	253658	10.50908	ppb		97
11) Acetonitrile	7.65	41	74497	116.61139	ug/l		100
12) Acrolein	7.15	56	34193	116.96262	ppb		94
13) Acetone	7.29	43	21316	12.75773	ppb	##	77
14) Freon-113	7.46	101	146261	10.39098	ppb		94
15) 1,1-DCE	7.68	96	160490	9.63955	ppb		97
16) t-Butanol	7.76	59	9773	123.61847	ppb		100
17) Methyl Acetate	8.19	43	47860	9.47524	ppb		98
18) Iodomethane	8.17	142	100159	10.76585	ppb	#	89
19) Acrylonitrile	8.55	53	18444	10.08467	ppb		84
20) Methylene chloride	8.48	84	151205	9.52169	ppb		86
21) Carbon disulfide	8.55	76	162368	10.03707	ppb		98
22) Methyl t-butyl ether (MtBE	8.90	73	258098	10.25631	ppb		95
23) Trans-1,2-DCE	9.09	96	181275	9.38557	ppb		90
24) Diisopropyl Ether	9.75	45	563558	10.12996	ppb		96
25) 1,1-DCA	9.79	63	345459	10.47072	ppb		97
26) Vinyl Acetate	9.42	43	109376	10.70268	ppb	#	83
27) Ethyl tert Butyl Ether	10.45	59	406696	10.70784	ppb		94
28) MEK (2-Butanone)	10.43	43	66821	10.07941	ppb		96
29) Cis-1,2-DCE	10.81	96	193255	9.73664	ppb		97
30) 2,2-Dichloropropane	10.81	77	216729	9.17030	ppb		95
31) Chloroform	11.09	83	320623	10.10165	ppb		99
32) Bromochloromethane	11.31	128	60012	10.86042	ppb		81
34) 1,1,1-TCA	11.83	97	297856	10.31908	ppb		97
35) Cyclohexane	12.01	56	270975	10.08282	ppb		92
36) 1,1-Dichloropropene	12.10	75	254512	10.29044	ppb		100
37) 2,2,4-Trimethylpentane	12.18	57	414560	9.79424	ppb		98
39) Carbon Tetrachloride	12.30	117	213577	10.74550	ppb		94
40) Tert Amyl Methyl Ether	12.34	73	295693	10.41194	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C27W.D Vial: 1
Acq On : 31 Oct 11 8:05 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	1,2-DCA	12.37	62	167070	10.25463 ppb		96
42)	Benzene	12.50	78	700767	9.86177 ppb		97
43)	TCE	13.53	95	209384	10.63947 ppb		91
44)	2-Pentanone	13.20	43	525053	127.54364 ppb		98
45)	1,2-Dichloropropane	13.76	63	165813	10.26618 ppb	#	93
46)	Bromodichloromethane	14.12	83	194189	10.52386 ppb	#	92
47)	Methyl Cyclohexane	13.82	83	227722	9.90185 ppb		99
48)	Dibromomethane	14.17	93	71228	11.02699 ppb		99
49)	2-Chloroethyl vinyl ether	14.57	63	41783	10.17589 ppb		97
50)	1-Bromo-2-chloroethane	14.88	63	143648	10.42335 ppb		87
51)	Cis-1,3-Dichloropropene	15.01	75	183608	10.43504 ppb		97
52)	Toluene	15.63	91	704784	10.05591 ppb		96
53)	Trans-1,3-Dichloropropene	15.80	75	131238	10.36031 ppb		91
54)	1,1,2-TCA	16.09	83	74743	10.94760 ppb		93
57)	1,2-EDB	17.33	107	82556	10.91231 ppb		91
58)	Tetrachloroethene	16.79	164	210273	10.28907 ppb		91
59)	1-Chlorohexane	17.70	91	238146	10.11928 ppb		96
60)	1,1,1,2-Tetrachloroethane	18.16	131	143265	11.19759 ppb		93
61)	m&p-Xylene	18.35	106	595342	19.71920 ppb		97
62)	o-Xylene	19.11	106	292710	10.08093 ppb		98
63)	Styrene	19.12	104	460015	10.49632 ppb		97
65)	2-Hexanone	16.10	43	39396	10.83121 ppb	#	75
66)	1,3-Dichloropropane	16.49	76	155367	10.41445 ppb		95
67)	Dibromochloromethane	16.97	129	104038	10.68258 ppb		89
68)	Chlorobenzene	18.10	112	431948	10.00123 ppb		95
69)	Ethylbenzene	18.22	91	808497	10.05286 ppb		95
70)	Bromoform	19.64	173	47481	9.57573 ppb	#	74
72)	MIBK (methyl isobutyl keto	14.68	43	58368	9.77776 ppb		91
73)	Isopropylbenzene	19.74	105	769191	10.10690 ppb		99
74)	1,1,2,2-Tetrachloroethane	19.90	83	65243	10.24099 ppb		86
75)	1,2,3-Trichloropropane	20.15	110	8442	11.79921 ppb		79
76)	t-1,4-Dichloro-2-Butene	20.23	53	13773	9.53445 ppb	#	90
77)	Bromobenzene	20.48	156	176075	10.02984 ppb		93
78)	n-Propylbenzene	20.44	91	934437	10.29219 ppb		100
79)	4-Ethyltoluene	20.64	105	619715	9.86355 ppb		96
80)	2-Chlorotoluene	20.73	91	612789	10.19105 ppb		97
81)	1,3,5-Trimethylbenzene	20.71	105	623010	10.07914 ppb		97
82)	4-Chlorotoluene	20.82	91	510371	9.85698 ppb		98
83)	Tert-Butylbenzene	21.36	119	691172	10.32825 ppb		98
84)	1,2,4-Trimethylbenzene	21.42	105	622056	9.63577 ppb		97
85)	Sec-Butylbenzene	21.76	105	820355	10.22199 ppb		99
86)	p-Isopropyltoluene	21.99	119	697110	10.14123 ppb		99
87)	Benzyl Chloride	22.42	91	83004	9.09640 ppb		99
88)	1,3-DCB	22.13	146	361602	10.07224 ppb		95
89)	1,4-DCB	22.30	146	341438	10.24691 ppb		96
90)	Hexachloroethane	23.60	117	93885	9.08419 ppb		96
91)	n-Butylbenzene	22.70	91	585015	9.75739 ppb		98
92)	1,2-DCB	22.93	146	296267	10.37488 ppb		95
93)	1,2-Dibromo-3-chloropropan	24.14	155	9755	9.63316 ppb		88
94)	1,2,4-Trichlorobenzene	25.59	180	213308	10.30836 ppb		97
95)	Hexachlorobutadiene	25.84	223	38064	10.12477 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C27W.D Vial: 1
Acq On : 31 Oct 11 8:05 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96) Naphthalene	25.94	128	270062	10.57768 ppb	99
97) 1,2,3-Trichlorobenzene	26.29	180	160478	10.25268 ppb	93

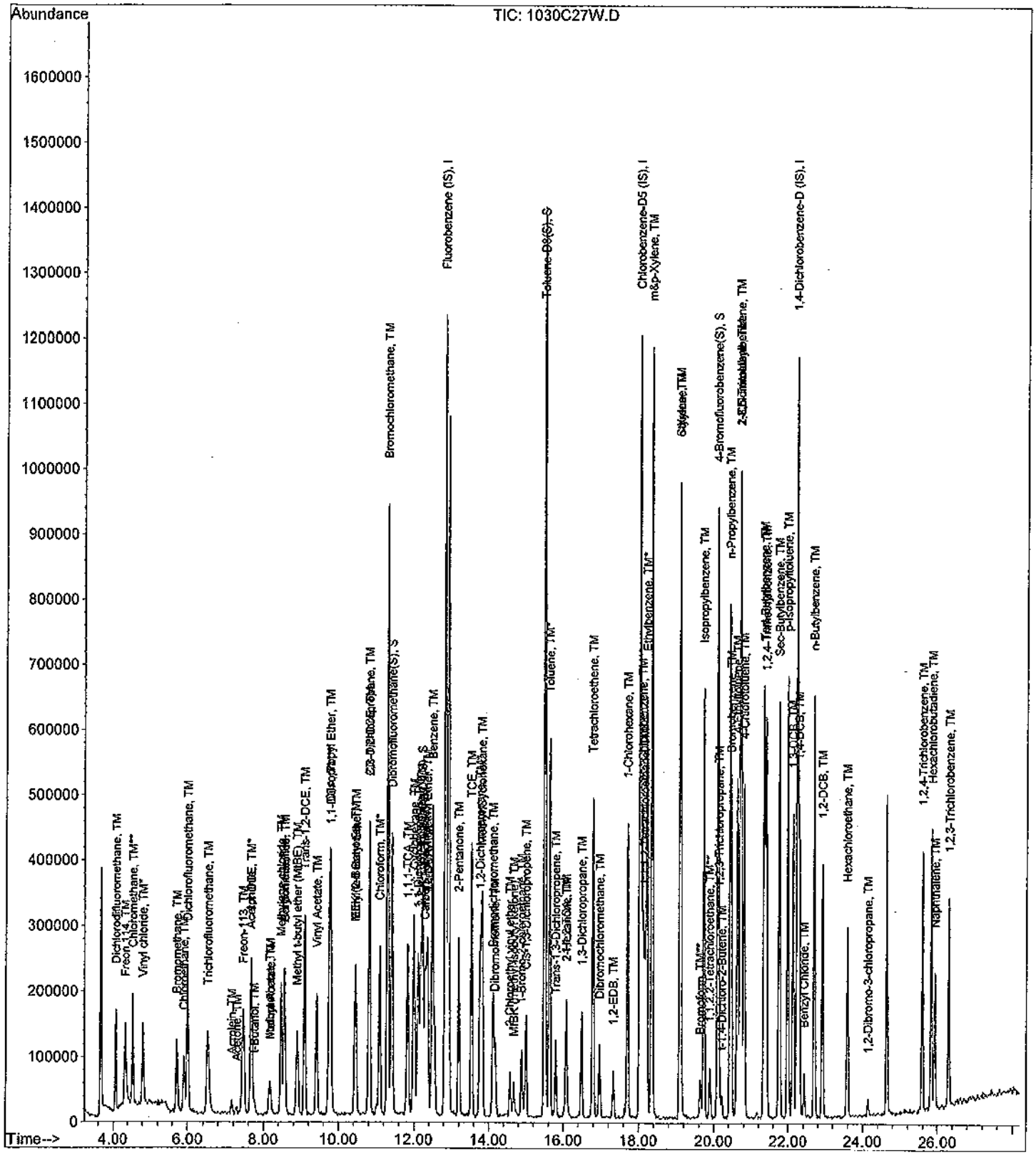
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C27W.D Vial: 1
Acq On : 31 Oct 11 8:05 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/2011
Matrix: Instrument: Chico

Initials:

		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		
			1030C05W.D	1030C06W.D	1030C07W.D	1030C08W.D	1030C09W.D	1030C10W.D	1030C11W.D							
1	I	Fluorobenzene (IS)	ISTD													
2	TMHBL	Gasoline	17.8	8.144	5.154	3.050	2.484	2.343	2.274				5.9	96	TMHBL	1.000
3	I	Chlorobenzene-D5 (IS)	ISTD													
4	I	1,4-Dichlorobenzene-D (IS)	ISTD													
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C05W.D
Acq On : 30 Oct 11 16:17
Sample : Vol Std 10-30-11@20ug/L
Misc : Water 10mLw/ IS:10-30-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 10:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.86	TIC	1064868	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.05	TIC	1075283	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1031464	25.00000	ppb	0.02
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline	18.05	TIC	15186538m	62.79631	ppb	100

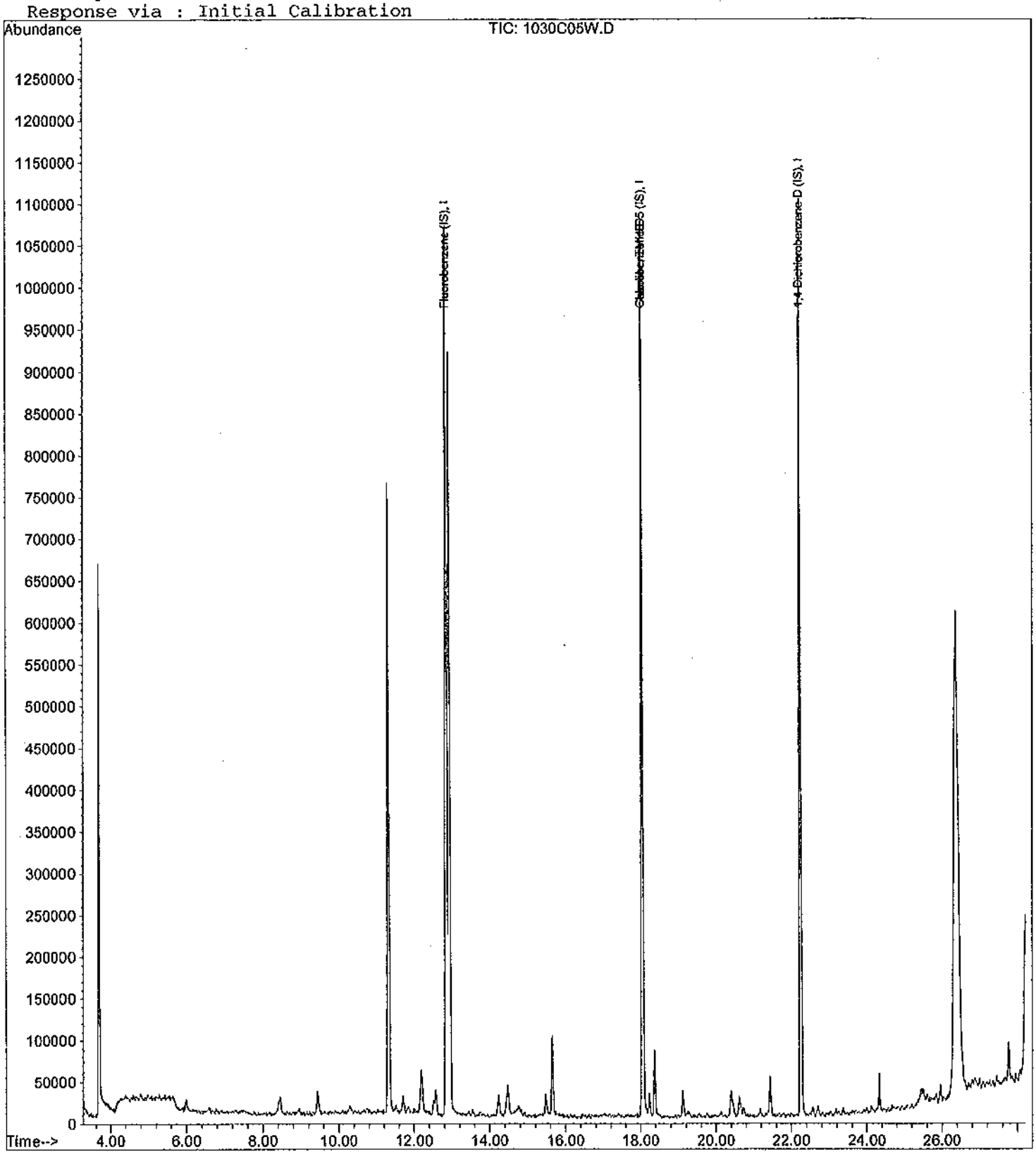
(#) = qualifier out of range (m) = manual integration
1030C05W.D CGAS.M Thu Nov 03 11:11:58 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:29 2011 Quant Results File: CGAS.RES

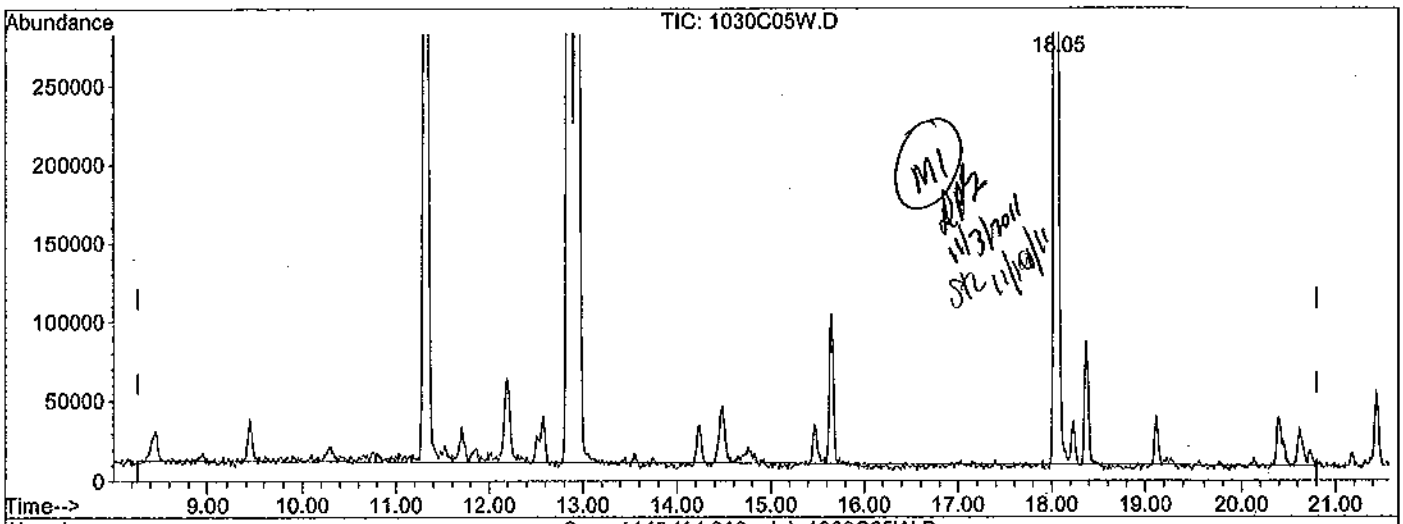
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

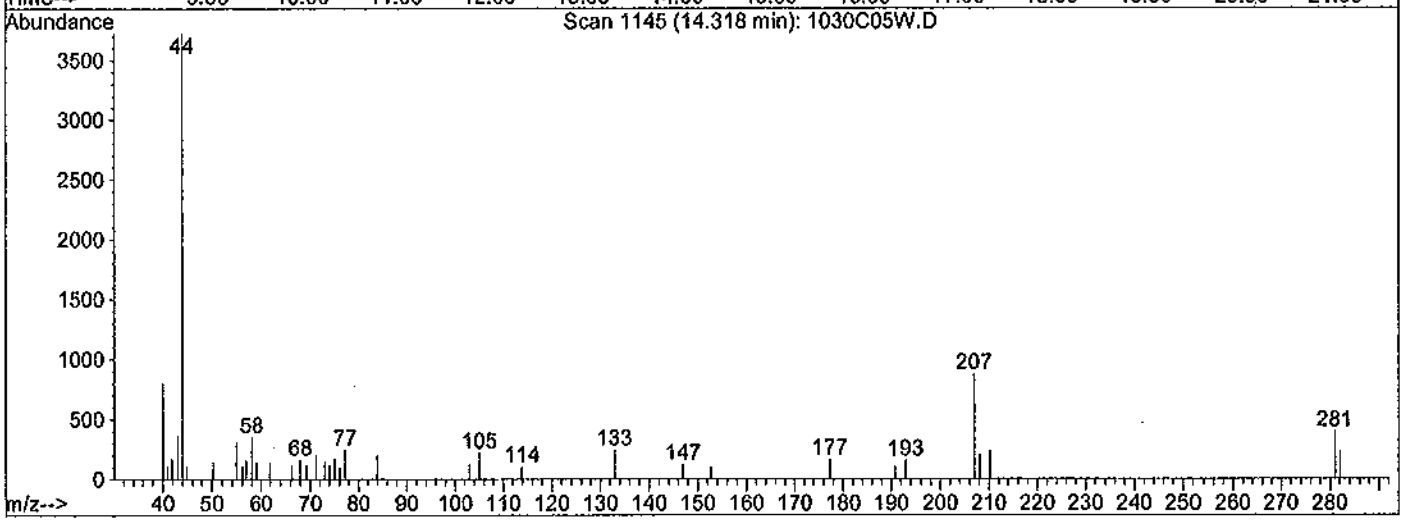


Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration





TIC: 1030C05W.D

(2) Gasoline (TMHB)

14.31min 48.1330ppb m

response 11640400

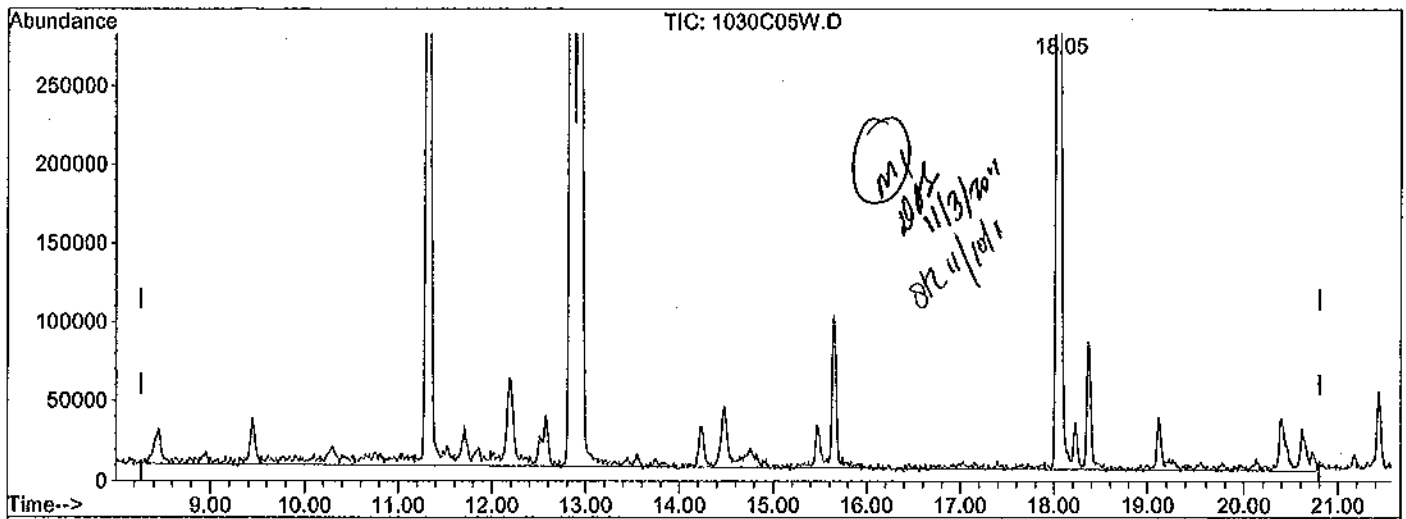
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.82#
0.00	0.00	2.44#
0.00	0.00	0.00

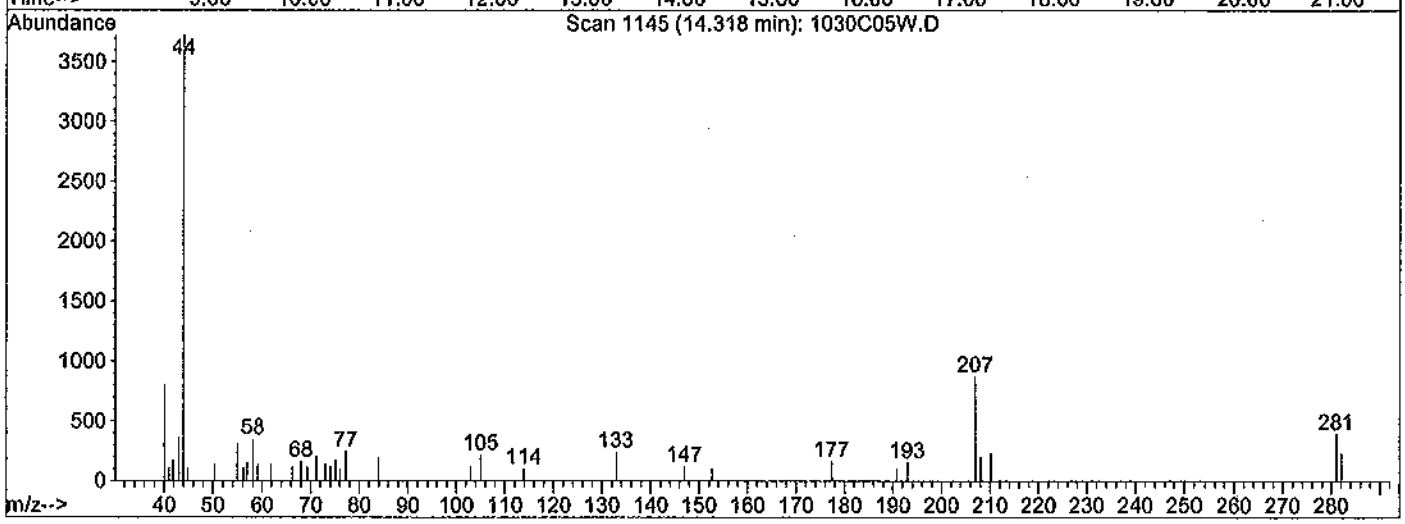
1030C05W.D CGAS.M Thu Nov 03 10:29:03 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:29 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration





TIC: 1030C05W.D

(2) Gasoline (TMHB)

18.05min 62.7963ppb m

response 15186538

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.63#
0.00	0.00	1.87#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:30 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1074535	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1105653	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1049854	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	17501250m	71.71659	ppb	100

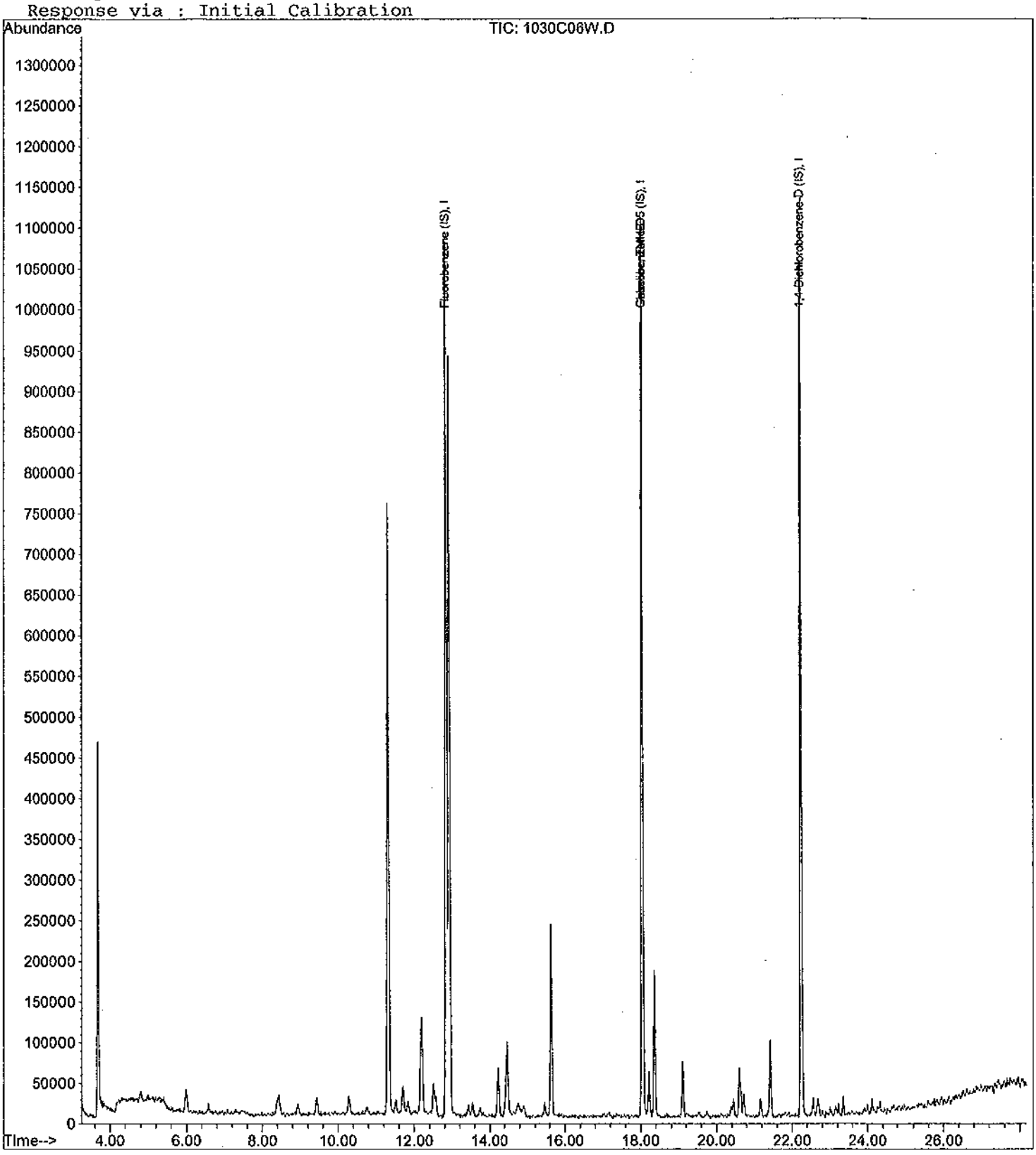
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:30 2011 Quant Results File: CGAS.RES

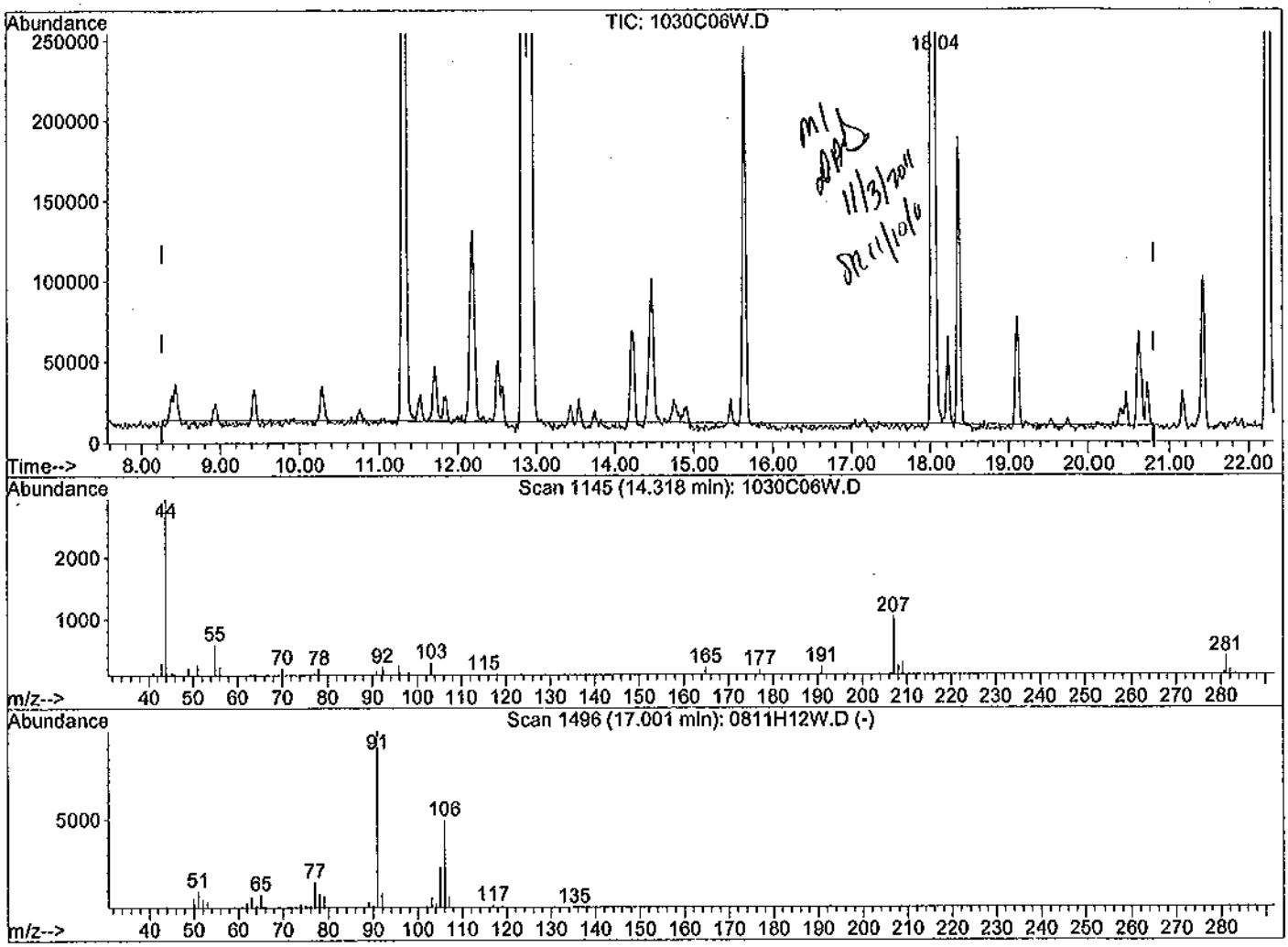
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C06W.D

(2) Gasoline (TMHB)

14.31min 58.1426ppb m

response 14188741

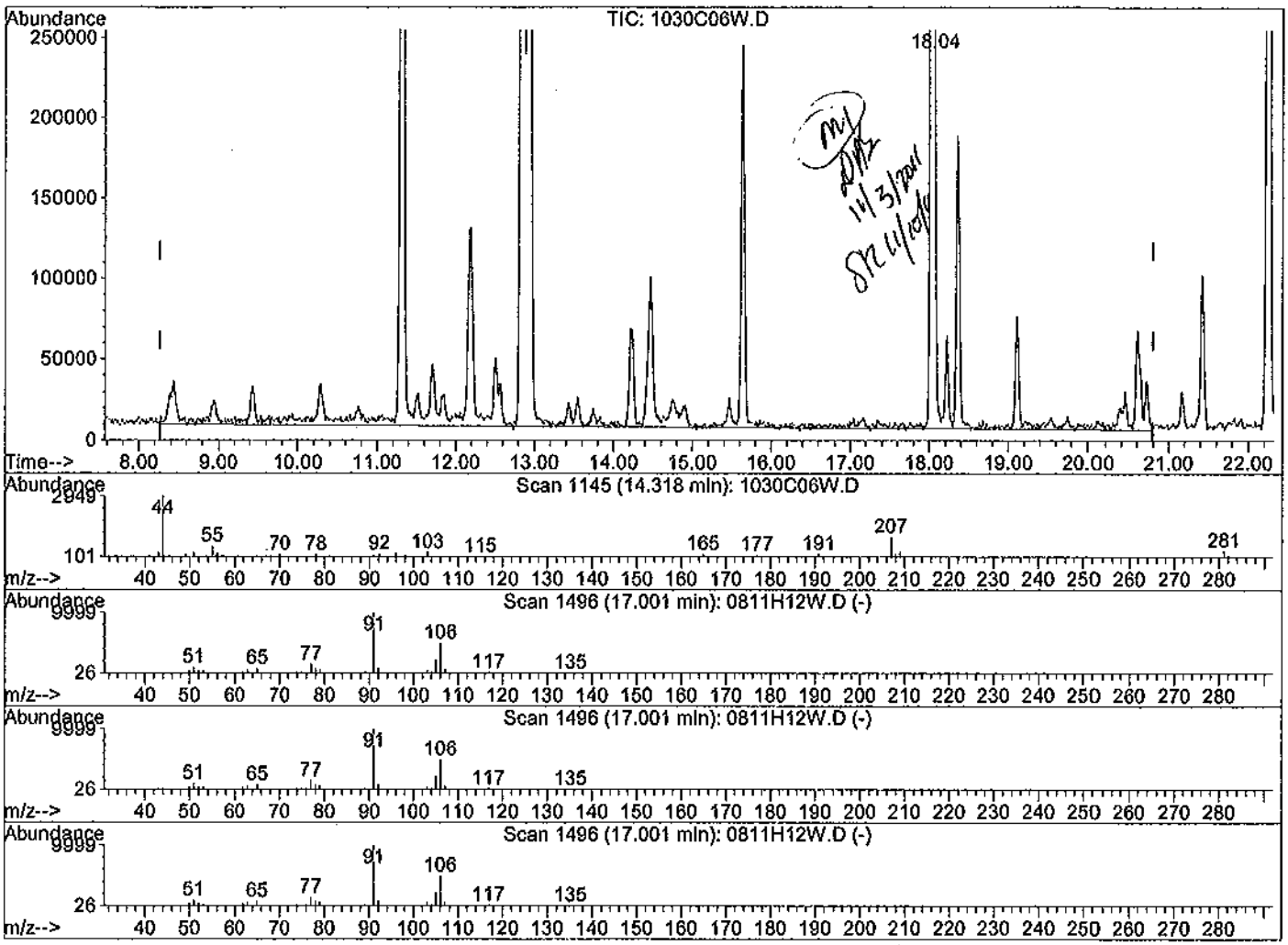
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.68#
0.00	0.00	2.00#
0.00	0.00	0.00

1030C06W.D CGAS.M Thu Nov 03 10:30:25 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:30 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C06W.D

(2) Gasoline (TMHB)

18.04min 71.7166ppb m

response 17501250

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.55#
0.00	0.00	1.62#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:38 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1049972	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1057194	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1054110	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	21647604m	90.78273	ppb	100

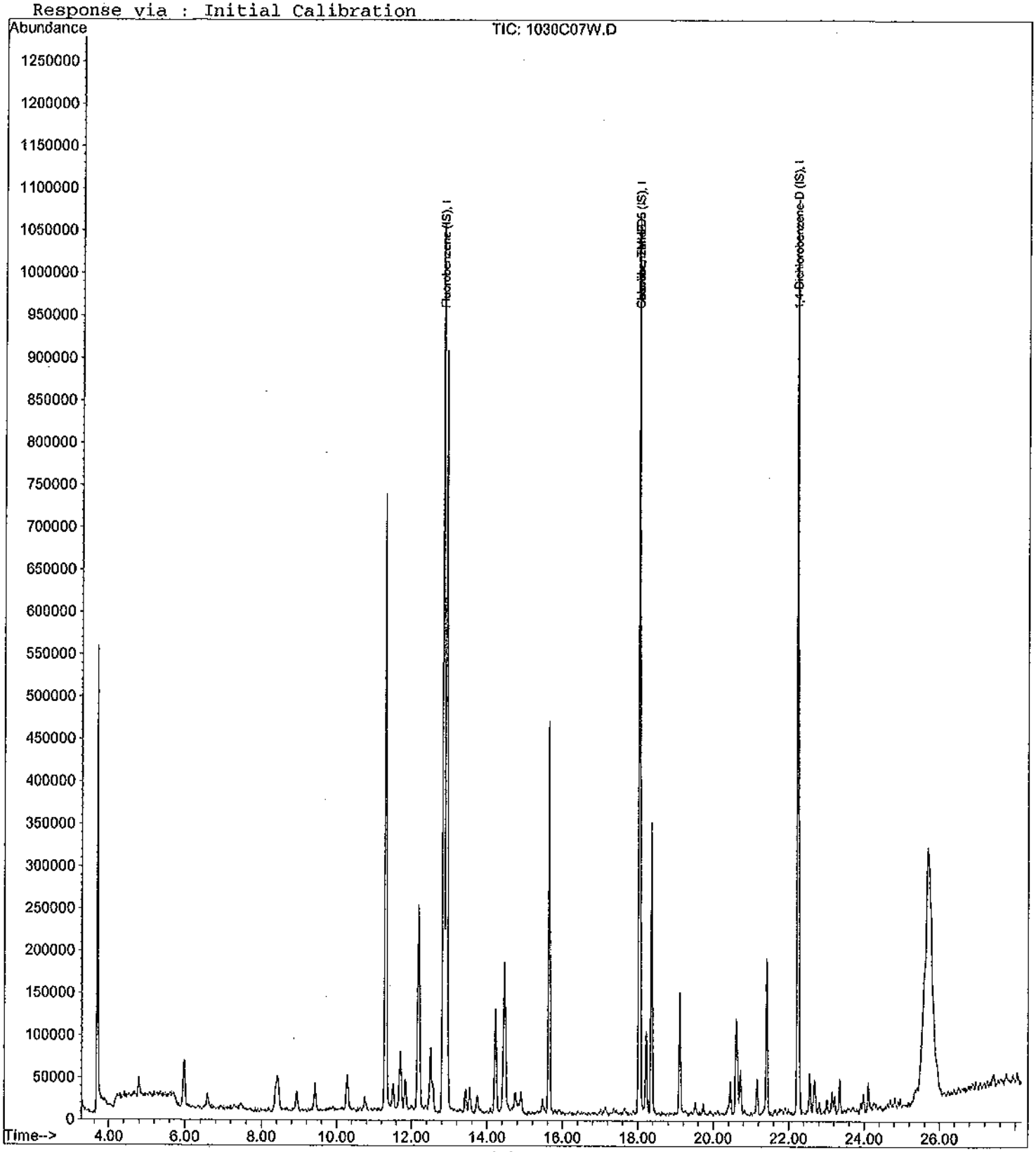
(#) = qualifier out of range (m) = manual integration
1030C07W.D CGAS.M Thu Nov 03 11:12:06 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:38 2011 Quant Results File: CGAS.RES

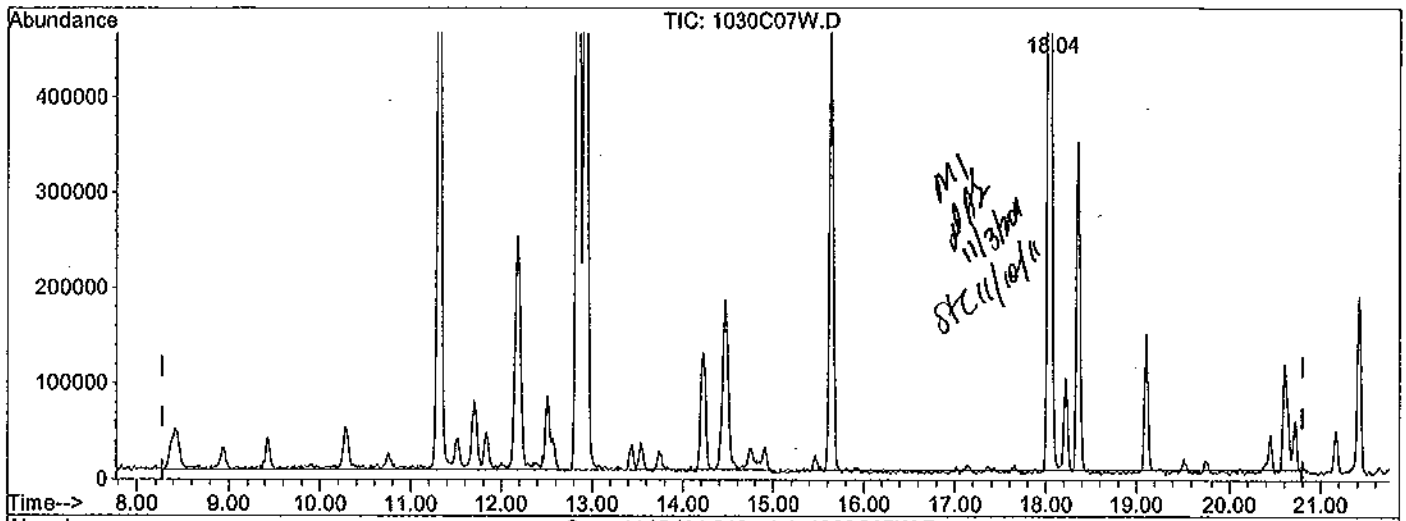
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

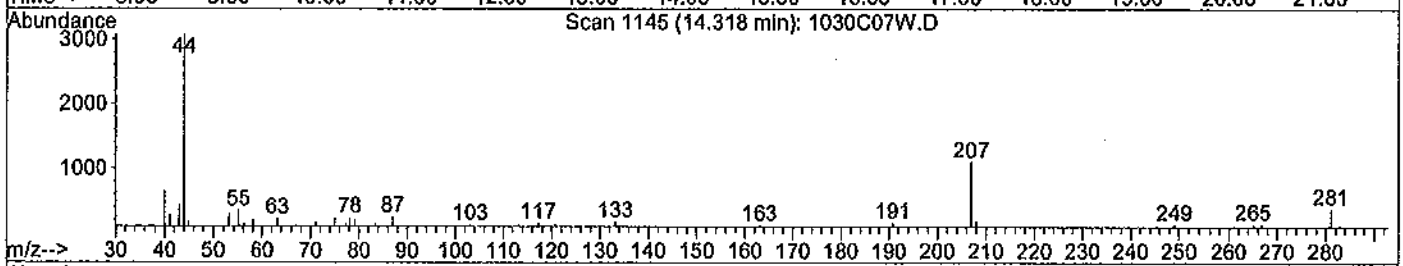


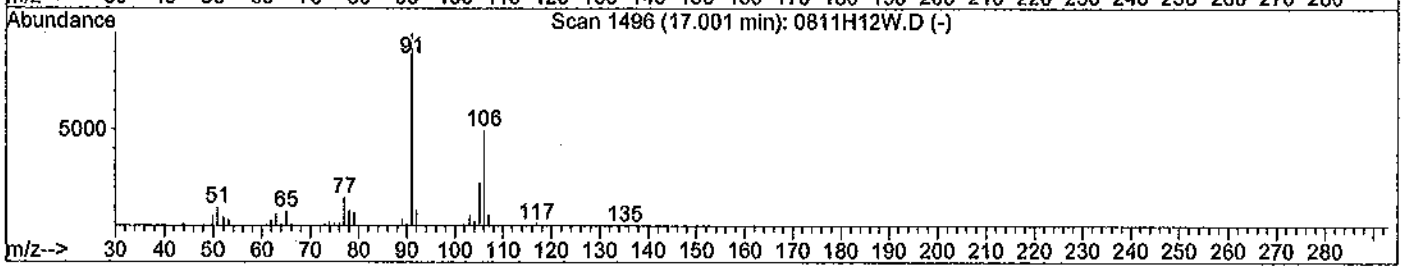
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration







TIC: 1030C07W.D

(2) Gasoline (TMHB)

14.31min 75.4746ppb m

response 17997299

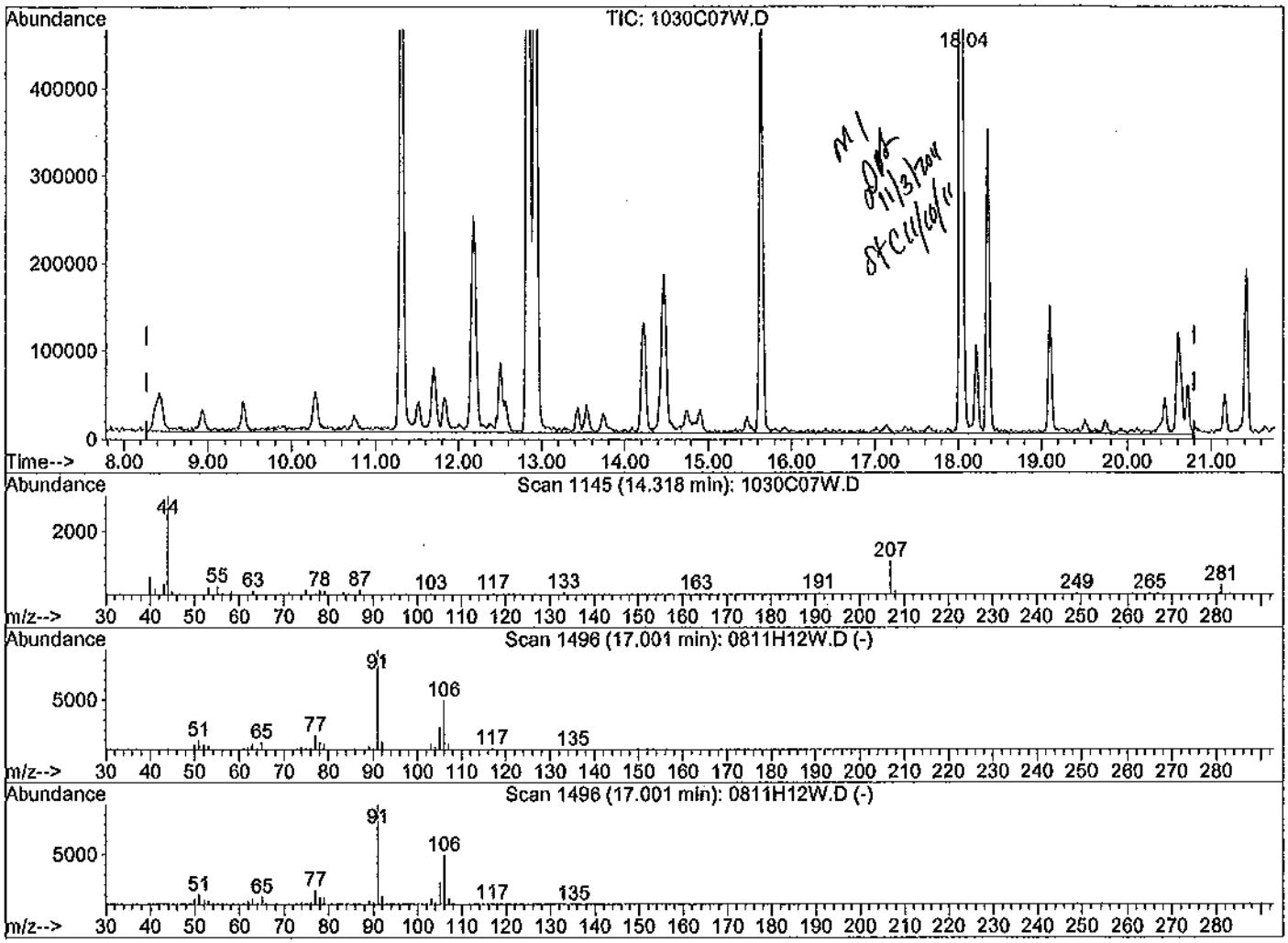
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.55#
0.00	0.00	1.56#
0.00	0.00	0.00

1030C07W.D CGAS.M Thu Nov 03 10:31:29 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:38 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C07W.D

(2) Gasoline (TMHB)

18.04min 90.7827ppb m

response 21647604

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.45#
0.00	0.00	1.30#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:40 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1085666	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1080398	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1118273	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	39740510m	161.17894	ppb	100

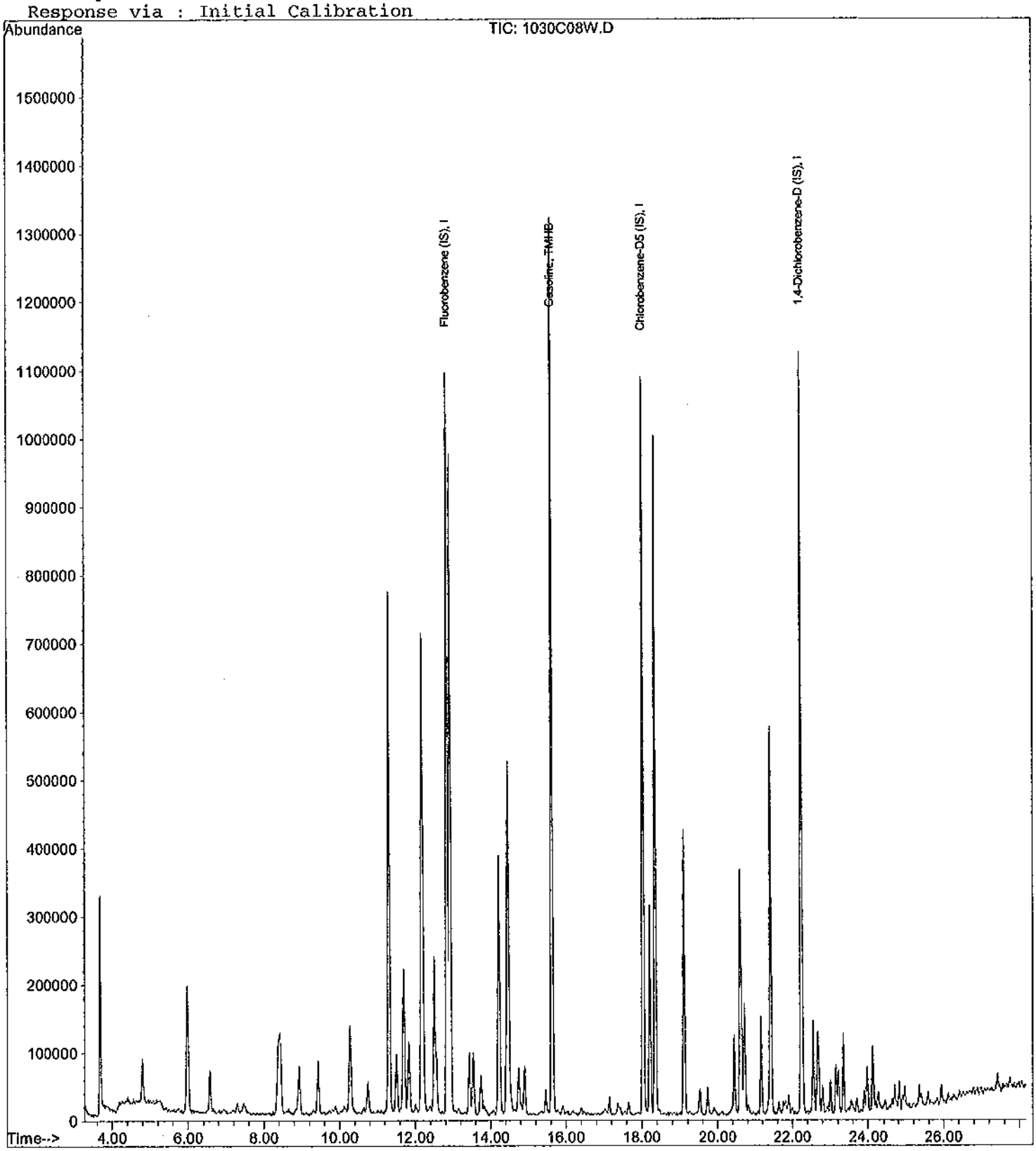
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:40 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



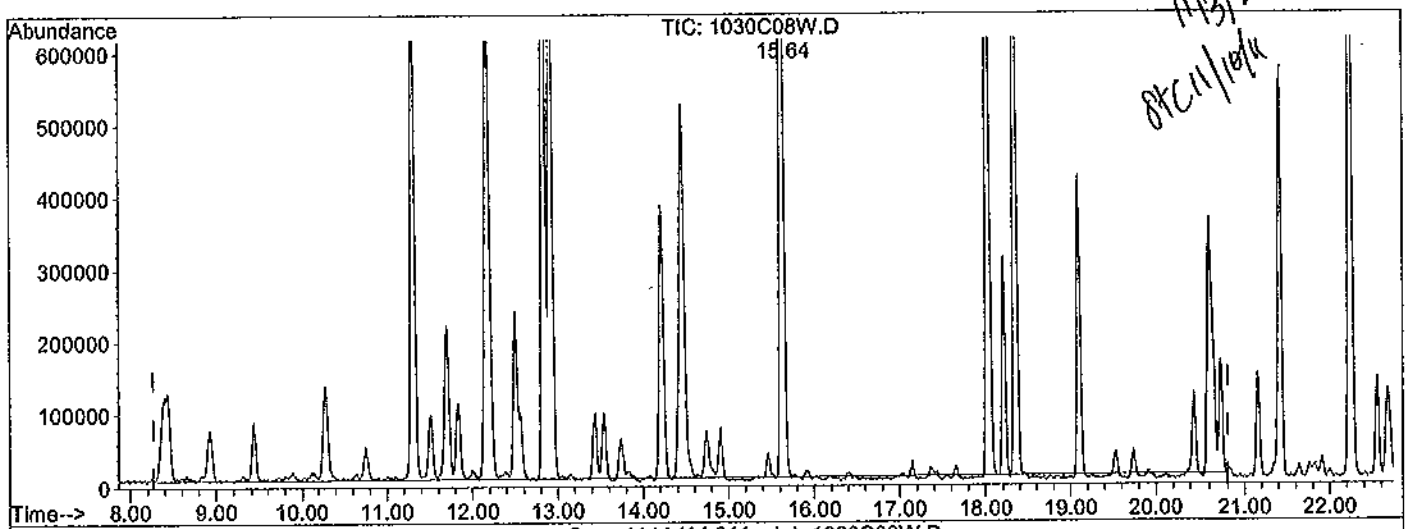
Quantitation Report

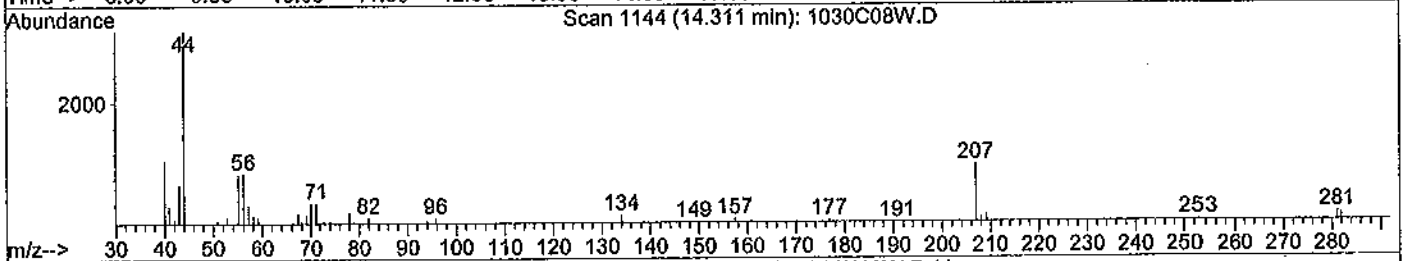
Data File : M:\CHICO\DATA\C111030\1030C08W.D
Acq On : 30 Oct 11 18:26
Sample : Vol Std 10-30-11@300ug/L
Misc : Water 10mLw/ IS:10-30-11
Quant Time: Oct 31 9:32 2011

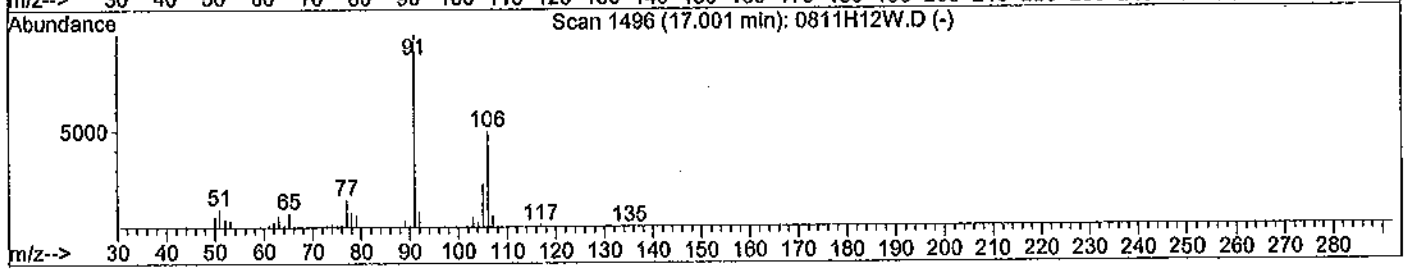
Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00
Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration

11/3/2011 STC







TIC: 1030C08W.D

(2) Gasoline (TMHB)

14.31min 137.6327ppb m

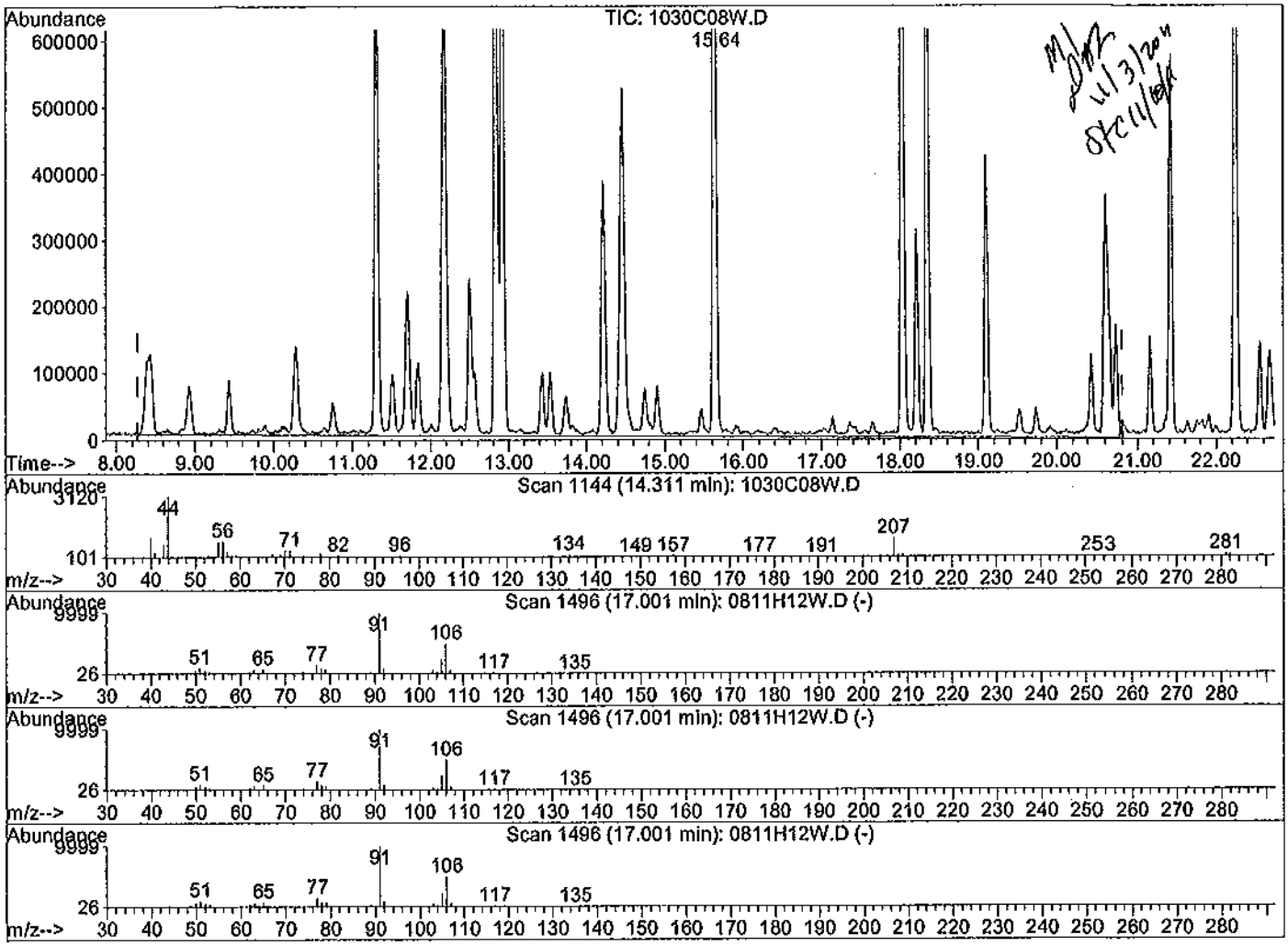
response 33934923

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.30#
0.00	0.00	0.88#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:40 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C08W.D

(2) Gasoline (TMHB)

15.64min 161.1789ppb m

response 39740510

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.25#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1104080	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1114811	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1175050	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	65808275m	262.45271	ppb	100

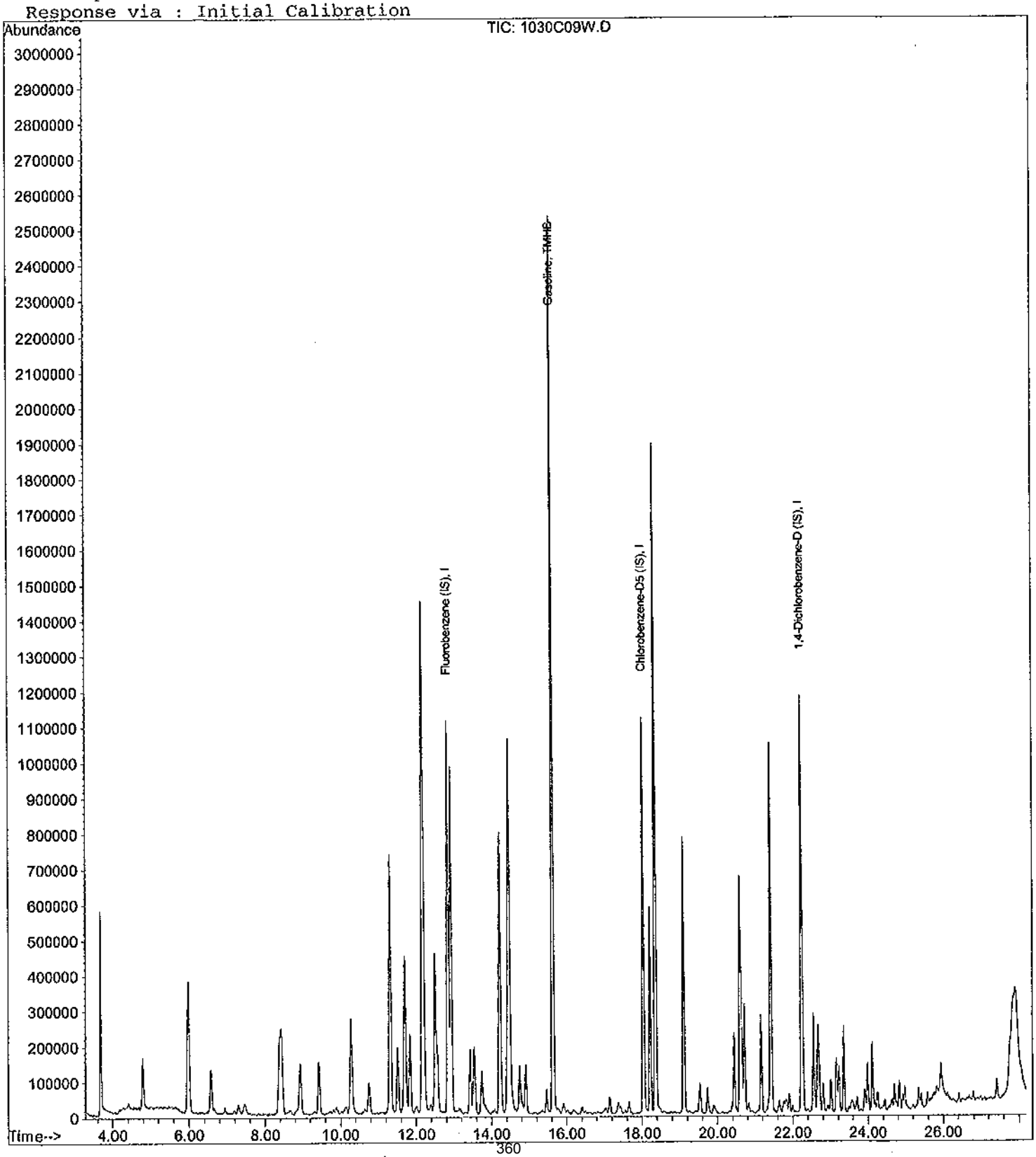
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:41 2011 Quant Results File: CGAS.RES

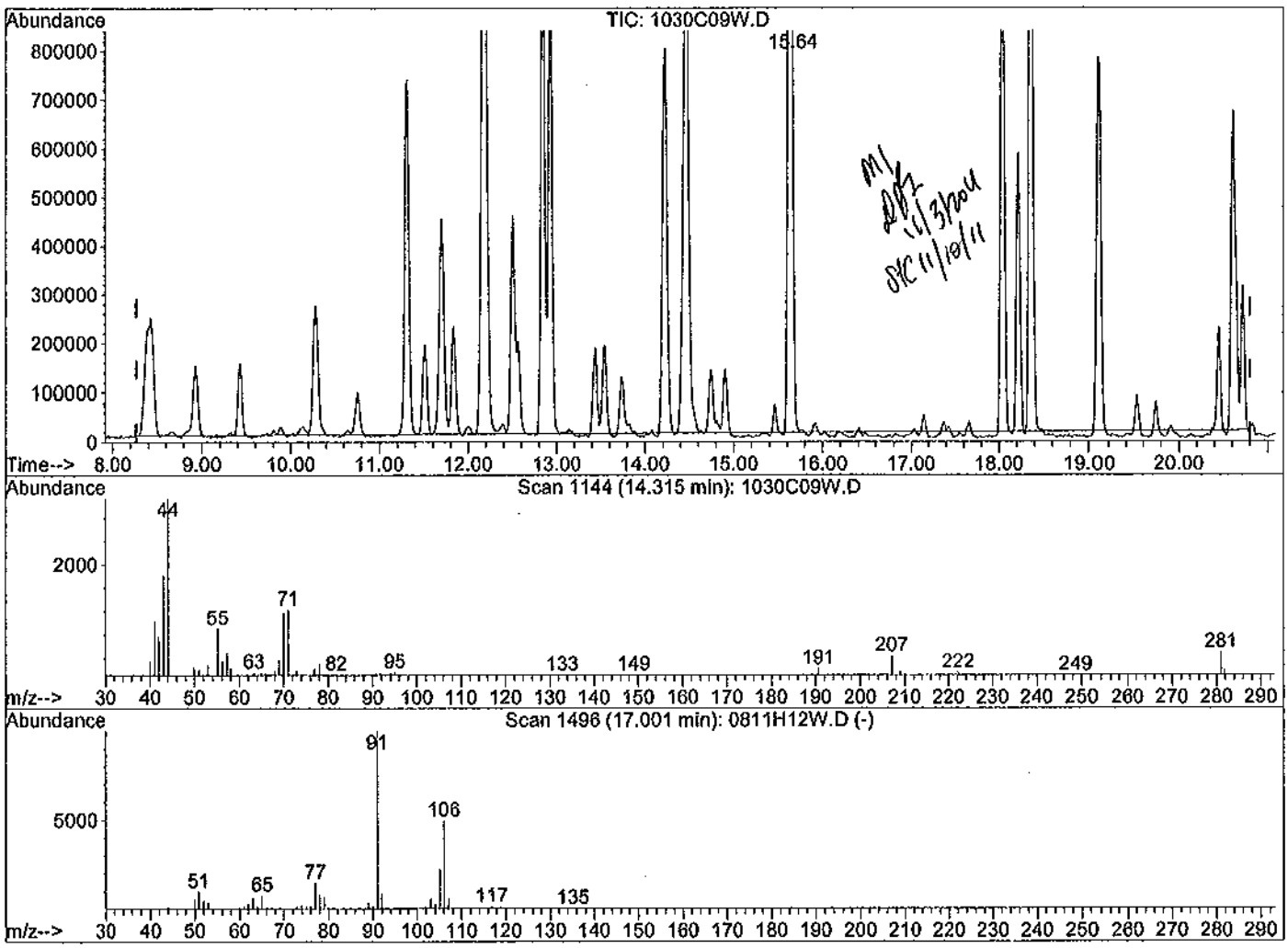
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C09W.D

(2) Gasoline (TMHB)

14.31min 231.1564ppb m

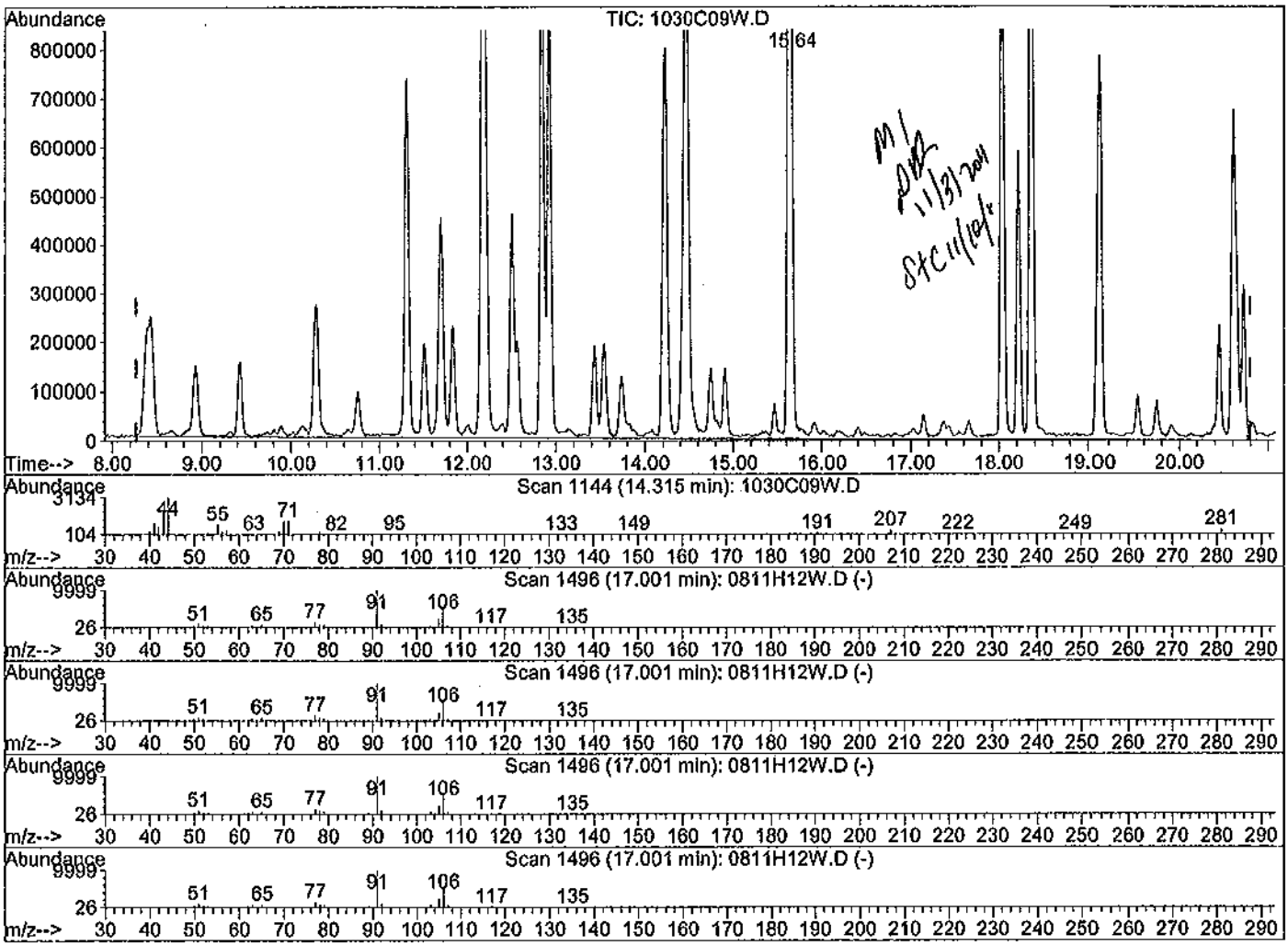
response 57960938

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.18#
0.00	0.00	0.51#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:41 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C09W.D

(2) Gasoline (TMHB)

15.64min 262.4527ppb m

response 65808275

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.16#
0.00	0.00	0.45#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:42 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1129347	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1159453	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1268278	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	84666447m	330.10723	ppb	100

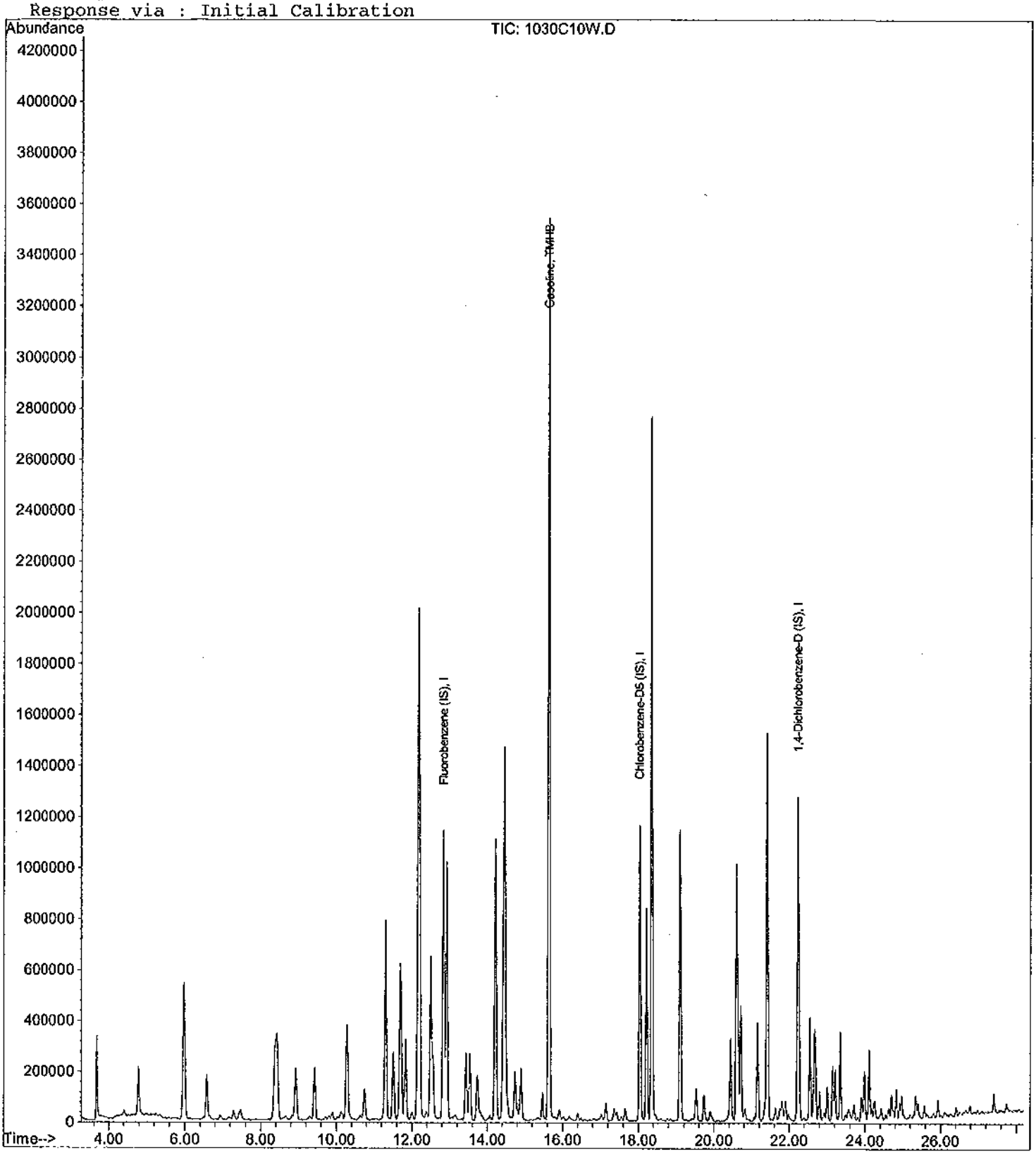
(#) = qualifier out of range (m) = manual integration
1030C10W.D CGAS.M Thu Nov 03 11:12:19 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:42 2011 Quant Results File: CGAS.RES

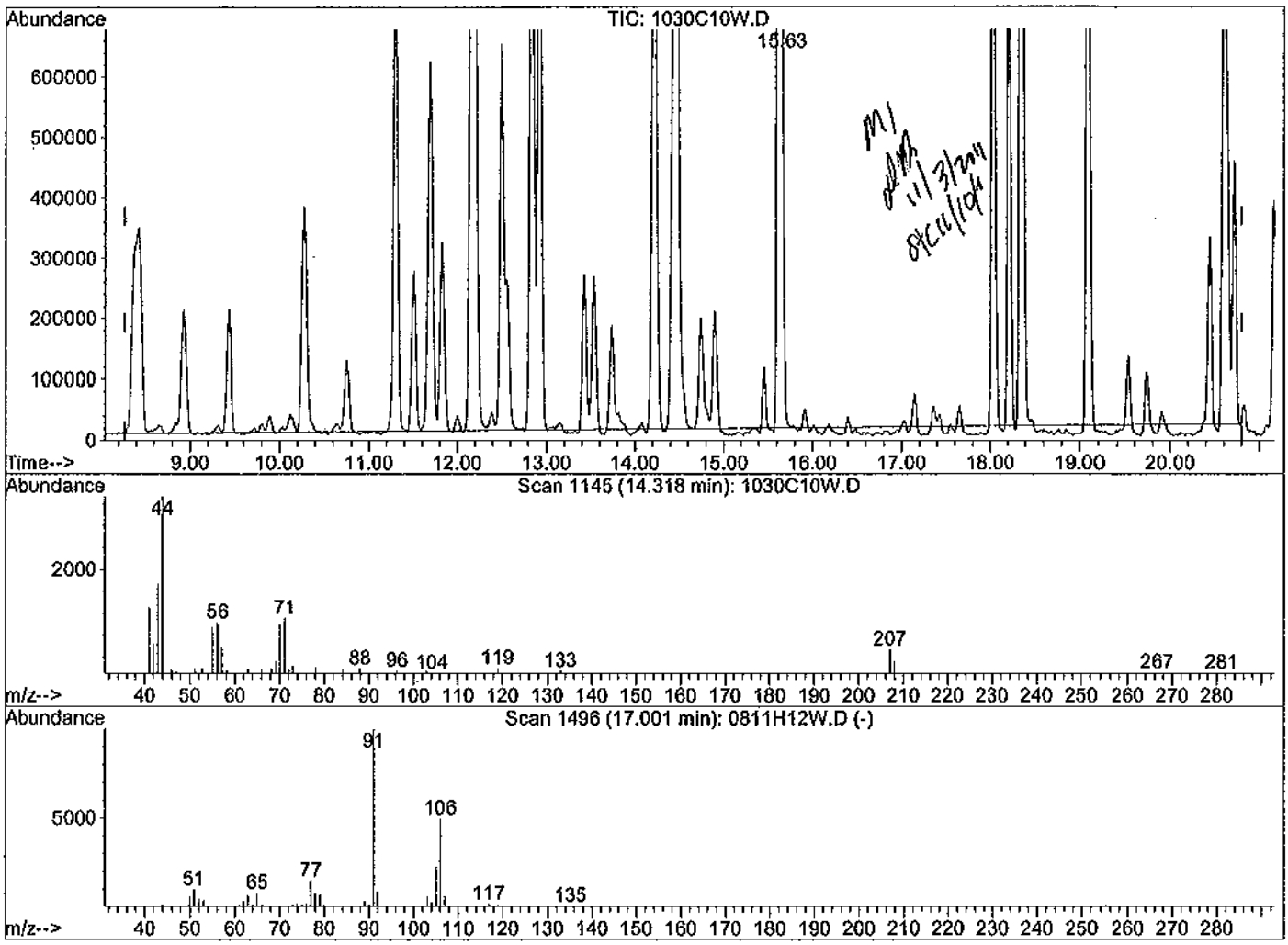
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C10W.D

(2) Gasoline (TMHB)

14.31min 303.9125ppb m

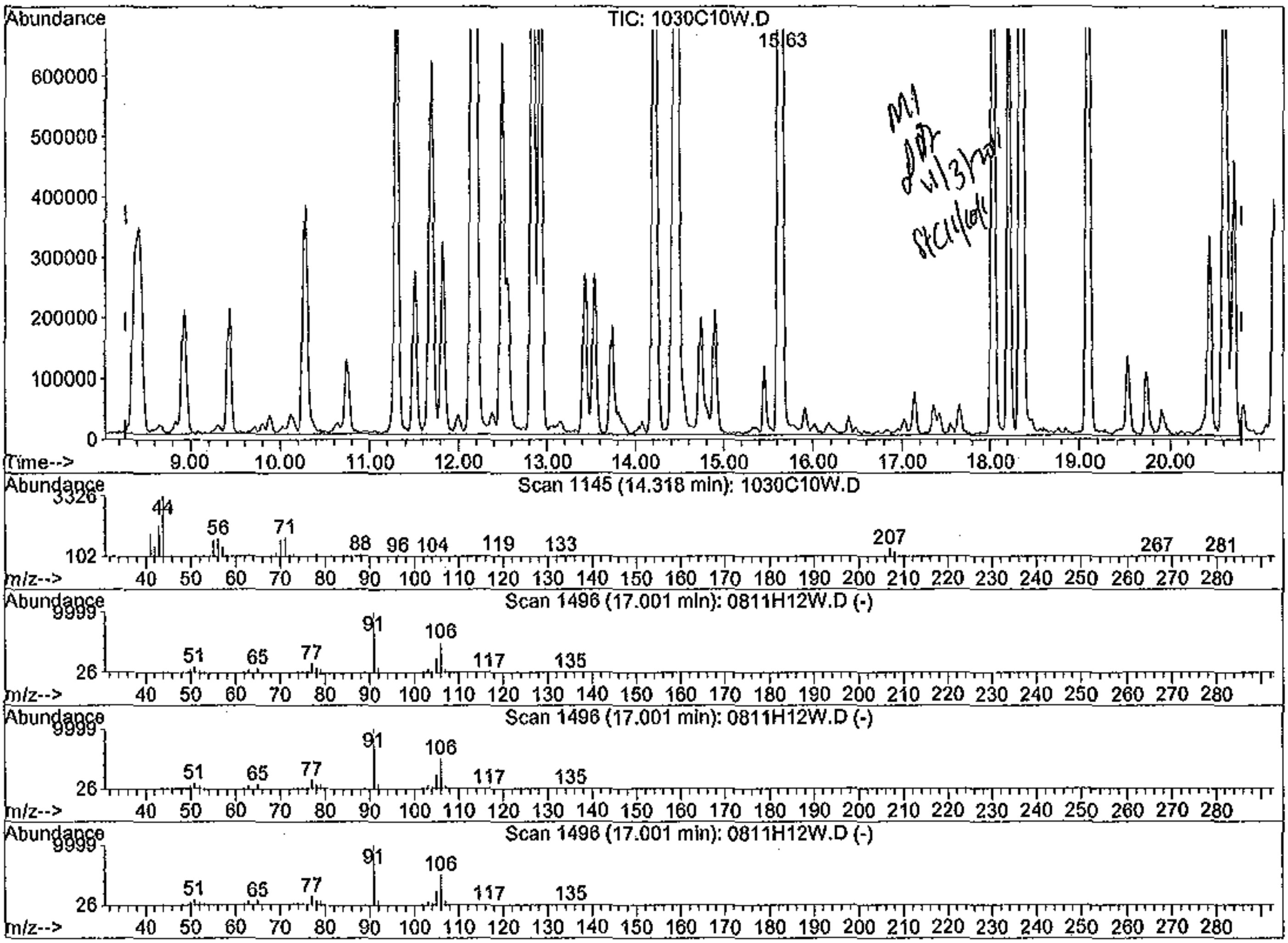
response 77947975

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.13#
0.00	0.00	0.41#
0.00	0.00	0.00

Quantitation Report

```
Data File : M:\CHICO\DATA\C111030\1030C10W.D              Vial: 1
Acq On    : 30 Oct 11  19:52                          Operator: STC
Sample    : Vol Std 10-30-11@800ug/L                  Inst    : Chico
Misc      : Water 10mLw/ IS:10-30-11                  Multiplr: 1.00
Quant Time: Nov  3 10:42 2011                Quant Results File: temp.res

Method         : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title          : METHOD 8260B
Last Update    : Mon Oct 31 09:35:31 2011
Response via   : Multiple Level Calibration
```



TIC: 1030C10W.D

(2) Gasoline (TMHB)

15.63min 330.1072ppb m

response 84666447

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.12#
0.00	0.00	0.38#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-i1@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:43 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1162372	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1207961	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1354742	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	105748641m	400.59060	ppb	100

(#) = qualifier out of range (m) = manual integration

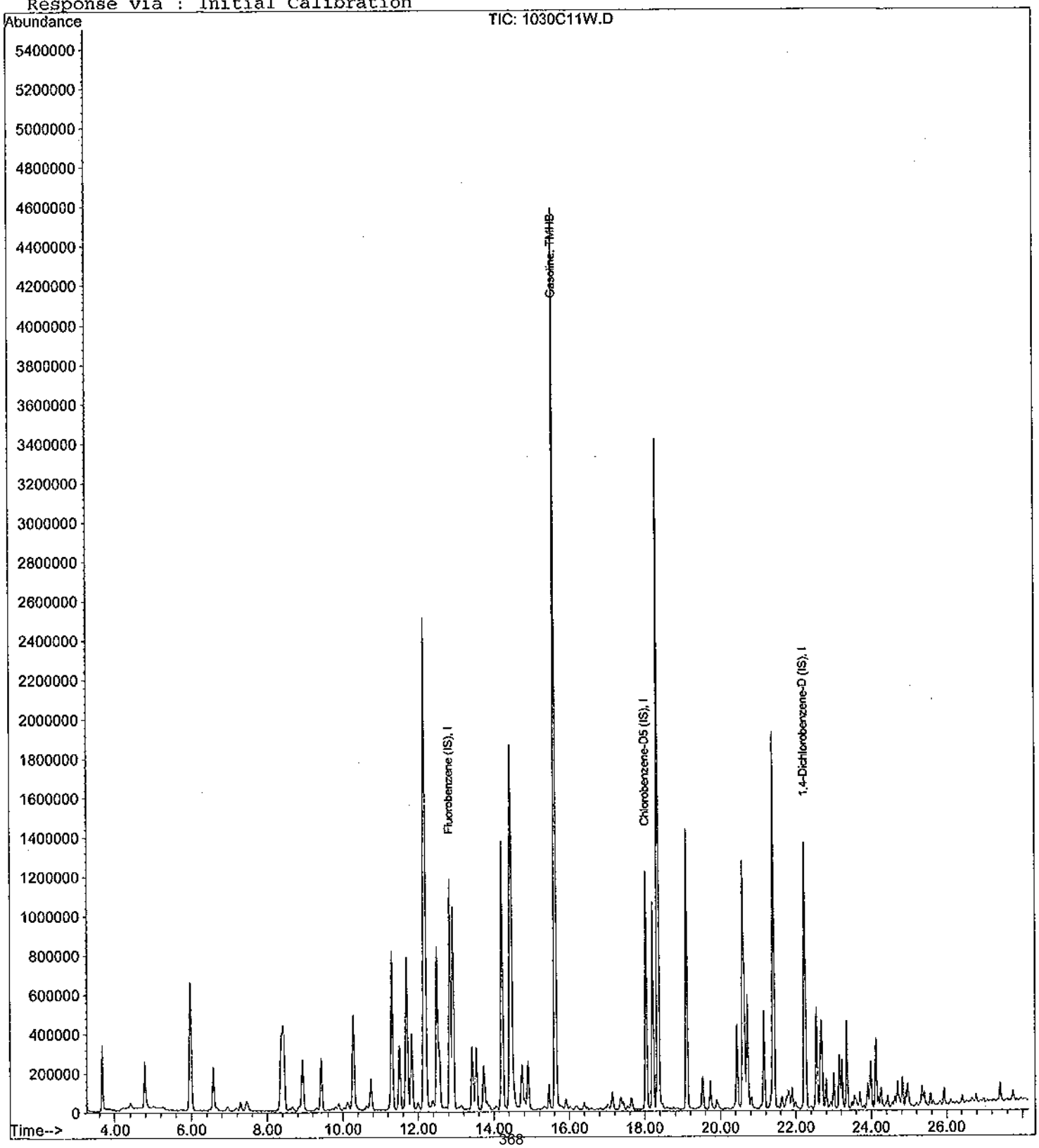
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D
Acq On : 30 Oct 11 20:35
Sample : Vol Std 10-30-11@1000ug/L
Misc : Water 10mLw/ IS:10-30-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 10:43 2011 Quant Results File: CGAS.RES

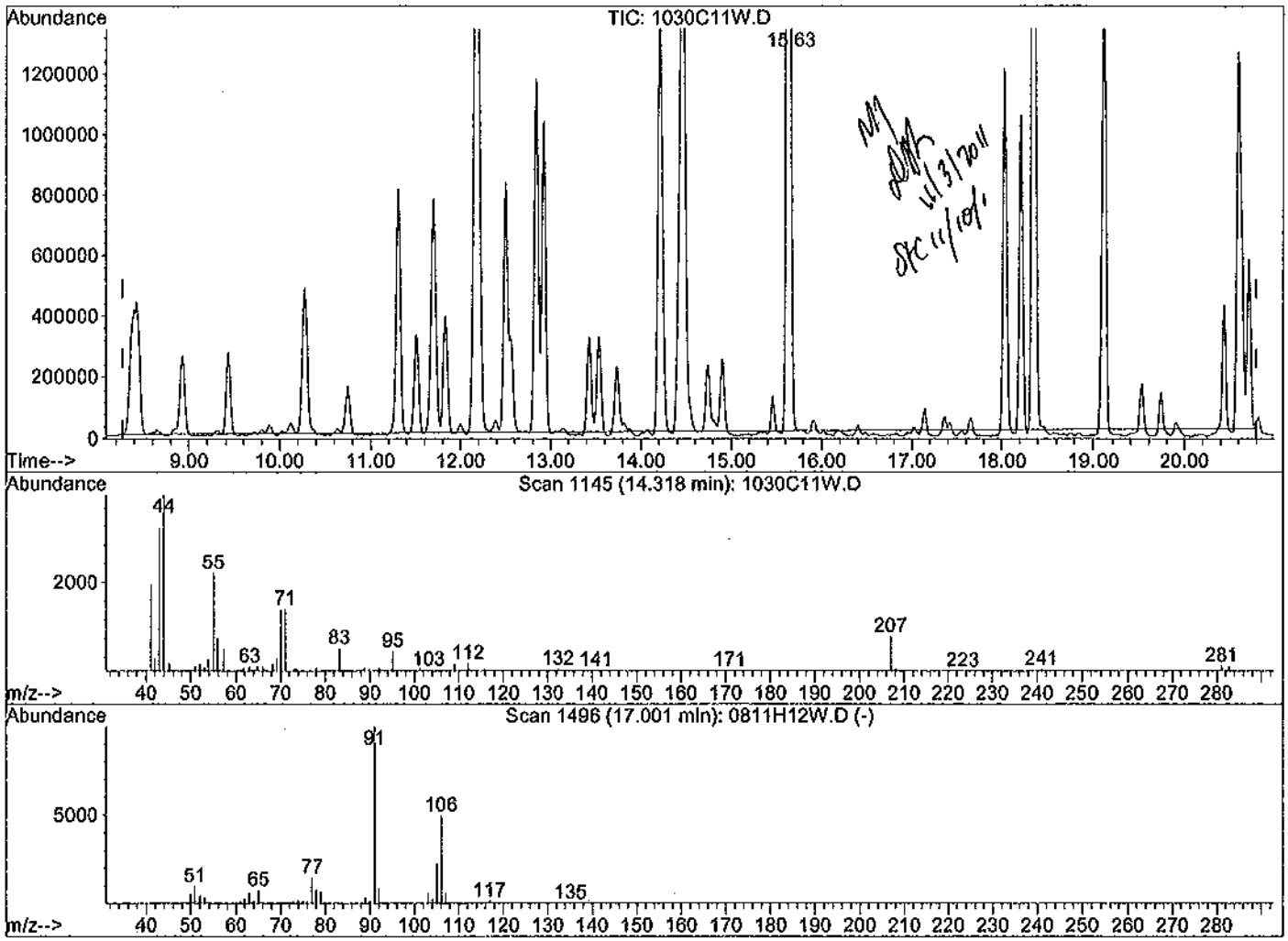
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:33 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C11W.D

(2) Gasoline (TMHB)

14.31min 368.6230ppb m

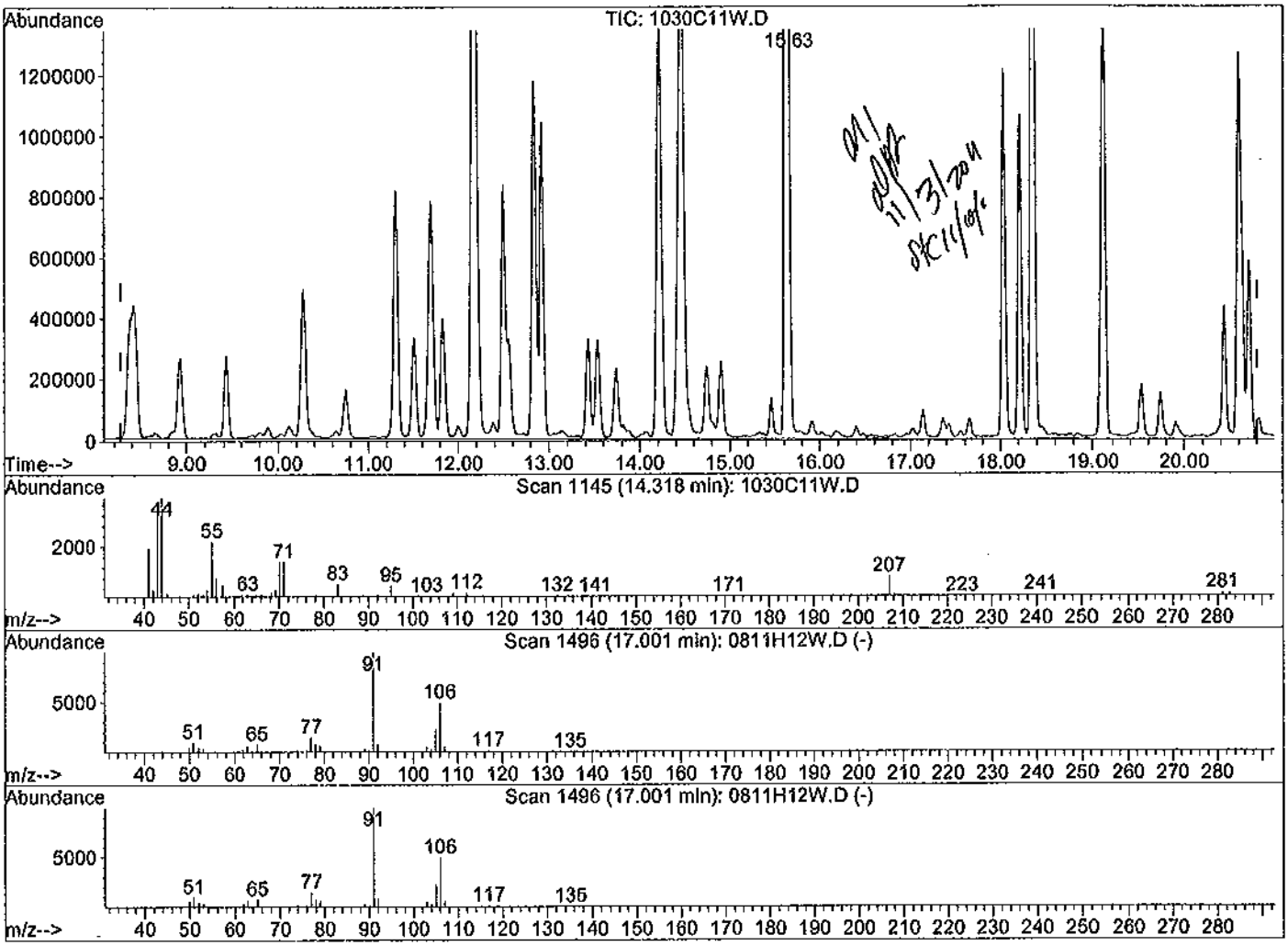
response 97309775

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.11#
0.00	0.00	0.34#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:43 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



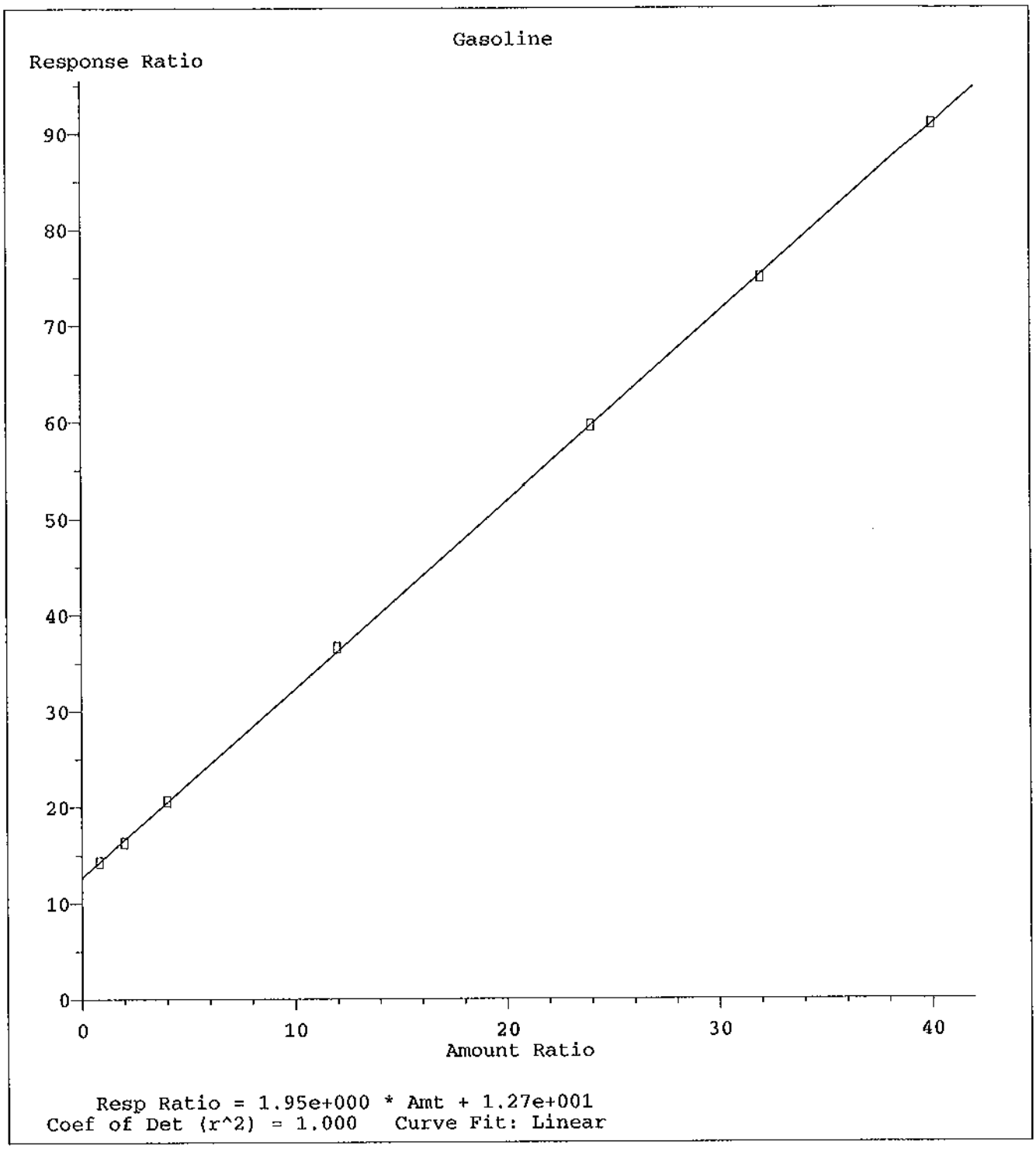
TIC: 1030C11W.D

(2) Gasoline (TMHB)

15.63min 400.5906ppb m

response 105748641

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.10#
0.00	0.00	0.31#
0.00	0.00	0.00



Method Name: M:\CHICO\DATA\C111030\CGAS.M
Calibration Table Last Updated: Thu Nov 03 10:47:02 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1030C29W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.226	45	TMHBL	11
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			45.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1211423	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1191079	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1217266	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	46900368m	332.66187	ppb	100

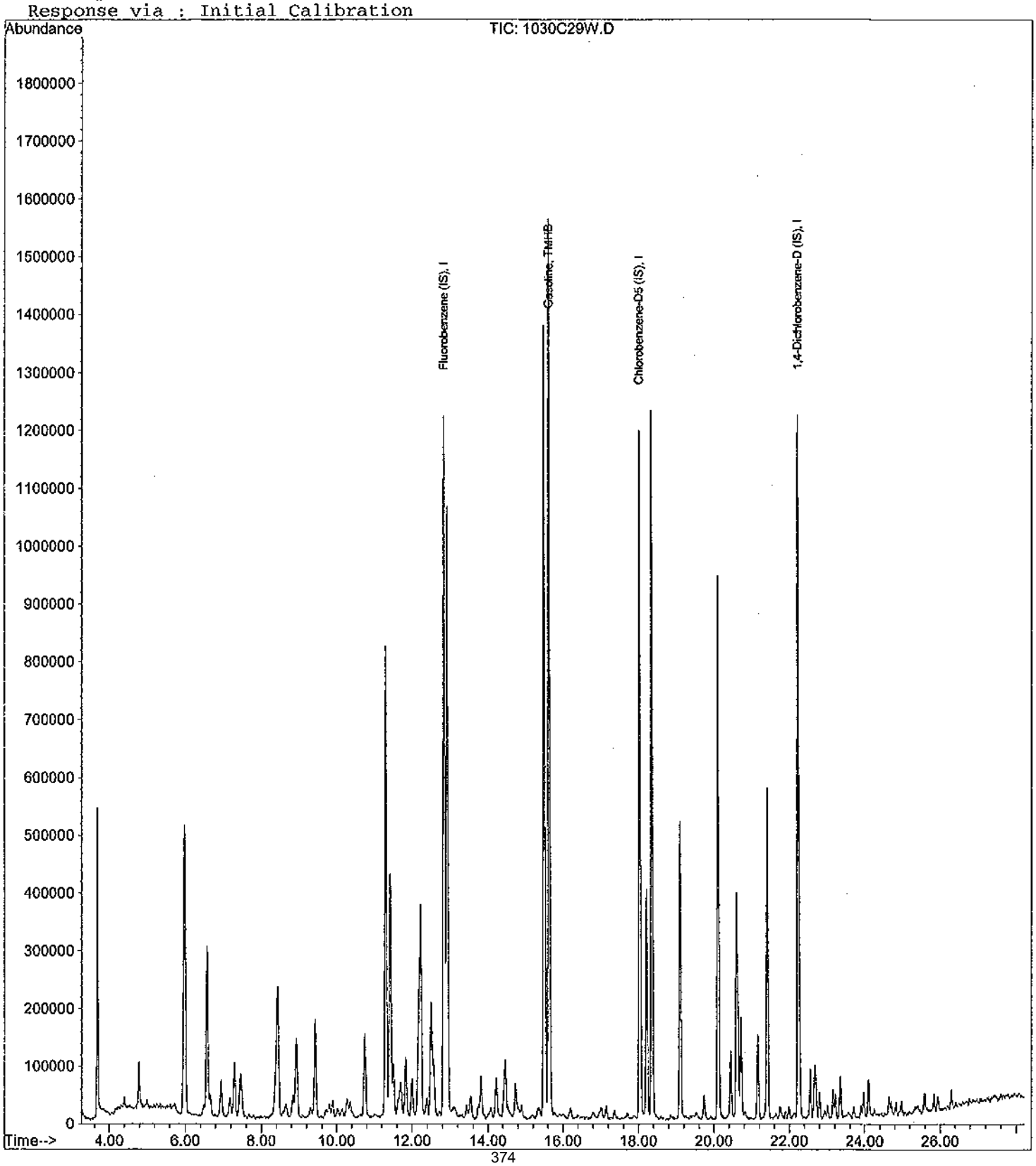
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

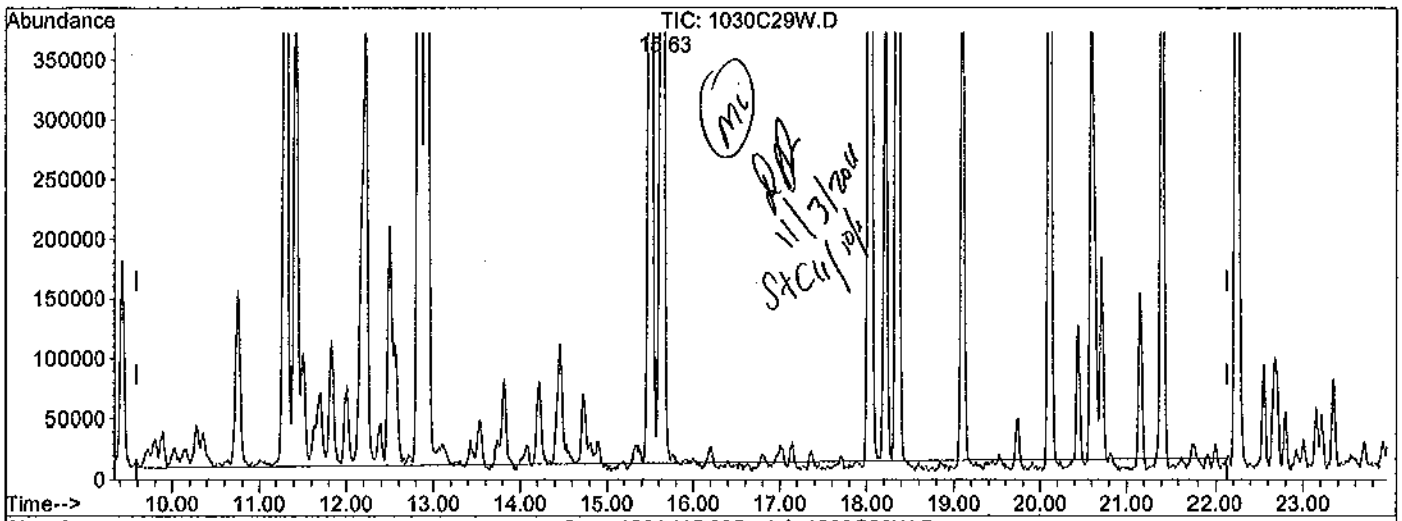
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

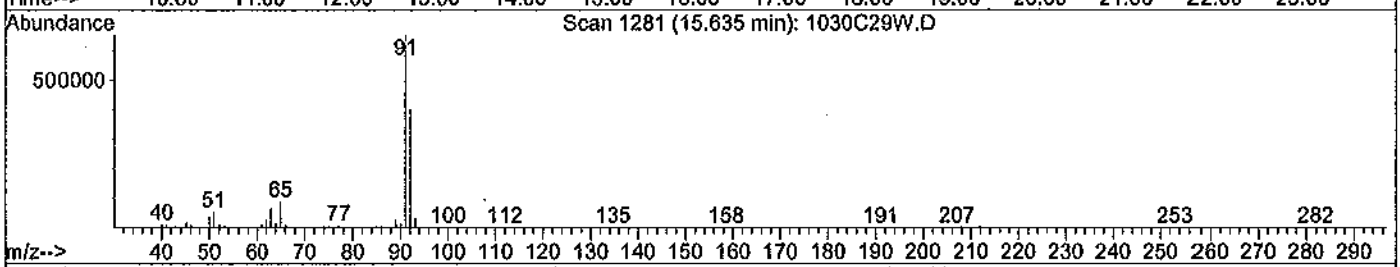


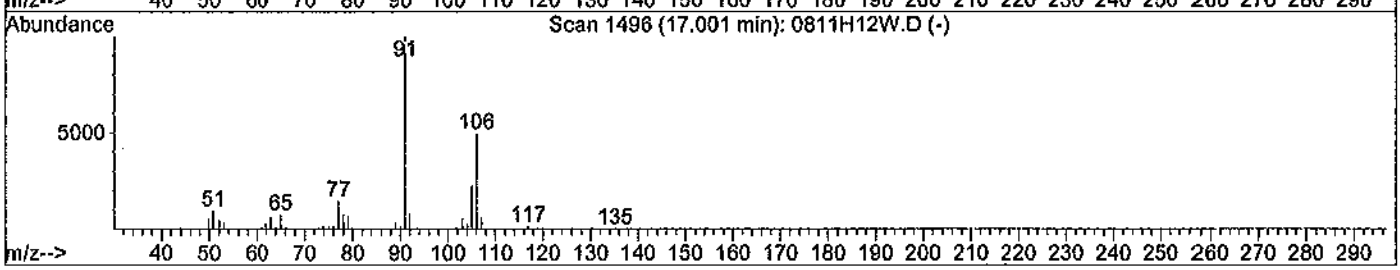
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:47 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration







TIC: 1030C29W.D

(2) Gasoline (TMHB)

15.64min 275.5469ppb m

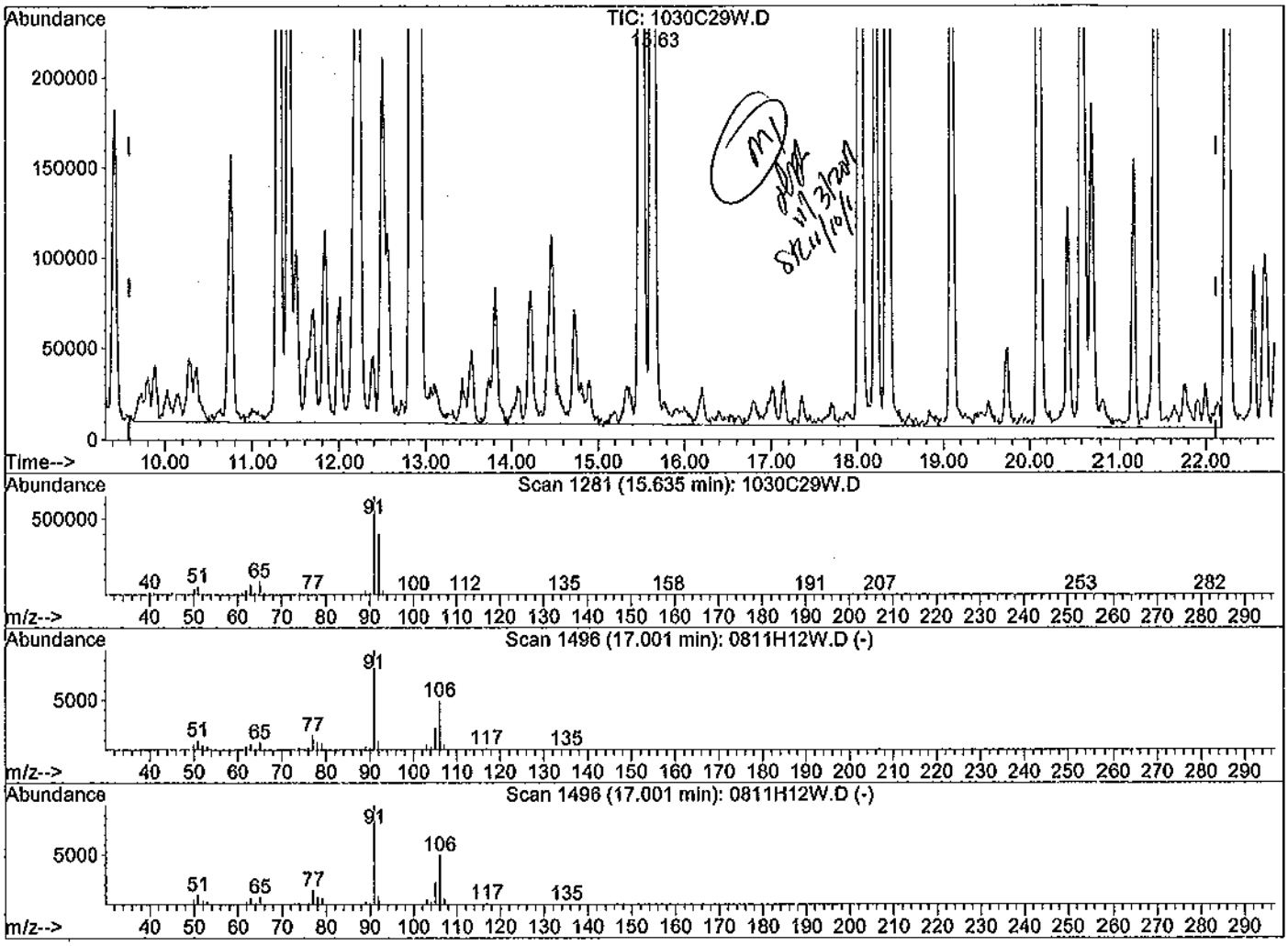
response 41492142

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.26#
0.00	0.00	0.78#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:51 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration



TIC: 1030C29W.D

(2) Gasoline (TMHB)

15.63min 332.6619ppb m

response 46900368

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.23#
0.00	0.00	0.69#
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1030C30W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.225	45	TMHBL	11
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			45.0		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C30W.D Vial: 1
Acq On : 31 Oct 11 10:14 Operator: STC
Sample : GAS 300ug/L CCV-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1207524	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1180683	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1196096	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	46736698m	332.52710	ppb	100

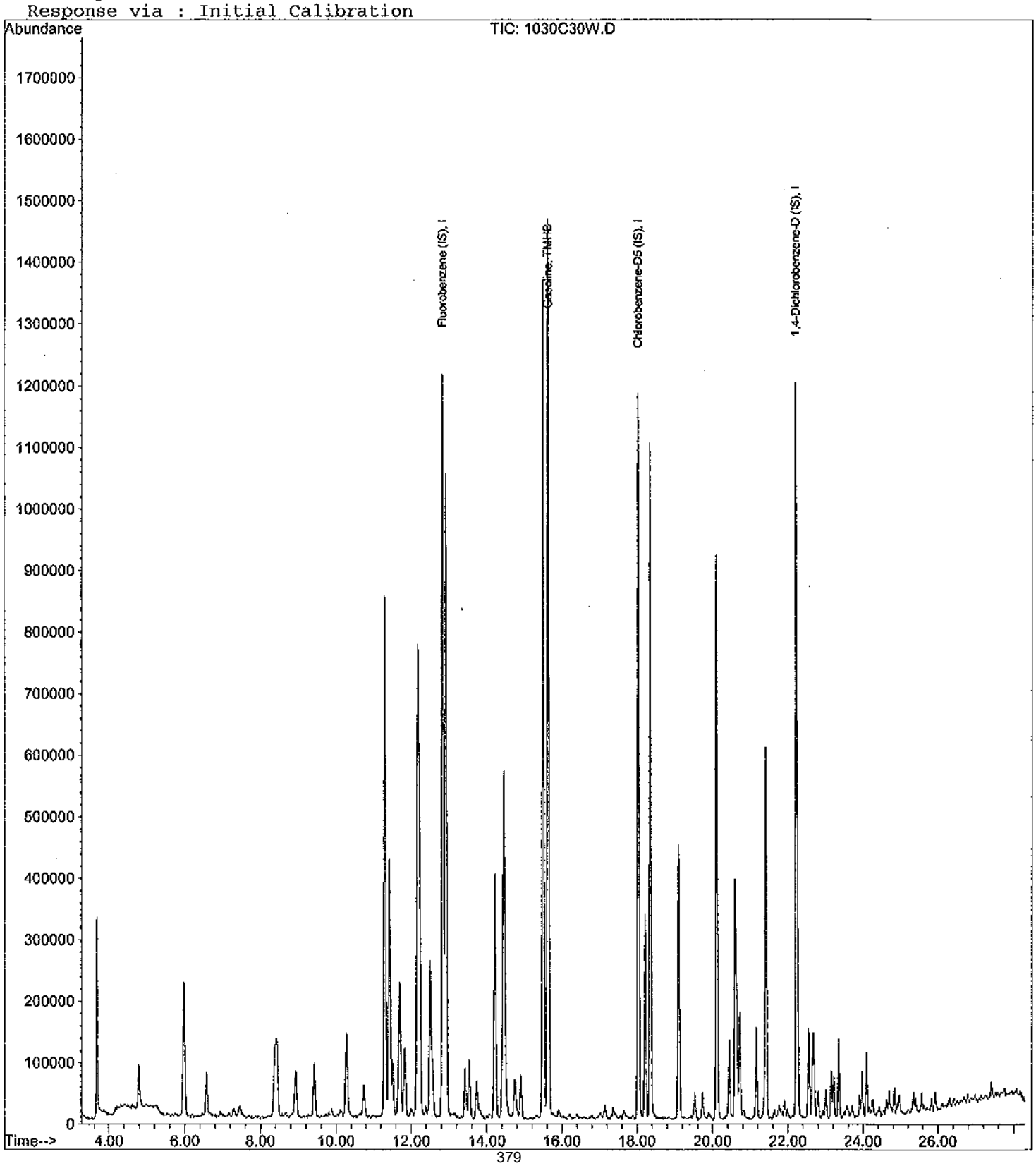
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C30W.D Vial: 1
Acq On : 31 Oct 11 10:14 Operator: STC
Sample : GAS 300ug/L CCV-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111030W-49334 - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	10/31/11	10/31/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	10/31/11	10/31/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	10/31/11	10/31/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	10/31/11	10/31/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	10/31/11	10/31/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	10/31/11	10/31/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	10/31/11	10/31/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	10/31/11	10/31/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	10/31/11	10/31/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	10/31/11	10/31/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	10/31/11	10/31/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	10/31/11	10/31/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	10/31/11	10/31/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	10/31/11	10/31/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	10/31/11	10/31/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	10/31/11	10/31/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	10/31/11	10/31/11

Quant Method:CALLW.M
Run #:1030C34
Instrument:Chico
Sequence:C111030
Initials:ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 3:06:21 PM

Method Blank
EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111030W-49334 - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	10/31/11	10/31/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	10/31/11	10/31/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	10/31/11	10/31/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	10/31/11	10/31/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	10/31/11	10/31/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	10/31/11	10/31/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	10/31/11	10/31/11
BLANK	SURROGATE: 1,2-DICHLOROET	109	70-120			%	10/31/11	10/31/11
BLANK	SURROGATE: 4-BROMOFLUORO	102	75-120			%	10/31/11	10/31/11
BLANK	SURROGATE: DIBROMOFLUOR	105	85-115			%	10/31/11	10/31/11
BLANK	SURROGATE: TOLUENE-D8 (S)	102	85-120			%	10/31/11	10/31/11

Quant Method:CALLW.M
Run #:1030C34
Instrument:Chico
Sequence:C111030
Initials:ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 3:06:21 PM

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C34W.D Vial: 1
Acq On : 31 Oct 11 13:02 Operator: STC
Sample : 111030A BLk-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:50 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	564158	25.00000 ppb	0.02
55) Chlorobenzene-D5 (IS)	18.05	117	392640	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	207424	25.00000 ppb	0.02
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	396364	26.37439 ppb	0.00
Spiked Amount 25.097			Recovery = 105.087%		
38) 1,2-DCA-D4(S)	12.23	65	352223	26.32879 ppb	0.00
Spiked Amount 24.225			Recovery = 108.684%		
56) Toluene-D8(S)	15.51	98	1448391	26.21699 ppb	0.02
Spiked Amount 25.808			Recovery = 101.584%		
64) 4-Bromofluorobenzene(S)	20.12	95	516404	26.08735 ppb	0.00
Spiked Amount 25.459			Recovery = 102.465%		

Target Compounds Qvalue

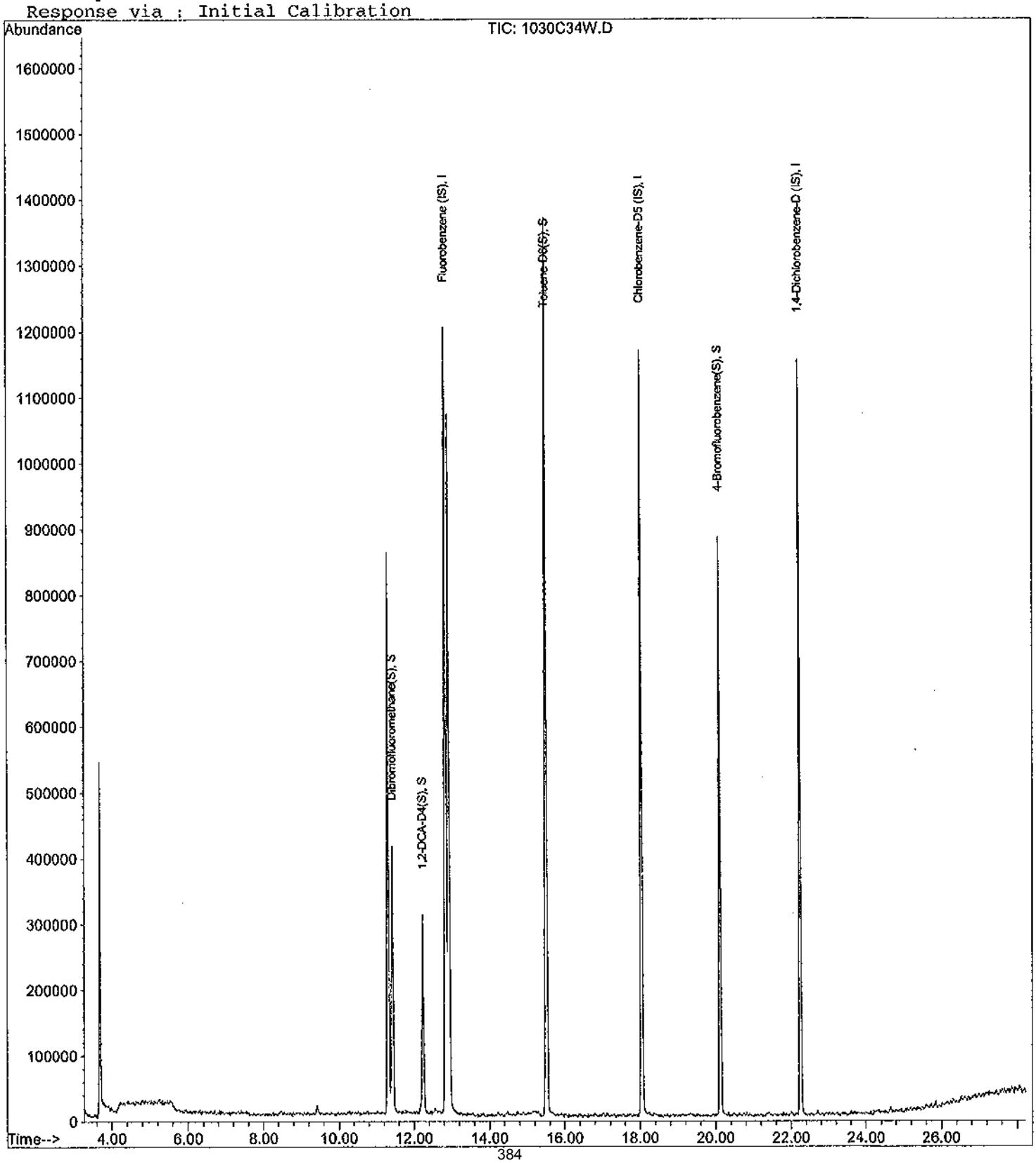
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C34W.D Vial: 1
Acq On : 31 Oct 11 13:02 Operator: STC
Sample : 111030A BLk-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:50 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C34W.D Vial: 1
Acq On : 31 Oct 11 13:02 Operator: STC
Sample : 111030A BLk-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:22 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1192714	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1166397	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1149644	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

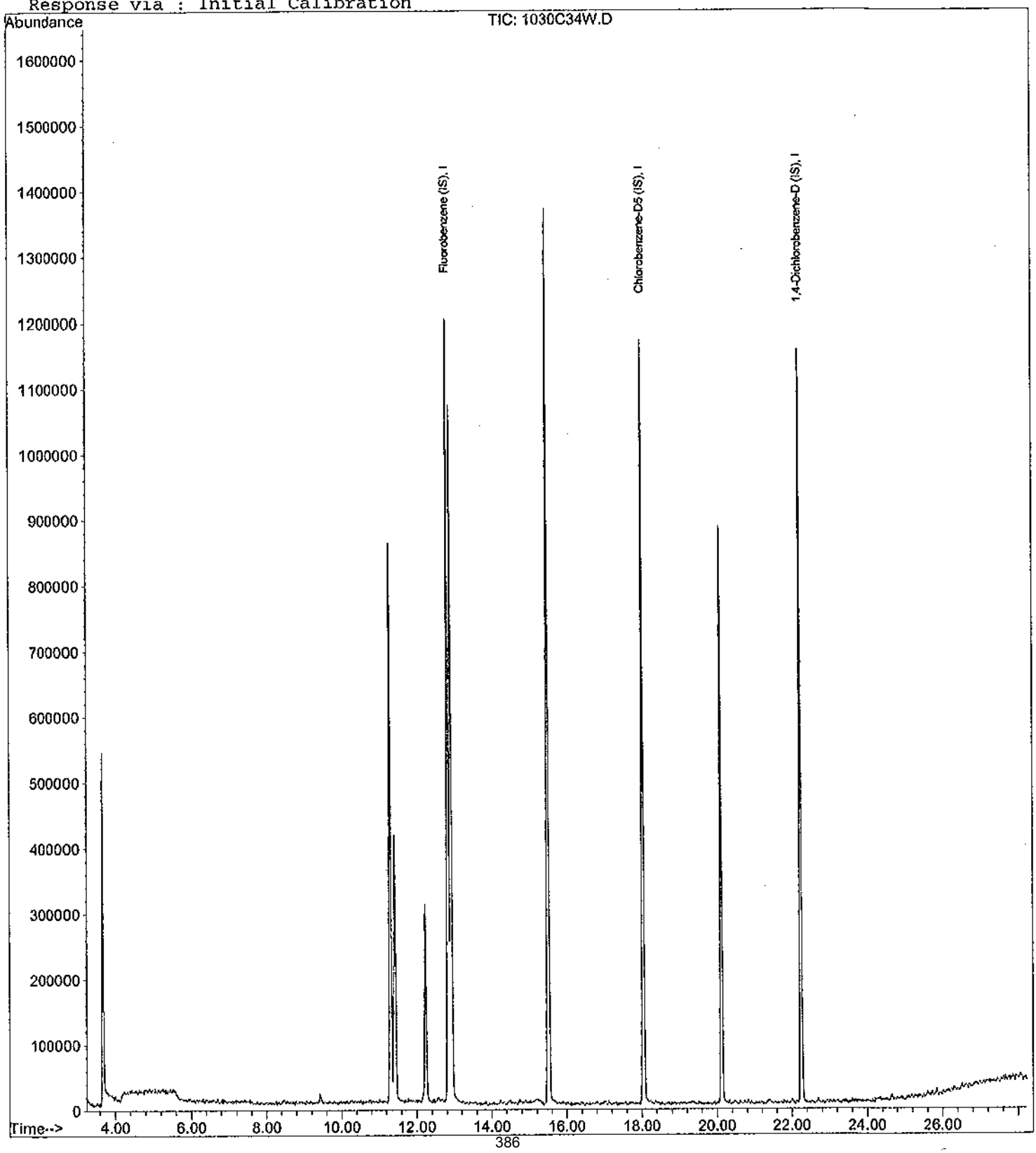
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C34W.D
Acq On : 31 Oct 11 13:02
Sample : 111030A BLk-1WC
Misc : Water 10mLw/ IS&S:10-30/10-26-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 10 10:22 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 LCS - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	11.0	110	80-130
1,1,1-TRICHLOROETHANE	10.00	9.55	95.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.3	103	65-130
1,1,2-TRICHLOROETHANE	10.00	9.91	99.1	75-125
1,1-DICHLOROETHANE	10.00	9.98	99.8	70-135
1,1-DICHLOROETHENE	10.00	8.83	88.3	70-130
1,2,3-TRICHLOROPROPANE	10.00	11.8	118	75-125
1,2,4-TRICHLOROBENZENE	10.00	10.2	102	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	10.2	102	50-130
1,2-DIBROMOETHANE	10.00	10.7	107	70-130
1,2-DICHLOROBENZENE	10.00	10.1	101	70-120
1,2-DICHLOROETHANE	10.00	9.61	96.1	70-130
1,2-DICHLOROPROPANE	10.00	10.1	101	75-125
1,3-DICHLOROBENZENE	10.00	9.67	96.7	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	19.7	98.5	70-130
1,4-DICHLOROBENZENE	10.00	9.94	99.4	75-125
2-BUTANONE	10.00	10.5	105	30-150
4-METHYL-2-PENTANONE	10.00	9.78	97.8	60-135
ACETONE	10.00	13.0	130	40-140
BENZENE	10.00	9.48	94.8	80-120
BROMODICHLOROMETHANE	10.00	10.0	100	75-120
BROMOFORM	10.00	9.32	93.2	70-130
BROMOMETHANE	10.00	8.95	89.5	30-145
CARBON TETRACHLORIDE	10.00	9.77	97.7	65-140
CHLOROBENZENE	10.00	10.3	103	80-120
CHLORODIBROMOMETHANE	10.00	11.0	110	60-135

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1030C28
Initials :	ARS

Printed: 12/06/11 3:06:22 PM

APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 LCS - 161029**
Batch ID: #86RHB-111030AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	8.89	88.9	60-135
CHLOROFORM	10.00	9.79	97.9	65-135
CHLOROMETHANE	10.00	9.42	94.2	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.18	91.8	70-125
ETHYLBENZENE	10.00	10.1	101	75-125
GASOLINE	300	370	123	75-125
HEXACHLOROBUTADIENE	10.00	10.5	105	50-140
METHYL TERT-BUTYL ETHER	10.00	9.69	96.9	65-125
METHYLENE CHLORIDE	10.00	9.05	90.5	55-140
STYRENE	10.00	10.6	106	65-135
TETRACHLOROETHENE	10.00	10.1	101	45-150
TOLUENE	10.00	9.40	94.0	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.05	90.5	60-140
TRICHLOROETHENE	10.00	9.64	96.4	70-125
VINYL CHLORIDE	10.00	10.2	102	50-145
XYLENES (TOTAL)	30.0	30.3	101	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	24.4	101	70-120
SURROGATE: 4-BROMOFLUOROBENZE	25.5	27.7	109	75-120
SURROGATE: DIBROMOFLUOROMETH	25.1	25.2	100	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	26.9	104	85-120

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chlco
Run :	1030C28
Initials :	ARS

Printed: 12/06/11 3:06:22 PM

APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	600576	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	389760	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	212800	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.42	111	402364	25.15012	ppb		0.00
Spiked Amount 25.097			Recovery = 100.210%				
38) 1,2-DCA-D4(S)	12.23	65	347346	24.38980	ppb		0.00
Spiked Amount 24.225			Recovery = 100.680%				
56) Toluene-D8(S)	15.50	98	1474138	26.88019	ppb		0.00
Spiked Amount 25.808			Recovery = 104.153%				
64) 4-Bromofluorobenzene(S)	20.11	95	543410	27.65447	ppb		0.00
Spiked Amount 25.459			Recovery = 108.620%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	222193	10.04166	ppb		100
3) Freon 114	4.33	85	146402	10.56428	ppb		93
4) Chloromethane	4.55	50	258385	9.42321	ppb		99
5) Vinyl chloride	4.82	62	186738	10.18146	ppb		96
7) Bromomethane	5.72	94	119189	8.95228	ppb		94
8) Chloroethane	5.91	64	134747	8.89428	ppb		97
9) Dichlorofluoromethane	6.01	67	386134	9.21828	ppb		97
10) Trichlorofluoromethane	6.52	101	241622	9.72027	ppb		99
11) Acetonitrile	7.64	41	78885	119.90087	ug/l		100
12) Acrolein	7.16	56	34469	114.48914	ppb		96
13) Acetone	7.27	43	22365	12.99757	ppb	#	84
14) Freon-113	7.46	101	138327	9.44782	ppb		97
15) 1,1-DCE	7.67	96	151407	8.83040	ppb		96
16) t-Butanol	7.76	59	10529	129.32077	ppb		93
17) Methyl Acetate	8.18	43	48755	9.36519	ppb		96
18) Iodomethane	8.16	142	102169	10.69989	ppb		90
19) Acrylonitrile	8.56	53	17916	9.49044	ppb		79
20) Methylene chloride	8.47	84	147951	9.04673	ppb		99
21) Carbon disulfide	8.56	76	154944	9.30051	ppb		100
22) Methyl t-butyl ether (MtBE	8.89	73	251165	9.69151	ppb		96
23) Trans-1,2-DCE	9.10	96	180083	9.05360	ppb		88
24) Diisopropyl Ether	9.75	45	553904	9.66784	ppb		94
25) 1,1-DCA	9.79	63	339012	9.97748	ppb		99
26) Vinyl Acetate	9.42	43	104836	9.85383	ppb	#	83
27) Ethyl tert Butyl Ether	10.45	59	395408	10.10888	ppb		99
28) MEK (2-Butanone)	10.44	43	71405	10.48433	ppb		99
29) Cis-1,2-DCE	10.82	96	187663	9.18084	ppb		97
30) 2,2-Dichloropropane	10.82	77	208247	8.55600	ppb		97
31) Chloroform	11.10	83	320091	9.79258	ppb		99
32) Bromochloromethane	11.32	128	58472	10.27501	ppb		98
34) 1,1,1-TCA	11.84	97	283983	9.55329	ppb		96
35) Cyclohexane	12.00	56	268948	9.71733	ppb		94
36) 1,1-Dichloropropene	12.10	75	240188	9.42981	ppb		99
37) 2,2,4-Trimethylpentane	12.18	57	414455	9.47423	ppb		98
39) Carbon Tetrachloride	12.30	117	199898	9.76577	ppb		98
40) Tert Amyl Methyl Ether	12.34	73	292021	9.98459	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	1,2-DCA	12.38	62	161160	9.60516	ppb		100
42)	Benzene	12.50	78	693647	9.47863	ppb		96
43)	TCE	13.53	95	195399	9.64105	ppb		91
44)	2-Pentanone	13.20	43	531259	125.31057	ppb		97
45)	1,2-Dichloropropane	13.76	63	167281	10.05687	ppb	#	94
46)	Bromodichloromethane	14.11	83	190021	9.99949	ppb	#	91
47)	Methyl Cyclohexane	13.82	83	224538	9.48040	ppb		99
48)	Dibromomethane	14.16	93	67527	10.15102	ppb		95
49)	2-Chloroethyl vinyl ether	14.57	63	42382	10.02259	ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	147231	10.37368	ppb	#	79
51)	Cis-1,3-Dichloropropene	15.00	75	181879	10.03716	ppb		100
52)	Toluene	15.63	91	678338	9.39804	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	126600	9.70449	ppb		98
54)	1,1,2-TCA	16.08	83	69681	9.91034	ppb		93
57)	1,2-EDB	17.33	107	79107	10.66417	ppb		94
58)	Tetrachloroethene	16.78	164	202010	10.08114	ppb		94
59)	1-Chlorohexane	17.70	91	232734	10.08580	ppb		97
60)	1,1,1,2-Tetrachloroethane	18.16	131	138607	11.04877	ppb		99
61)	m&p-Xylene	18.35	106	589147	19.90172	ppb		97
62)	o-Xylene	19.11	106	295217	10.36928	ppb		98
63)	Styrene	19.13	104	457607	10.64883	ppb		93
65)	2-Hexanone	16.11	43	38770	10.87089	ppb		95
66)	1,3-Dichloropropane	16.49	76	147530	10.08561	ppb		98
67)	Dibromochloromethane	16.97	129	105397	11.03714	ppb		82
68)	Chlorobenzene	18.10	112	437982	10.34243	ppb		97
69)	Ethylbenzene	18.22	91	794180	10.07104	ppb		100
70)	Bromoform	19.65	173	45131	9.31734	ppb		91
72)	MIBK (methyl isobutyl keto	14.68	43	59150	9.77763	ppb		87
73)	Isopropylbenzene	19.73	105	756513	9.80877	ppb		98
74)	1,1,2,2-Tetrachloroethane	19.90	83	66287	10.26718	ppb	#	74
75)	1,2,3-Trichloropropane	20.16	110	8565	11.81260	ppb		82
76)	t-1,4-Dichloro-2-Butene	20.23	53	14963	10.22116	ppb	#	92
77)	Bromobenzene	20.48	156	179052	10.06445	ppb		89
78)	n-Propylbenzene	20.44	91	900774	9.79012	ppb		100
79)	4-Ethyltoluene	20.63	105	593563	9.32229	ppb		97
80)	2-Chlorotoluene	20.74	91	598129	9.81561	ppb		98
81)	1,3,5-Trimethylbenzene	20.72	105	617840	9.86323	ppb		99
82)	4-Chlorotoluene	20.82	91	502123	9.56935	ppb		98
83)	Tert-Butylbenzene	21.36	119	672218	9.91209	ppb		97
84)	1,2,4-Trimethylbenzene	21.42	105	604092	9.23368	ppb		96
85)	Sec-Butylbenzene	21.76	105	823845	10.12964	ppb		96
86)	p-Isopropyltoluene	21.99	119	683604	9.81315	ppb		98
87)	Benzyl Chloride	22.42	91	81362	8.79846	ppb		94
88)	1,3-DCB	22.12	146	351790	9.66926	ppb		95
89)	1,4-DCB	22.30	146	335795	9.94420	ppb		96
90)	Hexachloroethane	23.59	117	92345	8.87470	ppb		87
91)	n-Butylbenzene	22.69	91	582962	9.59448	ppb		98
92)	1,2-DCB	22.93	146	292666	10.11316	ppb		97
93)	1,2-Dibromo-3-chloropropan	24.14	155	10559	10.20135	ppb		92
94)	1,2,4-Trichlorobenzene	25.59	180	213173	10.16551	ppb		98
95)	Hexachlorobutadiene	25.84	223	40176	10.54513	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) Naphthalene	25.94	128	272964	10.54986	ppb	99
97) 1,2,3-Trichlorobenzene	26.29	180	172357	10.86589	ppb	99

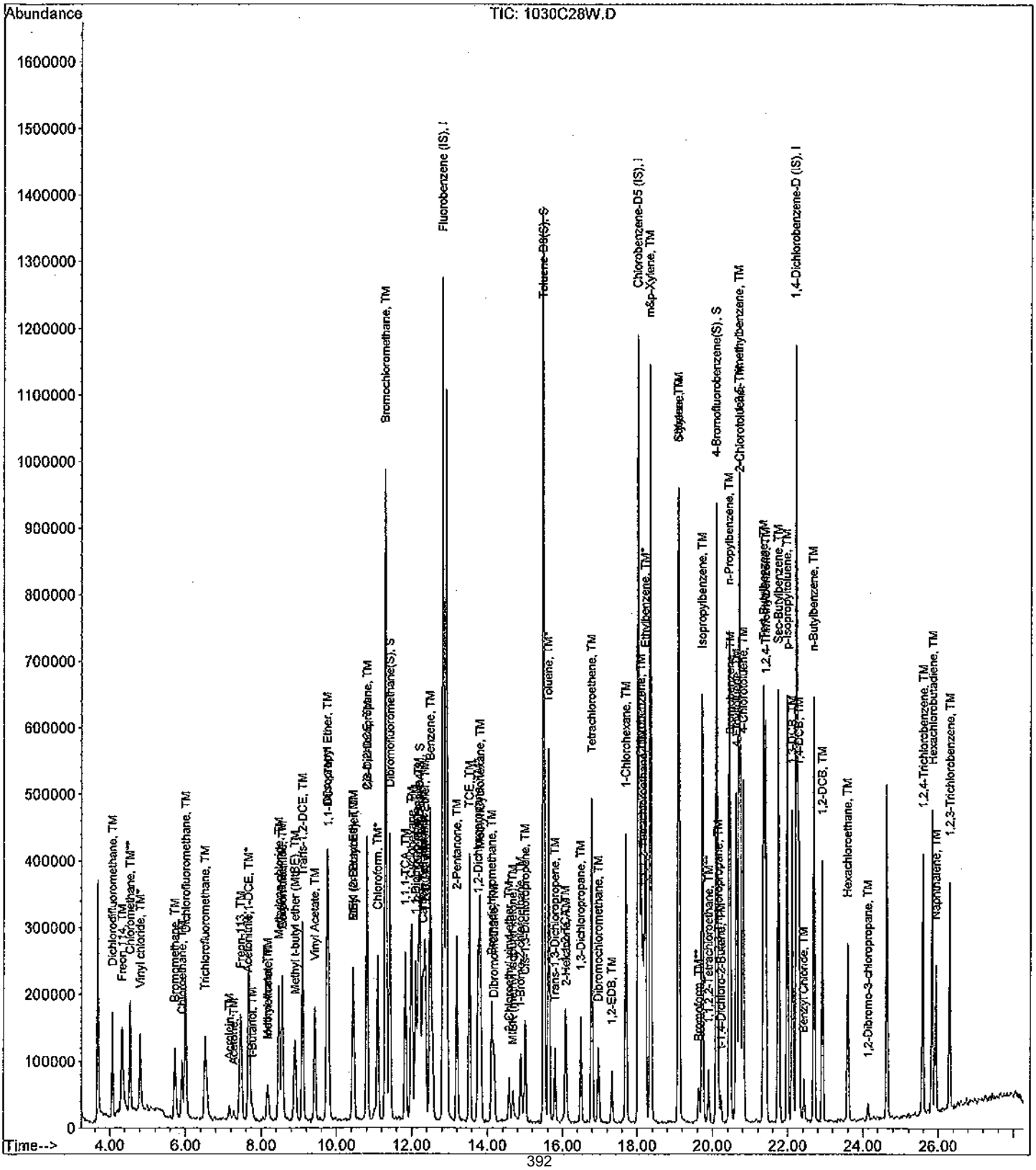
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C31W.D Vial: 1
Acq On : 31 Oct 11 10:57 Operator: STC
Sample : GAS 300ug/L LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:53 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1238145	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1217687	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1183942	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	51531735m	369.82724	ppb	100

(#) = qualifier out of range (m) = manual integration

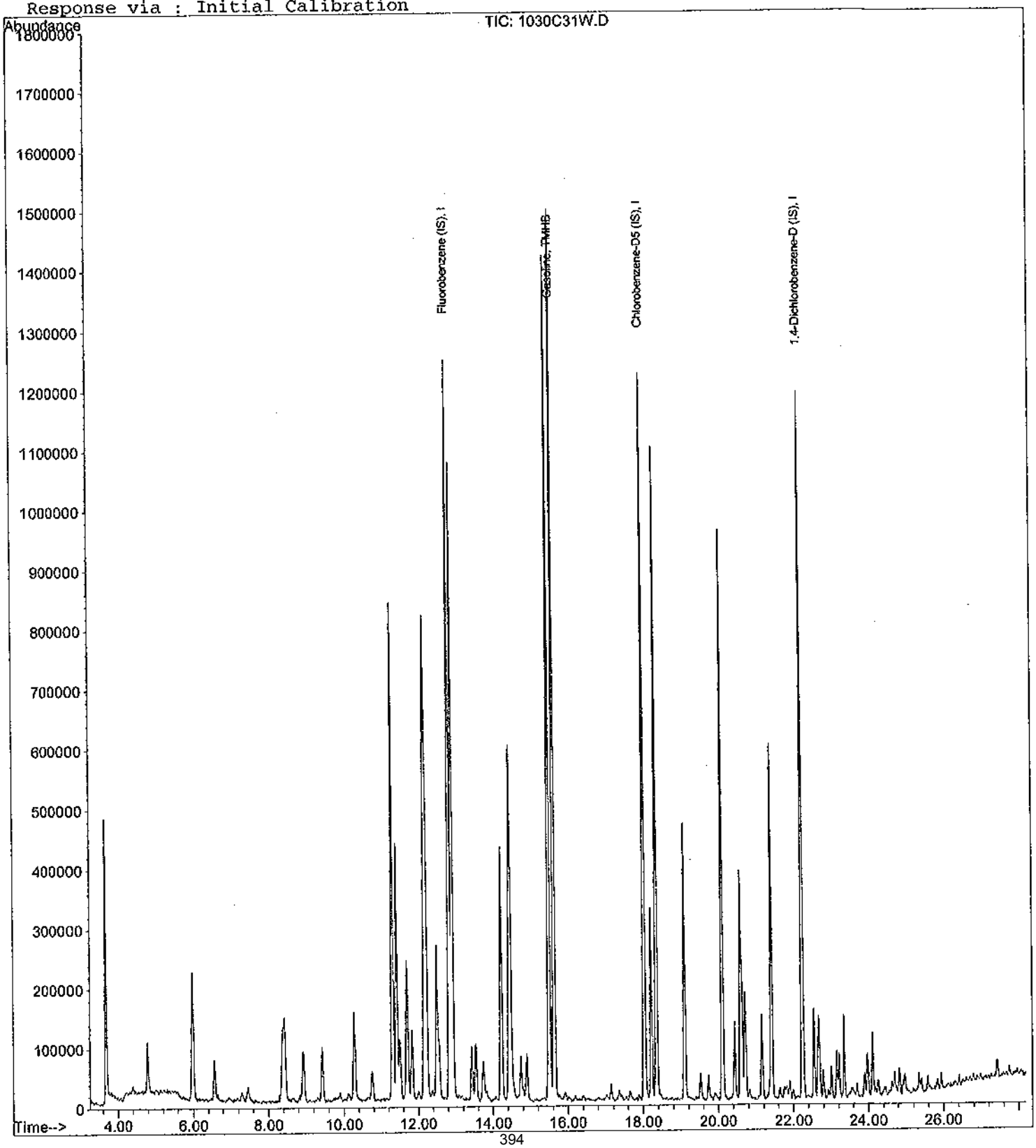
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C31W.D
Acq On : 31 Oct 11 10:57
Sample : GAS 300ug/L LCS-1WC
Misc : Water 10mLw/ IS&S:10-30/10-26-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 10:53 2011 Quant Results File: CGAS.RES

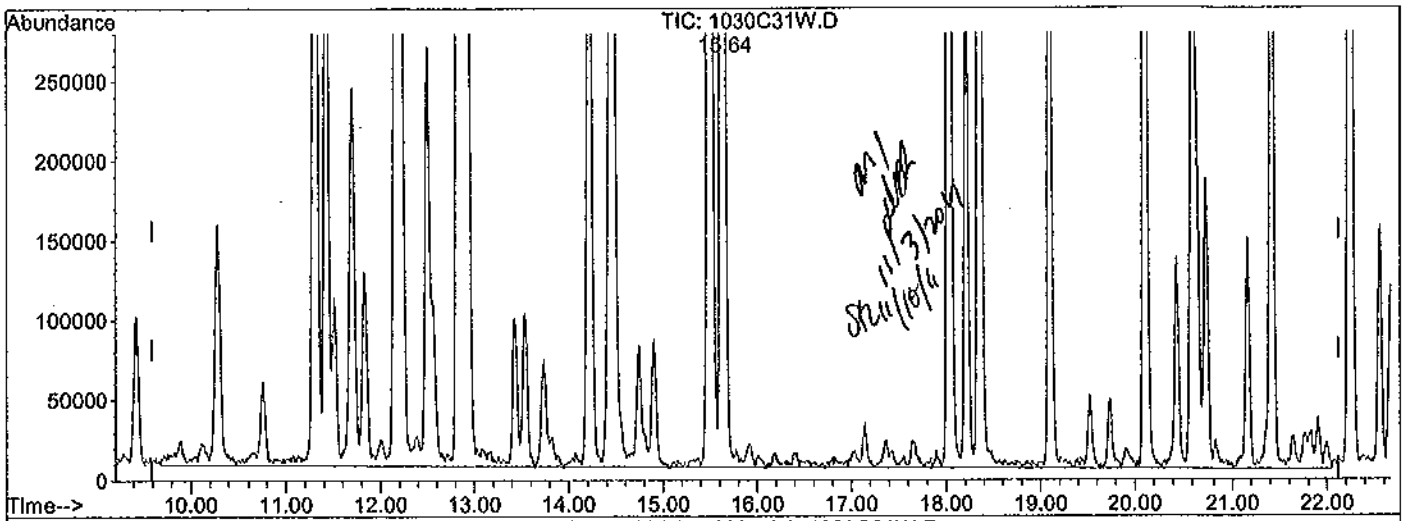
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

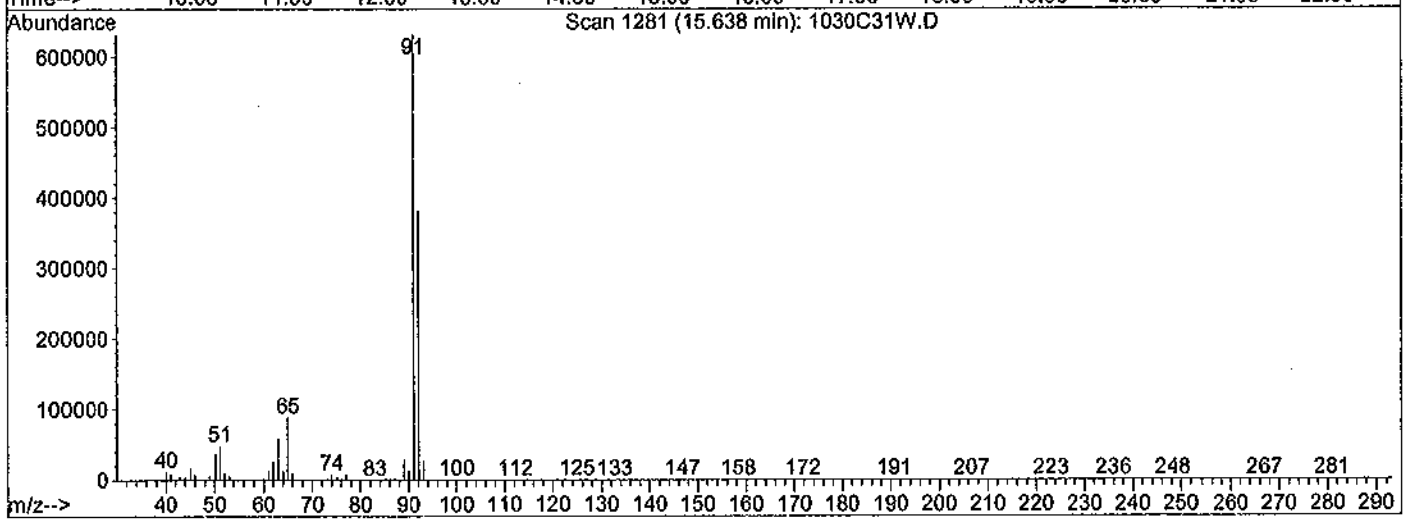


Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C31W.D Vial: 1
Acq On : 31 Oct 11 10:57 Operator: STC
Sample : GAA 300ug/L LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:52 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration





TIC: 1030C31W.D

(2) Gasoline (TMHB)

15.64min 380.8950ppb m

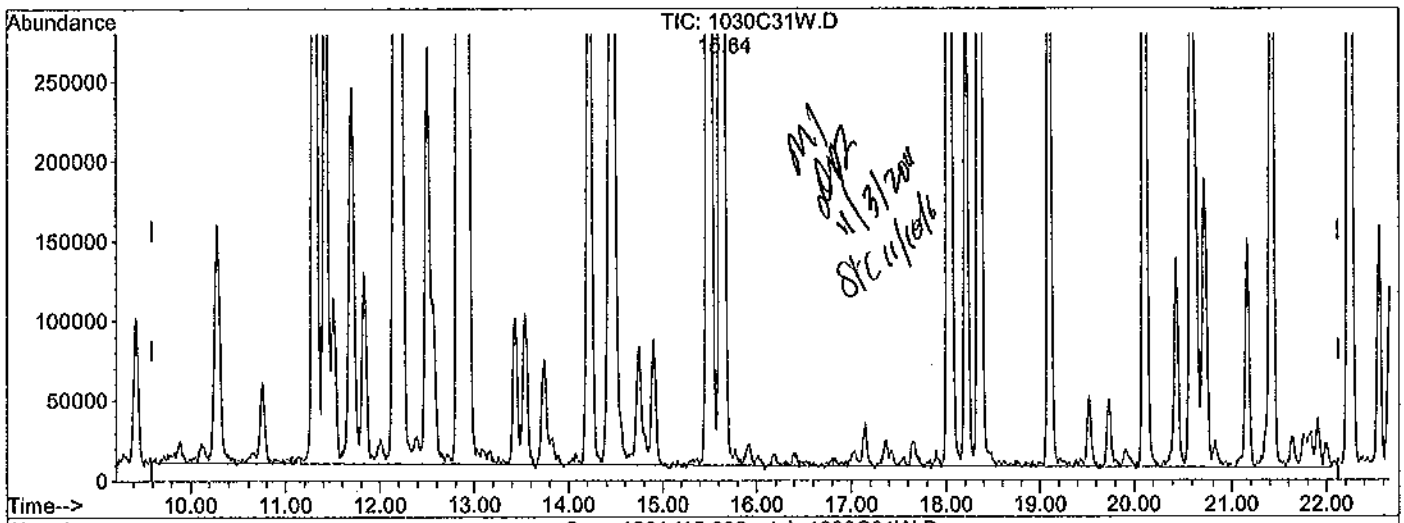
response 52602858

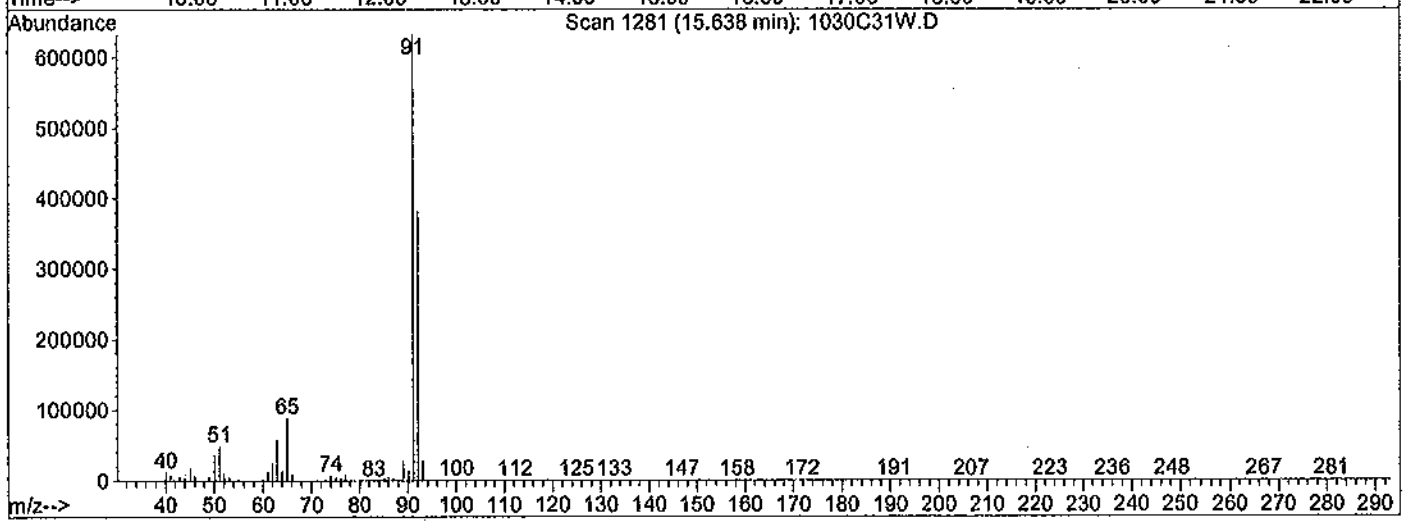
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.21#
0.00	0.00	0.59#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C31W.D Vial: 1
Acq On : 31 Oct 11 10:57 Operator: STC
Sample : GAA 300ug/L LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:53 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration





TIC: 1030C31W.D

(2) Gasoline (TMHB)

15.64min 369.8272ppb m

response 51531735

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.21#
0.00	0.00	0.60#
0.00	0.00	0.00

Matrix Spike Recoveries

EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 MS - 161029**
Batch ID: #86RHB-111030AC
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,1,1,2-TETRACHLOROETHANE	10.00	ND	10.9	11.2	109	112	80-130	2.7	30
1,1,1-TRICHLOROETHANE	10.00	ND	8.95	9.51	89.5	95.1	65-130	6.1	30
1,1,2,2-TETRACHLOROETHANE	10.00	ND	12.7	12.6	127	126	65-130	0.79	30
1,1,2-TRICHLOROETHANE	10.00	ND	10.6	10.6	106	106	75-125	0.0	30
1,1-DICHLOROETHANE	10.00	ND	9.46	9.94	94.6	99.4	70-135	4.9	30
1,1-DICHLOROETHENE	10.00	ND	8.96	9.50	89.6	95.0	70-130	5.9	30
1,2,3-TRICHLOROPROPANE	10.00	ND	11.6	11.4	116	114	75-125	1.7	30
1,2,4-TRICHLOROBENZENE	10.00	ND	9.55	10.1	95.5	101	65-135	5.6	30
1,2-DIBROMO-3-CHLOROPROPANE	10.00	ND	11.2	12.2	112	122	50-130	8.5	30
1,2-DIBROMOETHANE	10.00	ND	10.9	10.8	109	108	70-130	0.92	30
1,2-DICHLOROBENZENE	10.00	ND	9.85	10.2	98.5	102	70-120	3.5	30
1,2-DICHLOROETHANE	10.00	ND	8.97	9.48	89.7	94.8	70-130	5.5	30
1,2-DICHLOROPROPANE	10.00	ND	9.62	10.5	96.2	105	75-125	8.7	30
1,3-DICHLOROBENZENE	10.00	ND	9.68	10.1	96.8	101	75-125	4.2	30
1,3-DICHLOROPROPENE, TOTAL	20.0	ND	20.4	20.9	102	105	70-130	2.4	30
1,4-DICHLOROBENZENE	10.00	ND	9.80	10.2	98.0	102	75-125	4.0	30
2-BUTANONE	10.00	ND	10.5	10.2	105	102	30-150	2.9	30
4-METHYL-2-PENTANONE	10.00	ND	11.0	11.0	110	110	60-135	0.0	30
ACETONE	10.00	ND	11.9	13.6	119	136	40-140	13.3	30
BENZENE	10.00	ND	9.56	10.2	95.6	102	80-120	6.5	30
BROMODICHLOROMETHANE	10.00	ND	9.85	10.3	98.5	103	75-120	4.5	30
BROMOFORM	10.00	ND	9.59	10.1	95.9	101	70-130	5.2	30
BROMOMETHANE	10.00	ND	9.35	9.85	93.5	98.5	30-145	5.2	30
CARBON TETRACHLORIDE	10.00	ND	9.77	9.93	97.7	99.3	65-140	1.6	30
CHLOROBENZENE	10.00	ND	9.68	10.1	96.8	101	80-120	4.2	30

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	CALLW.M	CALLW.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	10/31/11	10/31/11
Instrument :	Chico	Chico
Run :	1030C39	1030C40
Initials :	ARS	

Printed: 12/06/11 3:06:24 PM
APPL MSD SCII

Matrix Spike Recoveries

EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49334 MS - 161029**
Batch ID: #86RHB-111030AC
Sample ID: AY49334
Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
CHLORODIBROMOMETHANE	10.00	ND	10.8	11.4	108	114	60-135	5.4	30
CHLOROETHANE	10.00	ND	8.88	9.26	88.8	92.6	60-135	4.2	30
CHLOROFORM	10.00	ND	9.21	9.65	92.1	96.5	65-135	4.7	30
CHLOROMETHANE	10.00	ND	8.69	9.03	86.9	90.3	40-125	3.8	30
CIS-1,2-DICHLOROETHENE	10.00	ND	9.19	9.57	91.9	95.7	70-125	4.1	30
ETHYLBENZENE	10.00	ND	9.73	10.3	97.3	103	75-125	5.7	30
GASOLINE	300	ND	374	377	125	126 #	75-125	0.80	30
HEXACHLOROBUTADIENE	10.00	ND	9.04	9.78	90.4	97.8	50-140	7.9	30
METHYL TERT-BUTYL ETHER	10.00	ND	10.1	10.2	101	102	65-125	0.99	30
METHYLENE CHLORIDE	10.00	ND	9.83	9.84	98.3	98.4	55-140	0.10	30
STYRENE	10.00	ND	10.2	10.6	102	106	65-135	3.8	30
TETRACHLOROETHENE	10.00	ND	9.48	10.3	94.8	103	45-150	8.3	30
TOLUENE	10.00	ND	9.46	10.4	94.6	104	75-120	9.5	30
TRANS-1,2-DICHLOROETHENE	10.00	ND	9.17	9.47	91.7	94.7	60-140	3.2	30
TRICHLOROETHENE	10.00	ND	9.00	9.38	90.0	93.8	70-125	4.1	30
VINYL CHLORIDE	10.00	ND	9.90	9.78	99.0	97.8	50-145	1.2	30
XYLENES (TOTAL)	30.0	ND	29.1	30.7	97.0	102	80-120	5.4	30
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	NA	22.7	22.3	93.7	92.1	70-120		
SURROGATE: 4-BROMOFLUOROBENZE	25.5	NA	25.8	26.7	101	105	75-120		
SURROGATE: DIBROMOFLUOROMETH	25.1	NA	24.7	25.0	98.4	99.6	85-115		
SURROGATE: TOLUENE-D8 (S)	25.8	NA	26.3	26.9	102	104	85-120		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	CALLW.M	CALLW.M
Extraction Date :	10/31/11	10/31/11
Analysis Date :	10/31/11	10/31/11
Instrument :	Chico	Chico
Run :	1030C39	1030C40
Initials :	ARS	

Printed: 12/06/11 3:06:24 PM
APPL MSD SCII

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C39W.D Vial: 1
Acq On : 31 Oct 11 16:08 Operator: STC
Sample : AY49334W141516 MS-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	673315	25.00000 ppb		0.02
55) Chlorobenzene-D5 (IS)	18.05	117	444608	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	234048	25.00000 ppb		0.02
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	443656	24.73529 ppb		0.00
Spiked Amount 25.097			Recovery = 98.557%			
38) 1,2-DCA-D4(S)	12.23	65	361670	22.65208 ppb		0.00
Spiked Amount 24.225			Recovery = 93.506%			
56) Toluene-D8(S)	15.51	98	1644192	26.28251 ppb		0.02
Spiked Amount 25.808			Recovery = 101.839%			
64) 4-Bromofluorobenzene(S)	20.12	95	578226	25.79618 ppb		0.00
Spiked Amount 25.459			Recovery = 101.322%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.08	85	233739	9.42228 ppb		96
3) Freon 114	4.34	85	156235	10.05590 ppb		100
4) Chloromethane	4.56	50	267000	8.68546 ppb		98
5) Vinyl chloride	4.82	62	203545	9.89891 ppb		95
7) Bromomethane	5.73	94	139543	9.34878 ppb		90
8) Chloroethane	5.92	64	150908	8.88492 ppb		95
9) Dichlorofluoromethane	6.01	67	417786	8.89643 ppb		98
10) Trichlorofluoromethane	6.55	101	259316	9.30510 ppb		97
11) Acetonitrile	7.67	41	102299	138.69122 ug/l		100
12) Acrolein	7.18	56	41239	122.17811 ppb		98
13) Acetone	7.30	43	23028	11.93711 ppb	#	67
14) Freon-113	7.48	101	166680	10.24118 ppb		91
15) 1,1-DCE	7.69	96	172282	8.96239 ppb		93
16) t-Butanol	7.78	59	13291	145.60910 ppb		93
17) Methyl Acetate	8.21	43	57808	9.94422 ppb		98
18) Iodomethane	8.17	142	85074	8.93041 ppb		91
19) Acrylonitrile	8.59	53	23274	11.05716 ppb		92
20) Methylene chloride	8.48	84	180285	9.83293 ppb		97
21) Carbon disulfide	8.57	76	184128	9.85829 ppb		99
22) Methyl t-butyl ether (MtBE	8.92	73	294046	10.12039 ppb		91
23) Trans-1,2-DCE	9.11	96	204403	9.16612 ppb		91
24) Diisopropyl Ether	9.77	45	657158	10.23091 ppb		91
25) 1,1-DCA	9.80	63	360267	9.45758 ppb		96
26) Vinyl Acetate	9.43	43	123424	10.42529 ppb		85
27) Ethyl tert Butyl Ether	10.46	59	458722	10.46060 ppb		99
28) MEK (2-Butanone)	10.44	43	79943	10.46895 ppb		94
29) Cis-1,2-DCE	10.83	96	210715	9.19494 ppb		93
30) 2,2-Dichloropropane	10.82	77	272392	9.98243 ppb		100
31) Chloroform	11.10	83	337366	9.20607 ppb		100
32) Bromochloromethane	11.33	128	66189	10.37457 ppb	#	71
34) 1,1,1-TCA	11.85	97	298219	8.94840 ppb		96
35) Cyclohexane	12.01	56	300163	9.67354 ppb		99
36) 1,1-Dichloropropene	12.12	75	263597	9.23085 ppb		96
37) 2,2,4-Trimethylpentane	12.19	57	501585	10.31895 ppb		95
39) Carbon Tetrachloride	12.31	117	224210	9.77018 ppb		100
40) Tert Amyl Methyl Ether	12.36	73	337649	10.29749 ppb	#	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C39W.D Vial: 1
Acq On : 31 Oct 11 16:08 Operator: STC
Sample : AY49334W141516 MS-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	1,2-DCA	12.39	62	168650	8.96568	ppb		99
42)	Benzene	12.52	78	784311	9.55972	ppb		98
43)	TCE	13.55	95	204442	8.99750	ppb		90
44)	2-Pentanone	13.21	43	641372	134.94011	ppb		98
45)	1,2-Dichloropropane	13.77	63	179306	9.61525	ppb	#	92
46)	Bromodichloromethane	14.13	83	209814	9.84828	ppb		85
47)	Methyl Cyclohexane	13.83	83	264020	9.94314	ppb		99
48)	Dibromomethane	14.18	93	75188	10.08162	ppb		96
49)	2-Chloroethyl vinyl ether	14.59	63	44799	9.44967	ppb		97
50)	1-Bromo-2-chloroethane	14.89	63	159282	10.01037	ppb		91
51)	Cis-1,3-Dichloropropene	15.02	75	212722	10.47106	ppb		97
52)	Toluene	15.65	91	765314	9.45759	ppb		97
53)	Trans-1,3-Dichloropropene	15.81	75	145848	9.97216	ppb		99
54)	1,1,2-TCA	16.09	83	83942	10.64886	ppb		94
57)	1,2-EDB	17.34	107	92334	10.91173	ppb		92
58)	Tetrachloroethene	16.80	164	216714	9.48077	ppb		97
59)	1-Chlorohexane	17.72	91	263885	10.02502	ppb		88
60)	1,1,1,2-Tetrachloroethane	18.17	131	156166	10.91277	ppb		96
61)	m&p-Xylene	18.37	106	646753	19.15250	ppb		99
62)	o-Xylene	19.11	106	322766	9.93837	ppb		99
63)	Styrene	19.13	104	500812	10.21655	ppb		96
65)	2-Hexanone	16.11	43	49009	12.04661	ppb		98
66)	1,3-Dichloropropane	16.51	76	172305	10.32618	ppb		99
67)	Dibromochloromethane	16.98	129	117679	10.80307	ppb		87
68)	Chlorobenzene	18.12	112	467466	9.67690	ppb		98
69)	Ethylbenzene	18.23	91	875108	9.72830	ppb		98
70)	Bromoform	19.65	173	53217	9.59314	ppb		95
72)	MIBK (methyl isobutyl keto	14.68	43	73055	10.97983	ppb		80
73)	Isopropylbenzene	19.75	105	1154759	13.61308	ppb		99
74)	1,1,2,2-Tetrachloroethane	19.92	83	90087	12.68678	ppb	#	76
75)	1,2,3-Trichloropropane	20.17	110	9227	11.57218	ppb		78
76)	t-1,4-Dichloro-2-Butene	20.23	53	20628	12.81166	ppb	#	78
77)	Bromobenzene	20.49	156	193805	9.90473	ppb		92
78)	n-Propylbenzene	20.46	91	1397086	13.80582	ppb		98
79)	4-Ethyltoluene	20.65	105	653523	9.33219	ppb		98
80)	2-Chlorotoluene	20.75	91	606805	9.05395	ppb		100
81)	1,3,5-Trimethylbenzene	20.73	105	642904	9.33159	ppb		98
82)	4-Chlorotoluene	20.82	91	563219	9.75925	ppb		98
83)	Tert-Butylbenzene	21.37	119	771335	10.34106	ppb		98
84)	1,2,4-Trimethylbenzene	21.43	105	651620	9.05592	ppb		97
85)	Sec-Butylbenzene	21.77	105	1244018	13.90727	ppb		100
86)	p-Isopropyltoluene	22.00	119	725182	9.46493	ppb		99
87)	Benzyl Chloride	22.44	91	197410	19.40978	ppb		97
88)	1,3-DCB	22.14	146	387323	9.67943	ppb		96
89)	1,4-DCB	22.31	146	363787	9.79512	ppb		92
90)	Hexachloroethane	23.56	117	533859	38.29226	ppb	#	12
91)	n-Butylbenzene	22.71	91	769919	11.52107	ppb		98
92)	1,2-DCB	22.93	146	313462	9.84841	ppb		98
93)	1,2-Dibromo-3-chloropropan	24.14	155	12899	11.18801	ppb		82
94)	1,2,4-Trichlorobenzene	25.59	180	220157	9.54544	ppb		98
95)	Hexachlorobutadiene	25.86	223	37896	9.04368	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C39W.D Vial: 1
Acq On : 31 Oct 11 16:08 Operator: STC
Sample : AY49334W141516 MS-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96) Naphthalene	25.94	128	595126	20.91304	ppb	100
97) 1,2,3-Trichlorobenzene	26.31	180	169004	9.68724	ppb	98

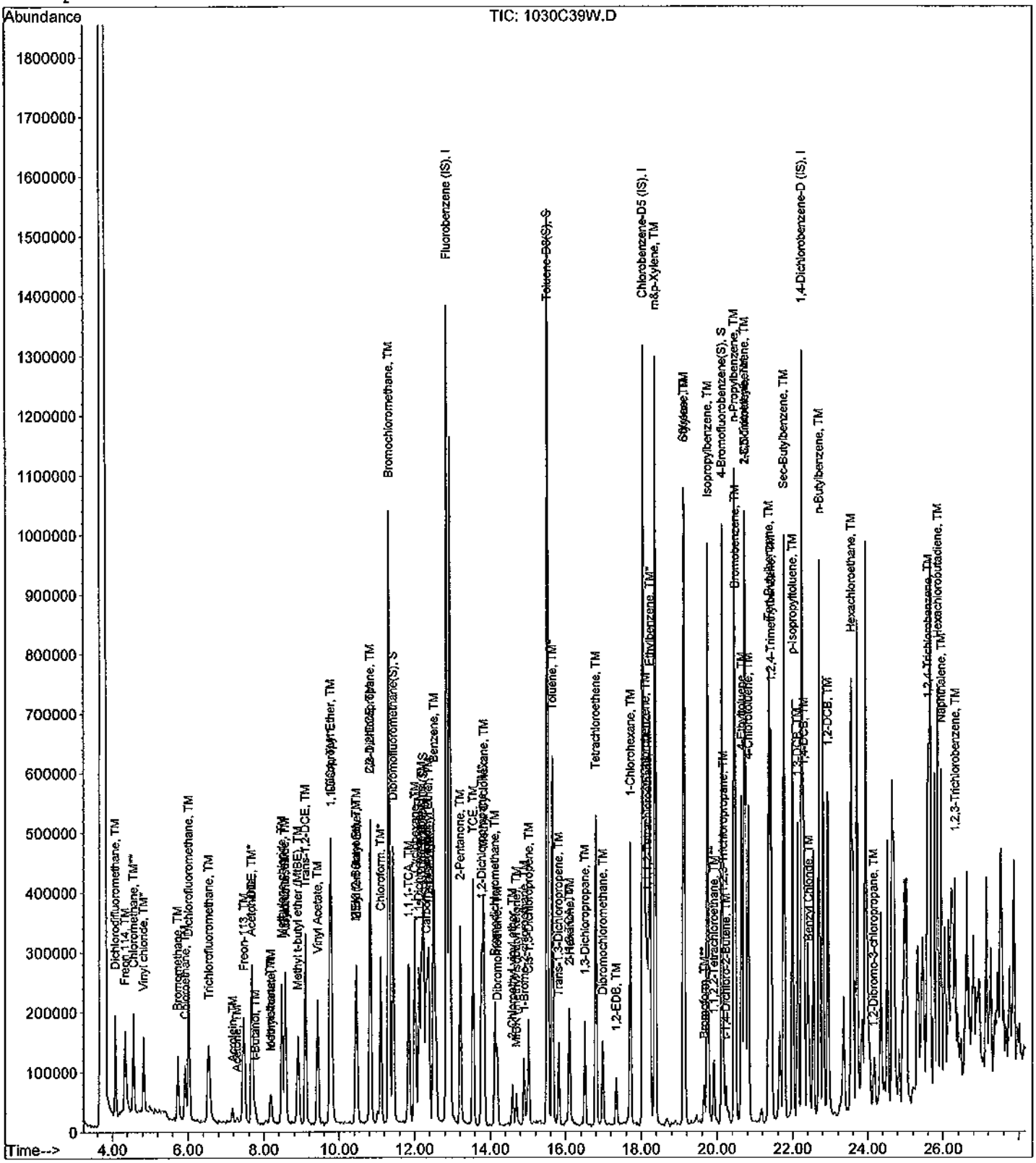
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C39W.D Vial: 1
Acq On : 31 Oct 11 16:08 Operator: STC
Sample : AY49334W141516 MS-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C40W.D Vial: 1
Acq On : 31 Oct 11 16:45 Operator: STC
Sample : AY49334W141516 MSD-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	673885	25.00000	ppb		0.02
55) Chlorobenzene-D5 (IS)	18.05	117	449984	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.26	152	240256	25.00000	ppb		0.02
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	449233	25.02504	ppb		0.00
Spiked Amount 25.097			Recovery = 99.712%				
38) 1,2-DCA-D4(S)	12.23	65	356030	22.27998	ppb		0.00
Spiked Amount 24.225			Recovery = 91.970%				
56) Toluene-D8(S)	15.51	98	1704225	26.91667	ppb		0.02
Spiked Amount 25.808			Recovery = 104.296%				
64) 4-Bromofluorobenzene(S)	20.13	95	605686	26.69841	ppb		0.02
Spiked Amount 25.459			Recovery = 104.865%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.08	85	220598	8.88503	ppb		94
3) Freon 114	4.34	85	150416	9.67318	ppb		95
4) Chloromethane	4.56	50	277770	9.02816	ppb		93
5) Vinyl chloride	4.82	62	201338	9.78330	ppb		96
7) Bromomethane	5.74	94	147121	9.84814	ppb		97
8) Chloroethane	5.93	64	157372	9.25766	ppb		99
9) Dichlorofluoromethane	6.01	67	450238	9.57936	ppb		98
10) Trichlorofluoromethane	6.54	101	257325	9.22585	ppb		95
11) Acetonitrile	7.66	41	109689	148.58438	ug/l		100
12) Acrolein	7.18	56	40703	120.48812	ppb		94
13) Acetone	7.29	43	26277	13.60978	ppb	#	76
14) Freon-113	7.48	101	164332	10.07108	ppb		98
15) 1,1-DCE	7.70	96	182764	9.49964	ppb		92
16) t-Butanol	7.78	59	14747	161.42360	ppb		98
17) Methyl Acetate	8.20	43	62200	10.74239	ppb		99
18) Iodomethane	8.18	142	105131	10.12939	ppb		89
19) Acrylonitrile	8.58	53	23406	11.11230	ppb		88
20) Methylene chloride	8.48	84	180541	9.83857	ppb		95
21) Carbon disulfide	8.58	76	183104	9.79517	ppb		100
22) Methyl t-butyl ether (MtBE	8.92	73	297031	10.21448	ppb		94
23) Trans-1,2-DCE	9.11	96	211447	9.47397	ppb		98
24) Diisopropyl Ether	9.77	45	672476	10.46053	ppb		91
25) 1,1-DCA	9.80	63	378977	9.94033	ppb		97
26) Vinyl Acetate	9.44	43	132519	11.29670	ppb		98
27) Ethyl tert Butyl Ether	10.45	59	467350	10.64834	ppb		99
28) MEK (2-Butanone)	10.44	43	78228	10.22050	ppb		95
29) Cis-1,2-DCE	10.82	96	219402	9.56592	ppb		95
30) 2,2-Dichloropropane	10.82	77	284485	10.41678	ppb		99
31) Chloroform	11.10	83	353899	9.64906	ppb		100
32) Bromochloromethane	11.33	128	69588	10.89810	ppb		79
34) 1,1,1-TCA	11.85	97	317360	9.51469	ppb		95
35) Cyclohexane	12.01	56	307089	9.88838	ppb		94
36) 1,1-Dichloropropene	12.12	75	277564	9.71173	ppb		94
37) 2,2,4-Trimethylpentane	12.20	57	511508	10.53601	ppb		91
39) Carbon Tetrachloride	12.31	117	228003	9.92706	ppb		94
40) Tert Amyl Methyl Ether	12.36	73	345658	10.53283	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C40W.D Vial: 1
Acq On : 31 Oct 11 16:45 Operator: STC
Sample : AY49334W141516 MSD-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) 1,2-DCA	12.39	62	178492	9.48087	ppb		94
42) Benzene	12.52	78	833883	10.15534	ppb		99
43) TCE	13.55	95	213329	9.38068	ppb		92
44) 2-Pentanone	13.21	43	670030	140.85032	ppb		94
45) 1,2-Dichloropropane	13.77	63	195266	10.46224	ppb		95
46) Bromodichloromethane	14.13	83	219583	10.29810	ppb		94
47) Methyl Cyclohexane	13.83	83	263113	9.90060	ppb		97
48) Dibromomethane	14.19	93	77194	10.34184	ppb		90
49) 2-Chloroethyl vinyl ether	14.59	63	43646	9.19868	ppb	#	93
50) 1-Bromo-2-chloroethane	14.89	63	166408	10.44937	ppb		90
51) Cis-1,3-Dichloropropene	15.02	75	211155	10.38513	ppb		96
52) Toluene	15.65	91	840102	10.37302	ppb		98
53) Trans-1,3-Dichloropropene	15.81	75	154386	10.54700	ppb		98
54) 1,1,2-TCA	16.09	83	83579	10.59385	ppb	#	88
57) 1,2-EDB	17.34	107	92512	10.80216	ppb		95
58) Tetrachloroethene	16.80	164	239347	10.34582	ppb		93
59) 1-Chlorohexane	17.72	91	280271	10.52032	ppb		94
60) 1,1,1,2-Tetrachloroethane	18.17	131	161501	11.15075	ppb		87
61) m&p-Xylene	18.37	106	683414	19.99636	ppb		98
62) o-Xylene	19.11	106	353111	10.74283	ppb		99
63) Styrene	19.13	104	527765	10.63776	ppb		99
65) 2-Hexanone	16.12	43	51343	12.46954	ppb		89
66) 1,3-Dichloropropane	16.51	76	177186	10.49183	ppb		100
67) Dibromochloromethane	16.98	129	125506	11.38395	ppb		93
68) Chlorobenzene	18.12	112	491969	10.06246	ppb		98
69) Ethylbenzene	18.23	91	936335	10.28458	ppb		100
70) Bromoform	19.64	173	56899	10.07037	ppb		90
72) MIBK (methyl isobutyl keto	14.69	43	75276	11.02130	ppb	#	77
73) Isopropylbenzene	19.75	105	1237307	14.20931	ppb		99
74) 1,1,2,2-Tetrachloroethane	19.91	83	91721	12.58313	ppb	#	89
75) 1,2,3-Trichloropropane	20.17	110	9365	11.44279	ppb	#	75
76) t-1,4-Dichloro-2-Butene	20.23	53	22200	13.43173	ppb		93
77) Bromobenzene	20.49	156	206516	10.28163	ppb		100
78) n-Propylbenzene	20.46	91	1530297	14.73145	ppb		98
79) 4-Ethyltoluene	20.65	105	706238	9.82436	ppb		95
80) 2-Chlorotoluene	20.75	91	653382	9.49701	ppb		97
81) 1,3,5-Trimethylbenzene	20.73	105	702310	9.93046	ppb		99
82) 4-Chlorotoluene	20.82	91	605738	10.22479	ppb		99
83) Tert-Butylbenzene	21.38	119	820988	10.72234	ppb		97
84) 1,2,4-Trimethylbenzene	21.43	105	691895	9.36719	ppb		99
85) Sec-Butylbenzene	21.77	105	1352492	14.72924	ppb		98
86) p-Isopropyltoluene	22.00	119	794796	10.10548	ppb		99
87) Benzyl Chloride	22.44	91	198774	19.03890	ppb		98
88) 1,3-DCB	22.14	146	415514	10.11563	ppb		95
89) 1,4-DCB	22.30	146	389740	10.22276	ppb		98
90) Hexachloroethane	23.56	117	551389	38.51564	ppb	#	12
91) n-Butylbenzene	22.71	91	850928	12.40428	ppb		97
92) 1,2-DCB	22.93	146	334523	10.23853	ppb		97
93) 1,2-Dibromo-3-chloropropan	24.14	155	14637	12.23153	ppb		89
94) 1,2,4-Trichlorobenzene	25.59	180	240070	10.13986	ppb		96
95) Hexachlorobutadiene	25.85	223	42056	9.77711	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C40W.D Vial: 1
Acq On : 31 Oct 11 16:45 Operator: STC
Sample : AY49334W141516 MSD-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	Naphthalene	25.94	128	619605	21.21064	ppb	99
97)	1,2,3-Trichlorobenzene	26.31	180	193601	10.81039	ppb	92

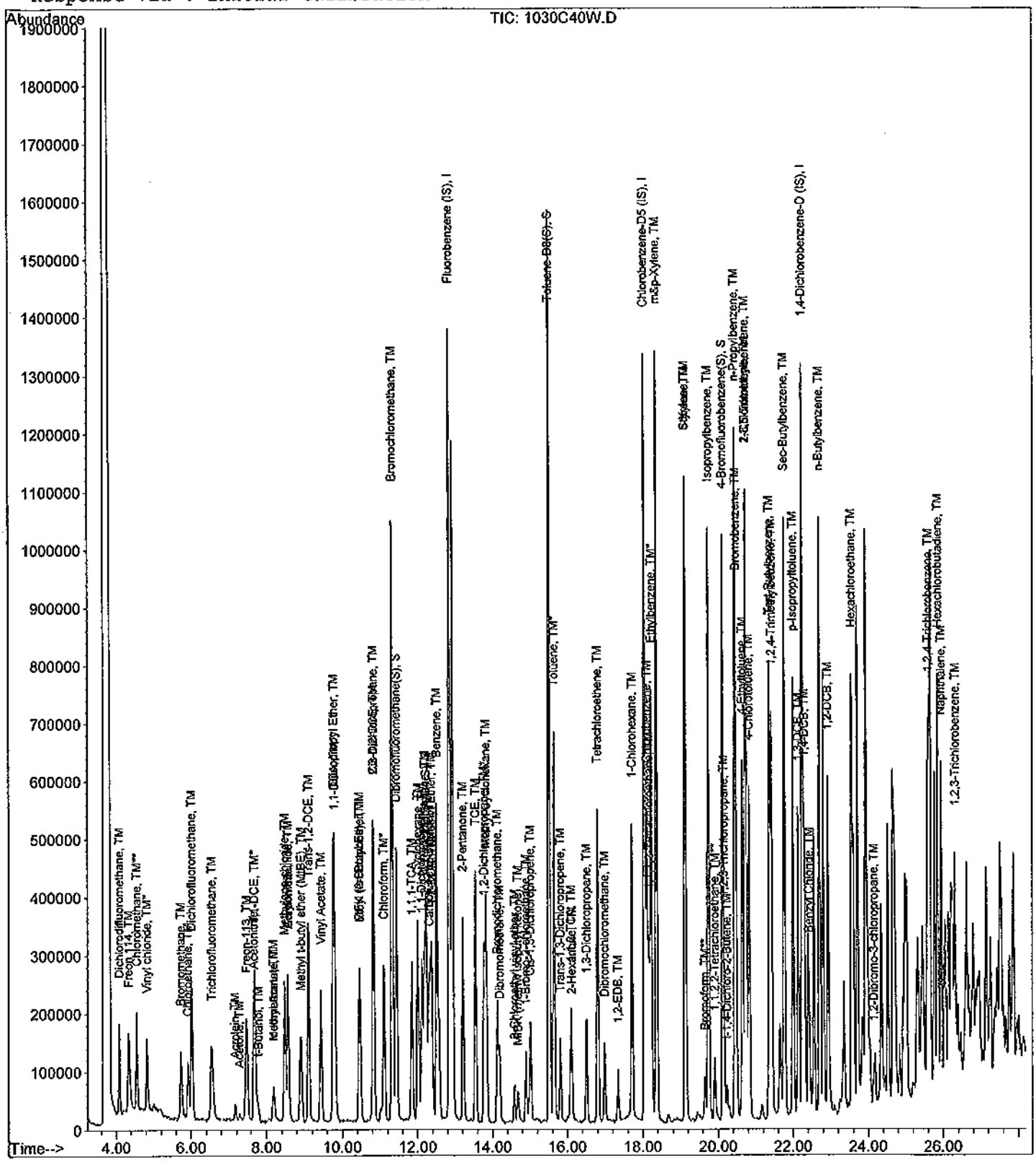
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C40W.D Vial: 1
Acq On : 31 Oct 11 16:45 Operator: STC
Sample : AY49334W141516 MSD-1WC (VOC) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C41W.D Vial: 1
Acq On : 31 Oct 11 17:22 Operator: STC
Sample : AY49334W161718 MS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:25 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1408321	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1375208	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1432024	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	59067164m	373.93954	ppb	100

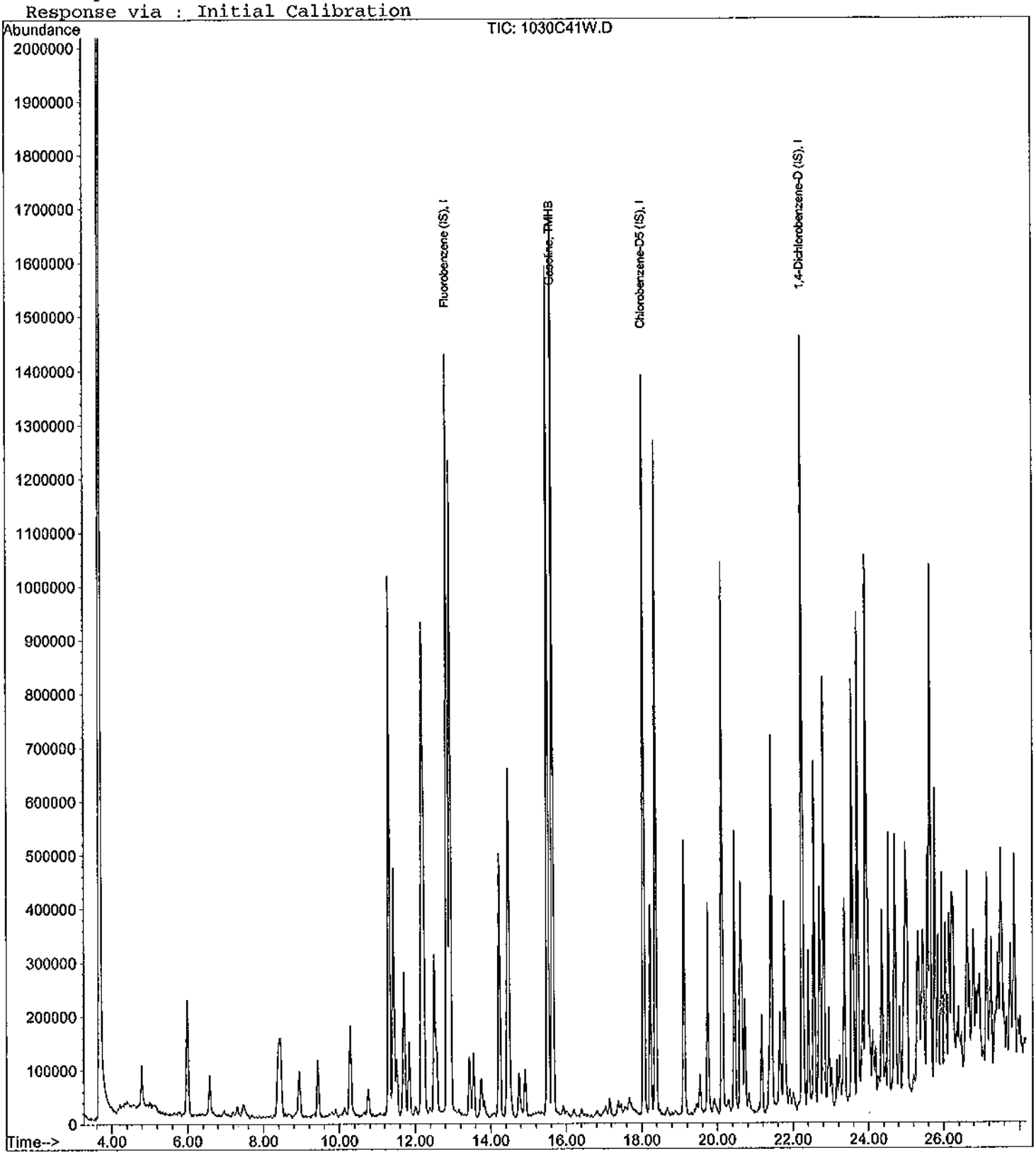
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C41W.D Vial: 1
Acq On : 31 Oct 11 17:22 Operator: STC
Sample : AY49334W161718 MS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:25 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C42W.D Vial: 1
Acq On : 31 Oct 11 17:59 Operator: STC
Sample : AY49334W161718 MSD-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:23 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1418194	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1424242	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1438638	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	59788348m	376.70985	ppb	100

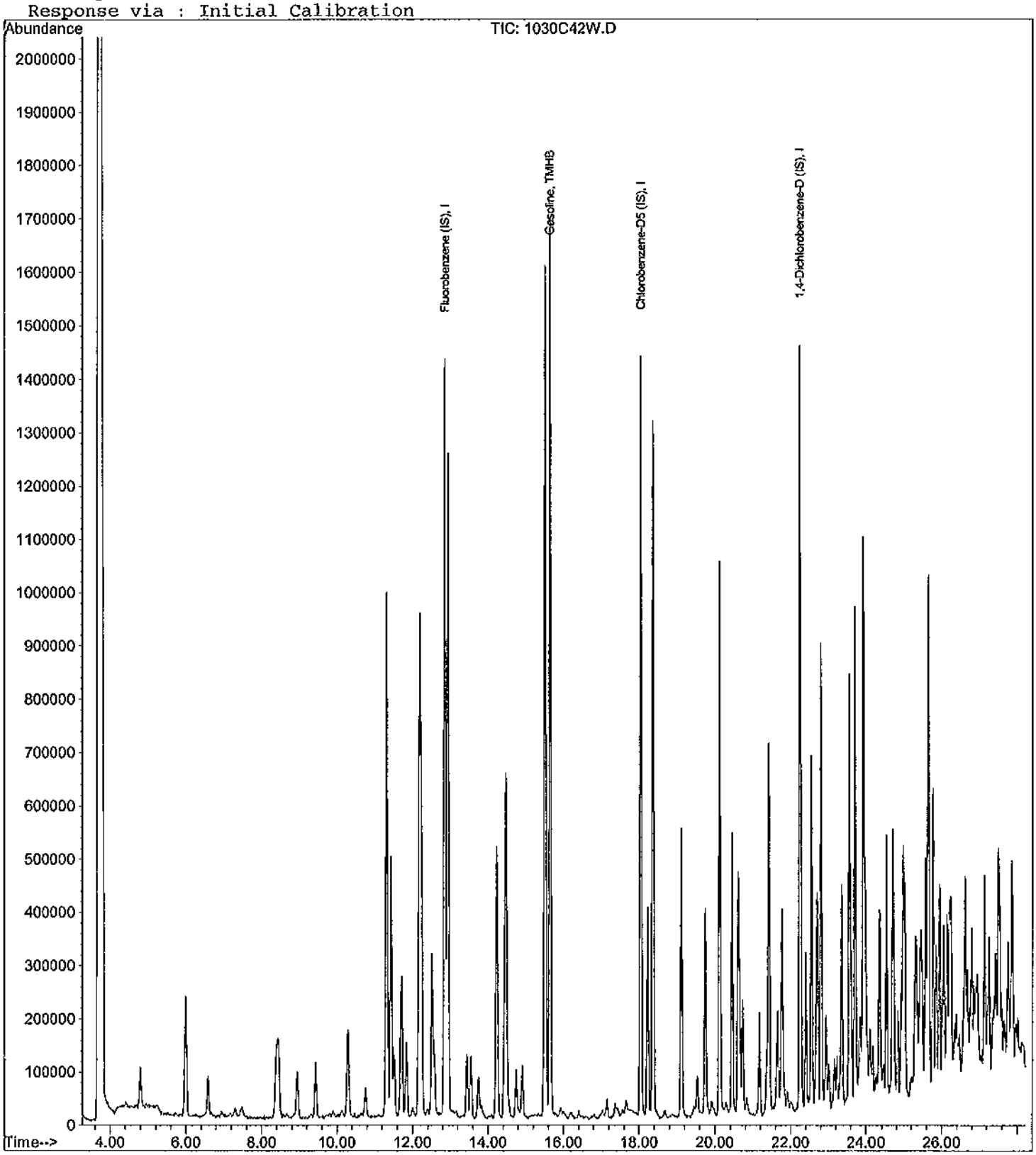
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C42W.D Vial: 1
Acq On : 31 Oct 11 17:59 Operator: STC
Sample : AY49334W161718 MSD-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:23 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

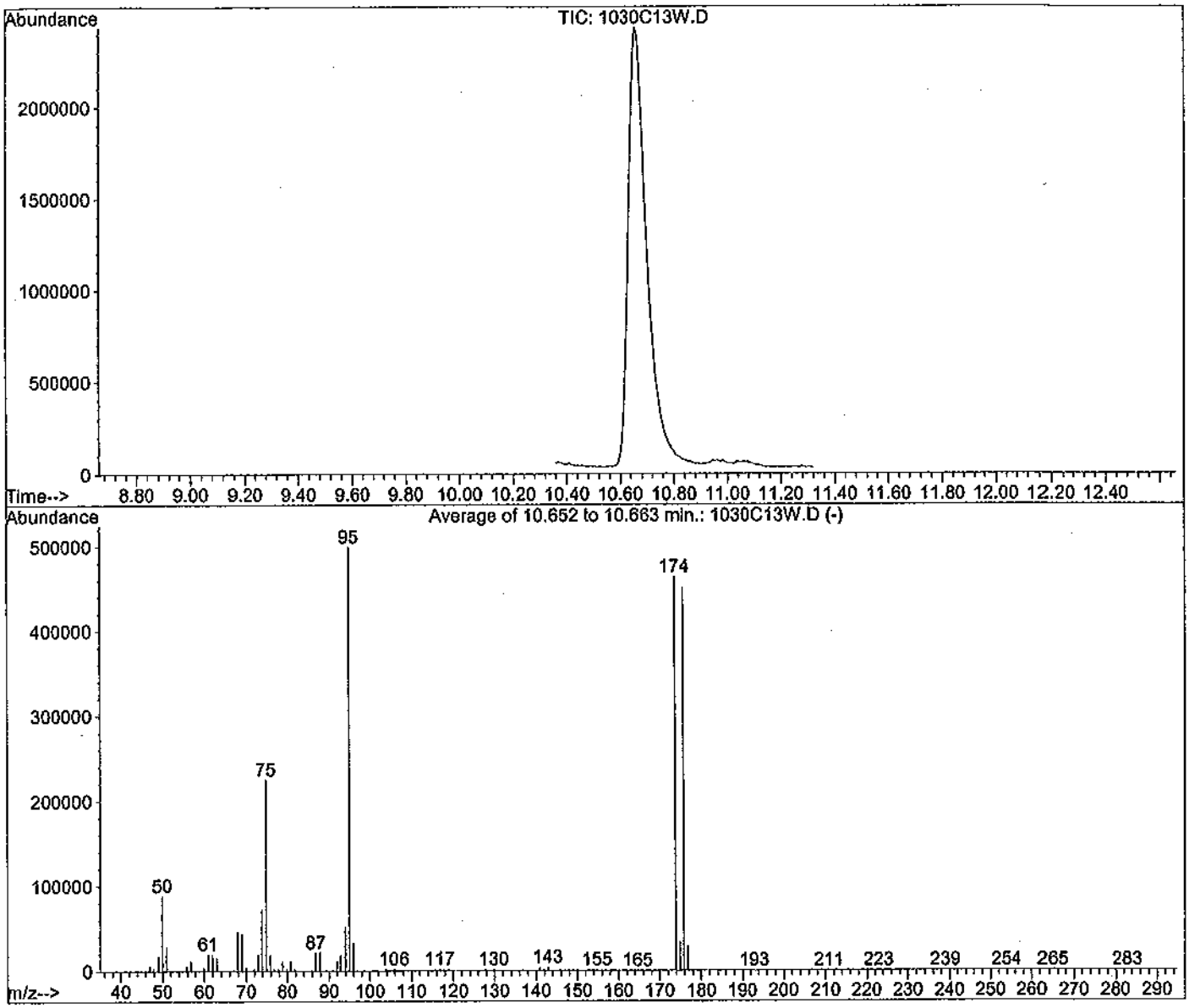


BFB

Data File : M:\CHICO\DATA\C111030\1030C13W.D
Acq On : 30 Oct 11 22:01
Sample : 20ug/ml BFB Std 10-19-11
Misc : Water 2uL

Vial: 1
Operator: RS
Inst : Chico
Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260



AutoFind: Scans 52, 53, 54; Background Corrected with Scan 36

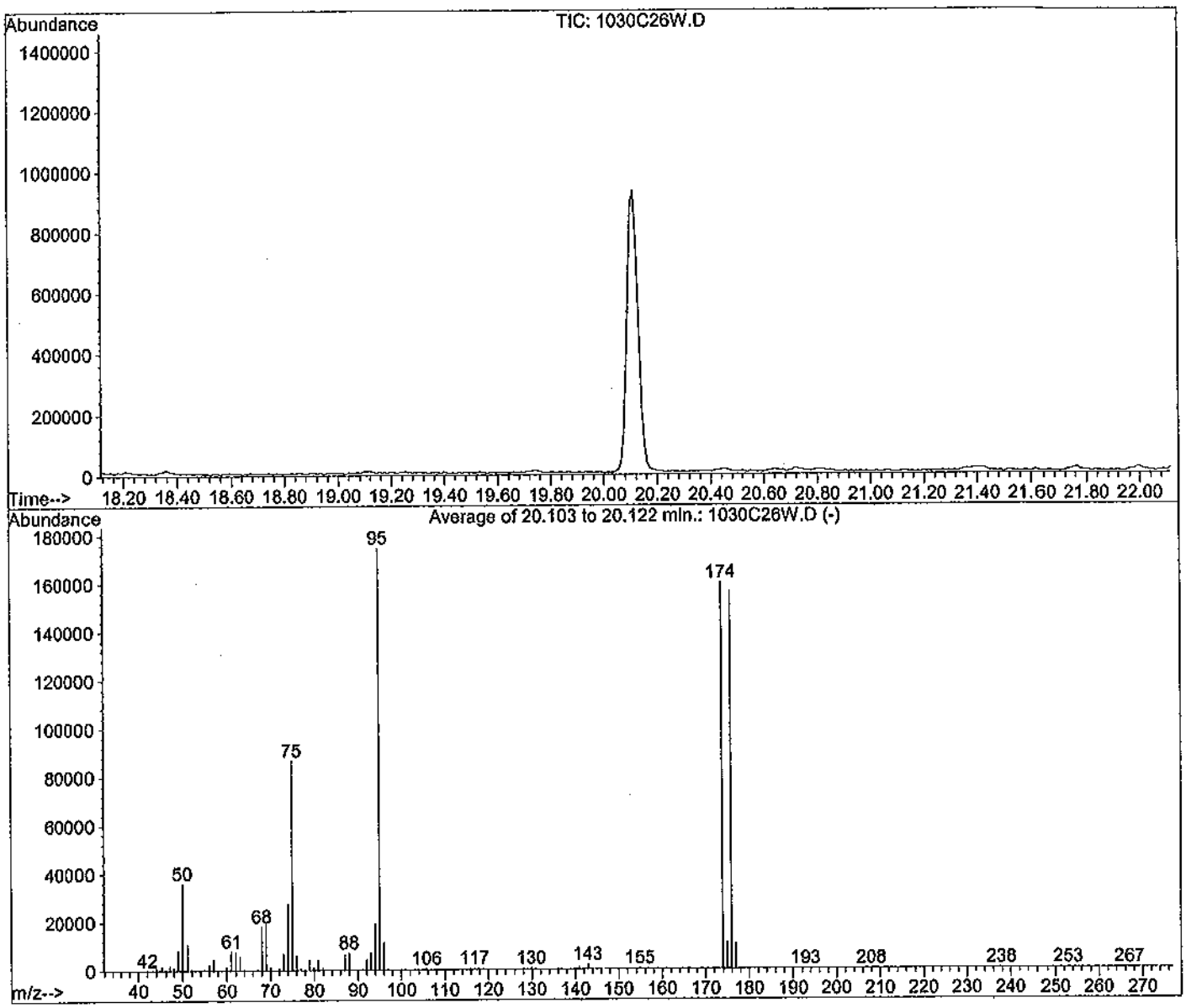
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	88217	PASS
75	95	30	60	45.1	224883	PASS
95	95	100	100	100.0	499051	PASS
96	95	5	9	6.5	32634	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	92.8	463189	PASS
175	174	5	9	7.2	33219	PASS
176	174	95	101	97.1	449771	PASS
177	176	5	9	6.4	28567	PASS

1030C13W.D CALLW.M Tue Dec 06 16:03:25 2011

Data File : M:\CHICO\DATA\C111030\1030C26W.D
Acq On : 31 Oct 11 7:21
Sample : 20ug/mL BFB STD 10-19-11
Misc : Water 2ul

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260



Spectrum Information: Average of 20.103 to 20.122 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	35941	PASS
75	95	30	60	49.7	86725	PASS
95	95	100	100	100.0	174635	PASS
96	95	5	9	6.6	11458	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	91.6	159913	PASS
175	174	5	9	6.9	11031	PASS
176	174	95	101	97.7	156203	PASS
177	176	5	9	6.7	10398	PASS

8-15-11
RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

	Expiration Date:		08/16/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc.	08-10-11R	08-10-11V	08-10-11N	08-10-11P	08-10-11U	08-10-11S	08-10-11Q	08-10-11Q	08-10-11T
Code	µg/L	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11
08-15-11A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
08-15-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
08-15-11C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
08-15-11D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
08-15-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
08-15-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
08-15-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
08-10-11W	w/P&T H2O
Exp:08-17-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

8-16-11
RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

	Expiration Date:		08/17/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Date	Conc.	08-10-11R	08-10-11V	08-10-11N	08-10-11P	08-10-11U	08-10-11S	08-10-11Q	08-10-11Q	08-10-11T
Code	µg/L	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11
08-16-11A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
08-16-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
08-16-11C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
08-16-11D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
08-16-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
08-16-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
08-16-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250µg/mL TBA	Final Vol
08-10-11W	w/P&T H2O
Exp:08-17-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

8-19-11
A -
RS

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

120016-03

Lot #	Storage	Expiry
170302	≤-10 Degrees C	3/11/14

Solvt: P/T Methanol

Method 8260 Gases
Lot #: 170302 - 28666
Rec: 4/20/11 MFR exp. 03/11/14

8-19-11
B -
RS

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml

120002-01

Lot #	Storage	Expiry
164585	-10 Degrees C	10/12/13

Solvt: P/T Methanol

Method 8260B Surrogate
Lot #: 164585 - 28720
Rec: 4/20/11 MFR exp. 10/12/13

8-19-11
C -
RS

VOC Mix 4-3, 2,000 mg/L, 1 ml

120166-01

Lot #	Storage	Expiry
171714	≤-6 Degrees C	4/11/13

Solvt: P/T Methanol

VOC Mix 4-3, 2000mg/L
Lot #: 171714 - 29243
Rec: 8/5/11 MFR exp. 04/11/13

GC/MS STANDARD PREPARATION BOOK # 58 PAGE # 4

		08-17-11V	Exp:	08/24/11			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		08-17-11R	09/02/11	200	
		50ug/ml Vol Work Std #8		08-17-11T	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1600	
		08-17-11W	Exp:	08/24/11			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		08-17-11S	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1800	
		08-17-11X	Exp:	08/24/11			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		08-17-11U	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1800	
08-17-11Y							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:08/24/11			ug/ml	Lot #	Code	Date	ul
02SI	120002-01	8260B Surr Solution	2000	164585-28720	08-17-11B	09/14/11	100
J&T Brand		Purge & Trap MeOH		K07E34-00543	08/12/12	10/14/11	1900
08-17-11Z			Exp:	08/24/11			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		08-17-11Y	09/02/11	200	
J&T Brand		Purge & Trap MeOH		08/05/12	06/08/12	1800	
08-17-11AA							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:08/24/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120166-01	Volatile Mix 4-3	2000	171714-29243	08-17-11C	12/17/11	500
02SI	020229-09	Acrolein	10000	175935-29032	08-04-11J	08/22/11	100
J&T Brand		Purge & Trap MeOH		K07E14-00543	08/12/12	10/14/11	1400

8-17-11 RS

8-17-11 RS

8-17-11 RS

8-17-11 RS

CHICO							
08-17-11AB							
250ug/ml 8260 Internal Standard - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120302-03	Internal Standard Mix	2000	166255-27947	08-09-11A	10/23/11	500
02SI	020132-02	Fluorobenzene Standard	2000	169170-28263	08-09-11B	10/23/11	500
J&T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	11/14/12	5000
08-17-11AC							
250ug/ml 8260 Surrogate - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120002-01	Surrogate Standard	2000	164585-28727	08-09-11C	10/23/11	500
J&T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	11/14/12	5000

8-17-11 RS

8-18-11 RS

08-17-11AD							
50ug/ml 8260B Surrogate- Nsc			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	8260B Surr	Surrogate Standards	2000	164585-28720	08-17-11B	12/13/11	500
J.T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	10/10/11	19500

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR

	Expiration Date:		09/22/11								
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #6	5ug/mL Vol Std #12	250ug/mL TAPD
Date	Conc.	09-19-11I	09-19-11M	09-19-11O	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11G	09-19-11K
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11
09-21-11B	0.3	3	6	n/a	n/a	n/a	n/a	n/a	n/a	3
09-21-11C	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
09-21-11D	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
09-21-11E	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
09-21-11F	5	n/a	n/a	5	5	10	n/a	5	5	n/a
09-21-11G	10	n/a	n/a	10	10	25	n/a	10	10	n/a
09-21-11H	20	n/a	n/a	20	20	40	n/a	20	20	n/a
09-21-11I	40	n/a	n/a	40	40	80	n/a	40	40	n/a
09-21-11J	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

250ug/mL TAPD 09-19-11K Exp:09-26-11	Final Vol w/P&T H2O mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Volatile Standard Curve Preparation for 10mL Purge (524 water)-NEO

	Expiration Date:		09/22/11				
		5ug/mL Vol Std #9	50ug/mL Vol Std #7	50ug/mL Vol Std #8	250ug/mL TAPD	Final Vol
Date	Conc.	09-19-11I	09-19-11O	09-19-11F	09-19-11N	w/P&T H2O
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	mL
09-21-11K	0.2	2	n/a	n/a	2	50
09-21-11L	0.5	5	n/a	n/a	5	50
09-21-11M	1	10	n/a	n/a	10	50
09-21-11N	2	20	n/a	n/a	15	50
09-21-11O	5	n/a	5	5	20	50
09-21-11P	10	n/a	10	10	25	50
09-21-11Q	40	n/a	40	40	35	50
09-21-11R	100	n/a	100	100	40	50

AY44799W01

26

VOLATILES 38083 - 062910

65441
AY44799 W01
VOA_Frig

Part #: 38083 — Laboratory Use Only - See MSDS
Lot #: 062910 — Exp: 062913 — Storage 0 °C
CWA Volatiles in Non-Potable Water
Varied in methanol — 2 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

Sweetpea

09-23-11A

250ug/ml 8260 Internal Standard - Sweetpea			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120302-03	Internal Standard Mix	2000	166255-28349	09-14-11A	10/10/11	500
	020132-02	Fluorobenzene Standard	2000	169170-28739	09-14-11B	10/10/11	500
J.T.Baker		Purge & Trap MeOH		K07E34-00547	09/12/11	10/14/12	3000

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml
120302-03
Lot # 166255 — Storage ≤ 10 Degrees C — Expiry 10/10/11
Solv: P/T Methanol
Made in the USA

Method 8260 Internal Standard
Lot #: 166255 - 28350
Rec: 2/17/11 MFR exp. 11/18/12

Fluorobenzene Solution, 2,000 mg/L, 1 ml
020132-02
Lot # 169170 — Storage ≤ 6 Degrees C — Expiry 2/13/14
Solv: P/T Methanol
Made in the USA

Fluorobenzene
Lot #: 169170 - 28738
Rec: 4/20/11 MFR exp. 02/13/14

CHICO					
09-23-11D					
250ug/ml 8260 Internal Standard - Chico			Conc.		Date
Supplier	ID #		ug/ml	Lot #	Code
02SI	120302-03	Internal Standard Mix	2000	166255-28350	09-23-11B
02SI	020132-02	Fluorobenzene Standard	2000	169170-28738	09-23-11C
J&T Baker		Purge & Trap MeOH		K07B34-00547	09/12/11

9.23.11 RS.

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-SWEETPEA

	Expiration Date:		09/24/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2
Date	Conc.	09-19-11I	09-19-11M	09-19-11D	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11G
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11
09-23-11E	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a
09-23-11F	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a
09-23-11G	1	10	20	n/a	n/a	n/a	10	n/a	n/a
09-23-11H	2	20	40	n/a	n/a	n/a	20	n/a	n/a
09-23-11I	5	n/a	n/a	5	5	10	n/a	5	5
09-23-11J	10	n/a	n/a	10	10	25	n/a	10	10
09-23-11K	20	n/a	n/a	20	20	40	n/a	20	20
09-23-11L	40	n/a	n/a	40	40	80	n/a	40	40
09-23-11M	100	n/a	n/a	100	100	n/a	n/a	100	100

9.23.11 RS.

9.24.11 RS.

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO

	Expiration Date:		09/24/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2
Date	Conc.	09-19-11I	09-19-11M	09-19-11D	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11G
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11
09-23-11N	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a
09-23-11O	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a
09-23-11P	1	10	20	n/a	n/a	n/a	10	n/a	n/a
09-23-11Q	2	20	40	n/a	n/a	n/a	20	n/a	n/a
09-23-11R	5	n/a	n/a	5	5	10	n/a	5	5
09-23-11S	10	n/a	n/a	10	10	25	n/a	10	10
09-23-11T	20	n/a	n/a	20	20	40	n/a	20	20
09-23-11U	40	n/a	n/a	40	40	80	n/a	40	40
09-23-11V	100	n/a	n/a	100	100	n/a	n/a	100	100

9.23.11 RS.

9.24.11 RS.

9.24.11 A- RS.

Method 8260 Gases, 2,000 mg/L, 2 X 0.5 ml

120016-05

Lot #	Storage	Expiry
170302	≤-10 Degrees C	3/11/14

Solvt P/T Methanol

Method 8260 Gases

Lot #: 170302 - 28677

Rec: 4/20/11 MFR exp. 03/11/14

RS.

9.24.11 B- RS.

n-Hexane Solution, 1,000 mg/L, 1 ml

020610-02

Lot #	Storage	Expiry
163378	≤-10 Degrees	8/29/15

Solvt P/T Methanol

n-Hexane Solution

Lot #: 163378 - 29230

Rec: 8/5/11 MFR exp. 08/29/15

RS.

9.24.11 RS.

9.24.11 RS.

068

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____

Volatile Standard Curve Preparation for 10mL Purge (5250 water)-CHICO

	Expiration Date:		09/30/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #12	250µg/mL TAPD
Date	Conc.	09-29-11D	09-29-11N	09-29-11F	09-29-11C	09-29-11M	09-29-11K	09-29-11G	09-29-11I	09-29-11O
Code	µg/L	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11
09-29-11N	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
09-29-11O	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
09-29-11P	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
09-29-11Q	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
09-29-11R	5	n/a	n/a	5	5	10	n/a	5	5	5
09-29-11S	10	n/a	n/a	10	10	25	n/a	10	10	10
09-29-11T	20	n/a	n/a	20	20	40	n/a	20	20	20
09-29-11U	40	n/a	n/a	40	40	60	n/a	40	40	40
09-29-11V	100	n/a	n/a	100	100	n/a	100	n/a	100	100

9-29-11 RS.

10-02-11 RS

10-02-11 RS

10-02-11 RS

10-02-11 RS

10-02-11 RS

4-Bromofluorobenzene
Solution, 2,000 mg/L, 1 ml
Lot # 020135-03
Expiry
4-Bromofluorobenzene
Lot #: 176675-29375
Rec: 8/9/11 MFR exp. 08/02/14

9-30-11 A- RS.

9-30-11 RS.

09-30-11A							
20ug/ml BFB STD			Conc.		Date	EXP:	
EXP: 10-30-11			ug/ml	Lot#	CODE	Date:	
O2SI	020135-03	4-Bromofluorobenzene	2500	176675-29375	10-01-11A	12/11/14	
J&T Baker		Purge & Trap MeOH		K14E06-00551	10/01/11	09/29/12	

Volatile Standard Curve Preparation for 10mL Purge (524 water)-NEO

	Expiration Date:		10/02/11				
		5µg/mL Vol Std #9	50µg/mL Vol Std #7	50µg/mL Vol Std #8	250µg/mL TAPD	Final Vol
Date	Conc.	09-29-11D	09-29-11F	09-29-11C	09-29-11O	wP&T H2O
Code	µg/L	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	mL
10-01-11A	0.2	2	n/a	n/a	2	50
10-01-11B	0.5	5	n/a	n/a	5	50
10-01-11C	1	10	n/a	n/a	10	50
10-01-11D	2	20	n/a	n/a	15	50
10-01-11E	5	n/a	5	5	20	50
10-01-11F	10	n/a	10	10	25	50
10-01-11G	40	n/a	40	40	35	50
10-01-11H	100	n/a	100	100	40	50

10-01-11 RS.

10-02-11 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

Expiration Date: 10/28/2011

Date	Conc.	5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	5µg/mL Vol Std #12
Code	µg/L	10-26-11J Exp:11-01-11	10-26-11N Exp:11-01-11	10-26-11F Exp:11-01-11	10-26-11H Exp:11-01-11	10-26-11M Exp:11-01-11	10-26-11K Exp:11-01-11	10-26-11G Exp:11-01-11	10-26-11I Exp:11-01-11	10-26-11L Exp:11-01-11
10-27-11J	0.5	3	6	n/a	n/a	n/a	3	n/a	n/a	3
10-27-11K	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
10-27-11L	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
10-27-11M	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
10-27-11N	5	n/a	n/a	5	5	10	n/a	5	5	n/a
10-27-11O	10	n/a	n/a	10	10	25	n/a	10	10	n/a
10-27-11P	20	n/a	n/a	20	20	40	n/a	20	20	n/a
10-27-11Q	40	n/a	n/a	40	40	80	n/a	40	40	n/a
10-27-11R	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

10-27-11
RS

250µg/mL TAPD 10-26-11O Exp:11-01-11	Final Vol w/P&T H2O mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-NEO

Expiration Date: 10/28/2011

Date	Conc.	5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Code	µg/L	10-26-11J Exp:11-01-11	10-26-11N Exp:11-01-11	10-26-11F Exp:11-01-11	10-26-11H Exp:11-01-11	10-26-11M Exp:11-01-11	10-26-11K Exp:11-01-11	10-26-11G Exp:11-01-11	10-26-11I Exp:11-01-11	10-26-11L Exp:11-01-11
10-27-11S	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
10-27-11T	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
10-27-11U	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
10-27-11V	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
10-27-11W	50	n/a	n/a	5	5	5	n/a	5	n/a	5
10-27-11X	100	n/a	n/a	10	10	10	n/a	10	n/a	10
10-27-11Y	200	n/a	n/a	20	20	20	n/a	20	n/a	20

10-27-11
RS

250µg/mL TBA 10-26-11O Exp:11-01-11	Final Vol w/P&T H2O mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

Expiration Date: 10/28/2011

Date	Conc.	5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	5µg/mL Vol Std #2	50µg/mL Vol Std #12
Code	µg/L	10-26-11J Exp:11-01-11	10-26-11N Exp:11-01-11	10-26-11F Exp:11-01-11	10-26-11H Exp:11-01-11	10-26-11M Exp:11-01-11	10-26-11K Exp:11-01-11	10-26-11G Exp:11-01-11	10-26-11I Exp:11-01-11	10-26-11L Exp:11-01-11
10-27-11Z	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
10-27-11AA	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
10-27-11AB	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
10-27-11AC	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
10-27-11AD	50	n/a	n/a	5	5	5	n/a	5	n/a	5
10-27-11AE	100	n/a	n/a	10	10	10	n/a	10	n/a	10
10-27-11AF	200	n/a	n/a	20	20	20	n/a	20	n/a	20

6/27/11
RS.

250µg/mL TBA 10-26-11O Exp:11-01-11	Final Vol w/P&T H2O mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

I20016-03

Lot #	Storage	Expiry
169238	≤ -10 Degrees C	2/19/14

Solv: P/T Methanol

Method 8260 Gases

Lot #: 169238 - 28682

Rec: 4/20/11 MFR exp. 02/19/14

10-28-11 A-
RS.

RS.

10-28-11 RS

B -

Hexachloroethane Solution, 1000 mg/L, 1 ml

020049-02

Lot #	Storage	Expiry
164816	≤ -10 Degrees C	10/14/12

Solv: P/T Methanol

Hexachloroethane

Lot #: 164816 - 28687

Rec: 4/20/11 MFR exp. 10/14/12

RS

10-28-11 RS.

B

10-28-11 RS

C -

Benzyl Chloride Solution, 1000 mg/L, 1 ml

020228-02

Lot #	Storage	Expiry
163373	≤ -10 Degrees	8/29/11

Solv: P/T Methanol

Benzyl Chloride

Lot #: 163373 - 29166

Rec: 8/5/11 MFR exp. 08/29/12

RS

10-28-11 RS.

C

10-28-11 RS

D -

Volatile Mix, 20-29, 2,000 mg/L, 1 ml

121039-02

Lot #	Storage	Expiry
163374	≤ -10 Degrees	8/29/12

Solv: P/T Methanol

Volatile Mix, 20-29

Lot #: 163374 - 28300

Rec: 2/17/11 MFR exp. 08/29/12

RS

10-28-11 RS.

D

10-28-11 RS

E -

Method 8260 VOC Liquids, 54 Compounds, 2,000 mg/L, 1 ml

120023-03

Lot #	Storage	Expiry
164454	≤ -10 Degrees C	10/4/12

Solv: P/T Methanol

8260 VOC Liquids, 54 Comp.

Lot #: 164454 - 27872

Rec: 12/15/10 MFR exp. 10/04/12

RS

10-28-11 RS.

E

10-28-11 RS

F -

Vinyl Acetate Solution, 2,000 mg/L, 1ml

Lot #	Storage	Expiry
178902	≤ -10 Degrees C	12/15/11

Solv: P/T Methanol

Vinyl Acetate

Lot #: 178902 - 29552

Rec: 9/22/11 MFR exp. 12/15/11

RS

10-28-11 G -
RS.

Heptane Solution, 1000 mg/L, 1 ml
R&D only, not human consump. Made in the USA
820546-82
Lot # 169174 | Storage ≤-10 Degrees C | Expiry 2/18/14
Solv: P/T Methanol

RS

Heptane Solution
Lot #: 169174 - 29248
Rec: 8/5/11 MFR exp. 02/18/14

10-28-11 H -
RS.

8260B Surrogate Solution, 2,000 mg/L, 5 x 1 ml
R&D only, not human consump. Made in the USA
120002-01-5PAK
Lot # 173249 | Storage ≤-10 Degrees C | Expiry 5/17/13
Solv: P/T Methanol

RS.

8260B Surrogate Solution
Lot #: 173249 - 28847
Rec: 5/25/11 MFR exp. 05/17/13

10-28-11 I -
RS.

VOC Mix 4-3, 2,000 mg/L, 1 ml
Made in the USA
120166-01
Lot # 178651 | Storage ≤-10 Degrees C | Expiry 9/11/13
Solv: P/T Methanol

RS.

VOC Mix 4-3, 2000mg/L
Lot #: 178651 - 29510
Rec: 9/20/11 MFR exp. 09/11/13

10-28-11 J -
RS.

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml
R&D only, not human consump. Made in the USA
120016-03-SS
Lot # 168038 | Storage ≤-10 Degrees C | Expiry 1/21/14
Solv: P/T Methanol

RS.

8260 Gases (SS)
Lot #: 168038 - 28743
Rec: 4/20/11 MFR exp. 01/21/14

10-28-11K							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-01	Gas Mix	2000	169238-28582	10-28-11A	11/30/2011	100
02SI	020049-02	HEXACHLOROETHANE	1000	164816-28687	10-28-11B	12/14/2011	200
02SI	020228-02	Benzyl Chloride	1000	163173-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11L							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	160092-26537	10-06-11B	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11M							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	163374-28100	10-28-11D	2/14/2012	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27872	10-28-11E	2/14/2012	100
02SI	020232-02	Vinyl Acetate	2000	178902-29552	10-28-11F	11/15/2011	100
02SI	020620-02	n-Hexane	1000	163378-27889	10-26-11B	11/14/2011	200
02SI	020546-02	Heptane	1000	169174-29248	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3300
10-28-11N							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-28307	10-12-11E	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	3900
		10-28-11O	Exp:	11/4/2011			
		5ug/ml Vol Work Std #3					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11K	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11M	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11P	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11L	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
		10-28-11Q	Exp:	11/4/2011			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11N	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
10-28-11R							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	ul
02SI	120002-01	8260B Surr Solution	2000	173249-28847	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3900
10-28-11S			Exp:	11/4/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11R	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
10-28-11T							
250ug/ml TBA/IPA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120166-01	Volatile Mix 4-3	2000	178691-29510	10-28-11I	12/17/2011	500
02SI	020228-09	Acrolein	10000	179941-29561	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3400

10/28/11 RS.

10/28/11 RS.

10/28/11 RS.

10-28-11U							
50ug/ml VOC Std#5							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120016-03-SS	8260 Gases(SS)	2000	168038-28741	10-28-11J	11/30/2011	50
O2SI	020145-02-02-S	2-CEVE	2000	162530-27271	10-19-11J	11/3/2011	50
J&T Brand		Purge & Trap MeOH		KL4E06-00556	10/27/2011	6/8/2012	1900
10-28-11V							
50ug/ml VOC Std#6							
Exp:11/04/11							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120021-03-SS	VOC'S 54 COMP.	2000	161271-27771	09-12-11P	11/14/2011	50
O2SI	120296-01	Custom 8260 Solution	2000	166038-27763	09-12-11Q	11/14/2011	50
O2SI	020232-02-SS	Vinyl Acetate(SS)	2000	176774-29257	09-12-11R	11/30/2011	50
O2SI	020620-02-SS	n-HEXANE	1000	179199-29615	10-12-11F	12/14/2011	100
O2SI	020049-02-SS	HEXACHLOROETHANE	1000	154535-25913	09-13-11B	12/29/2011	100
O2SI	020546-02-SS	Heptane(SS)	1000	142276-23593	09-13-11C	12/19/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1550
10-28-11W							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11						Exp.	
			Conc.		Date		
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	uL
O2SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	152531-25468	10-02-11G	11/3/2011	250
O2SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	178607-29549	10-02-11H	11/21/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1700

10-28-11X							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	120016-03	Gas Mix	2000	169238-28682	10-28-11A	11/30/2011	100
O2SI	020049-02	HEXACHLOROETHANE	1000	164816-28687	10-28-11B	12/14/2011	200
O2SI	020228-02	Benzyl Chloride	1000	163371-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11Y							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	Id #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	020145-02-02	2-CEVE	2000	160092-26617	10-06-11B	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11Z							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
O2SI	122039-02	Volatile Mix, 20-29	2000	163374-28300	10-28-11D	2/14/2012	100
O2SI	120023-01	VOC'S-54 COMP	2000	164454-27872	10-28-11E	2/14/2012	100
O2SI	020232-02	Vinyl Acetate	2000	178902-29552	10-28-11F	11/15/2011	100
O2SI	020620-02	n-Hexane	1000	163378-27889	10-26-11B	11/14/2011	200
O2SI	020546-02	Heptane	1000	169174-29248	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3300
10-28-11AA							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
O2SI	121020-05	HSL'S-Ketone Solution	2000	169173-28307	10-12-11B	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	3900
		10-28-11AB	Exp:	11/4/2011			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11X	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11Z	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11AC	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11Y	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	

GCMS STANDARD PREPARATION BOOK # _____ PAGE # 4

		10-28-11AD	Exp:	11/5/2011			
		5ug/ml Vol Work Std #12					
		SOURCE	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11AA	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
10-28-11AE							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	uL
02SI	120002-01	8260B Surr Solution	2000	173249-28847	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		X14E05-00556	10/27/2011	6/8/2012	3900
10-28-11AF			Exp:	11/5/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11AE	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		X14E05-00556	10/27/2011	1800	
10-28-11AG							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
02SI	020229-09	Acrolein	10000	179961-29661	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		X14E05-00556	10/27/2011	6/8/2012	3400

10/28/11 RS.

10/30/11 RS.

10/30/11 RS.

10/30/11 RS.

10/31/11 RS.

NOTEBOOK INSERT LABEL

Gasoline
Lot: LB82077 EXP: FEB/2014 STORAGE: ROOM TEMP. 47616-U 1 x 1ml

DATE RECEIVED:_____

SUPELCO
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

RS.

A -

STANDARD TRANSFER LABEL

Date of Preparation:
Reference Number:
Description: Gasoline
Lot #: LB82077 - 29133
Rec: 8/4/11 MFR exp. 02/28/14
Exp. Date: EXP: FEB/2014
Storage: ROOM TEMP.

B -

REST
Cat# 30205
Unleaded gasoline composite
Lot #: A076842 - 29141
Rec: 8/4/11 MFR exp. 10/31/17
Unleaded Gasoline Composite Standard
50000 ug/mL each in P&T Methanol
Lot# A076842 Exp.Date: 10/2017 Store: Freezer
Restek Corporation - 110 Benner Circle - Bellefonte, PA 16823

RS.

10/30/11C							
2000ug/ml Gasoline						APPL	
			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
Supelco	LB82077	Gasoline	20,000	LB82077-29133	10-30-11A	11/2/2012	200
J&T Brand		Purge & Trap MeOH		X14E06-00556	10/27/2011	3/2/2012	18000
10/30/11D						APPL	
2000ug/ml Unleaded Gasoline						Exp.	
			Conc.		Date	Date	uL
Supplier	ID #		ug/ml	Lot #	Code	11/30/2012	80
Supelco	30205	Unleaded Gasoline	50,000	A076842-29141	10-30-11B	3/2/2012	31920
J&T Brand		Purge & Trap MeOH		X14E06-00556	10/27/2011		

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____

E

Custom VOC Mix, 16-4, 100 mg/L, 4 x 1 mL
232725-03-4PAK
Lot # 162917 | Storage ≤ -10 Degrees | Expiry 8/11/12
Solvent: P/T Methanol

Custom VOC Mix 16-4
Lot #: 162917 - 27029
Rec: 8/13/10 MFR exp. 08/11/12

CHICO RS 12/07/11.

Gasoline Curve Preparation for 100mL Purge (water)-CHICO			
	Expiration Date:	1µg/mL Gasoline	10/31/2011 Final Vol
Date	Conc.	10-30-11C	w/P&T H2O
Code	µg/L	Exp:12-27-12	mL
10-30-11F	20	1	100
10-30-11G	60	2.5	100
10-30-11H	100	5	100
10-30-11I	300	15	100
10-30-11J	600	30	100
10-30-11K	800	40	100
10-30-11L	1000	50	100

RS.

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO												
	Expiration Date:		10/31/2011									
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12		
Date	Conc.	10-28-11O	10-28-11S	10-28-11K	10-28-11M	10-28-11R	10-28-11P	10-28-11L	10-28-11N	10-28-11Q		
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11		
10-30-11I	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3		
10-30-11J	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5		
10-30-11K	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10		
10-30-11L	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20		
10-30-11M	5	n/a	n/a	5	5	10	n/a	5	5	n/a		
10-30-11N	10	n/a	n/a	10	10	25	n/a	10	20	n/a		
10-30-11O	20	n/a	n/a	20	20	40	n/a	20	20	n/a		
10-30-11P	40	n/a	n/a	40	40	80	n/a	40	40	n/a		
10-30-11Q	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a		

RS

290µg/mL TAPD 10-28-11T	Final Vol w/P&T H2O
Exp:11-04-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX												
	Expiration Date:		11/1/2011									
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12		
Date	Conc.	10-28-11O	10-28-11S	10-28-11K	10-28-11M	10-28-11R	10-28-11P	10-28-11L	10-28-11N	10-28-11Q		
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11		
10-31-11A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3		
10-31-11B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5		
10-31-11C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10		
10-31-11D	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20		
10-31-11E	5	n/a	n/a	5	5	10	n/a	5	5	n/a		
10-31-11F	10	n/a	n/a	10	10	25	n/a	10	20	n/a		
10-31-11G	20	n/a	n/a	20	20	40	n/a	20	20	n/a		
10-31-11H	40	n/a	n/a	40	40	80	n/a	40	40	n/a		
10-31-11I	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a		

10/31/11 RS

RS

290µg/mL TAPD 10-28-11T	Final Vol w/P&T H2O
Exp:11-04-11	mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Injection Log

Directory: M:\CHICO\DATA\C111030\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1030C13W.[	1	20ug/mL BFB STD 10-19-11	Water 2ul	30 Oct 11 22:01
2	1	1030C15W.[	1	Voc Std 10-30-11@0.3ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 23:28
3	1	1030C16W.[	1	Voc Std 10-30-11@0.5ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 00:11
4	1	1030C17W.[	1	Voc Std 10-30-11@1.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 00:54
5	1	1030C18W.[	1	Voc Std 10-30-11@2.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 1:37
6	1	1030C19W.[	1	Voc Std 10-30-11@5.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 2:20
7	1	1030C20W.[	1	Voc Std 10-30-11@10ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 3:03
8	1	1030C21W.[	1	Voc Std 10-30-11@20ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 3:46
9	1	1030C22W.[	1	Voc Std 10-30-11@40ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 4:29
10	1	1030C23W.[	1	Voc Std 10-30-11@100ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 5:12
11	1	1030C26W.[	1	20ug/mL BFB STD 10-19-11	Water 2ul	31 Oct 11 7:21
12	1	1030C27W.[	1	Voc Std 10-30-11@10ug/L	Water 10mLw/ IS&S:10-30/1	31 Oct 11 8:05
13	1	1030C28W.[	1	111030A LCS-1WC (SS)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 8:48
14	1	1030C29W.[	1	GAS 300ug/L (SS)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 9:31
15	1	1030C30W.[	1	GAS 300ug/L CCV-1WC	Water 10mLw/ IS&S:10-30/1	31 Oct 11 10:14
16	1	1030C31W.[	1	GAS 300ug/L LCS-1WC	Water 10mLw/ IS&S:10-30/1	31 Oct 11 10:57
17	1	1030C34W.[	1	111030A BLk-1WC	Water 10mLw/ IS&S:10-30/1	31 Oct 11 13:02
18	1	1030C35W.[	1	AY49335W01	Water 10mLw/ IS&S:10-30/1	31 Oct 11 13:39
19	1	1030C36W.[	1	AY49333W04	Water 10mLw/ IS&S:10-30/1	31 Oct 11 14:16
20	1	1030C37W.[	1	AY49334W13	Water 10mLw/ IS&S:10-30/1	31 Oct 11 14:53
21	1	1030C38W.[	1	AY49336W04	Water 10mLw/ IS&S:10-30/1	31 Oct 11 15:31
22	1	1030C39W.[	1	AY49334W141516 MS-1WC (VOC)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 16:08
23	1	1030C40W.[	1	AY49334W141516 MSD-1WC (VOC)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 16:45
24	1	1030C41W.[	1	AY49334W161718 MS-1WC (GAS)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 17:22
25	1	1030C42W.[	1	AY49334W161718 MSD-1WC (GAS)	Water 10mLw/ IS&S:10-30/1	31 Oct 11 17:59

METALS

METALS
QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Laboratory Control Spike Recovery
METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **111110W-49334 MS - 161255**

Sample ID: AY49334

Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE	50.0	ND	49.5	48.8	99.0	97.6	1.4	20	80-120	1/10/2011	1/11/2011	1/10/2011	1/11/2011	161255	AY49334

Comments: _____

METALS
Sample Data

APPL, INC.

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES046
Sample Collection Date: 10/24/2011

ARF: 66102
APPL ID: AY49333

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22 U	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

Printed: 11/15/2011 12:57:19 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\041SMPL.D\041SMPL.D#
Date Acquired: Nov 11 2011 04:00 pm
Operator: NBS
Sample Name: AY49333W13
Misc Info: 111110A-3015
Vial Number: 3202
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.01	5.25	1000	
11 B	74.87 ug/l	83.18	0.56	1000	
23 Na	63250.00 ug/l	70270.75	0.40	25000	>Cal
24 Mg	23790.00 ug/l	26430.69	0.63	50000	
27 Al	35.06 ug/l	38.95	3.68	20000	
39 K	2658.00 ug/l	2953.04	0.91	20000	
44 Ca	12970.00 ug/l	14409.67	0.32	50000	
47 Ti	1.59 ug/l	1.77	2.95	1000	
51 V	1.07 ug/l	1.18	4.80	1000	
52 Cr	0.15 ug/l	0.16	6.59	1000	
55 Mn	1421.00 ug/l	1578.73	0.18	1000	>Cal
56 Fe	849.00 ug/l	943.24	0.37	20000	
59 Co	0.20 ug/l	0.22	4.00	1000	
60 Ni	1.09 ug/l	1.21	7.81	1000	
63 Cu	-0.35 ug/l	-0.39	4.23	1000	
65 Cu	-0.35 ug/l	-0.38	7.78	1000	
66 Zn	1.22 ug/l	1.36	1.97	1000	
75 As	0.07 ug/l	0.08	32.39	1000	
78 Se	0.04 ug/l	0.04	27.66	1000	
78 Se	0.16 ug/l	0.18	40.54	1000	
88 Sr	115.00 ug/l	127.77	1.27	1000	
88 Sr	117.90 ug/l	130.99	0.51	1000	
95 Mo	0.48 ug/l	0.54	2.21	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.00 ug/l	0.00	108.51	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.01 ug/l	0.02	47.56	1000	
118 Sn	0.11 ug/l	0.13	17.45	1000	
121 Sb	0.07 ug/l	0.08	13.55	1000	
137 Ba	23.17 ug/l	25.74	1.06	1000	
205 Tl	0.01 ug/l	0.01	19.54	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	-0.16 ug/l	-0.18	5.22	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3155449.80	0.29	2775704.50	113.7	70 - 120	
45 Sc	684547.81	0.76	500780.41	136.7	70 - 120	IS Fai
45 Sc	107493.14	1.57	95494.08	112.6	70 - 120	
45 Sc	2252708.50	1.98	1460980.80	154.2	70 - 120	IS Fai
72 Ge	105205.95	0.22	96219.04	109.3	70 - 120	
72 Ge	48357.57	0.66	43611.78	110.9	70 - 120	
72 Ge	228774.88	0.47	213204.63	107.3	70 - 120	
115 In	1463890.90	0.38	1381264.00	106.0	70 - 120	
159 Tb	2015104.00	0.80	1843940.90	109.3	70 - 120	
165 Ho	2022052.00	0.63	1844184.90	109.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacy Fineran

Project: RED HILL/1022-024

Sample ID: ES047

Sample Collection Date: 10/24/2011

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66102

APPL ID: AY49334

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

Printed: 11/15/2011 12:57:19 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K1100.B\042SMPL.D\042SMPL.D#
Date Acquired: Nov 11 2011 04:06 pm
Operator: NBS
Sample Name: AY49334W51
Misc Info: 111110A-3015
Vial Number: 3203
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	-0.01	ug/l	-0.01	2.99	1000	
11 B	77.21	ug/l	85.78	0.37	1000	
23 Na	62580.00	ug/l	69526.38	1.20	25000	>Cal
24 Mg	23840.00	ug/l	26486.24	0.85	50000	
27 Al	10.66	ug/l	11.84	1.02	20000	
39 K	2644.00	ug/l	2937.48	0.98	20000	
44 Ca	12880.00	ug/l	14309.68	1.08	50000	
47 Ti	1.96	ug/l	2.17	54.12	1000	
51 V	1.12	ug/l	1.24	3.35	1000	
52 Cr	0.18	ug/l	0.20	5.89	1000	
55 Mn	1422.00	ug/l	1579.84	0.97	1000	>Cal
56 Fe	862.60	ug/l	958.35	1.25	20000	
59 Co	0.26	ug/l	0.29	3.17	1000	
60 Ni	1.23	ug/l	1.37	2.27	1000	
63 Cu	-0.28	ug/l	-0.31	4.35	1000	
65 Cu	-0.29	ug/l	-0.32	5.75	1000	
66 Zn	5.31	ug/l	5.90	2.33	1000	
75 As	0.09	ug/l	0.10	35.61	1000	
78 Se	0.04	ug/l	0.04	18.02	1000	
78 Se	0.13	ug/l	0.15	43.74	1000	
88 Sr	114.00	ug/l	126.65	0.20	1000	
88 Sr	116.30	ug/l	129.21	0.82	1000	
95 Mo	0.49	ug/l	0.54	2.47	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	0.00	ug/l	0.00	9066.00	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	0.00	ug/l	0.00	326.50	1000	
118 Sn	0.09	ug/l	0.11	17.30	1000	
121 Sb	0.05	ug/l	0.05	7.46	1000	
137 Ba	24.70	ug/l	27.44	0.69	1000	
205 Tl	0.01	ug/l	0.01	3.49	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	-0.05	ug/l	-0.06	14.15	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3186521.00	0.78	2775704.50	114.8	70 - 120	
45 Sc	672635.13	1.27	500780.41	134.3	70 - 120	IS Fai
45 Sc	107878.18	1.34	95494.08	113.0	70 - 120	
45 Sc	2212596.80	1.01	1460980.80	151.4	70 - 120	IS Fai
72 Ge	106314.52	1.16	96219.04	110.5	70 - 120	
72 Ge	48500.91	1.75	43611.78	111.2	70 - 120	
72 Ge	231305.58	0.13	213204.63	108.5	70 - 120	
115 In	1470644.80	1.61	1381264.00	106.5	70 - 120	
159 Tb	2036736.10	0.19	1843940.90	110.5	70 - 120	
165 Ho	2036137.40	0.55	1844184.90	110.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K1100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacy Fineran
Project: RED HILL/1022-024
Sample ID: ES049
Sample Collection Date: 10/24/2011

ARF: 66102
APPL ID: AY49336

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22J	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

J = Estimated value.

Printed: 11/15/2011 12:57:19 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\052SMPL.D\052SMPL.D#
Date Acquired: Nov 11 2011 05:06 pm
Operator: NBS
Sample Name: AY49336W13
Misc Info: 111110A-3015
Vial Number: 3208
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.01	2.49	1000	
11 B	119.20 ug/l	132.43	0.84	1000	
23 Na	79710.00 ug/l	88557.81	0.80	25000	>Cal
24 Mg	26180.00 ug/l	29085.98	1.28	50000	
27 Al	28.51 ug/l	31.67	0.66	20000	
39 K	3332.00 ug/l	3701.85	0.44	20000	
44 Ca	22270.00 ug/l	24741.97	1.18	50000	
47 Ti	0.71 ug/l	0.79	6.25	1000	
51 V	15.17 ug/l	16.85	0.80	1000	
52 Cr	0.80 ug/l	0.89	2.21	1000	
55 Mn	106.10 ug/l	117.88	0.65	1000	
56 Fe	83.80 ug/l	93.10	0.12	20000	
59 Co	1.02 ug/l	1.13	0.83	1000	
60 Ni	3.41 ug/l	3.79	1.43	1000	
63 Cu	0.33 ug/l	0.36	4.20	1000	
65 Cu	0.33 ug/l	0.37	5.05	1000	
66 Zn	4.07 ug/l	4.52	2.37	1000	
75 As	0.30 ug/l	0.34	16.47	1000	
78 Se	0.13 ug/l	0.14	5.92	1000	
78 Se	0.15 ug/l	0.16	65.10	1000	
88 Sr	150.20 ug/l	166.87	1.25	1000	
88 Sr	151.90 ug/l	168.76	0.26	1000	
95 Mo	19.64 ug/l	21.82	0.46	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.06 ug/l	0.06	16.30	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.01 ug/l	0.01	93.49	1000	
118 Sn	0.18 ug/l	0.20	15.54	1000	
121 Sb	0.74 ug/l	0.83	4.50	1000	
137 Ba	12.11 ug/l	13.45	0.77	1000	
205 Tl	0.02 ug/l	0.02	13.88	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	0.20 ug/l	0.22	6.86	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3041975.00	0.97	2775704.50	109.6	70 - 120	
45 Sc	642764.69	0.96	500780.41	128.4	70 - 120	IS Fai
45 Sc	102731.88	1.25	95494.08	107.6	70 - 120	
45 Sc	2133139.30	1.51	1460980.80	146.0	70 - 120	IS Fai
72 Ge	102652.80	0.93	96219.04	106.7	70 - 120	
72 Ge	46837.37	1.69	43611.78	107.4	70 - 120	
72 Ge	230432.05	0.56	213204.63	108.1	70 - 120	
115 In	1482746.90	1.89	1381264.00	107.3	70 - 120	
159 Tb	2029492.10	1.13	1843940.90	110.1	70 - 120	
165 Ho	2027253.00	1.23	1844184.90	109.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

METALS
Calibration Data

APPL, INC.

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66102 SDG: 66102

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 13:03	%R(1)	True CCV1	Found 13:33	%R(1)	
Lead (Pb)	100	106.3	106	50	50.31	101	50	50.34	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66102 SDG: 66102

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 15:05	%R(1)	True CCV1	Found 16:30	%R(1)	
Lead (Pb)	100	106.3	106	50	49.96	99.9	50	50.41	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66102 SDG: 66102

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 18:04	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	106.3	106	50	48.04	96.1				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66102 SDG: 66102

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	12:57		13:09		13:46		15:17		14:16				
Lead (Pb)	.50	U	.50	U	.50	U	.50	U	.19	J	P		

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66102 SDG: 66102

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	12:57		16:42		18:16				14:16		
Lead (Pb)	.50	U	.50	U	.50	U			.19	J	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.
ARF No.: 66102 SDG: 66102
ICP ID Number: Optimus ICS Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:15	Sol AB 13:21	%R(1)
Lead (Pb)		500	3.499	502	100

(1) Control Limits: Metals 80-120

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ES047

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66102 SDG: 66102

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Lead (Pb)	75-125	259.629		-0.0610389		277.500	93.6		

Comments:

11/11/201116:06 AY49334W51

11/11/201116:54 AY49334W51-A

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K1110O.B\050SMPL.D\050SMPL.D#
Date Acquired: Nov 11 2011 04:54 pm
Operator: NBS
Sample Name: AY49334W51-A
Misc Info: 111110A-3015
Vial Number: 3206
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	27.12	ug/l	30.13	1.56	1000	
11 B	219.90	ug/l	244.31	1.71	1000	
23 Na	81860.00	ug/l	90946.46	1.33	25000	>Cal
24 Mg	43910.00	ug/l	48784.01	1.40	50000	
27 Al	1865.00	ug/l	2072.02	1.45	20000	
39 K	7013.00	ug/l	7791.44	0.83	20000	
44 Ca	35340.00	ug/l	39262.74	0.74	50000	
47 Ti	223.10	ug/l	247.86	0.84	1000	
51 V	240.60	ug/l	267.31	0.69	1000	
52 Cr	236.20	ug/l	262.42	1.19	1000	
55 Mn	1601.00	ug/l	1778.71	1.31	1000	>Cal
56 Fe	1722.00	ug/l	1913.14	1.16	20000	
59 Co	239.30	ug/l	265.86	1.18	1000	
60 Ni	220.50	ug/l	244.98	0.57	1000	
63 Cu	217.50	ug/l	241.64	0.86	1000	
65 Cu	218.50	ug/l	242.75	0.57	1000	
66 Zn	414.80	ug/l	460.84	0.80	1000	
75 As	221.10	ug/l	245.64	0.31	1000	
78 Se	198.20	ug/l	220.20	2.61	1000	
78 Se	205.70	ug/l	228.53	1.47	1000	
88 Sr	383.00	ug/l	425.51	0.35	1000	
88 Sr	358.90	ug/l	398.74	1.23	1000	
95 Mo	242.00	ug/l	268.86	1.21	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	68.49	ug/l	76.09	4.03	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	44.30	ug/l	49.22	1.31	1000	
118 Sn	271.00	ug/l	301.08	1.25	1000	
121 Sb	243.60	ug/l	270.64	0.29	1000	
137 Ba	267.20	ug/l	296.86	0.54	1000	
205 Tl	227.70	ug/l	252.97	0.11	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	233.90	ug/l	259.86	1.71	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2876337.50	0.73	2775704.50	103.6	70 - 120	
45 Sc	648562.19	0.34	500780.41	129.5	70 - 120	IS Fai
45 Sc	102181.34	0.75	95494.08	107.0	70 - 120	
45 Sc	2157529.50	1.05	1460980.80	147.7	70 - 120	IS Fai
72 Ge	102359.33	0.69	96219.04	106.4	70 - 120	
72 Ge	46173.78	0.92	43611.78	105.9	70 - 120	
72 Ge	223471.42	0.75	213204.63	104.8	70 - 120	
115 In	1440331.40	0.34	1381264.00	104.3	70 - 120	
159 Tb	1995111.90	0.82	1843940.90	108.2	70 - 120	
165 Ho	1988682.90	0.53	1844184.90	107.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K1110O.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

ES047

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66102 SDG: 66102

Matrix: water

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Lead (Pb)	-0.0610389		-1.23988		NA		

Comments:

11/11/2011 16:06 AY49334W51

11/11/2011 17:00 AY49334W51-1/5

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\051SMPL.D\051SMPL.D#
Date Acquired: Nov 11 2011 05:00 pm
Operator: NBS
Sample Name: AY49334W51-1/5
Misc Info: 111110A-3015
Vial Number: 3207
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 5.56
Total Dil Factor: 5.56

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.07	3.30	1000	
11 B	17.93 ug/l	99.62	0.55	1000	
23 Na	13240.00 ug/l	73561.44	1.12	25000	
24 Mg	5084.00 ug/l	28246.70	1.02	50000	
27 Al	1.95 ug/l	10.81	25.75	20000	
39 K	473.00 ug/l	2627.99	1.52	20000	
44 Ca	2644.00 ug/l	14690.06	1.59	50000	
47 Ti	0.34 ug/l	1.89	8.30	1000	
51 V	3.79 ug/l	21.04	2.49	1000	
52 Cr	0.14 ug/l	0.80	4.27	1000	
55 Mn	287.90 ug/l	1599.57	0.52	1000	
56 Fe	175.80 ug/l	976.74	0.50	20000	
59 Co	-0.18 ug/l	-1.02	3.42	1000	
60 Ni	0.22 ug/l	1.23	6.12	1000	
63 Cu	-0.54 ug/l	-3.02	2.33	1000	
65 Cu	-0.54 ug/l	-3.00	2.74	1000	
66 Zn	1.00 ug/l	5.58	4.28	1000	
75 As	0.92 ug/l	5.11	1.72	1000	
78 Se	0.16 ug/l	0.87	1.85	1000	
78 Se	0.30 ug/l	1.65	38.09	1000	
88 Sr	22.51 ug/l	125.07	1.55	1000	
88 Sr	20.24 ug/l	112.45	0.28	1000	
95 Mo	0.18 ug/l	1.01	8.72	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	########	
107 Ag	0.83 ug/l	4.59	0.55	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	########	
111 Cd	0.01 ug/l	0.07	56.81	1000	
118 Sn	0.30 ug/l	1.65	5.07	1000	
121 Sb	1.56 ug/l	8.68	3.00	1000	
137 Ba	4.97 ug/l	27.59	0.72	1000	
205 Tl	0.01 ug/l	0.06	8.19	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	########	
207 (Pb)	-------- ug/l	#VALUE!	--------	########	
208 Pb	-0.22 ug/l	-1.24	2.31	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3013682.80	1.03	2775704.50	108.6	70 - 120	
45 Sc	545314.75	0.37	500780.41	108.9	70 - 120	
45 Sc	95160.34	0.89	95494.08	99.7	70 - 120	
45 Sc	1580825.90	0.15	1460980.80	108.2	70 - 120	
72 Ge	104611.55	0.65	96219.04	108.7	70 - 120	
72 Ge	45792.49	0.44	43611.78	105.0	70 - 120	
72 Ge	227516.67	0.25	213204.63	106.7	70 - 120	
115 In	1384767.60	0.50	1381264.00	100.3	70 - 120	
159 Tb	1892859.60	0.65	1843940.90	102.7	70 - 120	
165 Ho	1897757.40	0.79	1844184.90	102.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\11K11100.B\004CAL
Date Acquired:	Nov 11 2011 12:08 pm
Operator:	NBS
Sample Name:	Calibration Blank
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update:	Nov 11 2011 12:06 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	2775705.00	A	31080.00	1.12
7	(Li)	152897.91	P	508.10	0.33
9	Be	164.45	P	15.75	9.58
11	B	9503.37	P	213.80	2.25
23	Na	81958.40	P	248.30	0.30
24	Mg	134.45	P	6.94	5.16
27	Al	111.12	P	16.78	15.10
39	K	60334.78	P	2276.00	3.77
44	Ca	384.84	P	48.59	12.63
45	Sc	500780.41	P	2032.00	0.41
45	Sc	95494.08	P	252.60	0.26
45	Sc	1460981.00	A	25510.00	1.75
47	Ti	4.89	P	0.77	15.75
51	V	3955.25	P	110.20	2.79
52	Cr	547.13	P	20.02	3.66
55	Mn	165.78	P	8.57	5.17
56	Fe	5746.57	P	137.00	2.38
59	Co	1492.99	P	62.44	4.18
60	Ni	69.78	P	22.72	32.56
63	Cu	2222.87	P	55.11	2.48
65	Cu	1076.95	P	27.98	2.60
66	Zn	207.12	P	12.10	5.84
72	Ge	96219.04	P	484.10	0.50
72	Ge	43611.78	P	490.40	1.12
72	Ge	213204.59	P	1657.00	0.78
75	As	266.34	P	7.21	2.71
78	Se	4.67	P	1.53	32.74
78	Se	30.00	P	1.16	3.85
88	Sr	48.89	P	8.39	17.16
88	Sr	188.90	P	11.71	6.20
95	Mo	111.12	P	22.69	20.42
106	(Cd)	31.11	P	10.18	32.72
107	Ag	35.56	P	13.47	37.88
108	(Cd)	27.78	P	5.09	18.33
111	Cd	0.12	P	4.33	3513.10
115	In	1381264.00	A	15790.00	1.14
118	Sn	495.58	P	60.50	12.21
121	Sb	323.35	P	35.28	10.91
137	Ba	91.12	P	13.47	14.78
159	Tb	1843941.00	A	33820.00	1.83
165	Ho	1844185.00	A	22050.00	1.20
205	Tl	78.89	P	5.09	6.45
206	(Pb)	1670.17	P	51.97	3.11
207	(Pb)	1455.69	P	79.06	5.43
208	Pb	6738.71	P	70.43	1.05

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\005CALS.D\005CALS.D#
Date Acquired: Nov 11 2011 12:14 pm
Operator: NBS
Sample Name: 111111 Standard 1
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:12 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	2934478.00	A	12100.00	0.41	0.0000
7 (Li)	160812.41	P	1266.00	0.79	0.0000
9 Be	1031.18	P	27.15	2.63	0.0000
11 B	10014.79	P	224.60	2.24	0.0000
23 Na	101764.30	P	5296.00	5.20	0.0000
24 Mg	2435.84	P	56.81	2.33	0.0000
27 Al	465.58	P	50.04	10.75	0.0000
39 K	63456.74	P	1758.00	2.77	0.0000
44 Ca	441.03	P	5.03	1.14	0.0000
45 Sc	483714.81	P	17820.00	3.68	0.0000
45 Sc	96706.18	P	602.60	0.62	0.0000
45 Sc	1494561.00	A	14240.00	0.95	0.0000
47 Ti	16.89	P	3.36	19.87	0.0000
51 V	4556.33	P	51.66	1.13	0.0000
52 Cr	876.48	P	32.73	3.73	0.0000
55 Mn	7451.77	P	52.30	0.70	0.0000
56 Fe	12699.44	P	213.90	1.68	0.0000
59 Co	1820.58	P	82.65	4.54	0.0000
60 Ni	166.23	P	12.10	7.28	0.0000
63 Cu	3334.65	P	61.70	1.85	0.0000
65 Cu	1647.67	P	94.43	5.73	0.0000
66 Zn	231.56	P	11.34	4.90	0.0000
72 Ge	93081.49	P	2181.00	2.34	0.0000
72 Ge	43620.24	P	387.20	0.89	0.0000
72 Ge	210910.70	P	1414.00	0.67	0.0000
75 As	300.78	P	7.07	2.35	0.0000
78 Se	21.00	P	2.60	12.40	0.0000
78 Se	30.33	P	6.33	20.88	0.0000
88 Sr	303.35	P	25.17	8.30	0.0000
88 Sr	1913.54	P	79.67	4.16	0.0000
95 Mo	385.58	P	18.36	4.76	0.0000
106 (Cd)	51.11	P	6.94	13.58	0.0000
107 Ag	447.80	P	37.47	8.37	0.0000
108 (Cd)	28.89	P	17.10	59.19	0.0000
111 Cd	182.07	P	18.49	10.16	0.0000
115 In	1383497.00	A	12980.00	0.94	0.0000
118 Sn	901.17	P	20.10	2.23	0.0000
121 Sb	988.96	P	26.95	2.73	0.0000
137 Ba	304.46	P	49.48	16.25	0.0000
159 Tb	1838841.00	A	19950.00	1.08	0.0000
165 Ho	1842078.00	A	20850.00	1.13	0.0000
205 Tl	1497.92	P	40.19	2.68	0.0000
206 (Pb)	2154.70	P	105.60	4.90	0.0000
207 (Pb)	1842.42	P	104.10	5.65	0.0000
208 Pb	8565.85	P	320.10	3.74	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	2934478.30	0.41	2775704.50	105.7	70 -	120	
45 Sc	483714.78	3.68	500780.41	96.6	70 -	120	
45 Sc	96706.18	0.62	95494.08	101.3	70 -	120	
45 Sc	1494561.00	0.95	1460980.80	102.3	70 -	120	
72 Ge	93081.49	2.34	96219.04	96.7	70 -	120	
72 Ge	43620.24	0.89	43611.78	100.0	70 -	120	
72 Ge	210910.72	0.67	213204.63	98.9	70 -	120	
115 In	1383496.90	0.94	1381264.00	100.2	70 -	120	
159 Tb	1838841.50	1.08	1843940.90	99.7	70 -	120	
165 Ho	1842078.10	1.13	1844184.90	99.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowsd
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\006CALS.D\006CALS.D#
Date Acquired: Nov 11 2011 12:20 pm
Operator: NBS
Sample Name: 111111 Standard 2
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:18 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3013436.00	A	14250.00	0.47	0.0000
7 (Li)	162843.41	P	655.10	0.40	1.0000
9 Be	10180.43	P	411.30	4.04	1.0000
11 B	16379.42	P	483.40	2.95	1.0000
23 Na	196689.50	P	7056.00	3.59	1.0000
24 Mg	23141.91	P	43.26	0.19	1.0000
27 Al	4021.80	P	226.90	5.64	1.0000
39 K	76357.12	P	2463.00	3.23	1.0000
44 Ca	1793.11	P	71.50	3.99	1.0000
45 Sc	510541.00	P	4569.00	0.89	0.0000
45 Sc	97262.66	P	635.50	0.65	0.0000
45 Sc	1465690.00	A	21530.00	1.47	0.0000
47 Ti	156.45	P	19.06	12.18	1.0000
51 V	8092.54	P	134.80	1.67	1.0000
52 Cr	4117.09	P	42.23	1.03	1.0000
55 Mn	61442.06	P	651.50	1.06	1.0000
56 Fe	82436.35	P	925.30	1.12	1.0000
59 Co	6109.79	P	52.36	0.86	1.0000
60 Ni	1383.64	P	28.30	2.05	1.0000
63 Cu	15516.40	P	233.60	1.51	1.0000
65 Cu	7559.83	P	73.09	0.97	1.0000
66 Zn	1430.31	P	74.87	5.23	1.0000
72 Ge	96818.69	P	1004.00	1.04	0.0000
72 Ge	44609.64	P	326.50	0.73	0.0000
72 Ge	203708.30	P	1751.00	0.86	0.0000
75 As	639.35	P	17.53	2.74	1.0000
78 Se	175.22	P	7.34	4.19	1.0000
78 Se	81.11	P	6.83	8.43	1.0000
88 Sr	3138.24	P	234.10	7.46	1.0000
88 Sr	17034.09	P	556.30	3.27	1.0000
95 Mo	3096.01	P	35.02	1.13	1.0000
106 (Cd)	180.01	P	18.56	10.31	1.0000
107 Ag	4028.49	P	77.05	1.91	1.0000
108 (Cd)	138.89	P	13.47	9.70	1.0000
111 Cd	1685.97	P	41.67	2.47	1.0000
115 In	1324038.00	A	6932.00	0.52	0.0000
118 Sn	5423.48	P	180.10	3.32	1.0000
121 Sb	6328.31	P	130.20	2.06	1.0000
137 Ba	2328.06	P	139.60	6.00	1.0000
159 Tb	1820559.00	A	17780.00	0.98	0.0000
165 Ho	1818461.00	A	19460.00	1.07	0.0000
205 Tl	15160.28	P	220.10	1.45	1.0000
206 (Pb)	7664.74	P	91.74	1.20	1.0000
207 (Pb)	7014.34	P	72.68	1.04	1.0000
208 Pb	31156.53	P	401.40	1.29	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3013436.30	0.47	2775704.50	108.6	70 -	120	
45 Sc	510541.06	0.89	500780.41	101.9	70 -	120	
45 Sc	97262.66	0.65	95494.08	101.9	70 -	120	
45 Sc	1465690.00	1.47	1460980.80	100.3	70 -	120	
72 Ge	96818.70	1.04	96219.04	100.6	70 -	120	
72 Ge	44609.64	0.73	43611.78	102.3	70 -	120	
72 Ge	203708.33	0.86	213204.63	95.5	70 -	120	
115 In	1324038.00	0.52	1381264.00	95.9	70 -	120	
159 Tb	1820559.10	0.98	1843940.90	98.7	70 -	120	
165 Ho	1818460.60	1.07	1844184.90	98.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\007CALS.D\007CALS.D#
Date Acquired: Nov 11 2011 12:27 pm
Operator: NBS
Sample Name: 111111 Standard 3
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHOD8\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3129745.00	A	45250.00	1.45	0.0000
7 (Li)	169858.91	P	576.50	0.34	0.7236
9 Be	529831.50	P	2404.00	0.45	0.9999
11 B	352525.41	P	4097.00	1.16	0.9985
23 Na	1470286.00	A	17010.00	1.16	0.9979
24 Mg	1292682.00	A	17130.00	1.33	1.0000
27 Al	182025.00	P	2356.00	1.29	1.0000
39 K	502725.09	P	1262.00	0.25	0.9983
44 Ca	52265.13	P	789.60	1.51	0.9983
45 Sc	522323.31	P	4813.00	0.92	0.0000
45 Sc	98761.96	P	1402.00	1.42	0.0000
45 Sc	1523925.00	A	17440.00	1.14	0.0000
47 Ti	6316.10	P	62.52	0.99	0.9998
51 V	161320.00	P	2272.00	1.41	0.9994
52 Cr	179336.20	P	1262.00	0.70	1.0000
55 Mn	136966.41	P	806.40	0.59	0.9998
56 Fe	3466730.00	A	34680.00	1.00	1.0000
59 Co	254063.59	P	2599.00	1.02	0.9995
60 Ni	64869.85	P	659.40	1.02	0.9997
63 Cu	172209.41	P	983.40	0.57	0.9999
65 Cu	82567.48	P	346.90	0.42	1.0000
66 Zn	30294.80	P	353.70	1.17	0.9973
72 Ge	98255.19	P	550.50	0.56	0.0000
72 Ge	46262.58	P	34.38	0.07	0.0000
72 Ge	211131.20	P	2095.00	0.99	0.0000
75 As	20258.79	P	48.21	0.24	1.0000
78 Se	8196.34	P	137.70	1.68	1.0000
78 Se	2352.20	P	19.65	0.84	0.9963
88 Sr	152226.41	P	2676.00	1.76	0.9999
88 Sr	853159.19	P	3826.00	0.45	1.0000
95 Mo	152546.09	P	1308.00	0.86	0.9999
106 (Cd)	7779.08	P	43.36	0.56	0.9995
107 Ag	203275.00	P	1362.00	0.67	1.0000
108 (Cd)	5850.30	P	115.70	1.98	0.9966
111 Cd	85595.10	P	417.50	0.49	1.0000
115 In	1359449.00	A	15030.00	1.11	0.0000
118 Sn	233787.30	P	2145.00	0.92	0.9998
121 Sb	303264.81	P	1162.00	0.38	1.0000
137 Ba	112289.00	P	1153.00	1.03	1.0000
159 Tb	1852128.00	A	3859.00	0.21	0.0000
165 Ho	1866389.00	A	18420.00	0.99	0.0000
205 Tl	767163.63	P	3647.00	0.48	1.0000
206 (Pb)	267422.81	P	439.20	0.16	0.9998
207 (Pb)	229702.30	P	967.40	0.42	0.9996
208 Pb	1066559.00	P	3421.00	0.32	0.9997

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3129745.00	1.45	2775704.50	112.8	70 -	120	
45 Sc	522323.34	0.92	500780.41	104.3	70 -	120	
45 Sc	98761.96	1.42	95494.08	103.4	70 -	120	
45 Sc	1523925.40	1.14	1460980.80	104.3	70 -	120	
72 Ge	98255.19	0.56	96219.04	102.1	70 -	120	
72 Ge	46262.59	0.07	43611.78	106.1	70 -	120	
72 Ge	211131.19	0.99	213204.63	99.0	70 -	120	
115 In	1359449.00	1.11	1381264.00	98.4	70 -	120	
159 Tb	1852128.10	0.21	1843940.90	100.4	70 -	120	
165 Ho	1866389.00	0.99	1844184.90	101.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\008CALS.D\008CALS.D#
Date Acquired: Nov 11 2011 12:33 pm
Operator: NBS
Sample Name: 111111 Standard 4
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3091825.00	A	34660.00	1.12	0.0000
7 (Li)	169207.09	P	2476.00	1.46	0.7966
9 Be	1184909.00	A	5168.00	0.44	1.0000
11 B	825041.63	A	8516.00	1.03	1.0000
23 Na	2686206.00	A	10730.00	0.40	0.9984
24 Mg	2535966.00	A	10300.00	0.41	1.0000
27 Al	366543.31	P	3283.00	0.90	1.0000
39 K	1039409.00	A	8793.00	0.85	0.9999
44 Ca	104136.20	P	1221.00	1.17	1.0000
45 Sc	526807.38	P	1501.00	0.28	0.0000
45 Sc	100637.20	P	272.50	0.27	0.0000
45 Sc	1546820.00	A	41280.00	2.67	0.0000
47 Ti	12883.09	P	335.40	2.60	1.0000
51 V	324487.59	P	1452.00	0.45	1.0000
52 Cr	360663.69	P	2389.00	0.66	1.0000
55 Mn	247566.30	P	2862.00	1.16	0.9063
56 Fe	6831163.00	A	89870.00	1.32	1.0000
59 Co	505973.59	P	1092.00	0.22	1.0000
60 Ni	128756.60	P	486.80	0.38	1.0000
63 Cu	331294.91	P	1236.00	0.37	0.9984
65 Cu	158678.41	P	595.70	0.38	0.9983
66 Zn	58476.31	P	247.90	0.42	0.9998
72 Ge	100101.50	P	582.20	0.58	0.0000
72 Ge	46752.66	P	94.61	0.20	0.0000
72 Ge	215920.09	P	4942.00	2.29	0.0000
75 As	41314.20	P	335.50	0.81	1.0000
78 Se	16782.86	P	111.00	0.66	1.0000
78 Se	4841.04	P	45.62	0.94	1.0000
88 Sr	308415.19	P	2179.00	0.71	1.0000
88 Sr	1836004.00	A	12020.00	0.65	1.0000
95 Mo	300376.41	P	620.60	0.20	1.0000
106 (Cd)	15606.90	P	85.03	0.54	1.0000
107 Ag	402429.69	P	2133.00	0.53	1.0000
108 (Cd)	11351.61	P	175.20	1.54	1.0000
111 Cd	169137.09	P	1111.00	0.66	1.0000
115 In	1356694.00	A	39030.00	2.88	0.0000
118 Sn	461432.81	P	1252.00	0.27	1.0000
121 Sb	616792.50	P	2811.00	0.46	1.0000
137 Ba	224905.80	P	424.60	0.19	1.0000
159 Tb	1896056.00	A	51090.00	2.69	0.0000
165 Ho	1892444.00	A	47210.00	2.49	0.0000
205 Tl	1621888.00	A	15450.00	0.95	1.0000
206 (Pb)	524239.50	P	2392.00	0.46	1.0000
207 (Pb)	454785.81	P	2844.00	0.63	1.0000
208 Pb	2164409.00	A	4337.00	0.20	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3091824.50	1.12	2775704.50	111.4	70 -	120	
45 Sc	526807.44	0.28	500780.41	105.2	70 -	120	
45 Sc	100637.22	0.27	95494.08	105.4	70 -	120	
45 Sc	1546819.60	2.67	1460980.80	105.9	70 -	120	
72 Ge	100101.52	0.58	96219.04	104.0	70 -	120	
72 Ge	46752.66	0.20	43611.78	107.2	70 -	120	
72 Ge	215920.11	2.29	213204.63	101.3	70 -	120	
115 In	1356693.50	2.88	1381264.00	98.2	70 -	120	
159 Tb	1896055.90	2.69	1843940.90	102.8	70 -	120	
165 Ho	1892443.90	2.49	1844184.90	102.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\009_QCS.D\009_QCS.D#
Date Acquired: Nov 11 2011 12:39 pm
Operator: NBS
Sample Name: ICV 111111
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	100.00	90 -	110	
9 Be	107.60	ug/l	0.95	100.00	90 -	110	
11 B	105.70	ug/l	0.67	100.00	90 -	110	
23 Na	2518.00	ug/l	0.81	2500.00	90 -	110	
24 Mg	2533.00	ug/l	0.67	2500.00	90 -	110	
27 Al	2547.00	ug/l	1.32	2500.00	90 -	110	
39 K	2615.00	ug/l	0.71	2500.00	90 -	110	
44 Ca	2519.00	ug/l	0.47	2500.00	90 -	110	
47 Ti	97.29	ug/l	0.90	100.00	90 -	110	
51 V	103.40	ug/l	0.55	100.00	90 -	110	
52 Cr	106.50	ug/l	0.63	100.00	90 -	110	
55 Mn	106.70	ug/l	0.21	100.00	90 -	110	
56 Fe	2516.00	ug/l	1.06	2500.00	90 -	110	
59 Co	104.60	ug/l	0.25	100.00	90 -	110	
60 Ni	104.70	ug/l	0.28	100.00	90 -	110	
63 Cu	102.50	ug/l	1.70	100.00	90 -	110	
65 Cu	102.20	ug/l	1.45	100.00	90 -	110	
66 Zn	104.10	ug/l	1.10	100.00	90 -	110	
75 As	98.86	ug/l	1.38	100.00	90 -	110	
78 Se	103.60	ug/l	1.81	100.00	90 -	110	
78 Se	104.10	ug/l	2.03	100.00	90 -	110	
88 Sr	101.20	ug/l	1.63	100.00	90 -	110	
88 Sr	104.30	ug/l	0.60	100.00	90 -	110	
95 Mo	96.15	ug/l	1.35	100.00	90 -	110	
106 (Cd)	--------	ug/l	--------	100.00	90 -	110	
107 Ag	46.26	ug/l	0.71	50.00	90 -	110	
108 (Cd)	--------	ug/l	--------	100.00	90 -	110	
111 Cd	103.60	ug/l	0.47	100.00	90 -	110	
118 Sn	43.82	ug/l	0.17	50.00	90 -	110	Fail
121 Sb	102.70	ug/l	0.18	100.00	90 -	110	
137 Ba	99.56	ug/l	0.34	100.00	90 -	110	
205 Tl	106.40	ug/l	1.20	100.00	90 -	110	
206 (Pb)	--------	ug/l	--------	100.00	90 -	110	
207 (Pb)	--------	ug/l	--------	100.00	90 -	110	
208 Pb	106.30	ug/l	0.89	100.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3157481.00	0.39	2775704.50	113.8	70 -	120	
45 Sc	523431.13	0.16	500780.41	104.5	70 -	120	
45 Sc	100384.52	0.40	95494.08	105.1	70 -	120	
45 Sc	1532510.60	0.50	1460980.80	104.9	70 -	120	
72 Ge	99727.78	0.25	96219.04	103.6	70 -	120	
72 Ge	46938.75	0.91	43611.78	107.6	70 -	120	
72 Ge	212937.78	0.32	213204.63	99.9	70 -	120	
115 In	1371120.50	0.09	1381264.00	99.3	70 -	120	
159 Tb	1873353.00	0.83	1843940.90	101.6	70 -	120	
165 Ho	1868336.50	1.05	1844184.90	101.3	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\012_CCB.D\012_CCB.D#
Date Acquired: Nov 11 2011 12:57 pm
Operator: NBS
Sample Name: ICB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	64.25	0.12	
11 B	0.03 ug/l	45.15	15.00	
23 Na	7.71 ug/l	8.18	77.10	
24 Mg	0.10 ug/l	55.44	7.50	
27 Al	0.09 ug/l	51.89	3.96	
39 K	-16.07 ug/l	31.35	19.20	
44 Ca	2.26 ug/l	102.26	90.00	
47 Ti	0.02 ug/l	221.48	0.78	
51 V	0.57 ug/l	2.59	0.21	Fail
52 Cr	0.01 ug/l	92.18	0.12	
55 Mn	0.00 ug/l	249.24	0.18	
56 Fe	0.25 ug/l	4.89	40.80	
59 Co	-0.25 ug/l	1.58	0.09	
60 Ni	0.00 ug/l	280.61	0.48	
63 Cu	-0.13 ug/l	3.22	0.39	
65 Cu	-0.13 ug/l	16.74	0.39	
66 Zn	-0.01 ug/l	406.21	6.90	
75 As	-0.09 ug/l	15.13	0.27	
78 Se	0.01 ug/l	58.10	0.30	
78 Se	0.05 ug/l	139.53	0.30	
88 Sr	0.00 ug/l	1034.40	0.03	
88 Sr	0.00 ug/l	24.09	0.03	
95 Mo	0.03 ug/l	16.72	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	50.39	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	58.78	0.06	
118 Sn	0.03 ug/l	55.51	0.30	
121 Sb	0.13 ug/l	5.57	0.03	Fail
137 Ba	0.01 ug/l	116.79	0.12	
205 Tl	0.01 ug/l	38.28	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.20 ug/l	0.78	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3073279.00	0.84	2775704.50	110.7	70 - 120	
45 Sc	545909.38	3.12	500780.41	109.0	70 - 120	
45 Sc	100165.70	0.44	95494.08	104.9	70 - 120	
45 Sc	1499557.30	0.22	1460980.80	102.6	70 - 120	
72 Ge	101795.60	2.62	96219.04	105.8	70 - 120	
72 Ge	46734.16	0.18	43611.78	107.2	70 - 120	
72 Ge	210654.83	0.54	213204.63	98.8	70 - 120	
115 In	1336860.30	0.89	1381264.00	96.8	70 - 120	
159 Tb	1857728.00	1.11	1843940.90	100.7	70 - 120	
165 Ho	1856236.60	1.27	1844184.90	100.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\013_CCV.D\013_CCV.D#
Date Acquired: Nov 11 2011 01:03 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.86	ug/l	1.99	50.00	90 -	110	
11 B	43.69	ug/l	2.15	50.00	90 -	110	Fail
23 Na	1276.00	ug/l	1.53	1250.00	90 -	110	
24 Mg	2559.00	ug/l	1.05	2500.00	90 -	110	
27 Al	1001.00	ug/l	1.70	1000.00	90 -	110	
39 K	917.90	ug/l	1.26	1000.00	90 -	110	
44 Ca	2498.00	ug/l	1.41	2500.00	90 -	110	
47 Ti	49.40	ug/l	0.95	50.00	90 -	110	
51 V	50.61	ug/l	1.18	50.00	90 -	110	
52 Cr	50.27	ug/l	1.38	50.00	90 -	110	
55 Mn	54.78	ug/l	1.56	50.00	90 -	110	
56 Fe	1027.00	ug/l	1.77	1000.00	90 -	110	
59 Co	50.74	ug/l	0.93	50.00	90 -	110	
60 Ni	50.88	ug/l	1.81	50.00	90 -	110	
63 Cu	50.81	ug/l	0.58	50.00	90 -	110	
65 Cu	50.69	ug/l	0.50	50.00	90 -	110	
66 Zn	51.32	ug/l	0.03	50.00	90 -	110	
75 As	49.12	ug/l	0.62	50.00	90 -	110	
78 Se	50.32	ug/l	1.71	50.00	90 -	110	
78 Se	49.06	ug/l	1.10	50.00	90 -	110	
88 Sr	49.93	ug/l	0.31	50.00	90 -	110	
88 Sr	47.83	ug/l	0.44	50.00	90 -	110	
95 Mo	50.08	ug/l	0.70	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.63	ug/l	0.57	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	50.07	ug/l	1.49	50.00	90 -	110	
118 Sn	50.35	ug/l	0.28	50.00	90 -	110	
121 Sb	49.48	ug/l	0.77	50.00	90 -	110	
137 Ba	49.18	ug/l	0.66	50.00	90 -	110	
205 Tl	48.89	ug/l	0.40	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.31	ug/l	0.14	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3009330.80	0.85	2775704.50	108.4	70 -	120	
45 Sc	502422.56	3.92	500780.41	100.3	70 -	120	
45 Sc	98428.88	1.42	95494.08	103.1	70 -	120	
45 Sc	1480640.80	1.02	1460980.80	101.3	70 -	120	
72 Ge	97237.93	2.52	96219.04	101.1	70 -	120	
72 Ge	46537.16	0.17	43611.78	106.7	70 -	120	
72 Ge	206334.70	0.20	213204.63	96.8	70 -	120	
115 In	1333758.10	0.36	1381264.00	96.6	70 -	120	
159 Tb	1832635.60	0.51	1843940.90	99.4	70 -	120	
165 Ho	1824652.90	0.58	1844184.90	98.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\014_CCB.D\014_CCB.D#
Date Acquired: Nov 11 2011 01:09 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	75.05	0.12	
11 B	0.19 ug/l	2.24	15.00	
23 Na	3.09 ug/l	28.12	77.10	
24 Mg	0.17 ug/l	59.53	7.50	
27 Al	0.11 ug/l	49.92	3.96	
39 K	-13.77 ug/l	41.47	19.20	
44 Ca	1.49 ug/l	82.56	90.00	
47 Ti	0.00 ug/l	584.34	0.78	
51 V	0.76 ug/l	2.01	0.21	Fail
52 Cr	0.02 ug/l	22.00	0.12	
55 Mn	0.01 ug/l	26.62	0.18	
56 Fe	0.44 ug/l	10.30	40.80	
59 Co	-0.27 ug/l	0.49	0.09	
60 Ni	0.00 ug/l	169.21	0.48	
63 Cu	-0.16 ug/l	12.22	0.39	
65 Cu	-0.16 ug/l	4.20	0.39	
66 Zn	0.03 ug/l	67.54	6.90	
75 As	-0.03 ug/l	60.04	0.27	
78 Se	0.10 ug/l	23.77	0.30	
78 Se	0.02 ug/l	138.81	0.30	
88 Sr	0.00 ug/l	574.89	0.03	
88 Sr	0.00 ug/l	33.45	0.03	
95 Mo	0.10 ug/l	2.35	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	6.78	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	137.32	0.06	
118 Sn	0.06 ug/l	31.67	0.30	
121 Sb	0.69 ug/l	6.56	0.03	Fail
137 Ba	0.01 ug/l	127.23	0.12	
205 Tl	0.02 ug/l	7.09	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.21 ug/l	0.72	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980962.00	0.72	2775704.50	107.4	70 - 120	
45 Sc	505025.28	3.19	500780.41	100.8	70 - 120	
45 Sc	97675.82	0.75	95494.08	102.3	70 - 120	
45 Sc	1485366.30	0.36	1460980.80	101.7	70 - 120	
72 Ge	97202.46	2.05	96219.04	101.0	70 - 120	
72 Ge	45665.85	0.21	43611.78	104.7	70 - 120	
72 Ge	205716.23	0.30	213204.63	96.5	70 - 120	
115 In	1321174.40	0.50	1381264.00	95.6	70 - 120	
159 Tb	1807747.90	0.40	1843940.90	98.0	70 - 120	
165 Ho	1813776.00	0.73	1844184.90	98.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\015ICSA.D\015ICSA.D#
Date Acquired: Nov 11 2011 01:15 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSA 111111
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSA
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit ppb	Flag
7 (Li)	---	3	--------	ug/l	--------		
9 Be	45	3	0.83	ug/l	2.55		
11 B	45	3	1.56	ug/l	2.76		
23 Na	45	2	93250.00	ug/l	0.74		
24 Mg	45	2	91170.00	ug/l	1.03		
27 Al	45	2	104800.00	ug/l	1.31		
39 K	45	2	95010.00	ug/l	0.86		
44 Ca	45	2	101900.00	ug/l	1.03		
47 Ti	45	2	1961.00	ug/l	0.73		
51 V	45	2	2.53	ug/l	1.39		
52 Cr	45	2	2.35	ug/l	1.68		
55 Mn	45	2	7.50	ug/l	0.84		
56 Fe	45	2	92610.00	ug/l	0.44		
59 Co	45	2	20.49	ug/l	0.58		
60 Ni	45	2	3.86	ug/l	0.68		
63 Cu	72	2	1.60	ug/l	2.77		
65 Cu	72	2	1.70	ug/l	4.01		
66 Zn	72	2	5.11	ug/l	1.25		
75 As	72	2	1.55	ug/l	3.09		
78 Se	72	1	1.07	ug/l	5.94		
78 Se	72	2	1.16	ug/l	9.00		
88 Sr	72	2	1.41	ug/l	4.62		
88 Sr	72	3	1.37	ug/l	1.32		
95 Mo	72	3	1834.00	ug/l	1.74		
106 (Cd)	---	3	--------	ug/l	--------		
107 Ag	115	3	1.97	ug/l	1.05		
108 (Cd)	---	3	--------	ug/l	--------		
111 Cd	115	3	2.42	ug/l	3.67		
118 Sn	115	3	1.18	ug/l	1.50		
121 Sb	115	3	1.93	ug/l	2.34		
137 Ba	115	3	3.88	ug/l	2.04		
205 Tl	159	3	1.62	ug/l	1.90		
206 (Pb)	---	3	--------	ug/l	--------		
207 (Pb)	---	3	--------	ug/l	--------		
208 Pb	159	3	3.50	ug/l	0.41		

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2777926	0.73	2775705	100.1	70 - 120	
45 Sc	1	527513	3.31	500780	105.3	70 - 120	
45 Sc	2	94664	0.69	95494	99.1	70 - 120	
45 Sc	3	1465735	0.50	1460981	100.3	70 - 120	
72 Ge	1	98457	2.56	96219	102.3	70 - 120	
72 Ge	2	46798	1.22	43612	107.3	70 - 120	
72 Ge	3	216093	0.53	213205	101.4	70 - 120	
115 In	3	1235992	0.56	1381264	89.5	70 - 120	
159 Tb	3	1778881	0.42	1843941	96.5	70 - 120	
165 Ho	3	1783575	1.04	1844185	96.7	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\016ICSB.D\016ICSB.D#
Date Acquired: Nov 11 2011 01:21 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSAB 111111
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSAB
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	--------	--------	---		-	
9 Be	45	3	246.60	1.11	250	98.6	80 - 120	
11 B	45	3	1.63	0.34	---		-	
23 Na	45	2	96100.00	0.19	---		-	
24 Mg	45	2	93890.00	0.39	---		-	
27 Al	45	2	107500.00	1.06	---		-	
39 K	45	2	97710.00	0.66	---		-	
44 Ca	45	2	105500.00	1.05	---		-	
47 Ti	45	2	2014.00	0.31	2000	100.7	80 - 120	
51 V	45	2	267.30	0.98	250	106.9	80 - 120	
52 Cr	45	2	270.40	2.94	250	108.2	80 - 120	
55 Mn	45	2	264.30	0.56	250	105.7	80 - 120	
56 Fe	45	2	94360.00	0.20	---		-	
59 Co	45	2	282.40	0.78	250	113.0	80 - 120	
60 Ni	45	2	481.90	0.90	500	96.4	80 - 120	
63 Cu	72	2	218.20	1.17	250	87.3	80 - 120	
65 Cu	72	2	218.60	0.91	250	87.4	80 - 120	
66 Zn	72	2	513.60	0.37	500	102.7	80 - 120	
75 As	72	2	239.20	0.52	250	95.7	80 - 120	
78 Se	72	1	251.50	0.86	250	100.6	80 - 120	
78 Se	72	2	233.50	0.80	250	93.4	80 - 120	
88 Sr	72	2	1.62	0.60	---		-	
88 Sr	72	3	1.51	0.87	---		-	
95 Mo	72	3	2131.00	0.52	2000	106.6	80 - 120	
106 (Cd)	---	3	--------	--------	---		-	
107 Ag	115	3	535.90	1.10	500	107.2	80 - 120	
108 (Cd)	---	3	--------	--------	---		-	
111 Cd	115	3	495.00	0.98	500	99.0	80 - 120	
118 Sn	115	3	1.45	2.79	---		-	
121 Sb	115	3	274.60	0.82	250	109.8	80 - 120	
137 Ba	115	3	271.00	0.98	250	108.4	80 - 120	
205 Tl	159	3	252.50	0.03	250	101.0	80 - 120	
206 (Pb)	---	3	--------	--------	---		-	
207 (Pb)	---	3	--------	--------	---		-	
208 Pb	159	3	502.00	0.13	500	100.4	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2732517	0.30	2775705	98.4	70 - 120	
45 Sc	1	511020	0.99	500780	102.0	70 - 120	
45 Sc	2	93932	0.16	95494	98.4	70 - 120	
45 Sc	3	1418244	0.91	1460981	97.1	70 - 120	
72 Ge	1	96432	0.78	96219	100.2	70 - 120	
72 Ge	2	46185	0.98	43612	105.9	70 - 120	
72 Ge	3	209601	0.65	213205	98.3	70 - 120	
115 In	3	1203221	0.93	1381264	87.1	70 - 120	
159 Tb	3	1775149	0.42	1843941	96.3	70 - 120	
165 Ho	3	1779108	0.39	1844185	96.5	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\018_CCV.D\018_CCV.D#
Date Acquired: Nov 11 2011 01:33 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.54	ug/l	0.43	50.00	90 -	110	
11 B	42.52	ug/l	0.69	50.00	90 -	110	Fail
23 Na	1232.00	ug/l	0.90	1250.00	90 -	110	
24 Mg	2553.00	ug/l	1.13	2500.00	90 -	110	
27 Al	1002.00	ug/l	1.24	1000.00	90 -	110	
39 K	910.10	ug/l	0.77	1000.00	90 -	110	
44 Ca	2506.00	ug/l	0.99	2500.00	90 -	110	
47 Ti	49.11	ug/l	2.38	50.00	90 -	110	
51 V	50.62	ug/l	1.42	50.00	90 -	110	
52 Cr	49.48	ug/l	1.20	50.00	90 -	110	
55 Mn	54.25	ug/l	1.47	50.00	90 -	110	
56 Fe	1014.00	ug/l	0.73	1000.00	90 -	110	
59 Co	50.51	ug/l	0.59	50.00	90 -	110	
60 Ni	50.70	ug/l	1.36	50.00	90 -	110	
63 Cu	49.70	ug/l	0.40	50.00	90 -	110	
65 Cu	49.73	ug/l	0.19	50.00	90 -	110	
66 Zn	49.96	ug/l	0.97	50.00	90 -	110	
75 As	48.64	ug/l	0.06	50.00	90 -	110	
78 Se	48.54	ug/l	0.17	50.00	90 -	110	
78 Se	48.82	ug/l	0.30	50.00	90 -	110	
88 Sr	49.77	ug/l	0.41	50.00	90 -	110	
88 Sr	48.29	ug/l	0.56	50.00	90 -	110	
95 Mo	51.00	ug/l	1.55	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	25.03	ug/l	0.97	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.94	ug/l	1.03	50.00	90 -	110	
118 Sn	51.03	ug/l	1.26	50.00	90 -	110	
121 Sb	50.47	ug/l	0.55	50.00	90 -	110	
137 Ba	50.01	ug/l	0.80	50.00	90 -	110	
205 Tl	48.64	ug/l	0.31	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.34	ug/l	1.15	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3132762.00	0.73	2775704.50	112.9	70 -	120	
45 Sc	534639.31	0.21	500780.41	106.8	70 -	120	
45 Sc	99077.84	0.49	95494.08	103.8	70 -	120	
45 Sc	1513729.60	0.46	1460980.80	103.6	70 -	120	
72 Ge	102211.11	0.47	96219.04	106.2	70 -	120	
72 Ge	47244.57	0.27	43611.78	108.3	70 -	120	
72 Ge	214737.88	0.60	213204.63	100.7	70 -	120	
115 In	1389034.00	1.09	1381264.00	100.6	70 -	120	
159 Tb	1908915.90	0.41	1843940.90	103.5	70 -	120	
165 Ho	1921136.40	0.48	1844184.90	104.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\020_CCB.D\020_CCB.D#
Date Acquired: Nov 11 2011 01:46 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	342.89	0.12	
11 B	-0.21 ug/l	27.87	15.00	
23 Na	-22.55 ug/l	2.00	77.10	
24 Mg	0.32 ug/l	24.61	7.50	
27 Al	0.31 ug/l	30.94	3.96	
39 K	-13.04 ug/l	28.54	19.20	
44 Ca	-2.47 ug/l	54.66	90.00	
47 Ti	0.02 ug/l	115.52	0.78	
51 V	1.17 ug/l	4.59	0.21	Fail
52 Cr	0.01 ug/l	119.76	0.12	
55 Mn	0.00 ug/l	605.19	0.18	
56 Fe	0.83 ug/l	6.77	40.80	
59 Co	-0.30 ug/l	0.59	0.09	
60 Ni	0.00 ug/l	211.25	0.48	
63 Cu	-0.31 ug/l	1.69	0.39	
65 Cu	-0.31 ug/l	4.87	0.39	
66 Zn	0.00 ug/l	866.90	6.90	
75 As	-0.07 ug/l	27.14	0.27	
78 Se	0.03 ug/l	41.10	0.30	
78 Se	0.07 ug/l	100.62	0.30	
88 Sr	0.00 ug/l	114.02	0.03	
88 Sr	0.00 ug/l	18.44	0.03	
95 Mo	0.09 ug/l	4.01	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.01 ug/l	12.14	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	1077.10	0.06	
118 Sn	0.03 ug/l	30.18	0.30	
121 Sb	0.29 ug/l	4.29	0.03	Fail
137 Ba	0.01 ug/l	115.49	0.12	
205 Tl	0.01 ug/l	19.13	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.21 ug/l	1.63	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3042523.00	0.11	2775704.50	109.6	70 - 120	
45 Sc	529492.56	0.66	500780.41	105.7	70 - 120	
45 Sc	97690.27	0.93	95494.08	102.3	70 - 120	
45 Sc	1482243.40	0.75	1460980.80	101.5	70 - 120	
72 Ge	101254.01	0.60	96219.04	105.2	70 - 120	
72 Ge	46065.66	0.31	43611.78	105.6	70 - 120	
72 Ge	210454.86	0.84	213204.63	98.7	70 - 120	
115 In	1353362.30	0.71	1381264.00	98.0	70 - 120	
159 Tb	1859786.10	0.52	1843940.90	100.9	70 - 120	
165 Ho	1863063.90	0.81	1844184.90	101.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\032_CCV.D\032_CCV.D#
Date Acquired: Nov 11 2011 03:05 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.98	ug/l	0.90	50.00	90 -	110	
11 B	43.38	ug/l	1.83	50.00	90 -	110	Fail
23 Na	1250.00	ug/l	2.32	1250.00	90 -	110	
24 Mg	2541.00	ug/l	1.13	2500.00	90 -	110	
27 Al	992.10	ug/l	1.33	1000.00	90 -	110	
39 K	905.50	ug/l	1.76	1000.00	90 -	110	
44 Ca	2473.00	ug/l	1.61	2500.00	90 -	110	
47 Ti	49.01	ug/l	0.71	50.00	90 -	110	
51 V	50.64	ug/l	0.61	50.00	90 -	110	
52 Cr	49.61	ug/l	0.94	50.00	90 -	110	
55 Mn	54.01	ug/l	0.87	50.00	90 -	110	
56 Fe	1013.00	ug/l	1.52	1000.00	90 -	110	
59 Co	50.36	ug/l	0.94	50.00	90 -	110	
60 Ni	51.02	ug/l	1.41	50.00	90 -	110	
63 Cu	49.96	ug/l	0.98	50.00	90 -	110	
65 Cu	49.87	ug/l	0.48	50.00	90 -	110	
66 Zn	50.14	ug/l	1.34	50.00	90 -	110	
75 As	48.56	ug/l	0.79	50.00	90 -	110	
78 Se	47.94	ug/l	1.13	50.00	90 -	110	
78 Se	48.27	ug/l	2.37	50.00	90 -	110	
88 Sr	50.07	ug/l	0.24	50.00	90 -	110	
88 Sr	46.85	ug/l	0.80	50.00	90 -	110	
95 Mo	48.88	ug/l	0.75	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.26	ug/l	1.57	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.33	ug/l	0.71	50.00	90 -	110	
118 Sn	50.24	ug/l	1.40	50.00	90 -	110	
121 Sb	49.54	ug/l	1.18	50.00	90 -	110	
137 Ba	49.63	ug/l	2.49	50.00	90 -	110	
205 Tl	48.65	ug/l	0.58	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	49.96	ug/l	0.90	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3188763.30	1.52	2775704.50	114.9	70 -	120	
45 Sc	530164.38	0.11	500780.41	105.9	70 -	120	
45 Sc	96337.35	1.21	95494.08	100.9	70 -	120	
45 Sc	1476239.00	1.18	1460980.80	101.0	70 -	120	
72 Ge	102958.30	0.45	96219.04	107.0	70 -	120	
72 Ge	45995.51	1.09	43611.78	105.5	70 -	120	
72 Ge	211979.86	0.56	213204.63	99.4	70 -	120	
115 In	1355180.90	1.54	1381264.00	98.1	70 -	120	
159 Tb	1863114.30	0.80	1843940.90	101.0	70 -	120	
165 Ho	1880561.90	0.45	1844184.90	102.0	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\034_CCB.D\034_CCB.D#
Date Acquired: Nov 11 2011 03:17 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	69.30	0.12	
11 B	-0.21 ug/l	1.18	15.00	
23 Na	-12.29 ug/l	7.14	77.10	
24 Mg	0.25 ug/l	17.30	7.50	
27 Al	0.17 ug/l	52.39	3.96	
39 K	-13.38 ug/l	34.73	19.20	
44 Ca	-0.64 ug/l	345.23	90.00	
47 Ti	0.01 ug/l	249.07	0.78	
51 V	1.42 ug/l	3.15	0.21	Fail
52 Cr	0.03 ug/l	9.62	0.12	
55 Mn	0.01 ug/l	149.75	0.18	
56 Fe	0.83 ug/l	6.84	40.80	
59 Co	-0.29 ug/l	0.85	0.09	
60 Ni	-0.01 ug/l	222.72	0.48	
63 Cu	-0.38 ug/l	4.80	0.39	
65 Cu	-0.41 ug/l	3.73	0.39	
66 Zn	0.00 ug/l	2628.40	6.90	
75 As	0.07 ug/l	32.28	0.27	
78 Se	0.02 ug/l	97.30	0.30	
78 Se	0.10 ug/l	82.67	0.30	
88 Sr	0.00 ug/l	540.84	0.03	
88 Sr	0.00 ug/l	24.02	0.03	
95 Mo	0.03 ug/l	20.10	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	72.34	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	426.65	0.06	
118 Sn	0.05 ug/l	13.48	0.30	
121 Sb	0.29 ug/l	11.14	0.03	Fail
137 Ba	0.02 ug/l	76.66	0.12	
205 Tl	0.01 ug/l	1.73	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.25 ug/l	1.69	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3085838.80	0.28	2775704.50	111.2	70 - 120	
45 Sc	543008.13	0.74	500780.41	108.4	70 - 120	
45 Sc	96730.10	0.69	95494.08	101.3	70 - 120	
45 Sc	1456388.00	1.14	1460980.80	99.7	70 - 120	
72 Ge	104225.84	0.21	96219.04	108.3	70 - 120	
72 Ge	45874.70	1.25	43611.78	105.2	70 - 120	
72 Ge	211968.23	0.39	213204.63	99.4	70 - 120	
115 In	1335750.50	0.67	1381264.00	96.7	70 - 120	
159 Tb	1825624.90	0.43	1843940.90	99.0	70 - 120	
165 Ho	1821355.50	0.60	1844184.90	98.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\046_CCV.D\046_CCV.D#
Date Acquired: Nov 11 2011 04:30 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.70	ug/l	1.26	50.00	90 -	110	
11 B	42.89	ug/l	1.19	50.00	90 -	110	Fail
23 Na	1254.00	ug/l	0.41	1250.00	90 -	110	
24 Mg	2547.00	ug/l	0.59	2500.00	90 -	110	
27 Al	995.00	ug/l	1.68	1000.00	90 -	110	
39 K	893.20	ug/l	1.01	1000.00	90 -	110	Fail
44 Ca	2454.00	ug/l	1.15	2500.00	90 -	110	
47 Ti	49.64	ug/l	0.77	50.00	90 -	110	
51 V	51.07	ug/l	0.56	50.00	90 -	110	
52 Cr	49.58	ug/l	1.32	50.00	90 -	110	
55 Mn	53.75	ug/l	1.23	50.00	90 -	110	
56 Fe	1008.00	ug/l	1.04	1000.00	90 -	110	
59 Co	50.27	ug/l	0.38	50.00	90 -	110	
60 Ni	50.83	ug/l	0.09	50.00	90 -	110	
63 Cu	49.08	ug/l	0.21	50.00	90 -	110	
65 Cu	49.49	ug/l	0.52	50.00	90 -	110	
66 Zn	49.79	ug/l	0.97	50.00	90 -	110	
75 As	48.81	ug/l	0.50	50.00	90 -	110	
78 Se	46.71	ug/l	1.36	50.00	90 -	110	
78 Se	47.88	ug/l	0.76	50.00	90 -	110	
88 Sr	50.09	ug/l	1.50	50.00	90 -	110	
88 Sr	46.19	ug/l	0.77	50.00	90 -	110	
95 Mo	48.00	ug/l	1.20	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.50	ug/l	0.88	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.59	ug/l	0.88	50.00	90 -	110	
118 Sn	50.70	ug/l	0.24	50.00	90 -	110	
121 Sb	50.92	ug/l	1.07	50.00	90 -	110	
137 Ba	50.15	ug/l	0.91	50.00	90 -	110	
205 Tl	48.73	ug/l	1.15	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.41	ug/l	1.38	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3087745.80	0.94	2775704.50	111.2	70 -	120	
45 Sc	518583.69	0.47	500780.41	103.6	70 -	120	
45 Sc	93007.50	0.55	95494.08	97.4	70 -	120	
45 Sc	1424009.10	1.38	1460980.80	97.5	70 -	120	
72 Ge	100723.93	0.27	96219.04	104.7	70 -	120	
72 Ge	44570.69	0.32	43611.78	102.2	70 -	120	
72 Ge	210088.66	0.52	213204.63	98.5	70 -	120	
115 In	1313527.60	0.88	1381264.00	95.1	70 -	120	
159 Tb	1801651.50	1.57	1843940.90	97.7	70 -	120	
165 Ho	1809552.10	1.53	1844184.90	98.1	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\048_CCB.D\048_CCB.D#
Date Acquired: Nov 11 2011 04:42 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#VALUE!	
9 Be	0.00	ug/l	42.29	0.12	
11 B	-0.13	ug/l	71.11	15.00	
23 Na	-8.31	ug/l	8.06	77.10	
24 Mg	0.36	ug/l	29.70	7.50	
27 Al	0.19	ug/l	47.04	3.96	
39 K	-21.23	ug/l	17.60	19.20	
44 Ca	-3.80	ug/l	61.16	90.00	
47 Ti	0.11	ug/l	173.80	0.78	
51 V	2.15	ug/l	1.51	0.21	Fail
52 Cr	0.08	ug/l	5.21	0.12	
55 Mn	0.54	ug/l	4.21	0.18	Fail
56 Fe	1.18	ug/l	2.51	40.80	
59 Co	-0.29	ug/l	0.62	0.09	
60 Ni	-0.01	ug/l	26.89	0.48	
63 Cu	-0.51	ug/l	3.25	0.39	
65 Cu	-0.52	ug/l	1.59	0.39	
66 Zn	0.03	ug/l	92.54	6.90	
75 As	0.35	ug/l	13.98	0.27	Fail
78 Se	0.04	ug/l	38.02	0.30	
78 Se	0.10	ug/l	95.97	0.30	
88 Sr	0.00	ug/l	152.47	0.03	
88 Sr	0.01	ug/l	57.39	0.03	
95 Mo	0.04	ug/l	33.06	0.21	
106 (Cd)	--------	ug/l	--------	#VALUE!	
107 Ag	0.00	ug/l	67.11	0.09	
108 (Cd)	--------	ug/l	--------	#VALUE!	
111 Cd	0.00	ug/l	1389.00	0.06	
118 Sn	0.07	ug/l	25.68	0.30	
121 Sb	0.41	ug/l	2.24	0.03	Fail
137 Ba	0.01	ug/l	46.25	0.12	
205 Tl	0.01	ug/l	17.61	0.03	
206 (Pb)	--------	ug/l	--------	#VALUE!	
207 (Pb)	--------	ug/l	--------	#VALUE!	
208 Pb	-0.24	ug/l	0.75	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3066933.50	0.82	2775704.50	110.5	70 - 120	
45 Sc	480667.06	6.48	500780.41	96.0	70 - 120	
45 Sc	92147.45	0.95	95494.08	96.5	70 - 120	
45 Sc	1424222.60	0.94	1460980.80	97.5	70 - 120	
72 Ge	96248.01	5.46	96219.04	100.0	70 - 120	
72 Ge	44554.26	0.07	43611.78	102.2	70 - 120	
72 Ge	211003.38	0.55	213204.63	99.0	70 - 120	
115 In	1322454.80	0.90	1381264.00	95.7	70 - 120	
159 Tb	1796985.40	1.28	1843940.90	97.5	70 - 120	
165 Ho	1818211.10	0.91	1844184.90	98.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\060_CCV.D\060_CCV.D#
Date Acquired: Nov 11 2011 06:04 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	50.00	90 - 110	
9 Be	43.59 ug/l	0.52	50.00	90 - 110	Fail
11 B	39.89 ug/l	0.37	50.00	90 - 110	Fail
23 Na	1206.00 ug/l	0.25	1250.00	90 - 110	
24 Mg	2492.00 ug/l	1.14	2500.00	90 - 110	
27 Al	988.60 ug/l	0.65	1000.00	90 - 110	
39 K	883.40 ug/l	0.62	1000.00	90 - 110	Fail
44 Ca	2445.00 ug/l	1.17	2500.00	90 - 110	
47 Ti	49.55 ug/l	0.70	50.00	90 - 110	
51 V	52.18 ug/l	0.86	50.00	90 - 110	
52 Cr	49.10 ug/l	0.91	50.00	90 - 110	
55 Mn	53.67 ug/l	0.37	50.00	90 - 110	
56 Fe	999.40 ug/l	0.75	1000.00	90 - 110	
59 Co	49.93 ug/l	0.37	50.00	90 - 110	
60 Ni	50.18 ug/l	0.47	50.00	90 - 110	
63 Cu	48.01 ug/l	1.08	50.00	90 - 110	
65 Cu	47.95 ug/l	1.23	50.00	90 - 110	
66 Zn	48.48 ug/l	0.85	50.00	90 - 110	
75 As	48.40 ug/l	0.84	50.00	90 - 110	
78 Se	44.75 ug/l	1.93	50.00	90 - 110	Fail
78 Se	46.76 ug/l	2.40	50.00	90 - 110	
88 Sr	49.65 ug/l	0.75	50.00	90 - 110	
88 Sr	43.83 ug/l	0.41	50.00	90 - 110	Fail
95 Mo	45.84 ug/l	0.72	50.00	90 - 110	
106 (Cd)	-------- ug/l	--------	50.00	90 - 110	
107 Ag	24.47 ug/l	1.71	25.00	90 - 110	
108 (Cd)	-------- ug/l	--------	50.00	90 - 110	
111 Cd	48.94 ug/l	2.42	50.00	90 - 110	
118 Sn	49.84 ug/l	1.46	50.00	90 - 110	
121 Sb	50.04 ug/l	0.62	50.00	90 - 110	
137 Ba	50.55 ug/l	2.58	50.00	90 - 110	
205 Tl	46.49 ug/l	1.08	50.00	90 - 110	
206 (Pb)	-------- ug/l	--------	50.00	90 - 110	
207 (Pb)	-------- ug/l	--------	50.00	90 - 110	
208 Pb	48.04 ug/l	0.60	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3120885.30	0.68	2775704.50	112.4	70 - 120	
45 Sc	528291.50	1.60	500780.41	105.5	70 - 120	
45 Sc	94943.62	0.72	95494.08	99.4	70 - 120	
45 Sc	1497531.60	0.60	1460980.80	102.5	70 - 120	
72 Ge	107482.91	1.52	96219.04	111.7	70 - 120	
72 Ge	46381.07	0.48	43611.78	106.3	70 - 120	
72 Ge	233866.19	0.20	213204.63	109.7	70 - 120	
115 In	1403864.60	1.34	1381264.00	101.6	70 - 120	
159 Tb	1927869.00	0.42	1843940.90	104.6	70 - 120	
165 Ho	1902582.90	0.32	1844184.90	103.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

5 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\062_CCB.D\062_CCB.D#
Date Acquired: Nov 11 2011 06:16 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	45.82	0.12	
11 B	-0.52 ug/l	3.32	15.00	
23 Na	-14.13 ug/l	1.97	77.10	
24 Mg	0.40 ug/l	18.80	7.50	
27 Al	0.37 ug/l	36.41	3.96	
39 K	-25.01 ug/l	22.10	19.20	
44 Ca	-5.06 ug/l	39.41	90.00	
47 Ti	-0.01 ug/l	153.32	0.78	
51 V	3.23 ug/l	1.14	0.21	Fail
52 Cr	0.11 ug/l	18.29	0.12	
55 Mn	0.56 ug/l	2.13	0.18	Fail
56 Fe	0.91 ug/l	1.90	40.80	
59 Co	-0.29 ug/l	0.95	0.09	
60 Ni	-0.01 ug/l	26.61	0.48	
63 Cu	-0.57 ug/l	1.33	0.39	
65 Cu	-0.57 ug/l	1.17	0.39	
66 Zn	0.10 ug/l	36.98	6.90	
75 As	0.63 ug/l	2.54	0.27	Fail
78 Se	0.03 ug/l	36.72	0.30	
78 Se	0.20 ug/l	17.06	0.30	
88 Sr	0.01 ug/l	140.22	0.03	
88 Sr	0.00 ug/l	12.28	0.03	
95 Mo	0.01 ug/l	62.46	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	55.01	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	225.87	0.06	
118 Sn	0.05 ug/l	34.43	0.30	
121 Sb	0.19 ug/l	1.47	0.03	Fail
137 Ba	0.00 ug/l	114.50	0.12	
205 Tl	0.01 ug/l	8.77	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.25 ug/l	1.47	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3025901.00	0.96	2775704.50	109.0	70 - 120	
45 Sc	540897.69	0.43	500780.41	108.0	70 - 120	
45 Sc	95060.94	0.12	95494.08	99.5	70 - 120	
45 Sc	1475771.40	0.55	1460980.80	101.0	70 - 120	
72 Ge	108235.30	0.84	96219.04	112.5	70 - 120	
72 Ge	46007.31	1.05	43611.78	105.5	70 - 120	
72 Ge	232509.75	0.78	213204.63	109.1	70 - 120	
115 In	1409864.80	1.11	1381264.00	102.1	70 - 120	
159 Tb	1904300.90	0.32	1843940.90	103.3	70 - 120	
165 Ho	1879356.80	0.14	1844184.90	101.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

METALS
Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 11/15/2011 12:58:31 PM

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\024SMPL.D\024SMPL.D#
Date Acquired: Nov 11 2011 02:16 pm
Operator: NBS
Sample Name: 111110A-3015-BLK
Misc Info: 111110A-3015
Vial Number: 3101
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	-0.01	ug/l	-0.01	2.73	1000	
11 B	0.02	ug/l	0.02	15.56	1000	
23 Na	35.01	ug/l	38.90	12.71	25000	
24 Mg	5.25	ug/l	5.83	2.15	50000	
27 Al	6.63	ug/l	7.37	3.21	20000	
39 K	-19.19	ug/l	-21.32	24.75	20000	
44 Ca	187.10	ug/l	207.87	2.16	50000	
47 Ti	0.09	ug/l	0.10	43.80	1000	
51 V	-0.78	ug/l	-0.86	1.87	1000	
52 Cr	-0.04	ug/l	-0.04	28.95	1000	
55 Mn	0.23	ug/l	0.26	6.88	1000	
56 Fe	2.70	ug/l	3.00	5.14	20000	
59 Co	-0.27	ug/l	-0.30	0.86	1000	
60 Ni	0.12	ug/l	0.14	23.87	1000	
63 Cu	-0.44	ug/l	-0.49	2.50	1000	
65 Cu	-0.44	ug/l	-0.49	2.58	1000	
66 Zn	7.48	ug/l	8.31	3.75	1000	
75 As	-0.53	ug/l	-0.59	2.55	1000	
78 Se	-0.01	ug/l	-0.01	26.71	1000	
78 Se	-0.01	ug/l	-0.02	520.99	1000	
88 Sr	0.14	ug/l	0.16	12.74	1000	
88 Sr	0.14	ug/l	0.16	3.88	1000	
95 Mo	0.02	ug/l	0.02	6.80	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	0.00	ug/l	0.00	212.49	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	0.02	ug/l	0.02	26.66	1000	
118 Sn	0.12	ug/l	0.13	6.01	1000	
121 Sb	0.07	ug/l	0.08	7.73	1000	
137 Ba	0.04	ug/l	0.04	9.41	1000	
205 Tl	0.01	ug/l	0.01	22.33	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	0.17	ug/l	0.19	1.81	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3205542.30	0.83	2775704.50	115.5	70 - 120	
45 Sc	579022.81	0.89	500780.41	115.6	70 - 120	
45 Sc	106222.45	0.45	95494.08	111.2	70 - 120	
45 Sc	1635333.40	0.66	1460980.80	111.9	70 - 120	
72 Ge	108091.34	0.67	96219.04	112.3	70 - 120	
72 Ge	49642.59	1.23	43611.78	113.8	70 - 120	
72 Ge	228973.69	0.34	213204.63	107.4	70 - 120	
115 In	1505106.90	0.63	1381264.00	109.0	70 - 120	
159 Tb	2069441.80	1.02	1843940.90	112.2	70 - 120	
165 Ho	2056674.30	0.60	1844184.90	111.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\025SMPL.D\025SMPL.D#
Date Acquired: Nov 11 2011 02:22 pm
Operator: NBS
Sample Name: 111110A-3015-LCS
Misc Info: 111110A-3015
Vial Number: 3102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.09	ug/l	7.88	0.95	1000	
11 B	34.46	ug/l	38.29	0.83	1000	
23 Na	4313.00	ug/l	4791.74	0.33	25000	
24 Mg	4287.00	ug/l	4762.86	0.50	50000	
27 Al	378.80	ug/l	420.85	1.07	20000	
39 K	819.80	ug/l	910.80	1.14	20000	
44 Ca	4772.00	ug/l	5301.69	0.81	50000	
47 Ti	43.16	ug/l	47.95	0.73	1000	
51 V	44.89	ug/l	49.87	0.68	1000	
52 Cr	46.85	ug/l	52.05	0.52	1000	
55 Mn	48.25	ug/l	53.61	0.34	1000	
56 Fe	188.60	ug/l	209.53	0.62	20000	
59 Co	45.14	ug/l	50.15	0.81	1000	
60 Ni	45.24	ug/l	50.26	0.75	1000	
63 Cu	42.57	ug/l	47.30	0.51	1000	
65 Cu	42.70	ug/l	47.44	0.10	1000	
66 Zn	94.53	ug/l	105.02	0.68	1000	
75 As	39.81	ug/l	44.23	0.66	1000	
78 Se	36.57	ug/l	40.63	2.90	1000	
78 Se	37.79	ug/l	41.98	1.41	1000	
88 Sr	47.19	ug/l	52.43	0.39	1000	
88 Sr	45.26	ug/l	50.28	0.18	1000	
95 Mo	45.43	ug/l	50.47	0.63	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	16.57	ug/l	18.41	1.13	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	8.34	ug/l	9.26	2.50	1000	
118 Sn	48.01	ug/l	53.34	0.41	1000	
121 Sb	42.84	ug/l	47.60	0.50	1000	
137 Ba	44.60	ug/l	49.55	0.91	1000	
205 Tl	43.45	ug/l	48.27	0.08	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	45.08	ug/l	50.08	0.48	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3106113.00	0.94	2775704.50	111.9	70 - 120	
45 Sc	583837.94	0.76	500780.41	116.6	70 - 120	
45 Sc	104815.63	0.97	95494.08	109.8	70 - 120	
45 Sc	1623628.90	0.72	1460980.80	111.1	70 - 120	
72 Ge	109519.99	0.75	96219.04	113.8	70 - 120	
72 Ge	48705.67	0.97	43611.78	111.7	70 - 120	
72 Ge	226177.02	0.48	213204.63	106.1	70 - 120	
115 In	1499201.30	0.50	1381264.00	108.5	70 - 120	
159 Tb	2052386.10	0.41	1843940.90	111.3	70 - 120	
165 Ho	2061841.80	0.62	1844184.90	111.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Matrix Spike Recoveries

METALS

APPL ID: **111110W-49334 MS - 161255**

Sample ID: AY49334

Client ID: ES047

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
6020	LEAD (PB) (DISSOLVE	50.0	ND	49.5	48.8	99.0	97.6	1.4	20	80-120	1/10/2011	1/11/2011	1/10/2011	1/11/2011	161255	AY49334

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\043SMPL.D\043SMPL.D#
Date Acquired: Nov 11 2011 04:12 pm
Operator: NBS
Sample Name: AY49334W52 MS
Misc Info: 111110A-3015
Vial Number: 3204
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	5.49	ug/l	6.10	1.06	1000	
11 B	106.30	ug/l	118.10	0.86	1000	
23 Na	67250.00	ug/l	74714.75	0.69	25000	>Cal
24 Mg	27980.00	ug/l	31085.78	0.94	50000	
27 Al	425.20	ug/l	472.40	1.20	20000	
39 K	3527.00	ug/l	3918.50	0.62	20000	
44 Ca	17630.00	ug/l	19586.93	1.01	50000	
47 Ti	46.43	ug/l	51.58	0.68	1000	
51 V	47.50	ug/l	52.77	0.75	1000	
52 Cr	46.44	ug/l	51.59	0.93	1000	
55 Mn	1471.00	ug/l	1634.28	0.54	1000	>Cal
56 Fe	1106.00	ug/l	1228.77	0.88	20000	
59 Co	44.68	ug/l	49.64	1.20	1000	
60 Ni	44.83	ug/l	49.81	0.65	1000	
63 Cu	43.23	ug/l	48.03	0.77	1000	
65 Cu	43.18	ug/l	47.97	0.92	1000	
66 Zn	91.21	ug/l	101.33	0.62	1000	
75 As	42.58	ug/l	47.31	0.67	1000	
78 Se	38.49	ug/l	42.76	2.21	1000	
78 Se	39.09	ug/l	43.43	0.75	1000	
88 Sr	163.00	ug/l	181.09	0.38	1000	
88 Sr	163.50	ug/l	181.65	1.22	1000	
95 Mo	47.02	ug/l	52.24	1.05	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	17.43	ug/l	19.36	0.62	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	8.85	ug/l	9.83	1.40	1000	
118 Sn	49.73	ug/l	55.25	0.73	1000	
121 Sb	43.10	ug/l	47.88	0.46	1000	
137 Ba	71.28	ug/l	79.19	1.16	1000	
205 Tl	43.09	ug/l	47.87	0.35	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	44.63	ug/l	49.58	1.25	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3108599.50	0.69	2775704.50	112.0	70 - 120	
45 Sc	657553.31	0.13	500780.41	131.3	70 - 120	IS Fai
45 Sc	107348.46	1.08	95494.08	112.4	70 - 120	
45 Sc	2219467.30	0.83	1460980.80	151.9	70 - 120	IS Fai
72 Ge	104662.85	0.47	96219.04	108.8	70 - 120	
72 Ge	48176.50	1.42	43611.78	110.5	70 - 120	
72 Ge	232443.67	0.24	213204.63	109.0	70 - 120	
115 In	1472805.40	0.82	1381264.00	106.6	70 - 120	
159 Tb	2035764.30	0.83	1843940.90	110.4	70 - 120	
165 Ho	2055214.00	0.90	1844184.90	111.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\049SMPL.D\049SMPL.D#
Date Acquired: Nov 11 2011 04:48 pm
Operator: NBS
Sample Name: AY49334WS2 MSD
Misc Info: 111110A-3015
Vial Number: 3205
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	5.56	ug/l	6.17	0.61	1000	
11 B	105.40	ug/l	117.10	0.69	1000	
23 Na	67550.00	ug/l	75048.05	0.54	25000	>Cal
24 Mg	27890.00	ug/l	30985.79	0.29	50000	
27 Al	375.40	ug/l	417.07	1.44	20000	
39 K	3571.00	ug/l	3967.38	0.91	20000	
44 Ca	17520.00	ug/l	19464.72	1.41	50000	
47 Ti	46.01	ug/l	51.12	3.10	1000	
51 V	48.57	ug/l	53.96	1.00	1000	
52 Cr	47.16	ug/l	52.39	1.21	1000	
55 Mn	1476.00	ug/l	1639.84	0.85	1000	>Cal
56 Fe	1047.00	ug/l	1163.22	0.58	20000	
59 Co	45.69	ug/l	50.76	0.38	1000	
60 Ni	45.51	ug/l	50.56	0.70	1000	
63 Cu	43.37	ug/l	48.18	0.83	1000	
65 Cu	43.50	ug/l	48.33	1.42	1000	
66 Zn	81.55	ug/l	90.60	0.72	1000	
75 As	43.24	ug/l	48.04	0.69	1000	
78 Se	39.39	ug/l	43.76	2.26	1000	
78 Se	40.07	ug/l	44.52	0.71	1000	
88 Sr	163.50	ug/l	181.65	0.57	1000	
88 Sr	165.60	ug/l	183.98	0.32	1000	
95 Mo	48.36	ug/l	53.73	0.93	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	17.97	ug/l	19.96	1.57	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.84	ug/l	9.82	0.94	1000	
118 Sn	50.45	ug/l	56.05	1.04	1000	
121 Sb	46.12	ug/l	51.24	0.92	1000	
137 Ba	70.84	ug/l	78.70	1.10	1000	
205 Tl	42.97	ug/l	47.74	0.67	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	43.94	ug/l	48.82	1.12	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3085573.50	1.49	2775704.50	111.2	70 - 120	
45 Sc	659528.88	0.85	500780.41	131.7	70 - 120	IS Fai
45 Sc	103045.15	1.13	95494.08	107.9	70 - 120	
45 Sc	2177886.80	0.53	1460980.80	149.1	70 - 120	IS Fai
72 Ge	102879.23	0.86	96219.04	106.9	70 - 120	
72 Ge	46907.60	1.75	43611.78	107.6	70 - 120	
72 Ge	224264.44	0.97	213204.63	105.2	70 - 120	
115 In	1453996.00	1.44	1381264.00	105.3	70 - 120	
159 Tb	2021027.00	0.98	1843940.90	109.6	70 - 120	
165 Ho	2010739.50	0.60	1844184.90	109.0	70 - 120	

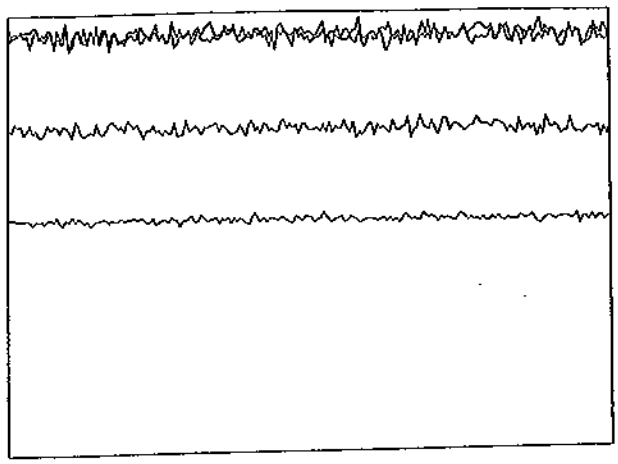
ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

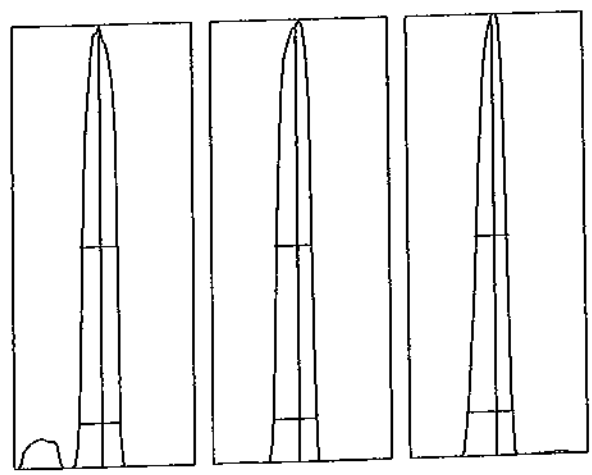
Tune Report

Tune File : nogas.u
Comment : 111111



Integration Time:	0.1000 sec	
Sampling Period:	0.6200 sec	
n:	200	
Oxide:	156/140	1.410%
Doubly Charged:	70/140	1.051%

m/z	Range	Count	Mean	RSD%	Background
7	50,000	26283.0	26440.3	1.09	0.40
89	20,000	19274.0	18861.9	1.39	2.20
205	20,000	14914.0	14722.1	1.50	5.80
156/140	2	1.520%	1.398%	6.48	
70/140	2	1.065%	1.038%	8.17	
140	20,000	18882.0	19064.3	1.33	4.10



m/z:	7	89	205
Height:	26,611	18,699	14,936
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.60
W-10%:	0.700	0.7500	0.800

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Tune Report

Tune File : nogas.u
Comment : 111111

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	128
RF Matching	:	1.66 V	Extract 2	:	-130 V	AMU Offset	:	127
Smpl Depth	:	9.6 mm	Omega Bias-ce	:	-22 V	Axis Gain	:	1
Torch-H	:	-0.1 mm	Omega Lens-ce	:	-1.2 V	Axis Offset	:	-0.02
Torch-V	:	0.1 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	1.02 L/min	QP Focus	:	5 V			
Makeup Gas	:	0.1 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1660 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1460 V
S/C Temp	:	2 degC	OctP Bias	:	-6 V			

===Reaction Cell===

Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

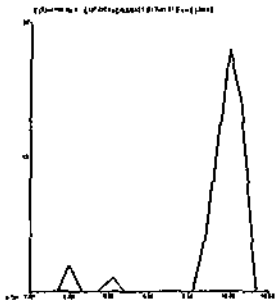
Generated : Nov 11, 2011 10:05:38
Printed : Nov 11, 2011 10:05:42

200.8 QC Tune Report

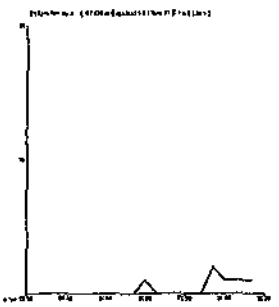
Data File: C:\ICPCHEM\1\DATA\11K11100.B\001TUNE.D
Date Acquired: Nov 11 2011 11:48 am
Acq. Method: TN200_8.M
Operator: NBS
Sample Name: 100ppb Tune sol
Misc Info:
Vial Number: 1303
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

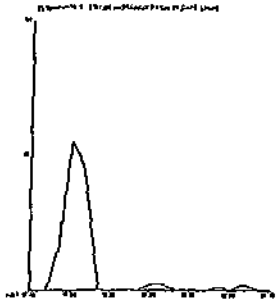
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	65891175	64840372	65630536	65890148	66486284	66608536	1.01	5.00	
24 Mg	120432836	########	########	########	########	########	1.16	5.00	
59 Co	111175066	########	########	########	########	########	0.73	5.00	
115 In	122240964	########	########	########	########	########	0.81	5.00	
208 Pb	63959189	64419004	64182972	63372424	64206080	63615464	1.13	5.00	



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.65
Required: 0.80
Flag:



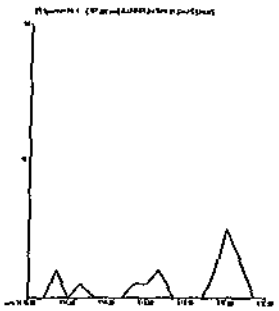
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



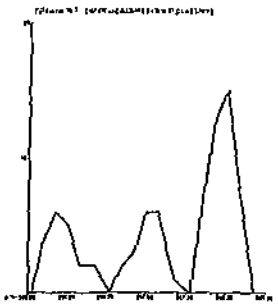
115 In

Mass Calib.

Actual:	115.05		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.90		
Flag:			



208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.80		
Flag:			

Tune Result: Pass

Metals Standards Log Book # 34 Page #001

NBS 11/11/11

NBS 11/11/11
6020/6020A
(A)

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 11/11/2011
Expires: 11/18/2011
Prep Date 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot # K19023
20mL HCL / 2000mL DI Water
Lot #4110110
Expires: 11/18/2011

Standard 6

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 3 11/18/2011

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1036407-28139
25 uL	CCV-B	Env. Express	1036410-28140
25 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 2 11/18/2011
Amount STD
500 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 1 11/18/2011
Amount STD
50 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-MS ICV 11/18/2011
Amount STD

50 uL	QCS ICV A	CPI	11C174-28548
50 uL	QCS ICV B	CPI	11C174-28549

Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSA Prep: 11/18/2011

1 mL	ICSA	CPI	11C066-28528

Prepared in 5 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSAB Prep: 11/18/2011

1mL	ICSA	CPI	11C066-28528
0.025mL	INT	O2SI	1023805-28210

Prepared in 5 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-LDR 11/18/2011
Amount STD

50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 10 mL of 1% HNO3/1.0% HCL 11/11/2011

SDM 11/11/11

SDM 11/11/11
200.7
Exp (A)

2%HNO3 / 2%HCl BLK				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE
40 mL	HCL	BDH	4110110	10/14/2011
40 mL	HNO3	JT BAKER	K19023	10/14/2011
Prepared in 2000 ml DI Water				

STD 1 / LDL 200.7				
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.250 mL	200.7 LDL	O2SI	1028857-29687	11/1/2012
Prepared in 50 ml 2%HNO3/2%HCl				

STD 3 / HDL 200.7				
0.5 mL	CCV-A	ABSOLUTE	091409-25206	9/14/2012
0.5 mL	CCV-B	ABSOLUTE	091109-25206	9/14/2012
0.5 mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012

STD 2 / CCV1 200.7				
AMOUNT	STD	PREP DATE	EXP DATE	
25mL	STD 3	11/4/2011	11/11/2011	
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011	

CCV2 200.7			
15mL	STD 3	11/4/2011	11/11/2011
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011

200.7 ICV				
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
Prepared in 50ml 2%HNO3/2%HCl				

200.7 ICSA				
0.5mL	Al	CPI	10E012-27685	4/20/2012
0.5mL	Ca	CPI	11A008-28528	9/15/2012
0.5mL	Mg	CPI	10H213-2786	4/20/2012
0.5mL	Fe	O2SI	1022245-27699	4/22/2012
Prepared in 50 ml 2%HNO3/2%HCl				

200.7 ICSAB				
0.5mL	Al	CPI	10E012-27685	4/20/2012
0.5mL	Ca	CPI	11A008-28528	9/15/2012
0.5mL	Mg	CPI	10H213-2786	4/20/2012
0.5mL	Fe	O2SI	1022245-27699	4/22/2012
0.25mL	INT SPECIAL MIX	O2SI	160495-01-01	3/1/2012
Prepared in 50 ml 2%HNO3/2%HCl				

SDM 11/11/11
6010B/6010C
(A)

1%HNO3 / 5%HCl BLK				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE
100 mL	HCL	BDH	4110110	10/14/2011
20 mL	HNO3	JT BAKER	K19023	10/14/2011
Prepared in 2000 ml DI Water				

STD 1 / LDL 6010B/6010C				
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.5 mL	6010 LDL	ABSOLUTE	091409-25205	9/14/2012
Prepared in 50 ml 1%HNO3/5%HCl				

STD 3 / HDL 6010B/6010C				
1ML	CCV-A	ABSOLUTE	091409-25206	9/14/2012
1ML	CCV-B	ABSOLUTE	091109-25206	9/14/2012
1ML	CCV-C	ABSOLUTE	091009-25207	9/10/2012
Prepared in 100 ml 1%HNO3 / 5%HCl				

STD 2 / CCV1 6010B/6010C/6010C				
AMOUNT	STD	PREP DATE	EXP DATE	
25mL	STD 3	11/11/2011	11/18/2011	
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011	

CCV2 6010B/6010C			
AMOUNT	STD	PREP DATE	EXP DATE
15mL	STD 3	11/11/2011	11/18/2011
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011

6010B/6010C ICSA				
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
1mL	Al	CPI	10E012-27685	4/20/2012
1mL	Ca	CPI	11A008-28528	9/15/2012
1mL	Mg	CPI	10H213-2786	4/20/2012
1mL	Fe	O2SI	1022245-27699	4/22/2012
Prepared in 50 ml 1%HNO3/5%HCl				

6010B/6010C ICSAB				
1mL	Al	CPI	10E012-27685	4/20/2012
1mL	Ca	CPI	11A008-28528	9/15/2012
1mL	Mg	CPI	10H213-2786	4/20/2012
1mL	Fe	O2SI	1022245-27699	4/22/2012
0.5mL	JT SPECIAL M	O2SI	160495-01-01	3/1/2012
Prepared in 50 ml 1%HNO3/5%HCl				

6010B/6010C ICV				
0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
Prepared in 50ml 1%HNO3/5%HCl				

SDM 11/11/11

M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	111110A Blk				45mL	50mL	11/10/11 10:40	equip: Venus
2	111110A LCS		90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
3	AY48273	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
4	AY48273 DUP	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
5	AY48273 MS	AY48273W01	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
6	AY48639	AY48639W05			45mL	50mL	11/10/11 10:40	equip: Venus
7	AY48640	AY48640W05			45mL	50mL	11/10/11 10:40	equip: Venus
8	AY48641	AY48641W05			45mL	50mL	11/10/11 10:40	equip: Venus
9	AY48642	AY48642W05			45mL	50mL	11/10/11 10:40	equip: Venus
10	AY48643	AY48643W05			45mL	50mL	11/10/11 10:40	equip: Venus
11	AY48644	AY48644W02			45mL	50mL	11/10/11 10:40	equip: Venus
12	AY49333	AY49333W13			45mL	50mL	11/10/11 10:40	equip: Venus
13	AY49334	AY49334W51			45mL	50mL	11/10/11 10:40	equip: Venus
14	AY49334 MS	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
15	AY49334 MSD	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
16	AY49336	AY49336W13			45mL	50mL	11/10/11 10:40	equip: Venus
17	AY49481	AY49481W13			45mL	50mL	11/10/11 10:40	equip: Venus
18	AY49482	AY49482W13			45mL	50mL	11/10/11 10:40	equip: Venus
19	AY49559	AY49559W31			45mL	50mL	11/10/11 10:40	equip: Venus
20	AY49559 MS	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
21	AY49559 MSD	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
22	AY49561	AY49561W08			45mL	50mL	11/10/11 10:40	equip: Venus
23	AY49562	AY49562W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot#
HNO3 J.T.B k19023 0095

Sample GOO Transfer	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11-10-11
Time	13:00
Moved to	MSTAGS

Technicians Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: [signature] **Date:** 11-10-11

M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	AY50005	AY50005W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot#	
HNO3 J.T.B k19023 0095	

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's Initials	NBS
Date	11-10-11
Time	13:00
Moved to	MSTACS

Technician's Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: SA **Date:** 11-10-11

6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	11 Nov 2011	12:08	Calibration Blank		111111A	1.
2	11 Nov 2011	12:14	111111 Standard 1		111111A	1.
3	11 Nov 2011	12:20	111111 Standard 2		111111A	1.
4	11 Nov 2011	12:27	111111 Standard 3		111111A	1.
5	11 Nov 2011	12:33	111111 Standard 4		111111A	1.
6	11 Nov 2011	12:39	ICV 111111		111111A	1.
8	11 Nov 2011	12:57	ICB 111111		111111A	1.
9	11 Nov 2011	13:03	CCV 111111		111111A	1.
10	11 Nov 2011	13:09	CCB 111111		111111A	1.
11	11 Nov 2011	13:15	ICSA 111111		111111A	1.
12	11 Nov 2011	13:21	ICSAB 111111		111111A	1.
13	11 Nov 2011	13:33	CCV 111111		111111A	1.
14	11 Nov 2011	13:46	CCB 111111		111111A	1.
15	11 Nov 2011	14:16	111110A-3015-BLK		111111A	1.
16	11 Nov 2011	14:22	111110A-3015-LCS		111111A	1.
23	11 Nov 2011	15:05	CCV 111111		111111A	1.
24	11 Nov 2011	15:17	CCB 111111		111111A	1.
31	11 Nov 2011	16:00	AY49333W13		111111A	1.
32	11 Nov 2011	16:06	AY49334W51		111111A	1.
33	11 Nov 2011	16:12	AY49334W52 MS		111111A	1.
36	11 Nov 2011	16:30	CCV 111111		111111A	1.
37	11 Nov 2011	16:42	CCB 111111		111111A	1.
38	11 Nov 2011	16:48	AY49334W52 MSD		111111A	1.
39	11 Nov 2011	16:54	AY49334W51-A		111111A	1.
40	11 Nov 2011	17:00	AY49334W51-1/5		111111A	5.
49	11 Nov 2011	18:04	CCV 111111		111111A	1.
50	11 Nov 2011	18:16	CCB 111111		111111A	1.

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

NELAP CERTIFICATE NUMBER 01955
DOD ELAP CERTIFICATE NUMBER ADE - 1482

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.
7979 GSRI Avenue
Baton Rouge, LA 70820

Report Date 11/10/2011

GCAL Report 211103124

Deliver To	Appl, Inc. 908 North Temperance Ave Clovis, CA 93611 559-275-2175
Attn	Cynthia Clark

Project Appl, Inc.

CASE NARRATIVE

Client: Environet, Inc. **Report:** 211103124

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the VPH analysis, samples all 21110312401 (ES046), 21110312402 (ES047), 21110312403 (ES047 MS) and 21110312404 (ES047 MSD) had to be diluted to bracket the concentrations of target ranges within the calibration range of the instrument. The dilutions are reflected in elevated detection limits.

SEMI-VOLATILES GAS CHROMATOGRAPHY

In the EPH analysis for prep batch 468306, the MS/MSD exhibited recovery failures. All LCS/LCSD recoveries are acceptable.

Sample Test Summary Report: 211103124

Lab Sample ID	Cust. Sample ID	Matrix	Proc. Desc.	
21110312401	ES046	W	EPH Water	
21110312401	ES046	W	VPH Water	
21110312401	ES046	W	EPH Water Prep	
21110312402	ES047	W	EPH Water	
21110312402	ES047	W	VPH Water	
21110312402	ES047	W	EPH Water Prep	
21110312403	ES047 MS	W	EPH Water	
21110312403	ES047 MS	W	VPH Water	
21110312403	ES047 MS	W	EPH Water Prep	
21110312404	ES047 MSD	W	EPH Water	
21110312404	ES047 MSD	W	VPH Water	
21110312404	ES047 MSD	W	EPH Water Prep	
21110312405	ES049	W	EPH Water	
21110312405	ES049	W	VPH Water	
21110312405	ES049	W	EPH Water Prep	

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Robyn Migues
Technical Director
GCAL REPORT 211103124

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21110312401	ES046	Water	10/24/2011 09:55	10/29/2011 09:10
21110312402	ES047	Water	10/24/2011 08:30	10/29/2011 09:10
21110312403	ES047 MS	Water	10/24/2011 08:30	10/29/2011 09:10
21110312404	ES047 MSD	Water	10/24/2011 08:30	10/29/2011 09:10
21110312405	ES049	Water	10/24/2011 14:35	10/29/2011 09:10

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

GC Column (1): DB-5MS-30M ID: .25 (mm) GC Cloumn (2): ID: (mm)

Method: MASSEPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES046	97	40	140						79	40	140						0
2.	ES047	88	40	140						76	40	140						0
3.	ES047 MS	85	40	140						66	40	140						0
4.	ES047 MSD	88	40	140						63	40	140						0
5.	ES049	69	40	140						62	40	140						0
6.	MB1002043	98	40	140						79	40	140						0
7.	LCS1002044	101	40	140						69	40	140						0
8.	LCSD1002045	103	40	140						83	40	140						0

SMC 1 : 1-Chlorooctadecane SMC 2 : O-Terphenyl

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

FORM II ORG-II

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

Contract: Method: MASSEPH

Prep Batch: 468306 Analytical Batch: 468719

SAMPLE NO : 1002044

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	250	0	164	66		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	150	0	128	85		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	100	0	47.3	47		40 - 140

SAMPLE NO : 1002045

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
C11-C22 Aromatics	ug/L	250	178	71		8		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	150	107	71		18		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	100	42.8	43		10		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: ES047

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

Contract: Method: MASSEPH

Prep Batch: 468306 Analytical Batch: 468719

SAMPLE NO : 21110312403

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	255	166	310	56		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	153	0	120	78		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	102	40	74	33	*	40 - 140

SAMPLE NO : 21110312404

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
C11-C22 Aromatics	ug/L	255	302	53		3		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	153	121	79		.8		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	102	57	17	*	26		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 2 out of 6 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1002043

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1002043 | SAS No.: | SDG No.: 211103124

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted: 11/02/11

Date Analyzed (1): 11/04/11 | Time (1): 1118 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCS19B | Instrument ID (2):

GC Column (1): DB-5MS-30M | ID: .25 (mm) | GC Column (2): | ID: (mm)

Method: MASSEPH | Prep Batch: 468306 | Analytical Batch: 468719

Lab File ID: 2111104/sv19b0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1002044	1002044	11/04/11	1206	GCS19B
2.	LCSD1002045	1002045	11/04/11	1254	GCS19B
3.	ES046	21110312401	11/04/11	1431	GCS19B
4.	ES047	21110312402	11/04/11	1658	GCS19B
5.	ES047 MS	21110312403	11/04/11	1747	GCS19B
6.	ES047 MSD	21110312404	11/04/11	1836	GCS19B
7.	ES049	21110312405	11/04/11	1925	GCS19B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES046

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21110312401

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0955

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1431

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b062s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	166		42.1	42.1	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.0	U	31.3	60.0	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	28.0	J	21.8	21.8	100

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b062.d
Lab Smp Id: 21110312401 Client Smp ID: 1
Inj Date : 04-NOV-2011 14:31
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312401*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	10.168	7.881	2.287	403306950	141.902	284 (M1)
M 22 Arom C11-C22				403306950	141.902	284

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b062s.d
Lab Smp Id: 21110312401 Client Smp ID: 1
Inj Date : 04-NOV-2011 14:31
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312401*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.450	8.454	-0.004	48009478	19.5360	39.1	
$ 5 2-Bromonaphthalene	8.835	8.839	-0.004	33288523	21.2194	42.4	
$ 10 O-Terphenyl	9.824	9.823	0.001	46241125	15.6814	31.4	
$ 11 Chloro-octadecane	10.168	10.174	-0.006	46577301	17.0021	34.0	
M 113 Total Surrogate Area				174116427			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b062.d

Date : 04-NOV-2011 14:31

Client ID: 1

Instrument: gcsv19b.i

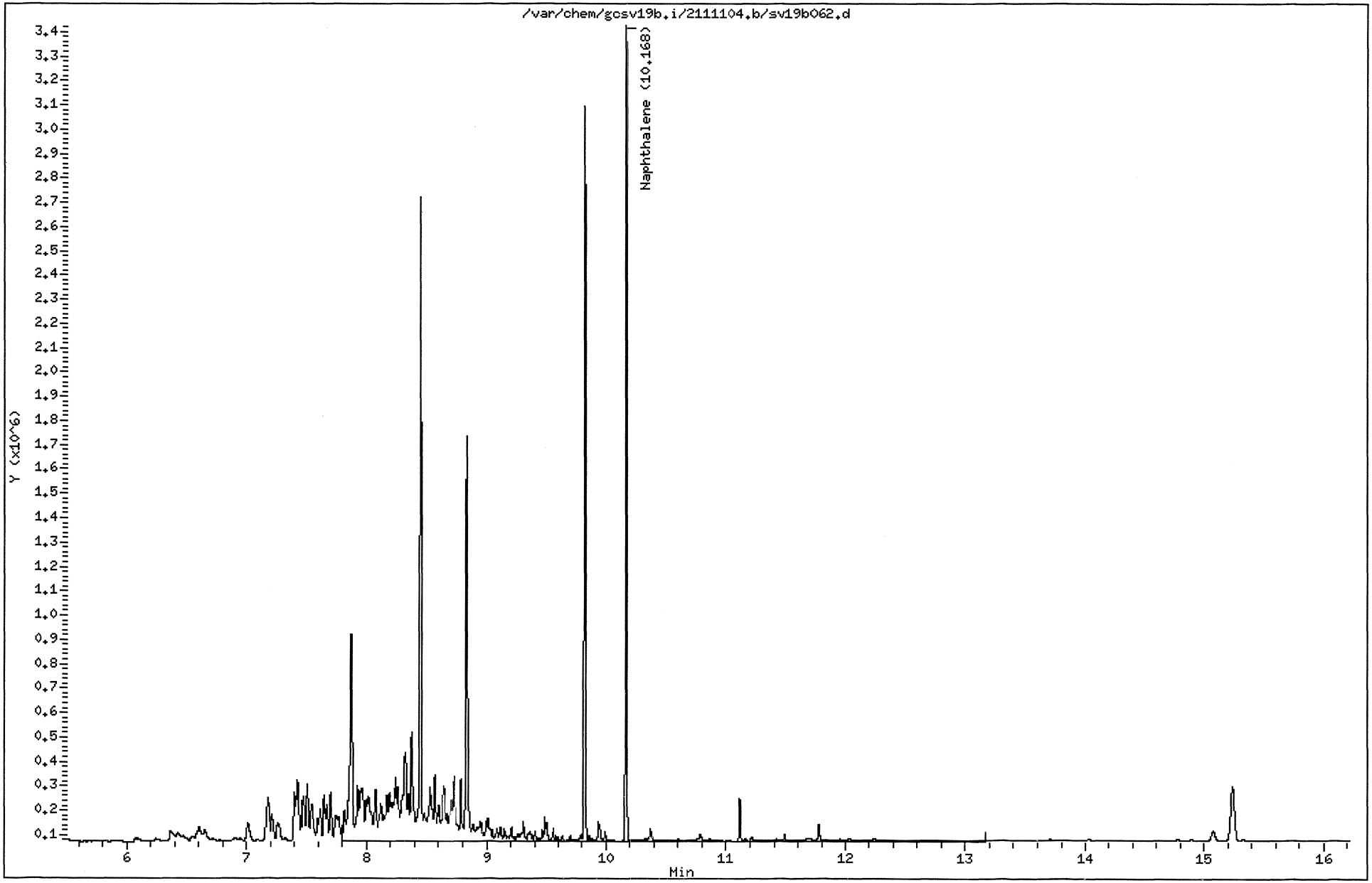
Sample Info: 21110312401*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

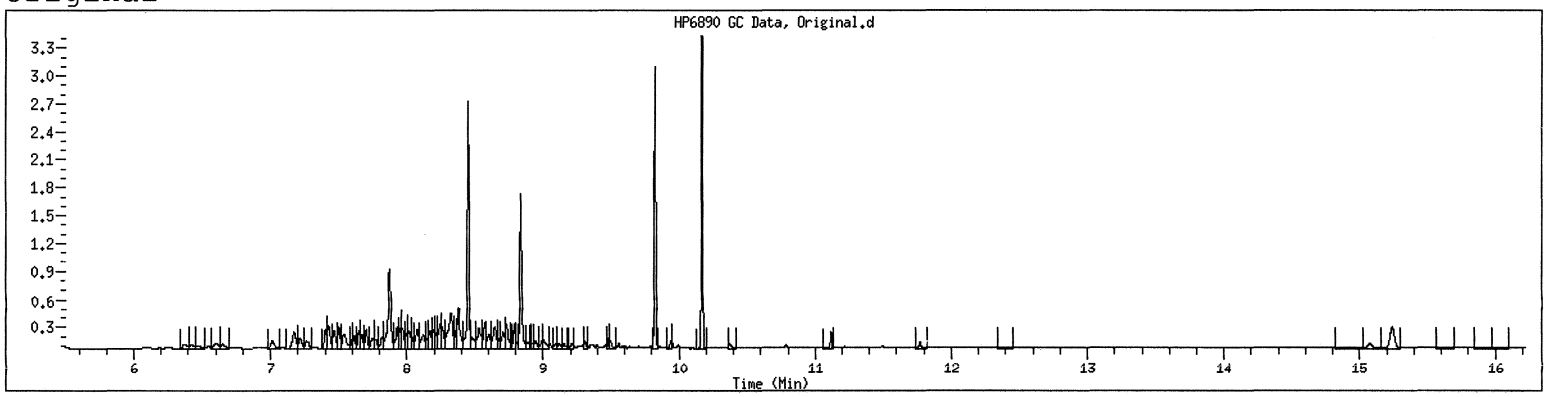


Report Date: 11/08/2011 13:57

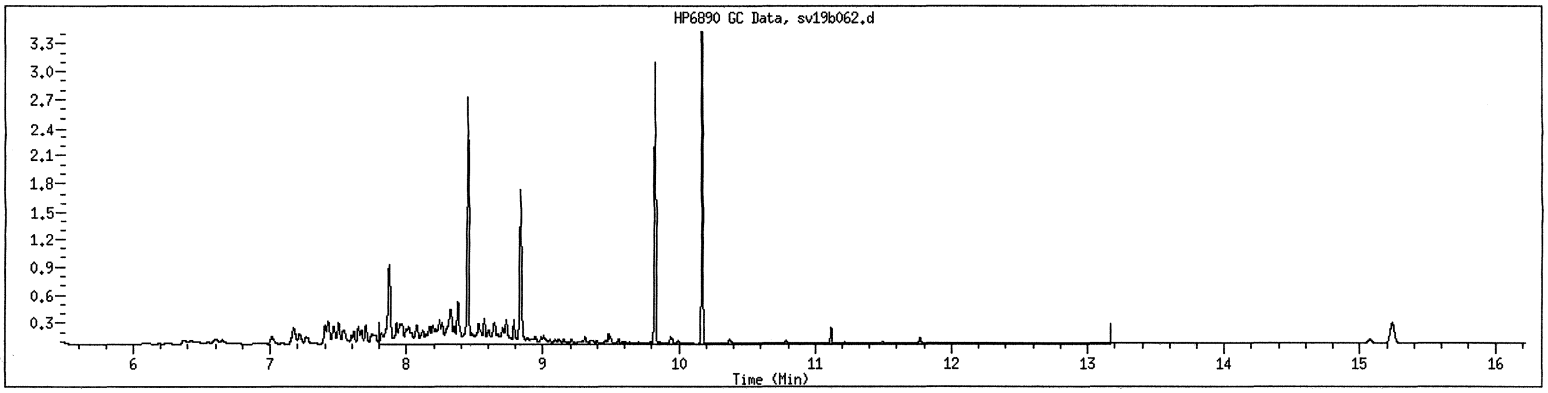
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312401	SampleType	: SAMPLE
Injection Date	: 11/04/2011 14:31	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312401*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist:	all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b063.d
Lab Smp Id: 21110312401 Client Smp ID: 1
Inj Date : 04-NOV-2011 14:56
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312401*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(ug/L)
10 C-18	9.478	9.504	-0.026	40571161	13.4284	26.9(M1)
M 11 Alip C9-C18				40571161	13.4284	26.9
114 C-36	10.159	15.144	-4.985	51275658	17.5263	35.1(AM1)
M 24 Alip C19-C36				51275658	17.5263	35.1

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b063s.d
Lab Smp Id: 21110312401 Client Smp ID: 1
Inj Date : 04-NOV-2011 14:56
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312401*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Chloro.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.158	10.216	-0.058	6388506	2.33193	4.66(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b063.d

Page 1

Date : 04-NOV-2011 14:56

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312401*1

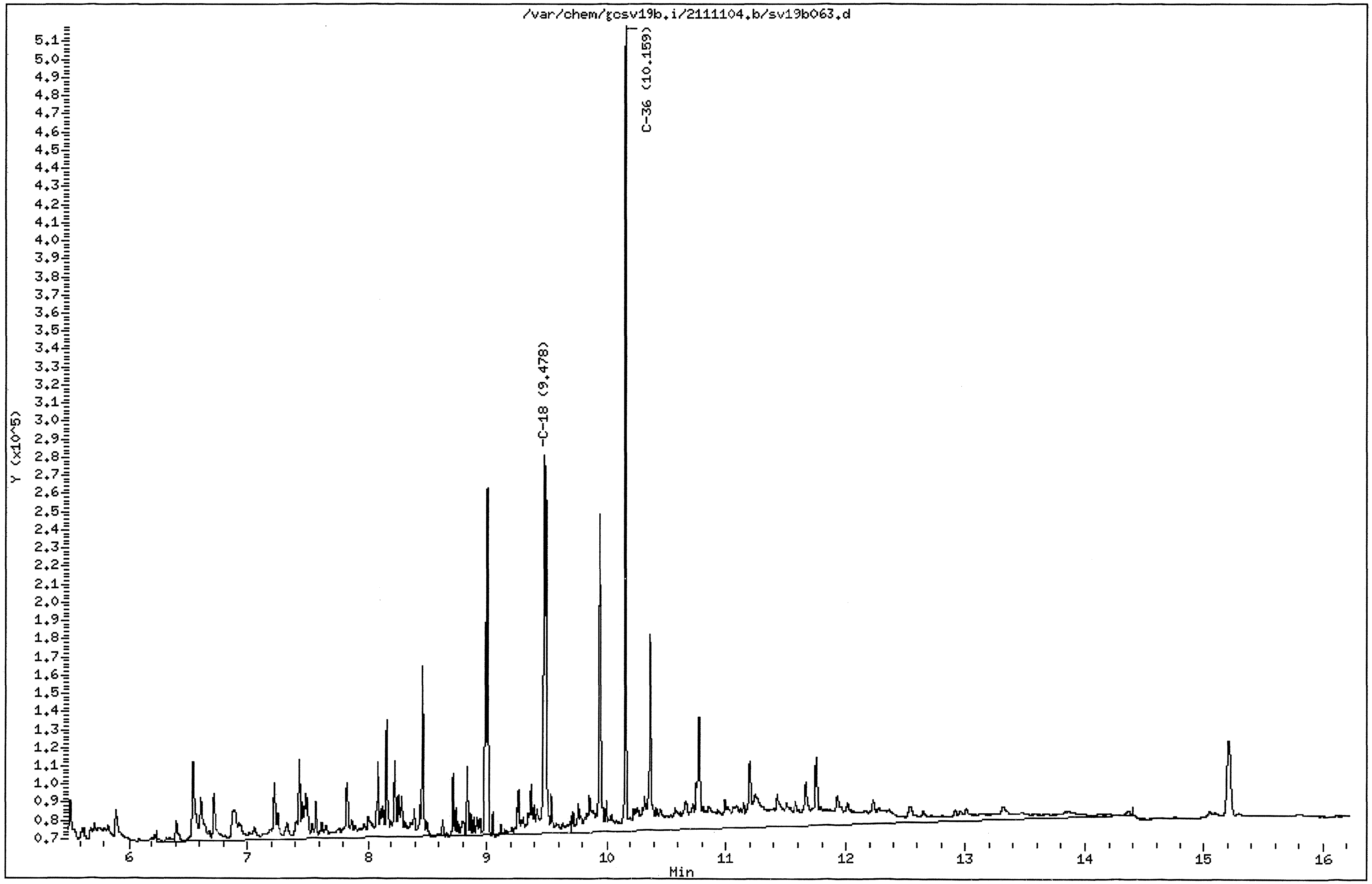
Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

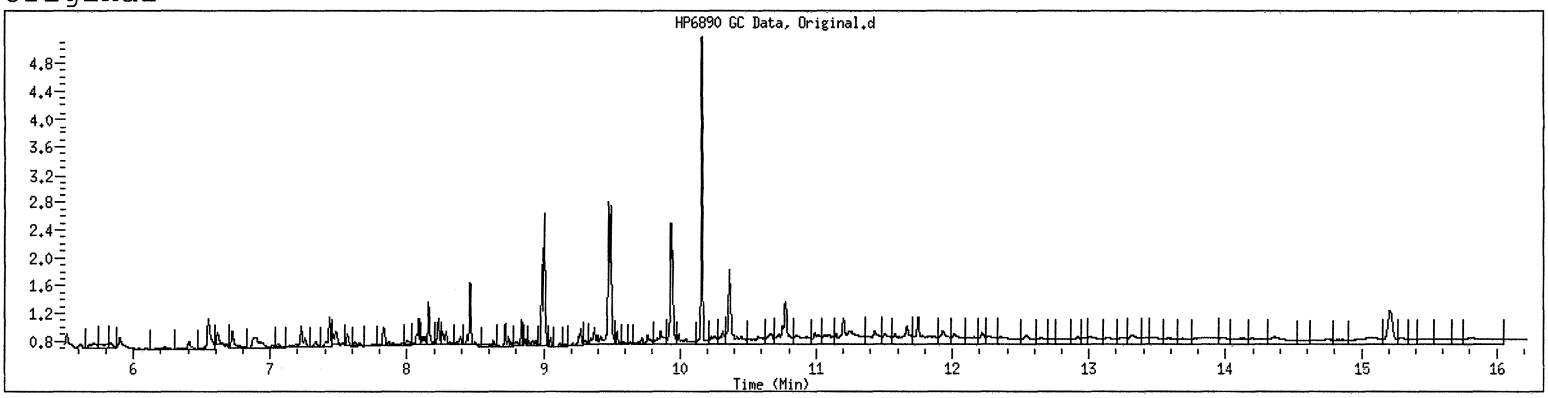
211103124 16



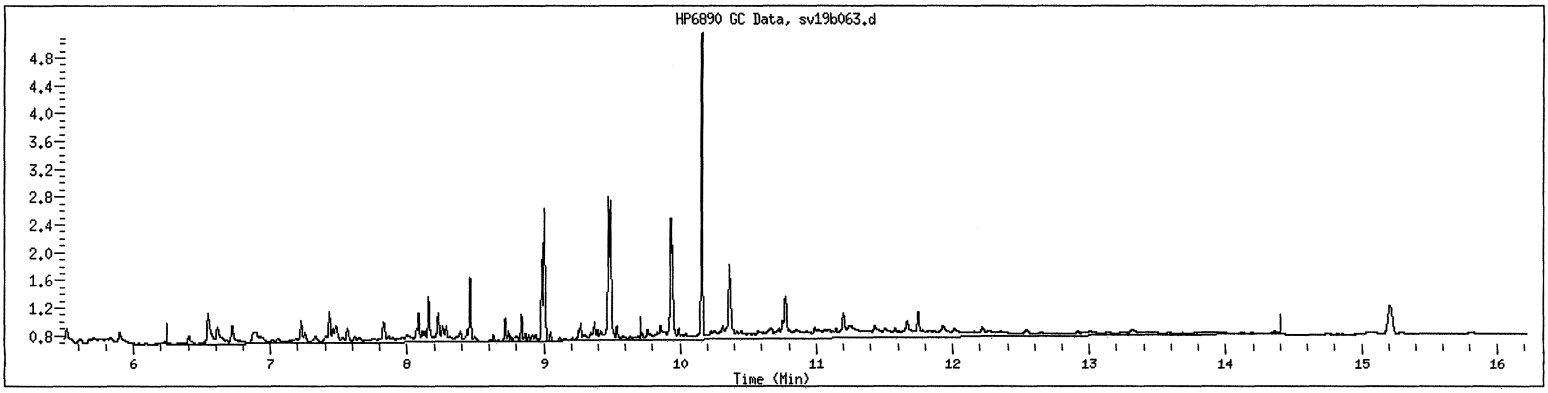
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312401	SampleType	: SAMPLE
Injection Date	: 11/04/2011 14:56	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312401*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 990 | Units: mL | Lab Sample ID: 21110312402

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1658

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b068s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	166		42.5	42.5	101
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.6	U	31.6	60.6	101
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	40.0	J	22.0	22.0	101

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b068.d
Lab Smp Id: 21110312402 Client Smp ID: 1
Inj Date : 04-NOV-2011 16:58
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312402*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 68
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	9.818	7.881	1.937	388292518	136.619	276(M1)
M 22 Arom C11-C22				388292518	136.619	276

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b068s.d
Lab Smp Id: 21110312402 Client Smp ID: 1
Inj Date : 04-NOV-2011 16:58
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312402*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 68
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.451	8.454	-0.003	49252980	20.0420	40.5	
$ 5 2-Bromonaphthalene	8.835	8.839	-0.004	36682715	23.3830	47.2	
$ 10 O-Terphenyl	9.819	9.823	-0.004	44738878	15.1719	30.7	
$ 11 Chloro-octadecane	10.159	10.174	-0.015	31033730	11.3282	22.9	
M 113 Total Surrogate Area				161708303			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b068.d

Date : 04-NOV-2011 16:58

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312402*1

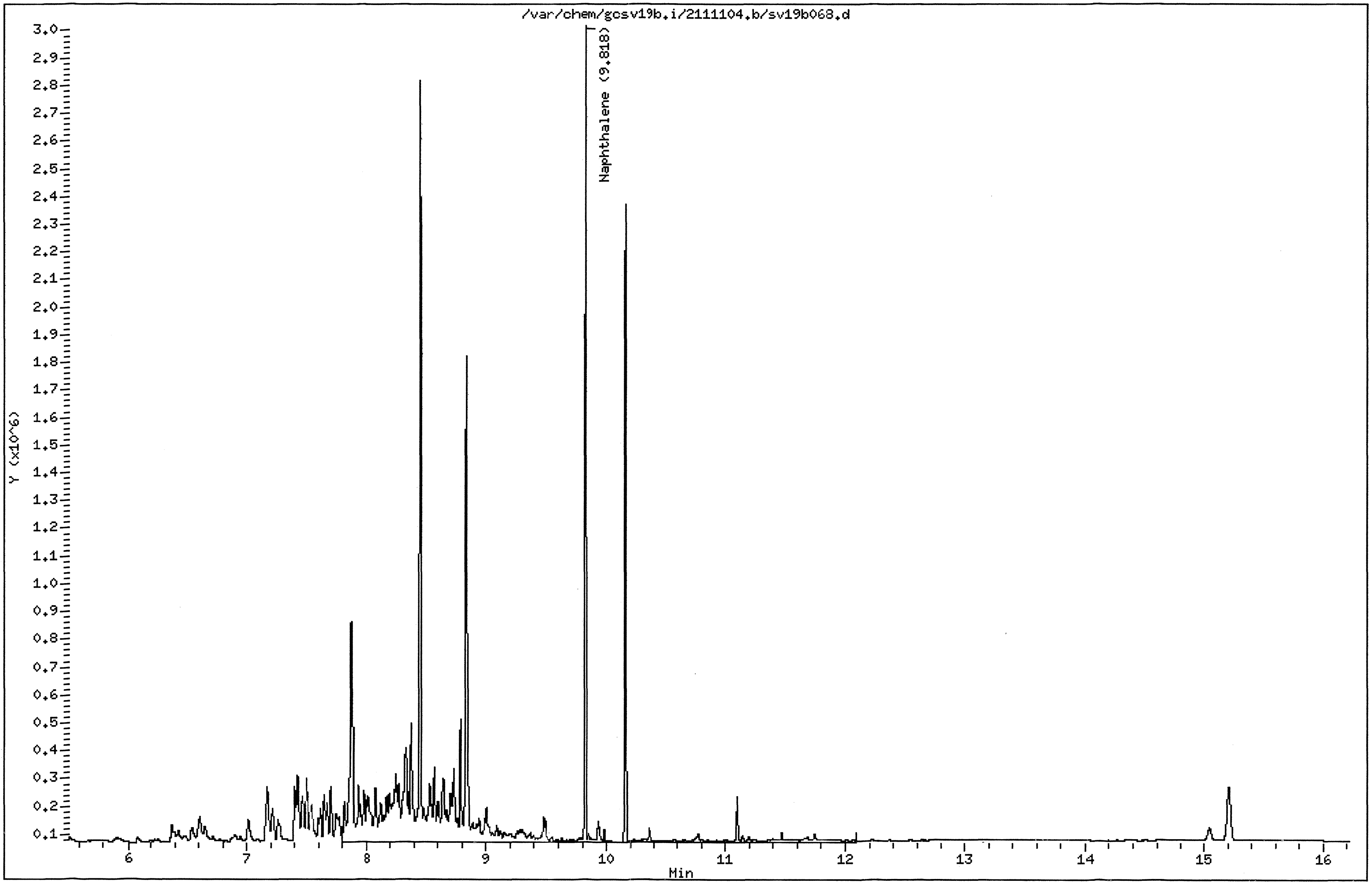
Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

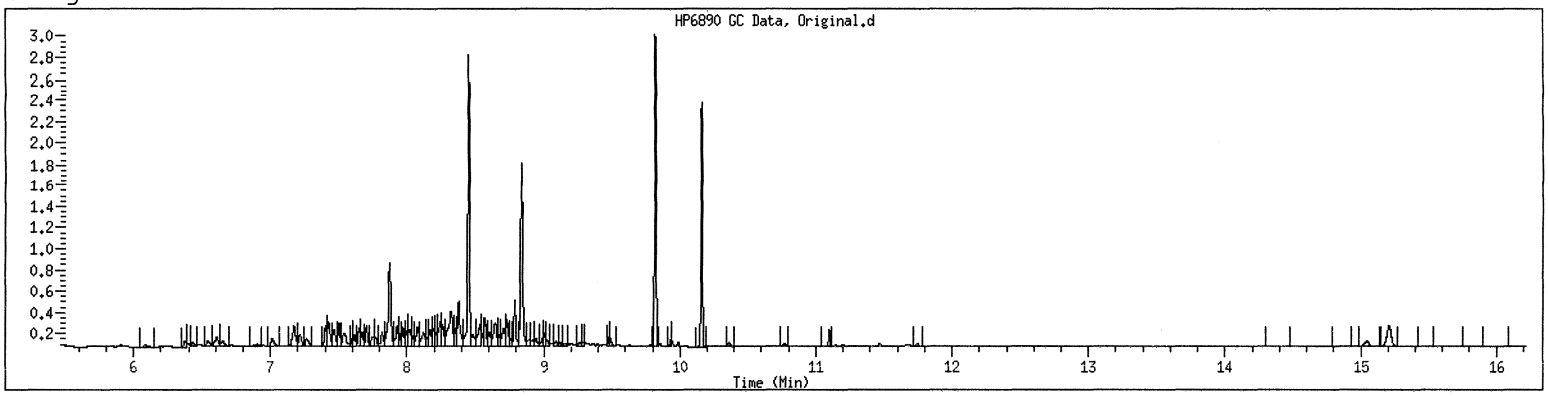
21110312421



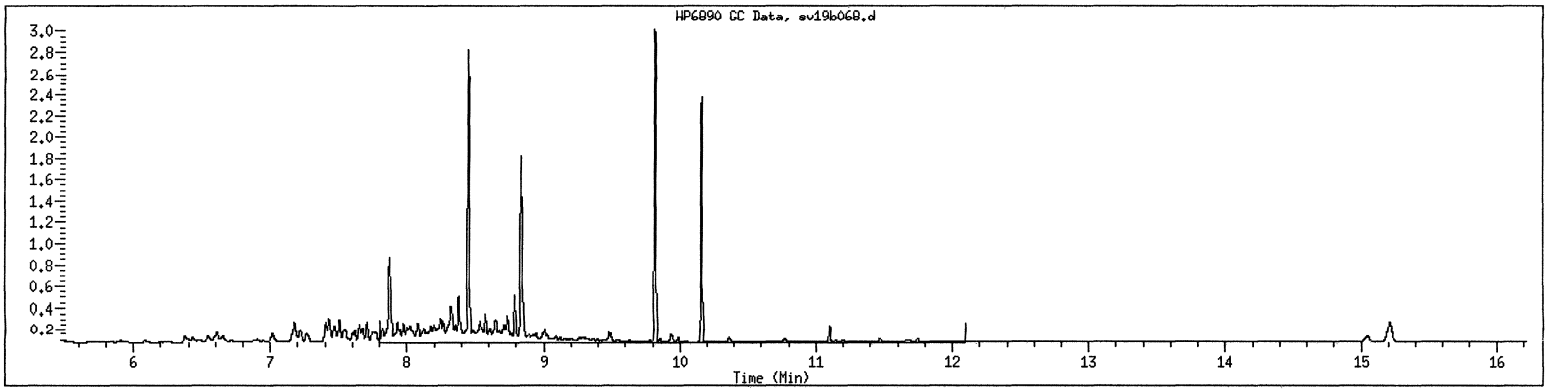
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312402	SampleType	: SAMPLE
Injection Date	: 11/04/2011 16:58	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312402*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b069.d
Lab Smp Id: 21110312402 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:23
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312402*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	9.004	9.504	-0.500	57239512	18.9454	38.3(M1)
M 11 Alip C9-C18				57239512	18.9454	38.3
114 C-36	10.159	15.145	-4.986	61648360	21.0718	42.6(AM1)
M 24 Alip C19-C36				61648360	21.0718	42.6

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b069s.d
Lab Smp Id: 21110312402 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:23
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312402*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Chloro.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.158	10.217	-0.059	17017131	6.21158	12.5(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b069.d

Date : 04-NOV-2011 17:23

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312402*1

Volume Injected (uL): 1.0

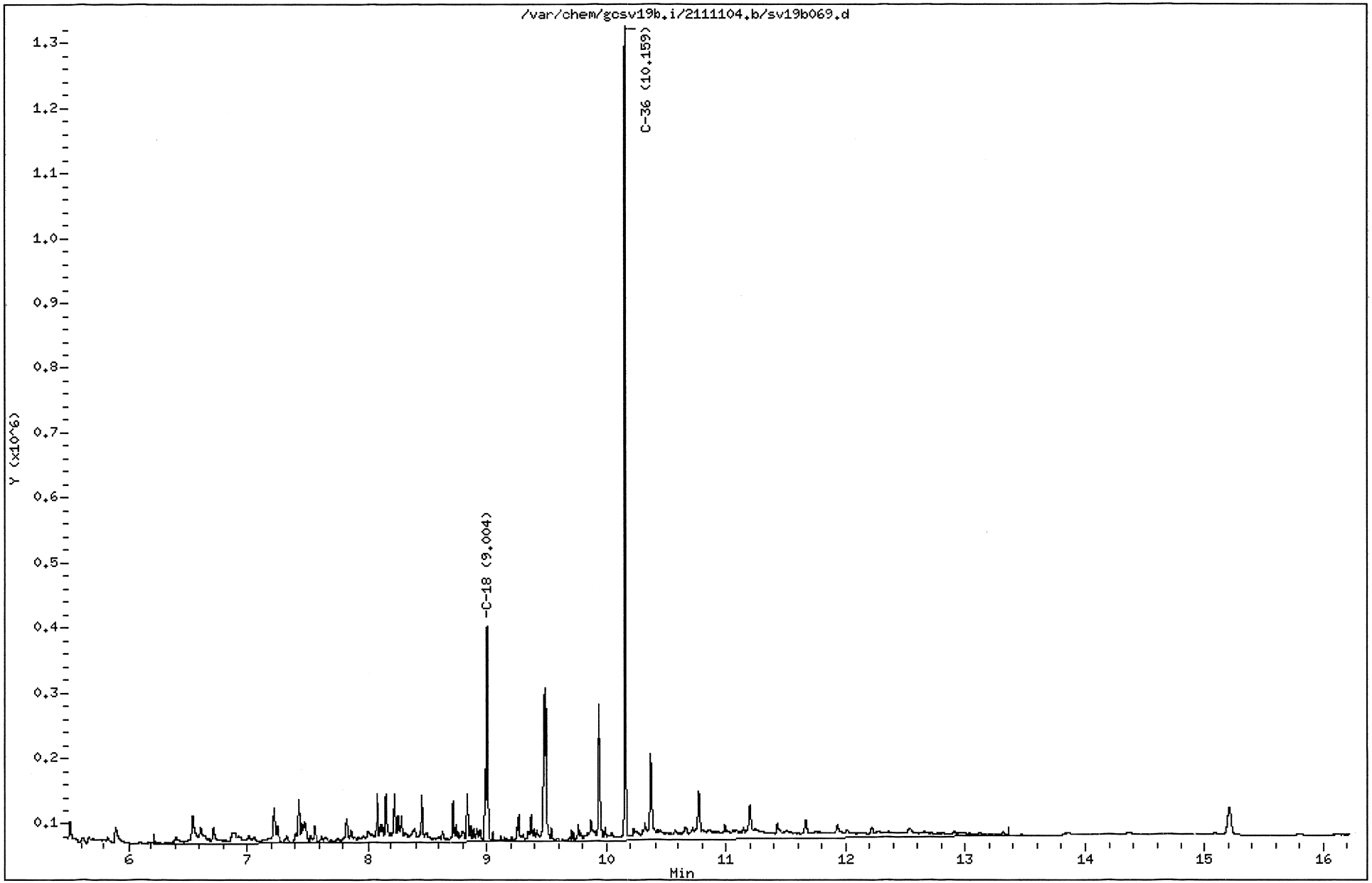
Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

25

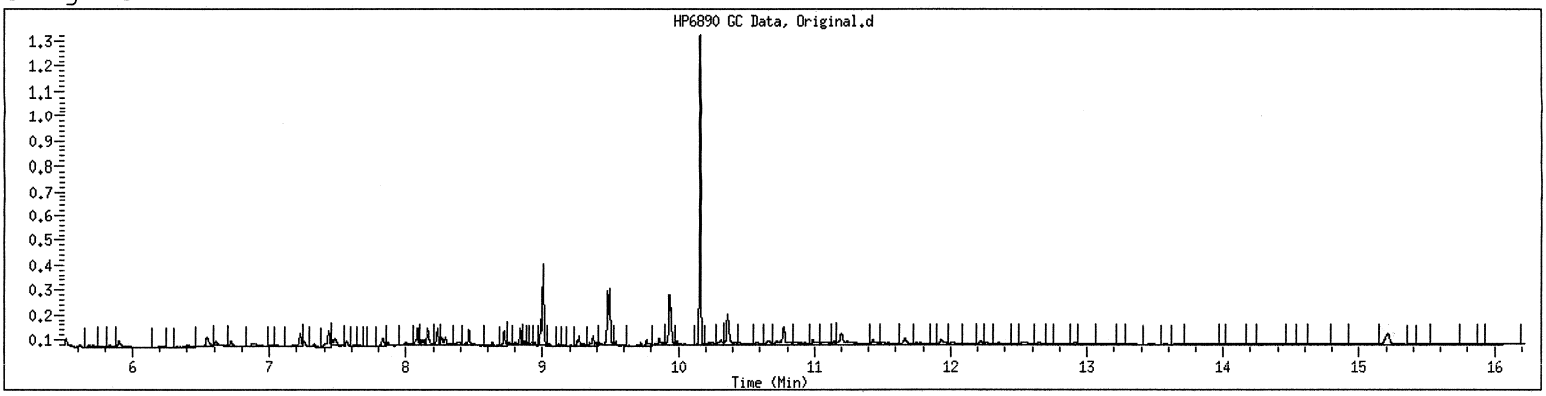
21110312402



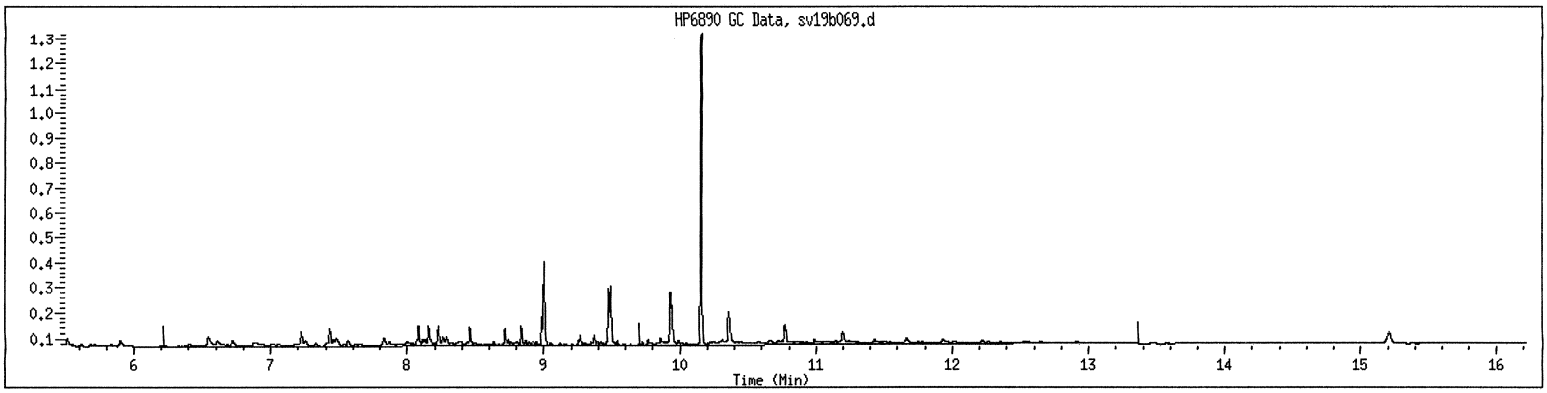
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312402	SampleType	: SAMPLE
Injection Date	: 11/04/2011 17:23	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312402*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	ES049
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211103124
Sample wt/vol:	960 Units: mL	Lab Sample ID:	21110312405
Level: (low/med)	LOW	Date Collected:	10/24/11 Time: 1435
% Moisture:	decanted: (Y/N)	Date Received:	10/29/11
GC Column:	DB-5MS-30M ID: .25 (mm)	Date Extracted:	11/02/11
Concentrated Extract Volume:	2000 (µL)	Date Analyzed:	11/04/11 Time: 1925
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: SMH
Injection Volume:	1 (µL)	Prep Method:	MASS EPH
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSEPH
Prep Batch:	468306 Analytical Batch: 468719	Sulfur Cleanup: (Y/N)	N Instrument ID: GCS19B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111104/sv19b074

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	43.9	U	43.9	43.9	104
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	62.5	U	32.6	62.5	104
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	26.0	J	22.7	22.7	104

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b074.d
Lab Smp Id: 21110312405 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:25
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312405*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 74
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	960.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.450	8.454	-0.004	40774752	16.5920	34.6	
$ 5 2-Bromonaphthalene	8.835	8.839	-0.004	29067347	18.5287	38.6	
$ 10 O-Terphenyl	9.821	9.823	-0.002	36669866	12.4355	25.9	
$ 11 Chloro-octadecane	10.164	10.174	-0.010	25044412	9.14196	19.0	
M 113 Total Surrogate Area				131556377			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b074.d

Date : 04-NOV-2011 19:25

Client ID: 1

Sample Info: 21110312405*1

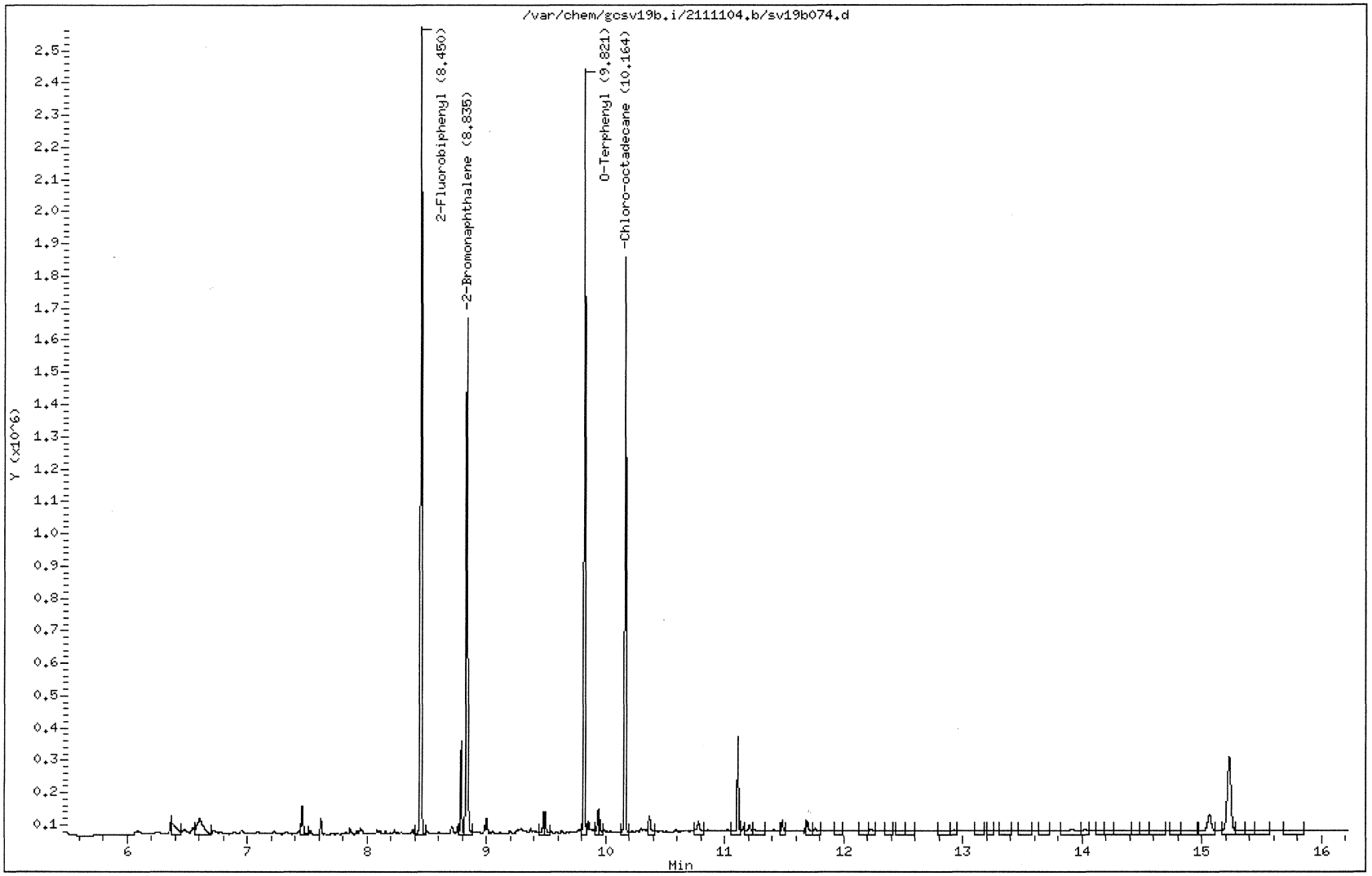
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

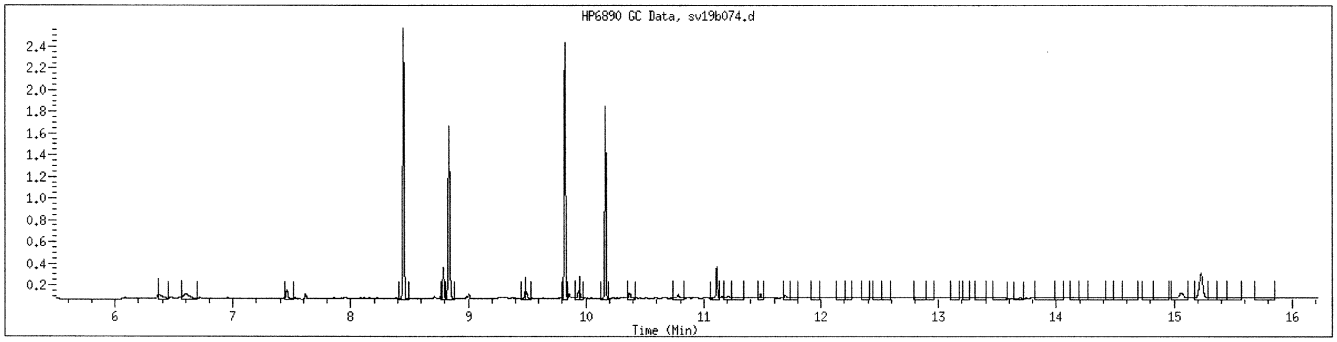
Column diameter: 0.25



Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312405	SampleType	: SAMPLE
Injection Date	: 11/04/2011 19:25	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312405*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist: all	



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b075.d
Lab Smp Id: 21110312405 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:49
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312405*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 75
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	960.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	9.492	9.504	-0.012	36214676	11.9865	25.0(M1)
M 11 Alip C9-C18				36214676	11.9865	25.0
114 C-36	10.160	15.145	-4.985	56230123	19.2198	40.0(AM1)
M 24 Alip C19-C36				56230123	19.2198	40.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b075s.d
Lab Smp Id: 21110312405 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:49
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312405*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 75
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Chloro.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	960.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.160	10.217	-0.057	12802649	4.67321	9.74(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b075.d

Page 1

Date : 04-NOV-2011 19:49

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312405*1

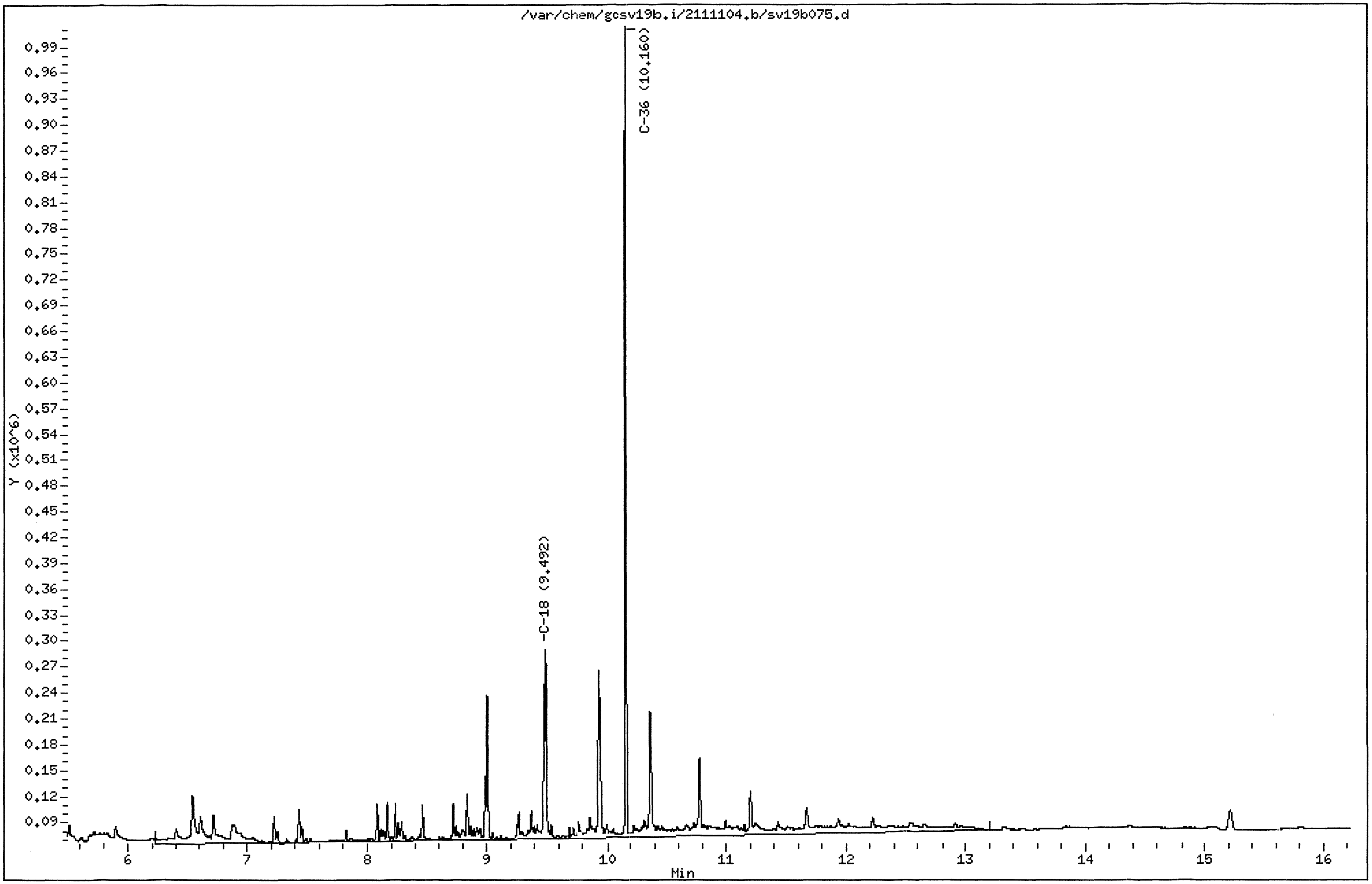
Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

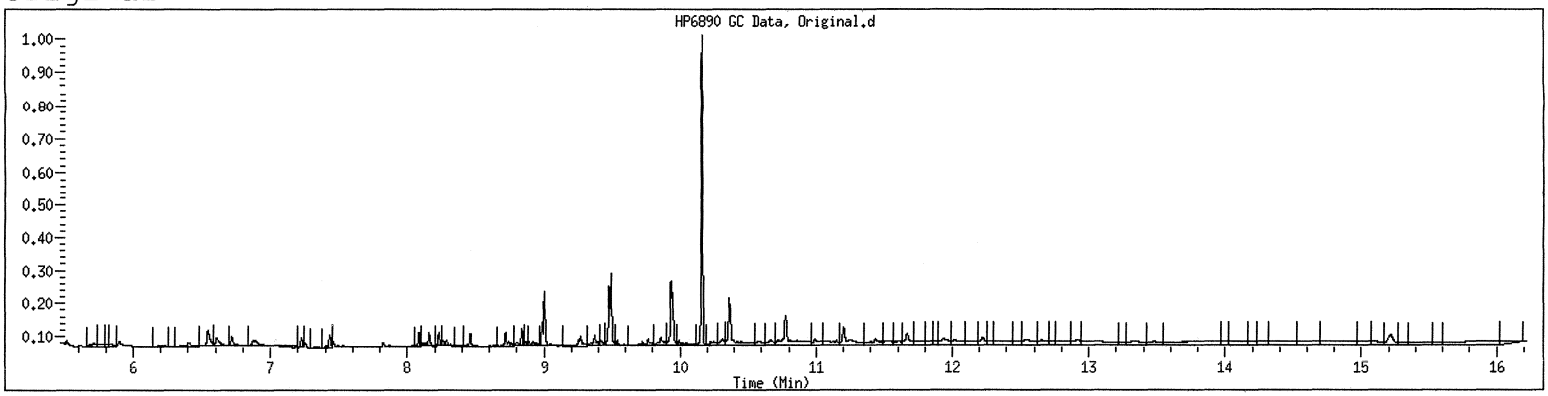
2111103124 33



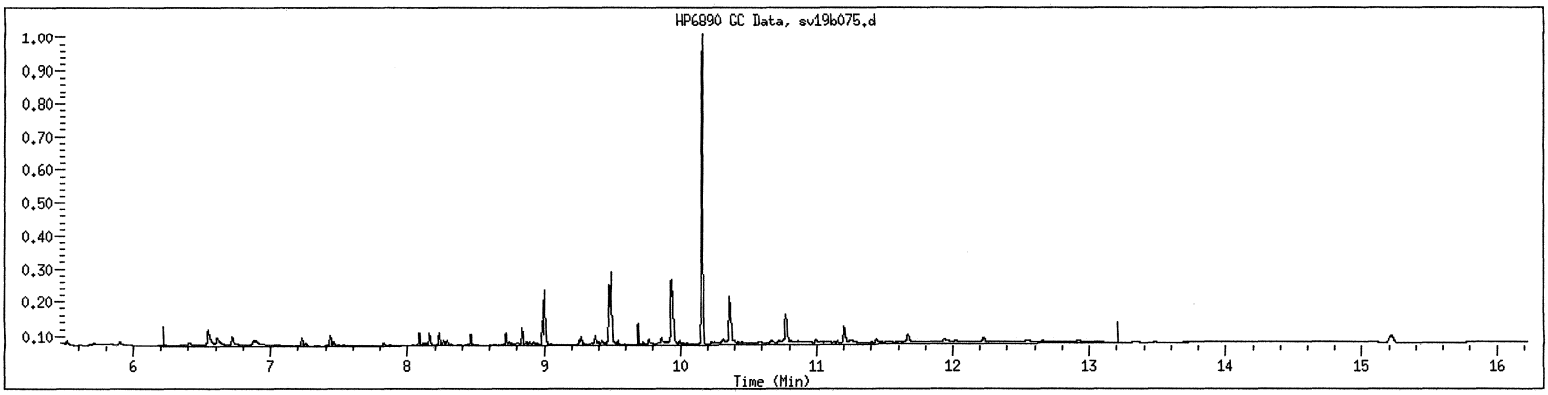
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312405	SampleType	: SAMPLE
Injection Date	: 11/04/2011 19:49	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312405*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Cal Date : 08-Nov-2011 14:38 smh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Level 2: /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Level 3: /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Level 4: /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Level 5: /var/chem/gcsv19b.i/2111103.b/sv19b056.d

		1.000	10.000	50.000	100.000	200.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
	1 C-9	2907155	2795641	2675594	2679051	2539259	2719340	5.104
	2 C-10	2799368	2826425	2717674	2752582	2600027	2739215	3.226
	3 C-11	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	4 C-12	2927391	2898654	2764473	2774841	2641941	2801460	4.102
	5 C-13	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	6 C-14	2986461	2962295	2862352	2862981	2716594	2878136	3.701
	7 C-15	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	8 C-16	3076201	3075973	2956170	2972906	2834259	2983102	3.364
	9 C-17	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	10 C-18	3132014	3109313	2986762	3012326	2866031	3021289	3.526
M	11 Alip C9-C18	2971432	2944717	2827171	2842448	2699685	2857090	3.779
	12 C-19	3105166	3106510	2982171	3015246	2877102	3017239	3.169
	13 C-20	3095123	3146395	3018289	3051261	2915502	3045314	2.859
	14 C-21	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	16 C-22	3086197	3160319	3040998	3073189	2942532	3060647	2.587
	17 C-23	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	18 C-24	3088147	3182819	3098256	3124206	2998582	3098402	2.157
	19 C-25	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	20 C-26	3093703	3199157	3120962	3153549	3033072	3120089	2.004
	21 C-27	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	22 C-28	3086943	3160312	3086851	3125844	3019987	3095987	1.692
	115 C-30	3100257	3187831	3112669	3153703	3047243	3120341	1.716

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Cal Date : 08-Nov-2011 14:38 smh
Curve Type : Average

Compound	1.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
23 C-35	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 C-36	2886196	3002979	2951503	2961566	2825927	2925634	2.383
M 24 Alip C19-C36	3067716	3143290	3051462	3082321	2957493	3060457	2.196
$ 15 Chlorooctadecane	2745086	2791763	2723572	2771406	2666079	2739581	1.772

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 12:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 12:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.222	6.232	-0.010	2907155	1.00000	1.00(M2)
	2 C-10	6.925	6.929	-0.004	2799368	1.00000	1.00(M2)
	4 C-12	7.823	7.833	-0.010	2927391	1.00000	1.00(M2)
	6 C-14	8.462	8.471	-0.009	2986461	1.00000	1.00(M2)
	8 C-16	9.008	9.014	-0.006	3076201	1.00000	1.00(M2)
	10 C-18	9.502	9.504	-0.002	3132014	1.00000	1.00(M2)
M	11 Alip C9-C18				17828590	6.00000	6.00
	12 C-19	9.738	9.774	-0.036	3105166	1.00000	1.00(M2)
	13 C-20	9.965	9.957	0.008	3095123	1.00000	1.00(M2)
$	15 Chlorooctadecane	10.185	10.217	-0.032	2745086	1.00000	1.00(M2)
	16 C-22	10.403	10.384	0.019	3086197	1.00000	1.00(M2)
	18 C-24	10.826	10.796	0.030	3088147	1.00000	1.00(M2)
	20 C-26	11.263	11.223	0.040	3093703	1.00000	1.00(M2)

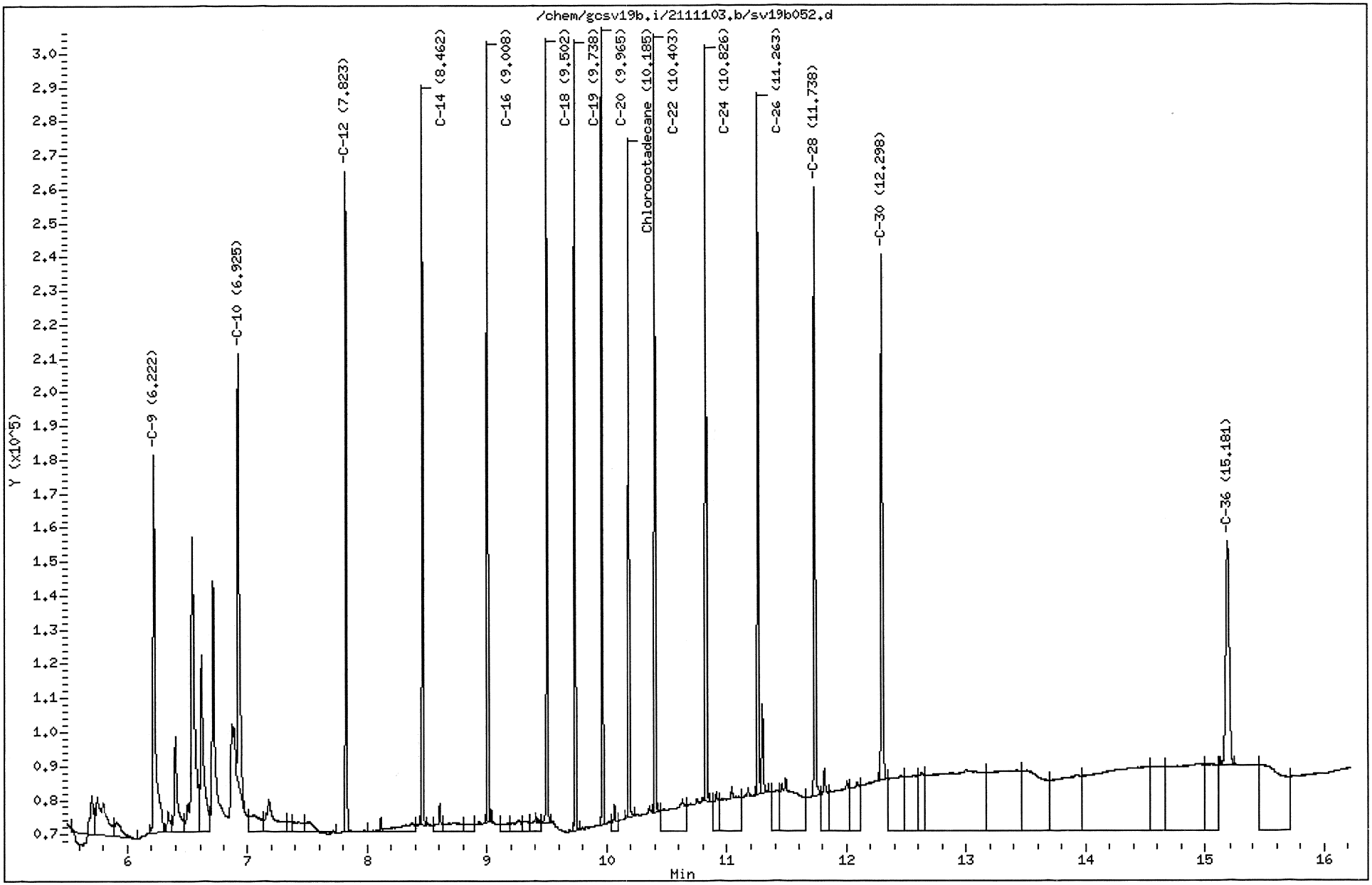
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.738	11.724	0.014	3086943	1.00000	1.00(M2)
115 C-30	12.298	12.250	0.048	3100257	1.00000	1.00(AM2)
114 C-36	15.181	15.144	0.037	2886196	1.00000	1.00(AM2)
M 24 Alip C19-C36				24541732	8.00000	8.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b052.d
Date : 03-NOV-2011 12:55
Client ID: 1 84-15-4
Sample Info: 1201*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

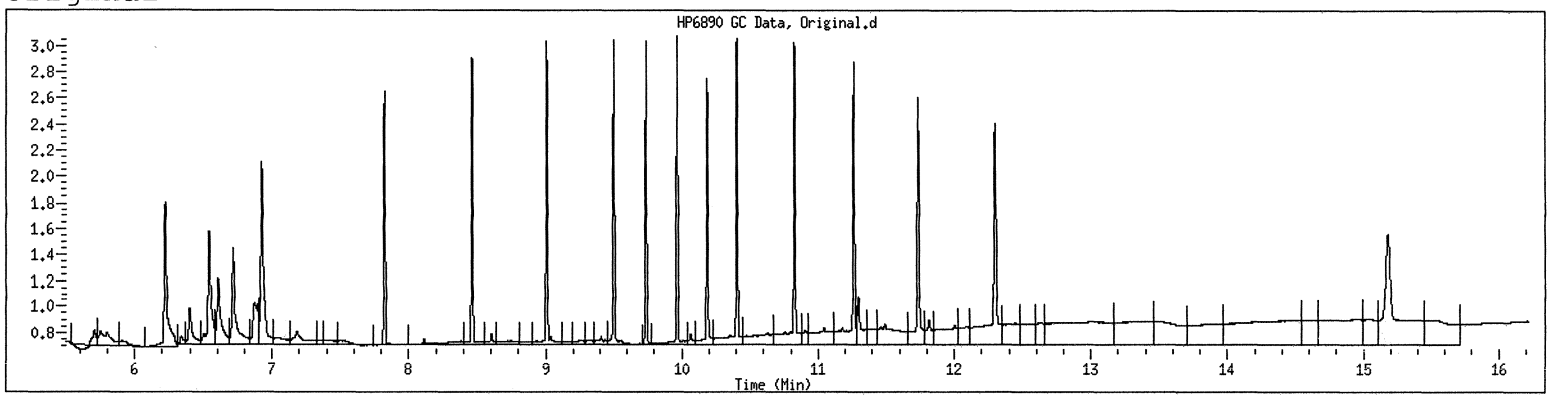
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



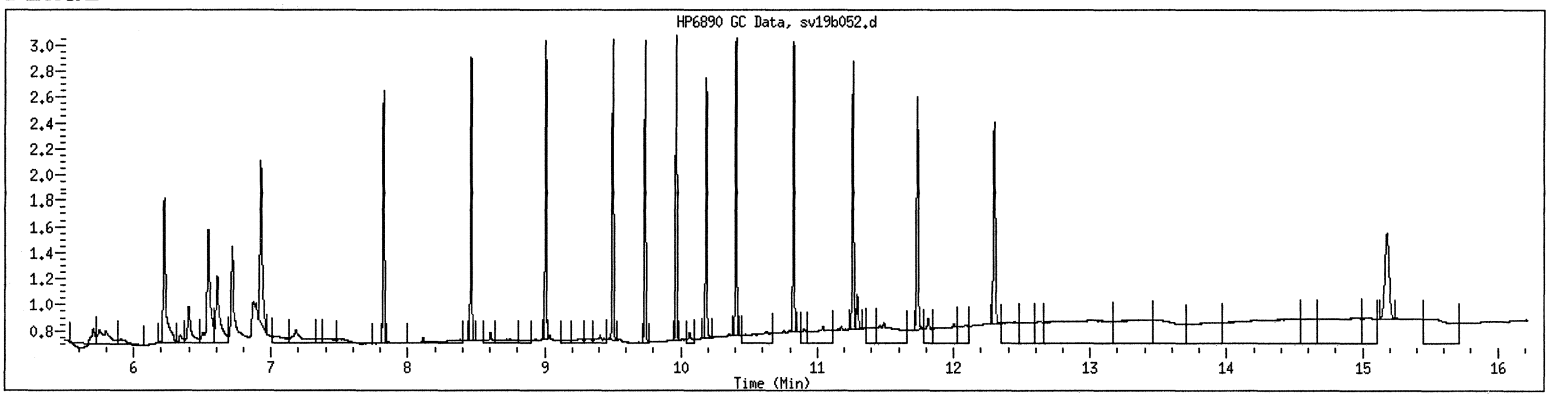
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/03/2011 12:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.225	6.232	-0.007	27956412	10.0000	9.80(M2)
	2 C-10	6.929	6.929	0.000	28264251	10.0000	10.0(M2)
	4 C-12	7.825	7.833	-0.008	28986541	10.0000	9.95(M2)
	6 C-14	8.463	8.471	-0.008	29622947	10.0000	9.96(M2)
	8 C-16	9.005	9.014	-0.009	30759729	10.0000	10.0(M2)
	10 C-18	9.495	9.504	-0.009	31093127	10.0000	9.96(M2)
M	11 Alip C9-C18				176683007	60.0000	59.7
	12 C-19	9.726	9.774	-0.048	31065095	10.0000	10.0(M2)
	13 C-20	9.950	9.957	-0.007	31463953	10.0000	10.1(M2)
$	15 Chlorooctadecane	10.165	10.217	-0.052	27917627	10.0000	10.1(M2)
	16 C-22	10.379	10.384	-0.005	31603189	10.0000	10.1(M2)
	18 C-24	10.792	10.796	-0.004	31828188	10.0000	10.2(M2)
	20 C-26	11.219	11.223	-0.004	31991568	10.0000	10.2(M2)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.688	11.724	-0.036	31603121	10.0000	10.1(M2)
115 C-30	12.243	12.250	-0.007	31878310	10.0000	10.1(AM2)
114 C-36	15.117	15.144	-0.027	30029788	10.0000	10.2(AM2)
M 24 Alip C19-C36				251463212	80.0000	81.0

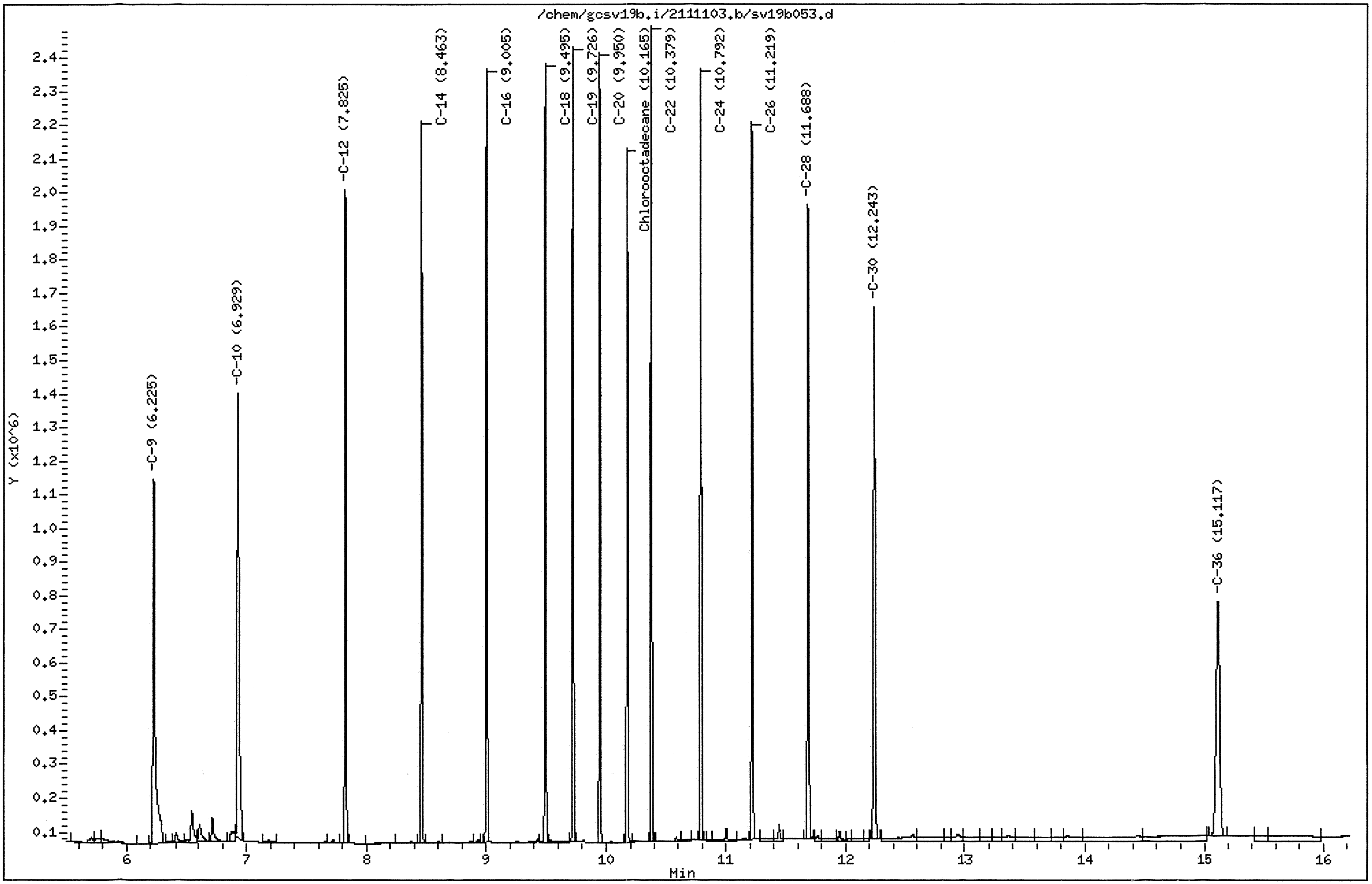
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b053.d
Date : 03-NOV-2011 13:18
Client ID: 1 84-15-4
Sample Info: 1202*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i

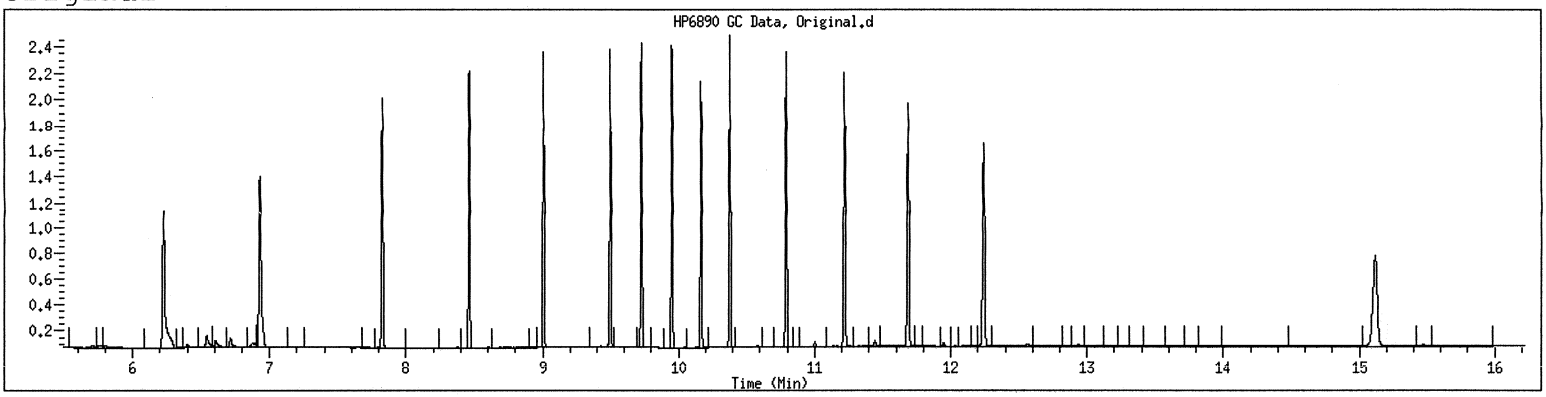
Operator: smh
Column diameter: 0.25



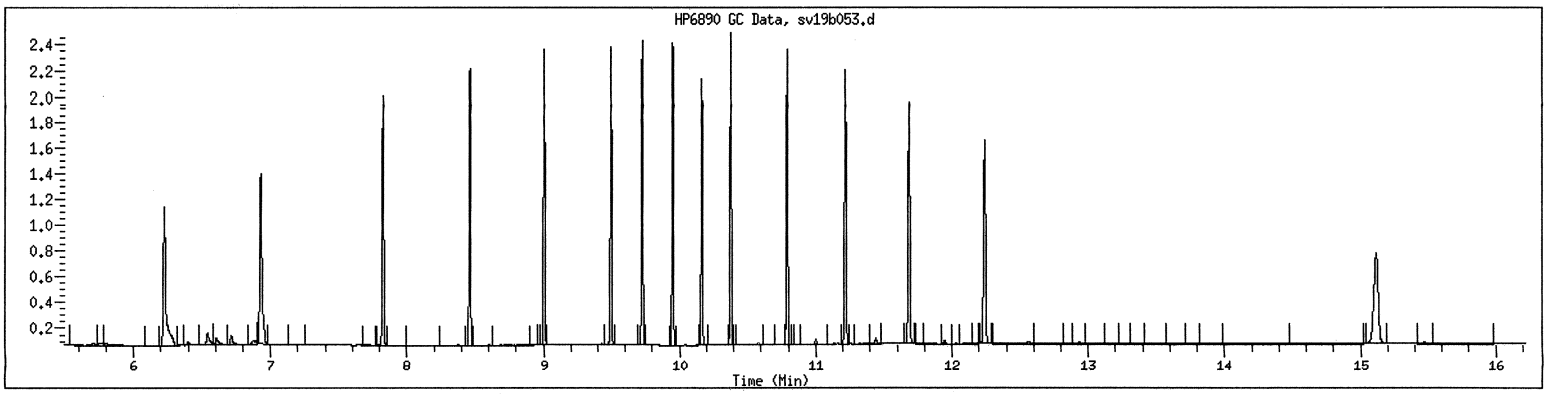
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/03/2011 13:18	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.230	6.232	-0.002	133779709	50.0000	47.9
	2 C-10	6.931	6.929	0.002	135883716	50.0000	48.9
	4 C-12	7.828	7.833	-0.005	138223627	50.0000	48.3
	6 C-14	8.466	8.471	-0.005	143117588	50.0000	48.7
	8 C-16	9.008	9.014	-0.006	147808492	50.0000	48.7
	10 C-18	9.497	9.504	-0.007	149338101	50.0000	48.5
M	11 Alip C9-C18				848151233	300.000	291
	12 C-19	9.729	9.774	-0.045	149108539	50.0000	48.7
	13 C-20	9.951	9.957	-0.006	150914449	50.0000	48.9
$	15 Chlorooctadecane	10.165	10.217	-0.052	136178585	50.0000	49.5
	16 C-22	10.378	10.384	-0.006	152049887	50.0000	49.1
	18 C-24	10.789	10.796	-0.007	154912784	50.0000	49.6
	20 C-26	11.216	11.223	-0.007	156048078	50.0000	49.7

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.684	11.724	-0.040	154342550	50.0000	49.6
115 C-30	12.240	12.250	-0.010	155633447	50.0000	49.7(A)
114 C-36	15.131	15.144	-0.013	147575152	50.0000	50.1(A)
M 24 Alip C19-C36				1220584886	400.000	395

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b054.d

Date : 03-NOV-2011 13:42

Client ID: 1 84-15-4

Sample Info: 1203*1 84-16-1

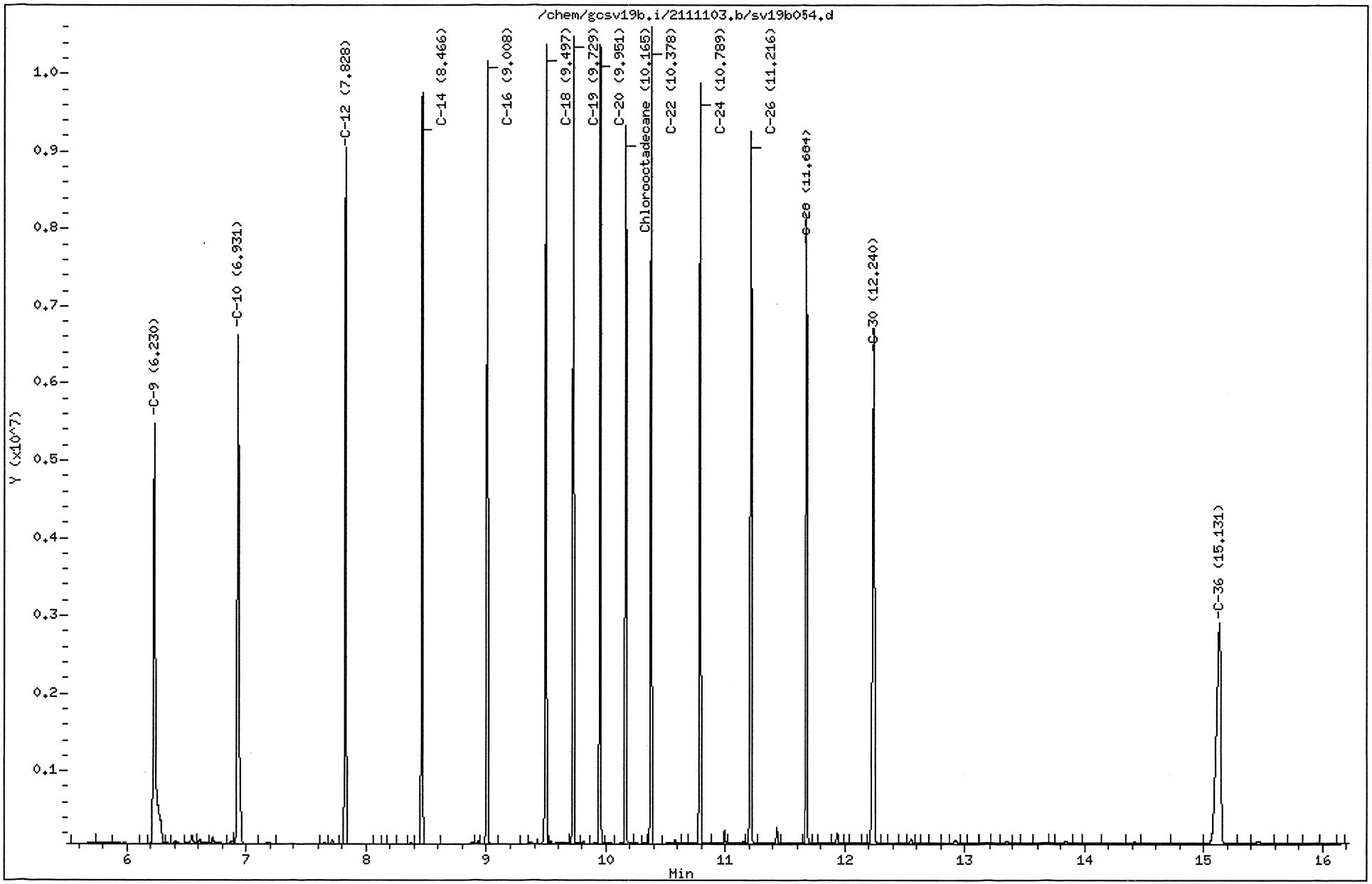
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

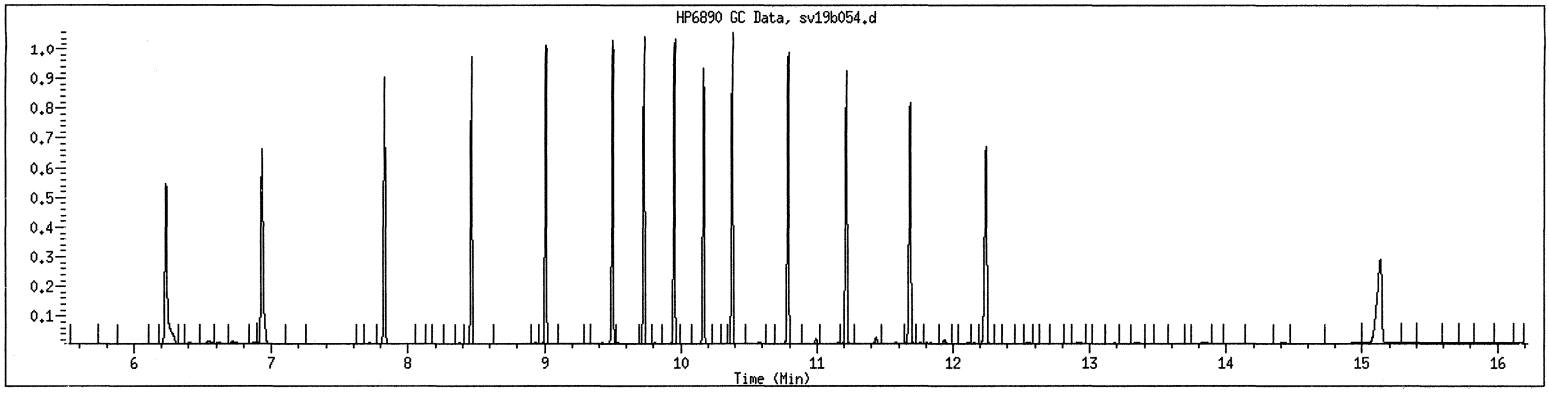
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/03/2011 13:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:06 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.234	6.232	0.002	267905092	100.000	96.9
2	C-10	6.936	6.929	0.007	275258180	100.000	99.2
4	C-12	7.831	7.833	-0.002	277484130	100.000	97.7
6	C-14	8.469	8.471	-0.002	286298081	100.000	98.1
8	C-16	9.012	9.014	-0.002	297290630	100.000	98.4
10	C-18	9.502	9.504	-0.002	301232611	100.000	98.4
M 11	Alip C9-C18				1705468724	600.000	589
12	C-19	9.733	9.774	-0.041	301524643	100.000	98.8
13	C-20	9.957	9.957	0.000	305126115	100.000	99.1
$ 15	Chlorooctadecane	10.172	10.217	-0.045	277140629	100.000	100
16	C-22	10.385	10.384	0.001	307318934	100.000	99.5
18	C-24	10.798	10.796	0.002	312420640	100.000	100
20	C-26	11.227	11.223	0.004	315354910	100.000	100

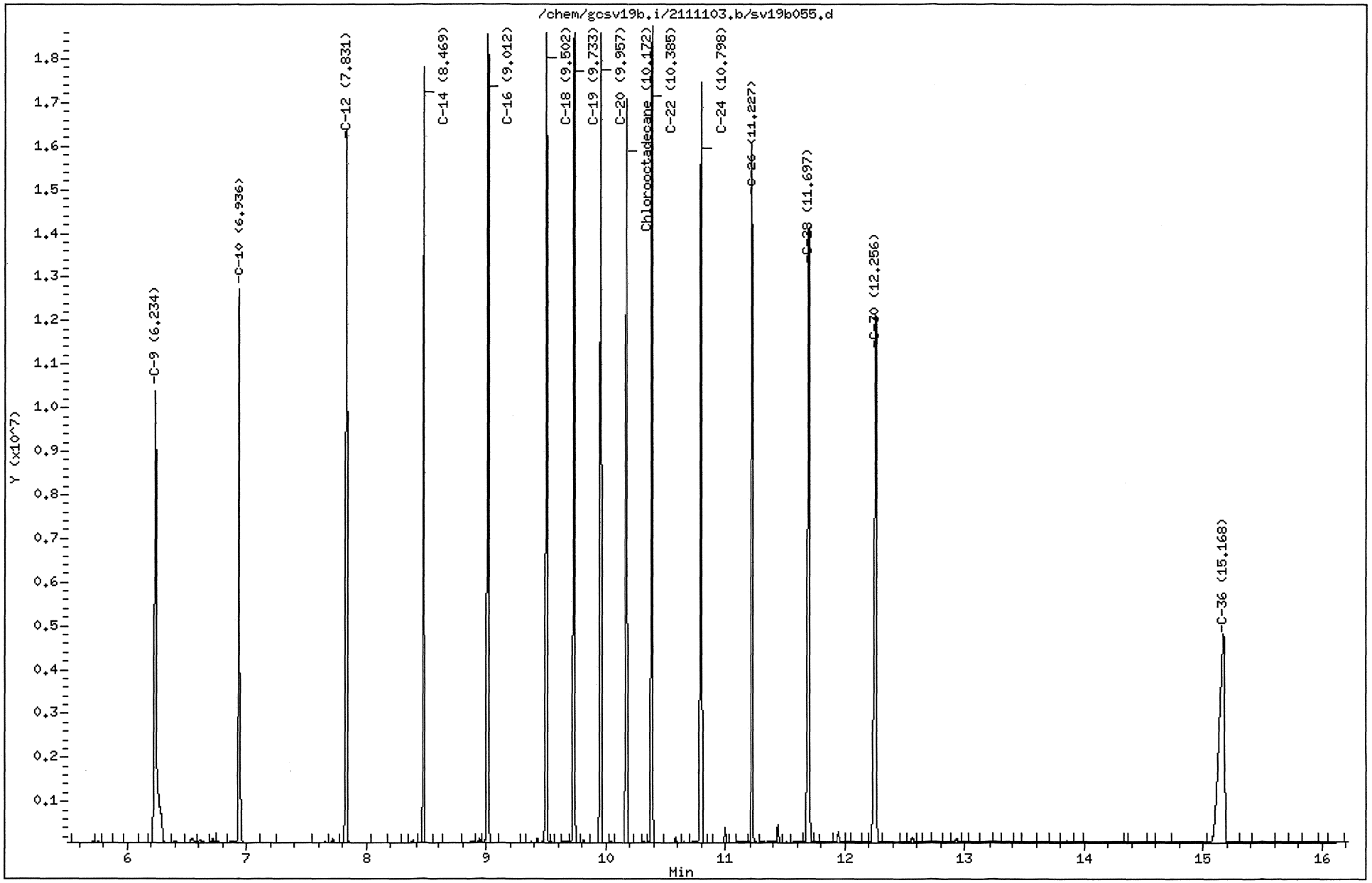
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.697	11.724	-0.027	312584380	100.000	100
115 C-30	12.256	12.250	0.006	315370277	100.000	100(A)
114 C-36	15.168	15.144	0.024	296156565	100.000	100(A)
M 24 Alip C19-C36				2465856464	800.000	799

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

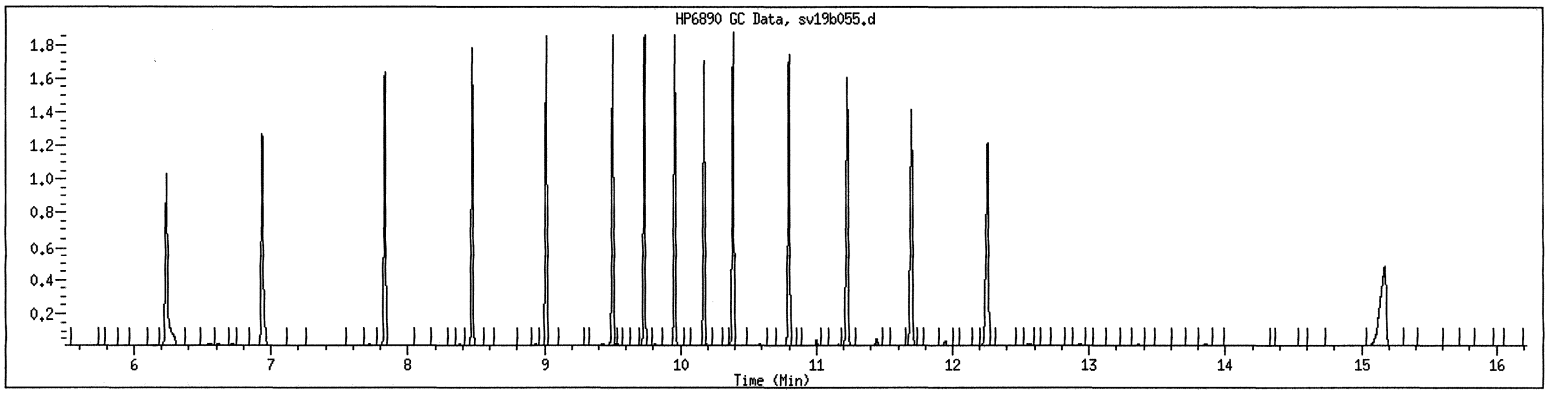
Data File: /chem/gcsv19b.i/2111103.b/sv19b055.d
Date : 03-NOV-2011 14:06
Client ID: 1 84-15-4
Sample Info: 1204*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/03/2011 14:06	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.235	6.232	0.003	507851786	200.000	187
2	C-10	6.940	6.929	0.011	520005449	200.000	190
4	C-12	7.836	7.833	0.003	528388238	200.000	189
6	C-14	8.473	8.471	0.002	543318717	200.000	189
8	C-16	9.016	9.014	0.002	566851761	200.000	190
10	C-18	9.505	9.504	0.001	573206156	200.000	190
M 11	Alip C9-C18				3239622107	1200.00	1130
12	C-19	9.736	9.774	-0.038	575420346	200.000	191
13	C-20	9.959	9.957	0.002	583100339	200.000	191
$ 15	Chlorooctadecane	10.174	10.217	-0.043	533215722	200.000	195
16	C-22	10.386	10.384	0.002	588506366	200.000	192
18	C-24	10.798	10.796	0.002	599716399	200.000	194
20	C-26	11.226	11.223	0.003	606614444	200.000	194

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.698	11.724	-0.026	603997432	200.000	195
115 C-30	12.259	12.250	0.009	609448655	200.000	195(A)
114 C-36	15.188	15.144	0.044	565185453	200.000	193(A)
M 24 Alip C19-C36				4731989434	1600.00	1550

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b056.d

Date : 03-NOV-2011 14:30

Client ID: 1 84-15-4

Sample Info: 1205%1 84-16-1

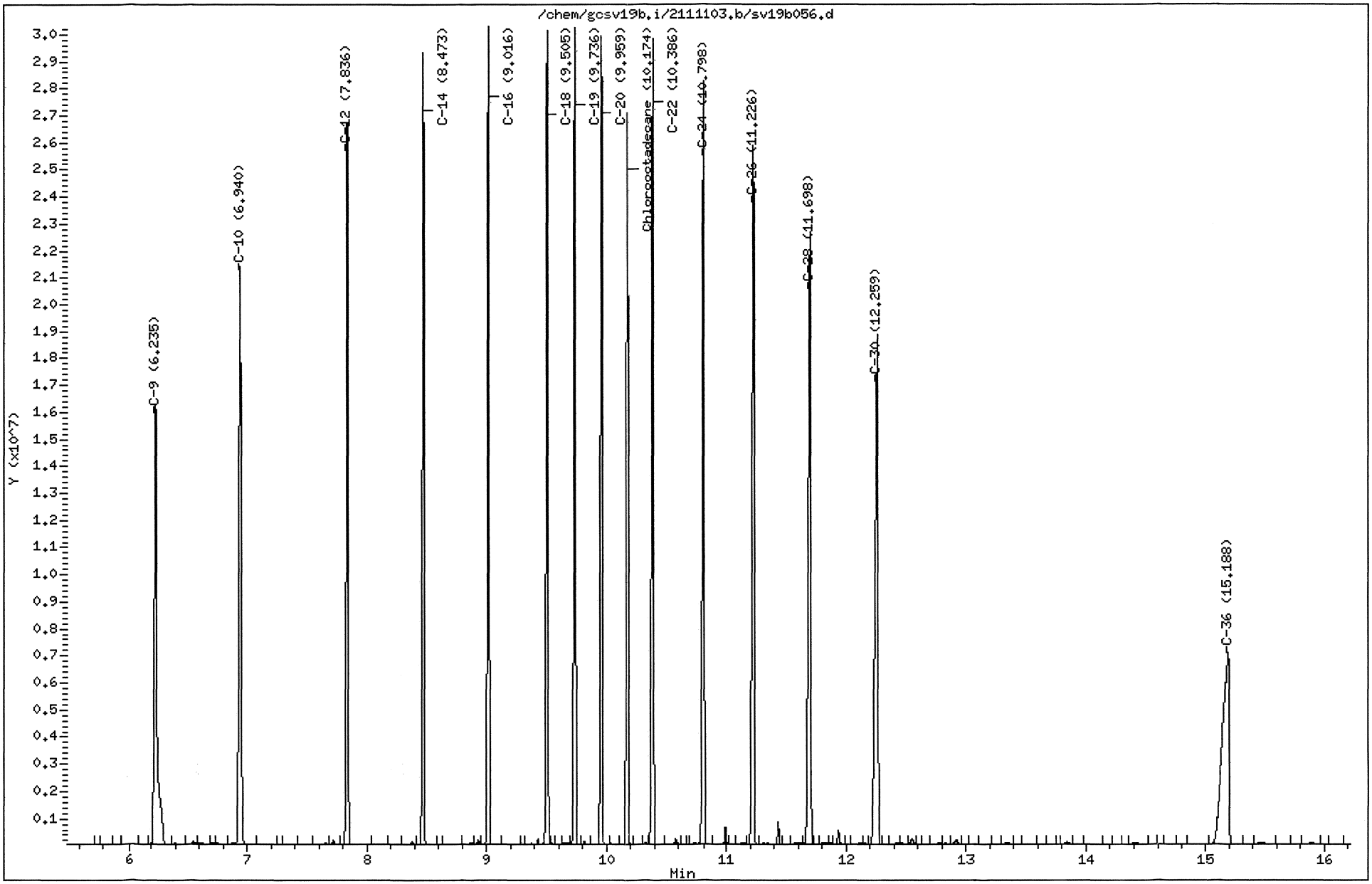
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

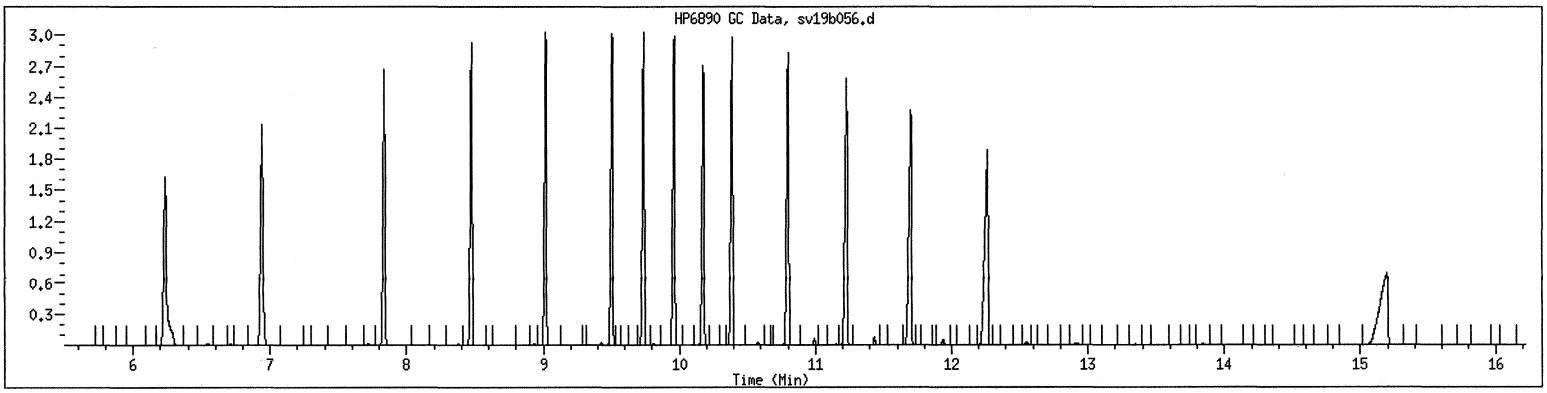
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/03/2011 14:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111103
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Level: LOW Operator: smh
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: alphicv-new.spk Quant Type: ESTD
Sublist File: ALmasseph.sub
Method File: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 C-9	50.0	46.8	93.57	75-125
2 C-10	50.0	48.1	96.14	75-125
4 C-12	50.0	47.6	95.30	75-125
6 C-14	50.0	47.2	94.33	75-125
8 C-16	50.0	47.1	94.27	75-125
10 C-18	50.0	48.3	96.60	75-125
12 C-19	50.0	49.1	98.26	75-125
13 C-20	50.0	49.1	98.17	75-125
16 C-22	50.0	49.5	98.94	75-125
18 C-24	50.0	49.0	97.98	75-125
20 C-26	50.0	49.0	97.97	75-125
22 C-28	50.0	48.7	97.32	75-125
114 C-36	50.0	50.0	100.09	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 15 Chlorooctadecane	40000	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Inj Date : 03-NOV-2011 14:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-16-2
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 04-Nov-2011 09:50 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1	C-9	6.229	6.232	-0.003	127218912	46.7830	46.8
2	C-10	6.931	6.929	0.002	131668495	48.0680	48.1
4	C-12	7.828	7.833	-0.005	133484208	47.6481	47.6
6	C-14	8.466	8.471	-0.005	135740381	47.1626	47.2
8	C-16	9.008	9.014	-0.006	140615142	47.1372	47.1
10	C-18	9.497	9.504	-0.007	145930395	48.3007	48.3
M 11	Alip C9-C18				814657533	285.135	285
12	C-19	9.728	9.774	-0.046	148243248	49.1321	49.1
13	C-20	9.950	9.957	-0.007	149480953	49.0856	49.1
16	C-22	10.377	10.384	-0.007	151407787	49.4692	49.5
18	C-24	10.788	10.796	-0.008	151784501	48.9880	49.0
20	C-26	11.213	11.223	-0.010	152831618	48.9831	49.0
22	C-28	11.681	11.724	-0.043	150648000	48.6591	48.7

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
115 C-30	12.224	12.250	-0.026	863815	0.27683	0.277(A)
114 C-36	15.130	15.144	-0.014	146419842	50.0472	50.0(A)
M 24 Alip C19-C36				1051679764	343.635	344

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b057.d

Date : 03-NOV-2011 14:54

Client ID: 1 84-16-2

Sample Info: 1600*1 84-16-2

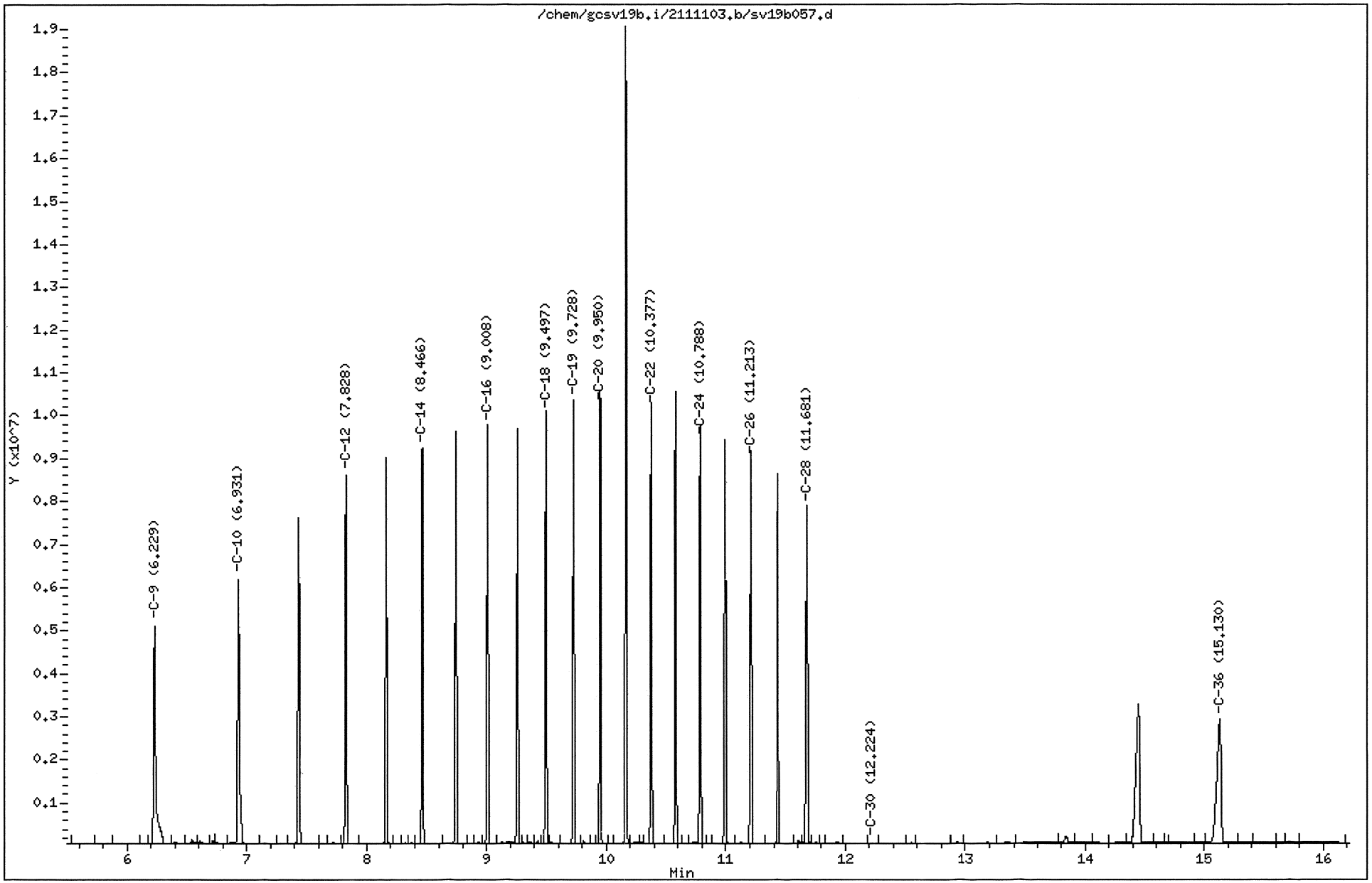
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

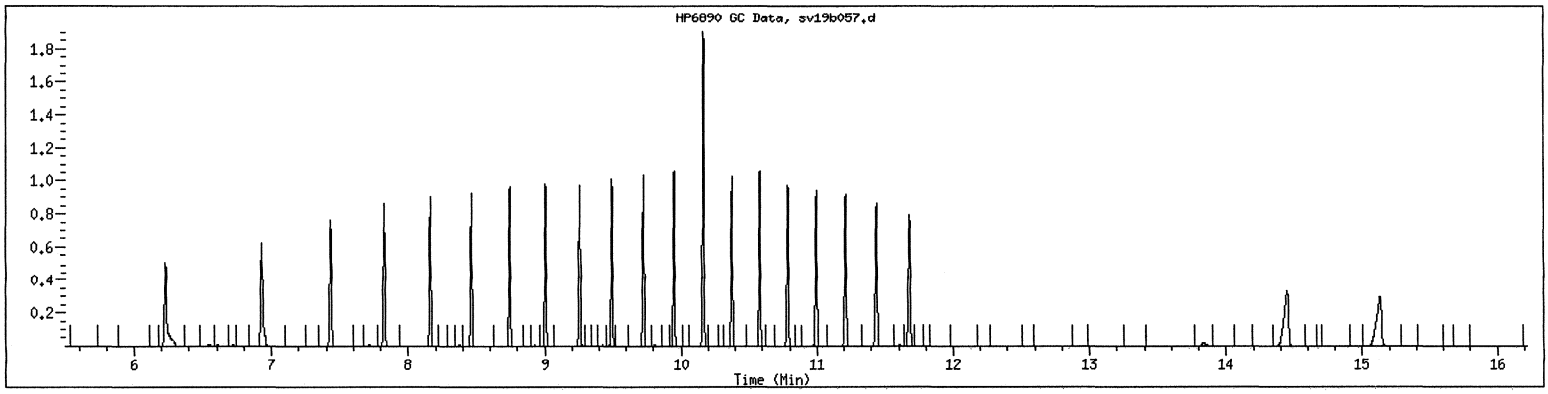
Column diameter: 0.25



Report Date: 11/08/2011 08:46

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/03/2011 14:54	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-16-2		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 09:12
Lab File ID: sv19b053.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2365533	0.010	13.01075	25.00000	Averaged
2 C-10	2739215	2446747	0.010	10.67710	25.00000	Averaged
4 C-12	2801460	2459169	0.010	12.21829	25.00000	Averaged
6 C-14	2878136	2530922	0.010	12.06385	25.00000	Averaged
8 C-16	2983102	2629735	0.010	11.84563	25.00000	Averaged
10 C-18	3021289	2649368	0.010	12.31001	25.00000	Averaged
M 11 Alip C9-C18	2857090	2513579	0.010	12.02312	25.00000	Averaged
12 C-19	3017239	2648833	0.010	12.21005	25.00000	Averaged
13 C-20	3045314	2681325	0.010	11.95243	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2405528	0.010	12.19356	25.00000	Averaged
16 C-22	3060647	2701322	0.010	11.74016	25.00000	Averaged
18 C-24	3098402	2735843	0.010	11.70147	25.00000	Averaged
20 C-26	3120089	2767306	0.010	11.30680	25.00000	Averaged
22 C-28	3095987	2745481	0.010	11.32130	25.00000	Averaged
115 C-30	3120341	2775943	0.010	11.03719	25.00000	Averaged
114 C-36	2925634	2622070	0.010	10.37602	25.00000	Averaged
M 24 Alip C19-C36	3060457	2709765	0.010	11.45879	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 11.73215
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b053.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 09:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.227	6.232	-0.005	118276670	50.0000	43.5
	2 C-10	6.931	6.929	0.002	122337333	50.0000	44.7
	4 C-12	7.827	7.833	-0.006	122958471	50.0000	43.9
	6 C-14	8.464	8.471	-0.007	126546115	50.0000	44.0
	8 C-16	9.007	9.014	-0.007	131486727	50.0000	44.1
	10 C-18	9.496	9.504	-0.008	132468406	50.0000	43.8
M	11 Alip C9-C18				754073722	300.000	264
	12 C-19	9.726	9.774	-0.048	132441629	50.0000	43.9
	13 C-20	9.949	9.957	-0.008	134066257	50.0000	44.0
$	15 Chlorooctadecane	10.164	10.216	-0.052	120276424	50.0000	43.9
	16 C-22	10.376	10.384	-0.008	135066104	50.0000	44.1
	18 C-24	10.788	10.796	-0.008	136792174	50.0000	44.1
	20 C-26	11.214	11.223	-0.009	138365315	50.0000	44.3

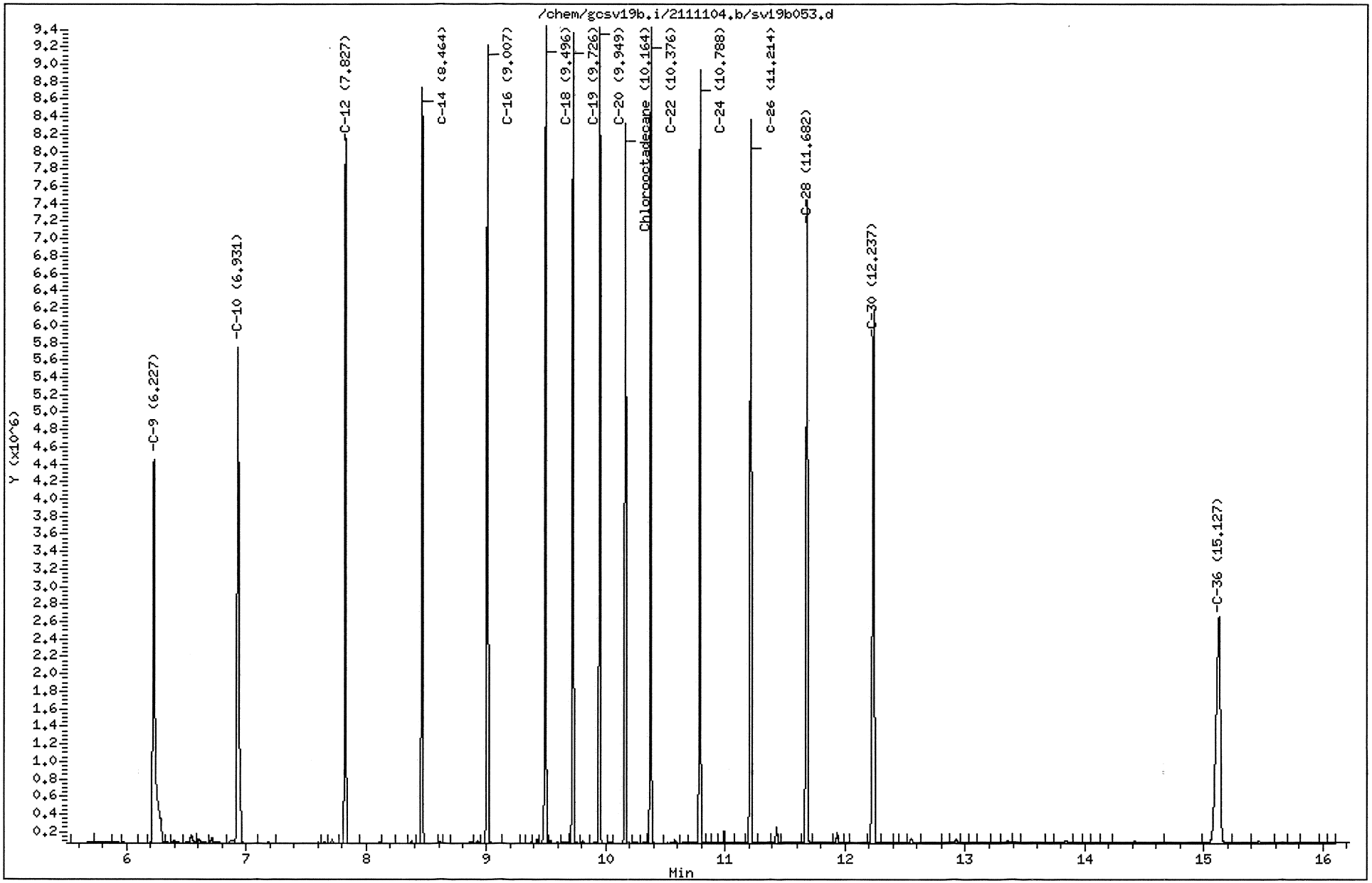
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.682	11.724	-0.042	137274066	50.0000	44.3
115 C-30	12.237	12.249	-0.012	138797128	50.0000	44.5(A)
114 C-36	15.127	15.144	-0.017	131103492	50.0000	44.8(A)
M 24 Alip C19-C36				1083906165	400.000	354

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111104.b/sv19b053.d
Date : 04-NOV-2011 09:12
Client ID: 1 84-16-1
Sample Info: 1400*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

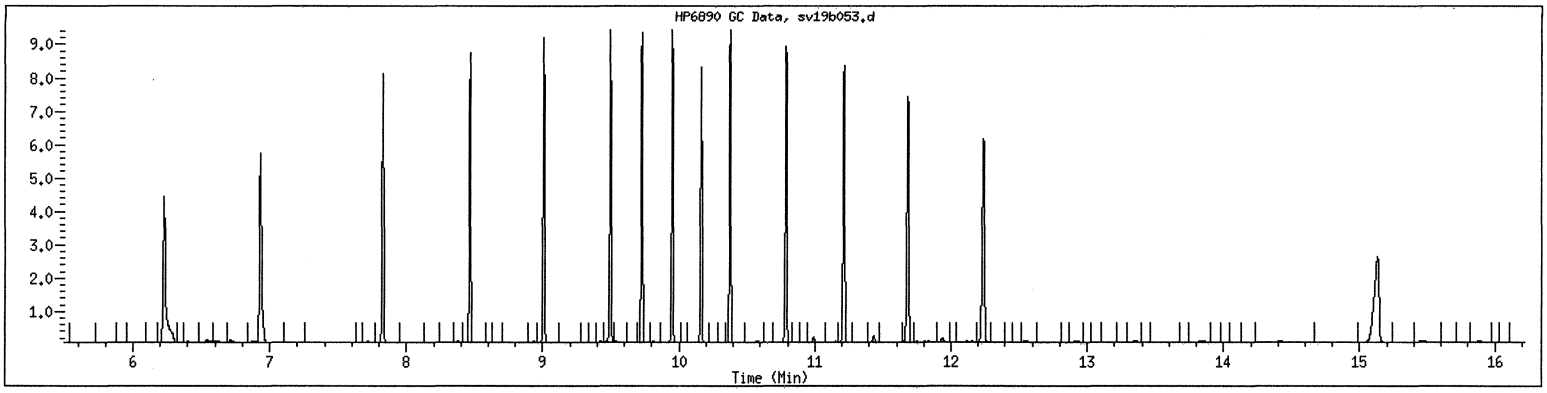
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/08/2011 13:37

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 09:12	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 15:45
Lab File ID: sv19b065.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2613264	0.010	3.90079	25.00000	Averaged
2 C-10	2739215	2663265	0.010	2.77270	25.00000	Averaged
4 C-12	2801460	2714757	0.010	3.09493	25.00000	Averaged
6 C-14	2878136	2778305	0.010	3.46861	25.00000	Averaged
8 C-16	2983102	2885740	0.010	3.26377	25.00000	Averaged
10 C-18	3021289	2913230	0.010	3.57658	25.00000	Averaged
M 11 Alip C9-C18	2857090	2761427	0.010	3.34829	25.00000	Averaged
12 C-19	3017239	2917827	0.010	3.29479	25.00000	Averaged
13 C-20	3045314	2953584	0.010	3.01216	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2685289	0.010	1.98177	25.00000	Averaged
16 C-22	3060647	2980997	0.010	2.60239	25.00000	Averaged
18 C-24	3098402	3027070	0.010	2.30222	25.00000	Averaged
20 C-26	3120089	3050819	0.010	2.22010	25.00000	Averaged
22 C-28	3095987	3013888	0.010	2.65180	25.00000	Averaged
115 C-30	3120341	3044490	0.010	2.43086	25.00000	Averaged
114 C-36	2925634	2871101	0.010	1.86398	25.00000	Averaged
M 24 Alip C19-C36	3060457	2982472	0.010	2.54813	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.84317
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b065.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 15:45
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.229	6.232	-0.003	130663219	50.0000	48.0
2	C-10	6.932	6.929	0.003	133163247	50.0000	48.6
4	C-12	7.829	7.833	-0.004	135737833	50.0000	48.5
6	C-14	8.467	8.471	-0.004	138915254	50.0000	48.3
8	C-16	9.009	9.014	-0.005	144287003	50.0000	48.4
10	C-18	9.498	9.504	-0.006	145661515	50.0000	48.2
M 11	Alip C9-C18				828428071	300.000	290
12	C-19	9.729	9.774	-0.045	145891353	50.0000	48.4
13	C-20	9.952	9.957	-0.005	147679209	50.0000	48.5
$ 15	Chlorooctadecane	10.167	10.217	-0.050	134264437	50.0000	49.0
16	C-22	10.379	10.384	-0.005	149049847	50.0000	48.7
18	C-24	10.792	10.796	-0.004	151353497	50.0000	48.8
20	C-26	11.219	11.223	-0.004	152540965	50.0000	48.9

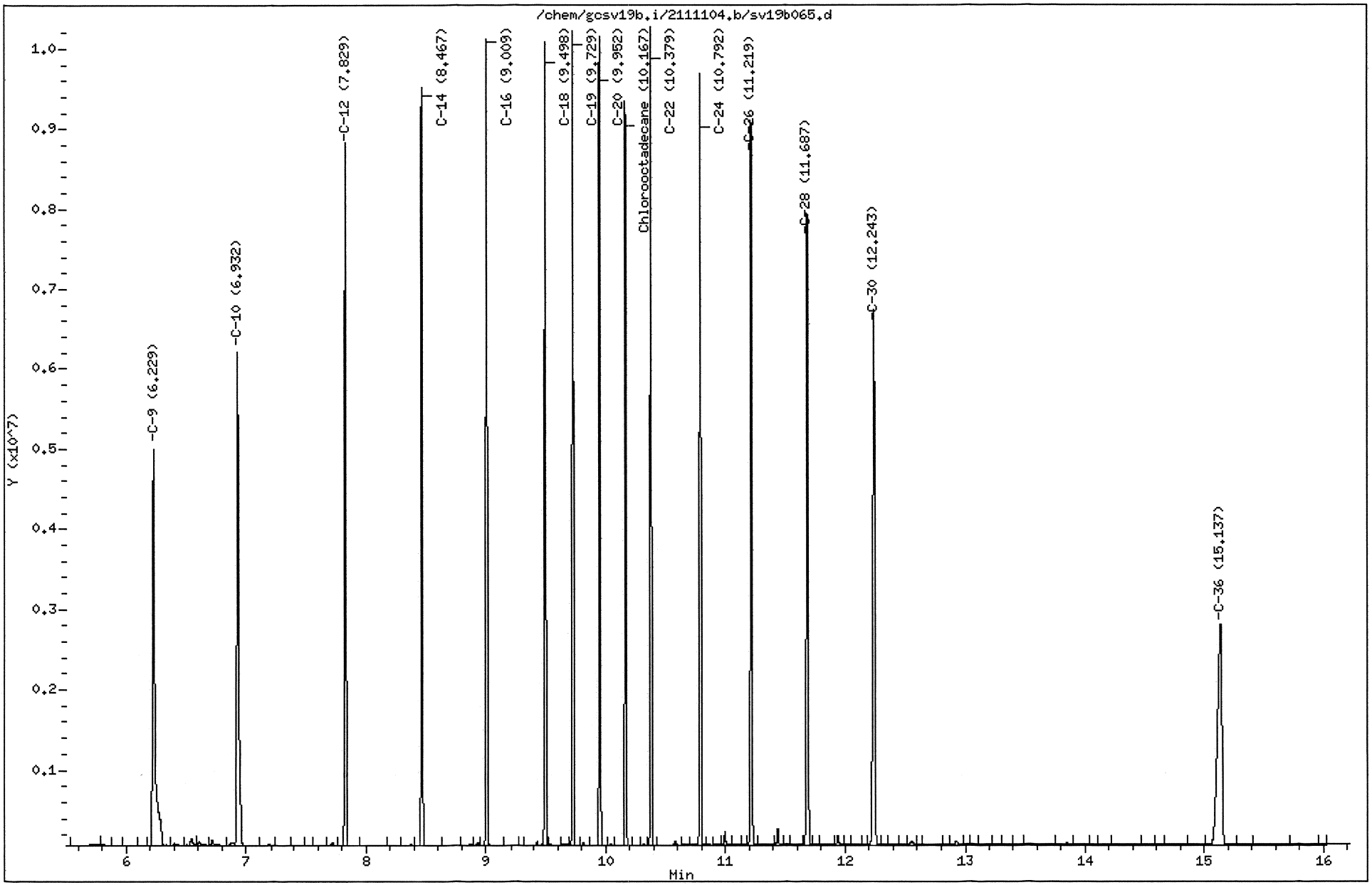
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.687	11.725	-0.038	150694405	50.0000	48.7
115 C-30	12.243	12.250	-0.007	152224481	50.0000	48.8(A)
114 C-36	15.137	15.145	-0.008	143555045	50.0000	49.1(A)
M 24 Alip C19-C36				1192988802	400.000	390

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

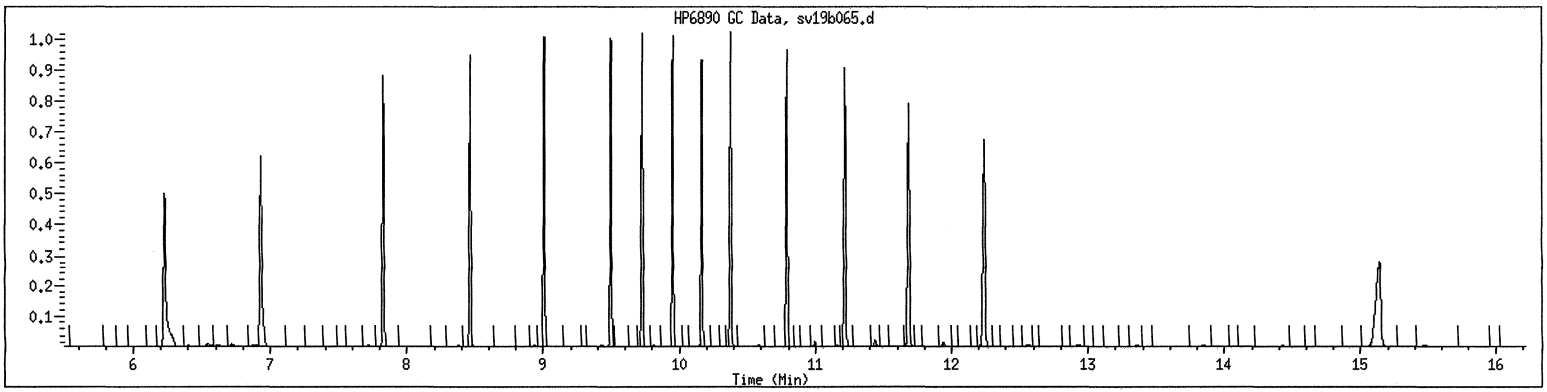
Data File: /chem/gcsv19b.i/2111104.b/sv19b065.d
Date : 04-NOV-2011 15:45
Client ID: 1 84-16-1
Sample Info: 1400*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 15:45	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 21:26
Lab File ID: sv19b079.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2581871	0.010	5.05525	25.00000	Averaged
2 C-10	2739215	2671823	0.010	2.46029	25.00000	Averaged
4 C-12	2801460	2693394	0.010	3.85748	25.00000	Averaged
6 C-14	2878136	2768059	0.010	3.82460	25.00000	Averaged
8 C-16	2983102	2866747	0.010	3.90046	25.00000	Averaged
10 C-18	3021289	2887292	0.010	4.43511	25.00000	Averaged
M 11 Alip C9-C18	2857090	2744864	0.010	3.92799	25.00000	Averaged
12 C-19	3017239	2898780	0.010	3.92607	25.00000	Averaged
13 C-20	3045314	2941955	0.010	3.39402	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2663692	0.010	2.77009	25.00000	Averaged
16 C-22	3060647	2966763	0.010	3.06746	25.00000	Averaged
18 C-24	3098402	3022447	0.010	2.45141	25.00000	Averaged
20 C-26	3120089	3056143	0.010	2.04949	25.00000	Averaged
22 C-28	3095987	3033627	0.010	2.01425	25.00000	Averaged
115 C-30	3120341	3058955	0.010	1.96727	25.00000	Averaged
114 C-36	2925634	2883428	0.010	1.44262	25.00000	Averaged
M 24 Alip C19-C36	3060457	2982762	0.010	2.53865	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.12250
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b079.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 21:26
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.229	6.232	-0.003	129093531	50.0000	47.5
2	C-10	6.932	6.929	0.003	133591133	50.0000	48.8
4	C-12	7.828	7.833	-0.005	134669711	50.0000	48.1
6	C-14	8.466	8.471	-0.005	138402964	50.0000	48.1
8	C-16	9.008	9.014	-0.006	143337352	50.0000	48.0
10	C-18	9.497	9.504	-0.007	144364588	50.0000	47.8
M 11	Alip C9-C18				823459279	300.000	288
12	C-19	9.727	9.774	-0.047	144939003	50.0000	48.0
13	C-20	9.950	9.957	-0.007	147097767	50.0000	48.3
$ 15	Chlorooctadecane	10.164	10.216	-0.052	133184608	50.0000	48.6
16	C-22	10.376	10.384	-0.008	148338149	50.0000	48.5
18	C-24	10.787	10.796	-0.009	151122368	50.0000	48.8
20	C-26	11.212	11.223	-0.011	152807139	50.0000	49.0

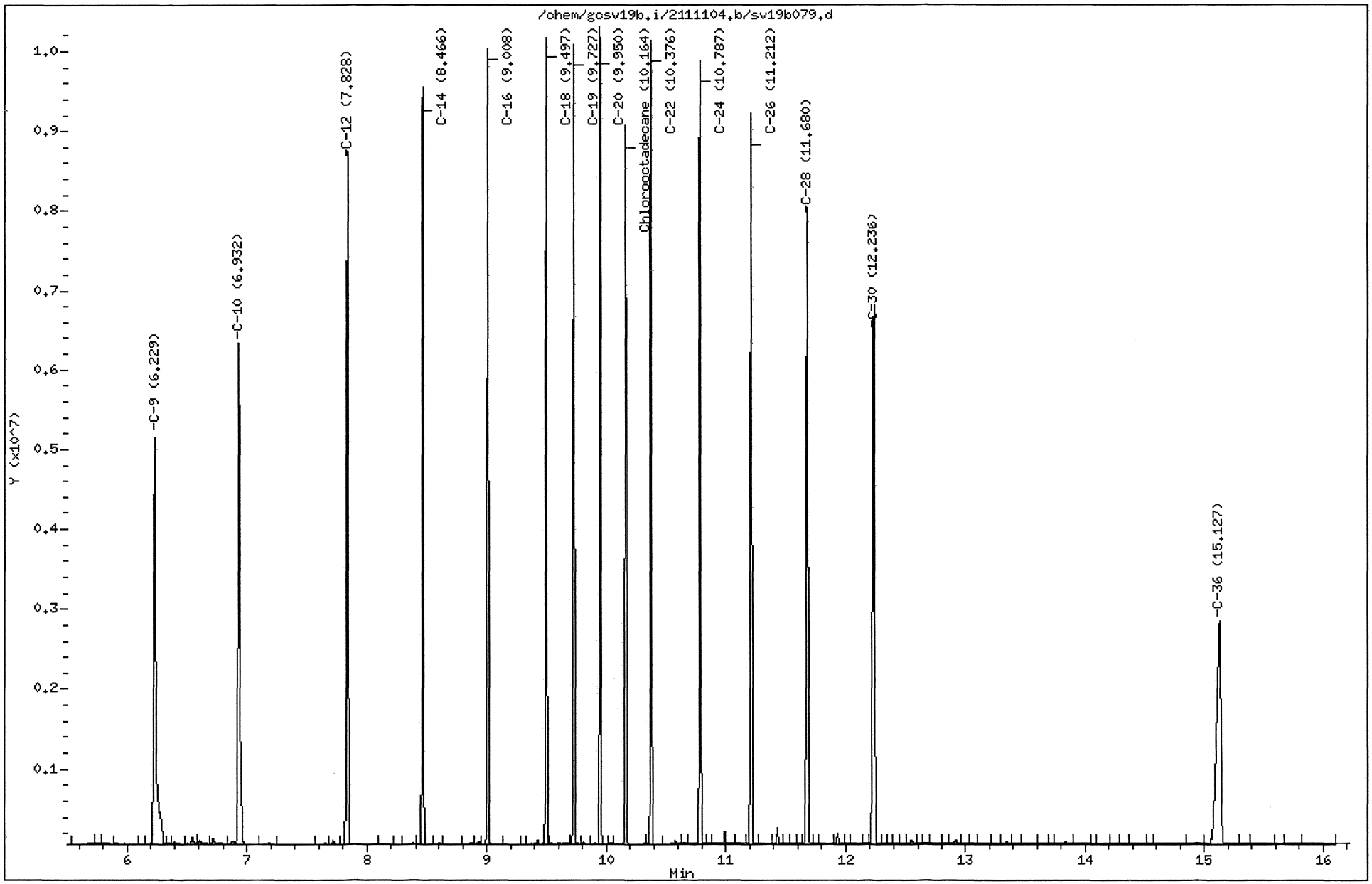
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.680	11.724	-0.044	151681326	50.0000	49.0
115 C-30	12.236	12.249	-0.013	152947749	50.0000	49.0(A)
114 C-36	15.127	15.144	-0.017	144171415	50.0000	49.3(A)
M 24 Alip C19-C36				1193104916	400.000	390

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111104.b/sv19b079.d
Date : 04-NOV-2011 21:26
Client ID: 1 84-16-1
Sample Info: 1400x1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

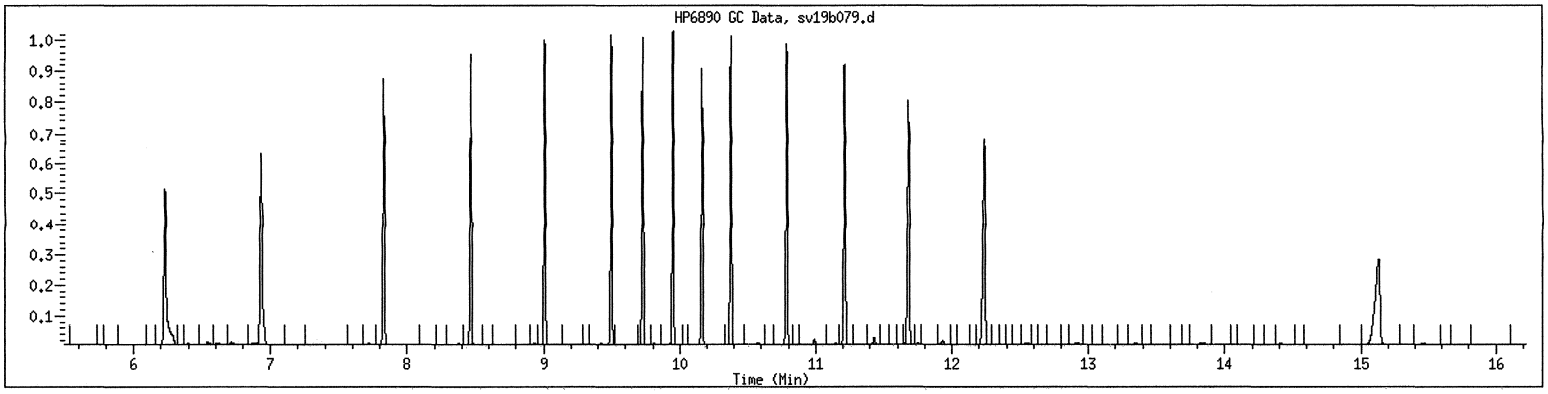
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/08/2011 14:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 21:26	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 02-NOV-2011 17:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Cal Date : 08-Nov-2011 08:36 dlb
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Level 2: /var/chem/gcsv19b.i/2111102.b/sv19b053.d
Level 3: /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Level 4: /var/chem/gcsv19b.i/2111102.b/sv19b055.d
Level 5: /var/chem/gcsv19b.i/2111102.b/sv19b056.d

		1.000	10.000	50.000	100.000	200.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
	1 Naphthalene	2871371	2880452	2795766	2859339	2803867	2842159	1.389
	2 2-Methylnaphthalene	2390073	2394998	2345540	2406153	2358179	2378988	1.086
	4 Acenaphthylene	2742978	2787580	2735871	2801782	2748122	2763267	1.065
	6 Acenaphthene	2939138	2974500	2797376	2847632	2992117	2910153	2.892
	7 Fluorene	2698627	2763527	2759247	2833327	2801195	2771184	1.825
	8 Phenanthrene	2595622	2723658	2778901	2849934	2855307	2760684	3.879
	9 Anthracene	2513243	2630537	2655916	2746767	2723523	2653997	3.464
	12 Fluoranthene	2615148	2778457	2865217	2923634	2923247	2821141	4.592
	13 Pyrene	2622128	2808614	2905331	2966543	2974785	2855480	5.126
	14 Benzo(a)Anthracene	2463921	2659230	2834632	2942403	2985058	2777049	7.762
	15 Chrysene	2577178	2691296	2772251	2844436	2855699	2748172	4.223
	16 Benzo(b)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
	17 Benzo(k)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
	18 Benzo(a)Pyrene	2459311	2662945	2905156	2960554	2875461	2772685	7.515
	19 Indo(1,2,3cd)Pyrene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
	20 Dibenzo(a,h)Anthracene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
	21 Benzo(g,h,i)Perylene	2487409	2704307	2942094	3003707	2752450	2777993	7.386
M	22 Arom C11-C22	2574648	2716361	2794440	2862290	2822200	2753988	4.124
	23 Unadjusted Arom C11-C22	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	113 Total Surrogate Area	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	3 2-Fluorobiphenyl	2473008	2477779	2421128	2479969	2435554	2457488	1.107

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 02-NOV-2011 17:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Cal Date : 08-Nov-2011 08:36 dlb
Curve Type : Average

Compound	1.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
$ 5 2-Bromonaphthalene	1570168	1562462	1600777	1661330	1449154	1568778	4.932
$ 10 O-Terphenyl	2900971	2972915	2936779	2979088	2954226	2948796	1.067
$ 11 Chloro-octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 15:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 15:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	Naphthalene	7.877	7.878	-0.001	2871371	1.00000	1.00(M2)
2	2-Methylnaphthalene	8.263	8.261	0.002	2390073	1.00000	1.00(M2)
$ 3	2-Fluorobiphenyl	8.450	8.450	0.000	2473008	1.00000	1.00(M2)
4	Acenaphthylene	8.761	8.760	0.001	2742978	1.00000	1.00(M2)
$ 5	2-Bromonaphthalene	8.833	8.832	0.001	1570168	1.00000	1.00(M2)
6	Acenaphthene	8.851	8.850	0.001	2939138	1.00000	1.00(M2)
7	Fluorene	9.126	9.128	-0.002	2698627	1.00000	1.00(M2)
8	Phenanthrene	9.653	9.652	0.001	2595622	1.00000	1.00(M2)
9	Anthracene	9.681	9.680	0.001	2513243	1.00000	1.00(M2)
$ 10	O-Terphenyl	9.818	9.819	-0.001	2900971	1.00000	1.00(M2)
12	Fluoranthene	10.323	10.322	0.001	2615148	1.00000	1.00(M2)
13	Pyrene	10.463	10.461	0.002	2622128	1.00000	1.00(M2)
14	Benzo(a)Anthracene	11.206	11.208	-0.002	2463921	1.00000	1.00(M2)

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.234	11.232	0.002	2577178	1.00000	1.00 (M2)
16	Benzo(b)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
17	Benzo(k)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
18	Benzo(a)Pyrene	12.351	12.350	0.001	2459311	1.00000	1.00 (M2)
19	Indo(1,2,3cd)Pyrene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
20	Dibenzo(a,h)Anthracene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
21	Benzo(g,h,i)Perylene	13.938	13.939	-0.001	2487409	1.00000	1.00 (M2)
M 22	Arom C11-C22				43769008	17.0000	17.0
M 113	Total Surrogate Area				6944147	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b052.d

Date : 02-NOV-2011 15:55

Client ID: 1 84-12-8

Instrument: gcsv19b.i

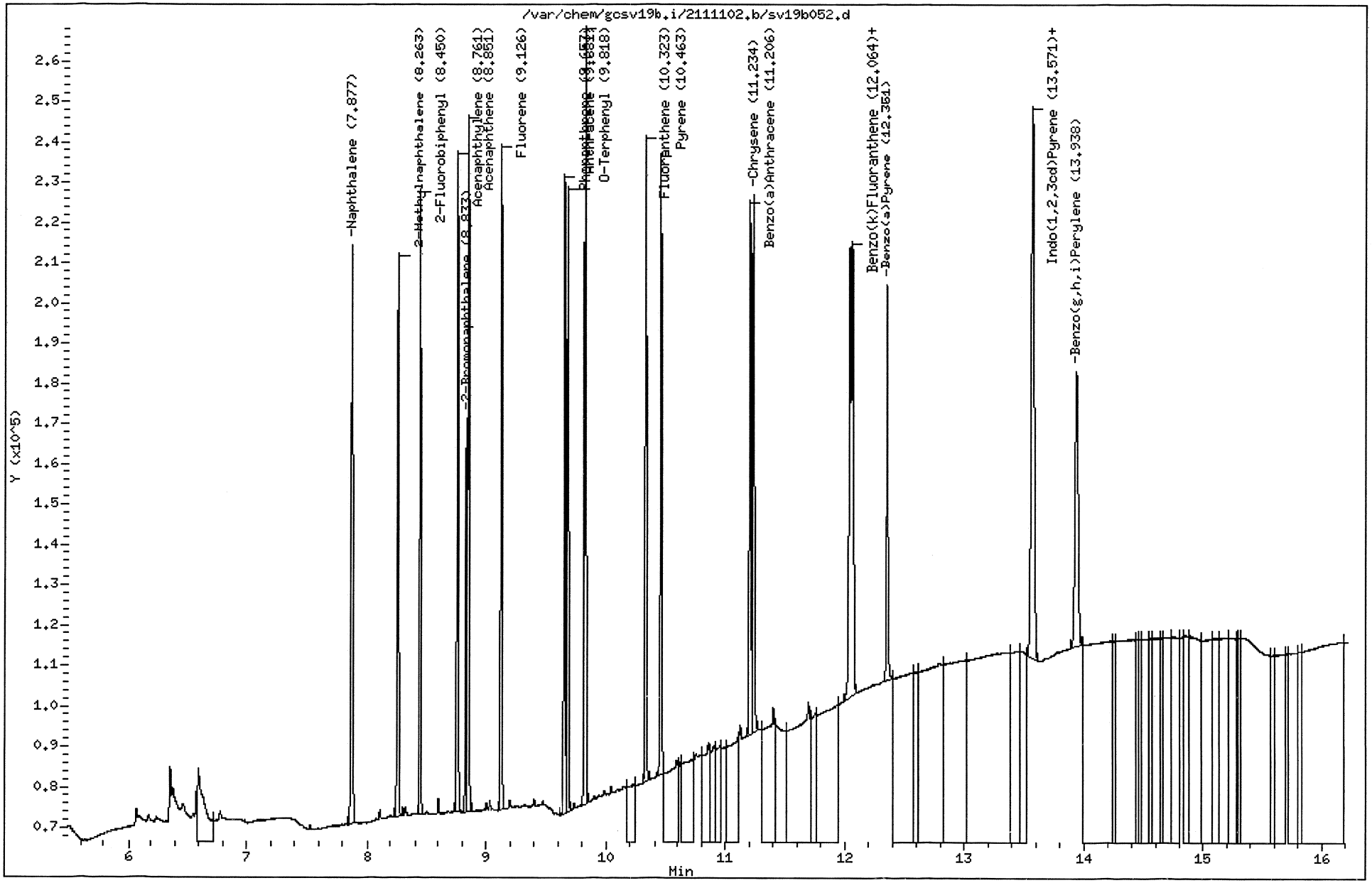
Sample Info: 1201*1 84-12-8

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

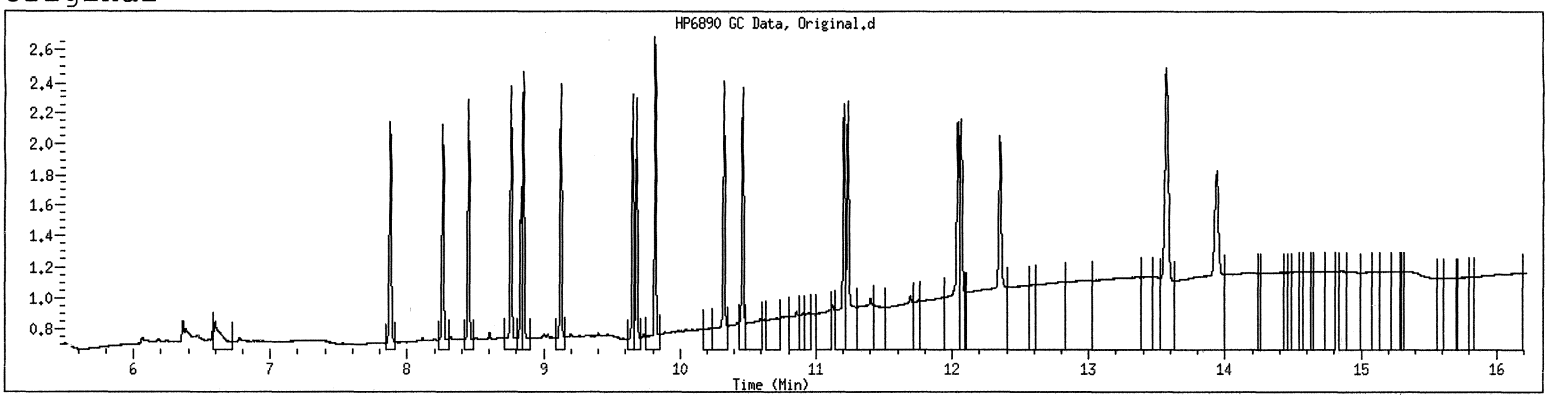
Column diameter: 0.25



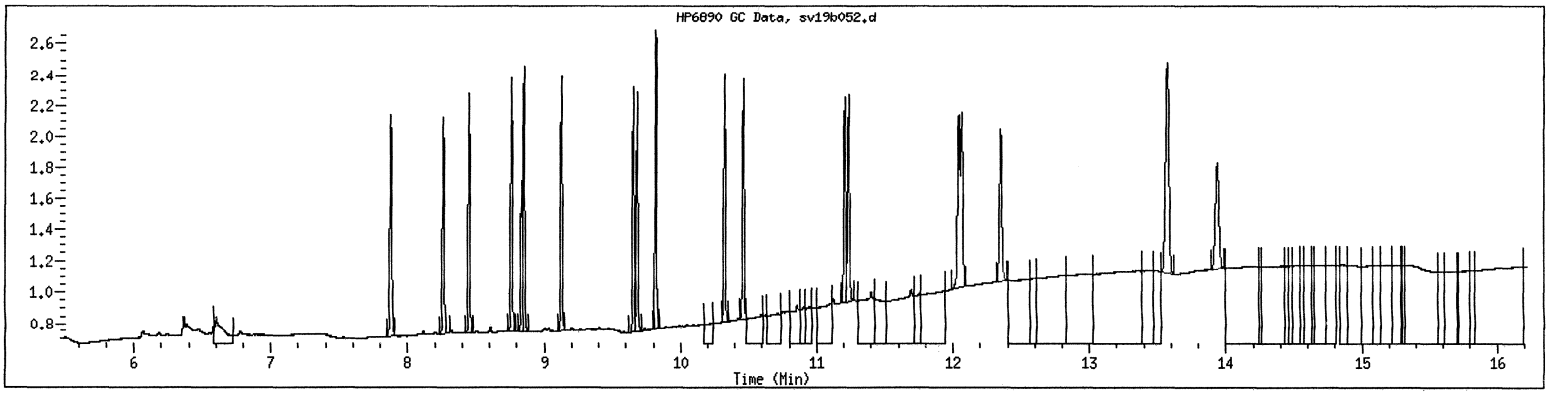
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/02/2011 15:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:19
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:19 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.876	7.878	-0.002	28804515	10.0000	10.0(M2)
	2 2-Methylnaphthalene	8.262	8.261	0.001	23949975	10.0000	10.0(M2)
$	3 2-Fluorobiphenyl	8.450	8.450	0.000	24777794	10.0000	10.0(M2)
	4 Acenaphthylene	8.761	8.761	0.000	27875803	10.0000	10.1(M2)
$	5 2-Bromonaphthalene	8.835	8.832	0.003	15624622	10.0000	9.98(M2)
	6 Acenaphthene	8.852	8.851	0.001	29745005	10.0000	10.1(M2)
	7 Fluorene	9.126	9.128	-0.002	27635268	10.0000	10.1(M2)
	8 Phenanthrene	9.654	9.652	0.002	27236585	10.0000	10.2(M2)
	9 Anthracene	9.682	9.681	0.001	26305372	10.0000	10.2(M2)
$	10 O-Terphenyl	9.818	9.819	-0.001	29729146	10.0000	10.1(M2)
	12 Fluoranthene	10.324	10.322	0.002	27784568	10.0000	10.3(M2)
	13 Pyrene	10.463	10.461	0.002	28086137	10.0000	10.3(M2)
	14 Benzo(a)Anthracene	11.206	11.208	-0.002	26592300	10.0000	10.4(M2)

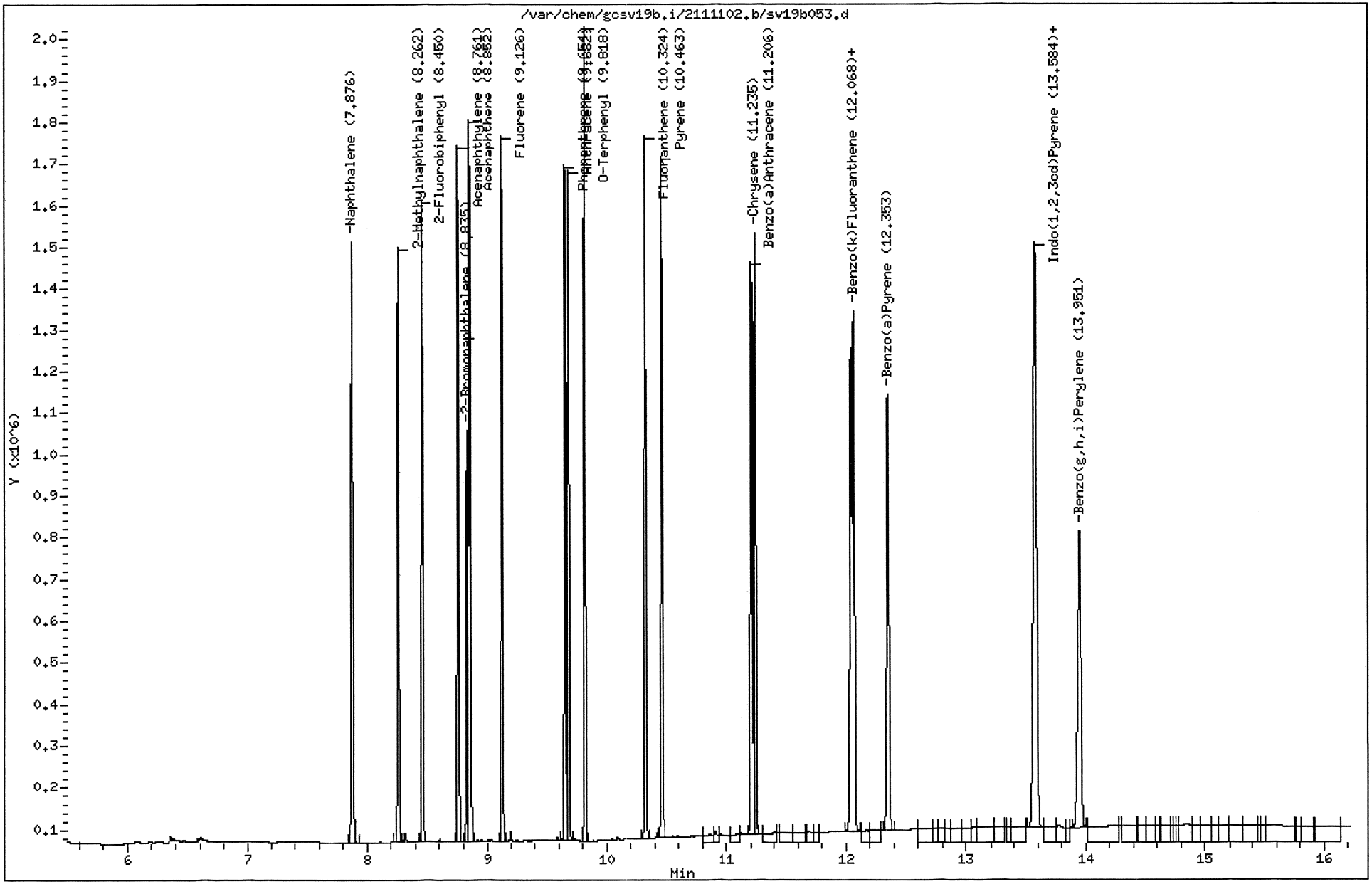
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.235	11.235	0.000	26912958	10.0000	10.2(M2)
16 Benzo(b)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8(M2)
17 Benzo(k)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8(M2)
18 Benzo(a)Pyrene	12.353	12.351	0.002	26629448	10.0000	10.4(M2)
19 Indo(1,2,3cd)Pyrene	13.584	13.576	0.008	52354931	20.0000	21.1(M2)
20 Dibenzo(a,h)Anthracene	13.584	13.576	0.008	52354931	20.0000	21.1(M2)
21 Benzo(g,h,i)Perylene	13.951	13.945	0.006	27043066	10.0000	10.4(M2)
M 22 Arom C11-C22				461781444	170.000	175
M 113 Total Surrogate Area				70131562	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b053.d
Date : 02-NOV-2011 16:19
Client ID: 1 84-12-8
Sample Info: 1202x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

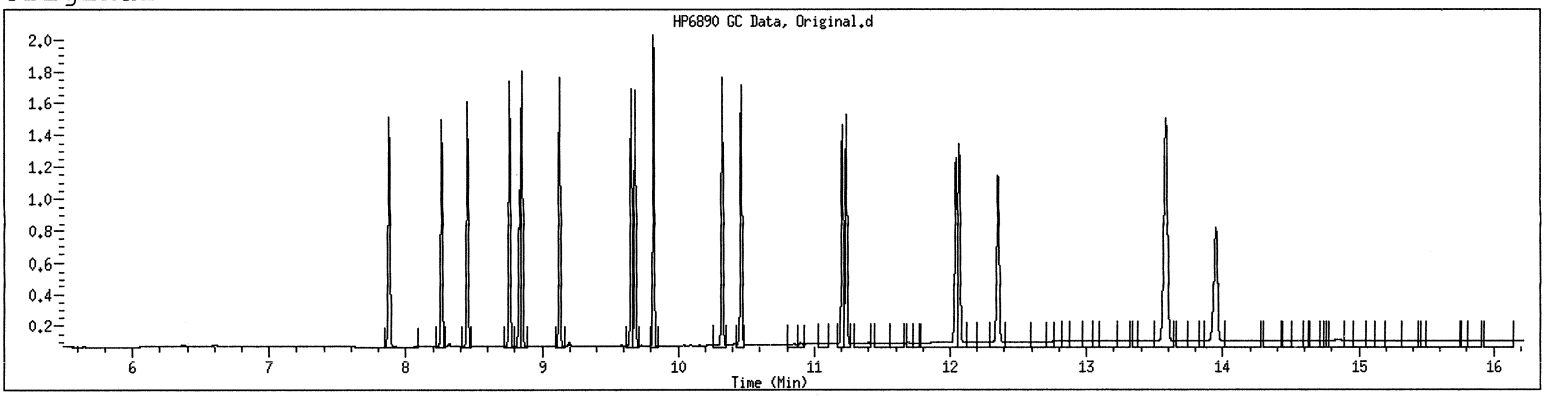
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



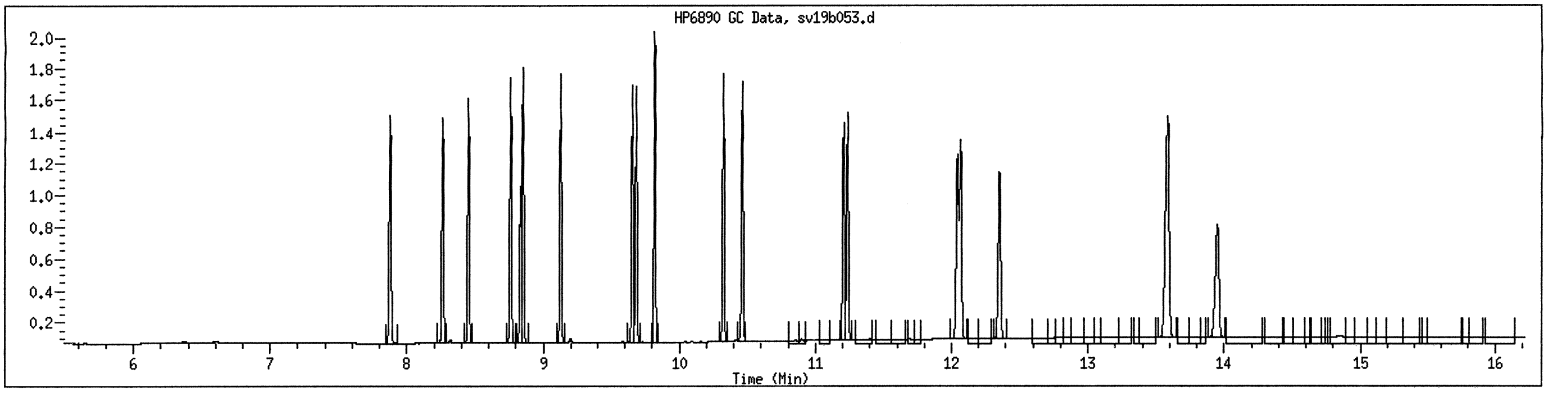
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/02/2011 16:19	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.879	0.000	139788310	50.0000	49.1
	2 2-Methylnaphthalene	8.265	8.263	0.002	117276990	50.0000	49.3
$	3 2-Fluorobiphenyl	8.453	8.451	0.002	121056403	50.0000	49.3
	4 Acenaphthylene	8.765	8.762	0.003	136793555	50.0000	49.6
$	5 2-Bromonaphthalene	8.838	8.834	0.004	80038867	50.0000	50.7
	6 Acenaphthene	8.857	8.853	0.004	139868814	50.0000	48.2
	7 Fluorene	9.130	9.129	0.001	137962328	50.0000	50.3
	8 Phenanthrene	9.657	9.654	0.003	138945044	50.0000	51.5
	9 Anthracene	9.687	9.683	0.004	132795791	50.0000	51.1
$	10 O-Terphenyl	9.820	9.819	0.001	146838940	50.0000	50.0
	12 Fluoranthene	10.325	10.323	0.002	143260836	50.0000	52.0
	13 Pyrene	10.465	10.463	0.002	145266555	50.0000	52.3
	14 Benzo(a)Anthracene	11.207	11.208	-0.001	141731614	50.0000	53.4

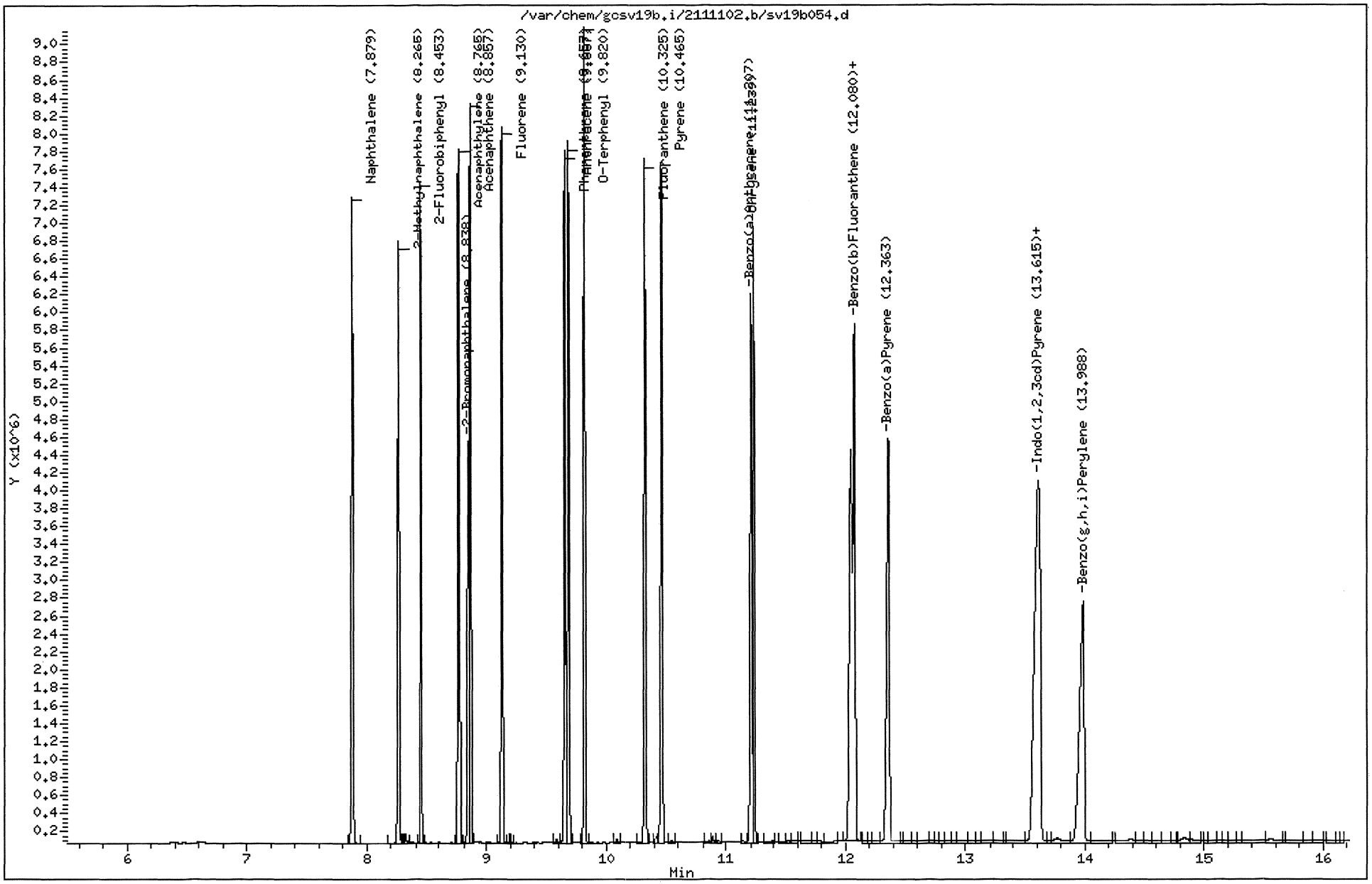
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.239	11.236	0.003	138612563	50.0000	51.7
16	Benzo(b)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
17	Benzo(k)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
18	Benzo(a)Pyrene	12.363	12.355	0.008	145257809	50.0000	54.3
19	Indo(1,2,3cd)Pyrene	13.615	13.589	0.026	283675684	100.000	109
20	Dibenzo(a,h)Anthracene	13.615	13.589	0.026	283675684	100.000	109(M1)
21	Benzo(g,h,i)Perylene	13.988	13.959	0.029	147104717	50.0000	54.3
M 22	Arom C11-C22				2375273671	850.000	882
M 113	Total Surrogate Area				347934210	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Date : 02-NOV-2011 16:42
Client ID: 1 84-12-8
Sample Info: 1203x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

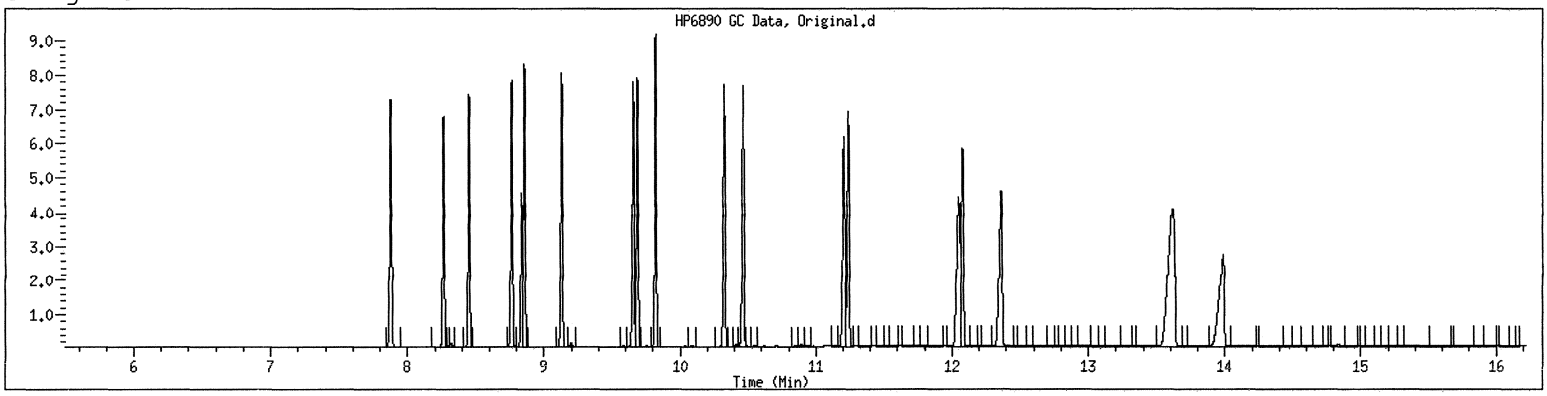
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



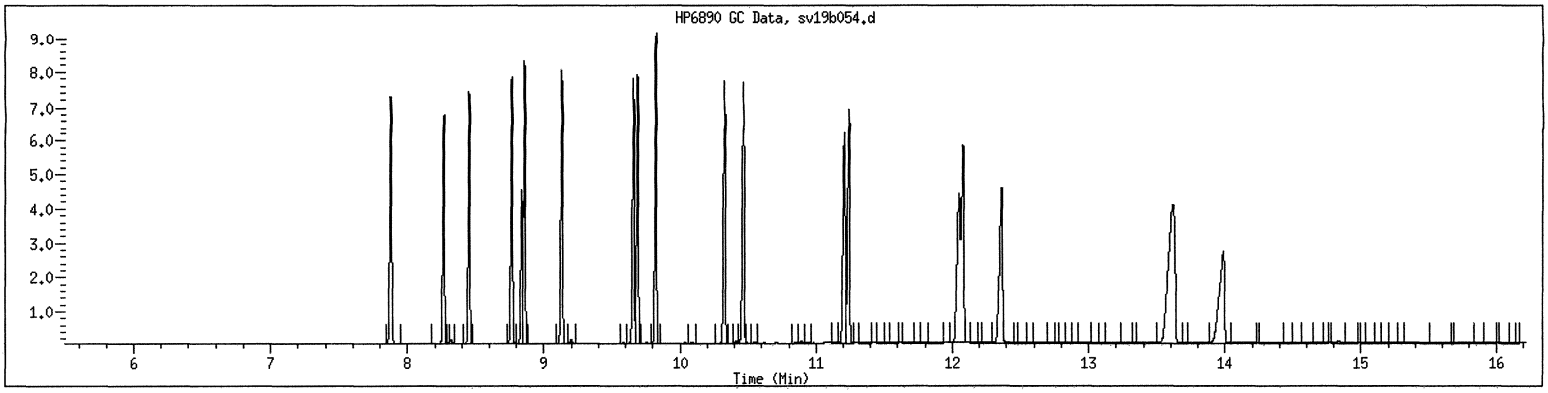
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/02/2011 16:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:07
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:07 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.882	7.879	0.003	285933881	100.000	100
	2 2-Methylnaphthalene	8.269	8.264	0.005	240615323	100.000	101
$	3 2-Fluorobiphenyl	8.457	8.453	0.004	247996907	100.000	101
	4 Acenaphthylene	8.769	8.764	0.005	280178162	100.000	101
$	5 2-Bromonaphthalene	8.843	8.836	0.007	166132975	100.000	104
	6 Acenaphthene	8.864	8.855	0.009	284763163	100.000	98.5
	7 Fluorene	9.136	9.131	0.005	283332686	100.000	103
	8 Phenanthrene	9.663	9.656	0.007	284993363	100.000	104
	9 Anthracene	9.695	9.685	0.010	274676746	100.000	104
$	10 O-Terphenyl	9.826	9.821	0.005	297908777	100.000	101
	12 Fluoranthene	10.334	10.325	0.009	292363394	100.000	105
	13 Pyrene	10.475	10.465	0.010	296654255	100.000	105
	14 Benzo(a)Anthracene	11.219	11.211	0.008	294240261	100.000	108

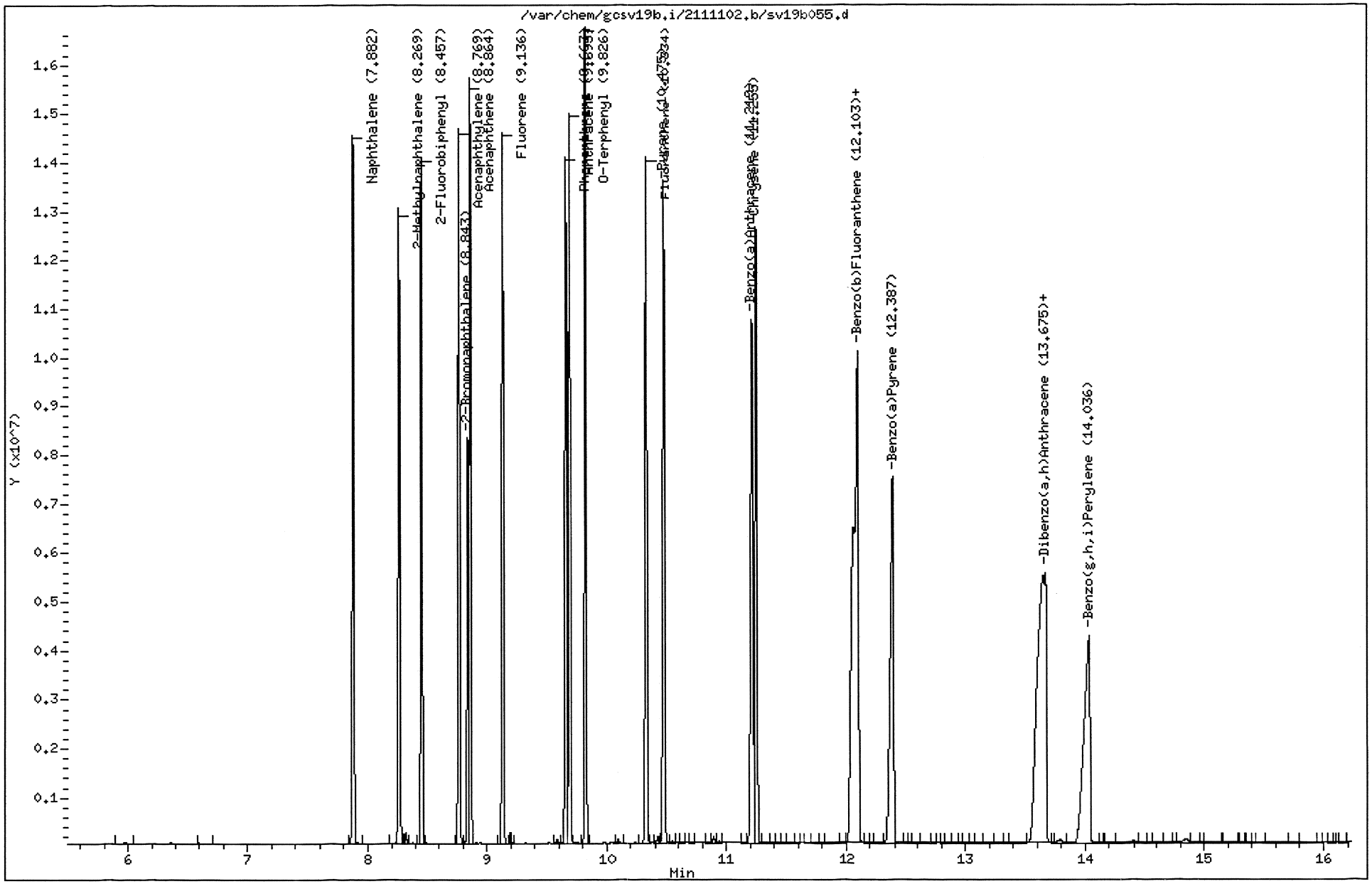
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.255	11.240	0.015	284443626	100.000	105
16	Benzo(b)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
17	Benzo(k)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
18	Benzo(a)Pyrene	12.387	12.363	0.024	296055391	100.000	108
19	Indo(1,2,3cd)Pyrene	13.675	13.610	0.065	573310212	200.000	215(AM2)
20	Dibenzo(a,h)Anthracene	13.675	13.610	0.065	573310212	200.000	215(AM2)
21	Benzo(g,h,i)Perylene	14.036	13.979	0.057	300370678	100.000	108
M 22	Arom C11-C22				4865892710	1700.00	1780
M 113	Total Surrogate Area				712038659	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b055.d
Date : 02-NOV-2011 17:07
Client ID: 1 84-12-8
Sample Info: 1204*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

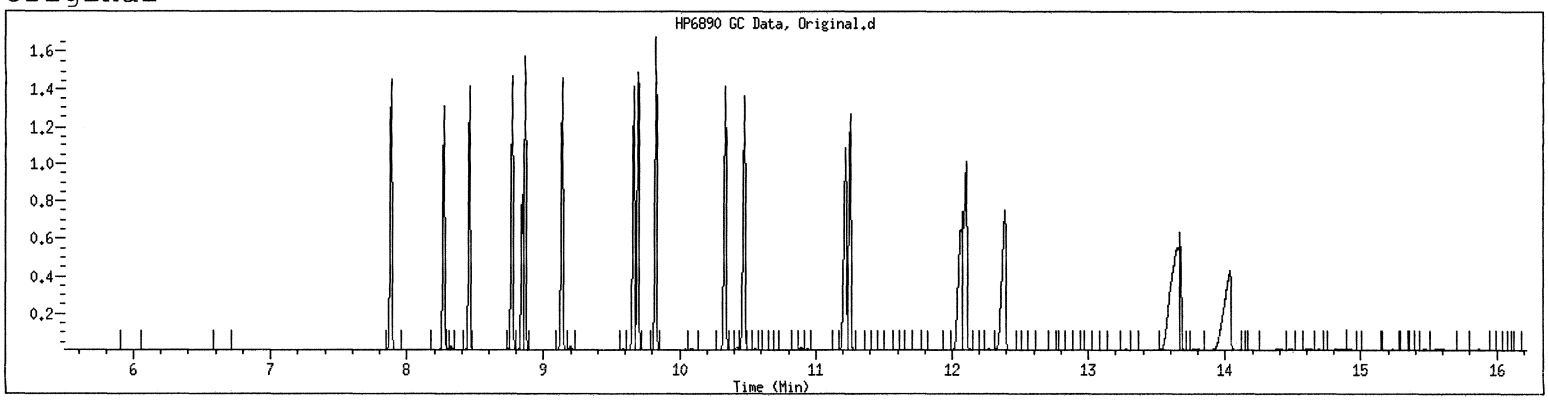
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



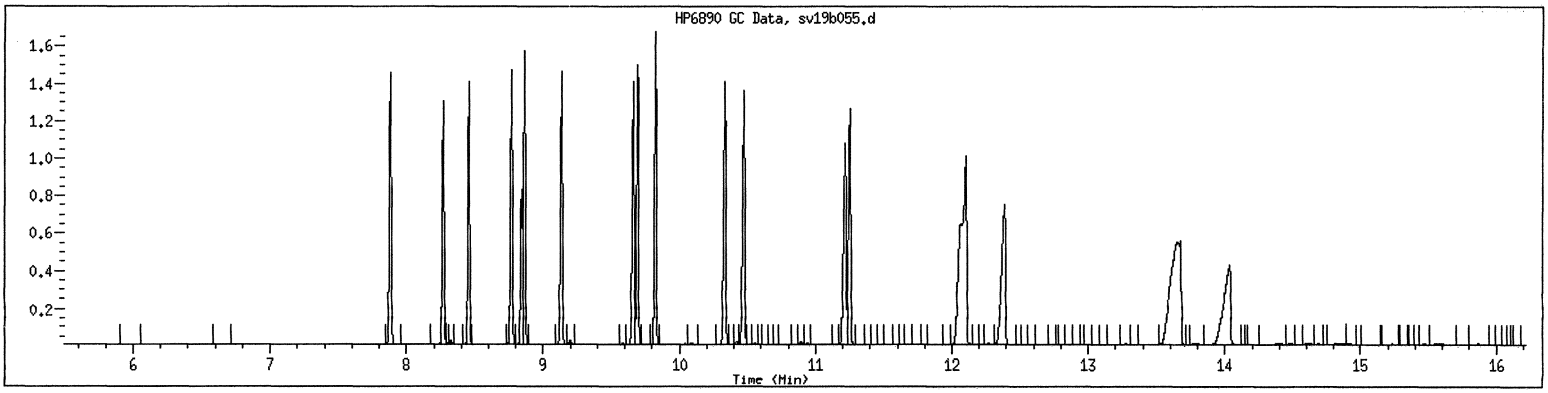
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/02/2011 17:07	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.888	7.881	0.007	560773309	200.000	197
	2 2-Methylnaphthalene	8.274	8.266	0.008	471635711	200.000	198
$	3 2-Fluorobiphenyl	8.462	8.454	0.008	487110868	200.000	198
	4 Acenaphthylene	8.776	8.767	0.009	549624381	200.000	199
$	5 2-Bromonaphthalene	8.853	8.839	0.014	289830833	200.000	185
	6 Acenaphthene	8.872	8.858	0.014	598423437	200.000	206(A)
	7 Fluorene	9.143	9.133	0.010	560238934	200.000	202(A)
	8 Phenanthrene	9.671	9.658	0.013	571061474	200.000	207(A)
	9 Anthracene	9.705	9.689	0.016	544704598	200.000	205(A)
$	10 O-Terphenyl	9.832	9.823	0.009	590845256	200.000	200(A)
	12 Fluoranthene	10.343	10.329	0.014	584649476	200.000	207(A)
	13 Pyrene	10.485	10.468	0.017	594957073	200.000	208(A)
	14 Benzo(a)Anthracene	11.230	11.215	0.015	597011528	200.000	215(A)

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.270	11.246	0.024	571139866	200.000	208(A)
16	Benzo(b)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(AM1)
17	Benzo(k)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(A)
18	Benzo(a)Pyrene	12.413	12.373	0.040	575092148	200.000	207(A)
19	Indo(1,2,3cd)Pyrene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
20	Dibenzo(a,h)Anthracene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
21	Benzo(g,h,i)Perylene	14.088	14.001	0.087	550489918	200.000	198
M 22	Arom C11-C22				9595479675	3400.00	3480
M 113	Total Surrogate Area				1367786957	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b056.d

Date : 02-NOV-2011 17:30

Client ID: 1 84-12-8

Sample Info: 1205*1 84-12-8

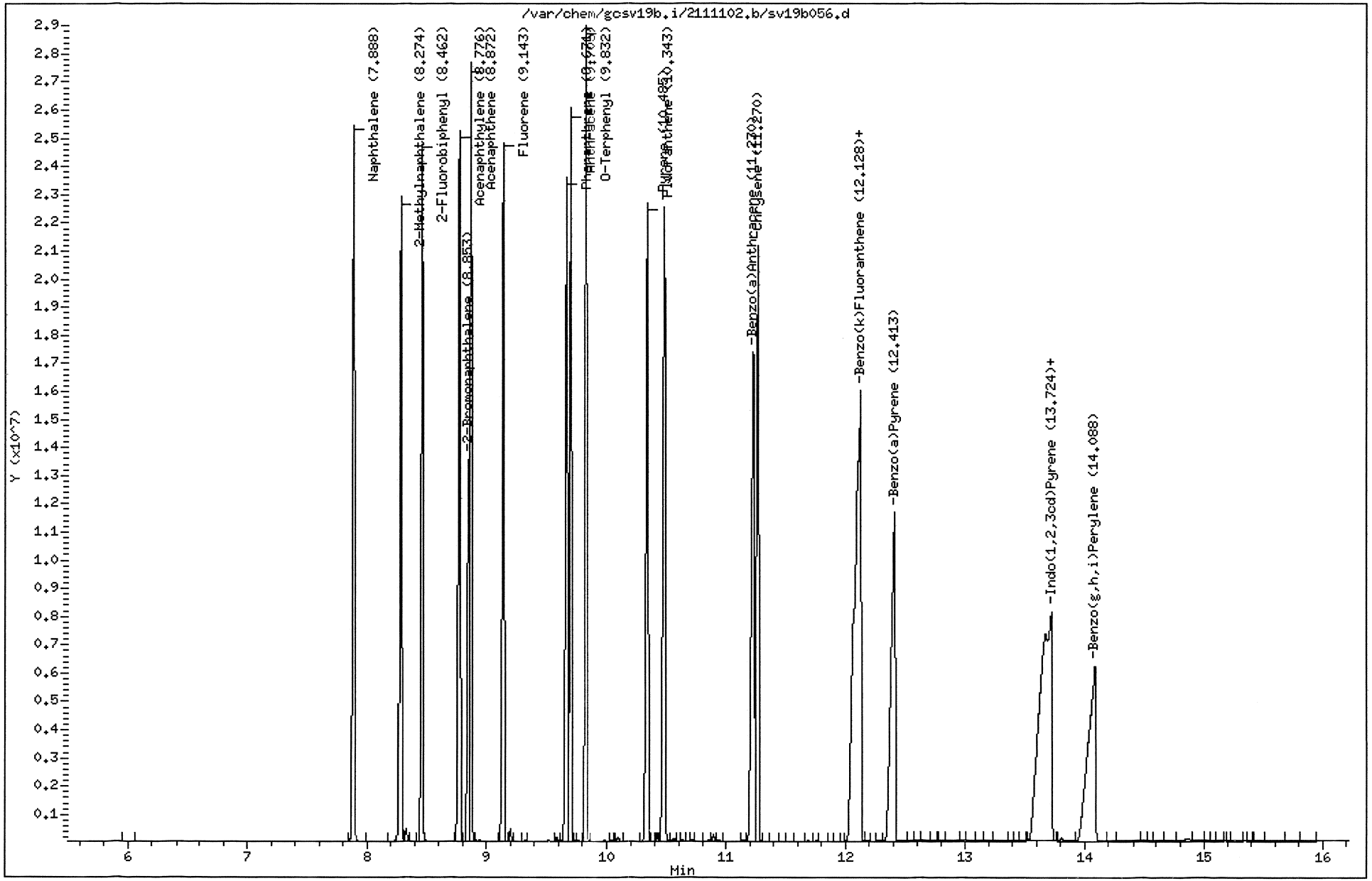
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

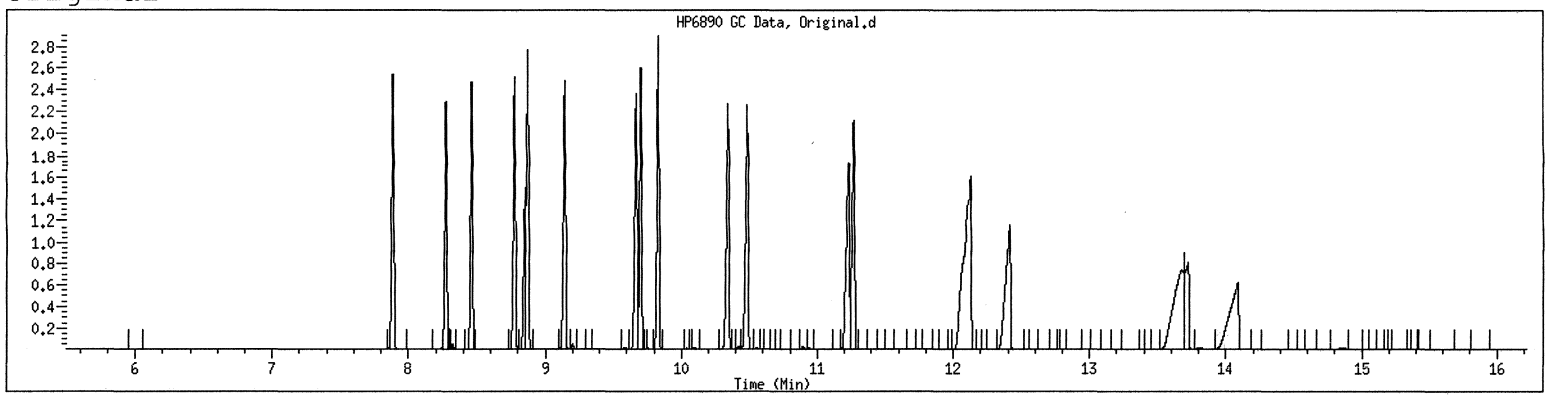
Column diameter: 0.25



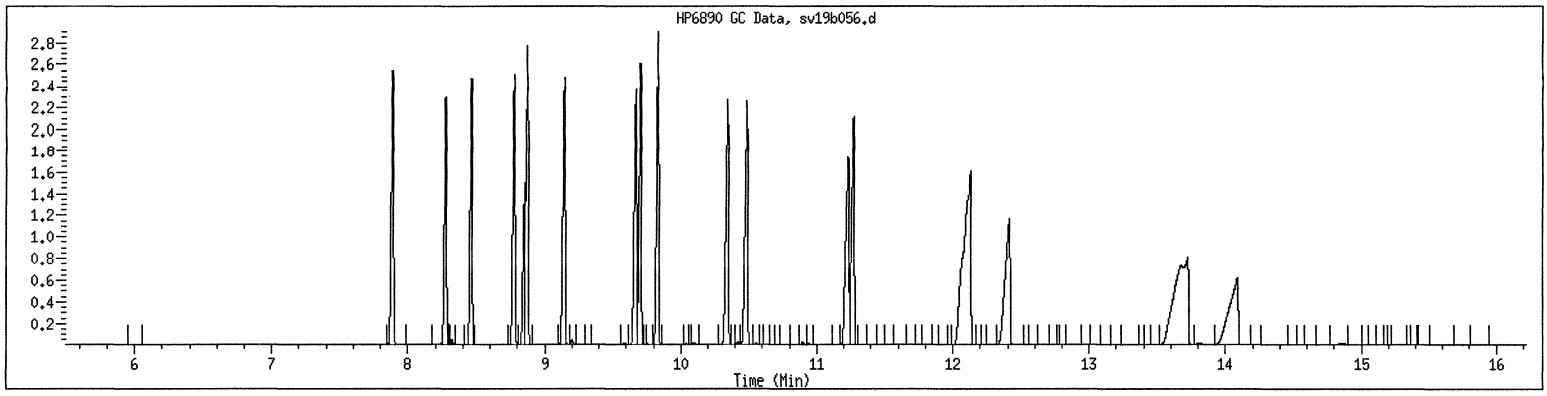
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/02/2011 17:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: GC MULTI COMP
SpikeList File: AROMICV.spk
Sublist File: all.sub
Method File: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Misc Info:

Client SDG: 2111102
Fraction: SV
Client Smp ID: 1 84-7-10
Operator: smh
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	50.0	49.0	98.05	75-125
2 2-Methylnaphthalene	50.0	55.6	111.25	75-125
4 Acenaphthylene	50.0	49.5	98.98	75-125
6 Acenaphthene	50.0	47.9	95.74	75-125
7 Fluorene	50.0	50.0	100.07	75-125
8 Phenanthrene	50.0	50.4	100.72	75-125
9 Anthracene	50.0	50.5	100.97	75-125
12 Fluoranthene	50.0	49.6	99.22	75-125
13 Pyrene	50.0	51.1	102.27	75-125
14 Benzo(a)Anthracene	50.0	50.4	100.89	75-125
15 Chrysene	50.0	49.9	99.75	75-125
16 Benzo(b)Fluoranthene	100	101	101.11	75-125
17 Benzo(k)Fluoranthene	100	101	101.11	75-125
18 Benzo(a)Pyrene	50.0	50.9	101.88	75-125
19 Indo(1,2,3cd)Pyrene	100	104	104.37	75-125
20 Dibenzo(a,h)Anthracene	100	104	104.37	75-125
21 Benzo(g,h,i)Perylene	50.0	52.5	105.06	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorobiphenyl	50.0	51.5	102.93	40-140
$ 5 2-Bromonaphthalene	50.0	54.4	108.75	40-140
$ 10 O-Terphenyl	50.0	55.1	110.13	40-140
$ 11 Chloro-octadecane	50.0	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-7-10
Inj Date : 02-NOV-2011 17:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-7-10
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:36 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.879	7.881	-0.002	139338681	49.0256	49.0
	2 2-Methylnaphthalene	8.266	8.266	0.000	132335257	55.6267	55.6
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	126473294	51.4645	51.5
	4 Acenaphthylene	8.765	8.767	-0.002	136751456	49.4891	49.5
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	85304529	54.3764	54.4
	6 Acenaphthene	8.858	8.858	0.000	139305778	47.8689	47.9
	7 Fluorene	9.131	9.133	-0.002	138659834	50.0363	50.0
	8 Phenanthrene	9.658	9.658	0.000	139031327	50.3612	50.4
	9 Anthracene	9.688	9.689	-0.001	133992045	50.4869	50.5
$	10 O-Terphenyl	9.822	9.823	-0.001	162371730	55.0637	55.1
	12 Fluoranthene	10.327	10.329	-0.002	139951783	49.6082	49.6
	13 Pyrene	10.467	10.468	-0.001	146018326	51.1362	51.1
	14 Benzo(a)Anthracene	11.209	11.215	-0.006	140091684	50.4462	50.4

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
15 Chrysene	11.242	11.246	-0.004	137066815	49.8756	49.9
16 Benzo(b)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101(M2)
17 Benzo(k)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101(M2)
18 Benzo(a)Pyrene	12.366	12.373	-0.007	141233811	50.9376	50.9
19 Indo(1,2,3cd)Pyrene	13.620	13.632	-0.012	279620012	104.373	104
20 Dibenzo(a,h)Anthracene	13.620	13.632	-0.012	279620012	104.373	104(M1)
21 Benzo(g,h,i)Perylene	13.992	14.001	-0.009	145927664	52.5299	52.5
M 22 Arom C11-C22				2373794815	862.915	863
M 113 Total Surrogate Area				374149553		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b057.d

Date : 02-NOV-2011 17:55

Client ID: 1 84-7-10

Sample Info: 1600*1 84-7-10

Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

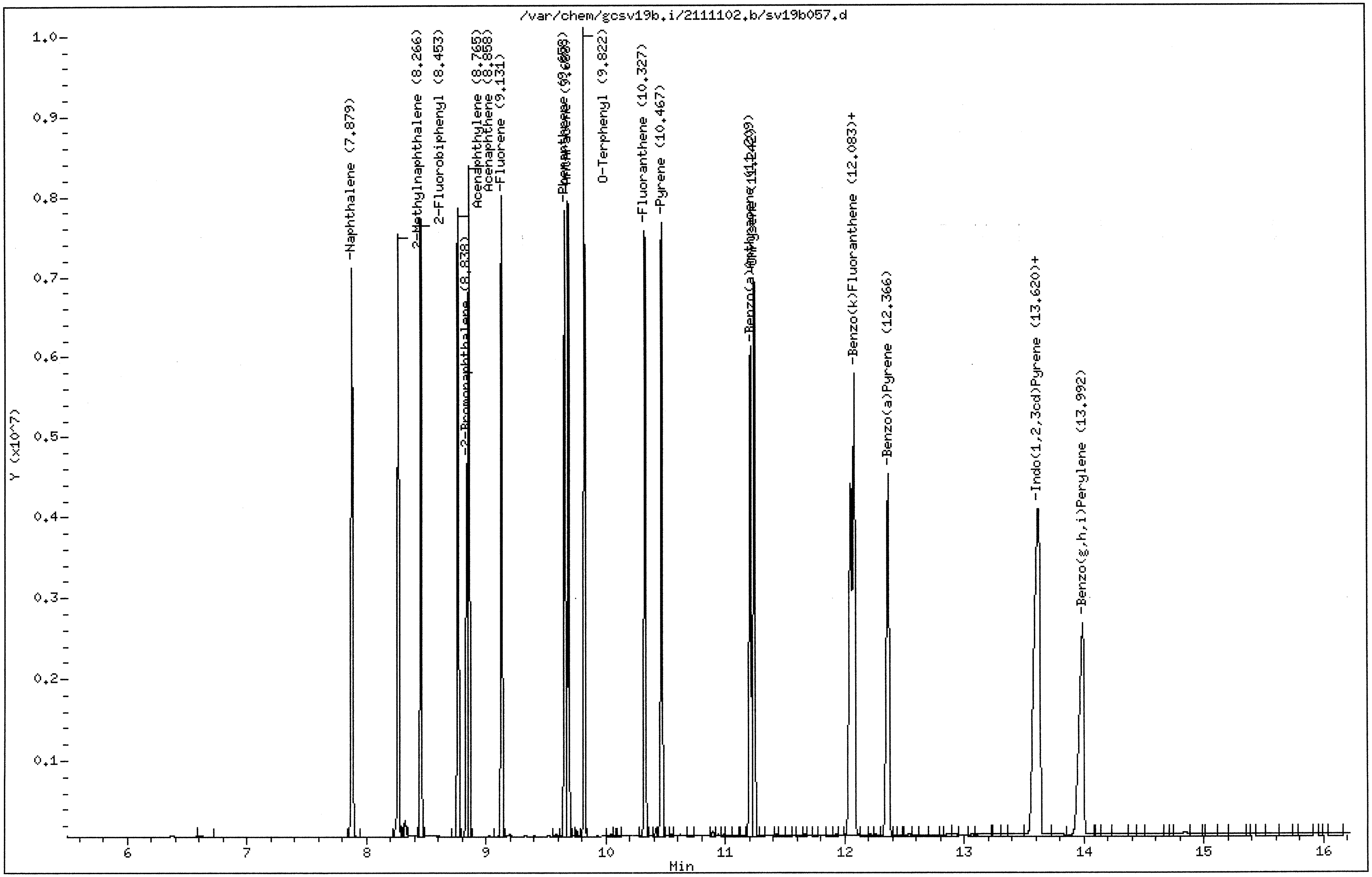
Page 1

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25

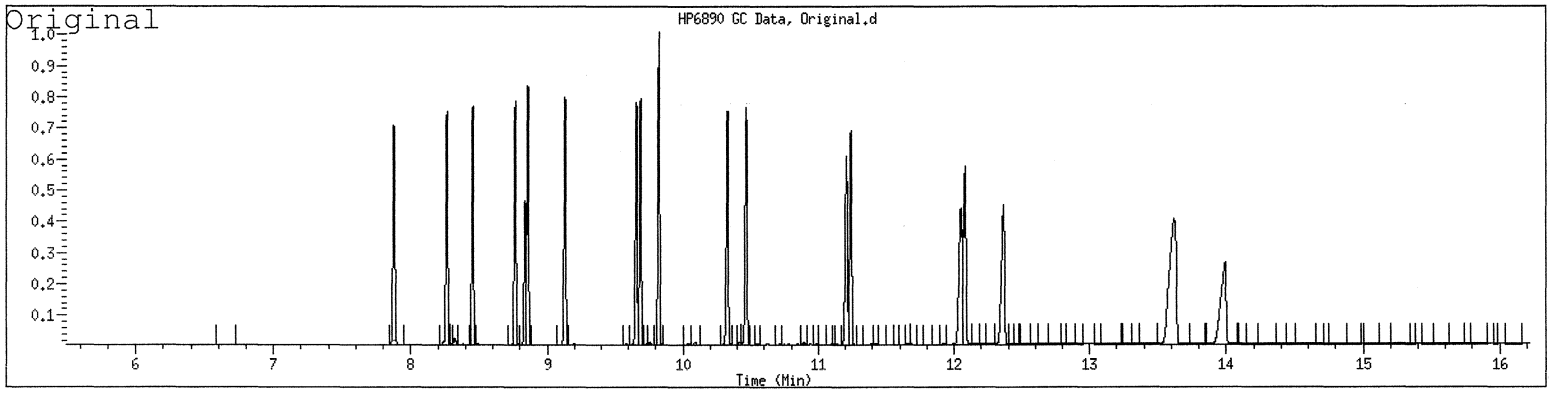
211103124 102



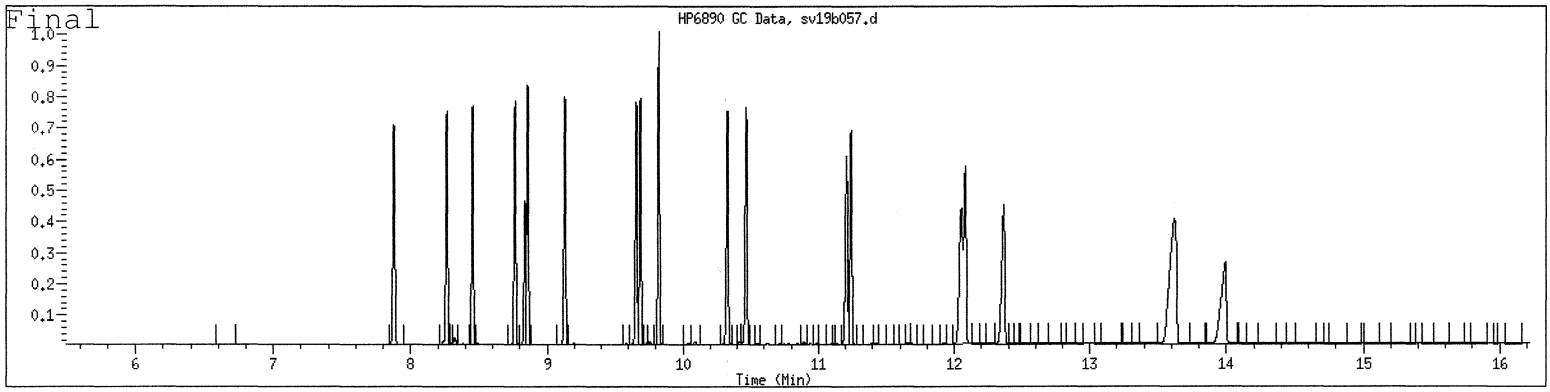
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/02/2011 17:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-7-10		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 08:48
Lab File ID: sv19b052.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2619807	0.010	7.82335	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2198019	0.010	7.60700	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2297333	0.010	6.51700	25.00000	Averaged	
4 Acenaphthylene	2763267	2588653	0.010	6.31910	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1526774	0.010	2.67752	25.00000	Averaged	
6 Acenaphthene	2910153	2626227	0.010	9.75639	25.00000	Averaged	
7 Fluorene	2771184	2586780	0.010	6.65436	25.00000	Averaged	
8 Phenanthrene	2760684	2650730	0.010	3.98287	25.00000	Averaged	
9 Anthracene	2653997	2524466	0.010	4.88060	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2856200	0.010	3.14011	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2753536	0.010	2.39635	25.00000	Averaged	
13 Pyrene	2855480	2796536	0.010	2.06425	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2743858	0.010	1.19518	25.00000	Averaged	
15 Chrysene	2748172	2706024	0.010	1.53368	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2815382	0.010	-0.07164	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2815382	0.010	-0.07164	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2826412	0.010	-1.93772	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2753570	0.010	-2.78150	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2753570	0.010	-2.78150	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2849763	0.010	-2.58352	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2682866	0.010	2.58251	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 8.15263
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b052.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 08:48
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.878	7.881	-0.003	130990346	50.0000	46.1
	2 2-Methylnaphthalene	8.264	8.266	-0.002	109900939	50.0000	46.2
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	114866664	50.0000	46.7
	4 Acenaphthylene	8.764	8.767	-0.003	129432655	50.0000	46.8
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	76338699	50.0000	48.7
	6 Acenaphthene	8.857	8.858	-0.001	131311343	50.0000	45.1
	7 Fluorene	9.131	9.133	-0.002	129338984	50.0000	46.7
	8 Phenanthrene	9.660	9.659	0.001	132536495	50.0000	48.0
	9 Anthracene	9.691	9.689	0.002	126223310	50.0000	47.6
$	10 o-Terphenyl	9.825	9.824	0.001	142810019	50.0000	48.4
	12 Fluoranthene	10.335	10.330	0.005	137676811	50.0000	48.8
	13 Pyrene	10.476	10.471	0.005	139826800	50.0000	49.0
	14 Benzo(a)Anthracene	11.224	11.218	0.006	137192902	50.0000	49.4

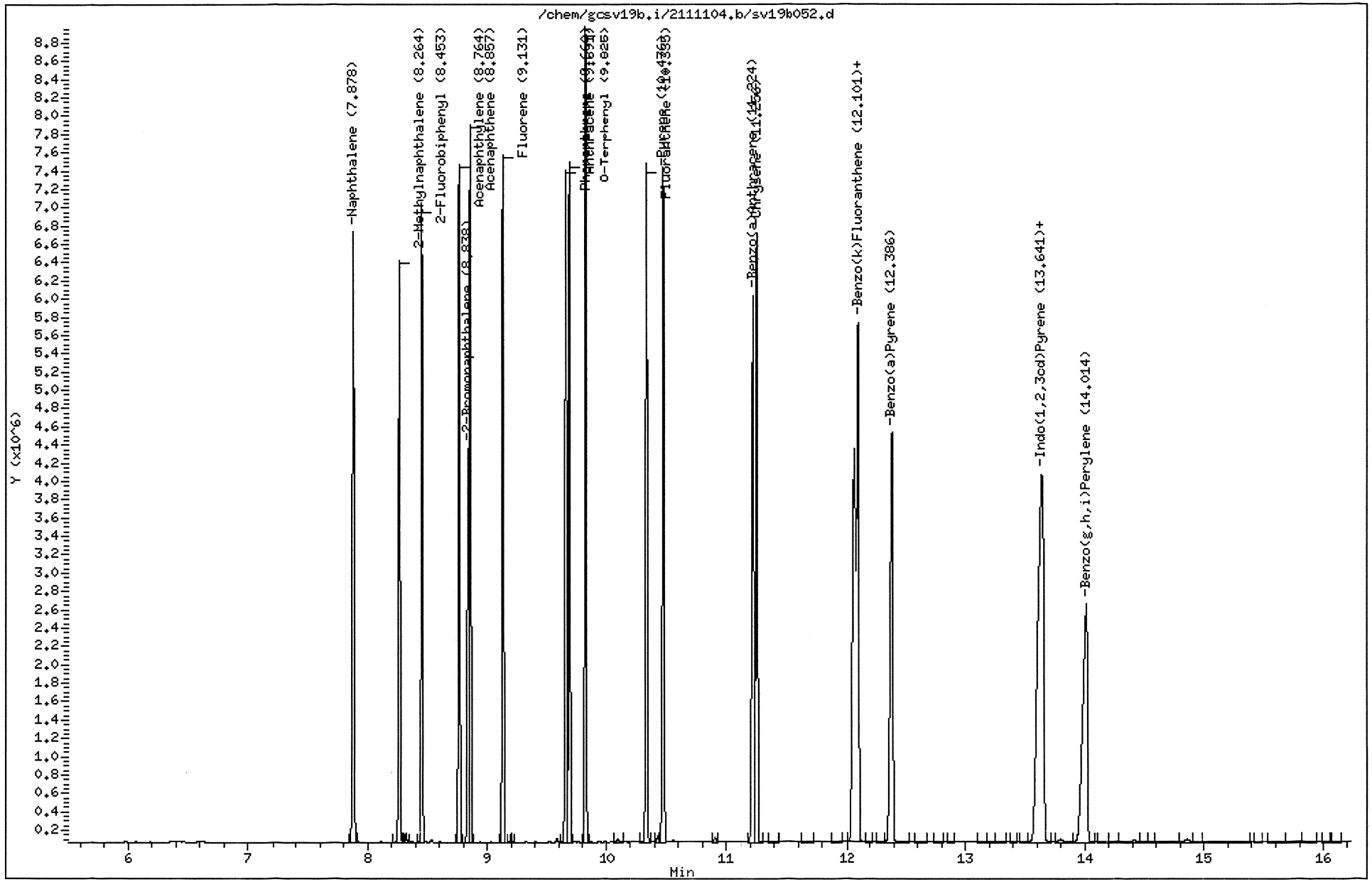
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	15 Chrysene	11.256	11.250	0.006	135301194	50.0000	49.2
	16 Benzo(b)Fluoranthene	12.101	12.092	0.009	281538232	100.000	100(M2)
	17 Benzo(k)Fluoranthene	12.101	12.092	0.009	281538232	100.000	100(M2)
	18 Benzo(a)Pyrene	12.386	12.377	0.009	141320615	50.0000	51.0
	19 Indo(1,2,3cd)Pyrene	13.641	13.638	0.003	275356972	100.000	103
	20 Dibenzo(a,h)Anthracene	13.641	13.638	0.003	275356972	100.000	103(M1)
	21 Benzo(g,h,i)Perylene	14.014	14.006	0.008	142488157	50.0000	51.3
M	22 Arom C11-C22				2280435755	850.000	828
M	113 Total Surrogate Area				334015382	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b052.d
Date : 04-NOV-2011 08:48
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25

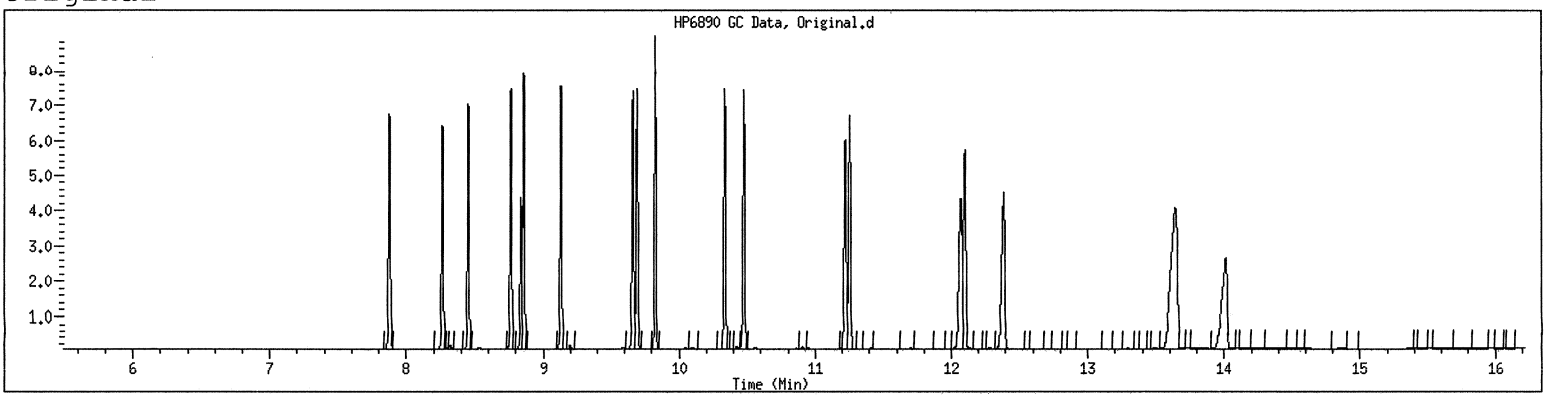


2111104 197

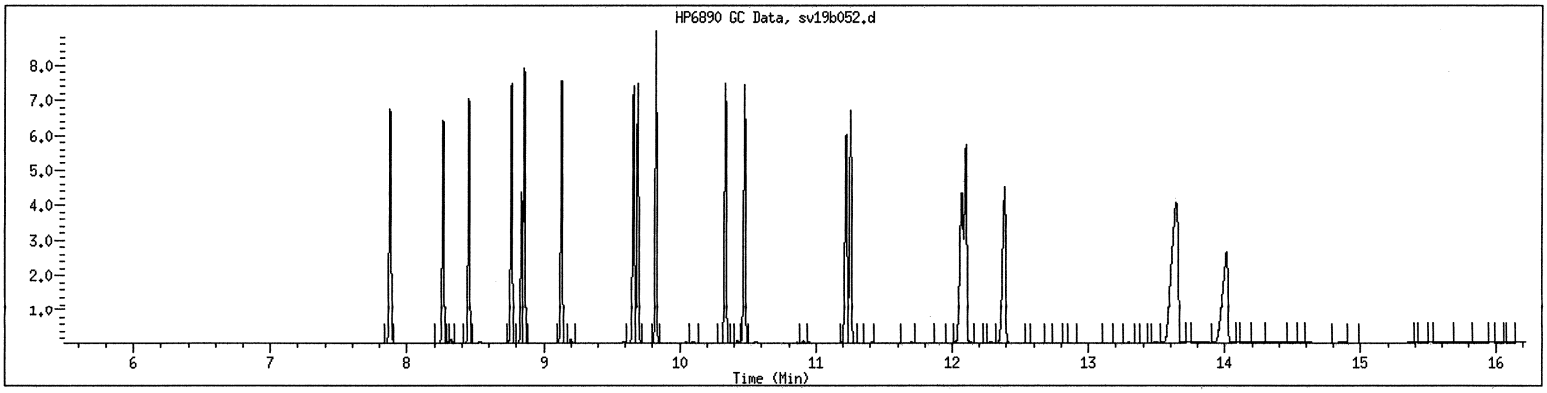
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 08:48	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 15:20
Lab File ID: sv19b064.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2687333	0.010	5.44748	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2259700	0.010	5.01425	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2349400	0.010	4.39829	25.00000	Averaged	
4 Acenaphthylene	2763267	2646120	0.010	4.23944	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1499146	0.010	4.43861	25.00000	Averaged	
6 Acenaphthene	2910153	2782857	0.010	4.37421	25.00000	Averaged	
7 Fluorene	2771184	2681206	0.010	3.24691	25.00000	Averaged	
8 Phenanthrene	2760684	2711677	0.010	1.77521	25.00000	Averaged	
9 Anthracene	2653997	2564916	0.010	3.35649	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2889155	0.010	2.02255	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2809781	0.010	0.40265	25.00000	Averaged	
13 Pyrene	2855480	2851317	0.010	0.14578	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2766429	0.010	0.38242	25.00000	Averaged	
15 Chrysene	2748172	2741093	0.010	0.25759	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2836361	0.010	-0.81732	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2836361	0.010	-0.81732	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2835814	0.010	-2.27681	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2768701	0.010	-3.34630	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2768701	0.010	-3.34630	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2891876	0.010	-4.09945	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2731779	0.010	0.80642	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 7.04599
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b064.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 15:20
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 64 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.881	-0.002	134366638	50.0000	47.3
	2 2-Methylnaphthalene	8.266	8.266	0.000	112984994	50.0000	47.5
$	3 2-Fluorobiphenyl	8.454	8.455	-0.001	117470022	50.0000	47.8
	4 Acenaphthylene	8.765	8.767	-0.002	132305981	50.0000	47.9
$	5 2-Bromonaphthalene	8.839	8.839	0.000	74957316	50.0000	47.8
	6 Acenaphthene	8.858	8.859	-0.001	139142828	50.0000	47.8
	7 Fluorene	9.132	9.133	-0.001	134060320	50.0000	48.4
	8 Phenanthrene	9.660	9.659	0.001	135583832	50.0000	49.1
	9 Anthracene	9.690	9.689	0.001	128245811	50.0000	48.3
$	10 O-Terphenyl	9.824	9.824	0.000	144457740	50.0000	49.0
	12 Fluoranthene	10.332	10.330	0.002	140489058	50.0000	49.8
	13 Pyrene	10.472	10.470	0.002	142565866	50.0000	49.9
	14 Benzo(a)Anthracene	11.218	11.217	0.001	138321435	50.0000	49.8

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	15 Chrysene	11.250	11.248	0.002	137054658	50.0000	49.9
	16 Benzo(b)Fluoranthene	12.093	12.091	0.002	283636086	100.000	101(M2)
	17 Benzo(k)Fluoranthene	12.093	12.091	0.002	283636086	100.000	101(M2)
	18 Benzo(a)Pyrene	12.377	12.376	0.001	141790710	50.0000	51.1
	19 Indo(1,2,3cd)Pyrene	13.634	13.636	-0.002	276870121	100.000	103
	20 Dibenzo(a,h)Anthracene	13.634	13.636	-0.002	276870121	100.000	103(M1)
	21 Benzo(g,h,i)Perylene	14.006	14.005	0.001	144593787	50.0000	52.0
M	22 Arom C11-C22				2322012125	850.000	843
M	113 Total Surrogate Area				336885078	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b064.d
Page 1

Date : 04-NOV-2011 15:20

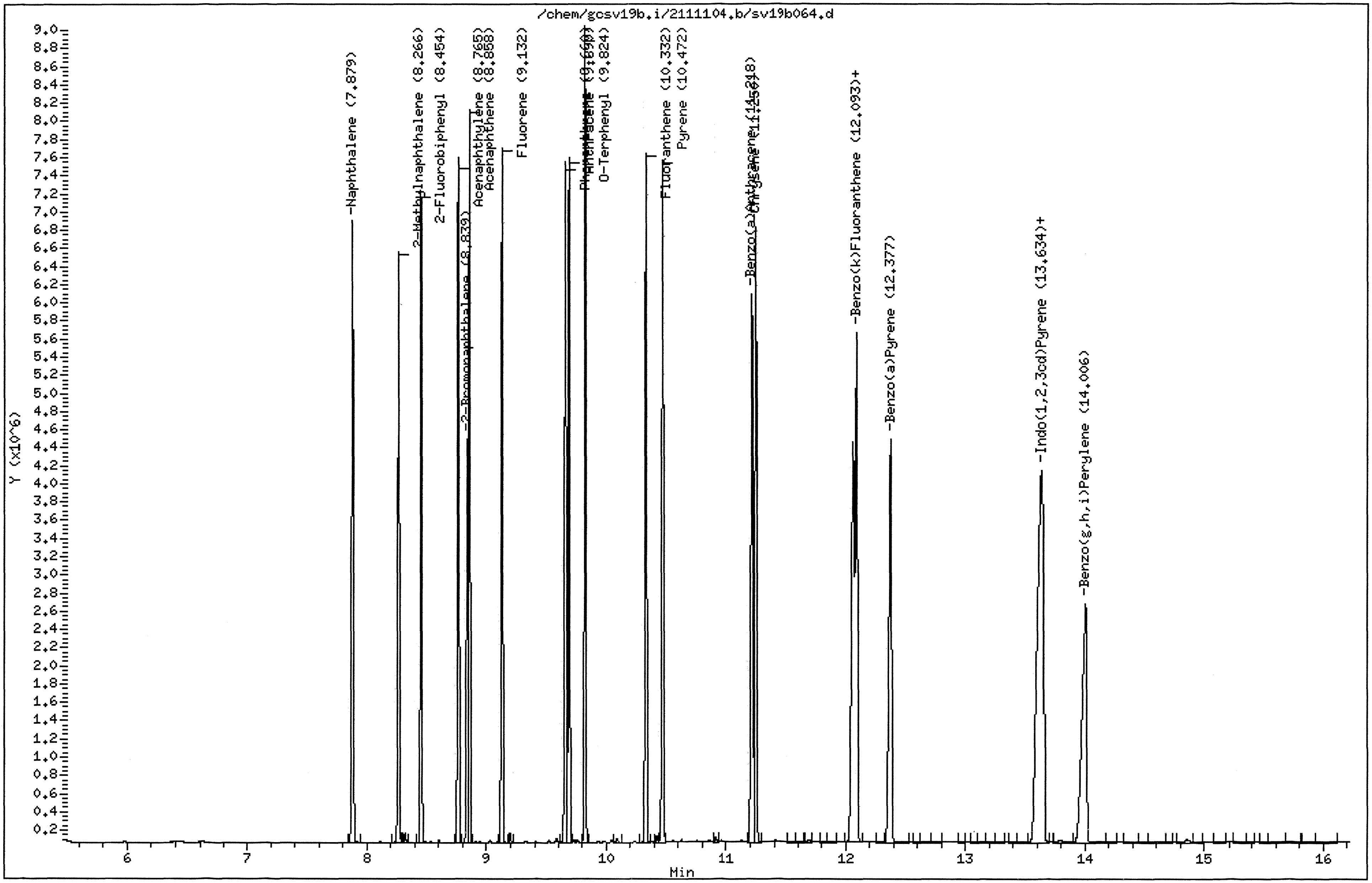
Client ID: 1 84-12-8
Instrument: gcsv19b.i

Sample Info: 1400*1 84-12-8

Volume Injected (uL): 1.0
Operator: smh

Column phase: DB-5MS-30M
Column diameter: 0.25

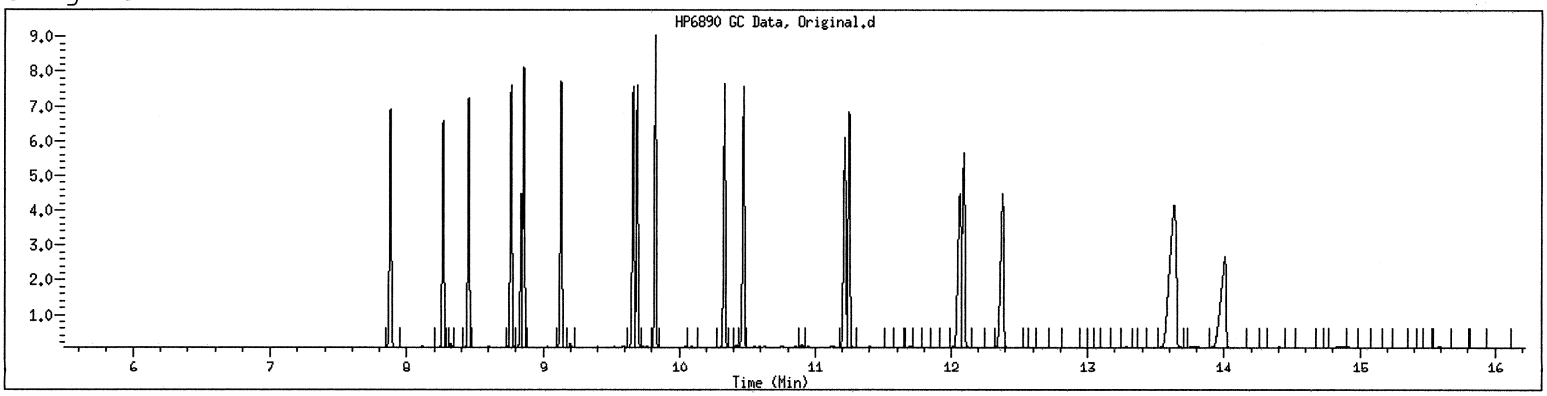
211103124 112



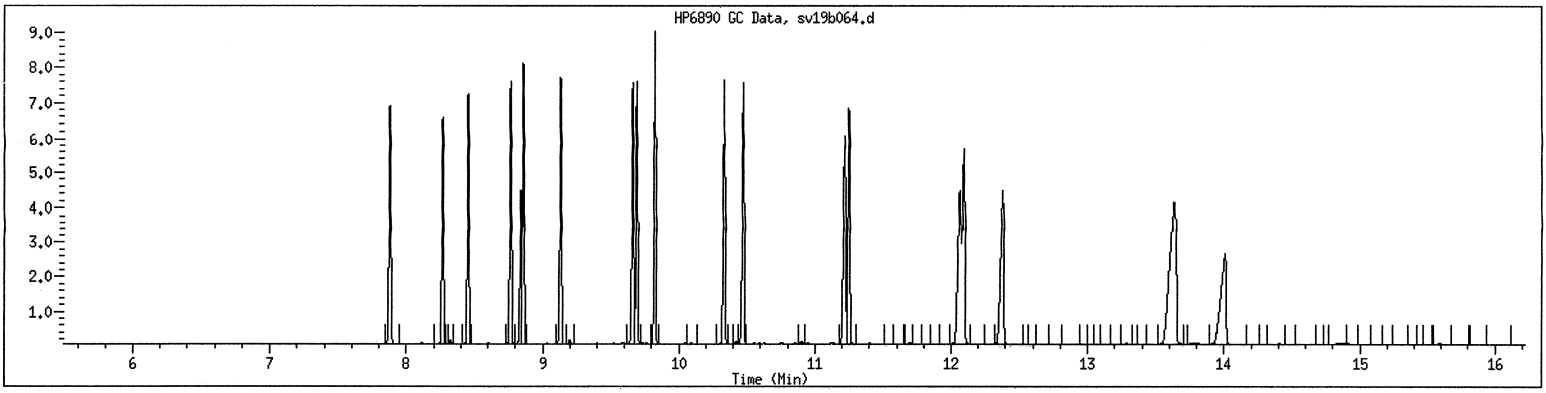
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 15:20	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 21:02
Lab File ID: sv19b078.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2738058	0.010	3.66273	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2294921	0.010	3.53373	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2378493	0.010	3.21447	25.00000	Averaged	
4 Acenaphthylene	2763267	2684675	0.010	2.84417	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1616043	0.010	-3.01283	25.00000	Averaged	
6 Acenaphthene	2910153	2709141	0.010	6.90725	25.00000	Averaged	
7 Fluorene	2771184	2705485	0.010	2.37081	25.00000	Averaged	
8 Phenanthrene	2760684	2732439	0.010	1.02312	25.00000	Averaged	
9 Anthracene	2653997	2601571	0.010	1.97535	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2905163	0.010	1.47967	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2829367	0.010	-0.29161	25.00000	Averaged	
13 Pyrene	2855480	2878648	0.010	-0.81133	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2821100	0.010	-1.58626	25.00000	Averaged	
15 Chrysene	2748172	2767613	0.010	-0.70740	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2894257	0.010	-2.87521	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2894257	0.010	-2.87521	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2879567	0.010	-3.85480	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2824695	0.010	-5.43636	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2824695	0.010	-5.43636	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2907536	0.010	-4.66317	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2764001	0.010	-0.36361	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 7.22388
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b078.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 21:02
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.881	-0.002	136902912	50.0000	48.2
	2 2-Methylnaphthalene	8.266	8.266	0.000	114746068	50.0000	48.2
$	3 2-Fluorobiphenyl	8.453	8.455	-0.002	118924633	50.0000	48.4
	4 Acenaphthylene	8.766	8.767	-0.001	134233727	50.0000	48.6
$	5 2-Bromonaphthalene	8.839	8.839	0.000	80802145	50.0000	51.5
	6 Acenaphthene	8.858	8.858	0.000	135457066	50.0000	46.5
	7 Fluorene	9.132	9.133	-0.001	135274249	50.0000	48.8
	8 Phenanthrene	9.660	9.659	0.001	136621969	50.0000	49.5
	9 Anthracene	9.690	9.689	0.001	130078572	50.0000	49.0
$	10 O-Terphenyl	9.824	9.824	0.000	145258158	50.0000	49.3
	12 Fluoranthene	10.332	10.330	0.002	141468360	50.0000	50.1
	13 Pyrene	10.472	10.470	0.002	143932378	50.0000	50.4
	14 Benzo(a)Anthracene	11.217	11.216	0.001	141054993	50.0000	50.8

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.249	11.248	0.001	138380641	50.0000	50.4
16	Benzo(b)Fluoranthene	12.092	12.091	0.001	289425705	100.000	103(M2)
17	Benzo(k)Fluoranthene	12.092	12.091	0.001	289425705	100.000	103(M2)
18	Benzo(a)Pyrene	12.376	12.376	0.000	143978345	50.0000	51.9
19	Indo(1,2,3cd)Pyrene	13.631	13.636	-0.005	282469487	100.000	105(M1)
20	Dibenzo(a,h)Anthracene	13.631	13.636	-0.005	282469487	100.000	105
21	Benzo(g,h,i)Perylene	14.004	14.004	0.000	145376792	50.0000	52.3
M 22	Arom C11-C22				2349401264	850.000	853
M 113	Total Surrogate Area				344984936	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b078.d

Page 1

Date : 04-NOV-2011 21:02

Client ID: 1 84-12-8

Instrument: gcsv19b.i

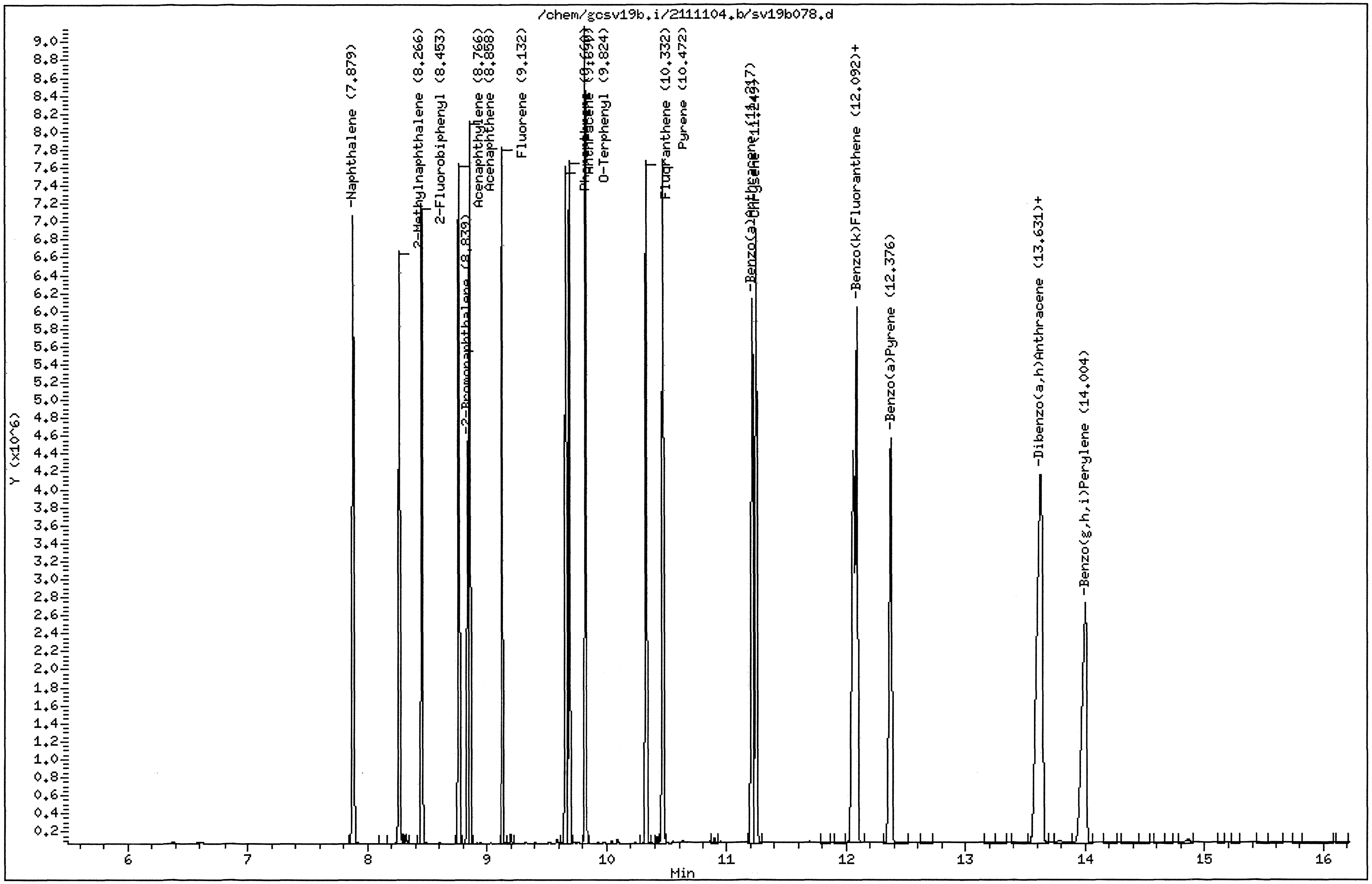
Sample Info: 1400*1 84-12-8

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

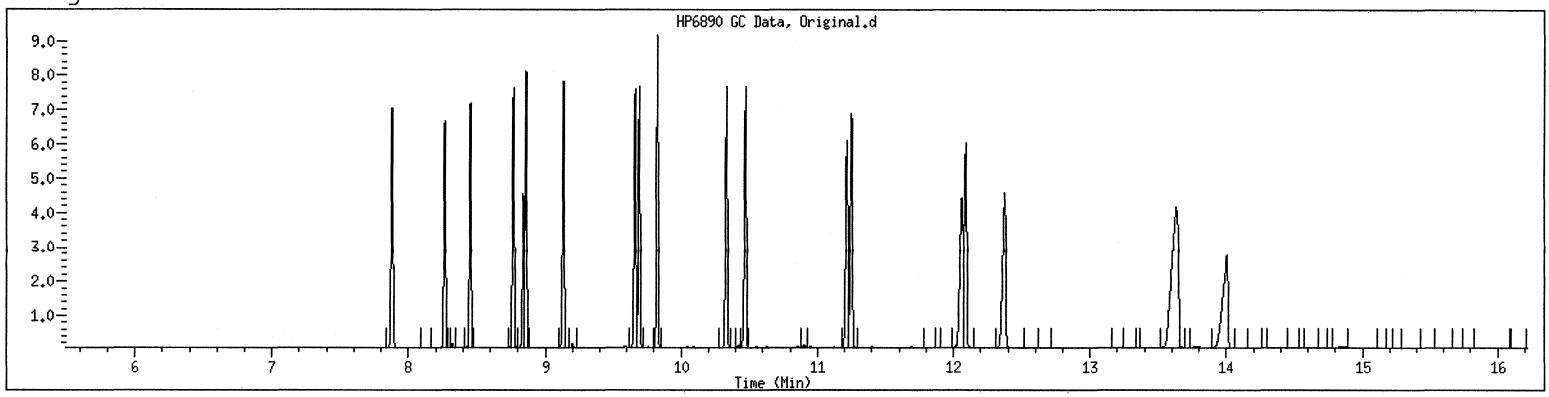


211103124 117

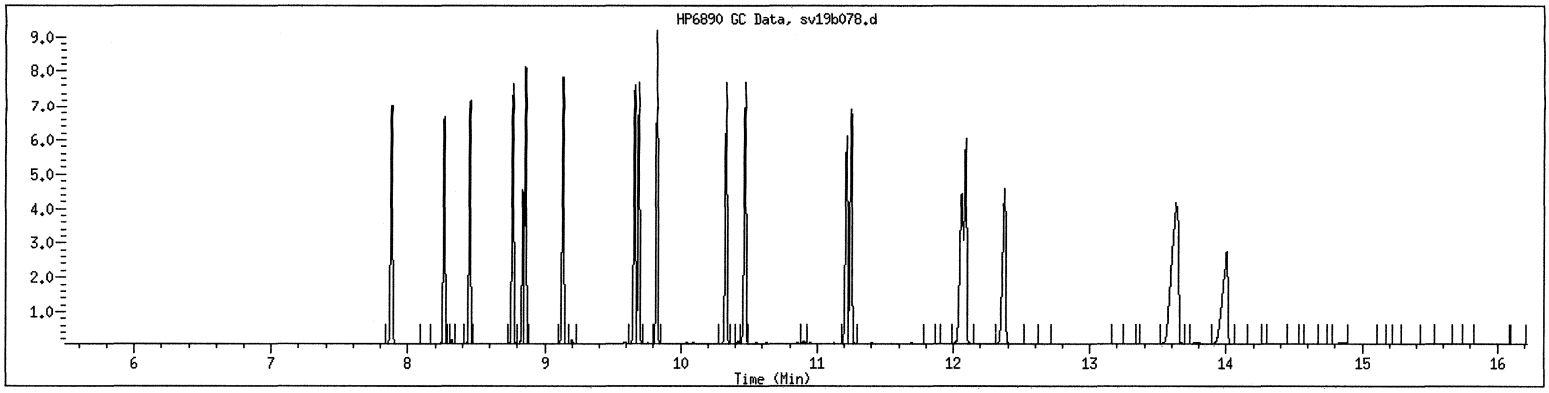
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 21:02	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1002043

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002043

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1118

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b054

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	42.1	U	42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	21.8	U	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.0	U	31.3	60.0	100

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b054.d
Lab Smp Id: 1002043 Client Smp ID: 1 84-15-4
Inj Date : 04-NOV-2011 11:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002043*1 mb w
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

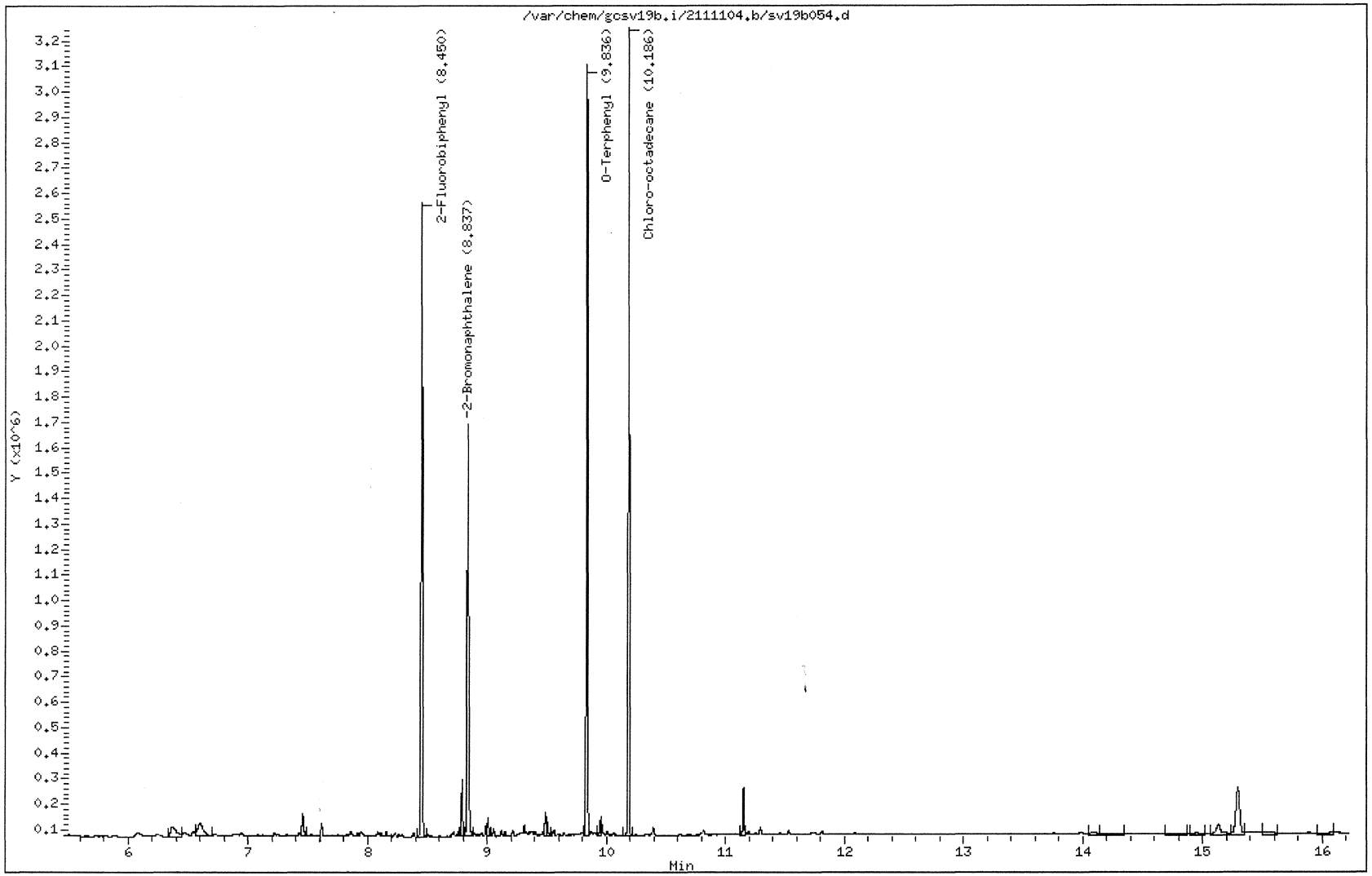
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.450	8.454	-0.004	40311135	16.4034	32.8	
$ 5 2-Bromonaphthalene	8.837	8.839	-0.002	29205418	18.6167	37.2	
$ 10 O-Terphenyl	9.836	9.823	0.013	46231712	15.6782	31.4	
$ 11 Chloro-octadecane	10.186	10.174	0.012	43871918	16.0146	32.0	
M 113 Total Surrogate Area				159620183			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b054.d
Date : 04-NOV-2011 11:18
Client ID: 1 84-15-4
Sample Info: 1002043*1 mb w
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

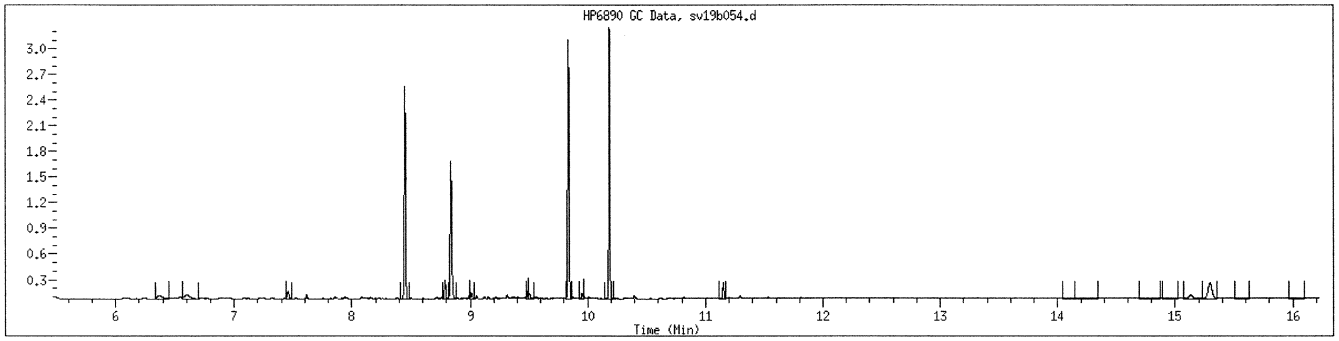
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002043 SampleType : SAMPLE
Injection Date: 11/04/2011 11:18 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002043*1 mb w
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b055.d
Lab Smp Id: 1002043 Client Smp ID: 1 mb w
Inj Date : 04-NOV-2011 11:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002043*1 mb w
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	9.005	9.504	-0.499	29350351	9.71451	19.4(M1)
M 11 Alip C9-C18				29350351	9.71451	19.4
114 C-36	10.173	15.144	-4.971	37956568	12.9738	25.9(AM1)
M 24 Alip C19-C36				37956568	12.9738	25.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b055.d

Date : 04-NOV-2011 11:42

Client ID: 1 mb w

Sample Info: 1002043*1 mb w

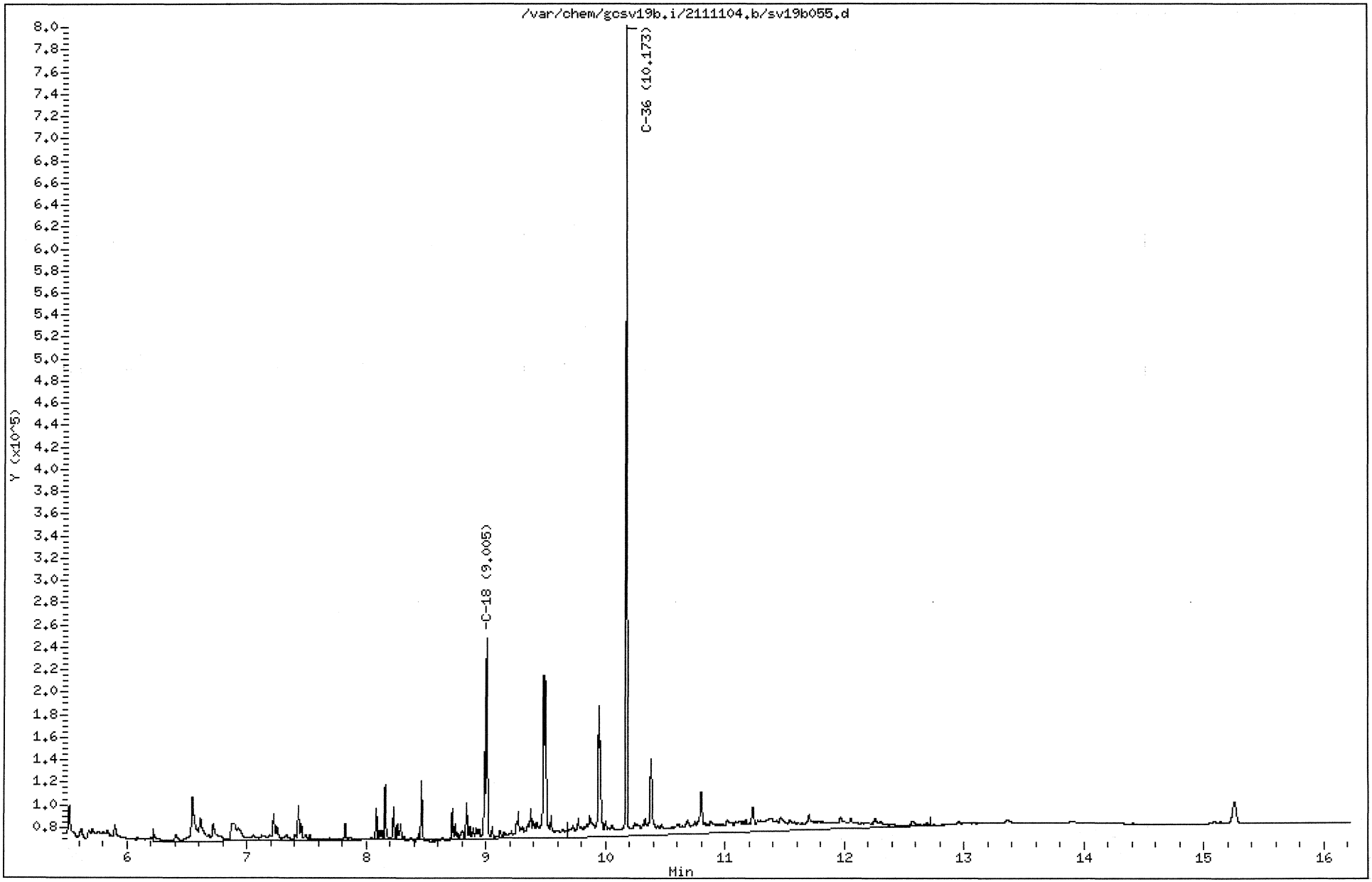
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

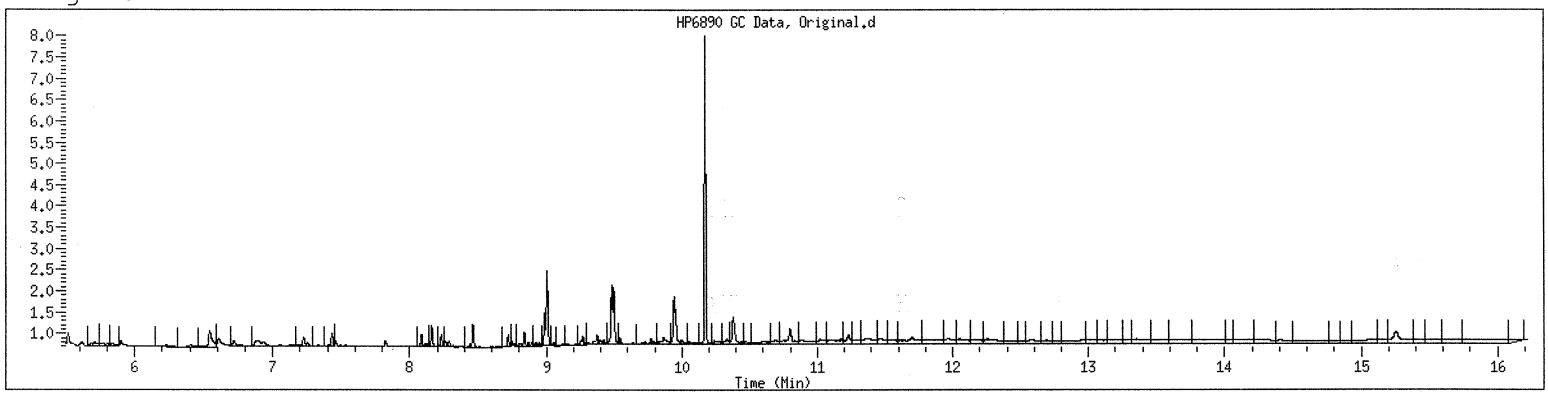
Column diameter: 0.25



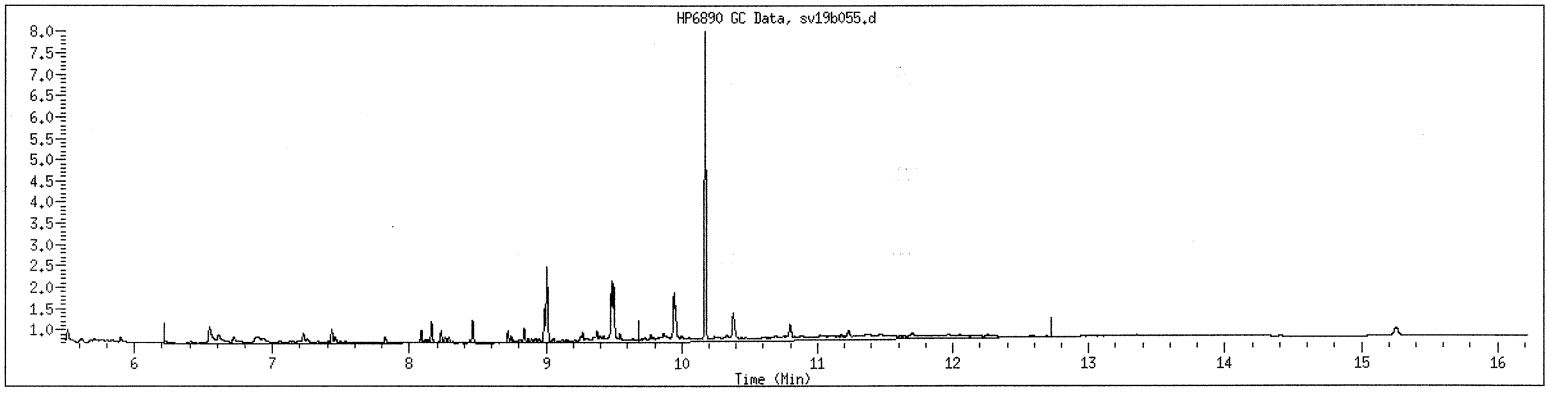
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1002043	SampleType	: SAMPLE
Injection Date	: 11/04/2011 11:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1002043*1 mb w		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCS1002044

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002044

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1206

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b056

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	164		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	47.3	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	128		31.3	60.0	100

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b056.d
Lab Smp Id: 1002044 Client Smp ID: 1 lcs
Inj Date : 04-NOV-2011 12:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002044*1 lcs
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

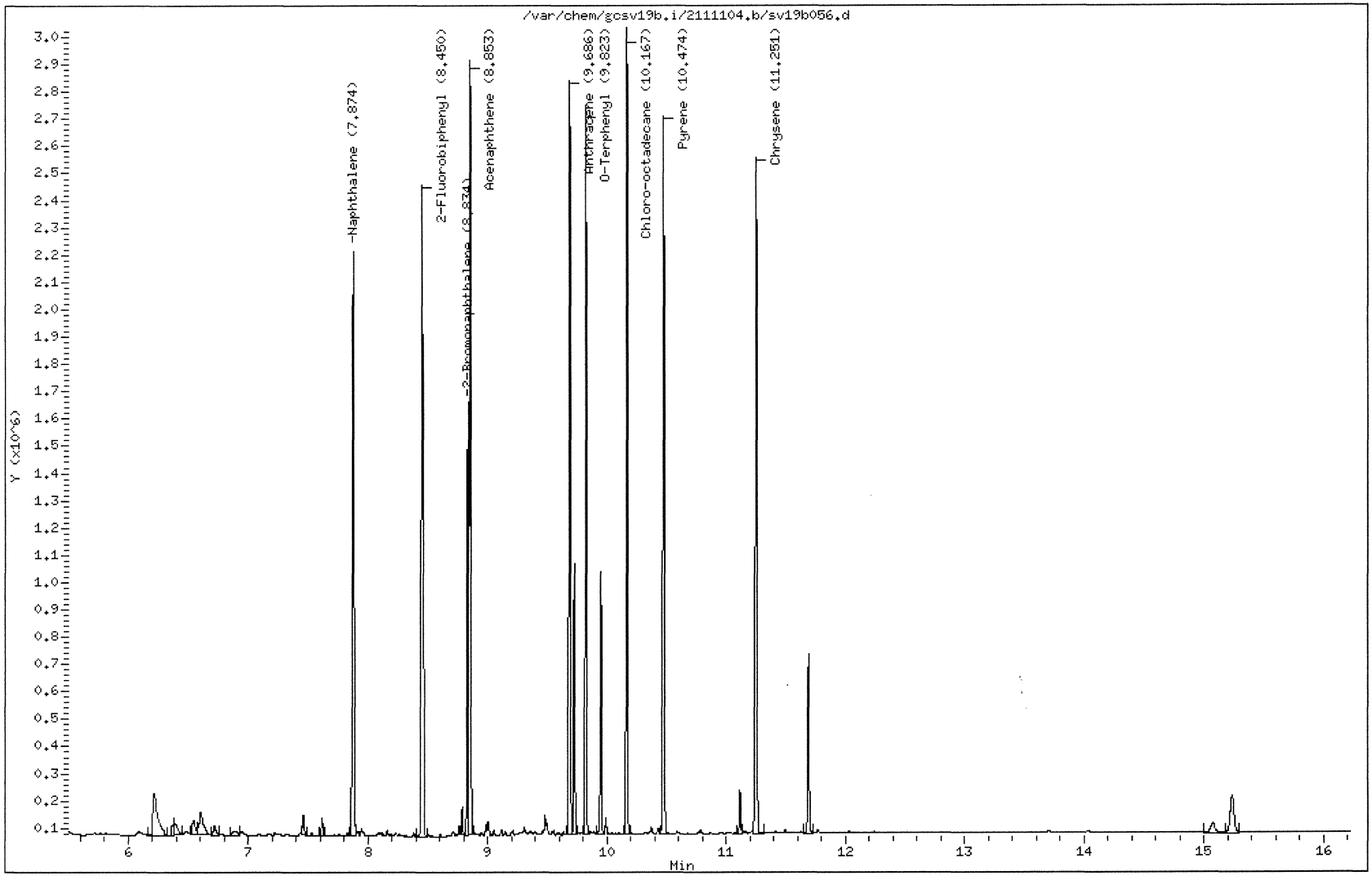
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)
	1 Naphthalene	7.874	7.881	-0.007	42244447	14.8635	29.7
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	49564137	20.1686	40.3
$	5 2-Bromonaphthalene	8.834	8.839	-0.005	25190730	16.0575	32.1
	6 Acenaphthene	8.853	8.858	-0.005	48565269	16.6882	33.4
	9 Anthracene	9.686	9.688	-0.002	45807441	17.2598	34.5
$	10 O-Terphenyl	9.823	9.823	0.000	40477952	13.7269	27.5
$	11 Chloro-octadecane	10.167	10.174	-0.007	40322170	14.7188	29.4
	13 Pyrene	10.474	10.468	0.006	45724998	16.0131	32.0
	15 Chrysene	11.251	11.245	0.006	47755889	17.3773	34.8
M	22 Arom C11-C22				230098044	82.2019	164
M	113 Total Surrogate Area				155554989		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b056.d
Date : 04-NOV-2011 12:06
Client ID: 1 lcs
Sample Info: 1002044*1 lcs
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

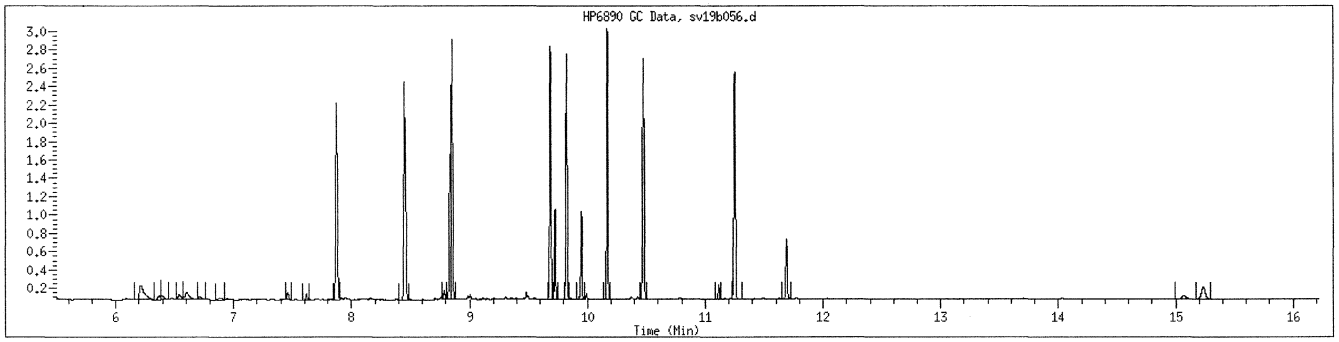
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111104.b/sv19b056.d Page: 1
Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002044 SampleType : LCS
Injection Date: 11/04/2011 12:06 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002044*1 lcs
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b057.d
Lab Smp Id: 1002044 Client Smp ID: 1 lcs
Inj Date : 04-NOV-2011 12:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002044*1 lcs
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

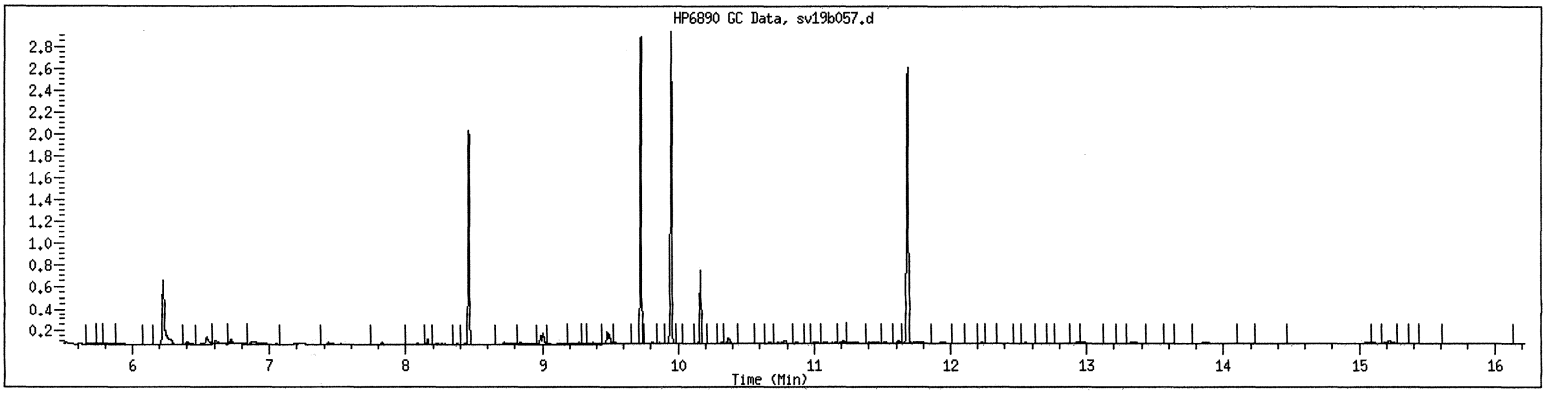
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.226	6.232	-0.006	15373623	5.65344	11.3(R)
	6 C-14	8.462	8.471	-0.009	27700747	9.62454	19.2(R)
M	11 Alip C9-C18				43074370	15.2780	30.6
	12 C-19	9.725	9.774	-0.049	37123735	12.3039	24.6
	13 C-20	9.948	9.957	-0.009	39242445	12.8862	25.8
$	15 Chlorooctadecane	10.162	10.216	-0.054	9156663	3.34236	6.68(R)
	22 C-28	11.685	11.724	-0.039	45678279	14.7540	29.5
M	24 Alip C19-C36				122044459	39.9441	79.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1002044	SampleType	: LCS
Injection Date	: 11/04/2011 12:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1002044*1 lcs		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCSD1002045

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002045

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1254

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b058

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	178		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	42.8	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	107		31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b058.d
Lab Smp Id: 1002045 Client Smp ID: 1 lcsd
Inj Date : 04-NOV-2011 12:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002045* 1 lcsd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

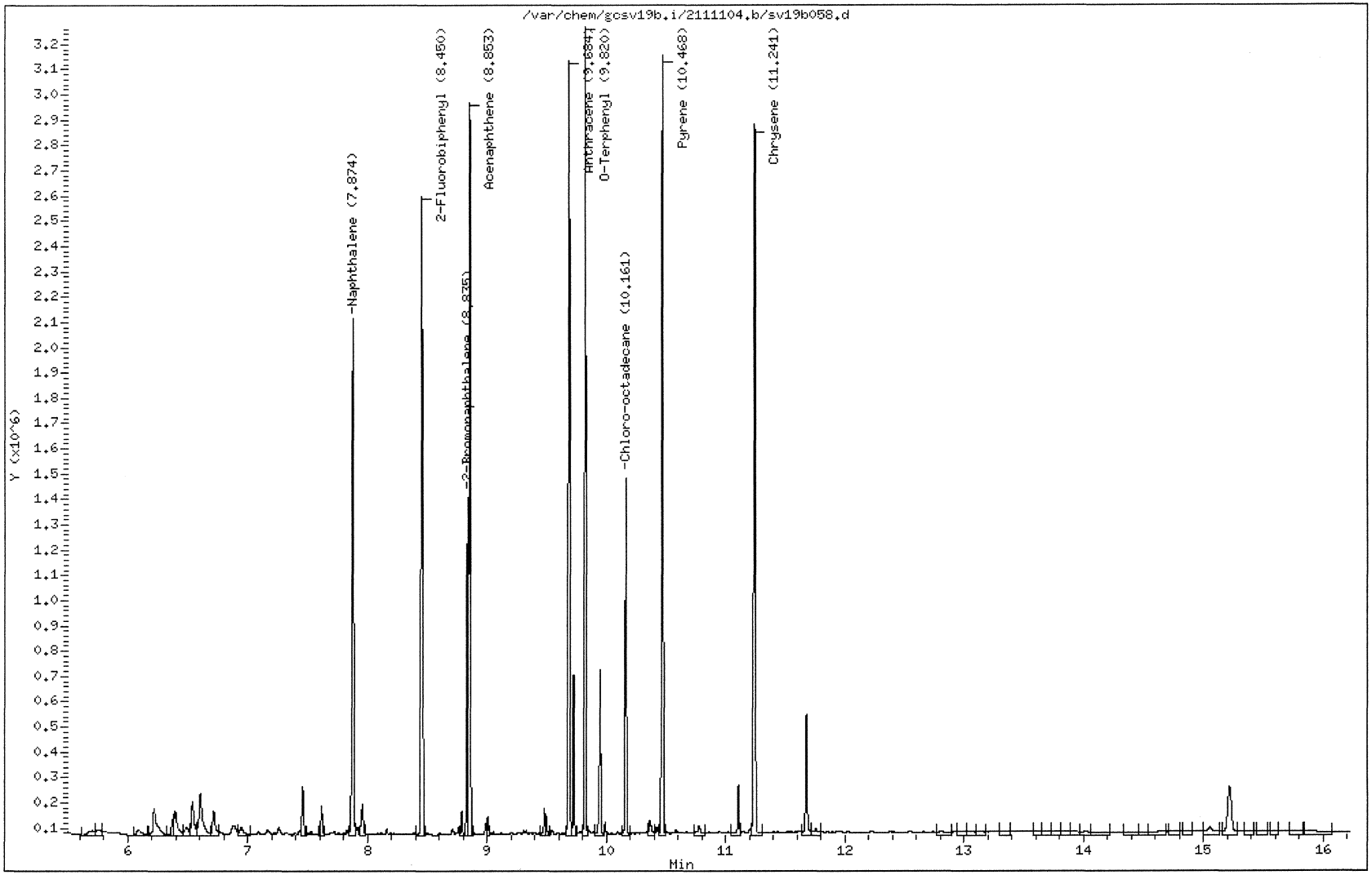
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
	1 Naphthalene	7.874	7.881	-0.007	40000849	14.0741	28.1	
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	46349541	18.8605	37.7	
$	5 2-Bromonaphthalene	8.835	8.839	-0.004	20673921	13.1784	26.4	
	6 Acenaphthene	8.853	8.858	-0.005	49744175	17.0933	34.2	
	9 Anthracene	9.684	9.688	-0.004	51042404	19.2323	38.5	
$	10 O-Terphenyl	9.820	9.823	-0.003	49005695	16.6189	33.2	
$	11 Chloro-octadecane	10.161	10.174	-0.013	19595722	7.15303	14.3	(R)
	13 Pyrene	10.468	10.468	0.000	53601757	18.7715	37.5	
	15 Chrysene	11.241	11.245	-0.004	54372724	19.7851	39.6	
M	22 Arom C11-C22				248761909	88.9563	178	
M	113 Total Surrogate Area				135624879			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b058.d
Date : 04-NOV-2011 12:54
Client ID: 1 lcsd
Sample Info: 1002045* 1 lcsd
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

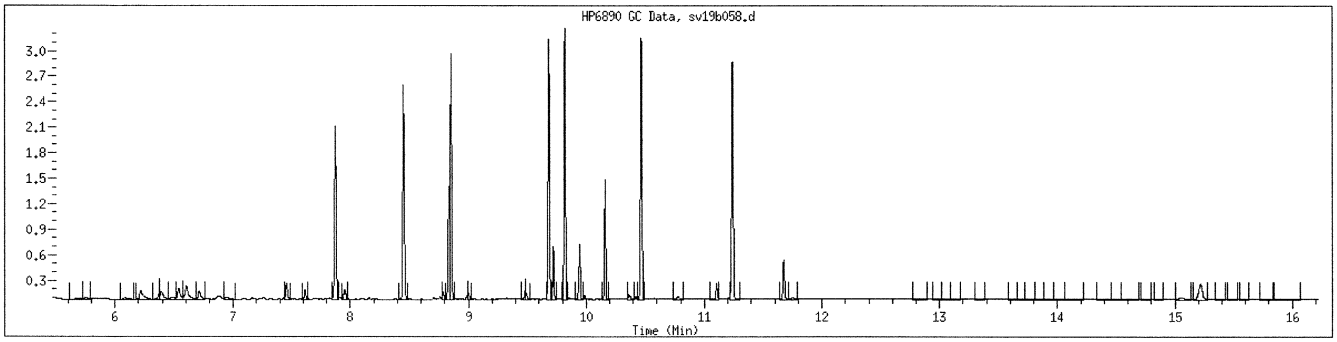
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111104.b/sv19b058.d Page: 1
Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002045 SampleType : LCS
Injection Date: 11/04/2011 12:54 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002045* 1 lcsd
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b059.d
Lab Smp Id: 1002045 Client Smp ID: 1 lcsd
Inj Date : 04-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002045*1 lcsd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.226	6.232	-0.006	21810061	8.02035	16.0(R)
	6 C-14	8.463	8.471	-0.008	38518082	13.3830	26.8
M	11 Alip C9-C18				60328143	21.4033	42.8
	12 C-19	9.726	9.774	-0.048	52318452	17.3398	34.7
	13 C-20	9.949	9.957	-0.008	53612108	17.6048	35.2
$	15 Chlorooctadecane	10.163	10.216	-0.053	36556049	13.3437	26.7
	22 C-28	11.684	11.724	-0.040	56923833	18.3863	36.8
M	24 Alip C19-C36				162854393	53.3310	107

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b059.d

Date : 04-NOV-2011 13:18

Client ID: 1 lcsd

Sample Info: 1002045*1 lcsd

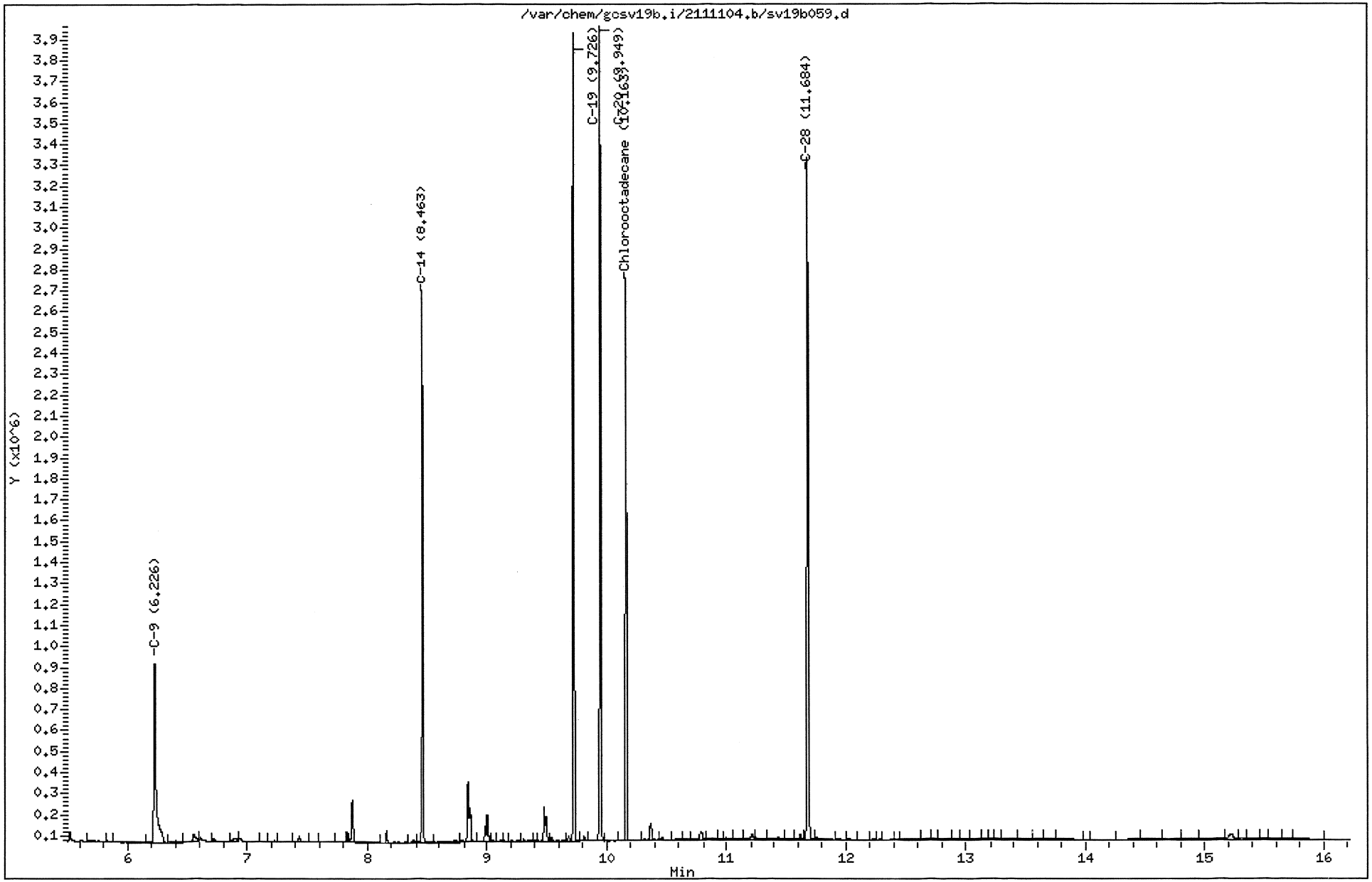
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

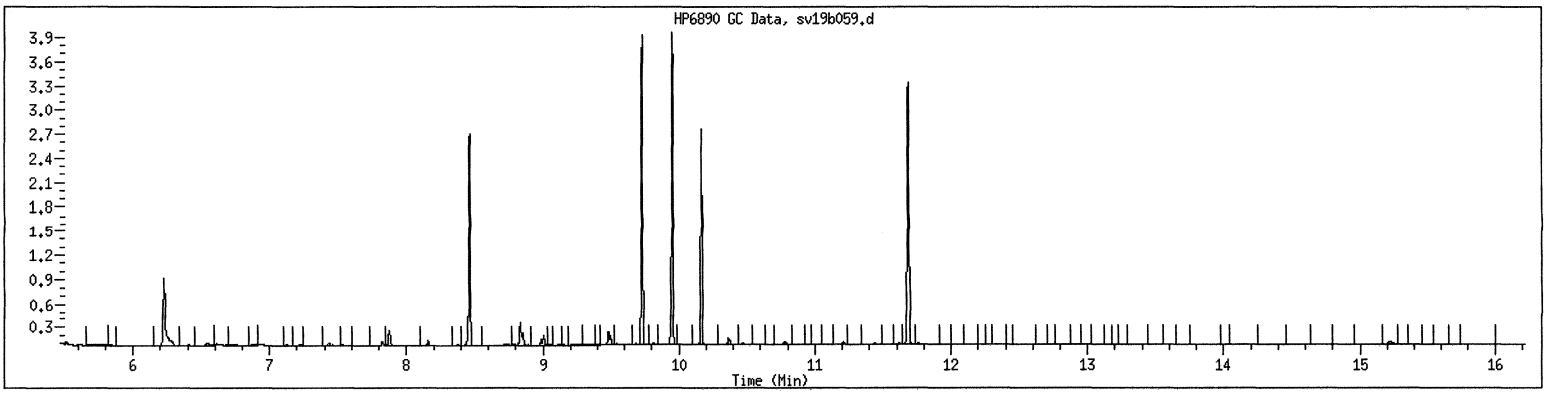
Column diameter: 0.25



Report Date: 11/08/2011 13:49

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1002045	SampleType	: LCS
Injection Date	: 11/04/2011 13:18	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1002045*1 lcsd		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 980 | Units: mL | Lab Sample ID: 21110312403

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1747

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: ug/L | Lab File ID: 2111104/sv19b070s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	310		43.0	43.0	102
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	120		31.9	61.2	102
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	74.0	J	22.2	22.2	102

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b070.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:47
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 70
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	8.853	7.881	0.972	569043598	200.215	409(AM1)
M 22 Arom C11-C22				569043598	200.215	409

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b070s.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:47
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 70 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.875	7.881	-0.006	51082409	17.9731	36.7
$	3 2-Fluorobiphenyl	8.451	8.454	-0.003	53553206	21.7919	44.5
$	5 2-Bromonaphthalene	8.835	8.839	-0.004	27196175	17.3359	35.4
	6 Acenaphthene	8.853	8.858	-0.005	48371523	16.6216	33.9
	9 Anthracene	9.684	9.688	-0.004	41769813	15.7385	32.1
$	10 O-Terphenyl	9.819	9.823	-0.004	38965980	13.2142	27.0
$	11 Chloro-octadecane	10.160	10.174	-0.014	31113619	11.3574	23.2
	13 Pyrene	10.464	10.468	-0.004	42783739	14.9830	30.6
	15 Chrysene	11.235	11.245	-0.010	41961095	15.2687	31.2
M	22 Arom C11-C22				225968579	80.5850	164
M	113 Total Surrogate Area				150828980		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b070.d

Page 1

Date : 04-NOV-2011 17:47

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312403*1

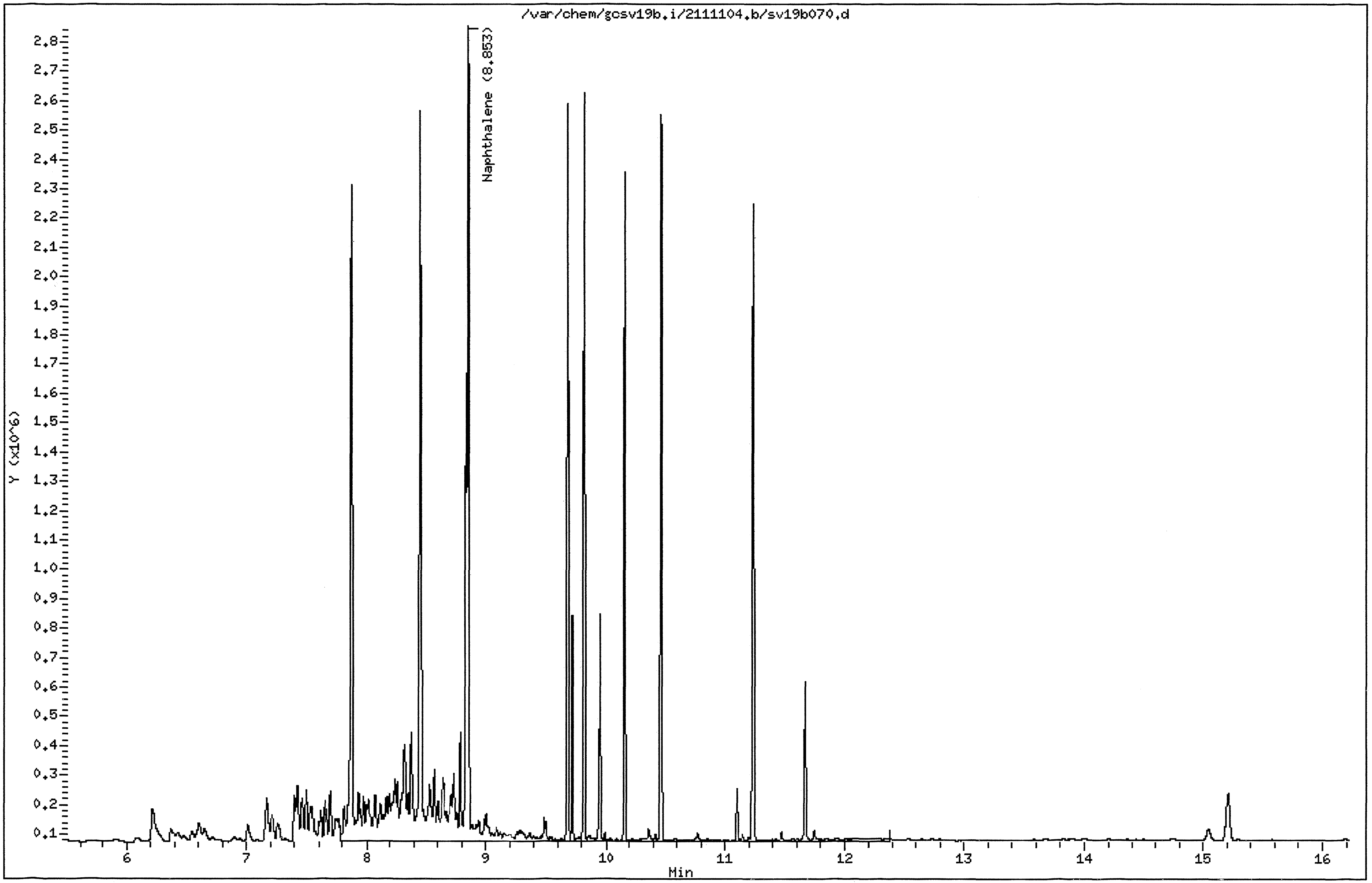
Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

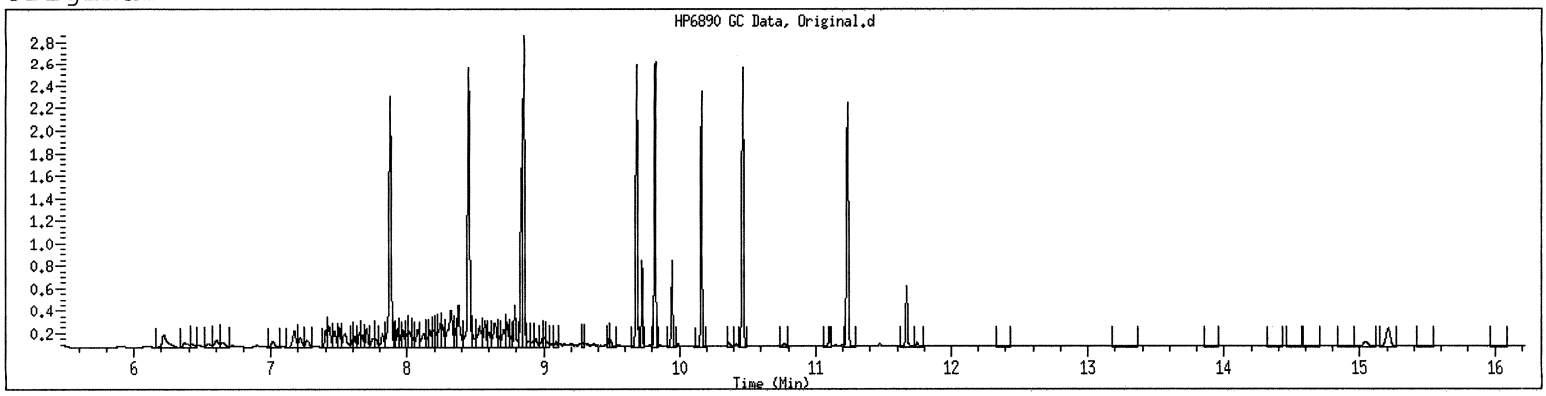
211103124 145



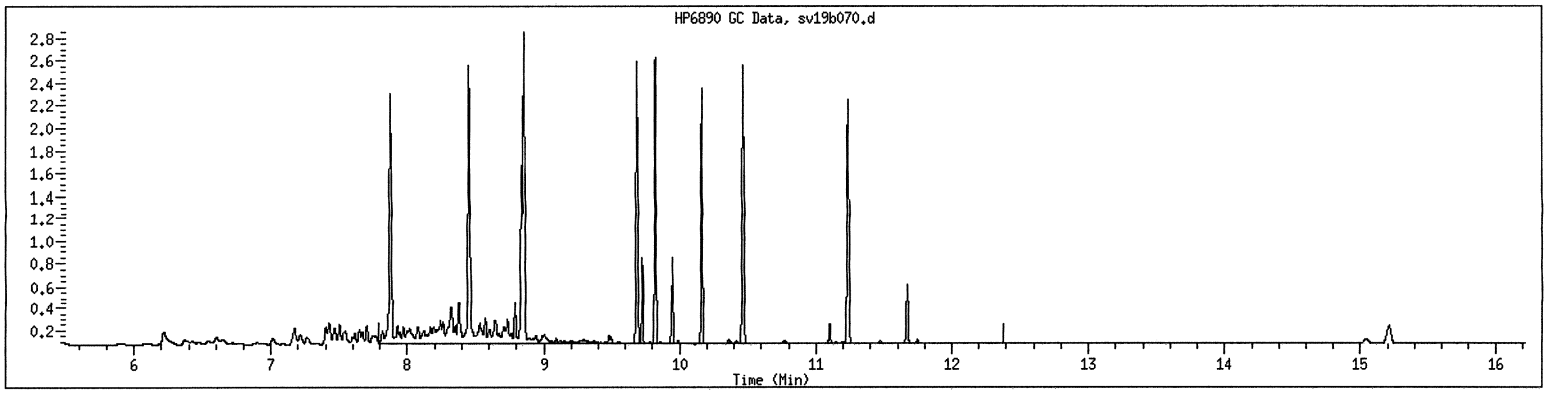
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/04/2011 17:47	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312403*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b071.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	8.463	9.504	-1.041	103155664	34.1429	69.7(M1)
M 11 Alip C9-C18				103155664	34.1429	69.7
114 C-36	9.946	15.145	-5.199	196172680	67.0530	137(AM1)
M 24 Alip C19-C36				196172680	67.0530	137

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b071s.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

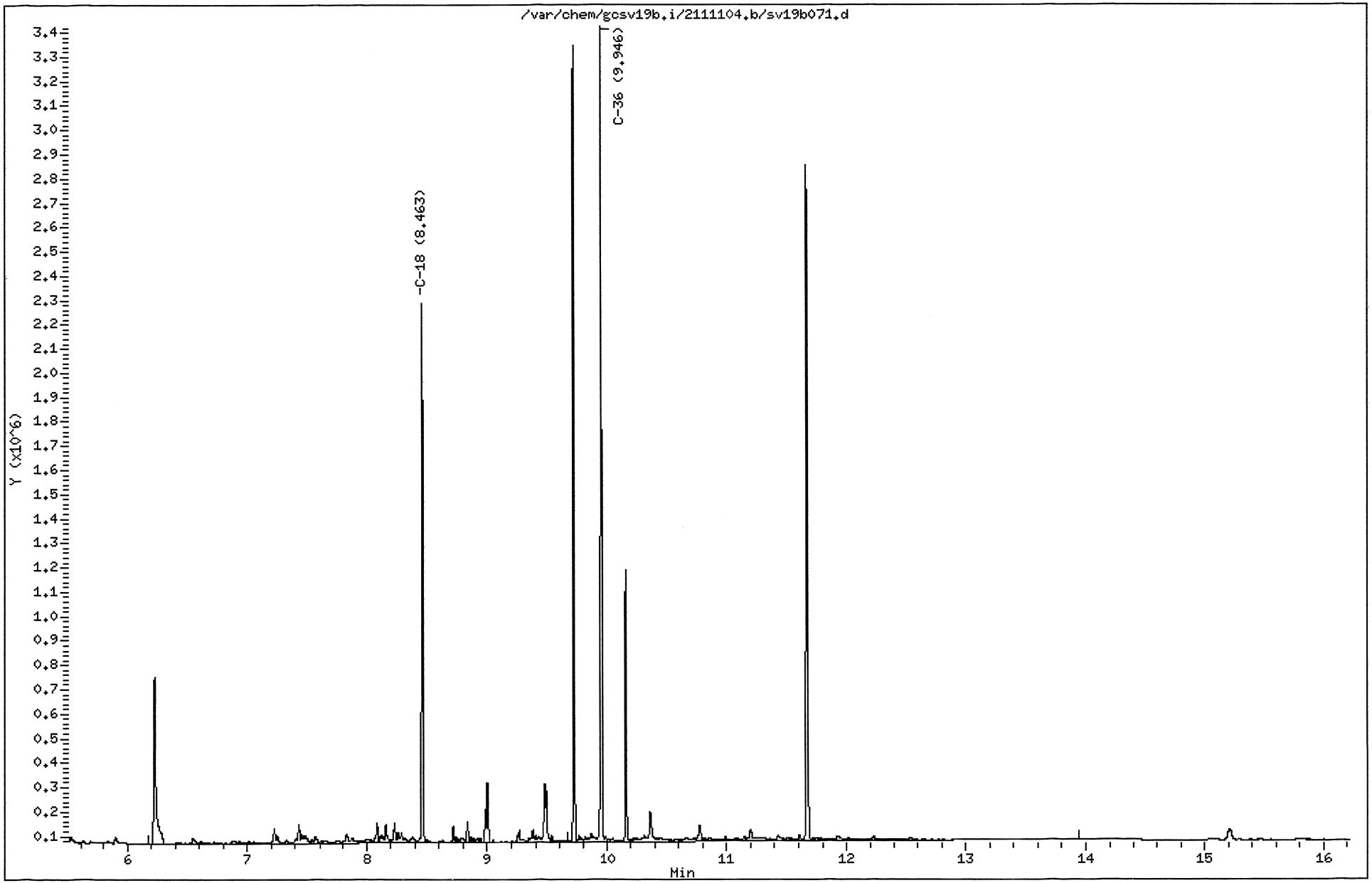
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.228	6.232	-0.004	17636810	6.48569	13.2(R)
	6 C-14	8.463	8.471	-0.008	31294950	10.8733	22.2
M	11 Alip C9-C18				48931760	17.3590	35.4
	12 C-19	9.724	9.774	-0.050	43646012	14.4655	29.5
	13 C-20	9.946	9.957	-0.011	47976180	15.7541	32.2
$	15 Chlorooctadecane	10.159	10.217	-0.058	15508787	5.66101	11.6(R)
	22 C-28	11.676	11.725	-0.049	49801516	16.0858	32.8
M	24 Alip C19-C36				141423708	46.3055	94.5

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b071.d
Date : 04-NOV-2011 18:12
Client ID: 1
Sample Info: 21110312403*1 ms
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

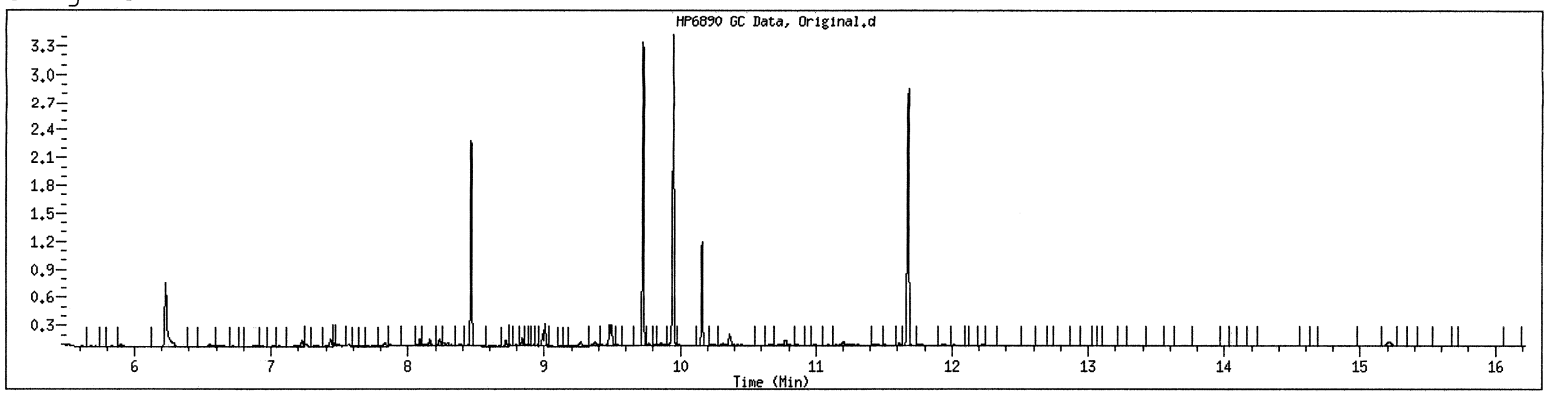
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



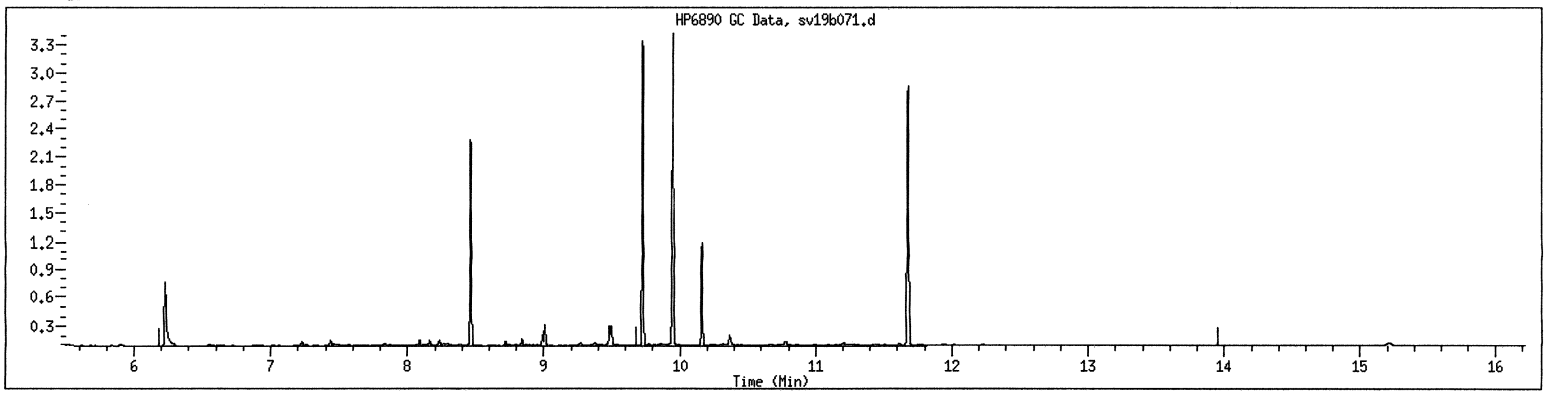
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/04/2011 18:12	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312403*1 ms		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 980 | Units: mL | Lab Sample ID: 21110312404

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1836

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b072s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	302		43.0	43.0	102
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	121		31.9	61.2	102
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	57.0	J	22.2	22.2	102

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b072.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:36
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	9.824	7.881	1.943	552418609	194.366	397(M1)
M 22 Arom C11-C22				552418609	194.366	397

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b072s.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:36
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)
	1 Naphthalene	7.876	7.881	-0.005	46829053	16.4766	33.6
$	3 2-Fluorobiphenyl	8.451	8.454	-0.003	51697210	21.0366	42.9
$	5 2-Bromonaphthalene	8.836	8.839	-0.003	25223534	16.0785	32.8
	6 Acenaphthene	8.854	8.858	-0.004	41177384	14.1496	28.9
	9 Anthracene	9.687	9.688	-0.001	39128993	14.7434	30.1
$	10 O-Terphenyl	9.824	9.823	0.001	37333043	12.6604	25.8
$	11 Chloro-octadecane	10.169	10.174	-0.005	30359152	11.0820	22.6
	13 Pyrene	10.476	10.468	0.008	41370988	14.4883	29.6
	15 Chrysene	11.253	11.245	0.008	41665848	15.1613	30.9
M	22 Arom C11-C22				210172266	75.0191	153
M	113 Total Surrogate Area				144612939		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b072.d

Date : 04-NOV-2011 18:36

Client ID: 1

Instrument: gcsv19b.i

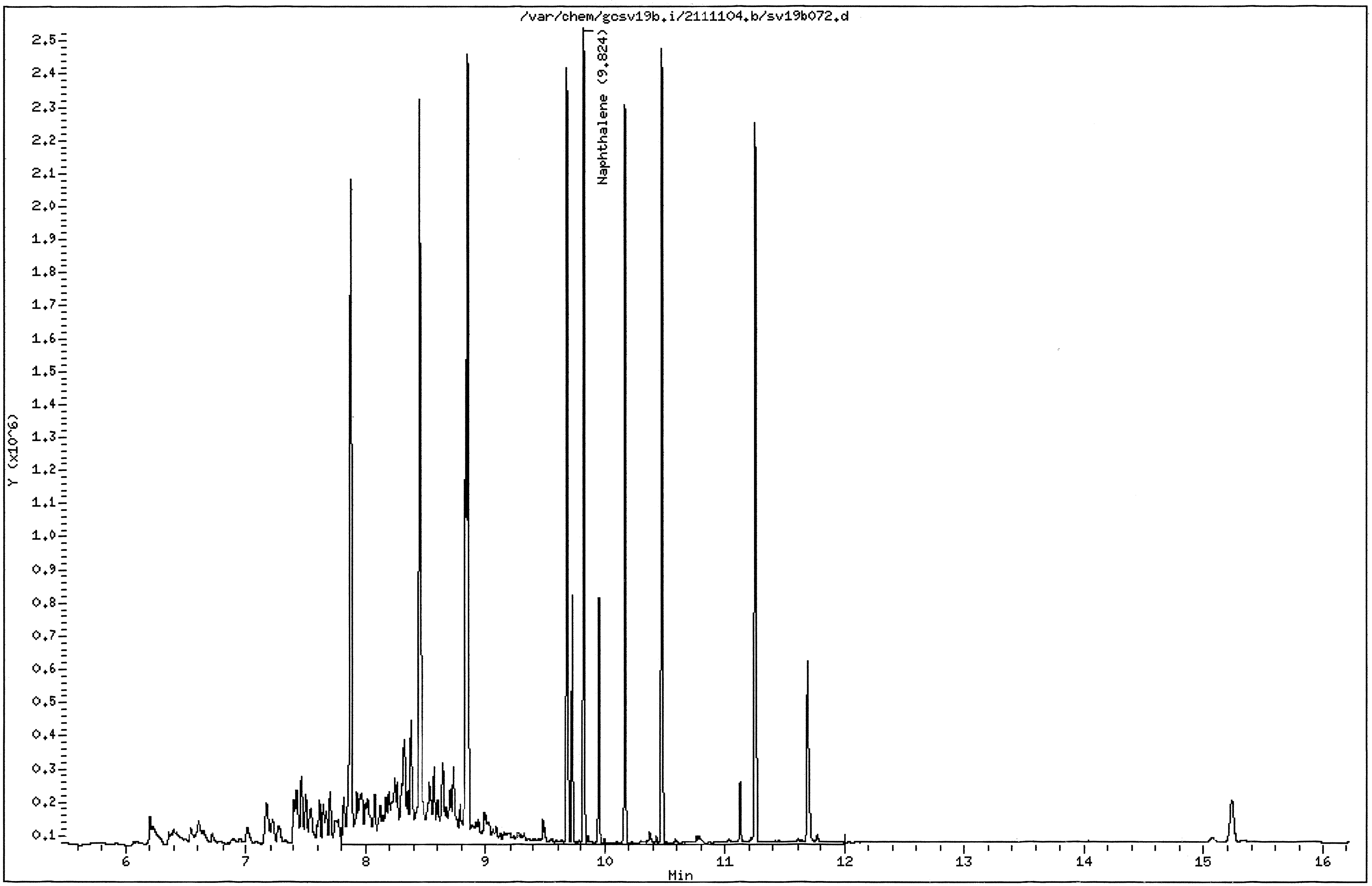
Sample Info: 21110312404*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

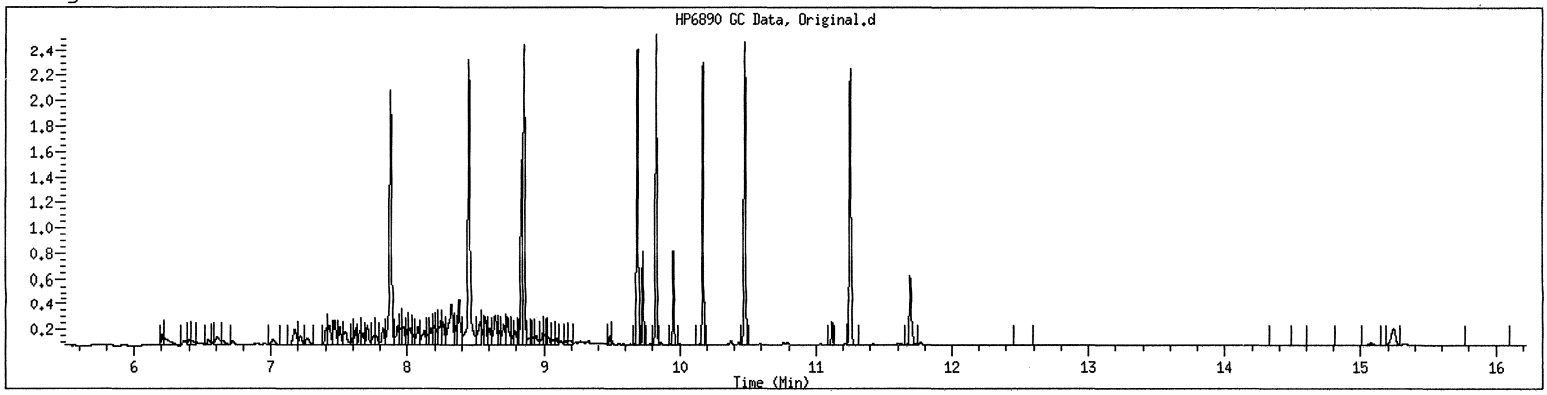
Column diameter: 0.25



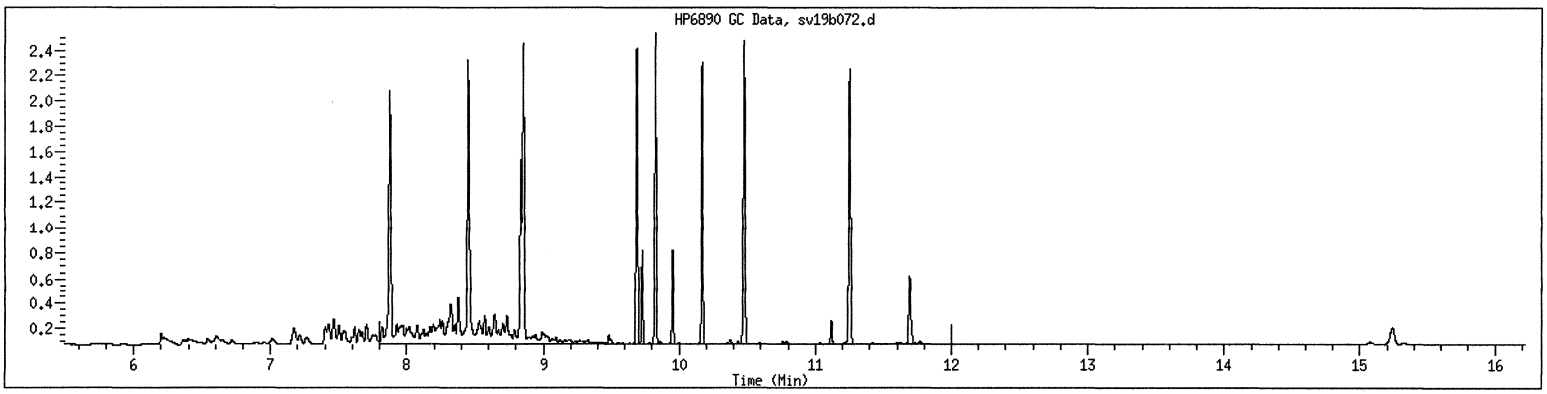
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/04/2011 18:36	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312404*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b073.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:01
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 07-Nov-2011 11:20 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 73
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

						CONCENTRATIONS	
						ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE		(UG/ML)	(ug/L)
10 C-18	8.463	9.504	-1.041	77733976		25.7287	52.5(M1)
M 11 Alip C9-C18				77733976		27.2074	55.5
114 C-36	9.949	15.145	-5.196	186054913		63.5947	130(AM1)
M 24 Alip C19-C36				186054913		60.7932	124

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b073s.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:01
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 07-Nov-2011 11:20 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 73 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1	C-9	6.226	6.232	-0.006	16525582	6.07706	12.4(R)
6	C-14	8.463	8.471	-0.008	27020278	9.38812	19.2(R)
M 11	Alip C9-C18				43545860	15.2413	31.1
12	C-19	9.726	9.774	-0.048	39483552	13.0860	26.7
13	C-20	9.949	9.957	-0.008	43023794	14.1279	28.8
$ 15	Chlorooctadecane	10.163	10.217	-0.054	16128174	5.88710	12.0(R)
22	C-28	11.683	11.725	-0.042	45999575	14.8578	30.3
M 24	Alip C19-C36				128506921	41.9895	85.7

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b073.d

Date : 04-NOV-2011 19:01

Client ID: 1

Sample Info: 21110312404*1 msd

Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

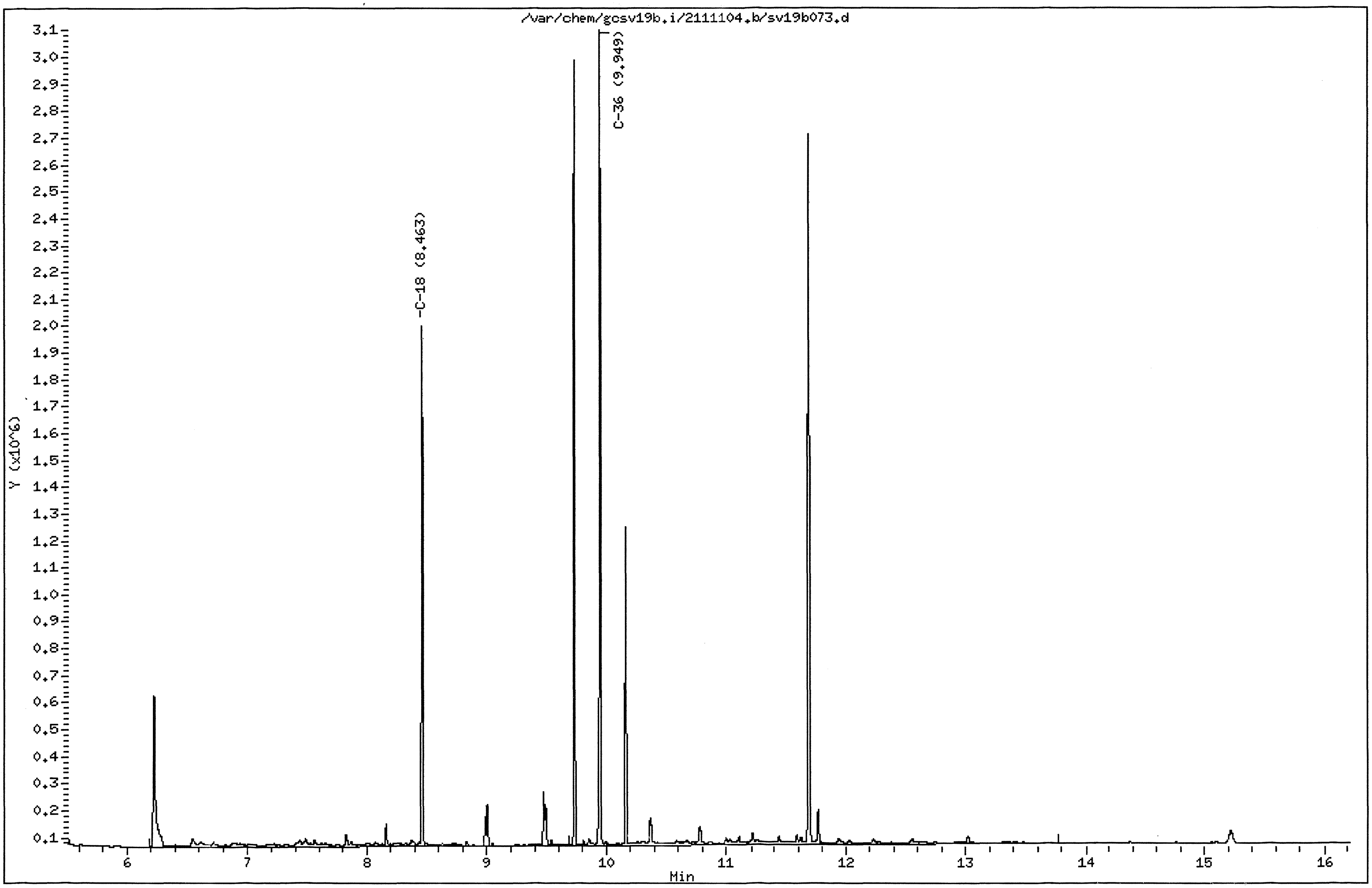
Page 1

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25

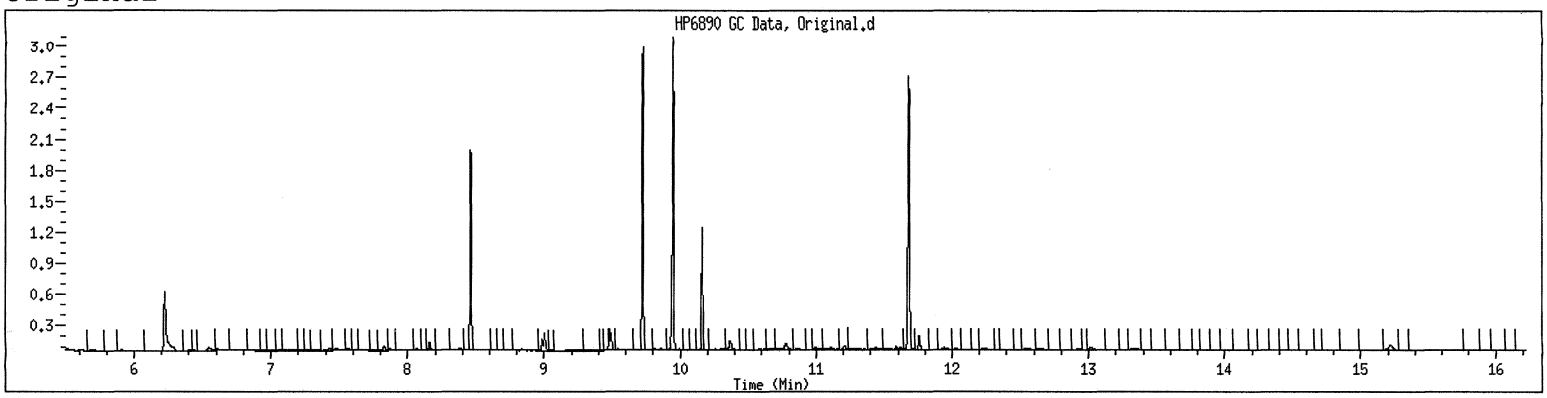
2111103124 159



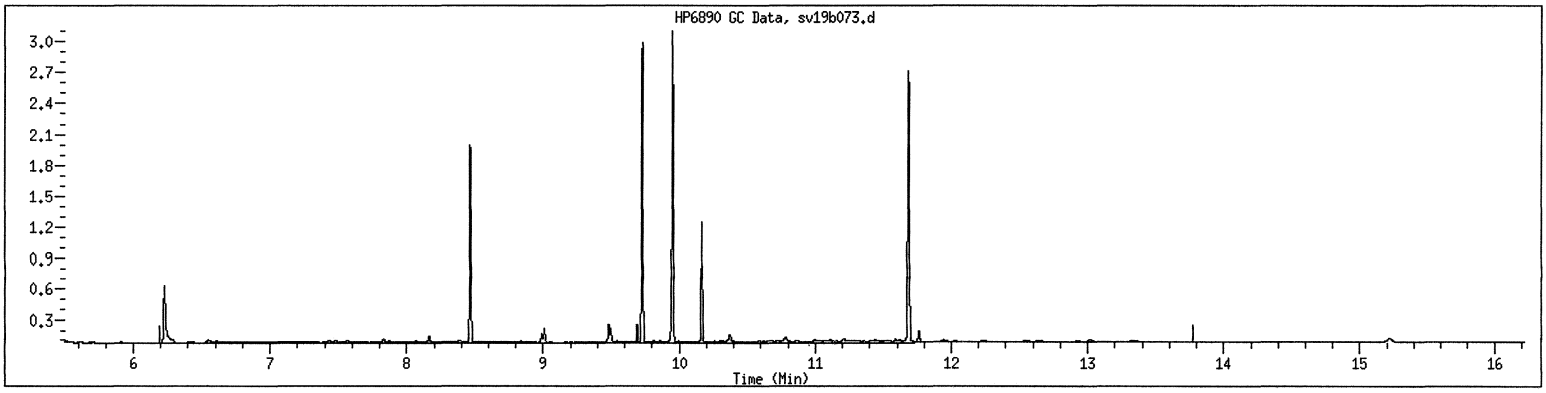
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/04/2011 19:01	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312404*1 msd		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



FRACTIONATION SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 11/2/11	Start: 0800	End: 11/3/11	BATCH NO:	468306 EPH
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐		LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	ALIP	AROM	SAMPLE TYPE	METHOD
1	QC ACCOUNT	MB for HBN 468306 [EXTO/30070]	1002043	1000	2.0	7	10.0	15.0	MB	SHAKER
2	QC ACCOUNT	LCS for HBN 468306 [EXTO/30070	1002044	1000	2.0	7	10.0	15.0	LCS	NA
3	QC ACCOUNT	LCSD for HBN 468306 [EXTO/3007	1002045	1000 g/mL	2.0	7	10.0	15.0	LCSD	SEPARATORY FUNNEL/3510
4	0080	UST 1011 - EPH PE	21110202113	~~990~~ 1000	2.0	~~12~~ 7	11/3/11 10.0	15.0	SAMPLE	D
5	9000	ES046	21110312401	1000	2.0	12	10.0	15.0	SAMPLE	SOXHLET/3540
6	9000	ES047	21110312402	990	2.0	12	10.0	15.0	SAMPLE	NA
7	9000	ES047 MS	21110312403	980	2.0	12	10.0	15.0	MS	
8	9000	ES047 MSD	21110312404	980	2.0	12	10.0	15.0	MSD	
9	9000	ES049	21110312405	960	2.0	12	10.0	15.0	SAMPLE	
10	9000	ES050	21110312406	990	2.0	12	10.0	15.0	SAMPLE	
11	9000	ES051	21110312407	970	2.0	12	10.0	15.0	SAMPLE	
12	9000	ES053	21110312408	980	2.0	12	10.0	15.0	SAMPLE	
13	9000	ES053 MS	21110312409	990	2.0	12	10.0	15.0	MS	
14	9000	ES053 MSD	21110312410	980	2.0	12	10.0	15.0	MSD	
15	9000	ES055	21110312411	990	2.0	12	10.0	15.0	SAMPLE	
16	9000	ES056	21110312412	990	2.0	12	10.0	15.0	SAMPLE	
17										
18										
19										
20										
21										
22										
23										MeCL2 Lot No: 114853
24										
25										HEXANE Lot No: 108351
26										
27										PENTANE Lot No: NA
28										

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: NA TEMP: 10.1

Am 11/3/11 507-31-1

SURROGATE ID	507-29-5	SPIKE ID	507-29-4	Fractionation surr	507-31-2	TECHNICIAN	DATE
VOLUME	1.0 ml	VOLUME	1.0 ml		1.0 ml	Erica Bergen	11/2/11
CONCENTRATION	10 ug/ml	CONCENTRATION	50 ug/ml		400 ng/ml	TMC	11/2
						SUPERVISOR	DATE
SPIKE WITNESS							11/3/11

Revision 3, 10/04/2010

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/03/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111102.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	02-NOV-2011 15:31	1.000	smh	51	all
1201		sv19b052.d	1000.00 ml	02-NOV-2011 15:55	1.000	smh	52	all
1201		sv19b052la.d	1000.00 ml	02-NOV-2011 15:55	1.000	smh	52	all
1202		sv19b053.d	1000.00 ml	02-NOV-2011 16:19	1.000	smh	53	all
1202		sv19b053la.d	1000.00 ml	02-NOV-2011 16:19	1.000	smh	53	all
1203		sv19b054.d	1000.00 ml	02-NOV-2011 16:42	1.000	smh	54	all
1203		sv19b054la.d	1000.00 ml	02-NOV-2011 16:42	1.000	smh	54	all
1204		sv19b055.d	1000.00 ml	02-NOV-2011 17:07	1.000	smh	55	all
1204		sv19b055la.d	1000.00 ml	02-NOV-2011 17:07	1.000	smh	55	all
1205		sv19b056.d	1000.00 ml	02-NOV-2011 17:30	1.000	smh	56	all
1205		sv19b056la.d	1000.00 ml	02-NOV-2011 17:30	1.000	smh	56	all
1600		sv19b057.d	1.00 ml	02-NOV-2011 17:55	1.000	smh	57	all
1600		sv19b057la.d	1.00 ml	02-NOV-2011 17:55	1.000	smh	57	all
1201		sv19b058.d	1000.00 ml	02-NOV-2011 18:19	1.000	smh	58	ALmasseph
1202		sv19b059.d	1000.00 ml	02-NOV-2011 18:42	1.000	smh	59	ALmasseph
1203		sv19b060.d	1000.00 ml	02-NOV-2011 19:06	1.000	smh	60	ALmasseph
1204		sv19b061.d	1000.00 ml	02-NOV-2011 19:31	1.000	smh	61	ALmasseph
1205		sv19b062.d	1000.00 ml	02-NOV-2011 19:54	1.000	smh	62	ALmasseph
1600		sv19b063.d	1000.00 ml	02-NOV-2011 20:18	1.000	smh	63	all-new

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/04/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Batch: /var/chem/gcsv19b.i/2111103.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	03-NOV-2011 11:07	1.000	smh	51	ALmasseph
1201		sv19b052.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	ALmasseph
1201		sv19b052la.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	AlipLA
1201		sv19b052s.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	chloro
1202		sv19b053.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	ALmasseph
1202		sv19b053la.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	AlipLA
1202		sv19b053s.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	chloro
1203		sv19b054.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	ALmasseph
1203		sv19b054la.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	AlipLA
1203		sv19b054s.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	chloro
1204		sv19b055.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	ALmasseph
1204		sv19b055la.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	AlipLA
1204		sv19b055s.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	chloro
1205		sv19b056.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	ALmasseph
1205		sv19b056la.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	AlipLA
1205		sv19b056s.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	chloro
1600		sv19b057.d	1.00 ml	03-NOV-2011 14:54	1.000	smh	57	ALmasseph
1600		sv19b057la.d	1.00 ml	03-NOV-2011 14:54	1.000	smh	57	ALmasseph

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/08/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111104.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	04-NOV-2011 08:24	1.000	smh	51	all
1400		sv19b052.d	1000.00 ml	04-NOV-2011 08:48	1.000	smh	52	all
1400		sv19b053.d	1000.00 ml	04-NOV-2011 09:12	1.000	smh	53	ALmasseph
1002043		sv19b054.d	1000.00 ml	04-NOV-2011 11:18	1.000	smh	54	all
1002043		sv19b055.d	1000.00 ml	04-NOV-2011 11:42	1.000	smh	55	ALmasseph
1002043		sv19b055s.d	1000.00 ml	04-NOV-2011 11:42	1.000	smh	55	Chloro
1002044		sv19b056.d	1000.00 ml	04-NOV-2011 12:06	1.000	smh	56	all
1002044		sv19b057.d	1000.00 ml	04-NOV-2011 12:30	1.000	smh	57	ALmasseph
1002045		sv19b058.d	1000.00 ml	04-NOV-2011 12:54	1.000	smh	58	all
1002045		sv19b059.d	1000.00 ml	04-NOV-2011 13:18	1.000	smh	59	ALmasseph
21110202113		sv19b060.d	990.00 ml	04-NOV-2011 13:43	1.000	smh	60	all
21110202113		sv19b061.d	990.00 ml	04-NOV-2011 14:07	1.000	smh	61	ALmasseph
21110312401		sv19b062.d	1000.00 ml	04-NOV-2011 14:31	1.000	smh	62	all
21110312401		sv19b062s.d	1000.00 ml	04-NOV-2011 14:31	1.000	smh	62	surr
21110312401		sv19b063.d	1000.00 ml	04-NOV-2011 14:56	1.000	smh	63	ALmasseph
21110312401		sv19b063s.d	1000.00 ml	04-NOV-2011 14:56	1.000	smh	63	Chloro
1400		sv19b064.d	1000.00 ml	04-NOV-2011 15:20	1.000	smh	64	all
1400		sv19b065.d	1000.00 ml	04-NOV-2011 15:45	1.000	smh	65	ALmasseph
21110312402		sv19b068.d	990.00 ml	04-NOV-2011 16:58	1.000	smh	68	all
21110312402		sv19b068s.d	990.00 ml	04-NOV-2011 16:58	1.000	smh	68	surr
21110312402		sv19b069.d	990.00 ml	04-NOV-2011 17:23	1.000	smh	69	ALmasseph
21110312402		sv19b069s.d	990.00 ml	04-NOV-2011 17:23	1.000	smh	69	Chloro
21110312403		sv19b070.d	980.00 ml	04-NOV-2011 17:47	1.000	smh	70	all
21110312403		sv19b070s.d	980.00 ml	04-NOV-2011 17:47	1.000	smh	70	all
21110312403		sv19b071.d	980.00 ml	04-NOV-2011 18:12	1.000	smh	71	ALmasseph
21110312403		sv19b071s.d	980.00 ml	04-NOV-2011 18:12	1.000	smh	71	ALmasseph
21110312404		sv19b072.d	980.00 ml	04-NOV-2011 18:36	1.000	smh	72	all
21110312404		sv19b072s.d	980.00 ml	04-NOV-2011 18:36	1.000	smh	72	all
21110312404		sv19b073.d	980.00 ml	04-NOV-2011 19:01	1.000	smh	73	ALmasseph
21110312404		sv19b073s.d	980.00 ml	04-NOV-2011 19:01	1.000	smh	73	ALmasseph
21110312405		sv19b074.d	960.00 ml	04-NOV-2011 19:25	1.000	smh	74	all
21110312405		sv19b075.d	960.00 ml	04-NOV-2011 19:49	1.000	smh	75	ALmasseph
21110312405		sv19b075s.d	960.00 ml	04-NOV-2011 19:49	1.000	smh	75	Chloro
21110312406		sv19b076.d	990.00 ml	04-NOV-2011 20:13	1.000	smh	76	all
21110312406		sv19b077.d	990.00 ml	04-NOV-2011 20:38	1.000	smh	77	ALmasseph
21110312406		sv19b077s.d	990.00 ml	04-NOV-2011 20:38	1.000	smh	77	Chloro

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/08/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111104.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
1400		sv19b078.d	1000.00 ml	04-NOV-2011 21:02	1.000	smh	78	all
1400		sv19b079.d	1000.00 ml	04-NOV-2011 21:26	1.000	smh	79	ALmasseph
21110312407		sv19b082.d	970.00 ml	04-NOV-2011 22:38	1.000	smh	82	all
21110312407		sv19b083.d	970.00 ml	04-NOV-2011 23:02	1.000	smh	83	ALmasseph
21110312407		sv19b083s.d	970.00 ml	04-NOV-2011 23:02	1.000	smh	83	Chloro
21110312408		sv19b084.d	980.00 ml	04-NOV-2011 23:26	1.000	smh	84	all
21110312408		sv19b085.d	980.00 ml	04-NOV-2011 23:50	1.000	smh	85	ALmasseph
21110312408		sv19b085s.d	980.00 ml	04-NOV-2011 23:50	1.000	smh	85	Chloro
21110312409		sv19b086.d	990.00 ml	05-NOV-2011 00:14	1.000	smh	86	all
21110312409		sv19b087.d	990.00 ml	05-NOV-2011 00:38	1.000	smh	87	ALmasseph
21110312409		sv19b087s.d	990.00 ml	05-NOV-2011 00:38	1.000	smh	87	Chloro
21110312410		sv19b088.d	980.00 ml	05-NOV-2011 01:02	1.000	smh	88	all
21110312410		sv19b089.d	980.00 ml	05-NOV-2011 01:26	1.000	smh	89	ALmasseph
21110312410		sv19b089s.d	980.00 ml	05-NOV-2011 01:26	1.000	smh	89	Chloro
21110312411		sv19b090.d	990.00 ml	05-NOV-2011 01:50	1.000	smh	90	all
21110312411		sv19b091.d	990.00 ml	05-NOV-2011 02:14	1.000	smh	91	ALmasseph
21110312411		sv19b091s.d	990.00 ml	05-NOV-2011 02:14	1.000	smh	91	Chloro
1400		sv19b092.d	1000.00 ml	05-NOV-2011 02:38	1.000	smh	92	all
1400		sv19b093.d	1000.00 ml	05-NOV-2011 03:02	1.000	smh	93	ALmasseph
1400		sv19b094.d	1000.00 ml	05-NOV-2011 03:26	1.000	smh	92	all
1400		sv19b095.d	1000.00 ml	05-NOV-2011 03:49	1.000	smh	93	AlipLA
21110312412		sv19b096.d	990.00 ml	05-NOV-2011 04:13	1.000	smh	96	all
21110312412		sv19b097.d	990.00 ml	05-NOV-2011 04:37	1.000	smh	97	ALmasseph
21110312412		sv19b097s.d	990.00 ml	05-NOV-2011 04:37	1.000	smh	97	Chloro
1002322		sv19b098.d	1000.00 ml	05-NOV-2011 05:00	1.000	smh	98	all
1002322		sv19b099.d	1000.00 ml	05-NOV-2011 05:24	1.000	smh	99	AlipLA
1002322		sv19b099s.d	1000.00 ml	05-NOV-2011 05:24	1.000	smh	99	chloro
1002323		sv19b101.d	1000.00 ml	05-NOV-2011 05:48	1.000	smh	1	all
1002323		sv19b102.d	1000.00 ml	05-NOV-2011 06:11	1.000	smh	2	AlipLA
1002324		sv19b103.d	1000.00 ml	05-NOV-2011 06:35	1.000	smh	3	all
1002324		sv19b104.d	1000.00 ml	05-NOV-2011 06:58	1.000	smh	4	AlipLA
21110250603		sv19b105.d	960.00 ml	05-NOV-2011 07:22	1.000	smh	5	all
21110250603		sv19b105s.d	960.00 ml	05-NOV-2011 07:22	1.000	smh	5	surr
21110250603		sv19b106.d	960.00 ml	05-NOV-2011 07:45	1.000	smh	6	AlipLA
21110250603		sv19b106s.d	960.00 ml	05-NOV-2011 07:45	1.000	smh	6	Chloro
1400		sv19b107.d	1000.00 ml	05-NOV-2011 08:09	1.000	smh	7	all

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: MASSVPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES046	106	70	130						102	70	130						0
2.	ES047	100	70	130						96	70	130						0
3.	ES047 MS	106	70	130						102	70	130						0
4.	ES047 MSD	104	70	130						99	70	130						0
5.	ES049	118	70	130						113	70	130						0
6.	MB1003187	100	70	130						96	70	130						0
7.	LCS1003188	104	70	130						98	70	130						0

SMC 1 : 2,5-Dibromotoluene (PID) SMC 2 : 2,5-Dibromotoluene (FID)

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID ES047

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

Contract: Method: MASSVPH

Prep Batch: Analytical Batch: 468512

SAMPLE NO : 21110312403

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
C5-C8 Aliphatic	ug/L	2000	0	1440	72		60 - 140
C9-C10 Aromatic	ug/L	500	174	739	113		60 - 140
C9-C12 Aliphatic	ug/L	1000	770	1760	99		60 - 140

SAMPLE NO : 21110312404

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
C5-C8 Aliphatic	ug/L	2000	1440	72		0		60 - 140	0 - 30
C9-C10 Aromatic	ug/L	500	688	103		7		60 - 140	0 - 30
C9-C12 Aliphatic	ug/L	1000	1560	79		12		60 - 140	0 - 30

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211103124

Contract: Method: MASSVPH

Prep Batch: Analytical Batch: 468512

SAMPLE NO : 1003188

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C5-C8 Aliphatic	ug/L	200	0	152	76		60 - 140
C9-C10 Aromatic	ug/L	50	0	54.4	109		60 - 140
C9-C12 Aliphatic	ug/L	100	0	105	105		60 - 140

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 3 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1003187

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1003187 | SAS No.: | SDG No.: 211103124

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted:

Date Analyzed (1): 11/07/11 | Time (1): 1221 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCV5B | Instrument ID (2):

GC Column (1): | ID: (mm) | GC Column (2): | ID: (mm)

Method: MASSVPH | Prep Batch: | Analytical Batch: 468512

Lab File ID: 2111107/v5003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1003188	1003188	11/07/11	1151	GCV5B
2.	ES046	21110312401	11/07/11	1826	GCV5B
3.	ES047	21110312402	11/07/11	1855	GCV5B
4.	ES047 MS	21110312403	11/07/11	1925	GCV5B
5.	ES047 MSD	21110312404	11/07/11	1955	GCV5B
6.	ES049	21110312405	11/08/11	1123	GCV5B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES046

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312401

Level: (low/med) | Date Collected: 10/24/11 | Time: 0955

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1826

Soil Aliquot Volume: | (µL) | Dilution Factor: 10 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5012

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	150	U	33.1	150	300
GCV-00-6	C9-C10 Aromatic	200		12.4	50.0	100
GCV-00-5	C9-C12 Aliphatic	671		32.0	100	200

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5012.d
Lab Smp Id: 21110312401 Client Smp ID: 21110312401
Inj Date : 07-NOV-2011 18:26
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312401*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	7 1,2,4-Trimethylbenzene	19.629	16.983	2.646	240243	19.9720	200(M1)
M	9 C9-C10				240243	19.9720	200
$	10 2,5-Dibromotoluene	21.792	21.781	0.011	371963	53.1979	532

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5012.d

Page 1

Date : 07-NOV-2011 18:26

Client ID: 21110312401

Instrument: gcv5b.i

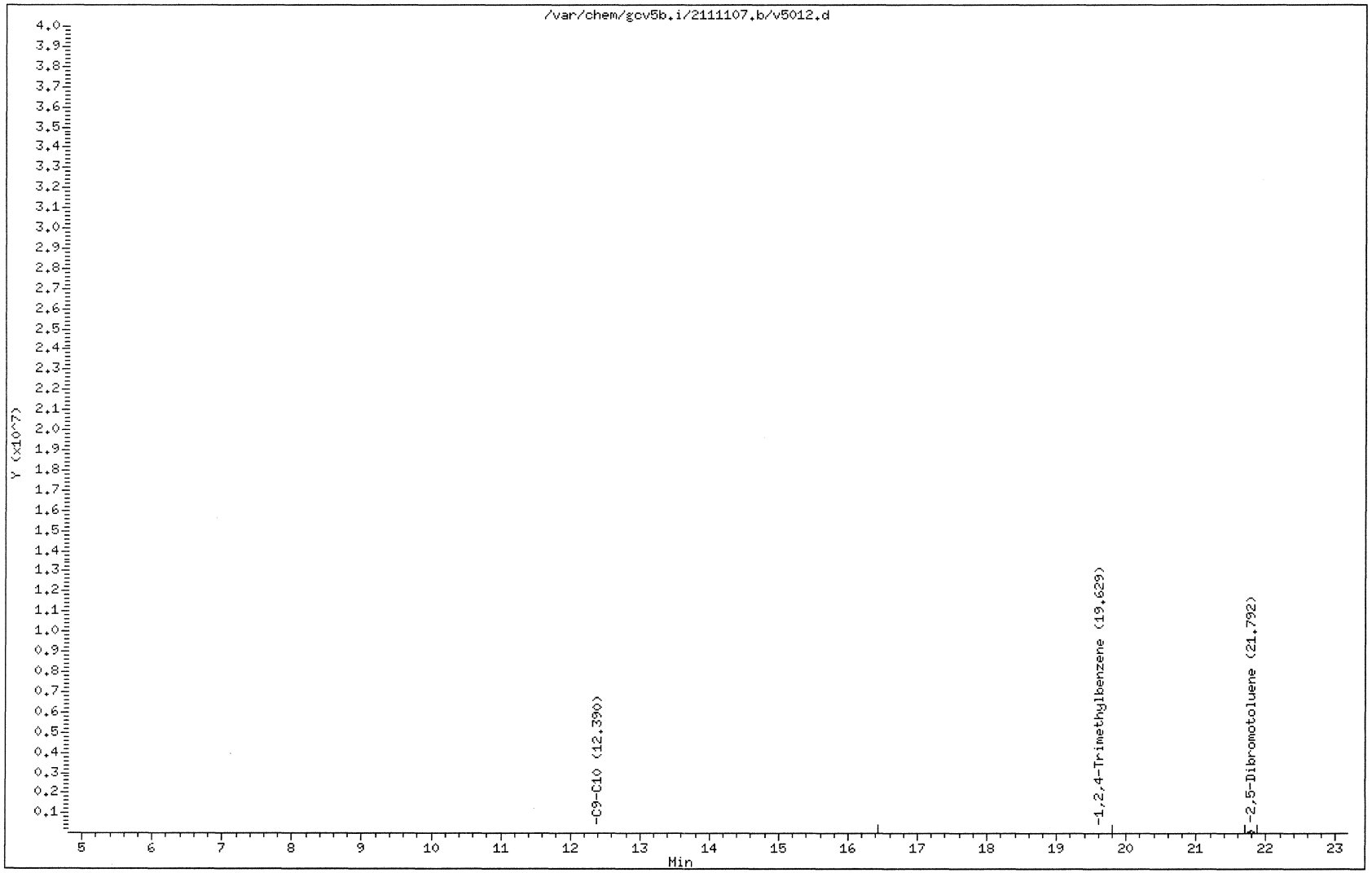
Sample Info: 21110312401*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

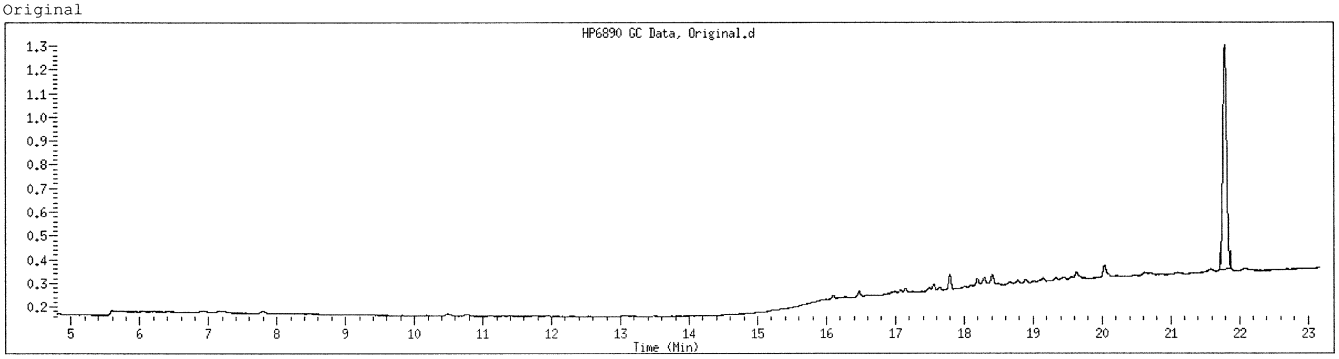


Report Date: 11/08/2011 13:41

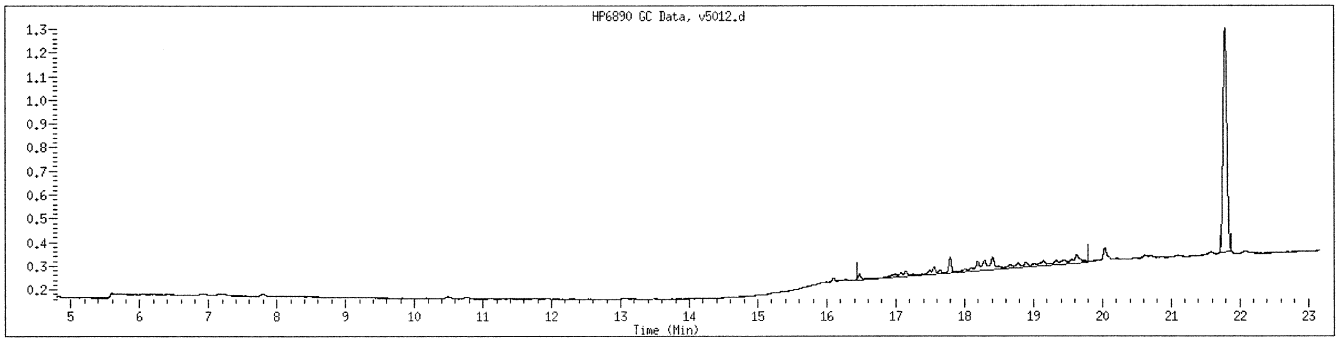
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312401	SampleType	: SAMPLE
Injection Date	: 11/07/2011 18:26	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: 21110312401*10		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5012.d
Lab Smp Id: 21110312401 Client Smp ID: 21110312401
Inj Date : 07-NOV-2011 18:26
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312401*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

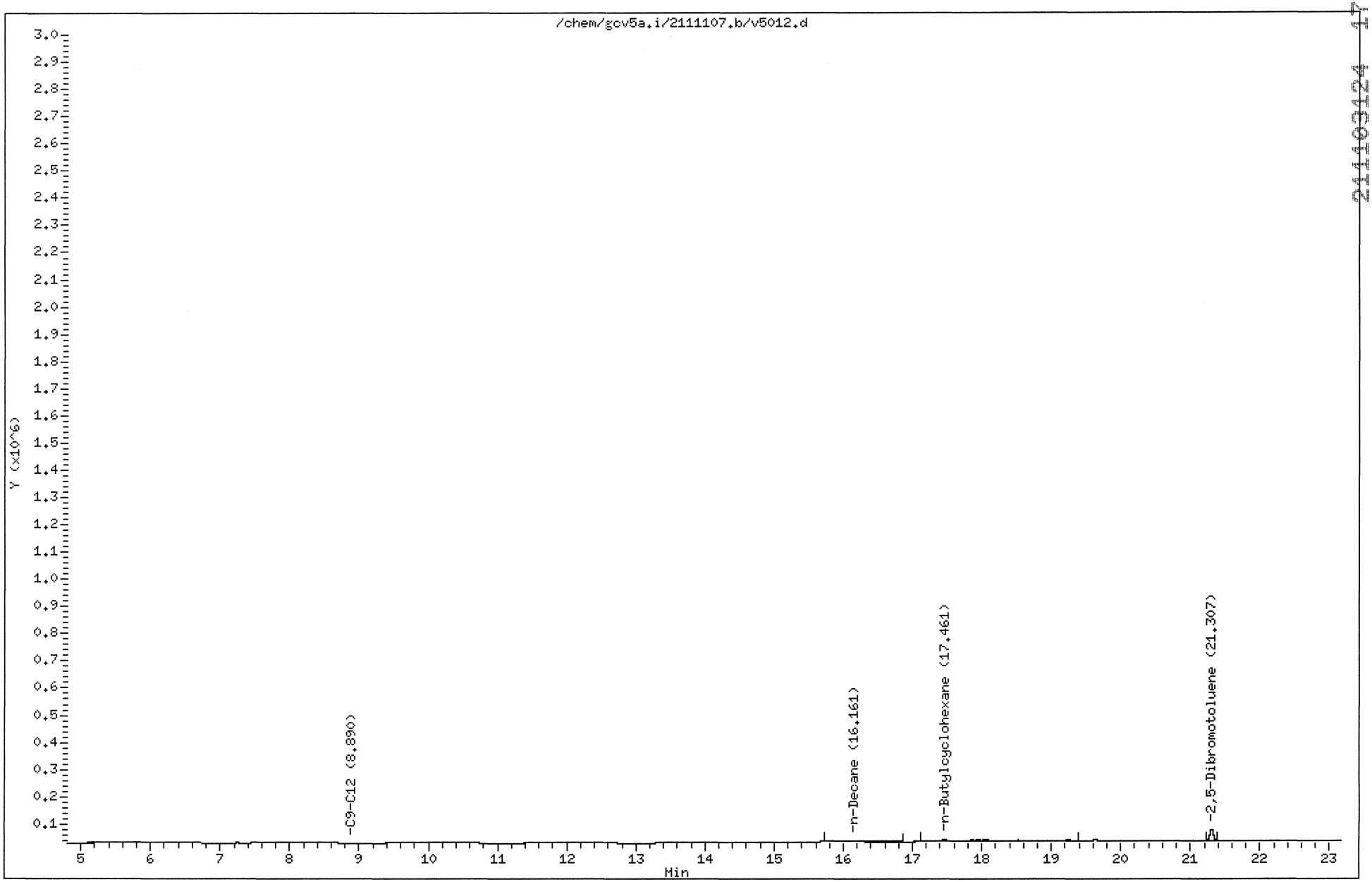
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	13 n-Decane	16.161	15.963	0.198	91480	16.4683	165(M1)
	15 n-Butylcyclohexane	17.461	16.746	0.715	301690	50.6322	506(M1)
M	5 C9-C12				393171	67.1006	671
$	17 2,5-Dibromotoluene	21.307	21.301	0.006	152664	51.0641	511

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5012.d
Date : 07-NOV-2011 18:26
Client ID: 21110312401
Sample Info: 21110312401*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

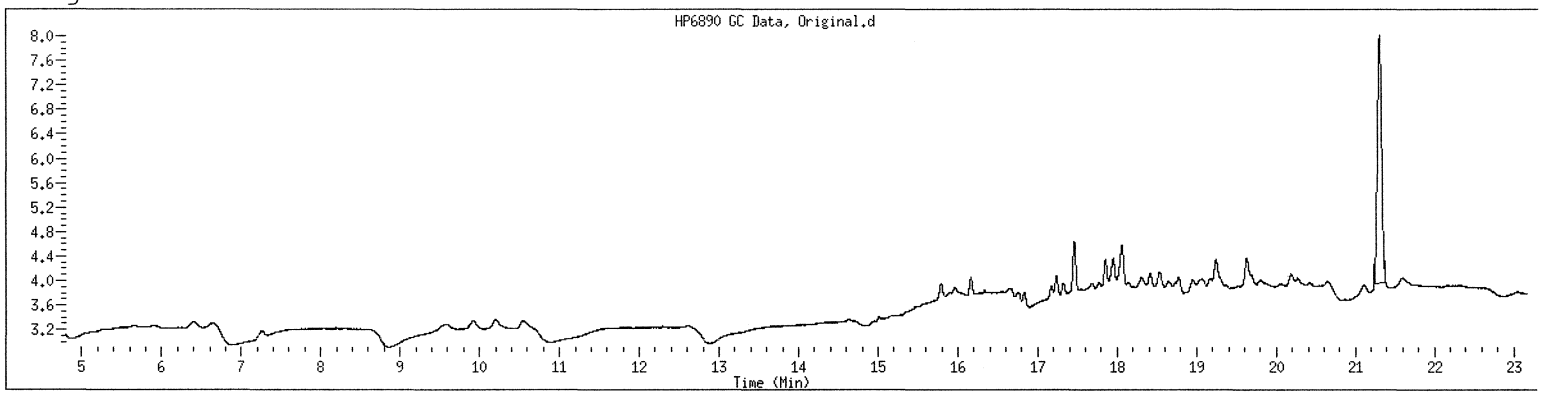
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



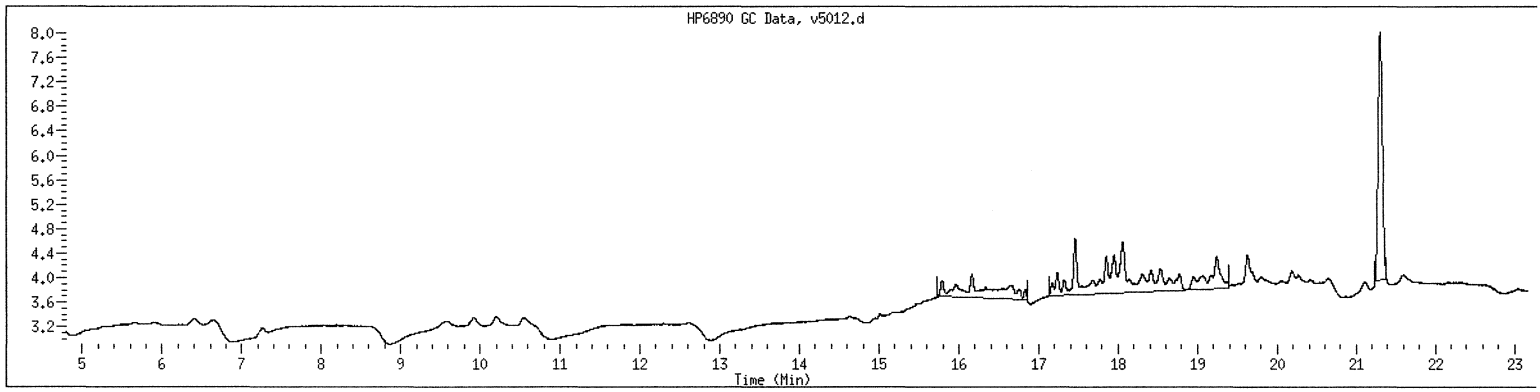
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312401	SampleType	: SAMPLE
Injection Date	: 11/07/2011 18:26	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312401*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312402

Level: (low/med) | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1855

Soil Aliquot Volume: | (µL) | Dilution Factor: 10 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5013

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	150	U	33.1	150	300
GCV-00-6	C9-C10 Aromatic	174		12.4	50.0	100
GCV-00-5	C9-C12 Aliphatic	770		32.0	100	200

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5013.d
Lab Smp Id: 21110312402 Client Smp ID: 21110312402
Inj Date : 07-NOV-2011 18:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312402*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	7	1,2,4-Trimethylbenzene	19.628	16.983	2.645	209265	17.3968	174(M1)
M	9	C9-C10				209265	17.3968	174
$	10	2,5-Dibromotoluene	21.793	21.781	0.012	350440	50.1197	501

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5013.d

Page 1

Date : 07-NOV-2011 18:55

Client ID: 21110312402

Instrument: gcv5b.i

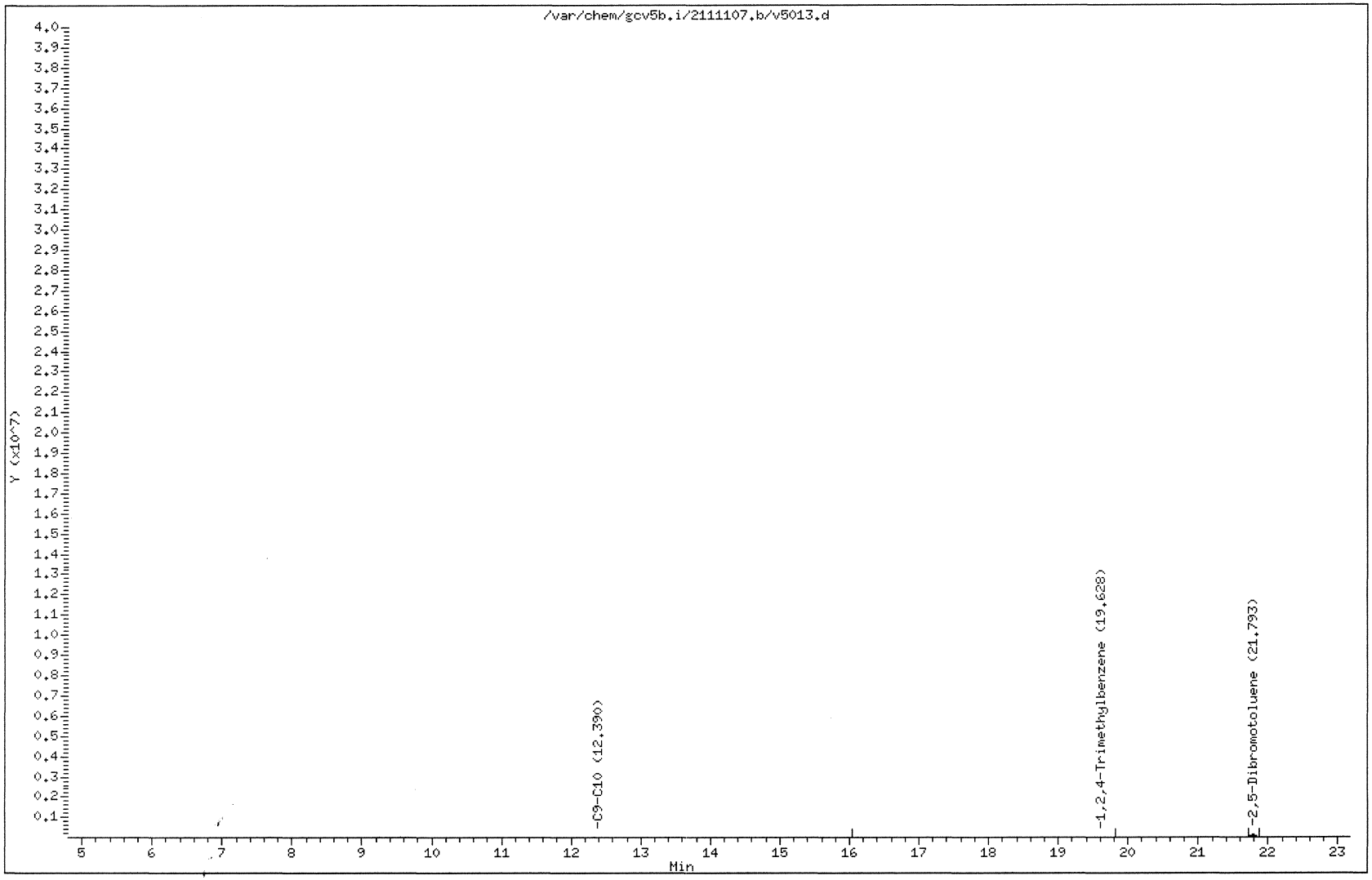
Sample Info: 21110312402*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

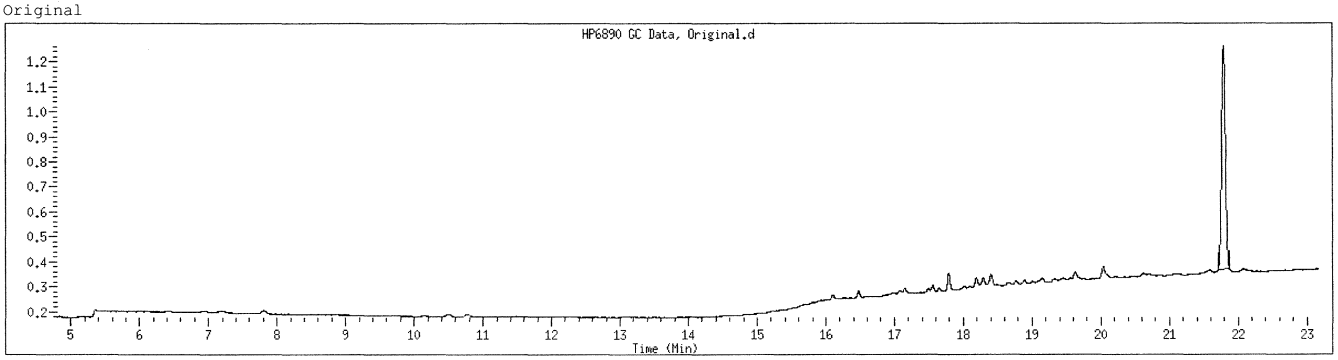


Data file : /var/chem/gcv5b.i/2111107.b/v5013.d Page: 1
Report Date: 11/08/2011 13:41

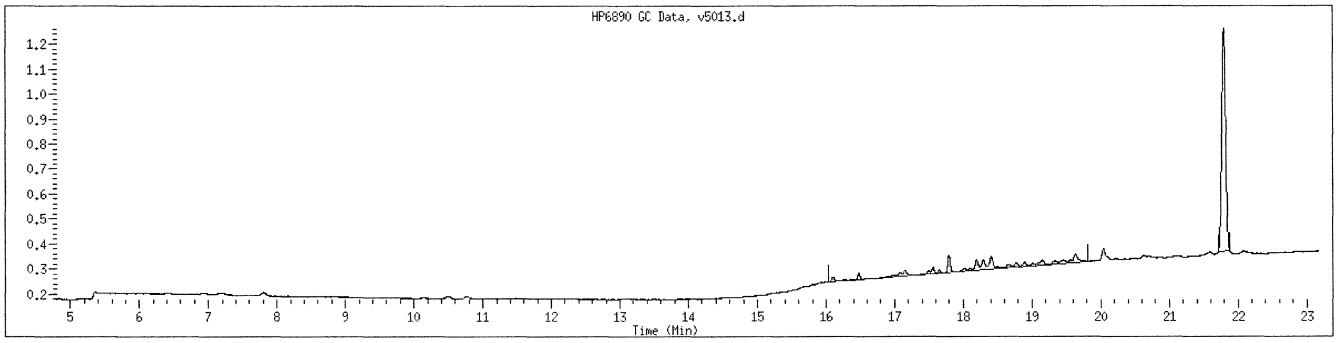
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312402 SampleType : SAMPLE
Injection Date: 11/07/2011 18:55 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312402*10
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 10.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5013.d
Lab Smp Id: 21110312402 Client Smp ID: 21110312402
Inj Date : 07-NOV-2011 18:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312402*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

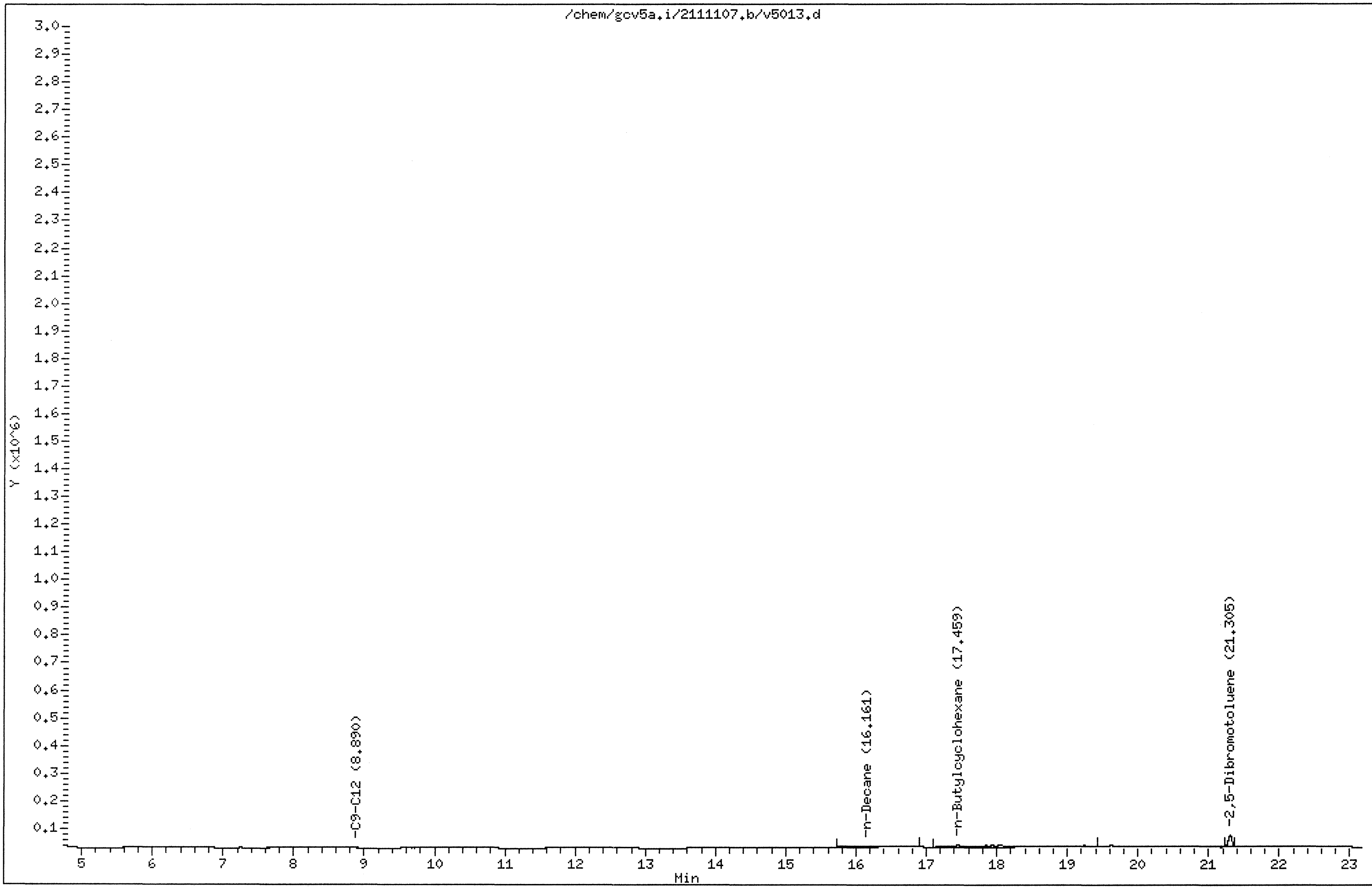
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
13	n-Decane	16.161	15.963	0.198	78764	14.1792	142(M1)
15	n-Butylcyclohexane	17.459	16.746	0.713	374454	62.8440	628(M1)
M 5	C9-C12				453219	77.0232	770
$ 17	2,5-Dibromotoluene	21.305	21.301	0.004	144053	48.1838	482

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5013.d
Date : 07-NOV-2011 18:55
Client ID: 21110312402
Sample Info: 21110312402*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

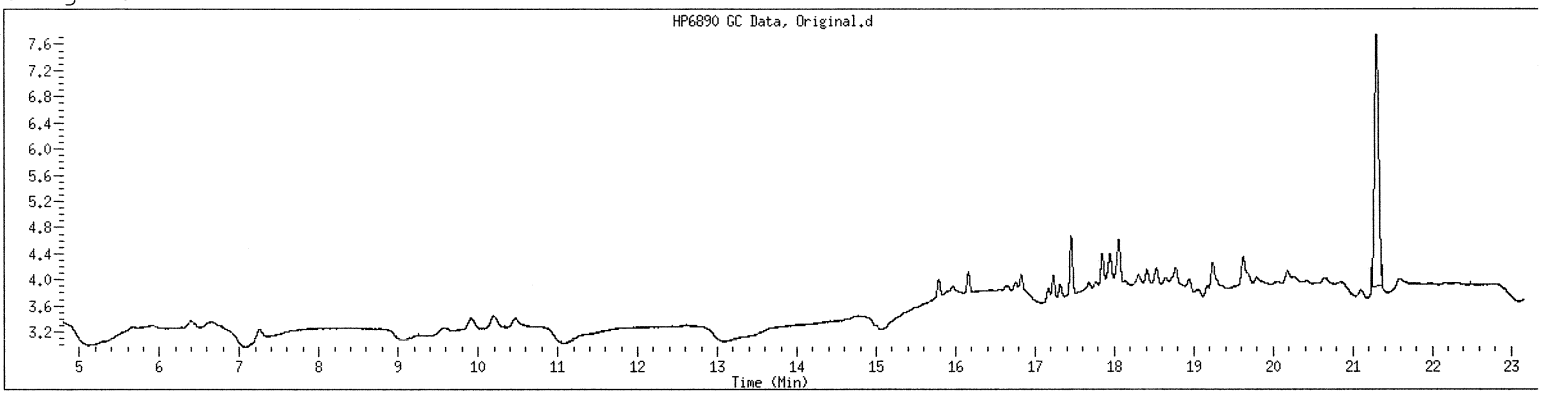
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



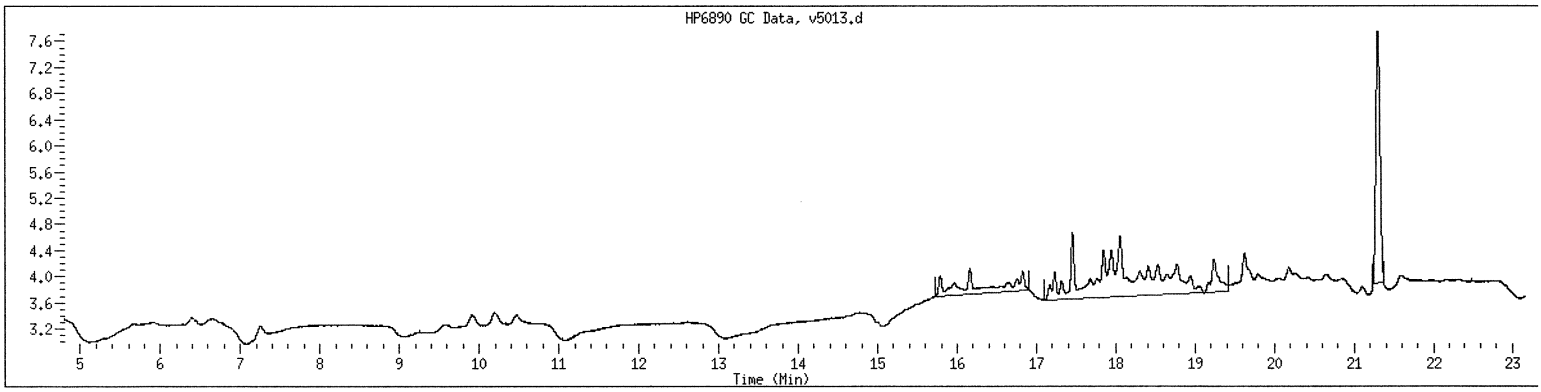
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312402	SampleType	: SAMPLE
Injection Date	: 11/07/2011 18:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312402*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES049

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312405

Level: (low/med) | Date Collected: 10/24/11 | Time: 1435

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/08/11 | Time: 1123

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5028

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5028.d
Lab Smp Id: 21110312405 Client Smp ID: 21110312405
Inj Date : 08-NOV-2011 11:23
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312405
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.806	21.781	0.025	413385	59.1220	59.1

Data File: /var/chem/gcv5b.i/2111107.b/v5028.d

Page 1

Date : 08-NOV-2011 11:23

Client ID: 21110312405

Instrument: gcv5b.i

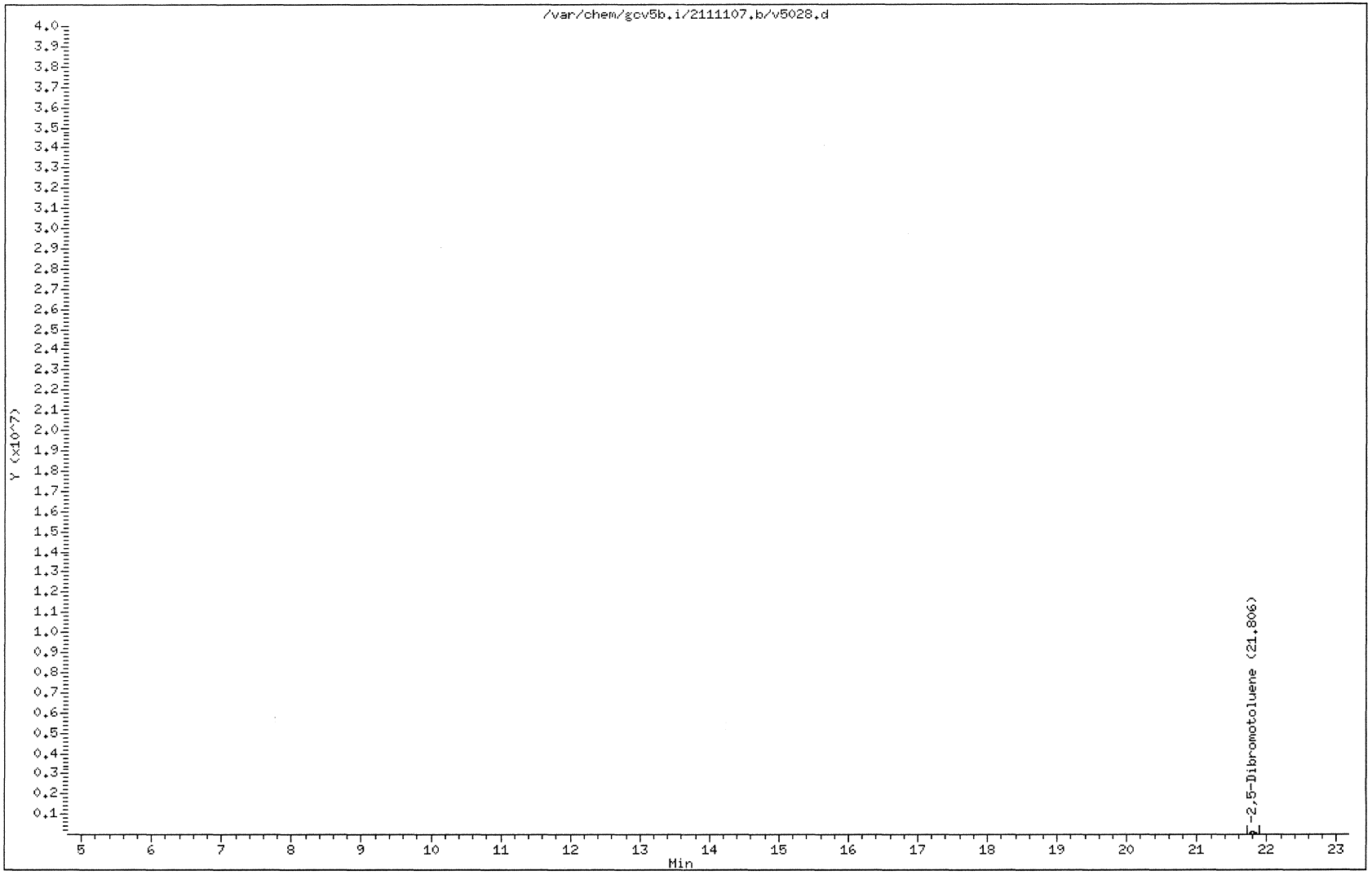
Sample Info: 21110312405

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

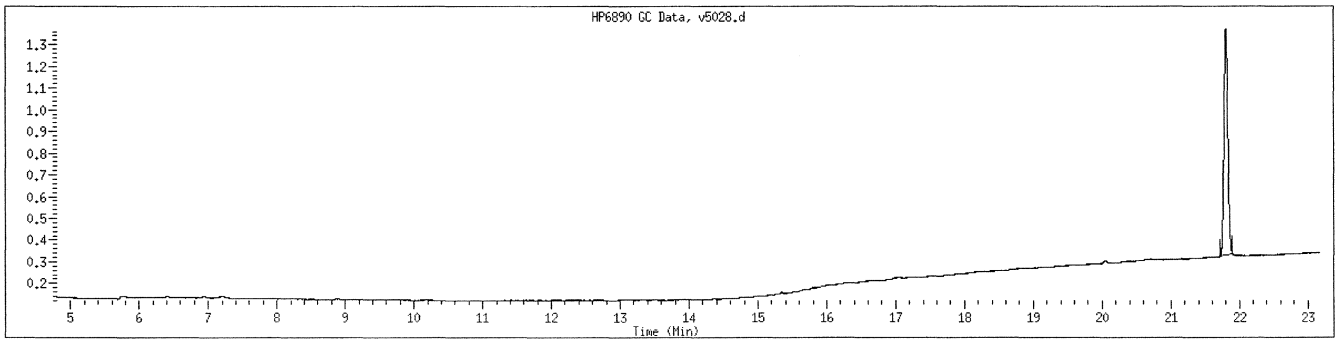


211103124 186

Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312405 SampleType : SAMPLE
Injection Date: 11/08/2011 11:23 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312405
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5028.d
Lab Smp Id: 21110312405 Client Smp ID: 21110312405
Inj Date : 08-NOV-2011 11:23
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312405
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 17 2,5-Dibromotoluene	21.321	21.301	0.020	169425	56.6708	56.7

Data File: /chem/gcv5a.i/2111107.b/v5028.d

Page 1

Date : 08-NOV-2011 11:23

Client ID: 21110312405

Instrument: gcv5a.i

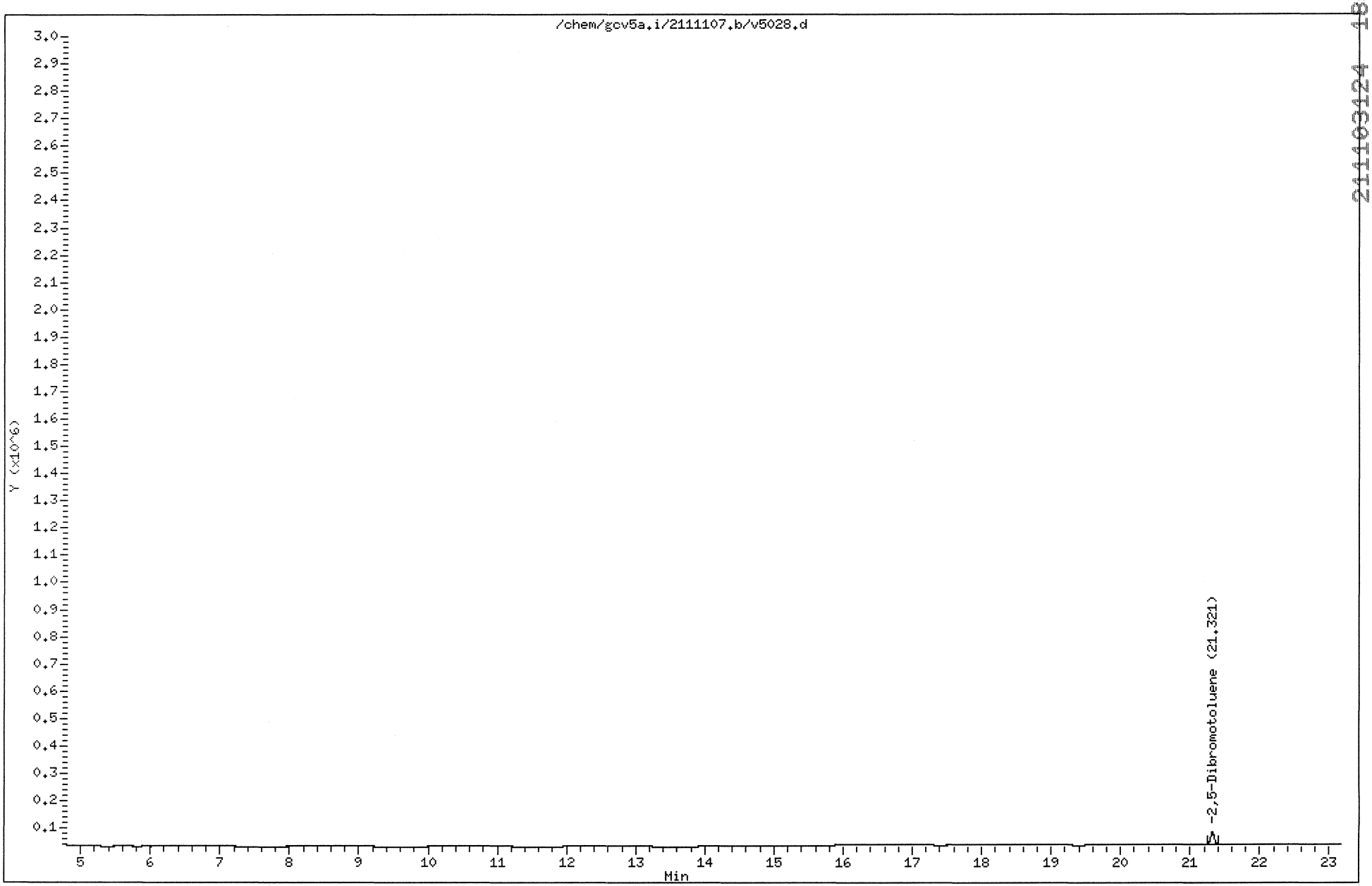
Sample Info: 21110312405

Volume Injected (uL): 1.0

Operator: JAR

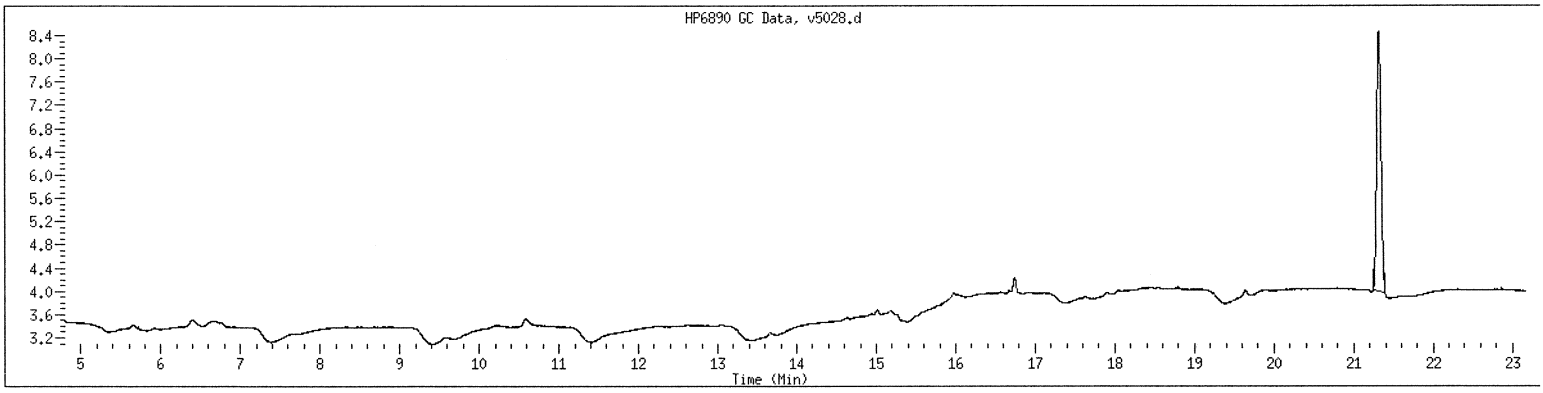
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312405	SampleType	: SAMPLE
Injection Date	: 11/08/2011 11:23	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312405		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-OCT-2011 17:26
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Cal Date : 08-Nov-2011 15:58 jar
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5b.i/2111104P.b/v5003.d
Level 2: /var/chem/gcv5b.i/2111104P.b/v5005.d
Level 3: /var/chem/gcv5b.i/2111104P.b/v5007.d
Level 4: /var/chem/gcv5b.i/2111104P.b/v5009.d
Level 5: /var/chem/gcv5b.i/2111104P.b/v5011.d
Level 6: /var/chem/gcv5b.i/2111104P.b/v5001.d

	Compound	10.000 Level 1	20.000 Level 2	50.000 Level 3	80.000 Level 4	100.000 Level 5	5.000 Level 6	___ RRF	% RSD
	1 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	2 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	3 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	4 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	5 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	6 o-Xylene	14195	13955	13772	12590	12083	14822	13570	7.600
	7 1,2,4-Trimethylbenzene	12356	12603	12435	11425	10922	12432	12029	5.703
	8 Naphthalene	10595	10426	10486	9839	9920	9852	10186	3.453
M	9 C9-C10	12356	12603	12435	11425	10922	12432	12029	5.703
$	10 2,5-Dibromotoluene	7122	6944	7032	6909	6886	7060	6992	1.337

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

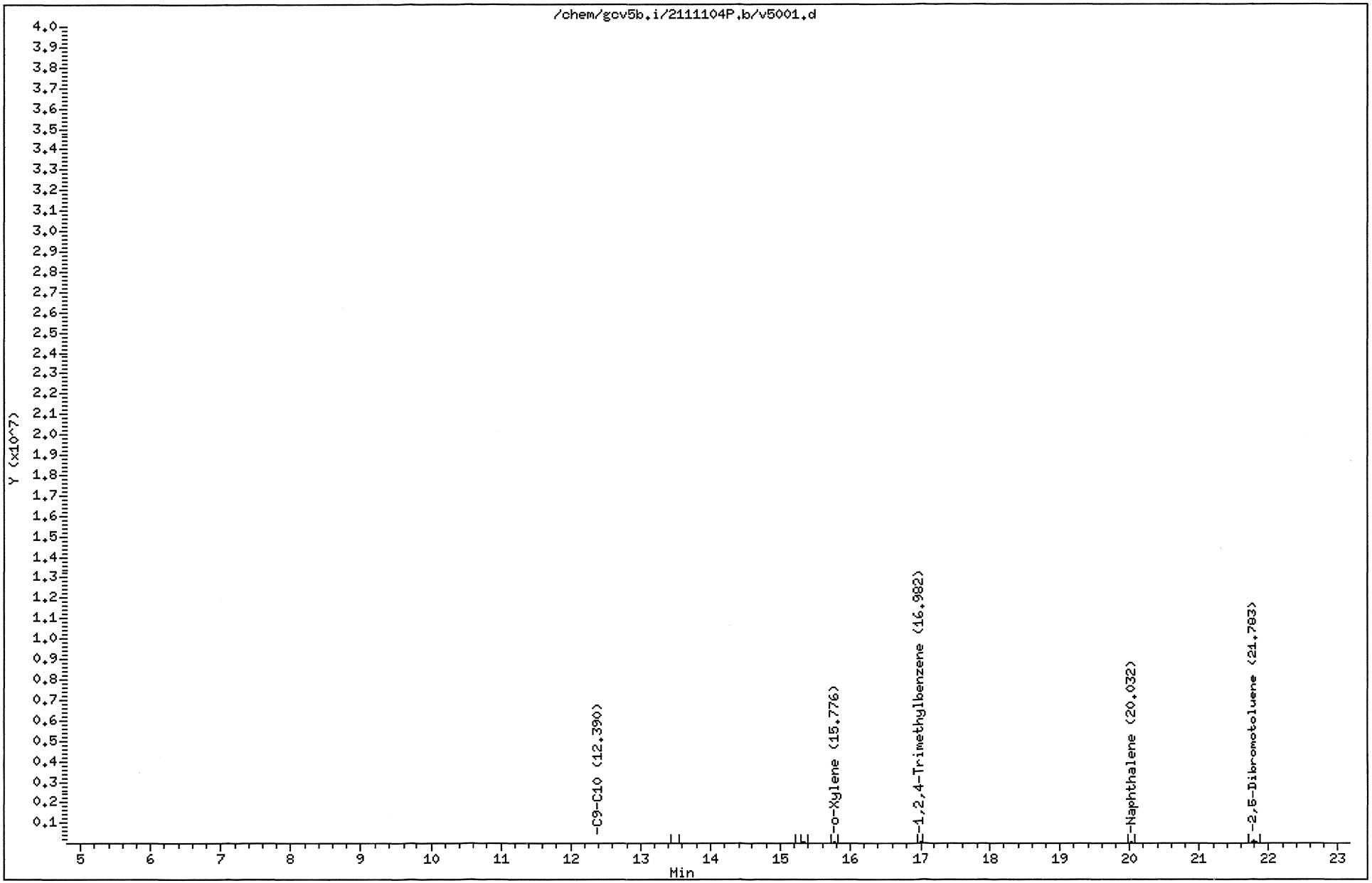
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	74110	5.00000	7.8
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	62160	5.00000	7.0
M	9 C9-C10				62160	5.00000	7.0
	8 Naphthalene	20.032	20.032	0.000	49258	5.00000	6.2
$	10 2,5-Dibromotoluene	21.783	21.783	0.000	353009	50.0000	68.8

Data File: /chem/gcv5b.i/2111104P.b/v5001.d
Date : 04-NOV-2011 20:57
Client ID:
Sample Info: VPH05/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

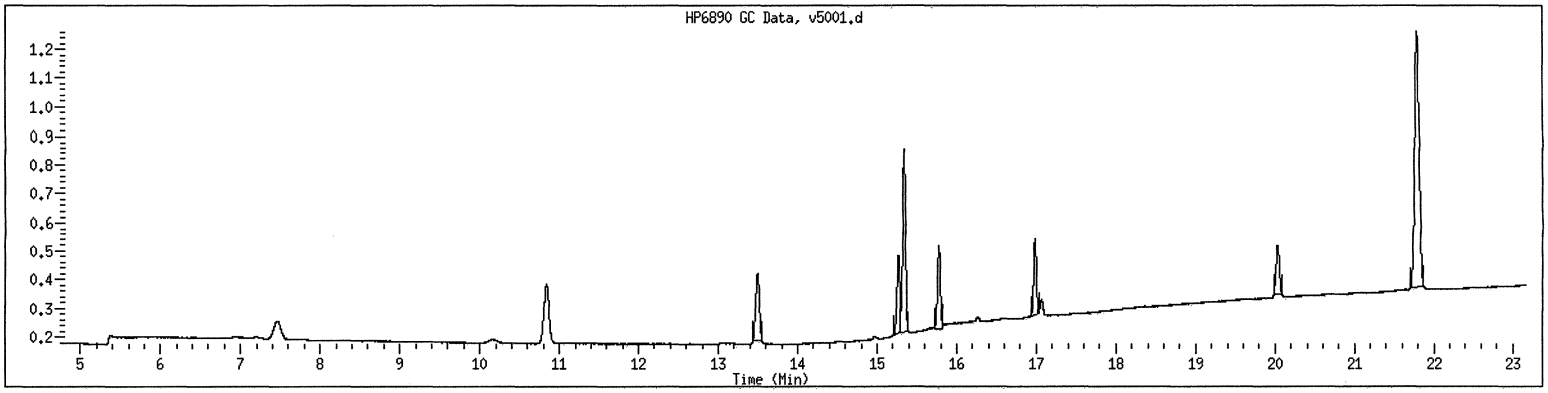
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

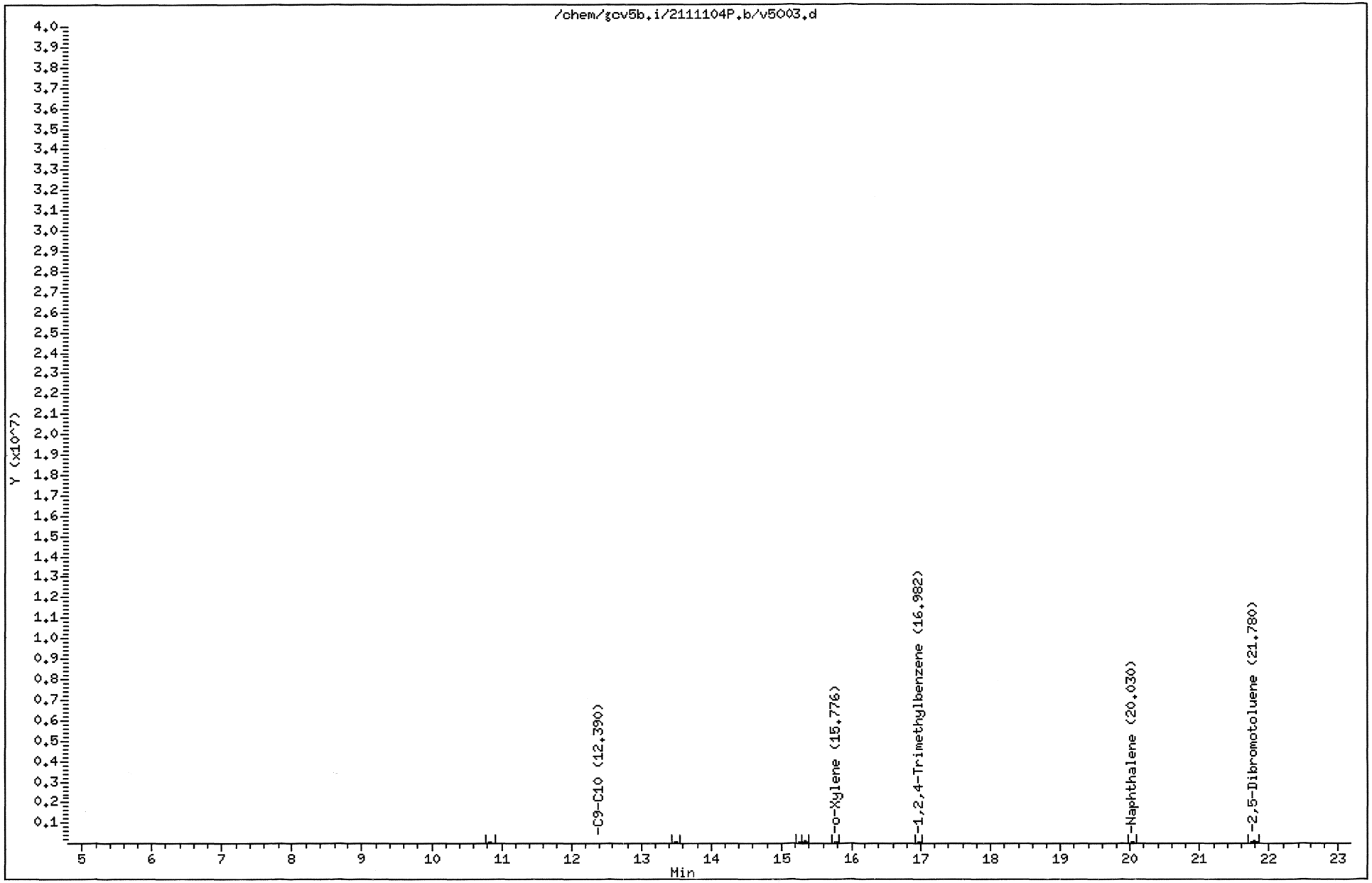
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	6 o-Xylene	15.776	15.776	0.000	141953	10.0000	13.9
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	123561	10.0000	13.4
M	9 C9-C10				123561	10.0000	13.4
	8 Naphthalene	20.030	20.030	0.000	105949	10.0000	13.0
$	10 2,5-Dibromotoluene	21.780	21.780	0.000	356100	50.0000	64.4

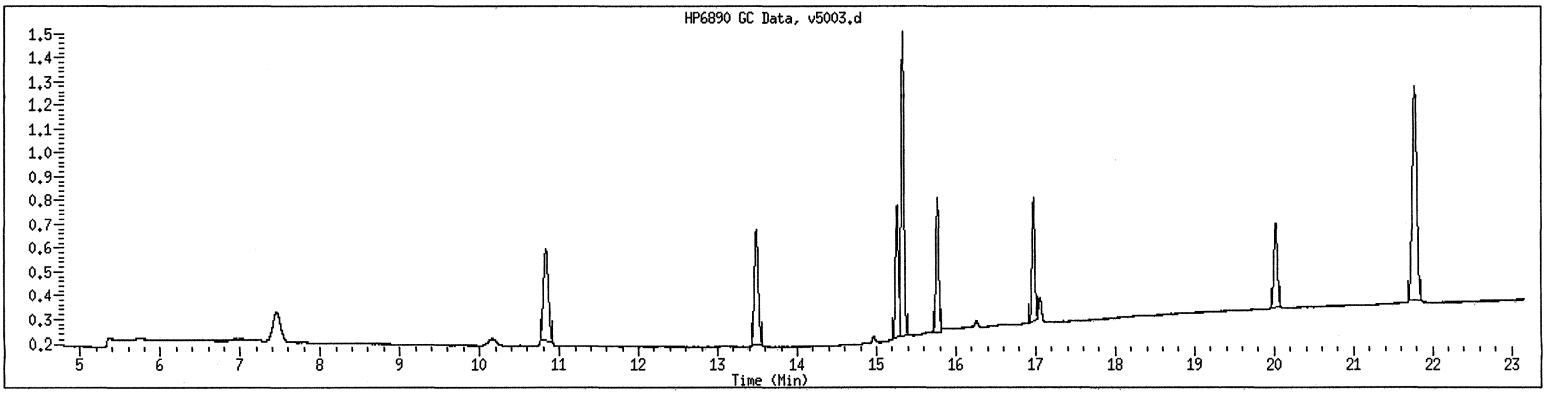
Data File: /chem/gcv5b.i/2111104P.b/v5003.d
Date : 04-NOV-2011 21:56
Client ID:
Sample Info: VPH10/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	279105	20.0000	25.3
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	252061	20.0000	25.5
M	9 C9-C10				252061	20.0000	25.5
	8 Naphthalene	20.028	20.028	0.000	208523	20.0000	24.6
$	10 2,5-Dibromotoluene	21.779	21.779	0.000	347190	50.0000	58.7

Data File: /chem/gcv5b.i/2111104P.b/v5005.d

Page 1

Date : 04-NOV-2011 22:55

Client ID:

Instrument: gcv5b.i

Sample Info: VPH20/6/12/4

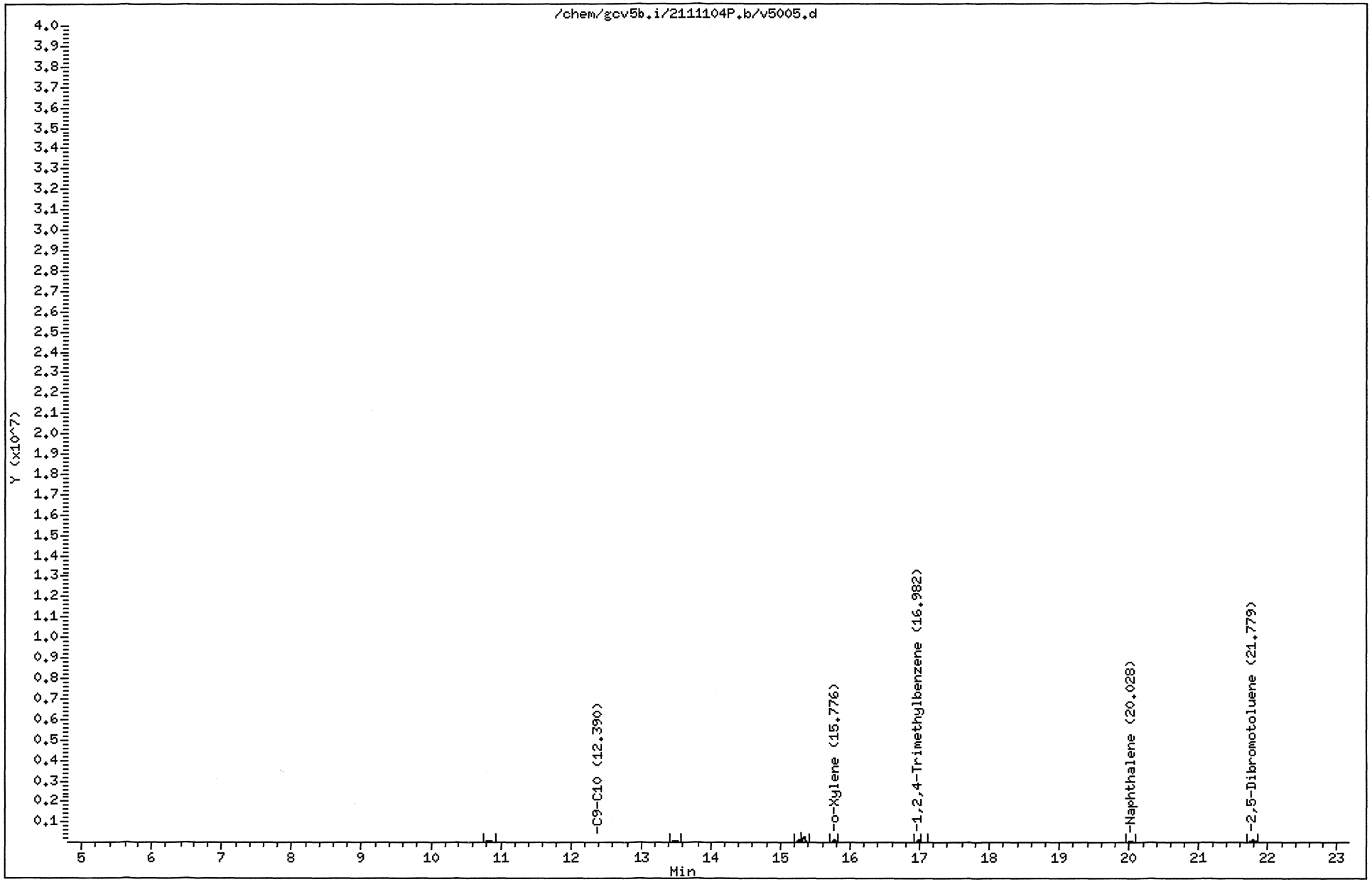
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

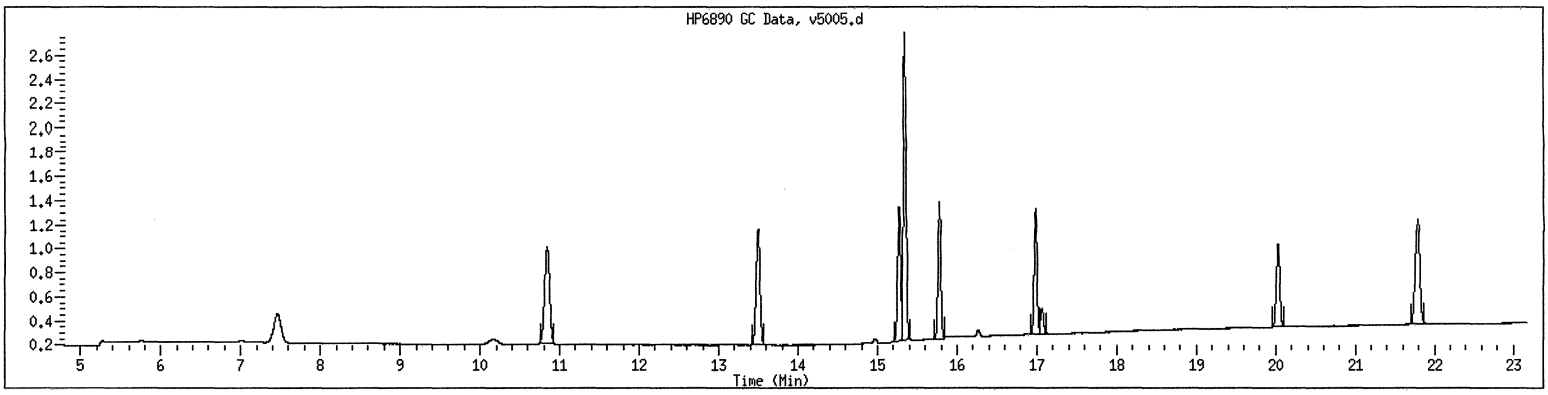
21110312A 199



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.775	15.775	0.000	688621	50.0000	56.8
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	621749	50.0000	57.5
M	9 C9-C10				621749	50.0000	57.5
	8 Naphthalene	20.026	20.026	0.000	524320	50.0000	57.1
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	351593	50.0000	56.0

Data File: /chem/gcv5b.i/2111104P.b/v5007.d

Page 1

Date : 04-NOV-2011 23:54

Client ID:

Instrument: gcv5b.i

Sample Info: VPH50/6/12/4

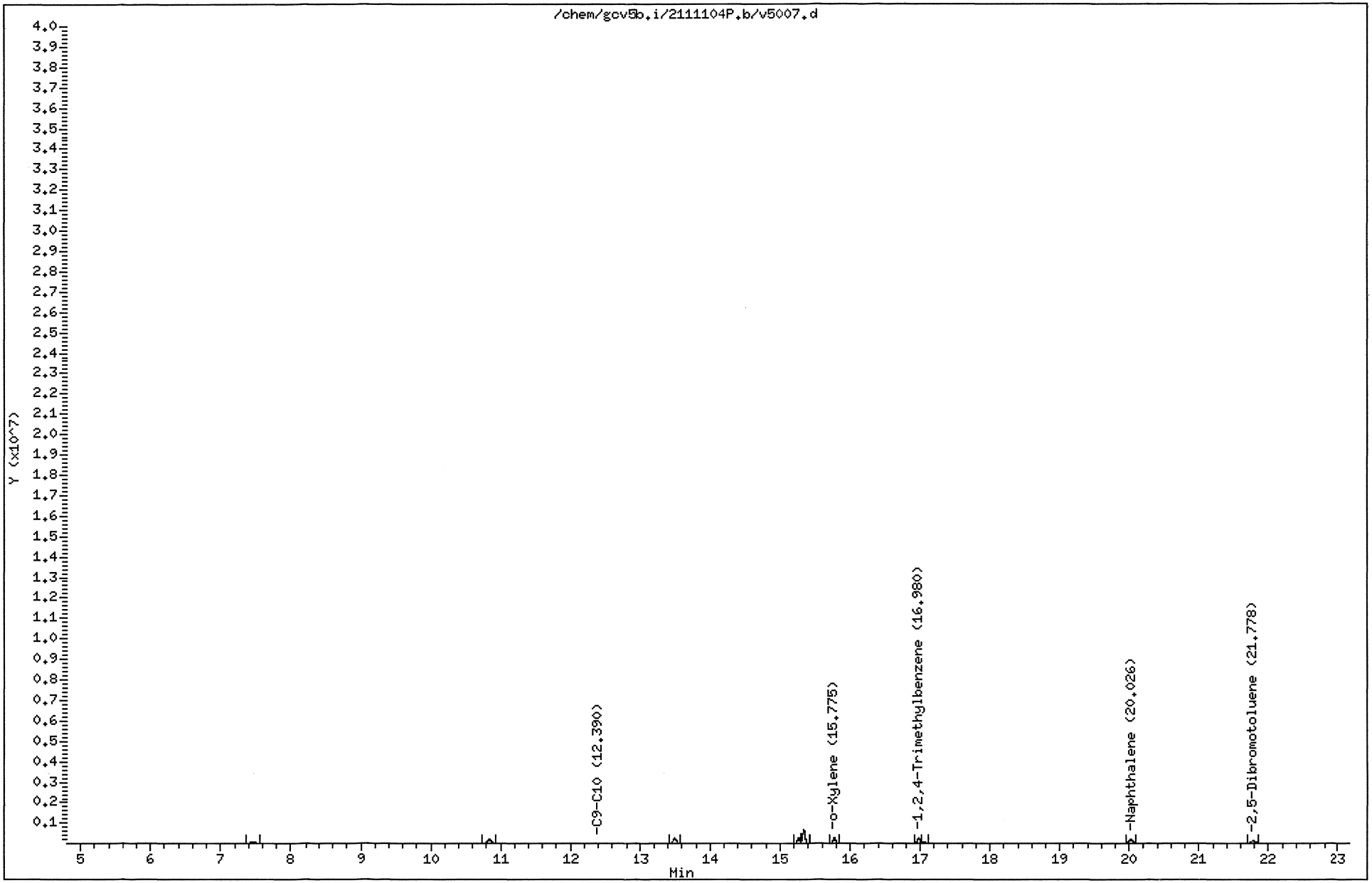
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

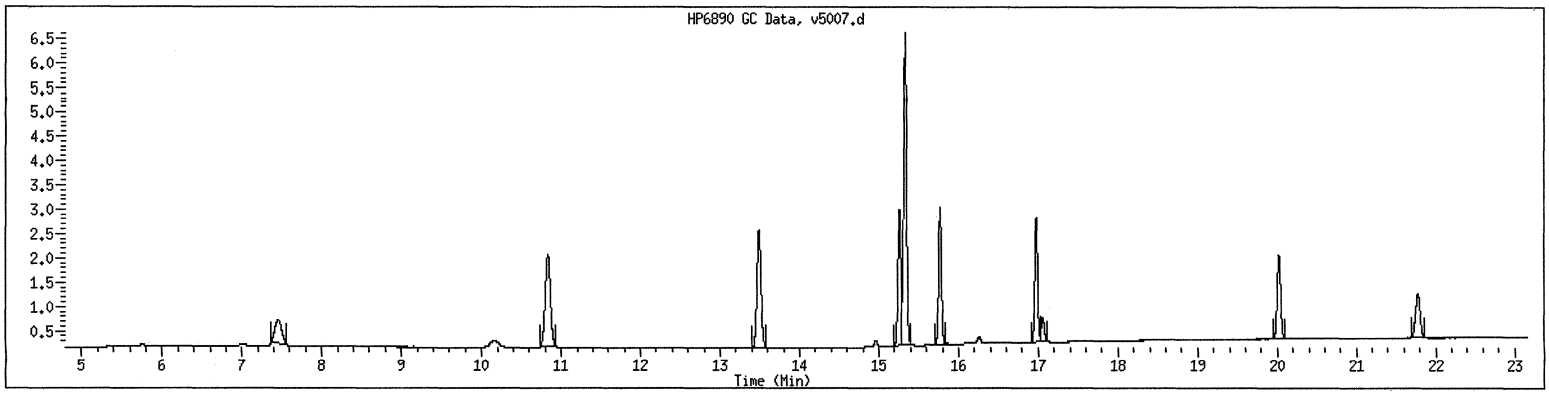
Column diameter: 0.53

211103124 202



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

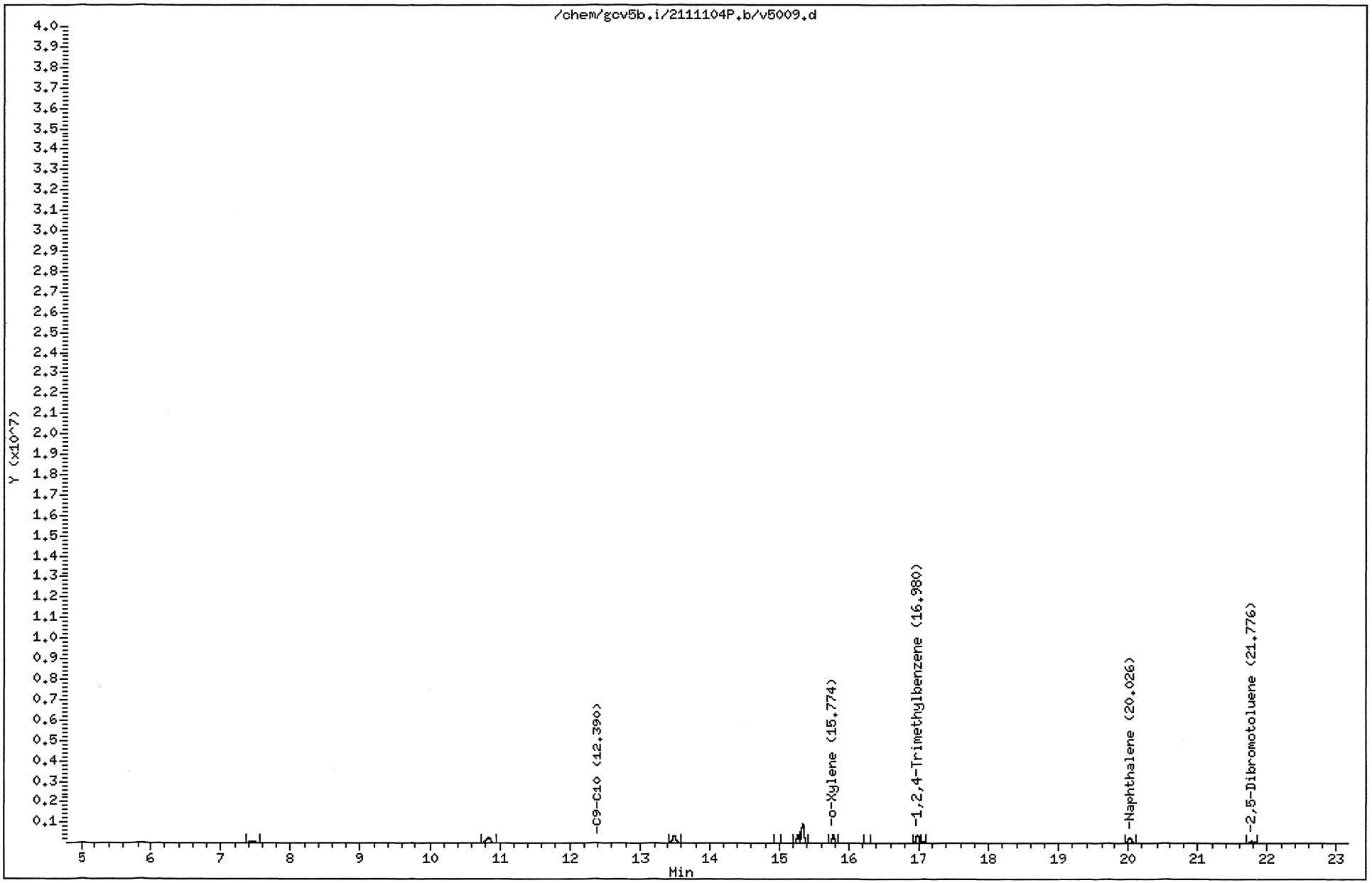
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.774	15.774	0.000	1007189	80.0000	78.2
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	914021	80.0000	79.8
M	9 C9-C10				914021	80.0000	79.8
	8 Naphthalene	20.026	20.026	0.000	787100	80.0000	81.3
$	10 2,5-Dibromotoluene	21.776	21.776	0.000	345440	50.0000	52.0

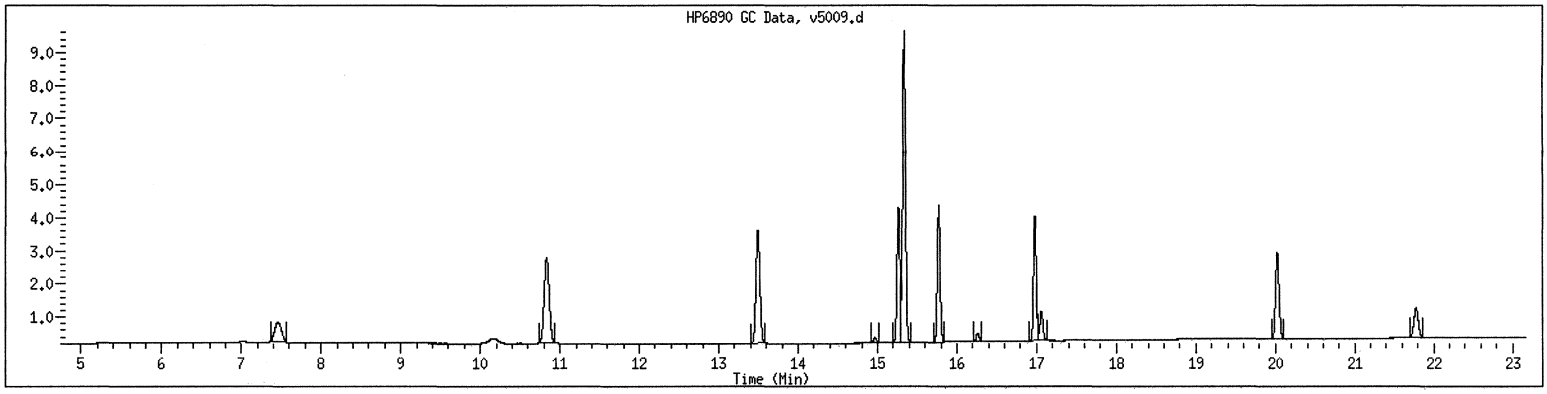
Data File: /chem/gcv5b.i/2111104P.b/v5009.d
Date : 05-NOV-2011 00:53
Client ID:
Sample Info: VPH80/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

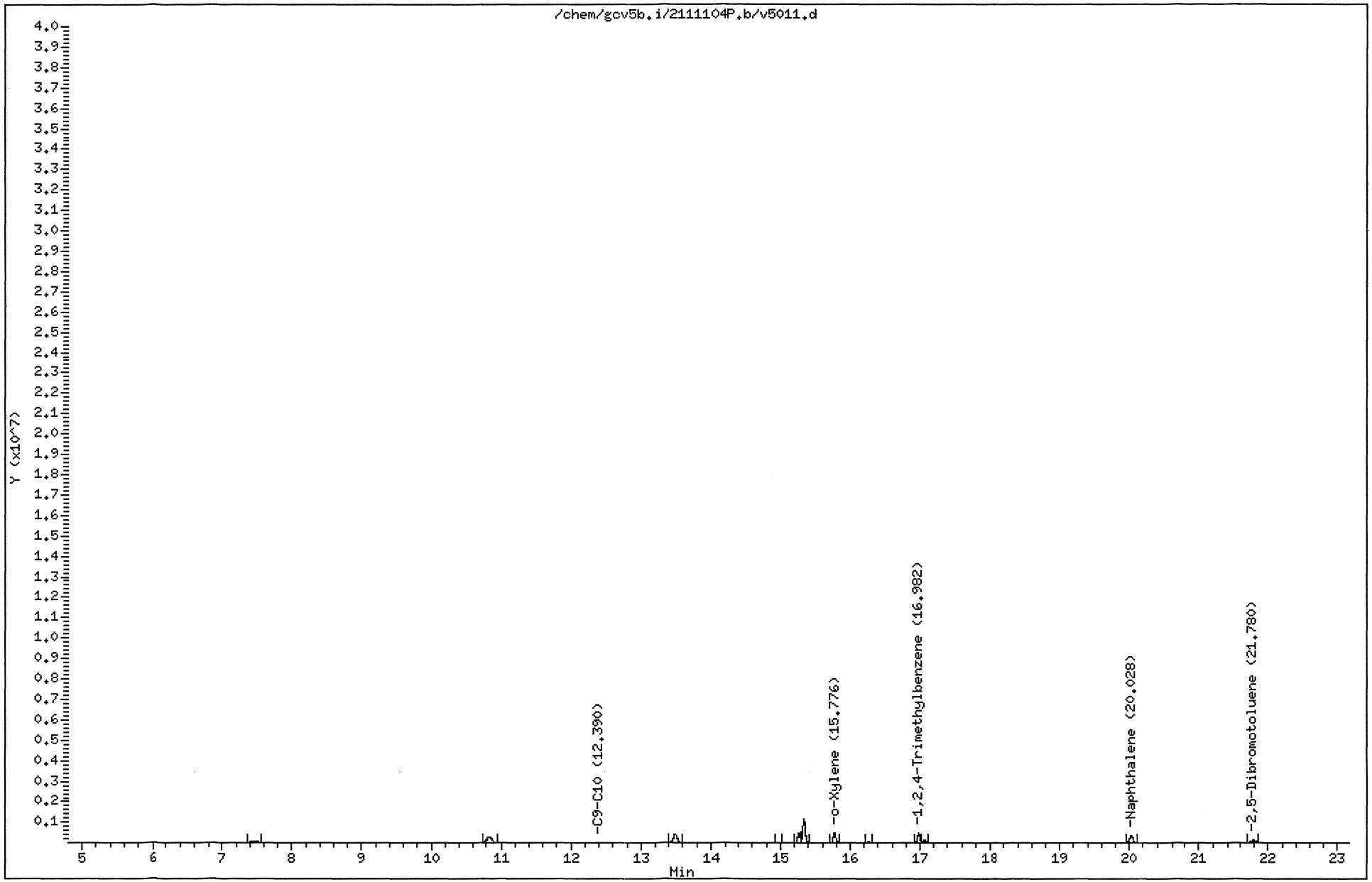
Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
6	o-Xylene	15.776	15.776	0.000	1208340	100.000	89.0
7	1,2,4-Trimethylbenzene	16.982	16.982	0.000	1092238	100.000	90.8
M 9	C9-C10				1092238	100.000	90.8
8	Naphthalene	20.028	20.028	0.000	991962	100.000	97.4
$ 10	2,5-Dibromotoluene	21.780	21.780	0.000	344287	50.0000	49.2

Data File: /chem/gcv5b.i/2111104P.b/v5011.d
Date : 05-NOV-2011 01:52
Client ID:
Sample Info: VPH100/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

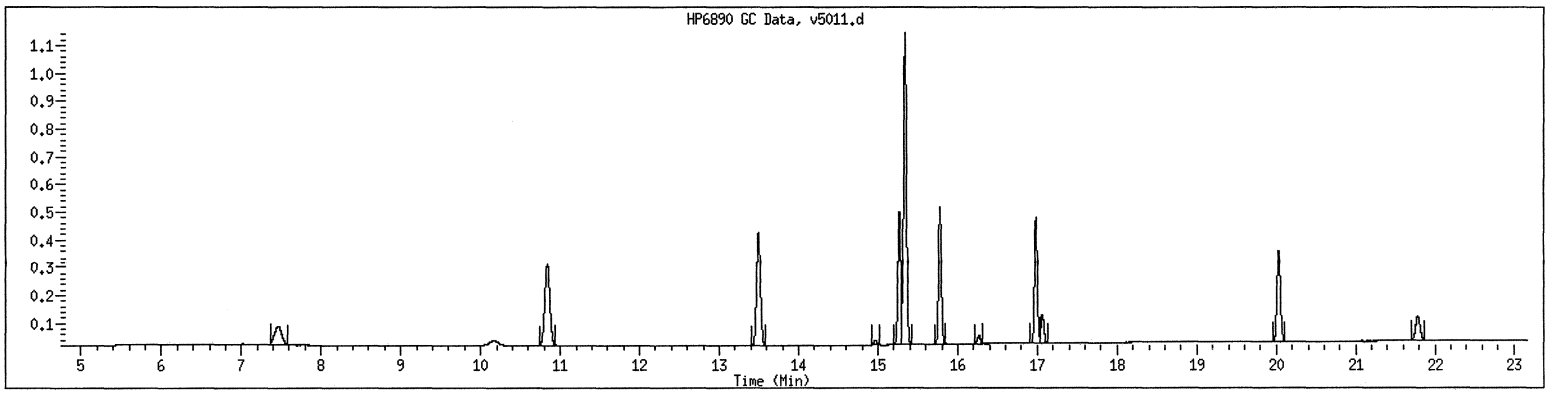
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53

211103124 208



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104P
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: MED Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aromatic1.spk Quant Type: ESTD
Sublist File: aromatic.sub
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	6 o-Xylene	50.0	51.2	102.42	70-130
	7 1,2,4-Trimethylbenzene	50.0	52.8	105.56	70-130
M	9 C9-C10	50.0	52.8	105.56	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	10 2,5-Dibromotoluene	50.0	51.3	102.55	60-140

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

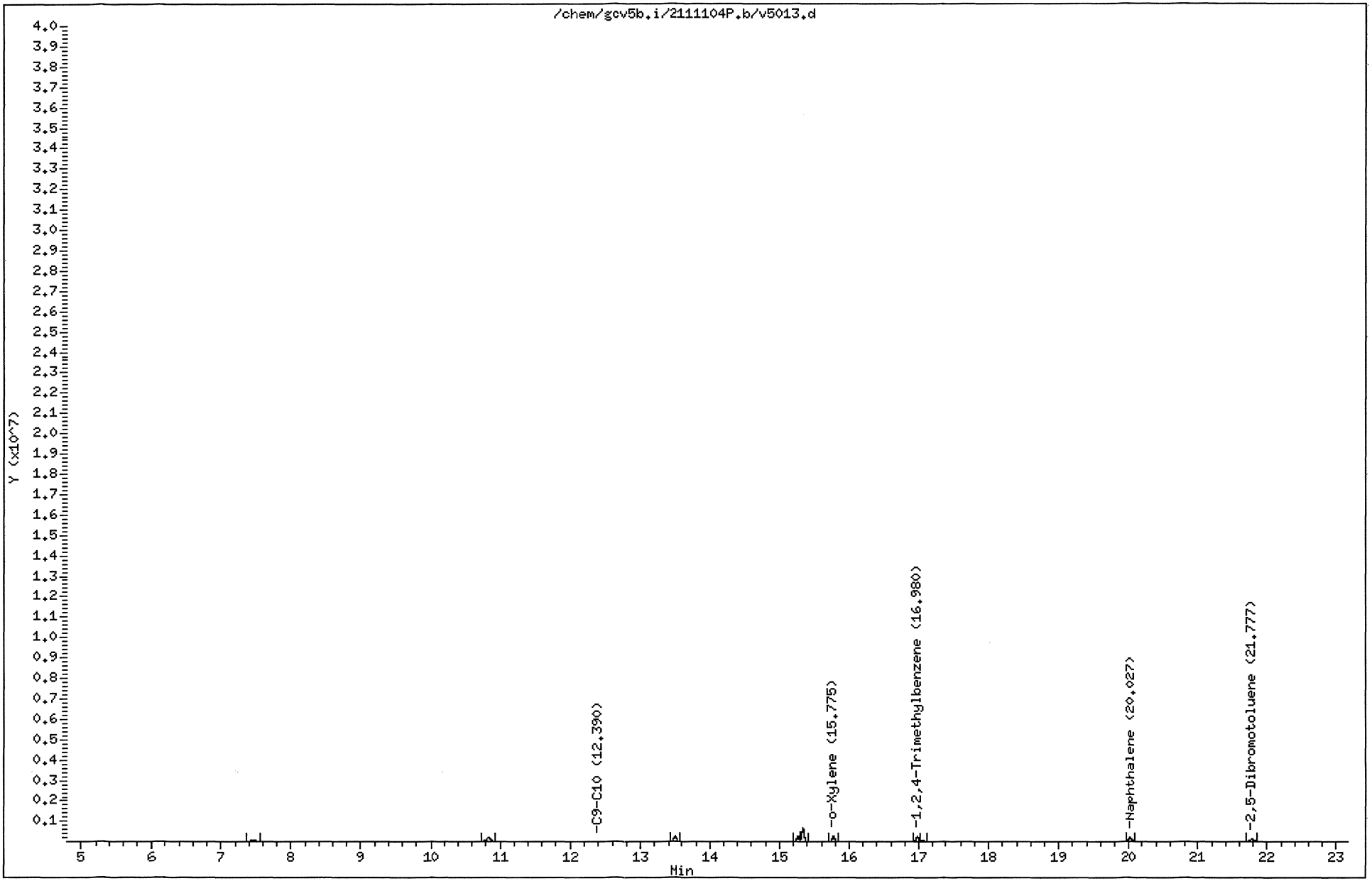
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	6 o-Xylene	15.775	15.776	-0.001	694928	51.2117	2560
	7 1,2,4-Trimethylbenzene	16.980	16.982	-0.002	634872	52.7787	2640
M	9 C9-C10				634872	52.7787	2640
	8 Naphthalene	20.027	20.028	-0.001	569432	55.9022	2800
$	10 2,5-Dibromotoluene	21.777	21.780	-0.003	358526	51.2761	2560

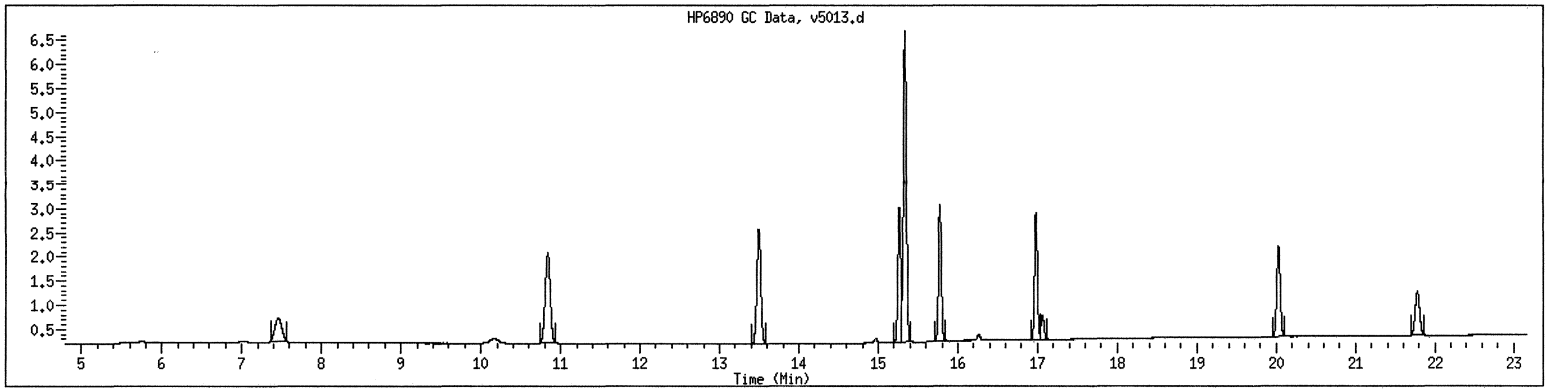
Data File: /chem/gcv5b.i/2111104P.b/v5013.d
Date : 05-NOV-2011 02:51
Client ID:
Sample Info: ICV6/12/5
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	14032	0.010	-3.40445	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12938	0.010	-7.55906	25.00000	Averaged
M 9 C9-C10	12029	12938	0.010	-7.55906	25.00000	Averaged
8 Naphthalene	10186	10852	0.010	-6.53786	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7243	0.010	-3.59117	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.73032
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:26 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

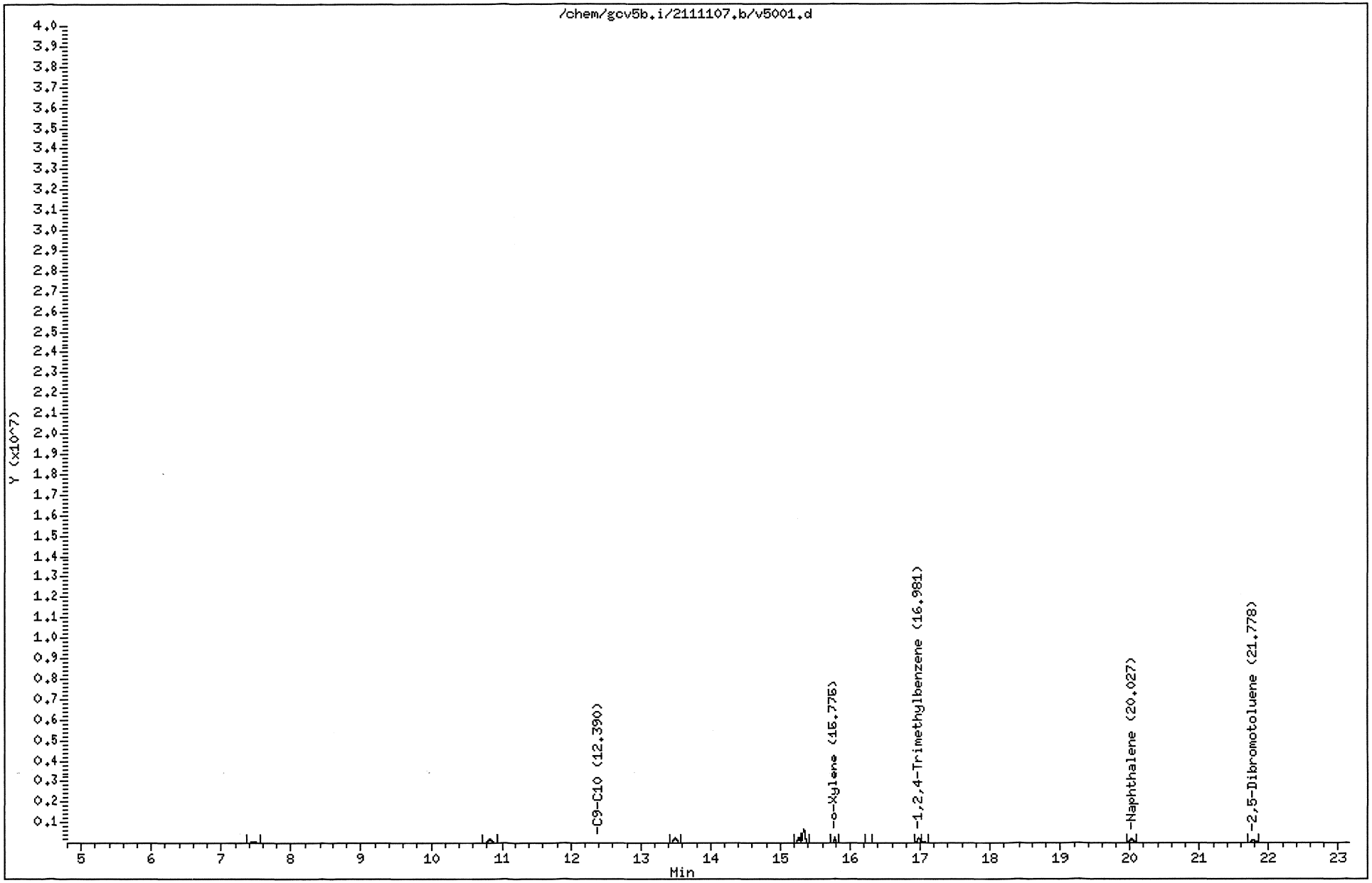
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.775	15.775	0.000	701584	50.0000	51.7
	7 1,2,4-Trimethylbenzene	16.981	16.981	0.000	646912	50.0000	53.8
M	9 C9-C10				646912	50.0000	53.8
	8 Naphthalene	20.027	20.027	0.000	542610	50.0000	53.3
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	362158	50.0000	51.8

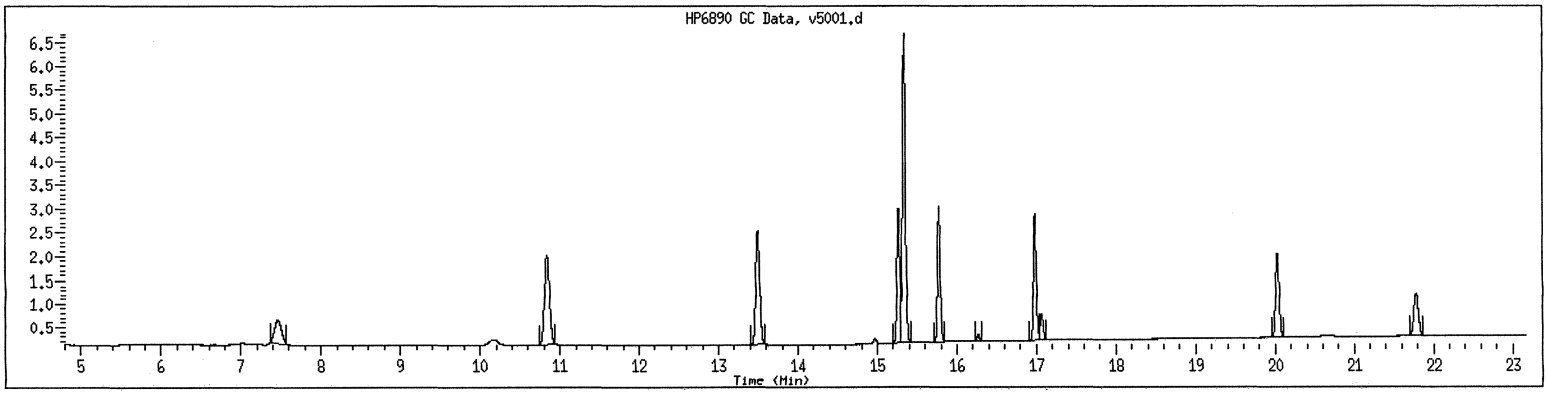
Data File: /chem/gcv5b.i/2111107.b/v5001.d
Date : 07-NOV-2011 11:22
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13412	0.010	1.16027	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	13121	0.010	-9.07507	25.00000	Averaged
M 9 C9-C10	12029	13121	0.010	-9.07507	25.00000	Averaged
8 Naphthalene	10186	10461	0.010	-2.69817	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7139	0.010	-2.10262	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.82224
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

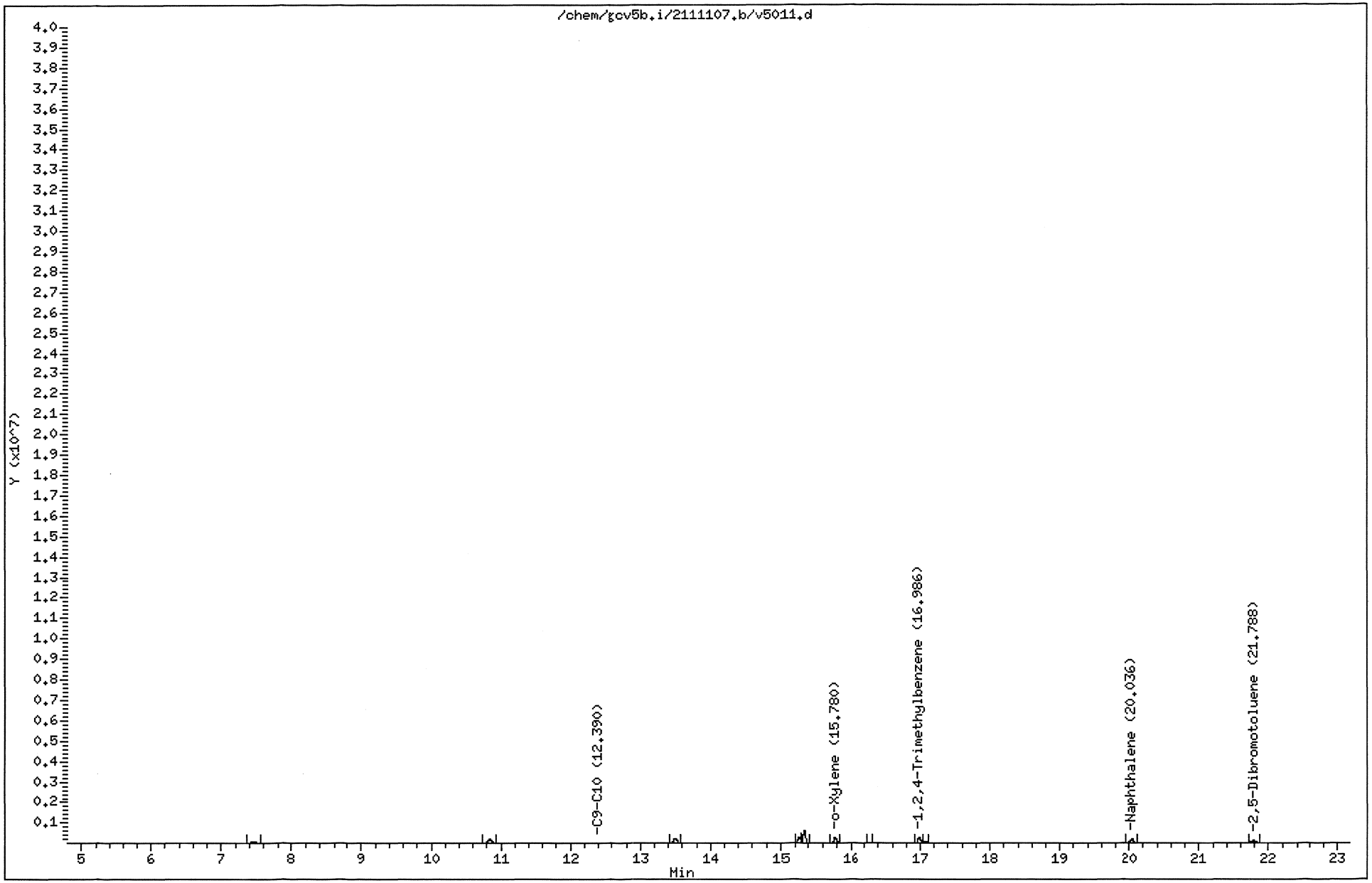
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.780	15.780	0.000	670613	50.0000	49.4
	7 1,2,4-Trimethylbenzene	16.986	16.986	0.000	656030	50.0000	54.5
M	9 C9-C10				656030	50.0000	54.5
	8 Naphthalene	20.036	20.036	0.000	523054	50.0000	51.3
$	10 2,5-Dibromotoluene	21.788	21.788	0.000	356954	50.0000	51.0

Data File: /chem/gcv5b.i/2111107.b/v5011.d
Date : 07-NOV-2011 16:16
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

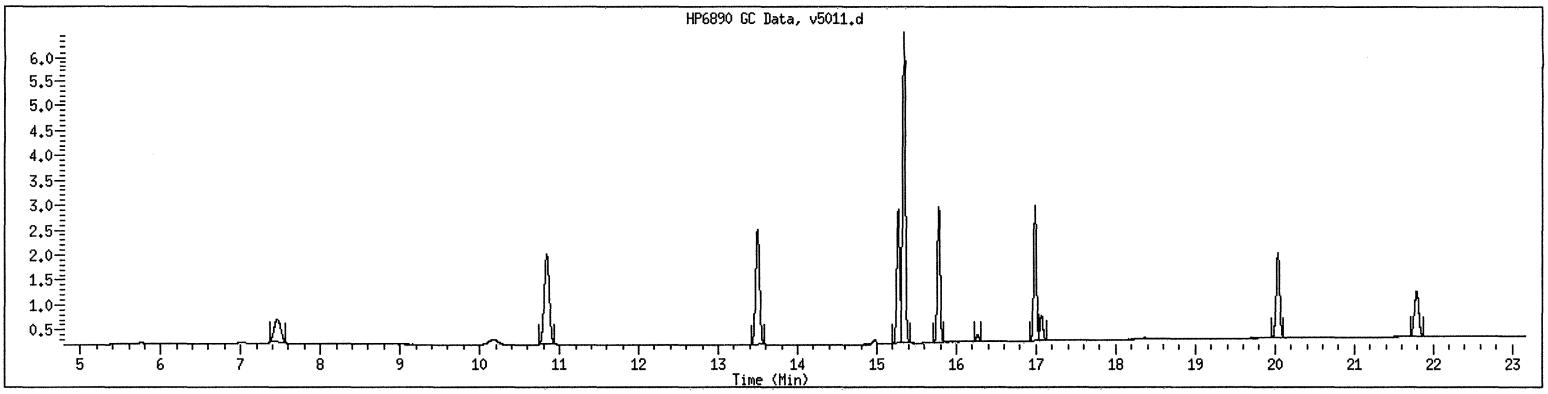
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/08/2011 13:32

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13889	0.010	-2.35270	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12645	0.010	-5.11962	25.00000	Averaged
M 9 C9-C10	12029	12645	0.010	-5.11962	25.00000	Averaged
8 Naphthalene	10186	11058	0.010	-8.56157	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7984	0.010	-14.18718	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.06814
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.777	15.777	0.000	694448	50.0000	51.2
	7 1,2,4-Trimethylbenzene	16.983	16.983	0.000	632240	50.0000	52.6
M	9 C9-C10				632240	50.0000	52.6
	8 Naphthalene	20.029	20.029	0.000	552917	50.0000	54.3
$	10 2,5-Dibromotoluene	21.781	21.781	0.000	399202	50.0000	57.1

Data File: /chem/gcv5b.i/2111107.b/v5021.d

Page 1

Date : 07-NOV-2011 23:22

Client ID:

Instrument: gcv5b.i

Sample Info: VPH6/12/4

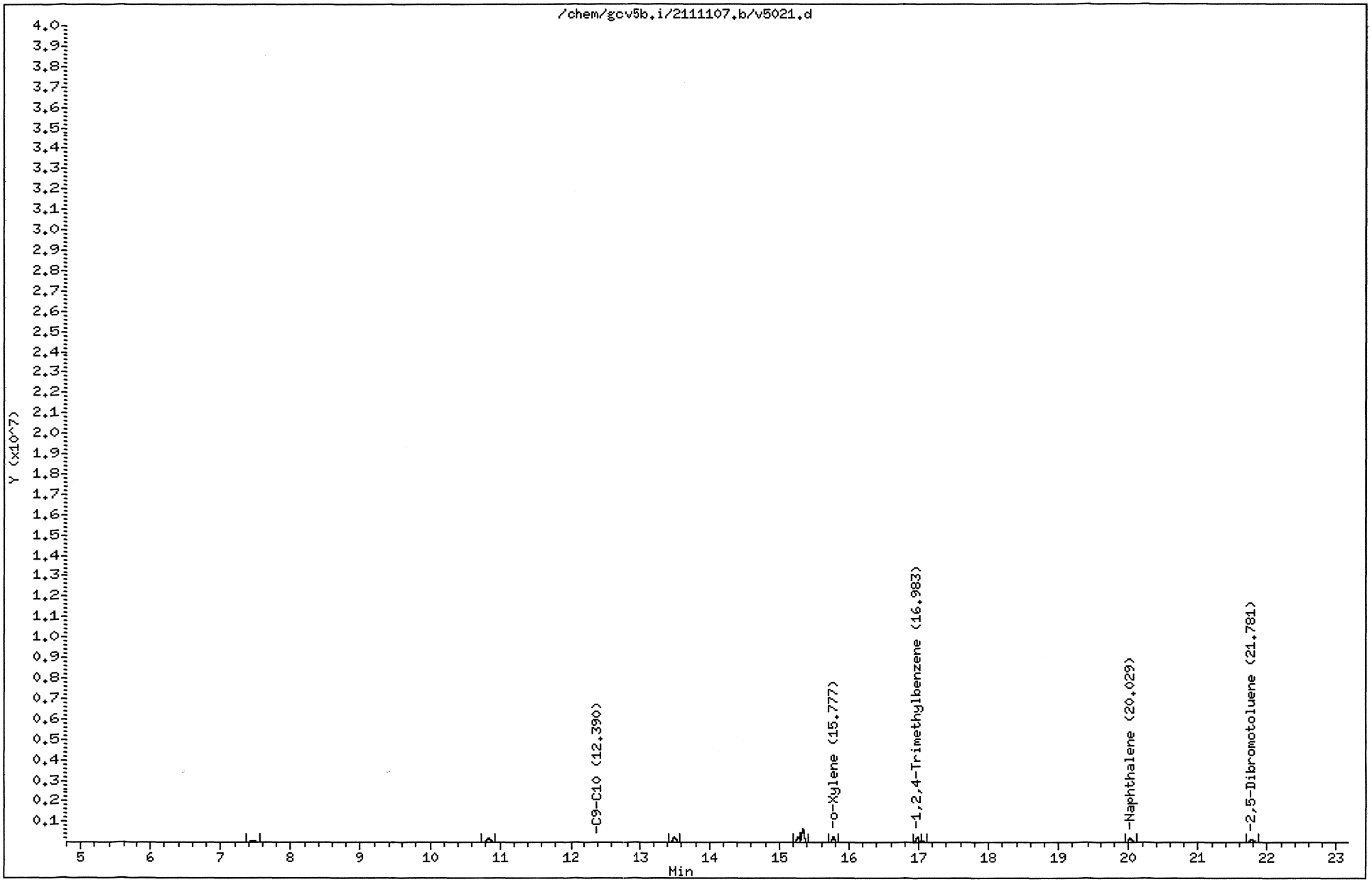
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

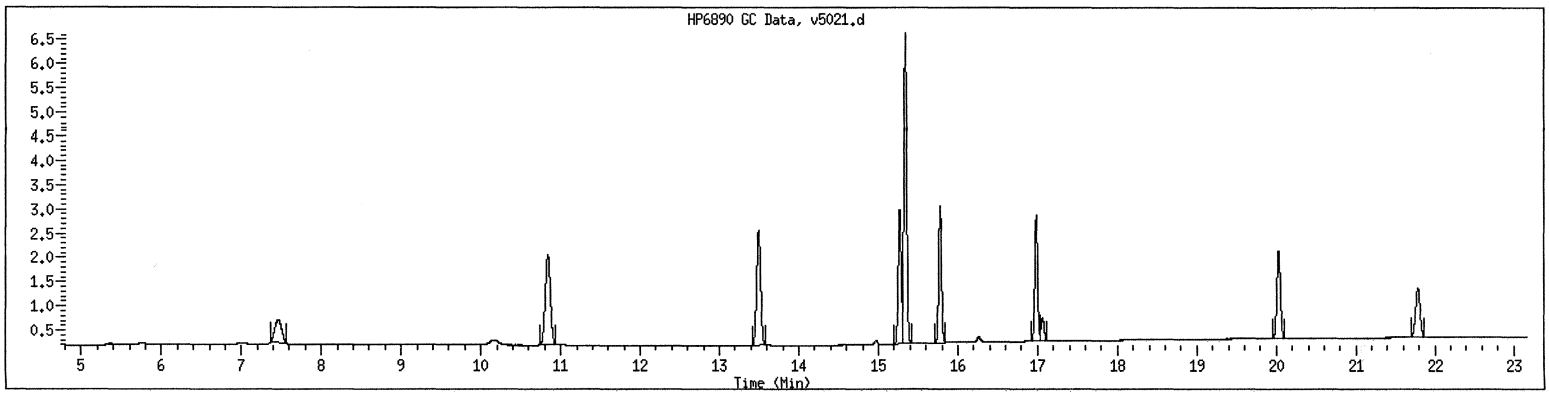
Column diameter: 0.53

2111031124 224



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 08-NOV-2011 01:49
Lab File ID: v5026.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	15457	0.010	-13.90535	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	14145	0.010	-17.58869	25.00000	Averaged
M 9 C9-C10	12029	14145	0.010	-17.58869	25.00000	Averaged
8 Naphthalene	10186	11684	0.010	-14.70319	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	8054	0.010	-15.19175	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 15.79553
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5026.d
Lab Smp Id: VPH6/12/4
Inj Date : 08-NOV-2011 01:49
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

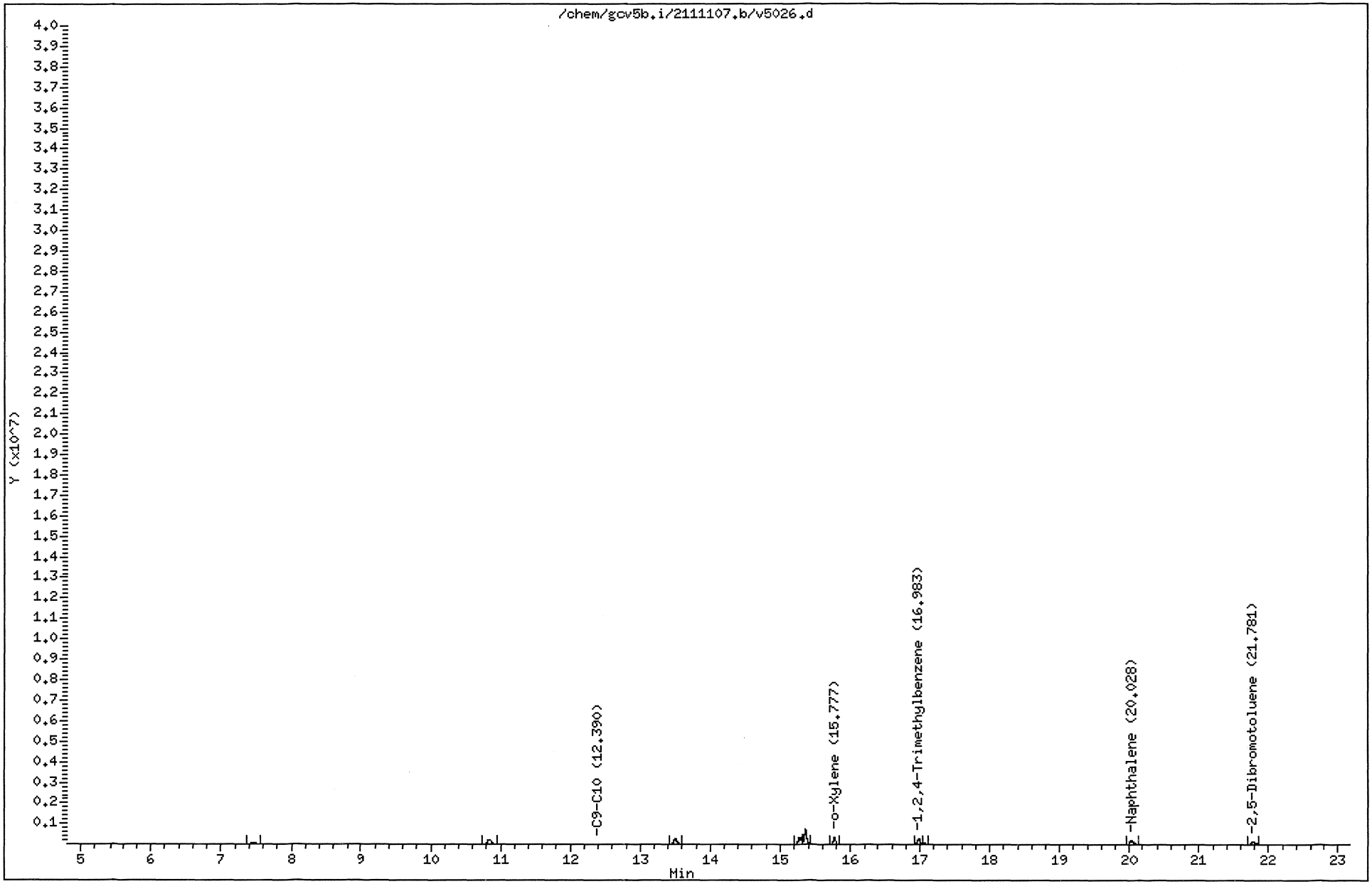
Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.777	15.777	0.000	772831	50.0000	57.0
	7 1,2,4-Trimethylbenzene	16.983	16.983	0.000	707235	50.0000	58.8
M	9 C9-C10				707235	50.0000	58.8
	8 Naphthalene	20.028	20.028	0.000	584197	50.0000	57.4
$	10 2,5-Dibromotoluene	21.781	21.781	0.000	402714	50.0000	57.6

Data File: /chem/gcv5b.i/2111107.b/v5026.d
Date : 08-NOV-2011 01:49
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

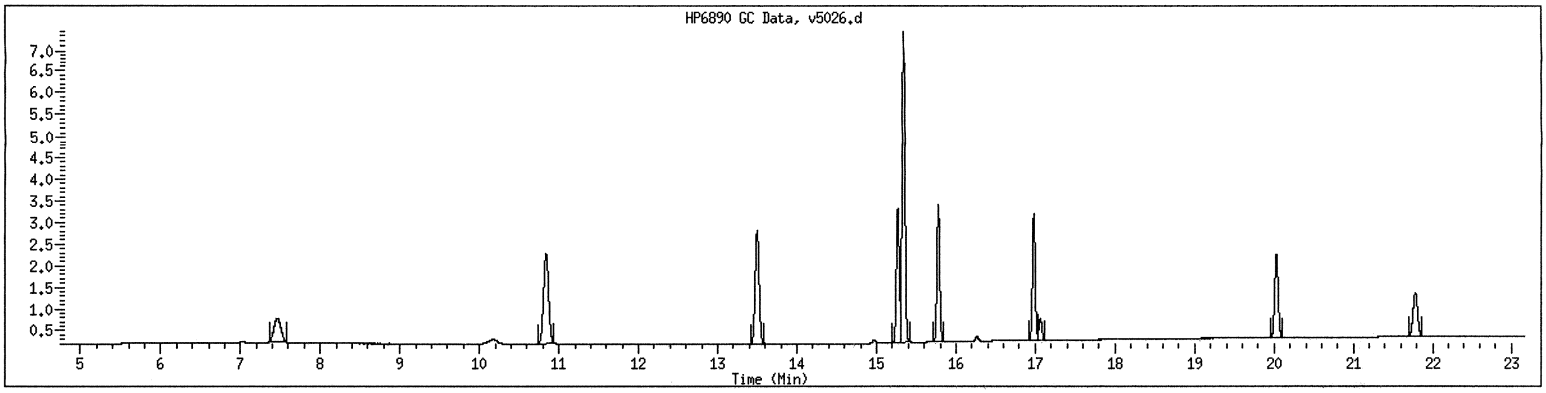
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53

211103124 228



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/08/2011 01:49	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 08-NOV-2011 12:51
Lab File ID: v5031.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: vph6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	15321	0.010	-12.90668	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	13948	0.010	-15.95659	25.00000	Averaged
M 9 C9-C10	12029	13948	0.010	-15.95659	25.00000	Averaged
8 Naphthalene	10186	12103	0.010	-18.81672	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	8252	0.010	-18.02464	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 16.33224
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5031.d
Lab Smp Id: vph6/12/4
Inj Date : 08-NOV-2011 12:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : vph6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:19 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

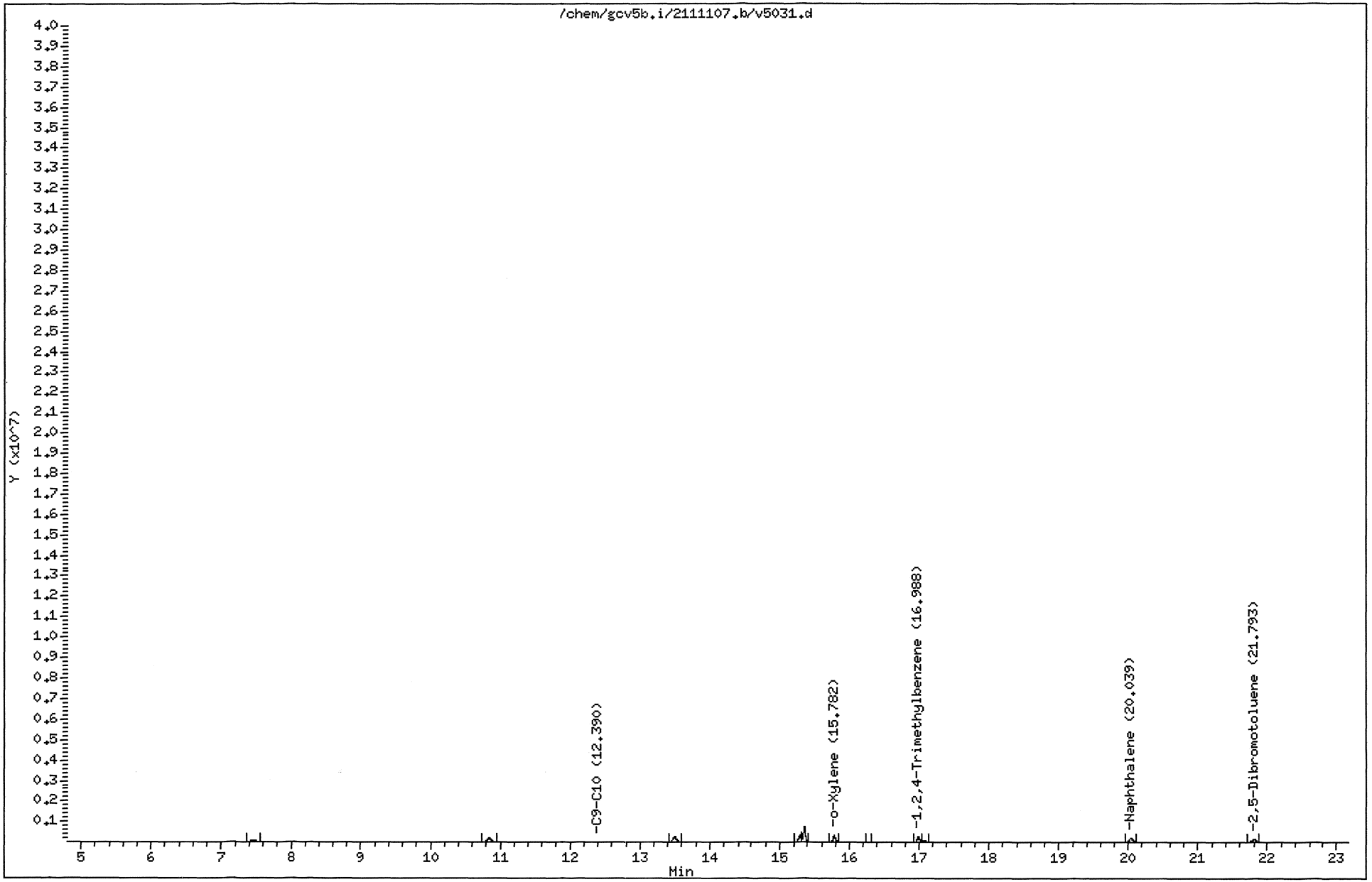
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	6 o-Xylene	15.782	15.782	0.000	766055	50.0000	56.4
	7 1,2,4-Trimethylbenzene	16.988	16.988	0.000	697418	50.0000	58.0
M	9 C9-C10				697418	50.0000	58.0
	8 Naphthalene	20.039	20.039	0.000	605147	50.0000	59.4
$	10 2,5-Dibromotoluene	21.793	21.793	0.000	412617	50.0000	59.0

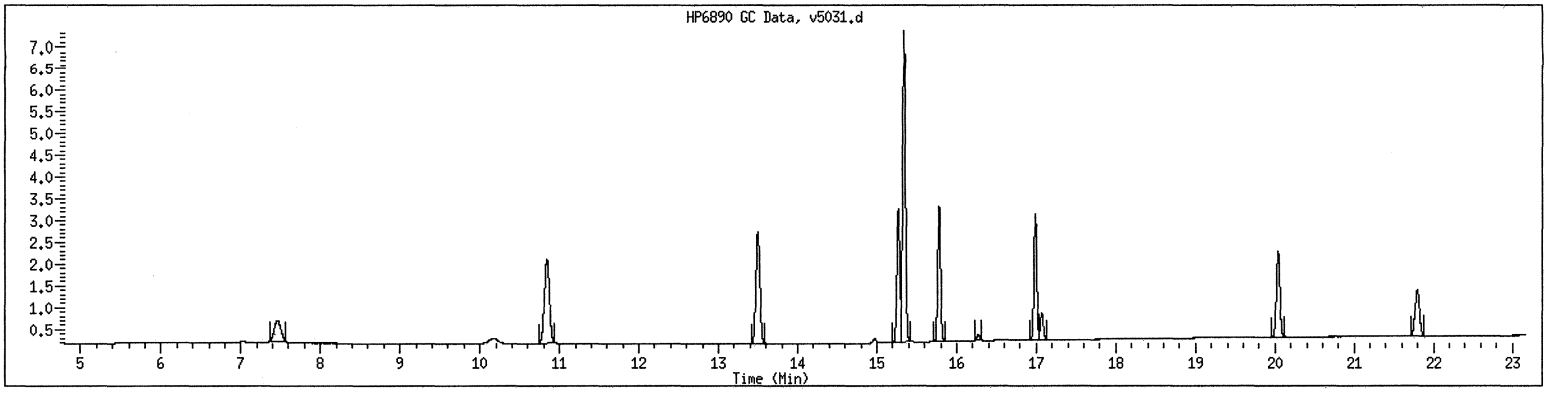
Data File: /chem/gcv5b.i/2111107.b/v5031.d
Date : 08-NOV-2011 12:51
Client ID:
Sample Info: vph6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: vph6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/08/2011 12:51	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: vph6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-NOV-2011 20:57
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Cal Date : 08-Nov-2011 13:21 jar
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5a.i/2111104p.b/v5003.d
Level 2: /var/chem/gcv5a.i/2111104p.b/v5005.d
Level 3: /var/chem/gcv5a.i/2111104p.b/v5007.d
Level 4: /var/chem/gcv5a.i/2111104p.b/v5009.d
Level 5: /var/chem/gcv5a.i/2111104p.b/v5011.d
Level 6: /var/chem/gcv5a.i/2111104p.b/v5001.d

		10.000	20.000	50.000	80.000	100.000	5.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	1 n-Pentane	10671	10211	8851	7571	6259	10437	9000	19.814
M	2 C5-C8	10727	11023	9557	8858	7420	11346	9822	15.343
	3 2-Methyl Pentane	10850	12110	10178	9578	7894	12016	10438	15.288
	4 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	5 C9-C12	5516	5527	5414	6329	6009	3831	5437	15.859
	6 Isooctane	10661	10749	9640	9426	8105	11583	10027	12.254
	7 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	8 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	9 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	10 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	11 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	12 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 n-Decane	5176	5085	5107	6409	6110	5443	5555	10.232
	14 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	15 n-Butylcyclohexane	5856	5968	5721	6249	5908	6049	5958	3.021
	16 Naphthalene	9352	9011	8945	8433	8525	+++++	8853	4.247
$	17 2,5-Dibromotoluene	3190	3009	3100	2787	2825	3028	2990	5.238

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

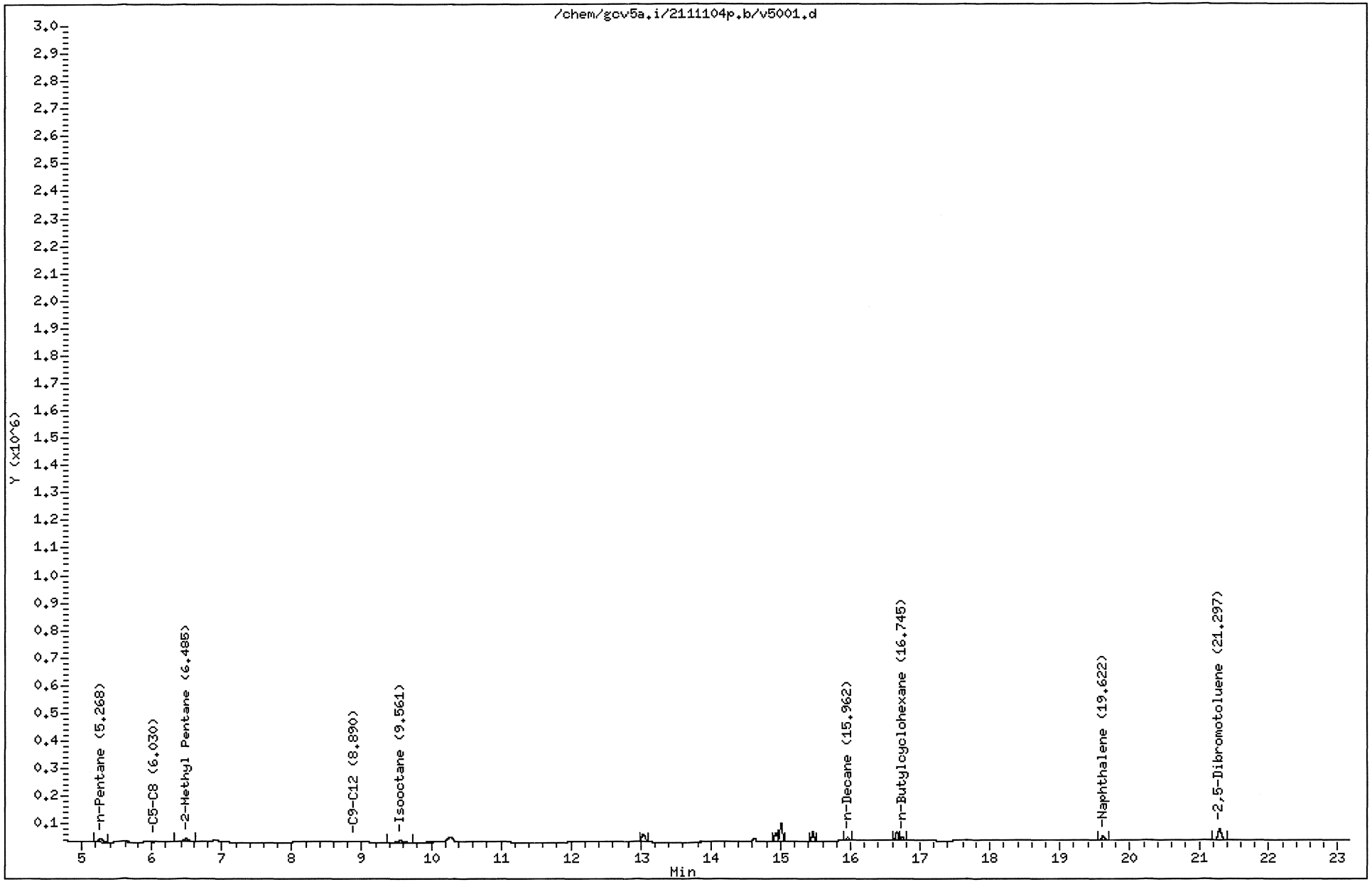
						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				170184	15.0000	16.3
	1 n-Pentane	5.268	5.268	0.000	52185	5.00000	5.4(M1)
	3 2-Methyl Pentane	6.485	6.485	0.000	60082	5.00000	5.4(M1)
	6 Isooctane	9.561	9.561	0.000	57917	5.00000	5.4(M1)
	13 n-Decane	15.962	15.962	0.000	27213	5.00000	5.2(M1)
	15 n-Butylcyclohexane	16.745	16.745	0.000	30246	5.00000	5.1(M1)
	16 Naphthalene	19.622	19.622	0.000	47160	5.00000	5.3(M1)
M	5 C9-C12				57459	15.0000	10.3
$	17 2,5-Dibromotoluene	21.297	21.297	0.000	151381	50.0000	49.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5001.d
Date : 04-NOV-2011 20:57
Client ID:
Sample Info: VPH05/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

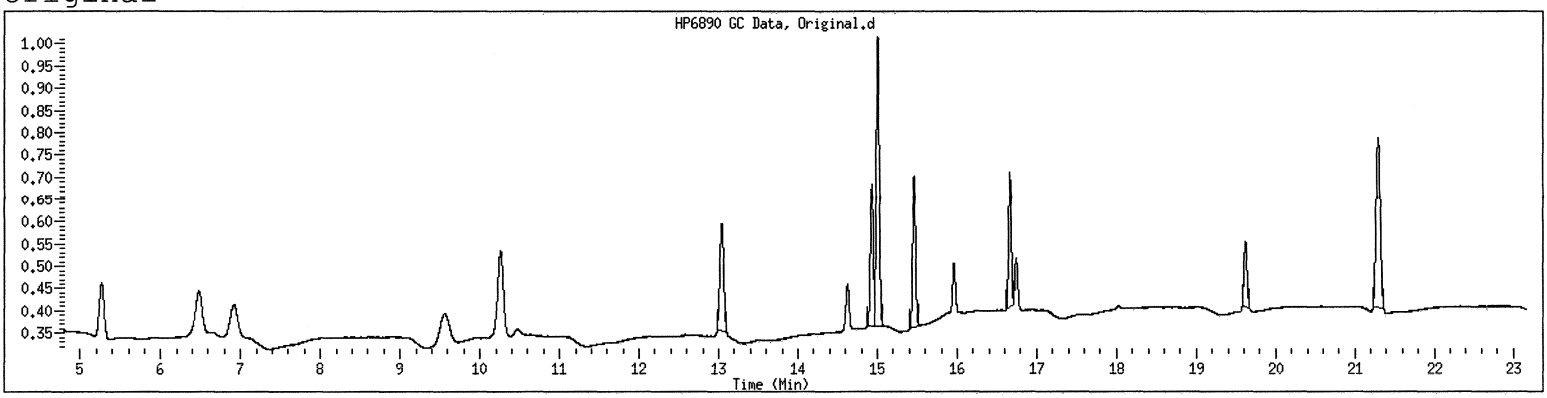
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



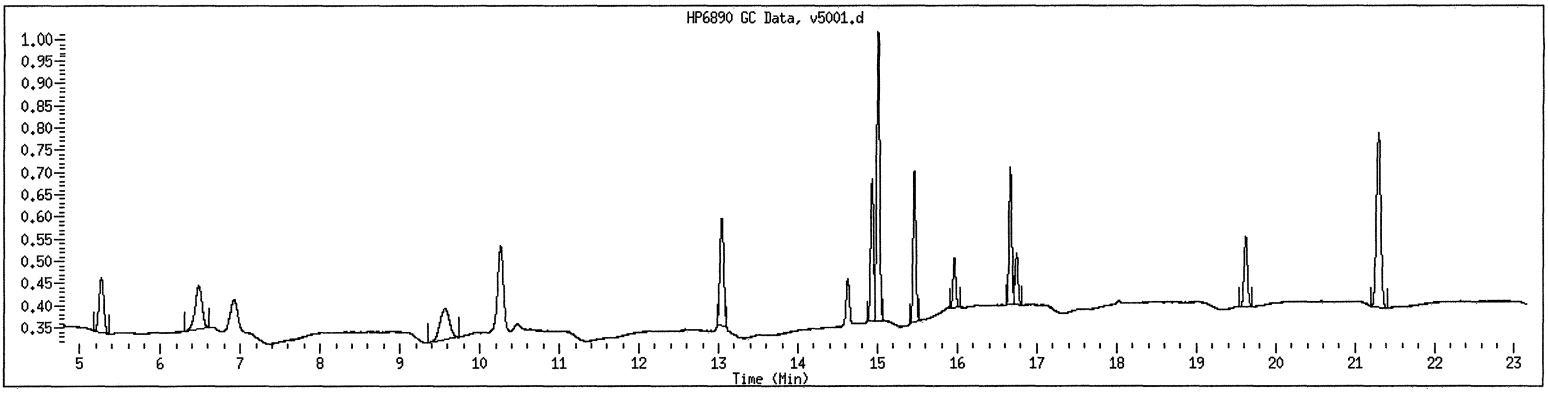
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

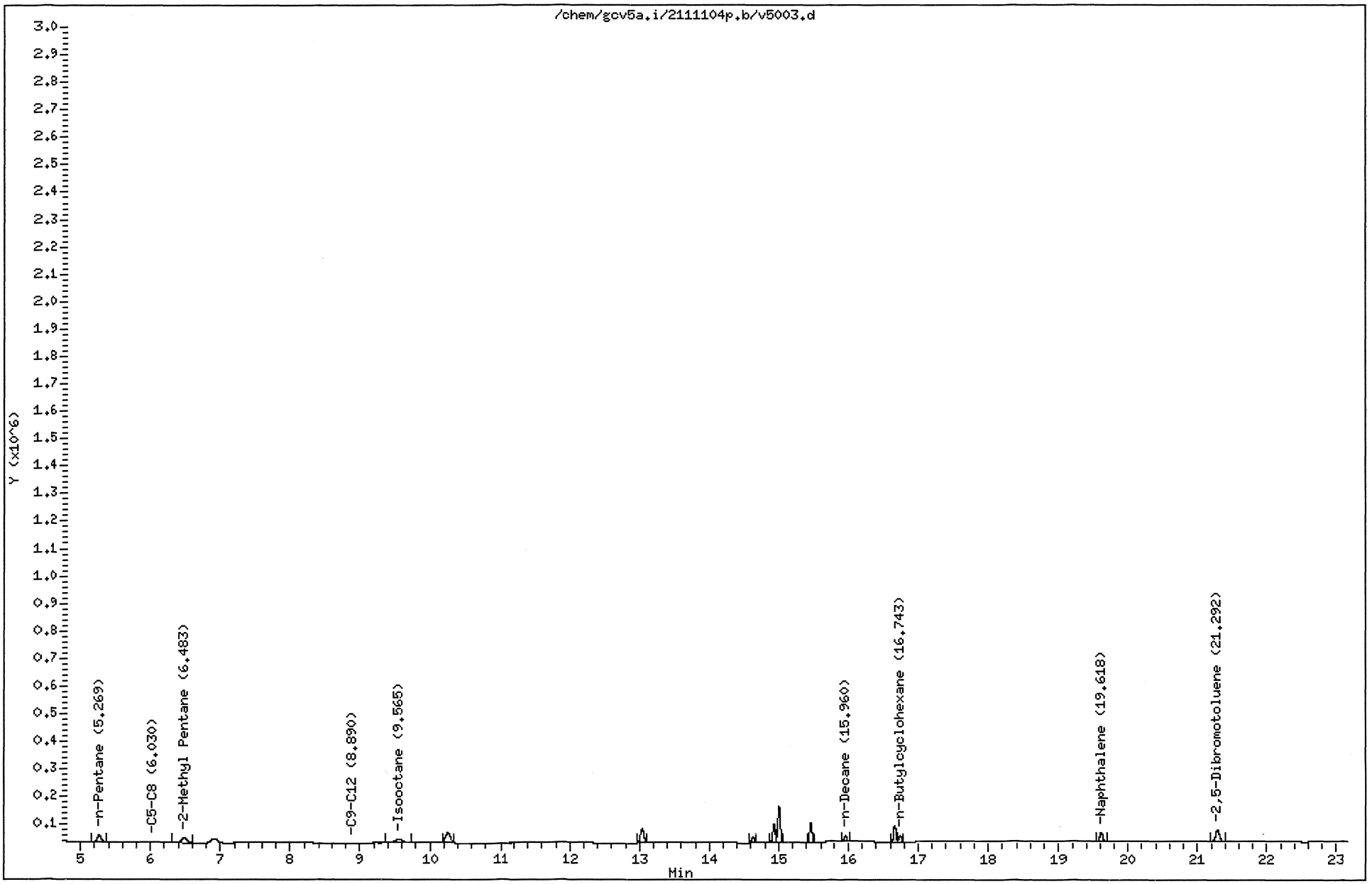
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M 2 C5-C8				321816	30.0000	30.6
1 n-Pentane	5.269	5.269	0.000	106713	10.0000	10.7(M1)
3 2-Methyl Pentane	6.483	6.483	0.000	108495	10.0000	9.8(M1)
6 Isooctane	9.565	9.565	0.000	106608	10.0000	10.0(M1)
13 n-Decane	15.960	15.960	0.000	51759	10.0000	9.9(M1)
15 n-Butylcyclohexane	16.743	16.743	0.000	58555	10.0000	10(M1)
16 Naphthalene	19.618	19.618	0.000	93516	10.0000	10.2(M1)
M 5 C9-C12				110314	20.0000	19.8
$ 17 2,5-Dibromotoluene	21.292	21.292	0.000	159522	50.0000	51.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5003.d
Date : 04-NOV-2011 21:56
Client ID:
Sample Info: VPH10/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

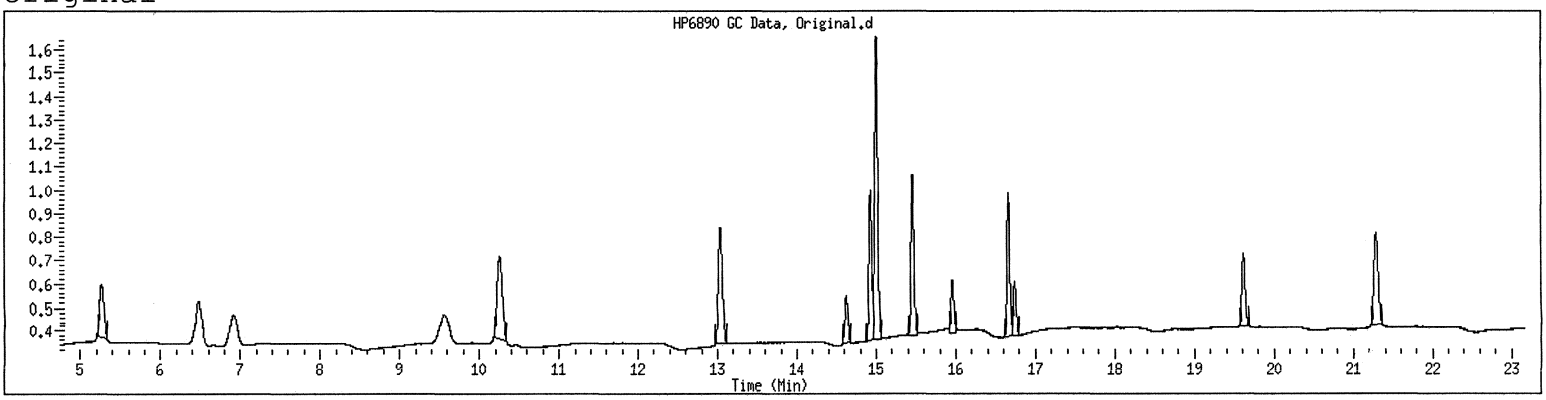


Report Date: 11/07/2011 10:29

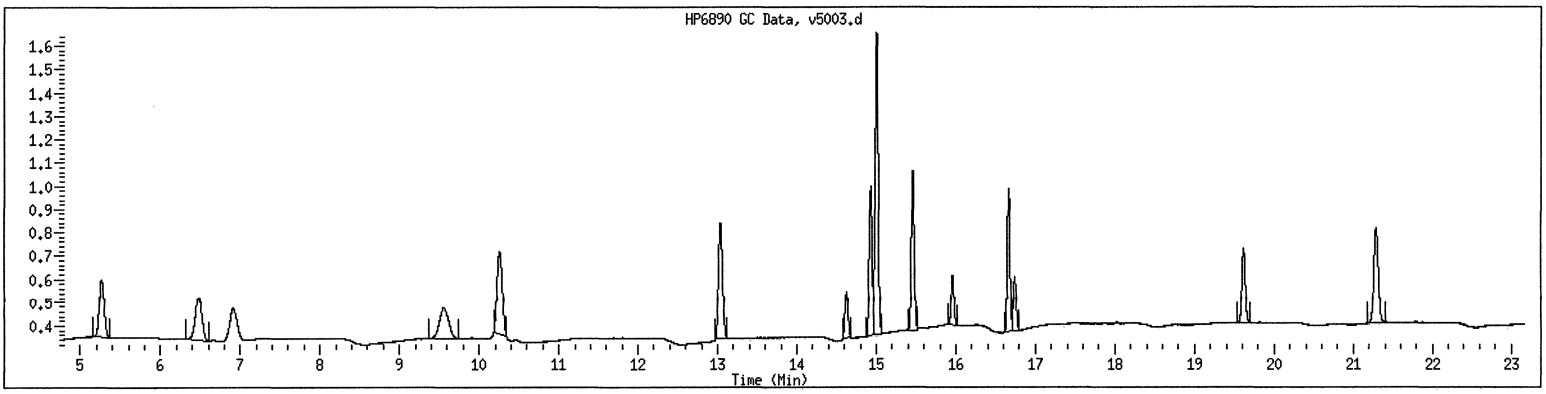
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

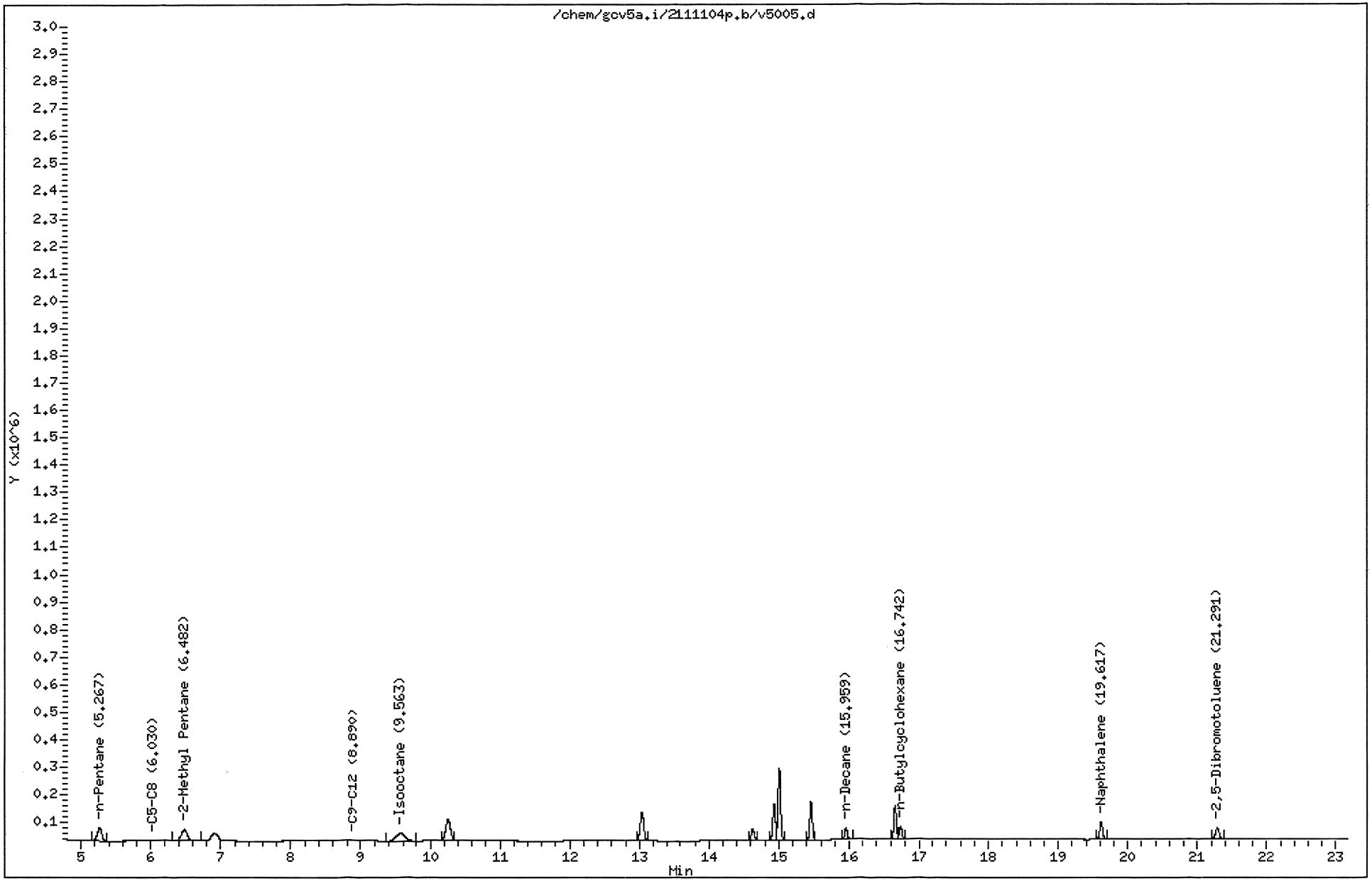
						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				661397	60.0000	62.0
	1 n-Pentane	5.267	5.267	0.000	204224	20.0000	20.3(M1)
	3 2-Methyl Pentane	6.482	6.482	0.000	242197	20.0000	21.4(M1)
	6 Isooctane	9.563	9.563	0.000	214976	20.0000	20.2(M1)
	13 n-Decane	15.959	15.959	0.000	101700	20.0000	19.5(M1)
	15 n-Butylcyclohexane	16.742	16.742	0.000	119364	20.0000	20.2(M1)
	16 Naphthalene	19.617	19.617	0.000	180224	20.0000	19.8(M1)
M	5 C9-C12				221064	40.0000	39.8
$	17 2,5-Dibromotoluene	21.291	21.291	0.000	150438	50.0000	48.8(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5005.d
Date : 04-NOV-2011 22:55
Client ID:
Sample Info: VPH20/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

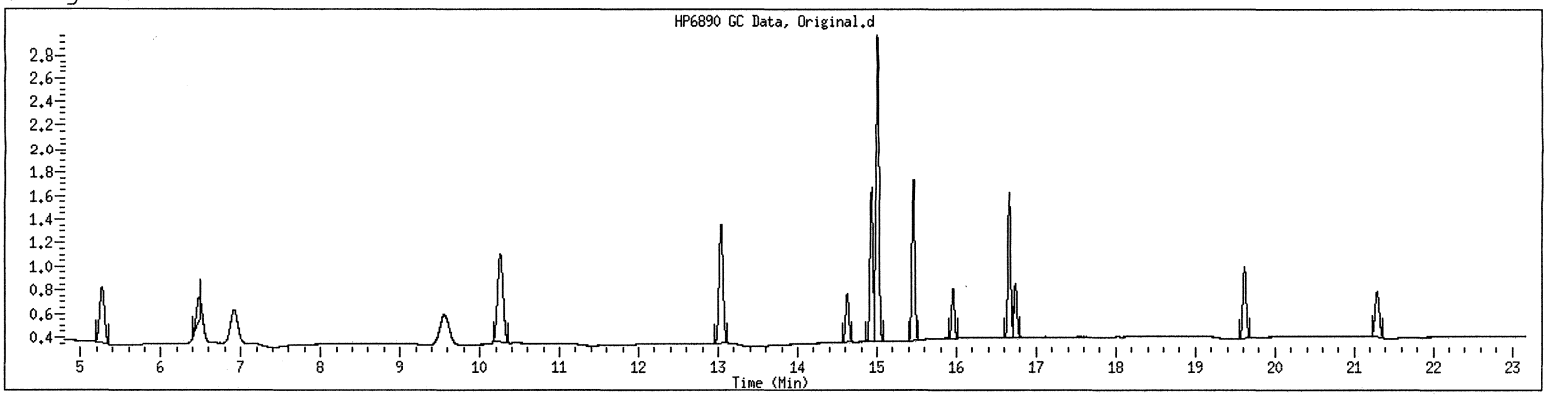
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



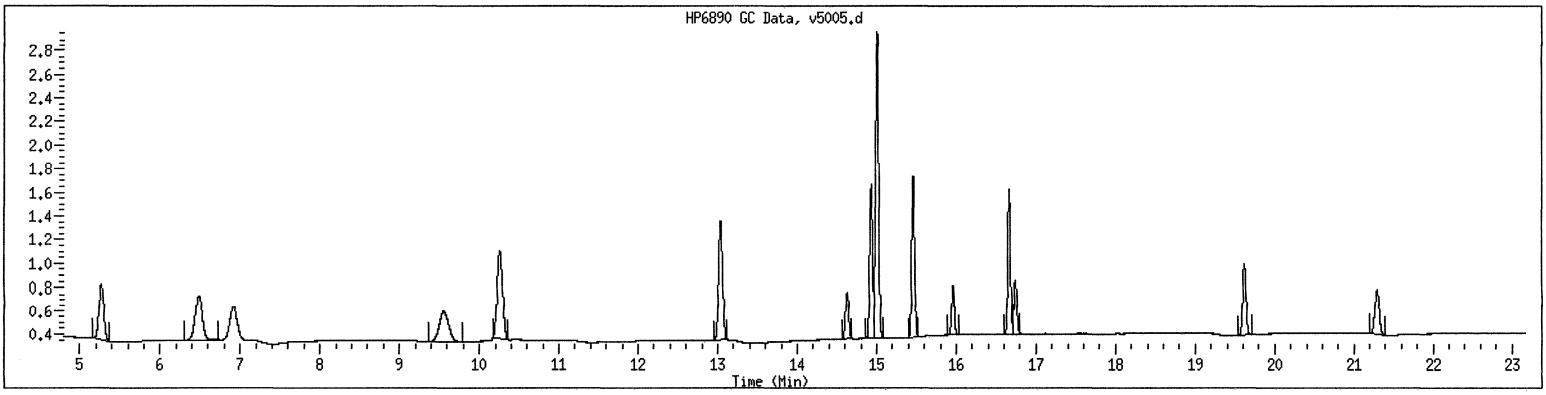
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

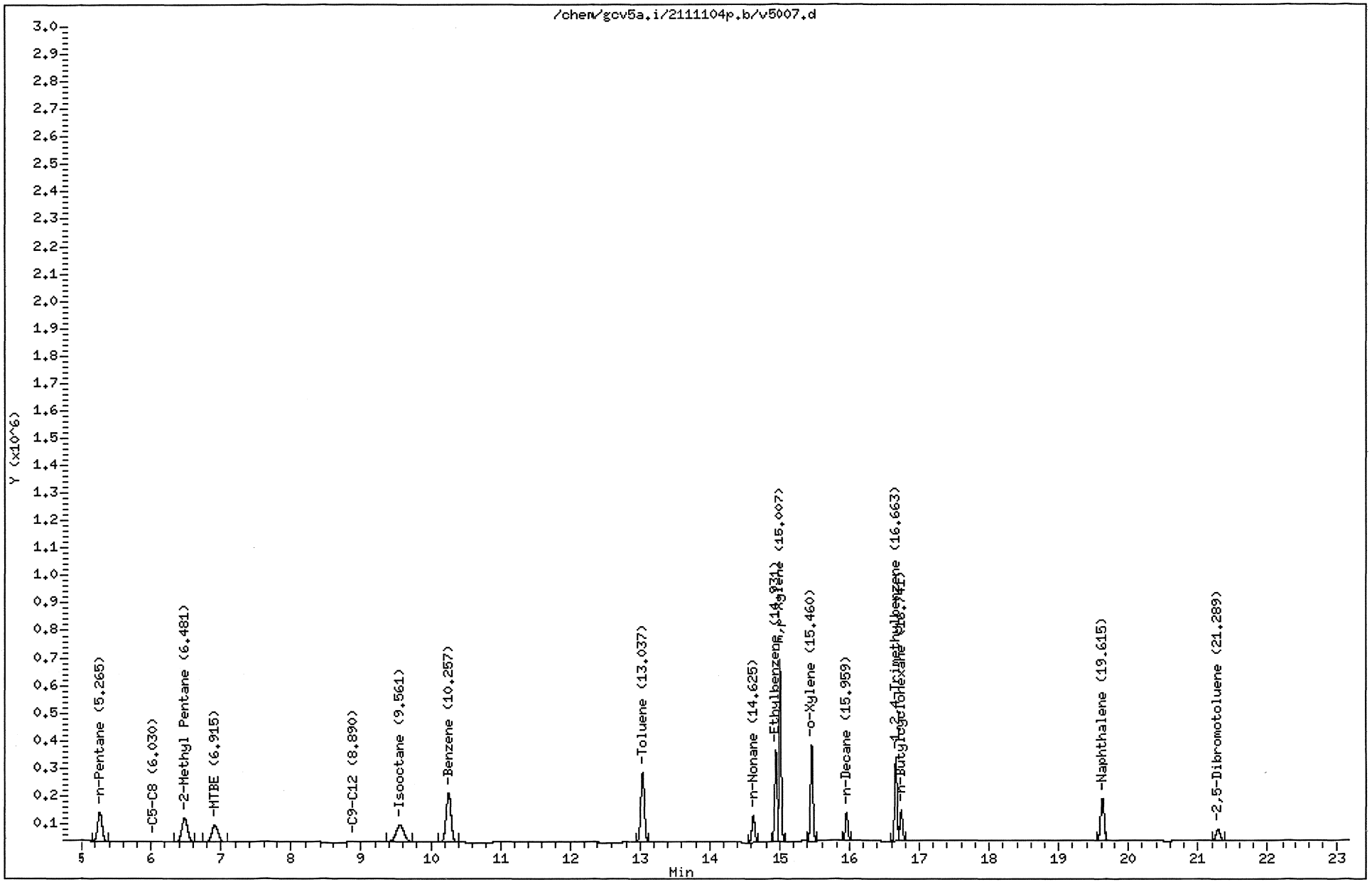
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2 C5-C8				1433487	150.000	150
	1 n-Pentane	5.265	5.265	0.000	442559	50.0000	50.0(M1)
	3 2-Methyl Pentane	6.481	6.481	0.000	508906	50.0000	50.0(M1)
	6 Isooctane	9.561	9.561	0.000	482022	50.0000	50.0(M1)
	13 n-Decane	15.959	15.959	0.000	255356	50.0000	50.0
	15 n-Butylcyclohexane	16.741	16.741	0.000	286054	50.0000	50.0(M1)
	16 Naphthalene	19.615	19.615	0.000	447259	50.0000	50.0
M	5 C9-C12				541410	100.000	100
$	17 2,5-Dibromotoluene	21.289	21.289	0.000	154983	50.0000	50.0(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5007.d
Date : 04-NOV-2011 23:54
Client ID:
Sample Info: VPH50/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

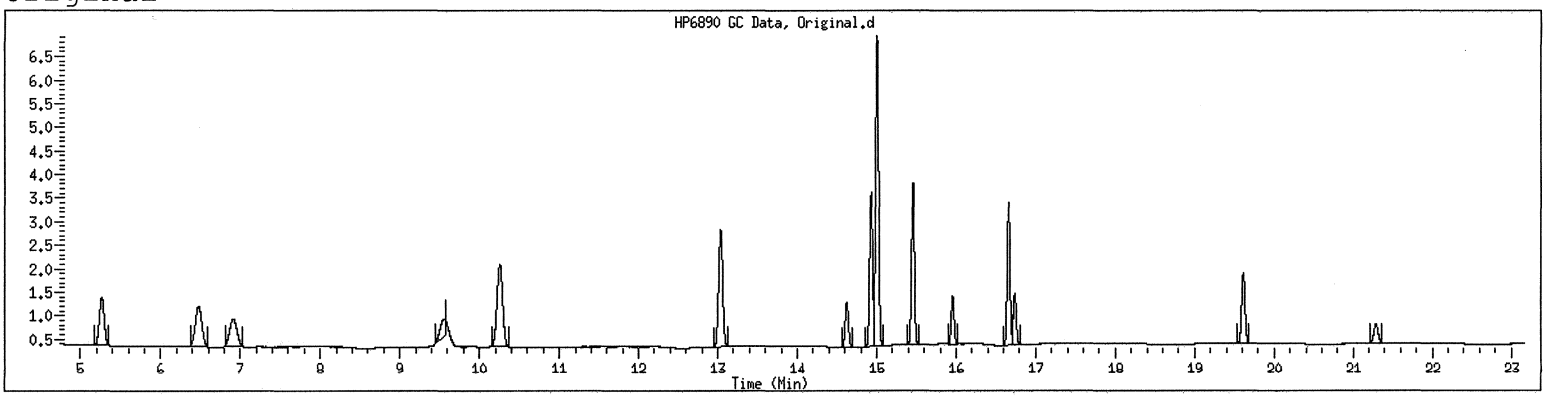


2111031124 249

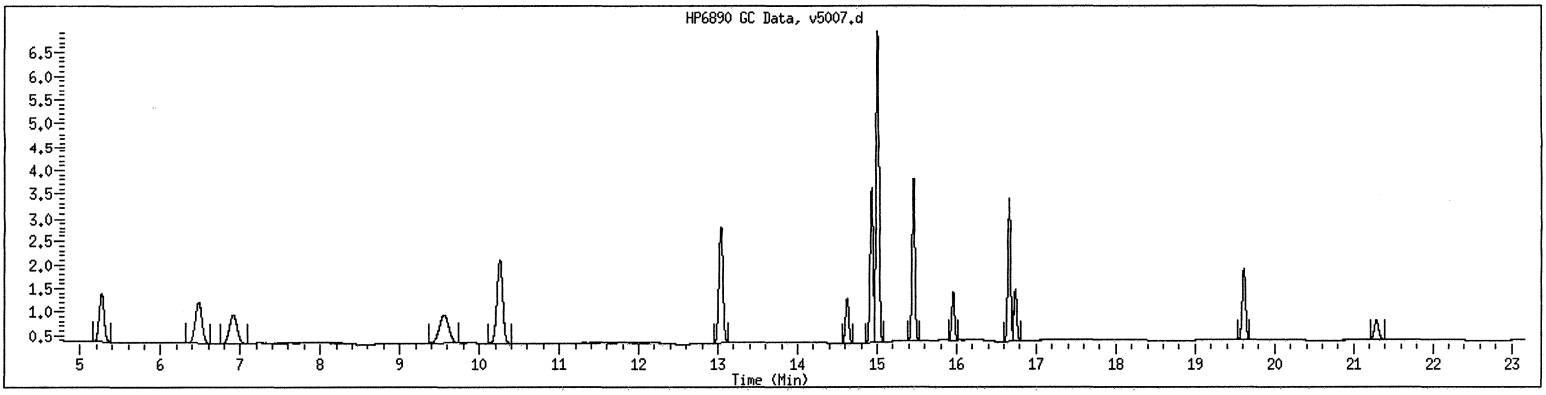
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				2126034	240.000	206
	1	n-Pentane	5.264	5.264	0.000	605714	80.0000	63.4
	3	2-Methyl Pentane	6.481	6.481	0.000	766261	80.0000	70.0(M1)
	6	Isooctane	9.559	9.559	0.000	754059	80.0000	72.4(M1)
	13	n-Decane	15.958	15.958	0.000	512745	80.0000	94.2
	15	n-Butylcyclohexane	16.740	16.740	0.000	499891	80.0000	83.8(M1)
	16	Naphthalene	19.614	19.614	0.000	674677	80.0000	75.5
M	5	C9-C12				1012636	160.000	178
$	17	2,5-Dibromotoluene	21.288	21.288	0.000	139338	50.0000	46.1

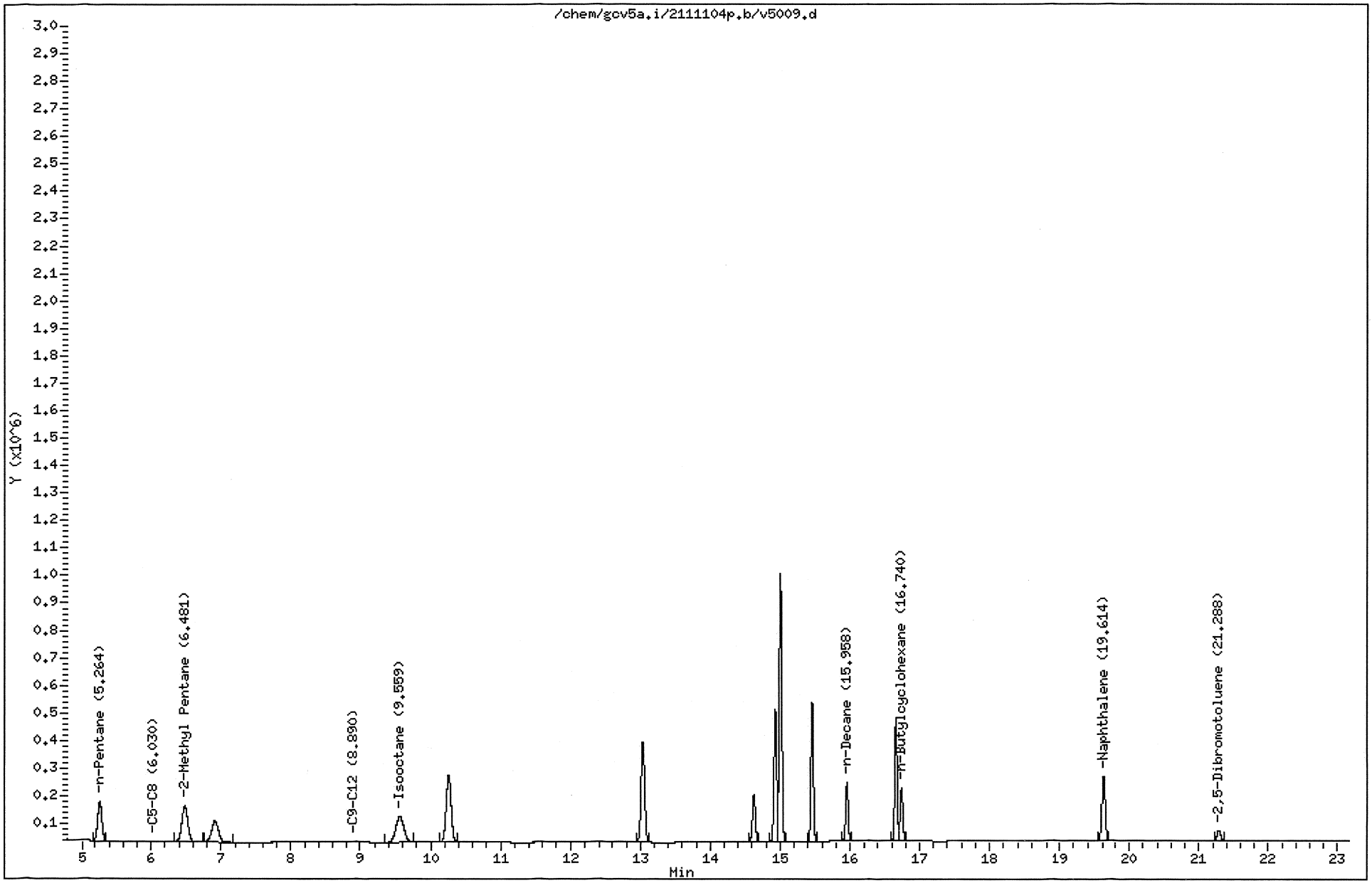
QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5009.d
Date : 05-NOV-2011 00:53
Client ID:
Sample Info: VPH80/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

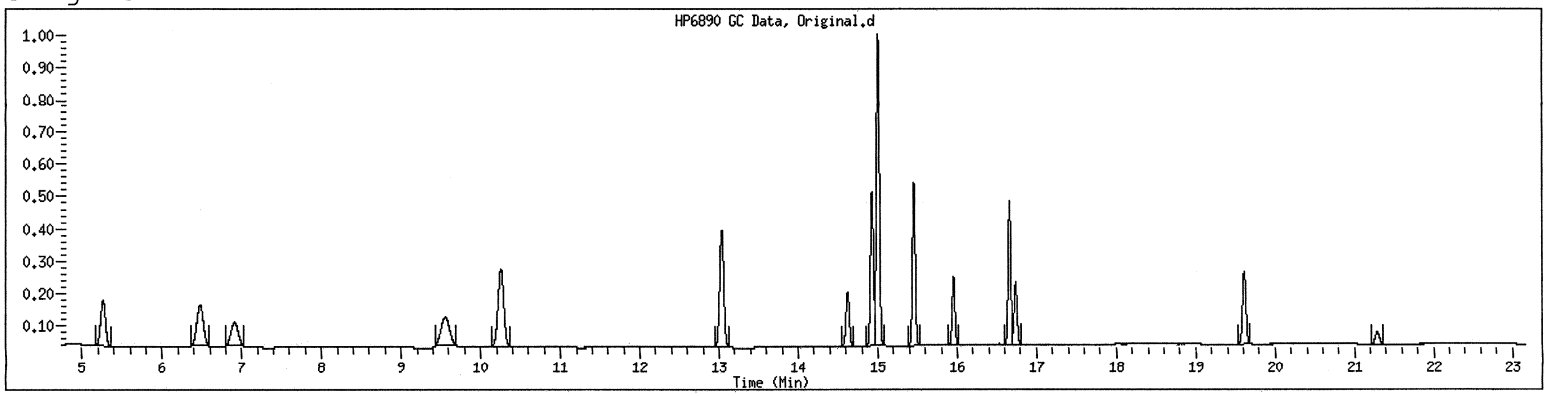
211103124 253



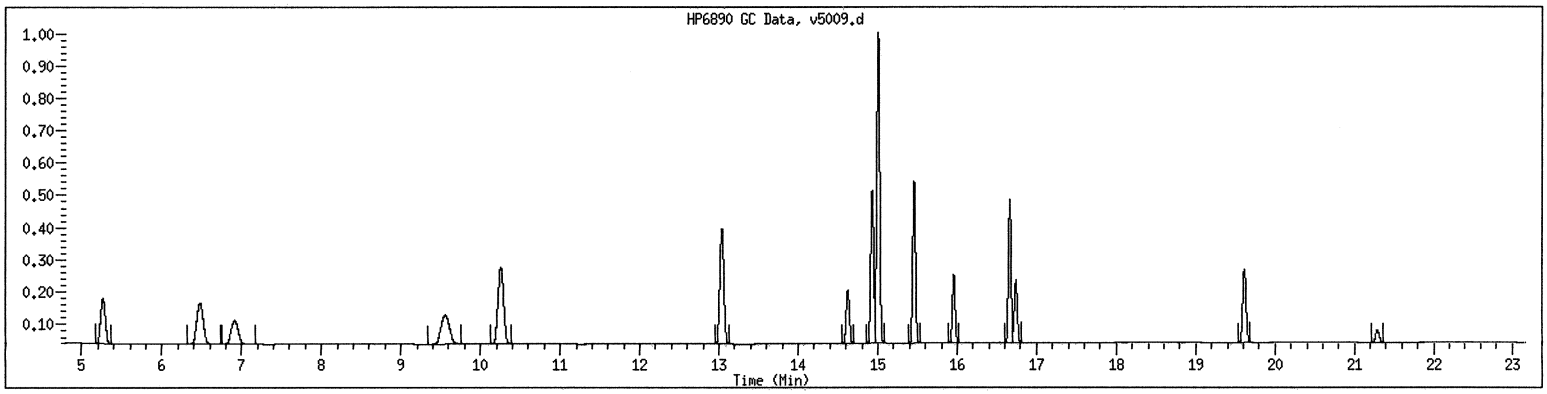
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				2225866	300.000	226
	1	n-Pentane	5.263	5.263	0.000	625897	100.000	69.5(M1)
	3	2-Methyl Pentane	6.480	6.480	0.000	789446	100.000	75.6(M1)
	6	Isooctane	9.557	9.557	0.000	810523	100.000	80.8(M1)
	13	n-Decane	15.959	15.959	0.000	610961	100.000	110(A)
	15	n-Butylcyclohexane	16.742	16.742	0.000	590825	100.000	99.2(M1)
	16	Naphthalene	19.617	19.617	0.000	852519	100.000	96.3
M	5	C9-C12				1201786	200.000	209
$	17	2,5-Dibromotoluene	21.294	21.294	0.000	141234	50.0000	47.2

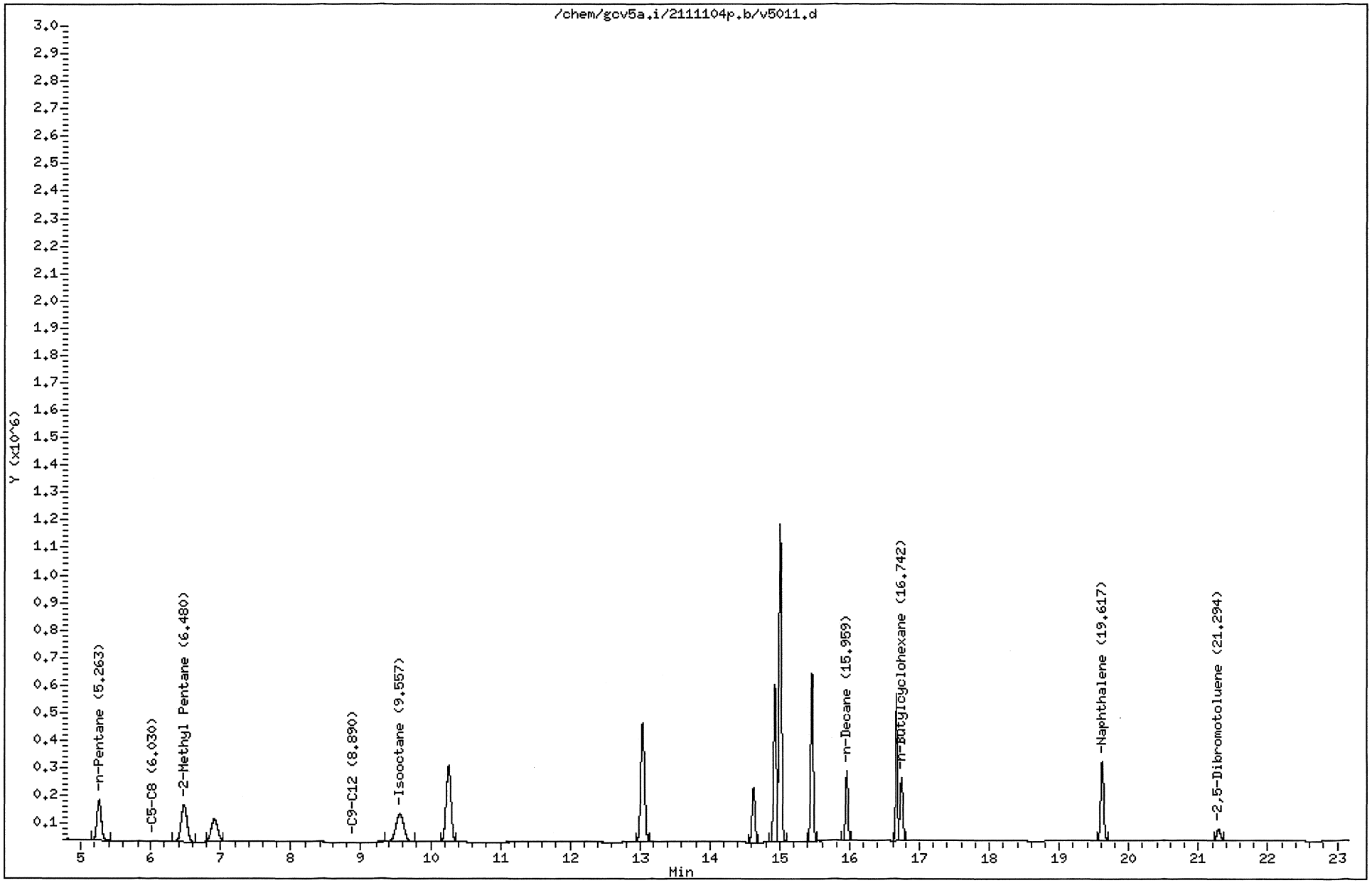
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5011.d
Date : 05-NOV-2011 01:52
Client ID:
Sample Info: VPH100/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

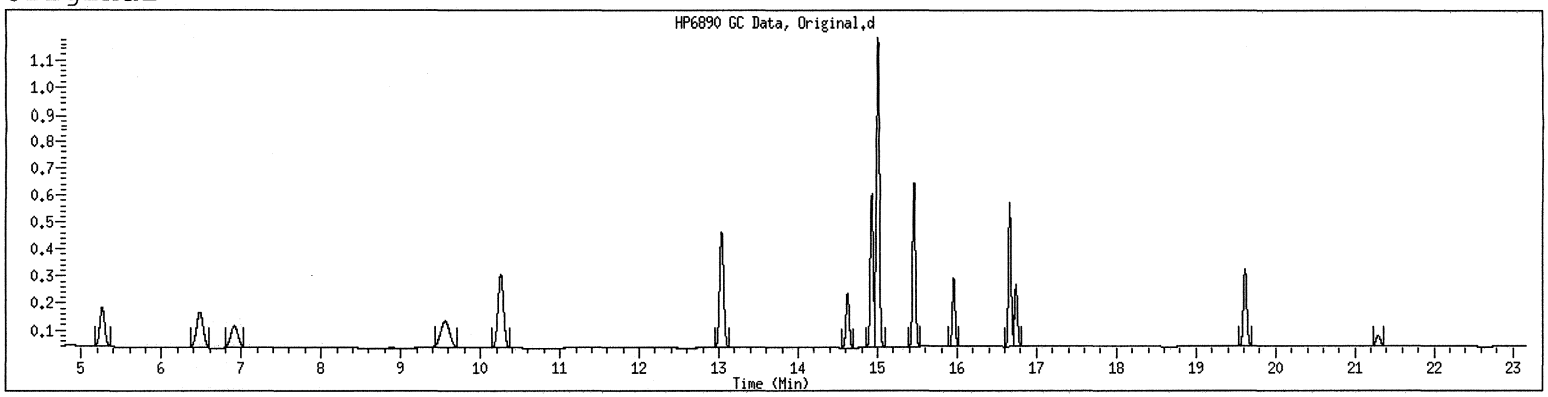
2111103124 257



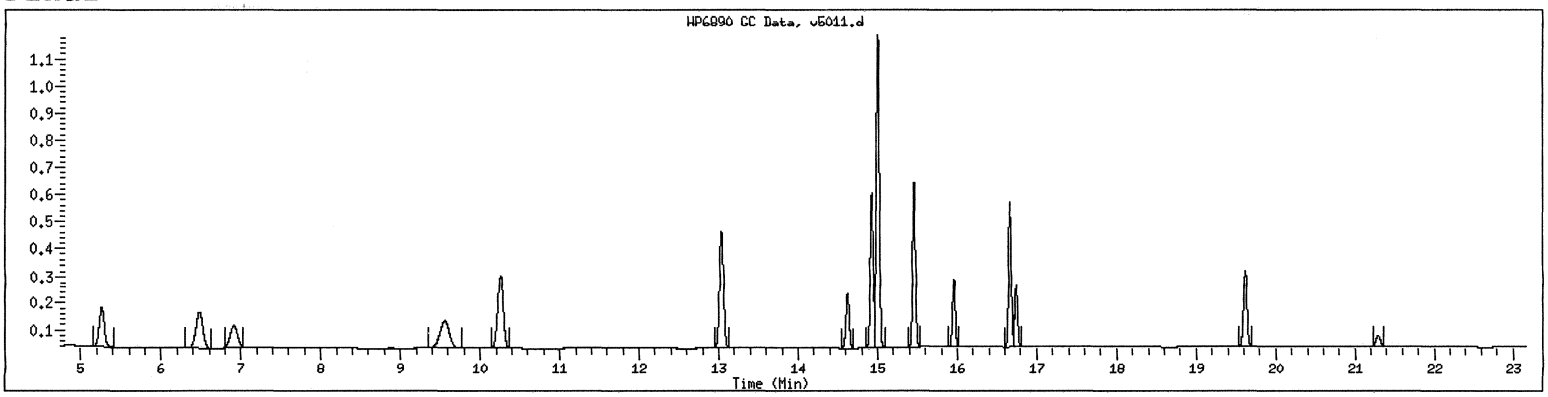
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



Report Date: 07-Nov-2011 10:23

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104p
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: LOW Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aliphatic1.spk Quant Type: ESTD
Sublist File: aliphatic1+surr.sub
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	1 n-Pentane	50.0	46.6	93.10	70-130
M	2 C5-C8	150	139	92.95	70-130
	3 2-Methyl Pentane	50.0	48.5	96.95	70-130
M	5 C9-C12	100	92.4	92.37	70-130
	6 Isooctane	50.0	44.4	88.79	70-130
	13 n-Decane	50.0	44.9	89.88	70-130
	15 n-Butylcyclohexane	50.0	47.4	94.86	70-130
	16 Naphthalene	50.0	54.8	109.51	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	17 2,5-Dibromotoluene	50.0	49.5	99.05	70-130

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:22 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1370151	139.426	139
	1	n-Pentane	5.264	5.263	0.001	418980	46.5524	46.6(M1)
	3	2-Methyl Pentane	6.480	6.480	0.000	505982	48.4762	48.5(M1)
	6	Isooctane	9.555	9.557	-0.002	445188	44.3972	44.4(M1)
	13	n-Decane	15.958	15.959	-0.001	249629	44.9383	44.9
	15	n-Butylcyclohexane	16.741	16.742	-0.001	282608	47.4296	47.4
	16	Naphthalene	19.615	19.617	-0.002	484765	54.7551	54.8
M	5	C9-C12				532237	92.3679	92.4
$	17	2,5-Dibromotoluene	21.290	21.294	-0.004	148060	49.5241	49.5

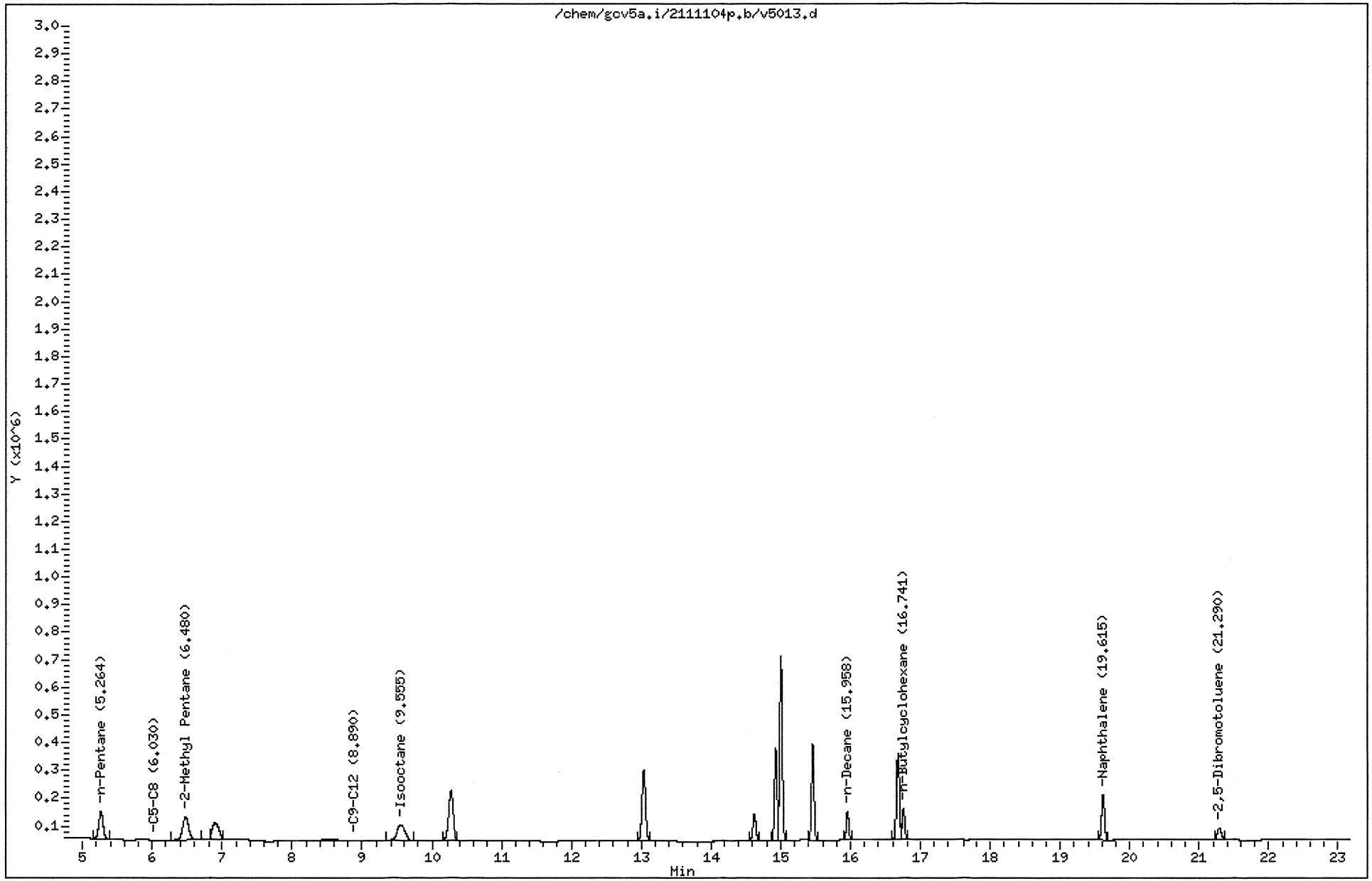
QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5013.d
Date : 05-NOV-2011 02:51
Client ID:
Sample Info: ICV6/12/5
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

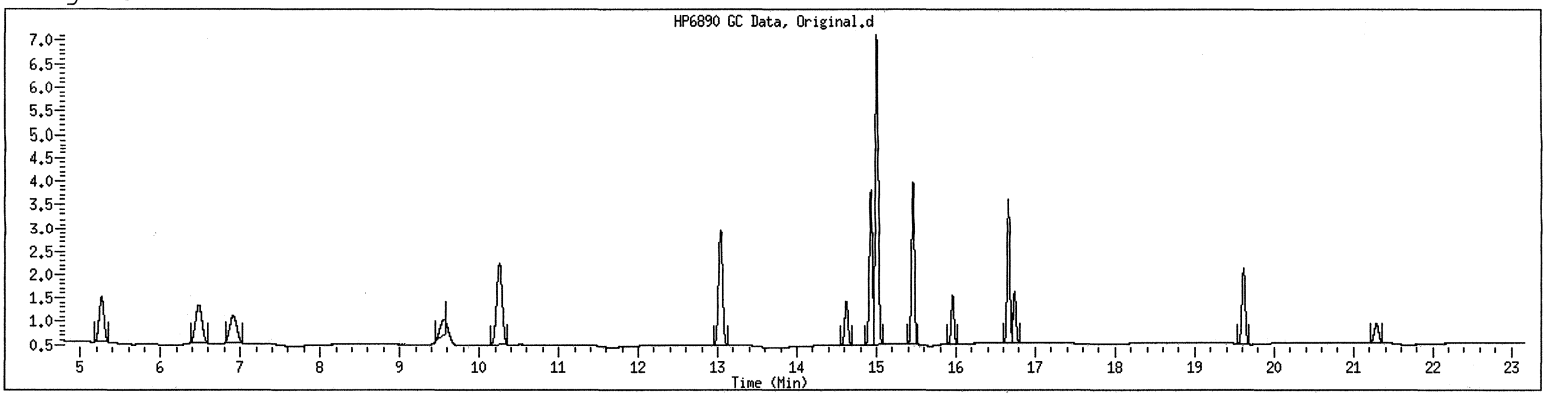
211103124 262



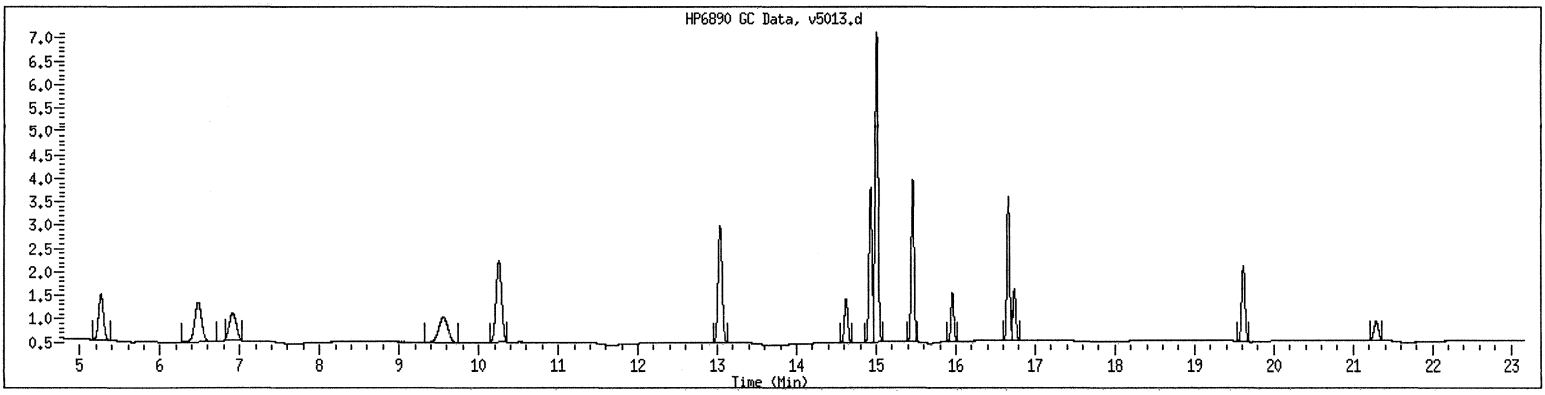
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	10063	0.010	-2.45242	25.00000	Averaged
1 n-Pentane	9000	9099	0.010	-1.09665	25.00000	Averaged
3 2-Methyl Pentane	10438	10571	0.010	-1.27340	25.00000	Averaged
6 Isooctane	10027	10518	0.010	-4.89657	25.00000	Averaged
13 n-Decane	5555	5515	0.010	0.72519	25.00000	Averaged
15 n-Butylcyclohexane	5958	6214	0.010	-4.28469	25.00000	Averaged
16 Naphthalene	8853	9172	0.010	-3.60219	25.00000	Averaged
M 5 C9-C12	5437	5864	0.010	-7.84785	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2988	0.010	0.04259	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.91351
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:07 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1509398	150.000	154
	1 n-Pentane	5.269	5.269	0.000	454944	50.0000	50.5
	3 2-Methyl Pentane	6.485	6.485	0.000	528534	50.0000	50.6
	6 Isooctane	9.563	9.563	0.000	525920	50.0000	52.4(M1)
	13 n-Decane	15.961	15.961	0.000	275732	50.0000	49.6
	15 n-Butylcyclohexane	16.743	16.743	0.000	310689	50.0000	52.1
	16 Naphthalene	19.618	19.618	0.000	458612	50.0000	51.8
M	5 C9-C12				586421	100.000	102
$	17 2,5-Dibromotoluene	21.295	21.295	0.000	149419	50.0000	50.0

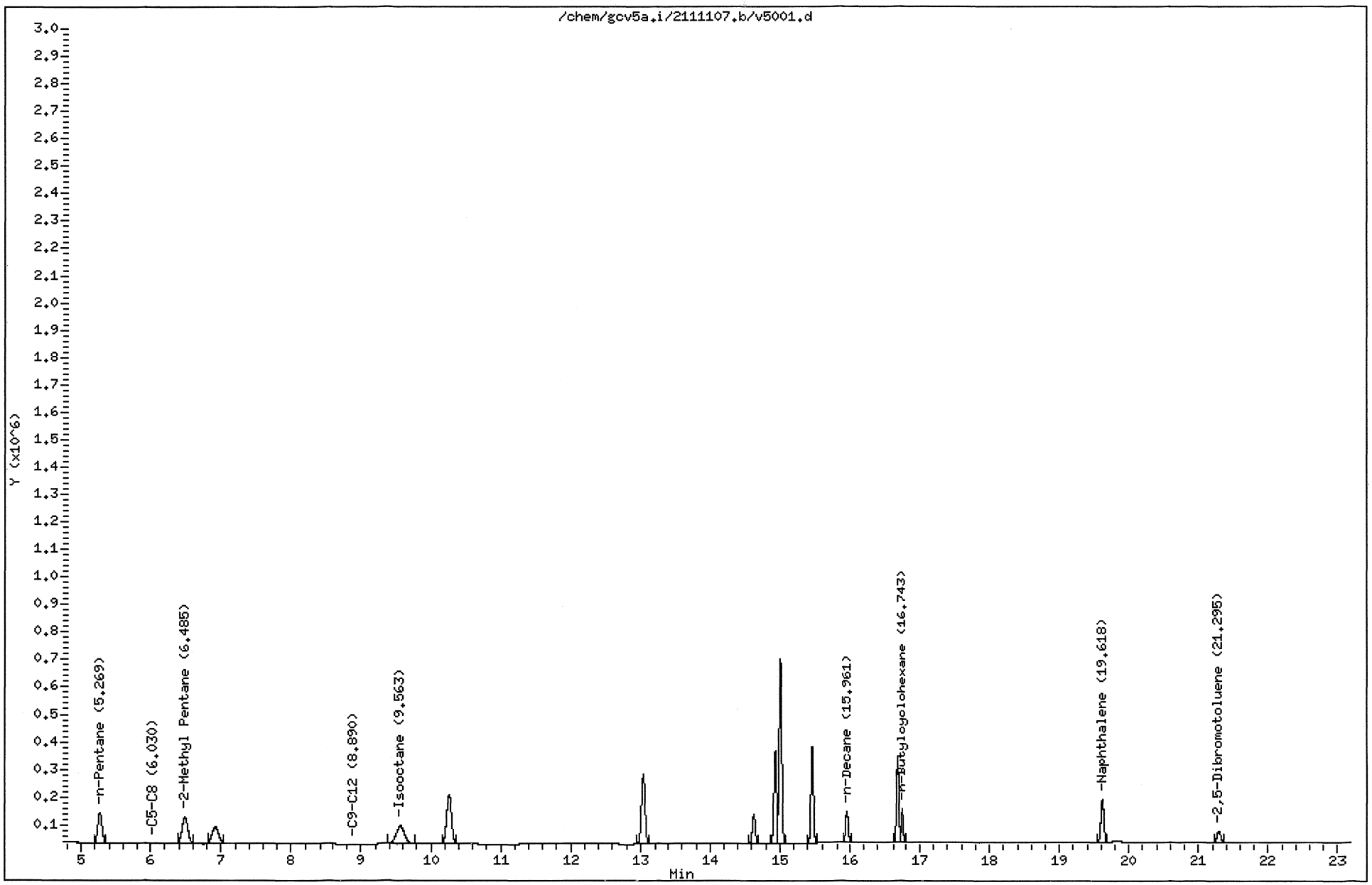
QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5001.d
Date : 07-NOV-2011 11:22
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

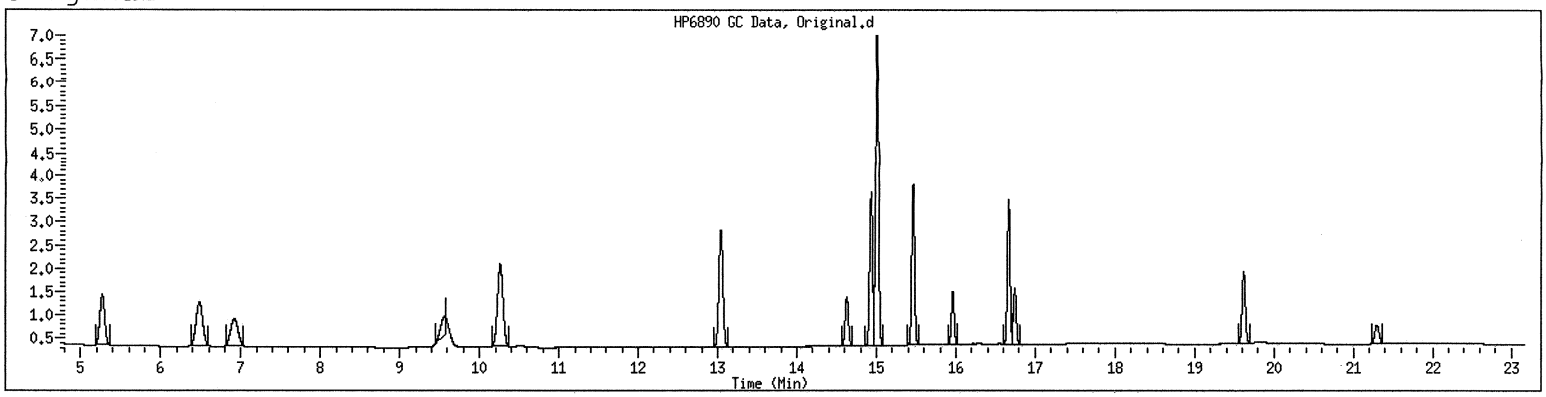
2111103124 257



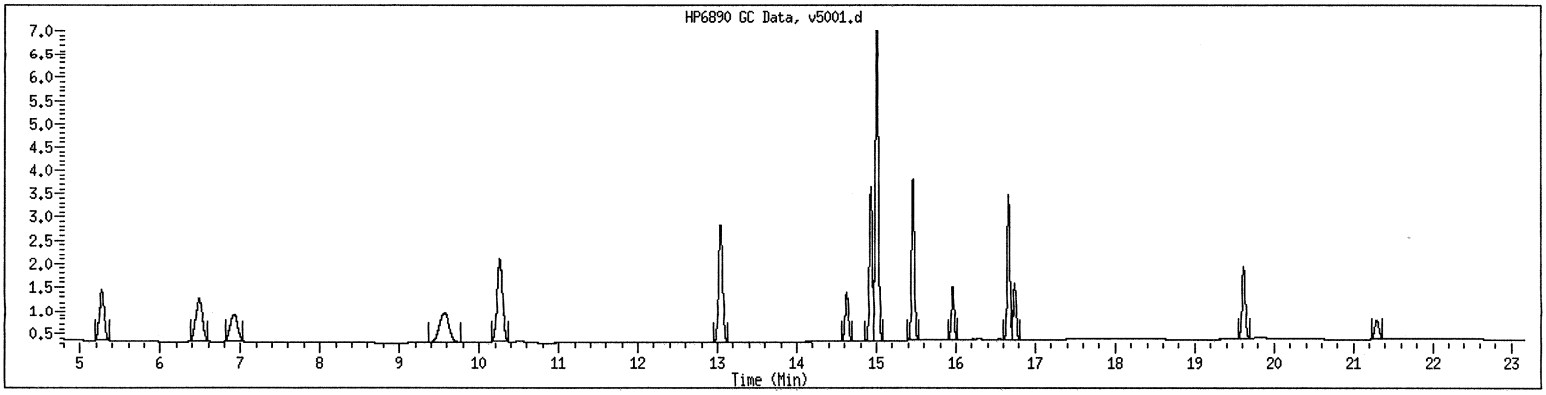
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9001	0.010	8.35987	25.00000	Averaged
1 n-Pentane	9000	8133	0.010	9.63580	25.00000	Averaged
3 2-Methyl Pentane	10438	9389	0.010	10.04971	25.00000	Averaged
6 Isooctane	10027	9480	0.010	5.45566	25.00000	Averaged
13 n-Decane	5555	5714	0.010	-2.86154	25.00000	Averaged
15 n-Butylcyclohexane	5958	5735	0.010	3.75193	25.00000	Averaged
16 Naphthalene	8853	8972	0.010	-1.34067	25.00000	Averaged
M 5 C9-C12	5437	5724	0.010	-5.27663	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2912	0.010	2.61212	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.48266
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 17:08 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1350104	150.000	137
	1 n-Pentane	5.266	5.266	0.000	406647	50.0000	45.2
	3 2-Methyl Pentane	6.482	6.482	0.000	469440	50.0000	45.0
	6 Isooctane	9.562	9.562	0.000	474017	50.0000	47.3(M1)
	13 n-Decane	15.963	15.963	0.000	285694	50.0000	51.4
	15 n-Butylcyclohexane	16.746	16.746	0.000	286746	50.0000	48.1
	16 Naphthalene	19.623	19.623	0.000	448601	50.0000	50.7
M	5 C9-C12				572440	100.000	99.6
$	17 2,5-Dibromotoluene	21.301	21.301	0.000	145578	50.0000	48.7

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5011.d

Page 1

Date : 07-NOV-2011 16:16

Client ID:

Instrument: gcv5a.i

Sample Info: VPH6/12/4

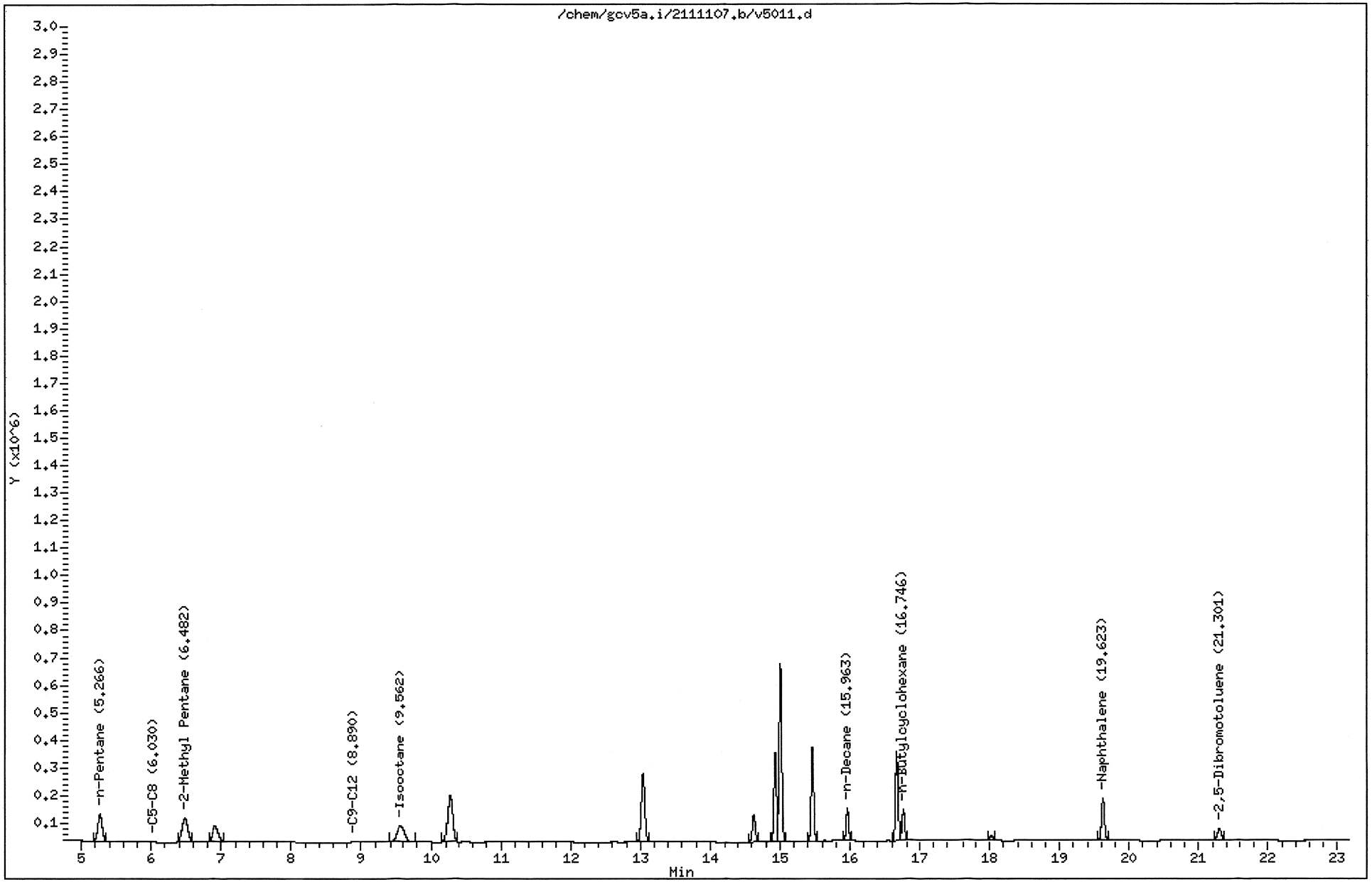
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

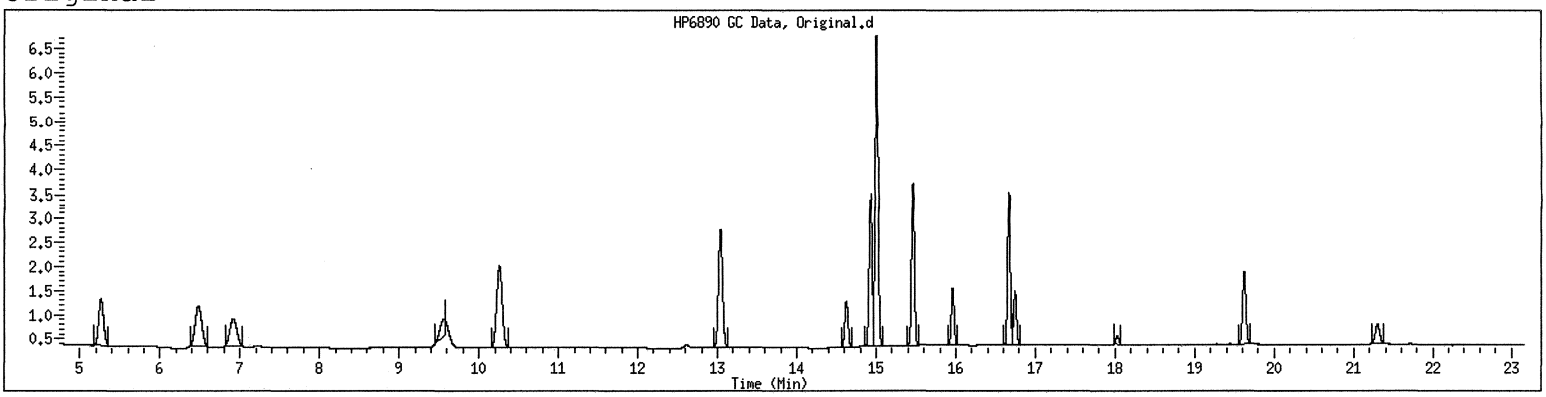
2111103124 272



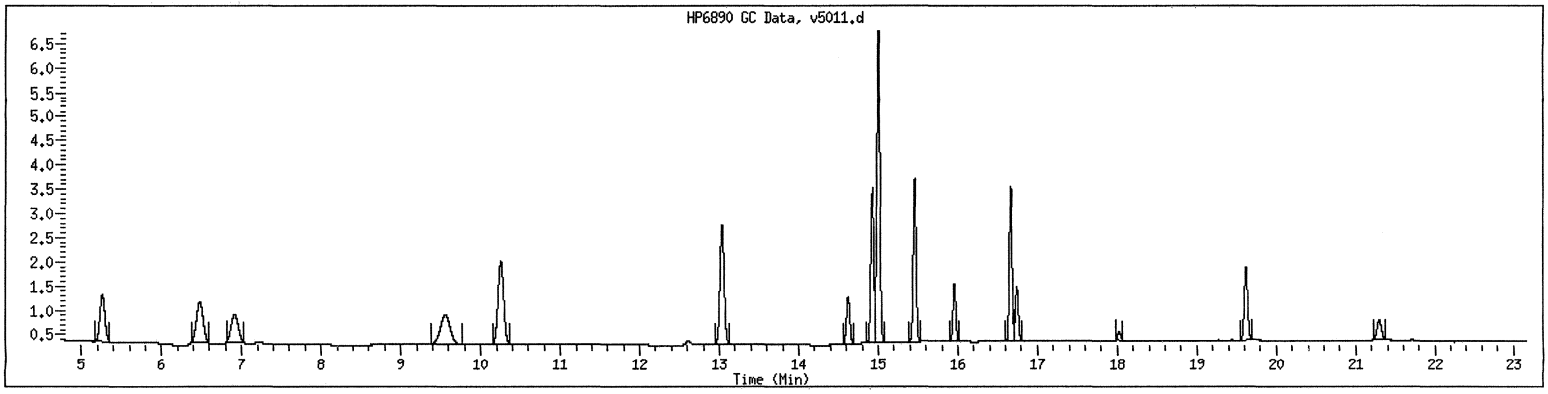
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9028	0.010	8.07690	25.00000	Averaged
1 n-Pentane	9000	8035	0.010	10.72067	25.00000	Averaged
3 2-Methyl Pentane	10438	9486	0.010	9.12269	25.00000	Averaged
6 Isooctane	10027	9565	0.010	4.61537	25.00000	Averaged
13 n-Decane	5555	4698	0.010	15.42674	25.00000	Averaged
15 n-Butylcyclohexane	5958	5459	0.010	8.38734	25.00000	Averaged
16 Naphthalene	8853	9479	0.010	-7.06687	25.00000	Averaged
M 5 C9-C12	5437	5078	0.010	6.60479	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3336	0.010	-11.58685	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.06758
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

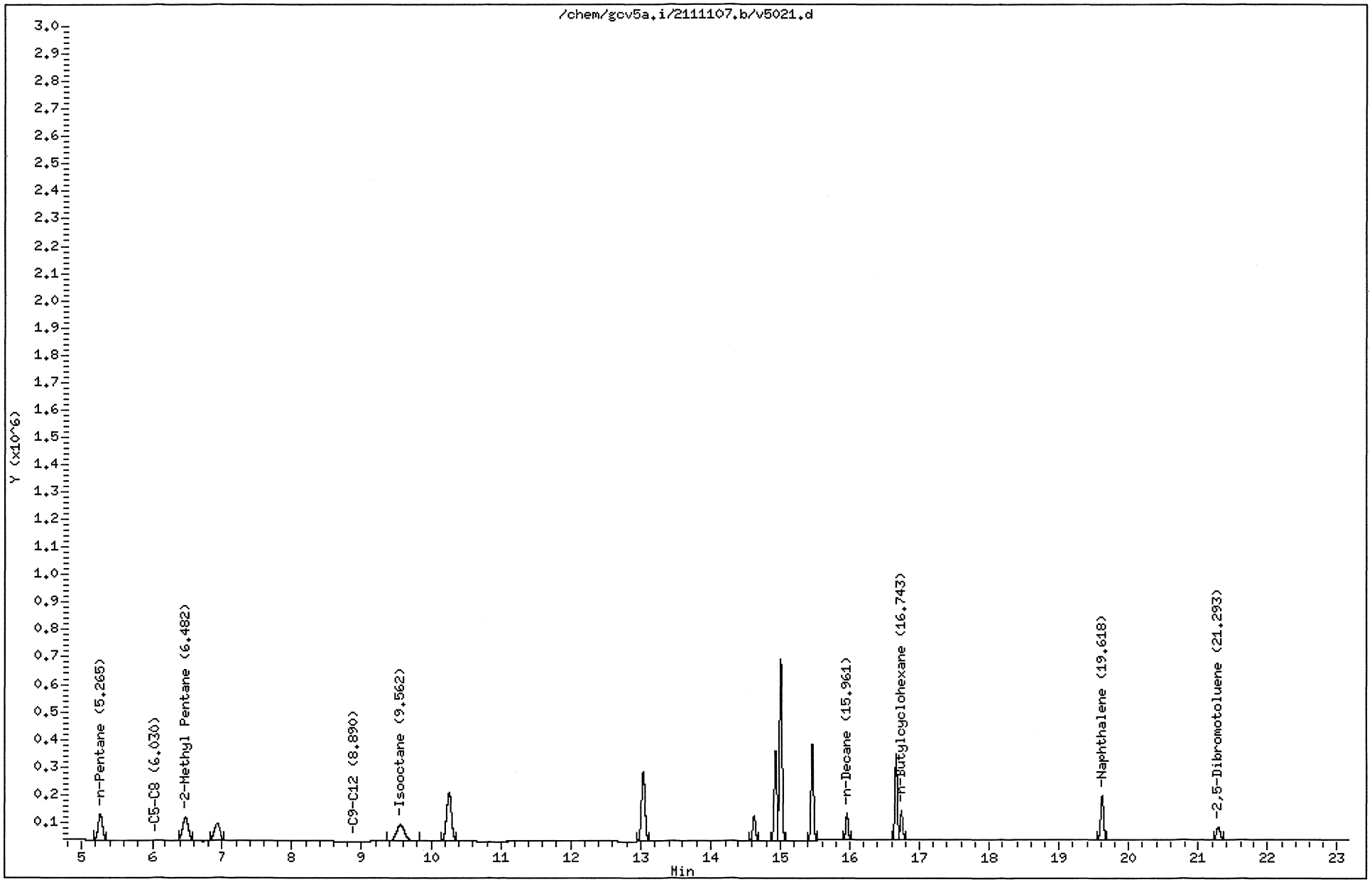
		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1354273	137.771	138
	1	n-Pentane	5.265	5.266	-0.001	401765	44.6397	44.6
	3	2-Methyl Pentane	6.482	6.482	0.000	474278	45.4387	45.4
	6	Isooctane	9.562	9.562	0.000	478230	47.6924	47.7(M1)
	13	n-Decane	15.961	15.963	-0.002	234899	42.2866	42.3
	15	n-Butylcyclohexane	16.743	16.746	-0.003	272936	45.8063	45.8
	16	Naphthalene	19.618	19.623	-0.005	473949	53.5334	53.5
M	5	C9-C12				507835	88.0930	88.1
$	17	2,5-Dibromotoluene	21.293	21.301	-0.008	166803	55.7934	55.8

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5021.d
Date : 07-NOV-2011 23:22
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

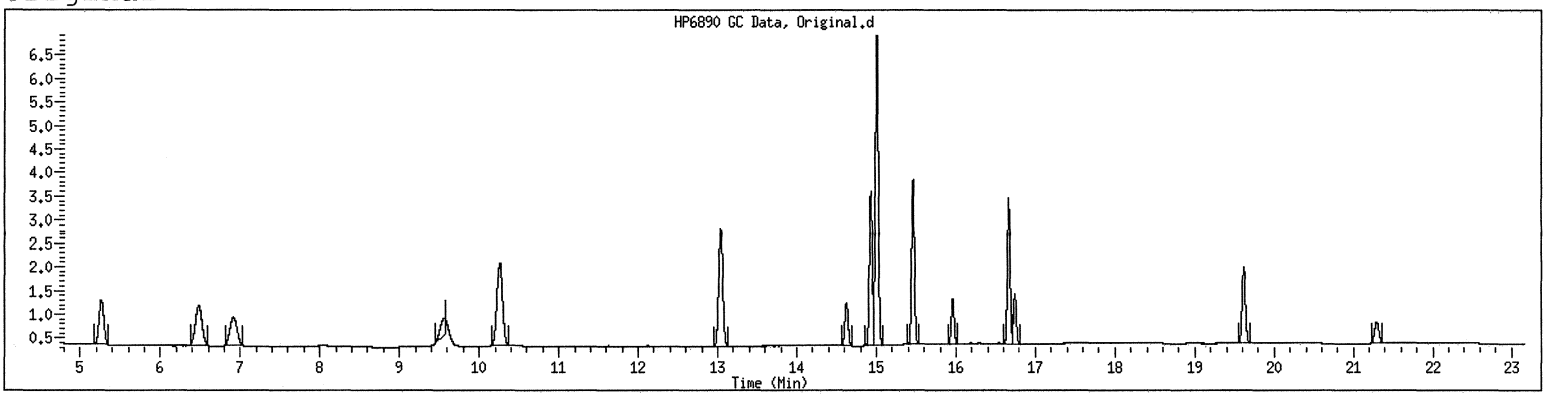
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



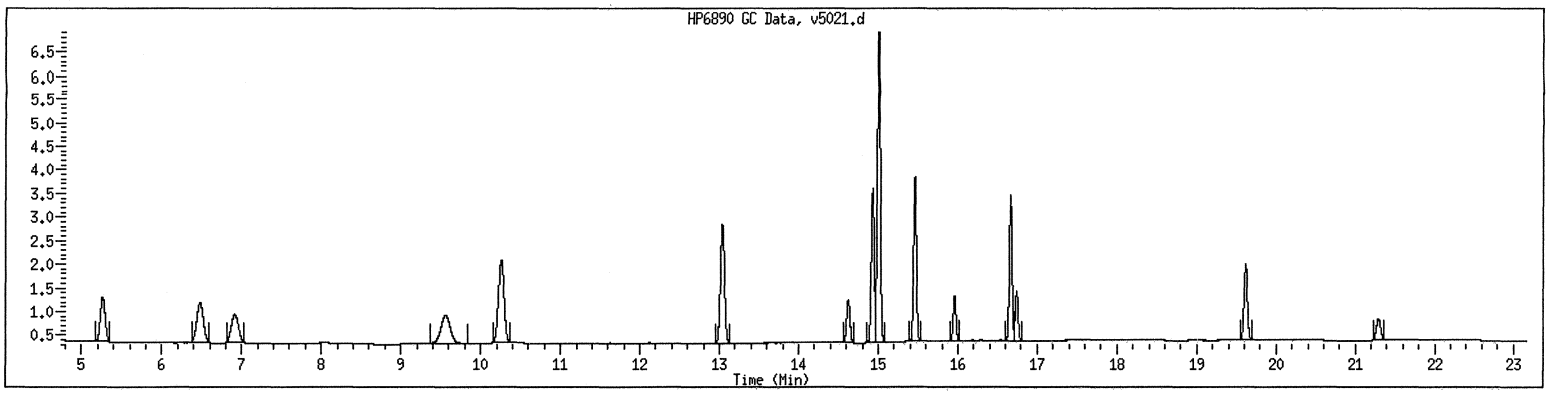
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: SAMPLE
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 08-NOV-2011 01:49
Lab File ID: v5026.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9226	0.010	6.06878	25.00000	Averaged
1 n-Pentane	9000	8302	0.010	7.75673	25.00000	Averaged
3 2-Methyl Pentane	10438	9667	0.010	7.38401	25.00000	Averaged
6 Isooctane	10027	9708	0.010	3.18469	25.00000	Averaged
13 n-Decane	5555	4605	0.010	17.10129	25.00000	Averaged
15 n-Butylcyclohexane	5958	5545	0.010	6.94738	25.00000	Averaged
16 Naphthalene	8853	10068	0.010	-13.72177	25.00000	Averaged
M 5 C9-C12	5437	5075	0.010	6.67118	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3325	0.010	-11.22962	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.89616
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5026.d
Lab Smp Id: VPH6/12/4
Inj Date : 08-NOV-2011 01:49
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1383858	140.837	141
	1	n-Pentane	5.266	5.266	0.000	415103	46.1216	46.1
	3	2-Methyl Pentane	6.483	6.482	0.001	483352	46.3080	46.3
	6	Isooctane	9.562	9.562	0.000	485403	48.4077	48.4(M1)
	13	n-Decane	15.960	15.963	-0.003	230248	41.4494	41.4
	15	n-Butylcyclohexane	16.742	16.746	-0.004	277226	46.5263	46.5
	16	Naphthalene	19.617	19.623	-0.006	503408	56.8609	56.9
M	5	C9-C12				507474	87.9757	88.0
$	17	2,5-Dibromotoluene	21.292	21.301	-0.009	166269	55.6148	55.6

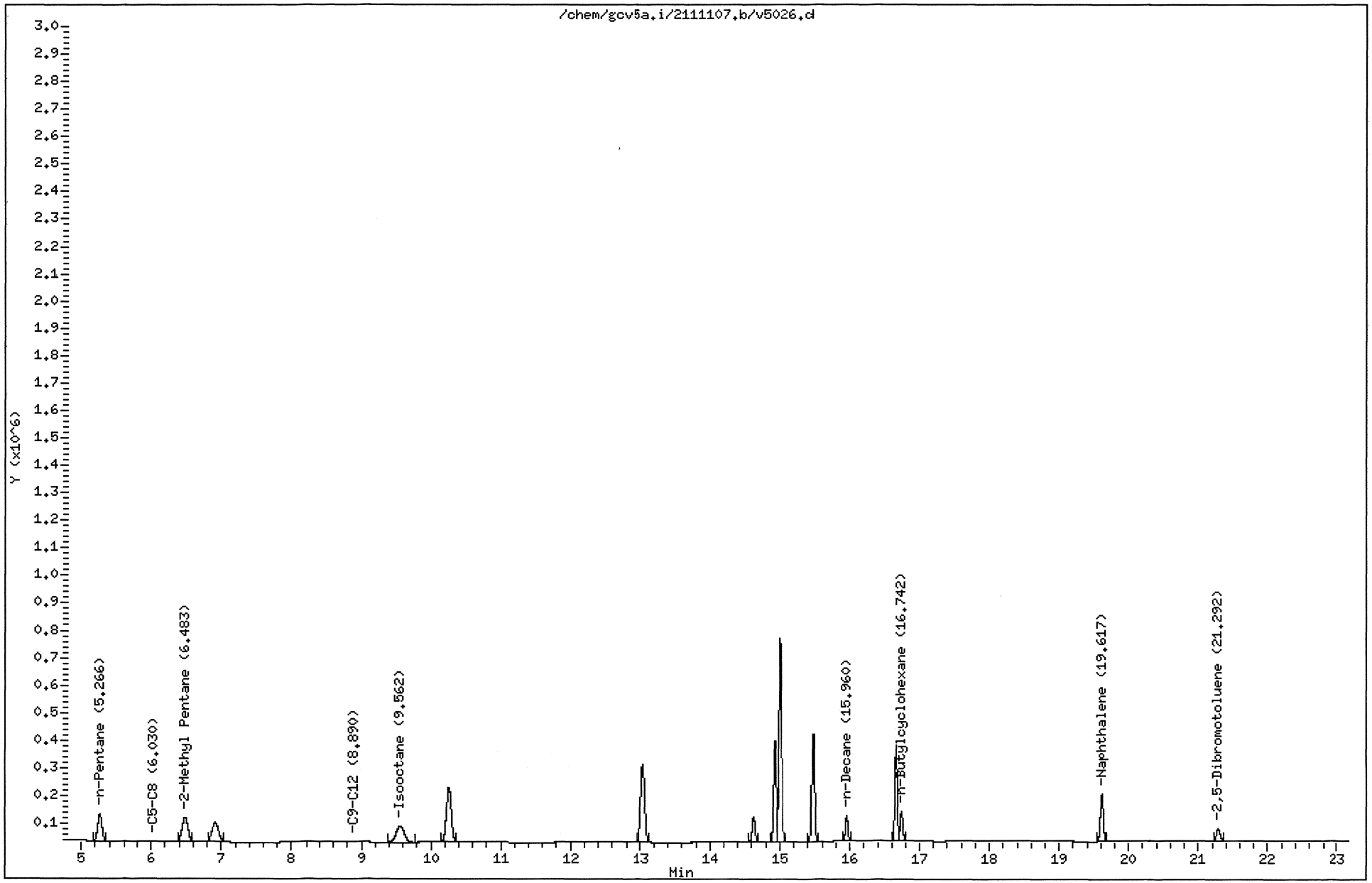
QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5026.d
Date : 08-NOV-2011 01:49
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

211103124 282

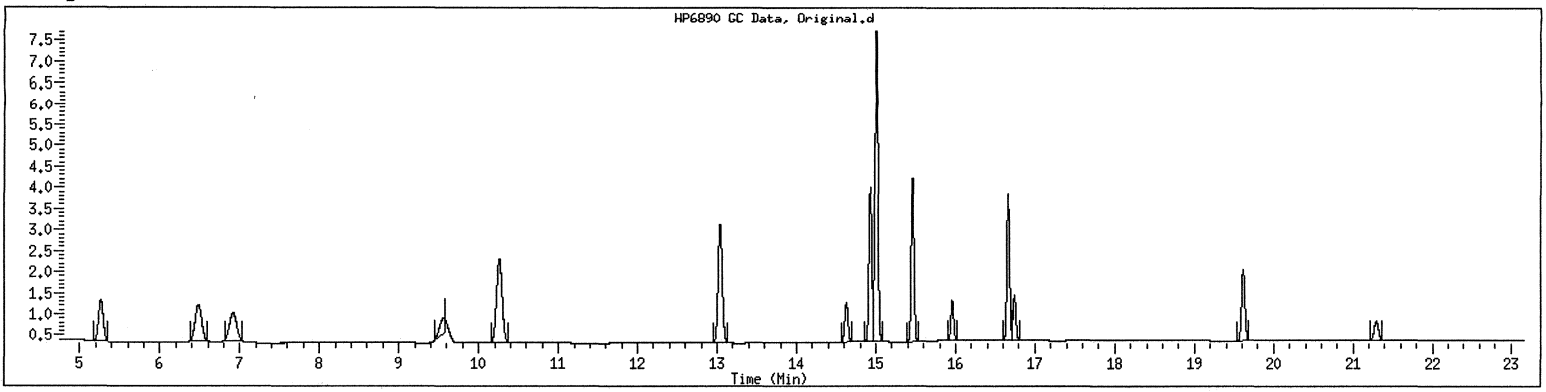


Report Date: 11/08/2011 10:22

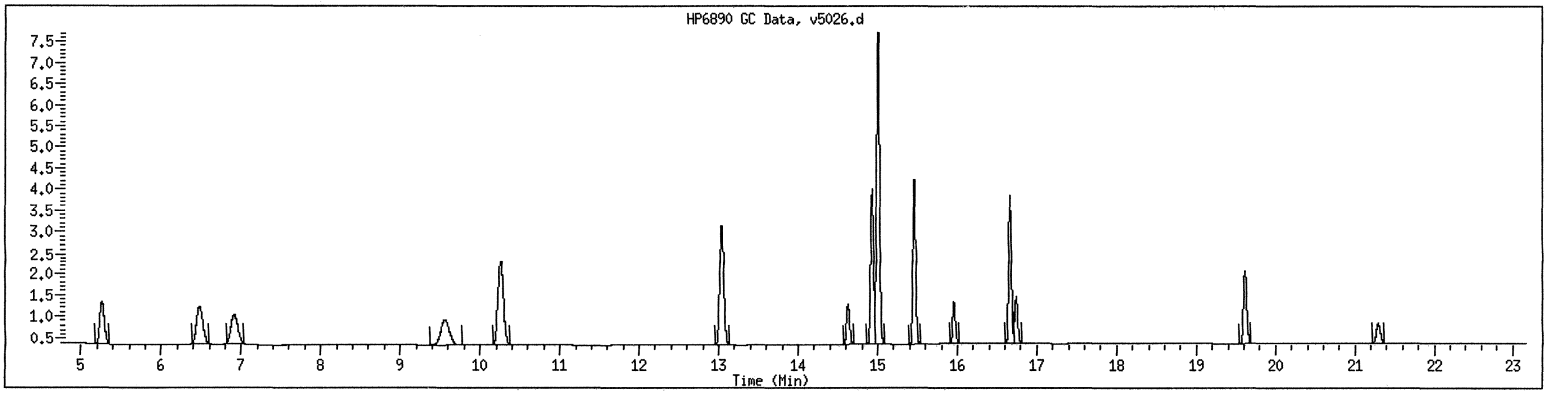
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: SAMPLE
Injection Date	: 11/08/2011 01:49	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 08-NOV-2011 12:51
Lab File ID: v5031.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: vph6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	10371	0.010	-5.58865	25.00000	Averaged
1 n-Pentane	9000	8873	0.010	1.40885	25.00000	Averaged
3 2-Methyl Pentane	10438	10854	0.010	-3.99027	25.00000	Averaged
6 Isooctane	10027	11384	0.010	-13.53311	25.00000	Averaged
13 n-Decane	5555	5865	0.010	-5.58309	25.00000	Averaged
15 n-Butylcyclohexane	5958	6889	0.010	-15.62315	25.00000	Averaged
16 Naphthalene	8853	10352	0.010	-16.92283	25.00000	Averaged
M 5 C9-C12	5437	6377	0.010	-17.28255	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3484	0.010	-16.52254	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 10.71723
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5031.d
Lab Smp Id: vph6/12/4
Inj Date : 08-NOV-2011 12:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : vph6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:21 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2 C5-C8				1555603	150.000	158
	1 n-Pentane	5.266	5.266	0.000	443669	50.0000	49.3
	3 2-Methyl Pentane	6.483	6.483	0.000	542713	50.0000	52.0
	6 Isooctane	9.561	9.561	0.000	569221	50.0000	56.8(M1)
	13 n-Decane	15.965	15.965	0.000	293253	50.0000	52.8
	15 n-Butylcyclohexane	16.748	16.748	0.000	344469	50.0000	57.8
	16 Naphthalene	19.628	19.628	0.000	517578	50.0000	58.5
M	5 C9-C12				637722	100.000	111
$	17 2,5-Dibromotoluene	21.306	21.306	0.000	174181	50.0000	58.3

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5031.d

Date : 08-NOV-2011 12:51

Client ID:

Sample Info: vph6/12/4

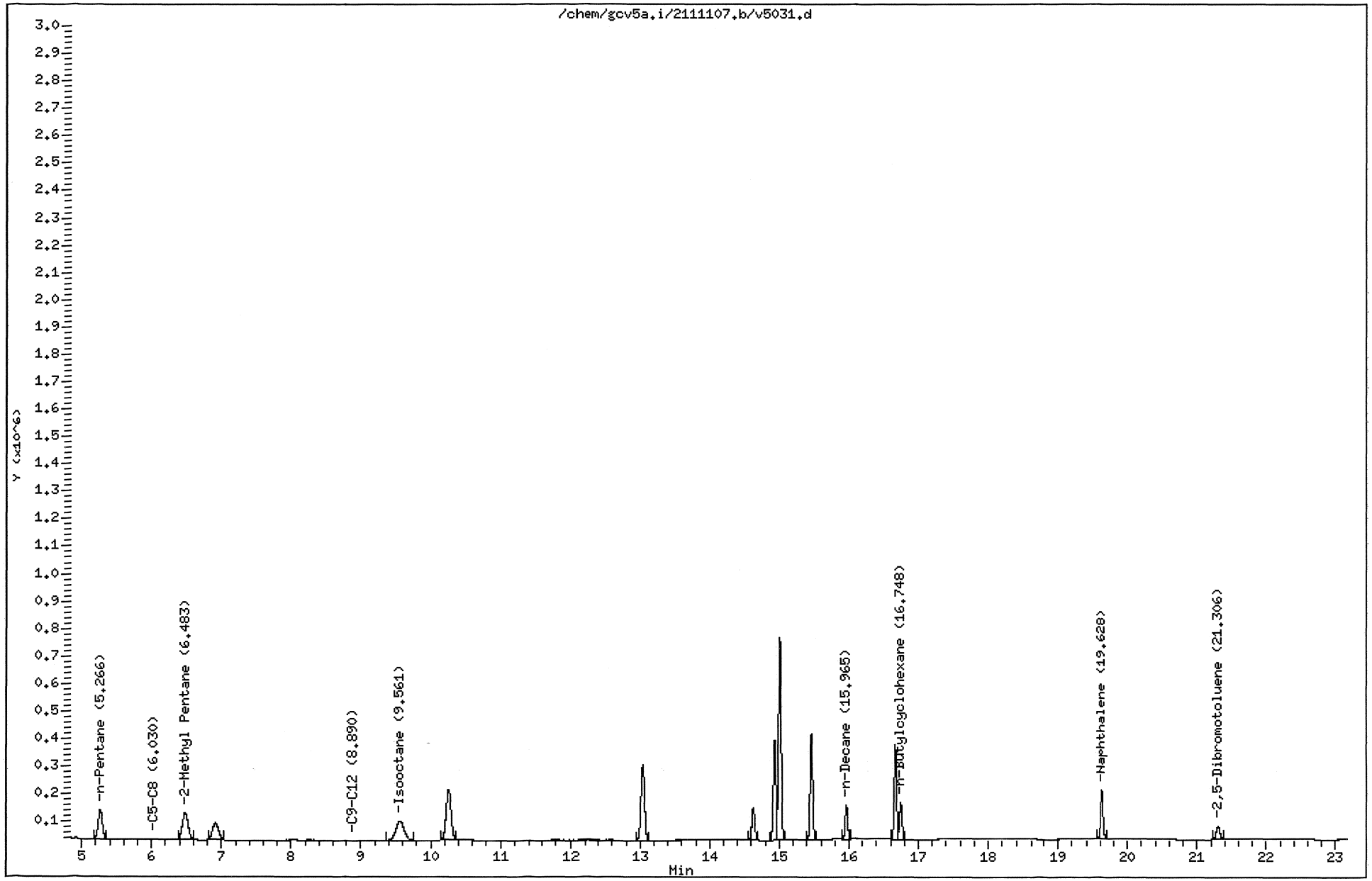
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

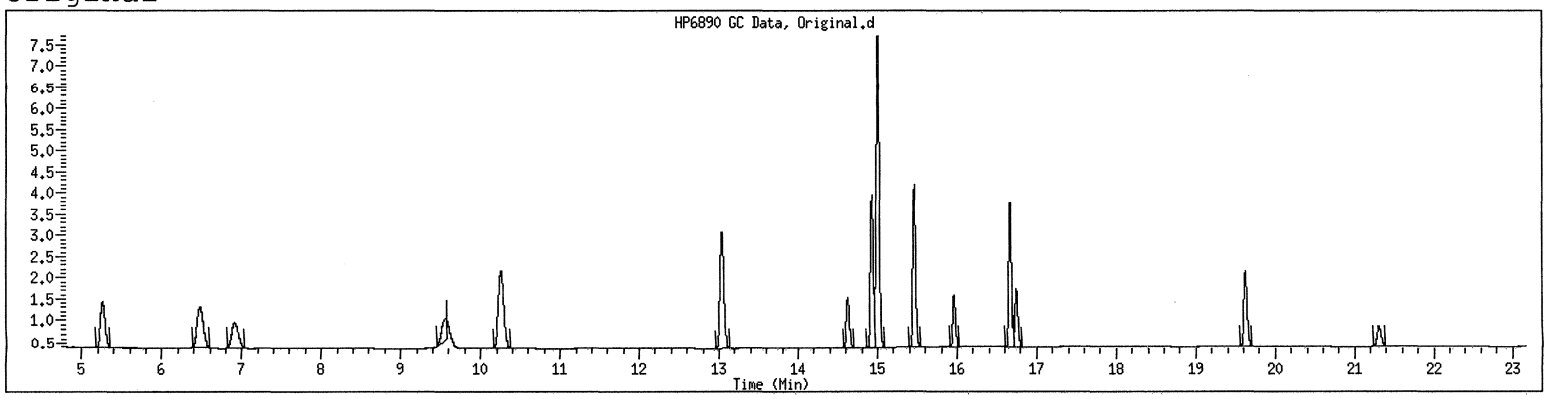
Column diameter: 0.53



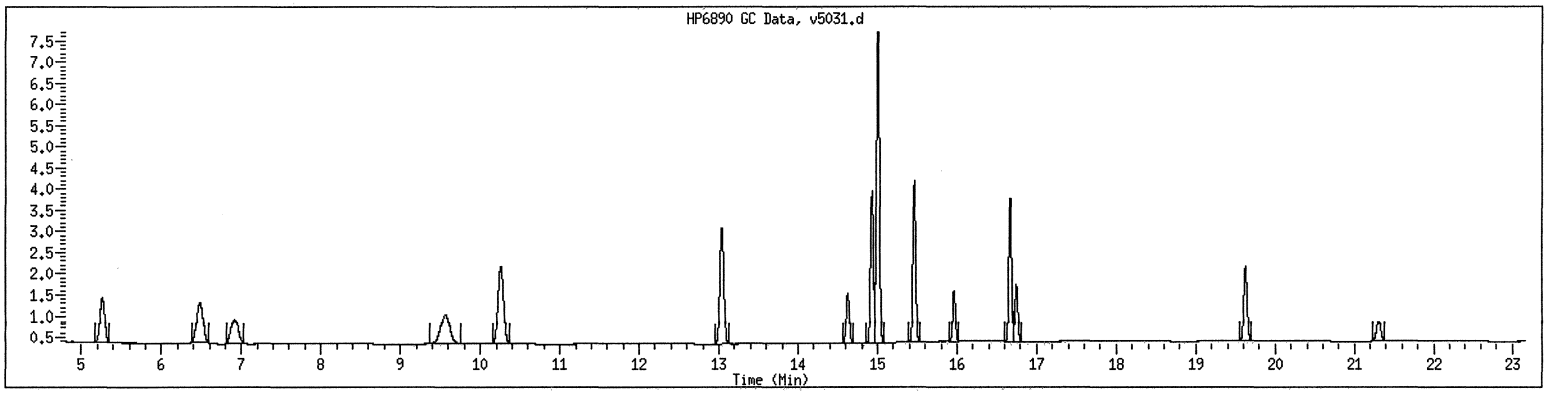
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: vph6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/08/2011 12:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: vph6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1003187

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 1003187

Level: (low/med) | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1221

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5003

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5003.d
Lab Smp Id: 1003187 Client Smp ID: 1003187
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003187
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.786	21.781	0.005	350170	50.0811	50.1

Data File: /var/chem/gcv5b.i/2111107.b/v5003.d

Page 1

Date : 07-NOV-2011 12:21

Client ID: 1003187

Instrument: gcv5b.i

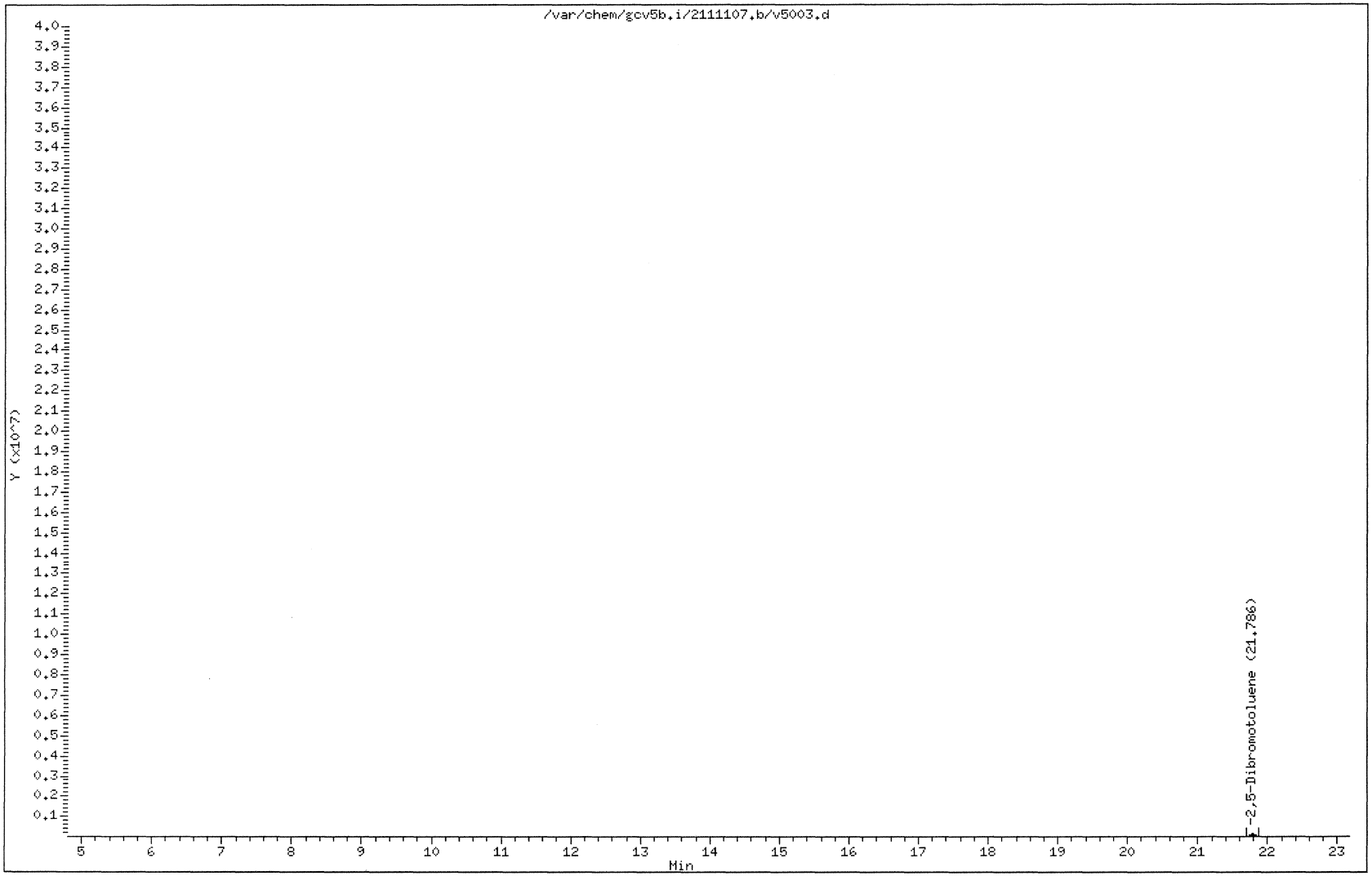
Sample Info: 1003187

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

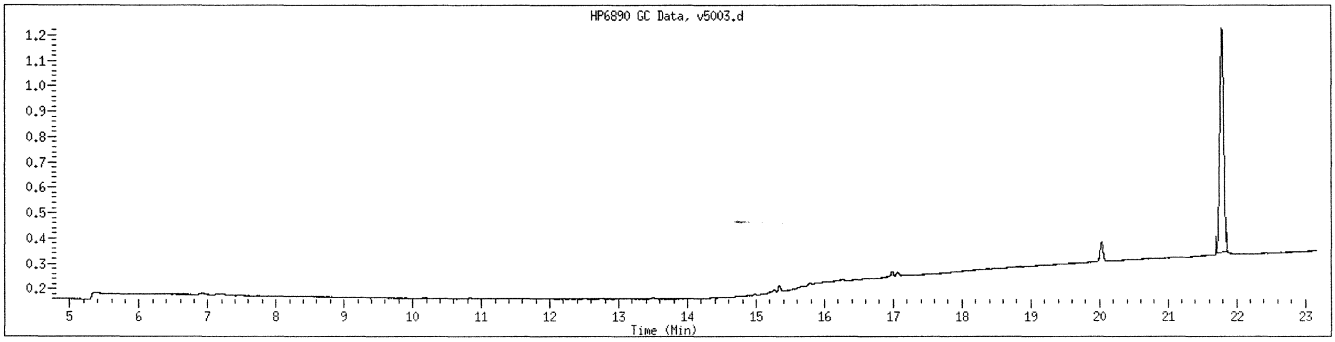
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1003187 SampleType : SAMPLE
Injection Date: 11/07/2011 12:21 Instrument : gcv5b.i
Operator : JAR
Sample Info : 1003187
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5003.d
Lab Smp Id: BLK
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5a.i
Smp Info : BLK
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

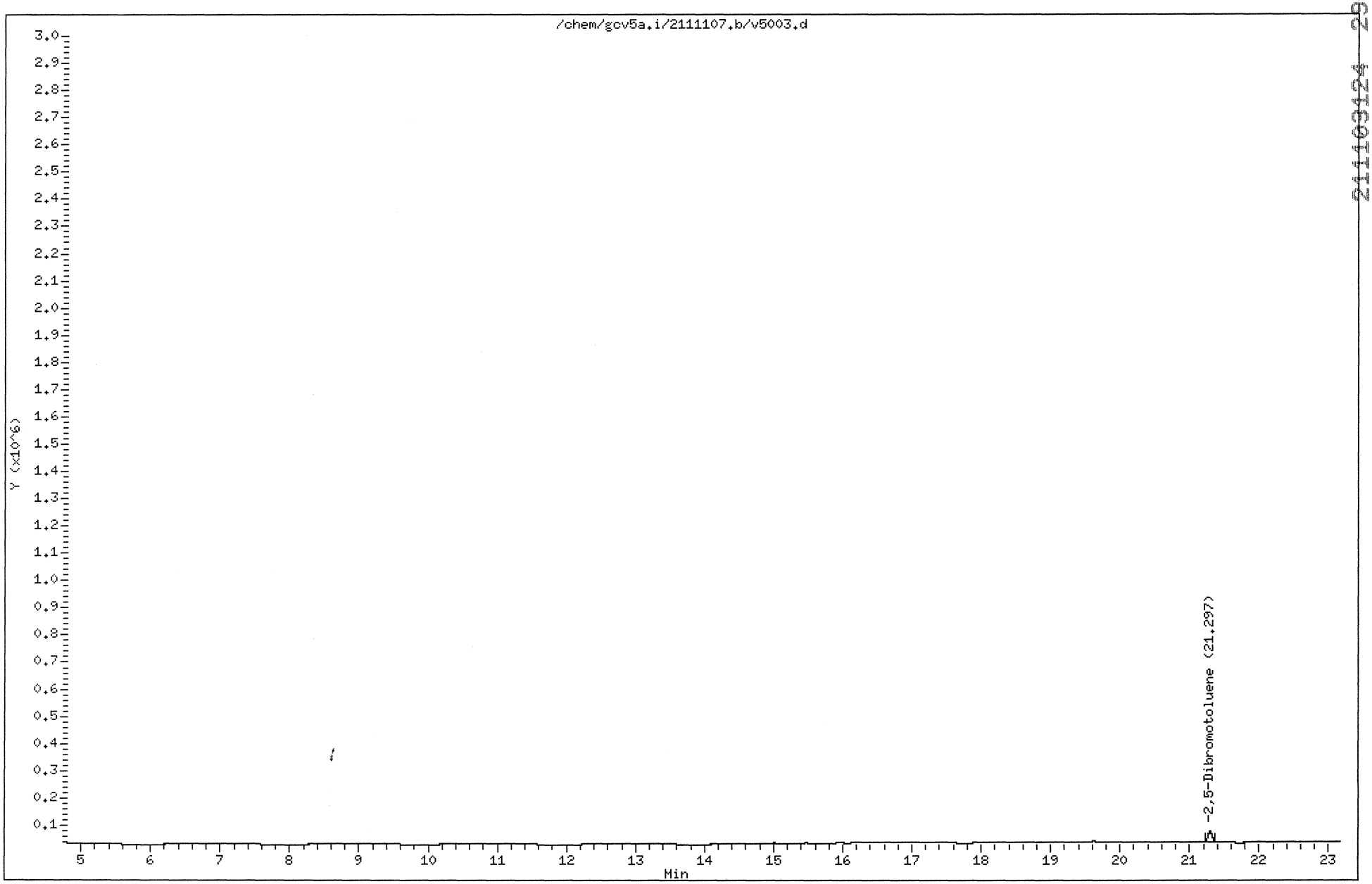
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
$ 17 2,5-Dibromotoluene	21.297	21.294	0.003	143488	47.9950	48.0

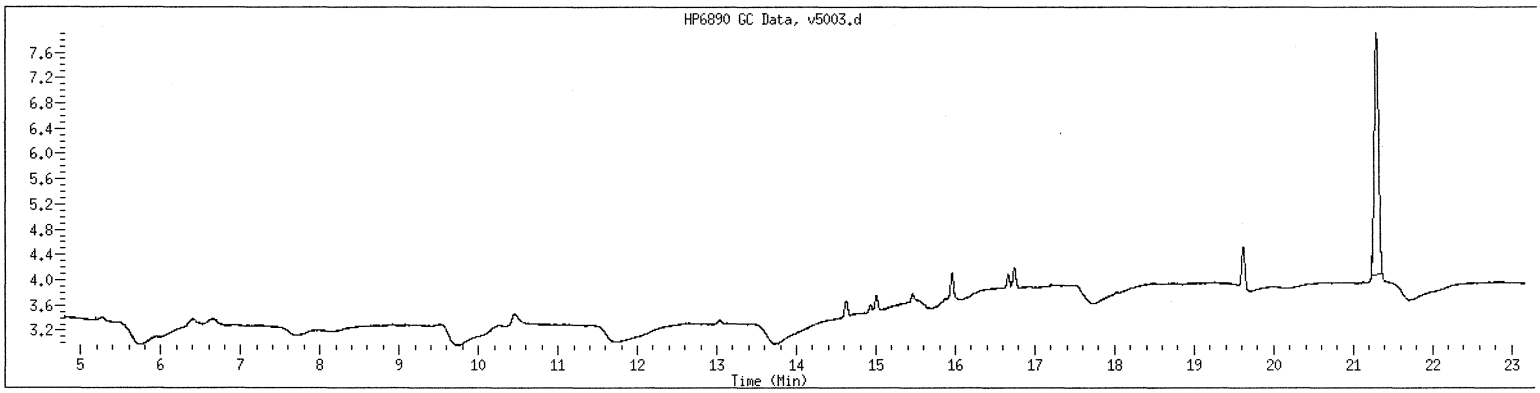
Data File: /chem/gcv5a.i/2111107.b/v5003.d
Date : 07-NOV-2011 12:21
Client ID:
Sample Info: BLK
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: BLK	SampleType	: SAMPLE
Injection Date	: 11/07/2011 12:21	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: BLK		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCS1003188

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 1003188

Level: (low/med) | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1151

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5002

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	152		3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	105		3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	54.4		1.24	5.00	10.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5002.d
Lab Smp Id: 1003188 Client Smp ID: 1003188
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003188
Misc Info : lcs6/12/4
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

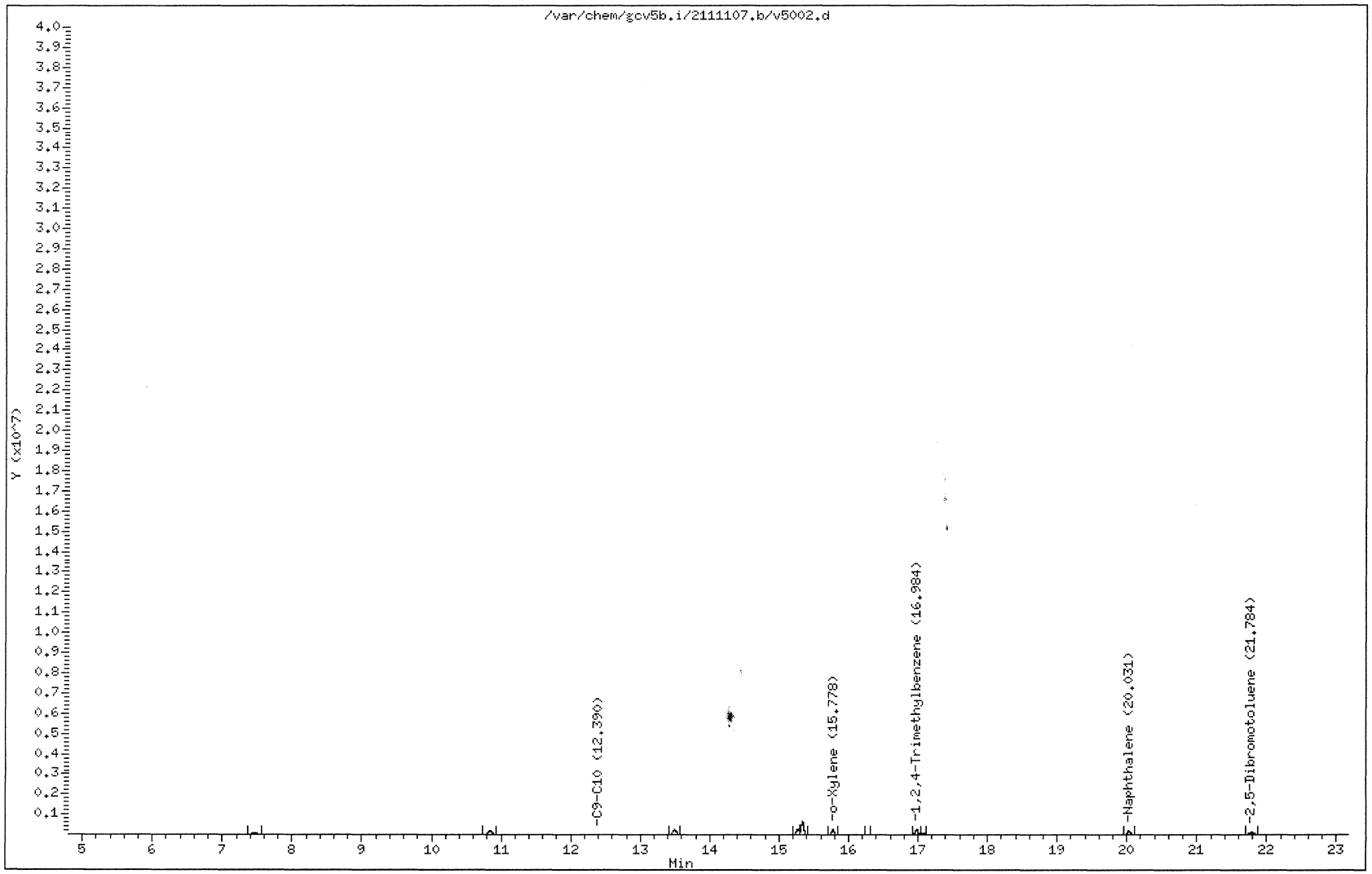
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

			RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6	o-Xylene	15.778	15.777	0.001	709878	52.3134	52.3
	7	1,2,4-Trimethylbenzene	16.984	16.983	0.001	655039	54.4552	54.4
M	9	C9-C10				655039	54.4552	54.4
	8	Naphthalene	20.031	20.028	0.003	556525	54.6350	54.6
$	10	2,5-Dibromotoluene	21.784	21.781	0.003	365094	52.2155	52.2

Data File: /var/chem/gcv5b.i/2111107.b/v5002.d
Date : 07-NOV-2011 11:51
Client ID: 1003188
Sample Info: 1003188
Volume Injected (uL): 1.0
Column phase: DB-624-30

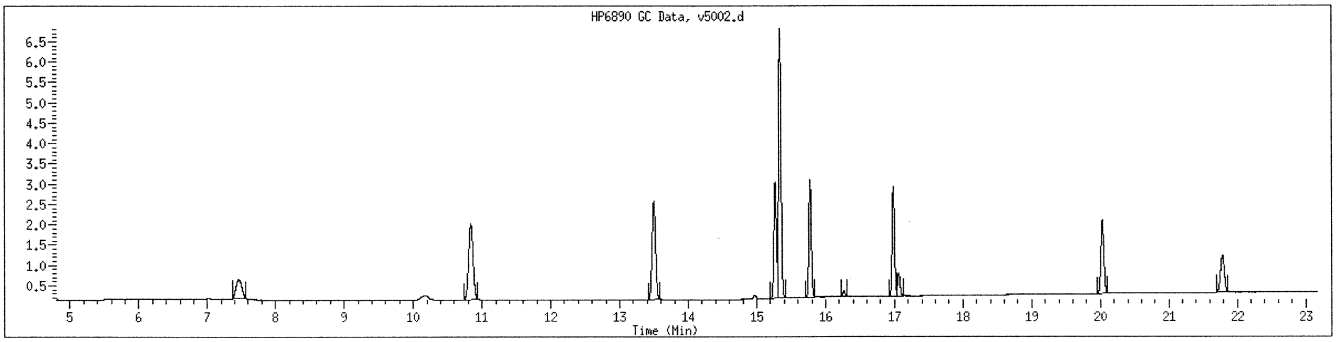
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1003188 SampleType : LCS
Injection Date: 11/07/2011 11:51 Instrument : gcv5b.i
Operator : JAR
Sample Info : 1003188
Misc Info : lcs6/12/4
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5002.d
Lab Smp Id: lcs6/12/4
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : lcs6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						CONCENTRATIONS	
						ON-COLUMN	FINAL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1496403	152.268	152
	1 n-Pentane	5.269	5.263	0.006	446597	49.6209	49.6
	3 2-Methyl Pentane	6.485	6.480	0.005	522005	50.0112	50.0
	6 Isooctane	9.564	9.557	0.007	527801	52.6359	52.6(M1)
	13 n-Decane	15.962	15.959	0.003	281892	50.7463	50.7
	15 n-Butylcyclohexane	16.744	16.742	0.002	324847	54.5185	54.5
	16 Naphthalene	19.621	19.617	0.004	473106	53.4382	53.4
M	5 C9-C12				606739	105.265	105
$	17 2,5-Dibromotoluene	21.296	21.294	0.002	146985	49.1646	49.2

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5002.d

Date : 07-NOV-2011 11:51

Client ID:

Instrument: gcv5a.i

Sample Info: lcs6/12/4

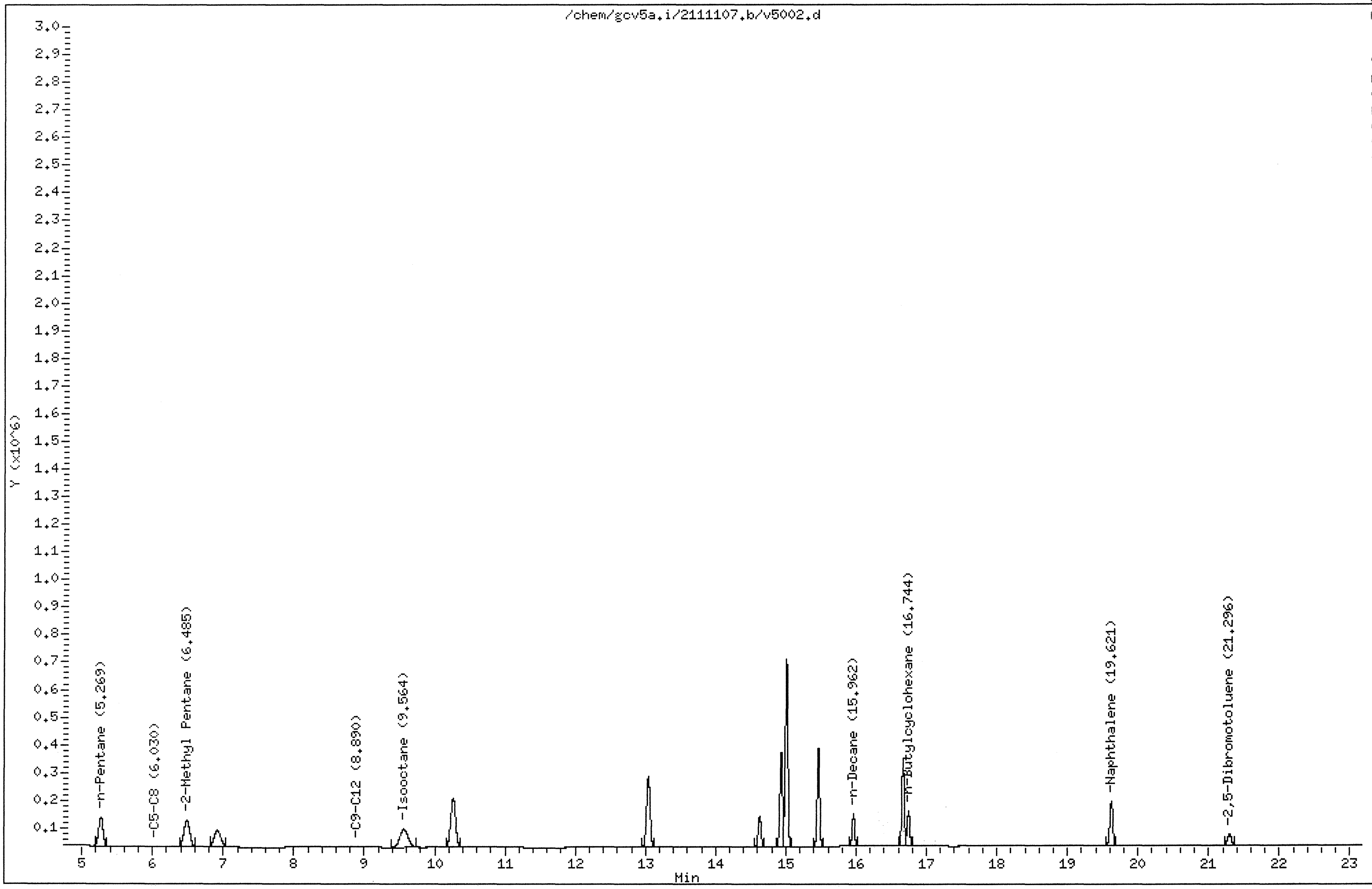
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

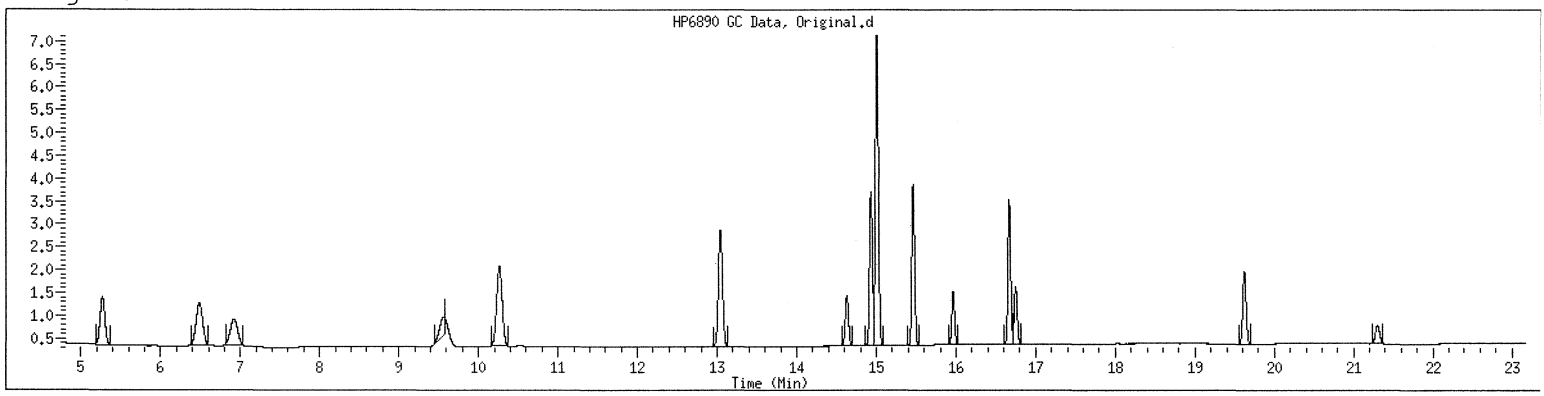
2111031243 02



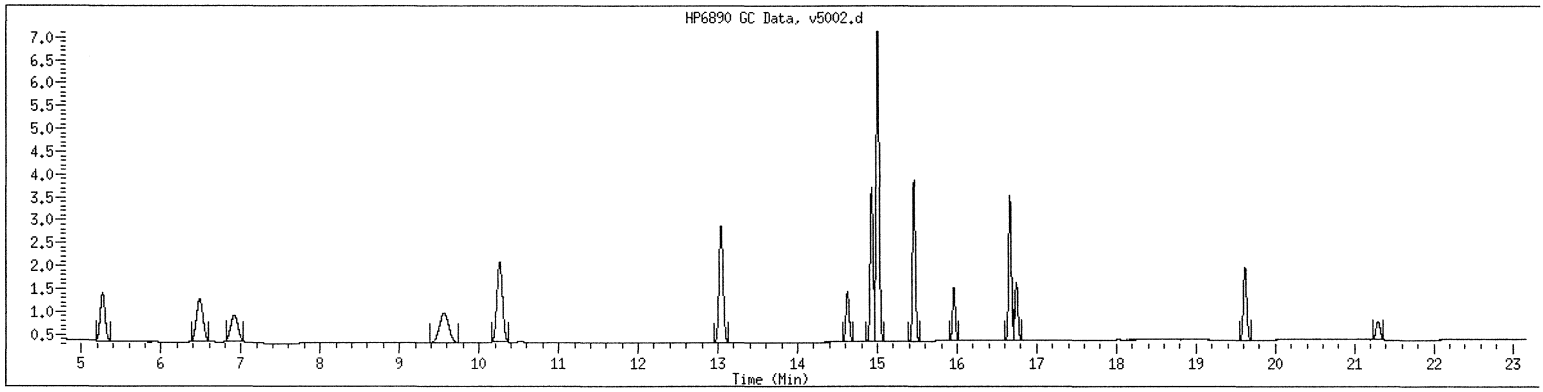
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: lcs6/12/4	SampleType	: LCS
Injection Date	: 11/07/2011 11:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: lcs6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	ES047 MS
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211103124
Sample wt/vol:	5 Units: mL	Lab Sample ID:	21110312403
Level: (low/med)		Date Collected:	10/24/11 Time: 0830
% Moisture:	decanted: (Y/N)	Date Received:	10/29/11
GC Column:	ID: (mm)	Date Extracted:	
Concentrated Extract Volume:	5000 (µL)	Date Analyzed:	11/07/11 Time: 1925
Soil Aliquot Volume:	(µL)	Dilution Factor:	10 Analyst: JAR
Injection Volume:	1 (µL)	Prep Method:	
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSVPH
Prep Batch:	Analytical Batch: 468512	Sulfur Cleanup: (Y/N)	N Instrument ID: GCV5B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111107/v5014

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	1440		33.1	150	300
GCV-00-6	C9-C10 Aromatic	739		12.4	50.0	100
GCV-00-5	C9-C12 Aliphatic	1760		32.0	100	200

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5014.d
Lab Smp Id: 21110312403 Client Smp ID: 21110312403
Inj Date : 07-NOV-2011 19:25
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312403*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:36 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

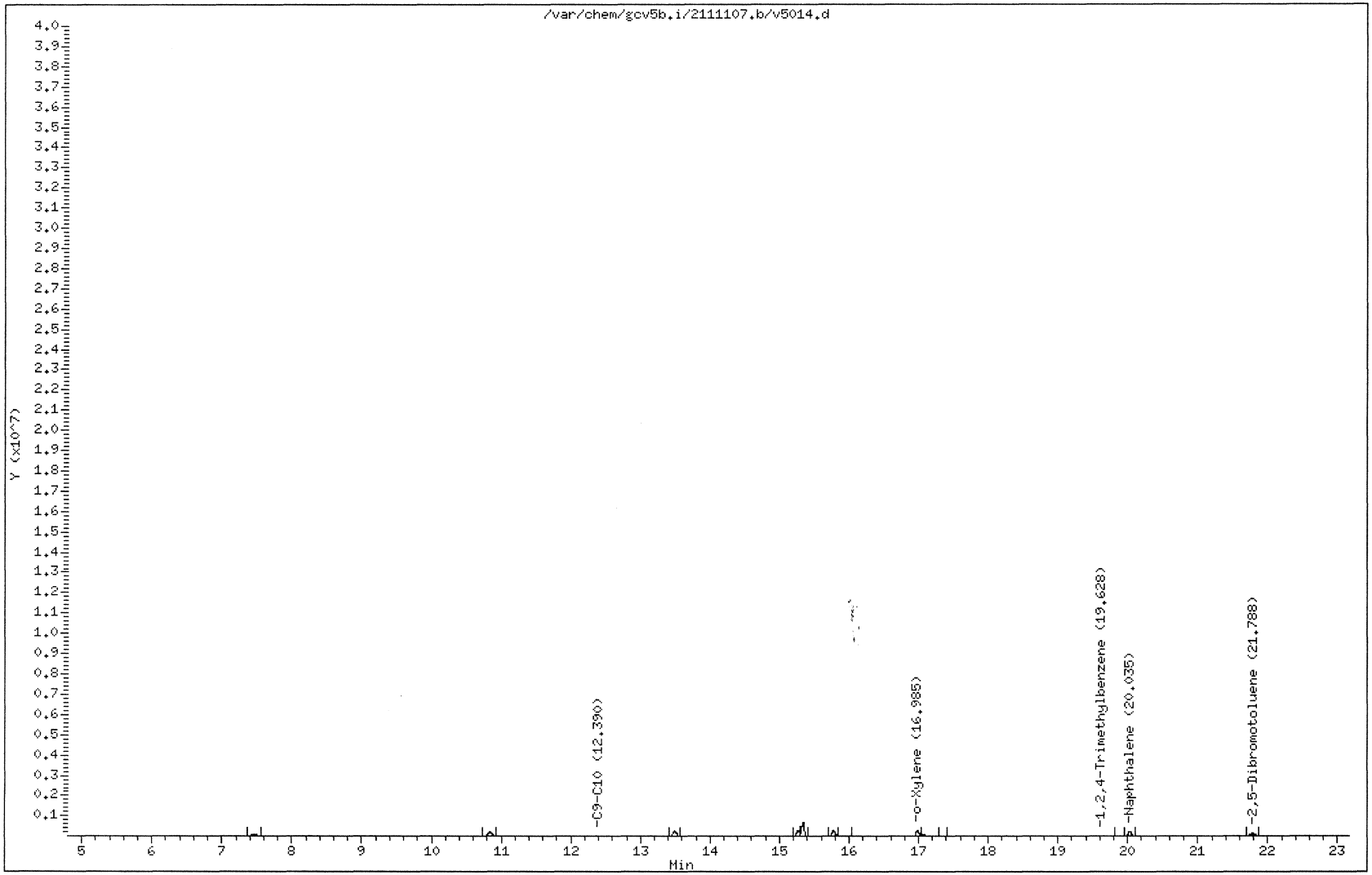
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
6	o-Xylene	16.985	15.777	1.208	722379	53.2347	532(M1)
7	1,2,4-Trimethylbenzene	19.628	16.983	2.645	166981	13.8816	139(RM1)
M 9	C9-C10				889360	73.9349	739(R)
8	Naphthalene	20.035	20.028	0.007	553290	54.3174	543
$ 10	2,5-Dibromotoluene	21.788	21.781	0.007	371390	53.1159	531

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5014.d
Date : 07-NOV-2011 19:25
Client ID: 21110312403
Sample Info: 21110312403*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53

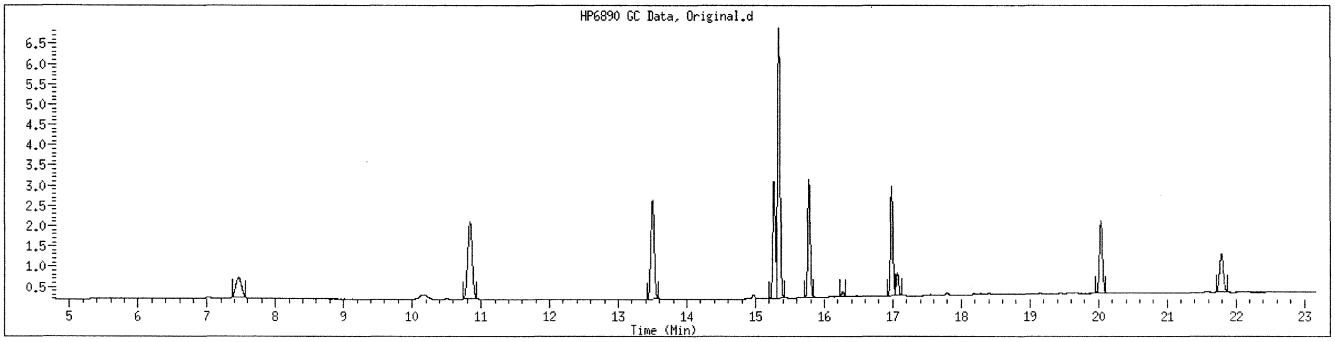


Report Date: 11/08/2011 13:36

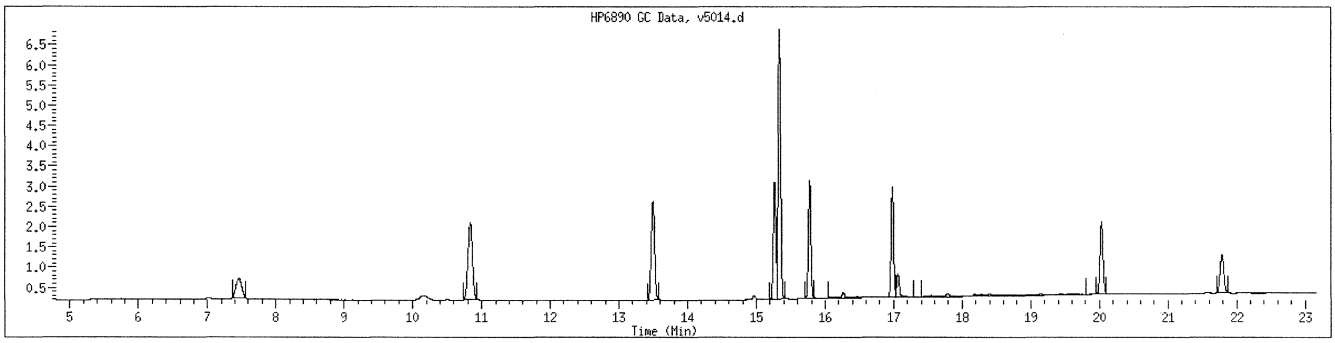
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312403 SampleType : MS
Injection Date: 11/07/2011 19:25 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312403*10
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 10.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5014.d
Lab Smp Id: 21110312403 Client Smp ID: 21110312403
Inj Date : 07-NOV-2011 19:25
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312403*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

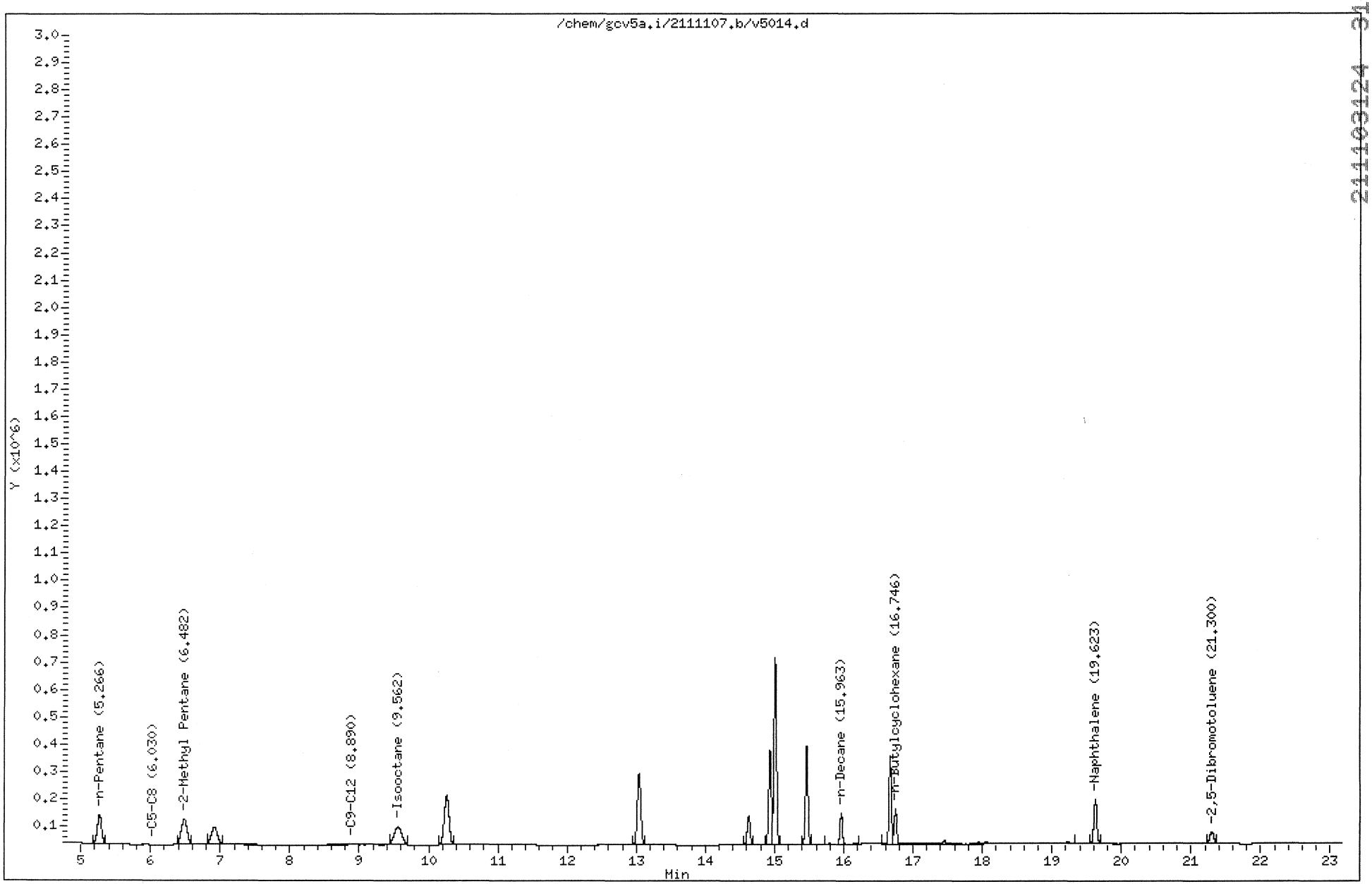
		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1417508	144.336	1440
	1	n-Pentane	5.266	5.266	0.000	437501	48.6103	486
	3	2-Methyl Pentane	6.482	6.482	0.000	512046	49.0571	490
	6	Isooctane	9.562	9.562	0.000	467961	46.6682	467
	13	n-Decane	15.963	15.963	0.000	303160	54.5751	546(M1)
	15	n-Butylcyclohexane	16.746	16.746	0.000	726489	121.925	1220(AM1)
	16	Naphthalene	19.623	19.623	0.000	471380	53.2433	532
M	5	C9-C12				1029649	176.500	1760
$	17	2,5-Dibromotoluene	21.300	21.301	-0.001	151837	50.7875	508

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5014.d
Date : 07-NOV-2011 19:25
Client ID: 21110312403
Sample Info: 21110312403*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

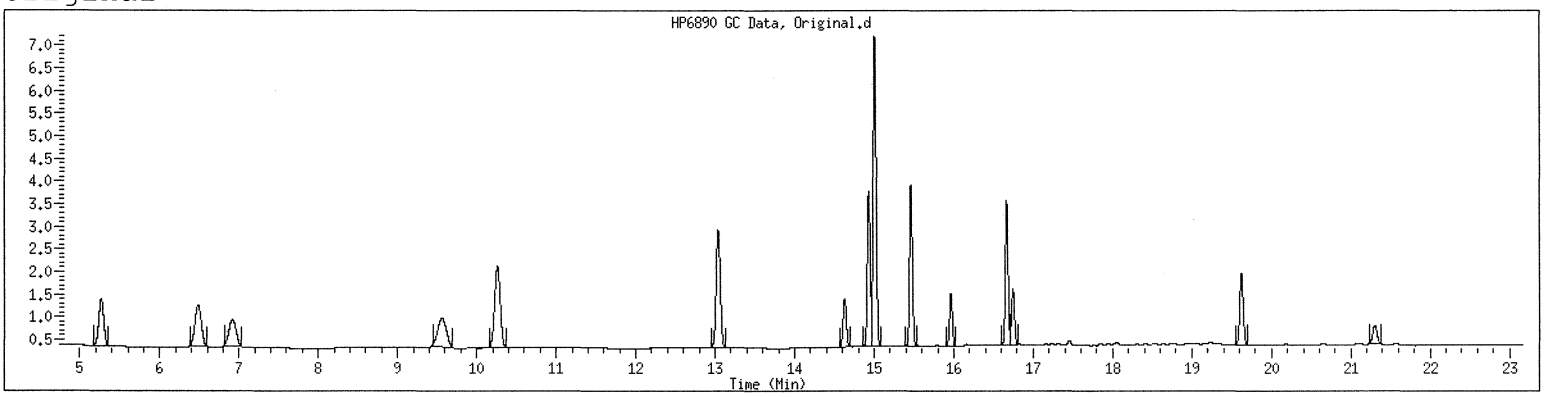
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



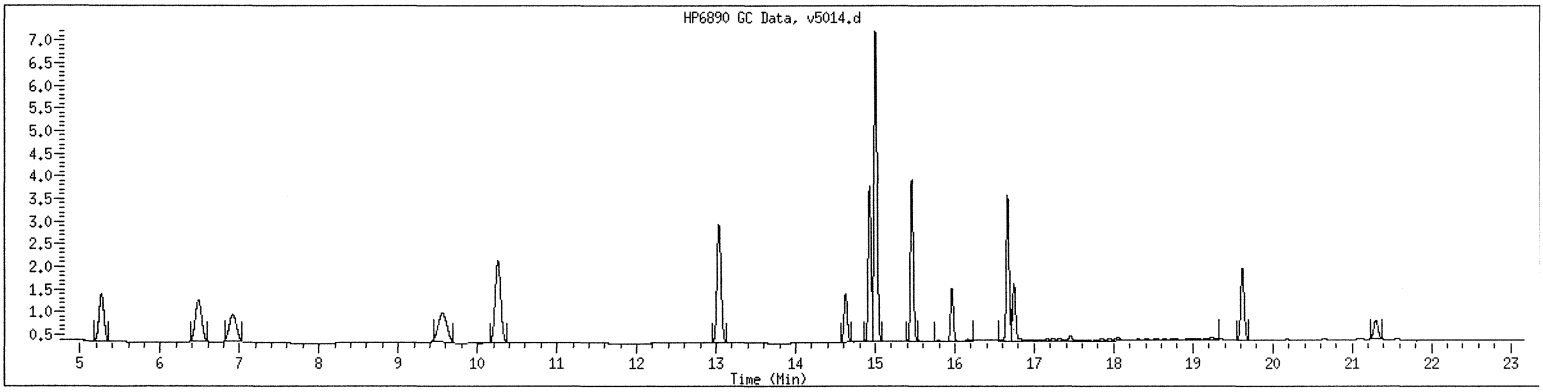
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/07/2011 19:25	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312403*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211103124

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312404

Level: (low/med) | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1955

Soil Aliquot Volume: | (µL) | Dilution Factor: 10 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5015

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	1440		33.1	150	300
GCV-00-6	C9-C10 Aromatic	688		12.4	50.0	100
GCV-00-5	C9-C12 Aliphatic	1560		32.0	100	200

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5015.d
Lab Smp Id: 21110312404 Client Smp ID: 21110312404
Inj Date : 07-NOV-2011 19:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312404*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:36 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

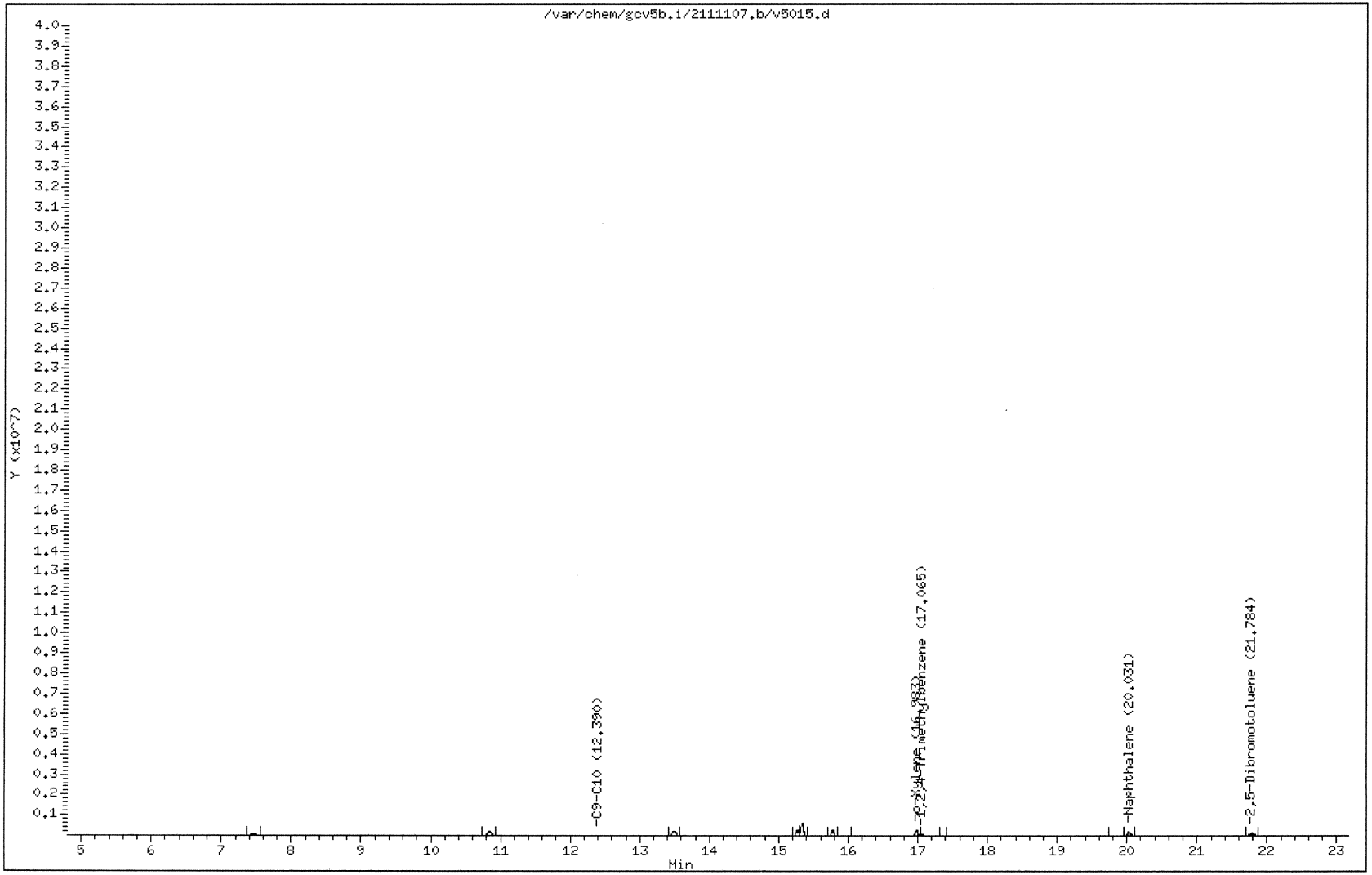
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6 o-Xylene	16.983	15.777	1.206	671639	49.4955	495(M1)
	7 1,2,4-Trimethylbenzene	17.065	16.983	0.082	156074	12.9749	130(RM1)
M	9 C9-C10				827713	68.8100	688(R)
	8 Naphthalene	20.031	20.028	0.003	538473	52.8628	529
$	10 2,5-Dibromotoluene	21.784	21.781	0.003	363301	51.9591	520

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5015.d
Date : 07-NOV-2011 19:55
Client ID: 21110312404
Sample Info: 21110312404x10
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53

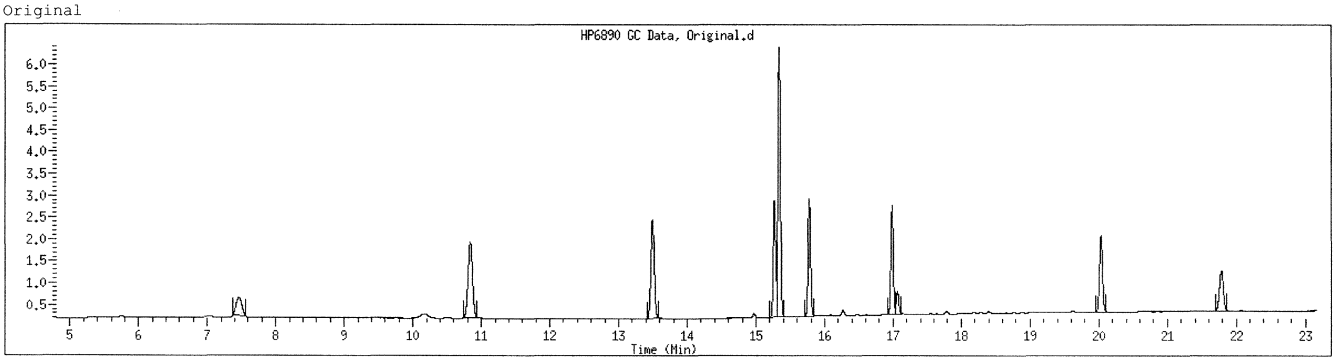


Report Date: 11/08/2011 13:36

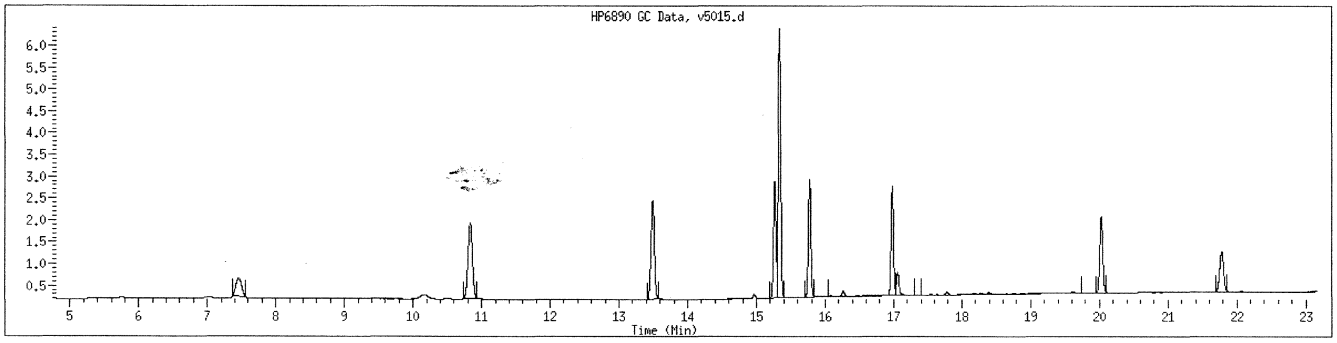
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312404 SampleType : MSD
Injection Date: 11/07/2011 19:55 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312404*10
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 10.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5015.d
Lab Smp Id: 21110312404 Client Smp ID: 21110312404
Inj Date : 07-NOV-2011 19:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312404*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

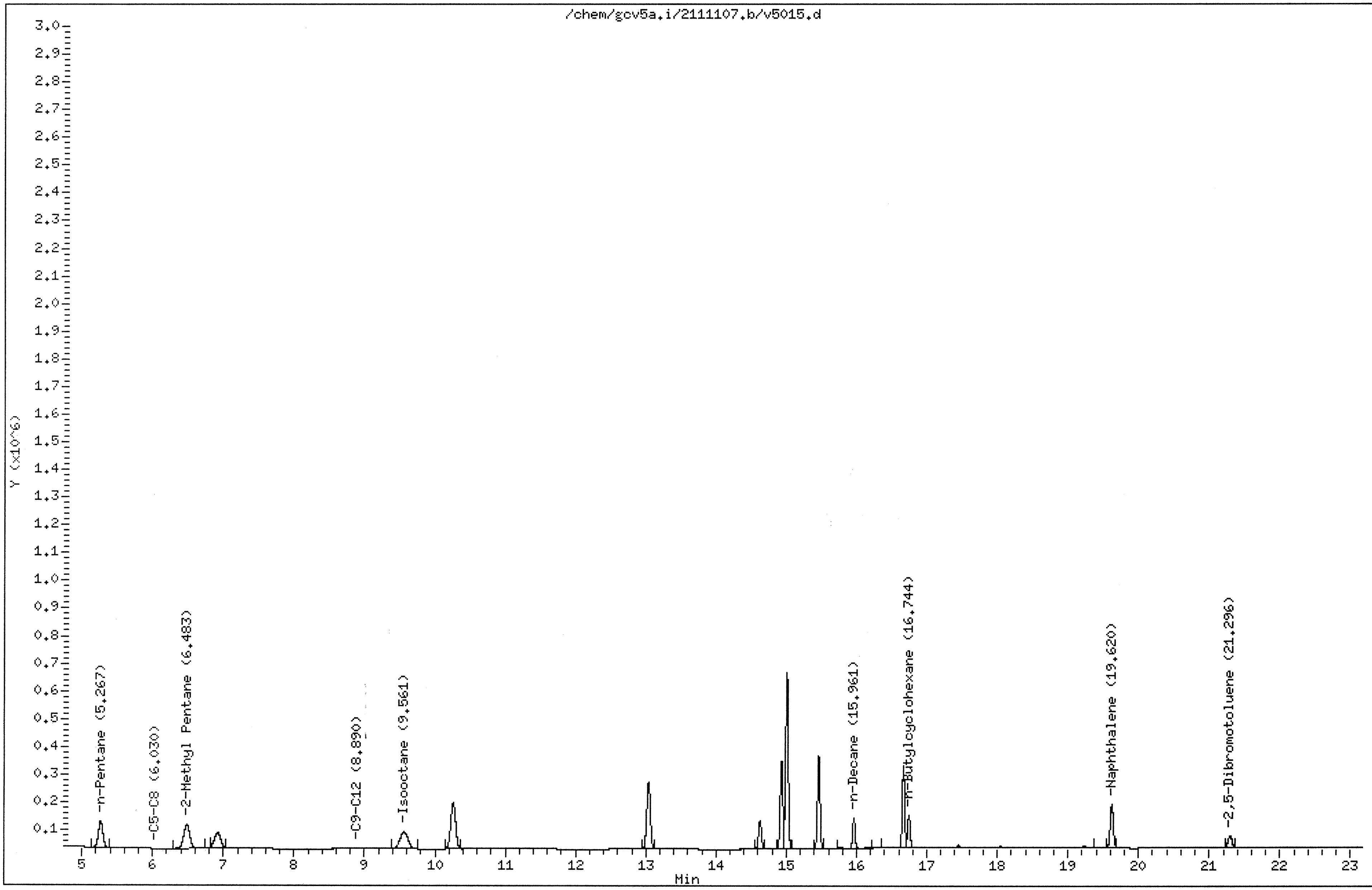
			RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1418180	144.116	1440
	1	n-Pentane	5.267	5.266	0.001	413778	45.9745	460(M1)
	3	2-Methyl Pentane	6.483	6.482	0.001	516302	49.4648	495(M1)
	6	Isooctane	9.561	9.562	-0.001	488099	48.6766	487(M1)
	13	n-Decane	15.961	15.963	-0.002	288918	52.0113	520(M1)
	15	n-Butylcyclohexane	16.744	16.746	-0.002	616692	103.498	1030(AM1)
	16	Naphthalene	19.620	19.623	-0.003	459623	51.9153	519
M	5	C9-C12				905611	155.510	1560
$	17	2,5-Dibromotoluene	21.296	21.301	-0.005	147772	49.4278	494

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5015.d
Date : 07-NOV-2011 19:55
Client ID: 21110312404
Sample Info: 21110312404*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

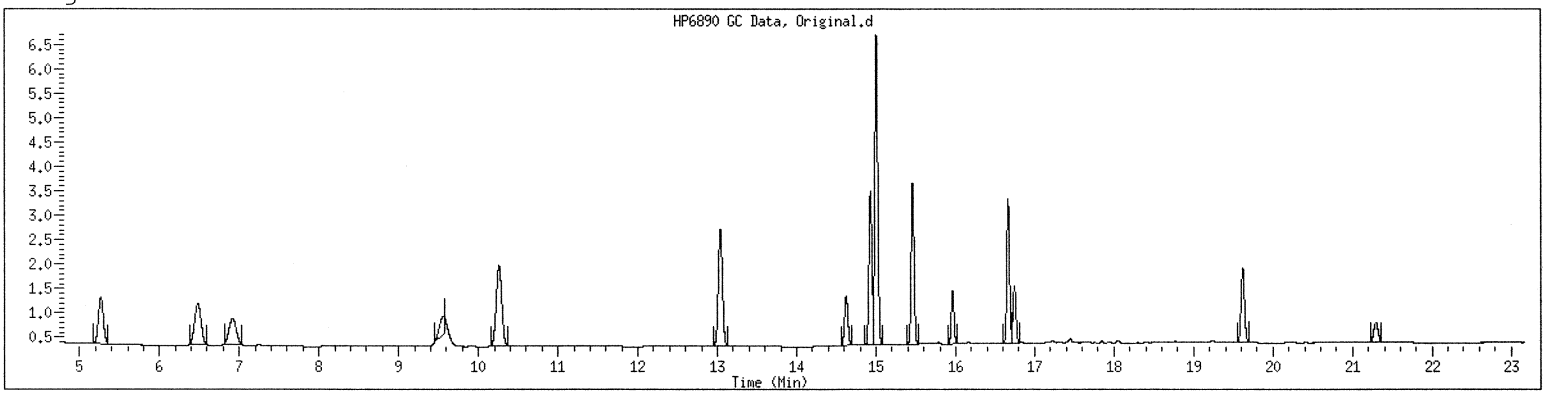
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



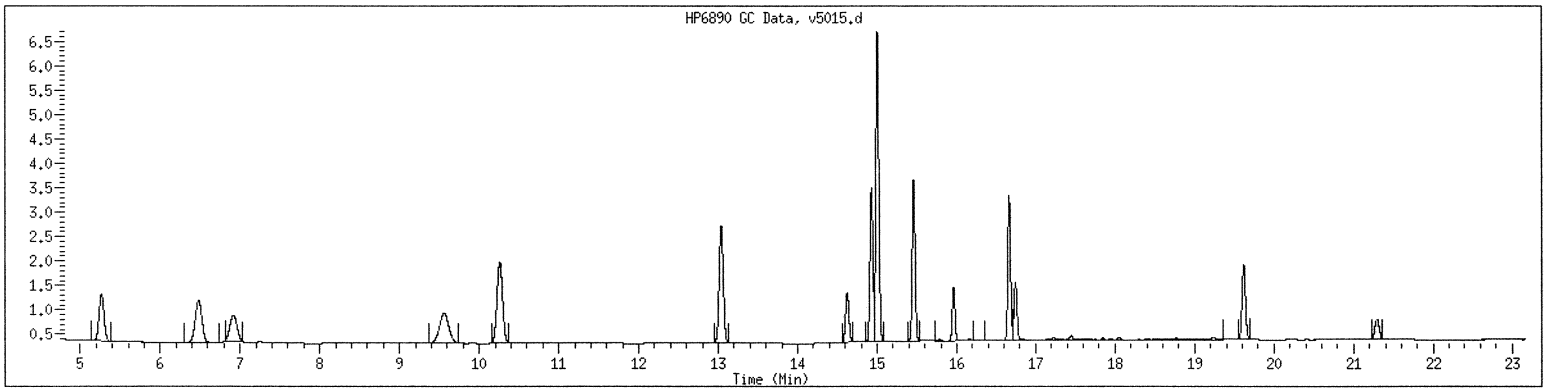
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/07/2011 19:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312404*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Batch: /chem/gcv5b.i/2111104P.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aromatic
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aromatic
VPH20/6/12/4		v5005.d	5.00 g	04-NOV-2011 22:55	50.000	JAR	1	aromatic
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aromatic
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aromatic
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aromatic
ICV6/12/5		v5013.d	5.00 g	05-NOV-2011 02:51	50.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Batch: /var/chem/gcv5b.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	5.00 g	07-NOV-2011 11:22	50.000	JAR	1	aromatic
1003188		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aromatic
1003187		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aromatic
BLK		v5004.d	5.00 g	07-NOV-2011 12:50	50.000	JAR	1	aromatic
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	50.000	JAR	1	aromatic
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	50.000	JAR	1	aromatic
21110202105		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aromatic
21110202105		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aromatic
21110202112		v5009.d	5.00 g	07-NOV-2011 15:17	50.000	JAR	1	aromatic
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aromatic
VPH6/12/4		v5011.d	5.00 g	07-NOV-2011 16:16	50.000	JAR	1	aromatic
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aromatic
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aromatic
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aromatic
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aromatic
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aromatic
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aromatic
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aromatic
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aromatic
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aromatic
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aromatic
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aromatic
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aromatic
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aromatic
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aromatic
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aromatic
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aromatic
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aromatic
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aromatic
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Batch: /chem/gcv5a.i/2111104p.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aliphatic1+surr
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aliphatic1+surr
VPH20/6/12/4		v5005.d	1.00 ml	04-NOV-2011 22:55	1.000	JAR	1	aliphatic1+surr
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aliphatic1+surr
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aliphatic1+surr
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aliphatic1+surr
ICV6/12/5		v5013.d	1.00 ml	05-NOV-2011 02:51	1.000	JAR	1	aliphatic1+surr

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Batch: /var/chem/gcv5a.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	1.00 ml	07-NOV-2011 11:22	1.000	JAR	1	aliphatic1+surr
lcs6/12/4		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aliphatic1+surr
BLK		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aliphatic1+surr
BLK		v5004.d	1.00 ml	07-NOV-2011 12:50	1.000	JAR	1	aliphatic1+surr
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	100.000	JAR	1	aliphatic1+surr
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	100.000	JAR	1	aliphatic1+surr
21110270701		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aliphatic1+surr
21110270701		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aliphatic1+surr
21110202112		v5009.d	1.00 ml	07-NOV-2011 15:17	50.000	JAR	1	aliphatic1+surr
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5011.d	1.00 ml	07-NOV-2011 16:16	1.000	JAR	1	aliphatic1+surr
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aliphatic1+surr
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aliphatic1+surr
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aliphatic1+surr
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aliphatic1+surr
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aliphatic1+surr
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aliphatic1+surr
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aliphatic1+surr
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aliphatic1+surr
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aliphatic1+surr
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aliphatic1+surr
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aliphatic1+surr
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aliphatic1+surr
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aliphatic1+surr
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aliphatic1+surr

General Accts/9000/211103124/11-8-11

SUBCONTRACT ORDER

APPL, Inc.

ARF: 66102 **PO: 00-66102**

SENDING LABORATORY:

APPL Labs
908 North Temperance Ave.
Clovis, CA 93611
Phone: (559) 275-2175
Fax: (559) 275-4422
Project Manager: Cynthia Clark (cclark@applinc.com) np

RECEIVING LABORATORY:

Gulf Coast Analytical
7979 GSRI Rd.
Baton Rouge, LA 70820
Phone: (225) 769-4900x
Fax:
DOD Expiration Date:

Comments: Level IV report - DoD format (LOQ/LOD/DL), ADR (A1/A3 8.3a unchecked) EDD and Excel EDD

	APPL ID	Sample ID	LOC ID	Matrix	Collected	Analysis		Price
1.	AY49333	ES046		Water	10/24/11 09:55	MADEP-EPH	1	$125.00
				Water	10/24/11 09:55	MADEP-VPH		$75.00
2.	AY49334	ES047	MS/MSD	Water	10/24/11 08:30	MADEP-EPH	2,3,4	$125.00
				Water	10/24/11 08:30	MADEP-VPH		$75.00
3.	AY49336	ES049		Water	10/24/11 14:35	MADEP-EPH	5	$125.00
				Water	10/24/11 14:35	MADEP-VPH		$75.00

5.0
5.8
3.4

4796 7085 3280

Released By	Date	Time	Received By	Date	Time
Young Jo	10/28/11	14:30			
			C Saucier	10/29/11	910
Released By	Date	Time	Received By	Date	Time

To ensure timely payment, please include the PO number on your invoice

Printed: 10/28/2011 1:34:43 PM SUB_ID: 3649

4796 7085 3231

4796 7085 3242

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

SAMPLE RECEIVING CHECKLIST

Workorder: 211103124

Client: 9000 - General Accounts

Profile: 227122 - Appl, Inc.

Line Item: 1 - Waters

Received by: Saucier, Charlotte

Received Date/Time: 10/29/2011 9:10:00 AM

Samples Received via: FEDEX

Number of Coolers Received: 3

Cooler tracking numbers(s): 4796 7085 3220/ 4796 7085 3231/ 4796 7085 3242

Cooler temperature(s): 5.9, 5.8, 3.4

Were all coolers received at a temperature of 0 - 6° C?	☑ Yes	☐ No	☐ N/A
Were all custody seals intact?	☑ Yes	☐ No	☐ N/A
Were all samples received in proper containers?	☑ Yes	☐ No	☐ N/A
Were all samples properly preserved?	☑ Yes	☐ No	☐ N/A
Was preservative added to any container at the lab?	☐ Yes	☑ No	☐ N/A
Were all containers received in good condition?	☑ Yes	☐ No	☐ N/A
Were all VOA vials received with no head space?	☑ Yes	☐ No	☐ N/A
Do all sample labels match the Chain of Custody?	☑ Yes	☐ No	☐ N/A
Was the client notified about any discrepancies?	☐ Yes	☐ No	☑ N/A

Notes/Comments:

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: 05233CA
DoD-ELAP Certificate number: ADE-1410

Data Validatable Report

December 12, 2011

Environet, Inc.
650 Iwilei Road, Suite 204
Honolulu, Hawaii 96817

Attn: Stacey Fineran

Title: Report of Data: Case 66116

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

Contract #: Prime contract # for DoD: N62742-08-D-1930, CTO HC21

Dear Ms. Fineran:

Samples were received October 27, 2011, in good condition. Written results for the requested analyses are provided on this December 12, 2011.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc.

If you have any questions or require further information, please contact your APPL Project Manager, Diane Anderson, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/rp
Enclosure
cc: File

Number of pages in this report: 420

Data Validation Package
for
LTM Red Hill Bulk Fuel Storage Facility
SDG 66116
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 66116

Project: LTM Red Hill Bulk Fuel Storage Facility

Sample Receipt Information:

The samples were received on October 27, 2011, at 2.5°C. The samples were assigned Analytical Request Form (ARF) number 66116. The sample numbers and requested analyses were compared to the chain of custody and email communications. One bottle arrived broken for sample ES051; the client was notified. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES050	AY49481	WATER	10/25/2011	10/27/2011
ES051	AY49482	WATER	10/25/2011	10/27/2011
ES052	AY49483	WATER	10/25/2011	10/27/2011

Samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

APPL's laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc. Their report is included.

CASE NARRATIVE

EPA Method 8015B

Total Petroleum Hydrocarbons – Diesel

Sample Preparation:

The water samples were extracted according to EPA method 3510C. The samples were extracted within holding time.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a flame ionization detector.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limit in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated for MS/MSD analysis.

Surrogates:

The surrogate recoveries are summarized on the form 2 & 8. All surrogate recoveries were within control limits.

Summary:

No other problem was encountered

EPA Method 8270D SIM

Polynuclear Aromatic Hydrocarbons

Sample Preparation:

The water samples were extracted according to EPA method 3510C. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to EPA method 8270D using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector in selective ion monitoring mode.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All spike criteria were met.

No sample was designated for MS/MSD analysis.

Surrogates

Surrogate recoveries are summarized on the forms 2&8. All surrogate recoveries were within control limits.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

No problem was encountered.

EPA Method 8260B

Volatile Organic Analysis

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector. All samples were listed as non-preserved. All samples were injected within a seven day holding time. All holding times were met. Manual integrations were performed in accordance to APPL's SOP. All points of the gasoline curve, the gasoline second-source, and the gasoline continuing calibration required manual integrations because the integration did not follow the baseline. Chromatograms of prior to and after manual integrations are enclosed.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method. All system performance check compounds and calibration check compounds met DoD acceptance criteria. In the second-source 1030C28W.D, acetone recovered above the 20% Drift control limit at 30% Drift and 130% recovery. Acetone was within the LCS recovery limits, within the continuing calibration limits, and was not detected in any sample. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. A second-source standard was used for the LCS. All LCS criteria were met.

There was no sample designated by the client for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within the acceptance limits.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No other problem was encountered. The data generated are acceptable.

EPA Method 6020
Dissolved Lead

Digestion Information:

The water samples were digested according to EPA methods 3015. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed for dissolved lead according to EPA method 6020 using an Agilent 7500CX ICP-MS.

Calibrations:

The initial and continuing calibrations were analyzed according to the DoD QSM. The initial calibration verification is prepared from a second source standard.

Blanks:

No metal was detected at or above one-half the LOQ in the method blank.

Spikes:

Laboratory Control Spike (LCS), matrix spikes (MS/MSD), post digestion spike (PDS), and serial dilution were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES053 (ARF 66133) was selected by the laboratory as QC sample for the batch. The PDS and DT are reported in APPL report #66133.

Summary:

No analytical exception is noted.

Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
M1	Manual integration: integration does not follow baseline
M2	Manual integration: non-target peak interference
M3	Manual integration: to split a peak that was integrated as one peak by the computer
M4	Manual integration: to integrate a split peak
M5	Manual integration: the whole peak or part of the peak was not integrated
M6	Manual integration: computer integrated wrong peak
M7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION

APPL - Analysis Request Form 66116

Client: **Environet, Inc.**
Address: **650 Iwilei Rd, #204**
Honolulu, HI 96817
Attn: **Stacey Fineran**
Phone: **808-833-2225** Fax: **808-833-2231**
Job: **RED HILL/1022-024**
PO #: **1022-015**
Chain of Custody (Y/N): **Y** # **31218**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **2 WEEKS**

Received by: **TBV**
Date Received: **10/27/11** Time: **10:40**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **HAST**
Chest Temp(s): **2.5°C**
Color: **VOA,K-PURYELL,Q-ORYE**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/ADRDOD/HI**
Due Date: **11/10/11**

Comments:
14 day TAT for Form 1s & 30 day TAT for full package. VDupra@environetinc.com
1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11
Guidance: DOD QSM, DoD Forms, J flag to DL, U flag at LOD
EDD ADR A1/A3 (ADR 8.3a unchecked) to VDupra@ & sfineran@environetinc.com
metals 6020: report Lead with 0.5ug/L RL
TPH-Diesel only; VOCs: include gasoline by 8260B
MA-EPH subcontracted to Gulf Coast Analytical.
See attached email for sample breakage

Sample Distribution:
GC: 2-$SIMHC12W, 2-$TPETD2
Extractions: 2-_SEP004S, 2-_SEP011
VOA: 3-$86RHBF
Metals: 2-$602D(Pb)
Other: 2-_M3015, 2-SUB

Charges:

Invoice To:
same

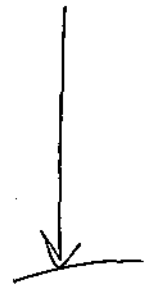
	Client ID	APPL ID	Sampled	Analyses Requested
1.	ES050	AY49481W	10/25/11 09:50	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- unpreserved VOA vials
2.	ES051	AY49482W	10/25/11 11:30	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- unpreserved VOA vials
3.	ES052	AY49483W	10/25/11 07:00	$86RHBF -- unpreserved VOA vials

APPL Sample Receipt Form

ARF# **66116**

Sample	Container Type	Count	pH
AY49481	[6] PL 500mL - HNO3	1	1.7
	[13] VOAs - HCL	3	na
	[15] VOAs - NP	4	na
	[17] Amber Liter	3	na
	[26] Other	2	1.7
AY49482	[6] PL 500mL - HNO3	1	1.7
	[13] VOAs - HCL	3	na
	[15] VOAs - NP	4	na
	[17] Amber Liter	3	na
	[26] Other	1	1.7
AY49483	[15] VOAs - NP	1	na

Sample	Container Type	Count	pH
	Other - 1 Liter amber		HCl



66116

CHAIN OF CUSTODY RECORD

APPL Labs
908 North Temperance Ave.
Clovis, CA 93611

Phone: (559) 275-2175

Fax: (559) 275-4422

C.O.C. № 31218

Report to: PLEASE PRINT		Invoice to: PLEASE PRINT	
Company Name: Environet	Phone: 808 833-2225	Company Name: Environet	Phone: 808 833-2225
Address: 650 Iwilei Rd #204 Honolulu, Hi	Fax: 808 833-2231	Address: 650 Iwilei Rd #204 Honolulu, Hi	Fax: 808 833-2231
Attn: Stacey Fineran		Attn: Trisha Yasuda	

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
Red Hill 1022-024	Stacey Fineran		Stacy Fineran

Date Shipped: 10/26/11
Carrier: Fed Express
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Matrix	Number of Containers	Analysis Requested/Method Number: EPA 8015B TPH-DRO	EPA 8260 TPH-GRO	EPA 8260 VOCs	EPA 8270C PAHs	EPA 6020 Dissolved Pb	MADEP-EPH	MADEP-VPH
ESO 50	RHSF	10/25/11	950	Ag	13	X	X	X	X	X	X	X
ESO 51	RHSF	10/25/11	1130	Ag	13	X	X	X	X	X	X	X
ESO 52	RHSF	10/25/11	0700	Ag	1			X				

15

Shuttle Temperature:

Turnaround Requested: MUST CHECK ONE
☒ Standard (2-3 week) ☐ One week ☐ 24-48 hour

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Stacy Fineran	10/26		Fed Ex				
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					10/27/11	1040	

White: Return to client with report Yellow: Laboratory Copy Pink: Sampler

COOLER RECEIPT FORM

1) Project: RED HILL / 1022-024 Date Received: 10/27/11
2) Coolers: Number of Coolers:
3) YES NO Were coolers and samples screened for radioactivity?
4) YES NO Were custody seals on outside of cooler? How many? 2 Date on seal? 10/26/11
5) Name on seal? See label
6) YES NO NA Were custody seals unbroken and intact at the time of arrival?
7) YES NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex
8) Shipping slip numbers: 1) 876249939166 2) 3)
9) YES NO NA Was the shipping slip scanned into the database?
10) YES NO NA If cooler belongs to APPL, has it been logged into the ice chest database?
11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): bubble bag in Ziploc in wet ice
12) YES NO NA For hand delivered samples was sufficient ice present to start the cooling process?
13) YES NO Was a temperature blank included in the cooler?
14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0
15) Cooler temp(s): 1) 2.5°C 2) 3) 4) 5) 6) 7) 8)

Chain of custody:

16) YES NO Was a chain of custody received?
17) YES NO Were the custody papers signed in the appropriate places?
18) YES NO Was the project identifiable from custody papers?
19) YES NO Did the chain of custody include date and time of sampling?
20) YES NO Is location where sample was taken listed on the chain of custody?

Sample Labels:

21) YES NO Were container labels in good condition?
22) YES NO Was the client ID on the label?
23) YES NO Was the date of sampling on the label?
24) YES NO Was the time of sampling on the label?
25) YES NO Did all container labels agree with custody papers?

Sample Containers:

26) YES NO Were all containers sealed in separate bags?
27) YES NO Did all containers arrive unbroken?
28) YES NO Was there any leakage from samples?
29) YES NO Were any of the lids cracked or broken?
30) YES NO Were correct containers used for the tests indicated?
31) YES NO Was a sufficient amount of sample sent for tests indicated?
32) YES NO NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea: AY49483 w01

Preservation & Hold time:

33) YES NO NA Was a sufficient amount of holding time remaining to analyze the samples?
34) YES NO NA Do the sample containers contain the same preservative as what is stated on the COC?
35) YES NO NA Was the pH taken of all non-VOA preserved samples and written on the sample container?
36) YES NO NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?
37) YES NO NA Unpreserved VOA Vials received?
38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

Lab notified if pH was not adequate:
Deficiencies: Received 1 Amber liter (HCL) broken, left for Sample ES051

Signature of personnel receiving samples: Yang for Second reviewer:
Signature of project manager notified: Reviewed Date and Time of notification: 10-28-11
Name of client notified: Date and Time of notification:
Information given to client:
by whom (Initials):

CUSTODY SEAL
APPL, Inc.
(559) 275-2175
Initials JT
Date 10/28

EPA 8015 Modified
Total Petroleum Hydrocarbons

EPA 8015 Modified
Total Petroleum Hydrocarbons
QC Summary

Method Blank
TPH Diesel Water

Blank Name/QCG: **111031W-49334 - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
BLANK	SURROGATE: OCTACOSANE (S)	71.2	28-142			%	10/31/11	11/06/11
BLANK	SURROGATE: ORTHO-TERPHEN	60.5	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106005
Instrument: Apollo
Sequence: 111106
Initials: LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 2:13:55 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/06/11

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	28-142	71.2		57-132	60.5	
AY49481	ES050	28-142	118		57-132	75.0	
AY49482	ES051	28-142	105		57-132	62.7	
111031A-LCS	Lab Control Spike	28-142	83.3		57-132	98.0	

Comments: Batch: #TPETD-111031A

Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111031W-49334 LCS - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1520	76.0	61-143
SURROGATE: OCTACOSANE (S)	150	125	83.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	147	98.0	57-132

Comments: _____

Primary	SPK
Quant Method :	TPH8S15.M
Extraction Date :	10/31/11
Analysis Date :	11/29/11
Instrument :	Apollo
Run :	1129017
Initials :	LA

Printed: 11/30/11 2:13:48 PM

APPL Standard LCS

EPA 8015B-e

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/06/11

Matrix: WATER Instrument: Apollo

Blank ID: 111031A-BLK Time Analyzed: 1722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111031A-BLK	Blank	1106005	11/06/11 1722
AY49481	ES050	1106020	11/06/11 2313
AY49482	ES051	1106021	11/06/11 2336
111031A-LCS	Lab Control Spike	1129017	11/29/11 1845

Comments: Batch: #TPETD-111031A

EPA 8015 Modified
Total Petroleum Hydrocarbons
Sample Data

TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: RED HILL/1022-024
Sample ID: ES050
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49481
QCG: #TPETD-111031A-160886

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	118	28-142			%	10/31/11	11/06/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	75.0	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106020
Instrument: Apollo
Sequence: 111106
Dilution Factor: 1
Initials: LA

Printed: 11/30/11 2:13:51 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

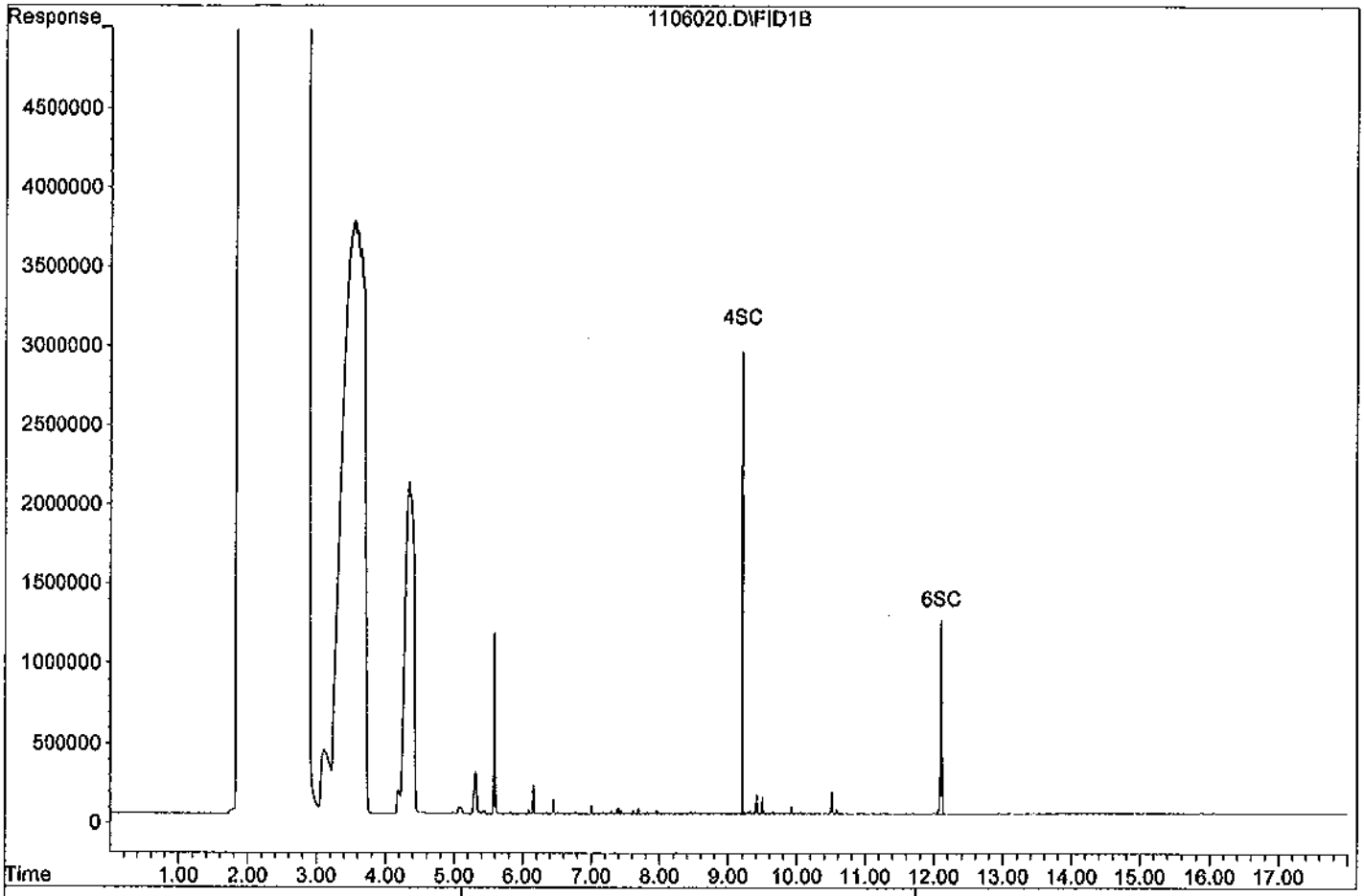
Data File : G:\APOLLO\DATA\111106\1106020.D Vial: 20
Acq On : 11-6-11 23:13:41 Operator: LAC
Sample : AY49481W10 5/1040 Inst : Apollo
Misc : Water Multiplr: 4.81
IntFile : events.e
Quant Time: Nov 7 10:05 2011 Quant Results File: TPH1028.RES

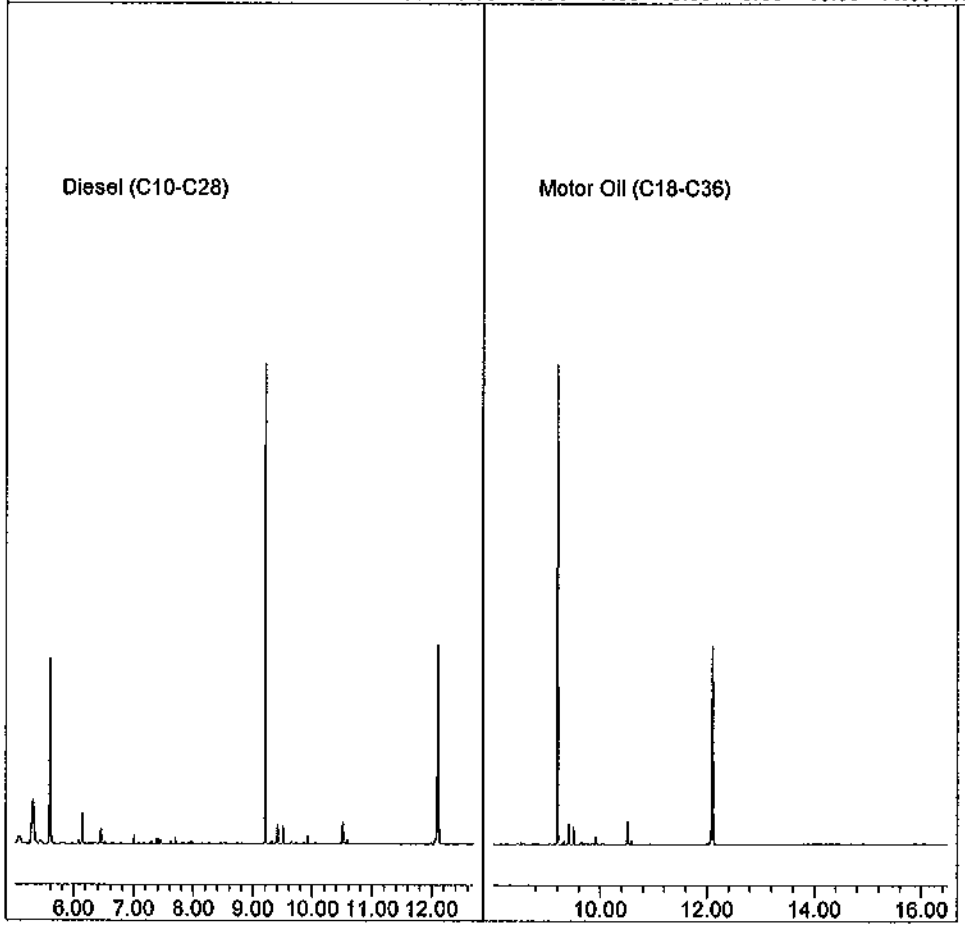
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	19608694	108.112 ppb
Surrogate Spike 144.231		Recovery =	74.96%
6) SC Octacosane(S)	12.11	16534316	170.821 ppb
Surrogate Spike 144.231		Recovery =	118.44%
Target Compounds			

Data File: G:\APOLLO\DATA\111106\1106020.D
Sample : AY49481W10 5/1040





TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES051
Sample Collection Date: 10/25/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66116
APPL ID: AY49482
QCG: #TPETD-111031A-160886

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	105	28-142			%	10/31/11	11/06/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	62.7	57-132			%	10/31/11	11/06/11

Quant Method:	TPH1028.M
Run #:	1106021
Instrument:	Apollo
Sequence:	111106
Dilution Factor:	1
Initials:	LA

Printed: 11/30/11 2:13:51 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

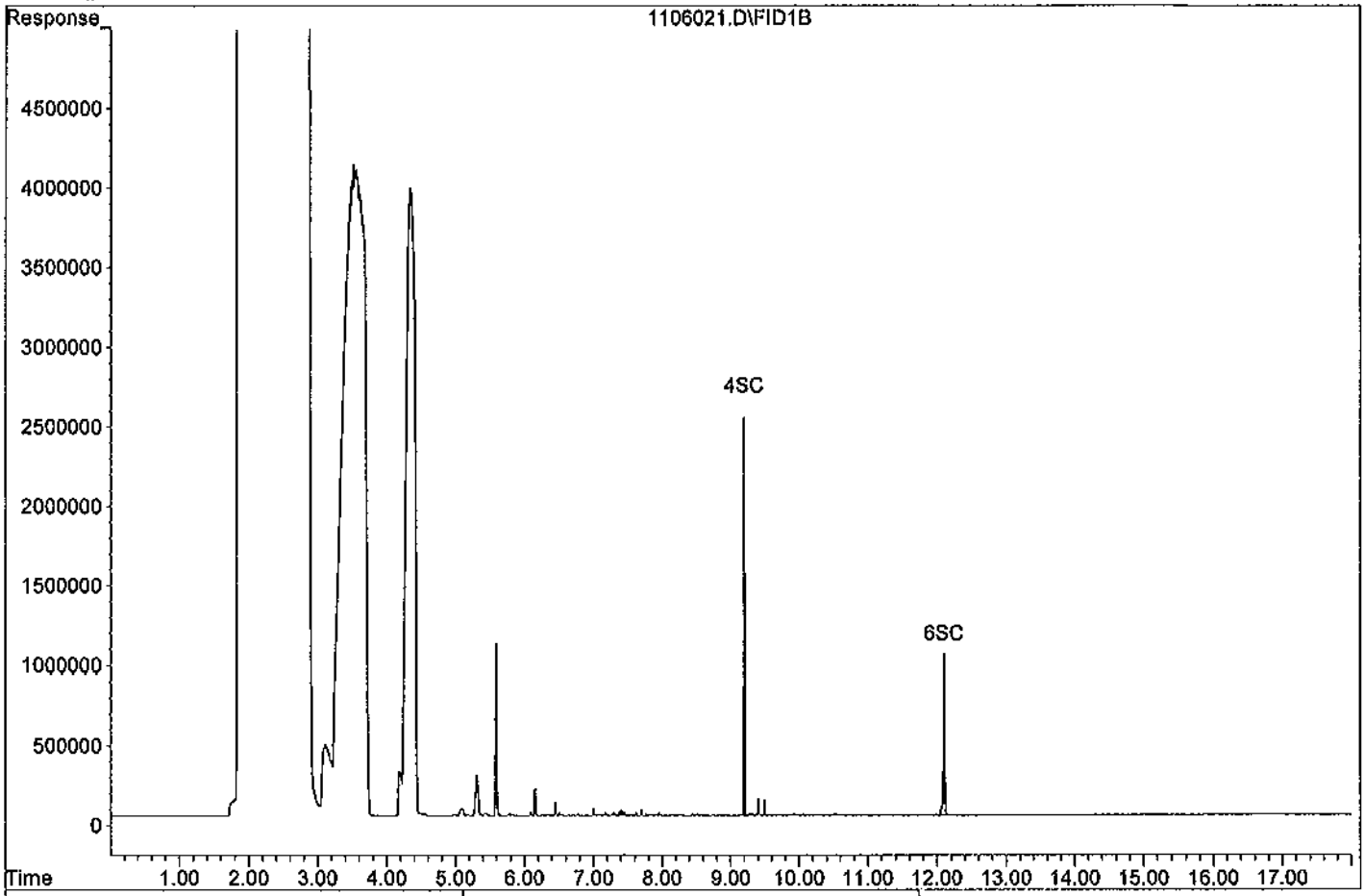
Data File : G:\APOLLO\DATA\111106\1106021.D Vial: 21
Acq On : 11-6-11 23:36:56 Operator: LAC
Sample : AY49482W10 5/1040 Inst : Apollo
Misc : Water Multiplr: 4.81
IntFile : events.e
Quant Time: Nov 7 10:05 2011 Quant Results File: TPH1028.RES

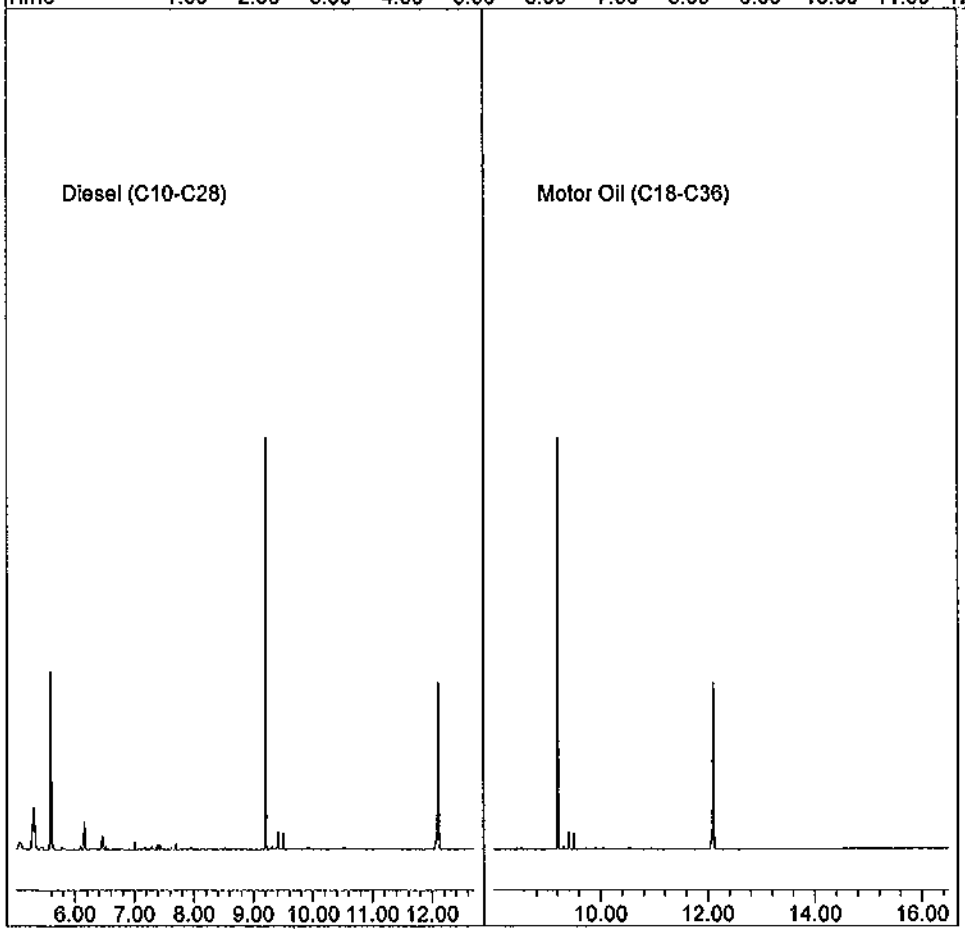
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	16387936	90.355 ppb
Surrogate Spike 144.231		Recovery =	62.65%
6) SC Octacosane(S)	12.10	14727661	152.156 ppb
Surrogate Spike 144.231		Recovery =	105.49%
Target Compounds			

Data File: G:\APOLLO\DATA\111106\1106021.D
Sample : AY49482W10 5/1040





EPA 8015 Modified
Total Petroleum Hydrocarbons

Calibration Data

TPH Extractables
TPH1028

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66116
Case No: Initial Cal. Date: 10/28/11
Matrix: Instrument: Apollo Initials: LAC

			1028016.D	1028017.D	1028018.D	1028019.D	1028020.D	1028021.D								
		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATM	Diesel (C10-C28)	442719	420460	472596	423976	425504	340418					420946	10	HATM	
2	HBTM	Motor Oil (C18-C36)	178423	183716	183814	180648	189866	171166					181272	3.5	HBTM	
3	SA	Not Used(S)	492314	497998	549709	499503	505363	680489					537563	14	SA	
4	SC	Ortho-Terphenyl(S)		432362	446201	461765	440594	399046					435993	5.3	SC	
5	SA	Not Used2(S)	246114	255075	272188	252864	246503	213571					247719	7.8	SA	
6	SC	Octacosane(S)		229602	230817	244618	233443	224899					232676	3.2	SC	
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

1.2501454

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028003.D Vial: 3
Acq On : 10-28-11 9:47:18 Operator: LAC
Sample : DIESEL 10/1000 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

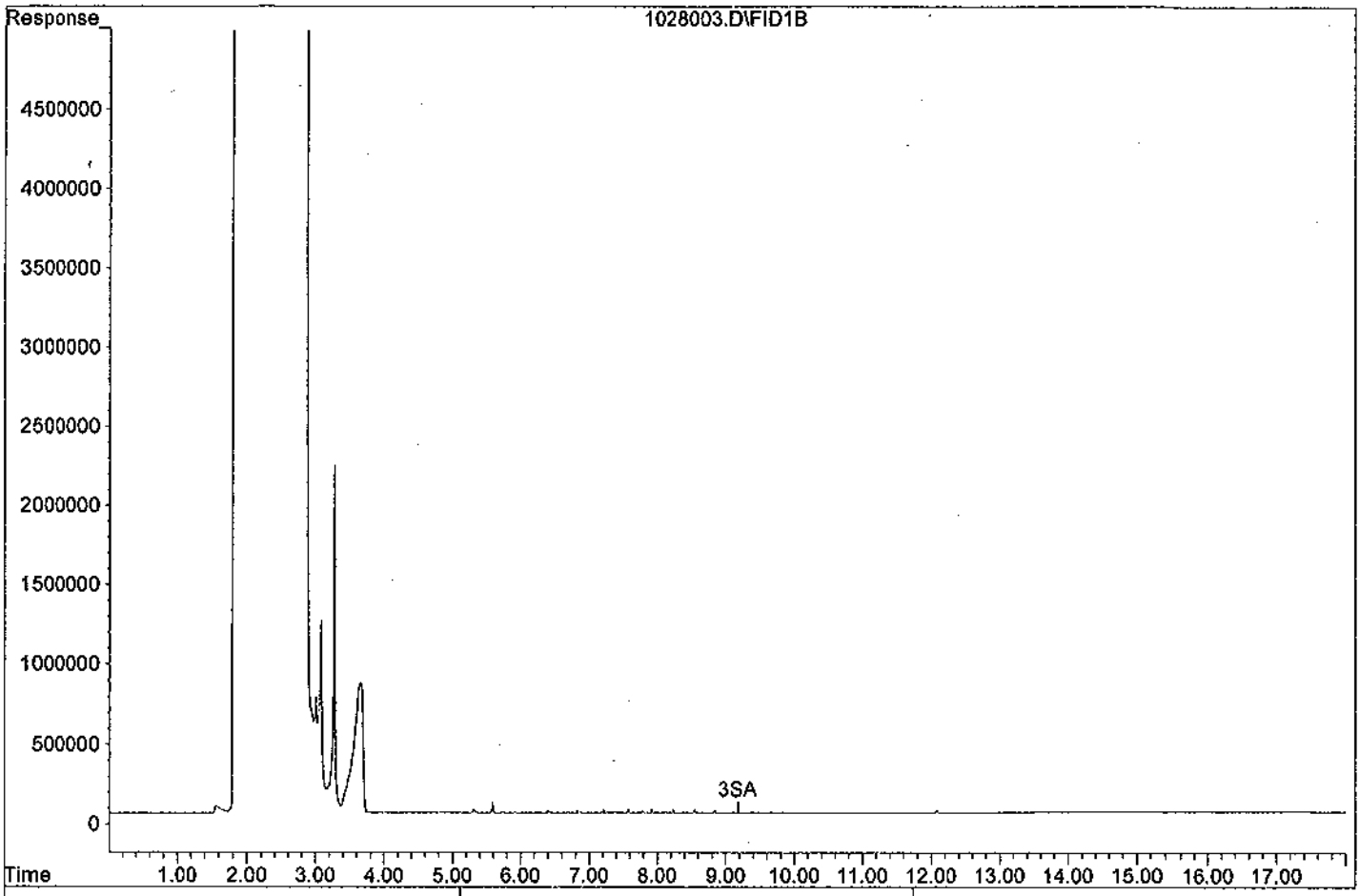
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

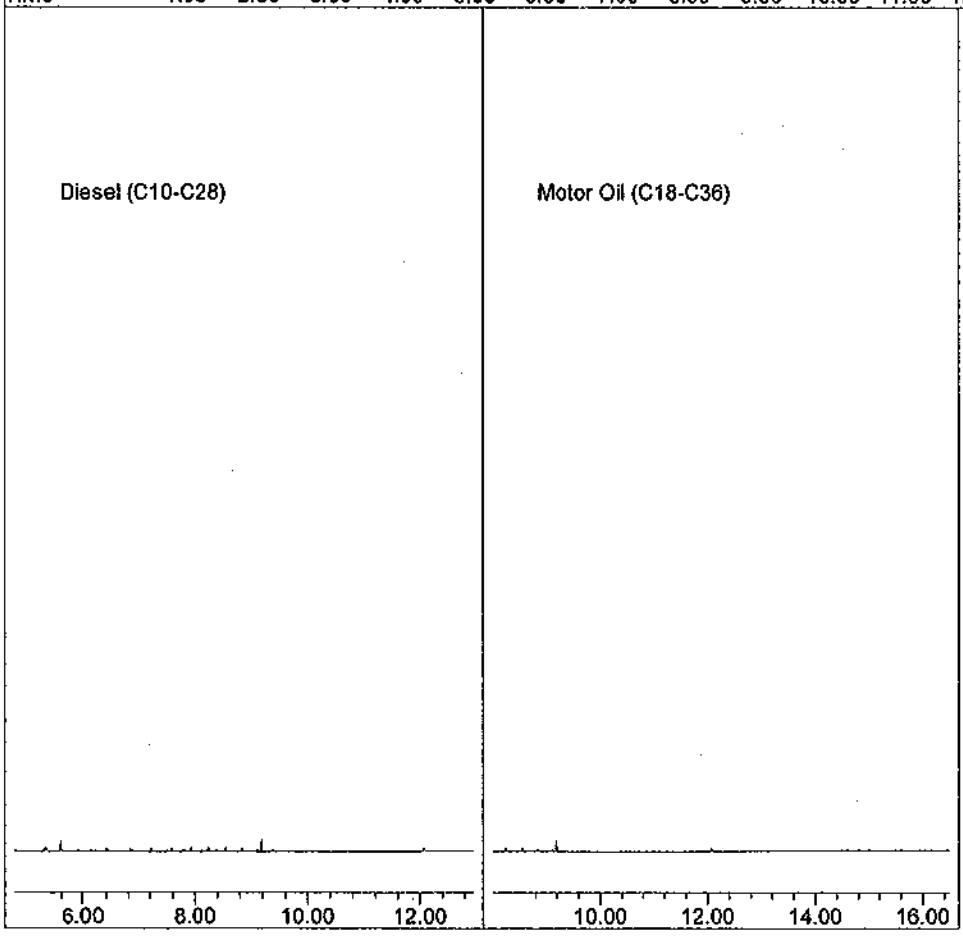
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.18	492314	0.777 ppb
Surrogate Spike 30.000	Recovery	=	2.59%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	8854372	10.215 ppb

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

Data File: G:\APOLLO\DATA\111028\1028003.D
Sample : DIESEL 10/1000 10/28/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028004.D Vial: 4
Acq On : 10-28-11 10:11:19 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

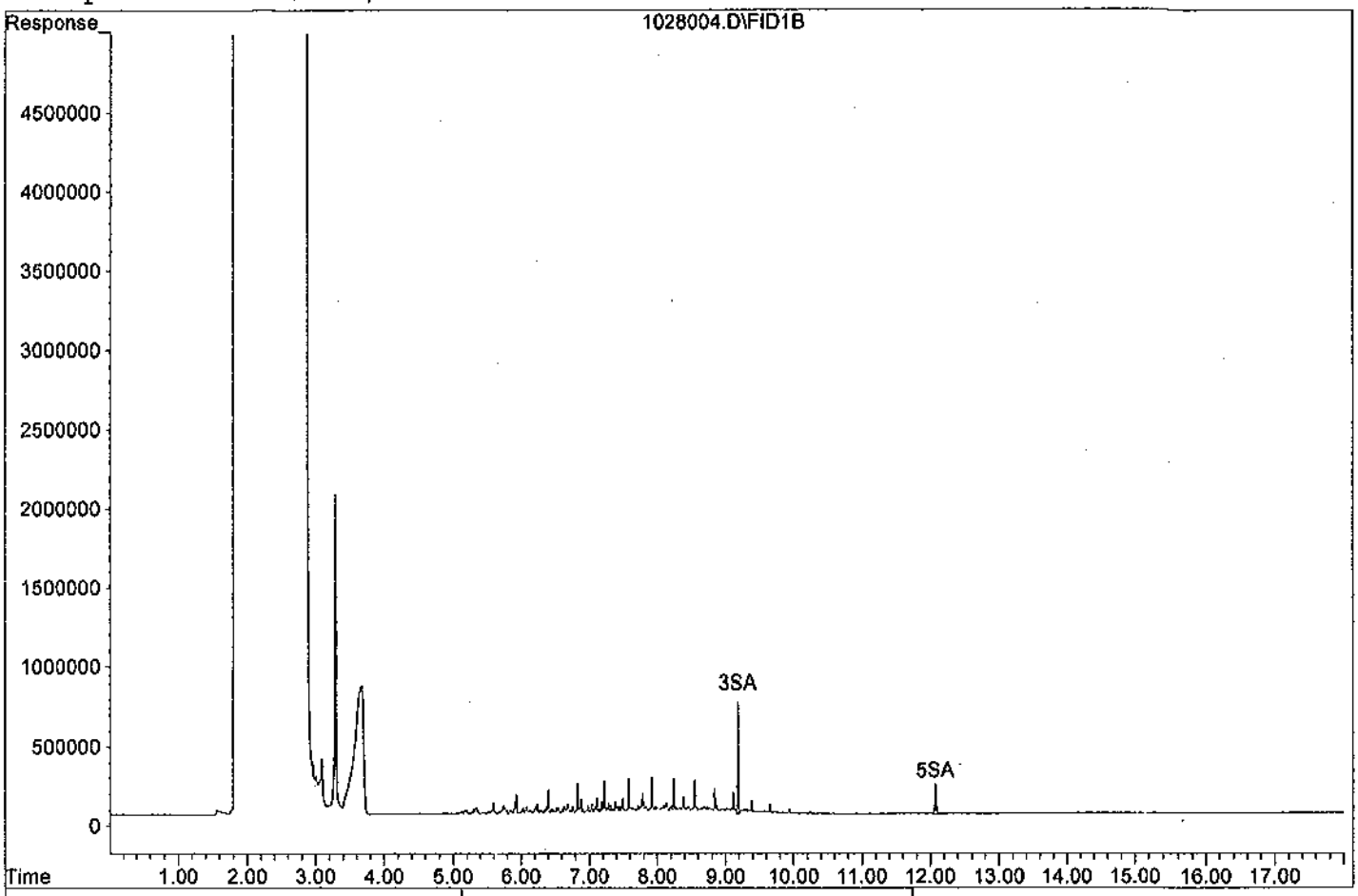
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

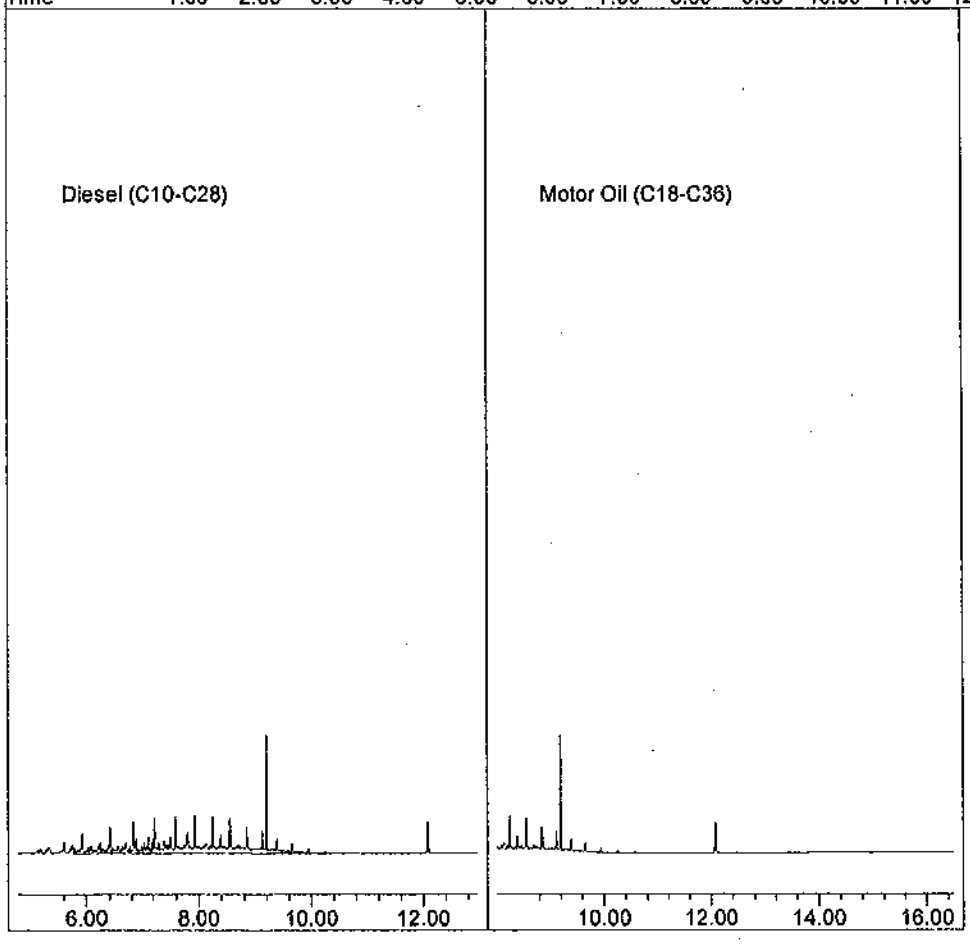
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.19	4979981	7.855 ppb
Surrogate Spike 30.000	Recovery =		26.18%
5) SA Not Used2(S)	12.08	2550752	9.065 ppb
Surrogate Spike 30.000	Recovery =		30.22%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	84092037	97.013 ppb

(f)=RT Delta > 1/2 Window 34 (m)=manual int.

Data File: G:\APOLLO\DATA\111028\1028004.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028005.D Vial: 5
Acq On : 10-28-11 10:35:26 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

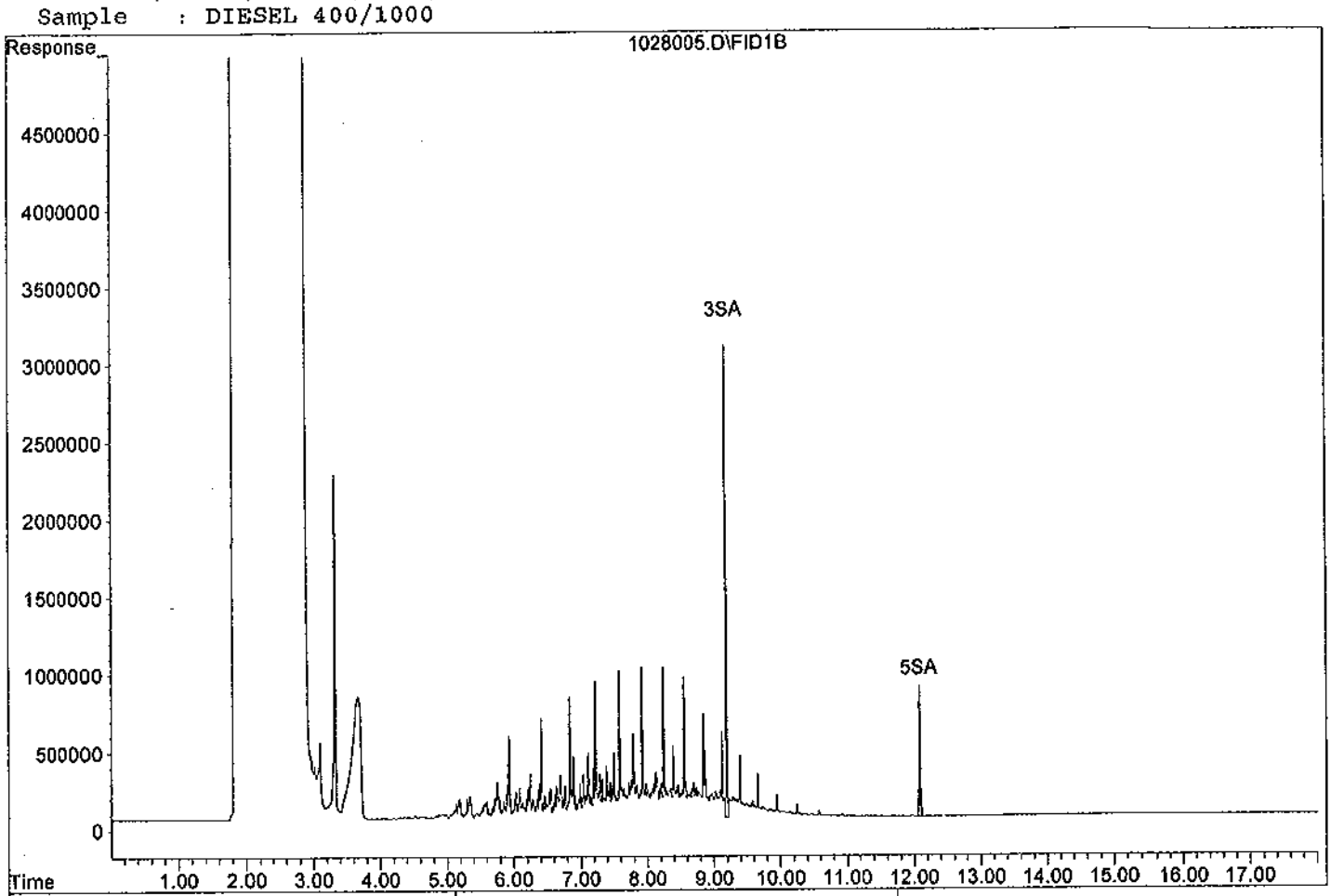
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

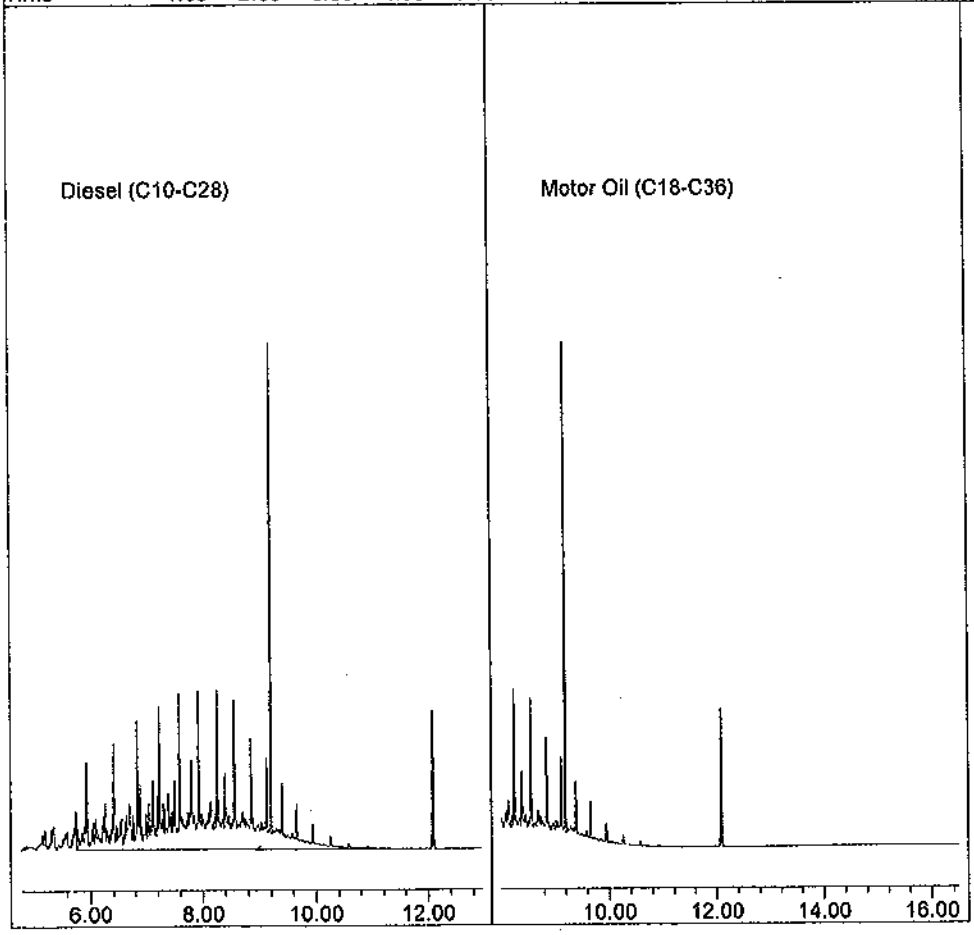
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.19	21988346	34.683 ppb
Surrogate Spike 30.000	Recovery =		115.61%
5) SA Not Used2(S)	12.09	10887525	43.308 ppb
Surrogate Spike 30.000	Recovery =		144.36%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	378076624	436.171 ppb

(f)=RT Delta > 1/2 Window 36 (m)=manual int.
1028005.D TPH1028.M Wed Nov 30 11:25:16 2011 Page 1

Data File: G:\APOLLO\DATA\111028\1028005.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028006.D Vial: 6
Acq On : 10-28-11 10:59:35 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

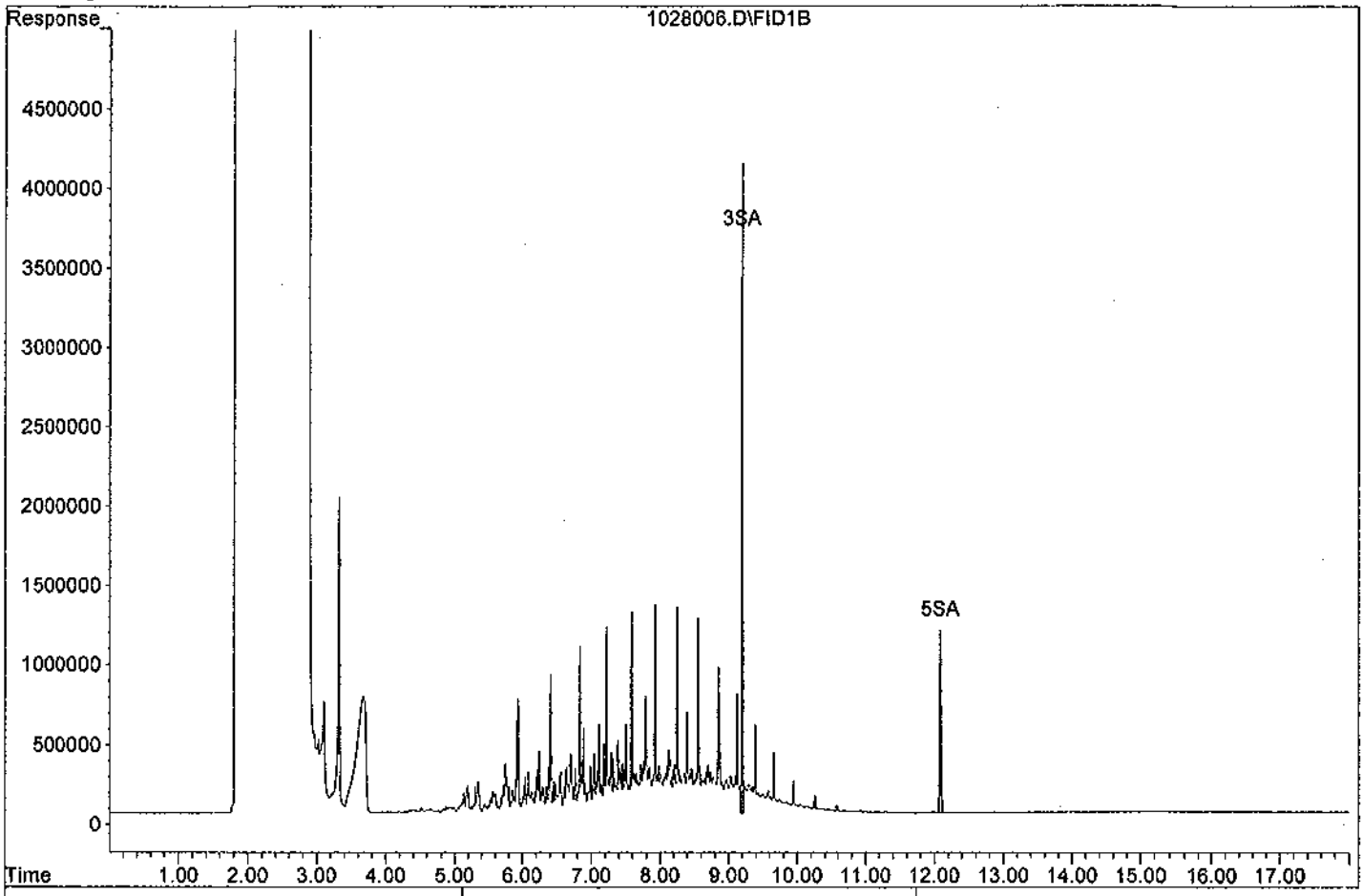
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

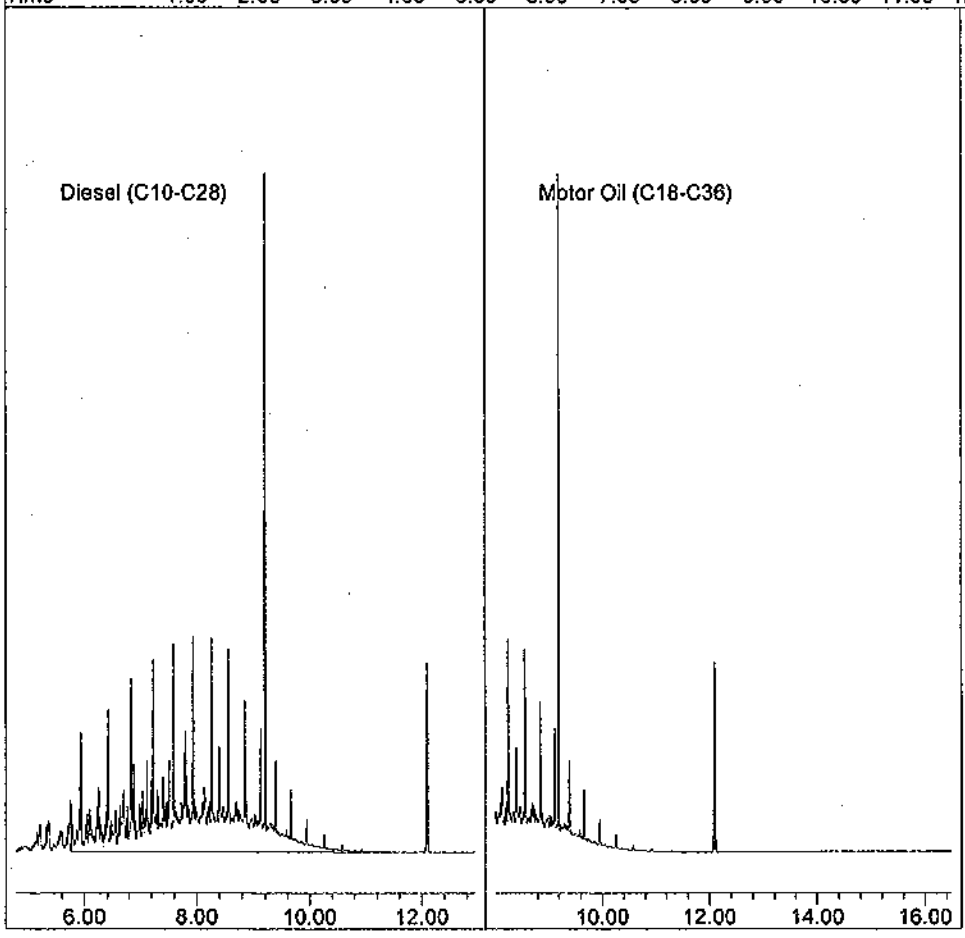
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	29970170	47.273 ppb
Surrogate Spike 30.000	Recovery =		157.58%
5) SA Not Used2(S)	12.09	15171855	60.906 ppb
Surrogate Spike 30.000	Recovery =		203.02%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	508771749	586.949 ppb

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

Data File: G:\APOLLO\DATA\111028\1028006.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028007.D Vial: 7
Acq On : 10-28-11 11:23:49 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

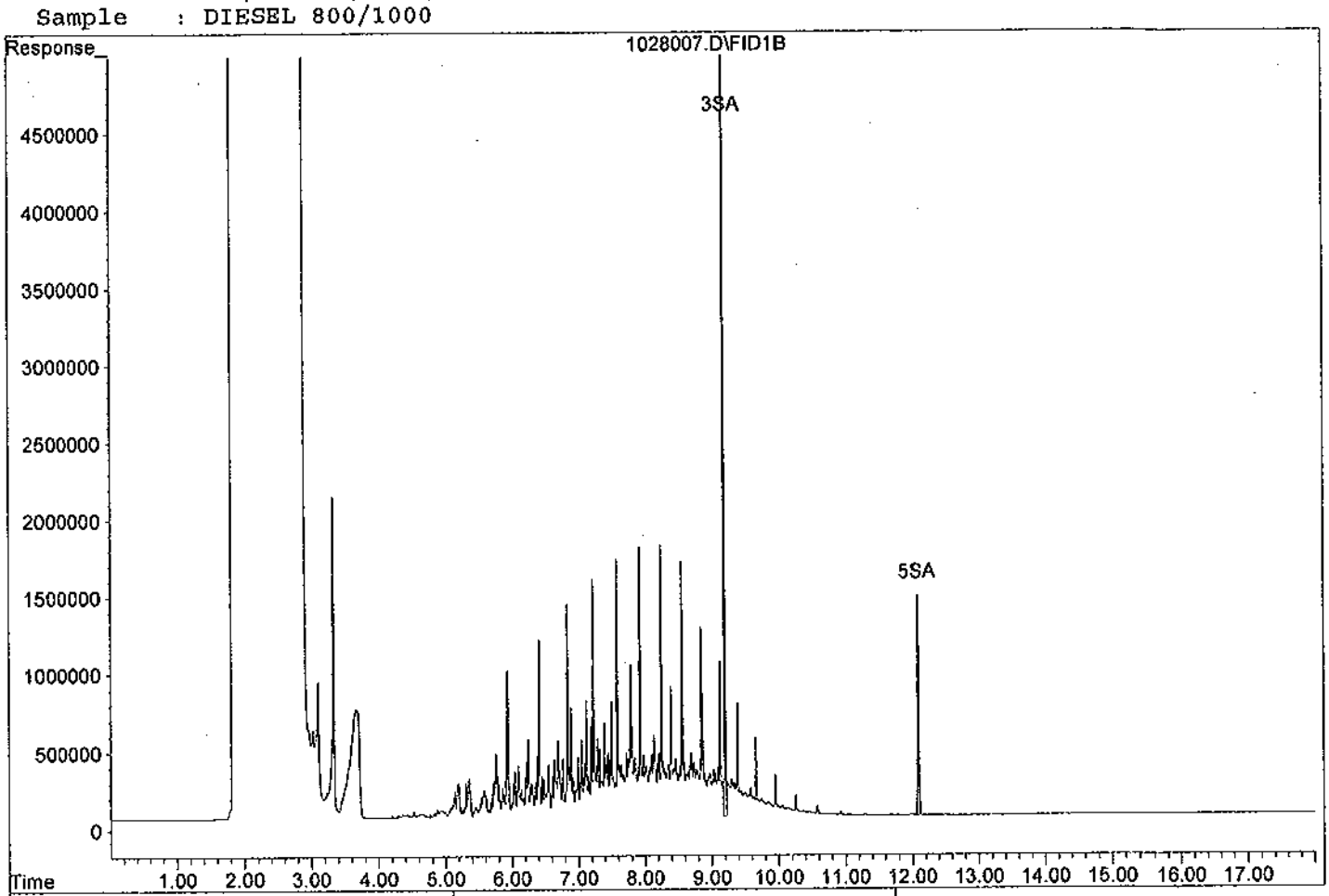
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

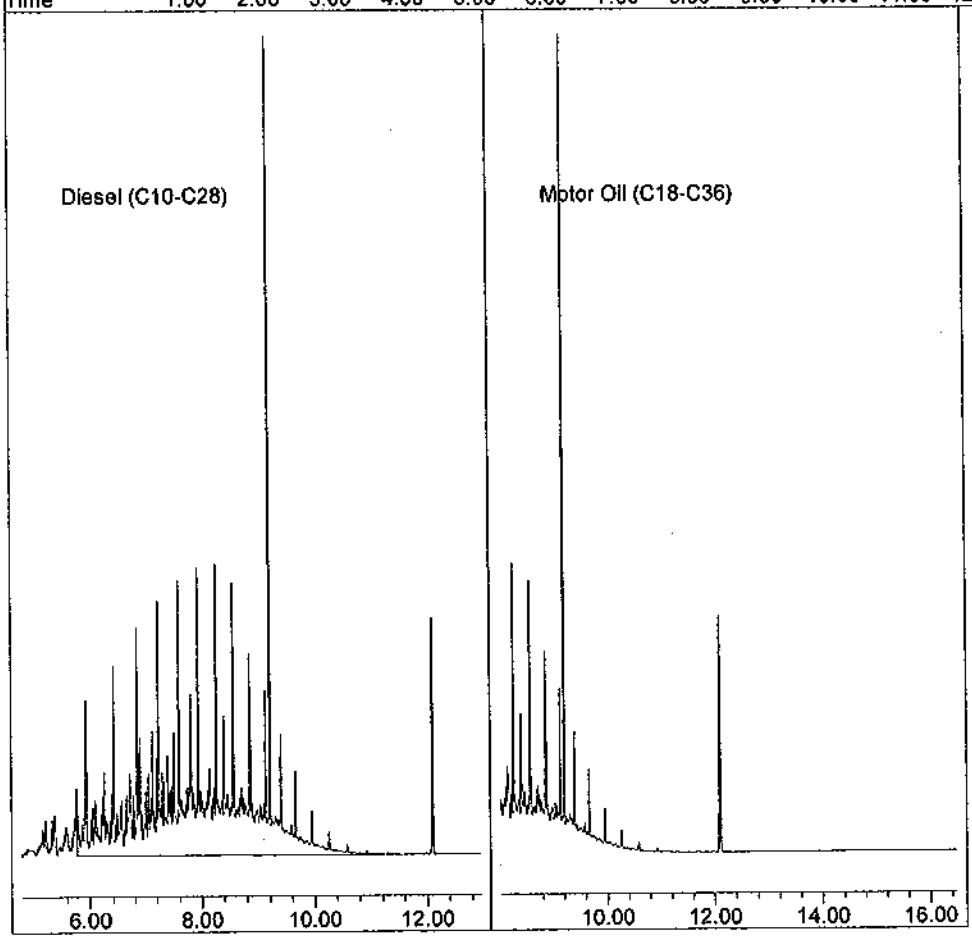
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	40429014	63.770 ppb
Surrogate Spike 30.000	Recovery =		212.57%
5) SA Not Used2(S)	12.10	19720236	79.588 ppb
Surrogate Spike 30.000	Recovery =		265.29%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	680806039	785.417 ppb

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

Data File: G:\APOLLO\DATA\111028\1028007.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

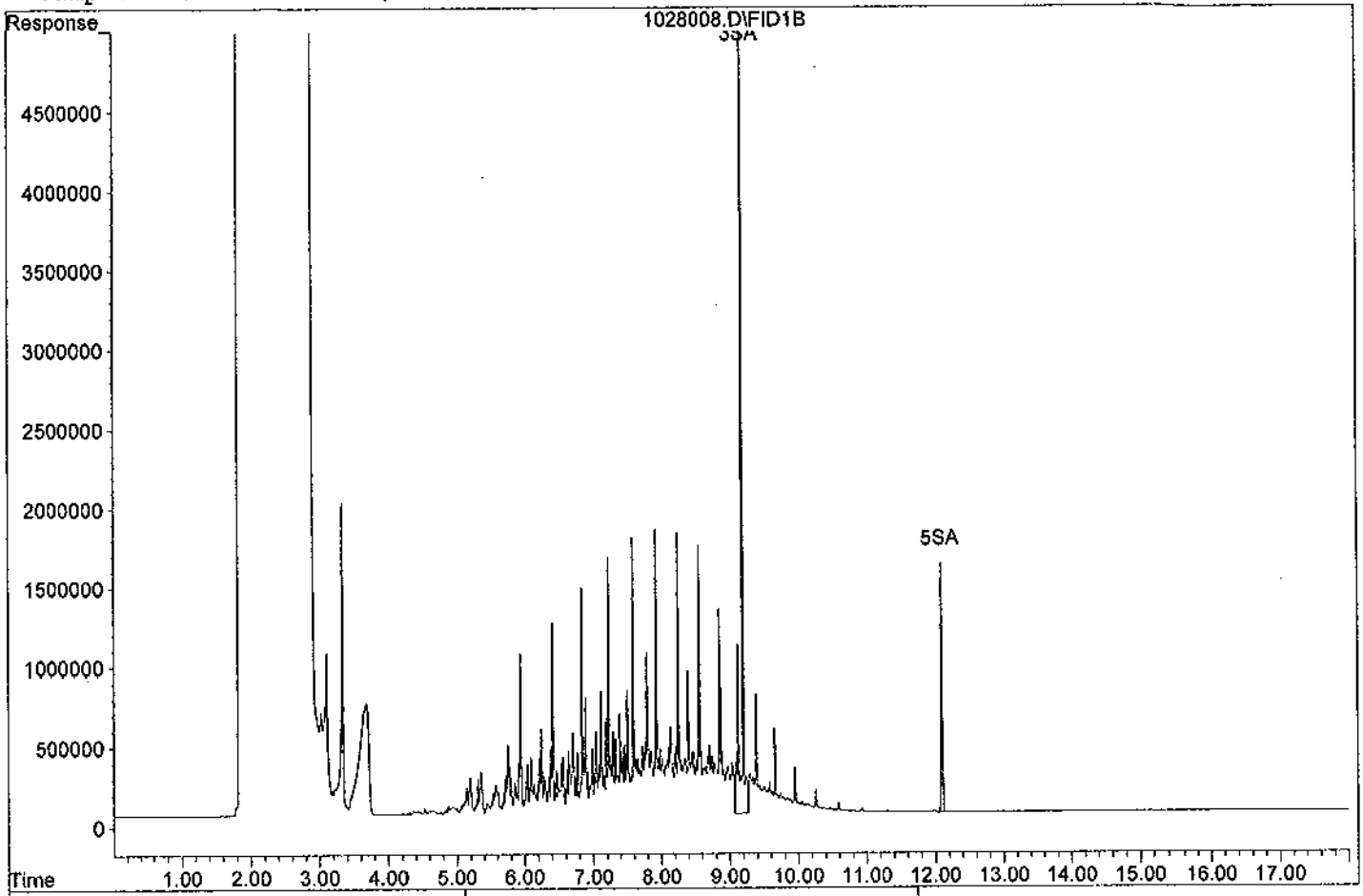
Data File : G:\APOLLO\DATA\111028\1028008.D Vial: 8
Acq On : 10-28-11 11:48:05 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

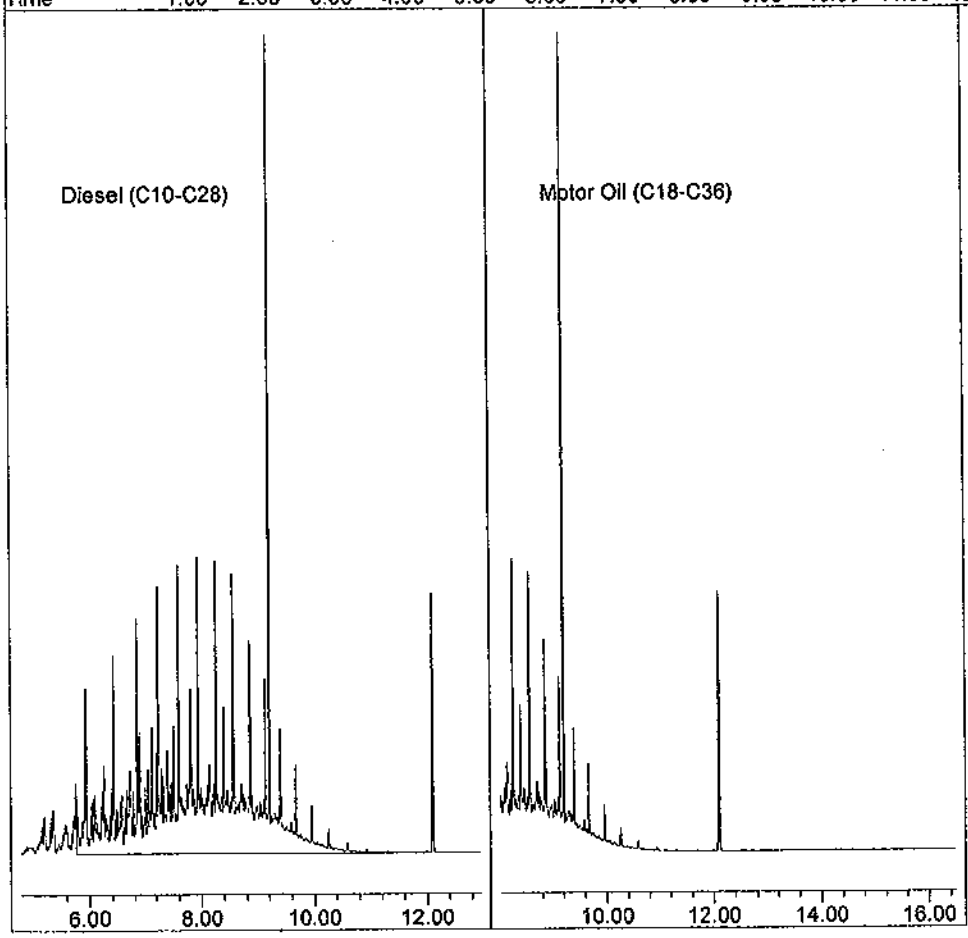
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	68048921	107.335 ppb
Surrogate Spike 30.000	Recovery =		357.78%
5) SA Not Used2(S)	12.10	21357059	86.311 ppb
Surrogate Spike 30.000	Recovery =		287.70%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	680836698	785.453 ppb

Data File: G:\APOLLO\DATA\111028\1028008.D
Sample : DIESEL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028009.D Vial: 9
Acq On : 10-28-11 12:12:27 Operator: LAC
Sample : MOTOR OIL 50/1000 10/28/11 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

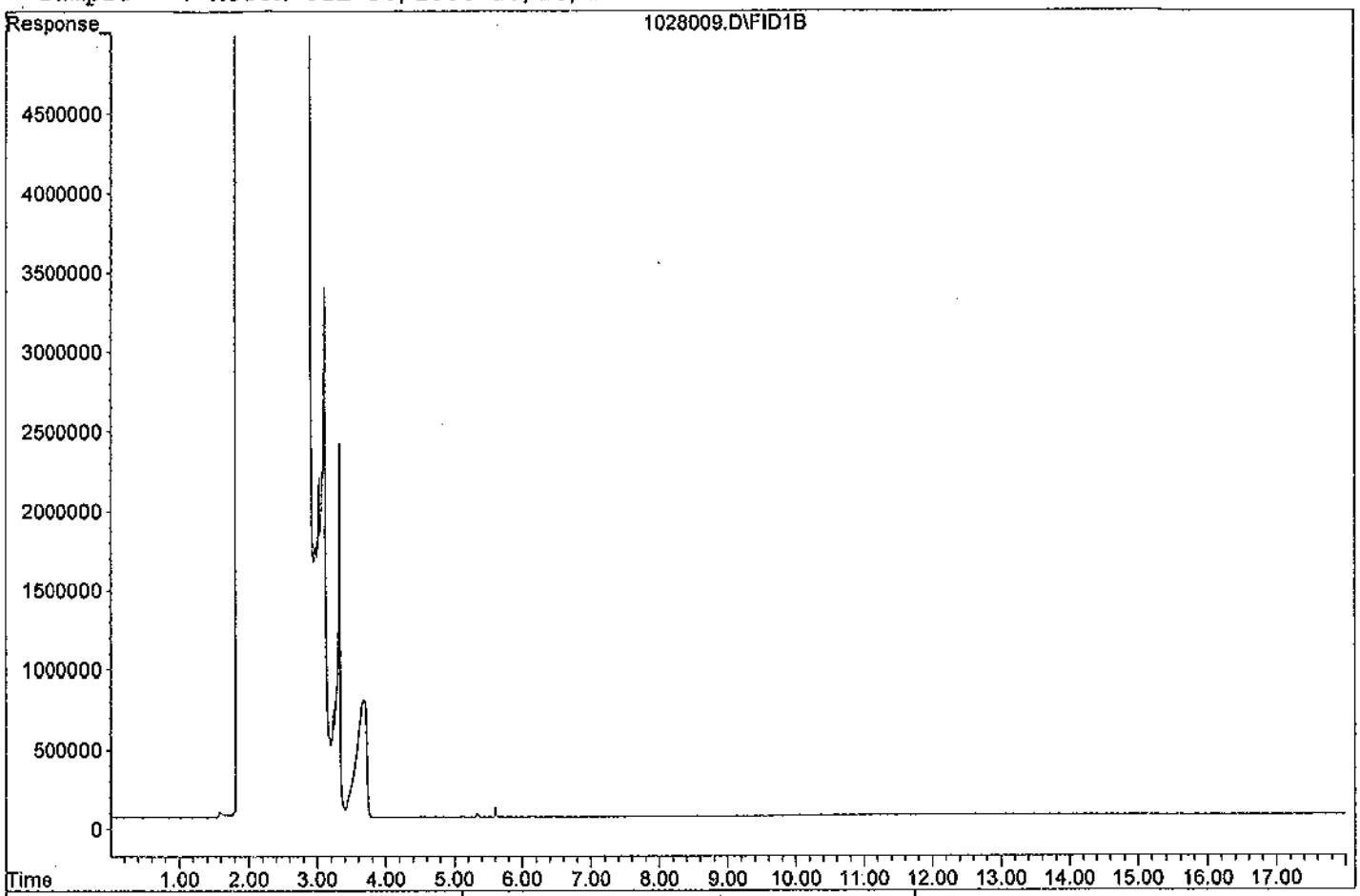
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

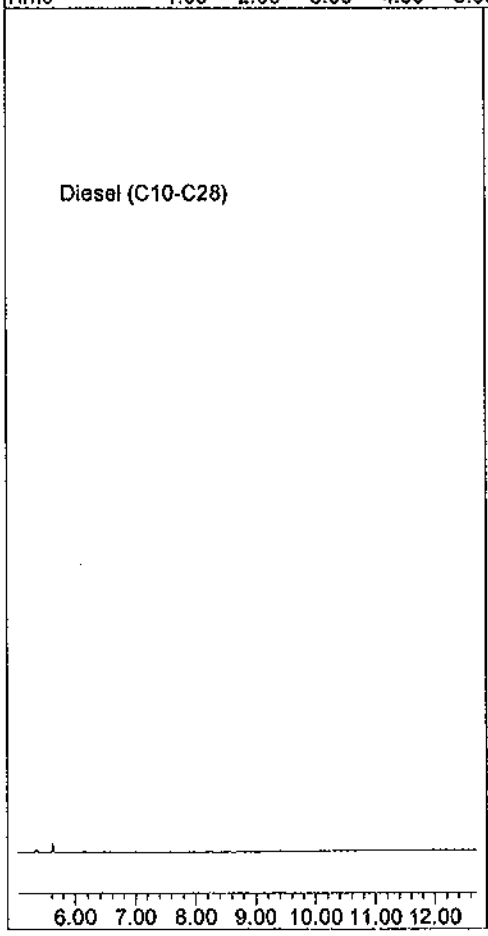
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

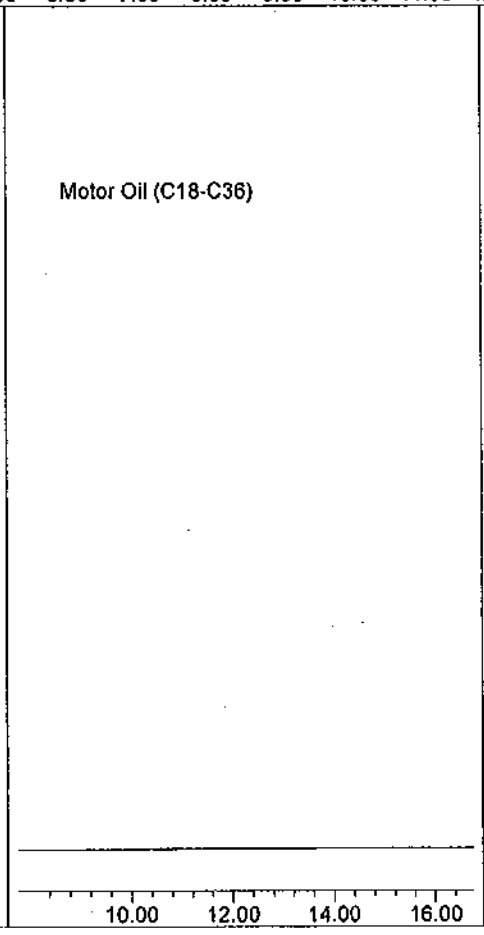
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	17842259	49.322 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111028\1028009.D
Sample : MOTOR OIL 50/1000 10/28/11







Quantitation Report (Not Reviewed)

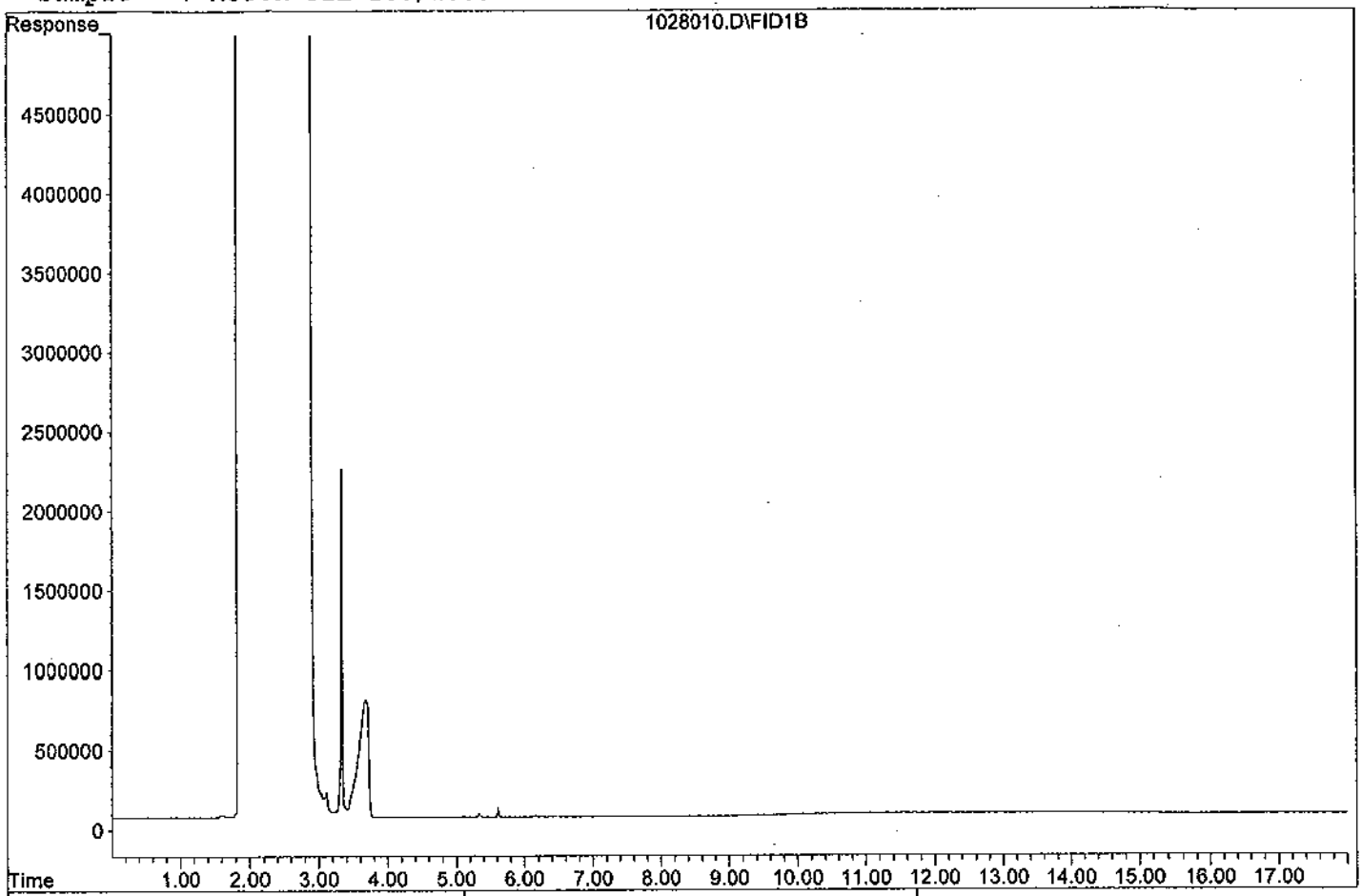
Data File : G:\APOLLO\DATA\111028\1028010.D Vial: 10
Acq On : 10-28-11 12:36:20 Operator: LAC
Sample : MOTOR OIL 100/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

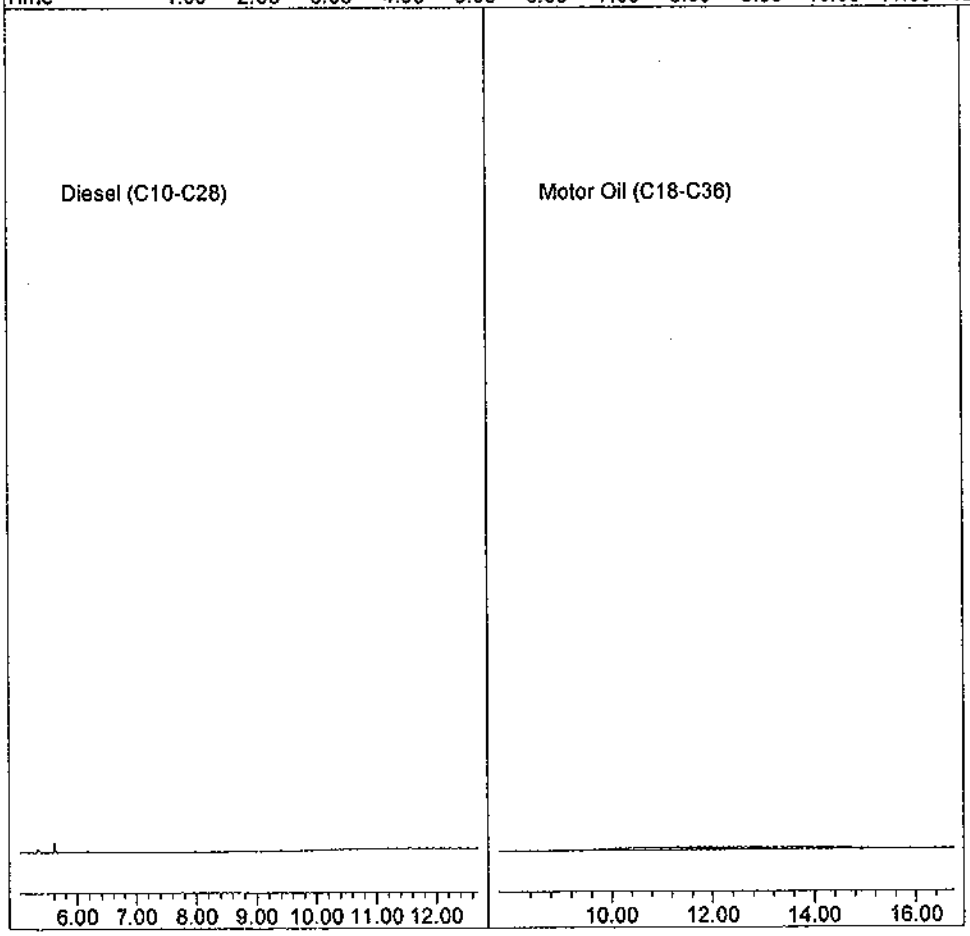
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	36743279	101.570 ppb

Data File: G:\APOLLO\DATA\111028\1028010.D
Sample : MOTOR OIL 100/1000





Quantitation Report (Not Reviewed)

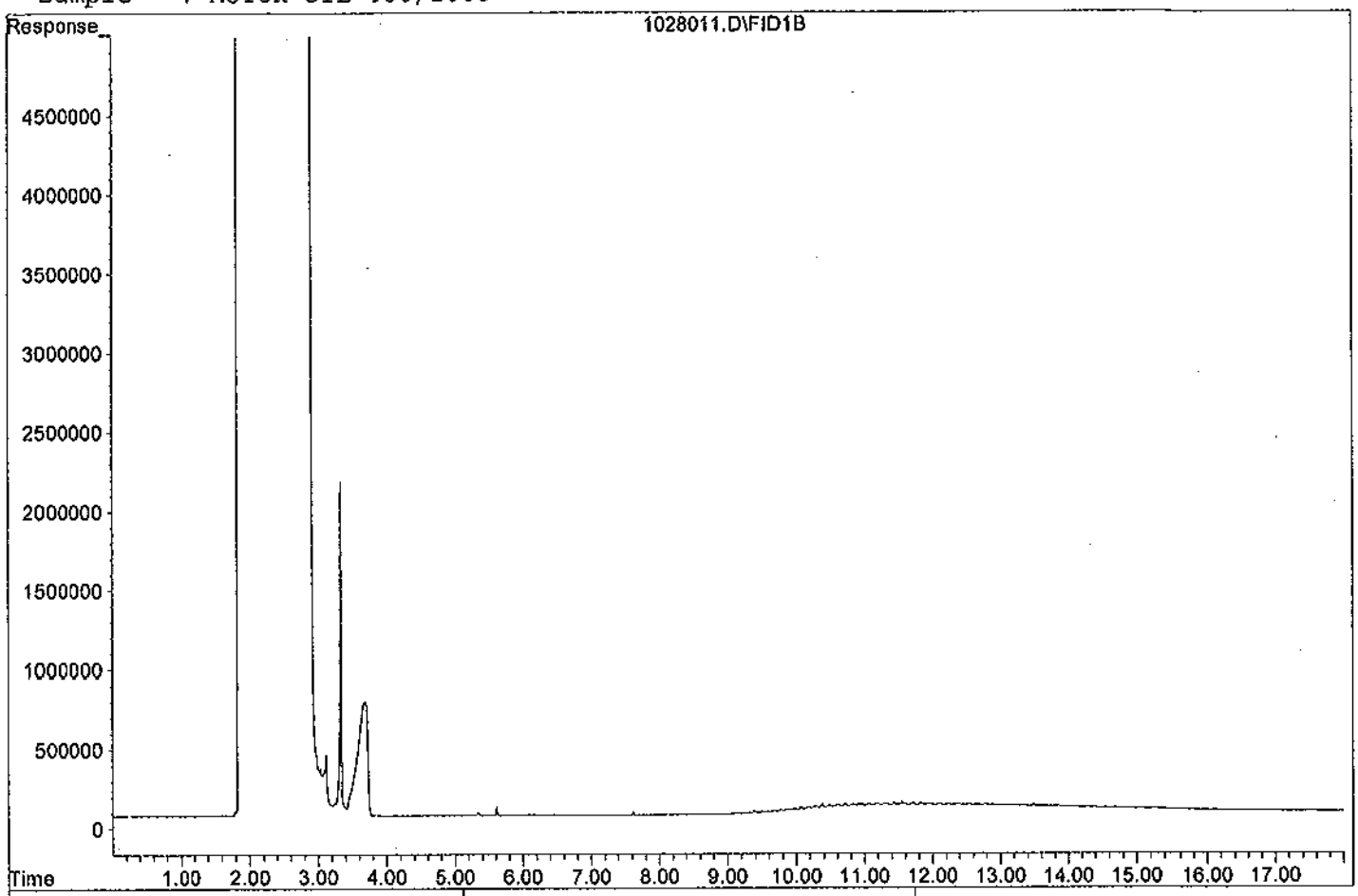
Data File : G:\APOLLO\DATA\111028\1028011.D Vial: 11
Acq On : 10-28-11 13:00:16 Operator: LAC
Sample : MOTOR OIL 400/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

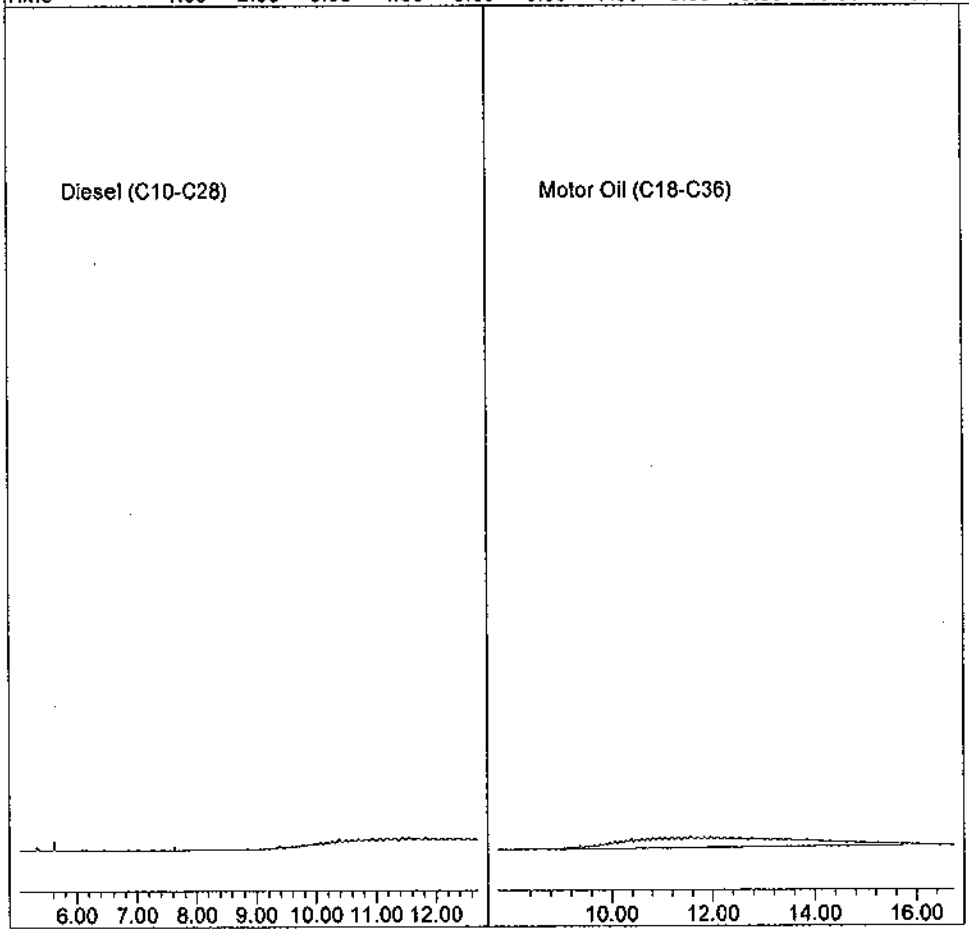
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	147050915	406.495 ppb

Data File: G:\APOLLO\DATA\111028\1028011.D
Sample : MOTOR OIL 400/1000





Quantitation Report (Not Reviewed)

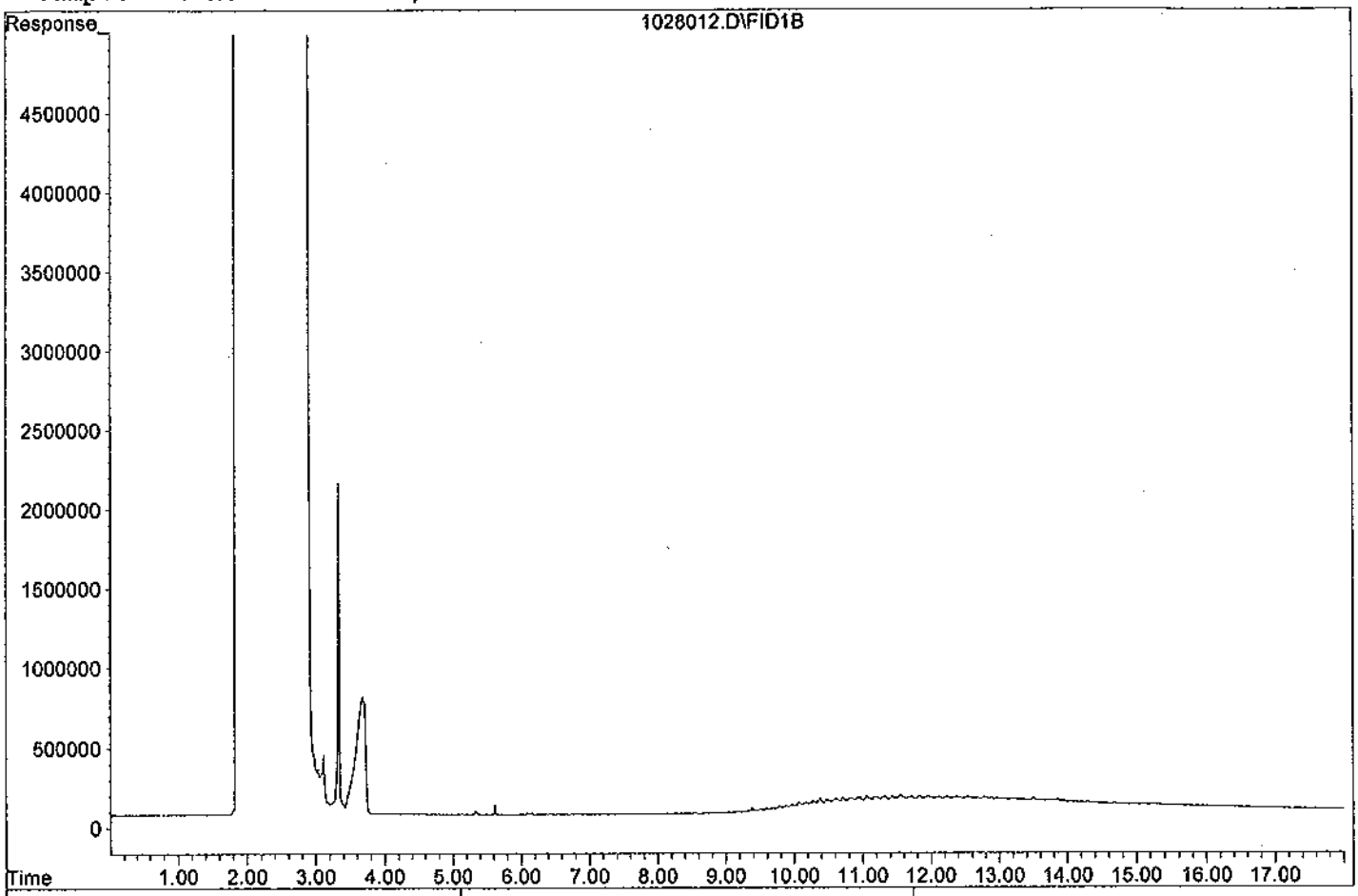
Data File : G:\APOLLO\DATA\111028\1028012.D Vial: 12
Acq On : 10-28-11 13:24:39 Operator: LAC
Sample : MOTOR OIL 600/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

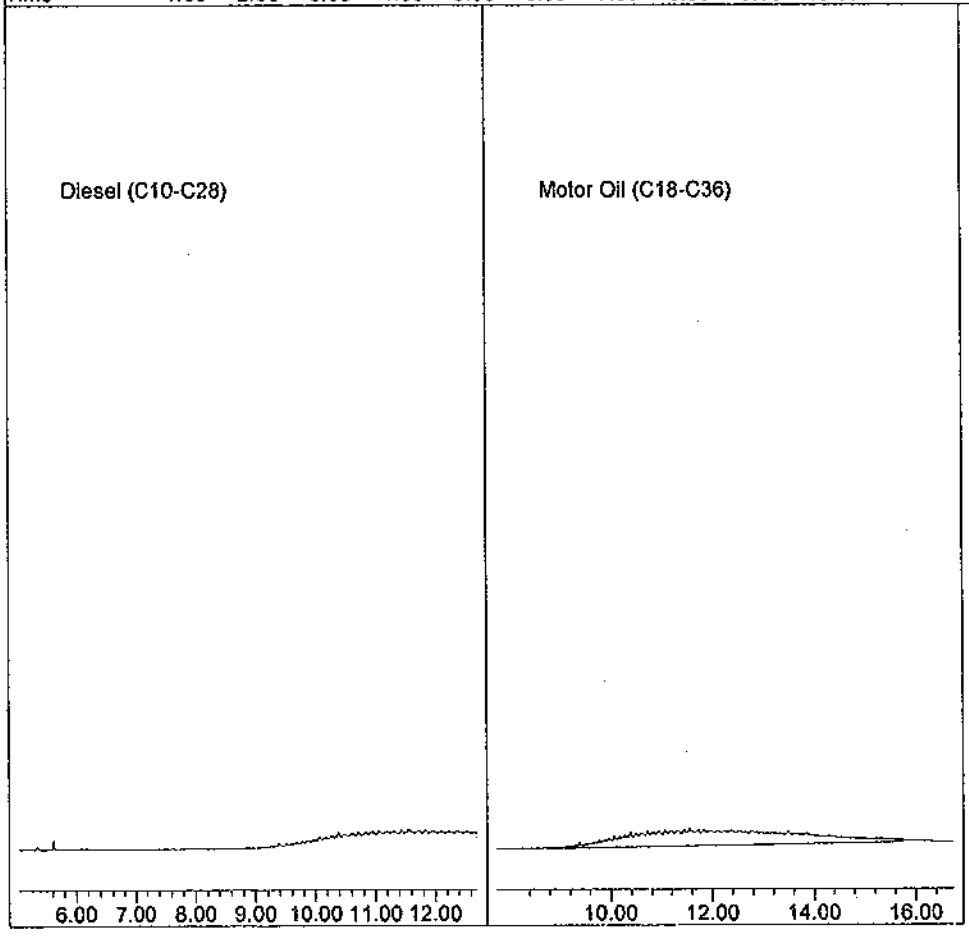
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	216778154	599.242 ppb

Data File: G:\APOLLO\DATA\111028\1028012.D
Sample : MOTOR OIL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028013.D Vial: 13
Acq On : 10-28-11 13:48:43 Operator: LAC
Sample : MOTOR OIL 800/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

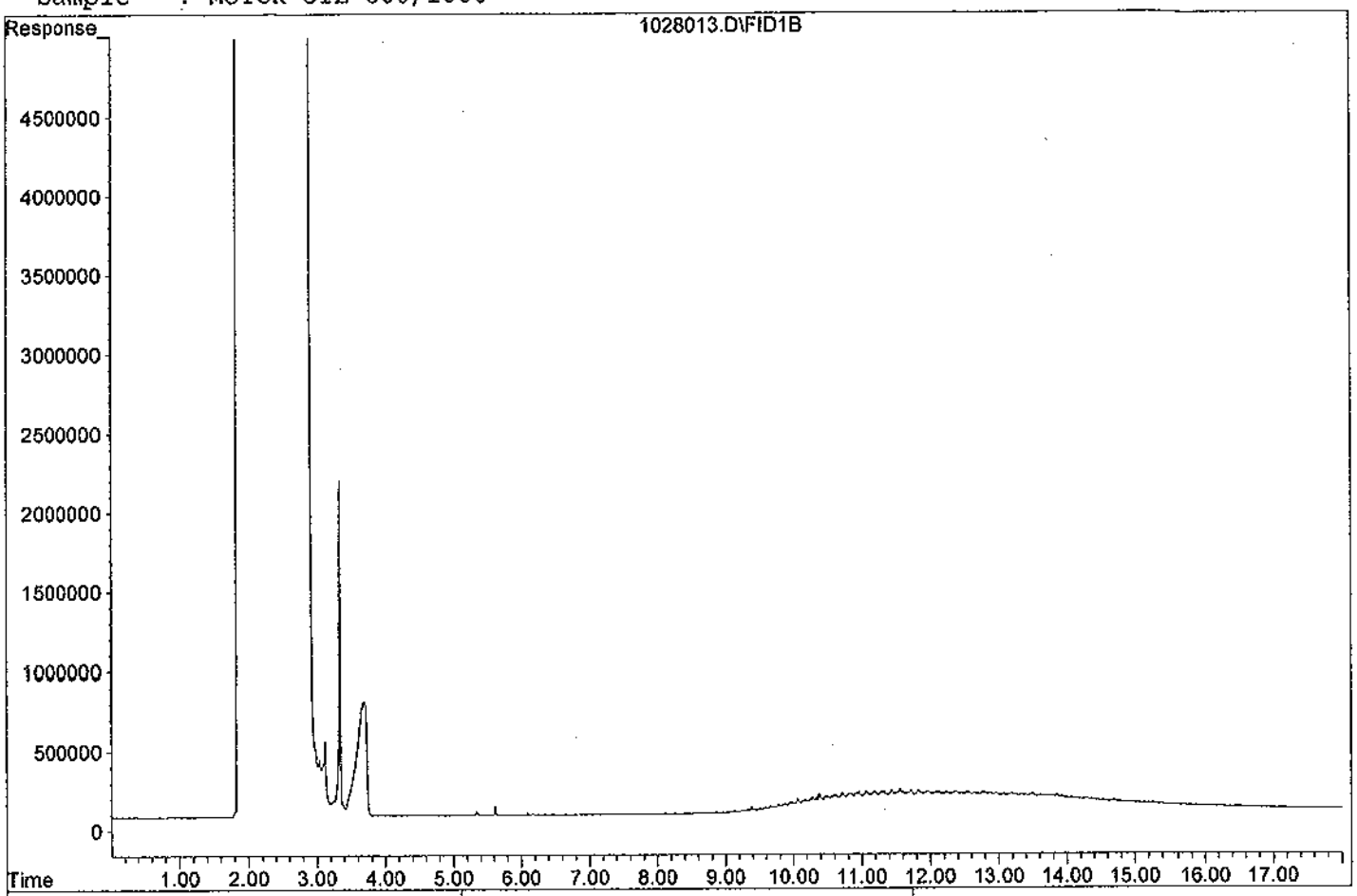
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

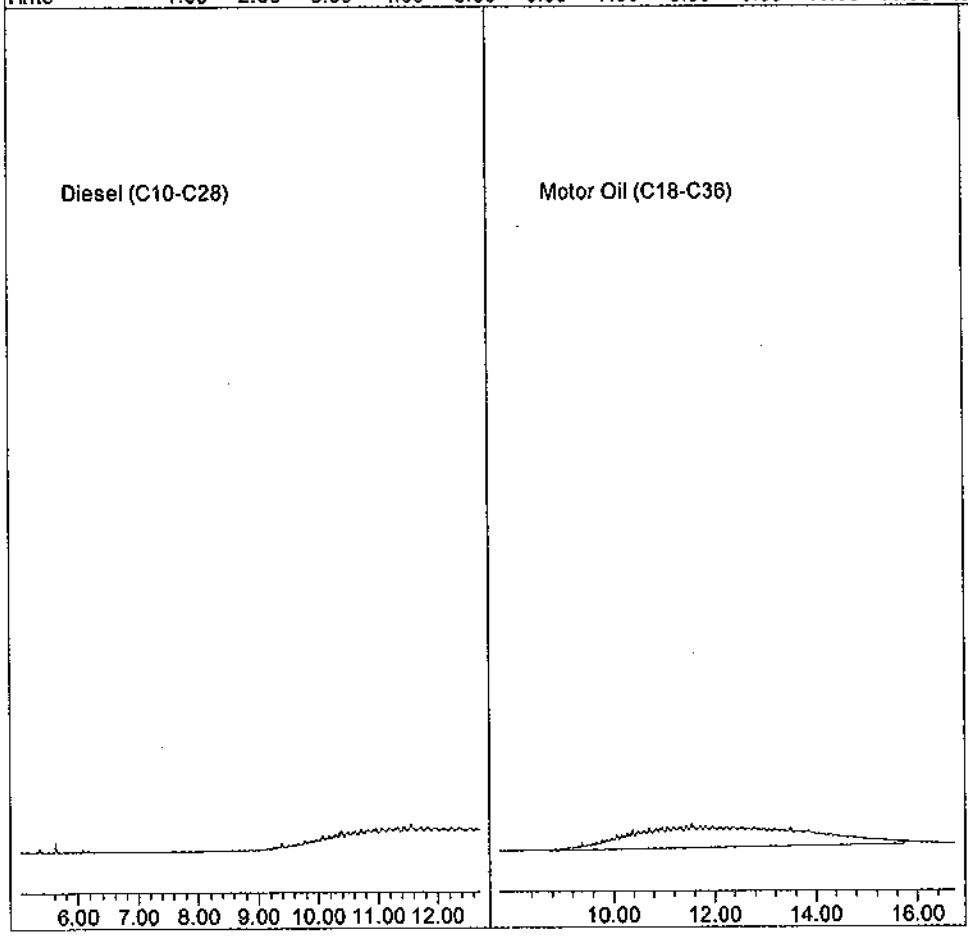
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	303785051	839.757 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111028\1028013.D
Sample : MOTOR OIL 800/1000





Quantitation Report (Not Reviewed)

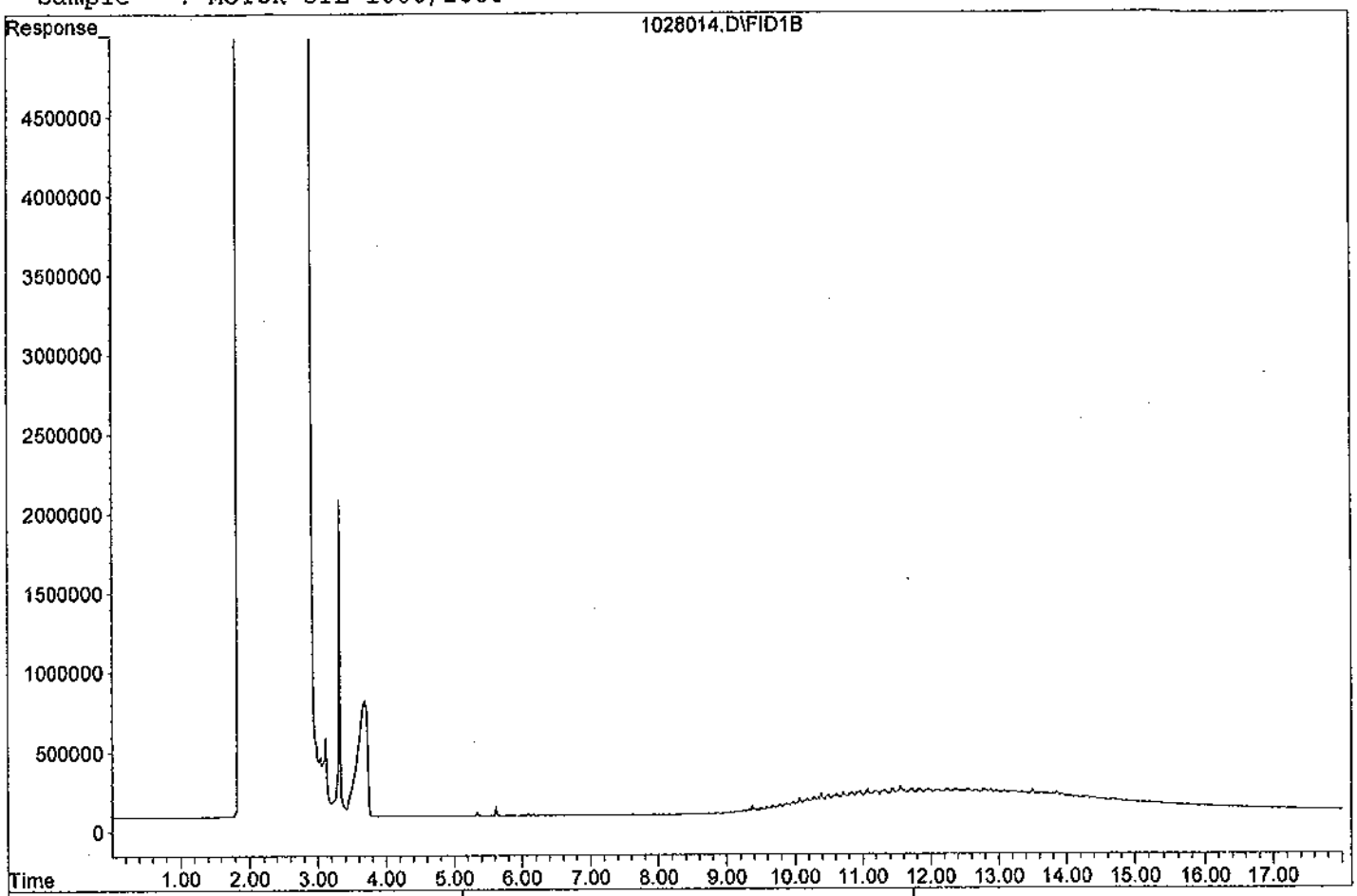
Data File : G:\APOLLO\DATA\111028\1028014.D Vial: 14
Acq On : 10-28-11 14:13:14 Operator: LAC
Sample : MOTOR OIL 1000/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 13:43 2011 Quant Results File: TPH1028.RES

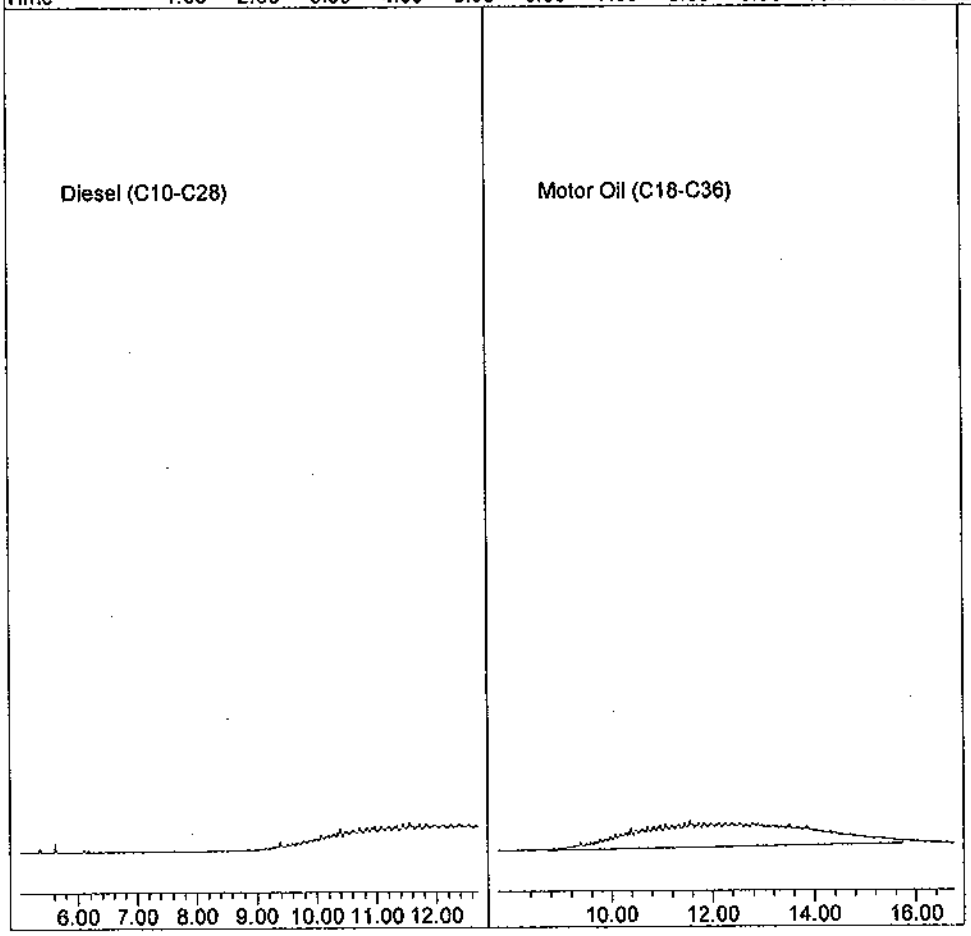
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.25	342332944	946.315 ppb

Data File: G:\APOLLO\DATA\111028\1028014.D
Sample : MOTOR OIL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028016.D Vial: 16
Acq On : 10-28-11 15:01:44 Operator: LAC
Sample : THC SURR 10/1000 10/28/11 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

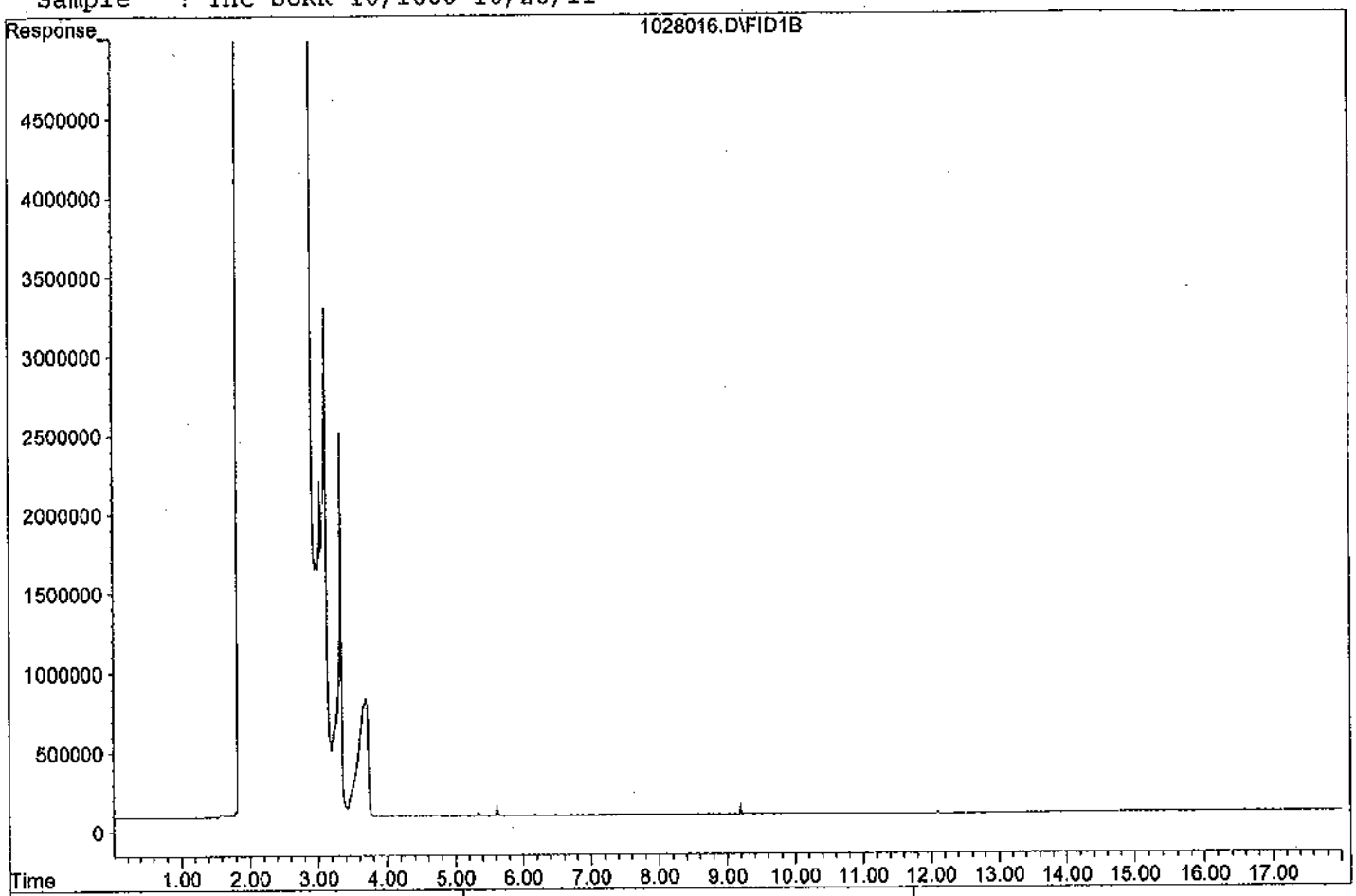
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

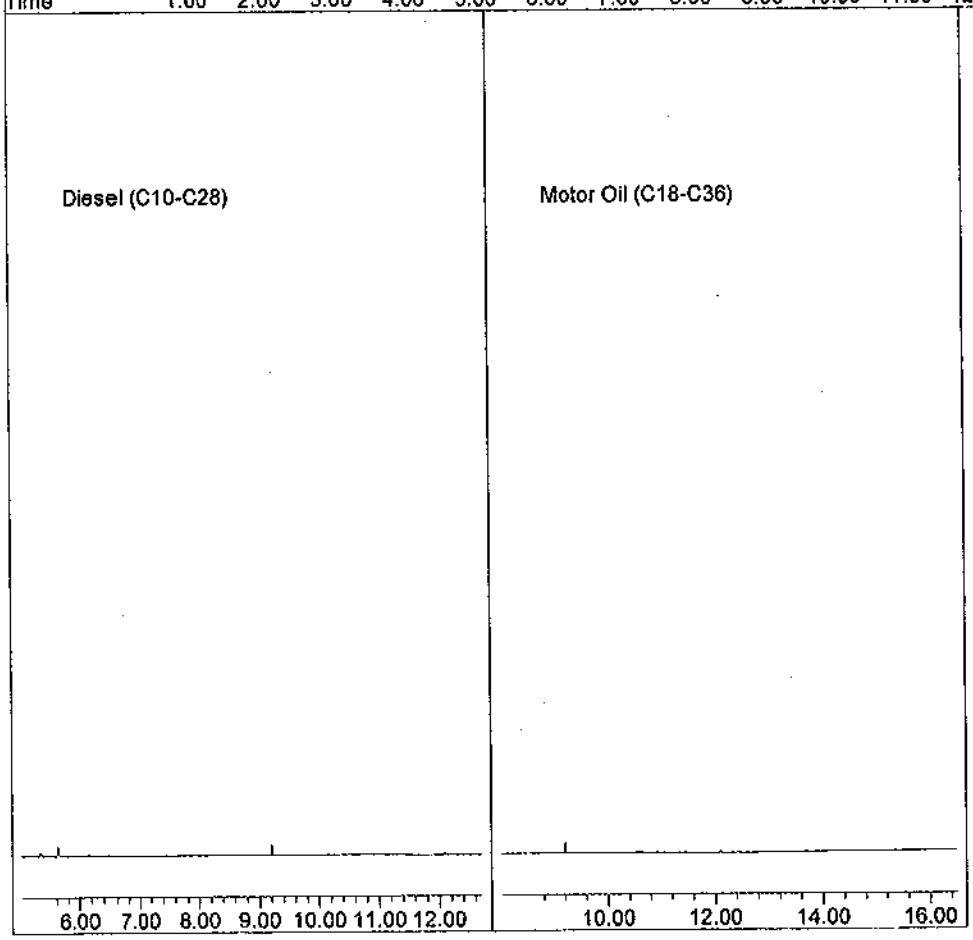
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028016.D
Sample : THC SURR 10/1000 10/28/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028017.D Vial: 17
Acq On : 10-28-11 15:25:58 Operator: LAC
Sample : THC SURR 100/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

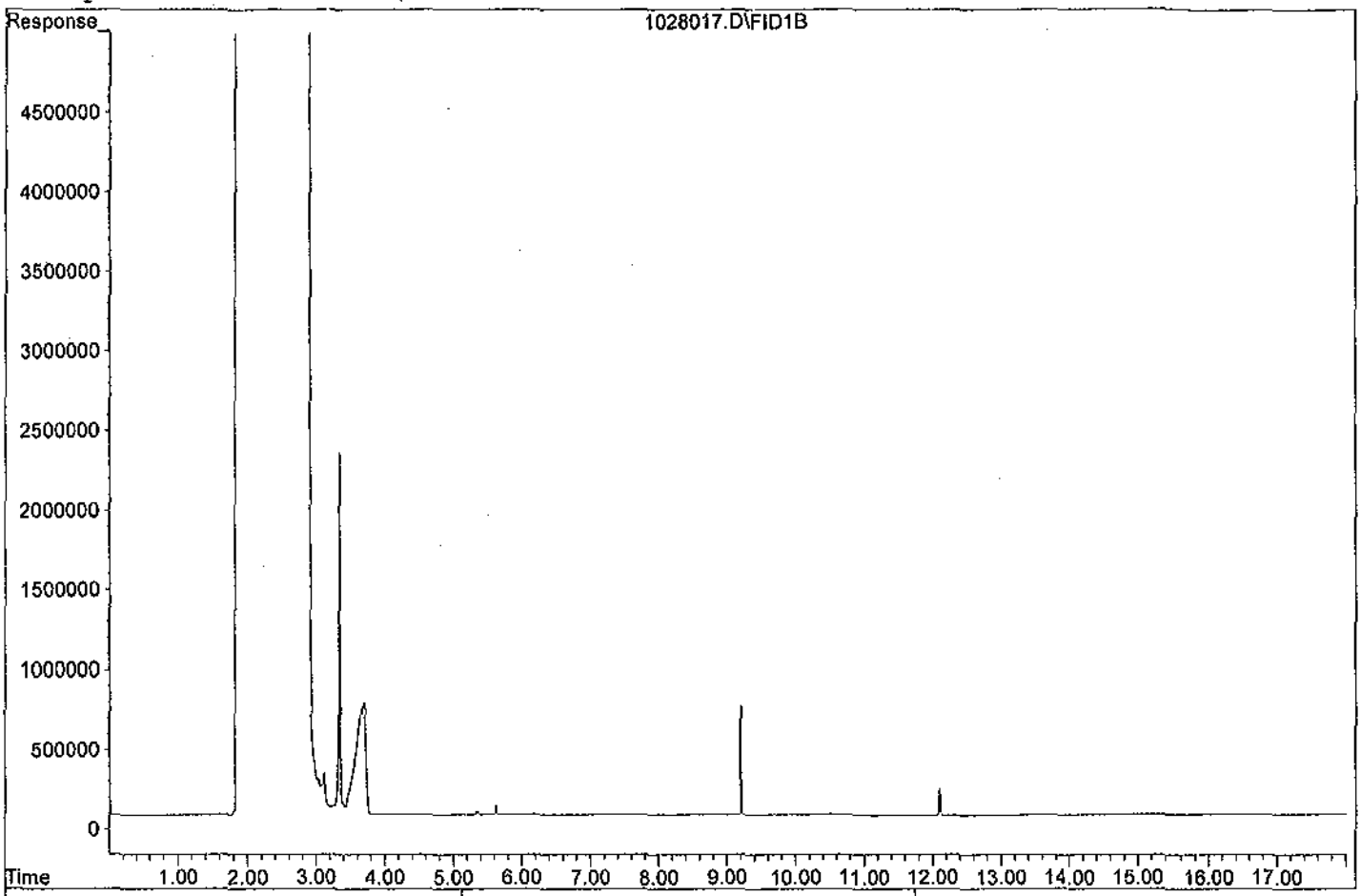
Compound	R.T.	Response	Conc	Units

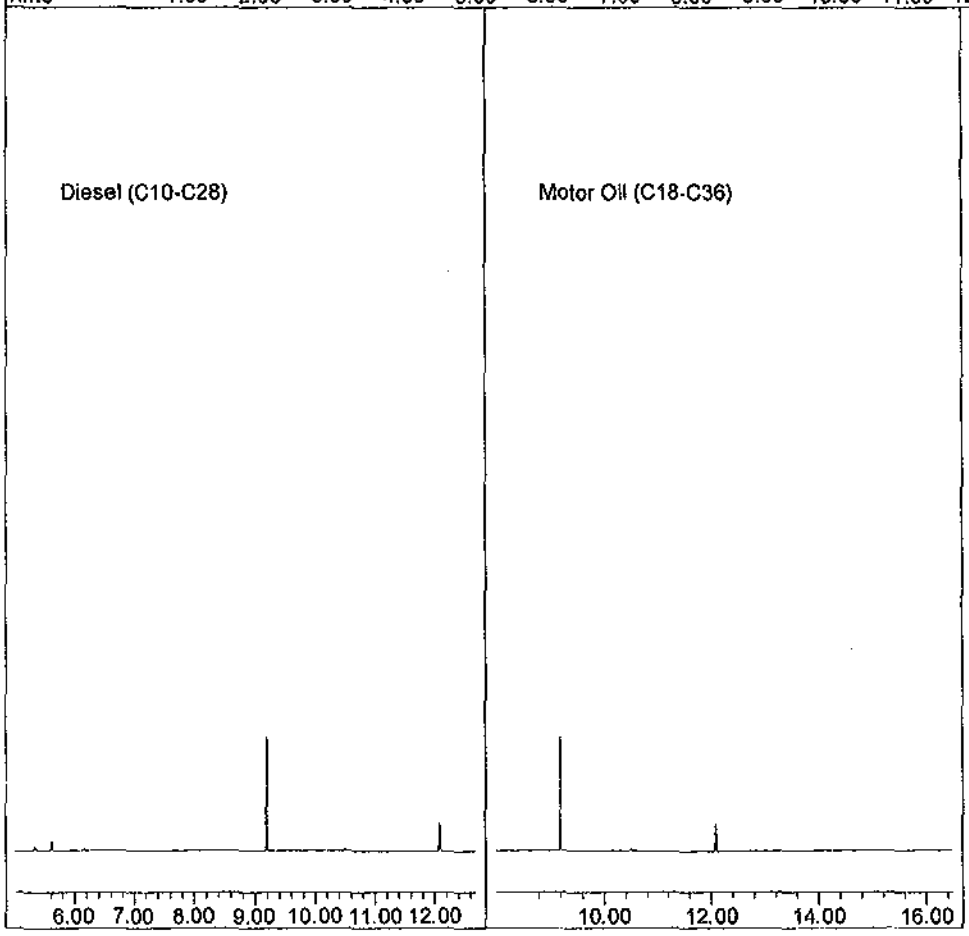
System Monitoring Compounds

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111028\1028017.D
Sample : THC SURR 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028018.D Vial: 18
Acq On : 10-28-11 15:50:20 Operator: LAC
Sample : THC SURR 400/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

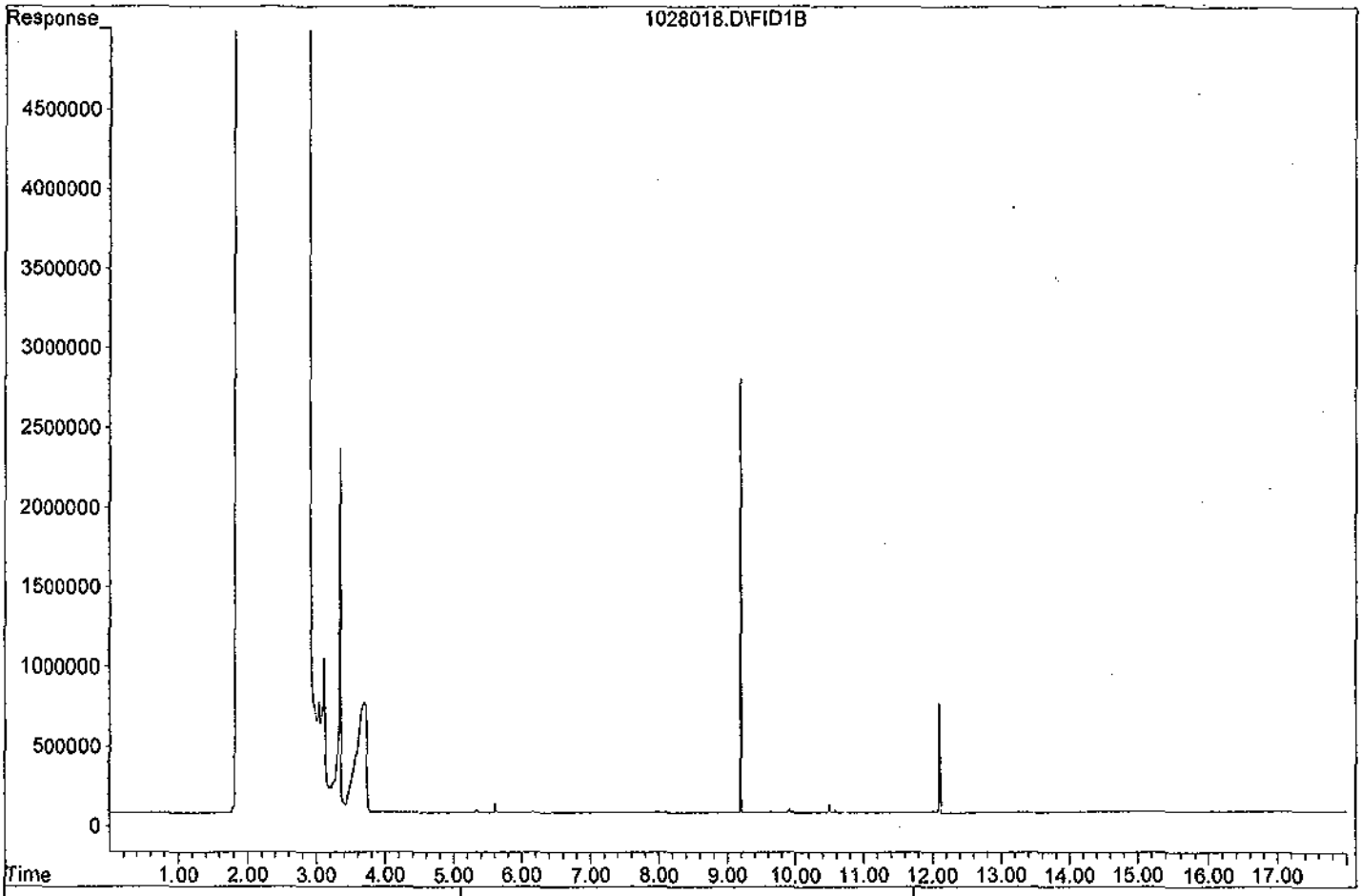
Compound	R.T.	Response	Conc	Units

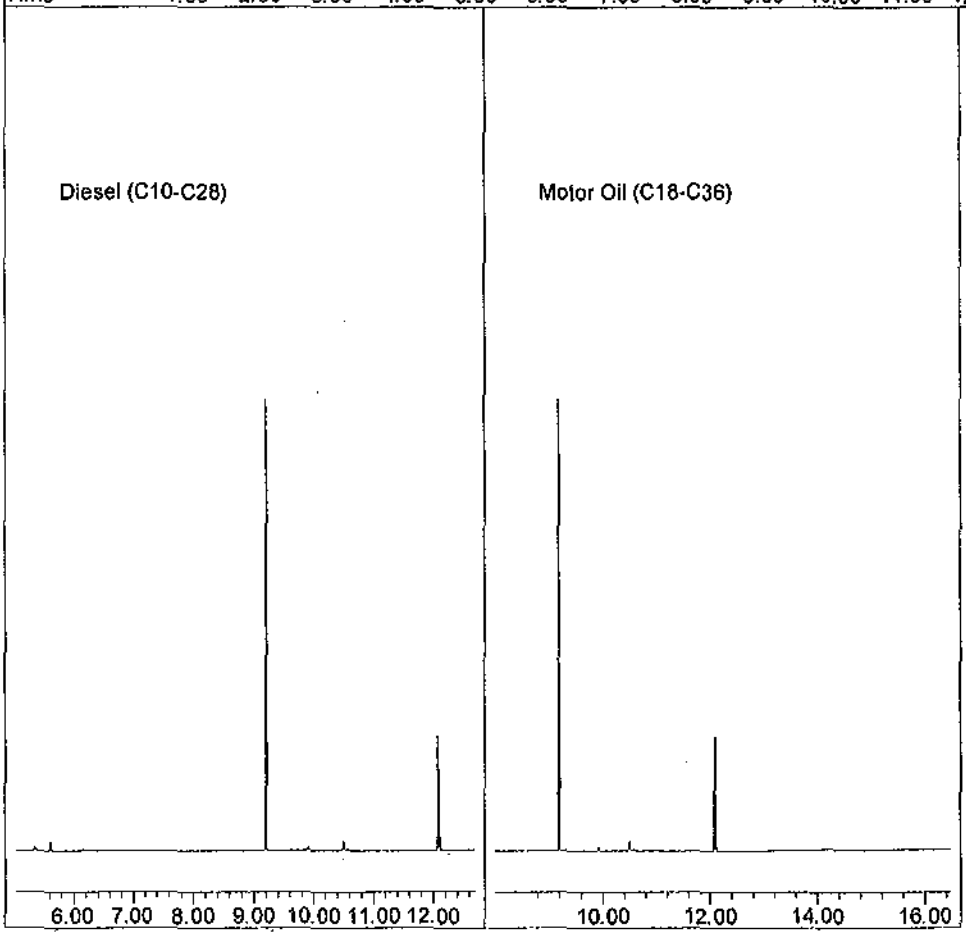
System Monitoring Compounds

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\111028\1028018.D
Sample : THC SURR 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028019.D Vial: 19
Acq On : 10-28-11 16:14:52 Operator: LAC
Sample : THC SURR 600/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

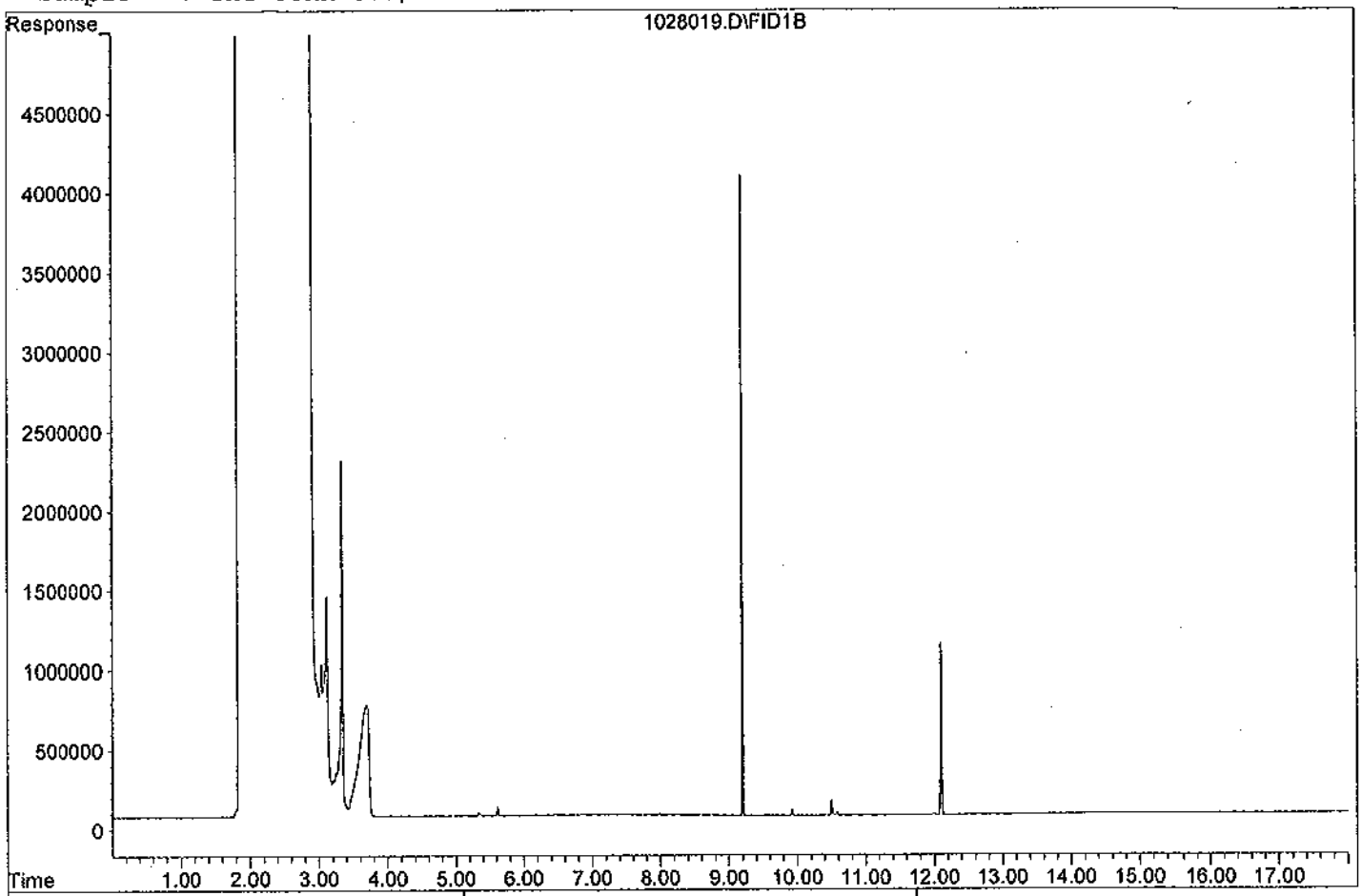
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

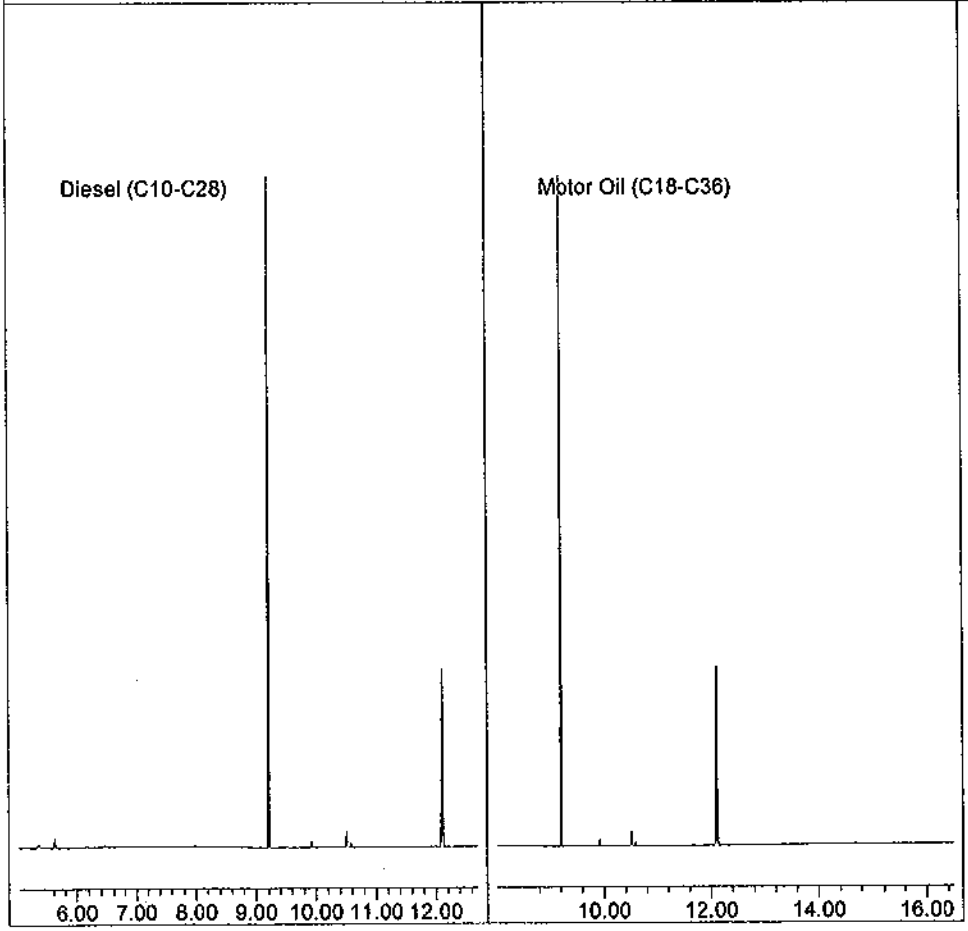
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028019.D
Sample : THC SURR 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028020.D Vial: 20
Acq On : 10-28-11 16:38:57 Operator: LAC
Sample : THC SURR 800/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:01 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

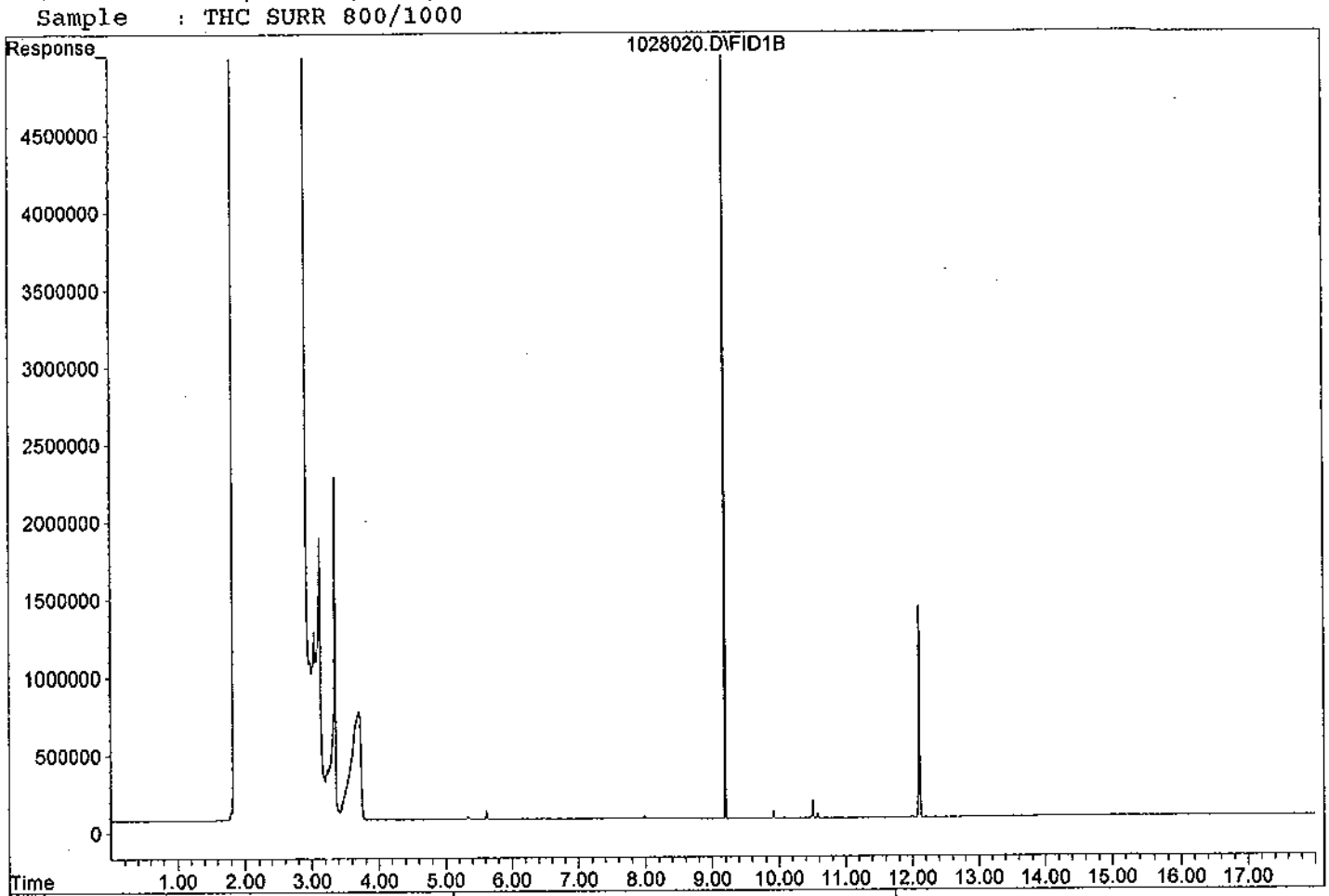
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

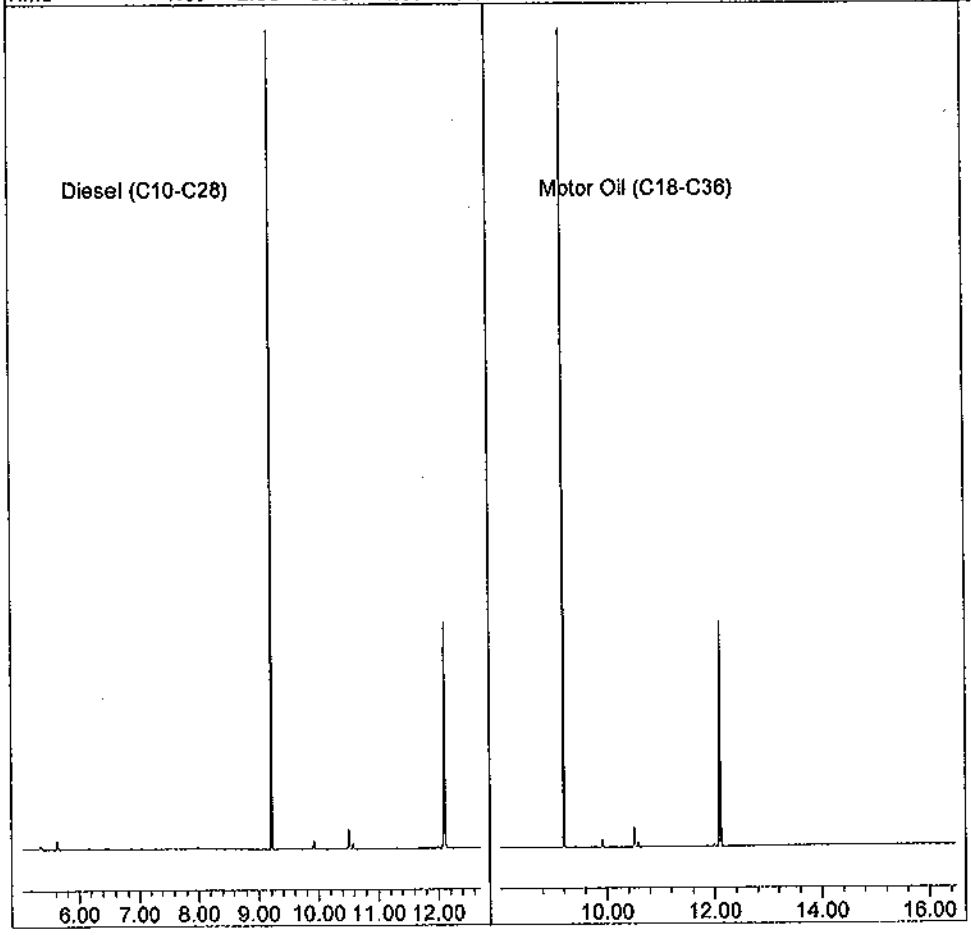
Compound	R.T.	Response	Conc Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028020.D
Sample : THC SURR 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111028\1028021.D Vial: 21
Acq On : 10-28-11 17:03:06 Operator: LAC
Sample : THC SURR 1000/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 31 9:00 2011 Quant Results File: TPH1028.RES

Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

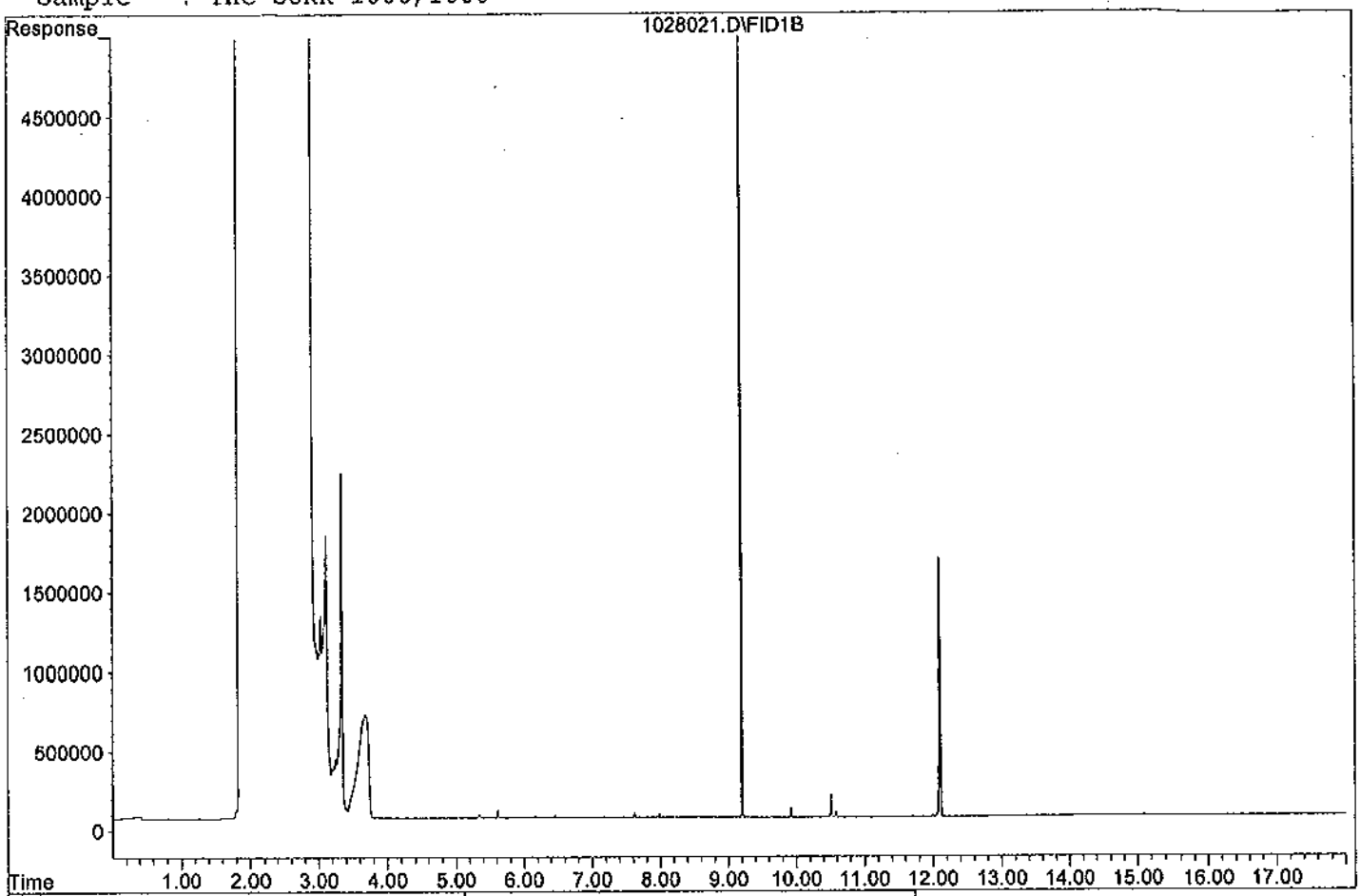
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

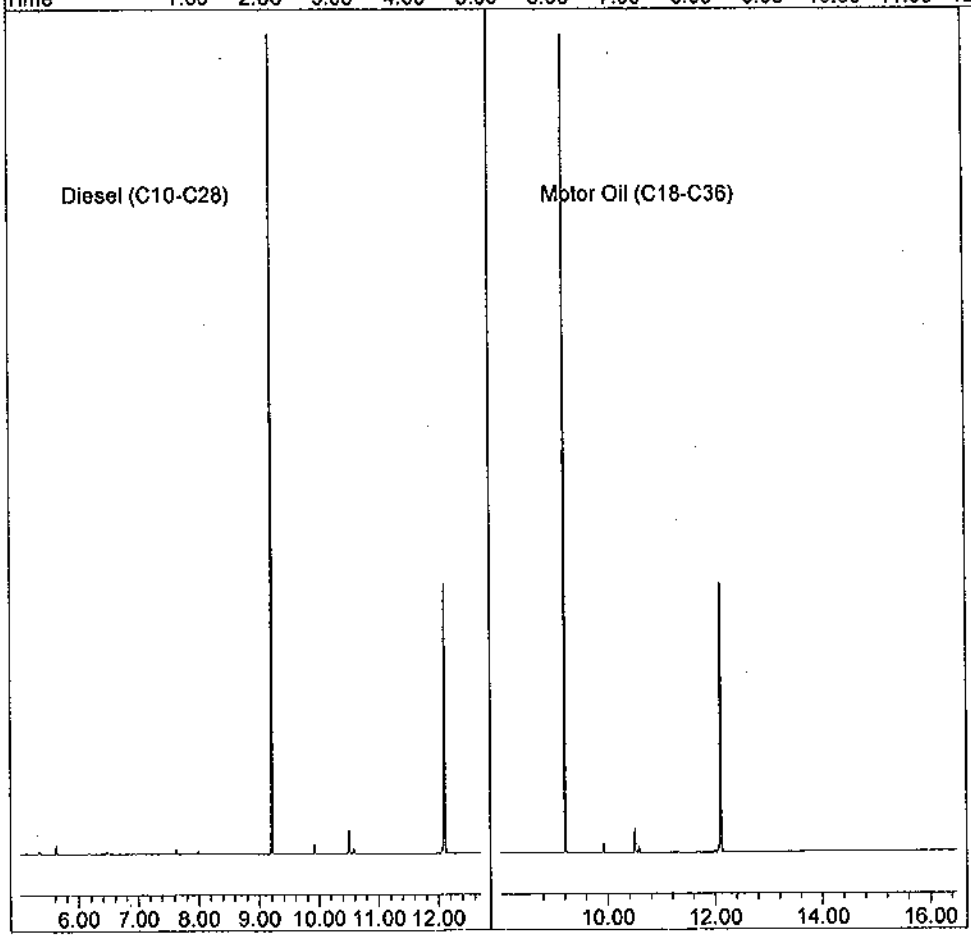
Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

Data File: G:\APOLLO\DATA\111028\1028021.D
Sample : THC SURR 1000/1000





TPH Extractables
TPH1028

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 10/28/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1028015.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	437681	4.0	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.0		

Quantitation Report (Not Reviewed)

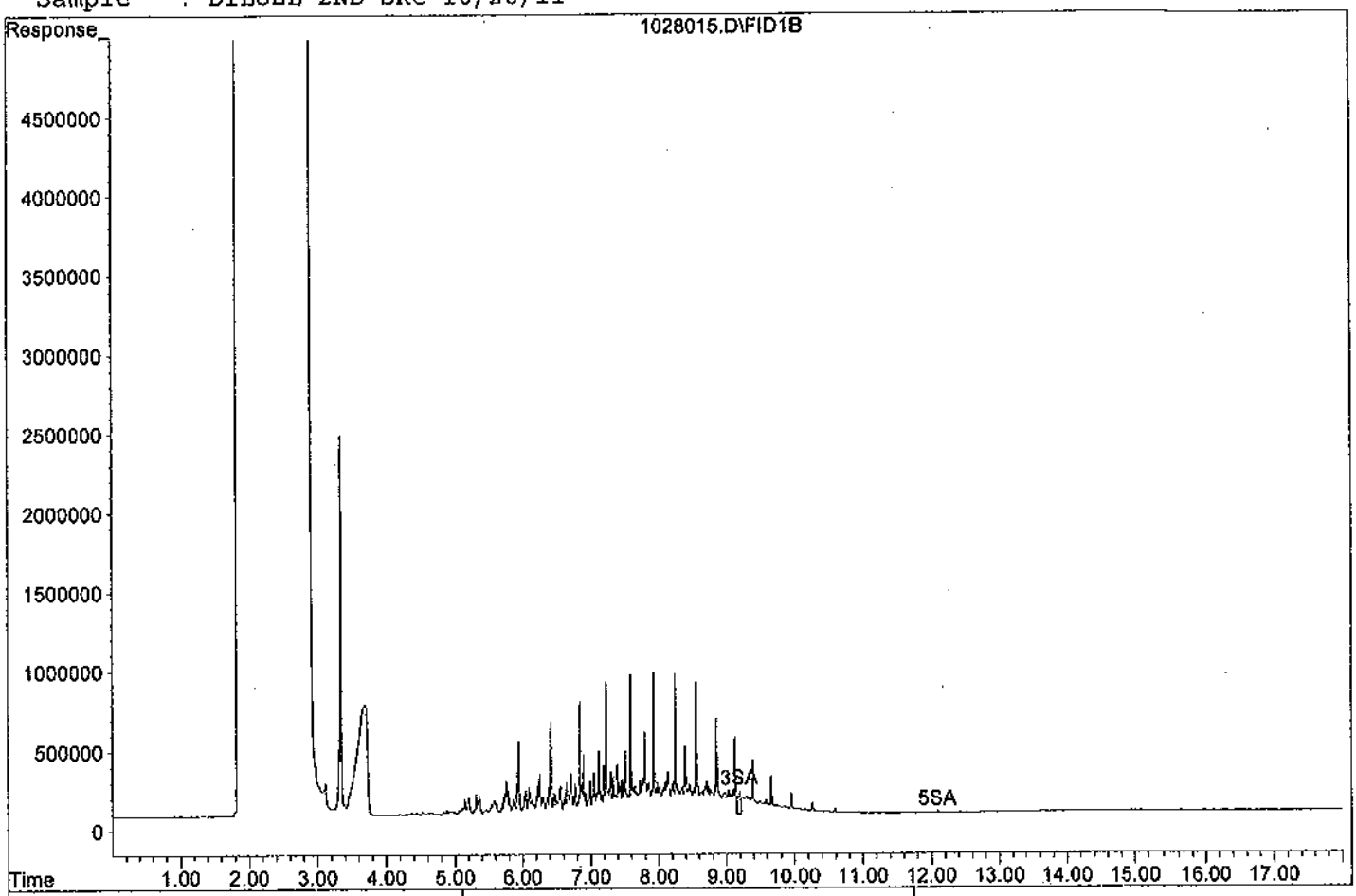
Data File : G:\APOLLO\DATA\111028\1028015.D Vial: 15
Acq On : 10-28-11 14:37:14 Operator: LAC
Sample : DIESEL 2ND SRC 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 28 14:00 2011 Quant Results File: TPH1028.RES

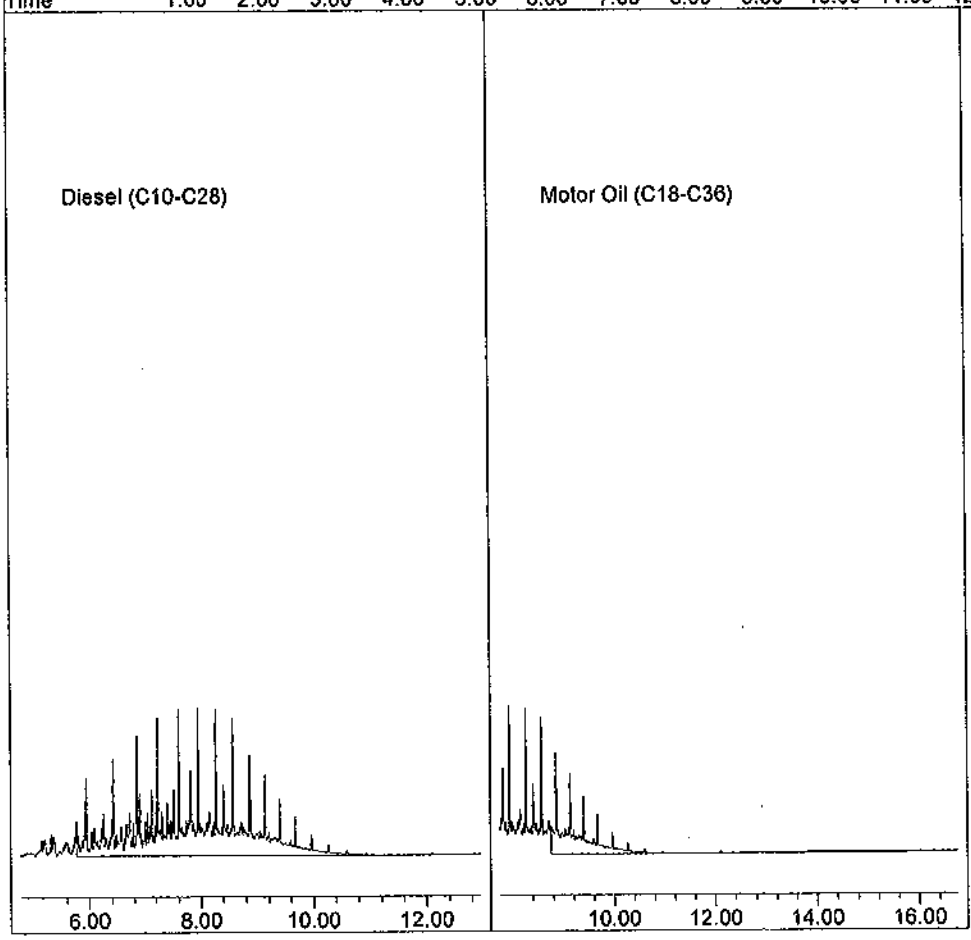
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	4372560	4.067 ppb
Surrogate Spike 30.000	Recovery =		13.56%
5) SA Not Used2(S)	12.09	211361	0.427 ppb
Surrogate Spike 30.000	Recovery =		1.42%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	350144889	415.903 ppb
2) HBTM Motor Oil (C18-C36)	12.25	92370482	254.784 ppb

Data File: G:\APOLLO\DATA\111028\1028015.D
Sample : DIESEL 2ND SRC 10/28/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/06/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106003.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	420946	359274	15	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			15.0		

Quantitation Report (Not Reviewed)

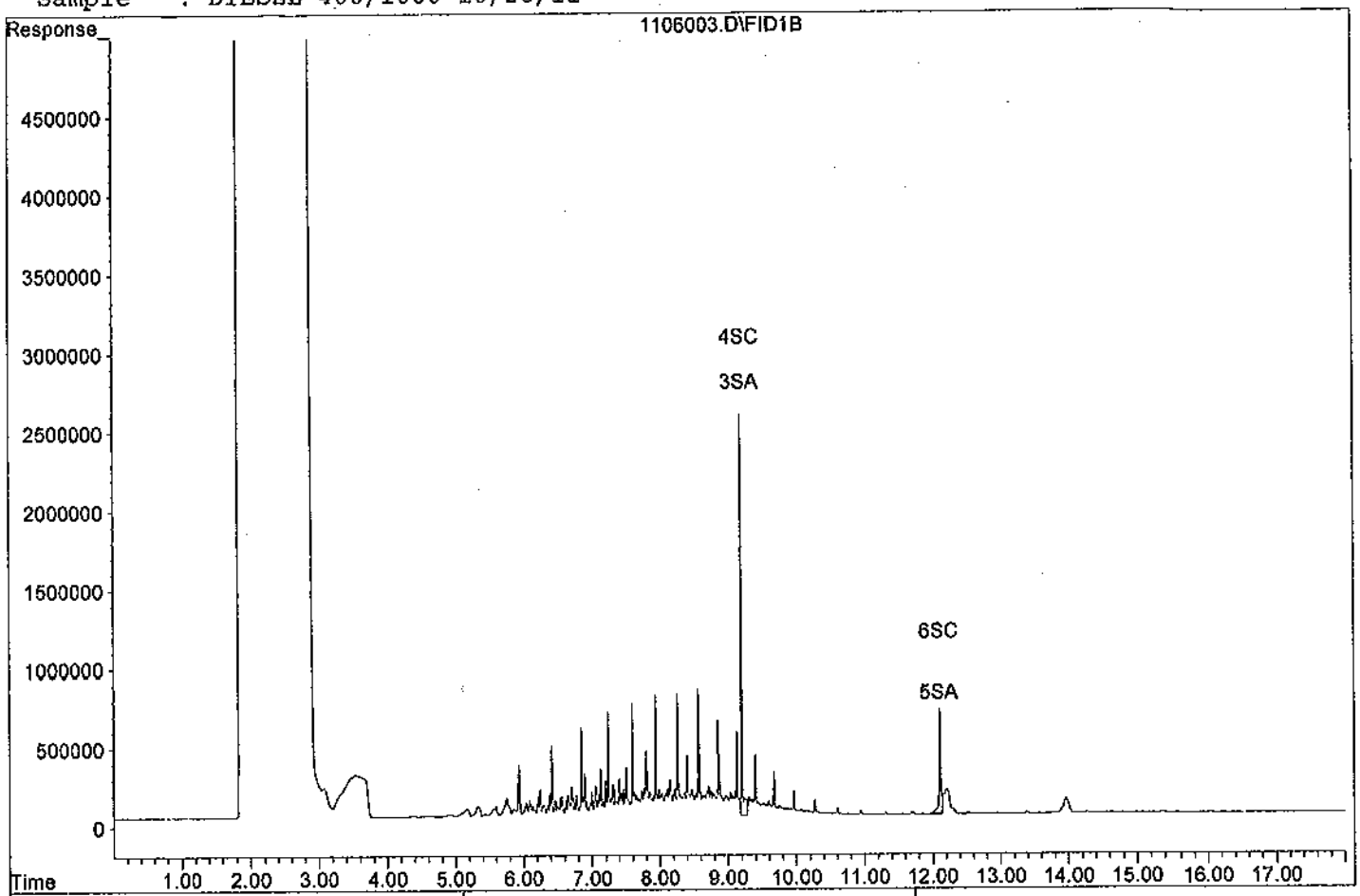
Data File : G:\APOLLO\DATA\111106\1106003.D Vial: 3
Acq On : 11-6-11 16:34:49 Operator: LAC
Sample : DIESEL 400/1000 10/28/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:16 2011 Quant Results File: TPH1028.RES

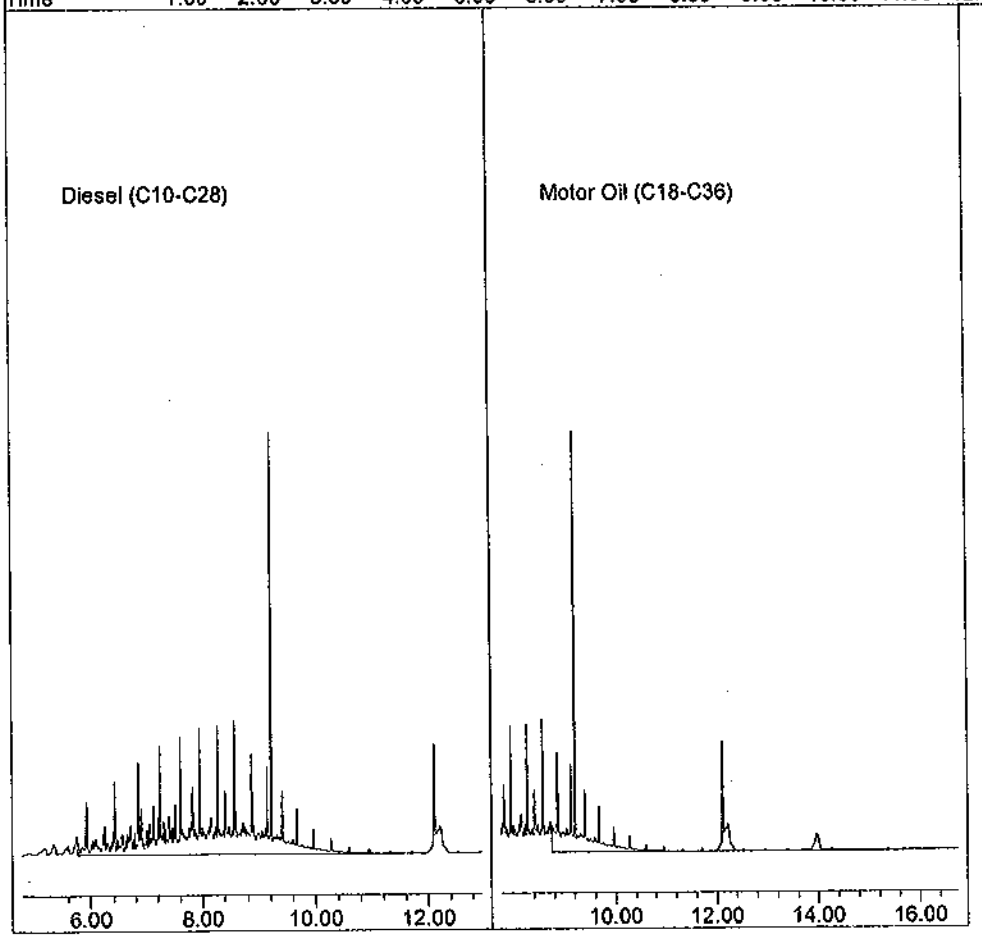
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	21346070	19.854 ppb
Surrogate Spike 30.000	Recovery =		66.18%
4) SC Ortho-Terphenyl(S)	9.21	21346070	24.480 ppb
Surrogate Spike 30.000	Recovery =		81.60%
5) SA Not Used2(S)	12.11	11940260	24.100 ppb
Surrogate Spike 30.000	Recovery =		80.33%
6) SC Octacosane(S)	12.11	11940260	25.659 ppb
Surrogate Spike 30.000	Recovery =		85.53%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	287418867	341.397 ppb
2) HBTM Motor Oil (C18-C36)	12.25	102192727	281.876 ppb

Data File: G:\APOLLO\DATA\111106\1106003.D
Sample : DIESEL 400/1000 10/28/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/06/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106017.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	420946	369827	12	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (Not Reviewed)

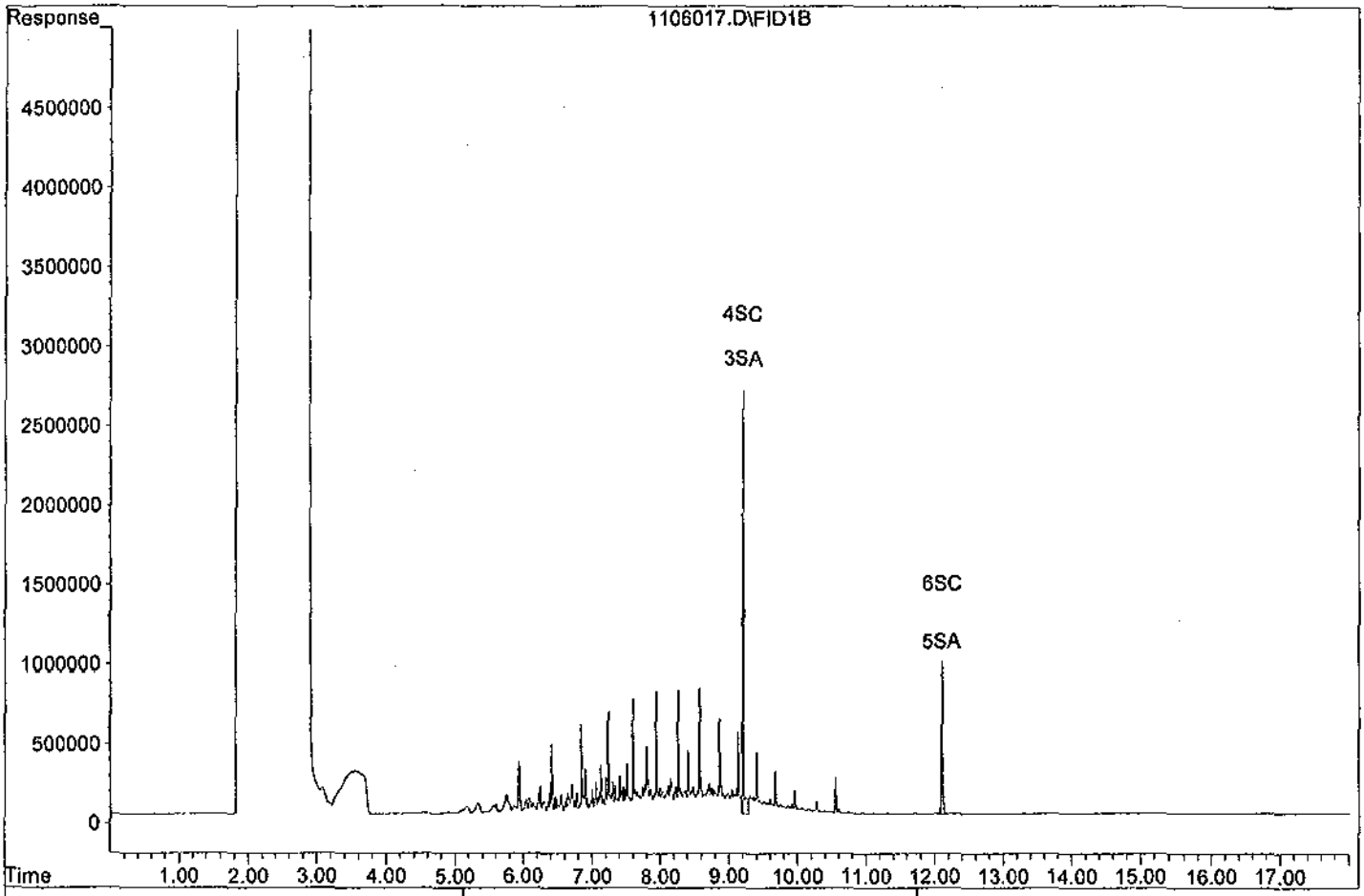
Data File : G:\APOLLO\DATA\111106\1106017.D Vial: 17
Acq On : 11-6-11 22:03:47 Operator: LAC
Sample : DIESEL 400/1000 11/2/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:17 2011 Quant Results File: TPH1028.RES

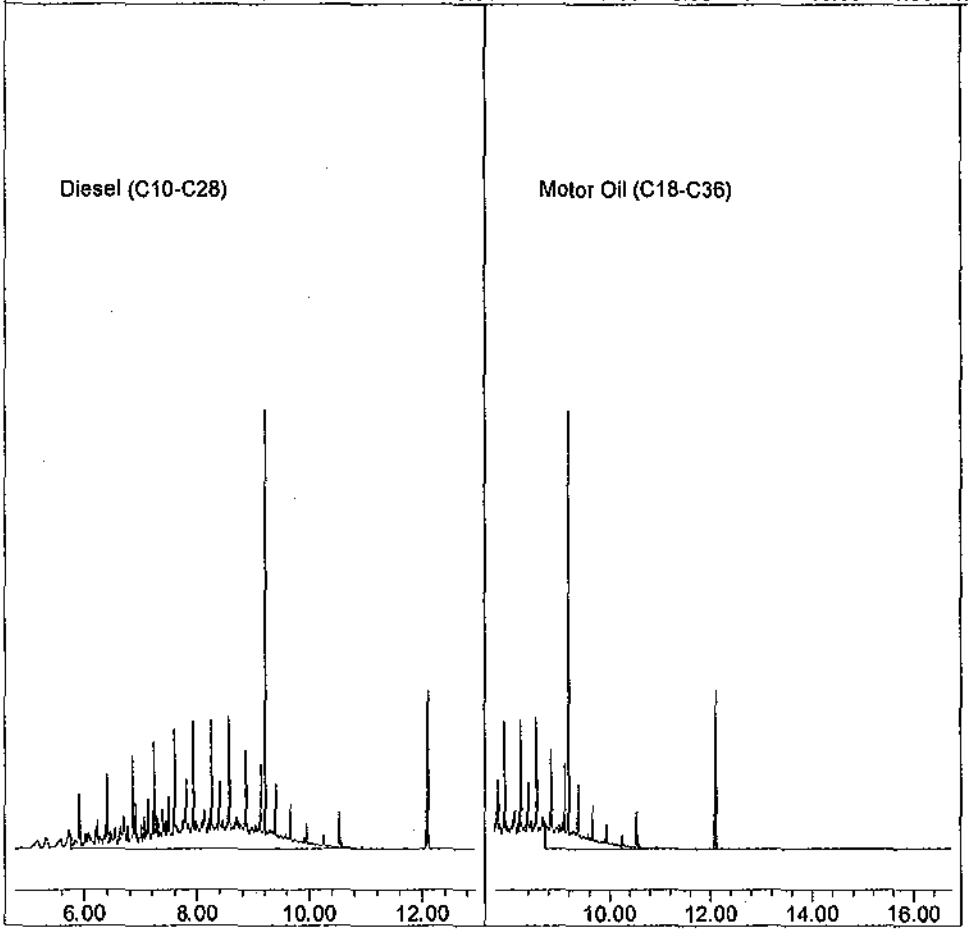
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	22135697	20.589 ppb
Surrogate Spike 30.000	Recovery =		68.63%
4) SC Ortho-Terphenyl(S)	9.21	22135697	25.385 ppb
Surrogate Spike 30.000	Recovery =		84.62%
5) SA Not Used2(S)	12.10	13104105	26.450 ppb
Surrogate Spike 30.000	Recovery =		88.17%
6) SC Octacosane(S)	12.10	13104105	28.160 ppb
Surrogate Spike 30.000	Recovery =		93.87%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	295861444	351.425 ppb
2) HBTM Motor Oil (C18-C36)	12.25	88714324	244.699 ppb

Data File: G:\APOLLO\DATA\111106\1106017.D
Sample : DIESEL 400/1000 11/2/11





TPH Extractables
TPH1028

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/07/11
Instrument: Apollo
Initial Cal. Date: 10/28/11
Data File: 1106027.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	420946	339247	19	HATM	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			19.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111106\1106027.D Vial: 27
Acq On : 11-7-11 1:56:08 Operator: LAC
Sample : DIESEL 400/1000 11/2/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 7 9:17 2011 Quant Results File: TPH1028.RES

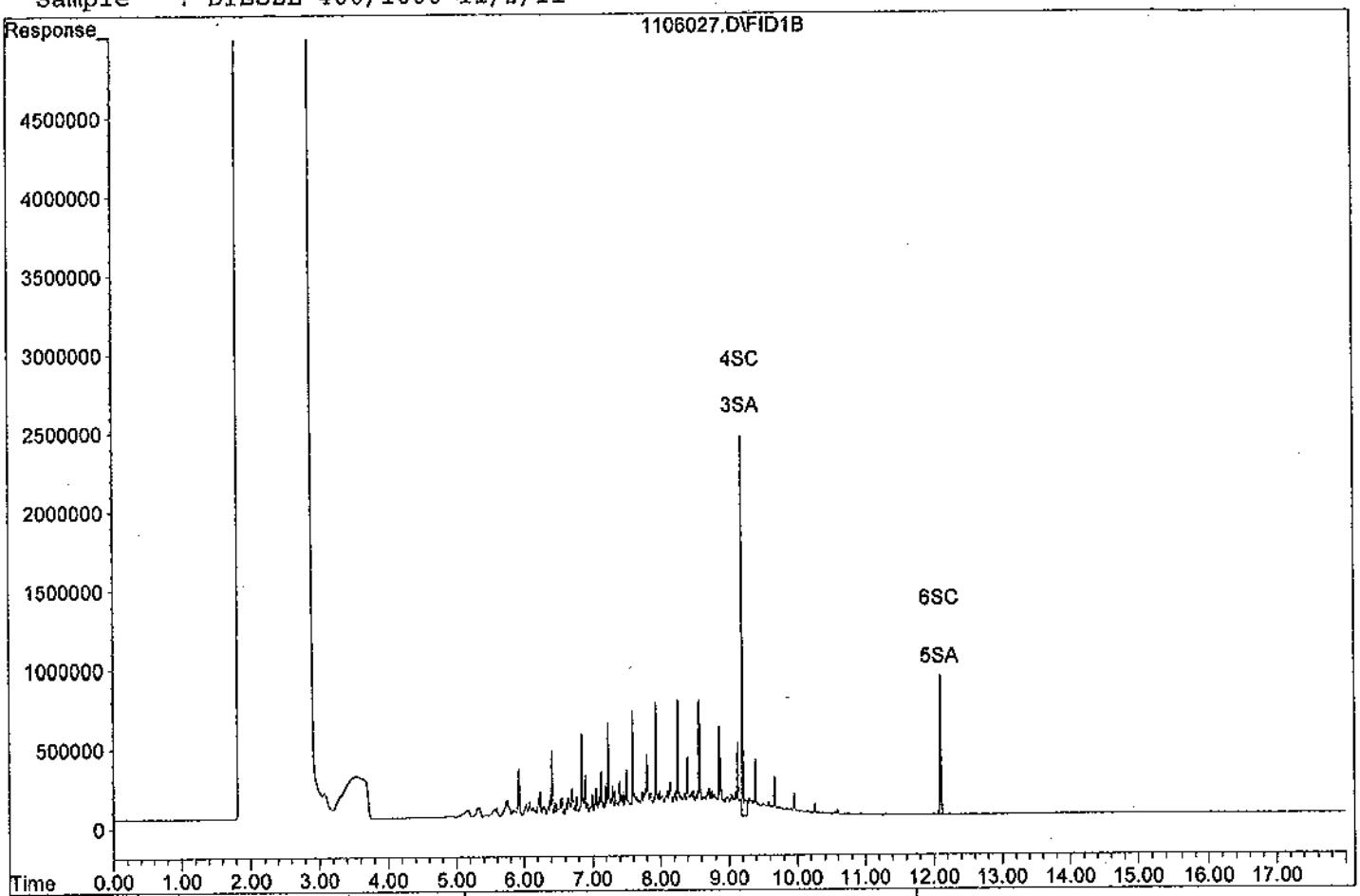
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

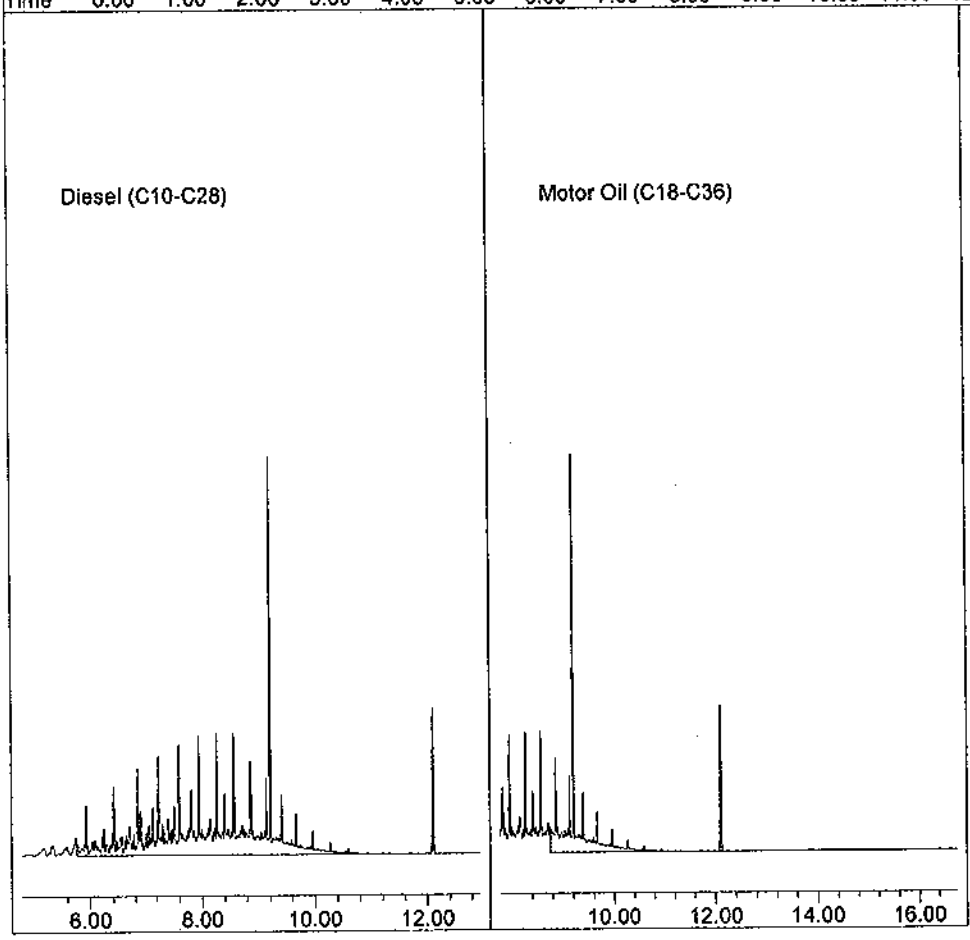
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.21	20565649	19.129 ppb
Surrogate Spike 30.000	Recovery =		63.76%
4) SC Ortho-Terphenyl(S)	9.21	20565649	23.585 ppb
Surrogate Spike 30.000	Recovery =		78.62%
5) SA Not Used2(S)	12.10	11836262	23.890 ppb
Surrogate Spike 30.000	Recovery =		79.63%
6) SC Octacosane(S)	12.10	11836262	25.435 ppb
Surrogate Spike 30.000	Recovery =		84.78%
Target Compounds			
1) HATM Diesel (C10-C28)	8.86	271397500	322.367 ppb
2) HBTM Motor Oil (C18-C36)	12.25	79648905	219.694 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111106\1106027.D
Sample : DIESEL 400/1000 11/2/11





TPH Extractables
TPH8S15

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66116
Case No: Initial Cal. Date: 11/08/11
Matrix: Instrument: Apollo
Initials: LAC

			1115021.D	1115022.D	1115023.D	1115024.D	1115025.D	1115026.D								
		Compound	1	2	3	4	5	6					Avg	%RSD		
1	HATML	Diesel (C10-C28)	613132	243101	243681	243678	244044	245201					305473	49	HATML	1.000
2	HBTM	Motor Oil (C18-C36)	140437	99632	104190	111186	115800	125373					116103	13	HBTM	
3	SA	Not Used(S)	302444	320737	318016	323983	383528	387566					339379	11	SA	
4	SC	Ortho-Terphenyl(S)	356915	320797	300581	304073	324333	307361					319010	6.5	SC	
5	SA	Not Used2(S)		81698	75651	78041	78921	79877					78838	2.8	SA	
6	SC	Octacosane(S)		121445	115156	113245	126484	120297					119325	4.4	SC	
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

2.4787102

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108005.D Vial: 5
Acq On : 11-8-11 15:50:59 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

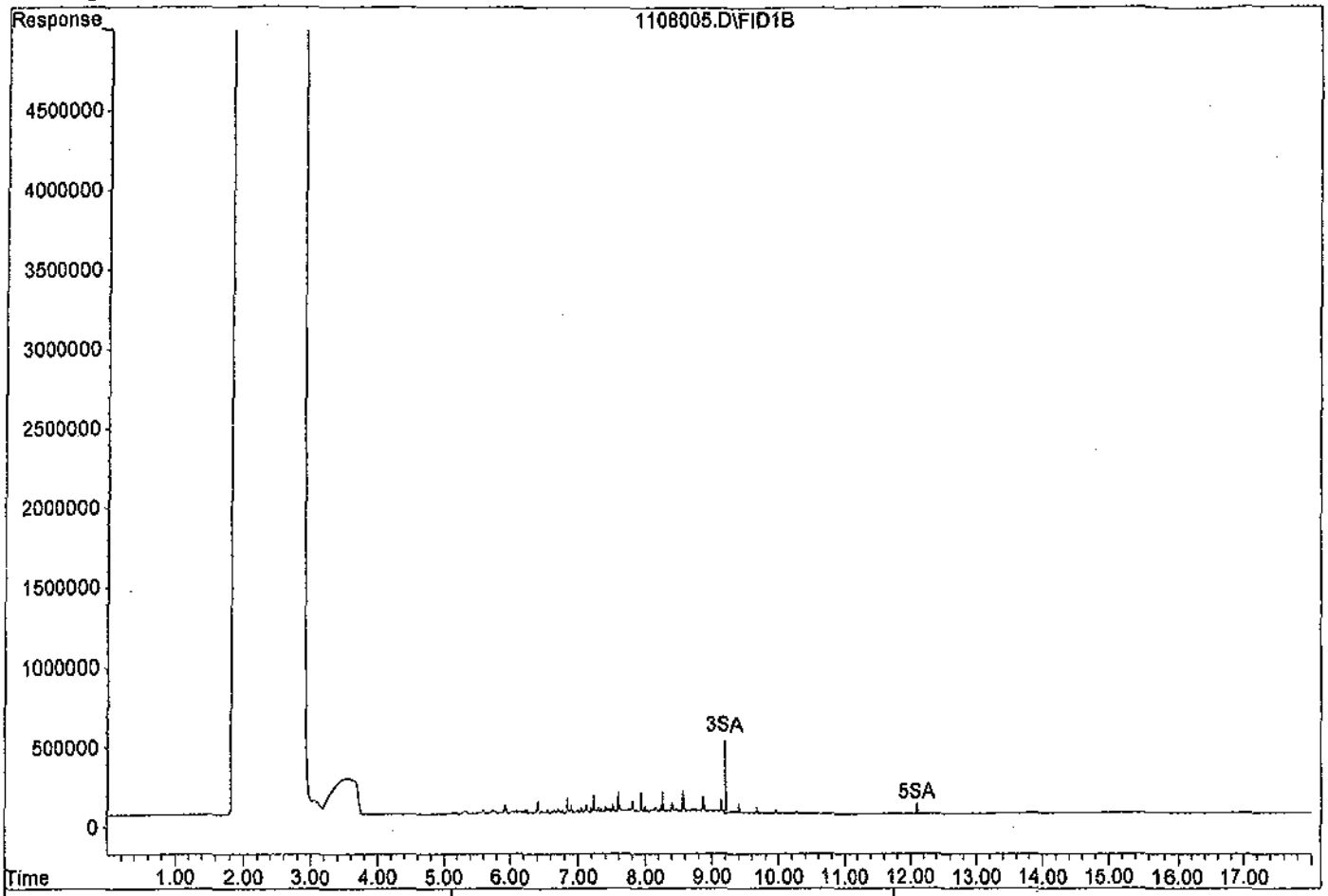
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

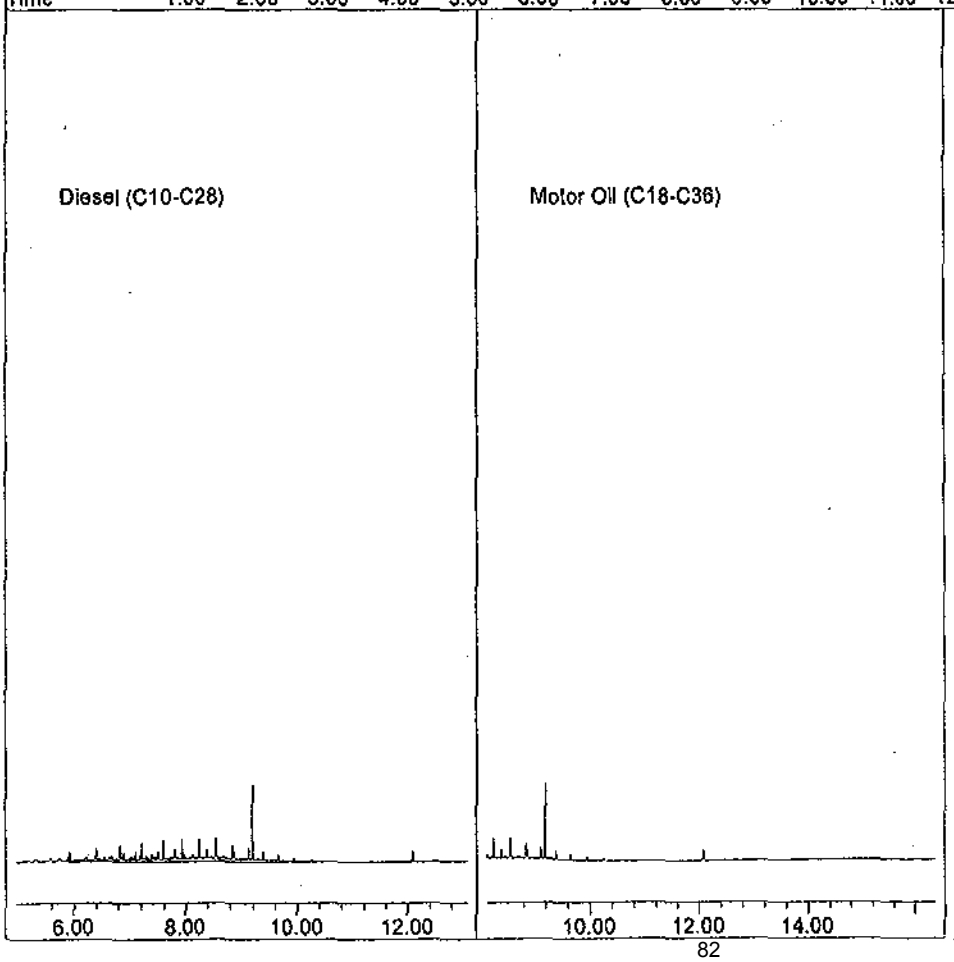
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	3207373	3.154 ppb
Surrogate Spike 30.000	Recovery =		10.51%
5) SA Not Used2(S)	12.09	816983	2.773 ppb
Surrogate Spike 30.000	Recovery =		9.24%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	48620150	767.290 ppb

(f)=RT Delta > 1/2 Window 81 (m)=manual int.

Data File: G:\APOLLO\DATA\111108\1108005.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

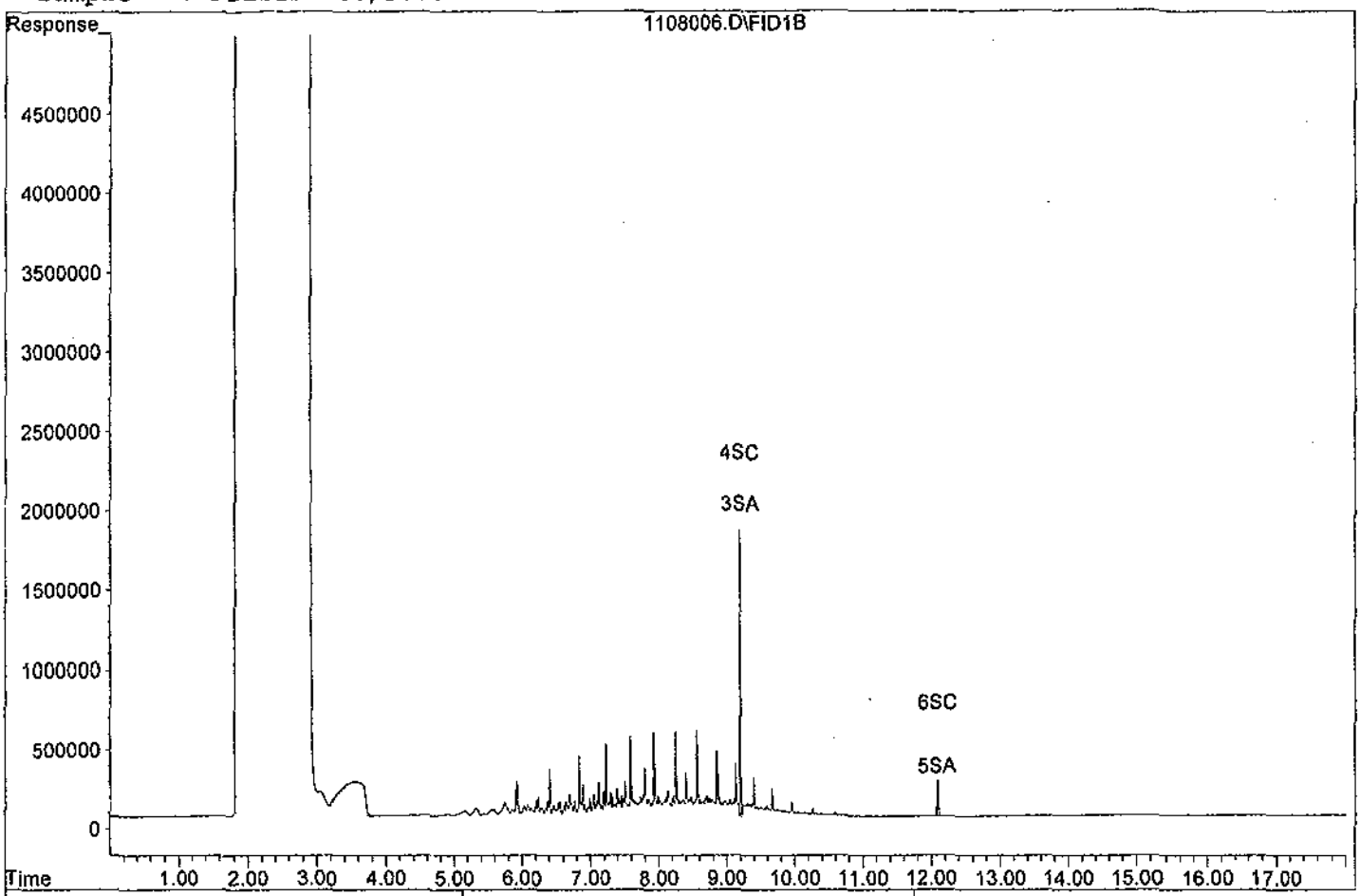
Data File : G:\APOLLO\DATA\111108\1108006.D Vial: 6
Acq On : 11-8-11 16:14:36 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:52 2011 Quant Results File: TPH8S15.RES

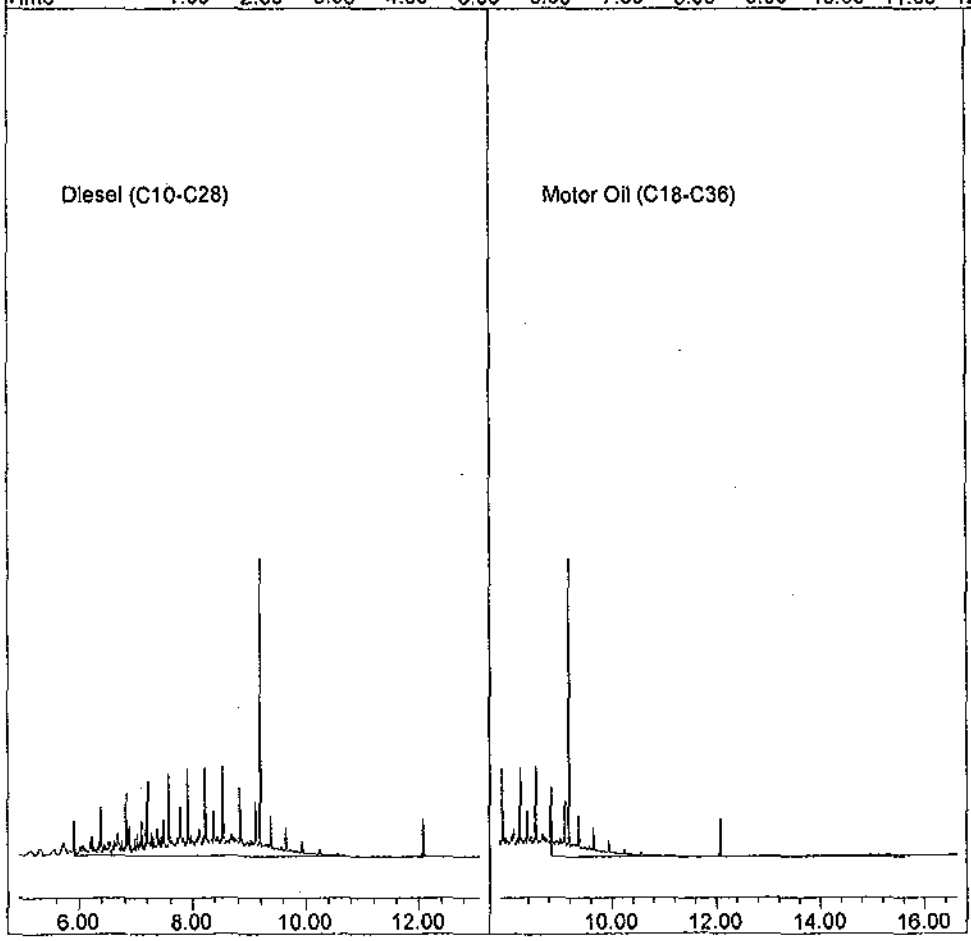
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	12720627	18.741	ppb
Surrogate Spike 30.000	Recovery =		62.47%	
4) SC Ortho-Terphenyl(S)	9.20	12720627	19.938	ppb
Surrogate Spike 30.000	Recovery =		66.46%	
5) SA Not Used2(S)	12.09	3026041	19.192	ppb
Surrogate Spike 30.000	Recovery =		63.97%	
6) SC Octacosane(S)	12.09	3026041	12.960	ppb
Surrogate Spike 30.000	Recovery =		43.20%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	194945056	395.862	ppb
2) HBTM Motor Oil (C18-C36)	12.24	62241854	268.046	ppb

Data File: G:\APOLLO\DATA\111108\1108006.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

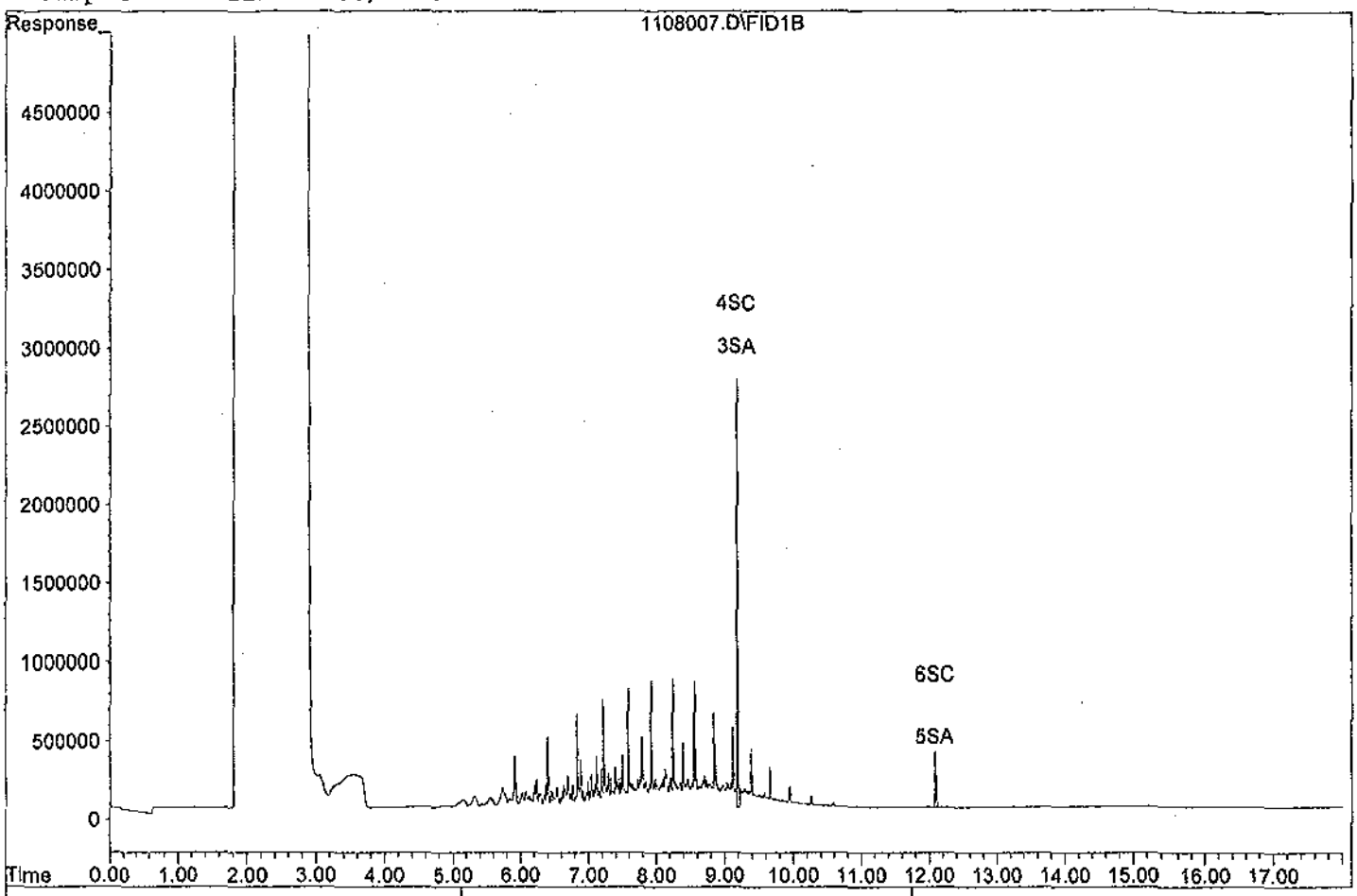
Data File : G:\APOLLO\DATA\111108\1108007.D Vial: 7
Acq On : 11-8-11 16:38:14 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

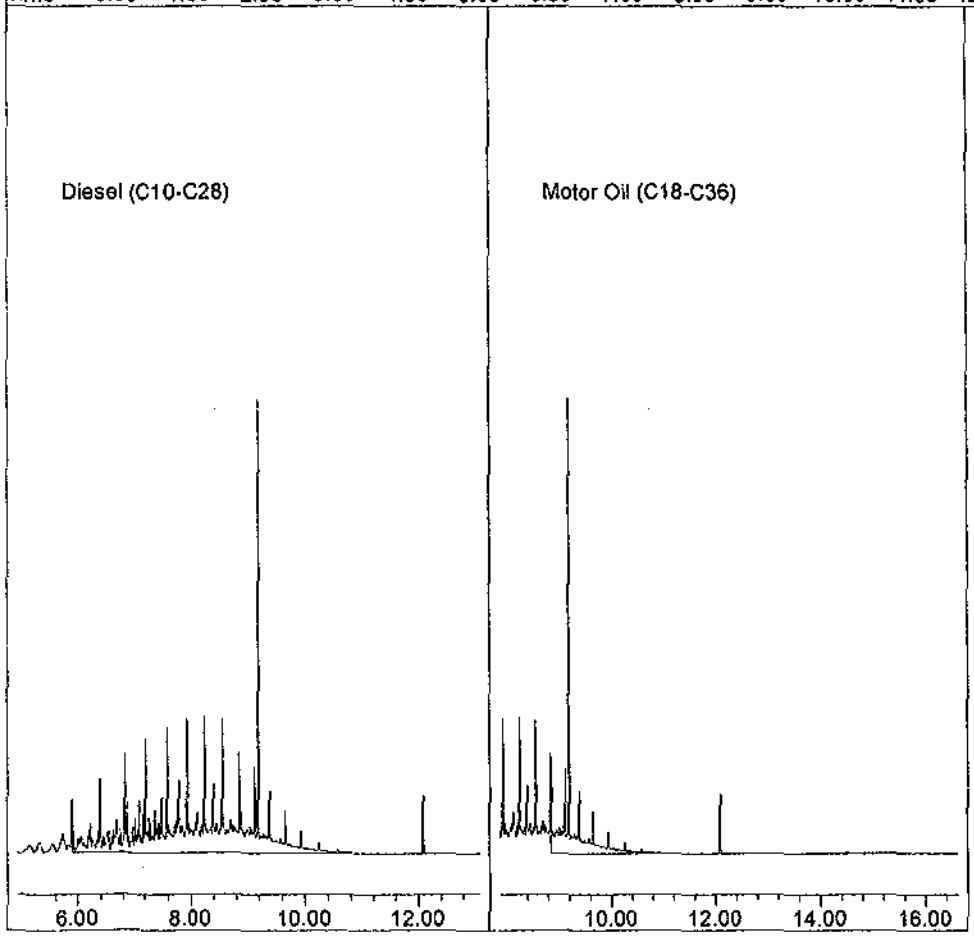
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	19438997	28.639 ppb
Surrogate Spike 30.000	Recovery =		95.46%
4) SC Ortho-Terphenyl(S)	9.20	19438997	30.468 ppb
Surrogate Spike 30.000	Recovery =		101.56%
5) SA Not Used2(S)	12.09	4682445	29.697 ppb
Surrogate Spike 30.000	Recovery =		98.99%
6) SC Octacosane(S)	12.09	4682445	20.054 ppb
Surrogate Spike 30.000	Recovery =		66.85%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	292413883	596.788 ppb
2) HBTM Motor Oil (C18-C36)	12.24	77206924	332.493 ppb

Data File: G:\APOLLO\DATA\111108\1108007.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108008.D Vial: 8
Acq On : 11-8-11 17:01:53 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

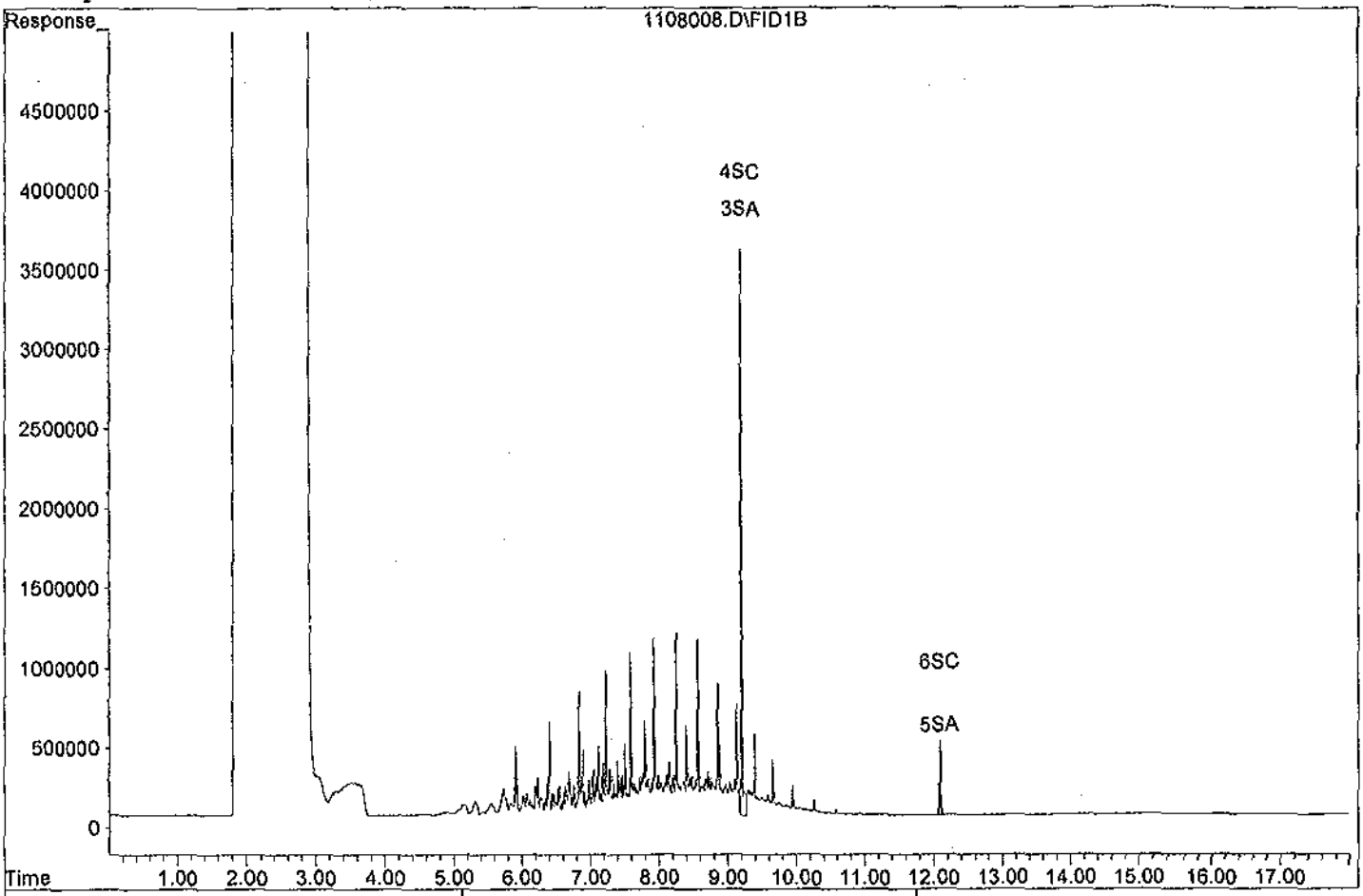
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

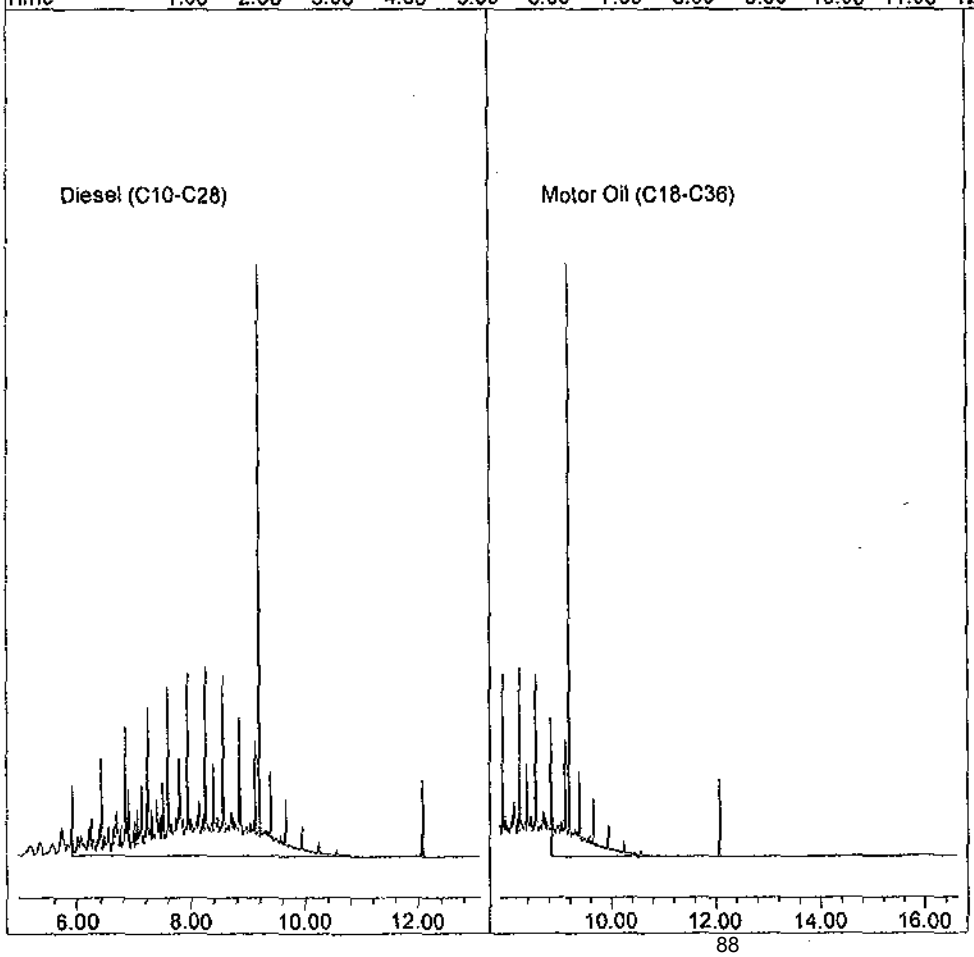
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	30682231	45.203	ppb
Surrogate Spike 30.000	Recovery =		150.68%	
4) SC Ortho-Terphenyl(S)	9.20	30682231	48.090	ppb
Surrogate Spike 30.000	Recovery =		160.30%	
5) SA Not Used2(S)	12.09	6313667	40.042	ppb
Surrogate Spike 30.000	Recovery =		133.47%	
6) SC Octacosane(S)	12.09	6313667	27.041	ppb
Surrogate Spike 30.000	Recovery =		90.14%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	390470225	798.924	ppb
2) HBTM Motor Oil (C18-C36)	12.24	99027136	426.462	ppb

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

Data File: G:\APOLLO\DATA\111108\1108008.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108009.D Vial: 9
Acq On : 11-8-11 17:25:32 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 11:53 2011 Quant Results File: TPH8S15.RES

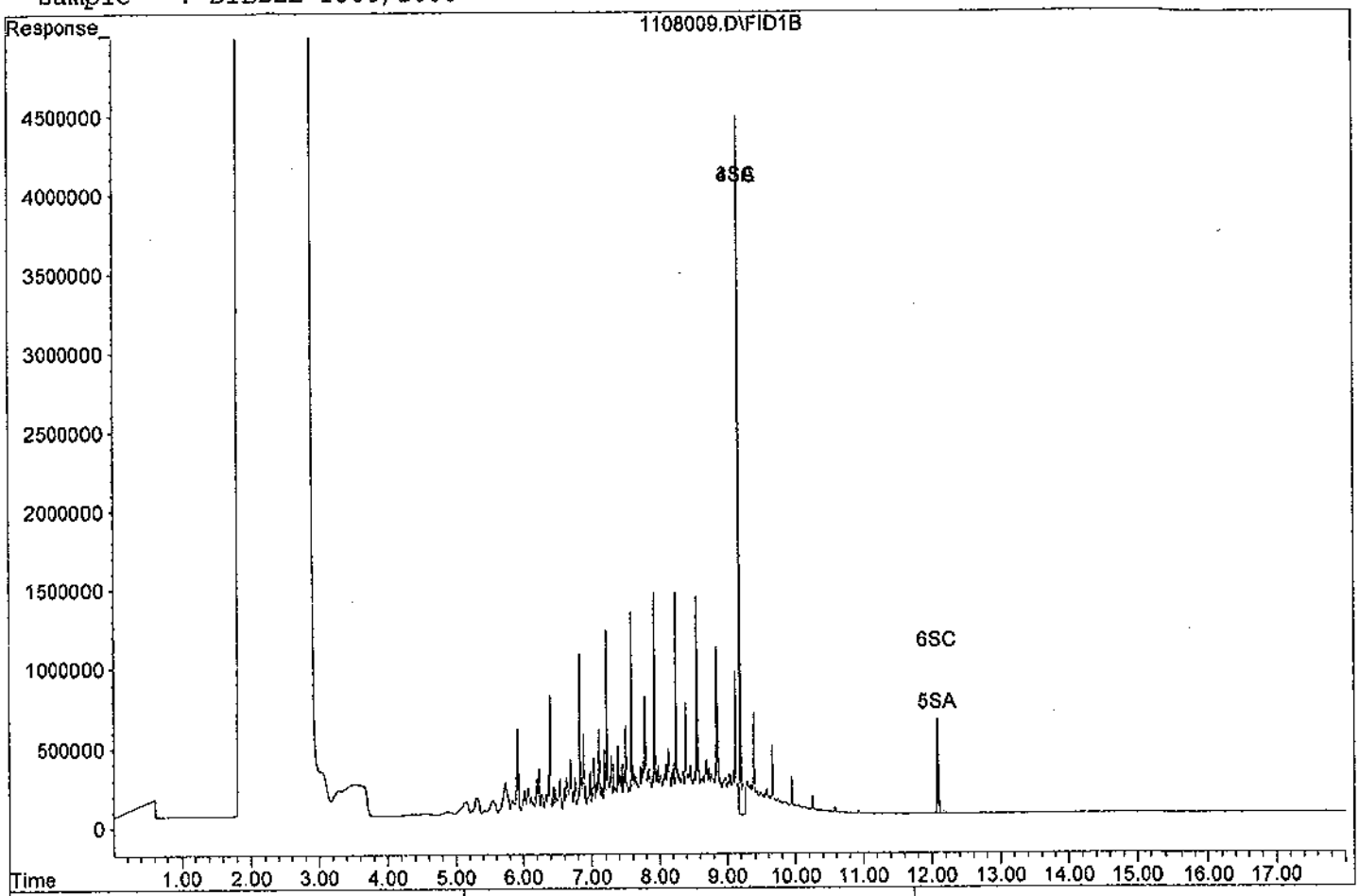
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 30 11:52:46 2011
Response via : Multiple Level Calibration

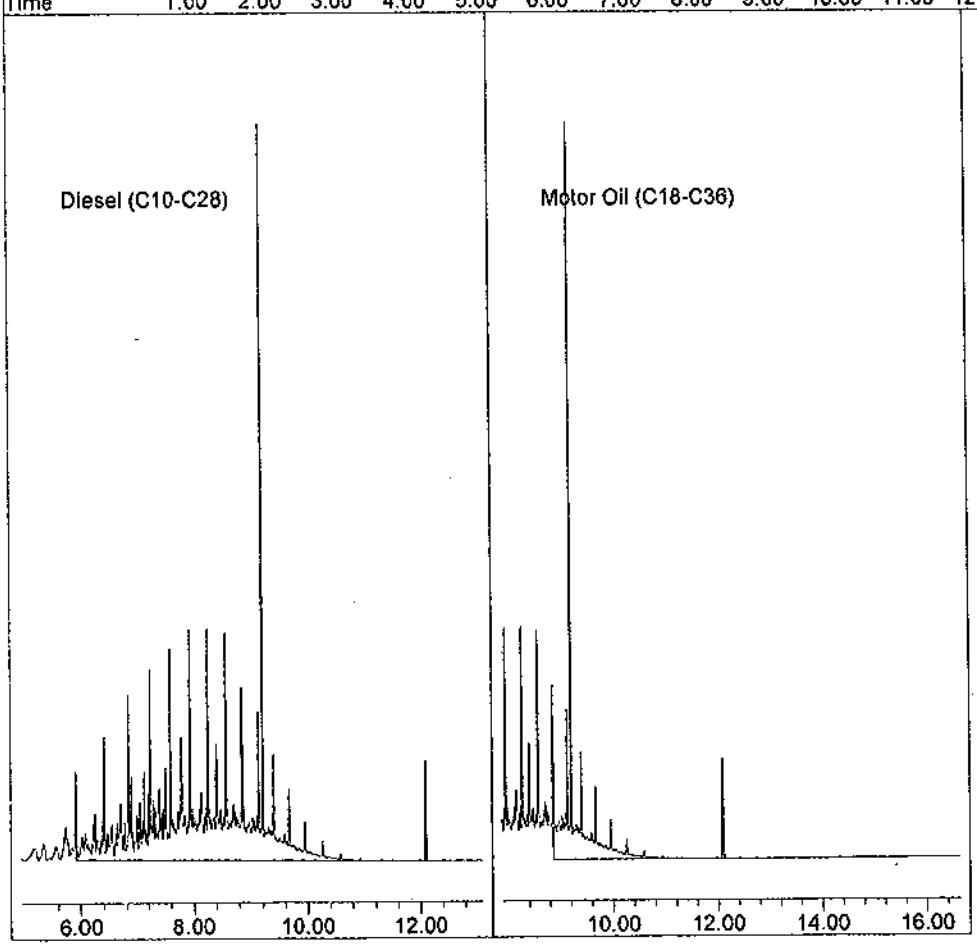
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	38756601	57.099	ppb
Surrogate Spike 30.000	Recovery =		190.33%	
4) SC Ortho-Terphenyl(S)	9.20	38756601	60.745	ppb
Surrogate Spike 30.000	Recovery =		202.48%	
5) SA Not Used2(S)	12.09	7987688	50.659	ppb
Surrogate Spike 30.000	Recovery =		168.86%	
6) SC Octacosane(S)	12.09	7987688	34.210	ppb
Surrogate Spike 30.000	Recovery =		114.03%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	490402243	1004.928	ppb
2) HBTM Motor Oil (C18-C36)	12.24	123592393	532.253	ppb

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

Data File: G:\APOLLO\DATA\111108\1108009.D
Sample : DIESEL 1000/1000





Quantitation Report (Not Reviewed)

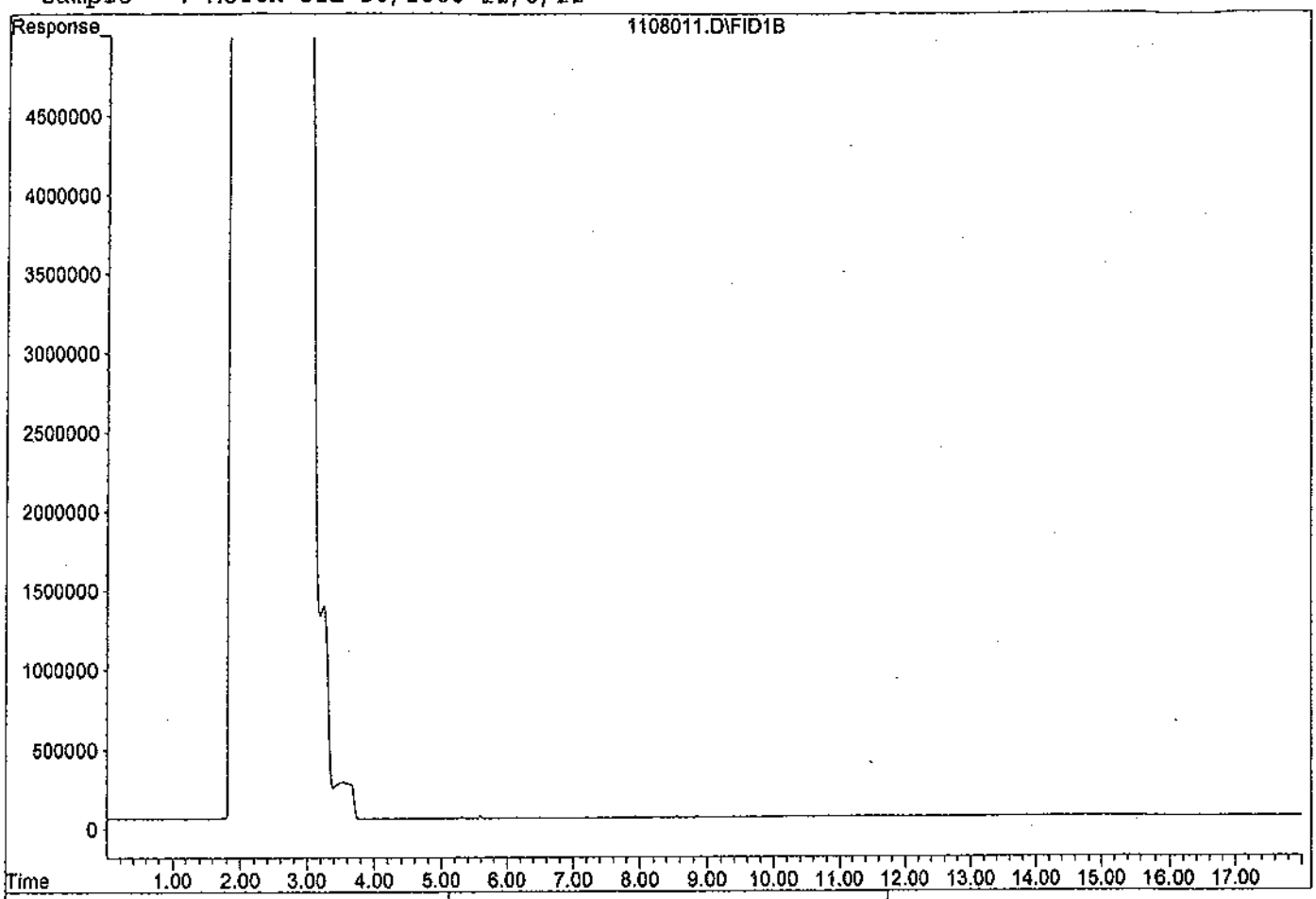
Data File : G:\APOLLO\DATA\111108\1108011.D Vial: 11
Acq On : 11-8-11 18:12:45 Operator: LAC
Sample : MOTOR OIL 50/1000 11/8/11 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

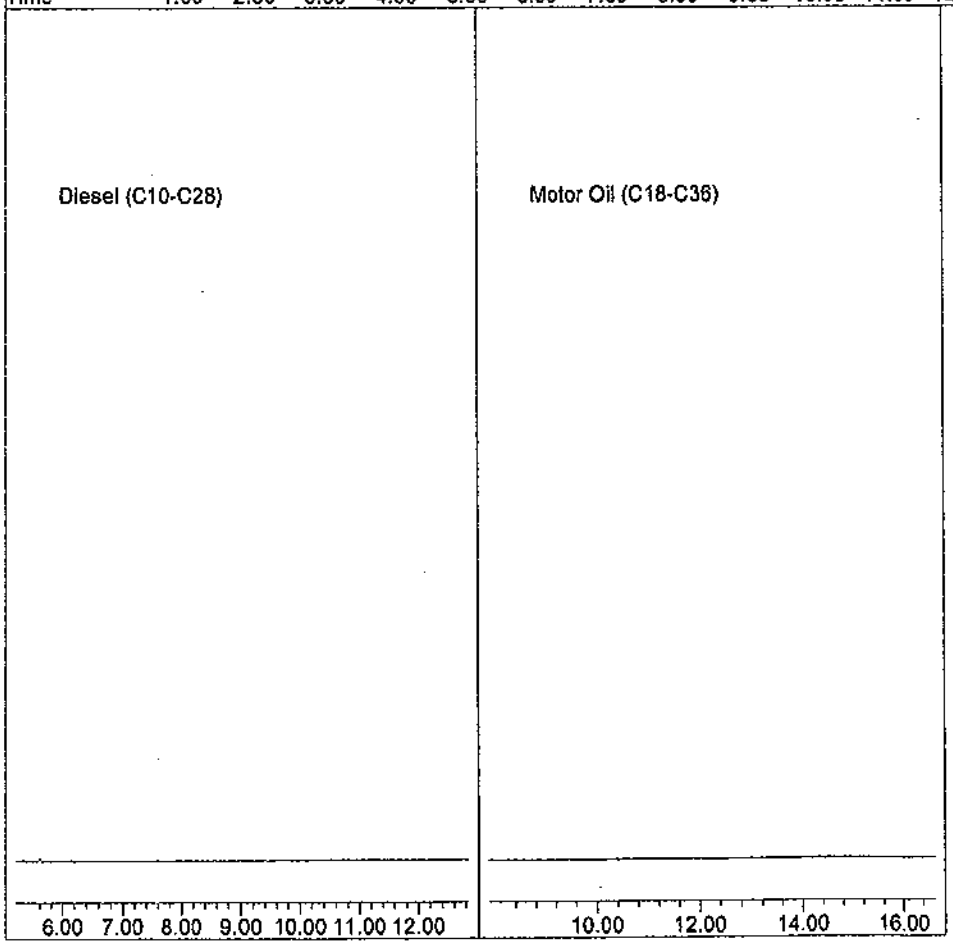
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	14043686	169.078 ppb

Data File: G:\APOLLO\DATA\111108\1108011.D
Sample : MOTOR OIL 50/1000 11/8/11





Quantitation Report (Not Reviewed)

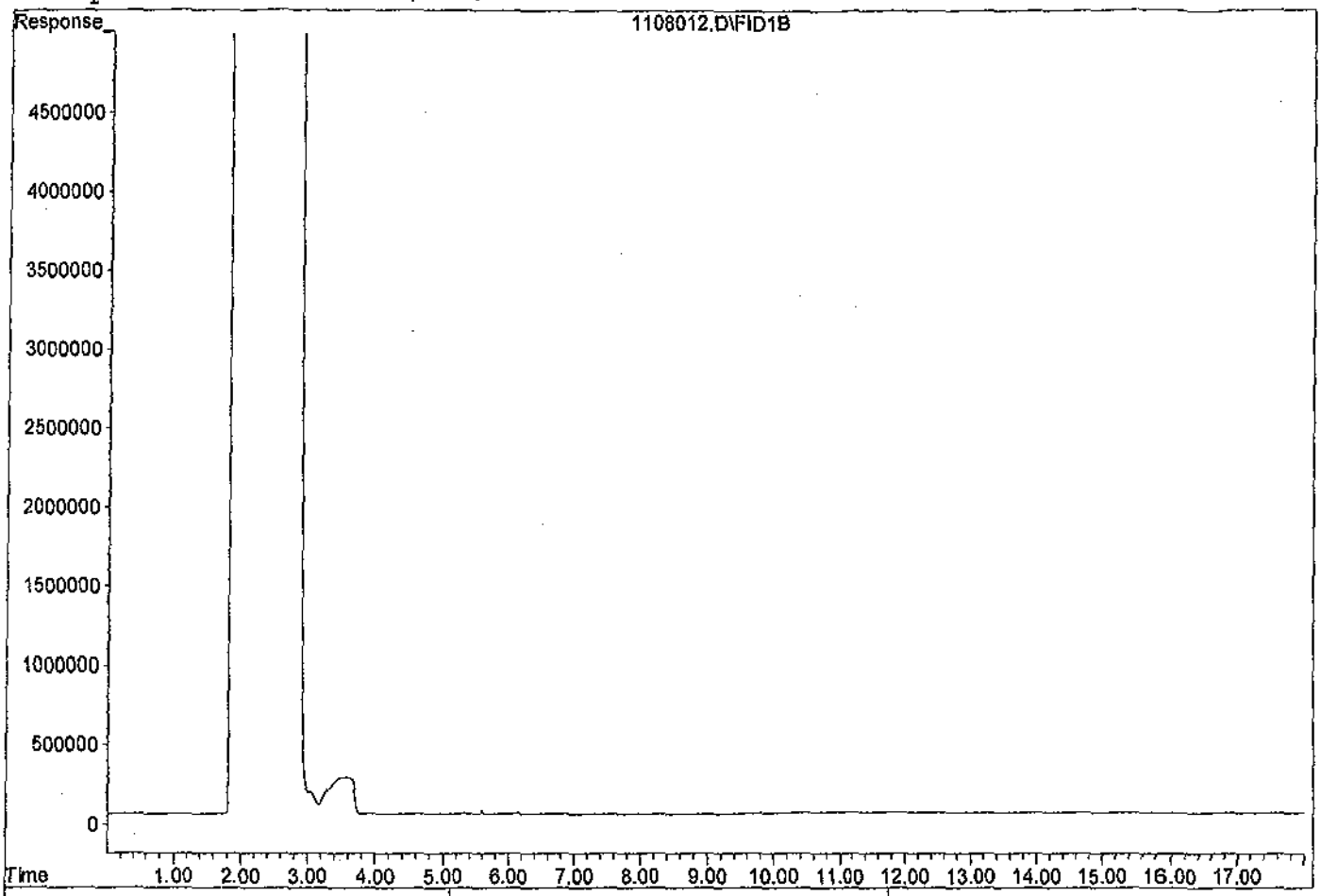
Data File : G:\APOLLO\DATA\111108\1108012.D Vial: 12
Acq On : 11-8-11 18:36:14 Operator: LAC
Sample : MOTOR OIL 100/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

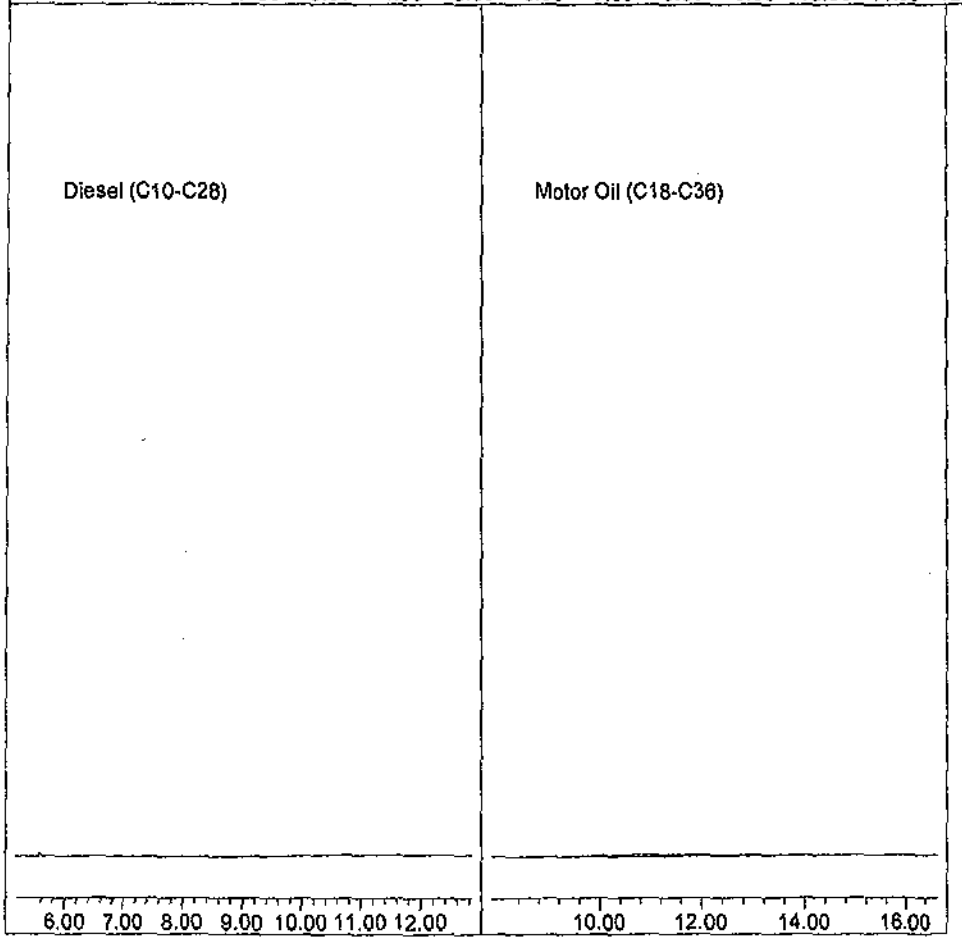
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	19926419	239.903 ppb

Data File: G:\APOLLO\DATA\111108\1108012.D
Sample : MOTOR OIL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108013.D Vial: 13
Acq On : 11-8-11 18:59:47 Operator: LAC
Sample : MOTOR OIL 400/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

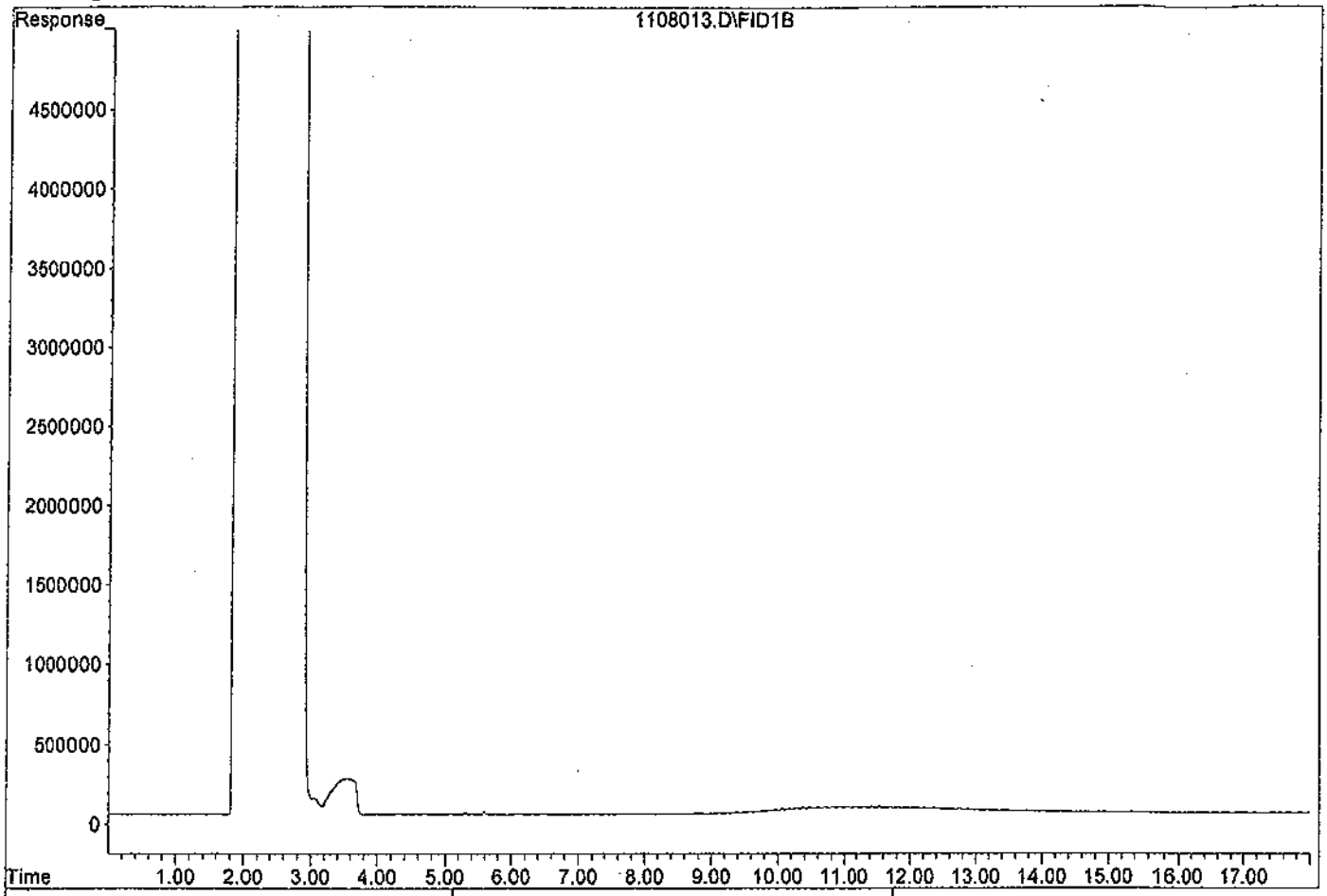
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

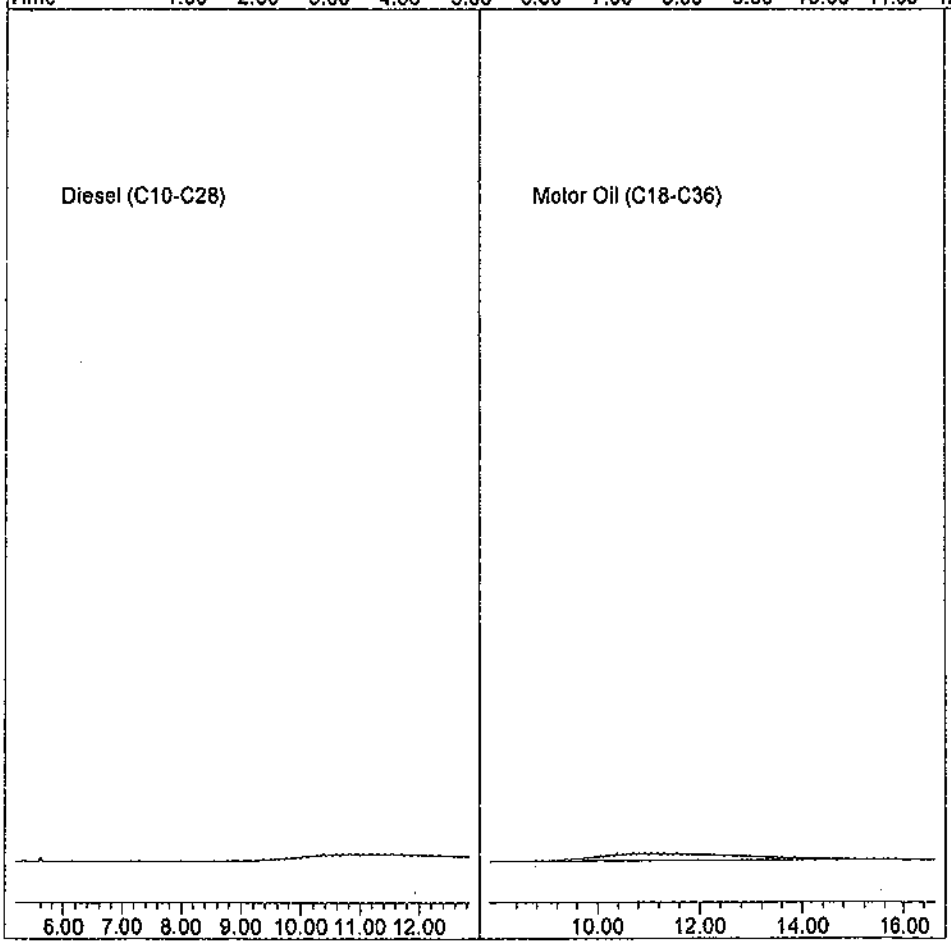
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	83351892	1003.512	ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108013.D
Sample : MOTOR OIL 400/1000





Quantitation Report (Not Reviewed)

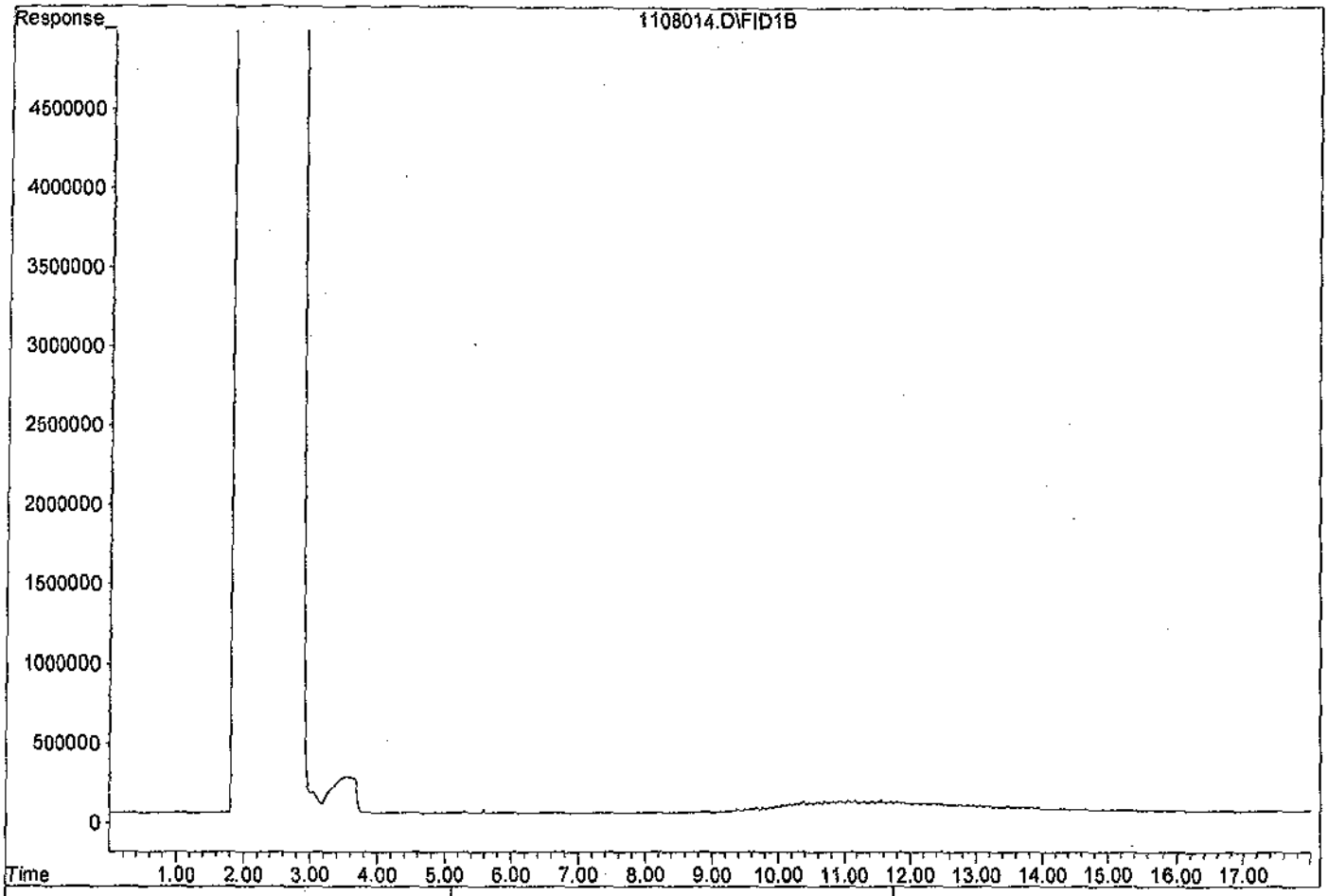
Data File : G:\APOLLO\DATA\111108\1108014.D Vial: 14
Acq On : 11-8-11 19:23:20 Operator: LAC
Sample : MOTOR OIL 600/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

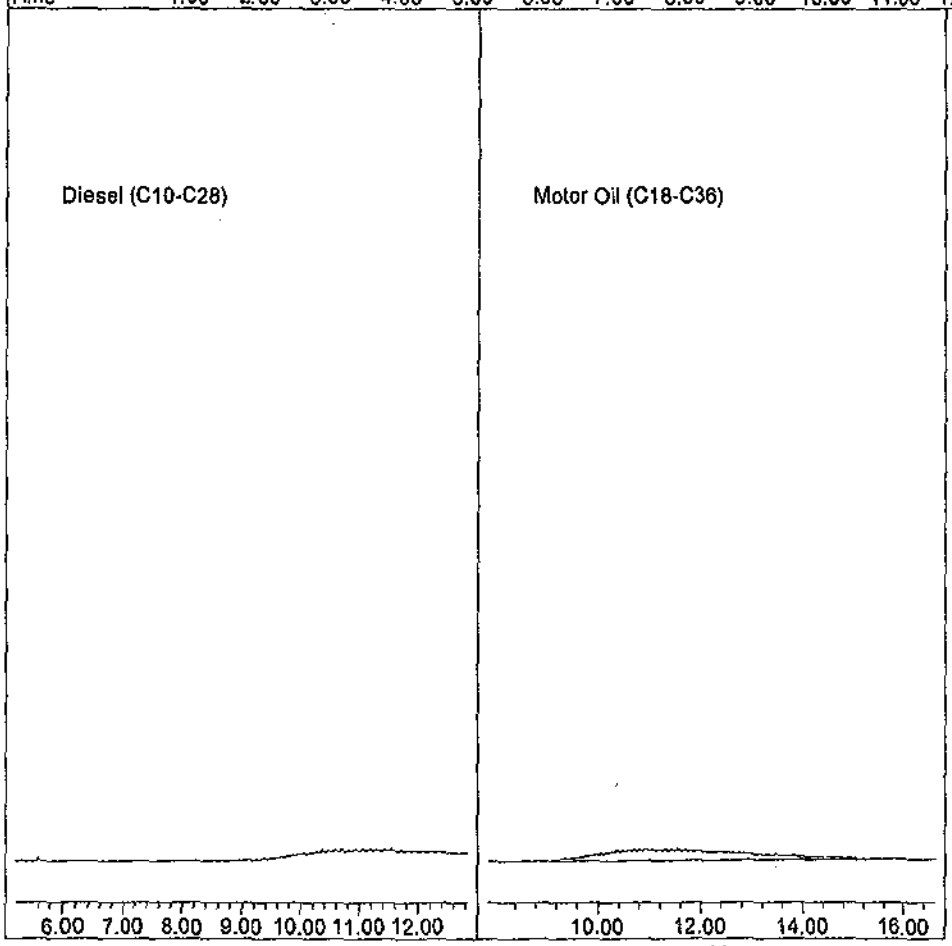
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	133423372	1606.346	ppb

Data File: G:\APOLLO\DATA\111108\1108014.D
Sample : MOTOR OIL 600/1000





Quantitation Report (Not Reviewed)

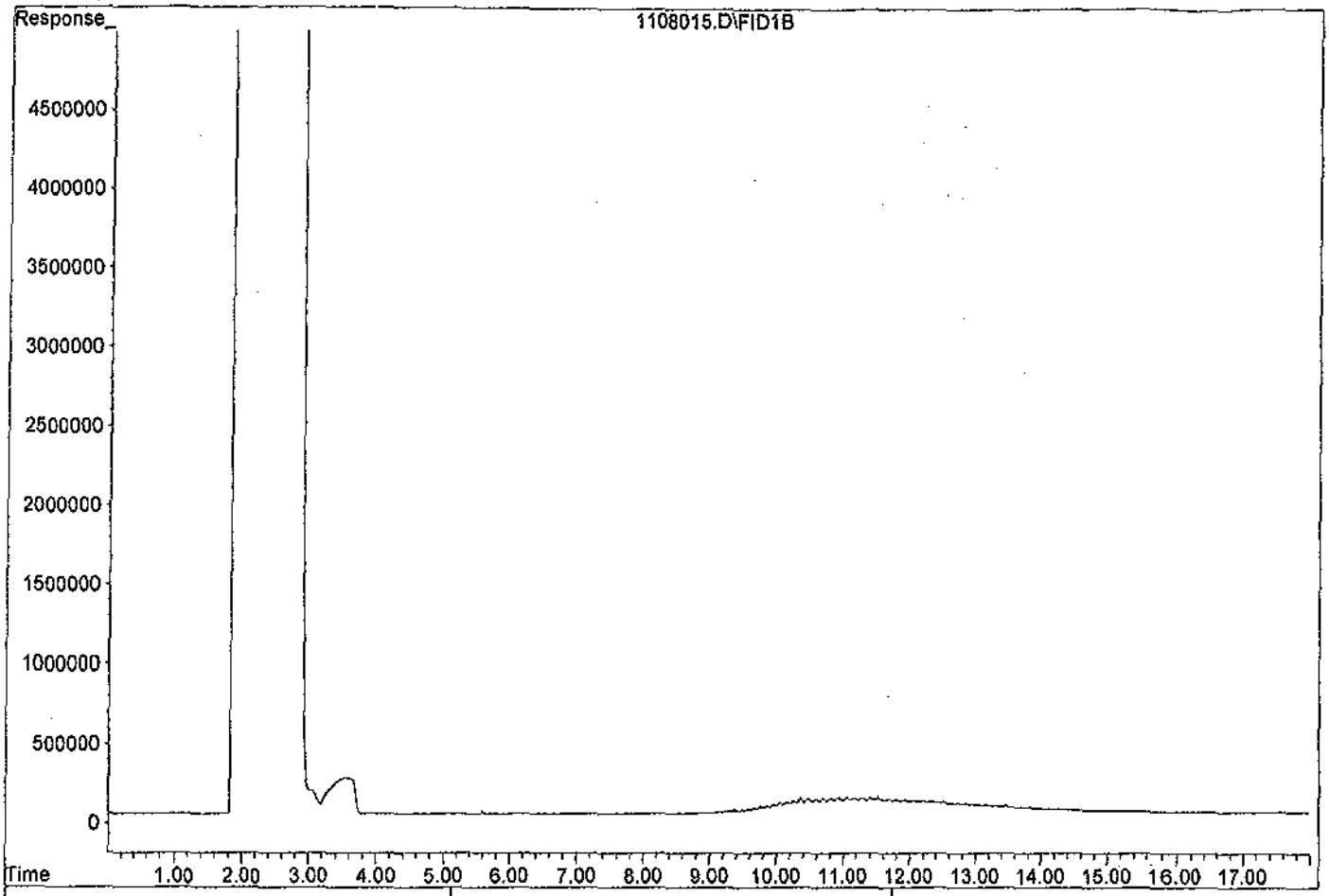
Data File : G:\APOLLO\DATA\111108\1108015.D Vial: 15
Acq On : 11-8-11 19:46:53 Operator: LAC
Sample : MOTOR OIL 800/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

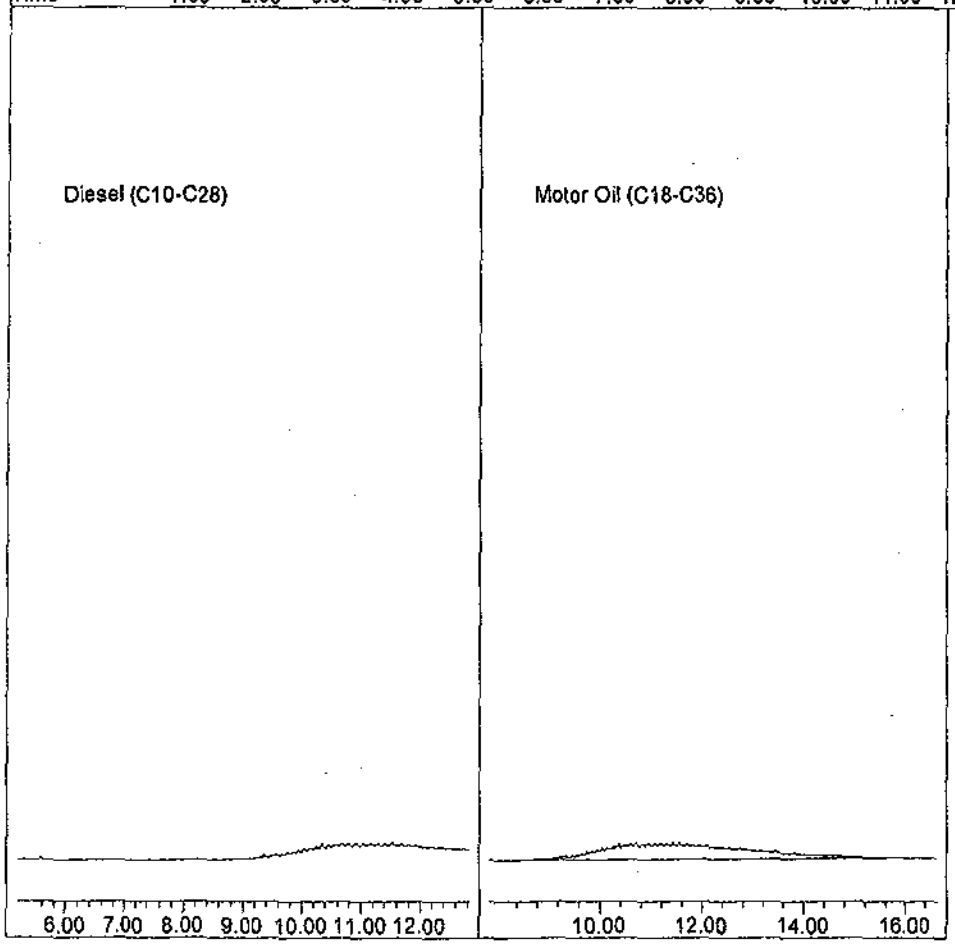
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	185280557	2230.679	ppb

Data File: G:\APOLLO\DATA\111108\1108015.D
Sample : MOTOR OIL 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108016.D Vial: 16
Acq On : 11-8-11 20:10:21 Operator: LAC
Sample : MOTOR OIL 1000/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:54 2011 Quant Results File: TPH8S15.RES

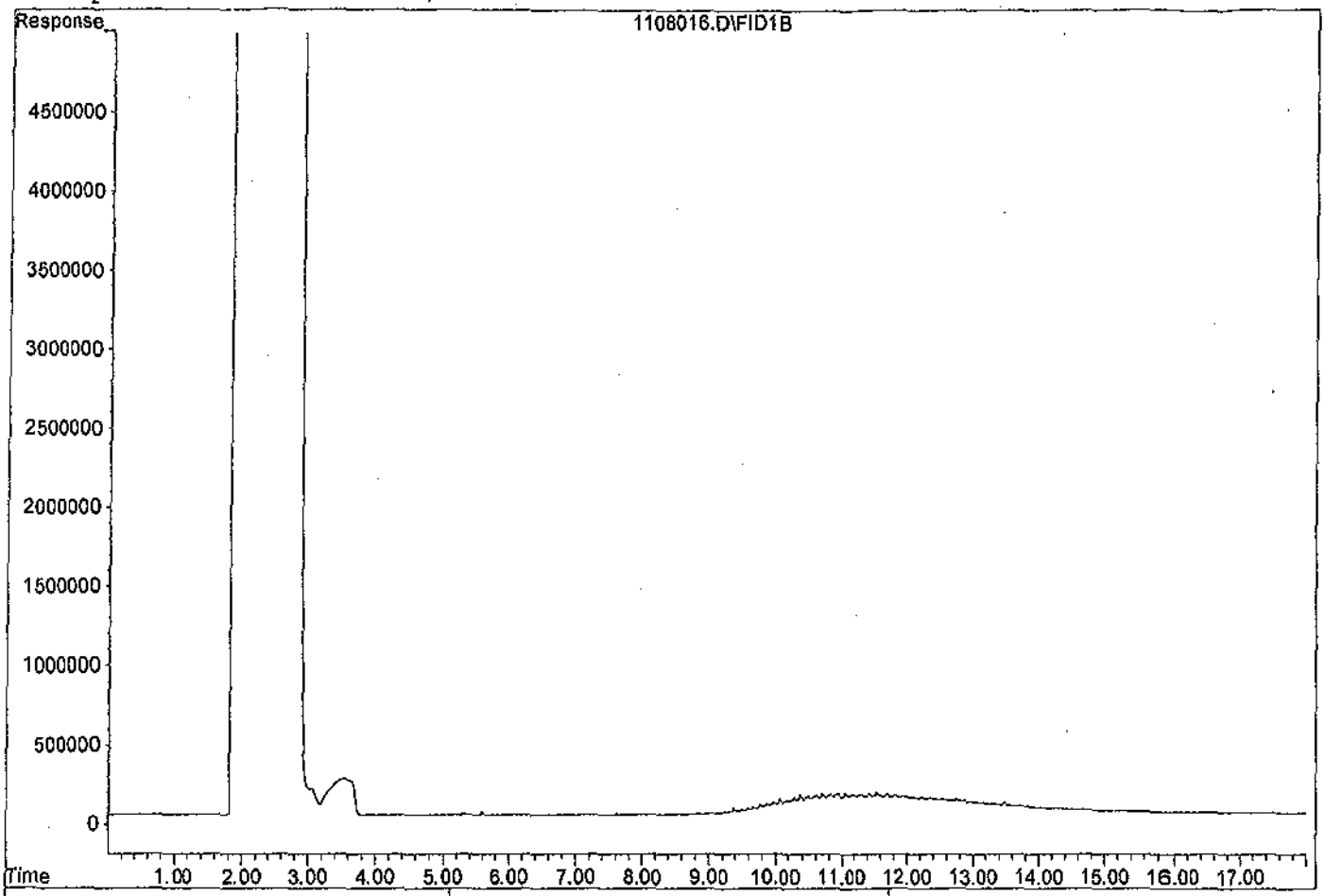
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

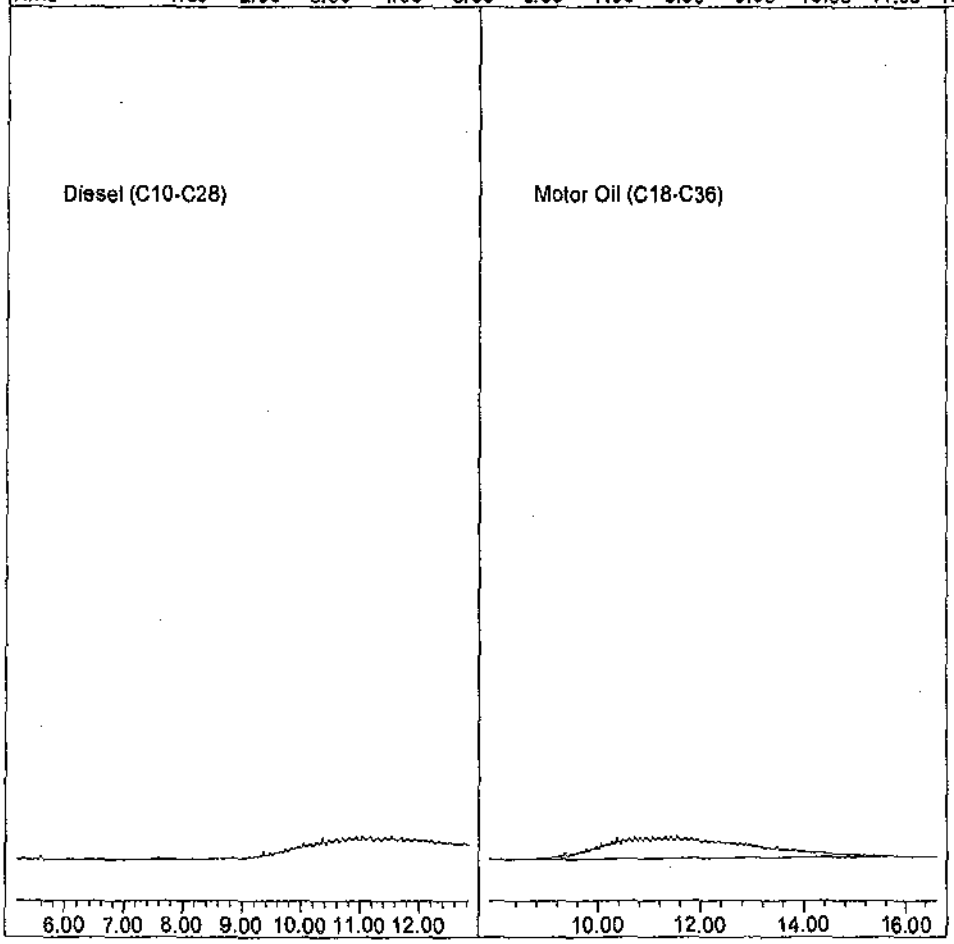
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	250746792	3018.857	ppb

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

Data File: G:\APOLLO\DATA\111108\1108016.D
Sample : MOTOR OIL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69
Acq On : 11-9-11 17:18:58 Operator: LAC
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

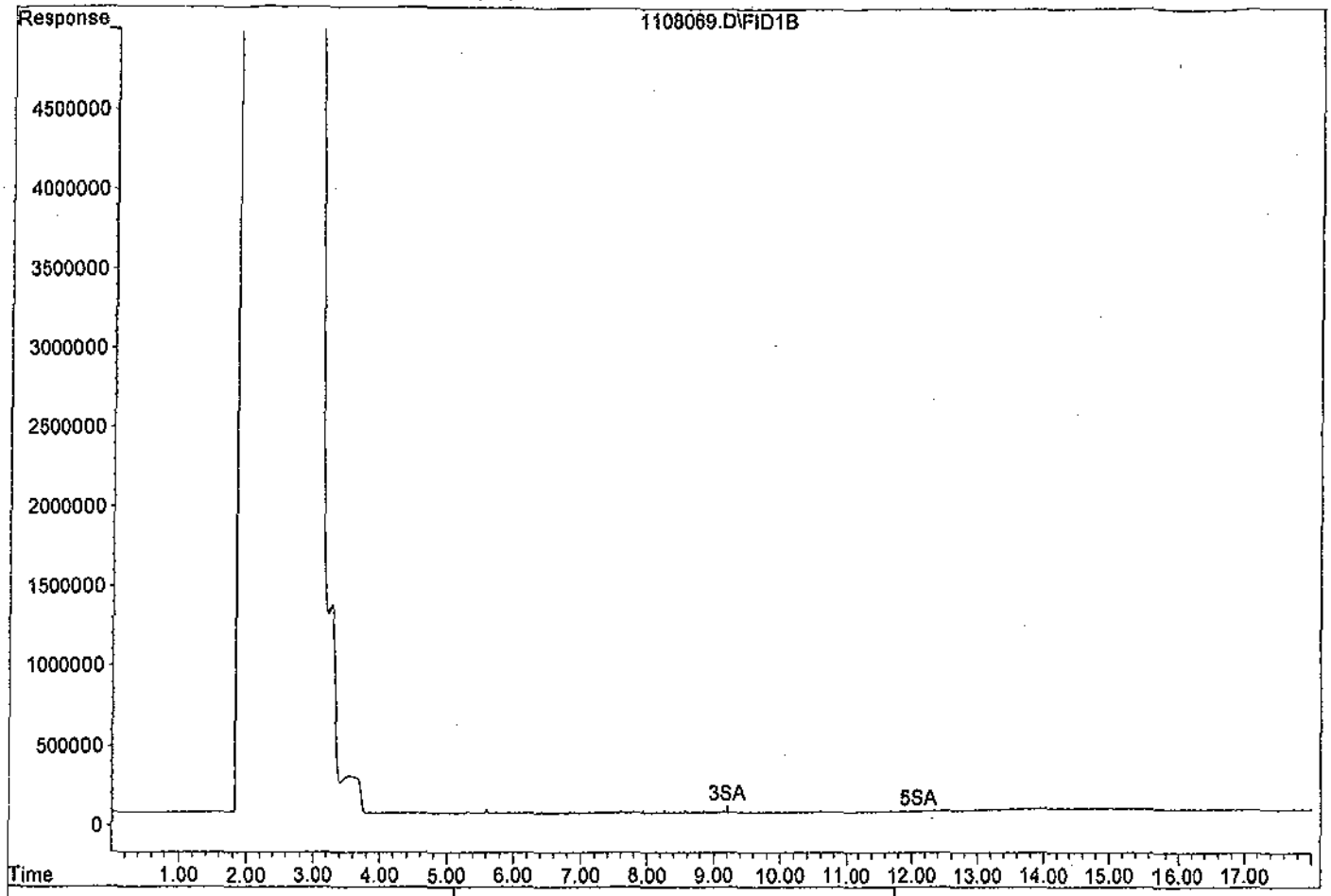
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

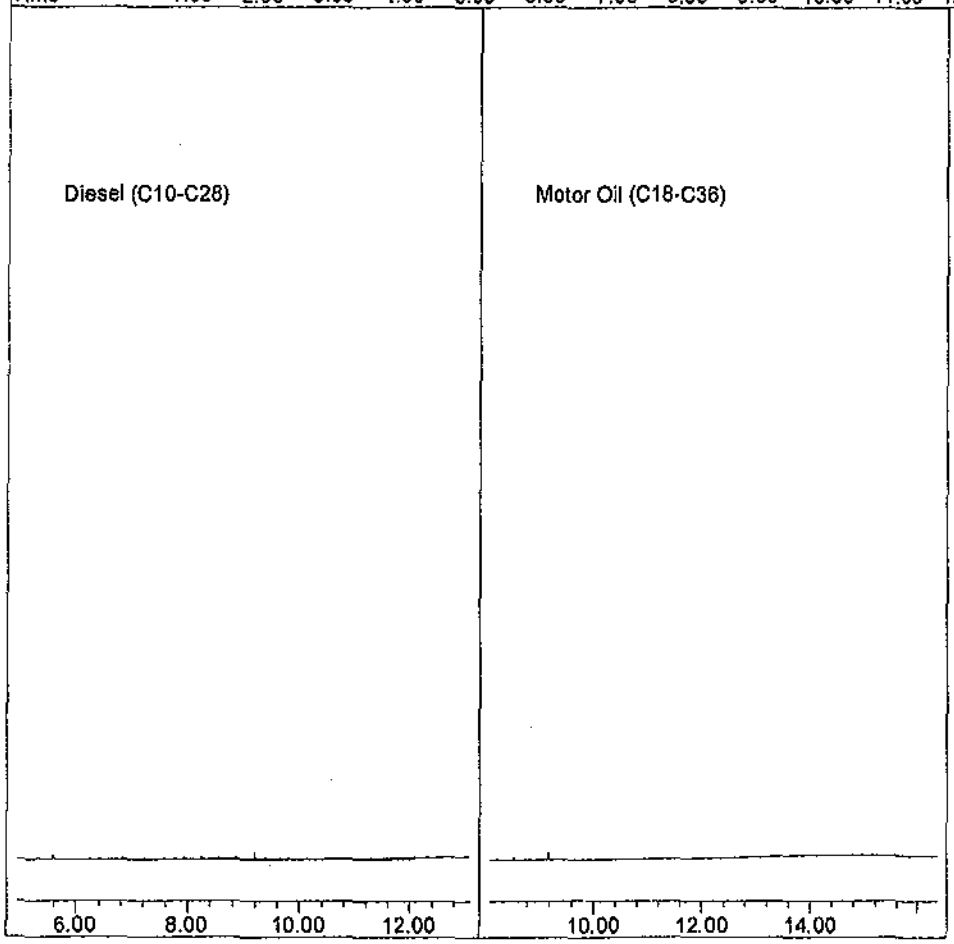
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	302444	0.297	ppb
Surrogate Spike 30.000	Recovery	=	0.99%	
5) SA Not Used2(S)	12.10	625179	2.122	ppb
Surrogate Spike 30.000	Recovery	=	7.07%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	12262633	1055.198	ppb

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108069.D
Sample : DIESEL 10/1000 11/8/11





Quantitation Report (Not Reviewed)

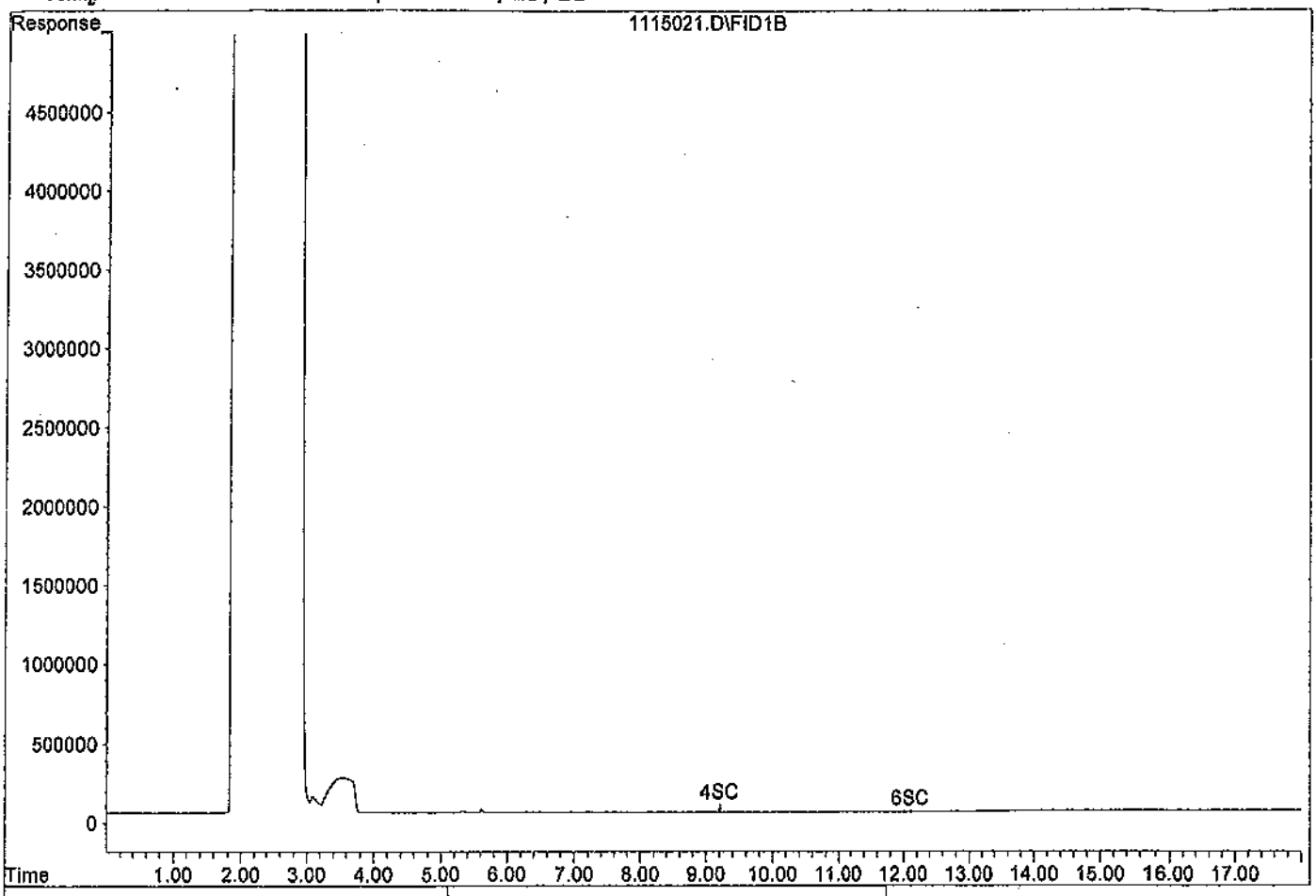
Data File : G:\APOLLO\DATA\111115\1115021.D Vial: 21
Acq On : 11-15-11 18:21:35 Operator: LAC
Sample : THC SURR 10/1000 11/15/11 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

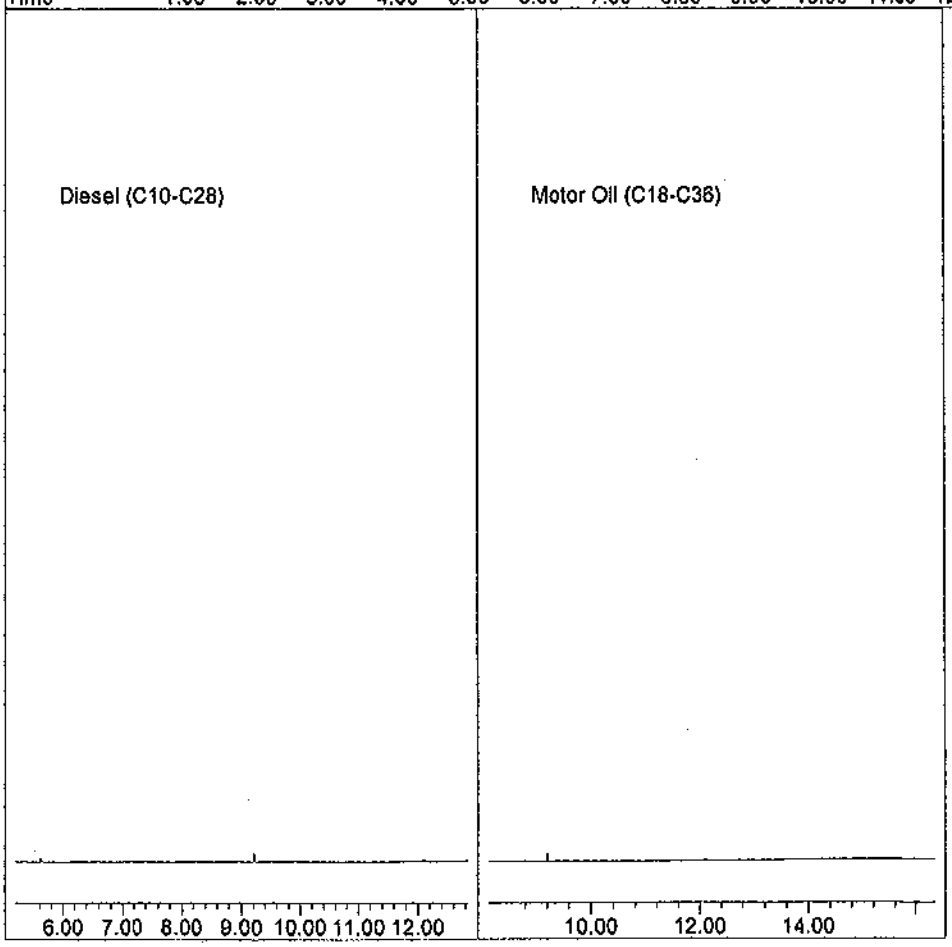
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	356915	0.559 ppb
Surrogate Spike 30.000	Recovery	=	1.86%
6) SC Octacosane(S)	12.10	279297	1.196 ppb
Surrogate Spike 30.000	Recovery	=	3.99%
Target Compounds			

Data File: G:\APOLLO\DATA\111115\1115021.D
Sample : THC SURR 10/1000 11/15/11





Quantitation Report (Not Reviewed)

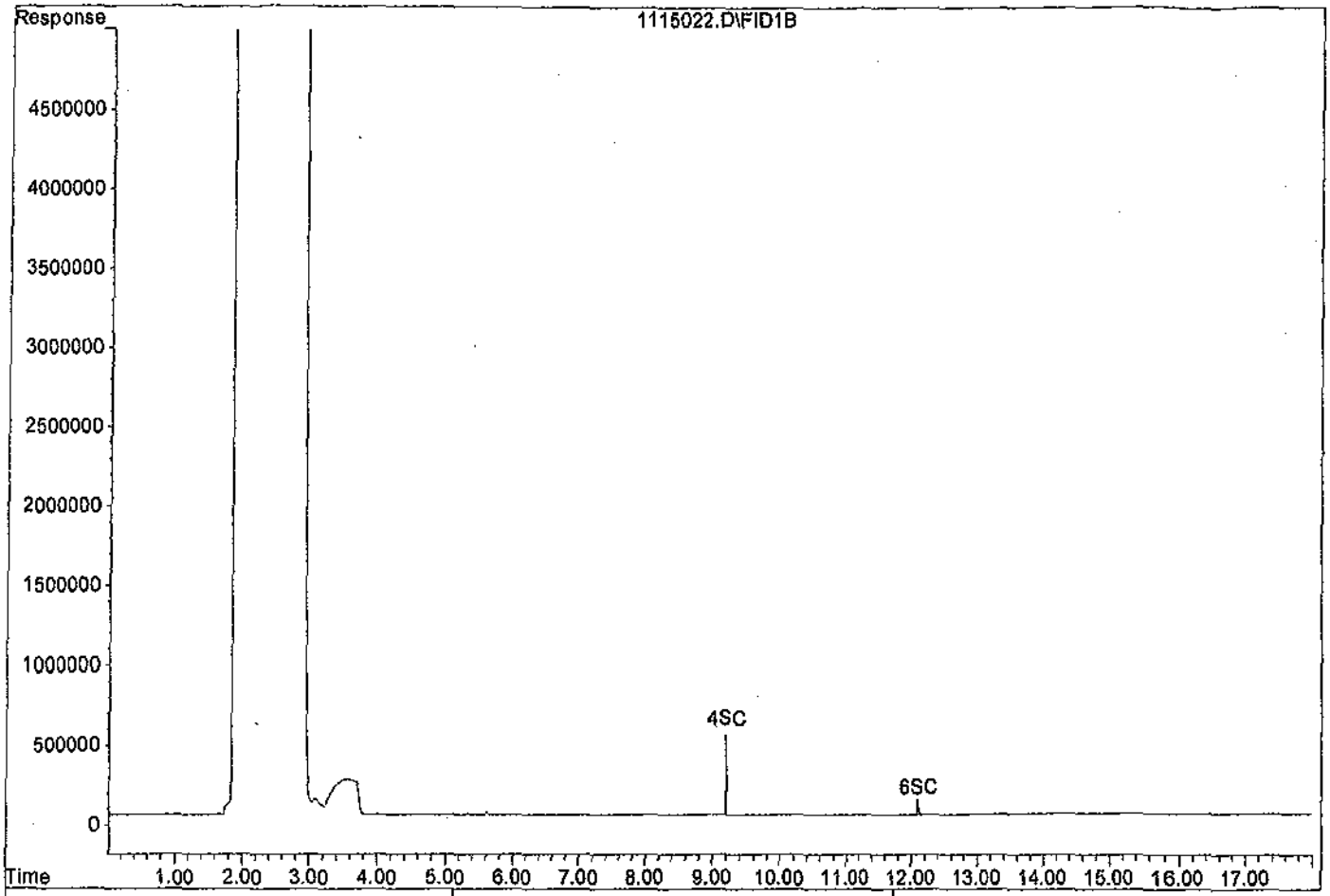
Data File : G:\APOLLO\DATA\111115\1115022.D Vial: 22
Acq On : 11-15-11 18:45:31 Operator: LAC
Sample : THC SURR 100/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

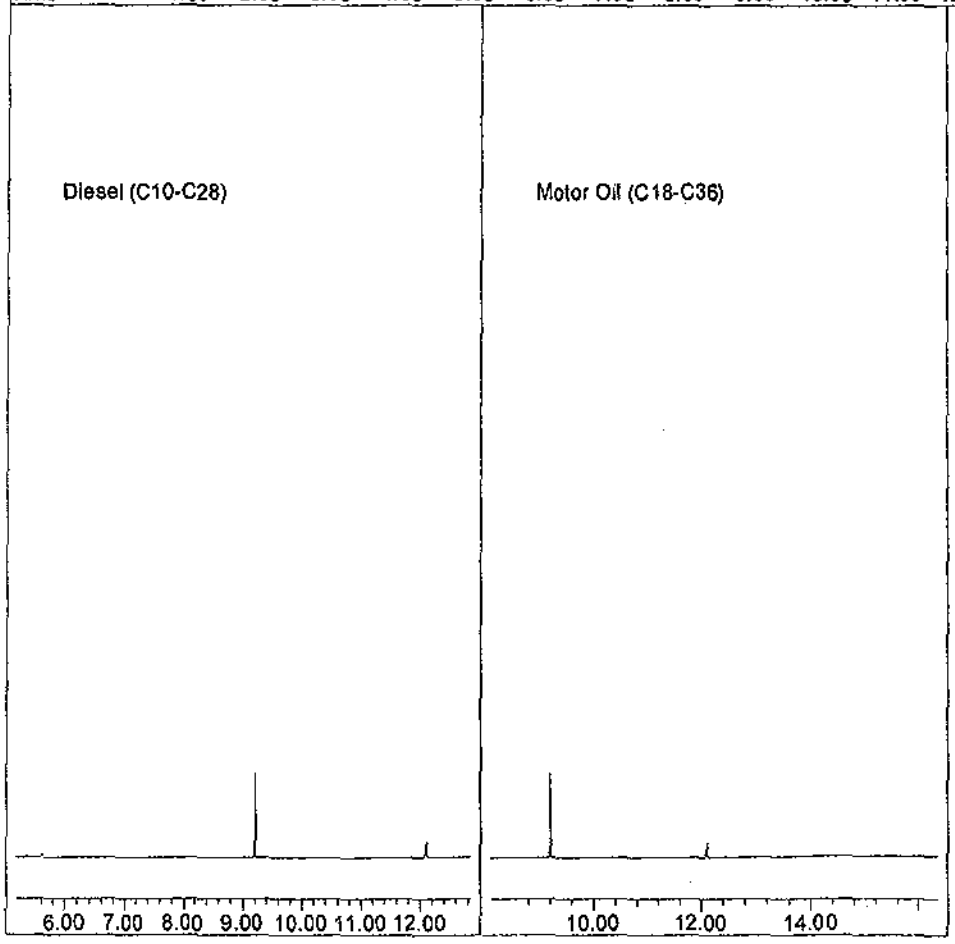
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	3207972	5.028	ppb
Surrogate Spike 30.000	Recovery =		16.76%	
6) SC Octacosane(S)	12.11	1214451	5.201	ppb
Surrogate Spike 30.000	Recovery =		17.34%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115022.D
Sample : THC SURR 100/1000





Quantitation Report (Not Reviewed)

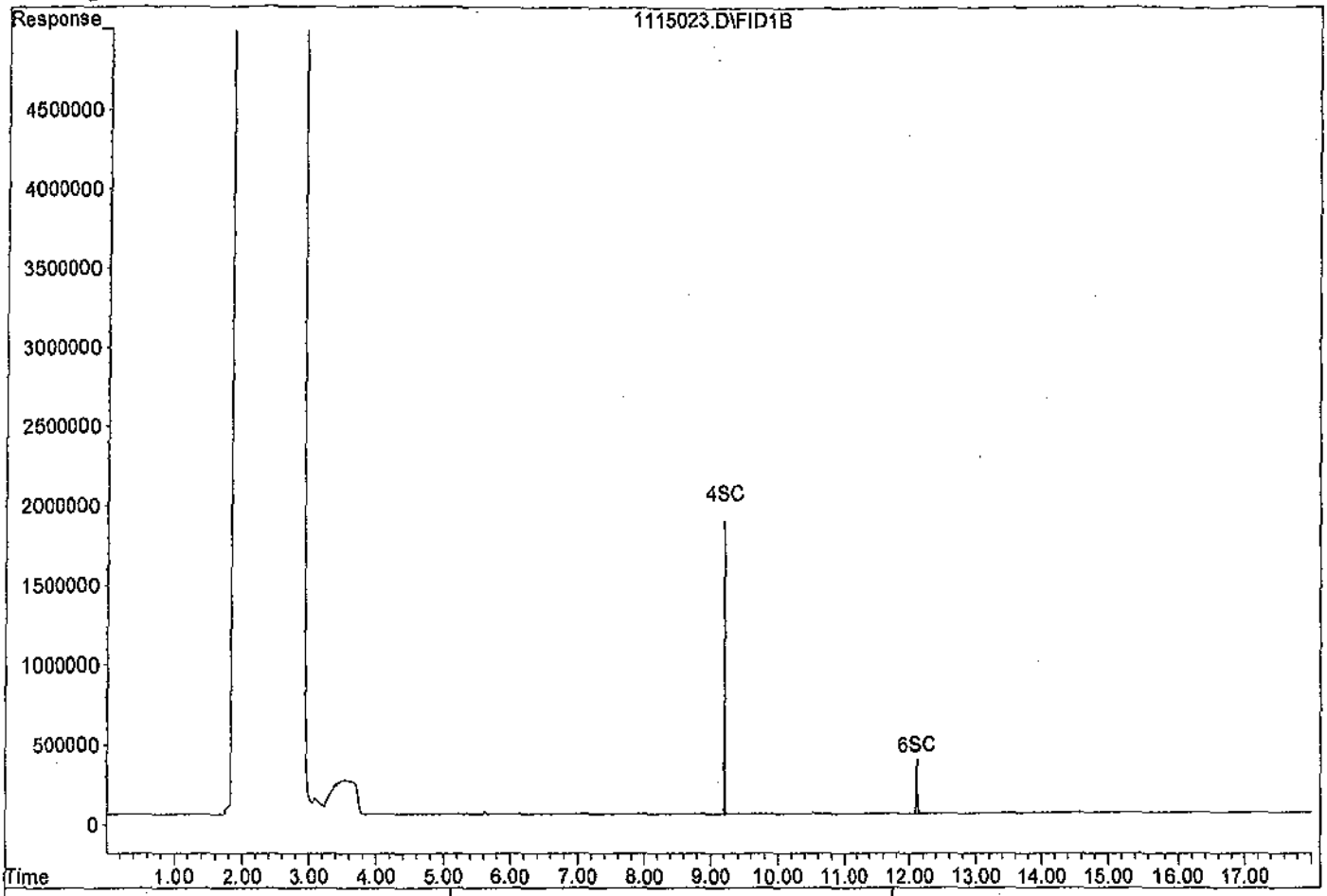
Data File : G:\APOLLO\DATA\111115\1115023.D Vial: 23
Acq On : 11-15-11 19:09:25 Operator: LAC
Sample : THC SURR 400/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

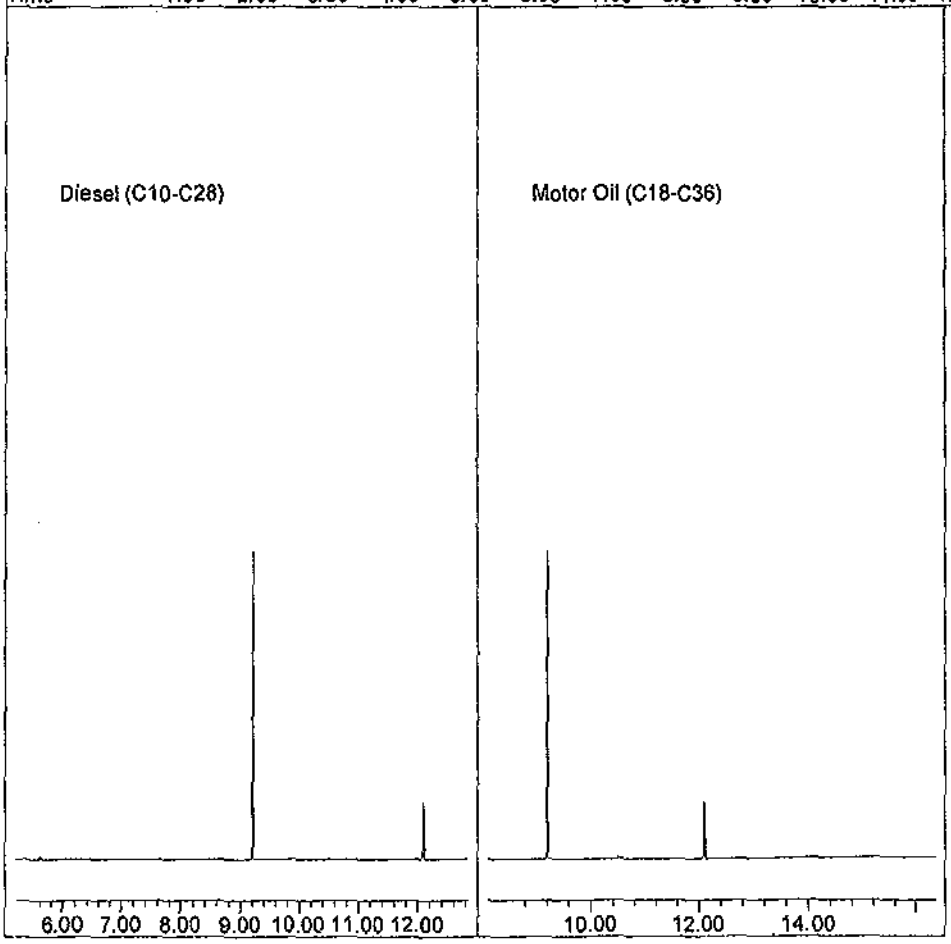
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	12023229	18.845	ppb
Surrogate Spike 30.000	Recovery =		62.82%	
6) SC Octacosane(S)	12.11	4606231	19.728	ppb
Surrogate Spike 30.000	Recovery =		65.76%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115023.D
Sample : THC SURR 400/1000





Quantitation Report (Not Reviewed)

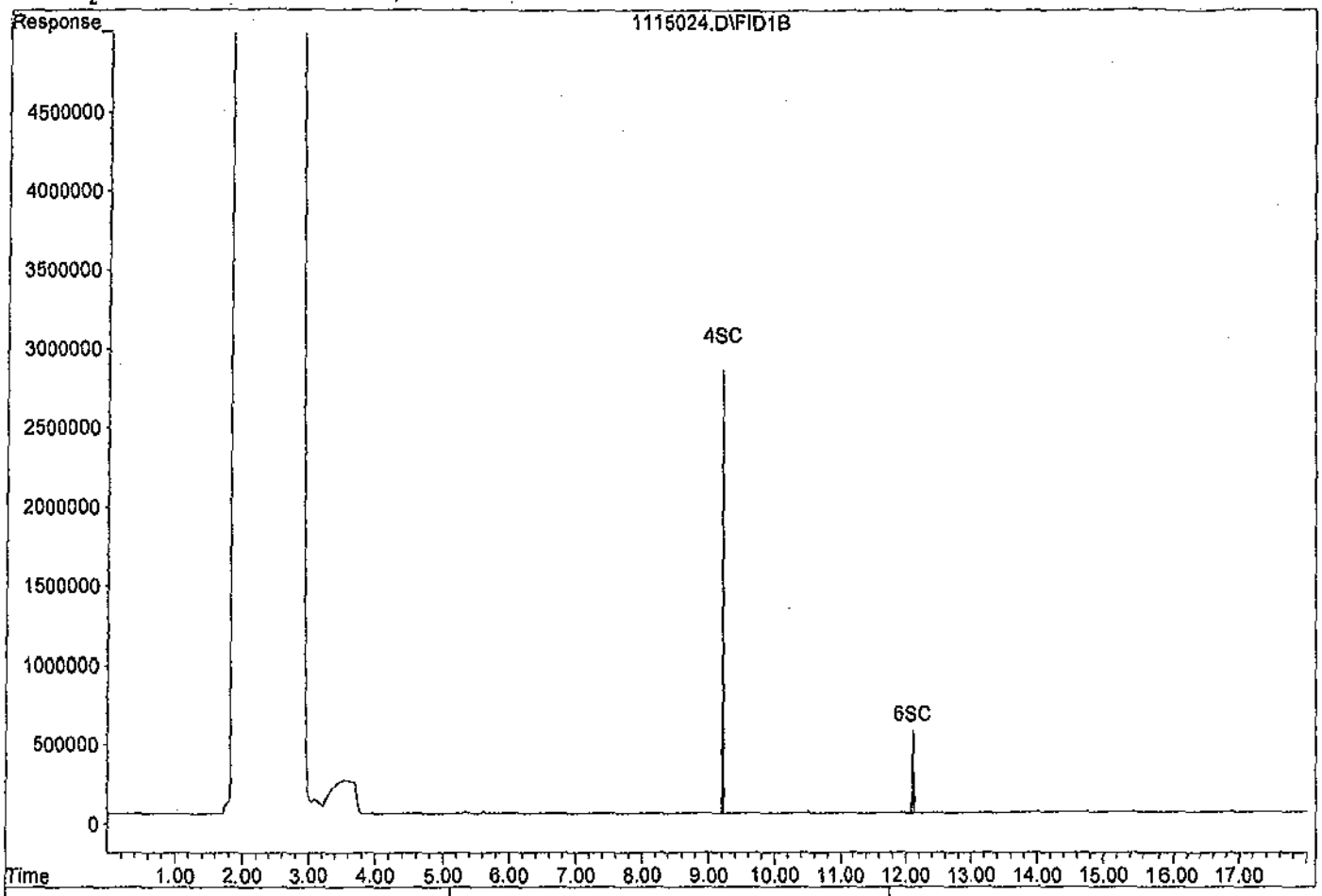
Data File : G:\APOLLO\DATA\111115\1115024.D Vial: 24
Acq On : 11-15-11 19:33:17 Operator: LAC
Sample : THC SURR 600/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

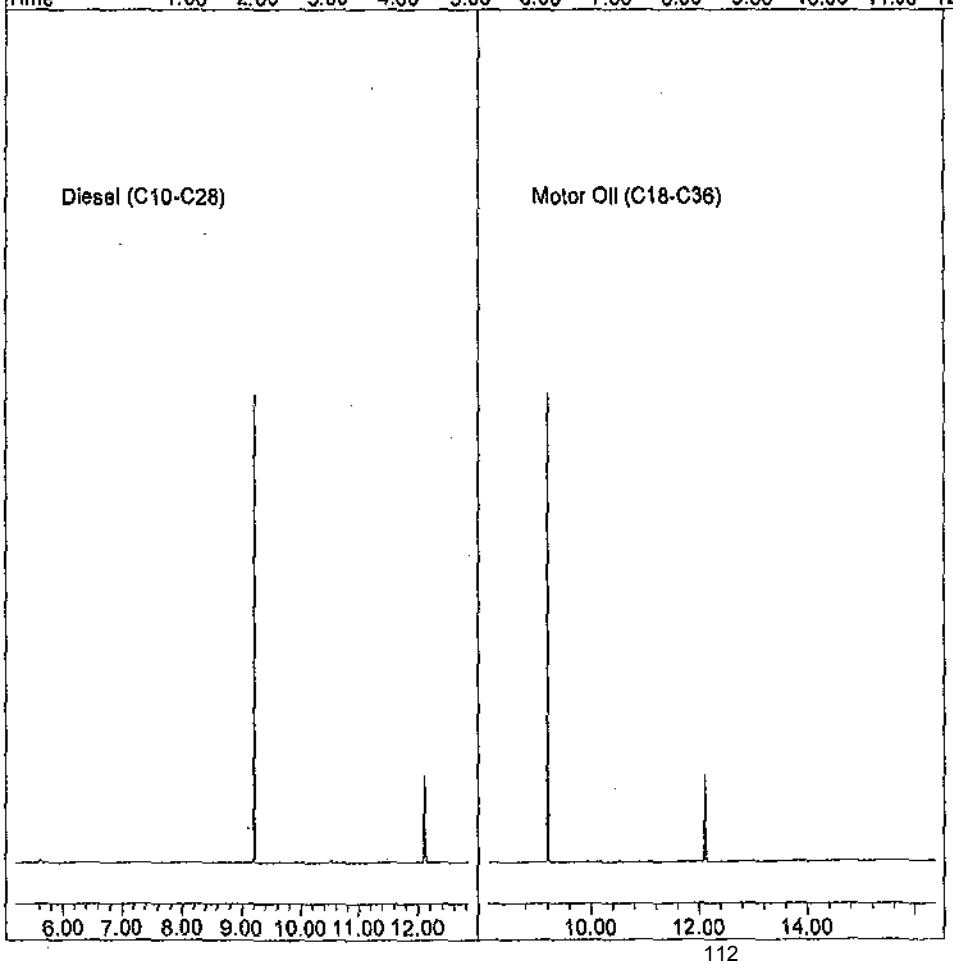
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	18244401	28.595	ppb
Surrogate Spike 30.000		Recovery =	95.32%	
6) SC Octacosane(S)	12.11	6794679	29.101	ppb
Surrogate Spike 30.000		Recovery =	97.00%	
Target Compounds				

Data File: G:\APOLLO\DATA\111115\1115024.D
Sample : THC SURR 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111115\1115025.D Vial: 25
Acq On : 11-15-11 19:57:06 Operator: LAC
Sample : THC SURR 800/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

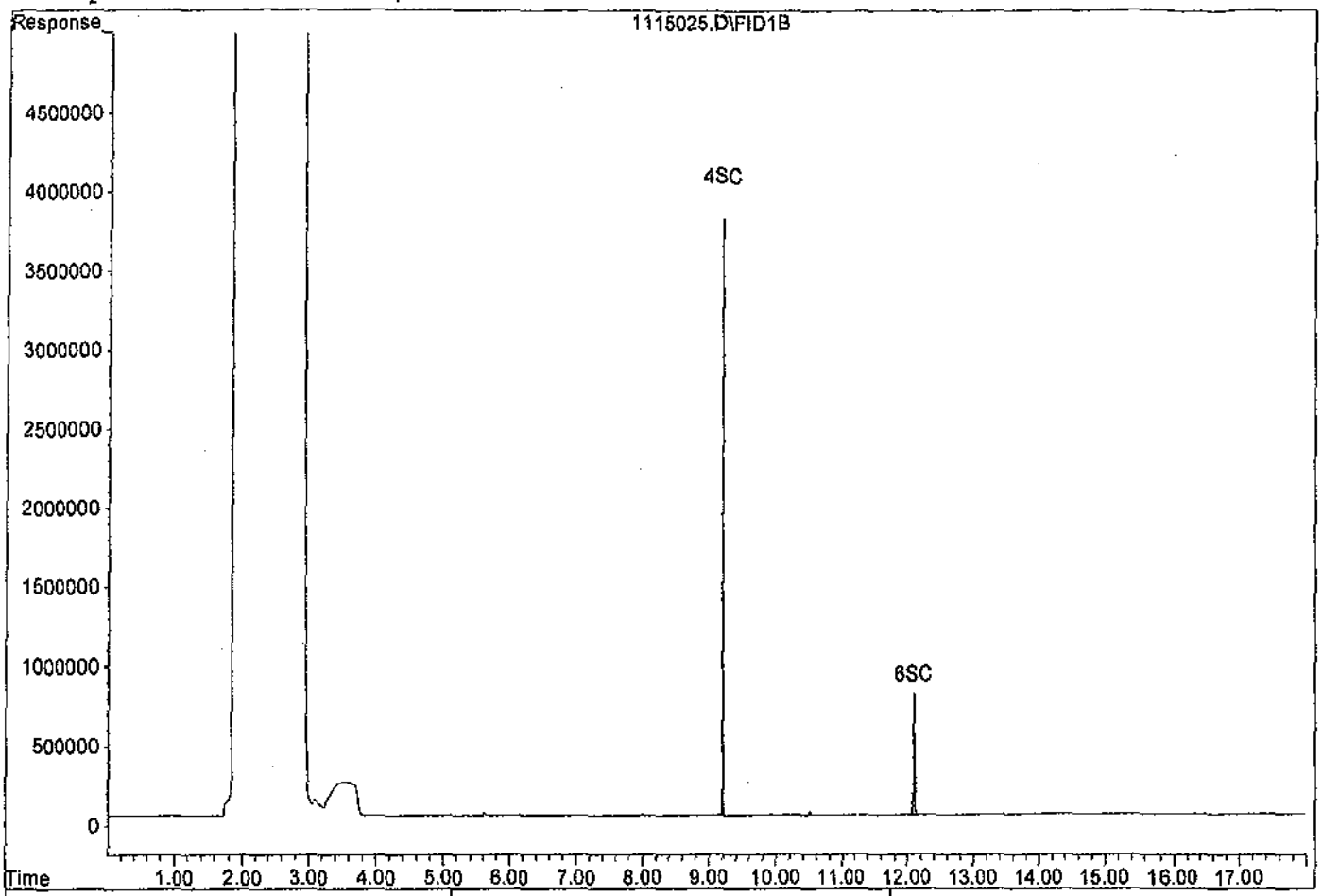
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

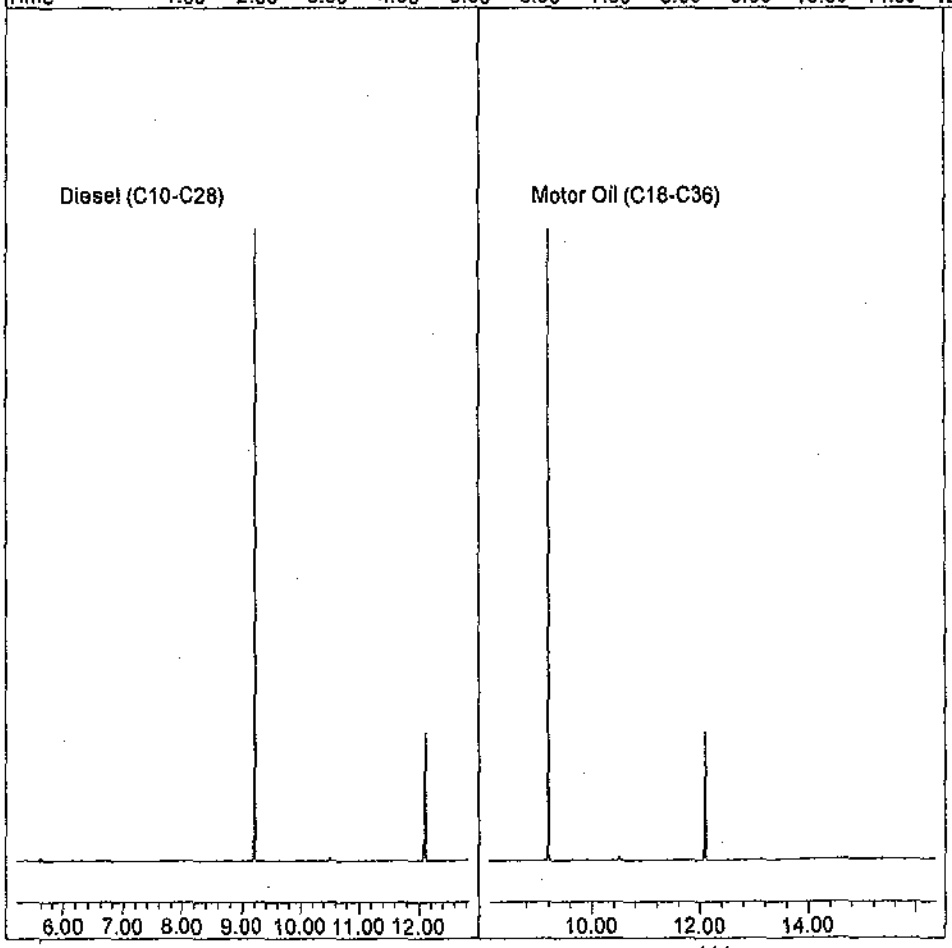
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	25946623	40.667	ppb
Surrogate Spike 30.000	Recovery =		135.56%	
6) SC Octacosane(S)	12.11	10118734	43.337	ppb
Surrogate Spike 30.000	Recovery =		144.46%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111115\1115025.D
Sample : THC SURR 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111115\1115026.D Vial: 26
Acq On : 11-15-11 20:20:52 Operator: LAC
Sample : THC SURR 1000/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:58 2011 Quant Results File: TPH8S15.RES

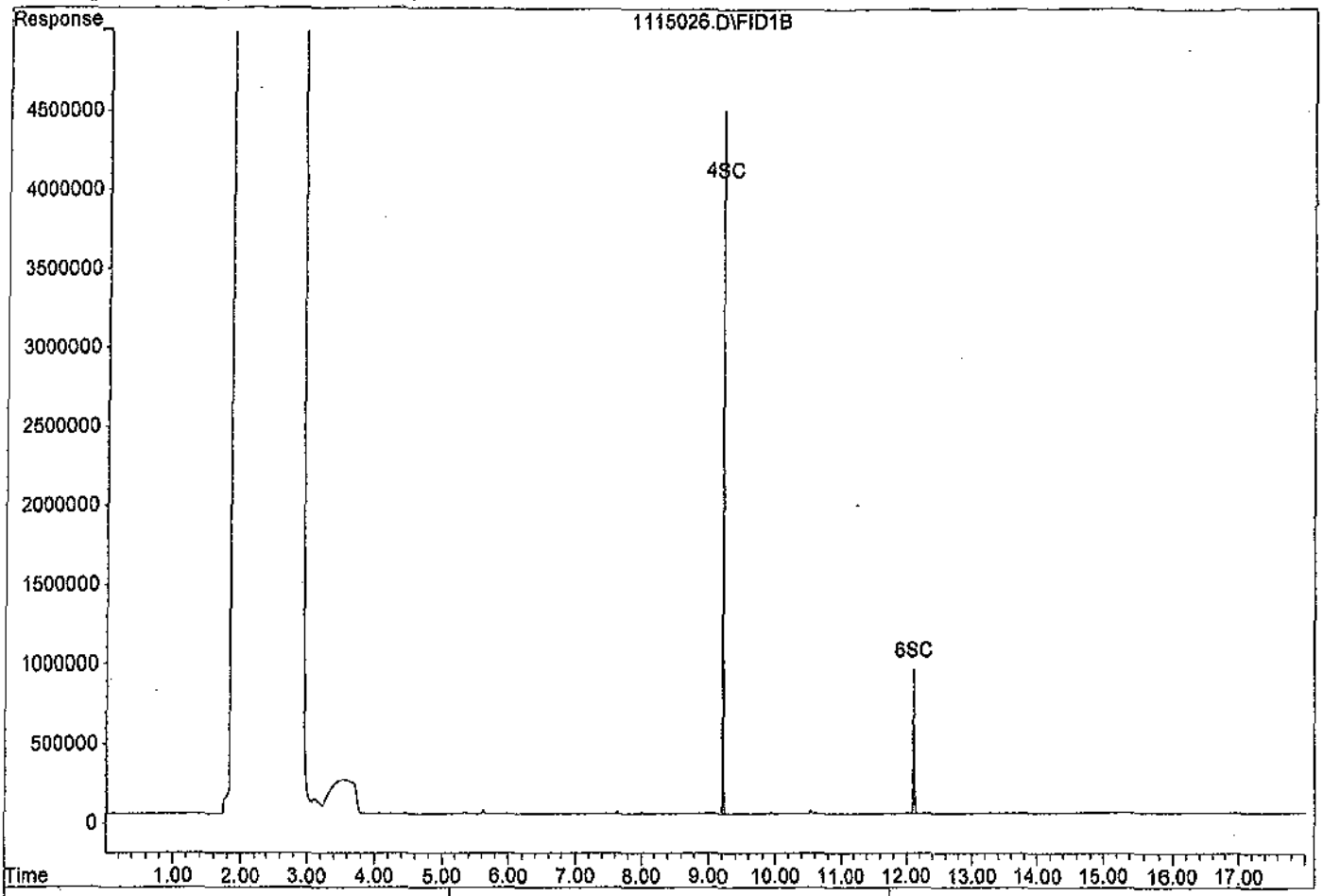
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

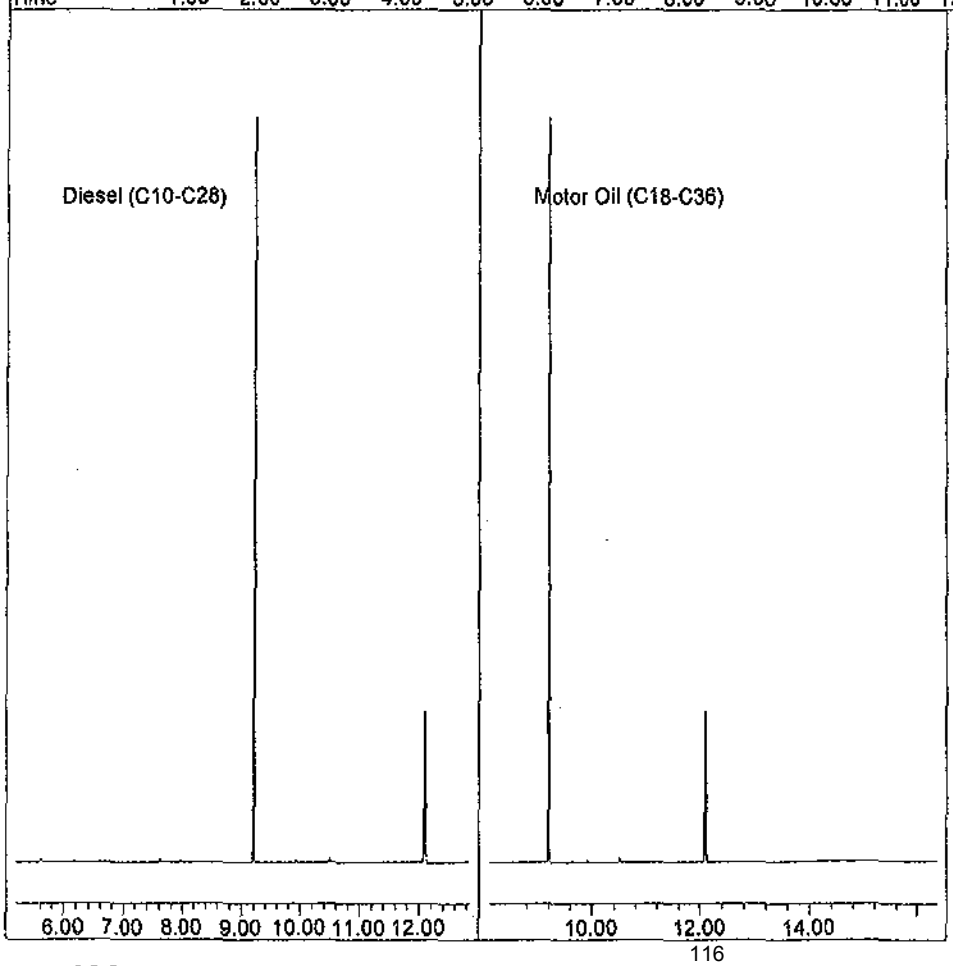
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.21	30736073	48.174	ppb
Surrogate Spike 30.000	Recovery =		160.58%	
6) SC Octacosane(S)	12.11	12029686	51.522	ppb
Surrogate Spike 30.000	Recovery =		171.74%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111115\1115026.D
Sample : THC SURR 1000/1000





Quantitation Report (Not Reviewed)

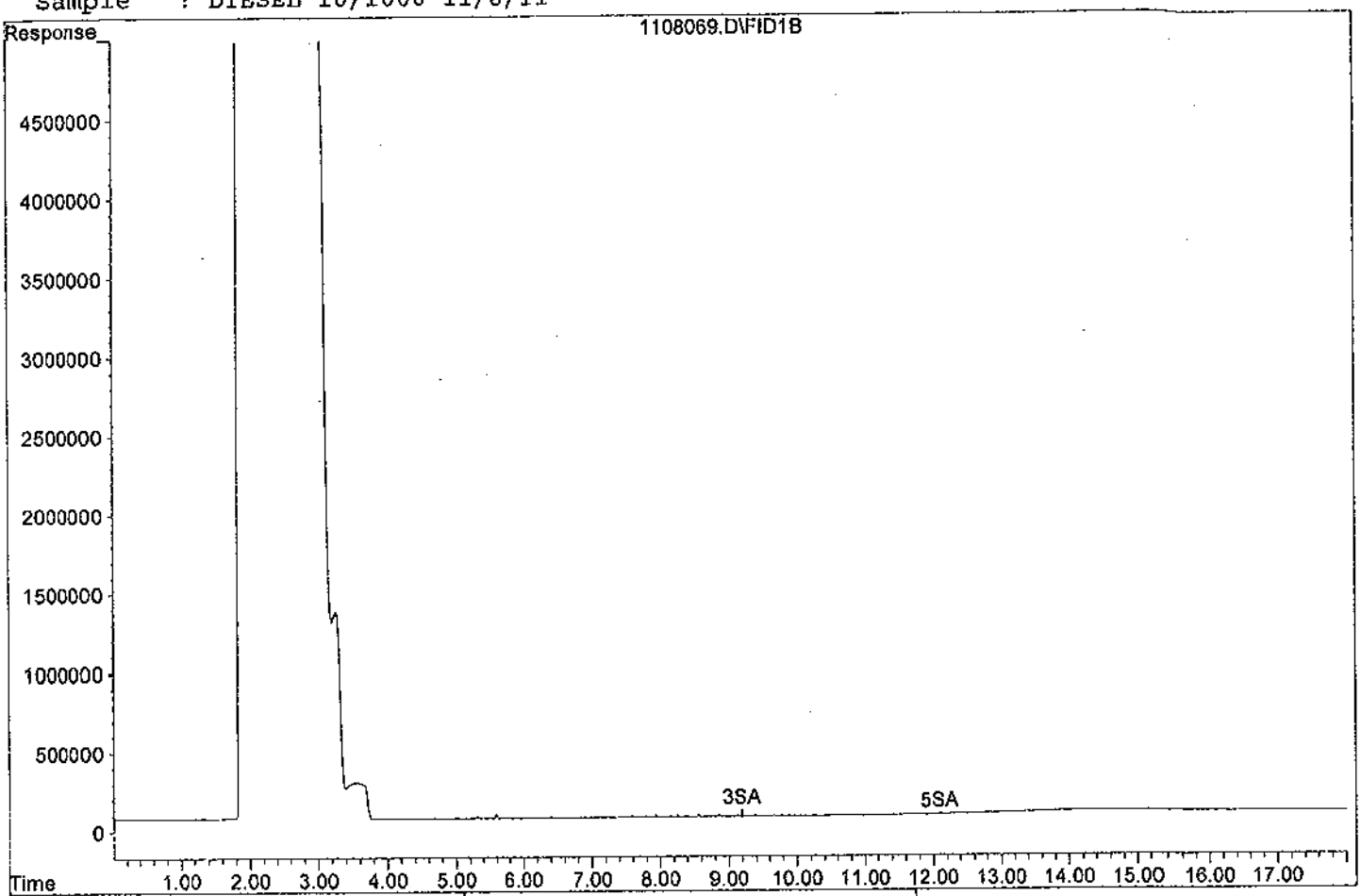
Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69
Acq On : 11-9-11 17:18:58 Operator: LAC
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:53 2011 Quant Results File: TPH8S15.RES

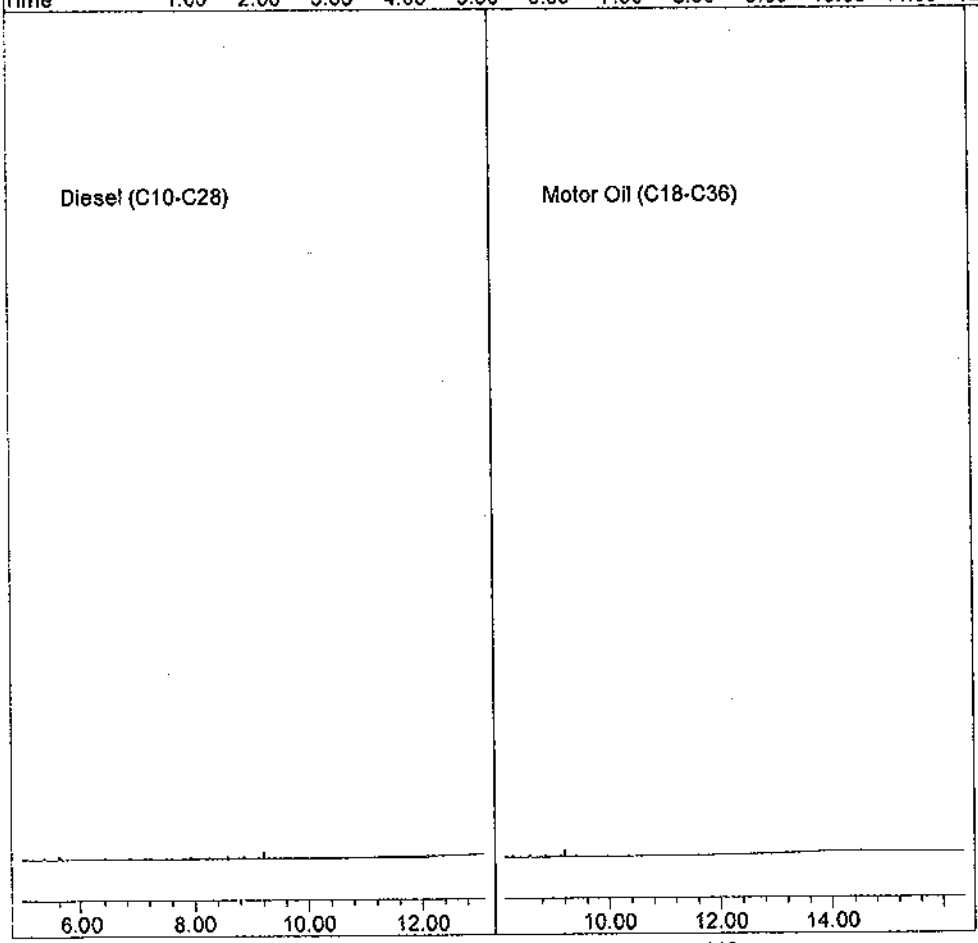
Method : G:\APOLLO\DATA\111108\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Wed Nov 16 09:55:03 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	302444	0.297 ppb
Surrogate Spike 30.000	Recovery	=	0.99%
5) SA Not Used2(S)	12.10	625179	2.122 ppb
Surrogate Spike 30.000	Recovery	=	7.07%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	12262633	1055.198 ppb

Data File: G:\APOLLO\DATA\111108\1108069.D
Sample : DIESEL 10/1000 11/8/11





TPH Extractables
TPH8S15

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/09/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1108070.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	234327	23	HATML	4.9
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			23.0		

Quantitation Report (Not Reviewed)

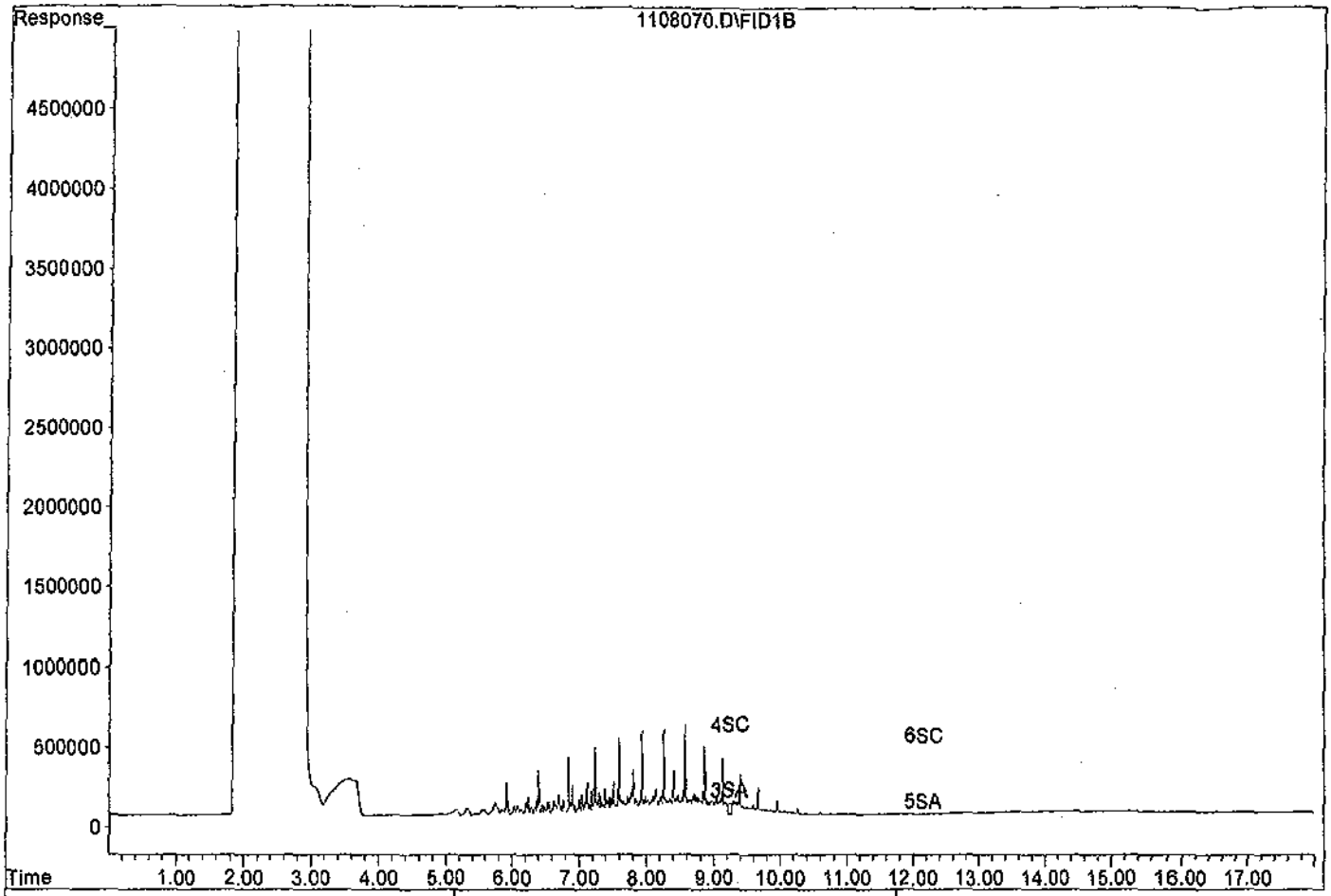
Data File : G:\APOLLO\DATA\111108\1108070.D Vial: 70
Acq On : 11-9-11 17:42:38 Operator: LAC
Sample : DIESEL 400 2ND SRC 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 9:52 2011 Quant Results File: TPH8S15.RES

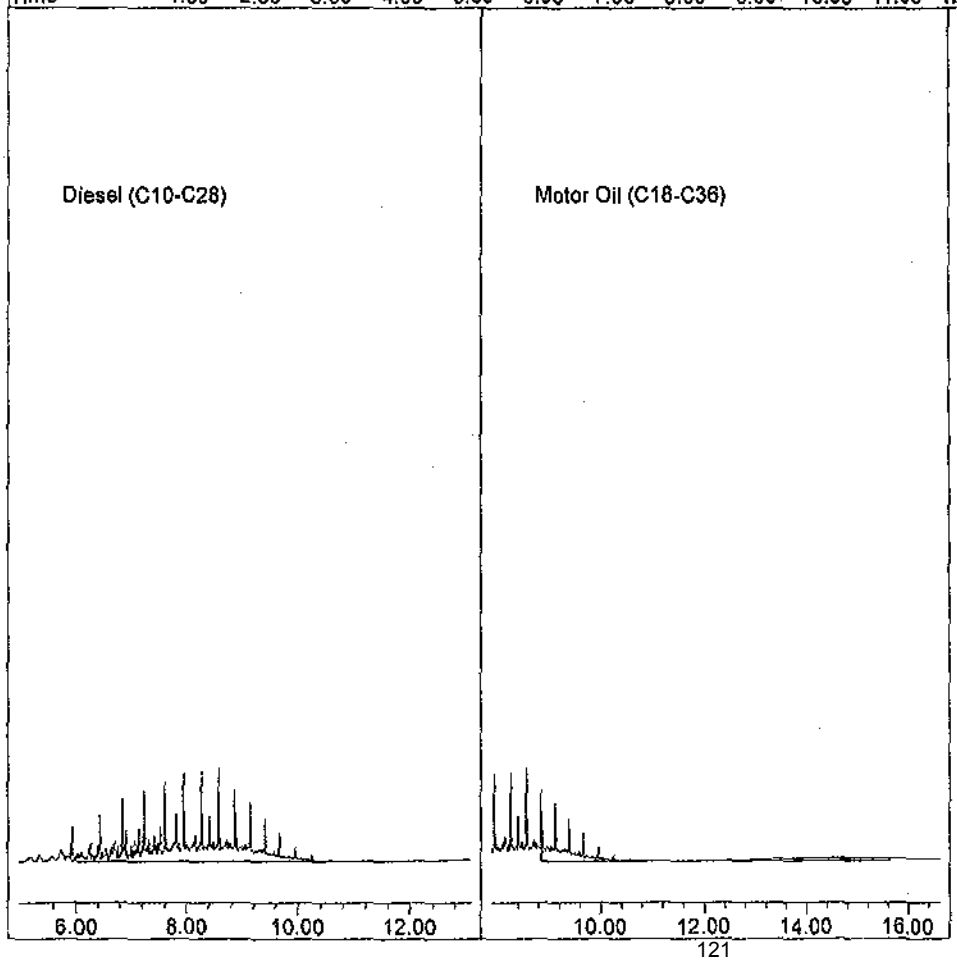
Method : G:\APOLLO\DATA\111115\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 17 09:41:49 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	2204277	2.168	ppb
Surrogate Spike 30.000	Recovery =		7.23%	
4) SC Ortho-Terphenyl(S)	9.24	2204277	3.455	ppb
Surrogate Spike 30.000	Recovery =		11.52%	
5) SA Not Used2(S)	12.16	136311	0.463	ppb
Surrogate Spike 30.000	Recovery =		1.54%	
6) SC Octacosane(S)	12.16	136311	0.584	ppb
Surrogate Spike 30.000	Recovery =		1.95%	
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	65481078	788.357	ppb

Data File: G:\APOLLO\DATA\111108\1108070.D
Sample : DIESEL 400 2ND SRC 11/8/11





TPH Extractables
TPH8S15

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/29/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1129012.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	265441	13	HATML	7.9
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

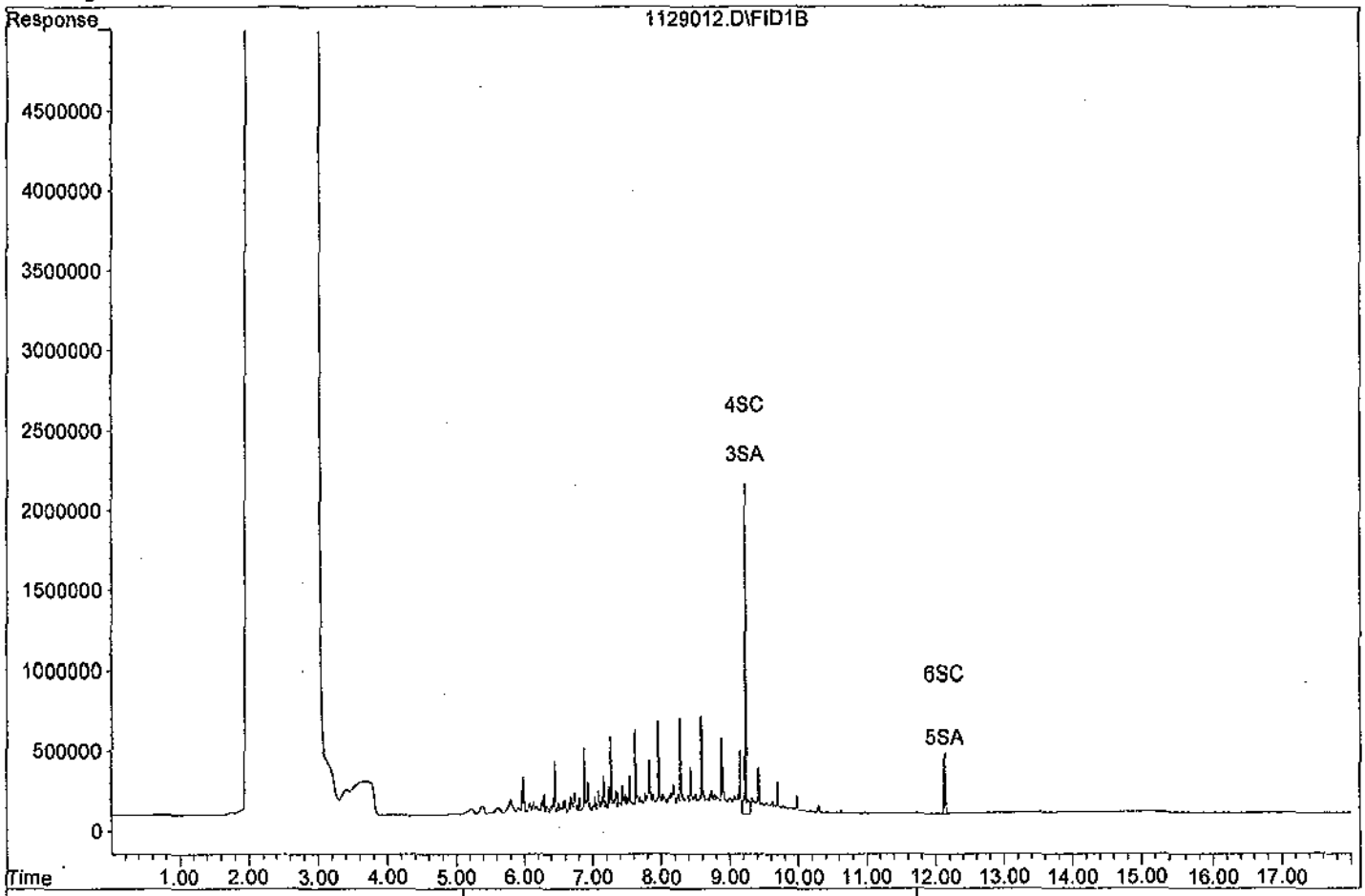
Data File : G:\APOLLO\DATA\111129\1129012.D Vial: 12
Acq On : 11-29-11 13:06:20 Operator: LAC
Sample : DIESEL 400/1000 11/29/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 29 16:12 2011 Quant Results File: TPH8S15.RES

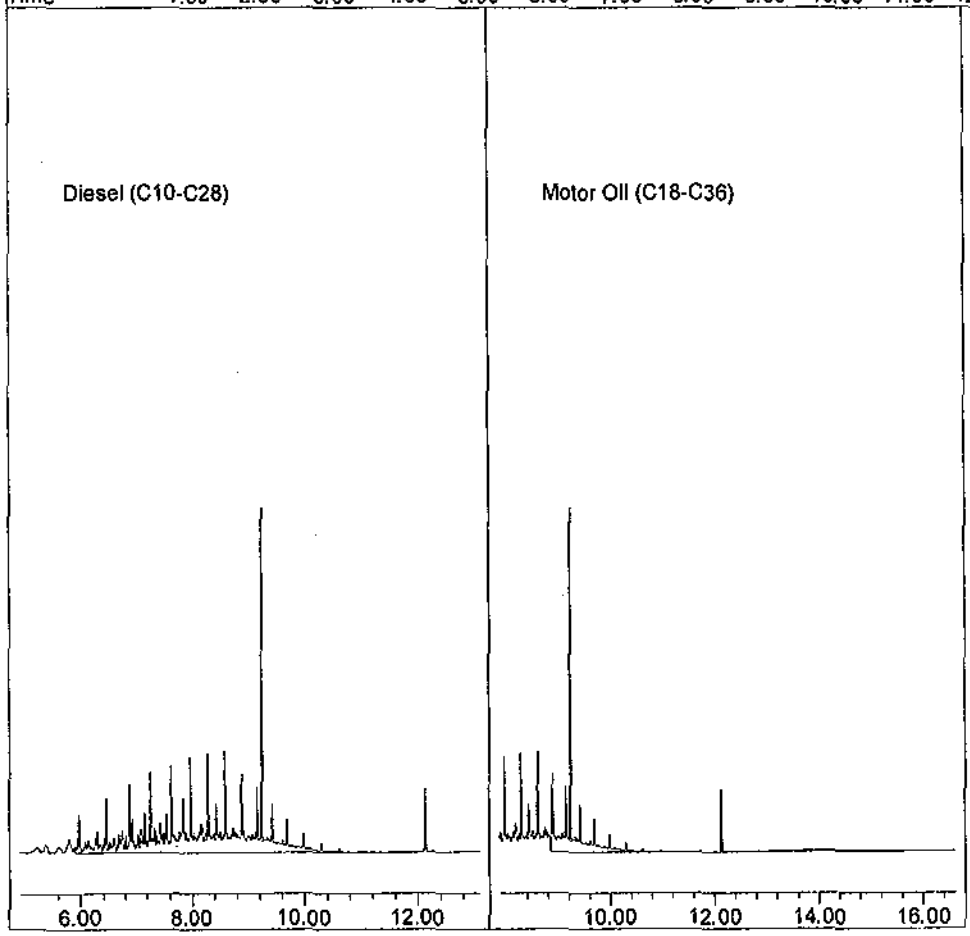
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	18448540	27.180	ppb
Surrogate Spike 30.000	Recovery =		90.60%	
4) SC Ortho-Terphenyl(S)	9.24	18448540	28.915	ppb
Surrogate Spike 30.000	Recovery =		96.38%	
5) SA Not Used2(S)	12.14	5020781	31.843	ppb
Surrogate Spike 30.000	Recovery =		106.14%	
6) SC Octacosane(S)	12.14	5020781	21.038	ppb
Surrogate Spike 30.000	Recovery =		70.13%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	212352743	431.747	ppb
2) HBTM Motor Oil (C18-C36)	12.24	65096224	280.338	ppb

Data File: G:\APOLLO\DATA\111129\1129012.D
Sample : DIESEL 400/1000 11/29/11





TPH Extractables
TPH8S15

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 11/29/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1129024.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C28)	305473	278570	8.8	HATML	13
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.8		

Quantitation Report (Not Reviewed)

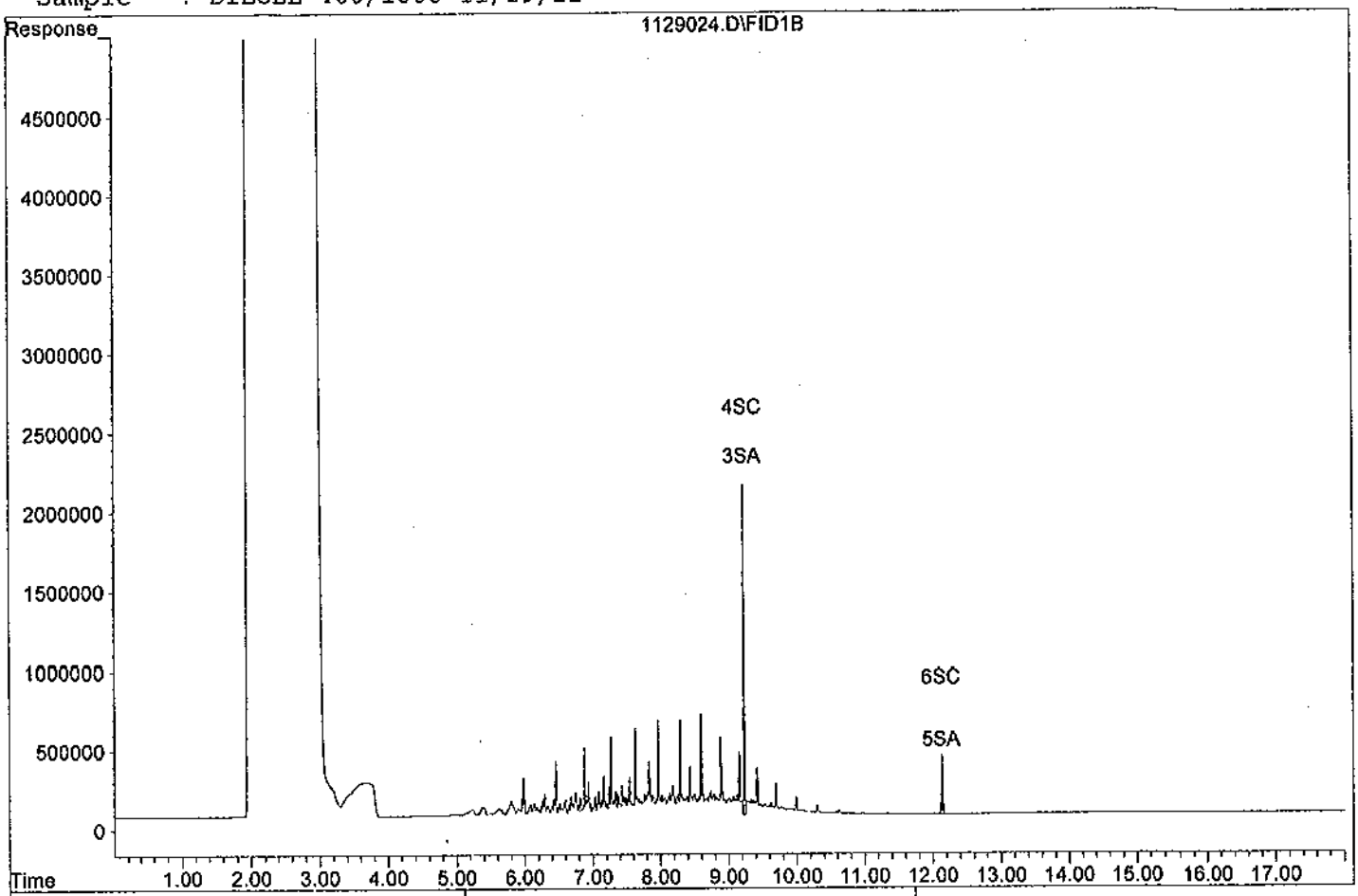
Data File : G:\APOLLO\DATA\111129\1129024.D Vial: 24
Acq On : 11-29-11 21:29:15 Operator: LAC
Sample : DIESEL 400/1000 11/29/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 30 8:35 2011 Quant Results File: TPH8S15.RES

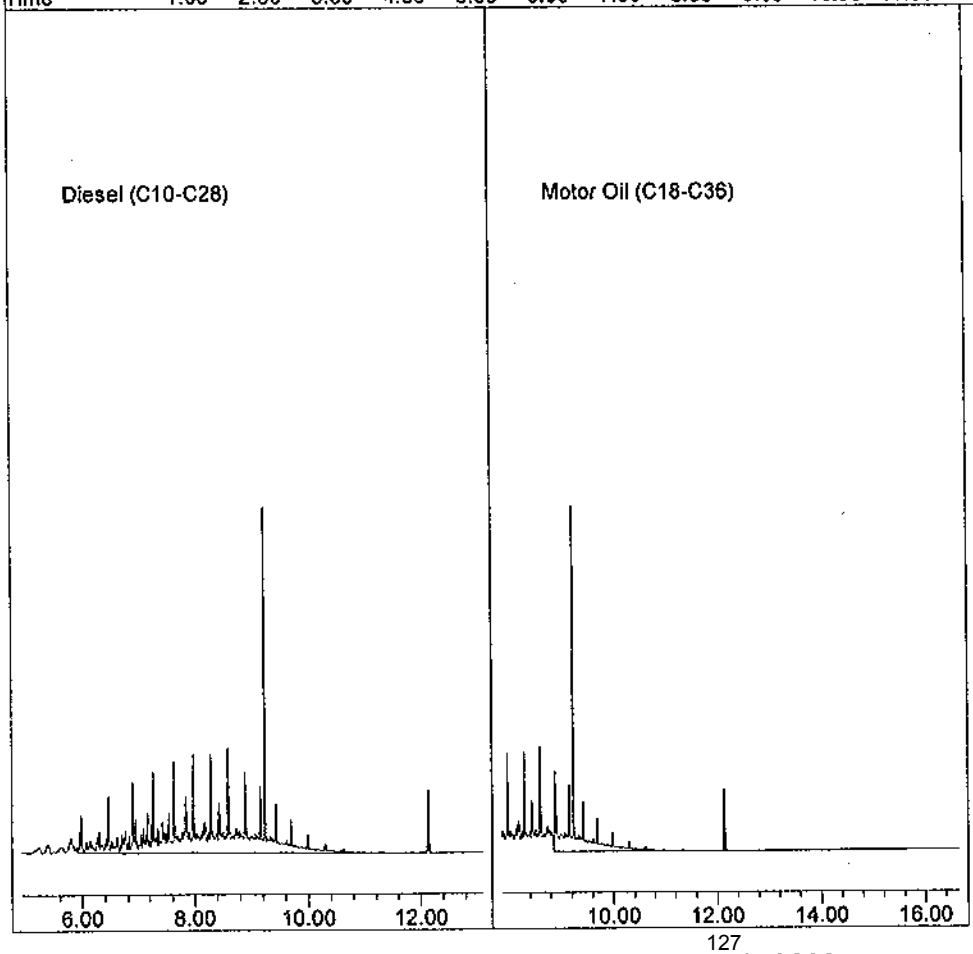
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.24	15158305	22.332	ppb
Surrogate Spike 30.000	Recovery =		74.44%	
4) SC Ortho-Terphenyl(S)	9.24	15158305	23.758	ppb
Surrogate Spike 30.000	Recovery =		79.19%	
5) SA Not Used2(S)	12.13	4847180	30.742	ppb
Surrogate Spike 30.000	Recovery =		102.47%	
6) SC Octacosane(S)	12.13	4847180	20.311	ppb
Surrogate Spike 30.000	Recovery =		67.70%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	222856237	453.399	ppb
2) HBTM Motor Oil (C18-C36)	12.24	69450604	299.090	ppb

Data File: G:\APOLLO\DATA\111129\1129024.D
Sample : DIESEL 400/1000 11/29/11





EPA 8015 Modified
Total Petroleum Hydrocarbons
Raw Data

Method Blank
TPH Diesel Water

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **111031W-49334 - 160886**
Batch ID: #TPETD-111031A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	10/31/11	11/06/11
BLANK	SURROGATE: OCTACOSANE (S)	71.2	28-142			%	10/31/11	11/06/11
BLANK	SURROGATE: ORTHO-TERPHEN	60.5	57-132			%	10/31/11	11/06/11

Quant Method: TPH1028.M
Run #: 1106005
Instrument: Apollo
Sequence: 111106
Initials: LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 2:13:54 PM

Quantitation Report (QT Reviewed)

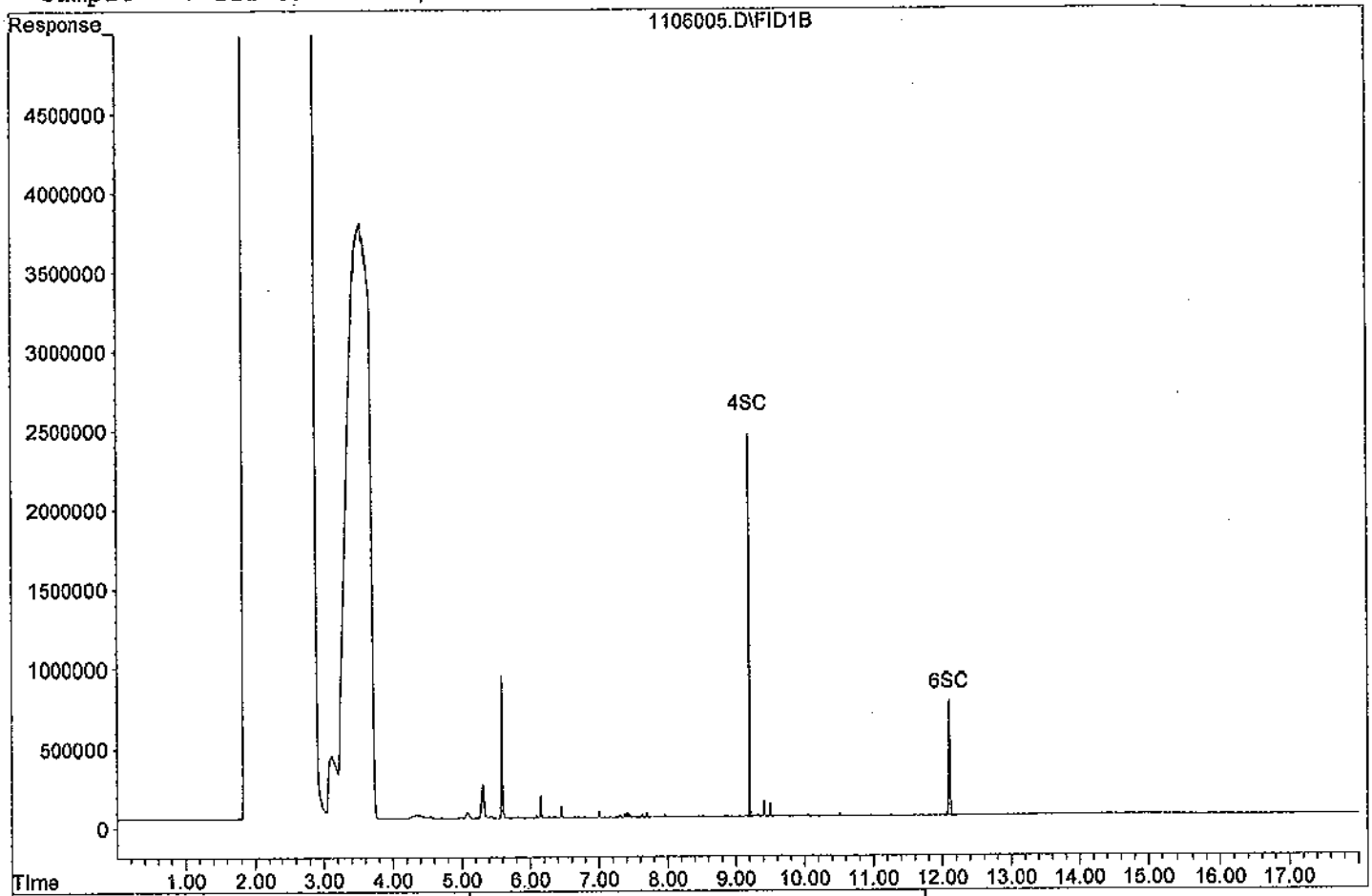
Data File : G:\APOLLO\DATA\111106\1106005.D Vial: 5
Acq On : 11-6-11 17:22:09 Operator: LAC
Sample : 111031A BLK 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 7 9:44 2011 Quant Results File: TPH1028.RES

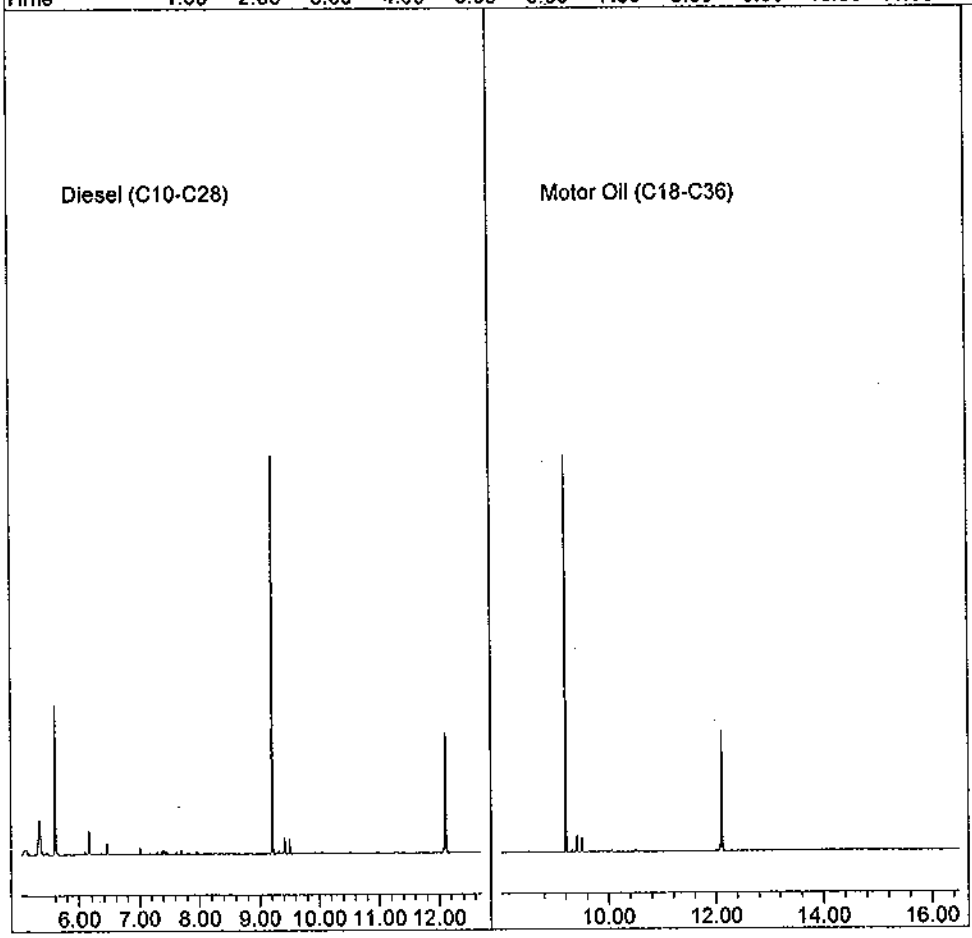
Method : G:\APOLLO\DATA\111028\TPH1028.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Oct 31 10:02:11 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.21	15818444	90.703 ppb
Surrogate Spike 150.000		Recovery =	60.47%
6) SC Octacosane(S)	12.11	9943034	106.834 ppb
Surrogate Spike 150.000		Recovery =	71.22%
Target Compounds			

Data File: G:\APOLLO\DATA\111106\1106005.D
Sample : 111031A BLK 5/1000





Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111031W-49334 LCS - 160886**
Batch ID: #TPETD-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1520	76.0	61-143
SURROGATE: OCTACOSANE (S)	150	125	83.3	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	147	98.0	57-132

Comments:

Primary	SPK
Quant Method :	TPH8S15.M
Extraction Date :	10/31/11
Analysis Date :	11/29/11
Instrument :	Apollo
Run :	1129017
Initials :	LA

Printed: 11/30/11 2:13:48 PM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111129\1129017.D Vial: 17
Acq On : 11-29-11 18:45:15 Operator: LAC
Sample : 111031A LCS-1 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 30 10:29 2011 Quant Results File: TPH8S15.RES

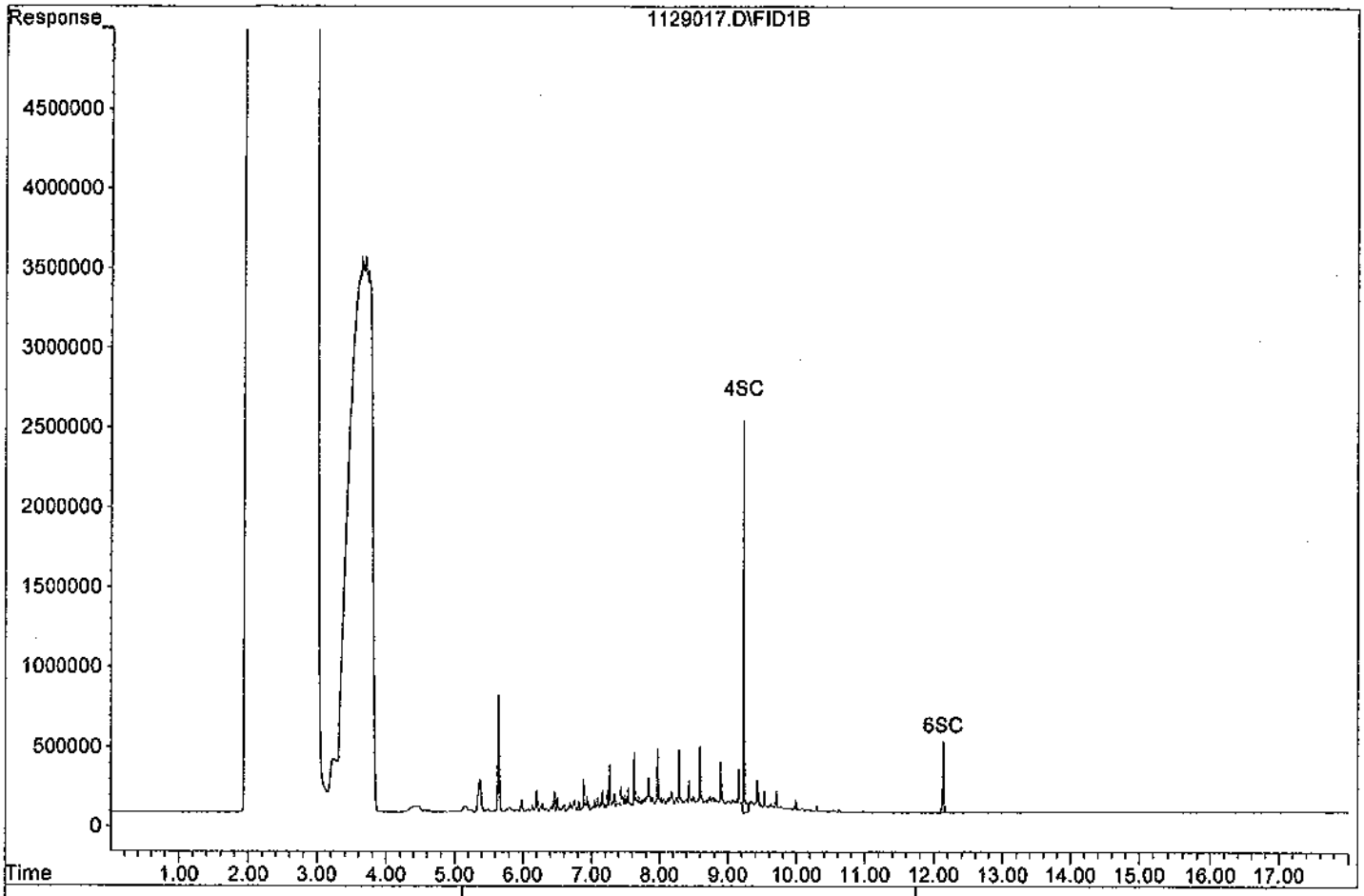
Method : G:\APOLLO\DATA\111123\TPH8S15.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 28 16:45:51 2011
Response via : Multiple Level Calibration

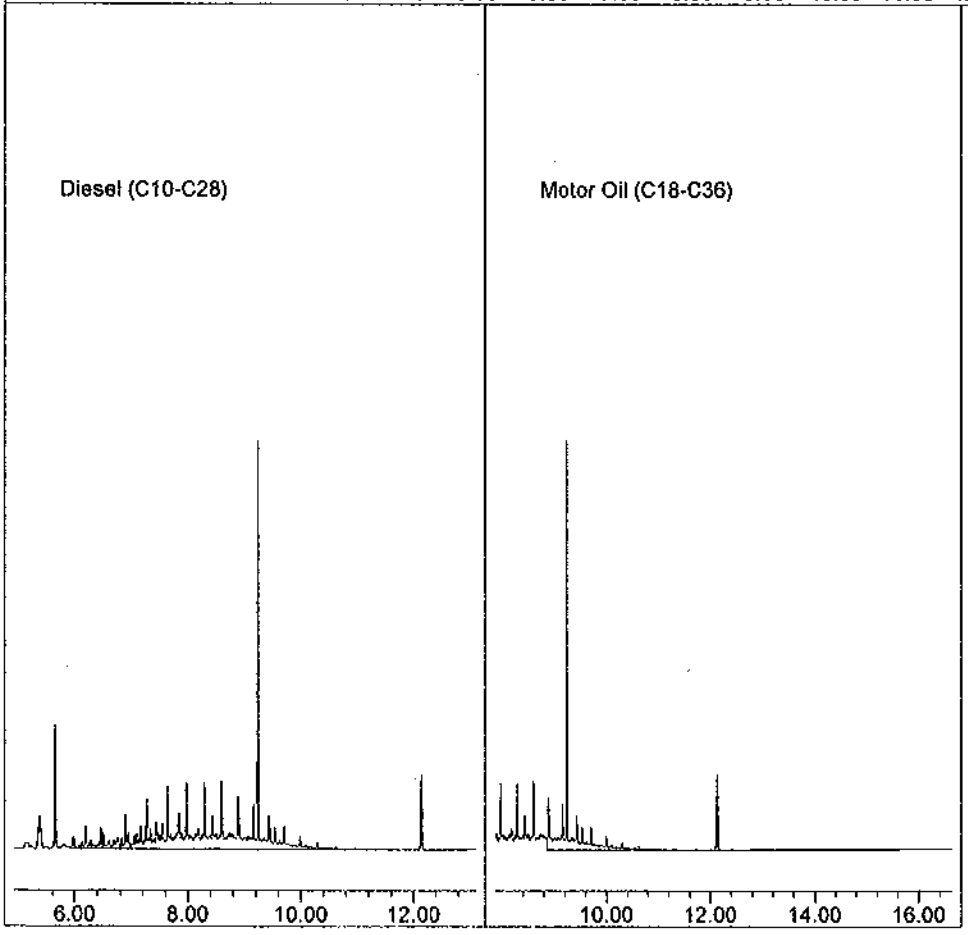
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.24	18706073	146.595 ppb
Surrogate Spike 150.000		Recovery =	97.73%
6) SC Octacosane(S)	12.14	5944718	124.549 ppb
Surrogate Spike 150.000		Recovery =	83.03%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	150395375	1520.130 ppb
2) HBTM Motor Oil (C18-C36)	12.24	50801855	1093.895 ppb

Algorithm Check: $\frac{(18706073)(5)}{(319010)(2)} = 146.594\,57227$ LAC 11/30/11 LAC 11/30/11

Data File: G:\APOLLO\DATA\111129\1129017.D
Sample : 111031A LCS-1 5/1000





STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #
							029

MOTOR OIL SPIKE

MOTOR OIL	50,000ng/µl	0251	200µl	50mL	2000ng/µl	MC #070111B	8/5/11 EX: 11/5/11

o2si smart solutions
Motor Oil Composite, 50,000 mg/L, 1 ml
116390-02 Storage: </= -10 Degrees C
Made in USA Lot No: 161898 Solvent: Methylene Chloride
Exp: 7/23/2013
Date Op: Motor Oil composite
Lot #: 161898 - 28613
Rec: 4/14/11 MFR exp. 07/23/13

o2si smart solutions
Motor Oil Composite, 50,000 mg/L, 1 ml
116390-02 Storage: </= -10 Degrees C
Made in USA Lot No: 161898 Solvent: Methylene Chloride
Exp: 7/23/2013
Date Motor Oil composite by
Lot #: 161898 - 28614
Rec: 4/14/11 MFR exp. 07/23/13

OCL/OP WATER SURROGATE

DBC TCMX DECA	5000ng/µl	0281	30ml	100mL	1.5ng/µl	ACETONE #011011C	8/5/11 EX: 11/5/11
TBP TPP	1000ng/µl	0251	500ml		5ng/µl		

o2si smart solutions
Pesticide Surrogate Solution, 5,000 mg/L, 1 ml
Cat. No: 130070-02 Exp: 12/19/2012
Lot No: 154164 Storage: </= Ambient
-27593 Solvent: Tol.:Hex. 1:1
Not for Human Consumption For Research Use Only
Made in USA Date Opened: 8/5/11 EX: 8/5/12

o2si smart solutions
Phone: (843) 763-4884 Fax: (843) 766-9181
Tributyl- and Triphenylphosphate Solution, 1,000 mg/L, 1 ml
Cat. No: 130161-02 Exp: 7/12/2012
Lot No: 148444 Storage: <10 Degrees C
-27667 Solvent: Acetone
Not for Human Consumption For Research Use Only
Made in USA Date Opened: 8/5/11 EX: 8/5/12

OCL/OP SOIL SURROGATE

DBC DECA TCMX	500ng/µl	0281	400ml	100mL	20ng/µl	ACETONE #011011C	8/5/11 EX: 11/5/11
TBP TPP	1000ng/µl	0251	500ml		5ng/µl		

CAT: 130070-02
LOT: 154164-27593
OP: 8/5/11 EX: 8/5/12

CAT: 130161-02
LOT: 148444-27667
OP: 8/5/11
EX: 7/12/12

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT #	
								033
		THC SURROGATE				(* GAVE TO EXTRACTION)		
O-TERPHENYL OCTACOSANE	600ng/ul	0251	N/A	25mL	600ng/ul	N/A		8/8/11 EX: 8/8/12
		CAT: 110316-05						
		LOT: 170258-29333						
		OP: 8/8/11						
		EX: 8/8/12						
		THC SURROGATE						
O-TERPHENYL OCTACOSANE	600ng/ul	0251	N/A	25mL	600ng/ul	N/A		8/8/11 EX: 8/8/12
		CAT: 110316-05						
	8/8/11	LOT: 176405-29334 THRU 176405-29337						
		OP: 8/8/11						
		EX: 8/8/12						
		OCL Degradation Check						
DDT DDD DDE ENDRIN ENDRIN KETONE ENDRIN ALDEHYDE	100 ng/ul	0251	250mL	5mL	0.5ng/ul	HEXANE # 082610B		8/11/11 EX: 2/11/12
		CAT: 130109-01						
		LOT: OC Pesticide Degradation Check Lot #: 176400 - 29311 Rec: 8/8/11 MFR exp. 07/29/14						
		OP: 8/11/11	8/11/11					
		EX: 8/11/12						
		OCL STOCK						
VARIOUS Analytes	100ng/ul	0251	1000mL	10mL	10ng/ml	Hexane # 082610B		8/11/11 EX: 8/11/12
		Organochlorine Pesticide Solution 20, 100 mg/L, 1ml 13415-09 Lot # 176673 Storage 2-8 Degrees C Expiry 8/2/14 Solutions						
		Organochlorine Pest Soln 20 OP: 8/11/11						
		Lot #: 176673 - 29347 EX: 8/11/12						
		Rec: 8/9/11 MFR exp. 08/02/14						

STANDARD 052	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS

DIESEL STANDARD

DIESEL FUEL #2 | 50,000mg/L | 0251 | 100ml | 5DML | 1000mg/L | MC # 0517113 | 9/1/11 EX: 3/1/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
911598-03
Lot # 167768 | Storage: 5-10 Degrees C | Expiry: 2/15/15
Solvent: Methylene Chloride
Diesel Fuel #2 Composite OP: 9/1/11
Lot #: 167768 - 28176 EX: 9/1/12
Rec: 1/20/11 MFR exp. 02/15/15

OCTACOSANE / O-TERPHENYL | 600mg/L | 0251 | 4170ml | 50mg/L

CAT: 110316-05
LOT: 176405-29337
OP: 9/1/11
EX: 9/1/12

MOTOR OIL STANDARD

MOTOR OIL | 50,000mg/L | 0251 | 1000ml | 5DML | 1000mg/L | MC # 0517113 | 9/1/11 EX: 3/1/12

O2si smart solutions 116390-02
Motor Oil Composite, 50,000 mg/L, 1 ml
OP: 9/1/11 EX: 9/1/12
Storage: </= -10 Degrees C
Made in USA Lot No: 161898 Exp: 7/23/2013
Solvent: Methylene Chloride
Motor oil composite
Lot #: 161898 - 28615
Rec: 4/14/11 MFR exp. 07/23/13

DIESEL 2ND SOURCE

DIESEL FUEL #2 | 50,000mg/L | 0281 | 1000ml | 5DML | 1000mg/L | MC # 0517113 | 9/1/11 EX: 3/1/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
911598-03
Lot # 167769 | Storage: 5-10 Degrees C | Expiry: 2/15/15
Solvent: Methylene Chloride
Diesel Fuel #2 Composite OP: 9/1/11
Lot #: 167769 - 29397 EX: 9/1/12
Rec: 8/26/11 MFR exp. 02/15/15

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOLVENT / LOT# | DATE: 10/19/11

B 10/18/11

KEROSENE/JP5 STD

STD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC	SOLVENT / LOT#
JP5/ KEROSENE	50,000 µg/mL	O2SI CAT #010597-S50 LOT# 159381 OP:4/18/11 EX: 4/18/12	500 µL	25 mL	1000 µg/mL	MC LOT# 032811C

LAC 10/18/11 EX: 4/18/12

LAC 10/18/11

KEROSENE/JP5 CURVE

STANDARD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
Kerosene	1000		10/18/2011	4/18/2012	50	100	400	600	800	1000
JP5	MC	032811C		-	950	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	1000

EX: 4/18/12

LAC 10/18/11

DIESEL CCV 400µg/ml

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		9/1/2011	3/1/2012			051711B

EX: 3/1/12

MOTOR OIL CCV 400UG/ML

STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		9/1/2011	3/1/2012			051711B

PRODIAMINE STANDARD

diamine | 1000ug/ml | O2SI | 10ml | 10ml | 1ug/ul | ACETONE | DILUIC

CAT: 031919-02
LOT: 161445-26939
OP: 10/19/11
EX: 7/1/12

10/19/11 EX: 4/19/12

B 10/19/11

Prodiamine Curve

PREP DATE:	10/19/2011										
EXP:	4/19/2012										
SUPPLIER	ID#	µg/mL	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
	Prodiamine	1		10/19/2011	4/19/2012	5	50	100	150	200	250
	HEXANE		082610B			995	950	900	850	800	750
					Final VOL.	1000	1000	1000	1000	1000	1000

10/19/11 EX: 4/19/12

STANDARD 082	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. rent / LOT #	DATE / INITIALS

DIESEL SPIKE

DIESEL FUEL #2 — 50,000ug/ml — D251 — 2000ul — 50mL — 2000ug/ml — MC — #S1204 — 10/21/11 — EX: 1/21/12

OP: 10/21/11 EX: 10/21/12
Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
011598-03
Lot# 179635 Storage 5 to 10 Degrees C Expiry 11/8/15
Diesel Fuel #2 Composite
Lot #: 179635 - 29641
Rec: 10/13/11 MFR exp. 11/08/15

OP: 10/21/11 EX: 10/21/12
Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
011598-03
Lot# 179635 Storage 5 to 10 Degrees C Expiry 11/8/15
Diesel Fuel #2 Composite
Lot #: 179635 - 29642
Rec: 10/13/11 MFR exp. 11/08/15

10/21/11

508 ANALYTE — *GAVE TO EXTRACTION TO SPIKE

VARIOUS Analytes — 100/2000ug/ml — D251 — N/A — 1mL — 100/2000ug/ml — N/A — 10/21/11 EX: 10/21/12

o2si
OCC Pesticide Standard, 100/2000 mg/L, 1 ml
Cat. No: 130200-02 Exp: 2/21/2013
Lot No: 156275 Storage: </= 6 Degrees C
OCC Pesticide 100/2000mg/L Solvent: Tol.:Hex. 1:1
Lot #: 156275 - 26160 For Research Use Only
Rec: 2/23/10 MFR exp. 02/21/13 Opened: 10/21/11 EX: 10/21/12

10/21/11

508 CALIBRATION CURVE

10/21/11

Compound	Conc. In Mix	Conc. Of Stock	Aliquot	stock source	Final Vol.	Solvent Lot#
alachlor	(1) 0.005/0.1	5/100ug/ml	10ul	508 stock	10 mL	Hexane
benfluralin	(2) 0.03/0.6	5/100ug/ml	60ul	prep: 4/8/11	10 mL	# 082610B
captan	(3) 0.05/1.0	5/100ug/ml	250ul	Exp: 1/26/12	25 mL	
carbophenothion	(4) 0.1/2.0	5/100ug/ml	200ul		10 mL	
chlorothalonil	(5) 0.15/3.0	5/100ug/ml	300ul		10 mL	
chlorthal(dacthal)	(6) 0.2/4.0	5/100ug/ml	400ul		10 mL	
2,6 dichlorobenzonitrile(dicofol)						
kelthane						
nitrofen						
oxadiazon						
oxyfluorfen						
propachlor						
op DDD						
op DDE						
op DDT						
bis(2-ethylhexyl)phthalate						

10/21/11 EX: 1/25/12

508 2ND SRC

10/21/11

Compound	Init. Conc.	Stock Src	Aliquot	Final Vol	Final Conc.	Solvent Lot#
See Above	5/100 ug/ml	508 2nd Src Stock	250 uL	25 mL	0.05/1 ug/ml	Hexane
		Prep: 10/21/11				082610B
		Exp: 4/8/12				

10/21/11 EX: 4/8/12

STANDARD 088

	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE/ INITIALS

LAC 10/26/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 10/28/11 EX: 4/17/12

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400	600	800	1000
MC		51204			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 10/28/11 EX: 4/26/12

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	9/1/2011				51204
	Exp:	3/1/2012				

LAC 10/28/11 EX: 3/1/12

LAC 10/26/11

KEROSENE/JP5 CURVE

STANDARD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
Kerosene	1000		10/18/2011	4/18/2012	50	100	400	600	800	1000
JP5	MC	51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1000	1000	1000	1000

LAC 10/28/11 EX: 4/18/12

11/1/11

PREP DATE:	11/1/2011					
OP 2ND SOURCE						
EXP:	4/19/2012					
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL
	OP 2ND SRC	5		10/19/2011	4/19/2012	500
VWR	HEXANE		082610B			500
					Final VOL.	1000

11/1/11 EX: 4/19/12

PREP DATE:	11/1/2011												
OPF CURVE													
EXP:	4/13/2012												
						IA	1	2	3	4	5	6	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL	
	OPF STD	5		10/19/2011	4/13/2012	2	10	50	200	500	700	1000	
	Hexane		082610B			998	990	950	800	500	300	NA	
					Final VOL.	1000	1000	1000	1000	1000	1000	1000	

11/1/11 EX: 4/13/12

PREP DATE:	11/1/2011											
OPC CURVE												
EXP:	3/15/2012											
						1	2	3	4	5	6	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	
	OPC STD	5		9/15/2011	3/15/2012	10	50	200	500	700	1000	
	Hexane		082610B			990	950	800	500	300	NA	
					Final VOL.	1000	1000	1000	1000	1000	1000	

11/1/11 EX: 3/15/12

11/1/11

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE 08 LS
		DIESEL STANDARD					
DIESEL FUEL #2	50,000 ug/ml	D251	1000 ml	50 ml	1000 ug/ml	MC # 51204	10/26/11 EX: 4/26/12
TERPHENYL	600 ug/ml	D251	4170 ml	50 ug/ml			
HEXANE	CAT: 110316-05 LOT: 176405-29338 OP: 10/10/11 EX: 10/10/12						
		MOTOR OIL STANDARD					
MOTOR OIL	50,000 ug/ml	D251	1000 ml	50 ml	1000 ug/ml	MC # 51204	10/26/11 EX: 4/26/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
911596-83
Lot # 167768 Storage -10 Degrees C Expiry 2/15/15
Solv: Methylene Chloride
Diesel Fuel #2 Composite OP. 10/26/11
Lot #: 167768 - 29406 EX: 10/26/12
Rec: 8/26/11 MFR exp. 02/15/15

o2si smart solutions
Motor Oil Composite, 50,000 mg/L, 1 ml OP. 10/26/11 EX: 10/26/12
116390-02 Storage: <= -10 Degrees C
Made in USA Lot No: 161898 Solvent: Methylene Chloride
Exp: 7/23/2013
Motor oil composite
Lot #: 161898 - 28616
Rec: 4/14/11 MFR exp. 07/23/13

		PAC ECO 2ND SOURCE			
DIAZINON	5ug/ml	200ug/ml	250ul	O2SI	10ml
DISULFOTON		200	CAT:	130169-01	HEXANE
MALATHION		200	LOT:	178204-29481	LOT#
MOLINATE		200	OP:	10/26/2011	082610B
PHORATE		200	EXP:	3/11/2012	
THIOBENCARB		200			
TRIBUTYL PHOSPHATE		200			
DEMETON		200			
DISCHLORVOS		200			
EPTC		200			
PARATHION		200			
AZINPHOS METHYL		200			
CHLORPYRIFOS		200			
DIMETHOATE		200			
METHIDATHION		200			
METHYL PARATHION		200			
ATRAZINE		200			
CYANIZINE		200			
TRIPHENYL PHOSPHATE		200			
PENDIMETHALIN (PROWL		200			
TRIFLURALIN		200			
SIMAZINE		200			

10/26/11
EX: 3/11/12

10/26/11

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE: 11/09/11

11/7/11

PREP:	11/7/2011												
PAC ECO CURVE													
EXP:	2/25/2012												
	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	6		10/26/2011	2/25/2012	2	10	50	200	500	700	1000
VWR	Hexane		010711A			998	990	950	800	500	300	N/A
					Final VOL.	1000	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC				DATE	EXP. DATE							
Prep: 11/7/11	Exp: 12/17/11	5	010711A	10/26/2011	12/17/2011	500/1000						

11/7/11 EX: 2/25/12 11/7/11 EX: 12/17/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400	600	800	1000
MC		61204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 EX: 4/17/12

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400	600	800	1000
MC		51204			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 EX: 4/26/12

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	9/1/2011				61204
	Exp:	3/1/2012				

11/8/11 EX: 3/1/12

11/9/11

PREP DATE:	11/9/2011											
TERBACIL CURVE												
EXP:	3/13/2012											
						0.05	0.25	1	2.5	3.5	5	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	
	TERBACIL STD	6		9/13/2011	3/13/2012	10	50	200	500	700	1000	
VWR	HEXANE		0826108			990	970	900	800	500	300	
					Final VOL.	1000	1000	1000	1000	1000	1000	

11/9/11 EX: 3/13/12

PREP DATE:	11/9/2011					
OP 2ND SOURCE						
EXP:	4/19/2012					
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL
	OP 2ND SRC	6		10/19/2011	4/19/2012	500
VWR	HEXANE		0826108			500
					Final VOL.	1000

11/9/11 EX: 4/19/12

11/9/11

PREP DATE:	11/9/2011												
OPF CURVE													
EXP:	2/7/2012												
						XA	1	2	3	4	5	6	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL	
	OPF STD	5		11/3/2011	2/7/2012	2	10	50	200	500	700	1000	
	Hexane		0826108			998	990	950	800	500	300	NA	
					Final VOL.	1000	1000	1000	1000	1000	1000	1000	

11/9/11 EX: 2/7/12

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT #	DATE / INITIALS
PCB SOIL SPIKE								
AR 1260	1000ng/µL	0251	1250µL	25mL	50ng/µL	ACETONE		11/10/11
AR 1016	CAT: 130011-03					#		EX: 2/10/12
	LOT: 163607-27215							
	OP: 11/10/11							
	EX: 11/10/12							
	AND							
	LOT: 152374-27210							
	OP: 3/2/11							
	EX: 3/2/12							
PCB WATER SPIKE								
AR1016	1000ng/µL	0251	125µL	25mL	5ng/µL	ACETONE		11/10/11
AR1260	CAT: 130011-03					#		EX: 2/10/12
	LOT: 163607-27214							
	OP: 8/2/11							
	EX: 8/2/12							
HERB 100/1000 (LVL 3) CCV								
VARIOUS	VARIOUS	HERB STD.	100µL	1mL	100ng/µL	MTBE		11/10/11
SEE PG 075	PREP: 10/11/11					#		EX: 4/11/12
	EX: 4/11/12							
THC SURROGATE CAL. STD.								
D-TERPHENYL	1000ng/µL	0251	834µL	10mL	50ng/µL	MC		11/15/11
DICHLOROBENZENE	CAT: 110316-05					#		EX: 5/15/12
	LOT: 176405-29342							
	OP: 10/10/11							
	EX: 10/10/12							

LAC 11/15/11

TCH SURROGATE CURVE										
STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	11/15/2011	5/15/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 11/15/11
EX 5/15/12

STANDARD | INITIAL CONC | SOURCE DATE | ALIQUOT | FINAL VOLUME | FINAL CONC | SOLVENT / LOT # 105 VIALS | DATE / INITIALS

exp 4/26/12

DIESEL CCV 400ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/11	04/26/12			51204

LAC
4/29/11

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/11	04/26/12			51204

exp
4/26/11

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
OCL/OP WATER SURROGATE							
DEA	5000ng/ml	O2SI	3ml	100ml	1.5ng/ml	ACETONE #011011C	11/2/11 EX: 2/2/12
TCMX		CAT: 130070-02					
DBC		LOT: 154164-29416					
		OP: 11/2/11					
		EX: 11/2/12					
TBP	1000ng/ml	O2SI	500ml		5ng/ml		
TPP		Tributyl- and Triphenylphosphate Solution, 1,000 mg/L, 1 ml; 130161-02; Lot # 164817; Storage 5-10 Degree C; Expiry 10/19/13; Solv: Acetone; Thiobutyl and Triphenyl phosphate; Lot #: 164817-27660; Rec: 10/20/10 MFR exp. 10/19/13					
OCL/OP WATER SURROGATE							
DEA	5000ng/ml	O2SI	3ml	100ml	1.5ng/ml	ACETONE #011011C	11/3/11 EX: 2/3/12
TCMX		CAT: 130070-02					
DBC		LOT: 154164-29416					
		OP: 11/2/11					
		EX: 11/2/12					
TBP	1000ng/ml	O2SI	500ml		5ng/ml		
TPP		CAT: 130161-02					
		LOT: 164817-27660					
		OP: 11/2/11					
		EX: 11/2/12					

*WAS NOT RECORDED ON 11/2/11 11/3/11

DIESEL CCV 400ug/ml						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/2011	4/26/2012			51204

11/2/11 EX: 4/26/12

MOTOR OIL CCV 400UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MOTOR OIL STD	1000UG/ML	O2SI	400µL	1mL	400 µg/ml	MC
		10/26/2011	4/26/2012			51204

KEROSENE CCV 400 UG/ML						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
KEROSENE /JP5 STD	1000UG/ML	O2SI	400 µL	1ML	400 UG/ML	MC
		10/18/2011	4/16/2012		1mL	010811B

11/2/11 EX: 4/18/12

Organic Extraction Worksheet

Method	THC-Separatory Funnel Extraction 3510C	Extraction Set	111031A	Extraction Method	SEP011	Units	mL

Spiked ID 1	Diesel Spike 10/21/11 EX 1/21/12	Surrogate ID 1	THC Surrogate 176405-29339
Spiked ID 2	Motor Oil Spike 8/5/11 EX 11/5/11	Surrogate ID 2	
Spiked ID 3		Surrogate ID 3	
Spiked ID 4		Surrogate ID 4	
Spiked ID 5		Surrogate ID 5	
Spiked ID 6		Sufficient Vol for Matrix QC:	YES
Spiked ID 7		Ext. Start Time:	
Spiked ID 8		Ext. End Time:	
		GC Requires Extract By:	11/02/11 0:00

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111031A Blk				0.250	1	1000	5	7	10/31/11 15:00	
						equip	E-WB5				
2	111031A LCS-1		1	1	0.250	1	1000	5	7	10/31/11 15:00	
						equip	E-WB5				
3	111031A LCS-2		1	2	0.250	1	1000	5	7	10/31/11 15:00	
						equip	E-WB5				
4	AY49327	AY49327W05			0.250	1	1040	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
5	AY49328	AY49328W05			0.250	1	1000	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
6	AY49329	AY49329W05			0.250	1	1010	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
7	AY49330	AY49330W04			0.250	1	1040	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
8	AY49331	AY49331W04			0.250	1	1030	5	7	10/31/11 15:00	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
9	AY49333	AY49333W09			0.250	1	1030	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
10	AY49334 MS-1	AY49334W35	1	1	0.250	1	1030	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
11	AY49334 MSD-1	AY49334W36	1	1	0.250	1	1030	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
12	AY49334	AY49334W32			0.250	1	1030	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
13	AY49336	AY49336W09			0.250	1	1050	5	7	10/31/11 15:00	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

Solvent and Lot#	
MC	BMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/1/11
Time	11:20
Refrigerator	Hob #65

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW/CC/DL
Concentration	JL

Modified	10/31/2011 2:12:11 PM

Reviewed By: HW **Date** 11/1/2011

11/1/2011 8:11:48 AM Ext_ID 33540

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	111031A	Extraction Method	SBP011	Units	mL

Spiked ID 1	Diesel Spike 10/21/11 EX 1/21/12		Surrogate ID 1	THC Surrogate 176405-29339	
Spiked ID 2	Motor Oil Spike 8/5/11 EX 11/5/11		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY49481	AY49481W10			0.250	1	1040	5	7	10/31/11 15:00	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
15	AY49482	AY49482W10			0.250	1	1040	5	7	10/31/11 15:00	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

HW 11/1/11

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/2/11
Time	1120
Refrigerator	Ambient

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW/CC/DL
Concentration	JL

Modified	10/31/2011 2:12:11 PM

Reviewed By: HW **Date** 11/1/2011

Injection Log

Directory: G:\APOLLO\DATA\111028\111106\111108\111115\111129

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1028003.D	1	DIESEL 10/1000 10/28/11	Mix(A)	10-28-11 9:47:18
2	4	1028004.D	1	DIESEL 100/1000	Mix(A)	10-28-11 10:11:19
3	5	1028005.D	1	DIESEL 400/1000	Mix(A)	10-28-11 10:35:26
4	6	1028006.D	1	DIESEL 600/1000	Mix(A)	10-28-11 10:59:35
5	7	1028007.D	1	DIESEL 800/1000	Mix(A)	10-28-11 11:23:49
6	8	1028008.D	1	DIESEL 1000/1000	Mix(A)	10-28-11 11:48:05
7	9	1028009.D	1	MOTOR OIL 50/1000 10/28/11	Mix(B)	10-28-11 12:12:27
8	10	1028010.D	1	MOTOR OIL 100/1000	Mix(B)	10-28-11 12:36:20
9	11	1028011.D	1	MOTOR OIL 400/1000	Mix(B)	10-28-11 13:00:16
10	12	1028012.D	1	MOTOR OIL 600/1000	Mix(B)	10-28-11 13:24:39
11	13	1028013.D	1	MOTOR OIL 800/1000	Mix(B)	10-28-11 13:48:43
12	14	1028014.D	1	MOTOR OIL 1000/1000	Mix(B)	10-28-11 14:13:14
13	15	1028015.D	1	DIESEL 2ND SRC 10/28/11	Mix(A)	10-28-11 14:37:14
14	16	1028016.D	1	THC SURR 10/1000 10/28/11	Mix(C)	10-28-11 15:01:44
15	17	1028017.D	1	THC SURR 100/1000	Mix(C)	10-28-11 15:25:58
16	18	1028018.D	1	THC SURR 400/1000	Mix(C)	10-28-11 15:50:20
17	19	1028019.D	1	THC SURR 600/1000	Mix(C)	10-28-11 16:14:52
18	20	1028020.D	1	THC SURR 800/1000	Mix(C)	10-28-11 16:38:57
19	21	1028021.D	1	THC SURR 1000/1000	Mix(C)	10-28-11 17:03:06
20	3	1106003.D	1	DIESEL 400/1000 10/28/11	Mix(A)	11-6-11 16:34:49
21	5	1106005.D	5	111031A BLK 5/1000	Water	11-6-11 17:22:09
22	17	1106017.D	1	DIESEL 400/1000 11/2/11	Mix(A)	11-6-11 22:03:47
23	20	1106020.D	4.80769	AY49481W10 5/1040	Water	11-6-11 23:13:41
24	21	1106021.D	4.80769	AY49482W10 5/1040	Water	11-6-11 23:36:56
25	27	1106027.D	1	DIESEL 400/1000 11/2/11	Mix(A)	11-7-11 1:56:08
26	5	1108005.D	1	DIESEL 100/1000	Mix(A)	11-8-11 15:50:59
27	6	1108006.D	1	DIESEL 400/1000	Mix(A)	11-8-11 16:14:36
28	7	1108007.D	1	DIESEL 600/1000	Mix(A)	11-8-11 16:38:14
29	8	1108008.D	1	DIESEL 800/1000	Mix(A)	11-8-11 17:01:53
30	9	1108009.D	1	DIESEL 1000/1000	Mix(A)	11-8-11 17:25:32
31	11	1108011.D	1	MOTOR OIL 50/1000 11/8/11	Mix(B)	11-8-11 18:12:45
32	12	1108012.D	1	MOTOR OIL 100/1000	Mix(B)	11-8-11 18:36:14
33	13	1108013.D	1	MOTOR OIL 400/1000	Mix(B)	11-8-11 18:59:47
34	14	1108014.D	1	MOTOR OIL 600/1000	Mix(B)	11-8-11 19:23:20
35	15	1108015.D	1	MOTOR OIL 800/1000	Mix(B)	11-8-11 19:46:53
36	16	1108016.D	1	MOTOR OIL 1000/1000	Mix(B)	11-8-11 20:10:21
37	69	1108069.D	1	DIESEL 10/1000 11/8/11	Mix(A)	11-9-11 17:18:58
38	70	1108070.D	1	DIESEL 400 2ND SRC 11/8/11	Mix(A)	11-9-11 17:42:38
39	21	1115021.D	1	THC SURR 10/1000 11/15/11	Mix(C)	11-15-11 18:21:35
40	22	1115022.D	1	THC SURR 100/1000	Mix(C)	11-15-11 18:45:31
41	23	1115023.D	1	THC SURR 400/1000	Mix(C)	11-15-11 19:09:25
42	24	1115024.D	1	THC SURR 600/1000	Mix(C)	11-15-11 19:33:17
43	25	1115025.D	1	THC SURR 800/1000	Mix(C)	11-15-11 19:57:06
44	26	1115026.D	1	THC SURR 1000/1000	Mix(C)	11-15-11 20:20:52
45	12	1129012.D	1	DIESEL 400/1000 11/29/11	Mix(A)	11-29-11 13:06:20
46	17	1129017.D	5	111031A LCS-1 5/1000	Water	11-29-11 18:45:15
47	24	1129024.D	1	DIESEL 400/1000 11/29/11	Mix(A)	11-29-11 21:29:15

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **111031W-49334 - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	SURROGATE: 2-FLUORBIPHENY	51.7	50-110			%	10/31/11	11/05/11
BLANK	SURROGATE: NITROBENZENE-	66.3	40-110			%	10/31/11	11/05/11
BLANK	SURROGATE: TERPHENYL-D14 (	54.5	50-135			%	10/31/11	11/05/11

Quant Method:SIM2.M
Run #:1105L028
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 11/09/11 4:07:14 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	50-110	51.7		40-110	66.3	
111031A-LCS	Lab Control Spike	50-110	55.5		40-110	57.0	
AY49481	ES050	50-110	64.9		40-110	62.7	
AY49482	ES051	50-110	60.2		40-110	58.1	

Comments: Batch: #SIMHC-111031A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031A-BLK	Blank	50-135	54.5				
111031A-LCS	Lab Control Spike	50-135	53.0				
AY49481	ES050	50-135	62.6				
AY49482	ES051	50-135	55.4				

Comments: Batch: #SIMHC-111031A

Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **111031W-49334 LCS - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.25	56.3	45-105
2-METHYLNAPHTHALENE	4.00	2.26	56.5	45-105
ACENAPHTHENE	4.00	2.55	63.7	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.47	61.8	55-110
BENZO(A)ANTHRACENE	4.00	2.74	68.5	55-110
BENZO(A)PYRENE	4.00	2.48	62.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.43	60.8	45-120
BENZO(GHI)PERYLENE	4.00	2.80	70.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.23	80.8	45-125
CHRYSENE	4.00	2.86	71.5	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.89	72.3	40-125
FLUORANTHENE	4.00	2.86	71.5	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.95	73.8	45-125
NAPHTHALENE	4.00	2.30	57.5	40-100
PHENANTHRENE	4.00	2.43	60.8	50-115
PYRENE	4.00	2.57	64.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.11	55.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.14	57.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.06	53.0	50-135

Comments: _____

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	10/31/11
Analysis Date :	11/05/11
Instrument :	Linus
Run :	1105L029
Initials :	LF

Printed: 11/09/11 4:07:21 PM

APPL Standard LCS

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Linus

Blank ID: 111031A-BLK Time Analyzed: 2015

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111031A-BLK	Blank	1105L028	11/05/11 2015
111031A-LCS	Lab Control Spike	1105L029	11/05/11 2041
AY49481	ES050	1105L040	11/06/11 0116
AY49482	ES051	1105L041	11/06/11 0141

Comments: Batch: #SIMHC-111031A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66116
Matrix: Water
ID: SVTUNE 10-27-11

SDG No: 66116
Date Analyzed: 11/05/11
Instrument: Linus
Time Analyzed: 16:36

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	111031A BLK 1/1000	1105L028.D	11/05/11 20:15
2	Lab Control Spike	111031A LCS-1 1/1000	1105L029.D	11/05/11 20:41
3	ES050	AY49481W08 1/1050	1105L040.D	11/06/11 1:16
4	ES051	AY49482W08 1/1030	1105L041.D	11/06/11 1:41
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	59.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.6
127	40 - 60% of mass 198	55.1
197	0 - 1% of mass 198	0.5
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.2
365	1 - 100% of mass 198	1.9
441	0.01 - 100% of mass 443	73.0
442	40 - 150% of mass 198	58.8
443	17 - 23% of mass 442	19.7

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 66116

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2479	6.12	1083	8.11	1851	9.85
	UPPER LIMIT	4958	6.62	2166	8.61	3702	10.35
	LOWER LIMIT	1240	5.62	542	7.61	926	9.35
	SAMPLE NO.						
01	111031A BLK 1/1000	2305	6.12	1068	8.11	2122	9.86
02	111031A LCS-1 1/1000	2079	6.12	961	8.11	1713	9.85
03	AY49481W08 1/1050	2359	6.12	1092	8.11	1918	9.86
04	AY49482W08 1/1030	2269	6.12	1051	8.11	1920	9.86
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 66116

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: ID: Heated Purge: (Y/N)

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2378	12.93	1871	14.56		
	UPPER LIMIT	4756	13.43	3742	15.06		
	LOWER LIMIT	1189	12.43	936	14.06		
	SAMPLE NO.						
01	111031A BLK 1/1000	2454	12.94	2143	14.57		
02	111031A LCS-1 1/1000	2367	12.93	2017	14.56		
03	AY49481W08 1/1050	2442	12.95	2190	14.58		
04	AY49482W08 1/1030	2492	12.95	2214	14.58		
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Sample Data

APPL, INC.

EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES050
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49481
QCG: #SIMHC-111031A-161019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	64.9	50-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	62.7	40-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	62.6	50-135			%	10/31/11	11/06/11

Quant Method: SIM2.M
Run #: 1105L040
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 11/09/11 4:07:29 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L040.D Vial: 40
Acq On : 6 Nov 11 1:16 Operator: LF
Sample : AY49481W08 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 9 9:21 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2359	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	1092	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	1918	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.95	240	2442	2.50000 ppb	0.02
21) Perylene-D12(IS)	14.58	264	2190	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.44	82	530	1.19474 ppb	0.00
Spiked Amount 1.905			Recovery = 62.738%		
7) Surrogate Recovery (FBP)	7.36	172	1264	1.23661 ppb	0.01
Spiked Amount 1.905			Recovery = 64.943%		
17) Surrogate Recovery (TPH)	11.71	244	1317	1.19283 ppb	0.00
Spiked Amount 1.905			Recovery = 62.633%		
Target Compounds					Qvalue

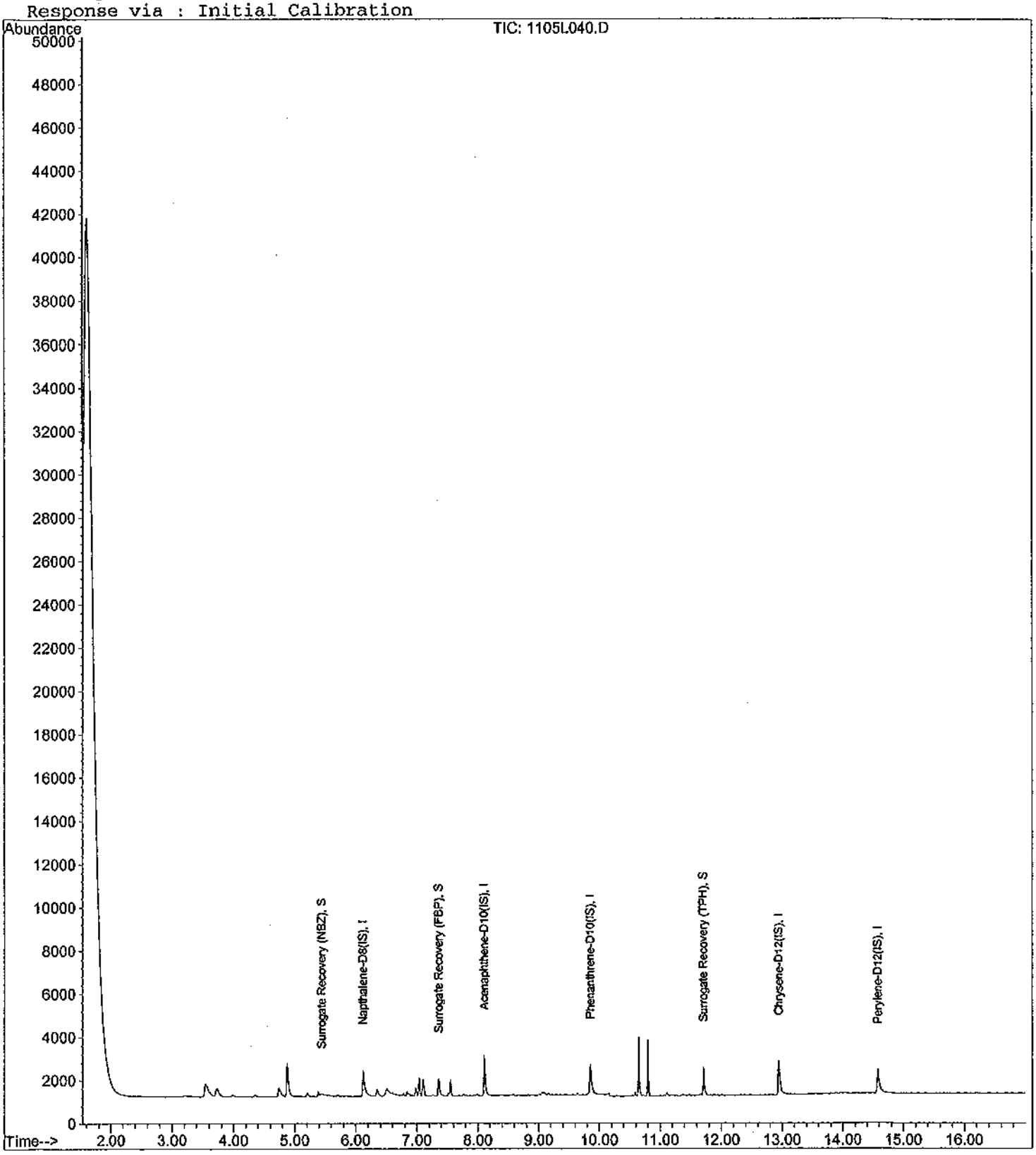
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L040.D Vial: 40
Acq On : 6 Nov 11 1:16 Operator: LF
Sample : AY49481W08 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 9 9:21 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES051
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49482
QCG: #SIMHC-111031A-161019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/06/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/06/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/06/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/06/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	60.2	50-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	58.1	40-110			%	10/31/11	11/06/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	55.4	50-135			%	10/31/11	11/06/11

Quant Method: SIM2.M
Run #: 1105L041
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 11/09/11 4:07:29 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L041.D Vial: 41
Acq On : 6 Nov 11 1:41 Operator: LF
Sample : AY49482W08 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:22 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2269	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	1051	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	1920	2.50000	ppb	0.01
15) Chrysene-D12(IS)	12.95	240	2492	2.50000	ppb	0.02
21) Perylene-D12(IS)	14.58	264	2214	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.46	82	472	1.12767	ppb	0.01
Spiked Amount 1.942			Recovery = 58.092%			
7) Surrogate Recovery (FBP)	7.36	172	1127	1.16783	ppb	0.01
Spiked Amount 1.942			Recovery = 60.152%			
17) Surrogate Recovery (TPH)	11.71	244	1188	1.07487	ppb	0.00
Spiked Amount 1.942			Recovery = 55.362%			
Target Compounds						Qvalue

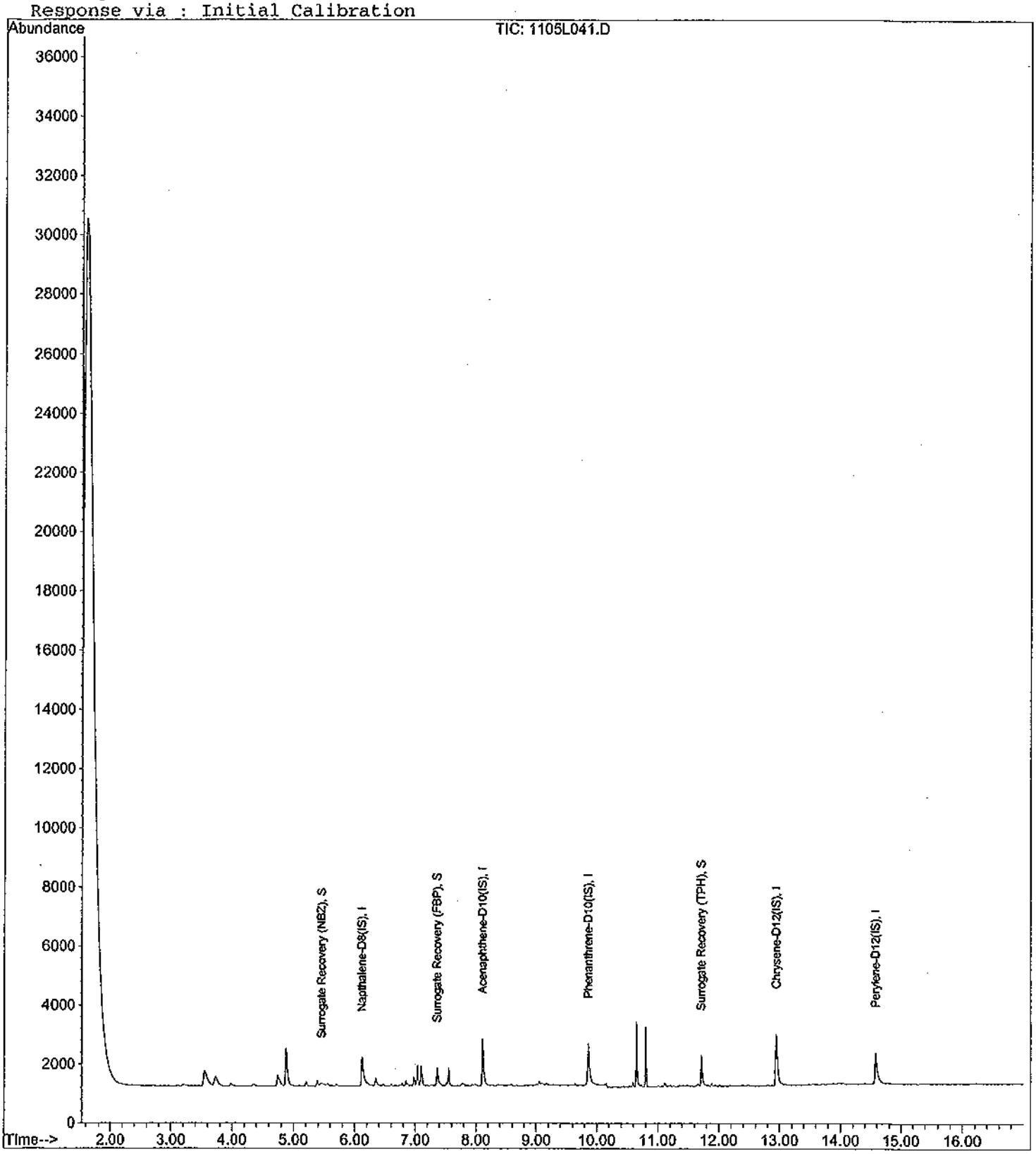
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L041.D Vial: 41
Acq On : 6 Nov 11 1:41 Operator: LF
Sample : AY49482W08 1/1030 Inst : Linus
Misc : Multiplr: 0.97

Quant Time: Nov 9 9:22 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

EPA 8270C SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66116
Case No: Initial Cal. Date: 10/27/11
Matrix: Instrument: Linus
Initials:

			1027L003.D	1027L004.D	1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L009.D	1028L010.D						
		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.4127	0.4673	0.4981	0.4588	0.3927	0.4106	0.4509	0.4908			0.45	8.7	S	
3	TM	Naphthalene	1.848	2.053	1.897	1.975	1.484	1.725	1.497	1.455			1.7	14	TM	
4	TM	2-Methylnaphthalene	0.8339	0.8429	0.8095	0.9618	0.8735	1.026	0.9052	0.8919			0.89	8.0	TM	
5	TM	1-Methylnaphthalene	1.006	1.140	1.127	1.262	0.9445	1.066	0.8694	0.8324			1.0	14	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	2.266	2.373	2.477	2.606	2.184	2.112	1.948	1.864			2.2	11	S	
8	TM	Acenaphthylene	3.556	3.474	3.469	3.747	3.046	3.265	3.097	2.960			3.3	8.4	TM	
9	*TM	Acenaphthene	2.197	2.003	2.015	2.153	1.761	1.820	1.687	1.595			1.9	12	*TM	
10	TM	Fluorene	2.179	2.202	2.246	2.358	1.948	2.057	1.915	1.761			2.1	9.5	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.851	1.670	1.765	1.775	1.470	1.719	1.377	1.248			1.6	13	TM	
13	TM	Anthracene	1.736	1.681	1.869	1.846	1.493	1.754	1.415	1.278			1.6	13	TM	
14	*TM	Fluoranthene	3.116	3.004	3.048	3.052	2.530	3.014	2.407	2.162			2.8	13	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	2.537	2.408	2.291	2.412	2.045	2.168	1.892	1.849			2.2	12	TM	
17	S	Surrogate Recovery (TPH)	1.147	1.155	1.070	1.235	1.097	1.067	0.9366	0.9044			1.1	10	S	
18	TM	Benz (a) anthracene	1.767	1.435	1.243	1.561	1.267	1.372	1.372	1.578			1.4	12	TM	
19	TM	Chrysene	2.135	2.066	2.037	2.114	1.981	2.084	1.655	1.438			1.9	13	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.825	1.519	1.284	1.532	1.378	1.521	1.460	1.500			1.5	10	TM	
21	I	Perylene-D12(IS)														
22	TM	Benzo (b) fluoranthene	1.711	1.652	1.826	1.857	1.789	1.866	1.765	1.625			1.8	5.2	TM	
23	TM	Benzo (k) fluoranthene	2.136	1.797	1.882	1.854	1.869	1.935	1.561	1.548			1.8	11	TM	
24	*TM	Benzo (a) pyrene	2.001	1.899	1.650	1.686	1.673	1.757	1.585	1.533			1.7	9.2	*TM	
25	TM	Dibenz (a,h) anthracene	1.773	1.577	1.175	1.438	1.356	1.477	1.399	1.379			1.4	12	TM	
26	TM	Benzo (g,h,i) perylene	1.410	1.754	1.503	1.639	1.449	1.558	1.444	1.446			1.5	7.8	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3
Acq On : 27 Oct 11 19:12 Operator: LF
Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2908	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1434	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2391	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2986	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2411	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.61	82	48	0.74306 ppb		0.19
Spiked Amount 2.000			Recovery	= 37.150%		
7) Surrogate Recovery (FBP)	7.40	172	130	0.09815 ppb		0.05
Spiked Amount 2.000			Recovery	= 4.900%		
17) Surrogate Recovery (TPH)	11.74	244	137	0.09107 ppb		0.02
Spiked Amount 2.000			Recovery	= 4.550%		
Target Compounds						Qvalue
3) Naphthalene	6.17	128	215	0.10425 ppb		93
4) 2-Methylnaphthalene	7.01	142	97	0.09198 ppb		99
5) 1-Methylnaphthalene	7.08	142	117	0.09071 ppb		97
8) Acenaphthylene	7.99	152	204	0.10524 ppb		99
9) Acenaphthene	8.16	154	126	0.11351 ppb		94
10) Fluorene	8.81	166	125	0.10297 ppb		98
12) Phenanthrene	9.90	178	177	0.11216 ppb		95
13) Anthracene	9.99	178	166	0.10145 ppb		95
14) Fluoranthene	11.30	202	298	0.10883 ppb	#	90
16) Pyrene	11.56	202	303	0.11040 ppb		99
18) Benz (a) anthracene	12.95	228	211	0.11702 ppb		96
19) Chrysene	12.98	228	255	0.09385 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.19	276	218	0.11665 ppb	#	93
22) Benzo (b) fluoranthene	14.15	252	165	0.09422 ppb	#	95
23) Benzo (k) fluoranthene	14.19	252	206	0.11693 ppb		65
24) Benzo (a) pyrene	14.54	252	193	0.11081 ppb		95
25) Dibenz (a,h) anthracene	16.17	278	171	0.11827 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	136	0.08955 ppb	#	89

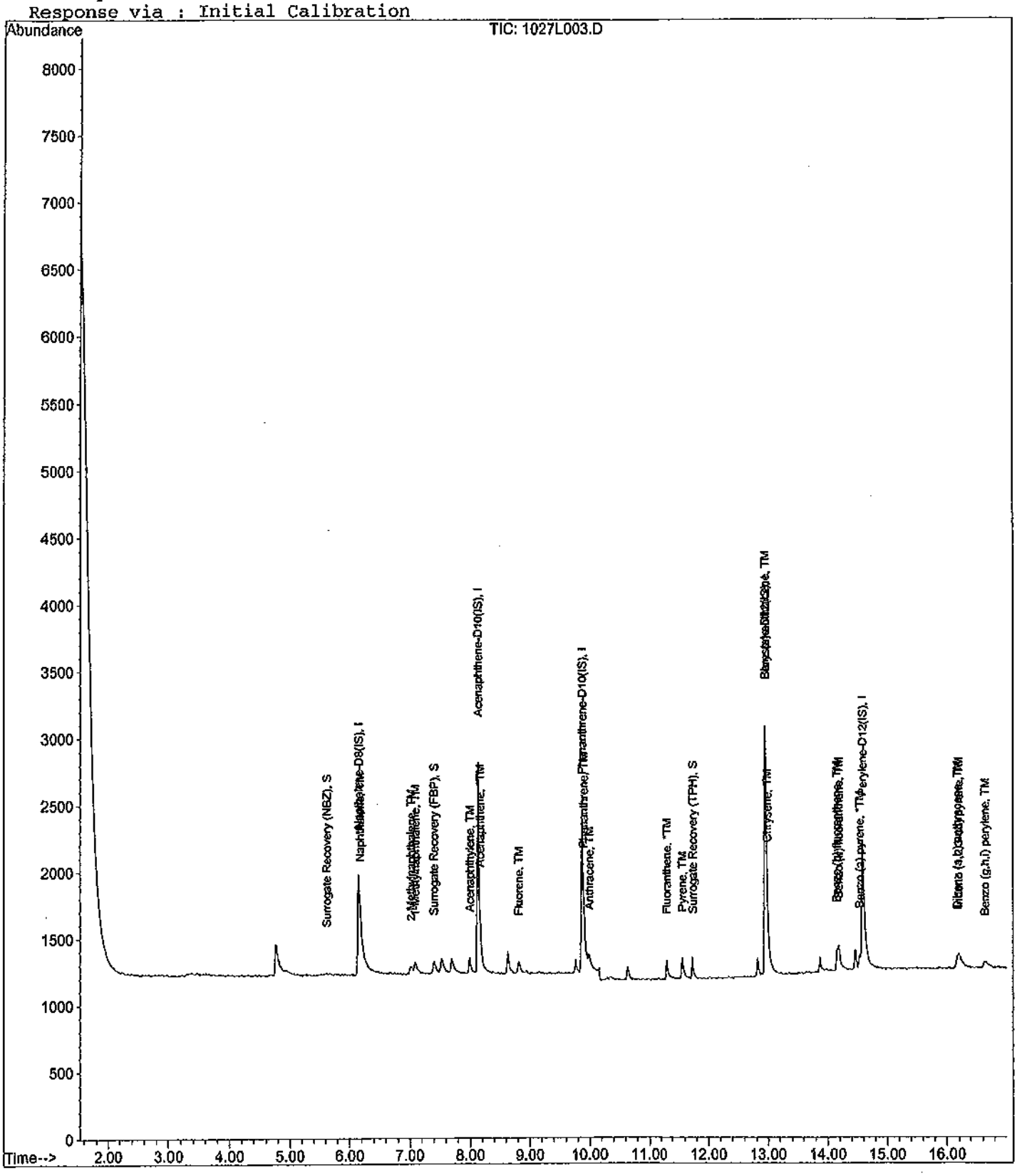
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3
Acq On : 27 Oct 11 19:12 Operator: LF
Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L004.D Vial: 4
Acq On : 27 Oct 11 19:38 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2862	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1317	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2305	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2814	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2323	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.60	82	107	0.84083 ppb		0.18
Spiked Amount 2.000			Recovery	= 42.050%		
7) Surrogate Recovery (FBP)	7.40	172	250	0.20995 ppb		0.05
Spiked Amount 2.000			Recovery	= 10.500%		
17) Surrogate Recovery (TPH)	11.72	244	260	0.18421 ppb		0.01
Spiked Amount 2.000			Recovery	= 9.200%		
Target Compounds						Qvalue
3) Naphthalene	6.17	128	470	0.23025 ppb		94
4) 2-Methylnaphthalene	7.00	142	193	0.18513 ppb		92
5) 1-Methylnaphthalene	7.07	142	261	0.20451 ppb		98
8) Acenaphthylene	7.99	152	366	0.20677 ppb		98
9) Acenaphthene	8.16	154	211	0.20826 ppb		87
10) Fluorene	8.81	166	232	0.20927 ppb		99
12) Phenanthrene	9.90	178	308	0.20239 ppb		96
13) Anthracene	9.99	178	310	0.19992 ppb		95
14) Fluoranthene	11.29	202	554	0.20981 ppb		95
16) Pyrene	11.55	202	542	0.21034 ppb	#	91
18) Benz (a) anthracene	12.95	228	323	0.19084 ppb		97
19) Chrysene	12.98	228	465	0.18296 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.17	276	342	0.19494 ppb	#	96
22) Benzo (b) fluoranthene	14.15	252	307	0.18266 ppb		97
23) Benzo (k) fluoranthene	14.19	252	334	0.18857 ppb		64
24) Benzo (a) pyrene	14.54	252	353	0.21468 ppb		96
25) Dibenz (a,h) anthracene	16.16	278	293	0.21252 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	326	0.22362 ppb		88

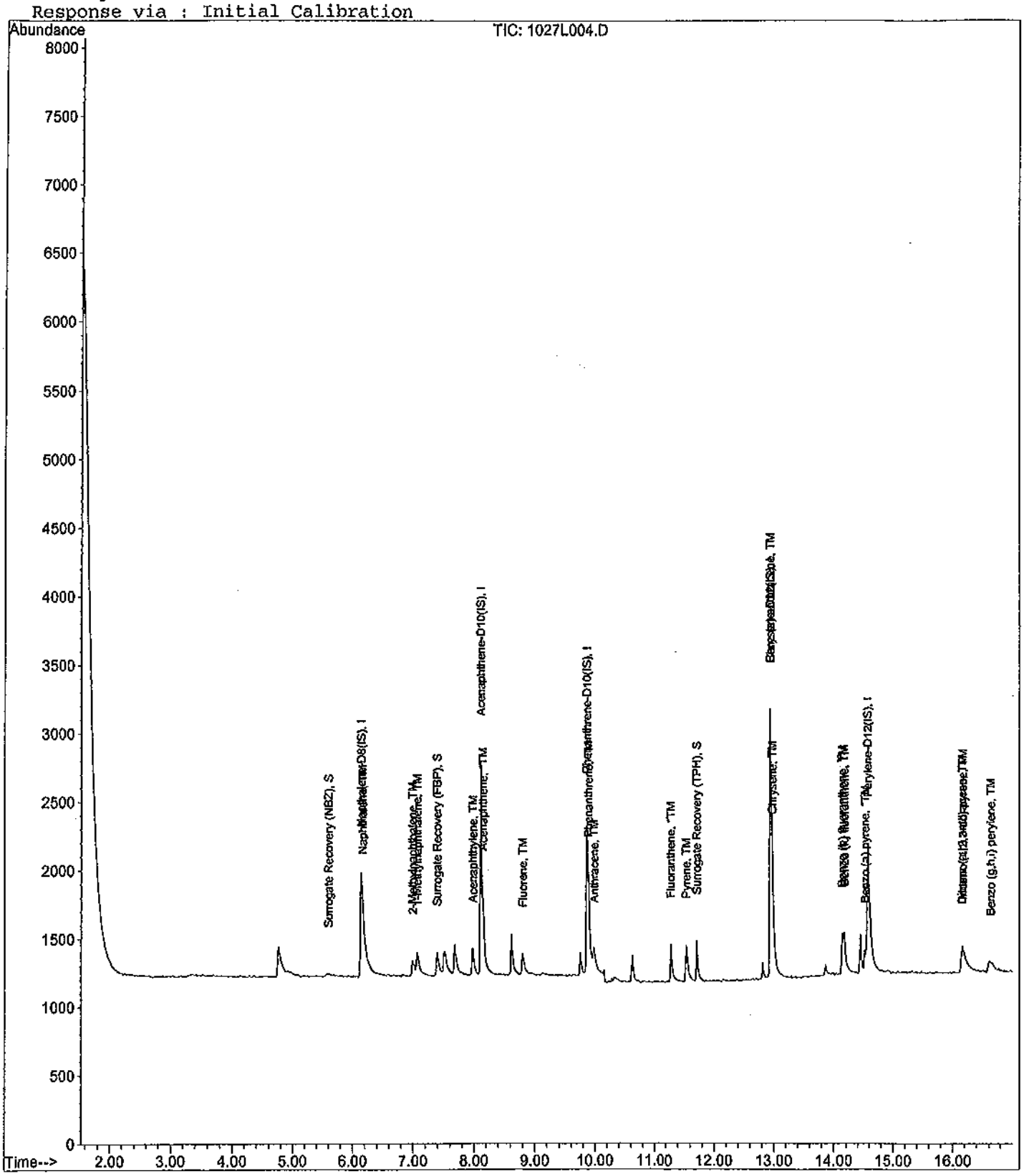
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L004.D Vial: 4
Acq On : 27 Oct 11 19:38 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L005.D Vial: 5
Acq On : 28 Oct 11 11:07 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Sep 29 11:47:40 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2409	2.50000 ppb	0.02
6) Acenaphthene-D10(IS)	8.12	164	1104	2.50000 ppb	-0.01
11) Phenanthrene-D10(IS)	9.87	188	1819	2.50000 ppb	0.00
15) Chrysene-D12(IS)	12.95	240	2477	2.50000 ppb	-0.01
21) Perylene-D12(IS)	14.57	264	2043	2.50000 ppb	-0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.60	82	240	1.15802 ppb	0.25
Spiked Amount 2.000			Recovery	= 57.900%	
7) Surrogate Recovery (FBP)	7.39	172	547	0.79241 ppb	0.01
Spiked Amount 2.000			Recovery	= 39.600%	
17) Surrogate Recovery (TPH)	11.74	244	530	0.66674 ppb	-0.02
Spiked Amount 2.000			Recovery	= 33.350%	
Target Compounds					Qvalue
3) Naphthalene	6.17	128	914	0.46769 ppb	98
4) 2-Methylnaphthalene	6.99	142	390	0.33945 ppb	96
5) 1-Methylnaphthalene	7.06	142	543	0.44086 ppb	95
8) Acenaphthylene	7.98	152	766	0.43771 ppb	99
9) Acenaphthene	8.16	154	445	0.43164 ppb	89
10) Fluorene	8.80	166	496	0.42124 ppb	99
12) Phenanthrene	9.90	178	642	0.38630 ppb	97
13) Anthracene	9.98	178	680	0.37229 ppb	95
14) Fluoranthene	11.29	202	1109	0.36672 ppb	96
16) Pyrene	11.55	202	1135	0.35574 ppb	97
18) Benz (a) anthracene	12.95	228	616	0.34309 ppb	98
19) Chrysene	12.98	228	1009	0.43128 ppb	99
20) Indeno (1,2,3-cd) pyrene	16.15	276	636	0.45186 ppb #	96
22) Benzo (b) fluoranthene	14.14	252	746	0.48527 ppb	98
23) Benzo (k) fluoranthene	14.17	252	769	0.37285 ppb	98
24) Benzo (a) pyrene	14.52	252	674	0.41516 ppb	94
25) Dibenz (a,h) anthracene	16.14	278	480	0.46345 ppb	95
26) Benzo (g,h,i) perylene	16.59	276	614	0.46797 ppb	92

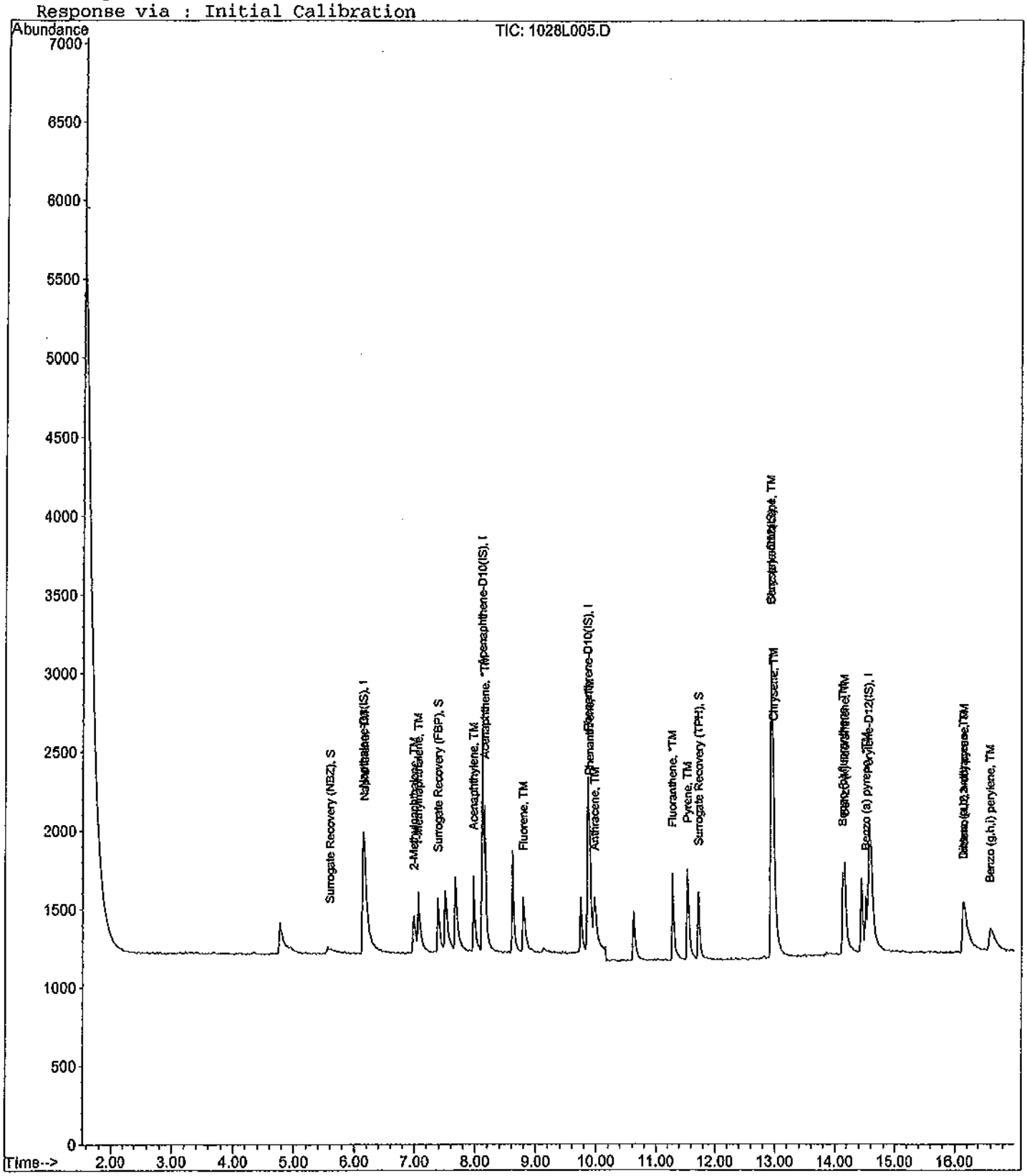
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L005.D Vial: 5
Acq On : 28 Oct 11 11:07 Operator: LF
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2381	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.12	164	1089	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.86	188	1865	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	12.95	240	2449	2.50000 ppb		-0.01
21) Perylene-D12(IS)	14.57	264	2032	2.50000 ppb		-0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.54	82	437	1.90266 ppb		0.00
Spiked Amount 2.000			Recovery = 95.150%			
7) Surrogate Recovery (FBP)	7.37	172	1135	1.66686 ppb		0.00
Spiked Amount 2.000			Recovery = 83.350%			
17) Surrogate Recovery (TPH)	11.72	244	1210	1.53959 ppb		-0.04
Spiked Amount 2.000			Recovery = 77.000%			
Target Compounds						Qvalue
3) Naphthalene	6.16	128	1881	0.97382 ppb		98
4) 2-Methylnaphthalene	6.96	142	916	0.80665 ppb		94
5) 1-Methylnaphthalene	7.05	142	1202	0.98738 ppb		89
8) Acenaphthylene	7.96	152	1632	0.94540 ppb		98
9) Acenaphthene	8.16	154	938	0.92237 ppb		91
10) Fluorene	8.79	166	1027	0.88422 ppb		98
12) Phenanthrene	9.90	178	1324	0.77703 ppb		99
13) Anthracene	9.97	178	1377	0.73529 ppb		98
14) Fluoranthene	11.28	202	2277	0.73437 ppb	#	94
16) Pyrene	11.54	202	2363	0.74909 ppb		97
18) Benz (a) anthracene	12.94	228	1529	0.86133 ppb		99
19) Chrysene	12.97	228	2071	0.89534 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.12	276	1501	1.07861 ppb	#	92
22) Benzo (b) fluoranthene	14.13	252	1509	0.98690 ppb	#	96
23) Benzo (k) fluoranthene	14.16	252	1507	0.73463 ppb		96
24) Benzo (a) pyrene	14.51	252	1370	0.84844 ppb		98
25) Dibenz (a,h) anthracene	16.12	278	1169	1.13481 ppb		97
26) Benzo (g,h,i) perylene	16.58	276	1332	1.02070 ppb		98

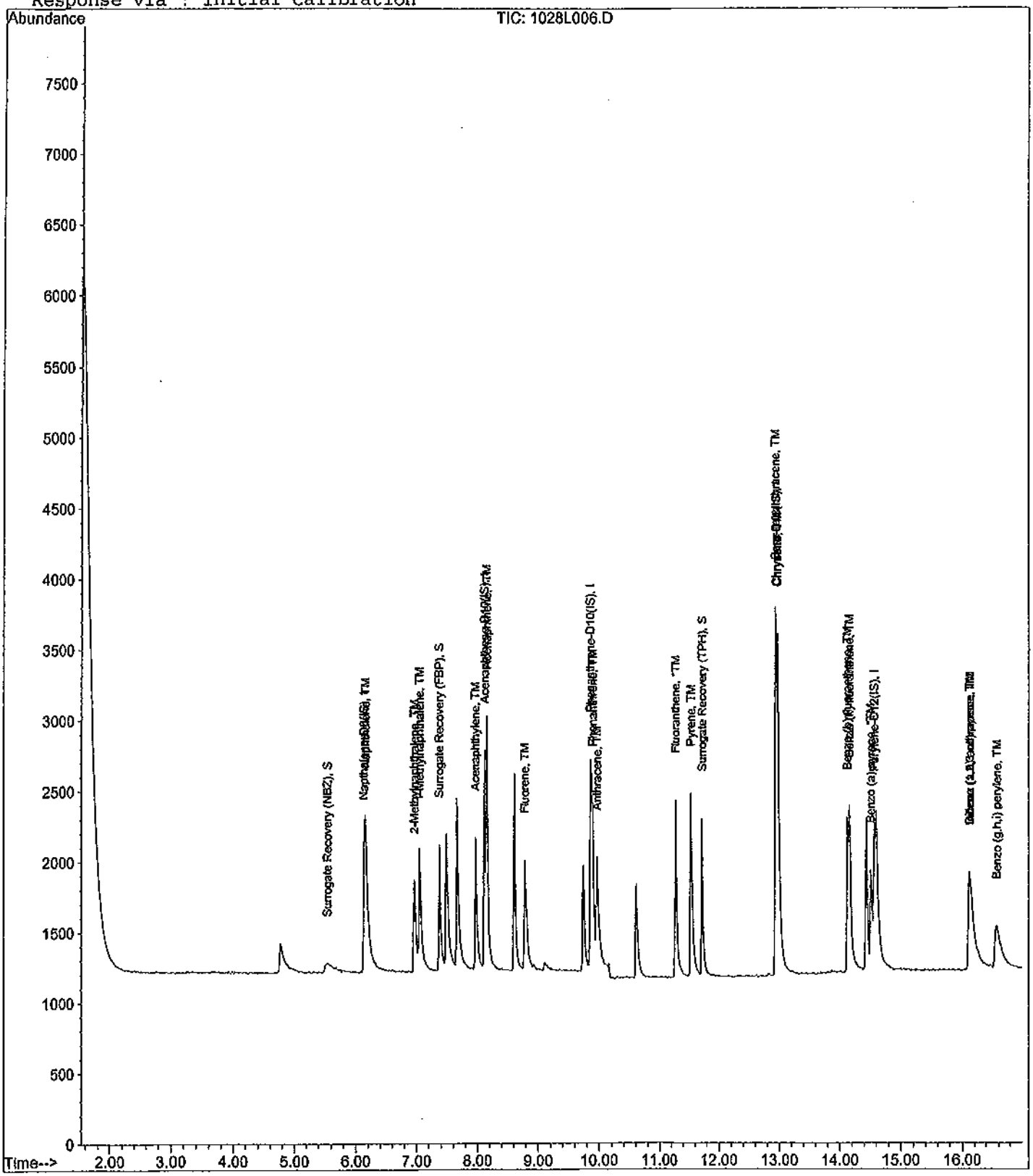
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L007.D Vial: 7
Acq On : 28 Oct 11 11:58 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2479	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1083	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1851	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.93	240	2378	2.50000 ppb		-0.04
21) Perylene-D12(IS)	14.56	264	1871	2.50000 ppb		-0.04
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.42	82	1947	7.24379 ppb		-0.12
Spiked Amount 2.000			Recovery	= 362.200%		
7) Surrogate Recovery (FBP)	7.35	172	4731	6.98644 ppb		-0.02
Spiked Amount 2.000			Recovery	= 349.300%		
17) Surrogate Recovery (TPH)	11.71	244	5216	6.83493 ppb		-0.05
Spiked Amount 2.000			Recovery	= 341.750%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7358	3.65875 ppb		99
4) 2-Methylnaphthalene	6.93	142	4331	3.66320 ppb		98
5) 1-Methylnaphthalene	7.04	142	4683	3.69477 ppb		97
8) Acenaphthylene	7.95	152	6597	3.84274 ppb		100
9) Acenaphthene	8.15	154	3814	3.77124 ppb		92
10) Fluorene	8.76	166	4219	3.65257 ppb		99
12) Phenanthrene	9.87	178	5443	3.21854 ppb		98
13) Anthracene	9.94	178	5527	2.97363 ppb		99
14) Fluoranthene	11.26	202	9367	3.04387 ppb		98
16) Pyrene	11.51	202	9724	3.17462 ppb		97
18) Benz (a) anthracene	12.91	228	6027	3.49657 ppb		98
19) Chrysene	12.96	228	9422	4.19498 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6554	4.85029 ppb		95
22) Benzo (b) fluoranthene	14.10	252	6693	4.75397 ppb	#	96
23) Benzo (k) fluoranthene	14.14	252	6995	3.70332 ppb		99
24) Benzo (a) pyrene	14.49	252	6259	4.20974 ppb		98
25) Dibenz (a,h) anthracene	16.08	278	5075	5.35048 ppb		97
26) Benzo (g,h,i) perylene	16.51	276	5423	4.51321 ppb		98

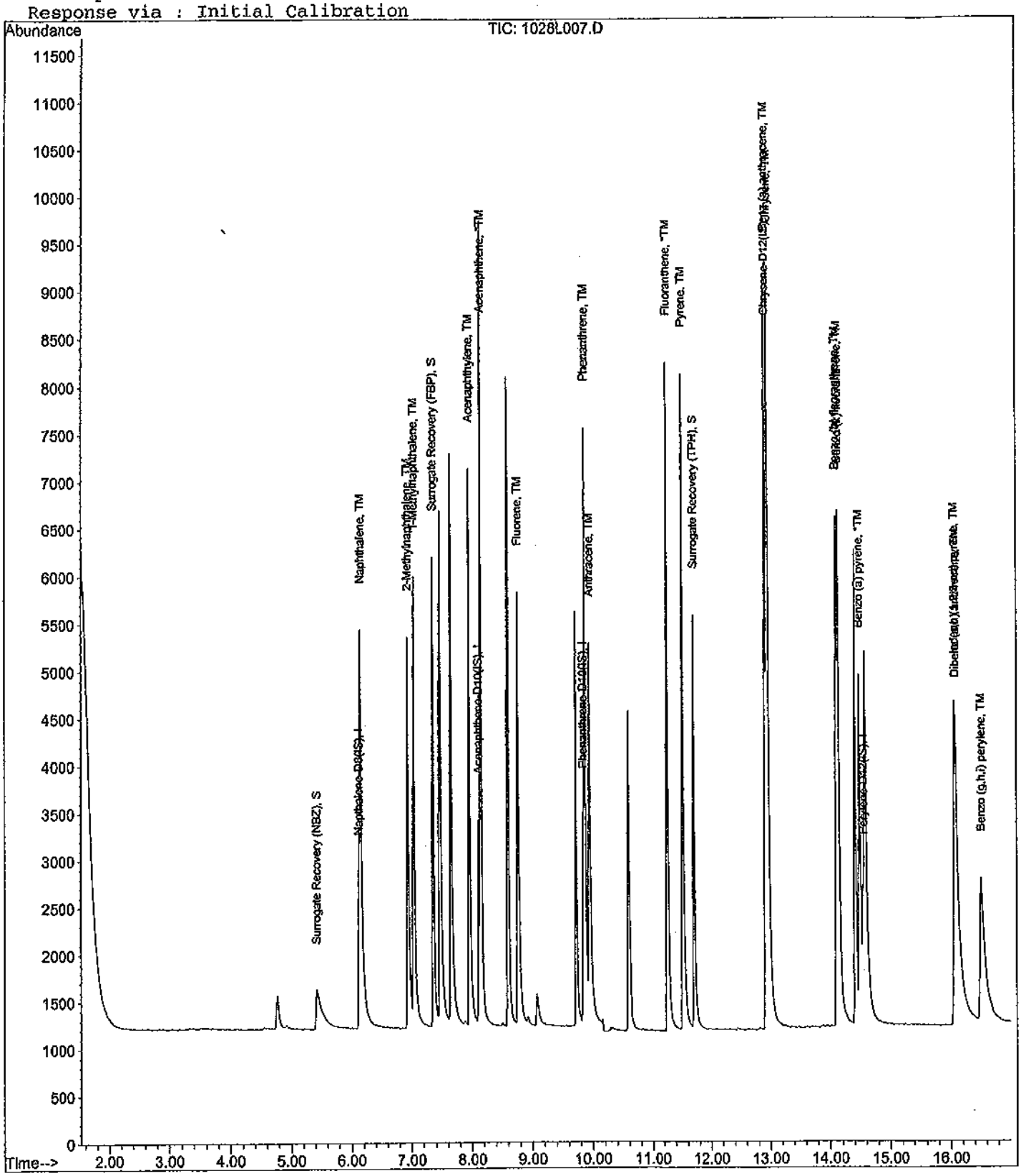
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L007.D Vial: 7
Acq On : 28 Oct 11 11:58 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8
Acq On : 28 Oct 11 12:23 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2419	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1154	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1800	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.91	240	2580	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.55	264	2113	2.50000 ppb		-0.05
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	3973	14.84926 ppb		-0.16
Spiked Amount 2.000			Recovery = 742.450%			
7) Surrogate Recovery (FBP)	7.35	172	9747	13.50818 ppb		-0.02
Spiked Amount 2.000			Recovery = 675.400%			
17) Surrogate Recovery (TPH)	11.70	244	11014	13.30251 ppb		-0.06
Spiked Amount 2.000			Recovery = 665.150%			
Target Compounds						Qvalue
3) Naphthalene	6.13	128	16688	8.50390 ppb		99
4) 2-Methylnaphthalene	6.92	142	9930	8.60721 ppb		100
5) 1-Methylnaphthalene	7.02	142	10317	8.34175 ppb		92
8) Acenaphthylene	7.95	152	15071	8.23870 ppb		99
9) Acenaphthene	8.15	154	8403	7.79759 ppb		97
10) Fluorene	8.75	166	9496	7.71528 ppb		98
12) Phenanthrene	9.87	178	12375	7.52487 ppb		99
13) Anthracene	9.93	178	12631	6.98825 ppb		99
14) Fluoranthene	11.25	202	21698	7.25069 ppb	#	93
16) Pyrene	11.50	202	22373	6.73230 ppb	#	85
18) Benz (a) anthracene	12.91	228	14154	7.56854 ppb		100
19) Chrysene	12.95	228	21503	8.82425 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.03	276	15698	10.70773 ppb	#	96
22) Benzo (b) fluoranthene	14.09	252	15772	9.91966 ppb		96
23) Benzo (k) fluoranthene	14.13	252	16351	7.66517 ppb		98
24) Benzo (a) pyrene	14.48	252	14853	8.84584 ppb		98
25) Dibenz (a,h) anthracene	16.05	278	12481	11.65147 ppb		96
26) Benzo (g,h,i) perylene	16.47	276	13167	9.70302 ppb		97

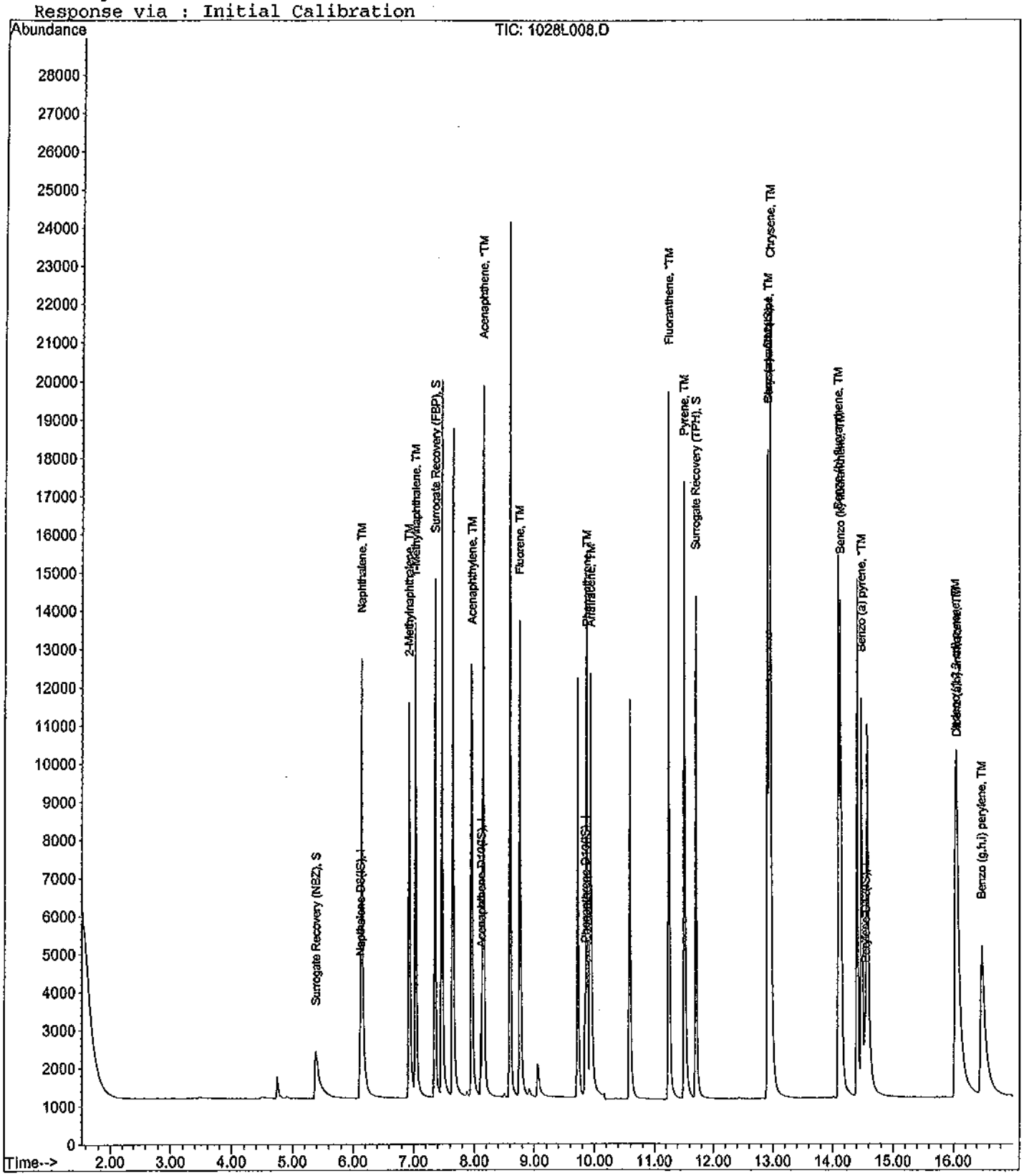
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L008.D Vial: 8
Acq On : 28 Oct 11 12:23 Operator: LF
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L009.D Vial: 9
Acq On : 28 Oct 11 12:49 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2170	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	955	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1764	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2325	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1951	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.34	82	19569	80.30257 ppb		0.00
Spiked Amount 2.000			Recovery	= 4015.150%		
7) Surrogate Recovery (FBP)	7.34	172	37203	62.30259 ppb		-0.04
Spiked Amount 2.000			Recovery	= 3115.150%		
17) Surrogate Recovery (TPH)	11.70	244	43552	58.37048 ppb		-0.06
Spiked Amount 2.000			Recovery	= 2918.500%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	64981	36.91273 ppb		98
4) 2-Methylnaphthalene	6.92	142	39285	37.95912 ppb		91
5) 1-Methylnaphthalene	7.02	142	37731	34.00777 ppb		98
8) Acenaphthylene	7.94	152	59152	39.07406 ppb		100
9) Acenaphthene	8.13	154	32228	36.13782 ppb		90
10) Fluorene	8.75	166	36584	35.91740 ppb		95
12) Phenanthrene	9.86	178	48574	30.13920 ppb		99
13) Anthracene	9.92	178	49934	28.19038 ppb		99
14) Fluoranthene	11.23	202	84927	28.95874 ppb	#	86
16) Pyrene	11.50	202	87985	29.37950 ppb		93
18) Benz (a) anthracene	12.90	228	63776	37.84310 ppb		99
19) Chrysene	12.94	228	76944	35.03889 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.01	276	67886	51.38427 ppb		97
22) Benzo (b) fluoranthene	14.09	252	68863	46.90706 ppb	#	96
23) Benzo (k) fluoranthene	14.12	252	60905	30.92236 ppb		100
24) Benzo (a) pyrene	14.45	252	61841	39.88811 ppb	#	94
25) Dibenz (a,h) anthracene	16.02	278	54590	55.19334 ppb		99
26) Benzo (g,h,i) perylene	16.44	276	56362	44.98303 ppb		98

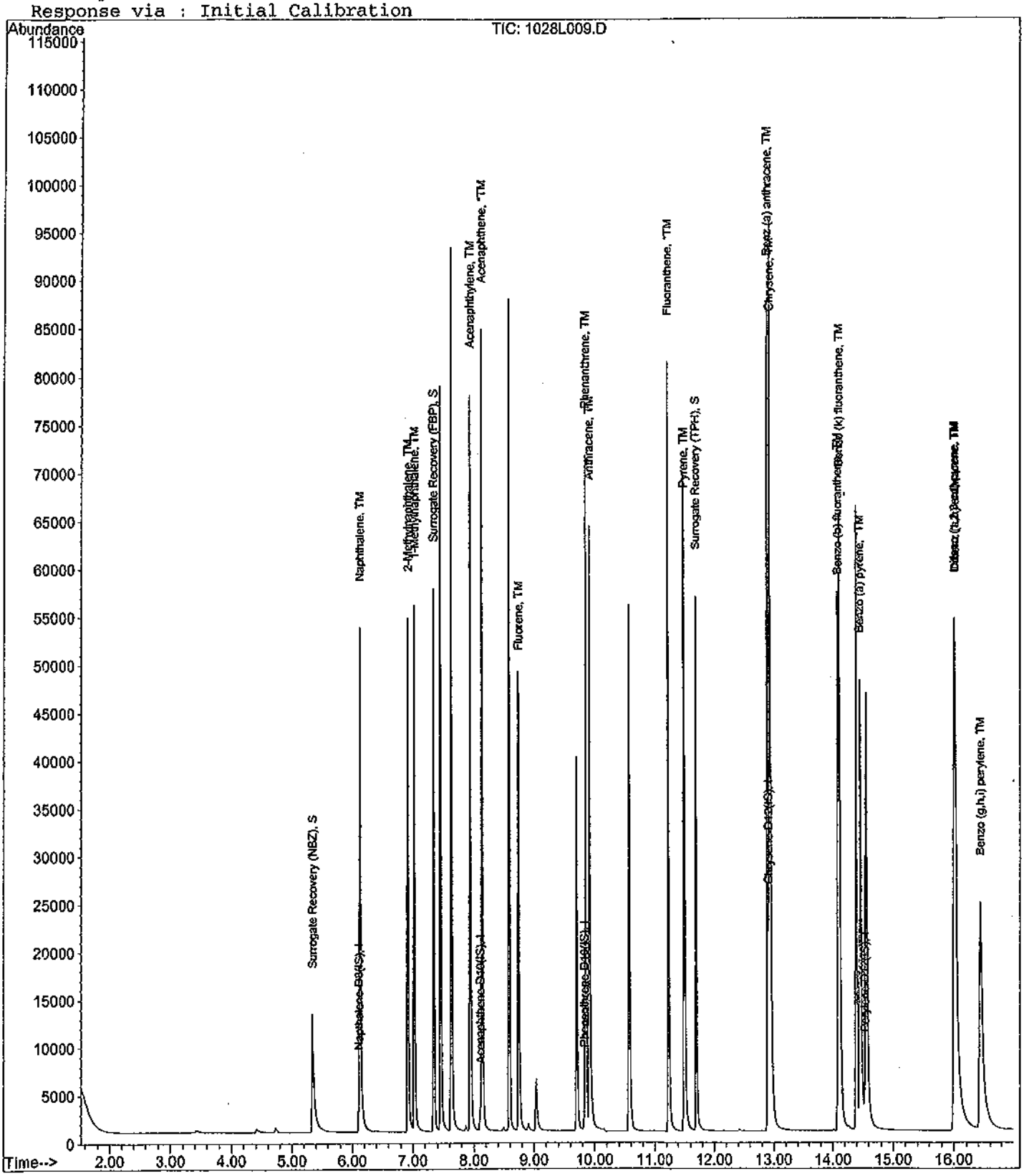
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L009.D Vial: 9
Acq On : 28 Oct 11 12:49 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L010.D Vial: 10
Acq On : 28 Oct 11 13:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2028	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	919	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1786	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2218	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1949	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	39811	174.48341 ppb		-0.01
Spiked Amount 2.000			Recovery	= 8724.150%		
7) Surrogate Recovery (FBP)	7.34	172	68503	119.21355 ppb		-0.04
Spiked Amount 2.000			Recovery	= 5960.700%		
17) Surrogate Recovery (TPH)	11.70	244	80239	112.72808 ppb		-0.06
Spiked Amount 2.000			Recovery	= 5636.400%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	118023	71.73782 ppb		98
4) 2-Methylnaphthalene	6.92	142	72350	74.80311 ppb		91
5) 1-Methylnaphthalene	7.02	142	67525	65.12327 ppb		99
8) Acenaphthylene	7.94	152	108807	74.69023 ppb		99
9) Acenaphthene	8.13	154	58631	68.31936 ppb		89
10) Fluorene	8.75	166	64716	66.02573 ppb		95
12) Phenanthrene	9.86	178	89156	54.63809 ppb		98
13) Anthracene	9.92	178	91266	50.88980 ppb		98
14) Fluoranthene	11.23	202	154470	52.02296 ppb	#	84
16) Pyrene	11.50	202	164055	57.42311 ppb	#	90
18) Benz (a) anthracene	12.90	228	140011	87.08694 ppb		99
19) Chrysene	12.94	228	127613	60.91607 ppb	#	95
20) Indeno (1,2,3-cd) pyrene	16.02	276	133093	105.60065 ppb	#	87
22) Benzo (b) fluoranthene	14.09	252	126697	86.39011 ppb		96
23) Benzo (k) fluoranthene	14.12	252	120651	61.31914 ppb	#	94
24) Benzo (a) pyrene	14.47	252	119503	77.15982 ppb		95
25) Dibenz (a,h) anthracene	16.03	278	107509	108.80876 ppb		91
26) Benzo (g,h,i) perylene	16.44	276	112699	90.03841 ppb		99

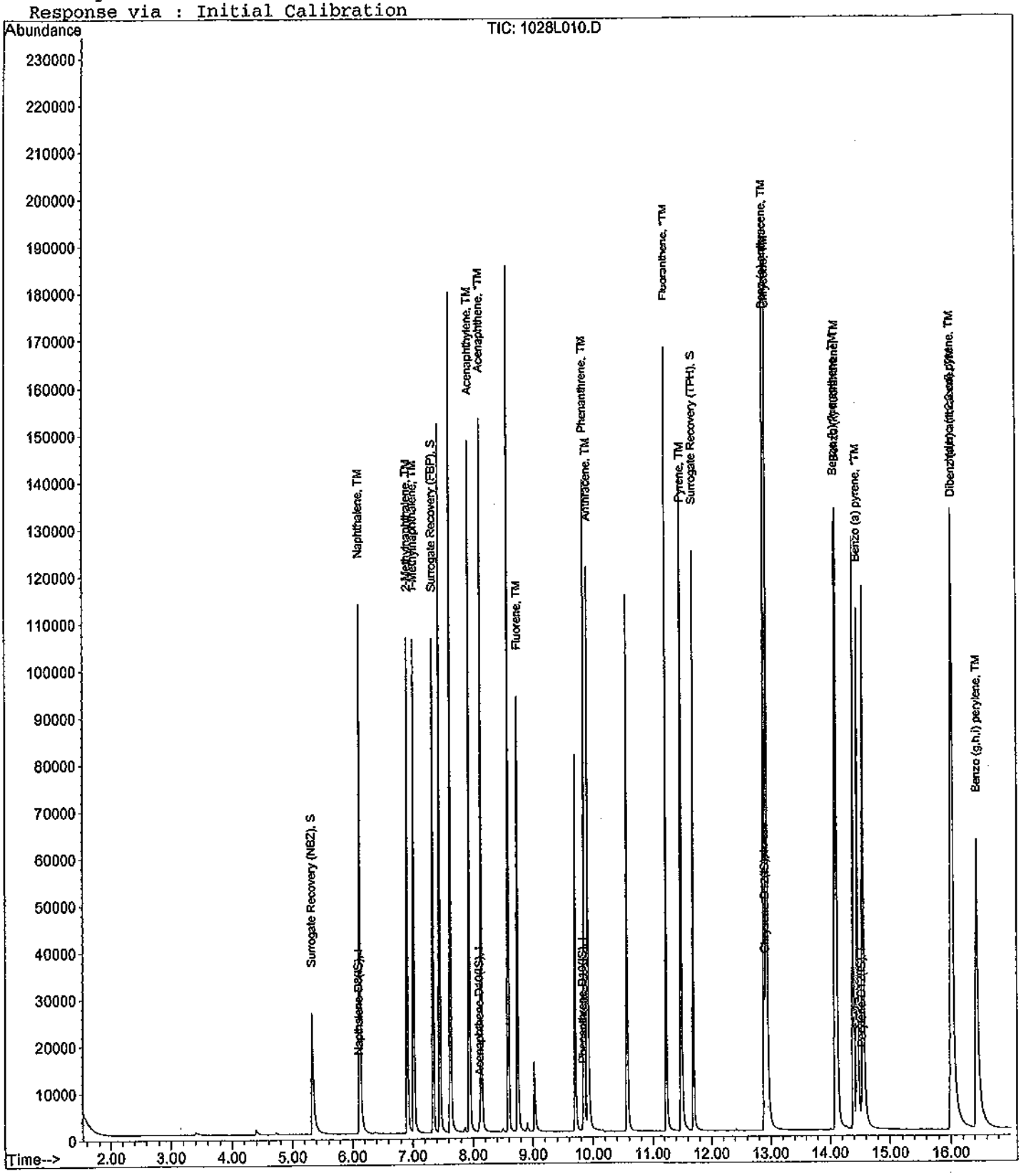
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L010.D Vial: 10
Acq On : 28 Oct 11 13:14 Operator: LF
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66116
Date Analyzed: 10/28/11
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1028L011.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	TM	Naphthalene	1.742	1.546	11	TM	
3	TM	2-Methylnaphthalene	0.8931	0.8782	1.7	TM	
4	TM	1-Methylnaphthalene	1.031	1.007	2.4	TM	
5	I	Acenaphthene-D10(IS)	ISTD			I	
6	TM	Acenaphthylene	3.327	3.132	5.8	TM	
7	*TM	Acenaphthene	1.904	1.812	4.8	*TM	
8	TM	Fluorene	2.083	1.993	4.3	TM	
9	I	Phenanthrene-D10(IS)	ISTD			I	
10	TM	Phenanthrene	1.609	1.555	3.4	TM	
11	TM	Anthracene	1.634	1.624	0.64	TM	
12	*TM	Fluoranthene	2.792	2.916	4.4	*TM	
13	I	Chrysene-D12(IS)	ISTD			I	
14	TM	Pyrene	2.200	2.429	10	TM	
15	TM	Benz (a) anthracene	1.449	1.392	3.9	TM	
16	TM	Chrysene	1.939	2.190	13	TM	
17	TM	Indeno (1,2,3-cd) pyrene	1.502	1.468	2.3	TM	
18	I	Perylene-D12(IS)	ISTD			I	
19	TM	Benzo (b) fluoranthene	1.761	1.686	4.3	TM	
20	TM	Benzo (k) fluoranthene	1.823	2.176	19	TM	
21	*TM	Benzo (a) pyrene	1.723	1.689	1.9	*TM	
22	TM	Dibenz (a,h) anthracene	1.447	1.354	6.4	TM	
23	TM	Benzo (g,h,i) perylene	1.525	1.483	2.8	TM	
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.7		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L011.D Vial: 11
Acq On : 28 Oct 11 13:40 Operator: LF
Sample : 5.0ug/ml SS PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 11:15:17 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2295	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.11	164	1033	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1773	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2205	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	1840	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery	= 0.000%		
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery	= 0.000%		
17) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery	= 0.000%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7095	4.43732 ppb		99
4) 2-Methylnaphthalene	6.93	142	4031	4.91655 ppb		99
5) 1-Methylnaphthalene	7.04	142	4620	4.88168 ppb		94
8) Acenaphthylene	7.95	152	6471	4.70758 ppb		99
9) Acenaphthene	8.15	154	3744	4.75904 ppb		91
10) Fluorene	8.76	166	4117	4.78272 ppb		99
12) Phenanthrene	9.87	178	5514	4.83130 ppb		99
13) Anthracene	9.94	178	5757	4.96794 ppb		98
14) Fluoranthene	11.26	202	10339	5.22192 ppb		93
16) Pyrene	11.51	202	10711	5.51952 ppb	#	91
18) Benz (a) anthracene	12.93	228	6140	4.80346 ppb		99
19) Chrysene	12.96	228	9659	5.64891 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6475	4.88617 ppb	#	91
22) Benzo (b) fluoranthene	14.12	252	6204	4.78607 ppb		99
23) Benzo (k) fluoranthene	14.14	252	8006	5.96784 ppb	#	65
24) Benzo (a) pyrene	14.49	252	6217	4.90268 ppb		97
25) Dibenz (a,h) anthracene	16.08	278	4984	4.68078 ppb		96
26) Benzo (g,h,i) perylene	16.52	276	5458	4.86160 ppb		99

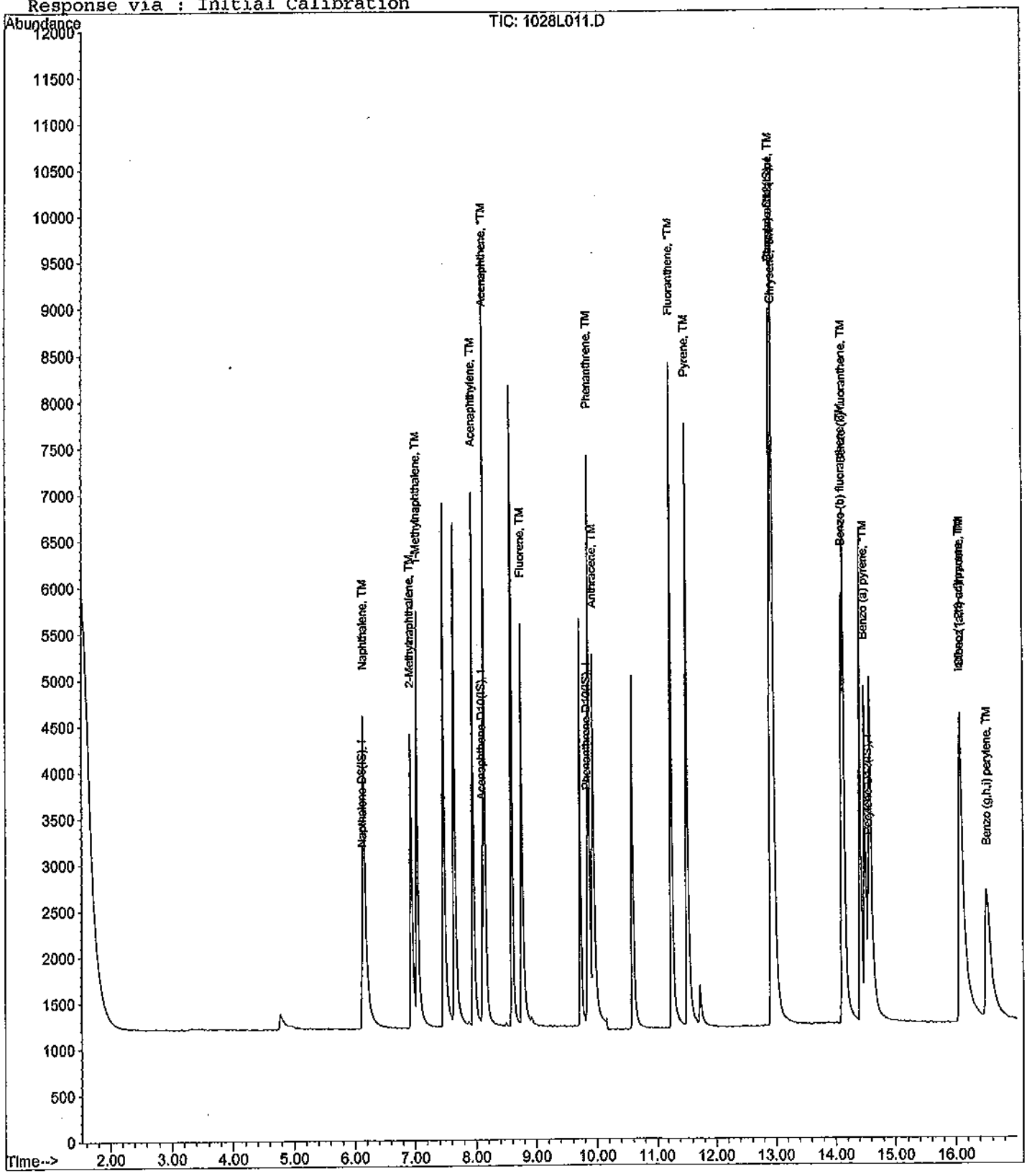
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L011.D Vial: 11
Acq On : 28 Oct 11 13:40 Operator: LF
Sample : 5.0ug/ml SS PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: L6616
Date Analyzed: 5 Nov 11 16:54
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1105L020.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4477	0.4479	0.03	S	
3	TM	Naphthalene	1.742	1.518	13	TM	
4	TM	2-Methylnaphthalene	0.8931	0.9102	1.9	TM	
5	TM	1-Methylnaphthalene	1.031	0.9456	8.3	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	2.229	2.036	8.6	S	
8	TM	Acenaphthylene	3.327	3.080	7.4	TM	
9	*TM	Acenaphthene	1.904	1.695	11	*TM	
10	TM	Fluorene	2.083	1.961	5.9	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.609	1.494	7.2	TM	
13	TM	Anthracene	1.634	1.588	2.8	TM	
14	*TM	Fluoranthene	2.792	2.868	2.7	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	2.200	2.193	0.31	TM	
17	S	Surrogate Recovery (TPH)	1.077	1.106	2.7	S	
18	TM	Benz (a) anthracene	1.449	1.737	20	TM	
19	TM	Chrysene	1.939	1.906	1.7	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.502	1.682	12	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.761	1.921	9.1	TM	
23	TM	Benzo (k) fluoranthene	1.823	1.713	6.0	TM	
24	*TM	Benzo (a) pyrene	1.723	1.698	1.4	*TM	
25	TM	Dibenz (a,h) anthracene	1.447	1.482	2.5	TM	
26	TM	Benzo (g,h,i) perylene	1.525	1.535	0.66	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L020.D Vial: 20
Acq On : 5 Nov 11 16:54 Operator: LF
Sample : 5.0ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 9:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	1948	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	877	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1506	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2029	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	1837	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	1745	5.00173 ppb		-0.06
Spiked Amount 2.000			Recovery	= 250.100%		
7) Surrogate Recovery (FBP)	7.35	172	3572	4.56887 ppb		0.00
Spiked Amount 2.000			Recovery	= 228.450%		
17) Surrogate Recovery (TPH)	11.70	244	4488	5.13686 ppb		-0.01
Spiked Amount 2.000			Recovery	= 256.850%		
Target Compounds						Qvalue
3) Naphthalene	6.13	128	5914	4.35756 ppb		99
4) 2-Methylnaphthalene	6.92	142	3546	5.09542 ppb		94
5) 1-Methylnaphthalene	7.02	142	3684	4.58607 ppb		92
8) Acenaphthylene	7.95	152	5403	4.62980 ppb		99
9) Acenaphthene	8.15	154	2973	4.45122 ppb		95
10) Fluorene	8.75	166	3440	4.70710 ppb		96
12) Phenanthrene	9.87	178	4499	4.64084 ppb		100
13) Anthracene	9.93	178	4783	4.85919 ppb		97
14) Fluoranthene	11.26	202	8637	5.13568 ppb		98
16) Pyrene	11.51	202	8901	4.98467 ppb		97
18) Benz (a) anthracene	12.91	228	7049	5.99294 ppb		98
19) Chrysene	12.96	228	7735	4.91608 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.06	276	6825	5.59703 ppb	#	91
22) Benzo (b) fluoranthene	14.10	252	7058	5.45378 ppb		97
23) Benzo (k) fluoranthene	14.14	252	6292	4.69785 ppb		95
24) Benzo (a) pyrene	14.49	252	6239	4.92807 ppb		99
25) Dibenz (a,h) anthracene	16.06	278	5446	5.12302 ppb		99
26) Benzo (g,h,i) perylene	16.51	276	5641	5.03281 ppb		96

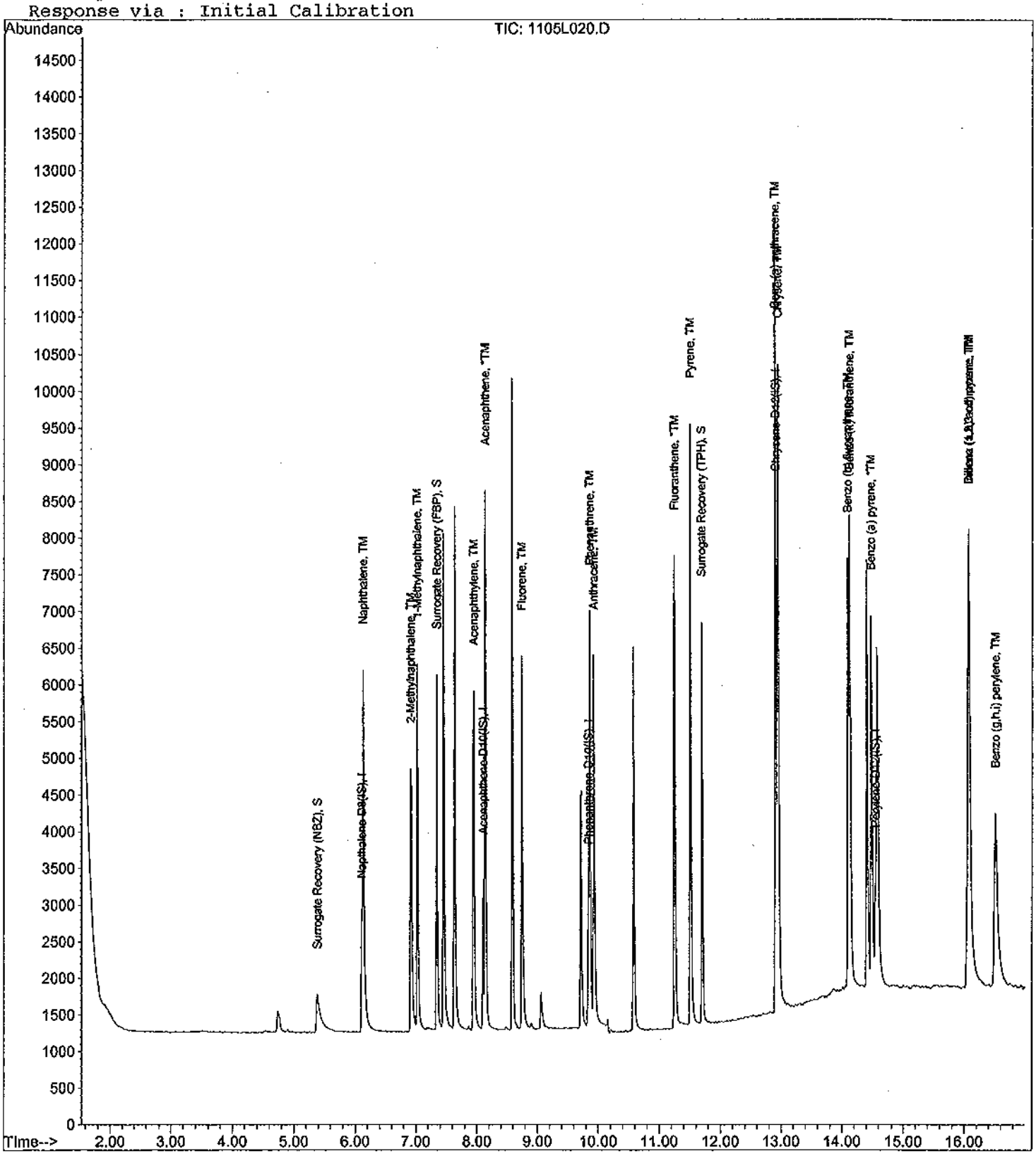
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L020.D Vial: 20
Acq On : 5 Nov 11 16:54 Operator: LF
Sample : 5.0ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 9:47 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **111031W-49334 - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(A)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	10/31/11	11/05/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	10/31/11	11/05/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	10/31/11	11/05/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	10/31/11	11/05/11
BLANK	SURROGATE: 2-FLUORBIPHENY	51.7	50-110			%	10/31/11	11/05/11
BLANK	SURROGATE: NITROBENZENE-	66.3	40-110			%	10/31/11	11/05/11
BLANK	SURROGATE: TERPHENYL-D14 (	54.5	50-135			%	10/31/11	11/05/11

Quant Method:SIM2.M
Run #:1105L028
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 11/09/11 4:07:32 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L028.D
Acq On : 5 Nov 11 20:15
Sample : 111031A BLK 1/1000
Misc :

Vial: 28
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 9 8:48 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2305	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	1068	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	2122	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.94	240	2454	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.57	264	2143	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.42	82	547	1.32504 ppb	-0.02
Spiked Amount 2.000			Recovery = 66.250%		
7) Surrogate Recovery (FBP)	7.36	172	984	1.03352 ppb	0.01
Spiked Amount 2.000			Recovery = 51.700%		
17) Surrogate Recovery (TPH)	11.71	244	1151	1.08925 ppb	0.00
Spiked Amount 2.000			Recovery = 54.450%		

Target Compounds Qvalue

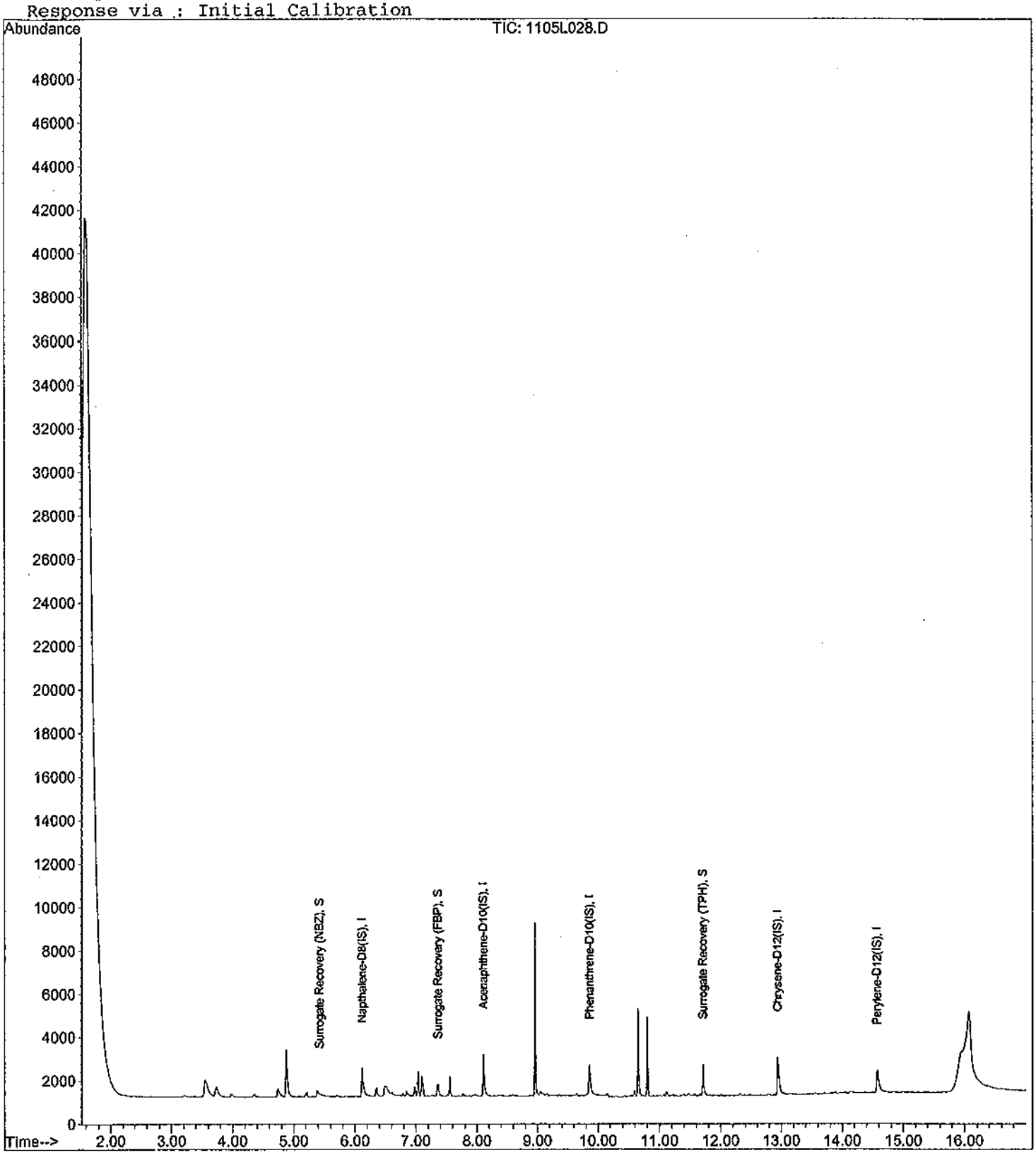
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L028.D Vial: 28
Acq On : 5 Nov 11 20:15 Operator: LF
Sample : 111031A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 9 8:48 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **111031W-49334 LCS - 161019**
Batch ID: #SIMHC-111031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.25	56.3	45-105
2-METHYLNAPHTHALENE	4.00	2.26	56.5	45-105
ACENAPHTHENE	4.00	2.55	63.7	45-110
ACENAPHTHYLENE	4.00	2.39	59.8	50-105
ANTHRACENE	4.00	2.47	61.8	55-110
BENZO(A)ANTHRACENE	4.00	2.74	68.5	55-110
BENZO(A)PYRENE	4.00	2.48	62.0	55-110
BENZO(B)FLUORANTHENE	4.00	2.43	60.8	45-120
BENZO(GHI)PERYLENE	4.00	2.80	70.0	40-125
BENZO(K)FLUORANTHENE	4.00	3.23	80.8	45-125
CHRYSENE	4.00	2.86	71.5	55-110
DIBENZ(A,H)ANTHRACENE	4.00	2.89	72.3	40-125
FLUORANTHENE	4.00	2.86	71.5	55-115
FLUORENE	4.00	2.59	64.8	50-110
INDENO(1,2,3-CD)PYRENE	4.00	2.95	73.8	45-125
NAPHTHALENE	4.00	2.30	57.5	40-100
PHENANTHRENE	4.00	2.43	60.8	50-115
PYRENE	4.00	2.57	64.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.11	55.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.14	57.0	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	1.06	53.0	50-135

Comments:

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	10/31/11
Analysis Date :	11/05/11
Instrument :	Linus
Run :	1105L029
Initials :	LF

Printed: 11/09/11 4:08:05 PM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1105L029.D
Acq On : 5 Nov 11 20:41
Sample : 111031A LCS-1 1/1000
Misc :

Vial: 29
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 9 8:50 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 02 15:56:51 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2079	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	961	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1713	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2367	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	2017	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.43	82	426	1.14411 ppb		-0.01
Spiked Amount 2.000			Recovery	= 57.200%		
7) Surrogate Recovery (FBP)	7.36	172	951	1.11008 ppb		0.01
Spiked Amount 2.000			Recovery	= 55.500%		
17) Surrogate Recovery (TPH)	11.71	244	1078	1.05766 ppb		0.00
Spiked Amount 2.000			Recovery	= 52.900%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	3335	2.30246 ppb		99
4) 2-Methylnaphthalene	6.93	142	1681	2.26331 ppb		89
5) 1-Methylnaphthalene	7.04	142	1929	2.25003 ppb		88
8) Acenaphthylene	7.95	152	3060	2.39290 ppb		99
9) Acenaphthene	8.15	154	1866	2.54960 ppb		93
10) Fluorene	8.76	166	2077	2.59363 ppb		97
12) Phenanthrene	9.87	178	2685	2.43497 ppb		98
13) Anthracene	9.94	178	2766	2.47049 ppb		99
14) Fluoranthene	11.26	202	5473	2.86107 ppb		94
16) Pyrene	11.51	202	5362	2.57400 ppb	#	87
18) Benz (a) anthracene	12.93	228	3766	2.74459 ppb		98
19) Chrysene	12.96	228	5250	2.86024 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.09	276	4203	2.95460 ppb	#	95
22) Benzo (b) fluoranthene	14.12	252	3457	2.43287 ppb	#	91
23) Benzo (k) fluoranthene	14.15	252	4746	3.22732 ppb		95
24) Benzo (a) pyrene	14.50	252	3444	2.47758 ppb		98
25) Dibenz (a,h) anthracene	16.09	278	3371	2.88809 ppb		95
26) Benzo (g,h,i) perylene	16.53	276	3449	2.80253 ppb		98

$\frac{3335 \times 2.5}{2079 \times 1.749} = 2.30$ LF 11/9/11

(#) = qualifier out of range (m) = manual integration

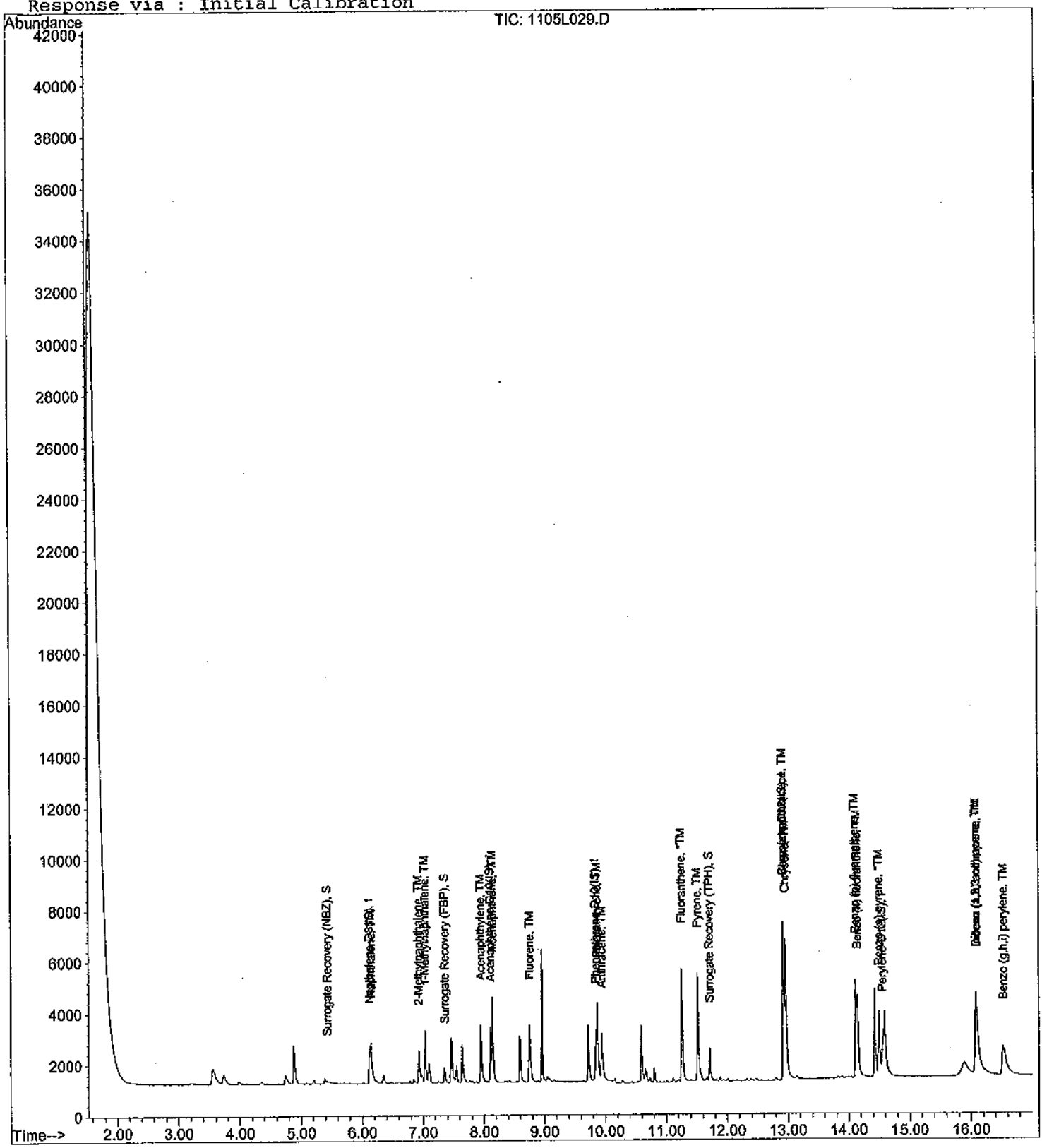
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1105L029.D
Acq On : 5 Nov 11 20:41
Sample : 111031A LCS-1 1/1000
Misc :

Vial: 29
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 9 8:50 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 08 16:22:04 2011
Response via : Initial Calibration

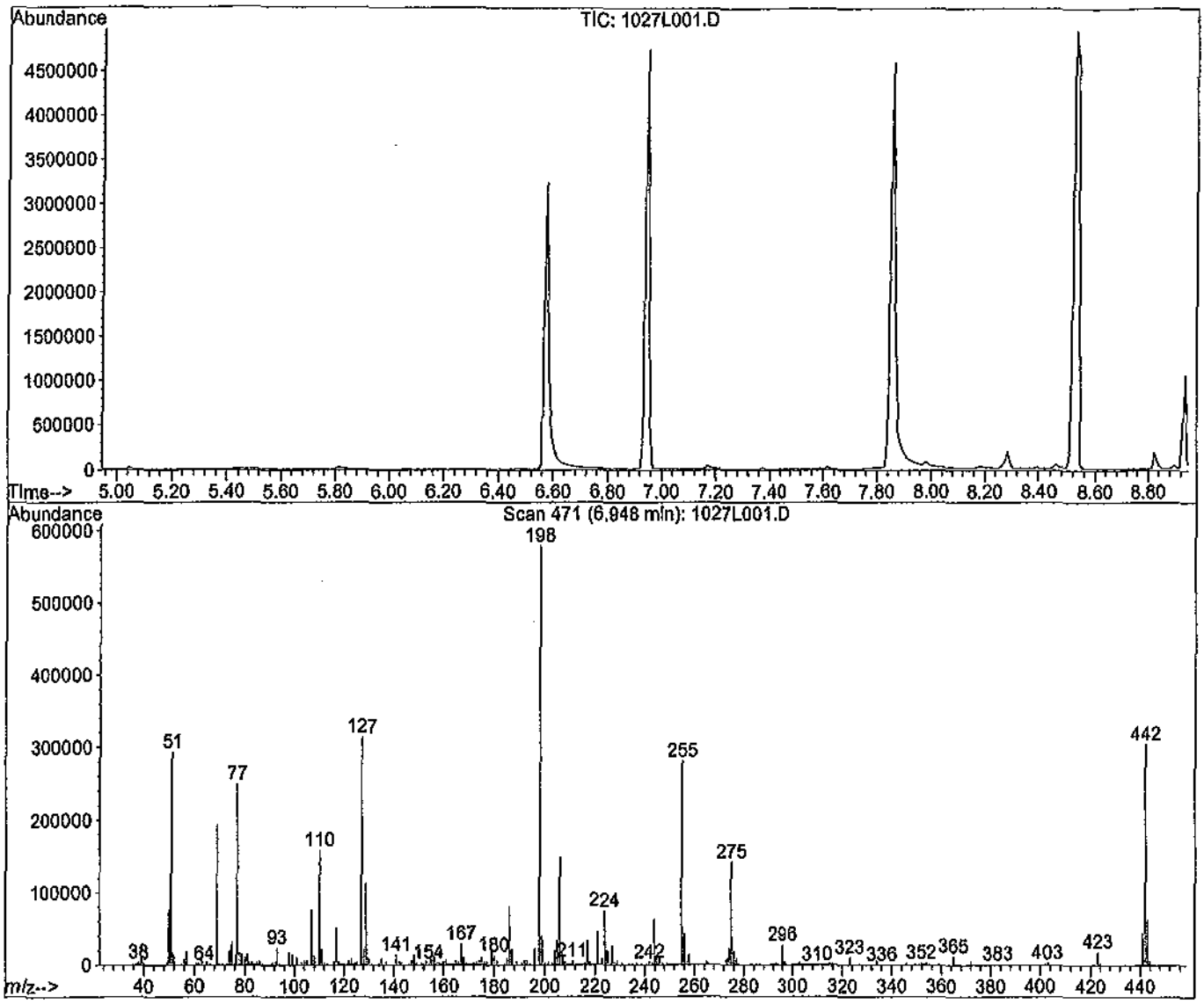


DFTPP

Data File : M:\LINUS\DATA\L111027\1027L001.D
Acq On : 27 Oct 11 18:29
Sample : SVTUNE 10-27-11
Misc :

Vial: 1
Operator: LF
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Scan 471

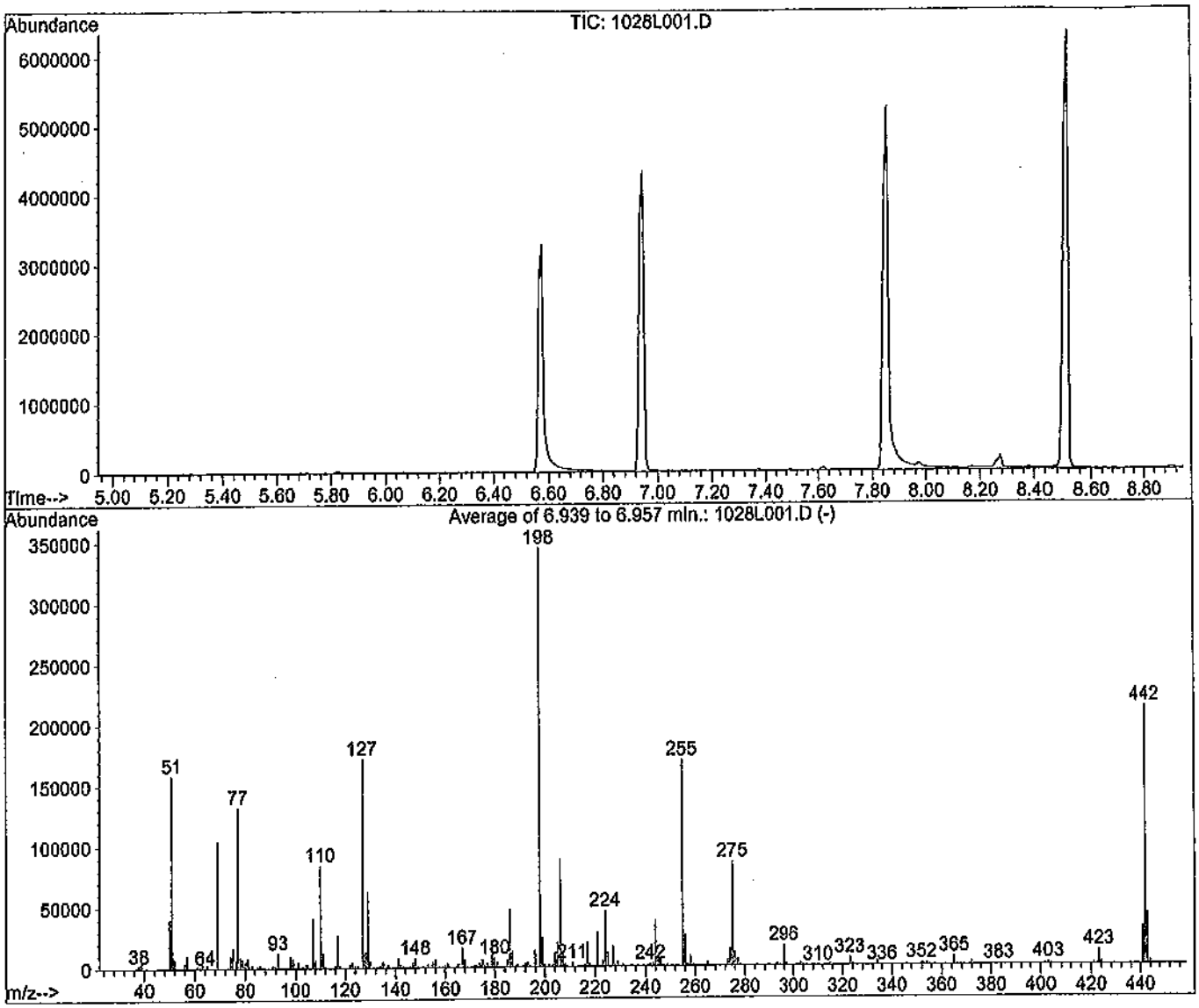
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.7	294016	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1188	PASS
127	198	40	60	54.3	314624	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	579520	PASS
199	198	5	9	7.0	40304	PASS
275	198	10	30	24.5	141888	PASS
365	198	1	100	2.0	11470	PASS
441	443	0.01	100	70.8	44728	PASS
442	198	40	150	52.6	304768	PASS
443	442	17	23	20.7	63176	PASS

DFTPP

Data File : M:\LINUS\DATA\L111027\1028L001.D
Acq On : 28 Oct 11 9:32
Sample : SVTUNE 10-27-11
Misc :

Vial: 1
Operator: LF
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



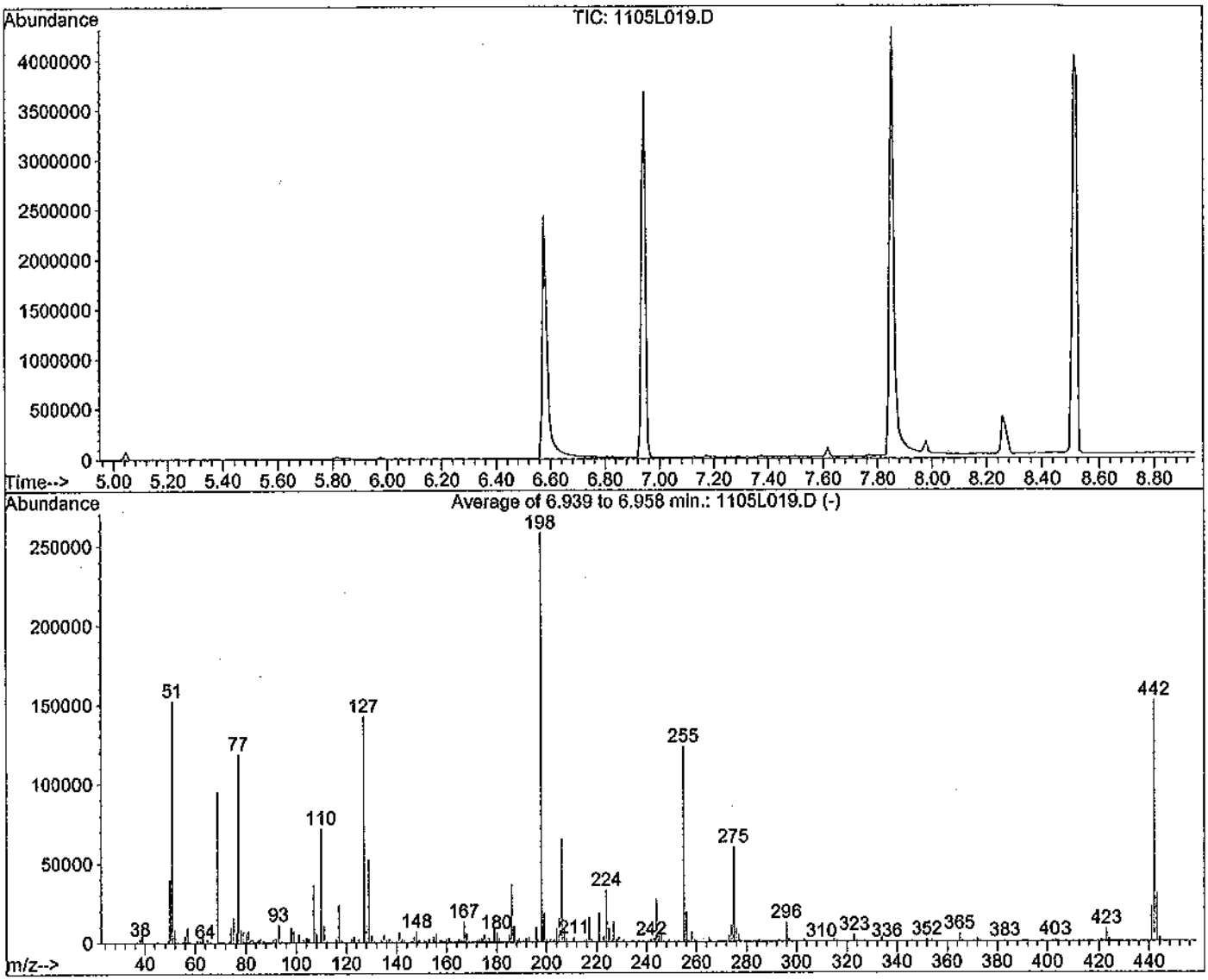
Spectrum Information: Average of 6.939 to 6.957 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.8	158326	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	519	PASS
127	198	40	60	49.8	171922	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	345360	PASS
199	198	5	9	7.1	24580	PASS
275	198	10	30	24.8	85541	PASS
365	198	1	100	2.0	6987	PASS
441	443	0.01	100	74.7	31248	PASS
442	198	40	150	61.5	212309	PASS
443	442	17	23	19.7	41843	PASS

Data File : M:\LINUS\DATA\L111027\1105L019.D
Acq On : 5 Nov 11 16:36
Sample : SVTUNE 10-27-11
Misc :

Vial: 19
Operator: LF
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 6.939 to 6.958 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.0	152381	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	557	PASS
127	198	40	60	55.1	142318	PASS
197	198	0.00	1	0.5	1197	PASS
198	198	100	100	100.0	258253	PASS
199	198	5	9	7.1	18230	PASS
275	198	10	30	23.2	59874	PASS
365	198	1	100	1.9	4901	PASS
441	443	0.01	100	73.0	21870	PASS
442	198	40	150	58.8	151760	PASS
443	442	17	23	19.7	29958	PASS

VF 1/17/11

PREP DATE:	01-17-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28092	01/17/11	03-20-12	1000
Absolute	10001	2000	032009-28091	01/17/11	03-20-12	1000
Absolute	10002	2000	073109-27974	01/17/11	07-31-12	1000
Absolute	10002	2000	073109-27973	01/17/11	07-31-12	1000
Absolute	10004	2000	101509-27979	01/17/11	10-15-14	1000
Absolute	10004	2000	101509-27978	01/17/11	10-15-14	1000
Absolute	10005	2000	061209-27984	01/17/11	06-12-14	1000
Absolute	10005	2000	061209-27983	01/17/11	06-12-14	1000
Absolute	10006	2000	120810-27989	01/17/11	12-08-13	1000
Absolute	10006	2000	120810-27988	01/17/11	12-08-13	1000
Absolute	10007	2000	100909-28010	01/17/11	10-09-14	1000
Absolute	10007	2000	100909-28013	01/17/11	10-09-14	1000
Absolute	10018	2000	073109-27994	01/17/11	07-31-14	1000
Absolute	10018	2000	073109-27993	01/17/11	07-31-14	1000
Absolute	70023	1000	080310-28008	01/17/11	08-03-15	1000
Absolute	70023	1000	080310-28009	01/17/11	08-03-15	1000
Absolute	82705	2000	121010-27999	01/17/11	12-10-13	1000
Absolute	82705	2000	121010-27998	01/17/11	12-10-13	1000
Absolute	94552	2000	052908-28004	01/17/11	05-29-11	1000
Absolute	94552	2000	052908-28003	01/17/11	05-29-11	1000
					Final Vol	20000

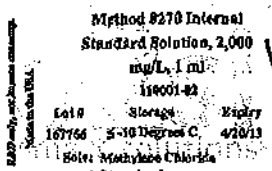
VF 1/25/11

PREP DATE:	01-25-11																	
8270T STANDARD CURVE																		
Exp:	02-24-11						0.1	0.2	1	5	10	20	40	50	60	80	100	
		Conc.		Date														
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date				µL	µL	µL	µL	µL	µL	µL	µL	µL	
	8270T Stock	200		12/17/10	05-29-11		0	0	0	5	5	10	20	25	30	40	50	
	5.0ug/mL			01/25/11			0	0	20	0	0	0	0	0	0	0	0	
	1.0ug/mL			01/25/11			10	20	0	0	0	0	0	0	0	0	0	
	Surrogate Stock	VAR	160538-27570	11/11/10	11-11-11		0	0	0	5	5	10	20	25	30	40	50	
EM Science	Methylene Chloride		47080				90	80	80	190	90	80	60	50	40	20	0	
					Final Vol.				100	200	100	100	100	100	100	100	100	

VF 1/25/11

PREP DATE:	01-25-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

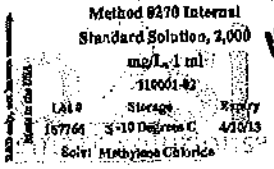
VF 1/25/11



VF exp 1/25/12

8270 Internal Standard
Lot #: 167766 - 28148
Rec: 1/20/11 MFR exp. 04/20/13

VF 1/25/11



VF exp 1/25/12

8270 Internal Standard
Lot #: 167766 - 28147
Rec: 1/20/11 MFR exp. 04/20/13

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28001
Rec: 12/16/10 MFR exp. 05/29/11

LF exp 5/29/11

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28002
Rec: 12/16/10 MFR exp. 05/29/11

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27996
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDARDS, INC.

LF exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27997
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDAF

LF exp 5/29/11

LF 3/23/11

PREP DATE:	03-23-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28089	03/23/11	03-20-12	1000
Absolute	10001	2000	320009-28090	03/23/11	03-20-12	1000
Absolute	10002	2000	073109-27971	03/23/11	07-31-12	1000
Absolute	10002	2000	073109-27972	03/23/11	07-31-12	1000
Absolute	10004	2000	101509-27976	03/23/11	10-15-14	1000
Absolute	10004	2000	101509-27977	03/23/11	10-15-14	1000
Absolute	10005	2000	061209-27981	03/23/11	06-12-14	1000
Absolute	10005	2000	061209-27982	03/23/11	06-12-14	1000
Absolute	10006	2000	120810-27986	03/23/11	12-08-13	1000
Absolute	10006	2000	120810-27987	03/23/11	12-08-13	1000
Absolute	10007	2000	100909-28015	03/23/11	10-09-14	1000
Absolute	10007	2000	100909-28014	03/23/11	10-09-14	1000
Absolute	10018	2000	073109-27991	03/23/11	07-31-14	1000
Absolute	10018	2000	073109-27992	03/23/11	07-31-14	1000
Absolute	70023	1000	080310-28006	03/23/11	08-03-15	1000
Absolute	70023	1000	080310-28007	03/23/11	08-03-15	1000
Absolute	82705	2000	052908-28001	03/23/11	05-29-11	1000
Absolute	82705	2000	052908-28002	03/23/11	05-29-11	1000
Absolute	94552	2000	121010-27996	03/23/11	12-10-13	1000
Absolute	94552	2000	121010-27997	03/23/11	12-10-13	1000
					Final Vol	20000

LF 3/23/11

91M IS exp 1/25/12
1500µL EM Science MC Lot #47086
100µL 8270 IS opened 1/25/11 exp 1/25/12

UF 3/28/12

o2si smartsolutions — 8270 BN:A (200:400) Surrogate Solution, 1 ml
110004-17 Storage: <= -10 Degrees C
Made in USA Lot No: 160538 Solvent: Methylene Chloride
Exp: 6/10/2013
Date Opened: 8270 BN:A (200:400) Surrogate Solution
Lot #: 160538 - 27574
Rec: 10/18/10 MFR exp. 06/10/12

UF exp 3/28/12

UF 3/28/12

PREP DATE:	03-28-11															
8270T STANDARD CURVE																
Exp:	04-27-11						0.1	0.2	1	5	10	20	40	50	60	80	100
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	Exp.Date				µL	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		03/23/11	05-29-11	0		0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			03/28/11		0		0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			03/28/11		10		20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	160538-27574	03/28/11	03-28-12	0		0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			90		80	80	190	90	80	60	50	40	20	0
					Final Vol.				100	200	100	100	100	100	100	100	100

UF 3/28/11

PREP DATE:	03-28-11					
8270 Second Source (SS) 50ug/mL						50 UF
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

UF 4/18/11

GCM-150-1
Lot: CF-2995
Exp: 08/31/2011
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, N Kingstown, RI 02852 USA

ULTRA 1 mL

Semi-volatiles GC/MS Tuning Standard
Lot #: CF-2995 - 26131
Rec: 2/17/10 MFR exp. 08/31/11

UF exp 8/31/11

UF 4/13/11

PREP DATE:	04-13-11						
SV Tune Mix 50ug/ml							UF
Exp:	08-31-11						exp 8/31/11
		Conc.		Date	CODE:	B	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	
U. Scientific	GCM-150	1000	CF-2995-26131	04/13/11	08-31-11	1000	
EM Science	MeCl2		47080			19000	
					Final Vol	20000	

UF 4/20/11

8270D PAH SIM Solution, 200 mg/L, 1 ml
110780-01
Lot # 170263 Storage <-10 Degrees C Expiry 3/3/13
Solv: Methylene Chloride
Made in the USA

UF exp 4/20/12

8270D PAH SIM
Lot #: 170263 - 28485
Rec: 3/10/11 MFR exp. 3/3/2013

UF 4/20/11

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 ml
110780-01-SS
Lot # 170256 Storage <-10 Degrees C Expiry 3/3/13
Solv: Methylene Chloride
Made in the USA

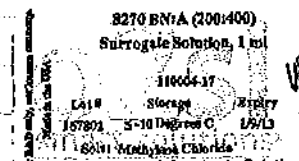
UF exp 4/20/12

8270D PAH SIM (SS)
Lot #: 170256 - 28487
Rec: 3/10/11 MFR exp. 3/3/2013

VF 8/16/11

PREP DATE:	08/16/11		exp:	08/23/11			
10ug/mL 1,2,3-TCP							
	50uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methonal Lot #			9077-02			
PREP DATE:	08/16/11		exp:	08/23/11			
1ug/mL 1,2,3-TCP							
	5uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methanol Lot #			JT Baker H46E44			
PREP DATE:	08/16/11		exp:	08/23/11			
2ug/mL 1,2,3-TCPd5							
	10uL of 2000ug/mL 1,2,3 TCP into a final volume of 10mL of P&T Methanol						
	2000ug/mL 1,2,3 TCP-d5 date code:			05/27/11			
	P & T Methanol Lot #			9077-02			

VF 8/22/11



VF exp 8/22/12

8270 BN:A (200:400) Surrogate Solution
Lot #: 167802 - 29313
Rec: 8/8/11 MFR exp: 01/09/13

VF 8/22/11

PREP DATE:	08-22-11												
8270 STANDARD CURVE													
Exp:	08-29-11						5	10	20	40	50	60	80	100
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
						Final Vol.	200	100	100	100	100	100	100	100

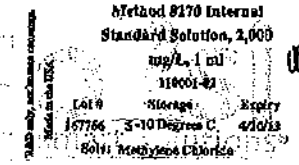
VF 8/22/11

PREP DATE:	08-22-11					
8270 Second Source (86) 50ug/mL						
						50
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

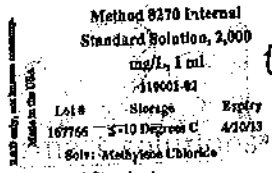
VF 8/21/11

PREP DATE:	09-21-11												
8270 SIM STANDARD CURVE													
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date	A µL	A µL	C µL	D µL	E µL	F µL	G µL	H µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		09/21/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		09/21/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-23-11	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

LF 10/18/11



8270 Internal Standard
Lot #: 167766 - 28149
Rec: 1/20/11 MFR exp. 04/20/13



8270 Internal Standard
Lot #: 167766 - 28150
Rec: 1/20/11 MFR exp. 04/20/13

exp 10/18/12

LF 10/27/11

GCM-160-1
Lot: CH-2137
Exp: 07/31/2013
ULTRA 1 mL
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

exp 10/27/12

50µg/mL SV Tune Mix 1mL of GCM-150-1 Lot# CH2137 into 19mL of Gas Science MC Lot# 42080.

LF 10/27/11

PREP DATE:	10-27-11												
8270 SIM STANDARD CURVE													
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
		Conc.		Date	CODE:	A	A	C	D	E	F	G	H
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		10/27/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		10/27/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

LF 10/27/11

PREP DATE:	10-27-11					
SIM 8270 Second Source (5µg/mL)						
Exp:	11-10-11					
			Conc.	Date	CODE:	
Supplier	ID #	Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)	170256-28487	200	04/20/11	04-20-12	5
	MeCl2		Lot#47186			195
				Final Volume		200

LF 11/8/11

PREP DATE:	11-08-11												
8270 STANDARD CURVE													
Exp:	11-15-11					5	10	20	40	50	60	80	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		10/18/11	04-18-12	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186			190	90	80	60	50	40	20	0
					Final Vol.	200	100	100	100	100	100	100	100

LF 11/8/11

PREP DATE:	11-08-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/11/11	04-12-12	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	111031A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 178987-29587		Surrogate ID 1	8270 SIM Surrogate 172835-28827	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1	2	31/2011 11:25:00 AM	Water Bath Temp Criteria	80 °C
pH2	14	0/31/2011 4:00:00 PM		
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111031A Blk				0.025	1	1000	1	2/1	10/31/11 11:20	
						equip	E-WB5				
2	111031A LCS-1		0.025	1	0.025	1	1000	1	2/1	10/31/11 11:20	
						equip	E-WB5				
3	AY49327	AY49327W08			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
4	AY49328	AY49328W04			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
5	AY49329	AY49329W04			0.025	1	1030	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
6	AY49330	AY49330W07			0.025	1	1040	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
7	AY49331	AY49331W07			0.025	1	1030	1	2/1	10/31/11 11:20	66103-1 WEEK RUSH -- Amber Liter
						equip	E-WB5				
8	AY49333	AY49333W10			0.025	1	1050	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
9	AY49334 MS-1	AY49334W30	0.025	1	0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
10	AY49334 MSD-1	AY49334W34	0.025	1	0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB5				
11	AY49334	AY49334W29			0.025	1	1050	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
12	AY49336	AY49336W10			0.025	1	1030	1	2/1	10/31/11 11:20	66102-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				
13	AY49481	AY49481W08			0.025	1	1050	1	2/1	10/31/11 11:20	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	JL
Date	11/5/11
Time	800
Refrigerator	Hblank

	Technician's Initials
Scanned By	HW
Sample Preparation	CC
Extraction	HW/DL/JL
Concentration	JL

Modified	10/31/2011 10:48:43 AM

Reviewed By: HW 205 **Date** 11/1/2011

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	111031A	Extraction Method	SBP004S	Units	mL

Spiked ID 1	SIM Spike 178987-29587		Surrogate ID 1	8270 SIM Surrogate 172835-28827	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/02/11 0:00	

pH1	2	31/2011 11:25:00 AM	Water Bath Temp Criteria	80 °C
pH2	14	0/31/2011 4:00:00 PM		
pH3				

Spiked By: HW **Date** 10/31/2011 **Witnessed By:** DL **Date** 10/31/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
14	AY49482	AY49482W08			0.025	1	1030	1	2/1	10/31/11 11:20	66116-2 WEEK RUSH -- Amber Liter
						equip	E-WB6				

HW 11/1/11

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	JL
Date	11/1/11
Time	800
Refrigerator	Hood

	Technician's Initials
Scanned By	HW
Sample Preparation	CC
Extraction	HW/DL/JL
Concentration	JL

Modified	10/31/2011 10:48:43 AM

Reviewed By: HW 206 **Date** 11/1/2011

Injection Log

Directory: M:\LINUS\DATA\L111027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1027L001.D	1	SVTUNE 10-27-11		27 Oct 11 18:29
2	3	1027L003.D	1	0.1ug/ml PAH 10-27-11		27 Oct 11 19:12
3	4	1027L004.D	1	0.2ug/ml PAH		27 Oct 11 19:38
4	1	1028L001.D	1	SVTUNE 10-27-11		28 Oct 11 9:32
5	5	1028L005.D	1	0.5ug/ml PAH		28 Oct 11 11:07
6	6	1028L006.D	1	1.0ug/ml PAH		28 Oct 11 11:32
7	7	1028L007.D	1	5.0ug/ml PAH		28 Oct 11 11:58
8	8	1028L008.D	1	10ug/ml PAH		28 Oct 11 12:23
9	9	1028L009.D	1	50ug/ml PAH		28 Oct 11 12:49
10	10	1028L010.D	1	100ug/ml PAH		28 Oct 11 13:14
11	11	1028L011.D	1	5.0ug/ml SS PAH 10-27-11		28 Oct 11 13:40
12	19	1105L019.D	1	SVTUNE 10-27-11		5 Nov 11 16:36
13	20	1105L020.D	1	5.0ug/ml PAH 10-27-11		5 Nov 11 16:54
14	28	1105L028.D	1	111031A BLK 1/1000		5 Nov 11 20:15
15	29	1105L029.D	1	111031A LCS-1 1/1000		5 Nov 11 20:41
16	40	1105L040.D	0.95238	AY49481W08 1/1050		6 Nov 11 1:16
17	41	1105L041.D	0.97087	AY49482W08 1/1030		6 Nov 11 1:41

EPA METHOD 8260B
Volatile Organic Compounds

APPL, INC.

EPA METHOD 8260B
Volatile Organic Compounds
QC Summary

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111031W-49559 - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/01/11	11/01/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/01/11	11/01/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/01/11	11/01/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/01/11	11/01/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/01/11	11/01/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/01/11	11/01/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/01/11	11/01/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/01/11	11/01/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/01/11	11/01/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/01/11	11/01/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/01/11	11/01/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/01/11	11/01/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/01/11	11/01/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C08
Instrument: Chico
Sequence: C111030
Initials: ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 6:14:10 PM

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111031W-49559 - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/01/11	11/01/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/01/11	11/01/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/01/11	11/01/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	SURROGATE: 1,2-DICHLOROET	103	70-120			%	11/01/11	11/01/11
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	11/01/11	11/01/11
BLANK	SURROGATE: DIBROMOFLUOR	97.4	85-115			%	11/01/11	11/01/11
BLANK	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C08
Instrument: Chico
Sequence: C111030
Initials: ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 6:14:10 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 10/31/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031AC-LCS	Lab Control Spike	70-120	98.7		75-120	99.8	
111031AC-BLK	Blank	70-120	103		75-120	101	
AY49483	ES052	70-120	99.0		75-120	99.9	
AY49481	ES050	70-120	103		75-120	101	
AY49482	ES051	70-120	106		75-120	110	

Comments: Batch: #86RHB-111031AC

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 10/31/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111031AC-LCS	Lab Control Spike	85-115	103		85-120	99.2	
111031AC-BLK	Blank	85-115	97.4		85-120	101	
AY49483	ES052	85-115	100		85-120	99.9	
AY49481	ES050	85-115	100		85-120	101	
AY49482	ES051	85-115	105		85-120	110	

Comments: Batch: #86RHB-111031AC

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49559 LCS - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.47	94.7	80-130
1,1,1-TRICHLOROETHANE	10.00	8.95	89.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.1	101	65-130
1,1,2-TRICHLOROETHANE	10.00	9.61	96.1	75-125
1,1-DICHLOROETHANE	10.00	9.36	93.6	70-135
1,1-DICHLOROETHENE	10.00	8.56	85.6	70-130
1,2,3-TRICHLOROPROPANE	10.00	9.82	98.2	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.19	91.9	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.49	84.9	50-130
1,2-DIBROMOETHANE	10.00	9.29	92.9	70-130
1,2-DICHLOROBENZENE	10.00	9.16	91.6	70-120
1,2-DICHLOROETHANE	10.00	8.73	87.3	70-130
1,2-DICHLOROPROPANE	10.00	9.52	95.2	75-125
1,3-DICHLOROBENZENE	10.00	9.06	90.6	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.9	94.5	70-130
1,4-DICHLOROBENZENE	10.00	9.03	90.3	75-125
2-BUTANONE	10.00	9.19	91.9	30-150
4-METHYL-2-PENTANONE	10.00	9.90	99.0	60-135
ACETONE	10.00	12.0	120	40-140
BENZENE	10.00	9.33	93.3	80-120
BROMODICHLOROMETHANE	10.00	9.53	95.3	75-120
BROMOFORM	10.00	8.49	84.9	70-130
BROMOMETHANE	10.00	9.52	95.2	30-145
CARBON TETRACHLORIDE	10.00	9.31	93.1	65-140
CHLOROBENZENE	10.00	8.90	89.0	80-120
CHLORODIBROMOMETHANE	10.00	9.21	92.1	60-135

Comments: _____

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1031C03
Initials :	ARS

Printed: 12/06/11 6:14:16 PM

APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49559 LCS - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	9.08	90.8	60-135
CHLOROFORM	10.00	8.96	89.6	65-135
CHLOROMETHANE	10.00	8.78	87.8	40-125
CIS-1,2-DICHLOROETHENE	10.00	8.91	89.1	70-125
ETHYLBENZENE	10.00	8.78	87.8	75-125
GASOLINE	300	302	101	75-125
HEXACHLOROBUTADIENE	10.00	9.30	93.0	50-140
METHYL TERT-BUTYL ETHER	10.00	9.51	95.1	65-125
METHYLENE CHLORIDE	10.00	9.29	92.9	55-140
STYRENE	10.00	9.03	90.3	65-135
TETRACHLOROETHENE	10.00	9.03	90.3	45-150
TOLUENE	10.00	9.17	91.7	75-120
TRANS-1,2-DICHLOROETHENE	10.00	8.83	88.3	60-140
TRICHLOROETHENE	10.00	9.31	93.1	70-125
VINYL CHLORIDE	10.00	9.95	99.5	50-145
XYLENES (TOTAL)	30.0	26.6	88.7	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	23.9	98.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	25.5	25.4	99.8	75-120
SURROGATE: DIBROMOFLUOROMETH	25.1	25.8	103	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	25.6	99.2	85-120

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1031C03
Initials :	ARS

Printed: 12/06/11 6:14:16 PM

APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66116

Case No: 66116 Date Analyzed: 11/01/11

Matrix: WATER Instrument: Chico

Blank ID: 111031AC-BLK Time Analyzed: 0010

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111031AC-LCS	Lab Control Spike	1031C03	10/31/11 2105
111031AC-BLK	Blank	1031C08	11/01/11 0010
AY49483	ES052	1031C10	11/01/11 0125
AY49481	ES050	1031C11	11/01/11 0202
AY49482	ES051	1031C12	11/01/11 0239

Comments: Batch: #86RHB-111031AC

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66116
Matrix: Water
ID: 20ug/mL BFB STD10-19-11

SDG No: 66116
Date Analyzed: 10/31/11
Instrument: Chico
Time Analyzed: 19:50

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	111031A LCS-1WC	1031C03W.D	10/31/11 21:05
2	Lab Control Spike	111031A LCS-1WC (GAS	1031C05W.D	10/31/11 22:19
3	Blank	111031A BLK-1WC	1031C08W.D	11/01/11 0:10
4	ES052	AY49483W01	1031C10W.D	11/01/11 1:25
5	ES050	AY49481W04	1031C11W.D	11/01/11 2:02
6	ES051	AY49482W04	1031C12W.D	11/01/11 2:39
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	21.0
75	30 - 60% of mass 95	47.5
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2% of mass 174	0.3
174	50 - 100% of mass 95	82.2
175	5 - 9% of mass 174	7.8
176	95 - 101% of mass 174	99.0
177	5 - 9% of mass 176	7.3

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 66116

Lab File ID (Standard): 1030C20W.D Date Analyzed: 10/31/11

Instrument ID: Chico Time Analyzed: 3:03

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	556544	12.84	375296	18.04	203520	22.24
	UPPER LIMIT	1113088	13.34	750592	18.54	407040	22.74
	LOWER LIMIT	278272	12.34	187648	17.54	101760	21.74
	SAMPLE NO.						
01	111031A LCS-1WC	647984	12.85	454784	18.04	238016	22.25
02	111031A BLK-1WC	625564	12.85	421888	18.04	225152	22.25
03	AY49483W01	601728	12.85	413312	18.04	215360	22.25
04	AY49481W04	586092	12.85	399616	18.04	207936	22.25
05	AY49482W04	561792	12.85	373504	18.04	182464	22.25
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8260B
Volatile Organic Compounds
Sample Data

APPL, INC.

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES050
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49481
QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/01/11	11/01/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/01/11	11/01/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/01/11	11/01/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/01/11	11/01/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/01/11	11/01/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/01/11	11/01/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/01/11	11/01/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C11
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran

Project: RED HILL/1022-024

ARF: 66116

Sample ID: ES050

APPL ID: AY49481

Sample Collection Date: 10/25/11

QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/01/11	11/01/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	103	70-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	75-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	85-115			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C11
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C11W.D Vial: 1
Acq On : 1 Nov 11 2:02 Operator: STC
Sample : AY49481W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:17 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	586092	25.00000 ppb	0.01
55) Chlorobenzene-D5 (IS)	18.04	117	399616	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	207936	25.00000 ppb	0.01
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	392863	25.16311 ppb	0.00
Spiked Amount 25.097			Recovery = 100.262%		
38) 1,2-DCA-D4(S)	12.23	65	346382	24.92318 ppb	0.00
Spiked Amount 24.225			Recovery = 102.880%		
56) Toluene-D8(S)	15.51	98	1460189	25.96915 ppb	0.01
Spiked Amount 25.808			Recovery = 100.623%		
64) 4-Bromofluorobenzene(S)	20.12	95	519588	25.78999 ppb	0.01
Spiked Amount 25.459			Recovery = 101.298%		

Target Compounds Qvalue

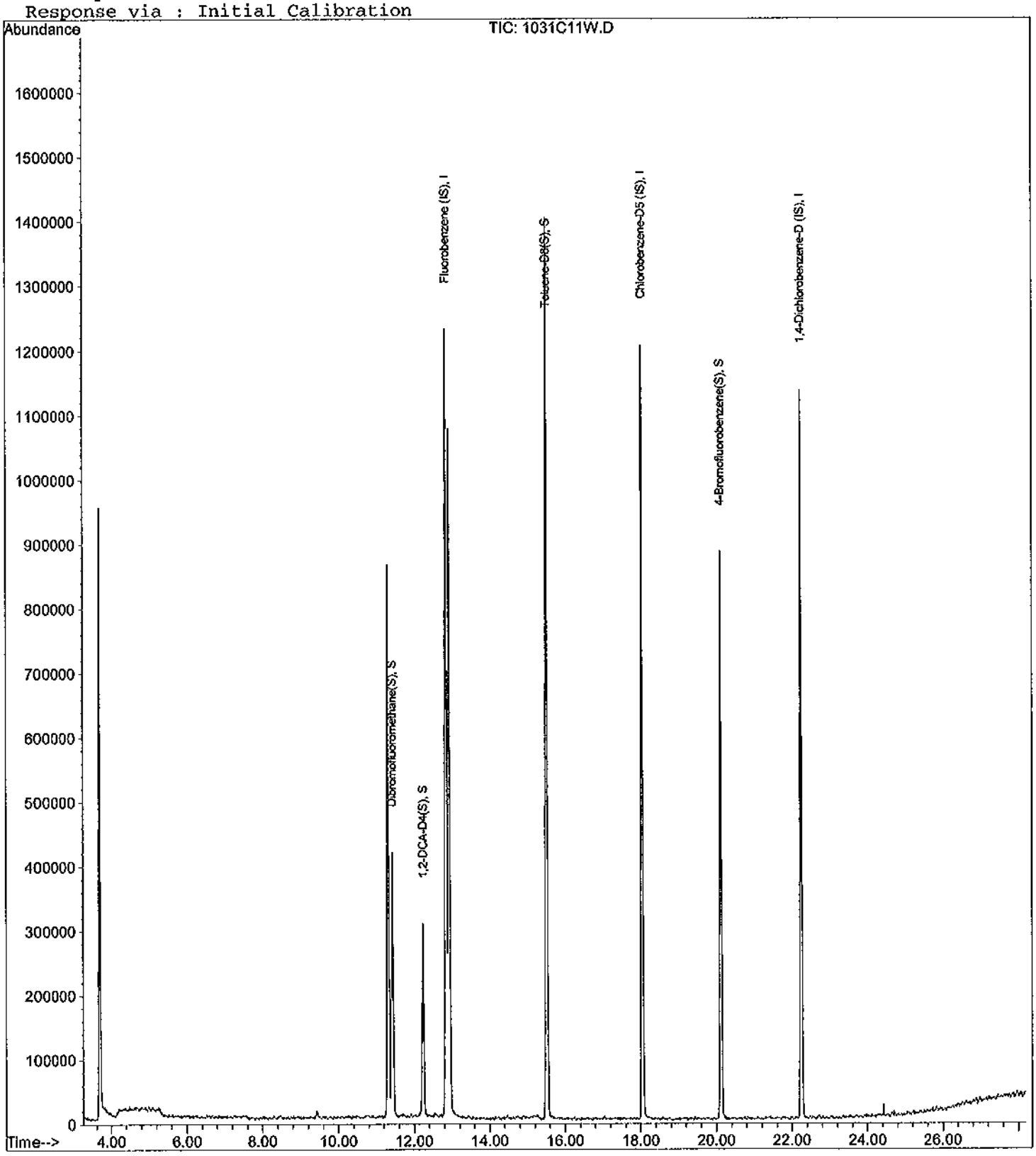
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C11W.D Vial: 1
Acq On : 1 Nov 11 2:02 Operator: STC
Sample : AY49481W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:17 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C11W.D Vial: 1
Acq On : 1 Nov 11 2:02 Operator: STC
Sample : AY49481W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1221723	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1202299	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1131556	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

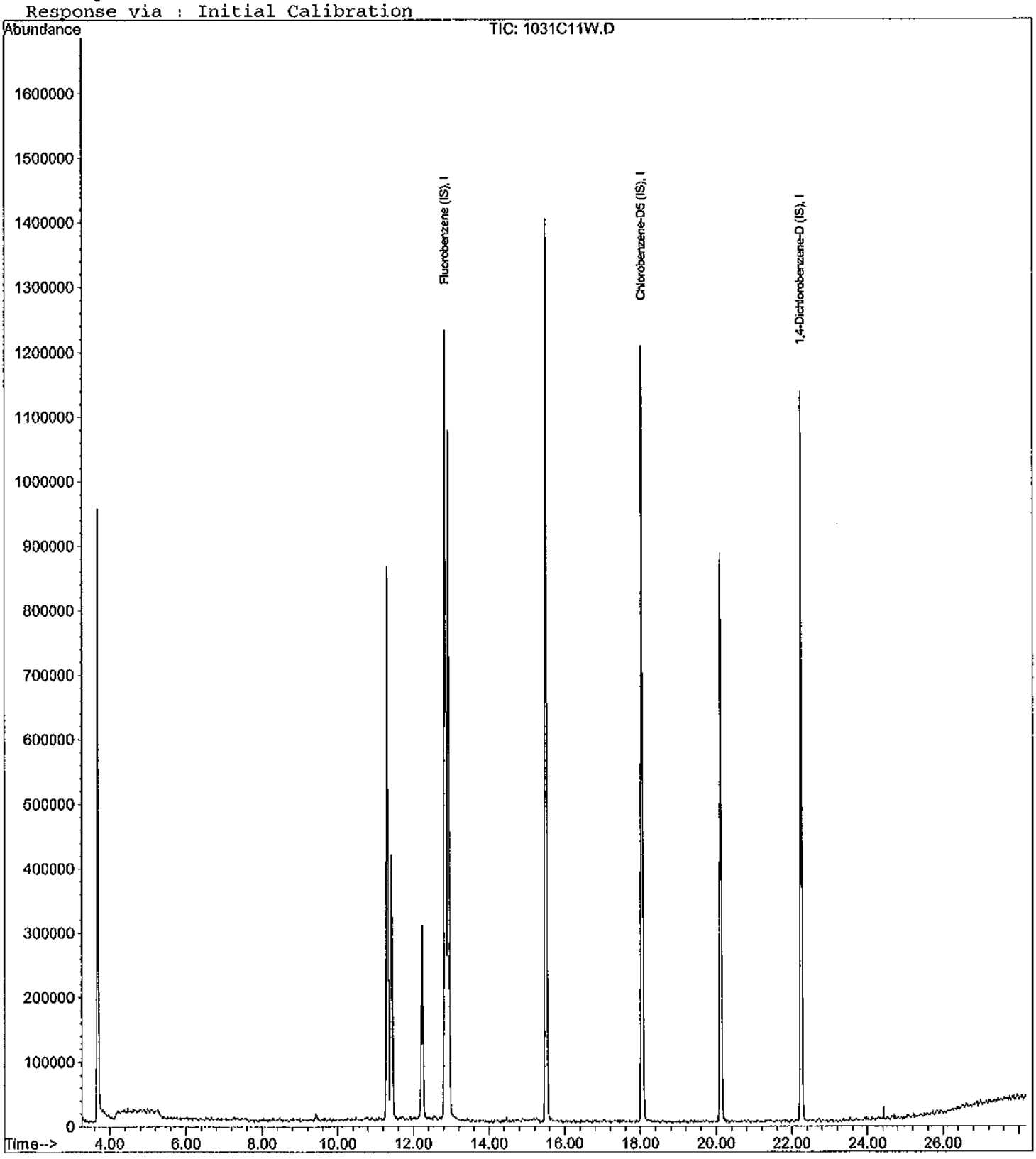
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C11W.D Vial: 1
Acq On : 1 Nov 11 2:02 Operator: STC
Sample : AY49481W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES051
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49482
QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/01/11	11/01/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/01/11	11/01/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/01/11	11/01/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/01/11	11/01/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/01/11	11/01/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/01/11	11/01/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/01/11	11/01/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C12
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES051
Sample Collection Date: 10/25/11

ARF: 66116
APPL ID: AY49482
QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/01/11	11/01/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	106	70-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	110	75-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	85-115			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	110	85-120			%	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C12
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C12W.D
Acq On : 1 Nov 11 2:39
Sample : AY49482W04
Misc : Water 10mLw/ IS&S:10-30/10-26-11
Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 12:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	561792	25.00000 ppb	0.01
55) Chlorobenzene-D5 (IS)	18.04	117	373504	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	182464	25.00000 ppb	0.01
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	396140	26.47050 ppb	0.00
Spiked Amount 25.097			Recovery	= 105.470%	
38) 1,2-DCA-D4(S)	12.23	65	343006	25.74780 ppb	0.00
Spiked Amount 24.225			Recovery	= 106.286%	
56) Toluene-D8(S)	15.51	98	1485378	28.26398 ppb	0.01
Spiked Amount 25.808			Recovery	= 109.515%	
64) 4-Bromofluorobenzene(S)	20.12	95	525703	27.91773 ppb	0.01
Spiked Amount 25.459			Recovery	= 109.657%	

Target Compounds Qvalue

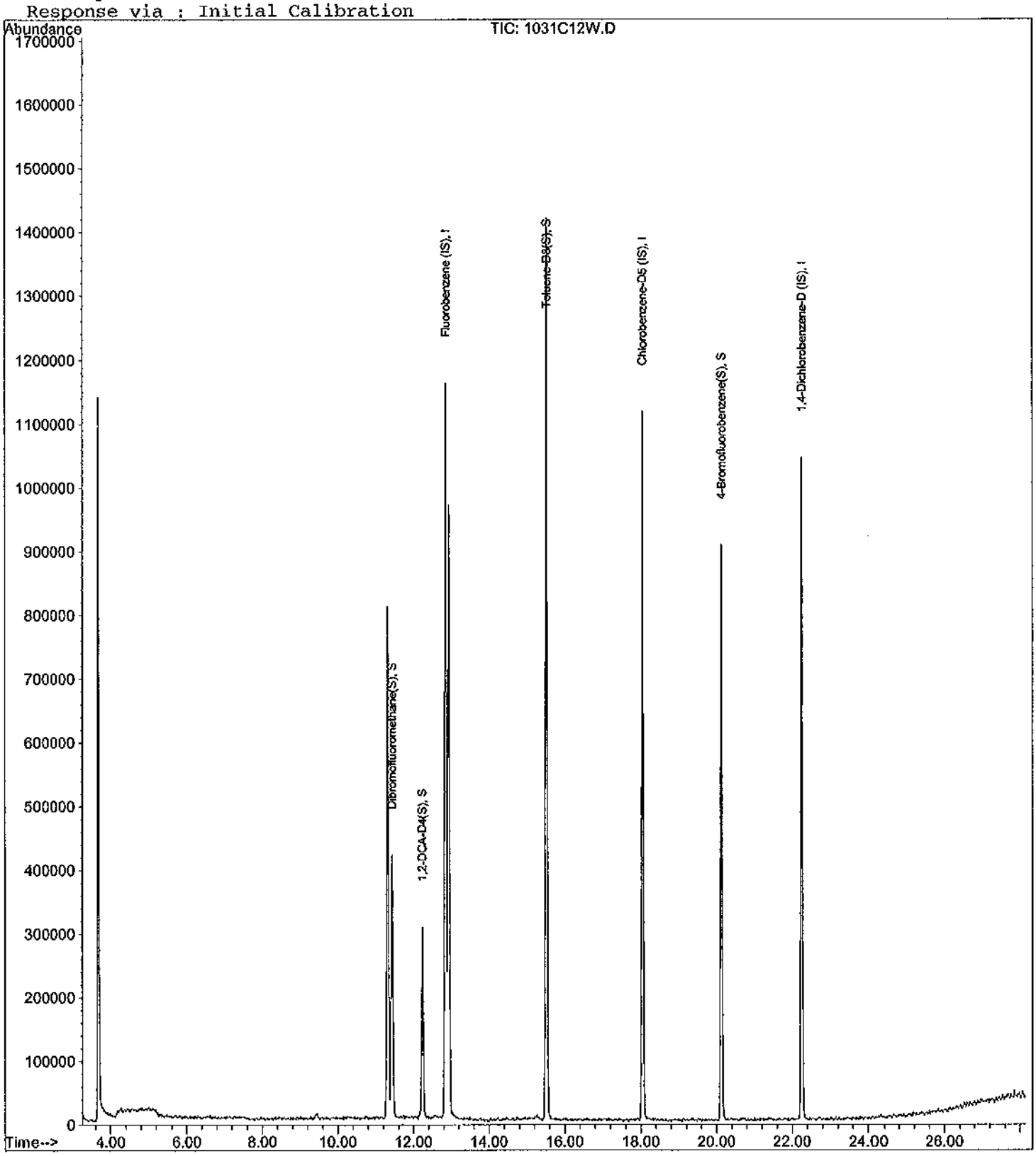
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C12W.D Vial: 1
Acq On : 1 Nov 11 2:39 Operator: STC
Sample : AY49482W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C12W.D Vial: 1
Acq On : 1 Nov 11 2:39 Operator: STC
Sample : AY49482W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1152747	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1113077	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1039775	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

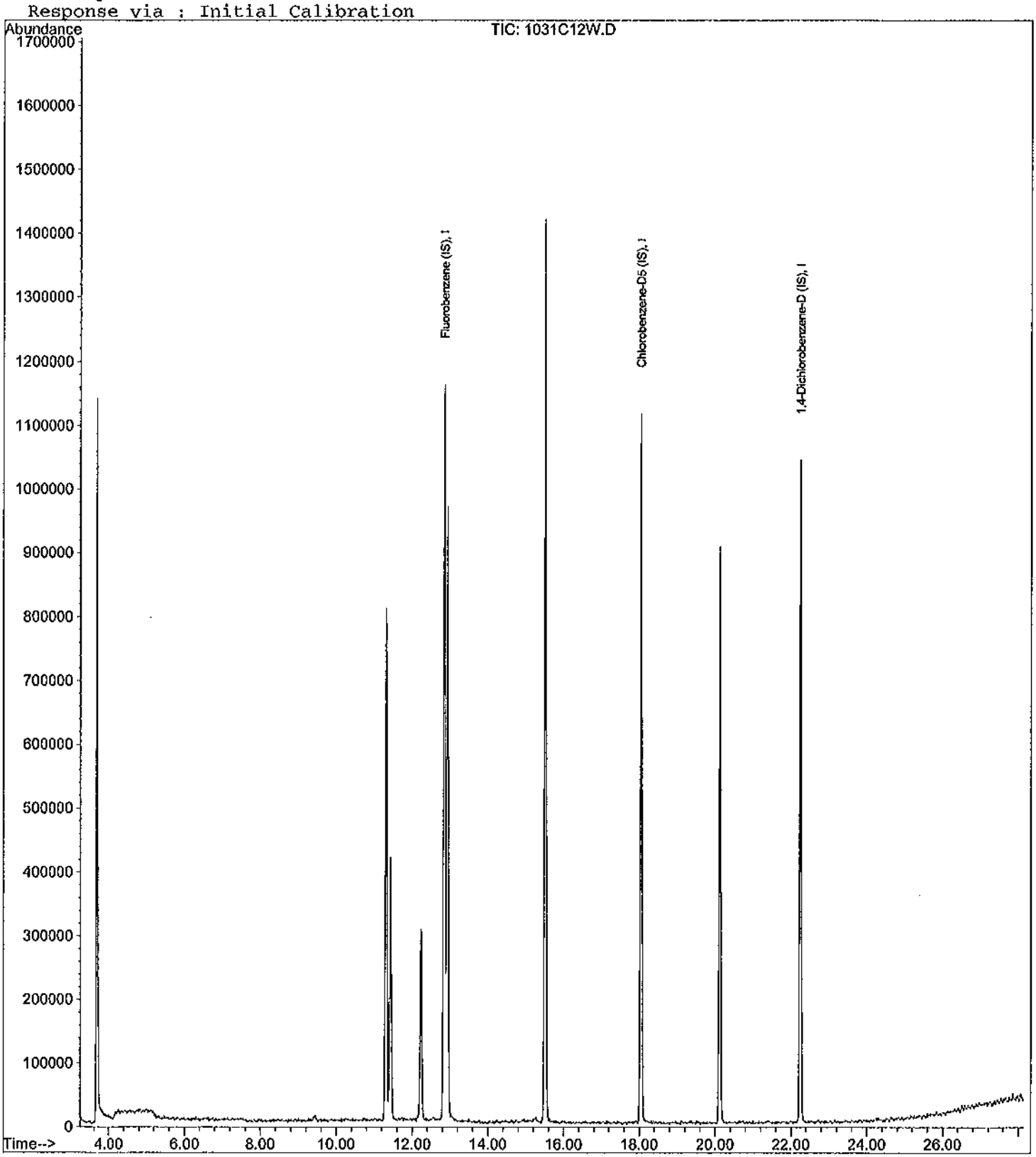
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C12W.D Vial: 1
Acq On : 1 Nov 11 2:39 Operator: STC
Sample : AY49482W04 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES052
Sample Collection Date: 10/25/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66116
APPL ID: AY49483
QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/01/11	11/01/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/01/11	11/01/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/01/11	11/01/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/01/11	11/01/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/01/11	11/01/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/01/11	11/01/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/01/11	11/01/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/01/11	11/01/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/01/11	11/01/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/01/11	11/01/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C10
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran

Project: RED HILL/1022-024

ARF: 66116

Sample ID: ES052

APPL ID: AY49483

Sample Collection Date: 10/25/11

QCG: #86RHB-111031AC-161078

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/01/11	11/01/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/01/11	11/01/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.0	70-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	99.9	75-120			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	100	85-115			%	11/01/11	11/01/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.9	85-120			%	11/01/11	11/01/11

Quant Method: CALLW.M
Run #: 1031C10
Instrument: Chico
Sequence: C111030
Dilution Factor: 1
Initials: ARS

Printed: 12/06/11 6:14:21 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C10W.D Vial: 1
Acq On : 1 Nov 11 1:25 Operator: STC
Sample : AY49483W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:13 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	601728	25.00000 ppb	0.01
55) Chlorobenzene-D5 (IS)	18.04	117	413312	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	215360	25.00000 ppb	0.01
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	403682	25.18420 ppb	0.00
Spiked Amount 25.097			Recovery = 100.346%		
38) 1,2-DCA-D4(S)	12.23	65	342314	23.99045 ppb	0.00
Spiked Amount 24.225			Recovery = 99.029%		
56) Toluene-D8(S)	15.51	98	1499441	25.78356 ppb	0.01
Spiked Amount 25.808			Recovery = 99.906%		
64) 4-Bromofluorobenzene(S)	20.12	95	529976	25.43391 ppb	0.01
Spiked Amount 25.459			Recovery = 99.900%		

Target Compounds Qvalue

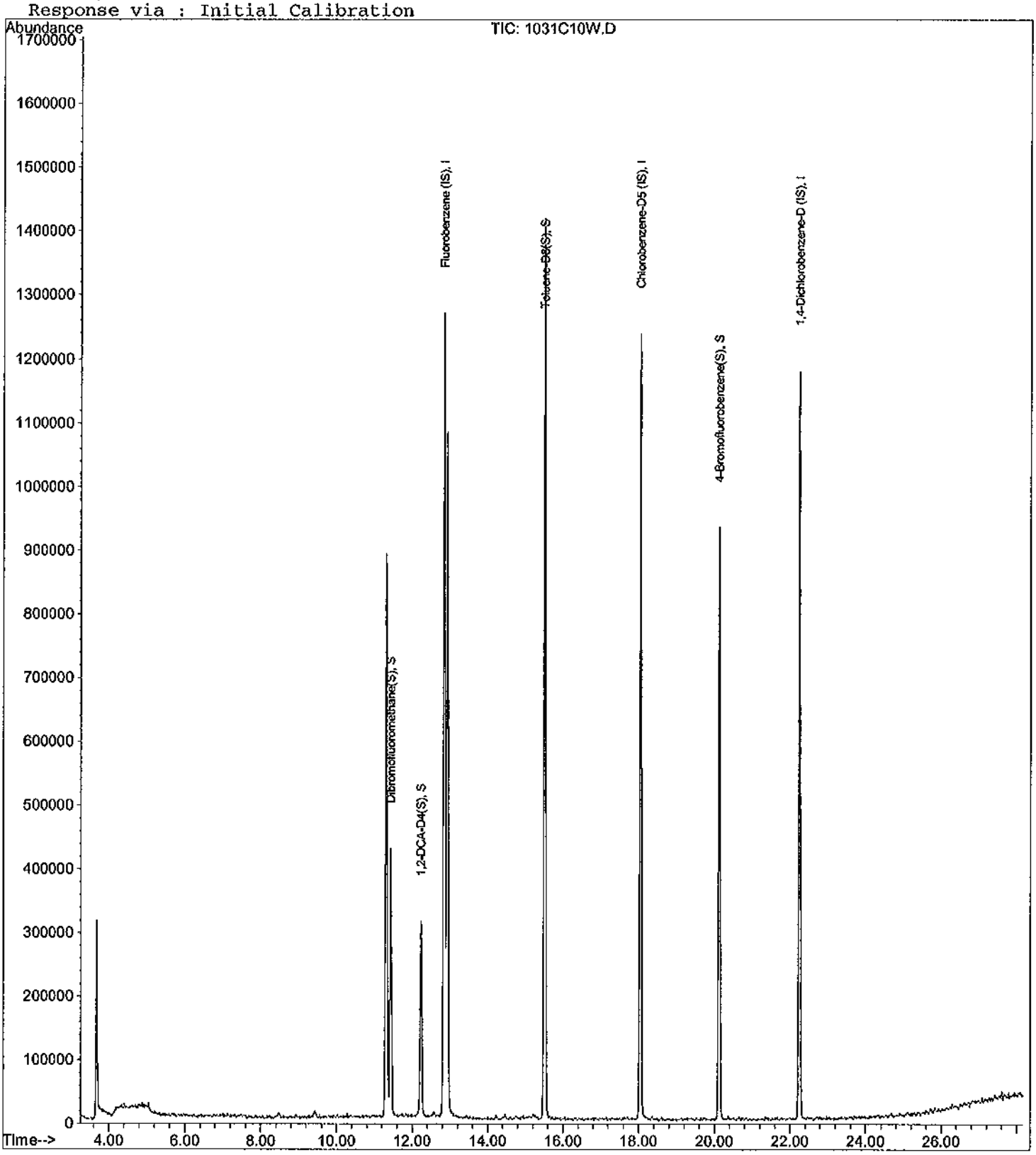
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C10W.D Vial: 1
Acq On : 1 Nov 11 1:25 Operator: STC
Sample : AY49483W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:13 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C10W.D Vial: 1
Acq On : 1 Nov 11 1:25 Operator: STC
Sample : AY49483W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1259858	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1232700	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1173758	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

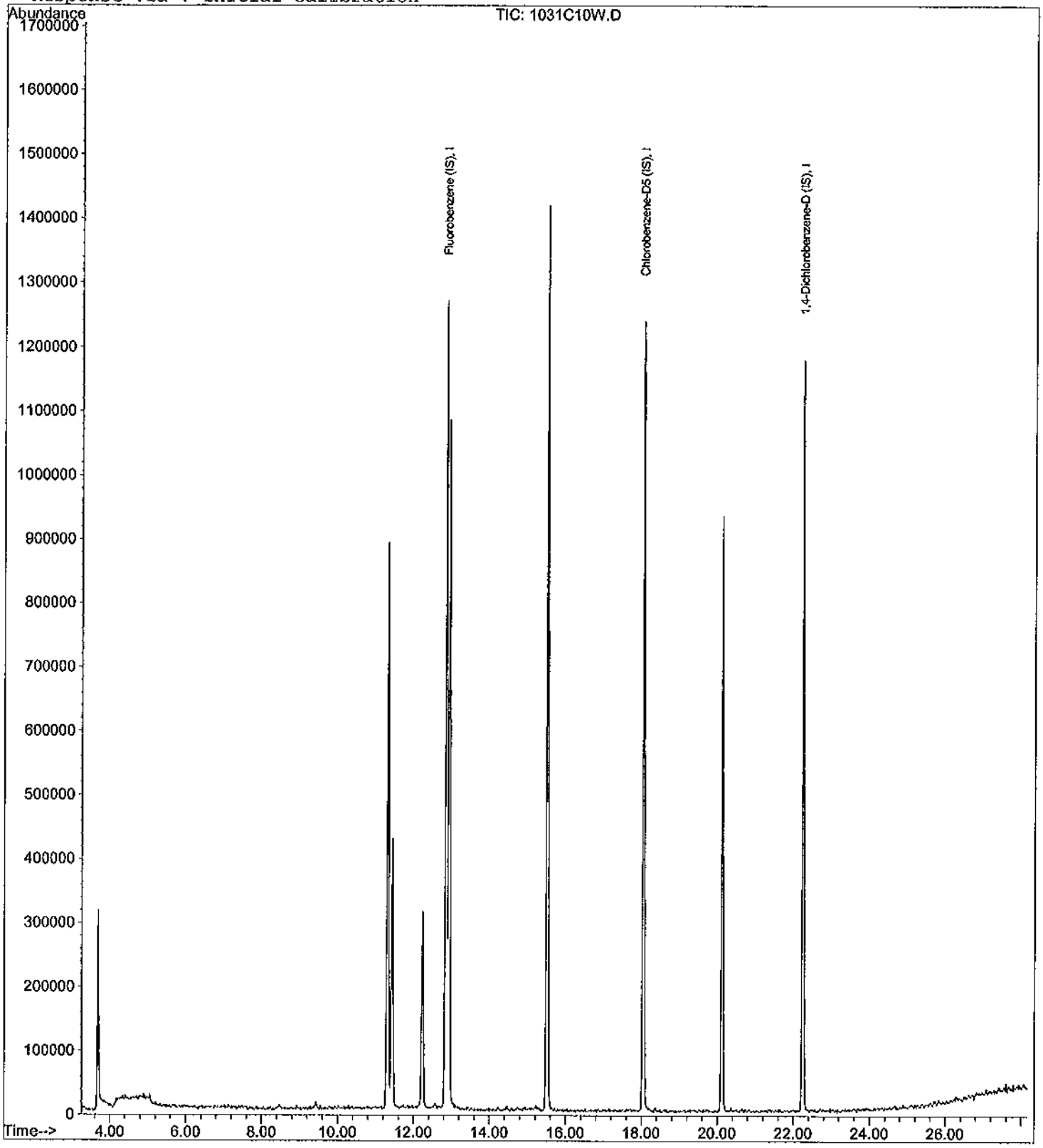
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C10W.D Vial: 1
Acq On : 1 Nov 11 1:25 Operator: STC
Sample : AY49483W01 Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:29 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/11
Matrix: Instrument: Chico
Initials:

			1030C15W.D	1030C16W.D	1030C17W.D	1030C18W.D	1030C19W.D	1030C20W.D	1030C21W.D	1030C22W.D	1030C23W.D					
		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
1	I	Fluorobenzene (IS)	ISTD													
2	TM	Dichlorodifluoromethane	0.9991	0.9593	0.9680	0.8471	0.8830	0.9152	0.9504	0.9592	0.8084		0.92	6.8	TM	
3	TM	Freon 114	0.5029	0.5470	0.6167	0.5799	0.5567	0.6260	0.6223	0.6040	0.5364		0.58	7.6	TM	
4	TM**	Chloromethane	1.389	1.171	1.239	1.184	1.061	1.077	1.079	1.076	0.9963		1.1	10	TM**	
5	TM*	Vinyl chloride		0.8227	0.9389	0.7274	0.8810	0.7956	0.7782	0.6322	0.5319		0.76	17	TM*	
6	TML	1,3-Butadiene													TML	
7	TM	Bromomethane	0.5647	0.5370	0.4933	0.6483	0.5131	0.5331	0.5691	0.5732	0.5561		0.55	8.0	TM	
8	TM	Chloroethane		0.7481	0.7782	0.6360	0.6082	0.5955	0.5730	0.5758	0.5302		0.63	14	TM	
9	TM	Dichlorofluoromethane	1.806	1.879	1.897	1.843	1.787	1.725	1.664	1.599	1.493		1.7	7.8	TM	
10	TM	Trichlorofluoromethane	1.219	0.9410	1.059	1.063	1.038	1.037	1.027	1.027	0.9025		1.0	8.5	TM	
11		Acetonitrile	0.0248	0.0305	0.0278	0.0270	0.0288	0.0267	0.0258	0.0269	0.0283		0.03	6.1		
12	TM	Acrolein	0.0160	0.0133	0.0127	0.0117	0.0124	0.0118	0.0112	0.0121	0.0115		0.01	12	TM	
13	TML	Acetone	0.2927	0.4962	0.2742	0.1724	0.1160	0.0970	0.0807	0.0738	0.0705		0.19	77	TML	1.000
14	TML	Freon-113		0.2687	0.6640	0.6219	0.6334	0.6298	0.6085	0.6058	0.5403		0.57	22	TML	0.999
15	TM*	1,1-DCE	0.8684	0.8302	0.7551	0.7075	0.7021	0.6844	0.6445	0.6344	0.5970		0.71	13	TM*	
16	TM	t-Butanol	0.0032	0.0028	0.0031	0.0037	0.0033	0.0035	0.0031	0.0036	0.0043		0.00	13	TM	
17	TML	Methyl Acetate		0.5858	0.4123	0.3223	0.1877	0.2224	0.2002	0.2076	0.2032		0.29	48	TML	1.000
18	TML	Iodomethane			0.1817	0.2265	0.2408	0.2984	0.3981	0.4959	0.6090		0.35	45	TML	0.997
19	TML	Acrylonitrile		0.0466	0.0701	0.0979	0.0824	0.0851	0.0770	0.0761	0.0758		0.08	19	TML	1.000
20	TM	Methylene chloride		0.8304	0.7142	0.7211	0.6635	0.6652	0.6531	0.6094	0.5892		0.68	11	TM	
21	TM	Carbon disulfide	0.8377	0.7169	0.7402	0.7186	0.6675	0.6811	0.6507	0.6311	0.5977		0.69	10	TM	
22	TM	Methyl t-butyl ether (MtBE)	1.160	1.072	1.146	1.130	1.059	1.101	1.037	1.041	0.9630		1.1	5.8	TM	
23	TM	Trans-1,2-DCE	0.9275	0.9146	0.8717	0.8807	0.8240	0.8200	0.7565	0.7483	0.7085		0.83	9.3	TM	
24	TM	Diisopropyl Ether	2.775	2.360	2.465	2.461	2.400	2.425	2.261	2.245	2.073		2.4	8.1	TM	
25	TM**	1,1-DCA	1.448	1.345	1.449	1.466	1.510	1.465	1.402	1.378	1.267		1.4	5.3	TM**	
26	TML	Vinyl Acetate		1.048	0.7027	0.5800	0.5004	0.4421	0.4155	0.4257	0.3841		0.56	40	TML	0.999
27	TM	Ethyl tert Butyl Ether	1.698	1.549	1.596	1.761	1.670	1.751	1.601	1.569	1.460		1.6	6.1	TM	
28	TML	MEK (2-Butanone)		0.5665	0.4588	0.3602	0.2874	0.2964	0.2742	0.2705			0.36	32	TML	1.000
29	TM	Cis-1,2-DCE	1.025	0.9874	0.8510	0.8618	0.8314	0.8432	0.7892	0.7602	0.7089		0.85	12	TM	
30	TM	2,2-Dichloropropane	1.246	1.113	0.9950	1.048	1.020	0.9872	0.9664	0.9254	0.8189		1.0	12	TM	
31	TM*	Chloroform	1.473	1.359	1.352	1.398	1.420	1.399	1.327	1.309	1.208		1.4	5.6	TM*	
32	TM	Bromochloromethane	0.2100	0.2283	0.2743	0.2327	0.2615	0.2451	0.2386	0.2267	0.2148		0.24	8.8	TM	
33	S	Dibromofluoromethane(S)	0.6664	0.6677	0.6754	0.6906	0.6830	0.6822	0.6563	0.6514	0.6207		0.67	3.2	S	
34	TM	1,1,1-TCA	1.307	1.226	1.269	1.241	1.235	1.281	1.263	1.210	1.104		1.2	4.7	TM	
35	TM	Cyclohexane	1.116	1.365	1.215	1.216	1.106	1.144	1.092	1.114	1.000		1.2	8.9	TM	

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Initial Cal. Date: 10/30/11
Instrument: Chico

Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
36	TM	1,1-Dichloropropene	1.089	1.043	1.238	1.061	1.080	1.064	1.039	0.9929	0.9342		1.1	7.8	TM	
37	TML	2,2,4-Trimethylpentane		4.510	2.958	2.198	1.929	1.816	1.761	1.722	1.632		2.3	42	TML	1.000
38	S	1,2-DCA-D4(S)	0.5562	0.6935	0.6364	0.6275	0.6073	0.5850	0.5554	0.5514	0.5227		0.59	9.0	S	
39	TM	Carbon Tetrachloride	0.7745	0.7961	0.7551	0.8397	0.8717	0.9031	0.9401	0.9166	0.8718		0.85	7.6	TM	
40	TM	Tert Amyl Methyl Ether	1.206	1.355	1.238	1.270	1.190	1.245	1.179	1.154	1.119		1.2	5.7	TM	
41	TM	1,2-DCA	0.8312	0.6440	0.6792	0.7198	0.7101	0.7316	0.6883	0.6614	0.6203		0.70	8.8	TM	
42	TM	Benzene	3.278	3.031	3.234	3.139	3.058	3.078	2.926	2.893	2.778		3.0	5.3	TM	
43	TM	TCE	0.7582	0.8575	0.9261	0.9155	0.8745	0.8692	0.8308	0.8139	0.7474		0.84	7.4	TM	
44	TM	2-Pentanone	0.1621	0.1829	0.1696	0.1839	0.1797	0.1849	0.1709	0.1792	0.1751		0.18	4.4	TM	
45	TM*	1,2-Dichloropropane	0.6688	0.7192	0.7502	0.6580	0.7308	0.7195	0.6791	0.6772	0.6288		0.69	5.7	TM*	
46	TM	Bromodichloromethane	0.7189	0.7057	0.8148	0.7719	0.8069	0.8660	0.8196	0.8390	0.7766		0.79	6.7	TM	
47	TM	Methyl Cyclohexane	1.113	1.125	0.9652	0.9330	0.9573	1.003	0.9550	0.9420	0.8802		0.99	8.3	TM	
48	TM	Dibromomethane	0.2413	0.2669	0.2816	0.2846	0.2915	0.3053	0.2877	0.2711	0.2623		0.28	6.8	TM	
49	TM	2-Chloroethyl vinyl ether	0.1532	0.1448	0.1599	0.1939	0.1910	0.1855	0.1751	0.1885	0.1924		0.18	11	TM	
50	TM	1-Bromo-2-chloroethane	0.6355	0.5704	0.5860	0.6008	0.6129	0.6029	0.5729	0.5868	0.5488		0.59	4.3	TM	
51	TM	Cis-1,3-Dichloropropene	0.7822	0.6621	0.7733	0.7420	0.7627	0.7998	0.7723	0.7726	0.7216		0.75	5.5	TM	
52	TM*	Toluene	3.411	3.085	2.935	3.035	3.024	3.066	2.913	2.874	2.698		3.0	6.5	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5191	0.5428	0.4995	0.5430	0.5365	0.5848	0.5511	0.5622	0.5483		0.54	4.5	TM	
54	TM	1,1,2-TCA	0.3181	0.2834	0.2608	0.3010	0.2945	0.3288	0.2891	0.2919	0.2665		0.29	7.5	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD													
56	S	Toluene-D8(S)	3.825	3.742	3.592	3.490	3.642	3.496	3.501	3.233	3.138		3.5	6.3	S	
57	TM	1,2-EDB	0.5186	0.3944	0.4412	0.4259	0.5017	0.5094	0.5156	0.5003	0.4752		0.48	9.4	TM	
58	TM	Tetrachloroethene	1.569	1.513	1.319	1.276	1.308	1.257	1.237	1.102	0.9877		1.3	14	TM	
59	TM	1-Chlorohexane	1.590	1.521	1.436	1.470	1.527	1.492	1.526	1.416	1.343		1.5	5.0	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.6133	0.6996	0.7082	0.7484	0.8608	0.9066	0.9437	0.9002	0.8611		0.80	14	TM	
61	TM	m&p-Xylene	2.262	1.857	1.843	1.755	1.899	1.909	1.977	1.824	1.763		1.9	8.1	TM	
62	TM	o-Xylene	1.911	1.844	1.639	1.684	1.946	1.920	1.973	1.805	1.714		1.8	6.7	TM	
63	TM	Styrene	2.668	2.626	2.667	2.614	2.923	2.903	3.005	2.787	2.612		2.8	5.5	TM	
64	S	4-Bromofluorobenzene(S)	1.386	1.298	1.312	1.224	1.272	1.281	1.253	1.176	1.141		1.3	5.8	S	
65	TM	2-Hexanone		0.2681	0.1979	0.2383	0.2161	0.2363	0.2325	0.2267	0.2142		0.23	9.1	TM	
66	TM	1,3-Dichloropropane	0.9515	0.9439	0.8870	0.9272	0.9571	1.037	0.9690	0.9322	0.8392		0.94	5.8	TM	
67	TM	Dibromochloromethane		0.4957	0.5504	0.5206	0.6049	0.6702	0.6987	0.6794	0.6801		0.61	13	TM	
68	TM**	Chlorobenzene	3.339	2.652	2.608	2.538	2.763	2.780	2.740	2.590	2.437		2.7	9.5	TM**	
69	TM*	Ethylbenzene	5.842	4.934	5.056	4.770	5.229	5.219	5.128	4.773	4.573		5.1	7.3	TM*	
70	TM**L	Bromoform		0.1505	0.1690	0.2072	0.2509	0.2961	0.3266	0.3337	0.3518		0.26	30	TM**L	1.000

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/11
Matrix: Instrument: Chico
Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
71	I	1,4-Dichlorobenzene-D (IS)	ISTD													
72	TM	MIBK (methyl isobutyl ketone)		0.7574	0.8768	0.8241	0.6092	0.6987	0.6391	0.6372	0.6432		0.71	14	TM	
73	TM	Isopropylbenzene	9.699	9.039	9.300	9.316	9.115	9.225	9.084	8.340	8.429		9.1	4.7	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7160	0.6740	0.7118	0.7852	0.7159	0.8359	0.8186	0.7717	0.7972		0.76	7.4	TM**	
75	TML	1,2,3-Trichloropropane		0.1080	0.1466	0.0826	0.0875	0.1024	0.0817	0.0773	0.0871		0.10	24	TML	0.999
76	TM	t-1,4-Dichloro-2-Butene			0.1384	0.1583	0.1653	0.1826	0.1817	0.1785	0.1992		0.17	12	TM	
77	TM	Bromobenzene	2.191	2.293	2.136	2.173	2.073	2.079	2.023	1.887	1.956		2.1	6.0	TM	
78	TM	n-Propylbenzene	10.7	10.8	11.2	11.8	11.0	11.1	10.9	9.840	10.0		11	5.5	TM	
79	TM	4-Ethyltoluene	8.877	7.431	7.642	7.504	7.338	7.570	7.245	6.748	6.966		7.5	8.0	TM	
80	TM	2-Chlorotoluene	7.018	7.963	7.290	7.456	7.317	7.299	7.188	6.487	6.411		7.2	6.7	TM	
81	TM	1,3,5-Trimethylbenzene	7.727	7.461	7.573	7.610	7.521	7.220	7.414	6.796	6.911		7.4	4.4	TM	
82	TM	4-Chlorotoluene	6.723	5.915	6.587	6.584	6.067	6.161	6.027	5.579	5.836		6.2	6.3	TM	
83	TM	Tert-Butylbenzene	7.797	8.301	7.989	8.311	8.009	8.197	8.168	7.421	7.513		8.0	4.1	TM	
84	TM	1,2,4-Trimethylbenzene	9.214	8.117	7.974	7.683	7.602	7.509	7.430	6.744	6.901		7.7	9.4	TM	
85	TM	Sec-Butylbenzene	9.285	9.224	9.540	9.998	9.615	10.0	10.0	9.119	9.181		9.6	3.9	TM	
86	TM	p-Isopropyltoluene	8.163	8.064	7.913	8.723	8.266	8.400	8.451	7.803	7.874		8.2	3.7	TM	
87	TM	Benzyl Chloride	1.279	1.152	0.9338	1.032	1.032	1.034	1.076	1.092	1.146		1.1	9.0	TM	
88	TM	1,3-DCB	4.734	4.325	4.213	4.479	4.312	4.203	4.279	3.938	3.986		4.3	5.6	TM	
89	TM	1,4-DCB	4.442	3.837	3.983	4.080	3.868	4.040	3.960	3.691	3.802		4.0	5.5	TM	
90	TML	Hexachloroethane		0.4249	0.7118	0.7588	0.9050	1.121	1.321	1.363	1.564		1.0	38	TML	0.999
91	TM	n-Butylbenzene	8.074	7.623	7.277	7.189	6.988	7.038	7.040	6.417	6.597		7.1	7.0	TM	
92	TM	1,2-DCB	3.608	3.335	3.210	3.537	3.348	3.563	3.491	3.215	3.291		3.4	4.5	TM	
93	TML	1,2-Dibromo-3-chloropropane			0.0874	0.0872	0.1047	0.1419	0.1157	0.1281	0.1388		0.11	20	TML	0.999
94	TM	1,2,4-Trichlorobenzene	2.498	2.793	2.514	2.479	2.457	2.481	2.418	2.256	2.277		2.5	6.3	TM	
95	TM	Hexachlorobutadiene		0.5819	0.4282	0.4193	0.3927	0.4607	0.4714	0.4161	0.4105		0.45	13	TM	
96	TM	Naphthalene	3.183	3.265	3.072	3.033	2.834	3.138	3.029	2.875	2.927		3.0	4.7	TM	
97	TM	1,2,3-Trichlorobenzene	1.684	1.977	1.763	2.168	1.821	1.952	1.854	1.766	1.787		1.9	7.9	TM	
98	TML	Dibromochlorobenzene													TML	
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	559104	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	374592	25.00000 ppb		-0.01
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	198336	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.41	111	8942	0.60039 ppb		-0.01
Spiked Amount 25.097			Recovery =	2.391%		
38) 1,2-DCA-D4(S)	12.23	65	7464	0.56298 ppb		0.00
Spiked Amount 24.225			Recovery =	2.324%		
56) Toluene-D8(S)	15.50	98	34391	0.65250 ppb		0.00
Spiked Amount 25.808			Recovery =	2.526%		
64) 4-Bromofluorobenzene(S)	20.11	95	12464	0.65998 ppb		0.00
Spiked Amount 25.459			Recovery =	2.592%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	6703	0.32540 ppb	#	80
3) Freon 114	4.33	85	3374	0.26153 ppb	#	70
4) Chloromethane	4.55	50	9320	0.36511 ppb		94
5) Vinyl chloride	4.83	62	6233	0.36505 ppb	#	76
6) 1,3-Butadiene	4.86	54	426	8.92736 ppb	#	41
7) Bromomethane	5.72	94	3789	0.30570 ppb		70
8) Chloroethane	5.92	64	6243	0.44265 ppb	#	55
9) Dichlorofluoromethane	6.01	67	12120	0.31081 ppb		86
10) Trichlorofluoromethane	6.51	101	8177	0.35336 ppb		78
11) Acetonitrile	7.67	41	8307	13.56274 ug/l		100
12) Acrolein	7.18	56	5382	19.20236 ppb	#	71
13) Acetone	7.26	43	1964	1.22606 ppb	#	75
14) Freon-113	7.48	101	3974	-0.83183 ppb	#	68
15) 1,1-DCE	7.68	96	5826	0.36499 ppb	#	38
16) t-Butanol	7.78	59	1058	13.95861 ppb		96
17) Methyl Acetate	8.17	43	2286	-0.18237 ppb	#	87
18) Iodomethane	8.17	142	479	3.85678 ppb	#	37
19) Acrylonitrile	8.56	53	560	-0.04894 ppb	#	5
20) Methylene chloride	8.46	84	7036	0.46214 ppb	#	60
21) Carbon disulfide	8.57	76	5620	0.36236 ppb		97
22) Methyl t-butyl ether (MtBE	8.91	73	7781	0.32251 ppb	#	64
23) Trans-1,2-DCE	9.09	96	6223	0.38166 ppb		92
24) Diisopropyl Ether	9.75	45	18616	0.34902 ppb	#	73
25) 1,1-DCA	9.78	63	9717	0.30719 ppb		95
26) Vinyl Acetate	9.43	43	9166	-0.47709 ppb	#	81
27) Ethyl tert Butyl Ether	10.45	59	11390	0.31279 ppb		93
28) MEK (2-Butanone)	10.45	43	4667	0.10206 ppb	#	76
29) Cis-1,2-DCE	10.80	96	6876	0.36134 ppb	#	67
30) 2,2-Dichloropropane	10.79	77	8357	0.36882 ppb		95
31) Chloroform	11.08	83	9885	0.32484 ppb		86
32) Bromochloromethane	11.31	128	1409	0.26596 ppb	#	1
34) 1,1,1-TCA	11.83	97	8769	0.31687 ppb	#	72
35) Cyclohexane	11.98	56	7488	0.29062 ppb	#	74
36) 1,1-Dichloropropene	12.10	75	7308	0.30819 ppb		86
37) 2,2,4-Trimethylpentane	12.17	57	48085	0.17131 ppb	#	87
39) Carbon Tetrachloride	12.31	117	5196	0.27267 ppb	#	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.35	73	8093	0.29724 ppb	#	82
41) 1,2-DCA	12.36	62	5577	0.35705 ppb	#	79
42) Benzene	12.50	78	21995	0.32285 ppb		99
43) TCE	13.53	95	5087	0.26961 ppb		88
44) 2-Pentanone	13.19	43	54377	13.77755 ppb		91
45) 1,2-Dichloropropane	13.76	63	4487	0.28977 ppb	#	81
46) Bromodichloromethane	14.11	83	4823	0.27263 ppb	#	84
47) Methyl Cyclohexane	13.81	83	7465	0.33857 ppb		81
48) Dibromomethane	14.15	93	1619	0.26143 ppb	#	56
49) 2-Chloroethyl vinyl ether	14.57	63	1028	0.26114 ppb	#	71
50) 1-Bromo-2-chloroethane	14.89	63	4264	0.32272 ppb	#	76
51) Cis-1,3-Dichloropropene	15.00	75	5248	0.31110 ppb		96
52) Toluene	15.64	91	22887	0.34061 ppb		88
53) Trans-1,3-Dichloropropene	15.80	75	3483	0.28679 ppb	#	72
54) 1,1,2-TCA	16.08	83	2134	0.32602 ppb		86
57) 1,2-EDB	17.33	107	2331	0.32696 ppb	#	72
58) Tetrachloroethene	16.79	164	7051	0.36612 ppb	#	74
59) 1-Chlorohexane	17.71	91	7147	0.32226 ppb	#	70
60) 1,1,1,2-Tetrachloroethane	18.16	131	2757	0.22867 ppb		83
61) m&p-Xylene	18.35	106	20335	0.71474 ppb		85
62) o-Xylene	19.11	106	8588	0.31386 ppb		68
63) Styrene	19.12	104	11993	0.29039 ppb		98
65) 2-Hexanone	16.12	43	2535	0.73958 ppb	#	73
66) 1,3-Dichloropropane	16.49	76	4277	0.30423 ppb		96
67) Dibromochloromethane	16.98	129	1907	0.20779 ppb	#	39
68) Chlorobenzene	18.10	112	15008	0.36875 ppb	#	68
69) Ethylbenzene	18.21	91	26259	0.34648 ppb		89
70) Bromoform	19.63	173	532	1.23415 ppb	#	37
72) MIBK (methyl isobutyl keto	14.68	43	7070	1.25392 ppb		81
73) Isopropylbenzene	19.72	105	23083	0.32111 ppb	#	81
74) 1,1,2,2-Tetrachloroethane	19.88	83	1704	0.28318 ppb	#	79
75) 1,2,3-Trichloropropane	20.14	110	346	0.59881 ppb	#	25
76) t-1,4-Dichloro-2-Butene	20.24	53	170	0.12459 ppb	#	62
77) Bromobenzene	20.49	156	5215	0.31451 ppb	#	54
78) n-Propylbenzene	20.44	91	25363	0.29576 ppb		97
79) 4-Ethyltoluene	20.63	105	21128	0.35603 ppb		93
80) 2-Chlorotoluene	20.74	91	16704	0.29411 ppb		87
81) 1,3,5-Trimethylbenzene	20.72	105	18391	0.31501 ppb		98
82) 4-Chlorotoluene	20.81	91	16002	0.32720 ppb	#	74
83) Tert-Butylbenzene	21.36	119	18557	0.29358 ppb		92
84) 1,2,4-Trimethylbenzene	21.41	105	21930	0.35965 ppb		91
85) Sec-Butylbenzene	21.75	105	22099	0.29154 ppb		86
86) p-Isopropyltoluene	21.99	119	19428	0.29923 ppb		97
87) Benzyl Chloride	22.41	91	3043	0.35307 ppb	#	69
88) 1,3-DCB	22.12	146	11266	0.33224 ppb		92
89) 1,4-DCB	22.29	146	10573	0.33594 ppb		95
90) Hexachloroethane	23.59	117	857	2.03197 ppb	#	50
91) n-Butylbenzene	22.70	91	19217	0.33934 ppb		91
92) 1,2-DCB	22.92	146	8586	0.31833 ppb	#	78
93) 1,2-Dibromo-3-chloropropan	24.14	155	141	1.41683 ppb	#	27
94) 1,2,4-Trichlorobenzene	25.58	180	5945	0.30417 ppb	#	86

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.83	223	1530	0.43087	ppb	#	68
96) Naphthalene	25.92	128	7576	0.31416	ppb	#	79
97) 1,2,3-Trichlorobenzene	26.29	180	4008	0.27110	ppb		85

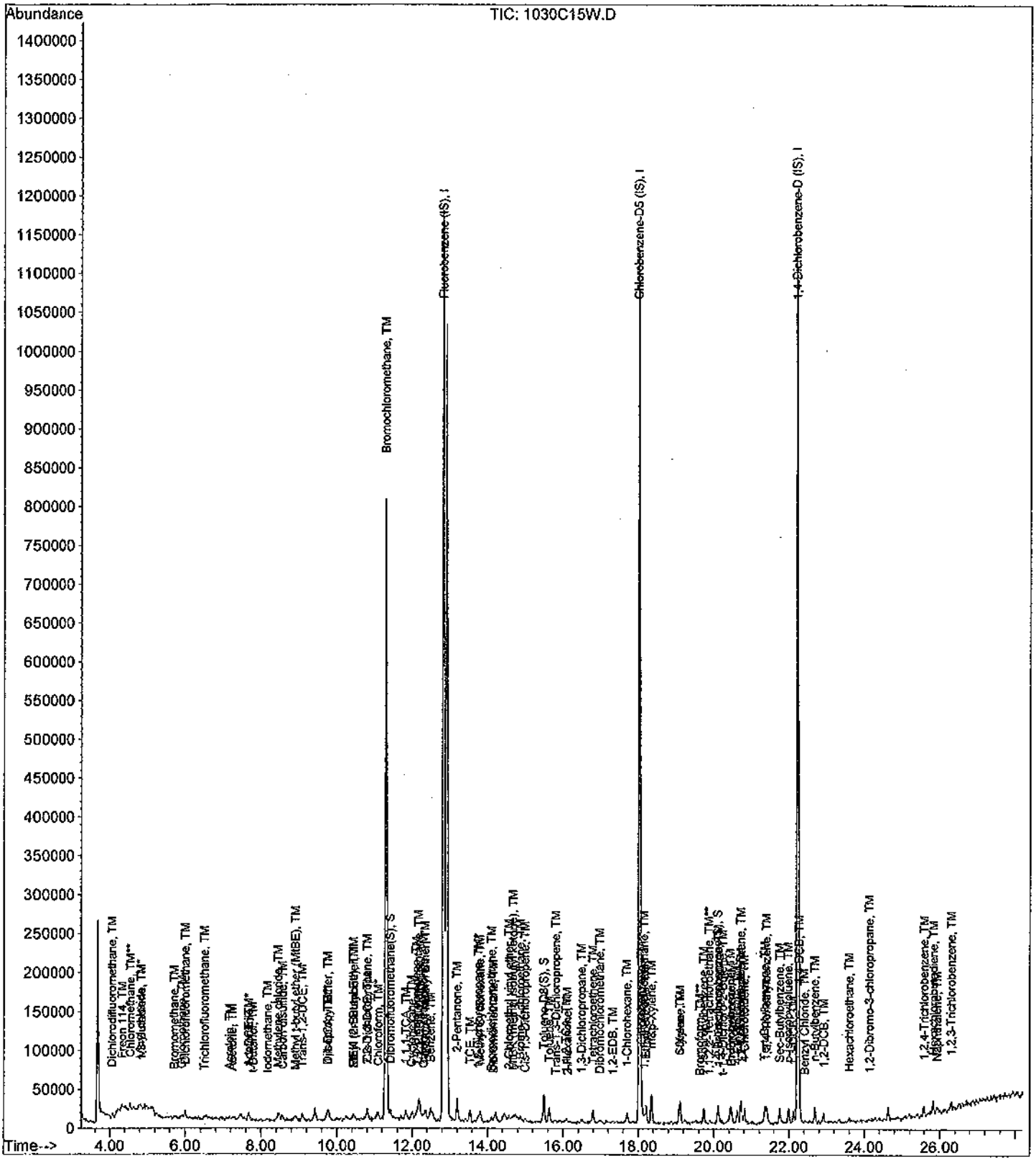
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C15W.D Vial: 1
Acq On : 30 Oct 11 23:28 Operator: STC
Sample : Voc Std 10-30-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	564160	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	384000	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	199104	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	15067	1.00257	ppb		0.00
Spiked Amount 25.097			Recovery = 3.996%				
38) 1,2-DCA-D4(S)	12.23	65	15649	1.16976	ppb		0.00
Spiked Amount 24.225			Recovery = 4.830%				
56) Toluene-D8(S)	15.51	98	57480	1.06384	ppb		0.01
Spiked Amount 25.808			Recovery = 4.123%				
64) 4-Bromofluorobenzene(S)	20.10	95	19938	1.02988	ppb		0.00
Spiked Amount 25.459			Recovery = 4.046%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	10824	0.52075	ppb		95
3) Freon 114	4.33	85	6172	0.47412	ppb		98
4) Chloromethane	4.55	50	13218	0.51317	ppb	#	72
5) Vinyl chloride	4.81	62	9283	0.53880	ppb	#	69
6) 1,3-Butadiene	4.79	54	547	11.36033	ppb		97
7) Bromomethane	5.73	94	6059	0.48447	ppb		87
8) Chloroethane	5.91	64	8441	0.59313	ppb	#	74
9) Dichlorofluoromethane	6.02	67	21197	0.53871	ppb	#	80
10) Trichlorofluoromethane	6.51	101	10617	0.45468	ppb		86
11) Acetonitrile	7.65	41	17187	27.80953	ug/l		100
12) Acrolein	7.15	56	7488	26.47690	ppb		95
13) Acetone	7.29	43	5599	3.46393	ppb		93
14) Freon-113	7.43	101	3032	-0.91166	ppb	#	70
15) 1,1-DCE	7.68	96	9367	0.58157	ppb		86
16) t-Butanol	7.75	59	1553	20.30572	ppb		100
17) Methyl Acetate	8.18	43	6610	0.76232	ppb	#	81
18) Iodomethane	8.16	142	1888	3.95744	ppb	#	59
19) Acrylonitrile	8.56	53	526	-0.07185	ppb	#	71
20) Methylene chloride	8.48	84	9369	0.60986	ppb		86
21) Carbon disulfide	8.56	76	8089	0.51688	ppb		94
22) Methyl t-butyl ether (MtBE	8.89	73	12097	0.49691	ppb		93
23) Trans-1,2-DCE	9.08	96	10320	0.62725	ppb		75
24) Diisopropyl Ether	9.74	45	26624	0.49469	ppb	#	77
25) 1,1-DCA	9.79	63	15171	0.47532	ppb	#	86
26) Vinyl Acetate	9.43	43	11823	-0.17906	ppb	#	82
27) Ethyl tert Butyl Ether	10.44	59	17474	0.47557	ppb		99
28) MEK (2-Butanone)	10.44	43	6392	0.38220	ppb	#	76
29) Cis-1,2-DCE	10.81	96	11141	0.58022	ppb	#	62
30) 2,2-Dichloropropane	10.83	77	12554	0.54909	ppb		96
31) Chloroform	11.09	83	15337	0.49949	ppb		92
32) Bromochloromethane	11.30	128	2576	0.48189	ppb	#	33
34) 1,1,1-TCA	11.83	97	13833	0.49538	ppb	#	82
35) Cyclohexane	11.99	56	15403	0.59245	ppb		78
36) 1,1-Dichloropropene	12.10	75	11774	0.49209	ppb	#	84
37) 2,2,4-Trimethylpentane	12.18	57	50886	0.23590	ppb		93
39) Carbon Tetrachloride	12.29	117	8982	0.46713	ppb		86

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.34	73	15291	0.55657	ppb	#	82
41)	1,2-DCA	12.36	62	7266	0.46101	ppb		99
42)	Benzene	12.50	78	34203	0.49755	ppb	#	86
43)	TCE	13.53	95	9675	0.50818	ppb	#	76
44)	2-Pentanone	13.21	43	103205	25.91480	ppb		91
45)	1,2-Dichloropropane	13.77	63	8115	0.51936	ppb		98
46)	Bromodichloromethane	14.11	83	7962	0.44603	ppb	#	98
47)	Methyl Cyclohexane	13.81	83	12697	0.57069	ppb		99
48)	Dibromomethane	14.16	93	3011	0.48185	ppb	#	68
49)	2-Chloroethyl vinyl ether	14.58	63	1634	0.41135	ppb	#	59
50)	1-Bromo-2-chloroethane	14.88	63	6436	0.48274	ppb	#	66
51)	Cis-1,3-Dichloropropene	15.00	75	7471	0.43891	ppb	#	75
52)	Toluene	15.63	91	34808	0.51338	ppb		87
53)	Trans-1,3-Dichloropropene	15.80	75	6124	0.49974	ppb	#	83
54)	1,1,2-TCA	16.08	83	3198	0.48419	ppb	#	78
57)	1,2-EDB	17.33	107	3029	0.41446	ppb	#	80
58)	Tetrachloroethene	16.78	164	11617	0.58843	ppb		81
59)	1-Chlorohexane	17.70	91	11679	0.51371	ppb		93
60)	1,1,1,2-Tetrachloroethane	18.16	131	5373	0.43472	ppb		80
61)	m&p-Xylene	18.36	106	28523	0.97798	ppb		92
62)	o-Xylene	19.10	106	14161	0.50486	ppb		88
63)	Styrene	19.13	104	20171	0.47643	ppb		89
65)	2-Hexanone	16.11	43	2059	0.58599	ppb	#	78
66)	1,3-Dichloropropane	16.50	76	7249	0.50300	ppb		84
67)	Dibromochloromethane	16.95	129	3807	0.40465	ppb		74
68)	Chlorobenzene	18.11	112	20370	0.48823	ppb	#	81
69)	Ethylbenzene	18.21	91	37896	0.48777	ppb		98
70)	Bromoform	19.62	173	1156	1.34654	ppb	#	37
72)	MIBK (methyl isobutyl keto	14.67	43	3016	0.53285	ppb	#	51
73)	Isopropylbenzene	19.73	105	35995	0.49881	ppb		90
74)	1,1,2,2-Tetrachloroethane	19.89	83	2684	0.44432	ppb	#	86
75)	1,2,3-Trichloropropane	20.15	110	430	0.71972	ppb	#	57
76)	t-1,4-Dichloro-2-Butene	20.21	53	1066	0.77827	ppb	#	42
77)	Bromobenzene	20.47	156	9129	0.54844	ppb	#	86
78)	n-Propylbenzene	20.44	91	42985	0.49932	ppb		89
79)	4-Ethyltoluene	20.63	105	29592	0.49673	ppb		84
80)	2-Chlorotoluene	20.73	91	31711	0.55619	ppb	#	79
81)	1,3,5-Trimethylbenzene	20.71	105	29710	0.50692	ppb		88
82)	4-Chlorotoluene	20.82	91	23555	0.47979	ppb		86
83)	Tert-Butylbenzene	21.36	119	33054	0.52092	ppb		95
84)	1,2,4-Trimethylbenzene	21.41	105	32321	0.52802	ppb	#	68
85)	Sec-Butylbenzene	21.76	105	36729	0.48267	ppb		87
86)	p-Isopropyltoluene	22.00	119	32111	0.49266	ppb		93
87)	Benzyl Chloride	22.43	91	4589	0.53039	ppb		91
88)	1,3-DCB	22.11	146	17221	0.50589	ppb	#	84
89)	1,4-DCB	22.29	146	15280	0.48363	ppb		95
90)	Hexachloroethane	23.59	117	1692	2.09850	ppb	#	60
91)	n-Butylbenzene	22.70	91	30355	0.53395	ppb		90
92)	1,2-DCB	22.92	146	13282	0.49053	ppb		92
93)	1,2-Dibromo-3-chloropropan	24.16	155	468	1.71132	ppb	#	1
94)	1,2,4-Trichlorobenzene	25.58	180	11120	0.56675	ppb		82

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.83	223	2317	0.64998	ppb	#	59
96) Naphthalene	25.93	128	13003	0.53713	ppb	#	92
97) 1,2,3-Trichlorobenzene	26.30	180	7873	0.53048	ppb	#	70

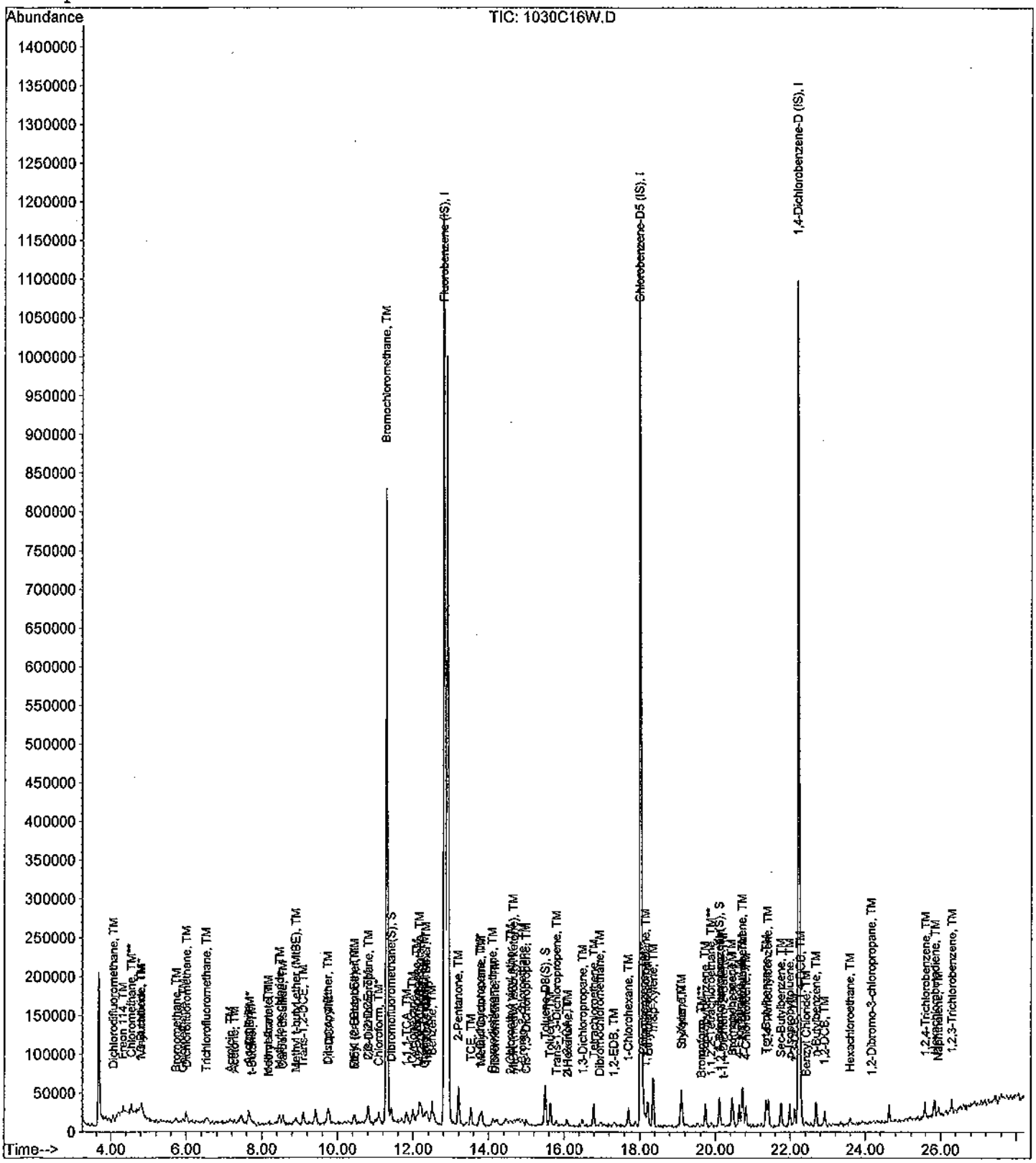
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C16W.D Vial: 1
Acq On : 31 Oct 11 00:11 Operator: STC
Sample : Voc Std 10-30-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	539200	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	383872	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	197760	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.42	111	29134	2.02833	ppb		0.00
Spiked Amount 25.097			Recovery =	8.081%			
38) 1,2-DCA-D4(S)	12.22	65	27452	2.14703	ppb		0.00
Spiked Amount 24.225			Recovery =	8.863%			
56) Toluene-D8(S)	15.50	98	110307	2.04225	ppb		0.00
Spiked Amount 25.808			Recovery =	7.912%			
64) 4-Bromofluorobenzene(S)	20.11	95	40278	2.08121	ppb		0.00
Spiked Amount 25.459			Recovery =	8.174%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	20878	1.05095	ppb	#	77
3) Freon 114	4.34	85	13301	1.06904	ppb		79
4) Chloromethane	4.55	50	26727	1.08568	ppb		96
5) Vinyl chloride	4.82	62	20250	1.22976	ppb		92
6) 1,3-Butadiene	4.82	54	298	6.47548	ppb	#	63
7) Bromomethane	5.73	94	10639	0.89005	ppb		88
8) Chloroethane	5.91	64	16785	1.23404	ppb		95
9) Dichlorofluoromethane	6.01	67	40917	1.08801	ppb		99
10) Trichlorofluoromethane	6.54	101	22833	1.02311	ppb	#	73
11) Acetonitrile	7.65	41	29961	50.72269	ug/l		100
12) Acrolein	7.16	56	13727	50.78428	ppb		87
13) Acetone	7.28	43	5913	3.82754	ppb	#	80
14) Freon-113	7.47	101	14321	0.06398	ppb	#	85
15) 1,1-DCE	7.68	96	16287	1.05802	ppb	#	61
16) t-Butanol	7.76	59	3312	45.30953	ppb		93
17) Methyl Acetate	8.19	43	8892	1.35363	ppb		91
18) Iodomethane	8.17	142	3919	4.11599	ppb	#	77
19) Acrylonitrile	8.55	53	1511	0.54689	ppb	#	42
20) Methylene chloride	8.47	84	15404	1.04912	ppb	#	71
21) Carbon disulfide	8.56	76	15964	1.06731	ppb		97
22) Methyl t-butyl ether (MtBE	8.89	73	24721	1.06247	ppb	#	90
23) Trans-1,2-DCE	9.10	96	18800	1.19557	ppb	#	91
24) Diisopropyl Ether	9.75	45	53157	1.03341	ppb		96
25) 1,1-DCA	9.78	63	31252	1.02448	ppb	#	91
26) Vinyl Acetate	9.41	43	15155	0.28793	ppb	#	78
27) Ethyl tert Butyl Ether	10.44	59	34422	0.98019	ppb		99
28) MEK (2-Butanone)	10.44	43	9896	1.04178	ppb	#	90
29) Cis-1,2-DCE	10.81	96	18355	1.00018	ppb		79
30) 2,2-Dichloropropane	10.81	77	21461	0.98211	ppb		96
31) Chloroform	11.09	83	29160	0.99364	ppb		95
32) Bromochloromethane	11.32	128	5916	1.15793	ppb		90
34) 1,1,1-TCA	11.83	97	27369	1.02550	ppb		88
35) Cyclohexane	12.00	56	26209	1.05474	ppb		95
36) 1,1-Dichloropropene	12.09	75	26709	1.16796	ppb	#	85
37) 2,2,4-Trimethylpentane	12.17	57	63801	0.66906	ppb		93
39) Carbon Tetrachloride	12.29	117	16287	0.88625	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40) Tert Amyl Methyl Ether	12.35	73	26700	1.01682	ppb		98
41) 1,2-DCA	12.38	62	14649	0.97246	ppb	#	86
42) Benzene	12.49	78	69760	1.06177	ppb	#	93
43) TCE	13.53	95	19974	1.09770	ppb		87
44) 2-Pentanone	13.20	43	182845	48.03774	ppb		99
45) 1,2-Dichloropropane	13.77	63	16180	1.08346	ppb		97
46) Bromodichloromethane	14.12	83	17574	1.03007	ppb	#	98
47) Methyl Cyclohexane	13.82	83	20818	0.97903	ppb		89
48) Dibromomethane	14.16	93	6074	1.01701	ppb	#	71
49) 2-Chloroethyl vinyl ether	14.58	63	3448	0.90821	ppb		94
50) 1-Bromo-2-chloroethane	14.88	63	12639	0.99189	ppb	#	62
51) Cis-1,3-Dichloropropene	15.01	75	16679	1.02522	ppb		86
52) Toluene	15.63	91	63296	0.97675	ppb		83
53) Trans-1,3-Dichloropropene	15.81	75	10774	0.91989	ppb		92
54) 1,1,2-TCA	16.09	83	5625	0.89108	ppb		89
57) 1,2-EDB	17.32	107	6774	0.92719	ppb	#	92
58) Tetrachloroethene	16.79	164	20256	1.02636	ppb		96
59) 1-Chlorohexane	17.70	91	22047	0.97009	ppb		95
60) 1,1,1,2-Tetrachloroethane	18.16	131	10874	0.88009	ppb		87
61) m&p-Xylene	18.35	106	56585	1.94079	ppb		87
62) o-Xylene	19.10	106	25167	0.89753	ppb		93
63) Styrene	19.12	104	40956	0.96769	ppb		88
65) 2-Hexanone	16.10	43	3038	0.86490	ppb	#	70
66) 1,3-Dichloropropane	16.49	76	13620	0.94539	ppb		85
67) Dibromochloromethane	16.98	129	8452	0.89867	ppb	#	59
68) Chlorobenzene	18.10	112	40045	0.96012	ppb		92
69) Ethylbenzene	18.22	91	77629	0.99952	ppb		96
70) Bromoform	19.64	173	2595	1.61154	ppb	#	81
72) MIBK (methyl isobutyl keto	14.66	43	6936	1.23373	ppb	#	66
73) Isopropylbenzene	19.74	105	73566	1.02638	ppb	#	82
74) 1,1,2,2-Tetrachloroethane	19.90	83	5631	0.93852	ppb		82
75) 1,2,3-Trichloropropane	20.15	110	1160	1.79904	ppb	#	72
76) t-1,4-Dichloro-2-Butene	20.24	53	1095	0.80488	ppb	#	13
77) Bromobenzene	20.48	156	16894	1.02183	ppb		83
78) n-Propylbenzene	20.44	91	88461	1.03456	ppb		99
79) 4-Ethyltoluene	20.64	105	60450	1.02161	ppb		93
80) 2-Chlorotoluene	20.73	91	57667	1.01832	ppb		95
81) 1,3,5-Trimethylbenzene	20.71	105	59903	1.02902	ppb		95
82) 4-Chlorotoluene	20.81	91	52108	1.06859	ppb		96
83) Tert-Butylbenzene	21.35	119	63199	1.00276	ppb		94
84) 1,2,4-Trimethylbenzene	21.42	105	63077	1.03747	ppb		94
85) Sec-Butylbenzene	21.76	105	75467	0.99848	ppb		94
86) p-Isopropyltoluene	21.99	119	62593	0.96686	ppb		95
87) Benzyl Chloride	22.43	91	7387	0.85958	ppb	#	79
88) 1,3-DCB	22.14	146	33327	0.98569	ppb		96
89) 1,4-DCB	22.30	146	31510	1.00410	ppb		98
90) Hexachloroethane	23.60	117	5631	2.41666	ppb	#	75
91) n-Butylbenzene	22.70	91	57562	1.01941	ppb		93
92) 1,2-DCB	22.92	146	25391	0.94412	ppb	#	84
93) 1,2-Dibromo-3-chloropropan	24.15	155	691	1.91673	ppb	#	73
94) 1,2,4-Trichlorobenzene	25.59	180	19884	1.02031	ppb		78

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	3387	0.95661	ppb	84
96) Naphthalene	25.94	128	24301	1.01065	ppb	97
97) 1,2,3-Trichlorobenzene	26.29	180	13947	0.94613	ppb	97

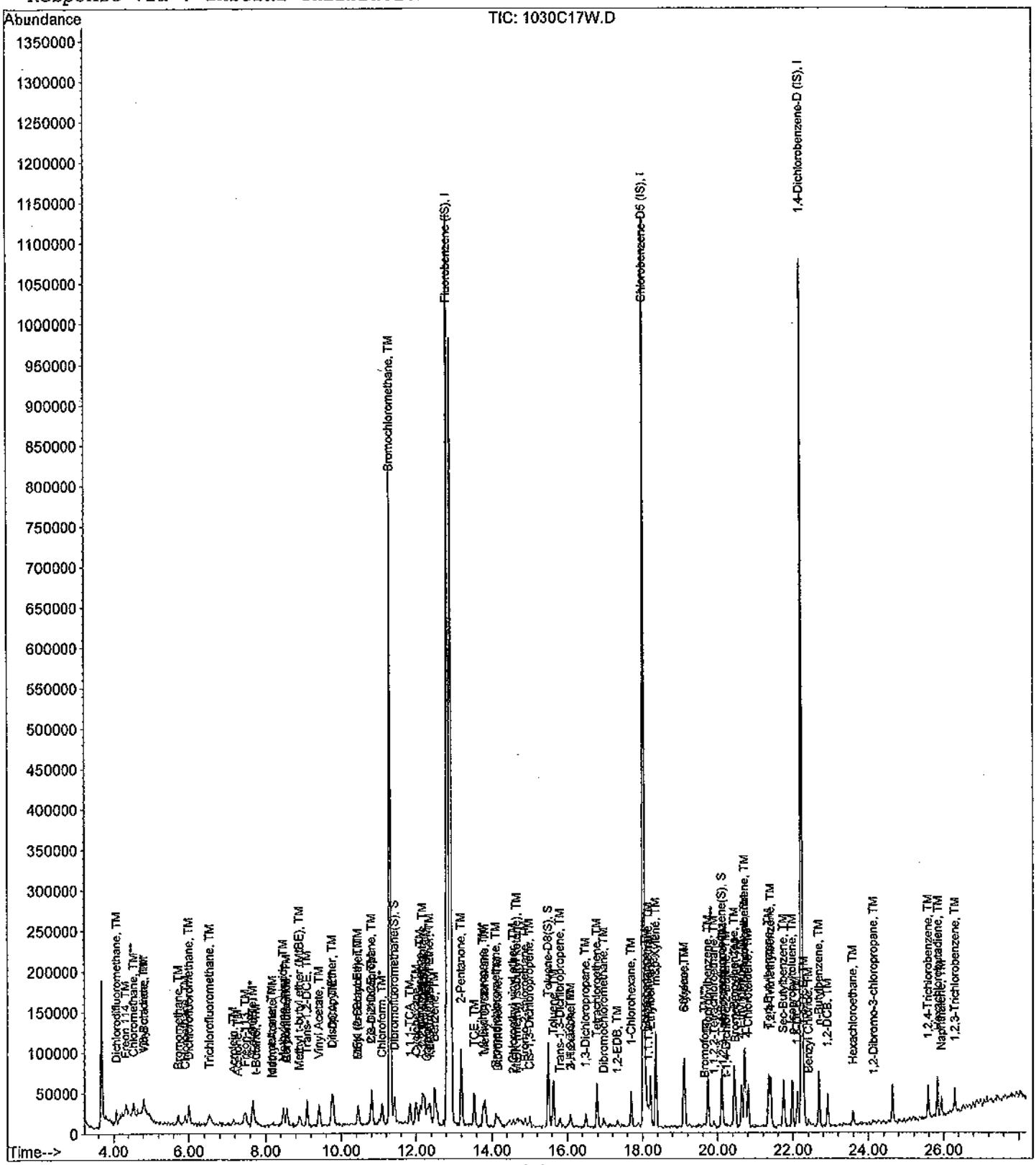
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C17W.D Vial: 1
Acq On : 31 Oct 11 00:54 Operator: STC
Sample : Voc Std 10-30-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	543693	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	392832	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	191296	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.42	111	60078	4.14811	ppb		0.00
Spiked Amount 25.097			Recovery = 16.528%				
38) 1,2-DCA-D4(S)	12.22	65	54589	4.23414	ppb		0.00
Spiked Amount 24.225			Recovery = 17.478%				
56) Toluene-D8(S)	15.50	98	219343	3.96834	ppb		0.00
Spiked Amount 25.808			Recovery = 15.375%				
64) 4-Bromofluorobenzene(S)	20.11	95	76951	3.88546	ppb		0.00
Spiked Amount 25.459			Recovery = 15.260%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	36846	1.83942	ppb		95
3) Freon 114	4.32	85	25225	2.01066	ppb		95
4) Chloromethane	4.55	50	51493	2.07441	ppb		100
5) Vinyl chloride	4.81	62	31638	1.90546	ppb		92
6) 1,3-Butadiene	4.84	54	317	6.83143	ppb	#	82
7) Bromomethane	5.71	94	28199	2.33962	ppb		74
8) Chloroethane	5.92	64	27665	2.01714	ppb		90
9) Dichlorofluoromethane	6.00	67	80153	2.11371	ppb		99
10) Trichlorofluoromethane	6.54	101	46217	2.05380	ppb		88
11) Acetonitrile	7.66	41	44013	73.89637	ug/l		100
12) Acrolein	7.16	56	19054	69.90947	ppb		98
13) Acetone	7.27	43	7499	4.81405	ppb	#	42
14) Freon-113	7.46	101	27051	1.13214	ppb		88
15) 1,1-DCE	7.68	96	30774	1.98259	ppb		95
16) t-Butanol	7.77	59	6037	81.90616	ppb	#	90
17) Methyl Acetate	8.19	43	14018	2.50439	ppb		92
18) Iodomethane	8.16	142	9850	4.55459	ppb	#	90
19) Acrylonitrile	8.55	53	4257	2.21042	ppb	#	19
20) Methylene chloride	8.48	84	31366	2.11859	ppb		85
21) Carbon disulfide	8.57	76	31256	2.07243	ppb		98
22) Methyl t-butyl ether (MtBE	8.91	73	49153	2.09506	ppb		96
23) Trans-1,2-DCE	9.10	96	38306	2.41590	ppb		94
24) Diisopropyl Ether	9.76	45	107058	2.06409	ppb		95
25) 1,1-DCA	9.80	63	63745	2.07237	ppb		98
26) Vinyl Acetate	9.41	43	25227	1.48278	ppb		94
27) Ethyl tert Butyl Ether	10.45	59	76607	2.16342	ppb		92
28) MEK (2-Butanone)	10.43	43	15669	2.02476	ppb		99
29) Cis-1,2-DCE	10.80	96	37483	2.02559	ppb		88
30) 2,2-Dichloropropane	10.81	77	45572	2.06826	ppb		95
31) Chloroform	11.08	83	60802	2.05473	ppb		96
32) Bromochloromethane	11.31	128	10121	1.96459	ppb		82
34) 1,1,1-TCA	11.83	97	53989	2.00623	ppb		93
35) Cyclohexane	12.00	56	52880	2.11050	ppb		95
36) 1,1-Dichloropropene	12.11	75	46149	2.00137	ppb		96
37) 2,2,4-Trimethylpentane	12.19	57	95598	1.55463	ppb		92
39) Carbon Tetrachloride	12.30	117	36525	1.97107	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.36	73	55233	2.08607 ppb	#	90
41) 1,2-DCA	12.38	62	31308	2.06118 ppb	#	89
42) Benzene	12.50	78	136536	2.06095 ppb		98
43) TCE	13.53	95	39821	2.17034 ppb		94
44) 2-Pentanone	13.20	43	299963	78.15618 ppb		98
45) 1,2-Dichloropropane	13.76	63	28619	1.90057 ppb		96
46) Bromodichloromethane	14.11	83	33573	1.95155 ppb		94
47) Methyl Cyclohexane	13.82	83	40581	1.89267 ppb		83
48) Dibromomethane	14.18	93	12379	2.05557 ppb		85
49) 2-Chloroethyl vinyl ether	14.57	63	8433	2.20290 ppb	#	78
50) 1-Bromo-2-chloroethane	14.88	63	26134	2.03401 ppb	#	77
51) Cis-1,3-Dichloropropene	15.00	75	32272	1.96729 ppb		92
52) Toluene	15.64	91	132018	2.02040 ppb		99
53) Trans-1,3-Dichloropropene	15.80	75	23617	1.99976 ppb		93
54) 1,1,2-TCA	16.07	83	13091	2.05665 ppb		90
57) 1,2-EDB	17.33	107	13384	1.79015 ppb	#	92
58) Tetrachloroethene	16.79	164	40109	1.98595 ppb		92
59) 1-Chlorohexane	17.70	91	46192	1.98613 ppb		96
60) 1,1,1,2-Tetrachloroethane	18.15	131	23520	1.86019 ppb		89
61) m&p-Xylene	18.36	106	110324	3.69766 ppb		95
62) o-Xylene	19.09	106	52936	1.84480 ppb		88
63) Styrene	19.12	104	82149	1.89672 ppb		97
65) 2-Hexanone	16.12	43	7490	2.08373 ppb		85
66) 1,3-Dichloropropane	16.50	76	29140	1.97652 ppb		91
67) Dibromochloromethane	16.96	129	16360	1.69982 ppb		100
68) Chlorobenzene	18.11	112	79768	1.86890 ppb		98
69) Ethylbenzene	18.21	91	149915	1.88621 ppb		93
70) Bromoform	19.64	173	6510	2.30500 ppb	#	44
72) MIBK (methyl isobutyl keto	14.67	43	12611	2.31897 ppb	#	76
73) Isopropylbenzene	19.73	105	142568	2.05630 ppb		95
74) 1,1,2,2-Tetrachloroethane	19.90	83	12016	2.07037 ppb	#	84
75) 1,2,3-Trichloropropane	20.16	110	1264	2.01509 ppb	#	74
76) t-1,4-Dichloro-2-Butene	20.21	53	2422	1.84044 ppb	#	55
77) Bromobenzene	20.48	156	33262	2.07982 ppb		93
78) n-Propylbenzene	20.45	91	180141	2.17796 ppb		94
79) 4-Ethyltoluene	20.64	105	114833	2.00627 ppb		95
80) 2-Chlorotoluene	20.74	91	114105	2.08302 ppb		94
81) 1,3,5-Trimethylbenzene	20.72	105	116458	2.06813 ppb		96
82) 4-Chlorotoluene	20.81	91	100754	2.13600 ppb		94
83) Tert-Butylbenzene	21.36	119	127189	2.08627 ppb		98
84) 1,2,4-Trimethylbenzene	21.41	105	117571	1.99911 ppb		93
85) Sec-Butylbenzene	21.75	105	153012	2.09286 ppb		92
86) p-Isopropyltoluene	21.99	119	133490	2.13166 ppb		95
87) Benzyl Chloride	22.42	91	15798	1.90043 ppb	#	85
88) 1,3-DCB	22.13	146	68550	2.09596 ppb		97
89) 1,4-DCB	22.29	146	62433	2.05672 ppb		94
90) Hexachloroethane	23.60	117	11613	2.93003 ppb		93
91) n-Butylbenzene	22.70	91	110023	2.01433 ppb		97
92) 1,2-DCB	22.93	146	54129	2.08070 ppb		92
93) 1,2-Dibromo-3-chloropropan	24.14	155	1335	2.54260 ppb		84
94) 1,2,4-Trichlorobenzene	25.58	180	37932	2.01219 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
95) Hexachlorobutadiene	25.84	223	6417	1.87363	ppb	#	88
96) Naphthalene	25.93	128	46421	1.99582	ppb		98
97) 1,2,3-Trichlorobenzene	26.30	180	33171	2.32627	ppb		93

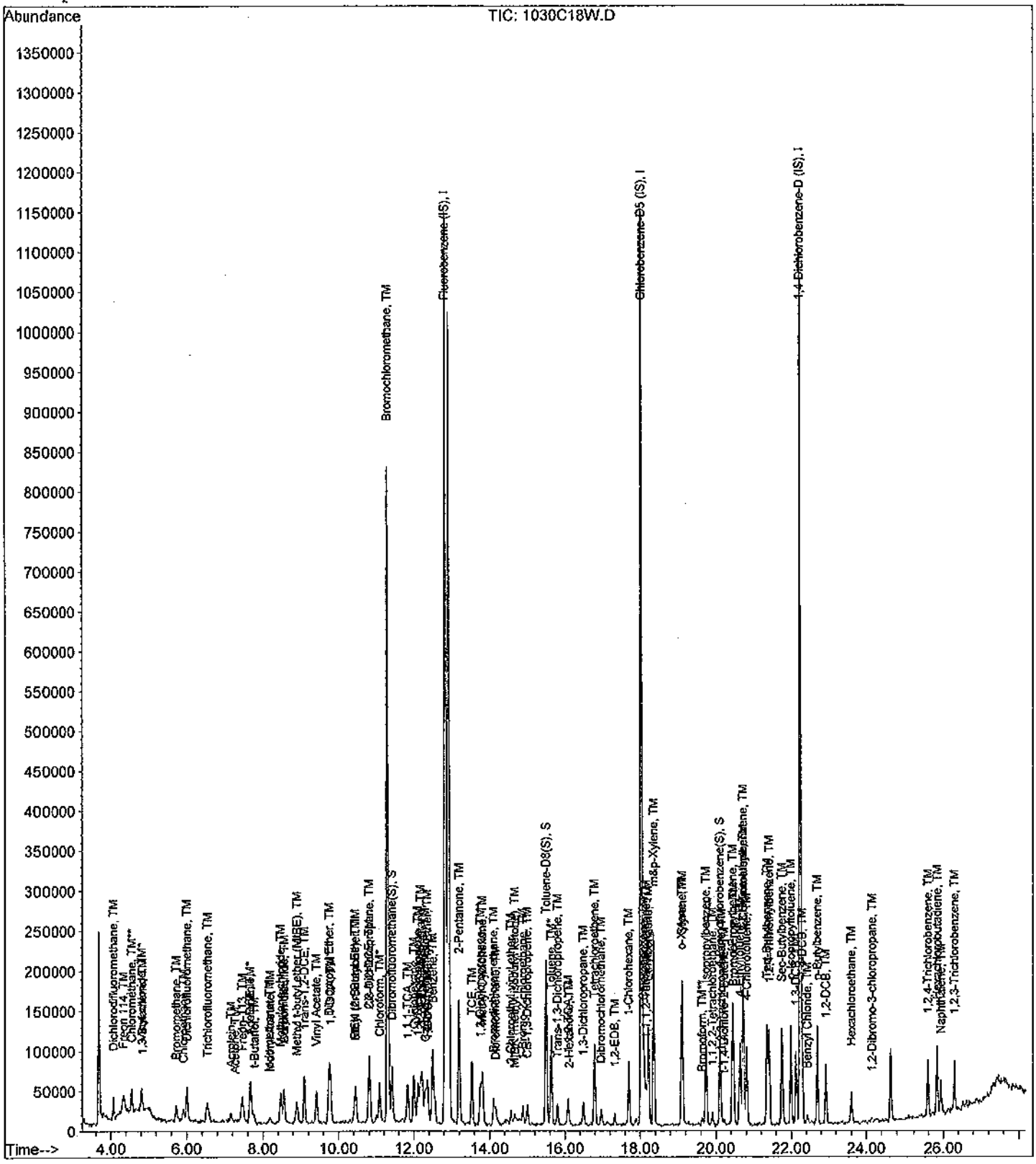
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C18W.D Vial: 1
Acq On : 31 Oct 11 1:37 Operator: STC
Sample : Voc Std 10-30-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	541888	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	369024	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	201600	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	148052	10.25637	ppb		0.00
Spiked Amount 25.097			Recovery = 40.865%				
38) 1,2-DCA-D4(S)	12.23	65	131632	10.24391	ppb		0.00
Spiked Amount 24.225			Recovery = 42.286%				
56) Toluene-D8(S)	15.50	98	537545	10.35266	ppb		0.00
Spiked Amount 25.808			Recovery = 40.115%				
64) 4-Bromofluorobenzene(S)	20.11	95	187725	10.09026	ppb		0.00
Spiked Amount 25.459			Recovery = 39.632%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	95693	4.79307	ppb		98
3) Freon 114	4.35	85	60331	4.82494	ppb		99
4) Chloromethane	4.55	50	115016	4.64888	ppb		98
5) Vinyl chloride	4.82	62	95476	5.76939	ppb		92
6) 1,3-Butadiene	4.78	54	267	5.77308	ppb	#	1
7) Bromomethane	5.73	94	55608	4.62906	ppb		89
8) Chloroethane	5.91	64	65920	4.82244	ppb		93
9) Dichlorofluoromethane	6.01	67	193619	5.12293	ppb		100
10) Trichlorofluoromethane	6.52	101	112493	5.01564	ppb		99
11) Acetonitrile	7.65	41	62470	105.23443	ug/l		100
12) Acrolein	7.15	56	26911	99.06583	ppb		94
13) Acetone	7.29	43	12573	8.09824	ppb		97
14) Freon-113	7.46	101	68643	4.67447	ppb		88
15) 1,1-DCE	7.67	96	76091	4.91843	ppb		89
16) t-Butanol	7.76	59	7217	98.24180	ppb		93
17) Methyl Acetate	8.19	43	20340	3.95990	ppb		95
18) Iodomethane	8.17	142	26092	5.76882	ppb		90
19) Acrylonitrile	8.56	53	8927	5.07063	ppb		92
20) Methylene chloride	8.48	84	71913	4.87349	ppb		94
21) Carbon disulfide	8.56	76	72344	4.81275	ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	114808	4.90979	ppb	#	90
23) Trans-1,2-DCE	9.10	96	89303	5.65097	ppb		95
24) Diisopropyl Ether	9.75	45	260084	5.03115	ppb		91
25) 1,1-DCA	9.79	63	163680	5.33900	ppb		96
26) Vinyl Acetate	9.42	43	54231	4.98892	ppb	#	79
27) Ethyl tert Butyl Ether	10.44	59	180946	5.12702	ppb		98
28) MEK (2-Butanone)	10.43	43	31144	4.71582	ppb	#	87
29) Cis-1,2-DCE	10.82	96	90101	4.88531	ppb		94
30) 2,2-Dichloropropane	10.82	77	110498	5.03159	ppb		99
31) Chloroform	11.10	83	153864	5.21698	ppb		100
32) Bromochloromethane	11.31	128	28344	5.52019	ppb		86
34) 1,1,1-TCA	11.84	97	133883	4.99165	ppb		96
35) Cyclohexane	12.00	56	119918	4.80199	ppb		98
36) 1,1-Dichloropropene	12.10	75	117037	5.09252	ppb		98
37) 2,2,4-Trimethylpentane	12.18	57	209064	4.78823	ppb		95
39) Carbon Tetrachloride	12.30	117	94473	5.11522	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40) Tert Amyl Methyl Ether	12.36	73	128972	4.88731 ppb		98
41) 1,2-DCA	12.38	62	76954	5.08320 ppb		98
42) Benzene	12.50	78	331433	5.01951 ppb		100
43) TCE	13.54	95	94771	5.18246 ppb		92
44) 2-Pentanone	13.20	43	389562	101.83954 ppb		98
45) 1,2-Dichloropropane	13.77	63	79197	5.27695 ppb		96
46) Bromodichloromethane	14.12	83	87445	5.09999 ppb		96
47) Methyl Cyclohexane	13.82	83	103751	4.85498 ppb		94
48) Dibromomethane	14.16	93	31588	5.26275 ppb		82
49) 2-Chloroethyl vinyl ether	14.58	63	20703	5.42613 ppb	#	92
50) 1-Bromo-2-chloroethane	14.88	63	66427	5.18724 ppb		82
51) Cis-1,3-Dichloropropene	15.01	75	82661	5.05577 ppb		98
52) Toluene	15.63	91	327752	5.03263 ppb		100
53) Trans-1,3-Dichloropropene	15.80	75	58149	4.94014 ppb		92
54) 1,1,2-TCA	16.08	83	31919	5.03132 ppb		92
57) 1,2-EDB	17.32	107	37026	5.27183 ppb	#	70
58) Tetrachloroethene	16.79	164	96522	5.08752 ppb		93
59) 1-Chlorohexane	17.70	91	112708	5.15879 ppb		93
60) 1,1,1,2-Tetrachloroethane	18.16	131	63531	5.34881 ppb		97
61) m&p-Xylene	18.36	106	280238	9.99854 ppb		95
62) o-Xylene	19.11	106	143606	5.32749 ppb		99
63) Styrene	19.12	104	215758	5.30297 ppb		96
65) 2-Hexanone	16.11	43	15947	4.72270 ppb		87
66) 1,3-Dichloropropane	16.50	76	70642	5.10067 ppb		92
67) Dibromochloromethane	16.97	129	44643	4.93770 ppb		89
68) Chlorobenzene	18.10	112	203928	5.08611 ppb		100
69) Ethylbenzene	18.22	91	385898	5.16857 ppb		100
70) Bromoform	19.63	173	18516	4.67993 ppb		89
72) MIBK (methyl isobutyl keto	14.68	43	24562	4.28572 ppb		100
73) Isopropylbenzene	19.74	105	367532	5.03008 ppb		99
74) 1,1,2,2-Tetrachloroethane	19.90	83	28865	4.71928 ppb	#	80
75) 1,2,3-Trichloropropane	20.15	110	3527	5.18588 ppb	#	55
76) t-1,4-Dichloro-2-Butene	20.22	53	6664	4.80505 ppb	#	82
77) Bromobenzene	20.48	156	83579	4.95894 ppb		96
78) n-Propylbenzene	20.44	91	444891	5.10396 ppb		99
79) 4-Ethyltoluene	20.64	105	295868	4.90496 ppb		95
80) 2-Chlorotoluene	20.73	91	295014	5.11030 ppb		95
81) 1,3,5-Trimethylbenzene	20.71	105	303247	5.11000 ppb		98
82) 4-Chlorotoluene	20.82	91	244634	4.92119 ppb		94
83) Tert-Butylbenzene	21.36	119	322939	5.02640 ppb		96
84) 1,2,4-Trimethylbenzene	21.42	105	306527	4.94563 ppb		98
85) Sec-Butylbenzene	21.76	105	387689	5.03168 ppb		98
86) p-Isopropyltoluene	21.99	119	333281	5.05005 ppb		97
87) Benzyl Chloride	22.43	91	41624	4.75127 ppb		92
88) 1,3-DCB	22.14	146	173843	5.04369 ppb		91
89) 1,4-DCB	22.30	146	155968	4.87542 ppb		94
90) Hexachloroethane	23.60	117	36490	4.84597 ppb		81
91) n-Butylbenzene	22.70	91	281770	4.89505 ppb		94
92) 1,2-DCB	22.93	146	134998	4.92405 ppb		97
93) 1,2-Dibromo-3-chloropropan	24.14	155	4220	5.04887 ppb		94
94) 1,2,4-Trichlorobenzene	25.59	180	99085	4.98753 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	15832	4.38634	ppb	86
96) Naphthalene	25.94	128	114277	4.66210	ppb	98
97) 1,2,3-Trichlorobenzene	26.29	180	73429	4.88636	ppb	92

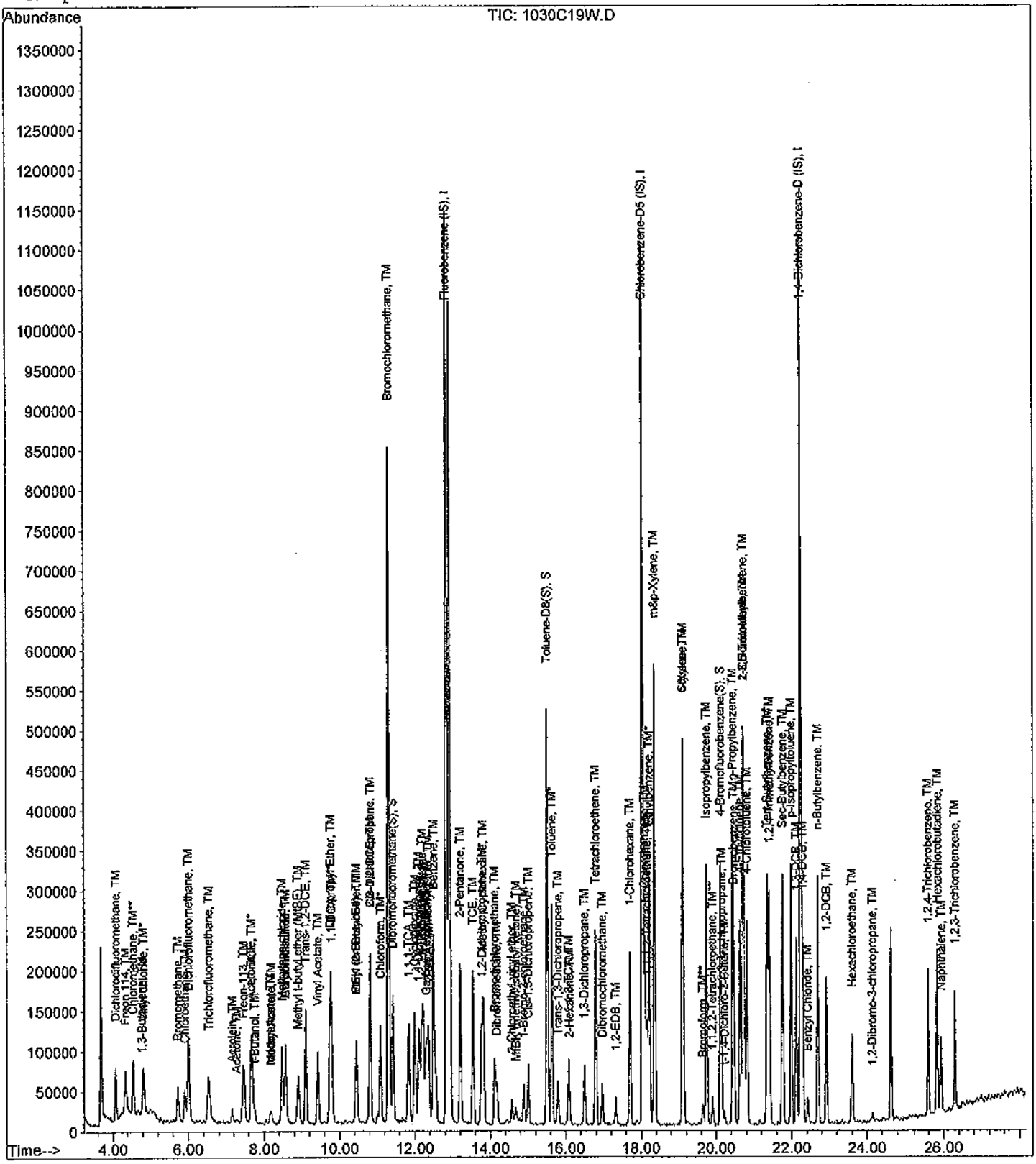
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C19W.D Vial: 1
Acq On : 31 Oct 11 2:20 Operator: STC
Sample : Voc Std 10-30-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	96	556544	25.00000	ppb	0.00
55) Chlorobenzene-D5 (IS)	18.04	117	375296	25.00000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	203520	25.00000	ppb	0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	379665	25.60885	ppb	0.00
Spiked Amount 25.097			Recovery = 102.039%			
38) 1,2-DCA-D4(S)	12.23	65	325575	24.66979	ppb	0.00
Spiked Amount 24.225			Recovery = 101.836%			
56) Toluene-D8(S)	15.50	98	1312175	24.84903	ppb	0.00
Spiked Amount 25.808			Recovery = 96.283%			
64) 4-Bromofluorobenzene(S)	20.11	95	480879	25.41539	ppb	0.00
Spiked Amount 25.459			Recovery = 99.825%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	203737	9.93605	ppb	100
3) Freon 114	4.33	85	139352	10.85112	ppb	100
4) Chloromethane	4.55	50	239697	9.43328	ppb	100
5) Vinyl chloride	4.82	62	177123	10.42127	ppb	100
6) 1,3-Butadiene	4.83	54	475	10.00000	ppb	100
7) Bromomethane	5.73	94	118673	9.61873	ppb	100
8) Chloroethane	5.91	64	132559	9.44211	ppb	100
9) Dichlorofluoromethane	6.01	67	384006	9.89278	ppb	100
10) Trichlorofluoromethane	6.53	101	230965	10.02667	ppb	100
11) Acetonitrile	7.65	41	74340	121.93234	ug/l	100
12) Acrolein	7.16	56	32973	118.18505	ppb	100
13) Acetone	7.28	43	21604	13.54865	ppb	100
14) Freon-113	7.47	101	140200	10.44199	ppb	100
15) 1,1-DCE	7.68	96	152367	9.58945	ppb	100
16) t-Butanol	7.77	59	9738	129.06824	ppb	100
17) Methyl Acetate	8.19	43	49512	10.32908	ppb	100
18) Iodomethane	8.16	142	66421	8.64718	ppb	100
19) Acrylonitrile	8.56	53	18948	10.88495	ppb	100
20) Methylene chloride	8.47	84	148076	9.77073	ppb	100
21) Carbon disulfide	8.56	76	151616	9.82077	ppb	100
22) Methyl t-butyl ether (MtBE	8.89	73	244998	10.20148	ppb	100
23) Trans-1,2-DCE	9.10	96	182548	11.24718	ppb	100
24) Diisopropyl Ether	9.76	45	539900	10.16896	ppb	100
25) 1,1-DCA	9.79	63	326209	10.36025	ppb	100
26) Vinyl Acetate	9.42	43	98410	10.00173	ppb	100
27) Ethyl tert Butyl Ether	10.45	59	389708	10.75141	ppb	100
28) MEK (2-Butanone)	10.44	43	65986	10.45330	ppb	100
29) Cis-1,2-DCE	10.82	96	187720	9.91021	ppb	100
30) 2,2-Dichloropropane	10.81	77	219771	9.74386	ppb	100
31) Chloroform	11.09	83	311468	10.28266	ppb	100
32) Bromochloromethane	11.32	128	54568	10.34763	ppb	100
34) 1,1,1-TCA	11.84	97	285282	10.35627	ppb	100
35) Cyclohexane	12.00	56	254779	9.93369	ppb	100
36) 1,1-Dichloropropene	12.11	75	236871	10.03533	ppb	100
37) 2,2,4-Trimethylpentane	12.18	57	404324	10.03470	ppb	100
39) Carbon Tetrachloride	12.31	117	201043	10.59877	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40)	Tert Amyl Methyl Ether	12.34	73	277234	10.22896 ppb	100
41)	1,2-DCA	12.38	62	162875	10.47539 ppb	100
42)	Benzene	12.50	78	685232	10.10446 ppb	100
43)	TCE	13.53	95	193489	10.30213 ppb	100
44)	2-Pentanone	13.20	43	514551	130.97195 ppb	100
45)	1,2-Dichloropropane	13.77	63	160165	10.39087 ppb	100
46)	Bromodichloromethane	14.11	83	192788	10.94774 ppb	100
47)	Methyl Cyclohexane	13.81	83	223185	10.16882 ppb	100
48)	Dibromomethane	14.17	93	67961	11.02453 ppb	100
49)	2-Chloroethyl vinyl ether	14.58	63	41287	10.53611 ppb	100
50)	1-Bromo-2-chloroethane	14.89	63	134227	10.20568 ppb	100
51)	Cis-1,3-Dichloropropene	15.00	75	178053	10.60342 ppb	100
52)	Toluene	15.63	91	682617	10.20555 ppb	100
53)	Trans-1,3-Dichloropropene	15.80	75	130192	10.76940 ppb	100
54)	1,1,2-TCA	16.08	83	73187	11.23251 ppb	100
57)	1,2-EDB	17.33	107	76477	10.70696 ppb	100
58)	Tetrachloroethene	16.79	164	188693	9.77949 ppb	100
59)	1-Chlorohexane	17.70	91	223919	10.07778 ppb	100
60)	1,1,1,2-Tetrachloroethane	18.16	131	136098	11.26688 ppb	100
61)	m&p-Xylene	18.36	106	573288	20.11236 ppb	100
62)	o-Xylene	19.11	106	288268	10.51543 ppb	100
63)	Styrene	19.13	104	435830	10.53295 ppb	100
65)	2-Hexanone	16.11	43	35479	10.33151 ppb	100
66)	1,3-Dichloropropane	16.49	76	155699	11.05429 ppb	100
67)	Dibromochloromethane	16.98	129	100610	10.94190 ppb	100
68)	Chlorobenzene	18.11	112	417306	10.23397 ppb	100
69)	Ethylbenzene	18.22	91	783451	10.31788 ppb	100
70)	Bromoform	19.64	173	44444	9.50336 ppb	100
72)	MIBK (methyl isobutyl keto	14.68	43	56876	9.83043 ppb	100
73)	Isopropylbenzene	19.73	105	751023	10.18160 ppb	100
74)	1,1,2,2-Tetrachloroethane	19.90	83	68052	11.02118 ppb	100
75)	1,2,3-Trichloropropane	20.16	110	8339	12.02369 ppb	100
76)	t-1,4-Dichloro-2-Butene	20.24	53	14863	10.61580 ppb	100
77)	Bromobenzene	20.48	156	169233	9.94627 ppb	100
78)	n-Propylbenzene	20.44	91	904419	10.27795 ppb	100
79)	4-Ethyltoluene	20.63	105	616295	10.12067 ppb	100
80)	2-Chlorotoluene	20.74	91	594233	10.19632 ppb	100
81)	1,3,5-Trimethylbenzene	20.72	105	587753	9.81075 ppb	100
82)	4-Chlorotoluene	20.82	91	501553	9.99433 ppb	100
83)	Tert-Butylbenzene	21.36	119	667298	10.28820 ppb	100
84)	1,2,4-Trimethylbenzene	21.42	105	611300	9.76991 ppb	100
85)	Sec-Butylbenzene	21.76	105	815062	10.47861 ppb	100
86)	p-Isopropyltoluene	21.99	119	683802	10.26358 ppb	100
87)	Benzyl Chloride	22.42	91	84140	9.51375 ppb	100
88)	1,3-DCB	22.12	146	342186	9.83414 ppb	100
89)	1,4-DCB	22.30	146	328879	10.18349 ppb	100
90)	Hexachloroethane	23.60	117	91222	9.10196 ppb	100
91)	n-Butylbenzene	22.69	91	572922	9.85919 ppb	100
92)	1,2-DCB	22.93	146	290055	10.47995 ppb	100
93)	1,2-Dibromo-3-chloropropan	24.15	155	11552	11.48408 ppb	100
94)	1,2,4-Trichlorobenzene	25.59	180	201946	10.06924 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	37504	10.29265	ppb	100
96) Naphthalene	25.94	128	255426	10.32217	ppb	100
97) 1,2,3-Trichlorobenzene	26.29	180	158877	10.47278	ppb	100

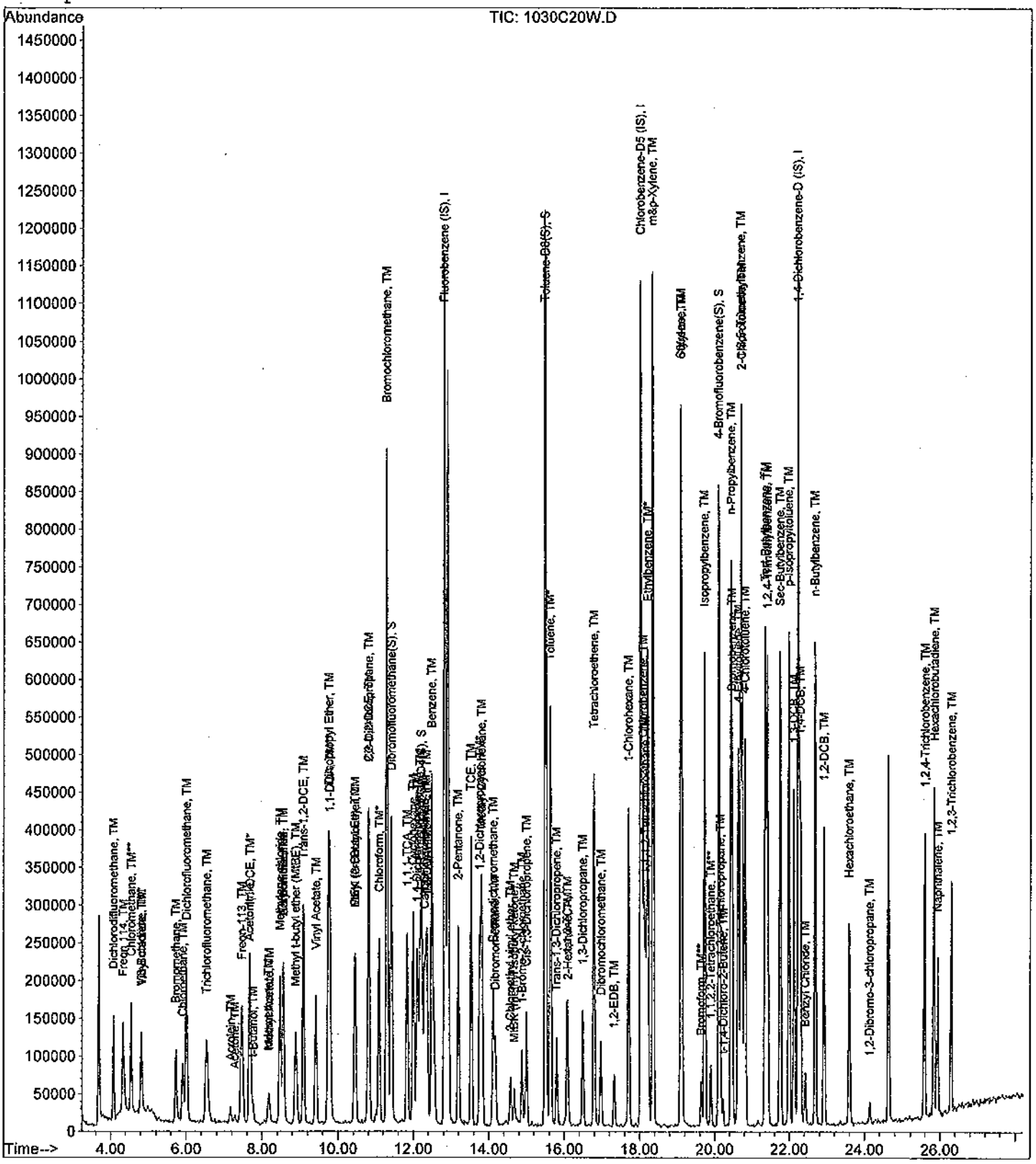
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C20W.D Vial: 1
Acq On : 31 Oct 11 3:03 Operator: STC
Sample : Voc Std 10-30-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	566784	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	371200	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	208640	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	595137	39.41743 ppb		0.00
Spiked Amount 25.097			Recovery = 157.057%			
38) 1,2-DCA-D4(S)	12.23	65	503677	37.47559 ppb		0.00
Spiked Amount 24.225			Recovery = 154.698%			
56) Toluene-D8(S)	15.50	98	2079192	39.80872 ppb		0.00
Spiked Amount 25.808			Recovery = 154.249%			
64) 4-Bromofluorobenzene(S)	20.11	95	744294	39.77146 ppb		0.00
Spiked Amount 25.459			Recovery = 156.213%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	430955	20.63753 ppb		98
3) Freon 114	4.34	85	282152	21.57379 ppb		99
4) Chloromethane	4.55	50	489131	18.90198 ppb		99
5) Vinyl chloride	4.81	62	352842	20.38487 ppb		100
6) 1,3-Butadiene	4.83	54	344	7.11126 ppb	#	70
7) Bromomethane	5.73	94	258043	20.53713 ppb		86
8) Chloroethane	5.91	64	259811	18.17186 ppb		97
9) Dichlorofluoromethane	6.01	67	754464	19.08539 ppb		99
10) Trichlorofluoromethane	6.53	101	465717	19.85247 ppb		94
11) Acetonitrile	7.65	41	87890	141.55257 ug/l		100
12) Acrolein	7.16	56	38144	134.24936 ppb		98
13) Acetone	7.28	43	36583	22.52802 ppb	#	68
14) Freon-113	7.46	101	275908	21.25897 ppb		94
15) 1,1-DCE	7.68	96	292224	18.05929 ppb		95
16) t-Butanol	7.77	59	10632	138.37146 ppb		91
17) Methyl Acetate	8.19	43	90758	19.14260 ppb		98
18) Iodomethane	8.16	142	180521	16.69886 ppb	#	89
19) Acrylonitrile	8.56	53	34895	19.99122 ppb		97
20) Methylene chloride	8.48	84	296145	19.18795 ppb		91
21) Carbon disulfide	8.56	76	295040	18.76564 ppb		100
22) Methyl t-butyl ether (MtBE	8.90	73	470382	19.23240 ppb		96
23) Trans-1,2-DCE	9.11	96	343023	20.75257 ppb		92
24) Diisopropyl Ether	9.75	45	1025315	18.96280 ppb		99
25) 1,1-DCA	9.79	63	635624	19.82242 ppb		97
26) Vinyl Acetate	9.42	43	188410	20.16485 ppb		92
27) Ethyl tert Butyl Ether	10.44	59	725972	19.66653 ppb		95
28) MEK (2-Butanone)	10.44	43	124340	19.92151 ppb		98
29) Cis-1,2-DCE	10.82	96	357838	18.54986 ppb		94
30) 2,2-Dichloropropane	10.81	77	438187	19.07664 ppb		93
31) Chloroform	11.09	83	601855	19.51038 ppb		94
32) Bromochloromethane	11.32	128	108166	20.14075 ppb		85
34) 1,1,1-TCA	11.83	97	572722	20.41525 ppb		94
35) Cyclohexane	12.00	56	494926	18.94826 ppb		96
36) 1,1-Dichloropropene	12.10	75	471318	19.60721 ppb		97
37) 2,2,4-Trimethylpentane	12.18	57	798347	20.53839 ppb		93
39) Carbon Tetrachloride	12.30	117	426253	22.06560 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	534720	19.37283 ppb		97
41)	1,2-DCA	12.37	62	312083	19.70915 ppb		98
42)	Benzene	12.50	78	1326677	19.20979 ppb		99
43)	TCE	13.54	95	376706	19.69496 ppb		91
44)	2-Pentanone	13.20	43	581100	145.23880 ppb		100
45)	1,2-Dichloropropane	13.76	63	307944	19.61725 ppb		95
46)	Bromodichloromethane	14.12	83	371635	20.72255 ppb	#	93
47)	Methyl Cyclohexane	13.82	83	433011	19.37253 ppb		97
48)	Dibromomethane	14.16	93	130449	20.77893 ppb		97
49)	2-Chloroethyl vinyl ether	14.58	63	79377	19.89041 ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	259762	19.39365 ppb		89
51)	Cis-1,3-Dichloropropene	15.01	75	350200	20.47835 ppb		91
52)	Toluene	15.63	91	1320740	19.38915 ppb		97
53)	Trans-1,3-Dichloropropene	15.80	75	249890	20.29730 ppb		96
54)	1,1,2-TCA	16.08	83	131106	19.75819 ppb		93
57)	1,2-EDB	17.33	107	153122	21.67400 ppb		94
58)	Tetrachloroethene	16.79	164	367302	19.24640 ppb		91
59)	1-Chlorohexane	17.70	91	453290	20.62604 ppb		98
60)	1,1,1,2-Tetrachloroethane	18.16	131	280249	23.45643 ppb		92
61)	m&p-Xylene	18.35	106	1173944	41.63932 ppb		100
62)	o-Xylene	19.11	106	585791	21.60426 ppb		95
63)	Styrene	19.12	104	892450	21.80633 ppb		99
65)	2-Hexanone	16.10	43	69030	20.32340 ppb		93
66)	1,3-Dichloropropane	16.50	76	287745	20.65470 ppb		99
67)	Dibromochloromethane	16.97	129	207497	22.81547 ppb		93
68)	Chlorobenzene	18.10	112	813528	20.17102 ppb		97
69)	Ethylbenzene	18.22	91	1522721	20.27519 ppb		95
70)	Bromoform	19.64	173	97001	19.60233 ppb		84
72)	MIBK (methyl isobutyl keto	14.68	43	106674	17.98505 ppb		92
73)	Isopropylbenzene	19.74	105	1516275	20.05166 ppb		98
74)	1,1,2,2-Tetrachloroethane	19.89	83	136632	21.58486 ppb		90
75)	1,2,3-Trichloropropane	20.15	110	13641	19.13172 ppb	#	42
76)	t-1,4-Dichloro-2-Butene	20.22	53	30320	21.12442 ppb	#	79
77)	Bromobenzene	20.48	156	337635	19.35675 ppb		93
78)	n-Propylbenzene	20.44	91	1817556	20.14810 ppb		97
79)	4-Ethyltoluene	20.64	105	1209221	19.37027 ppb		92
80)	2-Chlorotoluene	20.73	91	1199768	20.08139 ppb		99
81)	1,3,5-Trimethylbenzene	20.71	105	1237433	20.14832 ppb		99
82)	4-Chlorotoluene	20.82	91	1006043	19.55523 ppb		96
83)	Tert-Butylbenzene	21.36	119	1363292	20.50304 ppb		98
84)	1,2,4-Trimethylbenzene	21.42	105	1240098	19.33311 ppb		98
85)	Sec-Butylbenzene	21.76	105	1672276	20.97154 ppb		99
86)	p-Isopropyltoluene	21.99	119	1410527	20.65186 ppb		98
87)	Benzyl Chloride	22.43	91	179615	19.81078 ppb		96
88)	1,3-DCB	22.13	146	714268	20.02373 ppb		99
89)	1,4-DCB	22.30	146	661023	19.96579 ppb		96
90)	Hexachloroethane	23.60	117	220554	18.79960 ppb		91
91)	n-Butylbenzene	22.70	91	1175074	19.72516 ppb		100
92)	1,2-DCB	22.93	146	582656	20.53528 ppb		96
93)	1,2-Dibromo-3-chloropropan	24.14	155	19304	17.90735 ppb	#	68
94)	1,2,4-Trichlorobenzene	25.59	180	403670	19.63348 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	78688	21.06531	ppb	92
96) Naphthalene	25.94	128	505600	19.93070	ppb	99
97) 1,2,3-Trichlorobenzene	26.30	180	309459	19.89820	ppb	98

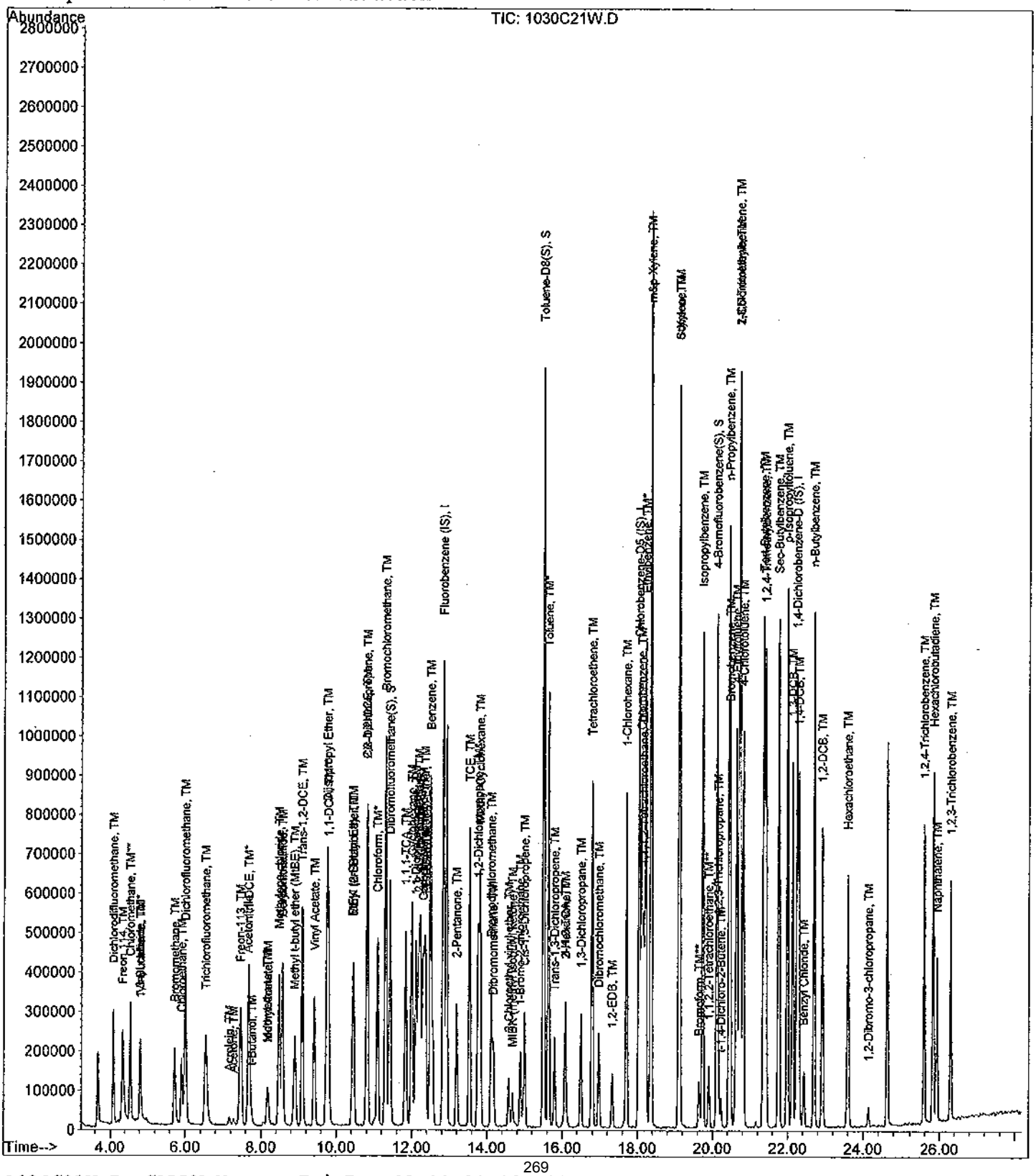
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C21W.D Vial: 1
Acq On : 31 Oct 11 3:46 Operator: STC
Sample : Voc Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	576384	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.03	117	400384	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	224000	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.43	111	1201490	78.25231	ppb		0.00
Spiked Amount 25.097			Recovery = 311.795%				
38) 1,2-DCA-D4(S)	12.23	65	1017043	74.41171	ppb		0.00
Spiked Amount 24.225			Recovery = 307.167%				
56) Toluene-D8(S)	15.50	98	4141980	73.52293	ppb		0.00
Spiked Amount 25.808			Recovery = 284.881%				
64) 4-Bromofluorobenzene(S)	20.11	95	1506838	74.64914	ppb		0.00
Spiked Amount 25.459			Recovery = 293.207%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.07	85	884588	41.65551	ppb		100
3) Freon 114	4.33	85	557051	41.88358	ppb		95
4) Chloromethane	4.55	50	992312	37.70822	ppb		99
5) Vinyl chloride	4.81	62	582991	33.12037	ppb		100
6) 1,3-Butadiene	4.80	54	564	11.46497	ppb		93
7) Bromomethane	5.73	94	528649	41.37336	ppb		93
8) Chloroethane	5.91	64	531050	36.52439	ppb		99
9) Dichlorofluoromethane	6.01	67	1474925	36.68918	ppb		98
10) Trichlorofluoromethane	6.53	101	946797	39.68761	ppb		99
11) Acetonitrile	7.66	41	108364	171.62043	ug/l		100
12) Acrolein	7.16	56	48720	168.61606	ppb		96
13) Acetone	7.28	43	68038	41.20035	ppb	#	70
14) Freon-113	7.47	101	558655	43.47676	ppb		95
15) 1,1-DCE	7.68	96	585091	35.55608	ppb		97
16) t-Butanol	7.76	59	14424	184.59628	ppb		98
17) Methyl Acetate	8.19	43	191479	40.45406	ppb		95
18) Iodomethane	8.17	142	457316	35.89956	ppb		95
19) Acrylonitrile	8.56	53	70209	39.92472	ppb		91
20) Methylene chloride	8.48	84	561985	35.80590	ppb		98
21) Carbon disulfide	8.56	76	582016	36.40182	ppb		99
22) Methyl t-butyl ether (MtBE	8.89	73	959832	38.59078	ppb		96
23) Trans-1,2-DCE	9.10	96	690130	41.05681	ppb		94
24) Diisopropyl Ether	9.75	45	2070362	37.65279	ppb		97
25) 1,1-DCA	9.79	63	1270640	38.96588	ppb		96
26) Vinyl Acetate	9.42	43	392586	42.94098	ppb		95
27) Ethyl tert Butyl Ether	10.45	59	1446892	38.54337	ppb		98
28) MEK (2-Butanone)	10.44	43	249429	39.96063	ppb	#	93
29) Cis-1,2-DCE	10.82	96	701038	35.73563	ppb		95
30) 2,2-Dichloropropane	10.81	77	853458	36.53678	ppb		99
31) Chloroform	11.10	83	1207454	38.49020	ppb		99
32) Bromochloromethane	11.32	128	209048	38.27688	ppb		92
34) 1,1,1-TCA	11.83	97	1115691	39.10753	ppb		98
35) Cyclohexane	12.00	56	1027386	38.67839	ppb		97
36) 1,1-Dichloropropene	12.10	75	915628	37.45644	ppb		98
37) 2,2,4-Trimethylpentane	12.18	57	1588067	41.27686	ppb		96
39) Carbon Tetrachloride	12.30	117	845279	43.02829	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.34	73	1064298	37.91715	ppb		95
41)	1,2-DCA	12.37	62	609966	37.87992	ppb		96
42)	Benzene	12.50	78	2667822	37.98569	ppb		98
43)	TCE	13.53	95	750591	38.58882	ppb		94
44)	2-Pentanone	13.20	43	723061	177.71021	ppb		99
45)	1,2-Dichloropropane	13.77	63	624547	39.12345	ppb		95
46)	Bromodichloromethane	14.12	83	773755	42.42635	ppb		95
47)	Methyl Cyclohexane	13.82	83	868699	38.21751	ppb		98
48)	Dibromomethane	14.17	93	250020	39.16182	ppb		86
49)	2-Chloroethyl vinyl ether	14.57	63	173802	42.82620	ppb		95
50)	1-Bromo-2-chloroethane	14.89	63	541199	39.73256	ppb		83
51)	Cis-1,3-Dichloropropene	15.00	75	712500	40.97032	ppb		95
52)	Toluene	15.63	91	2650413	38.26138	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	518508	41.41431	ppb		91
54)	1,1,2-TCA	16.08	83	269238	39.89943	ppb		93
57)	1,2-EDB	17.33	107	320516	42.06127	ppb		96
58)	Tetrachloroethene	16.79	164	705793	34.28742	ppb		95
59)	1-Chlorohexane	17.70	91	907243	38.27319	ppb		95
60)	1,1,1,2-Tetrachloroethane	18.16	131	576678	44.74892	ppb		93
61)	m&p-Xylene	18.35	106	2337444	76.86502	ppb		99
62)	o-Xylene	19.11	106	1156368	39.53885	ppb		94
63)	Styrene	19.13	104	1785628	40.45023	ppb		97
65)	2-Hexanone	16.10	43	145250	39.64659	ppb		96
66)	1,3-Dichloropropane	16.49	76	597192	39.74260	ppb		95
67)	Dibromochloromethane	16.97	129	435261	44.37095	ppb		90
68)	Chlorobenzene	18.10	112	1658874	38.13292	ppb		97
69)	Ethylbenzene	18.22	91	3057452	37.74292	ppb		98
70)	Bromoform	19.64	173	213787	38.87093	ppb	#	77
72)	MIBK (methyl isobutyl keto	14.67	43	228387	35.86526	ppb		86
73)	Isopropylbenzene	19.74	105	2989202	36.81944	ppb		100
74)	1,1,2,2-Tetrachloroethane	19.90	83	276570	40.69597	ppb		85
75)	1,2,3-Trichloropropane	20.15	110	27712	36.12043	ppb	#	64
76)	t-1,4-Dichloro-2-Butene	20.23	53	63970	41.51275	ppb	#	73
77)	Bromobenzene	20.47	156	676448	36.12176	ppb		94
78)	n-Propylbenzene	20.44	91	3526664	36.41330	ppb		96
79)	4-Ethyltoluene	20.64	105	2418588	36.08622	ppb		96
80)	2-Chlorotoluene	20.74	91	2324947	36.24591	ppb		98
81)	1,3,5-Trimethylbenzene	20.71	105	2435760	36.94036	ppb		97
82)	4-Chlorotoluene	20.82	91	1999529	36.20126	ppb		95
83)	Tert-Butylbenzene	21.36	119	2659556	37.25529	ppb		98
84)	1,2,4-Trimethylbenzene	21.42	105	2416954	35.09648	ppb		97
85)	Sec-Butylbenzene	21.76	105	3268087	38.17382	ppb		99
86)	p-Isopropyltoluene	21.99	119	2796609	38.13811	ppb		99
87)	Benzyl Chloride	22.42	91	391533	40.22322	ppb		98
88)	1,3-DCB	22.12	146	1411201	36.84871	ppb		99
89)	1,4-DCB	22.30	146	1322903	37.21752	ppb		96
90)	Hexachloroethane	23.60	117	488322	36.68408	ppb		93
91)	n-Butylbenzene	22.70	91	2299832	35.95845	ppb		98
92)	1,2-DCB	22.93	146	1152377	37.82968	ppb		95
93)	1,2-Dibromo-3-chloropropan	24.14	155	45893	38.08788	ppb		96
94)	1,2,4-Trichlorobenzene	25.59	180	808556	36.62946	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) Hexachlorobutadiene	25.84	223	149142	37.18851 ppb	98
96) Naphthalene	25.94	128	1030307	37.82960 ppb	97
97) 1,2,3-Trichlorobenzene	26.29	180	633099	37.91681 ppb	96

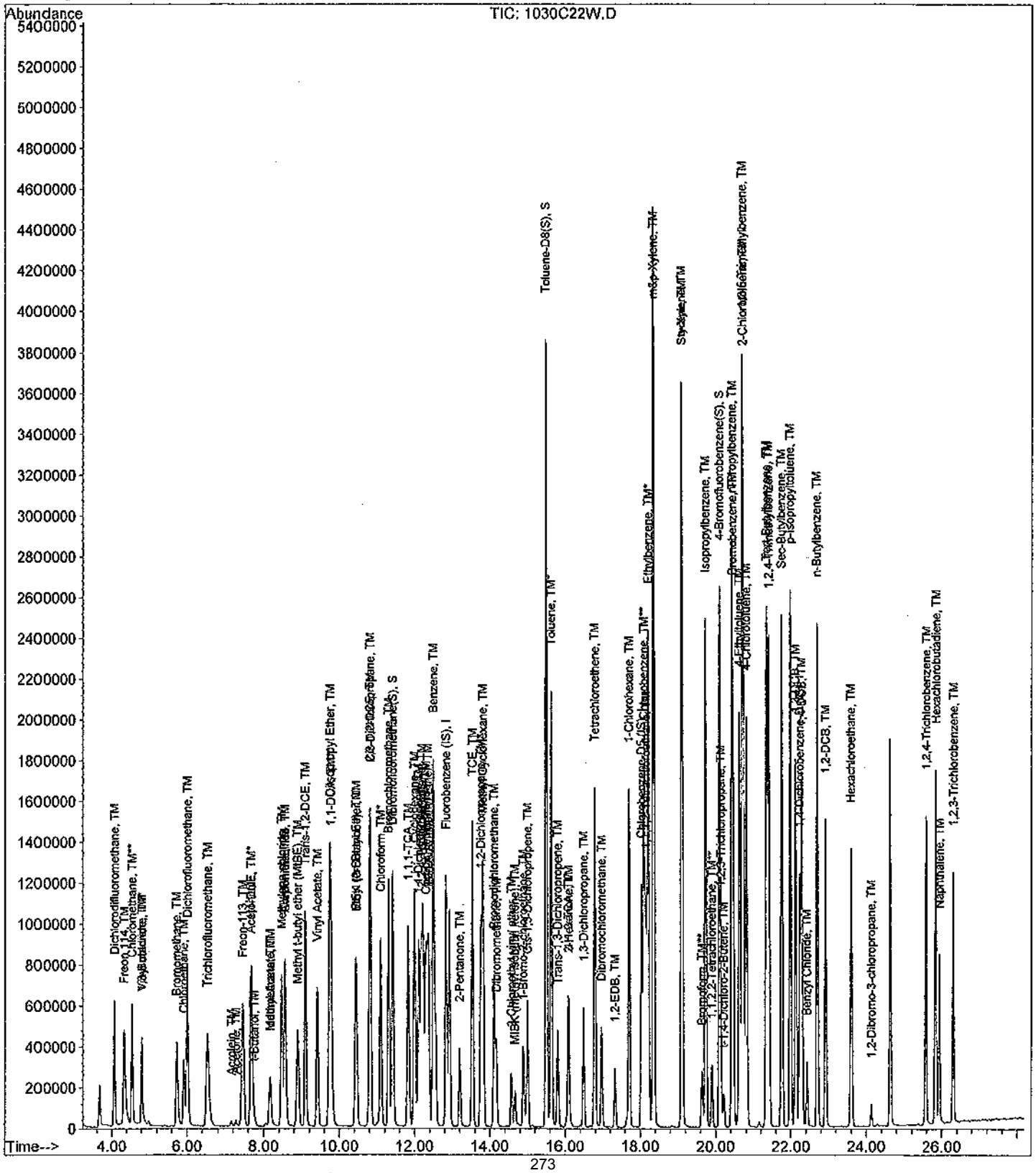
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C22W.D Vial: 1
Acq On : 31 Oct 11 4:29 Operator: STC
Sample : Voc Std 10-30-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.83	96	629184	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	438080	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	225856	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	1562107	93.20132 ppb		0.00
Spiked Amount 25.097			Recovery	= 371.359%		
38) 1,2-DCA-D4(S)	12.22	65	1315432	88.16671 ppb		0.00
Spiked Amount 24.225			Recovery	= 363.946%		
56) Toluene-D8(S)	15.50	98	5498133	89.19764 ppb		0.00
Spiked Amount 25.808			Recovery	= 345.617%		
64) 4-Bromofluorobenzene(S)	20.11	95	1999086	90.51343 ppb		0.00
Spiked Amount 25.459			Recovery	= 355.518%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	2034576	87.76868 ppb		100
3) Freon 114	4.33	85	1349868	92.97677 ppb		99
4) Chloromethane	4.55	50	2507323	87.28354 ppb		98
5) Vinyl chloride	4.80	62	1338572	69.66414 ppb		97
6) 1,3-Butadiene	4.78	54	294	5.47489 ppb	#	41
7) Bromomethane	5.72	94	1399435	100.33221 ppb		96
8) Chloroethane	5.92	64	1334347	84.07184 ppb		99
9) Dichlorofluoromethane	6.00	67	3757858	85.63331 ppb		99
10) Trichlorofluoromethane	6.53	101	2271251	87.21626 ppb		100
11) Acetonitrile	7.65	41	142197	206.30447 ug/l		100
12) Acrolein	7.15	56	57928	183.65994 ppb		89
13) Acetone	7.27	43	177387	98.40233 ppb	#	80
14) Freon-113	7.46	101	1359710	98.36336 ppb		98
15) 1,1-DCE	7.69	96	1502451	83.64213 ppb		95
16) t-Butanol	7.69	59	21608	253.32966 ppb	#	70
17) Methyl Acetate	8.19	43	511503	99.99402 ppb		97
18) Iodomethane	8.16	142	1532807	102.31499 ppb		90
19) Acrylonitrile	8.57	53	190766	99.94302 ppb		88
20) Methylene chloride	8.47	84	1482941	86.55417 ppb		98
21) Carbon disulfide	8.56	76	1504256	86.18747 ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	2423605	89.26566 ppb		93
23) Trans-1,2-DCE	9.10	96	1783146	97.17967 ppb		95
24) Diisopropyl Ether	9.75	45	5216937	86.91619 ppb		95
25) 1,1-DCA	9.80	63	3188094	89.56273 ppb		96
26) Vinyl Acetate	9.42	43	966738	98.81188 ppb		94
27) Ethyl tert Butyl Ether	10.44	59	3675155	89.68576 ppb		98
28) MEK (2-Butanone)	10.42	43	621214	92.04576 ppb	#	87
29) Cis-1,2-DCE	10.82	96	1784148	83.31536 ppb		92
30) 2,2-Dichloropropane	10.81	77	2060873	80.82274 ppb		96
31) Chloroform	11.09	83	3040045	88.77564 ppb		96
32) Bromochloromethane	11.32	128	540554	90.67004 ppb		82
34) 1,1,1-TCA	11.84	97	2777762	89.19608 ppb		98
35) Cyclohexane	12.00	56	2517542	86.82519 ppb		98
36) 1,1-Dichloropropene	12.11	75	2351054	88.10577 ppb		97
37) 2,2,4-Trimethylpentane	12.18	57	4108345	99.40223 ppb		96
39) Carbon Tetrachloride	12.30	117	2194045	102.31369 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
40)	Tert Amyl Methyl Ether	12.35	73	2816735	91.92902	ppb		99
41)	1,2-DCA	12.38	62	1561150	88.81419	ppb		98
42)	Benzene	12.49	78	6991851	91.19889	ppb		98
43)	TCE	13.54	95	1880975	88.58811	ppb		90
44)	2-Pentanone	13.20	43	881325	198.43021	ppb		99
45)	1,2-Dichloropropane	13.76	63	1582643	90.82163	ppb		96
46)	Bromodichloromethane	14.11	83	1954559	98.17824	ppb	#	91
47)	Methyl Cyclohexane	13.82	83	2215169	89.27589	ppb		99
48)	Dibromomethane	14.17	93	660037	94.70886	ppb		92
49)	2-Chloroethyl vinyl ether	14.57	63	484281	109.31668	ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	1381119	92.88701	ppb		92
51)	Cis-1,3-Dichloropropene	15.00	75	1816087	95.66550	ppb		93
52)	Toluene	15.64	91	6789315	89.78572	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	1379809	100.95973	ppb		94
54)	1,1,2-TCA	16.08	83	670730	91.05678	ppb		90
57)	1,2-EDB	17.32	107	832657	99.86703	ppb		98
58)	Tetrachloroethene	16.79	164	1730703	76.84281	ppb		95
59)	1-Chlorohexane	17.71	91	2353794	90.75337	ppb		91
60)	1,1,1,2-Tetrachloroethane	18.16	131	1508942	107.01509	ppb		94
61)	m&p-Xylene	18.36	106	6180125	185.74112	ppb		97
62)	o-Xylene	19.10	106	3002956	93.84264	ppb		92
63)	Styrene	19.12	104	4577224	94.76663	ppb		100
65)	2-Hexanone	16.10	43	375289	93.62219	ppb		94
66)	1,3-Dichloropropane	16.49	76	1470502	89.43988	ppb		98
67)	Dibromochloromethane	16.97	129	1191759	111.03520	ppb		92
68)	Chlorobenzene	18.11	112	4271113	89.73276	ppb		97
69)	Ethylbenzene	18.22	91	8013287	90.40861	ppb		94
70)	Bromoform	19.64	173	616423	100.58038	ppb	#	81
72)	MIBK (methyl isobutyl keto	14.67	43	581084	90.50195	ppb		93
73)	Isopropylbenzene	19.74	105	7614687	93.02299	ppb		99
74)	1,1,2,2-Tetrachloroethane	19.90	83	720253	105.11090	ppb		88
75)	1,2,3-Trichloropropane	20.16	110	78648	101.50443	ppb	#	68
76)	t-1,4-Dichloro-2-Butene	20.22	53	179966	115.82759	ppb	#	75
77)	Bromobenzene	20.48	156	1766849	93.57294	ppb		97
78)	n-Propylbenzene	20.45	91	9038917	92.56114	ppb		95
79)	4-Ethyltoluene	20.64	105	6293560	93.13058	ppb		93
80)	2-Chlorotoluene	20.74	91	5791730	89.55104	ppb		98
81)	1,3,5-Trimethylbenzene	20.72	105	6243237	93.90589	ppb		96
82)	4-Chlorotoluene	20.81	91	5272321	94.67040	ppb		97
83)	Tert-Butylbenzene	21.36	119	6787695	94.30127	ppb		99
84)	1,2,4-Trimethylbenzene	21.41	105	6234859	89.79211	ppb		97
85)	Sec-Butylbenzene	21.76	105	8294079	96.08521	ppb		99
86)	p-Isopropyltoluene	21.99	119	7113742	96.21480	ppb		98
87)	Benzyl Chloride	22.43	91	1035237	105.47867	ppb		97
88)	1,3-DCB	22.13	146	3600903	93.25266	ppb		96
89)	1,4-DCB	22.29	146	3434577	95.83166	ppb		96
90)	Hexachloroethane	23.60	117	1413252	101.62319	ppb		97
91)	n-Butylbenzene	22.70	91	5960168	92.42293	ppb		99
92)	1,2-DCB	22.92	146	2973338	96.80520	ppb		95
93)	1,2-Dibromo-3-chloropropan	24.14	155	125399	101.01251	ppb		95
94)	1,2,4-Trichlorobenzene	25.58	180	2057289	92.43409	ppb		98

(#) = qualifier out of range (m) = manual integration

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
95) Hexachlorobutadiene	25.83	223	370844	91.70996	ppb	98
96) Naphthalene	25.93	128	2644717	96.30764	ppb	98
97) 1,2,3-Trichlorobenzene	26.30	180	1614041	95.87185	ppb	100

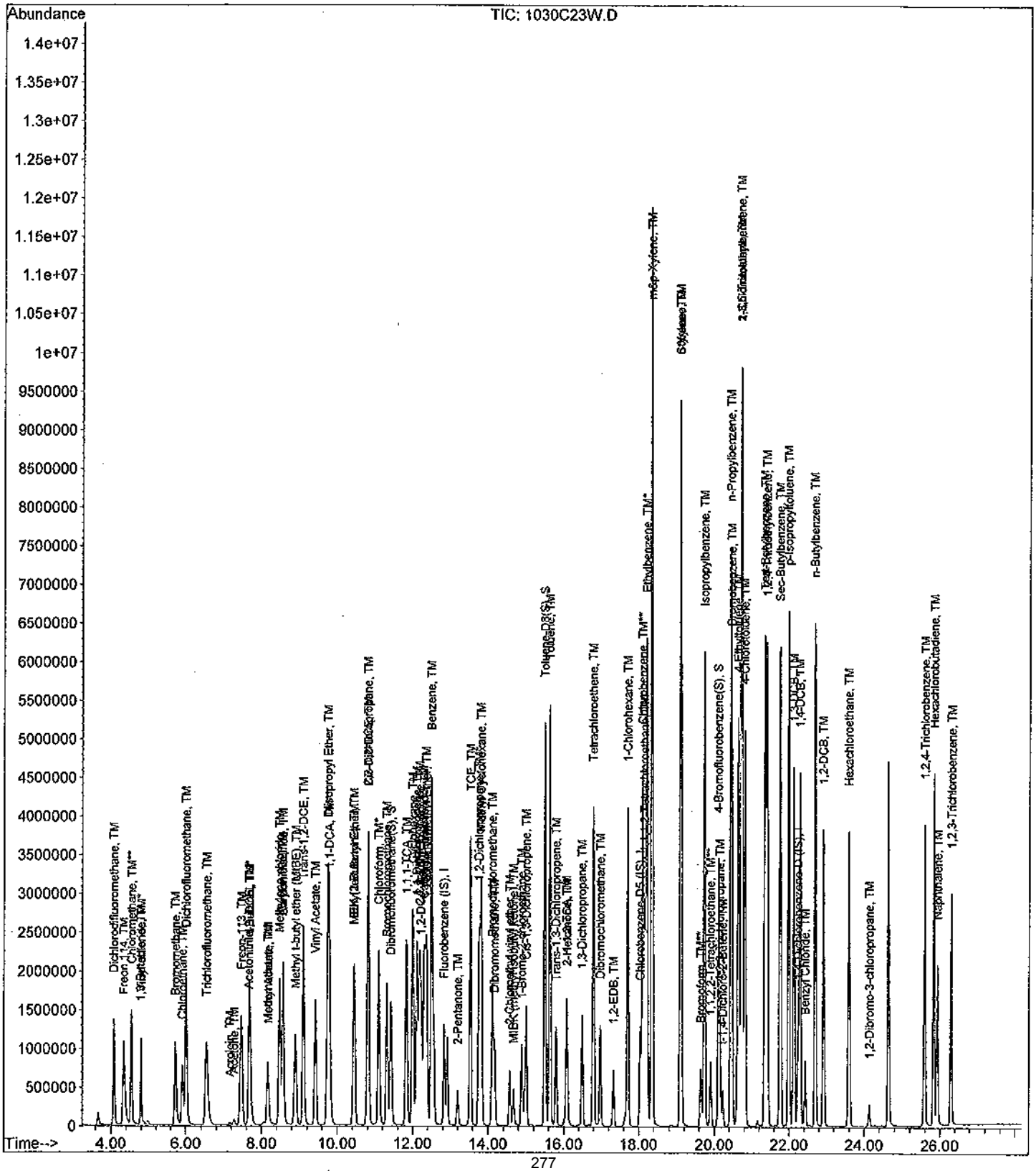
(#) = qualifier out of range (m) = manual integration

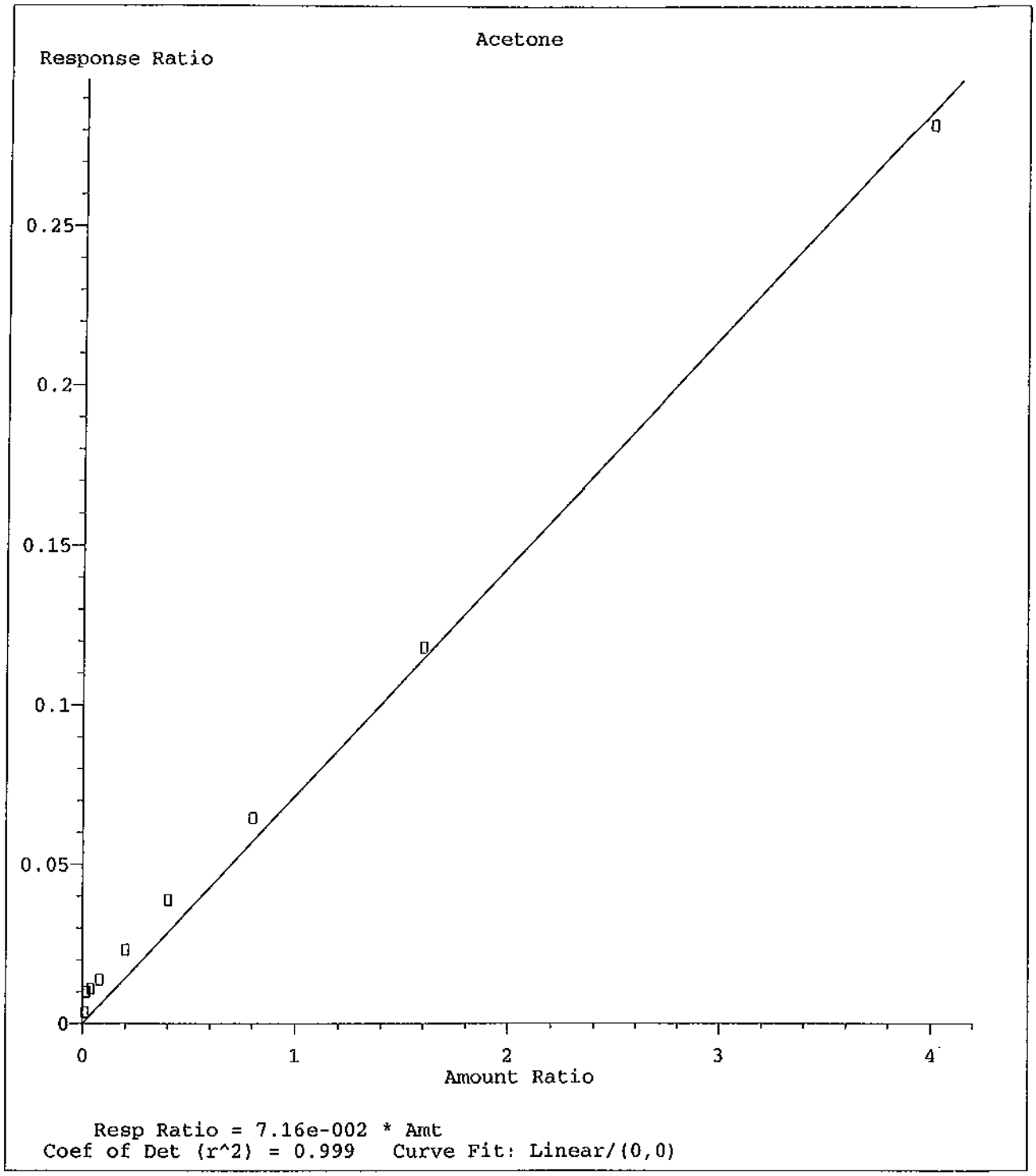
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C23W.D Vial: 1
Acq On : 31 Oct 11 5:12 Operator: STC
Sample : Voc Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

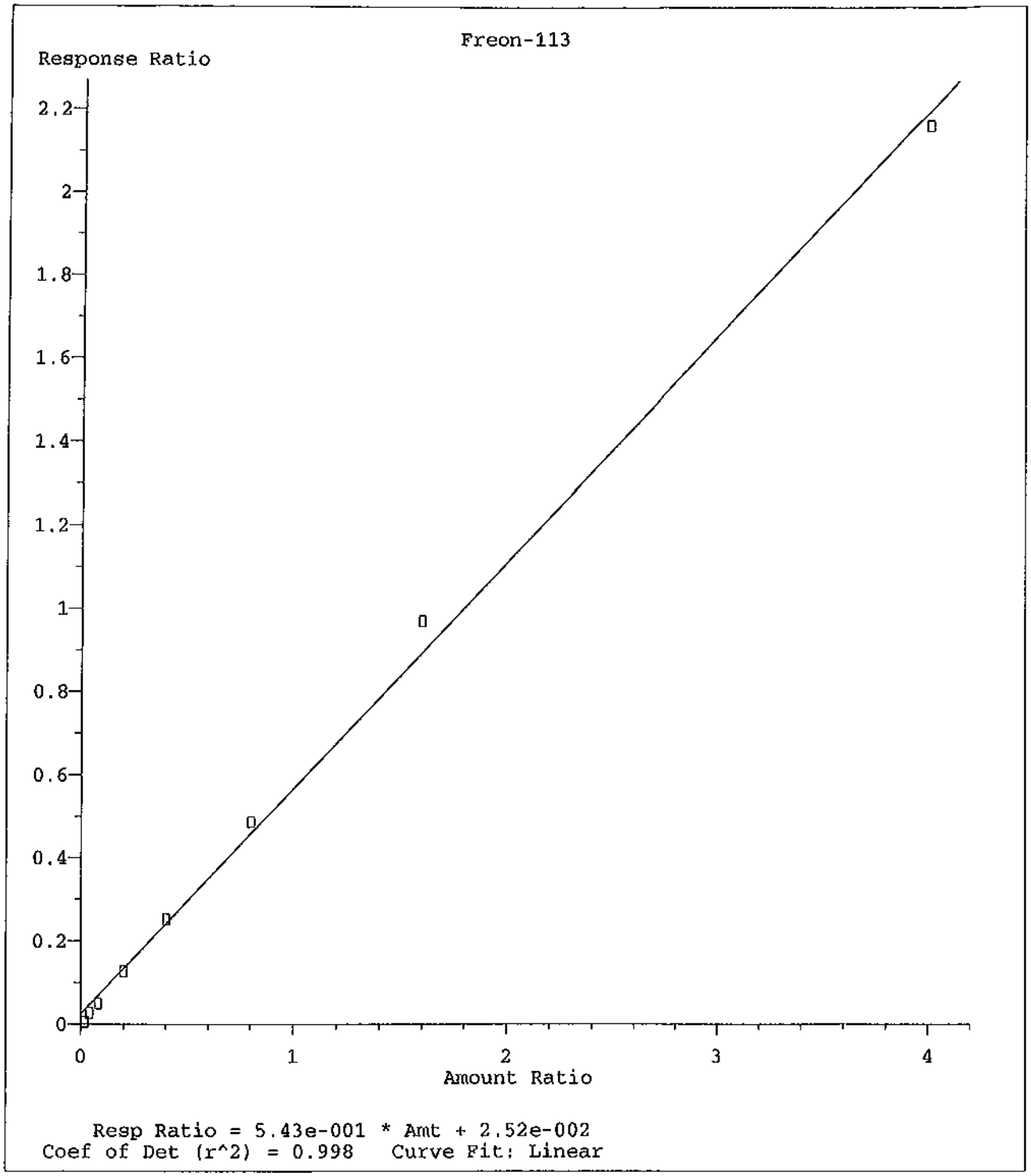
Quant Time: Dec 2 11:19 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:18:49 2011
Response via : Initial Calibration

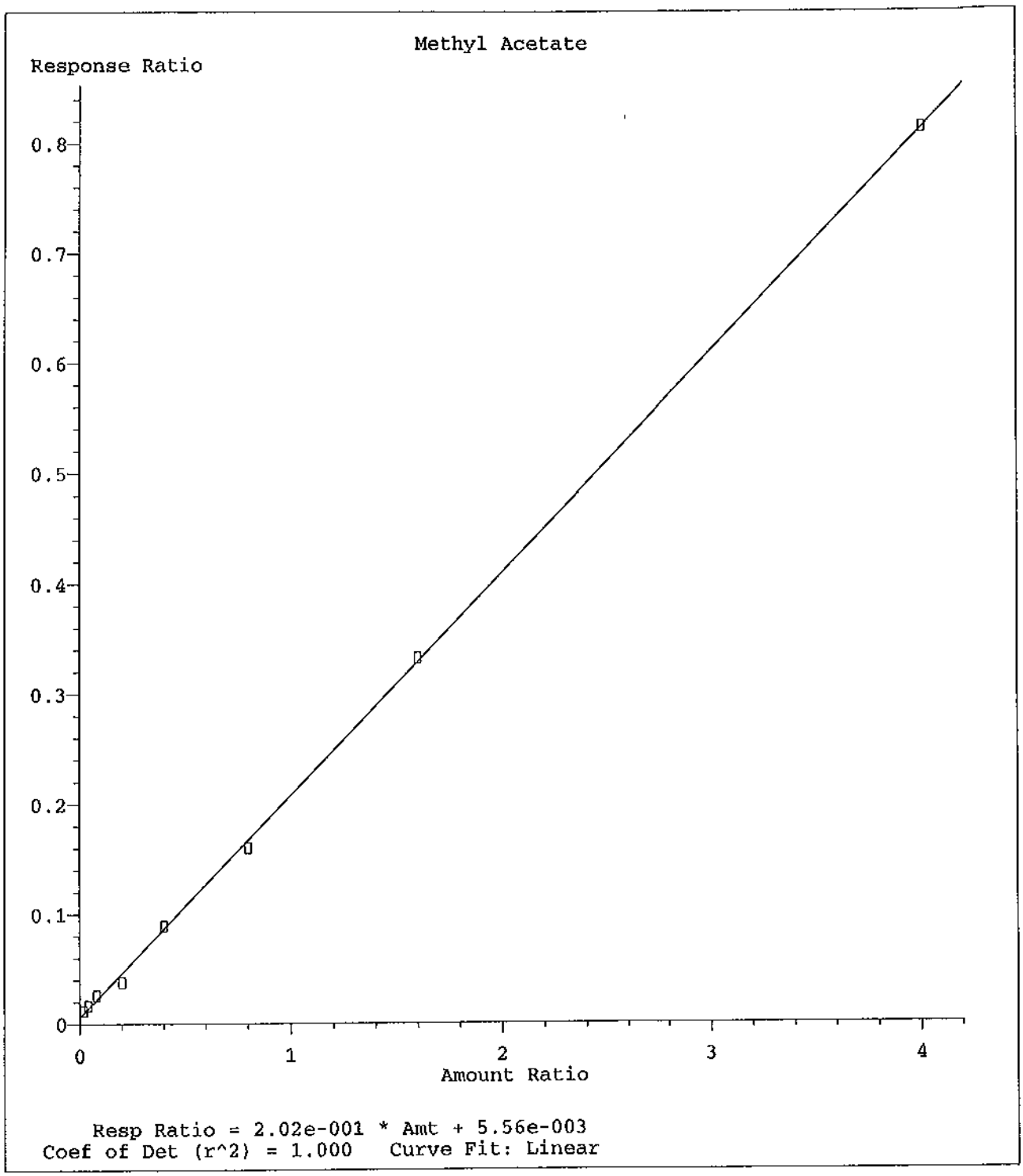




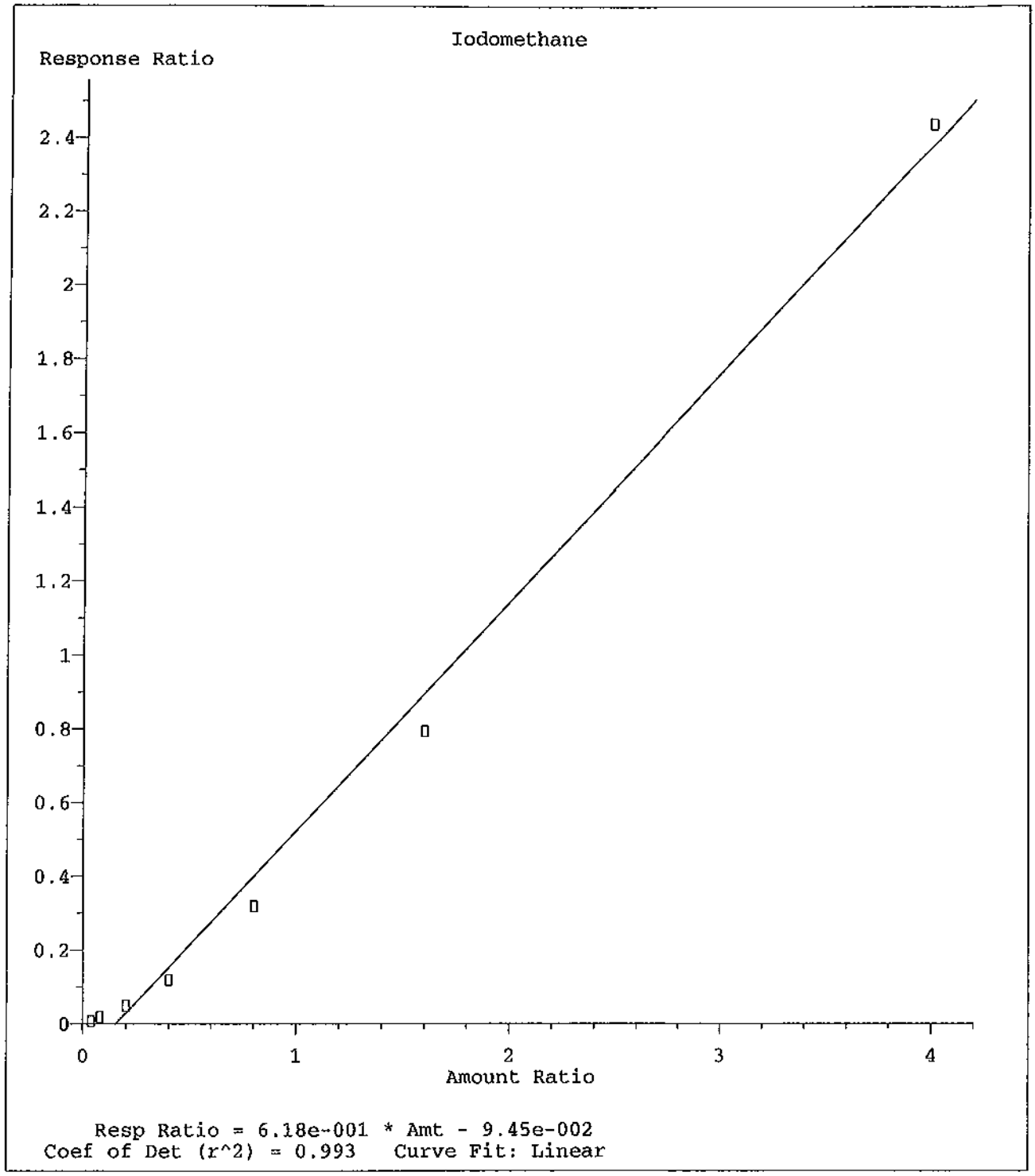
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



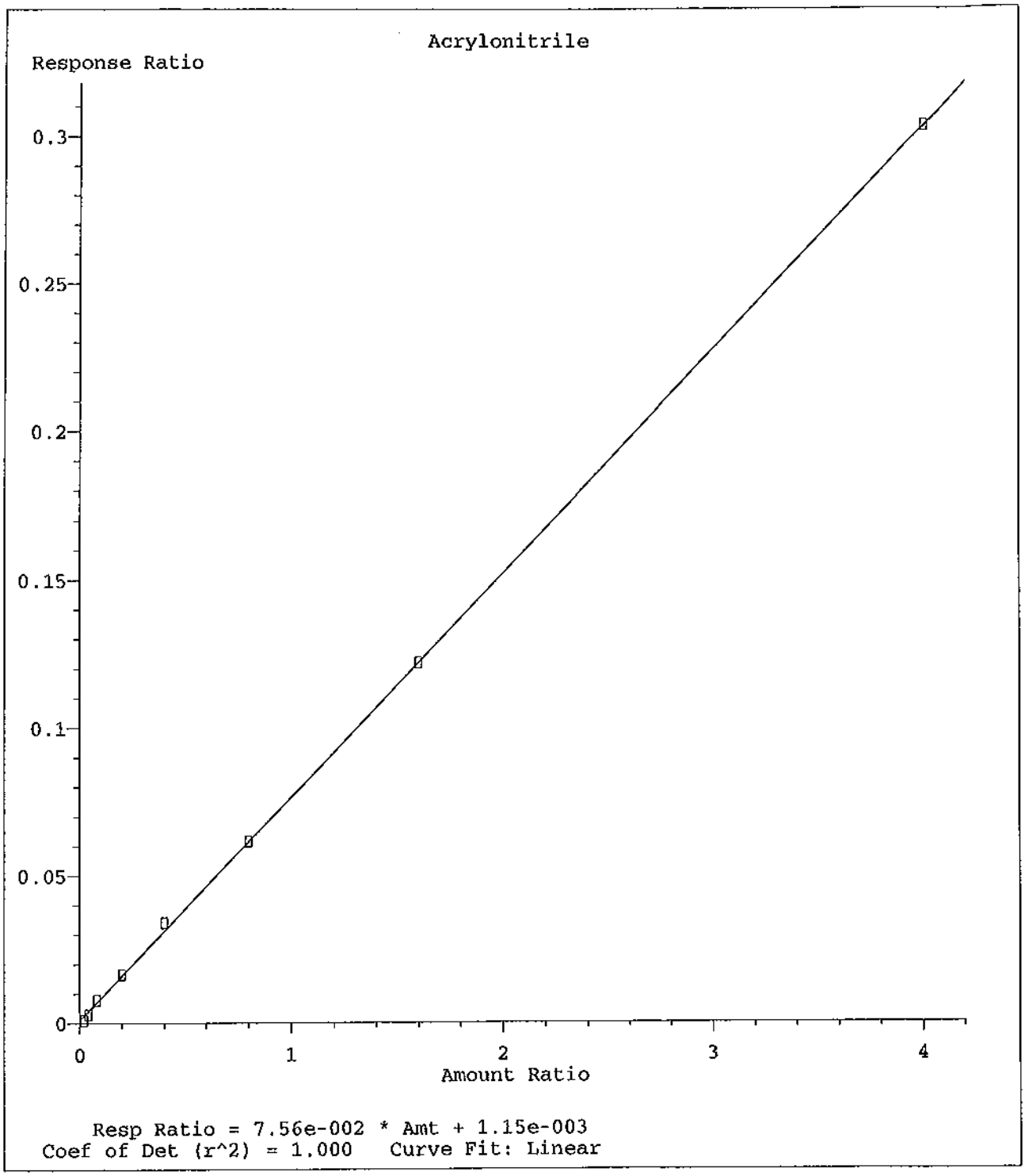
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



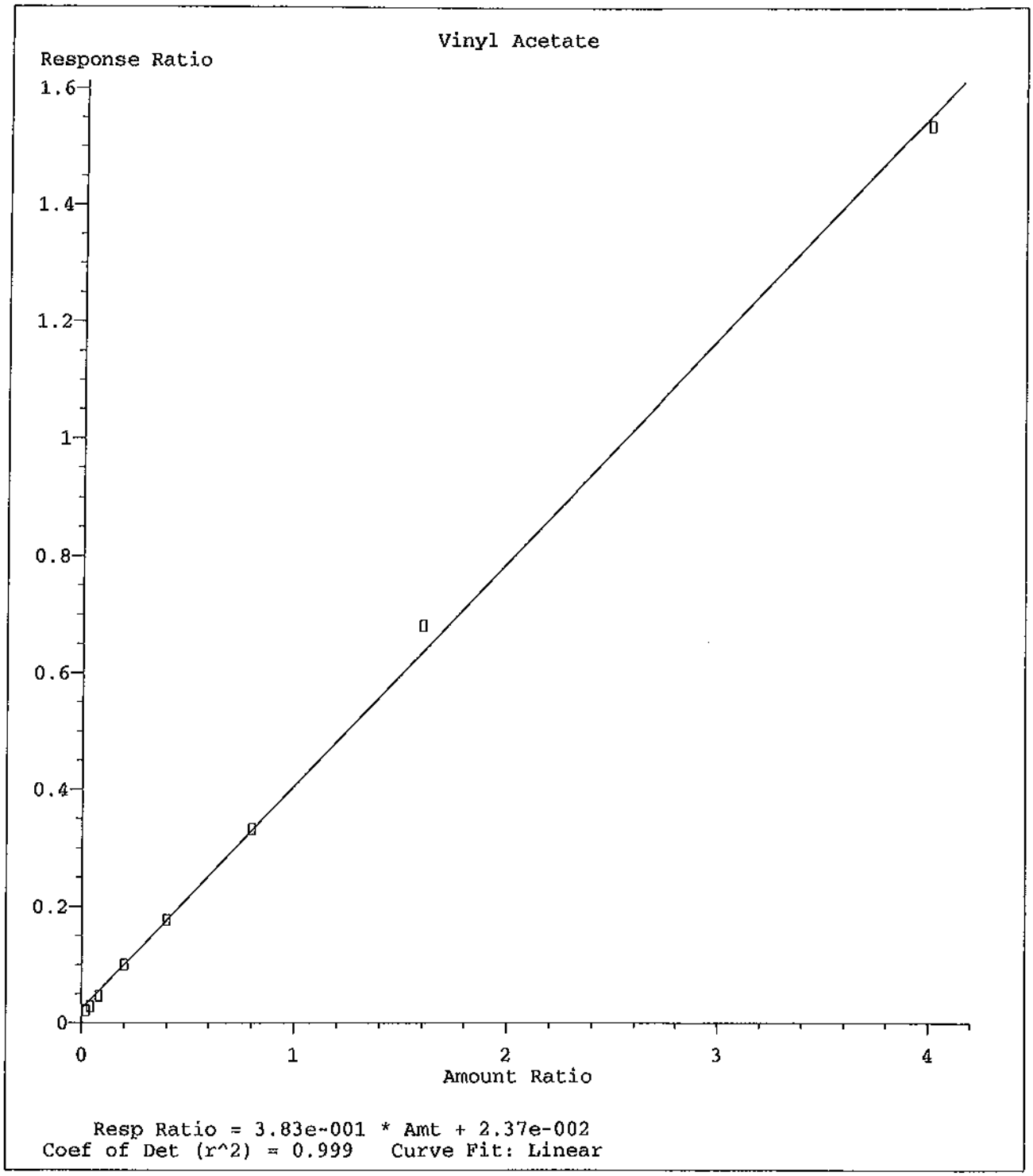
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



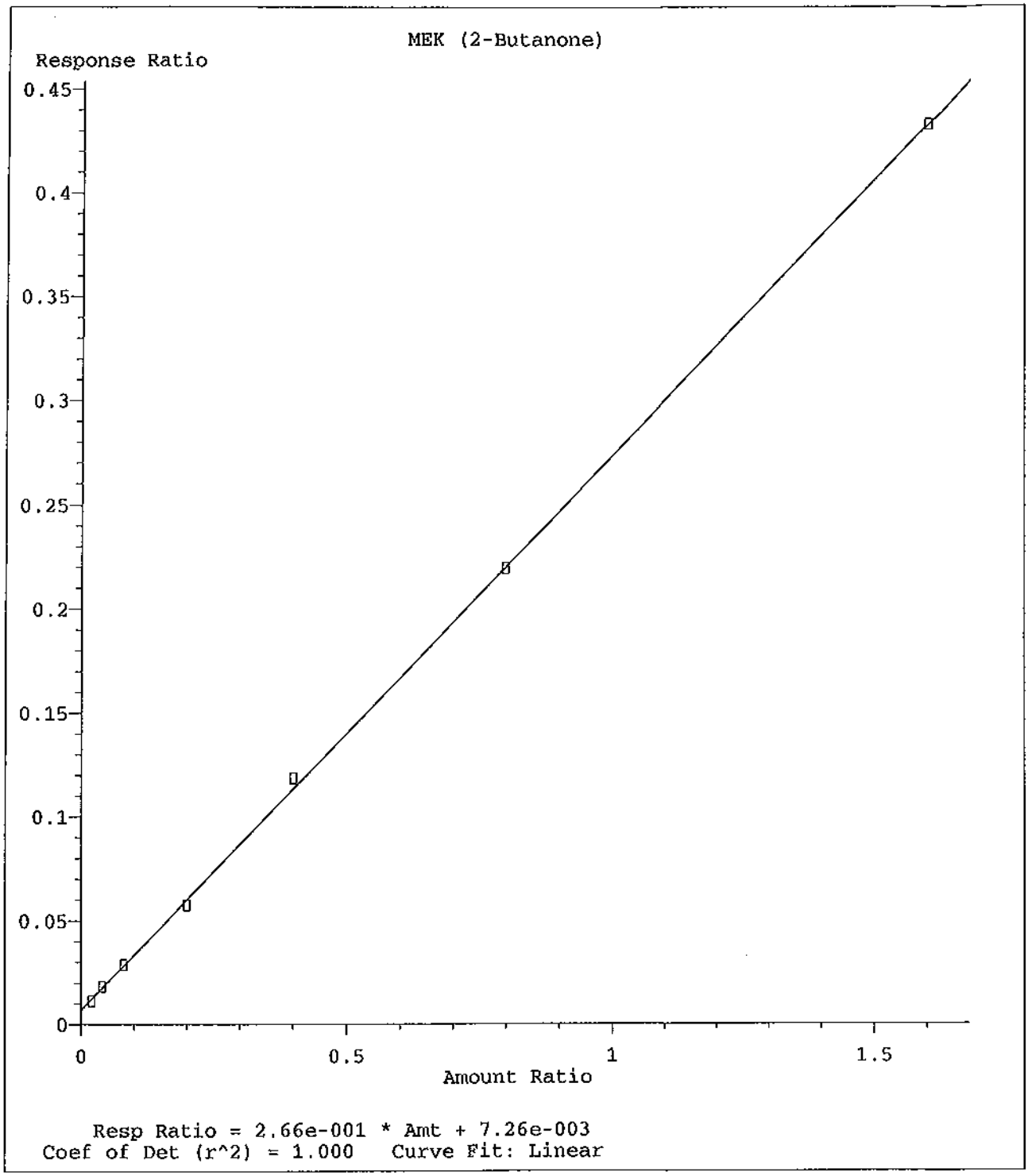
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



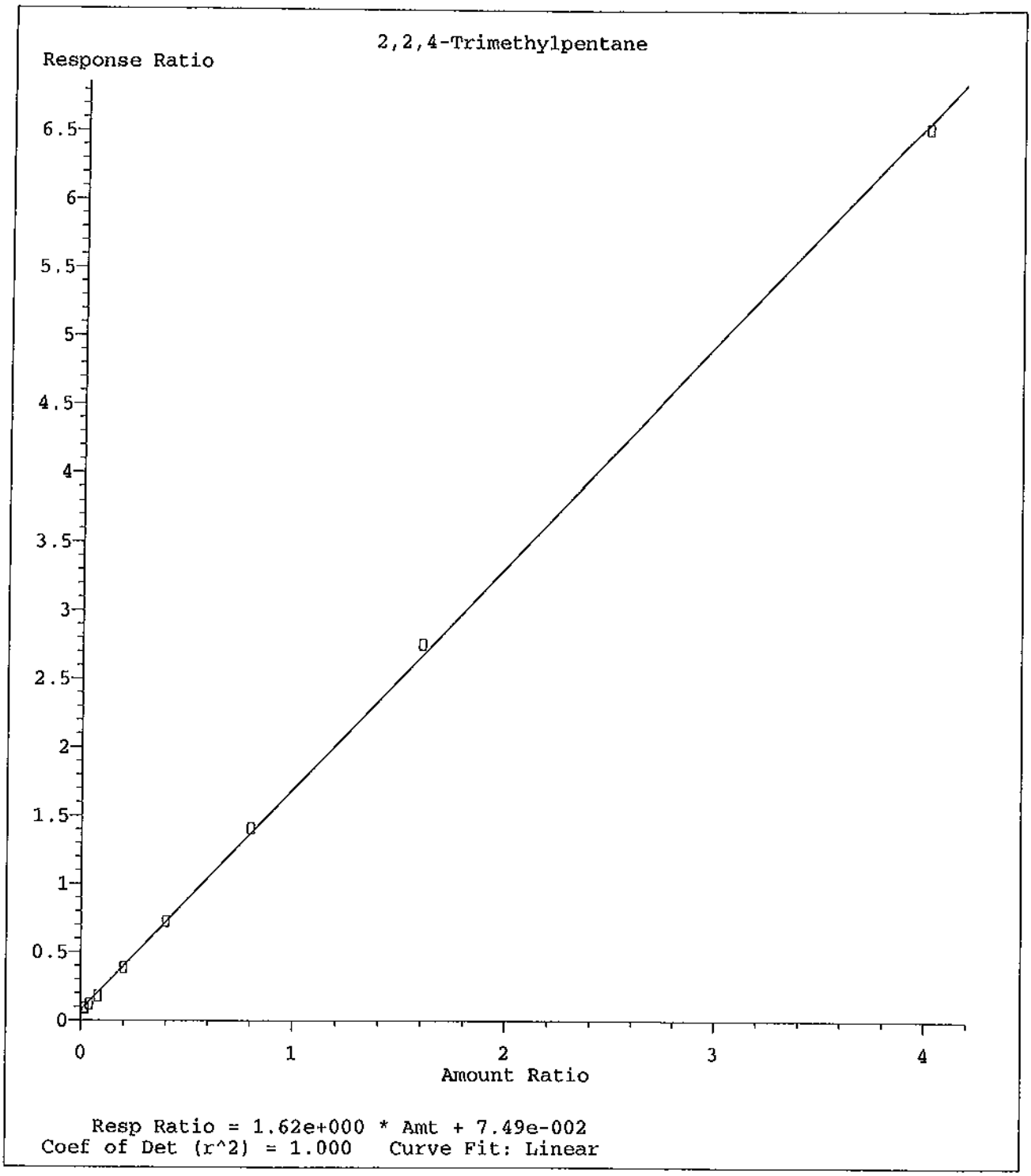
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



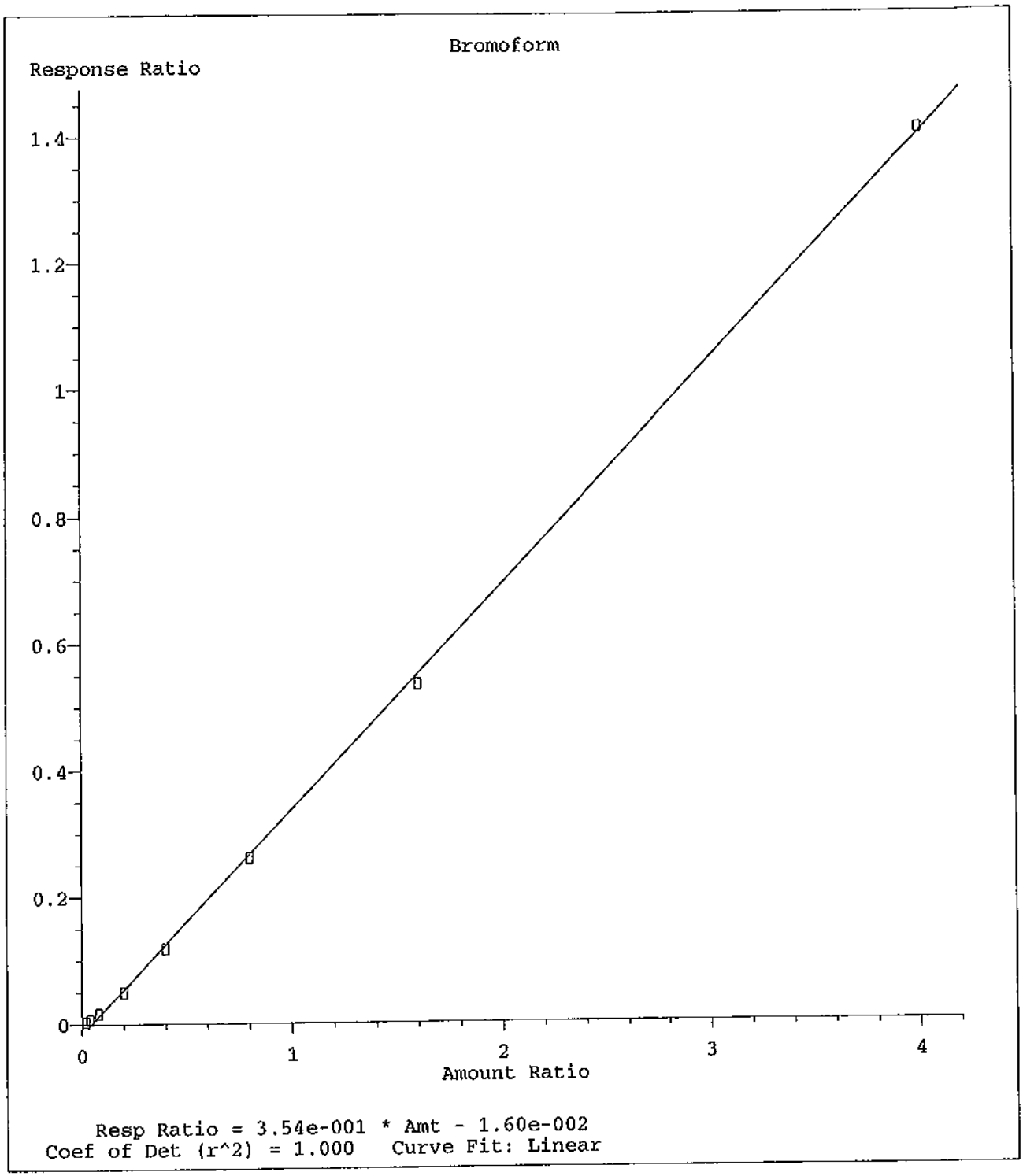
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



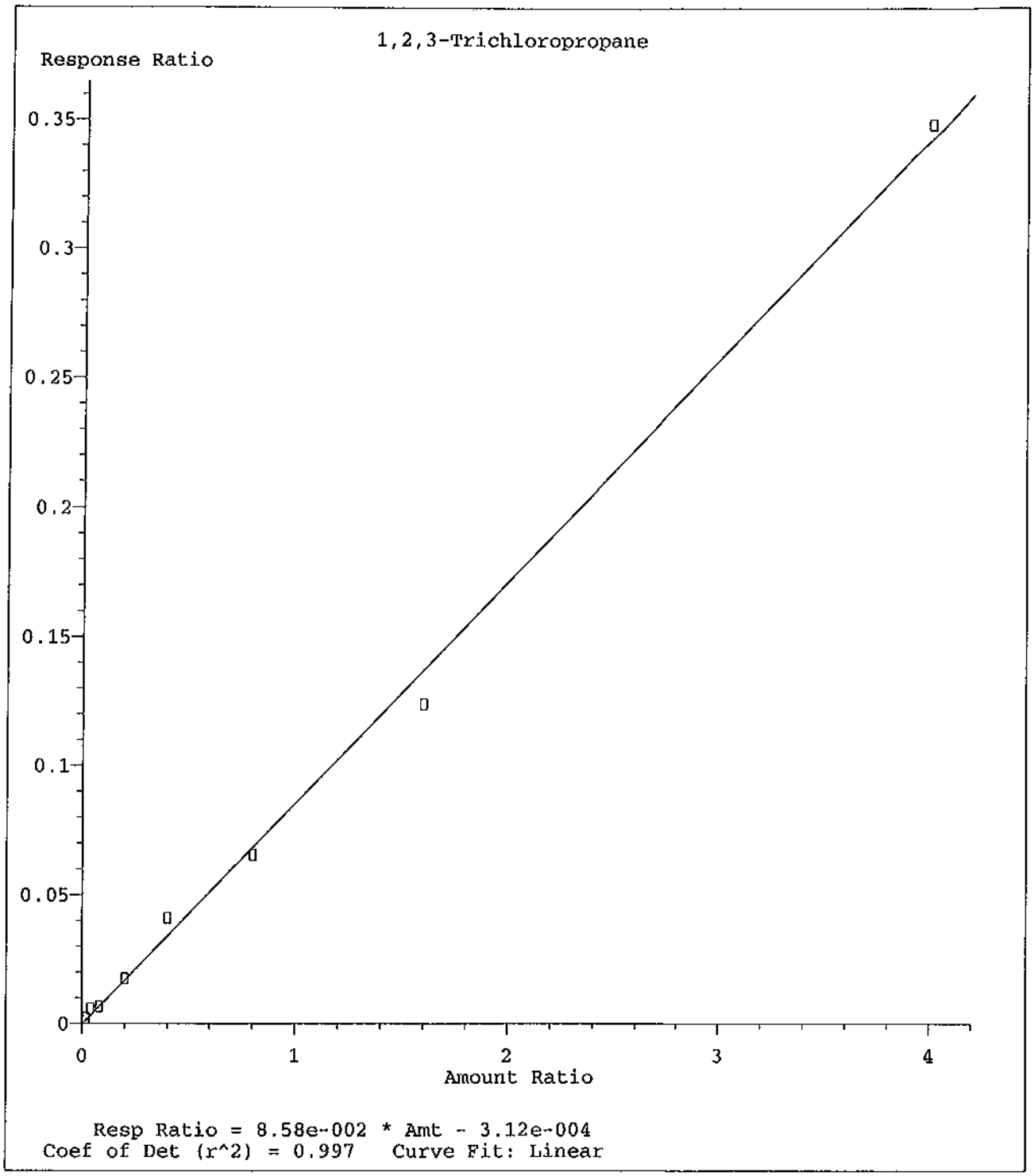
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



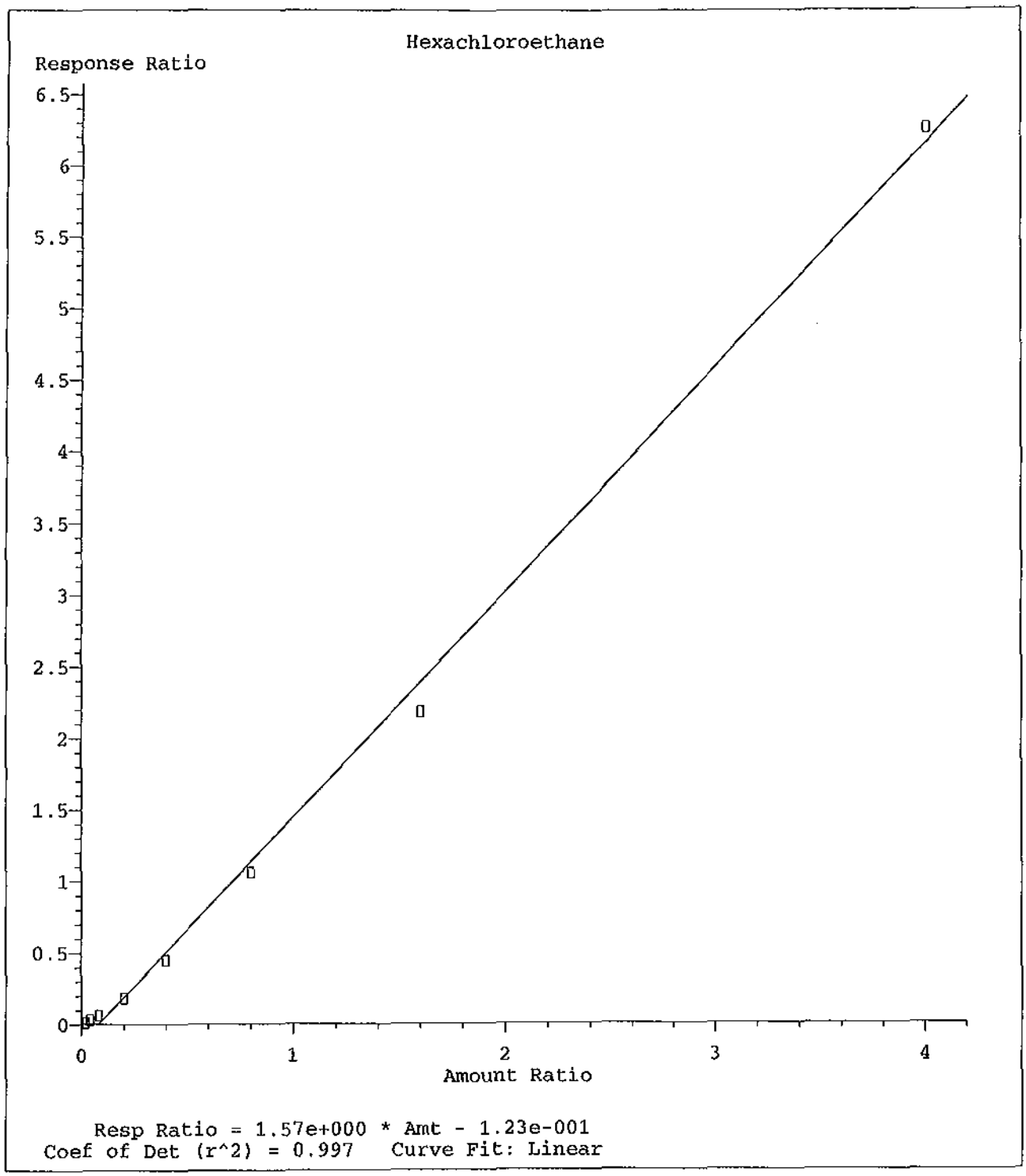
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



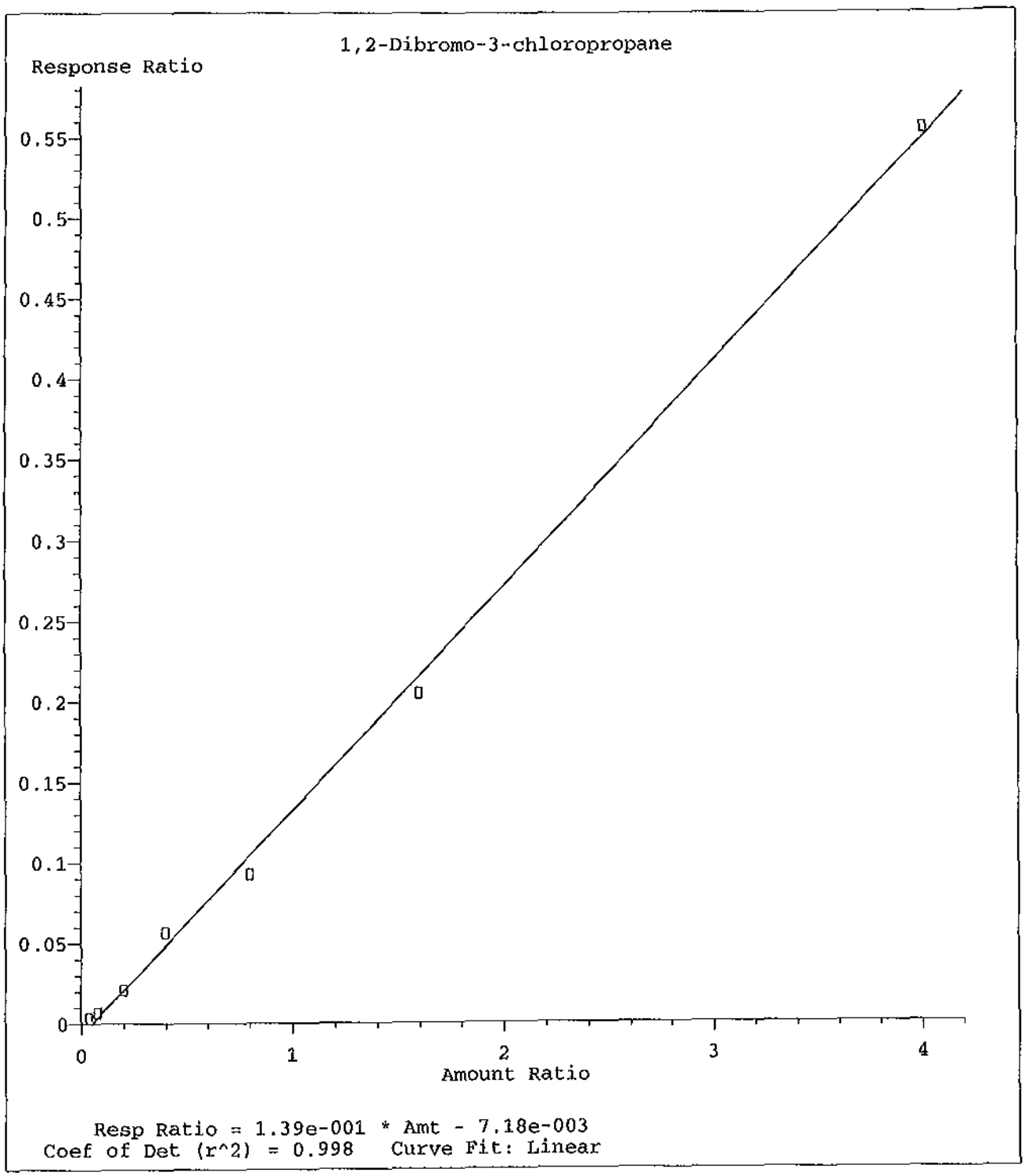
Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011



Method Name: M:\CHICO\DATA\C111030\CALLW.M
Calibration Table Last Updated: Fri Dec 02 11:32:50 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/31/11
Matrix: Instrument: Chico
Initial Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.9211	0.9249	0.42	TM		
3	TM	Freon 114	0.5769	0.6094	5.6	TM		
4	TM**	Chloromethane	1.141	1.076	5.8	TM**		
5	TM*	Vinyl chloride	0.7635	0.7773	1.8	TM*		
6	TML	1,3-Butadiene	0.0000	0.0015	0.00	TML		
7	TM	Bromomethane	0.5542	0.4961	10	TM		
8	TM	Chloroethane	0.6306	0.5609	11	TM		
9	TM	Dichlorofluoromethane	1.744	1.607	7.8	TM		
10	TM	Trichlorofluoromethane	1.035	1.006	2.8	TM		
11		Acetonitrile	0.0274	0.0263	4.1			
12	TM	Acrolein	0.0125	0.0115	8.4	TM		
13	TML	Acetone	0.1859	0.0931	50	TML	30	*
14	TML	Freon-113	0.5715	0.5758	0.75	TML	5.5	
15	TM*	1,1-DCE	0.7137	0.6303	12	TM*		
16	TM	t-Butanol	0.0034	0.0035	3.5	TM		
17	TML	Methyl Acetate	0.2927	0.2030	31	TML	6.3	
18	TML	Iodomethane	0.3500	0.4253	21	TML	7.0	
19	TML	Acrylonitrile	0.0764	0.0746	2.3	TML	5.1	
20	TM	Methylene chloride	0.6808	0.6159	9.5	TM		
21	TM	Carbon disulfide	0.6935	0.6450	7.0	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.079	1.046	3.1	TM		
23	TM	Trans-1,2-DCE	0.8280	0.7496	9.5	TM		
24	TM	Diisopropyl Ether	2.385	2.306	3.3	TM		
25	TM**	1,1-DCA	1.414	1.411	0.23	TM**		
26	TML	Vinyl Acetate	0.5623	0.4364	22	TML	1.5	
27	TM	Ethyl tert Butyl Ether	1.628	1.646	1.1	TM		
28	TML	MEK (2-Butanone)	0.3591	0.2972	17	TML	4.8	
29	TM	Cis-1,2-DCE	0.8509	0.7812	8.2	TM		
30	TM	2,2-Dichloropropane	1.013	0.8669	14	TM		
31	TM*	Chloroform	1.361	1.332	2.1	TM*		
32	TM	Bromochloromethane	0.2369	0.2434	2.8	TM		
33	S	Dibromofluoromethane(S)	0.6660	0.6700	0.60	S		
34	TM	1,1,1-TCA	1.237	1.182	4.5	TM		
35	TM	Cyclohexane	1.152	1.120	2.8	TM		
36	TM	1,1-Dichloropropene	1.060	0.9998	5.7	TM		
37	TML	2,2,4-Trimethylpentane	2.316	1.725	26	TML	5.3	
38	S	1,2-DCA-D4(S)	0.5928	0.5784	2.4	S		
39	TM	Carbon Tetrachloride	0.8521	0.8321	2.3	TM		
40	TM	Tert Amyl Methyl Ether	1.217	1.216	0.15	TM		
		Average			8.3			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/11
Instrument: Chico
Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	1,2-DCA	0.6984	0.6709	3.9	TM	
42	TM	Benzene	3.046	2.887	5.2	TM	
43	TM	TCE	0.8437	0.8134	3.6	TM	
44	TM	2-Pentanone	0.1765	0.1769	0.25	TM	
45	TM*	1,2-Dichloropropane	0.6924	0.6963	0.57	TM*	
46	TM	Bromodichloromethane	0.7910	0.7910	0.01	TM	
47	TM	Methyl Cyclohexane	0.9859	0.9347	5.2	TM	
48	TM	Dibromomethane	0.2769	0.2811	1.5	TM	
49	TM	2-Chloroethyl vinyl ether	0.1760	0.1764	0.23	TM	
50	TM	1-Bromo-2-chloroethane	0.5908	0.6129	3.7	TM	
51	TM	Cis-1,3-Dichloropropene	0.7543	0.7571	0.37	TM	
52	TM*	Toluene	3.005	2.824	6.0	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5430	0.5270	3.0	TM	
54	TM	1,1,2-TCA	0.2927	0.2901	0.90	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.518	3.782	7.5	S	
57	TM	1,2-EDB	0.4758	0.5074	6.6	TM	
58	TM	Tetrachloroethene	1.285	1.296	0.81	TM	
59	TM	1-Chlorohexane	1.480	1.493	0.86	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.8047	0.8891	10	TM	
61	TM	m&p-Xylene	1.899	1.889	0.49	TM	
62	TM	o-Xylene	1.826	1.894	3.7	TM	
63	TM	Styrene	2.756	2.935	6.5	TM	
64	S	4-Bromofluorobenzene(S)	1.260	1.394	11	S	
65	TM	2-Hexanone	0.2288	0.2487	8.7	TM	
66	TM	1,3-Dichloropropane	0.9383	0.9463	0.86	TM	
67	TM	Dibromochloromethane	0.6125	0.6760	10	TM	
68	TM**	Chlorobenzene	2.716	2.809	3.4	TM**	
69	TM*	Ethylbenzene	5.058	5.094	0.71	TM*	
70	TM**L	Bromoform	0.2607	0.2895	11	TM**L	6.8
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	MIBK (methyl isobutyl ketone)	0.7107	0.6949	2.2	TM	
73	TM	Isopropylbenzene	9.061	8.888	1.9	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7585	0.7787	2.7	TM**	
75	TML	1,2,3-Trichloropropane	0.0967	0.1006	4.1	TML	18
76	TM	t-1,4-Dichloro-2-Butene	0.1720	0.1758	2.2	TM	
77	TM	Bromobenzene	2.090	2.104	0.64	TM	
78	TM	n-Propylbenzene	10.8	10.6	2.1	TM	
79	TM	4-Ethyltoluene	7.480	6.973	6.8	TM	
80	TM	2-Chlorotoluene	7.159	7.027	1.8	TM	
		Average			3.7		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/31/11
Matrix: 0 Instrument: Chico
Cal. Date: 10/30/11
Data File: 1030C28W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,3,5-Trimethylbenzene	7.359	7.258	1.4	TM	
82	TM	4-Chlorotoluene	6.164	5.899	4.3	TM	
83	TM	Tert-Butylbenzene	7.967	7.897	0.88	TM	
84	TM	1,2,4-Trimethylbenzene	7.686	7.097	7.7	TM	
85	TM	Sec-Butylbenzene	9.555	9.679	1.3	TM	
86	TM	p-Isopropyltoluene	8.184	8.031	1.9	TM	
87	TM	Benzyl Chloride	1.086	0.9559	12	TM	
88	TM	1,3-DCB	4.274	4.133	3.3	TM	
89	TM	1,4-DCB	3.967	3.945	0.56	TM	
90	TML	Hexachloroethane	1.021	1.085	6.2	TML	11
91	TM	n-Butylbenzene	7.138	6.849	4.1	TM	
92	TM	1,2-DCB	3.400	3.438	1.1	TM	
93	TML	1,2-Dibromo-3-chloropropane	0.1148	0.1240	8.0	TML	2.0
94	TM	1,2,4-Trichlorobenzene	2.464	2.504	1.7	TM	
95	TM	Hexachlorobutadiene	0.4476	0.4720	5.5	TM	
96	TM	Naphthalene	3.040	3.207	5.5	TM	
97	TM	1,2,3-Trichlorobenzene	1.864	2.025	8.7	TM	
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			4.4		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	600576	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.04	117	389760	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	212800	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.42	111	402364	25.15012 ppb		0.00
Spiked Amount 25.097			Recovery = 100.210%			
38) 1,2-DCA-D4(S)	12.23	65	347346	24.38980 ppb		0.00
Spiked Amount 24.225			Recovery = 100.680%			
56) Toluene-D8(S)	15.50	98	1474138	26.88019 ppb		0.00
Spiked Amount 25.808			Recovery = 104.153%			
64) 4-Bromofluorobenzene(S)	20.11	95	543410	27.65447 ppb		0.00
Spiked Amount 25.459			Recovery = 108.620%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	222193	10.04166 ppb		100
3) Freon 114	4.33	85	146402	10.56428 ppb		93
4) Chloromethane	4.55	50	258385	9.42321 ppb		99
5) Vinyl chloride	4.82	62	186738	10.18146 ppb		96
7) Bromomethane	5.72	94	119189	8.95228 ppb		94
8) Chloroethane	5.91	64	134747	8.89428 ppb		97
9) Dichlorofluoromethane	6.01	67	386134	9.21828 ppb		97
10) Trichlorofluoromethane	6.52	101	241622	9.72027 ppb		99
11) Acetonitrile	7.64	41	78885	119.90087 ug/l		100
12) Acrolein	7.16	56	34469	114.48914 ppb		96
13) Acetone	7.27	43	22365	12.99757 ppb	#	84
14) Freon-113	7.46	101	138327	9.44782 ppb		97
15) 1,1-DCE	7.67	96	151407	8.83040 ppb		96
16) t-Butanol	7.76	59	10529	129.32077 ppb		93
17) Methyl Acetate	8.18	43	48755	9.36519 ppb		96
18) Iodomethane	8.16	142	102169	10.69989 ppb		90
19) Acrylonitrile	8.56	53	17916	9.49044 ppb		79
20) Methylene chloride	8.47	84	147951	9.04673 ppb		99
21) Carbon disulfide	8.56	76	154944	9.30051 ppb		100
22) Methyl t-butyl ether (MtBE	8.89	73	251165	9.69151 ppb		96
23) Trans-1,2-DCE	9.10	96	180083	9.05360 ppb		88
24) Diisopropyl Ether	9.75	45	553904	9.66784 ppb		94
25) 1,1-DCA	9.79	63	339012	9.97748 ppb		99
26) Vinyl Acetate	9.42	43	104836	9.85383 ppb	#	83
27) Ethyl tert Butyl Ether	10.45	59	395408	10.10888 ppb		99
28) MEK (2-Butanone)	10.44	43	71405	10.48433 ppb		99
29) Cis-1,2-DCE	10.82	96	187663	9.18084 ppb		97
30) 2,2-Dichloropropane	10.82	77	208247	8.55600 ppb		97
31) Chloroform	11.10	83	320091	9.79258 ppb		99
32) Bromochloromethane	11.32	128	58472	10.27501 ppb		98
34) 1,1,1-TCA	11.84	97	283983	9.55329 ppb		96
35) Cyclohexane	12.00	56	268948	9.71733 ppb		94
36) 1,1-Dichloropropene	12.10	75	240188	9.42981 ppb		99
37) 2,2,4-Trimethylpentane	12.18	57	414455	9.47423 ppb		98
39) Carbon Tetrachloride	12.30	117	199898	9.76577 ppb		98
40) Tert Amyl Methyl Ether	12.34	73	292021	9.98459 ppb		99
41) 1,2-DCA	12.38	62	161160	9.60516 ppb		100
42) Benzene	12.50	78	693647	9.47863 ppb		96
43) TCE	13.53	95	195399	9.64105 ppb		91

Algorithm Check: $\frac{(222193)(25)}{(600576)(0.92027)}$ (1) = 10.04/660347 ✓ ARS 12/7/11

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.20	43	531259	125.31057	ppb		97
45)	1,2-Dichloropropane	13.76	63	167281	10.05687	ppb	#	94
46)	Bromodichloromethane	14.11	83	190021	9.99949	ppb	#	91
47)	Methyl Cyclohexane	13.82	83	224538	9.48040	ppb		99
48)	Dibromomethane	14.16	93	67527	10.15102	ppb		95
49)	2-Chloroethyl vinyl ether	14.57	63	42382	10.02259	ppb		95
50)	1-Bromo-2-chloroethane	14.88	63	147231	10.37368	ppb	#	79
51)	Cis-1,3-Dichloropropene	15.00	75	181879	10.03716	ppb		100
52)	Toluene	15.63	91	678338	9.39804	ppb		99
53)	Trans-1,3-Dichloropropene	15.80	75	126600	9.70449	ppb		98
54)	1,1,2-TCA	16.08	83	69681	9.91034	ppb		93
57)	1,2-EDB	17.33	107	79107	10.66417	ppb		94
58)	Tetrachloroethene	16.78	164	202010	10.08114	ppb		94
59)	1-Chlorohexane	17.70	91	232734	10.08580	ppb		97
60)	1,1,1,2-Tetrachloroethane	18.16	131	138607	11.04877	ppb		99
61)	m&p-Xylene	18.35	106	589147	19.90172	ppb		97
62)	o-Xylene	19.11	106	295217	10.36928	ppb		98
63)	Styrene	19.13	104	457607	10.64883	ppb		93
65)	2-Hexanone	16.11	43	38770	10.87089	ppb		95
66)	1,3-Dichloropropane	16.49	76	147530	10.08561	ppb		98
67)	Dibromochloromethane	16.97	129	105397	11.03714	ppb		82
68)	Chlorobenzene	18.10	112	437982	10.34243	ppb		97
69)	Ethylbenzene	18.22	91	794180	10.07104	ppb		100
70)	Bromoform	19.65	173	45131	9.31734	ppb		91
72)	MIBK (methyl isobutyl keto	14.68	43	59150	9.77763	ppb		87
73)	Isopropylbenzene	19.73	105	756513	9.80877	ppb		98
74)	1,1,2,2-Tetrachloroethane	19.90	83	66287	10.26718	ppb	#	74
75)	1,2,3-Trichloropropane	20.16	110	8565	11.81260	ppb		82
76)	t-1,4-Dichloro-2-Butene	20.23	53	14963	10.22116	ppb	#	92
77)	Bromobenzene	20.48	156	179052	10.06445	ppb		89
78)	n-Propylbenzene	20.44	91	900774	9.79012	ppb		100
79)	4-Ethyltoluene	20.63	105	593563	9.32229	ppb		97
80)	2-Chlorotoluene	20.74	91	598129	9.81561	ppb		98
81)	1,3,5-Trimethylbenzene	20.72	105	617840	9.86323	ppb		99
82)	4-Chlorotoluene	20.82	91	502123	9.56935	ppb		98
83)	Tert-Butylbenzene	21.36	119	672218	9.91209	ppb		97
84)	1,2,4-Trimethylbenzene	21.42	105	604092	9.23368	ppb		96
85)	Sec-Butylbenzene	21.76	105	823845	10.12964	ppb		96
86)	p-Isopropyltoluene	21.99	119	683604	9.81315	ppb		98
87)	Benzyl Chloride	22.42	91	81362	8.79846	ppb		94
88)	1,3-DCB	22.12	146	351790	9.66926	ppb		95
89)	1,4-DCB	22.30	146	335795	9.94420	ppb		96
90)	Hexachloroethane	23.59	117	92345	8.87470	ppb		87
91)	n-Butylbenzene	22.69	91	582962	9.59448	ppb		98
92)	1,2-DCB	22.93	146	292666	10.11316	ppb		97
93)	1,2-Dibromo-3-chloropropan	24.14	155	10559	10.20135	ppb		92
94)	1,2,4-Trichlorobenzene	25.59	180	213173	10.16551	ppb		98
95)	Hexachlorobutadiene	25.84	223	40176	10.54513	ppb		97
96)	Naphthalene	25.94	128	272964	10.54986	ppb		99
97)	1,2,3-Trichlorobenzene	26.29	180	172357	10.86589	ppb		99

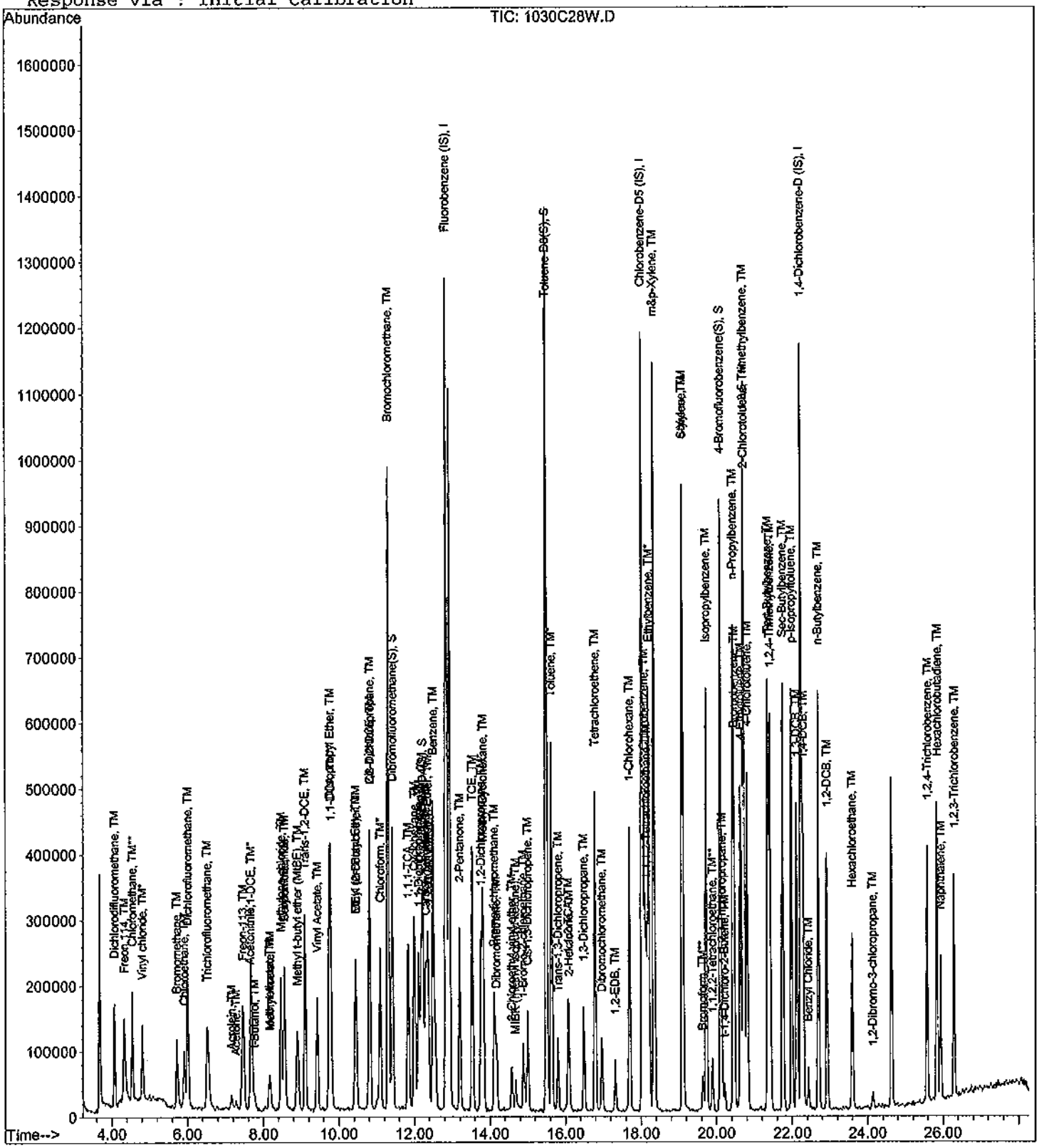
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C28W.D Vial: 1
Acq On : 31 Oct 11 8:48 Operator: STC
Sample : 111030A LCS-1WC (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1031C02W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.9211	0.8622	6.4	TM		
3	TM	Freon 114	0.5769	0.5612	2.7	TM		
4	TM**	Chloromethane	1.141	1.018	11	TM**		
5	TM*	Vinyl chloride	0.7635	0.8076	5.8	TM*		
6	TML	1,3-Butadiene	0.0000	0.0017	0.00	TML		
7	TM	Bromomethane	0.5542	0.5380	2.9	TM		
8	TM	Chloroethane	0.6306	0.5693	9.7	TM		
9	TM	Dichlorofluoromethane	1.744	1.571	9.9	TM		
10	TM	Trichlorofluoromethane	1.035	0.9789	5.4	TM		
11		Acetonitrile	0.0274	0.0260	5.2			
12	TM	Acrolein	0.0125	0.0125	0.57	TM		
13	TML	Acetone	0.1859	0.0713	62	TML	0.43	
14	TML	Freon-113	0.5715	0.6038	5.6	TML	0.36	
15	TM*	1,1-DCE	0.7137	0.6583	7.8	TM*		
16	TM	t-Butanol	0.0034	0.0021	37	TM		* NT ARS 12/7/11
17	TML	Methyl Acetate	0.2927	0.1956	33	TML	10.0	
18	TML	Iodomethane	0.3500	0.3727	6.5	TML	1.5	
19	TML	Acrylonitrile	0.0764	0.0734	3.8	TML	6.6	
20	TM	Methylene chloride	0.6808	0.6268	7.9	TM		
21	TM	Carbon disulfide	0.6935	0.6528	5.9	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.079	0.9661	10	TM		
23	TM	Trans-1,2-DCE	0.8280	0.7399	11	TM		
24	TM	Diisopropyl Ether	2.385	2.226	6.7	TM		
25	TM**	1,1-DCA	1.414	1.343	5.1	TM**		
26	TML	Vinyl Acetate	0.5623	0.4408	22	TML	0.32	
27	TM	Ethyl tert Butyl Ether	1.628	1.520	6.7	TM		
28	TML	MEK (2-Butanone)	0.3591	0.2543	29	TML	11	
29	TM	Cis-1,2-DCE	0.8509	0.7655	10	TM		
30	TM	2,2-Dichloropropane	1.013	0.9468	6.6	TM		
31	TM*	Chloroform	1.361	1.253	7.9	TM*		
32	TM	Bromochloromethane	0.2369	0.2201	7.1	TM		
33	S	Dibromofluoromethane(S)	0.6660	0.6433	3.4	S		
34	TM	1,1,1-TCA	1.237	1.126	9.0	TM		
35	TM	Cyclohexane	1.152	1.143	0.80	TM		
36	TM	1,1-Dichloropropene	1.060	0.9996	5.7	TM		
37	TML	2,2,4-Trimethylpentane	2.316	1.858	20	TML	2.9	
38	S	1,2-DCA-D4(S)	0.5928	0.5215	12	S		
39	TM	Carbon Tetrachloride	0.8521	0.8067	5.3	TM		
40	TM	Tert Amyl Methyl Ether	1.217	1.116	8.3	TM		
		Average			10.7			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Cal. Date: 10/30/2011
Data File: 1031C02W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	1,2-DCA	0.6984	0.5937	15	TM	
42	TM	Benzene	3.046	2.875	5.6	TM	
43	TM	TCE	0.8437	0.7628	9.6	TM	
44	TM	2-Pentanone	0.1765	0.1647	6.7	TM	
45	TM*	1,2-Dichloropropane	0.6924	0.6619	4.4	TM*	
46	TM	Bromodichloromethane	0.7910	0.7515	5.0	TM	
47	TM	Methyl Cyclohexane	0.9859	0.9591	2.7	TM	
48	TM	Dibromomethane	0.2769	0.2622	5.3	TM	
49	TM	2-Chloroethyl vinyl ether	0.1760	0.1609	8.6	TM	
50	TM	1-Bromo-2-chloroethane	0.5908	0.5327	9.8	TM	
51	TM	Cis-1,3-Dichloropropene	0.7543	0.7166	5.0	TM	
52	TM*	Toluene	3.005	2.851	5.1	TM*	
53	TM	Trans-1,3-Dichloropropene	0.5430	0.5071	6.6	TM	
54	TM	1,1,2-TCA	0.2927	0.2818	3.7	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.518	3.680	4.6	S	
57	TM	1,2-EDB	0.4758	0.4707	1.1	TM	
58	TM	Tetrachloroethene	1.285	1.235	3.9	TM	
59	TM	1-Chlorohexane	1.480	1.471	0.61	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.8047	0.8122	0.94	TM	
61	TM	m&p-Xylene	1.899	1.800	5.2	TM	
62	TM	o-Xylene	1.826	1.777	2.7	TM	
63	TM	Styrene	2.756	2.669	3.2	TM	
64	S	4-Bromofluorobenzene(S)	1.260	1.290	2.4	S	
65	TM	2-Hexanone	0.2288	0.2098	8.3	TM	
66	TM	1,3-Dichloropropane	0.9383	0.8969	4.4	TM	
67	TM	Dibromochloromethane	0.6125	0.5870	4.2	TM	
68	TM**	Chlorobenzene	2.716	2.601	4.3	TM**	
69	TM*	Ethylbenzene	5.058	4.826	4.6	TM*	
70	TM**L	Bromoform	0.2607	0.2604	0.11	TM**L	15
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	MIBK (methyl isobutyl ketone)	0.7107	0.6863	3.4	TM	
73	TM	Isopropylbenzene	9.061	9.020	0.45	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7585	0.8216	8.3	TM**	
75	TML	1,2,3-Trichloropropane	0.0967	0.0854	12	TML	0.36
76	TM	t-1,4-Dichloro-2-Butene	0.1720	0.1606	6.6	TM	
77	TM	Bromobenzene	2.090	2.008	3.9	TM	
78	TM	n-Propylbenzene	10.8	10.6	1.8	TM	
79	TM	4-Ethyltoluene	7.480	6.945	7.2	TM	
80	TM	2-Chlorotoluene	7.159	6.943	3.0	TM	
		Average			5.0		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/31/2011
Matrix: 0 Instrument: Chico
Cal. Date: 10/30/2011
Data File: 1031C02W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,3,5-Trimethylbenzene	7.359	7.059	4.1	TM	
82	TM	4-Chlorotoluene	6.164	5.847	5.1	TM	
83	TM	Tert-Butylbenzene	7.967	7.808	2.0	TM	
84	TM	1,2,4-Trimethylbenzene	7.686	6.996	9.0	TM	
85	TM	Sec-Butylbenzene	9.555	9.541	0.15	TM	
86	TM	p-Isopropyltoluene	8.184	7.999	2.3	TM	
87	TM	Benzyl Chloride	1.086	1.151	5.9	TM	
88	TM	1,3-DCB	4.274	4.119	3.6	TM	
89	TM	1,4-DCB	3.967	3.876	2.3	TM	
90	TML	Hexachloroethane	1.021	1.208	18	TML	3.4
91	TM	n-Butylbenzene	7.138	6.711	6.0	TM	
92	TM	1,2-DCB	3.400	3.318	2.4	TM	
93	TML	1,2-Dibromo-3-chloropropane	0.1148	0.1181	2.8	TML	2.3
94	TM	1,2,4-Trichlorobenzene	2.464	2.292	7.0	TM	
95	TM	Hexachlorobutadiene	0.4476	0.4054	9.4	TM	
96	TM	Naphthalene	3.040	2.816	7.4	TM	
97	TM	1,2,3-Trichlorobenzene	1.864	1.703	8.6	TM	
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			5.7		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C02W.D Vial: 1
Acq On : 31 Oct 11 20:28 Operator: STC
Sample : Voc Std 10-31-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	691622	25.00000 ppb		0.01
55) Chlorobenzene-D5 (IS)	18.04	117	457984	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	237760	25.00000 ppb		0.01
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.44	111	444919	24.14911 ppb		0.01
Spiked Amount 25.097			Recovery = 96.222%			
38) 1,2-DCA-D4(S)	12.23	65	360696	21.99310 ppb		0.00
Spiked Amount 24.225			Recovery = 90.785%			
56) Toluene-D8(S)	15.51	98	1685172	26.15083 ppb		0.01
Spiked Amount 25.808			Recovery = 101.328%			
64) 4-Bromofluorobenzene(S)	20.12	95	591025	25.59709 ppb		0.01
Spiked Amount 25.459			Recovery = 100.540%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	238529	9.36086 ppb		93
3) Freon 114	4.35	85	155246	9.72775 ppb		88
4) Chloromethane	4.56	50	281528	8.91564 ppb		100
5) Vinyl chloride	4.83	62	223413	10.57754 ppb		96
7) Bromomethane	5.73	94	148847	9.70815 ppb		99
8) Chloroethane	5.92	64	157492	9.02712 ppb		96
9) Dichlorofluoromethane	6.02	67	434534	9.00814 ppb		97
10) Trichlorofluoromethane	6.53	101	270813	9.46043 ppb		96
11) Acetonitrile	7.66	41	89751	118.45854 ug/l		100
12) Acrolein	7.17	56	43092	124.28864 ppb		91
13) Acetone	7.29	43	19730	9.95679 ppb	#	84
14) Freon-113	7.47	101	167045	9.96372 ppb		96
15) 1,1-DCE	7.69	96	182122	9.22351 ppb		86
16) t-Butanol	7.77	59	7385	78.76456 ppb		99
17) Methyl Acetate	8.21	43	54115	9.00148 ppb		95
18) Iodomethane	8.17	142	103108	9.84938 ppb	#	88
19) Acrylonitrile	8.56	53	20317	9.33972 ppb		86
20) Methylene chloride	8.49	84	173397	9.20692 ppb		97
21) Carbon disulfide	8.57	76	180608	9.41387 ppb		96
22) Methyl t-butyl ether (MtBE	8.91	73	267268	8.95526 ppb		99
23) Trans-1,2-DCE	9.10	96	204697	8.93633 ppb		95
24) Diisopropyl Ether	9.76	45	615743	9.33240 ppb		97
25) 1,1-DCA	9.80	63	371502	9.49437 ppb		95
26) Vinyl Acetate	9.43	43	121934	9.96764 ppb		98
27) Ethyl tert Butyl Ether	10.45	59	420459	9.33427 ppb	#	89
28) MEK (2-Butanone)	10.44	43	70348	8.87086 ppb		100
29) Cis-1,2-DCE	10.83	96	211762	8.99603 ppb		93
30) 2,2-Dichloropropane	10.82	77	261919	9.34455 ppb		99
31) Chloroform	11.10	83	346586	9.20733 ppb		99
32) Bromochloromethane	11.33	128	60895	9.29213 ppb		88
34) 1,1,1-TCA	11.84	97	311618	9.10295 ppb		96
35) Cyclohexane	12.02	56	316184	9.92014 ppb		94
36) 1,1-Dichloropropene	12.11	75	276537	9.42766 ppb		98
37) 2,2,4-Trimethylpentane	12.18	57	513950	10.29061 ppb		96
39) Carbon Tetrachloride	12.31	117	223170	9.46745 ppb		93
40) Tert Amyl Methyl Ether	12.36	73	308751	9.16693 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C02W.D Vial: 1
Acq On : 31 Oct 11 20:28 Operator: STC
Sample : Voc Std 10-31-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	1,2-DCA	12.38	62	164255	8.50091	ppb	#	93
42)	Benzene	12.51	78	795327	9.43739	ppb		98
43)	TCE	13.54	95	211023	9.04130	ppb		89
44)	2-Pentanone	13.21	43	569663	116.68058	ppb		93
45)	1,2-Dichloropropane	13.78	63	183110	9.55933	ppb	#	93
46)	Bromodichloromethane	14.13	83	207908	9.50050	ppb		92
47)	Methyl Cyclohexane	13.84	83	265332	9.72805	ppb		99
48)	Dibromomethane	14.17	93	72544	9.46962	ppb		88
49)	2-Chloroethyl vinyl ether	14.59	63	44500	9.13814	ppb	#	94
50)	1-Bromo-2-chloroethane	14.89	63	147361	9.01603	ppb		87
51)	Cis-1,3-Dichloropropene	15.02	75	198255	9.50061	ppb		94
52)	Toluene	15.64	91	788659	9.48810	ppb		99
53)	Trans-1,3-Dichloropropene	15.82	75	140296	9.33863	ppb		99
54)	1,1,2-TCA	16.09	83	77960	9.62820	ppb	#	88
57)	1,2-EDB	17.34	107	86231	9.89288	ppb	#	97
58)	Tetrachloroethene	16.80	164	226307	9.61129	ppb		95
59)	1-Chlorohexane	17.71	91	269479	9.93854	ppb		95
60)	1,1,1,2-Tetrachloroethane	18.17	131	148790	10.09368	ppb		93
61)	m&p-Xylene	18.37	106	659478	18.95895	ppb		99
62)	o-Xylene	19.12	106	325481	9.72926	ppb		90
63)	Styrene	19.13	104	488862	9.68150	ppb		97
65)	2-Hexanone	16.11	43	38443	9.17346	ppb		100
66)	1,3-Dichloropropane	16.51	76	164312	9.55956	ppb		94
67)	Dibromochloromethane	16.98	129	107532	9.58326	ppb		86
68)	Chlorobenzene	18.11	112	476427	9.57435	ppb		95
69)	Ethylbenzene	18.23	91	884060	9.54078	ppb		98
70)	Bromoform	19.65	173	47710	8.49625	ppb	#	62
72)	MIBK (methyl isobutyl keto	14.69	43	65269	9.65648	ppb		87
73)	Isopropylbenzene	19.75	105	857810	9.95456	ppb		96
74)	1,1,2,2-Tetrachloroethane	19.90	83	78142	10.83278	ppb	#	95
75)	1,2,3-Trichloropropane	20.17	110	8119	10.03574	ppb		85
76)	t-1,4-Dichloro-2-Butene	20.23	53	15270	9.33584	ppb	#	69
77)	Bromobenzene	20.48	156	190969	9.60742	ppb		98
78)	n-Propylbenzene	20.45	91	1009404	9.81907	ppb		97
79)	4-Ethyltoluene	20.65	105	660482	9.28431	ppb		94
80)	2-Chlorotoluene	20.74	91	660311	9.69848	ppb		99
81)	1,3,5-Trimethylbenzene	20.72	105	671295	9.59156	ppb		95
82)	4-Chlorotoluene	20.82	91	556109	9.48561	ppb		97
83)	Tert-Butylbenzene	21.37	119	742560	9.79985	ppb		94
84)	1,2,4-Trimethylbenzene	21.43	105	665378	9.10275	ppb		95
85)	Sec-Butylbenzene	21.77	105	907361	9.98530	ppb		96
86)	p-Isopropyltoluene	22.00	119	760695	9.77343	ppb		99
87)	Benzyl Chloride	22.44	91	109419	10.59035	ppb		93
88)	1,3-DCB	22.14	146	391768	9.63766	ppb		95
89)	1,4-DCB	22.31	146	368583	9.76931	ppb		98
90)	Hexachloroethane	23.61	117	114864	9.65762	ppb		90
91)	n-Butylbenzene	22.71	91	638272	9.40199	ppb		99
92)	1,2-DCB	22.93	146	315592	9.76053	ppb		98
93)	1,2-Dibromo-3-chloropropan	24.15	155	11227	9.77038	ppb	#	84
94)	1,2,4-Trichlorobenzene	25.59	180	217972	9.30316	ppb		97
95)	Hexachlorobutadiene	25.85	223	38552	9.05660	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C02W.D Vial: 1
Acq On : 31 Oct 11 20:28 Operator: STC
Sample : Voc Std 10-31-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
96) Naphthalene	25.94	128	267813	9.26416	ppb	#	92
97) 1,2,3-Trichlorobenzene	26.30	180	161983	9.13984	ppb		96

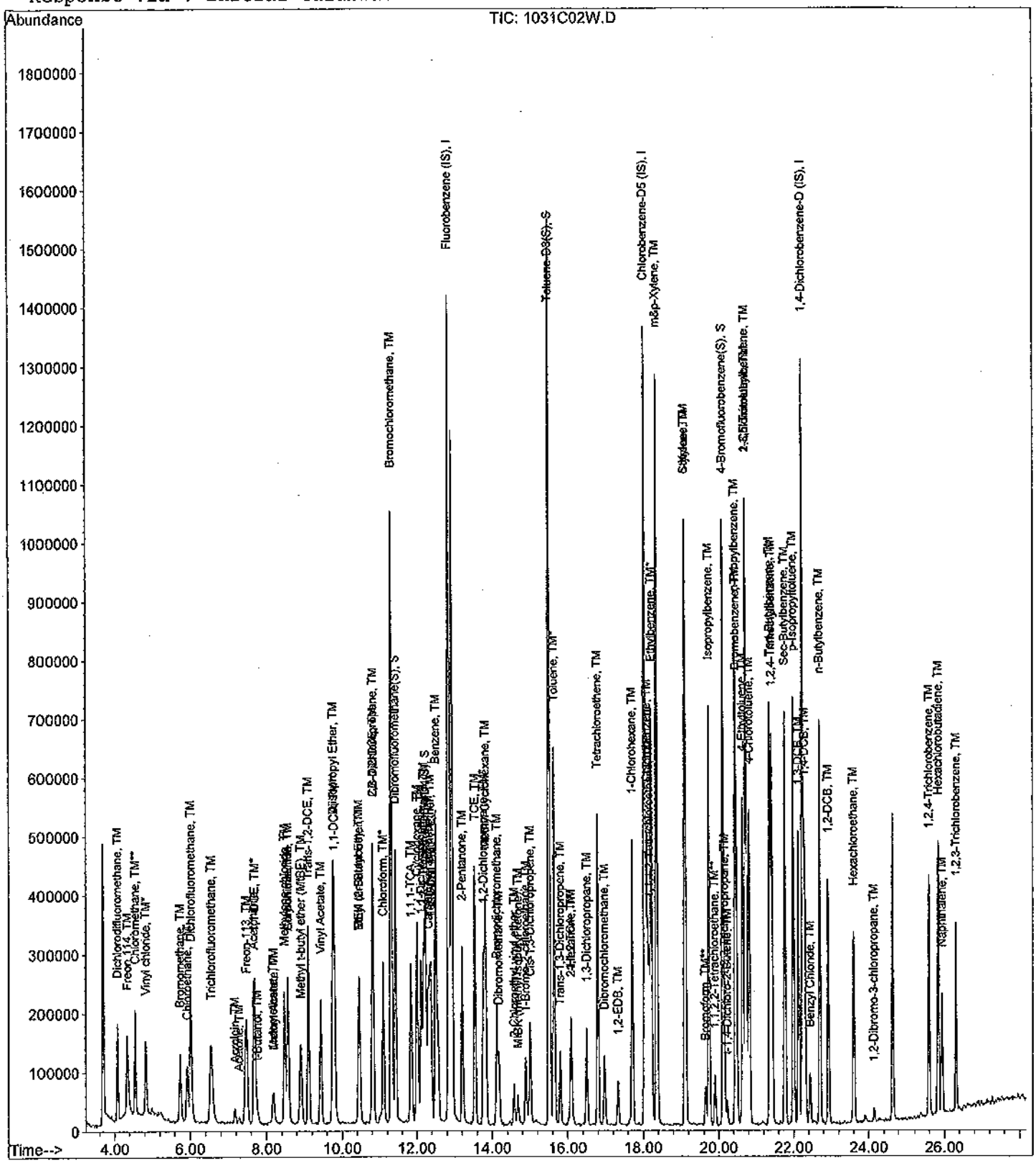
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C02W.D Vial: 1
Acq On : 31 Oct 11 20:28 Operator: STC
Sample : Voc Std 10-31-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/30/2011
Matrix: Instrument: Chico Initials:

1030C05W.D 1030C06W.D 1030C07W.D 1030C08W.D 1030C09W.D 1030C10W.D 1030C11W.D

		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		
1	I	Fluorobenzene (IS)	ISTD													
2	TMHBL	Gasoline	17.8	8.144	5.154	3.050	2.484	2.343	2.274				5.9	96	TMHBL	1.000
3	I	Chlorobenzene-D5 (IS)	ISTD													
4	I	1,4-Dichlorobenzene-D (IS)	ISTD													
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.86	TIC	1064868	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.05	TIC	1075283	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1031464	25.00000	ppb	0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.05	TIC	15186538m	62.79631	ppb	100

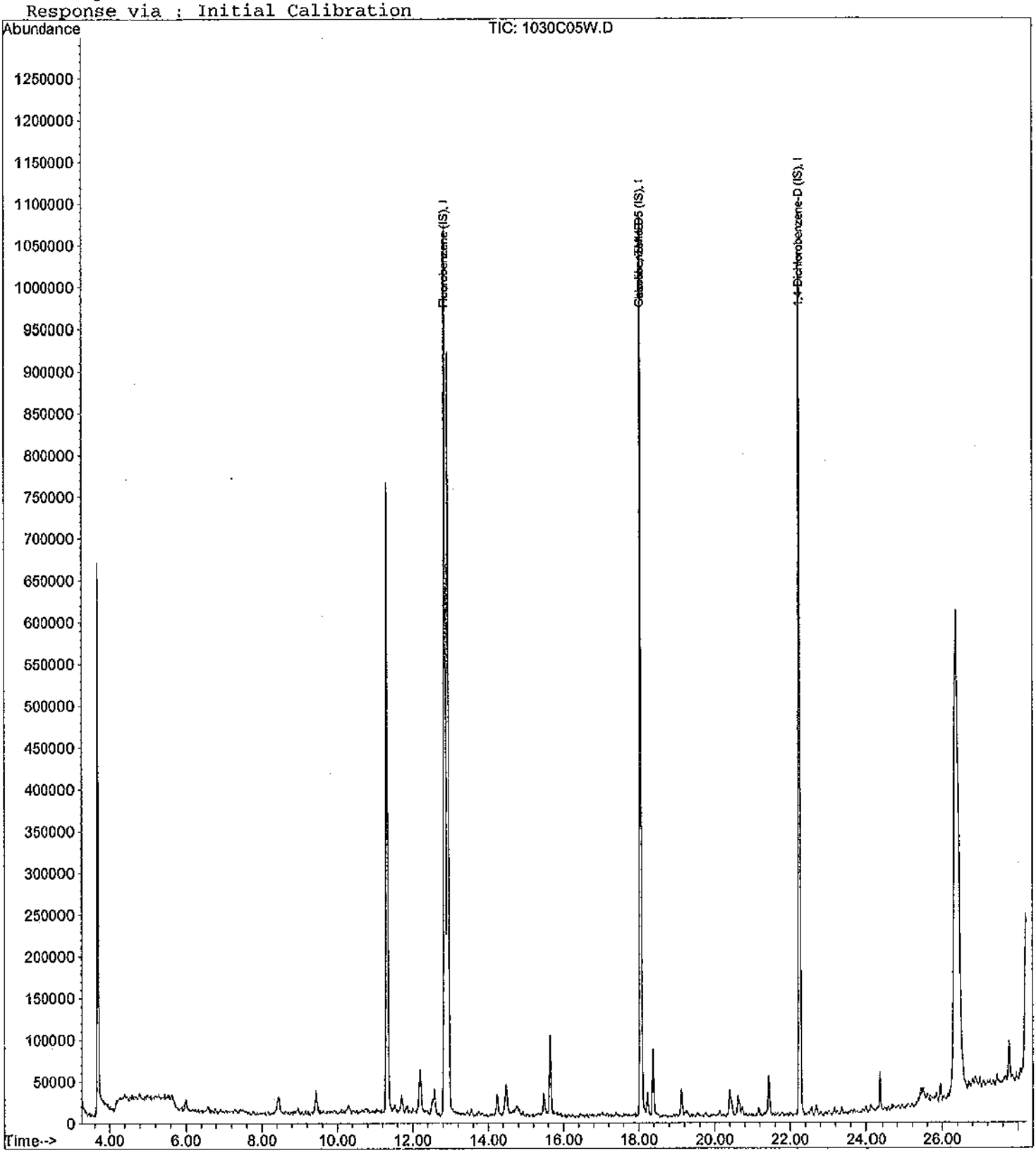
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:29 2011 Quant Results File: CGAS.RES

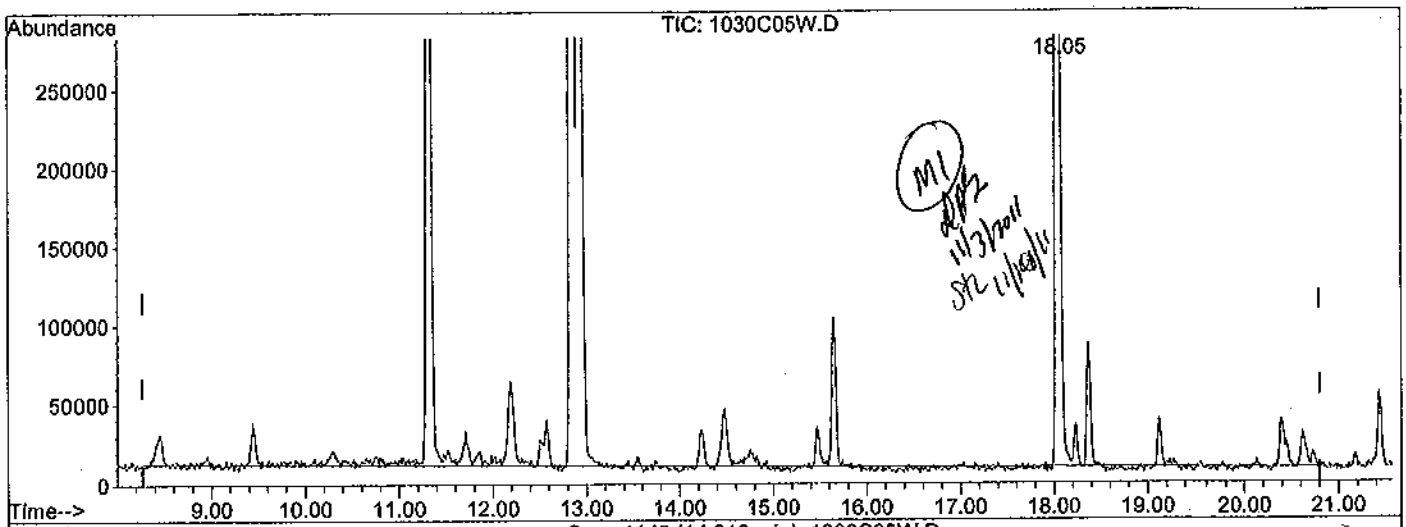
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

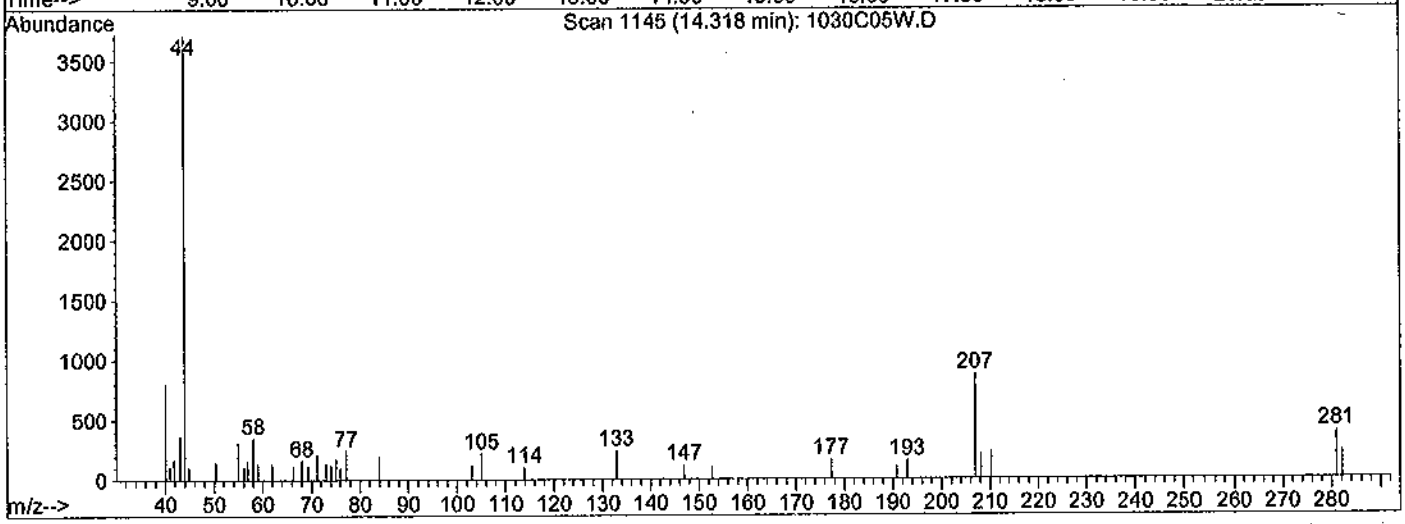


Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration





TIC: 1030C05W.D

(2) Gasoline (TMHB)

14.31min 48.1330ppb m

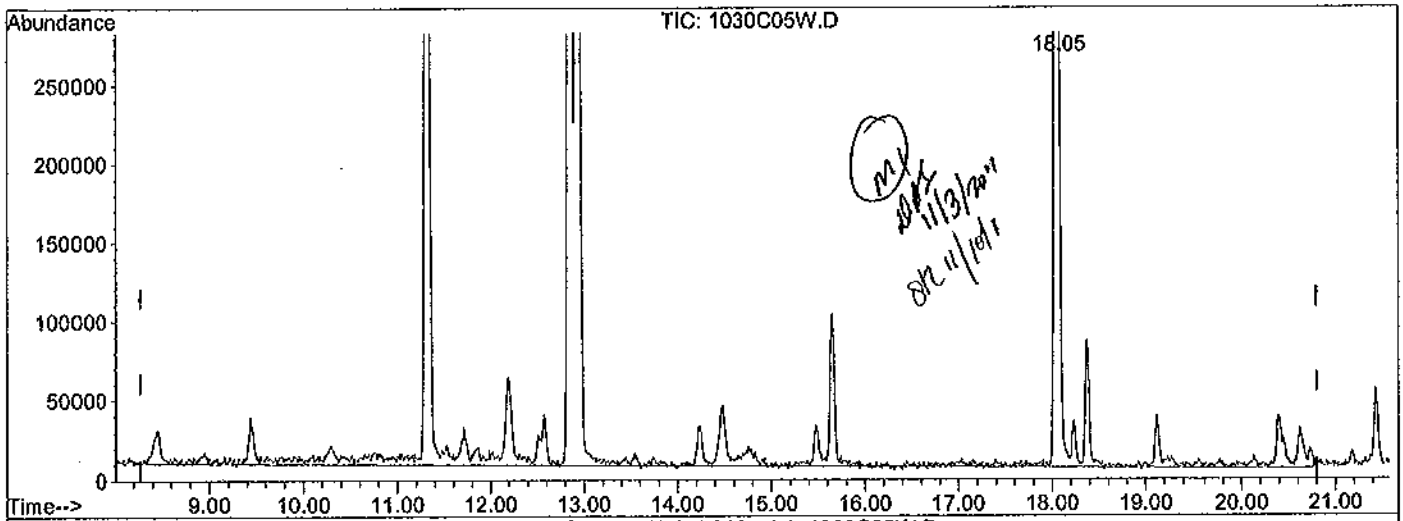
response 11640400

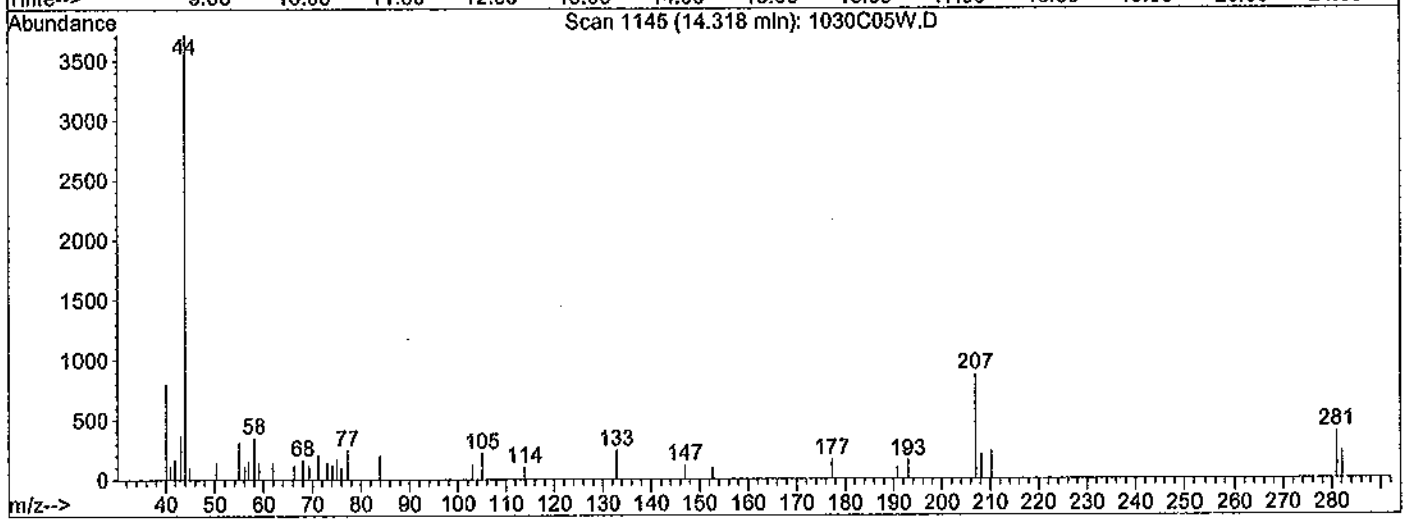
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.82#
0.00	0.00	2.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:29 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration





TIC: 1030C05W.D

(2) Gasoline (TMHB)

18.05min 62.7963ppb m

response 15186538

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.63#
0.00	0.00	1.87#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:30 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1074535	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1105653	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1049854	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	17501250m	71.71659	ppb	100

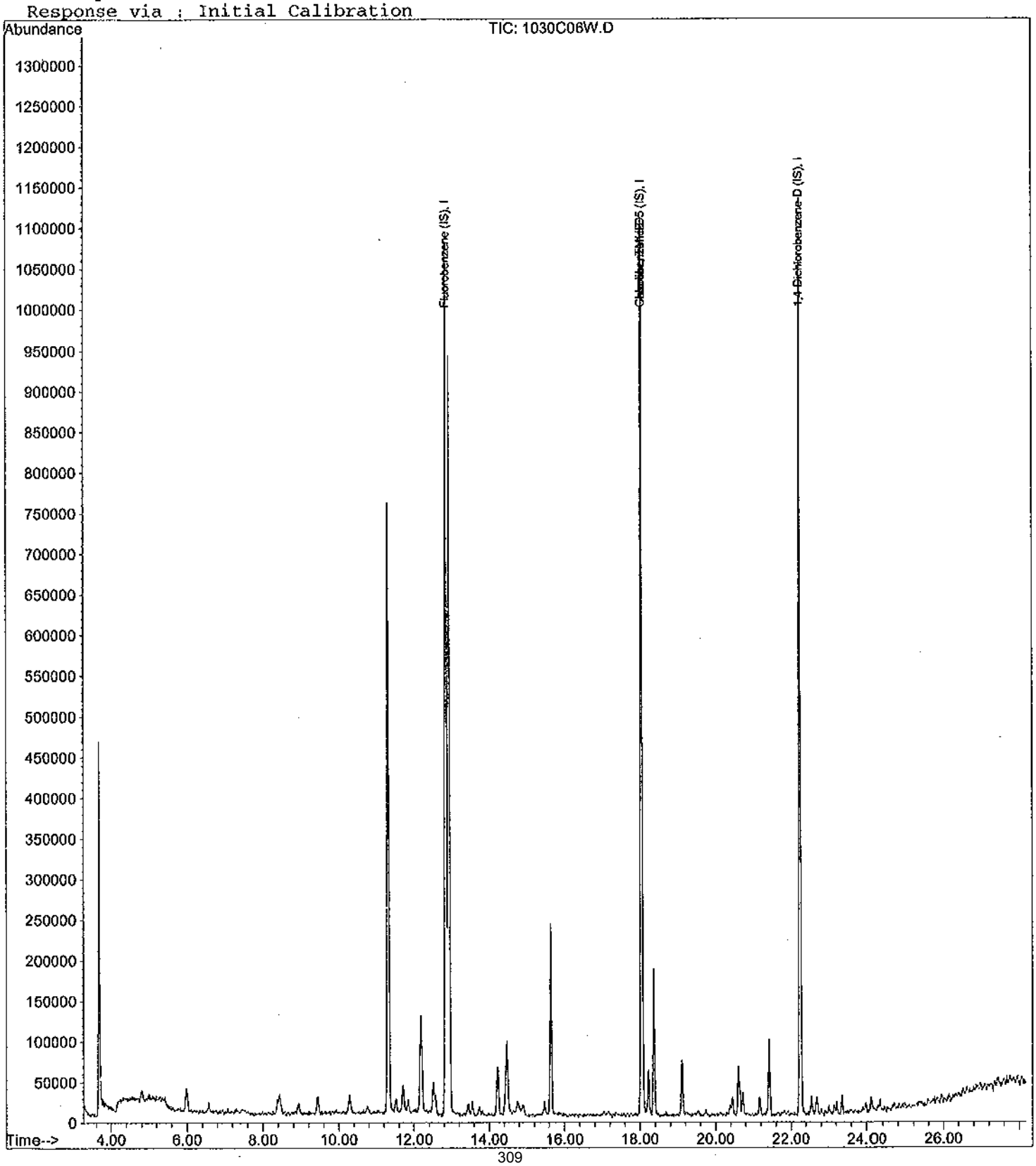
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:30 2011 Quant Results File: CGAS.RES

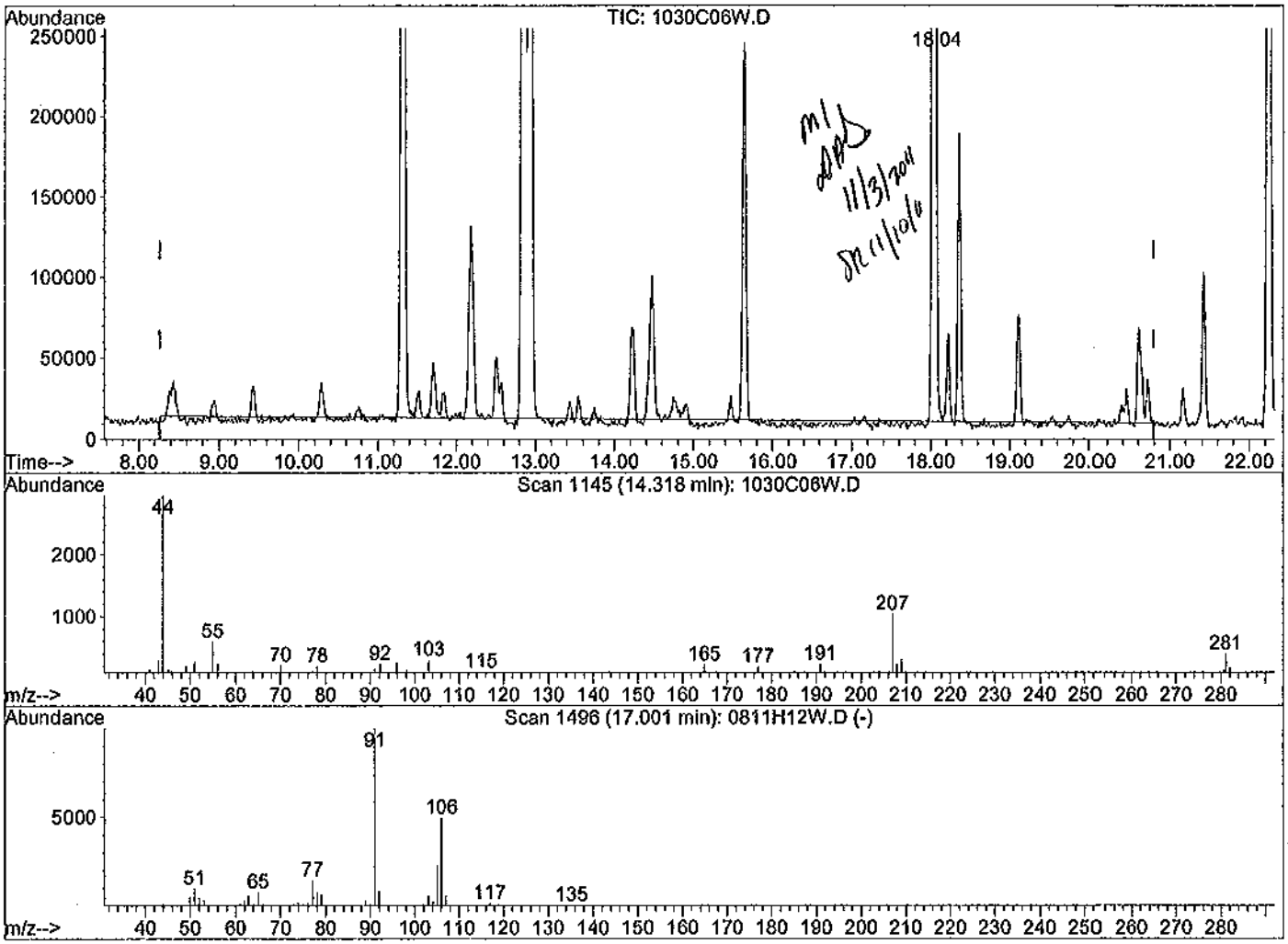
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C06W.D

(2) Gasoline (TMHB)

14.31min 58.1426ppb m

response 14188741

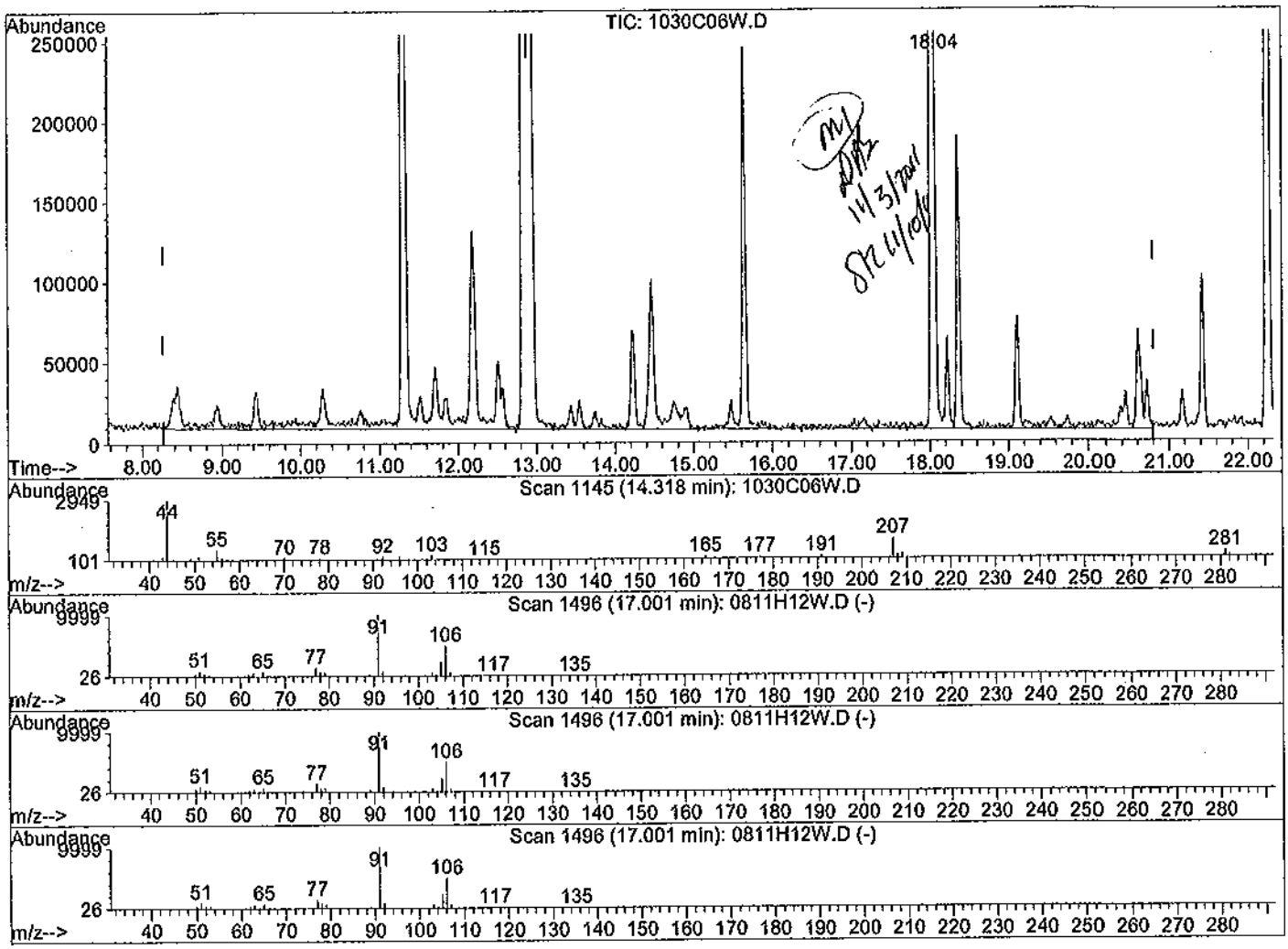
Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.68#
0.00	0.00	2.00#
0.00	0.00	0.00

1030C06W.D CGAS.M Thu Nov 03 10:30:25 2011

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:30 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C06W.D

(2) Gasoline (TMHB)

18.04min 71.7166ppb m

response 17501250

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.55#
0.00	0.00	1.62#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:38 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1049972	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1057194	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1054110	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	21647604m	90.78273	ppb	100

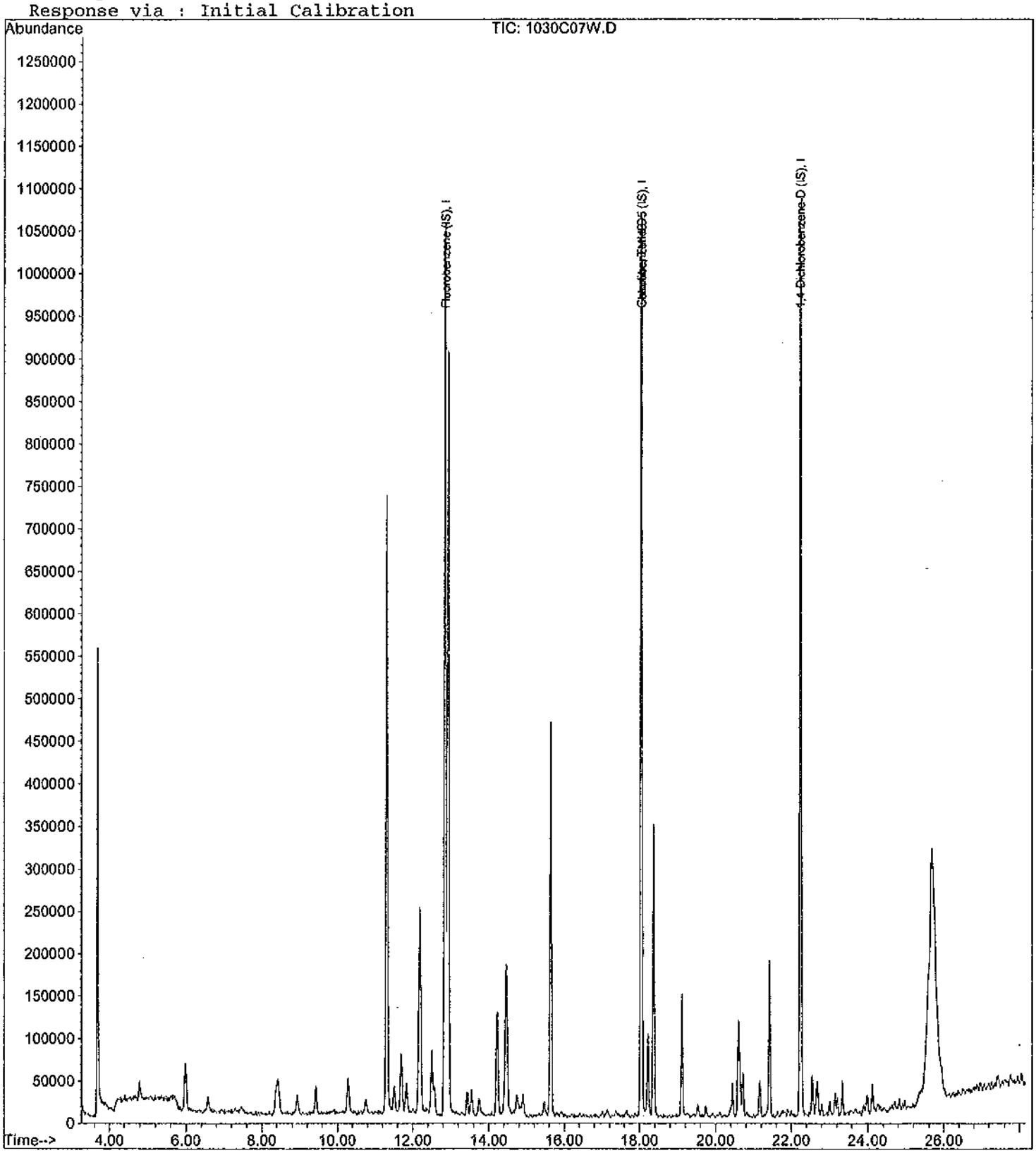
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:38 2011 Quant Results File: CGAS.RES

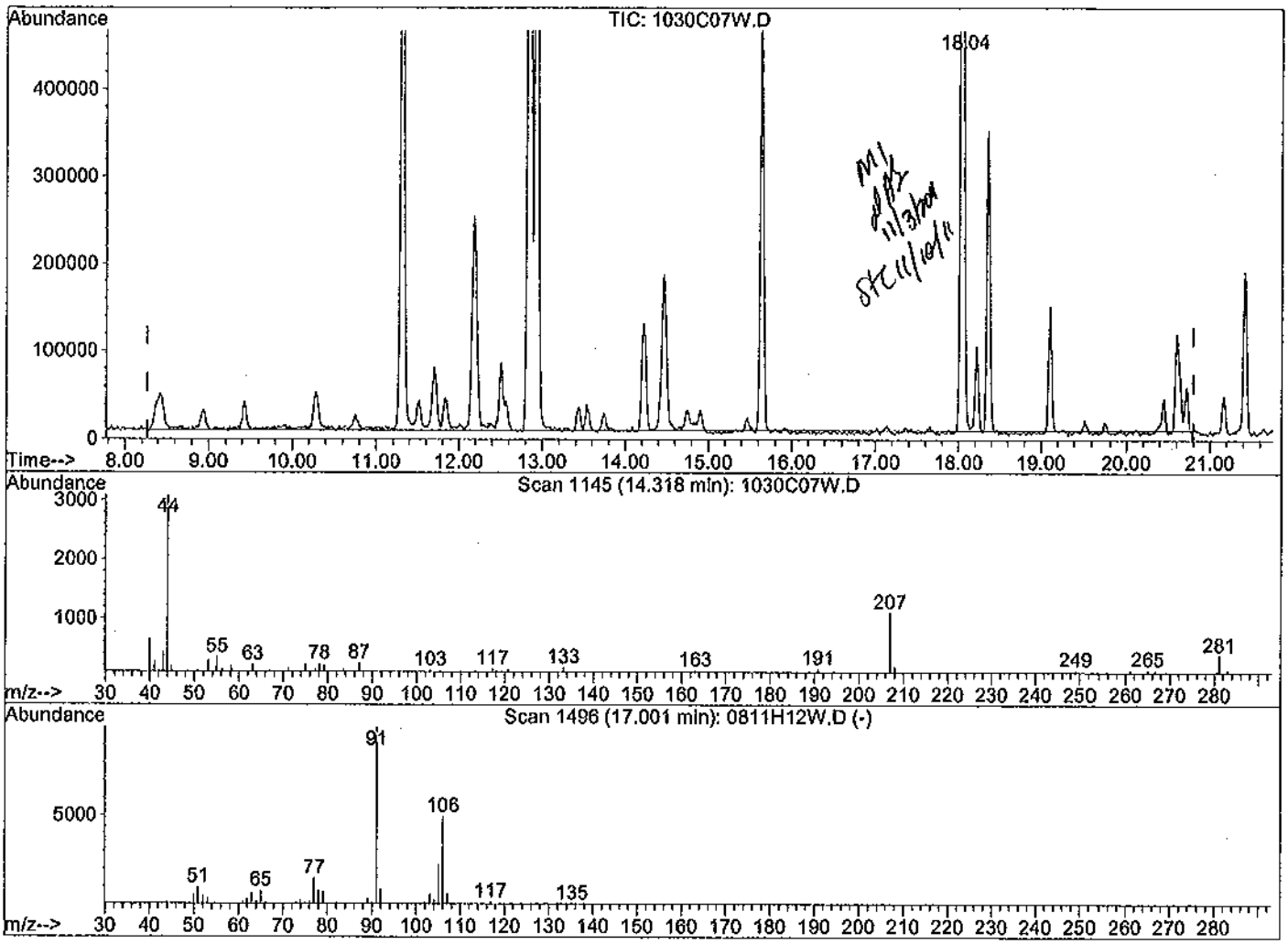
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C07W.D

(2) Gasoline (TMHB)

14.31min 75.4746ppb m

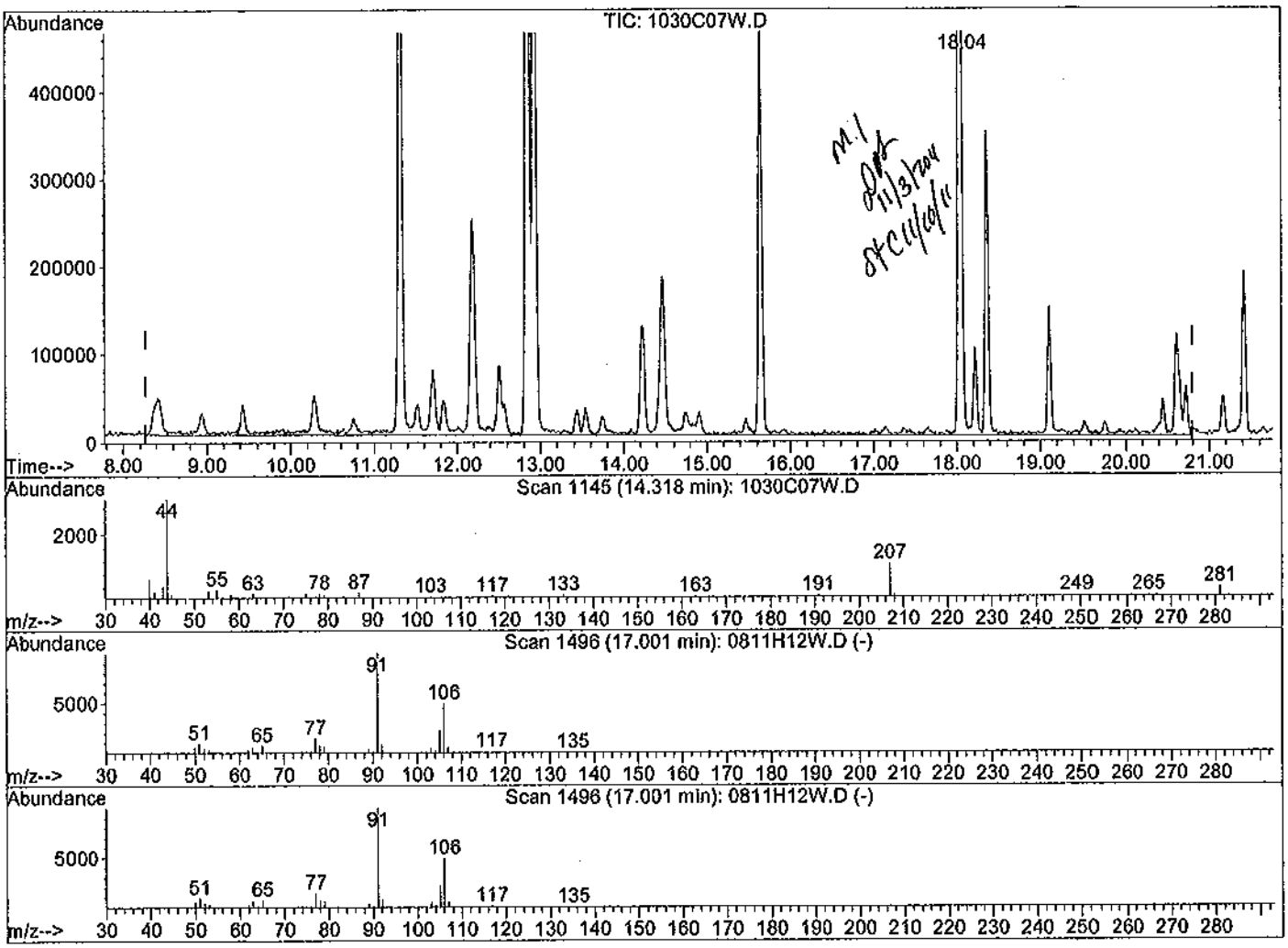
response 17997299

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.55#
0.00	0.00	1.56#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:38 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C07W.D

(2) Gasoline (TMHB)

18.04min 90.7827ppb m

response 21647604

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.45#
0.00	0.00	1.30#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:40 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1085666	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1080398	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1118273	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	39740510m	161.17894	ppb	100

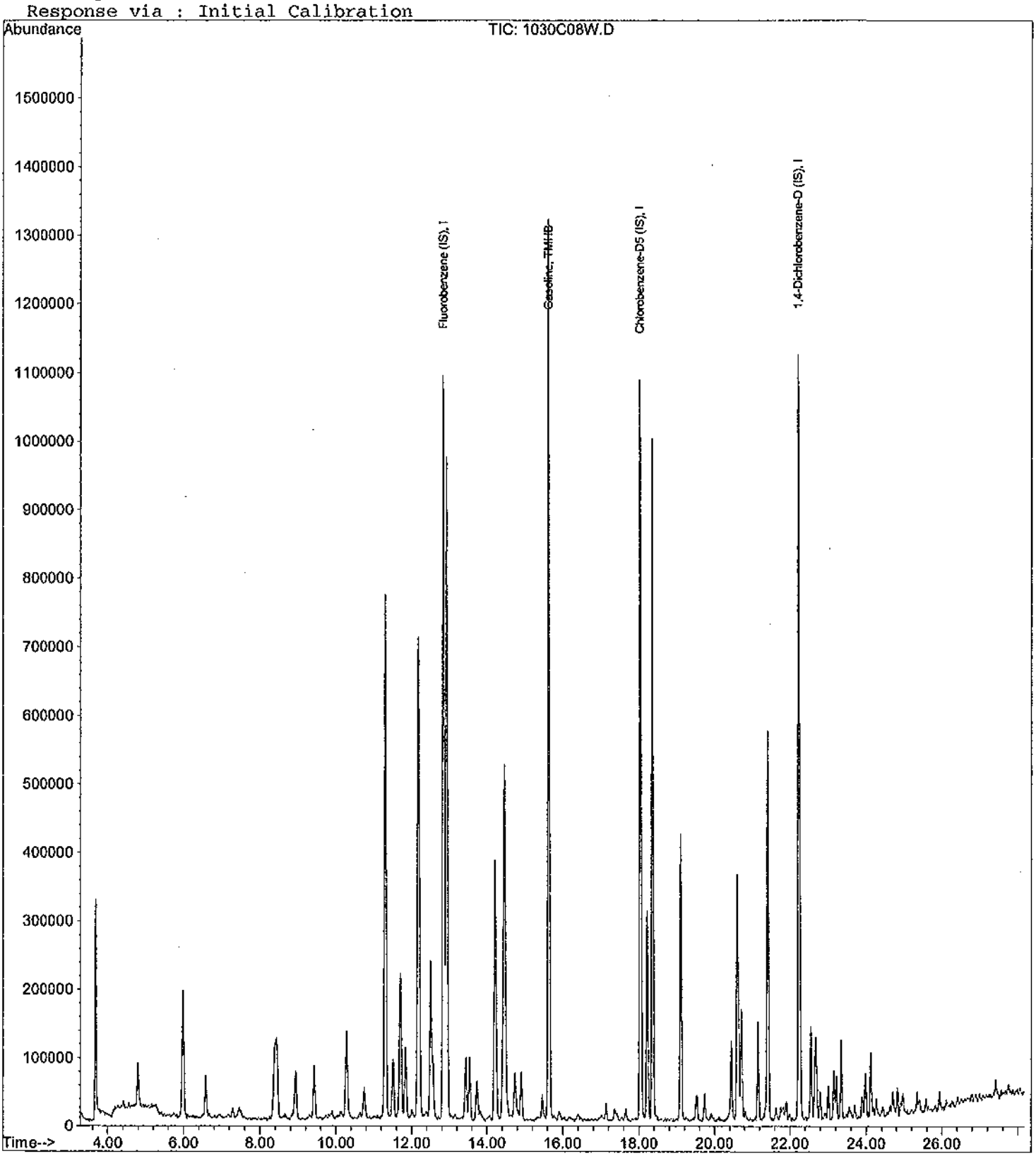
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:40 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration

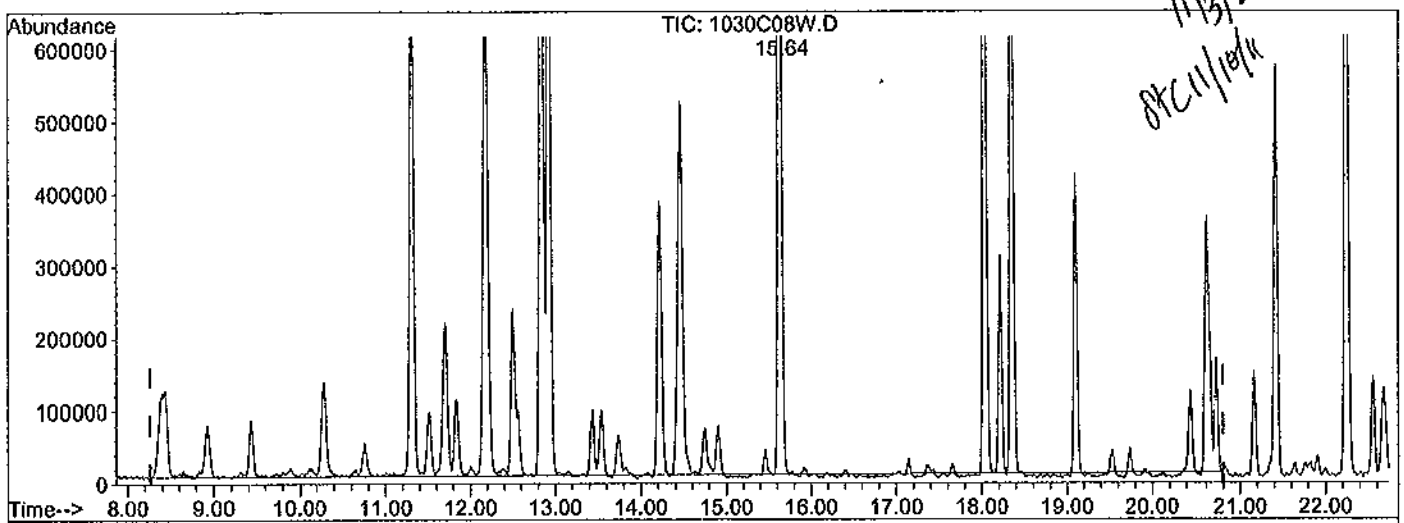


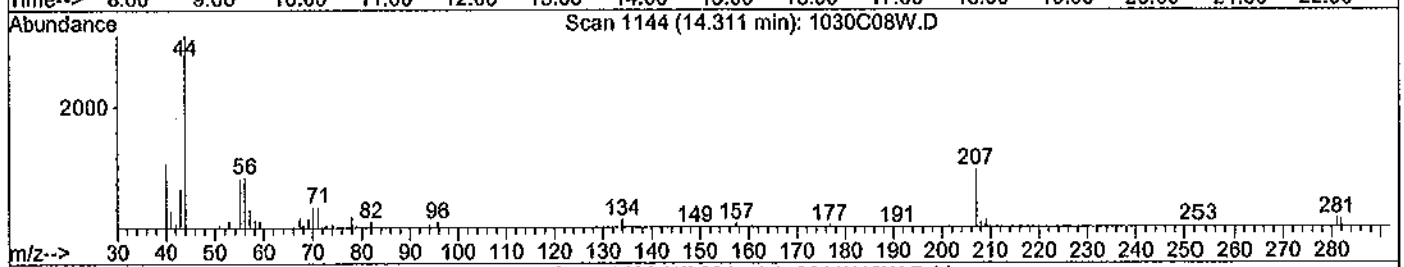
Quantitation Report

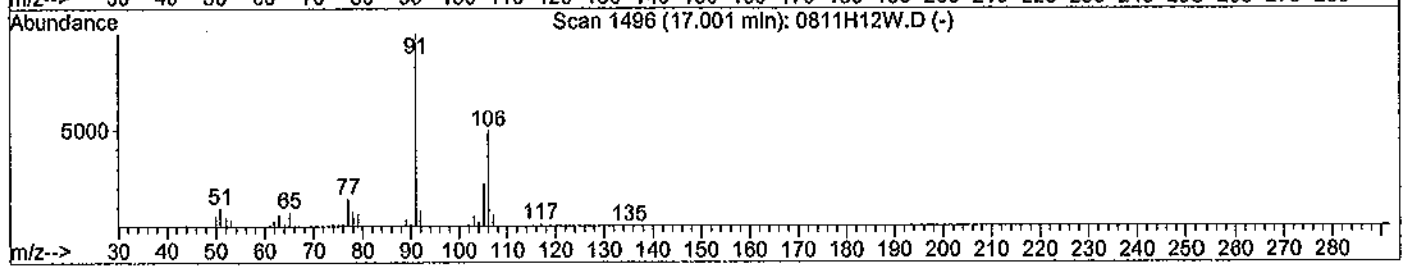
Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration

11/3/2011
STC 11/10/11







TIC: 1030C08W.D

(2) Gasoline (TMHB)

14.31min 137.6327ppb m

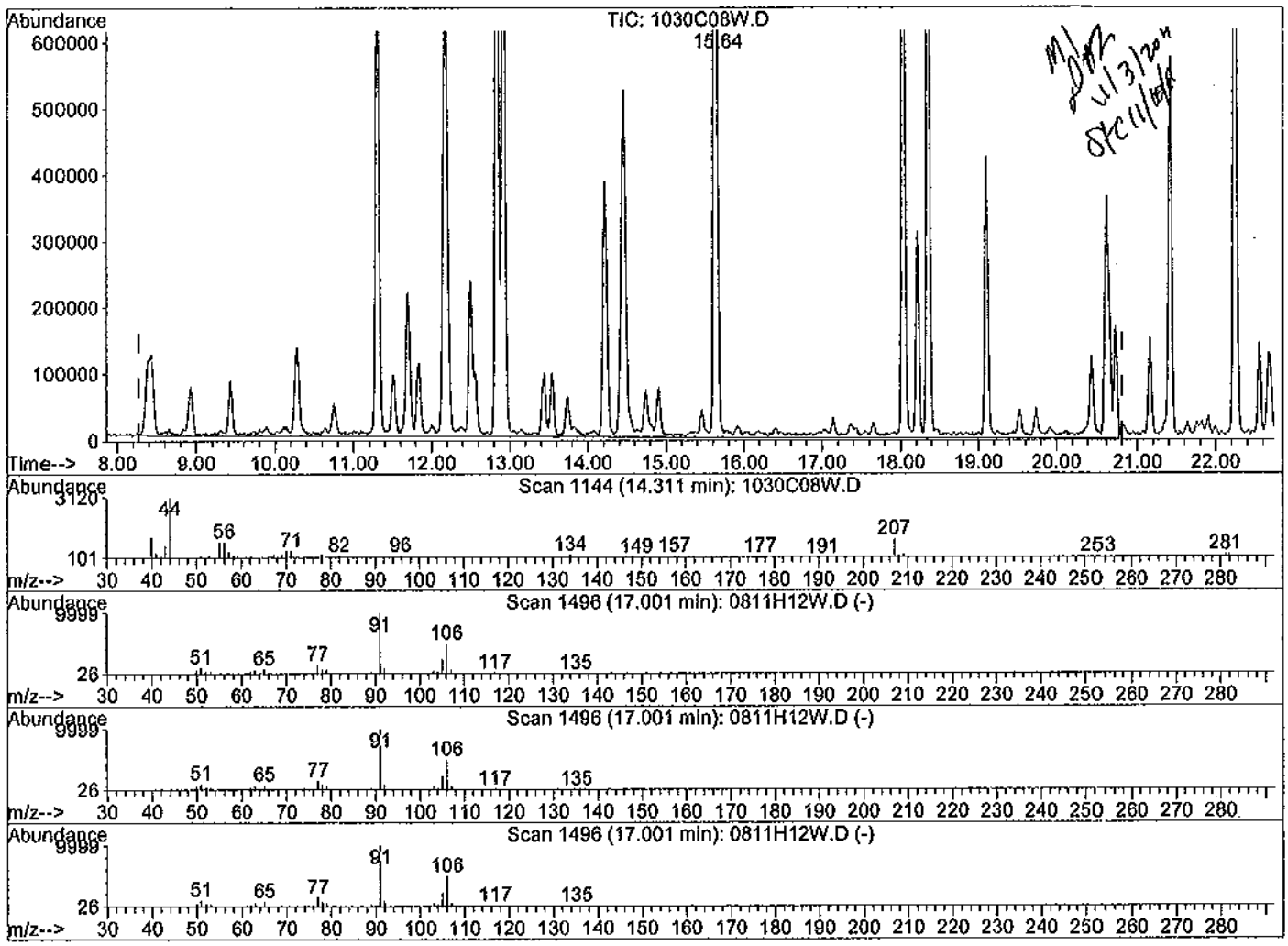
response 33934923

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.30#
0.00	0.00	0.88#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:40 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C08W.D

(2) Gasoline (TMHB)

15.64min 161.1789ppb m

response 39740510

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.25#
0.00	0.00	0.75#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1104080	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1114811	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1175050	25.00000	ppb	0.00

System Monitoring Compounds

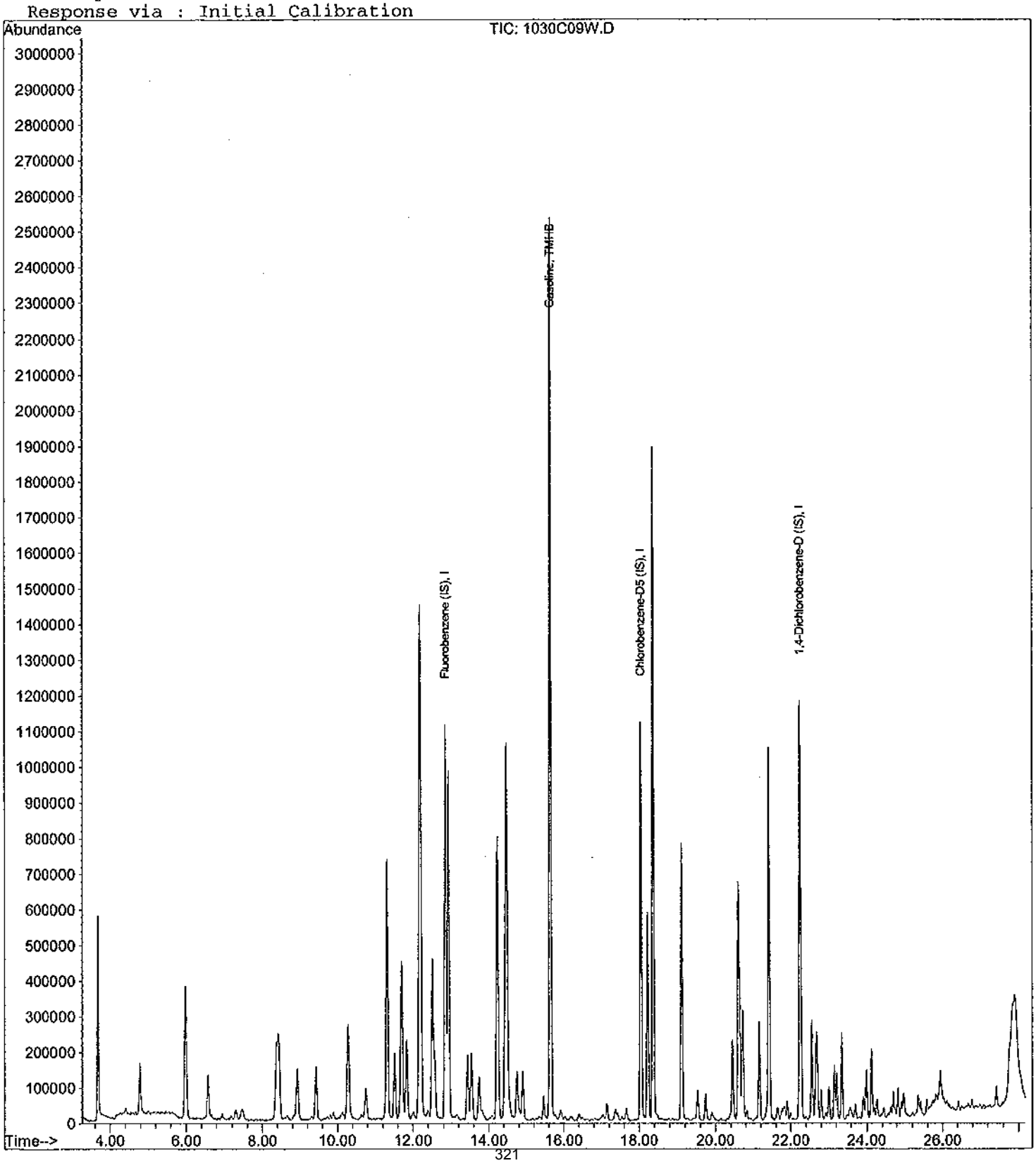
Target Compounds						Qvalue
2) Gasoline	15.64	TIC	65808275m	262.45271	ppb	100

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:41 2011 Quant Results File: CGAS.RES

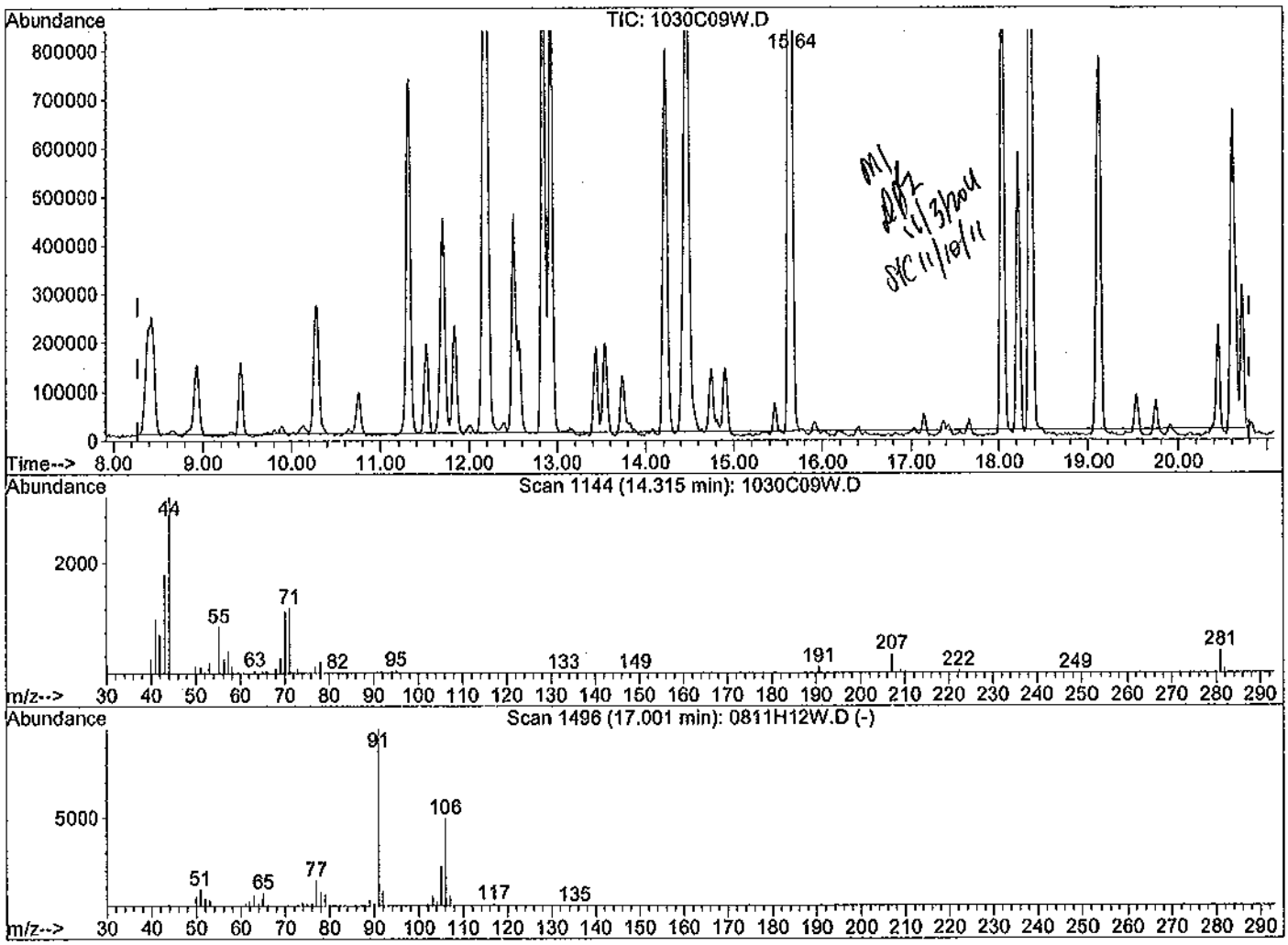
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C09W.D

(2) Gasoline (TMHB)

14.31min 231.1564ppb m

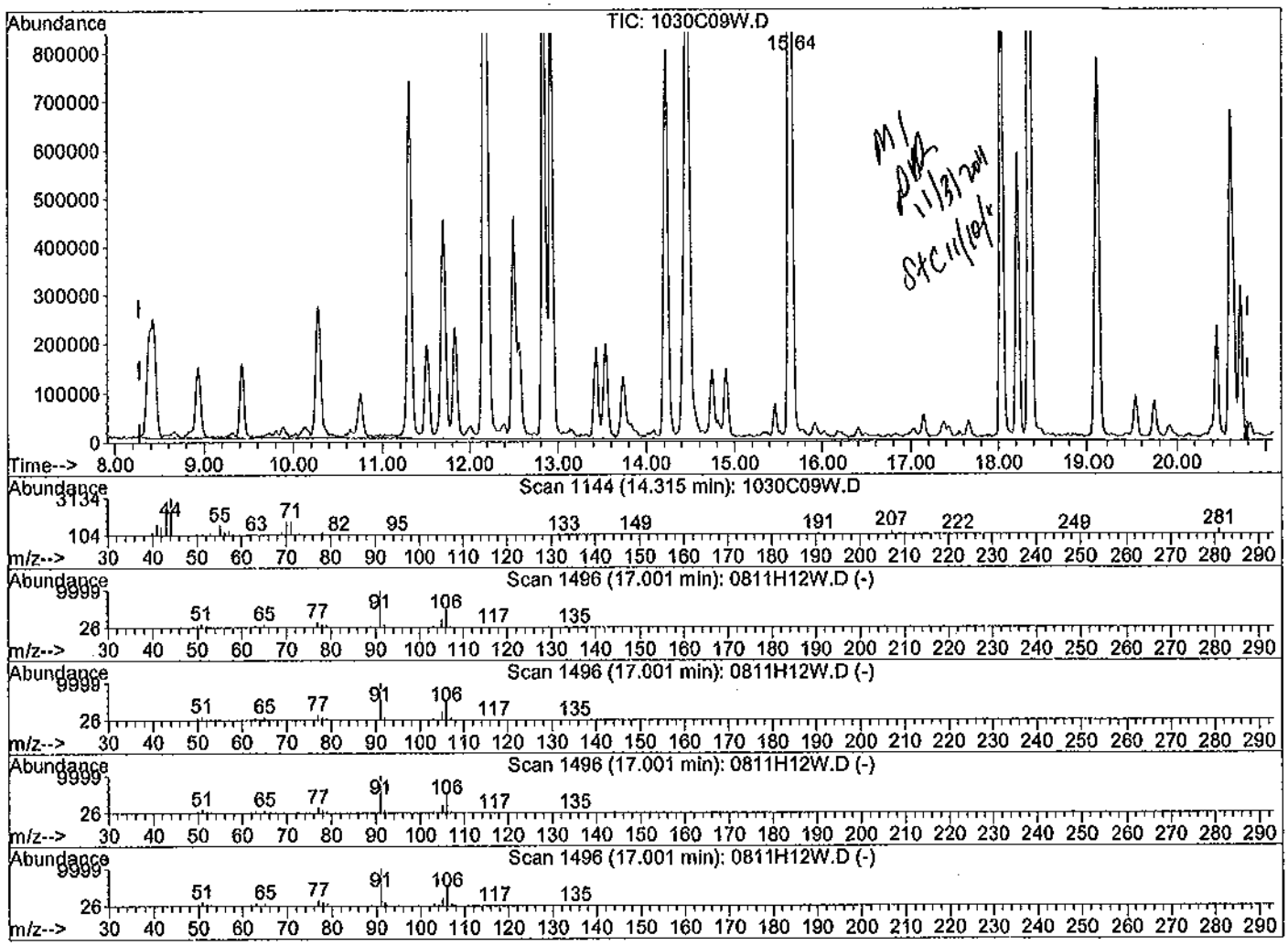
response 57960938

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.18#
0.00	0.00	0.51#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:41 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C09W.D

(2) Gasoline (TMHB)

15.64min 262.4527ppb m

response 65808275

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.16#
0.00	0.00	0.45#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:42 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1129347	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1159453	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1268278	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	84666447m	330.10723	ppb	100

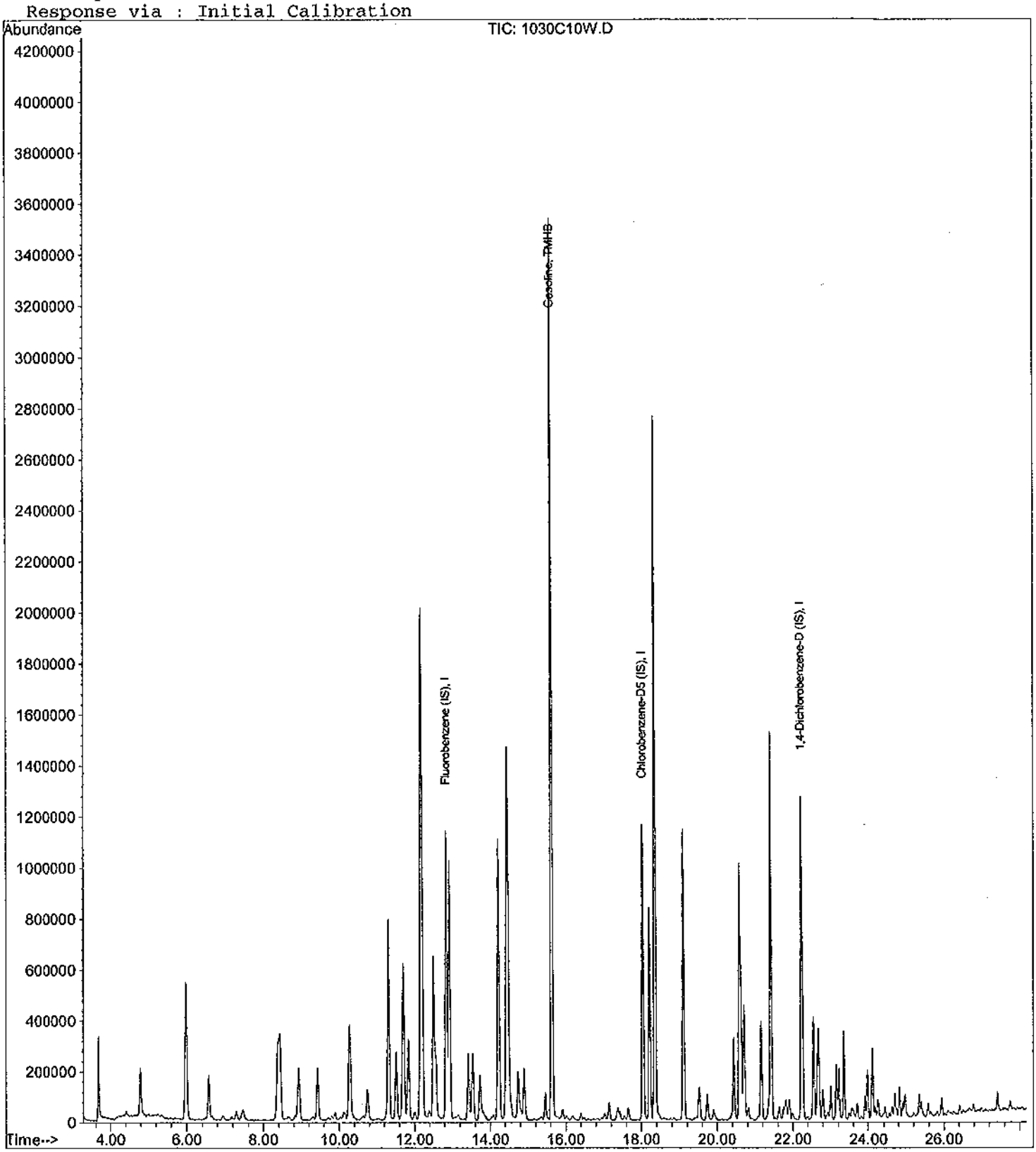
(#) = qualifier out of range (m) = manual integration
1030C10W.D CGAS.M Thu Nov 03 11:12:19 2011 Page 1

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:42 2011 Quant Results File: CGAS.RES

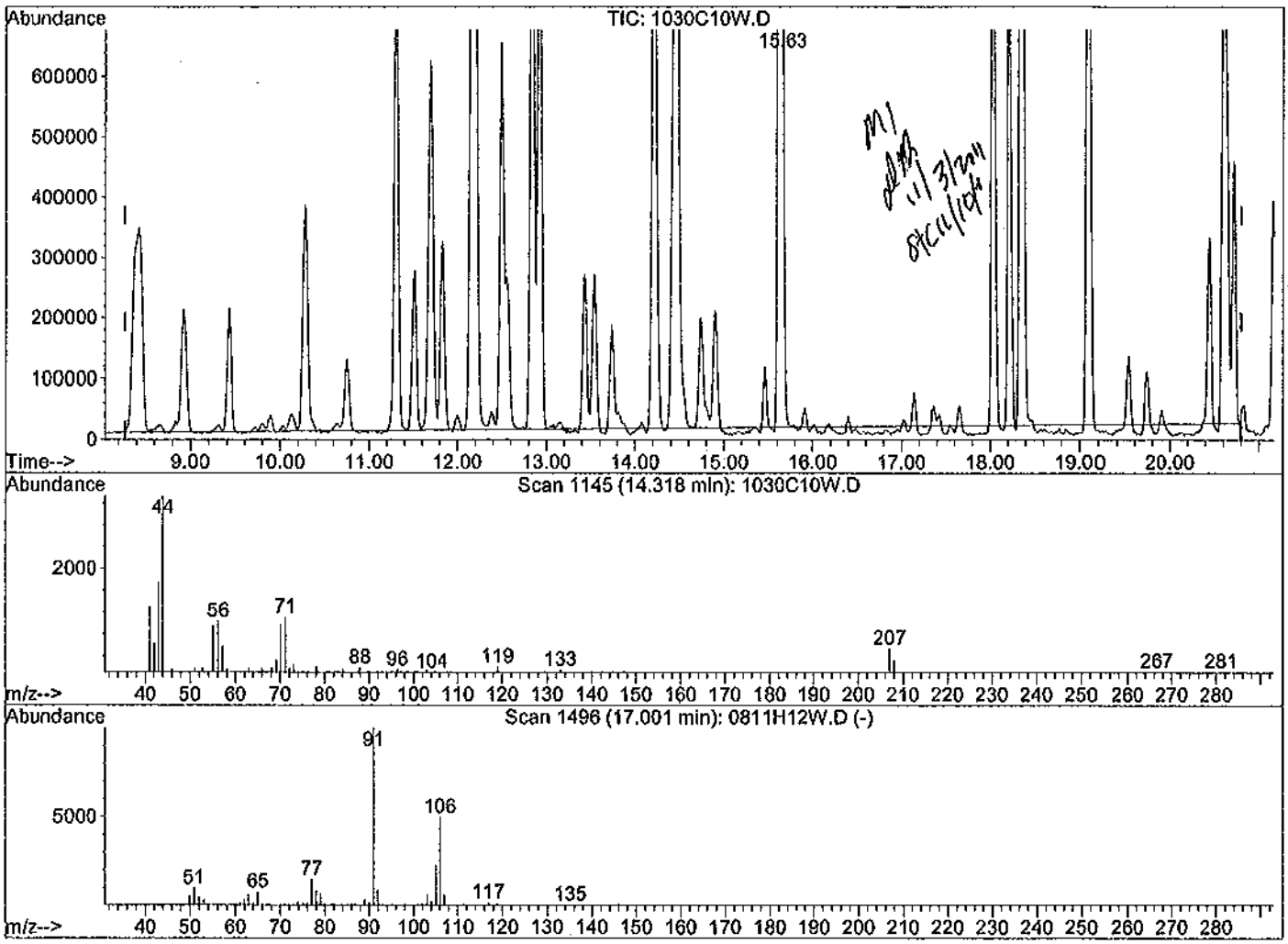
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:32 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C10W.D

(2) Gasoline (TMHB)

14.31min 303.9125ppb m

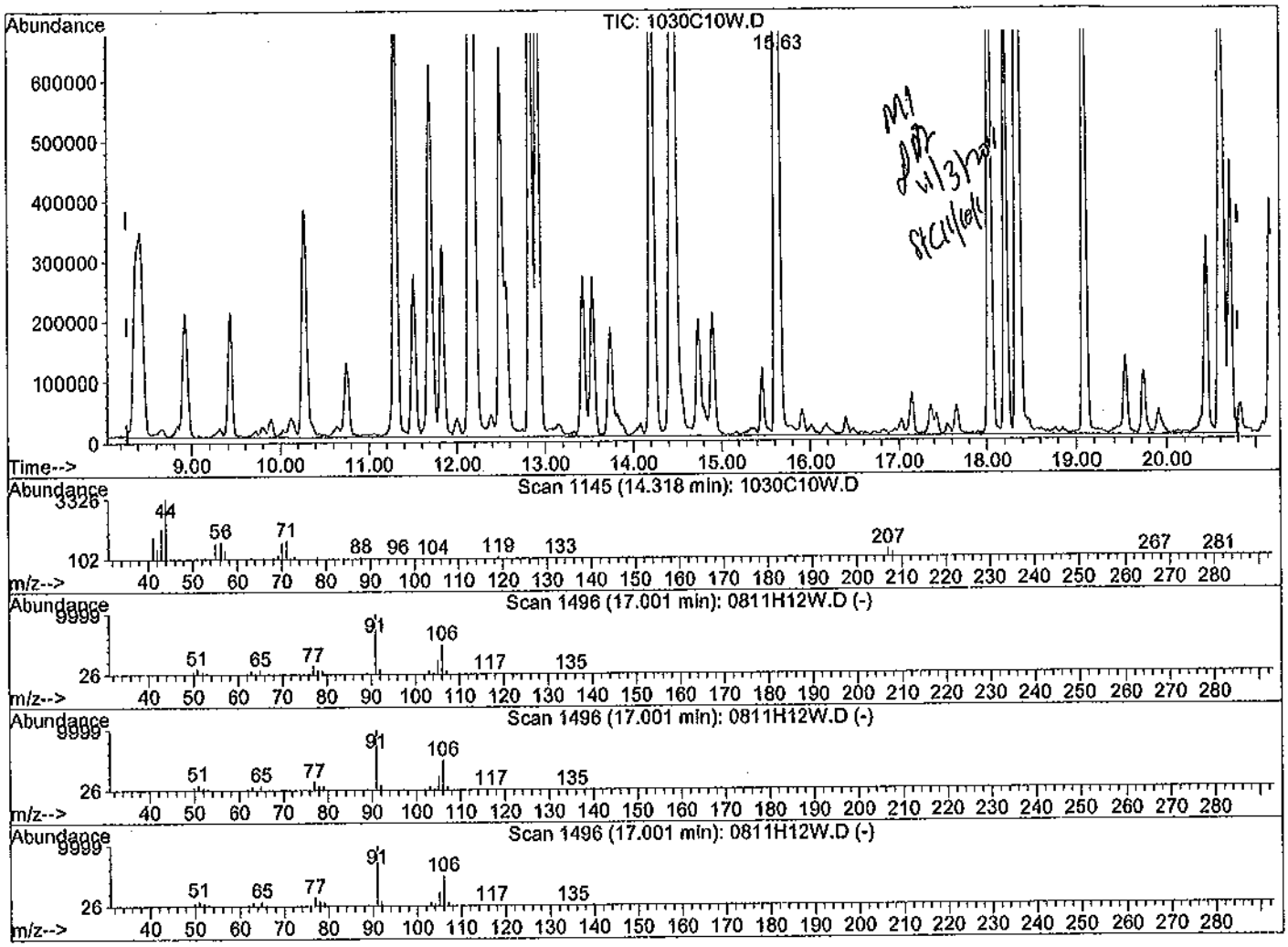
response 77947975

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.13#
0.00	0.00	0.41#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:42 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C10W.D

(2) Gasoline (TMHB)

15.63min 330.1072ppb m

response 84666447

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.12#
0.00	0.00	0.38#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 10:43 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1162372	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1207961	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1354742	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	105748641m	400.59060	ppb	100

(#) = qualifier out of range (m) = manual integration

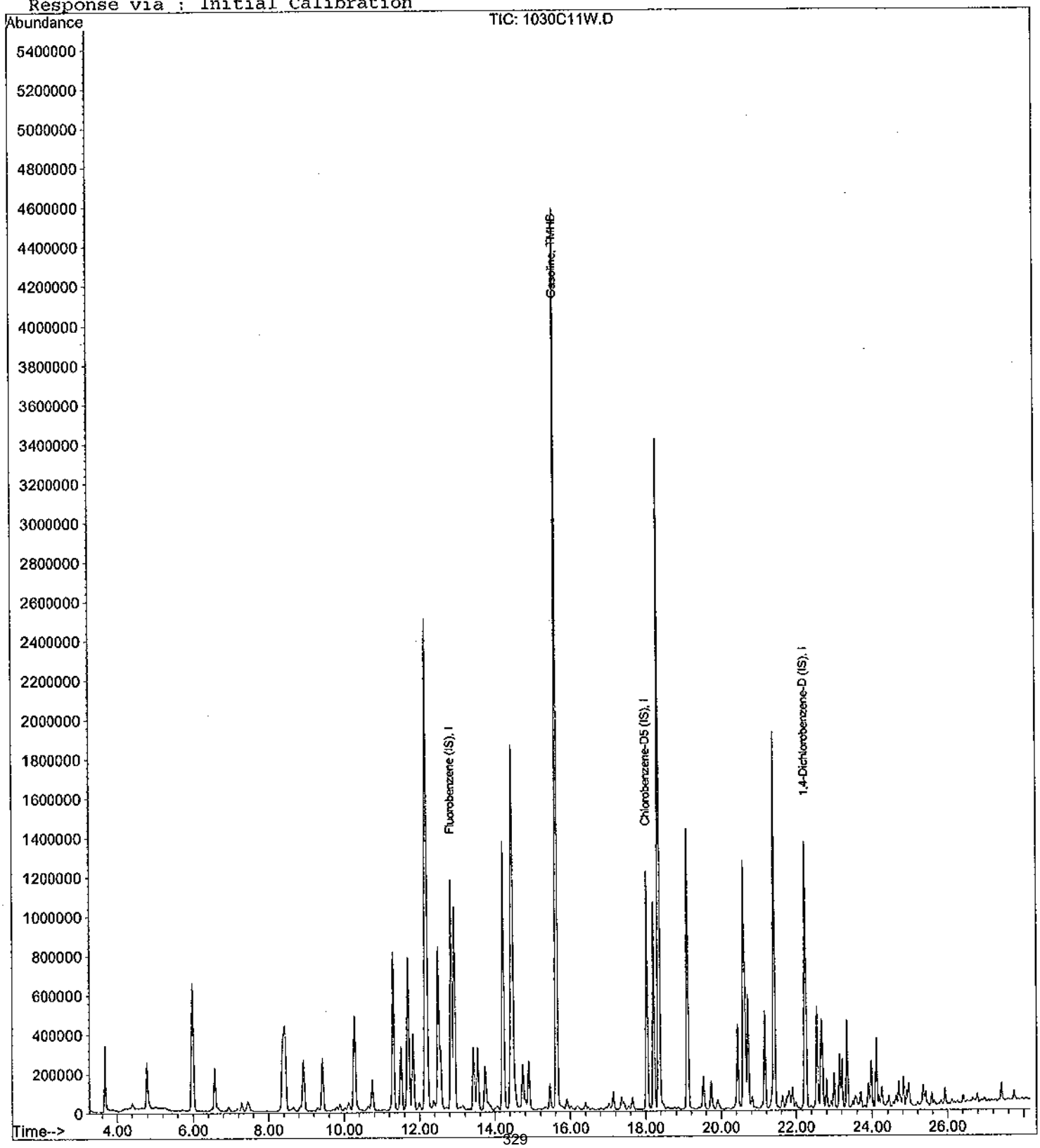
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D
Acq On : 30 Oct 11 20:35
Sample : Vol Std 10-30-11@1000ug/L
Misc : Water 10mLw/ IS:10-30-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 10:43 2011 Quant Results File: CGAS.RES

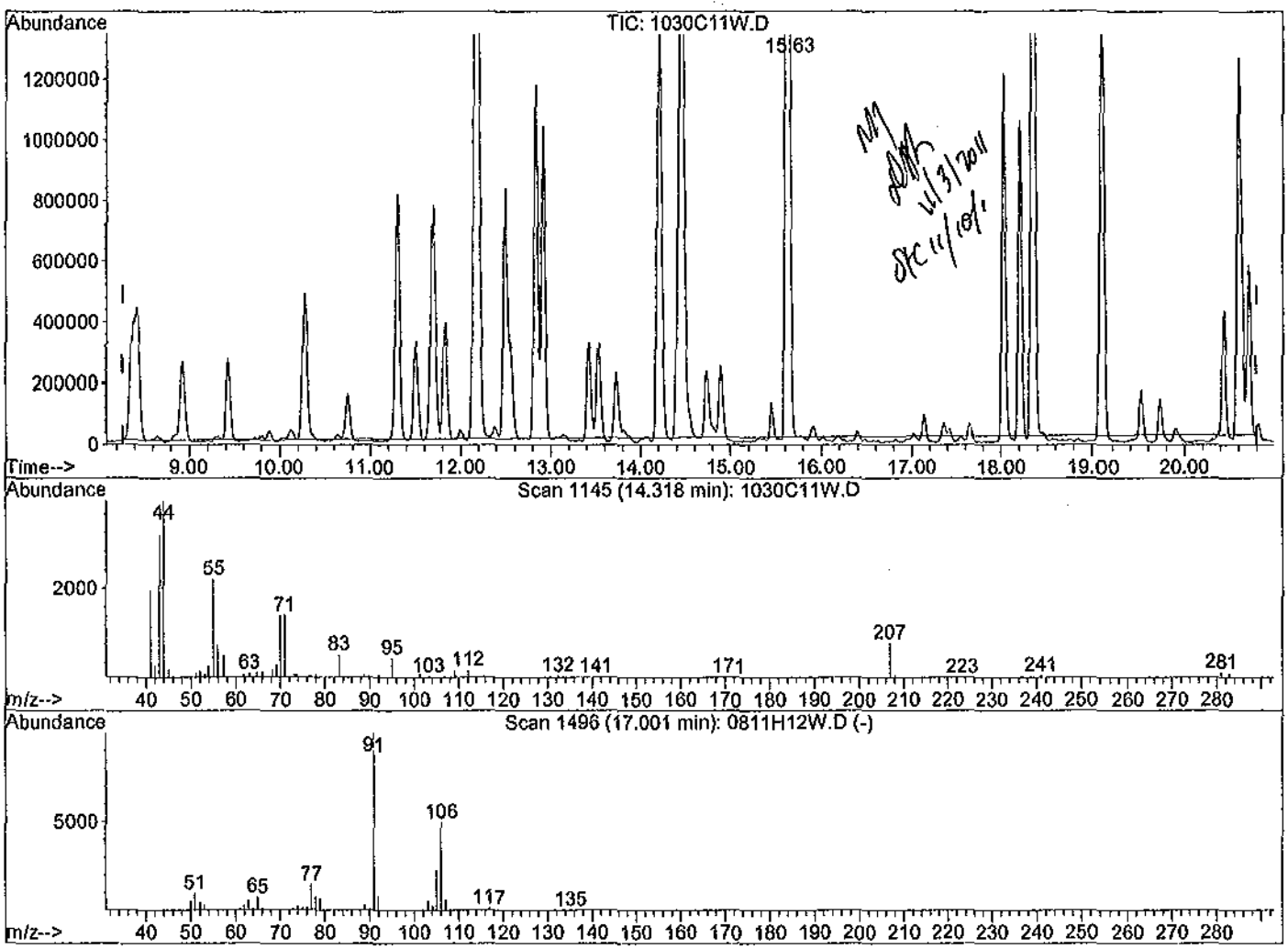
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Oct 31 9:33 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



TIC: 1030C11W.D

(2) Gasoline (TMHB)

14.31min 368.6230ppb m

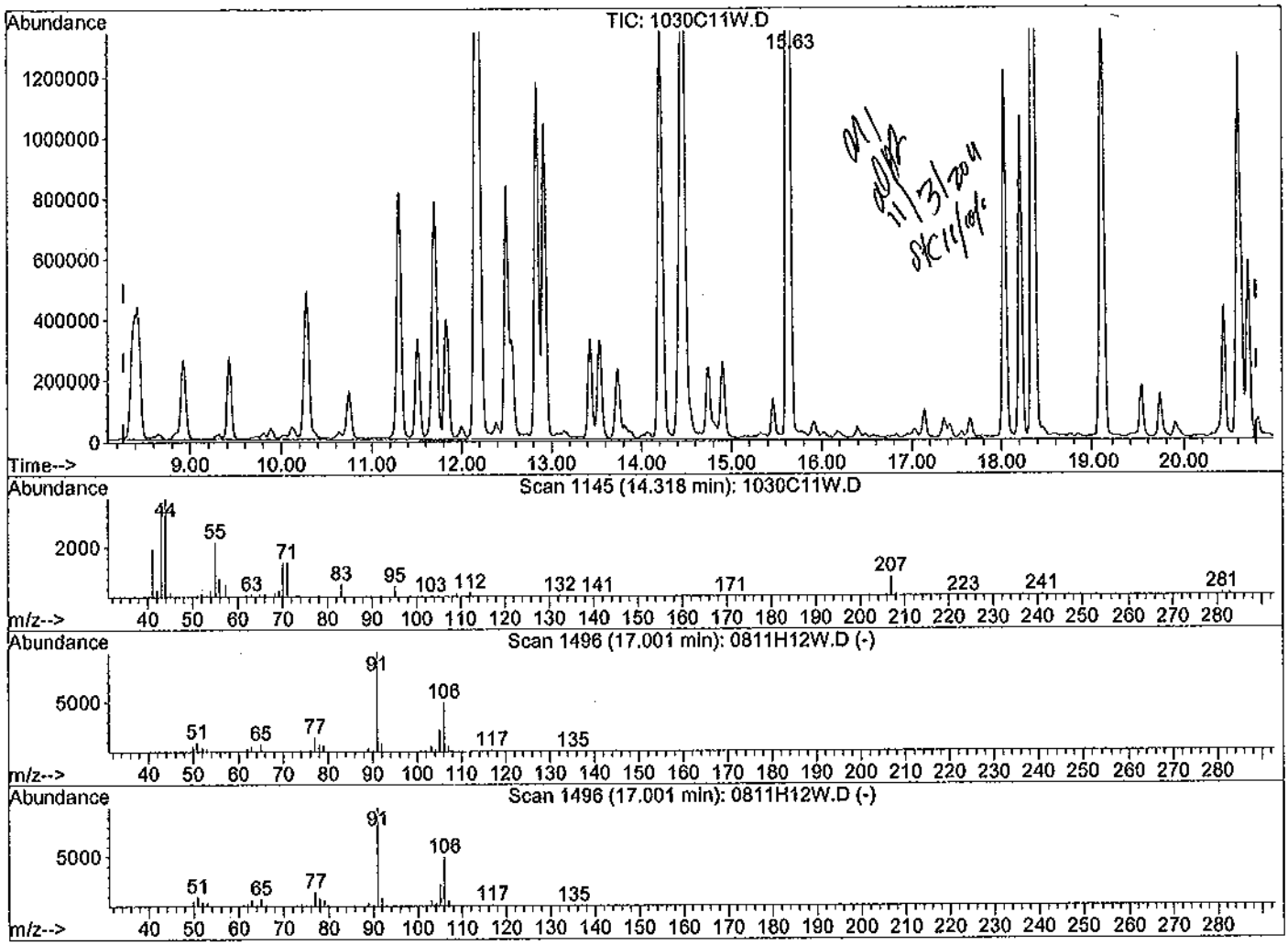
response 97309775

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.11#
0.00	0.00	0.34#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00
Quant Time: Nov 3 10:43 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:35:31 2011
Response via : Multiple Level Calibration



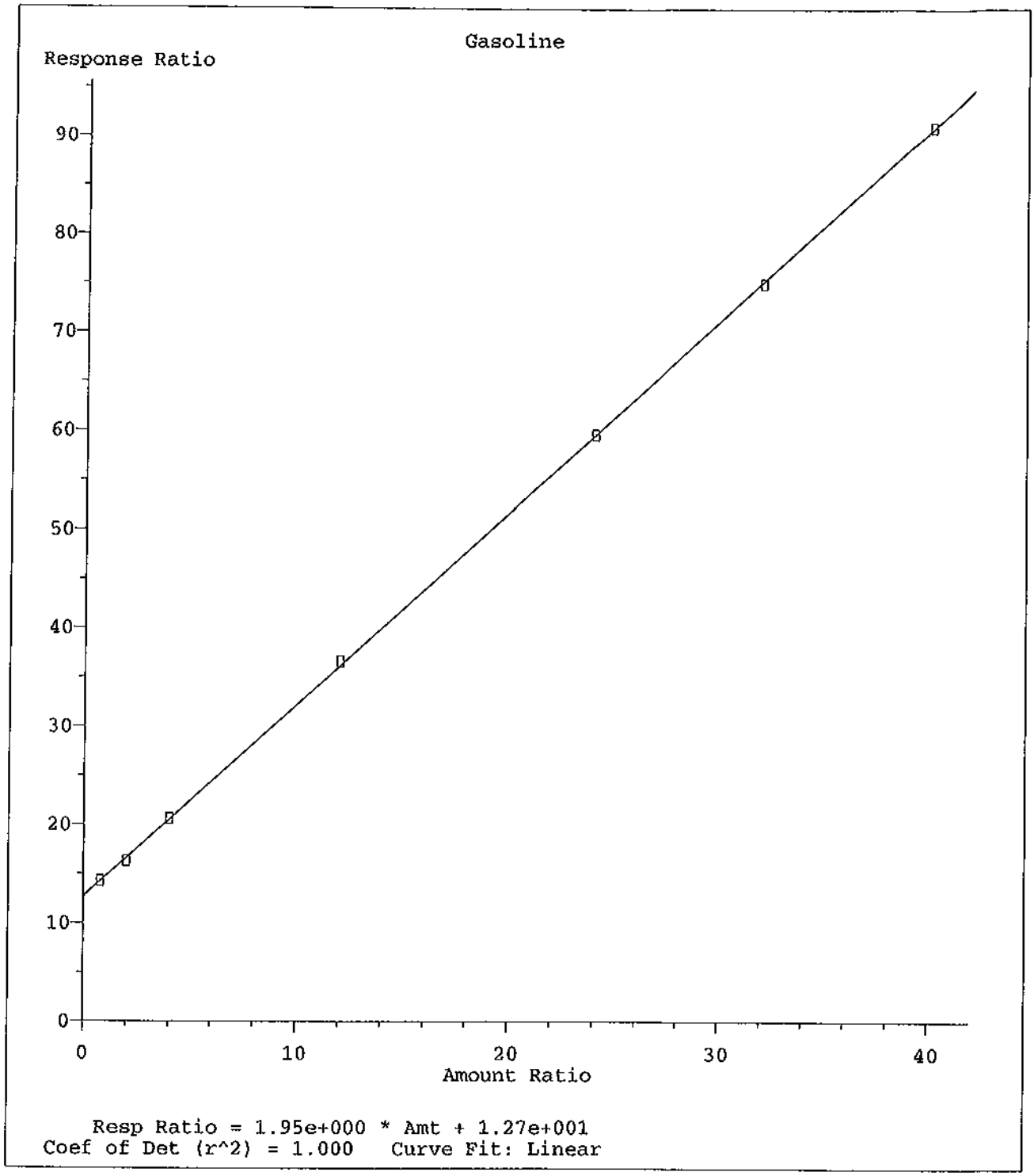
TIC: 1030C11W.D

(2) Gasoline (TMHB)

15.63min 400.5906ppb m

response 105748641

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.10#
0.00	0.00	0.31#
0.00	0.00	0.00



Method Name: M:\CHICO\DATA\C111030\CGAS.M
Calibration Table Last Updated: Thu Nov 03 10:47:02 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1030C29W.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.226	45	TMHBL	11
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			45.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1211423	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1191079	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1217266	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	46900368m	332.66187	ppb	100

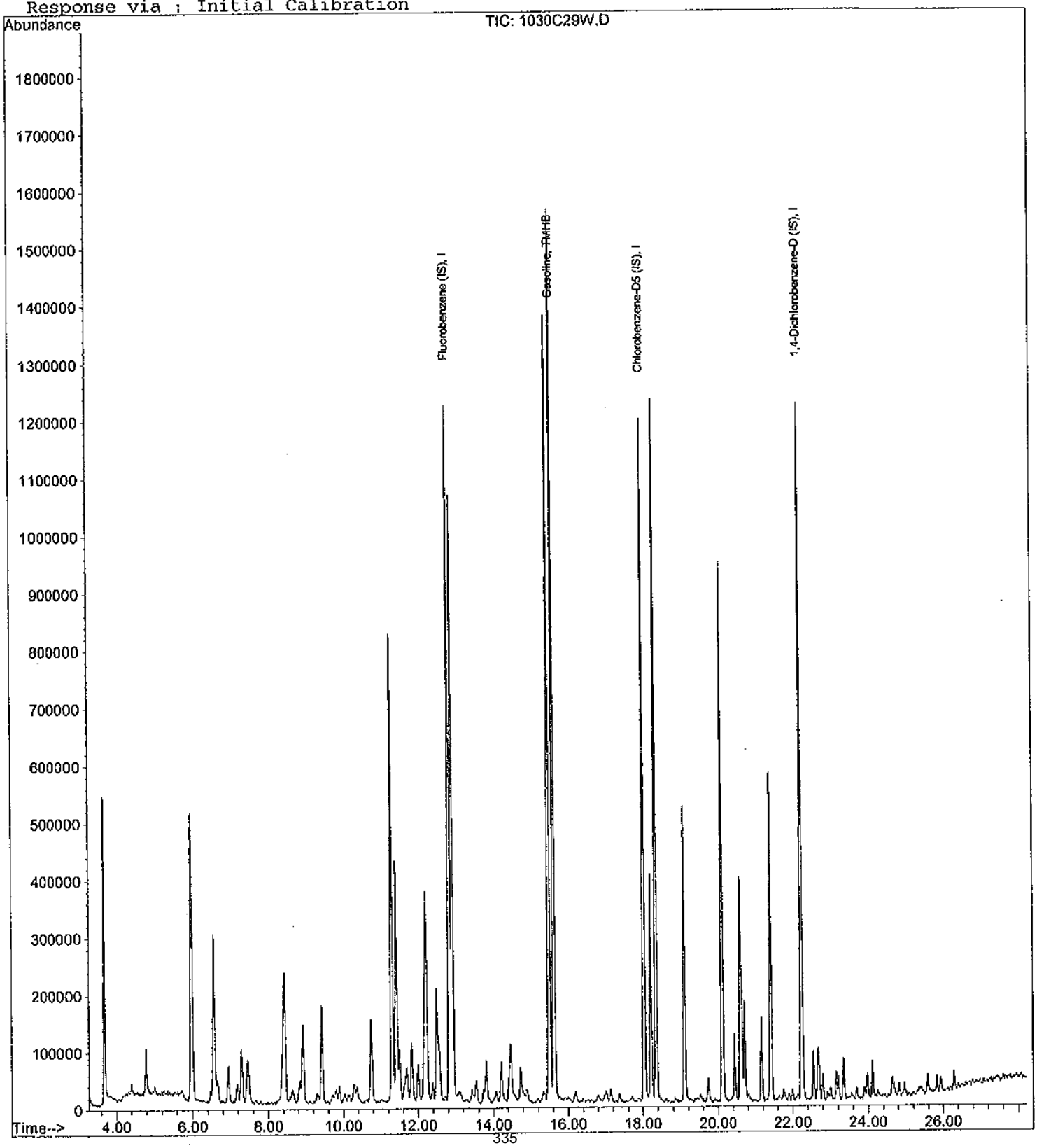
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D
Acq On : 31 Oct 11 9:31
Sample : GAS 300ug/L (SS)
Misc : Water 10mLw/ IS&S:10-30/10-26-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 3 10:51 2011 Quant Results File: CGAS.RES

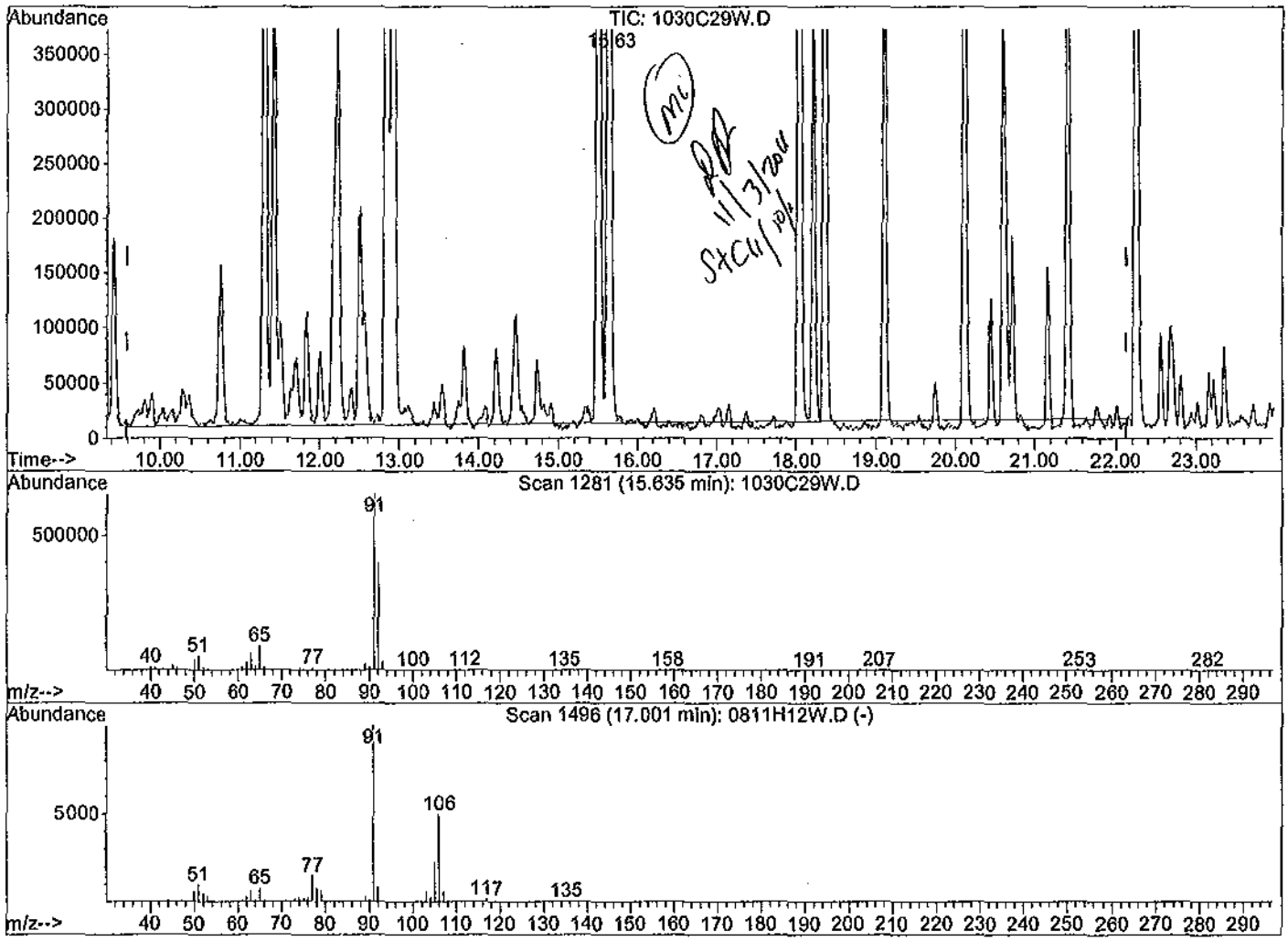
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:47 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration



TIC: 1030C29W.D

(2) Gasoline (TMHB)

15.64min 275.5469ppb m

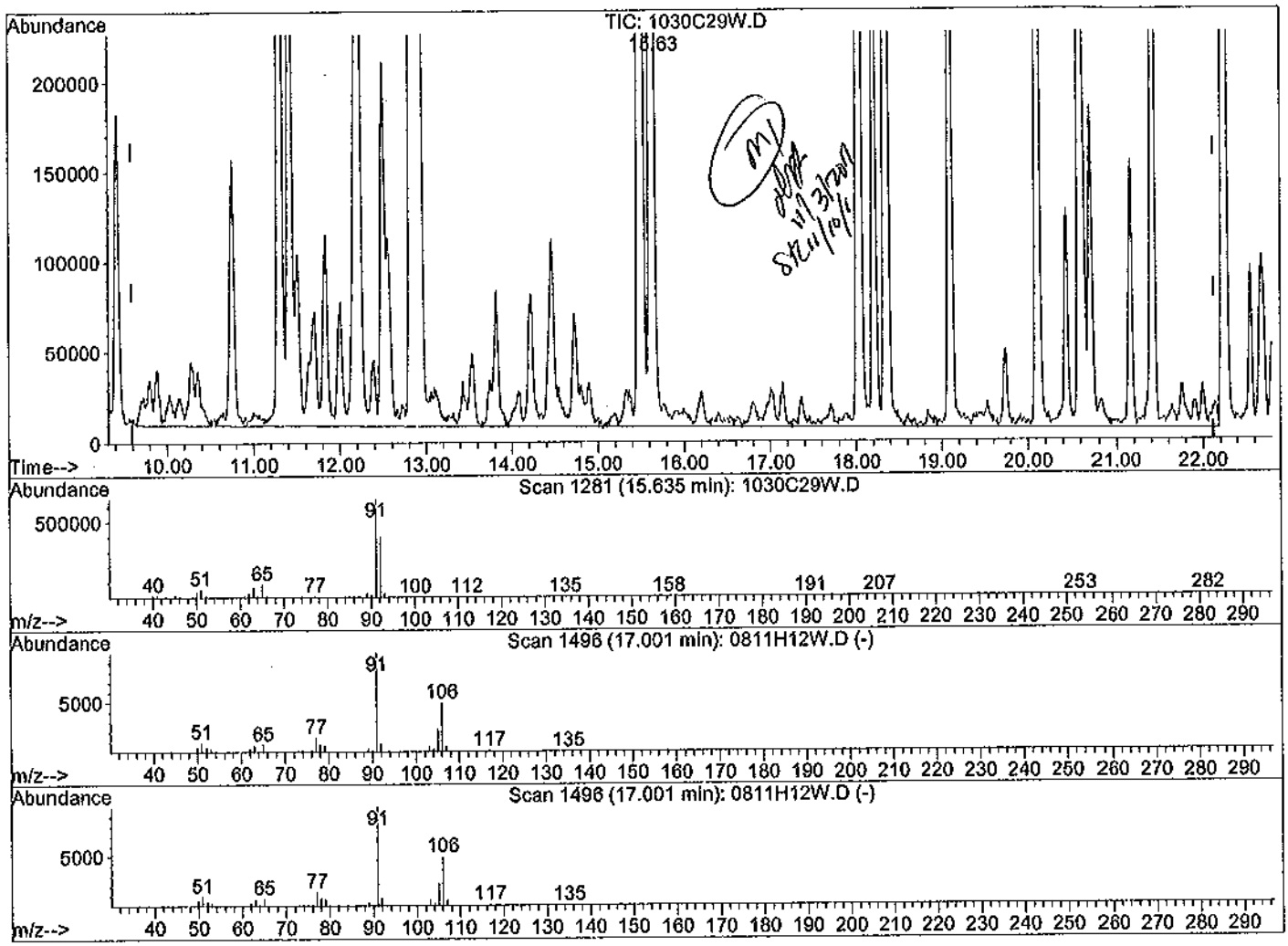
response 41492142

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.26#
0.00	0.00	0.78#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:51 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration



TIC: 1030C29W.D

(2) Gasoline (TMHB)

15.63min 332.6619ppb m

response 46900368

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.23#
0.00	0.00	0.69#
0.00	0.00	0.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/2011
Instrument: Chico
Initial Cal. Date: 10/30/2011
Data File: 1031C04W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.269	45	TMHBL	13
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			45.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C04W.D Vial: 1
Acq On : 31 Oct 11 21:42 Operator: STC
Sample : 111031A CCV-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:08 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1335326	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1352394	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1300579	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.51	TIC	52385955m	339.25990	ppb	100

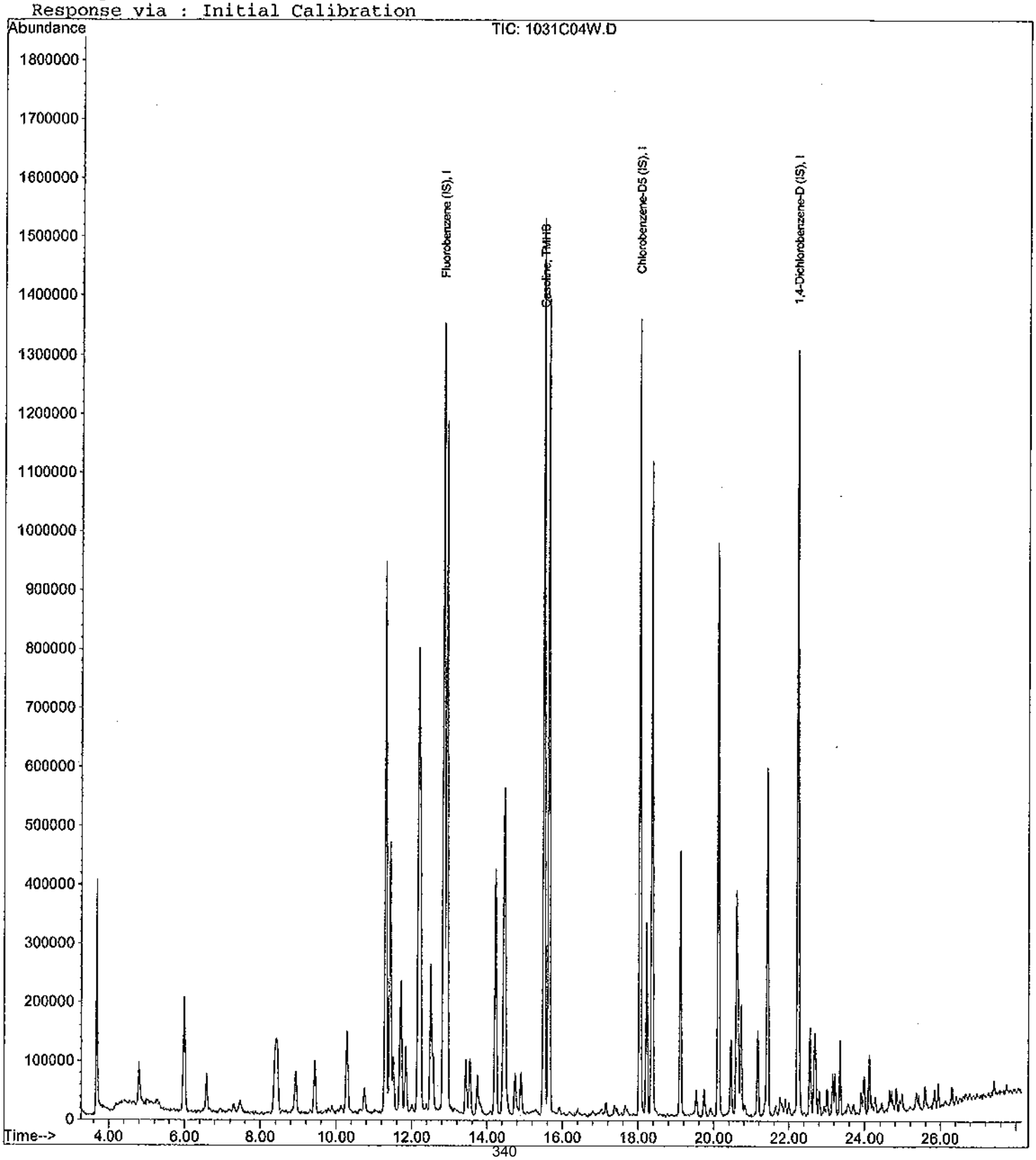
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C04W.D Vial: 1
Acq On : 31 Oct 11 21:42 Operator: STC
Sample : 111031A CCV-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 11:08 2011 Quant Results File: CGAS.RES

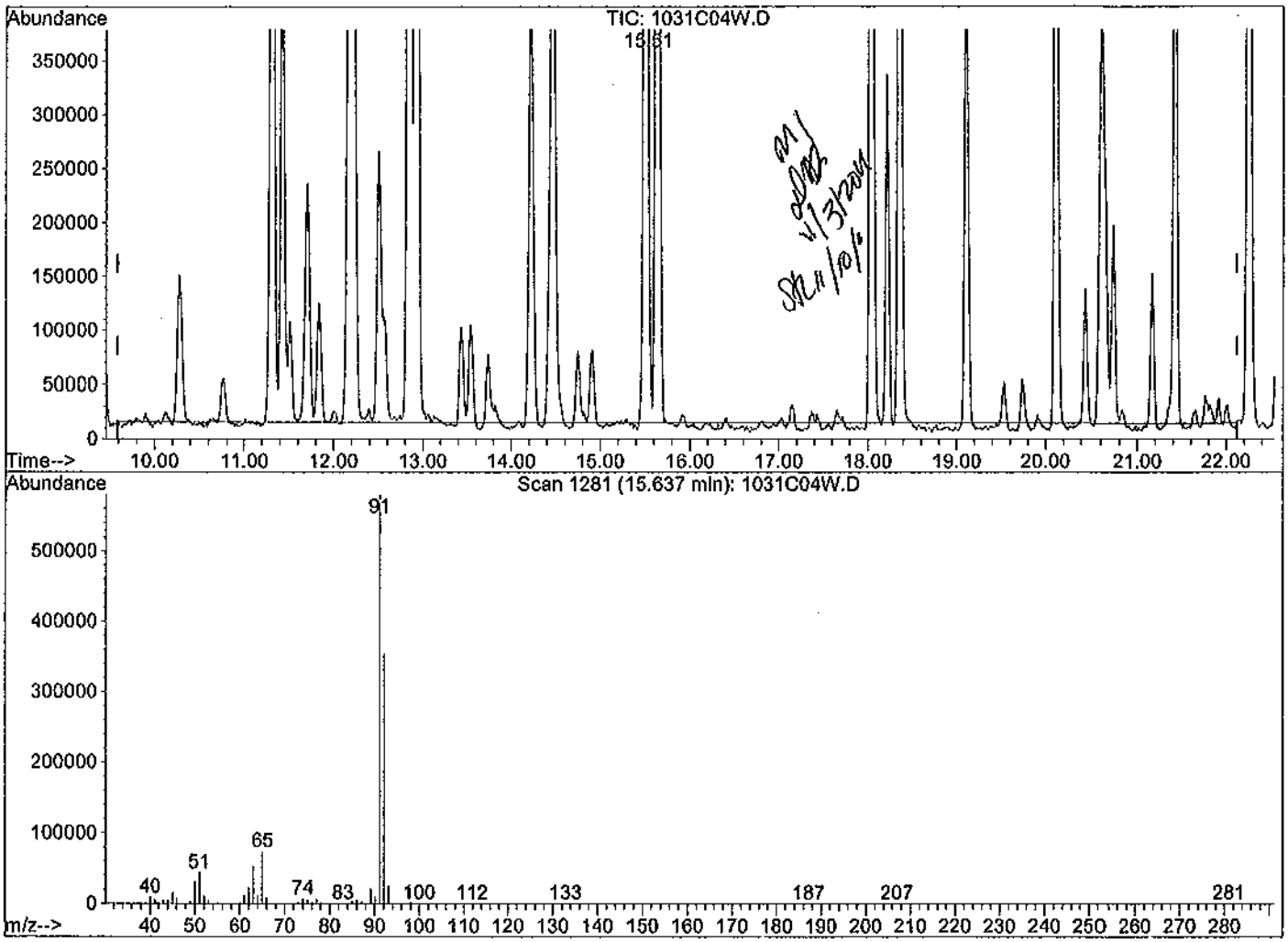
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C04W.D Vial: 1
Acq On : 31 Oct 11 21:42 Operator: STC
Sample : 111031A CCV-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 10:56 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration



TIC: 1031C04W.D

(2) Gasoline (TMHB)

15.64min 304.2107ppb m

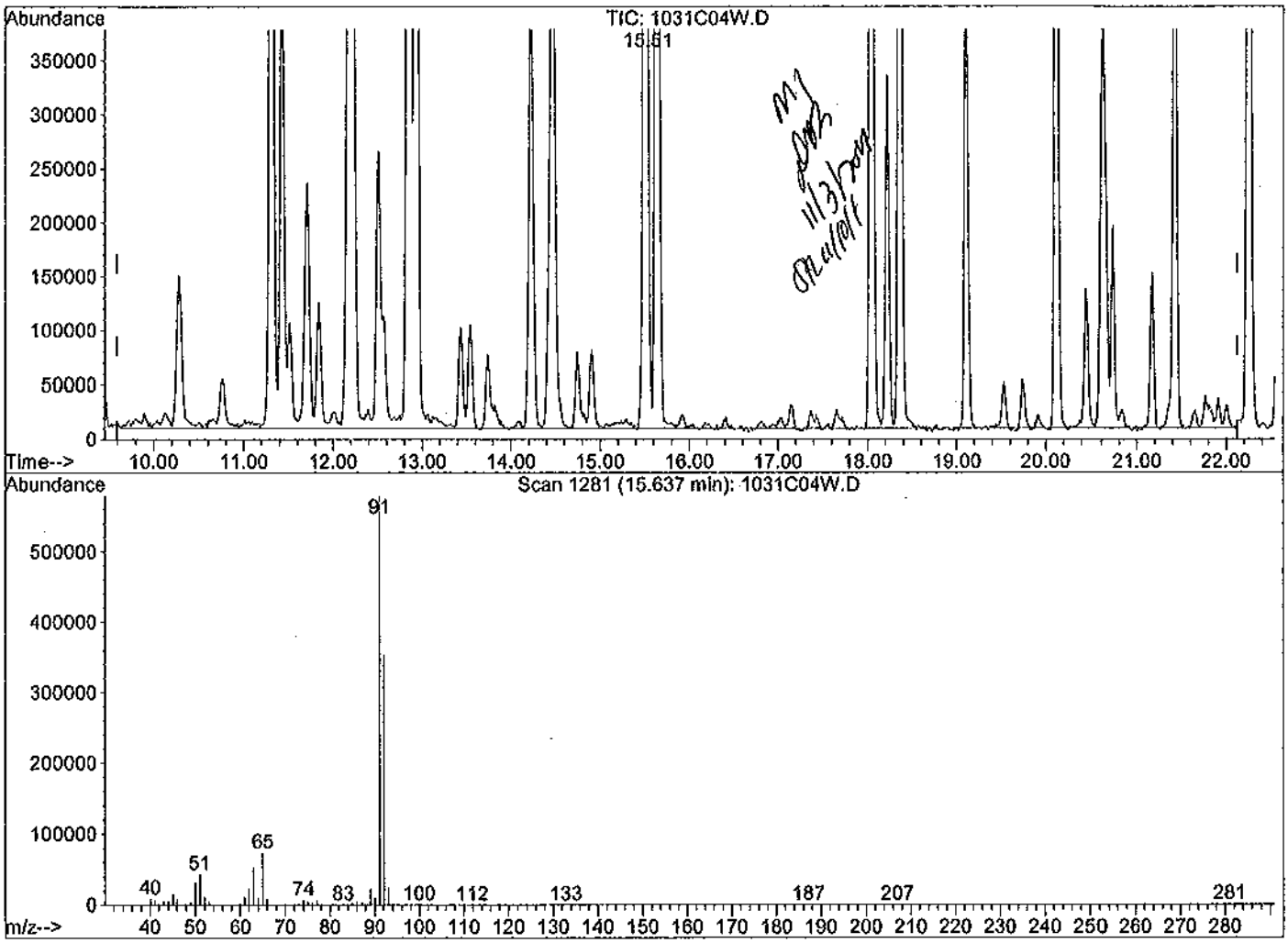
response 48727700

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.25#
0.00	0.00	0.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C04W.D Vial: 1
Acq On : 31 Oct 11 21:42 Operator: STC
Sample : 111031A CCV-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00
Quant Time: Nov 3 11:08 2011 Quant Results File: temp.res

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Multiple Level Calibration



TIC: 1031C04W.D

(2) Gasoline (TMHB)

15.51min 339.2599ppb m

response 52385955

Ion	Exp%	Act%
TIC	100	100
0.00	0.00	0.23#
0.00	0.00	0.67#
0.00	0.00	0.00

EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111031W-49559 - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/01/11	11/01/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/01/11	11/01/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/01/11	11/01/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/01/11	11/01/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/01/11	11/01/11
BLANK	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/01/11	11/01/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/01/11	11/01/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/01/11	11/01/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/01/11	11/01/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/01/11	11/01/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/01/11	11/01/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/01/11	11/01/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/01/11	11/01/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/01/11	11/01/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/01/11	11/01/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/01/11	11/01/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/01/11	11/01/11

Quant Method:CALLW.M
Run #:1031C08
Instrument:Chico
Sequence:C111030
Initials:ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 6:14:23 PM

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111031W-49559 - 161078**

Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/01/11	11/01/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/01/11	11/01/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/01/11	11/01/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/01/11	11/01/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/01/11	11/01/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/01/11	11/01/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/01/11	11/01/11
BLANK	SURROGATE: 1,2-DICHLOROET	103	70-120			%	11/01/11	11/01/11
BLANK	SURROGATE: 4-BROMOFLUORO	101	75-120			%	11/01/11	11/01/11
BLANK	SURROGATE: DIBROMOFLUOR	97.4	85-115			%	11/01/11	11/01/11
BLANK	SURROGATE: TOLUENE-D8 (S)	101	85-120			%	11/01/11	11/01/11

Quant Method:CALLW.M
Run #:1031C08
Instrument:Chico
Sequence:C111030
Initials:ARS

GC SC-Blank-REG MDLs
Printed: 12/06/11 6:14:23 PM

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C08W.D Vial: 1
Acq On : 1 Nov 11 00:10 Operator: STC
Sample : 111031A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:09 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Nov 02 14:33:25 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	625564	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	18.04	117	421888	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	225152	25.00000 ppb	0.00
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.42	111	407261	24.43937 ppb	0.00
Spiked Amount 25.097			Recovery = 97.377%		
38) 1,2-DCA-D4(S)	12.23	65	369565	24.91340 ppb	0.00
Spiked Amount 24.225			Recovery = 102.839%		
56) Toluene-D8(S)	15.51	98	1544047	26.01087 ppb	0.00
Spiked Amount 25.808			Recovery = 100.785%		
64) 4-Bromofluorobenzene(S)	20.12	95	547501	25.74084 ppb	0.00
Spiked Amount 25.459			Recovery = 101.106%		

Target Compounds Qvalue

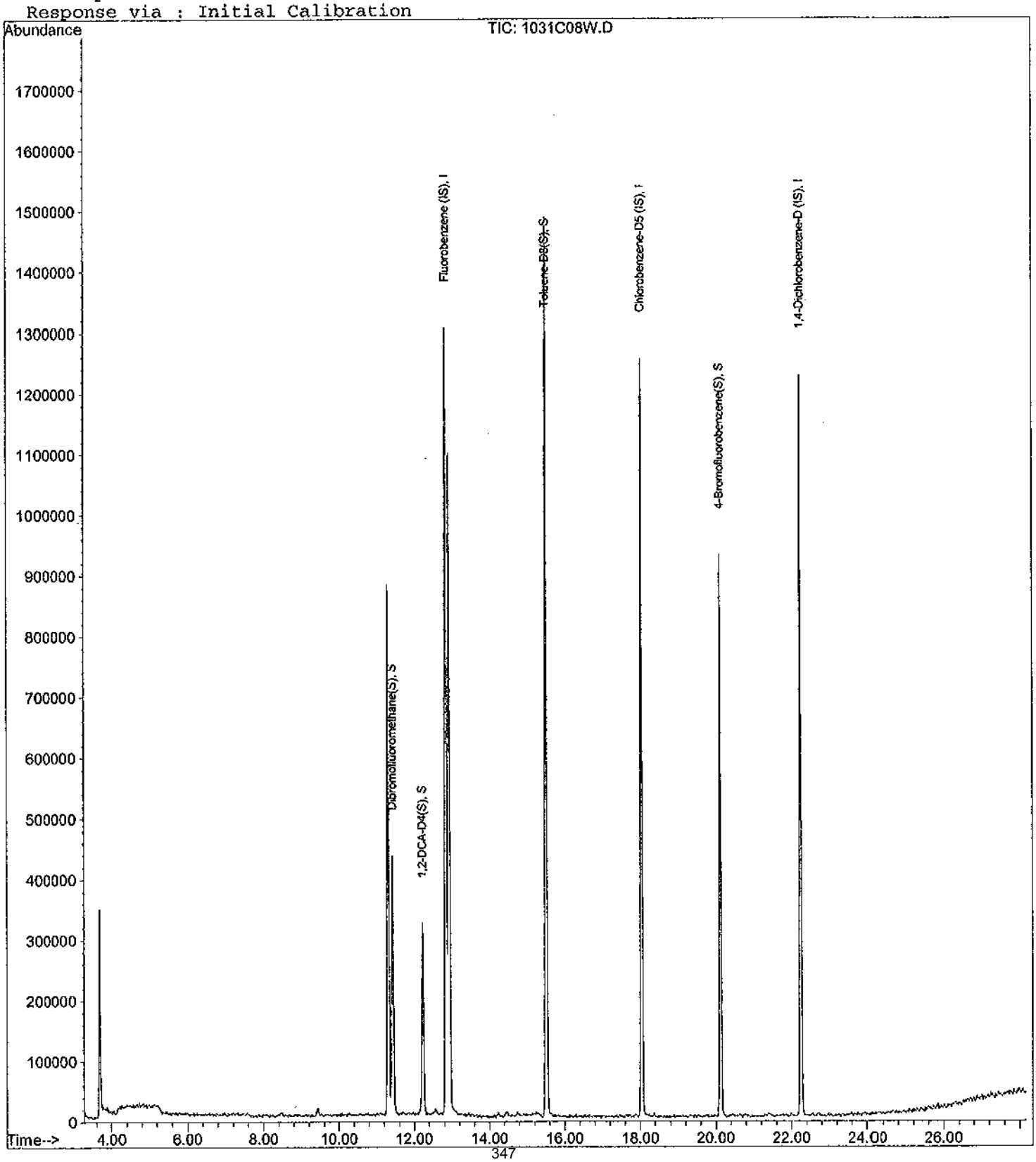
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C08W.D Vial: 1
Acq On : 1 Nov 11 00:10 Operator: STC
Sample : 111031A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 12:09 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Nov 03 10:27:07 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C08W.D Vial: 1
Acq On : 1 Nov 11 00:10 Operator: STC
Sample : 111031A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:28 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1296737	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1249189	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1220985	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

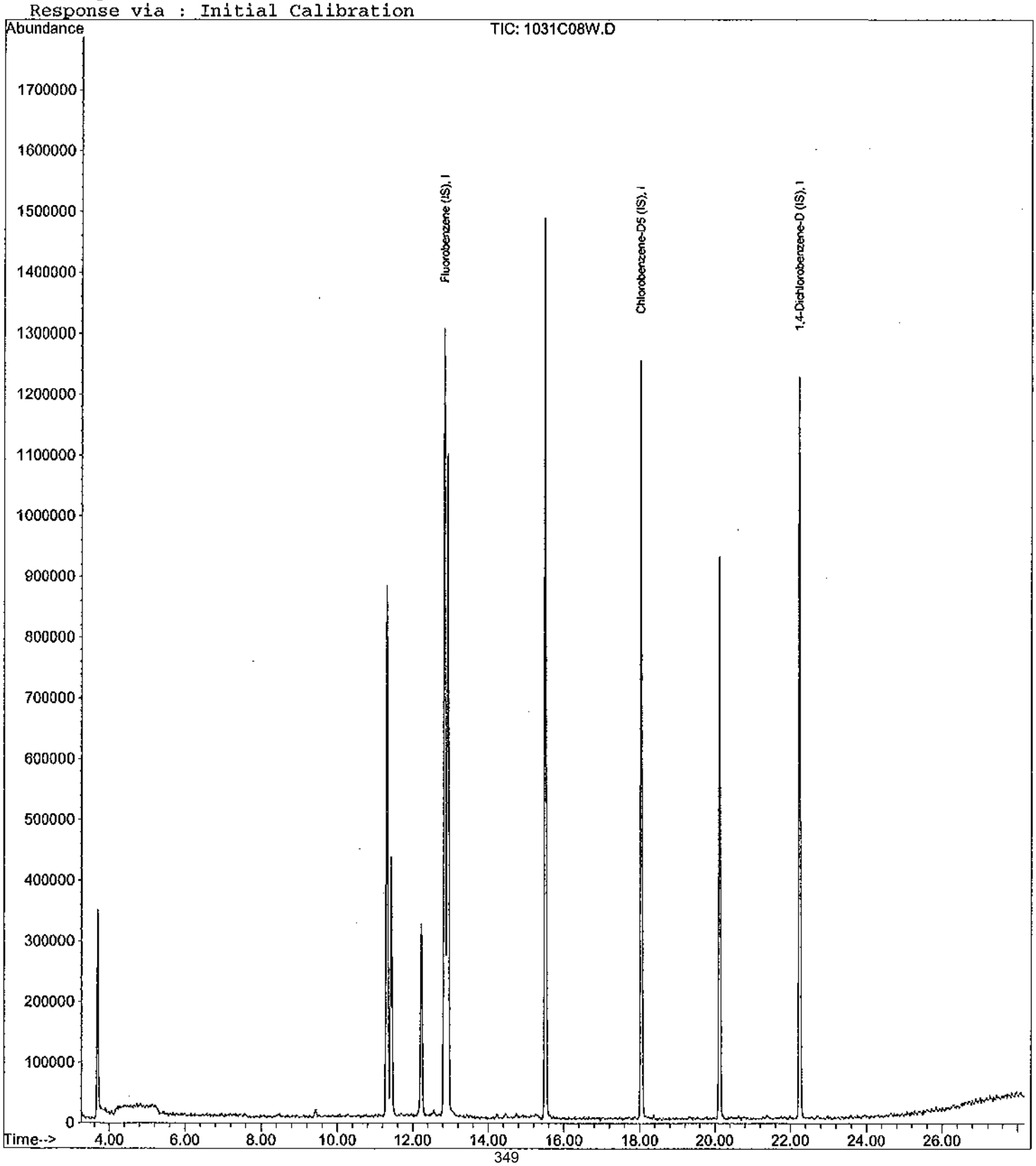
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C08W.D Vial: 1
Acq On : 1 Nov 11 00:10 Operator: STC
Sample : 111031A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 10 10:28 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49559 LCS - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.47	94.7	80-130
1,1,1-TRICHLOROETHANE	10.00	8.95	89.5	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.1	101	65-130
1,1,2-TRICHLOROETHANE	10.00	9.61	96.1	75-125
1,1-DICHLOROETHANE	10.00	9.36	93.6	70-135
1,1-DICHLOROETHENE	10.00	8.56	85.6	70-130
1,2,3-TRICHLOROPROPANE	10.00	9.82	98.2	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.19	91.9	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.49	84.9	50-130
1,2-DIBROMOETHANE	10.00	9.29	92.9	70-130
1,2-DICHLOROBENZENE	10.00	9.16	91.6	70-120
1,2-DICHLOROETHANE	10.00	8.73	87.3	70-130
1,2-DICHLOROPROPANE	10.00	9.52	95.2	75-125
1,3-DICHLOROBENZENE	10.00	9.06	90.6	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	18.9	94.5	70-130
1,4-DICHLOROBENZENE	10.00	9.03	90.3	75-125
2-BUTANONE	10.00	9.19	91.9	30-150
4-METHYL-2-PENTANONE	10.00	9.90	99.0	60-135
ACETONE	10.00	12.0	120	40-140
BENZENE	10.00	9.33	93.3	80-120
BROMODICHLOROMETHANE	10.00	9.53	95.3	75-120
BROMOFORM	10.00	8.49	84.9	70-130
BROMOMETHANE	10.00	9.52	95.2	30-145
CARBON TETRACHLORIDE	10.00	9.31	93.1	65-140
CHLOROBENZENE	10.00	8.90	89.0	80-120
CHLORODIBROMOMETHANE	10.00	9.21	92.1	60-135

Comments: _____

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1031C03
Initials :	ARS

Printed: 12/06/11 6:14:25 PM

APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111031W-49559 LCS - 161078**
Batch ID: #86RHB-111031AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	9.08	90.8	60-135
CHLOROFORM	10.00	8.96	89.6	65-135
CHLOROMETHANE	10.00	8.78	87.8	40-125
CIS-1,2-DICHLOROETHENE	10.00	8.91	89.1	70-125
ETHYLBENZENE	10.00	8.78	87.8	75-125
GASOLINE	300	302	101	75-125
HEXACHLOROBUTADIENE	10.00	9.30	93.0	50-140
METHYL TERT-BUTYL ETHER	10.00	9.51	95.1	65-125
METHYLENE CHLORIDE	10.00	9.29	92.9	55-140
STYRENE	10.00	9.03	90.3	65-135
TETRACHLOROETHENE	10.00	9.03	90.3	45-150
TOLUENE	10.00	9.17	91.7	75-120
TRANS-1,2-DICHLOROETHENE	10.00	8.83	88.3	60-140
TRICHLOROETHENE	10.00	9.31	93.1	70-125
VINYL CHLORIDE	10.00	9.95	99.5	50-145
XYLENES (TOTAL)	30.0	26.6	88.7	80-120
SURROGATE: 1,2-DICHLOROETHANE-D	24.2	23.9	98.7	70-120
SURROGATE: 4-BROMOFLUOROBENZE	25.5	25.4	99.8	75-120
SURROGATE: DIBROMOFLUOROMETH	25.1	25.8	103	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	25.6	99.2	85-120

Comments: _____

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	10/31/11
Analysis Date :	10/31/11
Instrument :	Chico
Run :	1031C03
Initials :	ARS

Printed: 12/06/11 6:14:25 PM

APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C03W.D Vial: 1
Acq On : 31 Oct 11 21:05 Operator: STC
Sample : 111031A LCS-1WC Inst : Chico
Misc : Water 10mLW/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	647984	25.00000 ppb		0.01
55) Chlorobenzene-D5 (IS)	18.04	117	454784	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	238016	25.00000 ppb		0.01
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	445934	25.83421 ppb		0.00
Spiked Amount 25.097			Recovery = 102.936%			
38) 1,2-DCA-D4(S)	12.24	65	367475	23.91539 ppb		0.01
Spiked Amount 24.225			Recovery = 98.719%			
56) Toluene-D8(S)	15.51	98	1639040	25.61391 ppb		0.01
Spiked Amount 25.808			Recovery = 99.247%			
64) 4-Bromofluorobenzene(S)	20.12	95	583264	25.43870 ppb		0.01
Spiked Amount 25.459			Recovery = 99.920%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.08	85	225488	9.44501 ppb		99
3) Freon 114	4.35	85	159535	10.66971 ppb		94
4) Chloromethane	4.56	50	259768	8.78054 ppb		94
5) Vinyl chloride	4.83	62	196934	9.95180 ppb		99
7) Bromomethane	5.73	94	136706	9.51675 ppb		87
8) Chloroethane	5.92	64	148430	9.08065 ppb		96
9) Dichlorofluoromethane	6.01	67	400491	8.86153 ppb		95
10) Trichlorofluoromethane	6.53	101	245473	9.15270 ppb		97
11) Acetonitrile	7.66	41	84911	119.61773 ug/l		100
12) Acrolein	7.17	56	37841	116.49356 ppb		99
13) Acetone	7.29	43	22326	12.02563 ppb	#	51
14) Freon-113	7.47	101	157789	10.05496 ppb		97
15) 1,1-DCE	7.69	96	158388	8.56171 ppb		99
16) t-Butanol	7.77	59	9786	111.40125 ppb	#	79
17) Methyl Acetate	8.20	43	51970	9.24409 ppb		94
18) Iodomethane	8.17	142	97739	9.92030 ppb	#	85
19) Acrylonitrile	8.57	53	22524	11.12130 ppb		76
20) Methylene chloride	8.49	84	163957	9.29196 ppb		99
21) Carbon disulfide	8.56	76	163264	9.08294 ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	265939	9.51082 ppb		91
23) Trans-1,2-DCE	9.10	96	189476	8.82889 ppb		90
24) Diisopropyl Ether	9.76	45	592970	9.59249 ppb		98
25) 1,1-DCA	9.80	63	342957	9.35512 ppb		96
26) Vinyl Acetate	9.42	43	136241	12.18531 ppb		86
27) Ethyl tert Butyl Ether	10.46	59	405264	9.60283 ppb		96
28) MEK (2-Butanone)	10.44	43	68080	9.18546 ppb	#	92
29) Cis-1,2-DCE	10.82	96	196503	8.90998 ppb		86
30) 2,2-Dichloropropane	10.82	77	242648	9.24001 ppb		98
31) Chloroform	11.11	83	316036	8.96115 ppb		99
32) Bromochloromethane	11.32	128	58389	9.50975 ppb		93
34) 1,1,1-TCA	11.84	97	286942	8.94660 ppb		92
35) Cyclohexane	12.01	56	287745	9.63585 ppb		98
36) 1,1-Dichloropropene	12.11	75	255047	9.28058 ppb		96
37) 2,2,4-Trimethylpentane	12.18	57	512824	11.03452 ppb		97
39) Carbon Tetrachloride	12.31	117	205622	9.31046 ppb		98
40) Tert Amyl Methyl Ether	12.35	73	293426	9.29862 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C03W.D Vial: 1
Acq On : 31 Oct 11 21:05 Operator: STC
Sample : 111031A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41)	1,2-DCA	12.38	62	158044	8.73030	ppb		96
42)	Benzene	12.51	78	736646	9.32974	ppb		98
43)	TCE	13.54	95	203505	9.30638	ppb		94
44)	2-Pentanone	13.21	43	562579	122.98966	ppb		95
45)	1,2-Dichloropropane	13.77	63	170800	9.51716	ppb	#	94
46)	Bromodichloromethane	14.13	83	195405	9.53050	ppb		96
47)	Methyl Cyclohexane	13.83	83	252614	9.88549	ppb		99
48)	Dibromomethane	14.17	93	69271	9.65133	ppb		95
49)	2-Chloroethyl vinyl ether	14.58	63	43663	9.57009	ppb		98
50)	1-Bromo-2-chloroethane	14.89	63	147119	9.60740	ppb		84
51)	Cis-1,3-Dichloropropene	15.02	75	185638	9.49509	ppb		98
52)	Toluene	15.64	91	713964	9.16792	ppb		97
53)	Trans-1,3-Dichloropropene	15.81	75	131702	9.35696	ppb		94
54)	1,1,2-TCA	16.09	83	72914	9.61145	ppb		90
57)	1,2-EDB	17.34	107	80384	9.28697	ppb	#	90
58)	Tetrachloroethene	16.79	164	211037	9.02584	ppb		93
59)	1-Chlorohexane	17.71	91	248081	9.21374	ppb		93
60)	1,1,1,2-Tetrachloroethane	18.17	131	138669	9.47327	ppb		88
61)	m&p-Xylene	18.36	106	614318	17.78494	ppb		95
62)	o-Xylene	19.11	106	293731	8.84198	ppb		97
63)	Styrene	19.13	104	452850	9.03142	ppb		100
65)	2-Hexanone	16.11	43	35785	8.59928	ppb		93
66)	1,3-Dichloropropane	16.50	76	160231	9.38773	ppb		98
67)	Dibromochloromethane	16.98	129	102580	9.20626	ppb		92
68)	Chlorobenzene	18.11	112	439789	8.90026	ppb		96
69)	Ethylbenzene	18.23	91	807647	8.77746	ppb		95
70)	Bromoform	19.65	173	47354	8.49273	ppb	#	76
72)	MIBK (methyl isobutyl keto	14.68	43	67007	9.90295	ppb		85
73)	Isopropylbenzene	19.75	105	801426	9.29024	ppb		95
74)	1,1,2,2-Tetrachloroethane	19.90	83	73172	10.13288	ppb	#	90
75)	1,2,3-Trichloropropane	20.16	110	7955	9.82437	ppb	#	77
76)	t-1,4-Dichloro-2-Butene	20.23	53	16296	9.95241	ppb		95
77)	Bromobenzene	20.48	156	179928	9.04222	ppb		97
78)	n-Propylbenzene	20.45	91	932853	9.06465	ppb		99
79)	4-Ethyltoluene	20.65	105	625145	8.77813	ppb		98
80)	2-Chlorotoluene	20.74	91	610221	8.95313	ppb		96
81)	1,3,5-Trimethylbenzene	20.72	105	623983	8.90597	ppb		100
82)	4-Chlorotoluene	20.83	91	513411	8.74788	ppb		98
83)	Tert-Butylbenzene	21.37	119	668758	8.81637	ppb		95
84)	1,2,4-Trimethylbenzene	21.43	105	615869	8.41638	ppb		99
85)	Sec-Butylbenzene	21.77	105	829510	9.11875	ppb		100
86)	p-Isopropyltoluene	22.00	119	701791	9.00694	ppb		99
87)	Benzyl Chloride	22.43	91	101311	9.79506	ppb		94
88)	1,3-DCB	22.13	146	368780	9.06239	ppb		98
89)	1,4-DCB	22.31	146	341103	9.03123	ppb		95
90)	Hexachloroethane	23.61	117	104555	8.95951	ppb		89
91)	n-Butylbenzene	22.71	91	615437	9.05587	ppb		99
92)	1,2-DCB	22.94	146	296381	9.15652	ppb		97
93)	1,2-Dibromo-3-chloropropan	24.16	155	9536	8.48520	ppb		92
94)	1,2,4-Trichlorobenzene	25.59	180	215502	9.18784	ppb		98
95)	Hexachlorobutadiene	25.84	223	39632	9.30029	ppb		92

(#) = qualifier out of range (m) = manual integration

Data File : M:\CHICO\DATA\C111030\1031C03W.D Vial: 1
Acq On : 31 Oct 11 21:05 Operator: STC
Sample : 111031A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration
DataAcq Meth : V8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	Naphthalene	25.95	128	269175	9.30126	ppb	100
97)	1,2,3-Trichlorobenzene	26.30	180	164433	9.26811	ppb	94

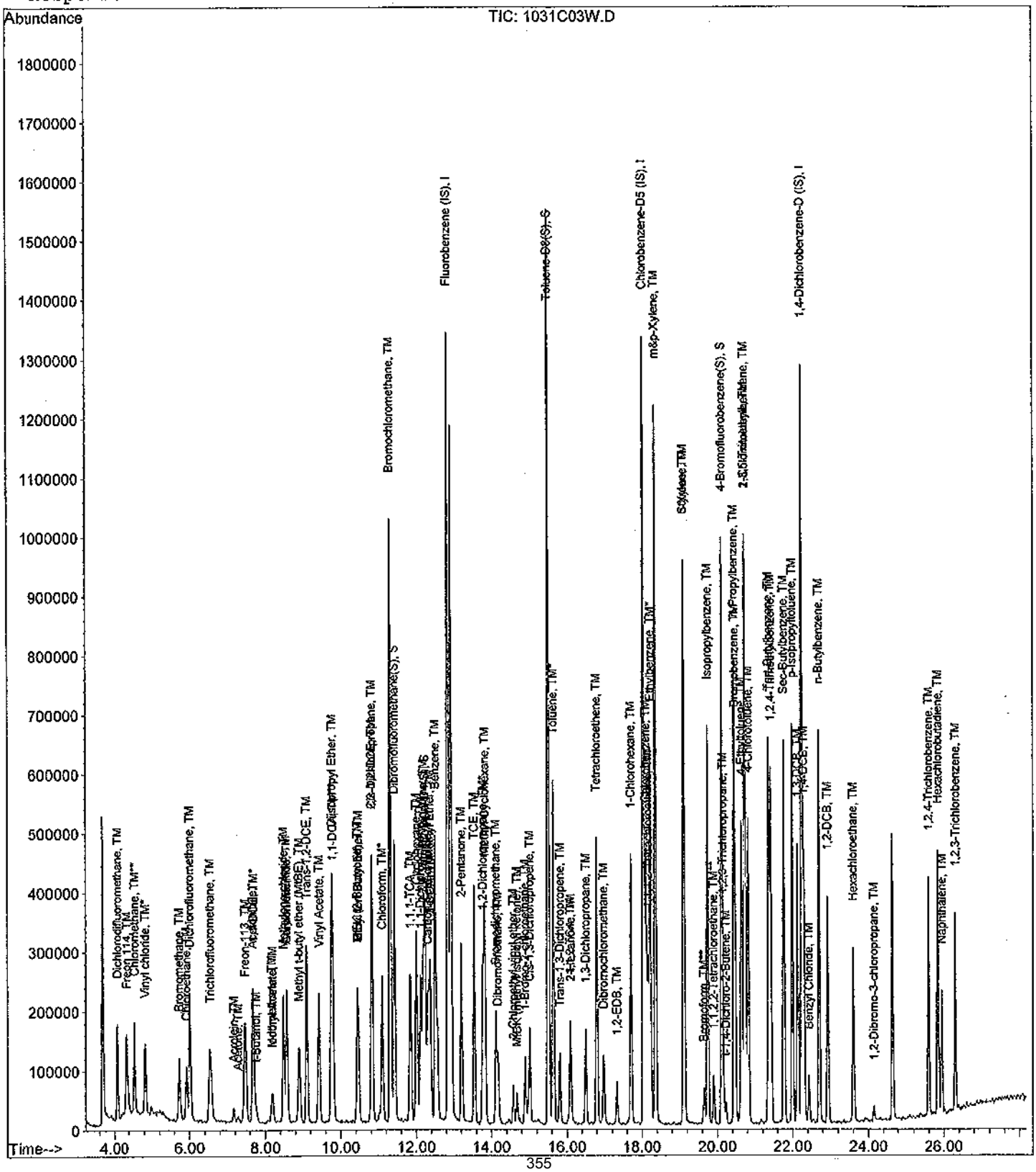
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C03W.D Vial: 1
Acq On : 31 Oct 11 21:05 Operator: STC
Sample : 111031A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Dec 2 11:35 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Dec 02 11:32:50 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1031C05W.D Vial: 1
Acq On : 31 Oct 11 22:19 Operator: STC
Sample : 111031A LCS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:56 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1329581	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1304550	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1325620	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	48291384m	302.02962	ppb	100

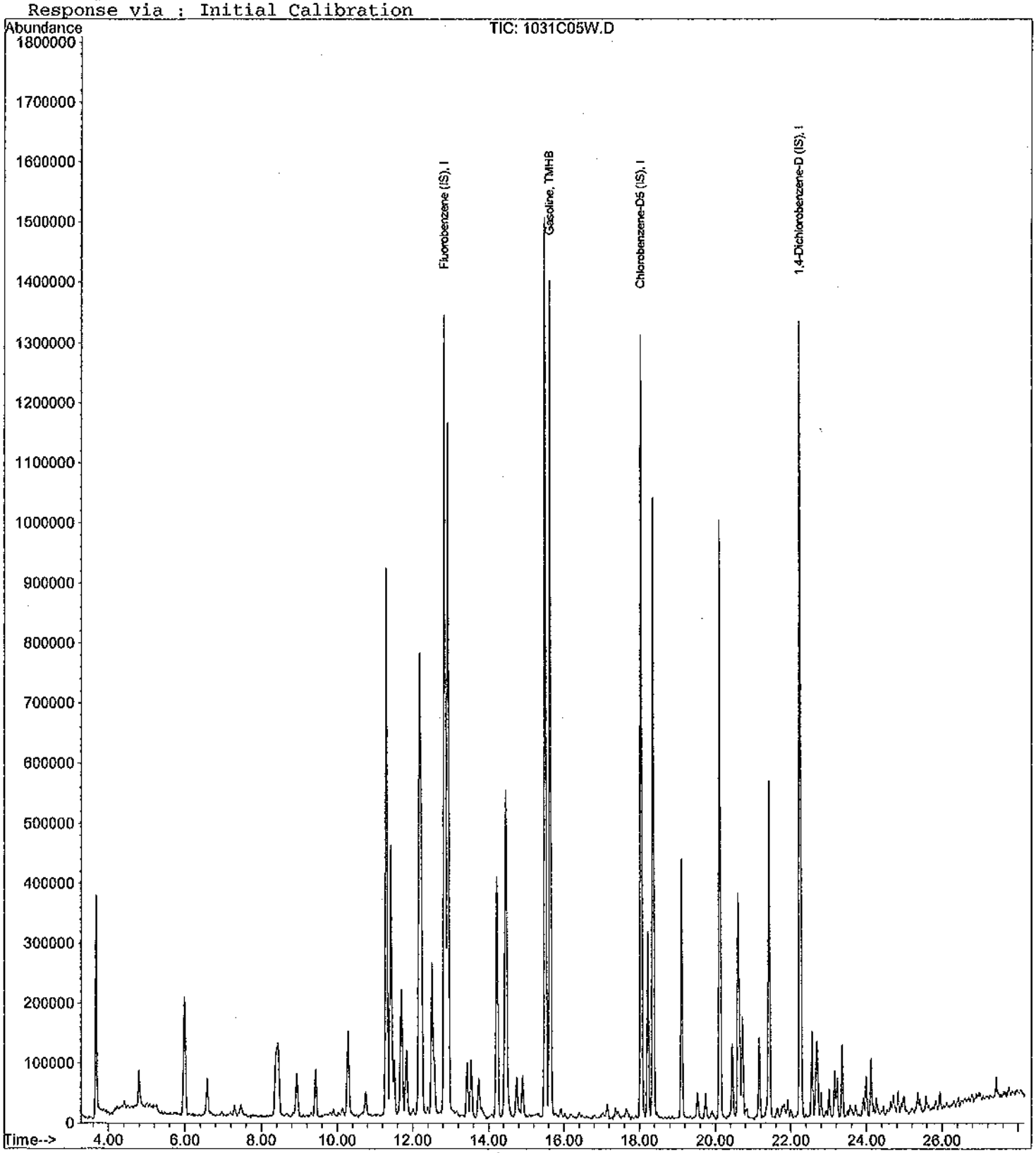
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1031C05W.D Vial: 1
Acq On : 31 Oct 11 22:19 Operator: STC
Sample : 111031A LCS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 10:56 2011 Quant Results File: CGAS.RES

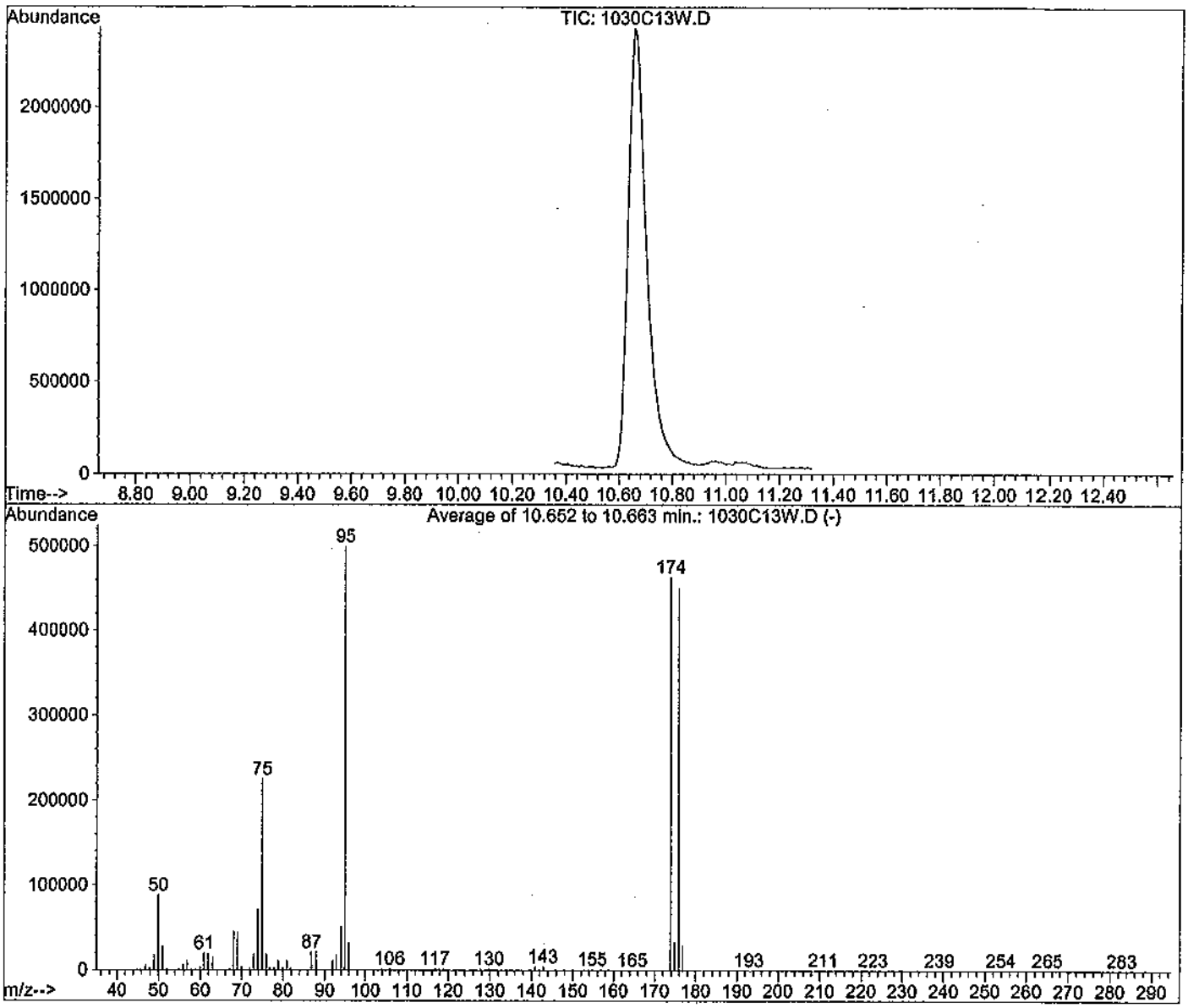
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Data File : M:\CHICO\DATA\C111030\1030C13W.D
Acq On : 30 Oct 11 22:01
Sample : 20ug/ml BFB Std 10-19-11
Misc : Water 2uL

Vial: 1
Operator: RS
Inst : Chico
Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260

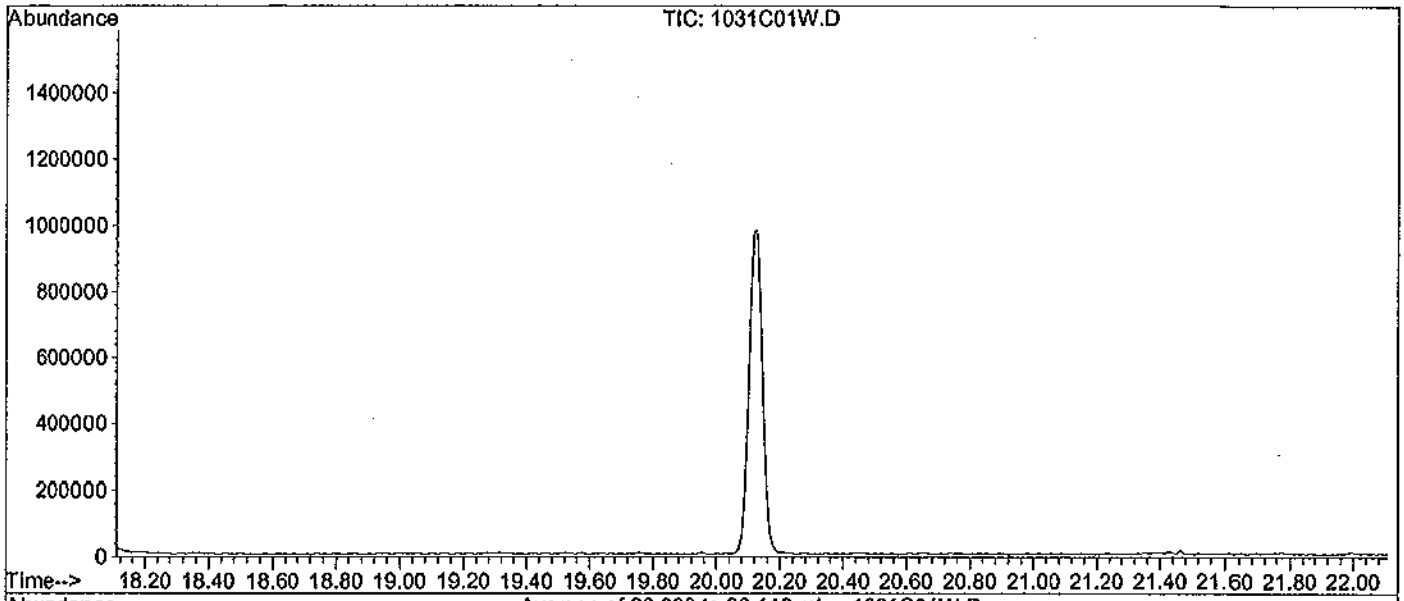


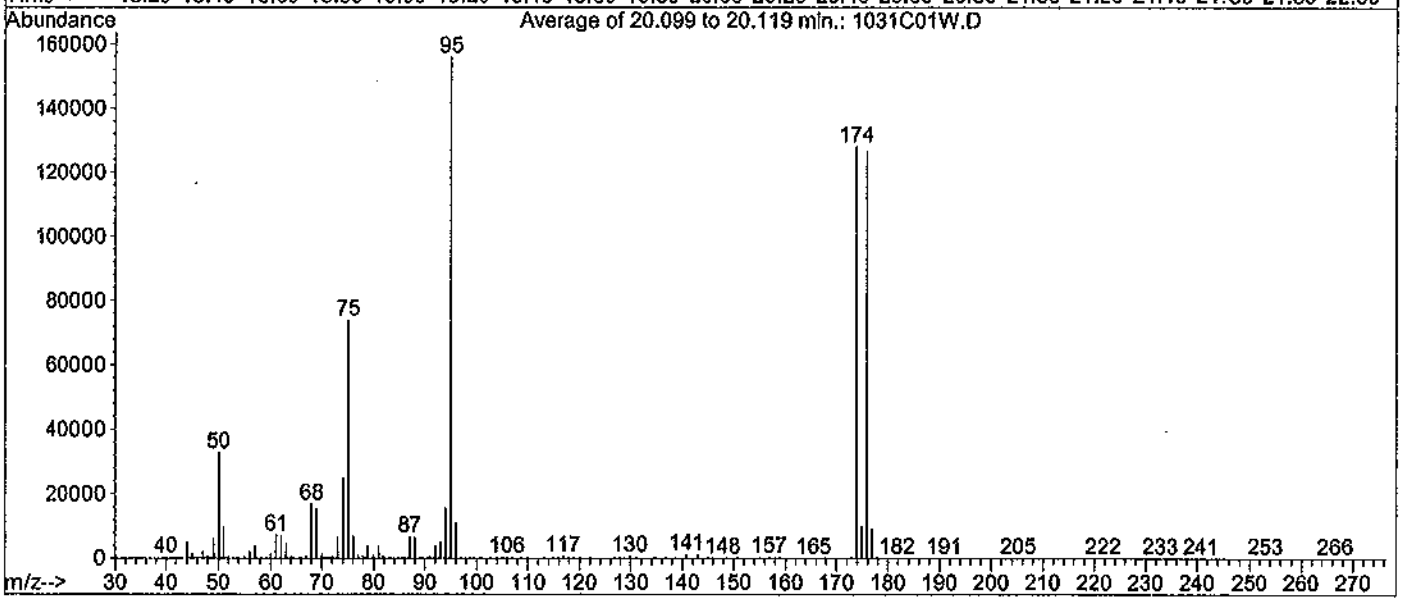
AutoFind: Scans 52, 53, 54; Background Corrected with Scan 36

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	88217	PASS
75	95	30	60	45.1	224883	PASS
95	95	100	100	100.0	499051	PASS
96	95	5	9	6.5	32634	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	92.8	463189	PASS
175	174	5	9	7.2	33219	PASS
176	174	95	101	97.1	449771	PASS
177	176	5	9	6.4	28567	PASS

Data File : M:\CHICO\DATA\C111030\1031C01W.D Vial: 1
Acq On : 31 Oct 11 19:50 Operator: STC
Sample : 20ug/mL BFB STD10-19-11 Inst : Chico
Misc : Water 2ul Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CALLW.M (RTE Integrator)
Title : METHOD 8260





Spectrum Information: Average of 20.099 to 20.119 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	32803	PASS
75	95	30	60	47.5	73965	PASS
95	95	100	100	100.0	155859	PASS
96	95	5	9	7.0	10958	PASS
173	174	0.00	2	0.3	376	PASS
174	95	50	100	82.2	128160	PASS
175	174	5	9	7.8	10028	PASS
176	174	95	101	99.0	126891	PASS
177	176	5	9	7.3	9255	PASS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

	Expiration Date:		08/16/11								
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	5ug/mL Vol Std #2	50ug/mL Vol Std #12
Date	Conc.	08-10-11R	08-10-11V	08-10-11N	08-10-11P	08-10-11U	08-10-11S	08-10-11O	08-10-11Q	08-10-11T
Code	ug/L	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11
08-15-11A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
08-15-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
08-15-11C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
08-15-11D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
08-15-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
08-15-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
08-15-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

8-15-11
RS

250ug/mL TBA	Final Vol
08-10-11W	w/PAT H2O
Exp:08-17-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

	Expiration Date:		08/17/11							
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	5ug/mL Vol Std #2	50ug/mL Vol Std #12
Date	Conc.	08-10-11R	08-10-11V	08-10-11N	08-10-11P	08-10-11U	08-10-11S	08-10-11O	08-10-11Q	08-10-11T
Code	ug/L	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11	Exp:08-17-11
08-16-11A	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
08-16-11B	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
08-16-11C	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
08-16-11D	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
08-16-11E	50	n/a	n/a	5	5	5	n/a	5	n/a	5
08-16-11F	100	n/a	n/a	10	10	10	n/a	10	n/a	10
08-16-11G	200	n/a	n/a	20	20	20	n/a	20	n/a	20

8-16-11
RS

250ug/mL TBA	Final Vol
08-10-11W	w/PAT H2O
Exp:08-17-11	mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

8-19-11
A -
RS

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

120016-03

Lot #	Storage	Expiry
170302	≤ -10 Degrees C	3/11/14

Solvt: P/T Methanol

Method 8260 Gases
Lot #: 170302 - 28666
Rec: 4/20/11 MFR exp. 03/11/14

8-19-11
B -
RS

Method 8260B Surrogate Solution, 2,000 mg/L, 1 ml

120002-01

Lot #	Storage	Expiry
164585	≤ -10 Degrees C	10/12/13

Solvt: P/T Methanol

Method 8260B Surrogate
Lot #: 164585 - 28720
Rec: 4/20/11 MFR exp. 10/12/13

8-19-11
C -
RS

VOC Mix 4-3, 2,000 mg/L, 1 ml

120166-01

Lot #	Storage	Expiry
171714	≤ 6 Degrees C	4/11/13

Solvt: P/T Methanol

VOC Mix 4-3, 2000mg/L
Lot #: 171714 - 29243
Rec: 8/5/11 MFR exp. 04/11/13

GC/MS STANDARD PREPARATION BOOK # 58 PAGE # 4

		08-17-11V	Exp:	08/24/11			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		08-17-11R	09/02/11	200	
		50ug/ml Vol Work Std #8		08-17-11Y	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1600	
		08-17-11W	Exp:	08/24/11			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		08-17-11S	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1800	
		08-17-11X	Exp:	08/24/11			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		08-17-11U	09/02/11	200	
		J&T Brand		08/12/12	06/08/12	1800	
08-17-11Y							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:08/24/11			ug/ml	Lot #	Code	Date	ul
O2SI	120002-01	8260B Surr Solution	2000	164585-28720	08-17-11B	09/14/11	100
J&T Brand		Purge & Trap MeOH		K07E34-00543	08/12/12	10/14/11	3900
08-17-11Z			Exp:	08/24/11			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		08-17-11Y	09/02/11	200	
J&T Brand		Purge & Trap MeOH		08/05/12	06/08/12	1600	
08-17-11AA							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:08/24/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
O2SI	120166-01	Volatile Mix 4-1	2000	171714-29243	08-17-11C	12/17/11	500
O2SI	020229-09	Acrolein	10000	175935-29032	08-04-11J	08/22/11	100
J&T Brand		Purge & Trap MeOH		K07E34-00543	08/12/12	10/14/11	1400

CHICO							
08-17-11AB							
250ug/ml 8260 Internal Standard - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
O2SI	120302-03	Internal Standard Mix	2000	166255-27947	08-09-11A	10/23/11	500
O2SI	020132-02	Fluorobenzene Standard	2000	169170-28263	08-09-11B	10/23/11	500
J&T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	11/14/12	5000
08-17-11AC							
250ug/ml 8260 Surrogate - Chico			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
O2SI	120002-01	Surrogate Standard	2000	164585-28727	08-09-11C	10/23/11	500
J&T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	11/14/12	5000

08-17-11AD							
50ug/ml 8260B Surrogate- Neo			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
O2SI	8260B Surr	Surrogate Standards	2000	164585-28720	08-17-11B	12/13/11	500
J.T Baker		Purge & Trap MeOH		K07E34-00543	08/12/11	10/10/12	19500

8-17-11 RS

8-17-11 RS

8-17-11 RS

8-17-11 RS

8-17-11 RS

8-18-11 RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-THOR											
	Expiration Date:		09/22/11								
		5ug/mL Vol Std #9	6ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #11	50ug/mL Vol Std #2	5ug/mL Vol Std #12	
Date	Conc.	09-19-11I	09-19-11M	09-19-11D	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11G	09-19-11K	
Code	ug/L	Exp:09-26-11	Exp:09-26-11	Exp:09-28-11	Exp:09-28-11	Exp:09-26-11	Exp:09-26-11	Exp:09-28-11	Exp:09-26-11	Exp:09-26-11	
09-21-11B	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3	
09-21-11C	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5	
09-21-11D	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10	
09-21-11E	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20	
09-21-11F	5	n/a	n/a	5	5	10	n/a	5	5	n/a	
09-21-11G	10	n/a	n/a	10	10	25	n/a	10	10	n/a	
09-21-11H	20	n/a	n/a	20	20	40	n/a	20	20	n/a	
09-21-11I	40	n/a	n/a	40	40	60	n/a	40	40	n/a	
09-21-11J	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a	

RS

250ug/mL TAPD	Final Vol
09-19-11N	w/P&T H2O
Exp:09-26-11	mL
3	60
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Volatile Standard Curve Preparation for 10mL Purge (524 water)-NEO						
	Expiration Date:		09/22/11			
		5ug/mL Vol Std #9	50ug/mL Vol Std #7	50ug/mL Vol Std #8	250ug/mL TAPD	Final Vol
Date	Conc.	09-19-11I	09-19-11D	09-19-11F	09-19-11N	w/P&T H2O
Code	ug/L	Exp:09-28-11	Exp:09-28-11	Exp:09-26-11	Exp:09-28-11	mL
09-21-11K	0.2	2	n/a	n/a	2	50
09-21-11L	0.5	5	n/a	n/a	6	50
09-21-11M	1	10	n/a	n/a	10	50
09-21-11N	2	20	n/a	n/a	15	50
09-21-11O	5	n/a	5	5	20	50
09-21-11P	10	n/a	10	10	25	50
09-21-11Q	40	n/a	40	40	35	50
09-21-11R	100	n/a	100	100	40	50

RS

AY44799W01 26

65441
AY44799 W01
VOA_Frig

VOLATILES 38083 - 062910

Part #: 38083 [redacted] boratory Use Only - See MSDS
Lot #: 062910 [redacted] Exp: 062913 Storage 0 °C
CWA Volatiles in Non-Potable Water
Varied in methanol 2 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

Sweetpea							
09-23-11A							
250ug/ml 8260 Internal Standard - Sweetpea			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120302-03	Internal Standard Mix	2000	166255-28349	09-14-11A	10/10/11	500
	020132-02	Fluorobenzene Standard	2000	169170-28739	09-14-11B	10/10/11	500
J.T.Baker		Purge & Trap MeOH		K07E34-00547	09/12/11	10/14/12	3000

B -

Method 8260 Internal Standard Solution, 2,000 mg/L, 1 ml
120302-03
Lot# 166255 Storage ≤-10 Degrees C Expiry 11/18/12
Solv: P/T Methanol
R&D only, not human consumption. Made in the USA

Method 8260 Internal Standard
Lot #: 166255 - 28350
Rec: 2/17/11 MFR exp. 11/18/12

RS.

C -

Fluorobenzene Solution, 2,000 mg/L, 1 ml
020132-02
Lot# 169170 Storage ≤6 Degrees C Expiry 2/13/14
Solv: P/T Methanol
R&D only, not human consumption. Made in the USA

Fluorobenzene
Lot #: 169170 - 28738
Rec: 4/20/11 MFR exp. 02/13/14

RS.

CHICO						
09-23-11D						
250ug/ml 8260 Internal Standard - Chico			Conc.		Date	
Supplier	ID #		ug/ml	Lot #	Code	Date
9-23-11 RS. 02SI	120302-03	Internal Standard Mix	2000	166255-28350	09-23-11B	12/3/11
02SI	020132-02	Fluorobenzene Standard	2000	169170-28738	09-23-11C	12/23/11
J&T Baker		Purge & Trap MeOH		K07B34-00547	09/12/11	11/10/12

9-24-11 RS.

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-SWEETPEA

	Expiration Date:		09/24/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #6	50µg/mL Vol Std #5	50µg/mL Vol Std #4
Date	Conc.	09-19-11I	09-19-11M	09-19-11D	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11S	09-19-11R
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11
09-23-11E	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	n/a
09-23-11F	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a
09-23-11G	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a
09-23-11H	2	20	40	n/a	n/a	n/a	20	n/a	n/a	n/a
09-23-11I	5	n/a	n/a	5	5	10	n/a	5	5	5
09-23-11J	10	n/a	n/a	10	10	25	n/a	10	10	10
09-23-11K	20	n/a	n/a	20	20	40	n/a	20	20	20
09-23-11L	40	n/a	n/a	40	40	80	n/a	40	40	40
09-23-11M	100	n/a	n/a	100	100	n/a	n/a	100	100	100

9-23-11 RS.

9-24-11 RS.

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO

	Expiration Date:		09/24/11							
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #6	50µg/mL Vol Std #5	50µg/mL Vol Std #4
Date	Conc.	09-19-11I	09-19-11M	09-19-11D	09-19-11F	09-19-11L	09-19-11J	09-19-11E	09-19-11S	09-19-11R
Code	µg/L	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11	Exp:09-26-11
09-23-11N	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	n/a
09-23-11O	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a
09-23-11P	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a
09-23-11Q	2	20	40	n/a	n/a	n/a	20	n/a	n/a	n/a
09-23-11R	5	n/a	n/a	5	5	10	n/a	5	5	5
09-23-11S	10	n/a	n/a	10	10	25	n/a	10	10	10
09-23-11T	20	n/a	n/a	20	20	40	n/a	20	20	20
09-23-11U	40	n/a	n/a	40	40	80	n/a	40	40	40
09-23-11V	100	n/a	n/a	100	100	n/a	n/a	100	100	100

9-23-11 RS.

9-24-11 RS.

9-24-11 RS.

A -

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml

120716-03

Lot #	Storage	Expiry
170302	≤-10 Degrees C	3/11/14

Solvt: P/T Methanol

Made in the USA

Method 8260 Gases

Lot #: 170302 - 28877

Rec: 4/20/11 MFR exp. 03/11/14

9-24-11 RS.

B -

n-Hexane Solution, 1,000 mg/L, 1 ml

020628-02

Lot #	Storage	Expiry
163378	≤-10 Degrees	8/29/15

Solvt: P/T Methanol

Made in the USA

n-Hexane Solution

Lot #: 163376 - 29230

Rec: 8/5/11 MFR exp. 08/29/15

068

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____

Volatile Standard Curve Preparation for 10mL Purge (5260 water)-CHICO

	Expiration Date:		09/30/11							
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	50ug/mL Vol Std #2	50ug/mL Vol Std #3
Date	Conc.	09-29-11D	09-28-11N	09-28-11F	09-29-11C	09-28-11M	09-28-11K	09-28-11B	09-29-11I	09-29-11J
Code	µg/L	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11
09-29-11M	0.3	3	5	n/a	n/a	n/a	3	n/a	n/a	n/a
09-29-11O	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	n/a
09-29-11P	1	10	20	n/a	n/a	n/a	10	n/a	n/a	n/a
09-29-11Q	2	20	40	n/a	n/a	n/a	20	n/a	n/a	n/a
09-29-11R	5	n/a	n/a	5	5	n/a	5	n/a	n/a	n/a
09-29-11S	10	n/a	n/a	10	10	25	n/a	5	5	5
09-29-11T	20	n/a	n/a	20	20	40	n/a	10	10	10
09-29-11U	40	n/a	n/a	40	40	80	n/a	20	20	20
09-29-11V	100	n/a	n/a	100	100	n/a	n/a	40	40	40
								100	100	100

9-29-11
RS.

10-02-11
RS

250ug/mL TAPD	Final Vol
09-29-11D	wf P&T H2O
Exp:10-05-11	mL
2	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

10-02-11
RS

9-30-11
RS.

A -

4-Bromofluorobenzene
Solution, 2,500 mg/L, 1 ml
Lot # 020135-03
Storage
Expiry
4-bromofluorobenzene
Lot #: 176675 - 29375
Rec: 8/9/11 MFR exp. 08/02/14

RS.

10-02-11
RS

09-30-11A						
20ug/ml BFB STD			Conc.		Date	EXP:
EXP: 10-30-11			ug/ml	Lot#	CODE	Date
02SI	020135-03	4-Bromofluorobenzene	2500	176675-29375	10-01-11A	12/11/11
J&T Baker		Purge & Trap MeOH		K14E05-00551	10/01/11	09/29/11

9-30-11
RS.

Volatile Standard Curve Preparation for 10mL Purge (524 water)-NEO

	Expiration Date:		10/02/11			
		5ug/mL Vol Std #9	50ug/mL Vol Std #7	50ug/mL Vol Std #8	250ug/mL TAPD	Final Vol
Date	Conc.	09-29-11D	09-29-11F	09-29-11C	09-29-11O	wf P&T H2O
Code	µg/L	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	Exp:10-05-11	mL
10-01-11A	0.2	2	n/a	n/a	2	50
10-01-11B	0.5	5	n/a	n/a	5	50
10-01-11C	1	10	n/a	n/a	10	50
10-01-11D	2	20	n/a	n/a	15	50
10-01-11E	5	n/a	5	5	20	50
10-01-11F	10	n/a	10	10	25	50
10-01-11G	40	n/a	40	40	35	50
10-01-11H	100	n/a	100	100	40	50

10-01-11
RS.

RS

10-02-11
RS

10-02-11
RS

CMS STANDARD PREPARATION BOOK # _____ PAGE # _____

10-27-11
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

	Expiration Date:		10/28/2011								
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	50ug/mL Vol Std #2	5ug/mL Vol Std #12
Date	Conc.	10-26-11J	10-26-11N	10-26-11F	10-26-11H	10-26-11M	10-26-11K	10-26-11G	10-26-11I	10-26-11L
Code	ug/L	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11
10-27-11J	0.5	3	6	n/a	n/a	n/a	3	n/a	n/a	3
10-27-11K	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
10-27-11L	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
10-27-11M	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
10-27-11N	5	n/a	n/a	5	5	10	n/a	5	5	n/a
10-27-11O	10	n/a	n/a	10	10	25	n/a	10	20	n/a
10-27-11P	20	n/a	n/a	20	20	40	n/a	20	20	n/a
10-27-11Q	40	n/a	n/a	40	40	80	n/a	40	40	n/a
10-27-11R	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

250ug/mL TAPD 10-26-11O Exp:11-01-11	Final Vol wP&T H2O mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

10-27-11
RS

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-NEO

	Expiration Date:		10/28/2011								
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	5ug/mL Vol Std #2	50ug/mL Vol Std #12
Date	Conc.	10-26-11J	10-26-11N	10-26-11F	10-26-11H	10-26-11M	10-26-11K	10-26-11G	10-26-11I	10-26-11L
Code	ug/L	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11
10-27-11S	2	2	4	n/a	n/a	n/a	2	n/a	2	n/a
10-27-11T	5	5	10	n/a	n/a	n/a	5	n/a	5	n/a
10-27-11U	10	10	20	n/a	n/a	n/a	10	n/a	10	n/a
10-27-11V	20	20	40	n/a	n/a	n/a	20	n/a	20	n/a
10-27-11W	50	n/a	n/a	5	5	10	n/a	5	n/a	5
10-27-11X	100	n/a	n/a	10	10	20	n/a	10	n/a	10
10-27-11Y	200	n/a	n/a	20	20	40	n/a	20	n/a	20

250ug/mL TBA 10-26-11O Exp:11-01-11	Final Vol wP&T H2O mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

10-27-11
RS.

Volatile Standard Curve Preparation for 5mL Purge (8260 soil)-THOR

	Expiration Date:		10/28/2011								
		5ug/mL Vol Std #9	5ug/mL Surr	50ug/mL Vol Std #7	50ug/mL Vol Std #8	50ug/mL Surr	5ug/mL Vol Std #10	50ug/mL Vol Std #1	5ug/mL Vol Std #2	50ug/mL Vol Std #12
Date	Conc.	10-26-11J	10-26-11N	10-26-11F	10-26-11H	10-26-11M	10-26-11K	10-26-11G	10-26-11I	10-26-11L
Code	ug/L	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11	Exp:11-01-11
10-27-11Z	2	2	2	n/a	n/a	n/a	2	n/a	2	n/a
10-27-11AA	5	5	5	n/a	n/a	n/a	5	n/a	5	n/a
10-27-11AB	10	10	10	n/a	n/a	n/a	10	n/a	10	n/a
10-27-11AC	20	20	20	n/a	n/a	n/a	20	n/a	20	n/a
10-27-11AD	50	n/a	n/a	5	5	5	n/a	5	n/a	5
10-27-11AE	100	n/a	n/a	10	10	10	n/a	10	n/a	10
10-27-11AF	200	n/a	n/a	20	20	20	n/a	20	n/a	20

250ug/mL TBA 10-26-11O Exp:11-01-11	Final Vol wP&T H2O mL
1	5
2	5
3	5
4	5
5	5
6	5
7	5

10-28-11
RS.

A-

Method 8260 Gases, 2,000 mg/L; 2 X 0.6 ml

120016-03

Lot#	Storage	Expiry
169238	≤ -10 Degrees C	2/19/14

Solv: P/T Methanol

Method 8260 Gases

Lot #: 169238 - 28662

Rec: 4/20/11 MFR exp. 02/19/14

RS

10-28-11 RS B-

Hexachloroethane Solution, 1000 mg/L, 1 ml

020049-02

Lot #	Storage	Expiry
164816	-10 Degrees C	10/14/12

Solv: P/T Methanol

Hexachloroethane

Lot #: 164816 - 28667

Rec: 4/20/11 MFR exp. 10/14/12

RS

10-28-11 RS B

10-28-11 RS C-

Benzyl Chloride Solution, 1000 mg/L, 1 ml

020228-02

Lot #	Storage	Expiry
163373	≤-10 Degrees	8/29/12

Solv: P/T Methanol

Benzyl Chloride

Lot #: 163373 - 29166

Rec: 8/5/11 MFR exp. 08/29/12

RS

10-28-11 RS C

10-28-11 RS D-

Volatile Mix, 20-29, 2,000 mg/L, 1 ml

121035-02

Lot #	Storage	Expiry
163374	≤-10 Degrees	8/29/12

Solv: P/T Methanol

Volatile Mix, 20-29

Lot #: 163374 - 28300

Rec: 2/17/11 MFR exp. 08/29/12

RS

10-28-11 RS D

10-28-11 RS E-

Method 8260 VOC Liquids, 54 Compounds, 2,000 mg/L, 1 ml

120023-03

Lot #	Storage	Expiry
164454	≤-10 Degrees C	10/4/12

Solv: P/T Methanol

8260 VOC Liquids, 54 Comp.

Lot #: 164454 - 27872

Rec: 12/15/10 MFR exp. 10/04/12

RS

10-28-11 RS E

10-28-11 RS F-

Vinyl Acetate Solution, 2,000 mg/L, 1ml

#124312-02

Lot #	Storage	Expiry
178902	≤-10 Degrees C	12/15/11

Solv: P/T Methanol

Vinyl Acetate

Lot #: 178902 - 29552

Rec: 9/22/11 MFR exp. 12/15/11

RS

10-28-11 RS F

10-28-11 G -
RS.

Heptane Solution, 1000 mg/L, 1 ml
821546-02
Lot # 169174 Storage ≤-10 Degrees C Expiry 2/18/14
Solv: P/T Methanol
RS.

Heptane Solution
Lot #: 169174 - 29248
Rec: 8/5/11 MFR exp. 02/18/14

10-28-11 H -
RS.

8260B Surrogate Solution, 2,000 mg/L, 5 x 1 ml
110002-01-5PAK
Lot # 173249 Storage ≤-10 Degrees C Expiry 5/17/13
Solv: P/T Methanol
RS.

8260B Surrogate Solution
Lot #: 173249 - 26847
Rec: 5/25/11 MFR exp. 05/17/13

10-28-11 I -
RS.

VOC Mix 4-3, 2,000 mg/L, 1 ml
120166-01
Lot # 178651 Storage ≤5 Degrees C Expiry 9/11/13
Solv: P/T Methanol
RS.

VOC Mix 4-3, 2000mg/L
Lot #: 178651 - 29510
Rec: 9/20/11 MFR exp. 09/11/13

10-28-11 J -
RS.

Method 8260 Gases (Second Source), 2,000 mg/L, 2 X 0.6 ml
120016-03-SS
Lot # 168038 Storage ≤-10 Degrees C Expiry 1/21/14
Solv: P/T Methanol
RS.

8260 Gases (SS)
Lot #: 168038 - 28743
Rec: 4/20/11 MFR exp. 01/21/14

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____

10-28-11K							
80ug/ml Vol Work Std #7							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	169238-28682	10-28-11A	11/30/2011	100
02SI	020049-02	HEXACHLOROETHANE	1000	164816-28687	10-28-11G	12/14/2011	200
02SI	020228-02	Benzyl Chloride	1000	163173-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11L							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	160092-26637	10-06-11B	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11M							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120039-02	Volatile Mix, 20-29	2000	163174-28100	10-28-11D	3/14/2012	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27872	10-28-11E	3/14/2012	100
02SI	020212-02	Vinyl Acetate	2000	176902-29552	10-28-11F	11/15/2011	100
02SI	020620-02	n-Hexane	1000	163378-27889	10-26-11B	11/14/2011	200
02SI	020546-02	Heptane	1000	169174-29248	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11N							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	MSB'S-Ketone Solution	2000	169173-28307	10-12-11B	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	3900
		10-28-11O	Exp:	11/4/2011			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11K	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11M	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11P	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11L	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1600	
		10-28-11Q	Exp:	11/4/2011			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11N	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1600	
10-28-11R							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	ul
02SI	120002-01	8260B Surr Solution	2000	173249-28843	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3900
10-28-11S			Exp:	11/4/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11R	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
10-28-11T							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
02SI	020229-09	Acrolein	10000	179941-29561	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3400

10/28/11 RS.

10/28/11 RS.

10/28/11 RS.

10-28-11U							
50ug/ml VOC Std#5							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03-SS	8260 Gases(SS)	2000	168038-28743	10-28-11J	11/30/2011	50
02SI	020145-02-02-5	2-CEVE	2000	152530-27273	10-19-11J	11/3/2011	50
J&T Brand		Purge & Trap MeOH		K14E05-00556	10/27/2011	6/8/2012	1900
10-28-11V							
50ug/ml VOC Std#6							
Exp:11/04/11							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-02-SS	VOC'S 54 COMP.	2000	161271-27773	09-12-11P	11/14/2011	50
02SI	120295-01	Custom 8260 Solution	2000	166038-27763	09-12-11Q	11/14/2011	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	176774-29257	09-12-11R	11/30/2011	50
02SI	020620-02-SS	n-HEXANE	1000	179199-29615	10-12-11F	12/14/2011	100
02SI	020049-02-SS	HEXACHLOROETHANE	1000	164535-25913	09-13-11B	12/29/2011	100
02SI	020546-02-SS	Heptane(SS)	1000	142276-23593	09-13-11C	12/19/2011	100
J&T Brand		Purge & Trap MeOH		K14E05-00556	10/27/2011	6/8/2012	1550
10-28-11W							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	152531-25468	10-02-11G	11/3/2011	250
02SI	020229-05-SS	Acrolein SOLUTION (SS)	10000	178607-29549	10-02-11H	11/21/2011	50
J&T Brand		Purge & Trap MeOH		K14E05-00556	10/27/2011	6/8/2012	1700

10-28-11X							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-01	Gas Mix	2000	169238-28682	10-28-11A	11/30/2011	100
02SI	020049-02	HEXACHLOROETHANE	1000	164816-28687	10-28-11B	12/14/2011	200
02SI	020228-02	Benzyl Chloride	1000	161371-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11Y							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	160092-26617	10-05-11E	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11Z							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	161374-28300	10-28-11D	2/14/2012	100
02SI	120023-01	VOC'S-54 COMP	2000	164454-27872	10-28-11E	2/14/2012	100
02SI	020232-02	Vinyl Acetate	2000	178902-29552	10-28-11F	11/15/2011	100
02SI	020620-02	n-Hexane	1000	161378-27889	10-26-11B	11/14/2011	200
02SI	020546-02	Heptane	1000	169174-29248	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3300
10-28-11AA							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	HSL'S-Ketone Solution	2000	169173-28107	10-12-11B	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	1900
		10-28-11AB	Exp:	11/4/2011			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11X	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11Z	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11AC	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11Y	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	

GCMS STANDARD PREPARATION BOOK # _____ PAGE # 5

		10-28-11AD	Exp:	11/4/2011			
		5ug/ml Vol Work Std #12					
		SOURCE8	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11AA	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
10-28-11AE							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	ul
O2SI	120002-01	8260B Surr Solution	2000	173249-28847	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1900
10-28-11AF			Exp:	11/4/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11AB	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
10-28-11AG							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
O2SI	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
O2SI	020229-09	Acrolein	10000	175941-29661	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1400

10/28/11 RS.

NOTEBOOK INSERT LABEL

Gasoline 47618-U
Lot: LB82077 EXP: FEB/2014 STORAGE: ROOM TEMP. 1 x 1ml

DATE RECEIVED: _____

SUPELCO
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

10/30/11 RS.

A -

STANDARD TRANSFER LABEL

Date of Preparation:
Reference Number:
Description: Gasoline
Lot #: LB82077 - 29133
Rec: 8/4/11 MFR exp. 02/28/14
Exp. Date:
Storage: EXP: FEB/2014 ROOM TEMP.

10/30/11 RS.

B -

REST Calif 30205
Unleaded Gasoline Composite Standard
50000 ug/mL each in P&T Methanol
Lot# A076842 Exp.Date: 10/2017 Store: Freezer
Restek Corporation - 110 Benner Circle - Bellefonte, PA 16823

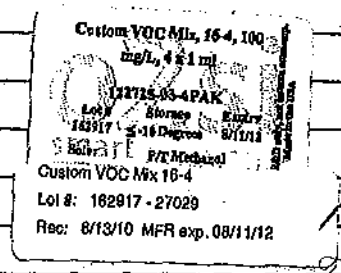
Unleaded gasoline composite
Lot #: A076842 - 29141
Rec: 8/4/11 MFR exp. 10/31/17

RS.

10/30/11 RS.

10/30/11C						APPL	
2000ug/ml Gasoline			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
Supelco	LB82077	Gasoline	20,000	LB82077-29133	10-30-11A	11/2/2012	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	3/2/2012	1800
10/30/11D						APPL	
2000ug/ml Unleaded Gasoline			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
Supelco	30205	Unleaded Gasoline	50,000	A076842-29141	10-30-11B	11/30/2012	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	3/2/2012	1800

GC/MS STANDARD PREPARATION BOOK # _____ PAGE # _____



10/28/11 E RS

CHICO RS 12/07/11.

10/28/11 RS

RS.

Gasoline Curve Preparation for 100mL Purge (water)-CHICO			
	Expiration Date:		10/31/2011
		1µg/mL Gasoline	Final Vol
Data	Conc.	10-30-11C	wP&T H2O
Code	µg/L	Exp:12-27-12	mL
10-30-11F	20	1	100
10-30-11G	50	2.5	100
10-30-11H	100	5	100
10-30-11I	300	15	100
10-30-11J	600	30	100
10-30-11K	800	40	100
10-30-11L	1000	50	100

10/28/11 RS

Volatile Standard Curve Preparation for 10mL Purge (@250 water)-CHICO											
	Expiration Date:		10/31/2011								
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #3	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Data	Conc.	10-28-11O	10-28-11S	10-28-11K	10-28-11M	10-28-11R	10-28-11P	10-28-11L	10-28-11N	10-28-11Q
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11
10-30-11I	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
10-30-11J	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
10-30-11K	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
10-30-11L	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
10-30-11M	5	n/a	n/a	5	5	10	n/a	5	5	n/a
10-30-11N	10	n/a	n/a	10	10	25	n/a	10	20	n/a
10-30-11O	20	n/a	n/a	20	20	40	n/a	20	20	n/a
10-30-11P	40	n/a	n/a	40	40	80	n/a	40	40	n/a
10-30-11Q	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

10/28/11 RS

250µg/mL TAPD 10-28-11T Exp:11-04-11	Final Vol wP&T H2O mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Volatile Standard Curve Preparation for 10mL Purge (@250 water)-MAX											
	Expiration Date:		11/1/2011								
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #3	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #1	50µg/mL Vol Std #2	5µg/mL Vol Std #12
Data	Conc.	10-28-11O	10-28-11S	10-28-11K	10-28-11M	10-28-11R	10-28-11P	10-28-11L	10-28-11N	10-28-11Q
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11
10-31-11A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
10-31-11B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
10-31-11C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
10-31-11D	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
10-31-11E	5	n/a	n/a	5	5	10	n/a	5	5	n/a
10-31-11F	10	n/a	n/a	10	10	25	n/a	10	20	n/a
10-31-11G	20	n/a	n/a	20	20	40	n/a	20	20	n/a
10-31-11H	40	n/a	n/a	40	40	80	n/a	40	40	n/a
10-31-11I	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

10/31/11 RS

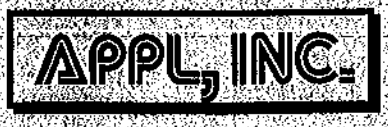
250µg/mL TAPD 10-28-11T Exp:11-04-11	Final Vol wP&T H2O mL
3	50
5	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

Injection Log

Directory: M:\CHICO\DATA\C111030\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1030C13W.D	1	20ug/ml BFB Std 10-19-11	Water 2uL	30 Oct 11 22:01
2	1	1030C15W.D	1	Voc Std 10-30-11@0.3ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 23:28
3	1	1030C16W.D	1	Voc Std 10-30-11@0.5ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 00:11
4	1	1030C17W.D	1	Voc Std 10-30-11@1.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 00:54
5	1	1030C18W.D	1	Voc Std 10-30-11@2.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 1:37
6	1	1030C19W.D	1	Voc Std 10-30-11@5.0ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 2:20
7	1	1030C20W.D	1	Voc Std 10-30-11@10ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 3:03
8	1	1030C21W.D	1	Voc Std 10-30-11@20ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 3:46
9	1	1030C22W.D	1	Voc Std 10-30-11@40ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 4:29
10	1	1030C23W.D	1	Voc Std 10-30-11@100ug/L	Water 10mLw/ IS:10-30-11	31 Oct 11 5:12
11	1	1030C28W.D	1	111030A LCS-1WC (SS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 8:48
12	1	1030C29W.D	1	GAS 300ug/L (SS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 9:31
13	1	1031C01W.D	1	20ug/mL BFB STD10-19-11	Water 2ul	31 Oct 11 19:50
14	1	1031C02W.D	1	Voc Std 10-31-11@10ug/L	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 20:28
15	1	1031C03W.D	1	111031A LCS-1WC	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 21:05
16	1	1031C04W.D	1	111031A CCV-1WC (GAS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 21:42
17	1	1031C05W.D	1	111031A LCS-1WC (GAS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 22:19
18	1	1031C08W.D	1	111031A BLK-1WC	Water 10mLw/ IS&S:10-30/10-26-11	1 Nov 11 00:10
19	1	1031C10W.D	1	AY49483W01	Water 10mLw/ IS&S:10-30/10-26-11	1 Nov 11 1:25
20	1	1031C11W.D	1	AY49481W04	Water 10mLw/ IS&S:10-30/10-26-11	1 Nov 11 2:02
21	1	1031C12W.D	1	AY49482W04	Water 10mLw/ IS&S:10-30/10-26-11	1 Nov 11 2:39

METALS



METALS
QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 11/15/2011 12:57:25 PM

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments: _____

METALS
Sample Data

APPL, INC.

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES050
Sample Collection Date: 10/25/2011

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66116
APPL ID: AY49481

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

Printed: 11/15/2011 12:58:25 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\053SMPL.D\053SMPL.D#
Date Acquired: Nov 11 2011 05:12 pm
Operator: NBS
Sample Name: AY49481W13
Misc Info: 111110A-3015
Vial Number: 3209
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.01	4.26	1000	
11 B	27.82 ug/l	30.91	1.18	1000	
23 Na	41990.00 ug/l	46650.89	0.41	25000	>Cal
24 Mg	18990.00 ug/l	21097.89	0.44	50000	
27 Al	6.11 ug/l	6.79	2.06	20000	
39 K	2667.00 ug/l	2963.04	0.64	20000	
44 Ca	21120.00 ug/l	23464.32	0.31	50000	
47 Ti	0.40 ug/l	0.44	12.87	1000	
51 V	13.09 ug/l	14.54	0.95	1000	
52 Cr	1.92 ug/l	2.14	1.01	1000	
55 Mn	0.30 ug/l	0.34	4.52	1000	
56 Fe	9.15 ug/l	10.17	1.28	20000	
59 Co	-0.21 ug/l	-0.23	2.56	1000	
60 Ni	0.20 ug/l	0.22	9.01	1000	
63 Cu	-0.10 ug/l	-0.11	29.63	1000	
65 Cu	-0.10 ug/l	-0.11	36.81	1000	
66 Zn	2.50 ug/l	2.77	1.88	1000	
75 As	-0.28 ug/l	-0.32	6.39	1000	
78 Se	0.21 ug/l	0.24	4.62	1000	
78 Se	0.27 ug/l	0.30	37.39	1000	
88 Sr	168.50 ug/l	187.20	0.61	1000	
88 Sr	171.90 ug/l	190.98	0.39	1000	
95 Mo	0.31 ug/l	0.35	2.97	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.03 ug/l	0.03	7.78	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.01 ug/l	0.01	21.82	1000	
118 Sn	0.08 ug/l	0.09	11.49	1000	
121 Sb	0.29 ug/l	0.32	5.02	1000	
137 Ba	8.69 ug/l	9.66	0.85	1000	
205 Tl	0.01 ug/l	0.01	13.70	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	-0.18 ug/l	-0.20	2.55	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3071918.00	0.90	2775704.50	110.7	70 - 120	
45 Sc	618612.88	0.32	500780.41	123.5	70 - 120	IS Fai
45 Sc	102632.55	1.50	95494.08	107.5	70 - 120	
45 Sc	1965252.00	0.62	1460980.80	134.5	70 - 120	IS Fai
72 Ge	105366.53	0.74	96219.04	109.5	70 - 120	
72 Ge	48136.11	1.31	43611.78	110.4	70 - 120	
72 Ge	232920.81	0.18	213204.63	109.2	70 - 120	
115 In	1508931.90	0.60	1381264.00	109.2	70 - 120	
159 Tb	2069595.90	0.43	1843940.90	112.2	70 - 120	
165 Ho	2042392.10	0.82	1844184.90	110.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES051
Sample Collection Date: 10/25/2011

ARF: 66116
APPL ID: AY49482

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

Printed: 11/15/2011 12:58:25 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\054SMPL.D\054SMPL.D#
Date Acquired: Nov 11 2011 05:19 pm
Operator: NBS
Sample Name: AY49482W13
Misc Info: 111110A-3015
Vial Number: 3210
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	-0.01	ug/l	-0.01	11.67	1000	
11 B	130.80	ug/l	145.32	1.18	1000	
23 Na	42320.00	ug/l	47017.52	0.42	25000	>Cal
24 Mg	11100.00	ug/l	12332.10	0.57	50000	
27 Al	9.34	ug/l	10.38	0.42	20000	
39 K	1975.00	ug/l	2194.23	0.54	20000	
44 Ca	8999.00	ug/l	9997.89	0.75	50000	
47 Ti	0.72	ug/l	0.80	12.35	1000	
51 V	22.81	ug/l	25.34	0.80	1000	
52 Cr	3.29	ug/l	3.65	1.02	1000	
55 Mn	0.40	ug/l	0.45	1.82	1000	
56 Fe	8.83	ug/l	9.81	1.16	20000	
59 Co	-0.19	ug/l	-0.21	0.98	1000	
60 Ni	0.31	ug/l	0.34	4.28	1000	
63 Cu	-0.33	ug/l	-0.37	5.83	1000	
65 Cu	-0.35	ug/l	-0.39	3.31	1000	
66 Zn	4.66	ug/l	5.18	1.67	1000	
75 As	-0.26	ug/l	-0.29	11.56	1000	
78 Se	0.12	ug/l	0.13	21.91	1000	
78 Se	0.25	ug/l	0.28	8.34	1000	
88 Sr	81.05	ug/l	90.05	0.46	1000	
88 Sr	82.34	ug/l	91.48	0.54	1000	
95 Mo	0.68	ug/l	0.75	5.17	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	0.04	ug/l	0.05	4.87	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	0.02	ug/l	0.02	38.58	1000	
118 Sn	0.26	ug/l	0.29	4.40	1000	
121 Sb	0.26	ug/l	0.29	3.62	1000	
137 Ba	4.47	ug/l	4.97	0.62	1000	
205 Tl	0.01	ug/l	0.02	10.34	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	-0.12	ug/l	-0.13	6.89	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3156819.00	1.53	2775704.50	113.7	70 - 120	
45 Sc	622384.19	1.03	500780.41	124.3	70 - 120	IS Fai
45 Sc	103697.35	1.49	95494.08	108.6	70 - 120	
45 Sc	2011178.80	1.55	1460980.80	137.7	70 - 120	IS Fai
72 Ge	105189.25	1.41	96219.04	109.3	70 - 120	
72 Ge	47683.46	1.84	43611.78	109.3	70 - 120	
72 Ge	234387.94	0.52	213204.63	109.9	70 - 120	
115 In	1517896.50	0.84	1381264.00	109.9	70 - 120	
159 Tb	2061836.30	0.68	1843940.90	111.8	70 - 120	
165 Ho	2060669.90	0.85	1844184.90	111.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

METALS
Calibration Data

APPL, INC.

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66116 SDG: 66116

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 13:03	%R(1)	True CCV1	Found 13:33	%R(1)	
Lead (Pb)	100	106.3	106	50	50.31	101	50	50.34	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66116 SDG: 66116

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 15:05	%R(1)	True CCV1	Found 16:30	%R(1)	
Lead (Pb)	100	106.3	106	50	49.96	99.9	50	50.41	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66116 SDG: 66116

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 18:04	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	106.3	106	50	48.04	96.1				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66116 SDG: 66116

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	12:57		13:09		13:46		15:17		14:16				
Lead (Pb)	.50	U	.50	U	.50	U	.50	U	.19	J	P		

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66116 SDG: 66116

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	12:57		16:42		18:16				14:16		
Lead (Pb)	.50	U	.50	U	.50	U			.19	J	P

A.P.P.L. INC.

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	Environet, Inc.
ARF No.:	66116	SDG:	66116
ICP ID Number:	Optimus	ICS Source:	Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:15	Sol AB 13:21	%R(1)
Lead (Pb)		500	3.499	502	100

(1) Control Limits: Metals 80-120

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\004CAL
Date Acquired: Nov 11 2011 12:08 pm
Operator: NBS
Sample Name: Calibration Blank
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:06 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	2775705.00	A	31080.00	1.12
7	(Li)	152897.91	P	508.10	0.33
9	Be	164.45	P	15.75	9.58
11	B	9503.37	P	213.80	2.25
23	Na	81958.40	P	248.30	0.30
24	Mg	134.45	P	6.94	5.16
27	Al	111.12	P	16.78	15.10
39	K	60334.78	P	2276.00	3.77
44	Ca	384.84	P	48.59	12.63
45	Sc	500780.41	P	2032.00	0.41
45	Sc	95494.08	P	252.60	0.26
45	Sc	1460981.00	A	25510.00	1.75
47	Ti	4.89	P	0.77	15.75
51	V	3955.25	P	110.20	2.79
52	Cr	547.13	P	20.02	3.66
55	Mn	165.78	P	8.57	5.17
56	Fe	5746.57	P	137.00	2.38
59	Co	1492.99	P	62.44	4.18
60	Ni	69.78	P	22.72	32.56
63	Cu	2222.87	P	55.11	2.48
65	Cu	1076.95	P	27.98	2.60
66	Zn	207.12	P	12.10	5.84
72	Ge	96219.04	P	484.10	0.50
72	Ge	43611.78	P	490.40	1.12
72	Ge	213204.59	P	1657.00	0.78
75	As	266.34	P	7.21	2.71
78	Se	4.67	P	1.53	32.74
78	Se	30.00	P	1.16	3.85
88	Sr	48.89	P	8.39	17.16
88	Sr	188.90	P	11.71	6.20
95	Mo	111.12	P	22.69	20.42
106	(Cd)	31.11	P	10.18	32.72
107	Ag	35.56	P	13.47	37.88
108	(Cd)	27.78	P	5.09	18.33
111	Cd	0.12	P	4.33	3513.10
115	In	1381264.00	A	15790.00	1.14
118	Sn	495.58	P	60.50	12.21
121	Sb	323.35	P	35.28	10.91
137	Ba	91.12	P	13.47	14.78
159	Tb	1843941.00	A	33820.00	1.83
165	Ho	1844185.00	A	22050.00	1.20
205	Tl	78.89	P	5.09	6.45
206	(Pb)	1670.17	P	51.97	3.11
207	(Pb)	1455.69	P	79.06	5.43
208	Pb	6738.71	P	70.43	1.05

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\005CALS.D\005CALS.D#
Date Acquired: Nov 11 2011 12:14 pm
Operator: NBS
Sample Name: 111111 Standard 1
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:12 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	2934478.00	A	12100.00	0.41	0.0000
7 (Li)	160812.41	P	1266.00	0.79	0.0000
9 Be	1031.18	P	27.15	2.63	0.0000
11 B	10014.79	P	224.80	2.24	0.0000
23 Na	101764.30	P	5296.00	5.20	0.0000
24 Mg	2436.84	P	56.81	2.33	0.0000
27 Al	465.58	P	50.04	10.75	0.0000
39 K	63456.74	P	1758.00	2.77	0.0000
44 Ca	441.03	P	5.03	1.14	0.0000
45 Sc	483714.81	P	17820.00	3.68	0.0000
45 Sc	96706.18	P	602.60	0.62	0.0000
45 Sc	1494561.00	A	14240.00	0.95	0.0000
47 Ti	16.89	P	3.36	19.87	0.0000
51 V	4556.33	P	51.66	1.13	0.0000
52 Cr	876.48	P	32.73	3.73	0.0000
55 Mn	7451.77	P	52.30	0.70	0.0000
56 Fe	12699.44	P	213.90	1.68	0.0000
59 Co	1820.58	P	82.65	4.54	0.0000
60 Ni	166.23	P	12.10	7.28	0.0000
63 Cu	3334.65	P	61.70	1.85	0.0000
65 Cu	1647.67	P	94.43	5.73	0.0000
66 Zn	231.56	P	11.34	4.90	0.0000
72 Ge	93081.49	P	2181.00	2.34	0.0000
72 Ge	43620.24	P	387.20	0.89	0.0000
72 Ge	210910.70	P	1414.00	0.67	0.0000
75 As	300.78	P	7.07	2.35	0.0000
78 Se	21.00	P	2.60	12.40	0.0000
78 Se	30.33	P	6.33	20.88	0.0000
88 Sr	303.35	P	25.17	8.30	0.0000
88 Sr	1913.54	P	79.67	4.16	0.0000
95 Mo	365.58	P	18.36	4.76	0.0000
106 (Cd)	51.11	P	6.94	13.58	0.0000
107 Ag	447.80	P	37.47	8.37	0.0000
108 (Cd)	28.89	P	17.10	59.19	0.0000
111 Cd	182.07	P	18.49	10.16	0.0000
115 In	1383497.00	A	12980.00	0.94	0.0000
118 Sn	901.17	P	20.10	2.23	0.0000
121 Sb	988.96	P	26.95	2.73	0.0000
137 Ba	304.46	P	49.48	16.25	0.0000
159 Tb	1838841.00	A	19950.00	1.08	0.0000
165 Ho	1842078.00	A	20850.00	1.13	0.0000
205 Tl	1497.92	P	40.19	2.68	0.0000
206 (Pb)	2154.70	P	105.60	4.90	0.0000
207 (Pb)	1842.42	P	104.10	5.65	0.0000
208 Pb	8565.85	P	320.10	3.74	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	2934478.30	0.41	2775704.50	105.7	70 -	120	
45 Sc	483714.78	3.68	500780.41	96.6	70 -	120	
45 Sc	96706.18	0.62	95494.08	101.3	70 -	120	
45 Sc	1494561.00	0.95	1460980.80	102.3	70 -	120	
72 Ge	93081.49	2.34	96219.04	96.7	70 -	120	
72 Ge	43620.24	0.89	43611.78	100.0	70 -	120	
72 Ge	210910.72	0.67	213204.63	98.9	70 -	120	
115 In	1383496.90	0.94	1381264.00	100.2	70 -	120	
159 Tb	1838841.50	1.08	1843940.90	99.7	70 -	120	
165 Ho	1842078.10	1.13	1844184.90	99.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\006CALS.D\006CALS.D#
Date Acquired: Nov 11 2011 12:20 pm
Operator: NBS
Sample Name: 111111 Standard 2
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:18 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3013436.00	A	14250.00	0.47	0.0000
7 (Li)	162843.41	P	655.10	0.40	1.0000
9 Be	10180.43	P	411.30	4.04	1.0000
11 B	16379.42	P	483.40	2.95	1.0000
23 Na	196689.50	P	7056.00	3.59	1.0000
24 Mg	23141.91	P	43.26	0.19	1.0000
27 Al	4021.80	P	226.90	5.64	1.0000
39 K	76357.12	P	2463.00	3.23	1.0000
44 Ca	1793.11	P	71.50	3.99	1.0000
45 Sc	510541.00	P	4569.00	0.89	0.0000
45 Sc	97262.66	P	635.50	0.65	0.0000
45 Sc	1465690.00	A	21530.00	1.47	0.0000
47 Ti	156.45	P	19.06	12.18	1.0000
51 V	8092.54	P	134.80	1.67	1.0000
52 Cr	4117.09	P	42.23	1.03	1.0000
55 Mn	61442.06	P	651.50	1.06	1.0000
56 Fe	82436.36	P	925.30	1.12	1.0000
59 Co	6109.79	P	52.36	0.86	1.0000
60 Ni	1383.64	P	28.30	2.05	1.0000
63 Cu	15516.40	P	233.60	1.51	1.0000
65 Cu	7559.83	P	73.09	0.97	1.0000
66 Zn	1430.31	P	74.87	5.23	1.0000
72 Ge	96818.69	P	1004.00	1.04	0.0000
72 Ge	44609.64	P	326.50	0.73	0.0000
72 Ge	203708.30	P	1751.00	0.86	0.0000
75 As	639.35	P	17.53	2.74	1.0000
78 Se	175.22	P	7.34	4.19	1.0000
78 Se	61.11	P	6.83	8.43	1.0000
88 Sr	3138.24	P	234.10	7.46	1.0000
88 Sr	17034.09	P	556.30	3.27	1.0000
95 Mo	3096.01	P	35.02	1.13	1.0000
106 (Cd)	180.01	P	18.56	10.31	1.0000
107 Ag	4028.49	P	77.05	1.91	1.0000
108 (Cd)	138.89	P	13.47	9.70	1.0000
111 Cd	1685.97	P	41.67	2.47	1.0000
115 In	1324038.00	A	6932.00	0.52	0.0000
118 Sn	5423.48	P	180.10	3.32	1.0000
121 Sb	6328.31	P	130.20	2.06	1.0000
137 Ba	2328.06	P	139.60	6.00	1.0000
159 Tb	1820559.00	A	17780.00	0.98	0.0000
165 Ho	1818461.00	A	19460.00	1.07	0.0000
205 Tl	15160.28	P	220.10	1.45	1.0000
206 (Pb)	7664.74	P	91.74	1.20	1.0000
207 (Pb)	7014.34	P	72.68	1.04	1.0000
208 Pb	31156.53	P	401.40	1.29	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3013436.30	0.47	2775704.50	108.6	70 -	120	
45 Sc	510541.06	0.89	500780.41	101.9	70 -	120	
45 Sc	97262.66	0.65	95494.08	101.9	70 -	120	
45 Sc	1465690.00	1.47	1460980.80	100.3	70 -	120	
72 Ge	96818.70	1.04	96219.04	100.6	70 -	120	
72 Ge	44609.64	0.73	43611.78	102.3	70 -	120	
72 Ge	203708.33	0.86	213204.63	95.5	70 -	120	
115 In	1324038.00	0.52	1381264.00	95.9	70 -	120	
159 Tb	1820559.10	0.98	1843940.90	98.7	70 -	120	
165 Ho	1818460.60	1.07	1844184.90	98.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALS.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\007CALS.D\007CALS.D#
Date Acquired: Nov 11 2011 12:27 pm
Operator: NBS
Sample Name: 111111 Standard 3
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:24 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3129745.00	A	45260.00	1.45	0.0000
7 (Li)	169858.91	P	576.50	0.34	0.7236
9 Be	529831.50	P	2404.00	0.45	0.9999
11 B	352525.41	P	4097.00	1.16	0.9985
23 Na	1470286.00	A	17010.00	1.16	0.9979
24 Mg	1292682.00	A	17130.00	1.33	1.0000
27 Al	182025.00	P	2356.00	1.29	1.0000
39 K	502725.09	P	1262.00	0.25	0.9983
44 Ca	52265.13	P	789.60	1.51	0.9983
45 Sc	522323.31	P	4813.00	0.92	0.0000
45 Sc	98761.96	P	1402.00	1.42	0.0000
45 Sc	1523925.00	A	17440.00	1.14	0.0000
47 Ti	6316.10	P	62.52	0.99	0.9998
51 V	161320.00	P	2272.00	1.41	0.9994
52 Cr	179336.20	P	1262.00	0.70	1.0000
55 Mn	136966.41	P	806.40	0.59	0.9998
56 Fe	3466730.00	A	34680.00	1.00	1.0000
59 Co	254063.59	P	2599.00	1.02	0.9995
60 Ni	64869.86	P	659.40	1.02	0.9997
63 Cu	172209.41	P	983.40	0.57	0.9999
65 Cu	82567.48	P	346.90	0.42	1.0000
66 Zn	30294.80	P	353.70	1.17	0.9973
72 Ge	98255.19	P	550.50	0.56	0.0000
72 Ge	46262.58	P	34.38	0.07	0.0000
72 Ge	211131.20	P	2095.00	0.99	0.0000
75 As	20258.79	P	48.21	0.24	1.0000
78 Se	8196.34	P	137.70	1.68	1.0000
78 Se	2352.20	P	19.65	0.84	0.9963
88 Sr	152226.41	P	2676.00	1.76	0.9999
88 Sr	853159.19	P	3826.00	0.45	1.0000
95 Mo	152546.09	P	1308.00	0.86	0.9999
106 (Cd)	7779.08	P	43.36	0.56	0.9995
107 Ag	203275.00	P	1362.00	0.67	1.0000
108 (Cd)	5850.30	P	115.70	1.98	0.9966
111 Cd	85595.10	P	417.50	0.49	1.0000
115 In	1359449.00	A	15030.00	1.11	0.0000
118 Sn	233787.30	P	2145.00	0.92	0.9998
121 Sb	303264.81	P	1162.00	0.38	1.0000
137 Ba	112289.00	P	1153.00	1.03	1.0000
159 Tb	1852128.00	A	3859.00	0.21	0.0000
165 Ho	1866389.00	A	18420.00	0.99	0.0000
205 Tl	767163.63	P	3647.00	0.48	1.0000
206 (Pb)	267422.81	P	439.20	0.16	0.9998
207 (Pb)	229702.30	P	967.40	0.42	0.9996
208 Pb	1066559.00	P	3421.00	0.32	0.9997

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3129745.00	1.45	2775704.50	112.8	70 -	120	
45 Sc	522323.34	0.92	500780.41	104.3	70 -	120	
45 Sc	98761.96	1.42	95494.08	103.4	70 -	120	
45 Sc	1523925.40	1.14	1460980.80	104.3	70 -	120	
72 Ge	98255.19	0.56	96219.04	102.1	70 -	120	
72 Ge	46262.59	0.07	43611.78	106.1	70 -	120	
72 Ge	211131.19	0.99	213204.63	99.0	70 -	120	
115 In	1359449.00	1.11	1381264.00	98.4	70 -	120	
159 Tb	1852128.10	0.21	1843940.90	100.4	70 -	120	
165 Ho	1866389.00	0.99	1844184.90	101.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALS.D\004CALS.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\008CALS.D\008CALS.D#
Date Acquired: Nov 11 2011 12:33 pm
Operator: NBS
Sample Name: 111111 Standard 4
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3091825.00	A	34660.00	1.12	0.0000
7 (Li)	169207.09	P	2476.00	1.46	0.7966
9 Be	1184909.00	A	5168.00	0.44	1.0000
11 B	825041.63	A	8516.00	1.03	1.0000
23 Na	2686206.00	A	10730.00	0.40	0.9984
24 Mg	2535966.00	A	10300.00	0.41	1.0000
27 Al	366543.31	P	3283.00	0.90	1.0000
39 K	1039409.00	A	8793.00	0.85	0.9999
44 Ca	104136.20	P	1221.00	1.17	1.0000
45 Sc	526807.38	P	1501.00	0.28	0.0000
45 Sc	100637.20	P	272.50	0.27	0.0000
45 Sc	1546820.00	A	41280.00	2.67	0.0000
47 Ti	12883.09	P	335.40	2.60	1.0000
51 V	324487.59	P	1452.00	0.45	1.0000
52 Cr	360663.69	P	2389.00	0.66	1.0000
55 Mn	247566.30	P	2862.00	1.16	0.9063
56 Fe	6831163.00	A	89870.00	1.32	1.0000
59 Co	505973.59	P	1092.00	0.22	1.0000
60 Ni	128756.60	P	486.80	0.38	1.0000
63 Cu	331294.91	P	1236.00	0.37	0.9984
65 Cu	158678.41	P	595.70	0.38	0.9983
66 Zn	58476.31	P	247.90	0.42	0.9998
72 Ge	100101.50	P	582.20	0.58	0.0000
72 Ge	46752.66	P	94.61	0.20	0.0000
72 Ge	215920.09	P	4942.00	2.29	0.0000
75 As	41314.20	P	335.50	0.81	1.0000
78 Se	16782.86	P	111.00	0.66	1.0000
78 Se	4841.04	P	45.62	0.94	1.0000
88 Sr	308415.19	P	2179.00	0.71	1.0000
88 Sr	1836004.00	A	12020.00	0.65	1.0000
95 Mo	308376.41	P	620.60	0.20	1.0000
106 (Cd)	15606.90	P	85.03	0.54	1.0000
107 Ag	402429.69	P	2133.00	0.53	1.0000
108 (Cd)	11351.61	P	175.20	1.54	1.0000
111 Cd	169137.09	P	1111.00	0.66	1.0000
115 In	1356694.00	A	39030.00	2.88	0.0000
118 Sn	461432.81	P	1252.00	0.27	1.0000
121 Sb	616792.50	P	2811.00	0.46	1.0000
137 Ba	224905.80	P	424.60	0.19	1.0000
159 Tb	1896056.00	A	51090.00	2.69	0.0000
165 Ho	1892444.00	A	47210.00	2.49	0.0000
205 Tl	1621888.00	A	15450.00	0.95	1.0000
206 (Pb)	524239.50	P	2392.00	0.46	1.0000
207 (Pb)	454785.81	P	2844.00	0.63	1.0000
208 Pb	2164409.00	A	4337.00	0.20	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3091824.50	1.12	2775704.50	111.4	70 -	120	
45 Sc	526807.44	0.28	500780.41	105.2	70 -	120	
45 Sc	100637.22	0.27	95494.08	105.4	70 -	120	
45 Sc	1546819.60	2.67	1460980.80	105.9	70 -	120	
72 Ge	100101.52	0.58	96219.04	104.0	70 -	120	
72 Ge	46752.66	0.20	43611.78	107.2	70 -	120	
72 Ge	215920.11	2.29	213204.63	101.3	70 -	120	
115 In	1356693.50	2.88	1381264.00	98.2	70 -	120	
159 Tb	1896055.90	2.69	1843940.90	102.8	70 -	120	
165 Ho	1892443.90	2.49	1844184.90	102.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\009_QCS.D\009_QCS.D#
Date Acquired: Nov 11 2011 12:39 pm
Operator: NBS
Sample Name: ICV 111111
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	100.00	90 - 110	
9 Be	107.60 ug/l	0.95	100.00	90 - 110	
11 B	105.70 ug/l	0.67	100.00	90 - 110	
23 Na	2518.00 ug/l	0.81	2500.00	90 - 110	
24 Mg	2533.00 ug/l	0.67	2500.00	90 - 110	
27 Al	2547.00 ug/l	1.32	2500.00	90 - 110	
39 K	2615.00 ug/l	0.71	2500.00	90 - 110	
44 Ca	2519.00 ug/l	0.47	2500.00	90 - 110	
47 Ti	97.29 ug/l	0.90	100.00	90 - 110	
51 V	103.40 ug/l	0.55	100.00	90 - 110	
52 Cr	106.50 ug/l	0.63	100.00	90 - 110	
55 Mn	106.70 ug/l	0.21	100.00	90 - 110	
56 Fe	2516.00 ug/l	1.06	2500.00	90 - 110	
59 Co	104.60 ug/l	0.25	100.00	90 - 110	
60 Ni	104.70 ug/l	0.28	100.00	90 - 110	
63 Cu	102.50 ug/l	1.70	100.00	90 - 110	
65 Cu	102.20 ug/l	1.45	100.00	90 - 110	
66 Zn	104.10 ug/l	1.10	100.00	90 - 110	
75 As	98.86 ug/l	1.38	100.00	90 - 110	
78 Se	103.60 ug/l	1.81	100.00	90 - 110	
78 Se	104.10 ug/l	2.03	100.00	90 - 110	
88 Sr	101.20 ug/l	1.63	100.00	90 - 110	
88 Sr	104.30 ug/l	0.60	100.00	90 - 110	
95 Mo	96.15 ug/l	1.35	100.00	90 - 110	
106 (Cd)	-------- ug/l	--------	100.00	90 - 110	
107 Ag	46.26 ug/l	0.71	50.00	90 - 110	
108 (Cd)	-------- ug/l	--------	100.00	90 - 110	
111 Cd	103.60 ug/l	0.47	100.00	90 - 110	
118 Sn	43.82 ug/l	0.17	50.00	90 - 110	Fail
121 Sb	102.70 ug/l	0.18	100.00	90 - 110	
137 Ba	99.56 ug/l	0.34	100.00	90 - 110	
205 Tl	106.40 ug/l	1.20	100.00	90 - 110	
206 (Pb)	-------- ug/l	--------	100.00	90 - 110	
207 (Pb)	-------- ug/l	--------	100.00	90 - 110	
208 Pb	106.30 ug/l	0.89	100.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3157481.00	0.39	2775704.50	113.8	70 - 120	
45 Sc	523431.13	0.16	500780.41	104.5	70 - 120	
45 Sc	100384.52	0.40	95494.08	105.1	70 - 120	
45 Sc	1532510.60	0.50	1460980.80	104.9	70 - 120	
72 Ge	99727.78	0.25	96219.04	103.6	70 - 120	
72 Ge	46938.75	0.91	43611.78	107.6	70 - 120	
72 Ge	212917.78	0.32	213204.63	99.9	70 - 120	
115 In	1371120.50	0.09	1381264.00	99.3	70 - 120	
159 Tb	1873353.00	0.83	1843940.90	101.6	70 - 120	
165 Ho	1868336.50	1.05	1844184.90	101.3	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\012_CCB.D\012_CCB.D#
Date Acquired: Nov 11 2011 12:57 pm
Operator: NBS
Sample Name: ICB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#VALUE!	
9 Be	0.00	ug/l	64.25	0.12	
11 B	0.03	ug/l	45.15	15.00	
23 Na	7.71	ug/l	8.18	77.10	
24 Mg	0.10	ug/l	55.44	7.50	
27 Al	0.09	ug/l	51.89	3.96	
39 K	-16.07	ug/l	31.35	19.20	
44 Ca	2.26	ug/l	102.26	90.00	
47 Ti	0.02	ug/l	221.48	0.78	
51 V	0.57	ug/l	2.59	0.21	Fail
52 Cr	0.01	ug/l	92.18	0.12	
55 Mn	0.00	ug/l	249.24	0.18	
56 Fe	0.25	ug/l	4.89	40.80	
59 Co	-0.25	ug/l	1.58	0.09	
60 Ni	0.00	ug/l	280.61	0.48	
63 Cu	-0.13	ug/l	3.22	0.39	
65 Cu	-0.13	ug/l	16.74	0.39	
66 Zn	-0.01	ug/l	406.21	6.90	
75 As	-0.09	ug/l	15.13	0.27	
78 Se	0.01	ug/l	58.10	0.30	
78 Se	0.05	ug/l	139.53	0.30	
88 Sr	0.00	ug/l	1034.40	0.03	
88 Sr	0.00	ug/l	24.09	0.03	
95 Mo	0.03	ug/l	16.72	0.21	
106 (Cd)	--------	ug/l	--------	#VALUE!	
107 Ag	0.00	ug/l	50.39	0.09	
108 (Cd)	--------	ug/l	--------	#VALUE!	
111 Cd	0.01	ug/l	58.78	0.06	
118 Sn	0.03	ug/l	55.51	0.30	
121 Sb	0.13	ug/l	5.57	0.03	Fail
137 Ba	0.01	ug/l	116.79	0.12	
205 Tl	0.01	ug/l	38.28	0.03	
206 (Pb)	--------	ug/l	--------	#VALUE!	
207 (Pb)	--------	ug/l	--------	#VALUE!	
208 Pb	-0.20	ug/l	0.78	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3073279.00	0.84	2775704.50	110.7	70 - 120	
45 Sc	545909.38	3.12	500780.41	109.0	70 - 120	
45 Sc	100165.70	0.44	95494.08	104.9	70 - 120	
45 Sc	1499557.30	0.22	1460980.80	102.6	70 - 120	
72 Ge	101795.60	2.62	96219.04	105.8	70 - 120	
72 Ge	46734.16	0.18	43611.78	107.2	70 - 120	
72 Ge	210654.83	0.54	213204.63	98.8	70 - 120	
115 In	1336860.30	0.89	1381264.00	96.8	70 - 120	
159 Tb	1857728.00	1.11	1843940.90	100.7	70 - 120	
165 Ho	1856236.60	1.27	1844184.90	100.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\013_CCV.D\013_CCV.D#
Date Acquired: Nov 11 2011 01:03 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.86	ug/l	1.99	50.00	90 -	110	
11 B	43.69	ug/l	2.15	50.00	90 -	110	Fail
23 Na	1276.00	ug/l	1.53	1250.00	90 -	110	
24 Mg	2559.00	ug/l	1.05	2500.00	90 -	110	
27 Al	1001.00	ug/l	1.70	1000.00	90 -	110	
39 K	917.90	ug/l	1.26	1000.00	90 -	110	
44 Ca	2498.00	ug/l	1.41	2500.00	90 -	110	
47 Ti	49.40	ug/l	0.95	50.00	90 -	110	
51 V	50.61	ug/l	1.18	50.00	90 -	110	
52 Cr	50.27	ug/l	1.38	50.00	90 -	110	
55 Mn	54.78	ug/l	1.56	50.00	90 -	110	
56 Fe	1027.00	ug/l	1.77	1000.00	90 -	110	
59 Co	50.74	ug/l	0.93	50.00	90 -	110	
60 Ni	50.88	ug/l	1.81	50.00	90 -	110	
63 Cu	50.81	ug/l	0.58	50.00	90 -	110	
65 Cu	50.69	ug/l	0.50	50.00	90 -	110	
66 Zn	51.32	ug/l	0.03	50.00	90 -	110	
75 As	49.12	ug/l	0.62	50.00	90 -	110	
78 Se	50.32	ug/l	1.71	50.00	90 -	110	
78 Se	49.06	ug/l	1.10	50.00	90 -	110	
88 Sr	49.93	ug/l	0.31	50.00	90 -	110	
88 Sr	47.83	ug/l	0.44	50.00	90 -	110	
95 Mo	50.08	ug/l	0.70	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.63	ug/l	0.57	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	50.07	ug/l	1.49	50.00	90 -	110	
118 Sn	50.35	ug/l	0.28	50.00	90 -	110	
121 Sb	49.48	ug/l	0.77	50.00	90 -	110	
137 Ba	49.18	ug/l	0.66	50.00	90 -	110	
205 Tl	48.89	ug/l	0.40	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.31	ug/l	0.14	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3009330.80	0.85	2775704.50	108.4	70 -	120	
45 Sc	502422.56	3.92	500780.41	100.3	70 -	120	
45 Sc	98428.88	1.42	95494.08	103.1	70 -	120	
45 Sc	1480640.80	1.02	1460980.80	101.3	70 -	120	
72 Ge	97237.93	2.52	96219.04	101.1	70 -	120	
72 Ge	46537.16	0.17	43611.78	106.7	70 -	120	
72 Ge	206334.70	0.20	213204.63	96.8	70 -	120	
115 In	1333758.10	0.36	1381264.00	96.6	70 -	120	
159 Tb	1832635.60	0.51	1843940.90	99.4	70 -	120	
165 Ho	1824652.90	0.58	1844184.90	98.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\014_CCB.D\014_CCB.D#
Date Acquired: Nov 11 2011 01:09 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	75.05	0.12	
11 B	0.19 ug/l	2.24	15.00	
23 Na	3.09 ug/l	28.12	77.10	
24 Mg	0.17 ug/l	59.53	7.50	
27 Al	0.11 ug/l	49.92	3.96	
39 K	-13.77 ug/l	41.47	19.20	
44 Ca	1.49 ug/l	82.56	90.00	
47 Ti	0.00 ug/l	584.34	0.78	
51 V	0.76 ug/l	2.01	0.21	Fail
52 Cr	0.02 ug/l	22.00	0.12	
55 Mn	0.01 ug/l	26.62	0.18	
56 Fe	0.44 ug/l	10.30	40.80	
59 Co	-0.27 ug/l	0.49	0.09	
60 Ni	0.00 ug/l	169.21	0.48	
63 Cu	-0.16 ug/l	12.22	0.39	
65 Cu	-0.16 ug/l	4.20	0.39	
66 Zn	0.03 ug/l	67.54	6.90	
75 As	-0.03 ug/l	60.04	0.27	
78 Se	0.10 ug/l	23.77	0.30	
78 Se	0.02 ug/l	138.81	0.30	
88 Sr	0.00 ug/l	574.89	0.03	
88 Sr	0.00 ug/l	33.45	0.03	
95 Mo	0.10 ug/l	2.35	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	6.78	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	137.32	0.06	
118 Sn	0.06 ug/l	31.67	0.30	
121 Sb	0.69 ug/l	6.56	0.03	Fail
137 Ba	0.01 ug/l	127.23	0.12	
205 Tl	0.02 ug/l	7.09	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.21 ug/l	0.72	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980962.00	0.72	2775704.50	107.4	70 - 120	
45 Sc	505025.28	3.19	500780.41	100.8	70 - 120	
45 Sc	97675.82	0.75	95494.08	102.3	70 - 120	
45 Sc	1485366.30	0.36	1460980.80	101.7	70 - 120	
72 Ge	97202.46	2.05	96219.04	101.0	70 - 120	
72 Ge	45665.85	0.21	43611.78	104.7	70 - 120	
72 Ge	205716.23	0.30	213204.63	96.5	70 - 120	
115 In	1321174.40	0.50	1381264.00	95.6	70 - 120	
159 Tb	1807747.90	0.40	1843940.90	98.0	70 - 120	
165 Ho	1813776.00	0.73	1844184.90	98.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\11K1100.B\015ICSA.D\015ICSA.D#
Date Acquired: Nov 11 2011 01:15 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSA 111111
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSA
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit ppb	Flag
7 (Li)	---	3	--------	ug/l	--------		
9 Be	45	3	0.83	ug/l	2.55		
11 B	45	3	1.56	ug/l	2.76		
23 Na	45	2	93250.00	ug/l	0.74		
24 Mg	45	2	91170.00	ug/l	1.03		
27 Al	45	2	104800.00	ug/l	1.31		
39 K	45	2	95010.00	ug/l	0.86		
44 Ca	45	2	101900.00	ug/l	1.03		
47 Ti	45	2	1961.00	ug/l	0.73		
51 V	45	2	2.53	ug/l	1.39		
52 Cr	45	2	2.35	ug/l	1.68		
55 Mn	45	2	7.50	ug/l	0.84		
56 Fe	45	2	92610.00	ug/l	0.44		
59 Co	45	2	20.49	ug/l	0.58		
60 Ni	45	2	3.86	ug/l	0.68		
63 Cu	72	2	1.60	ug/l	2.77		
65 Cu	72	2	1.70	ug/l	4.01		
66 Zn	72	2	5.11	ug/l	1.25		
75 As	72	2	1.55	ug/l	3.09		
78 Se	72	1	1.07	ug/l	5.94		
78 Se	72	2	1.16	ug/l	9.00		
88 Sr	72	2	1.41	ug/l	4.62		
88 Sr	72	3	1.37	ug/l	1.32		
98 Mo	72	3	1834.00	ug/l	1.74		
106 (Cd)	---	3	--------	ug/l	--------		
107 Ag	115	3	1.97	ug/l	1.05		
108 (Cd)	---	3	--------	ug/l	--------		
111 Cd	115	3	2.42	ug/l	3.67		
118 Sn	115	3	1.18	ug/l	1.50		
121 Sb	115	3	1.93	ug/l	2.34		
137 Ba	115	3	3.88	ug/l	2.04		
205 Tl	159	3	1.62	ug/l	1.90		
206 (Pb)	---	3	--------	ug/l	--------		
207 (Pb)	---	3	--------	ug/l	--------		
208 Pb	159	3	3.50	ug/l	0.41		

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2777926	0.73	2775705	100.1	70 - 120	
45 Sc	1	527513	3.31	500780	105.3	70 - 120	
45 Sc	2	94664	0.69	95494	99.1	70 - 120	
45 Sc	3	1465735	0.50	1460981	100.3	70 - 120	
72 Ge	1	98457	2.56	96219	102.3	70 - 120	
72 Ge	2	46798	1.22	43612	107.3	70 - 120	
72 Ge	3	216093	0.53	213205	101.4	70 - 120	
115 In	3	1235992	0.56	1381264	89.5	70 - 120	
159 Tb	3	1778881	0.42	1843941	96.5	70 - 120	
165 Ho	3	1783575	1.04	1844185	96.7	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogae.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K1100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\016ICSB.D\016ICSB.D#
Date Acquired: Nov 11 2011 01:21 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSAB 111111
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSAB
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	--------	--------	---		-	
9 Be	45	3	246.60	1.11	250	98.6	80 - 120	
11 B	45	3	1.63	0.34	---		-	
23 Na	45	2	96100.00	0.19	---		-	
24 Mg	45	2	93890.00	0.39	---		-	
27 Al	45	2	107500.00	1.06	---		-	
39 K	45	2	97710.00	0.66	---		-	
44 Ca	45	2	105500.00	1.05	---		-	
47 Ti	45	2	2014.00	0.31	2000	100.7	80 - 120	
51 V	45	2	267.30	0.98	250	106.9	80 - 120	
52 Cr	45	2	270.40	2.94	250	108.2	80 - 120	
55 Mn	45	2	264.30	0.56	250	105.7	80 - 120	
56 Fe	45	2	94360.00	0.20	---		-	
59 Co	45	2	282.40	0.78	250	113.0	80 - 120	
60 Ni	45	2	481.90	0.90	500	96.4	80 - 120	
63 Cu	72	2	218.20	1.17	250	87.3	80 - 120	
65 Cu	72	2	218.60	0.91	250	87.4	80 - 120	
66 Zn	72	2	513.60	0.37	500	102.7	80 - 120	
75 As	72	2	239.20	0.52	250	95.7	80 - 120	
78 Se	72	1	251.50	0.86	250	100.6	80 - 120	
78 Se	72	2	233.50	0.80	250	93.4	80 - 120	
88 Sr	72	2	1.62	0.60	---		-	
88 Sr	72	3	1.51	0.87	---		-	
95 Mo	72	3	2131.00	0.52	2000	106.6	80 - 120	
106 (Cd)	---	3	--------	--------	---		-	
107 Ag	115	3	535.90	1.10	500	107.2	80 - 120	
108 (Cd)	---	3	--------	--------	---		-	
111 Cd	115	3	495.00	0.98	500	99.0	80 - 120	
118 Sn	115	3	1.45	2.79	---		-	
121 Sb	115	3	274.60	0.82	250	109.8	80 - 120	
137 Ba	115	3	271.00	0.98	250	108.4	80 - 120	
205 Tl	159	3	252.50	0.03	250	101.0	80 - 120	
206 (Pb)	---	3	--------	--------	---		-	
207 (Pb)	---	3	--------	--------	---		-	
208 Pb	159	3	502.00	0.13	500	100.4	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2732517	0.30	2775705	98.4	70 - 120	
45 Sc	1	511020	0.99	500780	102.0	70 - 120	
45 Sc	2	93932	0.16	95494	98.4	70 - 120	
45 Sc	3	1418244	0.91	1460981	97.1	70 - 120	
72 Ge	1	96432	0.78	96219	100.2	70 - 120	
72 Ge	2	46185	0.98	43612	105.9	70 - 120	
72 Ge	3	209601	0.65	213205	98.3	70 - 120	
115 In	3	1203221	0.93	1381264	87.1	70 - 120	
159 Tb	3	1775149	0.42	1843941	96.3	70 - 120	
165 Ho	3	1779108	0.39	1844185	96.5	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\018_CCV.D\018_CCV.D#
Date Acquired: Nov 11 2011 01:33 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.54	ug/l	0.43	50.00	90 -	110	
11 B	42.52	ug/l	0.69	50.00	90 -	110	Fail
23 Na	1232.00	ug/l	0.90	1250.00	90 -	110	
24 Mg	2553.00	ug/l	1.13	2500.00	90 -	110	
27 Al	1002.00	ug/l	1.24	1000.00	90 -	110	
39 K	910.10	ug/l	0.77	1000.00	90 -	110	
44 Ca	2506.00	ug/l	0.99	2500.00	90 -	110	
47 Ti	49.11	ug/l	2.38	50.00	90 -	110	
51 V	50.62	ug/l	1.42	50.00	90 -	110	
52 Cr	49.48	ug/l	1.20	50.00	90 -	110	
55 Mn	54.25	ug/l	1.47	50.00	90 -	110	
56 Fe	1014.00	ug/l	0.73	1000.00	90 -	110	
59 Co	50.51	ug/l	0.59	50.00	90 -	110	
60 Ni	50.70	ug/l	1.36	50.00	90 -	110	
63 Cu	49.70	ug/l	0.40	50.00	90 -	110	
65 Cu	49.73	ug/l	0.19	50.00	90 -	110	
66 Zn	49.96	ug/l	0.97	50.00	90 -	110	
75 As	48.64	ug/l	0.06	50.00	90 -	110	
78 Se	48.54	ug/l	0.17	50.00	90 -	110	
78 Se	48.82	ug/l	0.30	50.00	90 -	110	
88 Sr	49.77	ug/l	0.41	50.00	90 -	110	
88 Sr	48.29	ug/l	0.56	50.00	90 -	110	
95 Mo	51.00	ug/l	1.55	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	25.03	ug/l	0.97	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.94	ug/l	1.03	50.00	90 -	110	
118 Sn	51.03	ug/l	1.26	50.00	90 -	110	
121 Sb	50.47	ug/l	0.55	50.00	90 -	110	
137 Ba	50.01	ug/l	0.80	50.00	90 -	110	
205 Tl	48.64	ug/l	0.31	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.34	ug/l	1.15	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3132762.00	0.73	2775704.50	112.9	70 -	120	
45 Sc	534639.31	0.21	500780.41	106.8	70 -	120	
45 Sc	99077.84	0.49	95494.08	103.8	70 -	120	
45 Sc	1513729.60	0.46	1460980.80	103.6	70 -	120	
72 Ge	102211.11	0.47	96219.04	106.2	70 -	120	
72 Ge	47244.57	0.27	43611.78	108.3	70 -	120	
72 Ge	214737.88	0.60	213204.63	100.7	70 -	120	
115 In	1389034.00	1.09	1381264.00	100.6	70 -	120	
159 Tb	1908915.90	0.41	1843940.90	103.5	70 -	120	
165 Ho	1921136.40	0.48	1844184.90	104.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\020_CCB.D\020_CCB.D#
Date Acquired: Nov 11 2011 01:46 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	342.89	0.12	
11 B	-0.21 ug/l	27.87	15.00	
23 Na	-22.55 ug/l	2.00	77.10	
24 Mg	0.32 ug/l	24.61	7.50	
27 Al	0.31 ug/l	30.94	3.96	
39 K	-13.04 ug/l	28.54	19.20	
44 Ca	-2.47 ug/l	54.66	90.00	
47 Ti	0.02 ug/l	115.52	0.78	
51 V	1.17 ug/l	4.59	0.21	Fail
52 Cr	0.01 ug/l	119.76	0.12	
55 Mn	0.00 ug/l	605.19	0.18	
56 Fe	0.83 ug/l	6.77	40.80	
59 Co	-0.30 ug/l	0.59	0.09	
60 Ni	0.00 ug/l	211.25	0.48	
63 Cu	-0.31 ug/l	1.69	0.39	
65 Cu	-0.31 ug/l	4.87	0.39	
66 Zn	0.00 ug/l	866.90	6.90	
75 As	-0.07 ug/l	27.14	0.27	
78 Se	0.03 ug/l	41.10	0.30	
78 Se	0.07 ug/l	100.62	0.30	
88 Sr	0.00 ug/l	114.02	0.03	
88 Sr	0.00 ug/l	18.44	0.03	
95 Mo	0.09 ug/l	4.01	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.01 ug/l	12.14	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	1077.10	0.06	
118 Sn	0.03 ug/l	30.18	0.30	
121 Sb	0.29 ug/l	4.29	0.03	Fail
137 Ba	0.01 ug/l	115.49	0.12	
205 Tl	0.01 ug/l	19.13	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.21 ug/l	1.63	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3042523.00	0.11	2775704.50	109.6	70 - 120	
45 Sc	529492.56	0.66	500780.41	105.7	70 - 120	
45 Sc	97690.27	0.93	95494.08	102.3	70 - 120	
45 Sc	1482243.40	0.75	1460980.80	101.5	70 - 120	
72 Ge	101254.01	0.60	96219.04	105.2	70 - 120	
72 Ge	46065.66	0.31	43611.78	105.6	70 - 120	
72 Ge	210454.86	0.84	213204.63	98.7	70 - 120	
115 In	1353362.30	0.71	1381264.00	98.0	70 - 120	
159 Tb	1859786.10	0.52	1843940.90	100.9	70 - 120	
165 Ho	1863063.90	0.81	1844184.90	101.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\032_CCV.D\032_CCV.D#
Date Acquired: Nov 11 2011 03:05 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	50.00	90 - 110	
9 Be	45.98 ug/l	0.90	50.00	90 - 110	
11 B	43.38 ug/l	1.83	50.00	90 - 110	Fail
23 Na	1250.00 ug/l	2.32	1250.00	90 - 110	
24 Mg	2541.00 ug/l	1.13	2500.00	90 - 110	
27 Al	992.10 ug/l	1.33	1000.00	90 - 110	
39 K	905.50 ug/l	1.76	1000.00	90 - 110	
44 Ca	2473.00 ug/l	1.61	2500.00	90 - 110	
47 Ti	49.01 ug/l	0.71	50.00	90 - 110	
51 V	50.64 ug/l	0.61	50.00	90 - 110	
52 Cr	49.61 ug/l	0.94	50.00	90 - 110	
55 Mn	54.01 ug/l	0.87	50.00	90 - 110	
56 Fe	1013.00 ug/l	1.52	1000.00	90 - 110	
59 Co	50.36 ug/l	0.94	50.00	90 - 110	
60 Ni	51.02 ug/l	1.41	50.00	90 - 110	
63 Cu	49.96 ug/l	0.98	50.00	90 - 110	
65 Cu	49.87 ug/l	0.48	50.00	90 - 110	
66 Zn	50.14 ug/l	1.34	50.00	90 - 110	
75 As	48.56 ug/l	0.79	50.00	90 - 110	
78 Se	47.94 ug/l	1.13	50.00	90 - 110	
78 Se	48.27 ug/l	2.37	50.00	90 - 110	
88 Sr	50.07 ug/l	0.24	50.00	90 - 110	
88 Sr	46.85 ug/l	0.80	50.00	90 - 110	
95 Mo	48.88 ug/l	0.75	50.00	90 - 110	
106 (Cd)	-------- ug/l	--------	50.00	90 - 110	
107 Ag	24.26 ug/l	1.57	25.00	90 - 110	
108 (Cd)	-------- ug/l	--------	50.00	90 - 110	
111 Cd	49.33 ug/l	0.71	50.00	90 - 110	
118 Sn	50.24 ug/l	1.40	50.00	90 - 110	
121 Sb	49.54 ug/l	1.18	50.00	90 - 110	
137 Ba	49.63 ug/l	2.49	50.00	90 - 110	
205 Tl	48.65 ug/l	0.58	50.00	90 - 110	
206 (Pb)	-------- ug/l	--------	50.00	90 - 110	
207 (Pb)	-------- ug/l	--------	50.00	90 - 110	
208 Pb	49.96 ug/l	0.90	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3188763.30	1.52	2775704.50	114.9	70 - 120	
45 Sc	530164.38	0.11	500780.41	105.9	70 - 120	
45 Sc	96337.35	1.21	95494.08	100.9	70 - 120	
45 Sc	1476239.00	1.18	1460980.80	101.0	70 - 120	
72 Ge	102958.30	0.45	96219.04	107.0	70 - 120	
72 Ge	45995.51	1.09	43611.78	105.5	70 - 120	
72 Ge	211979.86	0.56	213204.63	99.4	70 - 120	
115 In	1355180.90	1.54	1381264.00	98.1	70 - 120	
159 Tb	1863114.30	0.80	1843940.90	101.0	70 - 120	
165 Ho	1880561.90	0.45	1844184.90	102.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\034_CCB.D\034_CCB.D#
Date Acquired: Nov 11 2011 03:17 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	69.30	0.12	
11 B	-0.21 ug/l	1.18	15.00	
23 Na	-12.29 ug/l	7.14	77.10	
24 Mg	0.25 ug/l	17.30	7.50	
27 Al	0.17 ug/l	52.39	3.96	
39 K	-13.38 ug/l	34.73	19.20	
44 Ca	-0.64 ug/l	345.23	90.00	
47 Ti	0.01 ug/l	249.07	0.78	
51 V	1.42 ug/l	3.15	0.21	Fail
52 Cr	0.03 ug/l	9.62	0.12	
55 Mn	0.01 ug/l	149.75	0.18	
56 Fe	0.83 ug/l	6.84	40.80	
59 Co	-0.29 ug/l	0.85	0.09	
60 Ni	-0.01 ug/l	222.72	0.48	
63 Cu	-0.38 ug/l	4.80	0.39	
65 Cu	-0.41 ug/l	3.73	0.39	
66 Zn	0.00 ug/l	2628.40	6.90	
75 As	0.07 ug/l	32.28	0.27	
78 Se	0.02 ug/l	97.30	0.30	
78 Se	0.10 ug/l	82.67	0.30	
88 Sr	0.00 ug/l	540.84	0.03	
88 Sr	0.00 ug/l	24.02	0.03	
95 Mo	0.03 ug/l	20.10	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	72.34	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	426.65	0.06	
118 Sn	0.05 ug/l	13.48	0.30	
121 Sb	0.29 ug/l	11.14	0.03	Fail
137 Ba	0.02 ug/l	76.66	0.12	
205 Tl	0.01 ug/l	1.73	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.25 ug/l	1.69	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3085838.80	0.28	2775704.50	111.2	70 - 120	
45 Sc	543008.13	0.74	500780.41	108.4	70 - 120	
45 Sc	96730.10	0.69	95494.08	101.3	70 - 120	
45 Sc	1456388.00	1.14	1460980.80	99.7	70 - 120	
72 Ge	104225.84	0.21	96219.04	108.3	70 - 120	
72 Ge	45874.70	1.25	43611.78	105.2	70 - 120	
72 Ge	211968.23	0.39	213204.63	99.4	70 - 120	
115 In	1335750.50	0.67	1381264.00	96.7	70 - 120	
159 Tb	1825624.90	0.43	1843940.90	99.0	70 - 120	
165 Ho	1821355.50	0.60	1844184.90	98.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\046_CCV.D\046_CCV.D#
Date Acquired: Nov 11 2011 04:30 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.70	ug/l	1.26	50.00	90 -	110	
11 B	42.89	ug/l	1.19	50.00	90 -	110	Fail
23 Na	1254.00	ug/l	0.41	1250.00	90 -	110	
24 Mg	2547.00	ug/l	0.59	2500.00	90 -	110	
27 Al	995.00	ug/l	1.68	1000.00	90 -	110	
39 K	893.20	ug/l	1.01	1000.00	90 -	110	Fail
44 Ca	2454.00	ug/l	1.15	2500.00	90 -	110	
47 Ti	49.64	ug/l	0.77	50.00	90 -	110	
51 V	51.07	ug/l	0.56	50.00	90 -	110	
52 Cr	49.58	ug/l	1.32	50.00	90 -	110	
55 Mn	53.75	ug/l	1.23	50.00	90 -	110	
56 Fe	1008.00	ug/l	1.04	1000.00	90 -	110	
59 Co	50.27	ug/l	0.38	50.00	90 -	110	
60 Ni	50.83	ug/l	0.09	50.00	90 -	110	
63 Cu	49.08	ug/l	0.21	50.00	90 -	110	
65 Cu	49.49	ug/l	0.52	50.00	90 -	110	
66 Zn	49.79	ug/l	0.97	50.00	90 -	110	
75 As	48.81	ug/l	0.50	50.00	90 -	110	
78 Se	46.71	ug/l	1.36	50.00	90 -	110	
78 Se	47.88	ug/l	0.76	50.00	90 -	110	
88 Sr	50.09	ug/l	1.50	50.00	90 -	110	
88 Sr	46.19	ug/l	0.77	50.00	90 -	110	
95 Mo	48.00	ug/l	1.20	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.50	ug/l	0.88	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.59	ug/l	0.88	50.00	90 -	110	
118 Sn	50.70	ug/l	0.24	50.00	90 -	110	
121 Sb	50.92	ug/l	1.07	50.00	90 -	110	
137 Ba	50.15	ug/l	0.91	50.00	90 -	110	
205 Tl	48.73	ug/l	1.15	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.41	ug/l	1.38	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3087745.80	0.94	2775704.50	111.2	70 -	120	
45 Sc	518583.69	0.47	500780.41	103.6	70 -	120	
45 Sc	93007.50	0.55	95494.08	97.4	70 -	120	
45 Sc	1424009.10	1.38	1460980.80	97.5	70 -	120	
72 Ge	100723.93	0.27	96219.04	104.7	70 -	120	
72 Ge	44570.69	0.32	43611.78	102.2	70 -	120	
72 Ge	210088.66	0.52	213204.63	98.5	70 -	120	
115 In	1313527.60	0.88	1381264.00	95.1	70 -	120	
159 Tb	1801651.50	1.57	1843940.90	97.7	70 -	120	
165 Ho	1809552.10	1.53	1844184.90	98.1	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\048_CCB.D\048_CCB.D#
Date Acquired: Nov 11 2011 04:42 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	42.29	0.12	
11 B	-0.13 ug/l	71.11	15.00	
23 Na	-8.31 ug/l	8.06	77.10	
24 Mg	0.36 ug/l	29.70	7.50	
27 Al	0.19 ug/l	47.04	3.96	
39 K	-21.23 ug/l	17.60	19.20	
44 Ca	-3.80 ug/l	61.16	90.00	
47 Ti	0.11 ug/l	173.80	0.78	
51 V	2.15 ug/l	1.51	0.21	Fail
52 Cr	0.08 ug/l	5.21	0.12	
55 Mn	0.54 ug/l	4.21	0.18	Fail
56 Fe	1.18 ug/l	2.51	40.80	
59 Co	-0.29 ug/l	0.62	0.09	
60 Ni	-0.01 ug/l	26.89	0.48	
63 Cu	-0.51 ug/l	3.25	0.39	
65 Cu	-0.52 ug/l	1.59	0.39	
66 Zn	0.03 ug/l	92.54	6.90	
75 As	0.35 ug/l	13.98	0.27	Fail
78 Se	0.04 ug/l	38.02	0.30	
78 Se	0.10 ug/l	95.97	0.30	
88 Sr	0.00 ug/l	152.47	0.03	
88 Sr	0.01 ug/l	57.39	0.03	
95 Mo	0.04 ug/l	33.06	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	67.11	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	1389.00	0.06	
118 Sn	0.07 ug/l	25.68	0.30	
121 Sb	0.41 ug/l	2.24	0.03	Fail
137 Ba	0.01 ug/l	46.25	0.12	
205 Tl	0.01 ug/l	17.61	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.24 ug/l	0.75	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3066933.50	0.82	2775704.50	110.5	70 - 120	
45 Sc	480667.06	6.48	500780.41	96.0	70 - 120	
45 Sc	92147.45	0.95	95494.08	96.5	70 - 120	
45 Sc	1424222.60	0.94	1460980.80	97.5	70 - 120	
72 Ge	96248.01	5.46	96219.04	100.0	70 - 120	
72 Ge	44554.26	0.07	43611.78	102.2	70 - 120	
72 Ge	211003.38	0.55	213204.63	99.0	70 - 120	
115 In	1322454.80	0.90	1381264.00	95.7	70 - 120	
159 Tb	1796985.40	1.28	1843940.90	97.5	70 - 120	
165 Ho	1818211.10	0.91	1844184.90	98.6	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\060_CCV.D\060_CCV.D#
Date Acquired: Nov 11 2011 06:04 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	50.00	90 - 110	
9 Be	43.59 ug/l	0.52	50.00	90 - 110	Fail
11 B	39.89 ug/l	0.37	50.00	90 - 110	Fail
23 Na	1206.00 ug/l	0.25	1250.00	90 - 110	
24 Mg	2492.00 ug/l	1.14	2500.00	90 - 110	
27 Al	988.60 ug/l	0.65	1000.00	90 - 110	
39 K	883.40 ug/l	0.62	1000.00	90 - 110	Fail
44 Ca	2445.00 ug/l	1.17	2500.00	90 - 110	
47 Ti	49.55 ug/l	0.70	50.00	90 - 110	
51 V	52.18 ug/l	0.86	50.00	90 - 110	
52 Cr	49.10 ug/l	0.91	50.00	90 - 110	
55 Mn	53.67 ug/l	0.37	50.00	90 - 110	
56 Fe	999.40 ug/l	0.75	1000.00	90 - 110	
59 Co	49.93 ug/l	0.37	50.00	90 - 110	
60 Ni	50.18 ug/l	0.47	50.00	90 - 110	
63 Cu	48.01 ug/l	1.08	50.00	90 - 110	
65 Cu	47.95 ug/l	1.23	50.00	90 - 110	
66 Zn	48.48 ug/l	0.85	50.00	90 - 110	
75 As	48.40 ug/l	0.84	50.00	90 - 110	
78 Se	44.75 ug/l	1.93	50.00	90 - 110	Fail
78 Se	46.76 ug/l	2.40	50.00	90 - 110	
88 Sr	49.65 ug/l	0.75	50.00	90 - 110	
88 Sr	43.83 ug/l	0.41	50.00	90 - 110	Fail
95 Mo	45.84 ug/l	0.72	50.00	90 - 110	
106 (Cd)	-------- ug/l	--------	50.00	90 - 110	
107 Ag	24.47 ug/l	1.71	25.00	90 - 110	
108 (Cd)	-------- ug/l	--------	50.00	90 - 110	
111 Cd	48.94 ug/l	2.42	50.00	90 - 110	
118 Sn	49.84 ug/l	1.46	50.00	90 - 110	
121 Sb	50.04 ug/l	0.62	50.00	90 - 110	
137 Ba	50.55 ug/l	2.58	50.00	90 - 110	
205 Tl	46.49 ug/l	1.08	50.00	90 - 110	
206 (Pb)	-------- ug/l	--------	50.00	90 - 110	
207 (Pb)	-------- ug/l	--------	50.00	90 - 110	
208 Pb	48.04 ug/l	0.60	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3120885.30	0.68	2775704.50	112.4	70 - 120	
45 Sc	528291.50	1.60	500780.41	105.5	70 - 120	
45 Sc	94943.62	0.72	95494.08	99.4	70 - 120	
45 Sc	1497531.60	0.60	1460980.80	102.5	70 - 120	
72 Ge	107482.91	1.52	96219.04	111.7	70 - 120	
72 Ge	46381.07	0.48	43611.78	106.3	70 - 120	
72 Ge	233866.19	0.20	213204.63	109.7	70 - 120	
115 In	1403864.60	1.34	1381264.00	101.6	70 - 120	
159 Tb	1927869.00	0.42	1843940.90	104.6	70 - 120	
165 Ho	1902582.90	0.32	1844184.90	103.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

5 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\062_CCB.D\062_CCB.D#
Date Acquired: Nov 11 2011 06:16 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#VALUE!	
9 Be	0.00	ug/l	45.82	0.12	
11 B	-0.52	ug/l	3.32	15.00	
23 Na	-14.13	ug/l	1.97	77.10	
24 Mg	0.40	ug/l	18.80	7.50	
27 Al	0.37	ug/l	36.41	3.96	
39 K	-25.01	ug/l	22.10	19.20	
44 Ca	-5.06	ug/l	39.41	90.00	
47 Ti	-0.01	ug/l	153.32	0.78	
51 V	3.23	ug/l	1.14	0.21	Fail
52 Cr	0.11	ug/l	18.29	0.12	
55 Mn	0.56	ug/l	2.13	0.18	Fail
56 Fe	0.91	ug/l	1.90	40.80	
59 Co	-0.29	ug/l	0.95	0.09	
60 Ni	-0.01	ug/l	26.61	0.48	
63 Cu	-0.57	ug/l	1.33	0.39	
65 Cu	-0.57	ug/l	1.17	0.39	
66 Zn	0.10	ug/l	36.98	6.90	
75 As	0.63	ug/l	2.54	0.27	Fail
78 Se	0.03	ug/l	36.72	0.30	
78 Se	0.20	ug/l	17.06	0.30	
88 Sr	0.01	ug/l	140.22	0.03	
88 Sr	0.00	ug/l	12.28	0.03	
95 Mo	0.01	ug/l	62.46	0.21	
106 (Cd)	--------	ug/l	--------	#VALUE!	
107 Ag	0.00	ug/l	55.01	0.09	
108 (Cd)	--------	ug/l	--------	#VALUE!	
111 Cd	0.01	ug/l	225.87	0.06	
118 Sn	0.05	ug/l	34.43	0.30	
121 Sb	0.19	ug/l	1.47	0.03	Fail
137 Ba	0.00	ug/l	114.50	0.12	
205 Tl	0.01	ug/l	8.77	0.03	
206 (Pb)	--------	ug/l	--------	#VALUE!	
207 (Pb)	--------	ug/l	--------	#VALUE!	
208 Pb	-0.25	ug/l	1.47	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3025901.00	0.96	2775704.50	109.0	70 - 120	
45 Sc	540897.69	0.43	500780.41	108.0	70 - 120	
45 Sc	95060.94	0.12	95494.08	99.5	70 - 120	
45 Sc	1475771.40	0.55	1460980.80	101.0	70 - 120	
72 Ge	108235.30	0.84	96219.04	112.5	70 - 120	
72 Ge	46007.31	1.05	43611.78	105.5	70 - 120	
72 Ge	232509.75	0.78	213204.63	109.1	70 - 120	
115 In	1409864.80	1.11	1381264.00	102.1	70 - 120	
159 Tb	1904300.90	0.32	1843940.90	103.3	70 - 120	
165 Ho	1879356.80	0.14	1844184.90	101.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

METALS
Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 11/15/2011 12:57:23 PM

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\024SMPL.D\024SMPL.D#
Date Acquired: Nov 11 2011 02:16 pm
Operator: NBS
Sample Name: 111110A-3015-BLK
Misc Info: 111110A-3015
Vial Number: 3101
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.01	2.73	1000	
11 B	0.02 ug/l	0.02	15.56	1000	
23 Na	35.01 ug/l	38.90	12.71	25000	
24 Mg	5.25 ug/l	5.83	2.15	50000	
27 Al	6.63 ug/l	7.37	3.21	20000	
39 K	-19.19 ug/l	-21.32	24.75	20000	
44 Ca	187.10 ug/l	207.87	2.16	50000	
47 Ti	0.09 ug/l	0.10	43.80	1000	
51 V	-0.78 ug/l	-0.86	1.87	1000	
52 Cr	-0.04 ug/l	-0.04	28.95	1000	
55 Mn	0.23 ug/l	0.26	6.88	1000	
56 Fe	2.70 ug/l	3.00	5.14	20000	
59 Co	-0.27 ug/l	-0.30	0.86	1000	
60 Ni	0.12 ug/l	0.14	23.87	1000	
63 Cu	-0.44 ug/l	-0.49	2.50	1000	
65 Cu	-0.44 ug/l	-0.49	2.58	1000	
66 Zn	7.48 ug/l	8.31	3.75	1000	
75 As	-0.53 ug/l	-0.59	2.55	1000	
78 Se	-0.01 ug/l	-0.01	26.71	1000	
78 Se	-0.01 ug/l	-0.02	520.99	1000	
88 Sr	0.14 ug/l	0.16	12.74	1000	
88 Sr	0.14 ug/l	0.16	3.88	1000	
95 Mo	0.02 ug/l	0.02	6.80	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.00 ug/l	0.00	212.49	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.02 ug/l	0.02	26.66	1000	
118 Sn	0.12 ug/l	0.13	6.01	1000	
121 Sb	0.07 ug/l	0.08	7.73	1000	
137 Ba	0.04 ug/l	0.04	9.41	1000	
205 Tl	0.01 ug/l	0.01	22.33	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	0.17 ug/l	0.19	1.81	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3205542.30	0.83	2775704.50	115.5	70 - 120	
45 Sc	579022.81	0.89	500780.41	115.6	70 - 120	
45 Sc	106222.45	0.45	95494.08	111.2	70 - 120	
45 Sc	1635333.40	0.66	1460980.80	111.9	70 - 120	
72 Ge	108091.34	0.67	96219.04	112.3	70 - 120	
72 Ge	49642.59	1.23	43611.78	113.8	70 - 120	
72 Ge	228973.69	0.34	213204.63	107.4	70 - 120	
115 In	1505106.90	0.63	1381264.00	109.0	70 - 120	
159 Tb	2069441.80	1.02	1843940.90	112.2	70 - 120	
165 Ho	2056674.30	0.60	1844184.90	111.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

411

Comments: _____

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\025SMPL.D\025SMPL.D#
Date Acquired: Nov 11 2011 02:22 pm
Operator: NBS
Sample Name: 111110A-3015-LCS
Misc Info: 111110A-3015
Vial Number: 3102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.09	ug/l	7.88	0.95	1000	
11 B	34.46	ug/l	38.29	0.83	1000	
23 Na	4313.00	ug/l	4791.74	0.33	25000	
24 Mg	4287.00	ug/l	4762.86	0.50	50000	
27 Al	378.80	ug/l	420.85	1.07	20000	
39 K	819.80	ug/l	910.80	1.14	20000	
44 Ca	4772.00	ug/l	5301.69	0.81	50000	
47 Ti	43.16	ug/l	47.95	0.73	1000	
51 V	44.89	ug/l	49.87	0.68	1000	
52 Cr	46.85	ug/l	52.05	0.52	1000	
55 Mn	48.25	ug/l	53.61	0.34	1000	
56 Fe	188.60	ug/l	209.53	0.62	20000	
59 Co	45.14	ug/l	50.15	0.81	1000	
60 Ni	45.24	ug/l	50.26	0.75	1000	
63 Cu	42.57	ug/l	47.30	0.51	1000	
65 Cu	42.70	ug/l	47.44	0.10	1000	
66 Zn	94.53	ug/l	105.02	0.68	1000	
75 As	39.81	ug/l	44.23	0.66	1000	
78 Se	36.57	ug/l	40.63	2.90	1000	
78 Se	37.79	ug/l	41.98	1.41	1000	
88 Sr	47.19	ug/l	52.43	0.39	1000	
88 Sr	45.26	ug/l	50.28	0.18	1000	
95 Mo	45.43	ug/l	50.47	0.63	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	#######	
107 Ag	16.57	ug/l	18.41	1.13	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	#######	
111 Cd	8.34	ug/l	9.26	2.50	1000	
118 Sn	48.01	ug/l	53.34	0.41	1000	
121 Sb	42.84	ug/l	47.60	0.50	1000	
137 Ba	44.60	ug/l	49.55	0.91	1000	
205 Tl	43.45	ug/l	48.27	0.08	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	#######	
207 (Pb)	--------	ug/l	#VALUE!	--------	#######	
208 Pb	45.08	ug/l	50.08	0.48	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3106113.00	0.94	2775704.50	111.9	70 - 120	
45 Sc	583837.94	0.76	500780.41	116.6	70 - 120	
45 Sc	104815.63	0.97	95494.08	109.8	70 - 120	
45 Sc	1623628.90	0.72	1460980.80	111.1	70 - 120	
72 Ge	109519.99	0.75	96219.04	113.8	70 - 120	
72 Ge	48705.67	0.97	43611.78	111.7	70 - 120	
72 Ge	226177.02	0.48	213204.63	106.1	70 - 120	
115 In	1499201.30	0.50	1381264.00	108.5	70 - 120	
159 Tb	2052386.10	0.41	1843940.90	111.3	70 - 120	
165 Ho	2061841.80	0.62	1844184.90	111.8	70 - 120	

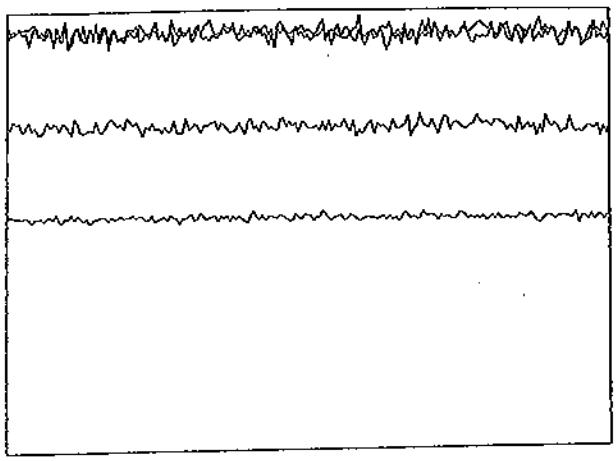
ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

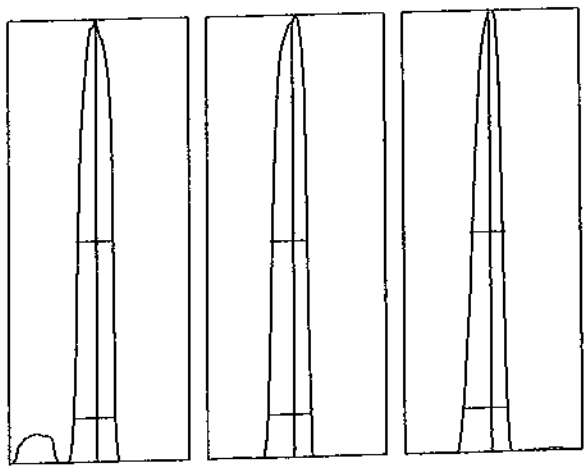
Tune Report

Tune File : nogas.u
Comment : 111111



Integration Time:	0.1000 sec	
Sampling Period:	0.6200 sec	
n:	200	
Oxide:	156/140	1.410%
Doubly Charged:	70/140	1.051%

m/z	Range	Count	Mean	RSD%	Background
7	50,000	26283.0	26440.3	1.09	0.40
89	20,000	19274.0	18861.9	1.39	2.20
205	20,000	14914.0	14722.1	1.50	5.80
156/140	2	1.520%	1.398%	6.48	
70/140	2	1.065%	1.038%	8.17	
140	20,000	18882.0	19064.3	1.33	4.10



m/z:	7	89	205
Height:	26,611	18,699	14,936
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.60
W-10%:	0.700	0.7500	0.800

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Nov 11, 2011 10:05:38
Printed : Nov 11, 2011 10:05:40

Tune Report

Tune File : nogas.u
Comment : 111111

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	128
RF Matching	:	1.66 V	Extract 2	:	-130 V	AMU Offset	:	127
Smpl Depth	:	9.6 mm	Omega Bias-ce	:	-22 V	Axis Gain	:	1
Torch-H	:	-0.1 mm	Omega Lens-ce	:	-1.2 V	Axis Offset	:	-0.02
Torch-V	:	0.1 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	1.02 L/min	QP Focus	:	5 V			
Makeup Gas	:	0.1 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1660 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1460 V
S/C Temp	:	2 degC	OctP Bias	:	-6 V			

===Reaction Cell===								
Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

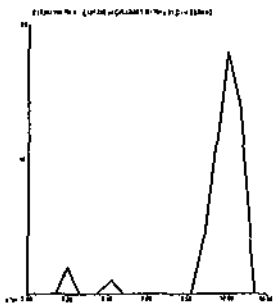
Generated : Nov 11, 2011 10:05:38
Printed : Nov 11, 2011 10:05:42

200.8 QC Tune Report

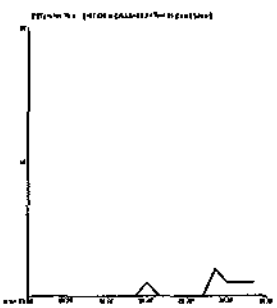
Data File: C:\ICPCHEM\1\DATA\11K11100.B\001TUNE.D
Date Acquired: Nov 11 2011 11:48 am
Acq. Method: TN200_8.M
Operator: NBS
Sample Name: 100ppb Tune sol
Misc Info:
Vial Number: 1303
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

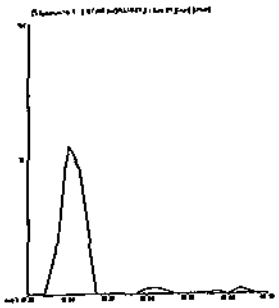
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	65891175	64840372	65630536	65890148	66486284	66608536	**1.01**	5.00	
24 Mg	120432836	########	########	########	########	########	**1.16**	5.00	
59 Co	111175066	########	########	########	########	########	**0.73**	5.00	
115 In	122240964	########	########	########	########	########	**0.81**	5.00	
208 Pb	63959189	64419004	64182972	63372424	64206080	63615464	**1.13**	5.00	



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.65
Required: 0.80
Flag:



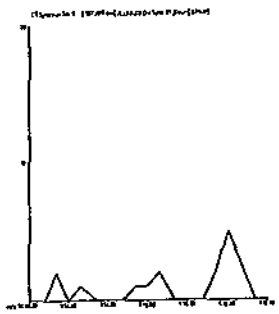
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



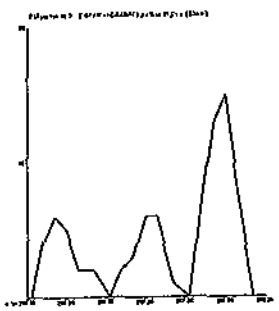
115 In

Mass Calib.

Actual:	115.05		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.90		
Flag:			



208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.80		
Flag:			

Tune Result: Pass

Metals Standards Log Book # 34 Page #001

NBS 11/11/11

6020/6020A

(A)

NBS 11/11/11

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 11/11/2011
Expires: 11/18/2011
Prep Date 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot # K19023
20mL HCL / 2000mL DI Water
Lot #4110110
Expires: 11/18/2011

Standard 4

Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1038407-28139
50 uL	CCV-B	Env. Express	1038410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 3 11/18/2011

Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1038407-28139
25 uL	CCV-B	Env. Express	1038410-28140
25 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

NBS 11/11/11

Standard 2 11/18/2011
Amount STD
500 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 1 11/18/2011
Amount STD
50 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-MS ICV 11/18/2011
Amount STD

50 uL	QCS ICV A	CPI	11C174-28548
50 uL	QCS ICV B	CPI	11C174-28549

Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSA Prep: 11/18/2011

1 mL	ICSA	CPI	11C066-28529

Prepared in 6 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSAB Prep: 11/18/2011

1mL	ICSA	CPI	11C066-28529
0.025mL	INT	O2SI	1023605-28210

Prepared in 5 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-LDR 11/18/2011
Amount STD

50 uL	CCV-A	Env. Express	1038407-28139
50 uL	CCV-B	Env. Express	1038410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 10 mL of 1% HNO3/1.0% HCL 11/11/2011

SDM 11/11/11

SDM 11/11/11

200.7

Exp (A)

2%HNO3 / 2%HCl BLK

AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE
40 mL	HCL	BDH	4110110	10/14/2011
40 mL	HNO3	JT BAKER	K19023	10/14/2011
Prepared in 2000 ml DI Water				

STD 1 / LDL 200.7

AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.250 mL	200.7 LDL	O2SI	1028657-28667	11/1/2012
Prepared in 50 ml 2%HNO3/2%HCl				

STD 3 / HDL 200.7

0.5 mL	CCV-A	ABSOLUTE	091409-25206	9/14/2012
0.5 mL	CCV-B	ABSOLUTE	091109-25208	9/14/2012
0.5 mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012

STD 2 / CCV1 200.7

AMOUNT	STD	PREP DATE	EXP DATE
25mL	STD 3	11/4/2011	11/11/2011
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011

CCV2 200.7

15mL	STD 3	11/4/2011	11/11/2011
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011

200.7 ICV

AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
Prepared in 50ml 2%HNO3/2%HCl				

200.7 ICSA

0.5mL	Al	CPI	10E012-27685	4/20/2012
0.5mL	Ca	CPI	11A008-28528	9/15/2012
0.5mL	Mg	CPI	10H213-2766	4/20/2012
0.5mL	Fe	O2SI	1022245-27699	4/22/2012
Prepared in 50 ml 2%HNO3/2%HCl				

200.7 ICSAB

0.5mL	Al	CPI	10E012-27685	4/20/2012
0.5mL	Ca	CPI	11A008-28528	9/15/2012
0.5mL	Mg	CPI	10H213-2766	4/20/2012
0.5mL	Fe	O2SI	1022245-27699	4/22/2012
0.25mL	INT SPECIAL MIX	O2SI	160495-01-01	3/1/2012
Prepared in 50 ml 2%HNO3/2%HCl				

SDM 11/11/11

6010B/6010C

(A)

1%HNO3 / 5%HCl BLK

AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE
100 mL	HCL	BDH	4110110	10/14/2011
20 mL	HNO3	JT BAKER	K19023	10/14/2011
Prepared in 2000 ml DI Water				

STD 1 / LDL 6010B/6010C

AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
0.5 mL	6010 LDL	ABSOLUTE	091409-25205	9/14/2012
Prepared in 50 ml 1%HNO3/5%HCl				

STD 3 / HDL 6010B/6010C

1ML	CCV-A	ABSOLUTE	091409-25206	9/14/2012
1ML	CCV-B	ABSOLUTE	091109-25208	9/14/2012
1ML	CCV-C	ABSOLUTE	091009-25207	9/10/2012
Prepared in 100 ml 1%HNO3 / 5%HCl				

STD 2 / CCV1 6010B/6010C/6010C

AMOUNT	STD	PREP DATE	EXP DATE
25mL	STD 3	11/11/2011	11/18/2011
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011

CCV2 6010B/6010C

AMOUNT	STD	PREP DATE	EXP DATE
15mL	STD 3	11/11/2011	11/18/2011
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011

6010B/6010C ICSA

AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
1mL	Al	CPI	10E012-27685	4/20/2012
1mL	Ca	CPI	11A008-28528	9/15/2012
1mL	Mg	CPI	10H213-2766	4/20/2012
1mL	Fe	O2SI	1022245-27699	4/22/2012
Prepared in 50 ml 1%HNO3/5%HCl				

6010B/6010C ICSAB

1mL	Al	CPI	10E012-27685	4/20/2012
1mL	Ca	CPI	11A008-28528	9/15/2012
1mL	Mg	CPI	10H213-2766	4/20/2012
1mL	Fe	O2SI	1022245-27699	4/22/2012
0.5mL	INT SPECIAL M	O2SI	160495-01-01	3/1/2012
Prepared in 50 ml 1%HNO3/5%HCl				

6010B/6010C ICV

0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
Prepared in 50ml 1%HNO3/5%HCl				

SDM 11/11/11

_M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	111110A Blk				45mL	50mL	11/10/11 10:40	equip: Venus
2	111110A LCS		90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
3	AY48273	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
4	AY48273 DUP	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
5	AY48273 MS	AY48273W01	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
6	AY48639	AY48639W05			45mL	50mL	11/10/11 10:40	equip: Venus
7	AY48640	AY48640W05			45mL	50mL	11/10/11 10:40	equip: Venus
8	AY48641	AY48641W05			45mL	50mL	11/10/11 10:40	equip: Venus
9	AY48642	AY48642W05			45mL	50mL	11/10/11 10:40	equip: Venus
10	AY48643	AY48643W05			45mL	50mL	11/10/11 10:40	equip: Venus
11	AY48644	AY48644W02			45mL	50mL	11/10/11 10:40	equip: Venus
12	AY49333	AY49333W13			45mL	50mL	11/10/11 10:40	equip: Venus
13	AY49334	AY49334W51			45mL	50mL	11/10/11 10:40	equip: Venus
14	AY49334 MS	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
15	AY49334 MSD	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
16	AY49336	AY49336W13			45mL	50mL	11/10/11 10:40	equip: Venus
17	AY49481	AY49481W13			45mL	50mL	11/10/11 10:40	equip: Venus
18	AY49482	AY49482W13			45mL	50mL	11/10/11 10:40	equip: Venus
19	AY49559	AY49559W31			45mL	50mL	11/10/11 10:40	equip: Venus
20	AY49559 MS	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
21	AY49559 MSD	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
22	AY49561	AY49561W08			45mL	50mL	11/10/11 10:40	equip: Venus
23	AY49562	AY49562W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot#
HNO3 J.T.B k19023 0095

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11-10-11
Time	13:00
Moved to	MSATLS

Technicians Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: [signature] **Date:** 11-10-11

M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	AY50005	AY50005W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot #
HNO3 J.T.B k19023 0095

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	MBS
Date	11-10-11
Time	13:00
Moved to	MSTACS

Technician's Initials	
Scanned By	nm
Sample Preparation	to
Digestion	to
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: SA **Date:** 11-10-11

6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	11 Nov 2011	12:08	Calibration Blank		111111A	1.
2	11 Nov 2011	12:14	111111 Standard 1		111111A	1.
3	11 Nov 2011	12:20	111111 Standard 2		111111A	1.
4	11 Nov 2011	12:27	111111 Standard 3		111111A	1.
5	11 Nov 2011	12:33	111111 Standard 4		111111A	1.
6	11 Nov 2011	12:39	ICV 111111		111111A	1.
8	11 Nov 2011	12:57	ICB 111111		111111A	1.
9	11 Nov 2011	13:03	CCV 111111		111111A	1.
10	11 Nov 2011	13:09	CCB 111111		111111A	1.
11	11 Nov 2011	13:15	ICSA 111111		111111A	1.
12	11 Nov 2011	13:21	ICSAB 111111		111111A	1.
13	11 Nov 2011	13:33	CCV 111111		111111A	1.
14	11 Nov 2011	13:46	CCB 111111		111111A	1.
15	11 Nov 2011	14:16	111110A-3015-BLK		111111A	1.
16	11 Nov 2011	14:22	111110A-3015-LCS		111111A	1.
23	11 Nov 2011	15:05	CCV 111111		111111A	1.
24	11 Nov 2011	15:17	CCB 111111		111111A	1.
36	11 Nov 2011	16:30	CCV 111111		111111A	1.
37	11 Nov 2011	16:42	CCB 111111		111111A	1.
42	11 Nov 2011	17:12	AY49481W13		111111A	1.
43	11 Nov 2011	17:19	AY49482W13		111111A	1.
49	11 Nov 2011	18:04	CCV 111111		111111A	1.
50	11 Nov 2011	18:16	CCB 111111		111111A	1.

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

NELAP CERTIFICATE NUMBER 01955
DOD ELAP CERTIFICATE NUMBER ADE - 1482

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.
7979 GSRI Avenue
Baton Rouge, LA 70820

Report Date 11/14/2011

GCAL Report 211110257

Deliver To	Appl, Inc. 908 North Temperance Ave Clovis, CA 93611 559-275-2175
Attn	Cynthia Clark

Project Appl, Inc.

CASE NARRATIVE

Client: Environet, Inc. **Report:** 211110257

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

SEMI-VOLATILES GAS CHROMATOGRAPHY

In the EPH analysis for prep batch 468306 and 468721, the MS/MSD exhibited recovery failures. The LCS/LCSD recoveries are acceptable.

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates an estimated value
U	Indicates the compound was analyzed for but not detected
B	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
B	(INORGANICS) Indicates the result is between the RDL and MDL

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Robyn Migues
Technical Director
GCAL REPORT 211110257

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21110312406	ES050	Water	10/25/2011 09:50	10/29/2011 09:10
21110312407	ES051	Water	10/25/2011 11:30	10/29/2011 09:10

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

GC Column (1): DB-5MS-30M ID: .25 (mm) GC Cloumn (2): ID: (mm)

Method: MASSEPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES050	113	40	140						89	40	140						0
2.	ES051	77	40	140						83	40	140						0
3.	MB1002043	98	40	140						79	40	140						0
4.	LCS1004105	98	40	140						82	40	140						0
5.	LCSD1004106	100	40	140						84	40	140						0
6.	MB1004104	92	40	140						80	40	140						0
7.	LCS1002044	101	40	140						69	40	140						0
8.	LCSD1002045	103	40	140						83	40	140						0

SMC 1 : 1-Chlorooctadecane SMC 2 : O-Terphenyl

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

FORM II ORG-II

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSEPH

Prep Batch: 468306 Analytical Batch: 468719

SAMPLE NO : 1002044

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	250	0	164	66		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	150	0	128	85		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	100	0	47.3	47		40 - 140

SAMPLE NO : 1002045

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
C11-C22 Aromatics	ug/L	250	178	71		8		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	150	107	71		18		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	100	42.8	43		10		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSEPH

Prep Batch: 468721 Analytical Batch: 469140

SAMPLE NO : 1004105

COMPOUND	UNITS	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS % REC	LCS % REC FLAG	QC. LIMITS
C11-C22 Aromatics	ug/L	250	0	188	75		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	150	0	101	67		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	100	0	51.9	52		40 - 140

SAMPLE NO : 1004106

COMPOUND	UNITS	SPIKE ADDED	LCSD CONC.	LCSD % REC	REC FLAG	% RPD	RPD FLAG	QC. LIMITS REC	QC. LIMITS RPD
C11-C22 Aromatics	ug/L	250	191	76		2		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	150	94.2	63		7		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	100	52.8	53		2		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: ES047

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSEPH

Prep Batch: 468306 Analytical Batch: 468719

SAMPLE NO : 21110312403

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	255	166	310	56		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	153	0	120	78		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	102	40	74	33	*	40 - 140

SAMPLE NO : 21110312404

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
C11-C22 Aromatics	ug/L	255	302	53		3		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	153	121	79		.8		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	102	57	17	*	26		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 2 out of 6 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: ES053

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSEPH

Prep Batch: 468721 Analytical Batch: 469140

SAMPLE NO : 21110312409

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	253	0	188	74		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	152	226	402	116		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	101	0	50.6	50		40 - 140

SAMPLE NO : 21110312410

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*QC. LIMITS RPD*
C11-C22 Aromatics	ug/L	253	201	80		7		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	152	445	145	*	10		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	101	55.1	55		9		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 1 out of 6 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1002043

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1002043 | SAS No.: | SDG No.: 211110257

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted: 11/02/11

Date Analyzed (1): 11/04/11 | Time (1): 1118 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCS19B | Instrument ID (2):

GC Column (1): DB-5MS-30M | ID: .25 (mm) | GC Column (2): | ID: (mm)

Method: MASSEPH | Prep Batch: 468306 | Analytical Batch: 468719

Lab File ID: 2111104/sv19b0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1002044	1002044	11/04/11	1206	GCS19B
2.	LCSD1002045	1002045	11/04/11	1254	GCS19B
3.	ES051	21110312407	11/04/11	2238	GCS19B

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1004104

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1004104 | SAS No.: | SDG No.: 211110257

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted: 11/08/11

Date Analyzed (1): 11/10/11 | Time (1): 1515 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCS19B | Instrument ID (2):

GC Column (1): DB-5MS-30M | ID: .25 (mm) | GC Column (2): | ID: (mm)

Method: MASSEPH | Prep Batch: 468721 | Analytical Batch: 469140

Lab File ID: 2111110/sv19b0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1004105	1004105	11/10/11	1603	GCS19B
2.	LCSD1004106	1004106	11/10/11	1651	GCS19B
3.	ES050	21110312406	11/10/11	1740	GCS19B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES050

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 990 | Units: mL | Lab Sample ID: 21110312406

Level: (low/med) LOW | Date Collected: 10/25/11 | Time: 0950

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 1740

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b060

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	42.5	U	42.5	42.5	101
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.6	U	31.6	60.6	101
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	22.0	U	22.0	22.0	101

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b060.d
Lab Smp Id: 21110312406 Client Smp ID: 1
Inj Date : 10-NOV-2011 17:40
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312406*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.447	8.454	-0.007	43336012	17.6343	35.6	
$ 5 2-Bromonaphthalene	8.832	8.838	-0.006	32326254	20.6060	41.6	
$ 10 O-Terphenyl	9.820	9.822	-0.002	52363040	17.7574	35.9	
$ 11 Chloro-octadecane	10.164	10.158	0.006	44270171	16.1599	32.6	
M 113 Total Surrogate Area				172295477			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b060.d

Page 1

Date : 10-NOV-2011 17:40

Client ID: 1

Instrument: gcsv19b.i

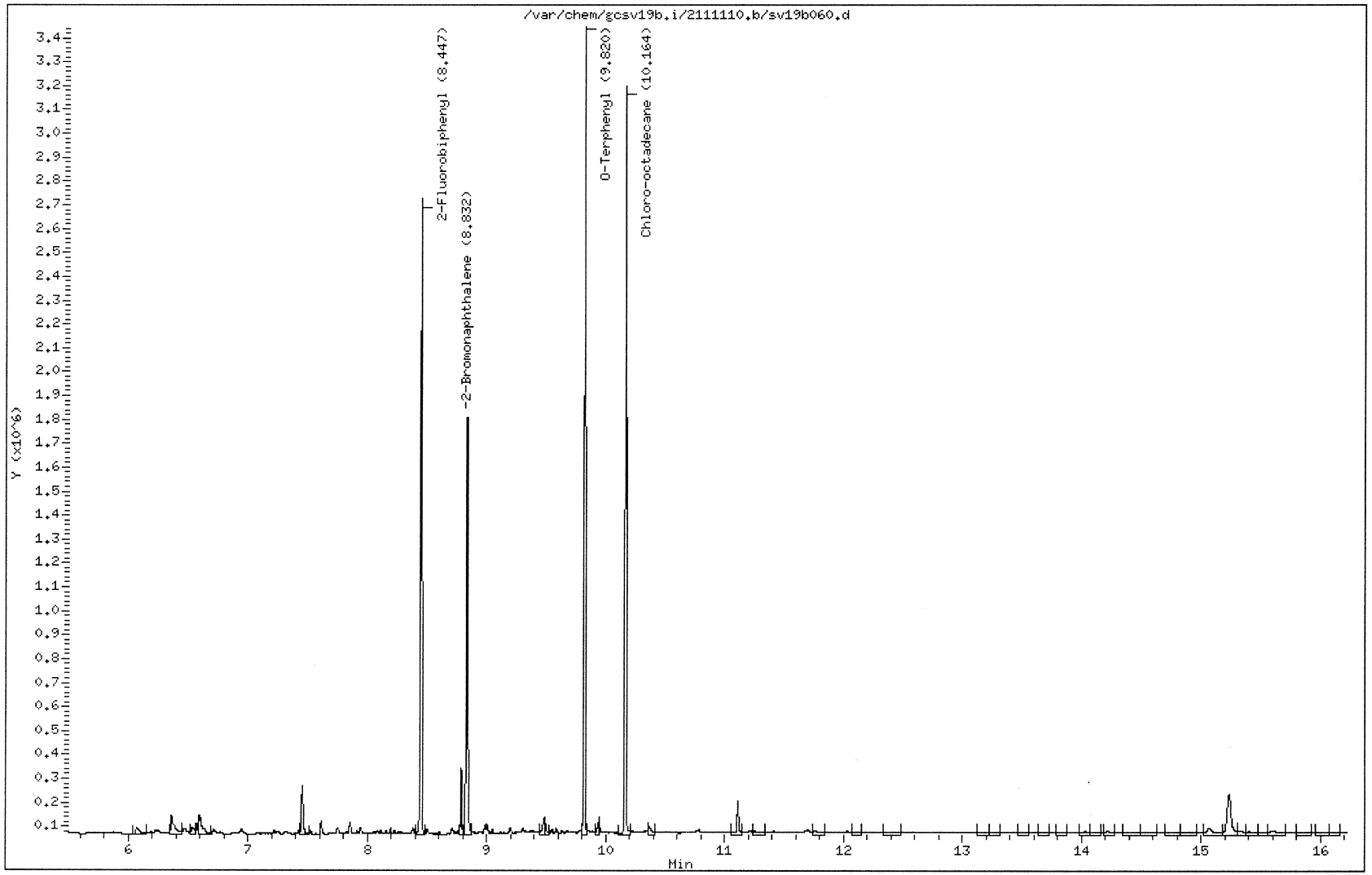
Sample Info: 21110312406*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

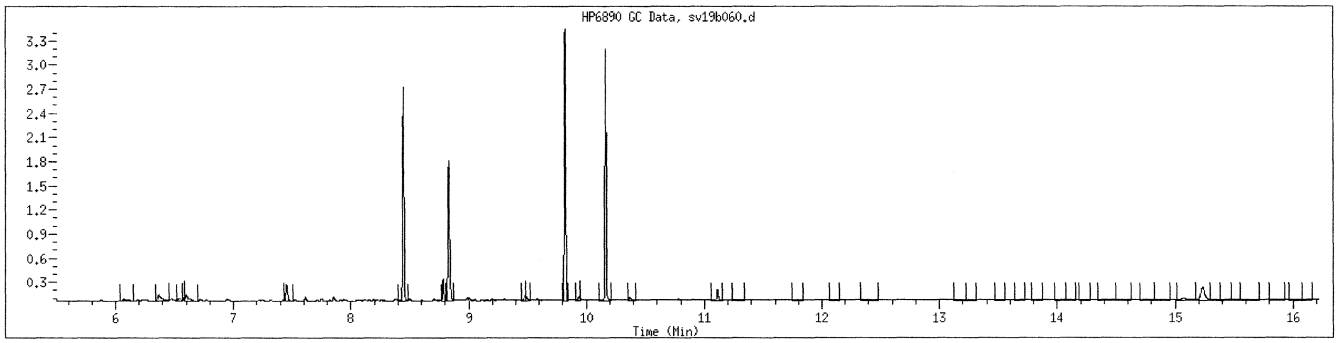
Column diameter: 0.25



Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312406 SampleType : SAMPLE
Injection Date: 11/10/2011 17:40 Instrument : gcsv19b.i
Operator : smh
Sample Info : 21110312406*1
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b061.d
Lab Smp Id: 21110312406 Client Smp ID: 1
Inj Date : 10-NOV-2011 18:04
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312406*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.160	10.215	-0.055	17707876	6.46372	13.1(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b061.d

Page 1

Date : 10-NOV-2011 18:04

Client ID: 1

Instrument: gcsv19b.i

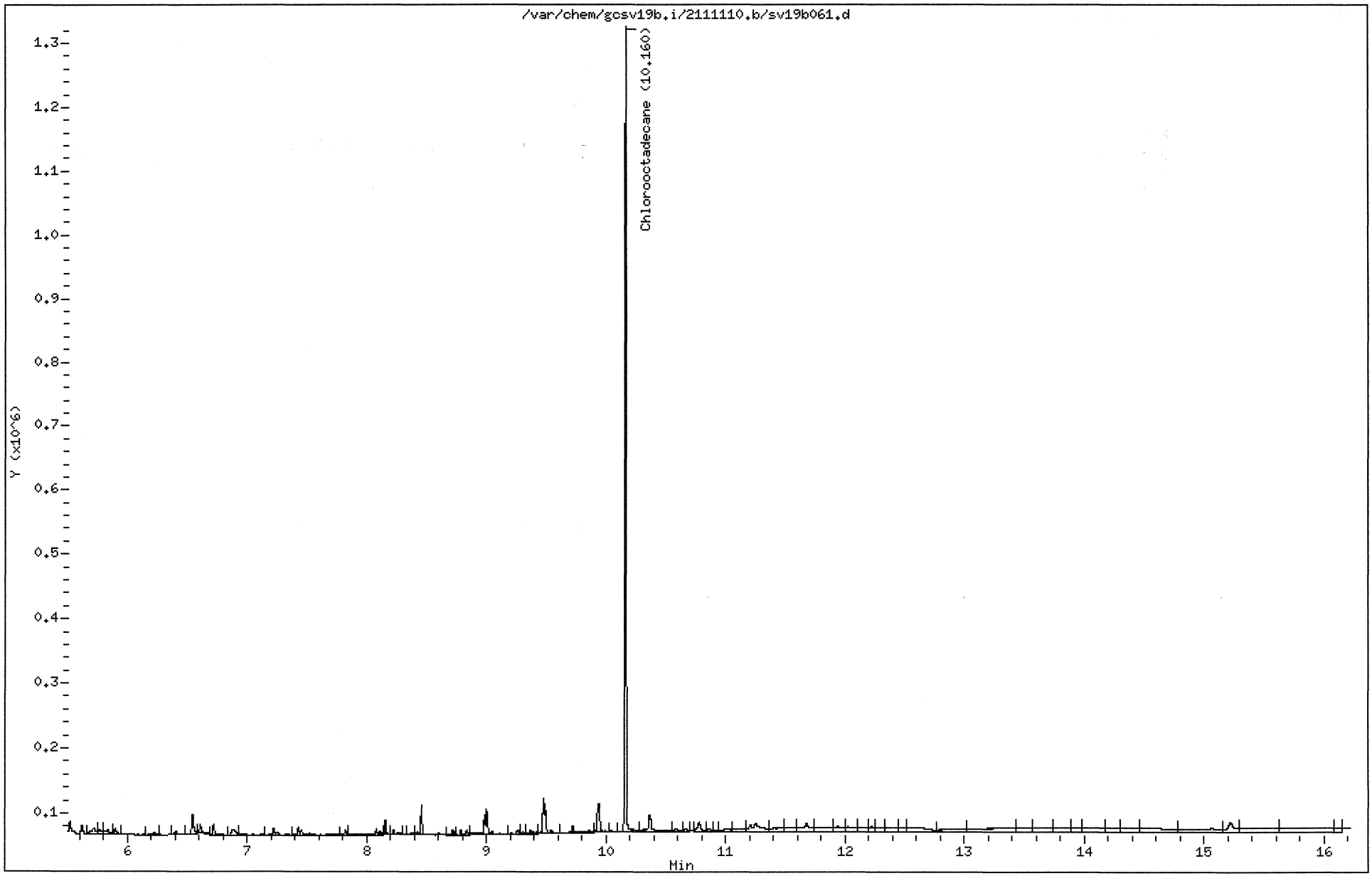
Sample Info: 21110312406*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

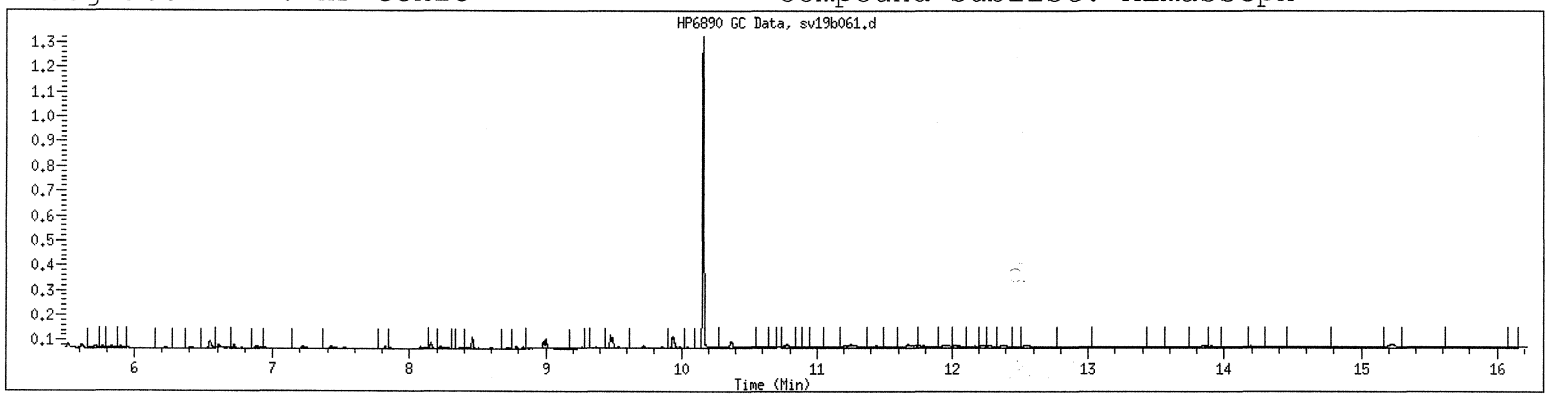
Column diameter: 0.25



21197157

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312406 SampleType : SAMPLE
Injection Date: 11/10/2011 18:04 Instrument : gcsv19b.i
Operator : smh
Sample Info : 21110312406*1
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES051

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 970 | Units: mL | Lab Sample ID: 21110312407

Level: (low/med) LOW | Date Collected: 10/25/11 | Time: 1130

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 2238

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b082

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	43.4	U	43.4	43.4	103
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	61.9	U	32.3	61.9	103
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	22.5	U	22.5	22.5	103

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b082.d
Lab Smp Id: 21110312407 Client Smp ID: 1
Inj Date : 04-NOV-2011 22:38
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312407*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 82
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	970.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.450	8.454	-0.004	43734530	17.7964	36.7	
$ 5 2-Bromonaphthalene	8.833	8.839	-0.006	31155889	19.8600	40.9	
$ 10 O-Terphenyl	9.815	9.823	-0.008	48759159	16.5353	34.1	
$ 11 Chloro-octadecane	10.153	10.174	-0.021	30197570	11.0230	22.7	
M 113 Total Surrogate Area				153847148			(a)

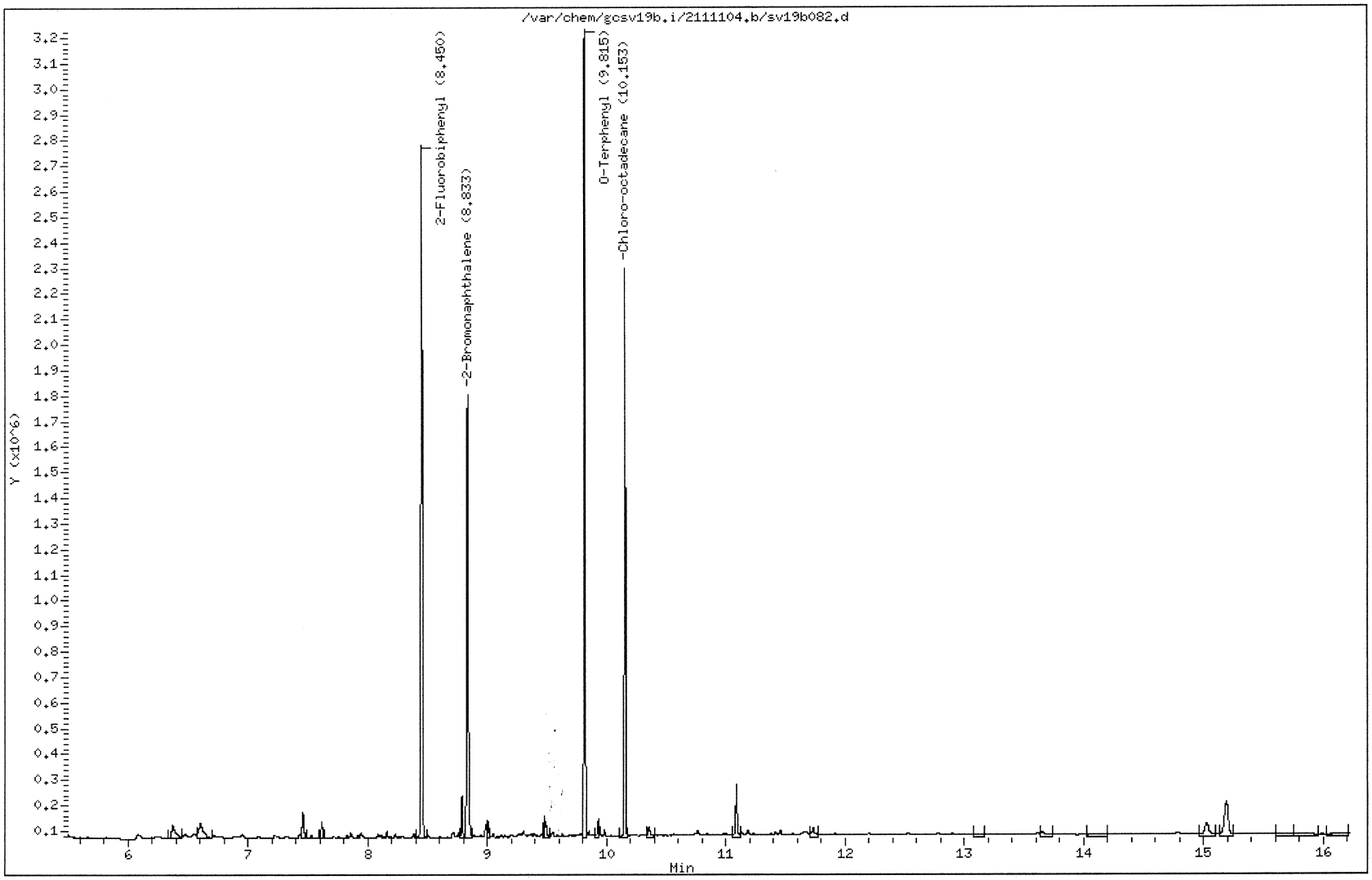
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b082.d
Date : 04-NOV-2011 22:38
Client ID: 1
Sample Info: 21110312407*1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i

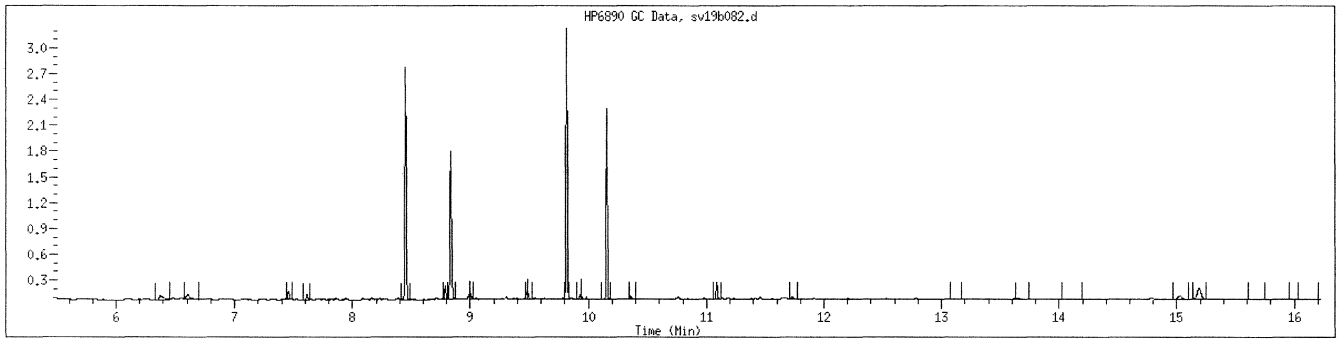
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111104.b/sv19b082.d Page: 1
Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312407 SampleType : SAMPLE
Injection Date: 11/04/2011 22:38 Instrument : gcsv19b.i
Operator : smh
Sample Info : 21110312407*1
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b083.d
Lab Smp Id: 21110312407 Client Smp ID: 1
Inj Date : 04-NOV-2011 23:02
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312407*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 83
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	970.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

						CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
10	C-18	9.475	9.504	-0.029	24012147	7.94765	16.4(M1)
M 11	Alip C9-C18				24012147	7.94765	16.4
114	C-36	10.152	15.144	-4.992	50794345	17.3618	35.8(AM1)
M 24	Alip C19-C36				50794345	17.3618	35.8

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b083s.d
Lab Smp Id: 21110312407 Client Smp ID: 1
Inj Date : 04-NOV-2011 23:02
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312407*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 83
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Chloro.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	970.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.152	10.216	-0.064	11935988	4.35687	8.98(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b083.d

Page 1

Date : 04-NOV-2011 23:02

Client ID: 1

Instrument: gcsv19b.i

Sample Info: 21110312407*1

Volume Injected (uL): 1.0

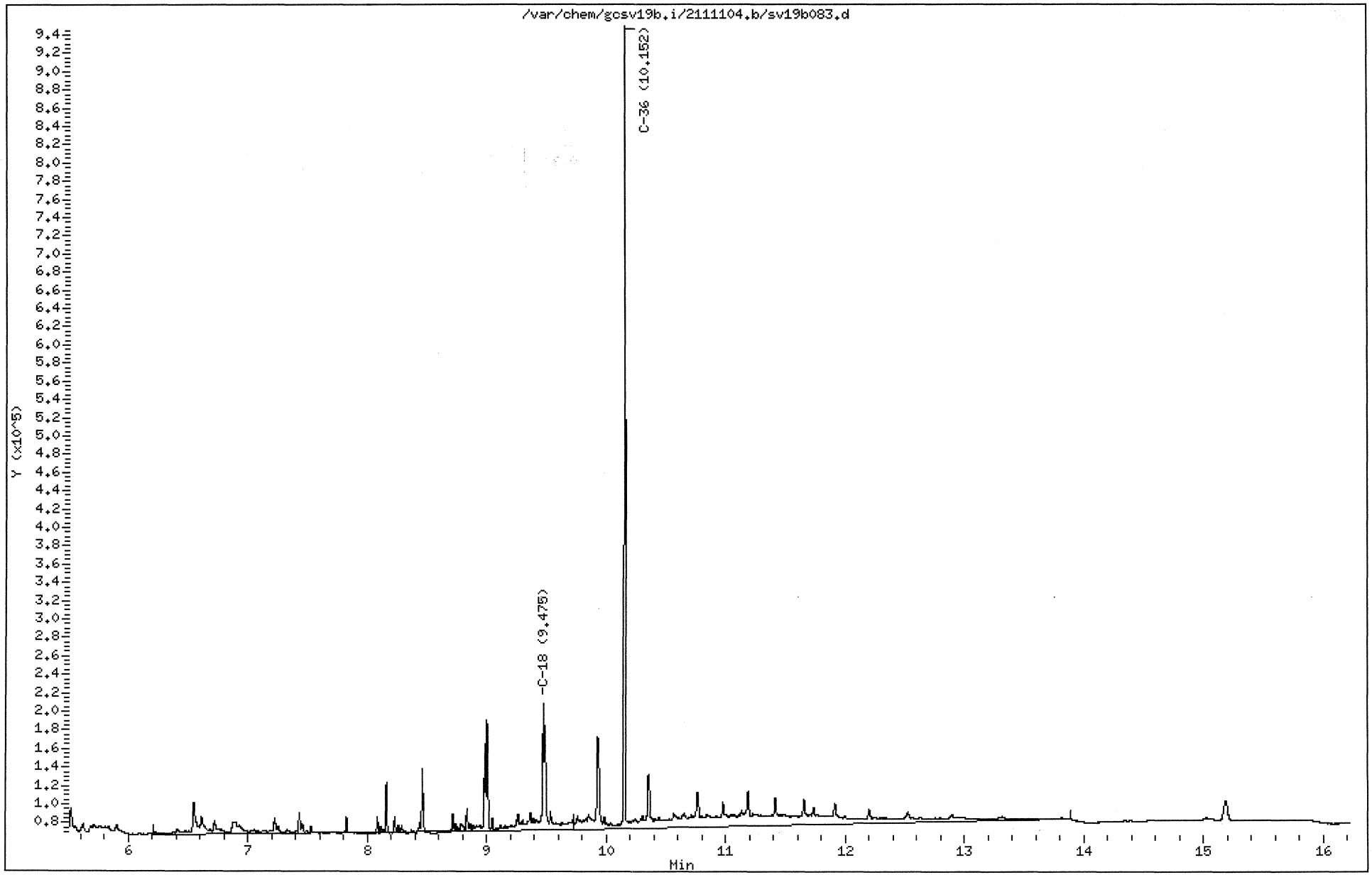
Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

25

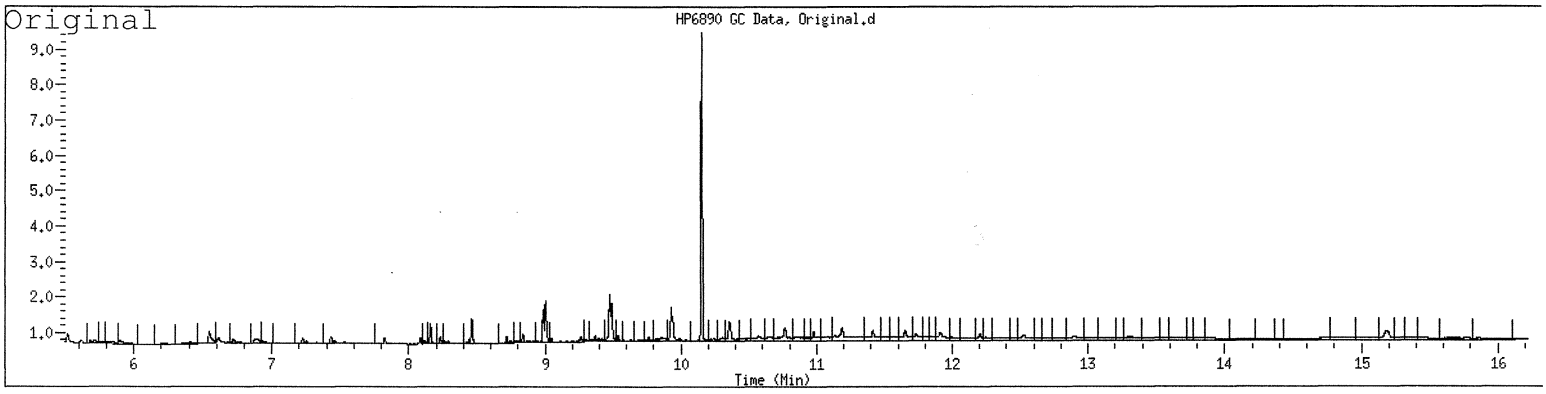
21111025?



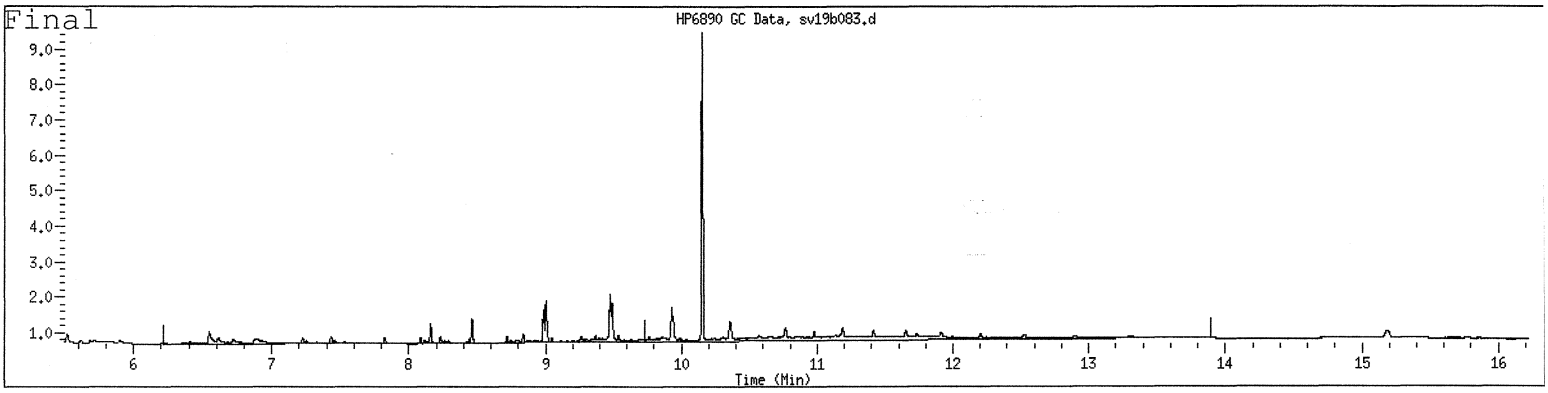
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312407	SampleType	: SAMPLE
Injection Date	: 11/04/2011 23:02	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312407*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Cal Date : 17-Nov-2011 12:26 smh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Level 2: /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Level 3: /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Level 4: /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Level 5: /var/chem/gcsv19b.i/2111103.b/sv19b056.d

	Compound	1.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
	1 C-9	2907155	2795641	2675594	2679051	2539259	2719340	5.104
	2 C-10	2799368	2826425	2717674	2752582	2600027	2739215	3.226
	3 C-11	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	4 C-12	2927391	2898654	2764473	2774841	2641941	2801460	4.102
	5 C-13	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	6 C-14	2986461	2962295	2862352	2862981	2716594	2878136	3.701
	7 C-15	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	8 C-16	3076201	3075973	2956170	2972906	2834259	2983102	3.364
	9 C-17	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	10 C-18	3132014	3109313	2986762	3012326	2866031	3021289	3.526
M	11 Alip C9-C18	2971432	2944717	2827171	2842448	2699685	2857090	3.779
	12 C-19	3105166	3106510	2982171	3015246	2877102	3017239	3.169
	13 C-20	3095123	3146395	3018289	3051261	2915502	3045314	2.859
	14 C-21	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	16 C-22	3086197	3160319	3040998	3073189	2942532	3060647	2.587
	17 C-23	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	18 C-24	3088147	3182819	3098256	3124206	2998582	3098402	2.157
	19 C-25	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	20 C-26	3093703	3199157	3120962	3153549	3033072	3120089	2.004
	21 C-27	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	22 C-28	3086943	3160312	3086851	3125844	3019987	3095987	1.692
	115 C-30	3100257	3187831	3112669	3153703	3047243	3120341	1.716

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Cal Date : 17-Nov-2011 12:26 smh
Curve Type : Average

	1.000	10.000	50.000	100.000	200.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
23 C-35	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 C-36	2886196	3002979	2951503	2961566	2825927	2925634	2.383
M 24 Alip C19-C36	3067716	3143290	3051462	3082321	2957493	3060457	2.196
$ 15 Chlorooctadecane	2745086	2791763	2723572	2771406	2666079	2739581	1.772

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 12:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 12:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.222	6.232	-0.010	2907155	1.00000	1.00 (M2)
2	C-10	6.925	6.929	-0.004	2799368	1.00000	1.00 (M2)
4	C-12	7.823	7.833	-0.010	2927391	1.00000	1.00 (M2)
6	C-14	8.462	8.471	-0.009	2986461	1.00000	1.00 (M2)
8	C-16	9.008	9.014	-0.006	3076201	1.00000	1.00 (M2)
10	C-18	9.502	9.504	-0.002	3132014	1.00000	1.00 (M2)
M 11	Alip C9-C18				17828590	6.00000	6.00
12	C-19	9.738	9.774	-0.036	3105166	1.00000	1.00 (M2)
13	C-20	9.965	9.957	0.008	3095123	1.00000	1.00 (M2)
$ 15	Chlorooctadecane	10.185	10.217	-0.032	2745086	1.00000	1.00 (M2)
16	C-22	10.403	10.384	0.019	3086197	1.00000	1.00 (M2)
18	C-24	10.826	10.796	0.030	3088147	1.00000	1.00 (M2)
20	C-26	11.263	11.223	0.040	3093703	1.00000	1.00 (M2)

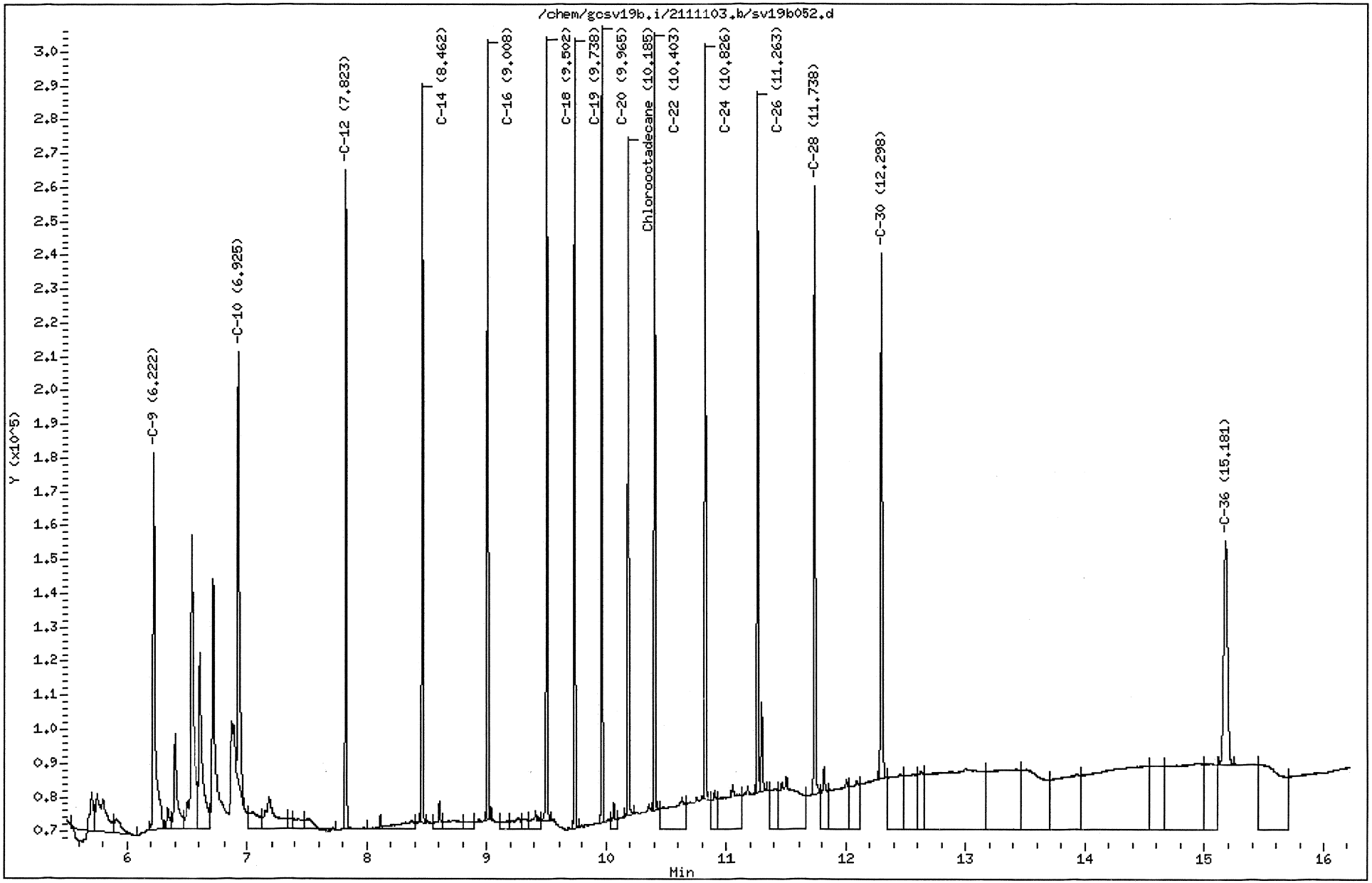
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.738	11.724	0.014	3086943	1.00000	1.00(M2)
115 C-30	12.298	12.250	0.048	3100257	1.00000	1.00(AM2)
114 C-36	15.181	15.144	0.037	2886196	1.00000	1.00(AM2)
M 24 Alip C19-C36				24541732	8.00000	8.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b052.d
Date : 03-NOV-2011 12:55
Client ID: 1 84-15-4
Sample Info: 1201*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

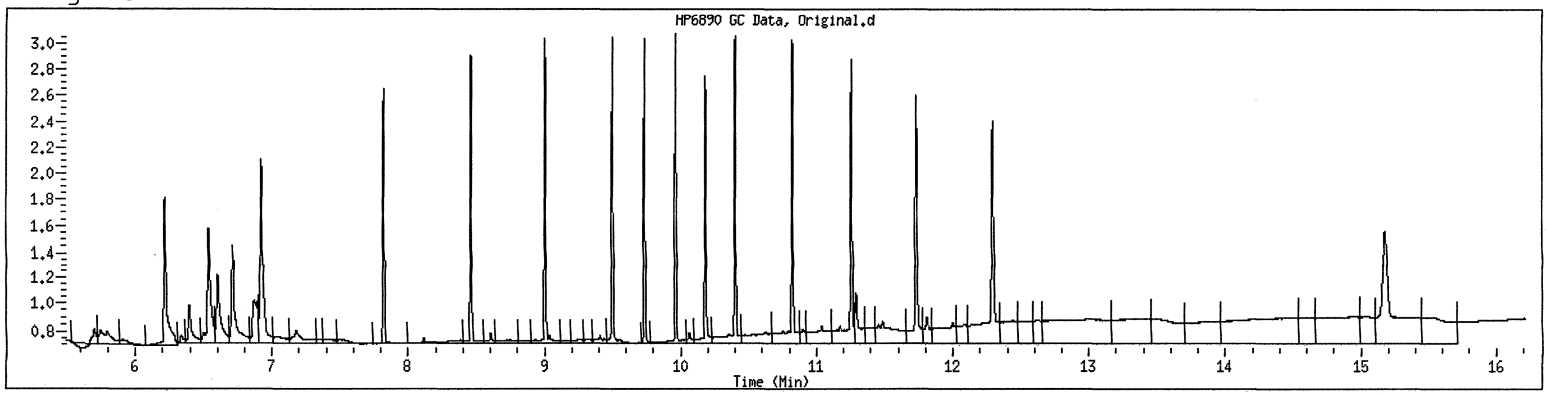
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



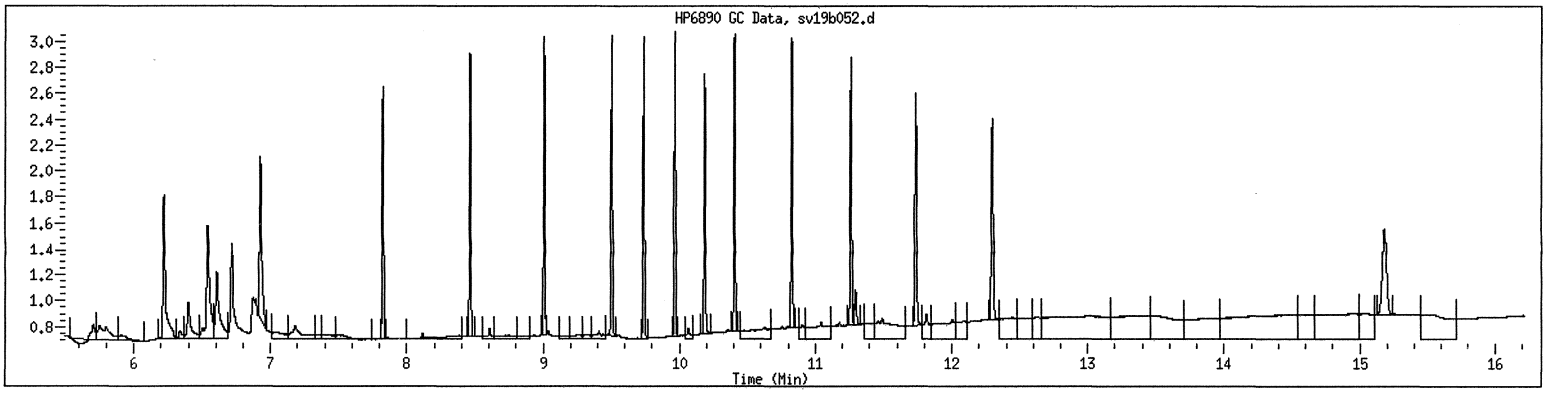
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/03/2011 12:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.225	6.232	-0.007	27956412	10.0000	9.80(M2)
	2 C-10	6.929	6.929	0.000	28264251	10.0000	10.0(M2)
	4 C-12	7.825	7.833	-0.008	28986541	10.0000	9.95(M2)
	6 C-14	8.463	8.471	-0.008	29622947	10.0000	9.96(M2)
	8 C-16	9.005	9.014	-0.009	30759729	10.0000	10.0(M2)
	10 C-18	9.495	9.504	-0.009	31093127	10.0000	9.96(M2)
M	11 Alip C9-C18				176683007	60.0000	59.7
	12 C-19	9.726	9.774	-0.048	31065095	10.0000	10.0(M2)
	13 C-20	9.950	9.957	-0.007	31463953	10.0000	10.1(M2)
$	15 Chlorooctadecane	10.165	10.217	-0.052	27917627	10.0000	10.1(M2)
	16 C-22	10.379	10.384	-0.005	31603189	10.0000	10.1(M2)
	18 C-24	10.792	10.796	-0.004	31828188	10.0000	10.2(M2)
	20 C-26	11.219	11.223	-0.004	31991568	10.0000	10.2(M2)

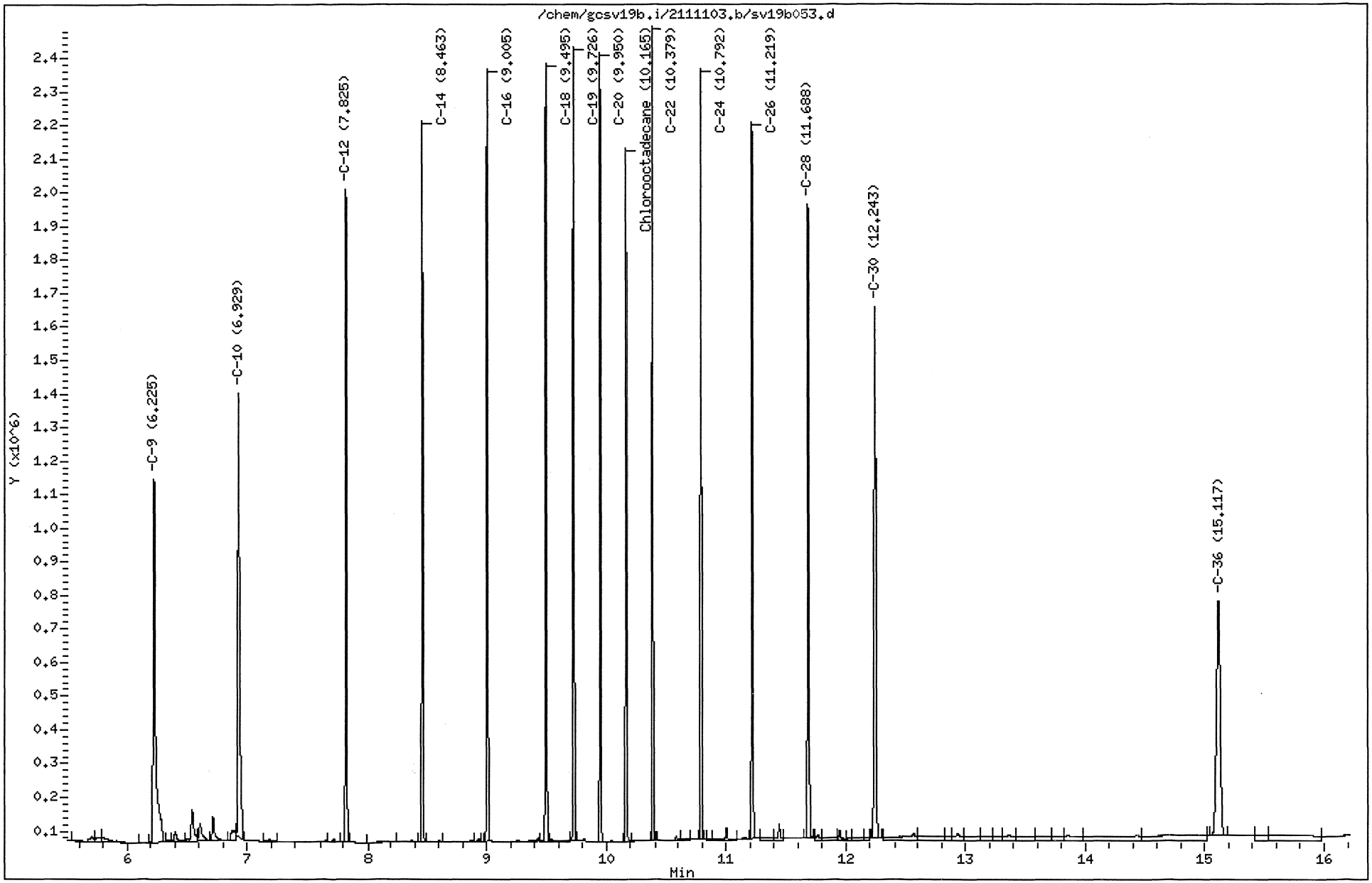
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.688	11.724	-0.036	31603121	10.0000	10.1(M2)
115 C-30	12.243	12.250	-0.007	31878310	10.0000	10.1(AM2)
114 C-36	15.117	15.144	-0.027	30029788	10.0000	10.2(AM2)
M 24 Alip C19-C36				251463212	80.0000	81.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b053.d
Date : 03-NOV-2011 13:18
Client ID: 1 84-15-4
Sample Info: 1202*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25

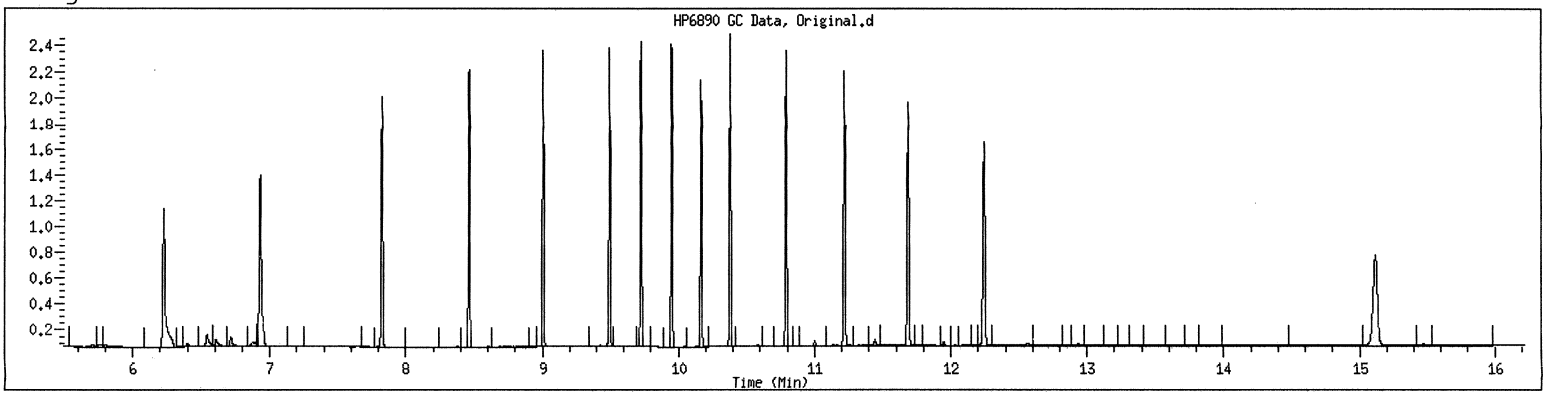


Report Date: 11/08/2011 09:16

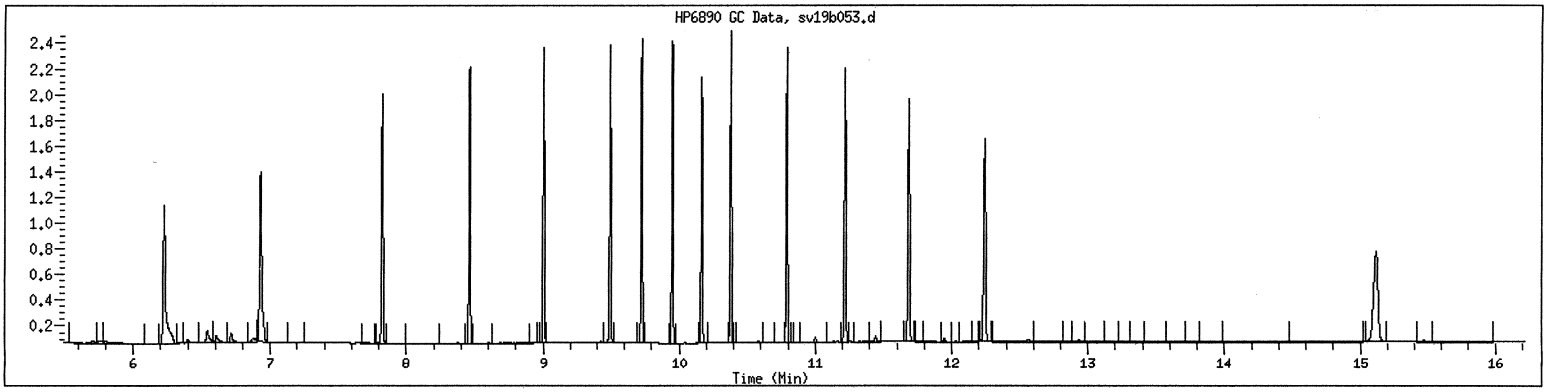
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1202 SampleType : CALIB_2
Injection Date: 11/03/2011 13:18 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1202*1 84-16-1
Misc Info :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.230	6.232	-0.002	133779709	50.0000	47.9
	2 C-10	6.931	6.929	0.002	135883716	50.0000	48.9
	4 C-12	7.828	7.833	-0.005	138223627	50.0000	48.3
	6 C-14	8.466	8.471	-0.005	143117588	50.0000	48.7
	8 C-16	9.008	9.014	-0.006	147808492	50.0000	48.7
	10 C-18	9.497	9.504	-0.007	149338101	50.0000	48.5
M	11 Alip C9-C18				848151233	300.000	291
	12 C-19	9.729	9.774	-0.045	149108539	50.0000	48.7
	13 C-20	9.951	9.957	-0.006	150914449	50.0000	48.9
$	15 Chlorooctadecane	10.165	10.217	-0.052	136178585	50.0000	49.5
	16 C-22	10.378	10.384	-0.006	152049887	50.0000	49.1
	18 C-24	10.789	10.796	-0.007	154912784	50.0000	49.6
	20 C-26	11.216	11.223	-0.007	156048078	50.0000	49.7

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.684	11.724	-0.040	154342550	50.0000	49.6
115 C-30	12.240	12.250	-0.010	155633447	50.0000	49.7(A)
114 C-36	15.131	15.144	-0.013	147575152	50.0000	50.1(A)
M 24 Alip C19-C36				1220584886	400.000	395

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b054.d

Date : 03-NOV-2011 13:42

Client ID: 1 84-15-4

Sample Info: 1203x1 84-16-1

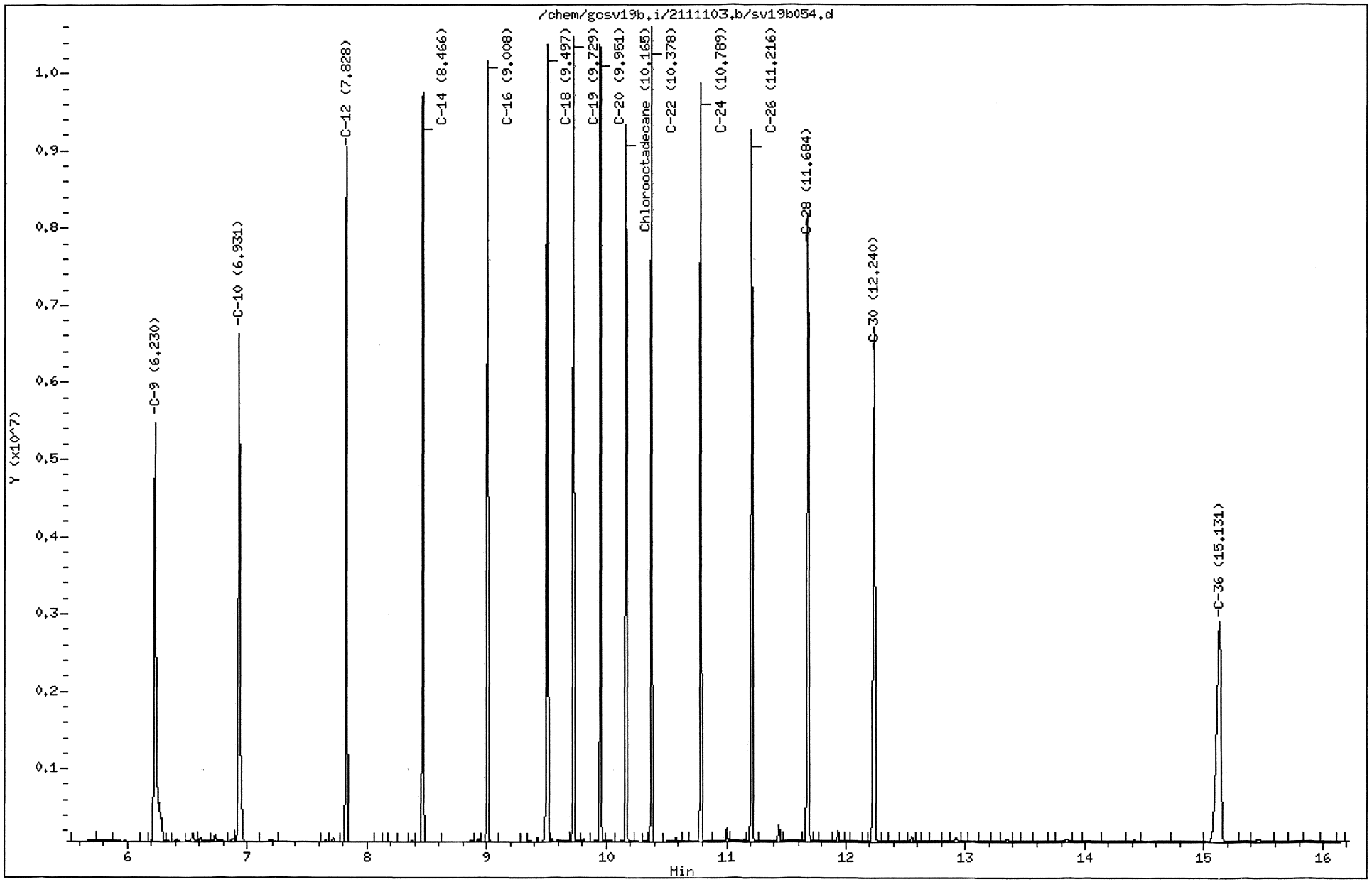
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

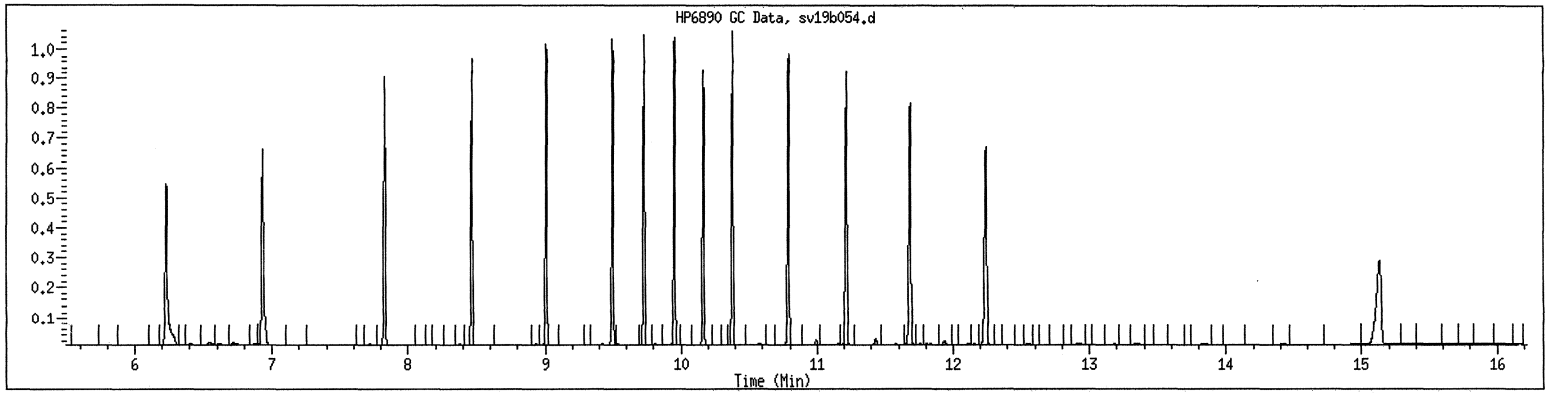
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/03/2011 13:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:06 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.234	6.232	0.002	267905092	100.000	96.9
2	C-10	6.936	6.929	0.007	275258180	100.000	99.2
4	C-12	7.831	7.833	-0.002	277484130	100.000	97.7
6	C-14	8.469	8.471	-0.002	286298081	100.000	98.1
8	C-16	9.012	9.014	-0.002	297290630	100.000	98.4
10	C-18	9.502	9.504	-0.002	301232611	100.000	98.4
M 11	Alip C9-C18				1705468724	600.000	589
12	C-19	9.733	9.774	-0.041	301524643	100.000	98.8
13	C-20	9.957	9.957	0.000	305126115	100.000	99.1
$ 15	Chlorooctadecane	10.172	10.217	-0.045	277140629	100.000	100
16	C-22	10.385	10.384	0.001	307318934	100.000	99.5
18	C-24	10.798	10.796	0.002	312420640	100.000	100
20	C-26	11.227	11.223	0.004	315354910	100.000	100

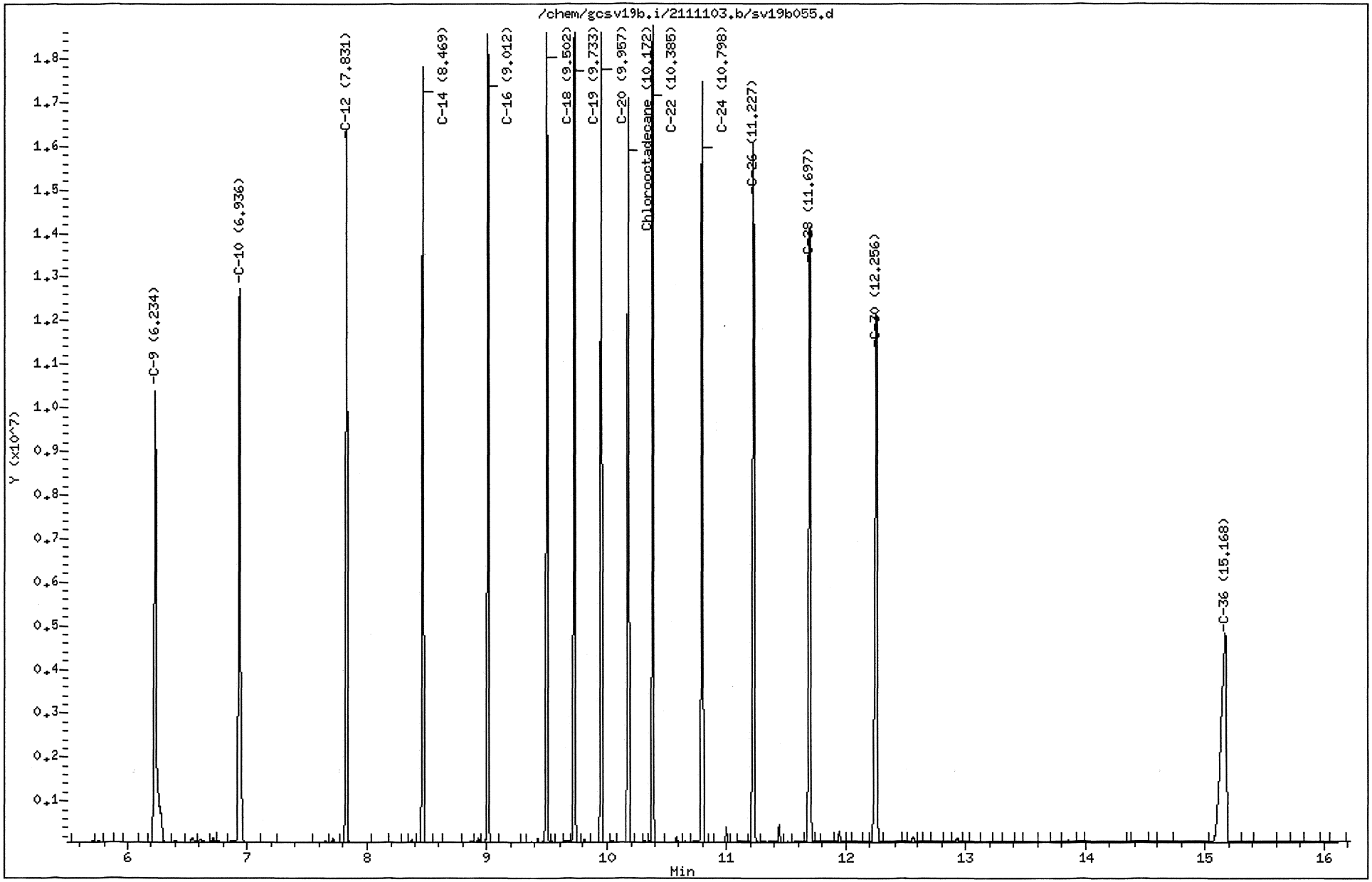
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.697	11.724	-0.027	312584380	100.000	100
115 C-30	12.256	12.250	0.006	315370277	100.000	100(A)
114 C-36	15.168	15.144	0.024	296156565	100.000	100(A)
M 24 Alip C19-C36				2465856464	800.000	799

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

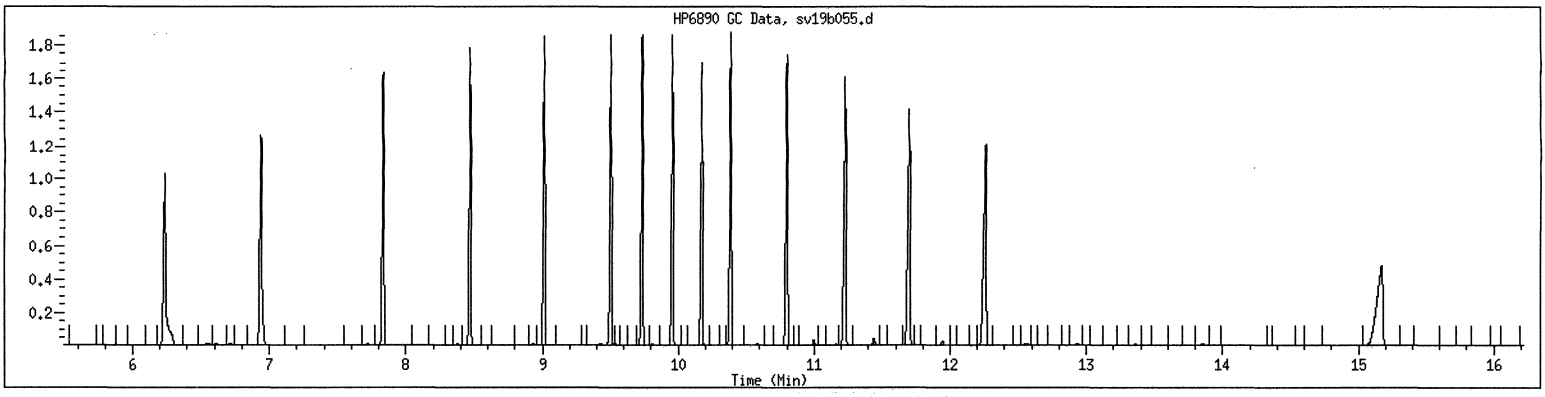
Data File: /chem/gcsv19b.i/2111103.b/sv19b055.d
Date : 03-NOV-2011 14:06
Client ID: 1 84-15-4
Sample Info: 1204*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/03/2011 14:06	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.235	6.232	0.003	507851786	200.000	187
2	C-10	6.940	6.929	0.011	520005449	200.000	190
4	C-12	7.836	7.833	0.003	528388238	200.000	189
6	C-14	8.473	8.471	0.002	543318717	200.000	189
8	C-16	9.016	9.014	0.002	566851761	200.000	190
10	C-18	9.505	9.504	0.001	573206156	200.000	190
M 11	Alip C9-C18				3239622107	1200.00	1130
12	C-19	9.736	9.774	-0.038	575420346	200.000	191
13	C-20	9.959	9.957	0.002	583100339	200.000	191
$ 15	Chlorooctadecane	10.174	10.217	-0.043	533215722	200.000	195
16	C-22	10.386	10.384	0.002	588506366	200.000	192
18	C-24	10.798	10.796	0.002	599716399	200.000	194
20	C-26	11.226	11.223	0.003	606614444	200.000	194

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.698	11.724	-0.026	603997432	200.000	195
115 C-30	12.259	12.250	0.009	609448655	200.000	195(A)
114 C-36	15.188	15.144	0.044	565185453	200.000	193(A)
M 24 Alip C19-C36				4731989434	1600.00	1550

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b056.d

Date : 03-NOV-2011 14:30

Client ID: 1 84-15-4

Sample Info: 1205x1 84-16-1

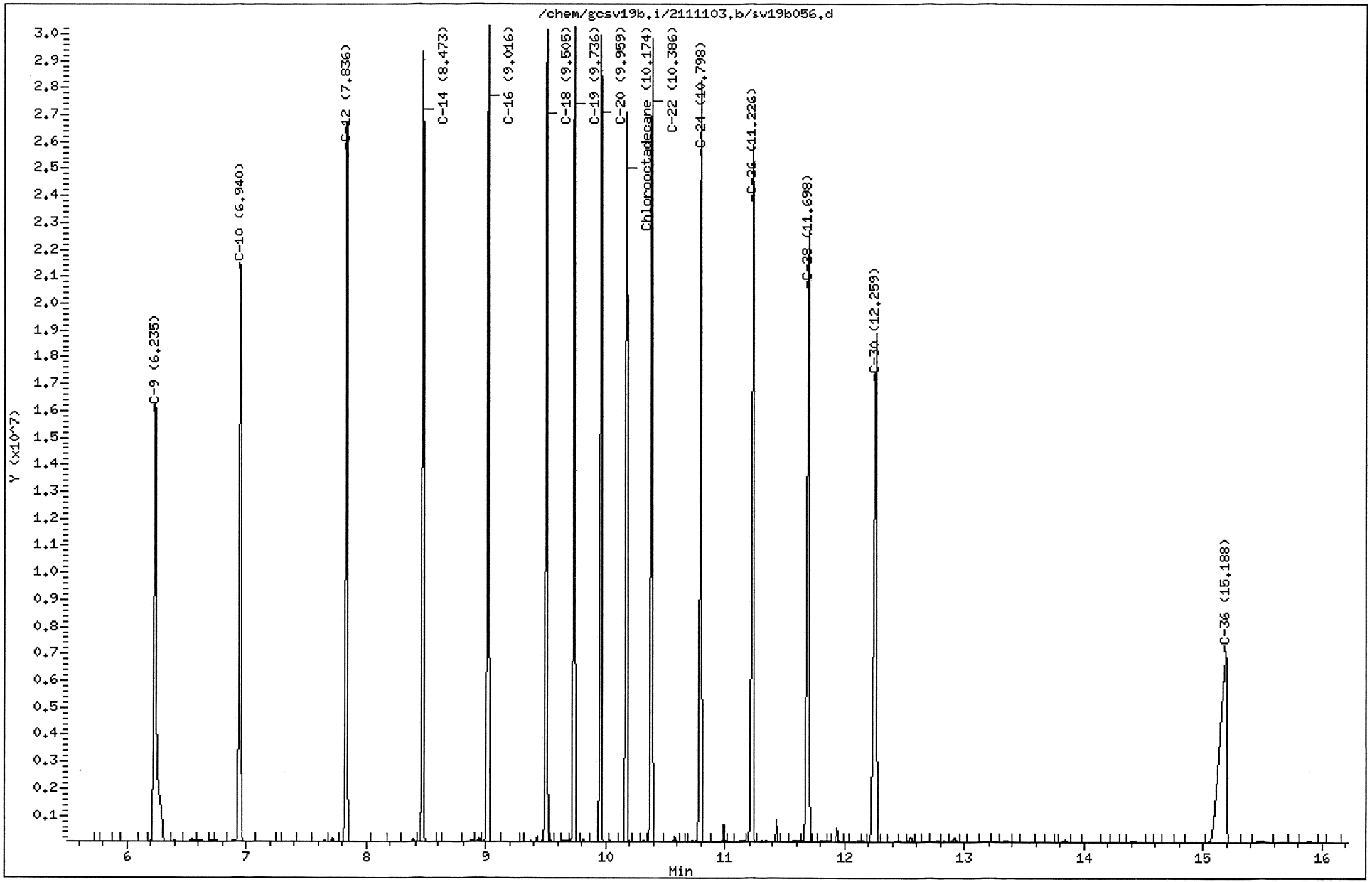
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

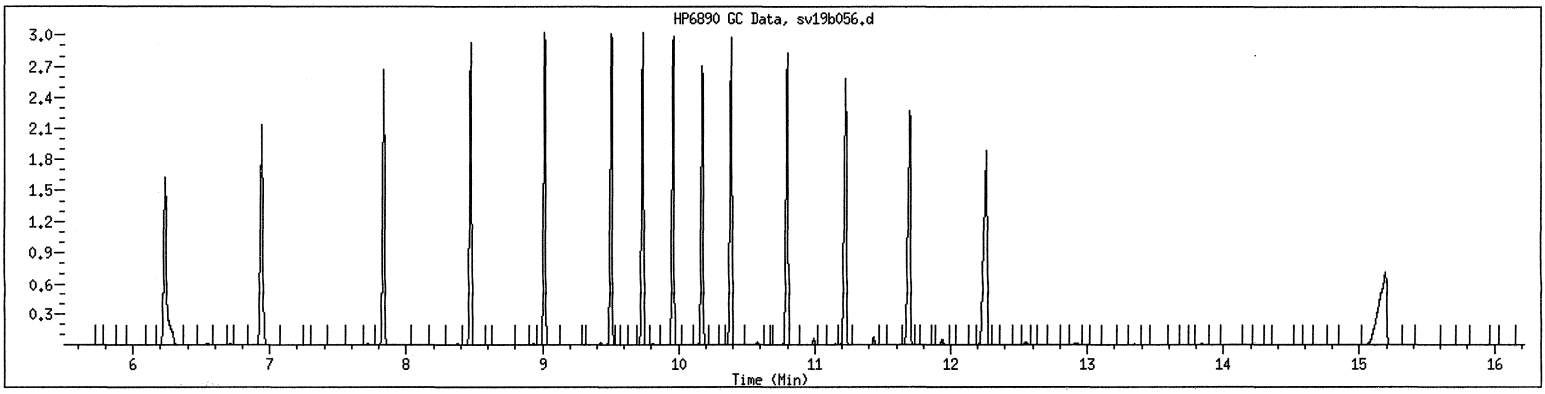
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1205 SampleType : CALIB_5
Injection Date: 11/03/2011 14:30 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1205*1 84-16-1
Misc Info :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111103
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Level: LOW Operator: smh
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: alphicv-new.spk Quant Type: ESTD
Sublist File: ALmasseph.sub
Method File: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 C-9	50.0	46.8	93.57	75-125
2 C-10	50.0	48.1	96.14	75-125
4 C-12	50.0	47.6	95.30	75-125
6 C-14	50.0	47.2	94.33	75-125
8 C-16	50.0	47.1	94.27	75-125
10 C-18	50.0	48.3	96.60	75-125
12 C-19	50.0	49.1	98.26	75-125
13 C-20	50.0	49.1	98.17	75-125
16 C-22	50.0	49.5	98.94	75-125
18 C-24	50.0	49.0	97.98	75-125
20 C-26	50.0	49.0	97.97	75-125
22 C-28	50.0	48.7	97.32	75-125
114 C-36	50.0	50.0	100.09	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 15 Chlorooctadecane	40000	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Inj Date : 03-NOV-2011 14:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-16-2
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 04-Nov-2011 09:50 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1	C-9	6.229	6.232	-0.003	127218912	46.7830	46.8
2	C-10	6.931	6.929	0.002	131668495	48.0680	48.1
4	C-12	7.828	7.833	-0.005	133484208	47.6481	47.6
6	C-14	8.466	8.471	-0.005	135740381	47.1626	47.2
8	C-16	9.008	9.014	-0.006	140615142	47.1372	47.1
10	C-18	9.497	9.504	-0.007	145930395	48.3007	48.3
M 11	Alip C9-C18				814657533	285.135	285
12	C-19	9.728	9.774	-0.046	148243248	49.1321	49.1
13	C-20	9.950	9.957	-0.007	149480953	49.0856	49.1
16	C-22	10.377	10.384	-0.007	151407787	49.4692	49.5
18	C-24	10.788	10.796	-0.008	151784501	48.9880	49.0
20	C-26	11.213	11.223	-0.010	152831618	48.9831	49.0
22	C-28	11.681	11.724	-0.043	150648000	48.6591	48.7

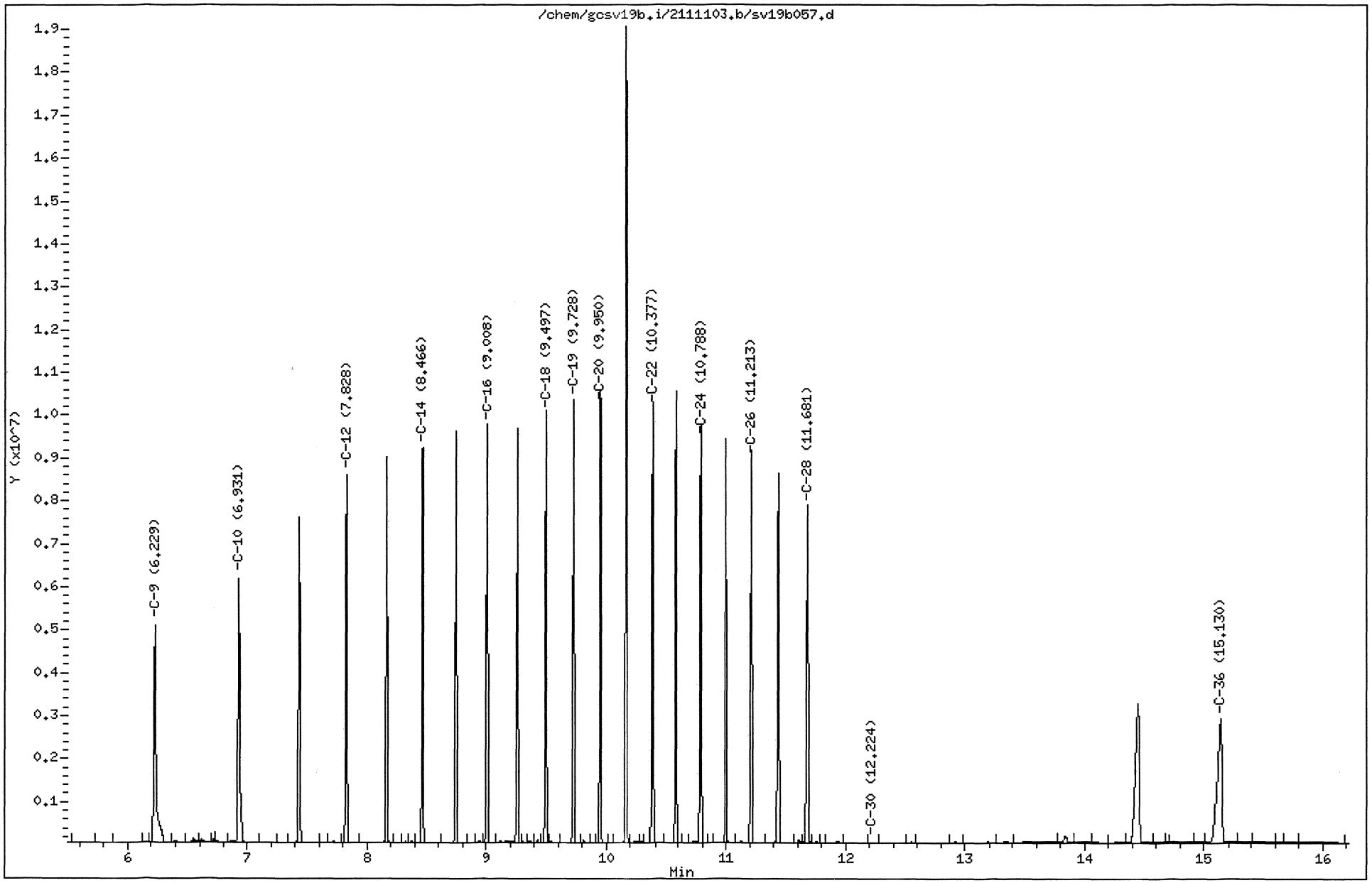
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
115 C-30	12.224	12.250	-0.026	863815	0.27683	0.277(A)
114 C-36	15.130	15.144	-0.014	146419842	50.0472	50.0(A)
M 24 Alip C19-C36				1051679764	343.635	344

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b057.d
Date : 03-NOV-2011 14:54
Client ID: 1 84-16-2
Sample Info: 1600x1 84-16-2
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

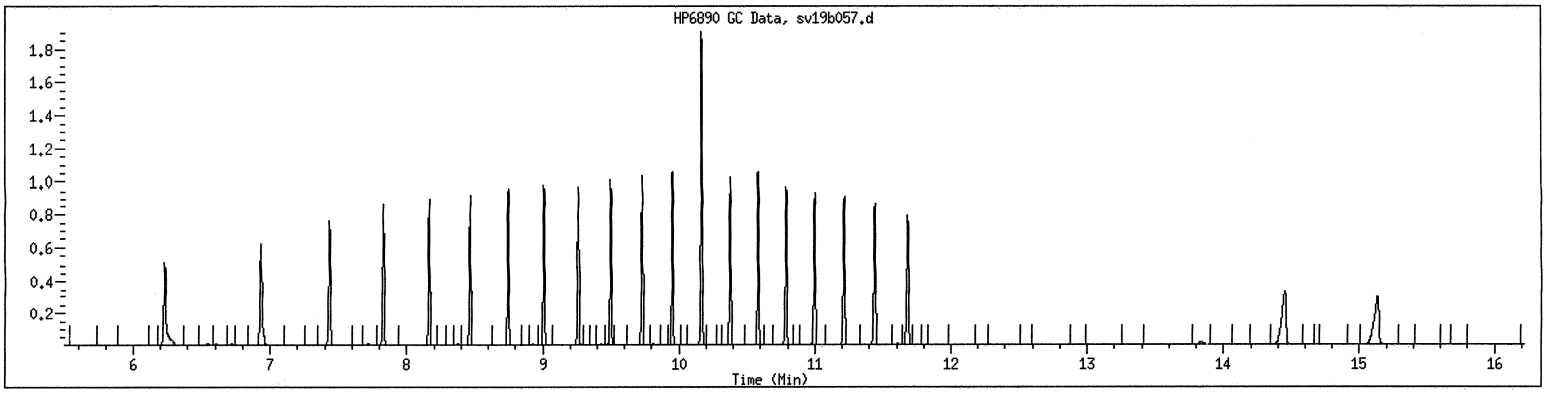
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/08/2011 08:46

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/03/2011 14:54	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-16-2		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 09:12
Lab File ID: sv19b053.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2365533	0.010	13.01075	25.00000	Averaged
2 C-10	2739215	2446747	0.010	10.67710	25.00000	Averaged
4 C-12	2801460	2459169	0.010	12.21829	25.00000	Averaged
6 C-14	2878136	2530922	0.010	12.06385	25.00000	Averaged
8 C-16	2983102	2629735	0.010	11.84563	25.00000	Averaged
10 C-18	3021289	2649368	0.010	12.31001	25.00000	Averaged
M 11 Alip C9-C18	2857090	2513579	0.010	12.02312	25.00000	Averaged
12 C-19	3017239	2648833	0.010	12.21005	25.00000	Averaged
13 C-20	3045314	2681325	0.010	11.95243	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2405528	0.010	12.19356	25.00000	Averaged
16 C-22	3060647	2701322	0.010	11.74016	25.00000	Averaged
18 C-24	3098402	2735843	0.010	11.70147	25.00000	Averaged
20 C-26	3120089	2767306	0.010	11.30680	25.00000	Averaged
22 C-28	3095987	2745481	0.010	11.32130	25.00000	Averaged
115 C-30	3120341	2775943	0.010	11.03719	25.00000	Averaged
114 C-36	2925634	2622070	0.010	10.37602	25.00000	Averaged
M 24 Alip C19-C36	3060457	2709765	0.010	11.45879	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 11.73215
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b053.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 09:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.227	6.232	-0.005	118276670	50.0000	43.5
2	C-10	6.931	6.929	0.002	122337333	50.0000	44.7
4	C-12	7.827	7.833	-0.006	122958471	50.0000	43.9
6	C-14	8.464	8.471	-0.007	126546115	50.0000	44.0
8	C-16	9.007	9.014	-0.007	131486727	50.0000	44.1
10	C-18	9.496	9.504	-0.008	132468406	50.0000	43.8
M 11	Alip C9-C18				754073722	300.000	264
12	C-19	9.726	9.774	-0.048	132441629	50.0000	43.9
13	C-20	9.949	9.957	-0.008	134066257	50.0000	44.0
$ 15	Chlorooctadecane	10.164	10.216	-0.052	120276424	50.0000	43.9
16	C-22	10.376	10.384	-0.008	135066104	50.0000	44.1
18	C-24	10.788	10.796	-0.008	136792174	50.0000	44.1
20	C-26	11.214	11.223	-0.009	138365315	50.0000	44.3

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.682	11.724	-0.042	137274066	50.0000	44.3
115 C-30	12.237	12.249	-0.012	138797128	50.0000	44.5(A)
114 C-36	15.127	15.144	-0.017	131103492	50.0000	44.8(A)
M 24 Alip C19-C36				1083906165	400.000	354

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111104.b/sv19b053.d

Date : 04-NOV-2011 09:12

Client ID: 1 84-16-1

Sample Info: 1400*1 84-16-1

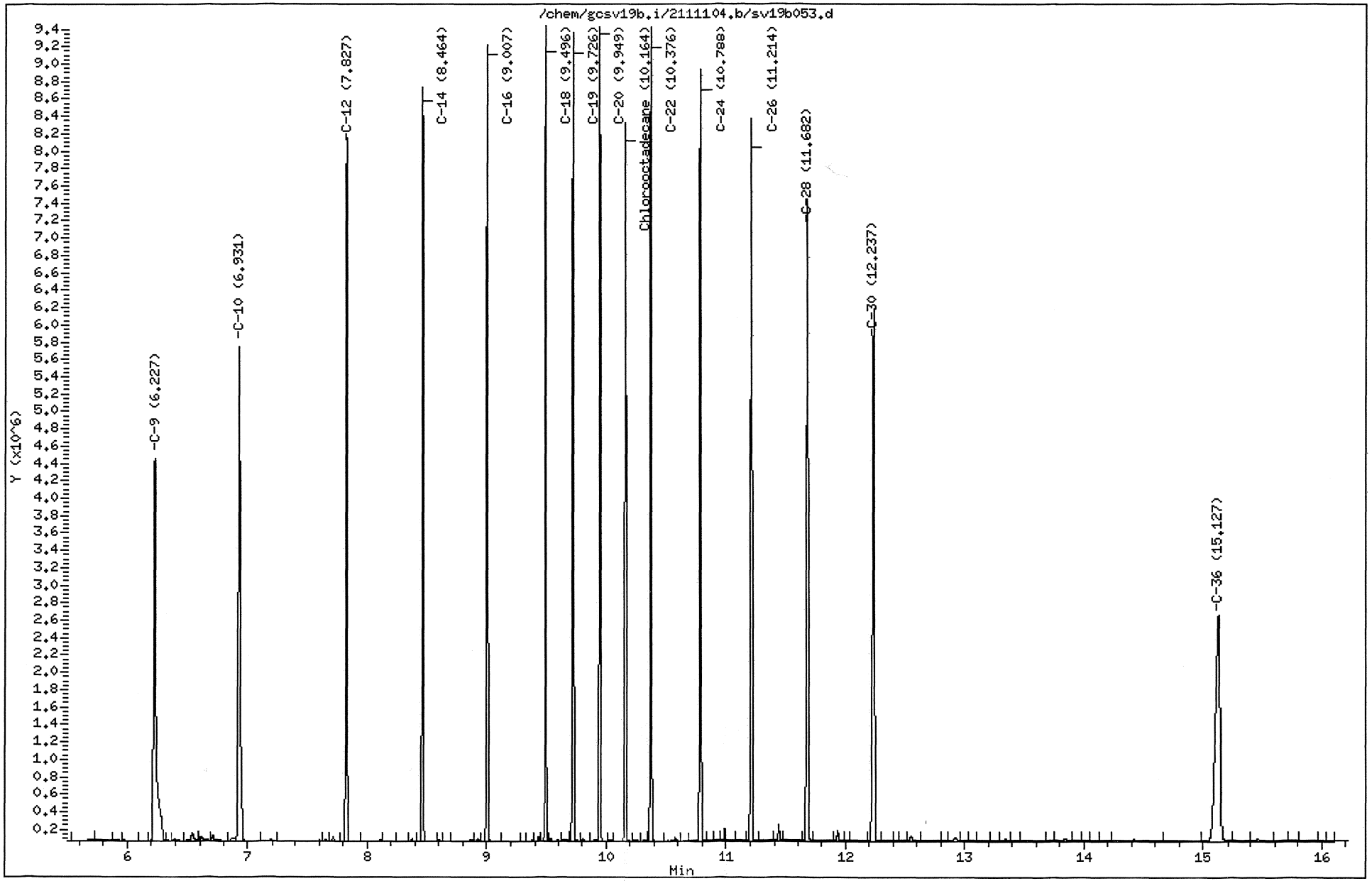
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

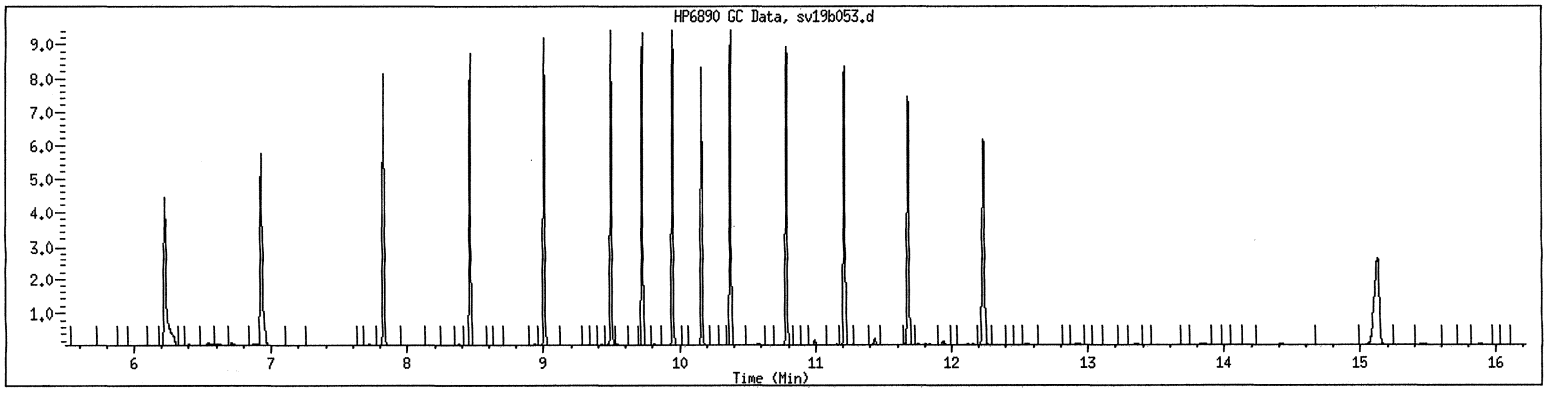
Column diameter: 0.25



Report Date: 11/08/2011 13:37

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 09:12	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 15:45
Lab File ID: sv19b065.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2613264	0.010	3.90079	25.00000	Averaged
2 C-10	2739215	2663265	0.010	2.77270	25.00000	Averaged
4 C-12	2801460	2714757	0.010	3.09493	25.00000	Averaged
6 C-14	2878136	2778305	0.010	3.46861	25.00000	Averaged
8 C-16	2983102	2885740	0.010	3.26377	25.00000	Averaged
10 C-18	3021289	2913230	0.010	3.57658	25.00000	Averaged
M 11 Alip C9-C18	2857090	2761427	0.010	3.34829	25.00000	Averaged
12 C-19	3017239	2917827	0.010	3.29479	25.00000	Averaged
13 C-20	3045314	2953584	0.010	3.01216	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2685289	0.010	1.98177	25.00000	Averaged
16 C-22	3060647	2980997	0.010	2.60239	25.00000	Averaged
18 C-24	3098402	3027070	0.010	2.30222	25.00000	Averaged
20 C-26	3120089	3050819	0.010	2.22010	25.00000	Averaged
22 C-28	3095987	3013888	0.010	2.65180	25.00000	Averaged
115 C-30	3120341	3044490	0.010	2.43086	25.00000	Averaged
114 C-36	2925634	2871101	0.010	1.86398	25.00000	Averaged
M 24 Alip C19-C36	3060457	2982472	0.010	2.54813	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.84317
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b065.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 15:45
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.229	6.232	-0.003	130663219	50.0000	48.0
	2 C-10	6.932	6.929	0.003	133163247	50.0000	48.6
	4 C-12	7.829	7.833	-0.004	135737833	50.0000	48.5
	6 C-14	8.467	8.471	-0.004	138915254	50.0000	48.3
	8 C-16	9.009	9.014	-0.005	144287003	50.0000	48.4
	10 C-18	9.498	9.504	-0.006	145661515	50.0000	48.2
M	11 Alip C9-C18				828428071	300.000	290
	12 C-19	9.729	9.774	-0.045	145891353	50.0000	48.4
	13 C-20	9.952	9.957	-0.005	147679209	50.0000	48.5
$	15 Chlorooctadecane	10.167	10.217	-0.050	134264437	50.0000	49.0
	16 C-22	10.379	10.384	-0.005	149049847	50.0000	48.7
	18 C-24	10.792	10.796	-0.004	151353497	50.0000	48.8
	20 C-26	11.219	11.223	-0.004	152540965	50.0000	48.9

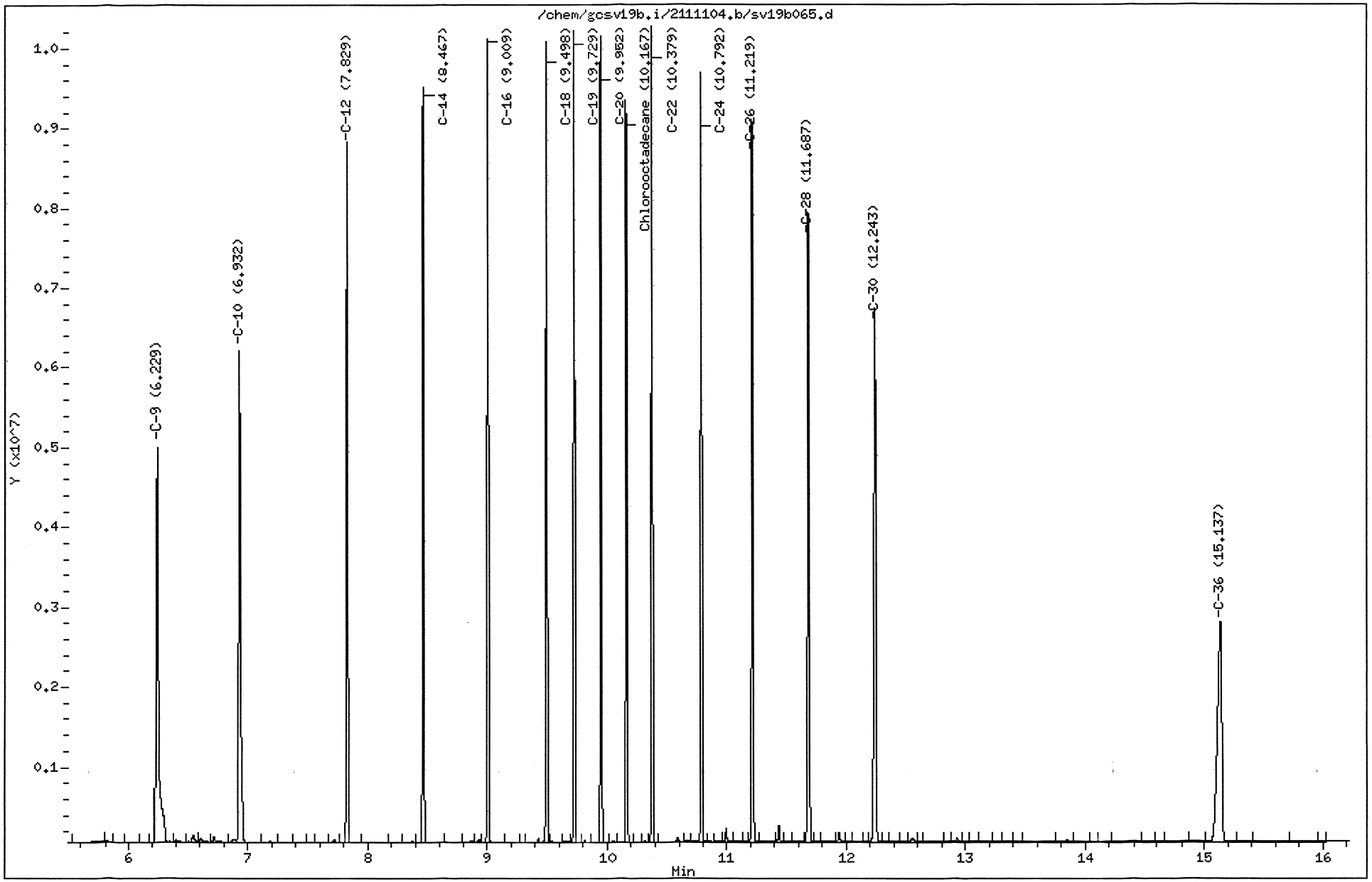
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.687	11.725	-0.038	150694405	50.0000	48.7
115 C-30	12.243	12.250	-0.007	152224481	50.0000	48.8(A)
114 C-36	15.137	15.145	-0.008	143555045	50.0000	49.1(A)
M 24 Alip C19-C36				1192988802	400.000	390

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111104.b/sv19b065.d
Date : 04-NOV-2011 15:45
Client ID: 1 84-16-1
Sample Info: 1400*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

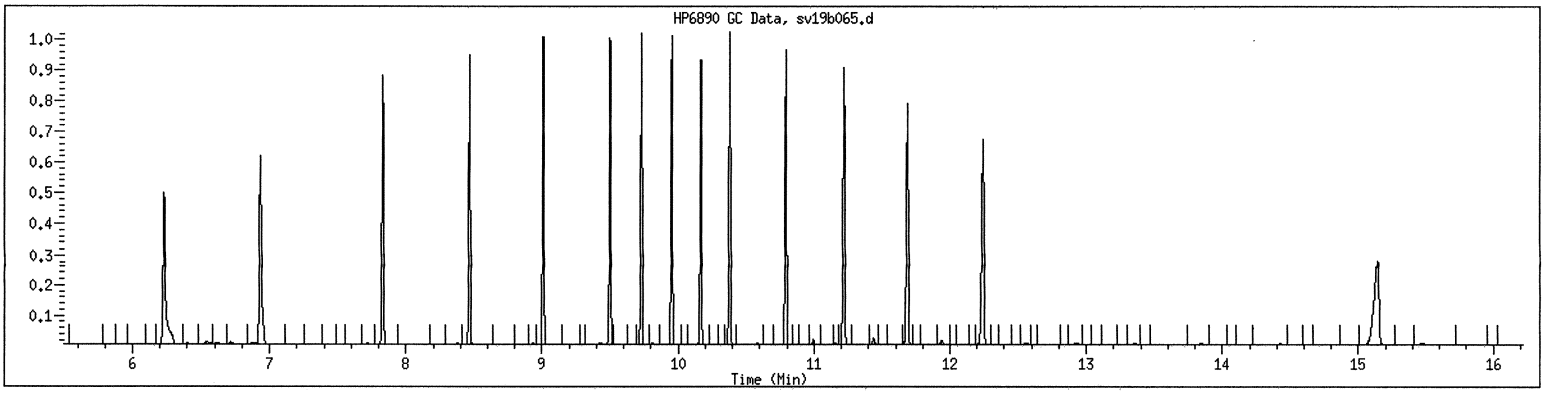
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/08/2011 13:57

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 15:45	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 21:26
Lab File ID: sv19b079.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2581871	0.010	5.05525	25.00000	Averaged
2 C-10	2739215	2671823	0.010	2.46029	25.00000	Averaged
4 C-12	2801460	2693394	0.010	3.85748	25.00000	Averaged
6 C-14	2878136	2768059	0.010	3.82460	25.00000	Averaged
8 C-16	2983102	2866747	0.010	3.90046	25.00000	Averaged
10 C-18	3021289	2887292	0.010	4.43511	25.00000	Averaged
M 11 Alip C9-C18	2857090	2744864	0.010	3.92799	25.00000	Averaged
12 C-19	3017239	2898780	0.010	3.92607	25.00000	Averaged
13 C-20	3045314	2941955	0.010	3.39402	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2663692	0.010	2.77009	25.00000	Averaged
16 C-22	3060647	2966763	0.010	3.06746	25.00000	Averaged
18 C-24	3098402	3022447	0.010	2.45141	25.00000	Averaged
20 C-26	3120089	3056143	0.010	2.04949	25.00000	Averaged
22 C-28	3095987	3033627	0.010	2.01425	25.00000	Averaged
115 C-30	3120341	3058955	0.010	1.96727	25.00000	Averaged
114 C-36	2925634	2883428	0.010	1.44262	25.00000	Averaged
M 24 Alip C19-C36	3060457	2982762	0.010	2.53865	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.12250
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b079.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 04-NOV-2011 21:26
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.229	6.232	-0.003	129093531	50.0000	47.5
	2 C-10	6.932	6.929	0.003	133591133	50.0000	48.8
	4 C-12	7.828	7.833	-0.005	134669711	50.0000	48.1
	6 C-14	8.466	8.471	-0.005	138402964	50.0000	48.1
	8 C-16	9.008	9.014	-0.006	143337352	50.0000	48.0
	10 C-18	9.497	9.504	-0.007	144364588	50.0000	47.8
M	11 Alip C9-C18				823459279	300.000	288
	12 C-19	9.727	9.774	-0.047	144939003	50.0000	48.0
	13 C-20	9.950	9.957	-0.007	147097767	50.0000	48.3
$	15 Chlorooctadecane	10.164	10.216	-0.052	133184608	50.0000	48.6
	16 C-22	10.376	10.384	-0.008	148338149	50.0000	48.5
	18 C-24	10.787	10.796	-0.009	151122368	50.0000	48.8
	20 C-26	11.212	11.223	-0.011	152807139	50.0000	49.0

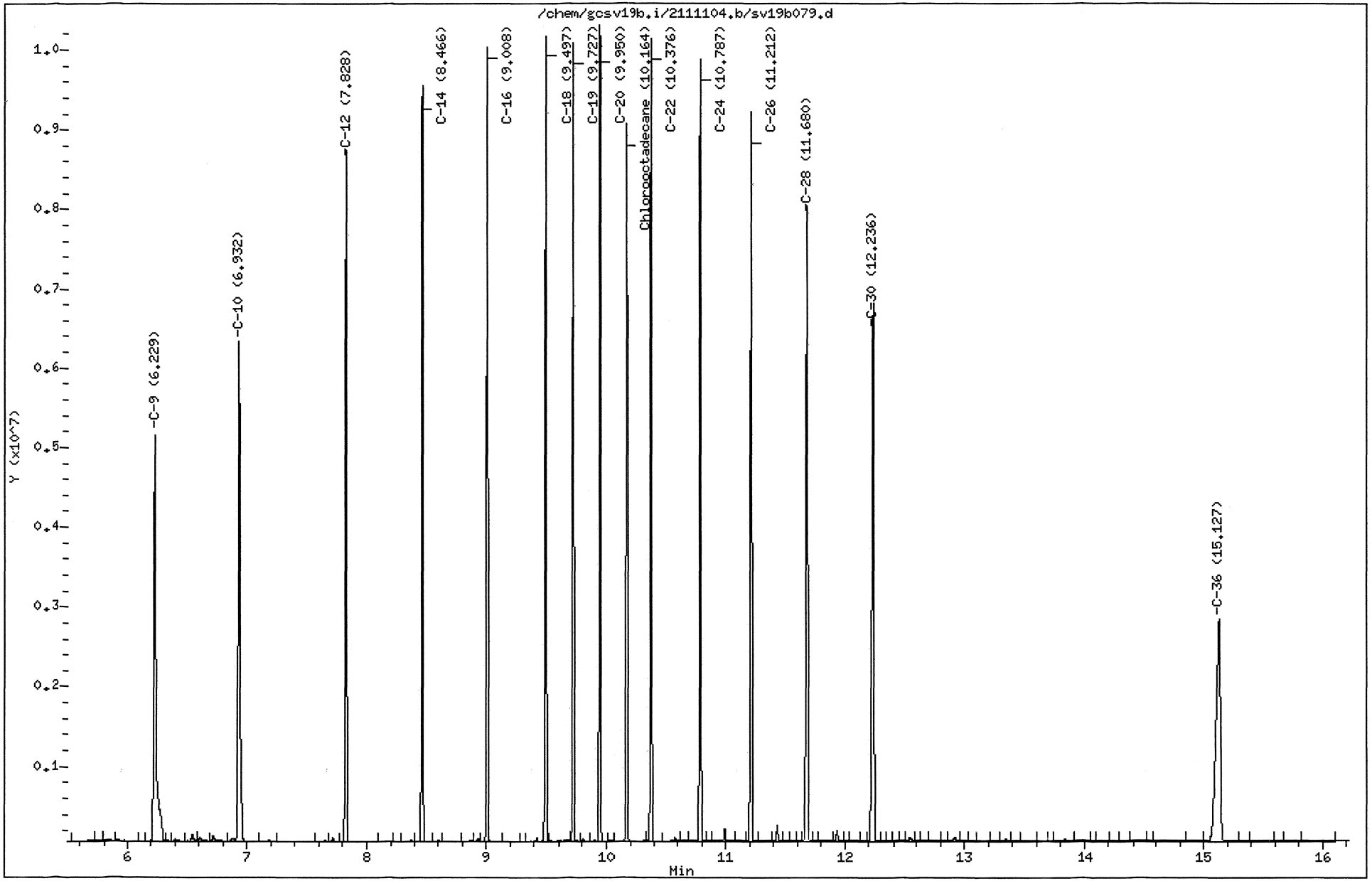
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.680	11.724	-0.044	151681326	50.0000	49.0
115 C-30	12.236	12.249	-0.013	152947749	50.0000	49.0(A)
114 C-36	15.127	15.144	-0.017	144171415	50.0000	49.3(A)
M 24 Alip C19-C36				1193104916	400.000	390

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

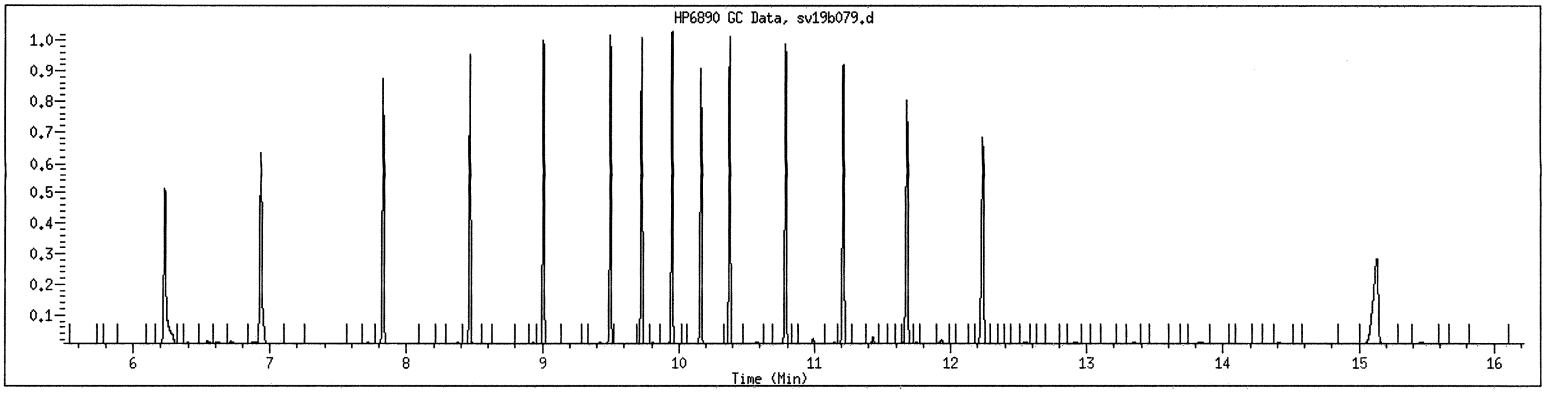
Data File: /chem/gcsv19b.i/2111104.b/sv19b079.d
Date : 04-NOV-2011 21:26
Client ID: 1 84-16-1
Sample Info: 1400x1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1400 SampleType : CCALIB_3
Injection Date: 11/04/2011 21:26 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1400*1 84-16-1
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 05-NOV-2011 03:02
Lab File ID: sv19b093.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2616131	0.010	3.79539	25.00000	Averaged
2 C-10	2739215	2716041	0.010	0.84602	25.00000	Averaged
4 C-12	2801460	2716423	0.010	3.03546	25.00000	Averaged
6 C-14	2878136	2821352	0.010	1.97296	25.00000	Averaged
8 C-16	2983102	2907881	0.010	2.52156	25.00000	Averaged
10 C-18	3021289	2904878	0.010	3.85304	25.00000	Averaged
M 11 Alip C9-C18	2857090	2780451	0.010	2.68243	25.00000	Averaged
12 C-19	3017239	2935895	0.010	2.69596	25.00000	Averaged
13 C-20	3045314	2979512	0.010	2.16075	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2716202	0.010	0.85337	25.00000	Averaged
16 C-22	3060647	3010552	0.010	1.63675	25.00000	Averaged
18 C-24	3098402	3063989	0.010	1.11067	25.00000	Averaged
20 C-26	3120089	3103619	0.010	0.52787	25.00000	Averaged
22 C-28	3095987	3079135	0.010	0.54432	25.00000	Averaged
115 C-30	3120341	3122619	0.010	-0.07300	25.00000	Averaged
114 C-36	2925634	2922347	0.010	0.11236	25.00000	Averaged
M 24 Alip C19-C36	3060457	3027208	0.010	1.08638	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 1.73578
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b093.d
Lab Smp Id: 1400 Client Smp ID: 1 84-16-1
Inj Date : 05-NOV-2011 03:02
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 93 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.230	6.232	-0.002	130806531	50.0000	48.1
	2 C-10	6.932	6.929	0.003	135802053	50.0000	49.6
	4 C-12	7.828	7.833	-0.005	135821148	50.0000	48.5
	6 C-14	8.466	8.471	-0.005	141067591	50.0000	49.0
	8 C-16	9.007	9.014	-0.007	145394050	50.0000	48.7
	10 C-18	9.494	9.503	-0.009	145243882	50.0000	48.1
M	11 Alip C9-C18				834135255	300.000	292
	12 C-19	9.723	9.774	-0.051	146794765	50.0000	48.7
	13 C-20	9.944	9.956	-0.012	148975619	50.0000	48.9
$	15 Chlorooctadecane	10.156	10.216	-0.060	135810111	50.0000	49.6
	16 C-22	10.365	10.383	-0.018	150527592	50.0000	49.2
	18 C-24	10.772	10.794	-0.022	153199445	50.0000	49.4
	20 C-26	11.194	11.221	-0.027	155180931	50.0000	49.7

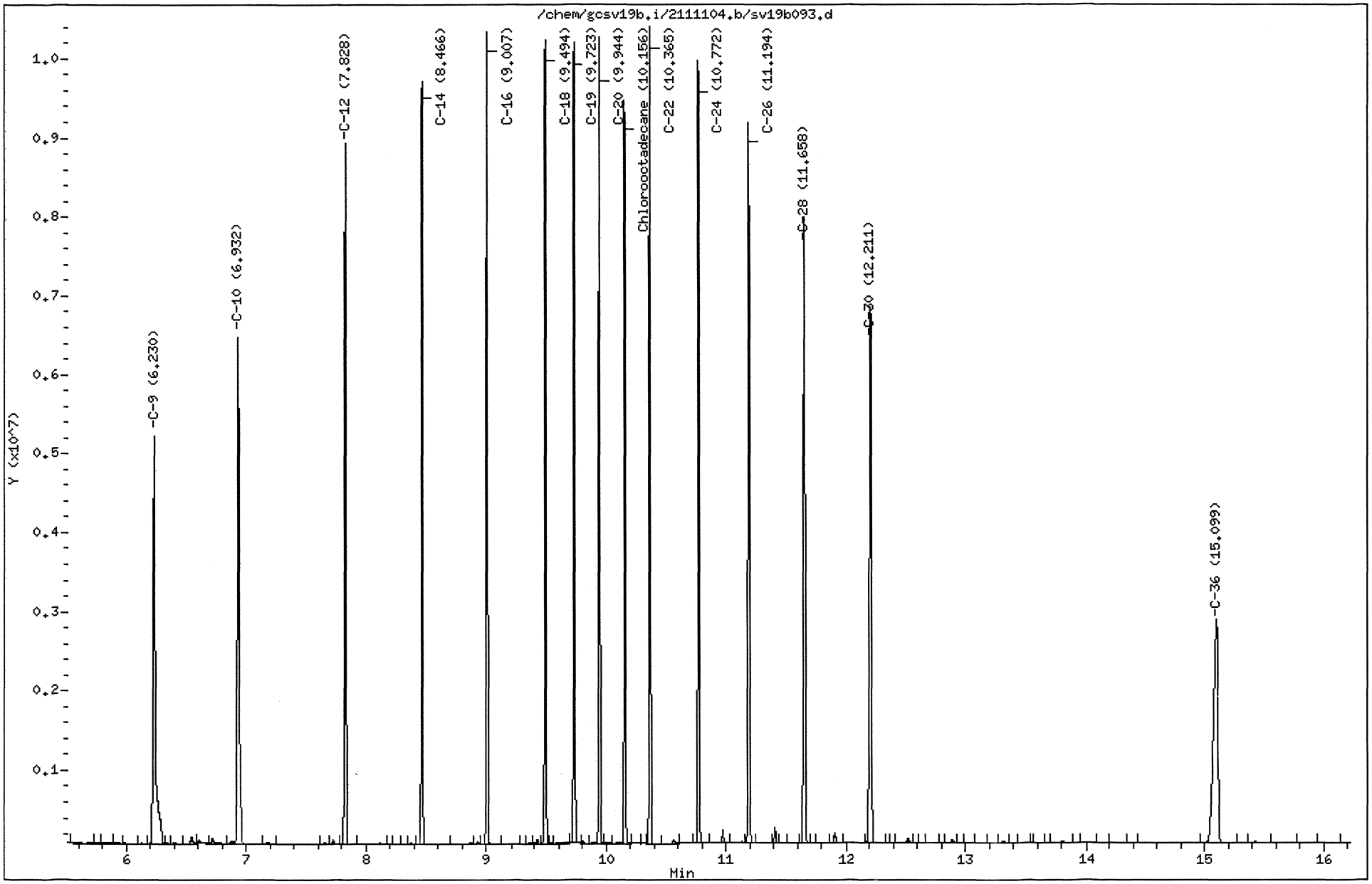
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.658	11.722	-0.064	153956764	50.0000	49.7
115 C-30	12.211	12.247	-0.036	156130930	50.0000	50.0(A)
114 C-36	15.099	15.141	-0.042	146117347	50.0000	49.9(A)
M 24 Alip C19-C36				1210883393	400.000	396

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

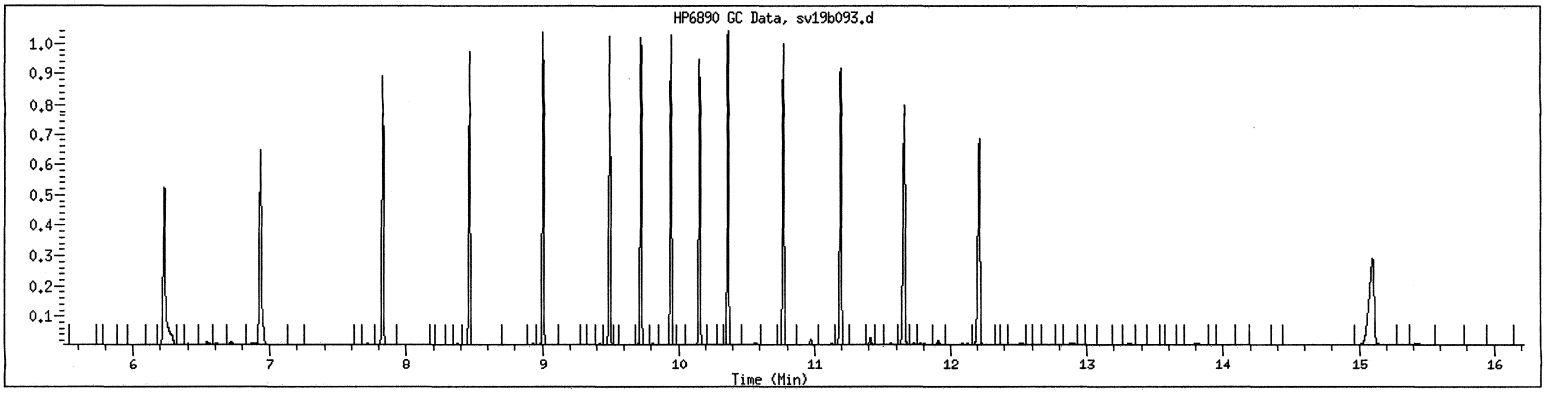
Data File: /chem/gcsv19b.i/2111104.b/sv19b093.d
Date : 05-NOV-2011 03:02
Client ID: 1 84-16-1
Sample Info: 1400*1 84-16-1
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/05/2011 03:02	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 14:37
Lab File ID: sv19b053.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2612883	0.010	3.91480	25.00000	Averaged
2 C-10	2739215	2651076	0.010	3.21768	25.00000	Averaged
4 C-12	2801460	2732444	0.010	2.46357	25.00000	Averaged
6 C-14	2878136	2764141	0.010	3.96074	25.00000	Averaged
8 C-16	2983102	2843571	0.010	4.67737	25.00000	Averaged
10 C-18	3021289	2807220	0.010	7.08537	25.00000	Averaged
M 11 Alip C9-C18	2857090	2735223	0.010	4.26546	25.00000	Averaged
12 C-19	3017239	2816034	0.010	6.66852	25.00000	Averaged
13 C-20	3045314	2850436	0.010	6.39926	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2573613	0.010	6.05816	25.00000	Averaged
16 C-22	3060647	2856542	0.010	6.66869	25.00000	Averaged
18 C-24	3098402	2897387	0.010	6.48770	25.00000	Averaged
20 C-26	3120089	2923933	0.010	6.28687	25.00000	Averaged
22 C-28	3095987	2886973	0.010	6.75113	25.00000	Averaged
115 C-30	3120341	2928603	0.010	6.14475	25.00000	Averaged
114 C-36	2925634	2594512	0.010	11.31796	25.00000	Averaged
M 24 Alip C19-C36	3060457	2844302	0.010	7.06281	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.36355
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b053.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 10-NOV-2011 14:37
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.227	6.232	-0.005	130644166	50.0000	48.0
	2 C-10	6.927	6.928	-0.001	132553801	50.0000	48.4
	4 C-12	7.824	7.832	-0.008	136622203	50.0000	48.8
	6 C-14	8.463	8.470	-0.007	138207049	50.0000	48.0
	8 C-16	9.005	9.013	-0.008	142178545	50.0000	47.7
	10 C-18	9.496	9.503	-0.007	140360985	50.0000	46.5
M	11 Alip C9-C18				820566751	300.000	287
	12 C-19	9.726	9.773	-0.047	140801679	50.0000	46.7
	13 C-20	9.949	9.956	-0.007	142521816	50.0000	46.8
$	15 Chlorooctadecane	10.163	10.215	-0.052	128680639	50.0000	47.0
	16 C-22	10.376	10.382	-0.006	142827089	50.0000	46.7
	18 C-24	10.787	10.794	-0.007	144869340	50.0000	46.8
	20 C-26	11.214	11.220	-0.006	146196632	50.0000	46.9
	22 C-28	11.682	11.721	-0.039	144348659	50.0000	46.6

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
115 C-30	12.239	12.246	-0.007	146430165	50.0000	46.9(A)
114 C-36	15.133	15.140	-0.007	129725597	50.0000	44.3(A)
M 24 Alip C19-C36				1137720980	400.000	372

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111110.b/sv19b053.d

Date : 10-NOV-2011 14:37

Client ID: 1 84-15-4

Sample Info: 1400x1 84-15-4

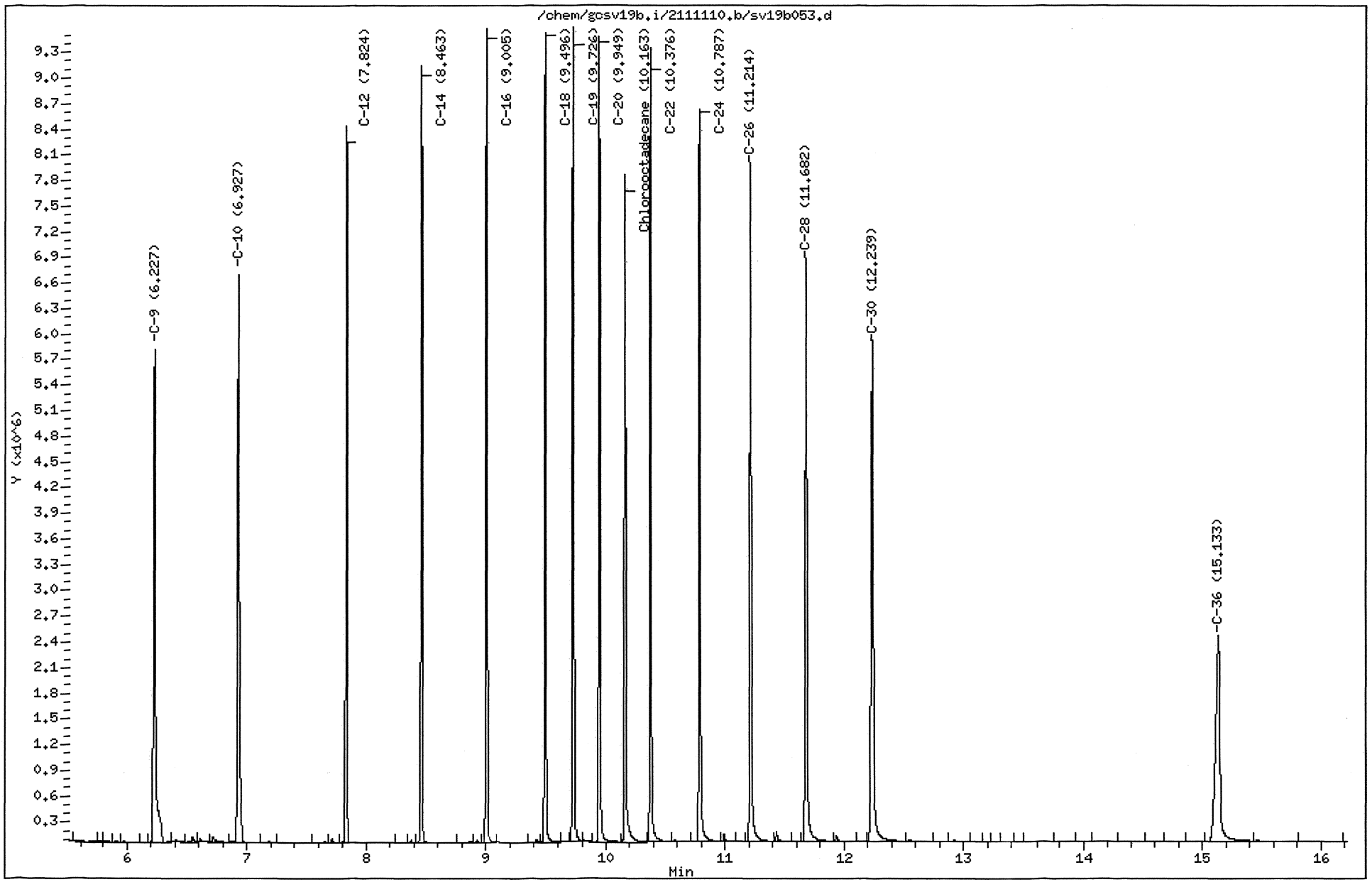
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

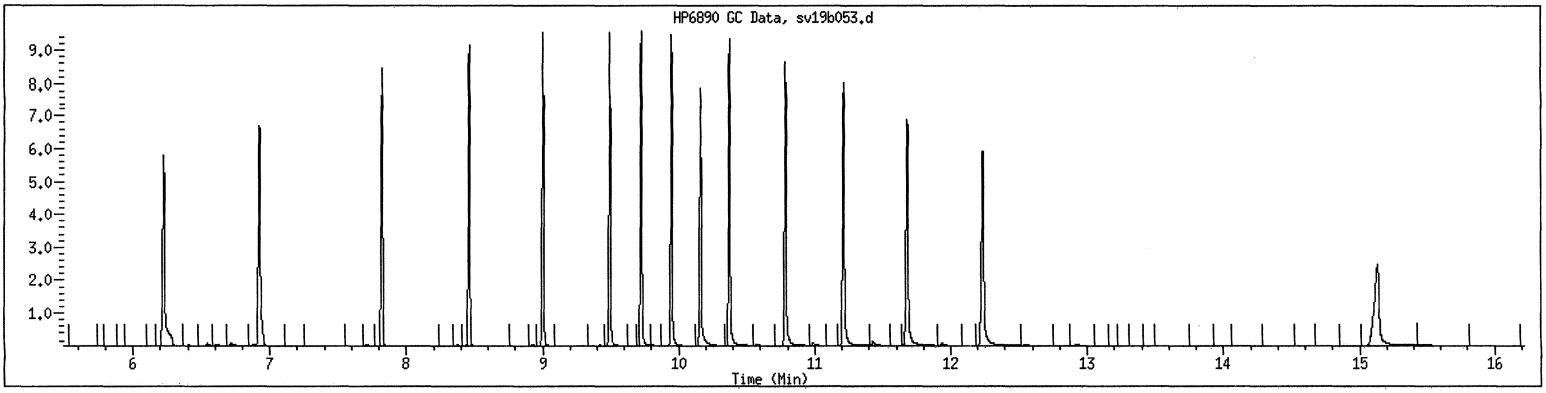
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1400 SampleType : CCALIB_3
Injection Date: 11/10/2011 14:37 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1400*1 84-15-4
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 19:40
Lab File ID: sv19b065.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2659888	0.010	2.18628	25.00000	Averaged
2 C-10	2739215	2728622	0.010	0.38674	25.00000	Averaged
4 C-12	2801460	2758261	0.010	1.54200	25.00000	Averaged
6 C-14	2878136	2797478	0.010	2.80247	25.00000	Averaged
8 C-16	2983102	2910072	0.010	2.44812	25.00000	Averaged
10 C-18	3021289	2857548	0.010	5.41959	25.00000	Averaged
M 11 Alip C9-C18	2857090	2785311	0.010	2.51232	25.00000	Averaged
12 C-19	3017239	2893348	0.010	4.10609	25.00000	Averaged
13 C-20	3045314	2906107	0.010	4.57119	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2653375	0.010	3.14669	25.00000	Averaged
16 C-22	3060647	2937725	0.010	4.01622	25.00000	Averaged
18 C-24	3098402	2950236	0.010	4.78202	25.00000	Averaged
20 C-26	3120089	2991129	0.010	4.13320	25.00000	Averaged
22 C-28	3095987	2998965	0.010	3.13383	25.00000	Averaged
115 C-30	3120341	2959574	0.010	5.15223	25.00000	Averaged
114 C-36	2925634	2744376	0.010	6.19551	25.00000	Averaged
M 24 Alip C19-C36	3060457	2922682	0.010	4.50175	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.59037
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b065.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 10-NOV-2011 19:40
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 17-Nov-2011 12:26 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.227	6.232	-0.005	132994388	50.0000	48.9
	2 C-10	6.927	6.928	-0.001	136431081	50.0000	49.8
	4 C-12	7.824	7.832	-0.008	137913072	50.0000	49.2
	6 C-14	8.463	8.471	-0.008	139873879	50.0000	48.6
	8 C-16	9.005	9.013	-0.008	145503588	50.0000	48.8
	10 C-18	9.495	9.503	-0.008	142877380	50.0000	47.3
M	11 Alip C9-C18				835593388	300.000	293
	12 C-19	9.724	9.774	-0.050	144667418	50.0000	47.9
	13 C-20	9.947	9.957	-0.010	145305352	50.0000	47.7
$	15 Chlorooctadecane	10.161	10.216	-0.055	132668745	50.0000	48.4
	16 C-22	10.372	10.383	-0.011	146886232	50.0000	48.0
	18 C-24	10.783	10.795	-0.012	147511784	50.0000	47.6
	20 C-26	11.209	11.222	-0.013	149556451	50.0000	47.9

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.676	11.723	-0.047	149948227	50.0000	48.4
115 C-30	12.231	12.249	-0.018	147978676	50.0000	47.4(A)
114 C-36	15.122	15.143	-0.021	137218811	50.0000	46.9
M 24 Alip C19-C36				1169072951	400.000	382

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111110.b/sv19b065.d

Date : 10-NOV-2011 19:40

Client ID: 1 84-15-4

Sample Info: 1400*1 84-15-4

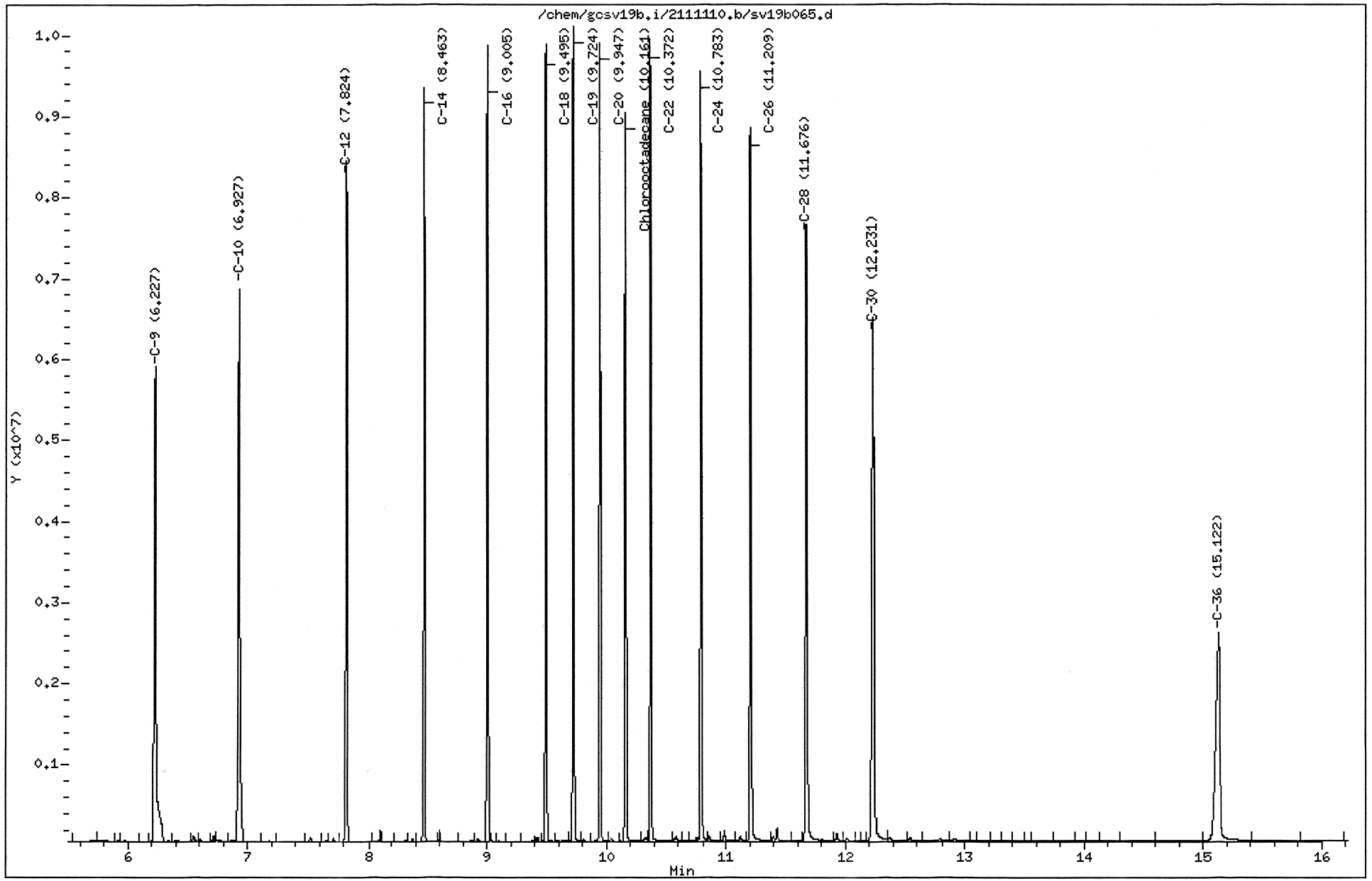
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

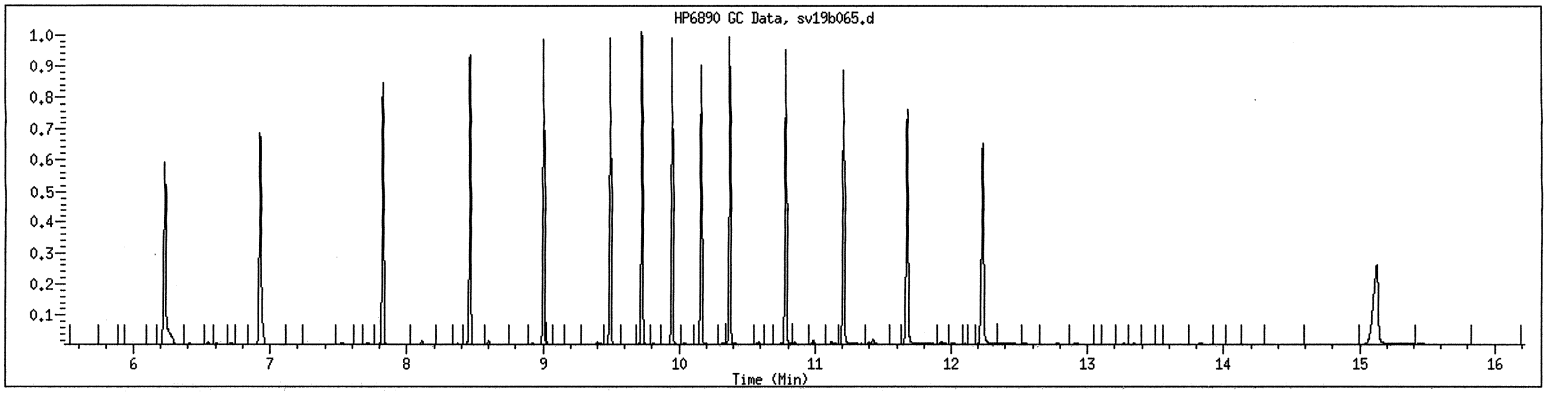
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 19:40	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-15-4		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Cal Date : 08-Nov-2011 14:38 smh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111103.b/sv19b052s.d
Level 2: /var/chem/gcsv19b.i/2111103.b/sv19b053s.d
Level 3: /var/chem/gcsv19b.i/2111103.b/sv19b054s.d
Level 4: /var/chem/gcsv19b.i/2111103.b/sv19b055s.d
Level 5: /var/chem/gcsv19b.i/2111103.b/sv19b056s.d

		1.000	10.000	50.000	100.000	200.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1	Naphthalene	2871371	2880452	2795766	2859339	2803867	2842159	1.389
2	2-Methylnaphthalene	2390073	2394998	2345540	2406153	2358179	2378988	1.086
4	Acenaphthylene	2742978	2787580	2735871	2801782	2748122	2763267	1.065
6	Acenaphthene	2939138	2974500	2797376	2847632	2992117	2910153	2.892
7	Fluorene	2698627	2763527	2759247	2833327	2801195	2771184	1.825
8	Phenanthrene	2595622	2723658	2778901	2849934	2855307	2760684	3.879
9	Anthracene	2513243	2630537	2655916	2746767	2723523	2653997	3.464
12	Fluoranthene	2615148	2778457	2865217	2923634	2923247	2821141	4.592
13	Pyrene	2622128	2808614	2905331	2966543	2974785	2855480	5.126
14	Benzo(a)Anthracene	2463921	2659230	2834632	2942403	2985058	2777049	7.762
15	Chrysene	2577178	2691296	2772251	2844436	2855699	2748172	4.223
16	Benzo(b)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
17	Benzo(k)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
18	Benzo(a)Pyrene	2459311	2662945	2905156	2960554	2875461	2772685	7.515
19	Indo(1,2,3cd)Pyrene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
20	Dibenzo(a,h)Anthracene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
21	Benzo(g,h,i)Perylene	2487409	2704307	2942094	3003707	2752450	2777993	7.386
M 22	Arom C11-C22	2574648	2716361	2794440	2862290	2822200	2753988	4.124
23	Unadjusted Arom C11-C22	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 113	Total Surrogate Area	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 3	2-Fluorobiphenyl	2473008	2477779	2421128	2479969	2435554	2457488	1.107

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Cal Date : 08-Nov-2011 14:38 smh
Curve Type : Average

Compound	1.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
$ 5 2-Bromonaphthalene	1570168	1562462	1600777	1661330	1449154	1568778	4.932
$ 10 O-Terphenyl	2900971	2972915	2936779	2979088	2954226	2948796	1.067
$ 11 Chloro-octadecane	2731973	2792662	2730816	2775185	2666865	2739500	1.780

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 15:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 15:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.877	7.878	-0.001	2871371	1.00000	1.00(M2)
	2 2-Methylnaphthalene	8.263	8.261	0.002	2390073	1.00000	1.00(M2)
$	3 2-Fluorobiphenyl	8.450	8.450	0.000	2473008	1.00000	1.00(M2)
	4 Acenaphthylene	8.761	8.760	0.001	2742978	1.00000	1.00(M2)
$	5 2-Bromonaphthalene	8.833	8.832	0.001	1570168	1.00000	1.00(M2)
	6 Acenaphthene	8.851	8.850	0.001	2939138	1.00000	1.00(M2)
	7 Fluorene	9.126	9.128	-0.002	2698627	1.00000	1.00(M2)
	8 Phenanthrene	9.653	9.652	0.001	2595622	1.00000	1.00(M2)
	9 Anthracene	9.681	9.680	0.001	2513243	1.00000	1.00(M2)
$	10 O-Terphenyl	9.818	9.819	-0.001	2900971	1.00000	1.00(M2)
	12 Fluoranthene	10.323	10.322	0.001	2615148	1.00000	1.00(M2)
	13 Pyrene	10.463	10.461	0.002	2622128	1.00000	1.00(M2)
	14 Benzo(a)Anthracene	11.206	11.208	-0.002	2463921	1.00000	1.00(M2)

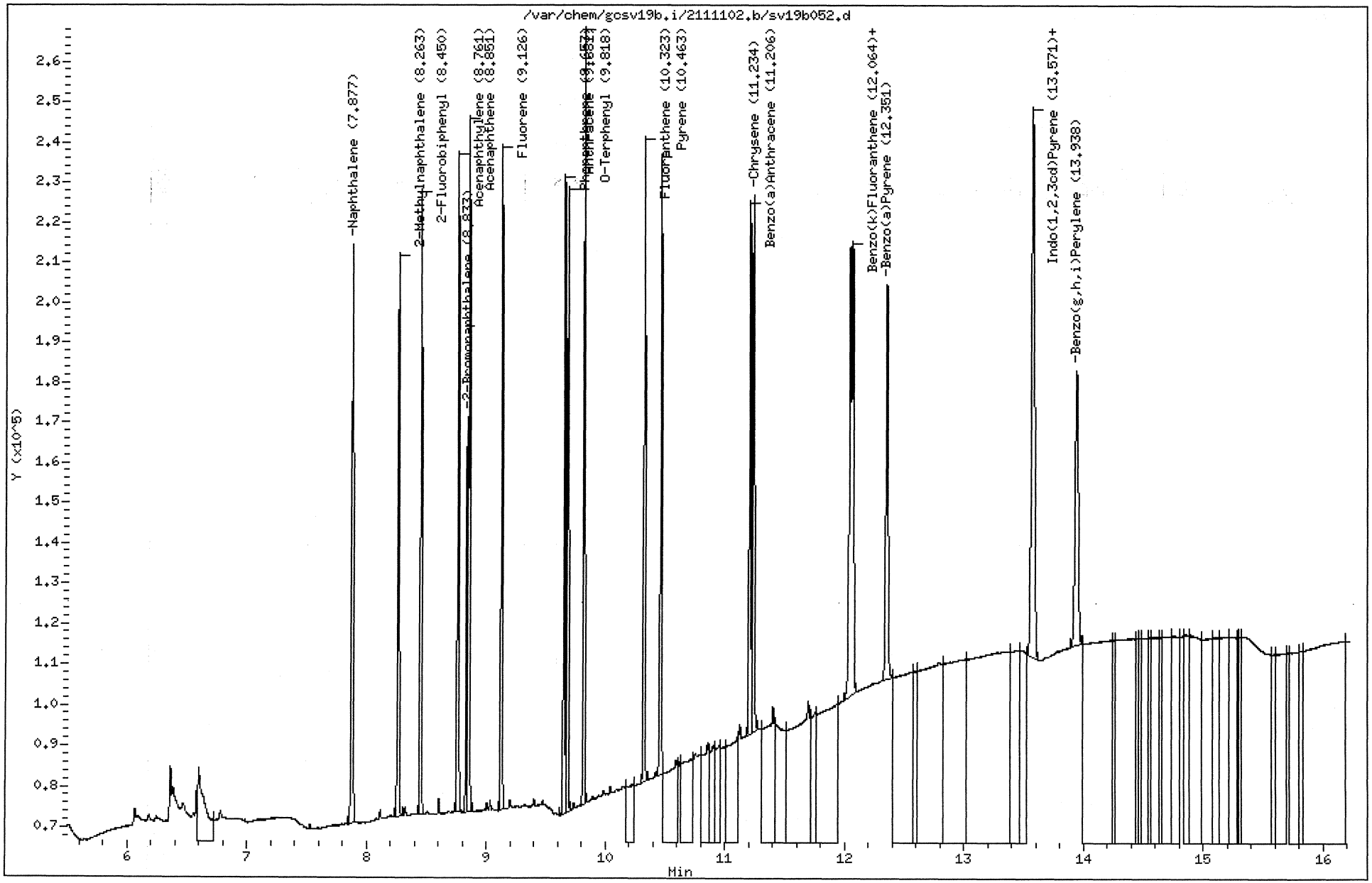
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.234	11.232	0.002	2577178	1.00000	1.00 (M2)
16 Benzo(b)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
17 Benzo(k)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
18 Benzo(a)Pyrene	12.351	12.350	0.001	2459311	1.00000	1.00 (M2)
19 Indo(1,2,3cd)Pyrene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
20 Dibenzo(a,h)Anthracene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
21 Benzo(g,h,i)Perylene	13.938	13.939	-0.001	2487409	1.00000	1.00 (M2)
M 22 Arom C11-C22				43769008	17.0000	17.0
M 113 Total Surrogate Area				6944147	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Date : 02-NOV-2011 15:55
Client ID: 1 84-12-8
Sample Info: 1201*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

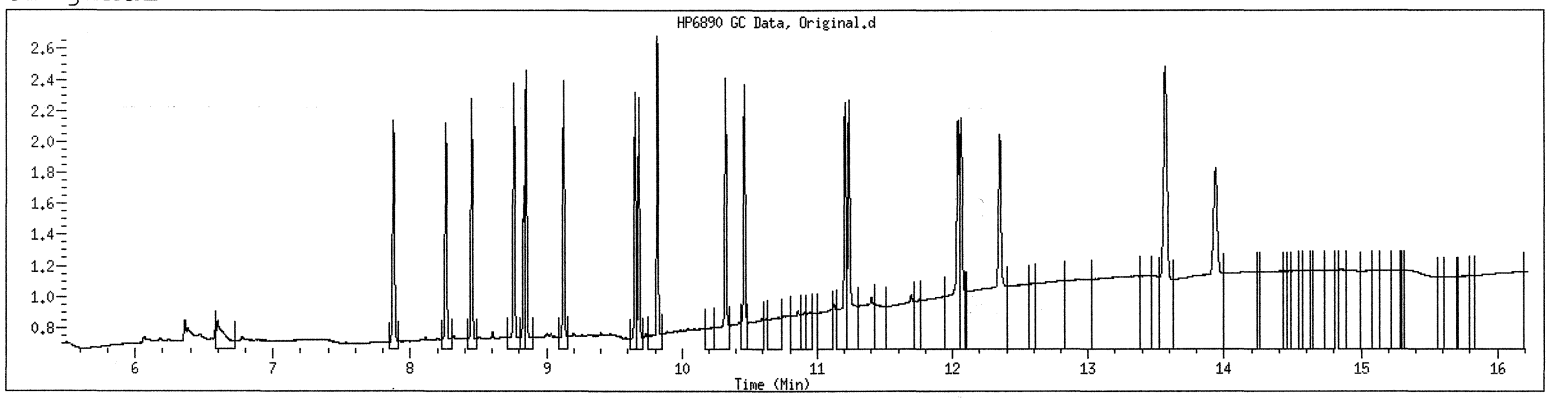
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



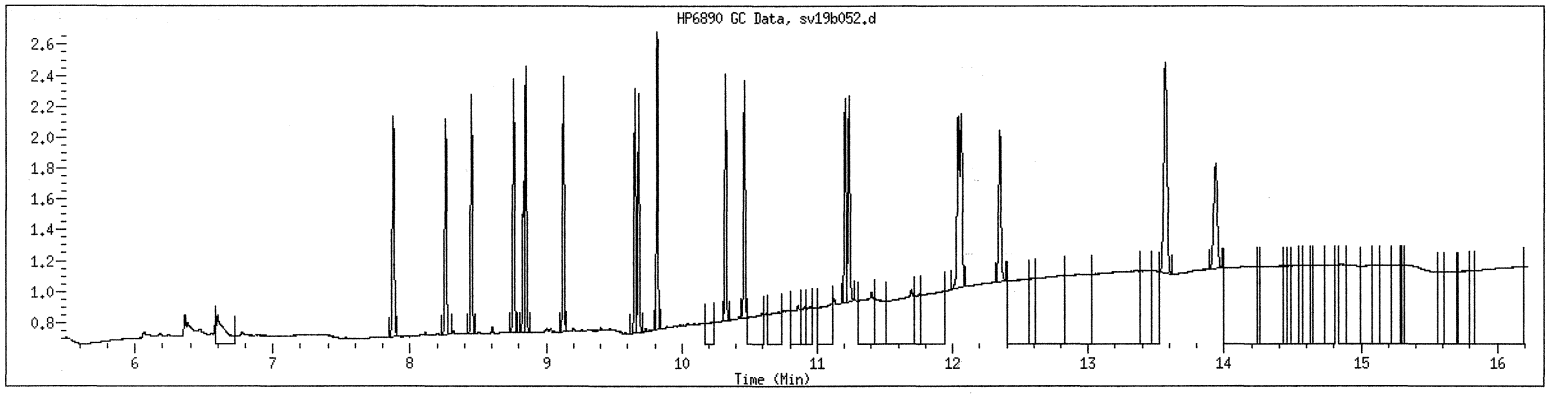
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/02/2011 15:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:19
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:19 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.876	7.878	-0.002	28804515	10.0000	10.0(M2)
	2 2-Methylnaphthalene	8.262	8.261	0.001	23949975	10.0000	10.0(M2)
$	3 2-Fluorobiphenyl	8.450	8.450	0.000	24777794	10.0000	10.0(M2)
	4 Acenaphthylene	8.761	8.761	0.000	27875803	10.0000	10.1(M2)
$	5 2-Bromonaphthalene	8.835	8.832	0.003	15624622	10.0000	9.98(M2)
	6 Acenaphthene	8.852	8.851	0.001	29745005	10.0000	10.1(M2)
	7 Fluorene	9.126	9.128	-0.002	27635268	10.0000	10.1(M2)
	8 Phenanthrene	9.654	9.652	0.002	27236585	10.0000	10.2(M2)
	9 Anthracene	9.682	9.681	0.001	26305372	10.0000	10.2(M2)
$	10 O-Terphenyl	9.818	9.819	-0.001	29729146	10.0000	10.1(M2)
	12 Fluoranthene	10.324	10.322	0.002	27784568	10.0000	10.3(M2)
	13 Pyrene	10.463	10.461	0.002	28086137	10.0000	10.3(M2)
	14 Benzo(a)Anthracene	11.206	11.208	-0.002	26592300	10.0000	10.4(M2)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.235	11.235	0.000	26912958	10.0000	10.2(M2)
16 Benzo(b)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8(M2)
17 Benzo(k)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8(M2)
18 Benzo(a)Pyrene	12.353	12.351	0.002	26629448	10.0000	10.4(M2)
19 Indo(1,2,3cd)Pyrene	13.584	13.576	0.008	52354931	20.0000	21.1(M2)
20 Dibenzo(a,h)Anthracene	13.584	13.576	0.008	52354931	20.0000	21.1(M2)
21 Benzo(g,h,i)Perylene	13.951	13.945	0.006	27043066	10.0000	10.4(M2)
M 22 Arom C11-C22				461781444	170.000	175
M 113 Total Surrogate Area				70131562	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b053.d

Date : 02-NOV-2011 16:19

Client ID: 1 84-12-8

Sample Info: 1202*1 84-12-8

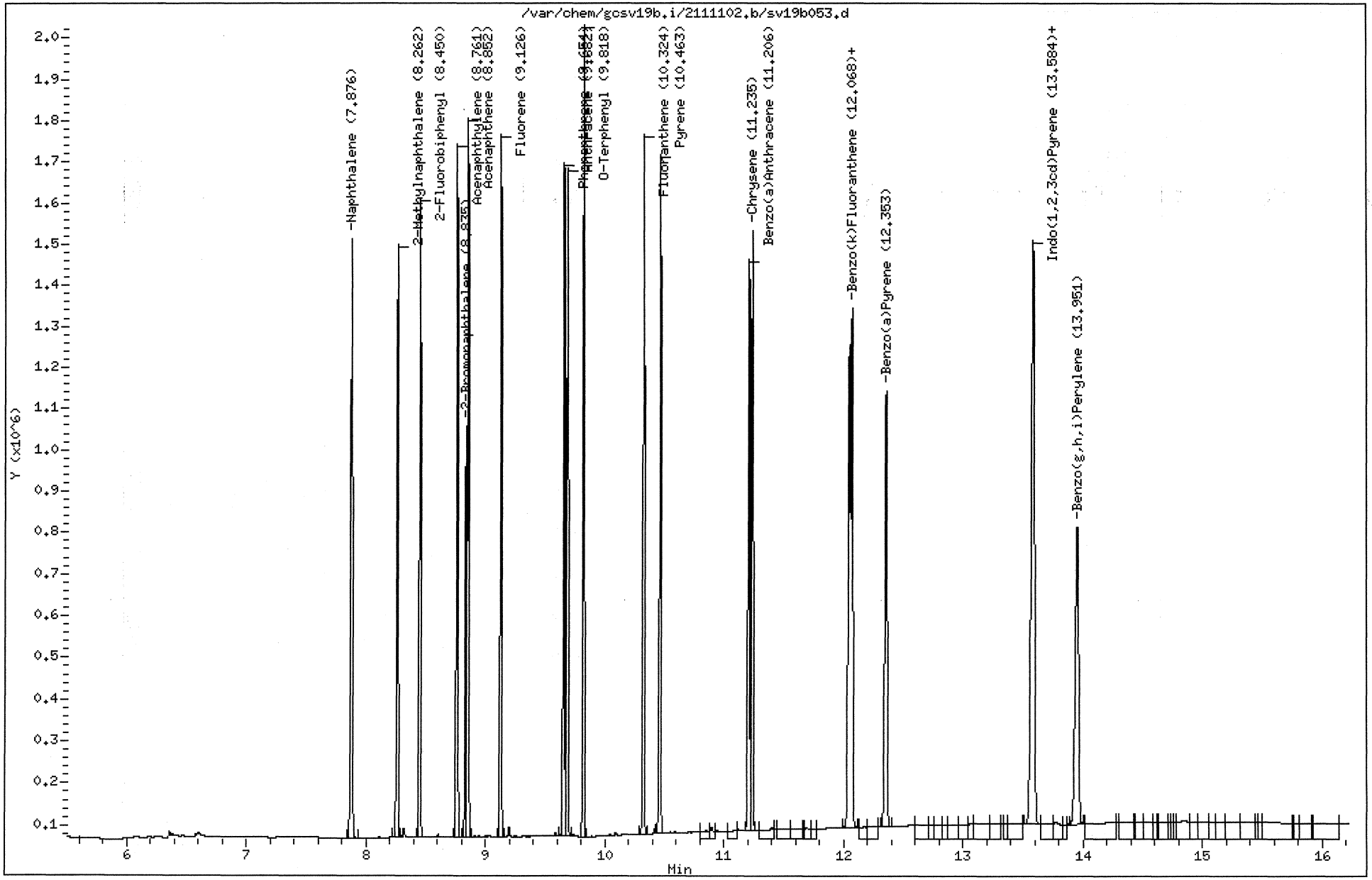
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

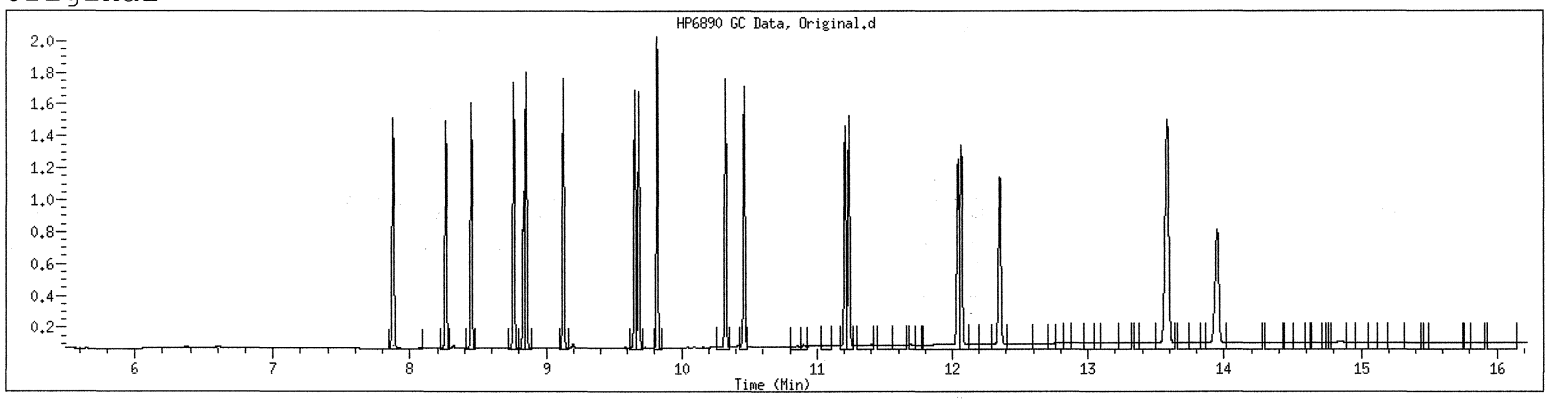
Column diameter: 0.25



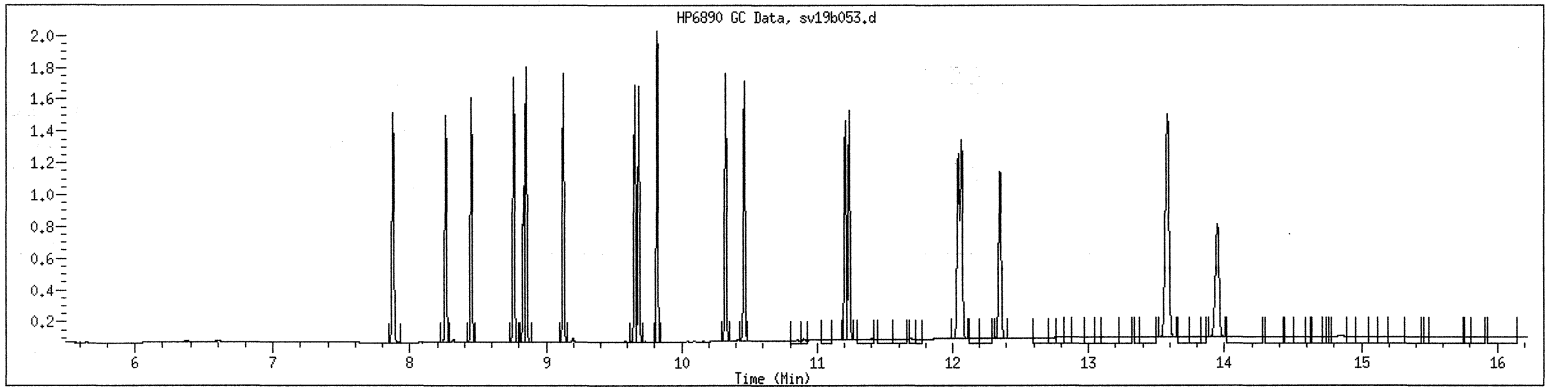
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/02/2011 16:19	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.879	0.000	139788310	50.0000	49.1
	2 2-Methylnaphthalene	8.265	8.263	0.002	117276990	50.0000	49.3
$	3 2-Fluorobiphenyl	8.453	8.451	0.002	121056403	50.0000	49.3
	4 Acenaphthylene	8.765	8.762	0.003	136793555	50.0000	49.6
$	5 2-Bromonaphthalene	8.838	8.834	0.004	80038867	50.0000	50.7
	6 Acenaphthene	8.857	8.853	0.004	139868814	50.0000	48.2
	7 Fluorene	9.130	9.129	0.001	137962328	50.0000	50.3
	8 Phenanthrene	9.657	9.654	0.003	138945044	50.0000	51.5
	9 Anthracene	9.687	9.683	0.004	132795791	50.0000	51.1
$	10 O-Terphenyl	9.820	9.819	0.001	146838940	50.0000	50.0
	12 Fluoranthene	10.325	10.323	0.002	143260836	50.0000	52.0
	13 Pyrene	10.465	10.463	0.002	145266555	50.0000	52.3
	14 Benzo(a)Anthracene	11.207	11.208	-0.001	141731614	50.0000	53.4

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.239	11.236	0.003	138612563	50.0000	51.7
16 Benzo(b)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
17 Benzo(k)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
18 Benzo(a)Pyrene	12.363	12.355	0.008	145257809	50.0000	54.3
19 Indo(1,2,3cd)Pyrene	13.615	13.589	0.026	283675684	100.000	109
20 Dibenzo(a,h)Anthracene	13.615	13.589	0.026	283675684	100.000	109(M1)
21 Benzo(g,h,i)Perylene	13.988	13.959	0.029	147104717	50.0000	54.3
M 22 Arom C11-C22				2375273671	850.000	882
M 113 Total Surrogate Area				347934210	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b054.d

Date : 02-NOV-2011 16:42

Client ID: 1 84-12-8

Sample Info: 1203*1 84-12-8

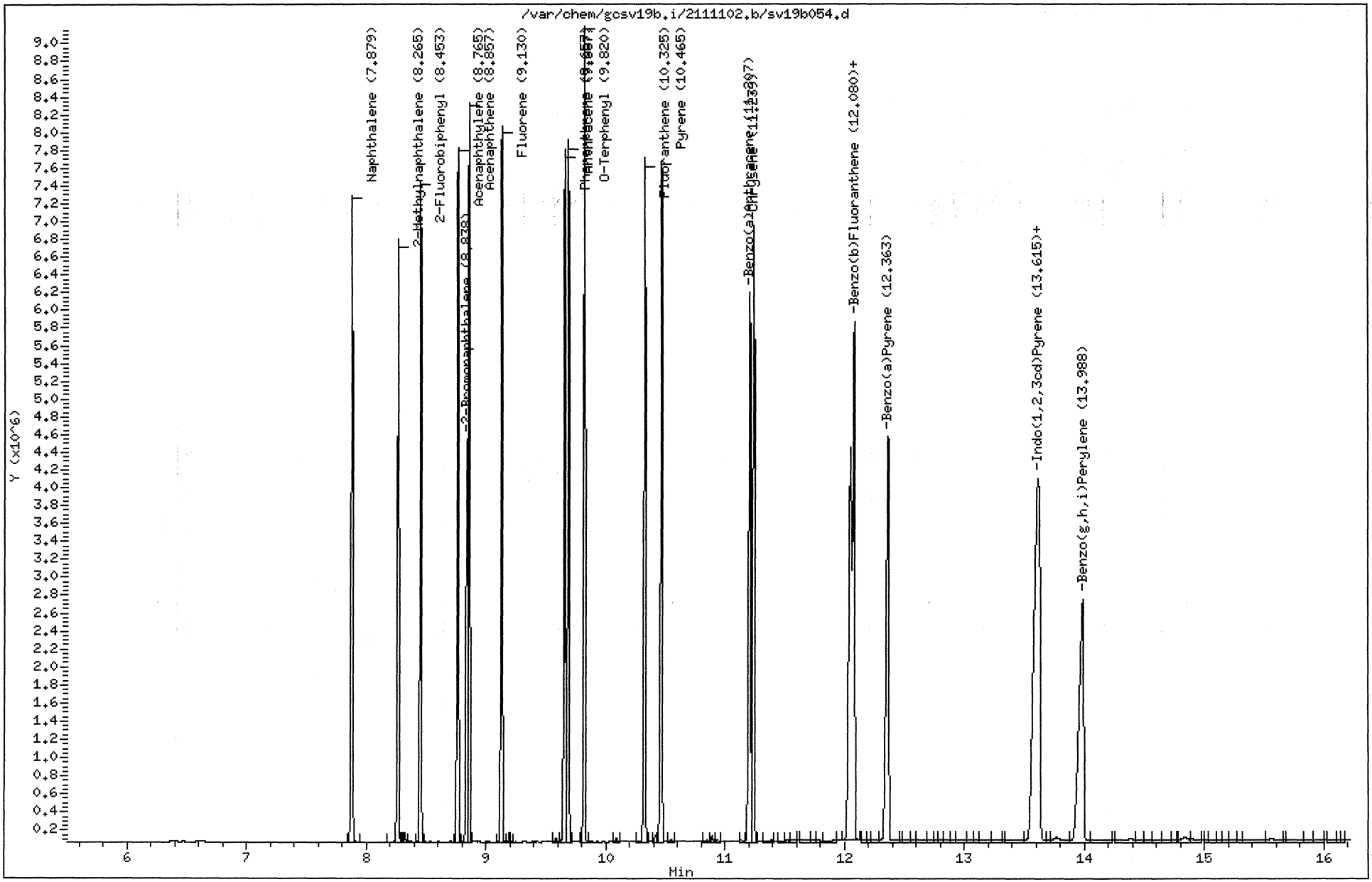
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

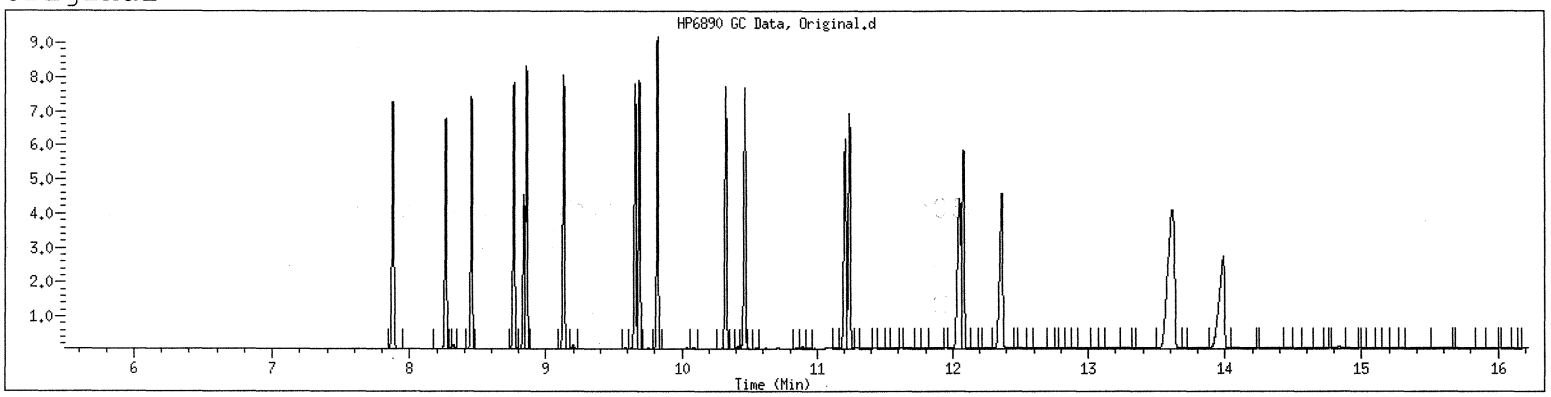
Column diameter: 0.25



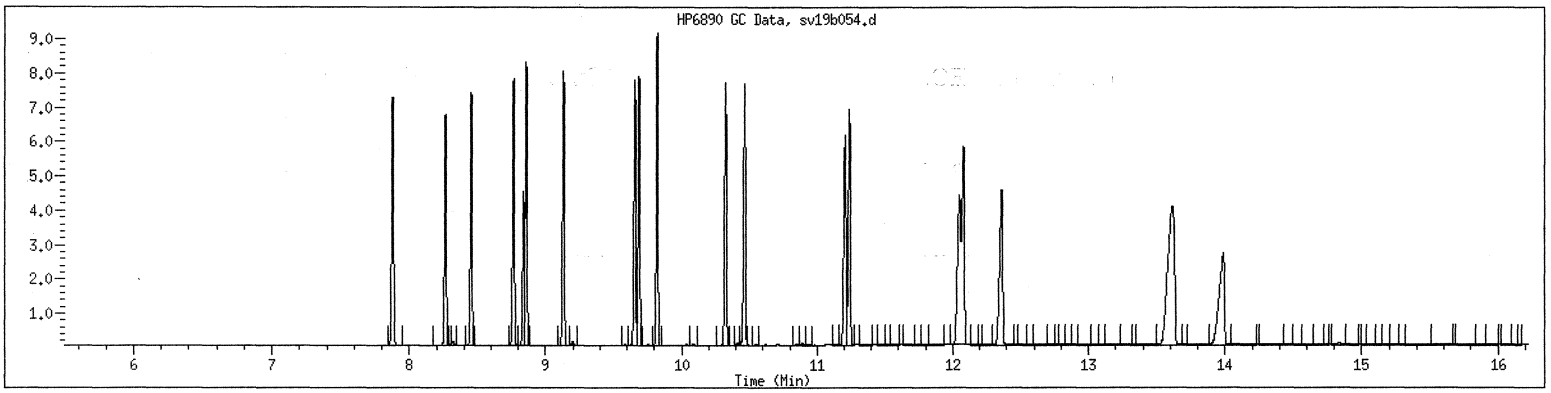
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/02/2011 16:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:07
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:07 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.882	7.879	0.003	285933881	100.000	100
	2 2-Methylnaphthalene	8.269	8.264	0.005	240615323	100.000	101
$	3 2-Fluorobiphenyl	8.457	8.453	0.004	247996907	100.000	101
	4 Acenaphthylene	8.769	8.764	0.005	280178162	100.000	101
$	5 2-Bromonaphthalene	8.843	8.836	0.007	166132975	100.000	104
	6 Acenaphthene	8.864	8.855	0.009	284763163	100.000	98.5
	7 Fluorene	9.136	9.131	0.005	283332686	100.000	103
	8 Phenanthrene	9.663	9.656	0.007	284993363	100.000	104
	9 Anthracene	9.695	9.685	0.010	274676746	100.000	104
$	10 O-Terphenyl	9.826	9.821	0.005	297908777	100.000	101
	12 Fluoranthene	10.334	10.325	0.009	292363394	100.000	105
	13 Pyrene	10.475	10.465	0.010	296654255	100.000	105
	14 Benzo(a)Anthracene	11.219	11.211	0.008	294240261	100.000	108

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.255	11.240	0.015	284443626	100.000	105
16 Benzo(b)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
17 Benzo(k)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
18 Benzo(a)Pyrene	12.387	12.363	0.024	296055391	100.000	108
19 Indo(1,2,3cd)Pyrene	13.675	13.610	0.065	573310212	200.000	215(AM2)
20 Dibenzo(a,h)Anthracene	13.675	13.610	0.065	573310212	200.000	215(AM2)
21 Benzo(g,h,i)Perylene	14.036	13.979	0.057	300370678	100.000	108
M 22 Arom C11-C22				4865892710	1700.00	1780
M 113 Total Surrogate Area				712038659	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b055.d

Date : 02-NOV-2011 17:07

Client ID: 1 84-12-8

Sample Info: 1204*1 84-12-8

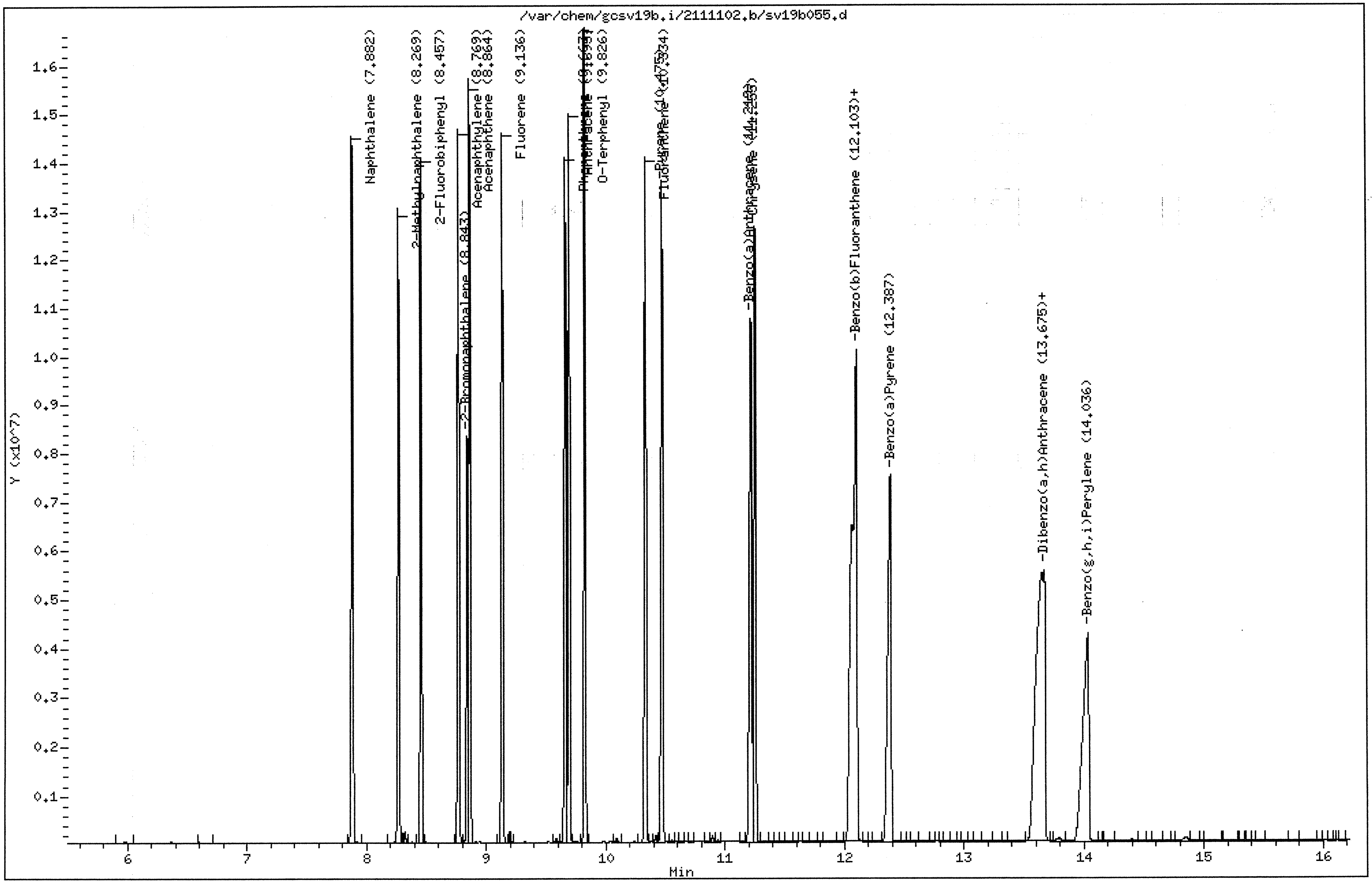
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

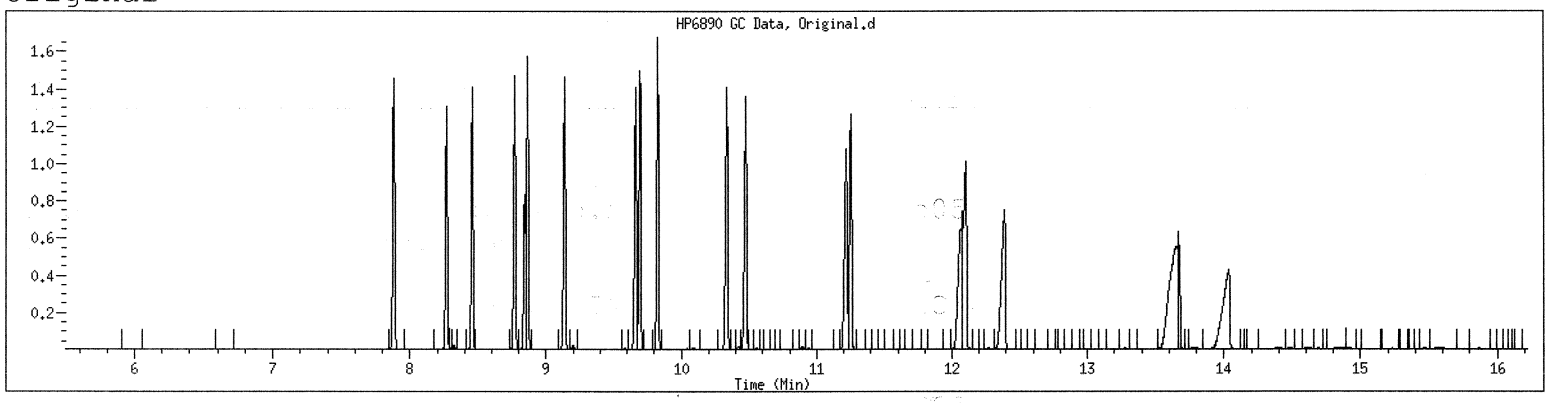
Column diameter: 0.25



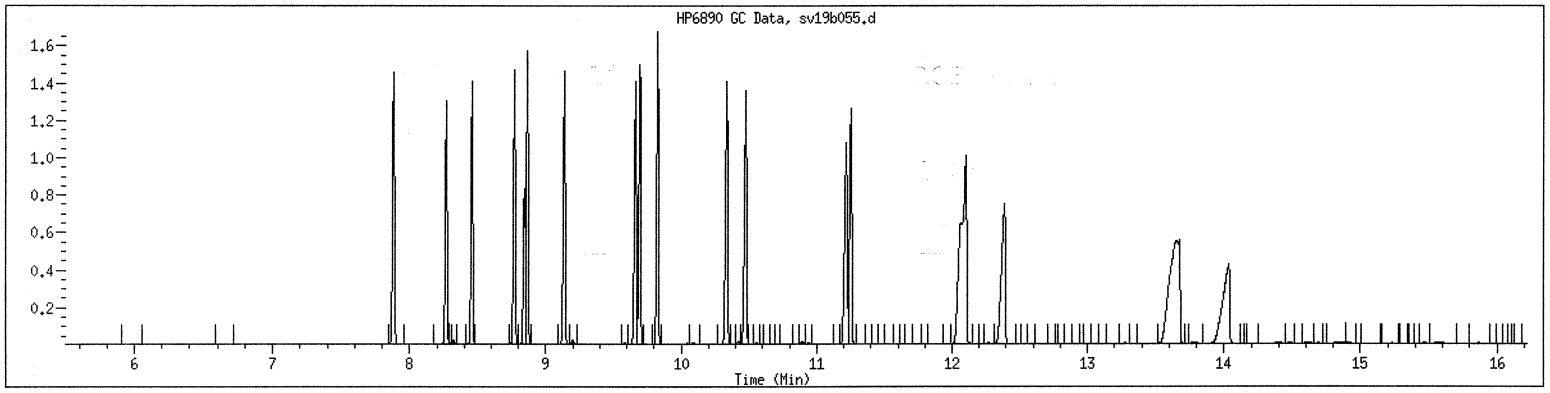
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/02/2011 17:07	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.888	7.881	0.007	560773309	200.000	197
	2 2-Methylnaphthalene	8.274	8.266	0.008	471635711	200.000	198
$	3 2-Fluorobiphenyl	8.462	8.454	0.008	487110868	200.000	198
	4 Acenaphthylene	8.776	8.767	0.009	549624381	200.000	199
$	5 2-Bromonaphthalene	8.853	8.839	0.014	289830833	200.000	185
	6 Acenaphthene	8.872	8.858	0.014	598423437	200.000	206(A)
	7 Fluorene	9.143	9.133	0.010	560238934	200.000	202(A)
	8 Phenanthrene	9.671	9.658	0.013	571061474	200.000	207(A)
	9 Anthracene	9.705	9.689	0.016	544704598	200.000	205(A)
$	10 O-Terphenyl	9.832	9.823	0.009	590845256	200.000	200(A)
	12 Fluoranthene	10.343	10.329	0.014	584649476	200.000	207(A)
	13 Pyrene	10.485	10.468	0.017	594957073	200.000	208(A)
	14 Benzo(a)Anthracene	11.230	11.215	0.015	597011528	200.000	215(A)

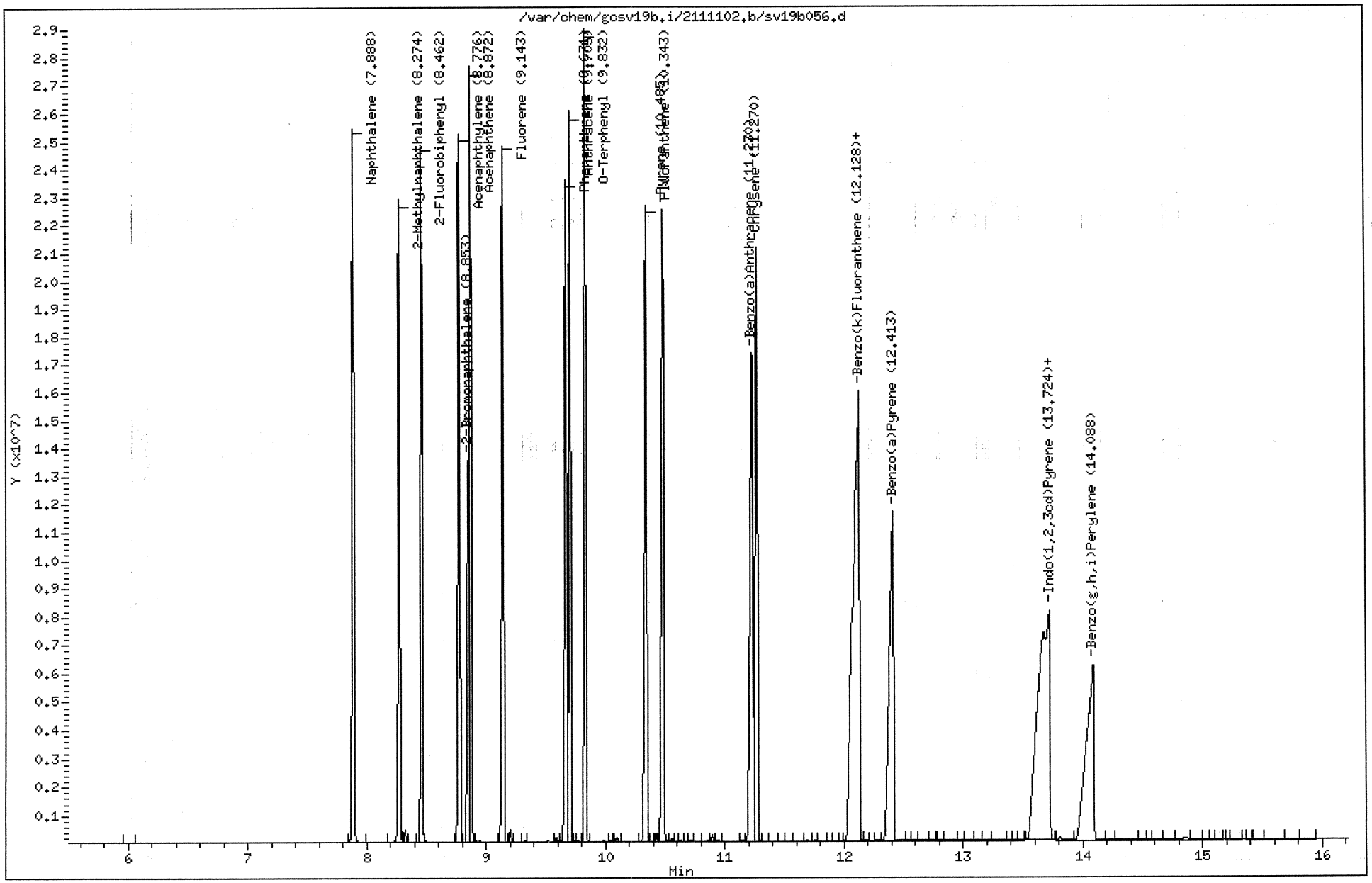
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	ON-COL (UG/ML)
15 Chrysene	11.270	11.246	0.024	571139866	200.000	208(A)
16 Benzo(b)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(AM1)
17 Benzo(k)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(A)
18 Benzo(a)Pyrene	12.413	12.373	0.040	575092148	200.000	207(A)
19 Indo(1,2,3cd)Pyrene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
20 Dibenzo(a,h)Anthracene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
21 Benzo(g,h,i)Perylene	14.088	14.001	0.087	550489918	200.000	198
M 22 Arom C11-C22				9595479675	3400.00	3480
M 113 Total Surrogate Area				1367786957	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b056.d
Date : 02-NOV-2011 17:30
Client ID: 1 84-12-8
Sample Info: 1205*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

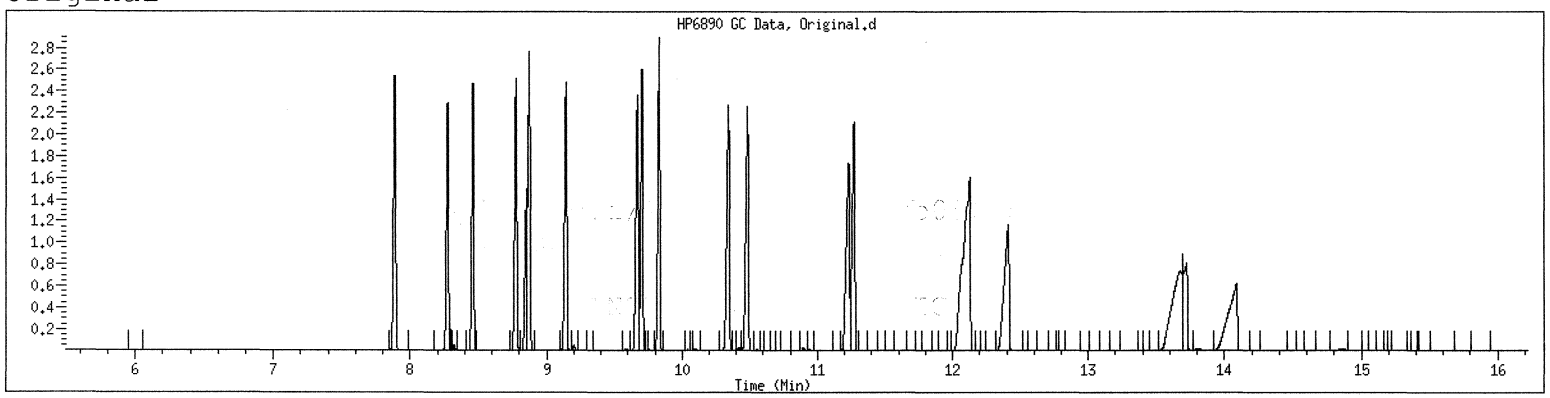
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



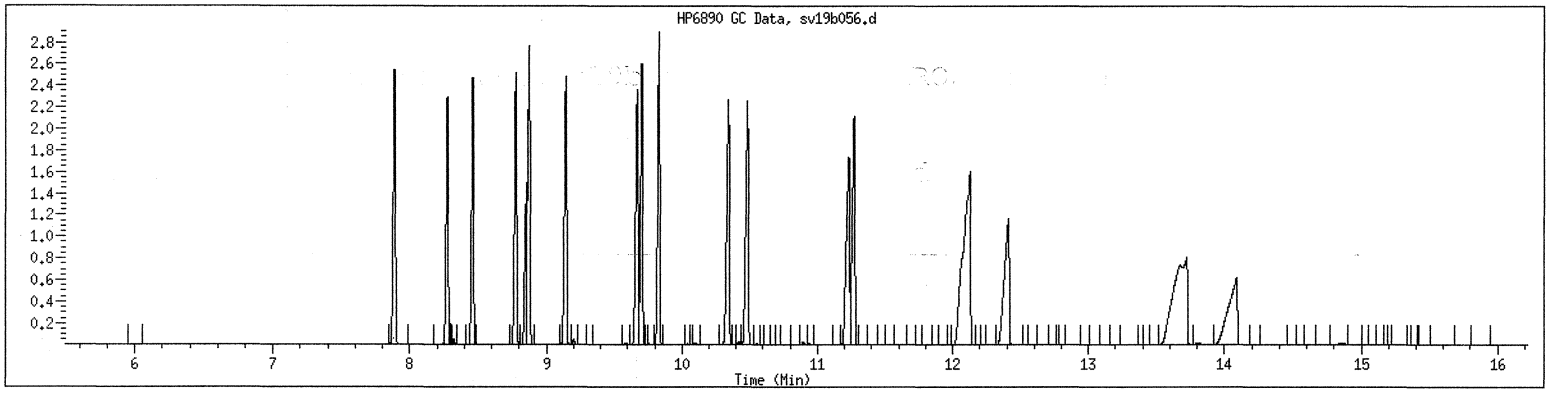
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/02/2011 17:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

RECOVERY REPORT

Client Name:
Client SDG: 2111102
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: 1600
Client Smp ID: 1 84-7-10
Level: LOW
Operator: smh
Data Type: GC MULTI COMP
SampleType: LCS
SpikeList File: AROMICV.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	50.0	49.0	98.05	75-125
2 2-Methylnaphthalene	50.0	55.6	111.25	75-125
4 Acenaphthylene	50.0	49.5	98.98	75-125
6 Acenaphthene	50.0	47.9	95.74	75-125
7 Fluorene	50.0	50.0	100.07	75-125
8 Phenanthrene	50.0	50.4	100.72	75-125
9 Anthracene	50.0	50.5	100.97	75-125
12 Fluoranthene	50.0	49.6	99.22	75-125
13 Pyrene	50.0	51.1	102.27	75-125
14 Benzo(a)Anthracene	50.0	50.4	100.89	75-125
15 Chrysene	50.0	49.9	99.75	75-125
16 Benzo(b)Fluoranthene	100	101	101.11	75-125
17 Benzo(k)Fluoranthene	100	101	101.11	75-125
18 Benzo(a)Pyrene	50.0	50.9	101.88	75-125
19 Indo(1,2,3cd)Pyrene	100	104	104.37	75-125
20 Dibenzo(a,h)Anthracene	100	104	104.37	75-125
21 Benzo(g,h,i)Perylene	50.0	52.5	105.06	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorobiphenyl	50.0	51.5	102.93	40-140
$ 5 2-Bromonaphthalene	50.0	54.4	108.75	40-140
$ 10 O-Terphenyl	50.0	55.1	110.13	40-140
$ 11 Chloro-octadecane	50.0	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-7-10
Inj Date : 02-NOV-2011 17:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-7-10
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:36 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.879	7.881	-0.002	139338681	49.0256	49.0
	2 2-Methylnaphthalene	8.266	8.266	0.000	132335257	55.6267	55.6
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	126473294	51.4645	51.5
	4 Acenaphthylene	8.765	8.767	-0.002	136751456	49.4891	49.5
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	85304529	54.3764	54.4
	6 Acenaphthene	8.858	8.858	0.000	139305778	47.8689	47.9
	7 Fluorene	9.131	9.133	-0.002	138659834	50.0363	50.0
	8 Phenanthrene	9.658	9.658	0.000	139031327	50.3612	50.4
	9 Anthracene	9.688	9.689	-0.001	133992045	50.4869	50.5
$	10 O-Terphenyl	9.822	9.823	-0.001	162371730	55.0637	55.1
	12 Fluoranthene	10.327	10.329	-0.002	139951783	49.6082	49.6
	13 Pyrene	10.467	10.468	-0.001	146018326	51.1362	51.1
	14 Benzo(a)Anthracene	11.209	11.215	-0.006	140091684	50.4462	50.4

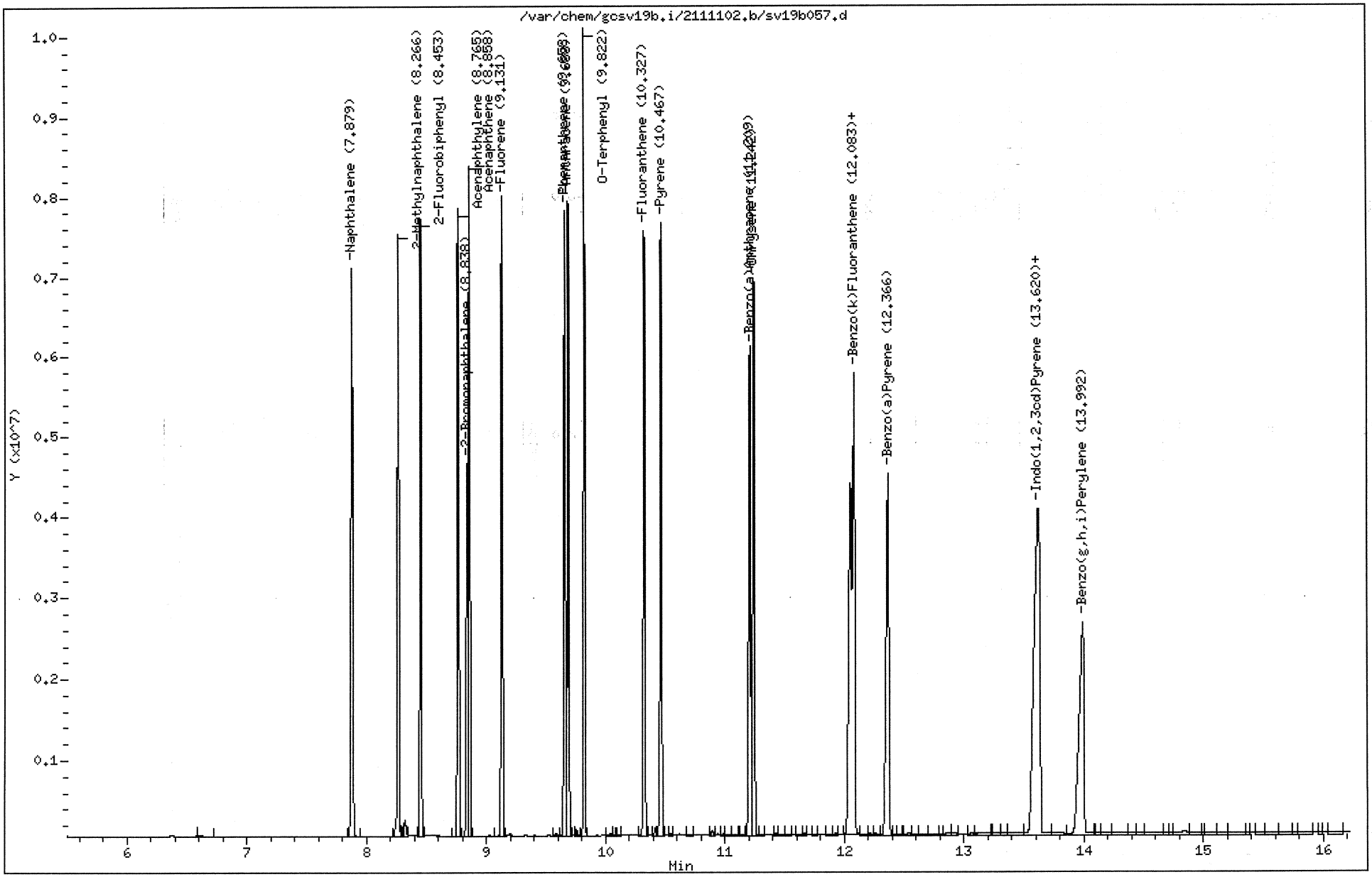
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
	15 Chrysene	11.242	11.246	-0.004	137066815	49.8756	49.9	
	16 Benzo(b)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101	(M2)
	17 Benzo(k)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101	(M2)
	18 Benzo(a)Pyrene	12.366	12.373	-0.007	141233811	50.9376	50.9	
	19 Indo(1,2,3cd)Pyrene	13.620	13.632	-0.012	279620012	104.373	104	
	20 Dibenzo(a,h)Anthracene	13.620	13.632	-0.012	279620012	104.373	104	(M1)
	21 Benzo(g,h,i)Perylene	13.992	14.001	-0.009	145927664	52.5299	52.5	
M	22 Arom C11-C22				2373794815	862.915	863	
M	113 Total Surrogate Area				374149553			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b057.d
Date : 02-NOV-2011 17:55
Client ID: 1 84-7-10
Sample Info: 1600*1 84-7-10
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

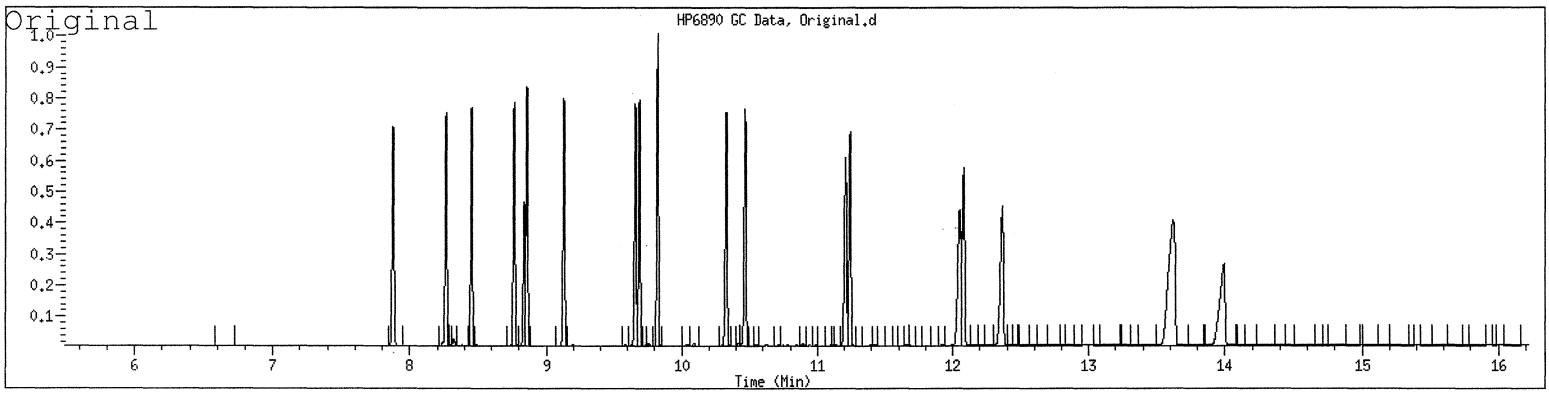
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



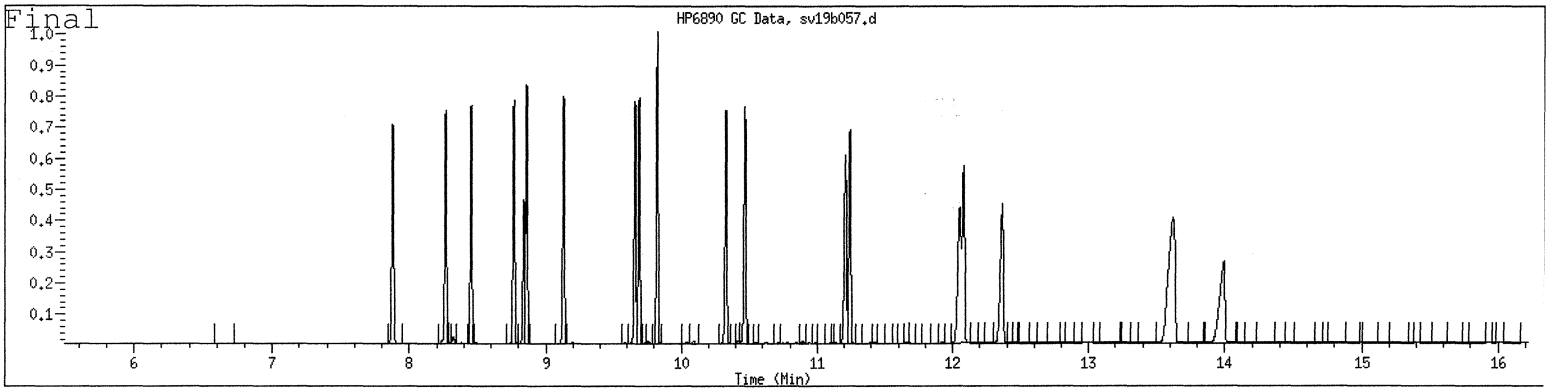
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/02/2011 17:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-7-10		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 08:48
Lab File ID: sv19b052.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2619807	0.010	7.82335	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2198019	0.010	7.60700	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2297333	0.010	6.51700	25.00000	Averaged	
4 Acenaphthylene	2763267	2588653	0.010	6.31910	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1526774	0.010	2.67752	25.00000	Averaged	
6 Acenaphthene	2910153	2626227	0.010	9.75639	25.00000	Averaged	
7 Fluorene	2771184	2586780	0.010	6.65436	25.00000	Averaged	
8 Phenanthrene	2760684	2650730	0.010	3.98287	25.00000	Averaged	
9 Anthracene	2653997	2524466	0.010	4.88060	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2856200	0.010	3.14011	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2753536	0.010	2.39635	25.00000	Averaged	
13 Pyrene	2855480	2796536	0.010	2.06425	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2743858	0.010	1.19518	25.00000	Averaged	
15 Chrysene	2748172	2706024	0.010	1.53368	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2815382	0.010	-0.07164	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2815382	0.010	-0.07164	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2826412	0.010	-1.93772	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2753570	0.010	-2.78150	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2753570	0.010	-2.78150	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2849763	0.010	-2.58352	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2682866	0.010	2.58251	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 8.15263
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b052.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 08:48
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.878	7.881	-0.003	130990346	50.0000	46.1
	2 2-Methylnaphthalene	8.264	8.266	-0.002	109900939	50.0000	46.2
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	114866664	50.0000	46.7
	4 Acenaphthylene	8.764	8.767	-0.003	129432655	50.0000	46.8
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	76338699	50.0000	48.7
	6 Acenaphthene	8.857	8.858	-0.001	131311343	50.0000	45.1
	7 Fluorene	9.131	9.133	-0.002	129338984	50.0000	46.7
	8 Phenanthrene	9.660	9.659	0.001	132536495	50.0000	48.0
	9 Anthracene	9.691	9.689	0.002	126223310	50.0000	47.6
$	10 O-Terphenyl	9.825	9.824	0.001	142810019	50.0000	48.4
	12 Fluoranthene	10.335	10.330	0.005	137676811	50.0000	48.8
	13 Pyrene	10.476	10.471	0.005	139826800	50.0000	49.0
	14 Benzo(a)Anthracene	11.224	11.218	0.006	137192902	50.0000	49.4

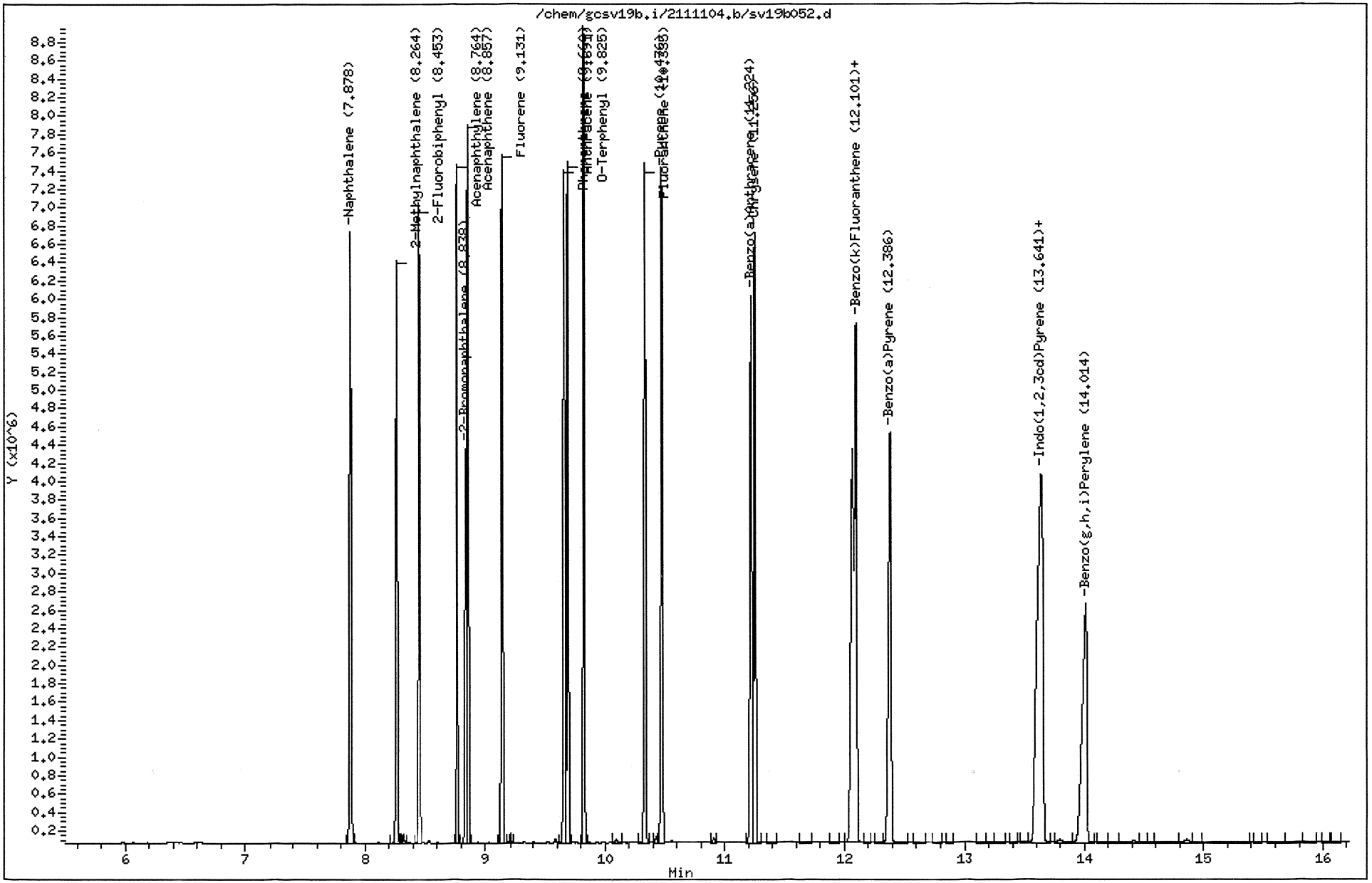
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.256	11.250	0.006	135301194	50.0000	49.2
16	Benzo(b)Fluoranthene	12.101	12.092	0.009	281538232	100.000	100(M2)
17	Benzo(k)Fluoranthene	12.101	12.092	0.009	281538232	100.000	100(M2)
18	Benzo(a)Pyrene	12.386	12.377	0.009	141320615	50.0000	51.0
19	Indo(1,2,3cd)Pyrene	13.641	13.638	0.003	275356972	100.000	103
20	Dibenzo(a,h)Anthracene	13.641	13.638	0.003	275356972	100.000	103(M1)
21	Benzo(g,h,i)Perylene	14.014	14.006	0.008	142488157	50.0000	51.3
M 22	Arom C11-C22				2280435755	850.000	828
M 113	Total Surrogate Area				334015382	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b052.d
Date : 04-NOV-2011 08:48
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

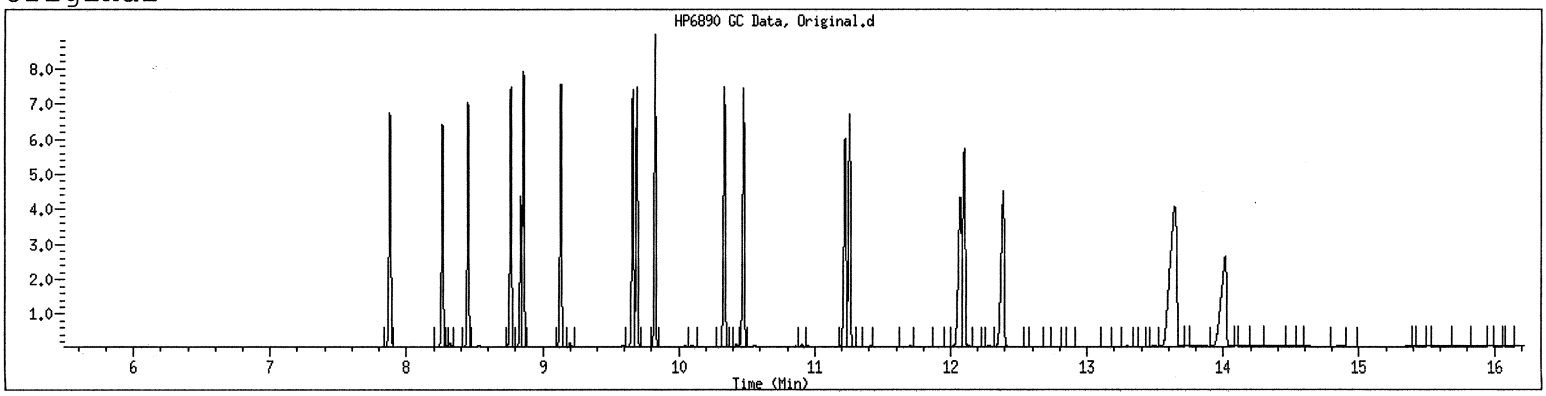
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



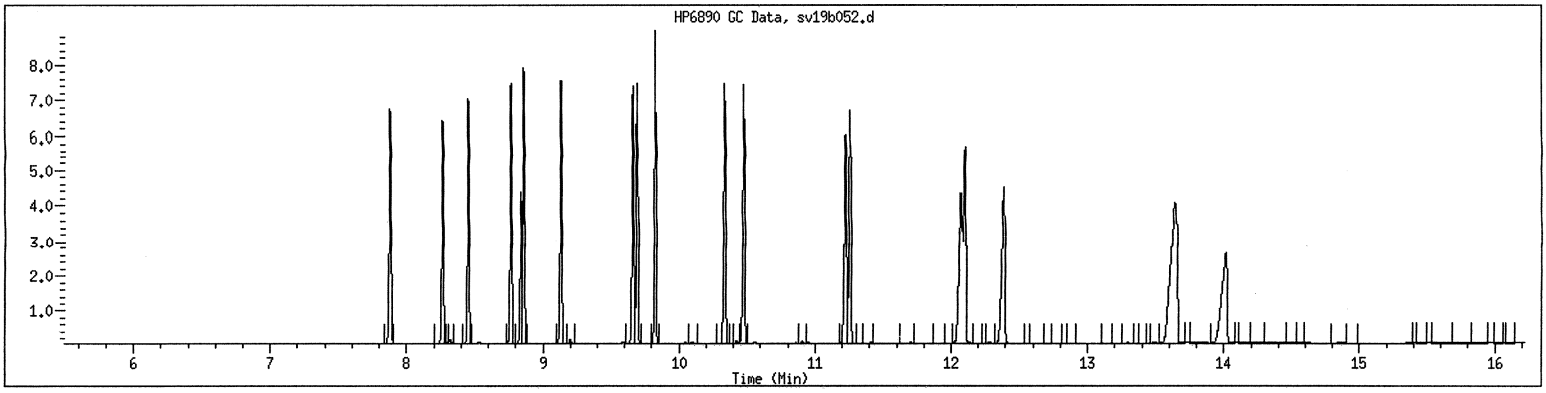
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 08:48	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 15:20
Lab File ID: sv19b064.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2687333	0.010	5.44748	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2259700	0.010	5.01425	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2349400	0.010	4.39829	25.00000	Averaged	
4 Acenaphthylene	2763267	2646120	0.010	4.23944	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1499146	0.010	4.43861	25.00000	Averaged	
6 Acenaphthene	2910153	2782857	0.010	4.37421	25.00000	Averaged	
7 Fluorene	2771184	2681206	0.010	3.24691	25.00000	Averaged	
8 Phenanthrene	2760684	2711677	0.010	1.77521	25.00000	Averaged	
9 Anthracene	2653997	2564916	0.010	3.35649	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2889155	0.010	2.02255	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2809781	0.010	0.40265	25.00000	Averaged	
13 Pyrene	2855480	2851317	0.010	0.14578	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2766429	0.010	0.38242	25.00000	Averaged	
15 Chrysene	2748172	2741093	0.010	0.25759	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2836361	0.010	-0.81732	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2836361	0.010	-0.81732	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2835814	0.010	-2.27681	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2768701	0.010	-3.34630	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2768701	0.010	-3.34630	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2891876	0.010	-4.09945	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2731779	0.010	0.80642	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.
Calculated Average %D/Drift = 7.04599
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b064.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 15:20
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 64 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.881	-0.002	134366638	50.0000	47.3
	2 2-Methylnaphthalene	8.266	8.266	0.000	112984994	50.0000	47.5
$	3 2-Fluorobiphenyl	8.454	8.455	-0.001	117470022	50.0000	47.8
	4 Acenaphthylene	8.765	8.767	-0.002	132305981	50.0000	47.9
$	5 2-Bromonaphthalene	8.839	8.839	0.000	74957316	50.0000	47.8
	6 Acenaphthene	8.858	8.859	-0.001	139142828	50.0000	47.8
	7 Fluorene	9.132	9.133	-0.001	134060320	50.0000	48.4
	8 Phenanthrene	9.660	9.659	0.001	135583832	50.0000	49.1
	9 Anthracene	9.690	9.689	0.001	128245811	50.0000	48.3
$	10 o-Terphenyl	9.824	9.824	0.000	144457740	50.0000	49.0
	12 Fluoranthene	10.332	10.330	0.002	140489058	50.0000	49.8
	13 Pyrene	10.472	10.470	0.002	142565866	50.0000	49.9
	14 Benzo(a)Anthracene	11.218	11.217	0.001	138321435	50.0000	49.8

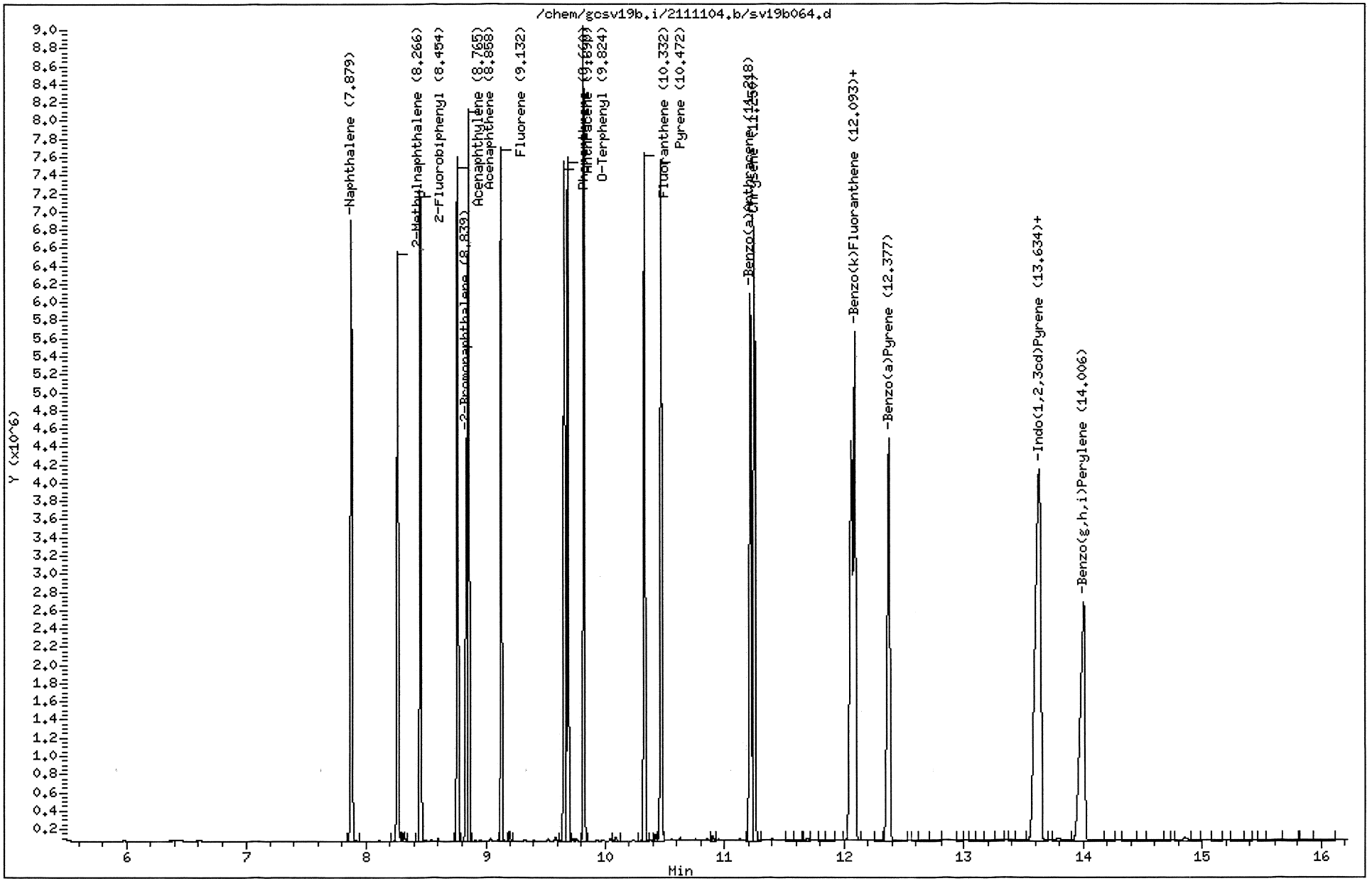
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.250	11.248	0.002	137054658	50.0000	49.9
16 Benzo(b)Fluoranthene	12.093	12.091	0.002	283636086	100.000	101(M2)
17 Benzo(k)Fluoranthene	12.093	12.091	0.002	283636086	100.000	101(M2)
18 Benzo(a)Pyrene	12.377	12.376	0.001	141790710	50.0000	51.1
19 Indo(1,2,3cd)Pyrene	13.634	13.636	-0.002	276870121	100.000	103
20 Dibenzo(a,h)Anthracene	13.634	13.636	-0.002	276870121	100.000	103(M1)
21 Benzo(g,h,i)Perylene	14.006	14.005	0.001	144593787	50.0000	52.0
M 22 Arom C11-C22				2322012125	850.000	843
M 113 Total Surrogate Area				336885078	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b064.d
Date : 04-NOV-2011 15:20
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

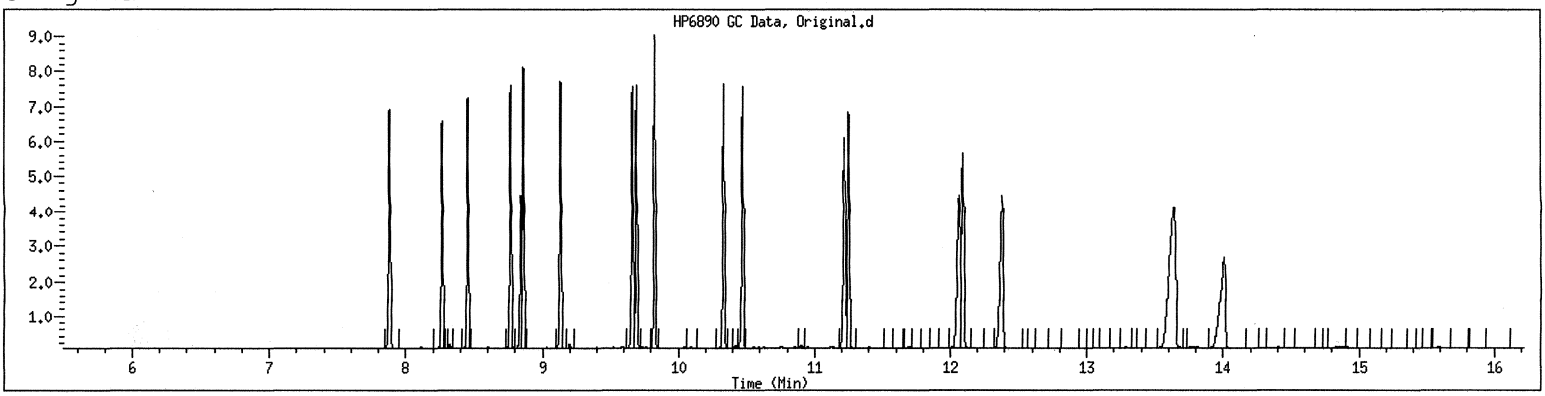
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



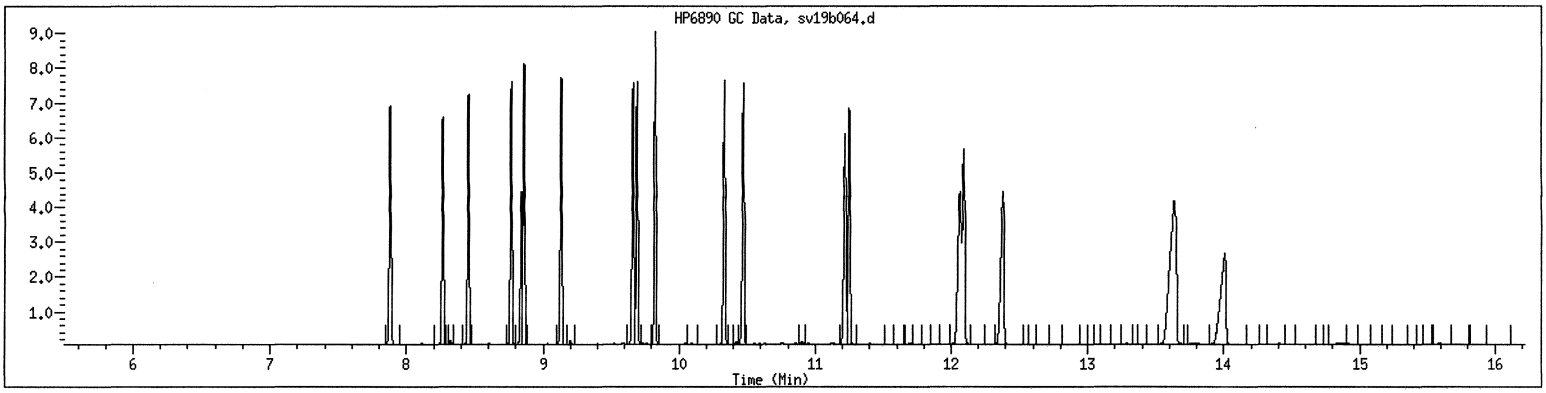
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 15:20	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 04-NOV-2011 21:02
Lab File ID: sv19b078.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2738058	0.010	3.66273	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2294921	0.010	3.53373	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2378493	0.010	3.21447	25.00000	Averaged	
4 Acenaphthylene	2763267	2684675	0.010	2.84417	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1616043	0.010	-3.01283	25.00000	Averaged	
6 Acenaphthene	2910153	2709141	0.010	6.90725	25.00000	Averaged	
7 Fluorene	2771184	2705485	0.010	2.37081	25.00000	Averaged	
8 Phenanthrene	2760684	2732439	0.010	1.02312	25.00000	Averaged	
9 Anthracene	2653997	2601571	0.010	1.97535	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2905163	0.010	1.47967	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2829367	0.010	-0.29161	25.00000	Averaged	
13 Pyrene	2855480	2878648	0.010	-0.81133	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2821100	0.010	-1.58626	25.00000	Averaged	
15 Chrysene	2748172	2767613	0.010	-0.70740	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2894257	0.010	-2.87521	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2894257	0.010	-2.87521	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2879567	0.010	-3.85480	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2824695	0.010	-5.43636	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2824695	0.010	-5.43636	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2907536	0.010	-4.66317	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2764001	0.010	-0.36361	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 7.22388
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b078.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 04-NOV-2011 21:02
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.881	-0.002	136902912	50.0000	48.2
	2 2-Methylnaphthalene	8.266	8.266	0.000	114746068	50.0000	48.2
$	3 2-Fluorobiphenyl	8.453	8.455	-0.002	118924633	50.0000	48.4
	4 Acenaphthylene	8.766	8.767	-0.001	134233727	50.0000	48.6
$	5 2-Bromonaphthalene	8.839	8.839	0.000	80802145	50.0000	51.5
	6 Acenaphthene	8.858	8.858	0.000	135457066	50.0000	46.5
	7 Fluorene	9.132	9.133	-0.001	135274249	50.0000	48.8
	8 Phenanthrene	9.660	9.659	0.001	136621969	50.0000	49.5
	9 Anthracene	9.690	9.689	0.001	130078572	50.0000	49.0
$	10 O-Terphenyl	9.824	9.824	0.000	145258158	50.0000	49.3
	12 Fluoranthene	10.332	10.330	0.002	141468360	50.0000	50.1
	13 Pyrene	10.472	10.470	0.002	143932378	50.0000	50.4
	14 Benzo(a)Anthracene	11.217	11.216	0.001	141054993	50.0000	50.8

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	15 Chrysene	11.249	11.248	0.001	138380641	50.0000	50.4
	16 Benzo(b)Fluoranthene	12.092	12.091	0.001	289425705	100.000	103(M2)
	17 Benzo(k)Fluoranthene	12.092	12.091	0.001	289425705	100.000	103(M2)
	18 Benzo(a)Pyrene	12.376	12.376	0.000	143978345	50.0000	51.9
	19 Indo(1,2,3cd)Pyrene	13.631	13.636	-0.005	282469487	100.000	105(M1)
	20 Dibenzo(a,h)Anthracene	13.631	13.636	-0.005	282469487	100.000	105
	21 Benzo(g,h,i)Perylene	14.004	14.004	0.000	145376792	50.0000	52.3
M	22 Arom C11-C22				2349401264	850.000	853
M	113 Total Surrogate Area				344984936	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b078.d

Date : 04-NOV-2011 21:02

Client ID: 1 84-12-8

Sample Info: 1400*1 84-12-8

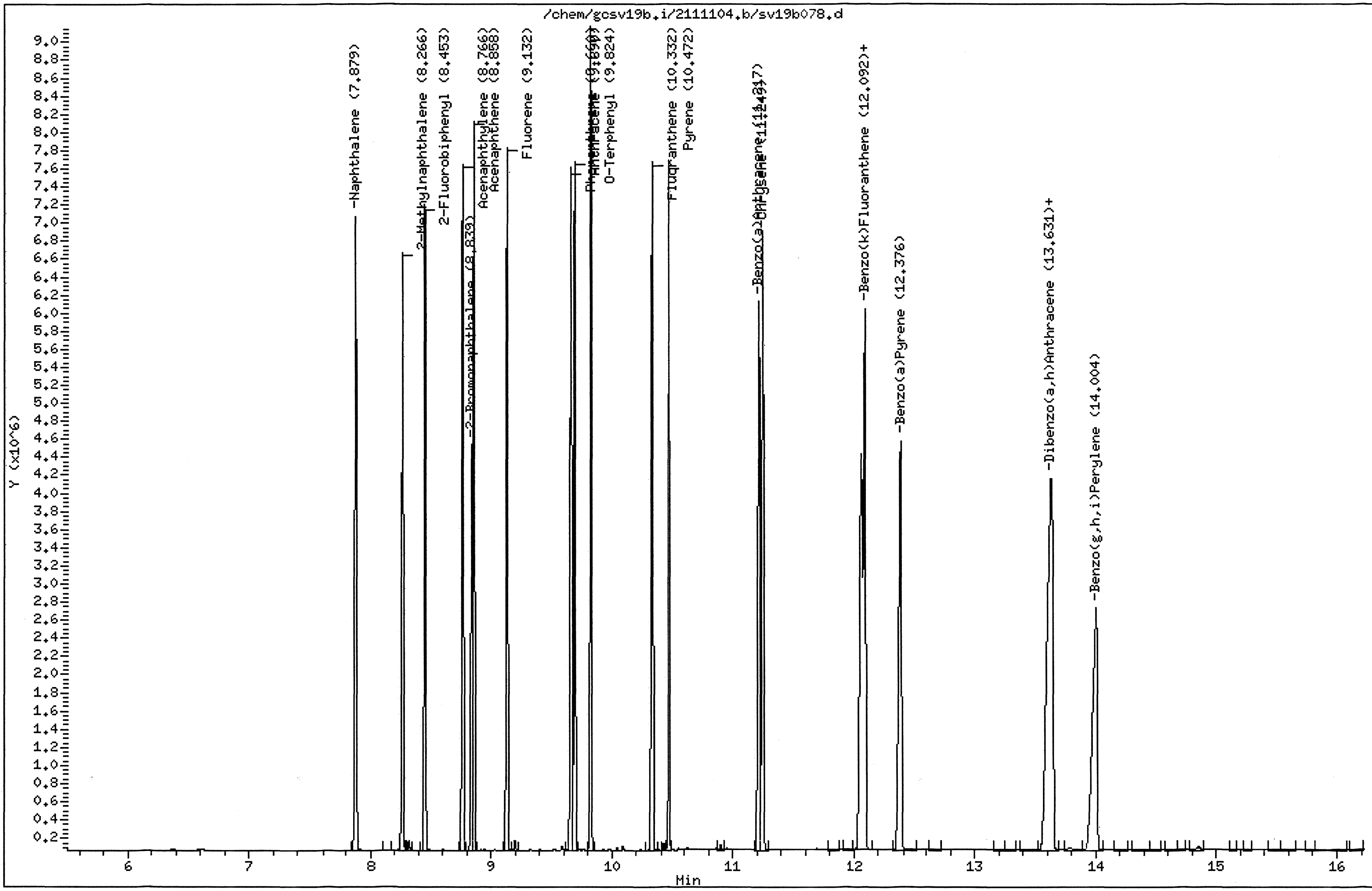
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

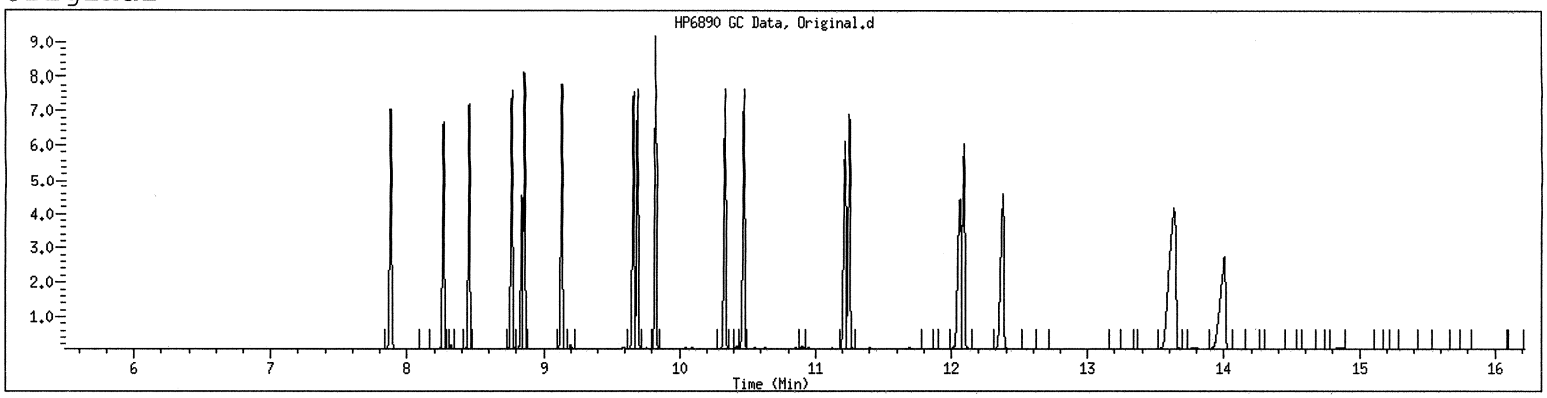
Column diameter: 0.25



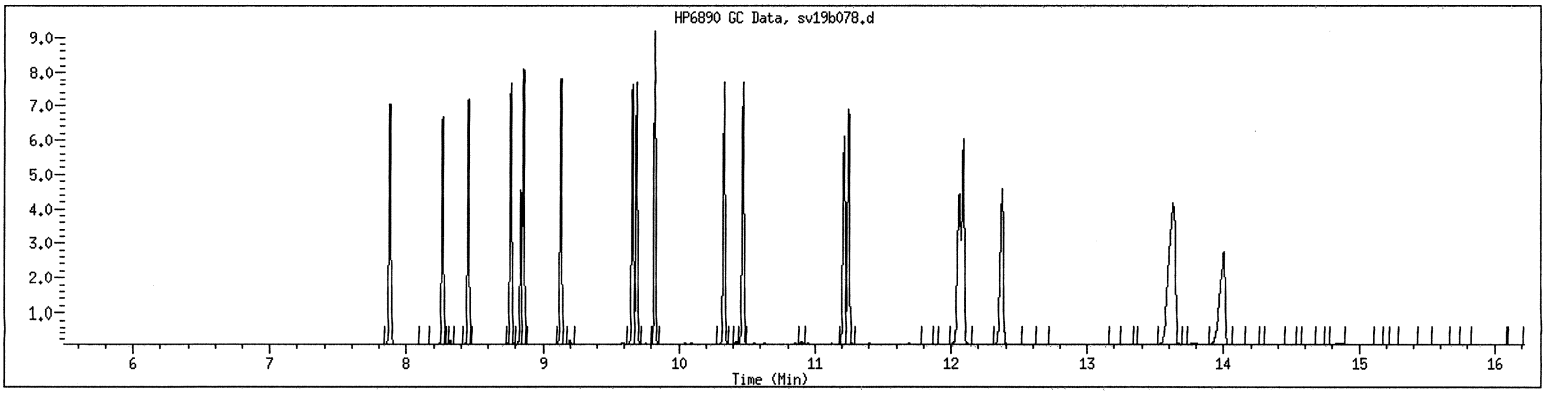
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/04/2011 21:02	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist:	all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 05-NOV-2011 02:38
Lab File ID: sv19b092.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Naphthalene	2842159	2751150	0.010	3.20211	25.00000	Averaged	
2 2-Methylnaphthalene	2378988	2306335	0.010	3.05397	25.00000	Averaged	
$ 3 2-Fluorobiphenyl	2457488	2388933	0.010	2.78964	25.00000	Averaged	
4 Acenaphthylene	2763267	2673972	0.010	3.23148	25.00000	Averaged	
$ 5 2-Bromonaphthalene	1568778	1588186	0.010	-1.23711	25.00000	Averaged	
6 Acenaphthene	2910153	2762779	0.010	5.06412	25.00000	Averaged	
7 Fluorene	2771184	2728654	0.010	1.53474	25.00000	Averaged	
8 Phenanthrene	2760684	2743958	0.010	0.60590	25.00000	Averaged	
9 Anthracene	2653997	2598960	0.010	2.07377	25.00000	Averaged	
$ 10 O-Terphenyl	2948796	2925170	0.010	0.80121	25.00000	Averaged	
$ 11 Chloro-octadecane	2739500	++++	0.010	++++	25.00000	Averaged	<-
12 Fluoranthene	2821141	2853163	0.010	-1.13510	25.00000	Averaged	
13 Pyrene	2855480	2891284	0.010	-1.25387	25.00000	Averaged	
14 Benzo(a)Anthracene	2777049	2815165	0.010	-1.37256	25.00000	Averaged	
15 Chrysene	2748172	2769005	0.010	-0.75805	25.00000	Averaged	
16 Benzo(b)Fluoranthene	2813367	2878379	0.010	-2.31082	25.00000	Averaged	
17 Benzo(k)Fluoranthene	2813367	2878379	0.010	-2.31082	25.00000	Averaged	
18 Benzo(a)Pyrene	2772685	2865833	0.010	-3.35949	25.00000	Averaged	
19 Indo(1,2,3cd)Pyrene	2679052	2812729	0.010	-4.98973	25.00000	Averaged	
20 Dibenzo(a,h)Anthracene	2679052	2812729	0.010	-4.98973	25.00000	Averaged	
21 Benzo(g,h,i)Perylene	2777993	2913883	0.010	-4.89166	25.00000	Averaged	
M 22 Arom C11-C22	2753988	2768021	0.010	-0.50956	25.00000	Averaged	
23 Unadjusted Arom C11-C22	++++	++++	0.010	++++	25.00000	Averaged	<-
M 113 Total Surrogate Area	++++	++++	0.010	++++	25.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 6.88525
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b092.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 05-NOV-2011 02:38
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 92 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.881	-0.002	137557484	50.0000	48.4
	2 2-Methylnaphthalene	8.265	8.266	-0.001	115316745	50.0000	48.5
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	119446637	50.0000	48.6
	4 Acenaphthylene	8.765	8.767	-0.002	133698611	50.0000	48.4
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	79409288	50.0000	50.6
	6 Acenaphthene	8.857	8.858	-0.001	138138949	50.0000	47.5
	7 Fluorene	9.130	9.133	-0.003	136432698	50.0000	49.2
	8 Phenanthrene	9.656	9.658	-0.002	137197878	50.0000	49.7
	9 Anthracene	9.686	9.688	-0.002	129947975	50.0000	49.0
$	10 O-Terphenyl	9.818	9.823	-0.005	146258484	50.0000	49.6
	12 Fluoranthene	10.323	10.328	-0.005	142658166	50.0000	50.6
	13 Pyrene	10.461	10.468	-0.007	144564212	50.0000	50.6
	14 Benzo(a)Anthracene	11.202	11.213	-0.011	140758266	50.0000	50.7

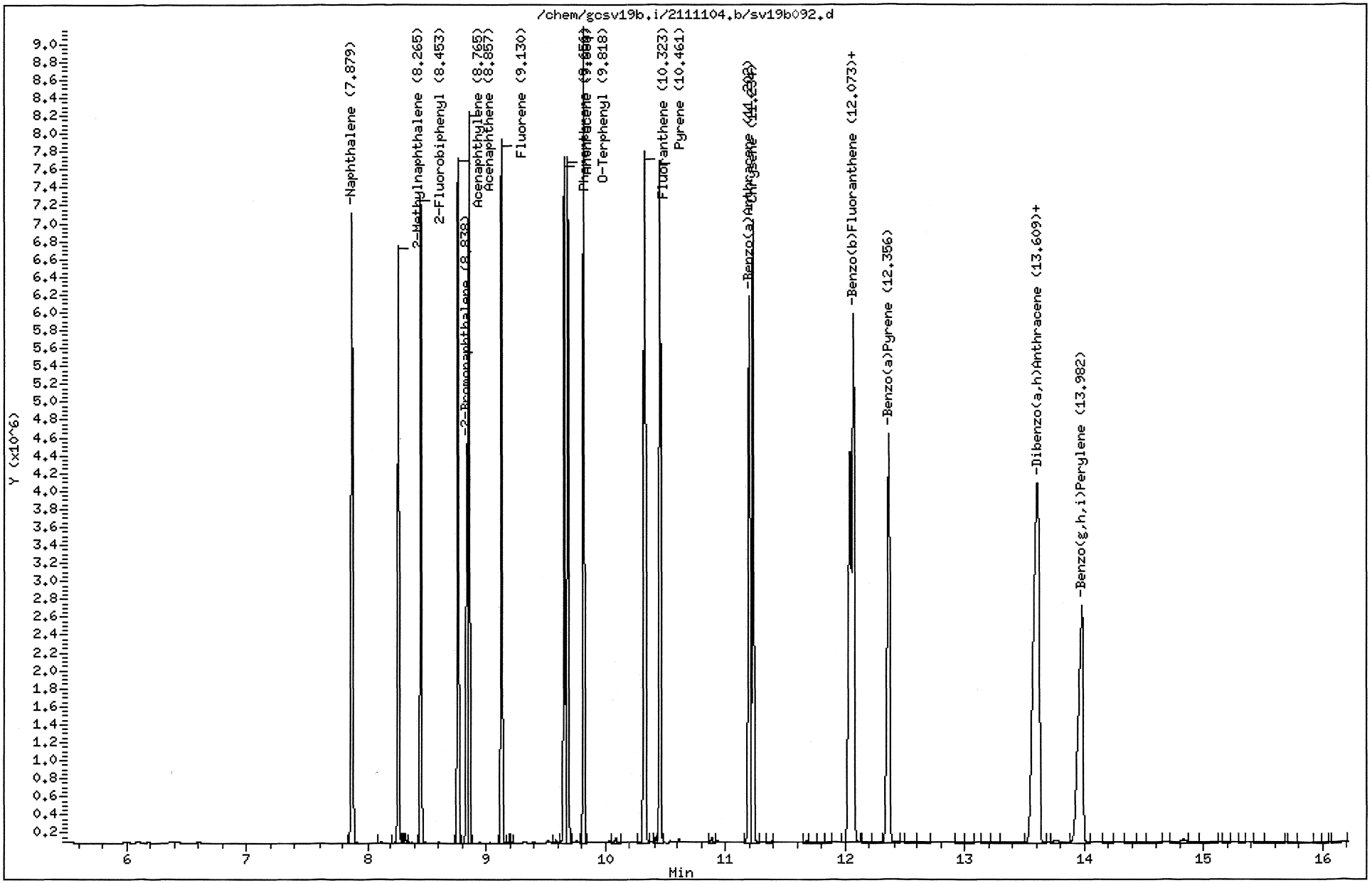
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.234	11.245	-0.011	138450237	50.0000	50.4
16	Benzo(b)Fluoranthene	12.073	12.087	-0.014	287837853	100.000	102(M2)
17	Benzo(k)Fluoranthene	12.073	12.087	-0.014	287837853	100.000	102(M2)
18	Benzo(a)Pyrene	12.356	12.372	-0.016	143291672	50.0000	51.7
19	Indo(1,2,3cd)Pyrene	13.609	13.631	-0.022	281272948	100.000	105(M1)
20	Dibenzo(a,h)Anthracene	13.609	13.631	-0.022	281272948	100.000	105
21	Benzo(g,h,i)Perylene	13.982	14.000	-0.018	145694166	50.0000	52.4
M 22	Arom C11-C22				2352817860	850.000	854
M 113	Total Surrogate Area				345114409	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111104.b/sv19b092.d
Date : 05-NOV-2011 02:38
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

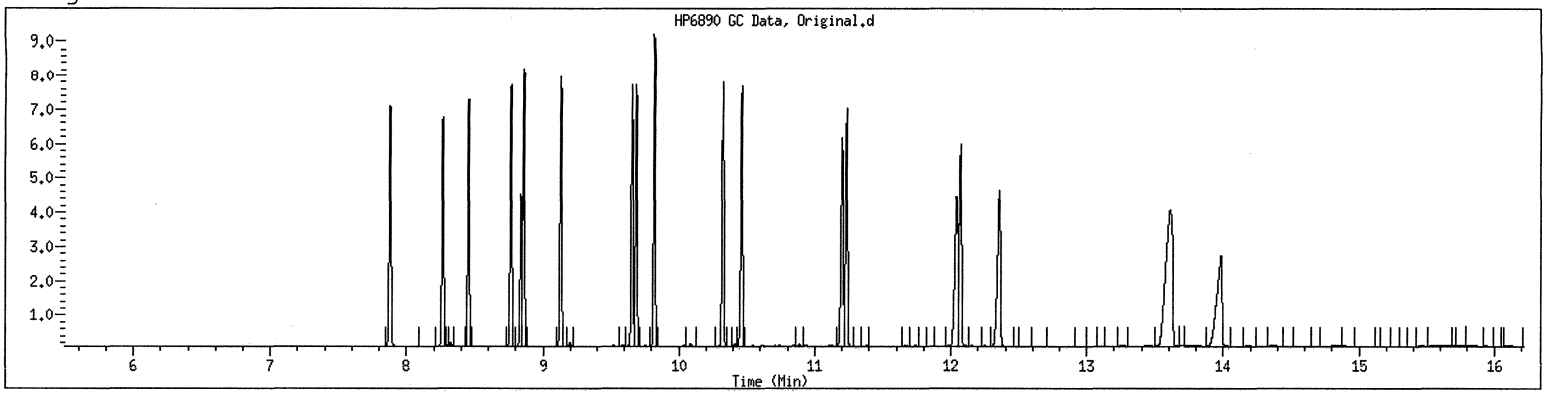
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



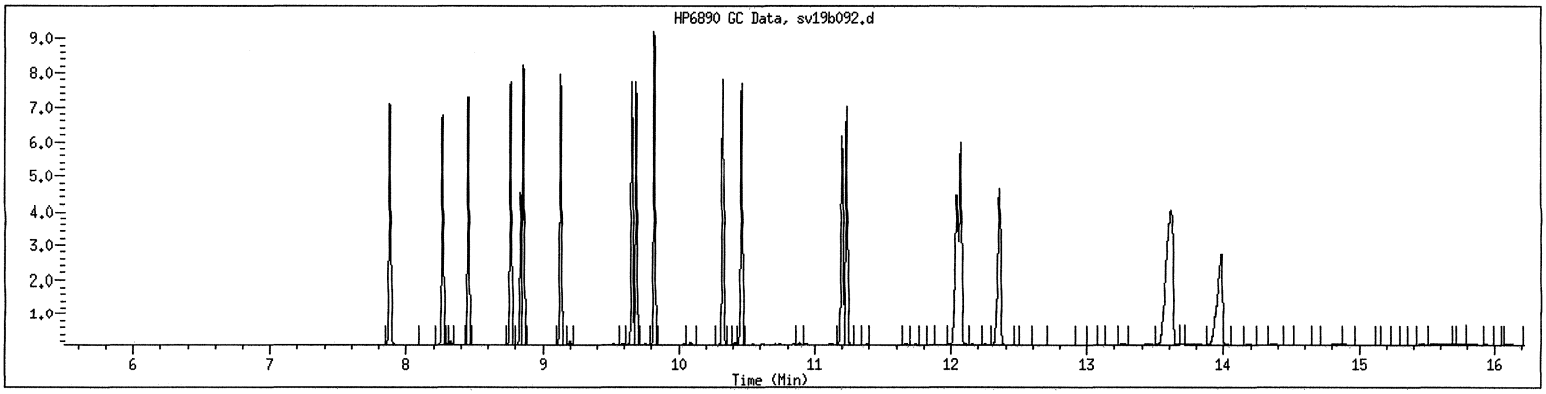
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/05/2011 02:38	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 14:13
Lab File ID: sv19b052.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2643972	0.010	6.97310	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2214133	0.010	6.92963	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2316259	0.010	5.74686	25.00000	Averaged
4 Acenaphthylene	2763267	2583096	0.010	6.52022	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1433504	0.010	8.62289	25.00000	Averaged
6 Acenaphthene	2910153	2768868	0.010	4.85490	25.00000	Averaged
7 Fluorene	2771184	2631823	0.010	5.02896	25.00000	Averaged
8 Phenanthrene	2760684	2518615	0.010	8.76847	25.00000	Averaged
9 Anthracene	2653997	2517693	0.010	5.13583	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2752788	0.010	6.64704	25.00000	Averaged
12 Fluoranthene	2821141	2509422	0.010	11.04940	25.00000	Averaged
13 Pyrene	2855480	2647674	0.010	7.27747	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2260450	0.010	18.60244	25.00000	Averaged
15 Chrysene	2748172	2735898	0.010	0.44664	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2461671	0.010	12.50087	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2461671	0.010	12.50087	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2613952	0.010	5.72490	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2407432	0.010	10.13865	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2407432	0.010	10.13865	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2693272	0.010	3.04975	25.00000	Averaged
M 22 Arom C11-C22	2753988	2533945	0.010	7.98995	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b052.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 10-NOV-2011 14:13
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 14:10 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	132198609	50.0000	46.5
	2 2-Methylnaphthalene	8.262	8.265	-0.003	110706672	50.0000	46.5
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	115812971	50.0000	47.1
	4 Acenaphthylene	8.763	8.766	-0.003	129154777	50.0000	46.7
$	5 2-Bromonaphthalene	8.836	8.838	-0.002	71675211	50.0000	45.7
	6 Acenaphthene	8.855	8.858	-0.003	138443389	50.0000	47.6
	7 Fluorene	9.129	9.132	-0.003	131591129	50.0000	47.5
	8 Phenanthrene	9.659	9.657	0.002	125930741	50.0000	45.6
	9 Anthracene	9.689	9.688	0.001	125884626	50.0000	47.4
$	10 O-Terphenyl	9.823	9.822	0.001	137639397	50.0000	46.7
	12 Fluoranthene	10.333	10.327	0.006	125471080	50.0000	44.5
	13 Pyrene	10.475	10.467	0.008	132383678	50.0000	46.4
	14 Benzo(a)Anthracene	11.223	11.223	0.000	113022488	50.0000	40.7
	15 Chrysene	11.255	11.250	0.005	136794887	50.0000	49.8

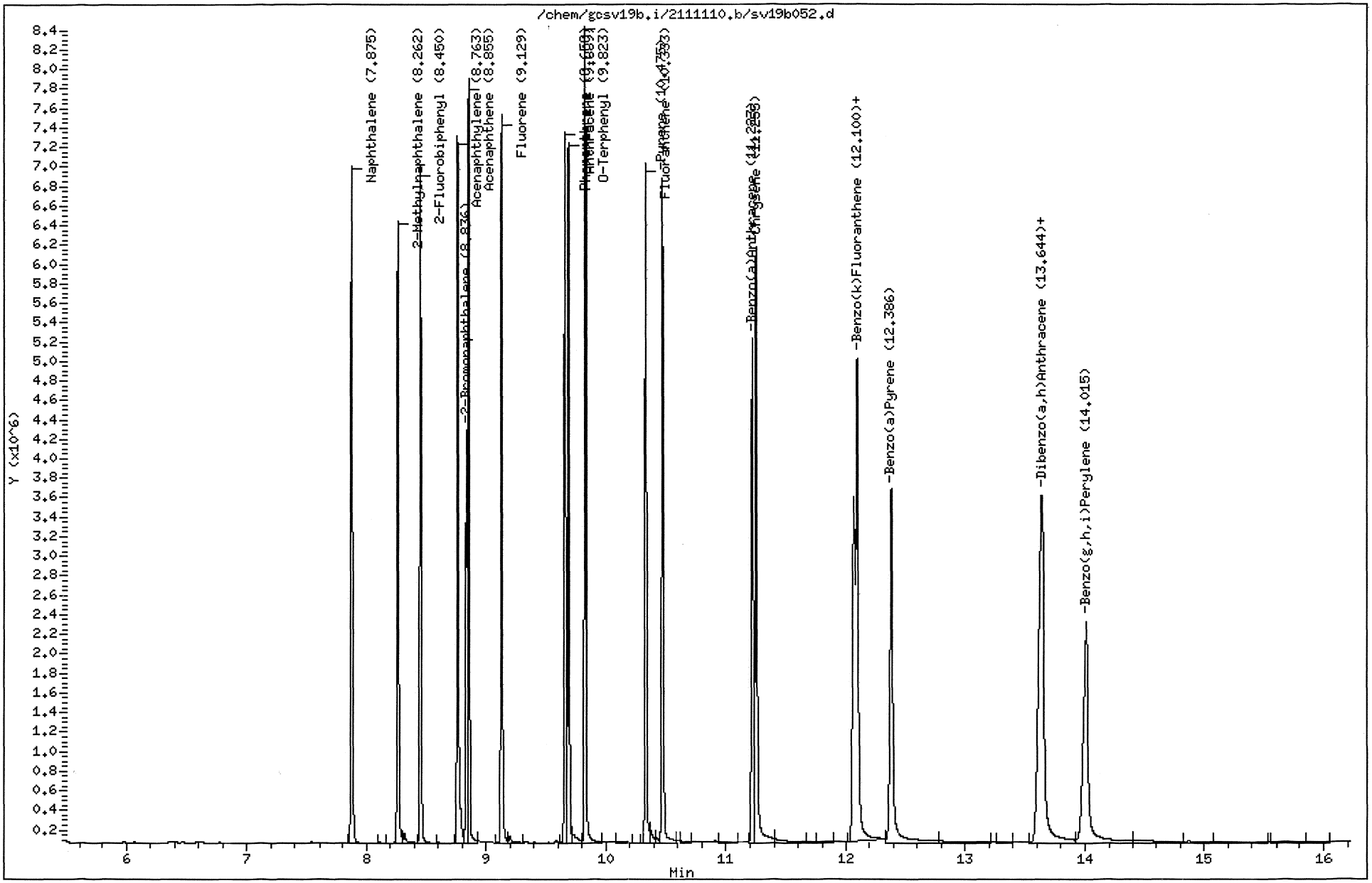
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
16	Benzo(b)Fluoranthene	12.100	12.085	0.015	246167136	100.000	87.5(M2)
17	Benzo(k)Fluoranthene	12.100	12.085	0.015	246167136	100.000	87.5(M2)
18	Benzo(a)Pyrene	12.386	12.370	0.016	130697590	50.0000	47.1
19	Indo(1,2,3cd)Pyrene	13.644	13.598	0.046	240743229	100.000	89.9(M1)
20	Dibenzo(a,h)Anthracene	13.644	13.638	0.006	240743229	100.000	89.9
21	Benzo(g,h,i)Perylene	14.015	13.997	0.018	134663577	50.0000	48.5
M 22	Arom C11-C22				2153853608	850.000	782

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111110.b/sv19b052.d
Date : 10-NOV-2011 14:13
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

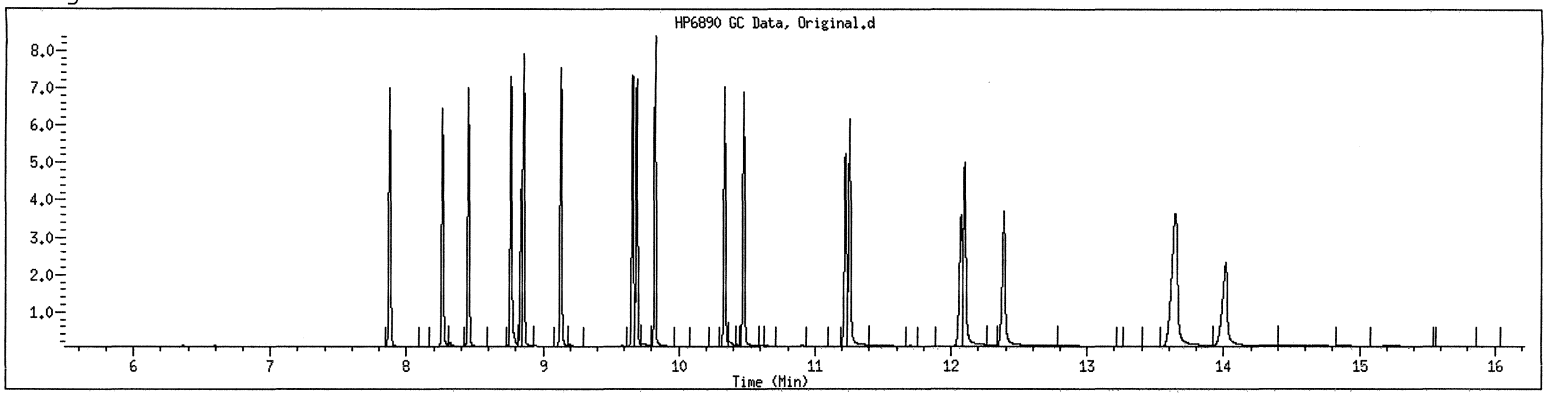
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



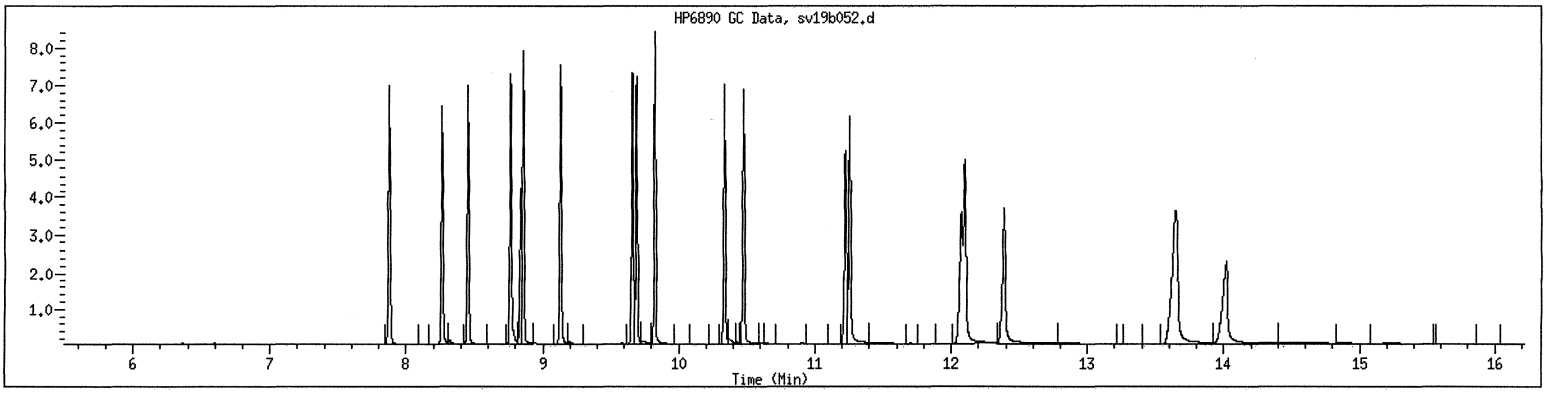
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 14:13	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: cal

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 19:16
Lab File ID: sv19b064.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2638530	0.010	7.16458	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2227337	0.010	6.37462	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2309148	0.010	6.03623	25.00000	Averaged
4 Acenaphthylene	2763267	2609326	0.010	5.57096	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1541377	0.010	1.74669	25.00000	Averaged
6 Acenaphthene	2910153	2666069	0.010	8.38733	25.00000	Averaged
7 Fluorene	2771184	2646356	0.010	4.50450	25.00000	Averaged
8 Phenanthrene	2760684	2629050	0.010	4.76820	25.00000	Averaged
9 Anthracene	2653997	2541899	0.010	4.22377	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2777283	0.010	5.81637	25.00000	Averaged
12 Fluoranthene	2821141	2690287	0.010	4.63832	25.00000	Averaged
13 Pyrene	2855480	2726104	0.010	4.53079	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2573062	0.010	7.34547	25.00000	Averaged
15 Chrysene	2748172	2646508	0.010	3.69933	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2638572	0.010	6.21302	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2638572	0.010	6.21302	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2658760	0.010	4.10883	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2591557	0.010	3.26591	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2591557	0.010	3.26591	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2748023	0.010	1.07885	25.00000	Averaged
M 22 Arom C11-C22	2753988	2615386	0.010	5.03275	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b064.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 10-NOV-2011 19:16
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 14:10 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 64 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	131926498	50.0000	46.4
	2 2-Methylnaphthalene	8.262	8.265	-0.003	111366853	50.0000	46.8
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	115457412	50.0000	47.0
	4 Acenaphthylene	8.763	8.766	-0.003	130466308	50.0000	47.2
$	5 2-Bromonaphthalene	8.836	8.838	-0.002	77068827	50.0000	49.1
	6 Acenaphthene	8.856	8.858	-0.002	133303433	50.0000	45.8
	7 Fluorene	9.129	9.132	-0.003	132317824	50.0000	47.7
	8 Phenanthrene	9.657	9.657	0.000	131452475	50.0000	47.6
	9 Anthracene	9.688	9.688	0.000	127094930	50.0000	47.9
$	10 O-Terphenyl	9.821	9.822	-0.001	138864147	50.0000	47.1
	12 Fluoranthene	10.329	10.327	0.002	134514358	50.0000	47.7
	13 Pyrene	10.469	10.467	0.002	136305219	50.0000	47.7
	14 Benzo(a)Anthracene	11.214	11.223	-0.009	128653078	50.0000	46.3
	15 Chrysene	11.247	11.250	-0.003	132325413	50.0000	48.2

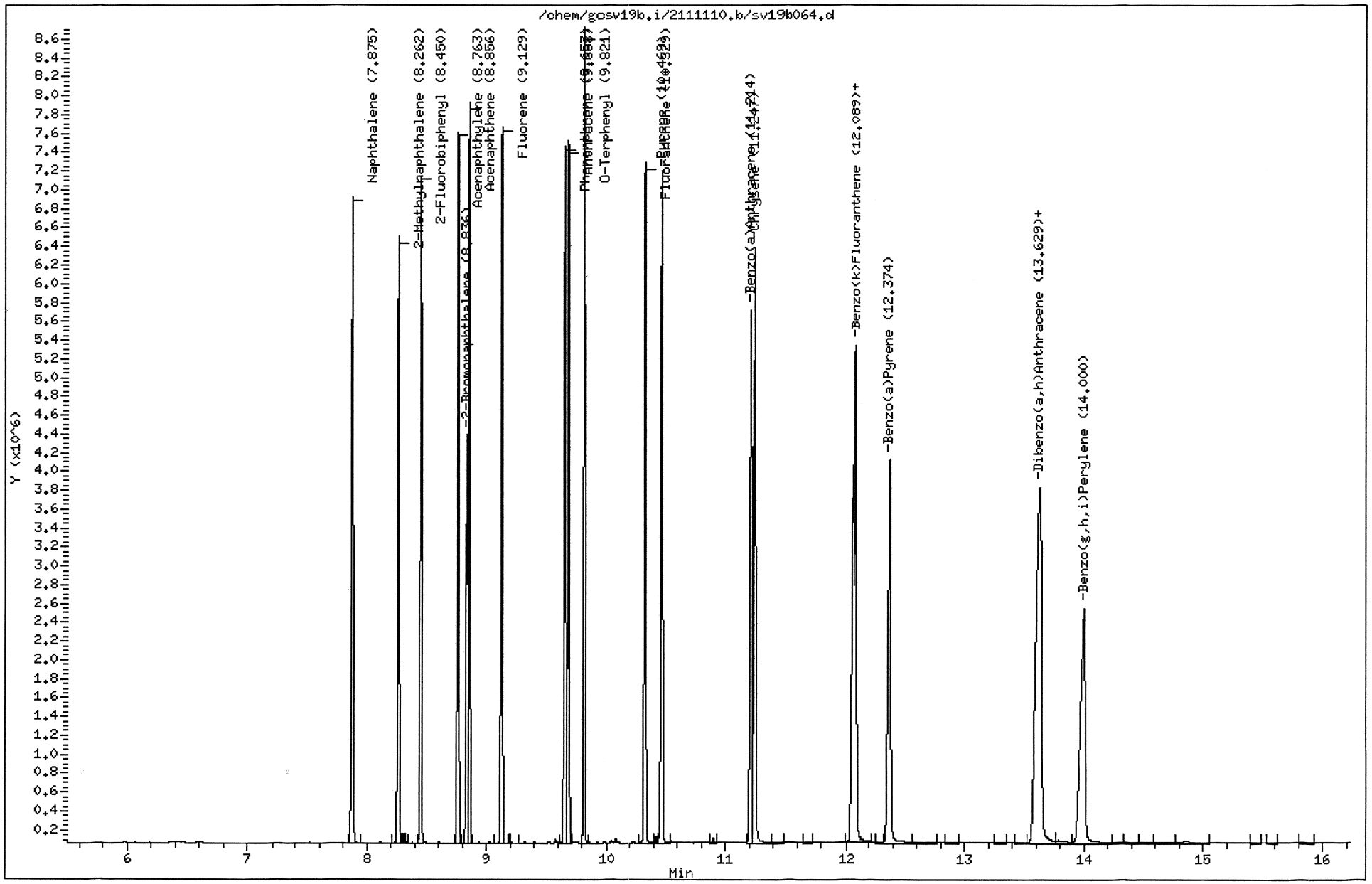
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	16 Benzo(b)Fluoranthene	12.089	12.085	0.004	263857178	100.000	93.8(M2)
	17 Benzo(k)Fluoranthene	12.089	12.085	0.004	263857178	100.000	93.8(M2)
	18 Benzo(a)Pyrene	12.374	12.370	0.004	132938020	50.0000	47.9
	19 Indo(1,2,3cd)Pyrene	13.629	13.598	0.031	259155661	100.000	96.7(M1)
	20 Dibenzo(a,h)Anthracene	13.629	13.638	-0.009	259155661	100.000	96.7
	21 Benzo(g,h,i)Perylene	14.000	13.997	0.003	137401151	50.0000	49.5
M	22 Arom C11-C22				2223078399	850.000	807

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111110.b/sv19b064.d
Date : 10-NOV-2011 19:16
Client ID: 1 84-12-8
Sample Info: 1400x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25

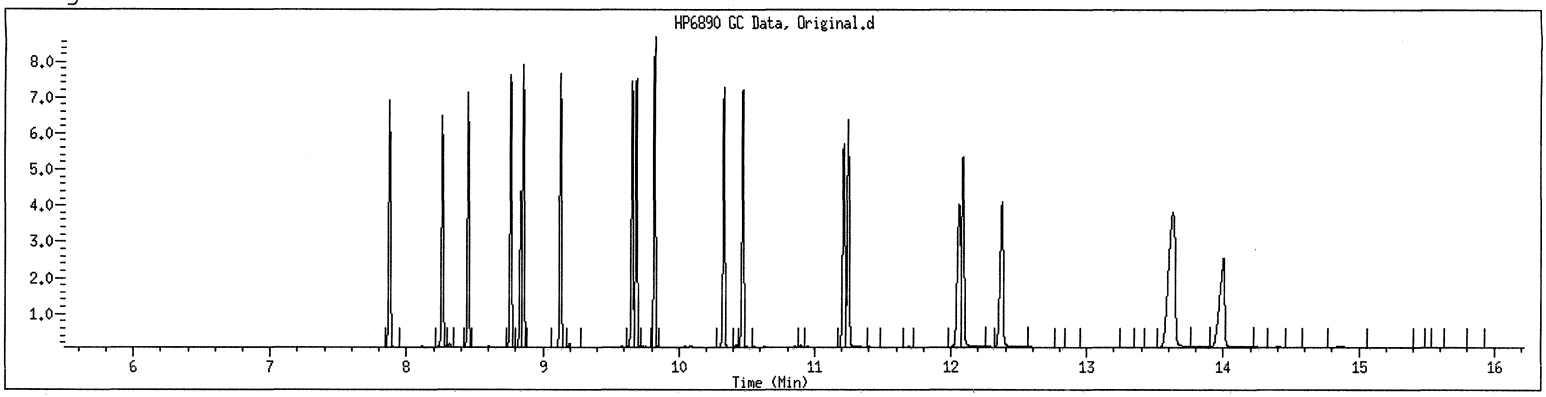


2111110257 139

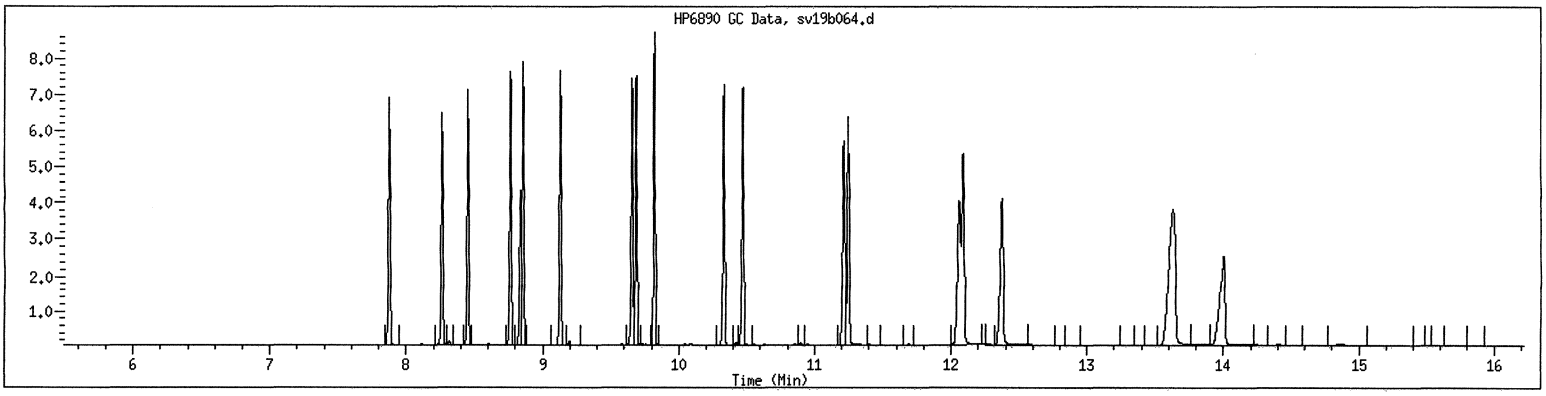
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 19:16	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: cal

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1002043

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002043

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1118

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b054

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	42.1	U	42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	21.8	U	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.0	U	31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b054.d
Lab Smp Id: 1002043 Client Smp ID: 1 84-15-4
Inj Date : 04-NOV-2011 11:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002043*1 mb w
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

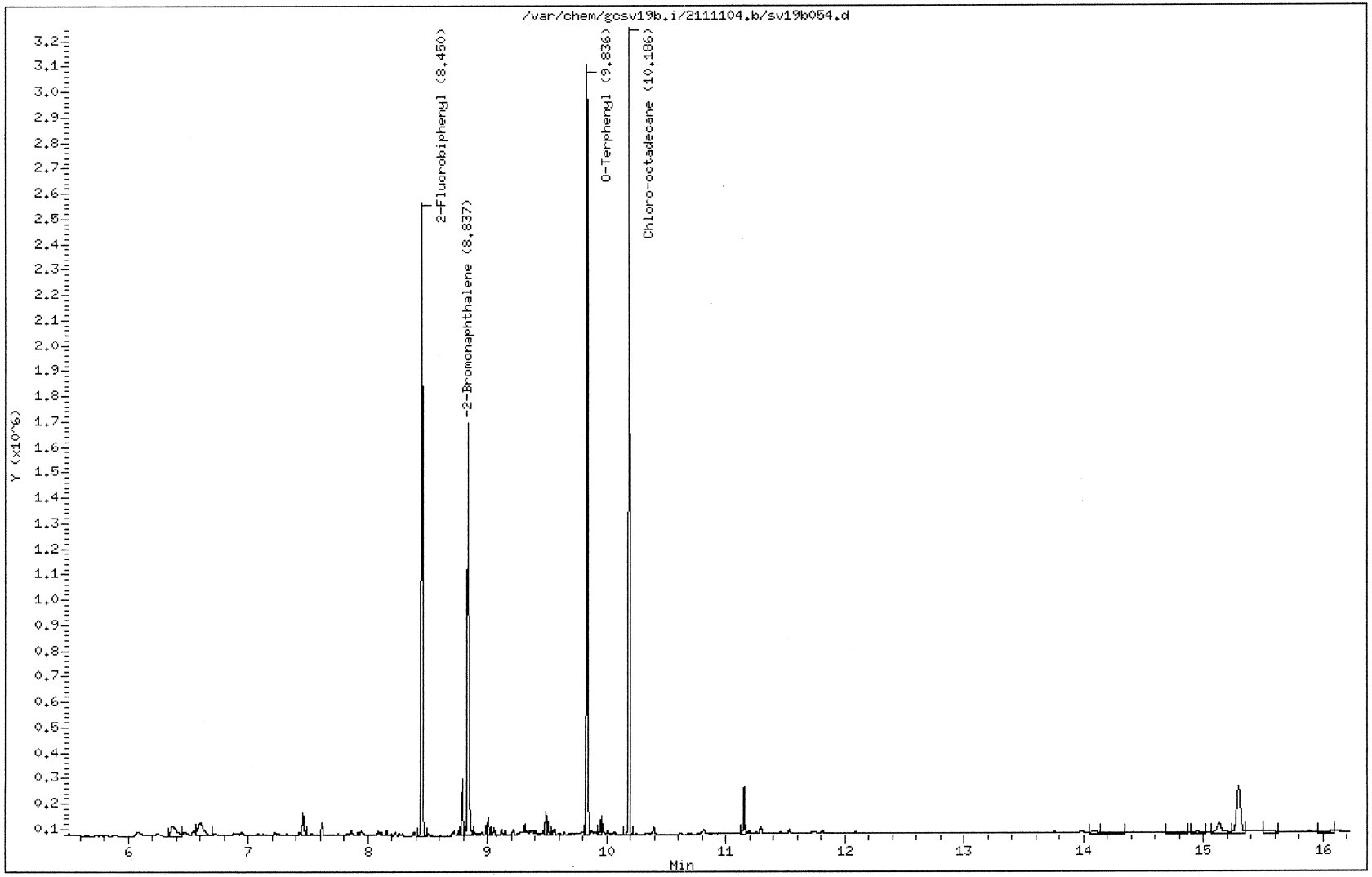
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.450	8.454	-0.004	40311135	16.4034	32.8	
$ 5 2-Bromonaphthalene	8.837	8.839	-0.002	29205418	18.6167	37.2	
$ 10 O-Terphenyl	9.836	9.823	0.013	46231712	15.6782	31.4	
$ 11 Chloro-octadecane	10.186	10.174	0.012	43871918	16.0146	32.0	
M 113 Total Surrogate Area				159620183			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b054.d
Date : 04-NOV-2011 11:18
Client ID: 1 84-15-4
Sample Info: 1002043*1 mb w
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

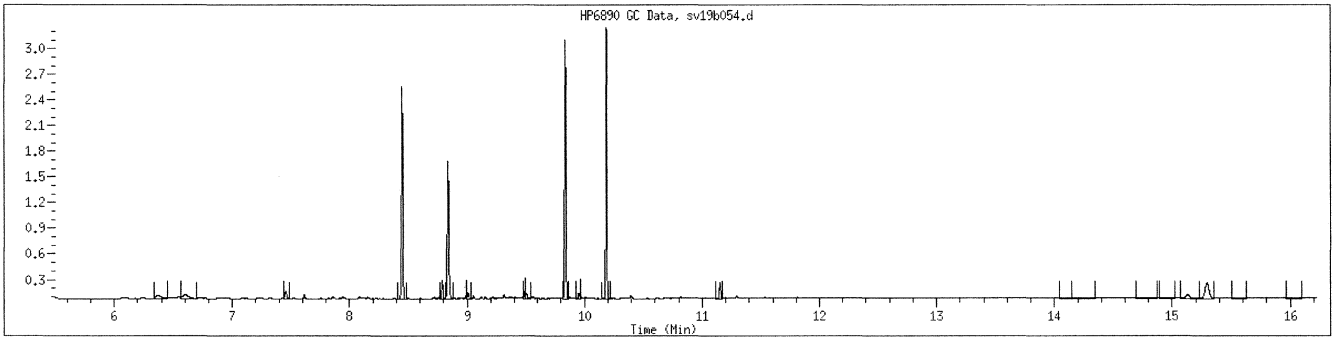
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002043 SampleType : SAMPLE
Injection Date: 11/04/2011 11:18 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002043*1 mb w
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b055.d
Lab Smp Id: 1002043 Client Smp ID: 1 mb w
Inj Date : 04-NOV-2011 11:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002043*1 mb w
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

						CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
Compounds		RT	EXP RT	DLT RT	RESPONSE		
10	C-18	9.005	9.504	-0.499	29350351	9.71451	19.4(M1)
M 11	Alip C9-C18				29350351	9.71451	19.4
114	C-36	10.173	15.144	-4.971	37956568	12.9738	25.9(AM1)
M 24	Alip C19-C36				37956568	12.9738	25.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b055.d

Date : 04-NOV-2011 11:42

Client ID: 1 mb w

Sample Info: 1002043*1 mb w

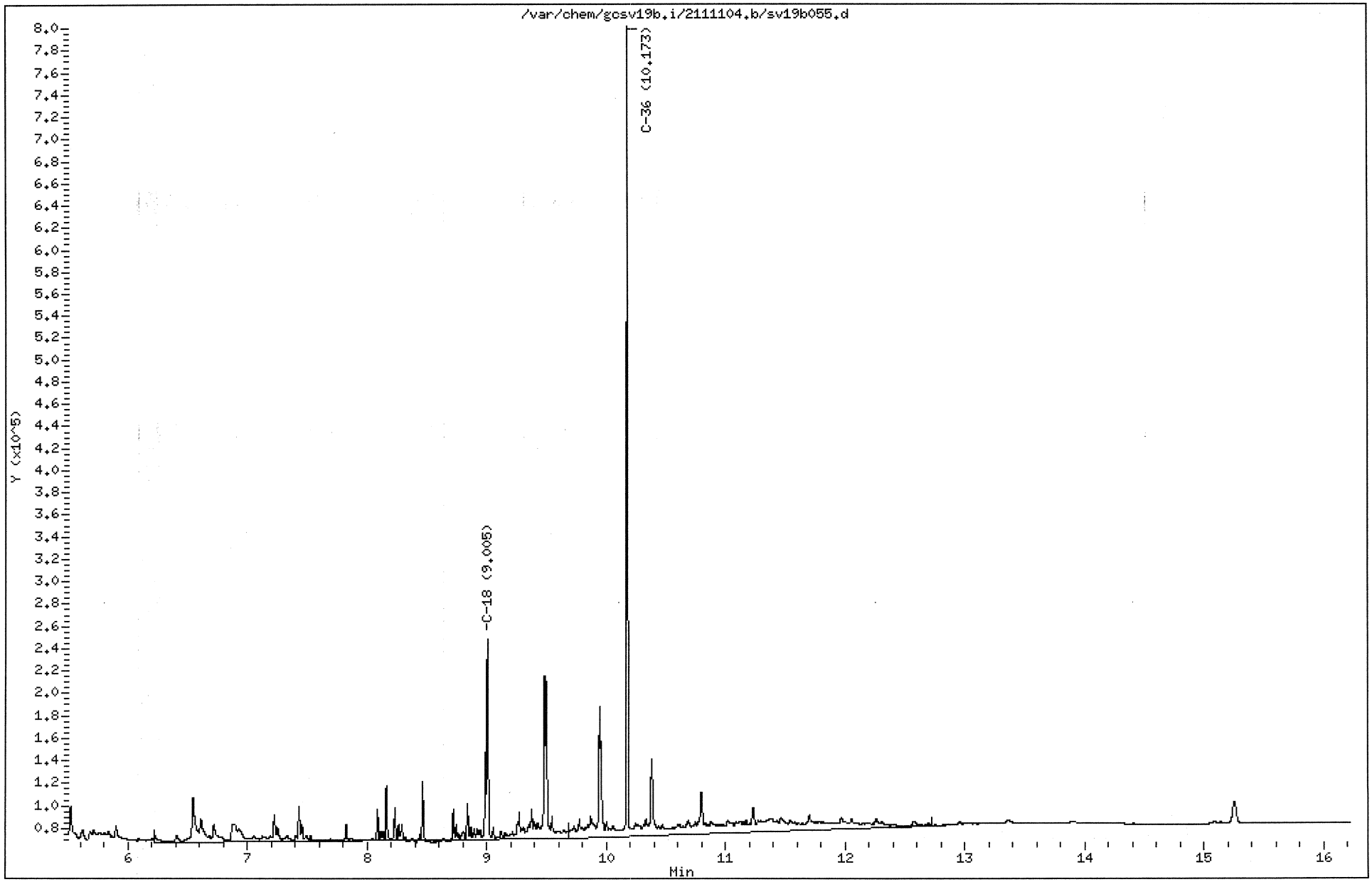
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

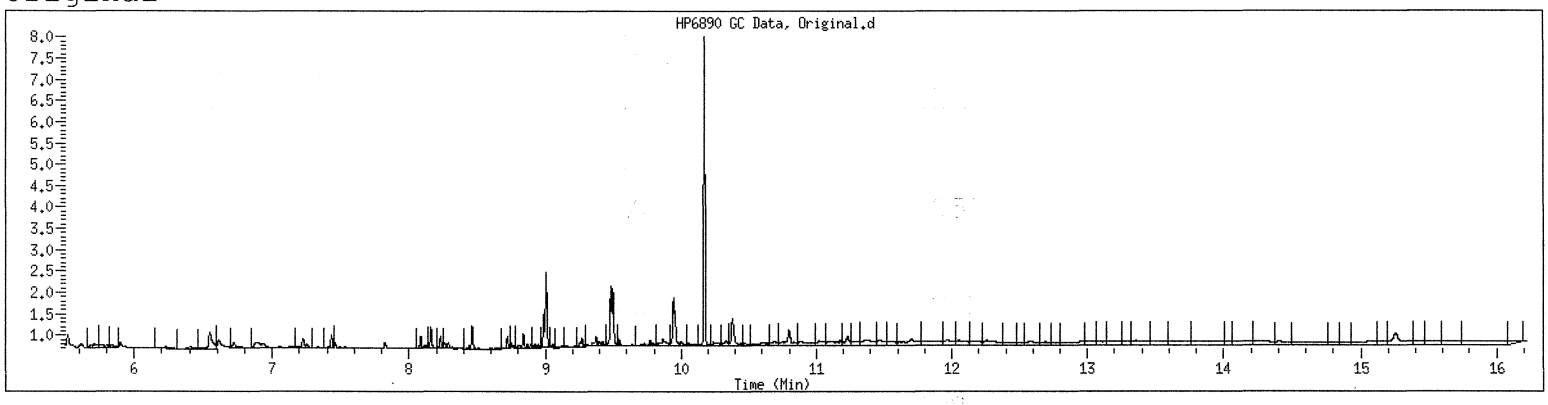
Column diameter: 0.25



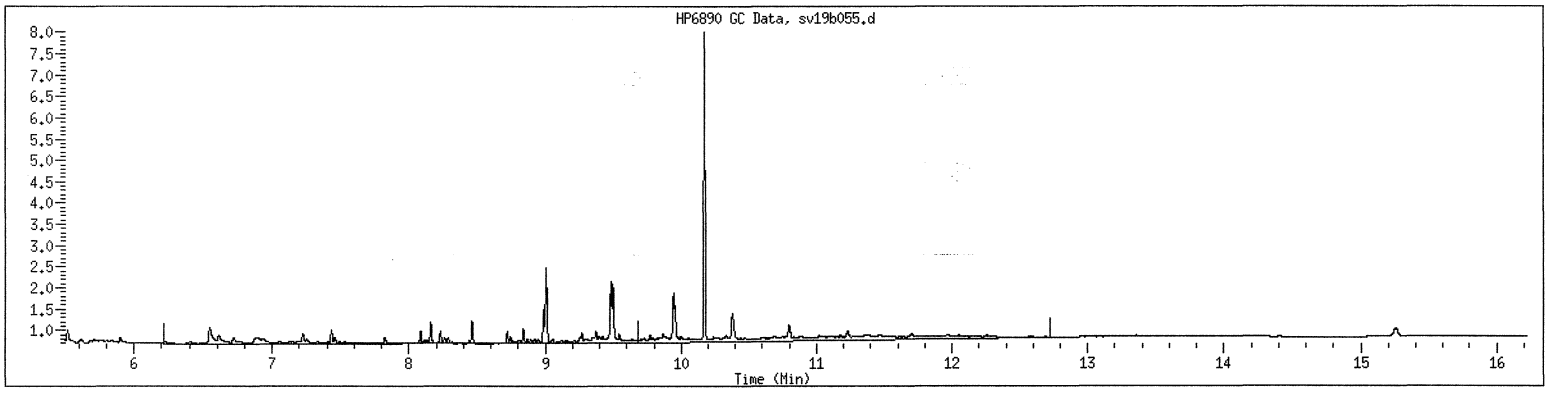
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1002043	SampleType	: SAMPLE
Injection Date	: 11/04/2011 11:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1002043*1 mb w		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1004104

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1004104

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 1515

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b054

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	42.1	U	42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	21.8	U	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.0	U	31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b054.d
Lab Smp Id: 1004104 Client Smp ID: 1 MB
Inj Date : 10-NOV-2011 15:15
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004104*1 MB
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

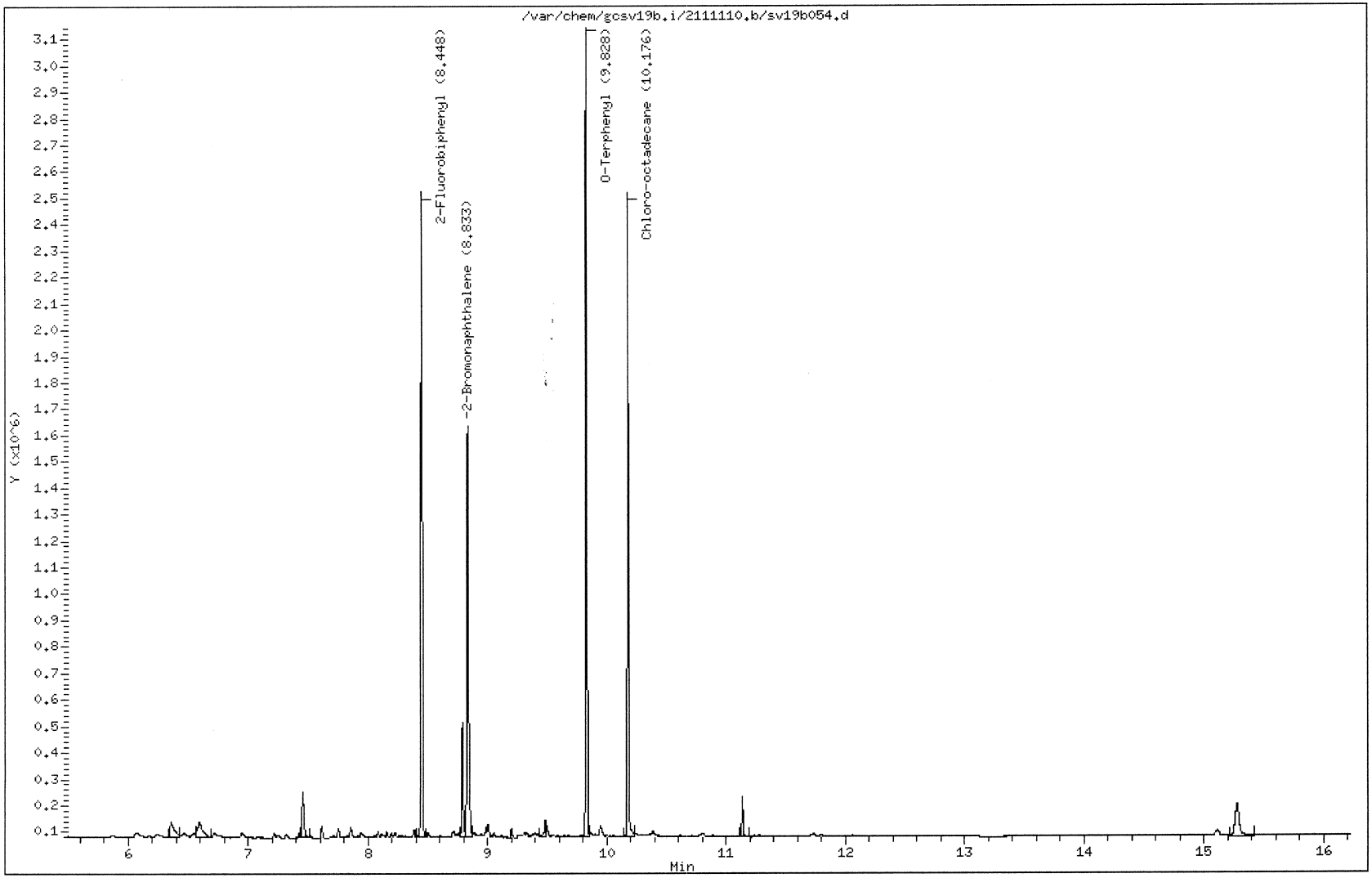
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.448	8.454	-0.006	39667720	16.1416	32.3	
$ 5 2-Bromonaphthalene	8.833	8.838	-0.005	29843186	19.0232	38.0	
$ 10 O-Terphenyl	9.828	9.822	0.006	47260177	16.0269	32.1	
$ 11 Chloro-octadecane	10.176	10.158	0.018	35257119	12.8699	25.7	
M 113 Total Surrogate Area				152028202			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b054.d
Date : 10-NOV-2011 15:15
Client ID: 1 MB
Sample Info: 1004104*1 MB
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

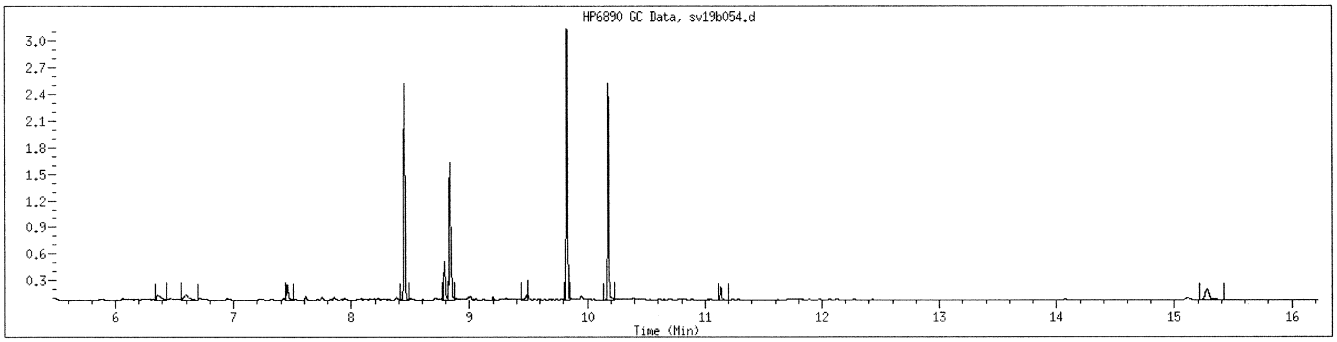
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004104 SampleType : SAMPLE
Injection Date: 11/10/2011 15:15 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004104*1 MB
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b055.d
Lab Smp Id: 1004104 Client Smp ID: 1 MB
Inj Date : 10-NOV-2011 15:39
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004104*1 MB
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

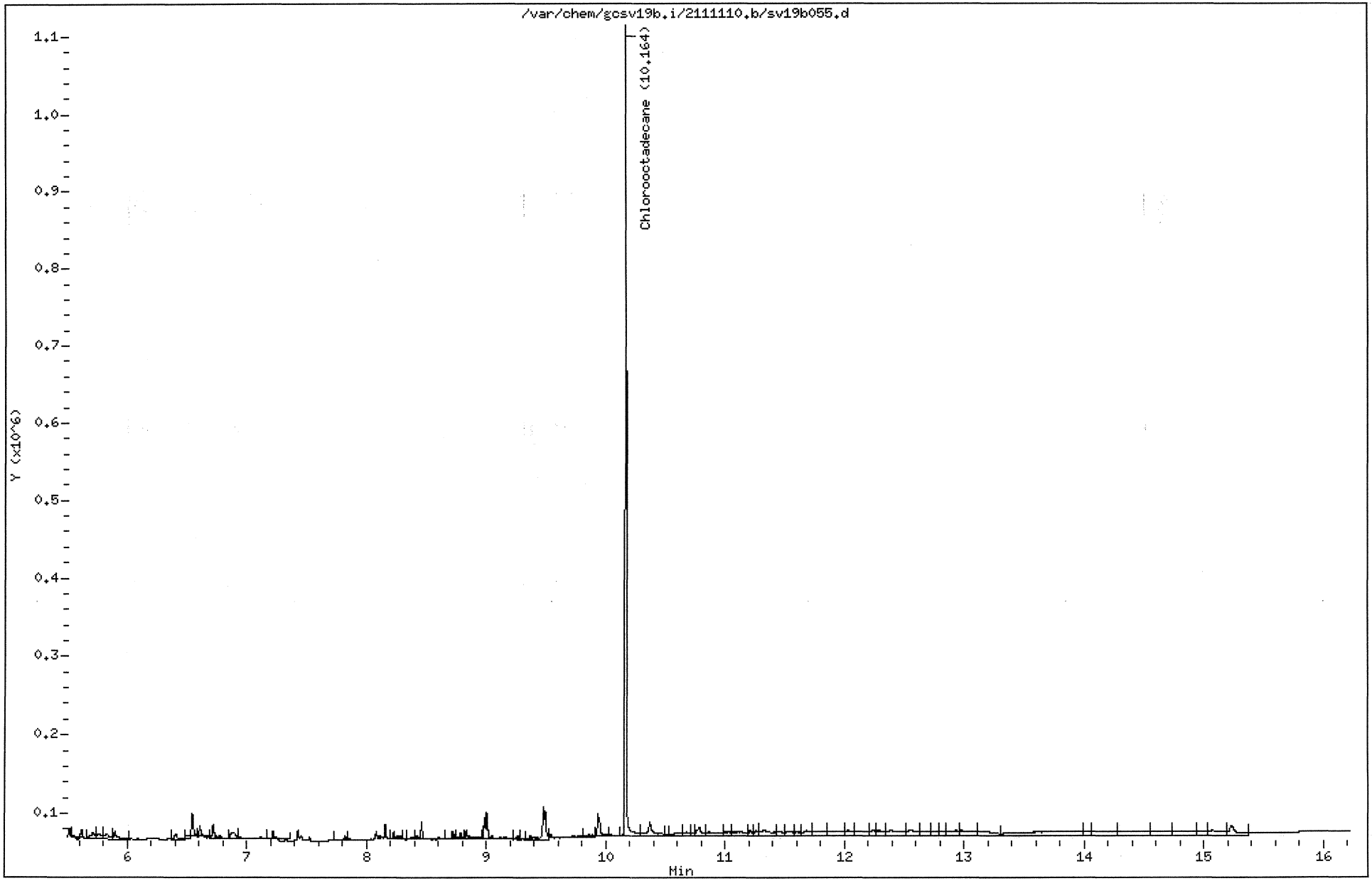
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.164	10.215	-0.051	15261843	5.57087	11.1(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

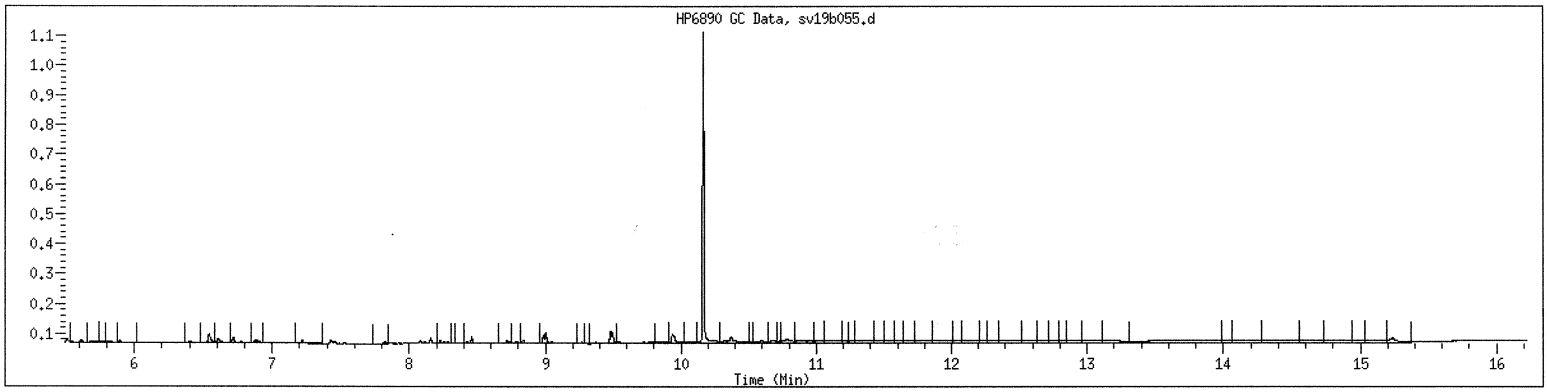
Data File: /var/chem/gcsv19b.i/2111110.b/sv19b055.d
Date : 10-NOV-2011 15:39
Client ID: 1 MB
Sample Info: 1004104*1 MB
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004104 SampleType : SAMPLE
Injection Date: 11/10/2011 15:39 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004104*1 MB
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCS1002044

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002044

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1206

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b056

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	164		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	47.3	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	128		31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b056.d
Lab Smp Id: 1002044 Client Smp ID: 1 lcs
Inj Date : 04-NOV-2011 12:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002044*1 lcs
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.874	7.881	-0.007	42244447	14.8635	29.7
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	49564137	20.1686	40.3
$	5 2-Bromonaphthalene	8.834	8.839	-0.005	25190730	16.0575	32.1
	6 Acenaphthene	8.853	8.858	-0.005	48565269	16.6882	33.4
	9 Anthracene	9.686	9.688	-0.002	45807441	17.2598	34.5
$	10 O-Terphenyl	9.823	9.823	0.000	40477952	13.7269	27.5
$	11 Chloro-octadecane	10.167	10.174	-0.007	40322170	14.7188	29.4
	13 Pyrene	10.474	10.468	0.006	45724998	16.0131	32.0
	15 Chrysene	11.251	11.245	0.006	47755889	17.3773	34.8
M	22 Arom C11-C22				230098044	82.2019	164
M	113 Total Surrogate Area				155554989		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b056.d

Date : 04-NOV-2011 12:06

Client ID: 1 lcs

Sample Info: 1002044*1 lcs

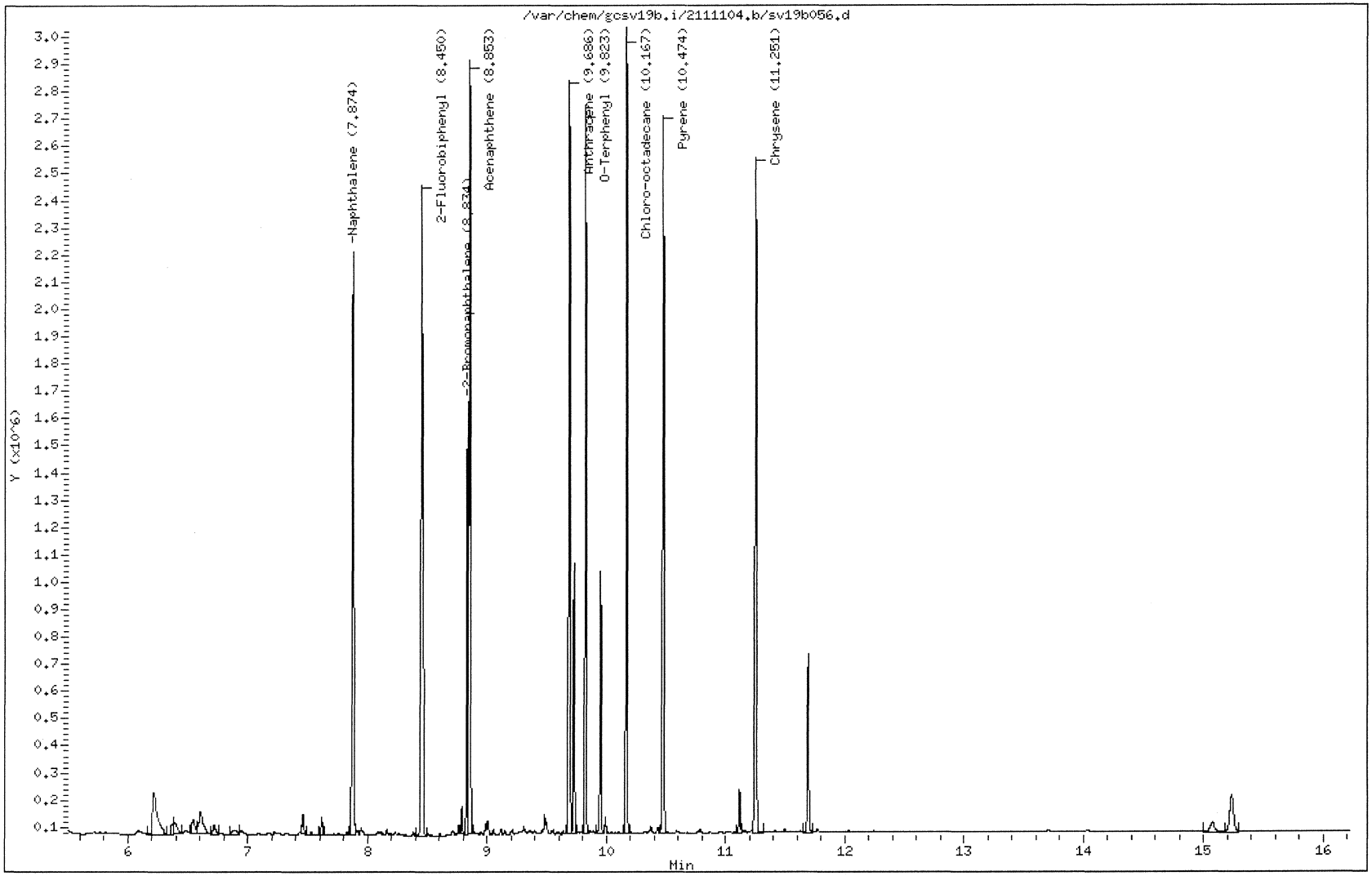
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

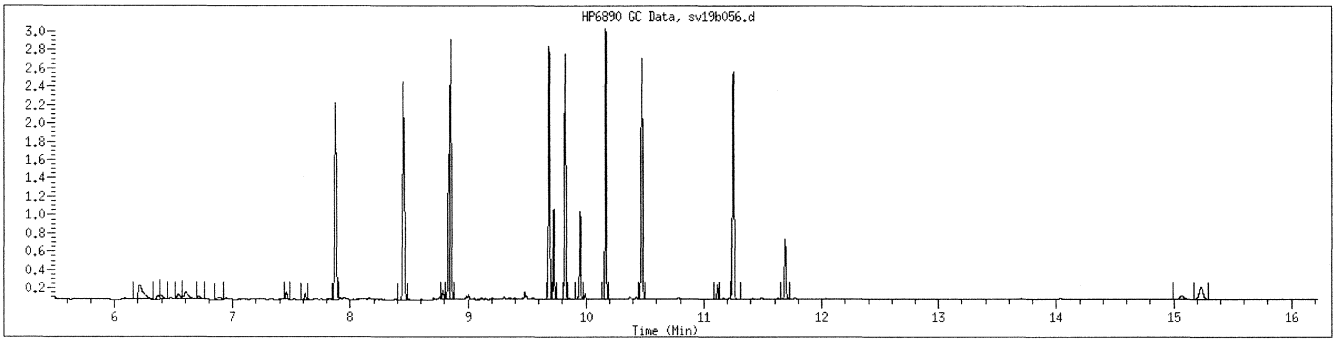
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111104.b/sv19b056.d Page: 1
Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002044 SampleType : LCS
Injection Date: 11/04/2011 12:06 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002044*1 lcs
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b057.d
Lab Smp Id: 1002044 Client Smp ID: 1 lcs
Inj Date : 04-NOV-2011 12:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002044*1 lcs
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.226	6.232	-0.006	15373623	5.65344	11.3(R)
	6 C-14	8.462	8.471	-0.009	27700747	9.62454	19.2(R)
M	11 Alip C9-C18				43074370	15.2780	30.6
	12 C-19	9.725	9.774	-0.049	37123735	12.3039	24.6
	13 C-20	9.948	9.957	-0.009	39242445	12.8862	25.8
$	15 Chlorooctadecane	10.162	10.216	-0.054	9156663	3.34236	6.68(R)
	22 C-28	11.685	11.724	-0.039	45678279	14.7540	29.5
M	24 Alip C19-C36				122044459	39.9441	79.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b057.d

Page 1

Date : 04-NOV-2011 12:30

Client ID: 1 lcs

Instrument: gcsv19b.i

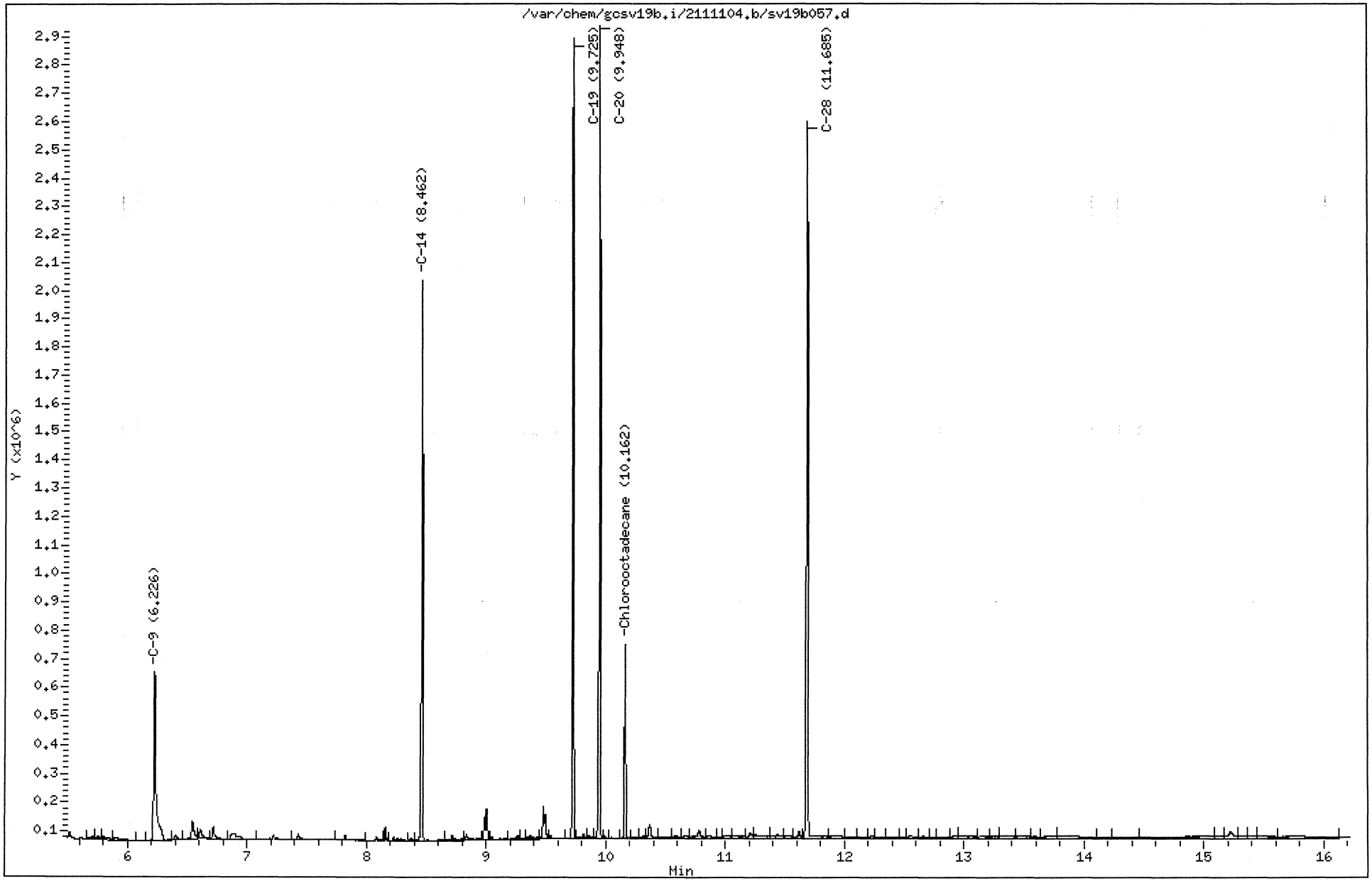
Sample Info: 1002044*1 lcs

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

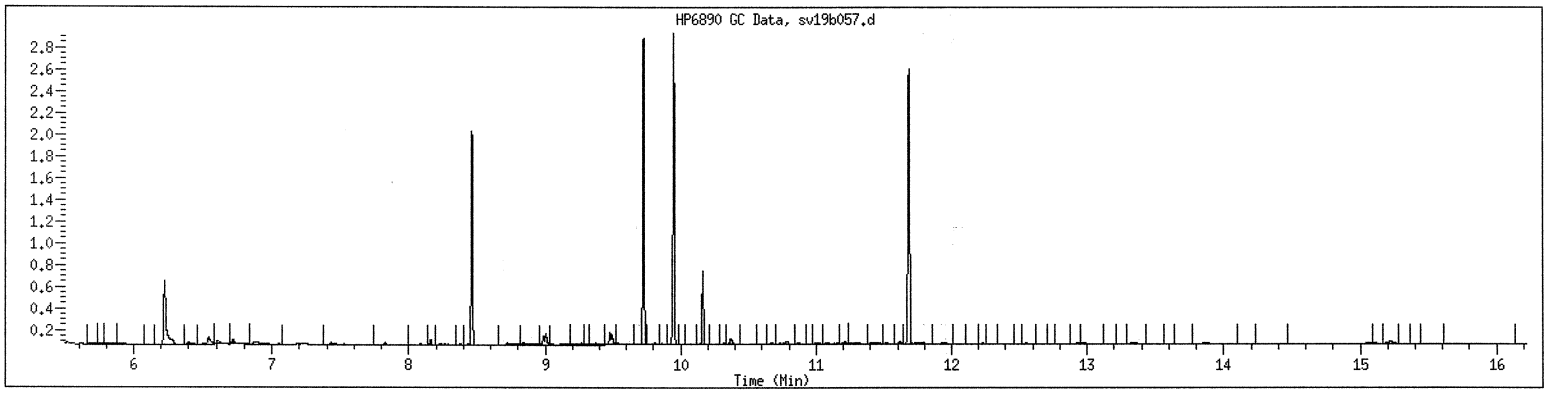
Column diameter: 0.25



211110257 161

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002044 SampleType : LCS
Injection Date: 11/04/2011 12:30 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002044*1 lcs
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	LCS1004105
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110257
Sample wt/vol:	1000 Units: mL	Lab Sample ID:	1004105
Level: (low/med)	LOW	Date Collected:	Time:
% Moisture:	decanted: (Y/N)	Date Received:	
GC Column:	DB-5MS-30M ID: .25 (mm)	Date Extracted:	11/08/11
Concentrated Extract Volume:	2000 (µL)	Date Analyzed:	11/10/11 Time: 1603
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: SMH
Injection Volume:	1 (µL)	Prep Method:	MASS EPH
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSEPH
Prep Batch:	468721 Analytical Batch: 469140	Sulfur Cleanup: (Y/N)	N Instrument ID: GCS19B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111110/sv19b056

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	188		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	51.9	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	101		31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b056.d
Lab Smp Id: 1004105 Client Smp ID: 1 LCS
Inj Date : 10-NOV-2011 16:03
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004105*1 LCS
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

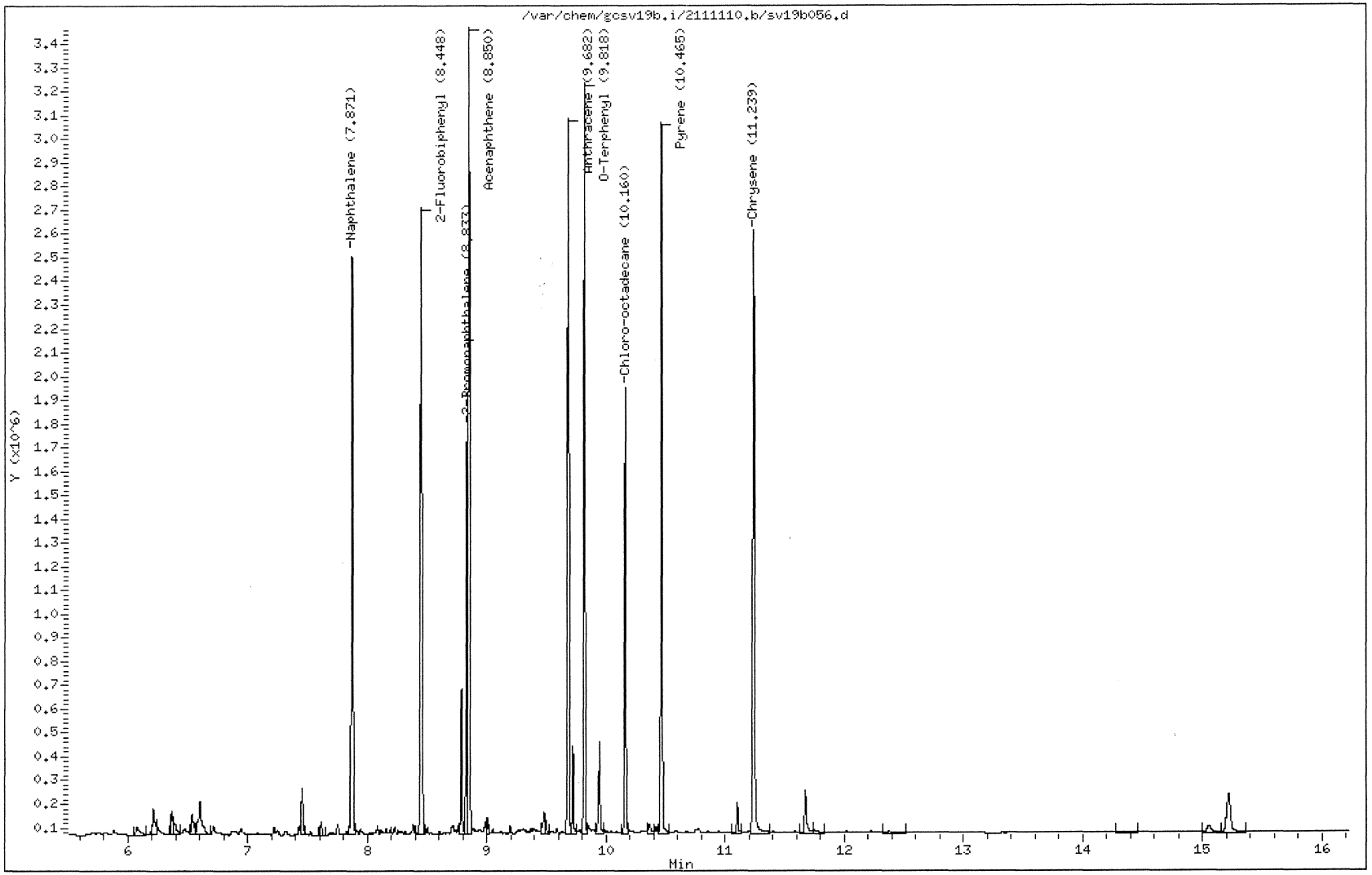
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.871	7.880	-0.009	47838120	16.8316	33.7
$	3 2-Fluorobiphenyl	8.448	8.454	-0.006	46838239	19.0594	38.1
$	5 2-Bromonaphthalene	8.833	8.838	-0.005	27212745	17.3465	34.7
	6 Acenaphthene	8.850	8.858	-0.008	60129675	20.6620	41.3
	9 Anthracene	9.682	9.688	-0.006	50757402	19.1249	38.2
$	10 O-Terphenyl	9.818	9.822	-0.004	48148931	16.3283	32.7
$	11 Chloro-octadecane	10.160	10.158	0.002	25956734	9.47499	18.9
	13 Pyrene	10.465	10.467	-0.002	52673131	18.4463	36.9
	15 Chrysene	11.239	11.250	-0.011	52294743	19.0289	38.1
M	22 Arom C11-C22				263693071	94.0938	188
M	113 Total Surrogate Area				148156649		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b056.d
Date : 10-NOV-2011 16:03
Client ID: 1 LCS
Sample Info: 1004105*1 LCS
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

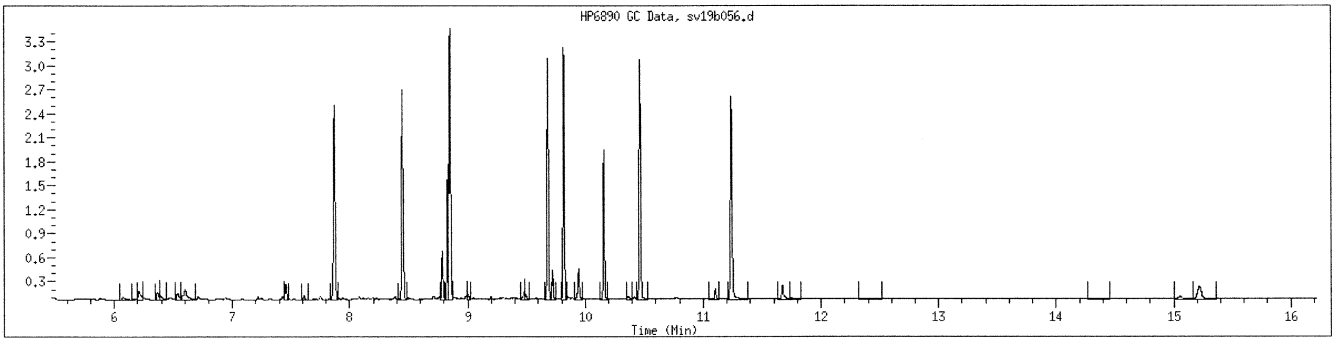
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111110.b/sv19b056.d Page: 1
Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004105 SampleType : LCS
Injection Date: 11/10/2011 16:03 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004105*1 LCS
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b057.d
Lab Smp Id: 1004105 Client Smp ID: 1 LCS
Inj Date : 10-NOV-2011 16:27
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004105*1 LCS
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:21 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.224	6.232	-0.008	30157800	11.0901	22.2
	6 C-14	8.461	8.470	-0.009	42709583	14.8393	29.7
M	11 Alip C9-C18				72867383	25.9294	51.9
	12 C-19	9.723	9.773	-0.050	51247556	16.9849	34.0
	13 C-20	9.945	9.956	-0.011	52736163	17.3172	34.6
$	15 Chlorooctadecane	10.160	10.215	-0.055	27978107	10.2125	20.4
	22 C-28	11.681	11.721	-0.040	50693086	16.3738	32.7(H)
M	24 Alip C19-C36				154676805	50.6759	101

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b057.d

Date : 10-NOV-2011 16:27

Client ID: 1 LCS

Sample Info: 1004105*1 LCS

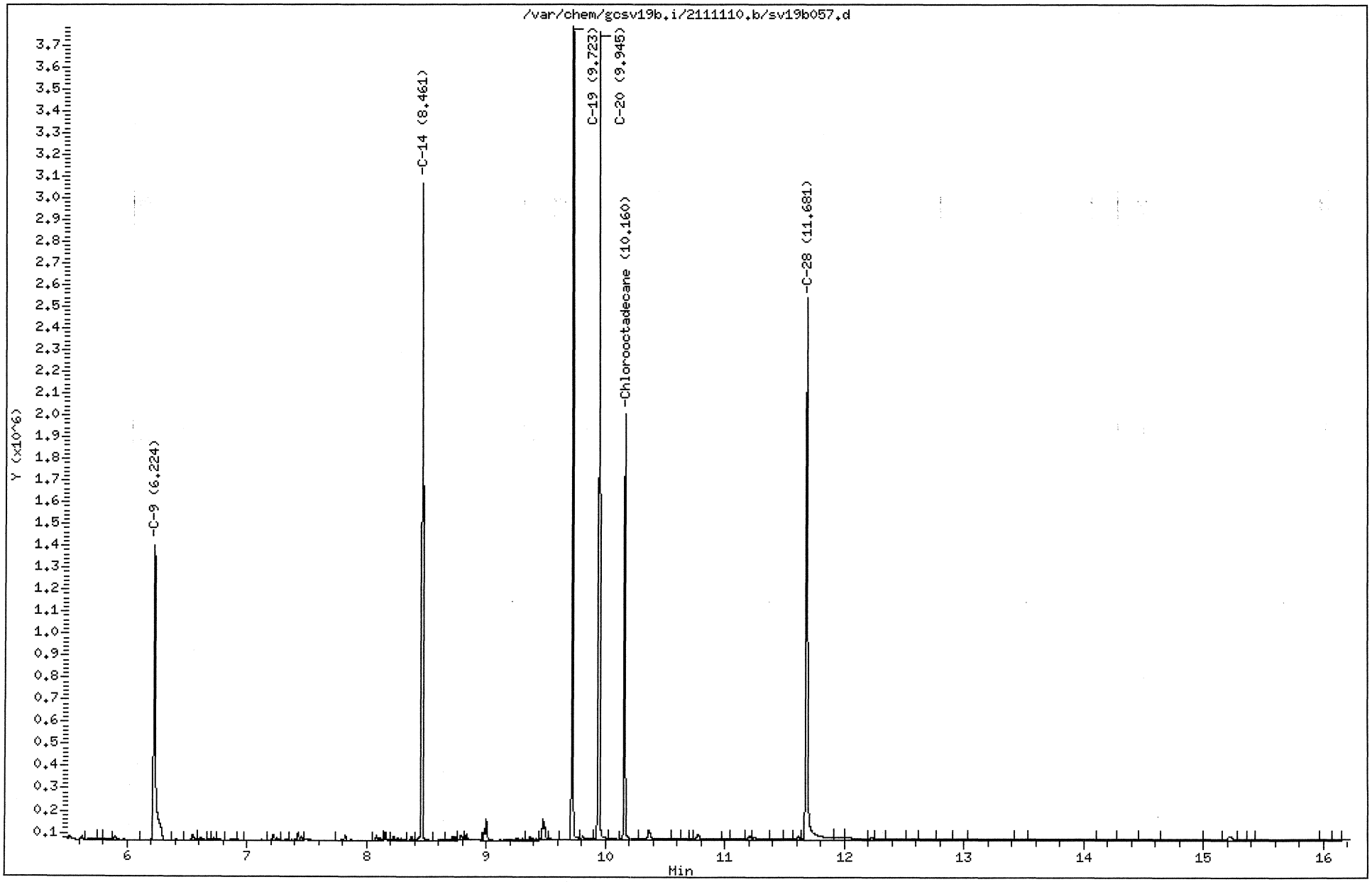
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

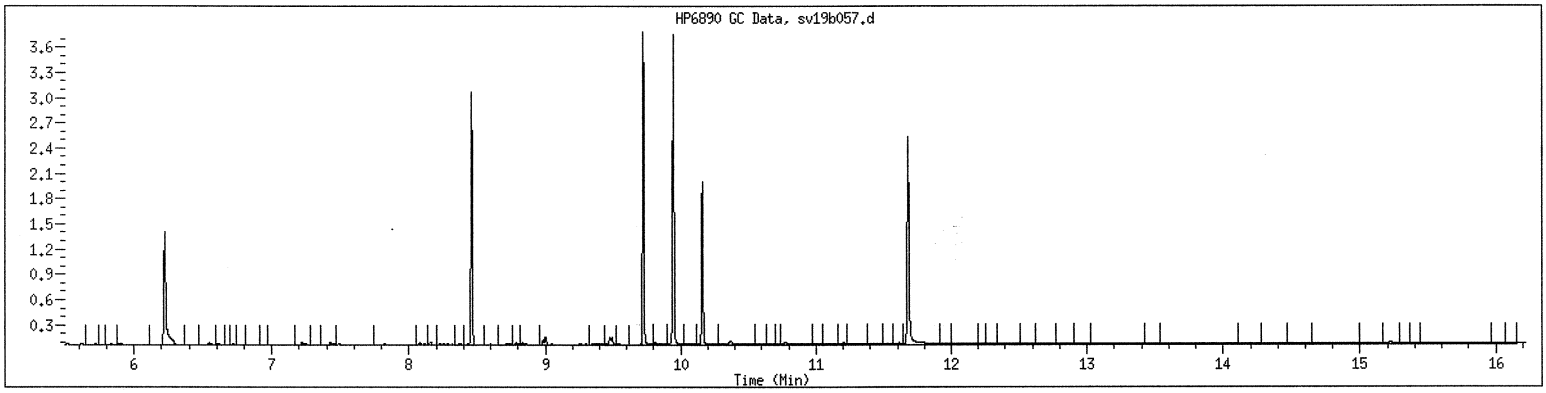
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1004105	SampleType	: LCS
Injection Date	: 11/10/2011 16:27	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1004105*1 LCS		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCSD1002045

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1002045

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1254

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b058

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	178		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	42.8	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	107		31.3	60.0	100

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b058.d
Lab Smp Id: 1002045 Client Smp ID: 1 lcsd
Inj Date : 04-NOV-2011 12:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002045* 1 lcsd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

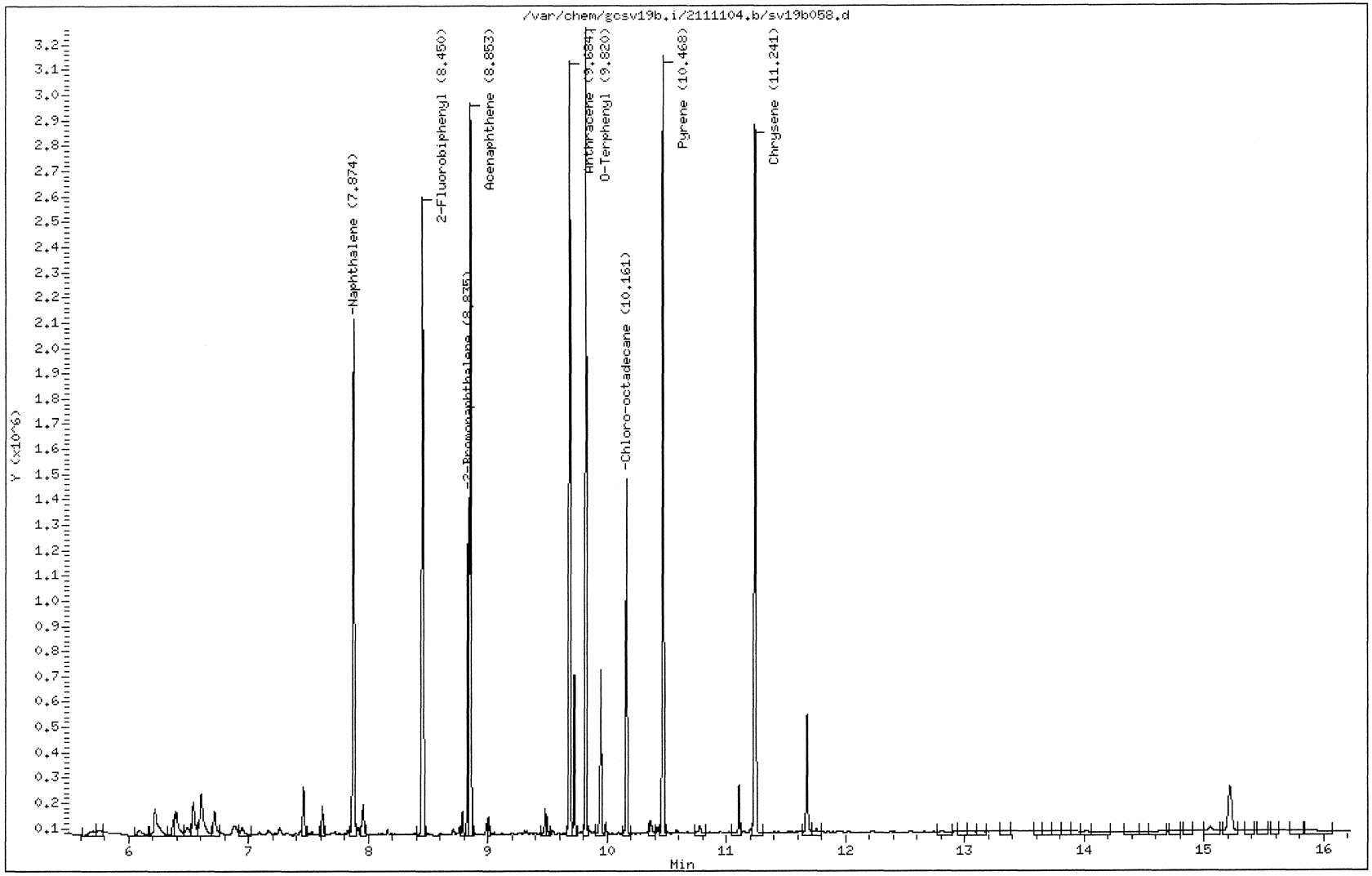
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
	1 Naphthalene	7.874	7.881	-0.007	40000849	14.0741	28.1	
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	46349541	18.8605	37.7	
$	5 2-Bromonaphthalene	8.835	8.839	-0.004	20673921	13.1784	26.4	
	6 Acenaphthene	8.853	8.858	-0.005	49744175	17.0933	34.2	
	9 Anthracene	9.684	9.688	-0.004	51042404	19.2323	38.5	
$	10 O-Terphenyl	9.820	9.823	-0.003	49005695	16.6189	33.2	
$	11 Chloro-octadecane	10.161	10.174	-0.013	19595722	7.15303	14.3	(R)
	13 Pyrene	10.468	10.468	0.000	53601757	18.7715	37.5	
	15 Chrysene	11.241	11.245	-0.004	54372724	19.7851	39.6	
M	22 Arom C11-C22				248761909	88.9563	178	
M	113 Total Surrogate Area				135624879			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b058.d
Date : 04-NOV-2011 12:54
Client ID: 1 lcsd
Sample Info: 1002045* 1 lcsd
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

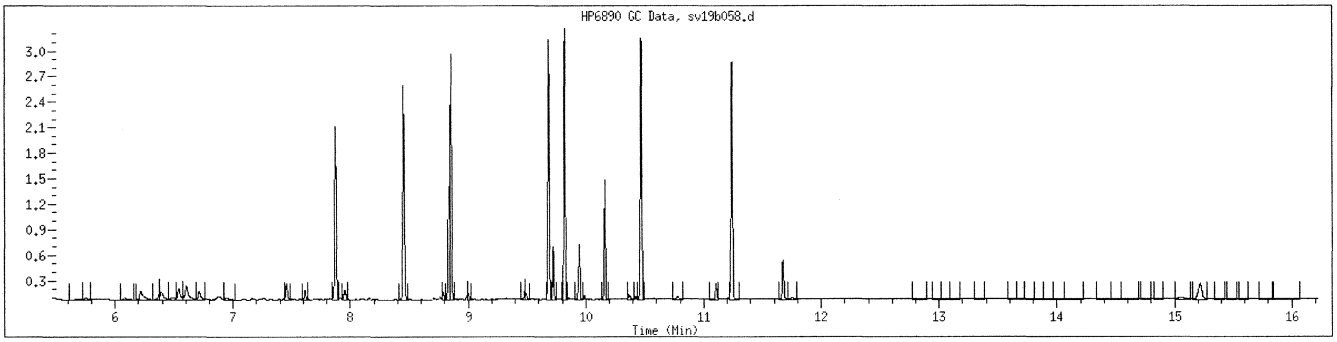
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111104.b/sv19b058.d Page: 1
Report Date: 11/09/2011 11:08

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1002045 SampleType : LCS
Injection Date: 11/04/2011 12:54 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1002045* 1 lcsd
Misc Info :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b059.d
Lab Smp Id: 1002045 Client Smp ID: 1 lcsd
Inj Date : 04-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1002045*1 lcsd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:36 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.226	6.232	-0.006	21810061	8.02035	16.0(R)
	6 C-14	8.463	8.471	-0.008	38518082	13.3830	26.8
M	11 Alip C9-C18				60328143	21.4033	42.8
	12 C-19	9.726	9.774	-0.048	52318452	17.3398	34.7
	13 C-20	9.949	9.957	-0.008	53612108	17.6048	35.2
$	15 Chlorooctadecane	10.163	10.216	-0.053	36556049	13.3437	26.7
	22 C-28	11.684	11.724	-0.040	56923833	18.3863	36.8
M	24 Alip C19-C36				162854393	53.3310	107

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b059.d

Date : 04-NOV-2011 13:18

Client ID: 1 lcsd

Sample Info: 1002045*1 lcsd

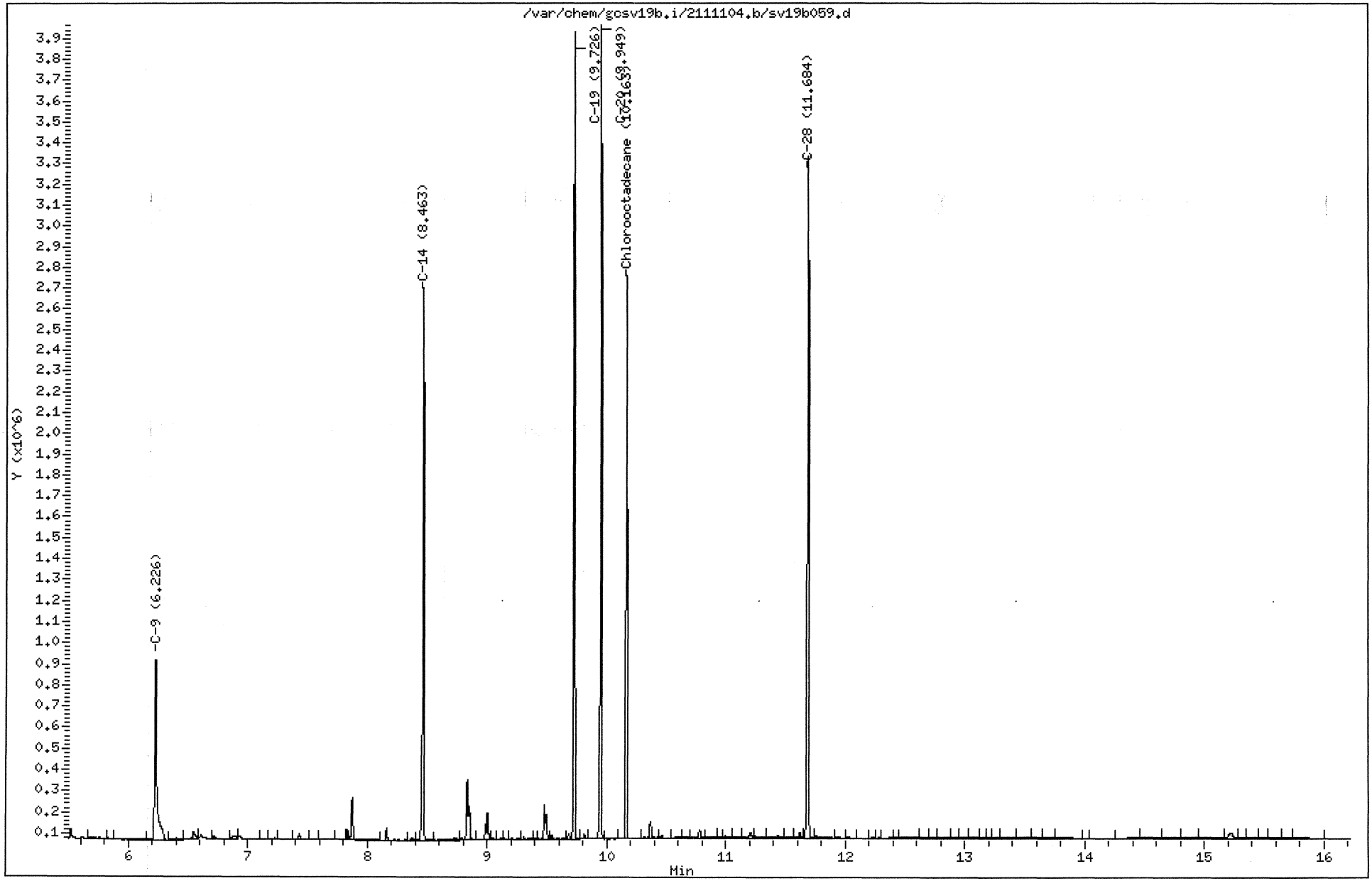
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

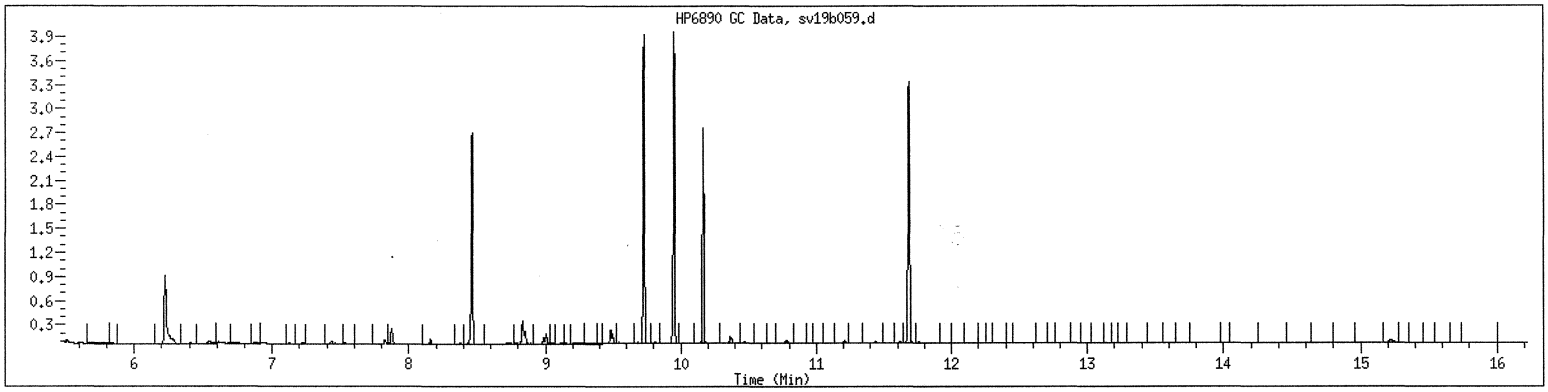
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1002045	SampleType	: LCS
Injection Date	: 11/04/2011 13:18	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1002045*1 lcsd		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	LCSD1004106
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110257
Sample wt/vol:	1000 Units: mL	Lab Sample ID:	1004106
Level: (low/med)	LOW	Date Collected:	Time:
% Moisture:	decanted: (Y/N)	Date Received:	
GC Column:	DB-5MS-30M ID: .25 (mm)	Date Extracted:	11/08/11
Concentrated Extract Volume:	2000 (µL)	Date Analyzed:	11/10/11 Time: 1651
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: SMH
Injection Volume:	1 (µL)	Prep Method:	MASS EPH
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSEPH
Prep Batch:	468721 Analytical Batch: 469140	Sulfur Cleanup: (Y/N)	N Instrument ID: GCS19B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111110/sv19b058

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	191		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	52.8	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	94.2	J	31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b058.d
Lab Smp Id: 1004106 Client Smp ID: 1 LCSD
Inj Date : 10-NOV-2011 16:51
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004106*1 LCSD
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.871	7.880	-0.009	49288016	17.3418	34.7
$	3 2-Fluorobiphenyl	8.448	8.454	-0.006	48539862	19.7518	39.5
$	5 2-Bromonaphthalene	8.833	8.838	-0.005	27183500	17.3278	34.7
	6 Acenaphthene	8.851	8.858	-0.007	61175611	21.0214	42.0
	9 Anthracene	9.683	9.688	-0.005	51333879	19.3421	38.7
$	10 O-Terphenyl	9.820	9.822	-0.002	49367854	16.7417	33.5
$	11 Chloro-octadecane	10.163	10.158	0.005	32943730	12.0255	24.1
	13 Pyrene	10.469	10.467	0.002	53212368	18.6352	37.3
	15 Chrysene	11.245	11.250	-0.005	52943561	19.2650	38.5
M	22 Arom C11-C22				267953435	95.6055	191
M	113 Total Surrogate Area				158034946		(a)

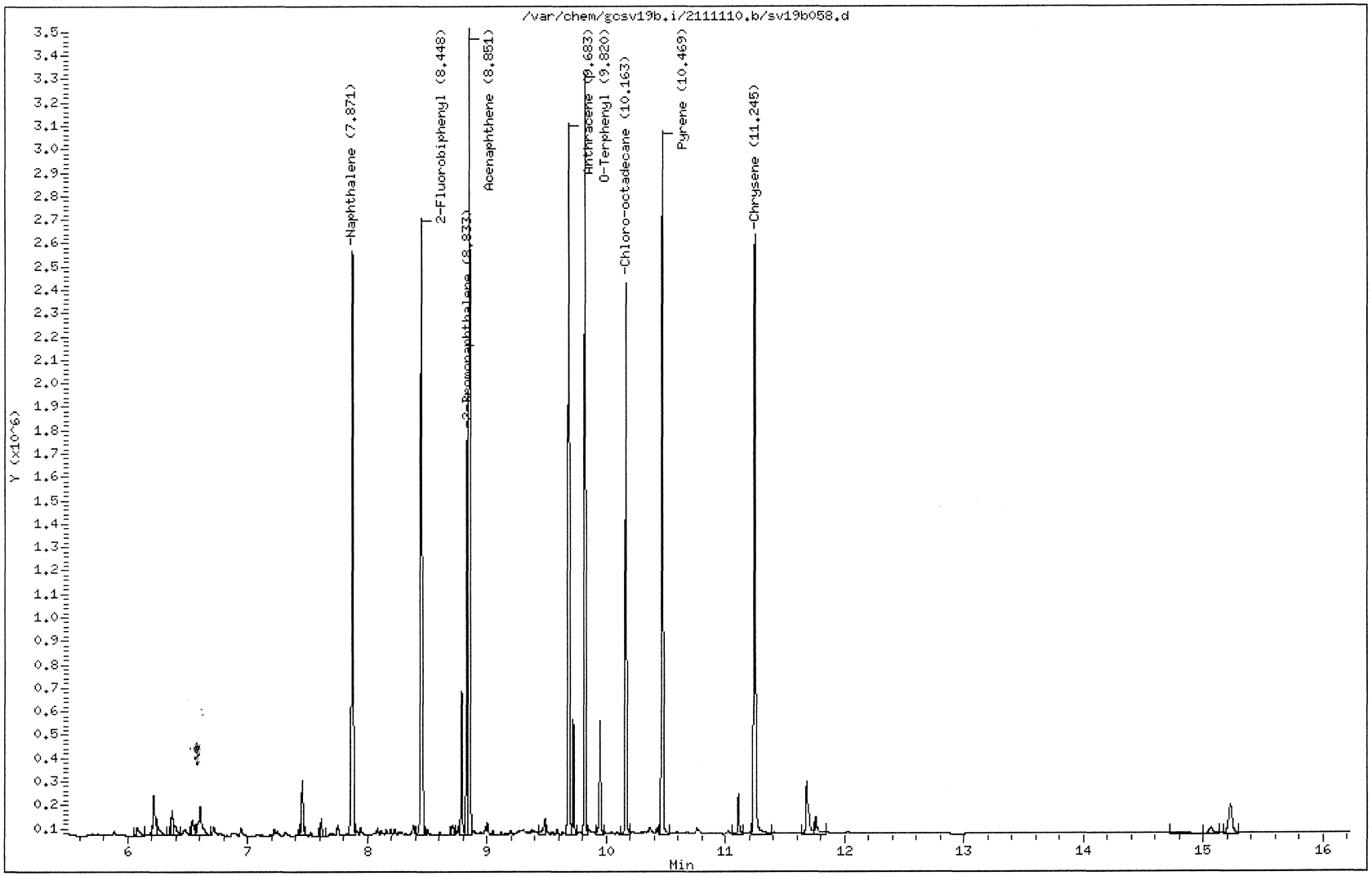
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b058.d
Date : 10-NOV-2011 16:51
Client ID: 1 LCSD
Sample Info: 1004106*1 LCSD
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i

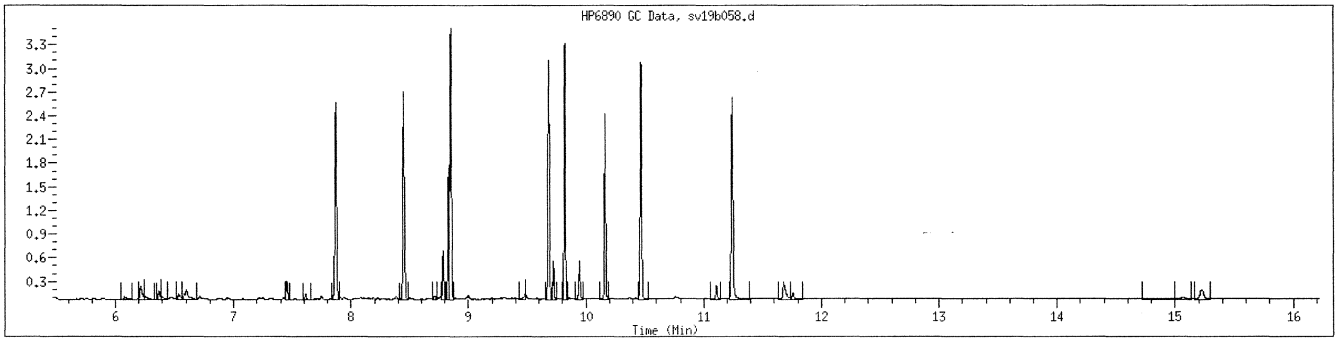
Operator: smh
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111110.b/sv19b058.d Page: 1
Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004106 SampleType : LCS
Injection Date: 11/10/2011 16:51 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004106*1 LCSD
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b059.d
Lab Smp Id: 1004106 Client Smp ID: 1 LCSD
Inj Date : 10-NOV-2011 17:15
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004106*1 LCSD
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.224	6.232	-0.008	31225286	11.4827	23.0
	6 C-14	8.461	8.470	-0.009	42882291	14.8993	29.8
M	11 Alip C9-C18				74107577	26.3820	52.8
	12 C-19	9.724	9.773	-0.049	49945153	16.5533	33.1
	13 C-20	9.947	9.956	-0.009	50271463	16.5078	33.0
$	15 Chlorooctadecane	10.161	10.215	-0.054	21612655	7.88904	15.8(R)
	22 C-28	11.682	11.721	-0.039	43492976	14.0482	28.1
M	24 Alip C19-C36				143709592	47.1092	94.2

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b059.d

Date : 10-NOV-2011 17:15

Client ID: 1 LCSD

Sample Info: 1004106*1 LCSD

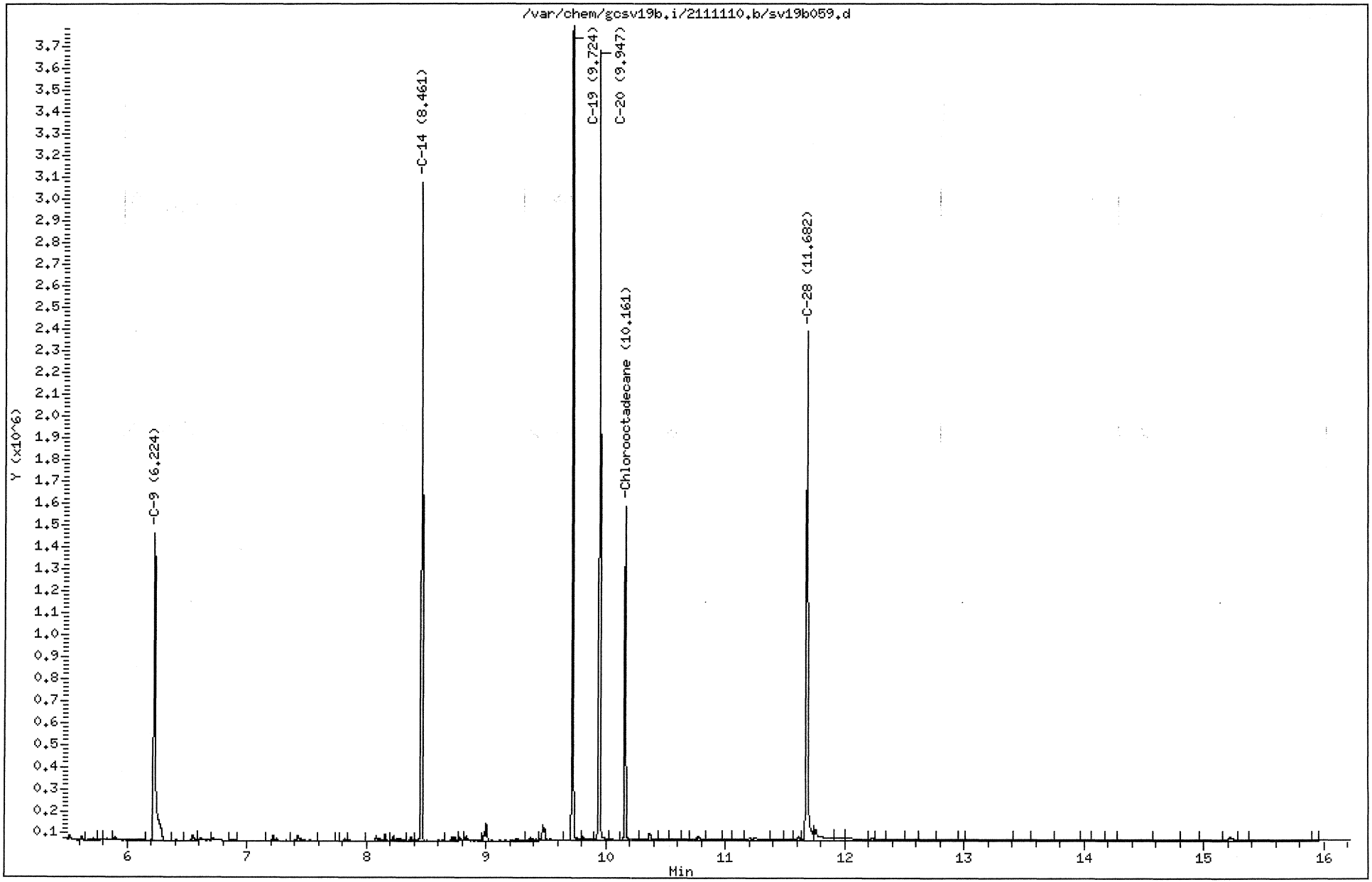
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

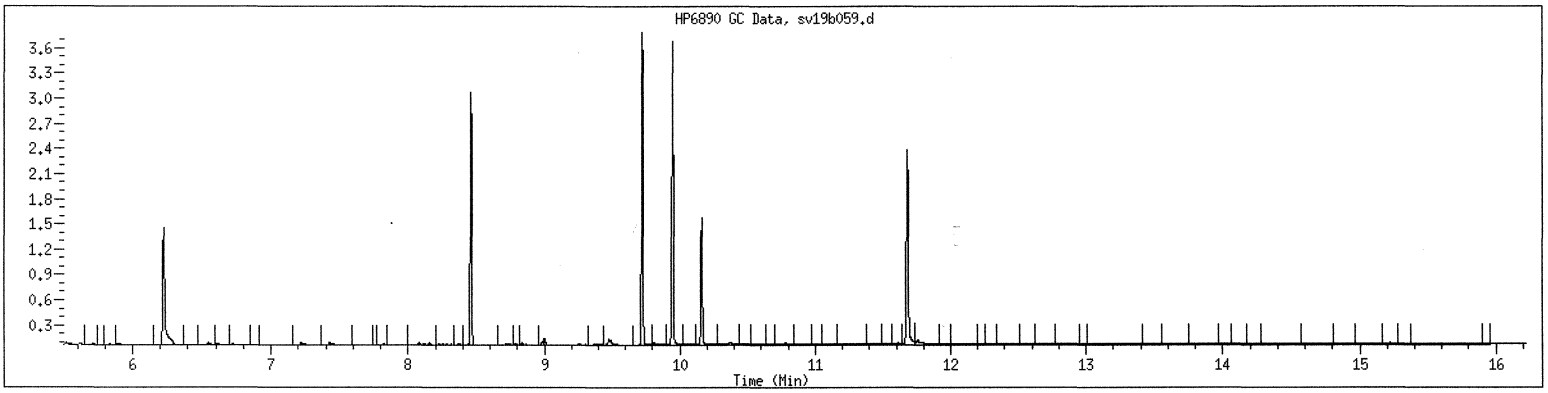
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1004106	SampleType	: LCS
Injection Date	: 11/10/2011 17:15	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1004106*1 LCSD		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 980 | Units: mL | Lab Sample ID: 21110312403

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1747

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b070s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	310		43.0	43.0	102
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	74.0	J	22.2	22.2	102
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	120		31.9	61.2	102

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b070.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:47
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 70
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	8.853	7.881	0.972	569043598	200.215	409(AM1)
M 22 Arom C11-C22				569043598	200.215	409

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b070s.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 17:47
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 70 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)
	1 Naphthalene	7.875	7.881	-0.006	51082409	17.9731	36.7
$	3 2-Fluorobiphenyl	8.451	8.454	-0.003	53553206	21.7919	44.5
$	5 2-Bromonaphthalene	8.835	8.839	-0.004	27196175	17.3359	35.4
	6 Acenaphthene	8.853	8.858	-0.005	48371523	16.6216	33.9
	9 Anthracene	9.684	9.688	-0.004	41769813	15.7385	32.1
$	10 O-Terphenyl	9.819	9.823	-0.004	38965980	13.2142	27.0
$	11 Chloro-octadecane	10.160	10.174	-0.014	31113619	11.3574	23.2
	13 Pyrene	10.464	10.468	-0.004	42783739	14.9830	30.6
	15 Chrysene	11.235	11.245	-0.010	41961095	15.2687	31.2
M	22 Arom C11-C22				225968579	80.5850	164
M	113 Total Surrogate Area				150828980		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b070.d

Date : 04-NOV-2011 17:47

Client ID: 1

Sample Info: 21110312403*1

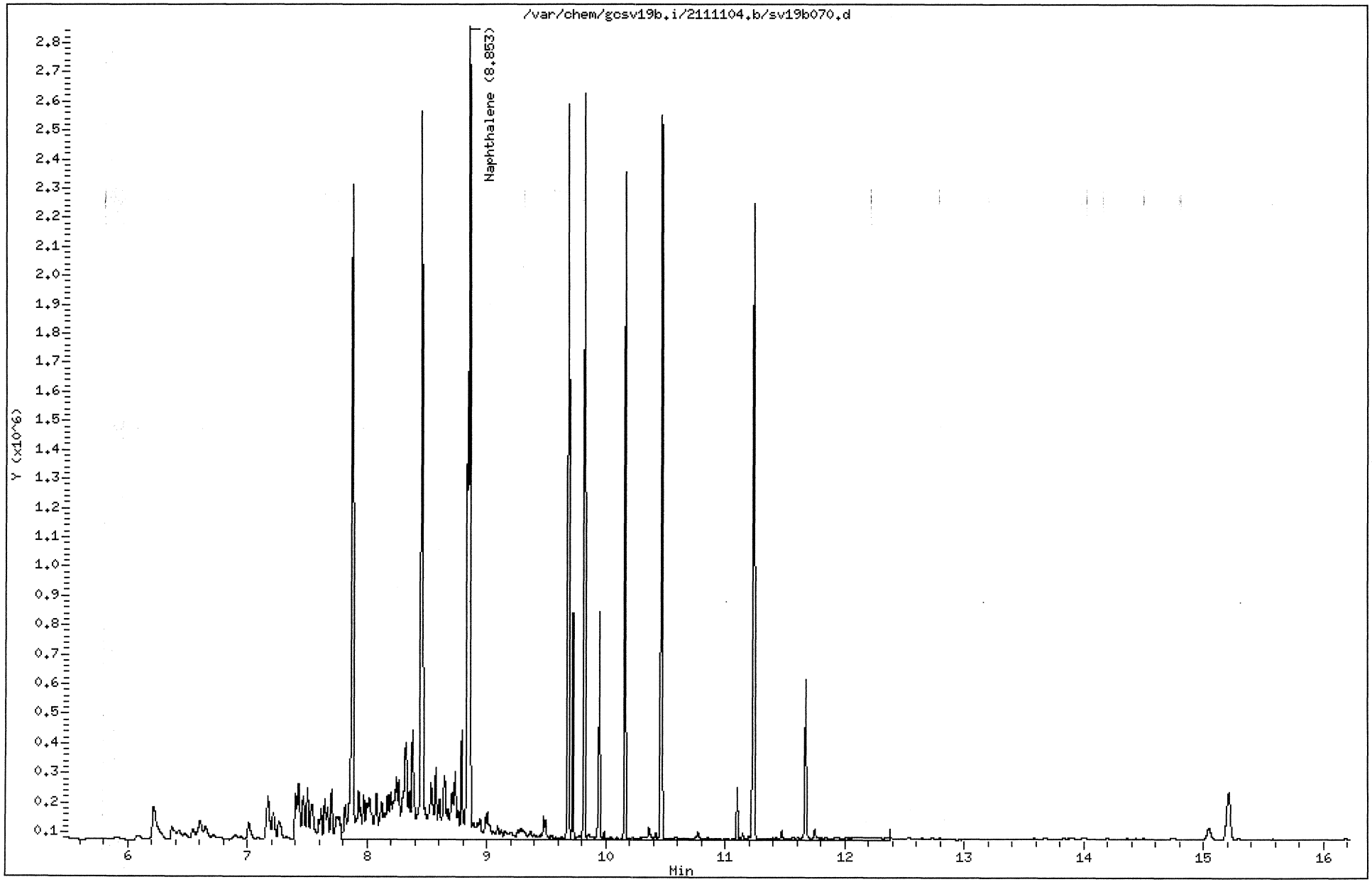
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

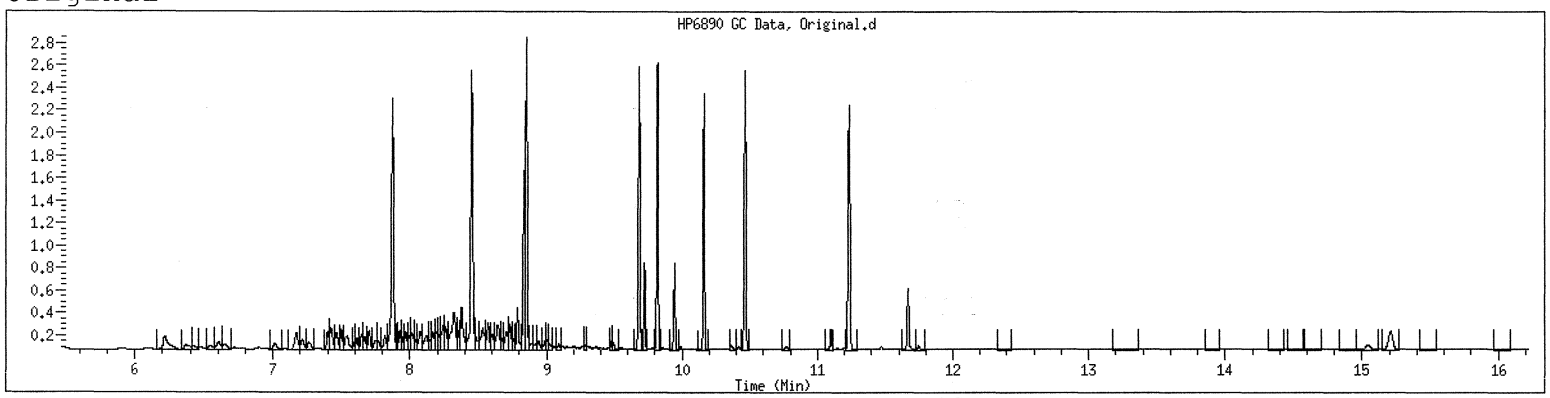
Column diameter: 0.25



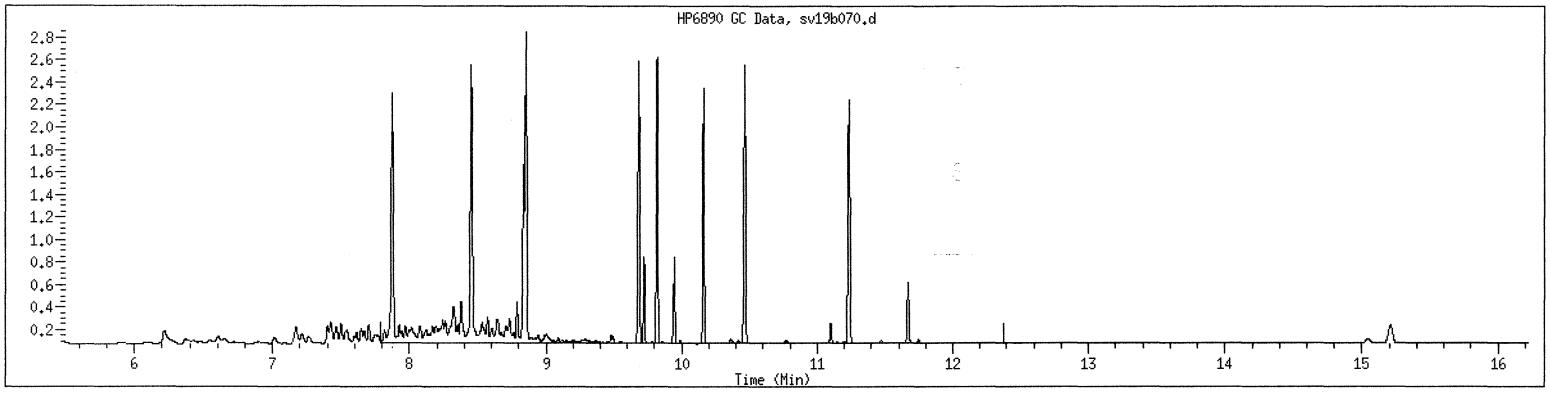
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/04/2011 17:47	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312403*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b071.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	8.463	9.504	-1.041	103155664	34.1429	69.7(M1)
M 11 Alip C9-C18				103155664	34.1429	69.7
114 C-36	9.946	15.145	-5.199	196172680	67.0530	137(AM1)
M 24 Alip C19-C36				196172680	67.0530	137

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b071s.d
Lab Smp Id: 21110312403 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312403*1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

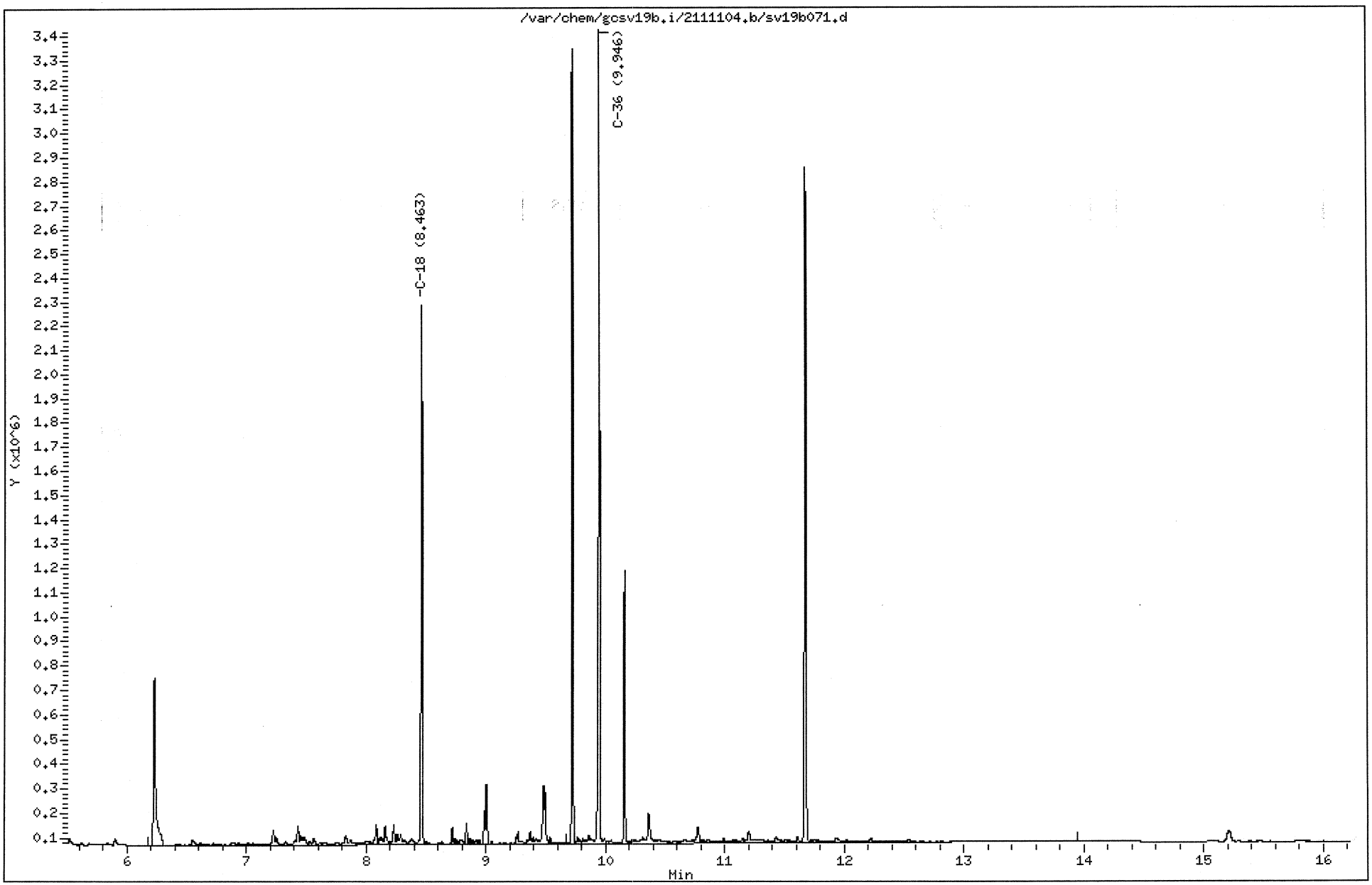
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.228	6.232	-0.004	17636810	6.48569	13.2(R)
	6 C-14	8.463	8.471	-0.008	31294950	10.8733	22.2
M	11 Alip C9-C18				48931760	17.3590	35.4
	12 C-19	9.724	9.774	-0.050	43646012	14.4655	29.5
	13 C-20	9.946	9.957	-0.011	47976180	15.7541	32.2
$	15 Chlorooctadecane	10.159	10.217	-0.058	15508787	5.66101	11.6(R)
	22 C-28	11.676	11.725	-0.049	49801516	16.0858	32.8
M	24 Alip C19-C36				141423708	46.3055	94.5

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b071.d
Date : 04-NOV-2011 18:12
Client ID: 1
Sample Info: 21110312403*1 ms
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

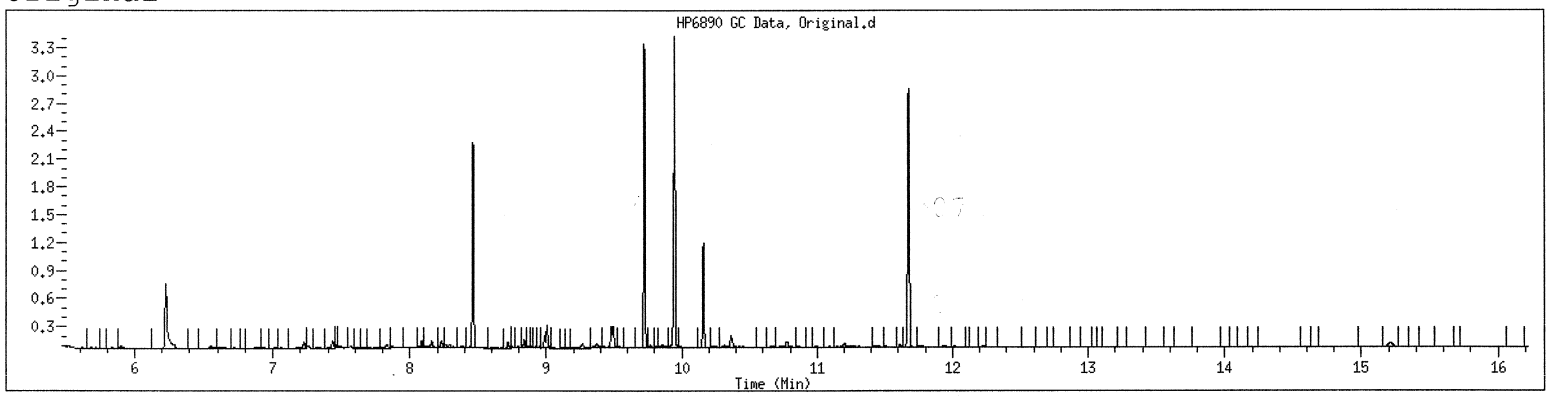
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



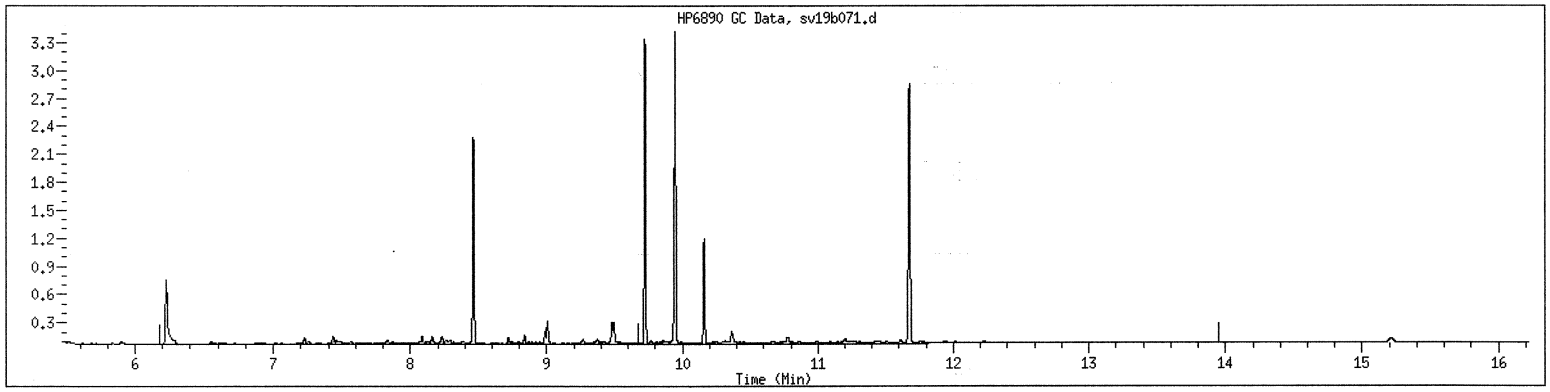
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/04/2011 18:12	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312403*1 ms		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES053 MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 990 | Units: mL | Lab Sample ID: 21110312409

Level: (low/med) LOW | Date Collected: 10/26/11 | Time: 1043

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 2052

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b068

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	188		42.5	42.5	101
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	50.6	J	22.0	22.0	101
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	402		31.6	60.6	101

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b068.d
Lab Smp Id: 21110312409 Client Smp ID: 1
Inj Date : 10-NOV-2011 20:52
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312409*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 68 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
	1 Naphthalene	7.870	7.880	-0.010	46967149	16.5252	33.4	
$	3 2-Fluorobiphenyl	8.447	8.454	-0.007	45813501	18.6424	37.7	
$	5 2-Bromonaphthalene	8.831	8.838	-0.007	26074780	16.6211	33.6	
	6 Acenaphthene	8.849	8.858	-0.009	58161749	19.9858	40.4	
	9 Anthracene	9.679	9.688	-0.009	50910859	19.1827	38.8	
$	10 O-Terphenyl	9.815	9.822	-0.007	50163153	17.0114	34.4	
$	11 Chloro-octadecane	10.155	10.158	-0.003	28559571	10.4251	21.1	
	13 Pyrene	10.459	10.467	-0.008	52597370	18.4198	37.2	
	15 Chrysene	11.229	11.250	-0.021	51437119	18.7168	37.8	(M1)
M	22 Arom C11-C22				260074246	92.8303	188	
M	113 Total Surrogate Area				150611005		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b068.d

Date : 10-NOV-2011 20:52

Client ID: 1

Sample Info: 21110312409*1

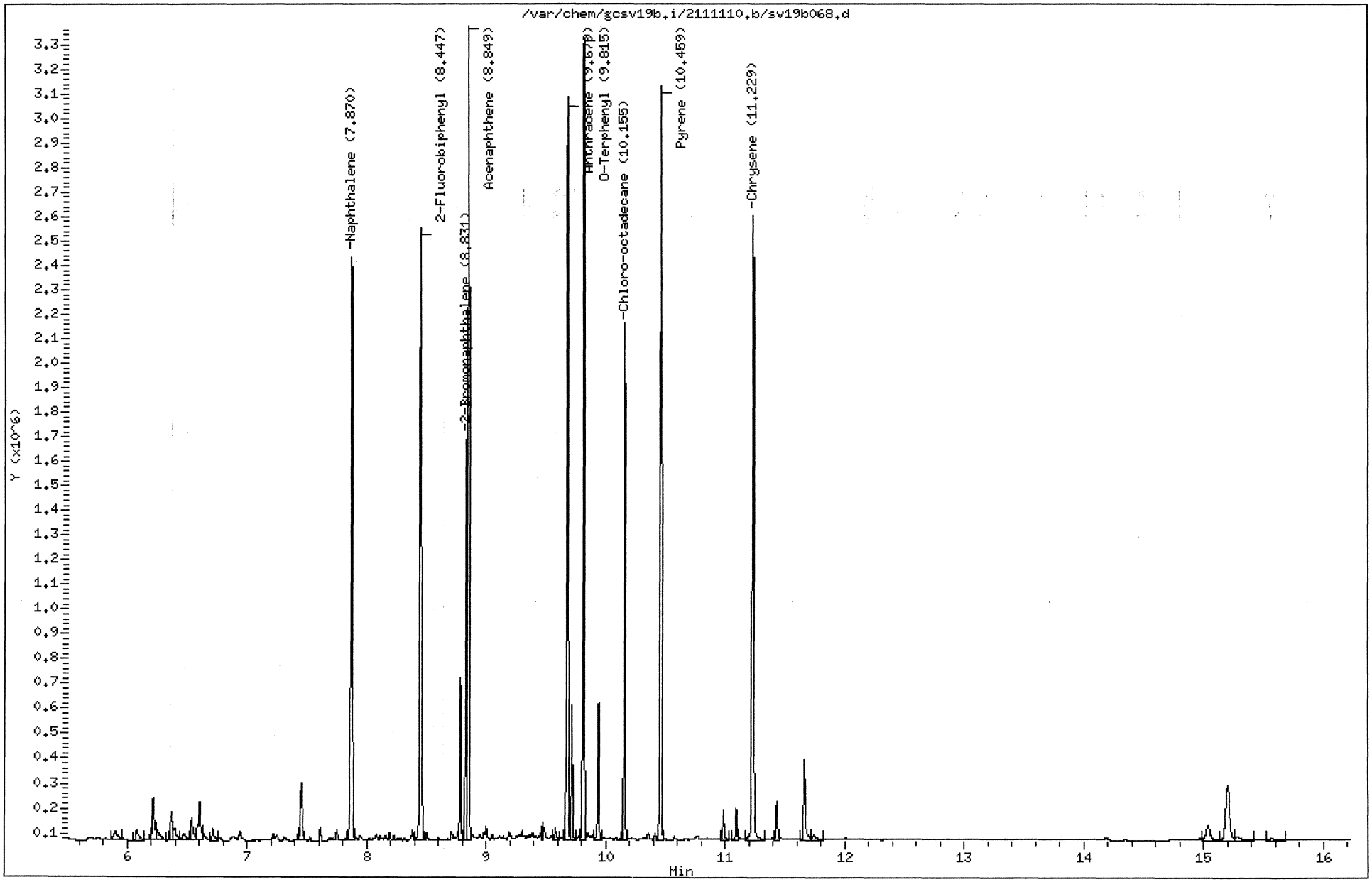
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

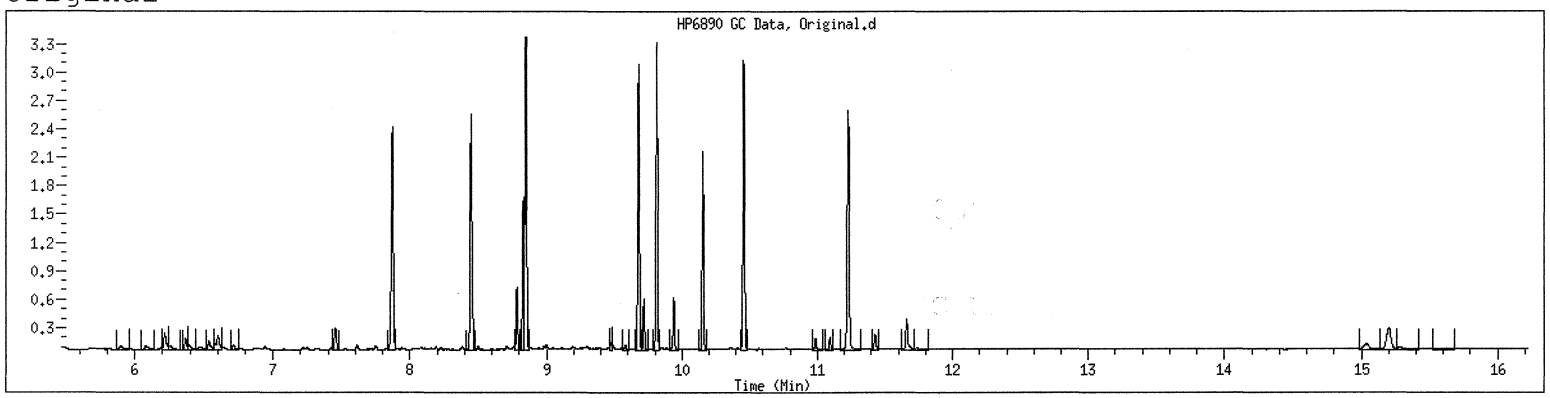
Column diameter: 0.25



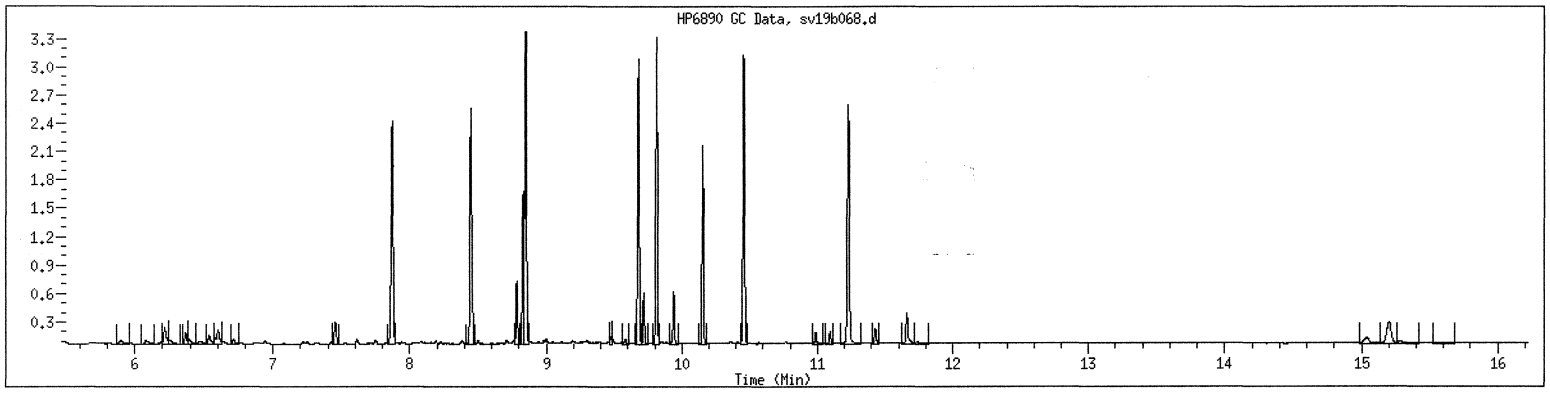
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312409	SampleType	: MS
Injection Date	: 11/10/2011 20:52	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312409*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b069.d
Lab Smp Id: 21110312409 Client Smp ID: 1
Inj Date : 10-NOV-2011 21:16
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312409*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 69 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	8.459	9.503	-1.044	75607947	25.0251	50.6(M1H)
M 11 Alip C9-C18				75607947	25.0251	50.6
114 C-36	9.718	15.140	-5.422	635142619	217.096	439(AM1H)
M 24 Alip C19-C36				635142619	217.096	439

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.
H - Operator selected an alternate compound hit.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b069s.d
Lab Smp Id: 21110312402
Client Smp ID: 1
Inj Date : 04-NOV-2011 17:23
Operator : smh
Inst ID: gcsv19b.i
Smp Info : 21110312402*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh
Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30
Cal File: sv19b056.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: HP Genie
Compound Sublist: Chloro.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.158	10.217	-0.059	17017131	6.21158	12.5(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b069.d

Date : 10-NOV-2011 21:16

Client ID: 1

Sample Info: 21110312409*1

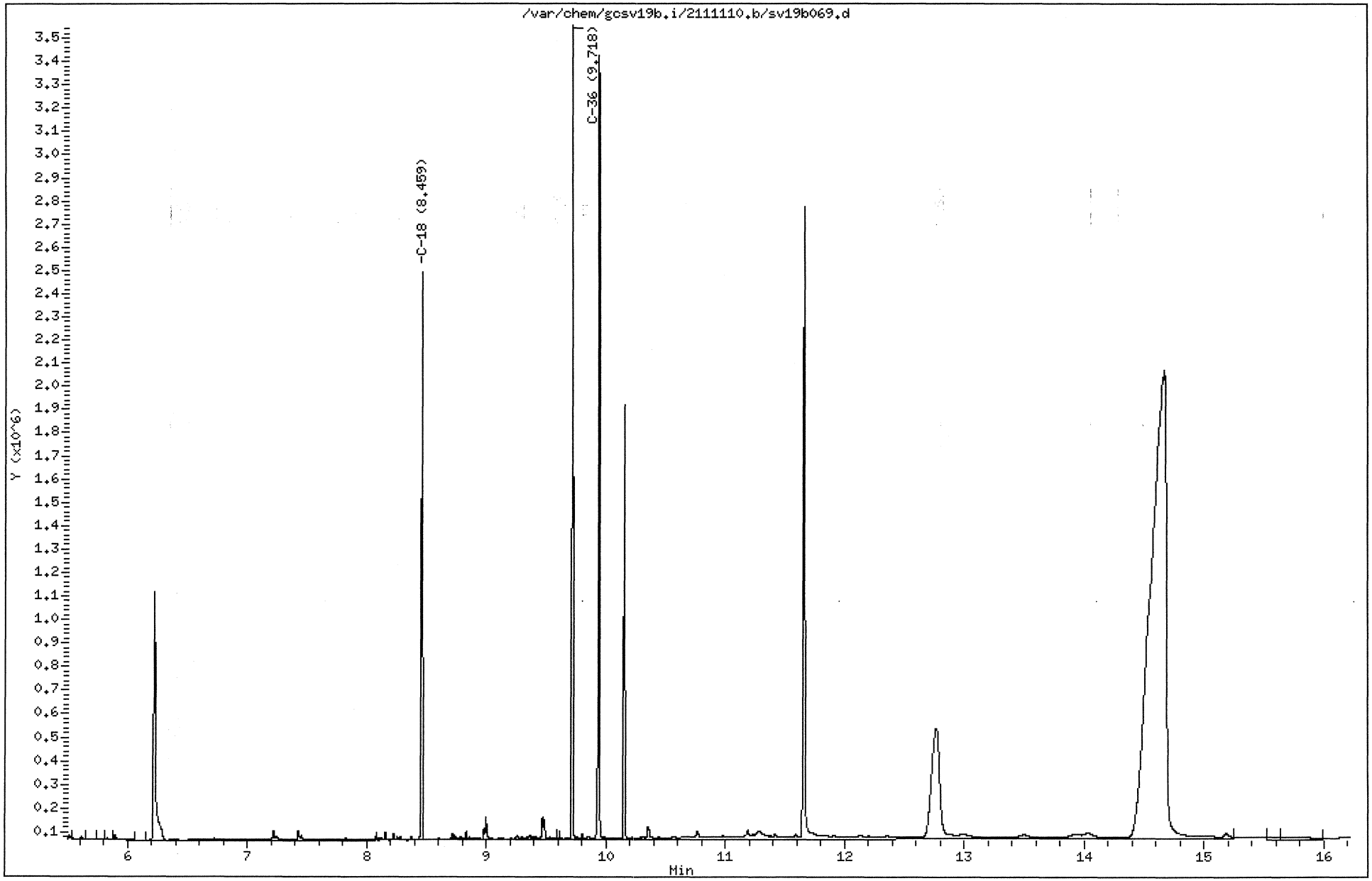
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

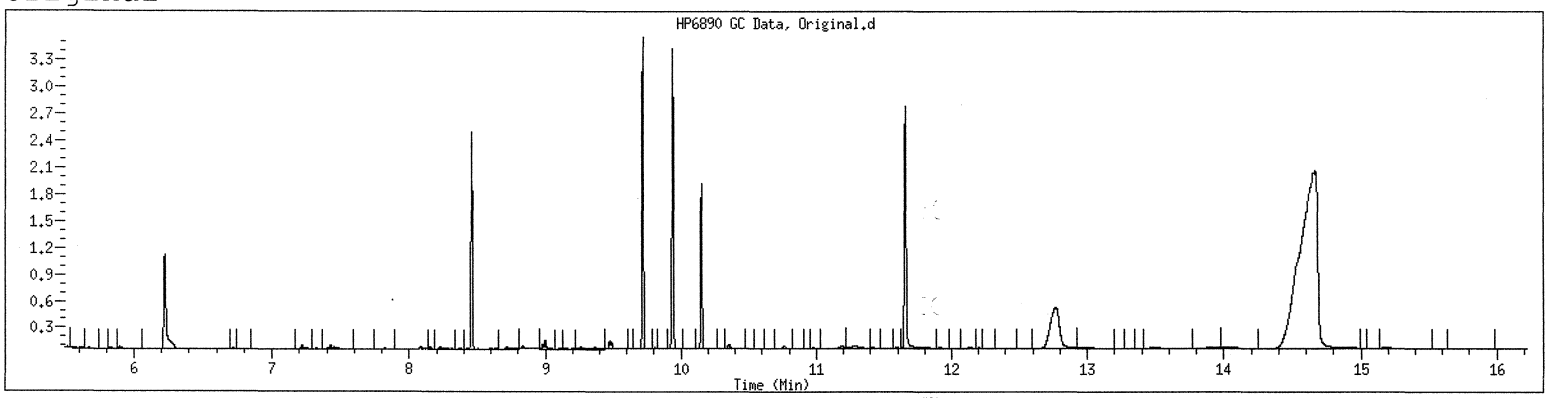
Column diameter: 0.25



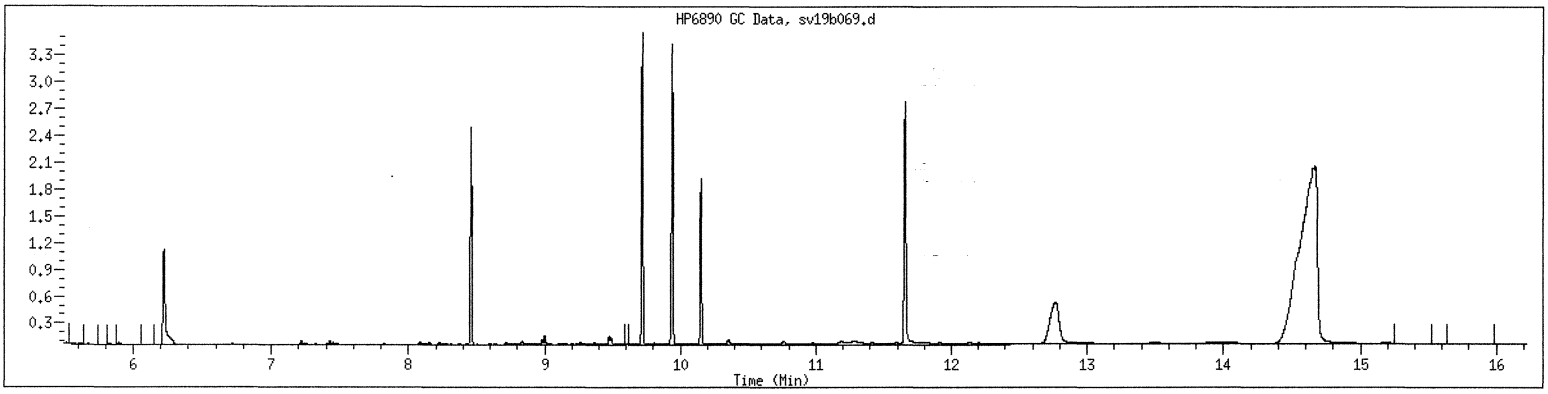
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312409	SampleType	: MS
Injection Date	: 11/10/2011 21:16	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312409*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 980 | Units: mL | Lab Sample ID: 21110312404

Level: (low/med) LOW | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/02/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/04/11 | Time: 1836

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468306 | Analytical Batch: 468719 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111104/sv19b072s

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	302		43.0	43.0	102
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	57.0	J	22.2	22.2	102
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	121		31.9	61.2	102

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b072.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:36
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:08 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1 Naphthalene	9.824	7.881	1.943	552418609	194.366	397(M1)
M 22 Arom C11-C22				552418609	194.366	397

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b072s.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 18:36
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Meth Date : 08-Nov-2011 14:38 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.876	7.881	-0.005	46829053	16.4766	33.6
$	3 2-Fluorobiphenyl	8.451	8.454	-0.003	51697210	21.0366	42.9
$	5 2-Bromonaphthalene	8.836	8.839	-0.003	25223534	16.0785	32.8
	6 Acenaphthene	8.854	8.858	-0.004	41177384	14.1496	28.9
	9 Anthracene	9.687	9.688	-0.001	39128993	14.7434	30.1
$	10 O-Terphenyl	9.824	9.823	0.001	37333043	12.6604	25.8
$	11 Chloro-octadecane	10.169	10.174	-0.005	30359152	11.0820	22.6
	13 Pyrene	10.476	10.468	0.008	41370988	14.4883	29.6
	15 Chrysene	11.253	11.245	0.008	41665848	15.1613	30.9
M	22 Arom C11-C22				210172266	75.0191	153
M	113 Total Surrogate Area				144612939		(a)

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b072.d

Date : 04-NOV-2011 18:36

Client ID: 1

Sample Info: 21110312404*1

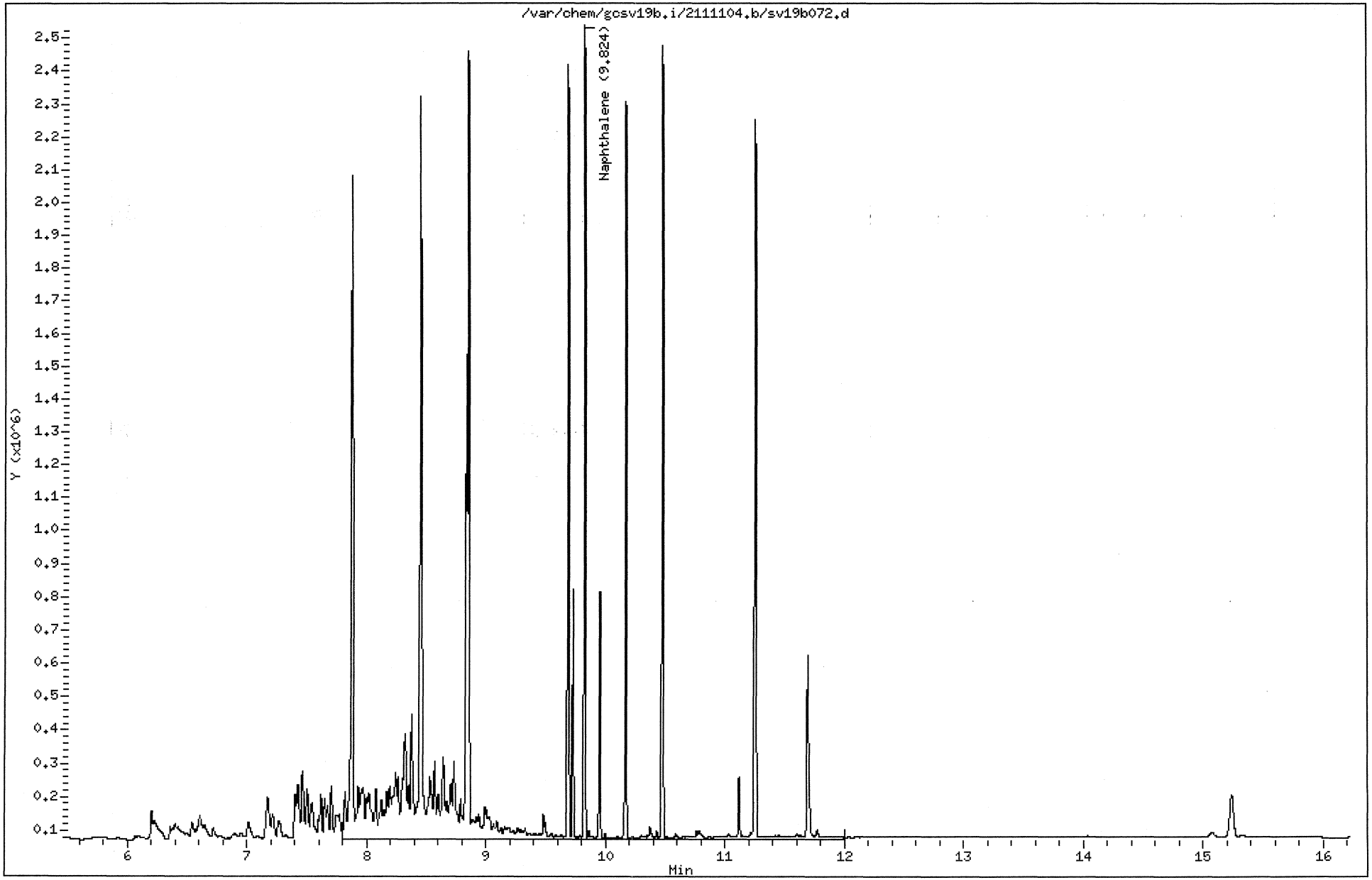
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25

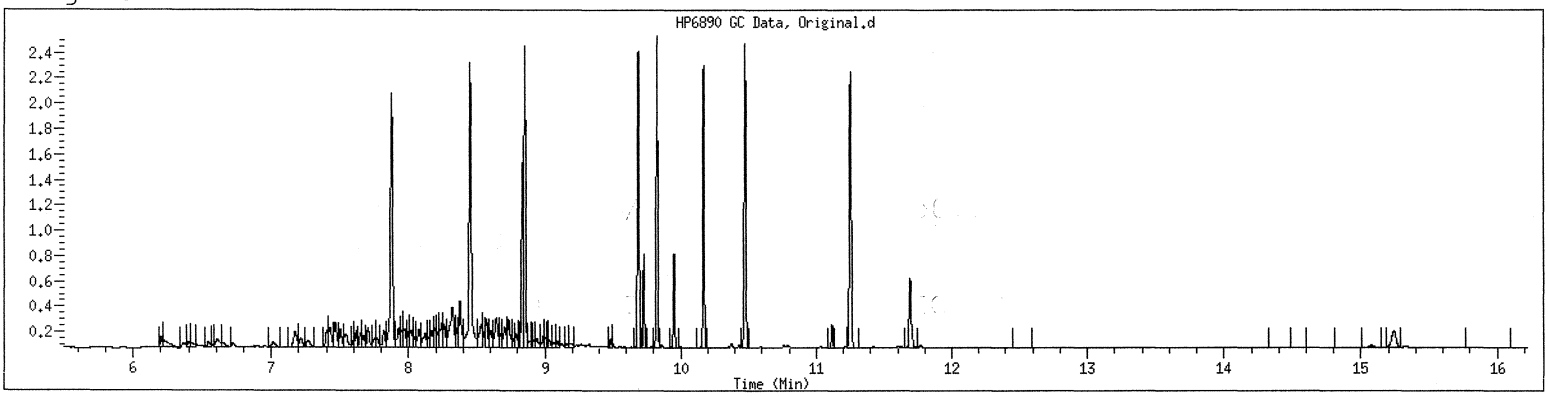


211110257 209

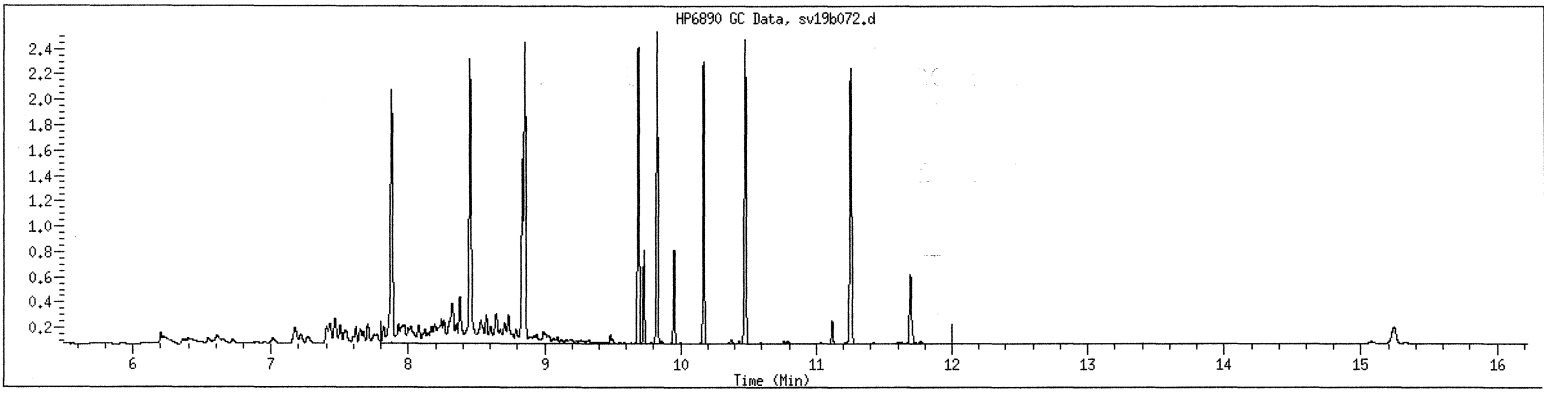
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/04/2011 18:36	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312404*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b073.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:01
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 07-Nov-2011 11:20 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 73
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(ug/L)	
10 C-18	8.463	9.504	-1.041	77733976	25.7287	52.5	(M1)
M 11 Alip C9-C18				77733976	27.2074	55.5	
114 C-36	9.949	15.145	-5.196	186054913	63.5947	130	(AM1)
M 24 Alip C19-C36				186054913	60.7932	124	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b073s.d
Lab Smp Id: 21110312404 Client Smp ID: 1
Inj Date : 04-NOV-2011 19:01
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312404*1 msd
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 07-Nov-2011 11:20 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 73 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.226	6.232	-0.006	16525582	6.07706	12.4(R)
	6 C-14	8.463	8.471	-0.008	27020278	9.38812	19.2(R)
M	11 Alip C9-C18				43545860	15.2413	31.1
	12 C-19	9.726	9.774	-0.048	39483552	13.0860	26.7
	13 C-20	9.949	9.957	-0.008	43023794	14.1279	28.8
$	15 Chlorooctadecane	10.163	10.217	-0.054	16128174	5.88710	12.0(R)
	22 C-28	11.683	11.725	-0.042	45999575	14.8578	30.3
M	24 Alip C19-C36				123506921	41.9895	85.7

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111104.b/sv19b073.d

Date : 04-NOV-2011 19:01

Client ID: 1

Sample Info: 21110312404*1 msd

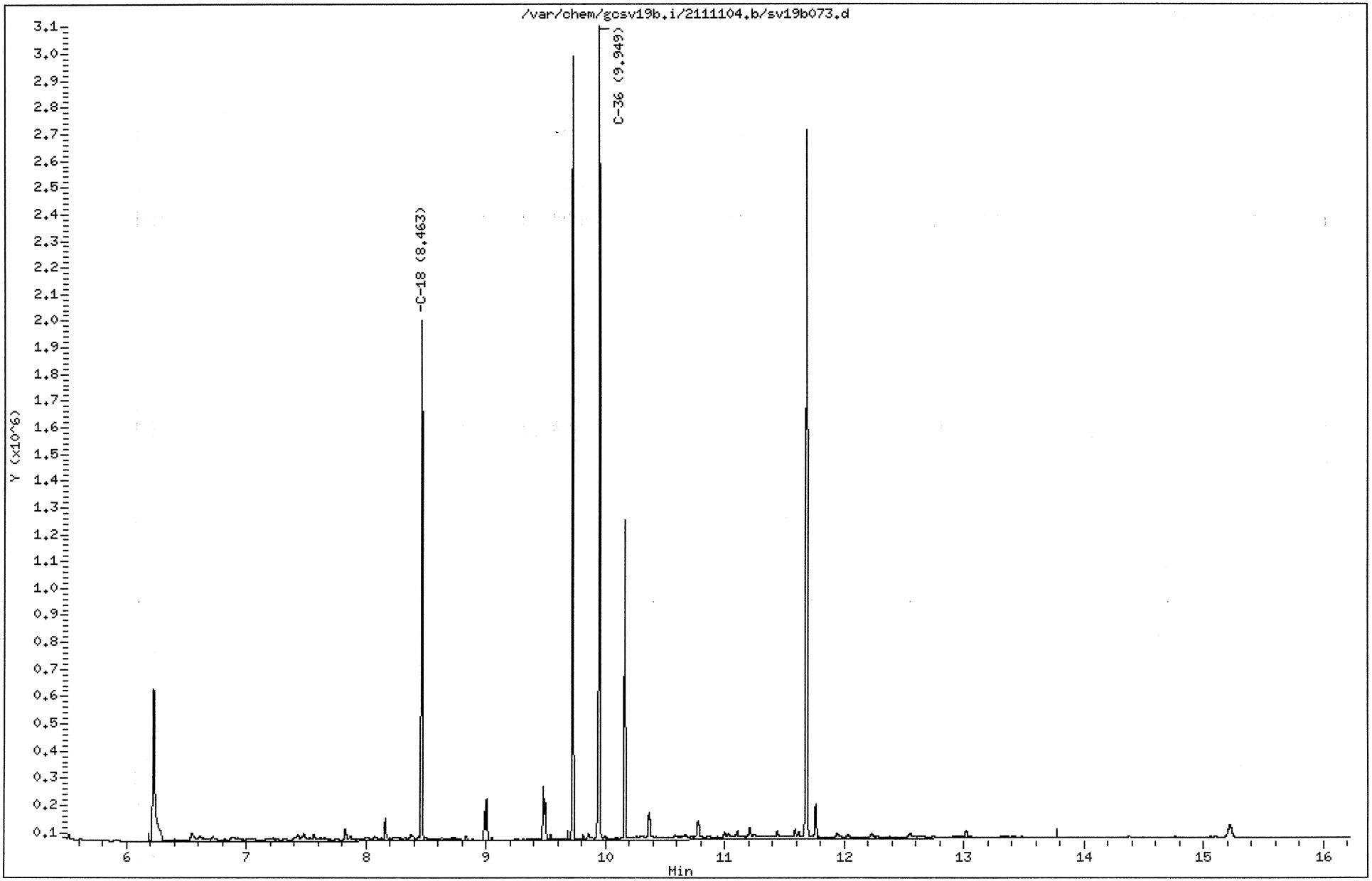
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

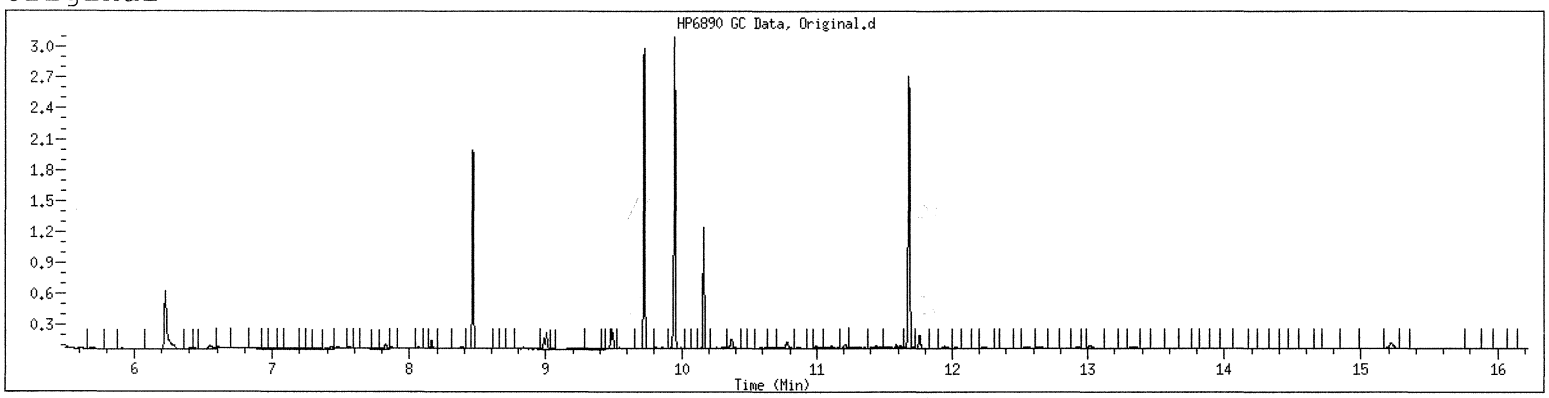
Column diameter: 0.25



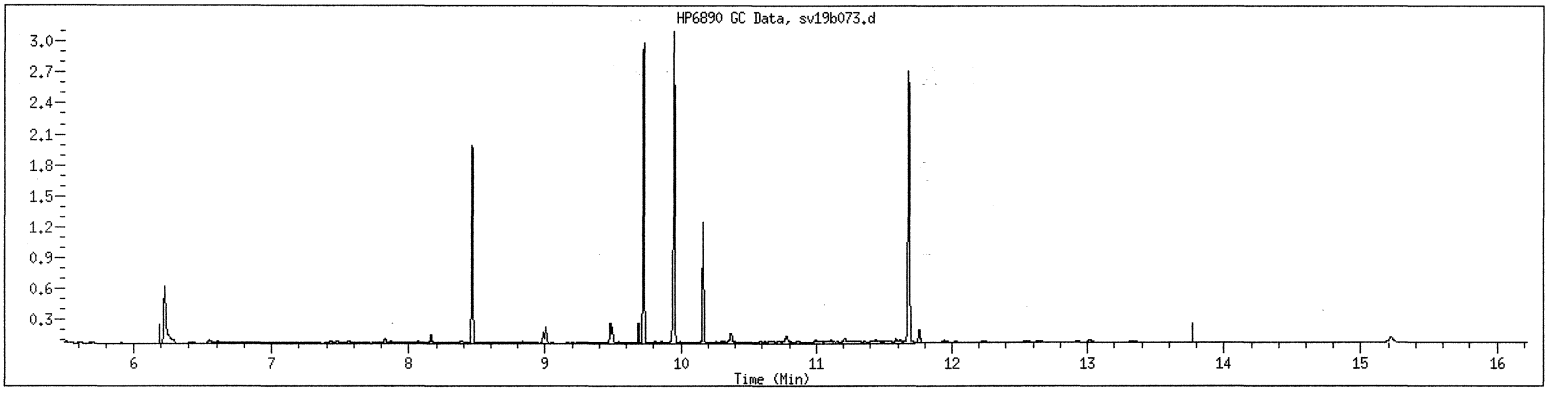
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/04/2011 19:01	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312404*1 msd		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES053 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 990 | Units: mL | Lab Sample ID: 21110312410

Level: (low/med) LOW | Date Collected: 10/26/11 | Time: 1043

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 2140

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b070

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	201		42.5	42.5	101
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	55.1	J	22.0	22.0	101
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	445		31.6	60.6	101

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b070.d
Lab Smp Id: 21110312410 Client Smp ID: 1
Inj Date : 10-NOV-2011 21:40
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312410*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 70 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)	
1	Naphthalene	7.870	7.880	-0.010	48392188	17.0266	34.4	
$ 3	2-Fluorobiphenyl	8.447	8.454	-0.007	53249473	21.6683	43.8	
$ 5	2-Bromonaphthalene	8.831	8.838	-0.007	27491400	17.5241	35.4	
6	Acenaphthene	8.849	8.858	-0.009	65323338	22.4467	45.3	
9	Anthracene	9.677	9.688	-0.011	54859787	20.6706	41.8	
$ 10	O-Terphenyl	9.810	9.822	-0.012	53102272	18.0081	36.4	
$ 11	Chloro-octadecane	10.149	10.158	-0.009	22265215	8.12747	16.4	
13	Pyrene	10.451	10.467	-0.016	56593371	19.8192	40.0	
15	Chrysene	11.217	11.250	-0.033	53518004	19.4740	39.3	(M1)
M 22	Arom C11-C22				278686688	99.4371	201	
M 113	Total Surrogate Area				156108360		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b070.d

Date : 10-NOV-2011 21:40

Client ID: 1

Sample Info: 21110312410x1

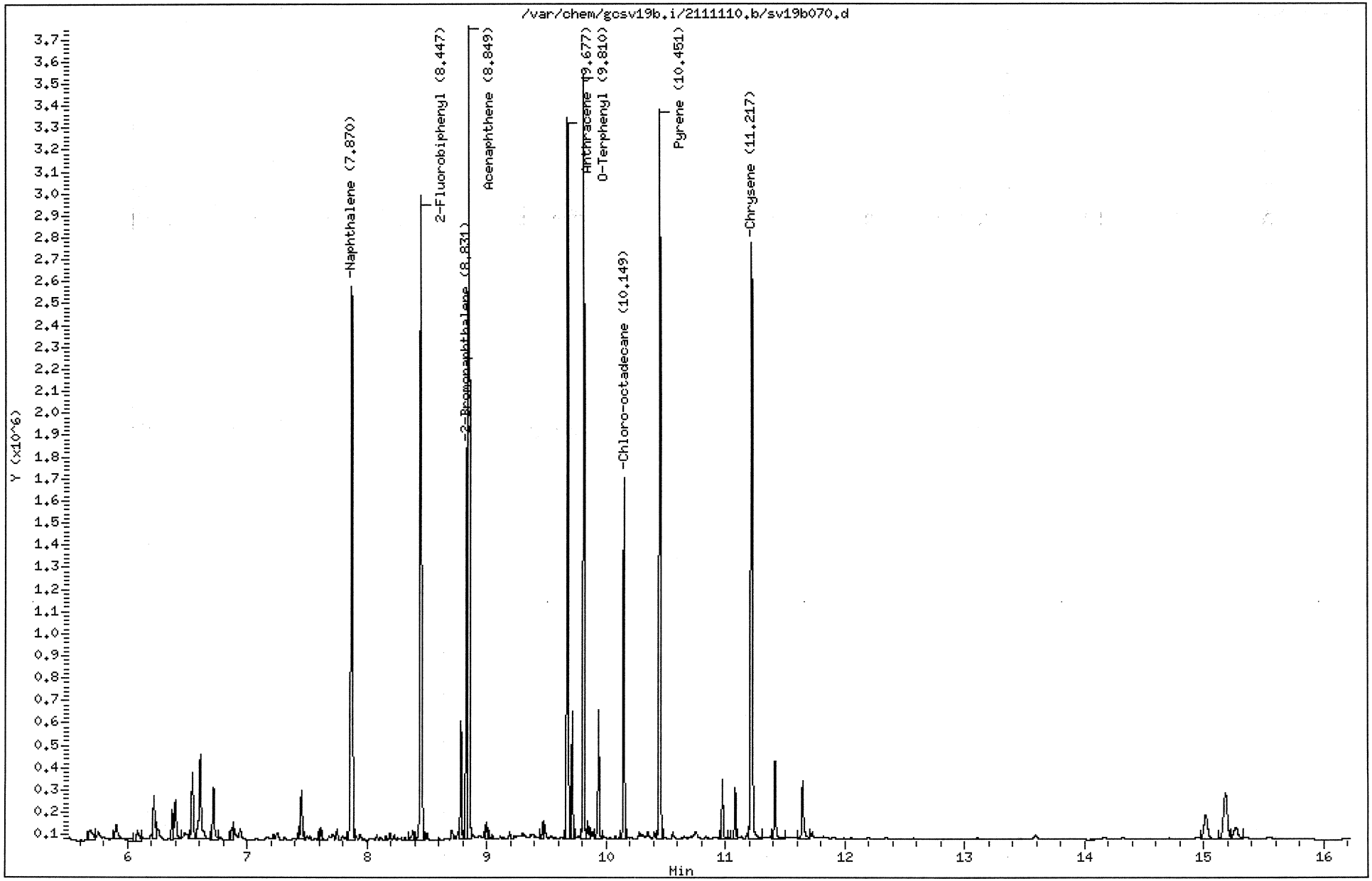
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

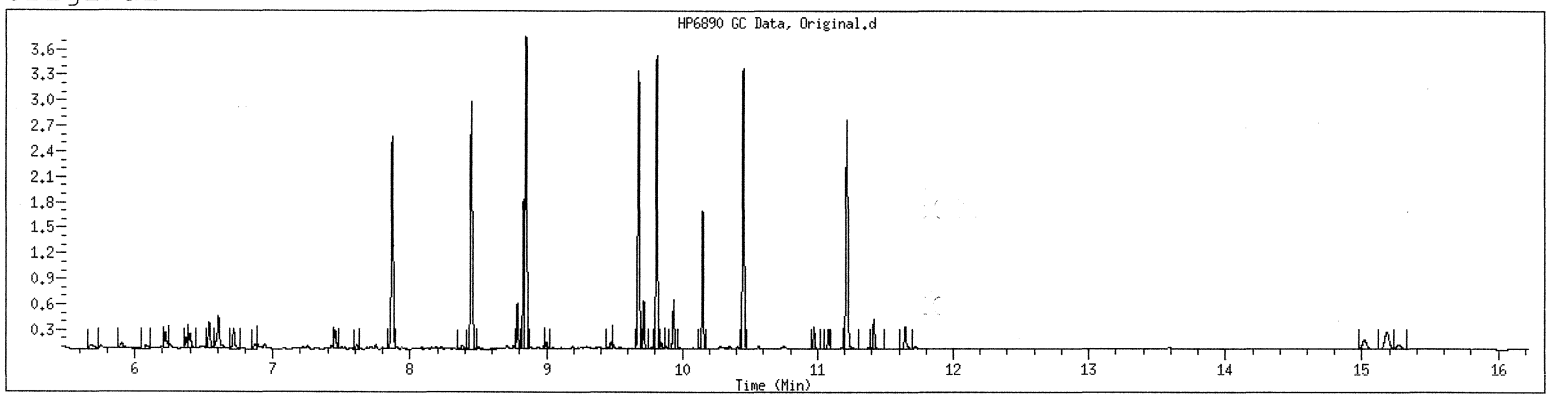
Column diameter: 0.25



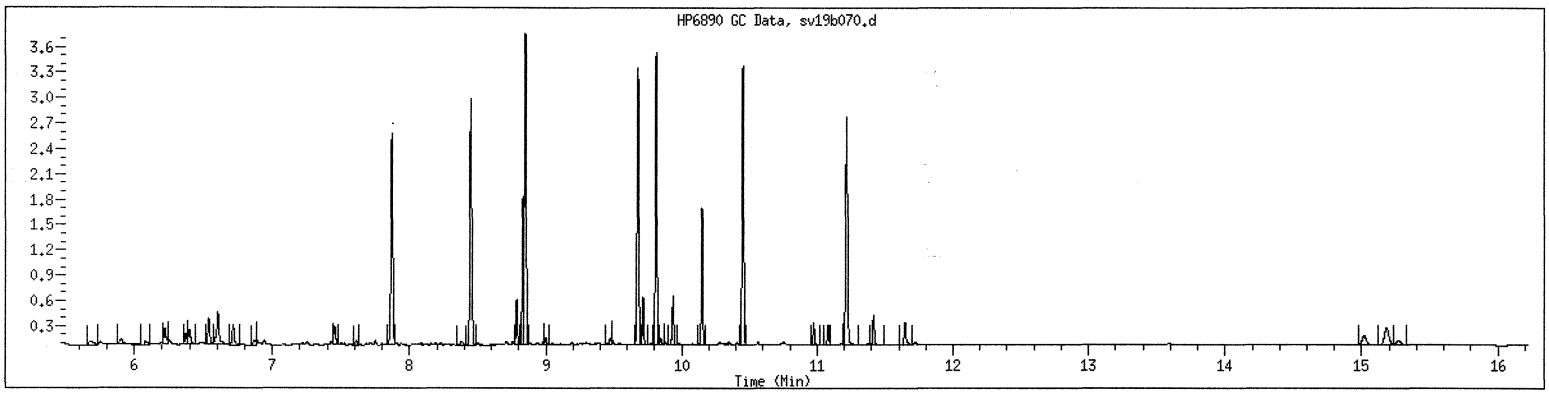
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312410	SampleType	: MSD
Injection Date	: 11/10/2011 21:40	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312410*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b071.d
Lab Smp Id: 21110312410 Client Smp ID: 1
Inj Date : 10-NOV-2011 22:04
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21110312410*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
10 C-18	8.460	9.503	-1.043	82411281	27.2769	55.1(M1H)
M 11 Alip C9-C18				82411281	27.2769	55.1
114 C-36	9.720	15.140	-5.420	704269550	240.724	486(AM1H)
M 24 Alip C19-C36				704269550	240.724	486

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.
H - Operator selected an alternate compound hit.

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111104.b/sv19b071s.d
Lab Smp Id: 211103124[illegible] Client Smp ID: 1
Inj Date : 04-NOV-2011 18:12
Operator : smh Inst ID: gcsv19b.i
Smp Info : 211103124[illegible]1 ms
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111104.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 13:57 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 71 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	980.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.228	6.232	-0.004	17636810	6.48569	13.2(R)
	6 C-14	8.463	8.471	-0.008	31294950	10.8733	22.2
M	11 Alip C9-C18				48931760	17.3590	35.4
	12 C-19	9.724	9.774	-0.050	43646012	14.4655	29.5
	13 C-20	9.946	9.957	-0.011	47976180	15.7541	32.2
$	15 Chlorooctadecane	10.159	10.217	-0.058	15508787	5.66101	11.6(R)
	22 C-28	11.676	11.725	-0.049	49801516	16.0858	32.8
M	24 Alip C19-C36				141423708	46.3055	94.5

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b071.d

Page 1

Date : 10-NOV-2011 22:04

Client ID: 1

Instrument: gcsv19b.i

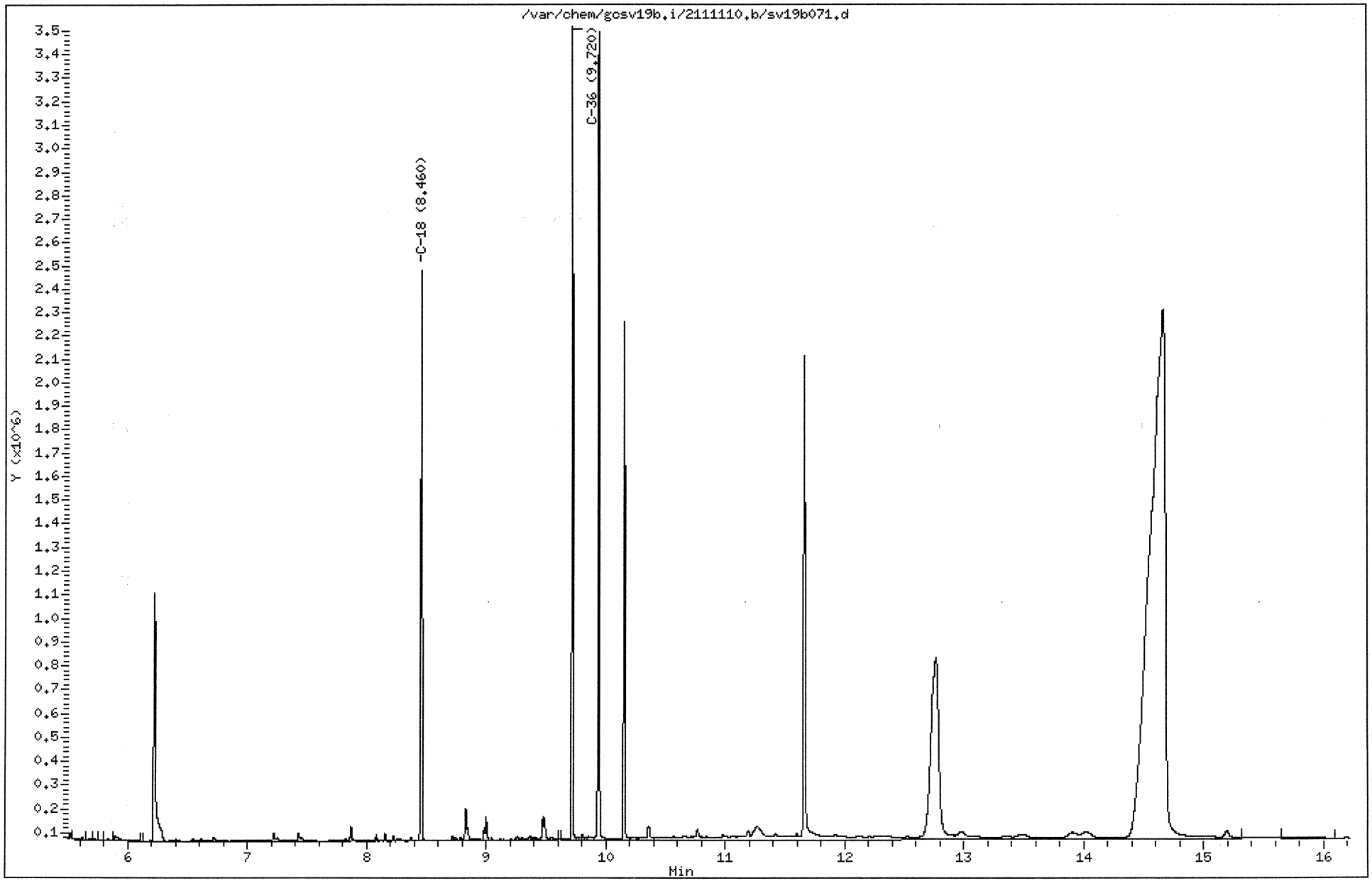
Sample Info: 21110312410x1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

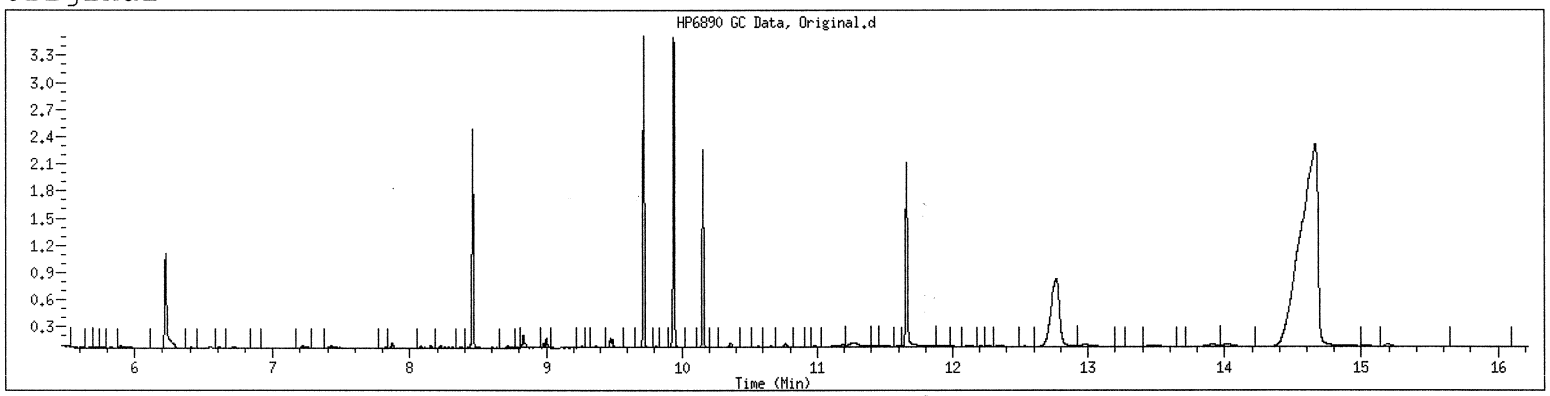


21119257 222

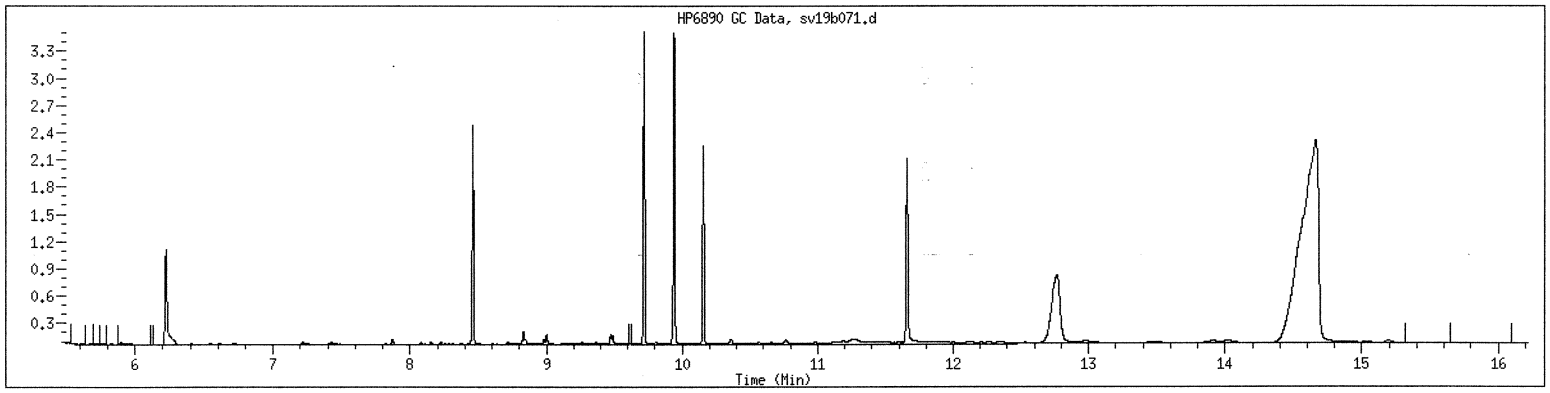
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312410	SampleType	: MSD
Injection Date	: 11/10/2011 22:04	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21110312410*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



FRACTIONATION SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 11/2/11	Start: 0800	End: 11/3/11	BATCH NO:	468306 EPH
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐		LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	ALIP	AROM	SAMPLE TYPE	METHOD
1	QC ACCOUNT	MB for HBN 468306 [EXTO/30070]	1002043	1000	2.0	7	10.0	15.0	MB	SHAKER
2	QC ACCOUNT	LCS for HBN 468306 [EXTO/30070	1002044	1000	2.0	7	10.0	15.0	LCS	NA
3	QC ACCOUNT	LCSD for HBN 468306 [EXTO/3007	1002045	1000	2.0	7	10.0	15.0	LCSD	SEPARATORY FUNNEL/3510
4	0080	UST 1011 - EPH PE	21110202113	990 1000	2.0	~~7~~ 2	10.0	15.0	SAMPLE	X
5	9000	ES046	21110312401	1000	2.0	2	10.0	15.0	SAMPLE	SOXHLET/3540
6	9000	ES047	21110312402	990	2.0	2	10.0	15.0	SAMPLE	NA
7	9000	ES047 MS	21110312403	980	2.0	2	10.0	15.0	MS	
8	9000	ES047 MSD	21110312404	980	2.0	2	10.0	15.0	MSD	
9	9000	ES049	21110312405	960	2.0	2	10.0	15.0	SAMPLE	
10	9000	ES050	21110312406	990	2.0	2	10.0	15.0	SAMPLE	
11	9000	ES051	21110312407	970	2.0	2	10.0	15.0	SAMPLE	
12	9000	ES053	21110312408	980	2.0	2	10.0	15.0	SAMPLE	
13	9000	ES053 MS	21110312409	990	2.0	2	10.0	15.0	MS	
14	9000	ES053 MSD	21110312410	980	2.0	2	10.0	15.0	MSD	
15	9000	ES055	21110312411	990	2.0	2	10.0	15.0	SAMPLE	
16	9000	ES056	21110312412	990	2.0	2	10.0	15.0	SAMPLE	
17										
18										
19										
20										
21										
22										
23										MeCL2 Lot No: 114853
24										
25										HEXANE Lot No: 106351
26										
27										PENTANE Lot No: NA
28										

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: NA TEMP: lo l

Surr 507-31-1

SURROGATE ID	507-29-5	SPIKE ID	507-29-4	Fractionation Surr	507-31-2	TECHNICIAN	DATE
VOLUME	1.0 ml	VOLUME	1.0 ml		1.0 ml	Erica Bergen	11/2/11
CONCENTRATION	10 ug/ml	CONCENTRATION	50 ug/ml		400 ug/ml	TMC	11/2
						SUPERVISOR	DATE
SPIKE WITNESS							11/3/11

Revision 3, 10/04/2010

FRACTIONATION SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 11/8/11	Start: 1100	End: 11/9/11 1400	BATCH NO:	468721 EPH
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐		LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	ALIP	AROM	SAMPLE TYPE	METHOD
1	QC ACCOUNT	MB for HBN 468721 [EXTO/30116]	1004104	1000	2.0	7	10.0	16.0	MB	SHAKER
2	QC ACCOUNT	LCS for HBN 468721 EXTO/30116	1004105	1000	2.0	7	10.0	15.0	LCS	NA
3	QC ACCOUNT	LCSD for HBN 468721 EXTO/3011	1004106	1000	2.0	7	10.0	15.0	LCSD	SEPARATORY FUNNEL/3510
4	9000	ES050 Rpt	21110312406	990	2.0	12	10.0	15.0	SAMPLE	V
5	9000	ES053	21110312408	990	2.0	12	10.0	15.0	SAMPLE	SOXHLET/3540
6	9000	ES053 MS	21110312409	990	2.0	12	10.0	15.0	MS	NA
7	9000	ES053 MSD	21110312410	990	2.0	12	10.0	15.0	MSD	
8	9000	ES057	21111042101	990	2.0	12	10.0	15.0	SAMPLE	
9	0080	4Q - GCSV Water LOD	21111031701	1000	2.0	7	10.0	15.0	SAMPLE	
10	0080	4Q - GCSV Water LOQ	21111031702	1000	2.0	7	10.0	15.0	SAMPLE	
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										MeCL2 Lot No: 114165
24										
25										HEXANE Lot No:
26										
27										PENTANE Lot No: X
28										

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: NR TEMP: 10.1

SURROGATE ID	507-31-1	SPIKE ID	507-29-4	Fractionation Surr	507-31-2	TECHNICIAN	DATE
VOLUME	1.0 mL	VOLUME	1.0 mL		1.0 mL		11-8-11
CONCENTRATION	40 ug/mL	CONCENTRATION	50 ug/mL		400 ug/mL		11-8-11
						SUPERVISOR	DATE
SPIKE WITNESS							11/9/11

Revision 3, 10/04/2010

LOD = 200 ul spike
LOQ = 400 ul spike

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/03/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111102.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	02-NOV-2011 15:31	1.000	smh	51	all
1201		sv19b052.d	1000.00 ml	02-NOV-2011 15:55	1.000	smh	52	all
1201		sv19b052la.d	1000.00 ml	02-NOV-2011 15:55	1.000	smh	52	all
1202		sv19b053.d	1000.00 ml	02-NOV-2011 16:19	1.000	smh	53	all
1202		sv19b053la.d	1000.00 ml	02-NOV-2011 16:19	1.000	smh	53	all
1203		sv19b054.d	1000.00 ml	02-NOV-2011 16:42	1.000	smh	54	all
1203		sv19b054la.d	1000.00 ml	02-NOV-2011 16:42	1.000	smh	54	all
1204		sv19b055.d	1000.00 ml	02-NOV-2011 17:07	1.000	smh	55	all
1204		sv19b055la.d	1000.00 ml	02-NOV-2011 17:07	1.000	smh	55	all
1205		sv19b056.d	1000.00 ml	02-NOV-2011 17:30	1.000	smh	56	all
1205		sv19b056la.d	1000.00 ml	02-NOV-2011 17:30	1.000	smh	56	all
1600		sv19b057.d	1.00 ml	02-NOV-2011 17:55	1.000	smh	57	all
1600		sv19b057la.d	1.00 ml	02-NOV-2011 17:55	1.000	smh	57	all
1201		sv19b058.d	1000.00 ml	02-NOV-2011 18:19	1.000	smh	58	ALmasseph
1202		sv19b059.d	1000.00 ml	02-NOV-2011 18:42	1.000	smh	59	ALmasseph
1203		sv19b060.d	1000.00 ml	02-NOV-2011 19:06	1.000	smh	60	ALmasseph
1204		sv19b061.d	1000.00 ml	02-NOV-2011 19:31	1.000	smh	61	ALmasseph
1205		sv19b062.d	1000.00 ml	02-NOV-2011 19:54	1.000	smh	62	ALmasseph
1600		sv19b063.d	1000.00 ml	02-NOV-2011 20:18	1.000	smh	63	all-new

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/04/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Batch: /var/chem/gcsv19b.i/2111103.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	03-NOV-2011 11:07	1.000	smh	51	ALmasseph
1201		sv19b052.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	ALmasseph
1201		sv19b052la.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	AlipLA
1201		sv19b052s.d	1000.00 ml	03-NOV-2011 12:55	1.000	smh	52	chloro
1202		sv19b053.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	ALmasseph
1202		sv19b053la.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	AlipLA
1202		sv19b053s.d	1000.00 ml	03-NOV-2011 13:18	1.000	smh	53	chloro
1203		sv19b054.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	ALmasseph
1203		sv19b054la.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	AlipLA
1203		sv19b054s.d	1000.00 ml	03-NOV-2011 13:42	1.000	smh	54	chloro
1204		sv19b055.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	ALmasseph
1204		sv19b055la.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	AlipLA
1204		sv19b055s.d	1000.00 ml	03-NOV-2011 14:06	1.000	smh	55	chloro
1205		sv19b056.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	ALmasseph
1205		sv19b056la.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	AlipLA
1205		sv19b056s.d	1000.00 ml	03-NOV-2011 14:30	1.000	smh	56	chloro
1600		sv19b057.d	1.00 ml	03-NOV-2011 14:54	1.000	smh	57	ALmasseph
1600		sv19b057la.d	1.00 ml	03-NOV-2011 14:54	1.000	smh	57	ALmasseph

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/08/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111104.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	04-NOV-2011 08:24	1.000	smh	51	all
1400		sv19b052.d	1000.00 ml	04-NOV-2011 08:48	1.000	smh	52	all
1400		sv19b053.d	1000.00 ml	04-NOV-2011 09:12	1.000	smh	53	ALmasseph
1002043		sv19b054.d	1000.00 ml	04-NOV-2011 11:18	1.000	smh	54	all
1002043		sv19b055.d	1000.00 ml	04-NOV-2011 11:42	1.000	smh	55	ALmasseph
1002043		sv19b055s.d	1000.00 ml	04-NOV-2011 11:42	1.000	smh	55	Chloro
1002044		sv19b056.d	1000.00 ml	04-NOV-2011 12:06	1.000	smh	56	all
1002044		sv19b057.d	1000.00 ml	04-NOV-2011 12:30	1.000	smh	57	ALmasseph
1002045		sv19b058.d	1000.00 ml	04-NOV-2011 12:54	1.000	smh	58	all
1002045		sv19b059.d	1000.00 ml	04-NOV-2011 13:18	1.000	smh	59	ALmasseph
21110202113		sv19b060.d	990.00 ml	04-NOV-2011 13:43	1.000	smh	60	all
21110202113		sv19b061.d	990.00 ml	04-NOV-2011 14:07	1.000	smh	61	ALmasseph
21110312401		sv19b062.d	1000.00 ml	04-NOV-2011 14:31	1.000	smh	62	all
21110312401		sv19b062s.d	1000.00 ml	04-NOV-2011 14:31	1.000	smh	62	surr
21110312401		sv19b063.d	1000.00 ml	04-NOV-2011 14:56	1.000	smh	63	ALmasseph
21110312401		sv19b063s.d	1000.00 ml	04-NOV-2011 14:56	1.000	smh	63	Chloro
1400		sv19b064.d	1000.00 ml	04-NOV-2011 15:20	1.000	smh	64	all
1400		sv19b065.d	1000.00 ml	04-NOV-2011 15:45	1.000	smh	65	ALmasseph
21110312402		sv19b068.d	990.00 ml	04-NOV-2011 16:58	1.000	smh	68	all
21110312402		sv19b068s.d	990.00 ml	04-NOV-2011 16:58	1.000	smh	68	surr
21110312402		sv19b069.d	990.00 ml	04-NOV-2011 17:23	1.000	smh	69	ALmasseph
21110312402		sv19b069s.d	990.00 ml	04-NOV-2011 17:23	1.000	smh	69	Chloro
21110312403		sv19b070.d	980.00 ml	04-NOV-2011 17:47	1.000	smh	70	all
21110312403		sv19b070s.d	980.00 ml	04-NOV-2011 17:47	1.000	smh	70	all
21110312403		sv19b071.d	980.00 ml	04-NOV-2011 18:12	1.000	smh	71	ALmasseph
21110312403		sv19b071s.d	980.00 ml	04-NOV-2011 18:12	1.000	smh	71	ALmasseph
21110312404		sv19b072.d	980.00 ml	04-NOV-2011 18:36	1.000	smh	72	all
21110312404		sv19b072s.d	980.00 ml	04-NOV-2011 18:36	1.000	smh	72	all
21110312404		sv19b073.d	980.00 ml	04-NOV-2011 19:01	1.000	smh	73	ALmasseph
21110312404		sv19b073s.d	980.00 ml	04-NOV-2011 19:01	1.000	smh	73	ALmasseph
21110312405		sv19b074.d	960.00 ml	04-NOV-2011 19:25	1.000	smh	74	all
21110312405		sv19b075.d	960.00 ml	04-NOV-2011 19:49	1.000	smh	75	ALmasseph
21110312405		sv19b075s.d	960.00 ml	04-NOV-2011 19:49	1.000	smh	75	Chloro
21110312406		sv19b076.d	990.00 ml	04-NOV-2011 20:13	1.000	smh	76	all
21110312406		sv19b077.d	990.00 ml	04-NOV-2011 20:38	1.000	smh	77	ALmasseph
21110312406		sv19b077s.d	990.00 ml	04-NOV-2011 20:38	1.000	smh	77	Chloro

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/08/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111104.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111104.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
1400		sv19b078.d	1000.00 ml	04-NOV-2011 21:02	1.000	smh	78	all
1400		sv19b079.d	1000.00 ml	04-NOV-2011 21:26	1.000	smh	79	ALmasseph
21110312407		sv19b082.d	970.00 ml	04-NOV-2011 22:38	1.000	smh	82	all
21110312407		sv19b083.d	970.00 ml	04-NOV-2011 23:02	1.000	smh	83	ALmasseph
21110312407		sv19b083s.d	970.00 ml	04-NOV-2011 23:02	1.000	smh	83	Chloro
21110312408		sv19b084.d	980.00 ml	04-NOV-2011 23:26	1.000	smh	84	all
21110312408		sv19b085.d	980.00 ml	04-NOV-2011 23:50	1.000	smh	85	ALmasseph
21110312408		sv19b085s.d	980.00 ml	04-NOV-2011 23:50	1.000	smh	85	Chloro
21110312409		sv19b086.d	990.00 ml	05-NOV-2011 00:14	1.000	smh	86	all
21110312409		sv19b087.d	990.00 ml	05-NOV-2011 00:38	1.000	smh	87	ALmasseph
21110312409		sv19b087s.d	990.00 ml	05-NOV-2011 00:38	1.000	smh	87	Chloro
21110312410		sv19b088.d	980.00 ml	05-NOV-2011 01:02	1.000	smh	88	all
21110312410		sv19b089.d	980.00 ml	05-NOV-2011 01:26	1.000	smh	89	ALmasseph
21110312410		sv19b089s.d	980.00 ml	05-NOV-2011 01:26	1.000	smh	89	Chloro
21110312411		sv19b090.d	990.00 ml	05-NOV-2011 01:50	1.000	smh	90	all
21110312411		sv19b091.d	990.00 ml	05-NOV-2011 02:14	1.000	smh	91	ALmasseph
21110312411		sv19b091s.d	990.00 ml	05-NOV-2011 02:14	1.000	smh	91	Chloro
1400		sv19b092.d	1000.00 ml	05-NOV-2011 02:38	1.000	smh	92	all
1400		sv19b093.d	1000.00 ml	05-NOV-2011 03:02	1.000	smh	93	ALmasseph
1400		sv19b094.d	1000.00 ml	05-NOV-2011 03:26	1.000	smh	92	all
1400		sv19b095.d	1000.00 ml	05-NOV-2011 03:49	1.000	smh	93	AlipLA
21110312412		sv19b096.d	990.00 ml	05-NOV-2011 04:13	1.000	smh	96	all
21110312412		sv19b097.d	990.00 ml	05-NOV-2011 04:37	1.000	smh	97	ALmasseph
21110312412		sv19b097s.d	990.00 ml	05-NOV-2011 04:37	1.000	smh	97	Chloro
1002322		sv19b098.d	1000.00 ml	05-NOV-2011 05:00	1.000	smh	98	all
1002322		sv19b099.d	1000.00 ml	05-NOV-2011 05:24	1.000	smh	99	AlipLA
1002322		sv19b099s.d	1000.00 ml	05-NOV-2011 05:24	1.000	smh	99	chloro
1002323		sv19b101.d	1000.00 ml	05-NOV-2011 05:48	1.000	smh	1	all
1002323		sv19b102.d	1000.00 ml	05-NOV-2011 06:11	1.000	smh	2	AlipLA
1002324		sv19b103.d	1000.00 ml	05-NOV-2011 06:35	1.000	smh	3	all
1002324		sv19b104.d	1000.00 ml	05-NOV-2011 06:58	1.000	smh	4	AlipLA
21110250603		sv19b105.d	960.00 ml	05-NOV-2011 07:22	1.000	smh	5	all
21110250603		sv19b105s.d	960.00 ml	05-NOV-2011 07:22	1.000	smh	5	surr
21110250603		sv19b106.d	960.00 ml	05-NOV-2011 07:45	1.000	smh	6	AlipLA
21110250603		sv19b106s.d	960.00 ml	05-NOV-2011 07:45	1.000	smh	6	Chloro
1400		sv19b107.d	1000.00 ml	05-NOV-2011 08:09	1.000	smh	7	all

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/11/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111110.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	10-NOV-2011 13:49	1.000	smh	51	all
1400		sv19b052.d	1000.00 ml	10-NOV-2011 14:13	1.000	smh	52	cal
1400		sv19b053.d	1000.00 ml	10-NOV-2011 14:37	1.000	smh	53	ALmasseph
1004104		sv19b054.d	1000.00 ml	10-NOV-2011 15:15	1.000	smh	54	all
1004104		sv19b055.d	1000.00 ml	10-NOV-2011 15:39	1.000	smh	55	ALmasseph
1004105		sv19b056.d	1000.00 ml	10-NOV-2011 16:03	1.000	smh	56	all
1004105		sv19b057.d	1000.00 ml	10-NOV-2011 16:27	1.000	smh	57	ALmasseph
1004106		sv19b058.d	1000.00 ml	10-NOV-2011 16:51	1.000	smh	58	all
1004106		sv19b059.d	1000.00 ml	10-NOV-2011 17:15	1.000	smh	59	ALmasseph
21110312406		sv19b060.d	990.00 ml	10-NOV-2011 17:40	1.000	smh	60	all
21110312406		sv19b061.d	990.00 ml	10-NOV-2011 18:04	1.000	smh	61	ALmasseph
21110312408		sv19b062.d	990.00 ml	10-NOV-2011 18:28	1.000	smh	62	all
21110312408		sv19b063.d	990.00 ml	10-NOV-2011 18:52	1.000	smh	63	ALmasseph
21110312408		sv19b063s.d	990.00 ml	10-NOV-2011 18:52	1.000	smh	63	Chloro
1400		sv19b064.d	1000.00 ml	10-NOV-2011 19:16	1.000	smh	64	cal
1400		sv19b065.d	1000.00 ml	10-NOV-2011 19:40	1.000	smh	65	ALmasseph
1400		sv19b066.d	1000.00 ml	10-NOV-2011 20:04	1.000	smh	64	cal
1400		sv19b067.d	1000.00 ml	10-NOV-2011 20:28	1.000	smh	65	ALmasseph
21110312409		sv19b068.d	990.00 ml	10-NOV-2011 20:52	1.000	smh	68	all
21110312409		sv19b069.d	990.00 ml	10-NOV-2011 21:16	1.000	smh	69	ALmasseph
21110312409		sv19b069s.d	990.00 ml	10-NOV-2011 21:16	1.000	smh	69	Chloro
21110312410		sv19b070.d	990.00 ml	10-NOV-2011 21:40	1.000	smh	70	all
21110312410		sv19b071.d	990.00 ml	10-NOV-2011 22:04	1.000	smh	71	ALmasseph
21110312410		sv19b071s.d	990.00 ml	10-NOV-2011 22:04	1.000	smh	71	Chloro
21111042101		sv19b072.d	990.00 ml	10-NOV-2011 22:29	1.000	smh	72	all
21111042101		sv19b073.d	990.00 ml	10-NOV-2011 22:53	1.000	smh	73	ALmasseph
21111031701		sv19b074.d	1000.00 ml	10-NOV-2011 23:17	1.000	smh	74	all
21111031701		sv19b075.d	1000.00 ml	10-NOV-2011 23:41	1.000	smh	75	ALmasseph
21111031702		sv19b076.d	1000.00 ml	11-NOV-2011 00:05	1.000	smh	76	all
21111031702		sv19b077.d	1000.00 ml	11-NOV-2011 00:29	1.000	smh	77	ALmasseph
1400		sv19b078.d	1000.00 ml	11-NOV-2011 00:54	1.000	smh	78	cal
1400		sv19b079.d	1000.00 ml	11-NOV-2011 01:18	1.000	smh	79	ALmasseph
1400		sv19b080.d	1000.00 ml	11-NOV-2011 01:42	1.000	smh	78	cal
1400		sv19b081.d	1000.00 ml	11-NOV-2011 02:07	1.000	smh	79	ALmasseph

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: MASSVPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES050	105	70	130						102	70	130						0
2.	ES051	103	70	130						104	70	130						0
3.	MB1003187	100	70	130						96	70	130						0
4.	LCS1003188	104	70	130						98	70	130						0

SMC 1 : 2,5-Dibromotoluene (PID) SMC 2 : 2,5-Dibromotoluene (FID)

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSVPH

Prep Batch: Analytical Batch: 468512

SAMPLE NO : 1003188

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C5-C8 Aliphatic	ug/L	200	0	152	76		60 - 140
C9-C10 Aromatic	ug/L	50	0	54.4	109		60 - 140
C9-C12 Aliphatic	ug/L	100	0	105	105		60 - 140

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 3 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: ES053

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110257

Contract: Method: MASSVPH

Prep Batch: Analytical Batch: 468512

SAMPLE NO : 21110312409

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
C5-C8 Aliphatic	ug/L	200	0	156	78		60 - 140
C9-C10 Aromatic	ug/L	50	0	61.2	122		60 - 140
C9-C12 Aliphatic	ug/L	100	0	112	112		60 - 140

SAMPLE NO : 21110312410

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
C5-C8 Aliphatic	ug/L	200	170	85		9		60 - 140	0 - 30
C9-C10 Aromatic	ug/L	50	61	122		.3		60 - 140	0 - 30
C9-C12 Aliphatic	ug/L	100	117	117		4		60 - 140	0 - 30

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1003187

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1003187 | SAS No.: | SDG No.: 211110257

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted:

Date Analyzed (1): 11/07/11 | Time (1): 1221 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCV5B | Instrument ID (2):

GC Column (1): | ID: (mm) | GC Column (2): | ID: (mm)

Method: MASSVPH | Prep Batch: | Analytical Batch: 468512

Lab File ID: 2111107/v5003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1003188	1003188	11/07/11	1151	GCV5B
2.	ES050	21110312406	11/07/11	2054	GCV5B
3.	ES051	21110312407	11/07/11	2123	GCV5B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES050

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312406

Level: (low/med) | Date Collected: 10/25/11 | Time: 0950

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 2054

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5017

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5017.d
Lab Smp Id: 21110312406 Client Smp ID: 21110312406
Inj Date : 07-NOV-2011 20:54
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312406
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.783	21.781	0.002	365743	52.3083	52.3

Data File: /var/chem/gcv5b.i/2111107.b/v5017.d

Date : 07-NOV-2011 20:54

Client ID: 21110312406

Instrument: gcv5b.i

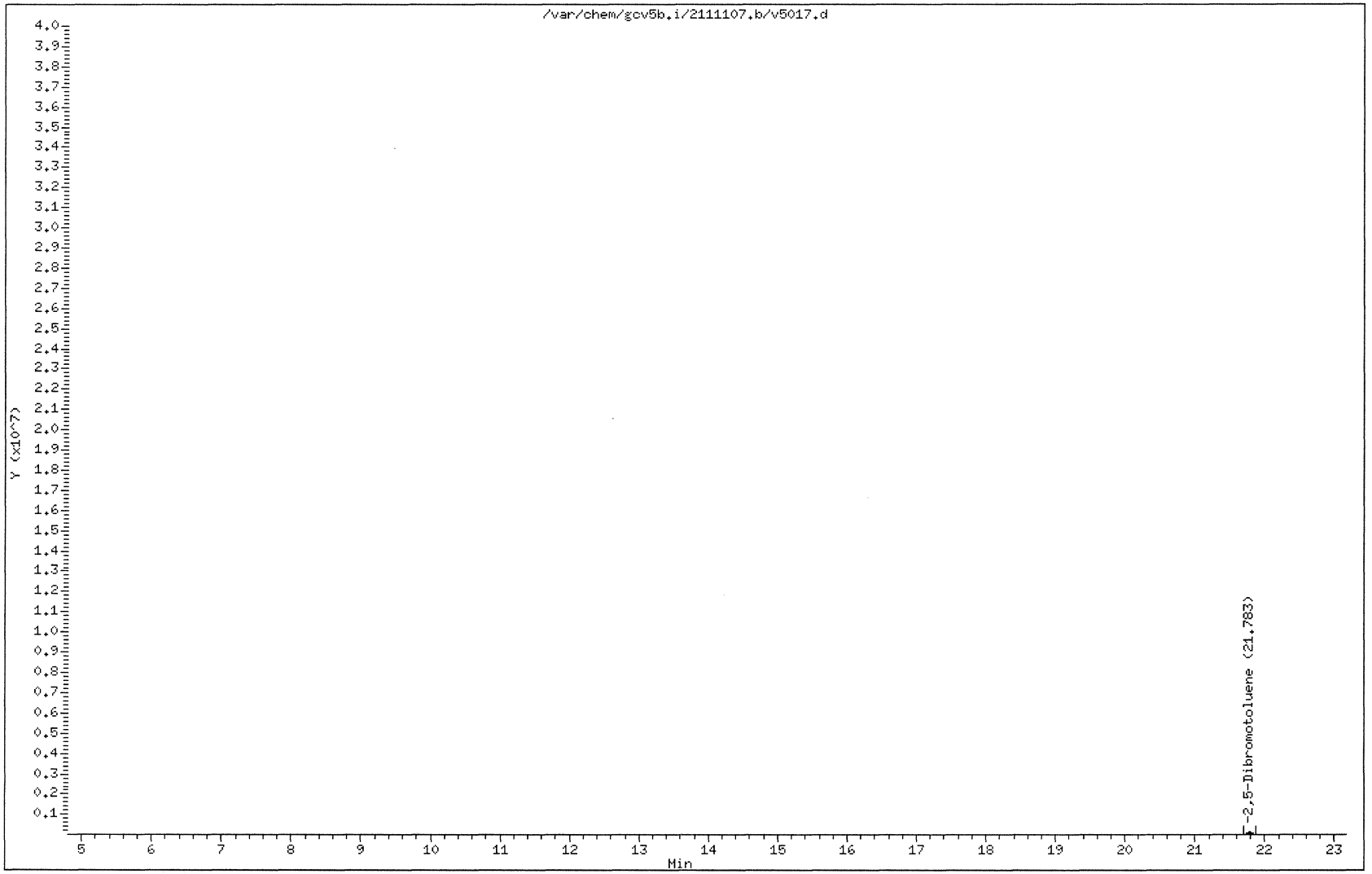
Sample Info: 21110312406

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

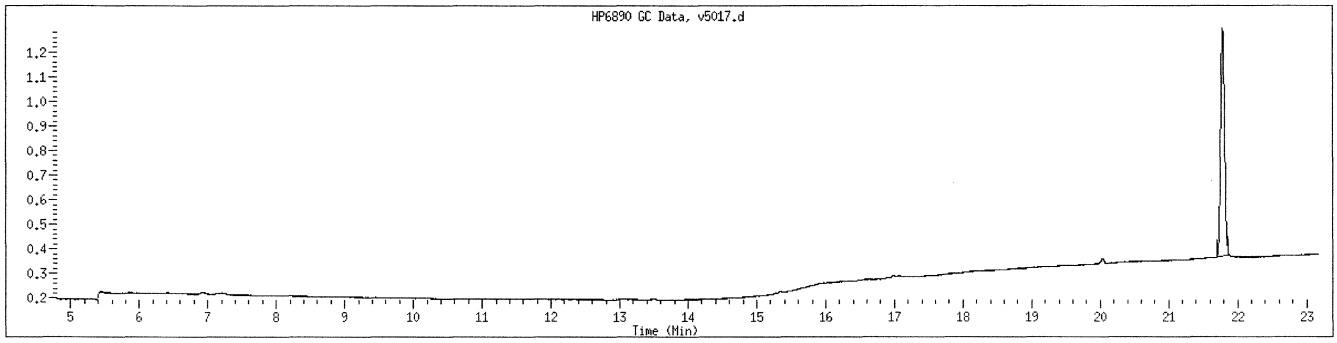
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312406 SampleType : SAMPLE
Injection Date: 11/07/2011 20:54 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312406
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5017.d
Lab Smp Id: 21110312406 Client Smp ID: 21110312406
Inj Date : 07-NOV-2011 20:54
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312406
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 17 2,5-Dibromotoluene	21.296	21.301	-0.005	152299	50.9421	50.9

Data File: /chem/gcv5a.i/2111107.b/v5017.d

Page 1

Date : 07-NOV-2011 20:54

Client ID: 21110312406

Instrument: gcv5a.i

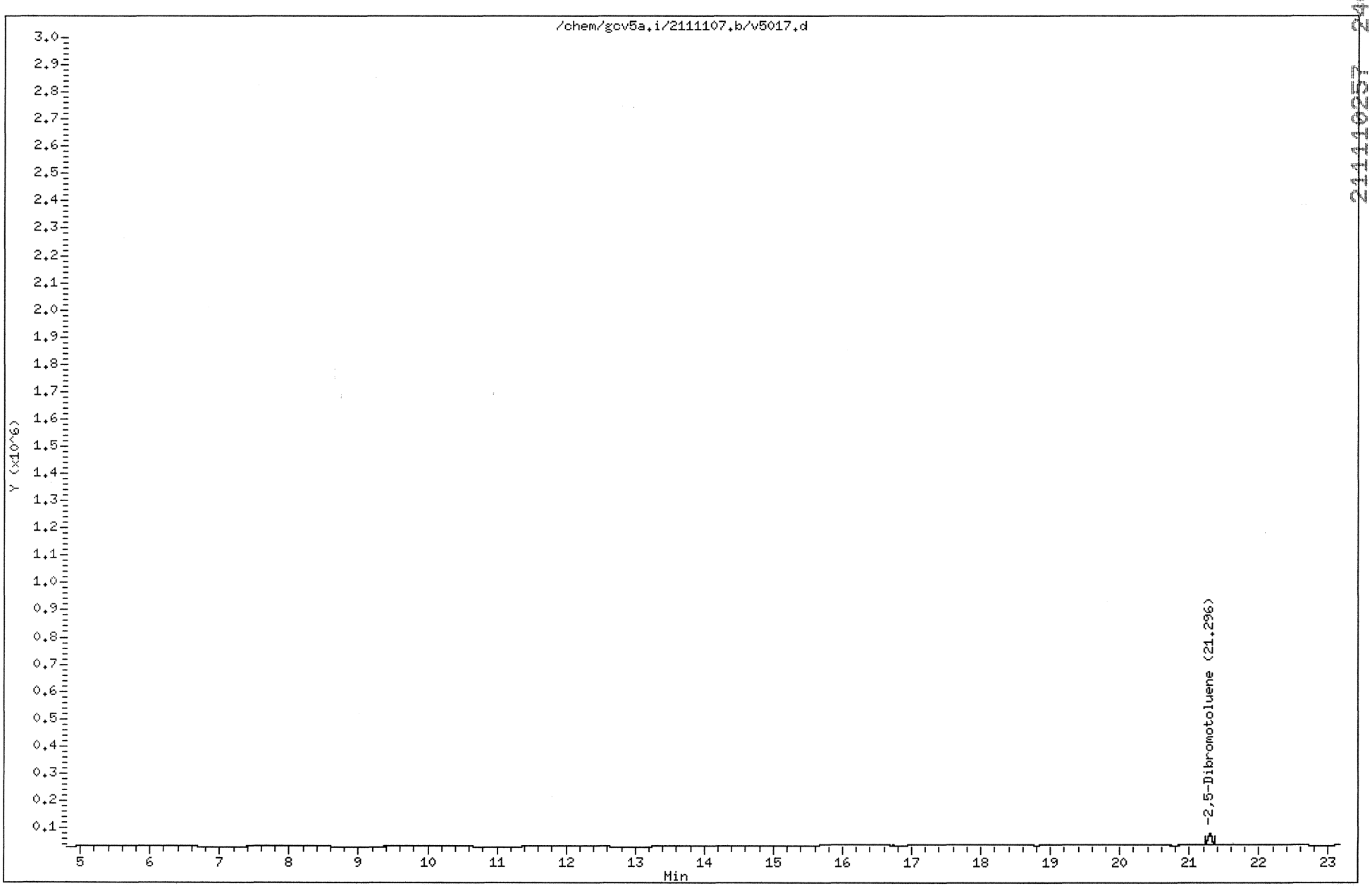
Sample Info: 21110312406

Volume Injected (uL): 1.0

Operator: JAR

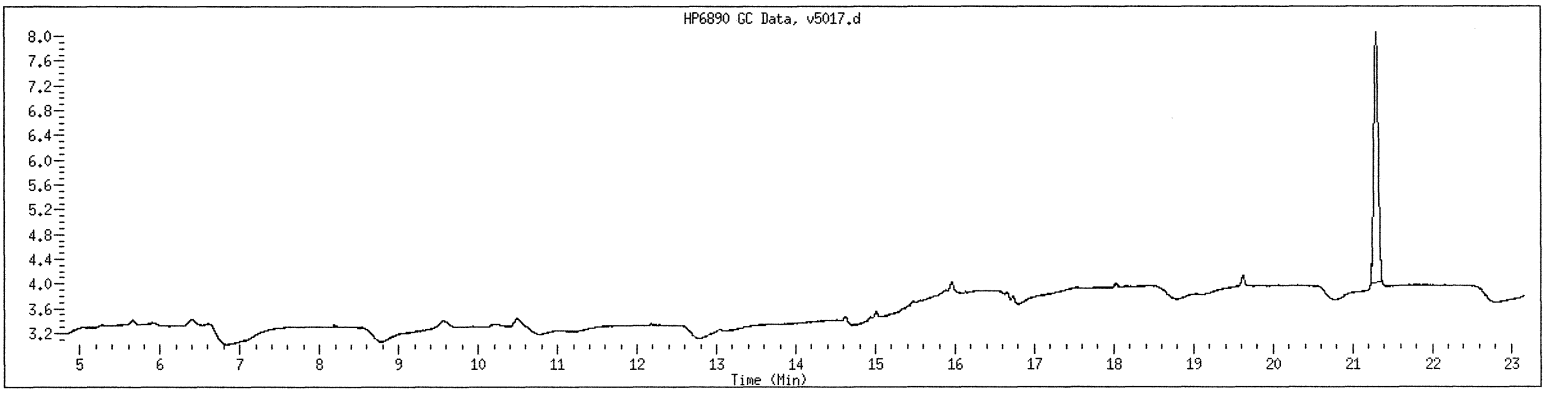
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312406	SampleType	: SAMPLE
Injection Date	: 11/07/2011 20:54	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312406		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES051

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312407

Level: (low/med) | Date Collected: 10/25/11 | Time: 1130

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 2123

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5018

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5018.d
Lab Smp Id: 21110312407 Client Smp ID: 21110312407
Inj Date : 07-NOV-2011 21:23
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312407
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.779	21.781	-0.002	360179	51.5125	51.5

Data File: /var/chem/gcv5b.i/2111107.b/v5018.d

Page 1

Date : 07-NOV-2011 21:23

Client ID: 21110312407

Instrument: gcv5b.i

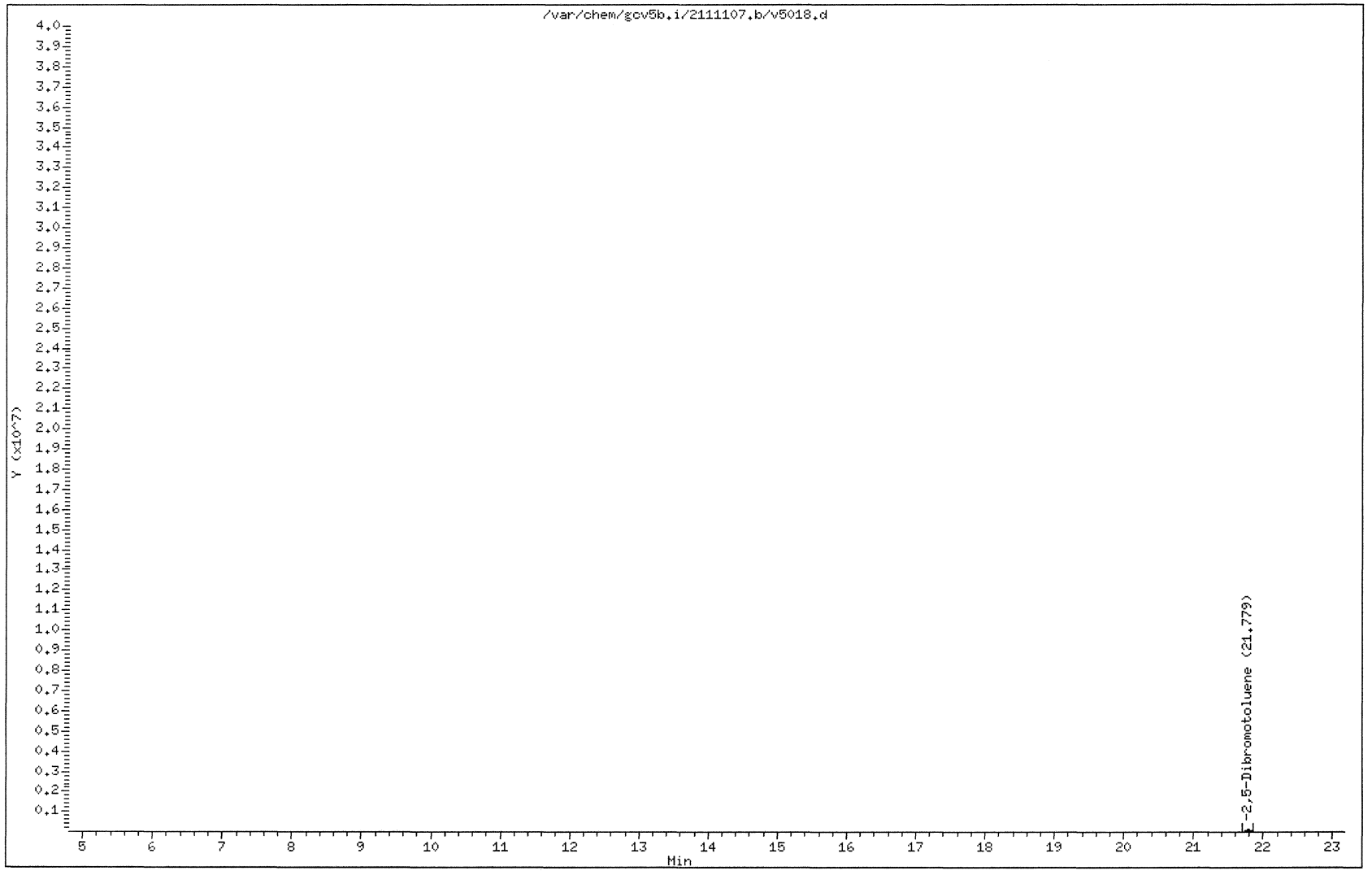
Sample Info: 21110312407

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

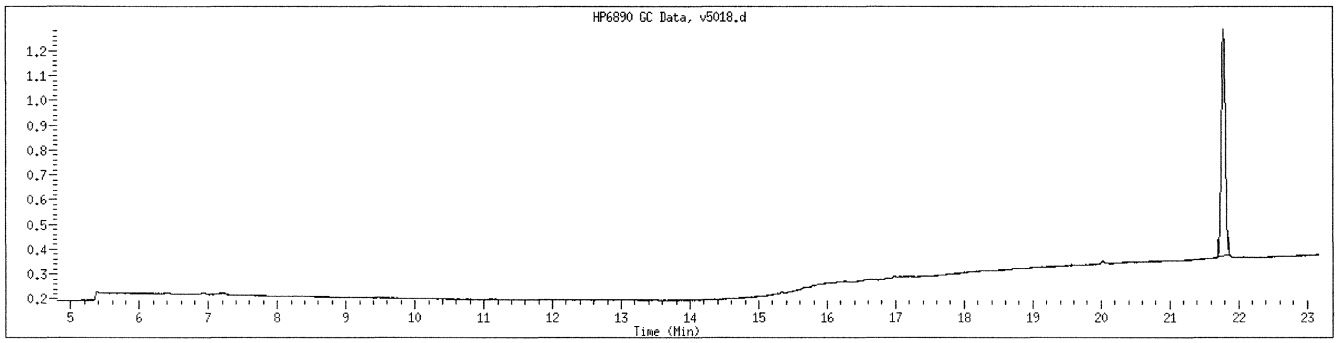
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312407 SampleType : SAMPLE
Injection Date: 11/07/2011 21:23 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312407
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5018.d
Lab Smp Id: 21110312407 Client Smp ID: 21110312407
Inj Date : 07-NOV-2011 21:23
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312407
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 17 2,5-Dibromotoluene	21.291	21.301	-0.010	155276	51.9378	51.9

Data File: /chem/gcv5a.i/2111107.b/v5018.d

Page 1

Date : 07-NOV-2011 21:23

Client ID: 21110312407

Instrument: gcv5a.i

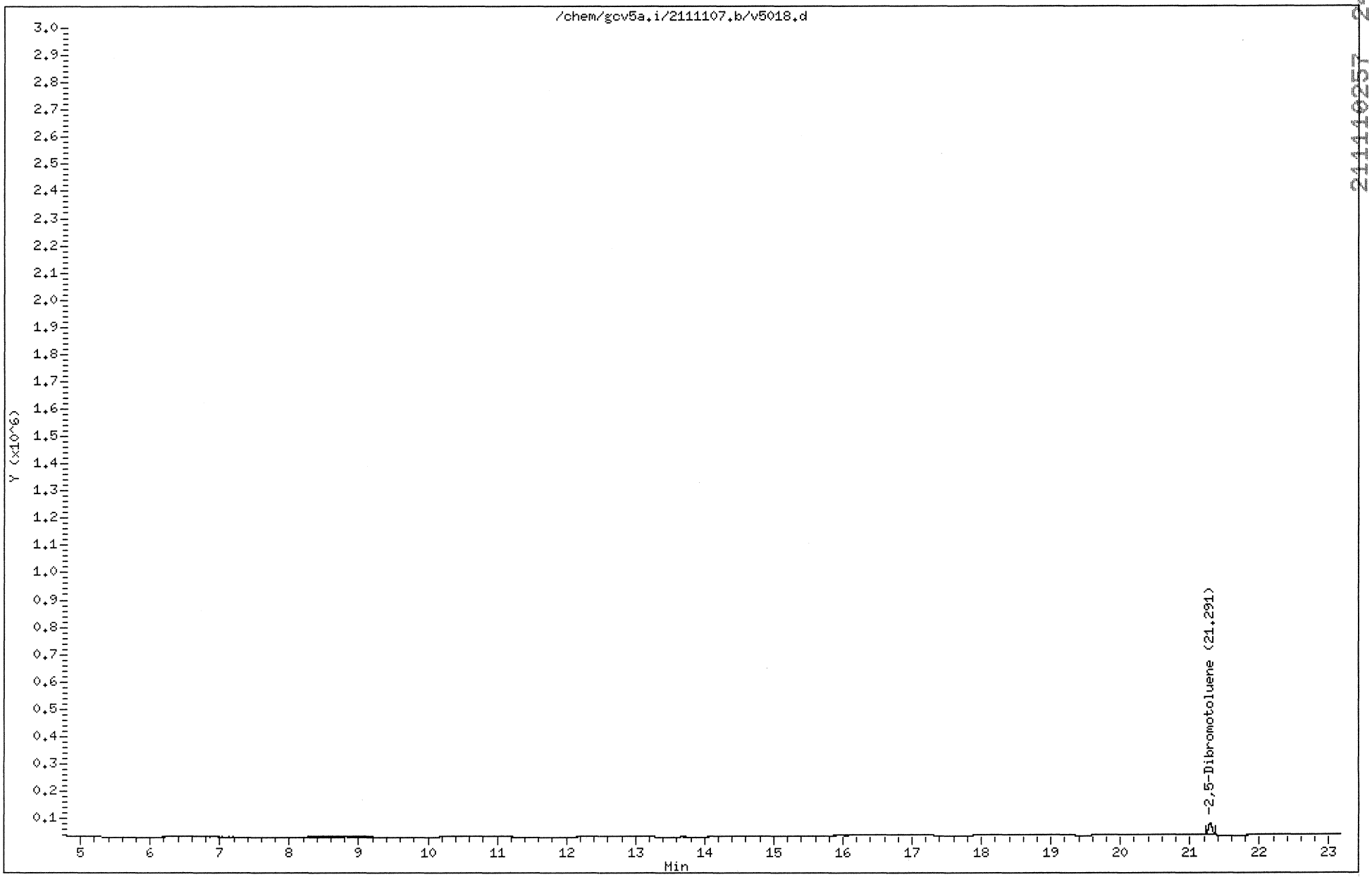
Sample Info: 21110312407

Volume Injected (uL): 1.0

Operator: JAR

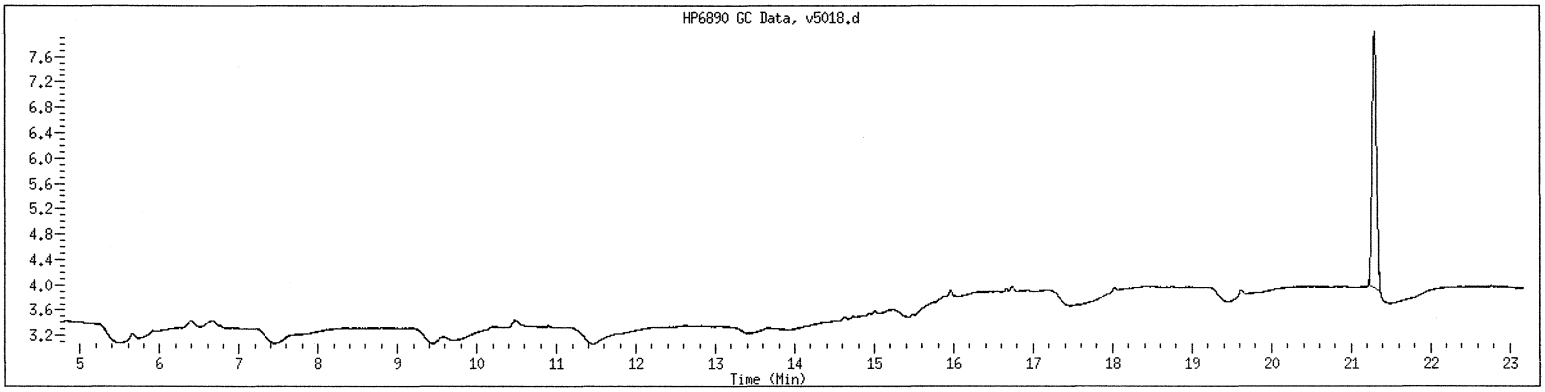
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312407	SampleType	: SAMPLE
Injection Date	: 11/07/2011 21:23	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312407		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-OCT-2011 17:26
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Cal Date : 08-Nov-2011 15:58 jar
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5b.i/2111104P.b/v5003.d
Level 2: /var/chem/gcv5b.i/2111104P.b/v5005.d
Level 3: /var/chem/gcv5b.i/2111104P.b/v5007.d
Level 4: /var/chem/gcv5b.i/2111104P.b/v5009.d
Level 5: /var/chem/gcv5b.i/2111104P.b/v5011.d
Level 6: /var/chem/gcv5b.i/2111104P.b/v5001.d

	Compound	10.000 Level 1	20.000 Level 2	50.000 Level 3	80.000 Level 4	100.000 Level 5	5.000 Level 6	___ RRF	% RSD
	1 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	2 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	3 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	4 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	5 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	6 o-Xylene	14195	13955	13772	12590	12083	14822	13570	7.600
	7 1,2,4-Trimethylbenzene	12356	12603	12435	11425	10922	12432	12029	5.703
	8 Naphthalene	10595	10426	10486	9839	9920	9852	10186	3.453
M	9 C9-C10	12356	12603	12435	11425	10922	12432	12029	5.703
$	10 2,5-Dibromotoluene	7122	6944	7032	6909	6886	7060	6992	1.337

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-OCT-2011 17:26
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Cal Date : 08-Nov-2011 15:58 jar
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 4.75907
Maximun Average %RSD = 25.00000
* Passed Average %RSD Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	6 o-Xylene	15.776	15.776	0.000	74110	5.00000	7.8
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	62160	5.00000	7.0
M	9 C9-C10				62160	5.00000	7.0
	8 Naphthalene	20.032	20.032	0.000	49258	5.00000	6.2
$	10 2,5-Dibromotoluene	21.783	21.783	0.000	353009	50.0000	68.8

Data File: /chem/gcv5b.i/2111104P.b/v5001.d

Page 1

Date : 04-NOV-2011 20:57

Client ID:

Instrument: gcv5b.i

Sample Info: VPHO5/6/12/4

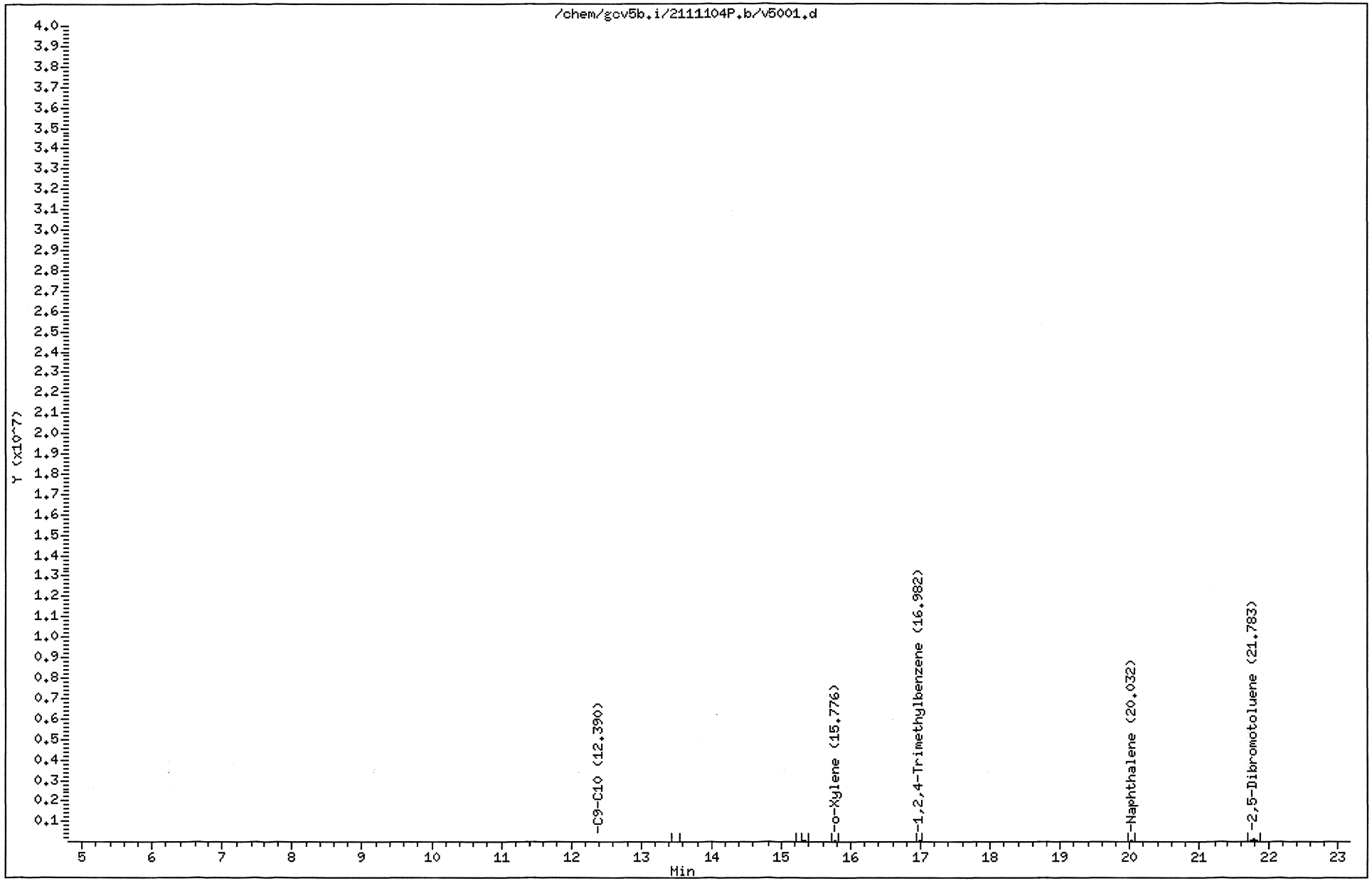
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

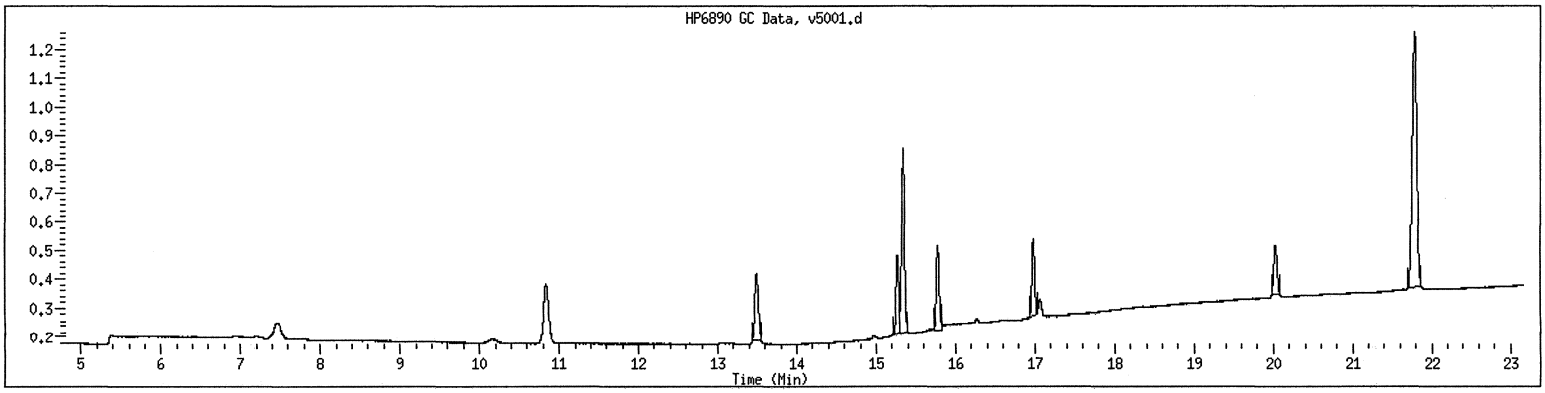
Column diameter: 0.53

2111102257 252



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

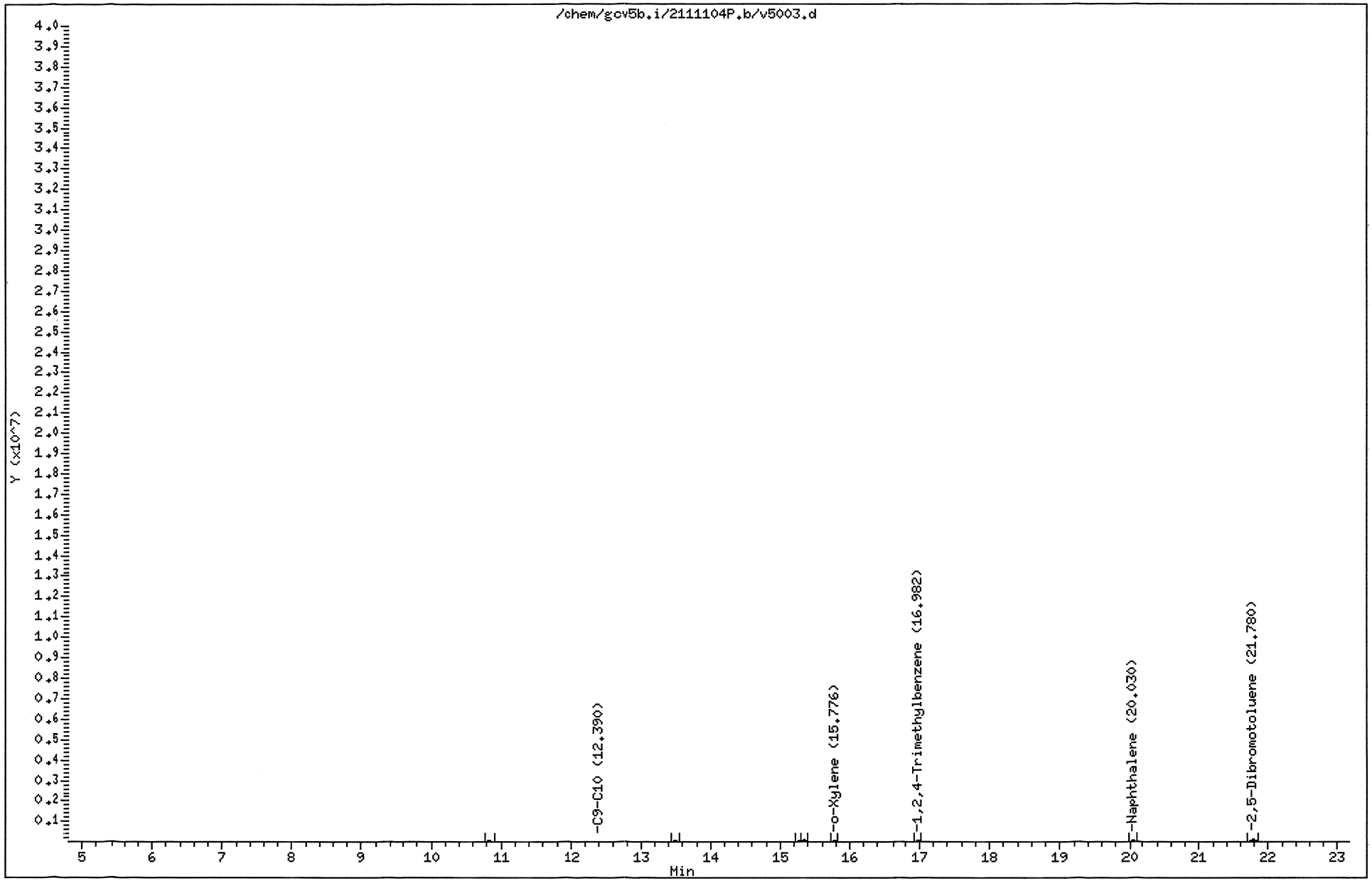
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	141953	10.0000	13.9
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	123561	10.0000	13.4
M	9 C9-C10				123561	10.0000	13.4
	8 Naphthalene	20.030	20.030	0.000	105949	10.0000	13.0
$	10 2,5-Dibromotoluene	21.780	21.780	0.000	356100	50.0000	64.4

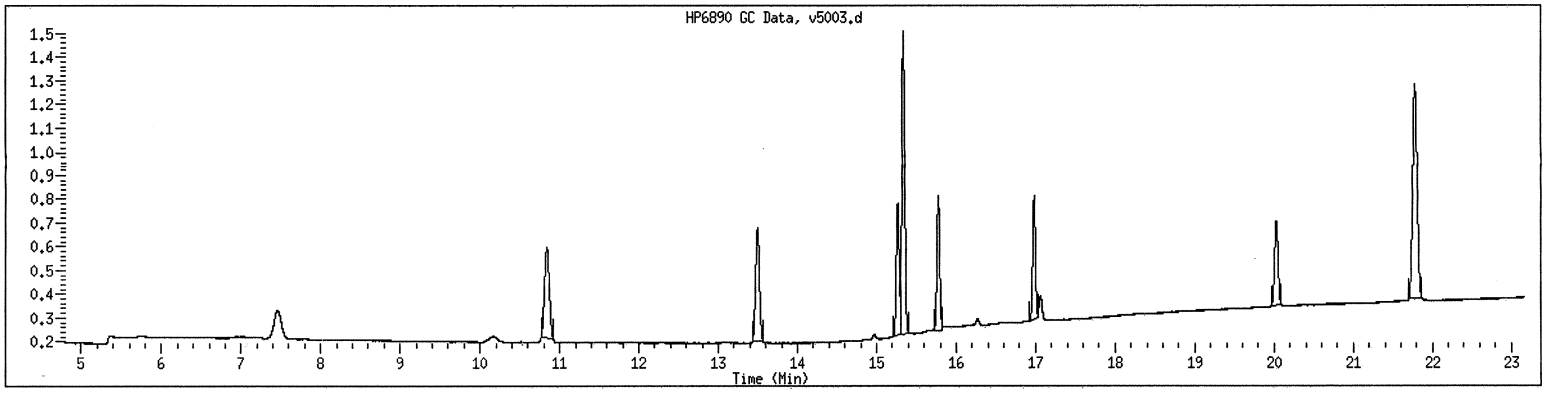
Data File: /chem/gcv5b.i/2111104P.b/v5003.d
Date : 04-NOV-2011 21:56
Client ID:
Sample Info: VPH10/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	279105	20.0000	25.3
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	252061	20.0000	25.5
M	9 C9-C10				252061	20.0000	25.5
	8 Naphthalene	20.028	20.028	0.000	208523	20.0000	24.6
$	10 2,5-Dibromotoluene	21.779	21.779	0.000	347190	50.0000	58.7

Data File: /chem/gcv5b.i/2111104P.b/v5005.d

Page 1

Date : 04-NOV-2011 22:55

Client ID:

Instrument: gcv5b.i

Sample Info: VPH20/6/12/4

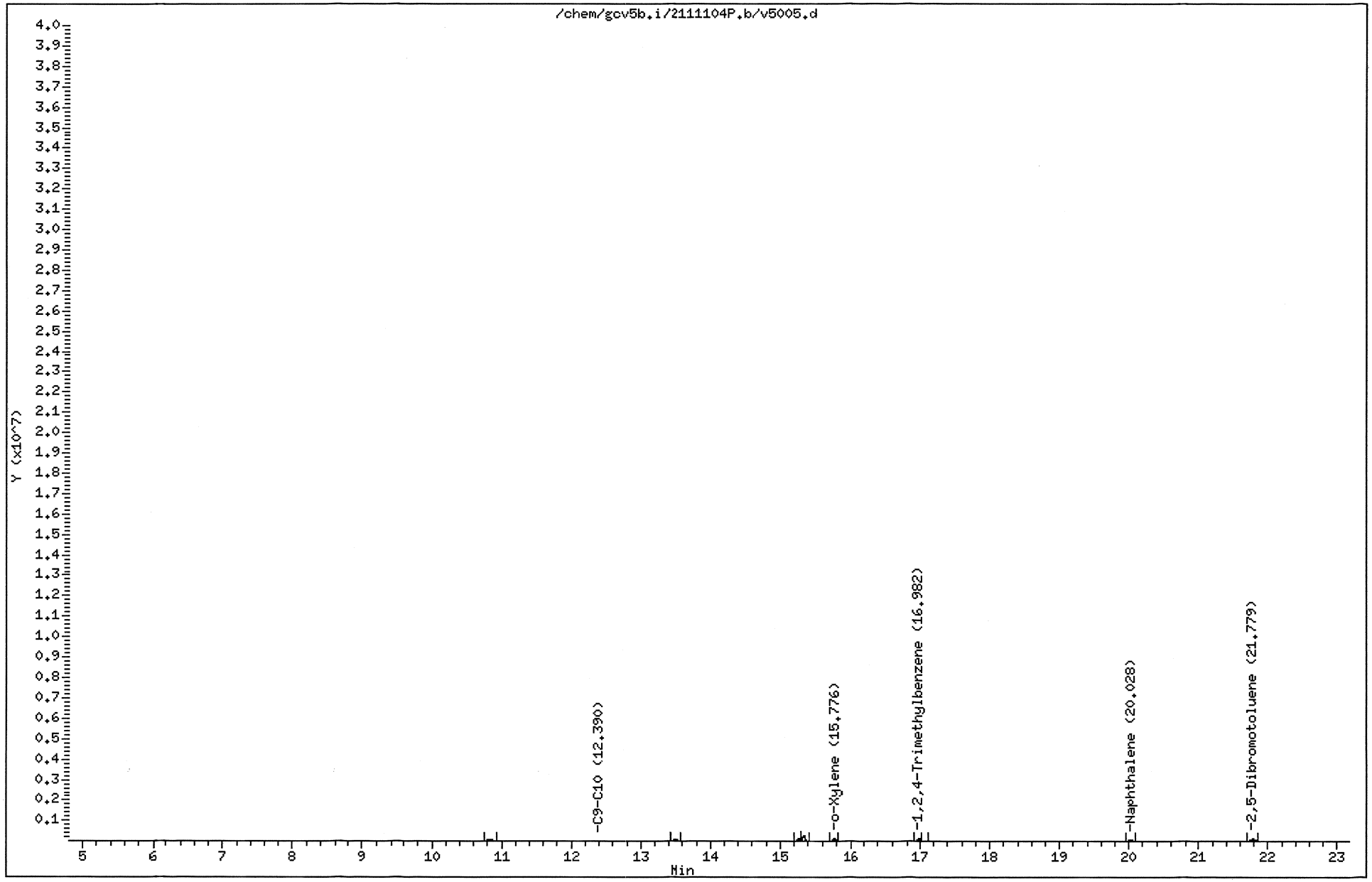
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

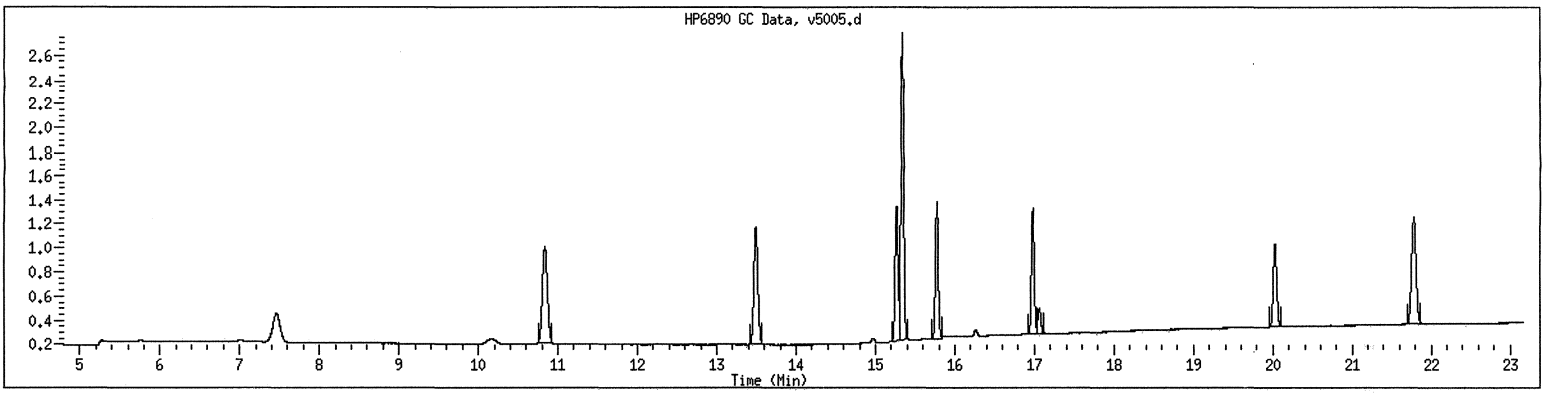
Column diameter: 0.53

21111025T 258



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.775	15.775	0.000	688621	50.0000	56.8
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	621749	50.0000	57.5
M	9 C9-C10				621749	50.0000	57.5
	8 Naphthalene	20.026	20.026	0.000	524320	50.0000	57.1
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	351593	50.0000	56.0

Data File: /chem/gcv5b.i/2111104P.b/v5007.d

Date : 04-NOV-2011 23:54

Client ID:

Sample Info: VPH50/6/12/4

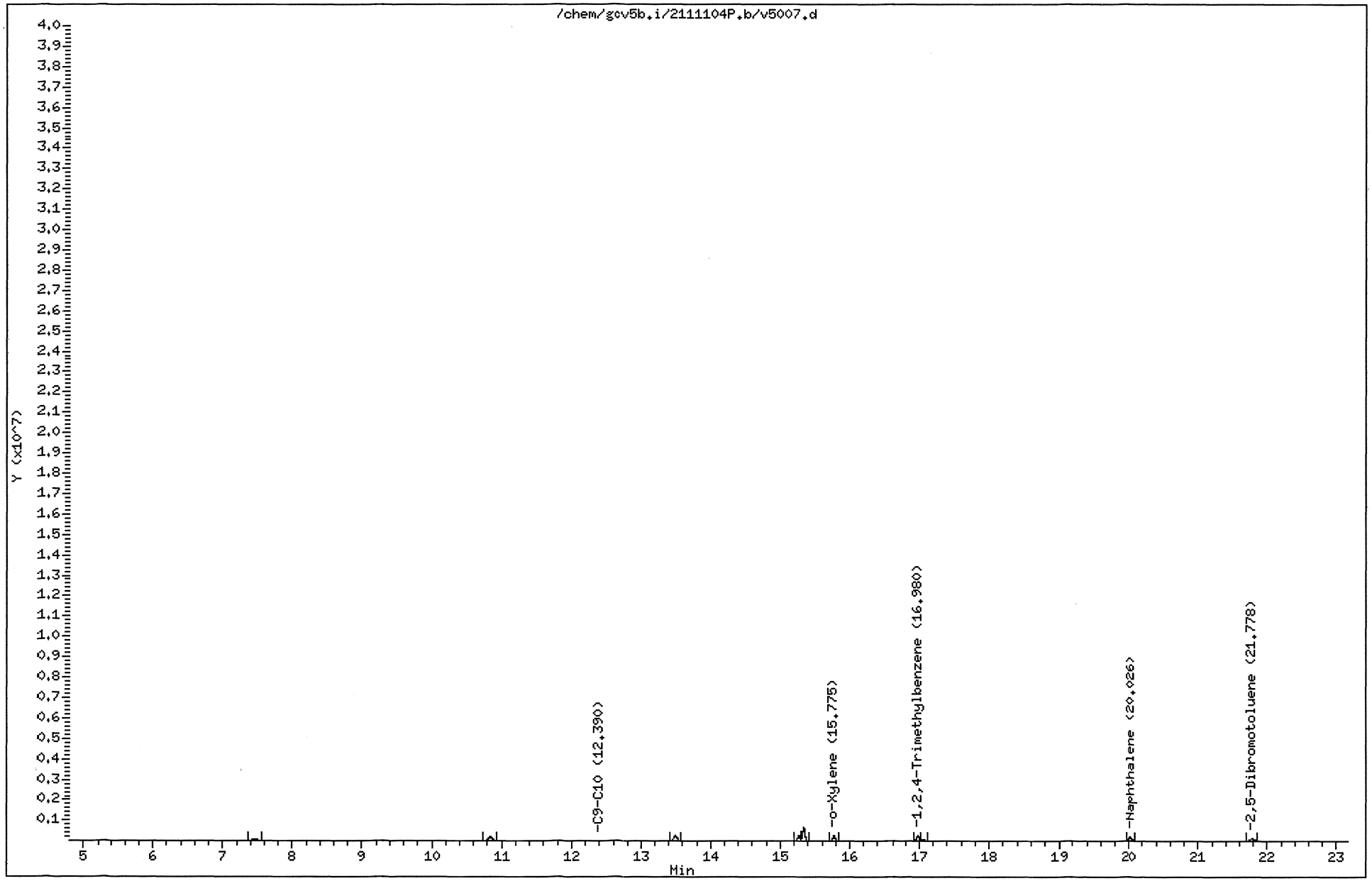
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5b.i

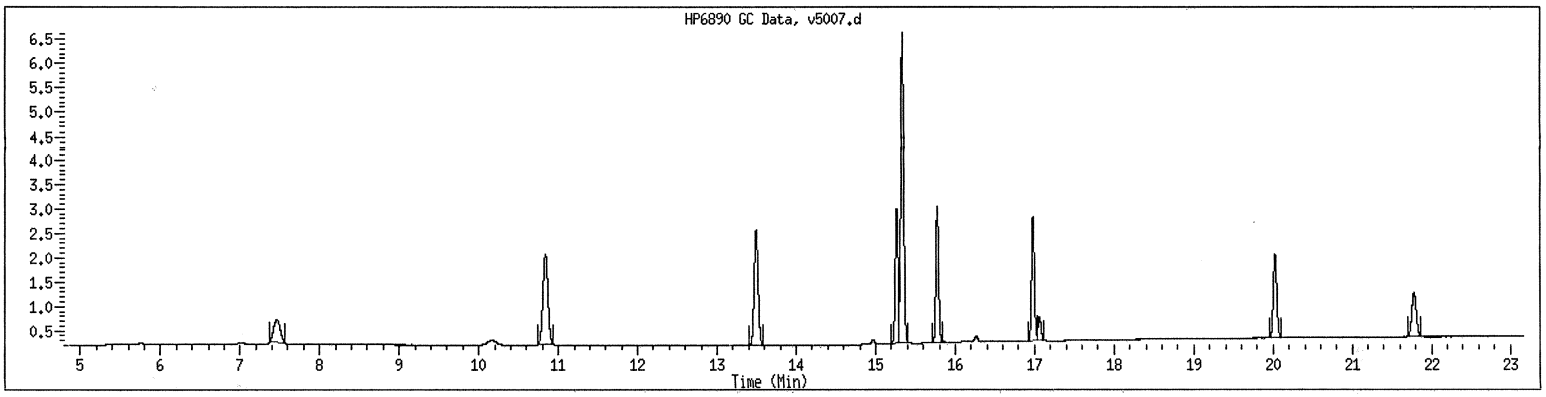
Operator: JAR

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

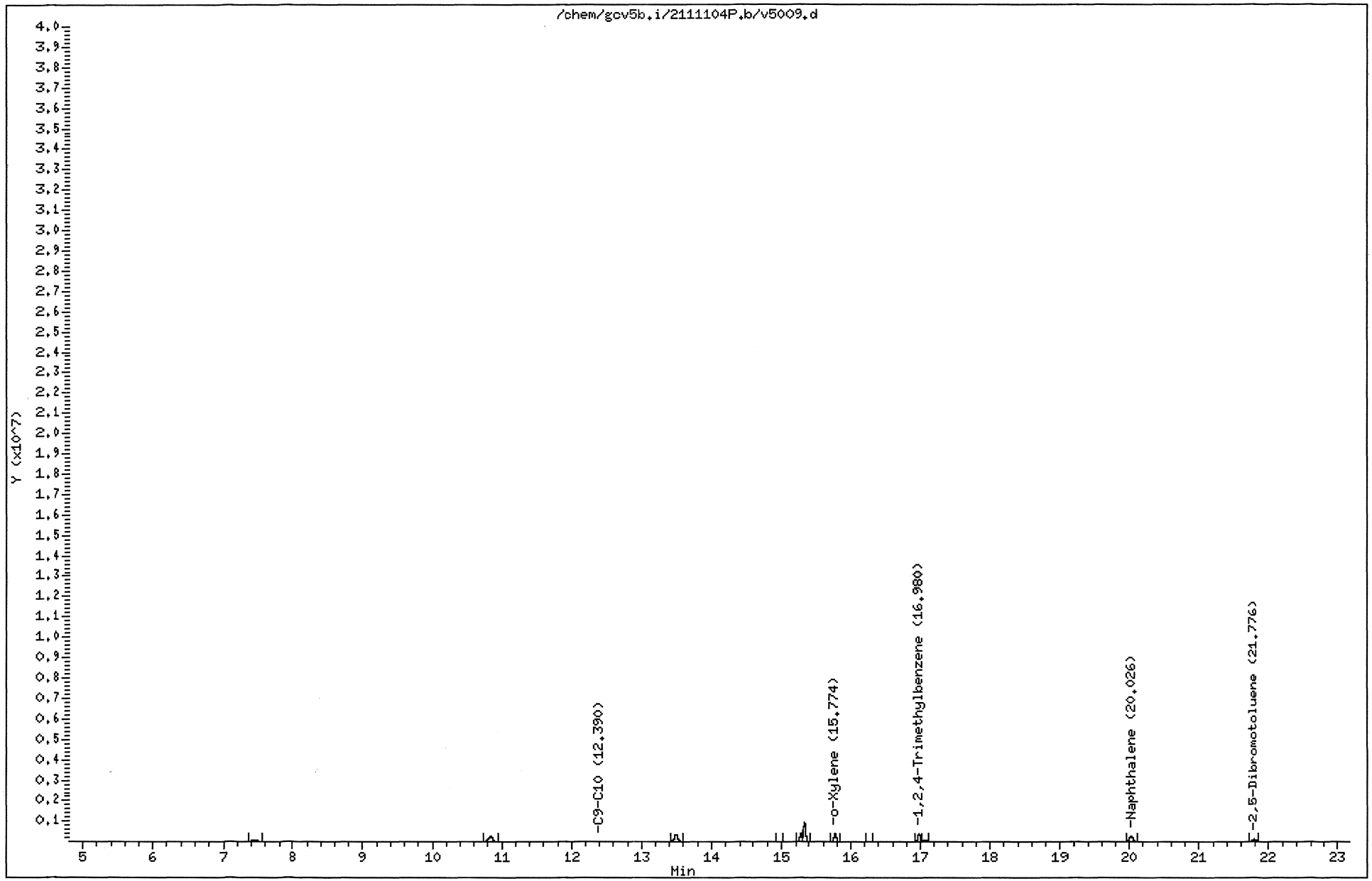
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.774	15.774	0.000	1007189	80.0000	78.2
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	914021	80.0000	79.8
M	9 C9-C10				914021	80.0000	79.8
	8 Naphthalene	20.026	20.026	0.000	787100	80.0000	81.3
$	10 2,5-Dibromotoluene	21.776	21.776	0.000	345440	50.0000	52.0

Data File: /chem/gcv5b.i/2111104P.b/v5009.d
Date : 05-NOV-2011 00:53
Client ID:
Sample Info: VPH80/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

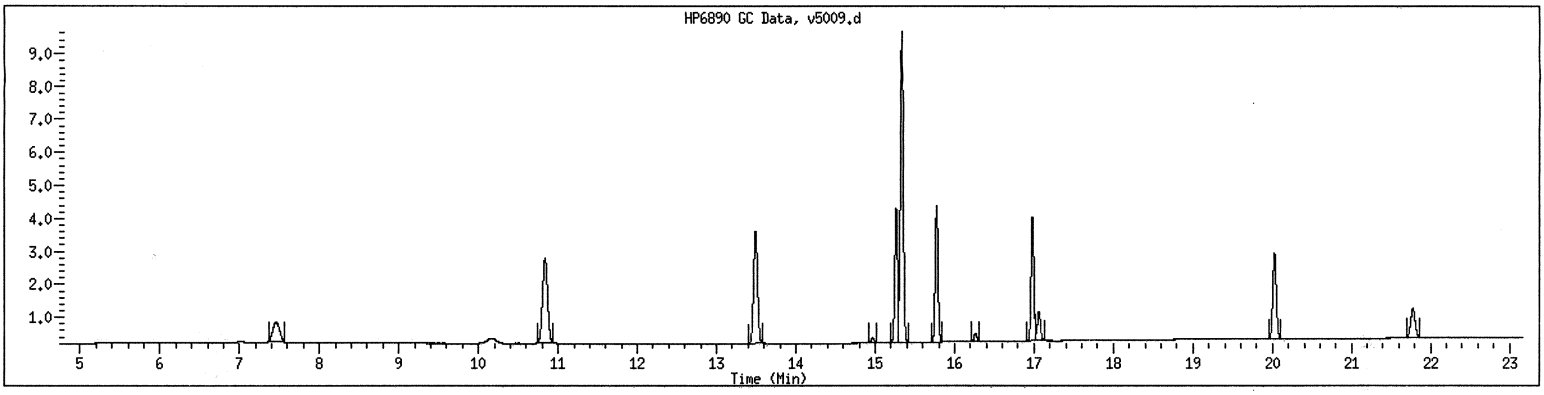
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

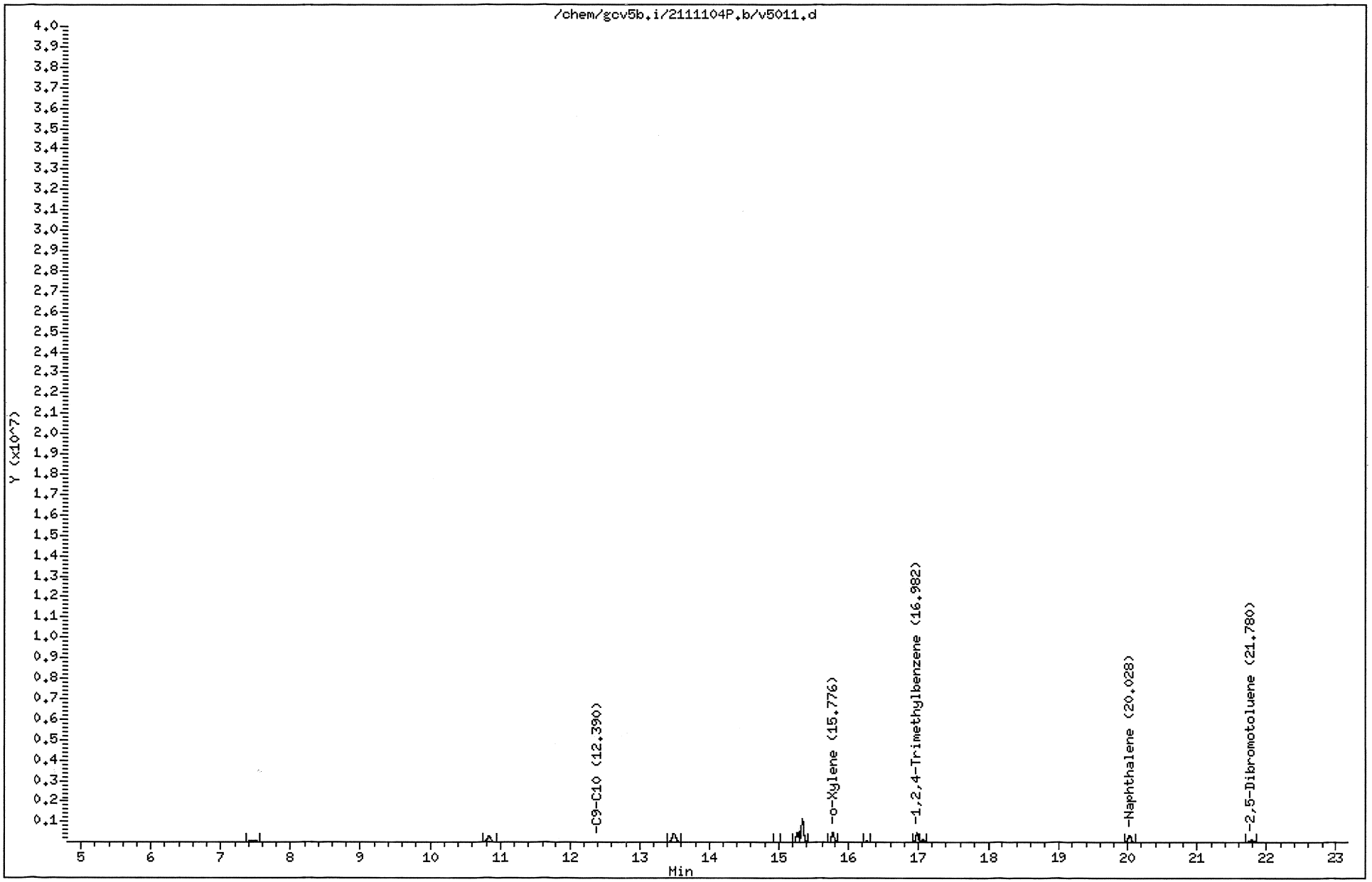
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6	o-Xylene	15.776	15.776	0.000	1208340	100.000	89.0
	7	1,2,4-Trimethylbenzene	16.982	16.982	0.000	1092238	100.000	90.8
M	9	C9-C10				1092238	100.000	90.8
	8	Naphthalene	20.028	20.028	0.000	991962	100.000	97.4
$	10	2,5-Dibromotoluene	21.780	21.780	0.000	344287	50.0000	49.2

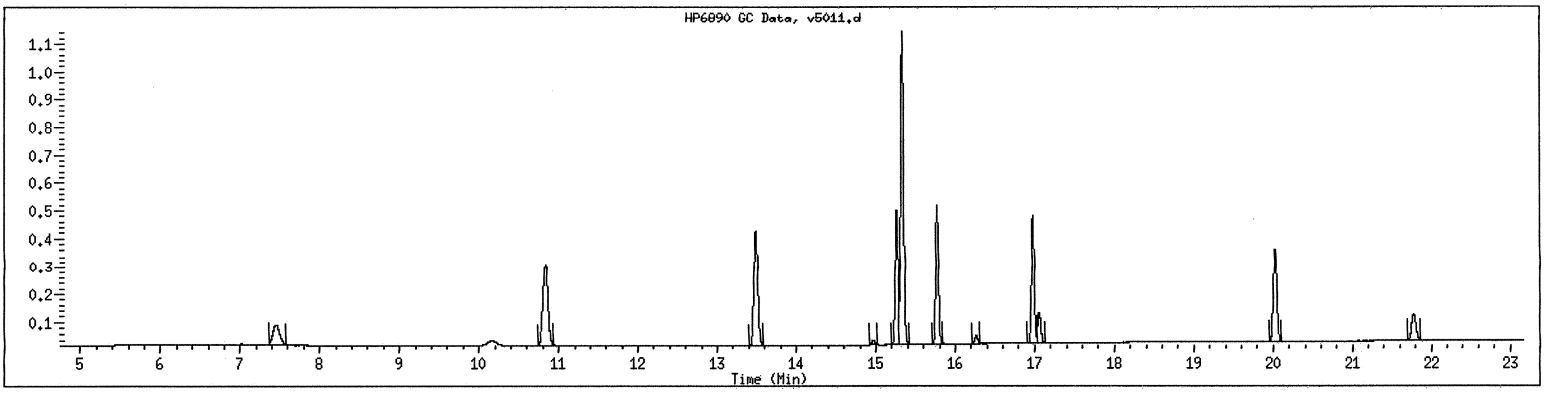
Data File: /chem/gcv5b.i/2111104P.b/v5011.d
Date : 05-NOV-2011 01:52
Client ID:
Sample Info: VPH100/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104P
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: MED Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aromatic1.spk Quant Type: ESTD
Sublist File: aromatic.sub
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	6 o-Xylene	50.0	51.2	102.42	70-130
	7 1,2,4-Trimethylbenzene	50.0	52.8	105.56	70-130
M	9 C9-C10	50.0	52.8	105.56	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	10 2,5-Dibromotoluene	50.0	51.3	102.55	60-140

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

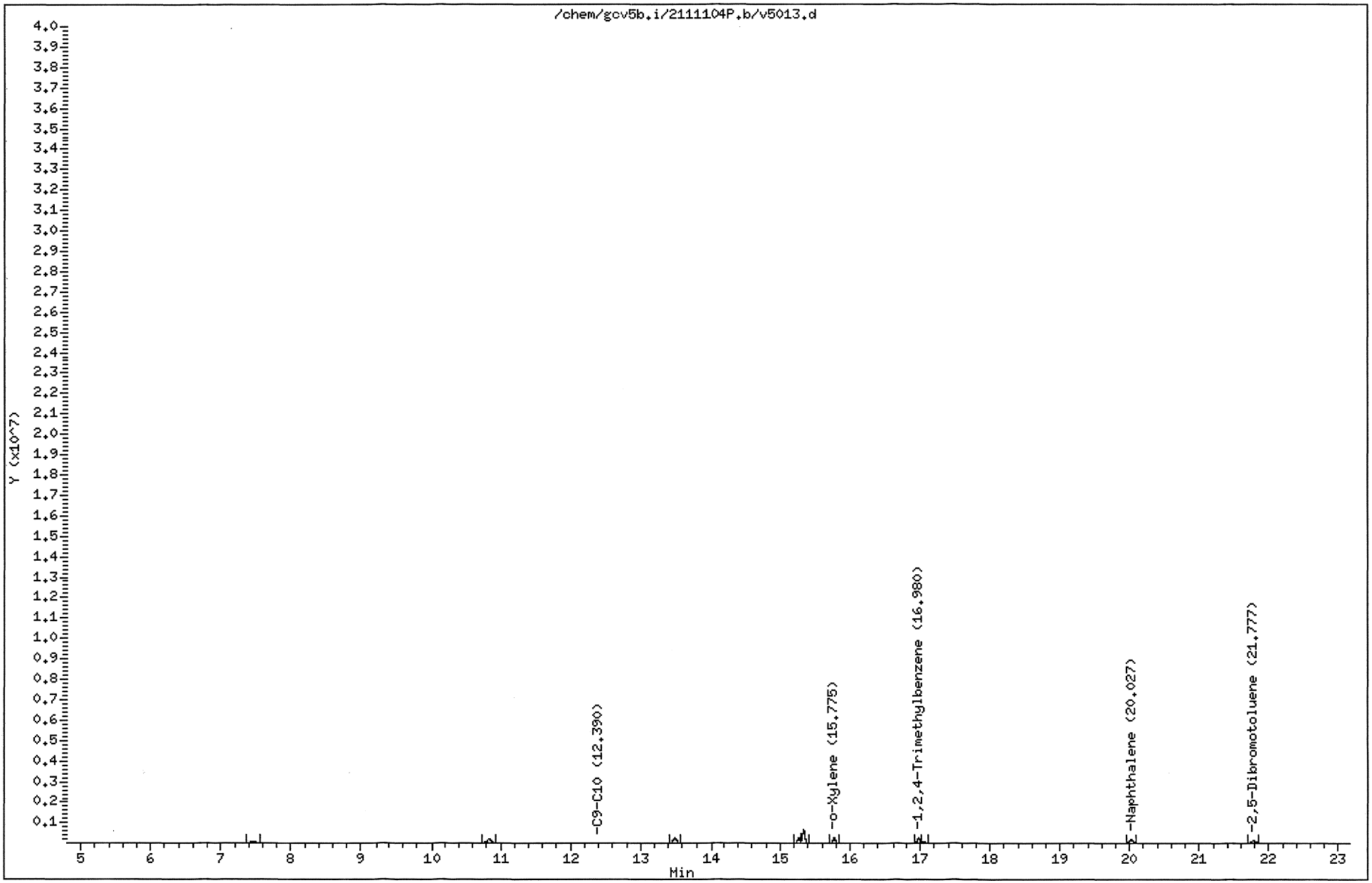
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	6 o-Xylene	15.775	15.776	-0.001	694928	51.2117	2560
	7 1,2,4-Trimethylbenzene	16.980	16.982	-0.002	634872	52.7787	2640
M	9 C9-C10				634872	52.7787	2640
	8 Naphthalene	20.027	20.028	-0.001	569432	55.9022	2800
$	10 2,5-Dibromotoluene	21.777	21.780	-0.003	358526	51.2761	2560

Data File: /chem/gcv5b.i/2111104P.b/v5013.d
Date : 05-NOV-2011 02:51
Client ID:
Sample Info: ICV6/12/5
Volume Injected (uL): 1.0
Column phase: DB-624-30

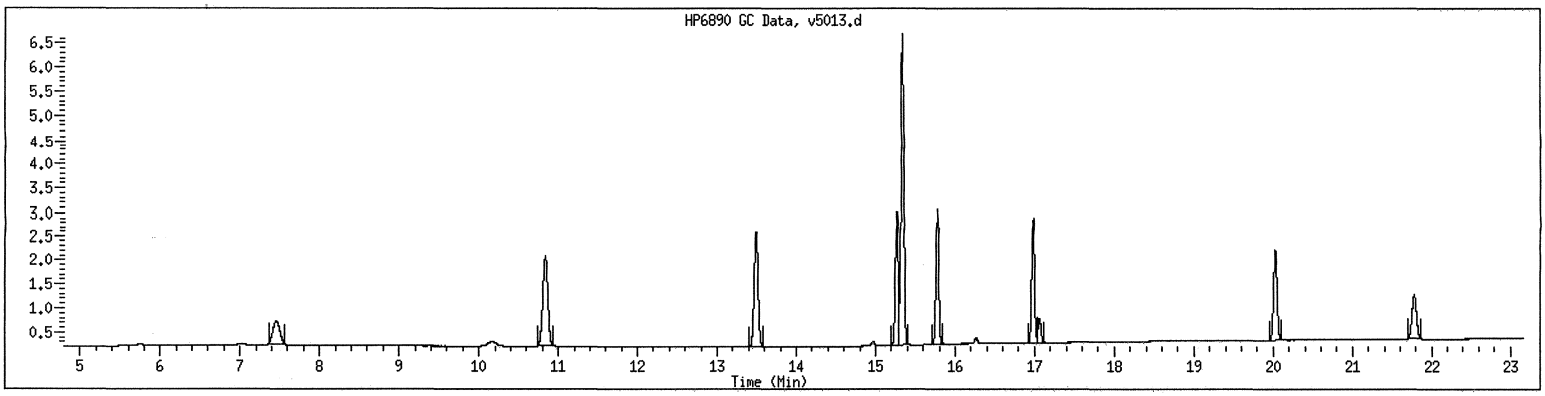
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Data file : /var/chem/gcv5b.i/2111104P.b/v5013.d
Report Date: 11/07/2011 10:25

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	14032	0.010	-3.40445	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12938	0.010	-7.55906	25.00000	Averaged
M 9 C9-C10	12029	12938	0.010	-7.55906	25.00000	Averaged
8 Naphthalene	10186	10852	0.010	-6.53786	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7243	0.010	-3.59117	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.73032
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:26 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.775	15.775	0.000	701584	50.0000	51.7
	7 1,2,4-Trimethylbenzene	16.981	16.981	0.000	646912	50.0000	53.8
M	9 C9-C10				646912	50.0000	53.8
	8 Naphthalene	20.027	20.027	0.000	542610	50.0000	53.3
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	362158	50.0000	51.8

Data File: /chem/gcv5b.i/2111107.b/v5001.d

Page 1

Date : 07-NOV-2011 11:22

Client ID:

Instrument: gcv5b.i

Sample Info: VPH6/12/4

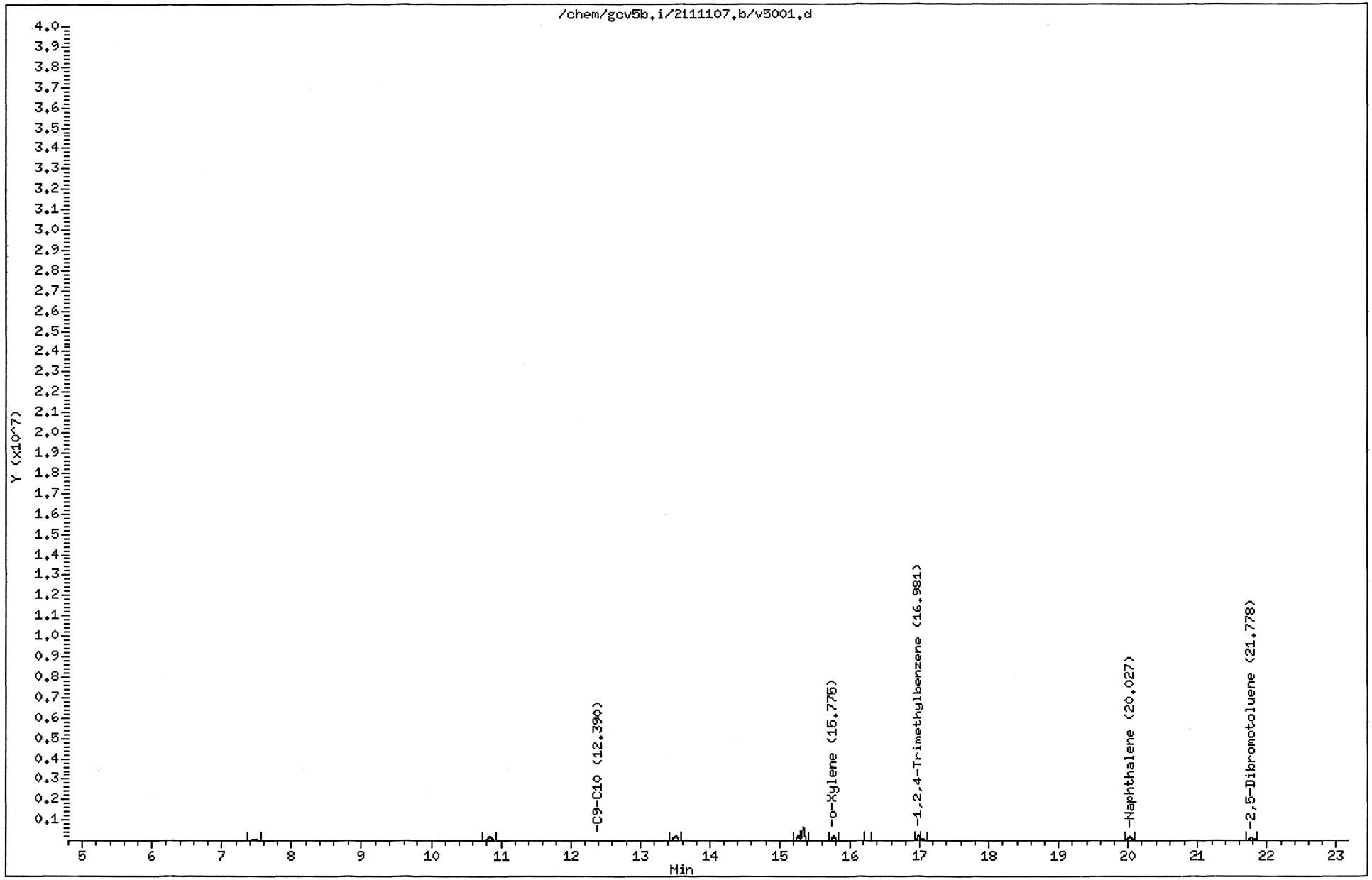
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

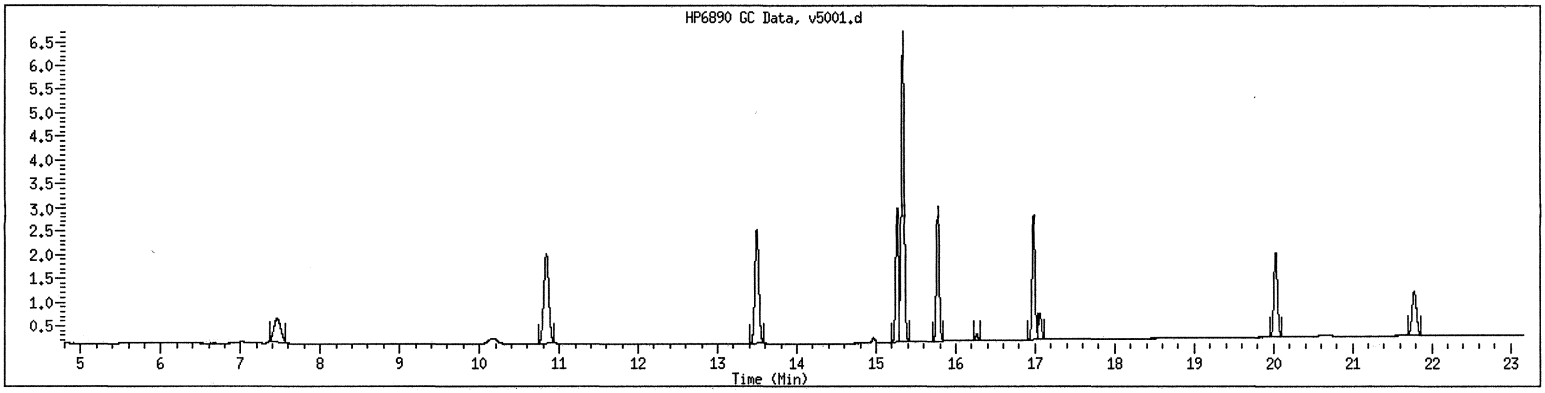
Column diameter: 0.53

2111110257 275



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13412	0.010	1.16027	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	13121	0.010	-9.07507	25.00000	Averaged
M 9 C9-C10	12029	13121	0.010	-9.07507	25.00000	Averaged
8 Naphthalene	10186	10461	0.010	-2.69817	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7139	0.010	-2.10262	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.82224
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

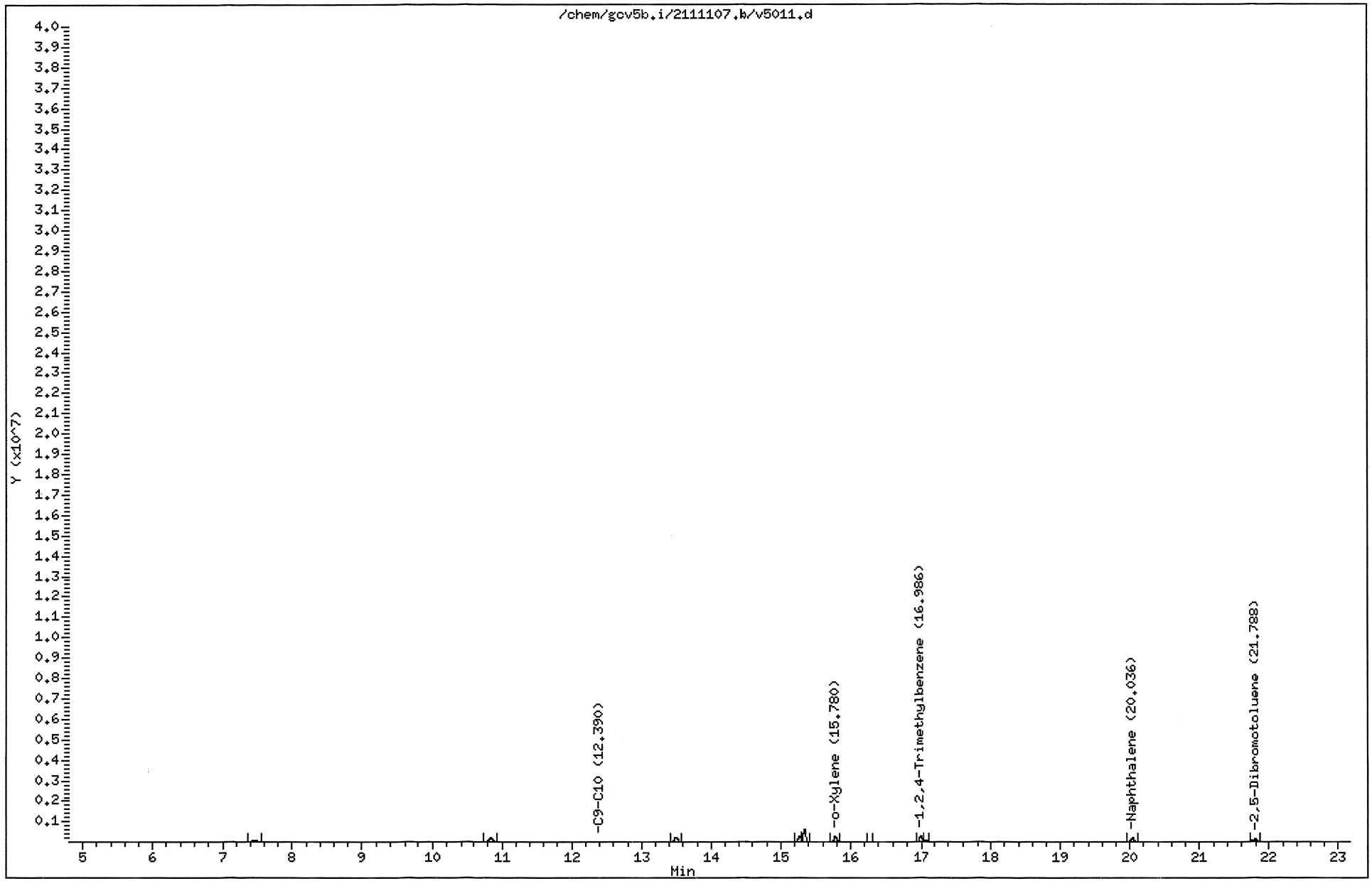
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.780	15.780	0.000	670613	50.0000	49.4
	7 1,2,4-Trimethylbenzene	16.986	16.986	0.000	656030	50.0000	54.5
M	9 C9-C10				656030	50.0000	54.5
	8 Naphthalene	20.036	20.036	0.000	523054	50.0000	51.3
$	10 2,5-Dibromotoluene	21.788	21.788	0.000	356954	50.0000	51.0

Data File: /chem/gcv5b.i/2111107.b/v5011.d
Date : 07-NOV-2011 16:16
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

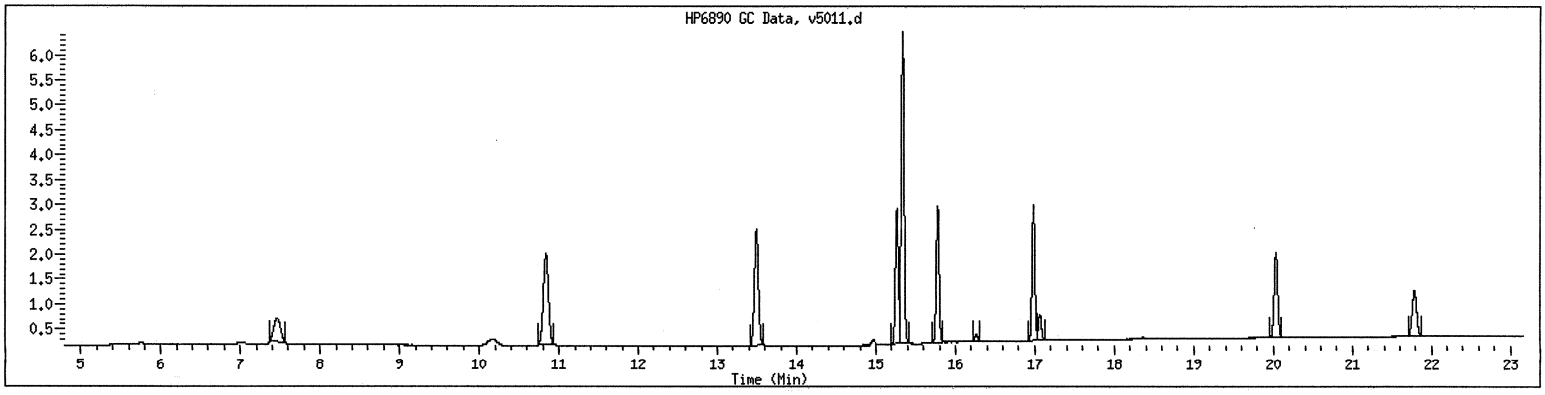
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Data file : /var/chem/gcv5b.i/2111107.b/v5011.d
Report Date: 11/08/2011 13:32

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13889	0.010	-2.35270	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12645	0.010	-5.11962	25.00000	Averaged
M 9 C9-C10	12029	12645	0.010	-5.11962	25.00000	Averaged
8 Naphthalene	10186	11058	0.010	-8.56157	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7984	0.010	-14.18718	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.06814
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.777	15.777	0.000	694448	50.0000	51.2
	7 1,2,4-Trimethylbenzene	16.983	16.983	0.000	632240	50.0000	52.6
M	9 C9-C10				632240	50.0000	52.6
	8 Naphthalene	20.029	20.029	0.000	552917	50.0000	54.3
$	10 2,5-Dibromotoluene	21.781	21.781	0.000	399202	50.0000	57.1

Data File: /chem/gcv5b.i/2111107.b/v5021.d

Date : 07-NOV-2011 23:22

Client ID:

Sample Info: VPH6/12/4

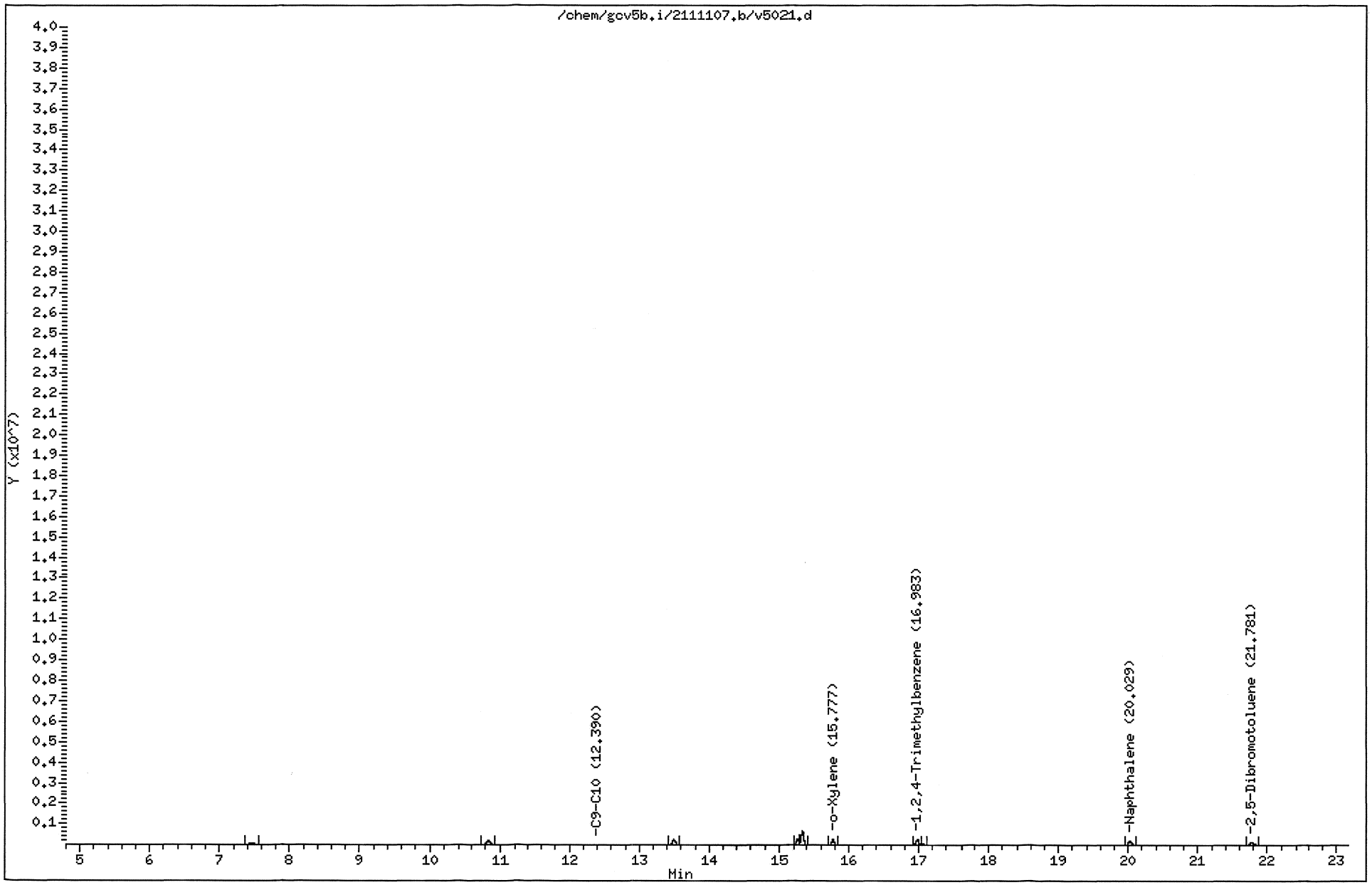
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5b.i

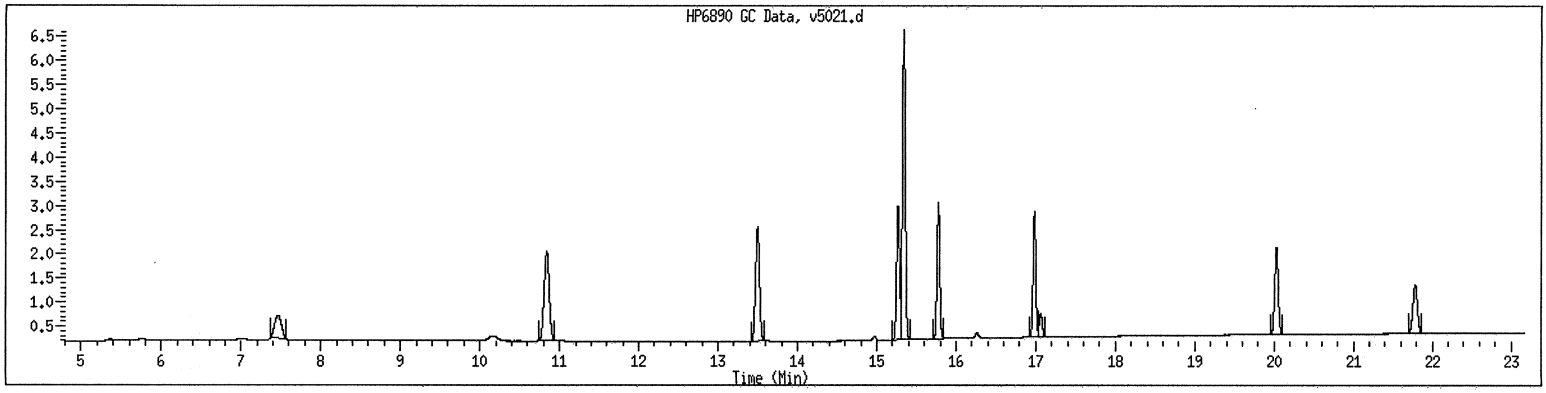
Operator: JAR

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-NOV-2011 20:57
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Cal Date : 17-Nov-2011 15:51 bmr
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5a.i/2111104p.b/v5003.d
Level 2: /var/chem/gcv5a.i/2111104p.b/v5005.d
Level 3: /var/chem/gcv5a.i/2111104p.b/v5007.d
Level 4: /var/chem/gcv5a.i/2111104p.b/v5009.d
Level 5: /var/chem/gcv5a.i/2111104p.b/v5011.d
Level 6: /var/chem/gcv5a.i/2111104p.b/v5001.d

	Compound	10.000 Level 1	20.000 Level 2	50.000 Level 3	80.000 Level 4	100.000 Level 5	5.000 Level 6	___ RRF	% RSD
	1 n-Pentane	10671	10211	8851	7571	6259	10437	9000	19.814
M	2 C5-C8	10727	11023	9557	8858	7420	11346	9822	15.343
	3 2-Methyl Pentane	10850	12110	10178	9578	7894	12016	10438	15.288
	4 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	5 C9-C12	5516	5527	5414	6329	6009	3831	5437	15.859
	6 Isooctane	10661	10749	9640	9426	8105	11583	10027	12.254
	7 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	8 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	9 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	10 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	11 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	12 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 n-Decane	5176	5085	5107	6409	6110	5443	5555	10.232
	14 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	15 n-Butylcyclohexane	5856	5968	5721	6249	5908	6049	5958	3.021
	16 Naphthalene	9352	9011	8945	8433	8525	+++++	8853	4.247
$	17 2,5-Dibromotoluene	3190	3009	3100	2787	2825	3028	2990	5.238

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-NOV-2011 20:57
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Cal Date : 17-Nov-2011 15:51 bmr
Curve Type : Average

Average %RSD Results.
Calculated Average %RSD = 11.25516
Maximun Average %RSD = 25.00000
* Passed Average %RSD Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M 2 C5-C8				170184	15.0000	16.3
1 n-Pentane	5.268	5.268	0.000	52185	5.00000	5.4(M1)
3 2-Methyl Pentane	6.485	6.485	0.000	60082	5.00000	5.4(M1)
6 Isooctane	9.561	9.561	0.000	57917	5.00000	5.4(M1)
13 n-Decane	15.962	15.962	0.000	27213	5.00000	5.2(M1)
15 n-Butylcyclohexane	16.745	16.745	0.000	30246	5.00000	5.1(M1)
16 Naphthalene	19.622	19.622	0.000	47160	5.00000	5.3(M1)
M 5 C9-C12				57459	15.0000	10.3
$ 17 2,5-Dibromotoluene	21.297	21.297	0.000	151381	50.0000	49.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5001.d

Date : 04-NOV-2011 20:57

Client ID:

Sample Info: VPH05/6/12/4

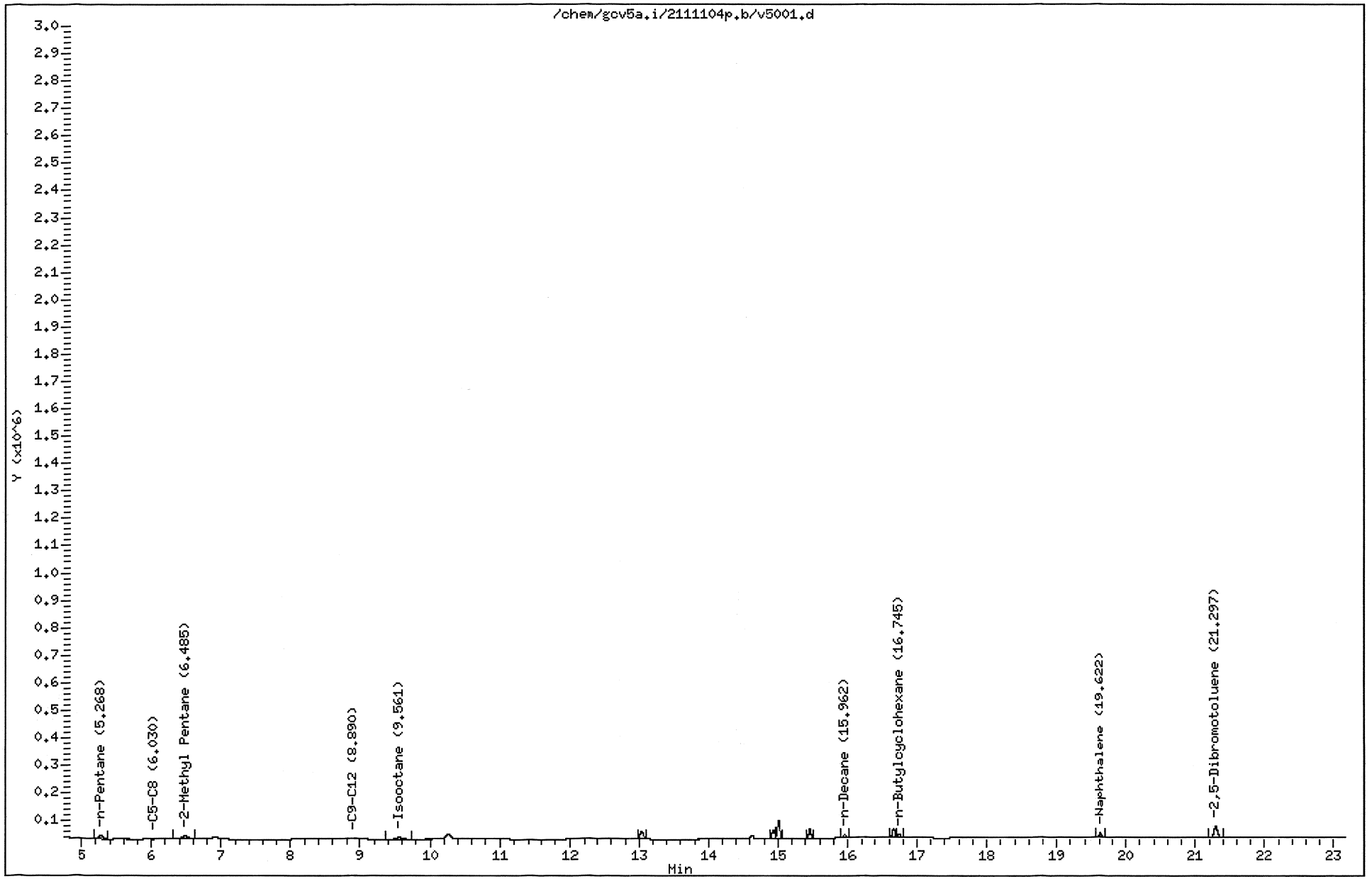
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

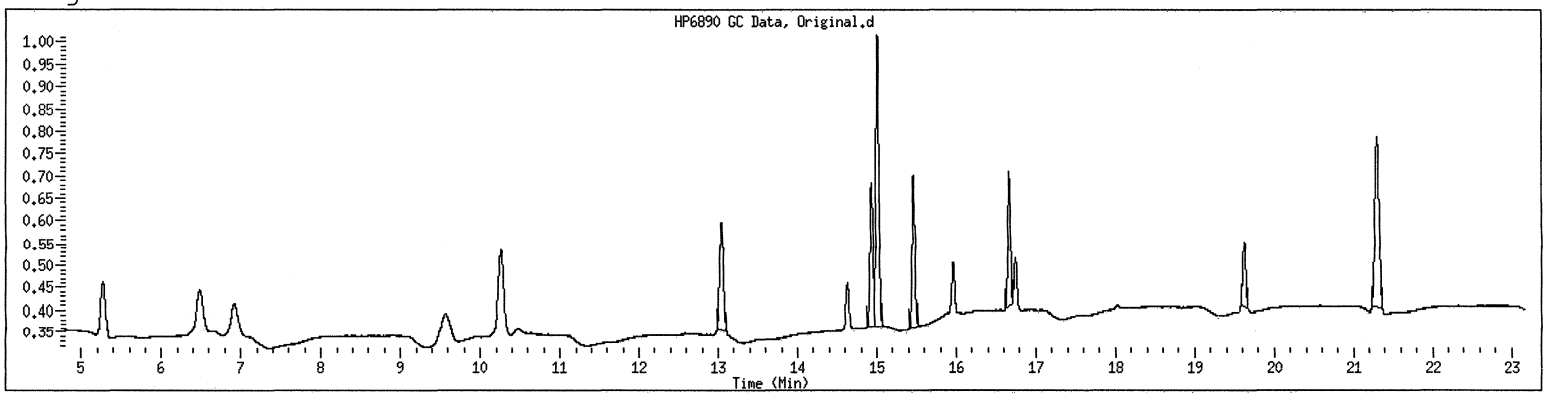
Column diameter: 0.53



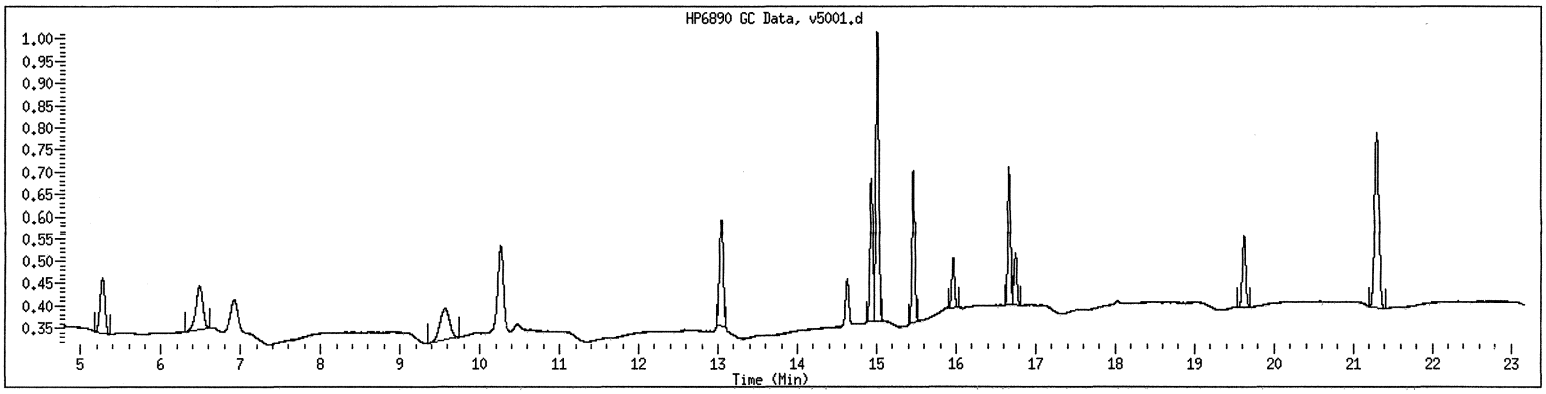
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				321816	30.0000	30.6
	1	n-Pentane	5.269	5.269	0.000	106713	10.0000	10.7(M1)
	3	2-Methyl Pentane	6.483	6.483	0.000	108495	10.0000	9.8(M1)
	6	Isooctane	9.565	9.565	0.000	106608	10.0000	10.0(M1)
	13	n-Decane	15.960	15.960	0.000	51759	10.0000	9.9(M1)
	15	n-Butylcyclohexane	16.743	16.743	0.000	58555	10.0000	10(M1)
	16	Naphthalene	19.618	19.618	0.000	93516	10.0000	10.2(M1)
M	5	C9-C12				110314	20.0000	19.8
$	17	2,5-Dibromotoluene	21.292	21.292	0.000	159522	50.0000	51.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5003.d

Page 1

Date : 04-NOV-2011 21:56

Client ID:

Instrument: gcv5a.i

Sample Info: VPH10/6/12/4

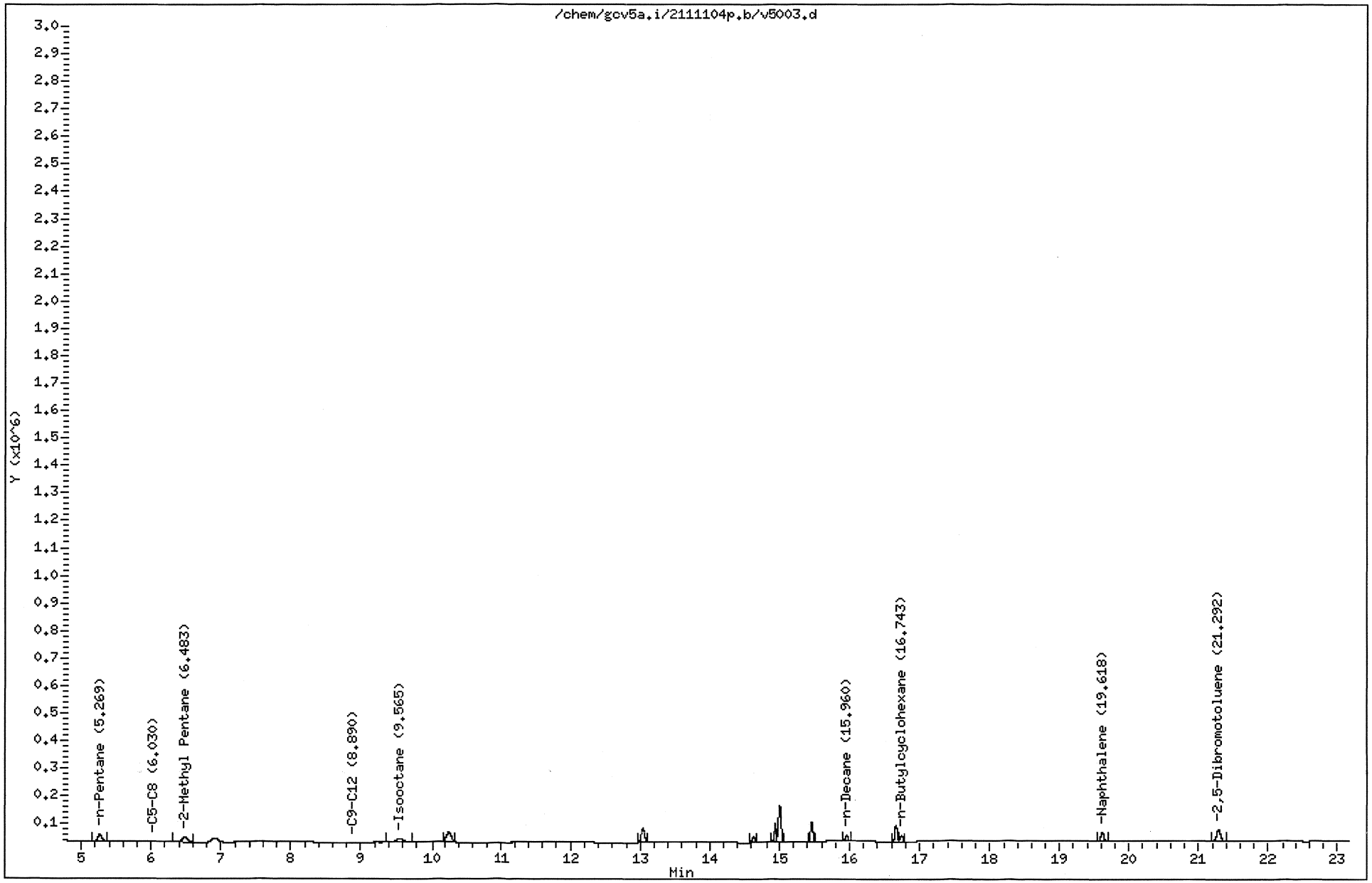
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

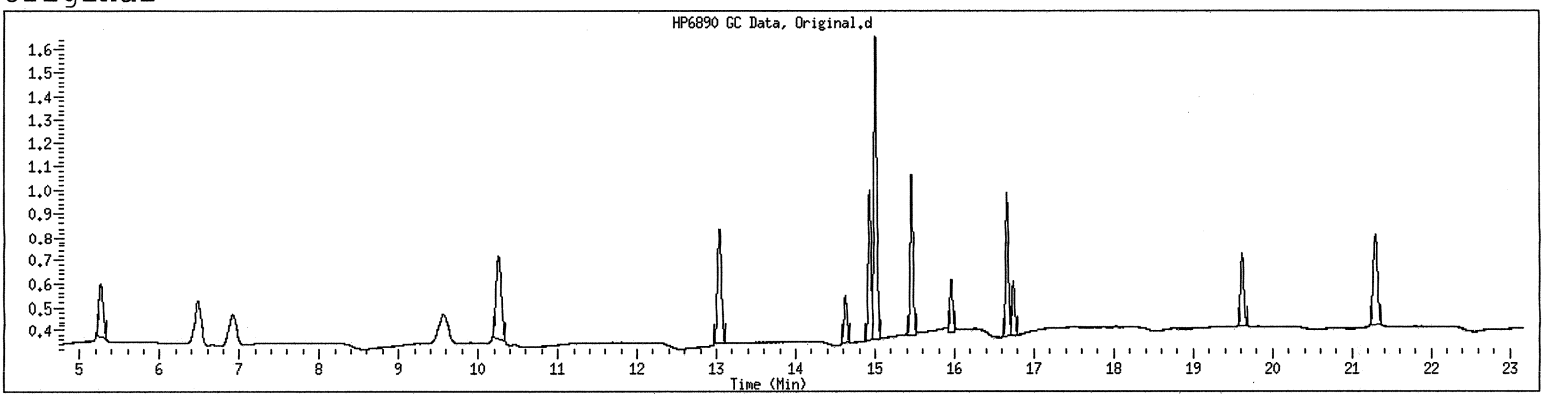
211110257 293



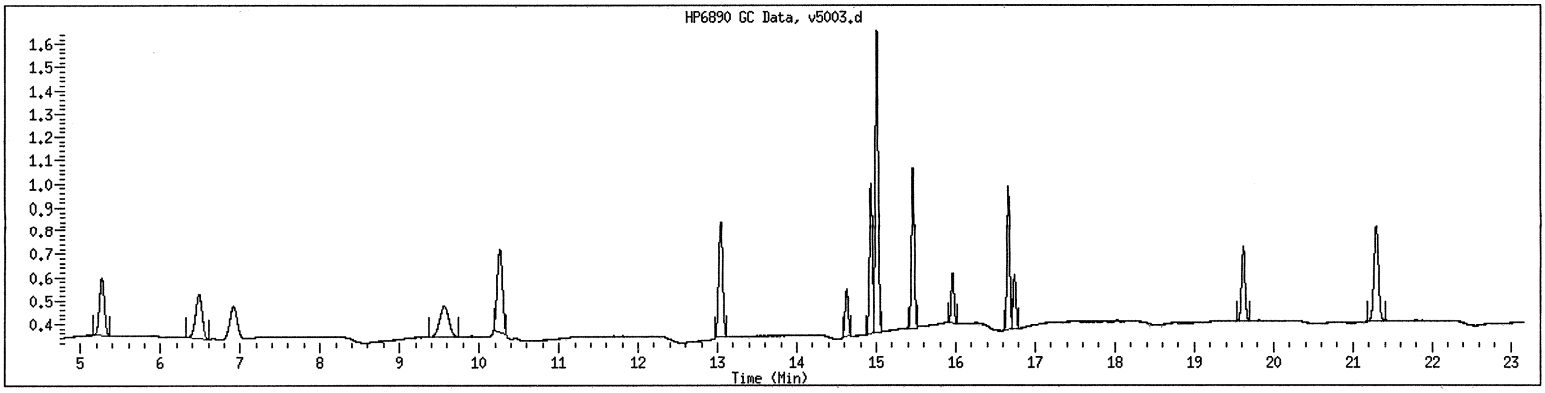
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				661397	60.0000	62.0
	1 n-Pentane	5.267	5.267	0.000	204224	20.0000	20.3(M1)
	3 2-Methyl Pentane	6.482	6.482	0.000	242197	20.0000	21.4(M1)
	6 Isooctane	9.563	9.563	0.000	214976	20.0000	20.2(M1)
	13 n-Decane	15.959	15.959	0.000	101700	20.0000	19.5(M1)
	15 n-Butylcyclohexane	16.742	16.742	0.000	119364	20.0000	20.2(M1)
	16 Naphthalene	19.617	19.617	0.000	180224	20.0000	19.8(M1)
M	5 C9-C12				221064	40.0000	39.8
$	17 2,5-Dibromotoluene	21.291	21.291	0.000	150438	50.0000	48.8(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5005.d

Page 1

Date : 04-NOV-2011 22:55

Client ID:

Instrument: gcv5a.i

Sample Info: VPH20/6/12/4

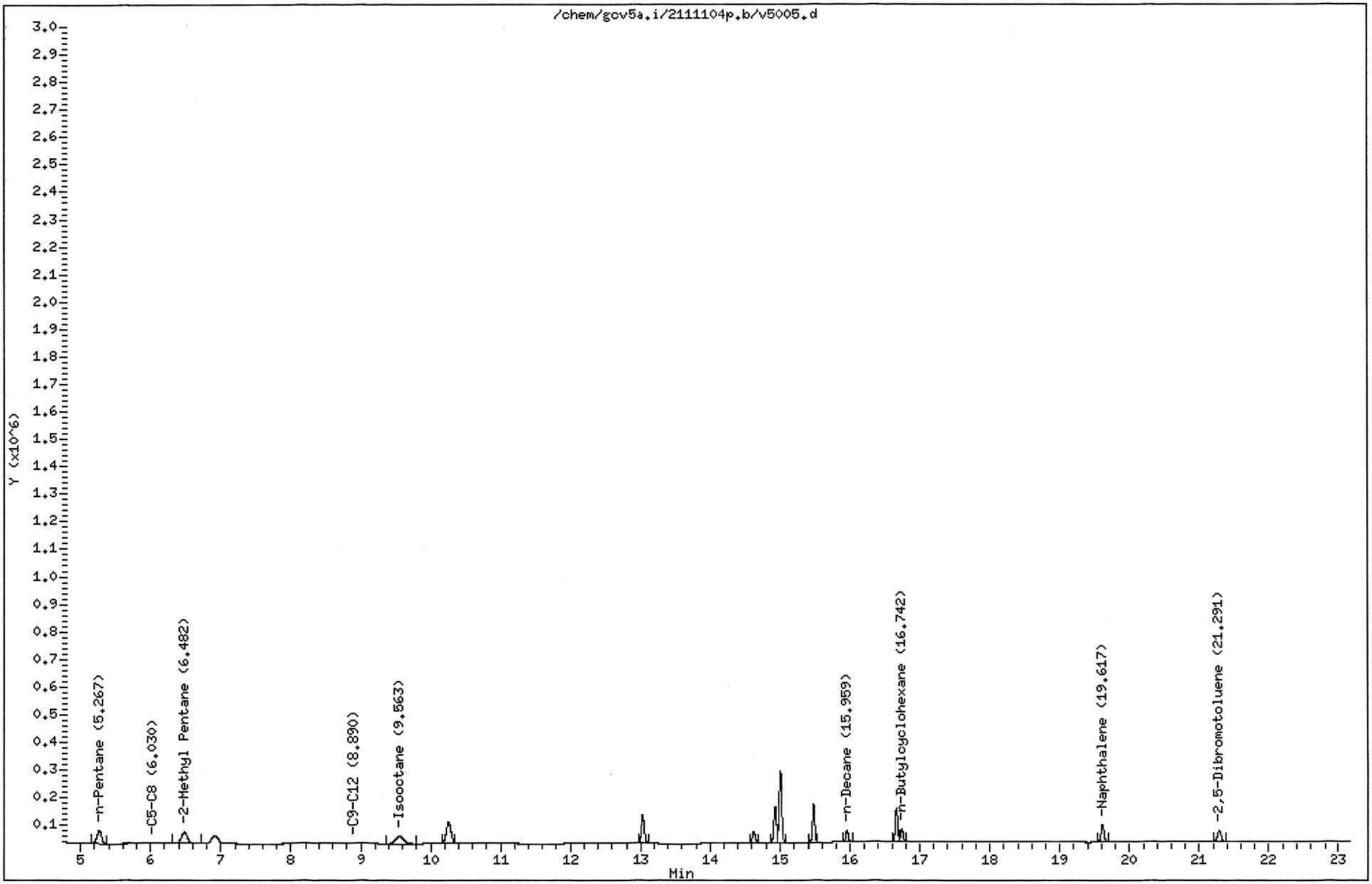
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

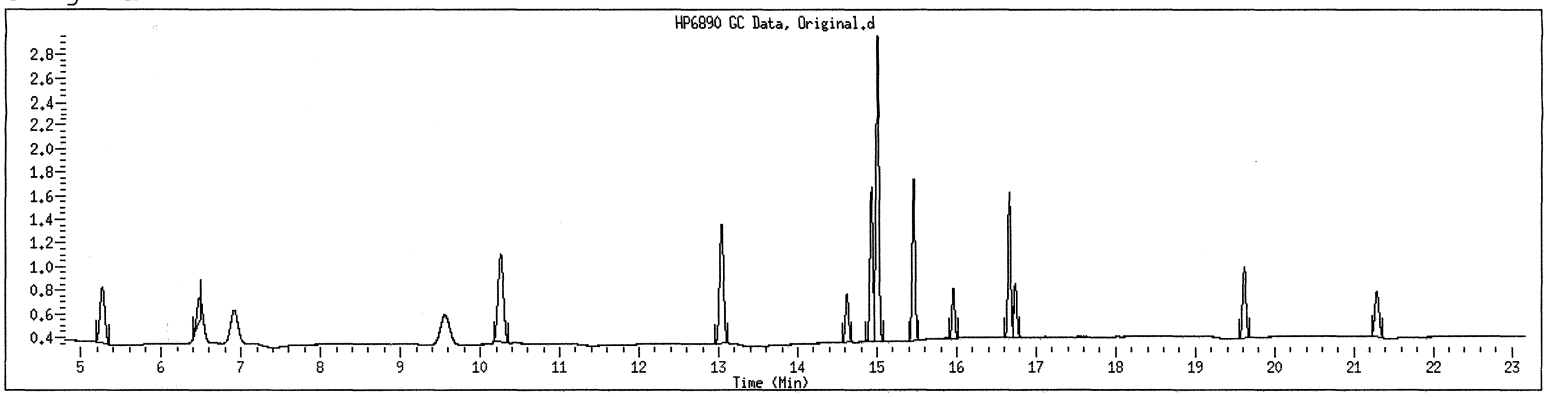
21111025I 297



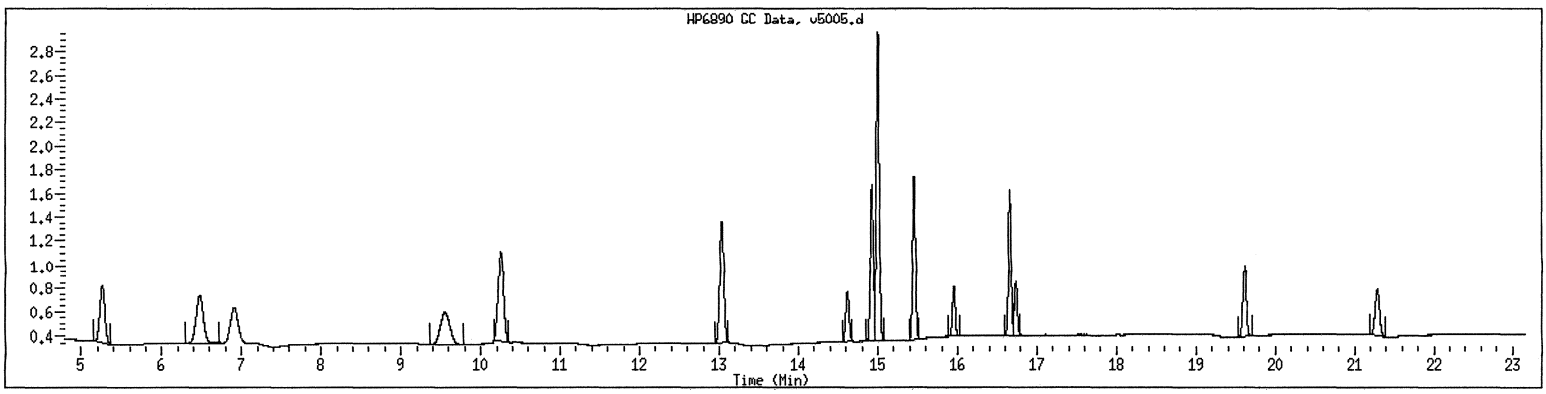
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				1433487	150.000	150
	1	n-Pentane	5.265	5.265	0.000	442559	50.0000	50.0 (M1)
	3	2-Methyl Pentane	6.481	6.481	0.000	508906	50.0000	50.0 (M1)
	6	Isooctane	9.561	9.561	0.000	482022	50.0000	50.0 (M1)
	13	n-Decane	15.959	15.959	0.000	255356	50.0000	50.0
	15	n-Butylcyclohexane	16.741	16.741	0.000	286054	50.0000	50.0 (M1)
	16	Naphthalene	19.615	19.615	0.000	447259	50.0000	50.0
M	5	C9-C12				541410	100.000	100
$	17	2,5-Dibromotoluene	21.289	21.289	0.000	154983	50.0000	50.0 (M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5007.d

Date : 04-NOV-2011 23:54

Client ID:

Sample Info: VPH50/6/12/4

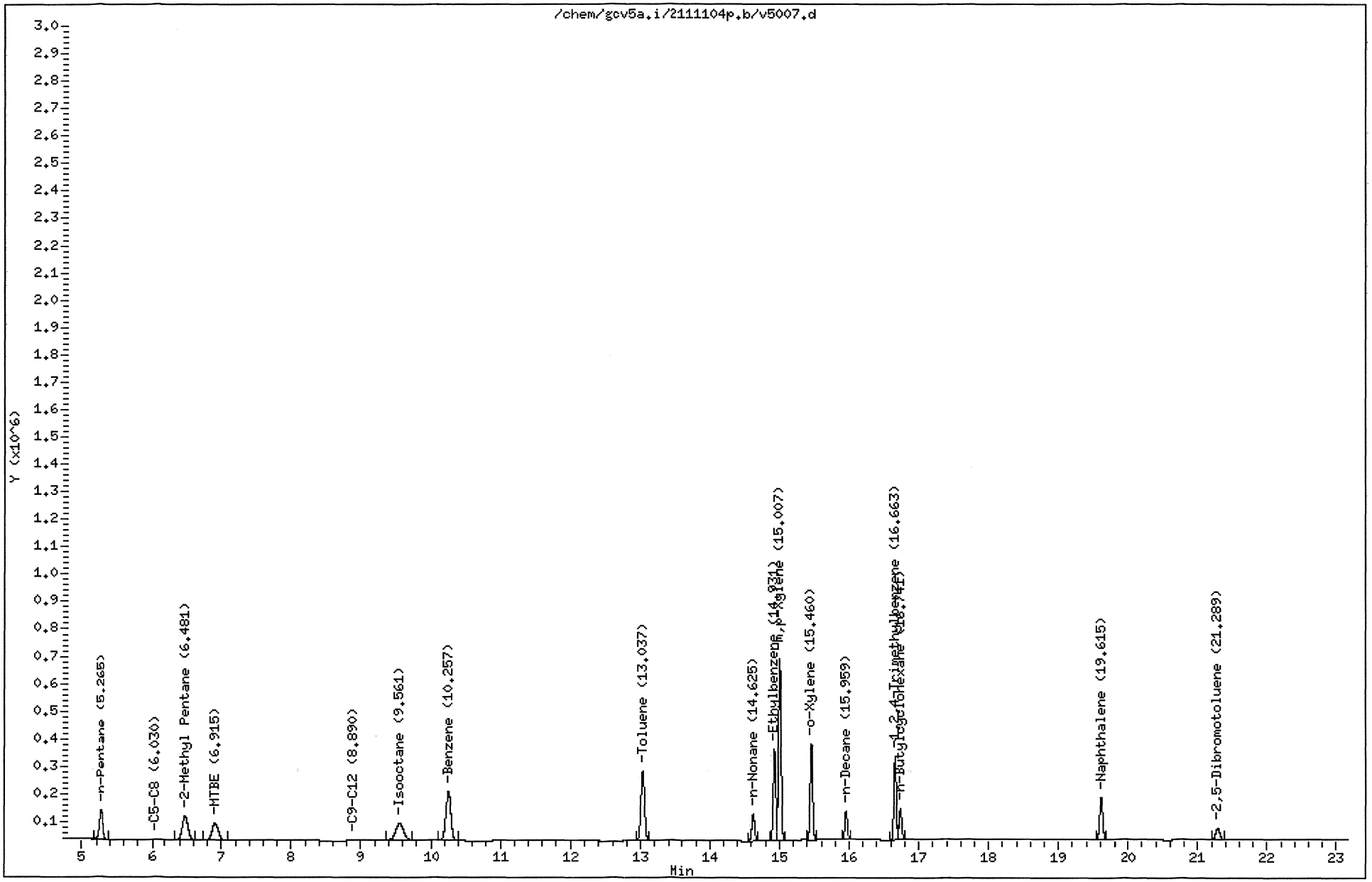
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

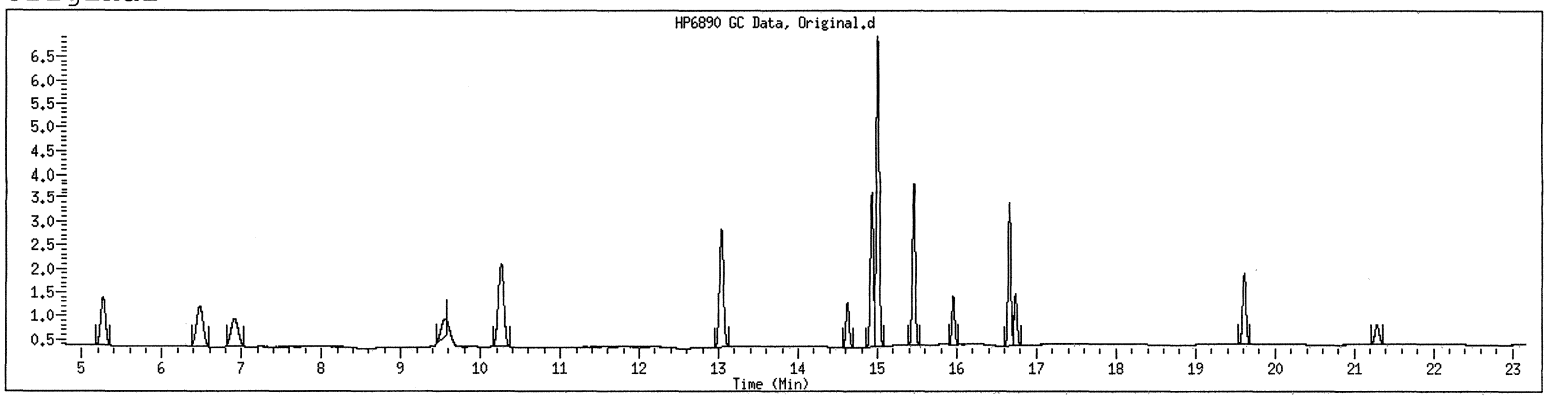
Column diameter: 0.53



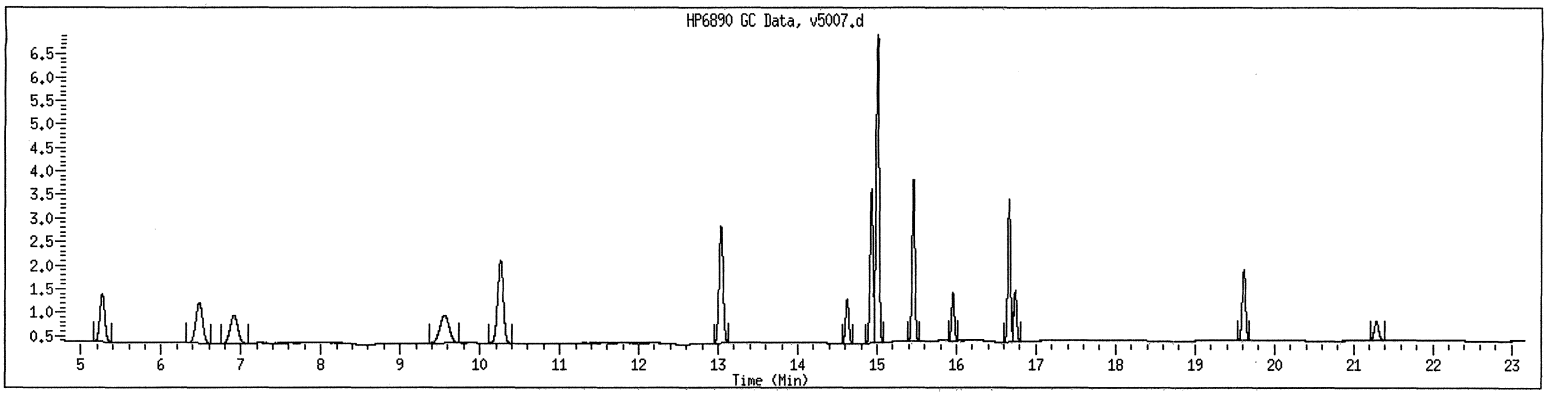
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2 C5-C8				2126034	240.000	206
	1 n-Pentane	5.264	5.264	0.000	605714	80.0000	63.4
	3 2-Methyl Pentane	6.481	6.481	0.000	766261	80.0000	70.0(M1)
	6 Isooctane	9.559	9.559	0.000	754059	80.0000	72.4(M1)
	13 n-Decane	15.958	15.958	0.000	512745	80.0000	94.2
	15 n-Butylcyclohexane	16.740	16.740	0.000	499891	80.0000	83.8(M1)
	16 Naphthalene	19.614	19.614	0.000	674677	80.0000	75.5
M	5 C9-C12				1012636	160.000	178
$	17 2,5-Dibromotoluene	21.288	21.288	0.000	139338	50.0000	46.1

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5009.d

Page 1

Date : 05-NOV-2011 00:53

Client ID:

Instrument: gcv5a.i

Sample Info: VPH80/6/12/4

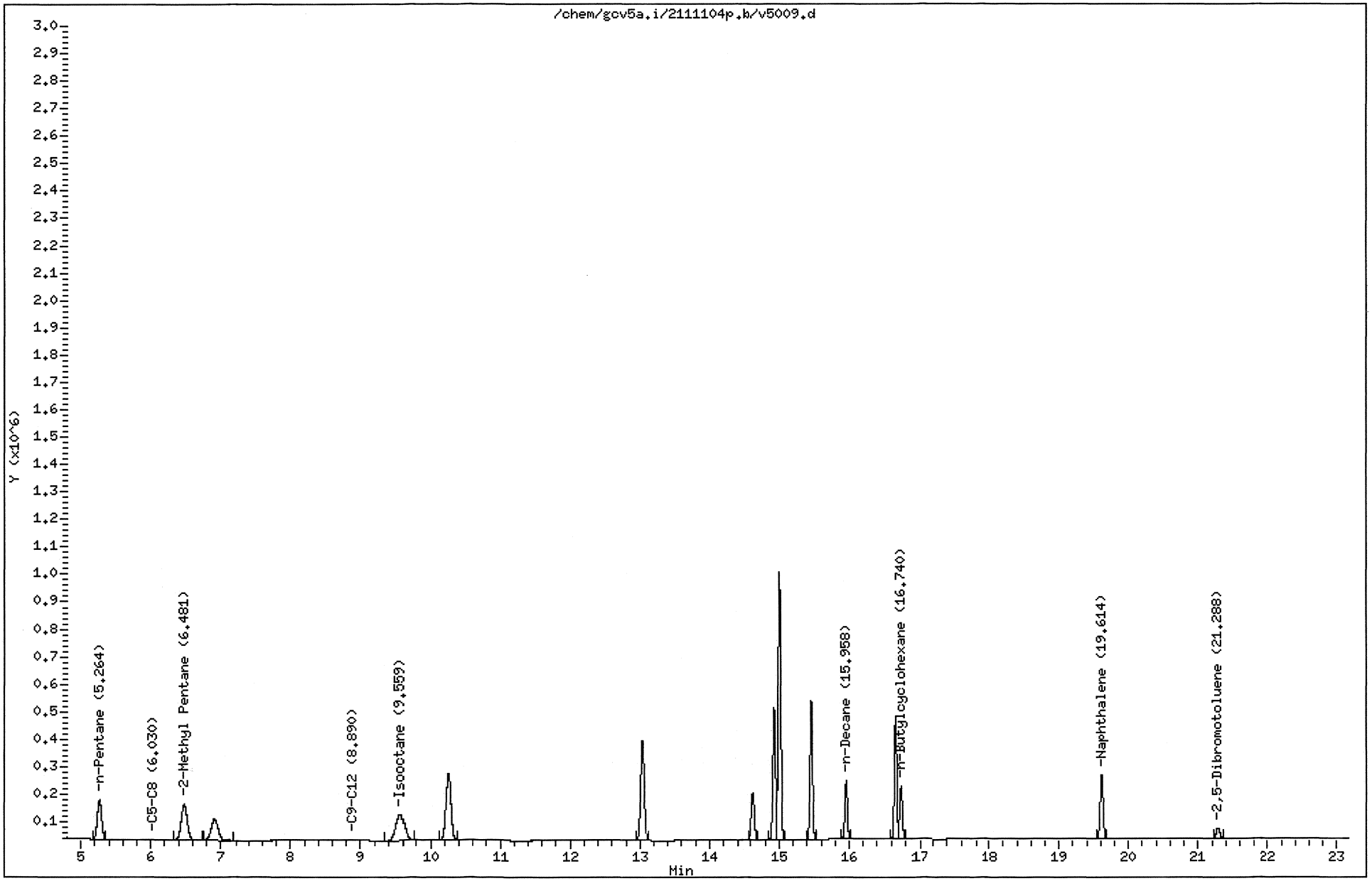
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

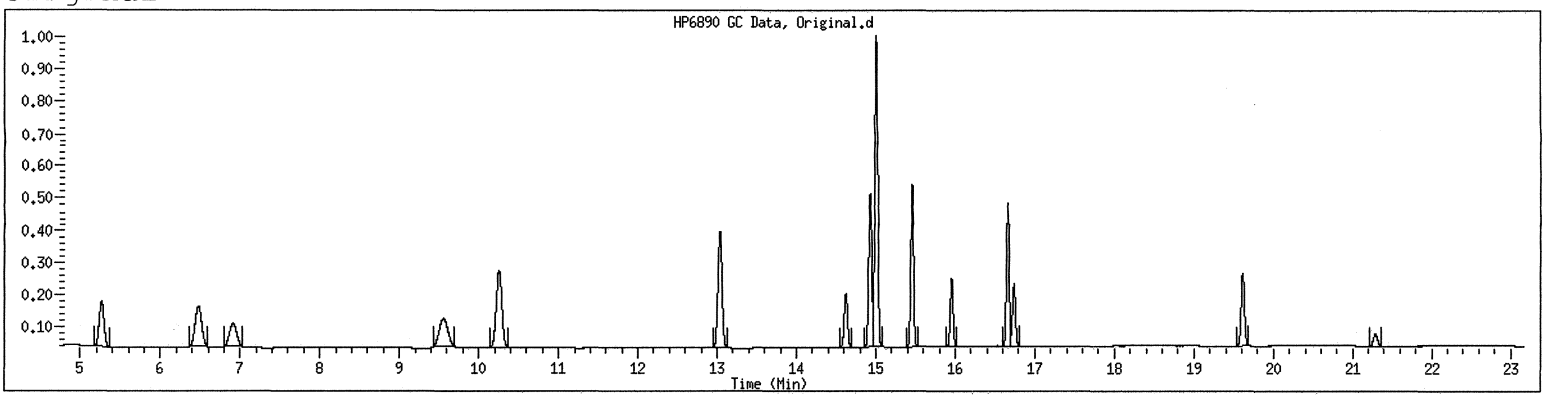
2111110257 305



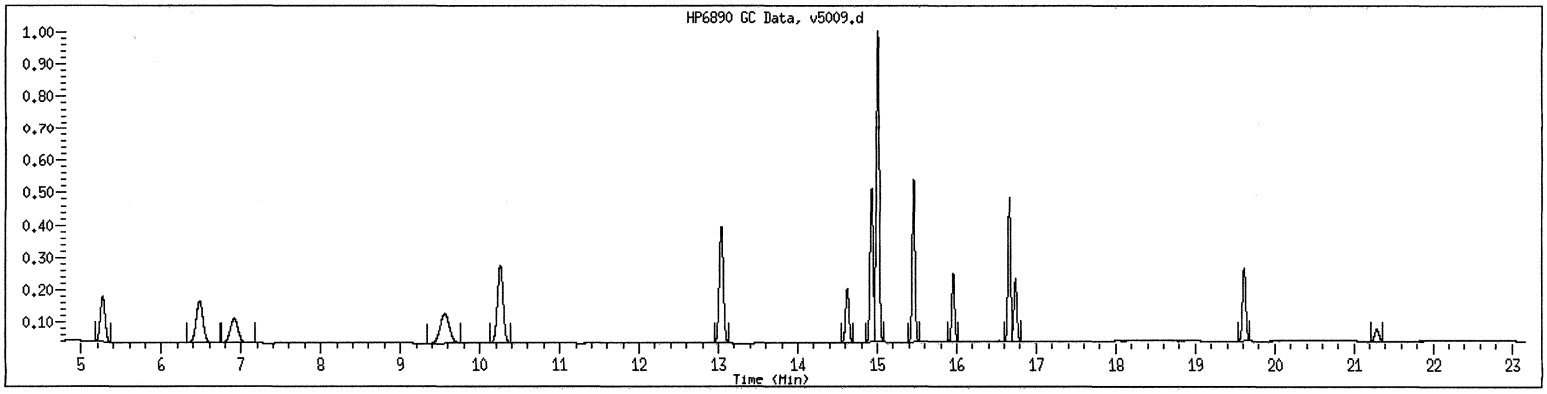
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				2225866	300.000	226
	1	n-Pentane	5.263	5.263	0.000	625897	100.000	69.5(M1)
	3	2-Methyl Pentane	6.480	6.480	0.000	789446	100.000	75.6(M1)
	6	Isooctane	9.557	9.557	0.000	810523	100.000	80.8(M1)
	13	n-Decane	15.959	15.959	0.000	610961	100.000	110(A)
	15	n-Butylcyclohexane	16.742	16.742	0.000	590825	100.000	99.2(M1)
	16	Naphthalene	19.617	19.617	0.000	852519	100.000	96.3
M	5	C9-C12				1201786	200.000	209
$	17	2,5-Dibromotoluene	21.294	21.294	0.000	141234	50.0000	47.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5011.d

Page 1

Date : 05-NOV-2011 01:52

Client ID:

Instrument: gcv5a.i

Sample Info: VPH100/6/12/4

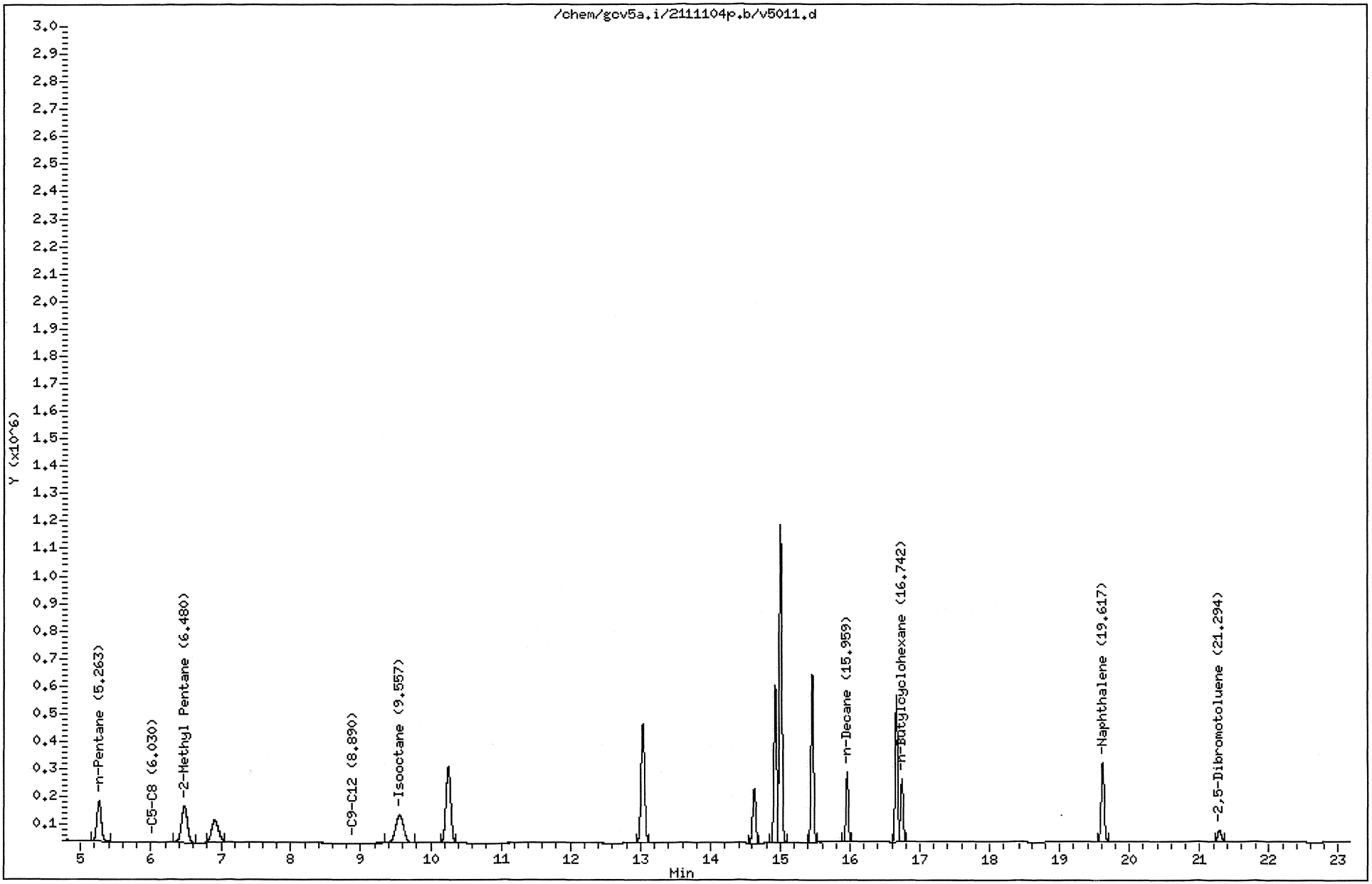
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

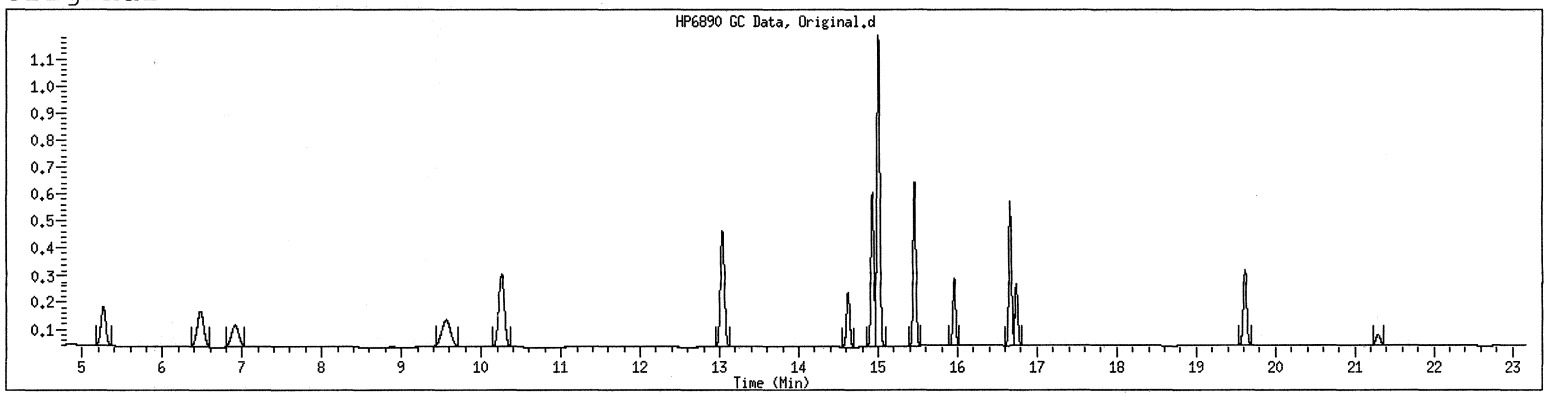
21110257 309



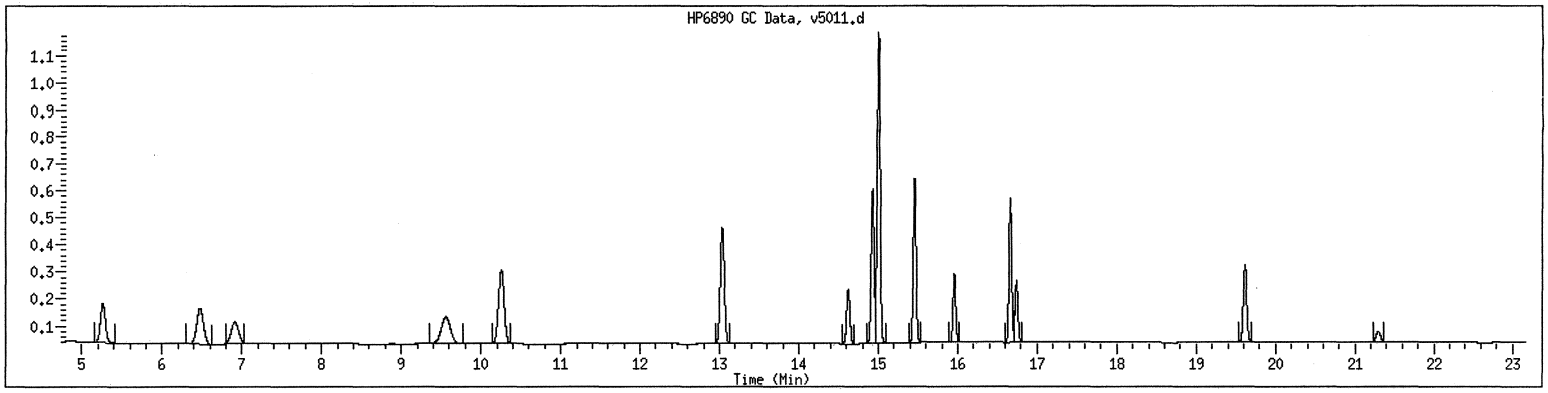
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104p
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: LOW Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aliphatic1.spk Quant Type: ESTD
Sublist File: aliphatic1+surr.sub
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	1 n-Pentane	50.0	46.6	93.10	70-130
M	2 C5-C8	150	139	92.95	70-130
	3 2-Methyl Pentane	50.0	48.5	96.95	70-130
M	5 C9-C12	100	92.4	92.37	70-130
	6 Isooctane	50.0	44.4	88.79	70-130
	13 n-Decane	50.0	44.9	89.88	70-130
	15 n-Butylcyclohexane	50.0	47.4	94.86	70-130
	16 Naphthalene	50.0	54.8	109.51	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	17 2,5-Dibromotoluene	50.0	49.5	99.05	70-130

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:22 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

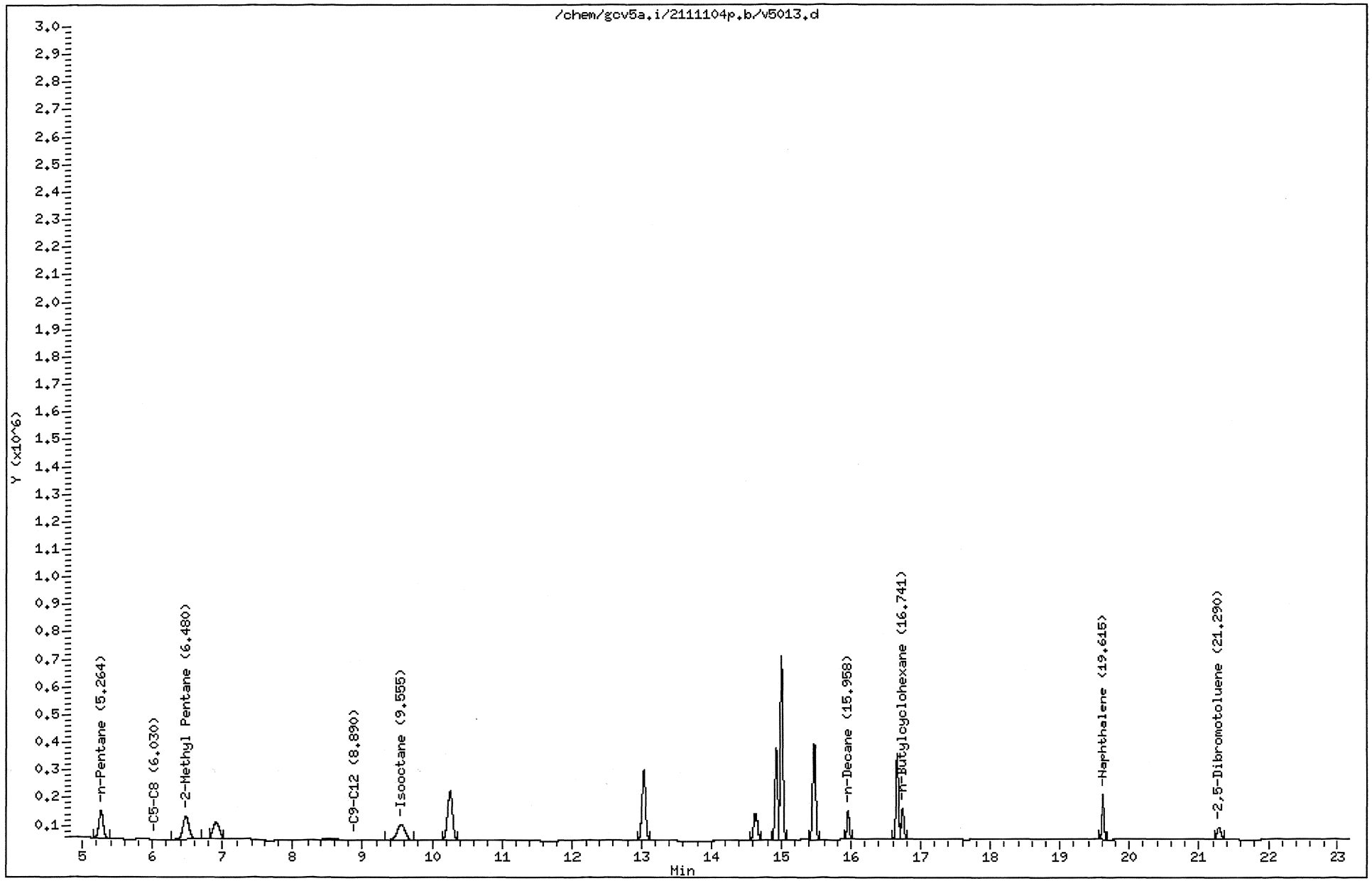
		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1370151	139.426	139
	1	n-Pentane	5.264	5.263	0.001	418980	46.5524	46.6(M1)
	3	2-Methyl Pentane	6.480	6.480	0.000	505982	48.4762	48.5(M1)
	6	Isooctane	9.555	9.557	-0.002	445188	44.3972	44.4(M1)
	13	n-Decane	15.958	15.959	-0.001	249629	44.9383	44.9
	15	n-Butylcyclohexane	16.741	16.742	-0.001	282608	47.4296	47.4
	16	Naphthalene	19.615	19.617	-0.002	484765	54.7551	54.8
M	5	C9-C12				532237	92.3679	92.4
$	17	2,5-Dibromotoluene	21.290	21.294	-0.004	148060	49.5241	49.5

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5013.d
Date : 05-NOV-2011 02:51
Client ID:
Sample Info: ICV6/12/5
Volume Injected (uL): 1.0
Column phase: DB-624-30

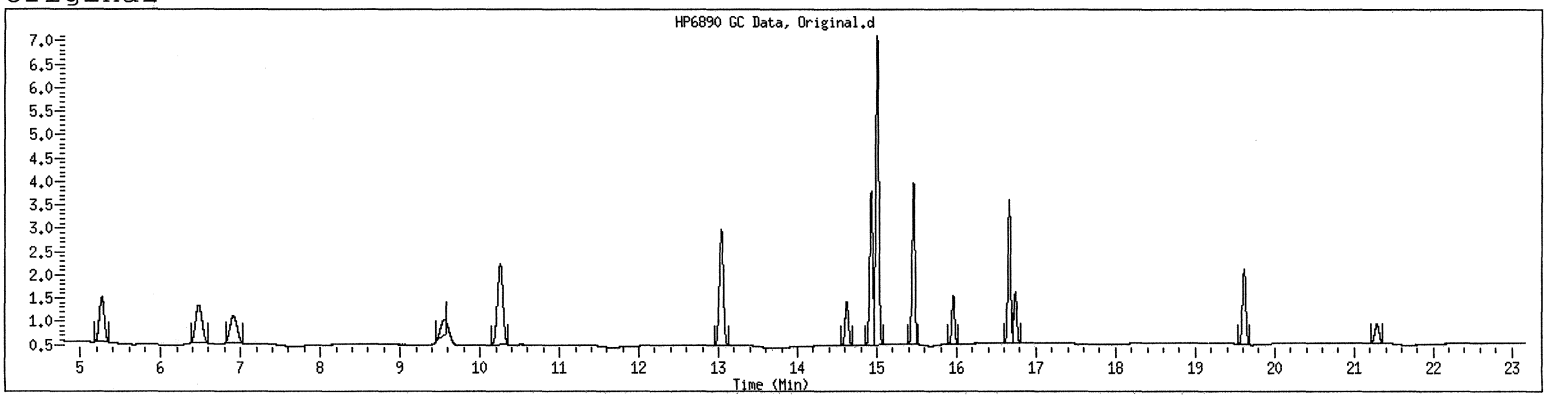
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



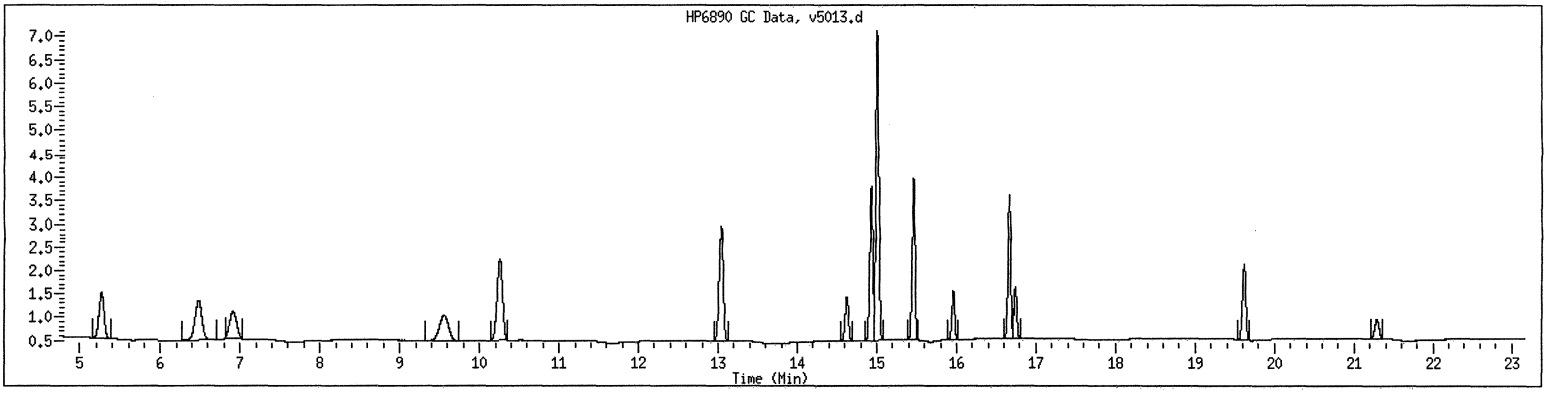
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



Report Date: 08-Nov-2011 13:07

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	10063	0.010	-2.45242	25.00000	Averaged
1 n-Pentane	9000	9099	0.010	-1.09665	25.00000	Averaged
3 2-Methyl Pentane	10438	10571	0.010	-1.27340	25.00000	Averaged
6 Isooctane	10027	10518	0.010	-4.89657	25.00000	Averaged
13 n-Decane	5555	5515	0.010	0.72519	25.00000	Averaged
15 n-Butylcyclohexane	5958	6214	0.010	-4.28469	25.00000	Averaged
16 Naphthalene	8853	9172	0.010	-3.60219	25.00000	Averaged
M 5 C9-C12	5437	5864	0.010	-7.84785	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2988	0.010	0.04259	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.91351
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:07 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

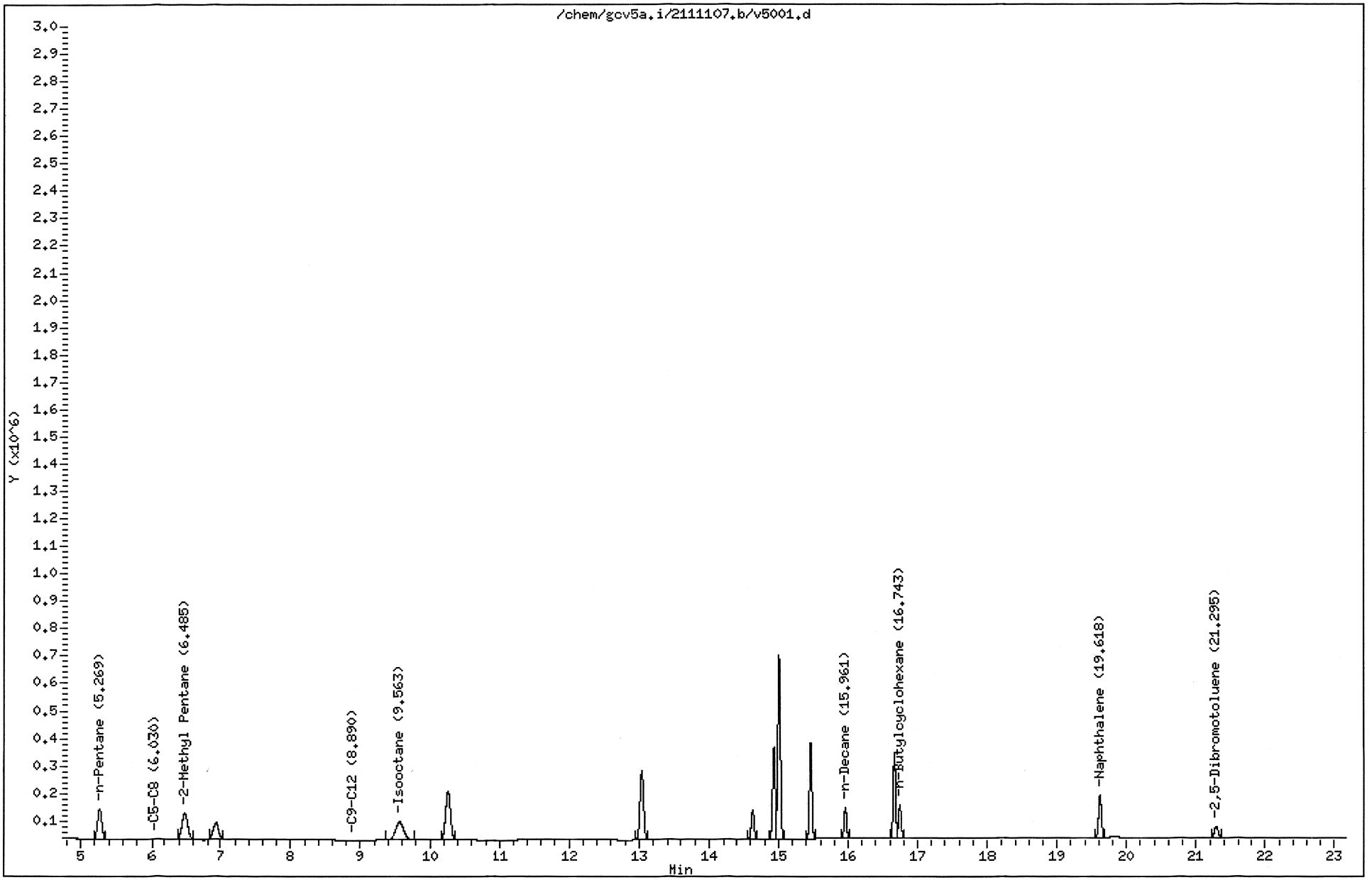
						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1509398	150.000	154
	1 n-Pentane	5.269	5.269	0.000	454944	50.0000	50.5
	3 2-Methyl Pentane	6.485	6.485	0.000	528534	50.0000	50.6
	6 Isooctane	9.563	9.563	0.000	525920	50.0000	52.4(M1)
	13 n-Decane	15.961	15.961	0.000	275732	50.0000	49.6
	15 n-Butylcyclohexane	16.743	16.743	0.000	310689	50.0000	52.1
	16 Naphthalene	19.618	19.618	0.000	458612	50.0000	51.8
M	5 C9-C12				586421	100.000	102
$	17 2,5-Dibromotoluene	21.295	21.295	0.000	149419	50.0000	50.0

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5001.d
Date : 07-NOV-2011 11:22
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

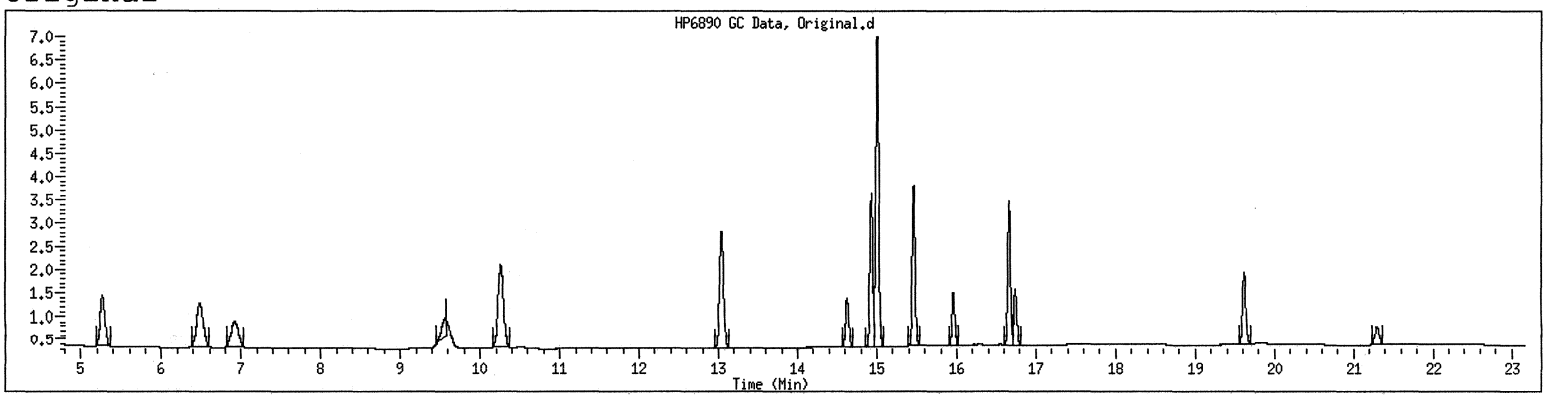
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



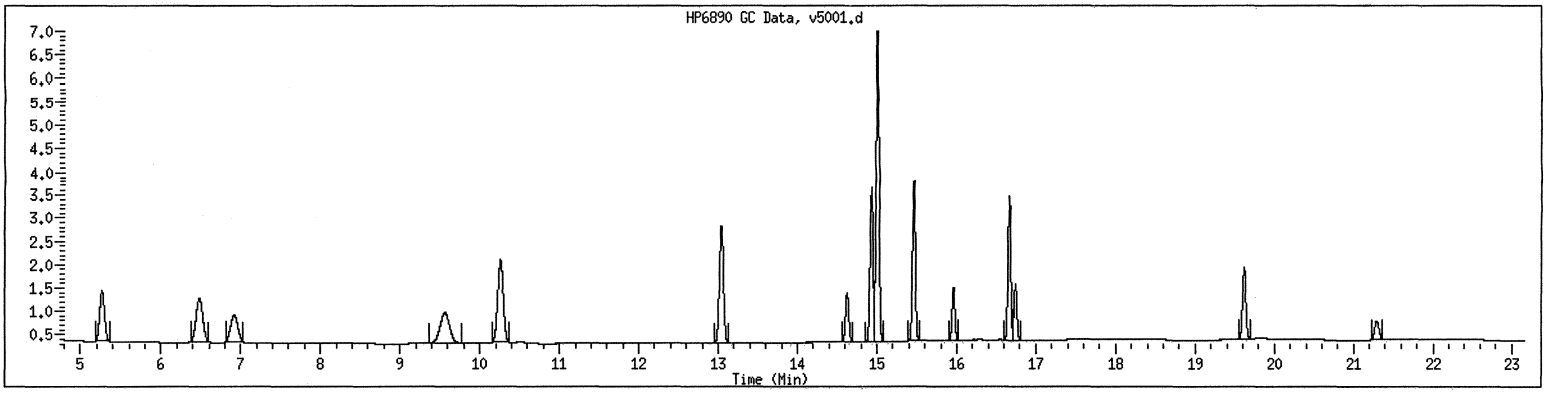
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9001	0.010	8.35987	25.00000	Averaged
1 n-Pentane	9000	8133	0.010	9.63580	25.00000	Averaged
3 2-Methyl Pentane	10438	9389	0.010	10.04971	25.00000	Averaged
6 Isooctane	10027	9480	0.010	5.45566	25.00000	Averaged
13 n-Decane	5555	5714	0.010	-2.86154	25.00000	Averaged
15 n-Butylcyclohexane	5958	5735	0.010	3.75193	25.00000	Averaged
16 Naphthalene	8853	8972	0.010	-1.34067	25.00000	Averaged
M 5 C9-C12	5437	5724	0.010	-5.27663	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2912	0.010	2.61212	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.48266
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 17:08 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				1350104	150.000	137
	1	n-Pentane	5.266	5.266	0.000	406647	50.0000	45.2
	3	2-Methyl Pentane	6.482	6.482	0.000	469440	50.0000	45.0
	6	Isooctane	9.562	9.562	0.000	474017	50.0000	47.3(M1)
	13	n-Decane	15.963	15.963	0.000	285694	50.0000	51.4
	15	n-Butylcyclohexane	16.746	16.746	0.000	286746	50.0000	48.1
	16	Naphthalene	19.623	19.623	0.000	448601	50.0000	50.7
M	5	C9-C12				572440	100.000	99.6
$	17	2,5-Dibromotoluene	21.301	21.301	0.000	145578	50.0000	48.7

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5011.d

Date : 07-NOV-2011 16:16

Client ID:

Instrument: gcv5a.i

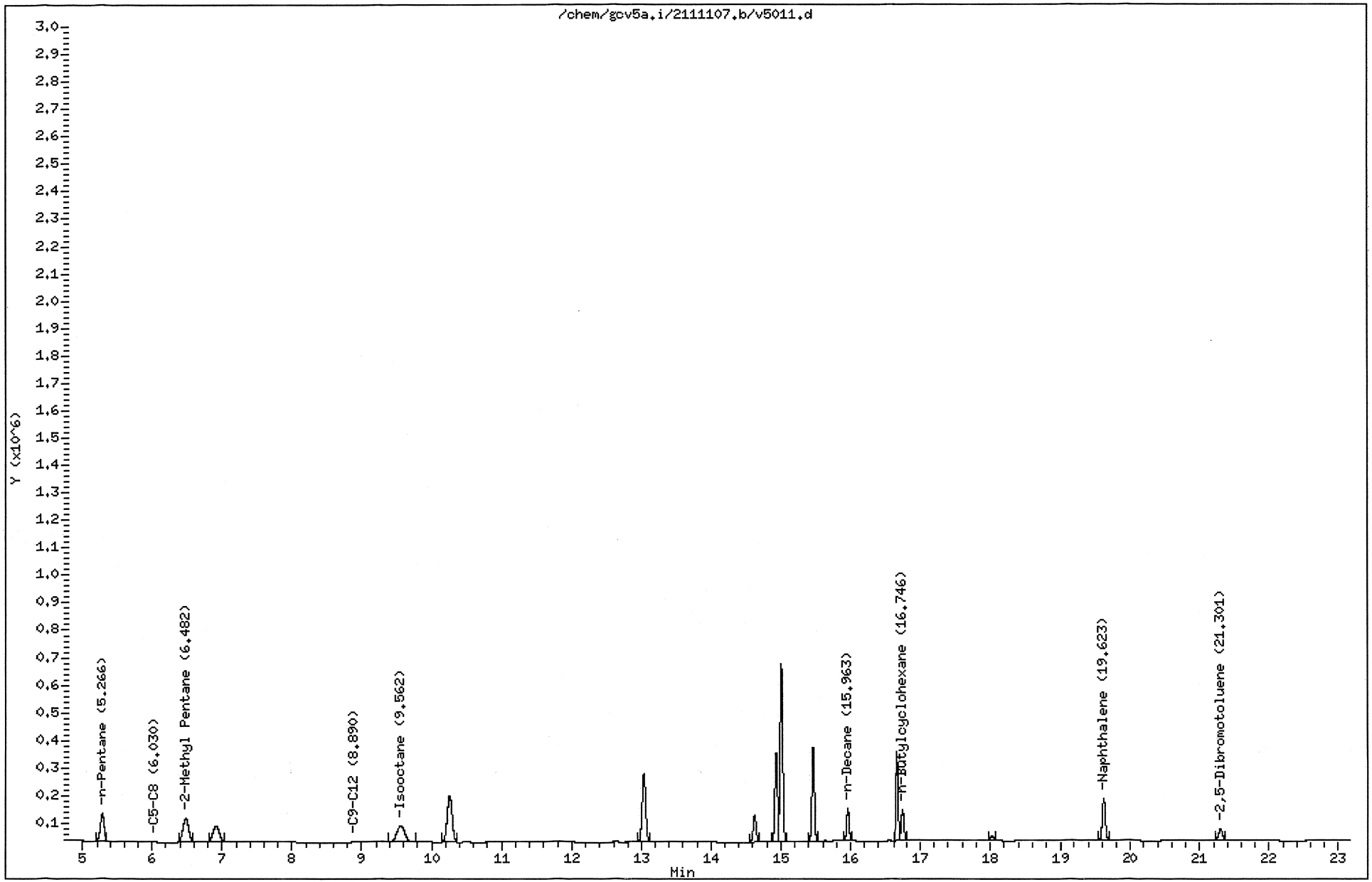
Sample Info: VPH6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

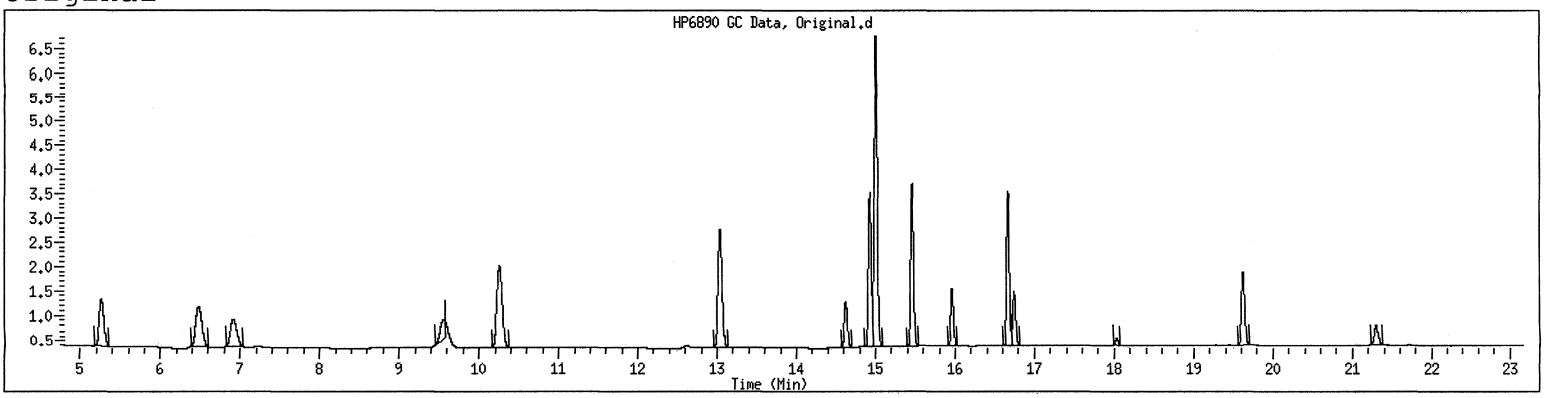
Column diameter: 0.53



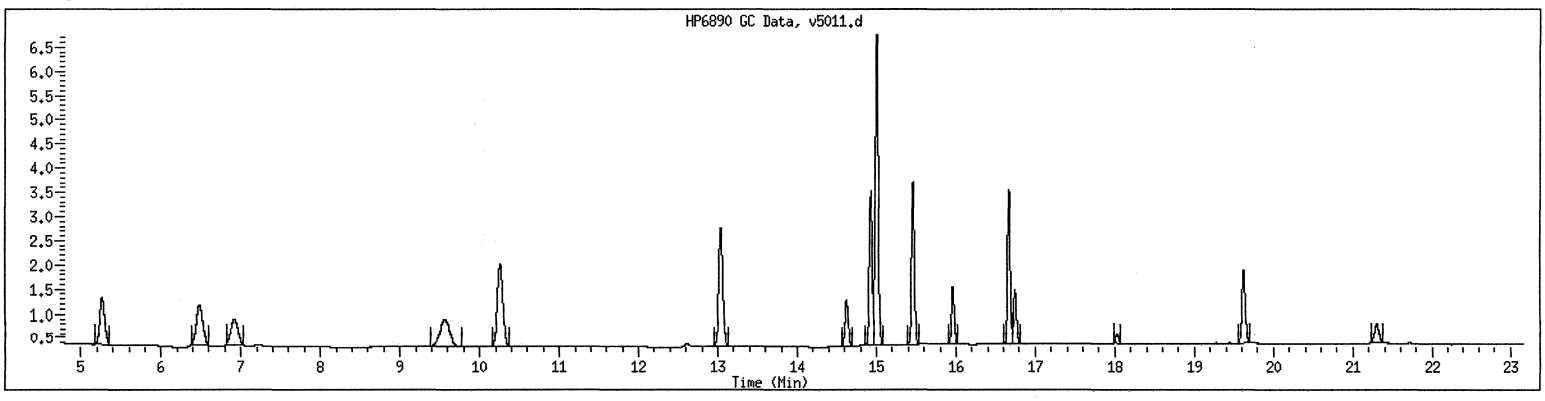
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9028	0.010	8.07690	25.00000	Averaged
1 n-Pentane	9000	8035	0.010	10.72067	25.00000	Averaged
3 2-Methyl Pentane	10438	9486	0.010	9.12269	25.00000	Averaged
6 Isooctane	10027	9565	0.010	4.61537	25.00000	Averaged
13 n-Decane	5555	4698	0.010	15.42674	25.00000	Averaged
15 n-Butylcyclohexane	5958	5459	0.010	8.38734	25.00000	Averaged
16 Naphthalene	8853	9479	0.010	-7.06687	25.00000	Averaged
M 5 C9-C12	5437	5078	0.010	6.60479	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3336	0.010	-11.58685	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.06758
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2 C5-C8				1354273	137.771	138
	1 n-Pentane	5.265	5.266	-0.001	401765	44.6397	44.6
	3 2-Methyl Pentane	6.482	6.482	0.000	474278	45.4387	45.4
	6 Isooctane	9.562	9.562	0.000	478230	47.6924	47.7(M1)
	13 n-Decane	15.961	15.963	-0.002	234899	42.2866	42.3
	15 n-Butylcyclohexane	16.743	16.746	-0.003	272936	45.8063	45.8
	16 Naphthalene	19.618	19.623	-0.005	473949	53.5334	53.5
M	5 C9-C12				507835	88.0930	88.1
$	17 2,5-Dibromotoluene	21.293	21.301	-0.008	166803	55.7934	55.8

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5021.d

Date : 07-NOV-2011 23:22

Client ID:

Sample Info: VPH6/12/4

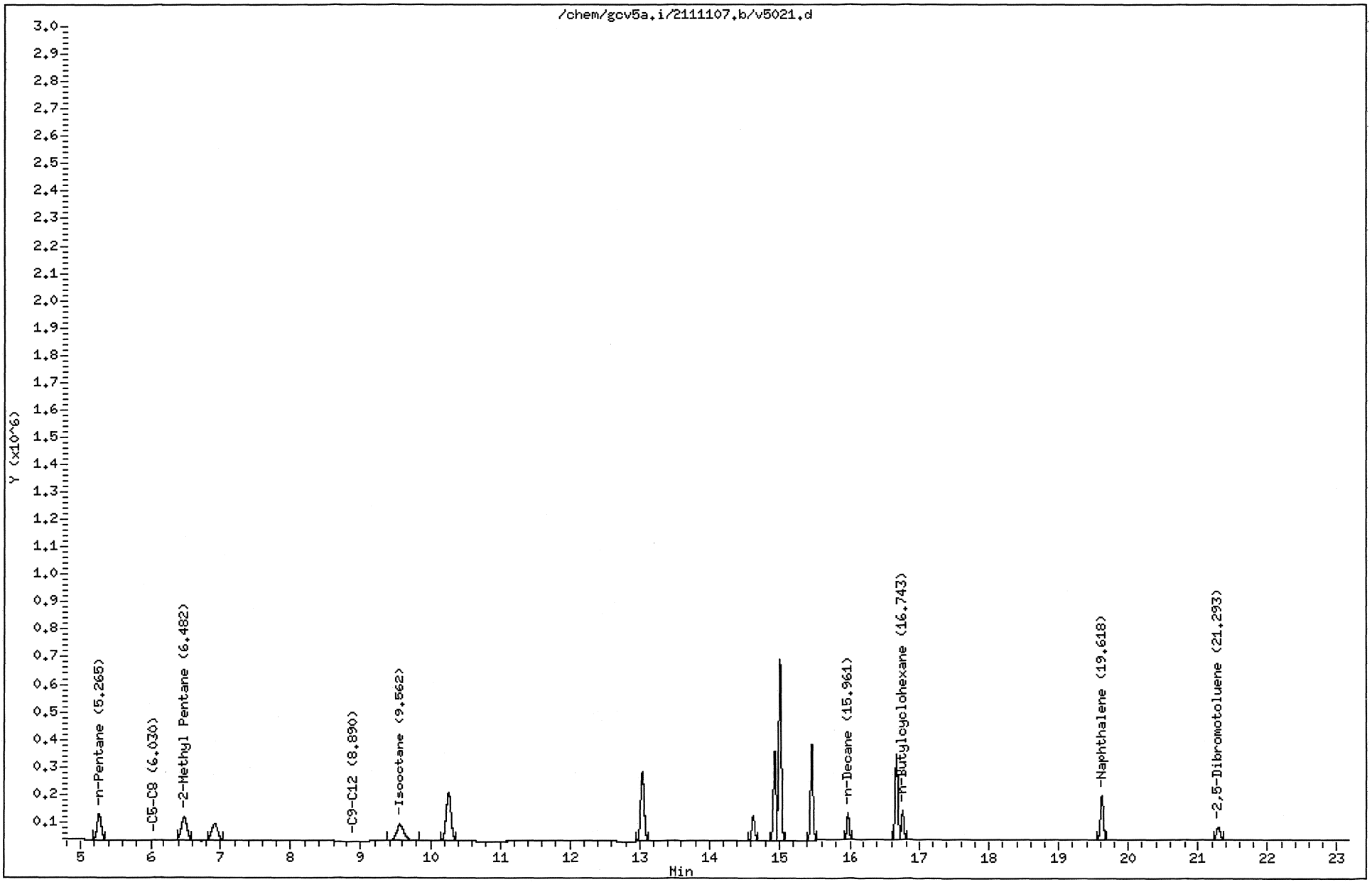
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

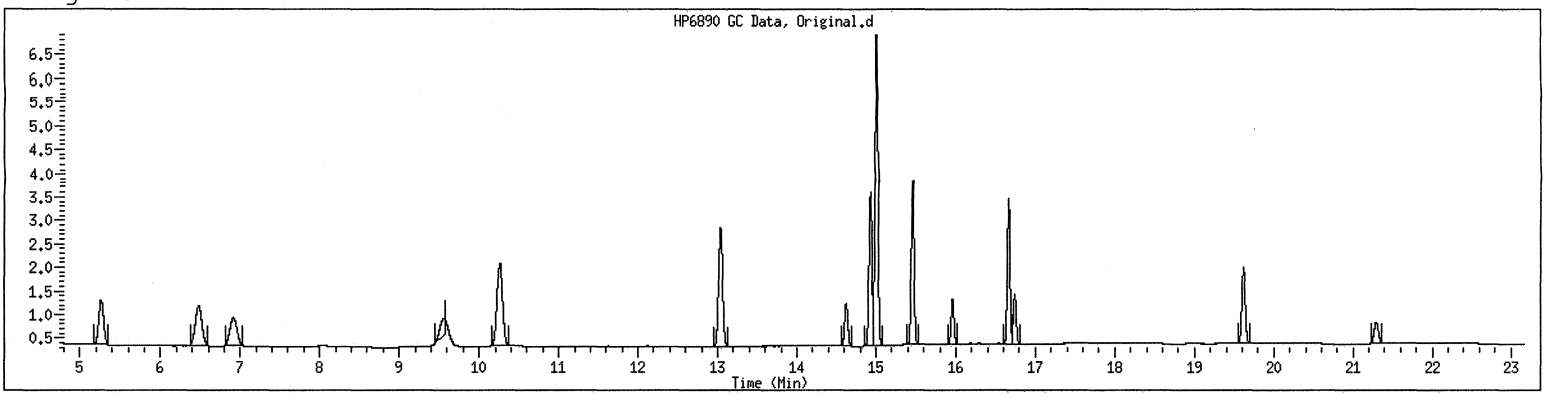
Column diameter: 0.53



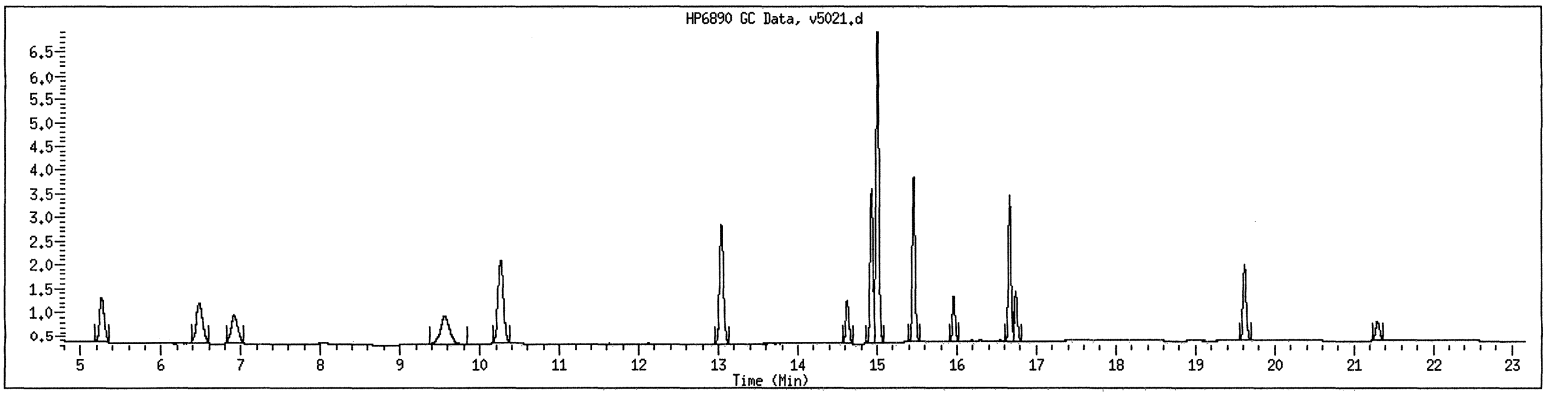
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: SAMPLE
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1003187

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 1003187

Level: (low/med) | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1221

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5003

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5003.d
Lab Smp Id: 1003187 Client Smp ID: 1003187
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003187
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

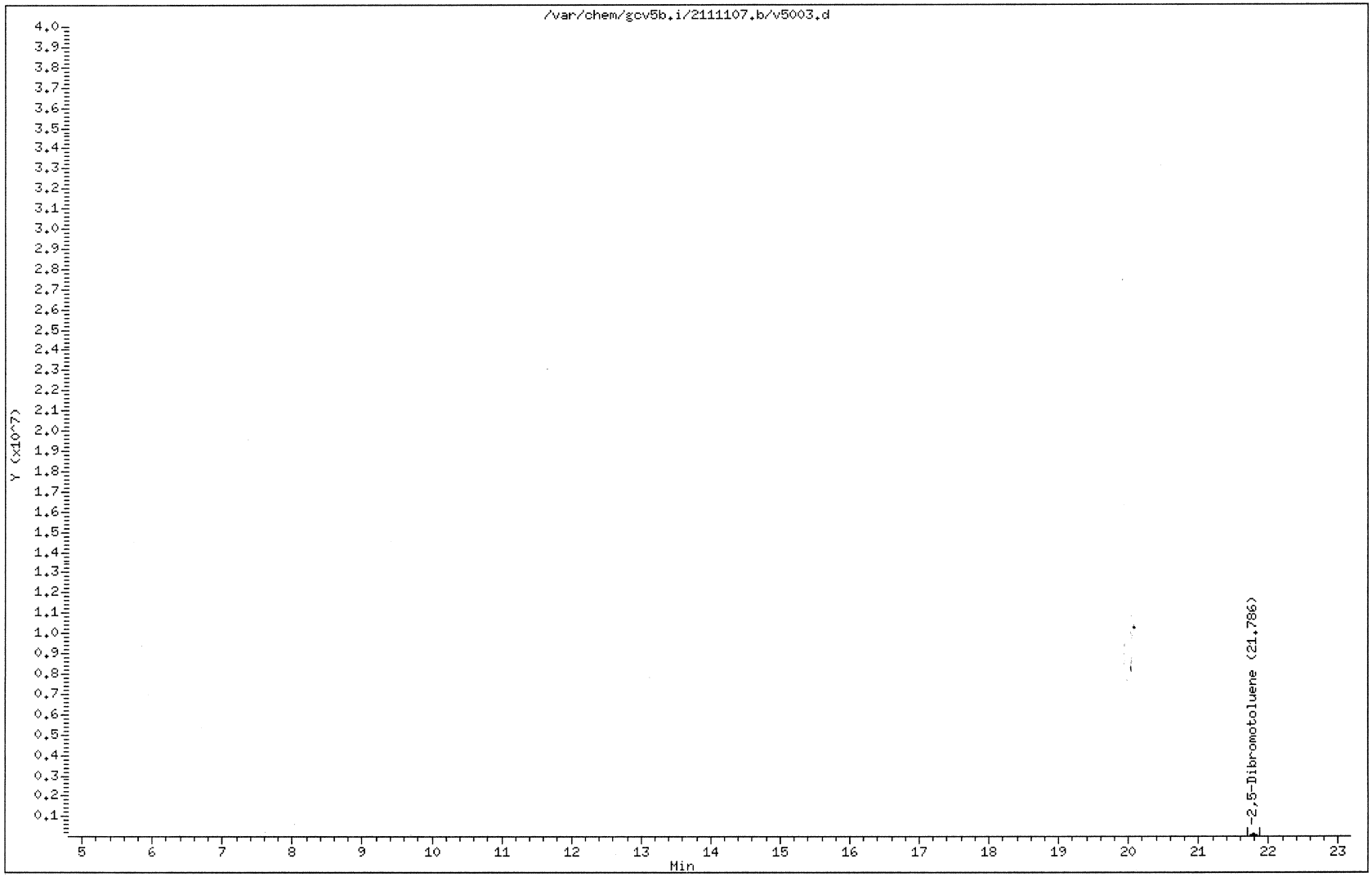
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.786	21.781	0.005	350170	50.0811	50.1

Data File: /var/chem/gcv5b.i/2111107.b/v5003.d
Date : 07-NOV-2011 12:21
Client ID: 1003187
Sample Info: 1003187
Volume Injected (uL): 1.0
Column phase: DB-624-30

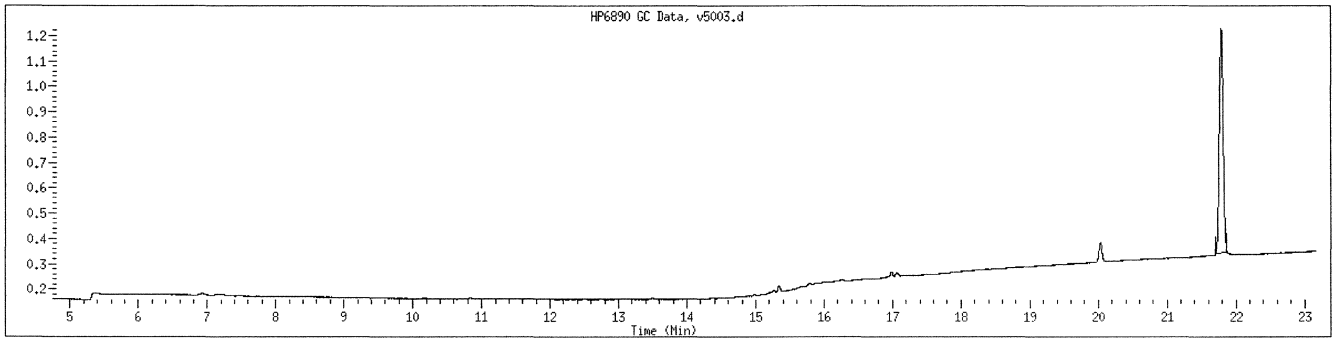
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1003187 SampleType : SAMPLE
Injection Date: 11/07/2011 12:21 Instrument : gcv5b.i
Operator : JAR
Sample Info : 1003187
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5003.d
Lab Smp Id: BLK
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5a.i
Smp Info : BLK
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 17 2,5-Dibromotoluene	21.297	21.294	0.003	143488	47.9950	48.0

Data File: /chem/gcv5a.i/2111107.b/v5003.d

Page 1

Date : 07-NOV-2011 12:21

Client ID:

Instrument: gcv5a.i

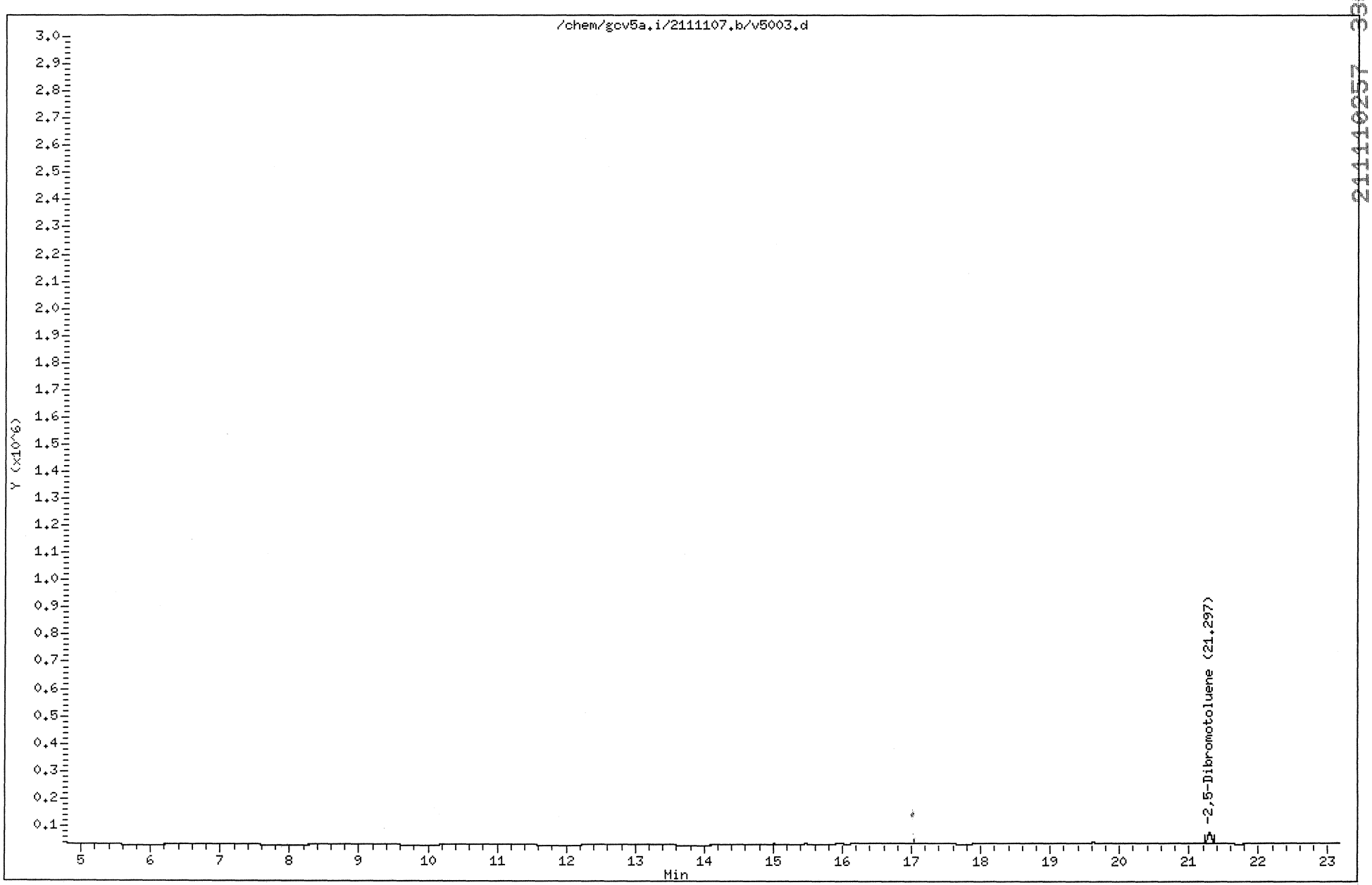
Sample Info: BLK

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

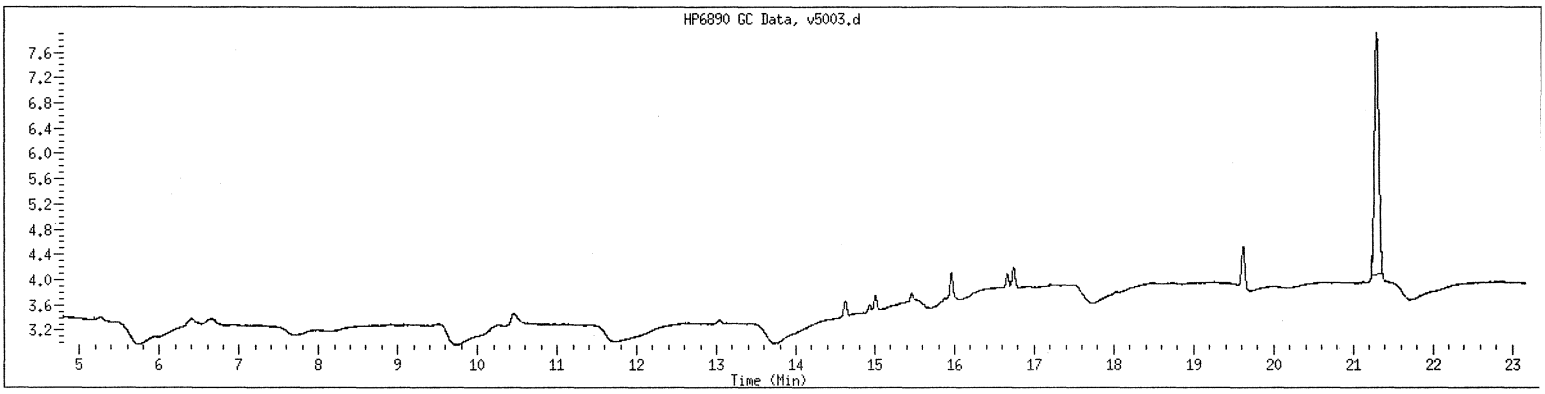
Column diameter: 0.53



2111107 396

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: BLK	SampleType	: SAMPLE
Injection Date	: 11/07/2011 12:21	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: BLK		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCS1003188

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 1003188

Level: (low/med) | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/07/11 | Time: 1151

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5002

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	152		3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	105		3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	54.4		1.24	5.00	10.0

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5002.d
Lab Smp Id: 1003188 Client Smp ID: 1003188
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003188
Misc Info : lcs6/12/4
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6	o-Xylene	15.778	15.777	0.001	709878	52.3134	52.3
	7	1,2,4-Trimethylbenzene	16.984	16.983	0.001	655039	54.4552	54.4
M	9	C9-C10				655039	54.4552	54.4
	8	Naphthalene	20.031	20.028	0.003	556525	54.6350	54.6
$	10	2,5-Dibromotoluene	21.784	21.781	0.003	365094	52.2155	52.2

Data File: /var/chem/gcv5b.i/2111107.b/v5002.d

Page 1

Date : 07-NOV-2011 11:51

Client ID: 1003188

Instrument: gcv5b.i

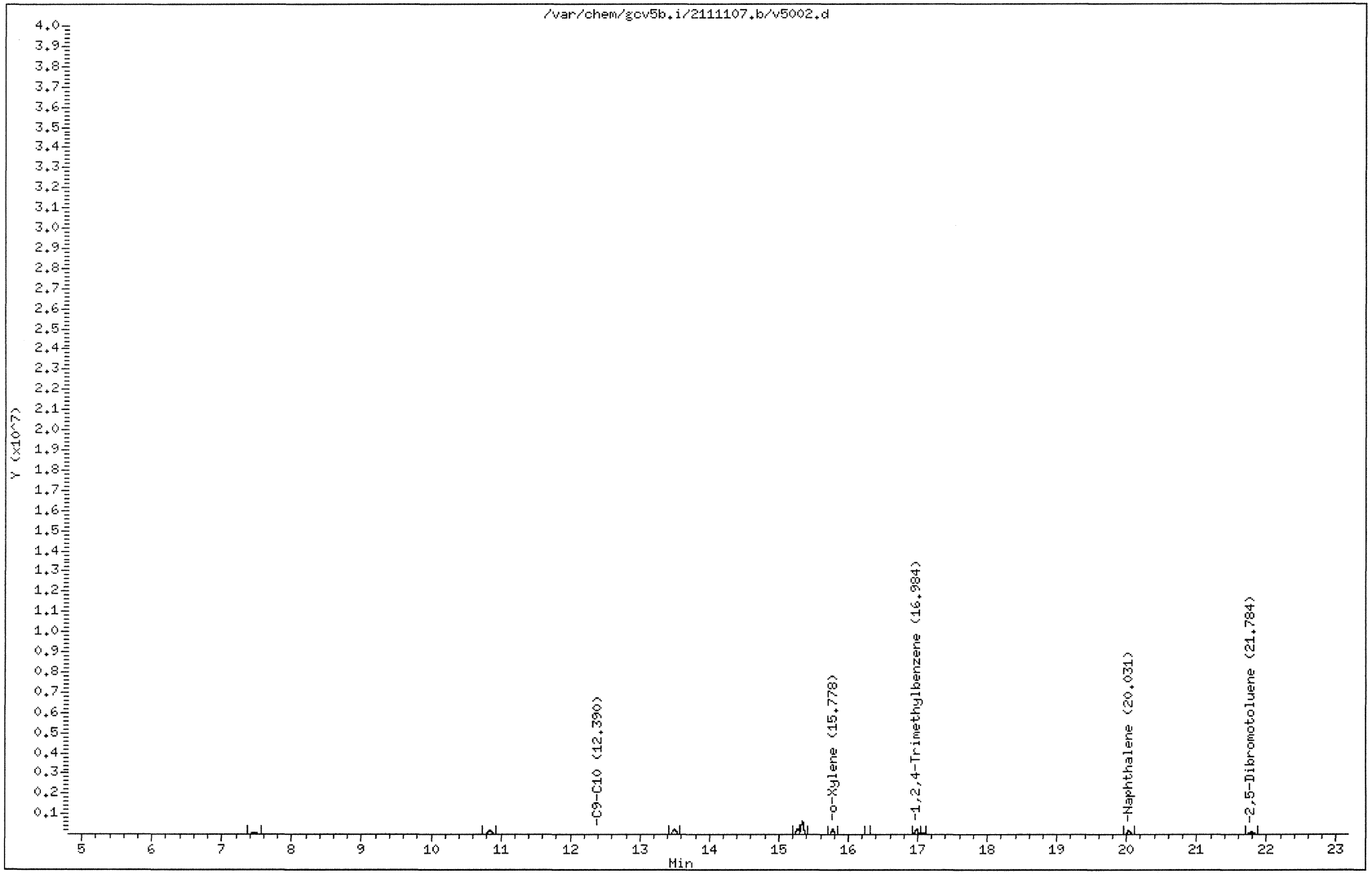
Sample Info: 1003188

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

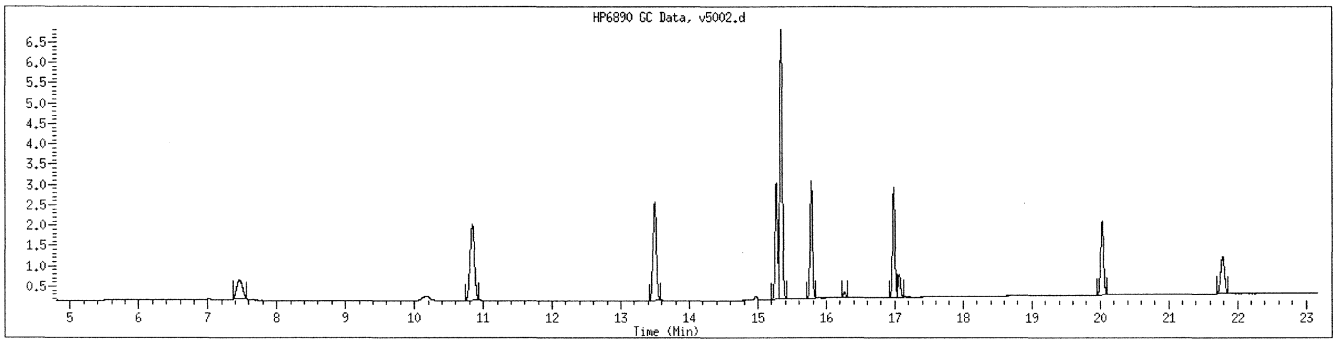
Column diameter: 0.53



Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1003188	SampleType	: LCS
Injection Date:	11/07/2011 11:51	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: 1003188		
Misc Info	: lcs6/12/4		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist:	aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5002.d
Lab Smp Id: lcs6/12/4
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : lcs6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1496403	152.268	152
	1	n-Pentane	5.269	5.263	0.006	446597	49.6209	49.6
	3	2-Methyl Pentane	6.485	6.480	0.005	522005	50.0112	50.0
	6	Isooctane	9.564	9.557	0.007	527801	52.6359	52.6(M1)
	13	n-Decane	15.962	15.959	0.003	281892	50.7463	50.7
	15	n-Butylcyclohexane	16.744	16.742	0.002	324847	54.5185	54.5
	16	Naphthalene	19.621	19.617	0.004	473106	53.4382	53.4
M	5	C9-C12				606739	105.265	105
$	17	2,5-Dibromotoluene	21.296	21.294	0.002	146985	49.1646	49.2

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5002.d

Date : 07-NOV-2011 11:51

Client ID:

Instrument: gcv5a.i

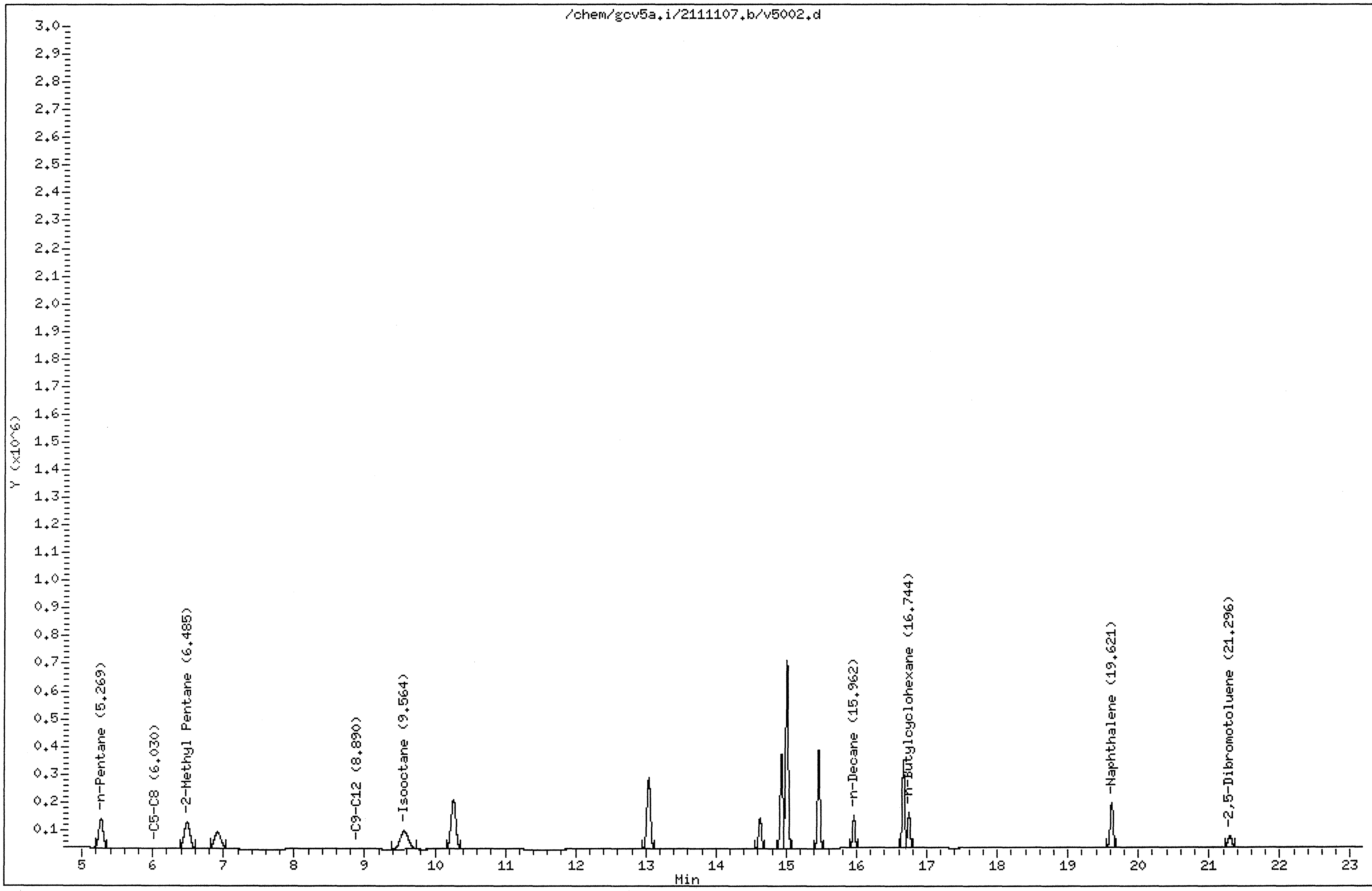
Sample Info: lcs6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

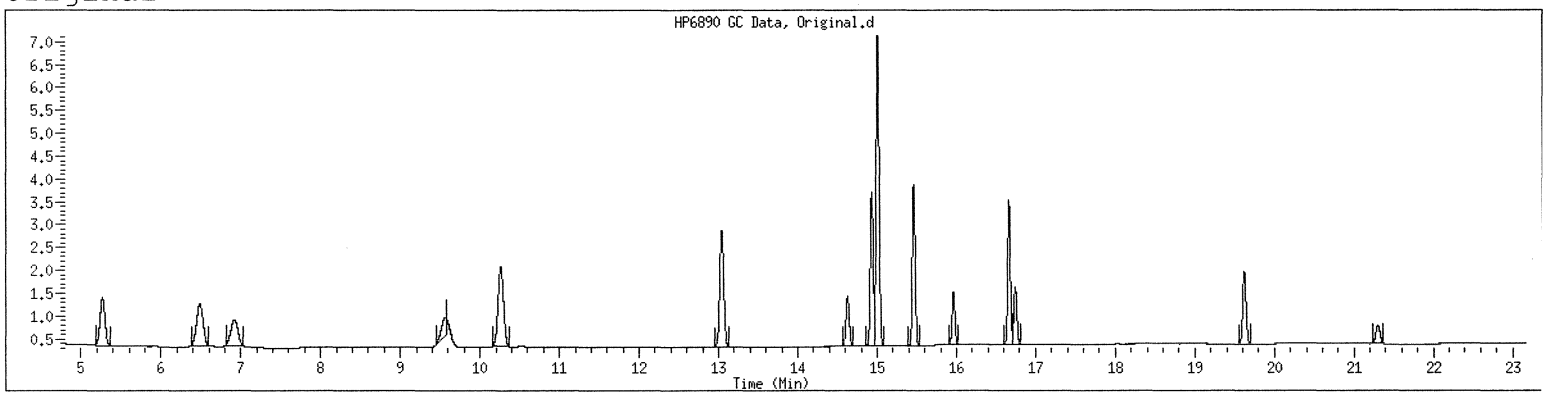
Column diameter: 0.53



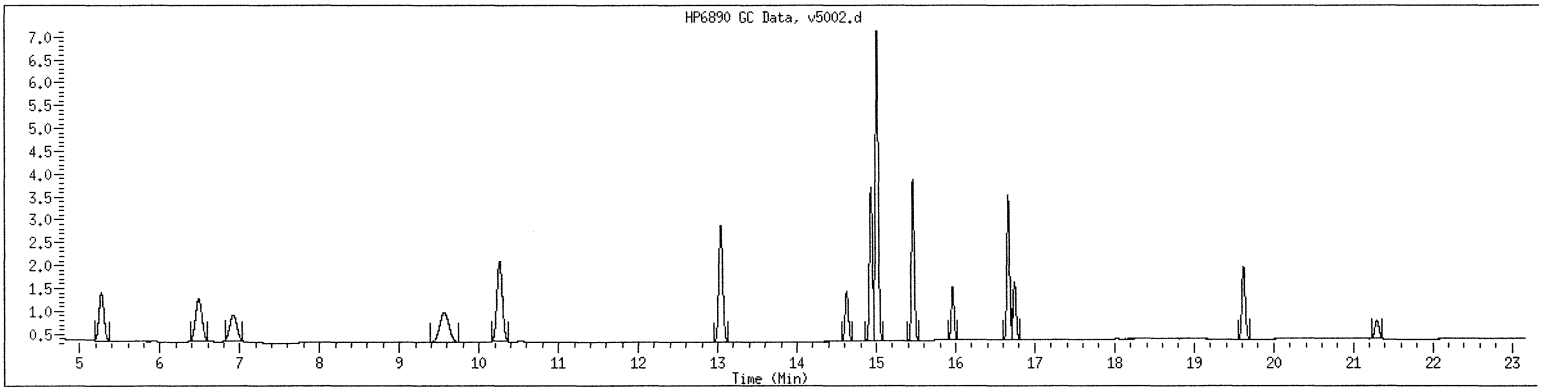
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: lcs6/12/4	SampleType	: LCS
Injection Date	: 11/07/2011 11:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: lcs6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	ES047 MS
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110257
Sample wt/vol:	5 Units: mL	Lab Sample ID:	21110312403
Level: (low/med)		Date Collected:	10/24/11 Time: 0830
% Moisture:	decanted: (Y/N)	Date Received:	10/29/11
GC Column:	ID: (mm)	Date Extracted:	
Concentrated Extract Volume:	5000 (µL)	Date Analyzed:	11/07/11 Time: 1925
Soil Aliquot Volume:	(µL)	Dilution Factor:	10 Analyst: JAR
Injection Volume:	1 (µL)	Prep Method:	
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSVPH
Prep Batch:	Analytical Batch: 468512	Sulfur Cleanup: (Y/N)	N Instrument ID: GCV5B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111107/v5014

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	1440		33.1	150	300
GCV-00-5	C9-C12 Aliphatic	1760		32.0	100	200
GCV-00-6	C9-C10 Aromatic	739		12.4	50.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5014.d
Lab Smp Id: 21110312403 Client Smp ID: 21110312403
Inj Date : 07-NOV-2011 19:25
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312403*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:36 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6 o-Xylene	16.985	15.777	1.208	722379	53.2347	532(M1)
	7 1,2,4-Trimethylbenzene	19.628	16.983	2.645	166981	13.8816	139(RM1)
M	9 C9-C10				889360	73.9349	739(R)
	8 Naphthalene	20.035	20.028	0.007	553290	54.3174	543
$	10 2,5-Dibromotoluene	21.788	21.781	0.007	371390	53.1159	531

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5014.d

Page 1

Date : 07-NOV-2011 19:25

Client ID: 21110312403

Instrument: gcv5b.i

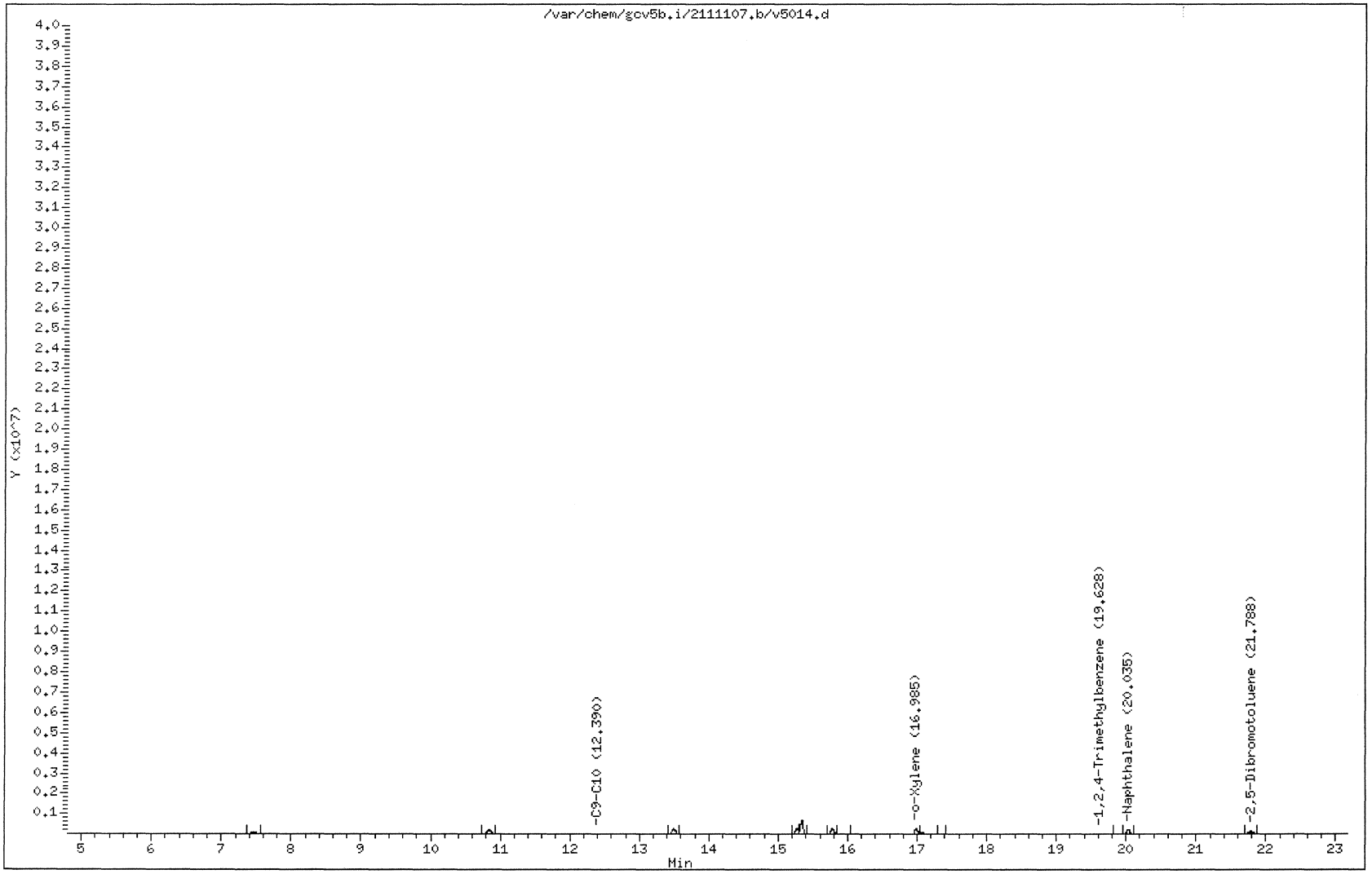
Sample Info: 21110312403*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

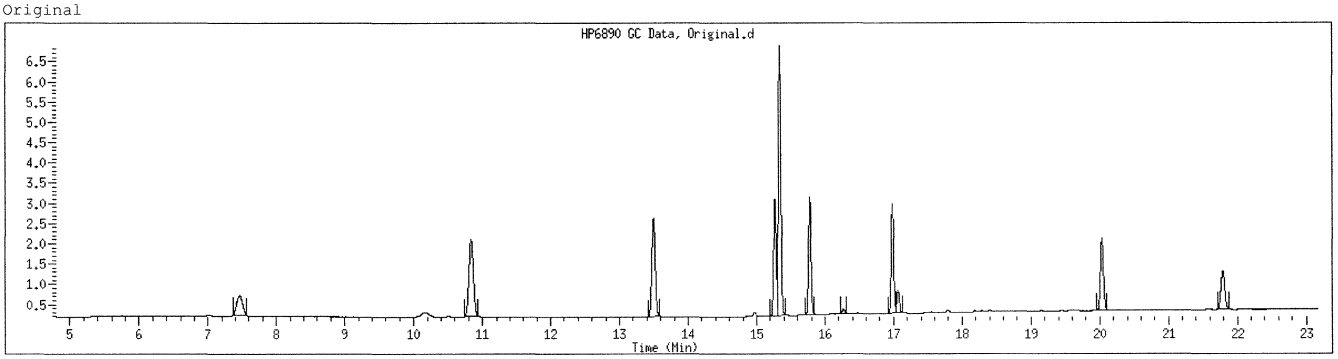


Report Date: 11/08/2011 13:36

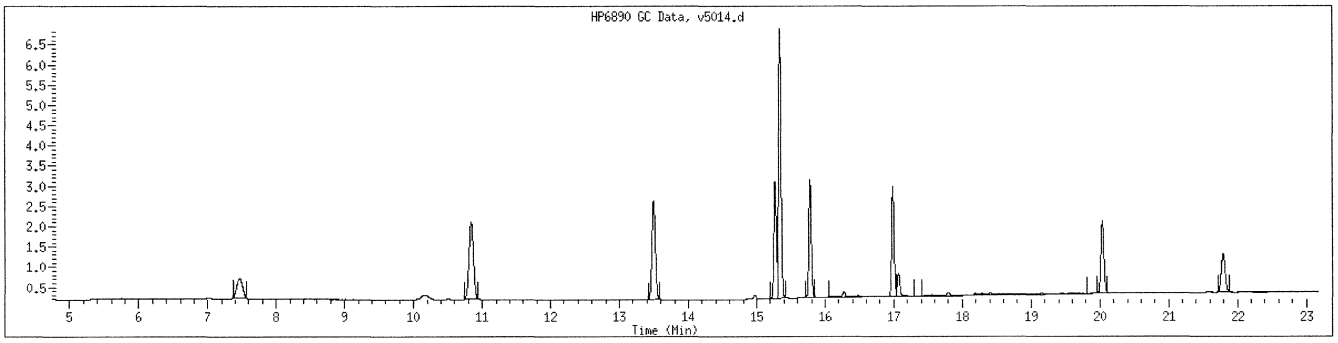
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312403 SampleType : MS
Injection Date: 11/07/2011 19:25 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312403*10
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 10.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5014.d
Lab Smp Id: 21110312403 Client Smp ID: 21110312403
Inj Date : 07-NOV-2011 19:25
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312403*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1417508	144.336	1440
	1	n-Pentane	5.266	5.266	0.000	437501	48.6103	486
	3	2-Methyl Pentane	6.482	6.482	0.000	512046	49.0571	490
	6	Isooctane	9.562	9.562	0.000	467961	46.6682	467
	13	n-Decane	15.963	15.963	0.000	303160	54.5751	546(M1)
	15	n-Butylcyclohexane	16.746	16.746	0.000	726489	121.925	1220(AM1)
	16	Naphthalene	19.623	19.623	0.000	471380	53.2433	532
M	5	C9-C12				1029649	176.500	1760
$	17	2,5-Dibromotoluene	21.300	21.301	-0.001	151837	50.7875	508

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5014.d

Date : 07-NOV-2011 19:25

Client ID: 21110312403

Sample Info: 21110312403*10

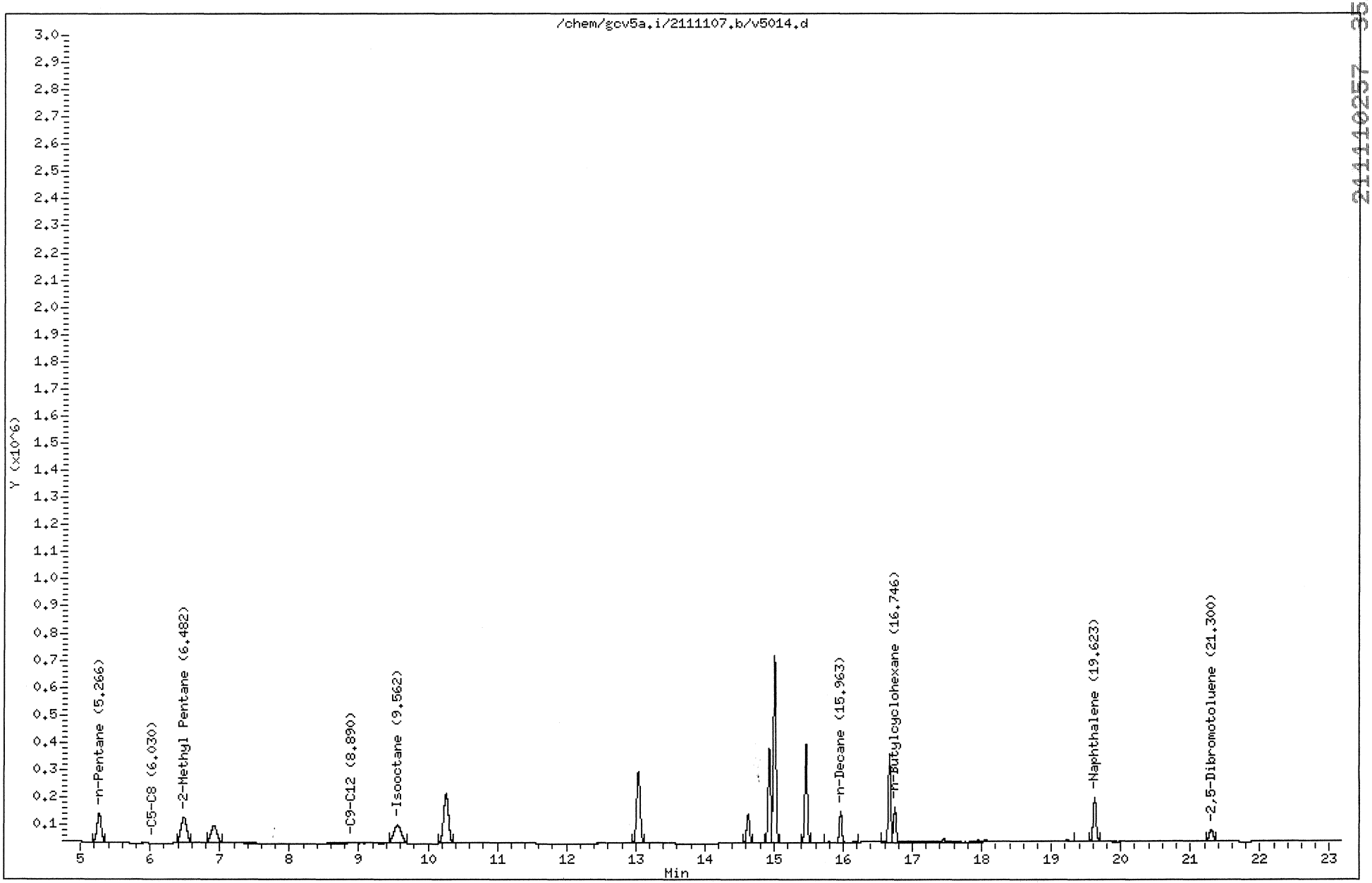
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

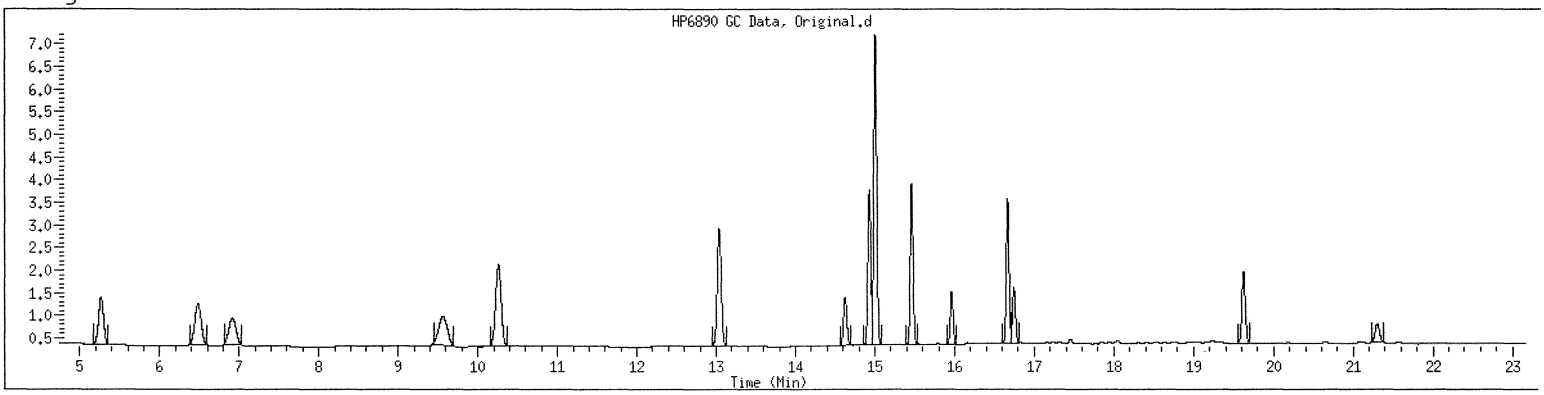
Column diameter: 0.53



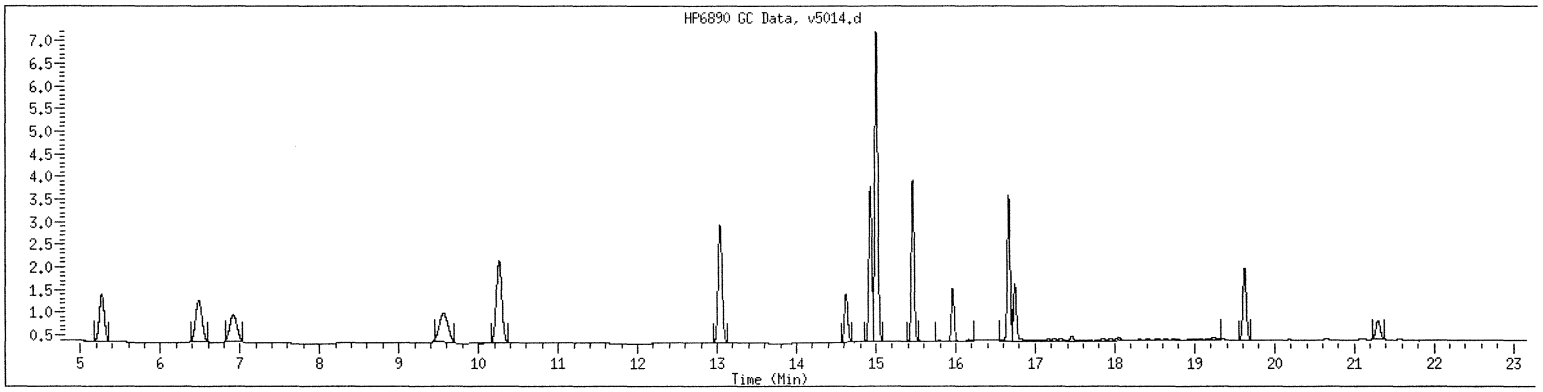
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312403	SampleType	: SAMPLE
Injection Date	: 11/07/2011 19:25	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312403*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES053 MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312409

Level: (low/med) | Date Collected: 10/26/11 | Time: 1043

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 (µL) | Date Analyzed: 11/08/11 | Time: 1152

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5029

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	156		3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	112		3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	61.2		1.24	5.00	10.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5029.d
Lab Smp Id: 21110312409 Client Smp ID: 21110312409
Inj Date : 08-NOV-2011 11:52
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312409
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6 o-Xylene	15.782	15.777	0.005	798418	58.8383	58.8
	7 1,2,4-Trimethylbenzene	16.989	16.983	0.006	736749	61.2479	61.2
M	9 C9-C10				736749	61.2479	61.2
	8 Naphthalene	20.042	20.028	0.014	599685	58.8721	58.9
$	10 2,5-Dibromotoluene	21.797	21.781	0.016	421952	60.3473	60.3

Data File: /var/chem/gcv5b.i/2111107.b/v5029.d

Page 1

Date : 08-NOV-2011 11:52

Client ID: 21110312409

Instrument: gcv5b.i

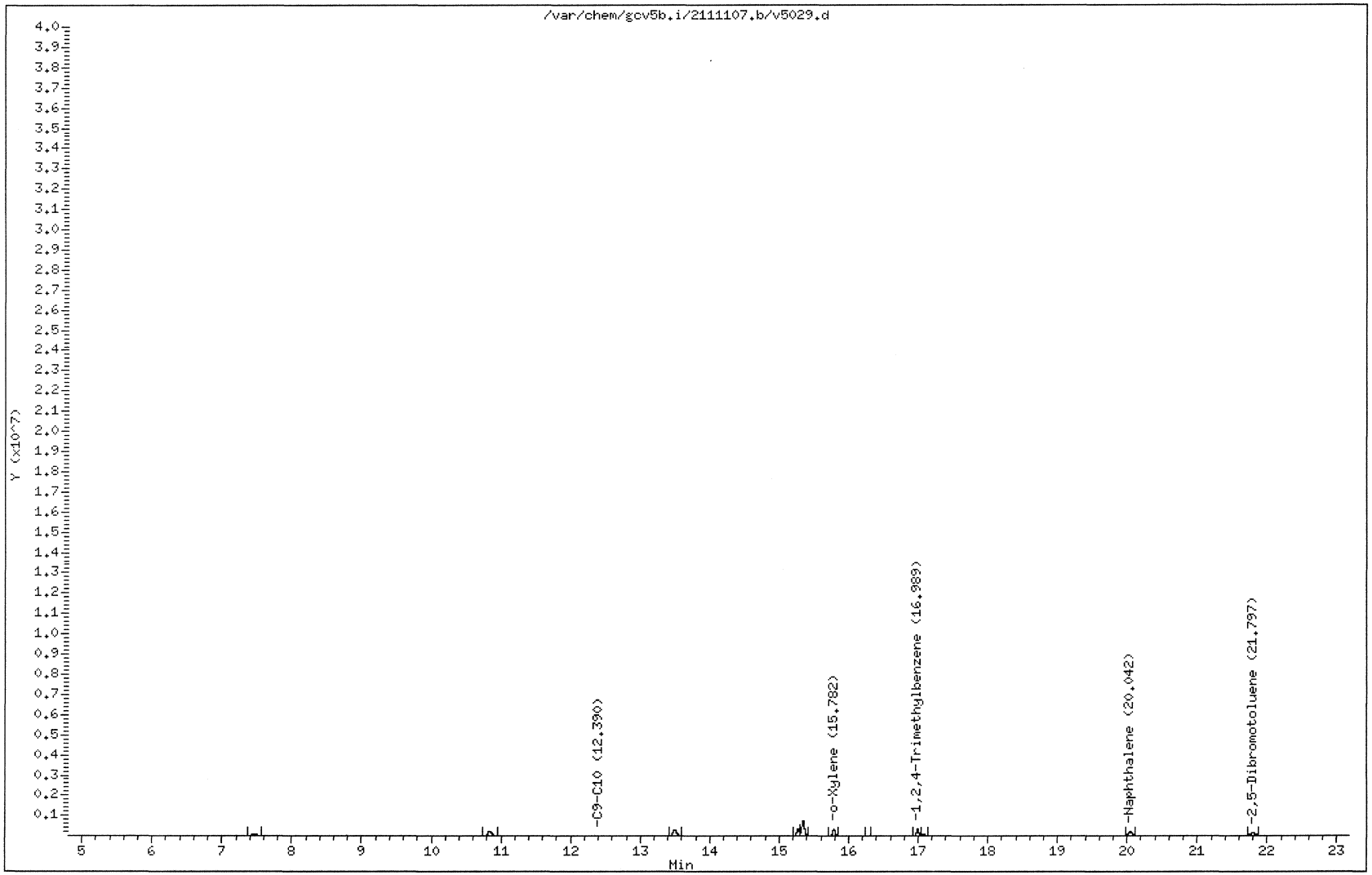
Sample Info: 21110312409

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

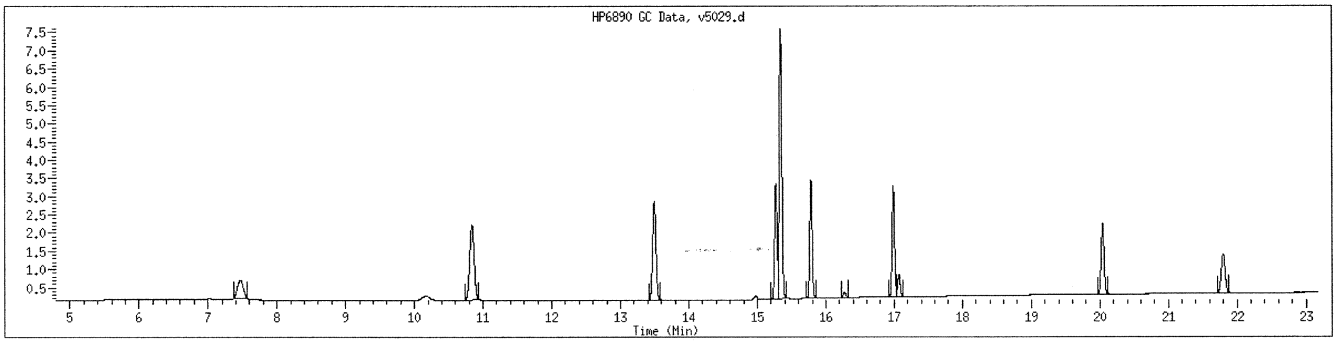


21110257 356

Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312409 SampleType : MS
Injection Date: 11/08/2011 11:52 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312409
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5029.d
Lab Smp Id: 21110312409 Client Smp ID: 21110312409
Inj Date : 08-NOV-2011 11:52
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312409
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:07 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2 C5-C8				1529527	155.685	156
	1 n-Pentane	5.267	5.269	-0.002	469035	52.1140	52.1
	3 2-Methyl Pentane	6.485	6.485	0.000	558084	53.4679	53.5
	6 Isooctane	9.566	9.563	0.003	502407	50.1034	50.1
	13 n-Decane	15.967	15.961	0.006	298413	53.7206	53.7
	15 n-Butylcyclohexane	16.751	16.743	0.008	349751	58.6982	58.7
	16 Naphthalene	19.632	19.618	0.014	511785	57.8071	57.8
M	5 C9-C12				648165	112.419	112
$	17 2,5-Dibromotoluene	21.309	21.295	0.014	175784	58.7976	58.8

Data File: /chem/gcv5a.i/2111107.b/v5029.d

Date : 08-NOV-2011 11:52

Client ID: 21110312409

Sample Info: 21110312409

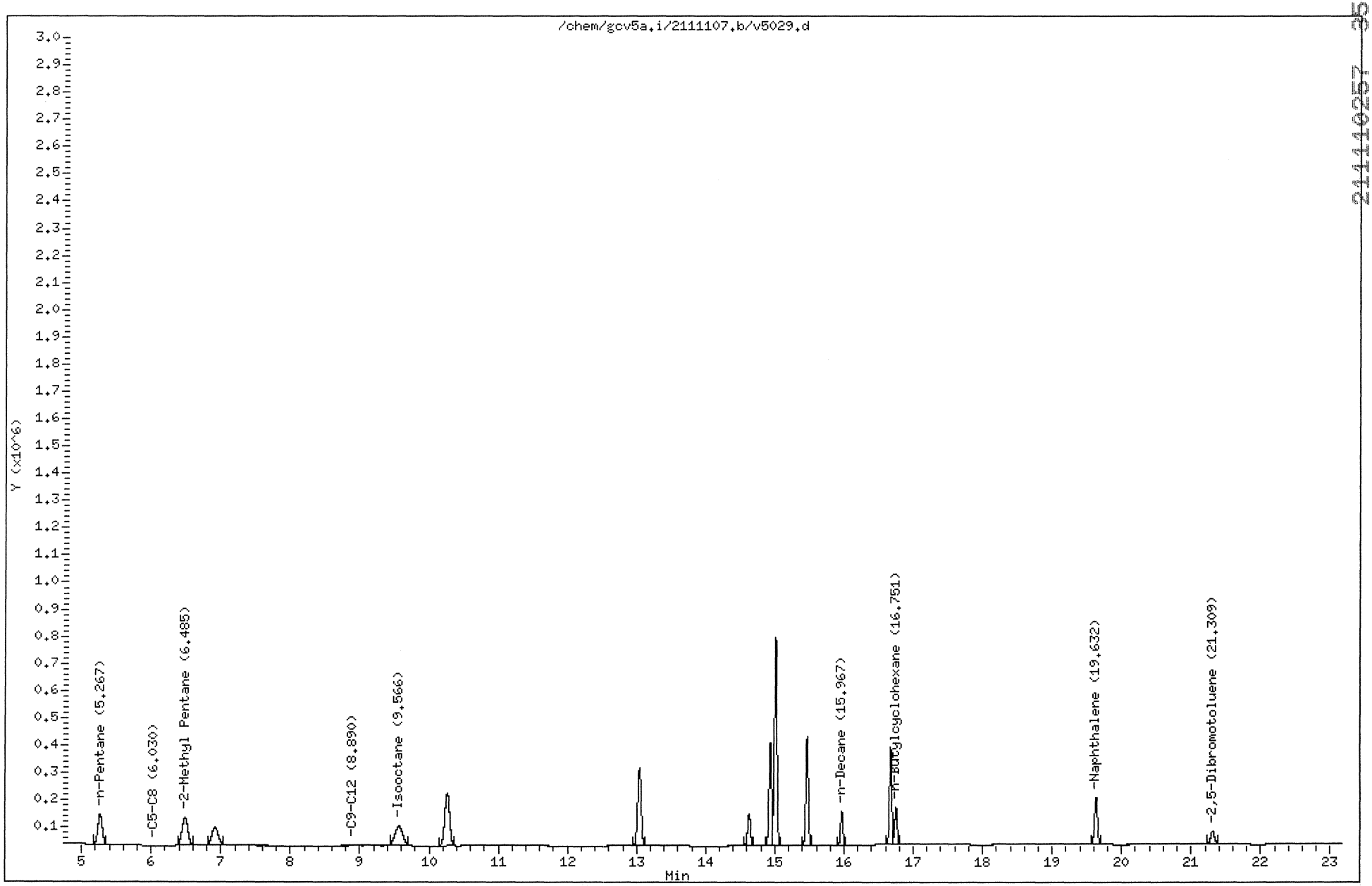
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

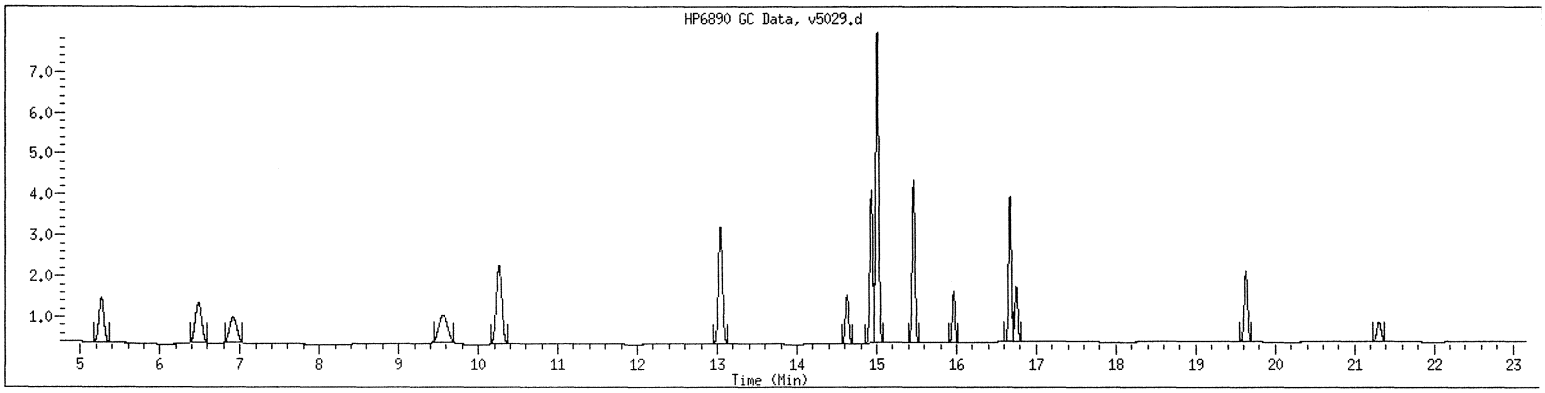
Operator: JAR

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312409	SampleType	: MS
Injection Date	: 11/08/2011 11:52	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312409		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES047 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312404

Level: (low/med) | Date Collected: 10/24/11 | Time: 0830

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 (µL) | Date Analyzed: 11/07/11 | Time: 1955

Soil Aliquot Volume: (µL) | Dilution Factor: 10 | Analyst: JAR

Injection Volume: 1 (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5015

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	1440		33.1	150	300
GCV-00-5	C9-C12 Aliphatic	1560		32.0	100	200
GCV-00-6	C9-C10 Aromatic	688		12.4	50.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5015.d
Lab Smp Id: 21110312404 Client Smp ID: 21110312404
Inj Date : 07-NOV-2011 19:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312404*10
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:36 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

			RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6	o-Xylene	16.983	15.777	1.206	671639	49.4955	495(M1)
	7	1,2,4-Trimethylbenzene	17.065	16.983	0.082	156074	12.9749	130(RM1)
M	9	C9-C10				827713	68.8100	688(R)
	8	Naphthalene	20.031	20.028	0.003	538473	52.8628	529
$	10	2,5-Dibromotoluene	21.784	21.781	0.003	363301	51.9591	520

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5015.d

Page 1

Date : 07-NOV-2011 19:55

Client ID: 21110312404

Instrument: gcv5b.i

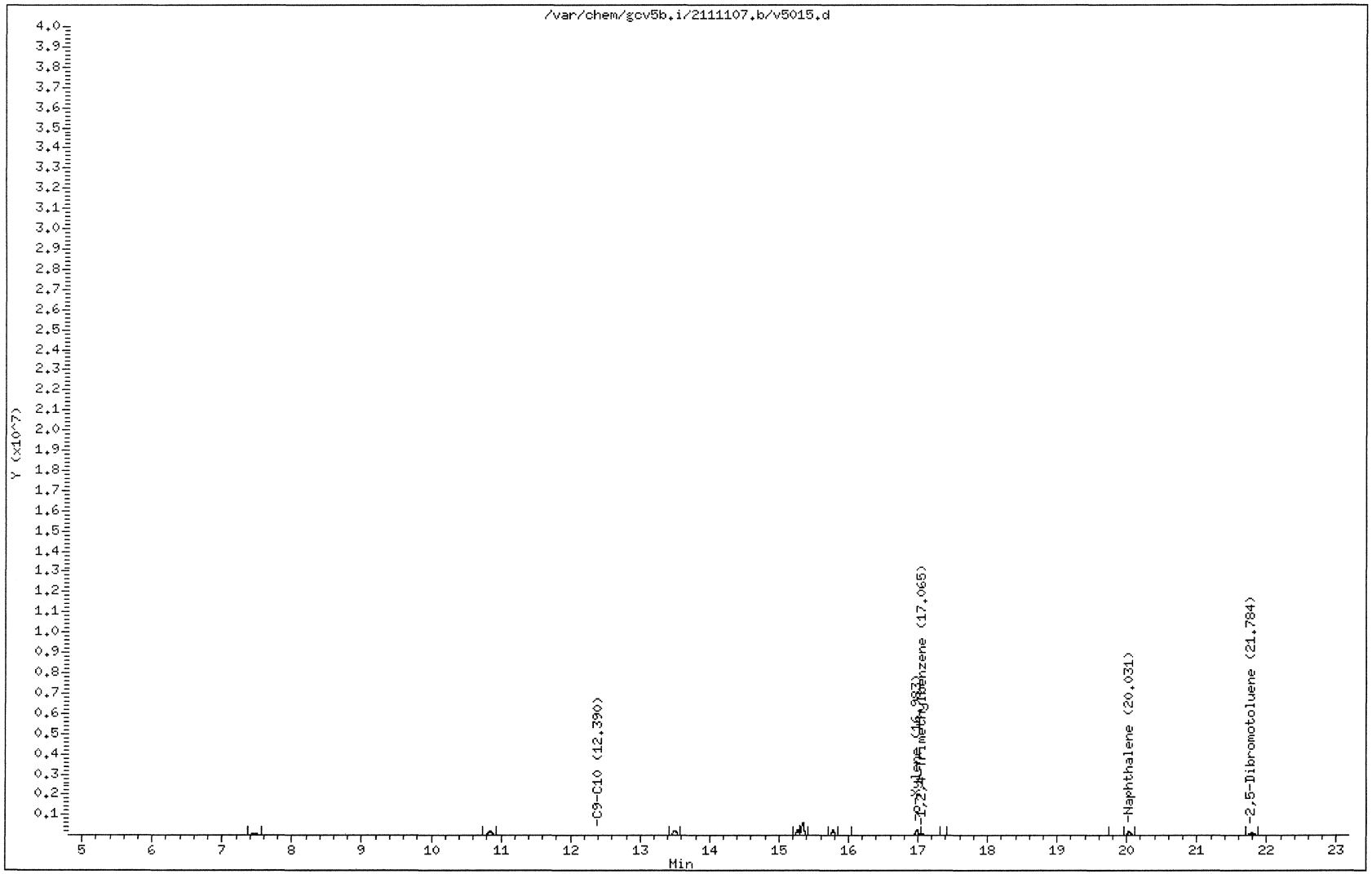
Sample Info: 21110312404*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53



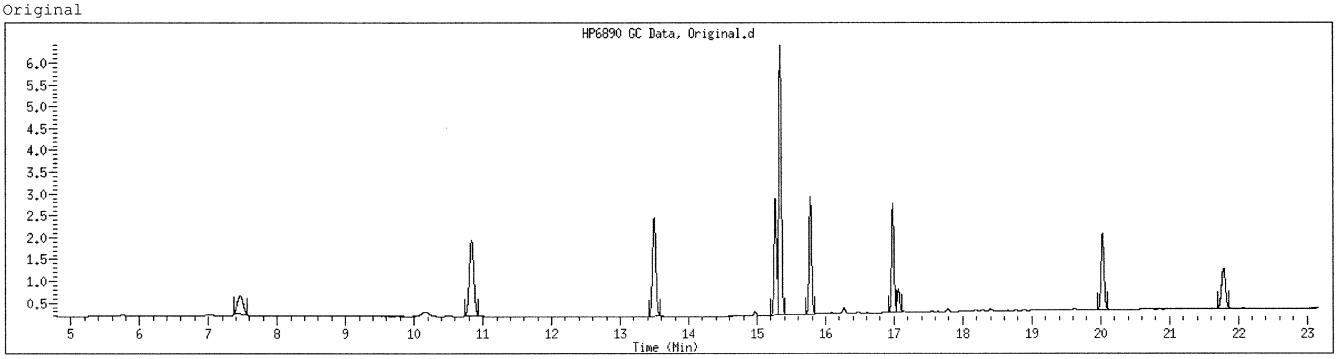
21110257 353

Report Date: 11/08/2011 13:36

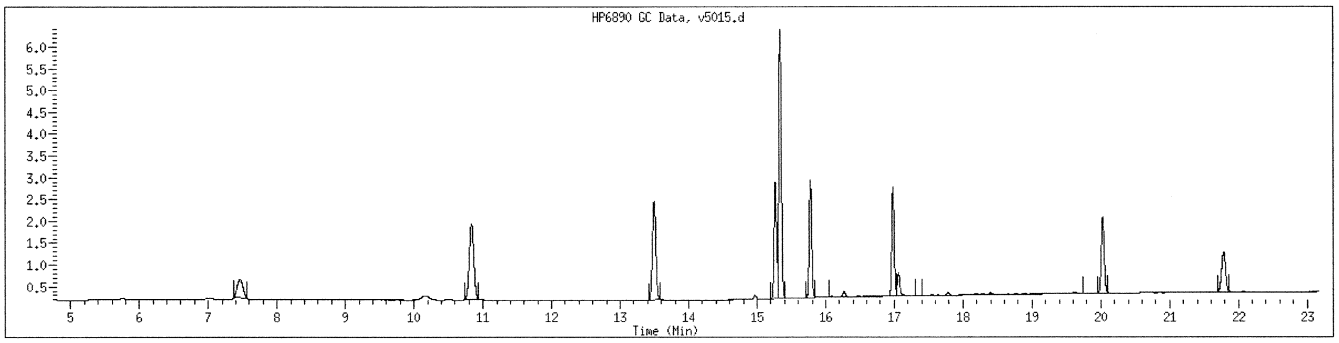
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312404 SampleType : MSD
Injection Date: 11/07/2011 19:55 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312404*10
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 10.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5015.d
Lab Smp Id: 21110312404 Client Smp ID: 21110312404
Inj Date : 07-NOV-2011 19:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312404*10
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

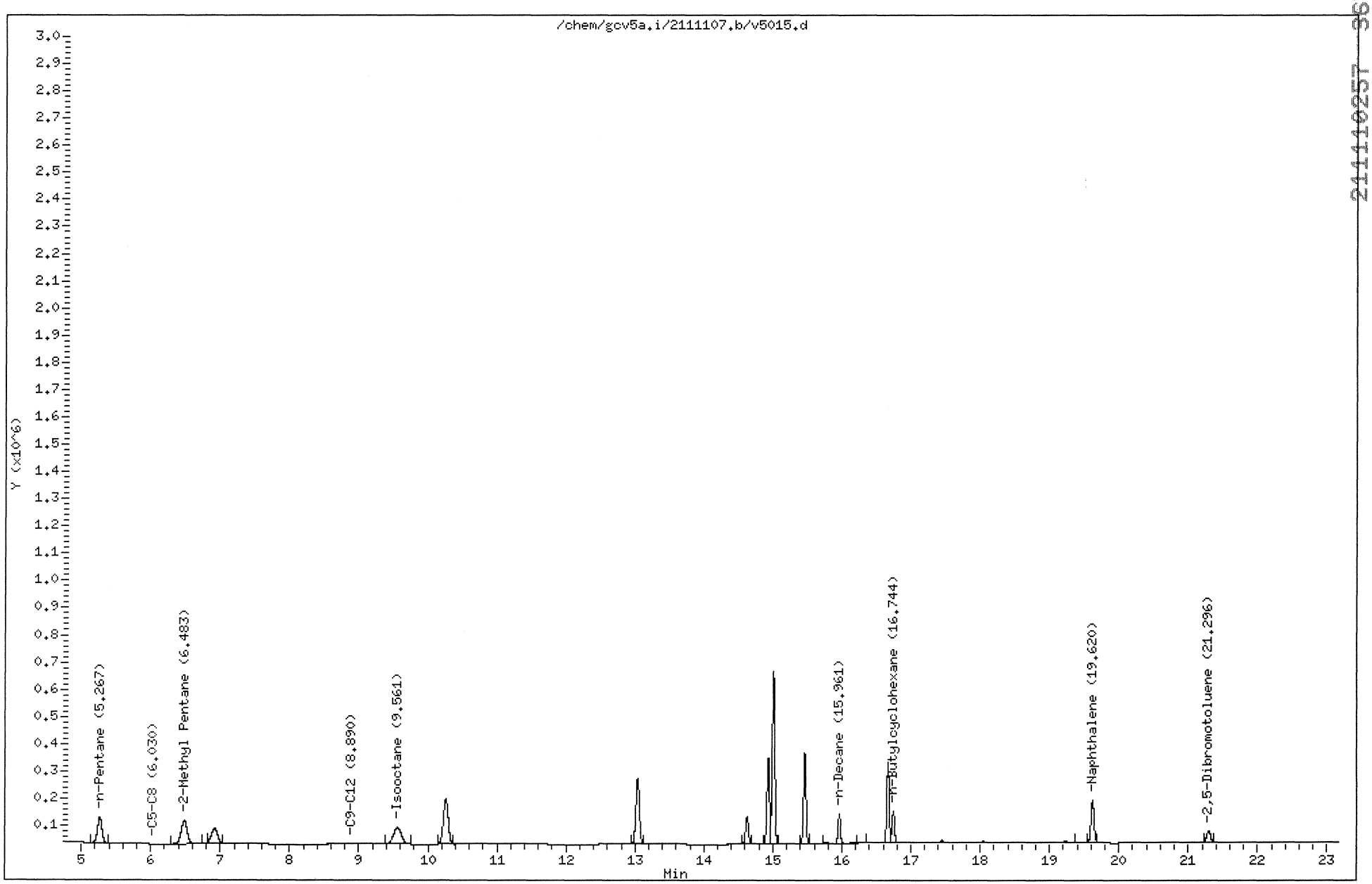
						CONCENTRATIONS	
						ON-COLUMN	FINAL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1418180	144.116	1440
	1 n-Pentane	5.267	5.266	0.001	413778	45.9745	460(M1)
	3 2-Methyl Pentane	6.483	6.482	0.001	516302	49.4648	495(M1)
	6 Isooctane	9.561	9.562	-0.001	488099	48.6766	487(M1)
	13 n-Decane	15.961	15.963	-0.002	288918	52.0113	520(M1)
	15 n-Butylcyclohexane	16.744	16.746	-0.002	616692	103.498	1030(AM1)
	16 Naphthalene	19.620	19.623	-0.003	459623	51.9153	519
M	5 C9-C12				905611	155.510	1560
$	17 2,5-Dibromotoluene	21.296	21.301	-0.005	147772	49.4278	494

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5015.d
Date : 07-NOV-2011 19:55
Client ID: 21110312404
Sample Info: 21110312404*10
Volume Injected (uL): 1.0
Column phase: DB-624-30

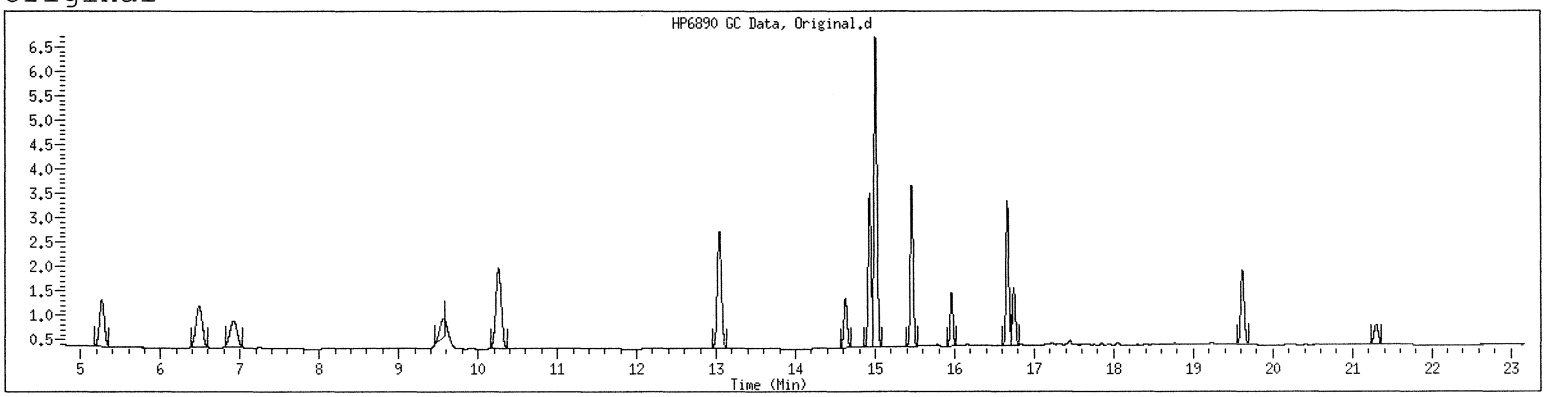
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



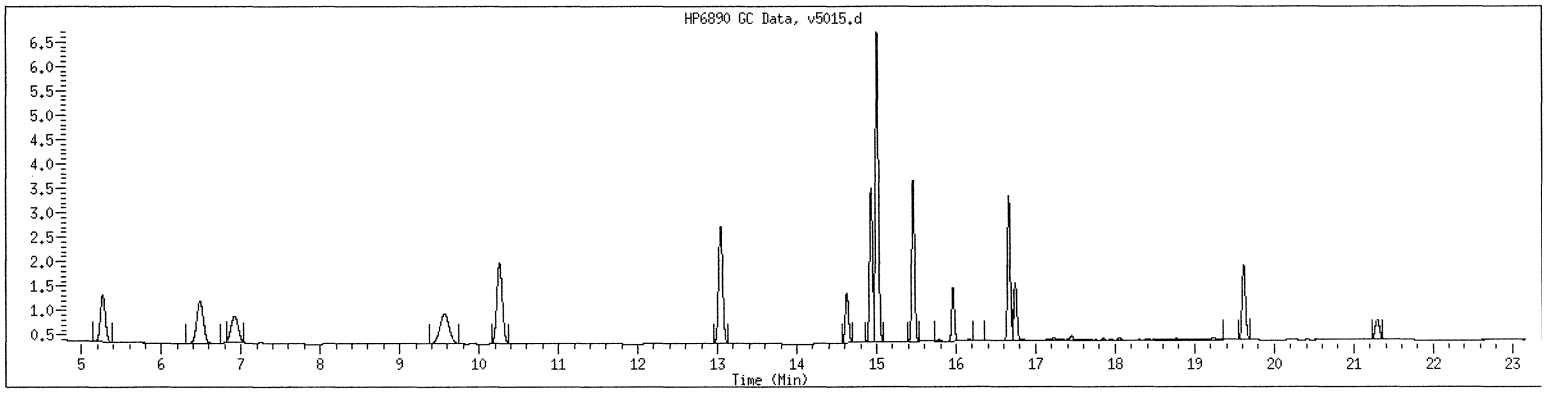
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312404	SampleType	: SAMPLE
Injection Date	: 11/07/2011 19:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312404*10		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 10.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES053 MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110257

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21110312410

Level: (low/med) | Date Collected: 10/26/11 | Time: 1043

% Moisture: | decanted: (Y/N) | Date Received: 10/29/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 (µL) | Date Analyzed: 11/08/11 | Time: 1222

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5030

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	170		3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	117		3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	61.0		1.24	5.00	10.0

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5030.d
Lab Smp Id: 21110312410 Client Smp ID: 21110312410
Inj Date : 08-NOV-2011 12:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21110312410
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	6 o-Xylene	15.780	15.777	0.003	812881	59.9041	59.9
	7 1,2,4-Trimethylbenzene	16.987	16.983	0.004	745009	61.9346	61.9
M	9 C9-C10				745009	61.9346	61.9
	8 Naphthalene	20.038	20.028	0.010	621502	61.0139	61.0
$	10 2,5-Dibromotoluene	21.789	21.781	0.008	410206	58.6674	58.7

Data File: /var/chem/gcv5b.i/2111107.b/v5030.d

Page 1

Date : 08-NOV-2011 12:22

Client ID: 21110312410

Instrument: gcv5b.i

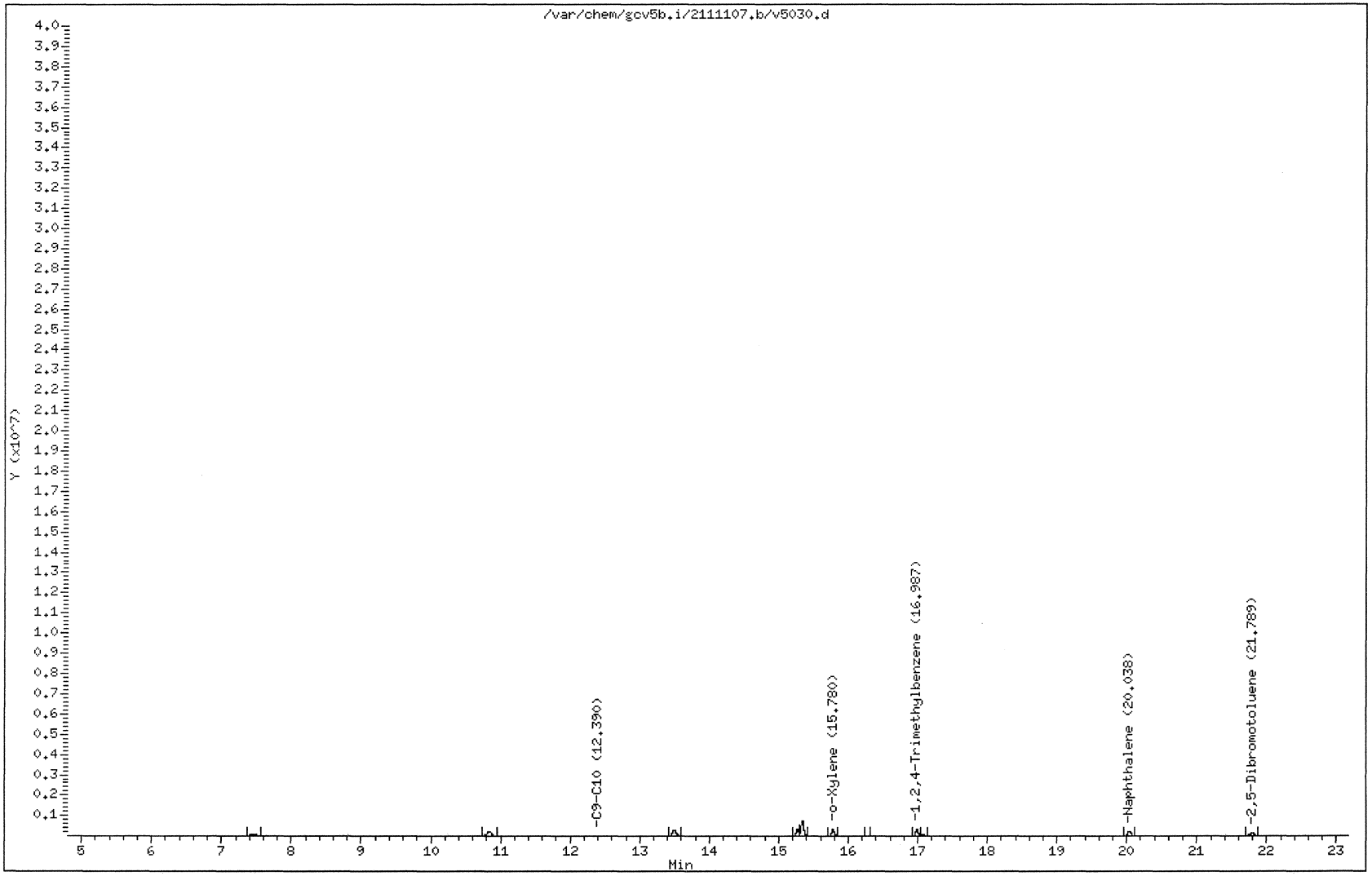
Sample Info: 21110312410

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

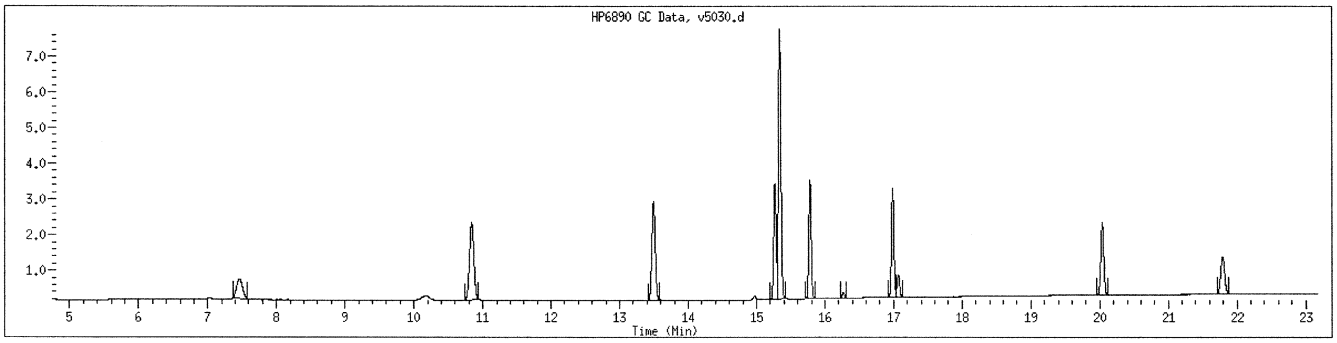
Column diameter: 0.53



Report Date: 11/08/2011 13:44

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 21110312410 SampleType : MSD
Injection Date: 11/08/2011 12:22 Instrument : gcv5b.i
Operator : JAR
Sample Info : 21110312410
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5030.d
Lab Smp Id: 21110312410 Client Smp ID: 21110312410
Inj Date : 08-NOV-2011 12:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21110312410
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:21 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2 C5-C8				1674195	170.353	170
	1 n-Pentane	5.266	5.266	0.000	501104	55.6771	55.7
	3 2-Methyl Pentane	6.484	6.483	0.001	589852	56.5113	56.5
	6 Isooctane	9.560	9.561	-0.001	583239	58.1645	58.2(M1)
	13 n-Decane	15.964	15.965	-0.001	316713	57.0148	57.0
	15 n-Butylcyclohexane	16.748	16.748	0.000	356775	59.8769	59.9
	16 Naphthalene	19.627	19.628	-0.001	531738	60.0608	60.1
M	5 C9-C12				673488	116.892	117
$	17 2,5-Dibromotoluene	21.304	21.306	-0.002	170066	56.8849	56.9

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5030.d

Date : 08-NOV-2011 12:22

Client ID: 21110312410

Instrument: gcv5a.i

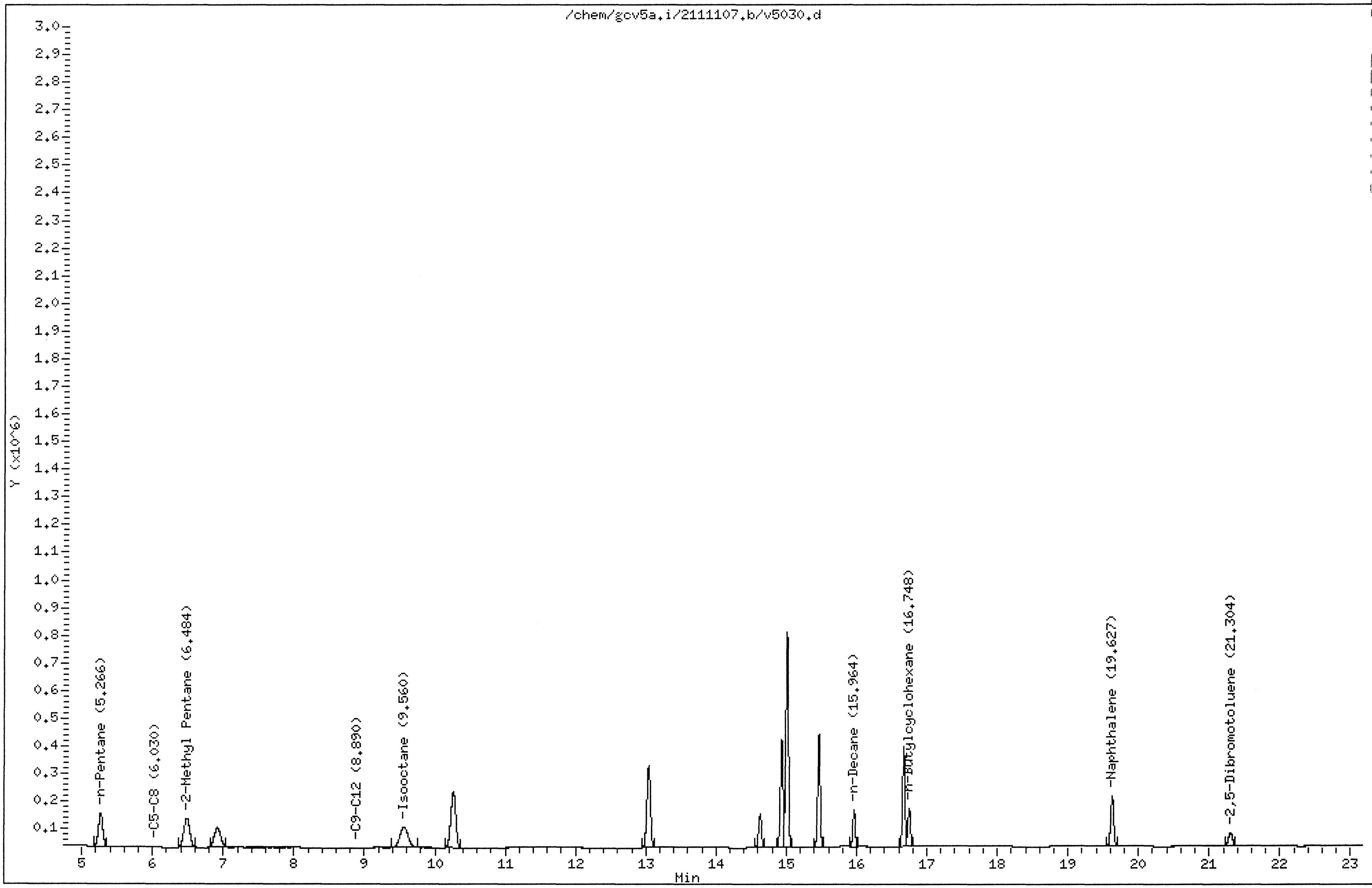
Sample Info: 21110312410

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

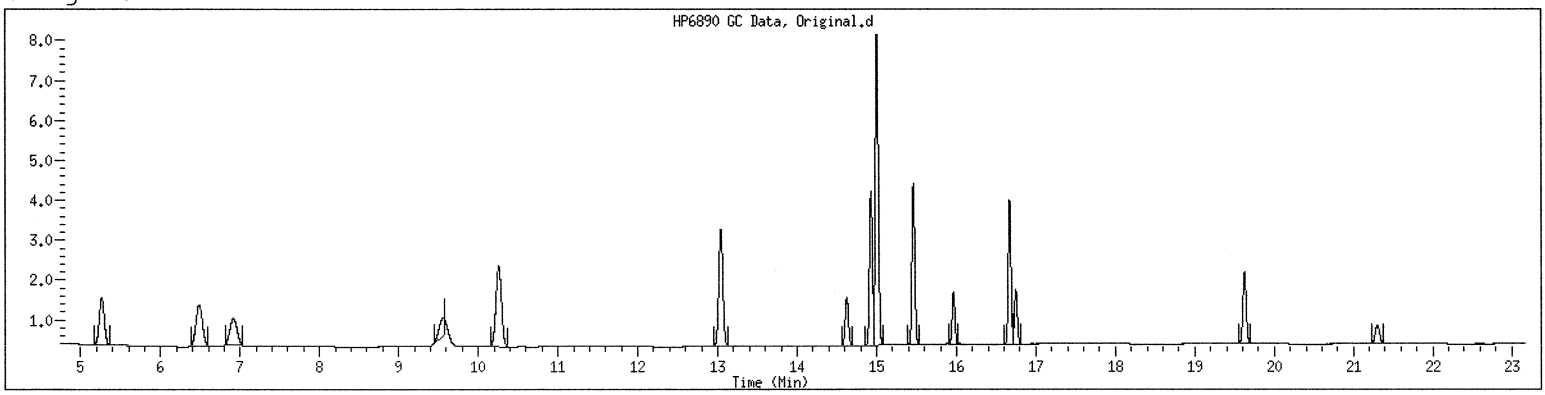
Column diameter: 0.53



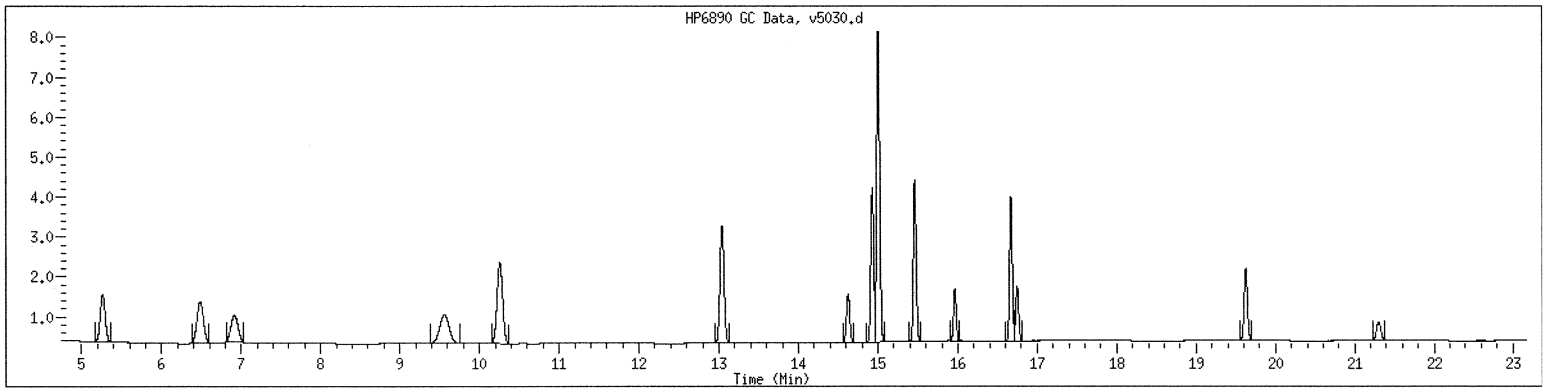
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21110312410	SampleType	: MSD
Injection Date	: 11/08/2011 12:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21110312410		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Batch: /chem/gcv5b.i/2111104P.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aromatic
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aromatic
VPH20/6/12/4		v5005.d	5.00 g	04-NOV-2011 22:55	50.000	JAR	1	aromatic
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aromatic
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aromatic
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aromatic
ICV6/12/5		v5013.d	5.00 g	05-NOV-2011 02:51	50.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Batch: /var/chem/gcv5b.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	5.00 g	07-NOV-2011 11:22	50.000	JAR	1	aromatic
1003188		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aromatic
1003187		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aromatic
BLK		v5004.d	5.00 g	07-NOV-2011 12:50	50.000	JAR	1	aromatic
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	50.000	JAR	1	aromatic
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	50.000	JAR	1	aromatic
21110202105		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aromatic
21110202105		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aromatic
21110202112		v5009.d	5.00 g	07-NOV-2011 15:17	50.000	JAR	1	aromatic
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aromatic
VPH6/12/4		v5011.d	5.00 g	07-NOV-2011 16:16	50.000	JAR	1	aromatic
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aromatic
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aromatic
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aromatic
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aromatic
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aromatic
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aromatic
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aromatic
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aromatic
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aromatic
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aromatic
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aromatic
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aromatic
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aromatic
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aromatic
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aromatic
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aromatic
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aromatic
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aromatic
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Batch: /var/chem/gcv5a.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	1.00 ml	07-NOV-2011 11:22	1.000	JAR	1	aliphatic1+surr
lcs6/12/4		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aliphatic1+surr
BLK		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aliphatic1+surr
BLK		v5004.d	1.00 ml	07-NOV-2011 12:50	1.000	JAR	1	aliphatic1+surr
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	100.000	JAR	1	aliphatic1+surr
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	100.000	JAR	1	aliphatic1+surr
21110270701		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aliphatic1+surr
21110270701		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aliphatic1+surr
21110202112		v5009.d	1.00 ml	07-NOV-2011 15:17	50.000	JAR	1	aliphatic1+surr
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5011.d	1.00 ml	07-NOV-2011 16:16	1.000	JAR	1	aliphatic1+surr
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aliphatic1+surr
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aliphatic1+surr
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aliphatic1+surr
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aliphatic1+surr
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aliphatic1+surr
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aliphatic1+surr
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aliphatic1+surr
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aliphatic1+surr
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aliphatic1+surr
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aliphatic1+surr
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aliphatic1+surr
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aliphatic1+surr
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aliphatic1+surr
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aliphatic1+surr

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Batch: /chem/gcv5a.i/2111104p.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aliphatic1+surr
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aliphatic1+surr
VPH20/6/12/4		v5005.d	1.00 ml	04-NOV-2011 22:55	1.000	JAR	1	aliphatic1+surr
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aliphatic1+surr
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aliphatic1+surr
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aliphatic1+surr
ICV6/12/5		v5013.d	1.00 ml	05-NOV-2011 02:51	1.000	JAR	1	aliphatic1+surr

General Accts / 9000 / 211110257 Due 11/8/11

SUBCONTRACT ORDER

APPL, Inc.

ARF: 66116 **PO: 00-66116**

SENDING LABORATORY:	RECEIVING LABORATORY:
APPL Labs	Gulf Coast Analytical
908 North Temperance Ave.	7979 GSRI Rd.
Clovis, CA 93611	Baton Rouge, LA 70820
Phone: (559) 275-2175	Phone: (225) 769-4900x
Fax: (559) 275-4422	Fax:
Project Manager: Cynthia Clark (cclark@applinc.com) rp	DOD Expiration Date:

Comments: Level IV report - DoD format (LOQ/LOD/DL), ADR (A1/A3 8.3a unchecked) EDD and Excel EDD

	APPL ID	Sample ID	LOC ID	Matrix	Collected	Analysis		Price
1.	AY49481	ES050		Water	10/25/11 09:50	MADEP-EPH		$125.00
				Water	10/25/11 09:50	MADEP-VPH	6	$75.00
2.	AY49482	ES051		Water	10/25/11 11:30	MADEP-EPH		$125.00
				Water	10/25/11 11:30	MADEP-VPH	7	$75.00

Released By	Date	Time	Received By	Date	Time
Jang Zo	YC 10/28/11 10/28/11	10/28/11	14:30		
Released By	Date	Time	Received By	Date	Time
			Gauciers	10/29/11	910

To ensure timely payment, please include the PO number on your invoice

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

SAMPLE RECEIVING CHECKLIST

Workorder: 211110257

Client: 9000 - General Accounts

Profile: 227122 - Appl, Inc.

Line Item: 1 - Waters

Received by: Saucier, Charlotte

Received Date/Time: 10/29/2011 9:10:00 AM

Samples Received via: FEDEX

Number of Coolers Received: 3

Cooler tracking numbers(s): 4796 7085 3220 / 4796 7085 3231 / 4796 7085 3242

Cooler temperature(s): 5.9, 5.8, 3.4

Were all coolers received at a temperature of 0 - 6° C?	☑ Yes	☐ No	☐ N/A
Were all custody seals intact?	☑ Yes	☐ No	☐ N/A
Were all samples received in proper containers?	☑ Yes	☐ No	☐ N/A
Were all samples properly preserved?	☑ Yes	☐ No	☐ N/A
Was preservative added to any container at the lab?	☐ Yes	☑ No	☐ N/A
Were all containers received in good condition?	☑ Yes	☐ No	☐ N/A
Were all VOA vials received with no head space?	☑ Yes	☐ No	☐ N/A
Do all sample labels match the Chain of Custody?	☑ Yes	☐ No	☐ N/A
Was the client notified about any discrepancies?	☐ Yes	☐ No	☑ N/A

Notes/Comments:

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: 05233CA
DoD-ELAP Certificate number: ADE-1410

Data Validatable Report

December 12, 2011

Environet, Inc.
650 Iwilei Road, #204
Honolulu, HI 96817

Attn: Stacey Fineran

Title: Report of Data: Case 66186

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

Contract #: Prime contract # for DoD: N62742-08-D-1930, CTO HC21

Dear Ms. Fineran:

Samples were received November 3, 2011, in good condition. Written results for the requested analyses are provided on this December 12, 2011.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

The MADEP-EPH and VPH analyses were subcontracted to Gulf coast Analytical Laboratories, Inc.

If you have any questions or require further information, please contact your APPL Project Manager, Diane Anderson, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director
APPL, Inc.

SD/sdm
Enclosure
cc: File

Number of pages in this report: 327

Data Validation Package
for

LTM Red Hill Bulk Fuel Storage Facility

SDG 66186

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 66186

Project: 1022-024 LTM Red Hill Bulk Fuel Storage Facility

Sample Receipt Information:

The samples were received on November 3, 2011, at 3.0°C. The samples were assigned Analytical Request Form (ARF) number 66186. The sample numbers and requested analysis were compared to the chains of custody and email communications. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
ES056	AY50004	WATER	11/2/2011	11/3/2011
ES057	AY50005	WATER	11/2/2011	11/3/2011

Samples and blanks were screened for J-value responses between the detection limit (DL) and limit of quantitation (LOQ).

APPL's laboratory control limits generated in house statistically do not meet the control limits listed in DoD QSM 4.2 for all analytes. Laboratory control spike recoveries for this project meet all control limits listed in the DoD QSM 4.2 except where noted. A copy of our in house generated control limits is available upon request. In addition, a copy of our LOQ control limits, established using 7 data points, are also available upon request.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request.

Measurement uncertainty can be reported upon request.

CASE NARRATIVE

EPA Method 8015B

Total Petroleum Hydrocarbons – Diesel

Sample Preparation:

The water samples were extracted according to EPA method 3510C. The samples were extracted within holding time.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a flame ionization detector.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limit in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All acceptance criteria were met.

No sample was designated for MS/MSD analysis.

Surrogates:

The surrogate recoveries are summarized on the form 2 & 8. All surrogate recoveries were within control limits.

Summary:

No other problem was encountered

EPA Method 8270D SIM

Polynuclear Aromatic Hydrocarbons

Sample Preparation:

The water sample was extracted according to EPA method 3510C. All holding times were met.

Sample Analysis Information:

The sample was analyzed according to EPA method 8270D using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector in selective ion monitoring mode.

Quality Control/Assurance

Calibrations:

Initial and continuing calibrations were performed according to the method. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blank.

Spikes:

A Laboratory Control Spike (LCS) was used for quality assurance. All spike criteria were met.

No sample was designated for MS/MSD analysis.

Surrogates

Surrogate recoveries are summarized on the forms 2&8. All surrogate recoveries were within control limits.

Tuning:

The instrument was tuned using DFTPP. All method criteria were met.

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

No problem was encountered.

EPA Method 8260B

Volatile Organic Analysis

Sample Preparation:

The water samples were purged according to EPA method 5030B. All holding times were met.

Sample Analysis Information:

The samples were analyzed according to the method using a Hewlett Packard Gas Chromatograph with a mass spectrometer detector. All holding times were met.

Quality Control/Assurance:

Calibrations:

Initial and continuing calibrations were performed according to the method. All system performance check compounds and calibration check compounds met DoD acceptance criteria. All calibration criteria were met.

Blanks:

No target analyte was detected above the detection limits in the method blanks.

Spikes:

Laboratory Control Spikes (LCS) were used for quality assurance. A second-source standard was used for the LCS. All second-source and LCS criteria were met.

There was no sample designated for MS/MSD analysis.

Surrogates:

Surrogate recoveries are summarized on Form 2 & 8. All surrogate recoveries were within the acceptance limits.

Tuning:

The instrument was tuned using BFB. All method criteria were met.

Internal Standards:

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8260. All method criteria were met.

Summary:

No other problem was encountered. The data generated are acceptable.

EPA Method 6020

Dissolved Lead

Digestion Information:

The water samples were digested according to EPA methods 3015. All holding times were met.

Analysis Information:

Samples:

The samples were analyzed for dissolved lead according to EPA method 6020 using an Agilent 7500CX ICP-MS.

Calibrations:

The initial and continuing calibrations were analyzed according to the DoD QSM. The initial calibration verification is prepared from a second source standard.

Blanks:

No metal was detected at or above one-half the LOQ in the method blank.

Spikes:

Laboratory Control Spike (LCS), matrix spikes (MS/MSD), post digestion spike (PDS), and serial dilution were used for quality assurance. All LCS recoveries were within the acceptance limits.

Sample ES053 (ARF 66133) was designated by the laboratory as QC sample for the analytical batch. The PDS and DT are reported in ARF 66133.

Summary:

No analytical exception is noted.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

_____

Sharon Dehmlow, Laboratory Director / Date

Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
M1	Manual integration: integration does not follow baseline
M2	Manual integration: non-target peak interference
M3	Manual integration: to split a peak that was integrated as one peak by the computer
M4	Manual integration: to integrate a split peak
M5	Manual integration: the whole peak or part of the peak was not integrated
M6	Manual integration: computer integrated wrong peak
M7	Manual integration: other - explain
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, i.e. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, i.e. asphaltene, waster oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel.
Y	Percent difference between primary and confirmation column > 40%

CHAIN OF CUSTODY,
ARF, CRF, AND
CLIENT COMMUNICATION

APPL - Analysis Request Form 66186

Client: **Environet, Inc.**
Address: **650 Iwilei Rd, #204**
Honolulu, HI 96817
Attn: **Stacey Fineran**
Phone: **808-833-2225** Fax: **808-833-2231**
Job: **RED HILL/1022-024**
PO #: **1022-024**
Chain of Custody (Y/N): **Y** # **1853**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **2 WEEKS**

Received by: **TBV**
Date Received: **11/03/11** Time: **10:15**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **HAST**
Chest Temp(s): **3.0°C**
Color: **VOA,A-GRN,SUB,R-OYEL**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/ADRDOD/HI**
Due Date: **11/17/11**

Comments:
14 day TAT for Form 1s & 30 day TAT for full package. VDupra@environetinc.com
1 pdf on CD or FTP (no hard copy), NO hard copy to LDC per Stacy 2-24-11
Guidance: DOD QSM, DoD Forms, J flag to DL, U flag at LOD
EDD ADR A1/A3 (ADR 8.3a unchecked) to VDupra@ & sfineran@environetinc.com
metals 6020: report Lead with 0.5ug/L RL
TPH-Diesel only; VOCs: include gasoline by 8260B
MA-EPH & VPH subcontracted to Gulf Coast Analytical.

Sample Distribution:
GC: 1-$SIMHC12W, 1-$TPETD2
Extractions: 1-_SEP004S, 1-_SEP011
VOA: 2-$86RHBF
Metals: 1-$602D(Pb)
Other: 1-_M3015, 1-SUB

Charges:

Invoice To: same

Client ID	APPL ID	Sampled	Analyses Requested
1. ES056	AY50004	11/02/11 07:00	$86RHBF -- unpreserved VOA vials
2. ES057	AY50005	11/02/11 11:05	$602D(Pb), $86RHBF, $SIMHC12W, $TPETD2, SUB -- unpreserved VOA vials

APPL Sample Receipt Form

ARF# **66186**

Sample	Container Type	Count	pH
AY50004	[15] VOAs - NP	1	NA
AY50005	[6] PL 500mL - HNO3	1	1.7
	[13] VOAs - HCL	3	NA
	[15] VOAs - NP	4	NA
	[17] Amber Liter	3	NA
	[26] Other	2	NA

Sample	Container Type	Count	pH

66186
3.0

APPL, INC

APPL, Inc. 908 N Temperance Ave, Clovis, CA 93611
Phone: 559-275-2175 Fax: 559-275-4422

CHAIN OF CUSTODY RECORD

Client: Environet Inc.	~~Person~~ Geographic Lead	Date: 11-2-11	Chain of Custody Number: 1995
Address: 650 Iwilei Road	Telephone Number (Area Code)/Fax Number: 808-833-2225	Lab Number: 559 275-2175	Page: 1 of 1
City: Honolulu / State: HI / Zip Code: 96817	Site Contact	Lab Contact: *Diane Anderson*	Analysis (Attach list if more space is needed)
Project Name and Location (State): Red Hill Bulk Storage Facility HI	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: 1022-024			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: AQ	Sed.	Soil		Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH		TPH-GRO	VOCs	TPH-DRO	PAHs	dissolved Lead	MADEP-VPH	MADEP-EPH			Firing Point	High Lead	HE Site	Special Instructions/ Conditions of Receipt
ES056	11-2-11	0700	X				1								X											
ES057	11-2-11	1105	X				5			1	7			X	X	X	X	X	X	X						
Temp Blank			X				1																			

1. Relinquished By	Date: 11-2-11	Time: 13:22	1. Received By	Date: 11/3/11	Time: 1015
2. Relinquished By	Date	Time	2. Received By	Date	Time

Comments **Fed Ex Priority Overnight**

# of Coolers this Shipment

DISTRIBUTION: WHITE - Returned to Client with Report Canary - Stays with the Sample Pink - Field Copy

COOLER RECEIPT FORM -

1) Project: LTM Red Hill Bulk Fuel Storage Facility Date Received: 11/3/11

2) Coolers: Number of Coolers: 1

3) YES NO Were coolers and samples screened for radioactivity?

4) YES NO Were custody seals on outside of cooler? How many? 1 Date on seal? 11/2/11

5) Name on seal? See label below

6) YES NO NA Were custody seals unbroken and intact at the time of arrival?

7) YES NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex

8) Shipping slip numbers: 1) 8764-1283-2410 2) 3)

9) YES NO NA Was the shipping slip scanned into the database?

10) YES NO NA If cooler belongs to APPL, has it been logged into the ice chest database?

11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): Zip Lock Bubble wrapped - wet ice

12) YES NO NA For hand delivered samples was sufficient ice present to start the cooling process?

13) YES NO Was a temperature blank included in the cooler?

14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0

15) Cooler temp(s): 1) 3.0°C 2) 3) 4) 5) 6) 7) 8)

Chain of custody:

16) YES NO Was a chain of custody received?

17) YES NO Were the custody papers signed in the appropriate places?

18) YES NO Was the project identifiable from custody papers?

19) YES NO Did the chain of custody include date and time of sampling?

20) YES NO Is location where sample was taken listed on the chain of custody?

Sample Labels:

21) YES NO Were container labels in good condition?

22) YES NO Was the client ID on the label?

23) YES NO Was the date of sampling on the label?

24) YES NO Was the time of sampling on the label?

25) YES NO Did all container labels agree with custody papers?

Sample Containers:

26) YES NO Were all containers sealed in separate bags?

27) YES NO Did all containers arrive unbroken?

28) YES NO Was there any leakage from samples?

29) YES NO Were any of the lids cracked or broken?

30) YES NO Were correct containers used for the tests indicated?

31) YES NO Was a sufficient amount of sample sent for tests indicated?

32) YES NO NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:

Larger than a pea:

Smaller than a pea:

Preservation & Hold time:

33) YES NO NA Was a sufficient amount of holding time remaining to analyze the samples?

34) YES NO NA Do the sample containers contain the same preservative as what is stated on the COC?

35) YES NO NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

36) YES NO NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?

37) YES NO NA Unpreserved VOA Vials received?

38) YES NO NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF? 11/3/11

Lab notified if pH was not adequate:

Deficiencies:

Signature of personnel receiving samples: Second reviewer:

Signature of project manager notified: Date and Time of notification:

Name of client notified: Date and Time of notification:

Information given to client:

by whom (Initials):

CUSTODY SEAL
APPL, Inc. (559) 275-2175
Date 11-2-11
Initials

EPA 8015 Modified
Total Petroleum Hydrocarbons

APPL, INC.

EPA 8015 Modified
Total Petroleum Hydrocarbons
QC Summary

APPL, INC.

Method Blank
TPH Diesel Water

Blank Name/QCG: **111108W-50005 - 161797**
Batch ID: #TPETD-111108A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	11/08/11	11/11/11
BLANK	SURROGATE: OCTACOSANE (S)	78.6	28-142			%	11/08/11	11/11/11
BLANK	SURROGATE: ORTHO-TERPHEN	78.5	57-132			%	11/08/11	11/11/11

Quant Method:TPH1108.M
Run #:1110052
Instrument:APOLLO
Sequence:111110
Initials:LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 2:44:01 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/11/11

Matrix: WATER Instrument: APOLLO

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	28-142	78.6		57-132	78.5	
111108A-LCS	Lab Control Spike	28-142	82.7		57-132	94.0	
AY50005	ES057	28-142	73.2		57-132	70.9	

Comments: Batch: #TPETD-111108A

Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111108W-50005 LCS - 161797**
Batch ID: #TPETD-111108A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	124	82.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	141	94.0	57-132

Comments:

Primary	SPK
Quant Method :	TPH1108.M
Extraction Date :	11/08/11
Analysis Date :	11/11/11
Instrument :	APOLLO
Run :	1110053
Initials :	LA

Printed: 11/30/11 2:43:55 PM

APPL Standard LCS

EPA 8015B-e

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/11/11

Matrix: WATER Instrument: APOLLO

Blank ID: 111108A-BLK Time Analyzed: 0605

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111108A-BLK	Blank	1110052	11/11/11 0605
111108A-LCS	Lab Control Spike	1110053	11/11/11 0628
AY50005	ES057	1110055	11/11/11 0715

Comments: Batch: #TPETD-111108A

EPA 8015 Modified
Total Petroleum Hydrocarbons
Sample Data

APPL, INC.

TPH Diesel Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES057
Sample Collection Date: 11/02/11

ARF: 66186
APPL ID: AY50005
QCG: #TPETD-111108A-161797

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-	DIESEL FUEL	210 ++	150	80.8	40.4	ug/L	11/08/11	11/11/11
EPA 8015B-	SURROGATE: OCTACOSANE (S)	73.2	28-142			%	11/08/11	11/11/11
EPA 8015B-	SURROGATE: ORTHO-TERPHENYL (S	70.9	57-132			%	11/08/11	11/11/11

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: TPH1108.M
Run #: 1110055
Instrument: APOLLO
Sequence: 111110
Dilution Factor: 1
Initials: LA

Printed: 11/30/11 2:43:58 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110055.D Vial: 55
Acq On : 11-11-11 7:15:54 Operator: LAC
Sample : AY50005W07 5/1030 Inst : Apollo
Misc : Water Multiplr: 4.85
IntFile : events.e
Quant Time: Nov 30 14:31 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 14 13:54:20 2011
Response via : Multiple Level Calibration

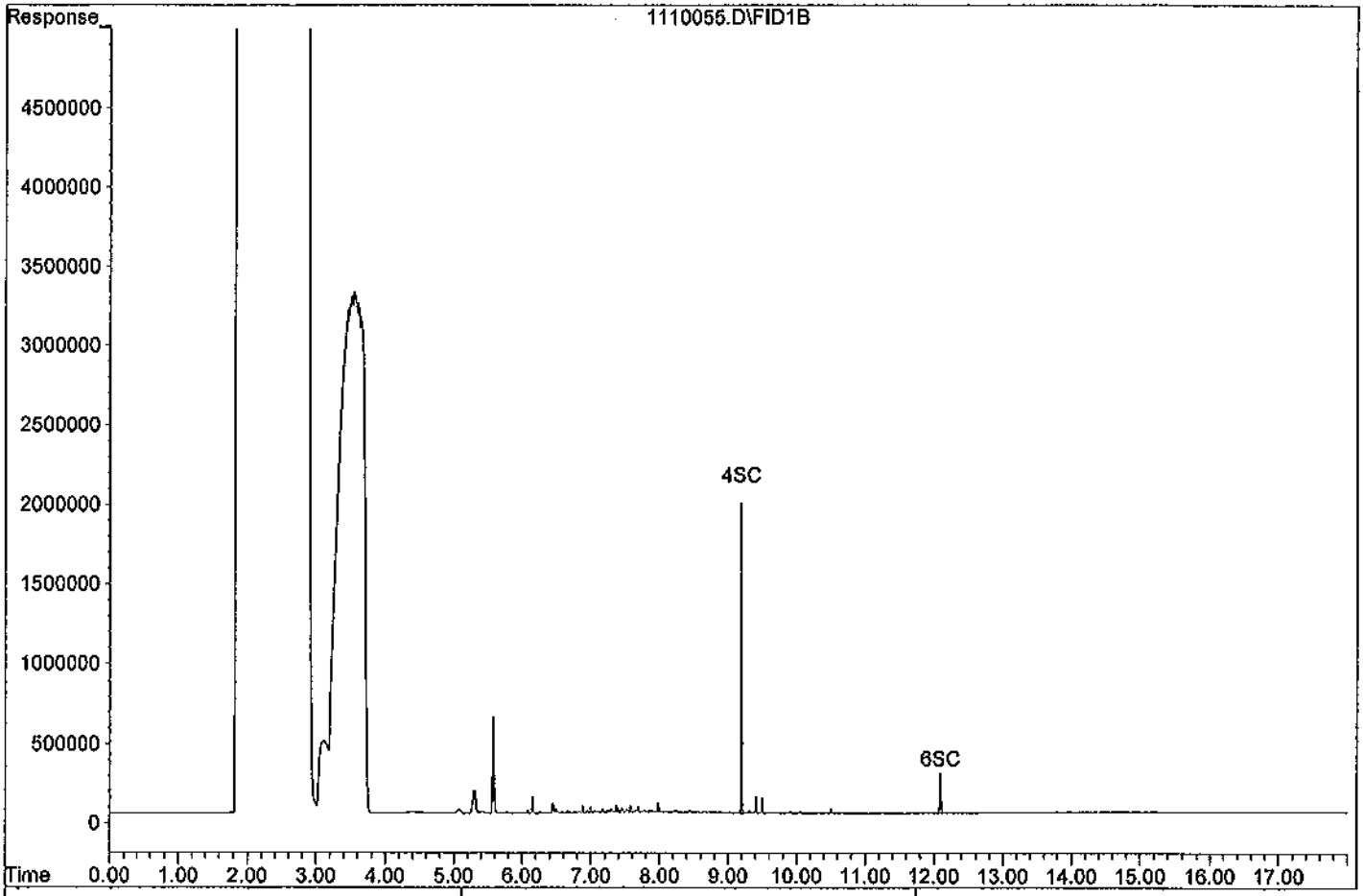
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

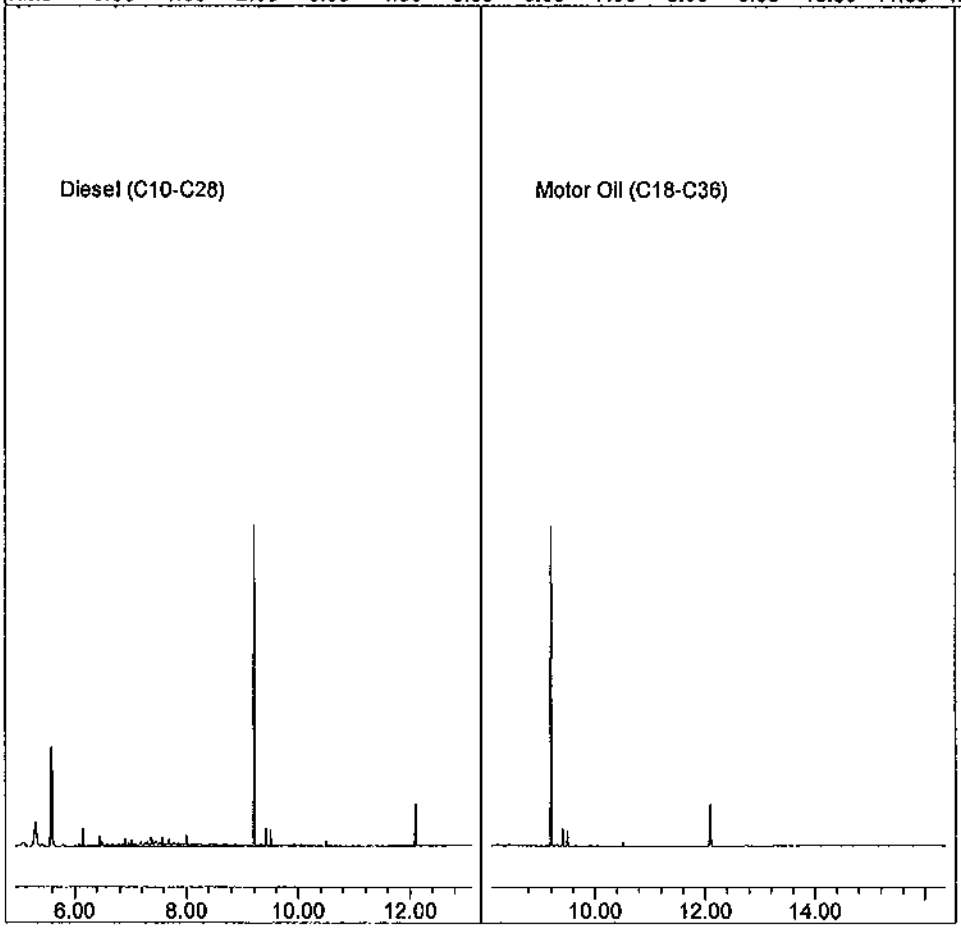
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	12911497	103.246 ppb
Surrogate Spike 145.631		Recovery =	70.90%
6) SC Octacosane(S)	12.10	3378806	106.609 ppb
Surrogate Spike 145.631		Recovery =	73.20%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	24041572	211.437 ppb

TB LAC 11/30/11

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

Data File: G:\APOLLO\DATA\111110\1110055.D
Sample : AY50005W07 5/1030





EPA 8015 Modified
Total Petroleum Hydrocarbons

Calibration Data

APPL, INC.

TPH Extractables
TPH1108

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66186
Case No: Initial Cal. Date: 11/08/11
Matrix: Instrument: Apollo
Initials: LAC

			1108069.D	1108018.D	1108019.D	1108020.D	1108021.D	1108022.D									
		Compound	1	2	3	4	5	6					Avg	%RSD			
1	HATML	Diesel (C10-C28)	613132	243101	243681	243678	244044	245201					305473	49	HATML	1.000	
2	HBTM	Motor Oil (C18-C36)	140437	99632	104190	111186	116539	125373					116226	13	HBTM		
3	SA	Not Used(S)	302444	320737	318016	323983	383528	387566					339379	11	SA		
4	SC	Ortho-Terphenyl(S)	292692	322827	291343	308250	301021	305069					303534	3.8	SC		
5	SA	Not Used2(S)		81698	75651	78041	78921	79877					78838	2.8	SA		
6	SC	Octacosane(S)	74061	79772	73618	77274	77396	79433					76925	3.4	SC		
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
35																	

2.3712952

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108005.D Vial: 5
Acq On : 11-8-11 15:50:59 Operator: LAC
Sample : DIESEL 100/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

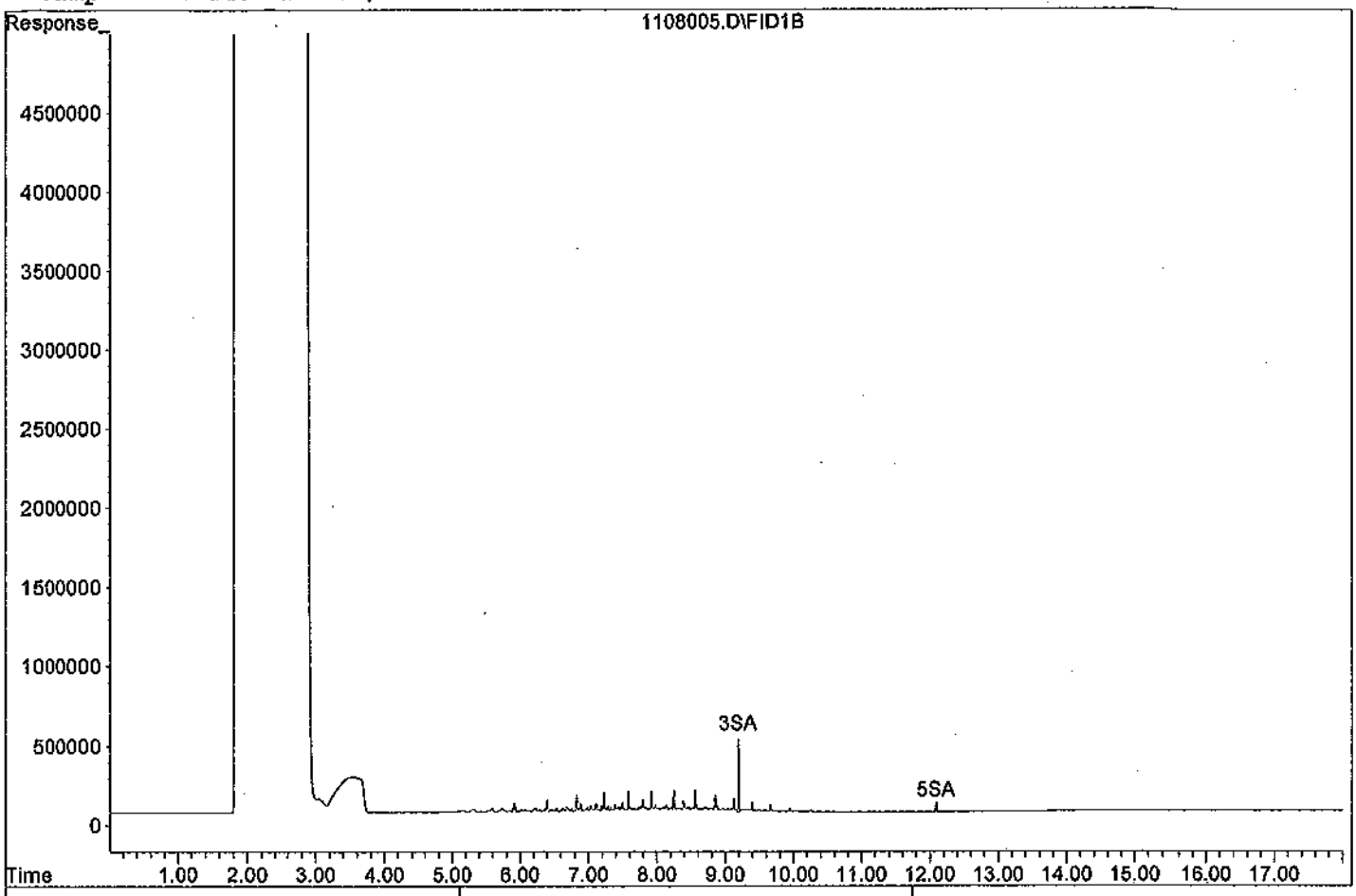
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

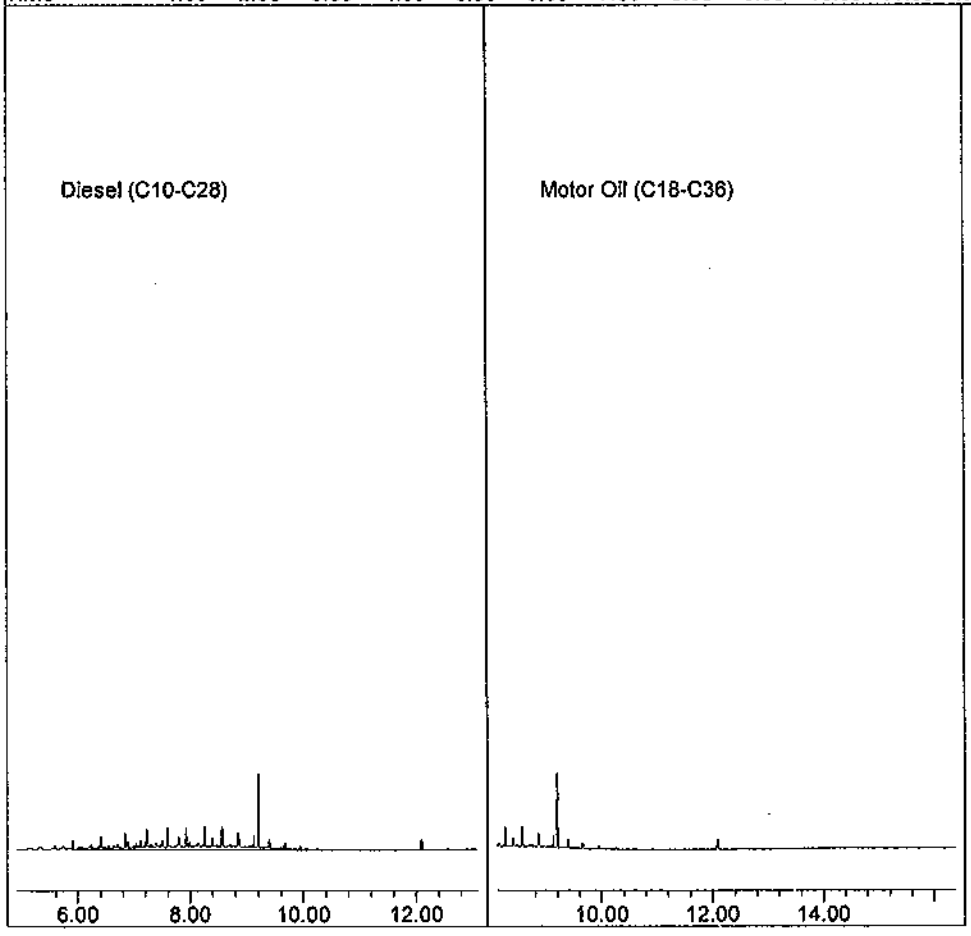
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	3207373	2.983 ppb
Surrogate Spike 30.000	Recovery	=	9.94%
5) SA Not Used2(S)	12.09	816983	1.649 ppb
Surrogate Spike 30.000	Recovery	=	5.50%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	48620150	57.751 ppb

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

Data File: G:\APOLLO\DATA\111108\1108005.D
Sample : DIESEL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108006.D Vial: 6
Acq On : 11-8-11 16:14:36 Operator: LAC
Sample : DIESEL 400/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

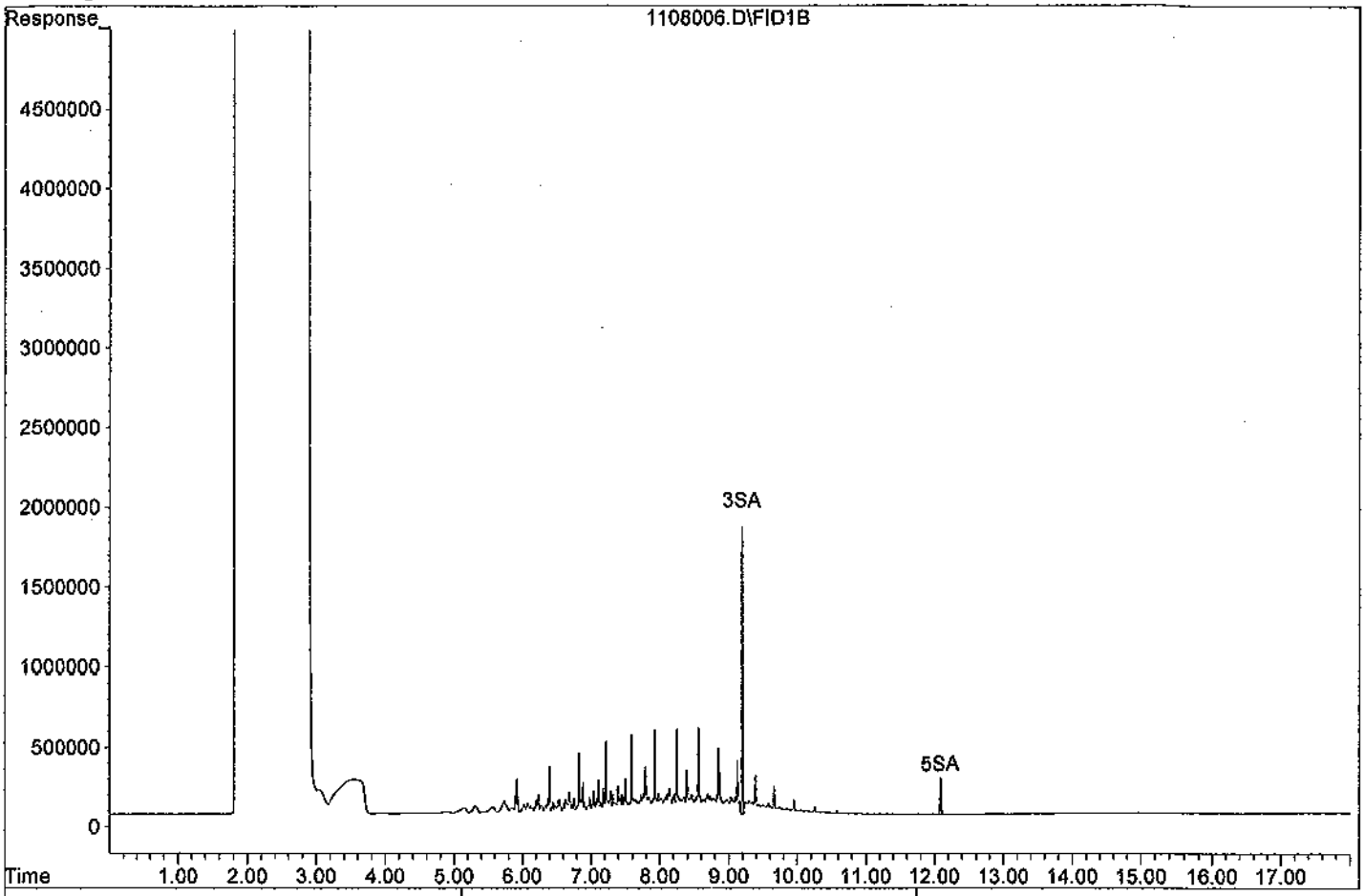
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

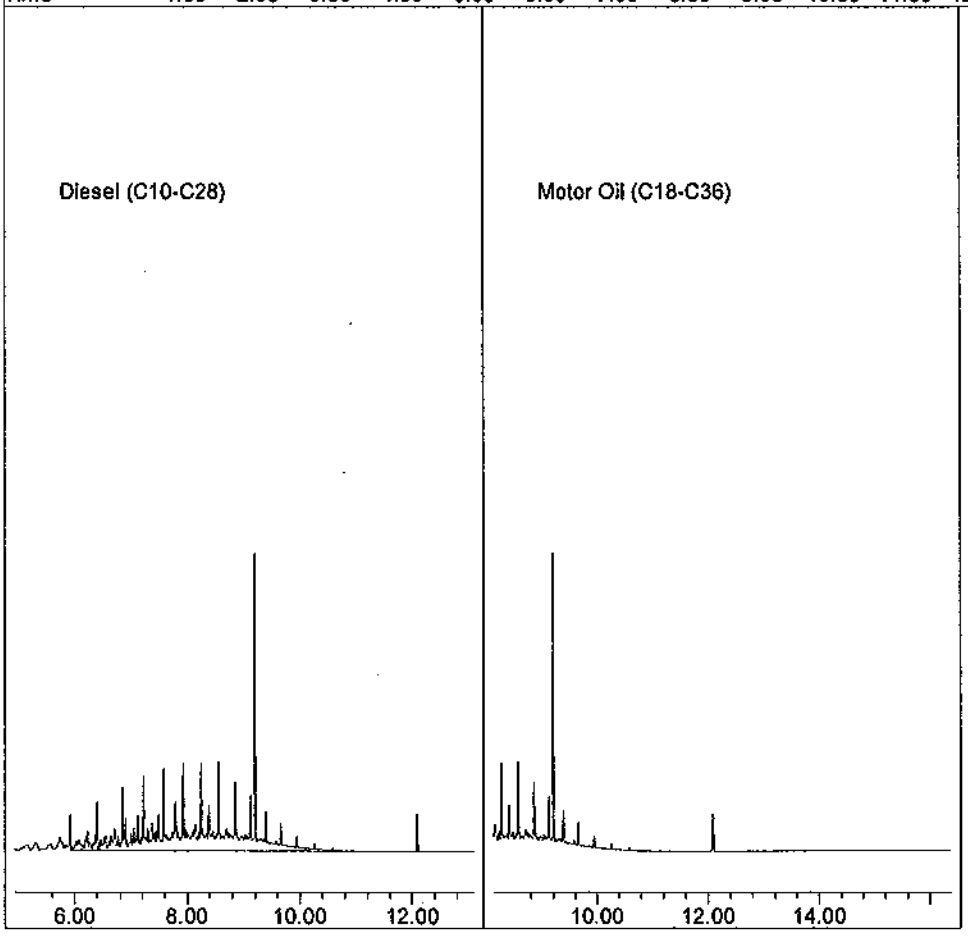
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	12720627	11.832 ppb
Surrogate Spike 30.000	Recovery =		39.44%
5) SA Not Used2(S)	12.09	3026041	6.108 ppb
Surrogate Spike 30.000	Recovery =		20.36%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	194945056	231.556 ppb

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

Data File: G:\APOLLO\DATA\111108\1108006.D
Sample : DIESEL 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108007.D Vial: 7
Acq On : 11-8-11 16:38:14 Operator: LAC
Sample : DIESEL 600/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

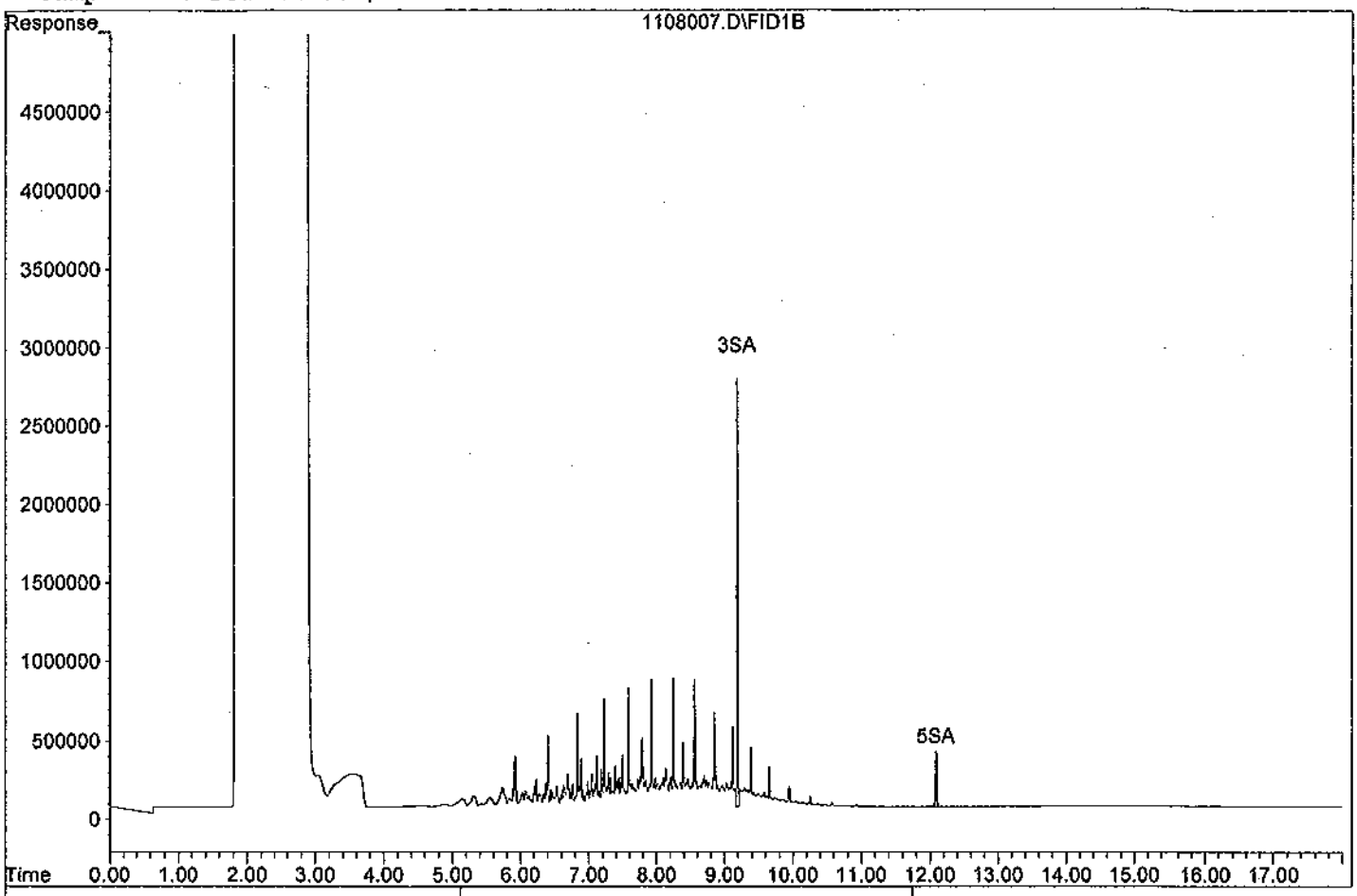
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

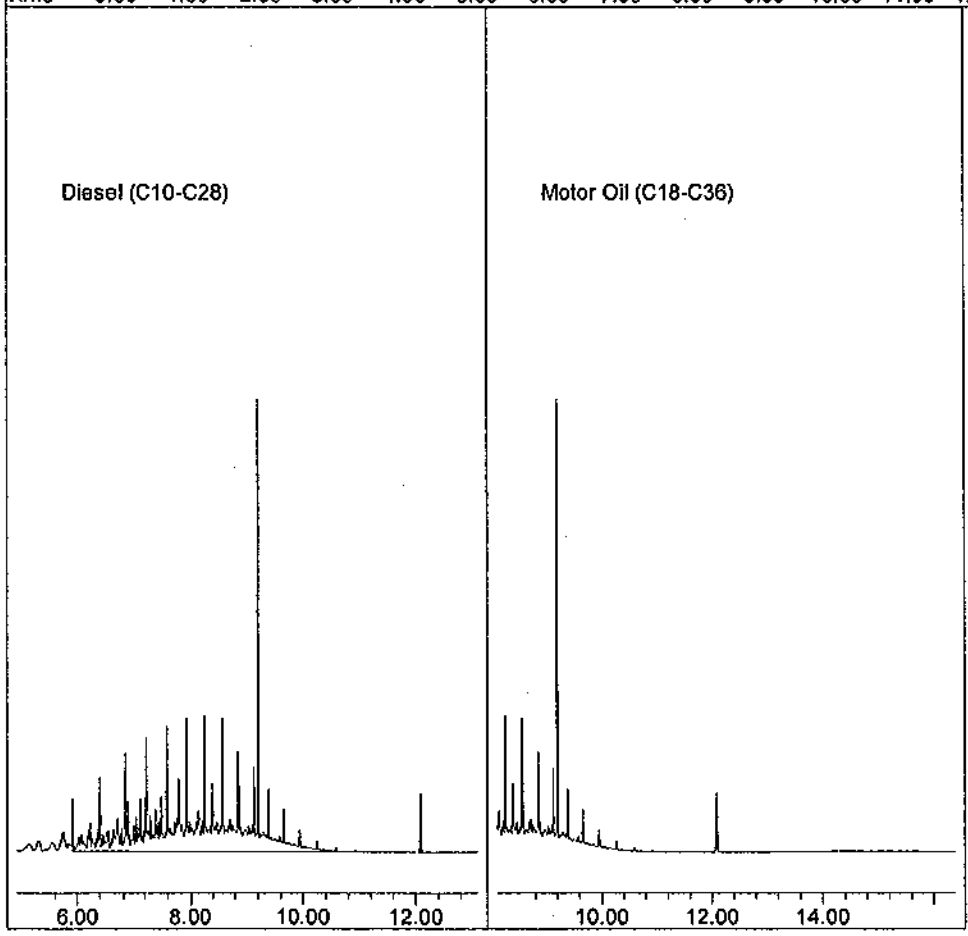
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	19438997	18.081 ppb
Surrogate Spike 30.000	Recovery =		60.27%
5) SA Not Used2(S)	12.09	4682445	9.451 ppb
Surrogate Spike 30.000	Recovery =		31.50%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	292413883	347.330 ppb

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

Data File: G:\APOLLO\DATA\111108\1108007.D
Sample : DIESEL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108008.D Vial: 8
Acq On : 11-8-11 17:01:53 Operator: LAC
Sample : DIESEL 800/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

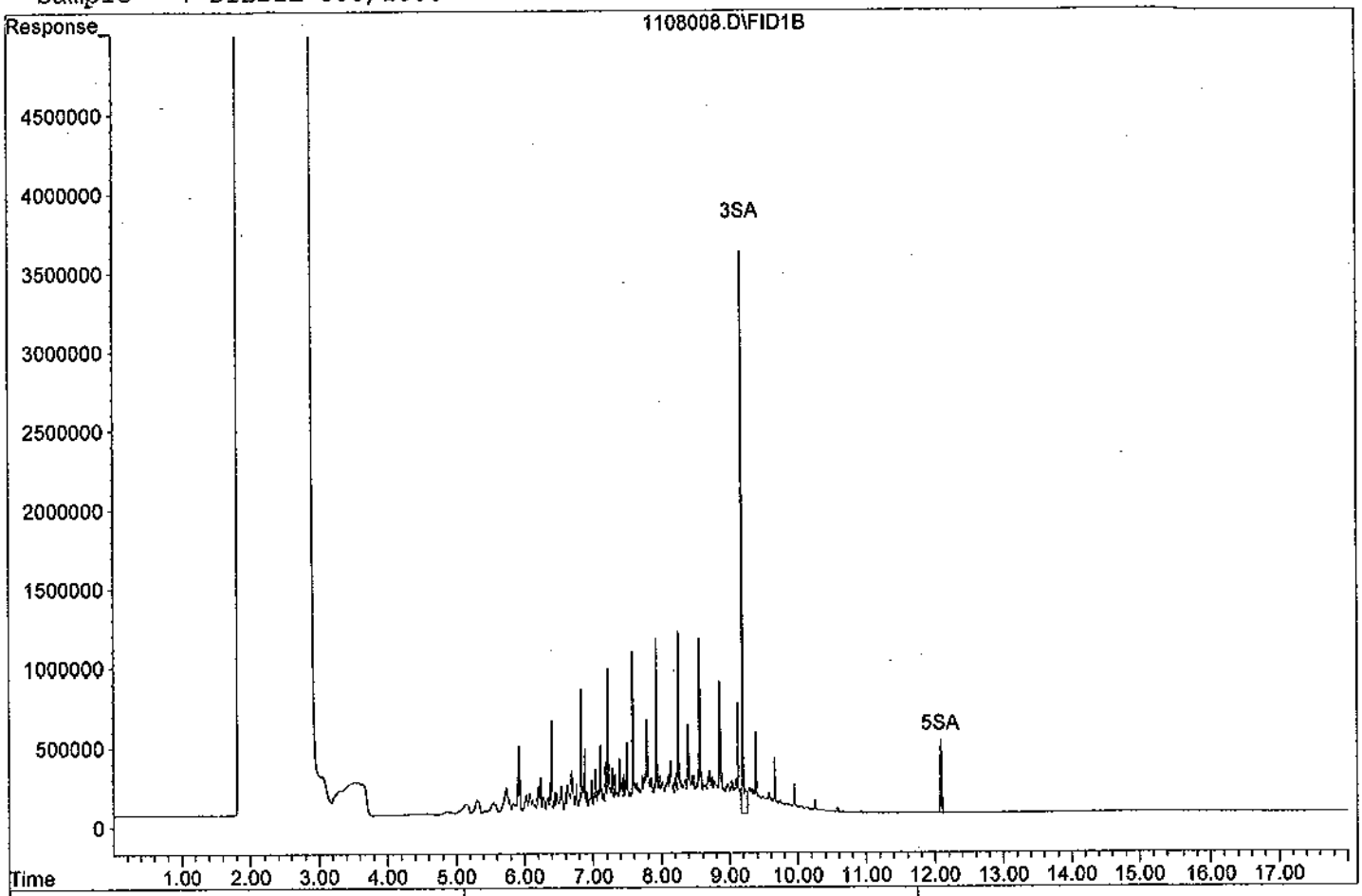
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

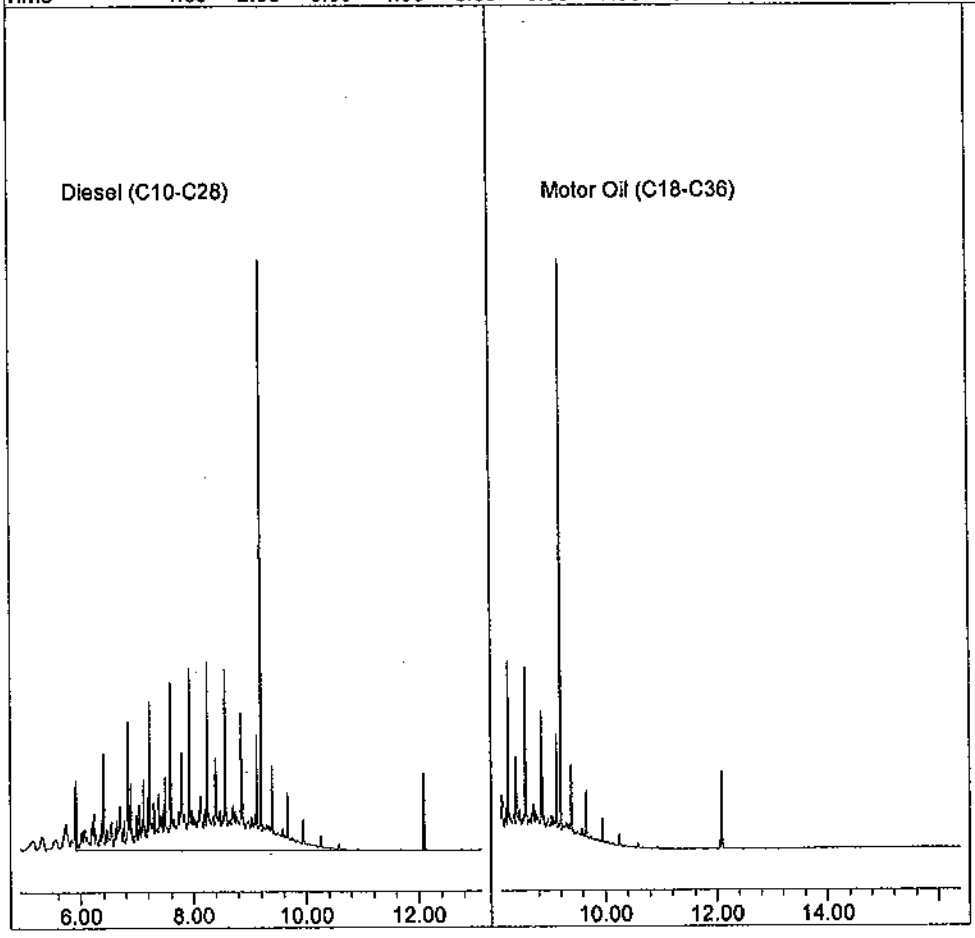
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	30682231	28.538 ppb
Surrogate Spike 30.000	Recovery =		95.13%
5) SA Not Used2(S)	12.09	6313667	12.744 ppb
Surrogate Spike 30.000	Recovery =		42.48%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	390470225	463.801 ppb

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

Data File: G:\APOLLO\DATA\111108\1108008.D
Sample : DIESEL 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108009.D Vial: 9
Acq On : 11-8-11 17:25:32 Operator: LAC
Sample : DIESEL 1000/1000 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

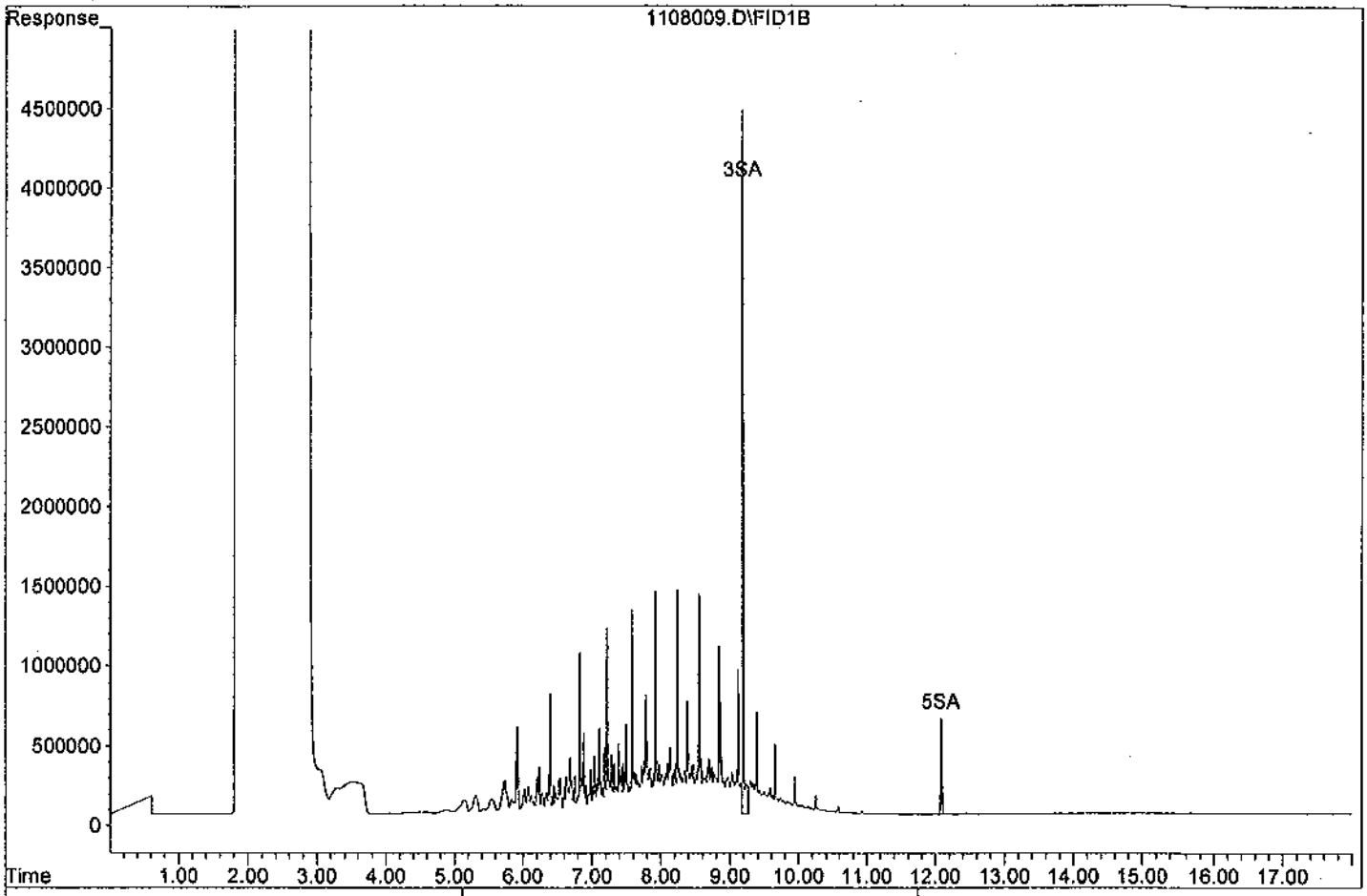
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

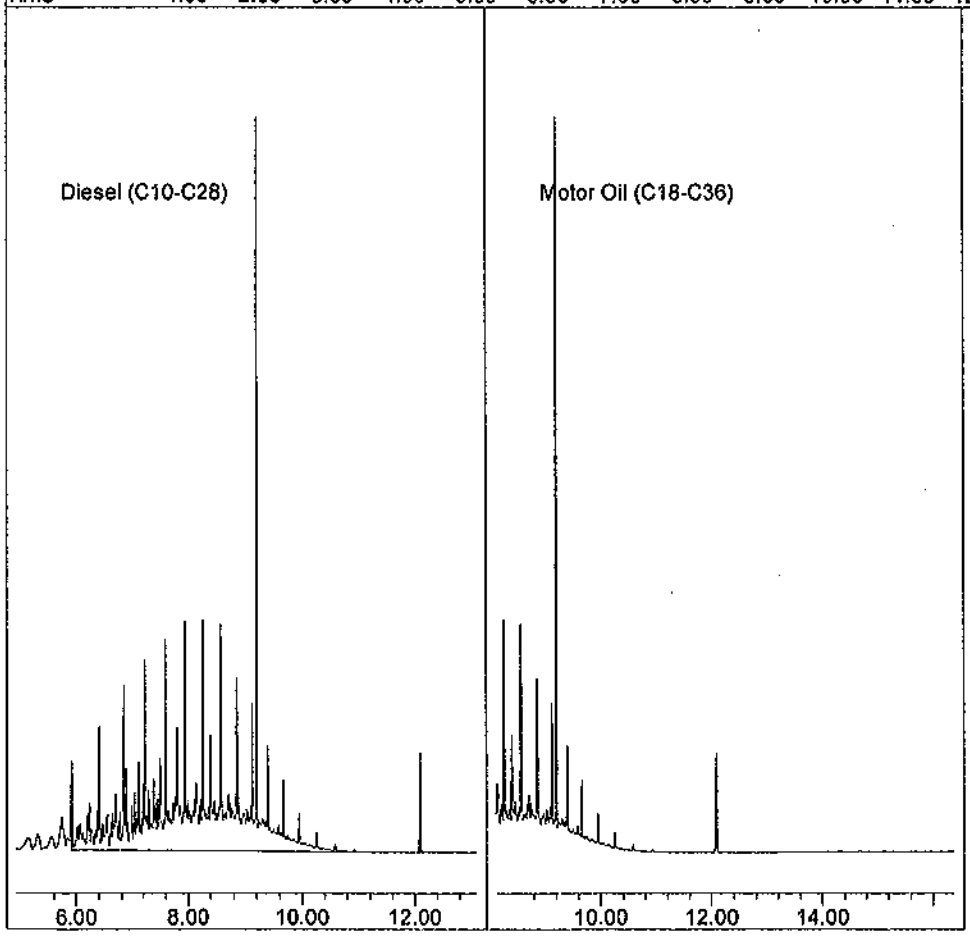
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	38756601	36.048 ppb
Surrogate Spike 30.000	Recovery =		120.16%
5) SA Not Used2(S)	12.09	7987688	16.122 ppb
Surrogate Spike 30.000	Recovery =		53.74%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	490402243	582.501 ppb

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

Data File: G:\APOLLO\DATA\111108\1108009.D
Sample : DIESEL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108011.D Vial: 11
Acq On : 11-8-11 18:12:45 Operator: LAC
Sample : MOTOR OIL 50/1000 11/8/11 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

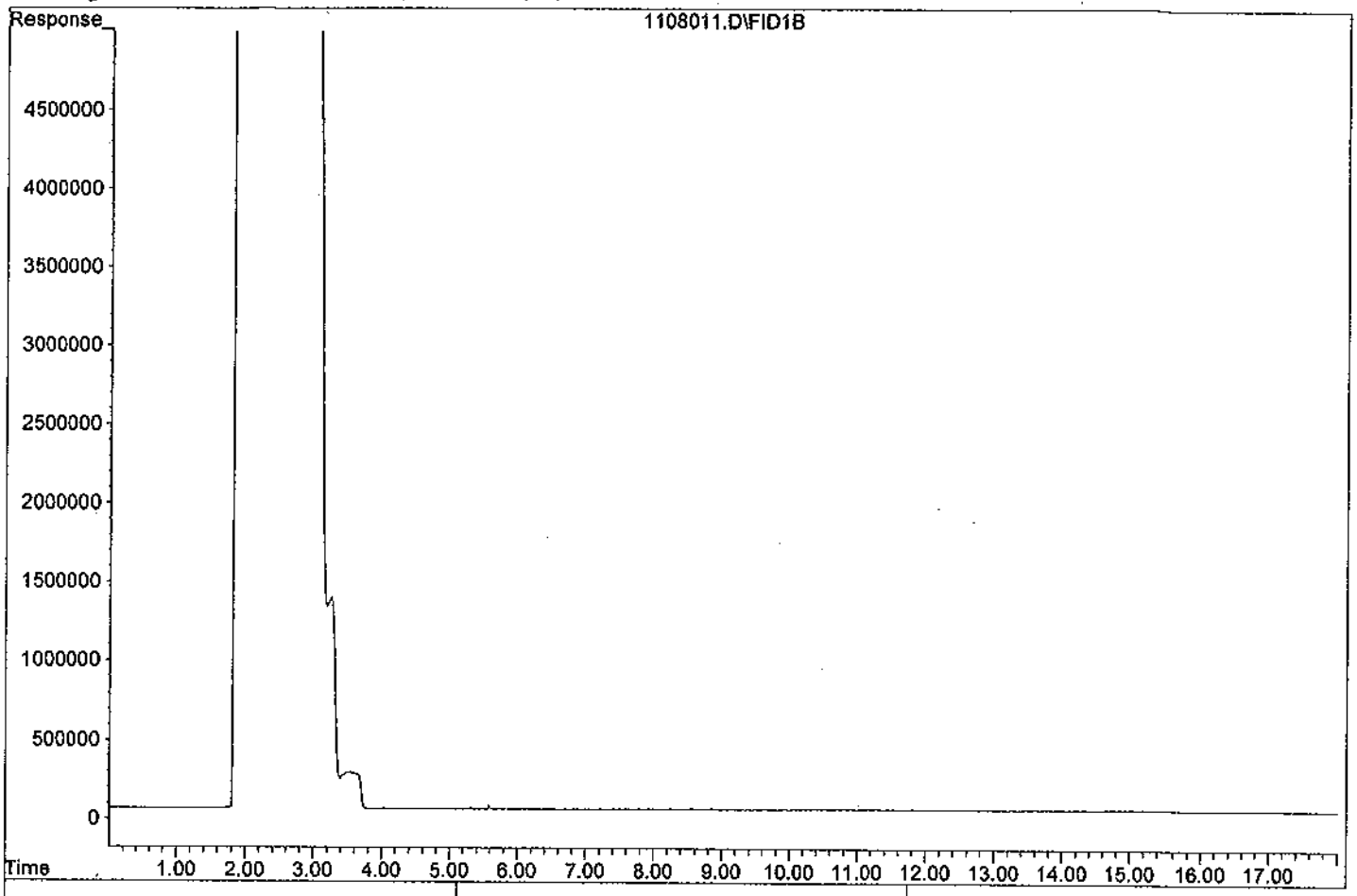
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

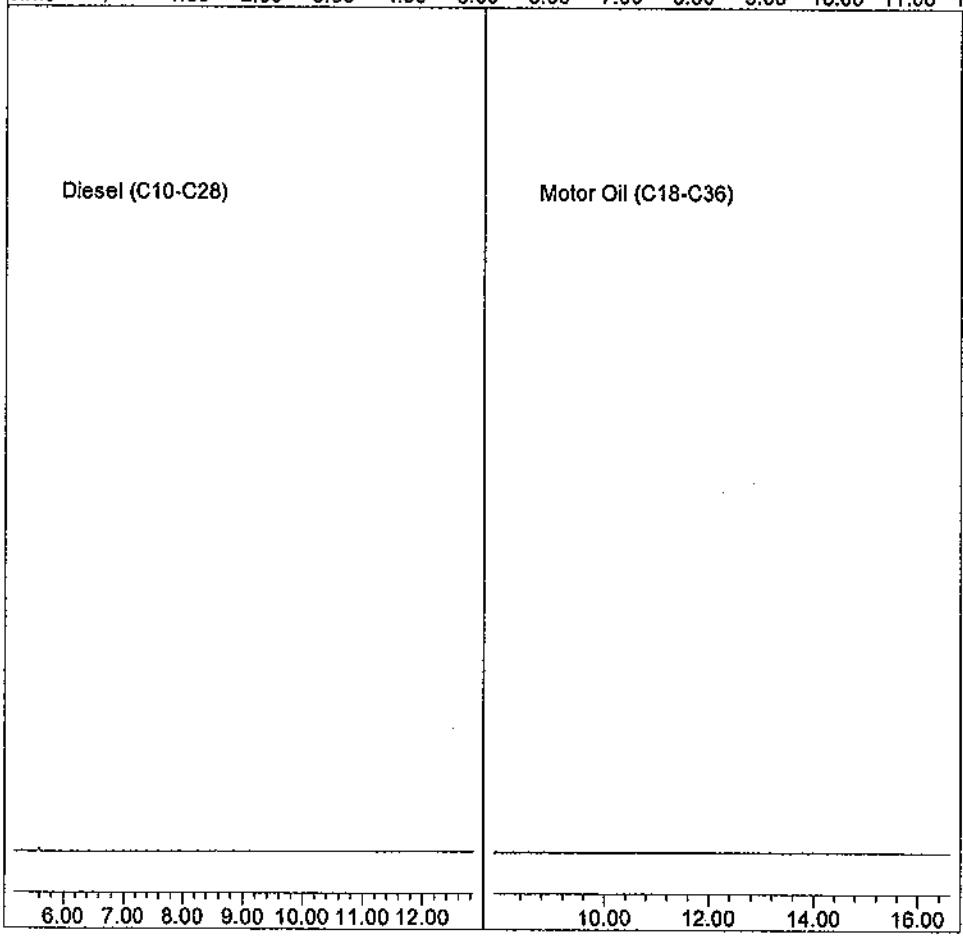
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	14043686	38.736 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108011.D
Sample : MOTOR OIL 50/1000 11/8/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108012.D Vial: 12
Acq On : 11-8-11 18:36:14 Operator: LAC
Sample : MOTOR OIL 100/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

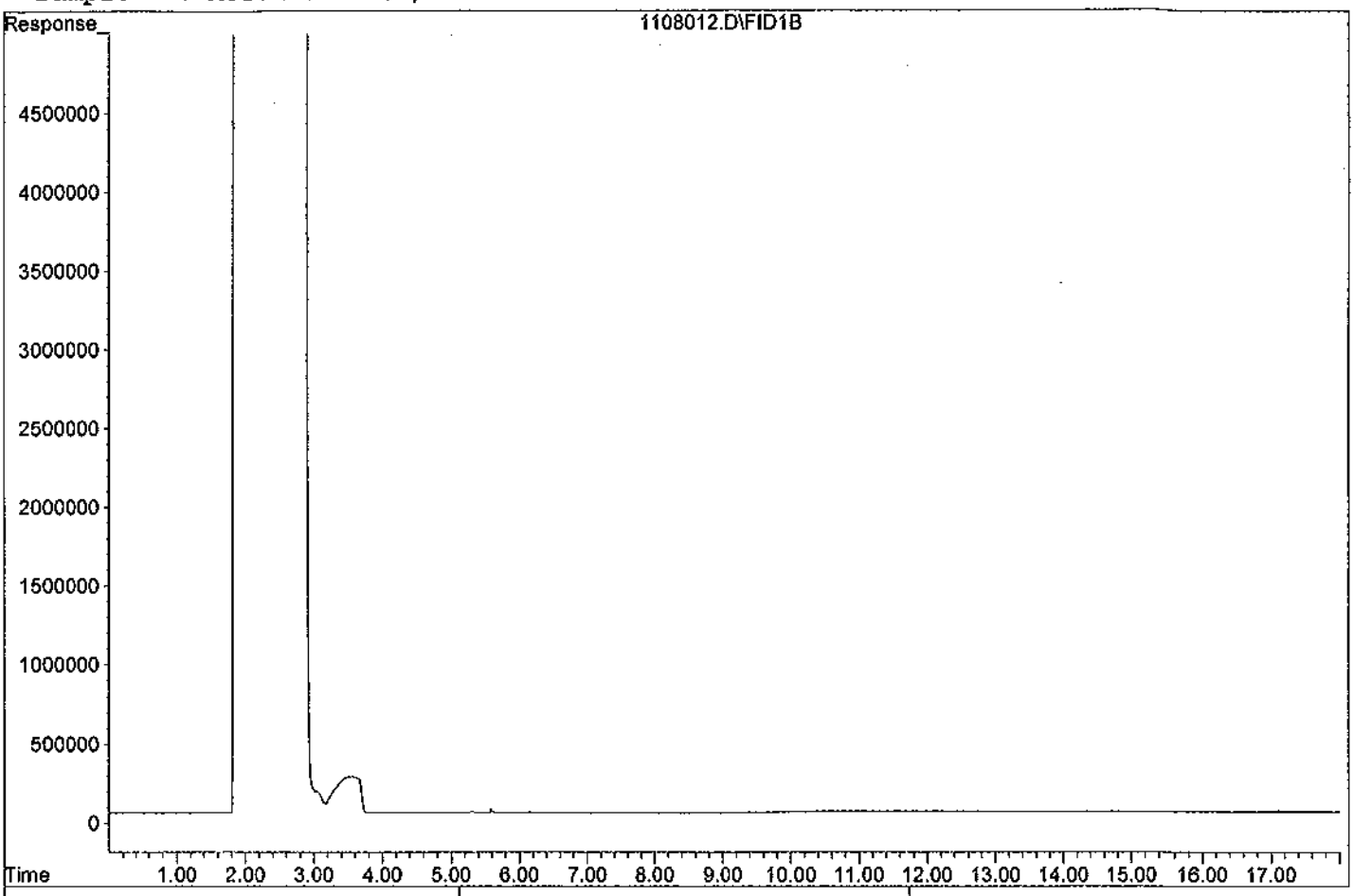
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

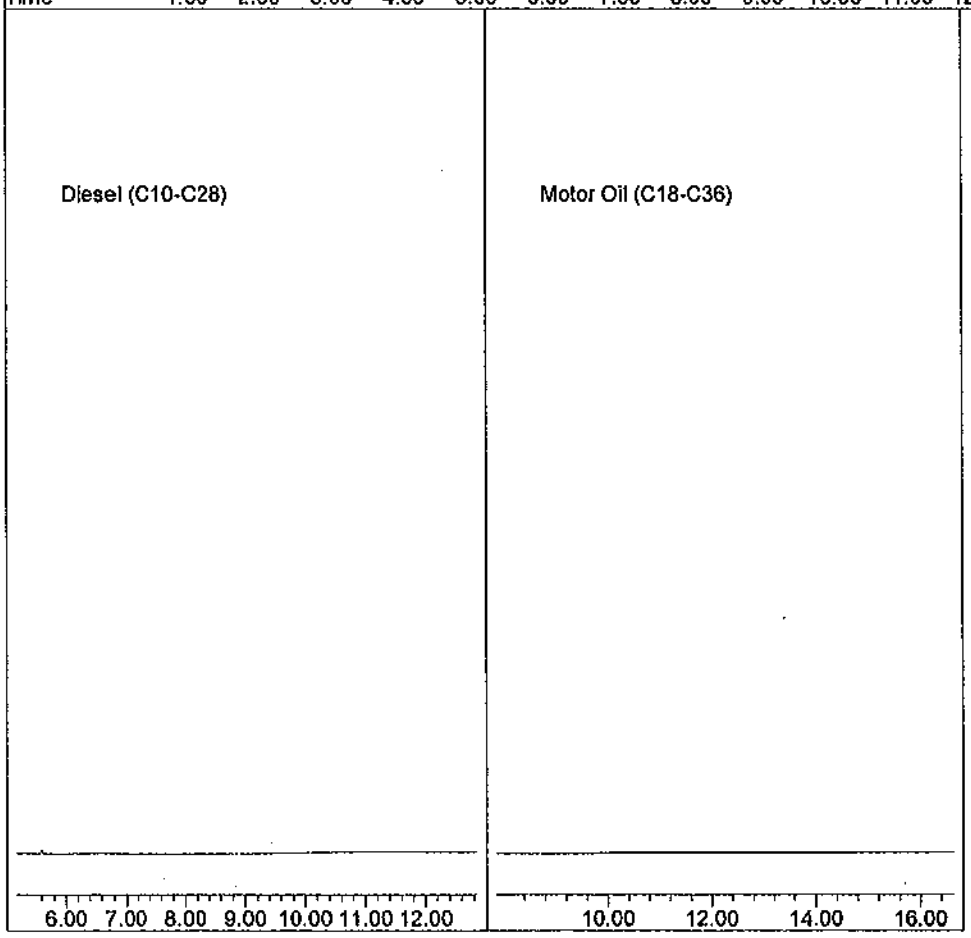
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	19926419	54.963 ppb

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

Data File: G:\APOLLO\DATA\111108\1108012.D
Sample : MOTOR OIL 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108013.D Vial: 13
Acq On : 11-8-11 18:59:47 Operator: LAC
Sample : MOTOR OIL 400/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

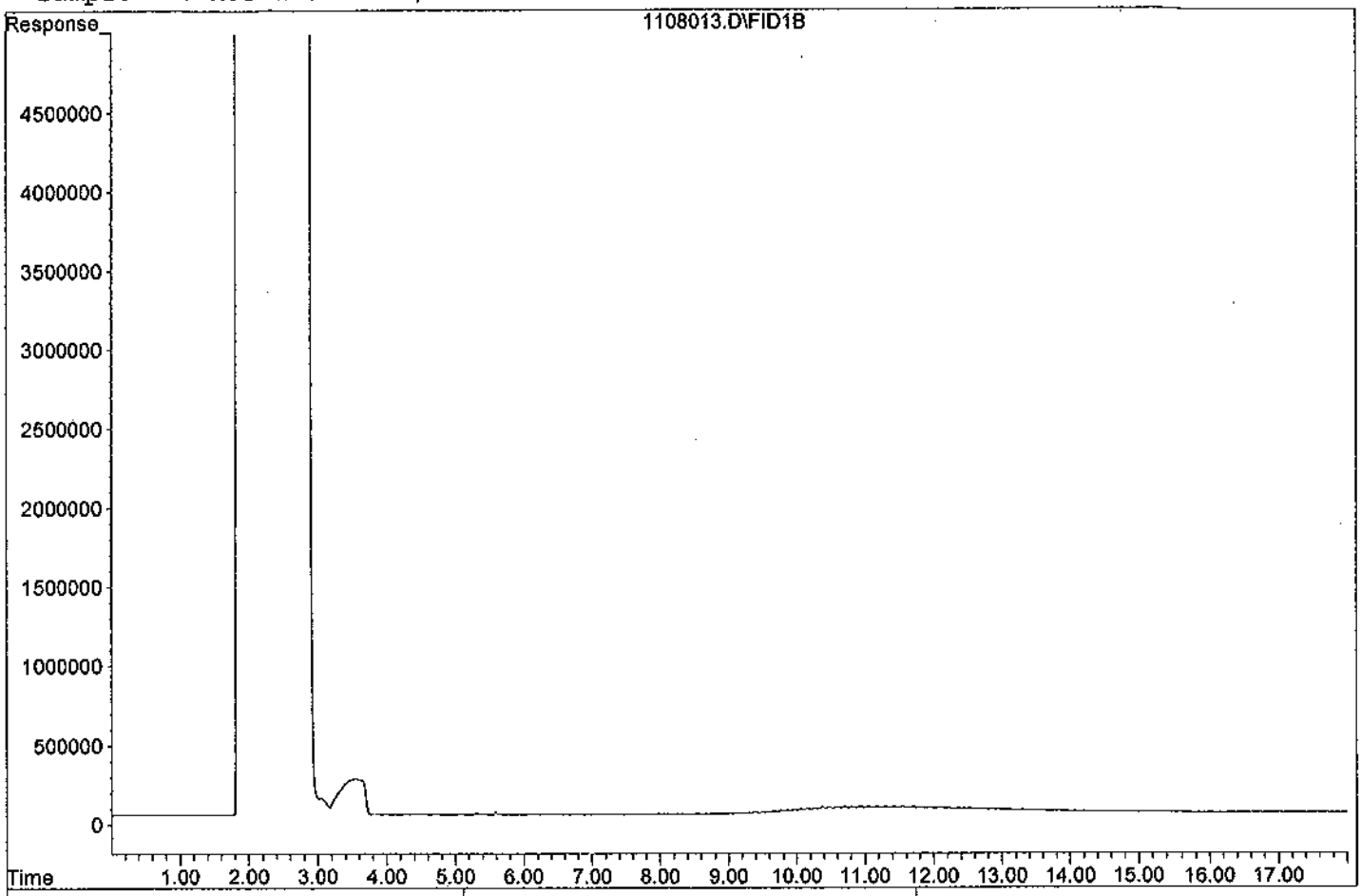
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

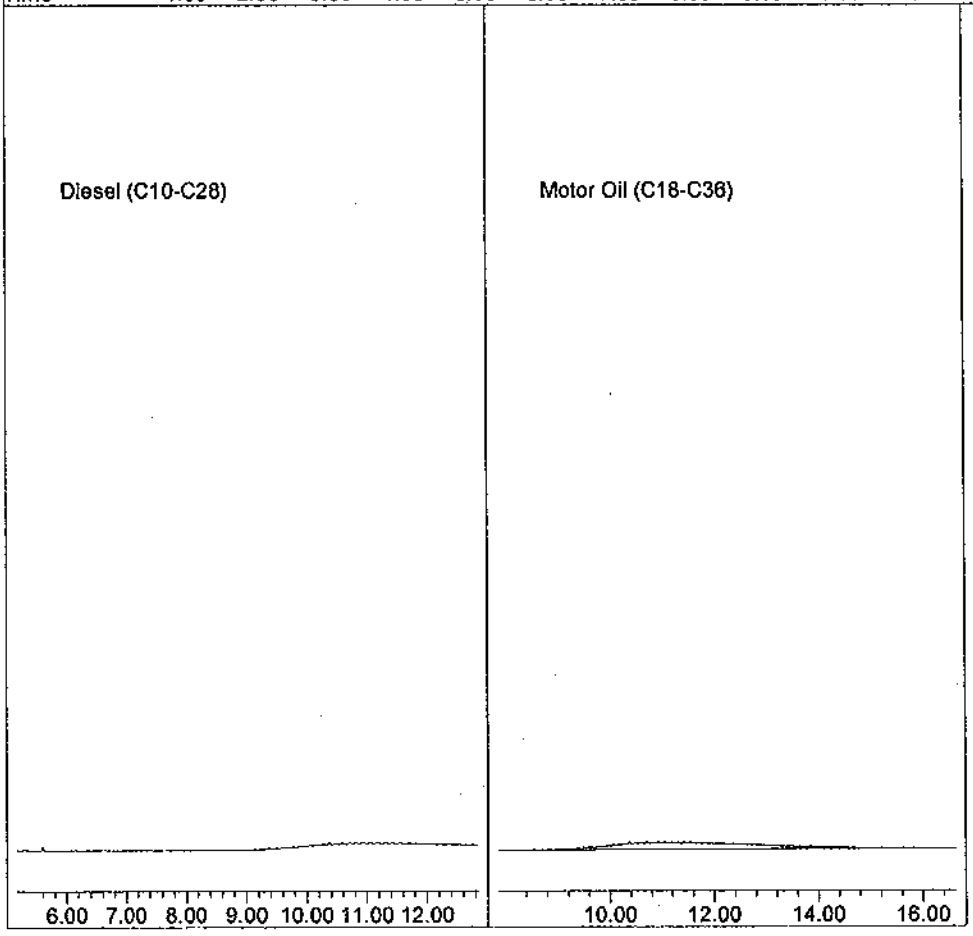
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	83351892	229.908 ppb

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

Data File: G:\APOLLO\DATA\111108\1108013.D
Sample : MOTOR OIL 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108014.D Vial: 14
Acq On : 11-8-11 19:23:20 Operator: LAC
Sample : MOTOR OIL 600/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

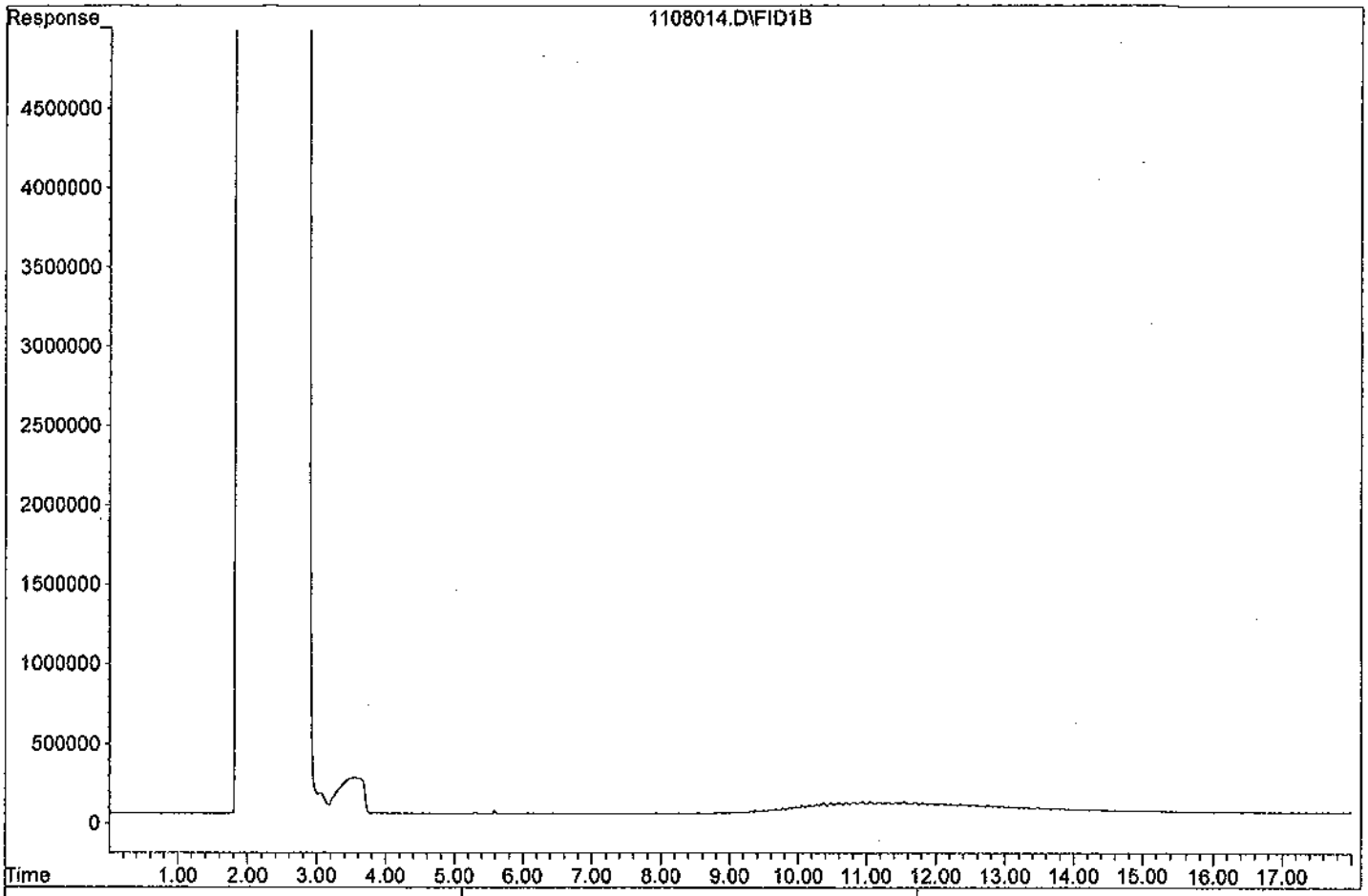
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

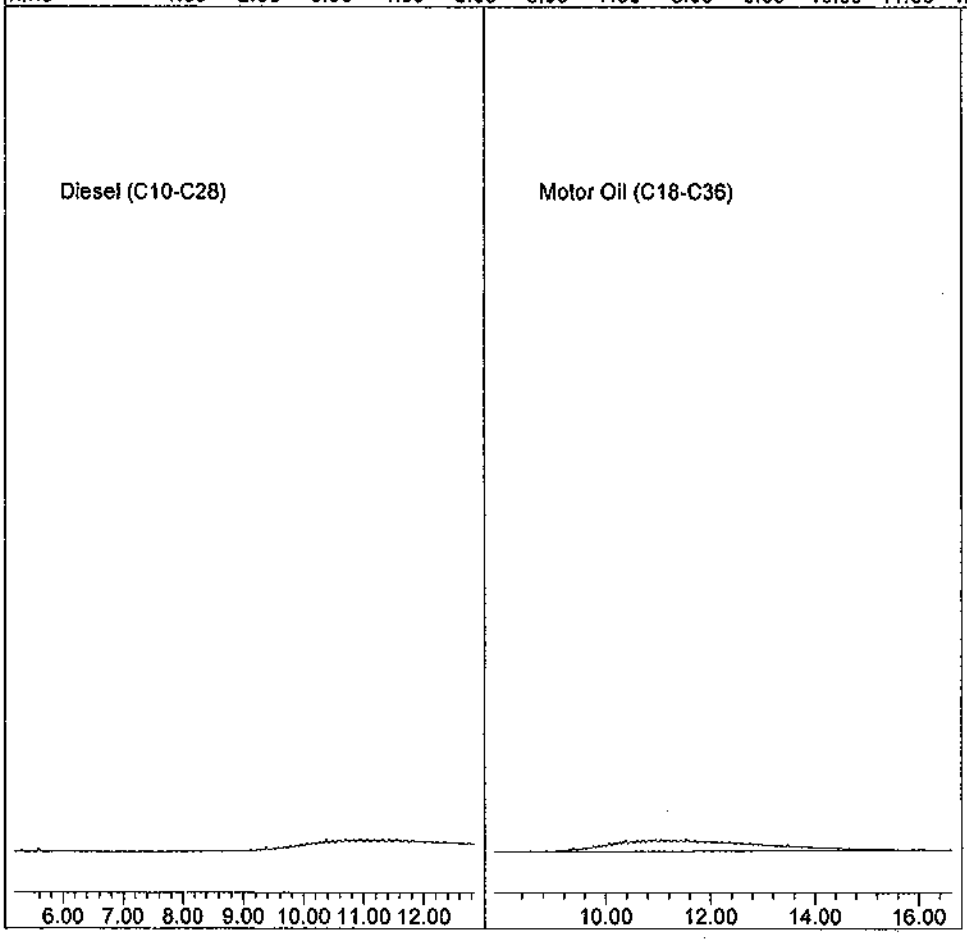
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	133423372	368.019 ppb

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

Data File: G:\APOLLO\DATA\111108\1108014.D
Sample : MOTOR OIL 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108015.D Vial: 15
Acq On : 11-8-11 19:46:53 Operator: LAC
Sample : MOTOR OIL 800/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

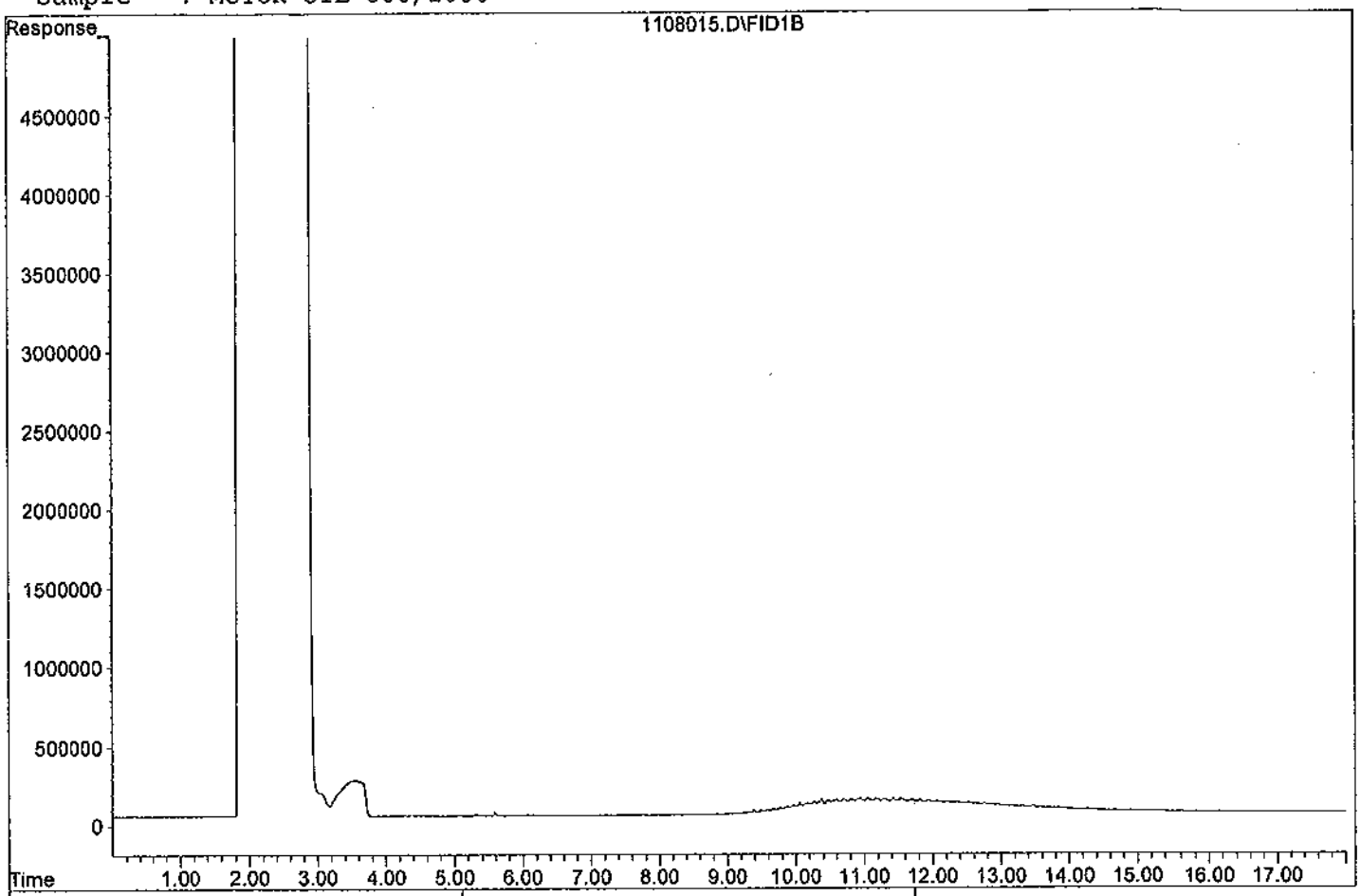
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

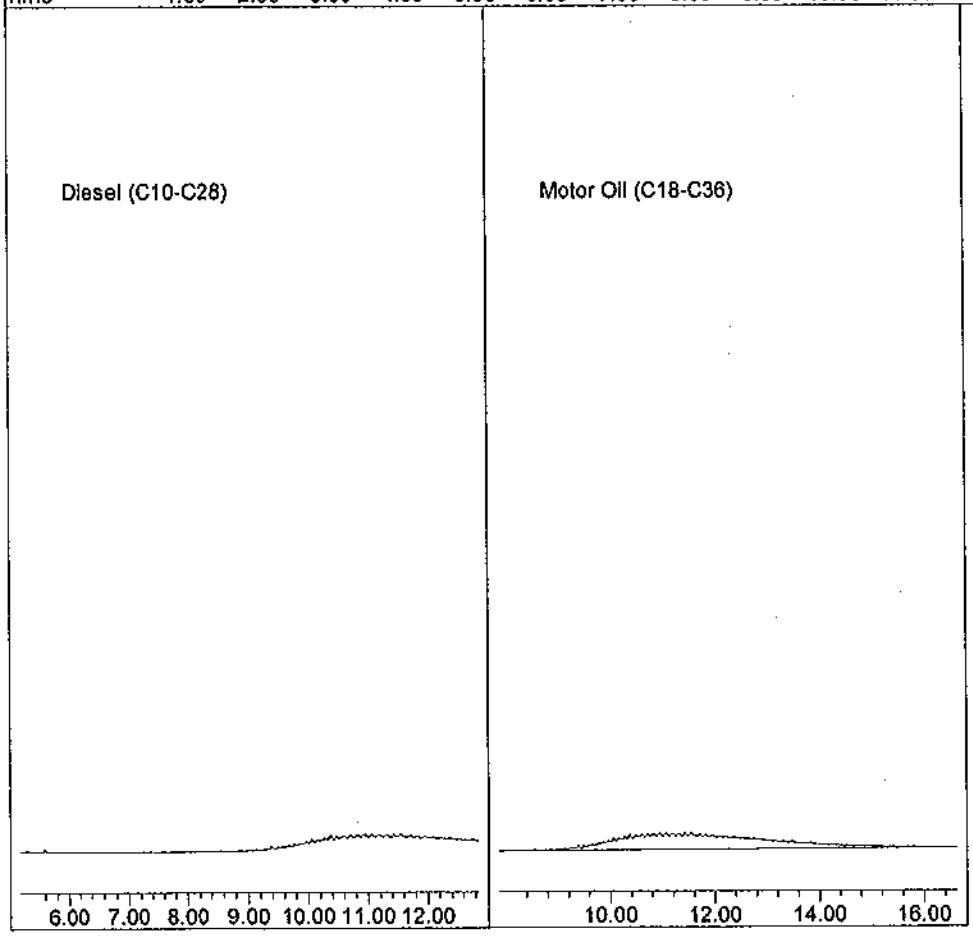
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
Target Compounds				
2) HBTM Motor Oil (C18-C36)	12.24	186462551	514.316	ppb

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

Data File: G:\APOLLO\DATA\111108\1108015.D
Sample : MOTOR OIL 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108016.D Vial: 16
Acq On : 11-8-11 20:10:21 Operator: LAC
Sample : MOTOR OIL 1000/1000 Inst : Apollo
Misc : Mix(B) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

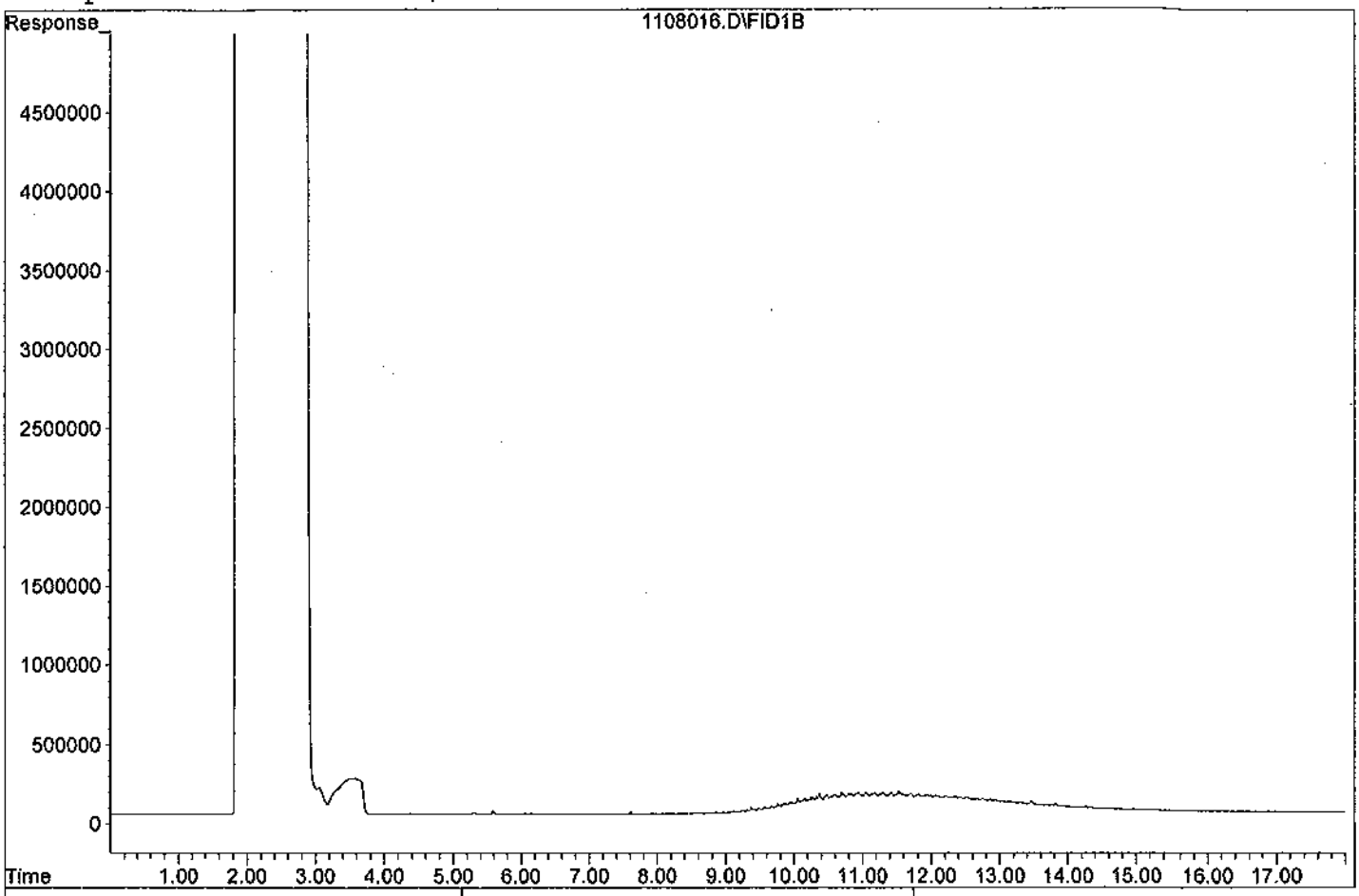
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

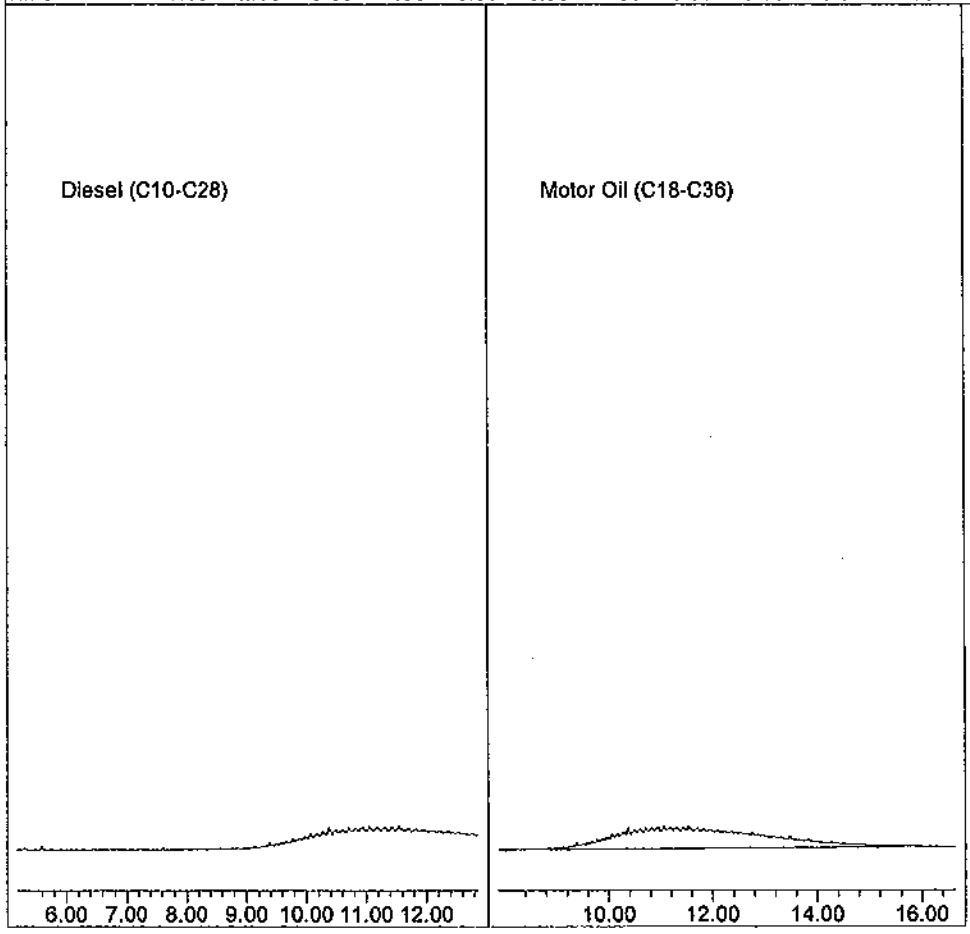
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C18-C36)	12.24	250746792	691.631 ppb

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

Data File: G:\APOLLO\DATA\111108\1108016.D
Sample : MOTOR OIL 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108017.D Vial: 17
Acq On : 11-8-11 20:33:47 Operator: LAC
Sample : THC SURR 10/1000 11/8/11 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

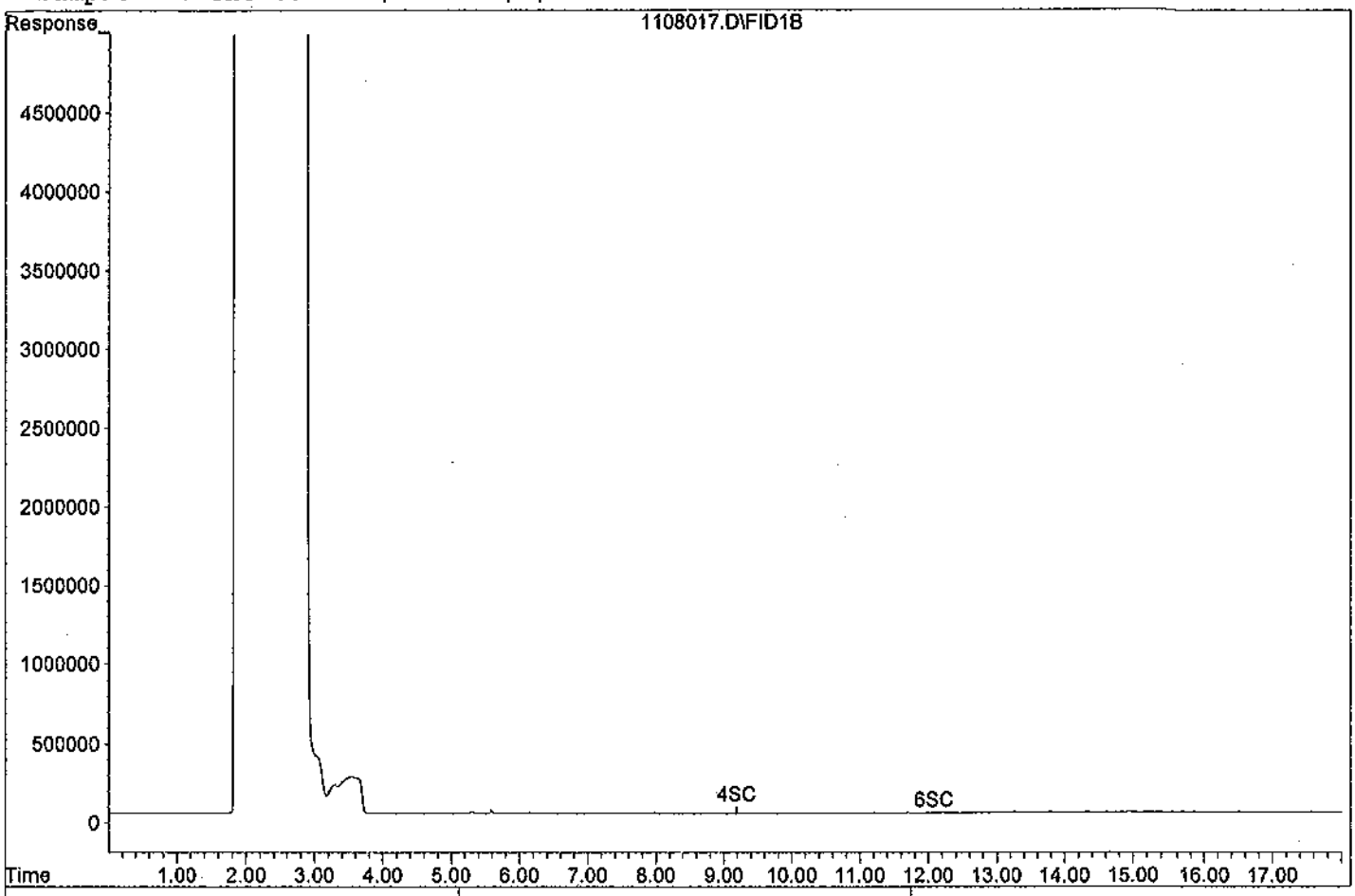
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

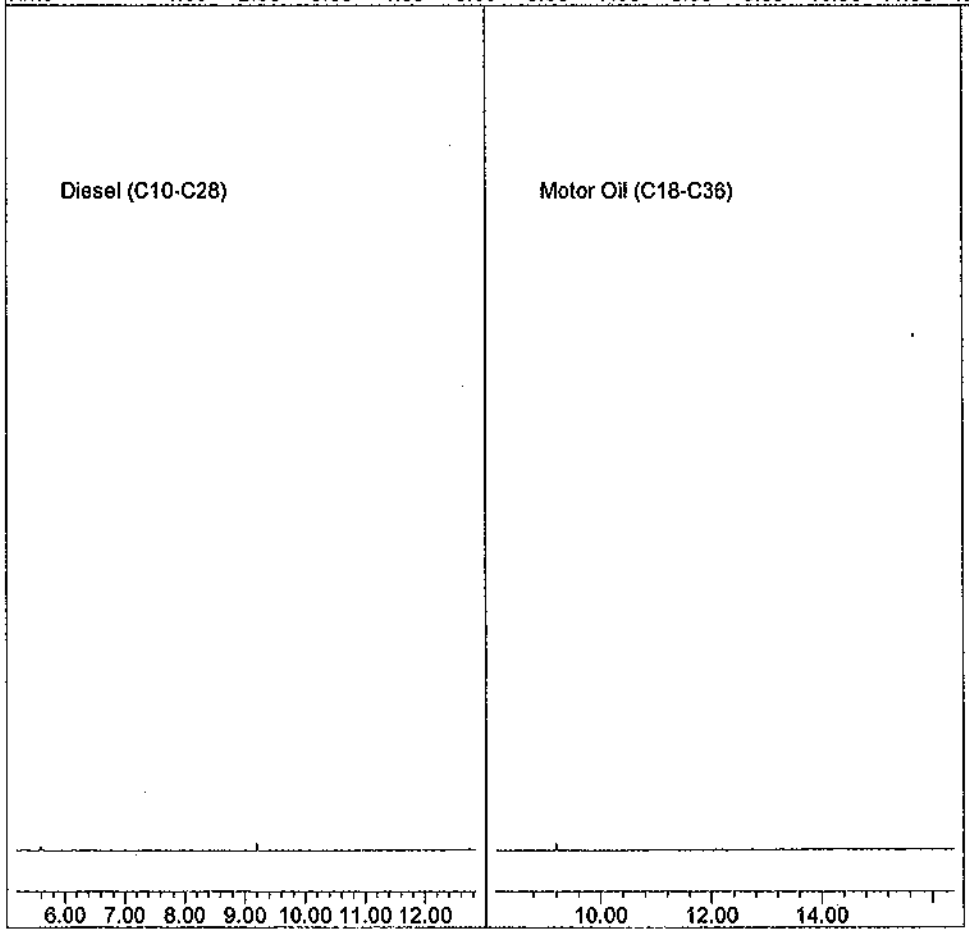
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.19	292692	0.336 ppb
Surrogate Spike 30.000	Recovery	=	1.12%
6) SC Octacosane(S)	12.08	74061	0.159 ppb
Surrogate Spike 30.000	Recovery	=	0.53%
Target Compounds			

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

Data File: G:\APOLLO\DATA\111108\1108017.D
Sample : THC SURR 10/1000 11/8/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108018.D Vial: 18
Acq On : 11-8-11 20:57:14 Operator: LAC
Sample : THC SURR 100/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

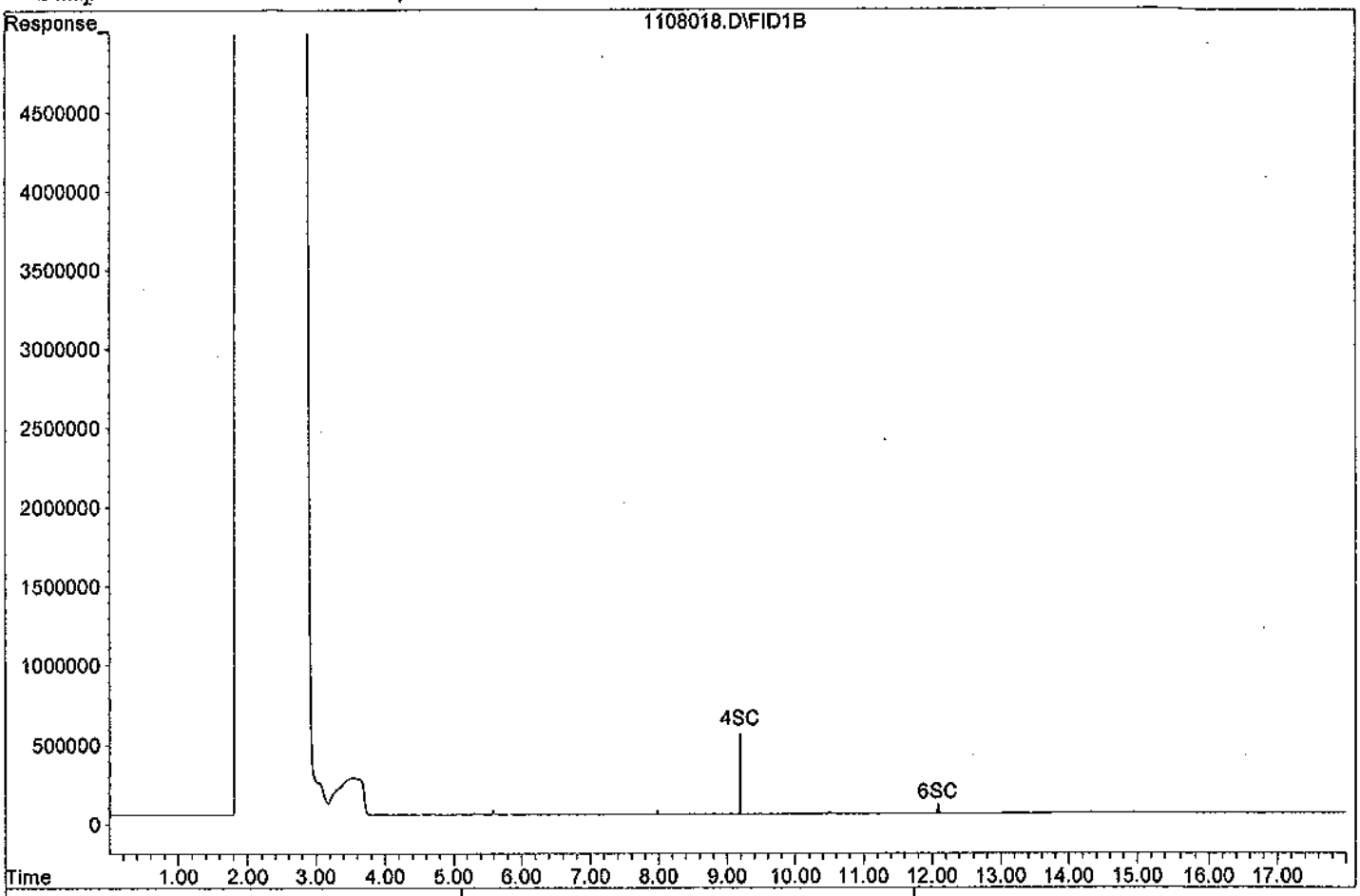
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

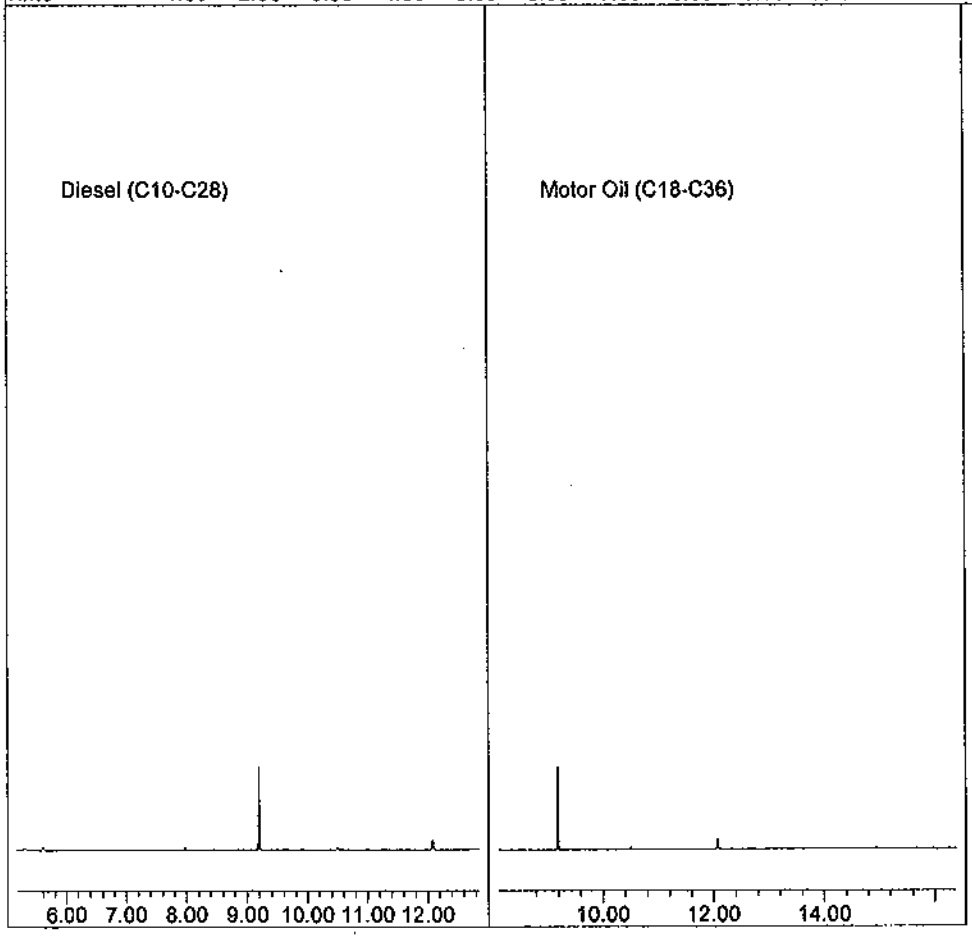
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.19	3228266	3.702	ppb
Surrogate Spike 30.000	Recovery =		12.34%	
6) SC Octacosane(S)	12.08	797717	1.714	ppb
Surrogate Spike 30.000	Recovery =		5.71%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111108\1108018.D
Sample : THC SURR 100/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108019.D Vial: 19
Acq On : 11-8-11 21:20:36 Operator: LAC
Sample : THC SURR 400/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

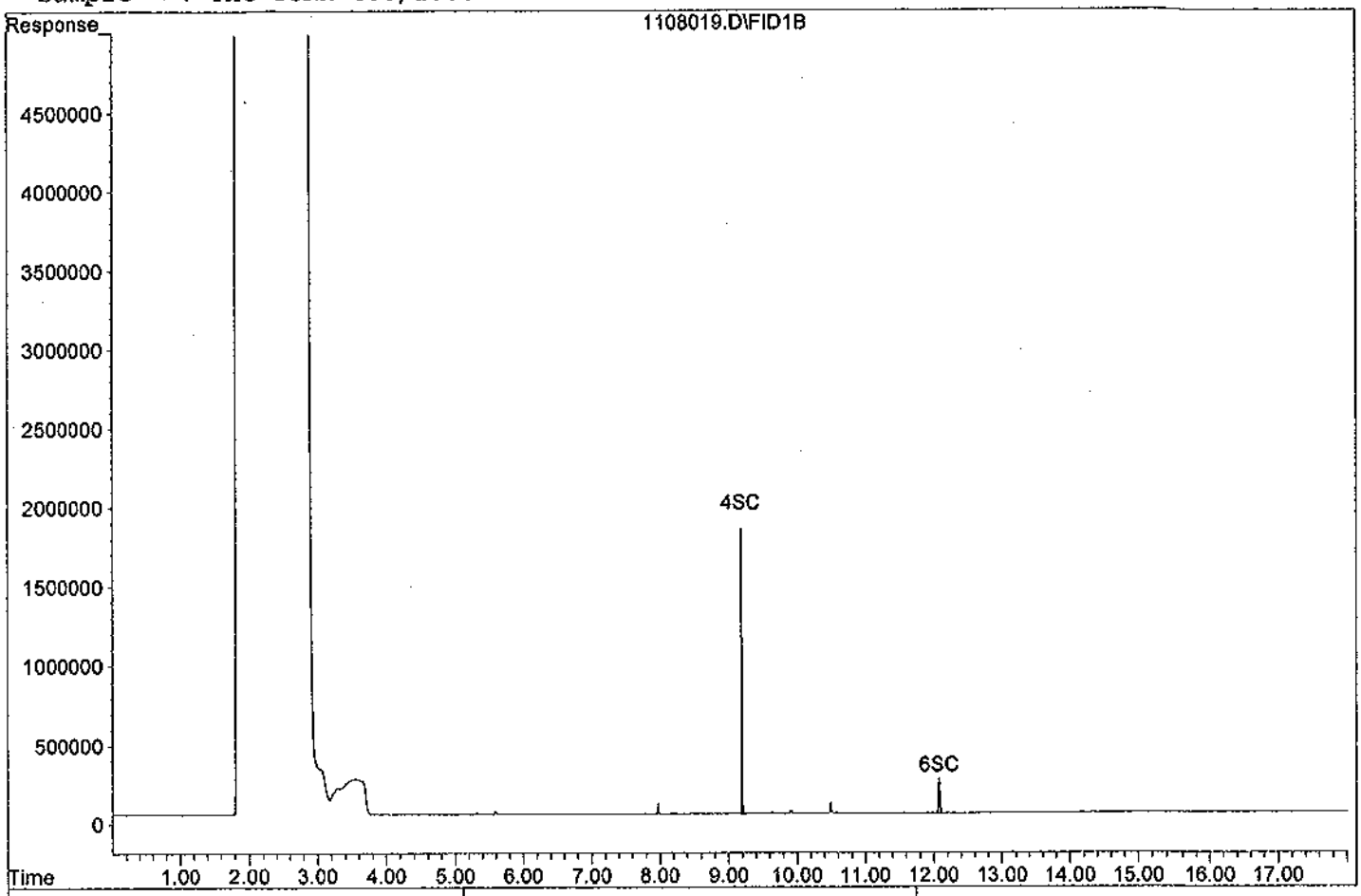
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

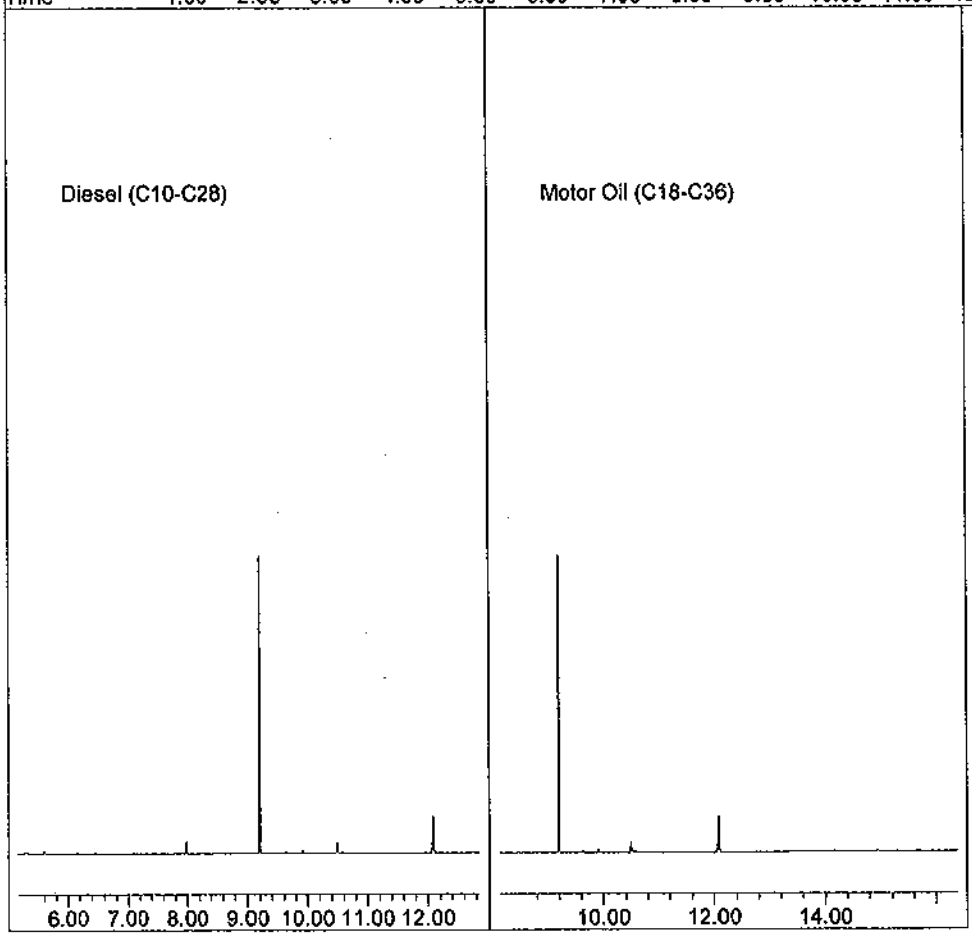
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.19	11653711	13.365	ppb
Surrogate Spike 30.000	Recovery =		44.55%	
6) SC Octacosane(S)	12.08	2944724	6.328	ppb
Surrogate Spike 30.000	Recovery =		21.09%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111108\1108019.D
Sample : THC SURR 400/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108020.D Vial: 20
Acq On : 11-8-11 21:43:59 Operator: LAC
Sample : THC SURR 600/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

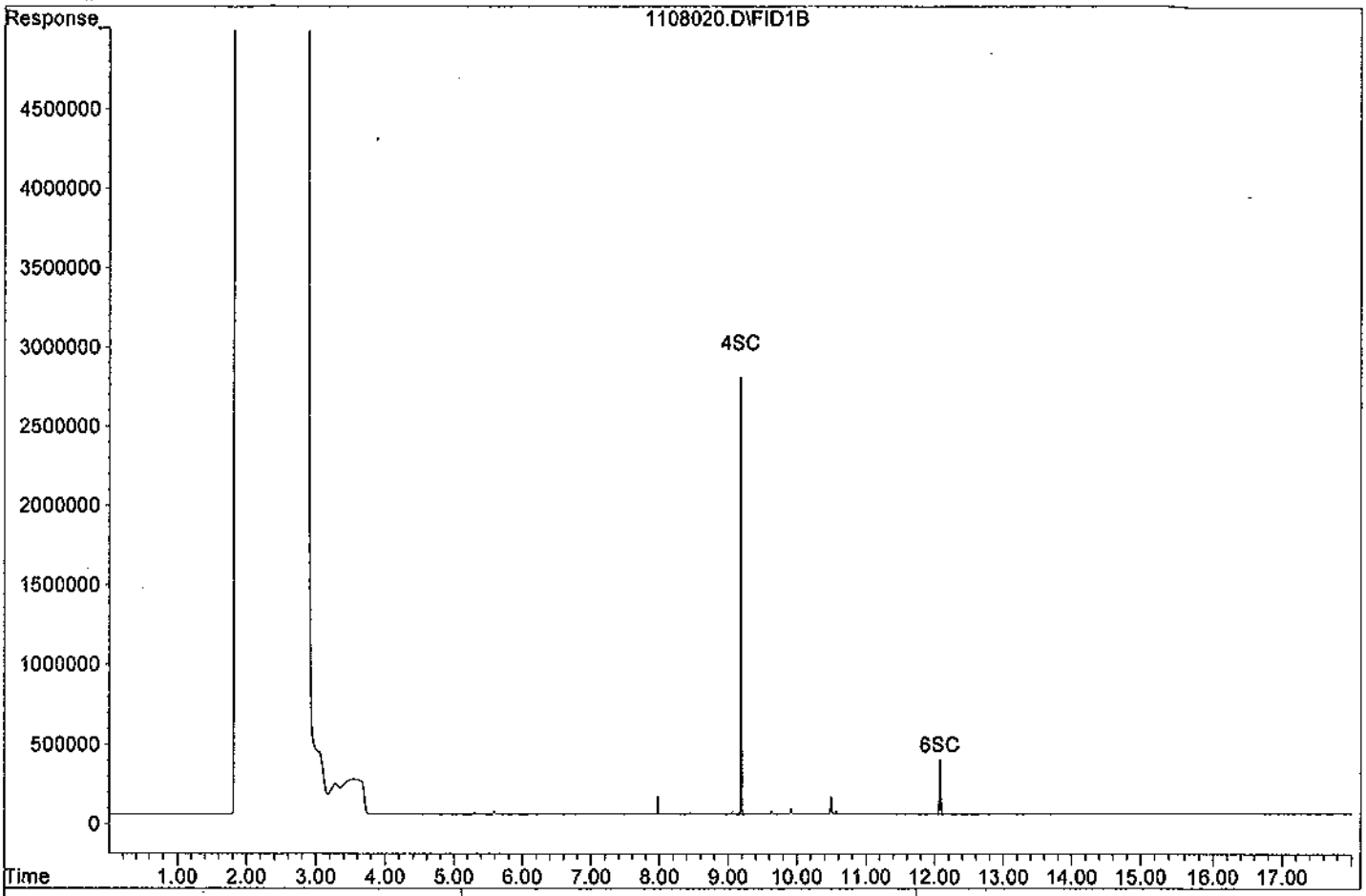
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

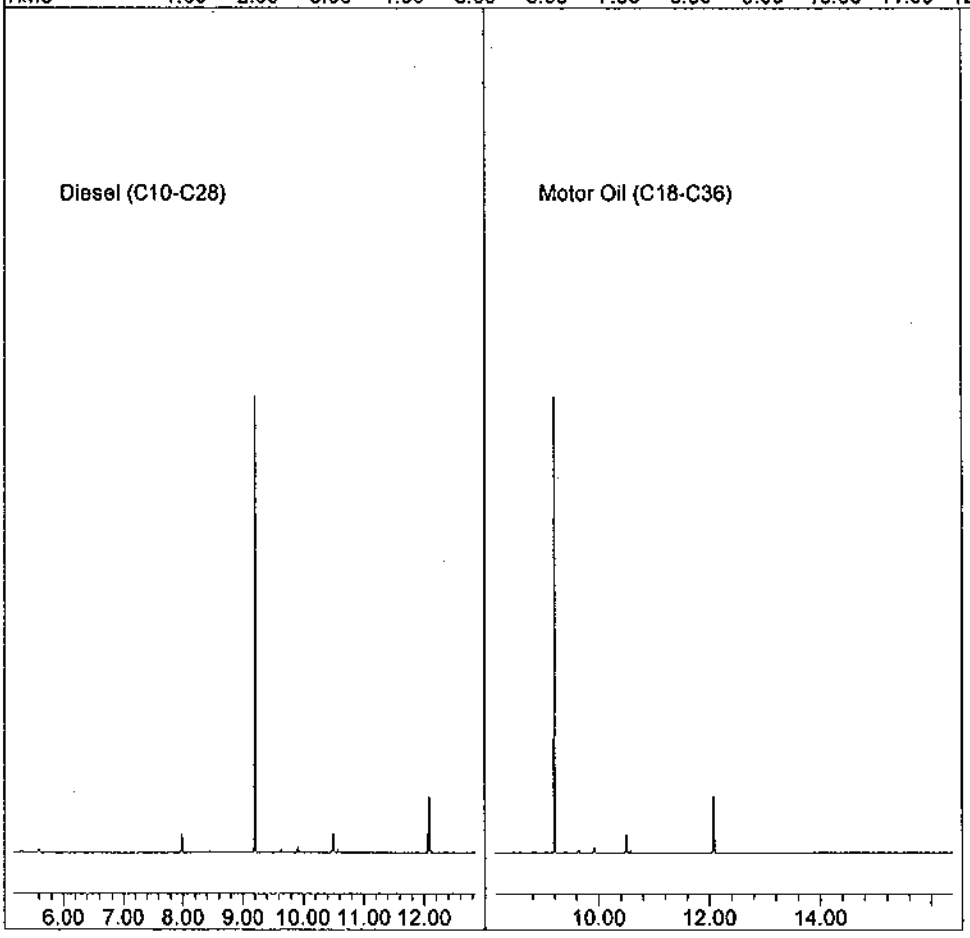
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.19	18494984	21.210 ppb
Surrogate Spike 30.000	Recovery =		70.70%
6) SC Octacosane(S)	12.08	4636415	9.963 ppb
Surrogate Spike 30.000	Recovery =		33.21%
Target Compounds			

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

Data File: G:\APOLLO\DATA\111108\1108020.D
Sample : THC SURR 600/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108021.D Vial: 21
Acq On : 11-8-11 22:07:20 Operator: LAC
Sample : THC SURR 800/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

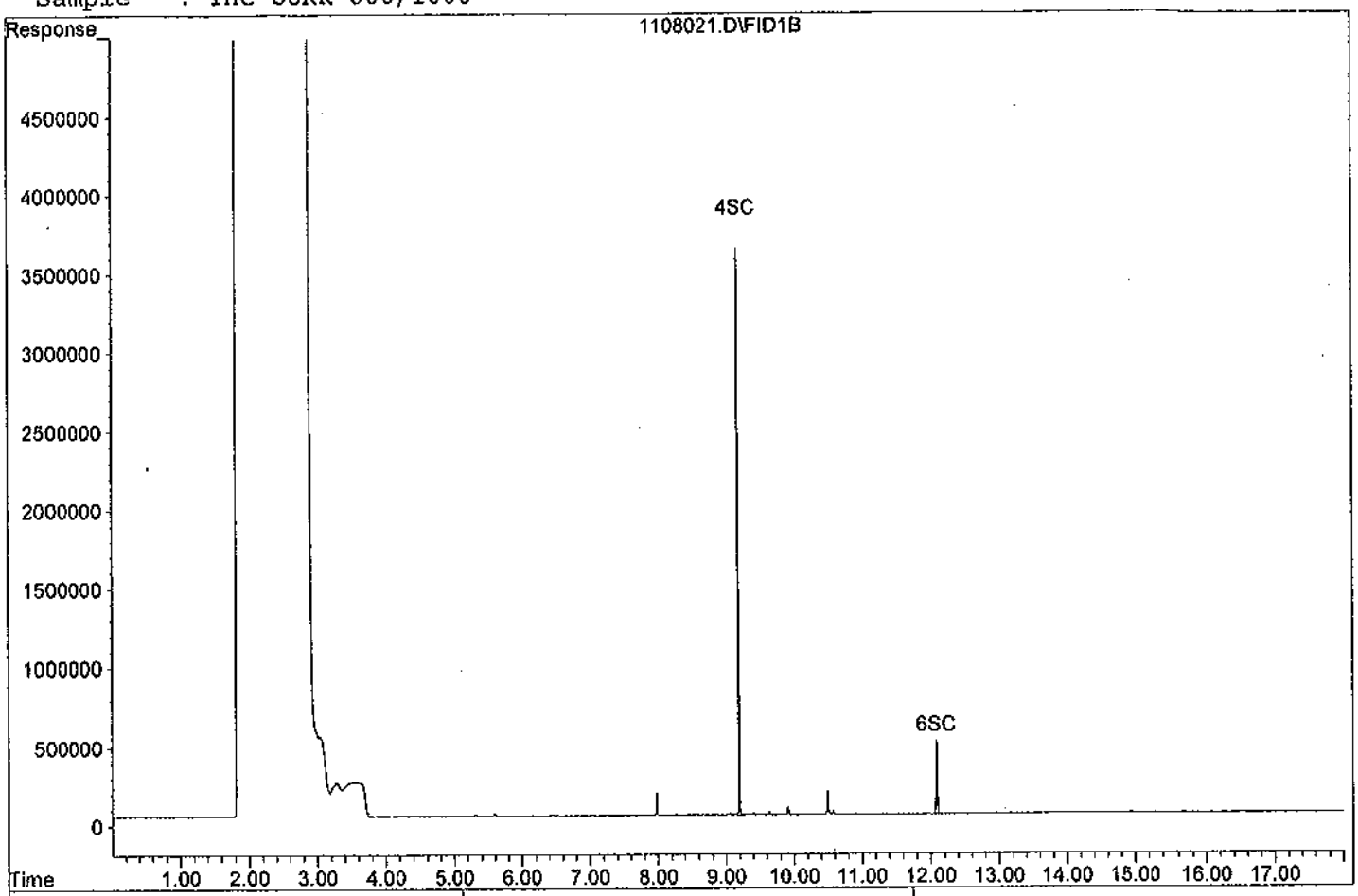
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

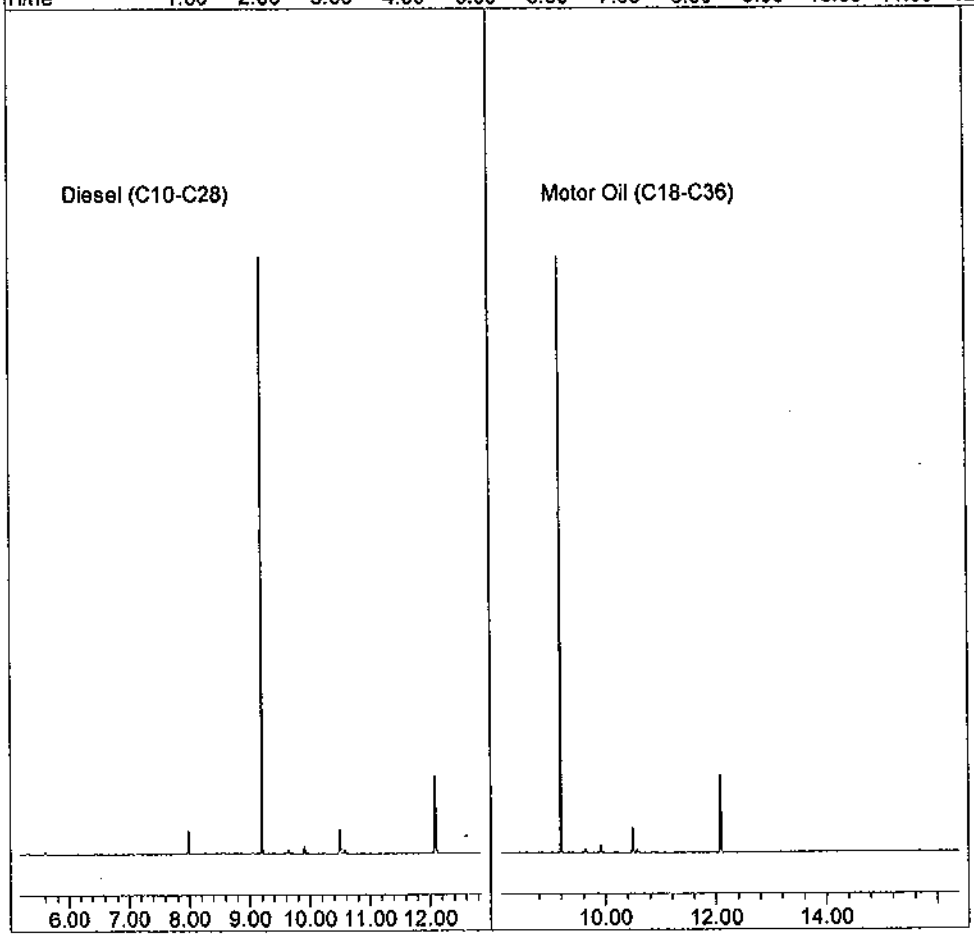
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.20	24081673	27.617	ppb
Surrogate Spike 30.000	Recovery =		92.06%	
6) SC Octacosane(S)	12.09	6191678	13.305	ppb
Surrogate Spike 30.000	Recovery =		44.35%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111108\1108021.D
Sample : THC SURR 800/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108022.D Vial: 22
Acq On : 11-8-11 22:30:39 Operator: LAC
Sample : THC SURR 1000/1000 Inst : Apollo
Misc : Mix(C) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

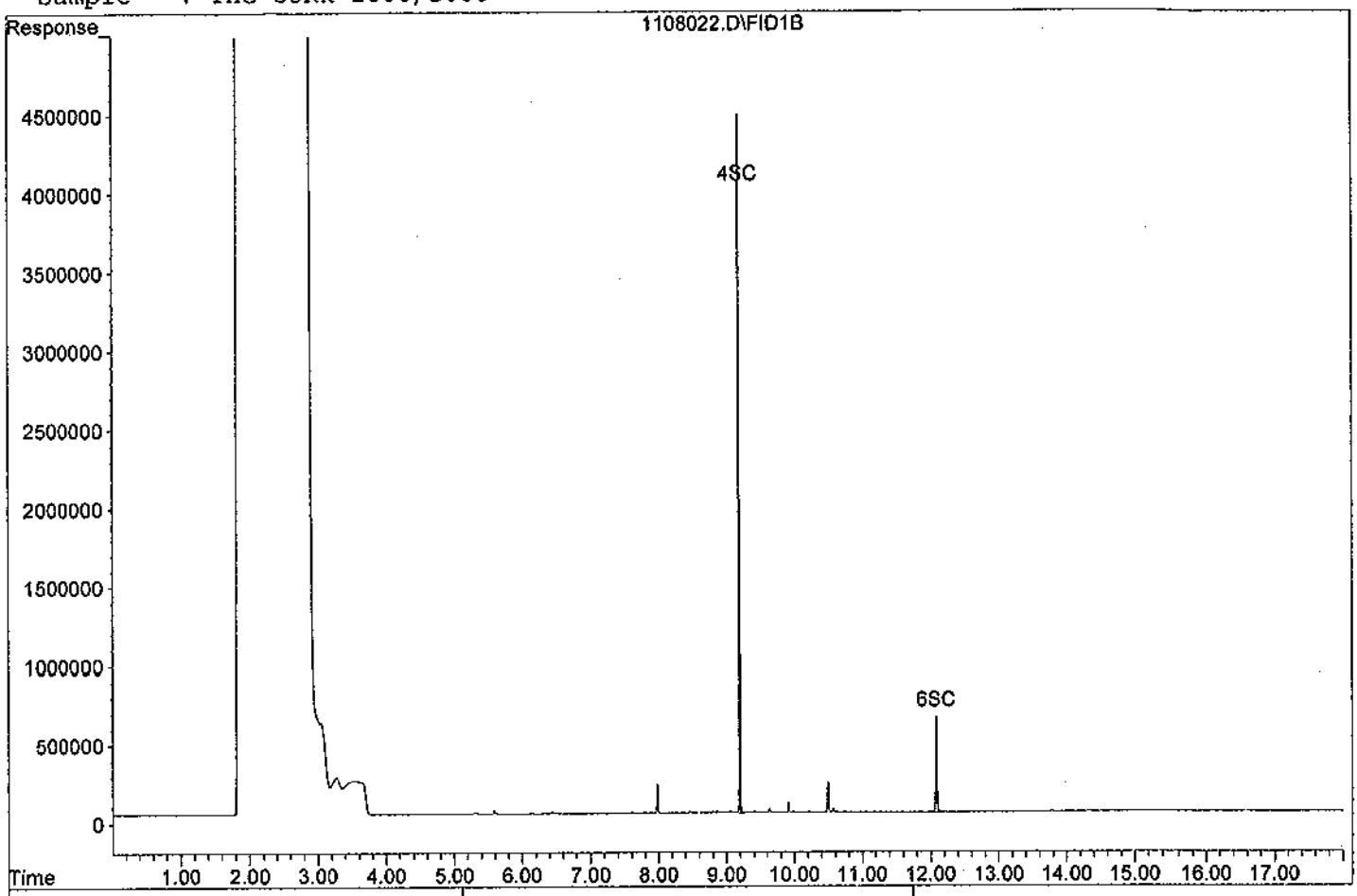
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

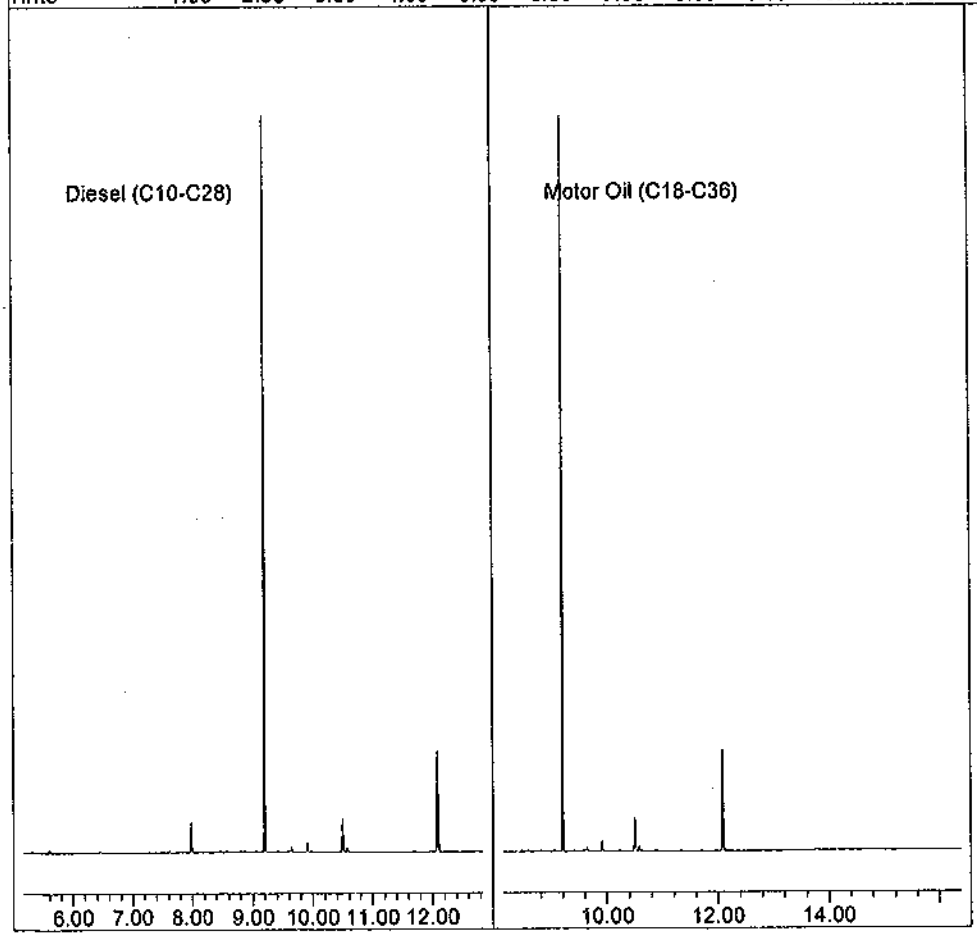
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
4) SC Ortho-Terphenyl(S)	9.20	30506918	34.986	ppb
Surrogate Spike 30.000	Recovery =		116.62%	
6) SC Octacosane(S)	12.09	7943255	17.069	ppb
Surrogate Spike 30.000	Recovery =		56.90%	
Target Compounds				

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

Data File: G:\APOLLO\DATA\111108\1108022.D
Sample : THC SURR 1000/1000





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108069.D Vial: 69
Acq On : 11-9-11 17:18:58 Operator: LAC
Sample : DIESEL 10/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:37 2011 Quant Results File: TPH1108.RES

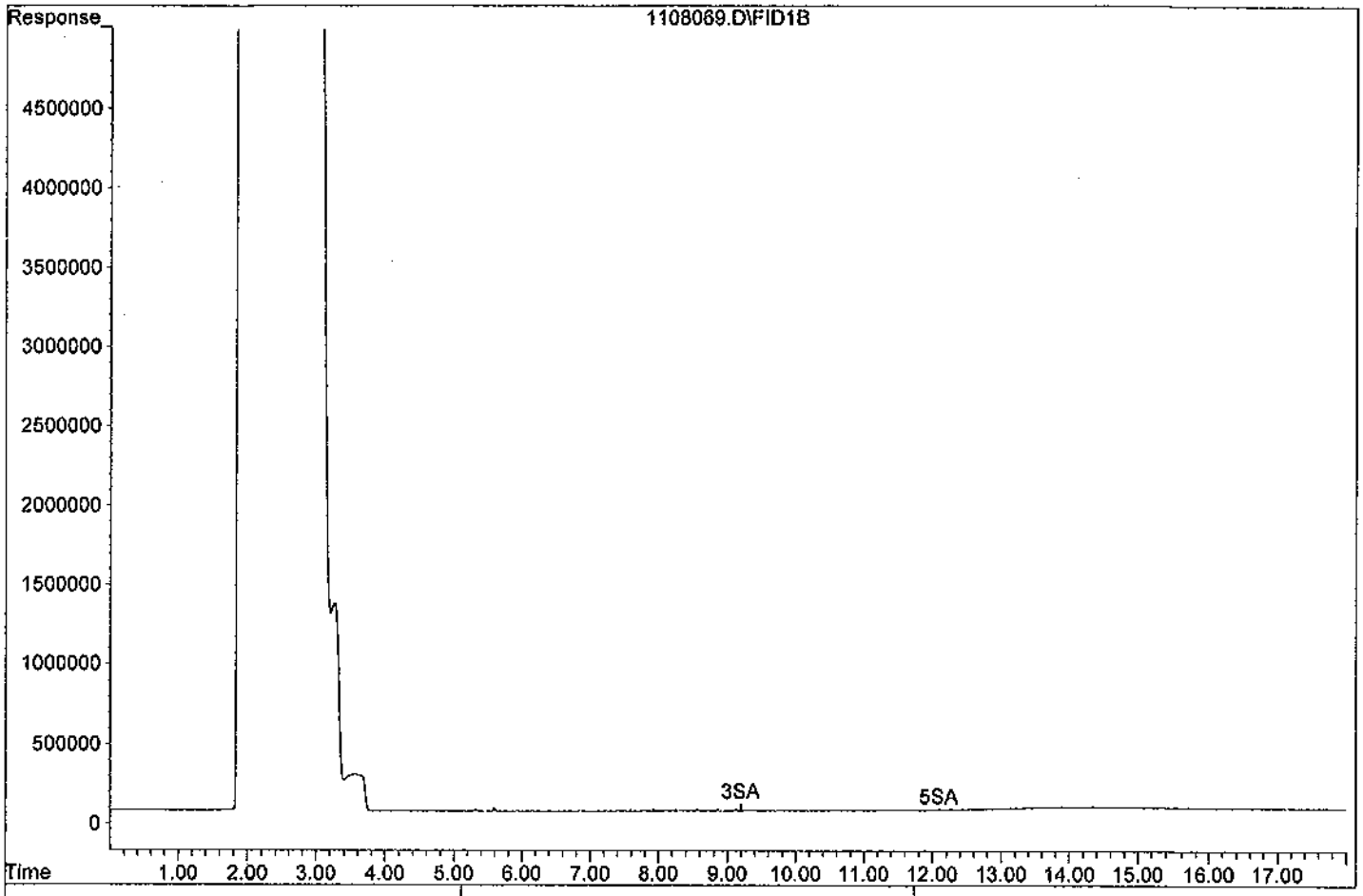
Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

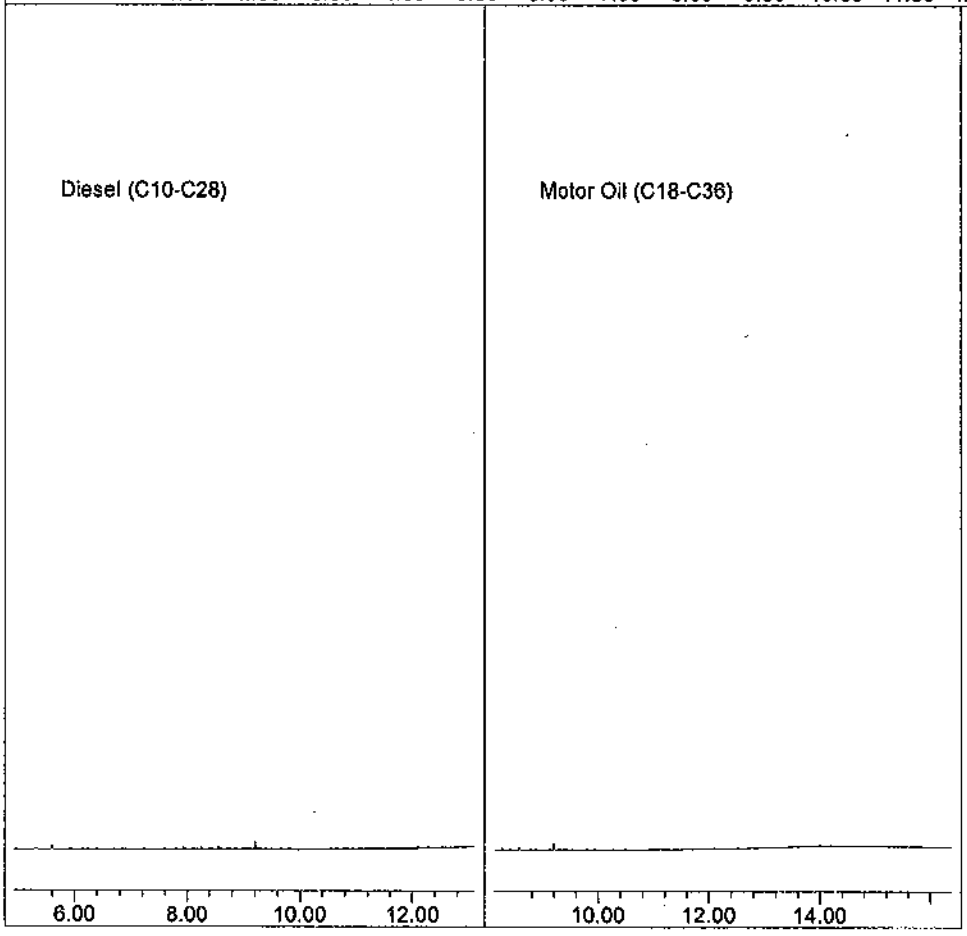
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.20	302444	0.281 ppb
Surrogate Spike 30.000	Recovery	=	0.94%
5) SA Not Used2(S)	12.10	625179	1.262 ppb
Surrogate Spike 30.000	Recovery	=	4.21%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	12262633	14.566 ppb

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

Data File: G:\APOLLO\DATA\111108\1108069.D
Sample : DIESEL 10/1000 11/8/11





TPH Extractables
TPH1108

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 11/09/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1108070.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	233788	23	HATML	5.1
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			23.0		

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111108\1108070.D Vial: 70
Acq On : 11-9-11 17:42:38 Operator: LAC
Sample : DIESEL 400 2ND SRC 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 10 8:39 2011 Quant Results File: TPH1108.RES

Method : G:\APOLLO\DATA\111108\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Thu Nov 10 08:39:08 2011
Response via : Multiple Level Calibration

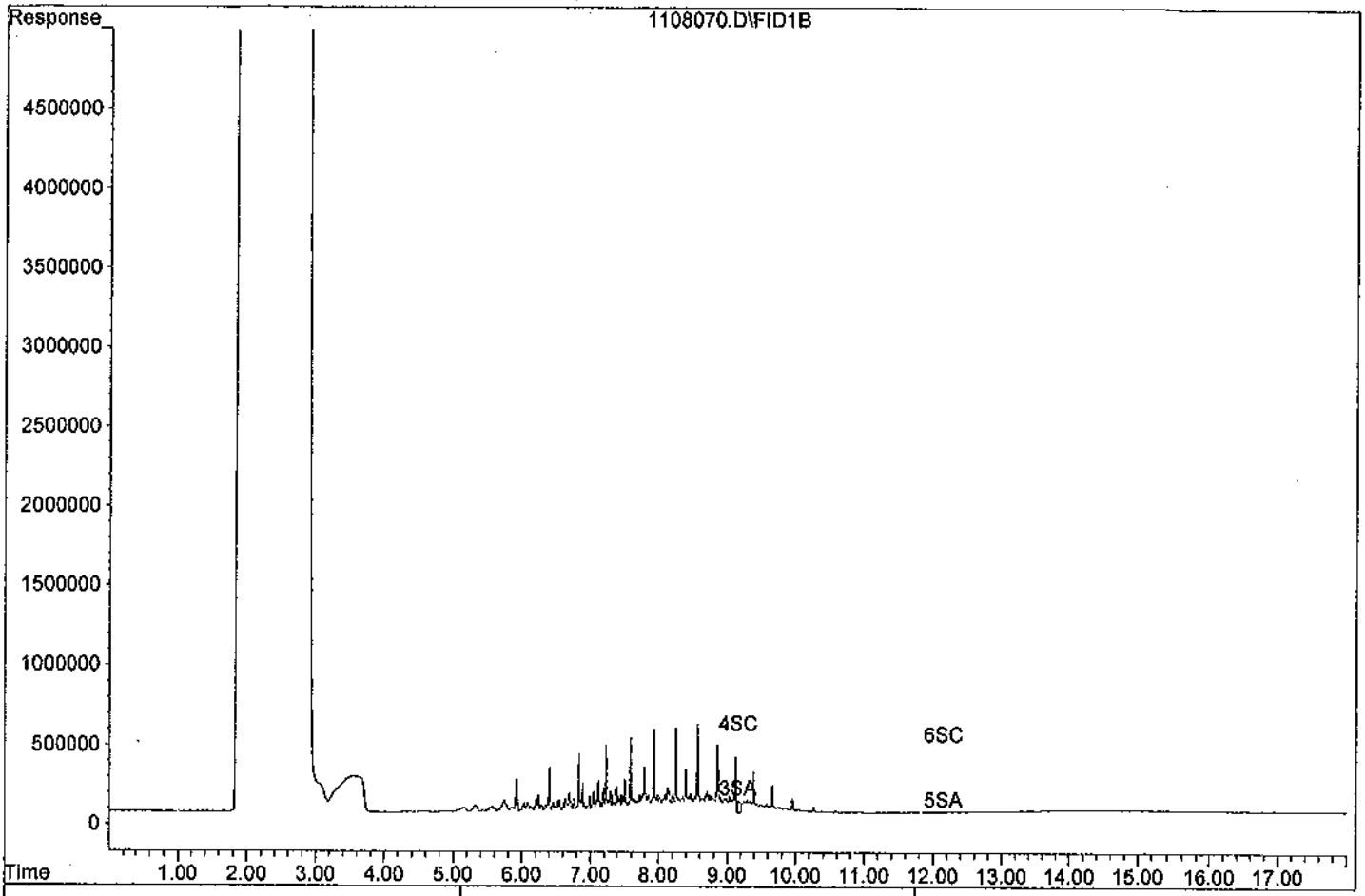
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

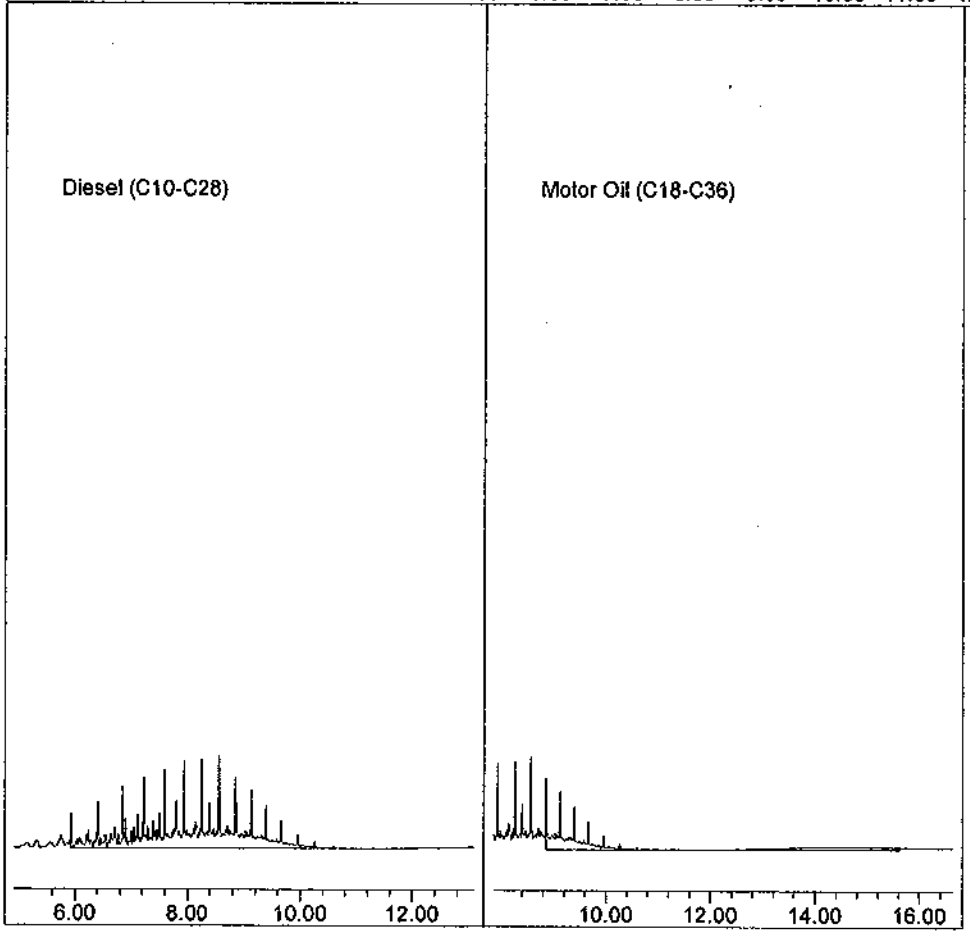
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Not Used(S)	9.17	2636236	3.884 ppb
Surrogate Spike 30.000	Recovery =		12.95%
4) SC Ortho-Terphenyl(S)	9.17	2636236	4.343 ppb
Surrogate Spike 30.000	Recovery =		14.48%
5) SA Not Used2(S)	12.16	136311	0.865 ppb
Surrogate Spike 30.000	Recovery =		2.88%
6) SC Octacosane(S)	12.16	136311	0.886 ppb
Surrogate Spike 30.000	Recovery =		2.95%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	187030011	379.546 ppb
2) HBTM Motor Oil (C18-C36)	12.24	65049118	279.838 ppb

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

Quantitation Report

Data File: G:\APOLLO\DATA\111108\1108070.D
Sample : DIESEL 400 2ND SRC 11/8/11





TPH Extractables
TPH1108

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 11/11/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1110047.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	256572	16	HATML	4.3
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			16.0		

Quantitation Report (Not Reviewed)

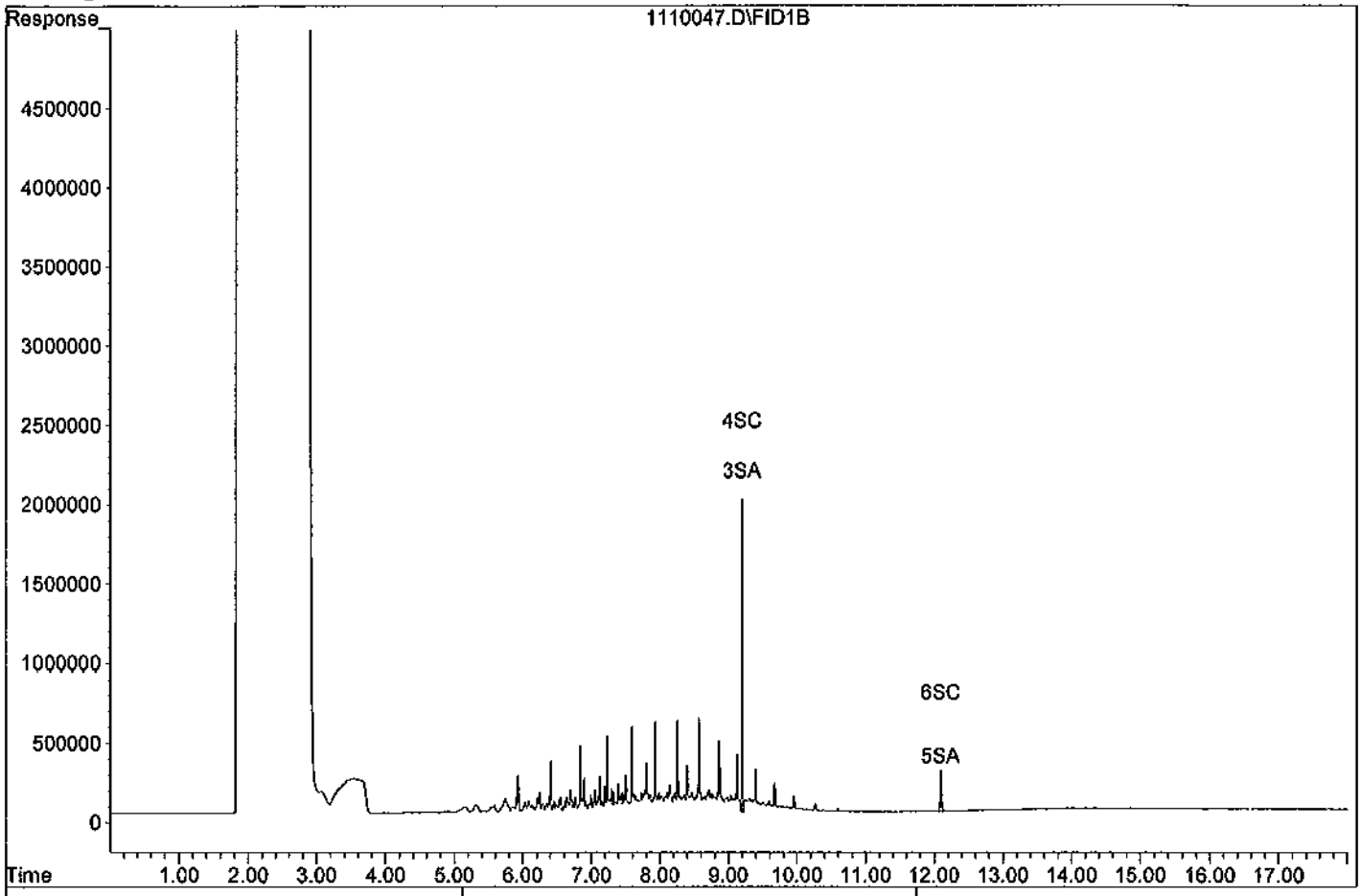
Data File : G:\APOLLO\DATA\111110\1110047.D Vial: 47
Acq On : 11-11-11 4:07:11 Operator: LAC
Sample : DIESEL 400/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 11 13:41 2011 Quant Results File: TPH1108.RES

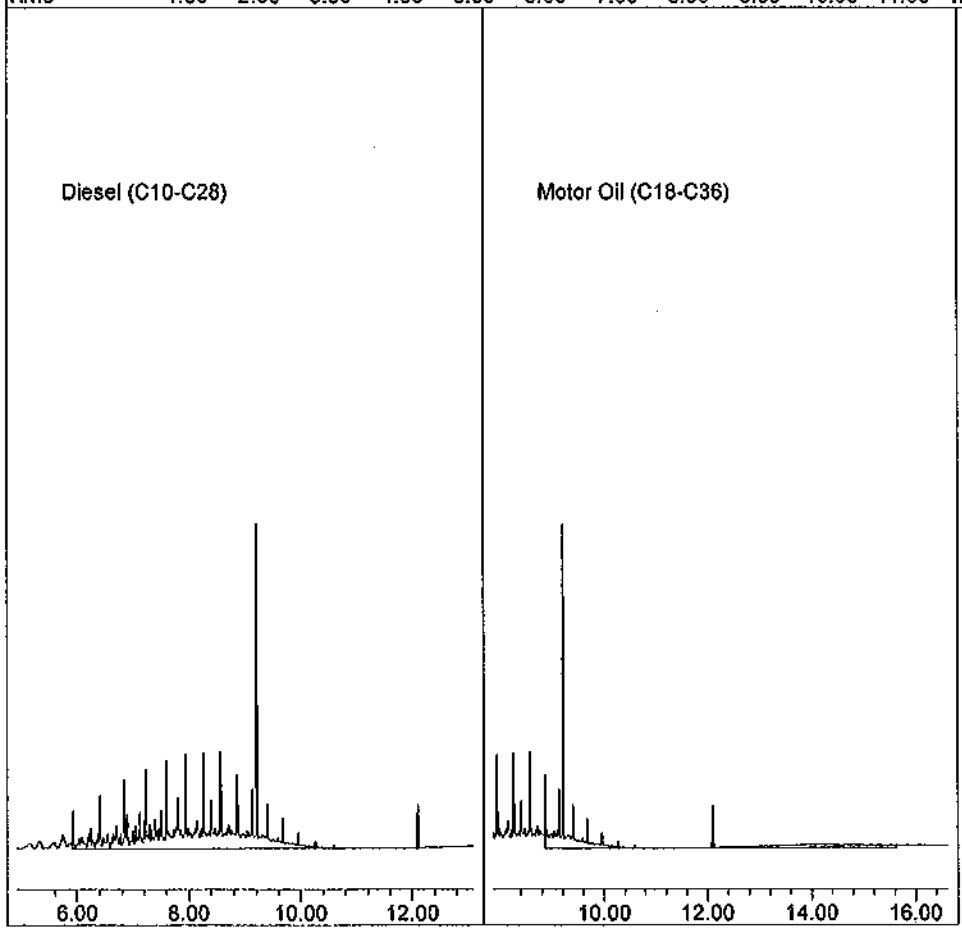
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 14 13:54:20 2011
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	13963929	20.573	ppb
Surrogate Spike 30.000	Recovery =		68.58%	
4) SC Ortho-Terphenyl(S)	9.20	13963929	23.002	ppb
Surrogate Spike 30.000	Recovery =		76.67%	
5) SA Not Used2(S)	12.10	3538118	22.439	ppb
Surrogate Spike 30.000	Recovery =		74.80%	
6) SC Octacosane(S)	12.10	3538118	22.997	ppb
Surrogate Spike 30.000	Recovery =		76.66%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	205257553	417.121	ppb
2) HBTM Motor Oil (C18-C36)	12.24	71360796	306.991	ppb

Data File: G:\APOLLO\DATA\111110\1110047.D
Sample : DIESEL 400/1000 11/8/11





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\111110\1110059.D Vial: 59
Acq On : 11-11-11 8:50:25 Operator: LAC
Sample : DIESEL 400/1000 11/8/11 Inst : Apollo
Misc : Mix(A) Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 14 11:26 2011 Quant Results File: TPH1108.RES

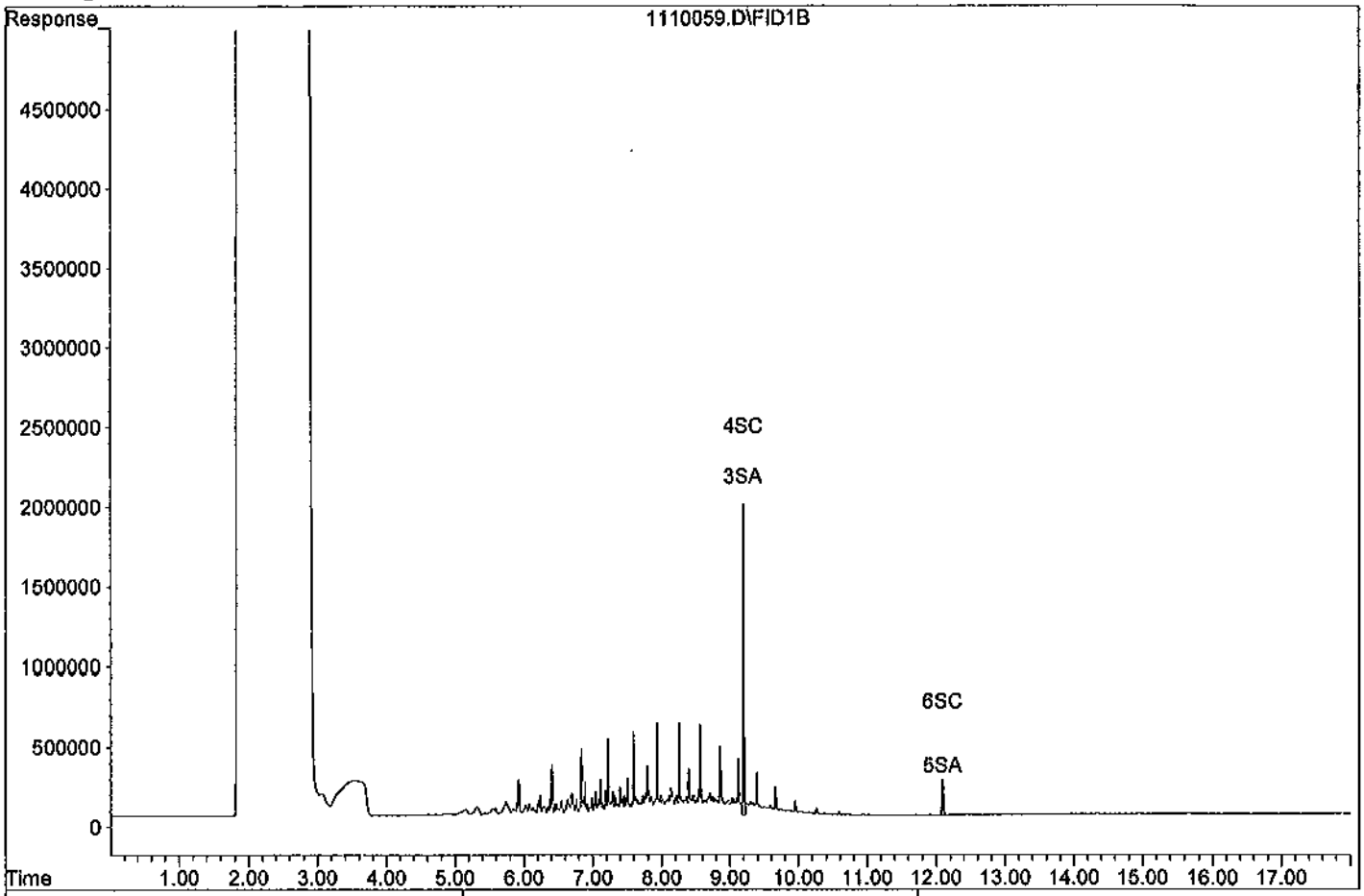
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 14 13:54:20 2011
Response via : Multiple Level Calibration

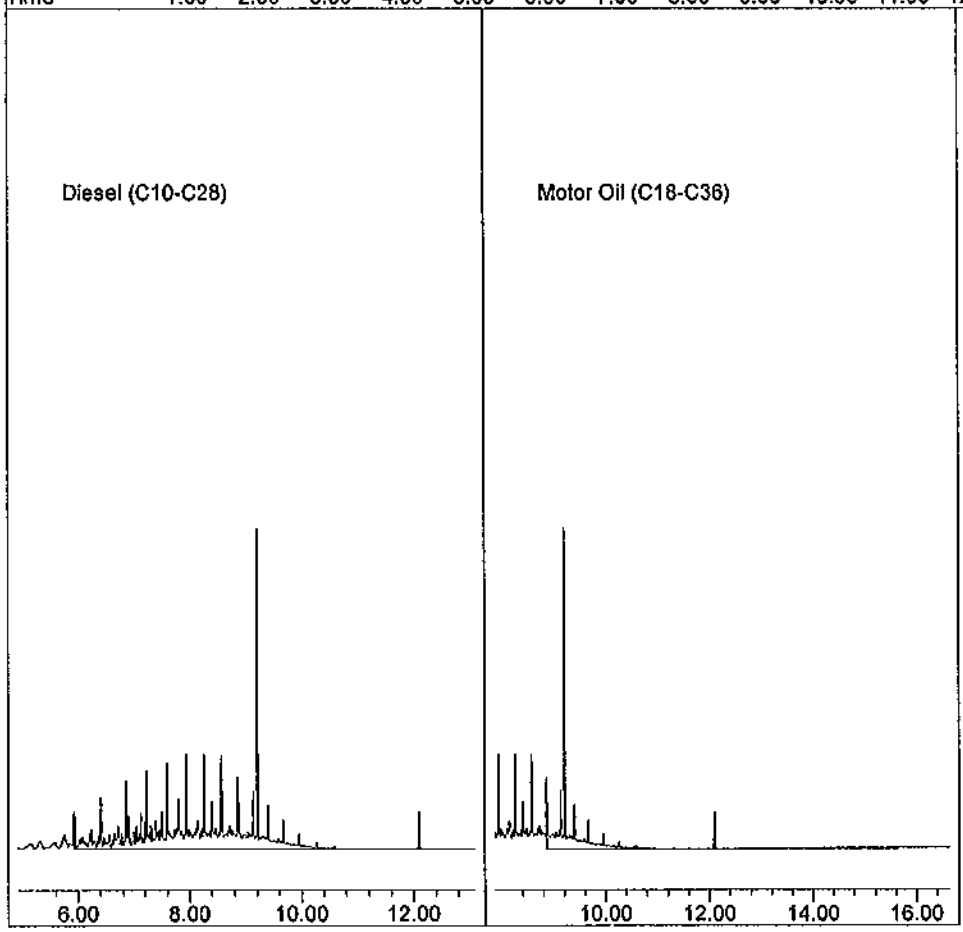
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Not Used(S)	9.20	13744549	20.250	ppb
Surrogate Spike 30.000	Recovery =		67.50%	
4) SC Ortho-Terphenyl(S)	9.20	13744549	22.641	ppb
Surrogate Spike 30.000	Recovery =		75.47%	
5) SA Not Used2(S)	12.09	3093601	19.620	ppb
Surrogate Spike 30.000	Recovery =		65.40%	
6) SC Octacosane(S)	12.09	3093601	20.108	ppb
Surrogate Spike 30.000	Recovery =		67.03%	
Target Compounds				
1) HATM Diesel (C10-C28)	9.01	199903834	406.084	ppb
2) HBTM Motor Oil (C18-C36)	12.24	58700378	252.526	ppb

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

Data File: G:\APOLLO\DATA\111110\1110059.D
Sample : DIESEL 400/1000 11/8/11





TPH Extractables
TPH1108

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 11/11/11
Instrument: Apollo
Initial Cal. Date: 11/08/11
Data File: 1110059.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C28)	305473	249880	18	HATML	1.5
2	HBTM	Motor Oil (C18-C36)	116226	119457	2.8	HBTM	
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.4		

EPA 8015 Modified
Total Petroleum Hydrocarbons
Raw Data

Method Blank
TPH Diesel Water

Blank Name/QCG: **111108W-50005 - 161797**
Batch ID: #TPETD-111108A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	80.8 U	150	80.8	40.4	ug/L	11/08/11	11/11/11
BLANK	SURROGATE: OCTACOSANE (S)	78.6	28-142			%	11/08/11	11/11/11
BLANK	SURROGATE: ORTHO-TERPHEN	78.5	57-132			%	11/08/11	11/11/11

Quant Method: TPH1108.M
Run #: 1110052
Instrument: APOLLO
Sequence: 111110
Initials: LA

GC SC-Blank-REG MDLs
Printed: 11/30/11 2:44:00 PM

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110052.D Vial: 52
Acq On : 11-11-11 6:05:10 Operator: LAC
Sample : 111108A BLK 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 30 14:30 2011 Quant Results File: TPH1108.RES

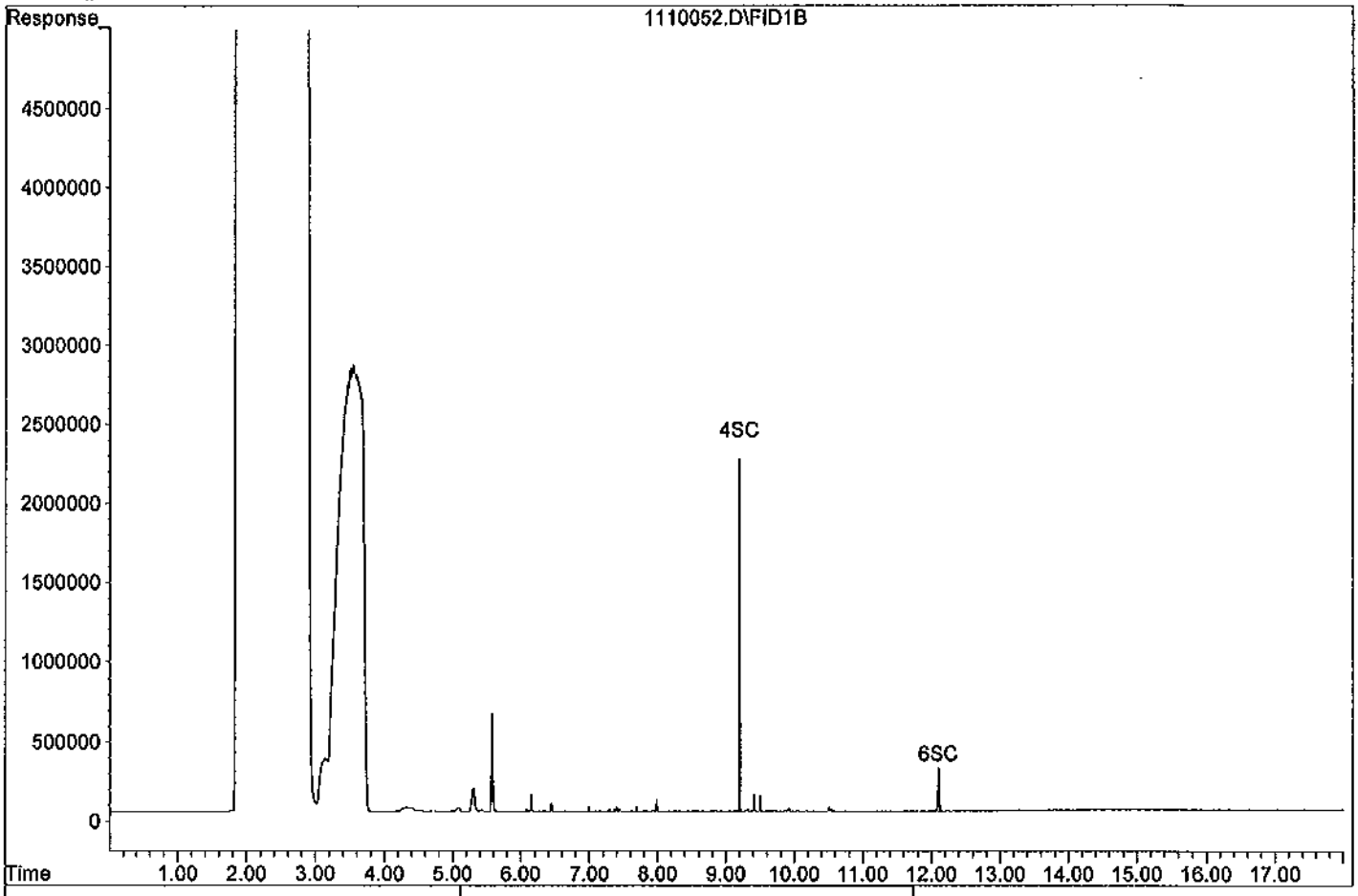
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 14 13:54:20 2011
Response via : Multiple Level Calibration

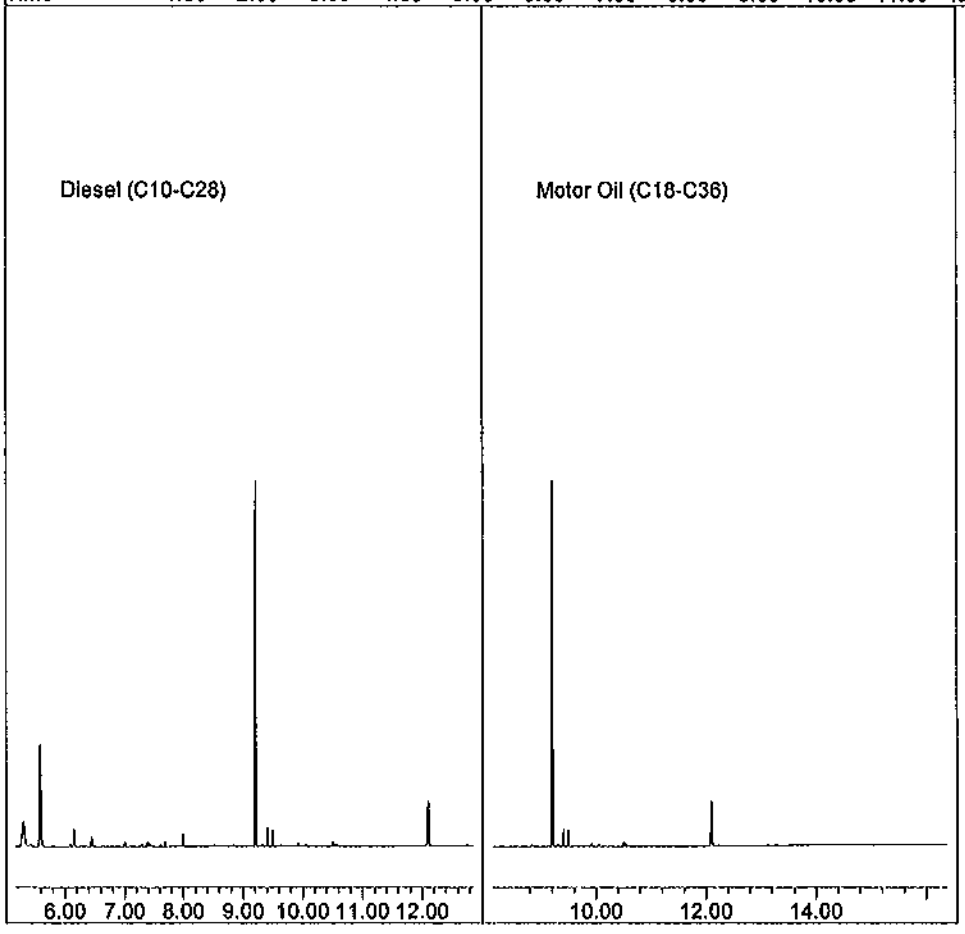
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	14295665	117.744 ppb
Surrogate Spike 150.000		Recovery =	78.50%
6) SC Octacosane(S)	12.10	3627288	117.883 ppb
Surrogate Spike 150.000		Recovery =	78.59%
Target Compounds			

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

Data File: G:\APOLLO\DATA\111110\1110052.D
Sample : 111108A BLK 5/1000





Laboratory Control Spike Recovery
TPH Diesel Water

APPL ID: **111108W-50005 LCS - 161797**
Batch ID: #TPETD-111108A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1620	81.0	61-143
SURROGATE: OCTACOSANE (S)	150	124	82.7	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	141	94.0	57-132

Comments:

Primary	SPK
Quant Method :	TPH1108.M
Extraction Date :	11/08/11
Analysis Date :	11/11/11
Instrument :	APOLLO
Run :	1110053
Initials :	LA

Printed: 11/30/11 2:43:56 PM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\111110\1110053.D Vial: 53
Acq On : 11-11-11 6:28:45 Operator: LAC
Sample : 111108A LCS-1 5/1000 Inst : Apollo
Misc : Water Multiplr: 5.00
IntFile : events.e
Quant Time: Nov 30 14:30 2011 Quant Results File: TPH1108.RES

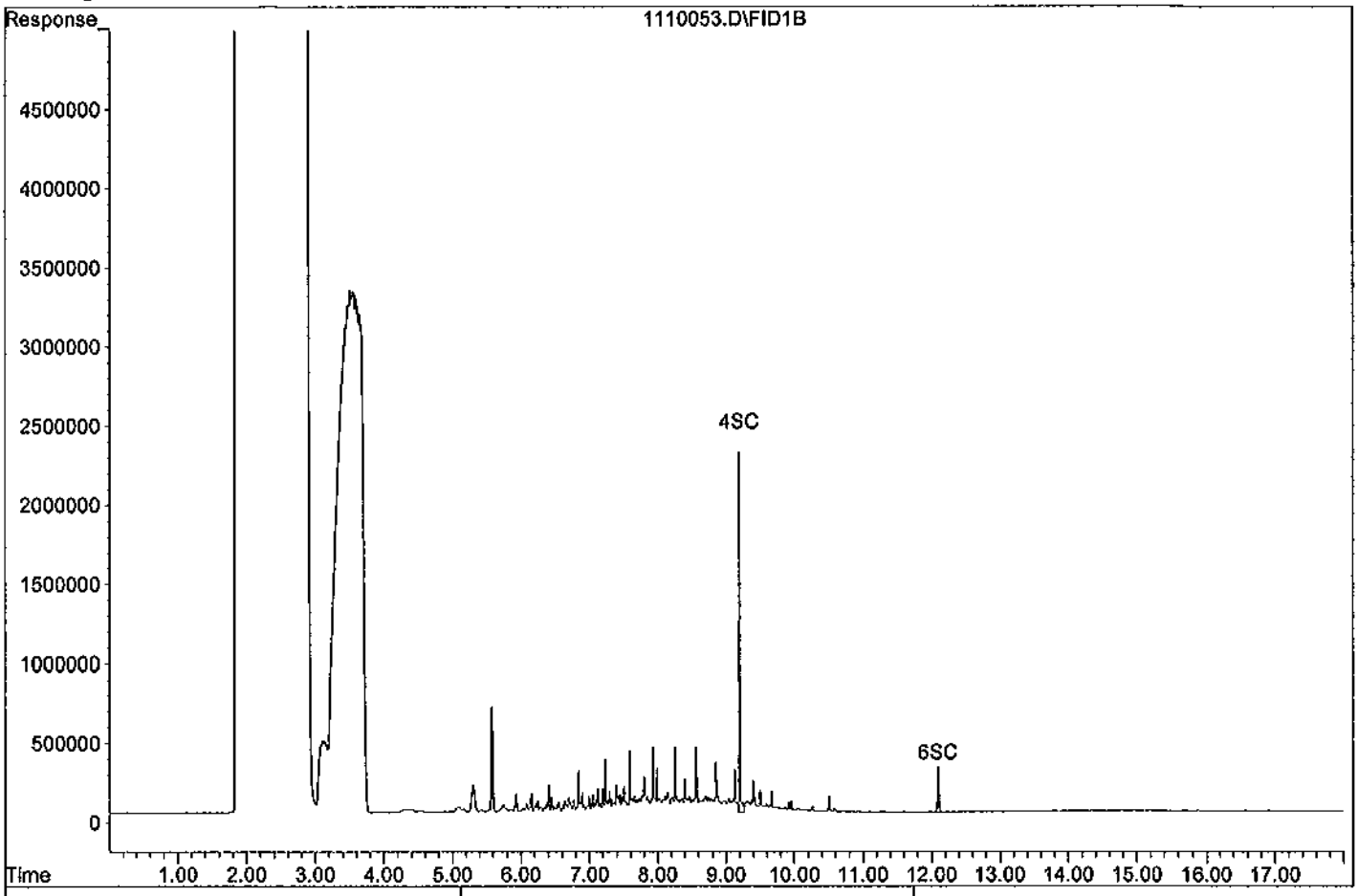
Method : G:\APOLLO\DATA\111110\TPH1108.M (Chemstation Integrator)
Title : Diesel
Last Update : Mon Nov 14 13:54:20 2011
Response via : Multiple Level Calibration

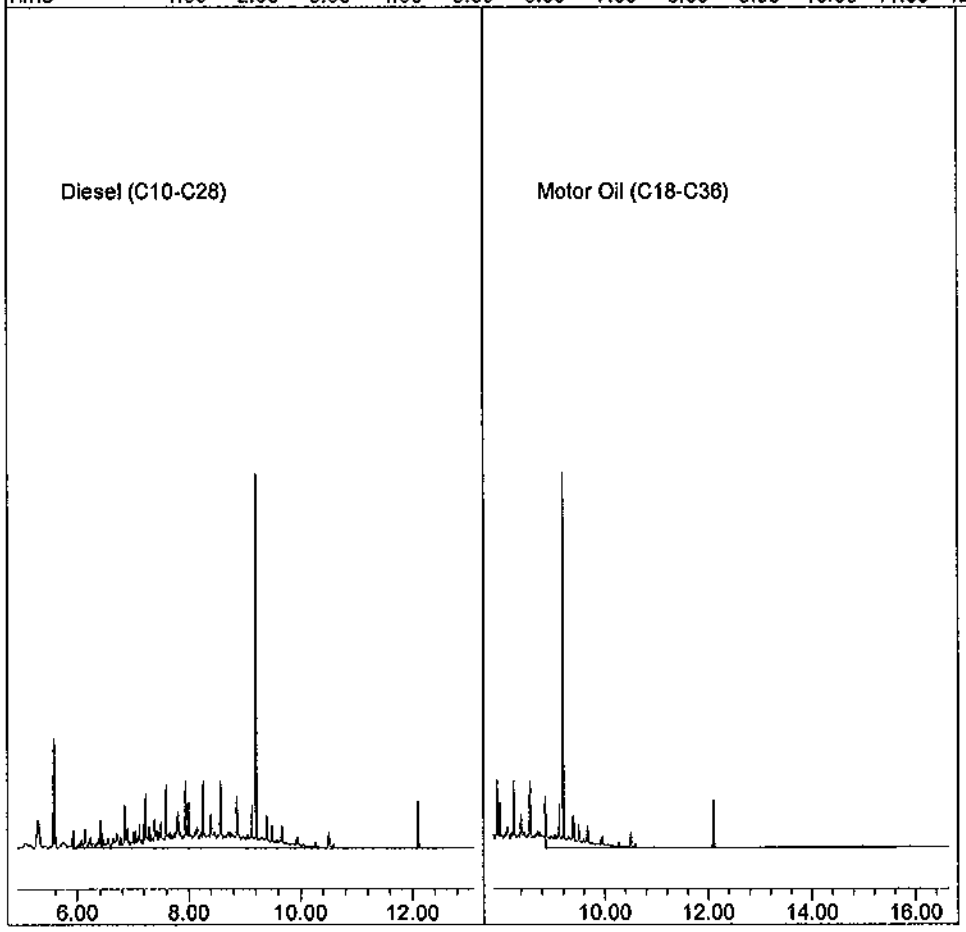
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SC Ortho-Terphenyl(S)	9.20	17106977	140.899 ppb
Surrogate Spike 150.000		Recovery =	93.93%
6) SC Octacosane(S)	12.10	3821271	124.187 ppb
Surrogate Spike 150.000		Recovery =	82.79%
Target Compounds			
1) HATM Diesel (C10-C28)	9.01	160007121	1619.200 ppb
2) HBTM Motor Oil (C18-C36)	12.24	52632663	1132.117 ppb

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

Data File: G:\APOLLO\DATA\111110\1110053.D
Sample : 111108A LCS-1 5/1000





STANDARD 052	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS

DIESEL STANDARD

DIESEL FUEL #2	50,000mg/L	0251	1000ml	50ML	1000mg/L	MC # 0517113	9/1/11 EX: 3/1/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
811598-43
Lot # 167768 Storage 5-10 Degrees C Expiry 2/15/15
Solvent Methylene Chloride
Diesel Fuel #2 Composite OP: 9/1/11
Lot #: 167768 - 28176 EX: 9/1/12
Rec: 1/20/11 MFR exp. 02/15/15

OCTACOSANE O-TERPHENYL	600mg/L	0251	4170ml		5Dmg/L		

CAT: 110316-05
LOT: 176405-29337
OP: 9/1/11
EX: 9/1/12

MOTOR OIL STANDARD

MOTOR OIL	50,000mg/L	0251	1000ml	50ML	1000mg/L	MC # 0517113	9/1/11 EX: 3/1/12

O2Si smart solutions
Motor Oil Composite, 50,000 mg/L, 1 ml
OP: 9/1/11 EX: 9/1/12
116390-02
Storage: </= -10 Degrees C
Made in USA Lot No: 161898
Exp: 7/23/2013
Solvent Methylene Chloride
Motor oil composite
Lot #: 161898 - 28615
Rec: 4/14/11 MFR exp. 07/23/13

DIESEL 2ND SOURCE

DIESEL FUEL #2	50,000mg/L	0281	1000ml	50ML	1000mg/L	MC # 0517113	9/1/11 EX: 3/1/12

Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml
811598-43
Lot # 167769 Storage 5-10 Degrees C Expiry 2/15/15
Solvent Methylene Chloride
Diesel Fuel #2 Composite OP: 9/1/11
Lot #: 167769 - 29397 EX: 9/1/12
Rec: 8/26/11 MFR exp. 02/15/15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
		DIESEL STANDARD					
DIESEL FUEL #2	50,000 mg/L	D2SI	600 ml	50 ml	1000 mg/L	MC # 51204	10/26/11 EX: 4/26/12
	Diesel Fuel #2 Composite, 50,000 mg/L, 1 ml — 116390-03 — Lot # 167768 — Storage 5-10 Degrees C — Expiry 2/15/15 — Solvent: Methylene Chloride — Diesel Fuel #2 Composite — Lot #: 167768 - 29406 — Rec: 8/26/11 MFR exp. 02/15/15 — OP: 10/26/11 EX: 10/26/12						
TERPHENYL	600 mg/L	D2SI	4170 ml		50 mg/L		
HEXANE	CAT: 110316-05 LOT: 176405-29328 OP: 10/10/11 EX: 10/10/12						
		MOTOR OIL STANDARD					
MOTOR OIL	50,000 mg/L	D2SI	1000 ml	50 ml	1000 mg/L	MC # 51204	10/26/11 EX: 4/26/12
	O2si — Motor Oil Composite, 50,000 mg/L, 1 ml — 116390-02 — Storage: 5 -10 Degrees C — Made in USA — Lot No: 161898 — Solvent: Methylene Chloride — Exp: 7/23/2013 — Motor oil composite — Lot #: 161898 - 28616 — Rec: 4/14/11 MFR exp. 07/23/13 — OP: 10/26/11 EX: 10/26/12						

		PAC ECO 2ND SOURCE			
DIAZINON	5ug/ml	200ug/ml	250ul	O2SI	10ml
DISULFOTON		200	CAT:	130169-01	HEXANE
MALATHION		200	LOT:	178204-29481	LOT#
MOLINATE		200	OP:	10/26/2011	082610B
PHORATE		200	EXP:	3/11/2012	
THIOBENCARB		200			
TRIBUTYL PHOSPHATE		200			
DEMETON		200			
DISCHLORVOS		200			
EPTC		200			
PARATHION		200			
AZINPHOS METHYL		200			
CHLORPYRIFOS		200			
DIMETHOATE		200			
METHIDATHION		200			
METHYL PARATHION		200			
ATRAZINE		200			
CYANIZINE		200			
TRIPHENYL PHOSPHATE		200			
PENDIMETHALIN (PROWL		200			
TRIFLURALIN		200			
SIMAZINE		200			

10/26/11

EX: 3/11/12

10/26/11

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT#	DATE / 0899

11/1/11

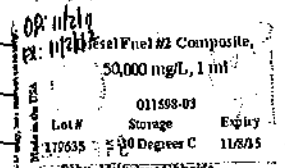
Technical Chlordane Standard / Spike

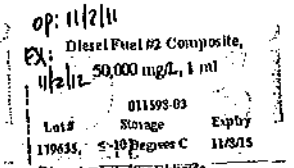
STANDARD	INIT CONC.	SOURCE DATE	ALIQUOT	FINAL VOL.	FINAL CONC.	SOLVENT
Technical	100 ug/ml	Absolute	500 µL	5 mL	10 µg/mL	Hexane
Chlordane	Part:	91824				Lot#
	Lot:	121008-28981				082610B
	open:	7/15/2011				
	exp:	7/15/2012				

11/1/11
EX: 5/1/12

DIESEL SPIKE

DIESEL FUEL #2	50,000ug/L	025I	2000mL	50mL	2000ug/L	MC # 51204	11/2/11 EX: 2/2/12

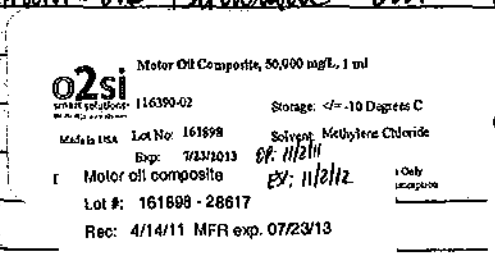


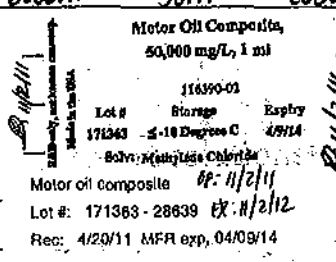


11/2/11

MOTOR OIL SPIKE

MOTOR OIL	50,000ug/L	025I	2000mL	50mL	2000ug/L	MC # 51204	11/2/11 EX: 2/2/12





OCL SOIL SURROGATE

DECA TCMX DBC	500ng/uL	025I	400mL	100mL	20ng/uL	ACETONE # 0110IIC	11/2/11 EX: 2/2/12

CAT: 130070-02
LOT: 154164-29416
OP: 11/2/11
EX: 11/2/12

OCL SOIL SPIKE

VARIOUS	100ng/uL	025I	1000mL	50mL	20ng/uL	Acetone # 0110IIC	11/2/11 EX: 2/2/12

CAT: 130015-05
LOT: 148748
OP: 11/2/11
EX: 11/2/12

STANDARD

	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE: 11/7/11

11/7/11

PREP:	11/7/2011												
PAC ECO CURVE													
EXP:	2/25/2012												
	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL STD	5		10/26/2011	2/25/2012	2	10	50	200	500	700	1000
VWR	Hexane		010711A			998	990	950	800	500	300	N/A
					Final VOL.	1000	1000	1000	1000	1000	1000	1000
PAC ECO 2ND SRC				DATE	EXP. DATE							
Prep: 11/7/11	Exp: 12/17/11	5	010711A	10/28/2011	12/17/2011	600/1000						

11/7/11 Ex: 2/25/12

11/7/11 Ex: 12/17/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	10/17/2011	4/17/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 Ex: 4/17/12

DIESEL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
DIESEL	1000		10/26/2011	4/26/2012	10	100	400	600	800	1000
MC		51204			990	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

11/8/11 Ex: 4/26/12

MOTOR OIL CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
MOTOR OIL	1000		10/26/2011	4/26/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

DIESEL 2ND SOURCE

STD	Init. Conc	Source	Aliquot	Final Vol.	Final Conc.	Solvent
DIESEL 2ND SRC	1000µg/ml	O2SI	400µL	1 mL	400 µg/mL	MC
	Prep:	9/1/2011				51204
	Exp:	3/1/2012				

11/8/11 Ex: 3/1/12

11/9/11

PREP DATE:	11/9/2011											
TERBACIL CURVE												
EXP:	3/13/2012											
						0.05	0.25	1	2.5	3.5	5	
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	
	TERBACIL STD	5		9/13/2011	3/13/2012	10	50	200	500	700	1000	
VWR	HEXANE		082610B			990	950	800	500	300		
					Final VOL.	1000	1000	1000	1000	1000	1000	

11/9/11 Ex: 3/13/12

PREP DATE:	11/9/2011					
OP 2ND SOURCE						
EXP:	4/19/2012					
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL
	OP 2ND SRC	5		10/19/2011	4/19/2012	500
VWR	HEXANE		082610B			500
					Final VOL.	1000

11/9/11 Ex: 4/19/12

11/9/11

PREP DATE:	11/8/2011											
OPF CURVE												
EXP:	2/7/2012											
						EA	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL
	OPF STD	5		11/3/2011	2/7/2012	2	10	50	200	500	700	1000
	Hexane		082610B			998	990	950	800	500	300	NA
					Final VOL.	1000	1000	1000	1000	1000	1000	1000

11/9/11 Ex: 2/7/12

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT / LOT #	DATE / INITIALS
PCB SOIL SPIKE								
AR 1260 AR 1016	1000ng/mL	0251 CAT: 130011-03 LOT: 163607-27215 OP: 11/10/11 EX: 11/10/12 AND LOT: 152374-27210 OP: 3/2/11 EX: 3/2/12		1250mL	25mL	50ng/mL	ACETONE #	11/10/11 EX: 2/10/12
PCB WATER SPIKE								
AR1016 AR1260	1000ng/mL	0251 CAT: 130011-03 LOT: 163607-27214 OP: 8/2/11 EX: 8/2/12		125mL	25mL	5ng/mL	ACETONE #	11/10/11 EX: 2/10/12
HERB 100/1000 (LVL 3) CCV								
VARIOUS SEE PG 015	VARIOUS	HERB STD. PREP: 10/11/11 EX: 4/11/12		190mL	1mL	100ng/mL	MTBE #	11/10/11 EX: 4/11/12
THC SURROGATE CAL. STD.								
D-TERPANYL DECAHOSANE	1000ng/mL	0251 CAT: 110316-05 LOT: 176405-29342 OP: 10/10/11 EX: 10/10/12		834mL	10mL	50ng/mL	MC #	11/15/11 EX: 5/15/12

LAC 11/15/11

TCH SURROGATE CURVE

STD	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
THC SURR	50	176405	11/15/2011	5/15/2012	50	100	400	600	800	1000
MC		51204			950	900	600	400	200	NA
				Final VOL.	1000	1000	1,000	1000	1000	1000

LAC 11/15/11
EX 5/15/12

_SEP011

Organic Extraction Worksheet

Method	THC Separatory Funnel Extraction 3510C	Extraction Set	111108A	Extraction Method	SEP011	Units	mL

Spiked ID 1	Diesel Spike 11/2/11 EX 2/2/12		Surrogate ID 1	THC Surrogate 176405-29338	
Spiked ID 2	Motor Oil Spike 11/2/11 EX 2/2/12		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/17/11 0:00	

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: HW **Date** 11/8/2011 **Witnessed By:** CC **Date** 11/8/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111108A Blk				0.250	1	1000	5	7	11/08/11 12:40	
						equip	E-WB5				
2	111108A LCS-1		1	1	0.250	1	1000	5	7	11/08/11 12:40	
						equip	E-WB5				
3	111108A LCS-2		1	2	0.250	1	1000	5	7	11/08/11 12:40	
						equip	E-WB5				
4	AY50005	AY50005W07			0.250	1	1030	5	7	11/08/11 12:40	66186-2 week rush -- Amber Liter
						equip	E-WB5				
5	AY50011	AY50011W09			0.250	1	1050	5	7	11/08/11 12:40	66187-2 week rush -- Amber Liter
						equip	E-WB5				
6	AY50017	AY50017W08			0.250	1	1050	5	7	11/08/11 12:40	66187-2 week rush -- Amber Liter
						equip	E-WB5				
7	AY50141	AY50141W06			0.250	1	1050	5	7	11/08/11 12:40	66206-2 week rush -- Amber Liter
						equip	E-WB5				

HW 11/8/11

Solvent and Lot#	
MC	BMD 51204
Na2SO4	3581C501

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	
Date	11/9/11
Time	16:49
Refrigerator	1508ACT

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW
Concentration	HW

Modified	11/8/2011 12:09:28 PM

Reviewed By: HW **Date** 11/8/2011

Injection Log

Directory: G:\APOLLO\DATA\111108\111110

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	5	1108005.D	1	DIESEL 100/1000	Mix(A)	11-8-11 15:50:59
2	6	1108006.D	1	DIESEL 400/1000	Mix(A)	11-8-11 16:14:36
3	7	1108007.D	1	DIESEL 600/1000	Mix(A)	11-8-11 16:38:14
4	8	1108008.D	1	DIESEL 800/1000	Mix(A)	11-8-11 17:01:53
5	9	1108009.D	1	DIESEL 1000/1000	Mix(A)	11-8-11 17:25:32
6	11	1108011.D	1	MOTOR OIL 50/1000 11/8/11	Mix(B)	11-8-11 18:12:45
7	12	1108012.D	1	MOTOR OIL 100/1000	Mix(B)	11-8-11 18:36:14
8	13	1108013.D	1	MOTOR OIL 400/1000	Mix(B)	11-8-11 18:59:47
9	14	1108014.D	1	MOTOR OIL 600/1000	Mix(B)	11-8-11 19:23:20
10	15	1108015.D	1	MOTOR OIL 800/1000	Mix(B)	11-8-11 19:46:53
11	16	1108016.D	1	MOTOR OIL 1000/1000	Mix(B)	11-8-11 20:10:21
12	17	1108017.D	1	THC SURR 10/1000 11/8/11	Mix(C)	11-8-11 20:33:47
13	18	1108018.D	1	THC SURR 100/1000	Mix(C)	11-8-11 20:57:14
14	19	1108019.D	1	THC SURR 400/1000	Mix(C)	11-8-11 21:20:36
15	20	1108020.D	1	THC SURR 600/1000	Mix(C)	11-8-11 21:43:59
16	21	1108021.D	1	THC SURR 800/1000	Mix(C)	11-8-11 22:07:20
17	22	1108022.D	1	THC SURR 1000/1000	Mix(C)	11-8-11 22:30:39
18	69	1108069.D	1	DIESEL 10/1000 11/8/11	Mix(A)	11-9-11 17:18:58
19	70	1108070.D	1	DIESEL 400 2ND SRC 11/8/11	Mix(A)	11-9-11 17:42:38
20	47	1110047.D	1	DIESEL 400/1000 11/8/11	Mix(A)	11-11-11 4:07:11
21	52	1110052.D	5	111108A BLK 5/1000	Water	11-11-11 6:05:10
22	53	1110053.D	5	111108A LCS-1 5/1000	Water	11-11-11 6:28:45
23	55	1110055.D	4.85437	AY50005W07 5/1030	Water	11-11-11 7:15:54
24	59	1110059.D	1	DIESEL 400/1000 11/8/11	Mix(A)	11-11-11 8:50:25

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D SIM

Blank Name/QCG: **111108W-50005 - 162179**
Batch ID: #SIMHC-111108A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	SURROGATE: 2-FLUORBIPHENY	55.5	50-110			%	11/08/11	11/10/11
BLANK	SURROGATE: NITROBENZENE-	54.3	40-110			%	11/08/11	11/10/11
BLANK	SURROGATE: TERPHENYL-D14 (	118	50-135			%	11/08/11	11/10/11

Quant Method:SIM2.M
Run #:1110L003
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 12/09/11 6:52:02 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/10/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	50-110	55.5		40-110	54.3	
111108A-LCS	Lab Control Spike	50-110	52.5		40-110	65.5	
AY50005	ES057	50-110	62.7		40-110	72.6	

Comments: Batch: #SIMHC-111108A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/10/11

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
111108A-BLK	Blank	50-135	118				
111108A-LCS	Lab Control Spike	50-135	122				
AY50005	ES057	50-135	111				

Comments: Batch: #SIMHC-111108A

Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **111108W-50005 LCS - 162179**
Batch ID: #SIMHC-111108A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.49	62.3	45-105
2-METHYLNAPHTHALENE	4.00	2.53	63.2	45-105
ACENAPHTHENE	4.00	2.74	68.5	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.86	71.5	55-110
BENZO(A)ANTHRACENE	4.00	3.45	86.3	55-110
BENZO(A)PYRENE	4.00	2.73	68.3	55-110
BENZO(B)FLUORANTHENE	4.00	3.28	82.0	45-120
BENZO(GHI)PERYLENE	4.00	2.98	74.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.78	69.5	45-125
CHRYSENE	4.00	2.59	64.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.11	77.8	40-125
FLUORANTHENE	4.00	3.05	76.3	55-115
FLUORENE	4.00	2.69	67.3	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.14	78.5	45-125
NAPHTHALENE	4.00	2.22	55.5	40-100
PHENANTHRENE	4.00	2.60	65.0	50-115
PYRENE	4.00	2.73	68.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.05	52.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.31	65.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	2.43	122	50-135

Comments: _____

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	11/08/11
Analysis Date :	11/10/11
Instrument :	Linus
Run :	1110L004
Initials :	LF

Printed: 12/09/11 6:52:11 PM

APPL Standard LCS

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/10/11

Matrix: WATER Instrument: Linus

Blank ID: 111108A-BLK Time Analyzed: 1947

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111108A-BLK	Blank	1110L003	11/10/11 1947
111108A-LCS	Lab Control Spike	1110L004	11/10/11 2012
AY50005	ES057	1110L005	11/10/11 2038

Comments: Batch: #SIMHC-111108A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66186
Matrix: Water
ID: SVTUNE 10-27-11

SDG No: 66186
Date Analyzed: 11/10/11
Instrument: Linus
Time Analyzed: 19:03

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	111108A BLK 1/1000	1110L003.D	11/10/11 19:47
2	Lab Control Spike	111108A LCS-1 1/1000	1110L004.D	11/10/11 20:12
3	ES057	AY50005W05 1/1050	1110L005.D	11/10/11 20:38
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	52.6
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.1
127	40 - 60% of mass 198	49.8
197	0 - 1% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	28.8
365	1 - 100% of mass 198	2.8
441	0.01 - 100% of mass 443	74.8
442	40 - 150% of mass 198	79.8
443	17 - 23% of mass 442	20.1

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 66186

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: ID: Heated Purge: (Y/N)

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2479	6.12	1083	8.11	1851	9.85
	UPPER LIMIT	4958	6.62	2166	8.61	3702	10.35
	LOWER LIMIT	1240	5.62	542	7.61	926	9.35
	SAMPLE NO.						
01	111108A BLK 1/1000	2288	6.12	1021	8.12	1840	9.86
02	111108A LCS-1 1/1000	2376	6.12	1055	8.12	1891	9.86
03	AY50005W05 1/1050	2197	6.12	977	8.12	1765	9.86
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 66186

Lab File ID (Standard): 1028L007.D Date Analyzed: 10/28/11

Instrument ID: Linus Time Analyzed: 11:58

GC Column: ID: Heated Purge: (Y/N)

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2378	12.93	1871	14.56		
	UPPER LIMIT	4756	13.43	3742	15.06		
	LOWER LIMIT	1189	12.43	936	14.06		
	SAMPLE NO.						
01	111108A BLK 1/1000	2623	12.95	2235	14.59		
02	111108A LCS-1 1/1000	2640	12.95	2275	14.58		
03	AY50005W05 1/1050	2529	12.96	2146	14.59		
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Sample Data

APPL, INC.

EPA 8270D SIM

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES057
Sample Collection Date: 11/02/11

ARF: 66186
APPL ID: AY50005
QCG: #SIMHC-111108A-162179

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
8270D-SIM	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
8270D-SIM	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
8270D-SIM	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
8270D-SIM	SURROGATE: 2-FLUORBIPHENYL (S)	62.7	50-110			%	11/08/11	11/10/11
8270D-SIM	SURROGATE: NITROBENZENE-D5 (S)	72.6	40-110			%	11/08/11	11/10/11
8270D-SIM	SURROGATE: TERPHENYL-D14 (S)	111	50-135			%	11/08/11	11/10/11

Quant Method: SIM2.M
Run #: 1110L005
Instrument: Linus
Sequence: L111027
Dilution Factor: 1
Initials: LF

Printed: 12/09/11 6:52:16 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L005.D
Acq On : 10 Nov 11 20:38
Sample : AY50005W05 1/1050
Misc :

Vial: 5
Operator: LF
Inst : Linus
Multiplr: 0.95

Quant Time: Nov 16 15:49 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 09 14:09:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2197	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	977	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.86	188	1765	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.96	240	2529	2.50000 ppb	0.03
21) Perylene-D12(IS)	14.59	264	2146	2.50000 ppb	0.03
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.42	82	571	1.38207 ppb	0.02
Spiked Amount 1.905			Recovery = 72.555%		
7) Surrogate Recovery (FBP)	7.36	172	1093	1.19518 ppb	0.01
Spiked Amount 1.905			Recovery = 62.738%		
17) Surrogate Recovery (TPH)	11.72	244	2419	2.11556 ppb	0.01
Spiked Amount 1.905			Recovery = 111.090%		

Target Compounds Qvalue

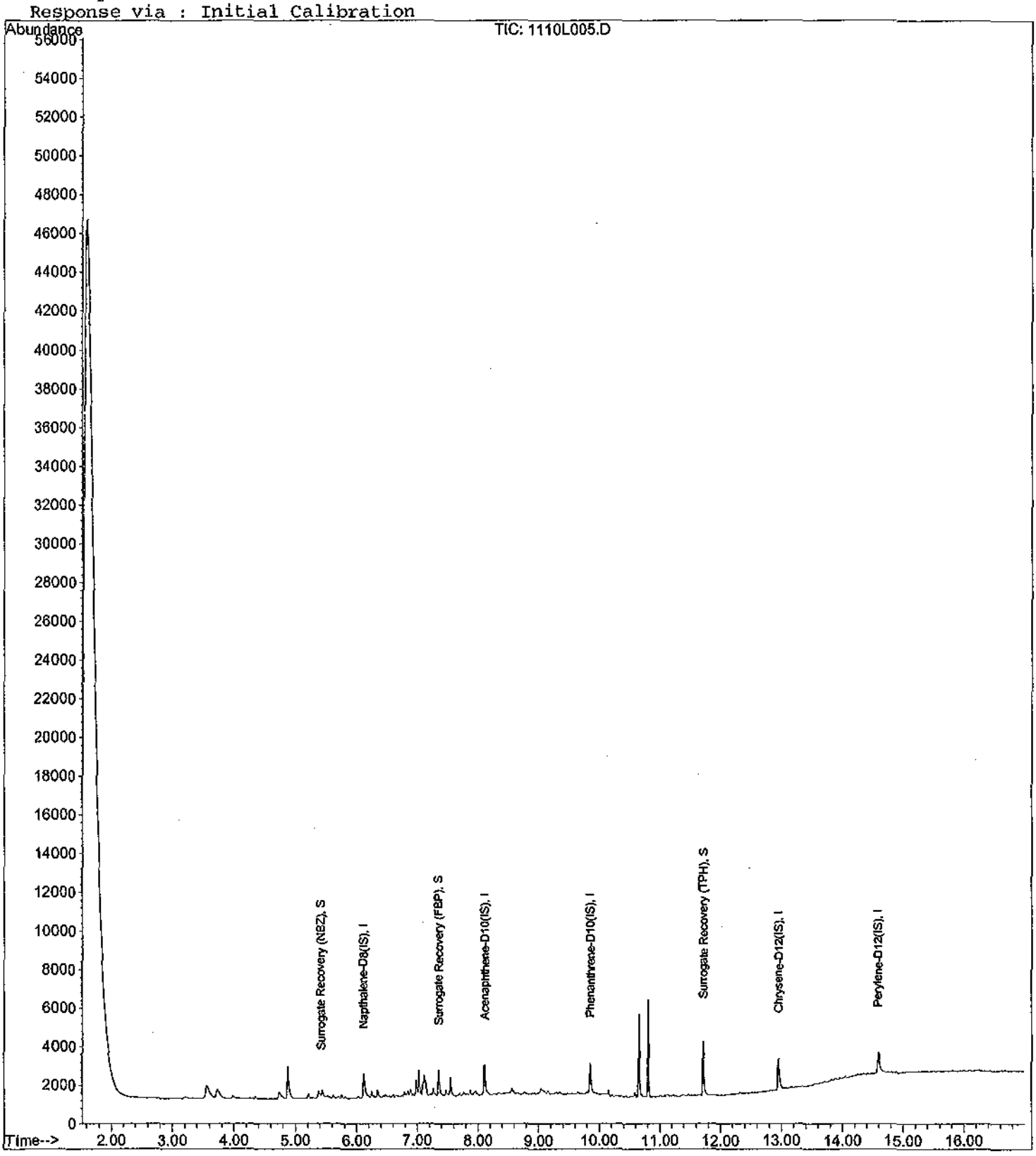
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1110L005.D Vial: 5
Acq On : 10 Nov 11 20:38 Operator: LF
Sample : AY50005W05 1/1050 Inst : Linus
Misc : Multiplr: 0.95

Quant Time: Nov 16 15:49 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 11 16:40:11 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

EPA 8270C SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66186
Case No: Initial Cal. Date: 10/27/11
Matrix: Instrument: Linus
Initials:

			1027L003.D	1027L004.D	1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L009.D	1028L010.D						
		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)	0.4127	0.4673	0.4961	0.4588	0.3927	0.4106	0.4509	0.4908			0.45	8.7	S	
3	TM	Naphthalene	1.848	2.053	1.897	1.975	1.484	1.725	1.497	1.455			1.7	14	TM	
4	TM	2-Methylnaphthalene	0.8339	0.8429	0.8095	0.9618	0.8735	1.026	0.9052	0.8919			0.89	8.0	TM	
5	TM	1-Methylnaphthalene	1.006	1.140	1.127	1.262	0.9445	1.066	0.8694	0.8324			1.0	14	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	2.266	2.373	2.477	2.606	2.184	2.112	1.948	1.864			2.2	11	S	
8	TM	Acenaphthylene	3.556	3.474	3.469	3.747	3.046	3.265	3.097	2.960			3.3	8.4	TM	
9	*TM	Acenaphthene	2.197	2.003	2.015	2.153	1.761	1.820	1.687	1.595			1.9	12	*TM	
10	TM	Fluorene	2.179	2.202	2.246	2.358	1.948	2.057	1.915	1.761			2.1	9.5	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.851	1.670	1.765	1.775	1.470	1.719	1.377	1.248			1.6	13	TM	
13	TM	Anthracene	1.736	1.681	1.869	1.846	1.493	1.754	1.415	1.278			1.6	13	TM	
14	*TM	Fluoranthene	3.116	3.004	3.048	3.052	2.530	3.014	2.407	2.162			2.8	13	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	2.537	2.408	2.291	2.412	2.045	2.168	1.892	1.849			2.2	12	TM	
17	S	Surrogate Recovery (TPH)	1.147	1.155	1.070	1.235	1.097	1.067	0.9366	0.9044			1.1	10	S	
18	TM	Benz (a) anthracene	1.767	1.435	1.243	1.561	1.267	1.372	1.372	1.578			1.4	12	TM	
19	TM	Chrysene	2.135	2.066	2.037	2.114	1.981	2.084	1.655	1.438			1.9	13	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.825	1.519	1.284	1.532	1.378	1.521	1.460	1.500			1.5	10	TM	
21	I	Perylene-D12(IS)														
22	TM	Benzo (b) fluoranthene	1.711	1.652	1.826	1.857	1.789	1.866	1.765	1.625			1.8	5.2	TM	
23	TM	Benzo (k) fluoranthene	2.136	1.797	1.882	1.854	1.869	1.935	1.561	1.548			1.8	11	TM	
24	*TM	Benzo (a) pyrene	2.001	1.899	1.650	1.686	1.673	1.757	1.585	1.533			1.7	9.2	*TM	
25	TM	Dibenz (a,h) anthracene	1.773	1.577	1.175	1.438	1.356	1.477	1.399	1.379			1.4	12	TM	
26	TM	Benzo (g,h,i) perylene	1.410	1.754	1.503	1.639	1.449	1.558	1.444	1.446			1.5	7.8	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L003.D Vial: 3
Acq On : 27 Oct 11 19:12 Operator: LF
Sample : 0.1ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2908	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1434	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2391	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2986	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2411	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.61	82	48	0.74306 ppb		0.19
Spiked Amount 2.000			Recovery	= 37.150%		
7) Surrogate Recovery (FBP)	7.40	172	130	0.09815 ppb		0.05
Spiked Amount 2.000			Recovery	= 4.900%		
17) Surrogate Recovery (TPH)	11.74	244	137	0.09107 ppb		0.02
Spiked Amount 2.000			Recovery	= 4.550%		
Target Compounds						Qvalue
3) Naphthalene	6.17	128	215	0.10425 ppb		93
4) 2-Methylnaphthalene	7.01	142	97	0.09198 ppb		99
5) 1-Methylnaphthalene	7.08	142	117	0.09071 ppb		97
8) Acenaphthylene	7.99	152	204	0.10524 ppb		99
9) Acenaphthene	8.16	154	126	0.11351 ppb		94
10) Fluorene	8.81	166	125	0.10297 ppb		98
12) Phenanthrene	9.90	178	177	0.11216 ppb		95
13) Anthracene	9.99	178	166	0.10145 ppb		95
14) Fluoranthene	11.30	202	298	0.10883 ppb	#	90
16) Pyrene	11.56	202	303	0.11040 ppb		99
18) Benz (a) anthracene	12.95	228	211	0.11702 ppb		96
19) Chrysene	12.98	228	255	0.09385 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.19	276	218	0.11665 ppb	#	93
22) Benzo (b) fluoranthene	14.15	252	165	0.09422 ppb	#	95
23) Benzo (k) fluoranthene	14.19	252	206	0.11693 ppb		65
24) Benzo (a) pyrene	14.54	252	193	0.11081 ppb		95
25) Dibenz (a,h) anthracene	16.17	278	171	0.11827 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	136	0.08955 ppb	#	89

(#) = qualifier out of range (m) = manual integration

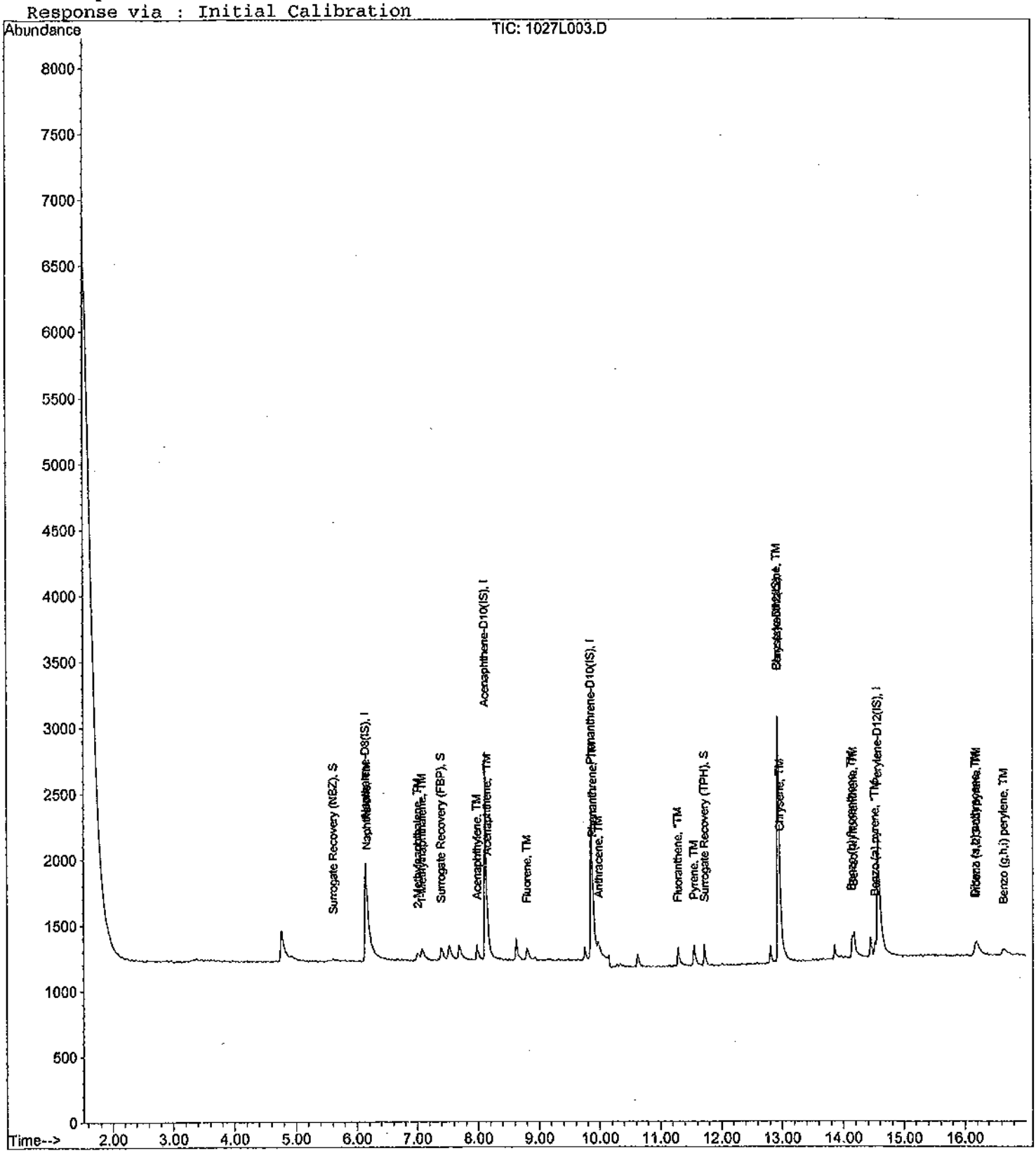
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L003.D
Acq On : 27 Oct 11 19:12
Sample : 0.1ug/ml PAH 10-27-11
Misc :

Vial: 3
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:15 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1027L004.D Vial: 4
Acq On : 27 Oct 11 19:38 Operator: LF
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:57:42 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2862	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.12	164	1317	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	2305	2.50000 ppb		0.02
15) Chrysene-D12(IS)	12.95	240	2814	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2323	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.60	82	107	0.84083 ppb		0.18
Spiked Amount 2.000			Recovery = 42.050%			
7) Surrogate Recovery (FBP)	7.40	172	250	0.20995 ppb		0.05
Spiked Amount 2.000			Recovery = 10.500%			
17) Surrogate Recovery (TPH)	11.72	244	260	0.18421 ppb		0.01
Spiked Amount 2.000			Recovery = 9.200%			
Target Compounds						Qvalue
3) Naphthalene	6.17	128	470	0.23025 ppb		94
4) 2-Methylnaphthalene	7.00	142	193	0.18513 ppb		92
5) 1-Methylnaphthalene	7.07	142	261	0.20451 ppb		98
8) Acenaphthylene	7.99	152	366	0.20677 ppb		98
9) Acenaphthene	8.16	154	211	0.20826 ppb		87
10) Fluorene	8.81	166	232	0.20927 ppb		99
12) Phenanthrene	9.90	178	308	0.20239 ppb		96
13) Anthracene	9.99	178	310	0.19992 ppb		95
14) Fluoranthene	11.29	202	554	0.20981 ppb		95
16) Pyrene	11.55	202	542	0.21034 ppb	#	91
18) Benz (a) anthracene	12.95	228	323	0.19084 ppb		97
19) Chrysene	12.98	228	465	0.18296 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.17	276	342	0.19494 ppb	#	96
22) Benzo (b) fluoranthene	14.15	252	307	0.18266 ppb		97
23) Benzo (k) fluoranthene	14.19	252	334	0.18857 ppb		64
24) Benzo (a) pyrene	14.54	252	353	0.21468 ppb		96
25) Dibenz (a,h) anthracene	16.16	278	293	0.21252 ppb		92
26) Benzo (g,h,i) perylene	16.64	276	326	0.22362 ppb		88

(#) = qualifier out of range (m) = manual integration

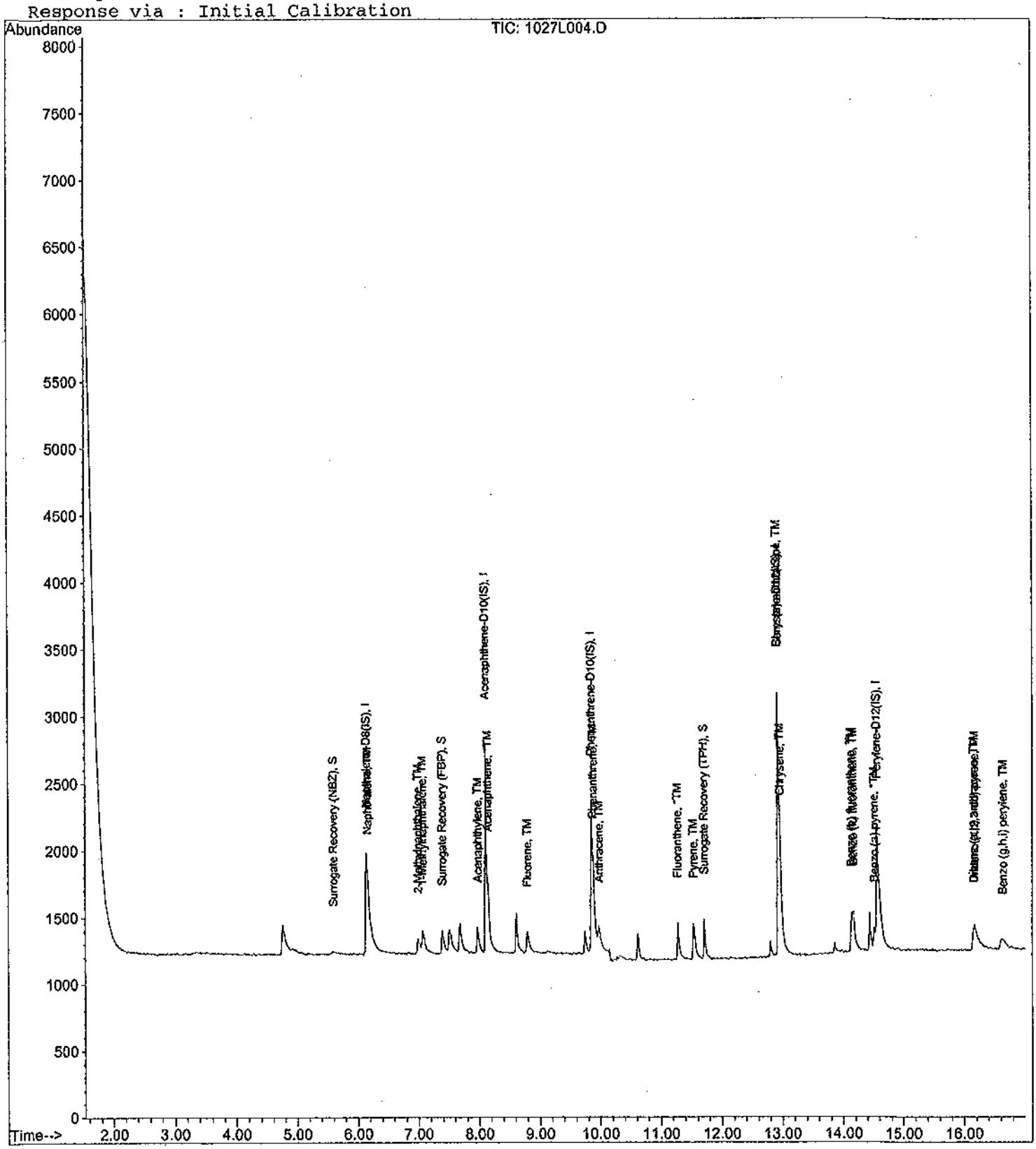
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1027L004.D
Acq On : 27 Oct 11 19:38
Sample : 0.2ug/ml PAH
Misc :

Vial: 4
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:13 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L005.D
Acq On : 28 Oct 11 11:07
Sample : 0.5ug/ml PAH
Misc :

Vial: 5
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Sep 29 11:47:40 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.14	136	2409	2.50000 ppb	0.02
6) Acenaphthene-D10(IS)	8.12	164	1104	2.50000 ppb	-0.01
11) Phenanthrene-D10(IS)	9.87	188	1819	2.50000 ppb	0.00
15) Chrysene-D12(IS)	12.95	240	2477	2.50000 ppb	-0.01
21) Perylene-D12(IS)	14.57	264	2043	2.50000 ppb	-0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.60	82	240	1.15802 ppb	0.25
Spiked Amount 2.000			Recovery = 57.900%		
7) Surrogate Recovery (FBP)	7.39	172	547	0.79241 ppb	0.01
Spiked Amount 2.000			Recovery = 39.600%		
17) Surrogate Recovery (TPH)	11.74	244	530	0.66674 ppb	-0.02
Spiked Amount 2.000			Recovery = 33.350%		
Target Compounds					Qvalue
3) Naphthalene	6.17	128	914	0.46769 ppb	98
4) 2-Methylnaphthalene	6.99	142	390	0.33945 ppb	96
5) 1-Methylnaphthalene	7.06	142	543	0.44086 ppb	95
8) Acenaphthylene	7.98	152	766	0.43771 ppb	99
9) Acenaphthene	8.16	154	445	0.43164 ppb	89
10) Fluorene	8.80	166	496	0.42124 ppb	99
12) Phenanthrene	9.90	178	642	0.38630 ppb	97
13) Anthracene	9.98	178	680	0.37229 ppb	95
14) Fluoranthene	11.29	202	1109	0.36672 ppb	96
16) Pyrene	11.55	202	1135	0.35574 ppb	97
18) Benz (a) anthracene	12.95	228	616	0.34309 ppb	98
19) Chrysene	12.98	228	1009	0.43128 ppb	99
20) Indeno (1,2,3-cd) pyrene	16.15	276	636	0.45186 ppb #	96
22) Benzo (b) fluoranthene	14.14	252	746	0.48527 ppb	98
23) Benzo (k) fluoranthene	14.17	252	769	0.37285 ppb	98
24) Benzo (a) pyrene	14.52	252	674	0.41516 ppb	94
25) Dibenz (a,h) anthracene	16.14	278	480	0.46345 ppb	95
26) Benzo (g,h,i) perylene	16.59	276	614	0.46797 ppb	92

(#) = qualifier out of range (m) = manual integration

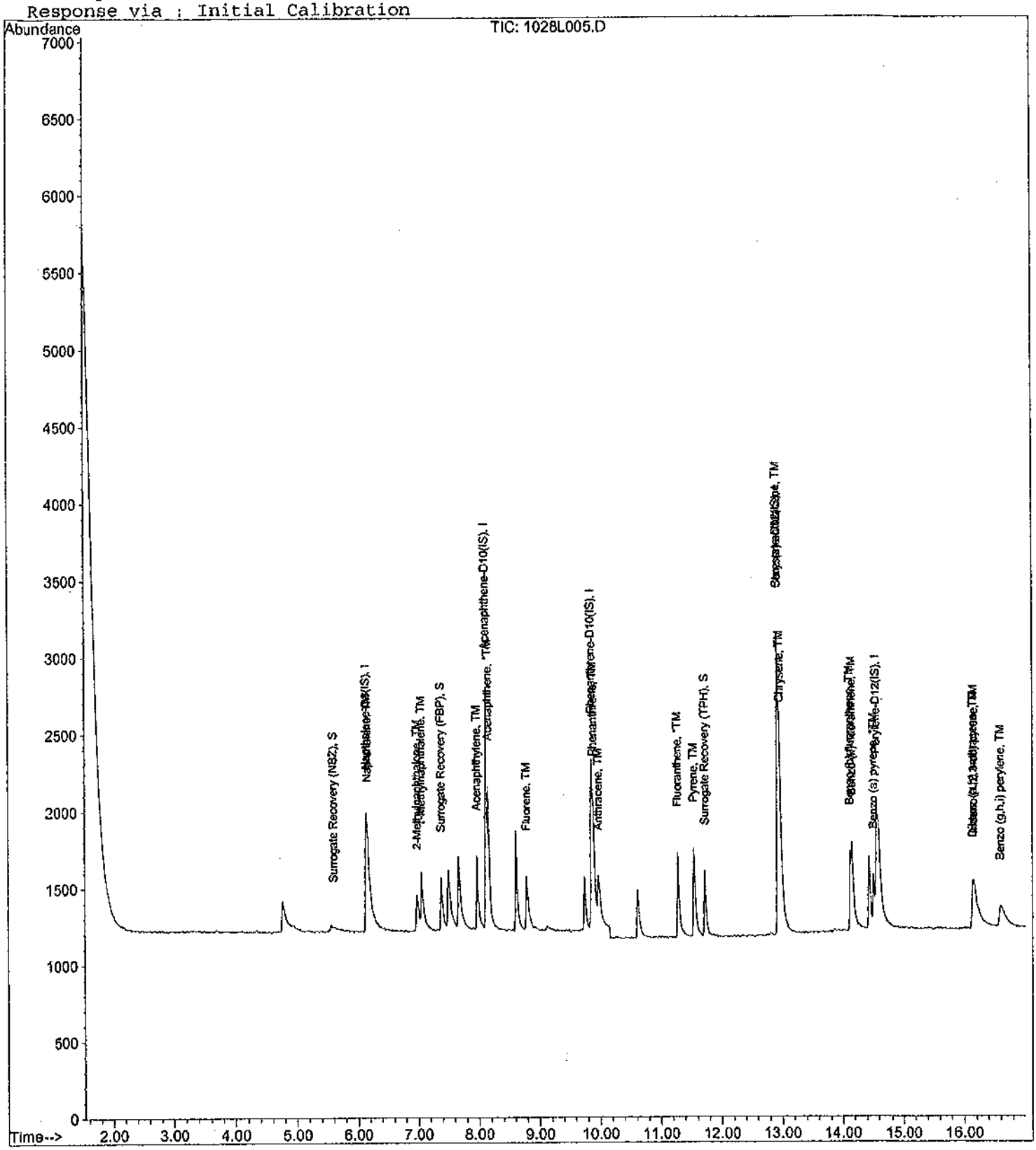
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L005.D
Acq On : 28 Oct 11 11:07
Sample : 0.5ug/ml PAH
Misc :

Vial: 5
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:12 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2381	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.12	164	1089	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.86	188	1865	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	12.95	240	2449	2.50000 ppb		-0.01
21) Perylene-D12(IS)	14.57	264	2032	2.50000 ppb		-0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.54	82	437	1.90266 ppb		0.00
Spiked Amount 2.000			Recovery = 95.150%			
7) Surrogate Recovery (FBP)	7.37	172	1135	1.66686 ppb		0.00
Spiked Amount 2.000			Recovery = 83.350%			
17) Surrogate Recovery (TPH)	11.72	244	1210	1.53959 ppb		-0.04
Spiked Amount 2.000			Recovery = 77.000%			
Target Compounds						Qvalue
3) Naphthalene	6.16	128	1881	0.97382 ppb		98
4) 2-Methylnaphthalene	6.96	142	916	0.80665 ppb		94
5) 1-Methylnaphthalene	7.05	142	1202	0.98738 ppb		89
8) Acenaphthylene	7.96	152	1632	0.94540 ppb		98
9) Acenaphthene	8.16	154	938	0.92237 ppb		91
10) Fluorene	8.79	166	1027	0.88422 ppb		98
12) Phenanthrene	9.90	178	1324	0.77703 ppb		99
13) Anthracene	9.97	178	1377	0.73529 ppb		98
14) Fluoranthene	11.28	202	2277	0.73437 ppb	#	94
16) Pyrene	11.54	202	2363	0.74909 ppb		97
18) Benz (a) anthracene	12.94	228	1529	0.86133 ppb		99
19) Chrysene	12.97	228	2071	0.89534 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.12	276	1501	1.07861 ppb	#	92
22) Benzo (b) fluoranthene	14.13	252	1509	0.98690 ppb	#	96
23) Benzo (k) fluoranthene	14.16	252	1507	0.73463 ppb		96
24) Benzo (a) pyrene	14.51	252	1370	0.84844 ppb		98
25) Dibenz (a,h) anthracene	16.12	278	1169	1.13481 ppb		97
26) Benzo (g,h,i) perylene	16.58	276	1332	1.02070 ppb		98

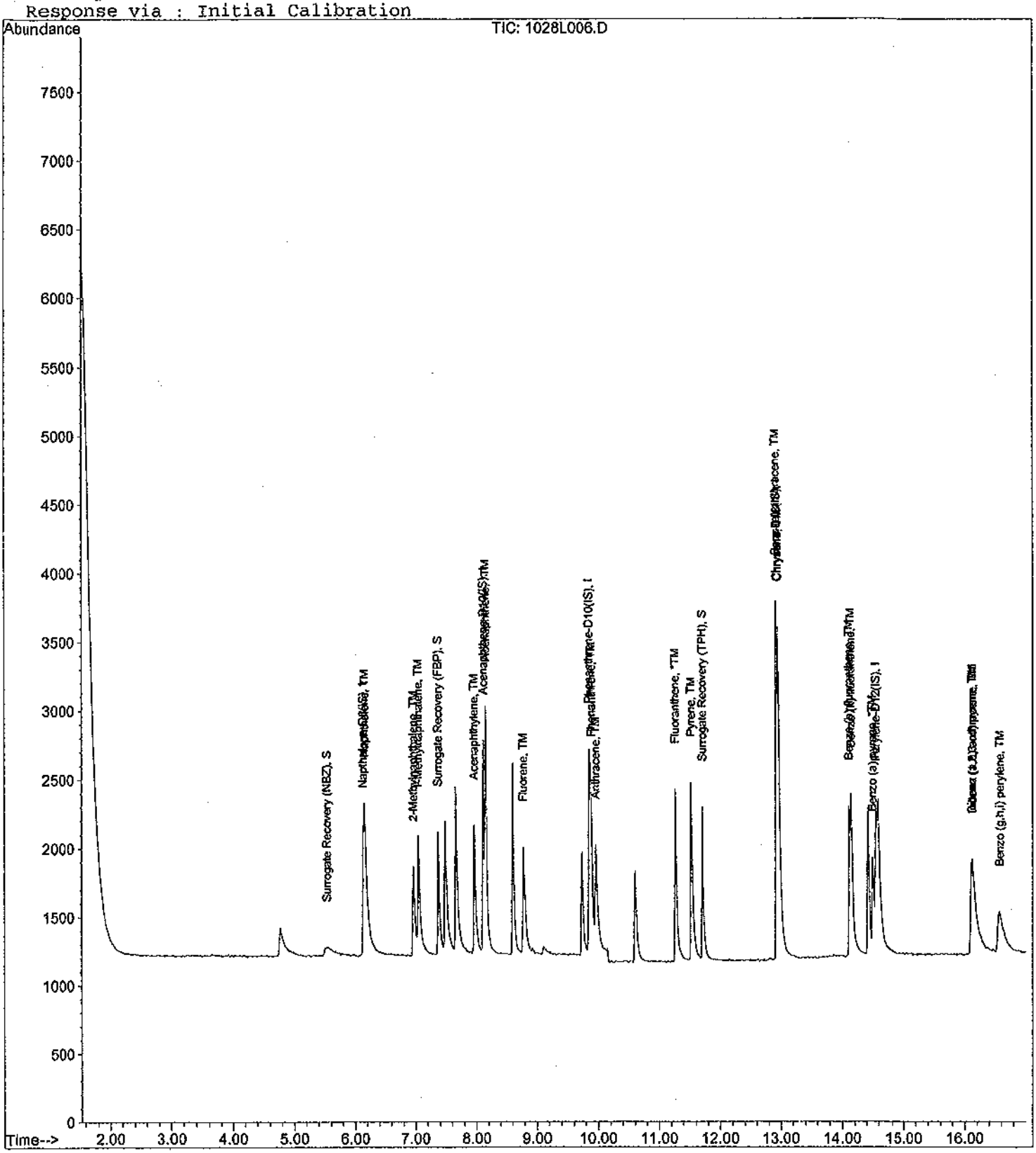
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L006.D Vial: 6
Acq On : 28 Oct 11 11:32 Operator: LF
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:10 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L007.D Vial: 7
Acq On : 28 Oct 11 11:58 Operator: LF
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2479	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1083	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1851	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.93	240	2378	2.50000 ppb		-0.04
21) Perylene-D12(IS)	14.56	264	1871	2.50000 ppb		-0.04
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.42	82	1947	7.24379 ppb		-0.12
Spiked Amount 2.000			Recovery	= 362.200%		
7) Surrogate Recovery (FBP)	7.35	172	4731	6.98644 ppb		-0.02
Spiked Amount 2.000			Recovery	= 349.300%		
17) Surrogate Recovery (TPH)	11.71	244	5216	6.83493 ppb		-0.05
Spiked Amount 2.000			Recovery	= 341.750%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7358	3.65875 ppb		99
4) 2-Methylnaphthalene	6.93	142	4331	3.66320 ppb		98
5) 1-Methylnaphthalene	7.04	142	4683	3.69477 ppb		97
8) Acenaphthylene	7.95	152	6597	3.84274 ppb		100
9) Acenaphthene	8.15	154	3814	3.77124 ppb		92
10) Fluorene	8.76	166	4219	3.65257 ppb		99
12) Phenanthrene	9.87	178	5443	3.21854 ppb		98
13) Anthracene	9.94	178	5527	2.97363 ppb		99
14) Fluoranthene	11.26	202	9367	3.04387 ppb		98
16) Pyrene	11.51	202	9724	3.17462 ppb		97
18) Benz (a) anthracene	12.91	228	6027	3.49657 ppb		98
19) Chrysene	12.96	228	9422	4.19498 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6554	4.85029 ppb		95
22) Benzo (b) fluoranthene	14.10	252	6693	4.75397 ppb	#	96
23) Benzo (k) fluoranthene	14.14	252	6995	3.70332 ppb		99
24) Benzo (a) pyrene	14.49	252	6259	4.20974 ppb		98
25) Dibenz (a,h) anthracene	16.08	278	5075	5.35048 ppb		97
26) Benzo (g,h,i) perylene	16.51	276	5423	4.51321 ppb		98

(#) = qualifier out of range (m) = manual integration

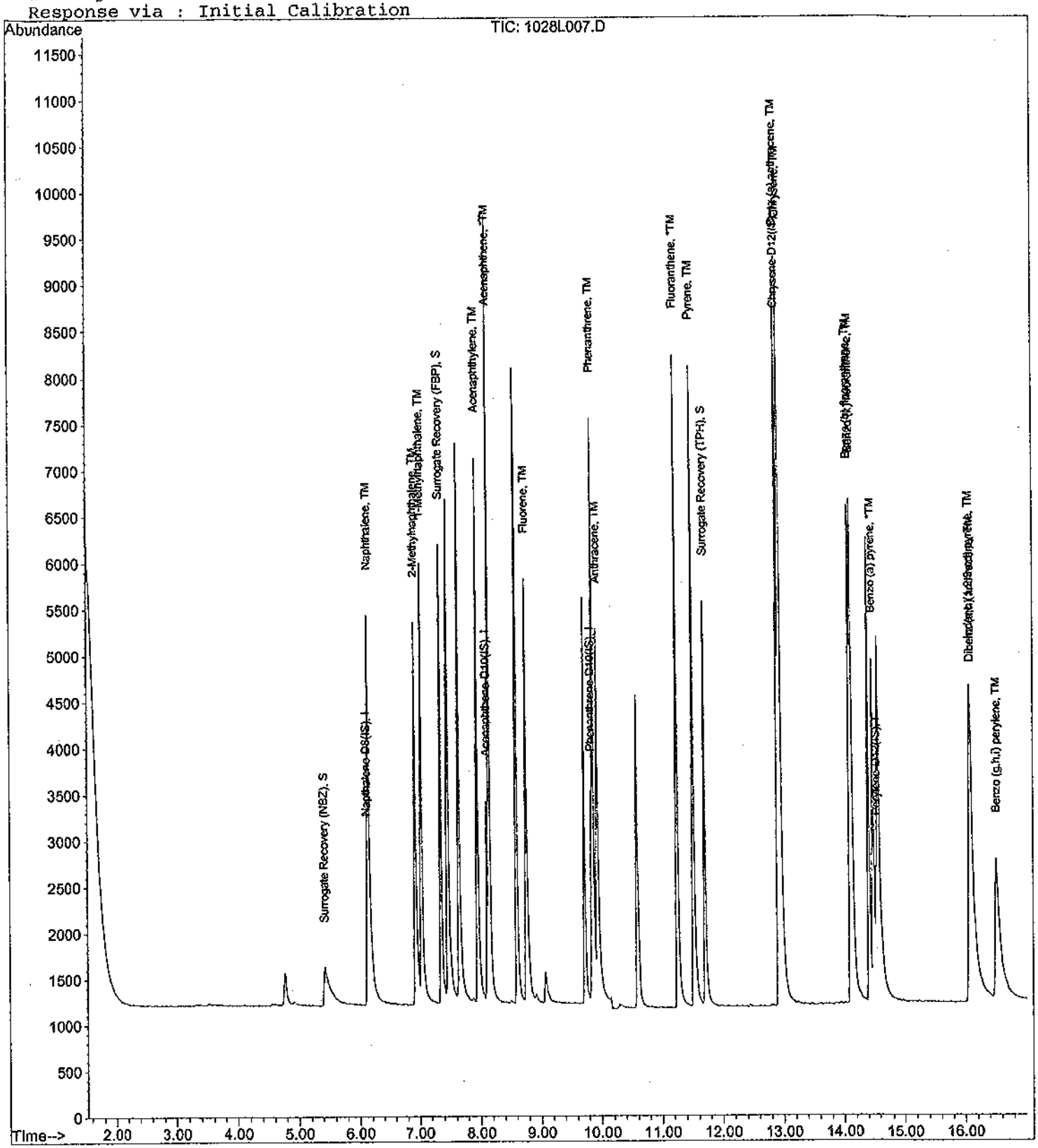
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L007.D
Acq On : 28 Oct 11 11:58
Sample : 5.0ug/ml PAH
Misc :

Vial: 7
Operator: LP
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:40 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L008.D
Acq On : 28 Oct 11 12:23
Sample : 10ug/ml PAH
Misc :

Vial: 8
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:38:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2419	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	1154	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.85	188	1800	2.50000 ppb		-0.02
15) Chrysene-D12(IS)	12.91	240	2580	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.55	264	2113	2.50000 ppb		-0.05
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.38	82	3973	14.84926 ppb		-0.16
Spiked Amount 2.000			Recovery = 742.450%			
7) Surrogate Recovery (FBP)	7.35	172	9747	13.50818 ppb		-0.02
Spiked Amount 2.000			Recovery = 675.400%			
17) Surrogate Recovery (TPH)	11.70	244	11014	13.30251 ppb		-0.06
Spiked Amount 2.000			Recovery = 665.150%			
Target Compounds						Qvalue
3) Naphthalene	6.13	128	16688	8.50390 ppb		99
4) 2-Methylnaphthalene	6.92	142	9930	8.60721 ppb		100
5) 1-Methylnaphthalene	7.02	142	10317	8.34175 ppb		92
8) Acenaphthylene	7.95	152	15071	8.23870 ppb		99
9) Acenaphthene	8.15	154	8403	7.79759 ppb		97
10) Fluorene	8.75	166	9496	7.71528 ppb		98
12) Phenanthrene	9.87	178	12375	7.52487 ppb		99
13) Anthracene	9.93	178	12631	6.98825 ppb		99
14) Fluoranthene	11.25	202	21698	7.25069 ppb	#	93
16) Pyrene	11.50	202	22373	6.73230 ppb	#	85
18) Benz (a) anthracene	12.91	228	14154	7.56854 ppb		100
19) Chrysene	12.95	228	21503	8.82425 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.03	276	15698	10.70773 ppb	#	96
22) Benzo (b) fluoranthene	14.09	252	15772	9.91966 ppb		96
23) Benzo (k) fluoranthene	14.13	252	16351	7.66517 ppb		98
24) Benzo (a) pyrene	14.48	252	14853	8.84584 ppb		98
25) Dibenz (a,h) anthracene	16.05	278	12481	11.65147 ppb		96
26) Benzo (g,h,i) perylene	16.47	276	13167	9.70302 ppb		97

(#) = qualifier out of range (m) = manual integration

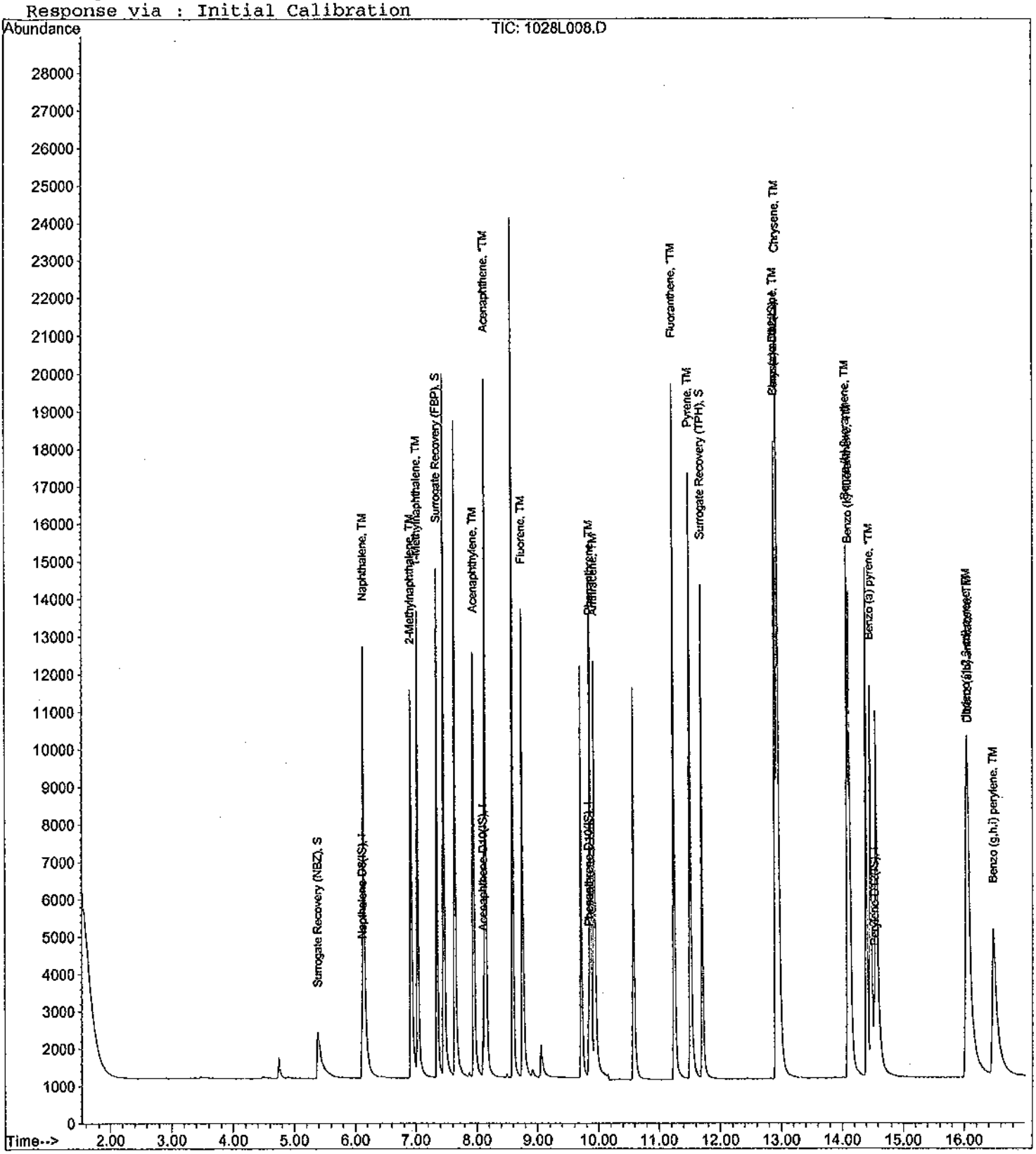
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L008.D
Acq On : 28 Oct 11 12:23
Sample : 10ug/ml PAH
Misc :

Vial: 8
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L009.D
Acq On : 28 Oct 11 12:49
Sample : 50ug/ml PAH
Misc :

Vial: 9
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2170	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	955	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1764	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2325	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1951	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.34	82	19569	80.30257 ppb		0.00
Spiked Amount 2.000			Recovery	= 4015.150%		
7) Surrogate Recovery (FBP)	7.34	172	37203	62.30259 ppb		-0.04
Spiked Amount 2.000			Recovery	= 3115.150%		
17) Surrogate Recovery (TPH)	11.70	244	43552	58.37048 ppb		-0.06
Spiked Amount 2.000			Recovery	= 2918.500%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	64981	36.91273 ppb		98
4) 2-Methylnaphthalene	6.92	142	39285	37.95912 ppb		91
5) 1-Methylnaphthalene	7.02	142	37731	34.00777 ppb		98
8) Acenaphthylene	7.94	152	59152	39.07406 ppb		100
9) Acenaphthene	8.13	154	32228	36.13782 ppb		90
10) Fluorene	8.75	166	36584	35.91740 ppb		95
12) Phenanthrene	9.86	178	48574	30.13920 ppb		99
13) Anthracene	9.92	178	49934	28.19038 ppb		99
14) Fluoranthene	11.23	202	84927	28.95874 ppb	#	86
16) Pyrene	11.50	202	87985	29.37950 ppb		93
18) Benz (a) anthracene	12.90	228	63776	37.84310 ppb		99
19) Chrysene	12.94	228	76944	35.03889 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.01	276	67886	51.38427 ppb		97
22) Benzo (b) fluoranthene	14.09	252	68863	46.90706 ppb	#	96
23) Benzo (k) fluoranthene	14.12	252	60905	30.92236 ppb		100
24) Benzo (a) pyrene	14.45	252	61841	39.88811 ppb	#	94
25) Dibenz (a,h) anthracene	16.02	278	54590	55.19334 ppb		99
26) Benzo (g,h,i) perylene	16.44	276	56362	44.98303 ppb		98

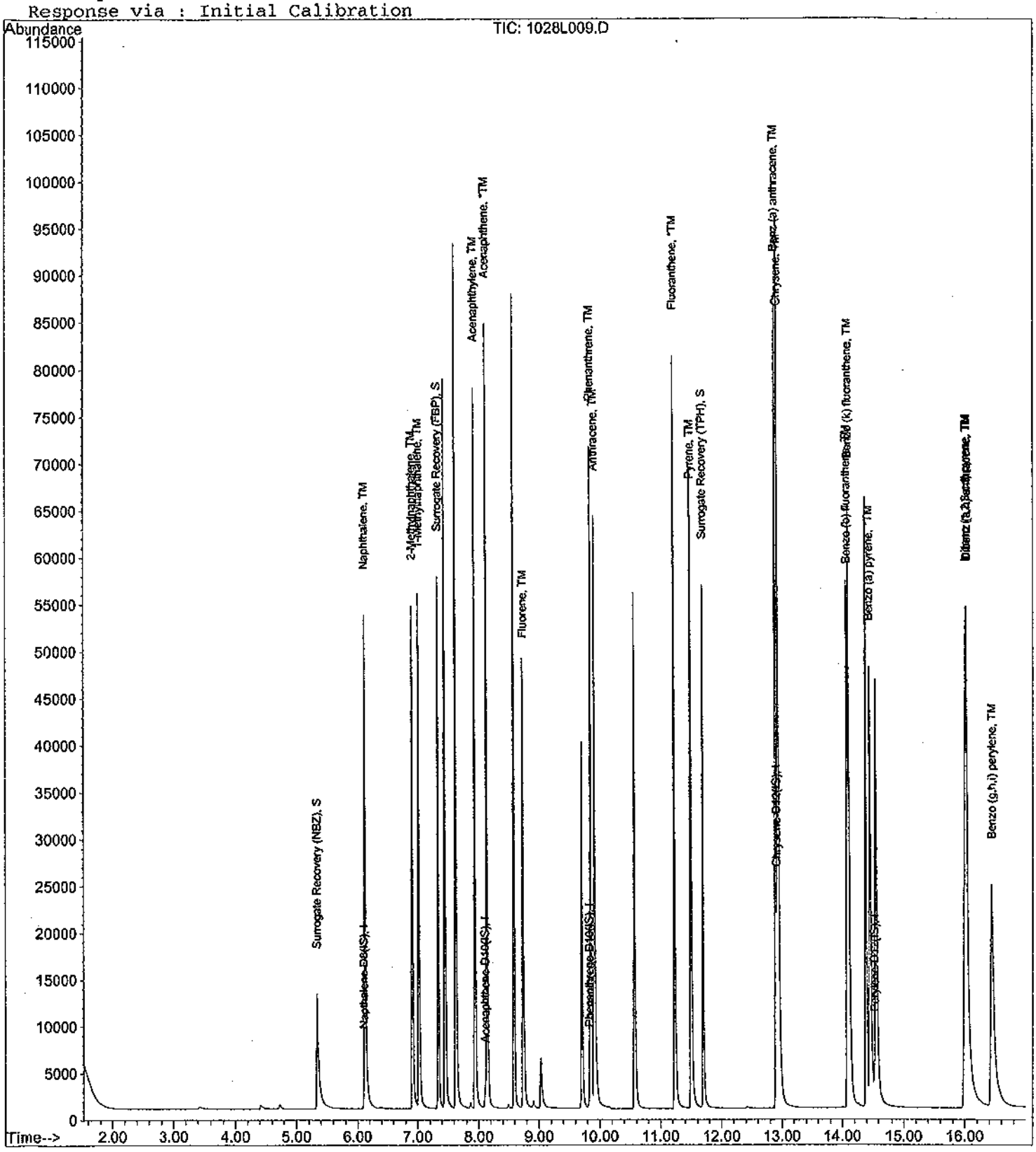
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L009.D Vial: 9
Acq On : 28 Oct 11 12:49 Operator: LF
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:41 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L010.D
Acq On : 28 Oct 11 13:14
Sample : 100ug/ml PAH
Misc :

Vial: 10
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111028\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 10:41:31 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.11	136	2028	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	919	2.50000 ppb		-0.02
11) Phenanthrene-D10(IS)	9.84	188	1786	2.50000 ppb		-0.04
15) Chrysene-D12(IS)	12.91	240	2218	2.50000 ppb		-0.05
21) Perylene-D12(IS)	14.54	264	1949	2.50000 ppb		-0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.32	82	39811	174.48341 ppb		-0.01
Spiked Amount 2.000			Recovery	= 8724.150%		
7) Surrogate Recovery (FBP)	7.34	172	68503	119.21355 ppb		-0.04
Spiked Amount 2.000			Recovery	= 5960.700%		
17) Surrogate Recovery (TPH)	11.70	244	80239	112.72808 ppb		-0.06
Spiked Amount 2.000			Recovery	= 5636.400%		
Target Compounds						Qvalue
3) Naphthalene	6.12	128	118023	71.73782 ppb		98
4) 2-Methylnaphthalene	6.92	142	72350	74.80311 ppb		91
5) 1-Methylnaphthalene	7.02	142	67525	65.12327 ppb		99
8) Acenaphthylene	7.94	152	108807	74.69023 ppb		99
9) Acenaphthene	8.13	154	58631	68.31936 ppb		89
10) Fluorene	8.75	166	64716	66.02573 ppb		95
12) Phenanthrene	9.86	178	89156	54.63809 ppb		98
13) Anthracene	9.92	178	91266	50.88980 ppb		98
14) Fluoranthene	11.23	202	154470	52.02296 ppb	#	84
16) Pyrene	11.50	202	164055	57.42311 ppb	#	90
18) Benz (a) anthracene	12.90	228	140011	87.08694 ppb		99
19) Chrysene	12.94	228	127613	60.91607 ppb	#	95
20) Indeno (1,2,3-cd) pyrene	16.02	276	133093	105.60065 ppb	#	87
22) Benzo (b) fluoranthene	14.09	252	126697	86.39011 ppb		96
23) Benzo (k) fluoranthene	14.12	252	120651	61.31914 ppb	#	94
24) Benzo (a) pyrene	14.47	252	119503	77.15982 ppb		95
25) Dibenz (a,h) anthracene	16.03	278	107509	108.80876 ppb		91
26) Benzo (g,h,i) perylene	16.44	276	112699	90.03841 ppb		99

(#) = qualifier out of range (m) = manual integration

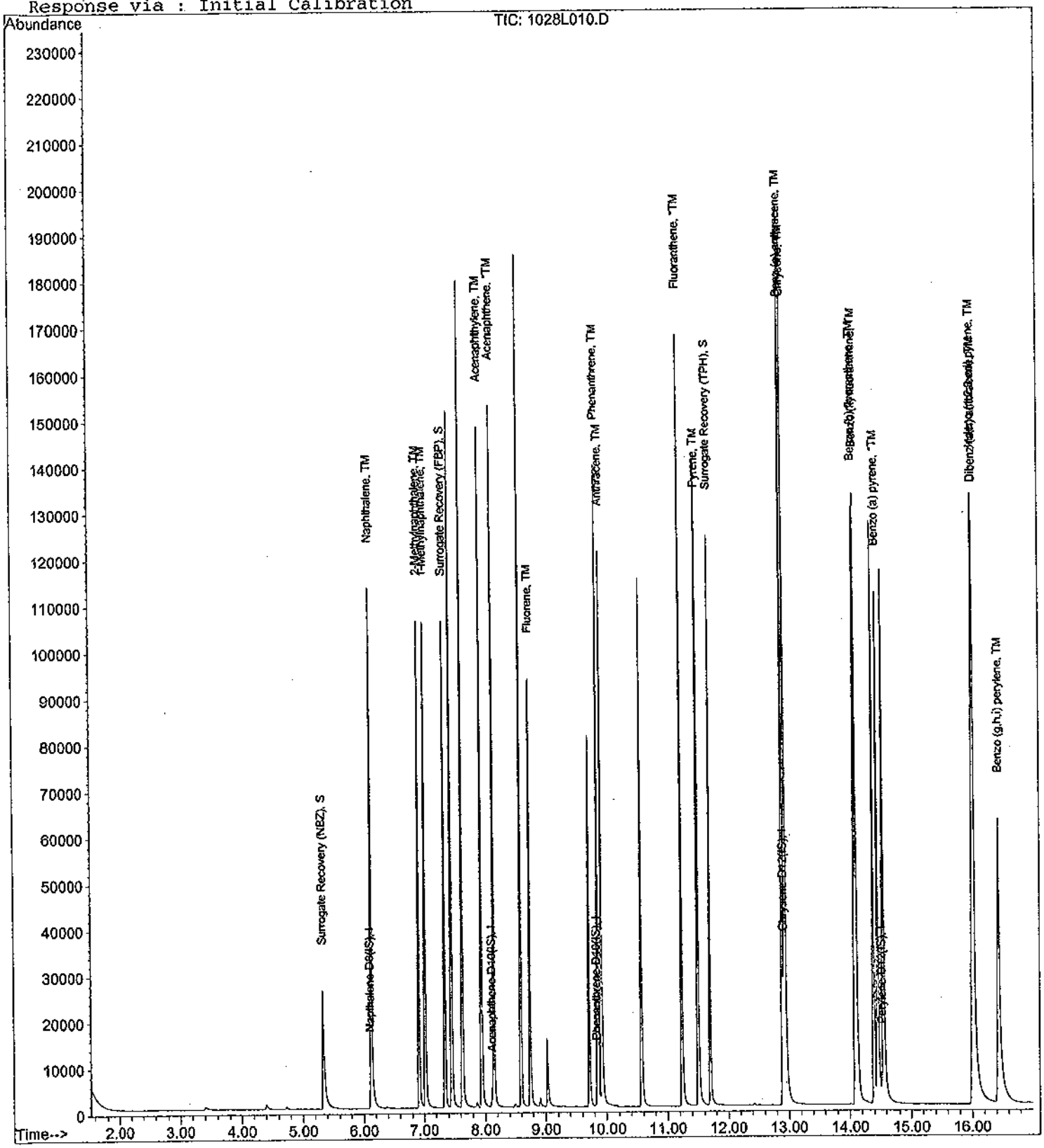
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L010.D
Acq On : 28 Oct 11 13:14
Sample : 100ug/ml PAH
Misc :

Vial: 10
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:42 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66686
Date Analyzed: 10/28/11
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1028L011.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	TM	Naphthalene	1.742	1.546	11	TM	
3	TM	2-Methylnaphthalene	0.8931	0.8782	1.7	TM	
4	TM	1-Methylnaphthalene	1.031	1.007	2.4	TM	
5	I	Acenaphthene-D10(IS)	ISTD			I	
6	TM	Acenaphthylene	3.327	3.132	5.8	TM	
7	*TM	Acenaphthene	1.904	1.812	4.8	*TM	
8	TM	Fluorene	2.083	1.993	4.3	TM	
9	I	Phenanthrene-D10(IS)	ISTD			I	
10	TM	Phenanthrene	1.609	1.555	3.4	TM	
11	TM	Anthracene	1.634	1.624	0.64	TM	
12	*TM	Fluoranthene	2.792	2.916	4.4	*TM	
13	I	Chrysene-D12(IS)	ISTD			I	
14	TM	Pyrene	2.200	2.429	10	TM	
15	TM	Benz (a) anthracene	1.449	1.392	3.9	TM	
16	TM	Chrysene	1.939	2.190	13	TM	
17	TM	Indeno (1,2,3-cd) pyrene	1.502	1.468	2.3	TM	
18	I	Perylene-D12(IS)	ISTD			I	
19	TM	Benzo (b) fluoranthene	1.761	1.686	4.3	TM	
20	TM	Benzo (k) fluoranthene	1.823	2.176	19	TM	
21	*TM	Benzo (a) pyrene	1.723	1.689	1.9	*TM	
22	TM	Dibenz (a,h) anthracene	1.447	1.354	6.4	TM	
23	TM	Benzo (g,h,i) perylene	1.525	1.483	2.8	TM	
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.7		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1028L011.D
Acq On : 28 Oct 11 13:40
Sample : 5.0ug/ml SS PAH 10-27-11
Misc :

Vial: 11
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Sun Oct 30 11:15:17 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.13	136	2295	2.50000 ppb		0.01
6) Acenaphthene-D10(IS)	8.11	164	1033	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	1773	2.50000 ppb		0.00
15) Chrysene-D12(IS)	12.93	240	2205	2.50000 ppb		0.00
21) Perylene-D12(IS)	14.56	264	1840	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
17) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 2.000			Recovery =	0.000%		
Target Compounds						Qvalue
3) Naphthalene	6.14	128	7095	4.43732 ppb		99
4) 2-Methylnaphthalene	6.93	142	4031	4.91655 ppb		99
5) 1-Methylnaphthalene	7.04	142	4620	4.88168 ppb		94
8) Acenaphthylene	7.95	152	6471	4.70758 ppb		99
9) Acenaphthene	8.15	154	3744	4.75904 ppb		91
10) Fluorene	8.76	166	4117	4.78272 ppb		99
12) Phenanthrene	9.87	178	5514	4.83130 ppb		99
13) Anthracene	9.94	178	5757	4.96794 ppb		98
14) Fluoranthene	11.26	202	10339	5.22192 ppb		93
16) Pyrene	11.51	202	10711	5.51952 ppb	#	91
18) Benz (a) anthracene	12.93	228	6140	4.80346 ppb		99
19) Chrysene	12.96	228	9659	5.64891 ppb		99
20) Indeno (1,2,3-cd) pyrene	16.06	276	6475	4.88617 ppb	#	91
22) Benzo (b) fluoranthene	14.12	252	6204	4.78607 ppb		99
23) Benzo (k) fluoranthene	14.14	252	8006	5.96784 ppb	#	65
24) Benzo (a) pyrene	14.49	252	6217	4.90268 ppb		97
25) Dibenz (a,h) anthracene	16.08	278	4984	4.68078 ppb		96
26) Benzo (g,h,i) perylene	16.52	276	5458	4.86160 ppb		99

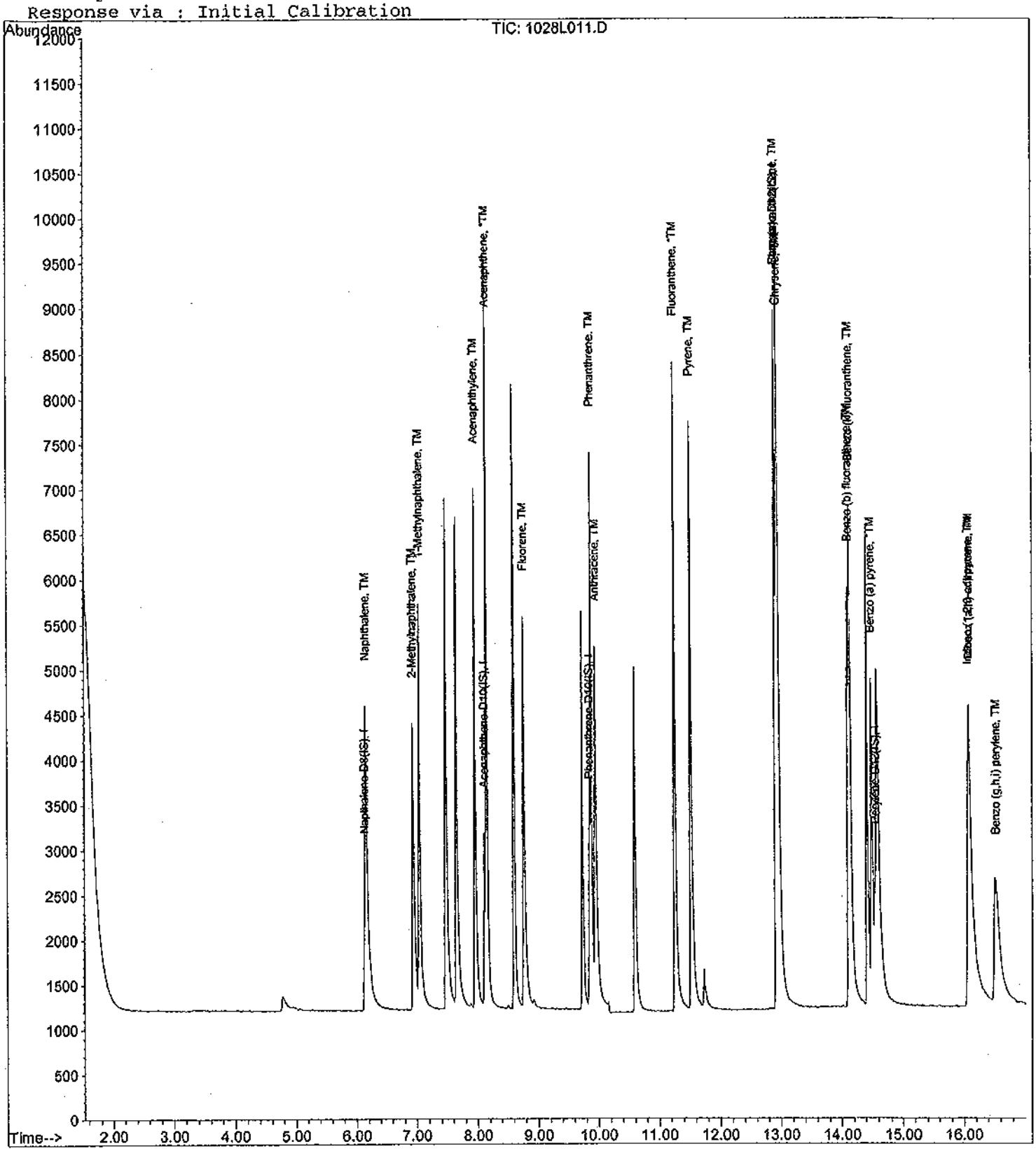
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1028L011.D Vial: 11
Acq On : 28 Oct 11 13:40 Operator: LF
Sample : 5.0ug/ml SS PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 11:17 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Tue Nov 01 17:14:29 2011
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 11/10/11
Instrument: Linus
Initial Cal. Date: 10/27/11
Data File: 1110L002.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4477	0.4015	10	S	
3	TM	Naphthalene	1.742	1.470	16	TM	
4	TM	2-Methylnaphthalene	0.8931	0.8840	1.0	TM	
5	TM	1-Methylnaphthalene	1.031	0.9079	12	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	2.229	2.071	7.1	S	
8	TM	Acenaphthylene	3.327	3.238	2.7	TM	
9	*TM	Acenaphthene	1.904	1.746	8.3	*TM	
10	TM	Fluorene	2.083	2.044	1.9	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.609	1.508	6.3	TM	
13	TM	Anthracene	1.634	1.617	1.0	TM	
14	*TM	Fluoranthene	2.792	2.787	0.19	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	2.200	2.083	5.3	TM	
17	S	Surrogate Recovery (TPH)	1.077	1.022	5.0	S	
18	TM	Benz (a) anthracene	1.449	1.573	8.6	TM	
19	TM	Chrysene	1.939	1.844	4.9	TM	
20	TM	Indeno (1,2,3-cd) pyrene	1.502	1.639	9.1	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TM	Benzo (b) fluoranthene	1.761	1.584	10	TM	
23	TM	Benzo (k) fluoranthene	1.823	2.060	13	TM	
24	*TM	Benzo (a) pyrene	1.723	1.711	0.72	*TM	
25	TM	Dibenz (a,h) anthracene	1.447	1.553	7.4	TM	
26	TM	Benzo (g,h,i) perylene	1.525	1.540	0.94	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.3		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L002.D Vial: 2
Acq On : 10 Nov 11 19:22 Operator: LF
Sample : 5.0ug/ml PAH 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 15:32 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 09 14:09:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2263	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	971	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.86	188	1712	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.94	240	2411	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.58	264	2087	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.40	82	1817	4.48316 ppb	0.00
Spiked Amount 2.000			Recovery	= 224.150%	
7) Surrogate Recovery (FBP)	7.35	172	4021	4.64528 ppb	0.00
Spiked Amount 2.000			Recovery	= 232.250%	
17) Surrogate Recovery (TPH)	11.72	244	4930	4.74872 ppb	0.01
Spiked Amount 2.000			Recovery	= 237.450%	
Target Compounds					Qvalue
3) Naphthalene	6.14	128	6653	4.21973 ppb	99
4) 2-Methylnaphthalene	6.93	142	4001	4.94897 ppb	87
5) 1-Methylnaphthalene	7.04	142	4109	4.40313 ppb	88
8) Acenaphthylene	7.95	152	6288	4.86653 ppb	99
9) Acenaphthene	8.16	154	3390	4.58421 ppb	98
10) Fluorene	8.76	166	3969	4.90520 ppb	100
12) Phenanthrene	9.88	178	5165	4.68676 ppb	100
13) Anthracene	9.94	178	5537	4.94834 ppb	99
14) Fluoranthene	11.27	202	9541	4.99057 ppb	99
16) Pyrene	11.53	202	10042	4.73263 ppb	98
18) Benz (a) anthracene	12.93	228	7587	5.42835 ppb	96
19) Chrysene	12.97	228	8894	4.75709 ppb	98
20) Indeno (1,2,3-cd) pyrene	16.11	276	7902	5.45352 ppb	98
22) Benzo (b) fluoranthene	14.13	252	6610	4.49577 ppb	93
23) Benzo (k) fluoranthene	14.16	252	8599	5.65126 ppb	94
24) Benzo (a) pyrene	14.51	252	7140	4.96417 ppb	97
25) Dibenz (a,h) anthracene	16.11	278	6483	5.36798 ppb	94
26) Benzo (g,h,i) perylene	16.56	276	6427	5.04719 ppb	98

(#) = qualifier out of range (m) = manual integration

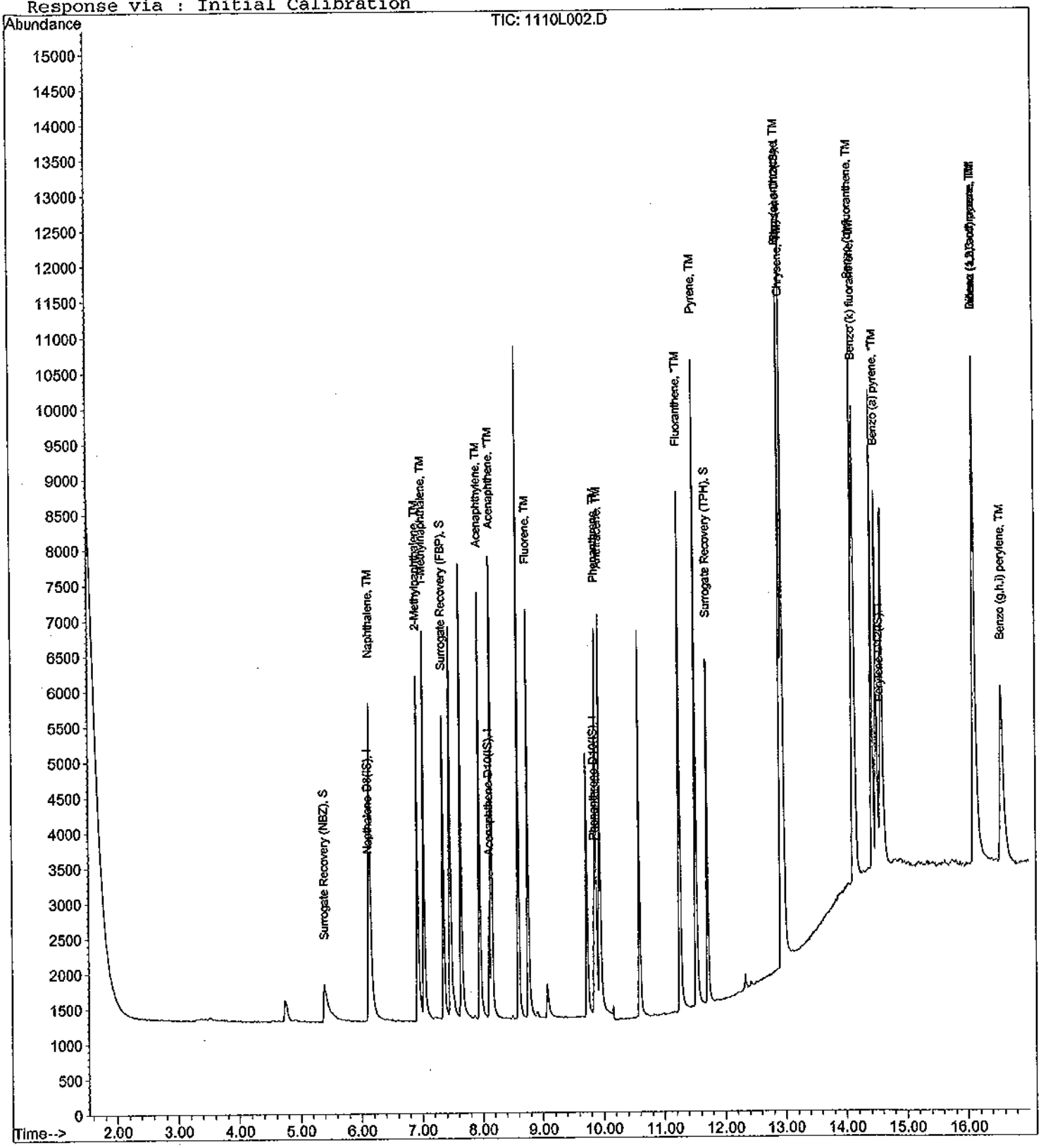
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1110L002.D
Acq On : 10 Nov 11 19:22
Sample : 5.0ug/ml PAH 10-27-11
Misc :

Vial: 2
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 11 15:32 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 11 16:40:11 2011
Response via : Initial Calibration



EPA METHOD 8270
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D SIM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **111108W-50005 - 162179**
Batch ID: #SIMHC-111108A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	2-METHYLNAPHTHALENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ACENAPHTHYLENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)ANTHRACENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	BENZO(A)PYRENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(B)FLUORANTHENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	BENZO(GHI)PERYLENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	BENZO(K)FLUORANTHENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	DIBENZ(A,H)ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	FLUORANTHENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	FLUORENE	0.12 U	0.2	0.12	0.06	ug/L	11/08/11	11/10/11
BLANK	INDENO(1,2,3-CD)PYRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	11/08/11	11/10/11
BLANK	PHENANTHRENE	0.14 U	0.2	0.14	0.07	ug/L	11/08/11	11/10/11
BLANK	PYRENE	0.16 U	0.2	0.16	0.08	ug/L	11/08/11	11/10/11
BLANK	SURROGATE: 2-FLUORBIPHENY	55.5	50-110			%	11/08/11	11/10/11
BLANK	SURROGATE: NITROBENZENE-	54.3	40-110			%	11/08/11	11/10/11
BLANK	SURROGATE: TERPHENYL-D14 (	118	50-135			%	11/08/11	11/10/11

Quant Method:SIM2.M
Run #:1110L003
Instrument:Linus
Sequence:L111027
Initials:LF

GC SC-Blank-REG MDLs
Printed: 12/09/11 6:52:19 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L003.D Vial: 3
Acq On : 10 Nov 11 19:47 Operator: LF
Sample : 111108A BLK 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 16 15:47 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 09 14:09:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2288	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.12	164	1021	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.86	188	1840	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.95	240	2623	2.50000 ppb	0.02
21) Perylene-D12(IS)	14.59	264	2235	2.50000 ppb	0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.42	82	445	1.08597 ppb	0.02
Spiked Amount 2.000			Recovery	= 54.300%	
7) Surrogate Recovery (FBP)	7.36	172	1010	1.10967 ppb	0.01
Spiked Amount 2.000			Recovery	= 55.500%	
17) Surrogate Recovery (TPH)	11.72	244	2658	2.35334 ppb	0.01
Spiked Amount 2.000			Recovery	= 117.650%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

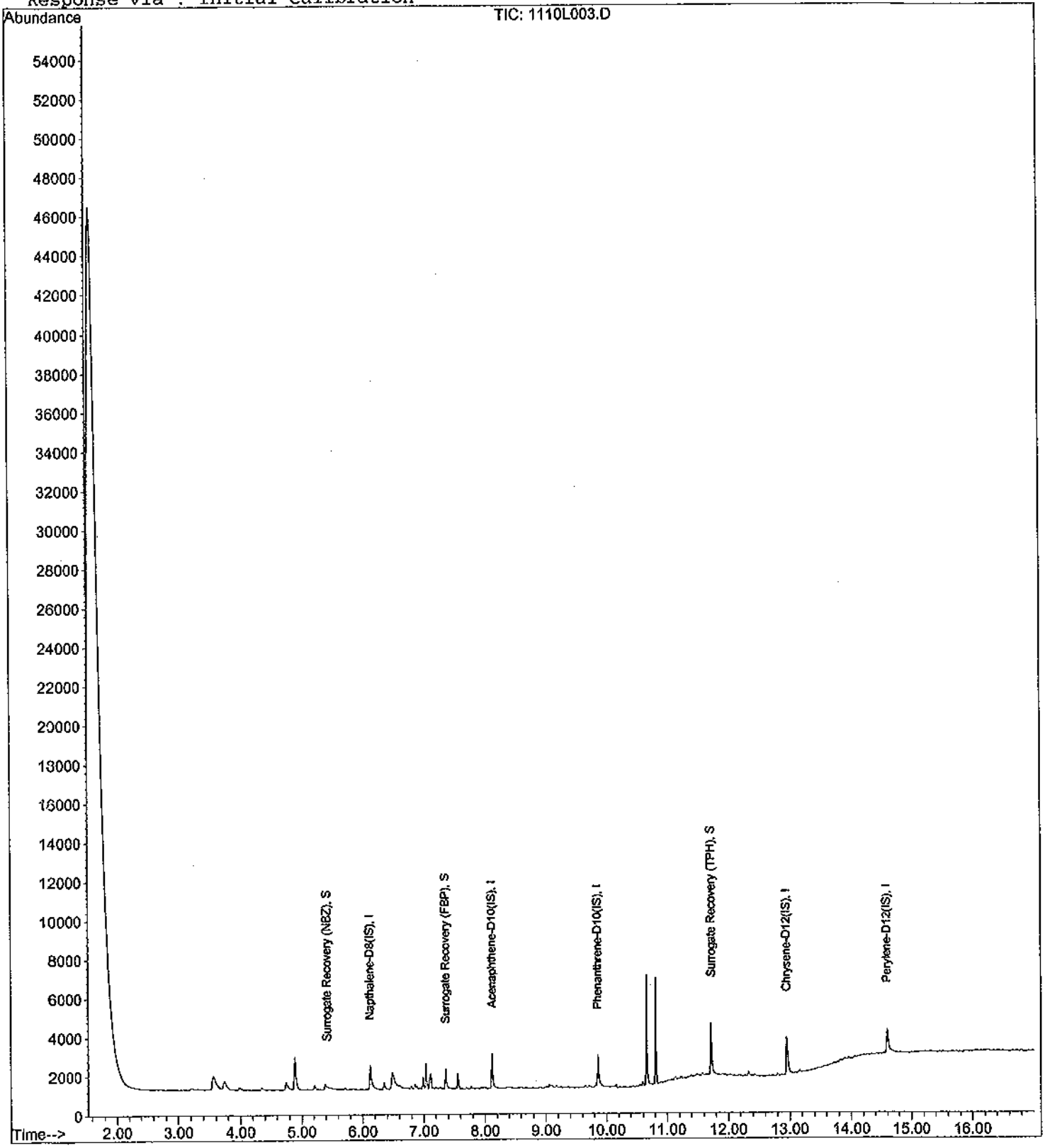
Quantitation Report

Data File : M:\LINUS\DATA\L111027\1110L003.D
Acq On : 10 Nov 11 19:47
Sample : 111108A BLK 1/1000
Misc :

Vial: 3
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 16 15:47 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 11 16:40:11 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SIM

APPL ID: **111108W-50005 LCS - 162179**
Batch ID: #SIMHC-111108A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1-METHYLNAPHTHALENE	4.00	2.49	62.3	45-105
2-METHYLNAPHTHALENE	4.00	2.53	63.2	45-105
ACENAPHTHENE	4.00	2.74	68.5	45-110
ACENAPHTHYLENE	4.00	2.50	62.5	50-105
ANTHRACENE	4.00	2.86	71.5	55-110
BENZO(A)ANTHRACENE	4.00	3.45	86.3	55-110
BENZO(A)PYRENE	4.00	2.73	68.3	55-110
BENZO(B)FLUORANTHENE	4.00	3.28	82.0	45-120
BENZO(GHI)PERYLENE	4.00	2.98	74.5	40-125
BENZO(K)FLUORANTHENE	4.00	2.78	69.5	45-125
CHRYSENE	4.00	2.59	64.8	55-110
DIBENZ(A,H)ANTHRACENE	4.00	3.11	77.8	40-125
FLUORANTHENE	4.00	3.05	76.3	55-115
FLUORENE	4.00	2.69	67.3	50-110
INDENO(1,2,3-CD)PYRENE	4.00	3.14	78.5	45-125
NAPHTHALENE	4.00	2.22	55.5	40-100
PHENANTHRENE	4.00	2.60	65.0	50-115
PYRENE	4.00	2.73	68.3	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.00	1.05	52.5	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.00	1.31	65.5	40-110
SURROGATE: TERPHENYL-D14 (S)	2.00	2.43	122	50-135

Comments: _____

Primary	SPK
Quant Method :	SIM2.M
Extraction Date :	11/08/11
Analysis Date :	11/10/11
Instrument :	Linus
Run :	1110L004
Initials :	LF

Printed: 12/09/11 6:52:20 PM

APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L111027\1110L004.D
Acq On : 10 Nov 11 20:12
Sample : 111108A LCS-1 1/1000
Misc :

Vial: 4
Operator: LF
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 16 15:48 2011 Quant Results File: SIM2.RES

Quant Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Nov 09 14:09:04 2011
Response via : Initial Calibration
DataAcq Meth : 87SIMAQ

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.12	136	2376	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.12	164	1055	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.86	188	1891	2.50000 ppb		0.01
15) Chrysene-D12(IS)	12.95	240	2640	2.50000 ppb		0.02
21) Perylene-D12(IS)	14.58	264	2275	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.42	82	558	1.31130 ppb		0.02
Spiked Amount 2.000			Recovery = 65.550%			
7) Surrogate Recovery (FBP)	7.36	172	984	1.04626 ppb		0.01
Spiked Amount 2.000			Recovery = 52.300%			
17) Surrogate Recovery (TPH)	11.72	244	2766	2.43319 ppb		0.01
Spiked Amount 2.000			Recovery = 121.650%			
Target Compounds						Qvalue
3) Naphthalene	6.14	128	3669	2.21642 ppb		99
4) 2-Methylnaphthalene	6.93	142	2150	2.53293 ppb		88
5) 1-Methylnaphthalene	7.04	142	2442	2.49235 ppb		89
8) Acenaphthylene	7.95	152	3516	2.50451 ppb		97
9) Acenaphthene	8.16	154	2201	2.73938 ppb		98
10) Fluorene	8.76	166	2362	2.68672 ppb		100
12) Phenanthrene	9.88	178	3163	2.59845 ppb		100
13) Anthracene	9.94	178	3529	2.85528 ppb		97
14) Fluoranthene	11.27	202	6451	3.05489 ppb		100
16) Pyrene	11.53	202	6336	2.72704 ppb		94
18) Benz (a) anthracene	12.94	228	5275	3.44678 ppb		99
19) Chrysene	12.97	228	5311	2.59426 ppb		98
20) Indeno (1,2,3-cd) pyrene	16.12	276	4985	3.14194 ppb	#	97
22) Benzo (b) fluoranthene	14.13	252	5262	3.28318 ppb		96
23) Benzo (k) fluoranthene	14.16	252	4619	2.78475 ppb		95
24) Benzo (a) pyrene	14.52	252	4276	2.72726 ppb		98
25) Dibenz (a,h) anthracene	16.12	278	4100	3.11430 ppb		95
26) Benzo (g,h,i) perylene	16.58	276	4130	2.97531 ppb		97

$\frac{3669 \times 2.5}{1.742 \times 2376} = 2.22$ VF 12/11/11

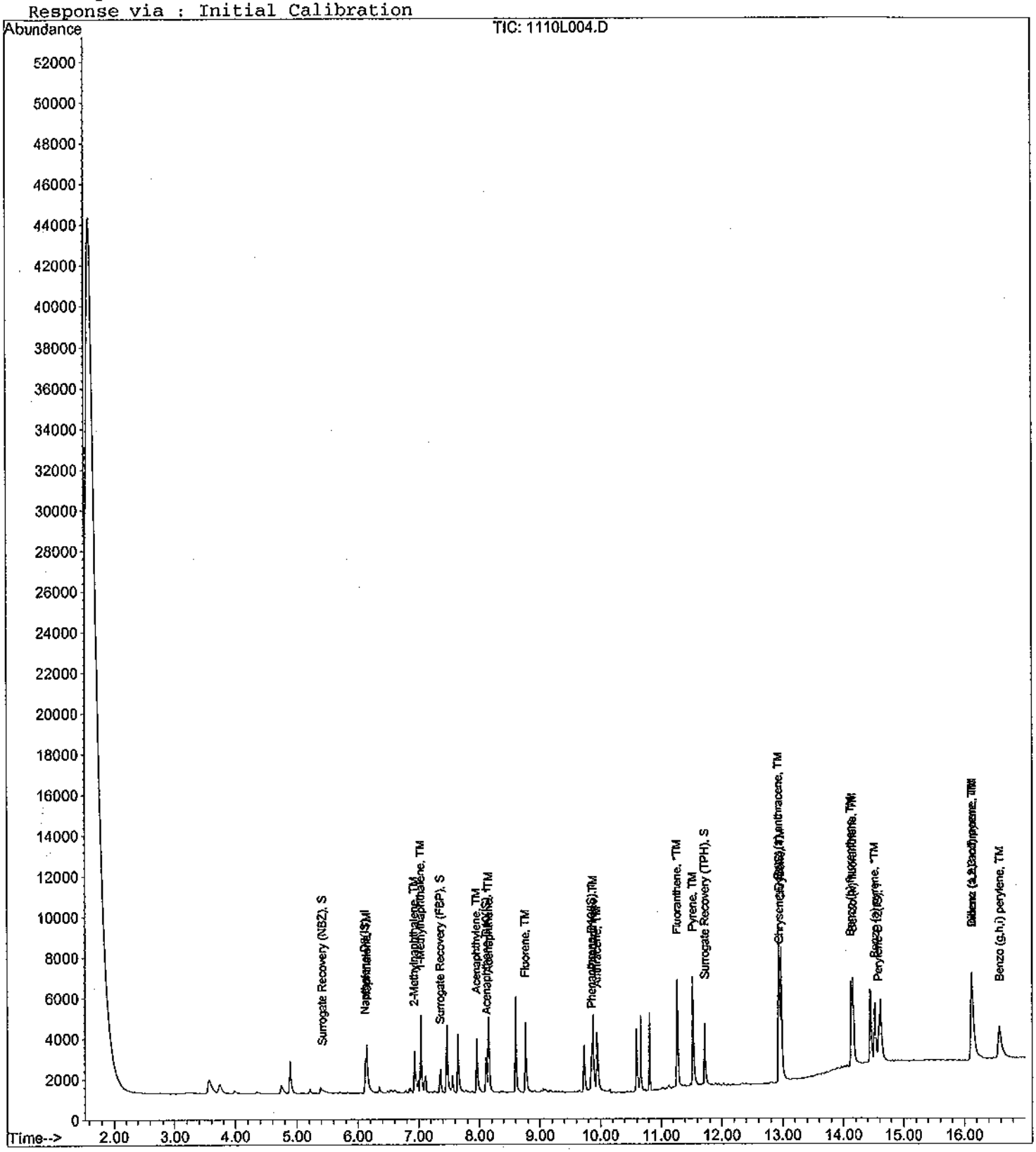
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L111027\1110L004.D Vial: 4
Acq On : 10 Nov 11 20:12 Operator: LF
Sample : 111108A LCS-1 1/1000 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 16 15:48 2011 Quant Results File: SIM2.RES

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 11 16:40:11 2011
Response via : Initial Calibration

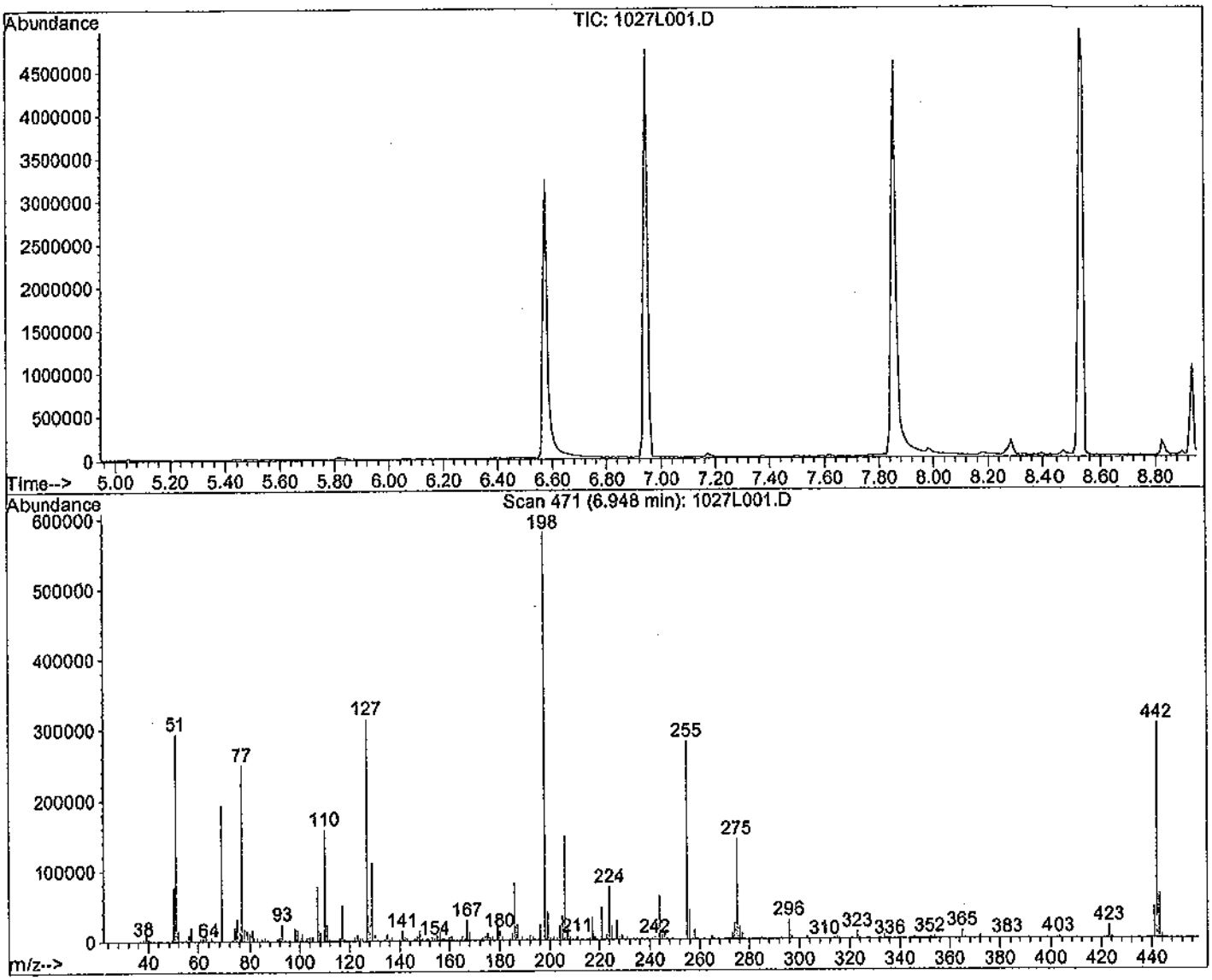


DFTPP

Data File : M:\LINUS\DATA\L111027\1027L001.D
Acq On : 27 Oct 11 18:29
Sample : SVTUNE 10-27-11
Misc :

Vial: 1
Operator: LF
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Scan 471

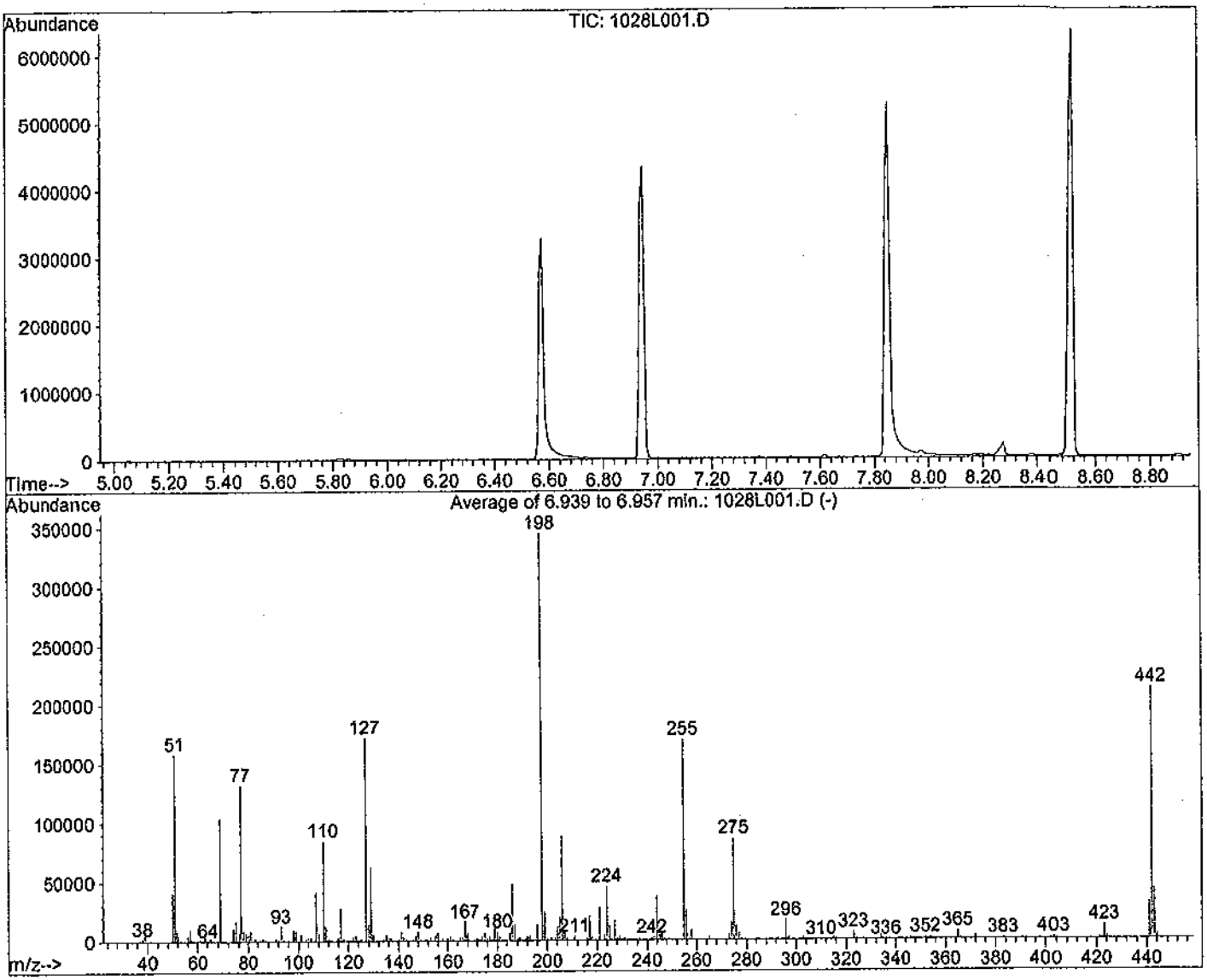
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	50.7	294016	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1188	PASS
127	198	40	60	54.3	314624	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	579520	PASS
199	198	5	9	7.0	40304	PASS
275	198	10	30	24.5	141888	PASS
365	198	1	100	2.0	11470	PASS
441	443	0.01	100	70.8	44728	PASS
442	198	40	150	52.6	304768	PASS
443	442	17	23	20.7	63176	PASS

DFTPP

Data File : M:\LINUS\DATA\L111027\1028L001.D
Acq On : 28 Oct 11 9:32
Sample : SVTUNE 10-27-11
Misc :

Vial: 1
Operator: LF
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



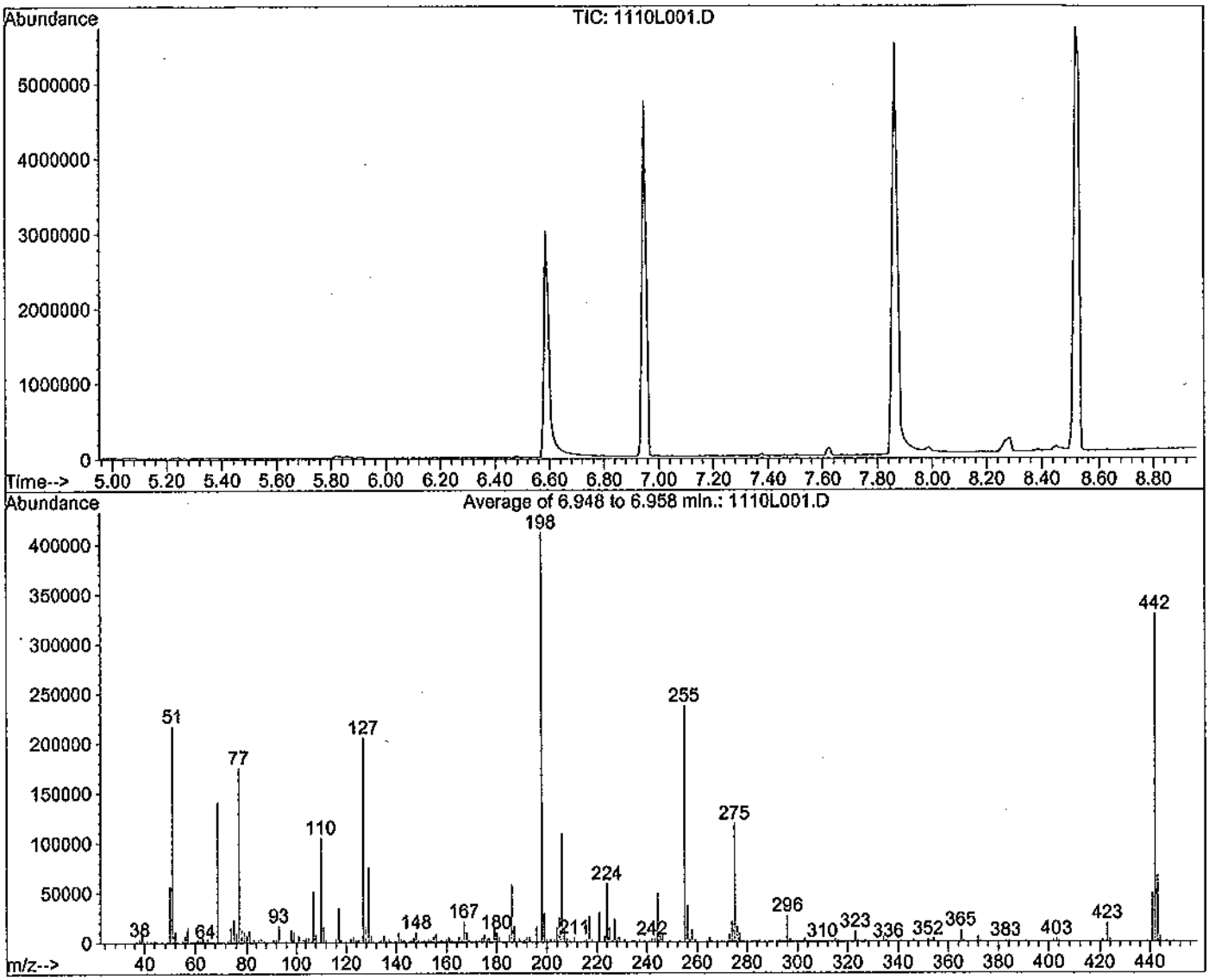
Spectrum Information: Average of 6.939 to 6.957 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.8	158326	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	519	PASS
127	198	40	60	49.8	171922	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	345360	PASS
199	198	5	9	7.1	24580	PASS
275	198	10	30	24.8	85541	PASS
365	198	1	100	2.0	6987	PASS
441	443	0.01	100	74.7	31248	PASS
442	198	40	150	61.5	212309	PASS
443	442	17	23	19.7	41843	PASS

DFTPP

Data File : M:\LINUS\DATA\L111027\1110L001.D Vial: 1
Acq On : 10 Nov 11 19:03 Operator: LF
Sample : SVTUNE 10-27-11 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L111027\SIM2.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 6.948 to 6.958 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	52.6	216764	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.1	196	PASS
127	198	40	60	49.8	205180	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	411840	PASS
199	198	5	9	6.9	28568	PASS
275	198	10	30	28.8	118564	PASS
365	198	1	100	2.8	11726	PASS
441	443	0.01	100	74.8	49384	PASS
442	198	40	150	79.8	328608	PASS
443	442	17	23	20.1	66016	PASS

GC/MS STANDARD PREPARATION BOOK # J PAGE # 84

VF 1/17/11

PREP DATE:	01-17-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28092	01/17/11	03-20-12	1000
Absolute	10001	2000	032009-28091	01/17/11	03-20-12	1000
Absolute	10002	2000	073109-27974	01/17/11	07-31-12	1000
Absolute	10002	2000	073109-27973	01/17/11	07-31-12	1000
Absolute	10004	2000	101509-27979	01/17/11	10-15-14	1000
Absolute	10004	2000	101509-27978	01/17/11	10-15-14	1000
Absolute	10005	2000	061209-27984	01/17/11	06-12-14	1000
Absolute	10005	2000	061209-27983	01/17/11	06-12-14	1000
Absolute	10006	2000	120810-27989	01/17/11	12-08-13	1000
Absolute	10006	2000	120810-27988	01/17/11	12-08-13	1000
Absolute	10007	2000	100909-28010	01/17/11	10-09-14	1000
Absolute	10007	2000	100909-28013	01/17/11	10-09-14	1000
Absolute	10018	2000	073109-27994	01/17/11	07-31-14	1000
Absolute	10018	2000	073109-27993	01/17/11	07-31-14	1000
Absolute	70023	1000	080310-28008	01/17/11	08-03-15	1000
Absolute	70023	1000	080310-28009	01/17/11	08-03-15	1000
Absolute	82705	2000	121010-27999	01/17/11	12-10-13	1000
Absolute	82705	2000	121010-27998	01/17/11	12-10-13	1000
Absolute	94552	2000	052908-28004	01/17/11	05-29-11	1000
Absolute	94552	2000	052908-28003	01/17/11	05-29-11	1000
					Final Vol	20000

VF 1/25/11

PREP DATE:	01-25-11															
8270T STANDARD CURVE																
Exp:	02-24-11					0.1	0.2	1	5	10	20	40	50	60	80	100
		Conc.		Date												
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date			µL	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		12/17/10	05-29-11	0	0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			01/25/11		0	0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			01/25/11		10	20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	160538-27570	11/11/10	11-11-11	0	0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0
					Final Vol.			100	200	100	100	100	100	100	100	100

VF 1/25/11

PREP DATE:	01-25-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 1/25/11

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 ml
110001-02
Lot # 167766 Storage 5-10 Degrees C. Expiry 4/20/13
Solv: Methylene Chloride

8270 Internal Standard
Lot #: 167766 - 28148
Rec: 1/20/11 MFR exp. 04/20/13

exp 1/25/12

VF 1/25/11

Method 8270 Internal Standard Solution, 2,000 mg/L, 1 ml
110001-02
Lot # 167766 Storage 5-10 Degrees C Expiry 4/20/13
Solv: Methylene Chloride

8270 Internal Standard
Lot #: 167768 - 28147
Rec: 1/20/11 MFR exp. 04/20/13

exp 1/25/12

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28001
Rec: 12/16/10 MFR exp. 05/29/11

LF exp 5/29/11

LF 3/23/11

Part #: 94552 Laboratory Use Only-See MSDS
Lot #: 052908 Exp: 052911 1 mL
Semi-Volatile Standard
11 components
Varied ug/mL in
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 052908 - 28002
Rec: 12/16/10 MFR exp. 05/29/11

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27998
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDARDS, INC.

exp 5/29/11

LF 3/23/11

Part #: 82705 Laboratory Use Only - See MSDS
Lot #: 121010 Exp: 121013 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in ace
EPA Method 8270A-Mix#11
Lot #: 121010 - 27997
Rec: 12/16/10 MFR exp. 12/10/13
ABSOLUTE STANDA

exp 5/29/11

LF 3/23/11

PREP DATE:	03-23-11					
8270C Stock/Spike Standard						
Exp:	05-29-11					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	032009-28089	03/23/11	03-20-12	1000
Absolute	10001	2000	320009-28090	03/23/11	03-20-12	1000
Absolute	10002	2000	073109-27971	03/23/11	07-31-12	1000
Absolute	10002	2000	073109-27972	03/23/11	07-31-12	1000
Absolute	10004	2000	101509-27976	03/23/11	10-15-14	1000
Absolute	10004	2000	101509-27977	03/23/11	10-15-14	1000
Absolute	10005	2000	061209-27981	03/23/11	06-12-14	1000
Absolute	10005	2000	061209-27982	03/23/11	06-12-14	1000
Absolute	10006	2000	120810-27986	03/23/11	12-08-13	1000
Absolute	10006	2000	120810-27987	03/23/11	12-08-13	1000
Absolute	10007	2000	100909-28015	03/23/11	10-09-14	1000
Absolute	10007	2000	100909-28014	03/23/11	10-09-14	1000
Absolute	10018	2000	073109-27991	03/23/11	07-31-14	1000
Absolute	10018	2000	073109-27992	03/23/11	07-31-14	1000
Absolute	70023	1000	080310-28006	03/23/11	08-03-15	1000
Absolute	70023	1000	080310-28007	03/23/11	08-03-15	1000
Absolute	82705	2000	052908-28001	03/23/11	05-29-11	1000
Absolute	82705	2000	052908-28002	03/23/11	05-29-11	1000
Absolute	94552	2000	121010-27996	03/23/11	12-10-13	1000
Absolute	94552	2000	121010-27997	03/23/11	12-10-13	1000
					Final Vol	20000

LF 3/23/11

9mM IS exp 1/25/12
1500µL EM Science MC Lot #47080
100µL 8270 IS opened 1/25/11 exp 1/25/12

VF 3/28/11

o2si smart solutions — 8270 BN:A (200:400) Surrogate Solution, 1 ml
110004-17 — Storage: </=-10 Degrees C
Made in USA Lot No: 160538 — Solvent: Methylene Chloride
Exp: 8/10/2012
Date Opened: 8270 BN:A (200:400) Surrogate Solution
Lot #: 160538 - 27574
Rec: 10/18/10 MFR exp. 08/10/12

VF exp 3/28/12

VF 3/28/11

PREP DATE:	03-28-11															
8270T STANDARD CURVE																
Exp:	04-27-11					0.1	0.2	1	5	10	20	40	50	60	80	100
		Conc.		Date												
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date			µL	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		03/23/11	05-29-11	0	0	0	5	5	10	20	25	30	40	50
	5.0ug/mL			03/28/11		0	0	20	0	0	0	0	0	0	0	0
	1.0ug/mL			03/28/11		10	20	0	0	0	0	0	0	0	0	0
	Surrogate Stock	VAR	160538-27574	03/28/11	03-28-12	0	0	0	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47080			90	80	80	190	90	80	60	50	40	20	0
					Final Vol.			100	200	100	100	100	100	100	100	100

VF 3/28/11

PREP DATE:	03-28-11					
8270 Second Source (SS) 50ug/mL						50 VF
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/05/10	10-06-11	25
EM Science	Methylene Chloride		47080			75
					Final Vol.	100

VF 4/8/11

GCM-160-1 — ULTRA — 1 mL
Lot: CF-2995
Exp: 08/31/2011
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, N Kingstown, RI 02852 USA
Semi-volatiles GC/MS Tuning Standard
Lot #: CF-2995 - 26131
Rec: 2/17/10 MFR exp. 08/31/11

VF exp 8/31/11

VF 4/13/11

PREP DATE:	04-13-11						
SV Tune Mix 50ug/ml							VF
Exp:	08-31-11						
		Conc.			Date	CODE:	B
Supplier	ID #	µg/mL	Lot #		Code	Exp.Date	µL
U. Scientific	GCM-150	1000	CF-2995-26131		04/13/11	08-31-11	1000
EM Science	MeCl2		47080				19000
						Final Vol	20000

exp 8/31/11

VF 4/20/11

8270D PAH SIM Solution, 200 mg/L, 1 ml
110780-01
Lot # 170253 — Storage: </=-10 Degrees C — Expiry: 3/3/13
Solvt: Methylene Chloride

VF exp 4/20/12

8270D PAH SIM
Lot #: 170253 - 28485
Rec: 3/10/11 MFR exp. 3/3/2013

VF 4/20/11

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 ml
110780-01-SS
Lot # 170256 — Storage: </=-10 Degrees C — Expiry: 3/3/13
Solvt: Methylene Chloride

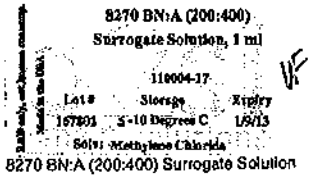
exp 4/20/12

8270D PAH SIM (SS)
Lot #: 170256 - 28487
Rec: 3/10/11 MFR exp. 3/3/2013

VF 8/16/11

PREP DATE:	08/16/11		exp:	08/23/11			
10ug/mL 1,2,3-TCP							
	50uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methonal Lot #			9077-02			
PREP DATE:	08/16/11		exp:	08/23/11			
1ug/mL 1,2,3-TCP							
	5uL of 1000ug/mL 1,2,3 TCP into a final volume of 5mL of P&T Methanol						
	1000ug/mL 1,2,3 TCP date code:			05/27/11			
	P & T Methanol Lot #			JT Baker H46E44			
PREP DATE:	08/16/11		exp:	08/23/11			
2ug/mL 1,2,3-TCPd5							
	10uL of 2000ug/mL 1,2,3 TCP into a final volume of 10mL of P&T Methanol						
	2000ug/mL 1,2,3 TCP-d5 date code:			05/27/11			
	P & T Methanol Lot #			9077-02			

VF 8/22/11



VF exp 8/22/12

8270 BN:A (200:400) Surrogate Solution

Lot #: 167802 - 29313

Rec: 8/8/11 MFR exp. 01/09/13

VF 8/22/11

PREP DATE:	08-22-11													
8270 STANDARD CURVE														
Exp:	08-29-11						5	10	20	40	50	60	80	100
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
						Final Vol.	200	100	100	100	100	100	100	100

VF 8/22/11

PREP DATE:	08-22-11					
8270 Second Source (SS) 50ug/mL						
						50
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date	µL
	8270C SS	200		10/06/10	10-06-11	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

VF 9/21/11

PREP DATE:	09-21-11													
8270 BIN STANDARD CURVE														
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
Supplier	ID #	Conc. µg/mL	Lot #	Date Code	CODE: Exp.Date	A µL	A µL	C µL	D µL	E µL	F µL	G µL	H µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		09/21/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		09/21/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29313	08/22/11	08-23-11	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

PREP DATE:	09-21-11						
SIM 8270 Second Source (5µg/mL)							
Exp:	10-05-11						
				Conc.	Date	CODE:	
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date	µL
	8270D PAH SIM (SS)		170256-28487	200	04/20/11	04-20-12	5
	MeCl2			Lot#47185			195
					Final Volume		200

8270 BN Solution 14-4, 2,000 mg/L, 1 ml

Cat. No: 110391-01
Lot No: 158119
8270BN Solution 14-4
Lot #: 158119 - 28021
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

8270 BN Solution 14-3, 2,000 mg/L, 1 ml

Cat. No: 110392-01
Lot No: 158120
8270BN Solution 14-3
Lot #: 158120 - 28023
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ened: _____

8270 Acid Solution 4-6, 2,000 mg/L, 1 ml

Cat. No: 110393-01
Lot No: 158121
8270B Acid Solution 4-6
Lot #: 158121 - 28025
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
n For Research Use Only
ned: _____

TCL Hazardous Substances Solution 2, 2,000 mg/L, 1 ml

Cat. No: 110394-01
Lot No: 158122
TCL Hzd. Soln. 2
Lot #: 158122 - 28016
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

PAH Solution 17-3, 2,000 mg/L, 1 ml

Cat. No: 116070-02
Lot No: 158123
PAH Solution
Lot #: 158123 - 28027
Rec: 12/16/10 MFR exp. 07/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

8270 Acid Solution 13-4, 2,000 mg/L, 1 ml

Cat. No: 110396-01
Lot No: 158124
8270 Acid Solution 13-4
Lot #: 158124 - 28029
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
d: _____

10/10/11

8270 BN Solution 4-21, 2,000 mg/L, 1 ml

O2si
Cat. No: 110395-01
Lot No: 158125

8270BN Solution 4-21
Lot #: 158125 - 28031
Rec: 12/16/10 MFR exp. 04/17/13

Exp: 4/17/2013
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
pened: _____

UF exp 10/12/12

10/10/11

8270 11 Compound Custom Mix, 200:2,000 mg/L, 1 ml

O2si
Cat. No: 110397-01
Lot No: 158127

8270 11 Compound Mix
Lot #: 158127 - 28033
Rec: 12/16/10 MFR exp. 04/12/12

Exp: 4/12/2012
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ened: _____

UF exp 4/12/12

10/10/11

Atrazine Solution, 1,000 mg/L, 1 ml

O2si
Cat. No: 010337-01
Lot No: 158126

Atrazine
Lot #: 158126 - 28019
Rec: 12/16/10 MFR exp. 04/12/12

Exp: 4/12/2012
Storage: </= -10 Degrees C
Solvent: Methylene Chloride
For Research Use Only
ed: _____

UF exp 4/12/12

10/10/11

PREP DATE:	10-11-11					
8270C Second Source Stock Standard						
Exp:	04-12-12					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
O2SI	110391-01	2000	158119-28021	10-11-11	04-17-13	1000
O2SI	110392-01	2000	158120-28023	10-11-11	04-17-13	1000
O2SI	110393-01	2000	158121-28025	10-11-11	04-17-13	1000
O2SI	110394-01	2000	158122-28018	10-11-11	04-17-13	1000
O2SI	116070-02	2000	158123-28027	10-11-11	04-17-13	1000
O2SI	110395-01	2000	158125-28031	10-11-11	04-17-13	1000
O2SI	110396-01	2000	158124-28029	10-11-11	04-17-13	1000
O2SI	110397-01	2000	158127-28033	10-11-11	04-12-12	1000
O2SI	010337-01	1000	158126-28019	10-11-11	04-12-12	1000
EM Science	MeCl2		47186			1000
					Final Vol	10000

UF

10/10/11

PREP DATE:	10-11-11													
8270 STANDARD CURVE														
Exp:	10-18-11						5	10	20	40	50	60	80	100
		Conc.		Date										
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date		µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		07/26/11	01-26-12		5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12		5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186				190	90	80	60	50	40	20	0
						Final Vol.	200	100	100	100	100	100	100	100

UF

10/10/11

PREP DATE:	10-11-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/11/11	04-12-12	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

UF

10/10/11

GCM-160-1
Lot: CH-2137
Exp. 07/31/2013
ULTRA 1 mL
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
For Lab Use Only

UF 50µg/mL SV Tune Mix
1 ml of GCM-160-1 opened 10/11/11 into 10mL EM Science MC Lot#47186
exp 10/~~11~~ 10/11/12

VF 10/18/11

Part #: 10001 Laboratory Use Only - See MSDS
Lot #: 042910 Exp: 042913 Storage 0 °C
CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
2000 ug/mL in methy
ABSOLUTE STANDARD
CLP Semi-Volatiles Base/Neutrals Mix #1
Lot #: 042910 - 28440
Rec: 3/8/11 MFR exp. 4/29/2013

exp 10/18/12

VF 10/18/11

Part #: 10001 Laboratory Use Only - See MSDS
Lot #: 042910 Exp: 042913 Storage 0 °C
CLP Semi-Volatiles Base/Neutrals Mix #1
14 components
2000 ug/mL in m
ABSOLUTE STANDA
Lot #: 042910 - 29085
Rec: 8/4/11 MFR exp. 04/29/13

exp 10/18/12

VF 10/18/11

Part #: 10002 Laboratory Use Only - See MSDS
Lot #: 073109 Exp: 073112 Storage 4 °C
CLP Semi-Volatiles Base/Neutrals Mix #2
14 components
2000 ug/mL in methyle
ABSOLUTE STANDARDS
CLP Semi-Volatiles Base/Neutrals Mix #2
Lot #: 073109 - 28446
Rec: 3/8/11 MFR exp. 7/31/2012

exp VF 7/31/12

VF 10/18/11

Part #: 10002 Laboratory Use Only - See MSDS
Lot #: 073109 Exp: 073112 Storage 4 °C
CLP Semi-Volatiles Base/Neutrals Mix #2
14 components
2000 ug/mL in met
ABSOLUTE STANDAF
CLP Semi-Volatiles Base Neutrals Mix #2
Lot #: 073109 - 29090
Rec: 8/4/11 MFR exp. 07/31/12

exp 7/31/12

VF 10/18/11

Part #: 10004 Laboratory Use Only - See MSDS
Lot #: 101509 Exp: 101514 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #1
4 components
2000 ug/mL in methyl
ABSOLUTE STANDARDS
CLP Semi-Volatiles Toxic Substances #1
Lot #: 101509 - 28453
Rec: 3/8/11 MFR exp. 10/15/201

exp 10/18/12

VF 10/18/11

Part #: 10004 Laboratory Use Only - See MSDS
Lot #: 101509 Exp: 101514 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #1
4 components
2000 ug/mL in meti
ABSOLUTE STANDAR
CLP Semi-Volatiles Toxic Substances #1
Lot #: 101509 - 29095
Rec: 8/4/11 MFR exp. 10/15/14

exp 10/18/12

VF 10/18/11

Part #: 10005 Laboratory Use Only - See MSDS
Lot #: 061209 Exp: 061214 Storage 4 °C
CLP Semi-Volatiles To... Substances #2
8 components
2000 ug/mL in methy
ABSOLUTE STANDARD
CLP Semi-Volatiles Toxic Substances #2
Lot #: 061209 - 28458
Rec: 3/8/11 MFR exp. 6/12/2014

exp 10/18/12

VF 10/18/11

Part #: 10005 Laboratory Use Only - See MSDS
Lot #: 121208 Exp: 121213 Storage 4 °C
CLP Semi-Volatiles Toxic Substances #2
8 components
2000 ug/mL in met
ABSOLUTE STANDAR
CLP Semi-Volatiles Toxic Substances #2
Lot #: 121208 - 29100
Rec: 8/4/11 MFR exp. 12/12/13

exp 10/18/12

GC/MS STANDARD PREPARATION BOOK # J PAGE # 104

LF10/18/12

Part #: 10006 Laboratory Use Only - See MSDS
Lot #: 120810 Exp: 120813 Storage 4 °C
CLP Semi-Volatiles - Benzidines
2 components
2000 ug/mL in methar
ABSOLUTE STANDARD

CLP Semi-Volatiles - Benzidines
Lot #: 120810 - 28462
Rec: 3/8/11 MFR exp. 12/8/2013 BK

exp 10/18/12

LF10/18/12

Part #: 10006 Laboratory Use Only - See MSDS
Lot #: 071211 Exp: 071214 Storage 4 °C
CLP Semi-Volatiles - Benzidines
2 components
2000 ug/mL in meth
ABSOLUTE STANDAR

Lot #: 071211 - 29105
Rec: 8/4/11 MFR exp. 07/12/14

exp 10/18/12

LF10/18/12

Part #: 10007 Laboratory Use Only - See MSDS
Lot #: 100909 Exp: 100914 Storage 4 °C
CLP Semi-Volatiles - PAH Standard
17 components
2000 ug/mL in methy
ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix
Lot #: 100909 - 28469
Rec: 3/8/11 MFR exp. 10/9/2014 BK

exp 10/18/12

LF10/18/12

Part #: 10007 Laboratory Use Only - See MSDS
Lot #: 100909 Exp: 100914 Storage 4 °C
CLP Semi-Volatiles - PAH Standard
17 components
2000 ug/mL in met
ABSOLUTE STANDAR

CLP Semi-Volatiles - PAH Mix
Lot #: 100909 - 29110
Rec: 8/4/11 MFR exp. 10/09/14

exp 10/18/12

LF10/18/12

Part #: 10018 Laboratory Use Only - See MSDS
Lot #: 073109 Exp: 073114 Storage 4 °C
EPA Method 8270A - Analytes Mix #8
13 components - Phen
2000 ug/mL in methyl
ABSOLUTE STANDARD

CLP Semi-Volatiles Mix #8 - Phenols
Lot #: 073109 - 28410
Rec: 3/8/11 MFR exp. 7/31/2014 BK

exp 10/18/12

LF10/18/12

Part #: 10018 Laboratory Use Only - See MSDS
Lot #: 062111 Exp: 062116 Storage 4 °C
EPA Method 8270A - Analytes Mix #8
13 components - Ph
2000 ug/mL in meth
ABSOLUTE STANDARD

EPA Method 8270A - Analytes Mix #8
Lot #: 062111 - 29115
Rec: 8/4/11 MFR exp. 06/21/16

LF10/18/12

LF10/18/12

Part #: 70023 Laboratory Use Only - See MSDS
Lot #: 080310 Exp: 080315 Storage 4 °C
Atrazine
1000 ug/mL in aceto
ABSOLUTE STANDARD

Atrazine
Lot #: 080310 - 28416
Rec: 3/8/11 MFR exp. 8/13/2015 BK

exp 10/18/12

LF10/18/11

Part #: 70023 Laboratory Use Only - See MSDS
Lot #: 031611 Exp: 031616 Storage 4 °C
Atrazine
1000 ug/mL in ace
ABSOLUTE STANDA...

Atrazine
Lot #: 031611 - 29120
Rec: 8/4/11 MFR exp. 03/16/16

exp 10/18/12

10/18/11

Part #: 82705
Lot #: 121010
Laboratory Use Only - See MSDS
Exp: 121013 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in aceto
ABSOLUTE STANDAR
EPA Method 8270A - Mix #18
Lot #: 121010 - 28428
Rec: 3/8/11 MFR exp. 12/10/201

exp 10/18/12

10/18/11

Part #: 82705
Lot #: 041911
Laboratory Use Only - See MSDS
Exp: 041914 Storage 4 °C
EPA Method 8270A - Mix #11
4 components
2000 ug/mL in aceto
ABSOLUTE STANDAR
Lot #: 041911 - 29125
Rec: 8/4/11 MFR exp. 04/19/14

exp 10/18/12

10/18/11

Part #: 94552
Lot #: 030411
Laboratory Use Only - See MSDS
Exp: 030414 Storage 4 °C
Semi-Volatile Standard
11 components
Varied ug/mL in met
ABSOLUTE STANDARD
Semi-Volatile Standard
Lot #: 030411 - 28423
Rec: 3/8/11 MFR exp. 3/4/2014

exp 10/18/12

10/18/11

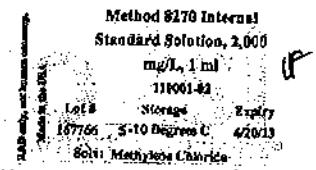
Part #: 94552
Lot #: 030411
Laboratory Use Only - See MSDS
Exp: 030414 Storage 4 °C
Semi-Volatile Standa
11 components
Varied ug/mL in met
ABSOLUTE STANDARDS, INC.
Semi-Volatile Standard
Lot #: 030411 - 29130
Rec: 8/4/11 MFR exp. 03/04/14

exp 10/18/12

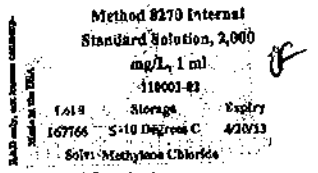
10/18/11

PREP DATE:	10-18-11					
8270C Stock/Spike Standard						
Exp:	04-18-12					
		Conc.		Date	CODE:	P
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	10001	2000	042910-28440	10/18/11	04-29-13	1000
Absolute	10001	2000	042910-29085	10/18/11	04-29-13	1000
Absolute	10002	2000	073109-28446	10/18/11	07-31-12	1000
Absolute	10002	2000	073109-29090	10/18/11	07-31-12	1000
Absolute	10004	2000	101509-28453	10/18/11	10-15-14	1000
Absolute	10004	2000	101509-29095	10/18/11	10-15-14	1000
Absolute	10005	2000	061209-28458	10/18/11	06-12-14	1000
Absolute	10005	2000	121208-29100	10/18/11	12-12-13	1000
Absolute	10006	2000	120810-28462	10/18/11	12-08-13	1000
Absolute	10006	2000	071211-29105	10/18/11	07-12-14	1000
Absolute	10007	2000	100909-28469	10/18/11	10-09-14	1000
Absolute	10007	2000	100909-29110	10/18/11	10-09-14	1000
Absolute	10018	2000	073109-28410	10/18/11	07-31-14	1000
Absolute	10018	2000	062111-29115	10/18/11	06-21-16	1000
Absolute	70023	1000	080310-28416	10/18/11	08-03-15	1000
Absolute	70023	1000	031611-29120	10/18/11	03-16-16	1000
Absolute	82705	2000	121010-28428	10/18/11	12-10-13	1000
Absolute	82705	2000	041911-29125	10/18/11	04-19-14	1000
Absolute	94552	2000	030411-28423	10/18/11	03-04-14	1000
Absolute	94552	2000	030411-29130	10/18/11	03-04-14	1000
					Final Vol	20000

LF 10/18/11



8270 Internal Standard
Lot #: 167766 - 28149
Rec: 1/20/11 MFR exp. 04/20/13



8270 Internal Standard
Lot #: 167766 - 28150
Rec: 1/20/11 MFR exp. 04/20/13

exp 10/18/12

LF 10/27/11

GCM-150-1
Lot: CH-2137
Exp: 07/31/2013
ULTRA
1 mL
Semi-Volatiles GC/MS Tuning Standard
4 analyte(s) at 1000 µg/mL in dichloromethane
250 Smith St, No Kingstown, RI 02852 USA
For Lab Use Only

exp 10/27/12

50µg/mL SV Tune Mix 1mL of GCM-150-1 Lot# CH2137 into 19mL of Chem Science MC Lot# 47080.

LF 10/27/11

PREP DATE:	10-27-11												
8270 SIM STANDARD CURVE													
						0.10	0.20	0.50	1.00	5.00	10.00	50.00	100.00
		Conc.		Date	CODE:	A	A	C	D	E	F	G	H
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270D PAH SIM	200	170253-28485	04/20/11	04-20-12	0	0	0	0	5	5	25	50
	5.0ug/mL	5		10/27/11		0	0	10	20	0	0	0	0
	1.0ug/mL	1		10/27/11		10	20	0	0	0	0	0	0
	Surrogate Stock	VAR	167802-29311	08/22/11	08-22-12	0	0	0	0	5	5	25	50
EM Science	Methylene Chloride		47186			90	80	90	80	190	90	50	0
					Final Vol.	100	100	100	100	200	100	100	100

LF 10/27/11

PREP DATE:	10-27-11					
SIM 8270 Second Source (5µg/mL)						
Exp:	11-10-11					
				Conc.	Date	CODE:
Supplier	ID #		Lot #	µg/mL	Code	Exp.Date
	8270D PAH SIM (SS)		170256-28487	200	04/20/11	04-20-12
	MeCl2			Lot#47186		
					Final Volume	

µL
5
195
200

LF 11/8/11

PREP DATE:	11-08-11												
8270 STANDARD CURVE													
Exp:	11-15-11					5	10	20	40	50	60	80	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
	8270T Stock	200		10/18/11	04-18-12	5	5	10	20	25	30	40	50
	Surrogate Stock	VAR	167802-29313	08/22/11	08-22-12	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		47186			190	90	80	60	50	40	20	0
					Final Vol.	200	100	100	100	100	100	100	100

LF 11/8/11

PREP DATE:	11-08-11					
8270 Second Source (SS) 50ug/mL						
						50
		Conc.		Date	CODE:	
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
	8270C SS	200		10/11/11	04-12-12	25
EM Science	Methylene Chloride		47186			75
					Final Vol.	100

LF

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	111108A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 178987-29587		Surrogate ID 1	8270 SIM Surrogate 172835-28827	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:		
Spiked ID 8			Ext. End Time:		
			GC Requires Extract By:	11/17/11 0:00	

pH1	2	/8/2011 12:40:00 PM	Water Bath Temp Criteria	80 °C
pH2	14	1/8/2011 2:00:00 PM		
pH3				

Spiked By: HW **Date** 11/8/2011 **Witnessed By:** CC **Date** 11/8/2011

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	111108A Blk				0.025	1	1000	1	2/1	11/08/11 12:40	
						equip	E-WB5				
2	111108A LCS-1		0.025	1	0.025	1	1000	1	2/1	11/08/11 12:40	
						equip	E-WB5				
3	AY50005	AY50005W05			0.025	1	1050	1	2/1	11/08/11 12:40	66186-2 week rush -- Amber Liter
						equip	E-WB5				
4	AY50011	AY50011W07			0.025	1	1050	1	2/1	11/08/11 12:40	66187-2 week rush -- Amber Liter
						equip	E-WB5				
5	AY50017	AY50017W07			0.025	1	1050	1	2/1	11/08/11 12:40	66187-2 week rush -- Amber Liter
						equip	E-WB5				

HW 11/8/11

Solvent and Lot#	
MC	EMD 51204
Na2SO4	3581C501
10N NaOH	10/31/11
1+1 Acid	09/15/11
A. Na2SO4	10/31/11

Extraction COC Transfer	
Extraction lab employee Initials	HW
GC analyst's initials	JF
Date	11/10/11
Time	1700
Refrigerator	Howard

	Technician's Initials
Scanned By	HW
Sample Preparation	HW
Extraction	HW
Concentration	HW

Modified	11/8/2011 12:08:05 PM

Reviewed By: HW **Date** 11/8/2011

Injection Log

Directory: M:\LINUS\DATA\L111027\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1027L001.D	1	SVTUNE 10-27-11		27 Oct 11 18:29
2	3	1027L003.D	1	0.1ug/ml PAH 10-27-11		27 Oct 11 19:12
3	4	1027L004.D	1	0.2ug/ml PAH		27 Oct 11 19:38
4	1	1028L001.D	1	SVTUNE 10-27-11		28 Oct 11 9:32
5	5	1028L005.D	1	0.5ug/ml PAH		28 Oct 11 11:07
6	6	1028L006.D	1	1.0ug/ml PAH		28 Oct 11 11:32
7	7	1028L007.D	1	5.0ug/ml PAH		28 Oct 11 11:58
8	8	1028L008.D	1	10ug/ml PAH		28 Oct 11 12:23
9	9	1028L009.D	1	50ug/ml PAH		28 Oct 11 12:49
10	10	1028L010.D	1	100ug/ml PAH		28 Oct 11 13:14
11	11	1028L011.D	1	5.0ug/ml SS PAH 10-27-11		28 Oct 11 13:40
12	1	1110L001.D	1	SVTUNE 10-27-11		10 Nov 11 19:03
13	2	1110L002.D	1	5.0ug/ml PAH 10-27-11		10 Nov 11 19:22
14	3	1110L003.D	1	111108A BLK 1/1000		10 Nov 11 19:47
15	4	1110L004.D	1	111108A LCS-1 1/1000		10 Nov 11 20:12
16	5	1110L005.D	0.95238	AY50005W05 1/1050		10 Nov 11 20:38

EPA METHOD 8260B
Volatile Organic Compounds

APPL, INC.

EPA METHOD 8260B
Volatile Organic Compounds
QC Summary

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111105W-50004 - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/05/11	11/05/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROPROPENE, TOTA	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11

Quant Method: CALLW.M
Run #: 1105C09
Instrument: Chico
Sequence: C111104
Initials: DG

GC SC-Blank-REG MDLs
Printed: 12/08/11 4:17:25 PM

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111105W-50004 - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	SURROGATE: 1,2-DICHLOROET	87.0	70-120			%	11/05/11	11/05/11
BLANK	SURROGATE: 4-BROMOFLUOR	96.5	75-120			%	11/05/11	11/05/11
BLANK	SURROGATE: DIBROMOFLUOR	90.3	85-115			%	11/05/11	11/05/11
BLANK	SURROGATE: TOLUENE-D8 (S)	93.8	85-120			%	11/05/11	11/05/11

Quant Method: CALLW.M
Run #: 1105C09
Instrument: Chico
Sequence: C111104
Initials: DG

GC SC-Blank-REG MDLs
Printed: 12/08/11 4:17:25 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111105AC-LCS	Lab Control Spike	70-120	90.5		75-120	98.2	
111105AC-BLK	Blank	70-120	87.0		75-120	96.5	
AY50004	ES056	70-120	89.3		75-120	101	
AY50005	ES057	70-120	84.1		75-120	100	

Comments: Batch: #86RHB-111105AC

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Chico

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111105AC-LCS	Lab Control Spike	85-115	98.1		85-120	93.0	
111105AC-BLK	Blank	85-115	90.3		85-120	93.8	
AY50004	ES056	85-115	91.9		85-120	97.8	
AY50005	ES057	85-115	86.7		85-120	95.9	

Comments: Batch: #86RHB-111105AC

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **111105W-50004 LCS - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.01	90.1	80-130
1,1,1-TRICHLOROETHANE	10.00	8.38	83.8	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.2	102	65-130
1,1,2-TRICHLOROETHANE	10.00	9.78	97.8	75-125
1,1-DICHLOROETHANE	10.00	10.5	105	70-135
1,1-DICHLOROETHENE	10.00	9.57	95.7	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.50	85.0	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.38	93.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.45	84.5	50-130
1,2-DIBROMOETHANE	10.00	8.37	83.7	70-130
1,2-DICHLOROBENZENE	10.00	9.72	97.2	70-120
1,2-DICHLOROETHANE	10.00	8.20	82.0	70-130
1,2-DICHLOROPROPANE	10.00	11.6	116	75-125
1,3-DICHLOROBENZENE	10.00	9.98	99.8	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.3	102	70-130
1,4-DICHLOROBENZENE	10.00	10.1	101	75-125
2-BUTANONE	10.00	9.57	95.7	30-150
4-METHYL-2-PENTANONE	10.00	10.7	107	60-135
ACETONE	10.00	10.8	108	40-140
BENZENE	10.00	11.0	110	80-120
BROMODICHLOROMETHANE	10.00	8.69	86.9	75-120
BROMOFORM	10.00	7.75	77.5	70-130
BROMOMETHANE	10.00	9.21	92.1	30-145
CARBON TETRACHLORIDE	10.00	8.10	81.0	65-140
CHLOROBENZENE	10.00	9.18	91.8	80-120
CHLORODIBROMOMETHANE	10.00	8.29	82.9	60-135

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chlco
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:34 PM

APPL Standard LCS

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **111105W-50004 LCS - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	11.7	117	60-135
CHLOROFORM	10.00	9.27	92.7	65-135
CHLOROMETHANE	10.00	9.41	94.1	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.24	92.4	70-125
ETHYLBENZENE	10.00	9.72	97.2	75-125
GASOLINE	300	285	95.0	75-125
HEXACHLOROBUTADIENE	10.00	8.51	85.1	50-140
METHYL TERT-BUTYL ETHER	10.00	9.18	91.8	65-125
METHYLENE CHLORIDE	10.00	9.48	94.8	55-140
STYRENE	10.00	9.74	97.4	65-135
TETRACHLOROETHENE	10.00	8.71	87.1	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.57	95.7	60-140
TRICHLOROETHENE	10.00	9.37	93.7	70-125
VINYL CHLORIDE	10.00	9.11	91.1	50-145
XYLENES (TOTAL)	30.0	29.1	97.0	80-120
SURROGATE: 1,2-DICHLOROETHANE-	21.2	19.2	90.5	70-120
SURROGATE: 4-BROMOFLUOROBENZ	25.5	25.0	98.2	75-120
SURROGATE: DIBROMOFLUOROMETH	21.1	20.7	98.1	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	24.0	93.0	85-120

Comments: _____

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:35 PM

APPL Standard LCS

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 66186

Case No: 66186 Date Analyzed: 11/05/11

Matrix: WATER Instrument: Chico

Blank ID: 111105AC-BLK Time Analyzed: 1704

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111105AC-LCS	Lab Control Spike	1105C03	11/05/11 1245
111105AC-BLK	Blank	1105C09	11/05/11 1704
AY50004	ES056	1105C10	11/05/11 1748
AY50005	ES057	1105C11	11/05/11 1831

Comments: Batch: #86RHB-111105AC

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 66186
Matrix: Water
ID: 20ug/ml BFB Std 02-17-10D

SDG No: 66186
Date Analyzed: 11/05/11
Instrument: Chico
Time Analyzed: 10:47

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		VOC STD 11-5-11@10ug	1105C02W.D	11/05/11 12:02
2	Lab Control Spike	111105A LCS-1WC	1105C03W.D	11/05/11 12:45
3		Gas CCV 11-05-11@300	1105C05W.D	11/05/11 14:11
4	Lab Control Spike	111105A LCS-1WC (GAS	1105C06W.D	11/05/11 14:54
5	Blank	111105A BLK-1WC	1105C09W.D	11/05/11 17:04
6	ES056	AY50004W01	1105C10W.D	11/05/11 17:48
7	ES057	AY50005W01	1105C11W.D	11/05/11 18:31
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	22.3
75	30 - 60% of mass 95	49.5
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.2
173	0 - 2% of mass 174	0.0
174	50 - 100% of mass 95	83.1
175	5 - 9% of mass 174	7.1
176	95 - 101% of mass 174	96.8
177	5 - 9% of mass 176	6.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 66186

Lab File ID (Standard): 1104C09W.D Date Analyzed: 4 Nov 11 15:53

Instrument ID: Chico Time Analyzed: 4 Nov 11 15:53

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	379520	12.88	242112	18.07	128488	22.28
	UPPER LIMIT	759040	13.38	484224	18.57	256976	22.78
	LOWER LIMIT	189760	12.38	121056	17.57	64244	21.78
	SAMPLE NO.						
01	VOC STD 11-5-11@10u	595584	12.84	402432	18.05	212800	22.24
02	111105A LCS-1WC	598784	12.85	432320	18.04	227456	22.25
03	111105A BLK-1WC	639936	12.85	438336	18.05	229504	22.25
04	AY50004W01	620800	12.85	411008	18.05	224768	22.25
05	AY50005W01	638720	12.85	426432	18.05	222400	22.25
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 66186

Lab File ID (Standard): 1030C08W.D Date Analyzed: 10/30/11

Instrument ID: Chico Time Analyzed: 18:26

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1085670	12.84	1080400	18.04	1118270	22.24
	UPPER LIMIT	2171340	13.34	2160800	18.54	2236540	22.74
	LOWER LIMIT	542835	12.34	540200	17.54	559135	21.74
	SAMPLE NO.						
01	Gas CCV 11-05-11@300ug/L	1284530	12.85	1273280	18.04	1316870	22.25
02	111105A LCS-1WC (GAS)	1341940	12.85	1285560	18.04	1316050	22.25
03	111105A BLK-1WC	1344860	12.85	1284530	18.05	1297790	22.25
04	AY50004W01	1298000	12.85	1242540	18.05	1255780	22.25
05	AY50005W01	1331270	12.85	1269390	18.05	1253510	22.25
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA METHOD 8260B
Volatile Organic Compounds
Sample Data

APPL, INC.

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES056
Sample Collection Date: 11/02/11

ARF: 66186
APPL ID: AY50004
QCG: #86RHB-111105AC-160965

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROFORM	0.13 J	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M
Run #: 1105C10
Instrument: Chico
Sequence: C111104
Dilution Factor: 1
Initials: DG

Printed: 12/08/11 4:17:43 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES056
Sample Collection Date: 11/02/11

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66186
APPL ID: AY50004
QCG: #86RHB-111105AC-160965

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	89.3	70-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	75-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	91.9	85-115			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.8	85-120			%	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M
Run #: 1105C10
Instrument: Chico
Sequence: C111104
Dilution Factor: 1
Initials: DG

Printed: 12/08/11 4:17:43 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1
Acq On : 5 Nov 11 17:48 Operator: STC
Sample : AY50004W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:20 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	620800	25.00000 ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	411008	25.00000 ppb	-0.03
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	224768	25.00000 ppb	-0.03
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.43	111	418625	19.39064 ppb	-0.03
Spiked Amount 21.097			Recovery = 91.912%		
38) 1,2-DCA-D4(S)	12.23	65	357977	18.94703 ppb	-0.03
Spiked Amount 21.225			Recovery = 89.266%		
56) Toluene-D8(S)	15.51	98	1528328	25.23984 ppb	-0.03
Spiked Amount 25.808			Recovery = 97.798%		
64) 4-Bromofluorobenzene(S)	20.13	95	551484	25.81893 ppb	-0.03
Spiked Amount 25.459			Recovery = 101.412%		
Target Compounds					Qvalue
31) Chloroform	11.10	83	4911	0.12995 ppb	95

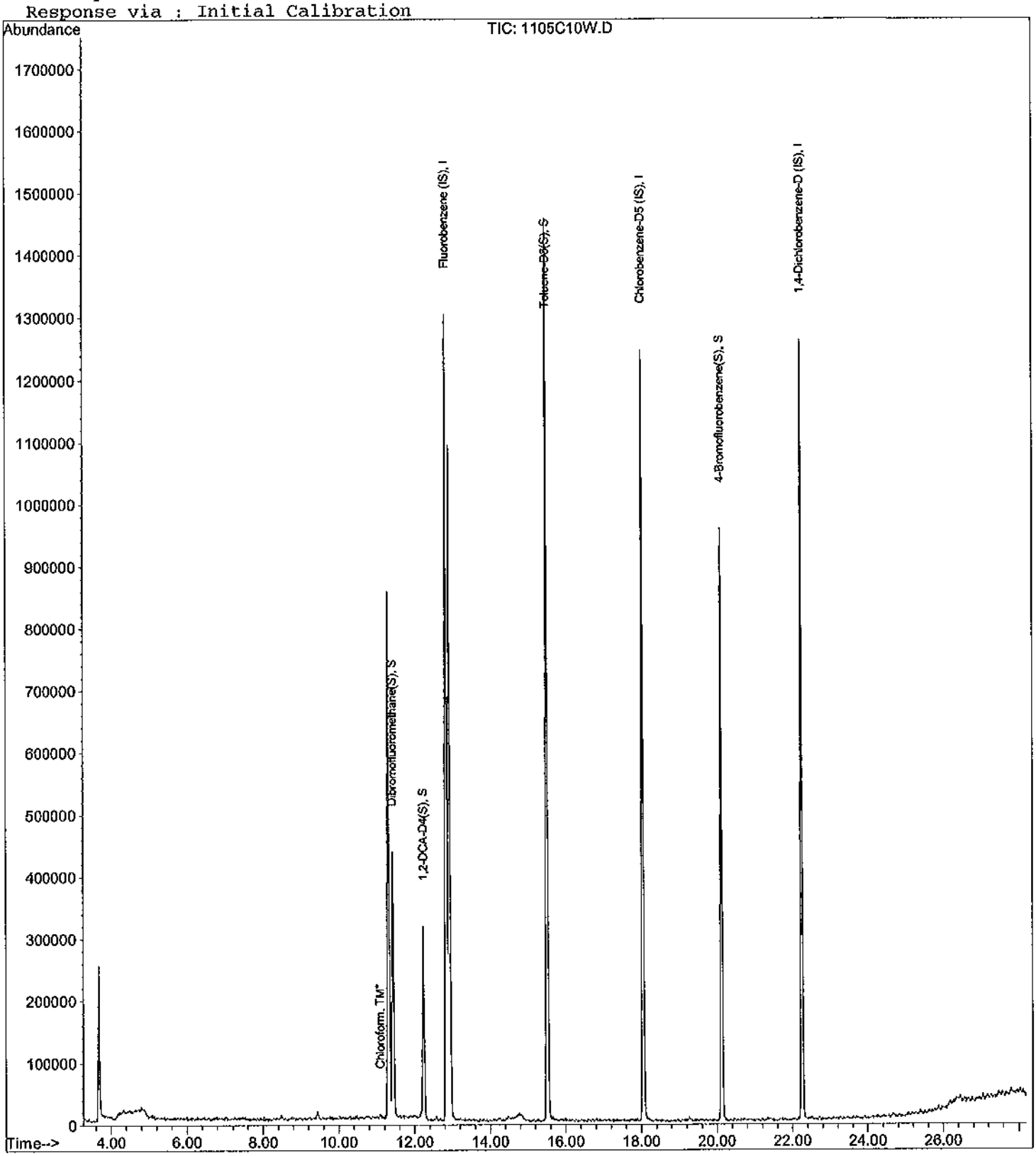
(#) = qualifier out of range (m) = manual integration

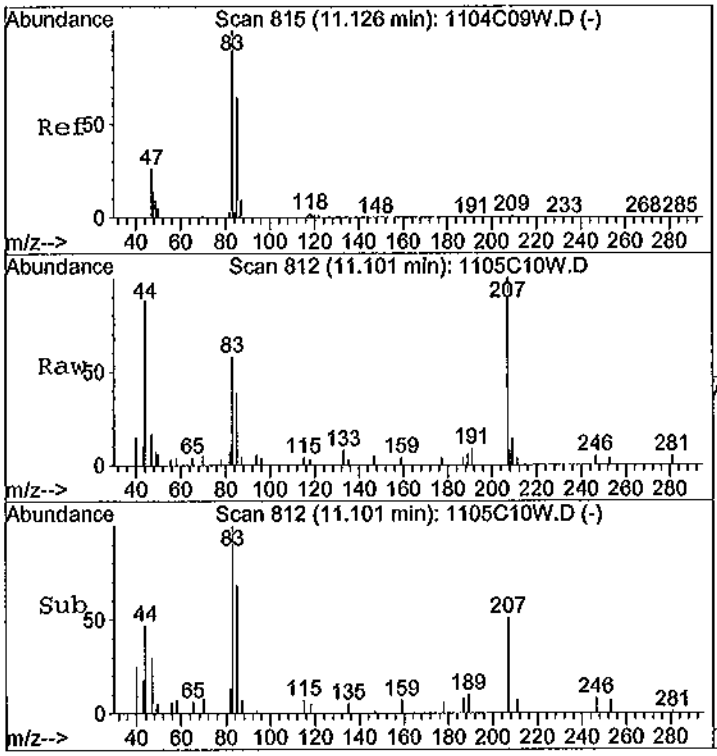
Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1
Acq On : 5 Nov 11 17:48 Operator: STC
Sample : AY50004W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:20 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration

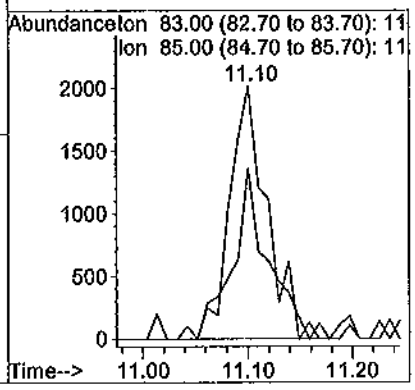




#31
Chloroform
Concen: 0.12995 ppb
RT: 11.10 min Scan# 812
Delta R.T. -0.03 min
Lab File: 1105C10W.D
Acq: 5 Nov 11 17:48

Tgt Ion: 83 Resp: 4911

Ion	Ratio	Lower	Upper
83	100		
85	67.5	44.7	83.1



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1
Acq On : 5 Nov 11 17:48 Operator: STC
Sample : AY50004W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1297996	25.00000	ppb	0.01
3) Chlorobenzene-D5 (IS)	18.05	TIC	1242539	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1255775	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds Qvalue

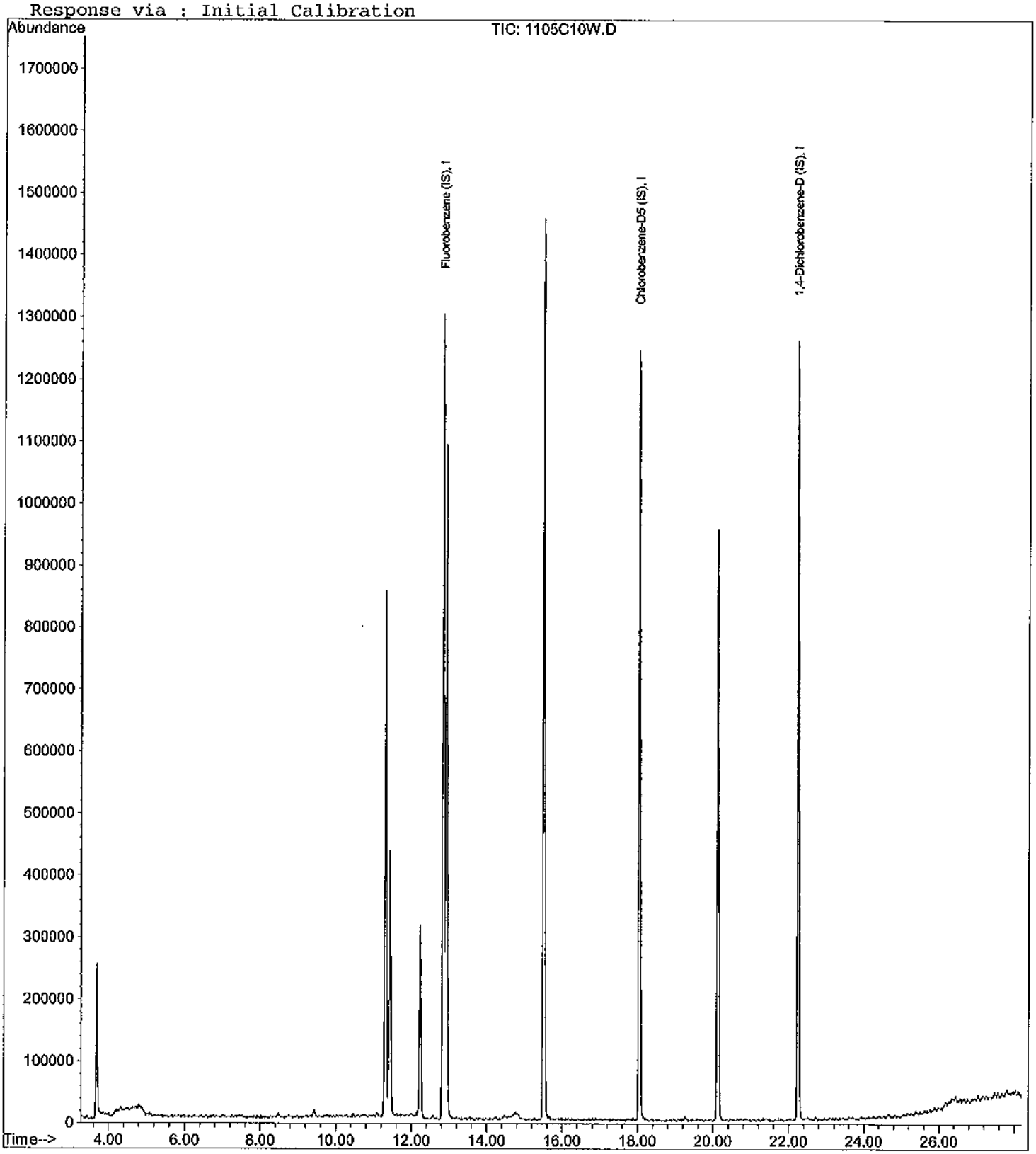
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C10W.D Vial: 1
Acq On : 5 Nov 11 17:48 Operator: STC
Sample : AY50004W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES057
Sample Collection Date: 11/02/11

ARF: 66186
APPL ID: AY50005
QCG: #86RHB-111105AC-160965

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
EPA 8260B	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMO-3-CHLOROPROPANE	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
EPA 8260B	1,3-DICHLOROPROPENE, TOTAL	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
EPA 8260B	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
EPA 8260B	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
EPA 8260B	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
EPA 8260B	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
EPA 8260B	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROFORM	0.13 J	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
EPA 8260B	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
EPA 8260B	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
EPA 8260B	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11
EPA 8260B	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11

J = Estimated value.

Quant Method: CALLW.M
Run #: 1105C11
Instrument: Chico
Sequence: C111104
Dilution Factor: 1
Initials: DG

Printed: 12/08/11 4:17:43 PM
APPL-F1-SC-NoMC-REG MDLs

EPA 8260B VOCs + Gas Water

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES057
Sample Collection Date: 11/02/11

ARF: 66186
APPL ID: AY50005
QCG: #86RHB-111105AC-160965

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
EPA 8260B	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
EPA 8260B	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
EPA 8260B	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
EPA 8260B	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
EPA 8260B	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	84.1	70-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100	75-120			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	86.7	85-115			%	11/05/11	11/05/11
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.9	85-120			%	11/05/11	11/05/11

J = Estimated value.

Quant Method:	CALLW.M
Run #:	1105C11
Instrument:	Chico
Sequence:	C111104
Dilution Factor:	1
Initials:	DG

Printed: 12/08/11 4:17:43 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1
Acq On : 5 Nov 11 18:31 Operator: STC
Sample : AY50005W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:37 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	638720	25.00000 ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	426432	25.00000 ppb	-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	222400	25.00000 ppb	-0.03
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.44	111	406408	18.29660 ppb	-0.03
Spiked Amount 21.097			Recovery = 86.727%		
38) 1,2-DCA-D4(S)	12.24	65	346833	17.84217 ppb	-0.03
Spiked Amount 21.225			Recovery = 84.060%		
56) Toluene-D8(S)	15.52	98	1554381	24.74162 ppb	-0.03
Spiked Amount 25.808			Recovery = 95.868%		
64) 4-Bromofluorobenzene(S)	20.12	95	565450	25.51527 ppb	-0.03
Spiked Amount 25.459			Recovery = 100.218%		
Target Compounds					Qvalue
31) Chloroform	11.12	83	4995	0.12847 ppb #	75
83) Tert-Butylbenzene	21.38	119	11822	0.16145 ppb	91

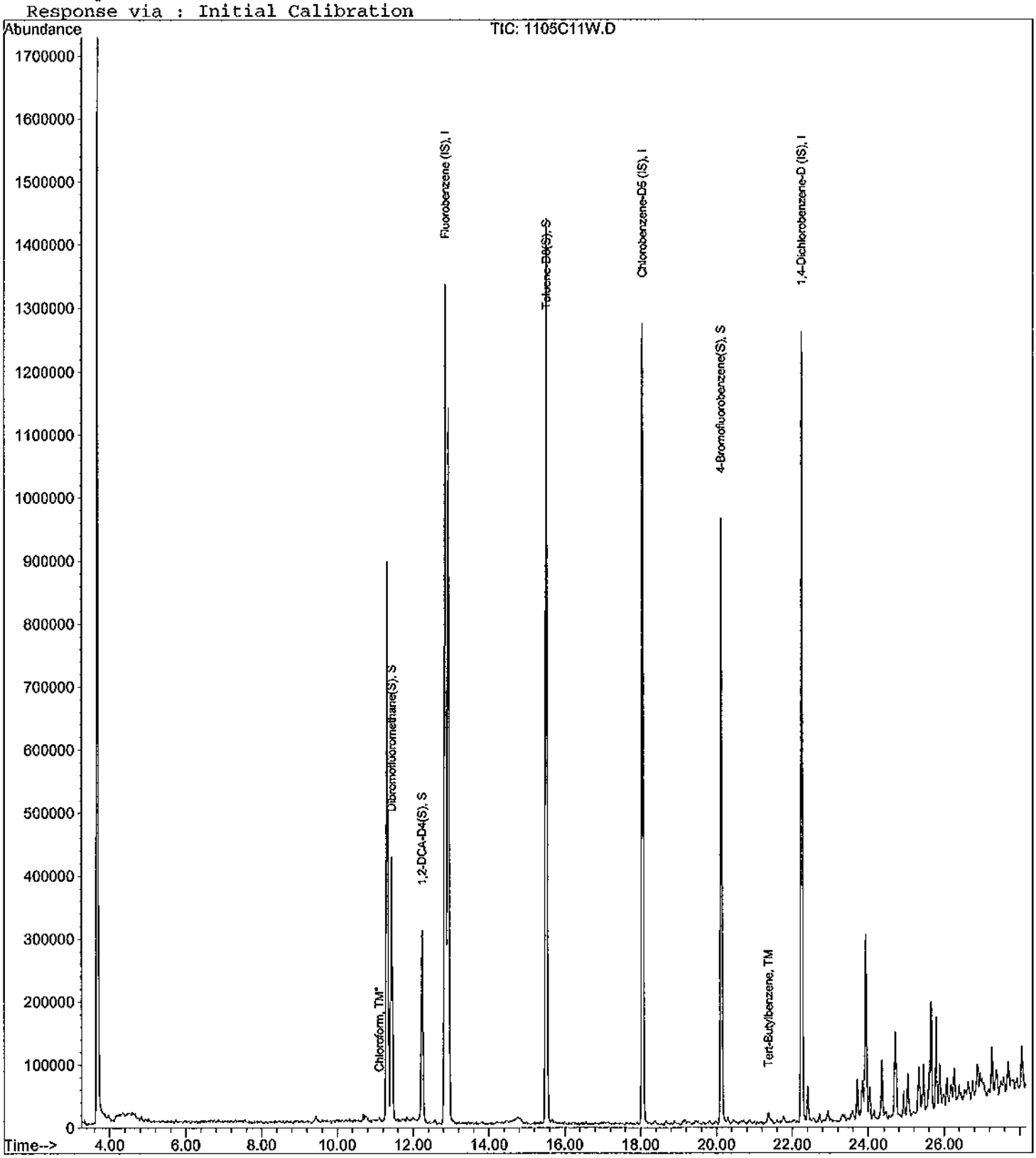
(#) = qualifier out of range (m) = manual integration

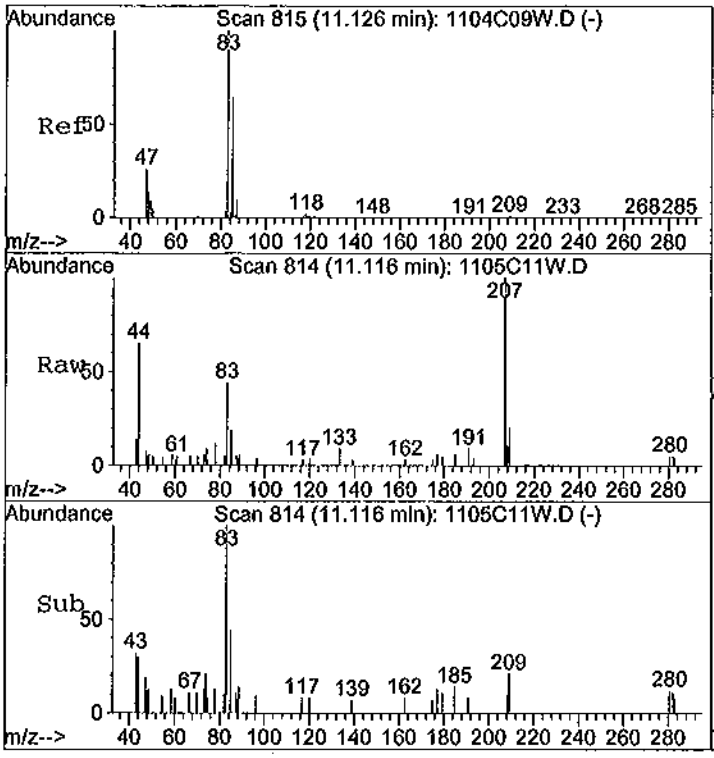
Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1
Acq On : 5 Nov 11 18:31 Operator: STC
Sample : AY50005W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:37 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration

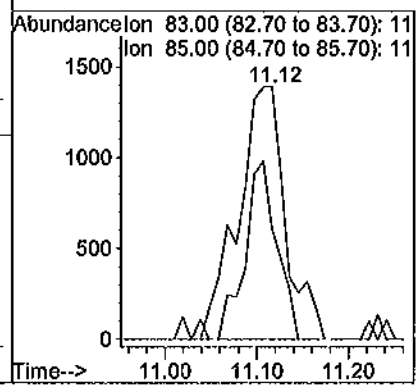


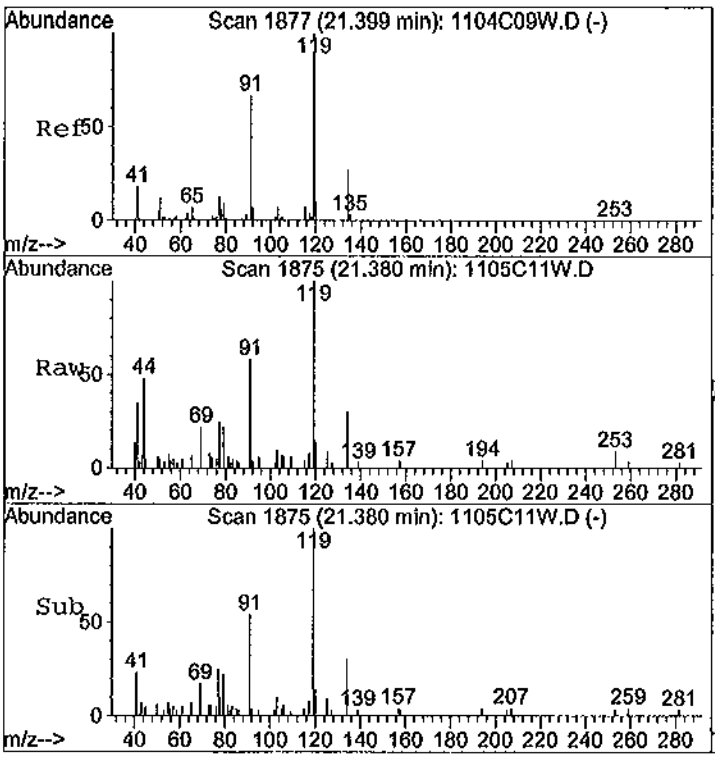


#31
Chloroform
Concen: 0.12847 ppb
RT: 11.12 min Scan# 814
Delta R.T. -0.01 min
Lab File: 1105C11W.D
Acq: 5 Nov 11 18:31

Tgt Ion: 83 Resp: 4995

Ion	Ratio	Lower	Upper
83	100		
85	44.0	44.7	83.1#

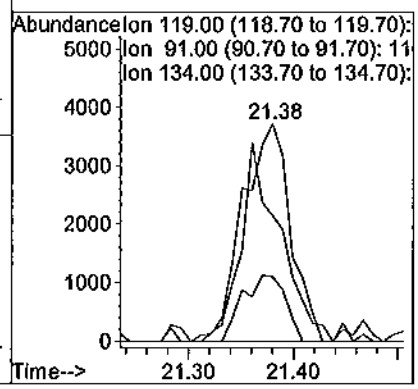




#83
Tert-Butylbenzene
Concen: 0.16145 ppb
RT: 21.38 min Scan# 1875
Delta R.T. -0.02 min
Lab File: 1105C11W.D
Acq: 5 Nov 11 18:31

Tgt Ion:119 Resp: 11822

Ion	Ratio	Lower	Upper
119	100		
91	57.8	46.6	86.6
134	29.6	18.7	34.7



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1
Acq On : 5 Nov 11 18:31 Operator: STC
Sample : AY50005W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:46 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1331266	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1269387	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1253511	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

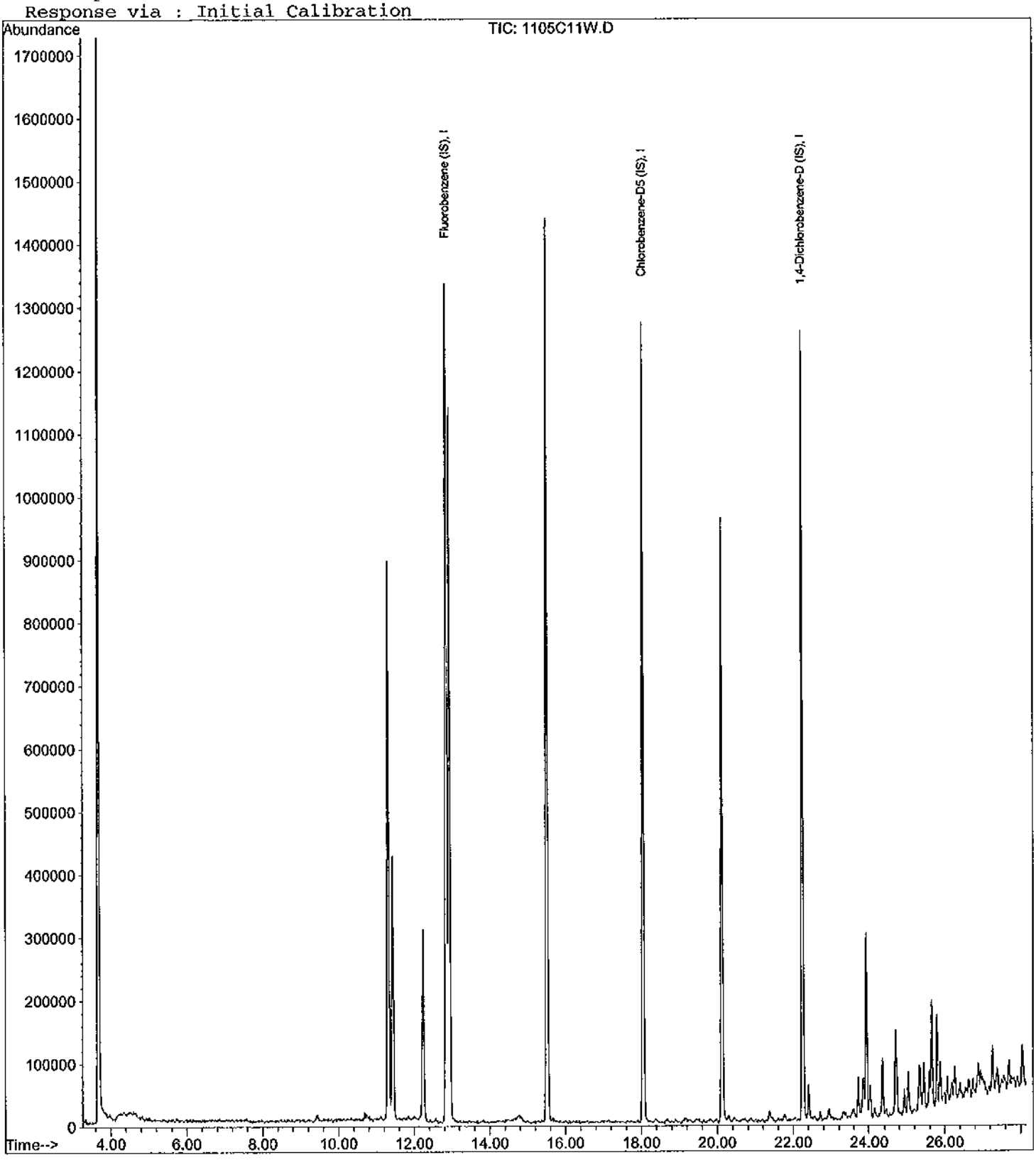
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C11W.D Vial: 1
Acq On : 5 Nov 11 18:31 Operator: STC
Sample : AY50005W01 Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:46 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Calibration Data

APPL, INC.

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/04/11
Matrix: Instrument: Chico Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
			1104C04W.D	1104C05W.D	1104C06W.D	1104C07W.D	1104C08W.D	1104C09W.D	1104C10W.D	1104C11W.D	1104C12W.D					
1	I	Fluorobenzene (IS)	ISTD													
2	TM	Dichlorodifluoromethane		0.8203	0.7786	0.8343	0.6533	0.8377	0.8642	1.005	0.9017		0.84	12	TM	
3	TM	Freon 114		0.7810	0.6563	0.6257	0.5963	0.7144	0.6619	0.7653	0.7274		0.69	9.6	TM	
4	TM**	Chloromethane	1.273	1.294	1.122	0.9987	1.107	0.9571	0.9515	1.017	1.024		1.1	12	TM**	✓
5	TM*	Vinyl chloride	1.017	0.8062	0.9171	0.7933	0.9243	0.8889	0.8400	0.8838	0.7832		0.87	8.7	TM*	✓
6	TM	1,3-Butadiene													TM	
7	TM	Bromomethane		0.5466	0.5350	0.5622	0.5576	0.4723	0.4939	0.4871	0.5280		0.52	6.5	TM	
8	TM	Chloroethane		0.1468	0.1595	0.1305	0.1476	0.1460	0.1286	0.1648	0.1364		0.15	8.9	TM	
9	TM	Dichlorofluoromethane	2.086	1.836	1.758	1.685	1.955	1.731	1.666	1.804	1.657		1.8	8.0	TM	
10	TM	Trichlorofluoromethane	1.177	1.247	1.202	1.200	1.117	1.244	1.155	1.278	1.224		1.2	4.2	TM	
11		Acetonitrile		0.0265	0.0209	0.0186	0.0228	0.0197	0.0204	0.0243			0.02	13		
12	TM	Acrolein	0.0126	0.0095	0.0095	0.0089	0.0099	0.0108	0.0115	0.0116	0.0111		0.01	12	TM	
13	TML	Acetone		0.5173	0.3001	0.1522	0.1136	0.0984	0.0748	0.0831			0.19	85	TML	0.996
14	TM	Freon-113	0.5180	0.6959	0.6470	0.6691	0.6093	0.7054	0.6541	0.7721	0.6988		0.66	11	TM	
15	TM*	1,1-DCE		0.9172	0.7282	0.6314	0.7153	0.6536	0.6031	0.6749	0.6154		0.69	15	TM*	
16	TM	t-Butanol		0.0035	0.0038	0.0026	0.0033	0.0034	0.0034	0.0033			0.00	11	TM	
17	TML	Methyl Acetate		0.3214	0.3178	0.2851	0.2299	0.1879	0.1762	0.1859	0.1838		0.24	27	TML	1.000
18	TML	Iodomethane			0.3261	0.3361	0.3900	0.4347	0.5079	0.5793	0.6347		0.46	26	TML	0.999
19	TM	Acrylonitrile	0.0755	0.0573	0.0867	0.0792	0.0832	0.0712	0.0730	0.0732	0.0673		0.07	12	TM	
20	TML	Methylene chloride	6.662	3.188	1.751	0.9167	0.6969	0.6006	0.5908	0.6006	0.5474		1.7	118	TML	0.999
21	TM	Carbon disulfide	0.6983	0.6197	0.5526	0.4423	0.6771	0.5390	0.5229	0.5785	0.5137		0.57	14	TM	
22	TM	Methyl t-butyl ether (MtBE)	1.210	1.127	1.098	1.055	1.251	1.120	1.065	1.136	1.062		1.1	6.0	TM	
23	TM	Trans-1,2-DCE		0.9172	0.7282	0.6314	0.7153	0.6536	0.6031	0.6749	0.6154		0.69	15	TM	
24	TM	Diisopropyl Ether	2.209	2.032	1.971	1.863	2.346	2.115	2.028	2.012	1.884		2.1	7.5	TM	
25	TM**	1,1-DCA	1.663	1.479	1.496	1.305	1.634	1.440	1.324	1.349	1.245		1.4	10	TM**	✓
26	TM	Vinyl Acetate			0.1362	0.1346	0.0987	0.1146	0.1039	0.1079	0.0997		0.11	14	TM	
27	TM	Ethyl tert Butyl Ether	1.773	1.767	1.709	1.593	1.989	1.793	1.713	1.718	1.562		1.7	7.1	TM	
28	TM	MEK (2-Butanone)			0.4170	0.3115	0.3452	0.3214	0.3018	0.3036	0.2724		0.32	14	TM	
29	TM	Cis-1,2-DCE		1.147	0.9876	0.9207	0.9064	0.8254	0.8055	0.8290	0.7302		0.89	14	TM	
30	TM	2,2-Dichloropropane	1.405	1.569	1.407	1.217	1.470	1.293	1.237	1.233	1.118		1.3	11	TM	
31	TM*	Chloroform	1.397	1.681	1.570	1.416	1.704	1.534	1.487	1.545	1.364		1.5	7.9	TM*	✓
32	TM	Bromochloromethane	0.2439	0.2855	0.3091	0.2465	0.3172	0.2632	0.2733	0.2606	0.2274		0.27	11	TM	
33	S	Dibromofluoromethane(S)	0.8513	0.8765	0.9185	0.8004	0.8512	0.7568	0.7683	1.042	0.9600		0.87	11	S	
34	TM	1,1,1-TCA	1.331	1.576	1.493	1.410	1.670	1.461	1.473	1.410	1.469		1.5	6.7	TM	
35	TM	Cyclohexane	1.009	0.9029	1.029	0.9328	0.9606	0.9467	0.9730	0.8798	0.9394		0.95	5.0	TM	

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: _____
Case No: _____ Initial Cal. Date: 11/04/11
Matrix: _____ Instrument: Chico Initials: _____

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
36	TM	1,1-Dichloropropene	1.284	1.003	1.056	1.050	1.139	1.054	1.039	0.9451	0.9838		1.1	9.4	TM	
37	TML	2,2,4-Trimethylpentane		2.380	1.798	1.701	1.570	1.677	1.678	1.446	1.580		1.7	16	TML	0.999
38	S	1,2-DCA-D4(S)	0.8725	0.7074	0.7848	0.6932	0.7648	0.6805	0.6697	0.8325	0.8423		0.76	10	S	
39	TM	Carbon Tetrachloride	0.9592	1.167	1.148	0.9879	1.148	1.188	1.161	1.153	1.244		1.1	8.2	TM	
40	TM	Tert Amyl Methyl Ether	1.611	1.409	1.234	1.174	1.344	1.181	1.228	1.052	1.130		1.3	13	TM	
41	TM	1,2-DCA	1.149	0.8266	0.8636	0.8047	0.9407	0.8568	0.8173	0.7530	0.7842		0.87	14	TM	
42	TM	Benzene	3.004	3.057	2.758	2.596	2.877	2.607	2.598	2.318	2.501		2.7	9.0	TM	
43	TM	TCE	0.7995	0.8821	0.8688	0.7890	0.9676	0.8726	0.8612	0.8183	0.8378		0.86	6.3	TM	
44	TM	2-Pentanone	0.1540	0.1452	0.1447	0.1394	0.1700	0.1601	0.1606	0.1502	0.1549		0.15	6.2	TM	
45	TM*	1,2-Dichloropropane	0.6561	0.5852	0.6018	0.6039	0.6714	0.6241	0.6280	0.5876	0.5893		0.62	5.0	TM*	✓
46	TM	Bromodichloromethane	0.9744	0.9437	0.9067	0.7807	1.015	0.9484	0.9367	0.9244	0.9235		0.93	6.9	TM	
47	TM	Methyl Cyclohexane	0.8200	0.9241	0.7771	0.8829	0.8642	0.9381	0.9383	0.8797	0.9284		0.88	6.4	TM	
48	TM	Dibromomethane		0.2535	0.3727	0.2911	0.3909	0.3279	0.3290	0.3132	0.3112		0.32	13	TM	
49	TMQ	2-Chloroethyl vinyl ether	0.2390	0.1445	0.1062	0.1563	0.1938	0.1563	0.1709	0.1585	0.1709		0.17	22	TMQ	1.000
50	TM	1-Bromo-2-chloroethane	0.4932	0.4441	0.6188	0.4869	0.6377	0.5642	0.5837	0.5106	0.5203		0.54	12	TM	
51	TM	Cis-1,3-Dichloropropene	0.8316	0.6857	0.7235	0.6927	0.8886	0.8130	0.7369	0.7338	0.7333		0.76	9.0	TM	
52	TM*	Toluene	3.168	3.066	3.081	2.669	3.253	2.773	2.638	2.556	2.592		2.9	9.5	TM*	✓
53	TM	Trans-1,3-Dichloropropene	0.5625	0.5719	0.5136	0.5343	0.6799	0.5865	0.5777	0.5859	0.5852		0.58	8.0	TM	
54	TM	1,1,2-TCA	0.3007	0.3033	0.3189	0.2217	0.3438	0.2787	0.2635	0.2719	0.2614		0.28	13	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD													
56	S	Toluene-D8(S)	3.706	3.419	3.827	3.414	3.733	3.633	3.248	4.084	4.083		3.7	7.9	S	
57	TM	1,2-EDB	0.5758	0.5216	0.4877	0.5085	0.5640	0.5215	0.5541	0.5283	0.5240		0.53	5.3	TM	
58	TM	Tetrachloroethene		1.457	1.366	1.384	1.386	1.315	1.104	1.069	1.057		1.3	13	TM	
59	TM	1-Chlorohexane	1.492	1.395	1.285	1.343	1.353	1.340	1.335	1.311	1.345		1.4	4.4	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.9141	0.7592	0.9299	0.8543	0.9809	1.044	0.9994	0.9859	0.9825		0.94	9.3	TM	
61	TM	m&p-Xylene	2.087	1.798	1.638	1.934	1.887	1.846	1.681	1.701	1.750		1.8	7.8	TM	
62	TM	o-Xylene	1.865	1.433	1.718	1.820	1.853	1.779	1.714	1.690	1.684		1.7	7.5	TM	
63	TM	Styrene	3.167	2.407	2.696	2.785	2.853	2.770	2.677	2.615	2.604		2.7	7.6	TM	
64	S	4-Bromofluorobenzene(S)	1.434	1.328	1.259	1.252	1.220	1.144	1.142	1.480	1.435		1.3	9.8	S	
65	TM	2-Hexanone			0.2308	0.2343	0.2091	0.2098	0.1969	0.1900	0.1766		0.21	10	TM	
66	TM	1,3-Dichloropropane	0.6843	0.8877	0.8291	0.9278	0.9606	1.016	0.8892	0.8393	0.8096		0.87	11	TM	
67	TM	Dibromochloromethane		0.6557	0.5976	0.7618	0.7728	0.7772	0.7616	0.7979	0.8144		0.74	10	TM	
68	TM**	Chlorobenzene	3.209	2.710	2.562	2.560	2.907	2.827	2.608	2.502	2.535		2.7	8.5	TM**	✓
69	TM*	Ethylbenzene	5.443	4.383	4.940	4.855	4.849	4.809	4.474	4.418	4.473		4.7	7.2	TM*	✓
70	TM**Q	Bromoform	0.0982	0.1161	0.2855	0.2791	0.3149	0.3757	0.3780	0.3873	0.4250		0.30	40	TM**Q	1.00

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/04/11
Matrix: Instrument: Chico Initials:

		Compound	0.3	0.5	1	2	5	10	20	40	100		Avg	%RSD		r
71	I	1,4-Dichlorobenzene-D (IS)	ISTD													
72	TML	MIBK (methyl isobutyl ketone)			0.8091	0.7573	0.6506	0.6189	0.6055	0.5113	0.5082		0.64	18	TML	0.999
73	TM	Isopropylbenzene	10.5	9.805	9.228	9.722	9.782	9.470	9.080	8.410	8.017		9.3	8.1	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.8400	0.8839	0.8295	0.8546	0.7757	0.7733	0.7782	0.7323	0.6778		0.79	8.1	TM**	✓
75	TMQ	1,2,3-Trichloropropane		0.2712	0.1790	0.1163	0.1169	0.1211	0.0977	0.0902	0.0902		0.14	46	TMQ	1.000
76	TML	t-1,4-Dichloro-2-Butene		0.2773	0.2020	0.1653	0.1680	0.2155	0.2040	0.2008	0.1927		0.20	17	TML	1.000
77	TM	Bromobenzene	2.093	2.269	2.265	2.259	2.124	1.889	1.910	1.868	1.776		2.1	9.4	TM	
78	TM	n-Propylbenzene	12.6	11.4	10.7	11.3	11.0	10.4	9.937	9.363	8.950		11	11	TM	
79	TM	4-Ethyltoluene	7.814	7.927	7.288	8.430	7.835	7.122	7.077	6.724	6.681		7.4	8.0	TM	
80	TM	2-Chlorotoluene	7.614	8.425	7.061	7.701	7.654	6.770	6.698	6.041	5.919		7.1	12	TM	
81	TM	1,3,5-Trimethylbenzene	8.127	9.155	8.042	7.853	8.333	7.477	7.461	6.875	6.428		7.8	10	TM	
82	TM	4-Chlorotoluene	7.151	6.504	6.974	6.759	6.745	5.670	5.607	5.586	5.130		6.2	12	TM	
83	TM	Tert-Butylbenzene	8.626	8.541	8.833	8.728	8.766	8.023	7.926	7.548	7.088		8.2	7.5	TM	
84	TM	1,2,4-Trimethylbenzene	8.426	8.105	7.279	7.840	8.467	7.567	7.412	6.853	6.568		7.6	8.7	TM	
85	TM	Sec-Butylbenzene	10.8	10.8	9.448	9.951	10.8	9.961	9.791	9.030	8.879		9.9	7.6	TM	
86	TM	p-Isopropyltoluene	10.1	9.576	8.346	8.994	9.281	8.612	8.371	7.710	7.732		8.7	9.3	TM	
87	TM	Benzyl Chloride	1.764	1.570	1.170	1.285	1.524	1.466	1.538	1.505	1.513		1.5	11	TM	
88	TM	1,3-DCB	4.196	4.374	3.982	3.796	4.486	4.054	3.983	3.688	3.697		4.0	7.0	TM	
89	TM	1,4-DCB	3.854	3.998	3.642	3.642	4.095	3.813	3.735	3.547	3.639		3.8	4.8	TM	
90	TMQ	Hexachloroethane		0.7799	0.9495	0.8535	1.439	1.534	1.650	1.647	1.709		1.3	30	TMQ	1.000
91	TM	n-Butylbenzene	8.779	8.380	7.542	6.887	8.021	6.892	6.783	6.470	6.513		7.4	12	TM	
92	TM	1,2-DCB	3.058	3.418	3.390	3.493	3.743	3.405	3.213	3.116	3.181		3.3	6.4	TM	
93	TM	1,2-Dibromo-3-chloropropane		0.1040	0.1207	0.0987	0.1452	0.1086	0.1291	0.1275	0.1337		0.12	13	TM	
94	TML	1,2,4-Trichlorobenzene		0.5050	0.4280	0.2730	0.3763	0.3596	0.3118	0.2709	0.2650		0.35	25	TML	0.999
95	TMQ	Hexachlorobutadiene	2.174	1.894	1.693	1.446	1.499	1.430	1.293	1.240	1.273		1.5	20	TMQ	1.000
96	TM	Naphthalene	3.669	3.853	4.033	3.155	3.882	3.693	3.444	3.095	3.135		3.6	10	TM	
97	TMQ	1,2,3-Trichlorobenzene	1.271	0.9740	0.8179	0.9705	1.037	0.9606	0.8457	0.8040	0.7725		0.94	16	TMQ	1.000
98	TML	Dibromochlorobenzene													TML	
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C04W.D Vial: 1
Acq On : 4 Nov 11 12:17 Operator: STC
Sample : VOL STD 11-04-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.87	96	373056	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	251968	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	137408	25.00000 ppb		-0.01
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.45	111	7622	0.58751 ppb		-0.01
Spiked Amount 21.097			Recovery = 2.787%			
38) 1,2-DCA-D4(S)	12.26	65	7812	0.68806 ppb		0.00
Spiked Amount 21.225			Recovery = 3.241%			
56) Toluene-D8(S)	15.52	98	22413	0.60377 ppb		-0.02
Spiked Amount 25.808			Recovery = 2.340%			
64) 4-Bromofluorobenzene(S)	20.15	95	8671	0.66219 ppb		0.00
Spiked Amount 25.459			Recovery = 2.600%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.10	85	2521	0.20188 ppb		94
3) Freon 114	4.34	85	1171	0.11356 ppb	#	70
4) Chloromethane	4.56	50	5699	0.35273 ppb	#	76
5) Vinyl chloride	4.84	62	4553	0.34964 ppb		84
7) Bromomethane	5.74	94	3479	0.44592 ppb		87
8) Chloroethane	5.94	64	526	0.24307 ppb		92
9) Dichlorofluoromethane	6.03	67	9337	0.34808 ppb	#	75
10) Trichlorofluoromethane	6.56	101	5271	0.29315 ppb	#	57
11) Acetonitrile	7.69	41	6625	20.29369 ug/l		100
12) Acrolein	7.19	56	2827	17.89727 ppb	#	66
13) Acetone	7.30	43	4047	3.27164 ppb		96
14) Freon-113	7.48	101	2319	0.23430 ppb		86
15) 1,1-DCE	7.71	96	4680	0.45297 ppb	#	67
16) t-Butanol	7.78	59	648	13.08262 ppb	#	80
18) Iodomethane	8.21	142	1677	2.45643 ppb	#	29
19) Acrylonitrile	8.60	53	338	0.30580 ppb		90
20) Methylene chloride	8.49	84	29825	1.47076 ppb		86
21) Carbon disulfide	8.59	76	3126	0.36652 ppb		100
22) Methyl t-butyl ether (MtBE	8.95	73	5416	0.32263 ppb	#	59
23) Trans-1,2-DCE	7.71	96	4680	0.45297 ppb	#	63
24) Diisopropyl Ether	9.79	45	9890	0.32313 ppb	#	73
25) 1,1-DCA	9.82	63	7444	0.34711 ppb	#	84
26) Vinyl Acetate	9.45	43	1320	0.77833 ppb	#	59
27) Ethyl tert Butyl Ether	10.47	59	7935	0.30647 ppb	#	70
28) MEK (2-Butanone)	10.47	43	2503	0.51658 ppb	#	70
29) Cis-1,2-DCE	10.85	96	6279	0.47070 ppb	#	23
30) 2,2-Dichloropropane	10.86	77	6290	0.31748 ppb	#	84
31) Chloroform	11.11	83	6253	0.27534 ppb		98
32) Bromochloromethane	11.34	128	1092	0.27139 ppb	#	1
34) 1,1,1-TCA	11.88	97	5959	0.27034 ppb	#	86
35) Cyclohexane	12.04	56	4517	0.31778 ppb	#	35
36) 1,1-Dichloropropene	12.15	75	5750	0.36295 ppb	#	75
37) 2,2,4-Trimethylpentane	12.21	57	12107	0.42595 ppb	#	79
39) Carbon Tetrachloride	12.34	117	4294	0.25502 ppb	#	88
40) Tert Amyl Methyl Ether	12.37	73	7211	0.38274 ppb	#	70
41) 1,2-DCA	12.41	62	5143	0.39789 ppb		99
42) Benzene	12.53	78	13448	0.33355 ppb		90
43) TCE	13.57	95	3579	0.28045 ppb	#	57
44) 2-Pentanone	13.23	43	34461	15.07079 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C04W.D Vial: 1
Acq On : 4 Nov 11 12:17 Operator: STC
Sample : VOL STD 11-04-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloropropane	13.78	63	2937	0.31932 ppb	#	84
46)	Bromodichloromethane	14.14	83	4362	0.31492 ppb	#	82
47)	Methyl Cyclohexane	13.87	83	3671	0.27840 ppb		92
48)	Dibromomethane	14.19	93	1070	0.22153 ppb	#	70
49)	2-Chloroethyl vinyl ether	14.59	63	1070	0.20368 ppb	#	85
50)	1-Bromo-2-chloroethane	14.92	63	2208	0.27404 ppb		90
51)	Cis-1,3-Dichloropropene	15.02	75	3723	0.32832 ppb		92
52)	Toluene	15.67	91	14182	0.33158 ppb		82
53)	Trans-1,3-Dichloropropene	15.84	75	2518	0.29219 ppb	#	82
54)	1,1,2-TCA	16.09	83	1346	0.31664 ppb	#	65
57)	1,2-EDB	17.37	107	1741	0.32487 ppb	#	1
58)	Tetrachloroethene	16.82	164	5236	0.40996 ppb	#	75
59)	1-Chlorohexane	17.74	91	4512	0.33029 ppb		96
60)	1,1,1,2-Tetrachloroethane	18.19	131	2764	0.29209 ppb	#	71
61)	m&p-Xylene	18.40	106	12622	0.69049 ppb		96
62)	o-Xylene	19.13	106	5639	0.32370 ppb		86
63)	Styrene	19.15	104	9576	0.34798 ppb	#	61
65)	2-Hexanone	16.13	43	303	0.14539 ppb	#	19
66)	1,3-Dichloropropane	16.53	76	2069	0.23555 ppb		87
67)	Dibromochloromethane	17.02	129	1473	0.19687 ppb		82
68)	Chlorobenzene	18.13	112	9702	0.35478 ppb		92
69)	Ethylbenzene	18.25	91	16457	0.34461 ppb		85
70)	Bromoform	19.68	173	297	0.41115 ppb	#	73
72)	MIBK (methyl isobutyl keto	14.69	43	1837	-1.06803 ppb		84
73)	Isopropylbenzene	19.76	105	17317	0.33750 ppb		91
74)	1,1,2,2-Tetrachloroethane	19.92	83	1385	0.31740 ppb	#	58
75)	1,2,3-Trichloropropane	20.20	110	168	14228.99424 ppb		94
76)	t-1,4-Dichloro-2-Butene	20.25	53	204	-0.16580 ppb	#	1
77)	Bromobenzene	20.51	156	3451	0.30623 ppb		84
78)	n-Propylbenzene	20.48	91	20811	0.35632 ppb		89
79)	4-Ethyltoluene	20.67	105	12885	0.31538 ppb		95
80)	2-Chlorotoluene	20.77	91	12555	0.32181 ppb		93
81)	1,3,5-Trimethylbenzene	20.75	105	13400	0.31457 ppb		91
82)	4-Chlorotoluene	20.85	91	11792	0.34403 ppb		94
83)	Tert-Butylbenzene	21.40	119	14224	0.31441 ppb	#	74
84)	1,2,4-Trimethylbenzene	21.45	105	13893	0.33203 ppb		88
85)	Sec-Butylbenzene	21.78	105	17783	0.32528 ppb		95
86)	p-Isopropyltoluene	22.02	119	16629	0.34595 ppb		90
87)	Benzyl Chloride	22.45	91	2909	0.35717 ppb	#	87
88)	1,3-DCB	22.16	146	6918	0.31246 ppb	#	59
89)	1,4-DCB	22.31	146	6355	0.30638 ppb	#	89
90)	Hexachloroethane	23.63	117	1330	0.70462 ppb	#	50
91)	n-Butylbenzene	22.73	91	14476	0.35770 ppb		82
92)	1,2-DCB	22.96	146	5043	0.27509 ppb		95
93)	1,2-Dibromo-3-chloropropan	24.11	155	66	0.09928 ppb	#	1
94)	1,2,4-Trichlorobenzene	25.62	145	6430	2.77968 ppb	#	1
95)	Hexachlorobutadiene	25.89	223	3585	-0.09482 ppb	#	63
96)	Naphthalene	26.00	128	6049	0.30993 ppb	#	91
97)	1,2,3-Trichlorobenzene	26.37	180	2096	1297.24030 ppb		81

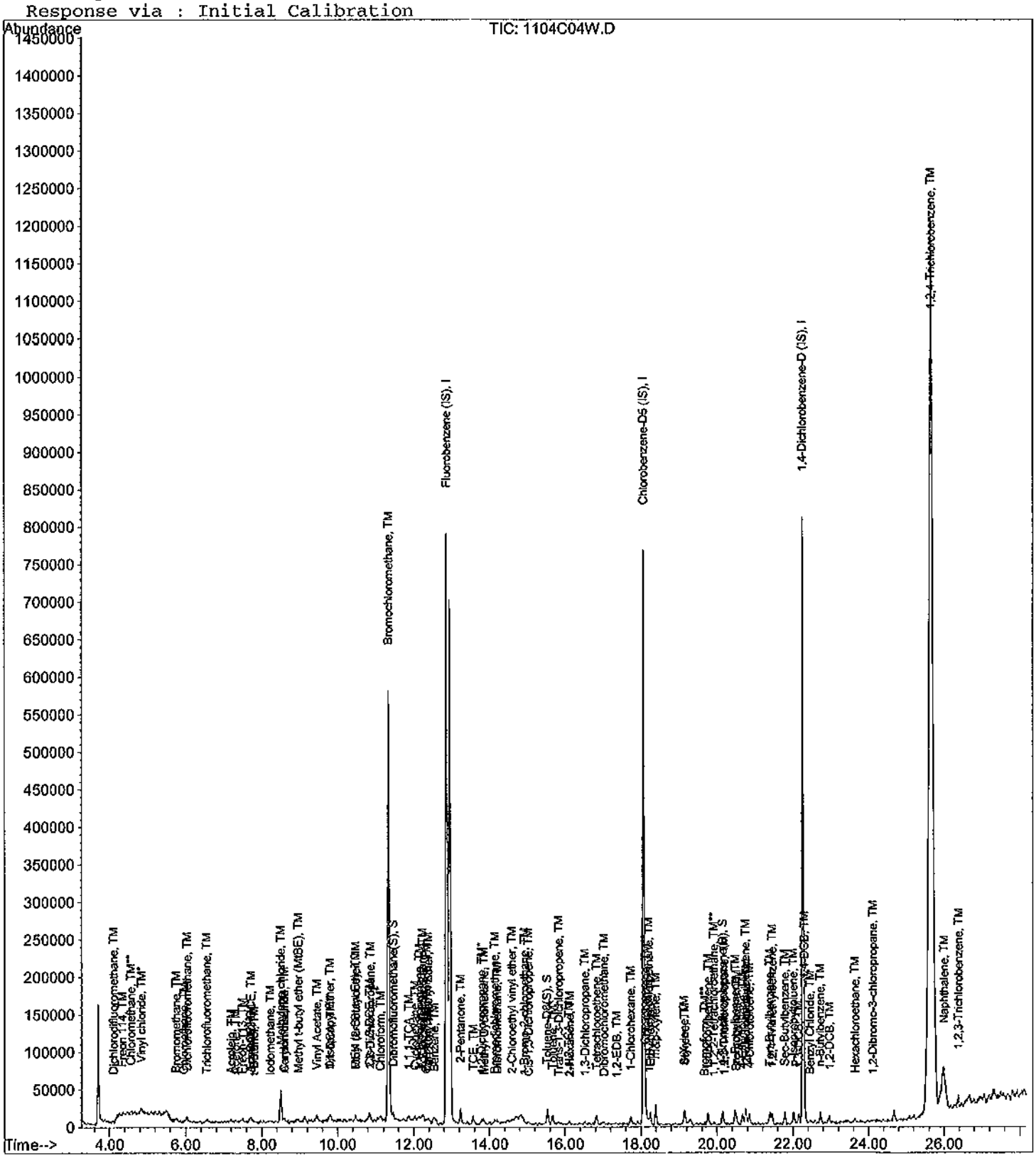
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C04W.D Vial: 1
Acq On : 4 Nov 11 12:17 Operator: STC
Sample : VOL STD 11-04-11@0.3ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C05W.D Vial: 1
Acq On : 4 Nov 11 13:00 Operator: STC
Sample : VOL STD 11-04-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.88	96	379456	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	274368	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	122072	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.45	111	13304	1.00818 ppb		0.00
Spiked Amount 21.097			Recovery =	4.778%		
38) 1,2-DCA-D4(S)	12.26	65	10737	0.92974 ppb		0.00
Spiked Amount 21.225			Recovery =	4.382%		
56) Toluene-D8(S)	15.54	98	37528	0.92842 ppb		0.00
Spiked Amount 25.808			Recovery =	3.596%		
64) 4-Bromofluorobenzene(S)	20.15	95	14569	1.02177 ppb		0.00
Spiked Amount 25.459			Recovery =	4.014%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.09	85	6225	0.49007 ppb	#	56
3) Freon 114	4.34	85	5927	0.56509 ppb	#	40
4) Chloromethane	4.57	50	9824	0.59779 ppb		89
5) Vinyl chloride	4.86	62	6118	0.46190 ppb		99
7) Bromomethane	5.77	94	4148	0.52270 ppb	#	53
8) Chloroethane	5.93	64	1114	0.50610 ppb	#	77
9) Dichlorofluoromethane	6.04	67	13931	0.51059 ppb		88
10) Trichlorofluoromethane	6.57	101	9466	0.51758 ppb	#	57
11) Acetonitrile	7.68	41	10055	30.28098 ug/l		100
12) Acrolein	7.19	56	3593	22.36303 ppb		87
13) Acetone	7.31	43	3926	3.12029 ppb	#	73
14) Freon-113	7.50	101	5281	0.52456 ppb		85
15) 1,1-DCE	7.69	96	6961	0.66237 ppb		70
16) t-Butanol	7.79	59	1332	26.43849 ppb		95
17) Methyl Acetate	8.23	43	2439	0.29578 ppb	#	63
18) Iodomethane	8.20	142	2398	2.52742 ppb	#	93
19) Acrylonitrile	8.59	53	435	0.38692 ppb		85
20) Methylene chloride	8.51	84	24194	0.72008 ppb		88
21) Carbon disulfide	8.59	76	4703	0.54211 ppb	#	88
22) Methyl t-butyl ether (MtBE	8.93	73	8555	0.50103 ppb	#	86
23) Trans-1,2-DCE	7.69	96	6961	0.66237 ppb	#	66
24) Diisopropyl Ether	9.78	45	15422	0.49537 ppb	#	95
25) 1,1-DCA	9.82	63	11227	0.51467 ppb	#	83
26) Vinyl Acetate	9.46	43	1673	0.96984 ppb	#	67
27) Ethyl tert Butyl Ether	10.49	59	13411	0.50924 ppb		99
28) MEK (2-Butanone)	10.45	43	1614	0.32749 ppb	#	73
29) Cis-1,2-DCE	10.85	96	8702	0.64134 ppb		90
30) 2,2-Dichloropropane	10.84	77	11904	0.59071 ppb	#	87
31) Chloroform	11.13	83	12758	0.55231 ppb		99
32) Bromochloromethane	11.35	128	2167	0.52948 ppb	#	34
34) 1,1,1-TCA	11.87	97	11964	0.53361 ppb	#	72
35) Cyclohexane	12.04	56	6852	0.47392 ppb	#	83
36) 1,1-Dichloropropene	12.14	75	7611	0.47232 ppb		90
37) 2,2,4-Trimethylpentane	12.22	57	18060	0.66787 ppb	#	90
39) Carbon Tetrachloride	12.33	117	8856	0.51708 ppb		97
40) Tert Amyl Methyl Ether	12.39	73	10694	0.55804 ppb	#	84
41) 1,2-DCA	12.41	62	6273	0.47713 ppb		97
42) Benzene	12.54	78	23197	0.56566 ppb	#	88
43) TCE	13.56	95	6694	0.51570 ppb	#	76

(#) = qualifier out of range (m) = manual integration

Data File : M:\CHICO\DATA\C111104\1104C05W.D Vial: 1
Acq On : 4 Nov 11 13:00 Operator: STC
Sample : VOL STD 11-04-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.23	43	55093	23.68739	ppb		98
45)	1,2-Dichloropropane	13.80	63	4441	0.47470	ppb		97
46)	Bromodichloromethane	14.15	83	7162	0.50836	ppb		94
47)	Methyl Cyclohexane	13.86	83	7013	0.52288	ppb		100
48)	Dibromomethane	14.20	93	1924	0.39162	ppb	#	74
49)	2-Chloroethyl vinyl ether	14.62	63	1097	0.20735	ppb	#	85
50)	1-Bromo-2-chloroethane	14.93	63	3370	0.41121	ppb	#	56
51)	Cis-1,3-Dichloropropene	15.04	75	5204	0.45118	ppb	#	75
52)	Toluene	15.66	91	23272	0.53492	ppb		98
53)	Trans-1,3-Dichloropropene	15.83	75	4340	0.49513	ppb		83
54)	1,1,2-TCA	16.13	83	2302	0.53240	ppb	#	56
57)	1,2-EDB	17.37	107	2862	0.49045	ppb	#	81
58)	Tetrachloroethene	16.83	164	7995	0.57488	ppb	#	78
59)	1-Chlorohexane	17.74	91	7655	0.51461	ppb	#	81
60)	1,1,1,2-Tetrachloroethane	18.20	131	4166	0.40430	ppb	#	77
61)	m&p-Xylene	18.38	106	19729	0.99117	ppb		65
62)	o-Xylene	19.14	106	7864	0.41457	ppb		87
63)	Styrene	19.15	104	13209	0.44081	ppb		94
65)	2-Hexanone	16.15	43	1303	0.57416	ppb	#	59
66)	1,3-Dichloropropane	16.53	76	4871	0.50927	ppb		98
67)	Dibromochloromethane	17.00	129	3598	0.44162	ppb		79
68)	Chlorobenzene	18.14	112	14870	0.49937	ppb		87
69)	Ethylbenzene	18.25	91	24052	0.46253	ppb		89
70)	Bromoform	19.69	173	637	0.48847	ppb	#	34
72)	MIBK (methyl isobutyl keto	14.70	43	2659	-0.64769	ppb		97
73)	Isopropylbenzene	19.76	105	23939	0.52518	ppb	#	88
74)	1,1,2,2-Tetrachloroethane	19.94	83	2158	0.55668	ppb	#	89
75)	1,2,3-Trichloropropane	20.19	110	662	0.06423	ppb	#	40
76)	t-1,4-Dichloro-2-Butene	20.27	53	677	0.35958	ppb	#	52
77)	Bromobenzene	20.51	156	5539	0.55327	ppb		97
78)	n-Propylbenzene	20.47	91	27836	0.53648	ppb	#	84
79)	4-Ethyltoluene	20.66	105	19354	0.53324	ppb		94
80)	2-Chlorotoluene	20.77	91	20569	0.59346	ppb		85
81)	1,3,5-Trimethylbenzene	20.75	105	22352	0.59065	ppb		95
82)	4-Chlorotoluene	20.85	91	15880	0.52150	ppb		84
83)	Tert-Butylbenzene	21.40	119	20852	0.51882	ppb		92
84)	1,2,4-Trimethylbenzene	21.45	105	19787	0.53230	ppb		87
85)	Sec-Butylbenzene	21.79	105	26453	0.54466	ppb		91
86)	p-Isopropyltoluene	22.02	119	23380	0.54751	ppb		99
87)	Benzyl Chloride	22.46	91	3833	0.52975	ppb	#	66
88)	1,3-DCB	22.16	146	10678	0.54287	ppb		96
89)	1,4-DCB	22.33	146	9762	0.52976	ppb		86
90)	Hexachloroethane	23.60	117	1904	0.79427	ppb	#	57
91)	n-Butylbenzene	22.72	91	20460	0.56908	ppb	#	83
92)	1,2-DCB	22.96	146	8345	0.51240	ppb		98
93)	1,2-Dibromo-3-chloropropan	24.17	155	254	0.43006	ppb	#	7
94)	1,2,4-Trichlorobenzene	25.64	145	1233	-0.72416	ppb	#	50
95)	Hexachlorobutadiene	25.89	223	4625	0.14590	ppb	#	80
96)	Naphthalene	25.99	128	9406	0.54248	ppb	#	82
97)	1,2,3-Trichlorobenzene	26.36	180	2378	0.07698	ppb	#	84

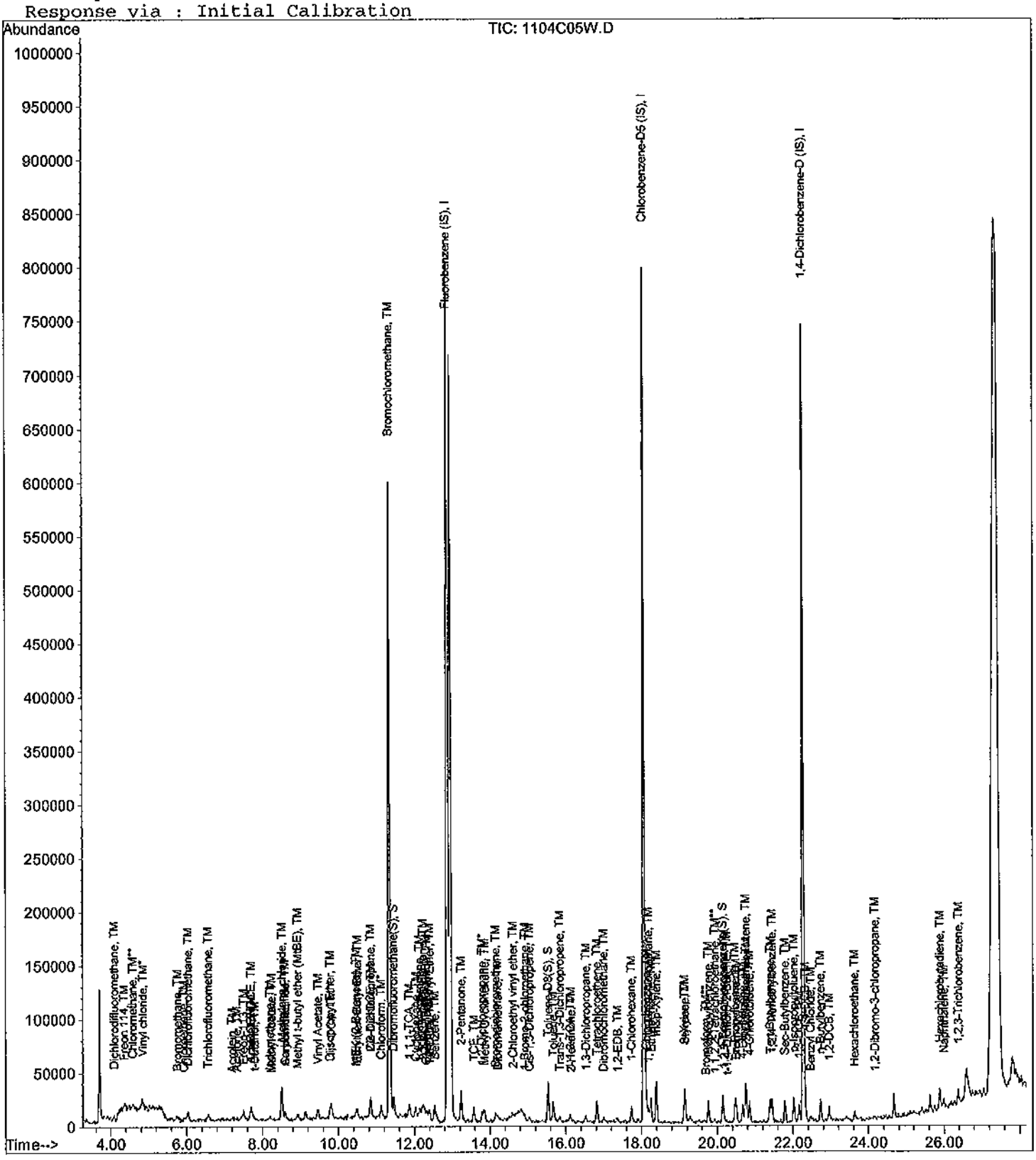
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C05W.D Vial: 1
Acq On : 4 Nov 11 13:00 Operator: STC
Sample : VOL STD 11-04-11@0.5ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C06W.D Vial: 1
Acq On : 4 Nov 11 13:43 Operator: STC
Sample : VOL STD 11-04-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.87	96	363392	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	242560	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	120560	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.46	111	26701	2.11286	ppb		0.00
Spiked Amount 21.097			Recovery = 10.016%				
38) 1,2-DCA-D4(S)	12.25	65	22815	2.06292	ppb		-0.01
Spiked Amount 21.225			Recovery = 9.720%				
56) Toluene-D8(S)	15.53	98	74261	2.07808	ppb		-0.01
Spiked Amount 25.808			Recovery = 8.052%				
64) 4-Bromofluorobenzene(S)	20.15	95	24424	1.93755	ppb		0.00
Spiked Amount 25.459			Recovery = 7.612%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.09	85	11317	0.93034	ppb		88
3) Freon 114	4.37	85	9540	0.94976	ppb		92
4) Chloromethane	4.58	50	16314	1.03659	ppb		99
5) Vinyl chloride	4.84	62	13331	1.05097	ppb	#	68
7) Bromomethane	5.75	94	7776	1.02318	ppb		96
8) Chloroethane	5.96	64	2319	1.10012	ppb		92
9) Dichlorofluoromethane	6.03	67	25557	0.97810	ppb		100
10) Trichlorofluoromethane	6.57	101	17467	0.99729	ppb		96
11) Acetonitrile	7.69	41	15197	47.78941	ug/l		100
12) Acrolein	7.19	56	6910	44.90944	ppb		96
13) Acetone	7.29	43	4362	3.62007	ppb	#	1
14) Freon-113	7.50	101	9404	0.97539	ppb	#	89
15) 1,1-DCE	7.71	96	10585	1.05174	ppb		91
16) t-Butanol	7.80	59	2733	56.64454	ppb	#	82
17) Methyl Acetate	8.23	43	4620	1.15730	ppb	#	88
18) Iodomethane	8.19	142	4740	2.78908	ppb		87
19) Acrylonitrile	8.58	53	1260	1.17027	ppb	#	36
20) Methylene chloride	8.50	84	25453	1.01144	ppb		98
21) Carbon disulfide	8.59	76	8033	0.96689	ppb	#	77
22) Methyl t-butyl ether (MtBE	8.92	73	15960	0.97603	ppb	#	80
23) Trans-1,2-DCE	7.71	96	10585	1.05174	ppb		92
24) Diisopropyl Ether	9.79	45	28656	0.96115	ppb	#	86
25) 1,1-DCA	9.83	63	21752	1.04124	ppb	#	87
26) Vinyl Acetate	9.46	43	1980	1.19855	ppb		85
27) Ethyl tert Butyl Ether	10.47	59	24840	0.98491	ppb		92
28) MEK (2-Butanone)	10.48	43	6062	1.28438	ppb	#	91
29) Cis-1,2-DCE	10.85	96	14356	1.10481	ppb	#	64
30) 2,2-Dichloropropane	10.85	77	20456	1.05995	ppb	#	85
31) Chloroform	11.13	83	22815	1.03135	ppb		92
32) Bromochloromethane	11.34	128	4493	1.14633	ppb	#	72
34) 1,1,1-TCA	11.87	97	21709	1.01106	ppb	#	76
35) Cyclohexane	12.03	56	14954	1.08002	ppb	#	74
36) 1,1-Dichloropropene	12.14	75	15352	0.99482	ppb	#	88
37) 2,2,4-Trimethylpentane	12.22	57	26136	1.05657	ppb		96
39) Carbon Tetrachloride	12.34	117	16684	1.01720	ppb	#	75
40) Tert Amyl Methyl Ether	12.37	73	17931	0.97704	ppb	#	92
41) 1,2-DCA	12.41	62	12553	0.99700	ppb		96
42) Benzene	12.53	78	40089	1.02078	ppb		93
43) TCE	13.58	95	12629	1.01594	ppb	#	76

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C06W.D Vial: 1
Acq On : 4 Nov 11 13:43 Operator: STC
Sample : VOL STD 11-04-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.24	43	105157	47.21120	ppb	#	88
45)	1,2-Dichloropropane	13.80	63	8747	0.97629	ppb	#	94
46)	Bromodichloromethane	14.15	83	13180	0.97687	ppb	#	77
47)	Methyl Cyclohexane	13.85	83	11296	0.87945	ppb	#	70
48)	Dibromomethane	14.20	93	5418	1.15155	ppb	#	59
49)	2-Chloroethyl vinyl ether	14.60	63	1544	0.42607	ppb	#	46
50)	1-Bromo-2-chloroethane	14.91	63	8994	1.14597	ppb		99
51)	Cis-1,3-Dichloropropene	15.05	75	10517	0.95212	ppb	#	60
52)	Toluene	15.68	91	44786	1.07495	ppb		88
53)	Trans-1,3-Dichloropropene	15.83	75	7466	0.88941	ppb		83
54)	1,1,2-TCA	16.10	83	4636	1.11960	ppb	#	53
57)	1,2-EDB	17.36	107	4732	0.91725	ppb	#	81
58)	Tetrachloroethene	16.83	164	13253	1.07791	ppb		92
59)	1-Chlorohexane	17.74	91	12463	0.94771	ppb	#	71
60)	1,1,1,2-Tetrachloroethane	18.19	131	9022	0.99038	ppb	#	78
61)	m&p-Xylene	18.39	106	31780	1.80597	ppb		99
62)	o-Xylene	19.13	106	16664	0.99369	ppb		85
63)	Styrene	19.15	104	26160	0.98748	ppb		92
65)	2-Hexanone	16.14	43	2239	1.11599	ppb	#	72
66)	1,3-Dichloropropane	16.54	76	8044	0.95130	ppb	#	77
67)	Dibromochloromethane	17.01	129	5798	0.80497	ppb	#	65
68)	Chlorobenzene	18.15	112	24859	0.94429	ppb		88
69)	Ethylbenzene	18.24	91	47931	1.04259	ppb	#	81
70)	Bromoform	19.69	173	2770	1.10330	ppb	#	70
72)	MIBK (methyl isobutyl keto	14.72	43	3902	-0.11892	ppb	#	61
73)	Isopropylbenzene	19.77	105	44501	0.98851	ppb		95
74)	1,1,2,2-Tetrachloroethane	19.93	83	4000	1.04479	ppb	#	49
75)	1,2,3-Trichloropropane	20.19	110	863	0.54942	ppb	#	60
76)	t-1,4-Dichloro-2-Butene	20.25	53	974	0.68726	ppb	#	72
77)	Bromobenzene	20.52	156	10924	1.10484	ppb		95
78)	n-Propylbenzene	20.48	91	51506	1.00512	ppb		93
79)	4-Ethyltoluene	20.68	105	35145	0.98045	ppb		95
80)	2-Chlorotoluene	20.77	91	34051	0.99476	ppb		92
81)	1,3,5-Trimethylbenzene	20.76	105	38780	1.03761	ppb		88
82)	4-Chlorotoluene	20.84	91	33630	1.11826	ppb		93
83)	Tert-Butylbenzene	21.40	119	42596	1.07314	ppb		98
84)	1,2,4-Trimethylbenzene	21.45	105	35102	0.95614	ppb		92
85)	Sec-Butylbenzene	21.79	105	45560	0.94983	ppb	#	86
86)	p-Isopropyltoluene	22.02	119	40247	0.95432	ppb		96
87)	Benzyl Chloride	22.47	91	5644	0.78983	ppb	#	75
88)	1,3-DCB	22.16	146	19204	0.98858	ppb		90
89)	1,4-DCB	22.32	146	17561	0.96494	ppb	#	78
90)	Hexachloroethane	23.63	117	4579	1.13327	ppb		91
91)	n-Butylbenzene	22.74	91	36370	1.02430	ppb		87
92)	1,2-DCB	22.95	146	16350	1.01651	ppb		84
93)	1,2-Dibromo-3-chloropropan	24.18	155	582	0.99778	ppb	#	59
94)	1,2,4-Trichlorobenzene	25.62	145	2064	-0.05389	ppb		79
95)	Hexachlorobutadiene	25.89	223	8162	0.75407	ppb		95
96)	Naphthalene	25.99	128	19449	1.13577	ppb		99
97)	1,2,3-Trichlorobenzene	26.38	180	3944	0.47493	ppb		82

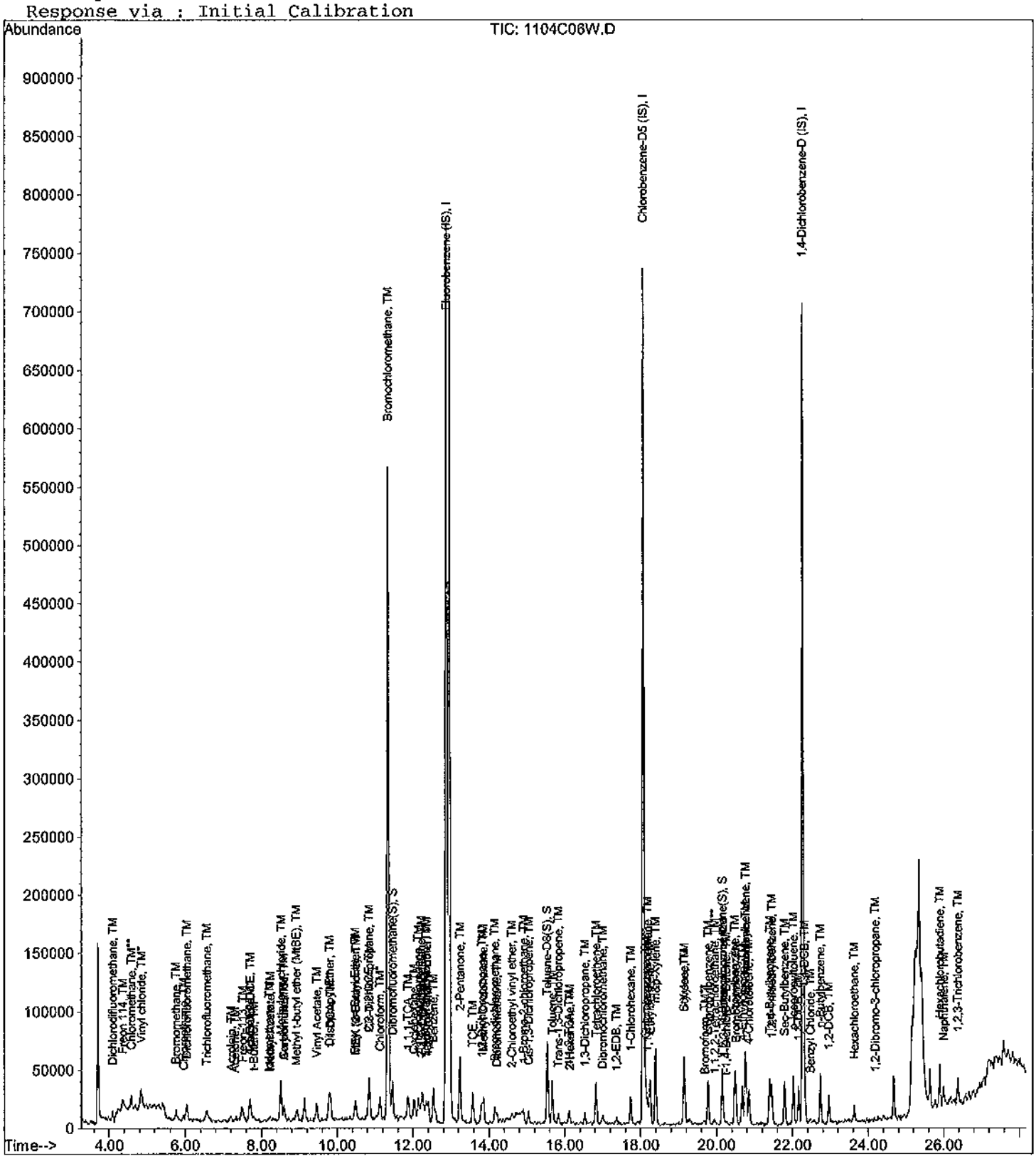
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C06W.D Vial: 1
Acq On : 4 Nov 11 13:43 Operator: STC
Sample : VOL STD 11-04-11@1.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C07W.D
Acq On : 4 Nov 11 14:26
Sample : VOL STD 11-04-11@2.0ug/L
Misc : Water 10mLw/ IS:10-30-11

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.88	96	405440	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	254080	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	128752	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.46	111	51919	3.68229 ppb		0.00
Spiked Amount 21.097			Recovery	= 17.452%		
38) 1,2-DCA-D4(S)	12.26	65	44969	3.64439 ppb		0.00
Spiked Amount 21.225			Recovery	= 17.168%		
56) Toluene-D8(S)	15.54	98	138796	3.70789 ppb		0.00
Spiked Amount 25.808			Recovery	= 14.367%		
64) 4-Bromofluorobenzene(S)	20.15	95	50883	3.85352 ppb		0.00
Spiked Amount 25.459			Recovery	= 15.138%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.10	85	27062	1.99397 ppb		99
3) Freon 114	4.36	85	20296	1.81103 ppb		95
4) Chloromethane	4.58	50	32393	1.84478 ppb		91
5) Vinyl chloride	4.84	62	25730	1.81809 ppb		98
7) Bromomethane	5.76	94	18236	2.15068 ppb		90
8) Chloroethane	5.94	64	4232	1.79943 ppb		98
9) Dichlorofluoromethane	6.03	67	54646	1.87447 ppb		96
10) Trichlorofluoromethane	6.56	101	38915	1.99144 ppb		95
11) Acetonitrile	7.69	41	22571	63.61703 ug/l		100
12) Acrolein	7.20	56	10810	62.97005 ppb		84
13) Acetone	7.32	43	4938	3.67309 ppb	#	73
14) Freon-113	7.50	101	21701	2.01741 ppb		89
15) 1,1-DCE	7.71	96	20479	1.82379 ppb		95
16) t-Butanol	7.80	59	3146	58.44211 ppb	#	80
17) Methyl Acetate	8.24	43	9246	2.54036 ppb		99
18) Iodomethane	8.20	142	10901	3.32776 ppb		83
19) Acrylonitrile	8.58	53	2568	2.13776 ppb	#	46
20) Methylene chloride	8.49	84	29733	1.16412 ppb		94
21) Carbon disulfide	8.59	76	14346	1.54768 ppb		97
22) Methyl t-butyl ether (MtBE	8.93	73	34227	1.87606 ppb	#	91
23) Trans-1,2-DCE	7.71	96	20479	1.82379 ppb		93
24) Diisopropyl Ether	9.79	45	60417	1.81628 ppb	#	93
25) 1,1-DCA	9.83	63	42340	1.81658 ppb		92
26) Vinyl Acetate	9.46	43	4367	2.36931 ppb		83
27) Ethyl tert Butyl Ether	10.48	59	51673	1.83636 ppb		95
28) MEK (2-Butanone)	10.49	43	10102	1.91838 ppb		95
29) Cis-1,2-DCE	10.85	96	29863	2.05986 ppb		83
30) 2,2-Dichloropropane	10.85	77	39482	1.83364 ppb		91
31) Chloroform	11.13	83	45920	1.86053 ppb		96
32) Bromochloromethane	11.36	128	7996	1.82851 ppb		94
34) 1,1,1-TCA	11.87	97	45731	1.90896 ppb		96
35) Cyclohexane	12.03	56	30255	1.95849 ppb	#	74
36) 1,1-Dichloropropene	12.14	75	34068	1.97867 ppb		93
37) 2,2,4-Trimethylpentane	12.21	57	55159	2.08114 ppb	#	85
39) Carbon Tetrachloride	12.33	117	32043	1.75101 ppb		95
40) Tert Amyl Methyl Ether	12.38	73	38088	1.86013 ppb		95
41) 1,2-DCA	12.41	62	26100	1.85795 ppb	#	93
42) Benzene	12.54	78	84212	1.92190 ppb		95
43) TCE	13.57	95	25590	1.84509 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C07W.D Vial: 1
Acq On : 4 Nov 11 14:26 Operator: STC
Sample : VOL STD 11-04-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

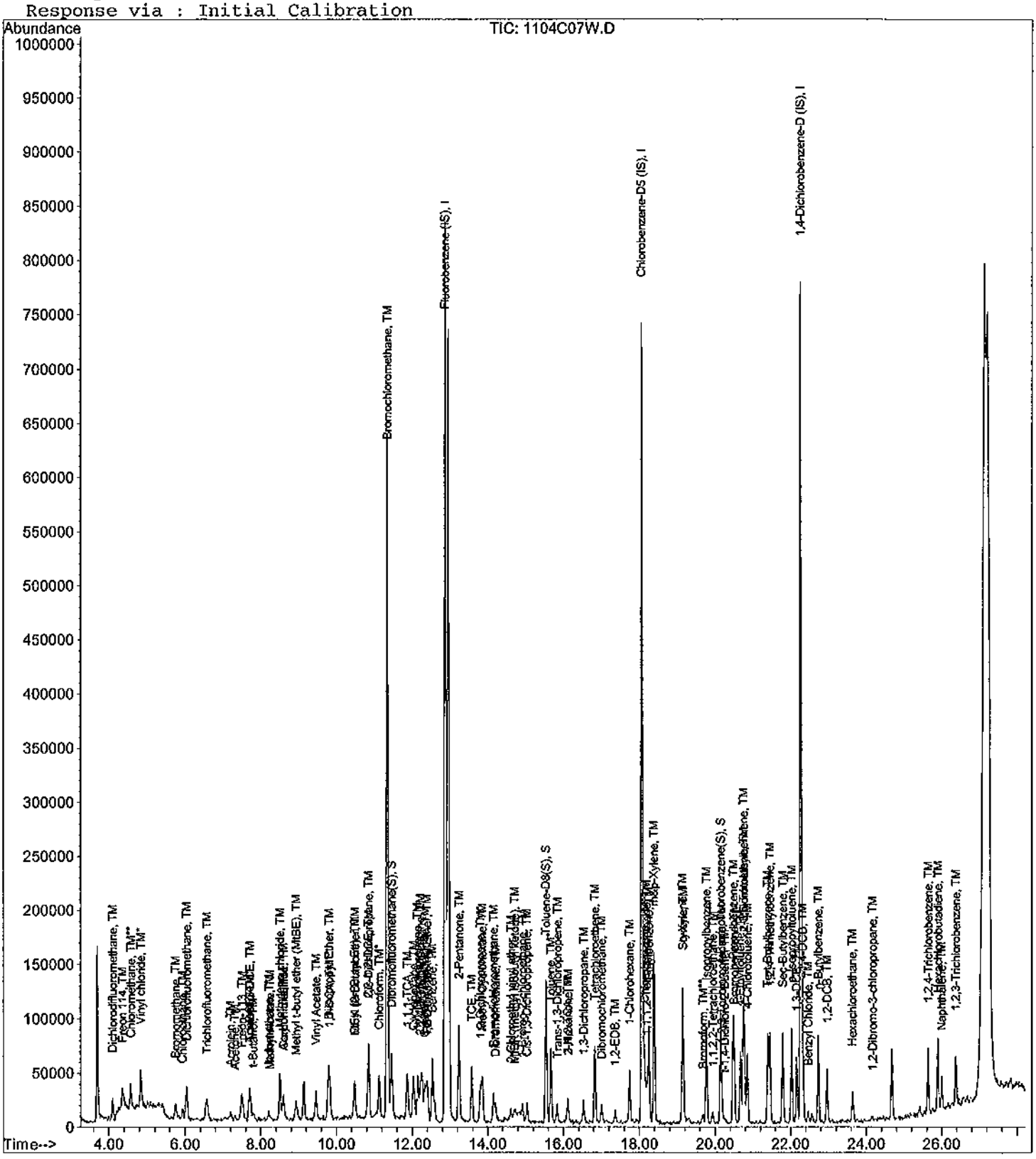
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.23	43	169607	68.24948	ppb		97
45)	1,2-Dichloropropane	13.80	63	19588	1.95957	ppb	#	91
46)	Bromodichloromethane	14.15	83	25321	1.68209	ppb	#	90
47)	Methyl Cyclohexane	13.85	83	28638	1.99837	ppb		96
48)	Dibromomethane	14.21	93	9441	1.79851	ppb		76
49)	2-Chloroethyl vinyl ether	14.62	63	5069	1.75350	ppb	#	78
50)	1-Bromo-2-chloroethane	14.91	63	15793	1.80357	ppb		93
51)	Cis-1,3-Dichloropropene	15.03	75	22467	1.82302	ppb		99
52)	Toluene	15.67	91	86572	1.86239	ppb		97
53)	Trans-1,3-Dichloropropene	15.85	75	17331	1.85048	ppb	#	77
54)	1,1,2-TCA	16.12	83	7190	1.55632	ppb	#	65
57)	1,2-EDB	17.36	107	10335	1.91250	ppb	#	72
58)	Tetrachloroethene	16.82	164	28124	2.18371	ppb		95
59)	1-Chlorohexane	17.74	91	27299	1.98174	ppb		94
60)	1,1,1,2-Tetrachloroethane	18.20	131	17365	1.81980	ppb		93
61)	m&p-Xylene	18.39	106	78641	4.26633	ppb		98
62)	o-Xylene	19.14	106	36995	2.10602	ppb		98
63)	Styrene	19.16	104	56601	2.03969	ppb		96
65)	2-Hexanone	16.14	43	4763	2.26639	ppb		89
66)	1,3-Dichloropropane	16.53	76	18858	2.12907	ppb		88
67)	Dibromochloromethane	17.02	129	15484	2.05227	ppb		89
68)	Chlorobenzene	18.14	112	52036	1.88701	ppb		87
69)	Ethylbenzene	18.26	91	98687	2.04931	ppb		95
70)	Bromoform	19.68	173	5673	1.83889	ppb		95
72)	MIBK (methyl isobutyl keto	14.70	43	7800	1.29079	ppb		99
73)	Isopropylbenzene	19.77	105	100142	2.08295	ppb		96
74)	1,1,2,2-Tetrachloroethane	19.93	83	8802	2.15277	ppb	#	63
75)	1,2,3-Trichloropropane	20.19	110	1198	1.14964	ppb	#	46
76)	t-1,4-Dichloro-2-Butene	20.27	53	1703	1.35322	ppb	#	61
77)	Bromobenzene	20.52	156	23264	2.20318	ppb		84
78)	n-Propylbenzene	20.48	91	116443	2.12776	ppb		96
79)	4-Ethyltoluene	20.67	105	86828	2.26815	ppb		93
80)	2-Chlorotoluene	20.77	91	79320	2.16981	ppb		92
81)	1,3,5-Trimethylbenzene	20.75	105	80883	2.02644	ppb		93
82)	4-Chlorotoluene	20.86	91	69620	2.16771	ppb		85
83)	Tert-Butylbenzene	21.40	119	89897	2.12071	ppb		85
84)	1,2,4-Trimethylbenzene	21.46	105	80754	2.05969	ppb		93
85)	Sec-Butylbenzene	21.80	105	102495	2.00084	ppb		100
86)	p-Isopropyltoluene	22.03	119	92643	2.05693	ppb		91
87)	Benzyl Chloride	22.47	91	13240	1.73493	ppb		98
88)	1,3-DCB	22.16	146	39095	1.88448	ppb		98
89)	1,4-DCB	22.33	146	37516	1.93026	ppb		90
90)	Hexachloroethane	23.62	117	8791	1.59199	ppb		93
91)	n-Butylbenzene	22.73	91	70934	1.87062	ppb		95
92)	1,2-DCB	22.97	146	35979	2.09456	ppb	#	80
93)	1,2-Dibromo-3-chloropropan	24.18	155	1017	1.63261	ppb	#	52
94)	1,2,4-Trichlorobenzene	25.64	145	2812	0.39684	ppb	#	56
95)	Hexachlorobutadiene	25.90	223	14897	1.73280	ppb		89
96)	Naphthalene	25.99	128	32493	1.77677	ppb		94
97)	1,2,3-Trichlorobenzene	26.37	180	9996	1.82764	ppb		89

(#) = qualifier out of range (m) = manual integration

Data File : M:\CHICO\DATA\C111104\1104C07W.D Vial: 1
Acq On : 4 Nov 11 14:26 Operator: STC
Sample : VOL STD 11-04-11@2.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C08W.D Vial: 1
Acq On : 4 Nov 11 15:10 Operator: STC
Sample : VOL STD 11-04-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.88	96	342528	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	236800	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	124656	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.47	111	116622	9.79046 ppb		0.00
Spiked Amount 21.097			Recovery = 46.404%			
38) 1,2-DCA-D4(S)	12.26	65	104785	10.05173 ppb		0.00
Spiked Amount 21.225			Recovery = 47.359%			
56) Toluene-D8(S)	15.54	98	353632	10.13655 ppb		0.00
Spiked Amount 25.808			Recovery = 39.278%			
64) 4-Bromofluorobenzene(S)	20.14	95	115574	9.39148 ppb		0.00
Spiked Amount 25.459			Recovery = 36.886%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.10	85	44758	3.90355 ppb		99
3) Freon 114	4.37	85	40847	4.31426 ppb		89
4) Chloromethane	4.58	50	75808	5.11022 ppb		98
5) Vinyl chloride	4.85	62	63322	5.29617 ppb		98
7) Bromomethane	5.75	94	38201	5.33275 ppb		100
8) Chloroethane	5.95	64	10110	5.08828 ppb	#	90
9) Dichlorofluoromethane	6.03	67	133932	5.43796 ppb		99
10) Trichlorofluoromethane	6.55	101	76503	4.63403 ppb		86
11) Acetonitrile	7.68	41	31305	104.43999 ug/l		100
12) Acrolein	7.19	56	13534	93.31791 ppb		99
13) Acetone	7.32	43	7782	6.85175 ppb	#	71
14) Freon-113	7.50	101	41742	4.59322 ppb		93
15) 1,1-DCE	7.72	96	49004	5.16569 ppb		95
16) t-Butanol	7.81	59	4581	100.72981 ppb	#	61
17) Methyl Acetate	8.23	43	15748	5.71604 ppb	#	80
18) Iodomethane	8.20	142	26716	5.31661 ppb	#	86
19) Acrylonitrile	8.60	53	5699	5.61556 ppb		77
20) Methylene chloride	8.51	84	47744	4.22712 ppb		97
21) Carbon disulfide	8.59	76	46384	5.92310 ppb		96
22) Methyl t-butyl ether (MtBE	8.94	73	85722	5.56162 ppb		96
23) Trans-1,2-DCE	7.72	96	49004	5.16569 ppb		95
24) Diisopropyl Ether	9.79	45	160710	5.71870 ppb		98
25) 1,1-DCA	9.82	63	111916	5.68362 ppb	#	90
26) Vinyl Acetate	9.46	43	6763	4.34318 ppb	#	76
27) Ethyl tert Butyl Ether	10.48	59	136225	5.73034 ppb		98
28) MEK (2-Butanone)	10.47	43	23651	5.31628 ppb		99
29) Cis-1,2-DCE	10.86	96	62091	5.06949 ppb		93
30) 2,2-Dichloropropane	10.85	77	100729	5.53732 ppb		96
31) Chloroform	11.13	83	116745	5.59892 ppb		93
32) Bromochloromethane	11.35	128	21732	5.88239 ppb		79
34) 1,1,1-TCA	11.87	97	114421	5.65356 ppb		85
35) Cyclohexane	12.04	56	65806	5.04221 ppb		89
36) 1,1-Dichloropropene	12.14	75	78057	5.36623 ppb		91
37) 2,2,4-Trimethylpentane	12.22	57	107532	4.92340 ppb		96
39) Carbon Tetrachloride	12.34	117	78677	5.08900 ppb		92
40) Tert Amyl Methyl Ether	12.40	73	92058	5.32167 ppb		99
41) 1,2-DCA	12.42	62	64446	5.43027 ppb	#	89
42) Benzene	12.53	78	197081	5.32392 ppb		98
43) TCE	13.58	95	66285	5.65709 ppb		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C08W.D Vial: 1
Acq On : 4 Nov 11 15:10 Operator: STC
Sample : VOL STD 11-04-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.24	43	232888	110.92596	ppb		99
45)	1,2-Dichloropropane	13.80	63	45996	5.44654	ppb	#	90
46)	Bromodichloromethane	14.16	83	69553	5.46908	ppb	#	95
47)	Methyl Cyclohexane	13.86	83	59203	4.88999	ppb		99
48)	Dibromomethane	14.21	93	26776	6.03768	ppb		98
49)	2-Chloroethyl vinyl ether	14.62	63	13278	5.95454	ppb	#	75
50)	1-Bromo-2-chloroethane	14.92	63	43687	5.90542	ppb		97
51)	Cis-1,3-Dichloropropene	15.05	75	60874	5.84667	ppb	#	81
52)	Toluene	15.68	91	222841	5.67439	ppb		100
53)	Trans-1,3-Dichloropropene	15.85	75	46577	5.88658	ppb		99
54)	1,1,2-TCA	16.11	83	23550	6.03379	ppb		82
57)	1,2-EDB	17.37	107	26711	5.30358	ppb	#	81
58)	Tetrachloroethene	16.84	164	65659	5.47017	ppb		95
59)	1-Chlorohexane	17.75	91	64058	4.98955	ppb		94
60)	1,1,1,2-Tetrachloroethane	18.21	131	46457	5.22383	ppb		82
61)	m&p-Xylene	18.39	106	178767	10.40596	ppb		99
62)	o-Xylene	19.15	106	87743	5.35947	ppb		94
63)	Styrene	19.16	104	135120	5.22456	ppb		100
65)	2-Hexanone	16.15	43	9905	5.05705	ppb	#	74
66)	1,3-Dichloropropane	16.54	76	45496	5.51134	ppb		90
67)	Dibromochloromethane	17.01	129	36601	5.20514	ppb		100
68)	Chlorobenzene	18.14	112	137665	5.35653	ppb		97
69)	Ethylbenzene	18.26	91	229662	5.11712	ppb		100
70)	Bromoform	19.68	173	14913	4.56560	ppb		81
72)	MIBK (methyl isobutyl keto	14.70	43	16221	4.76536	ppb	#	70
73)	Isopropylbenzene	19.78	105	243877	5.23930	ppb		97
74)	1,1,2,2-Tetrachloroethane	19.94	83	19338	4.88505	ppb	#	68
75)	1,2,3-Trichloropropane	20.20	110	2914	5.08581	ppb		97
76)	t-1,4-Dichloro-2-Butene	20.25	53	4188	3.98826	ppb	#	75
77)	Bromobenzene	20.51	156	52962	5.18049	ppb		96
78)	n-Propylbenzene	20.48	91	274382	5.17853	ppb		92
79)	4-Ethyltoluene	20.68	105	195340	5.27042	ppb		95
80)	2-Chlorotoluene	20.77	91	190818	5.39137	ppb		96
81)	1,3,5-Trimethylbenzene	20.75	105	207757	5.37617	ppb		97
82)	4-Chlorotoluene	20.85	91	168165	5.40808	ppb		98
83)	Tert-Butylbenzene	21.39	119	218550	5.32509	ppb		89
84)	1,2,4-Trimethylbenzene	21.46	105	211097	5.56109	ppb		99
85)	Sec-Butylbenzene	21.80	105	270260	5.44920	ppb		99
86)	p-Isopropyltoluene	22.03	119	231392	5.30636	ppb		99
87)	Benzyl Chloride	22.47	91	38003	5.14343	ppb		95
88)	1,3-DCB	22.17	146	111833	5.56777	ppb		97
89)	1,4-DCB	22.33	146	102082	5.42488	ppb		97
90)	Hexachloroethane	23.64	117	35887	4.91173	ppb		79
91)	n-Butylbenzene	22.74	91	199976	5.44691	ppb		91
92)	1,2-DCB	22.97	146	93313	5.61082	ppb		94
93)	1,2-Dibromo-3-chloropropan	24.18	155	3619	6.00053	ppb	#	55
94)	1,2,4-Trichlorobenzene	25.63	145	9382	5.49802	ppb		91
95)	Hexachlorobutadiene	25.90	223	37379	5.48193	ppb		91
96)	Naphthalene	26.00	128	96790	5.46655	ppb		95
97)	1,2,3-Trichlorobenzene	26.37	180	25856	5.75152	ppb		93

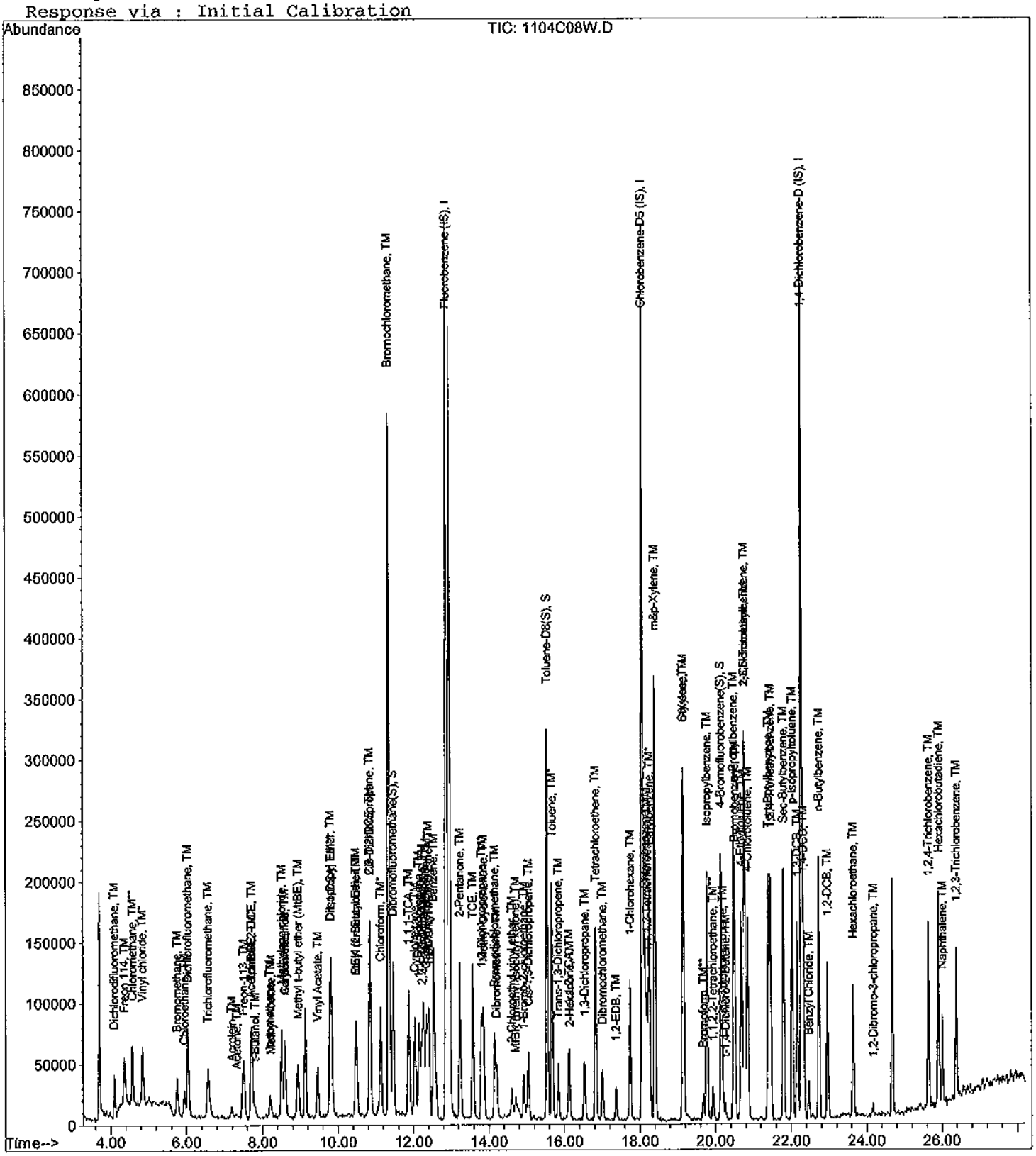
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C08W.D Vial: 1
Acq On : 4 Nov 11 15:10 Operator: STC
Sample : VOL STD 11-04-11@5.0ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C09W.D Vial: 1
Acq On : 4 Nov 11 15:53 Operator: STC
Sample : VOL STD 11-04-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.88	96	379520	25.00000 ppb	0.00
55) Chlorobenzene-D5 (IS)	18.07	117	242112	25.00000 ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	128488	25.00000 ppb	0.00
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.46	111	287229	21.76268 ppb	0.00
Spiked Amount 21.097			Recovery = 103.156%		
38) 1,2-DCA-D4(S)	12.27	65	258245	22.35810 ppb	0.00
Spiked Amount 21.225			Recovery = 105.337%		
56) Toluene-D8(S)	15.55	98	879576	24.65911 ppb	0.00
Spiked Amount 25.808			Recovery = 95.547%		
64) 4-Bromofluorobenzene(S)	20.15	95	277092	22.02233 ppb	0.00
Spiked Amount 25.459			Recovery = 86.498%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.09	85	127173	10.01025 ppb	100
3) Freon 114	4.36	85	108450	10.33801 ppb	100
4) Chloromethane	4.58	50	145302	8.84010 ppb	100
5) Vinyl chloride	4.84	62	134944	10.18643 ppb	100
7) Bromomethane	5.76	94	71701	9.03366 ppb	100
8) Chloroethane	5.95	64	22160	10.06586 ppb	100
9) Dichlorofluoromethane	6.04	67	262793	9.63001 ppb	100
10) Trichlorofluoromethane	6.55	101	188786	10.32076 ppb	100
11) Acetonitrile	7.68	41	37382	112.55818 ug/l	100
12) Acrolein	7.19	56	20448	127.24803 ppb	100
13) Acetone	7.31	43	14935	11.86799 ppb	100
14) Freon-113	7.50	101	107086	10.63502 ppb	100
15) 1,1-DCE	7.72	96	99219	9.43959 ppb	100
16) t-Butanol	7.81	59	6419	127.38741 ppb	100
17) Methyl Acetate	8.22	43	28532	9.71849 ppb	100
18) Iodomethane	8.19	142	65986	9.04723 ppb	100
19) Acrylonitrile	8.59	53	10812	9.61528 ppb	100
20) Methylene chloride	8.50	84	91172	8.90345 ppb	100
21) Carbon disulfide	8.59	76	81832	9.43117 ppb	100
22) Methyl t-butyl ether (MtBE	8.93	73	169951	9.95163 ppb	100
23) Trans-1,2-DCE	7.72	96	99219	9.43959 ppb	100
24) Diisopropyl Ether	9.79	45	321134	10.31340 ppb	100
25) 1,1-DCA	9.83	63	218554	10.01736 ppb	100
26) Vinyl Acetate	9.46	43	17392	10.08044 ppb	100
27) Ethyl tert Butyl Ether	10.49	59	272154	10.33237 ppb	100
28) MEK (2-Butanone)	10.47	43	48790	9.89807 ppb	100
29) Cis-1,2-DCE	10.85	96	125309	9.23377 ppb	100
30) 2,2-Dichloropropane	10.85	77	196268	9.73769 ppb	100
31) Chloroform	11.13	83	232875	10.07976 ppb	100
32) Bromochloromethane	11.36	128	39959	9.76180 ppb	100
34) 1,1,1-TCA	11.88	97	221848	9.89312 ppb	100
35) Cyclohexane	12.04	56	143720	9.93880 ppb	100
36) 1,1-Dichloropropene	12.15	75	159974	9.92586 ppb	100
37) 2,2,4-Trimethylpentane	12.22	57	254541	10.62353 ppb	100
39) Carbon Tetrachloride	12.33	117	180276	10.52408 ppb	100
40) Tert Amyl Methyl Ether	12.38	73	179275	9.35336 ppb	100
41) 1,2-DCA	12.41	62	130074	9.89184 ppb	100
42) Benzene	12.54	78	395767	9.64913 ppb	100
43) TCE	13.57	95	132470	10.20369 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C09W.D Vial: 1
Acq On : 4 Nov 11 15:53 Operator: STC
Sample : VOL STD 11-04-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2-Pentanone	13.23	43	303865	130.62557	ppb	100
45) 1,2-Dichloropropane	13.81	63	94743	10.12532	ppb	100
46) Bromodichloromethane	14.15	83	143971	10.21728	ppb	100
47) Methyl Cyclohexane	13.85	83	142413	10.61635	ppb	100
48) Dibromomethane	14.21	93	49780	10.13073	ppb	100
49) 2-Chloroethyl vinyl ether	14.61	63	23727	9.72506	ppb	100
50) 1-Bromo-2-chloroethane	14.92	63	85645	10.44869	ppb	100
51) Cis-1,3-Dichloropropene	15.04	75	123425	10.69896	ppb	100
52) Toluene	15.67	91	420896	9.67298	ppb	100
53) Trans-1,3-Dichloropropene	15.84	75	89040	10.15636	ppb	100
54) 1,1,2-TCA	16.13	83	42304	9.78232	ppb	100
57) 1,2-EDB	17.37	107	50509	9.80873	ppb	100
58) Tetrachloroethene	16.83	164	127344	10.37649	ppb	100
59) 1-Chlorohexane	17.74	91	129788	9.88754	ppb	100
60) 1,1,1,2-Tetrachloroethane	18.20	131	101087	11.11729	ppb	100
61) m&p-Xylene	18.39	106	357586	20.35825	ppb	100
62) o-Xylene	19.15	106	172306	10.29378	ppb	100
63) Styrene	19.16	104	268277	10.14562	ppb	100
65) 2-Hexanone	16.15	43	20316	10.14486	ppb	100
66) 1,3-Dichloropropane	16.53	76	98404	11.65902	ppb	100
67) Dibromochloromethane	17.02	129	75267	10.46910	ppb	100
68) Chlorobenzene	18.14	112	273822	10.42062	ppb	100
69) Ethylbenzene	18.26	91	465715	10.14897	ppb	100
70) Bromoform	19.68	173	36380	10.34509	ppb	100
72) MIBK (methyl isobutyl keto	14.71	43	31808	10.63237	ppb	100
73) Isopropylbenzene	19.77	105	486728	10.14471	ppb	100
74) 1,1,2,2-Tetrachloroethane	19.94	83	39745	9.74072	ppb	100
75) 1,2,3-Trichloropropane	20.20	110	6223	12.10002	ppb	100
76) t-1,4-Dichloro-2-Butene	20.26	53	11077	10.79450	ppb	100
77) Bromobenzene	20.52	156	97097	9.21431	ppb	100
78) n-Propylbenzene	20.48	91	533031	9.76009	ppb	100
79) 4-Ethyltoluene	20.67	105	366054	9.58185	ppb	100
80) 2-Chlorotoluene	20.77	91	347971	9.53836	ppb	100
81) 1,3,5-Trimethylbenzene	20.75	105	384305	9.64814	ppb	100
82) 4-Chlorotoluene	20.86	91	291395	9.09160	ppb	100
83) Tert-Butylbenzene	21.40	119	412330	9.74701	ppb	100
84) 1,2,4-Trimethylbenzene	21.46	105	388890	9.93928	ppb	100
85) Sec-Butylbenzene	21.80	105	511951	10.01452	ppb	100
86) p-Isopropyltoluene	22.03	119	442619	9.84757	ppb	100
87) Benzyl Chloride	22.46	91	75328	9.89104	ppb	100
88) 1,3-DCB	22.16	146	208337	10.06303	ppb	100
89) 1,4-DCB	22.33	146	195945	10.10243	ppb	100
90) Hexachloroethane	23.63	117	78859	9.82085	ppb	100
91) n-Butylbenzene	22.73	91	354209	9.36014	ppb	100
92) 1,2-DCB	22.96	146	174981	10.20765	ppb	100
93) 1,2-Dibromo-3-chloropropan	24.18	155	5583	8.98089	ppb	100
94) 1,2,4-Trichlorobenzene	25.64	145	18480	12.04496	ppb	100
95) Hexachlorobutadiene	25.90	223	73499	11.00683	ppb	100
96) Naphthalene	26.00	128	189823	10.40116	ppb	100
97) 1,2,3-Trichlorobenzene	26.38	180	49368	11.13597	ppb	100

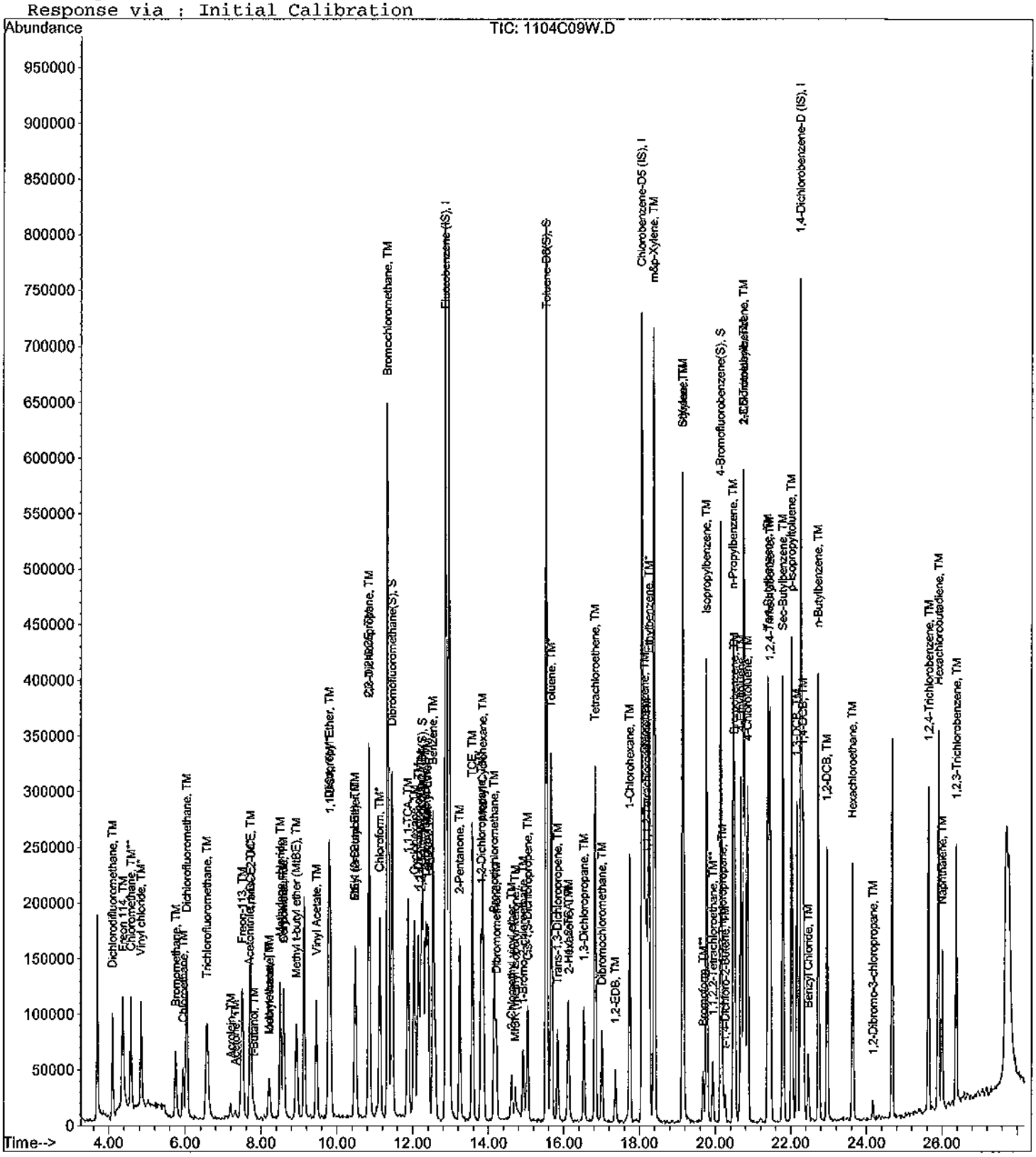
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C09W.D Vial: 1
Acq On : 4 Nov 11 15:53 Operator: STC
Sample : VOL STD 11-04-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C10W.D Vial: 1
Acq On : 4 Nov 11 16:36 Operator: STC
Sample : VOL STD 11-04-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.88	96	400704	25.00000 ppb		0.00
55) Chlorobenzene-D5 (IS)	18.08	117	269632	25.00000 ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	142144	25.00000 ppb		0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.46	111	492580	35.34857 ppb		0.00
Spiked Amount 21.097			Recovery = 167.553%			
38) 1,2-DCA-D4(S)	12.27	65	429376	35.20885 ppb		0.00
Spiked Amount 21.225			Recovery = 165.882%			
56) Toluene-D8(S)	15.54	98	1401114	35.27138 ppb		-0.01
Spiked Amount 25.808			Recovery = 136.665%			
64) 4-Bromofluorobenzene(S)	20.15	95	492835	35.17109 ppb		0.00
Spiked Amount 25.459			Recovery = 138.145%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.09	85	277038	20.65381 ppb		97
3) Freon 114	4.36	85	212178	19.15661 ppb		100
4) Chloromethane	4.58	50	305030	17.57678 ppb		100
5) Vinyl chloride	4.84	62	269268	19.25148 ppb		97
7) Bromomethane	5.75	94	158325	18.89291 ppb		97
8) Chloroethane	5.94	64	41240	17.74233 ppb	#	78
9) Dichlorofluoromethane	6.04	67	534205	18.54095 ppb		98
10) Trichlorofluoromethane	6.57	101	370398	19.17881 ppb		83
11) Acetonitrile	7.69	41	48933	139.54921 ug/l		100
12) Acrolein	7.19	56	27545	162.35064 ppb		90
13) Acetone	7.31	43	23983	18.05038 ppb	#	76
14) Freon-113	7.50	101	209677	19.72275 ppb		89
15) 1,1-DCE	7.71	96	193323	17.42019 ppb		91
16) t-Butanol	7.80	59	8107	152.38082 ppb	#	93
17) Methyl Acetate	8.21	43	56490	18.73637 ppb	#	86
18) Iodomethane	8.20	142	162809	18.09224 ppb	#	84
19) Acrylonitrile	8.60	53	23414	19.72162 ppb		92
20) Methylene chloride	8.50	84	189403	19.68257 ppb		99
21) Carbon disulfide	8.59	76	167616	18.29653 ppb		100
22) Methyl t-butyl ether (MtBE	8.94	73	341468	18.93789 ppb		97
23) Trans-1,2-DCE	7.71	96	193323	17.42019 ppb		89
24) Diisopropyl Ether	9.79	45	650045	19.77289 ppb		96
25) 1,1-DCA	9.83	63	424316	18.42022 ppb		95
26) Vinyl Acetate	9.46	43	33304	18.28258 ppb		90
27) Ethyl tert Butyl Ether	10.48	59	549179	19.74741 ppb		92
28) MEK (2-Butanone)	10.49	43	96745	18.58914 ppb	#	89
29) Cis-1,2-DCE	10.85	96	258223	18.02199 ppb		97
30) 2,2-Dichloropropane	10.84	77	396661	18.63962 ppb		94
31) Chloroform	11.14	83	476659	19.54096 ppb		99
32) Bromochloromethane	11.35	128	87599	20.26869 ppb		83
34) 1,1,1-TCA	11.88	97	472342	19.95011 ppb		97
35) Cyclohexane	12.03	56	311907	20.42926 ppb		93
36) 1,1-Dichloropropene	12.14	75	333060	19.57277 ppb		98
37) 2,2,4-Trimethylpentane	12.22	57	537763	21.35021 ppb		94
39) Carbon Tetrachloride	12.33	117	372078	20.57270 ppb		92
40) Tert Amyl Methyl Ether	12.38	73	393706	19.45499 ppb	#	98
41) 1,2-DCA	12.42	62	262003	18.87139 ppb		96
42) Benzene	12.54	78	832901	19.23325 ppb		96
43) TCE	13.57	95	276062	20.13989 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C10W.D Vial: 1
Acq On : 4 Nov 11 16:36 Operator: STC
Sample : VOL STD 11-04-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.23	43	386206	157.24524	ppb		97
45)	1,2-Dichloropropane	13.80	63	201302	20.37609	ppb	#	94
46)	Bromodichloromethane	14.15	83	300285	20.18388	ppb		98
47)	Methyl Cyclohexane	13.85	83	300797	21.23782	ppb		99
48)	Dibromomethane	14.21	93	105461	20.32771	ppb		96
49)	2-Chloroethyl vinyl ether	14.61	63	54793	21.33442	ppb	#	90
50)	1-Bromo-2-chloroethane	14.92	63	187103	21.61980	ppb		88
51)	Cis-1,3-Dichloropropene	15.04	75	236230	19.39476	ppb		92
52)	Toluene	15.67	91	845512	18.40417	ppb		98
53)	Trans-1,3-Dichloropropene	15.84	75	185182	20.00611	ppb		95
54)	1,1,2-TCA	16.12	83	84462	18.49835	ppb		93
57)	1,2-EDB	17.36	107	119526	20.84258	ppb		88
58)	Tetrachloroethene	16.83	164	238177	17.42677	ppb		94
59)	1-Chlorohexane	17.74	91	287922	19.69578	ppb		99
60)	1,1,1,2-Tetrachloroethane	18.20	131	215585	21.28957	ppb		96
61)	m&p-Xylene	18.39	106	725284	37.07772	ppb		99
62)	o-Xylene	19.14	106	369712	19.83275	ppb		97
63)	Styrene	19.15	104	577362	19.60597	ppb		97
65)	2-Hexanone	16.15	43	42472	19.04388	ppb		77
66)	1,3-Dichloropropane	16.53	76	191805	20.40582	ppb		94
67)	Dibromochloromethane	17.01	129	164277	20.51760	ppb		86
68)	Chlorobenzene	18.14	112	562549	19.22340	ppb		94
69)	Ethylbenzene	18.25	91	965000	18.88314	ppb		91
70)	Bromoform	19.68	173	81528	20.18417	ppb		83
72)	MIBK (methyl isobutyl keto	14.70	43	68857	22.46635	ppb		85
73)	Isopropylbenzene	19.77	105	1032484	19.45229	ppb		95
74)	1,1,2,2-Tetrachloroethane	19.93	83	88491	19.60386	ppb	#	87
75)	1,2,3-Trichloropropane	20.19	110	11105	20.42107	ppb		86
76)	t-1,4-Dichloro-2-Butene	20.27	53	23197	20.75321	ppb	#	92
77)	Bromobenzene	20.51	156	217177	18.62965	ppb		87
78)	n-Propylbenzene	20.48	91	1129933	18.70200	ppb		99
79)	4-Ethyltoluene	20.67	105	804794	19.04246	ppb		98
80)	2-Chlorotoluene	20.78	91	761688	18.87304	ppb		95
81)	1,3,5-Trimethylbenzene	20.75	105	848428	19.25382	ppb		99
82)	4-Chlorotoluene	20.86	91	637571	17.98128	ppb		99
83)	Tert-Butylbenzene	21.40	119	901333	19.25954	ppb		98
84)	1,2,4-Trimethylbenzene	21.46	105	842813	19.47124	ppb		92
85)	Sec-Butylbenzene	21.80	105	1113421	19.68771	ppb		98
86)	p-Isopropyltoluene	22.03	119	951945	19.14453	ppb		98
87)	Benzyl Chloride	22.46	91	174943	20.76424	ppb		96
88)	1,3-DCB	22.16	146	452920	19.77506	ppb		95
89)	1,4-DCB	22.34	146	424749	19.79511	ppb		97
90)	Hexachloroethane	23.63	117	187585	20.38843	ppb		88
91)	n-Butylbenzene	22.73	91	771350	18.42503	ppb		95
92)	1,2-DCB	22.96	146	365396	19.26782	ppb		96
93)	1,2-Dibromo-3-chloropropan	24.18	155	14686	21.35450	ppb	#	51
94)	1,2,4-Trichlorobenzene	25.64	145	35456	22.12940	ppb		83
95)	Hexachlorobutadiene	25.90	223	146997	20.34366	ppb		97
96)	Naphthalene	25.99	128	391636	19.39768	ppb		97
97)	1,2,3-Trichlorobenzene	26.38	180	96168	20.13990	ppb		95

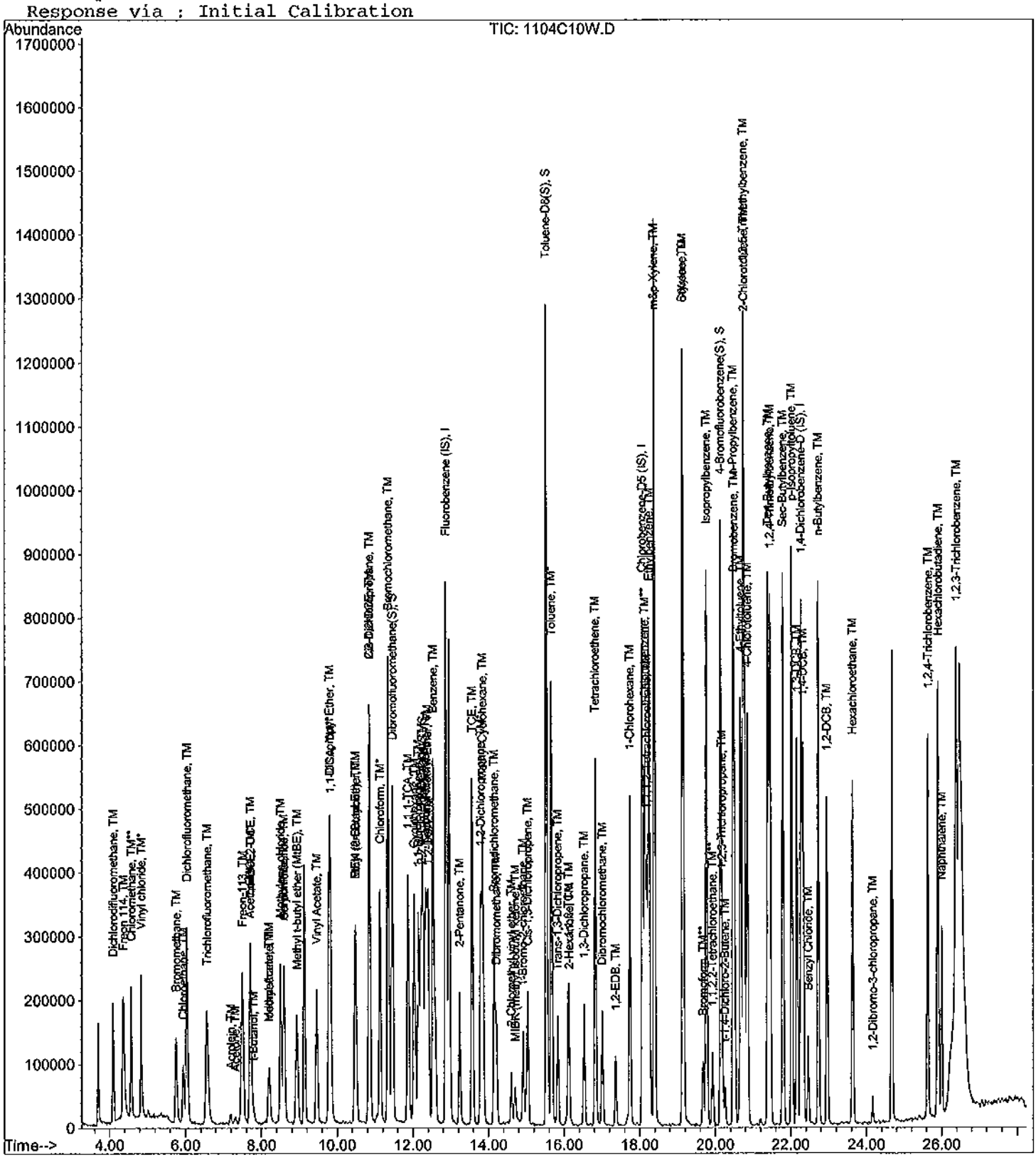
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C10W.D Vial: 1
Acq On : 4 Nov 11 16:36 Operator: STC
Sample : VOL STD 11-04-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C11W.D Vial: 1
Acq On : 4 Nov 11 17:19 Operator: STC
Sample : VOL STD 11-04-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.88	96	376384	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.07	117	260992	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.28	152	143232	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.45	111	1254684	95.85659	ppb		0.00
Spiked Amount 21.097			Recovery = 454.357%				
38) 1,2-DCA-D4(S)	12.27	65	1002700	87.53416	ppb		0.00
Spiked Amount 21.225			Recovery = 412.405%				
56) Toluene-D8(S)	15.54	98	3411003	88.71055	ppb		0.00
Spiked Amount 25.808			Recovery = 343.731%				
64) 4-Bromofluorobenzene(S)	20.15	95	1235737	91.10758	ppb		0.00
Spiked Amount 25.459			Recovery = 357.855%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.09	85	605060	48.02329	ppb		99
3) Freon 114	4.35	85	460858	44.29737	ppb		93
4) Chloromethane	4.58	50	612547	37.57756	ppb		93
5) Vinyl chloride	4.83	62	532243	40.51183	ppb		98
7) Bromomethane	5.75	94	293365	37.26920	ppb		100
8) Chloroethane	5.94	64	99216	45.44293	ppb		92
9) Dichlorofluoromethane	6.04	67	1086636	40.15139	ppb		97
10) Trichlorofluoromethane	6.55	101	769775	42.43354	ppb		85
11) Acetonitrile	7.68	41	63954	194.17163	ug/l		100
12) Acrolein	7.20	56	30557	191.74077	ppb		96
13) Acetone	7.30	43	50039	40.09443	ppb	#	65
14) Freon-113	7.49	101	464944	46.55967	ppb		91
15) 1,1-DCE	7.71	96	406405	38.98709	ppb		94
16) t-Butanol	7.82	59	8641	172.91260	ppb	#	91
17) Methyl Acetate	8.22	43	111923	40.16991	ppb		96
18) Iodomethane	8.19	142	348877	38.35087	ppb		92
19) Acrylonitrile	8.60	53	44097	39.54290	ppb		94
20) Methylene chloride	8.50	84	361708	42.32780	ppb		97
21) Carbon disulfide	8.59	76	348352	40.48219	ppb		99
22) Methyl t-butyl ether (MtBE	8.93	73	684249	40.40065	ppb		98
23) Trans-1,2-DCE	7.71	96	406405	38.98709	ppb		92
24) Diisopropyl Ether	9.79	45	1211492	39.23194	ppb		98
25) 1,1-DCA	9.83	63	812380	37.54544	ppb		94
26) Vinyl Acetate	9.46	43	64963	37.96642	ppb		93
27) Ethyl tert Butyl Ether	10.49	59	1034351	39.59649	ppb		100
28) MEK (2-Butanone)	10.47	43	182834	37.40074	ppb		95
29) Cis-1,2-DCE	10.86	96	499248	37.09510	ppb		90
30) 2,2-Dichloropropane	10.85	77	742249	37.13297	ppb		95
31) Chloroform	11.13	83	930213	40.59879	ppb		100
32) Bromochloromethane	11.36	128	156949	38.66140	ppb		84
34) 1,1,1-TCA	11.87	97	848866	38.16985	ppb		97
35) Cyclohexane	12.04	56	529850	36.94648	ppb		90
36) 1,1-Dichloropropene	12.14	75	569170	35.60938	ppb		94
37) 2,2,4-Trimethylpentane	12.21	57	870992	36.88147	ppb		98
39) Carbon Tetrachloride	12.34	117	694484	40.88011	ppb		96
40) Tert Amyl Methyl Ether	12.38	73	633811	33.34351	ppb		99
41) 1,2-DCA	12.41	62	453448	34.77103	ppb		97
42) Benzene	12.54	78	1396040	34.32020	ppb		97
43) TCE	13.57	95	492796	38.27456	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\CHICO\DATA\C111104\1104C11W.D Vial: 1
Acq On : 4 Nov 11 17:19 Operator: STC
Sample : VOL STD 11-04-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.23	43	395797	171.56295	ppb		98
45)	1,2-Dichloropropane	13.80	63	353869	38.13360	ppb		98
46)	Bromodichloromethane	14.15	83	556707	39.83734	ppb		96
47)	Methyl Cyclohexane	13.85	83	529745	39.81951	ppb		99
48)	Dibromomethane	14.20	93	188591	38.69993	ppb		97
49)	2-Chloroethyl vinyl ether	14.61	63	95435	39.10879	ppb	#	82
50)	1-Bromo-2-chloroethane	14.92	63	307506	37.82832	ppb		87
51)	Cis-1,3-Dichloropropene	15.04	75	441921	38.62661	ppb		87
52)	Toluene	15.67	91	1539538	35.67626	ppb		97
53)	Trans-1,3-Dichloropropene	15.84	75	352858	40.58413	ppb		99
54)	1,1,2-TCA	16.12	83	163761	38.18340	ppb		94
57)	1,2-EDB	17.37	107	220606	39.74208	ppb		85
58)	Tetrachloroethene	16.83	164	446353	33.73959	ppb		95
59)	1-Chlorohexane	17.74	91	547442	38.68840	ppb		99
60)	1,1,1,2-Tetrachloroethane	18.20	131	411716	42.00398	ppb		94
61)	m&p-Xylene	18.39	106	1420921	75.04454	ppb		99
62)	o-Xylene	19.14	106	705769	39.11345	ppb		100
63)	Styrene	19.16	104	1092027	38.31049	ppb		95
65)	2-Hexanone	16.14	43	79341	36.75315	ppb		82
66)	1,3-Dichloropropane	16.53	76	350477	38.52103	ppb		94
67)	Dibromochloromethane	17.01	129	333179	42.99042	ppb		90
68)	Chlorobenzene	18.14	112	1044892	36.88804	ppb		97
69)	Ethylbenzene	18.26	91	1844976	37.29768	ppb		96
70)	Bromoform	19.68	173	161724	39.84973	ppb	#	77
72)	MIBK (methyl isobutyl keto	14.71	43	117182	39.13908	ppb		82
73)	Isopropylbenzene	19.77	105	1927340	36.03580	ppb		95
74)	1,1,2,2-Tetrachloroethane	19.93	83	167829	36.89758	ppb	#	76
75)	1,2,3-Trichloropropane	20.19	110	20672	39.00837	ppb		83
76)	t-1,4-Dichloro-2-Butene	20.26	53	46026	41.21119	ppb		77
77)	Bromobenzene	20.51	156	428125	36.44601	ppb		97
78)	n-Propylbenzene	20.48	91	2145819	35.24658	ppb		99
79)	4-Ethyltoluene	20.67	105	1540904	36.18282	ppb		95
80)	2-Chlorotoluene	20.77	91	1384392	34.04178	ppb		96
81)	1,3,5-Trimethylbenzene	20.75	105	1575661	35.48568	ppb		97
82)	4-Chlorotoluene	20.86	91	1280059	35.82701	ppb		98
83)	Tert-Butylbenzene	21.40	119	1729822	36.68179	ppb		95
84)	1,2,4-Trimethylbenzene	21.46	105	1570551	36.00832	ppb		96
85)	Sec-Butylbenzene	21.80	105	2069310	36.31198	ppb		100
86)	p-Isopropyltoluene	22.03	119	1766966	35.26547	ppb		99
87)	Benzyl Chloride	22.46	91	344931	40.62939	ppb	#	91
88)	1,3-DCB	22.16	146	845275	36.62544	ppb		94
89)	1,4-DCB	22.33	146	812894	37.59655	ppb		99
90)	Hexachloroethane	23.63	117	377515	39.84876	ppb		90
91)	n-Butylbenzene	22.73	91	1482665	35.14699	ppb		99
92)	1,2-DCB	22.96	146	714195	37.37439	ppb		96
93)	1,2-Dibromo-3-chloropropan	24.18	155	29222	42.16812	ppb	#	61
94)	1,2,4-Trichlorobenzene	25.63	145	62072	39.69232	ppb		84
95)	Hexachlorobutadiene	25.90	223	284075	39.35271	ppb		96
96)	Naphthalene	25.99	128	709385	34.86885	ppb		100
97)	1,2,3-Trichlorobenzene	26.37	180	184256	39.35224	ppb		96

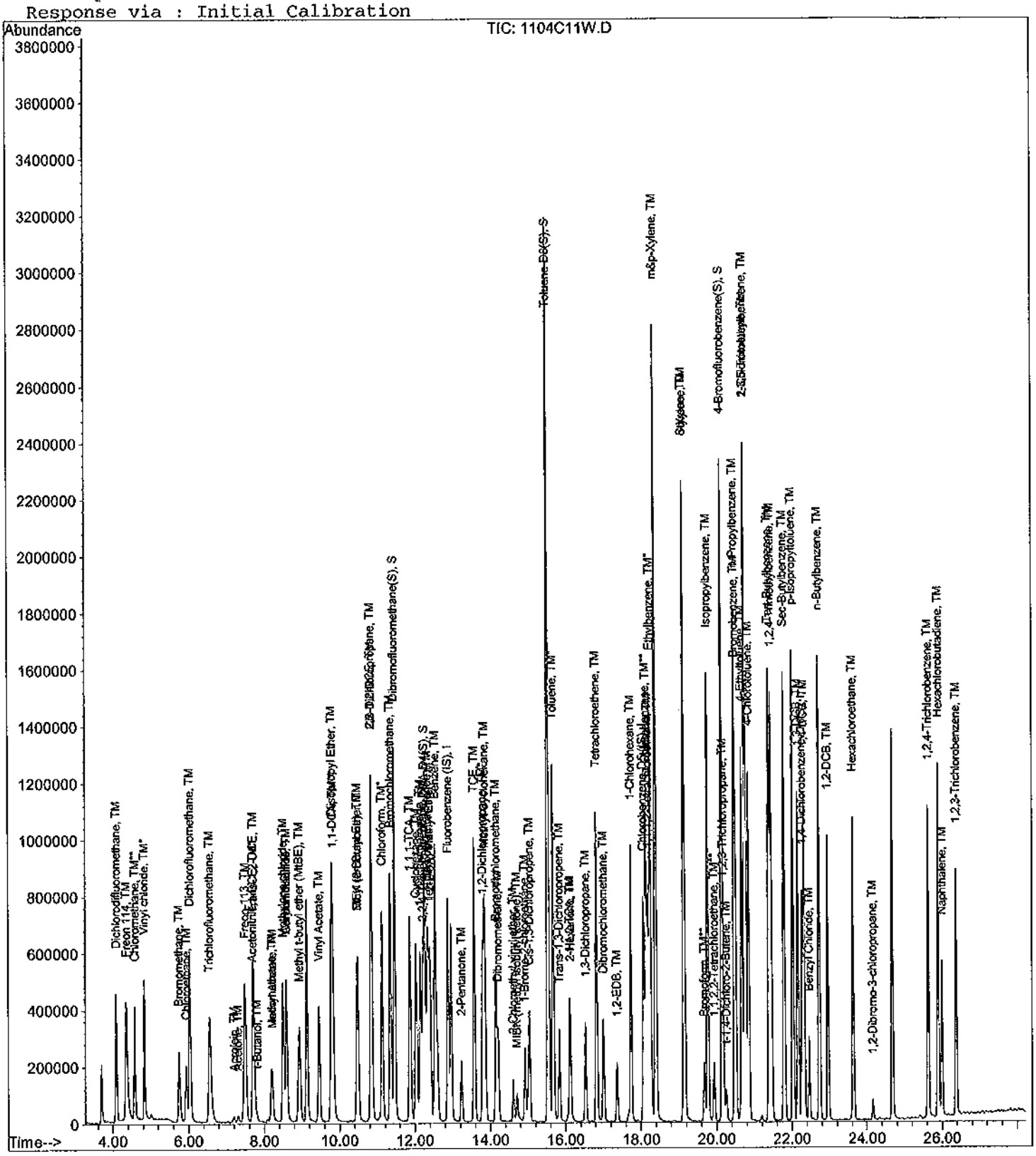
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C11W.D Vial: 1
Acq On : 4 Nov 11 17:19 Operator: STC
Sample : VOL STD 11-04-11@40ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C12W.D Vial: 1
Acq On : 4 Nov 11 18:02 Operator: STC
Sample : VOL STD 11-04-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.87	96	387584	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.08	117	270976	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	152832	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.46	111	1488258	110.41578	ppb		0.00
Spiked Amount 21.097			Recovery = 523.366%				
38) 1,2-DCA-D4(S)	12.26	65	1305852	110.70464	ppb		0.00
Spiked Amount 21.225			Recovery = 521.572%				
56) Toluene-D8(S)	15.54	98	4425716	110.85954	ppb		0.00
Spiked Amount 25.808			Recovery = 429.552%				
64) 4-Bromofluorobenzene(S)	20.15	95	1555073	110.42709	ppb		0.00
Spiked Amount 25.459			Recovery = 433.737%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.10	85	1398001	107.75223	ppb		98
3) Freon 114	4.36	85	1127717	105.26312	ppb		91
4) Chloromethane	4.57	50	1586844	94.53416	ppb		94
5) Vinyl chloride	4.82	62	1214149	89.74479	ppb		100
7) Bromomethane	5.75	94	818509	100.97889	ppb		98
8) Chloroethane	5.94	64	211456	94.05241	ppb	#	83
9) Dichlorofluoromethane	6.03	67	2568939	92.17977	ppb		99
10) Trichlorofluoromethane	6.56	101	1897913	101.59844	ppb		82
11) Acetonitrile	7.69	41	58460	172.36226	ug/l		100
12) Acrolein	7.20	56	34311	209.07516	ppb		95
13) Acetone	7.31	43	107600	83.72459	ppb	#	69
14) Freon-113	7.49	101	1083350	105.35213	ppb		90
15) 1,1-DCE	7.72	96	954098	88.88329	ppb		99
16) t-Butanol	7.72	59	18592	361.28844	ppb	#	80
17) Methyl Acetate	8.22	43	284919	100.16575	ppb		91
18) Iodomethane	8.20	142	984016	101.07620	ppb		90
19) Acrylonitrile	8.60	53	104316	90.83971	ppb	#	69
20) Methylene chloride	8.51	84	848586	99.29266	ppb		93
21) Carbon disulfide	8.60	76	796352	89.87029	ppb		98
22) Methyl t-butyl ether (MtBE	8.93	73	1646449	94.40342	ppb		99
23) Trans-1,2-DCE	7.72	96	954098	88.88329	ppb		96
24) Diisopropyl Ether	9.79	45	2920305	91.83596	ppb		97
25) 1,1-DCA	9.82	63	1929536	86.59965	ppb		95
26) Vinyl Acetate	9.46	43	154496	87.68314	ppb		90
27) Ethyl tert Butyl Ether	10.48	59	2421698	90.02727	ppb		97
28) MEK (2-Butanone)	10.47	43	422294	83.88869	ppb		93
29) Cis-1,2-DCE	10.85	96	1132038	81.68204	ppb		92
30) 2,2-Dichloropropane	10.84	77	1733161	84.20042	ppb		91
31) Chloroform	11.13	83	2114438	89.61710	ppb		98
32) Bromochloromethane	11.35	128	352484	84.31866	ppb		83
34) 1,1,1-TCA	11.88	97	2277083	99.43185	ppb		99
35) Cyclohexane	12.03	56	1456353	98.61707	ppb		92
36) 1,1-Dichloropropene	12.15	75	1525242	92.66729	ppb		93
37) 2,2,4-Trimethylpentane	12.21	57	2450244	100.91582	ppb		98
39) Carbon Tetrachloride	12.33	117	1928236	110.22377	ppb		92
40) Tert Amyl Methyl Ether	12.38	73	1751916	89.50147	ppb		98
41) 1,2-DCA	12.42	62	1215844	90.53850	ppb		97
42) Benzene	12.53	78	3877684	92.57413	ppb		99
43) TCE	13.57	95	1298818	97.96179	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C12W.D Vial: 1
Acq On : 4 Nov 11 18:02 Operator: STC
Sample : VOL STD 11-04-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	2-Pentanone	13.23	43	480188	202.12854 ppb		97
45)	1,2-Dichloropropane	13.80	63	913679	95.61461 ppb		100
46)	Bromodichloromethane	14.15	83	1431779	99.49584 ppb		95
47)	Methyl Cyclohexane	13.85	83	1439261	105.05916 ppb		97
48)	Dibromomethane	14.21	93	482479	96.14637 ppb		98
49)	2-Chloroethyl vinyl ether	14.60	63	264911	100.08249 ppb	#	86
50)	1-Bromo-2-chloroethane	14.92	63	806701	96.36990 ppb		90
51)	Cis-1,3-Dichloropropene	15.04	75	1136888	96.49948 ppb	#	84
52)	Toluene	15.67	91	4019173	90.44633 ppb		98
53)	Trans-1,3-Dichloropropene	15.84	75	907198	101.32666 ppb		99
54)	1,1,2-TCA	16.11	83	405197	91.74780 ppb		96
57)	1,2-EDB	17.37	107	567927	98.54217 ppb	#	93
58)	Tetrachloroethene	16.83	164	1145494	83.39701 ppb		92
59)	1-Chlorohexane	17.74	91	1458222	99.25734 ppb		99
60)	1,1,1,2-Tetrachloroethane	18.19	131	1064914	104.64141 ppb		99
61)	m&p-Xylene	18.40	106	3793857	192.98630 ppb		99
62)	o-Xylene	19.14	106	1825474	97.43962 ppb		96
63)	Styrene	19.16	104	2822183	95.35991 ppb		91
65)	2-Hexanone	16.14	43	191388	85.39019 ppb		78
66)	1,3-Dichloropropane	16.53	76	877537	92.89668 ppb		93
67)	Dibromochloromethane	17.01	129	882767	109.70755 ppb		90
68)	Chlorobenzene	18.14	112	2747264	93.41378 ppb		97
69)	Ethylbenzene	18.25	91	4848703	94.40892 ppb		95
70)	Bromoform	19.67	173	460692	100.01282 ppb		91
72)	MIBK (methyl isobutyl keto	14.71	43	310673	99.82496 ppb		84
73)	Isopropylbenzene	19.77	105	4901130	85.88114 ppb		96
74)	1,1,2,2-Tetrachloroethane	19.93	83	414354	85.37451 ppb	#	82
75)	1,2,3-Trichloropropane	20.19	110	55136	100.12191 ppb		98
76)	t-1,4-Dichloro-2-Butene	20.25	53	117801	99.35278 ppb	#	77
77)	Bromobenzene	20.51	156	1085585	86.61018 ppb		93
78)	n-Propylbenzene	20.48	91	5471690	84.23084 ppb		99
79)	4-Ethyltoluene	20.68	105	4084011	89.87511 ppb		93
80)	2-Chlorotoluene	20.78	91	3618605	83.39117 ppb		92
81)	1,3,5-Trimethylbenzene	20.76	105	3929624	82.94058 ppb		97
82)	4-Chlorotoluene	20.85	91	3136042	82.25991 ppb		95
83)	Tert-Butylbenzene	21.39	119	4332803	86.10807 ppb		96
84)	1,2,4-Trimethylbenzene	21.45	105	4015207	86.27491 ppb		92
85)	Sec-Butylbenzene	21.79	105	5428141	89.26912 ppb		100
86)	p-Isopropyltoluene	22.03	119	4726869	88.41394 ppb		98
87)	Benzyl Chloride	22.46	91	924796	102.08918 ppb		93
88)	1,3-DCB	22.17	146	2259784	91.76509 ppb		95
89)	1,4-DCB	22.33	146	2224628	96.42667 ppb		98
90)	Hexachloroethane	23.63	117	1044668	100.01050 ppb		90
91)	n-Butylbenzene	22.73	91	3981630	88.45691 ppb		99
92)	1,2-DCB	22.96	146	1944735	95.37695 ppb		98
93)	1,2-Dibromo-3-chloropropan	24.17	155	81757	110.56688 ppb		82
94)	1,2,4-Trichlorobenzene	25.63	145	161984	99.51652 ppb		80
95)	Hexachlorobutadiene	25.89	223	777993	100.07622 ppb		97
96)	Naphthalene	26.00	128	1916255	88.27439 ppb		99
97)	1,2,3-Trichlorobenzene	26.38	180	472249	100.09338 ppb		98

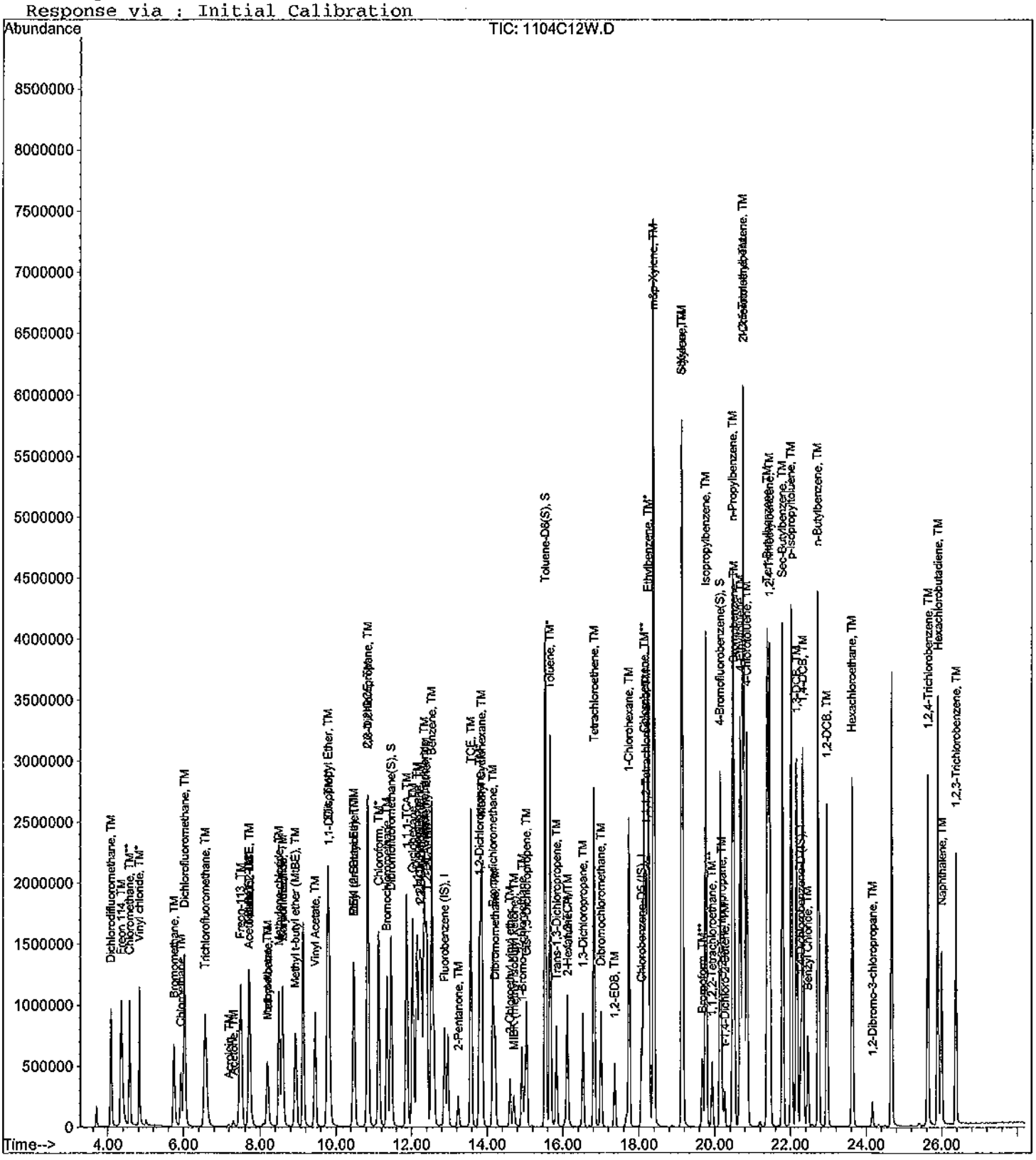
(#) = qualifier out of range (m) = manual integration

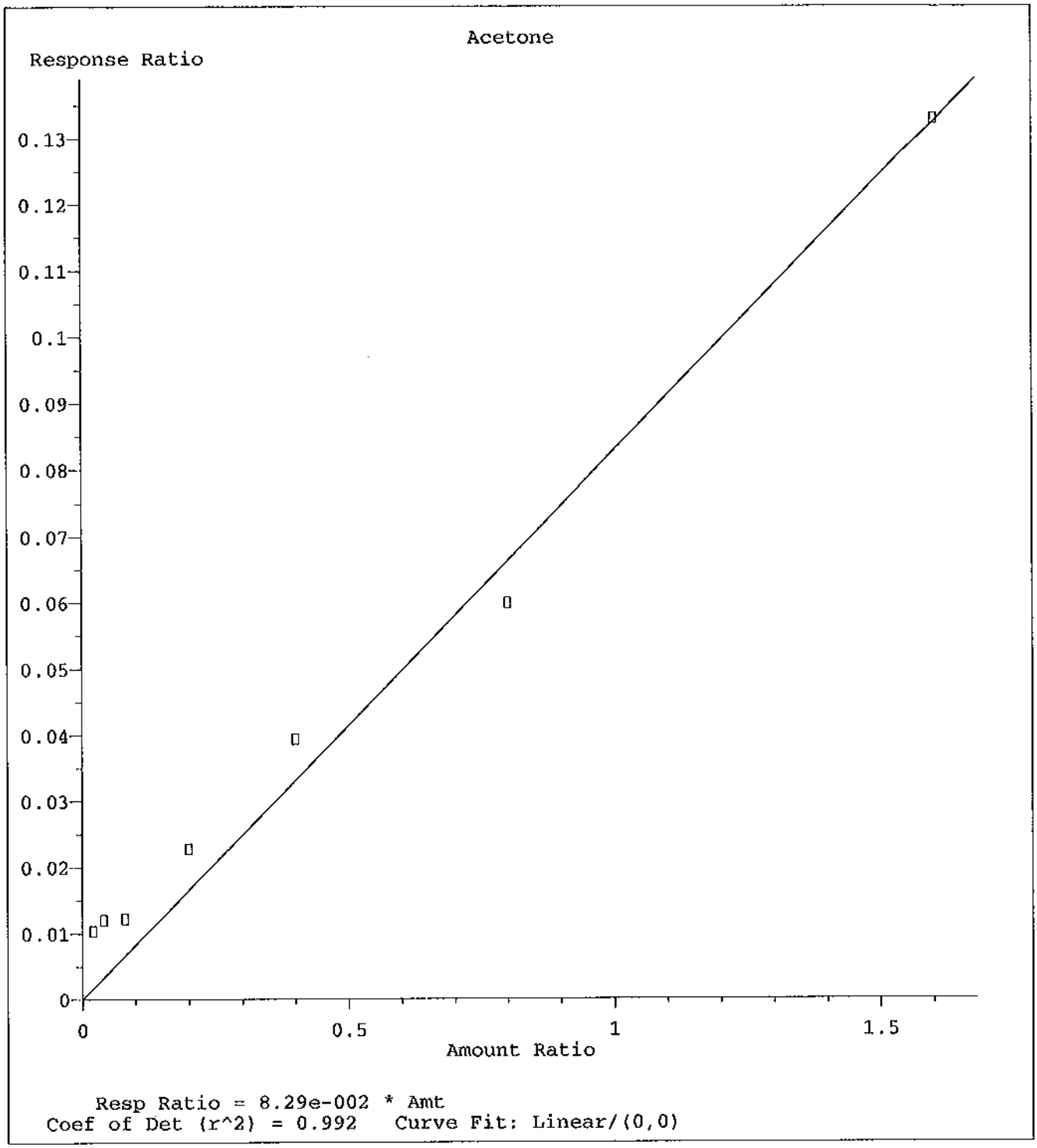
Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C12W.D Vial: 1
Acq On : 4 Nov 11 18:02 Operator: STC
Sample : VOL STD 11-04-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

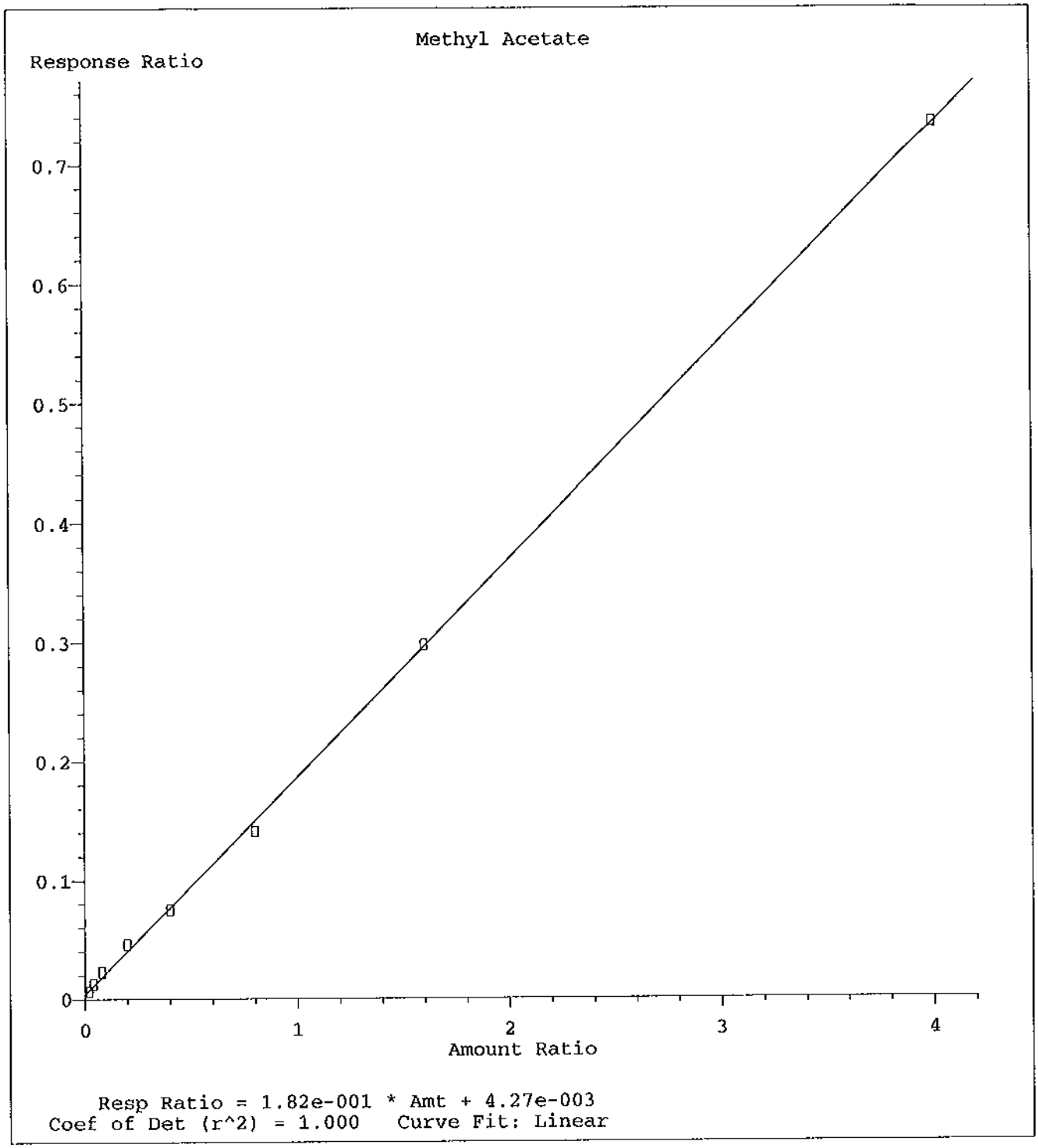
Quant Time: Nov 8 16:00 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration

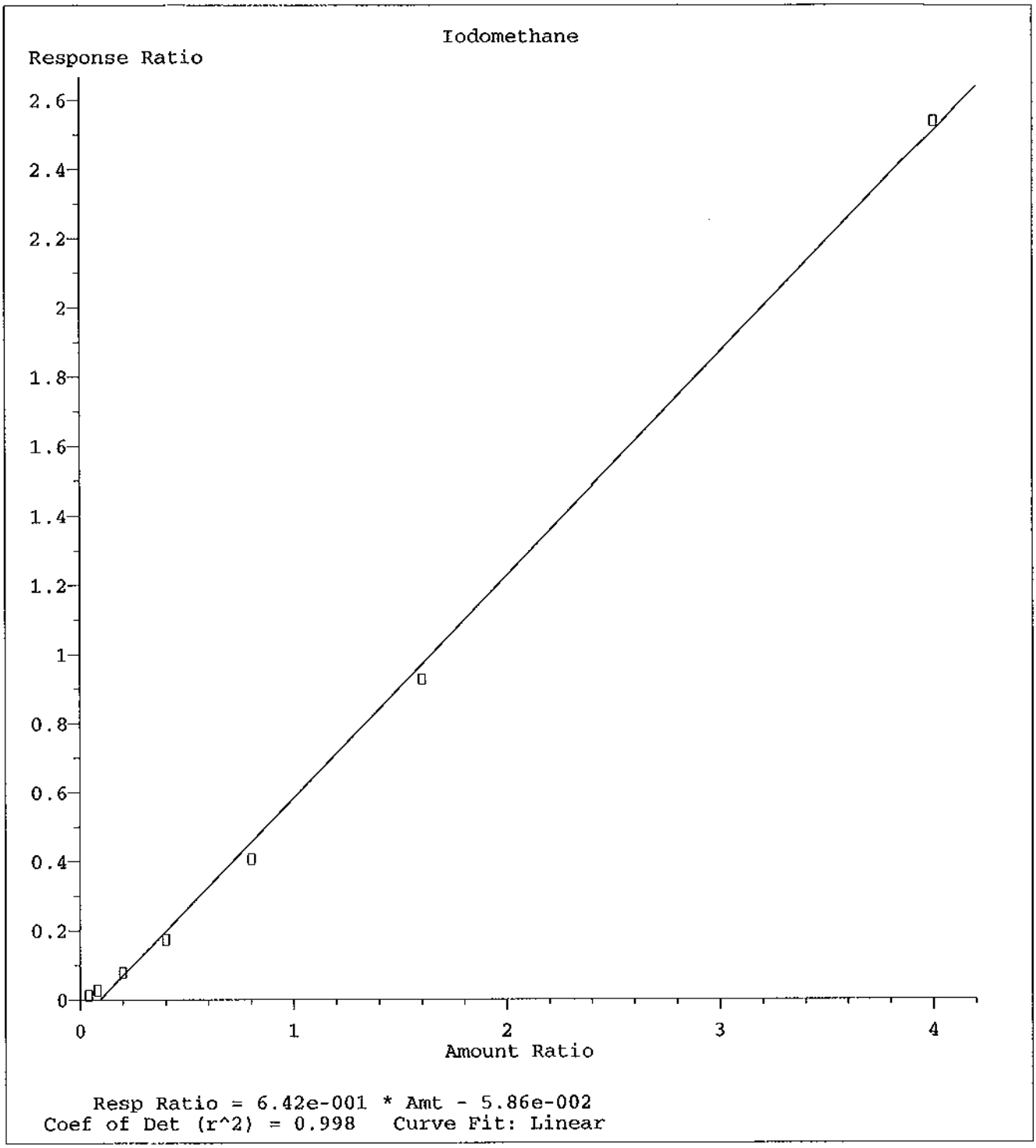




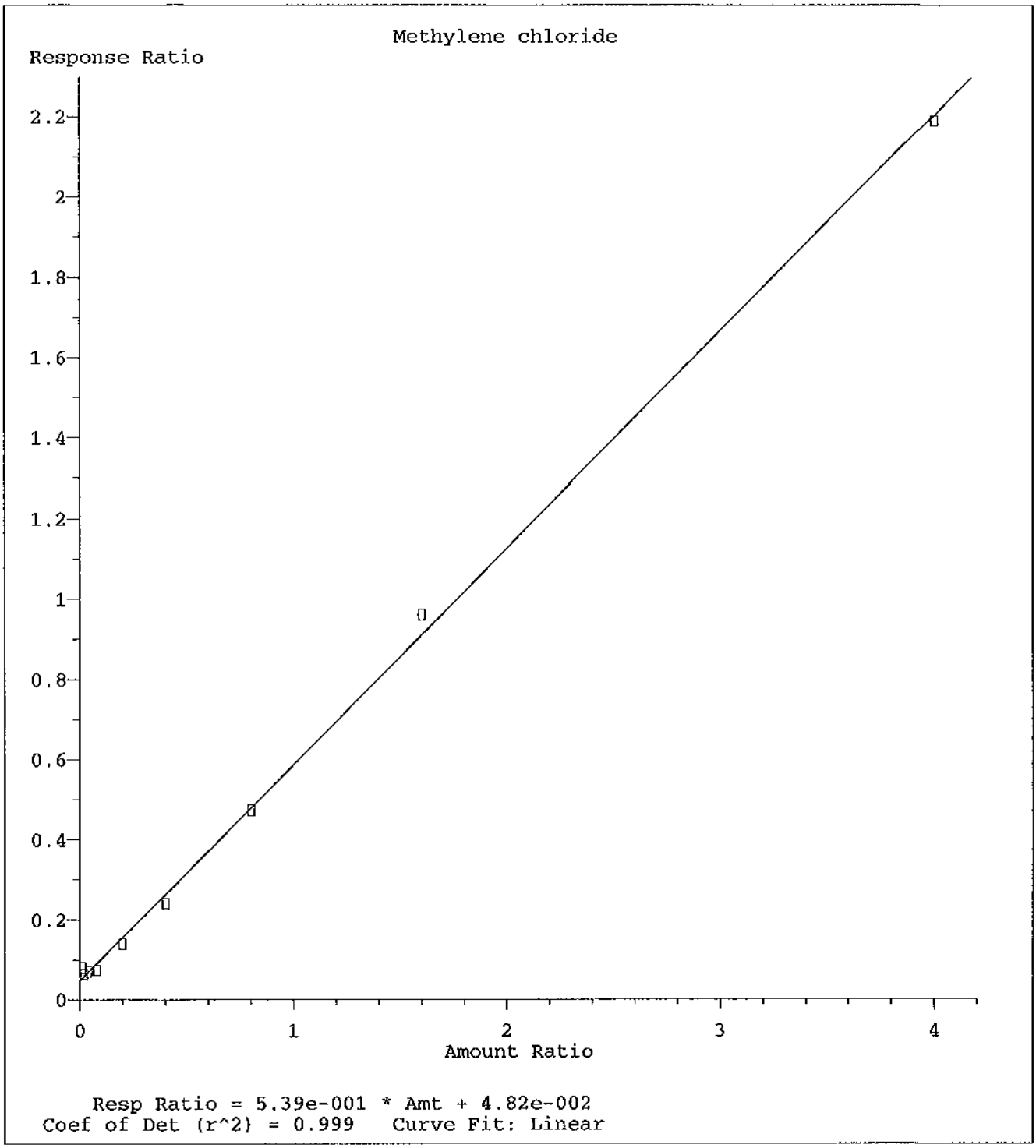
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



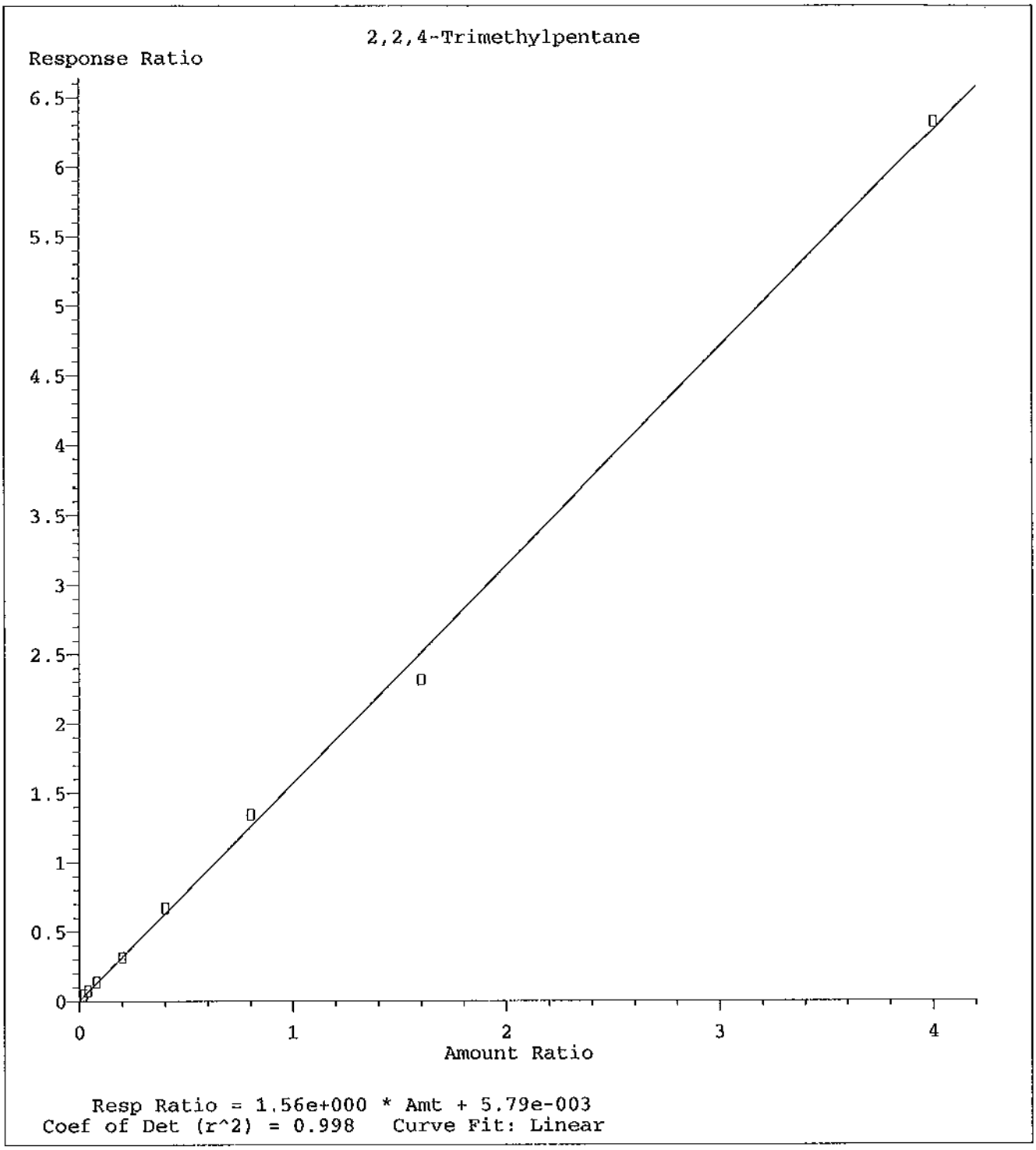
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



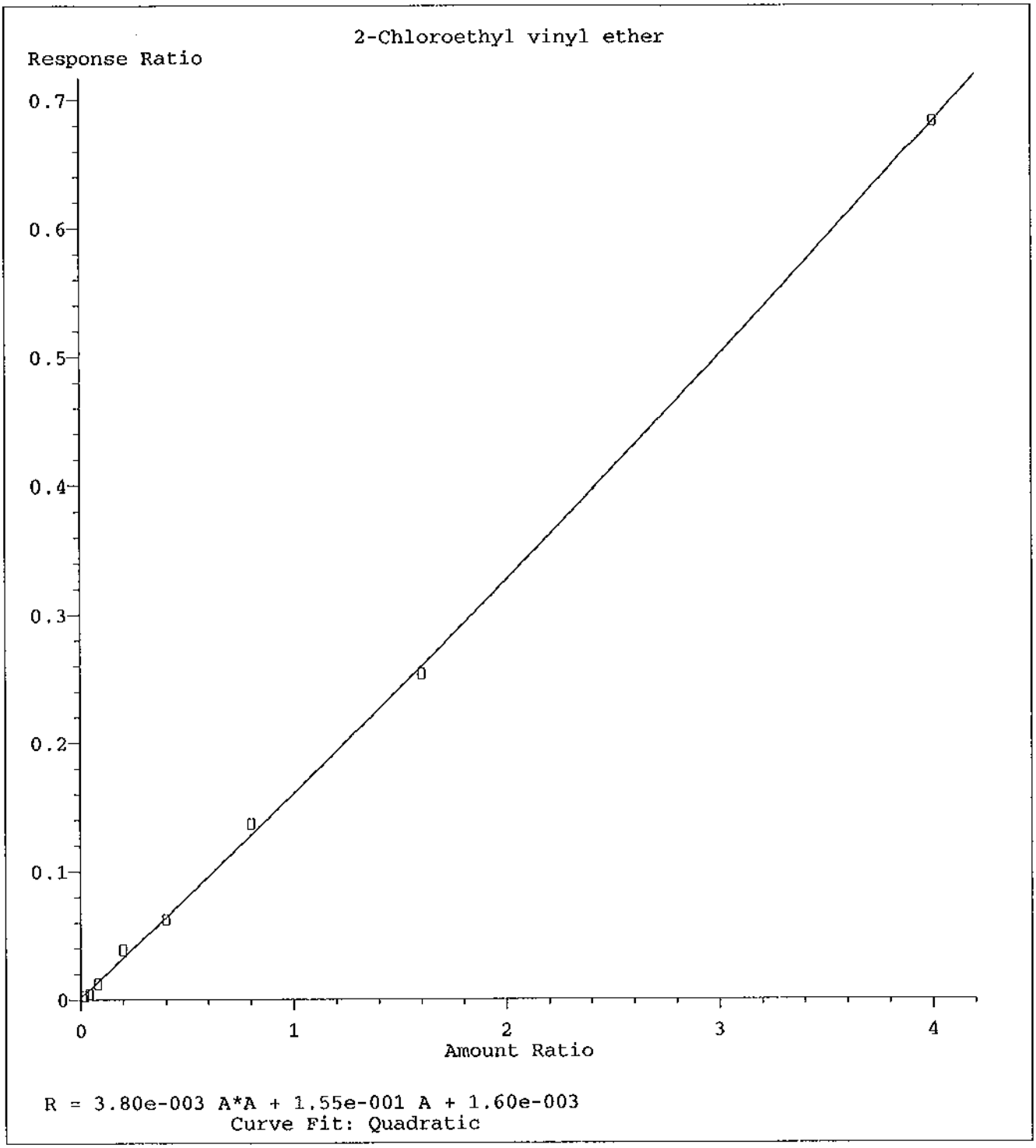
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



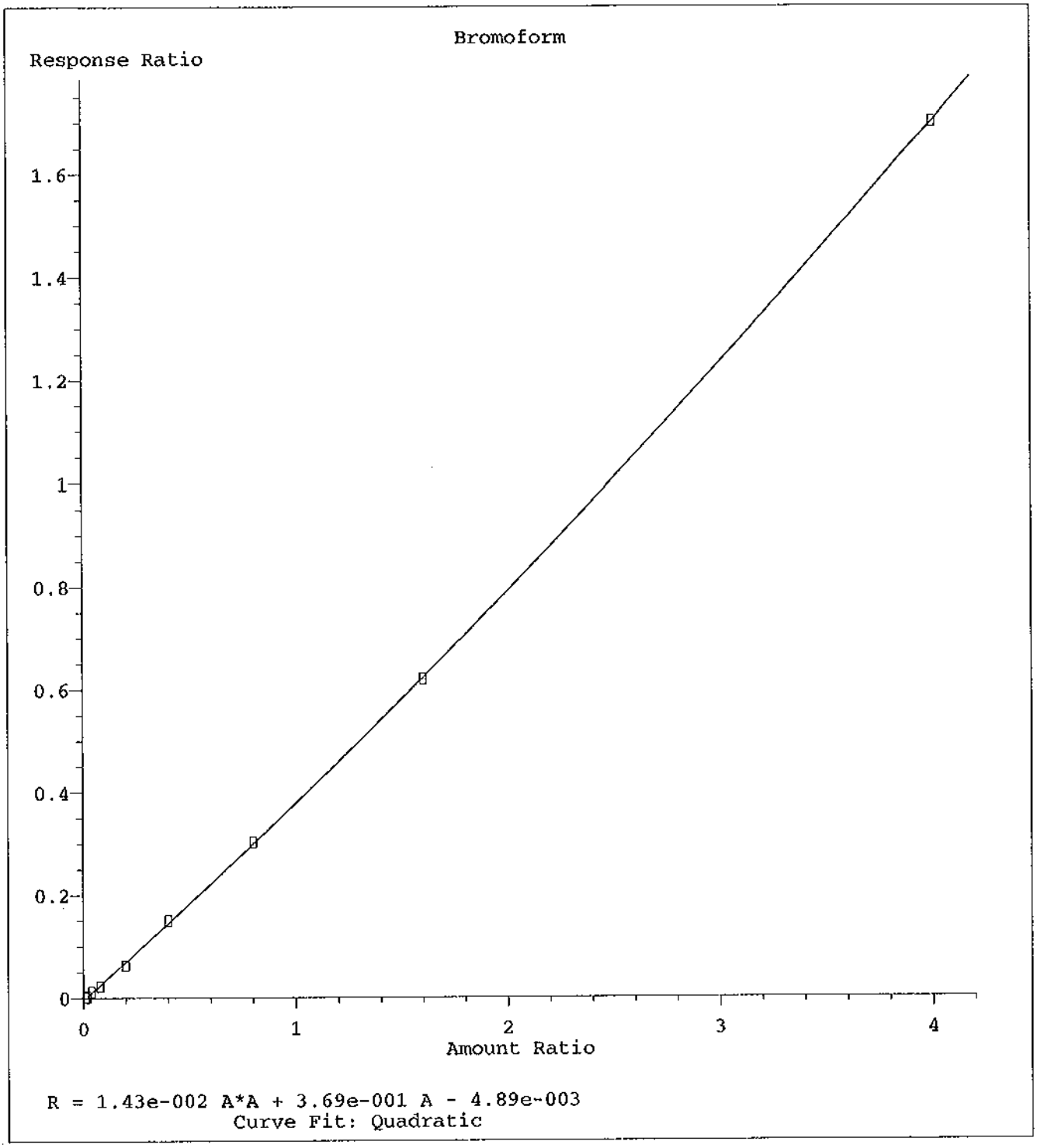
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



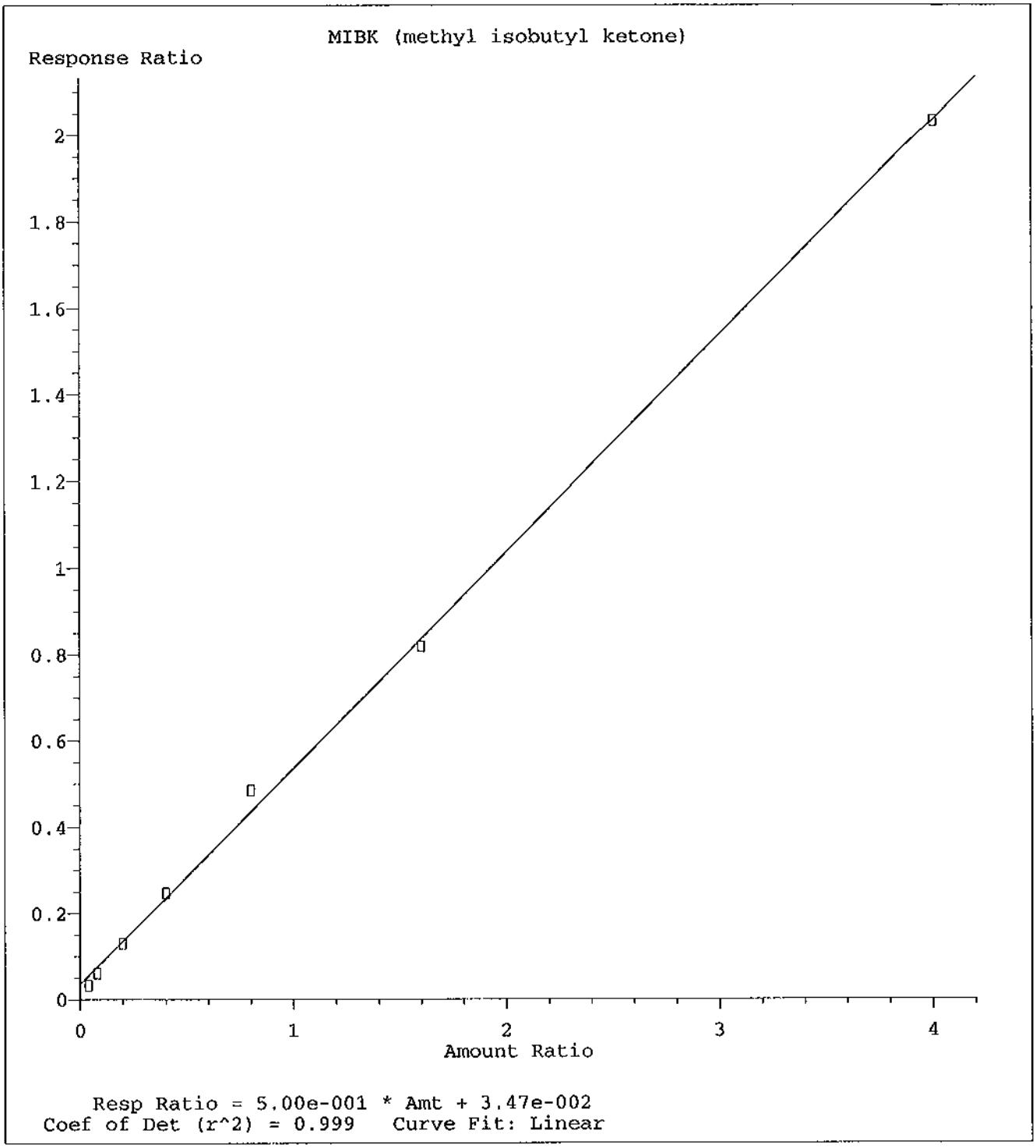
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



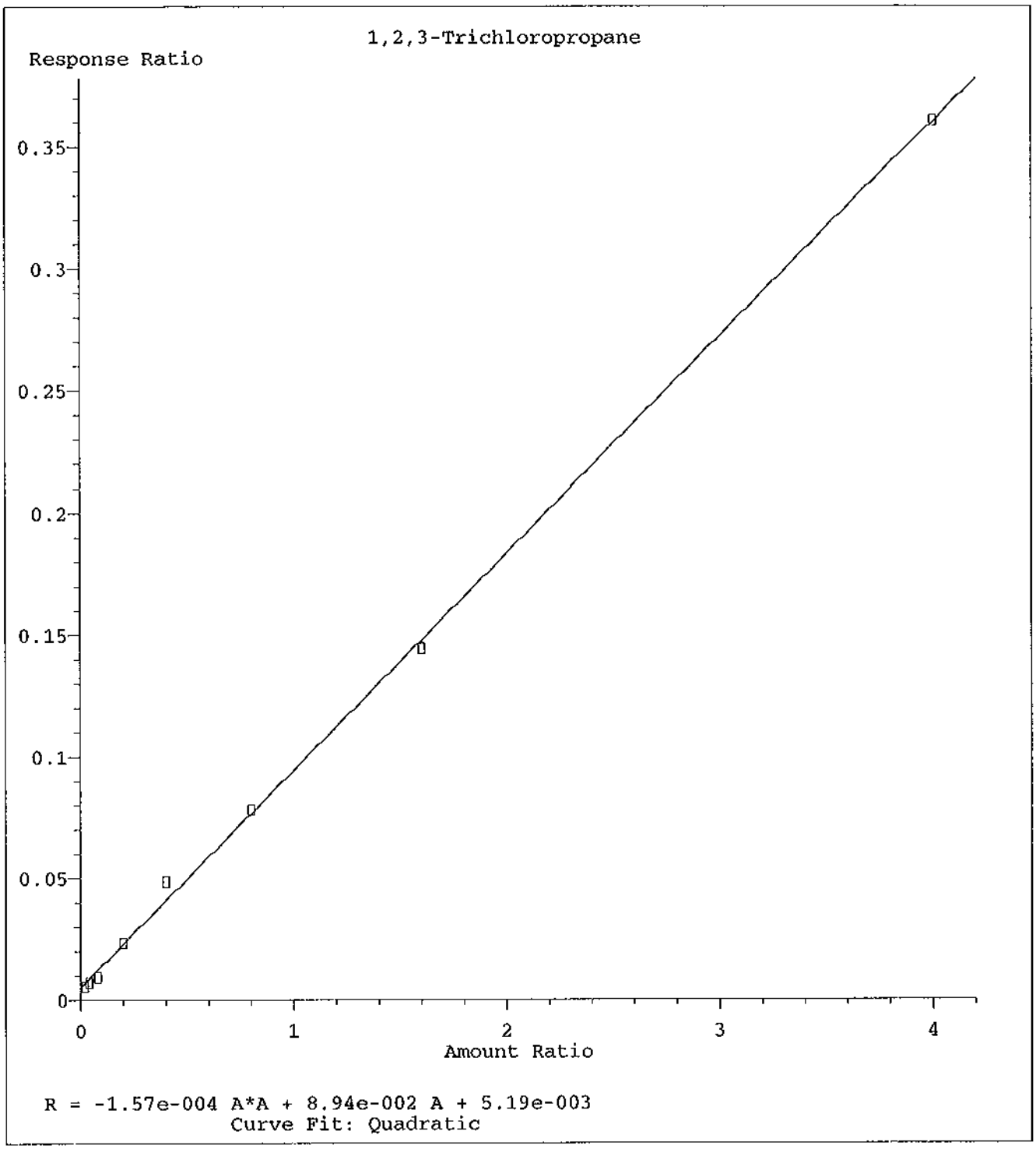
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



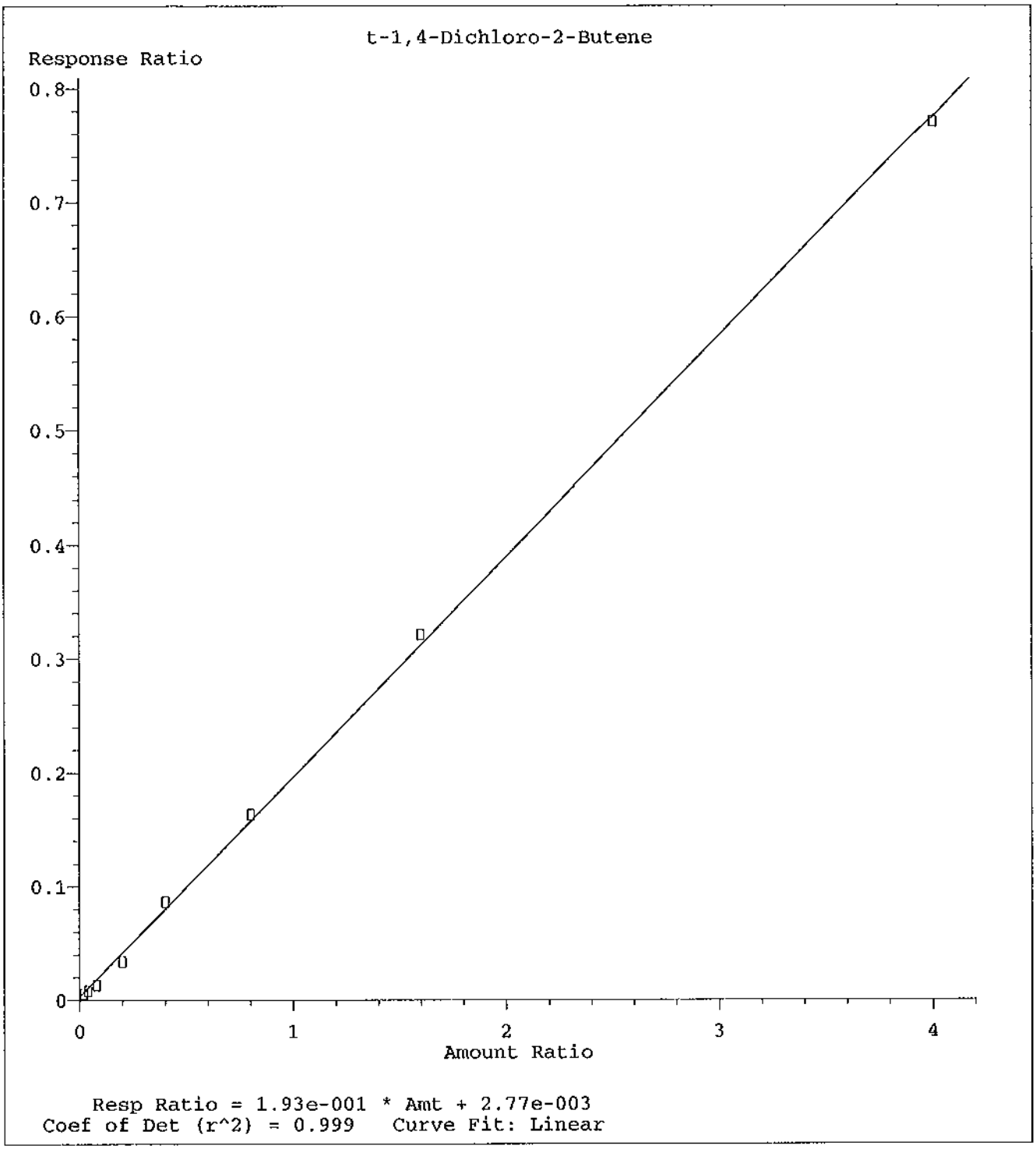
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



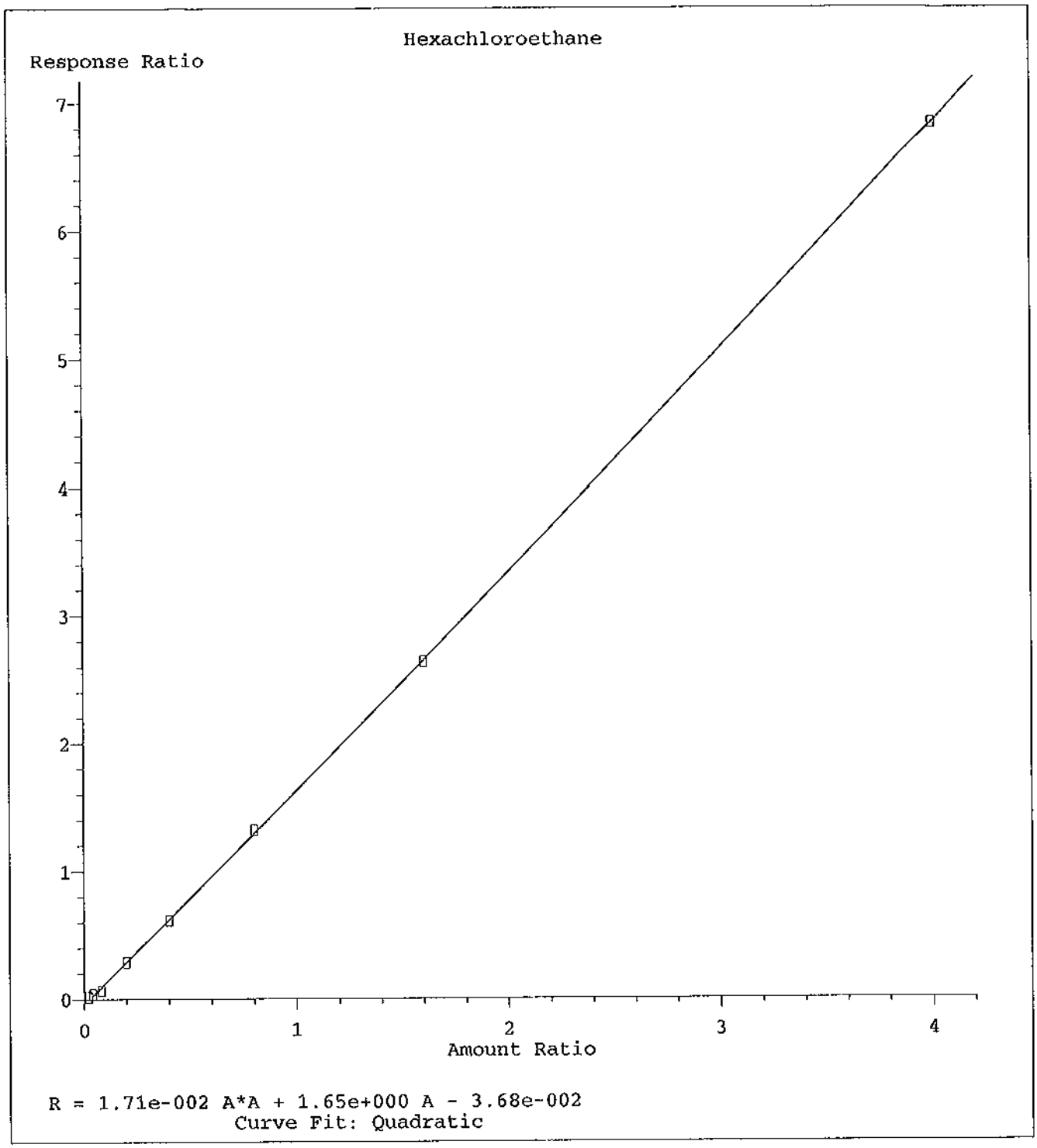
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



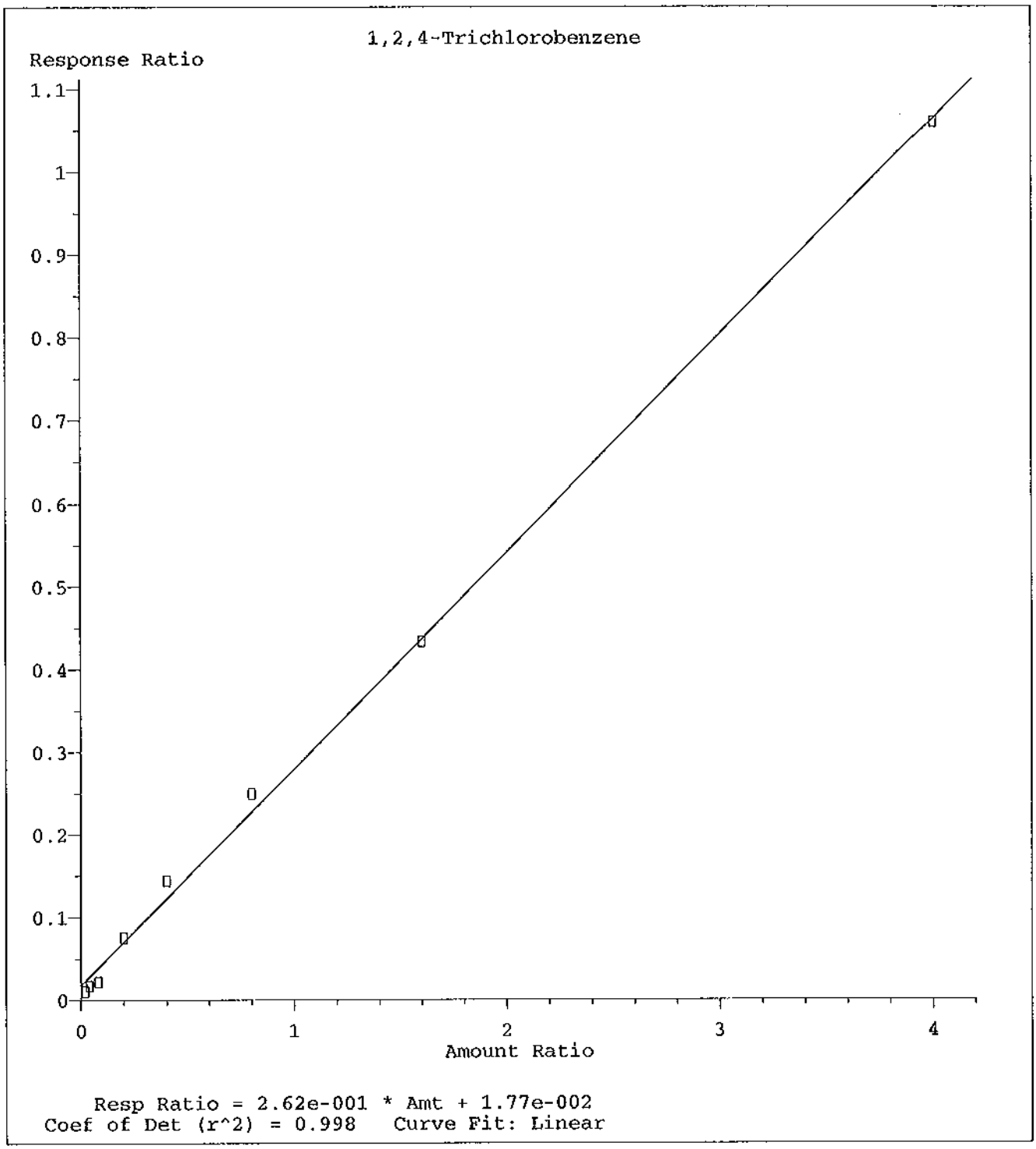
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



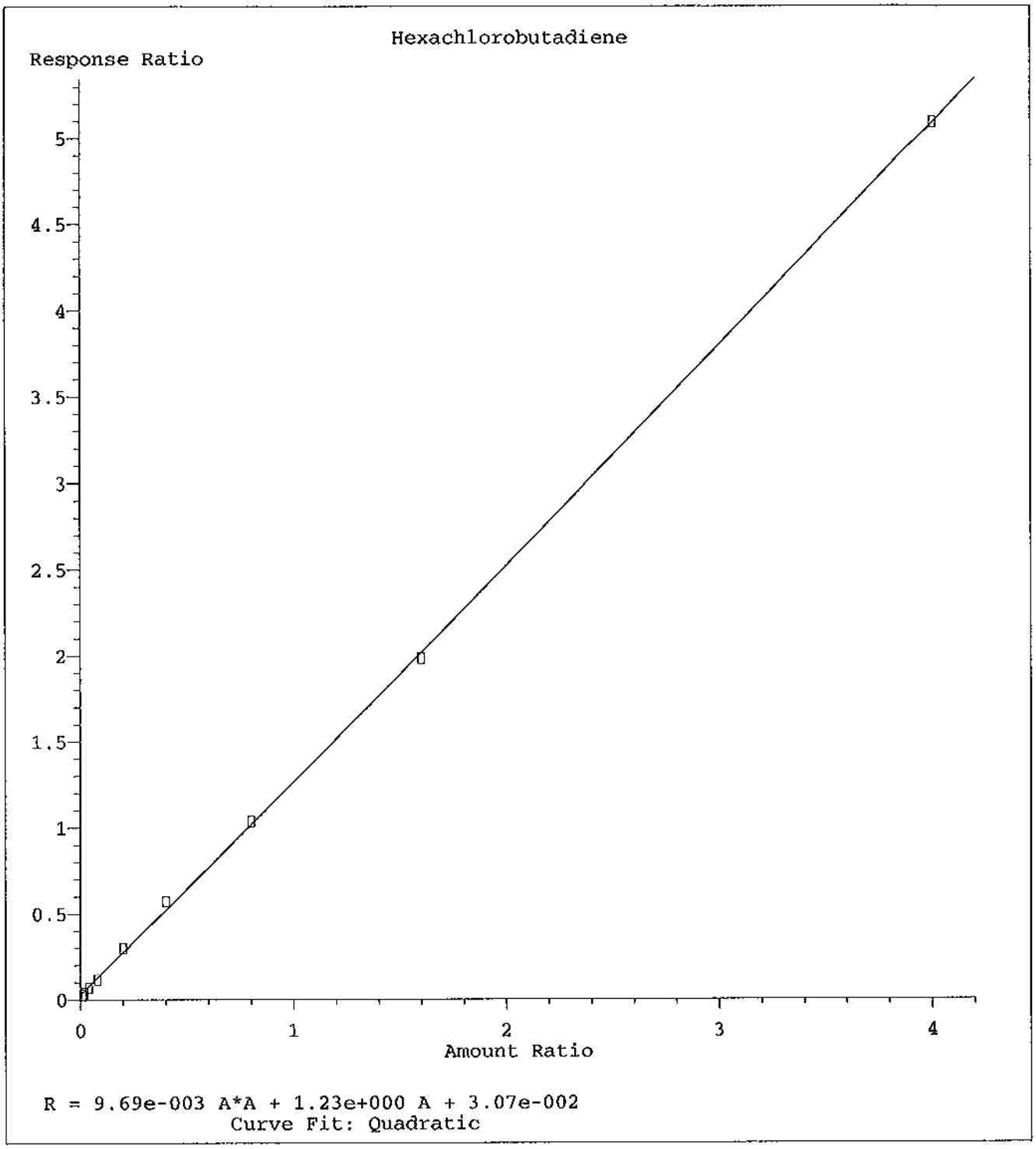
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



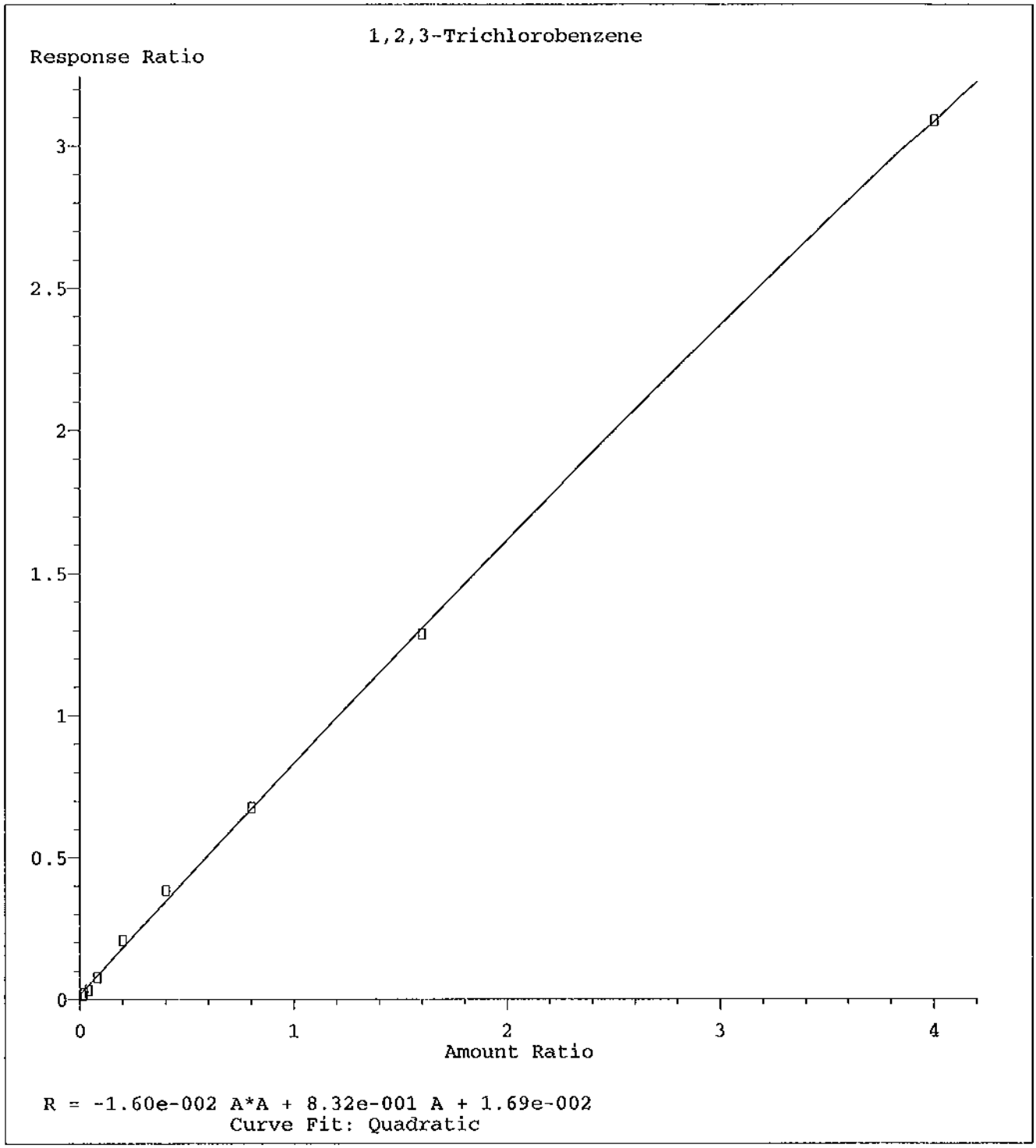
Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011



Method Name: M:\CHICO\DATA\C111104\CALLW.M
Calibration Table Last Updated: Tue Nov 08 15:56:36 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 4 Nov 11 21:38
Instrument: Chico
Initial Cal. Date: 11/04/11
Data File: 1104C17W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.8369	1.083	29	TM		nt
3	TM	Freon 114	0.6910	0.8405	22	TM		nt
4	TM**	Chloromethane	1.083	1.032	4.7	TM**	✓	
5	TM*	Vinyl chloride	0.8726	0.9581	9.8	TM*	✓	
6	TM	1,3-Butadiene	0.0000	0.0008	0.00	TM		
7	TM	Bromomethane	0.5228	0.5289	1.2	TM		
8	TM	Chloroethane	0.1450	0.1469	1.3	TM		
9	TM	Dichlorofluoromethane	1.798	1.938	7.8	TM		
10	TM	Trichlorofluoromethane	1.205	1.390	15	TM		
11		Acetonitrile	0.0219	0.0271	24			nt
12	TM	Acrolein	0.0106	0.0097	8.1	TM		
13	TML	Acetone	0.1914	0.0967	49	TML	17	
14	TM	Freon-113	0.6633	0.8222	24	TM		nt
15	TM*	1,1-DCE	0.6924	0.7816	13	TM*	✓	
16	TM	t-Butanol	0.0033	0.0036	7.3	TM		
17	TML	Methyl Acetate	0.2360	0.2065	13	TML	7.3	
18	TML	Iodomethane	0.4584	0.7873	72	TML	45	nt
19	TM	Acrylonitrile	0.0741	0.0786	6.2	TM		
20	TML	Methylene chloride	1.728	0.7369	57	TML	14	
21	TM	Carbon disulfide	0.5716	0.6567	15	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.125	1.241	10	TM		
23	TM	Trans-1,2-DCE	0.6924	0.7816	13	TM		
24	TM	Diisopropyl Ether	2.051	2.498	22	TM		nt
25	TM**	1,1-DCA	1.437	1.638	14	TM**	✓	
26	TM	Vinyl Acetate	0.1137	0.1488	31	TM		nt
27	TM	Ethyl tert Butyl Ether	1.735	1.825	5.2	TM		
28	TM	MEK (2-Butanone)	0.3247	0.3166	2.5	TM		
29	TM	Cis-1,2-DCE	0.8939	0.8818	1.4	TM		
30	TM	2,2-Dichloropropane	1.328	1.345	1.3	TM		
31	TM*	Chloroform	1.522	1.520	0.09	TM*	✓	
32	TM	Bromochloromethane	0.2696	0.2605	3.4	TM		
33	S	Dibromofluoromethane(S)	0.8694	0.8084	7.0	S		
34	TM	1,1,1-TCA	1.477	1.547	4.8	TM		
35	TM	Cyclohexane	0.9526	1.001	5.1	TM		
36	TM	1,1-Dichloropropene	1.062	1.028	3.2	TM		
37	TML	2,2,4-Trimethylpentane	1.729	1.778	2.8	TML	13	
38	S	1,2-DCA-D4(S)	0.7609	0.6945	8.7	S		
39	TM	Carbon Tetrachloride	1.128	1.202	6.6	TM		
40	TM	Tert Amyl Methyl Ether	1.263	1.121	11	TM		
		Average			13.7			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No: 66186
Date Analyzed: 4 Nov 11 21:38
Instrument: Chico
Cal. Date: 11/04/11
Data File: 1104C17W.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TM	1,2-DCA	0.8662	0.8041	7.2	TM		
42	TM	Benzene	2.702	2.556	5.4	TM		
43	TM	TCE	0.8552	0.8459	1.1	TM		
44	TM	2-Pentanone	0.1532	0.1385	9.6	TM		
45	TM*	1,2-Dichloropropane	0.6164	0.5698	7.6	TM*	✓	
46	TM	Bromodichloromethane	0.9282	0.8470	8.8	TM		
47	TM	Methyl Cyclohexane	0.8836	0.9409	6.5	TM		
48	TM	Dibromomethane	0.3237	0.2947	9.0	TM		
49	TMQ	2-Chloroethyl vinyl ether	0.1663	0.1298	22	TMQ	20	
50	TM	1-Bromo-2-chloroethane	0.5399	0.4958	8.2	TM		
51	TM	Cis-1,3-Dichloropropene	0.7599	0.7321	3.7	TM		
52	TM*	Toluene	2.866	2.709	5.5	TM*	✓	
53	TM	Trans-1,3-Dichloropropene	0.5775	0.5529	4.3	TM		
54	TM	1,1,2-TCA	0.2849	0.2632	7.6	TM		
55	I	Chlorobenzene-D5 (IS)	ISTD			I		
56	S	Toluene-D8(S)	3.683	3.333	9.5	S		
57	TM	1,2-EDB	0.5317	0.4851	8.8	TM		
58	TM	Tetrachloroethene	1.267	1.206	4.9	TM		
59	TM	1-Chlorohexane	1.355	1.453	7.2	TM		
60	TM	1,1,1,2-Tetrachloroethane	0.9389	0.9030	3.8	TM		
61	TM	m&p-Xylene	1.814	1.797	0.90	TM		
62	TM	o-Xylene	1.728	1.793	3.8	TM		
63	TM	Styrene	2.730	2.716	0.55	TM		
64	S	4-Bromofluorobenzene(S)	1.299	1.275	1.9	S		
65	TM	2-Hexanone	0.2068	0.1624	21	TM		nt
66	TM	1,3-Dichloropropane	0.8715	0.7889	9.5	TM		
67	TM	Dibromochloromethane	0.7424	0.6921	6.8	TM	✓	
68	TM**	Chlorobenzene	2.713	2.644	2.5	TM**	✓	
69	TM*	Ethylbenzene	4.738	4.779	0.86	TM*	✓	
70	TM**Q	Bromoform	0.2955	0.3240	9.6	TM**Q	10	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
72	TML	MIBK (methyl isobutyl ketone)	0.6373	0.5287	17	TML	12	
73	TM	Isopropylbenzene	9.335	9.530	2.1	TM		
74	TM**	1,1,2,2-Tetrachloroethane	0.7939	0.7892	0.60	TM**	✓	
75	TMQ	1,2,3-Trichloropropane	0.1353	0.1026	24	TMQ	0.29	
76	TML	t-1,4-Dichloro-2-Butene	0.2032	0.1804	11	TML	10	
77	TM	Bromobenzene	2.050	2.051	0.05	TM		
78	TM	n-Propylbenzene	10.6	11.0	3.2	TM		
79	TM	4-Ethyltoluene	7.433	7.608	2.4	TM		
80	TM	2-Chlorotoluene	7.098	7.129	0.43	TM		
		Average			6.8			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No: 66186
Date Analyzed: 4 Nov 11 21:38
Instrument: Chico
Cal. Date: 11/04/11
Data File: 1104C17W.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	1,3,5-Trimethylbenzene	7.750	7.845	1.2	TM	
82	TM	4-Chlorotoluene	6.236	5.954	4.5	TM	
83	TM	Tert-Butylbenzene	8.231	8.534	3.7	TM	
84	TM	1,2,4-Trimethylbenzene	7.613	7.807	2.5	TM	
85	TM	Sec-Butylbenzene	9.947	10.2	2.8	TM	
86	TM	p-Isopropyltoluene	8.745	8.884	1.6	TM	
87	TM	Benzyl Chloride	1.482	1.410	4.8	TM	
88	TM	1,3-DCB	4.028	4.083	1.4	TM	
89	TM	1,4-DCB	3.774	3.939	4.4	TM	
90	TMQ	Hexachloroethane	1.320	1.519	15	TMQ	2.7
91	TM	n-Butylbenzene	7.363	7.453	1.2	TM	
92	TM	1,2-DCB	3.335	3.299	1.1	TM	
93	TM	1,2-Dibromo-3-chloropropane	0.1210	0.1039	14	TM	
94	TML	1,2,4-Trichlorobenzene	0.3487	0.2875	18	TML	7.1
95	TMQ	Hexachlorobutadiene	1.549	1.333	14	TMQ	2.2
96	TM	Naphthalene	3.551	2.941	17	TM	
97	TMQ	1,2,3-Trichlorobenzene	0.9393	0.8264	12	TMQ	5.0
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			7.0		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C17W.D Vial: 1
Acq On : 4 Nov 11 21:38 Operator: STC
Sample : 111104A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

$\frac{146874 \times 25}{383232 \times 0.8726} = 10.98$

SV 12-9-11

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	12.87	96	383232	25.00000	ppb		0.00
55) Chlorobenzene-D5 (IS)	18.06	117	285952	25.00000	ppb		0.00
71) 1,4-Dichlorobenzene-D (IS)	22.27	152	145408	25.00000	ppb		0.00
System Monitoring Compounds							
33) Dibromofluoromethane(S)	11.45	111	309786	23.24442	ppb		-0.02
Spiked Amount 21.097			Recovery = 110.175%				
38) 1,2-DCA-D4(S)	12.26	65	266154	22.81965	ppb		0.00
Spiked Amount 21.225			Recovery = 107.513%				
56) Toluene-D8(S)	15.53	98	953139	22.62473	ppb		-0.02
Spiked Amount 25.808			Recovery = 87.666%				
64) 4-Bromofluorobenzene(S)	20.14	95	364641	24.53737	ppb		0.00
Spiked Amount 25.459			Recovery = 96.377%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.09	85	166034	12.94255	ppb		100
3) Freon 114	4.36	85	128839	12.16263	ppb		98
4) Chloromethane	4.57	50	158139	9.52791	ppb		96
5) Vinyl chloride	4.84	62	146874	10.97959	ppb		100
7) Bromomethane	5.75	94	81078	10.11613	ppb		88
8) Chloroethane	5.94	64	22520	10.13030	ppb	#	72
9) Dichlorofluoromethane	6.03	67	297115	10.78228	ppb		99
10) Trichlorofluoromethane	6.55	101	213021	11.53287	ppb		84
11) Acetonitrile	7.67	41	51847	154.60056	ug/l		100
12) Acrolein	7.18	56	18650	114.93491	ppb		80
13) Acetone	7.29	43	14816	11.65939	ppb	#	78
14) Freon-113	7.49	101	126039	12.39606	ppb		90
15) 1,1-DCE	7.71	96	119819	11.28904	ppb		91
16) t-Butanol	7.79	59	6826	134.15236	ppb		96
17) Methyl Acetate	8.21	43	31649	10.73342	ppb		96
18) Iodomethane	8.19	142	120681	14.53541	ppb		96
19) Acrylonitrile	8.59	53	12053	10.61510	ppb		92
20) Methylene chloride	8.49	84	112959	11.43186	ppb		99
21) Carbon disulfide	8.58	76	100664	11.48919	ppb		99
22) Methyl t-butyl ether (MtBE	8.91	73	190222	11.03073	ppb		93
23) Trans-1,2-DCE	7.71	96	119819	11.28904	ppb		90
24) Diisopropyl Ether	9.77	45	382971	12.18020	ppb		93
25) 1,1-DCA	9.82	63	251053	11.39548	ppb		93
26) Vinyl Acetate	9.45	43	22816	13.09611	ppb		87
27) Ethyl tert Butyl Ether	10.47	59	279686	10.51547	ppb		94
28) MEK (2-Butanone)	10.46	43	48540	9.75197	ppb	#	82
29) Cis-1,2-DCE	10.84	96	135177	9.86444	ppb		94
30) 2,2-Dichloropropane	10.84	77	206251	10.13387	ppb	#	82
31) Chloroform	11.12	83	233072	9.99057	ppb		97
32) Bromochloromethane	11.35	128	39929	9.65999	ppb		86
34) 1,1,1-TCA	11.86	97	237216	10.47598	ppb		98
35) Cyclohexane	12.03	56	153520	10.51367	ppb		99
36) 1,1-Dichloropropene	12.12	75	157550	9.68078	ppb		97
37) 2,2,4-Trimethylpentane	12.21	57	272496	11.26831	ppb		99
39) Carbon Tetrachloride	12.33	117	184323	10.65611	ppb	#	92
40) Tert Amyl Methyl Ether	12.37	73	171861	8.87970	ppb		96
41) 1,2-DCA	12.40	62	123260	9.28286	ppb	#	92
42) Benzene	12.53	78	391892	9.46210	ppb		98
43) TCE	13.56	95	129673	9.89150	ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1104C17W.D Vial: 1
Acq On : 4 Nov 11 21:38 Operator: STC
Sample : 111104A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) 2-Pentanone	13.23	43	265441	113.00259	ppb		97
45) 1,2-Dichloropropane	13.79	63	87350	9.24480	ppb		96
46) Bromodichloromethane	14.14	83	129834	9.12476	ppb		93
47) Methyl Cyclohexane	13.84	83	144231	10.64773	ppb		98
48) Dibromomethane	14.20	93	45174	9.10431	ppb		96
49) 2-Chloroethyl vinyl ether	14.60	63	19893	8.04430	ppb	#	75
50) 1-Bromo-2-chloroethane	14.91	63	76001	9.18232	ppb		98
51) Cis-1,3-Dichloropropene	15.03	75	112225	9.63387	ppb		88
52) Toluene	15.66	91	415293	9.45177	ppb		97
53) Trans-1,3-Dichloropropene	15.84	75	84755	9.57395	ppb		92
54) 1,1,2-TCA	16.11	83	40341	9.23805	ppb		96
57) 1,2-EDB	17.35	107	55485	9.12311	ppb	#	81
58) Tetrachloroethene	16.81	164	137909	9.51454	ppb		98
59) 1-Chlorohexane	17.73	91	166225	10.72193	ppb		93
60) 1,1,1,2-Tetrachloroethane	18.19	131	103282	9.61726	ppb		96
61) m&p-Xylene	18.38	106	411158	19.81947	ppb		98
62) o-Xylene	19.13	106	205121	10.37547	ppb		99
63) Styrene	19.16	104	310601	9.94538	ppb		90
65) 2-Hexanone	16.14	43	18579	7.85513	ppb		78
66) 1,3-Dichloropropane	16.51	76	90236	9.05216	ppb		98
67) Dibromochloromethane	17.00	129	79166	9.32324	ppb		89
68) Chlorobenzene	18.13	112	302445	9.74529	ppb		95
69) Ethylbenzene	18.25	91	546628	10.08595	ppb		89
70) Bromoform	19.68	173	37064	8.98718	ppb		93
72) MIBK (methyl isobutyl keto	14.71	43	30749	8.82929	ppb		85
73) Isopropylbenzene	19.76	105	554319	10.20910	ppb		93
74) 1,1,2,2-Tetrachloroethane	19.93	83	45901	9.94042	ppb		89
75) 1,2,3-Trichloropropane	20.18	110	5967	10.02879	ppb		79
76) t-1,4-Dichloro-2-Butene	20.26	53	10493	8.97723	ppb		95
77) Bromobenzene	20.50	156	119307	10.00454	ppb		96
78) n-Propylbenzene	20.47	91	637698	10.31789	ppb		98
79) 4-Ethyltoluene	20.66	105	442515	10.23544	ppb		96
80) 2-Chlorotoluene	20.76	91	414623	10.04288	ppb		99
81) 1,3,5-Trimethylbenzene	20.74	105	456304	10.12270	ppb		100
82) 4-Chlorotoluene	20.85	91	346309	9.54764	ppb		96
83) Tert-Butylbenzene	21.39	119	496340	10.36765	ppb		92
84) 1,2,4-Trimethylbenzene	21.45	105	454065	10.25464	ppb		94
85) Sec-Butylbenzene	21.79	105	594456	10.27533	ppb		99
86) p-Isopropyltoluene	22.02	119	516723	10.15853	ppb		100
87) Benzyl Chloride	22.45	91	82013	9.51574	ppb		98
88) 1,3-DCB	22.15	146	237502	10.13687	ppb		94
89) 1,4-DCB	22.33	146	229121	10.43832	ppb		95
90) Hexachloroethane	23.62	117	88323	9.72566	ppb		93
91) n-Butylbenzene	22.72	91	433510	10.12269	ppb		98
92) 1,2-DCB	22.95	146	191902	9.89210	ppb		95
93) 1,2-Dibromo-3-chloropropan	24.17	155	6044	8.59114	ppb	#	66
94) 1,2,4-Trichlorobenzene	25.62	145	16720	9.29112	ppb		99
95) Hexachlorobutadiene	25.89	223	77536	10.22041	ppb		97
96) Naphthalene	25.99	128	171072	8.28298	ppb		95
97) 1,2,3-Trichlorobenzene	26.37	180	48064	9.49647	ppb		98

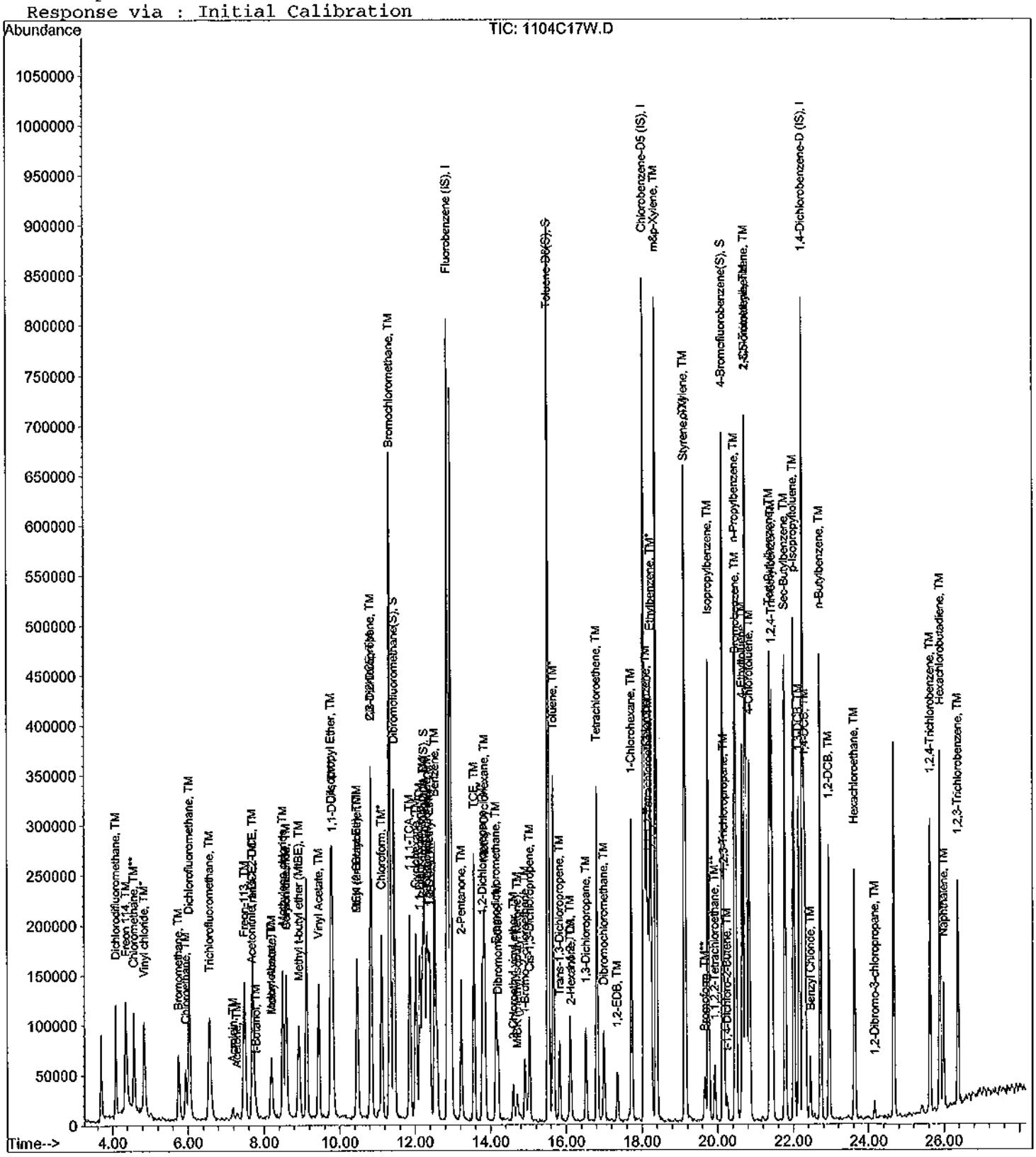
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1104C17W.D Vial: 1
Acq On : 4 Nov 11 21:38 Operator: STC
Sample : 111104A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 5 Nov 11 12:02
Instrument: Chico
Initial Cal. Date: 11/04/11
Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.8369	0.7851	6.2	TM		
3	TM	Freon 114	0.6910	0.6254	9.5	TM		
4	TM**	Chloromethane	1.083	0.9432	13	TM**	✓	
5	TM*	Vinyl chloride	0.8726	0.7242	17	TM*		
6	TM	1,3-Butadiene	0.0000	0.0010	0.00	TM		
7	TM	Bromomethane	0.5228	0.4681	10	TM		
8	TM	Chloroethane	0.1450	0.1743	20	TM		
9	TM	Dichlorofluoromethane	1.798	1.742	3.1	TM		
10	TM	Trichlorofluoromethane	1.205	1.033	14	TM		
11		Acetonitrile	0.0219	0.0297	36			nt
12	TM	Acrolein	0.0106	0.0108	2.0	TM		
13	TML	Acetone	0.1914	0.0970	49	TML	17	
14	TM	Freon-113	0.6633	0.6448	2.8	TM		
15	TM*	1,1-DCE	0.6924	0.6238	9.9	TM*	✓	
16	TM	t-Butanol	0.0033	0.0039	18	TM		
17	TML	Methyl Acetate	0.2360	0.2042	13	TML	6.1	
18	TML	Iodomethane	0.4584	0.4445	3.0	TML	8.0	
19	TM	Acrylonitrile	0.0741	0.0792	6.9	TM		
20	TML	Methylene chloride	1.728	0.6257	64	TML	6.3	
21	TM	Carbon disulfide	0.5716	0.6036	5.6	TM		
22	TM	Methyl t-butyl ether (MtBE)	1.125	1.021	9.2	TM		
23	TM	Trans-1,2-DCE	0.6924	0.6238	9.9	TM		
24	TM	Diisopropyl Ether	2.051	2.325	13	TM		
25	TM**	1,1-DCA	1.437	1.441	0.26	TM**	✓	
26	TM	Vinyl Acetate	0.1137	0.1472	30	TM		nt
27	TM	Ethyl tert Butyl Ether	1.735	1.623	6.5	TM		
28	TM	MEK (2-Butanone)	0.3247	0.2920	10	TM		
29	TM	Cis-1,2-DCE	0.8939	0.7986	11	TM		
30	TM	2,2-Dichloropropane	1.328	1.186	11	TM		
31	TM*	Chloroform	1.522	1.354	11	TM*	✓	
32	TM	Bromochloromethane	0.2696	0.2307	14	TM		
33	S	Dibromofluoromethane(S)	0.8694	0.8279	4.8	S		
34	TM	1,1,1-TCA	1.477	1.252	15	TM		
35	TM	Cyclohexane	0.9526	1.154	21	TM		nt
36	TM	1,1-Dichloropropene	1.062	1.012	4.7	TM		
37	TML	2,2,4-Trimethylpentane	1.729	1.864	7.8	TML	18	
38	S	1,2-DCA-D4(S)	0.7609	0.6699	12	S		
39	TM	Carbon Tetrachloride	1.128	0.9233	18	TM		
40	TM	Tert Amyl Methyl Ether	1.263	1.145	9.3	TM		
		Average			13.4			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No: 66186
Date Analyzed: 5 Nov 11 12:02
Instrument: Chico
Cal. Date: 11/04/11
Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	1,2-DCA	0.8662	0.6991	19	TM	
42	TM	Benzene	2.702	2.863	5.9	TM	
43	TM	TCE	0.8552	0.7844	8.3	TM	
44	TM	2-Pentanone	0.1532	0.1741	14	TM	
45	TM*	1,2-Dichloropropane	0.6164	0.6905	12	TM*	✓
46	TM	Bromodichloromethane	0.9282	0.8244	11	TM	
47	TM	Methyl Cyclohexane	0.8836	0.9955	13	TM	
48	TM	Dibromomethane	0.3237	0.2887	11	TM	
49	TMQ	2-Chloroethyl vinyl ether	0.1663	0.1509	9.2	TMQ	6.1
50	TM	1-Bromo-2-chloroethane	0.5399	0.5788	7.2	TM	
51	TM	Cis-1,3-Dichloropropene	0.7599	0.7813	2.8	TM	
52	TM*	Toluene	2.866	2.831	1.2	TM*	✓
53	TM	Trans-1,3-Dichloropropene	0.5775	0.5443	5.7	TM	
54	TM	1,1,2-TCA	0.2849	0.2931	2.9	TM	
55	I	Chlorobenzene-D5 (IS)	ISTD			I	
56	S	Toluene-D8(S)	3.683	3.519	4.5	S	
57	TM	1,2-EDB	0.5317	0.4671	12	TM	
58	TM	Tetrachloroethene	1.267	1.135	10	TM	
59	TM	1-Chlorohexane	1.355	1.455	7.4	TM	
60	TM	1,1,1,2-Tetrachloroethane	0.9389	0.8573	8.7	TM	
61	TM	m&p-Xylene	1.814	1.772	2.3	TM	
62	TM	o-Xylene	1.728	1.765	2.1	TM	
63	TM	Styrene	2.730	2.670	2.2	TM	
64	S	4-Bromofluorobenzene(S)	1.299	1.319	1.5	S	
65	TM	2-Hexanone	0.2068	0.2246	8.6	TM	
66	TM	1,3-Dichloropropane	0.8715	0.9196	5.5	TM	
67	TM	Dibromochloromethane	0.7424	0.6310	15	TM	
68	TM**	Chlorobenzene	2.713	2.573	5.2	TM**	✓
69	TM*	Ethylbenzene	4.738	4.712	0.56	TM*	✓
70	TM**Q	Bromoform	0.2955	0.2923	1.1	TM**Q	19
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TML	MIBK (methyl isobutyl ketone)	0.6373	0.6498	2.0	TML	12
73	TM	Isopropylbenzene	9.335	8.879	4.9	TM	
74	TM**	1,1,2,2-Tetrachloroethane	0.7939	0.8756	10	TM**	✓
75	TMQ	1,2,3-Trichloropropane	0.1353	0.0906	33	TMQ	13
76	TML	t-1,4-Dichloro-2-Butene	0.2032	0.1862	8.4	TML	7.2
77	TM	Bromobenzene	2.050	1.944	5.2	TM	
78	TM	n-Propylbenzene	10.6	10.8	1.6	TM	
79	TM	4-Ethyltoluene	7.433	7.612	2.4	TM	
80	TM	2-Chlorotoluene	7.098	7.077	0.30	TM	
		Average			7.3		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No: 66186
Date Analyzed: 5 Nov 11 12:02
Instrument: Chico
Cal. Date: 11/04/11
Data File: 1105C02W.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	1,3,5-Trimethylbenzene	7.750	7.247	6.5	TM		
82	TM	4-Chlorotoluene	6.236	6.078	2.5	TM		
83	TM	Tert-Butylbenzene	8.231	8.192	0.47	TM		
84	TM	1,2,4-Trimethylbenzene	7.613	7.471	1.9	TM		
85	TM	Sec-Butylbenzene	9.947	10.1	1.9	TM		
86	TM	p-Isopropyltoluene	8.745	8.532	2.4	TM		
87	TM	Benzyl Chloride	1.482	1.565	5.6	TM		
88	TM	1,3-DCB	4.028	4.213	4.6	TM		
89	TM	1,4-DCB	3.774	4.014	6.4	TM		
90	TMQ	Hexachloroethane	1.320	1.402	6.2	TMQ	9.8	
91	TM	n-Butylbenzene	7.363	7.398	0.47	TM		
92	TM	1,2-DCB	3.335	3.392	1.7	TM		
93	TM	1,2-Dibromo-3-chloropropane	0.1210	0.1330	10.0	TM		
94	TML	1,2,4-Trichlorobenzene	0.3487	0.2630	25	TML	16	
95	TMQ	Hexachlorobutadiene	1.549	1.156	25	TMQ	12	
96	TM	Naphthalene	3.551	3.109	12	TM		
97	TMQ	1,2,3-Trichlorobenzene	0.9393	0.6883	27	TMQ	22	nt
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			8.2			

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C02W.D Vial: 1
Acq On : 5 Nov 11 12:02 Operator: STC
Sample : VOC STD 11-5-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.84	96	595584	25.00000 ppb		-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	402432	25.00000 ppb		-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.24	152	212800	25.00000 ppb		-0.03
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	416096	20.08951 ppb		-0.03
Spiked Amount 21.097			Recovery = 95.226%			
38) 1,2-DCA-D4(S)	12.23	65	338741	18.68798 ppb		-0.03
Spiked Amount 21.225			Recovery = 88.046%			
56) Toluene-D8(S)	15.51	98	1461966	24.65841 ppb		-0.03
Spiked Amount 25.808			Recovery = 95.543%			
64) 4-Bromofluorobenzene(S)	20.12	95	540544	25.84605 ppb		-0.03
Spiked Amount 25.459			Recovery = 101.518%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.08	85	187041	9.38163 ppb		100
3) Freon 114	4.33	85	148987	9.04997 ppb		85
4) Chloromethane	4.55	50	224711	8.71168 ppb	#	85
5) Vinyl chloride	4.81	62	172524	8.29869 ppb		97
7) Bromomethane	5.73	94	111513	8.95273 ppb		99
8) Chloroethane	5.92	64	41520	12.01794 ppb	#	90
9) Dichlorofluoromethane	6.01	67	415073	9.69235 ppb		99
10) Trichlorofluoromethane	6.53	101	246137	8.57453 ppb		89
11) Acetonitrile	7.66	41	88515	169.83338 ug/l		100
12) Acrolein	7.15	56	32139	127.44542 ppb		93
13) Acetone	7.28	43	23106	11.70007 ppb	#	87
14) Freon-113	7.46	101	153621	9.72183 ppb		91
15) 1,1-DCE	7.69	96	148600	9.00884 ppb		85
16) t-Butanol	7.76	59	11630	147.07217 ppb		98
17) Methyl Acetate	8.19	43	48642	10.60824 ppb		97
18) Iodomethane	8.16	142	105892	9.20009 ppb		90
19) Acrylonitrile	8.56	53	18858	10.68669 ppb		99
20) Methylene chloride	8.48	84	149070	9.37007 ppb		98
21) Carbon disulfide	8.57	76	143808	10.56129 ppb		99
22) Methyl t-butyl ether (MtBE	8.90	73	243242	9.07613 ppb		91
23) Trans-1,2-DCE	7.69	96	148600	9.00884 ppb		83
24) Diisopropyl Ether	9.76	45	553895	11.33535 ppb		92
25) 1,1-DCA	9.79	63	343267	10.02578 ppb	#	91
26) Vinyl Acetate	9.43	43	35066	12.95114 ppb	#	77
27) Ethyl tert Butyl Ether	10.45	59	386566	9.35191 ppb		97
28) MEK (2-Butanone)	10.45	43	69554	8.99153 ppb	#	92
29) Cis-1,2-DCE	10.82	96	190260	8.93379 ppb		95
30) 2,2-Dichloropropane	10.81	77	282489	8.93099 ppb		99
31) Chloroform	11.09	83	322565	8.89684 ppb		97
32) Bromochloromethane	11.32	128	54954	8.55473 ppb		88
34) 1,1,1-TCA	11.84	97	298251	8.47523 ppb		95
35) Cyclohexane	12.00	56	274837	12.11110 ppb		83
36) 1,1-Dichloropropene	12.11	75	240980	9.52778 ppb		94
37) 2,2,4-Trimethylpentane	12.18	57	443989	11.81828 ppb		99
39) Carbon Tetrachloride	12.30	117	219963	8.18253 ppb		97
40) Tert Amyl Methyl Ether	12.35	73	272887	9.07241 ppb		98
41) 1,2-DCA	12.38	62	166546	8.07072 ppb		99
42) Benzene	12.50	78	681947	10.59475 ppb		98
43) TCE	13.54	95	186872	9.17224 ppb		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C02W.D Vial: 1
Acq On : 5 Nov 11 12:02 Operator: STC
Sample : VOC STD 11-5-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	2-Pentanone	13.20	43	518357	141.99339	ppb		99
45)	1,2-Dichloropropane	13.77	63	164490	11.20193	ppb	#	93
46)	Bromodichloromethane	14.12	83	196399	8.88160	ppb		96
47)	Methyl Cyclohexane	13.82	83	237152	11.26533	ppb		95
48)	Dibromomethane	14.18	93	68773	8.91857	ppb		96
49)	2-Chloroethyl vinyl ether	14.57	63	35959	9.38611	ppb	#	87
50)	1-Bromo-2-chloroethane	14.89	63	137887	10.71951	ppb		89
51)	Cis-1,3-Dichloropropene	15.01	75	186126	10.28104	ppb		89
52)	Toluene	15.64	91	674495	9.87770	ppb		99
53)	Trans-1,3-Dichloropropene	15.81	75	129670	9.42506	ppb		95
54)	1,1,2-TCA	16.08	83	69828	10.28921	ppb		88
57)	1,2-EDB	17.33	107	75185	8.78414	ppb		89
58)	Tetrachloroethene	16.80	164	182629	8.95294	ppb		92
59)	1-Chlorohexane	17.72	91	234240	10.73590	ppb		95
60)	1,1,1,2-Tetrachloroethane	18.16	131	138000	9.13075	ppb		95
61)	m&p-Xylene	18.37	106	570391	19.53694	ppb		96
62)	o-Xylene	19.11	106	284102	10.21110	ppb		94
63)	Styrene	19.13	104	429791	9.77859	ppb		98
65)	2-Hexanone	16.11	43	36154	10.86145	ppb		81
66)	1,3-Dichloropropane	16.50	76	148029	10.55164	ppb		99
67)	Dibromochloromethane	16.98	129	101571	8.49960	ppb		86
68)	Chlorobenzene	18.11	112	414257	9.48459	ppb		97
69)	Ethylbenzene	18.22	91	758442	9.94370	ppb		89
70)	Bromoform	19.64	173	47045	8.14812	ppb		99
72)	MIBK (methyl isobutyl keto	14.68	43	55310	11.24986	ppb		85
73)	Isopropylbenzene	19.74	105	755753	9.51095	ppb		96
74)	1,1,2,2-Tetrachloroethane	19.90	83	74527	11.02841	ppb		77
75)	1,2,3-Trichloropropane	20.17	110	7715	8.69010	ppb	#	67
76)	t-1,4-Dichloro-2-Butene	20.24	53	15851	9.27804	ppb		95
77)	Bromobenzene	20.48	156	165490	9.48243	ppb		86
78)	n-Propylbenzene	20.45	91	919293	10.16357	ppb		97
79)	4-Ethyltoluene	20.65	105	647894	10.23998	ppb		95
80)	2-Chlorotoluene	20.75	91	602388	9.97006	ppb		96
81)	1,3,5-Trimethylbenzene	20.73	105	616868	9.35085	ppb		97
82)	4-Chlorotoluene	20.82	91	517389	9.74689	ppb		100
83)	Tert-Butylbenzene	21.36	119	697318	9.95287	ppb		96
84)	1,2,4-Trimethylbenzene	21.42	105	635940	9.81376	ppb		91
85)	Sec-Butylbenzene	21.76	105	862804	10.19072	ppb		97
86)	p-Isopropyltoluene	22.00	119	726226	9.75577	ppb		96
87)	Benzyl Chloride	22.44	91	133182	10.55898	ppb		95
88)	1,3-DCB	22.14	146	358645	10.45967	ppb		97
89)	1,4-DCB	22.30	146	341697	10.63711	ppb		89
90)	Hexachloroethane	23.61	117	119303	9.02207	ppb		92
91)	n-Butylbenzene	22.71	91	629702	10.04728	ppb		94
92)	1,2-DCB	22.93	146	288763	10.17108	ppb		92
93)	1,2-Dibromo-3-chloropropan	24.15	155	11323	10.99776	ppb		82
94)	1,2,4-Trichlorobenzene	25.61	145	22384	8.35546	ppb		94
95)	Hexachlorobutadiene	25.87	223	98370	8.78100	ppb		96
96)	Naphthalene	25.97	128	264651	8.75584	ppb		99
97)	1,2,3-Trichlorobenzene	26.36	180	58584	7.81347	ppb		95

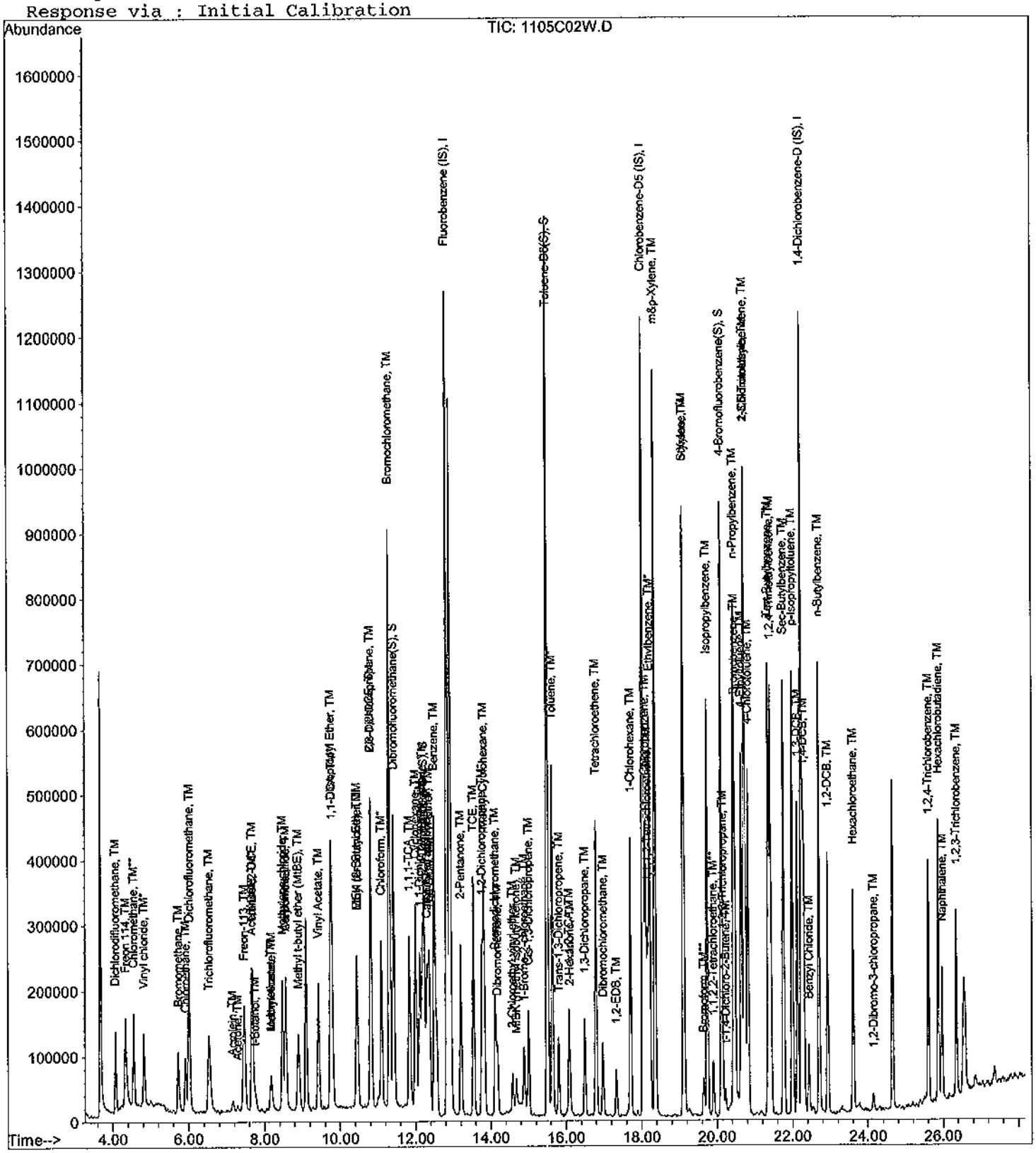
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C02W.D Vial: 1
Acq On : 5 Nov 11 12:02 Operator: STC
Sample : VOC STD 11-5-11@10ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 66186
Case No: Initial Cal. Date: 10/30/11
Matrix: Instrument: Chico Initials:

			1030C05W.D	1030C06W.D	1030C07W.D	1030C08W.D	1030C09W.D	1030C10W.D	1030C11W.D							
		Compound	0.5	1	5	10	20	40	100				Avg	%RSD		
1	I	Fluorobenzene (IS)	ISTD													
2	TMHBL	Gasoline	17.8	8.144	5.154	3.050	2.484	2.343	2.274				5.9	96	TMHBL	1.000
3	I	Chlorobenzene-D5 (IS)	ISTD													
4	I	1,4-Dichlorobenzene-D (IS)	ISTD													
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C04W.D Vial: 1
Acq On : 30 Oct 11 15:33 Operator: STC
Sample : VOC MIX MARKER Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Oct 31 8:20 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:19:23 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1053416	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1584235	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1040375	25.00000	ppb	0.01

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	14.31	TIC	19553836m	92.16198	ppb	0

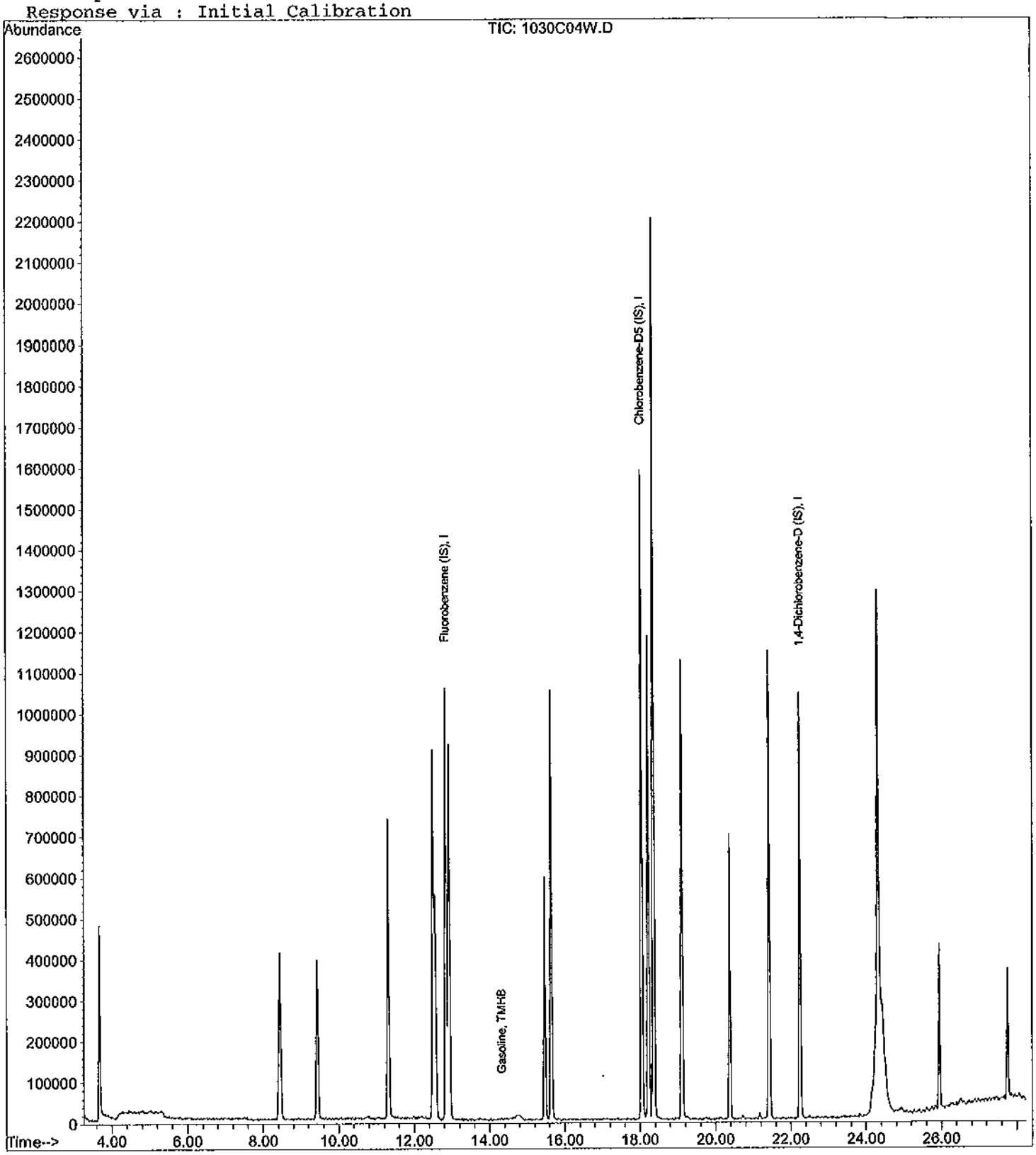
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C04W.D Vial: 1
Acq On : 30 Oct 11 15:33 Operator: STC
Sample : VOC MIX MARKER Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Oct 31 8:20 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:29 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.86	TIC	1064868	25.00000	ppb	0.02
3) Chlorobenzene-D5 (IS)	18.05	TIC	1075283	25.00000	ppb	0.01
4) 1,4-Dichlorobenzene-D (IS)	22.26	TIC	1031464	25.00000	ppb	0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.05	TIC	15186538m	62.79631	ppb	100

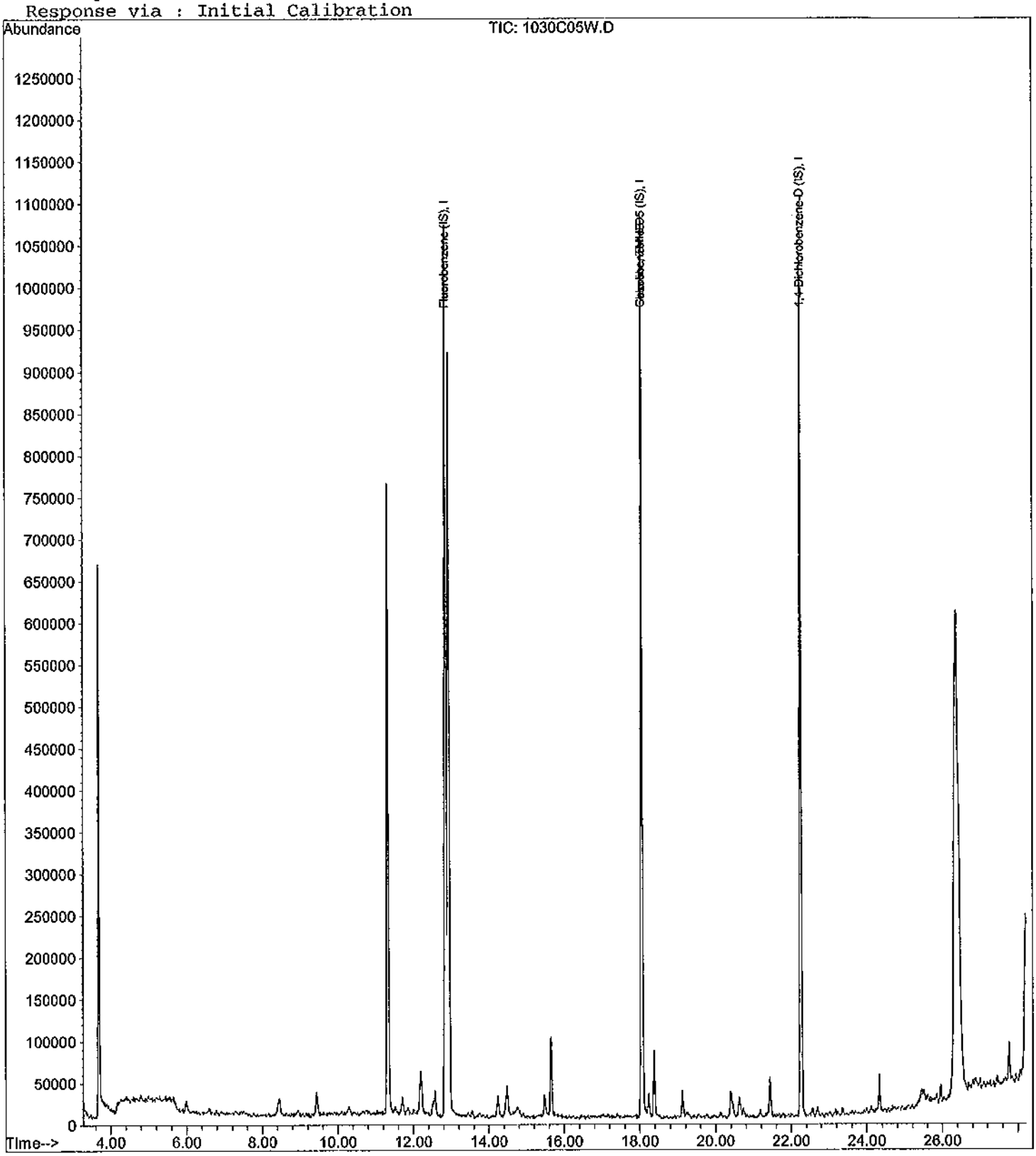
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C05W.D Vial: 1
Acq On : 30 Oct 11 16:17 Operator: STC
Sample : Vol Std 10-30-11@20ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:29 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:30 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1074535	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1105653	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1049854	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	17501250m	71.71659	ppb	100

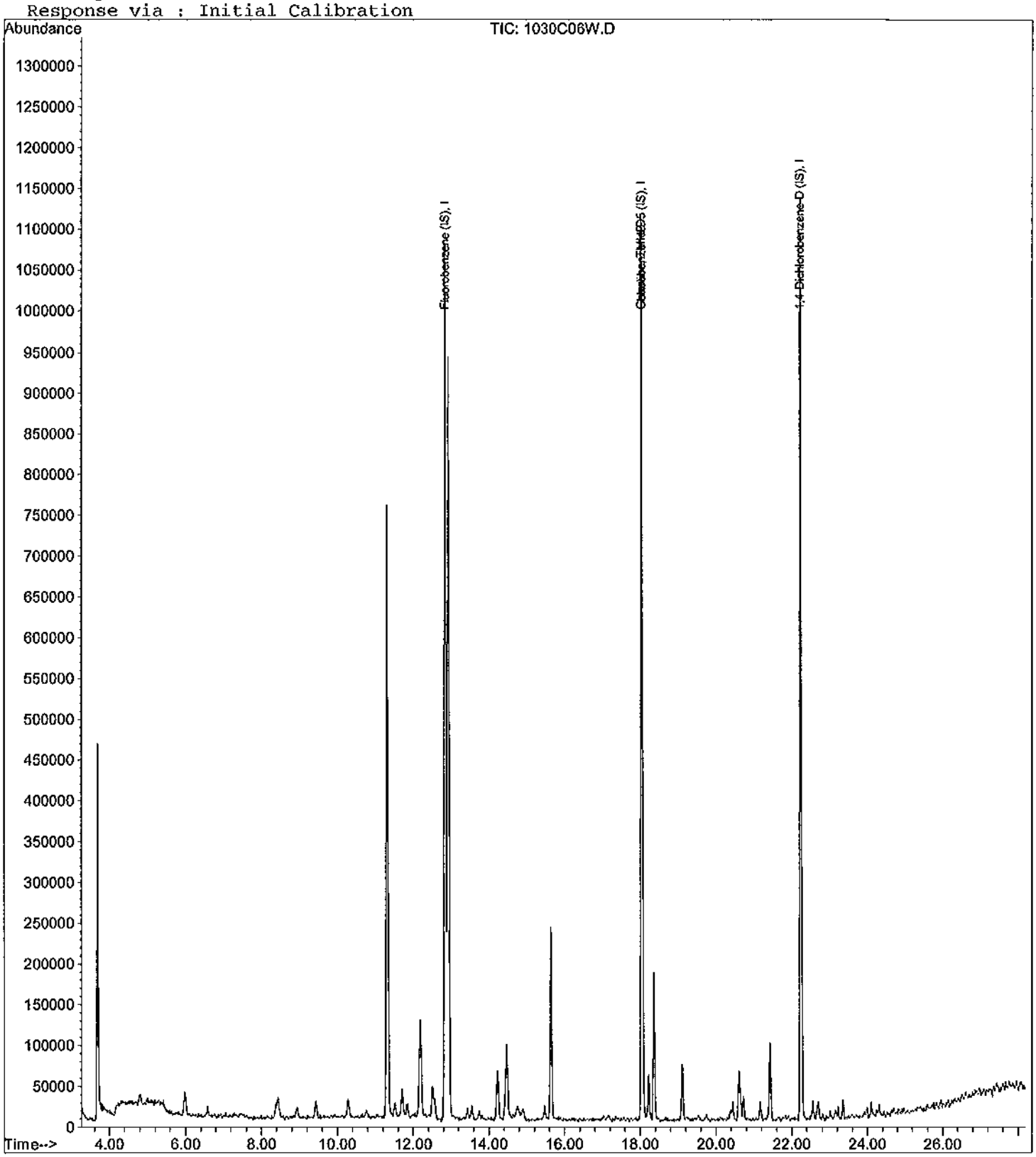
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C06W.D Vial: 1
Acq On : 30 Oct 11 17:00 Operator: STC
Sample : Vol Std 10-30-11@50ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:30 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:38 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1049972	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1057194	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1054110	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	18.04	TIC	21647604m	90.78273	ppb	100

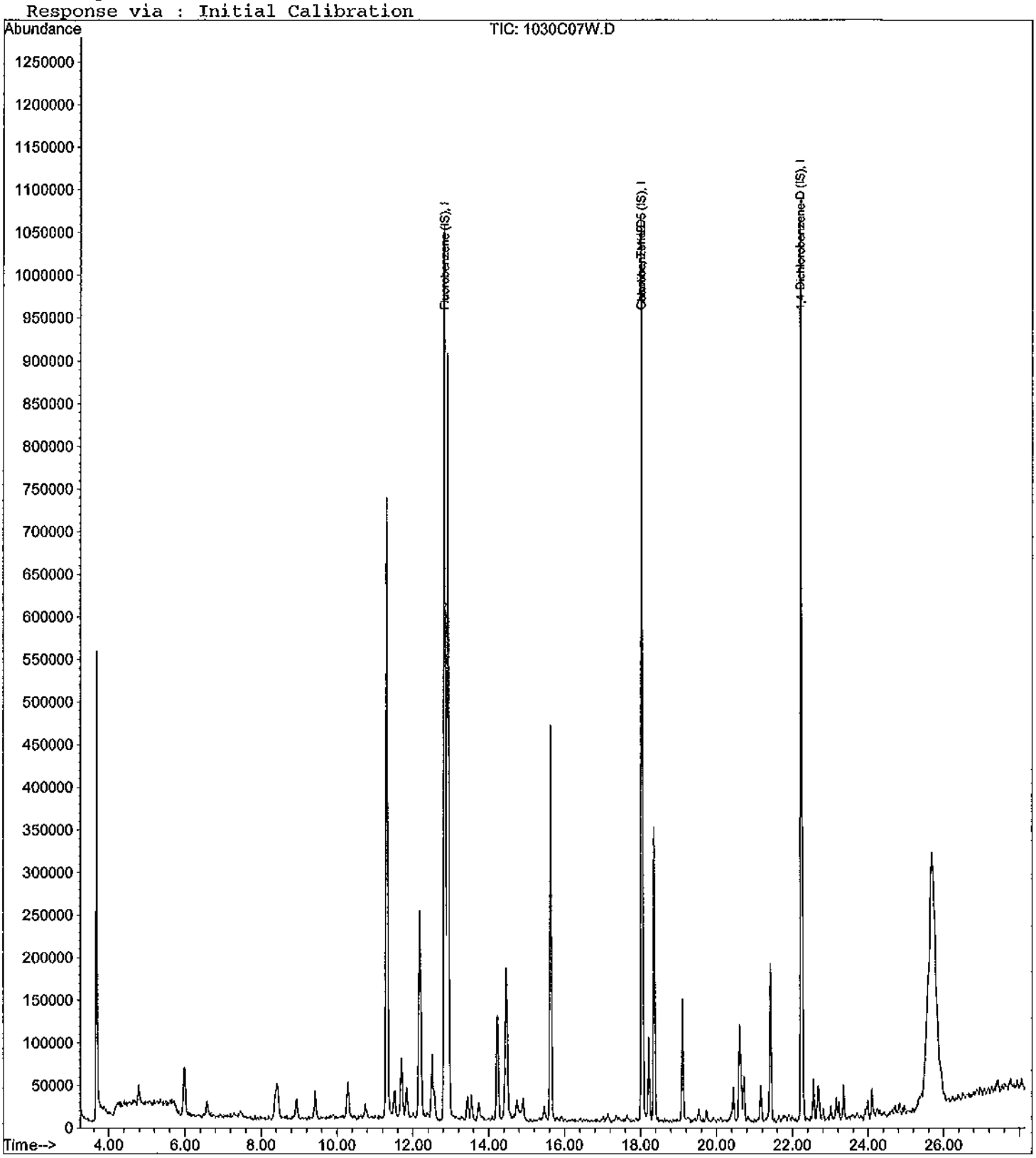
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C07W.D Vial: 1
Acq On : 30 Oct 11 17:43 Operator: STC
Sample : Vol Std 10-30-11@100ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:38 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:40 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1085666	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1080398	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1118273	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	39740510m	161.17894	ppb	100

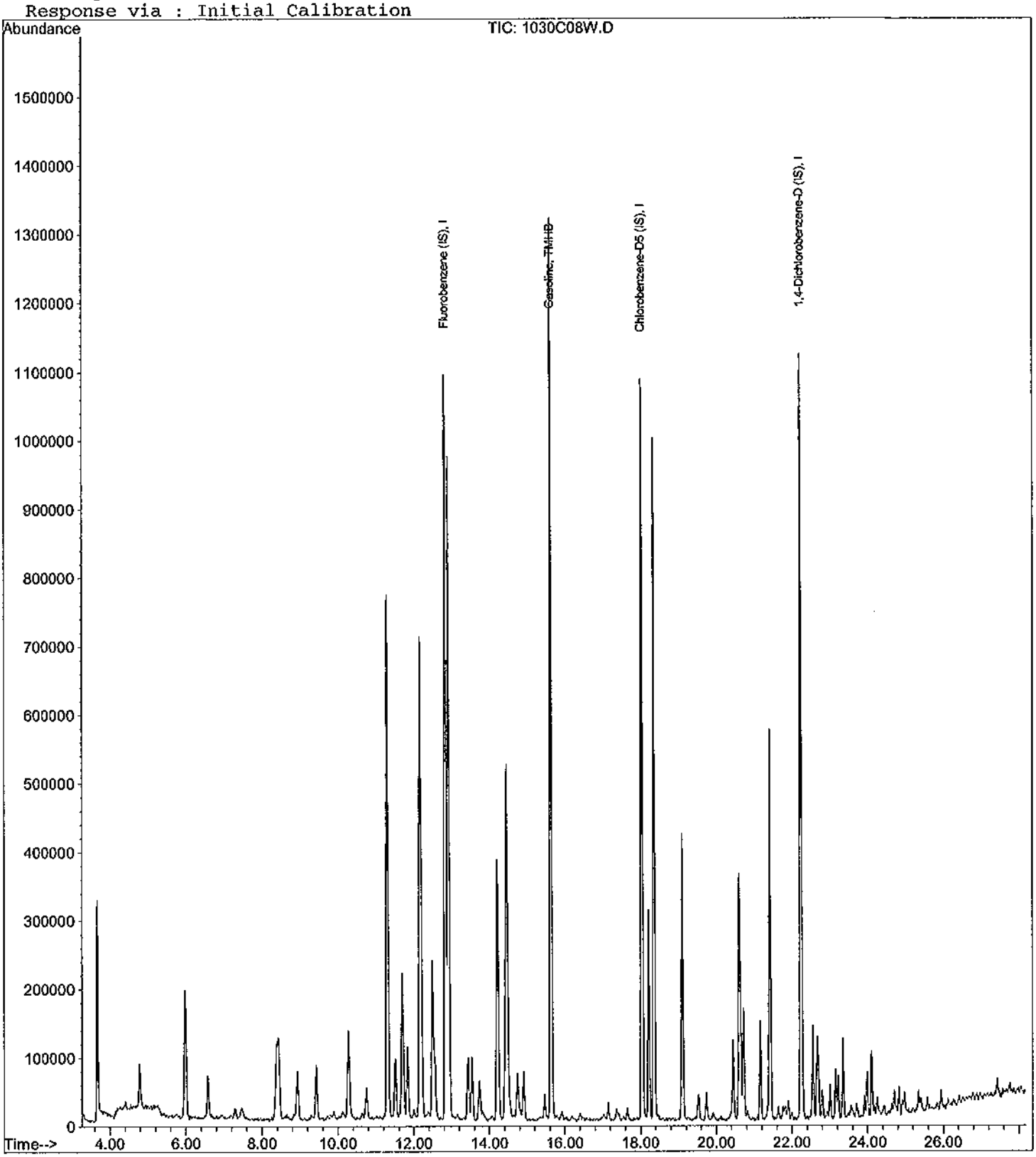
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C08W.D Vial: 1
Acq On : 30 Oct 11 18:26 Operator: STC
Sample : Vol Std 10-30-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:40 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1104080	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1114811	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1175050	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	65808275m	262.45271	ppb	100

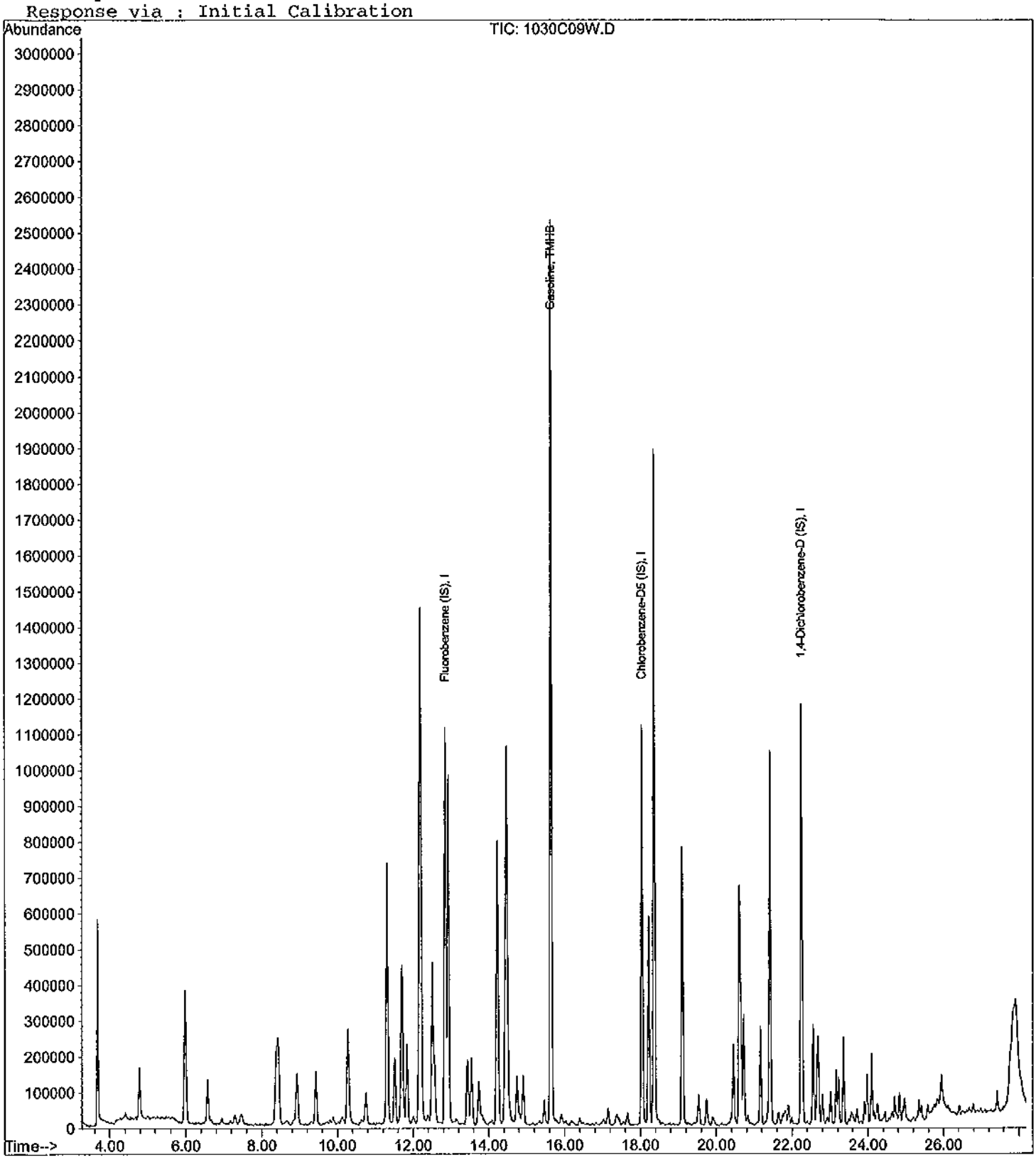
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C09W.D Vial: 1
Acq On : 30 Oct 11 19:09 Operator: STC
Sample : Vol Std 10-30-11@600ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:41 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:42 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1129347	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1159453	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1268278	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	84666447m	330.10723	ppb	100

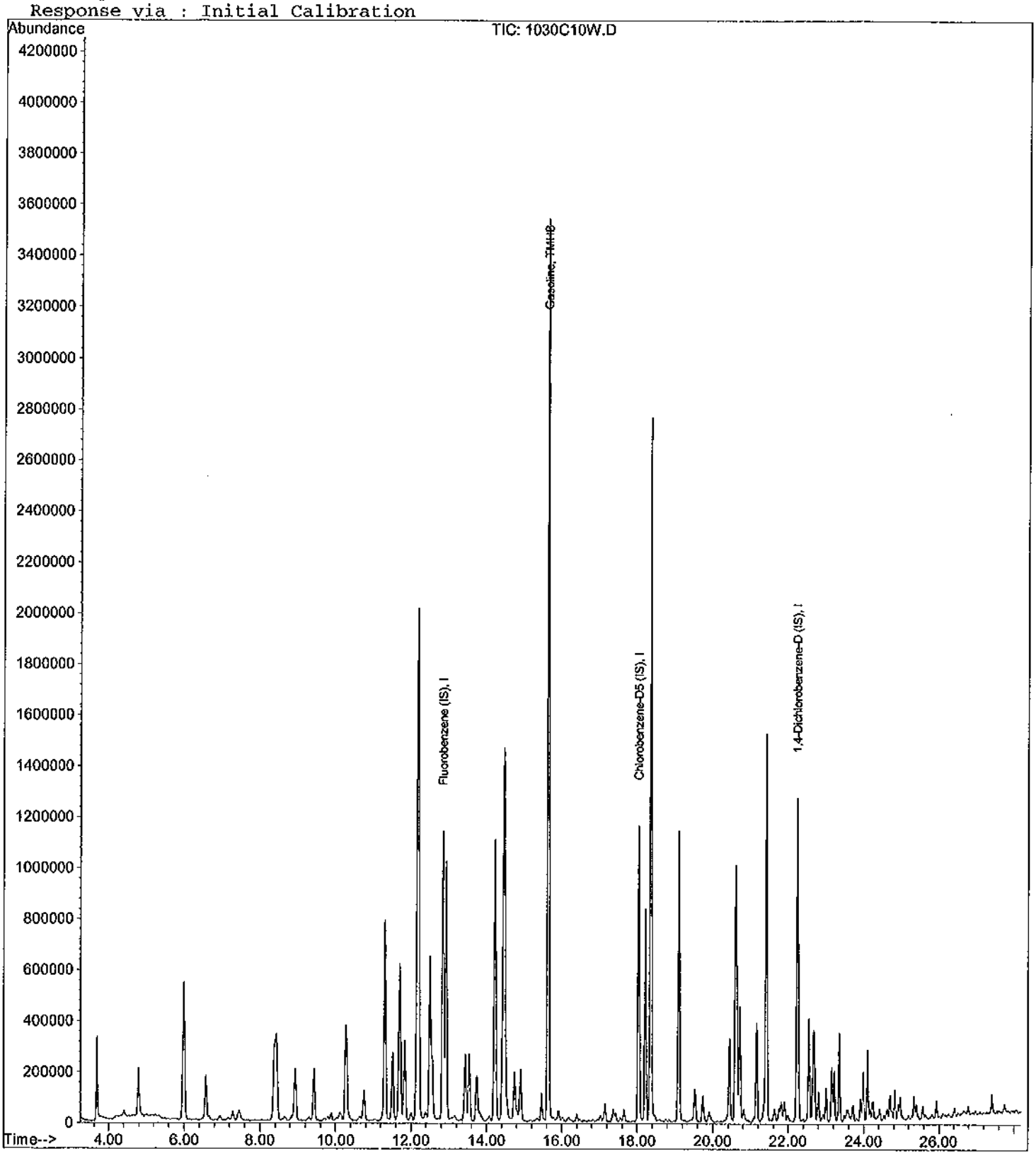
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C10W.D Vial: 1
Acq On : 30 Oct 11 19:52 Operator: STC
Sample : Vol Std 10-30-11@800ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:42 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:43 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 31 09:32:18 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1162372	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1207961	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1354742	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	105748641m	400.59060	ppb	100

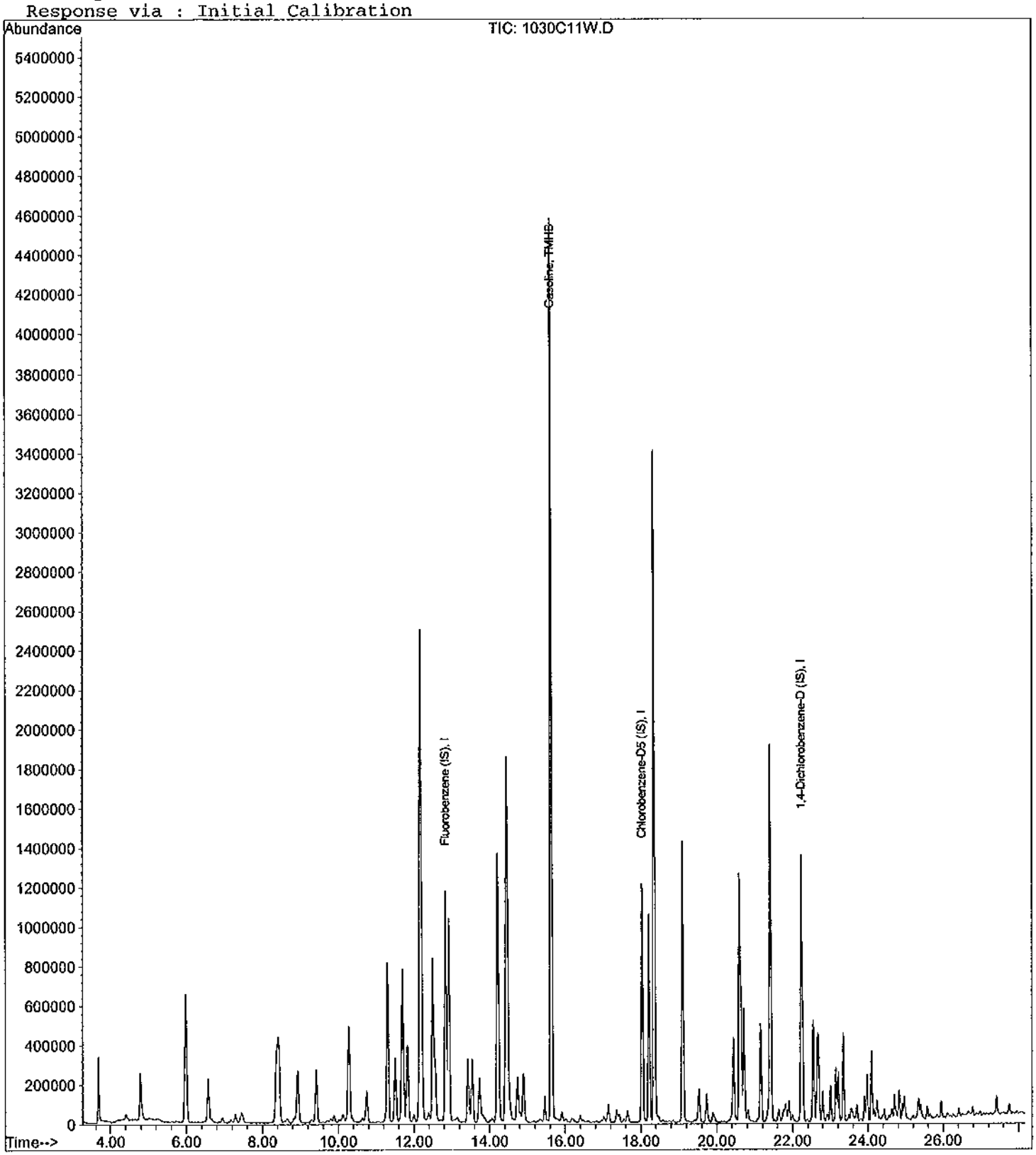
(#) = qualifier out of range (m) = manual integration

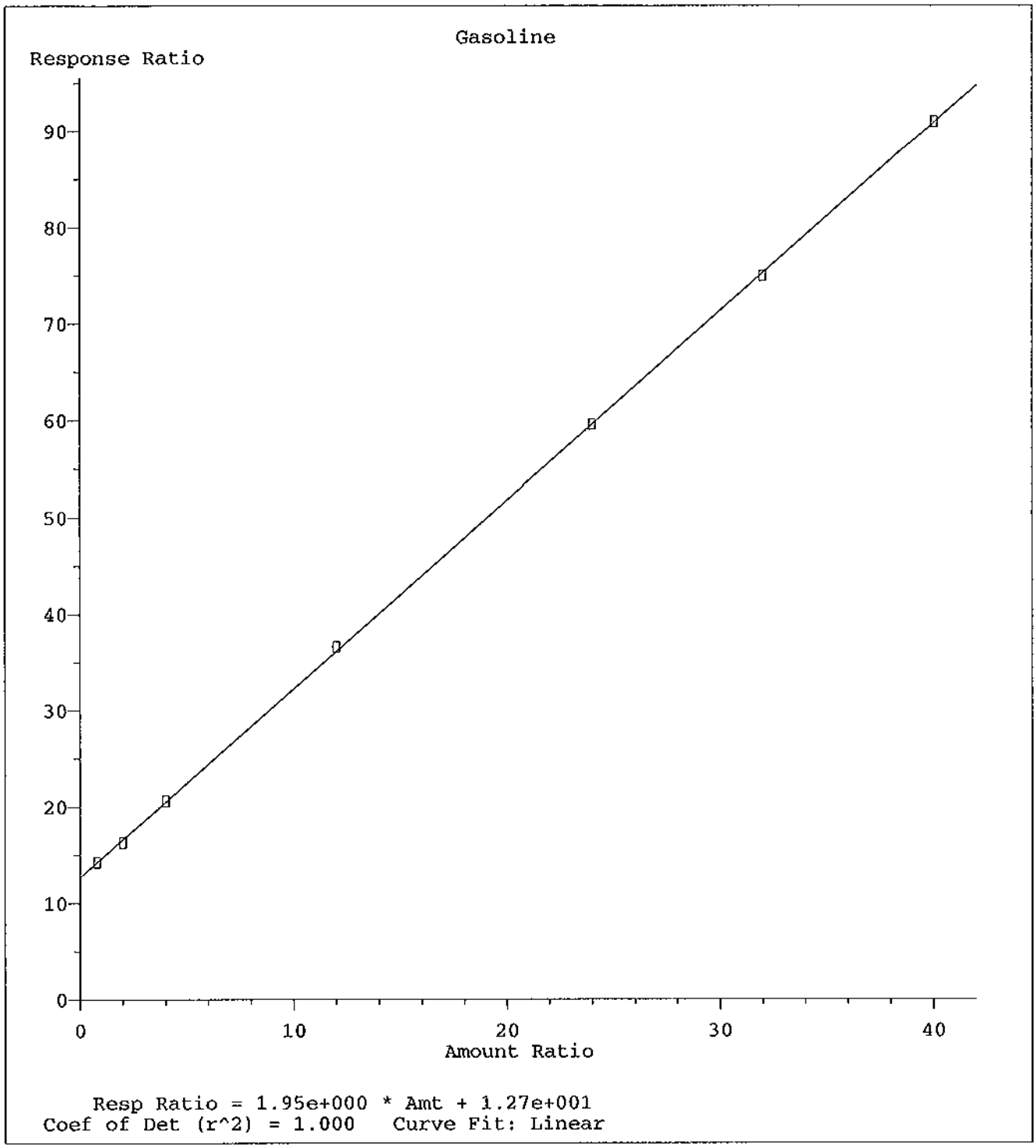
Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C11W.D Vial: 1
Acq On : 30 Oct 11 20:35 Operator: STC
Sample : Vol Std 10-30-11@1000ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 3 9:43 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration





Method Name: M:\CHICO\DATA\C111030\CGAS.M
Calibration Table Last Updated: Thu Nov 03 10:47:02 2011

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 10/31/11
Instrument: Chico
Initial Cal. Date: 10/30/11
Data File: 1030C29W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.226	45	TMHBL	11
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			45.0		

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 9:51 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : V8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.84	TIC	1211423	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.03	TIC	1191079	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.24	TIC	1217266	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.63	TIC	46900368m	332.66187	ppb	100

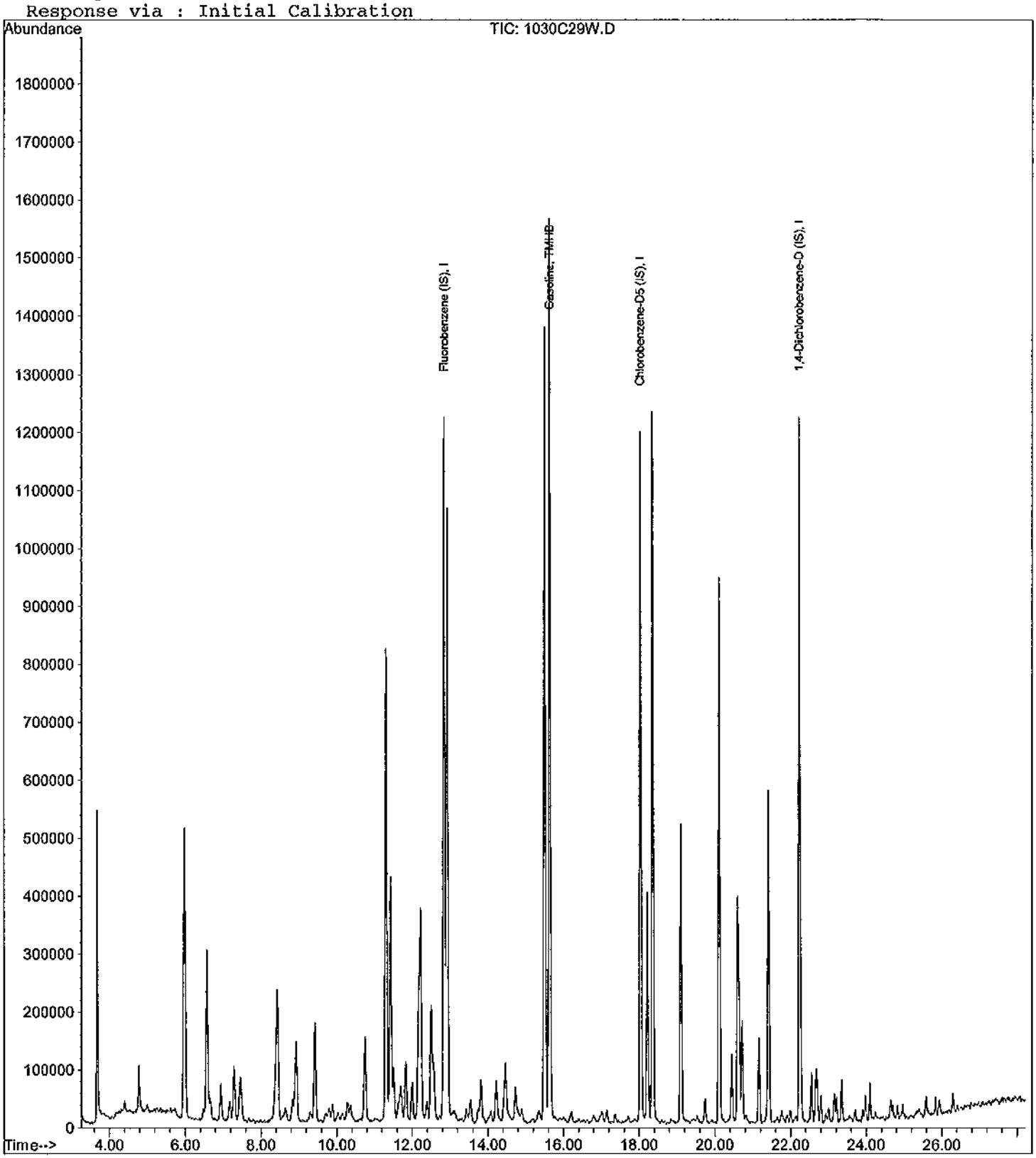
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111030\1030C29W.D Vial: 1
Acq On : 31 Oct 11 9:31 Operator: STC
Sample : GAS 300ug/L (SS) Inst : Chico
Misc : Water 10mLw/ IS&S:10-30/10-26-11 Multiplr: 1.00

Quant Time: Nov 3 9:51 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No: 66186
Date Analyzed: 5 Nov 11 14:11
Instrument: Chico
Initial Cal. Date: 11/04/11
Data File: 1105C05W.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline	5.897	3.063	48	TMHBL	2.5
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			48.0		

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C05W.D Vial: 1
Acq On : 5 Nov 11 14:11 Operator: STC
Sample : Gas CCV 11-05-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1284529	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1273277	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1316872	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	47212524m	307.58180	ppb	100

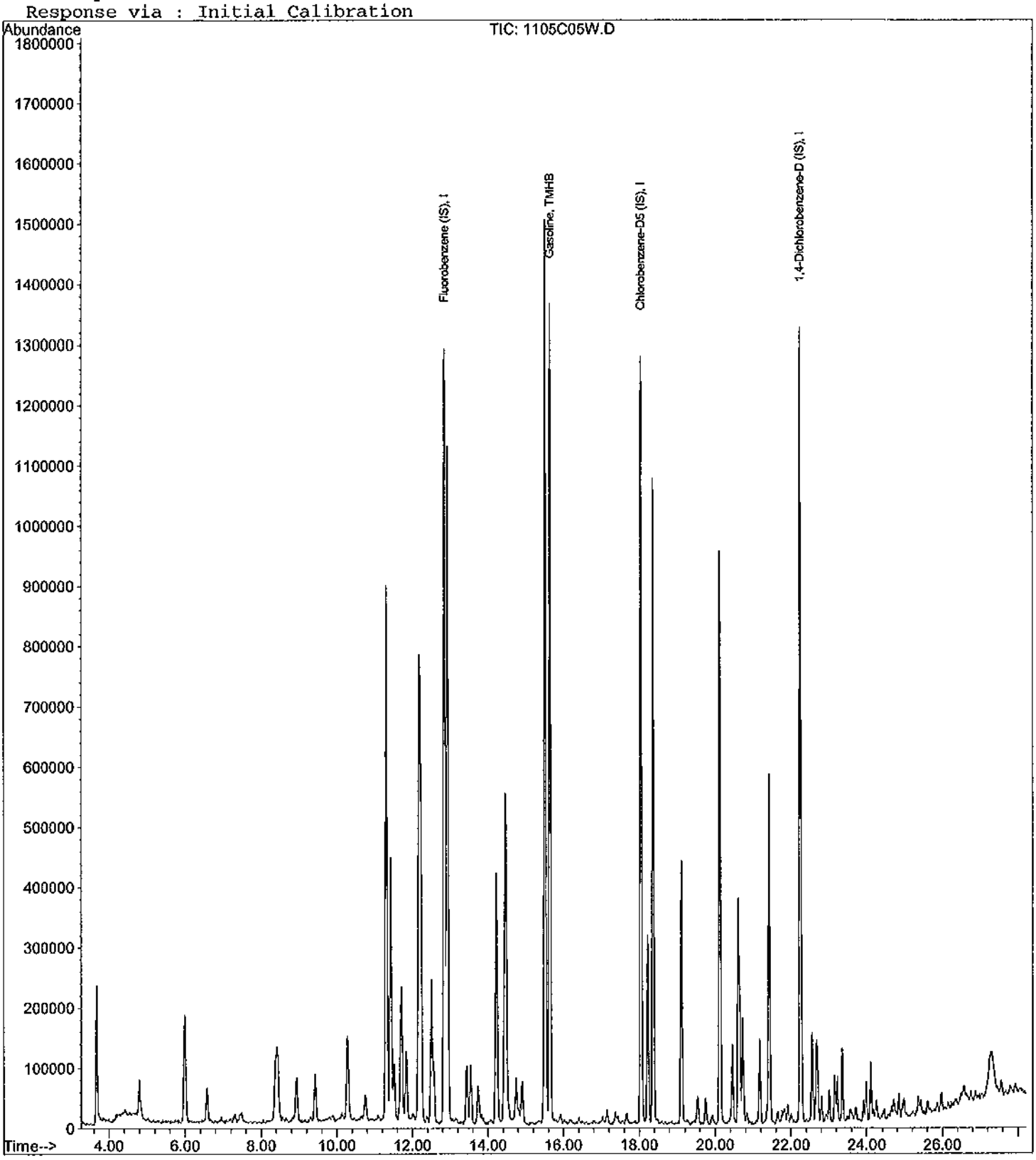
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C05W.D Vial: 1
Acq On : 5 Nov 11 14:11 Operator: STC
Sample : Gas CCV 11-05-11@300ug/L Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



EPA METHOD 8260B
Volatile Organic Compounds
Raw Data

APPL, INC.

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111105W-50004 - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,1,1,2-TETRACHLOROETHANE	0.26 U	1.0	0.26	0.13	ug/L	11/05/11	11/05/11
BLANK	1,1,1-TRICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,1,2,2-TETRACHLOROETHANE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	1,1,2-TRICHLOROETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	1,1-DICHLOROETHENE	0.60 U	1.0	0.60	0.30	ug/L	11/05/11	11/05/11
BLANK	1,2,3-TRICHLOROPROPANE	0.78 U	2.0	0.78	0.39	ug/L	11/05/11	11/05/11
BLANK	1,2,4-TRICHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMO-3-CHLOROPROPA	1.52 U	2.0	1.52	0.76	ug/L	11/05/11	11/05/11
BLANK	1,2-DIBROMOETHANE	0.40 U	1.0	0.40	0.20	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROBENZENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	1,2-DICHLOROPROPANE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROBENZENE	0.22 U	1.0	0.22	0.11	ug/L	11/05/11	11/05/11
BLANK	1,3-DICHLOROPROPENE, TOTA	0.36 U	1.0	0.36	0.18	ug/L	11/05/11	11/05/11
BLANK	1,4-DICHLOROBENZENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	2-BUTANONE	1.20 U	10.0	1.20	0.60	ug/L	11/05/11	11/05/11
BLANK	4-METHYL-2-PENTANONE	3.80 U	10.0	3.80	1.90	ug/L	11/05/11	11/05/11
BLANK	ACETONE	1.90 U	10.0	1.90	0.95	ug/L	11/05/11	11/05/11
BLANK	BENZENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	BROMODICHLOROMETHANE	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOFORM	0.28 U	1.0	0.28	0.14	ug/L	11/05/11	11/05/11
BLANK	BROMOMETHANE	0.48 U	2.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	CARBON TETRACHLORIDE	0.20 U	1.0	0.20	0.10	ug/L	11/05/11	11/05/11
BLANK	CHLOROBENZENE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLORODIBROMOMETHANE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	CHLOROETHANE	0.42 U	1.0	0.42	0.21	ug/L	11/05/11	11/05/11
BLANK	CHLOROFORM	0.14 U	1.0	0.14	0.07	ug/L	11/05/11	11/05/11
BLANK	CHLOROMETHANE	0.84 U	1.0	0.84	0.42	ug/L	11/05/11	11/05/11
BLANK	CIS-1,2-DICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	ETHYLBENZENE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	GASOLINE	12.12 U	20.0	12.12	6.06	ug/L	11/05/11	11/05/11
BLANK	HEXACHLOROBUTADIENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	METHYL TERT-BUTYL ETHER	0.52 U	1.0	0.52	0.26	ug/L	11/05/11	11/05/11

Quant Method: CALLW.M
Run #: 1105C09
Instrument: Chico
Sequence: C111104
Initials: DG

GC SC-Blank-REG MDLs
Printed: 12/08/11 4:17:47 PM

Method Blank

EPA 8260B VOCs + Gas Water

Blank Name/QCG: **111105W-50004 - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHYLENE CHLORIDE	0.70 U	5.0	0.70	0.35	ug/L	11/05/11	11/05/11
BLANK	STYRENE	0.50 U	1.0	0.50	0.25	ug/L	11/05/11	11/05/11
BLANK	TETRACHLOROETHENE	0.48 U	1.0	0.48	0.24	ug/L	11/05/11	11/05/11
BLANK	TOLUENE	0.34 U	1.0	0.34	0.17	ug/L	11/05/11	11/05/11
BLANK	TRANS-1,2-DICHLOROETHENE	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	TRICHLOROETHENE	0.32 U	1.0	0.32	0.16	ug/L	11/05/11	11/05/11
BLANK	VINYL CHLORIDE	0.46 U	1.0	0.46	0.23	ug/L	11/05/11	11/05/11
BLANK	XYLENES (TOTAL)	0.38 U	1.0	0.38	0.19	ug/L	11/05/11	11/05/11
BLANK	SURROGATE: 1,2-DICHLOROET	87.0	70-120			%	11/05/11	11/05/11
BLANK	SURROGATE: 4-BROMOFLUOR	96.5	75-120			%	11/05/11	11/05/11
BLANK	SURROGATE: DIBROMOFLUOR	90.3	85-115			%	11/05/11	11/05/11
BLANK	SURROGATE: TOLUENE-D8 (S)	93.8	85-120			%	11/05/11	11/05/11

Quant Method: CALLW.M
Run #: 1105C09
Instrument: Chico
Sequence: C111104
Initials: DG

GC SC-Blank-REG MDLs
Printed: 12/08/11 4:17:47 PM

Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1
Acq On : 5 Nov 11 17:04 Operator: STC
Sample : 111105A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:18 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	96	639936	25.00000 ppb	-0.03
55) Chlorobenzene-D5 (IS)	18.05	117	438336	25.00000 ppb	-0.02
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	229504	25.00000 ppb	-0.03
System Monitoring Compounds					
33) Dibromofluoromethane(S)	11.44	111	423902	19.04793 ppb	-0.03
Spiked Amount 21.097			Recovery =	90.287%	
38) 1,2-DCA-D4(S)	12.24	65	359754	18.47170 ppb	-0.03
Spiked Amount 21.225			Recovery =	87.028%	
56) Toluene-D8(S)	15.52	98	1563511	24.21108 ppb	-0.03
Spiked Amount 25.808			Recovery =	93.811%	
64) 4-Bromofluorobenzene(S)	20.12	95	559686	24.56931 ppb	-0.03
Spiked Amount 25.459			Recovery =	96.502%	

Target Compounds Qvalue

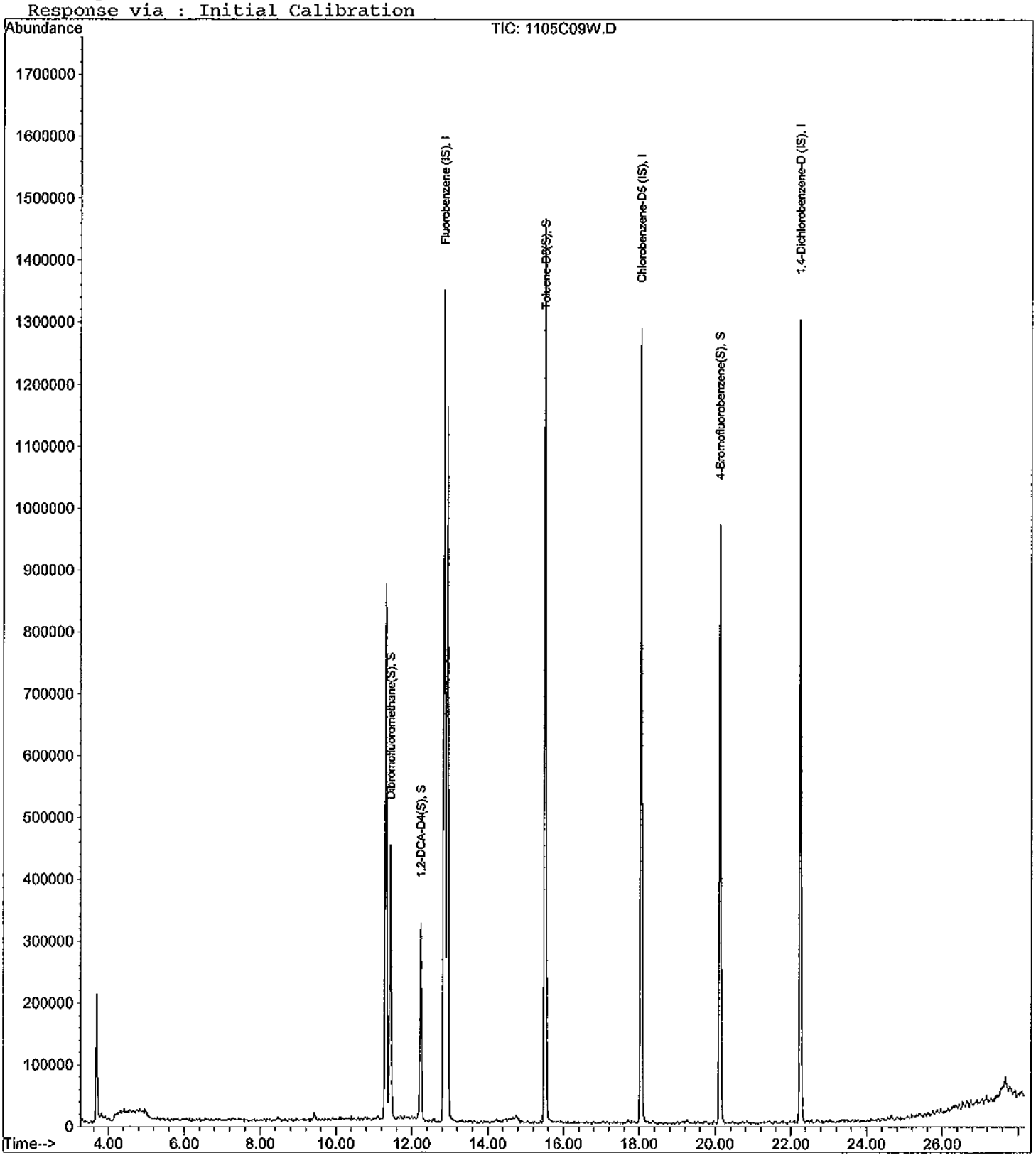
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1
Acq On : 5 Nov 11 17:04 Operator: STC
Sample : 111105A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:18 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1
Acq On : 5 Nov 11 17:04 Operator: STC
Sample : 111105A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1344857	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.05	TIC	1284528	25.00000	ppb	0.02
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1297788	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

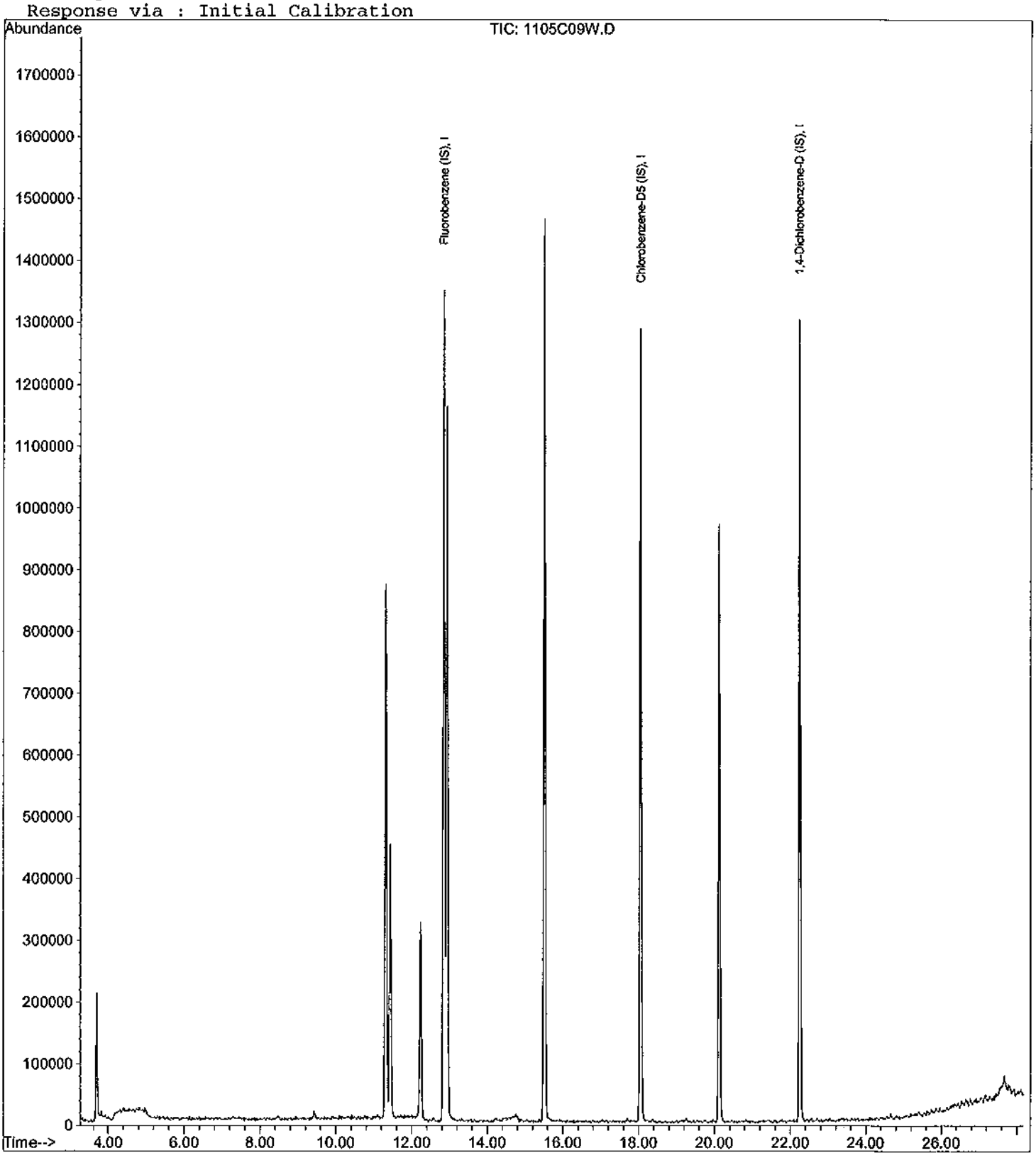
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C09W.D Vial: 1
Acq On : 5 Nov 11 17:04 Operator: STC
Sample : 111105A BLK-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 16:44 2011 Quant Results File: CGAS.RES

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8260B VOCs + Gas Water

APPL ID: **111105W-50004 LCS - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,1,1,2-TETRACHLOROETHANE	10.00	9.01	90.1	80-130
1,1,1-TRICHLOROETHANE	10.00	8.38	83.8	65-130
1,1,2,2-TETRACHLOROETHANE	10.00	10.2	102	65-130
1,1,2-TRICHLOROETHANE	10.00	9.78	97.8	75-125
1,1-DICHLOROETHANE	10.00	10.5	105	70-135
1,1-DICHLOROETHENE	10.00	9.57	95.7	70-130
1,2,3-TRICHLOROPROPANE	10.00	8.50	85.0	75-125
1,2,4-TRICHLOROBENZENE	10.00	9.38	93.8	65-135
1,2-DIBROMO-3-CHLOROPROPANE	10.00	8.45	84.5	50-130
1,2-DIBROMOETHANE	10.00	8.37	83.7	70-130
1,2-DICHLOROBENZENE	10.00	9.72	97.2	70-120
1,2-DICHLOROETHANE	10.00	8.20	82.0	70-130
1,2-DICHLOROPROPANE	10.00	11.6	116	75-125
1,3-DICHLOROBENZENE	10.00	9.98	99.8	75-125
1,3-DICHLOROPROPENE, TOTAL	20.0	20.3	102	70-130
1,4-DICHLOROBENZENE	10.00	10.1	101	75-125
2-BUTANONE	10.00	9.57	95.7	30-150
4-METHYL-2-PENTANONE	10.00	10.7	107	60-135
ACETONE	10.00	10.8	108	40-140
BENZENE	10.00	11.0	110	80-120
BROMODICHLOROMETHANE	10.00	8.69	86.9	75-120
BROMOFORM	10.00	7.75	77.5	70-130
BROMOMETHANE	10.00	9.21	92.1	30-145
CARBON TETRACHLORIDE	10.00	8.10	81.0	65-140
CHLOROBENZENE	10.00	9.18	91.8	80-120
CHLORODIBROMOMETHANE	10.00	8.29	82.9	60-135

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:51 PM

APPL Standard LCS

Laboratory Control Spike Recovery

EPA 8260B VOCs + Gas Water

APPL ID: **111105W-50004 LCS - 160965**
Batch ID: #86RHB-111105AC

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
CHLOROETHANE	10.00	11.7	117	60-135
CHLOROFORM	10.00	9.27	92.7	65-135
CHLOROMETHANE	10.00	9.41	94.1	40-125
CIS-1,2-DICHLOROETHENE	10.00	9.24	92.4	70-125
ETHYLBENZENE	10.00	9.72	97.2	75-125
GASOLINE	300	285	95.0	75-125
HEXACHLOROBUTADIENE	10.00	8.51	85.1	50-140
METHYL TERT-BUTYL ETHER	10.00	9.18	91.8	65-125
METHYLENE CHLORIDE	10.00	9.48	94.8	55-140
STYRENE	10.00	9.74	97.4	65-135
TETRACHLOROETHENE	10.00	8.71	87.1	45-150
TOLUENE	10.00	10.0	100	75-120
TRANS-1,2-DICHLOROETHENE	10.00	9.57	95.7	60-140
TRICHLOROETHENE	10.00	9.37	93.7	70-125
VINYL CHLORIDE	10.00	9.11	91.1	50-145
XYLENES (TOTAL)	30.0	29.1	97.0	80-120
SURROGATE: 1,2-DICHLOROETHANE-	21.2	19.2	90.5	70-120
SURROGATE: 4-BROMOFLUOROBENZ	25.5	25.0	98.2	75-120
SURROGATE: DIBROMOFLUOROMETH	21.1	20.7	98.1	85-115
SURROGATE: TOLUENE-D8 (S)	25.8	24.0	93.0	85-120

Comments:

Primary	SPK
Quant Method :	CALLW.M
Extraction Date :	11/05/11
Analysis Date :	11/05/11
Instrument :	Chico
Run :	1105C03
Initials :	DG

Printed: 12/08/11 4:17:51 PM

APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C03W.D Vial: 1
Acq On : 5 Nov 11 12:45 Operator: STC
Sample : 111105A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	12.85	96	598784	25.00000 ppb		-0.03
55) Chlorobenzene-D5 (IS)	18.04	117	432320	25.00000 ppb		-0.03
71) 1,4-Dichlorobenzene-D (IS)	22.25	152	227456	25.00000 ppb		-0.03
System Monitoring Compounds						
33) Dibromofluoromethane(S)	11.43	111	430194	20.65917 ppb		-0.04
Spiked Amount 21.097			Recovery = 97.923%			
38) 1,2-DCA-D4(S)	12.23	65	350461	19.23124 ppb		-0.04
Spiked Amount 21.225			Recovery = 90.604%			
56) Toluene-D8(S)	15.51	98	1526114	23.96084 ppb		-0.04
Spiked Amount 25.808			Recovery = 92.842%			
64) 4-Bromofluorobenzene(S)	20.12	95	561629	24.99769 ppb		-0.03
Spiked Amount 25.459			Recovery = 98.187%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.07	85	200438	9.99987 ppb		96
3) Freon 114	4.34	85	158173	9.55662 ppb		98
4) Chloromethane	4.56	50	243905	9.40526 ppb		99
5) Vinyl chloride	4.82	62	190389	9.10909 ppb		97
7) Bromomethane	5.73	94	115295	9.20690 ppb		95
8) Chloroethane	5.92	64	40768	11.73721 ppb	#	80
9) Dichlorofluoromethane	6.01	67	429753	9.98151 ppb		97
10) Trichlorofluoromethane	6.54	101	254008	8.80144 ppb		91
11) Acetonitrile	7.66	41	91825	175.24271 ug/l		100
12) Acrolein	7.15	56	36334	143.31047 ppb		98
13) Acetone	7.28	43	21380	10.76822 ppb	#	59
14) Freon-113	7.47	101	158655	9.98674 ppb		92
15) 1,1-DCE	7.69	96	158725	9.57124 ppb		97
16) t-Butanol	7.77	59	12156	152.90240 ppb		96
17) Methyl Acetate	8.19	43	49077	10.64799 ppb		96
18) Iodomethane	8.17	142	116518	9.85367 ppb		93
19) Acrylonitrile	8.57	53	19799	11.15999 ppb		88
20) Methylene chloride	8.48	84	151276	9.47889 ppb		100
21) Carbon disulfide	8.56	76	141888	10.36460 ppb		98
22) Methyl t-butyl ether (MtBE	8.90	73	247260	9.17675 ppb	#	95
23) Trans-1,2-DCE	7.69	96	158725	9.57124 ppb		98
24) Diisopropyl Ether	9.76	45	555595	11.30937 ppb		96
25) 1,1-DCA	9.79	63	359912	10.45575 ppb		91
26) Vinyl Acetate	9.42	43	35752	13.13393 ppb	#	75
27) Ethyl tert Butyl Ether	10.45	59	406811	9.78909 ppb		96
28) MEK (2-Butanone)	10.44	43	74398	9.56633 ppb		94
29) Cis-1,2-DCE	10.82	96	197945	9.24498 ppb		94
30) 2,2-Dichloropropane	10.82	77	291298	9.16027 ppb	#	88
31) Chloroform	11.10	83	337951	9.27140 ppb		98
32) Bromochloromethane	11.32	128	54373	8.41905 ppb		89
34) 1,1,1-TCA	11.84	97	296442	8.37880 ppb		93
35) Cyclohexane	12.00	56	280256	12.28389 ppb		80
36) 1,1-Dichloropropene	12.11	75	258971	10.18438 ppb		99
37) 2,2,4-Trimethylpentane	12.18	57	486067	12.87742 ppb		95
39) Carbon Tetrachloride	12.30	117	218797	8.09566 ppb		99
40) Tert Amyl Methyl Ether	12.35	73	289560	9.57527 ppb		100
41) 1,2-DCA	12.38	62	170145	8.20107 ppb		99
42) Benzene	12.50	78	712677	11.01300 ppb		99
43) TCE	13.54	95	191886	9.36801 ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C03W.D Vial: 1
Acq On : 5 Nov 11 12:45 Operator: STC
Sample : 111105A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Quant Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	2-Pentanone	13.21	43	535634	145.94194 ppb		99
45)	1,2-Dichloropropane	13.78	63	171253	11.60017 ppb	#	95
46)	Bromodichloromethane	14.12	83	193300	8.69474 ppb		95
47)	Methyl Cyclohexane	13.83	83	247837	11.70998 ppb		95
48)	Dibromomethane	14.18	93	68528	8.83931 ppb		97
49)	2-Chloroethyl vinyl ether	14.58	63	39880	10.37045 ppb	#	84
50)	1-Bromo-2-chloroethane	14.89	63	146260	11.30967 ppb		89
51)	Cis-1,3-Dichloropropene	15.01	75	191769	10.53614 ppb		89
52)	Toluene	15.64	91	688147	10.02377 ppb		99
53)	Trans-1,3-Dichloropropene	15.81	75	134829	9.74766 ppb		97
54)	1,1,2-TCA	16.09	83	66730	9.78017 ppb		98
57)	1,2-EDB	17.34	107	76932	8.36685 ppb	#	99
58)	Tetrachloroethene	16.79	164	190918	8.71224 ppb		93
59)	1-Chlorohexane	17.71	91	255927	10.91894 ppb		95
60)	1,1,1,2-Tetrachloroethane	18.17	131	146280	9.00947 ppb		98
61)	m&p-Xylene	18.36	106	602678	19.21571 ppb		93
62)	o-Xylene	19.12	106	295792	9.89628 ppb		97
63)	Styrene	19.13	104	459874	9.73969 ppb		99
65)	2-Hexanone	16.11	43	35471	9.91956 ppb		88
66)	1,3-Dichloropropane	16.50	76	154497	10.25133 ppb		87
67)	Dibromochloromethane	16.98	129	106362	8.28519 ppb		85
68)	Chlorobenzene	18.11	112	430960	9.18487 ppb		91
69)	Ethylbenzene	18.23	91	796342	9.71880 ppb		91
70)	Bromoform	19.64	173	47964	7.75433 ppb		89
72)	MIBK (methyl isobutyl keto	14.68	43	56527	10.68044 ppb		99
73)	Isopropylbenzene	19.75	105	787241	9.26886 ppb		93
74)	1,1,2,2-Tetrachloroethane	19.90	83	73576	10.18614 ppb		79
75)	1,2,3-Trichloropropane	20.16	110	8091	8.49890 ppb		88
76)	t-1,4-Dichloro-2-Butene	20.24	53	16873	9.23840 ppb		85
77)	Bromobenzene	20.49	156	173944	9.32463 ppb		97
78)	n-Propylbenzene	20.45	91	954567	9.87354 ppb		98
79)	4-Ethyltoluene	20.64	105	640562	9.47176 ppb		96
80)	2-Chlorotoluene	20.74	91	628165	9.72679 ppb		94
81)	1,3,5-Trimethylbenzene	20.72	105	652161	9.24885 ppb		96
82)	4-Chlorotoluene	20.83	91	526794	9.28462 ppb		99
83)	Tert-Butylbenzene	21.37	119	717774	9.58472 ppb		99
84)	1,2,4-Trimethylbenzene	21.43	105	659968	9.52832 ppb		96
85)	Sec-Butylbenzene	21.77	105	909078	10.04542 ppb		95
86)	p-Isopropyltoluene	22.00	119	758748	9.53590 ppb		98
87)	Benzyl Chloride	22.43	91	135784	10.07162 ppb		98
88)	1,3-DCB	22.13	146	365632	9.97635 ppb		97
89)	1,4-DCB	22.31	146	346675	10.09669 ppb		95
90)	Hexachloroethane	23.61	117	116005	8.26021 ppb		97
91)	n-Butylbenzene	22.71	91	667118	9.95842 ppb		98
92)	1,2-DCB	22.94	146	294947	9.71950 ppb		95
93)	1,2-Dibromo-3-chloropropan	24.16	155	9302	8.45266 ppb	#	64
94)	1,2,4-Trichlorobenzene	25.61	145	26360	9.37742 ppb		79
95)	Hexachlorobutadiene	25.87	223	102054	8.50521 ppb		95
96)	Naphthalene	25.98	128	277822	8.59934 ppb		100
97)	1,2,3-Trichlorobenzene	26.35	180	63720	7.96078 ppb		99

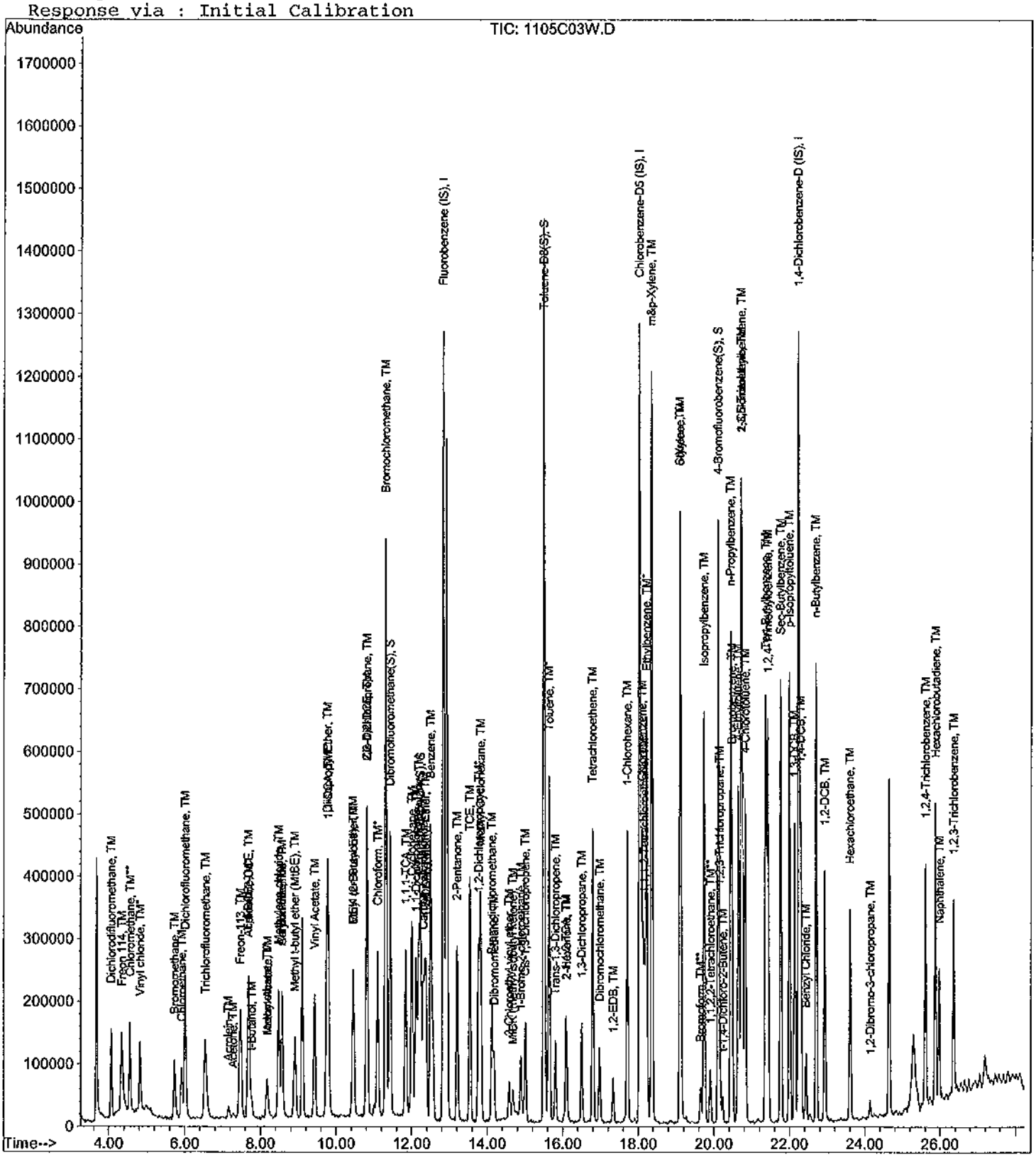
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C03W.D Vial: 1
Acq On : 5 Nov 11 12:45 Operator: STC
Sample : 111105A LCS-1WC Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 8 15:57 2011 Quant Results File: CALLW.RES

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Nov 08 15:56:36 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\CHICO\DATA\C111104\1105C06W.D Vial: 1
Acq On : 5 Nov 11 14:54 Operator: STC
Sample : 111105A LCS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

Quant Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration
DataAcq Meth : PC8260-1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	12.85	TIC	1341937	25.00000	ppb	0.00
3) Chlorobenzene-D5 (IS)	18.04	TIC	1285562	25.00000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	22.25	TIC	1316053	25.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline	15.64	TIC	46958625m	285.04507	ppb	100

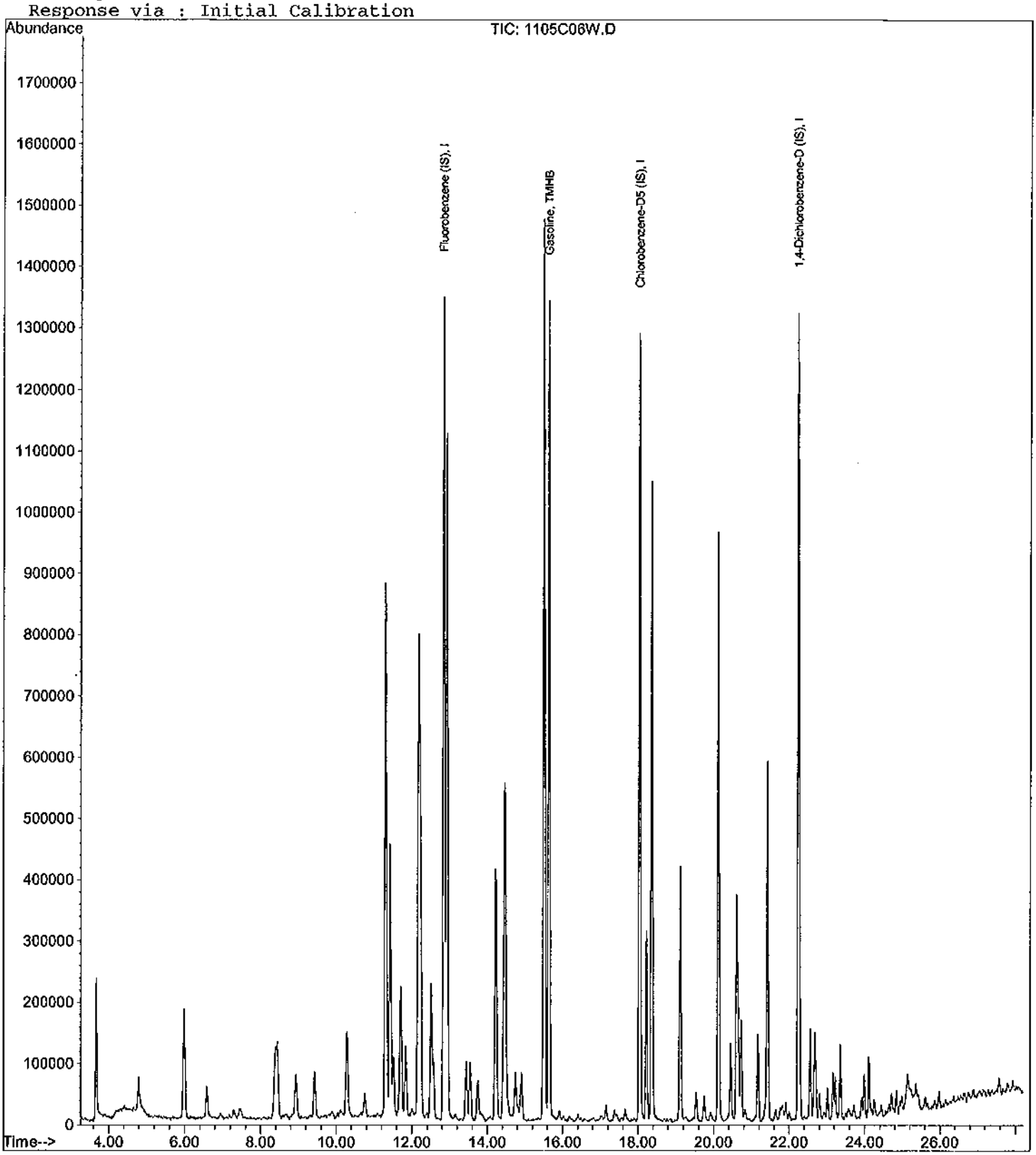
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\CHICO\DATA\C111104\1105C06W.D Vial: 1
Acq On : 5 Nov 11 14:54 Operator: STC
Sample : 111105A LCS-1WC (GAS) Inst : Chico
Misc : Water 10mLw/ IS:10-30-11 Multiplr: 1.00

Quant Time: Nov 5 14:41 2011 Quant Results File: CGAS.RES

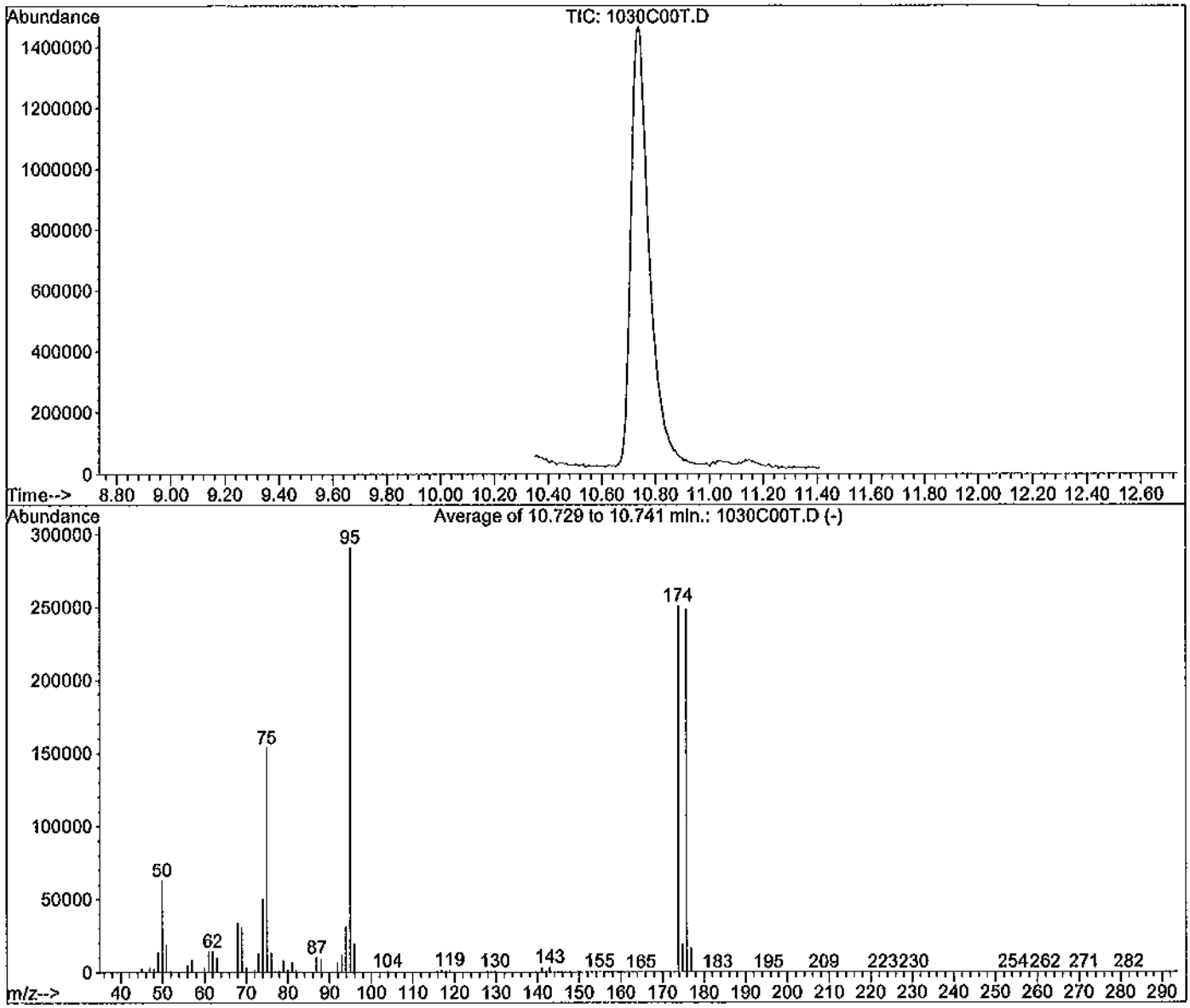
Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 03 10:47:02 2011
Response via : Initial Calibration



BFB

Data File : M:\CHICO\DATA\C111030\1030C00T.D Vial: 1
Acq On : 30 Oct 11 12:52 Operator: STC
Sample : 20ug/mL BFB STD 10-19-11B Inst : Chico
Misc : 2ul Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B



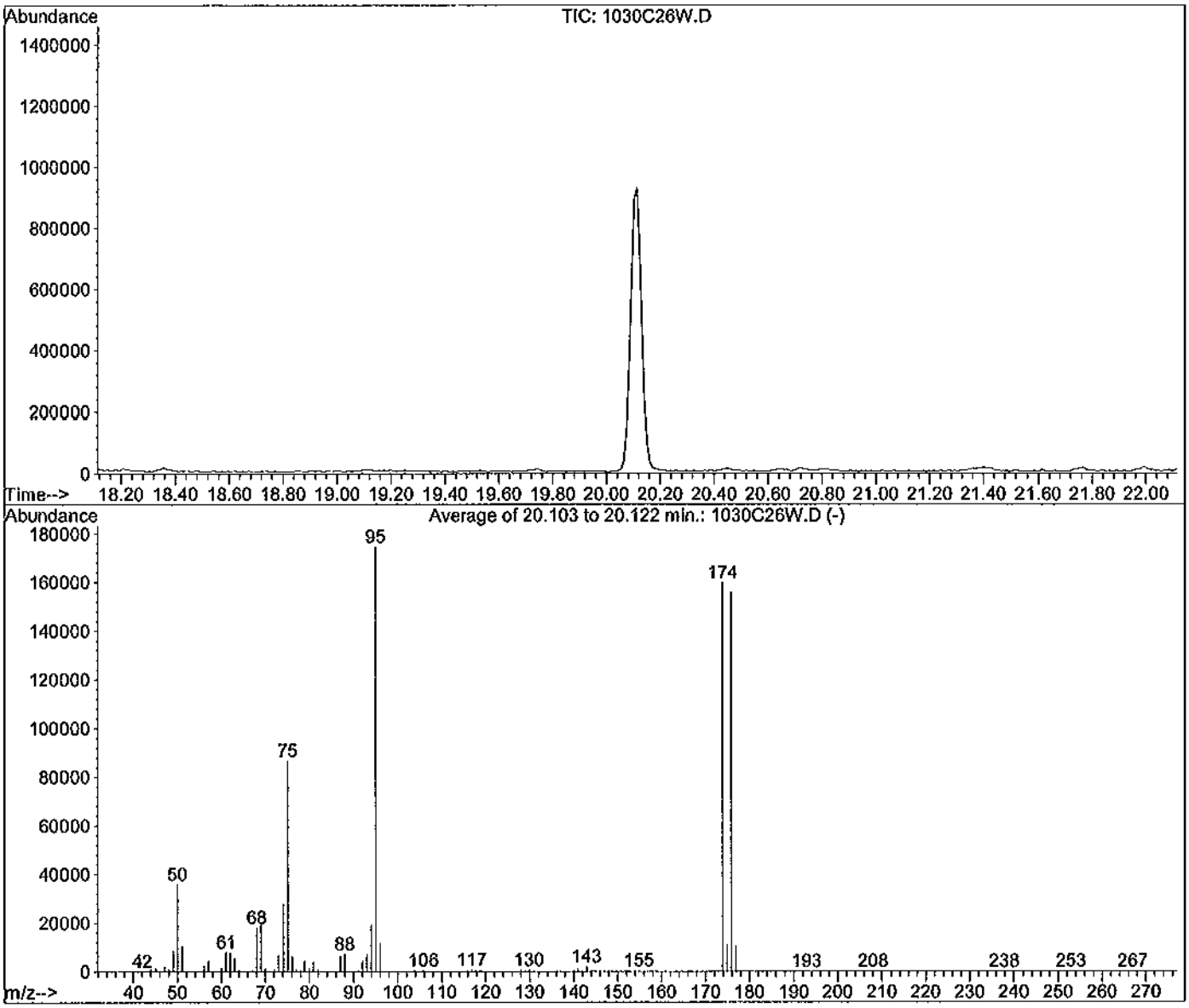
Spectrum Information: Average of 10.729 to 10.741 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.7	63088	PASS
75	95	30	60	52.9	153777	PASS
95	95	100	100	100.0	290880	PASS
96	95	5	9	6.8	19771	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.3	250924	PASS
175	174	5	9	7.5	18885	PASS
176	174	95	101	99.0	248405	PASS
177	176	5	9	6.7	16664	PASS

BFB

Data File : M:\CHICO\DATA\C111030\1030C26W.D Vial: 1
Acq On : 31 Oct 11 7:21 Operator: STC
Sample : 20ug/mL BFB STD 10-19-11 Inst : Chico
Misc : Water 2ul Multiplr: 1.00

Method : M:\CHICO\DATA\C111030\CGAS.M (RTE Integrator)
Title : METHOD 8260B

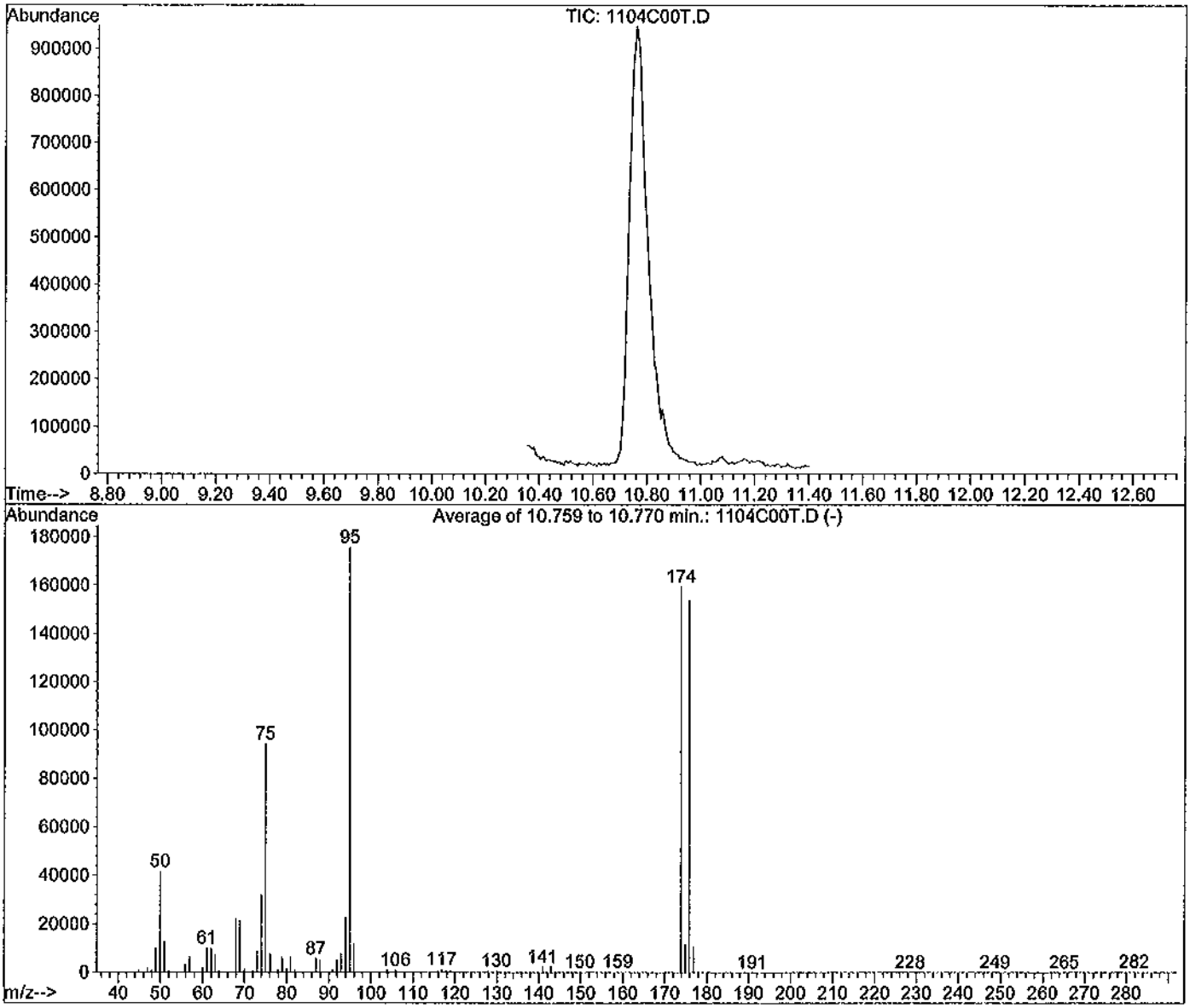


Spectrum Information: Average of 20.103 to 20.122 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	35941	PASS
75	95	30	60	49.7	86725	PASS
95	95	100	100	100.0	174635	PASS
96	95	5	9	6.6	11458	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	91.6	159913	PASS
175	174	5	9	6.9	11031	PASS
176	174	95	101	97.7	156203	PASS
177	176	5	9	6.7	10398	PASS

Data File : M:\CHICO\DATA\C111104\1104C00T.D Vial: 1
Acq On : 4 Nov 11 8:59 Operator: STC
Sample : 20ug/ml BFB Std 02-17-10D Inst : Chico
Misc : 2ul Multiplr: 1.00

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260

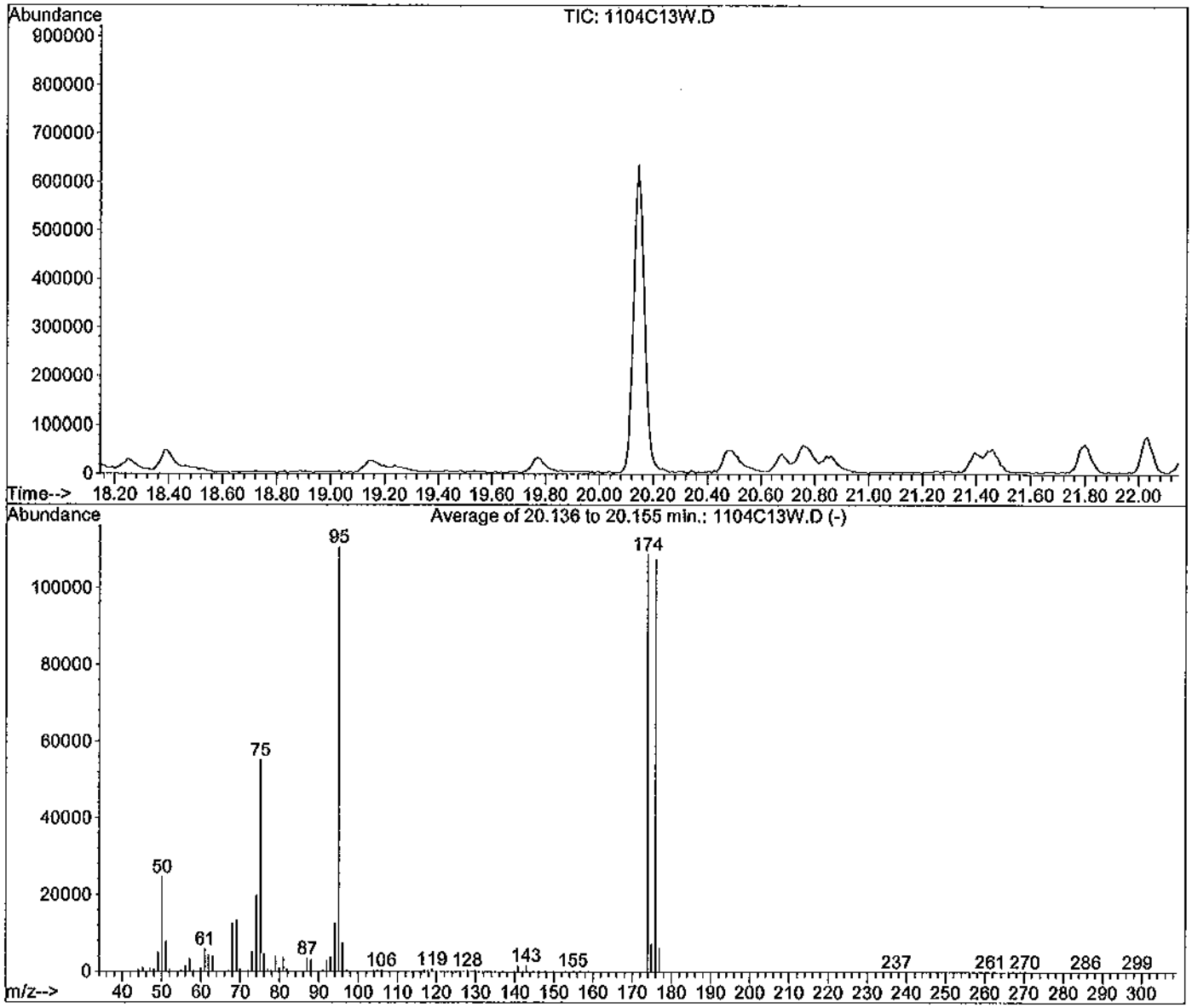


Spectrum Information: Average of 10.759 to 10.770 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.8	41779	PASS
75	95	30	60	53.8	94494	PASS
95	95	100	100	100.0	175723	PASS
96	95	5	9	6.7	11852	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	90.8	159509	PASS
175	174	5	9	7.3	11657	PASS
176	174	95	101	96.4	153771	PASS
177	176	5	9	6.9	10576	PASS

Data File : M:\CHICO\DATA\C111104\1104C13W.D Vial: 1
Acq On : 4 Nov 11 18:46 Operator: STC
Sample : 20ug/mL BFB STD 10-19-11B Inst : Chico
Misc : 2ul Multiplr: 1.00

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260



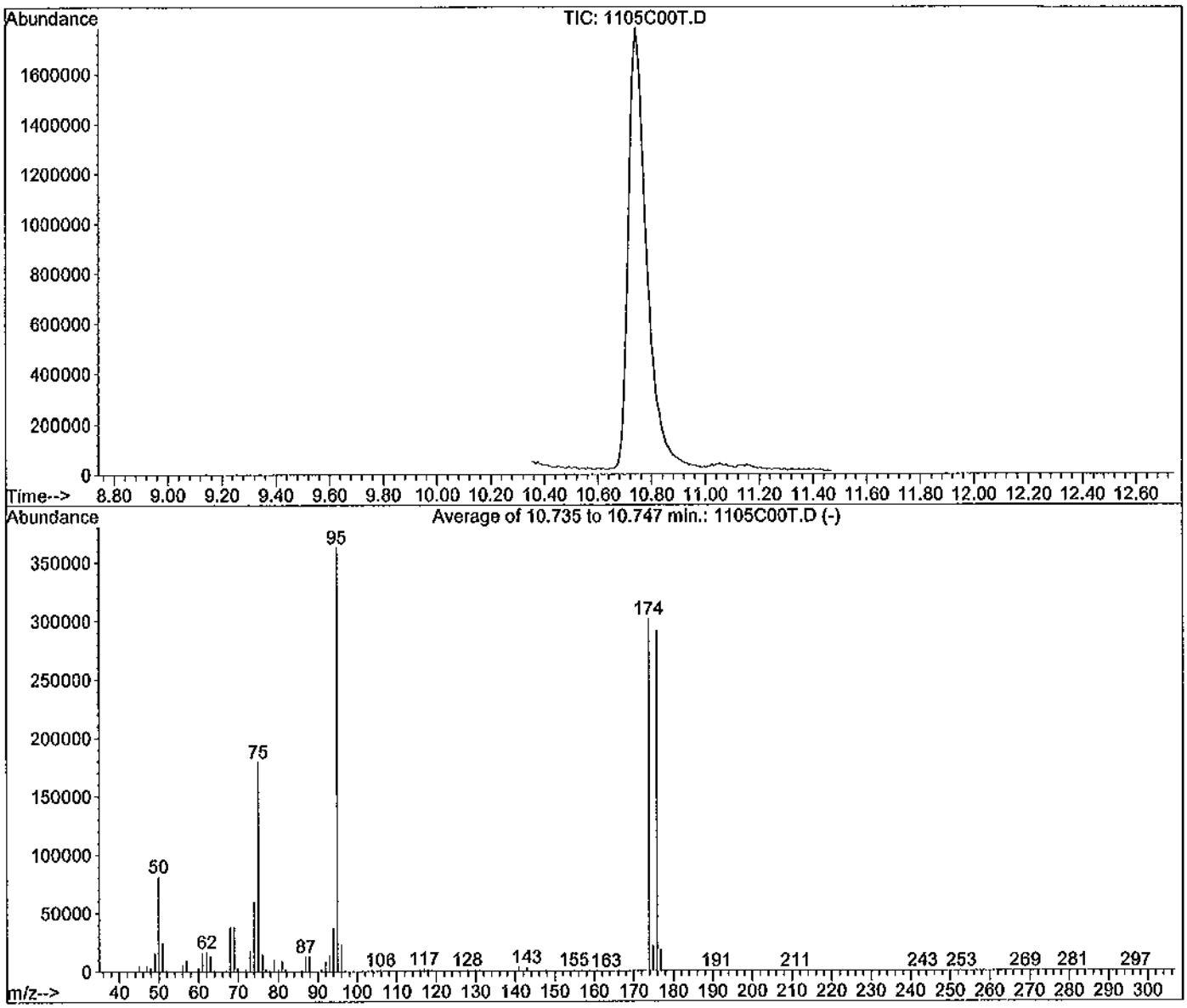
Spectrum Information: Average of 20.136 to 20.155 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	24648	PASS
75	95	30	60	49.8	55173	PASS
95	95	100	100	100.0	110765	PASS
96	95	5	9	6.8	7499	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	98.3	108845	PASS
175	174	5	9	6.7	7323	PASS
176	174	95	101	98.9	107653	PASS
177	176	5	9	5.9	6344	PASS

Data File : M:\CHICO\DATA\C111104\1105C00T.D
Acq On : 5 Nov 11 10:47
Sample : 20ug/ml BFB Std 02-17-10D
Misc : 2ul

Vial: 1
Operator: STC
Inst : Chico
Multiplr: 1.00

Method : M:\CHICO\DATA\C111104\CALLW.M (RTE Integrator)
Title : METHOD 8260



Spectrum Information: Average of 10.735 to 10.747 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	81078	PASS
75	95	30	60	49.5	179691	PASS
95	95	100	100	100.0	362816	PASS
96	95	5	9	6.2	22561	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.1	301376	PASS
175	174	5	9	7.1	21389	PASS
176	174	95	101	96.8	291605	PASS
177	176	5	9	6.2	17986	PASS

10-28-11 RS

B -

Hexachloroethane Solution, 1000 mg/L, 1 ml

020049-02

Lot #	Storage	Expiry
164816	≤ -10 Degrees C	10/14/12

Solv: P/T Methanol

Hexachloroethane

Lot #: 164816 - 28687

Rec: 4/20/11 MFR exp. 10/14/12

10-28-11 RS

C -

Benzyl Chloride Solution, 1000 mg/L, 1 ml

020228-02

Lot #	Storage	Expiry
163373	≤ -10 Degrees	8/29/12

Solv: P/T Methanol

Benzyl Chloride

Lot #: 163373 - 29166

Rec: 8/5/11 MFR exp. 08/29/12

10-28-11 RS

D -

Volatile Mix, 20-29, 2,000 mg/L, 1 ml

121039-02

Lot #	Storage	Expiry
163374	≤ -10 Degrees	8/29/12

Solv: P/T Methanol

Volatile Mix, 20-29

Lot #: 163374 - 28300

Rec: 2/17/11 MFR exp. 08/29/12

10-28-11 RS

E -

Method 8260 VOC Liquids, 54 Compounds, 2,000 mg/L, 1 ml

120023-03

Lot #	Storage	Expiry
164454	≤ -10 Degrees C	10/4/12

Solv: P/T Methanol

8260 VOC Liquids, 54 Comp.

Lot #: 164454 - 27872

Rec: 12/15/10 MFR exp. 10/04/12

10-28-11 RS

F -

Vinyl Acetate Solution, 2,000 mg/L, 1ml

#18332-02

Lot #	Storage	Expiry
178902	≤ -10 Degrees C	12/15/11

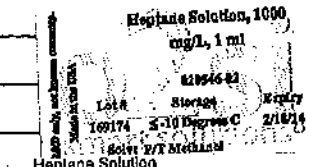
Solv: P/T Methanol

Vinyl Acetate

Lot #: 178902 - 29552

Rec: 9/22/11 MFR exp. 12/15/11

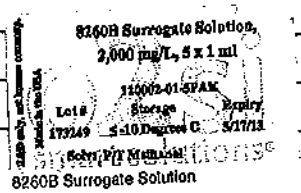
10-28-11 RS. F -



Heptane Solution
Lot #: 169174 - 29248
Rec: 8/5/11 MFR exp. 02/16/14

RS.

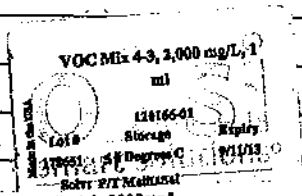
10-28-11 RS. H -



8260B Surrogate Solution
Lot #: 173249 - 28847
Rec: 5/25/11 MFR exp. 05/17/13

RS.

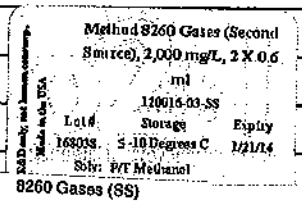
10-28-11 RS I -



VOC Mix 4-3, 2000mg/L
Lot #: 178651 - 29510
Rec: 9/20/11 MFR exp. 09/11/13

RS.

10-28-11 RS J -



8260 Gases (SS)
Lot #: 168038 - 28743
Rec: 4/20/11 MFR exp. 01/21/14

RS.

10-28-11K							
50ug/ml Vol Work Std #7							
Exp:11/05/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	169238-28682	10-28-11A	11/30/2011	100
02SI	020049-02	HEXACHLOROETHANE	1000	164816-28687	10-28-11B	12/14/2011	200
02SI	020228-02	Benzyl Chloride	1000	163173-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11L							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-C6VE	2000	160092-26627	10-05-11B	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11M							
50ug/ml Vol Work Std #6							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	161374-28300	10-28-11D	2/14/2012	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27872	10-28-11E	2/16/2012	100
02SI	020232-02	Vinyl Acetate	2000	178902-29552	10-28-11F	11/16/2011	100
02SI	020520-02	n-Hexane	1000	163178-27869	10-26-11B	11/14/2011	200
02SI	020546-02	Heptane	1000	169174-29248	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3300
10-28-11N							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	MSL'S-Ketone Solution	2000	169173-28307	10-12-11B	11/14/2012	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	3900
		10-28-11O	Exp:	11/4/2011			
		5ug/ml Vol Work Std #9					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11K	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11M	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11P	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11L	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
		10-28-11Q	Exp:	11/4/2011			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11N	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
10-28-11R							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	ul
02SI	120002-01	8260B Surr Solution	2000	173249-28847	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3900
10-28-11S			Exp:	11/4/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11R	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
10-28-11T							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
02SI	020229-09	Acrolein	10000	179941-29661	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3400

10/28/11 RS.

10/2 RS

10/2 RS

10/28/11
RS

10-28-11U							
50ug/ml VOC Std#5							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03-SS	8260 Gases(SS)	2000	168038-28743	10-28-11J	11/30/2011	50
02SI	020145-02-02-S	2-CEVE	2000	152530-27273	10-19-11J	11/3/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1900
10-28-11V							
50ug/ml VOC Std#6							
Exp:11/04/11							
	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120023-03-SS	VOC'S 54 COMP.	2000	163271-27773	09-12-11P	11/14/2011	50
02SI	120296-01	Custom 8260 Solution	2000	166038-27763	09-12-11Q	11/14/2011	50
02SI	020232-02-SS	Vinyl Acetate(SS)	2000	176774-29257	09-12-11R	11/30/2011	50
02SI	020620-02-SS	n-HEXANE	1000	179199-29515	10-12-11F	12/14/2011	100
02SI	020045-02-SS	HEXACHLOROETHANE	1000	154535-25913	09-13-11B	12/29/2011	100
02SI	020546-02-SS	Heptane(SS)	1000	142276-23593	09-13-11C	12/19/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1550
10-28-11W							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
02SI	120166-01-SS	VOC Mix 4-3 (SS)	2000	152531-25468	10-02-11Q	11/3/2011	250
02SI	020229-09-SS	Acrolein SOLUTION (SS)	10000	178607-29549	10-02-11H	11/21/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1700

10-28-11X							
50ug/ml Vol Work Std #7							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	120016-03	Gas Mix	2000	169238-28682	10-28-11A	11/30/2011	100
02SI	020045-02	HEXACHLOROETHANE	1000	164815-28587	10-28-11B	12/14/2011	200
02SI	020228-02	Benzyl Chloride	1000	163373-29166	10-28-11C	12/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3500
10-28-11Y							
50ug/ml Vol Work Std #1							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	020145-02-02	2-CEVE	2000	160092-26637	10-06-11B	12/7/2011	50
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	1950
10-28-11Z							
50ug/ml Vol Work Std #8							
Exp:11/04/11							
			Conc.		Date	Exp.	
Supplier	ID #	ID	ug/ml	Lot #	Code	Date	ul
02SI	122039-02	Volatile Mix, 20-29	2000	163374-28300	10-28-11O	2/14/2012	100
02SI	120023-03	VOC'S-54 COMP	2000	164454-27872	10-28-11S	2/14/2012	100
02SI	020232-02	Vinyl Acetate	2000	178909-29552	10-28-11F	11/16/2011	100
02SI	020620-02	n-Hexane	1000	163378-27889	10-26-11B	11/14/2011	200
02SI	020546-02	Heptane	1000	169174-29246	10-28-11G	11/14/2011	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3300
10-28-11AA							
50ug/ml Vol Work Std #2							
Exp:11/04/11							
Supplier	ID #	ID	ug/ml				
02SI	121020-05	KSL'S-Ketone Solution	2000	169173-28307	10-12-11B	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	10/14/2012	3900
		10-28-11AB	Exp:	11/4/2011			
		5ug/ml Vol Work Std #3					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #7		10-28-11X	10/31/2011	200	
		50ug/ml Vol Work Std #8		10-28-11Z	10/31/2011	200	
		J&T Brand		10/6/2011	6/8/2012	1600	
		10-28-11AC	Exp:	11/4/2011			
		5ug/ml Vol Work Std #10					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #1		10-28-11Y	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	

GC/MS STANDARD PREPARATION BOOK # ____ PAGE # ____

		10-28-11AD	Exp:	11/4/2011			
		5ug/ml Vol Work Std #12					
		SOURCES	Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml Vol Work Std #2		10-28-11AA	10/31/2011	200	
		J&T Brand		10/27/2011	6/8/2012	1800	
10-28-11AE							
50ug/ml 8260 Surrogate			Conc.		Date	Exp.	
Exp:11/04/11			ug/ml	Lot #	Code	Date	ul
02SI	120002-01	8260B Surr Solution	2000	173249-28847	10-28-11H	11/14/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3900
10/28/11 RS.							
10-28-11AF			Exp:	11/4/2011			
5.0ug/ml 8260 Surrogate			Lot	APPL Code	APPL Exp Date	ul	
		50ug/ml 8260 Surrogate		10-28-11AE	10/31/2011	200	
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	1800	
10-28-11AG							
250ug/ml TBA/IBA/Acetonitrile/Cyclohexanone/Acrolein/2-P						APPL	
Exp:11/04/11			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
02SI	120166-01	Volatile Mix 4-3	2000	178651-29510	10-28-11I	12/17/2011	500
02SI	020229-09	Acrolein	10000	179941-29661	10-19-11H	11/21/2011	100
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	6/8/2012	3400

NOTEBOOK INSERT LABEL

Gasoline 47616-U
Lot: LB82077 EXP: FEB/2014 STORAGE: ROOM TEMP. 1 x 1ml

DATE RECEIVED:_____

SUPELCO
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

RS.

10/30/11 A-
RS.

STANDARD TRANSFER LABEL

Date of Preparation:
Reference Number:
Description: Gasoline
Lot #: LB82077 - 29133
Rec: 8/4/11 MFR exp. 02/28/14

Exp. Date:
Storage: EXP: FEB/2014
ROOM TEMP.

REST
Cat# 30205

Unleaded gasoline composite
Lot #: A076842 - 29141
Rec: 8/4/11 MFR exp. 10/31/17

RS.

10/30/11 B-
RS.

Unleaded Gasoline Composite Standard
50000 ug/mL each in P&T Methanol
Lot# A076842 Exp. Date: 10/2017 Store: Freezer
Restek Corporation - 110 Benner Circle - Bellefonte, PA 16823

RS.

10/30/11C						APPL	
2000ug/ml Gasoline			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
Supelco	LB82077	Gasoline	20,000	LB82077-29133	10-30-11A	11/2/2012	200
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	3/2/2012	1800
10/30/11 RS.							
10/30/11D						APPL	
2000ug/ml Unleaded Gasoline			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	ul
Supelco	30205	Unleaded Gasoline	50,000	A076842-29141	10-30-11B	11/30/2012	80
J&T Brand		Purge & Trap MeOH		K14E06-00556	10/27/2011	3/2/2012	1920

11/04/11
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-CHICO

	Expiration Date:		11/5/2011								
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #3	5µg/mL Vol Std #12
Date	Conc.	10-28-11AB	10-28-11AF	10-28-11X	10-28-11Z	10-28-11AF	10-28-11AC	10-28-11Y	10-28-11AA	10-28-11AD
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11
11-04-11A	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
11-04-11B	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
11-04-11C	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
11-04-11D	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
11-04-11E	5	n/a	n/a	5	5	10	n/a	5	5	n/a
11-04-11F	10	n/a	n/a	10	10	25	n/a	10	20	n/a
11-04-11G	20	n/a	n/a	20	20	40	n/a	20	20	n/a
11-04-11H	40	n/a	n/a	40	40	80	n/a	40	40	n/a
11-04-11I	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
10-28-11AG	w/P&T H2O
Exp:11-04-11	mL
3	50
6	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

11/04/11
RS

Volatile Standard Curve Preparation for 10mL Purge (8260 water)-MAX

	Expiration Date:		11/5/2011								
		5µg/mL Vol Std #9	5µg/mL Surr	50µg/mL Vol Std #7	50µg/mL Vol Std #8	50µg/mL Surr	5µg/mL Vol Std #10	50µg/mL Vol Std #11	50µg/mL Vol Std #3	5µg/mL Vol Std #12
Date	Conc.	10-28-11AB	10-28-11AF	10-28-11X	10-28-11Z	10-28-11AF	10-28-11AC	10-28-11Y	10-28-11AA	10-28-11AD
Code	µg/L	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11	Exp:11-04-11
11-04-11J	0.3	3	6	n/a	n/a	n/a	3	n/a	n/a	3
11-04-11K	0.5	5	10	n/a	n/a	n/a	5	n/a	n/a	5
11-04-11L	1	10	20	n/a	n/a	n/a	10	n/a	n/a	10
11-04-11M	2	20	40	n/a	n/a	n/a	20	n/a	n/a	20
11-04-11N	5	n/a	n/a	5	5	10	n/a	5	5	n/a
11-04-11O	10	n/a	n/a	10	10	25	n/a	10	20	n/a
11-04-11P	20	n/a	n/a	20	20	40	n/a	20	20	n/a
11-04-11Q	40	n/a	n/a	40	40	80	n/a	40	40	n/a
11-04-11R	100	n/a	n/a	100	100	n/a	n/a	100	100	n/a

250µg/mL TAPD	Final Vol
10-28-11AG	w/P&T H2O
Exp:11-04-11	mL
3	50
6	50
10	50
15	50
20	50
25	50
30	50
35	50
40	50

11/05/11
RS

A -

Method 8260 Gases, 2,000 mg/L, 2 X 0.6 ml
120016-03
Lot # 169238 Storage ≤ -10 Degrees C Expiry 2/19/14
Solv.: P/T Methanol

Method 8260 Gases
Lot #: 169238 - 28663
Rec: 4/20/11 MFR exp. 02/19/14

11/05/11
RS

B -

Hexachloroethane Solution, 1000 mg/L, 1 ml
020049-02
Lot # 164816 Storage ≤ -10 Degrees C Expiry 10/14/11
Solv.: P/T Methanol

Hexachloroethane
Lot #: 164816 - 29151
Rec: 8/5/11 MFR exp. 10/14/12

11/05/11
RS

C -

Benzyl Chloride Solution, 1000 mg/L, 1 ml
020218-02
Lot # 163373 Storage ≤ -10 Degrees C Expiry 8/29/12
Solv.: P/T Methanol

Benzyl Chloride
Lot #: 163373 - 29167
Rec: 8/5/11 MFR exp. 08/29/12

Injection Log

Directory: M:\CHICO\DATA\C111030\ and M:\CHICO\DATA\C111104\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1030C00T.D	1	20ug/mL BFB STD 10-19-11B	2ul	30 Oct 11 12:52
2	1	1030C05W.D	1	Vol Std 10-30-11@20ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 16:17
3	1	1030C06W.D	1	Vol Std 10-30-11@50ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 17:00
4	1	1030C07W.D	1	Vol Std 10-30-11@100ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 17:43
5	1	1030C08W.D	1	Vol Std 10-30-11@300ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 18:26
6	1	1030C09W.D	1	Vol Std 10-30-11@600ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 19:09
7	1	1030C10W.D	1	Vol Std 10-30-11@800ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 19:52
8	1	1030C11W.D	1	Vol Std 10-30-11@1000ug/L	Water 10mLw/ IS:10-30-11	30 Oct 11 20:35
9	1	1030C26W.D	1	20ug/mL BFB STD 10-19-11	Water 2ul	31 Oct 11 7:21
10	1	1030C29W.D	1	GAS 300ug/L (SS)	Water 10mLw/ IS&S:10-30/10-26-11	31 Oct 11 9:31
11	1	1104C00T.D	1	20ug/ml BFB Std 02-17-10D	2ul	4 Nov 11 8:59
12	1	1104C04W.D	1	VOL STD 11-04-11@0.3ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 12:17
13	1	1104C05W.D	1	VOL STD 11-04-11@0.5ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 13:00
14	1	1104C06W.D	1	VOL STD 11-04-11@1.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 13:43
15	1	1104C07W.D	1	VOL STD 11-04-11@2.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 14:26
16	1	1104C08W.D	1	VOL STD 11-04-11@5.0ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 15:10
17	1	1104C09W.D	1	VOL STD 11-04-11@10ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 15:53
18	1	1104C10W.D	1	VOL STD 11-04-11@20ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 16:36
19	1	1104C11W.D	1	VOL STD 11-04-11@40ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 17:19
20	1	1104C12W.D	1	VOL STD 11-04-11@100ug/L	Water 10mLw/ IS:10-30-11	4 Nov 11 18:02
21	1	1104C13W.D	1	20ug/mL BFB STD 10-19-11B	2ul	4 Nov 11 18:46
22	1	1104C17W.D	1	111104A LCS-1WC	Water 10mLw/ IS:10-30-11	4 Nov 11 21:38
23	1	1105C00T.D	1	20ug/ml BFB Std 02-17-10D	2ul	5 Nov 11 10:47
24	1	1105C02W.D	1	VOC STD 11-5-11@10ug/L	Water 10mLw/ IS:10-30-11	5 Nov 11 12:02
25	1	1105C03W.D	1	111105A LCS-1WC	Water 10mLw/ IS:10-30-11	5 Nov 11 12:45
26	1	1105C05W.D	1	Gas CCV 11-05-11@300ug/L	Water 10mLw/ IS:10-30-11	5 Nov 11 14:11
27	1	1105C06W.D	1	111105A LCS-1WC (GAS)	Water 10mLw/ IS:10-30-11	5 Nov 11 14:54
28	1	1105C09W.D	1	111105A BLK-1WC	Water 10mLw/ IS:10-30-11	5 Nov 11 17:04
29	1	1105C10W.D	1	AY50004W01	Water 10mLw/ IS:10-30-11	5 Nov 11 17:48
30	1	1105C11W.D	1	AY50005W01	Water 10mLw/ IS:10-30-11	5 Nov 11 18:31

METALS

APPL, INC.

METALS
QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments: _____

METALS
Sample Data

APPL, INC.

Metals Analysis

Environet, Inc.
650 Iwilei Rd, #204
Honolulu, HI 96817

Attn: Stacey Fineran
Project: RED HILL/1022-024
Sample ID: ES057
Sample Collection Date: 11/2/2011

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 66186
APPL ID: AY50005

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6020	LEAD (PB) (DISSOLVED)	0.22U	0.5	0.22	0.11	ug/L	1	11/10/2011	11/11/2011

Printed: 11/15/2011 1:00:21 PM

APPL-F1-SC-NoMC-REG MDLs

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\0678MPL.D\0678MPL.D#
Date Acquired: Nov 11 2011 06:46 pm
Operator: NBS
Sample Name: AY5000SW08
Misc Info: 111110A-3015
Vial Number: 3306
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	-0.01	ug/l	-0.01	10.03	1000	
11 B	34.60	ug/l	38.44	1.01	1000	
23 Na	30780.00	ug/l	34196.58	0.62	25000	>Cal
24 Mg	9018.00	ug/l	10019.00	0.81	50000	
27 Al	9.35	ug/l	10.38	5.11	20000	
39 K	1865.00	ug/l	2072.02	1.10	20000	
44 Ca	14170.00	ug/l	15742.87	0.68	50000	
47 Ti	0.98	ug/l	1.09	9.48	1000	
51 V	-0.25	ug/l	-0.27	9.33	1000	
52 Cr	0.08	ug/l	0.09	8.97	1000	
55 Mn	832.50	ug/l	924.91	1.02	1000	
56 Fe	460.70	ug/l	511.84	0.09	20000	
59 Co	0.63	ug/l	0.70	2.59	1000	
60 Ni	0.70	ug/l	0.78	4.54	1000	
63 Cu	0.01	ug/l	0.02	54.35	1000	
65 Cu	0.03	ug/l	0.03	87.59	1000	
66 Zn	3.94	ug/l	4.37	2.72	1000	
75 As	-0.36	ug/l	-0.40	5.37	1000	
78 Se	0.02	ug/l	0.02	64.15	1000	
78 Se	0.07	ug/l	0.07	82.23	1000	
88 Sr	88.98	ug/l	98.86	0.41	1000	
88 Sr	90.71	ug/l	100.78	0.28	1000	
95 Mo	0.15	ug/l	0.17	3.57	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	0.00	ug/l	0.00	70.06	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	0.01	ug/l	0.01	81.65	1000	
118 Sn	0.12	ug/l	0.13	13.45	1000	
121 Sb	0.12	ug/l	0.13	5.87	1000	
137 Ba	10.65	ug/l	11.83	0.30	1000	
205 Tl	0.01	ug/l	0.01	29.17	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	-0.16	ug/l	-0.18	1.21	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2761134.00	0.73	2775704.50	99.5	70 - 120	
45 Sc	630742.81	1.52	500780.41	126.0	70 - 120	IS Fai
45 Sc	102167.70	0.46	95494.08	107.0	70 - 120	
45 Sc	2003765.60	1.31	1460980.80	137.2	70 - 120	IS Fai
72 Ge	105359.95	1.32	96219.04	109.5	70 - 120	
72 Ge	47048.36	0.72	43611.78	107.9	70 - 120	
72 Ge	234247.27	0.62	213204.63	109.9	70 - 120	
115 In	1539035.80	1.11	1381264.00	111.4	70 - 120	
159 Tb	2074430.00	0.47	1843940.90	112.5	70 - 120	
165 Ho	2051384.50	0.92	1844184.90	111.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Fail

METALS
Calibration Data

APPL, INC.

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66186 SDG: 66186

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 13:03	%R(1)	True CCV1	Found 13:33	%R(1)	
Lead (Pb)	100	106.3	106	50	50.31	101	50	50.34	101	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66186 SDG: 66186

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 15:05	%R(1)	True CCV1	Found 18:04	%R(1)	
Lead (Pb)	100	106.3	106	50	49.96	99.9	50	48.04	96.1	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No: 66186 SDG: 66186

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:39	%R(1)	True CCV1	Found 18:59	%R(1)	True	Found	%R(1)	
Lead (Pb)	100	106.3	106	50	47.78	95.6				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66186 SDG: 66186

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	12:57		13:09		13:46		15:17		14:16				
Lead (Pb)	.50	U	.50	U	.50	U	.50	U	.19	J	P		

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Environet, Inc.

ARF No.: 66186 SDG: 66186

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/11/2011

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	12:57		18:16		19:11				14:16		
Lead (Pb)	.50	U	.50	U	.50	U			.19	J	P

A.P.P.L. INC.

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	Environet, Inc.
ARF No.:	66186	SDG:	66186
ICP ID Number:	Optimus	ICS Source:	Environmental Express

Analysis Date: 11/11/2011 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:15	Sol AB 13:21	%R(1)
Lead (Pb)		500	3.499	502	100

(1) Control Limits: Metals 80-120

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\11K11100.B\004CAL
Date Acquired:	Nov 11 2011 12:08 pm
Operator:	NBS
Sample Name:	Calibration Blank
Misc Info:	
Vial Number:	1102
Current Method:	C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update:	Nov 11 2011 12:06 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	2775705.00	A	31080.00	1.12
7	(Li)	152897.91	P	508.10	0.33
9	Be	164.45	P	15.75	9.58
11	B	9503.37	P	213.80	2.25
23	Na	81958.40	P	248.30	0.30
24	Mg	134.45	P	6.94	5.16
27	Al	111.12	P	16.78	15.10
39	K	60334.78	P	2276.00	3.77
44	Ca	384.84	P	48.59	12.63
45	Sc	500780.41	P	2032.00	0.41
45	Sc	95494.08	P	252.60	0.26
45	Sc	1460981.00	A	25510.00	1.75
47	Ti	4.89	P	0.77	15.75
51	V	3955.25	P	110.20	2.79
52	Cr	547.13	P	20.02	3.66
55	Mn	165.78	P	8.57	5.17
56	Fe	5746.57	P	137.00	2.38
59	Co	1492.99	P	62.44	4.18
60	Ni	69.78	P	22.72	32.56
63	Cu	2222.87	P	55.11	2.48
65	Cu	1076.95	P	27.98	2.60
66	Zn	207.12	P	12.10	5.84
72	Ge	96219.04	P	484.10	0.50
72	Ge	43611.78	P	490.40	1.12
72	Ge	213204.59	P	1657.00	0.78
75	As	266.34	P	7.21	2.71
78	Se	4.67	P	1.53	32.74
78	Se	30.00	P	1.16	3.85
88	Sr	48.89	P	8.39	17.16
88	Sr	188.90	P	11.71	6.20
95	Mo	111.12	P	22.69	20.42
106	(Cd)	31.11	P	10.18	32.72
107	Ag	35.56	P	13.47	37.88
108	(Cd)	27.78	P	5.09	18.33
111	Cd	0.12	P	4.33	3513.10
115	In	1381264.00	A	15790.00	1.14
118	Sn	495.58	P	60.50	12.21
121	Sb	323.35	P	35.28	10.91
137	Ba	91.12	P	13.47	14.78
159	Tb	1843941.00	A	33820.00	1.83
165	Ho	1844185.00	A	22050.00	1.20
205	Tl	78.89	P	5.09	6.45
206	(Pb)	1670.17	P	51.97	3.11
207	(Pb)	1455.69	P	79.06	5.43
208	Pb	6738.71	P	70.43	1.05

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\005CALS.D\005CALS.D#
Date Acquired: Nov 11 2011 12:14 pm
Operator: MSS
Sample Name: 111211 Standard 1
Misc Info:
Vial Number: 1103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:12 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	2934478.00	A	12100.00	0.41	0.0000
7 (Li)	160812.41	P	1266.00	0.79	0.0000
9 Be	1031.18	P	27.15	2.63	0.0000
11 B	10014.79	P	224.80	2.24	0.0000
23 Na	101764.30	P	5296.00	5.20	0.0000
24 Mg	2435.84	P	56.81	2.33	0.0000
27 Al	465.58	P	50.04	10.75	0.0000
39 K	63456.74	P	1758.00	2.77	0.0000
44 Ca	441.03	P	5.03	1.14	0.0000
45 Sc	483714.81	P	17820.00	3.68	0.0000
45 Sc	96706.18	P	602.60	0.62	0.0000
45 Sc	1494561.00	A	14240.00	0.95	0.0000
47 Ti	16.89	P	3.36	19.87	0.0000
51 V	4556.33	P	51.66	1.13	0.0000
52 Cr	876.48	P	32.73	3.73	0.0000
55 Mn	7451.77	P	52.30	0.70	0.0000
56 Fe	12699.44	P	213.90	1.68	0.0000
59 Co	1820.58	P	82.65	4.54	0.0000
60 Ni	166.23	P	12.10	7.28	0.0000
63 Cu	3334.65	P	61.70	1.85	0.0000
65 Cu	1647.67	P	94.43	5.73	0.0000
66 Zn	231.56	P	11.34	4.90	0.0000
72 Ge	93081.49	P	2181.00	2.34	0.0000
72 Ge	43620.24	P	387.20	0.89	0.0000
72 Ge	210910.70	P	1414.00	0.67	0.0000
75 As	300.78	P	7.07	2.35	0.0000
78 Se	21.00	P	2.60	12.40	0.0000
78 Se	30.33	P	6.33	20.88	0.0000
88 Sr	303.35	P	25.17	8.30	0.0000
88 Sr	1913.54	P	79.67	4.16	0.0000
95 Mo	385.58	P	18.36	4.76	0.0000
106 (Cd)	51.11	P	6.94	13.58	0.0000
107 Ag	447.80	P	37.47	8.37	0.0000
108 (Cd)	28.89	P	17.10	59.19	0.0000
111 Cd	182.07	P	18.49	10.16	0.0000
115 In	1383497.00	A	12980.00	0.94	0.0000
118 Sn	901.17	P	20.10	2.23	0.0000
121 Sb	988.96	P	26.95	2.73	0.0000
137 Ba	304.46	P	49.48	16.25	0.0000
159 Tb	1838841.00	A	19950.00	1.08	0.0000
165 Ho	1842078.00	A	20850.00	1.13	0.0000
205 Tl	1497.92	P	40.19	2.68	0.0000
206 (Pb)	2154.70	P	105.60	4.90	0.0000
207 (Pb)	1842.42	P	104.10	5.65	0.0000
208 Pb	8565.85	P	320.10	3.74	0.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	2934478.30	0.41	2775704.50	105.7	70 -	120	
45 Sc	483714.78	3.68	500780.41	96.6	70 -	120	
45 Sc	96706.18	0.62	95494.08	101.3	70 -	120	
45 Sc	1494561.00	0.95	1460980.80	102.3	70 -	120	
72 Ge	93081.49	2.34	96219.04	96.7	70 -	120	
72 Ge	43620.24	0.89	43611.78	100.0	70 -	120	
72 Ge	210910.72	0.67	213204.63	98.9	70 -	120	
115 In	1383496.90	0.94	1381264.00	100.2	70 -	120	
159 Tb	1838841.50	1.08	1843940.90	99.7	70 -	120	
165 Ho	1842078.10	1.13	1844184.90	99.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\006CALS.D\006CALS.DA
Date Acquired: Nov 11 2011 12:20 pm
Operator: NBS
Sample Name: 111111 Standard 2
Misc Info:
Vial Number: 1104
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:18 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3013436.00	A	14250.00	0.47	0.0000
7 (Li)	162843.41	P	655.10	0.40	1.0000
9 Be	10180.43	P	411.30	4.04	1.0000
11 B	16379.42	P	483.40	2.95	1.0000
23 Na	196689.50	P	7056.00	3.59	1.0000
24 Mg	23141.91	P	43.26	0.19	1.0000
27 Al	4021.80	P	226.90	5.64	1.0000
39 K	76357.12	P	2463.00	3.23	1.0000
44 Ca	1793.11	P	71.50	3.99	1.0000
45 Sc	510541.00	P	4569.00	0.89	0.0000
45 Sc	97262.66	P	635.50	0.65	0.0000
45 Sc	1465690.00	A	21530.00	1.47	0.0000
47 Ti	156.45	P	19.06	12.18	1.0000
51 V	8092.54	P	134.80	1.67	1.0000
52 Cr	4117.09	P	42.23	1.03	1.0000
55 Mn	61442.06	P	651.50	1.06	1.0000
56 Fe	82436.35	P	925.30	1.12	1.0000
59 Co	6109.79	P	52.36	0.86	1.0000
60 Ni	1383.64	P	28.30	2.05	1.0000
63 Cu	15516.40	P	233.60	1.51	1.0000
65 Cu	7559.83	P	73.09	0.97	1.0000
66 Zn	1430.31	P	74.87	5.23	1.0000
72 Ge	96818.69	P	1004.00	1.04	0.0000
72 Ge	44609.64	P	326.50	0.73	0.0000
72 Ge	203708.30	P	1751.00	0.86	0.0000
75 As	639.35	P	17.53	2.74	1.0000
78 Se	175.22	P	7.34	4.19	1.0000
78 Se	81.11	P	6.83	8.43	1.0000
88 Sr	3138.24	P	234.10	7.46	1.0000
88 Sr	17034.09	P	556.30	3.27	1.0000
95 Mo	3096.01	P	35.02	1.13	1.0000
106 (Cd)	180.01	P	18.56	10.31	1.0000
107 Ag	4028.49	P	77.05	1.91	1.0000
108 (Cd)	138.89	P	13.47	9.70	1.0000
111 Cd	1685.97	P	41.67	2.47	1.0000
115 In	1324038.00	A	6932.00	0.52	0.0000
118 Sn	5423.48	P	180.10	3.32	1.0000
121 Sb	6328.31	P	130.20	2.06	1.0000
137 Ba	2328.05	P	139.60	6.00	1.0000
159 Tb	1820559.00	A	17780.00	0.98	0.0000
165 Ho	1818461.00	A	19460.00	1.07	0.0000
205 Tl	15160.28	P	220.10	1.45	1.0000
206 (Pb)	7664.74	P	91.74	1.20	1.0000
207 (Pb)	7014.34	P	72.68	1.04	1.0000
208 Pb	31156.53	P	401.40	1.29	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3013436.30	0.47	2775704.50	108.6	70 -	120	
45 Sc	510541.06	0.89	500780.41	101.9	70 -	120	
45 Sc	97262.66	0.65	95494.08	101.9	70 -	120	
45 Sc	1465690.00	1.47	1460980.80	100.3	70 -	120	
72 Ge	96818.70	1.04	96219.04	100.6	70 -	120	
72 Ge	44609.64	0.73	43611.78	102.3	70 -	120	
72 Ge	203708.33	0.86	213204.63	95.5	70 -	120	
115 In	1324038.00	0.52	1381264.00	95.9	70 -	120	
159 Tb	1820559.10	0.98	1843940.90	98.7	70 -	120	
165 Ho	1818460.60	1.07	1844184.90	98.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.DA

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File:	C:\ICPCHEM\1\DATA\11K11100.B\007CALS.D\007CALS.D#
Date Acquired:	Nov 11 2011 12:27 pm
Operator:	NBS
Sample Name:	111111 Standard 3
Misc Info:	
Vial Number:	1105
Current Method:	C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File:	C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update:	Nov 11 2011 12:24 pm
Sample Type:	CalStd
Total Dil Factor:	1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3129745.00	A	45260.00	1.45	0.0000
7 (Li)	169858.91	P	576.50	0.34	0.7236
9 Be	529831.50	P	2404.00	0.45	0.9999
11 B	352525.41	P	4097.00	1.16	0.9985
23 Na	1470286.00	A	17010.00	1.16	0.9979
24 Mg	1292682.00	A	17130.00	1.33	1.0000
27 Al	182025.00	P	2356.00	1.29	1.0000
39 K	502725.09	P	1262.00	0.25	0.9983
44 Ca	52265.13	P	789.60	1.51	0.9983
45 Sc	522323.31	P	4813.00	0.92	0.0000
45 Sc	98761.96	P	1402.00	1.42	0.0000
45 Sc	1523925.00	A	17440.00	1.14	0.0000
47 Ti	6316.10	P	62.52	0.99	0.9998
51 V	161320.00	P	2272.00	1.41	0.9994
52 Cr	179336.20	P	1262.00	0.70	1.0000
55 Mn	136966.41	P	806.40	0.59	0.9998
56 Fe	3466730.00	A	34680.00	1.00	1.0000
59 Co	254063.59	P	2599.00	1.02	0.9995
60 Ni	64869.85	P	669.40	1.02	0.9997
63 Cu	172209.41	P	983.40	0.57	0.9999
65 Cu	82567.48	P	346.90	0.42	1.0000
66 Zn	30294.80	P	353.70	1.17	0.9973
72 Ge	98255.19	P	550.50	0.56	0.0000
72 Ge	46262.58	P	34.38	0.07	0.0000
72 Ge	211131.20	P	2095.00	0.99	0.0000
75 As	20258.79	P	48.21	0.24	1.0000
78 Se	8196.34	P	137.70	1.68	1.0000
78 Se	2352.20	P	19.65	0.84	0.9963
88 Sr	152226.41	P	2676.00	1.76	0.9999
88 Sr	853159.19	P	3826.00	0.45	1.0000
95 Mo	152546.09	P	1308.00	0.86	0.9999
106 (Cd)	7779.08	P	43.36	0.56	0.9995
107 Ag	203275.00	P	1362.00	0.67	1.0000
108 (Cd)	5850.30	P	115.70	1.98	0.9966
111 Cd	85595.10	P	417.50	0.49	1.0000
115 In	1359449.00	A	15030.00	1.11	0.0000
118 Sn	233787.30	P	2145.00	0.92	0.9998
121 Sb	303264.81	P	1162.00	0.38	1.0000
137 Ba	112289.00	P	1153.00	1.03	1.0000
159 Tb	1852128.00	A	3859.00	0.21	0.0000
165 Ho	1866389.00	A	18420.00	0.99	0.0000
205 Tl	767163.63	P	3647.00	0.48	1.0000
206 (Pb)	267422.81	P	439.20	0.16	0.9998
207 (Pb)	229702.30	P	967.40	0.42	0.9996
208 Pb	1066559.00	P	3421.00	0.32	0.9997

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3129745.00	1.45	2775704.50	112.8	70 -	120	
45 Sc	522323.34	0.92	500780.41	104.3	70 -	120	
45 Sc	98761.96	1.42	95494.08	103.4	70 -	120	
45 Sc	1523925.40	1.14	1460980.80	104.3	70 -	120	
72 Ge	98255.19	0.56	96219.04	102.1	70 -	120	
72 Ge	46262.59	0.07	43611.78	106.1	70 -	120	
72 Ge	211131.19	0.99	213204.63	99.0	70 -	120	
115 In	1359449.00	1.11	1381264.00	98.4	70 -	120	
159 Tb	1852128.10	0.21	1843940.90	100.4	70 -	120	
165 Ho	1866389.00	0.99	1844184.90	101.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\008CALS.D\008CALS.D#
Date Acquired: Nov 11 2011 12:33 pm
Operator: NBS
Sample Name: 111111 Standard 4
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:30 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)	Cal Coef
6 Li	3091825.00	A	34660.00	1.12	0.0000
7 (Li)	169207.09	P	2476.00	1.46	0.7966
9 Be	1184909.00	A	5168.00	0.44	1.0000
11 B	825041.63	A	8516.00	1.03	1.0000
23 Na	2686206.00	A	10730.00	0.40	0.9984
24 Mg	2535966.00	A	10300.00	0.41	1.0000
27 Al	366543.31	P	3283.00	0.90	1.0000
39 K	1039409.00	A	8793.00	0.85	0.9999
44 Ca	104136.20	P	1221.00	1.17	1.0000
45 Sc	526807.38	P	1501.00	0.28	0.0000
45 Sc	100637.20	P	272.50	0.27	0.0000
45 Sc	1546820.00	A	41280.00	2.67	0.0000
47 Ti	12883.09	P	335.40	2.60	1.0000
51 V	324487.59	P	1452.00	0.45	1.0000
52 Cr	360663.69	P	2389.00	0.66	1.0000
55 Mn	247566.30	P	2862.00	1.16	0.9063
56 Fe	6831163.00	A	89870.00	1.32	1.0000
59 Co	505973.59	P	1092.00	0.22	1.0000
60 Ni	128756.60	P	486.80	0.38	1.0000
63 Cu	331294.91	P	1236.00	0.37	0.9984
65 Cu	158678.41	P	595.70	0.38	0.9983
66 Zn	58476.31	P	247.90	0.42	0.9998
72 Ge	100101.50	P	582.20	0.58	0.0000
72 Ge	46752.66	P	94.61	0.20	0.0000
72 Ge	215920.09	P	4942.00	2.29	0.0000
75 As	41314.20	P	335.50	0.81	1.0000
78 Se	16782.86	P	111.00	0.66	1.0000
78 Se	4841.04	P	45.62	0.94	1.0000
88 Sr	308415.19	P	2179.00	0.71	1.0000
88 Sr	1836004.00	A	12020.00	0.65	1.0000
95 Mo	308376.41	P	620.60	0.20	1.0000
106 (Cd)	15606.90	P	85.03	0.54	1.0000
107 Ag	402429.69	P	2133.00	0.53	1.0000
108 (Cd)	11351.61	P	175.20	1.54	1.0000
111 Cd	169137.09	P	1111.00	0.66	1.0000
115 In	1356694.00	A	39030.00	2.88	0.0000
118 Sn	461432.81	P	1252.00	0.27	1.0000
121 Sb	616792.50	P	2811.00	0.46	1.0000
137 Ba	224905.80	P	424.60	0.19	1.0000
159 Tb	1896056.00	A	51090.00	2.69	0.0000
165 Ho	1892444.00	A	47210.00	2.49	0.0000
205 Tl	1621888.00	A	15450.00	0.95	1.0000
206 (Pb)	524239.50	P	2392.00	0.46	1.0000
207 (Pb)	454785.81	P	2844.00	0.63	1.0000
208 Pb	2164409.00	A	4337.00	0.20	1.0000

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3091824.50	1.12	2775704.50	111.4	70 -	120	
45 Sc	526807.44	0.28	500780.41	105.2	70 -	120	
45 Sc	100637.22	0.27	95494.08	105.4	70 -	120	
45 Sc	1546819.60	2.67	1460980.80	105.9	70 -	120	
72 Ge	100101.52	0.58	96219.04	104.0	70 -	120	
72 Ge	46752.66	0.20	43611.78	107.2	70 -	120	
72 Ge	215920.11	2.29	213204.63	101.3	70 -	120	
115 In	1356693.50	2.88	1381264.00	98.2	70 -	120	
159 Tb	1896055.90	2.69	1843940.90	102.8	70 -	120	
165 Ho	1892443.90	2.49	1844184.90	102.6	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\009_QCS.D\009_QCS.D#
Date Acquired: Nov 11 2011 12:39 pm
Operator: NBS
Sample Name: ICV 111111
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	100.00	90 -	110	
9 Be	107.60	ug/l	0.95	100.00	90 -	110	
11 B	105.70	ug/l	0.67	100.00	90 -	110	
23 Na	2518.00	ug/l	0.81	2500.00	90 -	110	
24 Mg	2533.00	ug/l	0.67	2500.00	90 -	110	
27 Al	2547.00	ug/l	1.32	2500.00	90 -	110	
39 K	2615.00	ug/l	0.71	2500.00	90 -	110	
44 Ca	2519.00	ug/l	0.47	2500.00	90 -	110	
47 Ti	97.29	ug/l	0.90	100.00	90 -	110	
51 V	103.40	ug/l	0.55	100.00	90 -	110	
52 Cr	106.50	ug/l	0.63	100.00	90 -	110	
55 Mn	106.70	ug/l	0.21	100.00	90 -	110	
56 Fe	2516.00	ug/l	1.06	2500.00	90 -	110	
59 Co	104.60	ug/l	0.25	100.00	90 -	110	
60 Ni	104.70	ug/l	0.28	100.00	90 -	110	
63 Cu	102.50	ug/l	1.70	100.00	90 -	110	
65 Cu	102.20	ug/l	1.45	100.00	90 -	110	
66 Zn	104.10	ug/l	1.10	100.00	90 -	110	
75 As	98.86	ug/l	1.38	100.00	90 -	110	
78 Se	103.60	ug/l	1.81	100.00	90 -	110	
78 Se	104.10	ug/l	2.03	100.00	90 -	110	
88 Sr	101.20	ug/l	1.63	100.00	90 -	110	
88 Sr	104.30	ug/l	0.60	100.00	90 -	110	
95 Mo	96.15	ug/l	1.35	100.00	90 -	110	
106 (Cd)	--------	ug/l	--------	100.00	90 -	110	
107 Ag	46.26	ug/l	0.71	50.00	90 -	110	
108 (Cd)	--------	ug/l	--------	100.00	90 -	110	
111 Cd	103.60	ug/l	0.47	100.00	90 -	110	
118 Sn	43.82	ug/l	0.17	50.00	90 -	110	Fail
121 Sb	102.70	ug/l	0.18	100.00	90 -	110	
137 Ba	99.56	ug/l	0.34	100.00	90 -	110	
205 Tl	106.40	ug/l	1.20	100.00	90 -	110	
206 (Pb)	--------	ug/l	--------	100.00	90 -	110	
207 (Pb)	--------	ug/l	--------	100.00	90 -	110	
208 Pb	106.30	ug/l	0.89	100.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3157481.00	0.39	2775704.50	113.8	70 -	120	
45 Sc	523431.13	0.16	500780.41	104.5	70 -	120	
45 Sc	100384.52	0.40	95494.08	105.1	70 -	120	
45 Sc	1532510.60	0.50	1460980.80	104.9	70 -	120	
72 Ge	99727.78	0.25	96219.04	103.6	70 -	120	
72 Ge	46938.75	0.91	43611.78	107.6	70 -	120	
72 Ge	212917.78	0.32	213204.63	99.9	70 -	120	
115 In	1371120.50	0.09	1381264.00	99.3	70 -	120	
159 Tb	1873353.00	0.83	1843940.90	101.6	70 -	120	
165 Ho	1868336.50	1.05	1844184.90	101.3	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\012_CCB.D\012_CCB.D#
Date Acquired: Nov 11 2011 12:57 pm
Operator: NBS
Sample Name: ICB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	64.25	0.12	
11 B	0.03 ug/l	45.15	15.00	
23 Na	7.71 ug/l	8.18	77.10	
24 Mg	0.10 ug/l	55.44	7.50	
27 Al	0.09 ug/l	51.89	3.96	
39 K	-16.07 ug/l	31.35	19.20	
44 Ca	2.26 ug/l	102.26	90.00	
47 Ti	0.02 ug/l	221.48	0.78	
51 V	0.57 ug/l	2.59	0.21	Fail
52 Cr	0.01 ug/l	92.18	0.12	
55 Mn	0.00 ug/l	249.24	0.18	
56 Fe	0.25 ug/l	4.89	40.80	
59 Co	-0.25 ug/l	1.58	0.09	
60 Ni	0.00 ug/l	280.61	0.48	
63 Cu	-0.13 ug/l	3.22	0.39	
65 Cu	-0.13 ug/l	16.74	0.39	
66 Zn	-0.01 ug/l	406.21	6.90	
75 As	-0.09 ug/l	15.13	0.27	
78 Se	0.01 ug/l	58.10	0.30	
78 Se	0.05 ug/l	139.53	0.30	
88 Sr	0.00 ug/l	1034.40	0.03	
88 Sr	0.00 ug/l	24.09	0.03	
95 Mo	0.03 ug/l	16.72	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	50.39	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	58.78	0.06	
118 Sn	0.03 ug/l	55.51	0.30	
121 Sb	0.13 ug/l	5.57	0.03	Fail
137 Ba	0.01 ug/l	116.79	0.12	
205 Tl	0.01 ug/l	38.28	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.20 ug/l	0.78	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3073279.00	0.84	2775704.50	110.7	70 - 120	
45 Sc	545909.38	3.12	500780.41	109.0	70 - 120	
45 Sc	100165.70	0.44	95494.08	104.9	70 - 120	
45 Sc	1499557.30	0.22	1460980.80	102.6	70 - 120	
72 Ge	101795.60	2.62	96219.04	105.8	70 - 120	
72 Ge	46734.16	0.18	43611.78	107.2	70 - 120	
72 Ge	210654.83	0.54	213204.63	98.8	70 - 120	
115 In	1336860.30	0.89	1381264.00	96.8	70 - 120	
159 Tb	1857728.00	1.11	1843940.90	100.7	70 - 120	
165 Ho	1856236.60	1.27	1844184.90	100.7	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\013_CCV.D\013_CCV.D#
Date Acquired: Nov 11 2011 01:03 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.86	ug/l	1.99	50.00	90 -	110	
11 B	43.69	ug/l	2.15	50.00	90 -	110	Fail
23 Na	1276.00	ug/l	1.53	1250.00	90 -	110	
24 Mg	2559.00	ug/l	1.05	2500.00	90 -	110	
27 Al	1001.00	ug/l	1.70	1000.00	90 -	110	
39 K	917.90	ug/l	1.26	1000.00	90 -	110	
44 Ca	2498.00	ug/l	1.41	2500.00	90 -	110	
47 Ti	49.40	ug/l	0.95	50.00	90 -	110	
51 V	50.61	ug/l	1.18	50.00	90 -	110	
52 Cr	50.27	ug/l	1.38	50.00	90 -	110	
55 Mn	54.78	ug/l	1.56	50.00	90 -	110	
56 Fe	1027.00	ug/l	1.77	1000.00	90 -	110	
59 Co	50.74	ug/l	0.93	50.00	90 -	110	
60 Ni	50.88	ug/l	1.81	50.00	90 -	110	
63 Cu	50.81	ug/l	0.58	50.00	90 -	110	
65 Cu	50.69	ug/l	0.50	50.00	90 -	110	
66 Zn	51.32	ug/l	0.03	50.00	90 -	110	
75 As	49.12	ug/l	0.62	50.00	90 -	110	
78 Se	50.32	ug/l	1.71	50.00	90 -	110	
78 Se	49.06	ug/l	1.10	50.00	90 -	110	
88 Sr	49.93	ug/l	0.31	50.00	90 -	110	
88 Sr	47.83	ug/l	0.44	50.00	90 -	110	
95 Mo	50.08	ug/l	0.70	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.63	ug/l	0.57	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	50.07	ug/l	1.49	50.00	90 -	110	
118 Sn	50.35	ug/l	0.28	50.00	90 -	110	
121 Sb	49.48	ug/l	0.77	50.00	90 -	110	
137 Ba	49.18	ug/l	0.66	50.00	90 -	110	
205 Tl	48.89	ug/l	0.40	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.31	ug/l	0.14	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3009330.80	0.85	2775704.50	108.4	70 -	120	
45 Sc	502422.56	3.92	500780.41	100.3	70 -	120	
45 Sc	98428.88	1.42	95494.08	103.1	70 -	120	
45 Sc	1480640.80	1.02	1460980.80	101.3	70 -	120	
72 Ge	97237.93	2.52	96219.04	101.1	70 -	120	
72 Ge	46537.16	0.17	43611.78	106.7	70 -	120	
72 Ge	206334.70	0.20	213204.63	96.8	70 -	120	
115 In	1333758.10	0.36	1381264.00	96.6	70 -	120	
159 Tb	1832635.60	0.51	1843940.90	99.4	70 -	120	
165 Ho	1824652.90	0.58	1844184.90	98.9	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\014_CCB.D\014_CCB.D#
Date Acquired: Nov 11 2011 01:09 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	75.05	0.12	
11 B	0.19 ug/l	2.24	15.00	
23 Na	3.09 ug/l	28.12	77.10	
24 Mg	0.17 ug/l	59.53	7.50	
27 Al	0.11 ug/l	49.92	3.96	
39 K	-13.77 ug/l	41.47	19.20	
44 Ca	1.49 ug/l	82.56	90.00	
47 Ti	0.00 ug/l	584.34	0.78	
51 V	0.76 ug/l	2.01	0.21	Fail
52 Cr	0.02 ug/l	22.00	0.12	
55 Mn	0.01 ug/l	26.62	0.18	
56 Fe	0.44 ug/l	10.30	40.80	
59 Co	-0.27 ug/l	0.49	0.09	
60 Ni	0.00 ug/l	169.21	0.48	
63 Cu	-0.16 ug/l	12.22	0.39	
65 Cu	-0.16 ug/l	4.20	0.39	
66 Zn	0.03 ug/l	67.54	6.90	
75 As	-0.03 ug/l	60.04	0.27	
78 Se	0.10 ug/l	23.77	0.30	
78 Se	0.02 ug/l	138.81	0.30	
88 Sr	0.00 ug/l	574.89	0.03	
88 Sr	0.00 ug/l	33.45	0.03	
95 Mo	0.10 ug/l	2.35	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	6.78	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	137.32	0.06	
118 Sn	0.06 ug/l	31.67	0.30	
121 Sb	0.69 ug/l	6.56	0.03	Fail
137 Ba	0.01 ug/l	127.23	0.12	
205 Tl	0.02 ug/l	7.09	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.21 ug/l	0.72	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980962.00	0.72	2775704.50	107.4	70 - 120	
45 Sc	505025.28	3.19	500780.41	100.8	70 - 120	
45 Sc	97675.82	0.75	95494.08	102.3	70 - 120	
45 Sc	1485366.30	0.36	1460980.80	101.7	70 - 120	
72 Ge	97202.46	2.05	96219.04	101.0	70 - 120	
72 Ge	45665.85	0.21	43611.78	104.7	70 - 120	
72 Ge	205716.23	0.30	213204.63	96.5	70 - 120	
115 In	1321174.40	0.50	1381264.00	95.6	70 - 120	
159 Tb	1807747.90	0.40	1843940.90	98.0	70 - 120	
165 Ho	1813776.00	0.73	1844184.90	98.4	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail
ISTD: Pass

ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\11K111O0.B\015ICSA.D\015ICSA.D#
Date Acquired: Nov 11 2011 01:15 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSA 111111
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSA
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit ppb	Flag
7 (Li)	---	3	--------	ug/l	--------		
9 Be	45	3	0.83	ug/l	2.55		
11 B	45	3	1.56	ug/l	2.76		
23 Na	45	2	93250.00	ug/l	0.74		
24 Mg	45	2	91170.00	ug/l	1.03		
27 Al	45	2	104800.00	ug/l	1.31		
39 K	45	2	95010.00	ug/l	0.86		
44 Ca	45	2	101900.00	ug/l	1.03		
47 Ti	45	2	1961.00	ug/l	0.73		
51 V	45	2	2.53	ug/l	1.39		
52 Cr	45	2	2.35	ug/l	1.68		
55 Mn	45	2	7.50	ug/l	0.84		
56 Fe	45	2	92610.00	ug/l	0.44		
59 Co	45	2	20.49	ug/l	0.58		
60 Ni	45	2	3.86	ug/l	0.68		
63 Cu	72	2	1.60	ug/l	2.77		
65 Cu	72	2	1.70	ug/l	4.01		
66 Zn	72	2	5.11	ug/l	1.25		
75 As	72	2	1.55	ug/l	3.09		
78 Se	72	1	1.07	ug/l	5.94		
78 Se	72	2	1.16	ug/l	9.00		
88 Sr	72	2	1.41	ug/l	4.62		
88 Sr	72	3	1.37	ug/l	1.32		
95 Mo	72	3	1834.00	ug/l	1.74		
106 (Cd)	---	3	--------	ug/l	--------		
107 Ag	115	3	1.97	ug/l	1.05		
108 (Cd)	---	3	--------	ug/l	--------		
111 Cd	115	3	2.42	ug/l	3.67		
118 Sn	115	3	1.18	ug/l	1.50		
121 Sb	115	3	1.93	ug/l	2.34		
137 Ba	115	3	3.88	ug/l	2.04		
205 Tl	159	3	1.62	ug/l	1.90		
206 (Pb)	---	3	--------	ug/l	--------		
207 (Pb)	---	3	--------	ug/l	--------		
208 Pb	159	3	3.50	ug/l	0.41		

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2777926	0.73	2775705	100.1	70 - 120	
45 Sc	1	527513	3.31	500780	105.3	70 - 120	
45 Sc	2	94664	0.69	95494	99.1	70 - 120	
45 Sc	3	1465735	0.50	1460981	100.3	70 - 120	
72 Ge	1	98457	2.56	96219	102.3	70 - 120	
72 Ge	2	46798	1.22	43612	107.3	70 - 120	
72 Ge	3	216093	0.53	213205	101.4	70 - 120	
115 In	3	1235992	0.56	1381264	89.5	70 - 120	
159 Tb	3	1778881	0.42	1843941	96.5	70 - 120	
165 Ho	3	1783575	1.04	1844185	96.7	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K111O0.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\11K1100.B\016ICSB.D\016ICSB.D#
Date Acquired: Nov 11 2011 01:21 pm
Acq. Method: 62A1111A.M
Operator: NBS
Sample Name: ICSAB 111111
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal. Update: Nov 11 2011 12:36 pm
Sample Type: ICSAB
Dilution Factor: 1.00

Data Results:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
7 (Li)	---	3	--------	--------	---		-	
9 Be	45	3	246.60	1.11	250	98.6	80 - 120	
11 B	45	3	1.63	0.34	---		-	
23 Na	45	2	96100.00	0.19	---		-	
24 Mg	45	2	93890.00	0.39	---		-	
27 Al	45	2	107500.00	1.06	---		-	
39 K	45	2	97710.00	0.66	---		-	
44 Ca	45	2	105500.00	1.05	---		-	
47 Ti	45	2	2014.00	0.31	2000	100.7	80 - 120	
51 V	45	2	267.30	0.98	250	106.9	80 - 120	
52 Cr	45	2	270.40	2.94	250	108.2	80 - 120	
55 Mn	45	2	264.30	0.56	250	105.7	80 - 120	
56 Fe	45	2	94360.00	0.20	---		-	
59 Co	45	2	282.40	0.78	250	113.0	80 - 120	
60 Ni	45	2	481.90	0.90	500	96.4	80 - 120	
63 Cu	72	2	218.20	1.17	250	87.3	80 - 120	
65 Cu	72	2	218.60	0.91	250	87.4	80 - 120	
66 Zn	72	2	513.60	0.37	500	102.7	80 - 120	
75 As	72	2	239.20	0.52	250	95.7	80 - 120	
78 Se	72	1	251.50	0.86	250	100.6	80 - 120	
78 Se	72	2	233.50	0.80	250	93.4	80 - 120	
88 Sr	72	2	1.62	0.60	---		-	
88 Sr	72	3	1.51	0.87	---		-	
95 Mo	72	3	2131.00	0.52	2000	106.6	80 - 120	
106 (Cd)	---	3	--------	--------	---		-	
107 Ag	115	3	535.90	1.10	500	107.2	80 - 120	
108 (Cd)	---	3	--------	--------	---		-	
111 Cd	115	3	495.00	0.98	500	99.0	80 - 120	
118 Sn	115	3	1.45	2.79	---		-	
121 Sb	115	3	274.60	0.82	250	109.8	80 - 120	
137 Ba	115	3	271.00	0.98	250	108.4	80 - 120	
205 Tl	159	3	252.50	0.03	250	101.0	80 - 120	
206 (Pb)	---	3	--------	--------	---		-	
207 (Pb)	---	3	--------	--------	---		-	
208 Pb	159	3	502.00	0.13	500	100.4	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3	2732517	0.30	2775705	98.4	70 - 120	
45 Sc	1	511020	0.99	500780	102.0	70 - 120	
45 Sc	2	93932	0.16	95494	98.4	70 - 120	
45 Sc	3	1418244	0.91	1460981	97.1	70 - 120	
72 Ge	1	96432	0.78	96219	100.2	70 - 120	
72 Ge	2	46185	0.98	43612	105.9	70 - 120	
72 Ge	3	209601	0.65	213205	98.3	70 - 120	
115 In	3	1203221	0.93	1381264	87.1	70 - 120	
159 Tb	3	1775149	0.42	1843941	96.3	70 - 120	
165 Ho	3	1779108	0.39	1844185	96.5	70 - 120	

Tune File# 1 c:\icpchem\1\7500\h2.u
Tune File# 2 c:\icpchem\1\7500\he.u
Tune File# 3 c:\icpchem\1\7500\nogas.u

ISTD Ref File : C:\ICPCHEM\1\DATA\11K1100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\018_CCV.D\018_CCV.D#
Date Acquired: Nov 11 2011 01:33 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.54	ug/l	0.43	50.00	90 -	110	
11 B	42.52	ug/l	0.69	50.00	90 -	110	Fail
23 Na	1232.00	ug/l	0.90	1250.00	90 -	110	
24 Mg	2553.00	ug/l	1.13	2500.00	90 -	110	
27 Al	1002.00	ug/l	1.24	1000.00	90 -	110	
39 K	910.10	ug/l	0.77	1000.00	90 -	110	
44 Ca	2506.00	ug/l	0.99	2500.00	90 -	110	
47 Ti	49.11	ug/l	2.38	50.00	90 -	110	
51 V	50.62	ug/l	1.42	50.00	90 -	110	
52 Cr	49.48	ug/l	1.20	50.00	90 -	110	
55 Mn	54.25	ug/l	1.47	50.00	90 -	110	
56 Fe	1014.00	ug/l	0.73	1000.00	90 -	110	
59 Co	50.51	ug/l	0.59	50.00	90 -	110	
60 Ni	50.70	ug/l	1.36	50.00	90 -	110	
63 Cu	49.70	ug/l	0.40	50.00	90 -	110	
65 Cu	49.73	ug/l	0.19	50.00	90 -	110	
66 Zn	49.96	ug/l	0.97	50.00	90 -	110	
75 As	48.64	ug/l	0.06	50.00	90 -	110	
78 Se	48.54	ug/l	0.17	50.00	90 -	110	
78 Se	48.82	ug/l	0.30	50.00	90 -	110	
88 Sr	49.77	ug/l	0.41	50.00	90 -	110	
88 Sr	48.29	ug/l	0.56	50.00	90 -	110	
95 Mo	51.00	ug/l	1.55	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	25.03	ug/l	0.97	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.94	ug/l	1.03	50.00	90 -	110	
118 Sn	51.03	ug/l	1.26	50.00	90 -	110	
121 Sb	50.47	ug/l	0.55	50.00	90 -	110	
137 Ba	50.01	ug/l	0.80	50.00	90 -	110	
205 Tl	48.64	ug/l	0.31	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	50.34	ug/l	1.15	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3132762.00	0.73	2775704.50	112.9	70 -	120	
45 Sc	534639.31	0.21	500780.41	106.8	70 -	120	
45 Sc	99077.84	0.49	95494.08	103.8	70 -	120	
45 Sc	1513729.60	0.46	1460980.80	103.6	70 -	120	
72 Ge	102211.11	0.47	96219.04	106.2	70 -	120	
72 Ge	47244.57	0.27	43611.78	108.3	70 -	120	
72 Ge	214737.88	0.60	213204.63	100.7	70 -	120	
115 In	1389034.00	1.09	1381264.00	100.6	70 -	120	
159 Tb	1908915.90	0.41	1843940.90	103.5	70 -	120	
165 Ho	1921136.40	0.48	1844184.90	104.2	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\020_CCB.D\020_CCB.D#
Date Acquired: Nov 11 2011 01:46 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#VALUE!	
9 Be	0.00	ug/l	342.89	0.12	
11 B	-0.21	ug/l	27.87	15.00	
23 Na	-22.55	ug/l	2.00	77.10	
24 Mg	0.32	ug/l	24.61	7.50	
27 Al	0.31	ug/l	30.94	3.96	
39 K	-13.04	ug/l	28.54	19.20	
44 Ca	-2.47	ug/l	54.66	90.00	
47 Ti	0.02	ug/l	115.52	0.78	
51 V	1.17	ug/l	4.59	0.21	Fail
52 Cr	0.01	ug/l	119.76	0.12	
55 Mn	0.00	ug/l	605.19	0.18	
56 Fe	0.83	ug/l	6.77	40.80	
59 Co	-0.30	ug/l	0.59	0.09	
60 Ni	0.00	ug/l	211.25	0.48	
63 Cu	-0.31	ug/l	1.69	0.39	
65 Cu	-0.31	ug/l	4.87	0.39	
66 Zn	0.00	ug/l	866.90	6.90	
75 As	-0.07	ug/l	27.14	0.27	
78 Se	0.03	ug/l	41.10	0.30	
78 Se	0.07	ug/l	100.62	0.30	
88 Sr	0.00	ug/l	114.02	0.03	
88 Sr	0.00	ug/l	18.44	0.03	
95 Mo	0.09	ug/l	4.01	0.21	
106 (Cd)	--------	ug/l	--------	#VALUE!	
107 Ag	0.01	ug/l	12.14	0.09	
108 (Cd)	--------	ug/l	--------	#VALUE!	
111 Cd	0.00	ug/l	1077.10	0.06	
118 Sn	0.03	ug/l	30.18	0.30	
121 Sb	0.29	ug/l	4.29	0.03	Fail
137 Ba	0.01	ug/l	115.49	0.12	
205 Tl	0.01	ug/l	19.13	0.03	
206 (Pb)	--------	ug/l	--------	#VALUE!	
207 (Pb)	--------	ug/l	--------	#VALUE!	
208 Pb	-0.21	ug/l	1.63	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3042523.00	0.11	2775704.50	109.6	70 - 120	
45 Sc	529492.56	0.66	500780.41	105.7	70 - 120	
45 Sc	97690.27	0.93	95494.08	102.3	70 - 120	
45 Sc	1482243.40	0.75	1460980.80	101.5	70 - 120	
72 Ge	101254.01	0.60	96219.04	105.2	70 - 120	
72 Ge	46065.66	0.31	43611.78	105.6	70 - 120	
72 Ge	210454.86	0.84	213204.63	98.7	70 - 120	
115 In	1353362.30	0.71	1381264.00	98.0	70 - 120	
159 Tb	1859786.10	0.52	1843940.90	100.9	70 - 120	
165 Ho	1863063.90	0.81	1844184.90	101.0	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\032_CCV.D\032_CCV.D#
Date Acquired: Nov 11 2011 03:05 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)		Flag
7 (Li)	--------	ug/l	--------	50.00	90 -	110	
9 Be	45.98	ug/l	0.90	50.00	90 -	110	
11 B	43.38	ug/l	1.83	50.00	90 -	110	Fail
23 Na	1250.00	ug/l	2.32	1250.00	90 -	110	
24 Mg	2541.00	ug/l	1.13	2500.00	90 -	110	
27 Al	992.10	ug/l	1.33	1000.00	90 -	110	
39 K	905.50	ug/l	1.76	1000.00	90 -	110	
44 Ca	2473.00	ug/l	1.61	2500.00	90 -	110	
47 Ti	49.01	ug/l	0.71	50.00	90 -	110	
51 V	50.64	ug/l	0.61	50.00	90 -	110	
52 Cr	49.61	ug/l	0.94	50.00	90 -	110	
55 Mn	54.01	ug/l	0.87	50.00	90 -	110	
56 Fe	1013.00	ug/l	1.52	1000.00	90 -	110	
59 Co	50.36	ug/l	0.94	50.00	90 -	110	
60 Ni	51.02	ug/l	1.41	50.00	90 -	110	
63 Cu	49.96	ug/l	0.98	50.00	90 -	110	
65 Cu	49.87	ug/l	0.48	50.00	90 -	110	
66 Zn	50.14	ug/l	1.34	50.00	90 -	110	
75 As	48.56	ug/l	0.79	50.00	90 -	110	
78 Se	47.94	ug/l	1.13	50.00	90 -	110	
78 Se	48.27	ug/l	2.37	50.00	90 -	110	
88 Sr	50.07	ug/l	0.24	50.00	90 -	110	
88 Sr	46.85	ug/l	0.80	50.00	90 -	110	
95 Mo	48.88	ug/l	0.75	50.00	90 -	110	
106 (Cd)	--------	ug/l	--------	50.00	90 -	110	
107 Ag	24.26	ug/l	1.57	25.00	90 -	110	
108 (Cd)	--------	ug/l	--------	50.00	90 -	110	
111 Cd	49.33	ug/l	0.71	50.00	90 -	110	
118 Sn	50.24	ug/l	1.40	50.00	90 -	110	
121 Sb	49.54	ug/l	1.18	50.00	90 -	110	
137 Ba	49.63	ug/l	2.49	50.00	90 -	110	
205 Tl	48.65	ug/l	0.58	50.00	90 -	110	
206 (Pb)	--------	ug/l	--------	50.00	90 -	110	
207 (Pb)	--------	ug/l	--------	50.00	90 -	110	
208 Pb	49.96	ug/l	0.90	50.00	90 -	110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6 Li	3188763.30	1.52	2775704.50	114.9	70 -	120	
45 Sc	530164.38	0.11	500780.41	105.9	70 -	120	
45 Sc	96337.35	1.21	95494.08	100.9	70 -	120	
45 Sc	1476239.00	1.18	1460980.80	101.0	70 -	120	
72 Ge	102958.30	0.45	96219.04	107.0	70 -	120	
72 Ge	45995.51	1.09	43611.78	105.5	70 -	120	
72 Ge	211979.86	0.56	213204.63	99.4	70 -	120	
115 In	1355180.90	1.54	1381264.00	98.1	70 -	120	
159 Tb	1863114.30	0.80	1843940.90	101.0	70 -	120	
165 Ho	1880561.90	0.45	1844184.90	102.0	70 -	120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\034_CCB.D\034_CCB.D#
Date Acquired: Nov 11 2011 03:17 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	69.30	0.12	
11 B	-0.21 ug/l	1.18	15.00	
23 Na	-12.29 ug/l	7.14	77.10	
24 Mg	0.25 ug/l	17.30	7.50	
27 Al	0.17 ug/l	52.39	3.96	
39 K	-13.38 ug/l	34.73	19.20	
44 Ca	-0.64 ug/l	345.23	90.00	
47 Ti	0.01 ug/l	249.07	0.78	
51 V	1.42 ug/l	3.15	0.21	Fail
52 Cr	0.03 ug/l	9.62	0.12	
55 Mn	0.01 ug/l	149.75	0.18	
56 Fe	0.83 ug/l	6.84	40.80	
59 Co	-0.29 ug/l	0.85	0.09	
60 Ni	-0.01 ug/l	222.72	0.48	
63 Cu	-0.38 ug/l	4.80	0.39	
65 Cu	-0.41 ug/l	3.73	0.39	
66 Zn	0.00 ug/l	2628.40	6.90	
75 As	0.07 ug/l	32.28	0.27	
78 Se	0.02 ug/l	97.30	0.30	
78 Se	0.10 ug/l	82.67	0.30	
88 Sr	0.00 ug/l	540.84	0.03	
88 Sr	0.00 ug/l	24.02	0.03	
95 Mo	0.03 ug/l	20.10	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	72.34	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.00 ug/l	426.65	0.06	
118 Sn	0.05 ug/l	13.48	0.30	
121 Sb	0.29 ug/l	11.14	0.03	Fail
137 Ba	0.02 ug/l	76.66	0.12	
205 Tl	0.01 ug/l	1.73	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.25 ug/l	1.69	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3085838.80	0.28	2775704.50	111.2	70 - 120	
45 Sc	543008.13	0.74	500780.41	108.4	70 - 120	
45 Sc	96730.10	0.69	95494.08	101.3	70 - 120	
45 Sc	1456388.00	1.14	1460980.80	99.7	70 - 120	
72 Ge	104225.84	0.21	96219.04	108.3	70 - 120	
72 Ge	45874.70	1.25	43611.78	105.2	70 - 120	
72 Ge	211968.23	0.39	213204.63	99.4	70 - 120	
115 In	1335750.50	0.67	1381264.00	96.7	70 - 120	
159 Tb	1825624.90	0.43	1843940.90	99.0	70 - 120	
165 Ho	1821355.50	0.60	1844184.90	98.8	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\060_CCV.D\060_CCV.D#
Date Acquired: Nov 11 2011 06:04 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	50.00	90 - 110	
9 Be	43.59 ug/l	0.52	50.00	90 - 110	Fail
11 B	39.89 ug/l	0.37	50.00	90 - 110	Fail
23 Na	1206.00 ug/l	0.25	1250.00	90 - 110	
24 Mg	2492.00 ug/l	1.14	2500.00	90 - 110	
27 Al	988.60 ug/l	0.65	1000.00	90 - 110	
39 K	883.40 ug/l	0.62	1000.00	90 - 110	Fail
44 Ca	2445.00 ug/l	1.17	2500.00	90 - 110	
47 Ti	49.55 ug/l	0.70	50.00	90 - 110	
51 V	52.18 ug/l	0.86	50.00	90 - 110	
52 Cr	49.10 ug/l	0.91	50.00	90 - 110	
55 Mn	53.67 ug/l	0.37	50.00	90 - 110	
56 Fe	999.40 ug/l	0.75	1000.00	90 - 110	
59 Co	49.93 ug/l	0.37	50.00	90 - 110	
60 Ni	50.18 ug/l	0.47	50.00	90 - 110	
63 Cu	48.01 ug/l	1.08	50.00	90 - 110	
65 Cu	47.95 ug/l	1.23	50.00	90 - 110	
66 Zn	48.48 ug/l	0.85	50.00	90 - 110	
75 As	48.40 ug/l	0.84	50.00	90 - 110	
78 Se	44.75 ug/l	1.93	50.00	90 - 110	Fail
78 Se	46.76 ug/l	2.40	50.00	90 - 110	
88 Sr	49.65 ug/l	0.75	50.00	90 - 110	
88 Sr	43.83 ug/l	0.41	50.00	90 - 110	Fail
95 Mo	45.84 ug/l	0.72	50.00	90 - 110	
106 (Cd)	-------- ug/l	--------	50.00	90 - 110	
107 Ag	24.47 ug/l	1.71	25.00	90 - 110	
108 (Cd)	-------- ug/l	--------	50.00	90 - 110	
111 Cd	48.94 ug/l	2.42	50.00	90 - 110	
118 Sn	49.84 ug/l	1.46	50.00	90 - 110	
121 Sb	50.04 ug/l	0.62	50.00	90 - 110	
137 Ba	50.55 ug/l	2.58	50.00	90 - 110	
205 Tl	46.49 ug/l	1.08	50.00	90 - 110	
206 (Pb)	-------- ug/l	--------	50.00	90 - 110	
207 (Pb)	-------- ug/l	--------	50.00	90 - 110	
208 Pb	48.04 ug/l	0.60	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3120885.30	0.68	2775704.50	112.4	70 - 120	
45 Sc	528291.50	1.60	500780.41	105.5	70 - 120	
45 Sc	94943.62	0.72	95494.08	99.4	70 - 120	
45 Sc	1497531.60	0.60	1460980.80	102.5	70 - 120	
72 Ge	107482.91	1.52	96219.04	111.7	70 - 120	
72 Ge	46381.07	0.48	43611.78	106.3	70 - 120	
72 Ge	233866.19	0.20	213204.63	109.7	70 - 120	
115 In	1403864.60	1.34	1381264.00	101.6	70 - 120	
159 Tb	1927869.00	0.42	1843940.90	104.6	70 - 120	
165 Ho	1902582.90	0.32	1844184.90	103.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

5 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\062_CCB.D\062_CCB.D#
Date Acquired: Nov 11 2011 06:16 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	--------	#VALUE!	
9 Be	0.00 ug/l	45.82	0.12	
11 B	-0.52 ug/l	3.32	15.00	
23 Na	-14.13 ug/l	1.97	77.10	
24 Mg	0.40 ug/l	18.80	7.50	
27 Al	0.37 ug/l	36.41	3.96	
39 K	-25.01 ug/l	22.10	19.20	
44 Ca	-5.06 ug/l	39.41	90.00	
47 Ti	-0.01 ug/l	153.32	0.78	
51 V	3.23 ug/l	1.14	0.21	Fail
52 Cr	0.11 ug/l	18.29	0.12	
55 Mn	0.56 ug/l	2.13	0.18	Fail
56 Fe	0.91 ug/l	1.90	40.80	
59 Co	-0.29 ug/l	0.95	0.09	
60 Ni	-0.01 ug/l	26.61	0.48	
63 Cu	-0.57 ug/l	1.33	0.39	
65 Cu	-0.57 ug/l	1.17	0.39	
66 Zn	0.10 ug/l	36.98	6.90	
75 As	0.63 ug/l	2.54	0.27	Fail
78 Se	0.03 ug/l	36.72	0.30	
78 Se	0.20 ug/l	17.06	0.30	
88 Sr	0.01 ug/l	140.22	0.03	
88 Sr	0.00 ug/l	12.28	0.03	
95 Mo	0.01 ug/l	62.46	0.21	
106 (Cd)	-------- ug/l	--------	#VALUE!	
107 Ag	0.00 ug/l	55.01	0.09	
108 (Cd)	-------- ug/l	--------	#VALUE!	
111 Cd	0.01 ug/l	225.87	0.06	
118 Sn	0.05 ug/l	34.43	0.30	
121 Sb	0.19 ug/l	1.47	0.03	Fail
137 Ba	0.00 ug/l	114.50	0.12	
205 Tl	0.01 ug/l	8.77	0.03	
206 (Pb)	-------- ug/l	--------	#VALUE!	
207 (Pb)	-------- ug/l	--------	#VALUE!	
208 Pb	-0.25 ug/l	1.47	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3025901.00	0.96	2775704.50	109.0	70 - 120	
45 Sc	540897.69	0.43	500780.41	108.0	70 - 120	
45 Sc	95060.94	0.12	95494.08	99.5	70 - 120	
45 Sc	1475771.40	0.55	1460980.80	101.0	70 - 120	
72 Ge	108235.30	0.84	96219.04	112.5	70 - 120	
72 Ge	46007.31	1.05	43611.78	105.5	70 - 120	
72 Ge	232509.75	0.78	213204.63	109.1	70 - 120	
115 In	1409864.80	1.11	1381264.00	102.1	70 - 120	
159 Tb	1904300.90	0.32	1843940.90	103.3	70 - 120	
165 Ho	1879356.80	0.14	1844184.90	101.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\069_CCV.D\069_CCV.D#
Date Acquired: Nov 11 2011 06:59 pm
Operator: NBS
Sample Name: CCV 111111
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	-------- ug/l	--------	50.00	90 - 110	
9 Be	41.96 ug/l	0.44	50.00	90 - 110	Fail
11 B	37.94 ug/l	0.36	50.00	90 - 110	Fail
23 Na	1187.00 ug/l	0.86	1250.00	90 - 110	
24 Mg	2481.00 ug/l	0.35	2500.00	90 - 110	
27 Al	988.40 ug/l	0.29	1000.00	90 - 110	
39 K	891.50 ug/l	0.86	1000.00	90 - 110	Fail
44 Ca	2444.00 ug/l	0.83	2500.00	90 - 110	
47 Ti	49.28 ug/l	0.95	50.00	90 - 110	
51 V	50.92 ug/l	0.36	50.00	90 - 110	
52 Cr	48.86 ug/l	0.40	50.00	90 - 110	
55 Mn	53.78 ug/l	0.05	50.00	90 - 110	
56 Fe	1002.00 ug/l	0.30	1000.00	90 - 110	
59 Co	49.75 ug/l	0.58	50.00	90 - 110	
60 Ni	49.90 ug/l	1.02	50.00	90 - 110	
63 Cu	48.36 ug/l	0.88	50.00	90 - 110	
65 Cu	48.31 ug/l	1.10	50.00	90 - 110	
66 Zn	48.91 ug/l	1.42	50.00	90 - 110	
75 As	48.51 ug/l	1.21	50.00	90 - 110	
78 Se	45.98 ug/l	4.00	50.00	90 - 110	
78 Se	47.69 ug/l	2.39	50.00	90 - 110	
88 Sr	50.02 ug/l	2.42	50.00	90 - 110	
88 Sr	44.60 ug/l	0.54	50.00	90 - 110	Fail
95 Mo	47.15 ug/l	0.87	50.00	90 - 110	
106 (Cd)	-------- ug/l	--------	50.00	90 - 110	
107 Ag	24.76 ug/l	0.89	25.00	90 - 110	
108 (Cd)	-------- ug/l	--------	50.00	90 - 110	
111 Cd	48.81 ug/l	0.53	50.00	90 - 110	
118 Sn	49.90 ug/l	0.17	50.00	90 - 110	
121 Sb	49.52 ug/l	0.67	50.00	90 - 110	
137 Ba	50.56 ug/l	0.34	50.00	90 - 110	
205 Tl	46.29 ug/l	1.03	50.00	90 - 110	
206 (Pb)	-------- ug/l	--------	50.00	90 - 110	
207 (Pb)	-------- ug/l	--------	50.00	90 - 110	
208 Pb	47.78 ug/l	0.63	50.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2985567.00	0.53	2775704.50	107.6	70 - 120	
45 Sc	487961.94	6.11	500780.41	97.4	70 - 120	
45 Sc	95404.65	0.66	95494.08	99.9	70 - 120	
45 Sc	1525855.80	1.18	1460980.80	104.4	70 - 120	
72 Ge	103631.21	4.70	96219.04	107.7	70 - 120	
72 Ge	46230.60	0.75	43611.78	106.0	70 - 120	
72 Ge	239856.61	0.42	213204.63	112.5	70 - 120	
115 In	1477339.60	0.26	1381264.00	107.0	70 - 120	
159 Tb	1984393.10	0.51	1843940.90	107.6	70 - 120	
165 Ho	1953717.00	1.26	1844184.90	105.9	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

4 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\071_CCB.D\071_CCB.D#
Date Acquired: Nov 11 2011 07:11 pm
Operator: NBS
Sample Name: CCB 111111
Misc Info:
Vial Number: 1102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	--------	#VALUE!	
9 Be	0.00	ug/l	354.93	0.12	
11 B	-0.50	ug/l	1.33	15.00	
23 Na	-18.60	ug/l	3.31	77.10	
24 Mg	0.77	ug/l	11.28	7.50	
27 Al	0.41	ug/l	61.51	3.96	
39 K	-15.97	ug/l	35.55	19.20	
44 Ca	-5.51	ug/l	24.66	90.00	
47 Ti	0.00	ug/l	618.86	0.78	
51 V	2.07	ug/l	1.59	0.21	Fail
52 Cr	0.05	ug/l	16.40	0.12	
55 Mn	0.54	ug/l	4.09	0.18	Fail
56 Fe	1.11	ug/l	3.58	40.80	
59 Co	-0.29	ug/l	0.81	0.09	
60 Ni	-0.02	ug/l	55.04	0.48	
63 Cu	-0.58	ug/l	1.68	0.39	
65 Cu	-0.59	ug/l	2.73	0.39	
66 Zn	0.01	ug/l	110.45	6.90	
75 As	0.23	ug/l	18.98	0.27	
78 Se	0.03	ug/l	26.03	0.30	
78 Se	0.12	ug/l	27.96	0.30	
88 Sr	0.01	ug/l	37.54	0.03	
88 Sr	0.01	ug/l	19.07	0.03	
95 Mo	0.01	ug/l	60.81	0.21	
106 (Cd)	--------	ug/l	--------	#VALUE!	
107 Ag	0.01	ug/l	23.72	0.09	
108 (Cd)	--------	ug/l	--------	#VALUE!	
111 Cd	0.01	ug/l	86.89	0.06	
118 Sn	0.06	ug/l	11.23	0.30	
121 Sb	0.20	ug/l	2.41	0.03	Fail
137 Ba	0.01	ug/l	270.48	0.12	
205 Tl	0.01	ug/l	7.49	0.03	
206 (Pb)	--------	ug/l	--------	#VALUE!	
207 (Pb)	--------	ug/l	--------	#VALUE!	
208 Pb	-0.26	ug/l	0.79	0.33	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	2980384.00	0.41	2775704.50	107.4	70 - 120	
45 Sc	499034.78	5.31	500780.41	99.7	70 - 120	
45 Sc	96901.73	0.42	95494.08	101.5	70 - 120	
45 Sc	1527813.50	0.50	1460980.80	104.6	70 - 120	
72 Ge	103880.64	4.84	96219.04	108.0	70 - 120	
72 Ge	46726.97	0.51	43611.78	107.1	70 - 120	
72 Ge	244428.58	0.30	213204.63	114.6	70 - 120	
115 In	1468846.40	0.59	1381264.00	106.3	70 - 120	
159 Tb	1966759.90	0.53	1843940.90	106.7	70 - 120	
165 Ho	1940966.80	0.35	1844184.90	105.2	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

METALS
Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOL	0.19 J	0.5	0.22	0.11	ug/L	11/10/11	11/11/11	#602D-111110A-AY49334

J = Estimated value.

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\024SMPL.D\024SMPL.D#
Date Acquired: Nov 11 2011 02:16 pm
Operator: NBS
Sample Name: 111110A-3015-BLK
Misc Info: 111110A-3015
Vial Number: 3101
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.	Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	-------- ug/l	#VALUE!	--------	0	
9 Be	-0.01 ug/l	-0.01	2.73	1000	
11 B	0.02 ug/l	0.02	15.56	1000	
23 Na	35.01 ug/l	38.90	12.71	25000	
24 Mg	5.25 ug/l	5.83	2.15	50000	
27 Al	6.63 ug/l	7.37	3.21	20000	
39 K	-19.19 ug/l	-21.32	24.75	20000	
44 Ca	187.10 ug/l	207.87	2.16	50000	
47 Ti	0.09 ug/l	0.10	43.80	1000	
51 V	-0.78 ug/l	-0.86	1.87	1000	
52 Cr	-0.04 ug/l	-0.04	28.95	1000	
55 Mn	0.23 ug/l	0.26	6.88	1000	
56 Fe	2.70 ug/l	3.00	5.14	20000	
59 Co	-0.27 ug/l	-0.30	0.86	1000	
60 Ni	0.12 ug/l	0.14	23.87	1000	
63 Cu	-0.44 ug/l	-0.49	2.50	1000	
65 Cu	-0.44 ug/l	-0.49	2.58	1000	
66 Zn	7.48 ug/l	8.31	3.75	1000	
75 As	-0.53 ug/l	-0.59	2.55	1000	
78 Se	-0.01 ug/l	-0.01	26.71	1000	
78 Se	-0.01 ug/l	-0.02	520.99	1000	
88 Sr	0.14 ug/l	0.16	12.74	1000	
88 Sr	0.14 ug/l	0.16	3.88	1000	
95 Mo	0.02 ug/l	0.02	6.80	1000	
106 (Cd)	-------- ug/l	#VALUE!	--------	#######	
107 Ag	0.00 ug/l	0.00	212.49	500	
108 (Cd)	-------- ug/l	#VALUE!	--------	#######	
111 Cd	0.02 ug/l	0.02	26.66	1000	
118 Sn	0.12 ug/l	0.13	6.01	1000	
121 Sb	0.07 ug/l	0.08	7.73	1000	
137 Ba	0.04 ug/l	0.04	9.41	1000	
205 Tl	0.01 ug/l	0.01	22.33	1000	
206 (Pb)	-------- ug/l	#VALUE!	--------	#######	
207 (Pb)	-------- ug/l	#VALUE!	--------	#######	
208 Pb	0.17 ug/l	0.19	1.81	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3205542.30	0.83	2775704.50	115.5	70 - 120	
45 Sc	579022.81	0.89	500780.41	115.6	70 - 120	
45 Sc	106222.45	0.45	95494.08	111.2	70 - 120	
45 Sc	1635333.40	0.66	1460980.80	111.9	70 - 120	
72 Ge	108091.34	0.67	96219.04	112.3	70 - 120	
72 Ge	49642.59	1.23	43611.78	113.8	70 - 120	
72 Ge	228973.69	0.34	213204.63	107.4	70 - 120	
115 In	1505106.90	0.63	1381264.00	109.0	70 - 120	
159 Tb	2069441.80	1.02	1843940.90	112.2	70 - 120	
165 Ho	2056674.30	0.60	1844184.90	111.5	70 - 120	

ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Laboratory Control Spike Recovery
METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
6020	LEAD (PB) (DISSOLVED)	50.0	50.0	100	80-120	11/10/2011	1/11/2011	#602D-111110A-AY49334

Comments: _____

Printed: 11/15/2011 1:00:15 PM
APPL Standard LCS

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\11K11100.B\025SMPL.D\025SMPL.D#
Date Acquired: Nov 11 2011 02:22 pm
Operator: NBS
Sample Name: 111110A-3015-LCS
Misc Info: 111110A-3015
Vial Number: 3102
Current Method: C:\ICPCHEM\1\METHODS\62A1111A.M
Calibration File: C:\ICPCHEM\1\CALIB\62A1111A.C
Last Cal Update: Nov 11 2011 12:36 pm
Sample Type: Sample
Prep Dil Factor: 1.11
Total Dil Factor: 1.11

QC Elements

Element	Conc.		Corr. Conc.	RSD(%)	High Limit	Flag
7 (Li)	--------	ug/l	#VALUE!	--------	0	
9 Be	7.09	ug/l	7.88	0.95	1000	
11 B	34.46	ug/l	38.29	0.83	1000	
23 Na	4313.00	ug/l	4791.74	0.33	25000	
24 Mg	4287.00	ug/l	4762.86	0.50	50000	
27 Al	378.80	ug/l	420.85	1.07	20000	
39 K	819.80	ug/l	910.80	1.14	20000	
44 Ca	4772.00	ug/l	5301.69	0.81	50000	
47 Ti	43.16	ug/l	47.95	0.73	1000	
51 V	44.89	ug/l	49.87	0.68	1000	
52 Cr	46.85	ug/l	52.05	0.52	1000	
55 Mn	48.25	ug/l	53.61	0.34	1000	
56 Fe	188.60	ug/l	209.53	0.62	20000	
59 Co	45.14	ug/l	50.15	0.81	1000	
60 Ni	45.24	ug/l	50.26	0.75	1000	
63 Cu	42.57	ug/l	47.30	0.51	1000	
65 Cu	42.70	ug/l	47.44	0.10	1000	
66 Zn	94.53	ug/l	105.02	0.68	1000	
75 As	39.81	ug/l	44.23	0.66	1000	
78 Se	36.57	ug/l	40.63	2.90	1000	
78 Se	37.79	ug/l	41.98	1.41	1000	
88 Sr	47.19	ug/l	52.43	0.39	1000	
88 Sr	45.26	ug/l	50.28	0.18	1000	
95 Mo	45.43	ug/l	50.47	0.63	1000	
106 (Cd)	--------	ug/l	#VALUE!	--------	########	
107 Ag	16.57	ug/l	18.41	1.13	500	
108 (Cd)	--------	ug/l	#VALUE!	--------	########	
111 Cd	8.34	ug/l	9.26	2.50	1000	
118 Sn	48.01	ug/l	53.34	0.41	1000	
121 Sb	42.84	ug/l	47.60	0.50	1000	
137 Ba	44.60	ug/l	49.55	0.91	1000	
205 Tl	43.45	ug/l	48.27	0.08	1000	
206 (Pb)	--------	ug/l	#VALUE!	--------	########	
207 (Pb)	--------	ug/l	#VALUE!	--------	########	
208 Pb	45.08	ug/l	50.08	0.48	1000	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	3106113.00	0.94	2775704.50	111.9	70 - 120	
45 Sc	583837.94	0.76	500780.41	116.6	70 - 120	
45 Sc	104815.63	0.97	95494.08	109.8	70 - 120	
45 Sc	1623628.90	0.72	1460980.80	111.1	70 - 120	
72 Ge	109519.99	0.75	96219.04	113.8	70 - 120	
72 Ge	48705.67	0.97	43611.78	111.7	70 - 120	
72 Ge	226177.02	0.48	213204.63	106.1	70 - 120	
115 In	1499201.30	0.50	1381264.00	108.5	70 - 120	
159 Tb	2052386.10	0.41	1843940.90	111.3	70 - 120	
165 Ho	2061841.80	0.62	1844184.90	111.8	70 - 120	

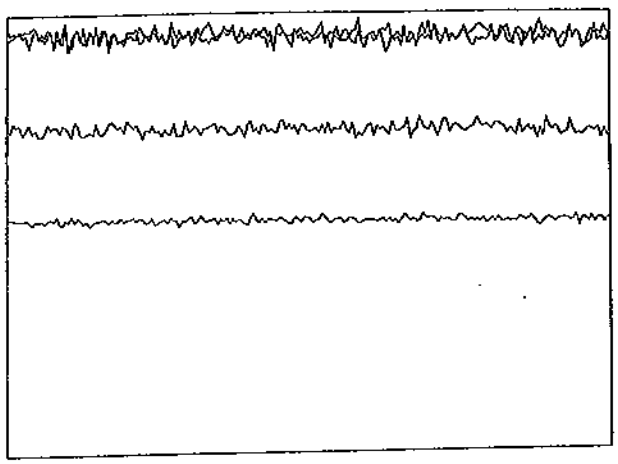
ISTD Ref File : C:\ICPCHEM\1\DATA\11K11100.B\004CALB.D\004CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

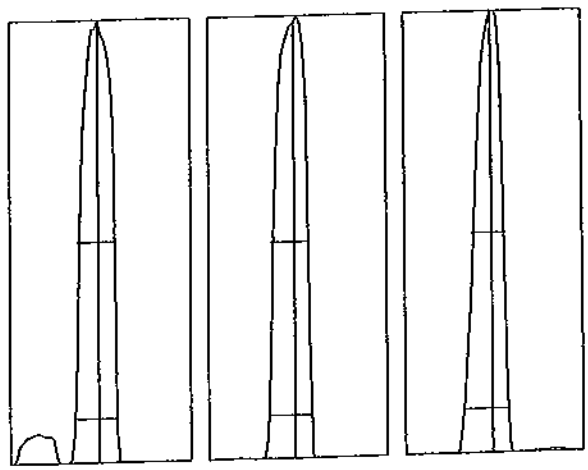
Tune Report

Tune File : nogas.u
Comment : 111111



Integration Time:	0.1000 sec	
Sampling Period:	0.6200 sec	
n:	200	
Oxide:	156/140	1.410%
Doubly Charged:	70/140	1.051%

m/z	Range	Count	Mean	RSD%	Background
7	50,000	26283.0	26440.3	1.09	0.40
89	20,000	19274.0	18861.9	1.39	2.20
205	20,000	14914.0	14722.1	1.50	5.80
156/140	2	1.520%	1.398%	6.48	
70/140	2	1.065%	1.038%	8.17	
140	20,000	18882.0	19064.3	1.33	4.10



m/z:	7	89	205
Height:	26,611	18,699	14,936
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.60
W-10%:	0.700	0.7500	0.800

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Generated : Nov 11, 2011 10:05:38
Printed : Nov 11, 2011 10:05:40

Tune Report

Tune File : nogas.u
Comment : 111111

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1600 W	Extract 1	:	0 V	AMU Gain	:	128
RF Matching	:	1.66 V	Extract 2	:	-130 V	AMU Offset	:	127
Smpl Depth	:	9.6 mm	Omega Bias-ce	:	-22 V	Axis Gain	:	1
Torch-H	:	-0.1 mm	Omega Lens-ce	:	-1.2 V	Axis Offset	:	-0.02
Torch-V	:	0.1 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	1.02 L/min	QP Focus	:	5 V			
Makeup Gas	:	0.1 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1660 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1460 V
S/C Temp	:	2 degC	OctP Bias	:	-6 V			

===Reaction Cell===								
Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

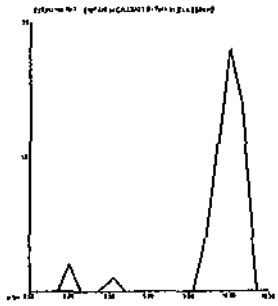
Generated : Nov 11, 2011 10:05:38
Printed : Nov 11, 2011 10:05:42

200.8 QC Tune Report

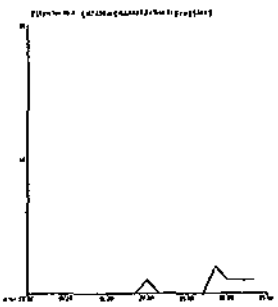
Data File: C:\ICPCHEM\1\DATA\11K11100.B\001TUNE.D
Date Acquired: Nov 11 2011 11:48 am
Acq. Method: TN200_8.M
Operator: NBS
Sample Name: 100ppb Tune sol
Misc Info:
Vial Number: 1303
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

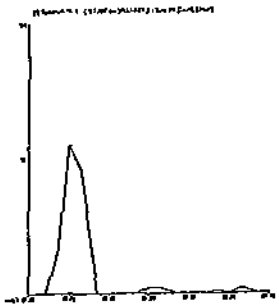
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
9 Be	65891175	64840372	65630536	65890148	66486284	66608536	1.01	5.00	
24 Mg	120432836	########	########	########	########	########	1.16	5.00	
59 Co	111175066	########	########	########	########	########	0.73	5.00	
115 In	122240964	########	########	########	########	########	0.81	5.00	
208 Pb	63959189	64419004	64182972	63372424	64206080	63615464	1.13	5.00	



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.65
Required: 0.80
Flag:



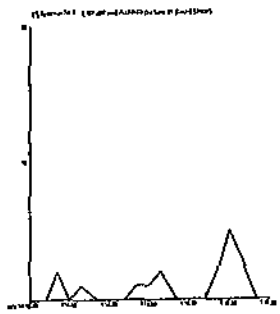
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



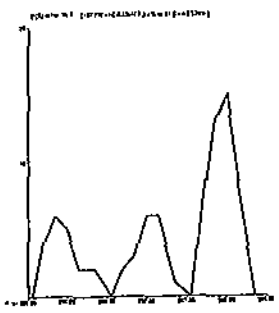
115 In

Mass Calib.

Actual:	115.05		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.90		
Flag:			



208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.65		
Required:	0.80		
Flag:			

Tune Result: Pass

Metals Standards Log Book # 34 Page #001

NBS 11/11/11
6020/6020A
(A)

NBS 11/11/11

ICP-MS STANDARDS 6020/6020A/3015/3051A
Today's Date: 11/11/2011
Expires: 11/18/2011
Prep Date 1% HNO3/1.0%HCL
20 mL HNO3 / 2000 mL DI Water
Lot # K19023
20mL HCL / 2000mL DI Water
Lot #4110110
Expires: 11/18/2011

Standard 4
Amount	STD	Manufacturer	Lot #
50 uL	CCV-A	Env. Express	1036407-28139
50 uL	CCV-B	Env. Express	1036410-28140
50 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 3 11/18/2011
Amount	STD	Manufacturer	Lot #
25 uL	CCV-A	Env. Express	1036407-28139
25 uL	CCV-B	Env. Express	1036410-28140
25 uL	CCV-C	Env. Express	1100309-28141

Prepared in 100 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 2 11/18/2011
Amount STD
500 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

Standard 1 11/18/2011
Amount STD
50 uL Standard 4 11/11/2011
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-MS ICV 11/18/2011
Amount STD
50 uL QCS ICV A CPI 11C174-28548
50 uL QCS ICV B CPI 11C174-28549
Prepared in 50 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSA Prep: 11/18/2011
1 mL ICSA CPI 11C066-28529
Prepared in 5 mL of 1% HNO3/1.0% HCL 11/11/2011

ICSAB Prep: 11/18/2011
1mL ICSA CPI 11C066-28529
0.025mL INT O2SI 1023805-28210
Prepared in 5 mL of 1% HNO3/1.0% HCL 11/11/2011

ICP-LOR 11/18/2011
Amount STD
50 uL CCV-A Env. Express 1036407-28139
50 uL CCV-B Env. Express 1036410-28140
50 uL CCV-C Env. Express 1100309-28141
Prepared in 10 mL of 1% HNO3/1.0% HCL 11/11/2011

SDH 11/11/11
200.7
Exp (A)

SDH 11/11/11

2%HNO3 / 2%HCl BLK					200.7 ICV				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
40 mL	HCL	BDH	4110110	10/14/2011	0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
40 mL	HNO3	JT BAKER	K19023	10/14/2011	0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
Prepared in 2000 ml DI Water					Prepared in 50ml 2%HNO3/2%HCl				
					200.7 ICSA				
STD 1 / LDL 200.7					0.5mL	Al	CPI	10E012-27685	4/20/2012
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	0.5mL	Ca	CPI	11A006-28528	9/15/2012
0.250 mL	200.7 LDL	O2SI	1028857-29687	11/1/2012	0.5mL	Mg	CPI	10H213-2786	4/20/2012
Prepared in 50 ml 2%HNO3/2%HCl					0.5mL	Fe	O2SI	1022245-27699	4/22/2012
STD 3 / HDL 200.7					Prepared in 50 ml 2%HNO3/2%HCl				
0.5 mL	CCV-A	ABSOLUTE	091409-25206	9/14/2012	200.7 ICSAB				
0.5 mL	CCV-B	ABSOLUTE	091109-25208	9/14/2012	0.5mL	Al	CPI	10E012-27685	4/20/2012
0.5 mL	CCV-C	ABSOLUTE	091009-25207	9/10/2012	0.5mL	Ca	CPI	11A006-28528	9/15/2012
STD 2 / CCV1 200.7					0.5mL	Mg	CPI	10H213-2786	4/20/2012
AMOUNT	STD	PREP DATE	EXP DATE		0.5mL	Fe	O2SI	1022245-27699	4/22/2012
25mL	STD 3	11/4/2011	11/11/2011		0.25mL	INT SPECIAL MIX	O2SI	160495-01-01	3/1/2012
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011		Prepared in 50 ml 2%HNO3/2%HCl				
CCV2 200.7									
15mL	STD 3	11/4/2011	11/11/2011						
25mL	2%HNO3/2%HCl	11/4/2011	11/11/2011						

SDH 11/11/11
6010B/6010C
(A)

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4110110	10/14/2011	1mL	Al	CPI	10E012-27685	4/20/2012
20 mL	HNO3	JT BAKER	K19023	10/14/2011	1mL	Ca	CPI	11A006-28528	9/15/2012
Prepared in 2000 ml DI Water					1mL	Mg	CPI	10H213-2786	4/20/2012
STD 1 / LDL 6010B/6010C					1mL	Fe	O2SI	1022245-27699	4/22/2012
AMOUNT	STD	MANUFACTURER	LOT	EXP DATE	Prepared in 50 ml 1%HNO3/5%HCl				
0.5 mL	6010 LDL	ABSOLUTE	091409-25205	9/14/2012	6010B/6010C ICSAB				
Prepared in 50 ml 1%HNO3/5%HCl					1mL	Al	CPI	10E012-27685	4/20/2012
STD 3 / HDL 6010B/6010C					1mL	Ca	CPI	11A006-28528	9/15/2012
1ML	CCV-A	ABSOLUTE	091409-25206	9/14/2012	1mL	Mg	CPI	10H213-2786	4/20/2012
1ML	CCV-B	ABSOLUTE	091109-25208	9/14/2012	1mL	Fe	O2SI	1022245-27699	4/22/2012
1ML	CCV-C	ABSOLUTE	091009-25207	9/10/2012	0.5mL	IT SPECIAL M	O2SI	160495-01-01	3/1/2012
Prepared in 100 ml 1%HNO3 / 5%HCl					Prepared in 50 ml 1%HNO3/5%HCl				
STD 2 / CCV1 6010B/6010C/6010C					6010B/6010C ICV				
AMOUNT	STD	PREP DATE	EXP DATE		0.5ML	QCS ICV A	CPI	11C174-28548	9/17/2012
25mL	STD 3	11/11/2011	11/18/2011		0.5ML	QCS ICV B	CPI	11C174-28549	9/17/2012
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011		Prepared in 50ml 1%HNO3/5%HCl				
CCV2 6010B/6010C									
AMOUNT	STD	PREP DATE	EXP DATE						
15mL	STD 3	11/11/2011	11/18/2011						
25mL	1%HNO3/5%HCl	11/11/2011	11/18/2011						

SDH 11/11/11

M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	111110A Blk				45mL	50mL	11/10/11 10:40	equip: Venus
2	111110A LCS		90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
3	AY48273	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
4	AY48273 DUP	AY48273W01			45mL	50mL	11/10/11 10:40	equip: Venus
5	AY48273 MS	AY48273W01	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
6	AY48639	AY48639W05			45mL	50mL	11/10/11 10:40	equip: Venus
7	AY48640	AY48640W05			45mL	50mL	11/10/11 10:40	equip: Venus
8	AY48641	AY48641W05			45mL	50mL	11/10/11 10:40	equip: Venus
9	AY48642	AY48642W05			45mL	50mL	11/10/11 10:40	equip: Venus
10	AY48643	AY48643W05			45mL	50mL	11/10/11 10:40	equip: Venus
11	AY48644	AY48644W02			45mL	50mL	11/10/11 10:40	equip: Venus
12	AY49333	AY49333W13			45mL	50mL	11/10/11 10:40	equip: Venus
13	AY49334	AY49334W51			45mL	50mL	11/10/11 10:40	equip: Venus
14	AY49334 MS	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
15	AY49334 MSD	AY49334W52	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
16	AY49336	AY49336W13			45mL	50mL	11/10/11 10:40	equip: Venus
17	AY49481	AY49481W13			45mL	50mL	11/10/11 10:40	equip: Venus
18	AY49482	AY49482W13			45mL	50mL	11/10/11 10:40	equip: Venus
19	AY49559	AY49559W31			45mL	50mL	11/10/11 10:40	equip: Venus
20	AY49559 MS	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
21	AY49559 MSD	AY49559W31	90uL	1+2	45mL	50mL	11/10/11 10:40	equip: Venus
22	AY49561	AY49561W08			45mL	50mL	11/10/11 10:40	equip: Venus
23	AY49562	AY49562W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot#
HNO3 J.T.B k19023 0095

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11-10-11
Time	13:00
Moved to	MSTACS

Technician's Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: [signature] **Date:** 11-10-11

M3015

Metals Digestion Worksheet

Method Name 3015 Digestion **Prep Method** M3015 **Set** 111110A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1028408-29435
Spiked ID 2	LCSW LOT# 1028416-29433
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/10/11 10:40:00 AM
Witnessed By	KWS Date: 11/10/11 10:40:00 AM

Starting Temp:	25 C
Ending Temp:	170 C
Temperature Type:	Microwave
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/10/11 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	AY50005	AY50005W08			45mL	50mL	11/10/11 10:40	equip: Venus

Solvent and Lot #
HNO3 J.T.B k19023 0095

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	NBS
Date	11-10-11
Time	13:00
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	lo
Digestion	lo
Bring up to volume	nm
Modified	11/10/11 10:19:53 AM

Reviewed By: SA **Date:** 11-10-11

6020/200.8 Injection Log

Directory: K:\ICP-MS Optimus\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	11 Nov 2011	12:08	Calibration Blank		111111A	1.
2	11 Nov 2011	12:14	111111 Standard 1		111111A	1.
3	11 Nov 2011	12:20	111111 Standard 2		111111A	1.
4	11 Nov 2011	12:27	111111 Standard 3		111111A	1.
5	11 Nov 2011	12:33	111111 Standard 4		111111A	1.
6	11 Nov 2011	12:39	ICV 111111		111111A	1.
8	11 Nov 2011	12:57	ICB 111111		111111A	1.
9	11 Nov 2011	13:03	CCV 111111		111111A	1.
10	11 Nov 2011	13:09	CCB 111111		111111A	1.
11	11 Nov 2011	13:15	ICSA 111111		111111A	1.
12	11 Nov 2011	13:21	ICSAB 111111		111111A	1.
13	11 Nov 2011	13:33	CCV 111111		111111A	1.
14	11 Nov 2011	13:46	CCB 111111		111111A	1.
15	11 Nov 2011	14:16	111110A-3015-BLK		111111A	1.
16	11 Nov 2011	14:22	111110A-3015-LCS		111111A	1.
23	11 Nov 2011	15:05	CCV 111111		111111A	1.
24	11 Nov 2011	15:17	CCB 111111		111111A	1.
49	11 Nov 2011	18:04	CCV 111111		111111A	1.
50	11 Nov 2011	18:16	CCB 111111		111111A	1.
55	11 Nov 2011	18:46	AY50005W08		111111A	1.
57	11 Nov 2011	18:59	CCV 111111		111111A	1.
58	11 Nov 2011	19:11	CCB 111111		111111A	1.

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

NELAP CERTIFICATE NUMBER 01955
DOD ELAP CERTIFICATE NUMBER ADE - 1482

ANALYTICAL RESULTS

PERFORMED BY

GULF COAST ANALYTICAL LABORATORIES, INC.
7979 GSRI Avenue
Baton Rouge, LA 70820

Report Date 11/14/2011

GCAL Report 211110421

Deliver To	Appl, Inc. 908 North Temperance Ave Clovis, CA 93611 559-275-2175
Attn	Cynthia Clark

Project Appl, Inc.

CASE NARRATIVE

Client: Environet, Inc. **Report:** 211110421

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).

Sample Test Summary Report: 211110421

Lab Sample ID	Cust. Sample ID	Matrix	Proc. Desc.	
21111042101	ES057	W	EPH Water	
21111042101	ES057	W	VPH Water	
21111042101	ES057	W	EPH Water Prep	

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations Utilized in this Report

ND	Indicates the result was Not Detected at the specified RDL
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags Utilized in this Report

J	Indicates the result is between the MDL and RDL
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Robyn Migues
Technical Director
GCAL REPORT 211110421

THIS REPORT CONTAINS 268 PAGES.

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21111042101	ES057	Water	11/02/2011 11:05	11/04/2011 08:40

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110421

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: MASSVPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES057	116	70	130						114	70	130						0
2.	MB1003187	100	70	130						96	70	130						0
3.	LCS1003188	104	70	130						98	70	130						0

SMC 1 : 2,5-Dibromotoluene (PID) SMC 2 : 2,5-Dibromotoluene (FID)

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110421

Contract: Method: MASSVPH

Prep Batch: Analytical Batch: 468512

SAMPLE NO : 1003188

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C5-C8 Aliphatic	ug/L	200	0	152	76		60 - 140
C9-C10 Aromatic	ug/L	50	0	54.4	109		60 - 140
C9-C12 Aliphatic	ug/L	100	0	105	105		60 - 140

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 3 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1003187

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1003187 | SAS No.: | SDG No.: 211110421

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted:

Date Analyzed (1): 11/07/11 | Time (1): 1221 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCV5B | Instrument ID (2):

GC Column (1): | ID: (mm) | GC Column (2): | ID: (mm)

Method: MASSVPH | Prep Batch: | Analytical Batch: 468512

Lab File ID: 2111107/v5003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1003188	1003188	11/07/11	1151	GCV5B
2.	ES057	21111042101	11/08/11	0120	GCV5B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: ES057

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110421

Sample wt/vol: 5 | Units: mL | Lab Sample ID: 21111042101

Level: (low/med) | Date Collected: 11/02/11 | Time: 1105

% Moisture: | decanted: (Y/N) | Date Received: 11/04/11

GC Column: | ID: | (mm) | Date Extracted:

Concentrated Extract Volume: 5000 | (µL) | Date Analyzed: 11/08/11 | Time: 0120

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: JAR

Injection Volume: 1 | (µL) | Prep Method:

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSVPH

Prep Batch: | Analytical Batch: 468512 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCV5B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111107/v5025

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-6	C9-C10 Aromatic	20.6		1.24	5.00	10.0
GCV-00-5	C9-C12 Aliphatic	69.9		3.20	10.0	20.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5025.d
Lab Smp Id: 21111042101 Client Smp ID: 21111042101
Inj Date : 08-NOV-2011 01:20
Operator : JAR Inst ID: gcv5b.i
Smp Info : 21111042101
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
7	1,2,4-Trimethylbenzene	18.405	16.983	1.422	247907	20.6092	20.6(M1)
M 9	C9-C10				247907	20.6092	20.6
$ 10	2,5-Dibromotoluene	21.779	21.781	-0.002	406326	58.1125	58.1

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5025.d

Page 1

Date : 08-NOV-2011 01:20

Client ID: 21111042101

Instrument: gcv5b.i

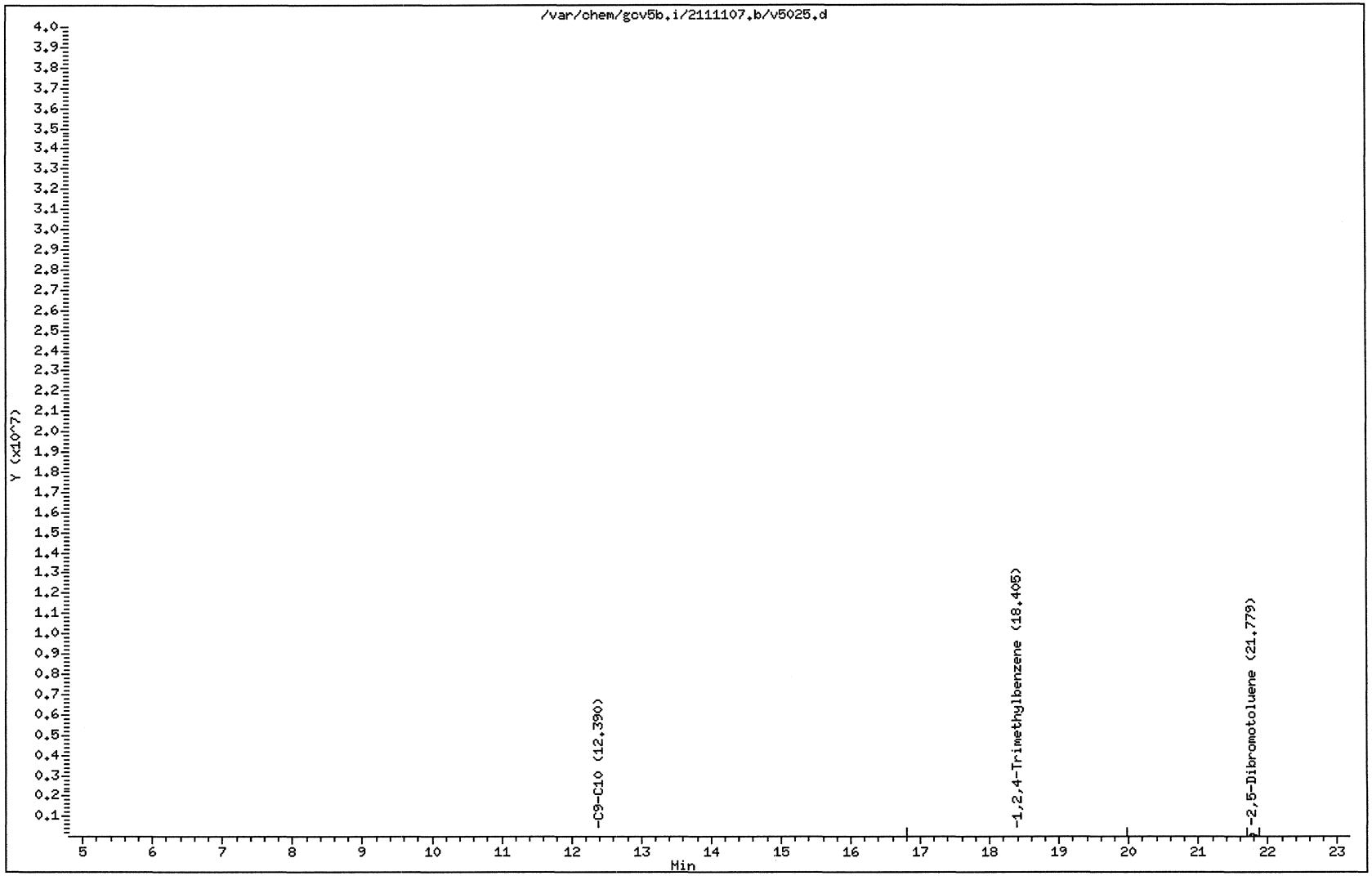
Sample Info: 21111042101

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53



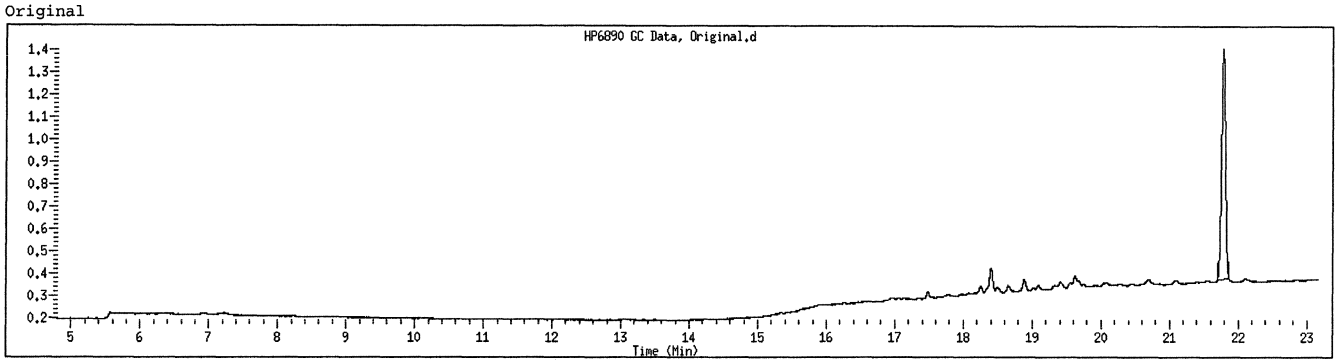
211110421 11

Data file : /var/chem/gcv5b.i/2111107.b/v5025.d Page: 1
Report Date: 11/08/2011 13:41

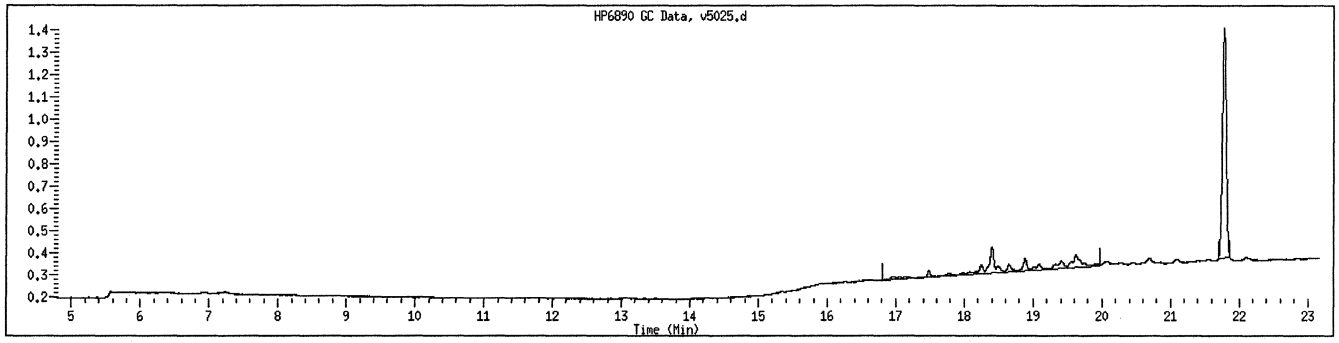
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21111042101	SampleType	: SAMPLE
Injection Date	: 11/08/2011 01:20	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: 21111042101		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5025.d
Lab Smp Id: 21111042101 Client Smp ID: 21111042101
Inj Date : 08-NOV-2011 01:20
Operator : JAR Inst ID: gcv5a.i
Smp Info : 21111042101
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 10:11 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

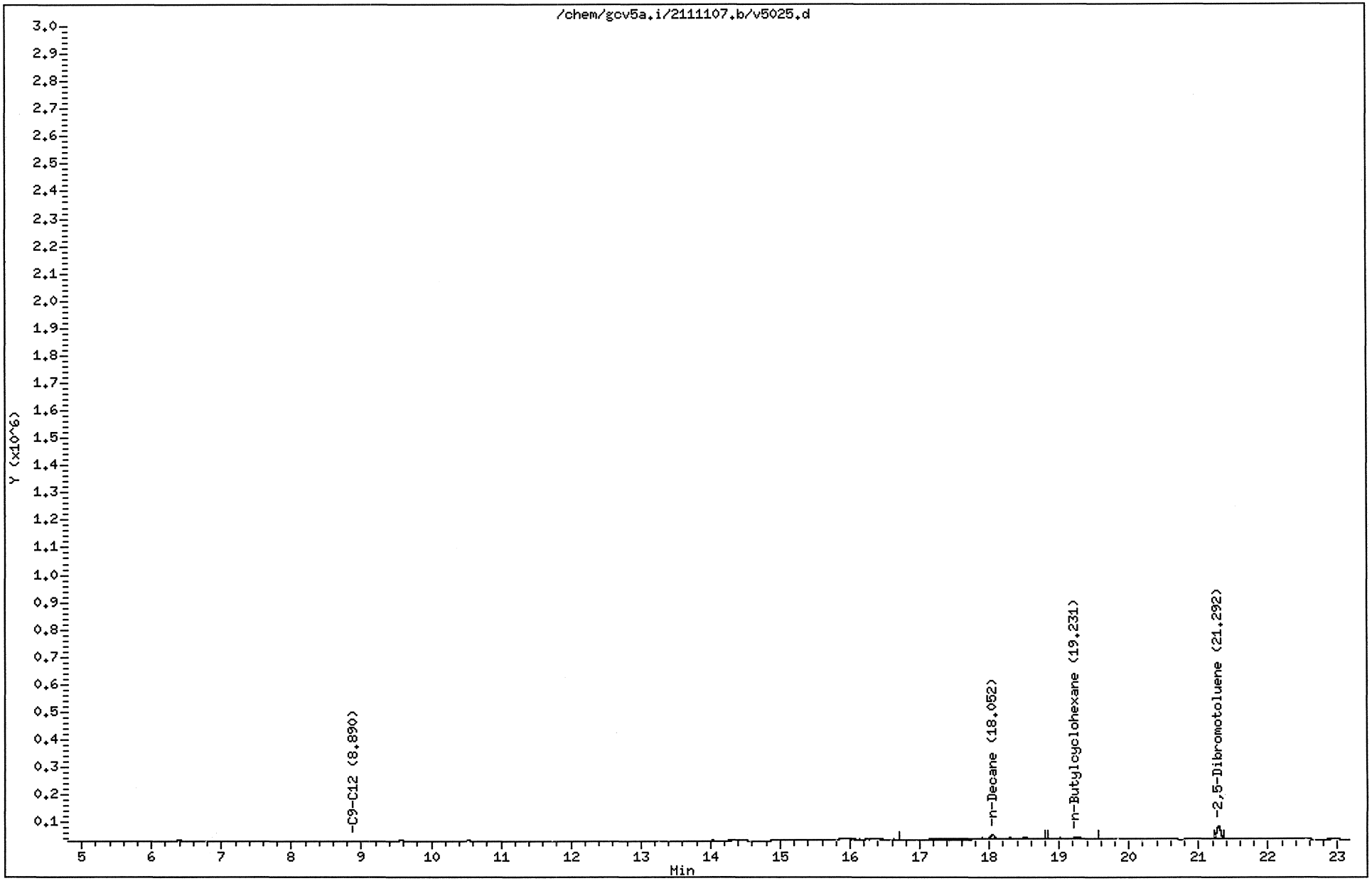
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	13 n-Decane	18.052	15.963	2.089	300927	54.1731	54.2(M1)
	15 n-Butylcyclohexane	19.231	16.746	2.485	93759	15.7355	15.7(M1)
M	5 C9-C12				394686	69.9086	69.9
$	17 2,5-Dibromotoluene	21.292	21.301	-0.009	170966	57.1859	57.2

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5025.d
Date : 08-NOV-2011 01:20
Client ID: 21111042101
Sample Info: 21111042101
Volume Injected (uL): 1.0
Column phase: DB-624-30

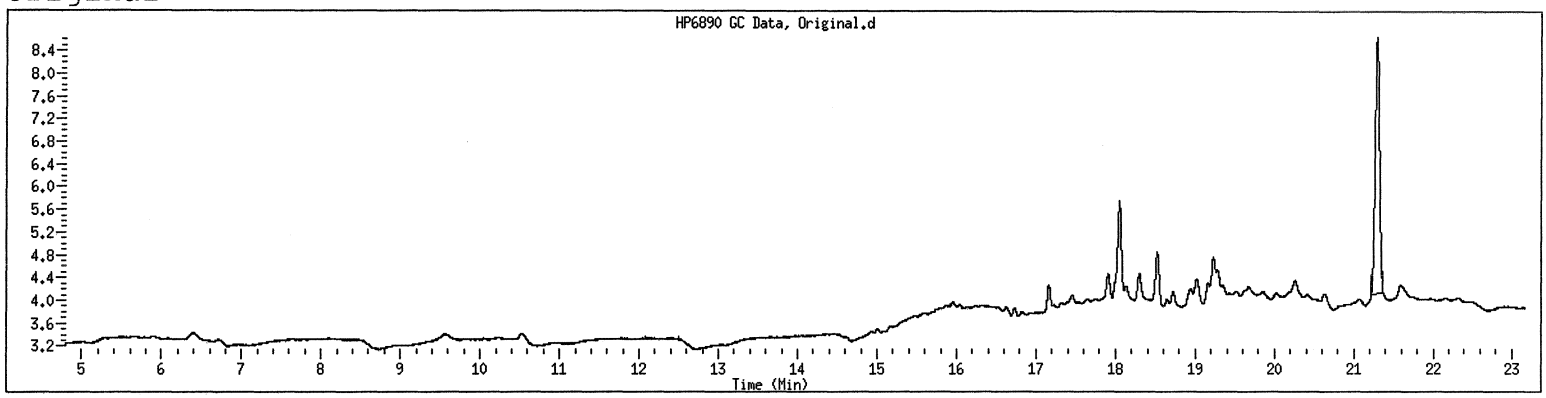
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



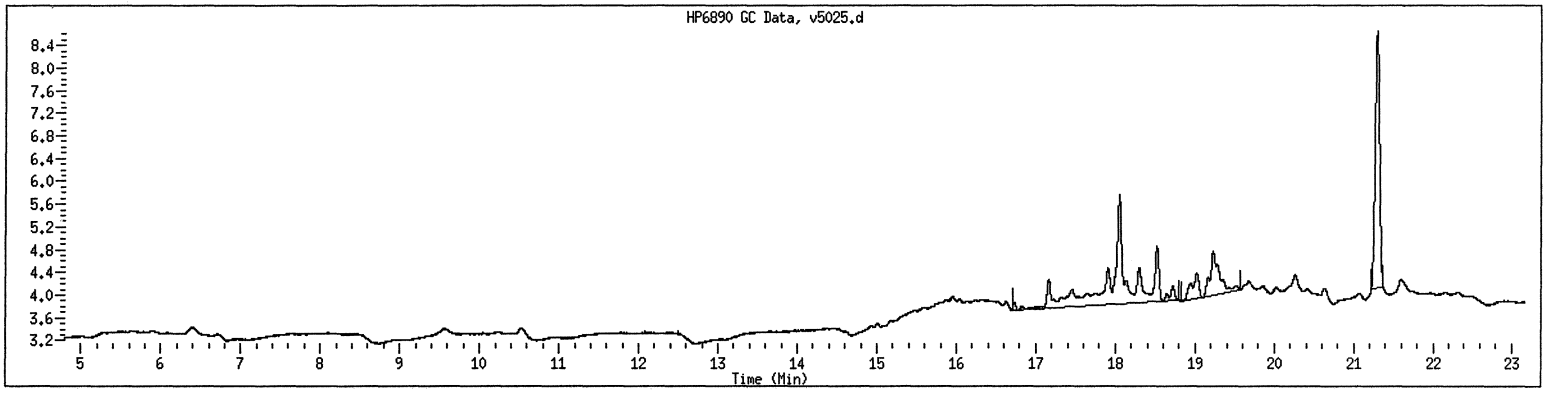
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21111042101	SampleType	: SAMPLE
Injection Date	: 11/08/2011 01:20	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: 21111042101		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-OCT-2011 17:26
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Cal Date : 08-Nov-2011 15:58 jar
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5b.i/2111104P.b/v5003.d
Level 2: /var/chem/gcv5b.i/2111104P.b/v5005.d
Level 3: /var/chem/gcv5b.i/2111104P.b/v5007.d
Level 4: /var/chem/gcv5b.i/2111104P.b/v5009.d
Level 5: /var/chem/gcv5b.i/2111104P.b/v5011.d
Level 6: /var/chem/gcv5b.i/2111104P.b/v5001.d

		10.000	20.000	50.000	80.000	100.000	5.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	1 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	2 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	3 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	4 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	5 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	6 o-Xylene	14195	13955	13772	12590	12083	14822	13570	7.600
	7 1,2,4-Trimethylbenzene	12356	12603	12435	11425	10922	12432	12029	5.703
	8 Naphthalene	10595	10426	10486	9839	9920	9852	10186	3.453
M	9 C9-C10	12356	12603	12435	11425	10922	12432	12029	5.703
$	10 2,5-Dibromotoluene	7122	6944	7032	6909	6886	7060	6992	1.337

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

			RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6	o-Xylene	15.776	15.776	0.000	74110	5.00000	7.8
	7	1,2,4-Trimethylbenzene	16.982	16.982	0.000	62160	5.00000	7.0
M	9	C9-C10				62160	5.00000	7.0
	8	Naphthalene	20.032	20.032	0.000	49258	5.00000	6.2
$	10	2,5-Dibromotoluene	21.783	21.783	0.000	353009	50.0000	68.8

Data File: /chem/gcv5b.i/2111104P.b/v5001.d

Date : 04-NOV-2011 20:57

Client ID:

Instrument: gcv5b.i

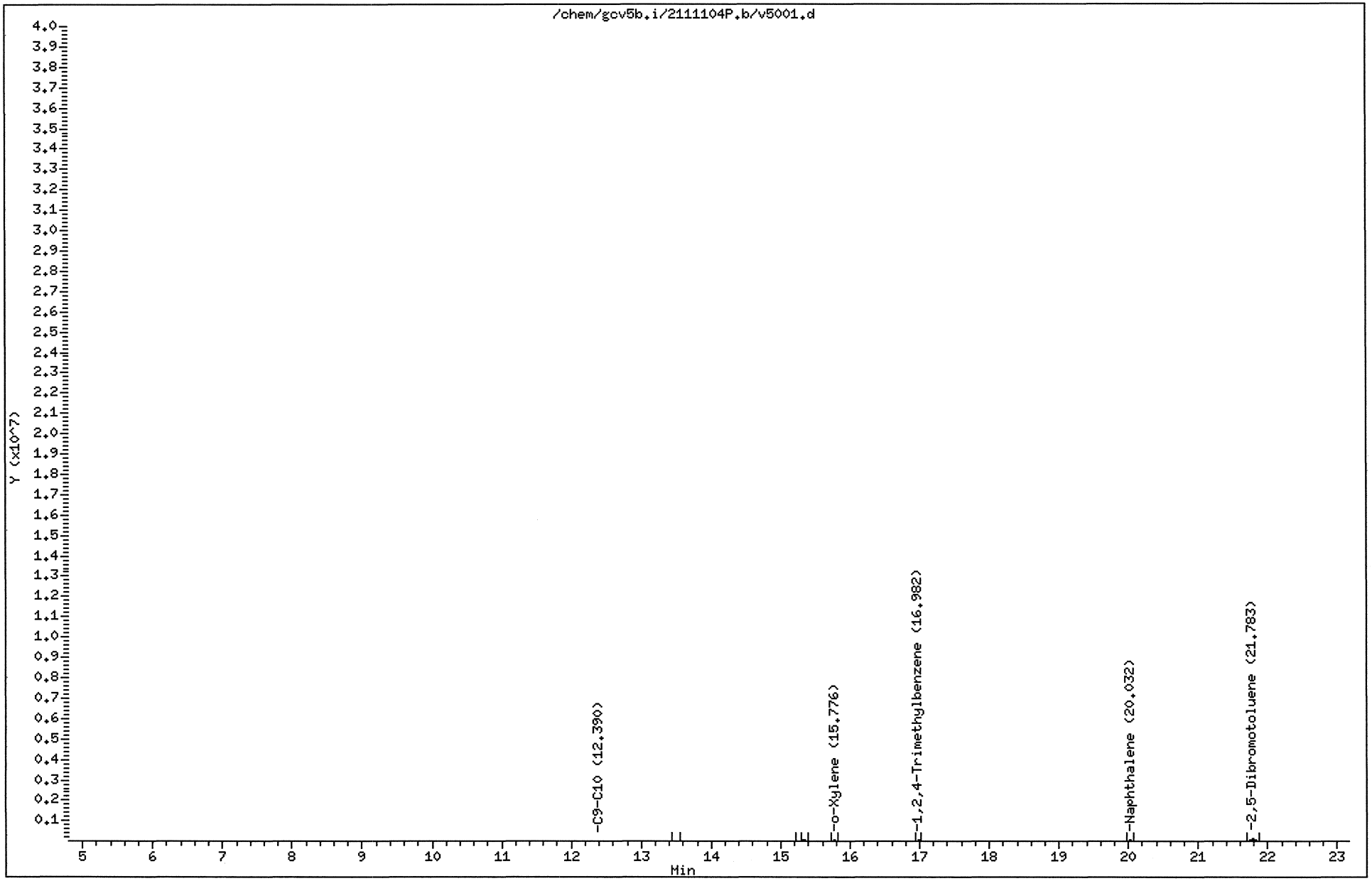
Sample Info: VPH05/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

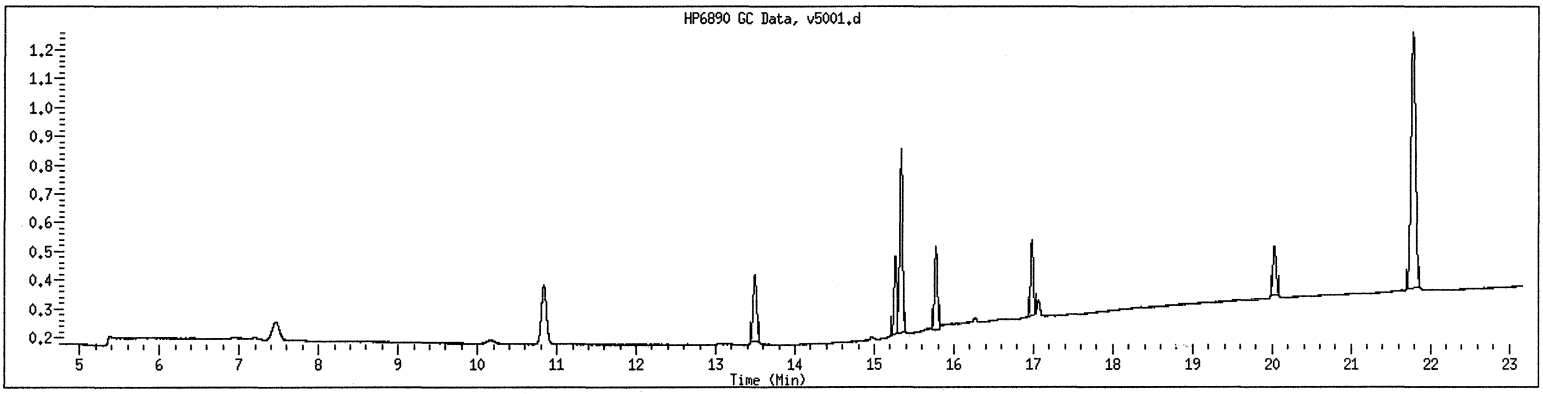
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

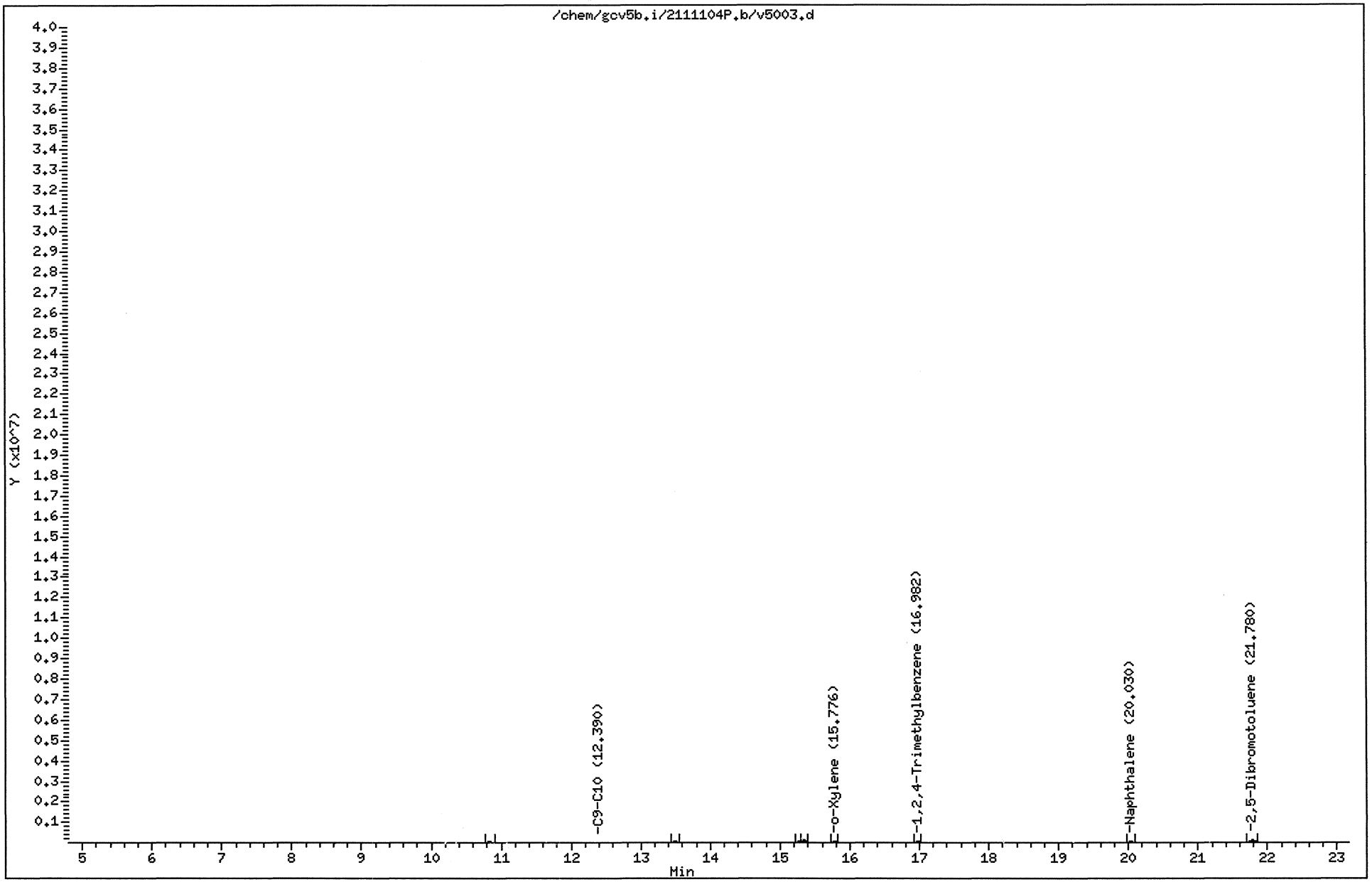
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	141953	10.0000	13.9
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	123561	10.0000	13.4
M	9 C9-C10				123561	10.0000	13.4
	8 Naphthalene	20.030	20.030	0.000	105949	10.0000	13.0
$	10 2,5-Dibromotoluene	21.780	21.780	0.000	356100	50.0000	64.4

Data File: /chem/gcv5b.i/2111104P.b/v5003.d
Date : 04-NOV-2011 21:56
Client ID:
Sample Info: VPH10/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

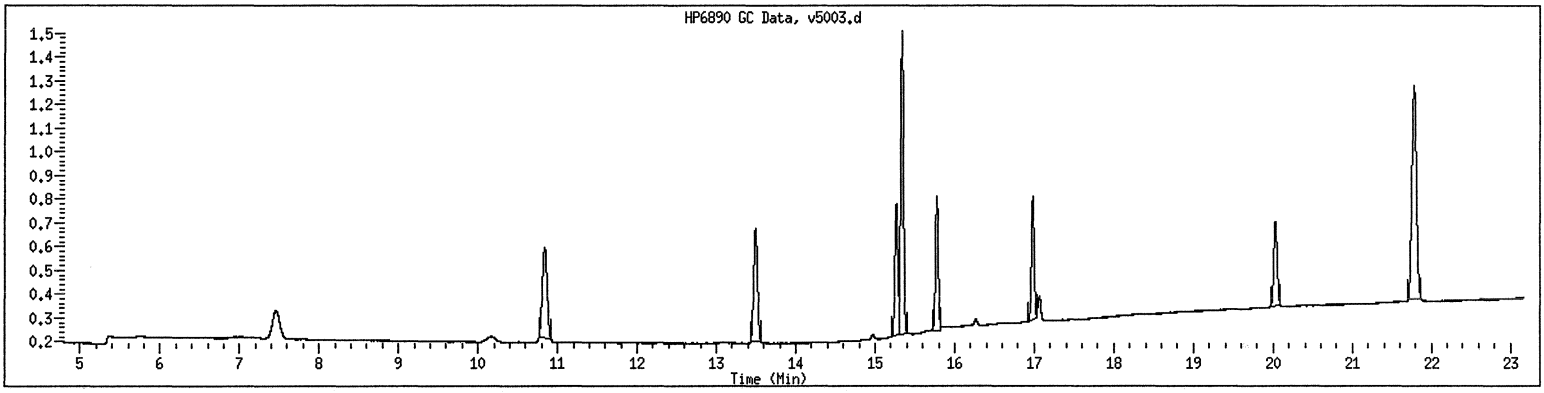
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

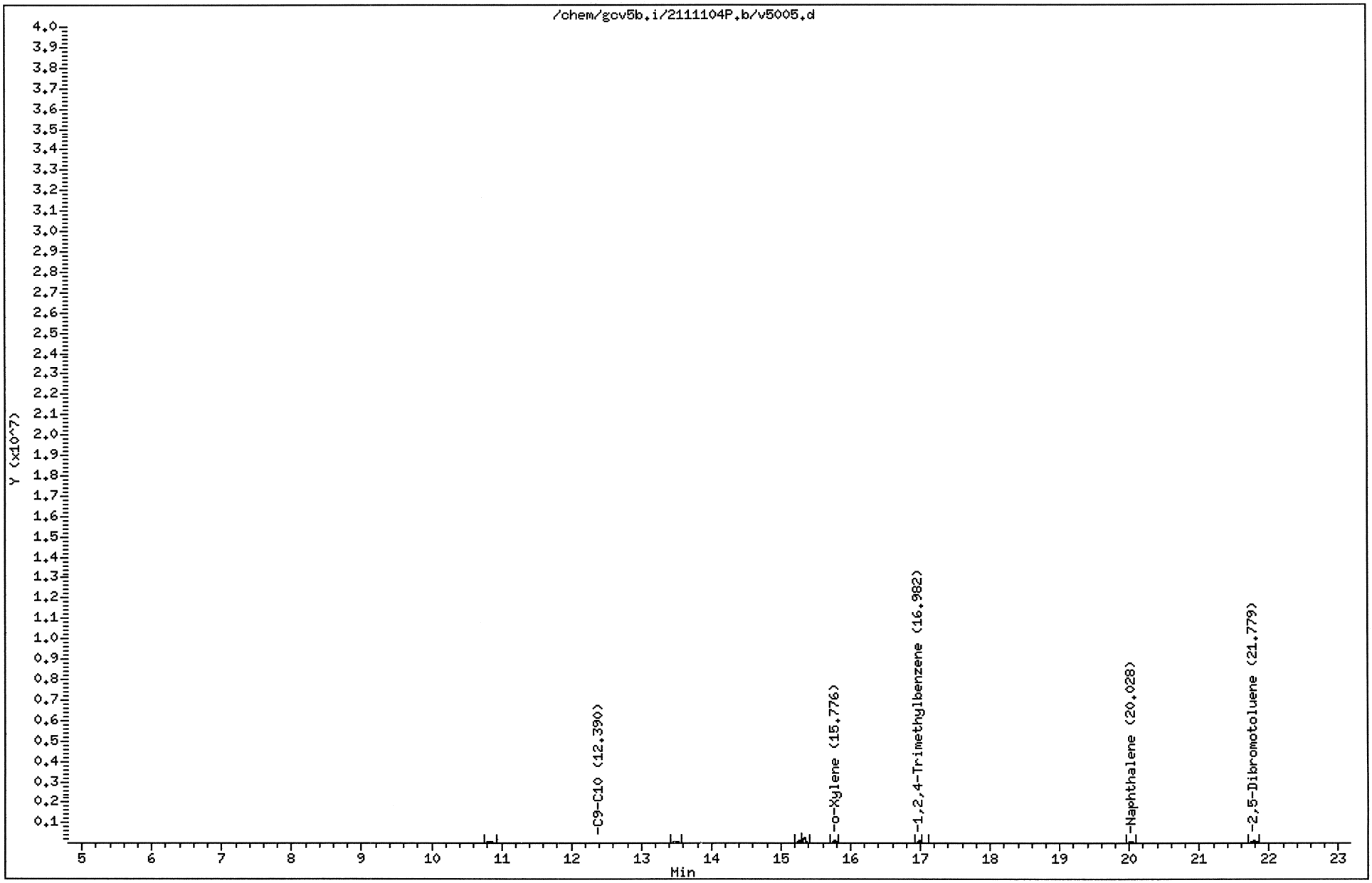
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.776	15.776	0.000	279105	20.0000	25.3
	7 1,2,4-Trimethylbenzene	16.982	16.982	0.000	252061	20.0000	25.5
M	9 C9-C10				252061	20.0000	25.5
	8 Naphthalene	20.028	20.028	0.000	208523	20.0000	24.6
$	10 2,5-Dibromotoluene	21.779	21.779	0.000	347190	50.0000	58.7

Data File: /chem/gcv5b.i/2111104P.b/v5005.d
Date : 04-NOV-2011 22:55
Client ID:
Sample Info: VPH20/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

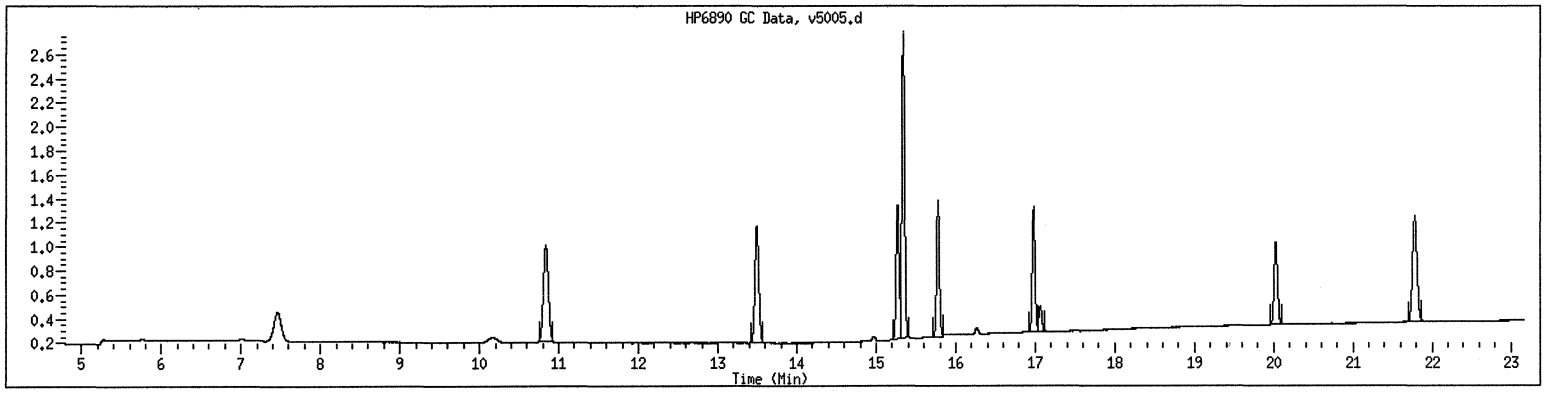
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

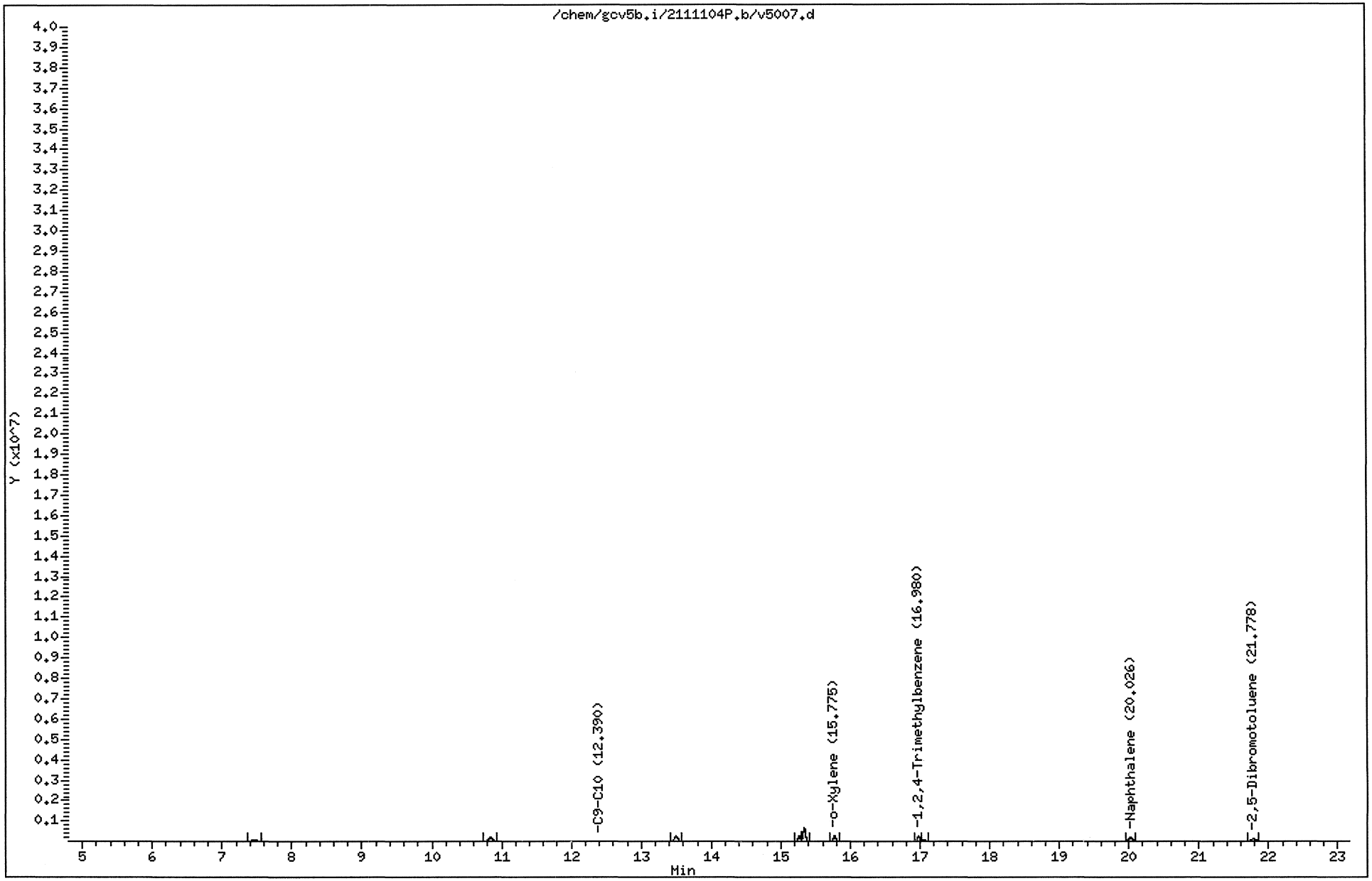
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	6 o-Xylene	15.775	15.775	0.000	688621	50.0000	56.8
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	621749	50.0000	57.5
M	9 C9-C10				621749	50.0000	57.5
	8 Naphthalene	20.026	20.026	0.000	524320	50.0000	57.1
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	351593	50.0000	56.0

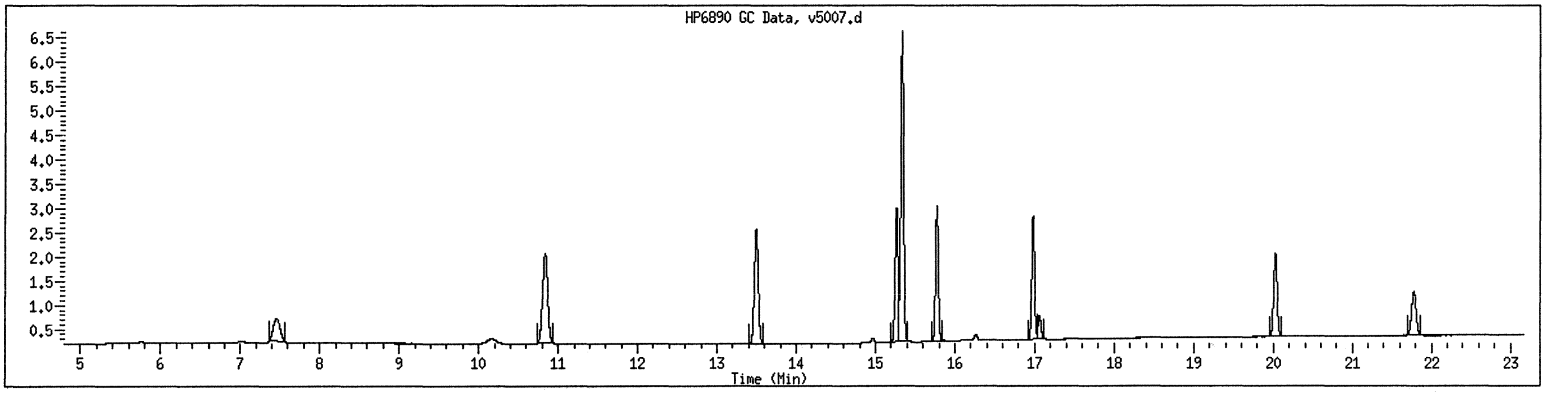
Data File: /chem/gcv5b.i/2111104P.b/v5007.d
Date : 04-NOV-2011 23:54
Client ID:
Sample Info: VPH50/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

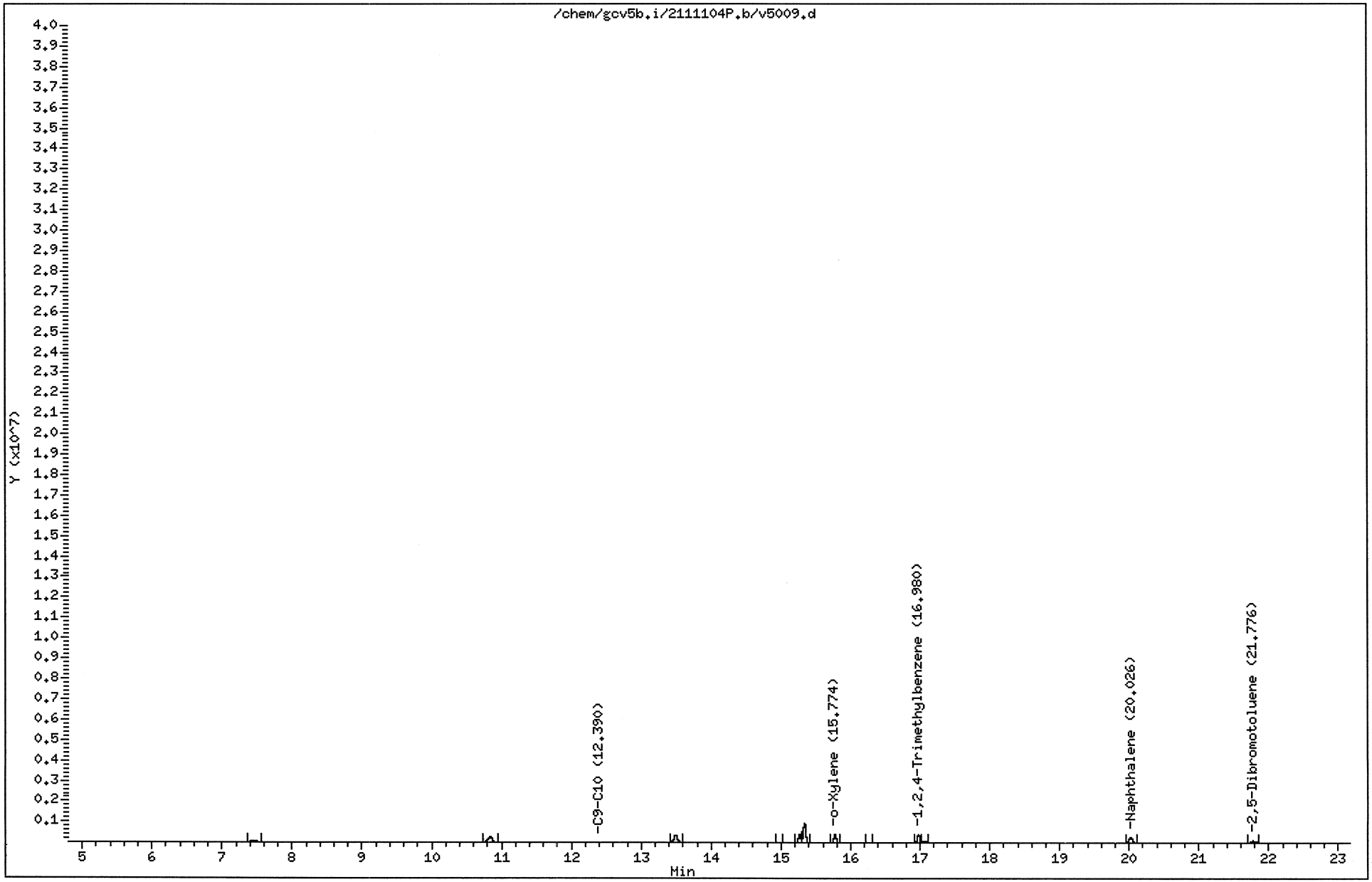
Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.774	15.774	0.000	1007189	80.0000	78.2
	7 1,2,4-Trimethylbenzene	16.980	16.980	0.000	914021	80.0000	79.8
M	9 C9-C10				914021	80.0000	79.8
	8 Naphthalene	20.026	20.026	0.000	787100	80.0000	81.3
$	10 2,5-Dibromotoluene	21.776	21.776	0.000	345440	50.0000	52.0

Data File: /chem/gcv5b.i/2111104P.b/v5009.d
Date : 05-NOV-2011 00:53
Client ID:
Sample Info: VPH80/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53

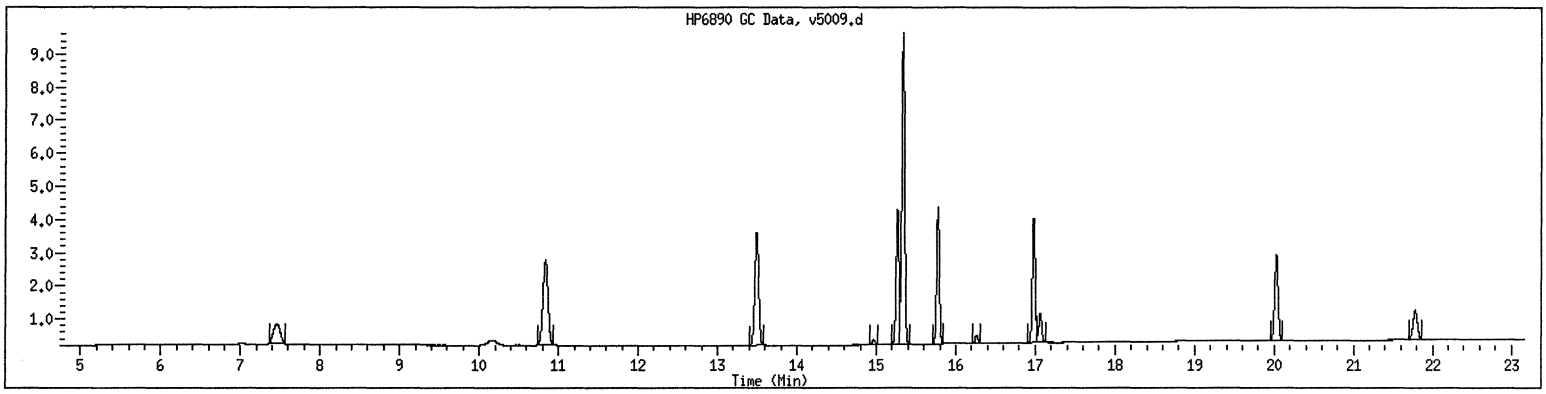
211110421 30



Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

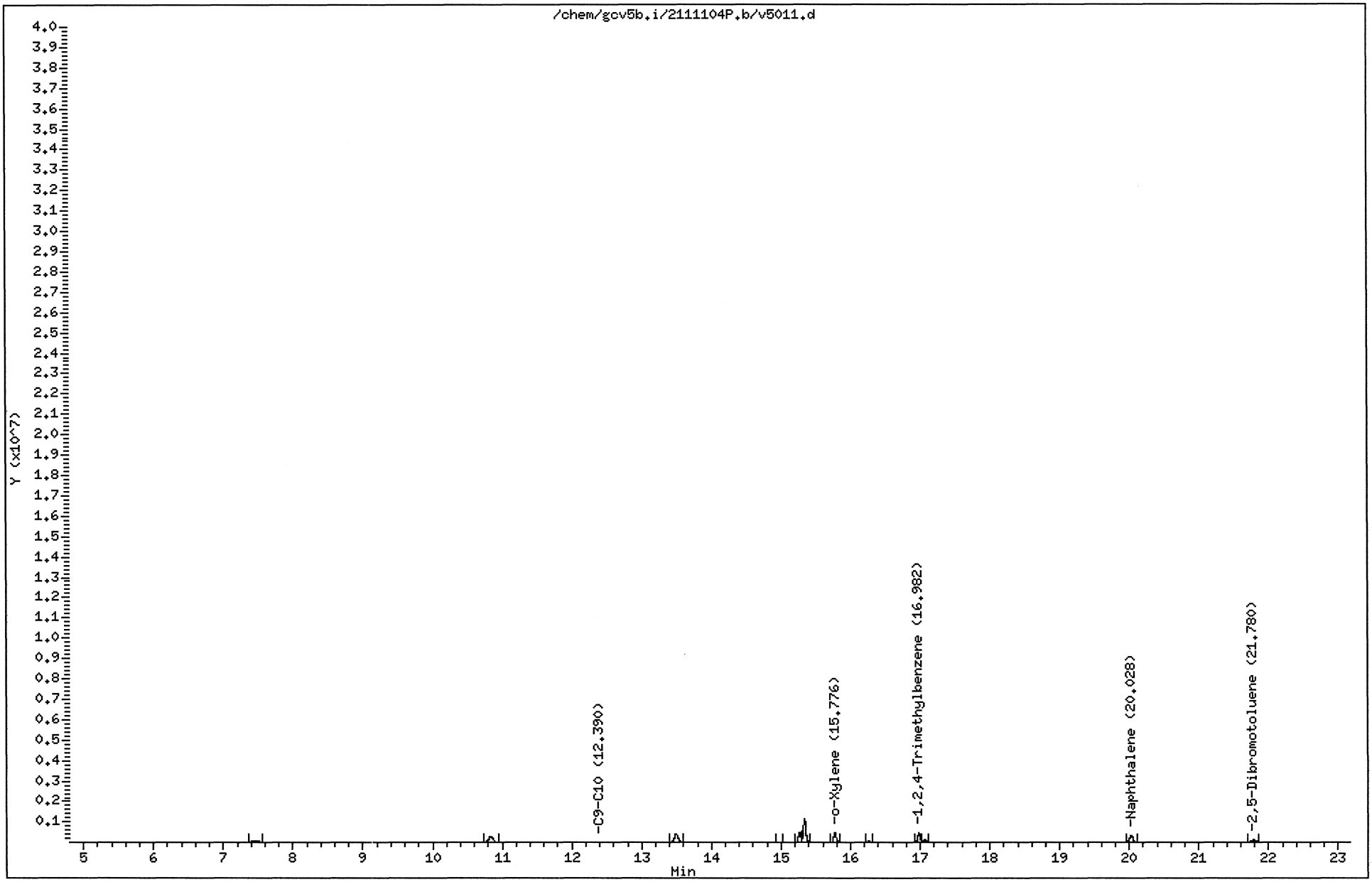
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6	o-Xylene	15.776	15.776	0.000	1208340	100.000	89.0
	7	1,2,4-Trimethylbenzene	16.982	16.982	0.000	1092238	100.000	90.8
M	9	C9-C10				1092238	100.000	90.8
	8	Naphthalene	20.028	20.028	0.000	991962	100.000	97.4
$	10	2,5-Dibromotoluene	21.780	21.780	0.000	344287	50.0000	49.2

Data File: /chem/gcv5b.i/2111104P.b/v5011.d
Date : 05-NOV-2011 01:52
Client ID:
Sample Info: VPH100/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

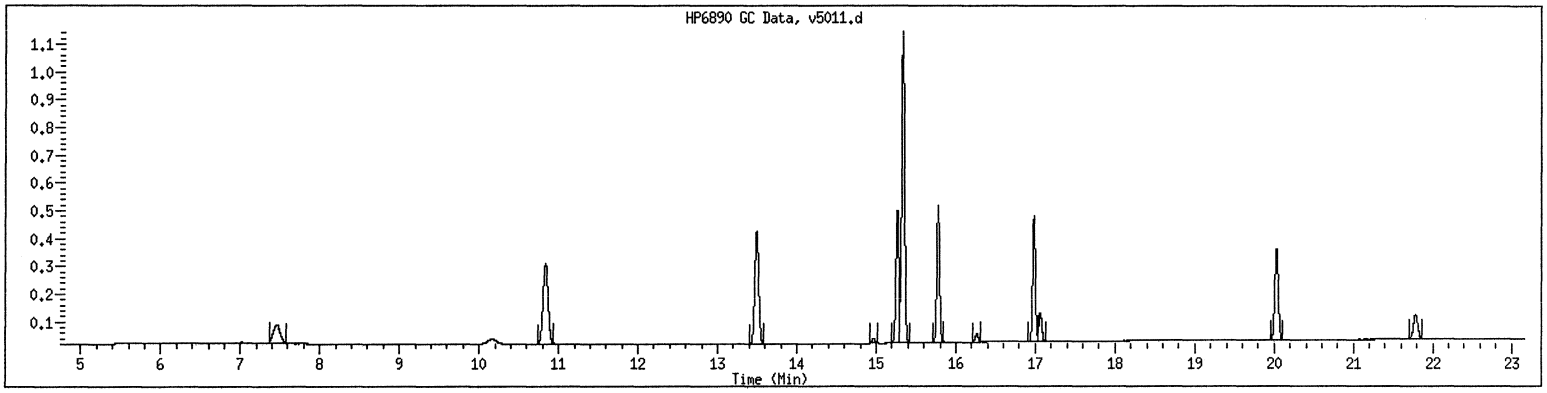
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Data file : /var/chem/gcv5b.i/2111104P.b/v5011.d
Report Date: 11/07/2011 10:04

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104P
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: MED Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aromatic1.spk Quant Type: ESTD
Sublist File: aromatic.sub
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	6 o-Xylene	50.0	51.2	102.42	70-130
	7 1,2,4-Trimethylbenzene	50.0	52.8	105.56	70-130
M	9 C9-C10	50.0	52.8	105.56	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	10 2,5-Dibromotoluene	50.0	51.3	102.55	60-140

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111104P.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Meth Date : 07-Nov-2011 10:04 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
	6 o-Xylene	15.775	15.776	-0.001	694928	51.2117	2560
	7 1,2,4-Trimethylbenzene	16.980	16.982	-0.002	634872	52.7787	2640
M	9 C9-C10				634872	52.7787	2640
	8 Naphthalene	20.027	20.028	-0.001	569432	55.9022	2800
$	10 2,5-Dibromotoluene	21.777	21.780	-0.003	358526	51.2761	2560

Data File: /chem/gcv5b.i/2111104P.b/v5013.d

Date : 05-NOV-2011 02:51

Client ID:

Sample Info: ICV6/12/5

Volume Injected (uL): 1.0

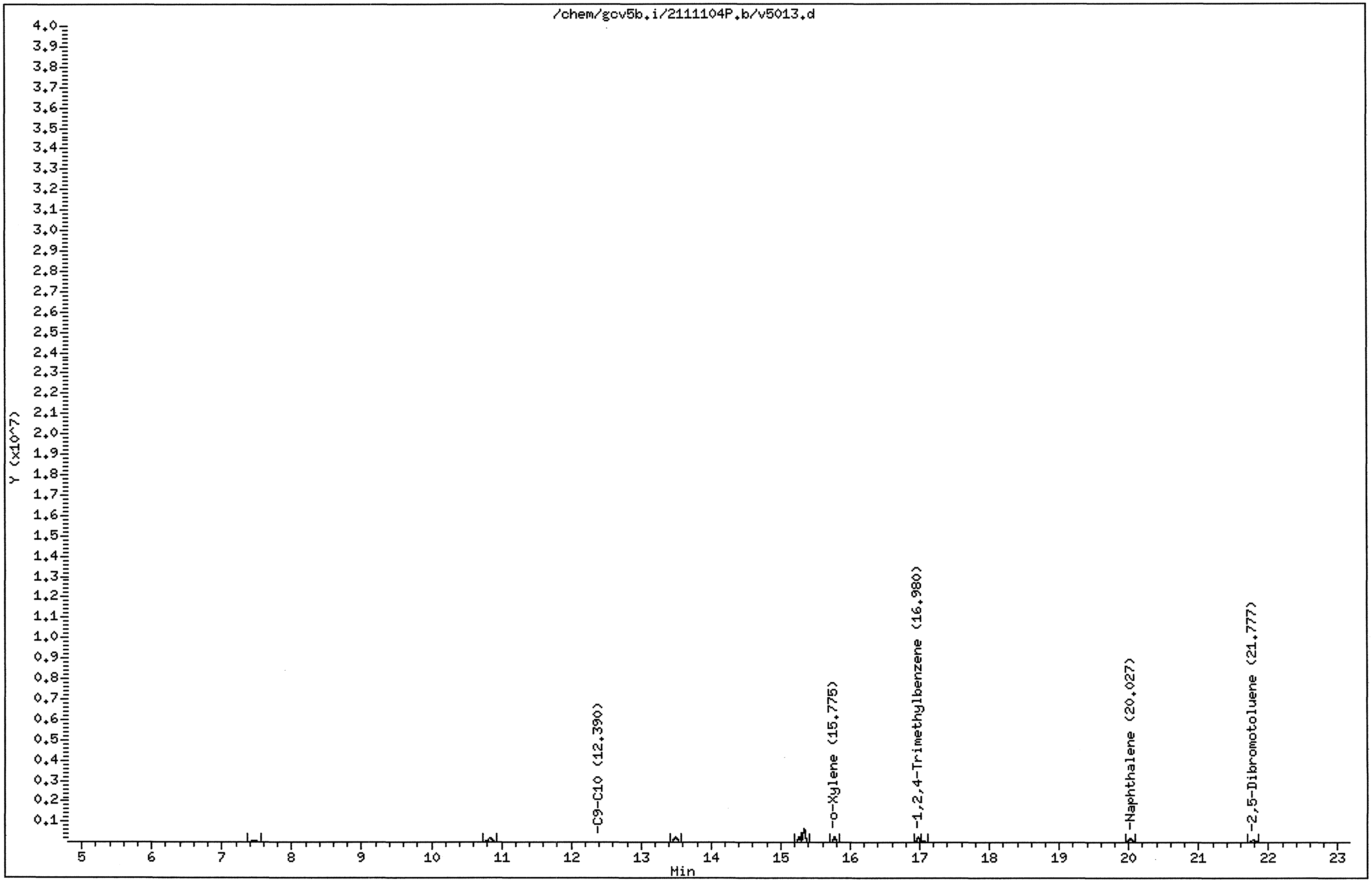
Column phase: DB-624-30

Instrument: gcv5b.i

Operator: JAR

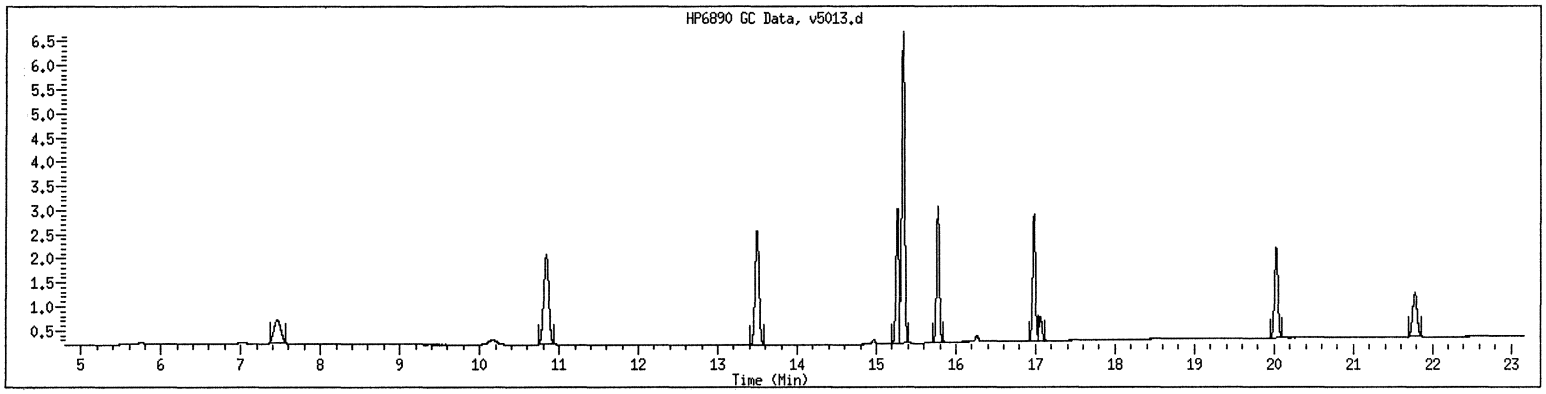
Column diameter: 0.53

211110421 37



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	14032	0.010	-3.40445	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12938	0.010	-7.55906	25.00000	Averaged
M 9 C9-C10	12029	12938	0.010	-7.55906	25.00000	Averaged
8 Naphthalene	10186	10852	0.010	-6.53786	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7243	0.010	-3.59117	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.73032
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:26 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.775	15.775	0.000	701584	50.0000	51.7
	7 1,2,4-Trimethylbenzene	16.981	16.981	0.000	646912	50.0000	53.8
M	9 C9-C10				646912	50.0000	53.8
	8 Naphthalene	20.027	20.027	0.000	542610	50.0000	53.3
$	10 2,5-Dibromotoluene	21.778	21.778	0.000	362158	50.0000	51.8

Data File: /chem/gcv5b.i/2111107.b/v5001.d

Page 1

Date : 07-NOV-2011 11:22

Client ID:

Instrument: gcv5b.i

Sample Info: VPH6/12/4

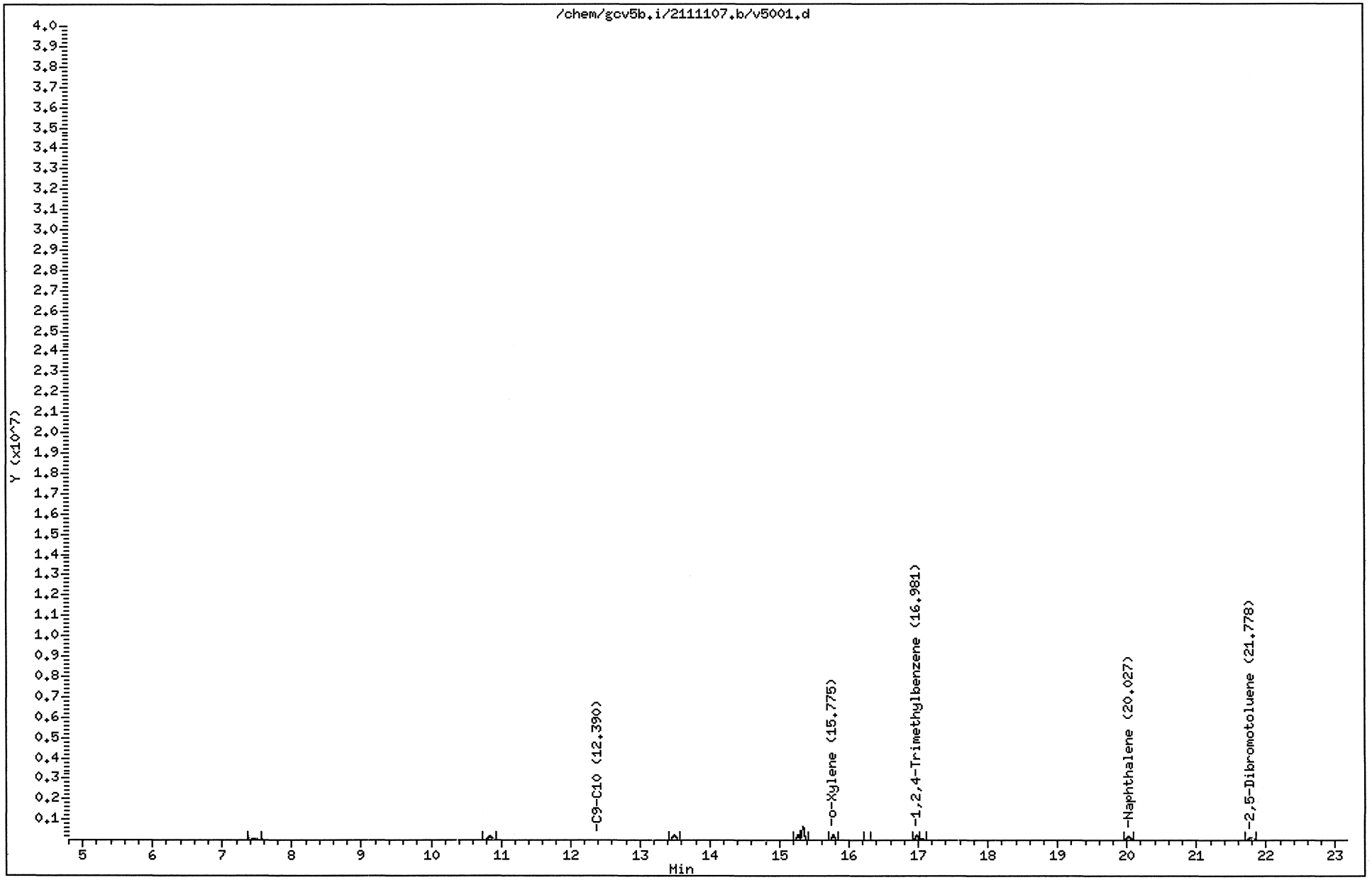
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

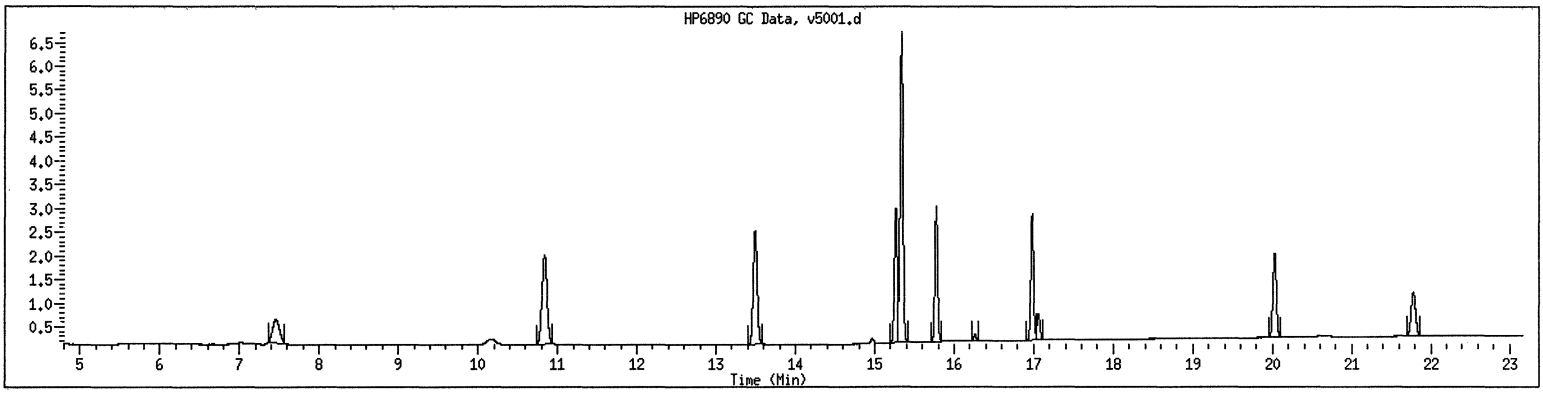
Column diameter: 0.53

211110121 41



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: SOIL Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13412	0.010	1.16027	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	13121	0.010	-9.07507	25.00000	Averaged
M 9 C9-C10	12029	13121	0.010	-9.07507	25.00000	Averaged
8 Naphthalene	10186	10461	0.010	-2.69817	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7139	0.010	-2.10262	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.82224
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariab

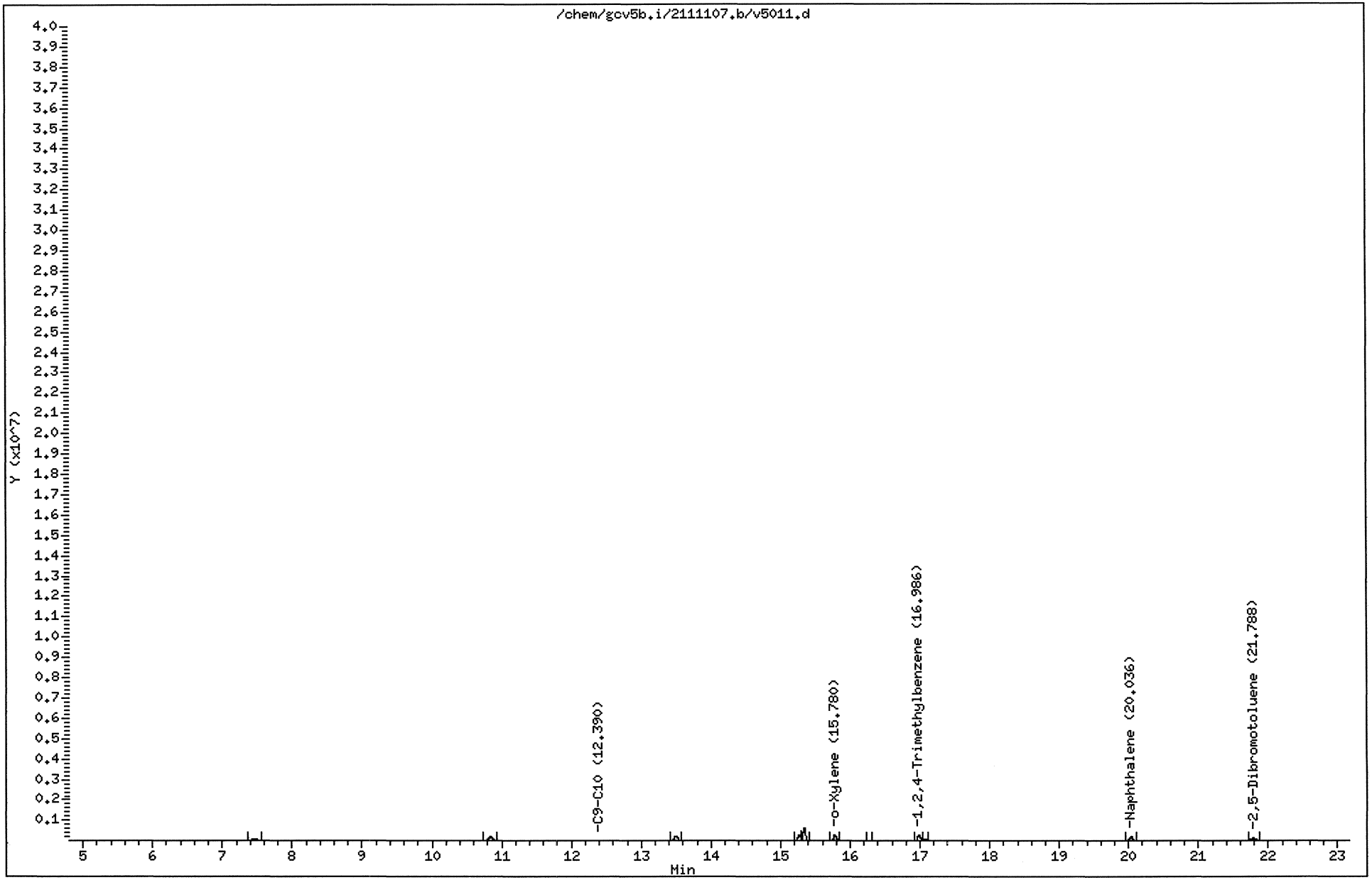
Name	Value	Description
DF	50.00000	Dilution Factor
Uf	5.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)(1000 low, 2
Vi	1.00000	Volume injected (uL)
Ws	5.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 o-Xylene	15.780	15.780	0.000	670613	50.0000	49.4
	7 1,2,4-Trimethylbenzene	16.986	16.986	0.000	656030	50.0000	54.5
M	9 C9-C10				656030	50.0000	54.5
	8 Naphthalene	20.036	20.036	0.000	523054	50.0000	51.3
$	10 2,5-Dibromotoluene	21.788	21.788	0.000	356954	50.0000	51.0

Data File: /chem/gcv5b.i/2111107.b/v5011.d
Date : 07-NOV-2011 16:16
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

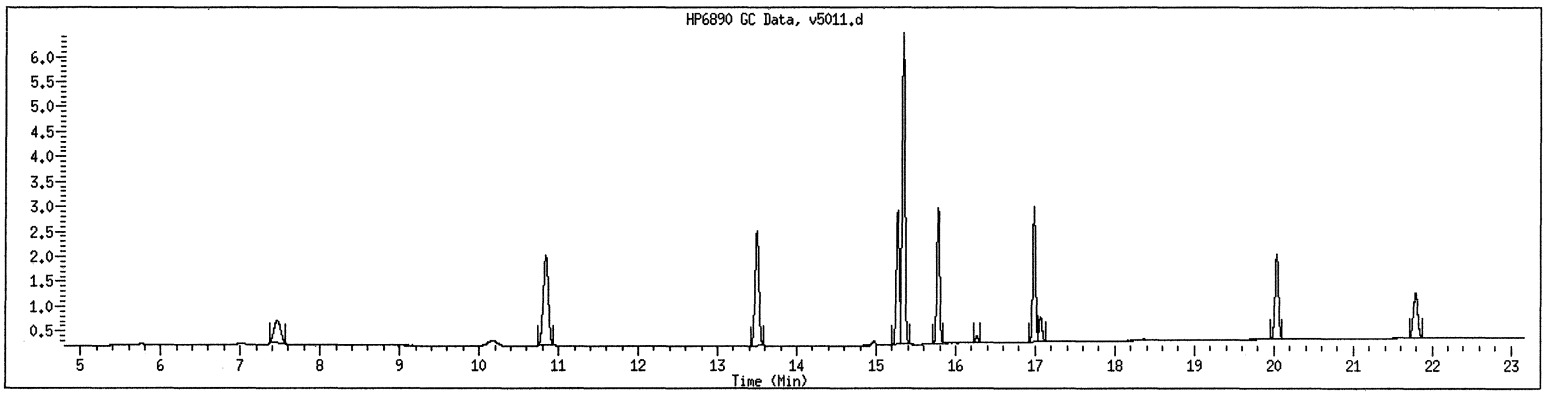
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Report Date: 11/08/2011 13:32

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 50.0		
Matrix	: SOIL		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	13889	0.010	-2.35270	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	12645	0.010	-5.11962	25.00000	Averaged
M 9 C9-C10	12029	12645	0.010	-5.11962	25.00000	Averaged
8 Naphthalene	10186	11058	0.010	-8.56157	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	7984	0.010	-14.18718	30.00000	Averaged

Average %D / Drift Results.	
Calculated Average %D/Drift =	7.06814
Maximun Average %D/Drift =	25.00000
* Passed Average %D/Drift Test.	

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

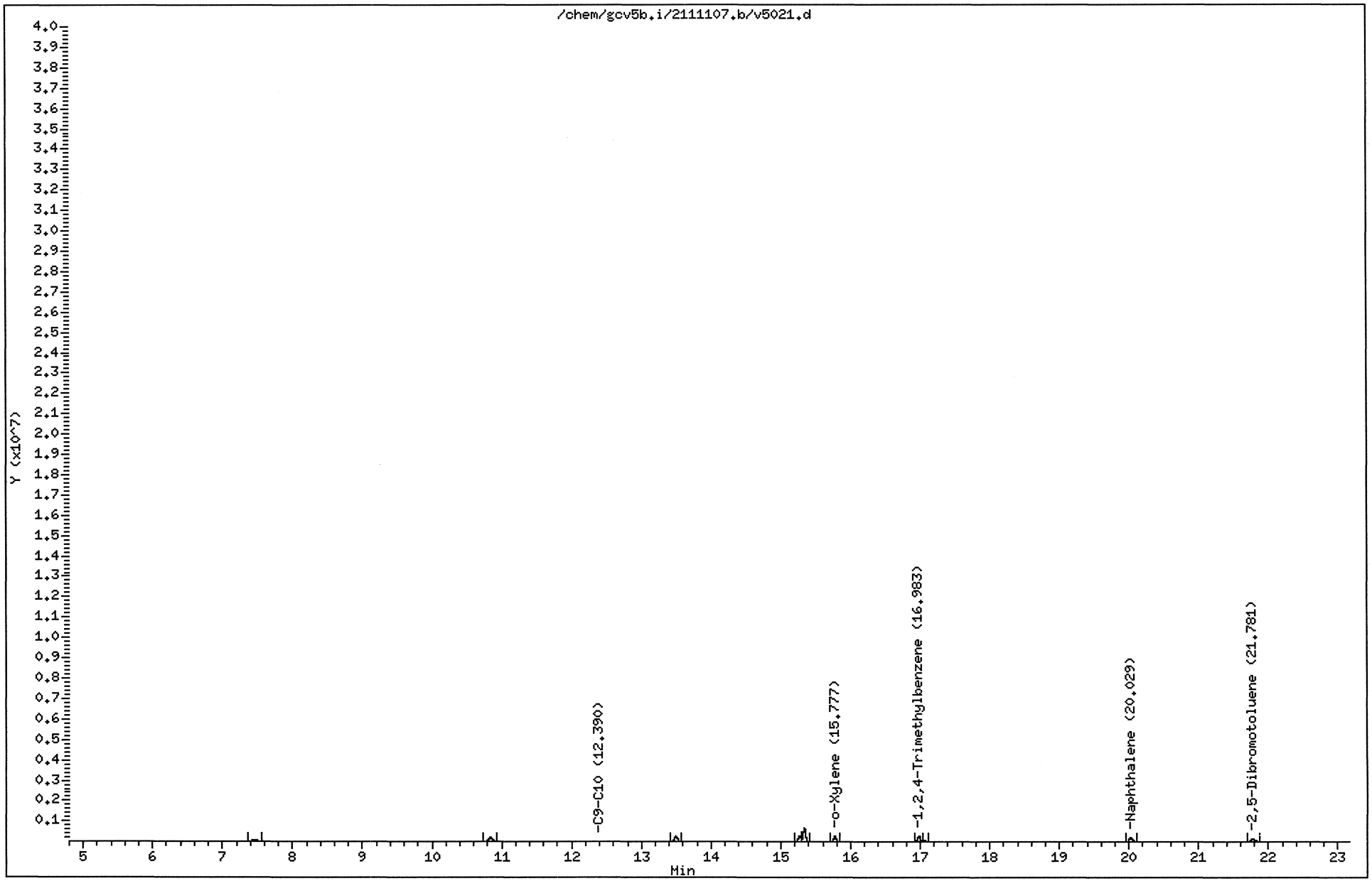
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6	o-Xylene	15.777	15.777	0.000	694448	50.0000	51.2
	7	1,2,4-Trimethylbenzene	16.983	16.983	0.000	632240	50.0000	52.6
M	9	C9-C10				632240	50.0000	52.6
	8	Naphthalene	20.029	20.029	0.000	552917	50.0000	54.3
$	10	2,5-Dibromotoluene	21.781	21.781	0.000	399202	50.0000	57.1

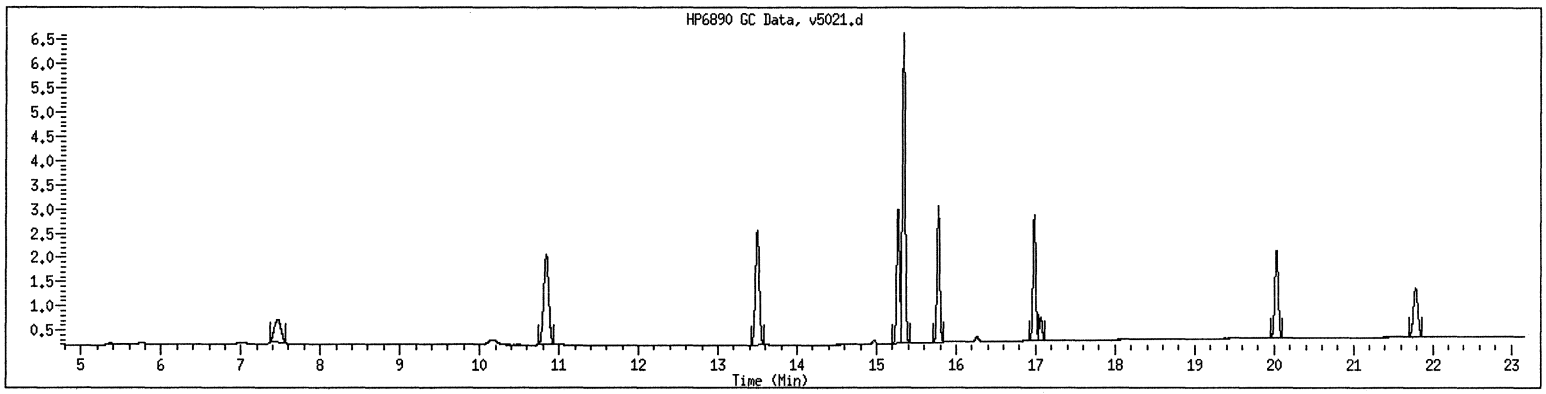
Data File: /chem/gcv5b.i/2111107.b/v5021.d
Date : 07-NOV-2011 23:22
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5b.i Injection Date: 08-NOV-2011 01:49
Lab File ID: v5026.d Init. Cal. Date(s): 05-OCT-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 17:26 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
6 o-Xylene	13570	15457	0.010	-13.90535	25.00000	Averaged
7 1,2,4-Trimethylbenzene	12029	14145	0.010	-17.58869	25.00000	Averaged
M 9 C9-C10	12029	14145	0.010	-17.58869	25.00000	Averaged
8 Naphthalene	10186	11684	0.010	-14.70319	25.00000	Averaged
$ 10 2,5-Dibromotoluene	6992	8054	0.010	-15.19175	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 15.79553
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5026.d
Lab Smp Id: VPH6/12/4
Inj Date : 08-NOV-2011 01:49
Operator : JAR Inst ID: gcv5b.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:32 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	6 o-Xylene	15.777	15.777	0.000	772831	50.0000	57.0
	7 1,2,4-Trimethylbenzene	16.983	16.983	0.000	707235	50.0000	58.8
M	9 C9-C10				707235	50.0000	58.8
	8 Naphthalene	20.028	20.028	0.000	584197	50.0000	57.4
$	10 2,5-Dibromotoluene	21.781	21.781	0.000	402714	50.0000	57.6

Data File: /chem/gcv5b.i/2111107.b/v5026.d

Date : 08-NOV-2011 01:49

Client ID:

Instrument: gcv5b.i

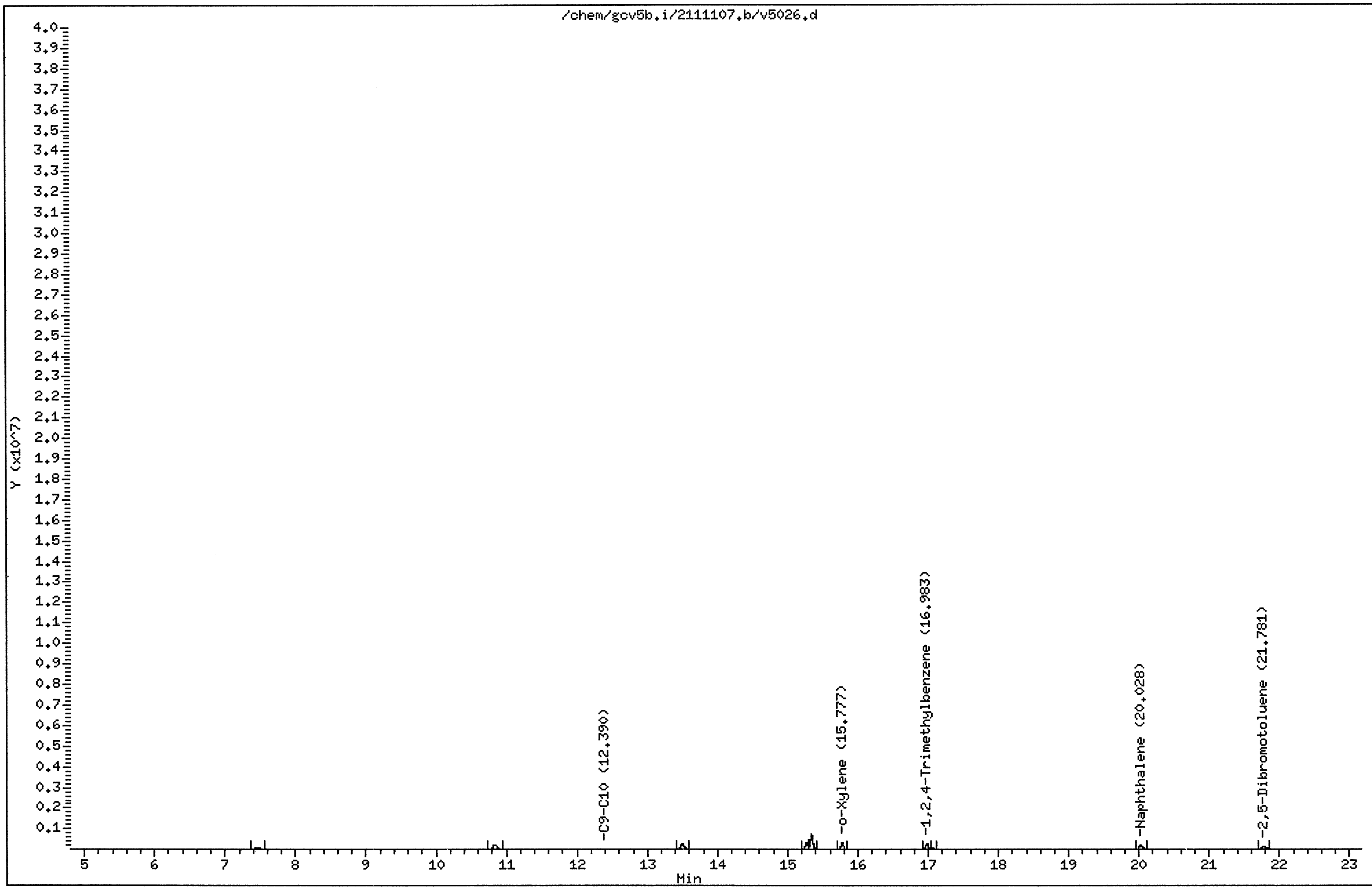
Sample Info: VPH6/12/4

Volume Injected (uL): 1.0

Operator: JAR

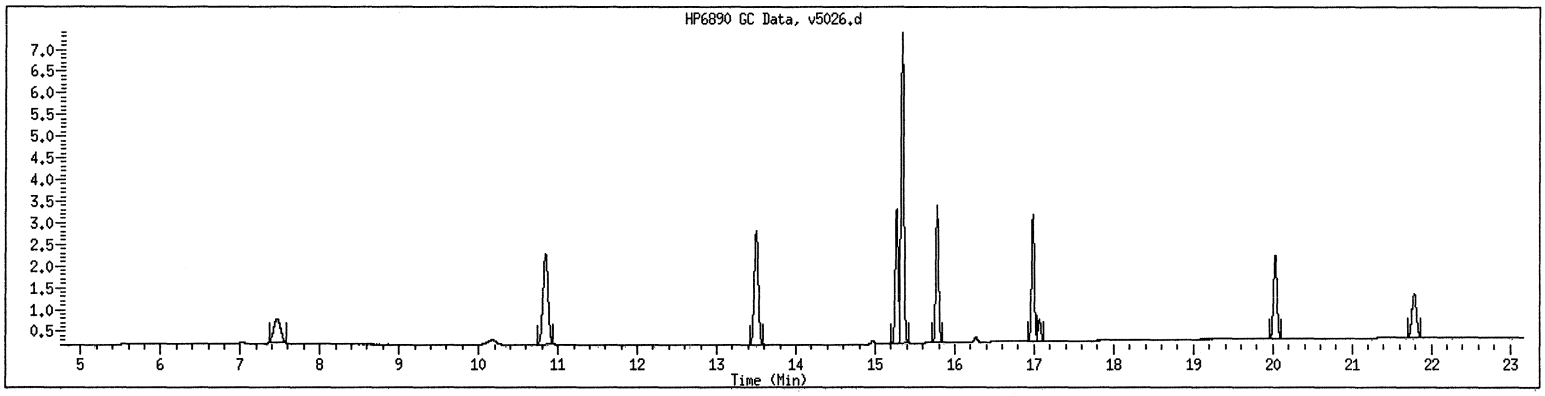
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/08/2011 01:49	Instrument	: gcv5b.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-NOV-2011 20:57
End Cal Date : 05-NOV-2011 01:52
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Cal Date : 18-Nov-2011 14:24 bmr
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcv5a.i/2111104p.b/v5003.d
Level 2: /var/chem/gcv5a.i/2111104p.b/v5005.d
Level 3: /var/chem/gcv5a.i/2111104p.b/v5007.d
Level 4: /var/chem/gcv5a.i/2111104p.b/v5009.d
Level 5: /var/chem/gcv5a.i/2111104p.b/v5011.d
Level 6: /var/chem/gcv5a.i/2111104p.b/v5001.d

		10.000	20.000	50.000	80.000	100.000	5.000	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	1 n-Pentane	10671	10211	8851	7571	6259	10437	9000	19.814
M	2 C5-C8	10727	11023	9557	8858	7420	11346	9822	15.343
	3 2-Methyl Pentane	10850	12110	10178	9578	7894	12016	10438	15.288
	4 MTBE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	5 C9-C12	5516	5527	5414	6329	6009	3831	5437	15.859
	6 Isooctane	10661	10749	9640	9426	8105	11583	10027	12.254
	7 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	8 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	9 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	10 Ethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	11 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	12 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 n-Decane	5176	5085	5107	6409	6110	5443	5555	10.232
	14 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	15 n-Butylcyclohexane	5856	5968	5721	6249	5908	6049	5958	3.021
	16 Naphthalene	9352	9011	8945	8433	8525	+++++	8853	4.247
$	17 2,5-Dibromotoluene	3190	3009	3100	2787	2825	3028	2990	5.238

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5001.d
Lab Smp Id: VPH05/6/12/4
Inj Date : 04-NOV-2011 20:57
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH05/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 20:57 Cal File: v5001.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

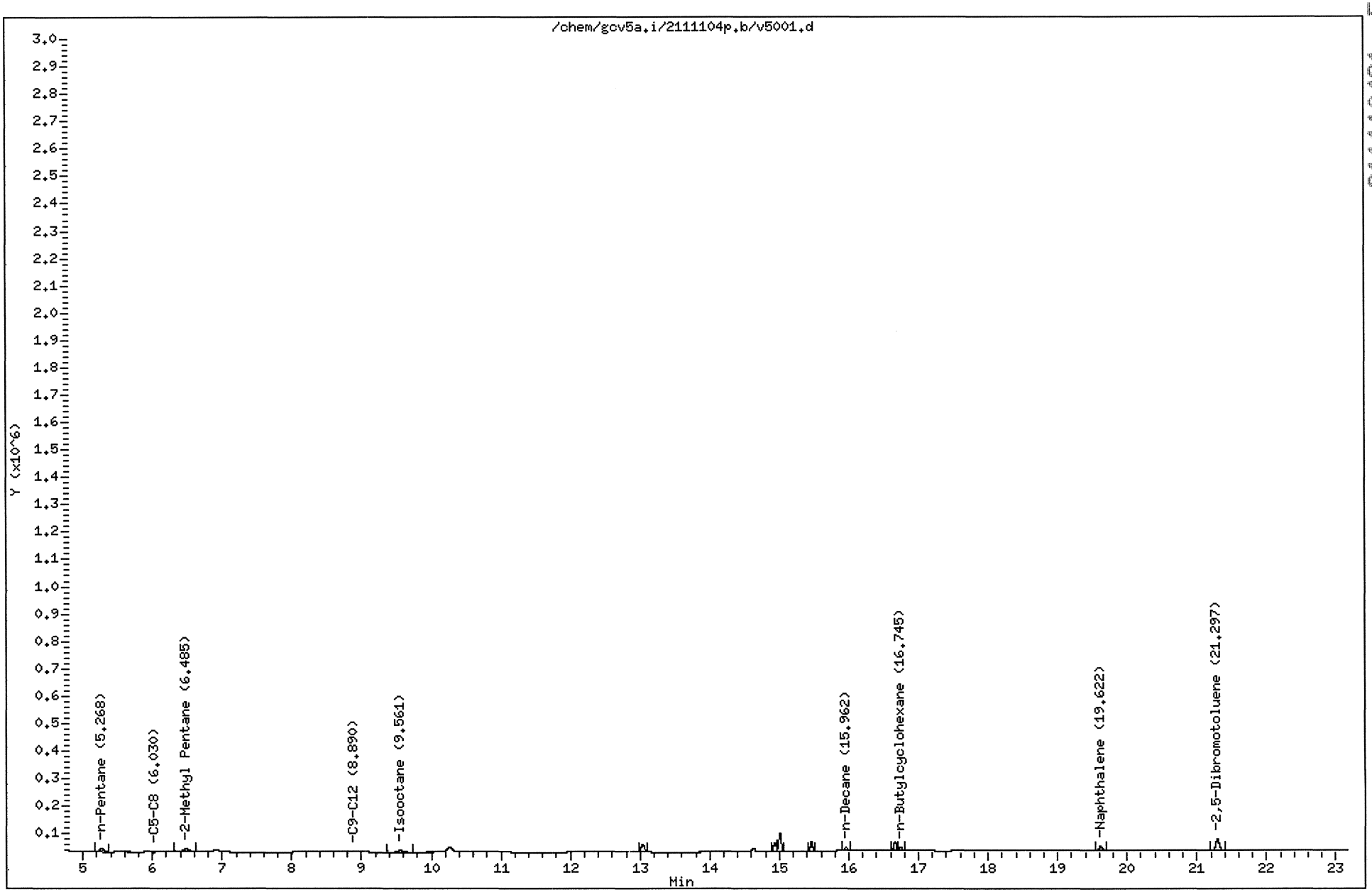
						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				170184	15.0000	16.3
	1 n-Pentane	5.268	5.268	0.000	52185	5.00000	5.4(M1)
	3 2-Methyl Pentane	6.485	6.485	0.000	60082	5.00000	5.4(M1)
	6 Isooctane	9.561	9.561	0.000	57917	5.00000	5.4(M1)
	13 n-Decane	15.962	15.962	0.000	27213	5.00000	5.2(M1)
	15 n-Butylcyclohexane	16.745	16.745	0.000	30246	5.00000	5.1(M1)
	16 Naphthalene	19.622	19.622	0.000	47160	5.00000	5.3(M1)
M	5 C9-C12				57459	15.0000	10.3
$	17 2,5-Dibromotoluene	21.297	21.297	0.000	151381	50.0000	49.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5001.d
Date : 04-NOV-2011 20:57
Client ID:
Sample Info: VPH05/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

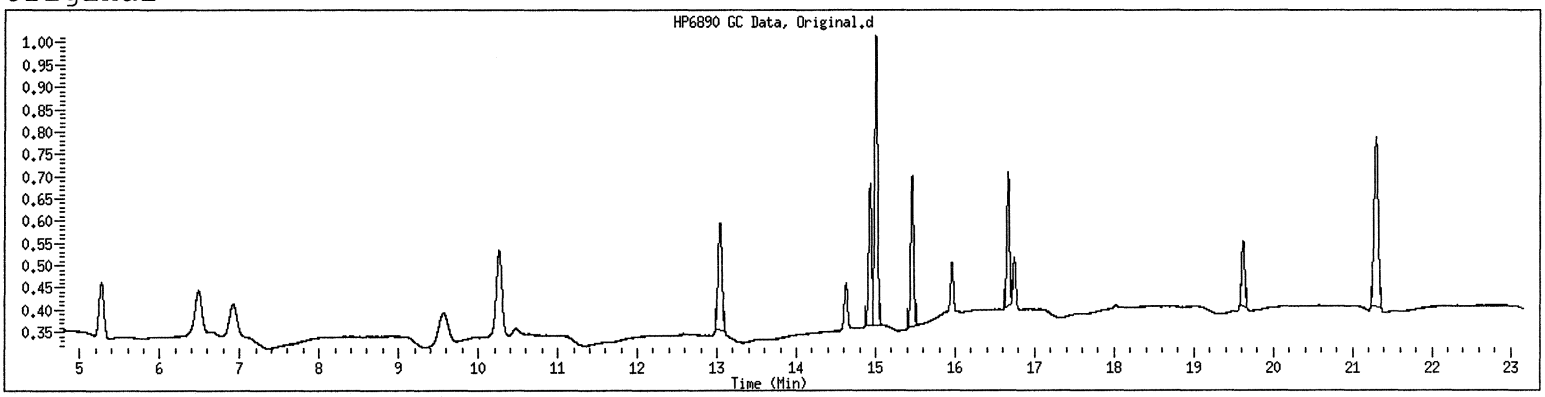
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



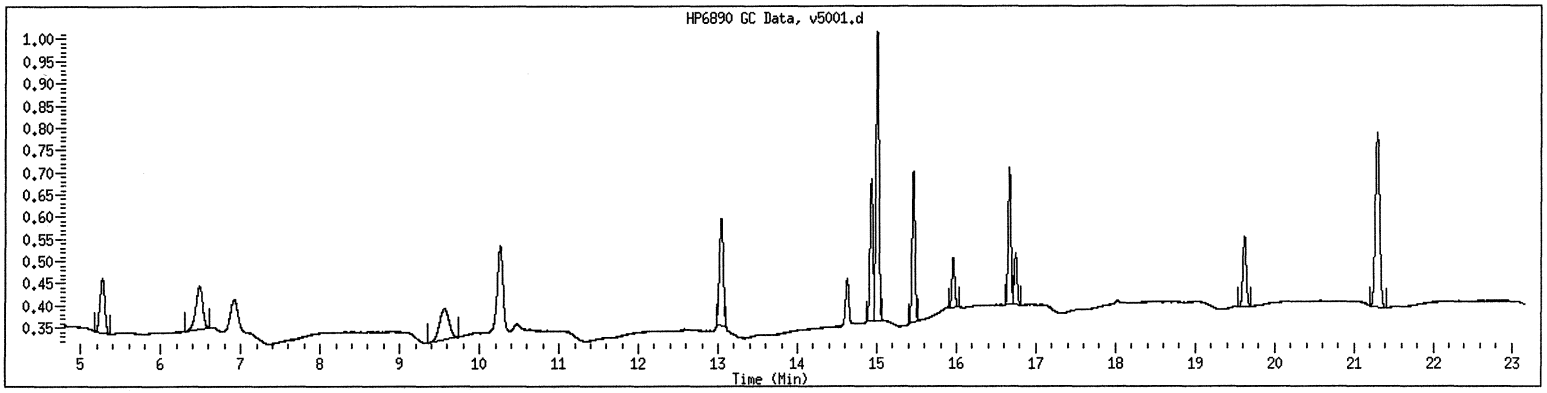
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH05/6/12/4	SampleType	: CALIB_6
Injection Date	: 11/04/2011 20:57	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH05/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5003.d
Lab Smp Id: VPH10/6/12/4
Inj Date : 04-NOV-2011 21:56
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH10/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 21:56 Cal File: v5003.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

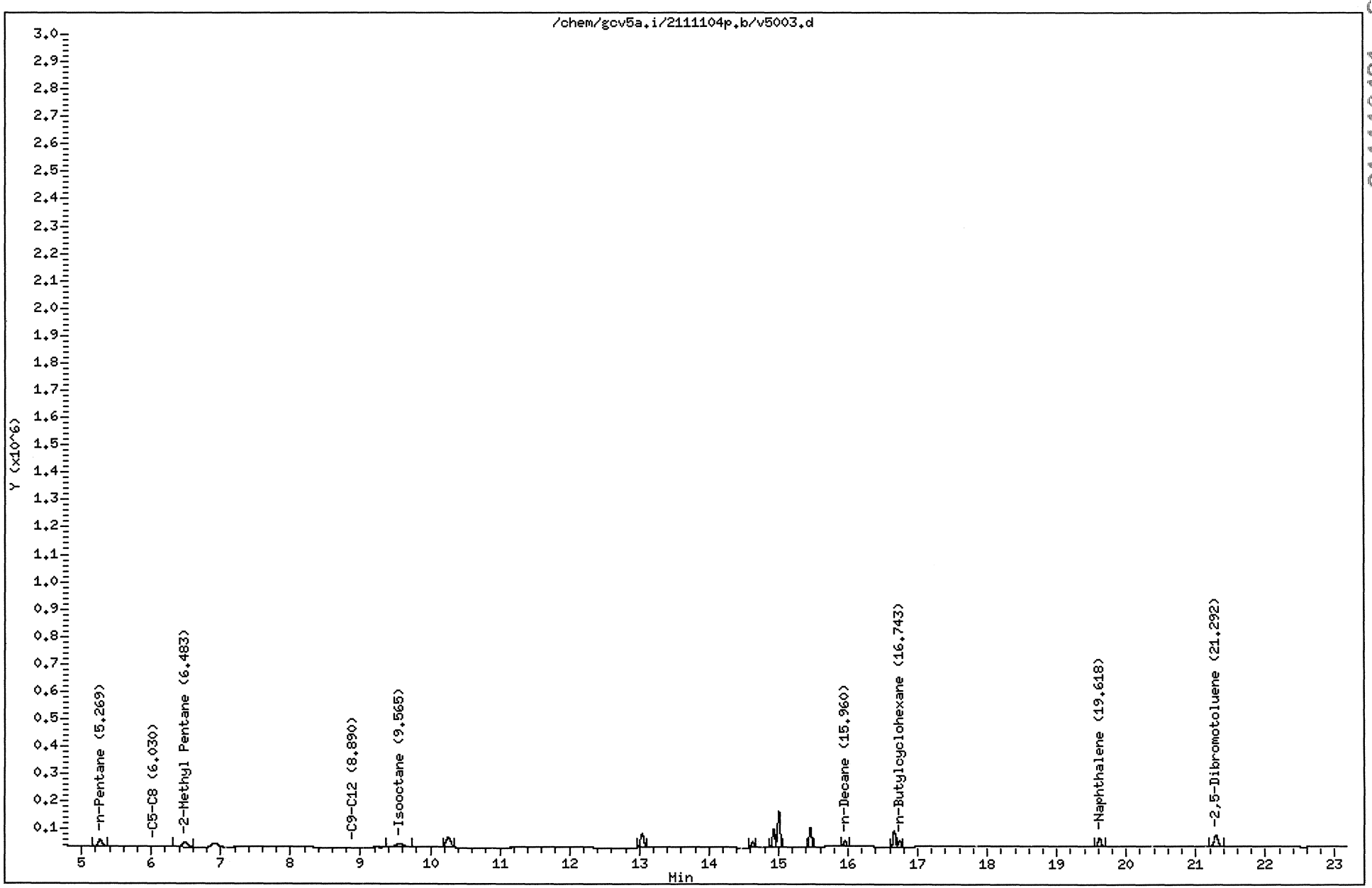
			RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
M	2	C5-C8				321816	30.0000	30.6
	1	n-Pentane	5.269	5.269	0.000	106713	10.0000	10.7(M1)
	3	2-Methyl Pentane	6.483	6.483	0.000	108495	10.0000	9.8(M1)
	6	Isooctane	9.565	9.565	0.000	106608	10.0000	10.0(M1)
	13	n-Decane	15.960	15.960	0.000	51759	10.0000	9.9(M1)
	15	n-Butylcyclohexane	16.743	16.743	0.000	58555	10.0000	10(M1)
	16	Naphthalene	19.618	19.618	0.000	93516	10.0000	10.2(M1)
M	5	C9-C12				110314	20.0000	19.8
$	17	2,5-Dibromotoluene	21.292	21.292	0.000	159522	50.0000	51.4(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5003.d
Date : 04-NOV-2011 21:56
Client ID:
Sample Info: VPH10/6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

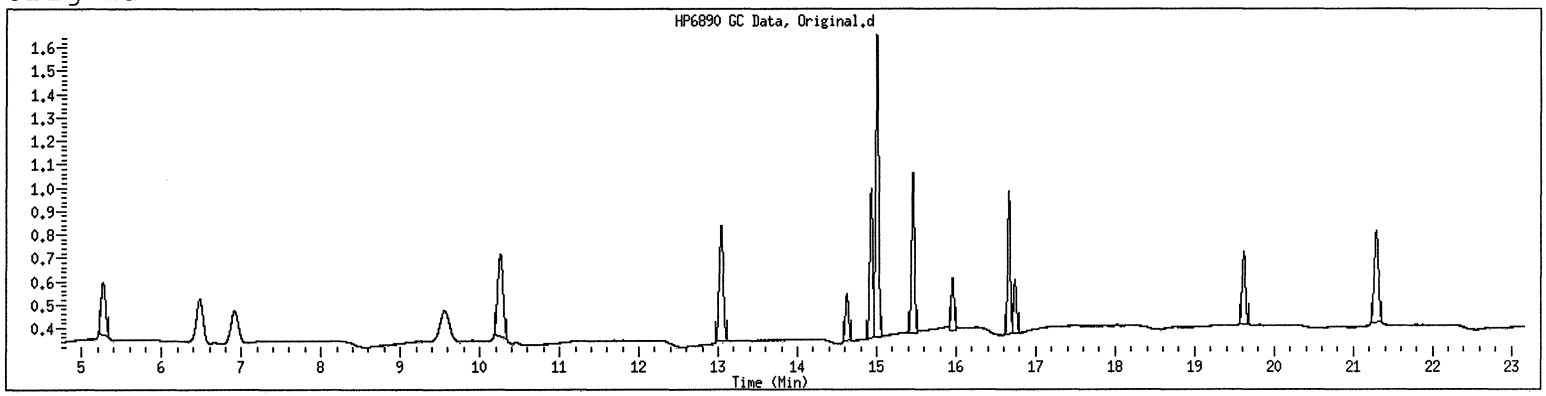
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



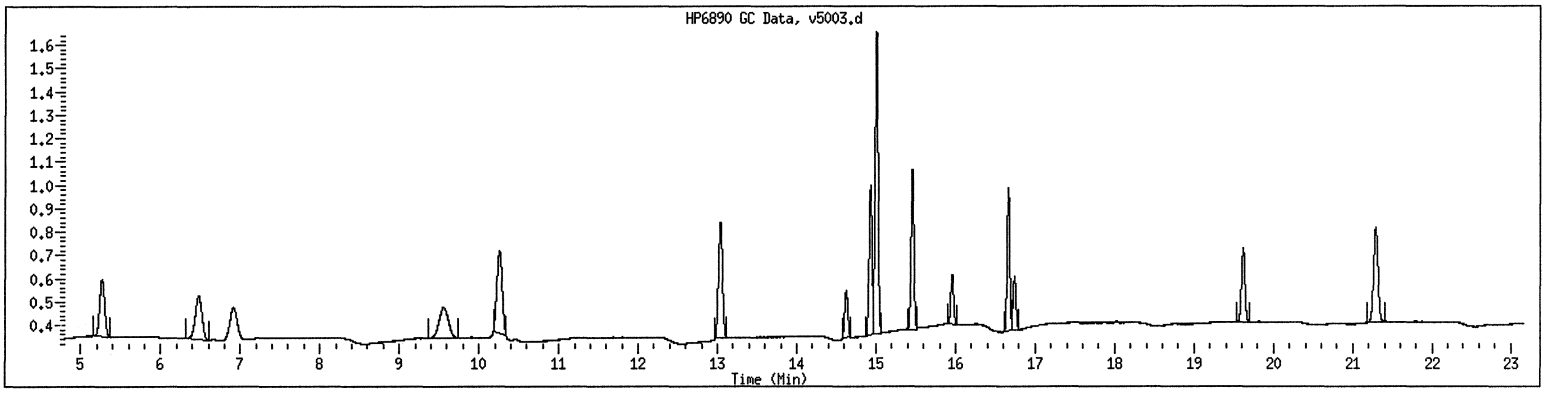
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH10/6/12/4	SampleType	: CALIB_1
Injection Date	: 11/04/2011 21:56	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH10/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5005.d
Lab Smp Id: VPH20/6/12/4
Inj Date : 04-NOV-2011 22:55
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH20/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 22:55 Cal File: v5005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
M	2 C5-C8				661397	60.0000	62.0
	1 n-Pentane	5.267	5.267	0.000	204224	20.0000	20.3(M1)
	3 2-Methyl Pentane	6.482	6.482	0.000	242197	20.0000	21.4(M1)
	6 Isooctane	9.563	9.563	0.000	214976	20.0000	20.2(M1)
	13 n-Decane	15.959	15.959	0.000	101700	20.0000	19.5(M1)
	15 n-Butylcyclohexane	16.742	16.742	0.000	119364	20.0000	20.2(M1)
	16 Naphthalene	19.617	19.617	0.000	180224	20.0000	19.8(M1)
M	5 C9-C12				221064	40.0000	39.8
$	17 2,5-Dibromotoluene	21.291	21.291	0.000	150438	50.0000	48.8(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5005.d

Date : 04-NOV-2011 22:55

Client ID:

Sample Info: VPH20/6/12/4

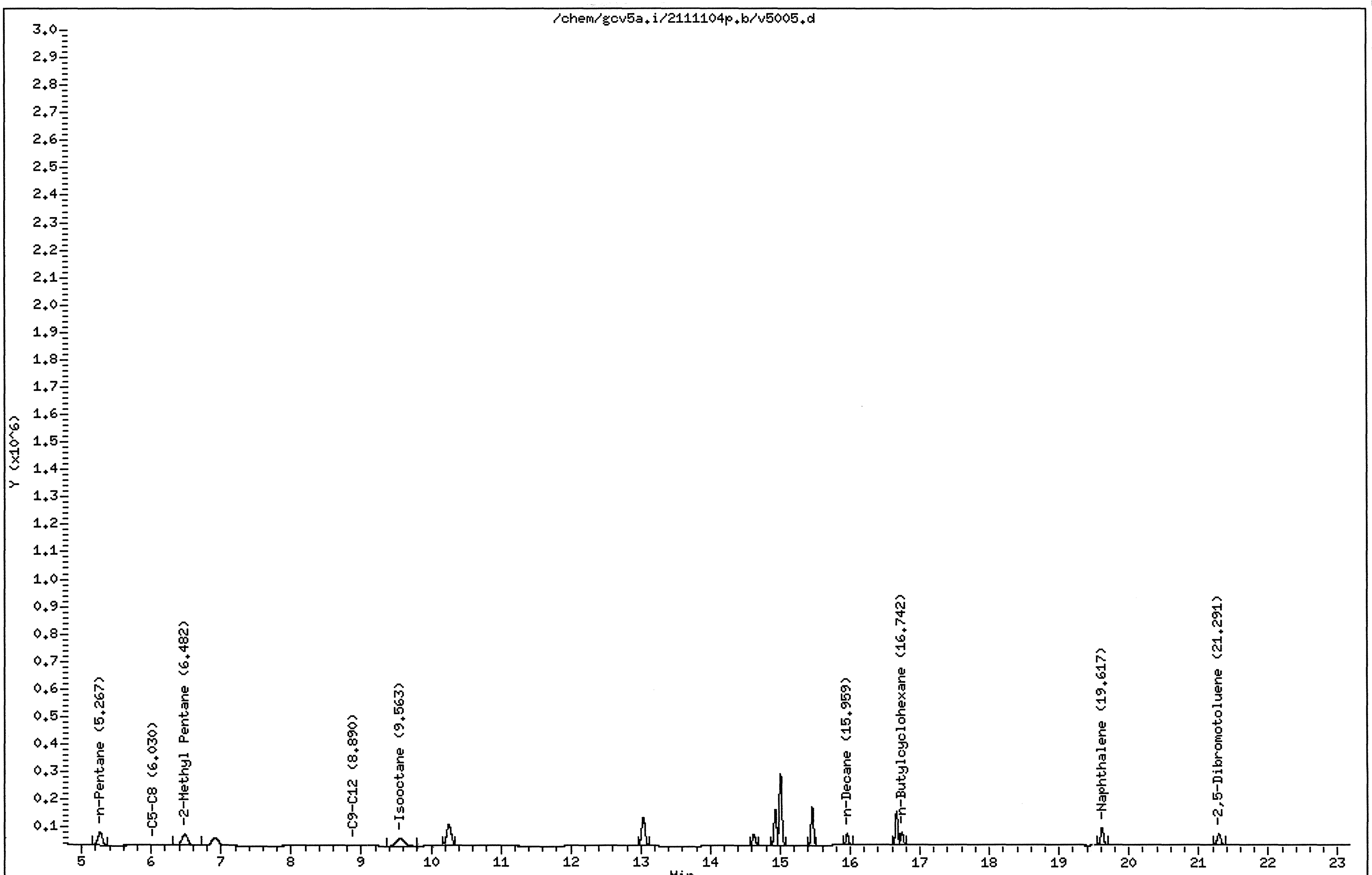
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

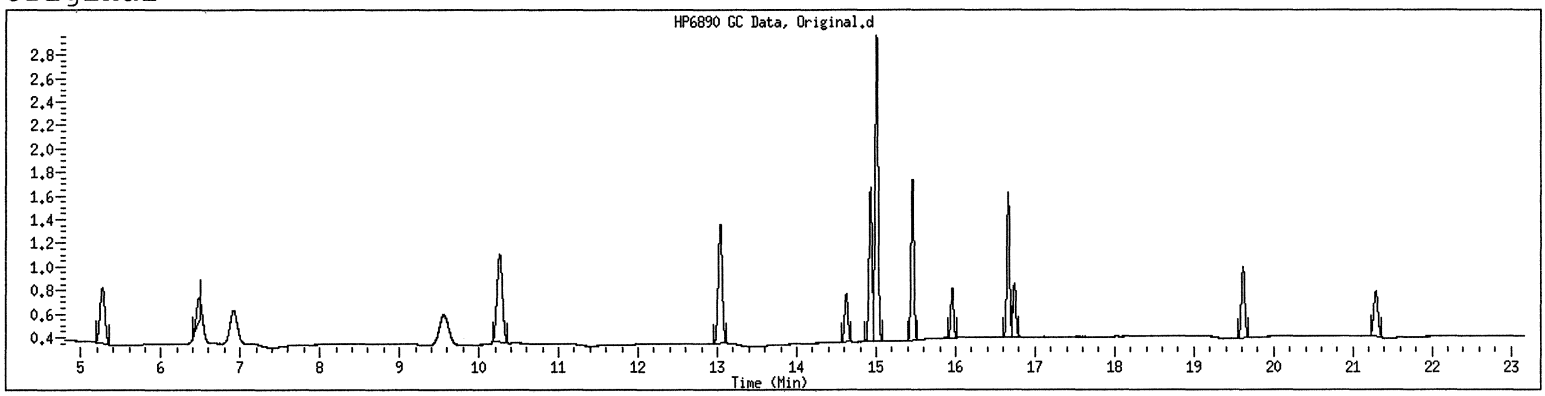
Column diameter: 0.53



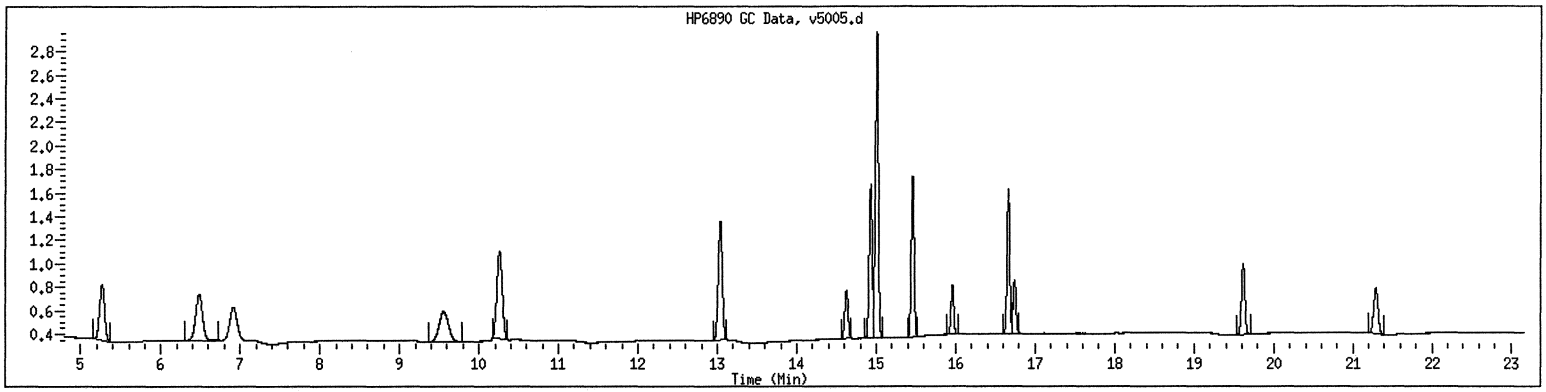
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH20/6/12/4	SampleType	: CALIB_2
Injection Date	: 11/04/2011 22:55	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH20/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5007.d
Lab Smp Id: VPH50/6/12/4
Inj Date : 04-NOV-2011 23:54
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH50/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 04-NOV-2011 23:54 Cal File: v5007.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1433487	150.000	150
	1 n-Pentane	5.265	5.265	0.000	442559	50.0000	50.0(M1)
	3 2-Methyl Pentane	6.481	6.481	0.000	508906	50.0000	50.0(M1)
	6 Isooctane	9.561	9.561	0.000	482022	50.0000	50.0(M1)
	13 n-Decane	15.959	15.959	0.000	255356	50.0000	50.0
	15 n-Butylcyclohexane	16.741	16.741	0.000	286054	50.0000	50.0(M1)
	16 Naphthalene	19.615	19.615	0.000	447259	50.0000	50.0
M	5 C9-C12				541410	100.000	100
$	17 2,5-Dibromotoluene	21.289	21.289	0.000	154983	50.0000	50.0(M1)

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5007.d

Date : 04-NOV-2011 23:54

Client ID:

Sample Info: VPH50/6/12/4

Volume Injected (uL): 1.0

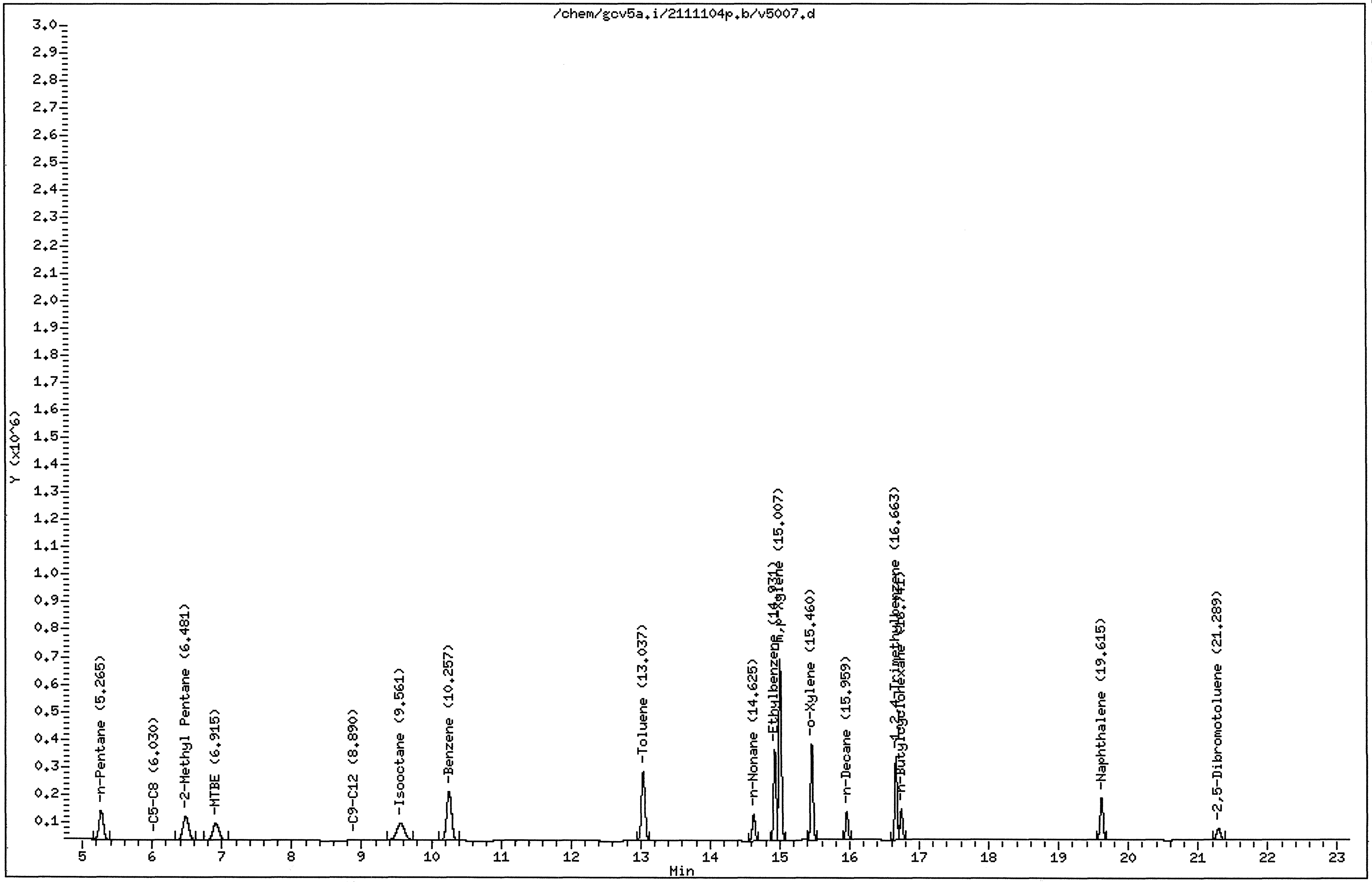
Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

Column diameter: 0.53

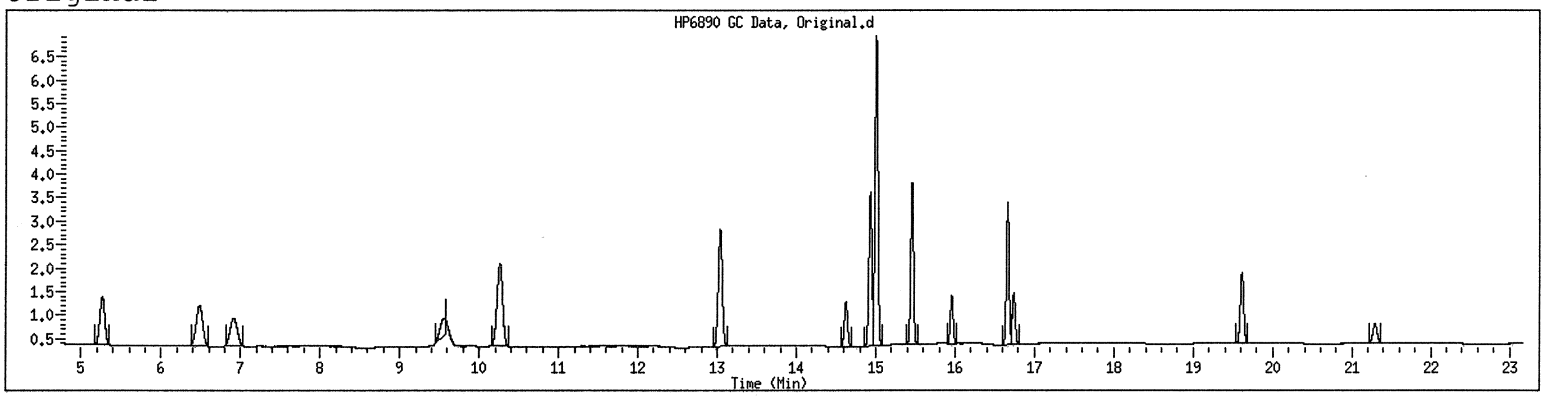
2111110421 70



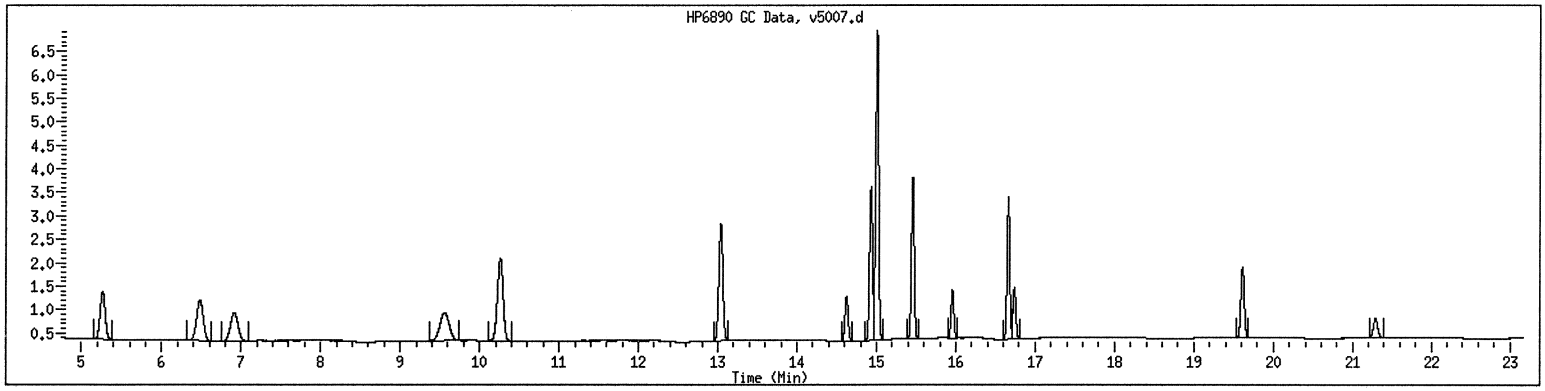
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH50/6/12/4	SampleType	: CALIB_3
Injection Date	: 11/04/2011 23:54	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH50/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5009.d
Lab Smp Id: VPH80/6/12/4
Inj Date : 05-NOV-2011 00:53
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH80/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 00:53 Cal File: v5009.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				2126034	240.000	206
	1 n-Pentane	5.264	5.264	0.000	605714	80.0000	63.4
	3 2-Methyl Pentane	6.481	6.481	0.000	766261	80.0000	70.0(M1)
	6 Isooctane	9.559	9.559	0.000	754059	80.0000	72.4(M1)
	13 n-Decane	15.958	15.958	0.000	512745	80.0000	94.2
	15 n-Butylcyclohexane	16.740	16.740	0.000	499891	80.0000	83.8(M1)
	16 Naphthalene	19.614	19.614	0.000	674677	80.0000	75.5
M	5 C9-C12				1012636	160.000	178
$	17 2,5-Dibromotoluene	21.288	21.288	0.000	139338	50.0000	46.1

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5009.d

Page 1

Date : 05-NOV-2011 00:53

Client ID:

Instrument: gcv5a.i

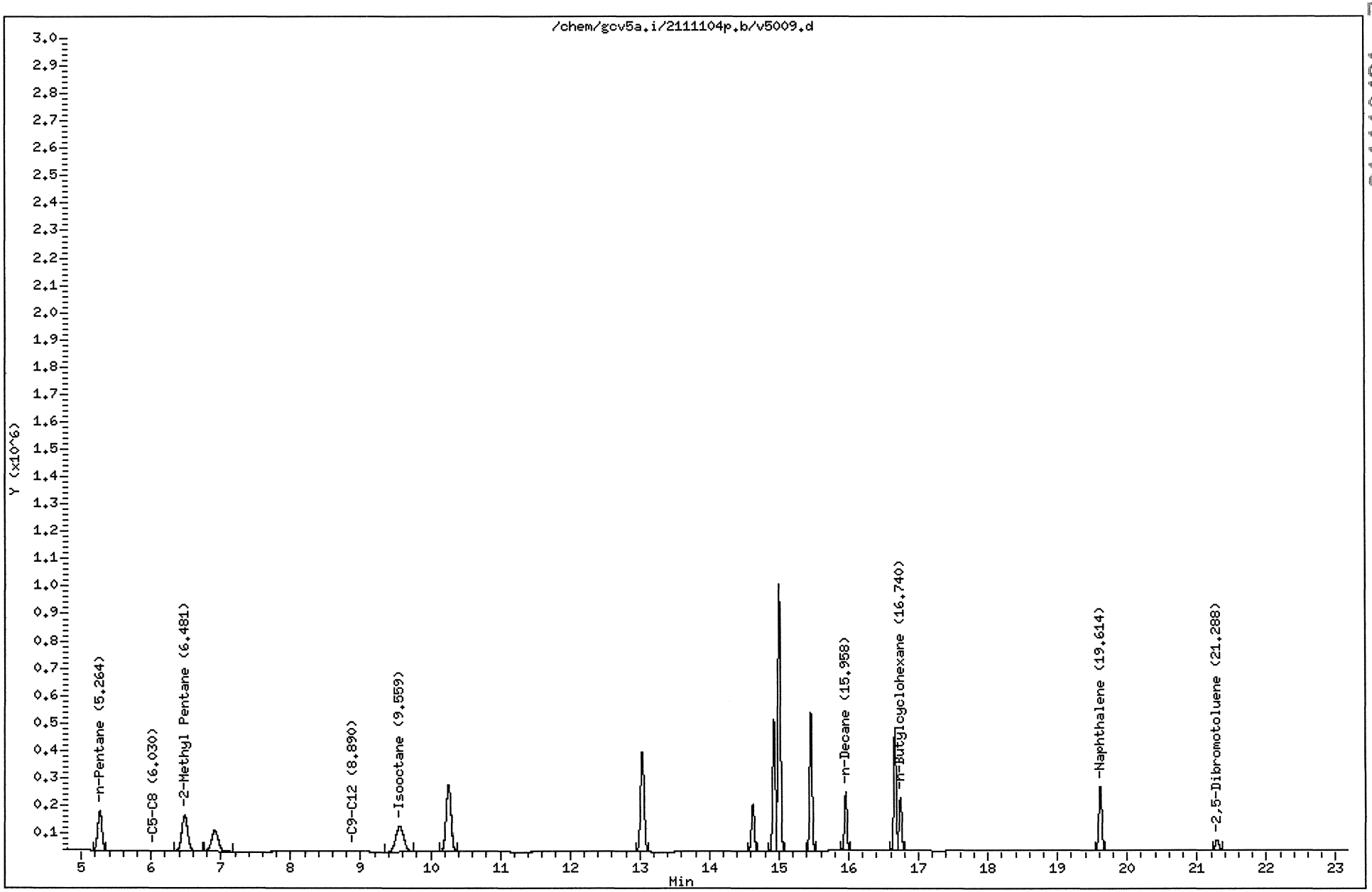
Sample Info: VPH80/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

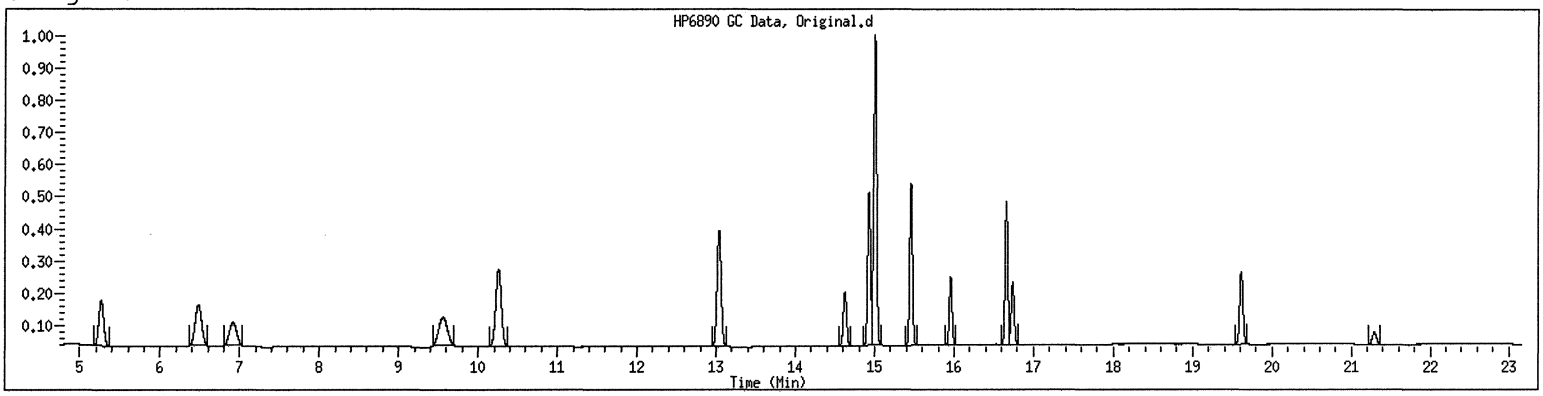


2111104p4

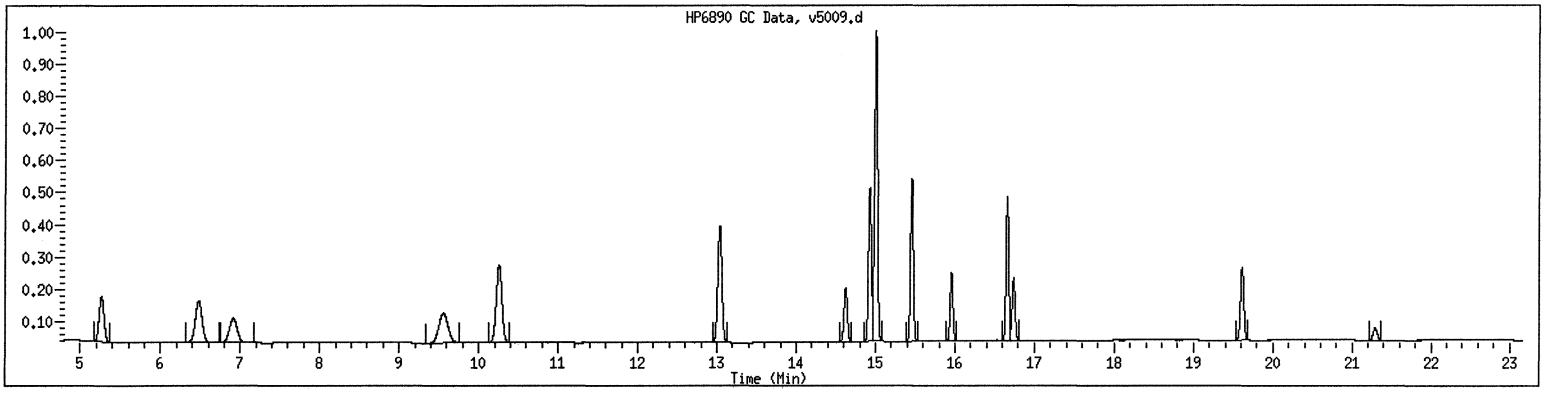
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH80/6/12/4	SampleType	: CALIB_4
Injection Date	: 11/05/2011 00:53	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH80/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5011.d
Lab Smp Id: VPH100/6/12/4
Inj Date : 05-NOV-2011 01:52
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH100/6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				2225866	300.000	226
	1 n-Pentane	5.263	5.263	0.000	625897	100.000	69.5(M1)
	3 2-Methyl Pentane	6.480	6.480	0.000	789446	100.000	75.6(M1)
	6 Isooctane	9.557	9.557	0.000	810523	100.000	80.8(M1)
	13 n-Decane	15.959	15.959	0.000	610961	100.000	110(A)
	15 n-Butylcyclohexane	16.742	16.742	0.000	590825	100.000	99.2(M1)
	16 Naphthalene	19.617	19.617	0.000	852519	100.000	96.3
M	5 C9-C12				1201786	200.000	209
$	17 2,5-Dibromotoluene	21.294	21.294	0.000	141234	50.0000	47.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5011.d

Date : 05-NOV-2011 01:52

Client ID:

Sample Info: VPH100/6/12/4

Volume Injected (uL): 1.0

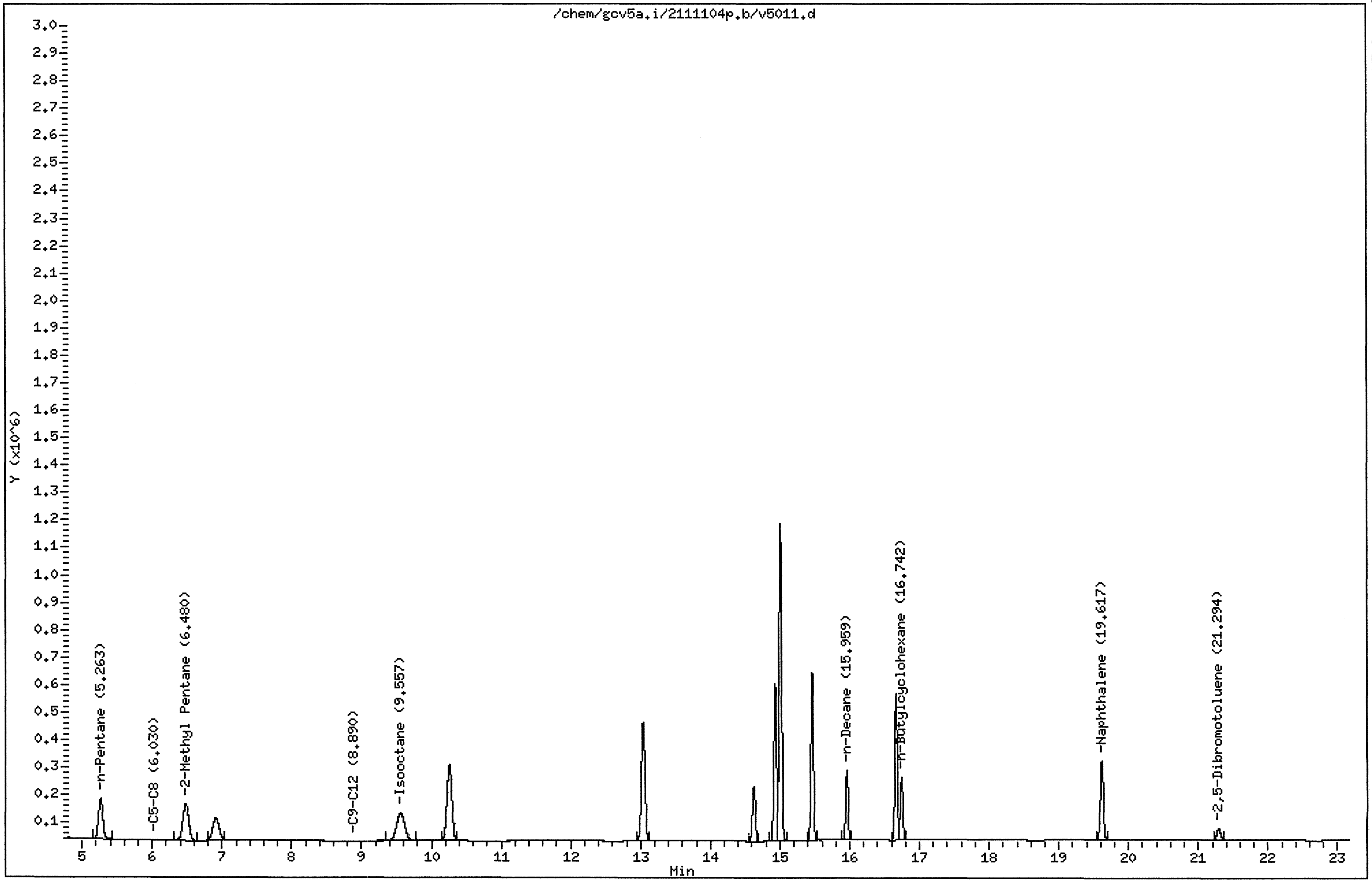
Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

Column diameter: 0.53

2111110421 78

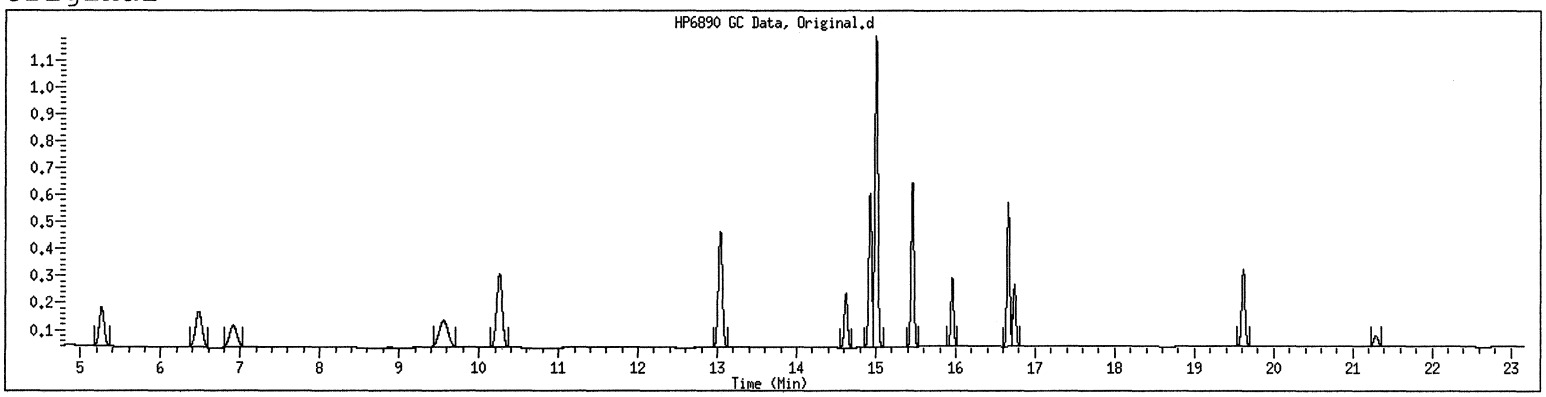


Data file : /var/chem/gcv5a.i/2111104p.b/v5011.d
Report Date: 11/07/2011 10:29

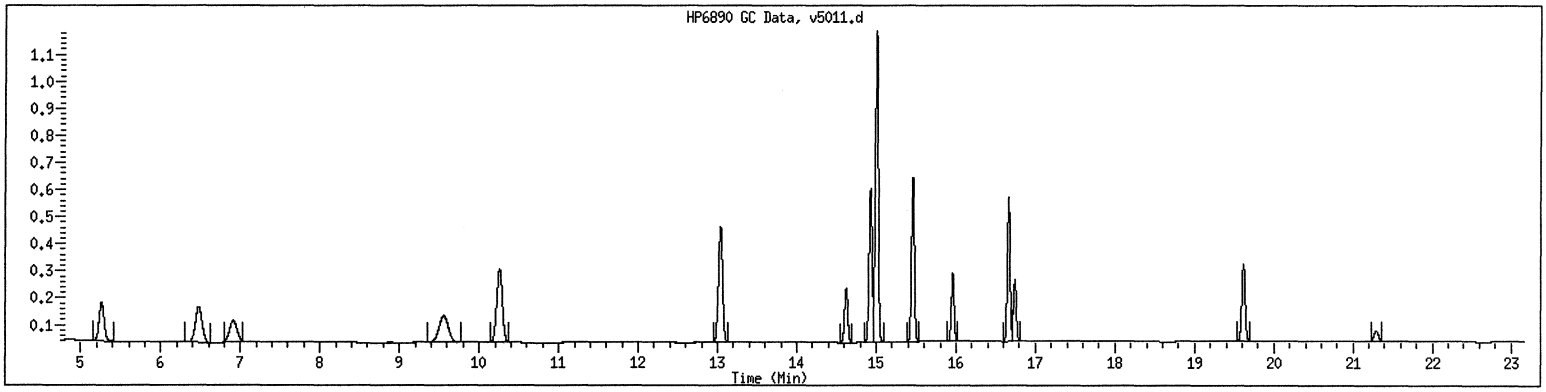
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH100/6/12/4	SampleType	: CALIB_5
Injection Date	: 11/05/2011 01:52	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH100/6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111104p
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: ICV6/12/5
Level: LOW Operator: JAR
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: aliphatic1.spk Quant Type: ESTD
Sublist File: aliphatic1+surr.sub
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Misc Info:

	SPIKE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
	1 n-Pentane	50.0	46.6	93.10	70-130
M	2 C5-C8	150	139	92.95	70-130
	3 2-Methyl Pentane	50.0	48.5	96.95	70-130
M	5 C9-C12	100	92.4	92.37	70-130
	6 Isooctane	50.0	44.4	88.79	70-130
	13 n-Decane	50.0	44.9	89.88	70-130
	15 n-Butylcyclohexane	50.0	47.4	94.86	70-130
	16 Naphthalene	50.0	54.8	109.51	70-130

	SURROGATE COMPOUND	AMOUNT ADDED ug/L	AMOUNT RECOVERED ug/L	% RECOVERED	LIMITS
$	17 2,5-Dibromotoluene	50.0	49.5	99.05	70-130

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111104p.b/v5013.d
Lab Smp Id: ICV6/12/5
Inj Date : 05-NOV-2011 02:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : ICV6/12/5
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:22 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

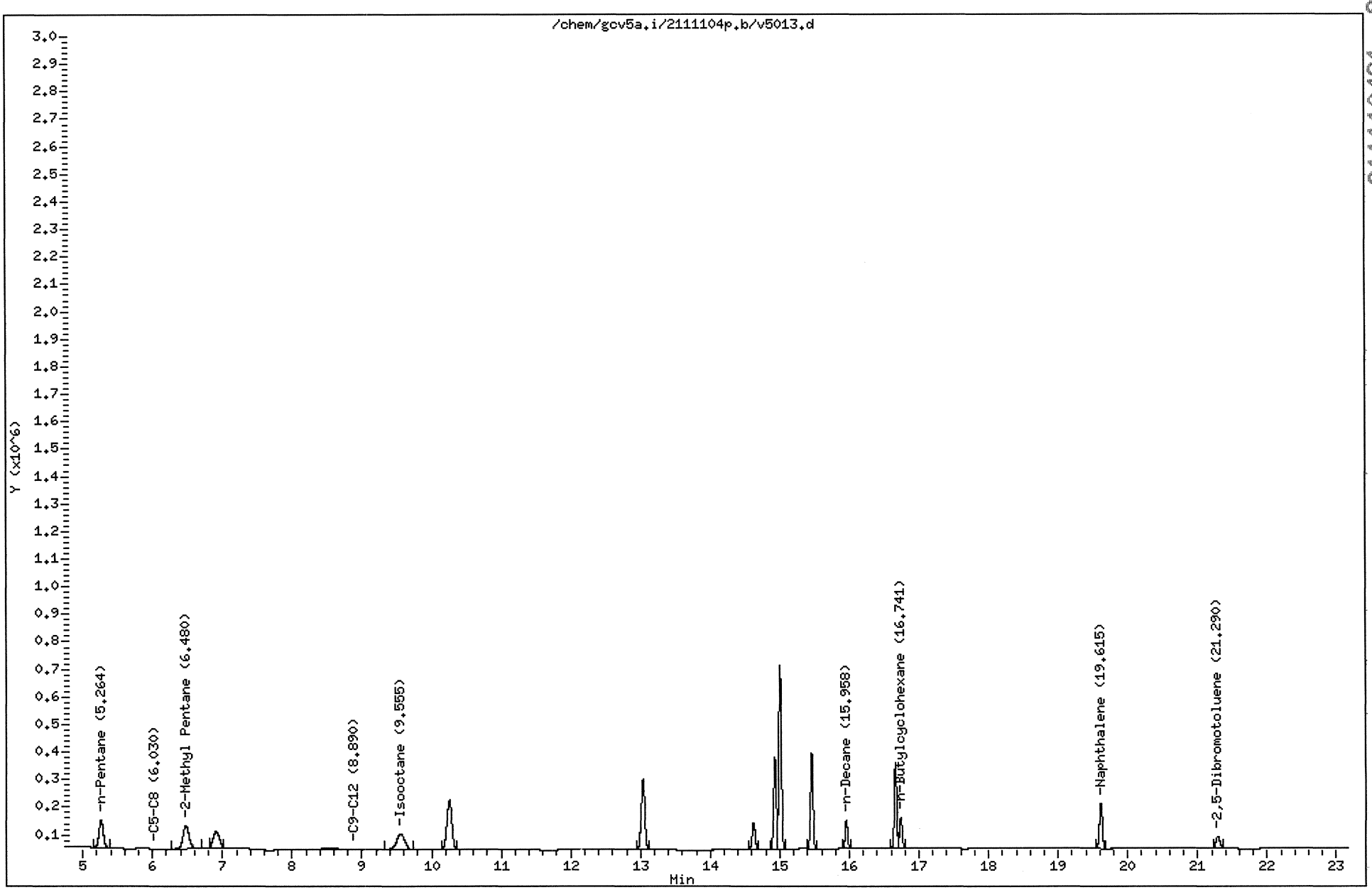
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2 C5-C8				1370151	139.426	139
	1 n-Pentane	5.264	5.263	0.001	418980	46.5524	46.6(M1)
	3 2-Methyl Pentane	6.480	6.480	0.000	505982	48.4762	48.5(M1)
	6 Isooctane	9.555	9.557	-0.002	445188	44.3972	44.4(M1)
	13 n-Decane	15.958	15.959	-0.001	249629	44.9383	44.9
	15 n-Butylcyclohexane	16.741	16.742	-0.001	282608	47.4296	47.4
	16 Naphthalene	19.615	19.617	-0.002	484765	54.7551	54.8
M	5 C9-C12				532237	92.3679	92.4
$	17 2,5-Dibromotoluene	21.290	21.294	-0.004	148060	49.5241	49.5

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111104p.b/v5013.d
Date : 05-NOV-2011 02:51
Client ID:
Sample Info: ICV6/12/5
Volume Injected (uL): 1.0
Column phase: DB-624-30

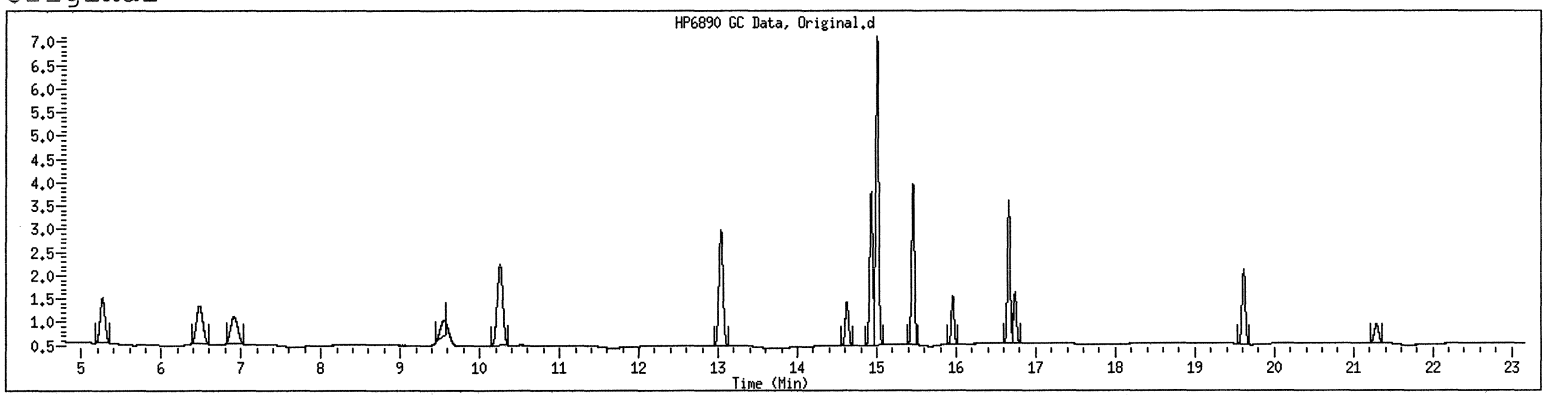
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



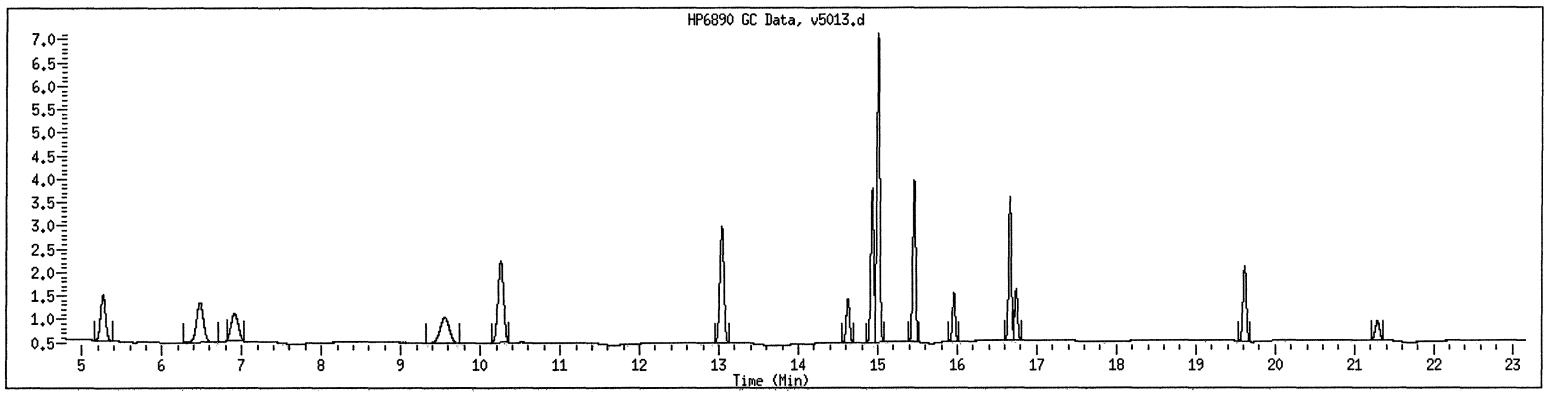
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: ICV6/12/5	SampleType	: LCS
Injection Date	: 11/05/2011 02:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: ICV6/12/5		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 11:22
Lab File ID: v5001.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	10063	0.010	-2.45242	25.00000	Averaged
1 n-Pentane	9000	9099	0.010	-1.09665	25.00000	Averaged
3 2-Methyl Pentane	10438	10571	0.010	-1.27340	25.00000	Averaged
6 Isooctane	10027	10518	0.010	-4.89657	25.00000	Averaged
13 n-Decane	5555	5515	0.010	0.72519	25.00000	Averaged
15 n-Butylcyclohexane	5958	6214	0.010	-4.28469	25.00000	Averaged
16 Naphthalene	8853	9172	0.010	-3.60219	25.00000	Averaged
M 5 C9-C12	5437	5864	0.010	-7.84785	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2988	0.010	0.04259	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.91351
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5001.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 11:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 08-Nov-2011 13:07 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1509398	150.000	154
	1 n-Pentane	5.269	5.269	0.000	454944	50.0000	50.5
	3 2-Methyl Pentane	6.485	6.485	0.000	528534	50.0000	50.6
	6 Isooctane	9.563	9.563	0.000	525920	50.0000	52.4(M1)
	13 n-Decane	15.961	15.961	0.000	275732	50.0000	49.6
	15 n-Butylcyclohexane	16.743	16.743	0.000	310689	50.0000	52.1
	16 Naphthalene	19.618	19.618	0.000	458612	50.0000	51.8
M	5 C9-C12				586421	100.000	102
$	17 2,5-Dibromotoluene	21.295	21.295	0.000	149419	50.0000	50.0

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5001.d

Date : 07-NOV-2011 11:22

Client ID:

Sample Info: VPH6/12/4

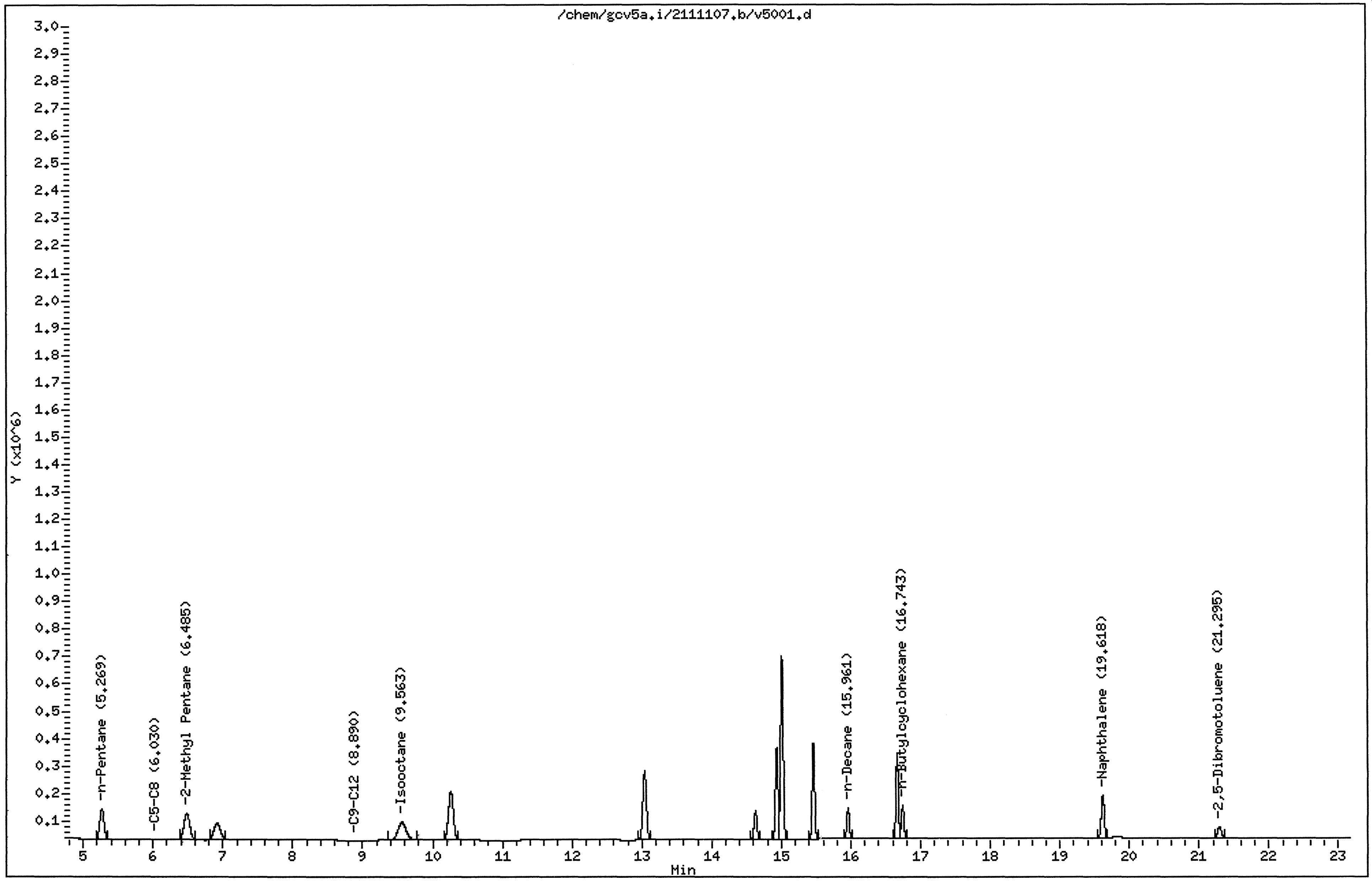
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

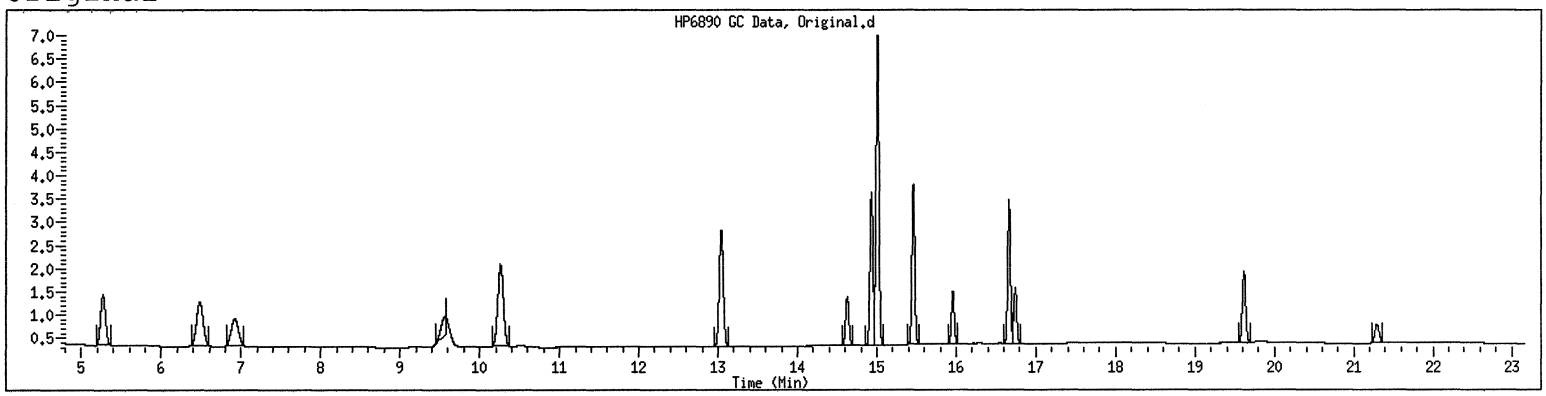
Column diameter: 0.53



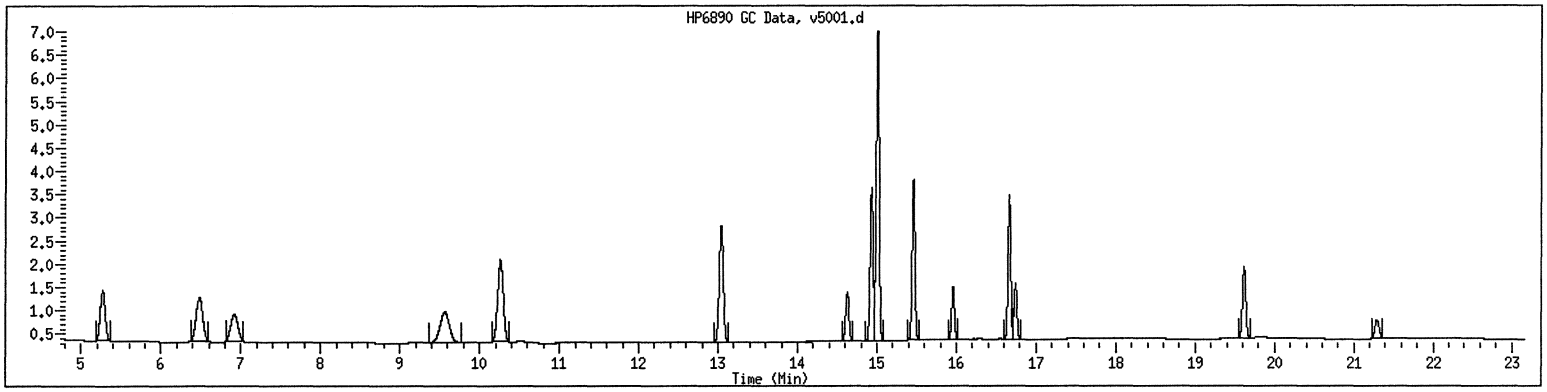
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 11:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 16:16
Lab File ID: v5011.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9001	0.010	8.35987	25.00000	Averaged
1 n-Pentane	9000	8133	0.010	9.63580	25.00000	Averaged
3 2-Methyl Pentane	10438	9389	0.010	10.04971	25.00000	Averaged
6 Isooctane	10027	9480	0.010	5.45566	25.00000	Averaged
13 n-Decane	5555	5714	0.010	-2.86154	25.00000	Averaged
15 n-Butylcyclohexane	5958	5735	0.010	3.75193	25.00000	Averaged
16 Naphthalene	8853	8972	0.010	-1.34067	25.00000	Averaged
M 5 C9-C12	5437	5724	0.010	-5.27663	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	2912	0.010	2.61212	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.48266
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5011.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 16:16
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 17:08 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

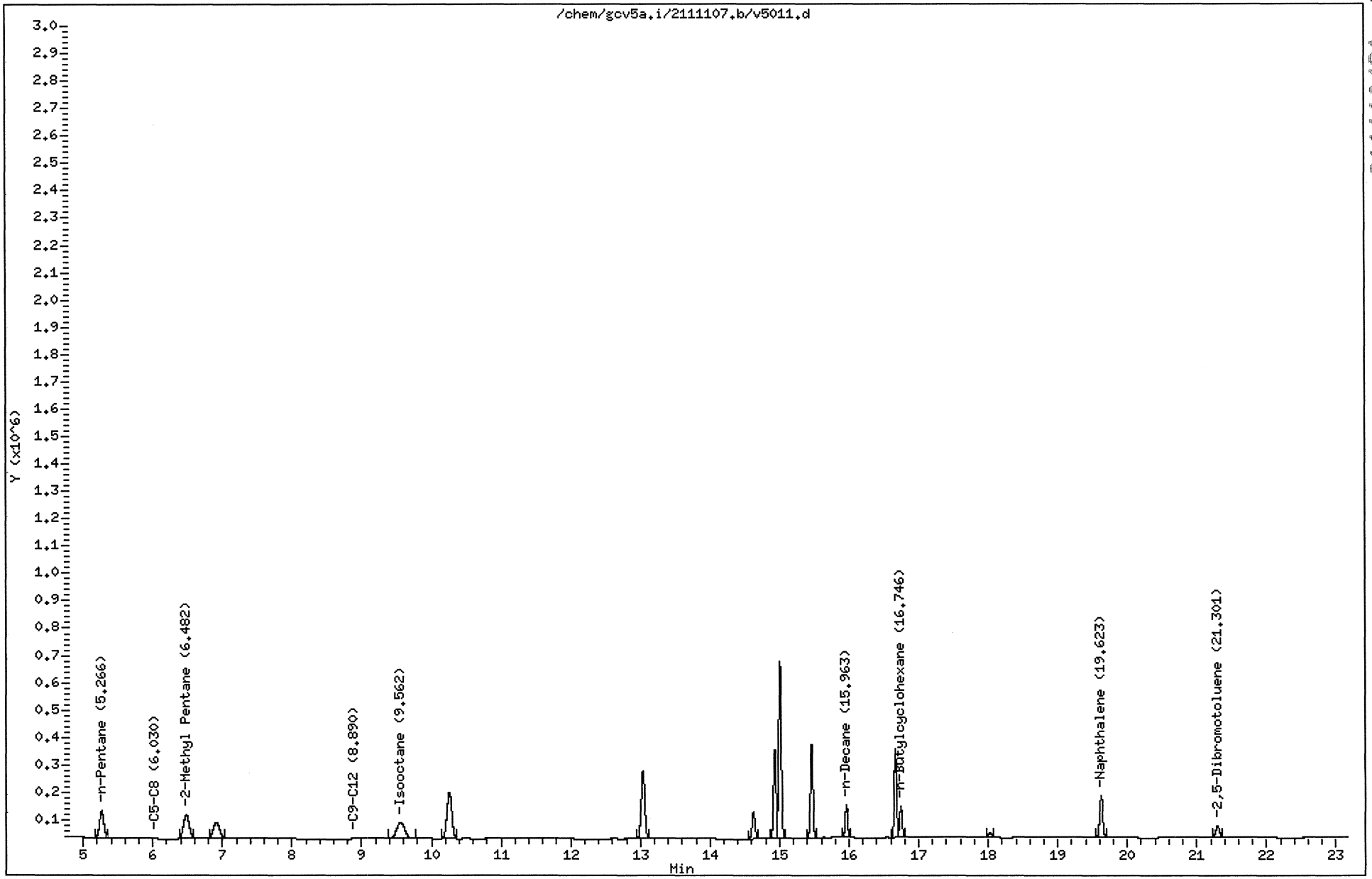
		Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2	C5-C8				1350104	150.000	137
	1	n-Pentane	5.266	5.266	0.000	406647	50.0000	45.2
	3	2-Methyl Pentane	6.482	6.482	0.000	469440	50.0000	45.0
	6	Isooctane	9.562	9.562	0.000	474017	50.0000	47.3(M1)
	13	n-Decane	15.963	15.963	0.000	285694	50.0000	51.4
	15	n-Butylcyclohexane	16.746	16.746	0.000	286746	50.0000	48.1
	16	Naphthalene	19.623	19.623	0.000	448601	50.0000	50.7
M	5	C9-C12				572440	100.000	99.6
$	17	2,5-Dibromotoluene	21.301	21.301	0.000	145578	50.0000	48.7

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5011.d
Date : 07-NOV-2011 16:16
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

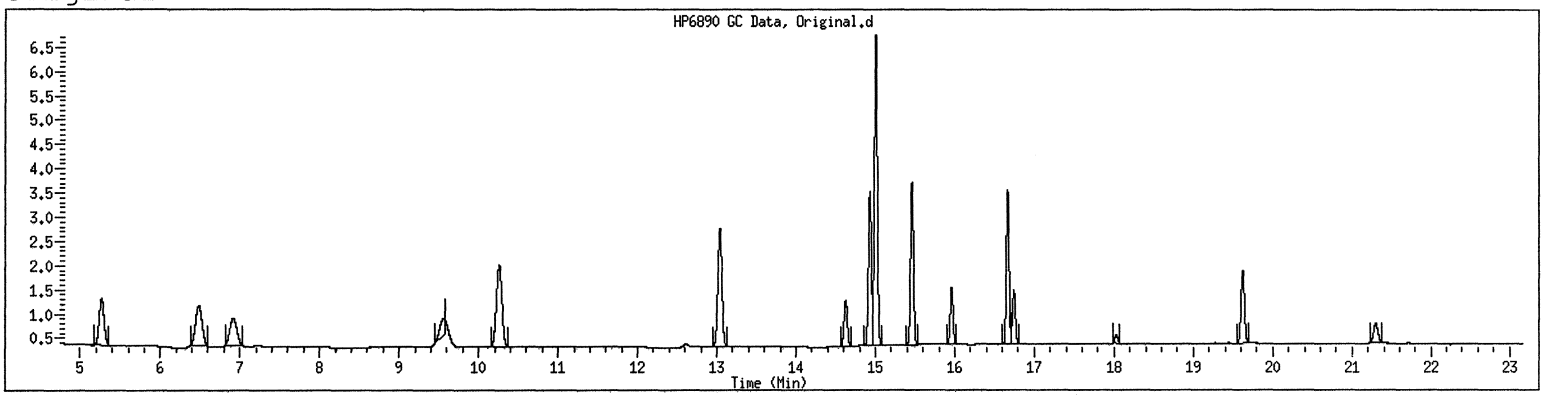
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



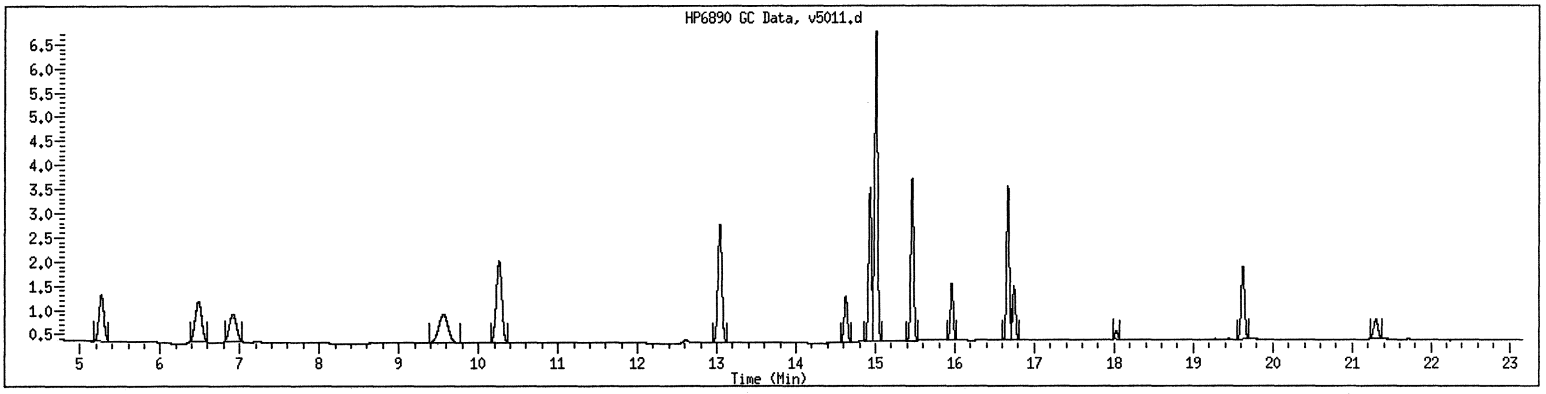
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 16:16	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 07-NOV-2011 23:22
Lab File ID: v5021.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9028	0.010	8.07690	25.00000	Averaged
1 n-Pentane	9000	8035	0.010	10.72067	25.00000	Averaged
3 2-Methyl Pentane	10438	9486	0.010	9.12269	25.00000	Averaged
6 Isooctane	10027	9565	0.010	4.61537	25.00000	Averaged
13 n-Decane	5555	4698	0.010	15.42674	25.00000	Averaged
15 n-Butylcyclohexane	5958	5459	0.010	8.38734	25.00000	Averaged
16 Naphthalene	8853	9479	0.010	-7.06687	25.00000	Averaged
M 5 C9-C12	5437	5078	0.010	6.60479	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3336	0.010	-11.58685	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.06758
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5021.d
Lab Smp Id: VPH6/12/4
Inj Date : 07-NOV-2011 23:22
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 18-Nov-2011 14:24 bmr Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
M	2 C5-C8				1354273	150.000	138
	1 n-Pentane	5.265	5.265	0.000	401765	50.0000	44.6
	3 2-Methyl Pentane	6.482	6.482	0.000	474278	50.0000	45.4
	6 Isooctane	9.562	9.562	0.000	478230	50.0000	47.7(M1)
	13 n-Decane	15.961	15.961	0.000	234899	50.0000	42.3
	15 n-Butylcyclohexane	16.743	16.743	0.000	272936	50.0000	45.8
	16 Naphthalene	19.618	19.618	0.000	473949	50.0000	53.5
M	5 C9-C12				507835	100.000	88.1
$	17 2,5-Dibromotoluene	21.293	21.293	0.000	166803	50.0000	55.8

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5021.d

Date : 07-NOV-2011 23:22

Client ID:

Sample Info: VPH6/12/4

Volume Injected (uL): 1.0

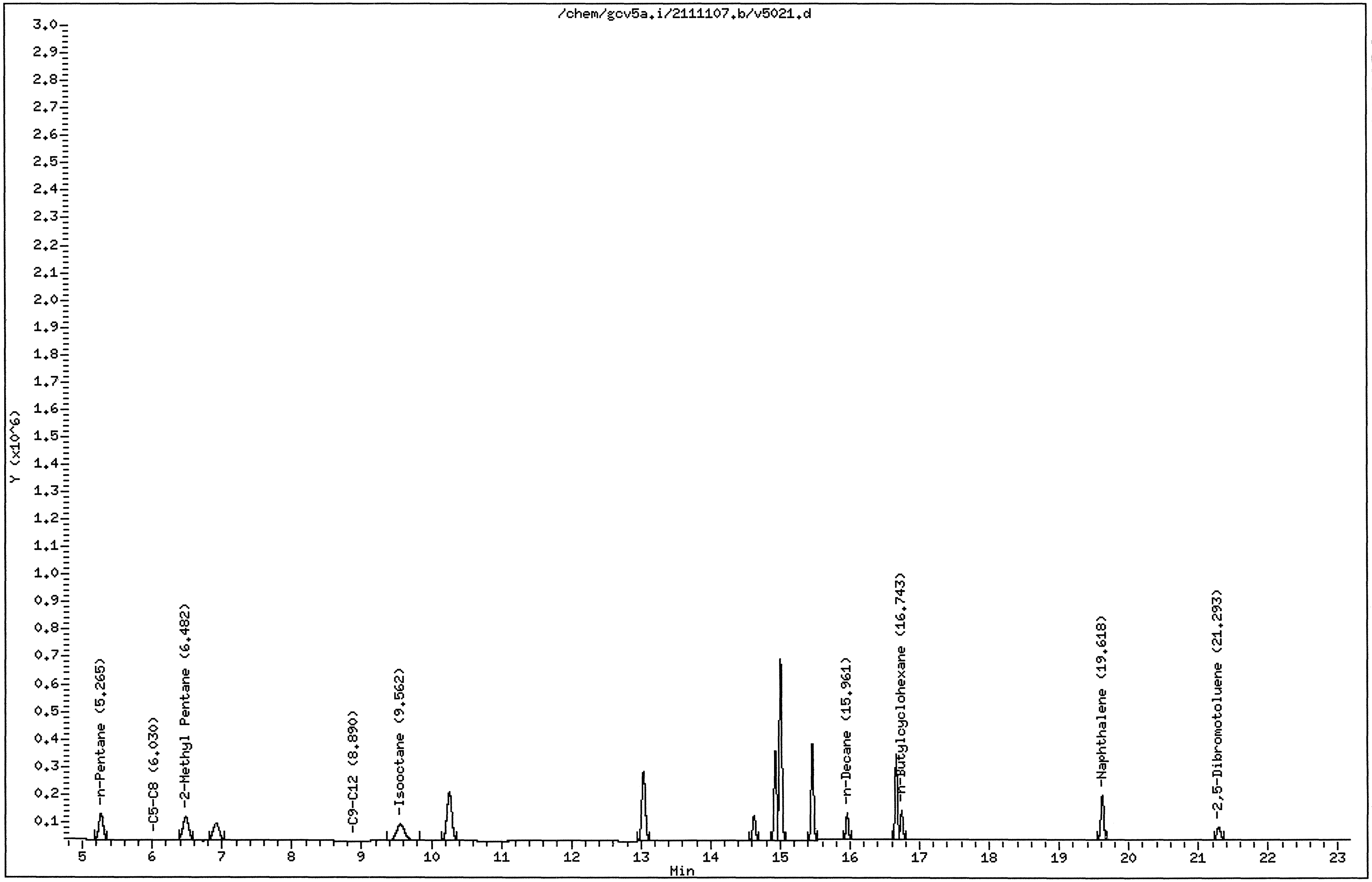
Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

Column diameter: 0.53

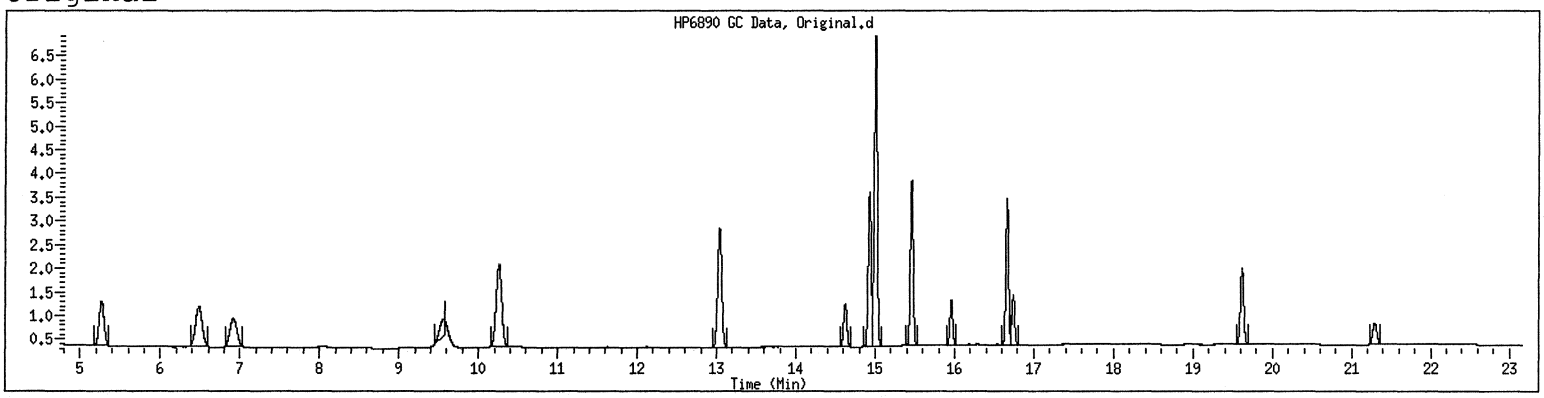
2111110421 98



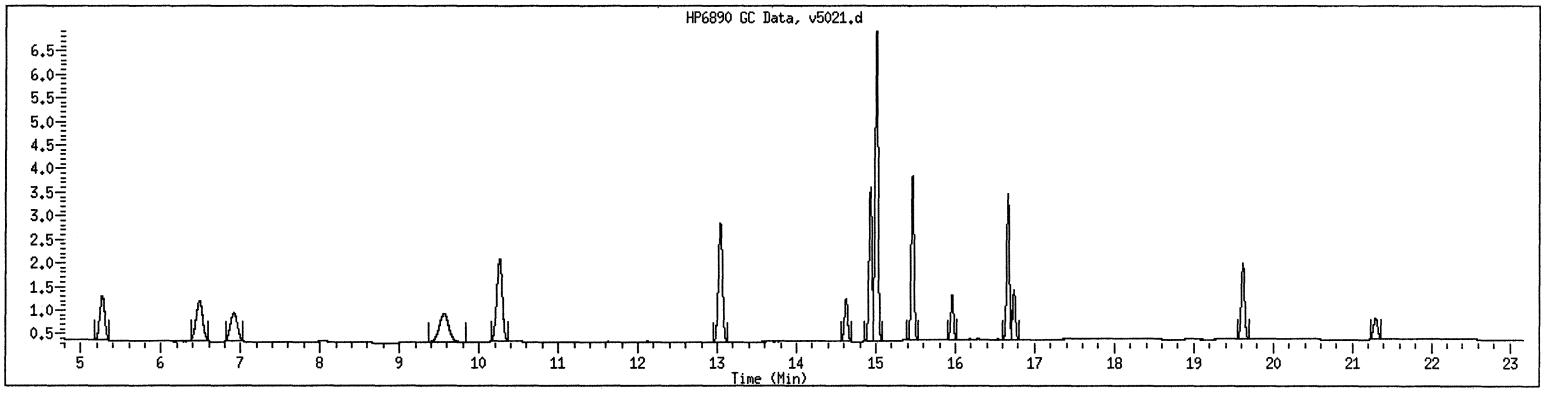
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/07/2011 23:22	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcv5a.i Injection Date: 08-NOV-2011 01:49
Lab File ID: v5026.d Init. Cal. Date(s): 04-NOV-2011 05-NOV-2011
Analysis Type: WATER Init. Cal. Times: 20:57 01:52
Lab Sample ID: VPH6/12/4 Quant Type: ESTD
Method: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	MIN %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9226	0.010	6.06878	25.00000	Averaged
1 n-Pentane	9000	8302	0.010	7.75673	25.00000	Averaged
3 2-Methyl Pentane	10438	9667	0.010	7.38401	25.00000	Averaged
6 Isooctane	10027	9708	0.010	3.18469	25.00000	Averaged
13 n-Decane	5555	4605	0.010	17.10129	25.00000	Averaged
15 n-Butylcyclohexane	5958	5545	0.010	6.94738	25.00000	Averaged
16 Naphthalene	8853	10068	0.010	-13.72177	25.00000	Averaged
M 5 C9-C12	5437	5075	0.010	6.67118	25.00000	Averaged
$ 17 2,5-Dibromotoluene	2990	3325	0.010	-11.22962	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.89616
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5026.d
Lab Smp Id: VPH6/12/4
Inj Date : 08-NOV-2011 01:49
Operator : JAR Inst ID: gcv5a.i
Smp Info : VPH6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 17-Nov-2011 15:51 bmr Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

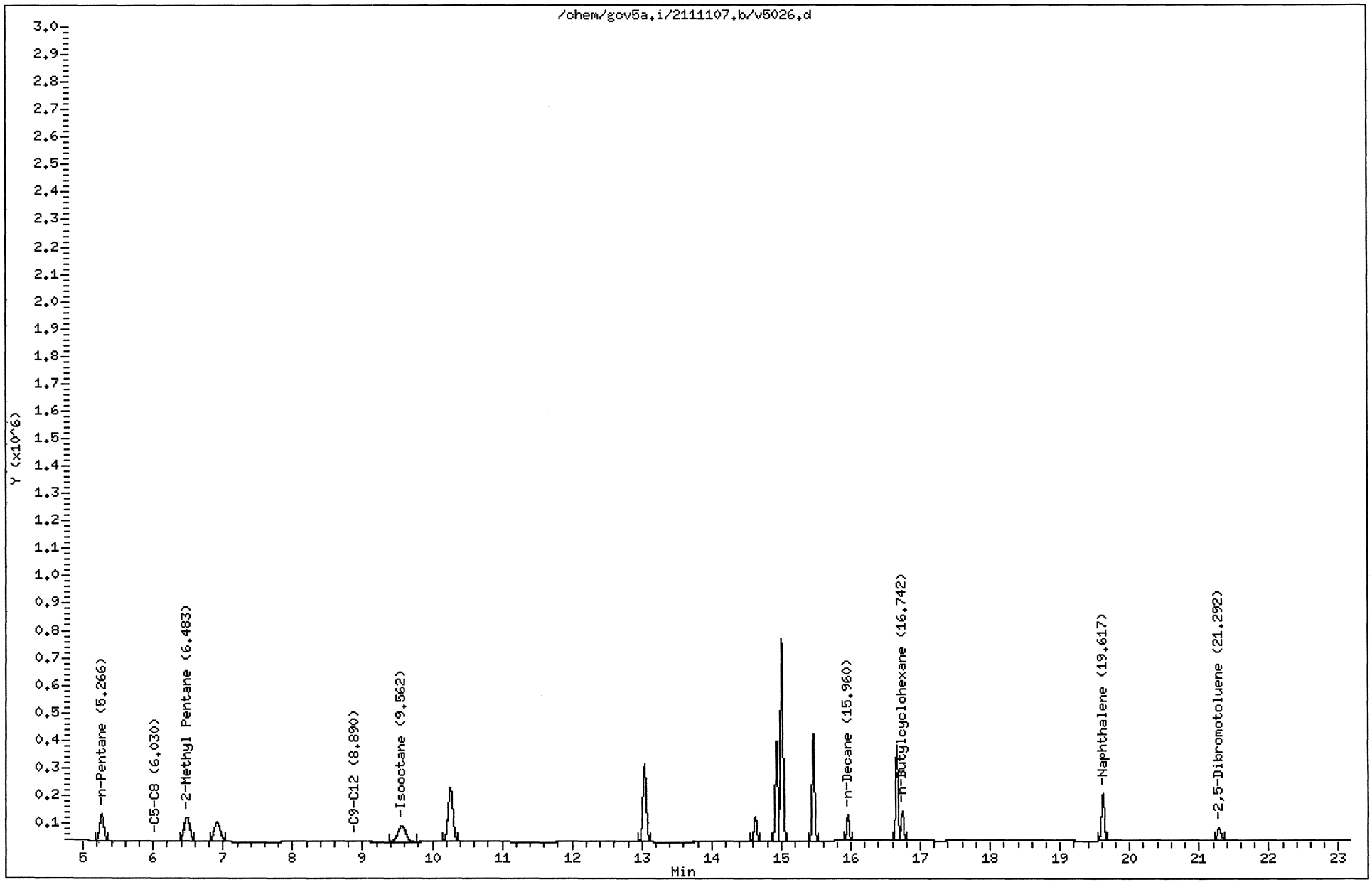
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
M	2 C5-C8				1383858	150.000	141
	1 n-Pentane	5.266	5.266	0.000	415103	50.0000	46.1
	3 2-Methyl Pentane	6.483	6.483	0.000	483352	50.0000	46.3
	6 Isooctane	9.562	9.562	0.000	485403	50.0000	48.4(M1)
	13 n-Decane	15.960	15.960	0.000	230248	50.0000	41.4
	15 n-Butylcyclohexane	16.742	16.742	0.000	277226	50.0000	46.5
	16 Naphthalene	19.617	19.617	0.000	503408	50.0000	56.9
M	5 C9-C12				507474	100.000	88.0
$	17 2,5-Dibromotoluene	21.292	21.292	0.000	166269	50.0000	55.6

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5026.d
Date : 08-NOV-2011 01:49
Client ID:
Sample Info: VPH6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53

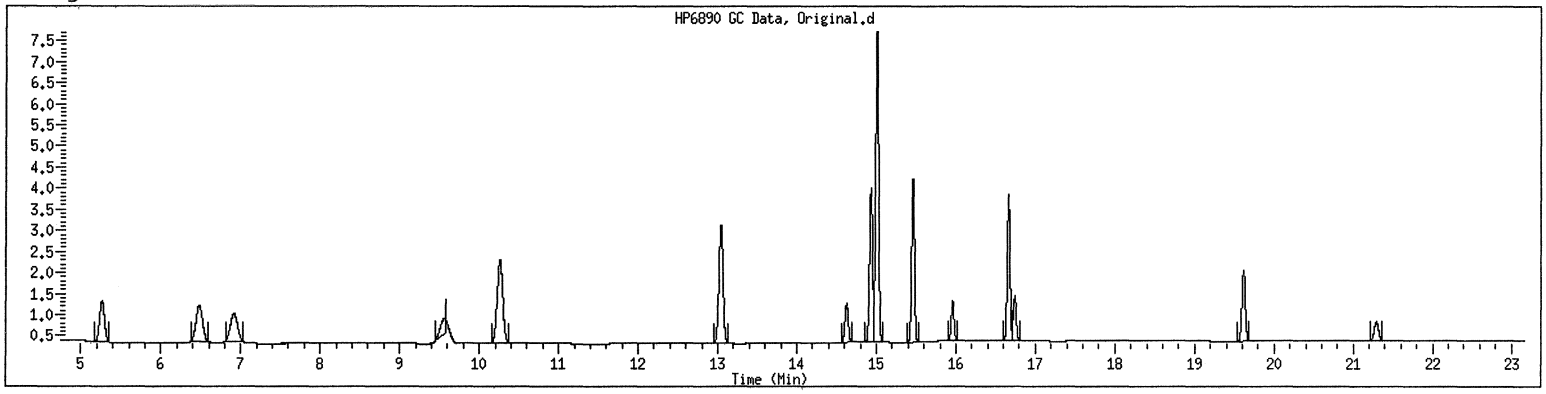


Report Date: 11/17/2011 15:51

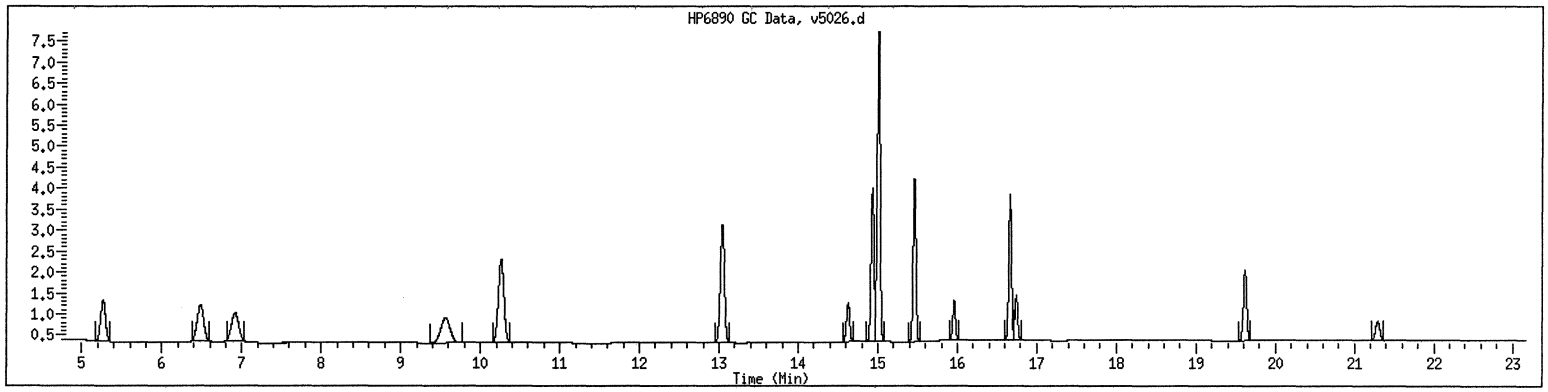
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: VPH6/12/4	SampleType	: CCALIB_3
Injection Date	: 11/08/2011 01:49	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: VPH6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	MB1003187
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110421
Sample wt/vol:	5 Units: mL	Lab Sample ID:	1003187
Level: (low/med)		Date Collected:	Time:
% Moisture:	decanted: (Y/N)	Date Received:	
GC Column:	ID: (mm)	Date Extracted:	
Concentrated Extract Volume:	5000 (µL)	Date Analyzed:	11/07/11 Time: 1221
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: JAR
Injection Volume:	1 (µL)	Prep Method:	
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSVPH
Prep Batch:	Analytical Batch: 468512	Sulfur Cleanup: (Y/N)	N Instrument ID: GCV5B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111107/v5003

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	15.0	U	3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	10.0	U	3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	5.00	U	1.24	5.00	10.0

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5003.d
Lab Smp Id: 1003187 Client Smp ID: 1003187
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003187
Misc Info :
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 10 2,5-Dibromotoluene	21.786	21.781	0.005	350170	50.0811	50.1

Data File: /var/chem/gcv5b.i/2111107.b/v5003.d

Page 1

Date : 07-NOV-2011 12:21

Client ID: 1003187

Instrument: gcv5b.i

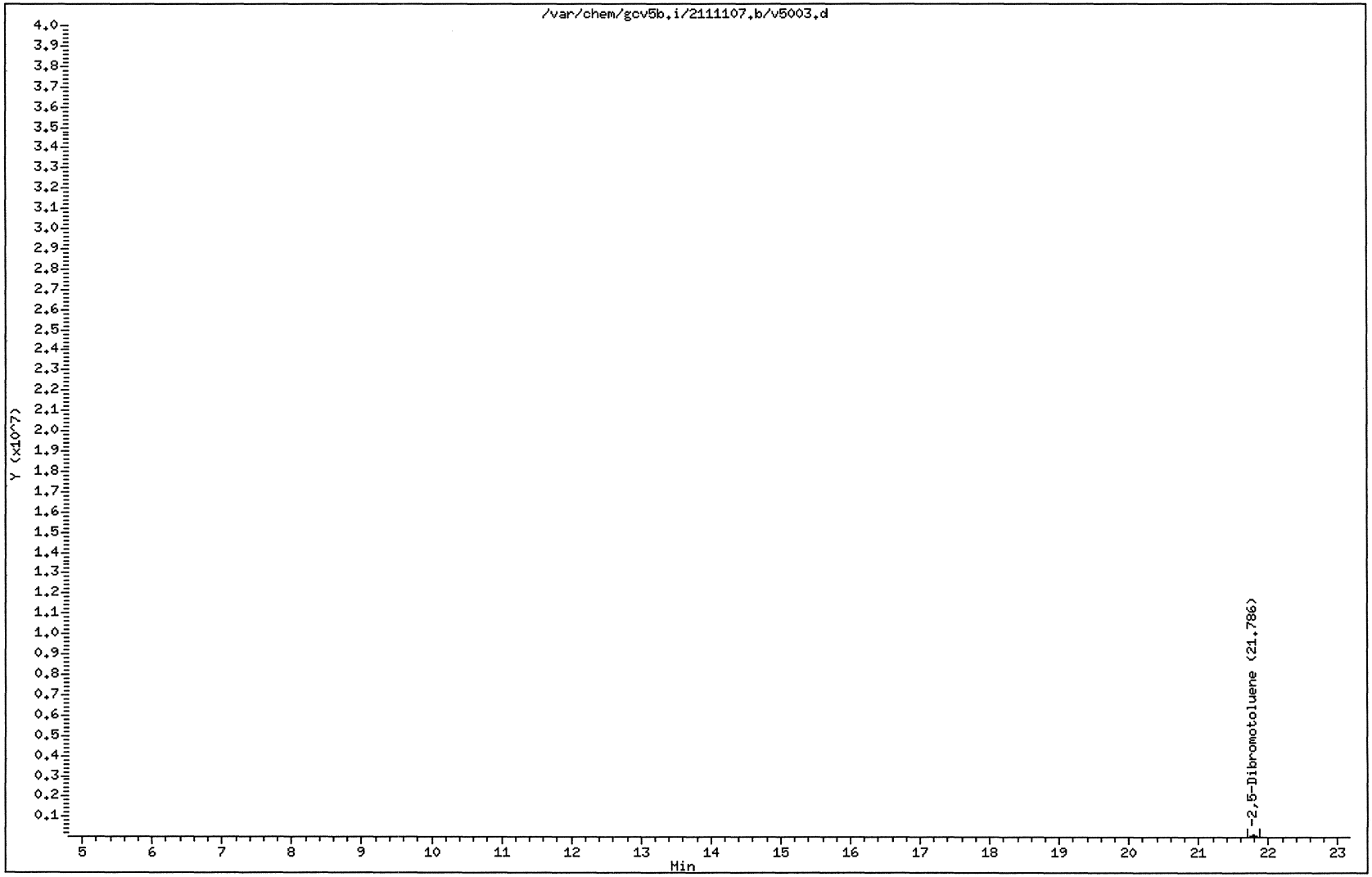
Sample Info: 1003187

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

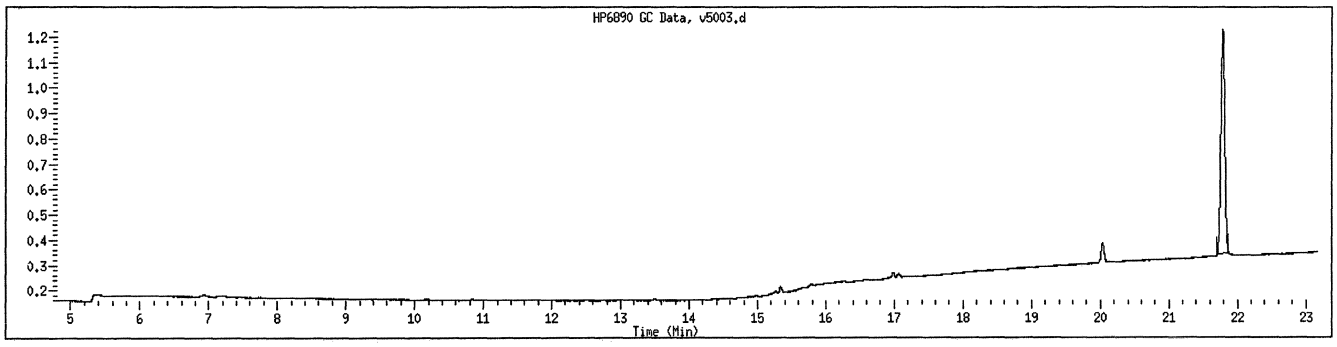
Column diameter: 0.53



Data file : /var/chem/gcv5b.i/2111107.b/v5003.d Page: 1
Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1003187 SampleType : SAMPLE
Injection Date: 11/07/2011 12:21 Instrument : gcv5b.i
Operator : JAR
Sample Info : 1003187
Misc Info :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5003.d
Lab Smp Id: BLK
Inj Date : 07-NOV-2011 12:21
Operator : JAR Inst ID: gcv5a.i
Smp Info : BLK
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 17 2,5-Dibromotoluene	21.297	21.294	0.003	143488	47.9950	48.0

Data File: /chem/gcv5a.i/2111107.b/v5003.d

Page 1

Date : 07-NOV-2011 12:21

Client ID:

Instrument: gcv5a.i

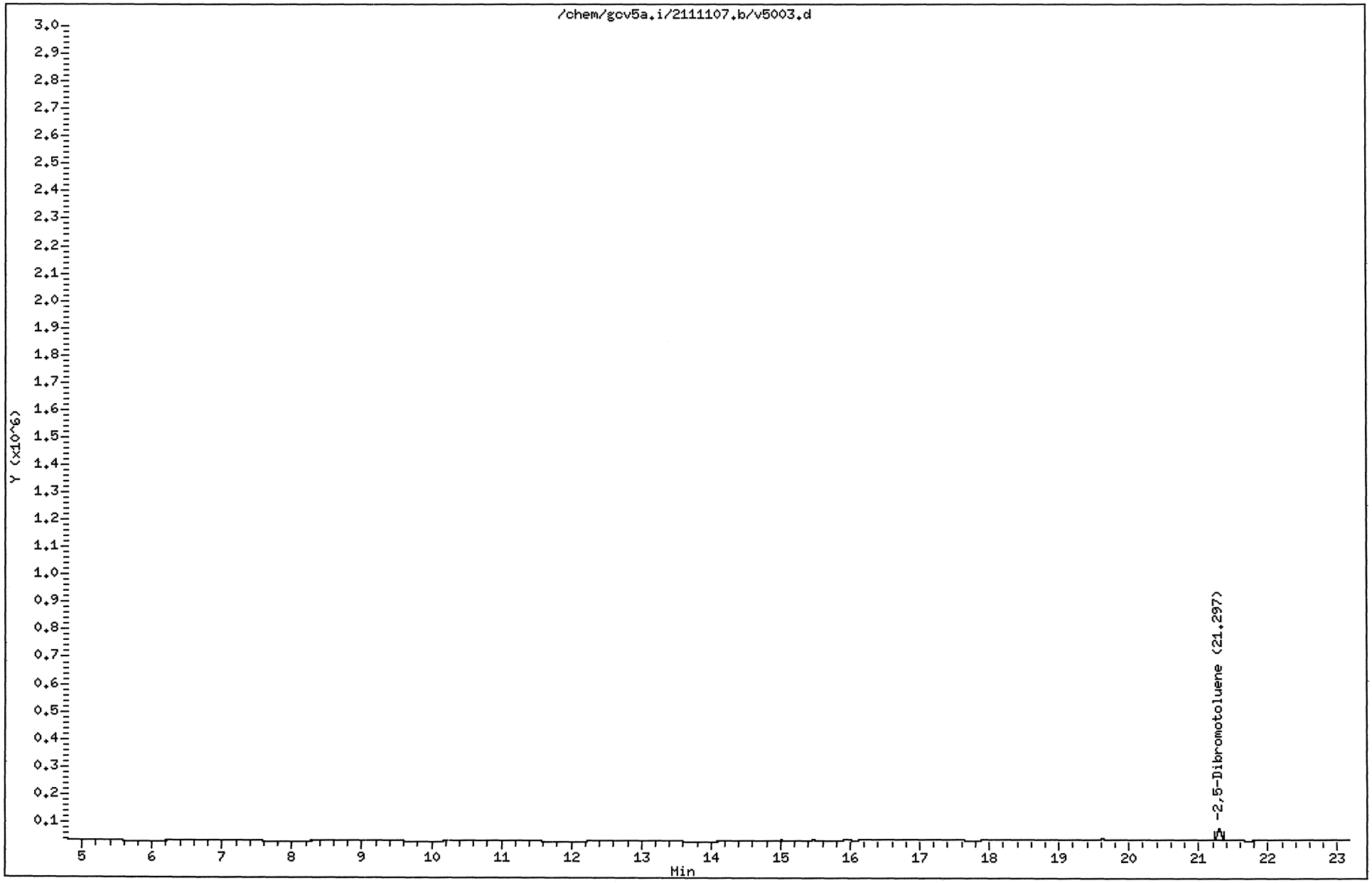
Sample Info: BLK

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

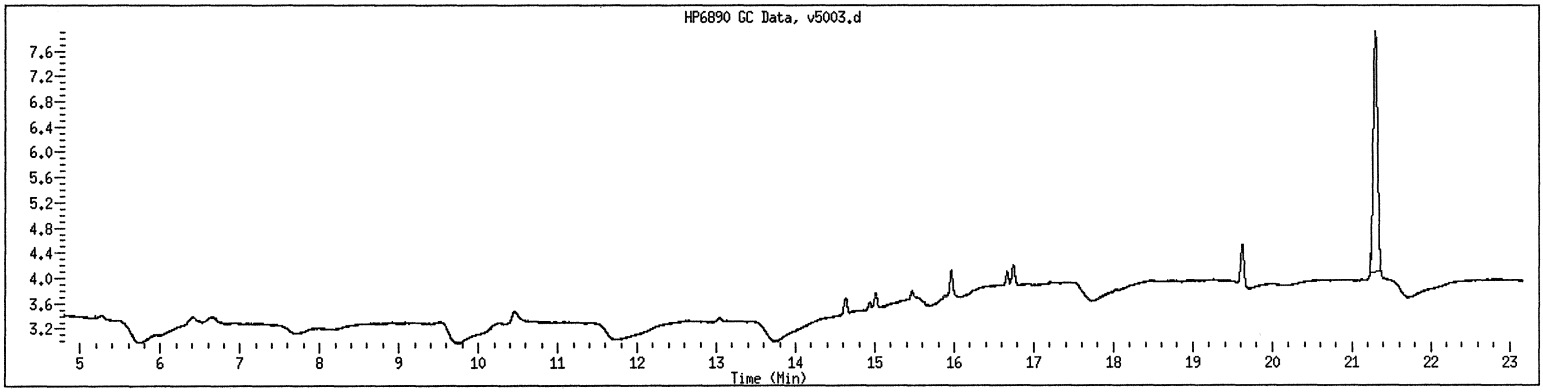
Column diameter: 0.53



211110421 110

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: BLK	SampleType	: SAMPLE
Injection Date	: 11/07/2011 12:21	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: BLK		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	LCS1003188
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110421
Sample wt/vol:	5 Units: mL	Lab Sample ID:	1003188
Level: (low/med)		Date Collected:	Time:
% Moisture:	decanted: (Y/N)	Date Received:	
GC Column:	ID: (mm)	Date Extracted:	
Concentrated Extract Volume:	5000 (µL)	Date Analyzed:	11/07/11 Time: 1151
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: JAR
Injection Volume:	1 (µL)	Prep Method:	
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSVPH
Prep Batch:	Analytical Batch: 468512	Sulfur Cleanup: (Y/N)	N Instrument ID: GCV5B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111107/v5002

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCV-00-4	C5-C8 Aliphatic	152		3.31	15.0	30.0
GCV-00-5	C9-C12 Aliphatic	105		3.20	10.0	20.0
GCV-00-6	C9-C10 Aromatic	54.4		1.24	5.00	10.0

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcv5b.i/2111107.b/v5002.d
Lab Smp Id: 1003188 Client Smp ID: 1003188
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5b.i
Smp Info : 1003188
Misc Info : lcs6/12/4
Comment :
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Meth Date : 08-Nov-2011 13:39 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aromatic.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

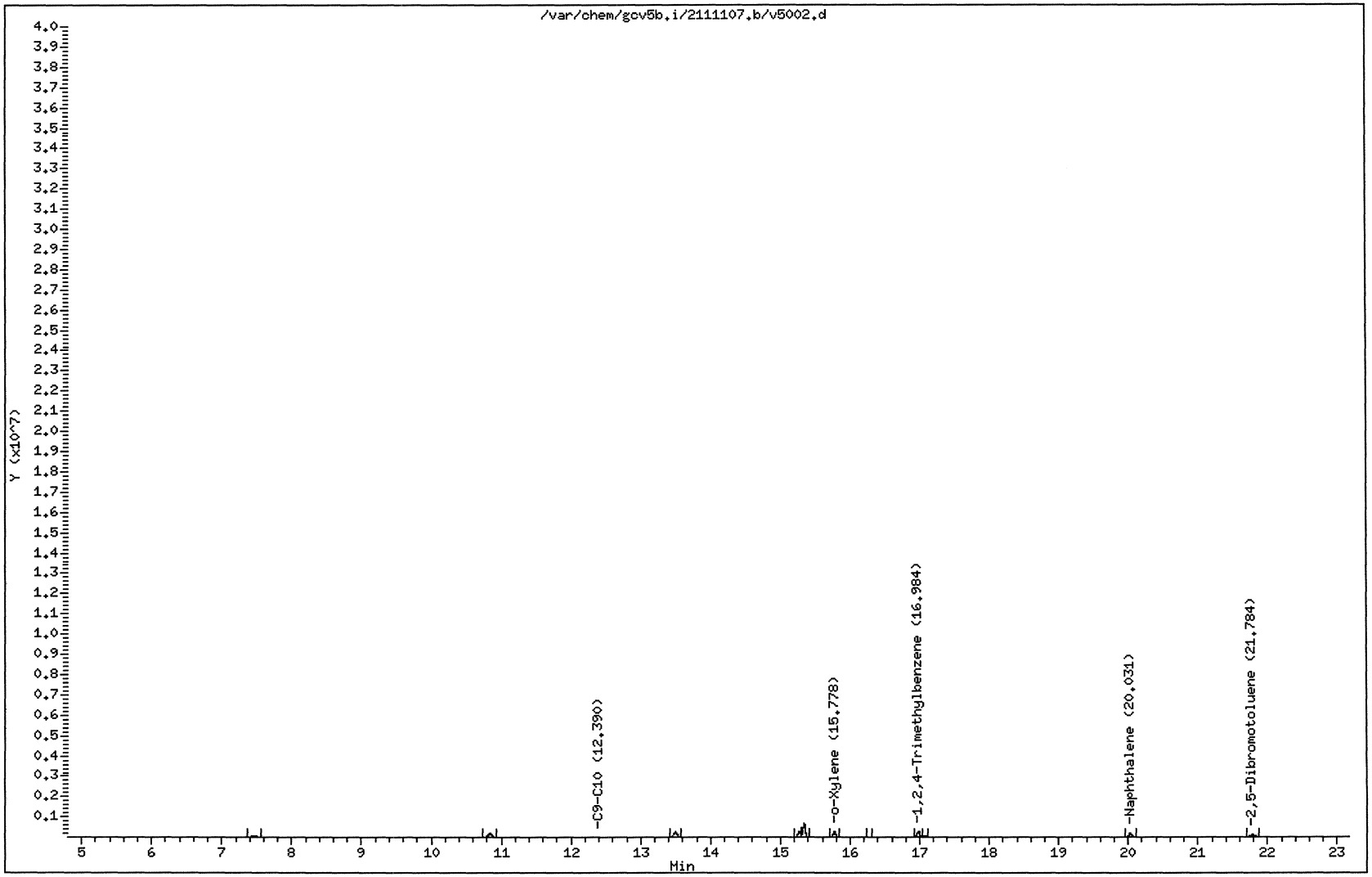
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
	6	o-Xylene	15.778	15.777	0.001	709878	52.3134	52.3
	7	1,2,4-Trimethylbenzene	16.984	16.983	0.001	655039	54.4552	54.4
M	9	C9-C10				655039	54.4552	54.4
	8	Naphthalene	20.031	20.028	0.003	556525	54.6350	54.6
$	10	2,5-Dibromotoluene	21.784	21.781	0.003	365094	52.2155	52.2

Data File: /var/chem/gcv5b.i/2111107.b/v5002.d
Date : 07-NOV-2011 11:51
Client ID: 1003188
Sample Info: 1003188
Volume Injected (uL): 1.0
Column phase: DB-624-30

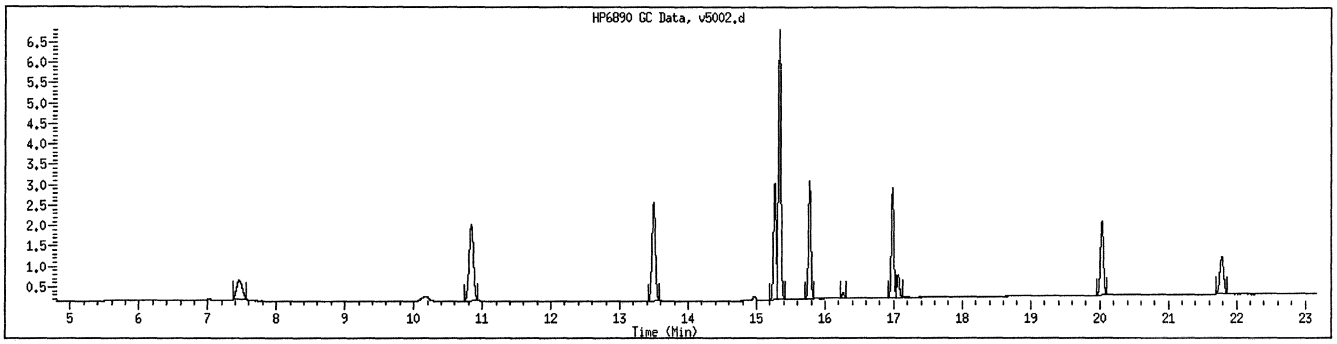
Instrument: gcv5b.i
Operator: JAR
Column diameter: 0.53



Data file : /var/chem/gcv5b.i/2111107.b/v5002.d Page: 1
Report Date: 11/08/2011 13:41

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1003188 SampleType : LCS
Injection Date: 11/07/2011 11:51 Instrument : gcv5b.i
Operator : JAR
Sample Info : 1003188
Misc Info : lcs6/12/4
Method : /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Dilution : 1.0
Matrix : WATER
Integrator : Falcon Compound Sublist: aromatic



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcv5a.i/2111107.b/v5002.d
Lab Smp Id: lcs6/12/4
Inj Date : 07-NOV-2011 11:51
Operator : JAR Inst ID: gcv5a.i
Smp Info : lcs6/12/4
Misc Info :
Comment :
Method : /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Meth Date : 07-Nov-2011 10:29 jar Quant Type: ESTD
Cal Date : 05-NOV-2011 01:52 Cal File: v5011.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: aliphatic1+surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

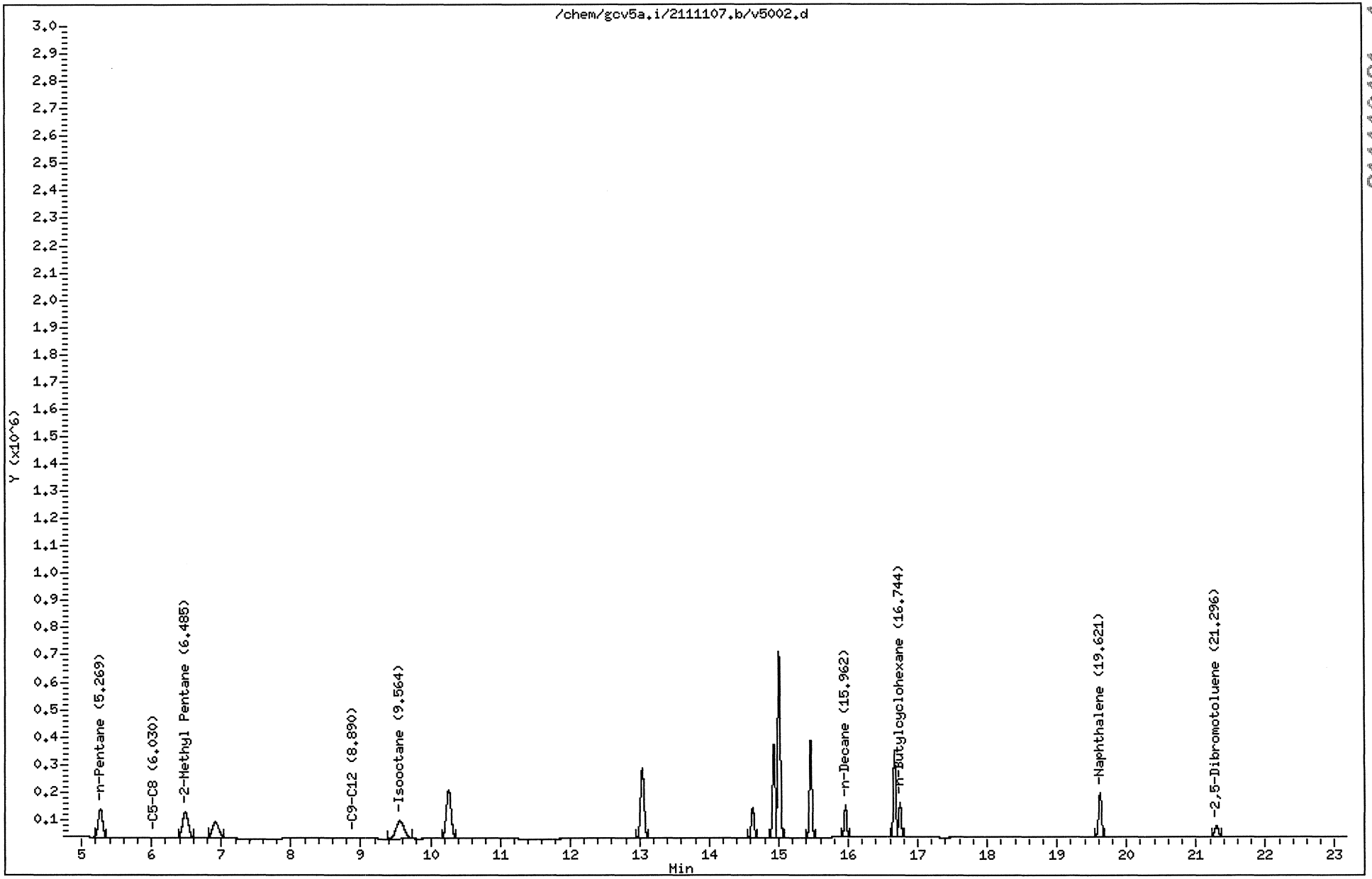
		Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
M	2	C5-C8				1496403	152.268	152
	1	n-Pentane	5.269	5.263	0.006	446597	49.6209	49.6
	3	2-Methyl Pentane	6.485	6.480	0.005	522005	50.0112	50.0
	6	Isooctane	9.564	9.557	0.007	527801	52.6359	52.6(M1)
	13	n-Decane	15.962	15.959	0.003	281892	50.7463	50.7
	15	n-Butylcyclohexane	16.744	16.742	0.002	324847	54.5185	54.5
	16	Naphthalene	19.621	19.617	0.004	473106	53.4382	53.4
M	5	C9-C12				606739	105.265	105
$	17	2,5-Dibromotoluene	21.296	21.294	0.002	146985	49.1646	49.2

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /chem/gcv5a.i/2111107.b/v5002.d
Date : 07-NOV-2011 11:51
Client ID:
Sample Info: lcs6/12/4
Volume Injected (uL): 1.0
Column phase: DB-624-30

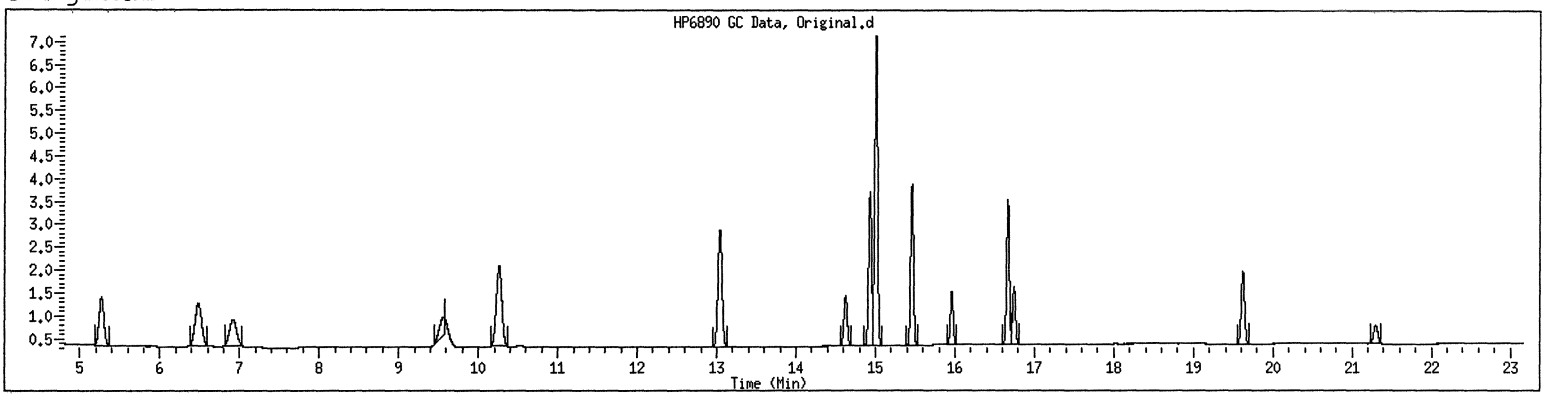
Instrument: gcv5a.i
Operator: JAR
Column diameter: 0.53



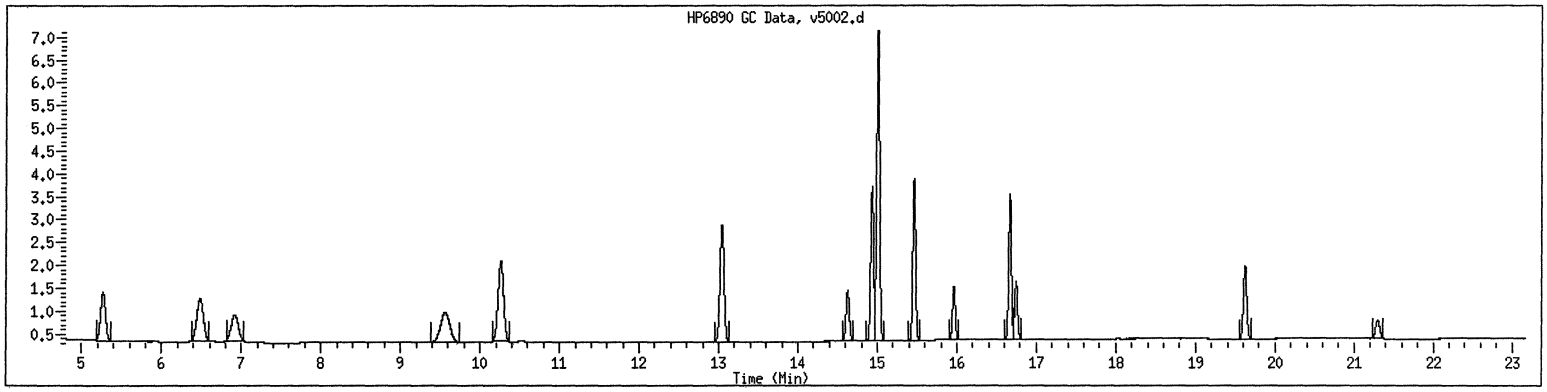
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: lcs6/12/4	SampleType	: LCS
Injection Date	: 11/07/2011 11:51	Instrument	: gcv5a.i
Operator	: JAR		
Sample Info	: lcs6/12/4		
Misc Info	:		
Method	: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m		
Dilution	: 1.0		
Matrix	: WATER		
Integrator	: Falcon	Compound Sublist	: aliphatic1+surr

Original



Final



LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111104P.b/PIDMVPH.m
Batch: /chem/gcv5b.i/2111104P.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aromatic
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aromatic
VPH20/6/12/4		v5005.d	5.00 g	04-NOV-2011 22:55	50.000	JAR	1	aromatic
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aromatic
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aromatic
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aromatic
ICV6/12/5		v5013.d	5.00 g	05-NOV-2011 02:51	50.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5b.i
Method File: /var/chem/gcv5b.i/2111107.b/PIDMVPH.m
Batch: /var/chem/gcv5b.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	5.00 g	07-NOV-2011 11:22	50.000	JAR	1	aromatic
1003188		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aromatic
1003187		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aromatic
BLK		v5004.d	5.00 g	07-NOV-2011 12:50	50.000	JAR	1	aromatic
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	50.000	JAR	1	aromatic
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	50.000	JAR	1	aromatic
21110202105		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aromatic
21110202105		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aromatic
21110202112		v5009.d	5.00 g	07-NOV-2011 15:17	50.000	JAR	1	aromatic
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aromatic
VPH6/12/4		v5011.d	5.00 g	07-NOV-2011 16:16	50.000	JAR	1	aromatic
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aromatic
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aromatic
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aromatic
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aromatic
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aromatic
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aromatic
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aromatic
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aromatic
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aromatic
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aromatic
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aromatic
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aromatic
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aromatic
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aromatic
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aromatic
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aromatic
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aromatic
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aromatic
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aromatic

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/17/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111104p.b/FIDMVPH.m
Batch: /chem/gcv5a.i/2111104p.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH05/6/12/4		v5001.d	1.00 ml	04-NOV-2011 20:57	1.000	JAR	1	aliphatic1+surr
VPH10/6/12/4		v5003.d	1.00 ml	04-NOV-2011 21:56	1.000	JAR	1	aliphatic1+surr
VPH20/6/12/4		v5005.d	1.00 ml	04-NOV-2011 22:55	1.000	JAR	1	aliphatic1+surr
VPH50/6/12/4		v5007.d	1.00 ml	04-NOV-2011 23:54	1.000	JAR	1	aliphatic1+surr
VPH80/6/12/4		v5009.d	1.00 ml	05-NOV-2011 00:53	1.000	JAR	1	aliphatic1+surr
VPH100/6/12/4		v5011.d	1.00 ml	05-NOV-2011 01:52	1.000	JAR	1	aliphatic1+surr
ICV6/12/5		v5013.d	1.00 ml	05-NOV-2011 02:51	1.000	JAR	1	aliphatic1+surr

LABORATORY CHRONICLE: GCV DEPARTMENT

Date: 11/08/2011
Instrument: gcv5a.i
Method File: /var/chem/gcv5a.i/2111107.b/FIDMVPH.m
Batch: /var/chem/gcv5a.i/2111107.b
Column-Detector: DB-624-30

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
VPH6/12/4		v5001.d	1.00 ml	07-NOV-2011 11:22	1.000	JAR	1	aliphatic1+surr
lcs6/12/4		v5002.d	1.00 ml	07-NOV-2011 11:51	1.000	JAR	1	aliphatic1+surr
BLK		v5003.d	1.00 ml	07-NOV-2011 12:21	1.000	JAR	1	aliphatic1+surr
BLK		v5004.d	1.00 ml	07-NOV-2011 12:50	1.000	JAR	1	aliphatic1+surr
21110202112		v5005.d	1.00 ml	07-NOV-2011 13:19	100.000	JAR	1	aliphatic1+surr
21110202112		v5006.d	1.00 ml	07-NOV-2011 13:49	100.000	JAR	1	aliphatic1+surr
21110270701		v5007.d	5.00 g	07-NOV-2011 14:18	10000.000	JAR	1	aliphatic1+surr
21110270701		v5008.d	5.00 g	07-NOV-2011 14:48	10000.000	JAR	1	aliphatic1+surr
21110202112		v5009.d	1.00 ml	07-NOV-2011 15:17	50.000	JAR	1	aliphatic1+surr
21110202112		v5010.d	1.00 ml	07-NOV-2011 15:47	50.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5011.d	1.00 ml	07-NOV-2011 16:16	1.000	JAR	1	aliphatic1+surr
21110312401		v5012.d	1.00 ml	07-NOV-2011 18:26	10.000	JAR	1	aliphatic1+surr
21110312402		v5013.d	1.00 ml	07-NOV-2011 18:55	10.000	JAR	1	aliphatic1+surr
21110312403		v5014.d	1.00 ml	07-NOV-2011 19:25	10.000	JAR	1	aliphatic1+surr
21110312404		v5015.d	1.00 ml	07-NOV-2011 19:55	10.000	JAR	1	aliphatic1+surr
21110312408		v5016.d	1.00 ml	07-NOV-2011 21:53	1.000	JAR	1	aliphatic1+surr
21110312406		v5017.d	1.00 ml	07-NOV-2011 20:54	1.000	JAR	1	aliphatic1+surr
21110312407		v5018.d	1.00 ml	07-NOV-2011 21:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5019.d	1.00 ml	07-NOV-2011 22:22	1.000	JAR	1	aliphatic1+surr
21110312410		v5020.d	1.00 ml	07-NOV-2011 22:52	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5021.d	1.00 ml	07-NOV-2011 23:22	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5022.d	1.00 ml	07-NOV-2011 23:51	1.000	JAR	1	aliphatic1+surr
21110312411		v5023.d	1.00 ml	08-NOV-2011 00:21	1.000	JAR	1	aliphatic1+surr
21110312412		v5024.d	1.00 ml	08-NOV-2011 00:50	1.000	JAR	1	aliphatic1+surr
21111042101		v5025.d	1.00 ml	08-NOV-2011 01:20	1.000	JAR	1	aliphatic1+surr
VPH6/12/4		v5026.d	1.00 ml	08-NOV-2011 01:49	1.000	JAR	1	aliphatic1+surr
21110312405		v5028.d	1.00 ml	08-NOV-2011 11:23	1.000	JAR	1	aliphatic1+surr
21110312409		v5029.d	1.00 ml	08-NOV-2011 11:52	1.000	JAR	1	aliphatic1+surr
21110312410		v5030.d	1.00 ml	08-NOV-2011 12:22	1.000	JAR	1	aliphatic1+surr
vph6/12/4		v5031.d	1.00 ml	08-NOV-2011 12:51	1.000	JAR	1	aliphatic1+surr

2E

WATER ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110421

GC Column (1): DB-5MS-30M ID: .25 (mm) GC Cloumn (2): ID: (mm)

Method: MASSEPH

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC1 1-(2)	Lo	Hi	F	SMC2 2-(1)	Lo	Hi	F	SMC2 2-(2)	Lo	Hi	F	TOT OUT
1.	ES057	85	40	140						68	40	140						0
2.	LCS1004105	98	40	140						82	40	140						0
3.	LCSD1004106	100	40	140						84	40	140						0
4.	MB1004104	92	40	140						80	40	140						0

SMC 1 : 1-Chlorooctadecane SMC 2 : O-Terphenyl

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 211110421

Contract: Method: MASSEPH

Prep Batch: 468721 Analytical Batch: 469140

SAMPLE NO : 1004105

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
C11-C22 Aromatics	ug/L	250	0	188	75		40 - 140
C19-C36 Aliphatic Hydrocarbons	ug/L	150	0	101	67		40 - 140
C9-C18 Aliphatic Hydrocarbons	ug/L	100	0	51.9	52		40 - 140

SAMPLE NO : 1004106

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
C11-C22 Aromatics	ug/L	250	191	76		2		40 - 140	0 - 40
C19-C36 Aliphatic Hydrocarbons	ug/L	150	94.2	63		7		40 - 140	0 - 40
C9-C18 Aliphatic Hydrocarbons	ug/L	100	52.8	53		2		40 - 140	0 - 40

RPD : 0 out of 3 outside limits

Spike Recovery: 0 out of 6 outside limits

FORM III ORG-1

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1004104

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1004104 | SAS No.: | SDG No.: 211110421

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted: 11/08/11

Date Analyzed (1): 11/10/11 | Time (1): 1515 | Date Analyzed (2): | Time (2):

Instrument ID (1): GCS19B | Instrument ID (2):

GC Column (1): DB-5MS-30M | ID: .25 (mm) | GC Column (2): | ID: (mm)

Method: MASSEPH | Prep Batch: 468721 | Analytical Batch: 469140

Lab File ID: 2111110/sv19b0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1004105	1004105	11/10/11	1603	GCS19B
2.	LCSD1004106	1004106	11/10/11	1651	GCS19B
3.	ES057	21111042101	11/10/11	2229	GCS19B

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name:	GCAL	Sample ID:	ES057
Lab Code:	LA024 Case No.:	Contract:	
Matrix:	Water	SAS No.:	SDG No.: 211110421
Sample wt/vol:	990 Units: mL	Lab Sample ID:	21111042101
Level: (low/med)	LOW	Date Collected:	11/02/11 Time: 1105
% Moisture:	decanted: (Y/N)	Date Received:	11/04/11
GC Column:	DB-5MS-30M ID: .25 (mm)	Date Extracted:	11/08/11
Concentrated Extract Volume:	2000 (µL)	Date Analyzed:	11/10/11 Time: 2229
Soil Aliquot Volume:	(µL)	Dilution Factor:	1 Analyst: SMH
Injection Volume:	1 (µL)	Prep Method:	MASS EPH
GPC Cleanup: (Y/N)	N pH:	Analytical Method:	MASSEPH
Prep Batch:	468721 Analytical Batch: 469140	Sulfur Cleanup: (Y/N)	N Instrument ID: GCS19B
CONCENTRATION UNITS:	*ug/L*	Lab File ID:	2111110/sv19b072

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	50.5	J	42.5	42.5	101
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.6	U	31.6	60.6	101
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	22.0	U	22.0	22.0	101

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b072.d
Lab Smp Id: 21111042101 Client Smp ID: 1
Inj Date : 10-NOV-2011 22:29
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21111042101*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
21 Benzo(g,h,i)Perylene	9.811	13.997	-4.186	201767410	72.6306	147(M1)
M 22 Arom C11-C22				201767410	72.6306	147

QC Flag Legend

M1- Compound response manually integrated because
Target system did not integrate.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b072.d

Page 1

Date : 10-NOV-2011 22:29

Client ID: 1

Instrument: gcsv19b.i

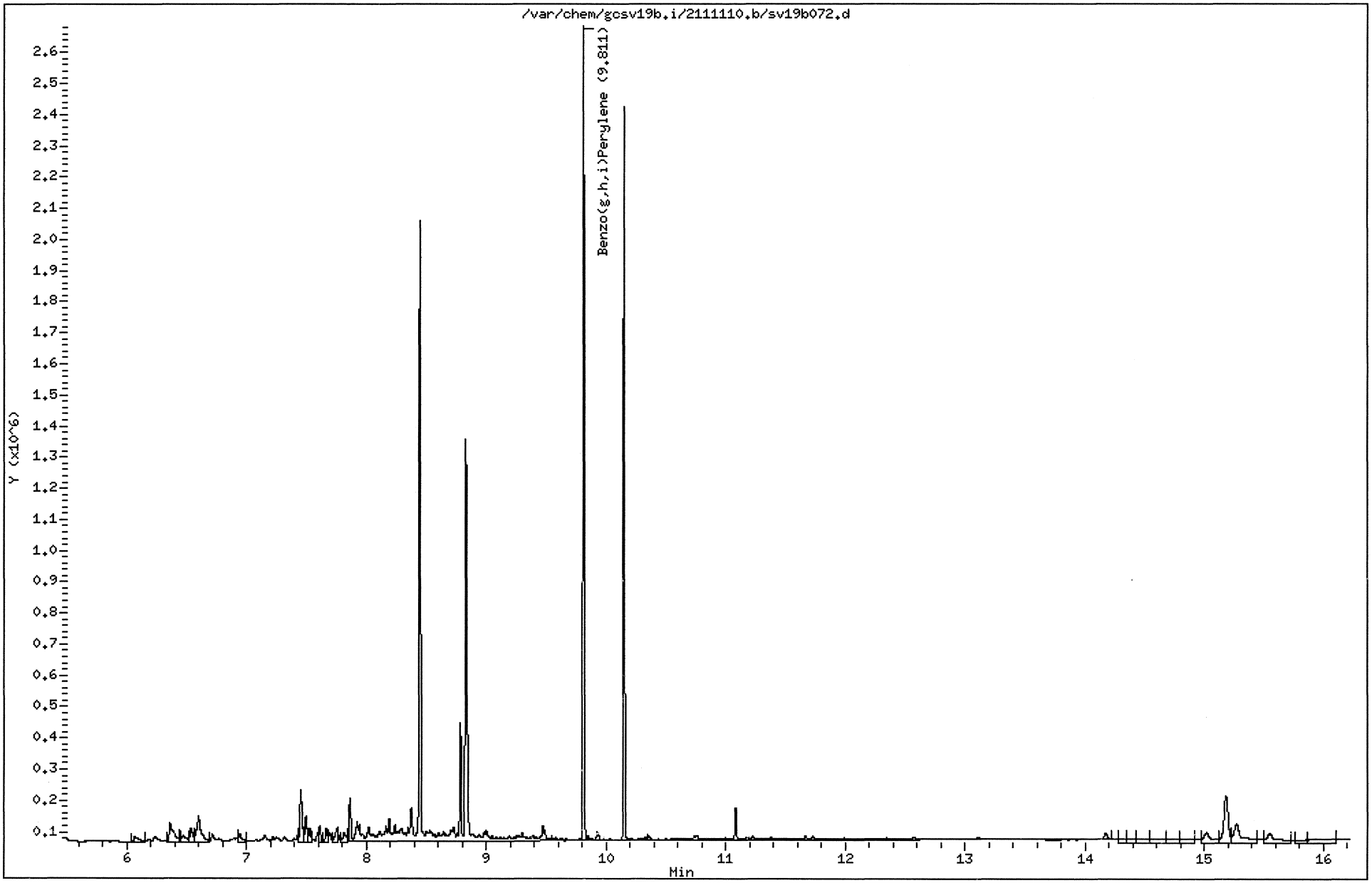
Sample Info: 21111042101*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

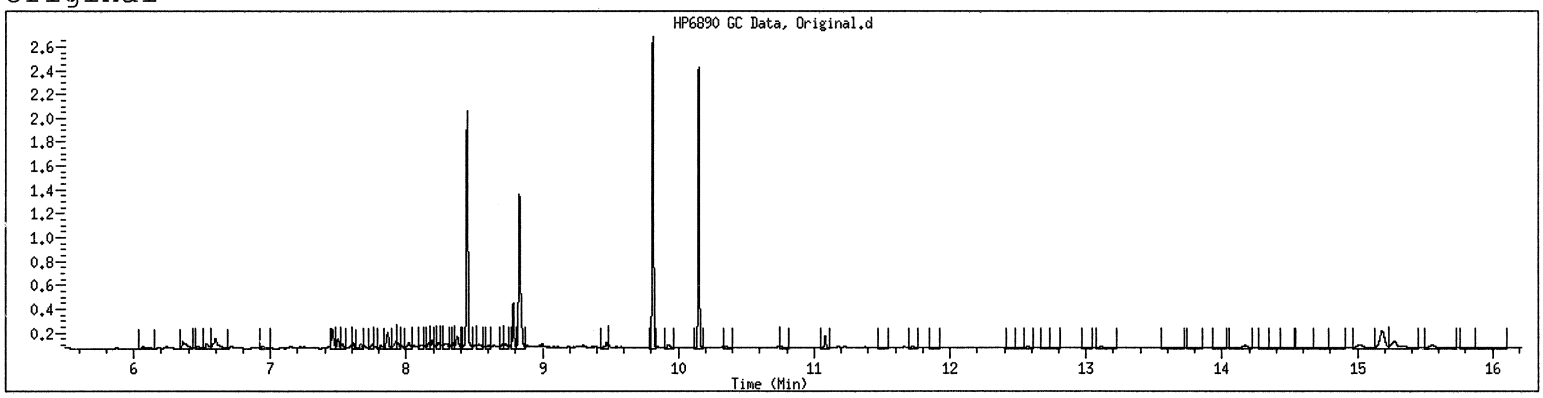


211110421 129

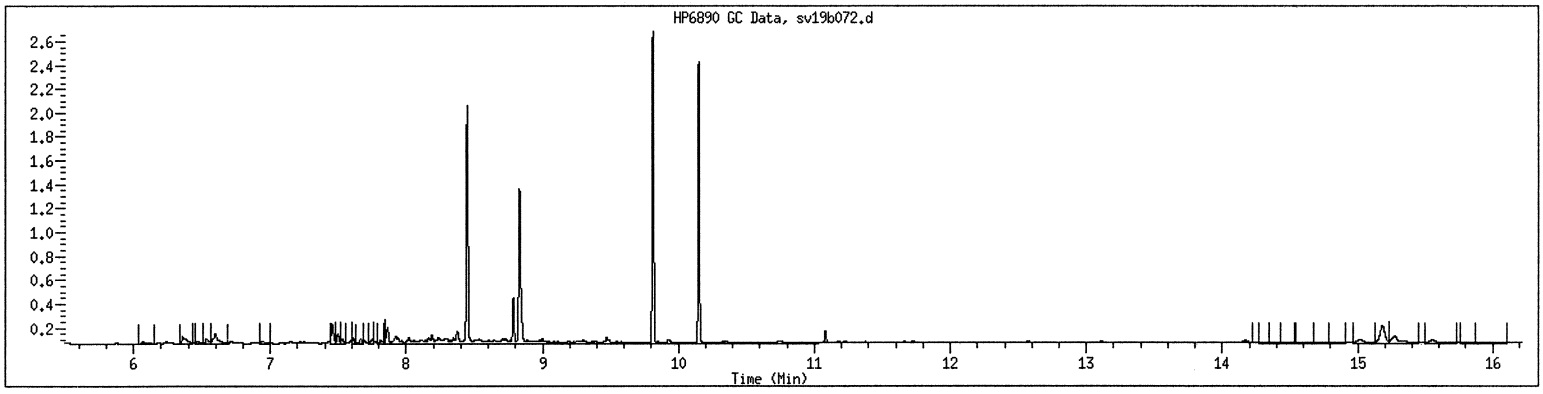
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21111042101	SampleType	: SAMPLE
Injection Date	: 11/10/2011 22:29	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21111042101*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b072s.d
Lab Smp Id: 21111042101 Client Smp ID: 1
Inj Date : 10-NOV-2011 22:29
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21111042101*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 72
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: surr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 3 2-Fluorobiphenyl	8.446	8.454	-0.008	33895572	13.7928	27.9
$ 5 2-Bromonaphthalene	8.830	8.838	-0.008	26845557	17.1124	34.6
$ 10 O-Terphenyl	9.811	9.822	-0.011	39779501	13.4901	27.3
$ 11 Chloro-octadecane	10.149	10.158	-0.009	32440638	11.8418	23.9
M 113 Total Surrogate Area				132961268		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/gcsv19b.i/2111110.b/sv19b072s.d

Date : 10-NOV-2011 22:29

Client ID: 1

Sample Info: 21111042101*1

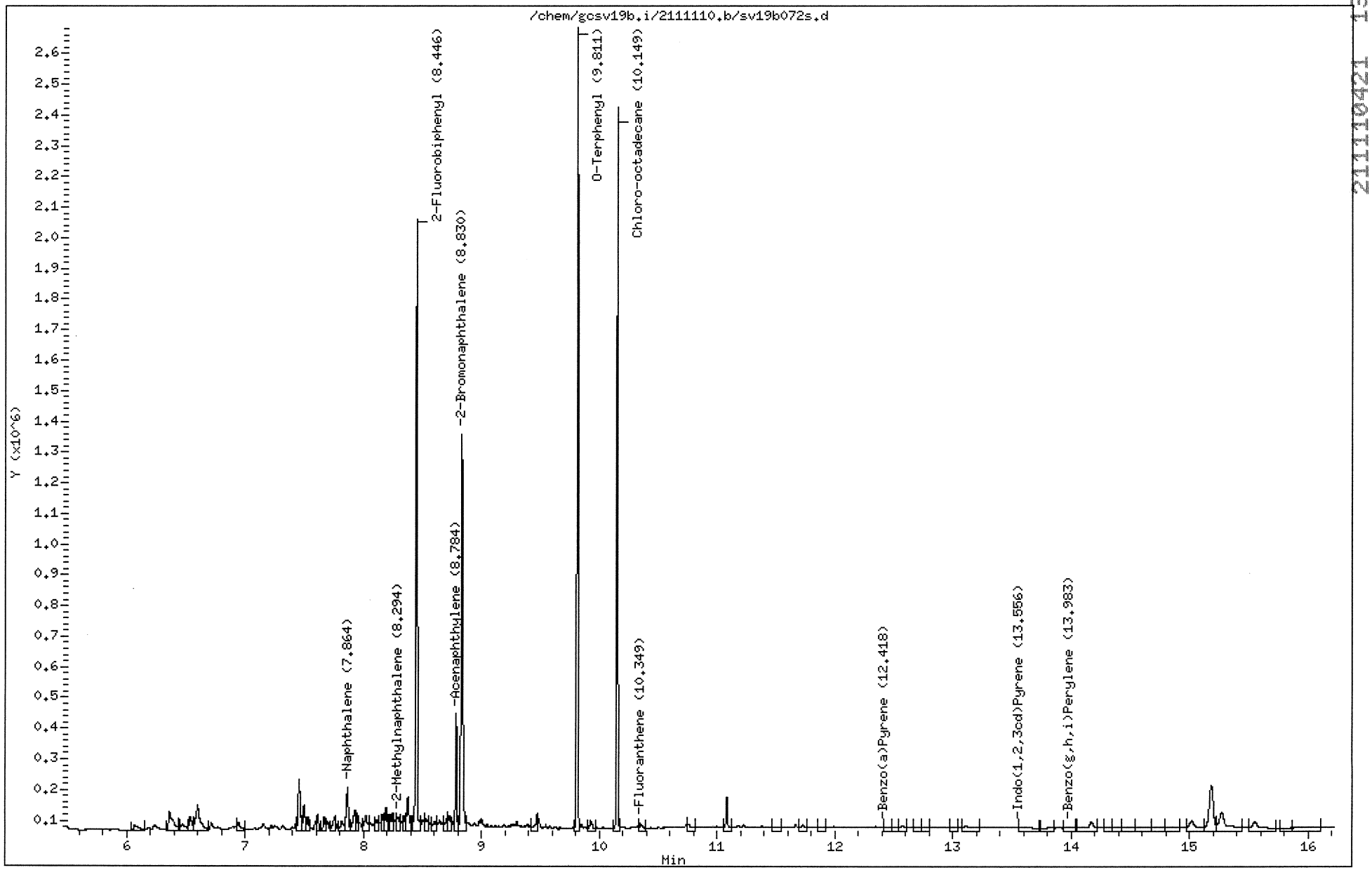
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

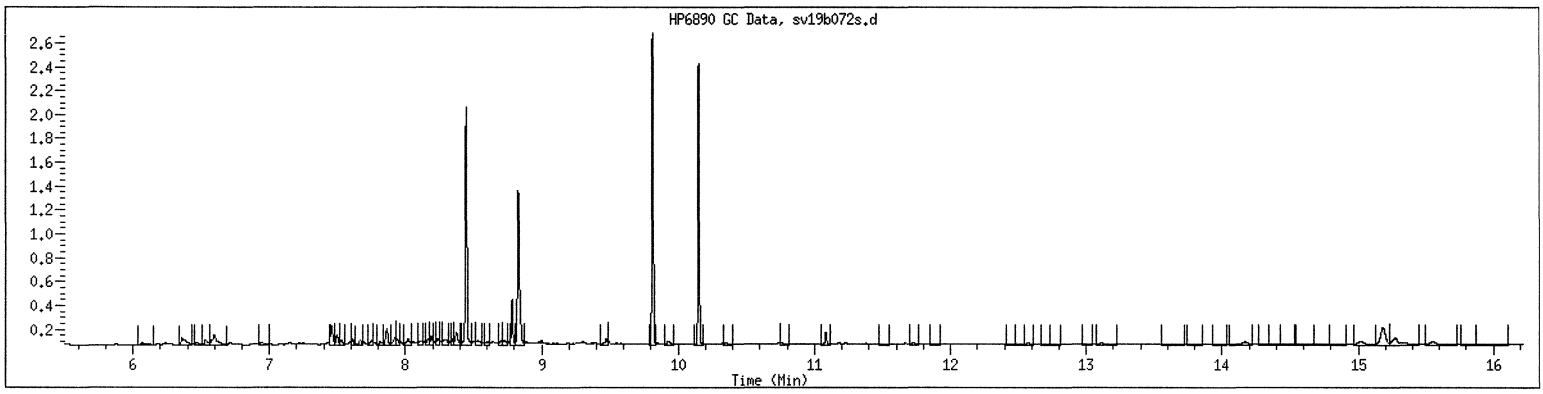
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21111042101	SampleType	: SAMPLE
Injection Date	: 11/10/2011 22:29	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21111042101*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: surr



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b073.d
Lab Smp Id: 21111042101 Client Smp ID: 1
Inj Date : 10-NOV-2011 22:53
Operator : smh Inst ID: gcsv19b.i
Smp Info : 21111042101*1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 73
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	990.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
$ 15 Chlorooctadecane	10.150	10.215	-0.065	14208645	5.18643	10.5(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b073.d

Date : 10-NOV-2011 22:53

Client ID: 1

Sample Info: 21111042101*1

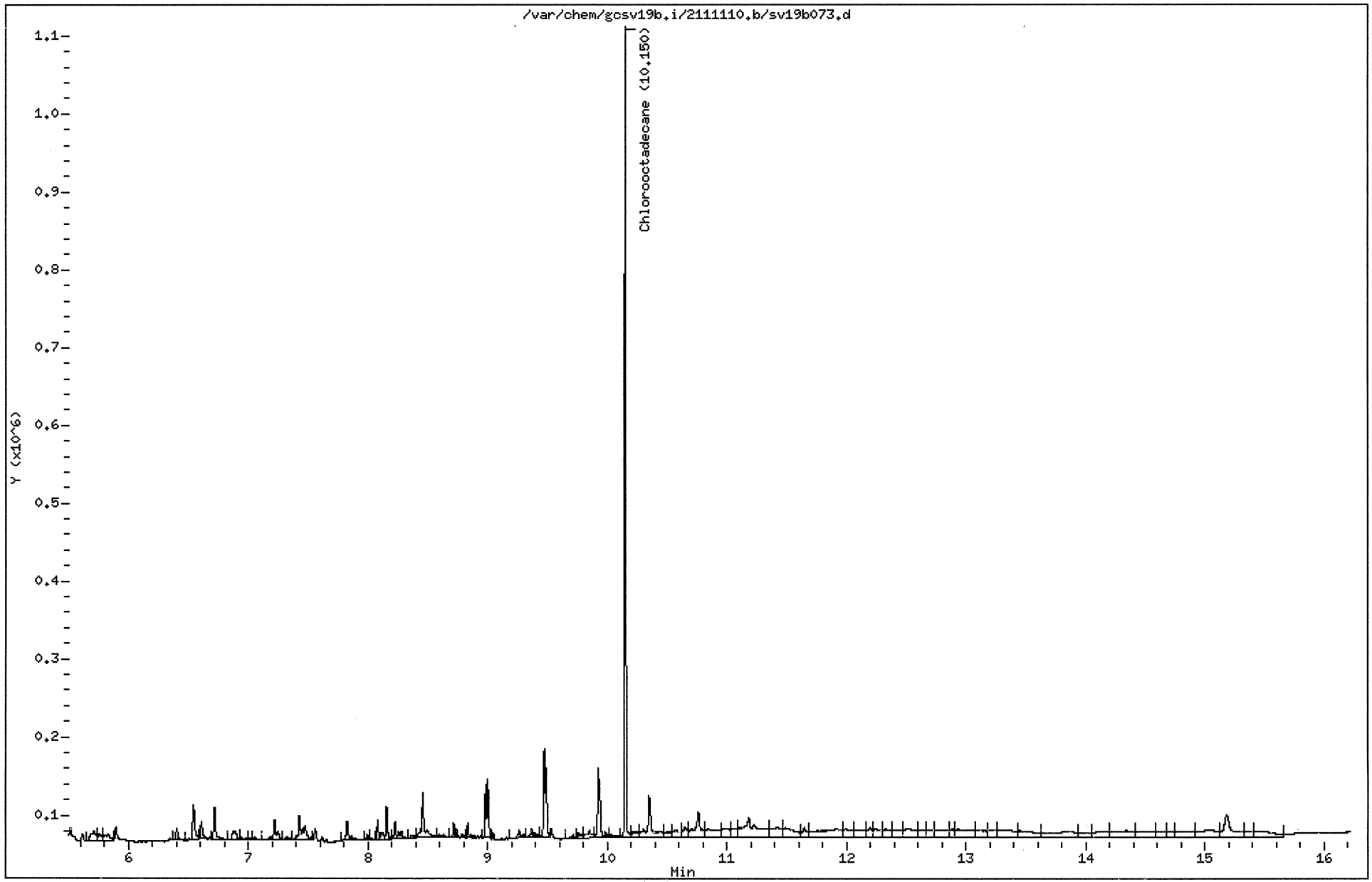
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

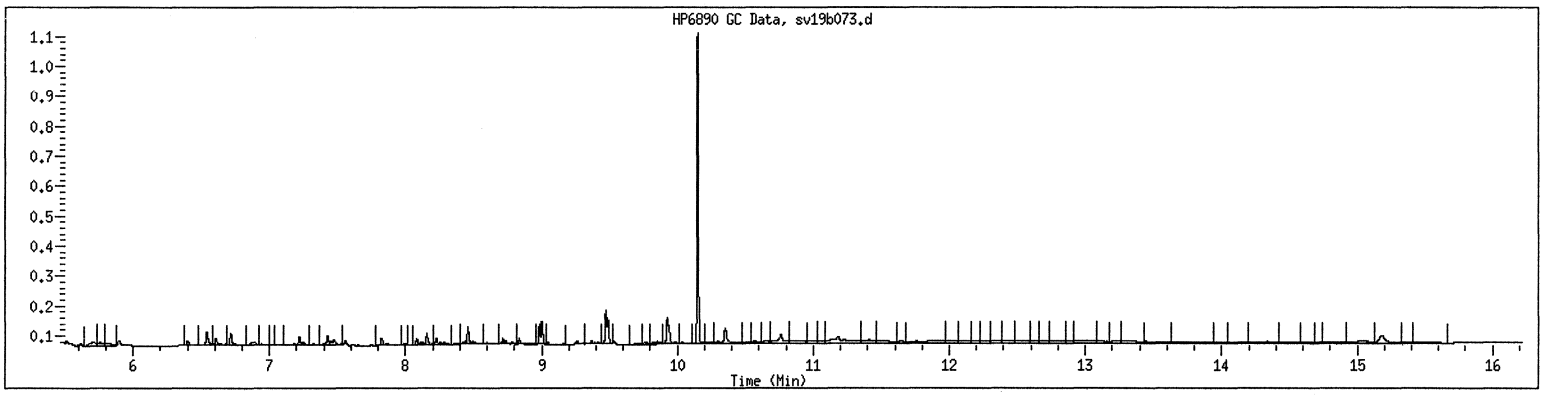
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 21111042101	SampleType	: SAMPLE
Injection Date	: 11/10/2011 22:53	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 21111042101*1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Cal Date : 17-Nov-2011 12:26 smh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Level 2: /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Level 3: /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Level 4: /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Level 5: /var/chem/gcsv19b.i/2111103.b/sv19b056.d

	1.000	10.000	50.000	100.000	200.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1 C-9	2907155	2795641	2675594	2679051	2539259	2719340	5.104
2 C-10	2799368	2826425	2717674	2752582	2600027	2739215	3.226
3 C-11	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 C-12	2927391	2898654	2764473	2774841	2641941	2801460	4.102
5 C-13	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 C-14	2986461	2962295	2862352	2862981	2716594	2878136	3.701
7 C-15	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 C-16	3076201	3075973	2956170	2972906	2834259	2983102	3.364
9 C-17	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 C-18	3132014	3109313	2986762	3012326	2866031	3021289	3.526
M 11 Alip C9-C18	2971432	2944717	2827171	2842448	2699685	2857090	3.779
12 C-19	3105166	3106510	2982171	3015246	2877102	3017239	3.169
13 C-20	3095123	3146395	3018289	3051261	2915502	3045314	2.859
14 C-21	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 C-22	3086197	3160319	3040998	3073189	2942532	3060647	2.587
17 C-23	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 C-24	3088147	3182819	3098256	3124206	2998582	3098402	2.157
19 C-25	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 C-26	3093703	3199157	3120962	3153549	3033072	3120089	2.004
21 C-27	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 C-28	3086943	3160312	3086851	3125844	3019987	3095987	1.692
115 C-30	3100257	3187831	3112669	3153703	3047243	3120341	1.716

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-NOV-2011 12:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Cal Date : 17-Nov-2011 12:26 smh
Curve Type : Average

	1.000	10.000	50.000	100.000	200.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
23 C-35	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 C-36	2886196	3002979	2951503	2961566	2825927	2925634	2.383
M 24 Alip C19-C36	3067716	3143290	3051462	3082321	2957493	3060457	2.196
$ 15 Chlorooctadecane	2745086	2791763	2723572	2771406	2666079	2739581	1.772

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 12:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 12:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.222	6.232	-0.010	2907155	1.00000	1.00(M2)
	2 C-10	6.925	6.929	-0.004	2799368	1.00000	1.00(M2)
	4 C-12	7.823	7.833	-0.010	2927391	1.00000	1.00(M2)
	6 C-14	8.462	8.471	-0.009	2986461	1.00000	1.00(M2)
	8 C-16	9.008	9.014	-0.006	3076201	1.00000	1.00(M2)
	10 C-18	9.502	9.504	-0.002	3132014	1.00000	1.00(M2)
M	11 Alip C9-C18				17828590	6.00000	6.00
	12 C-19	9.738	9.774	-0.036	3105166	1.00000	1.00(M2)
	13 C-20	9.965	9.957	0.008	3095123	1.00000	1.00(M2)
$	15 Chlorooctadecane	10.185	10.217	-0.032	2745086	1.00000	1.00(M2)
	16 C-22	10.403	10.384	0.019	3086197	1.00000	1.00(M2)
	18 C-24	10.826	10.796	0.030	3088147	1.00000	1.00(M2)
	20 C-26	11.263	11.223	0.040	3093703	1.00000	1.00(M2)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.738	11.724	0.014	3086943	1.00000	1.00(M2)
115 C-30	12.298	12.250	0.048	3100257	1.00000	1.00(AM2)
114 C-36	15.181	15.144	0.037	2886196	1.00000	1.00(AM2)
M 24 Alip C19-C36				24541732	8.00000	8.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b052.d

Date : 03-NOV-2011 12:55

Client ID: 1 84-15-4

Sample Info: 1201*1 84-16-1

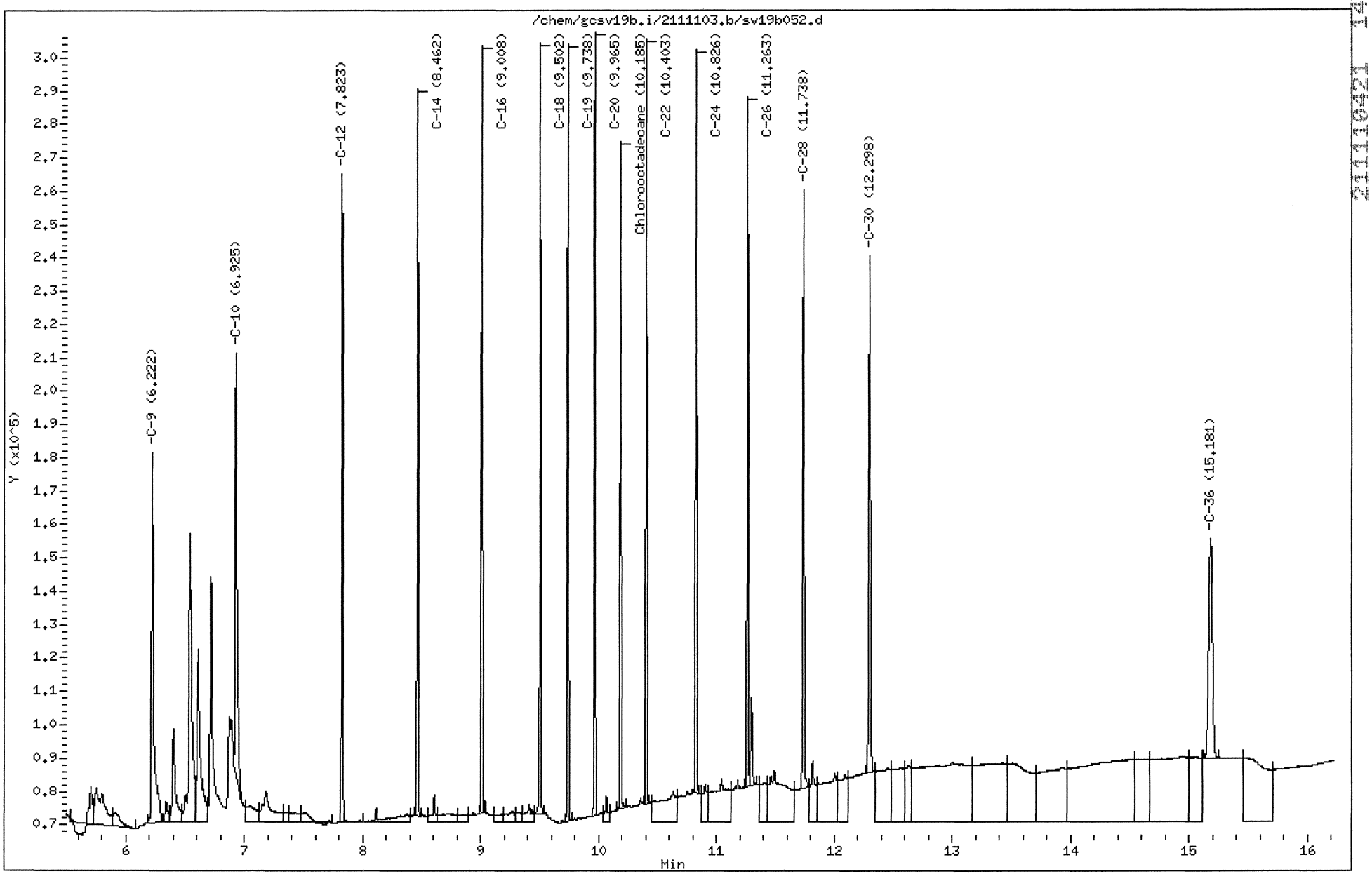
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

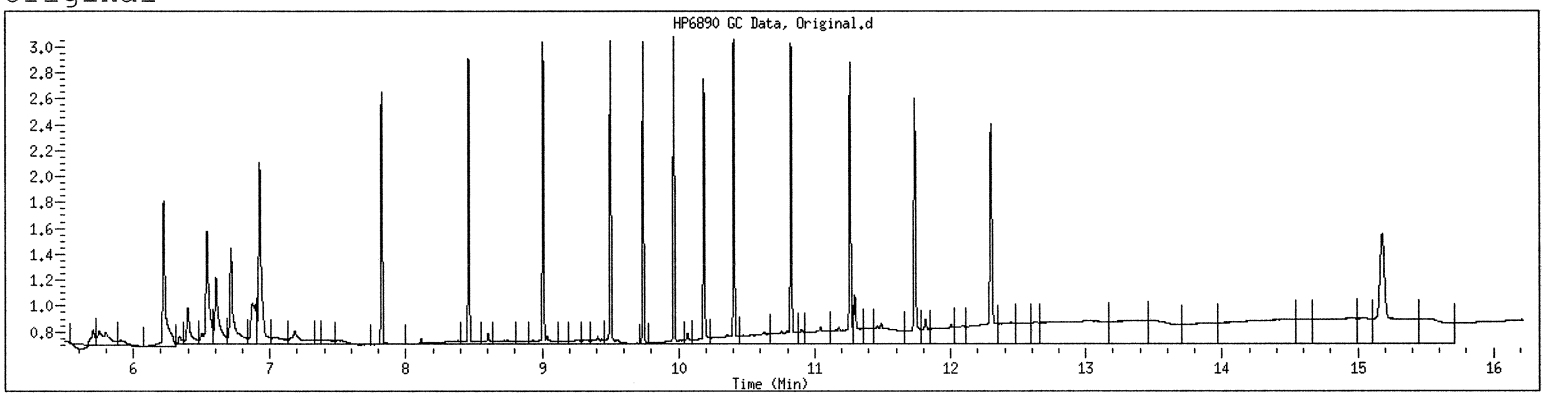
Column diameter: 0.25



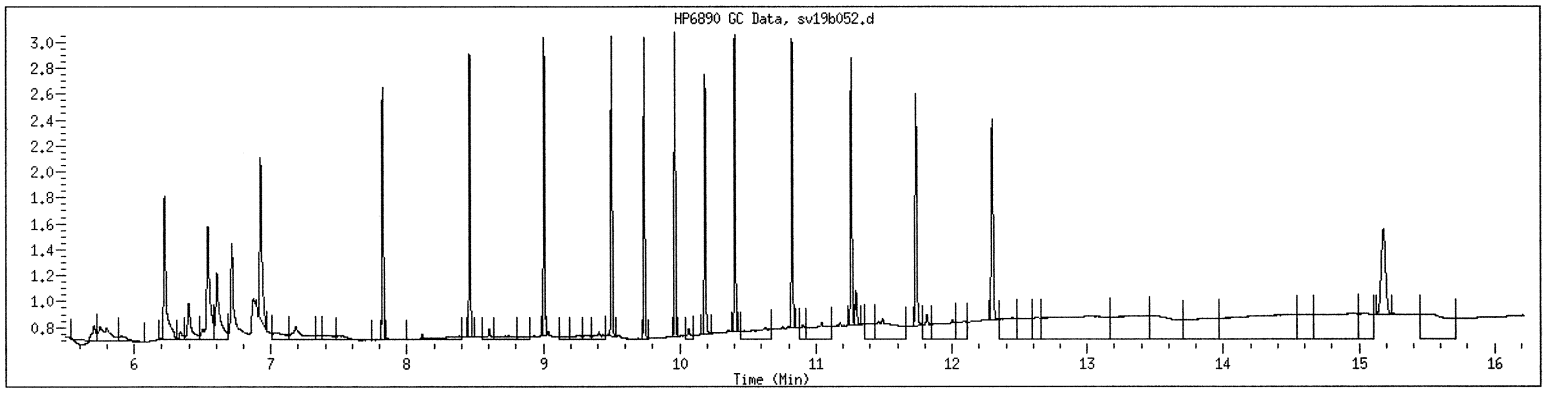
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/03/2011 12:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.225	6.232	-0.007	27956412	10.0000	9.80(M2)
2	C-10	6.929	6.929	0.000	28264251	10.0000	10.0(M2)
4	C-12	7.825	7.833	-0.008	28986541	10.0000	9.95(M2)
6	C-14	8.463	8.471	-0.008	29622947	10.0000	9.96(M2)
8	C-16	9.005	9.014	-0.009	30759729	10.0000	10.0(M2)
10	C-18	9.495	9.504	-0.009	31093127	10.0000	9.96(M2)
M 11	Alip C9-C18				176683007	60.0000	59.7
12	C-19	9.726	9.774	-0.048	31065095	10.0000	10.0(M2)
13	C-20	9.950	9.957	-0.007	31463953	10.0000	10.1(M2)
$ 15	Chlorooctadecane	10.165	10.217	-0.052	27917627	10.0000	10.1(M2)
16	C-22	10.379	10.384	-0.005	31603189	10.0000	10.1(M2)
18	C-24	10.792	10.796	-0.004	31828188	10.0000	10.2(M2)
20	C-26	11.219	11.223	-0.004	31991568	10.0000	10.2(M2)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.688	11.724	-0.036	31603121	10.0000	10.1(M2)
115 C-30	12.243	12.250	-0.007	31878310	10.0000	10.1(AM2)
114 C-36	15.117	15.144	-0.027	30029788	10.0000	10.2(AM2)
M 24 Alip C19-C36				251463212	80.0000	81.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b053.d

Date : 03-NOV-2011 13:18

Client ID: 1 84-15-4

Sample Info: 1202*1 84-16-1

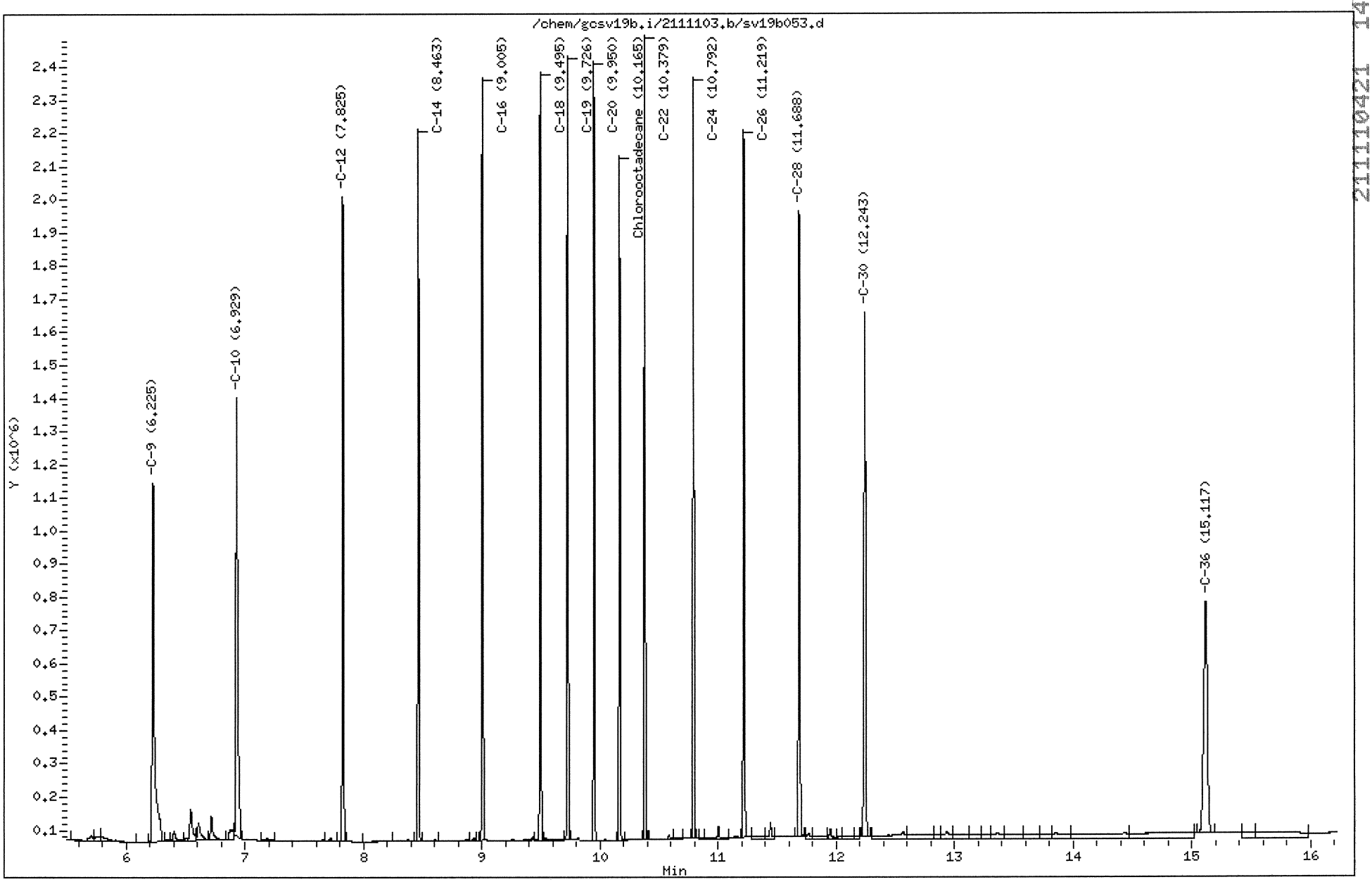
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

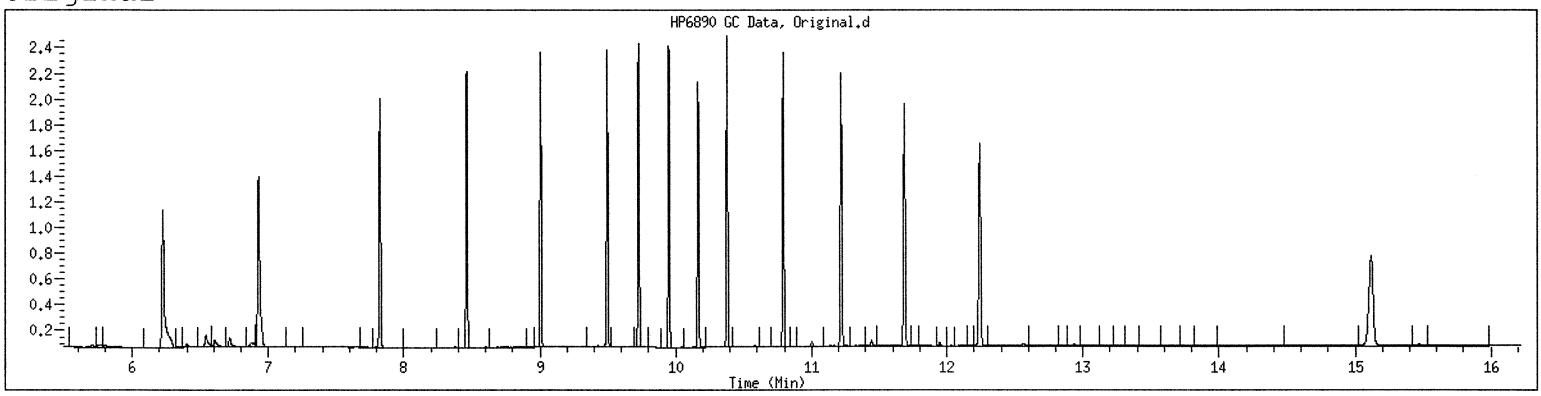
Column diameter: 0.25



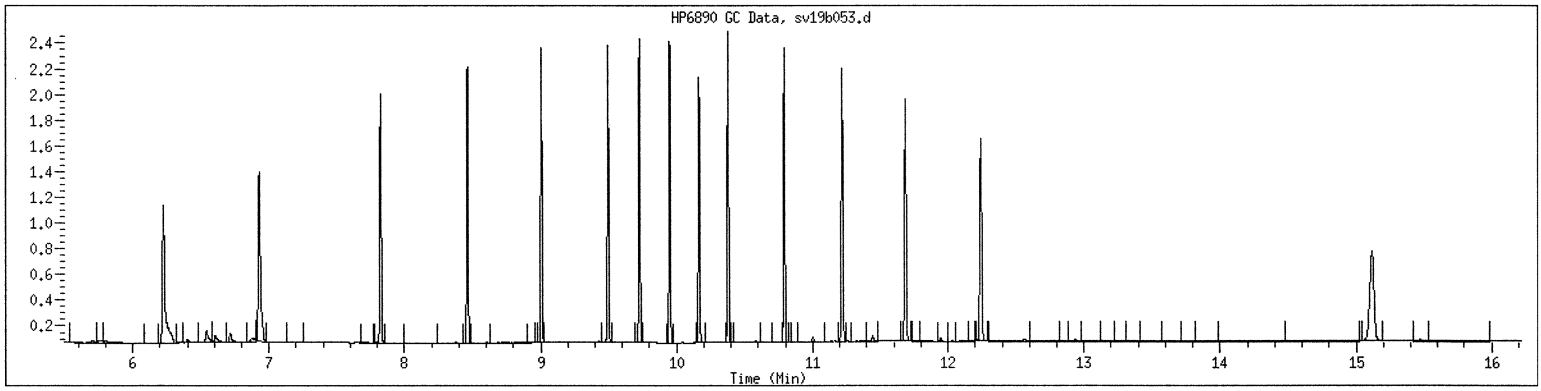
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/03/2011 13:18	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 13:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.230	6.232	-0.002	133779709	50.0000	47.9
	2 C-10	6.931	6.929	0.002	135883716	50.0000	48.9
	4 C-12	7.828	7.833	-0.005	138223627	50.0000	48.3
	6 C-14	8.466	8.471	-0.005	143117588	50.0000	48.7
	8 C-16	9.008	9.014	-0.006	147808492	50.0000	48.7
	10 C-18	9.497	9.504	-0.007	149338101	50.0000	48.5
M	11 Alip C9-C18				848151233	300.000	291
	12 C-19	9.729	9.774	-0.045	149108539	50.0000	48.7
	13 C-20	9.951	9.957	-0.006	150914449	50.0000	48.9
$	15 Chlorooctadecane	10.165	10.217	-0.052	136178585	50.0000	49.5
	16 C-22	10.378	10.384	-0.006	152049887	50.0000	49.1
	18 C-24	10.789	10.796	-0.007	154912784	50.0000	49.6
	20 C-26	11.216	11.223	-0.007	156048078	50.0000	49.7

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.684	11.724	-0.040	154342550	50.0000	49.6
115 C-30	12.240	12.250	-0.010	155633447	50.0000	49.7(A)
114 C-36	15.131	15.144	-0.013	147575152	50.0000	50.1(A)
M 24 Alip C19-C36				1220584886	400.000	395

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b054.d

Date : 03-NOV-2011 13:42

Client ID: 1 84-15-4

Sample Info: 1203x1 84-16-1

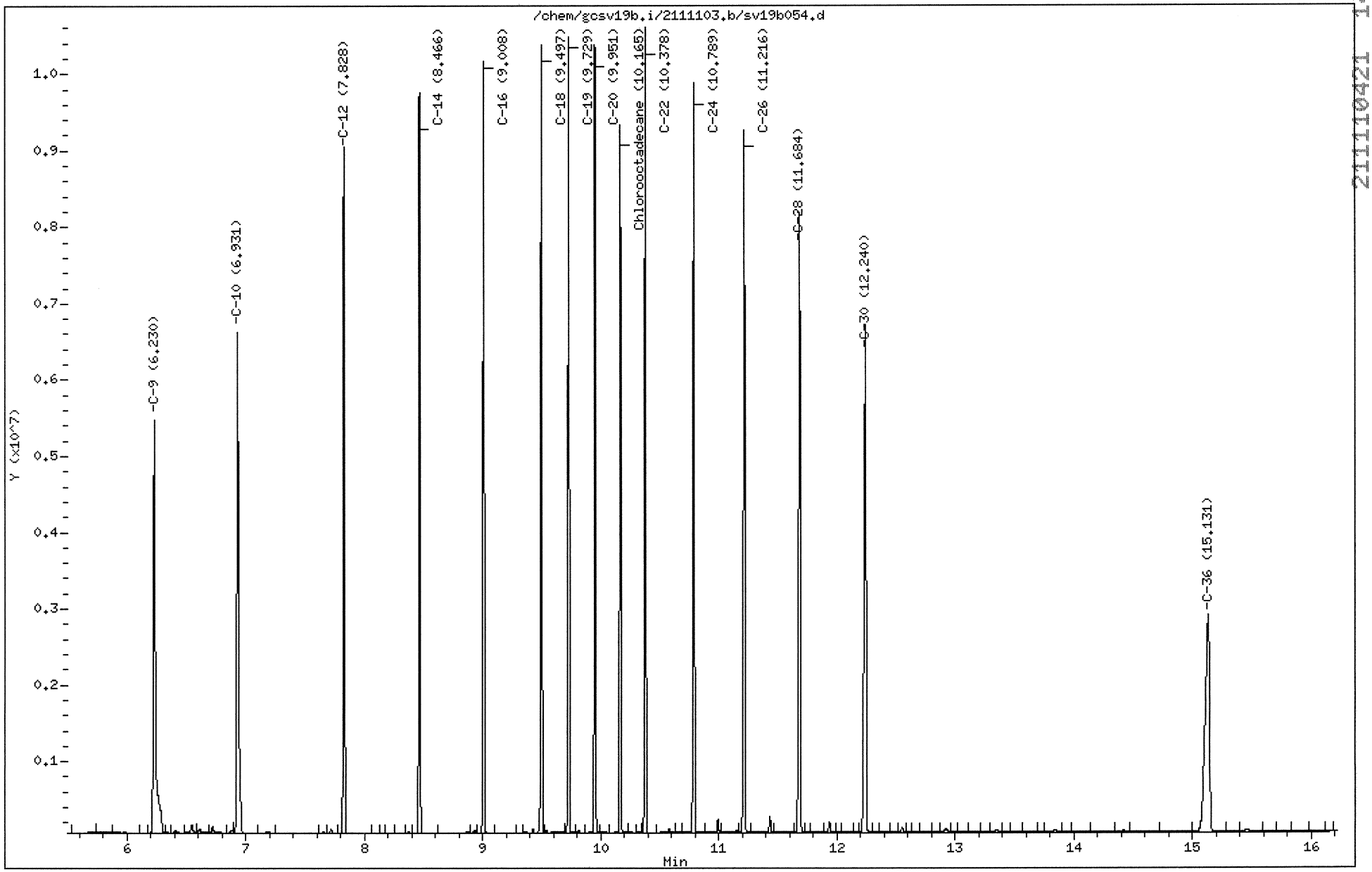
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

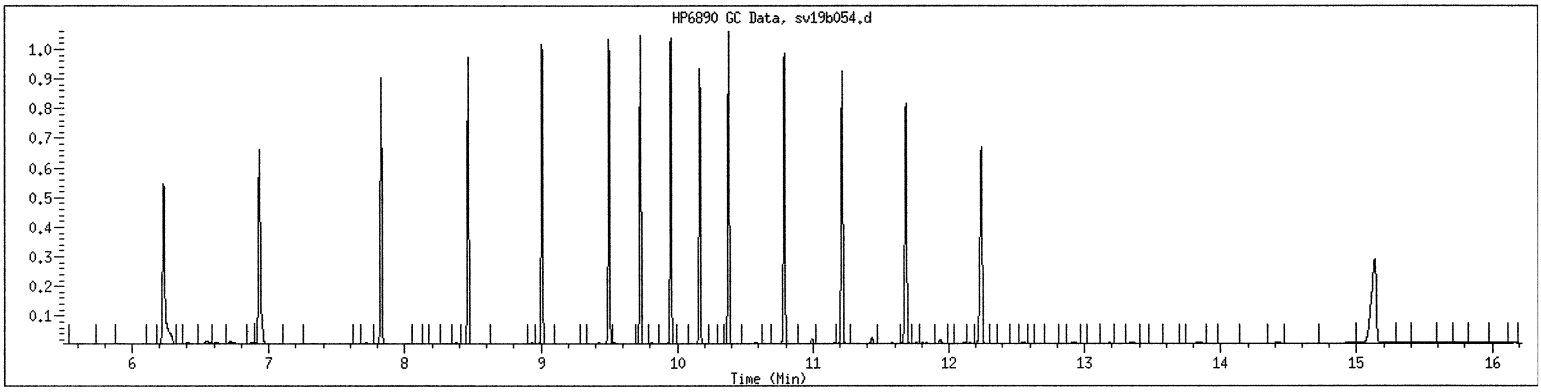
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/03/2011 13:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:06 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.234	6.232	0.002	267905092	100.000	96.9
2	C-10	6.936	6.929	0.007	275258180	100.000	99.2
4	C-12	7.831	7.833	-0.002	277484130	100.000	97.7
6	C-14	8.469	8.471	-0.002	286298081	100.000	98.1
8	C-16	9.012	9.014	-0.002	297290630	100.000	98.4
10	C-18	9.502	9.504	-0.002	301232611	100.000	98.4
M 11	Alip C9-C18				1705468724	600.000	589
12	C-19	9.733	9.774	-0.041	301524643	100.000	98.8
13	C-20	9.957	9.957	0.000	305126115	100.000	99.1
$ 15	Chlorooctadecane	10.172	10.217	-0.045	277140629	100.000	100
16	C-22	10.385	10.384	0.001	307318934	100.000	99.5
18	C-24	10.798	10.796	0.002	312420640	100.000	100
20	C-26	11.227	11.223	0.004	315354910	100.000	100

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.697	11.724	-0.027	312584380	100.000	100
115 C-30	12.256	12.250	0.006	315370277	100.000	100(A)
114 C-36	15.168	15.144	0.024	296156565	100.000	100(A)
M 24 Alip C19-C36				2465856464	800.000	799

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b055.d

Date : 03-NOV-2011 14:06

Client ID: 1 84-15-4

Instrument: gcsv19b.i

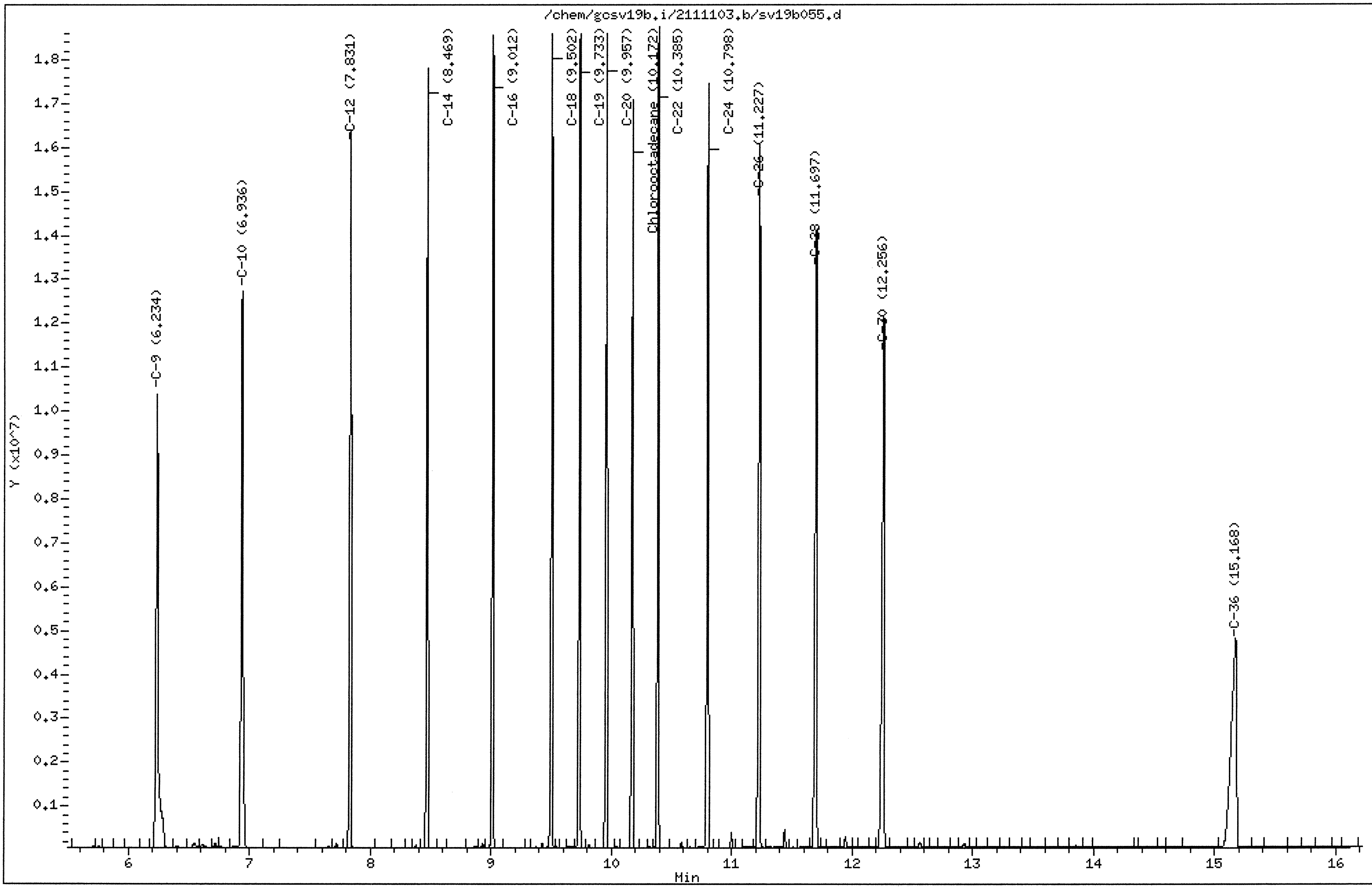
Sample Info: 1204*1 84-16-1

Volume Injected (uL): 1.0

Operator: smh

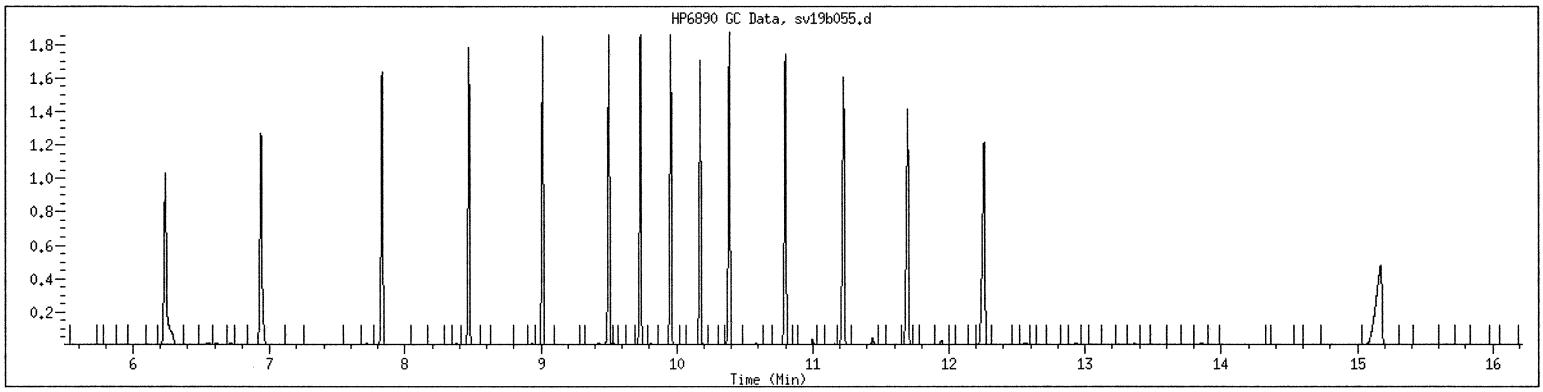
Column phase: DB-5MS-30M

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/03/2011 14:06	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-15-4
Inj Date : 03-NOV-2011 14:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 08-Nov-2011 09:16 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.235	6.232	0.003	507851786	200.000	187
	2 C-10	6.940	6.929	0.011	520005449	200.000	190
	4 C-12	7.836	7.833	0.003	528388238	200.000	189
	6 C-14	8.473	8.471	0.002	543318717	200.000	189
	8 C-16	9.016	9.014	0.002	566851761	200.000	190
	10 C-18	9.505	9.504	0.001	573206156	200.000	190
M	11 Alip C9-C18				3239622107	1200.00	1130
	12 C-19	9.736	9.774	-0.038	575420346	200.000	191
	13 C-20	9.959	9.957	0.002	583100339	200.000	191
$	15 Chlorooctadecane	10.174	10.217	-0.043	533215722	200.000	195
	16 C-22	10.386	10.384	0.002	588506366	200.000	192
	18 C-24	10.798	10.796	0.002	599716399	200.000	194
	20 C-26	11.226	11.223	0.003	606614444	200.000	194

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
22 C-28	11.698	11.724	-0.026	603997432	200.000	195
115 C-30	12.259	12.250	0.009	609448655	200.000	195(A)
114 C-36	15.188	15.144	0.044	565185453	200.000	193(A)
M 24 Alip C19-C36				4731989434	1600.00	1550

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b056.d

Date : 03-NOV-2011 14:30

Client ID: 1 84-15-4

Sample Info: 1205*1 84-16-1

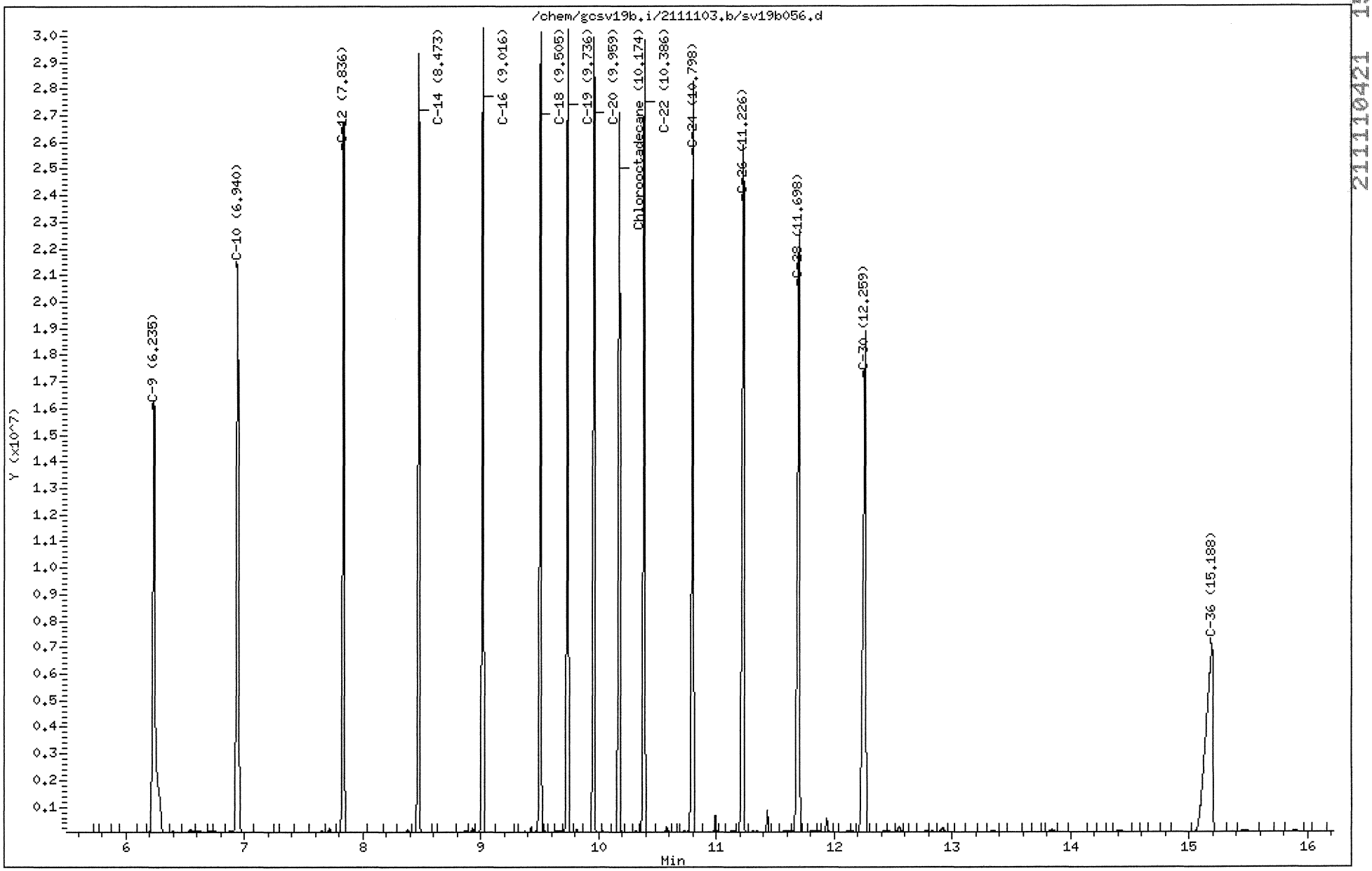
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

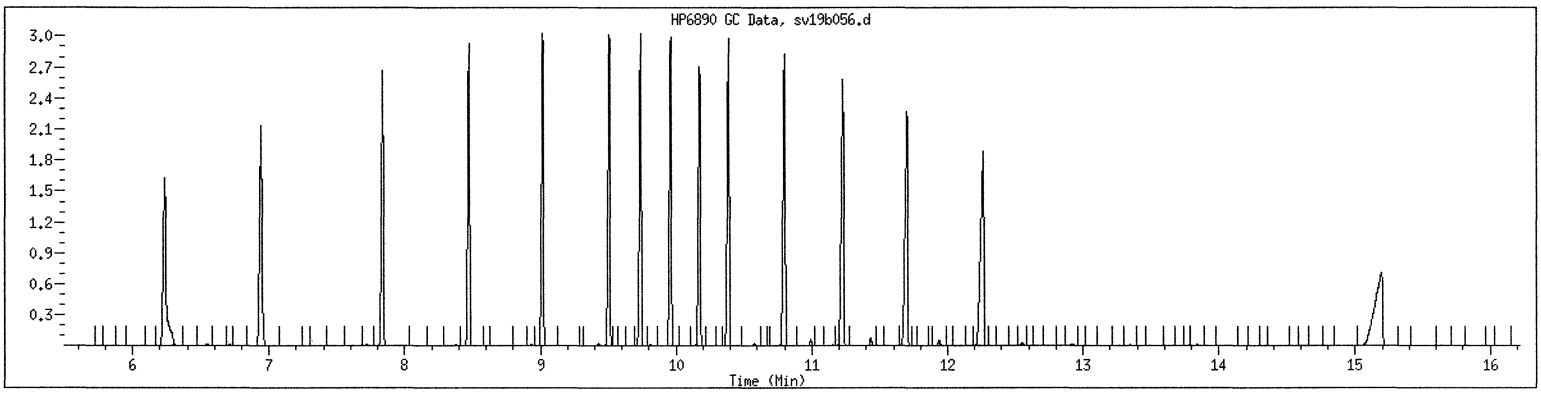
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/03/2011 14:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

Report Date: 08-Nov-2011 08:46

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111103
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Level: LOW Operator: smh
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: alphicv-new.spk Quant Type: ESTD
Sublist File: ALmasseph.sub
Method File: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 C-9	50.0	46.8	93.57	75-125
2 C-10	50.0	48.1	96.14	75-125
4 C-12	50.0	47.6	95.30	75-125
6 C-14	50.0	47.2	94.33	75-125
8 C-16	50.0	47.1	94.27	75-125
10 C-18	50.0	48.3	96.60	75-125
12 C-19	50.0	49.1	98.26	75-125
13 C-20	50.0	49.1	98.17	75-125
16 C-22	50.0	49.5	98.94	75-125
18 C-24	50.0	49.0	97.98	75-125
20 C-26	50.0	49.0	97.97	75-125
22 C-28	50.0	48.7	97.32	75-125
114 C-36	50.0	50.0	100.09	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 15 Chlorooctadecane	40000	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-16-2
Inj Date : 03-NOV-2011 14:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-16-2
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m
Meth Date : 04-Nov-2011 09:50 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
1	C-9	6.229	6.232	-0.003	127218912	46.7830	46.8
2	C-10	6.931	6.929	0.002	131668495	48.0680	48.1
4	C-12	7.828	7.833	-0.005	133484208	47.6481	47.6
6	C-14	8.466	8.471	-0.005	135740381	47.1626	47.2
8	C-16	9.008	9.014	-0.006	140615142	47.1372	47.1
10	C-18	9.497	9.504	-0.007	145930395	48.3007	48.3
M 11	Alip C9-C18				814657533	285.135	285
12	C-19	9.728	9.774	-0.046	148243248	49.1321	49.1
13	C-20	9.950	9.957	-0.007	149480953	49.0856	49.1
16	C-22	10.377	10.384	-0.007	151407787	49.4692	49.5
18	C-24	10.788	10.796	-0.008	151784501	48.9880	49.0
20	C-26	11.213	11.223	-0.010	152831618	48.9831	49.0
22	C-28	11.681	11.724	-0.043	150648000	48.6591	48.7

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
115 C-30	12.224	12.250	-0.026	863815	0.27683	0.277(A)
114 C-36	15.130	15.144	-0.014	146419842	50.0472	50.0(A)
M 24 Alip C19-C36				1051679764	343.635	344

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b057.d

Date : 03-NOV-2011 14:54

Client ID: 1 84-16-2

Sample Info: 1600*1 84-16-2

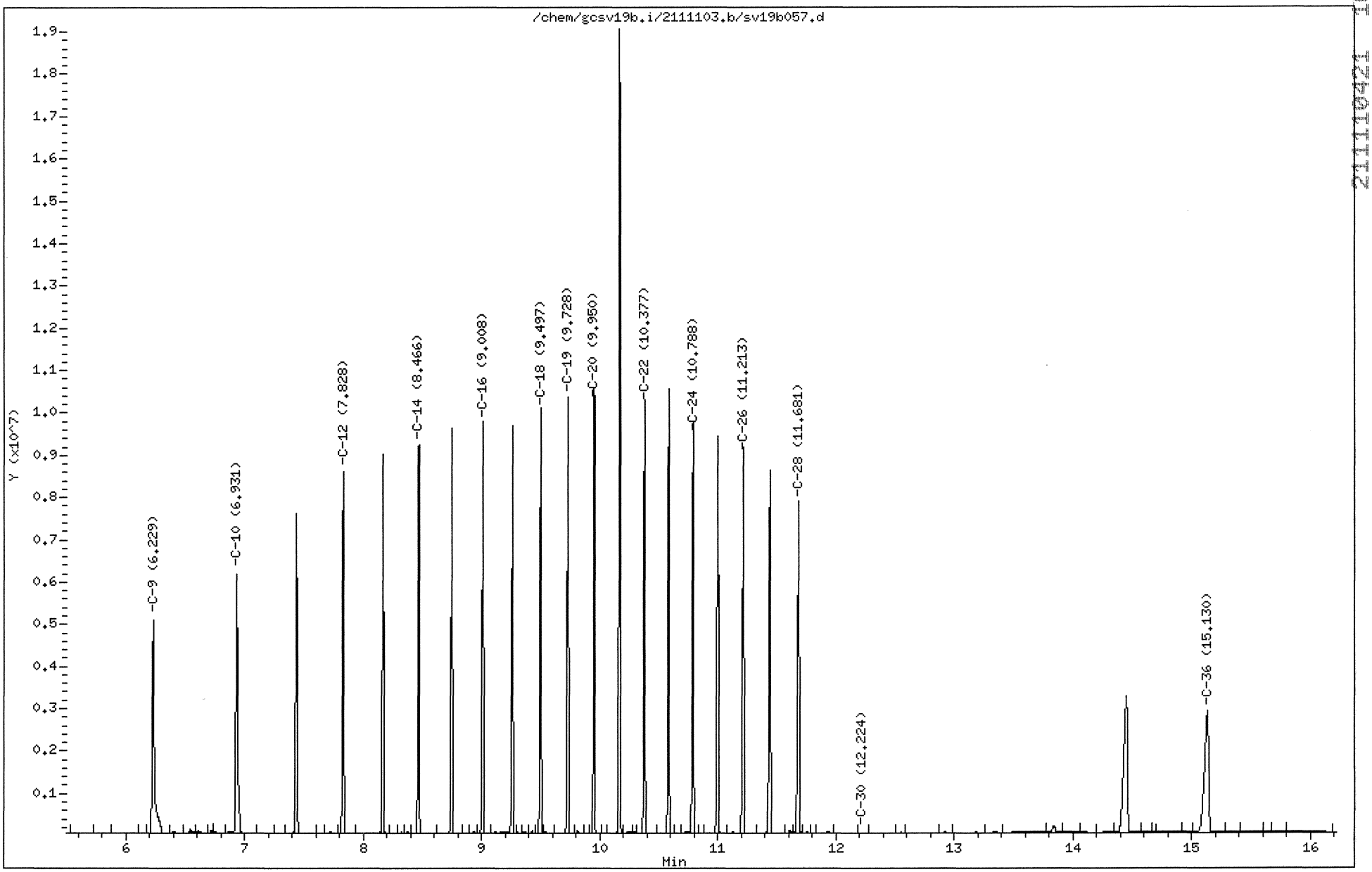
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

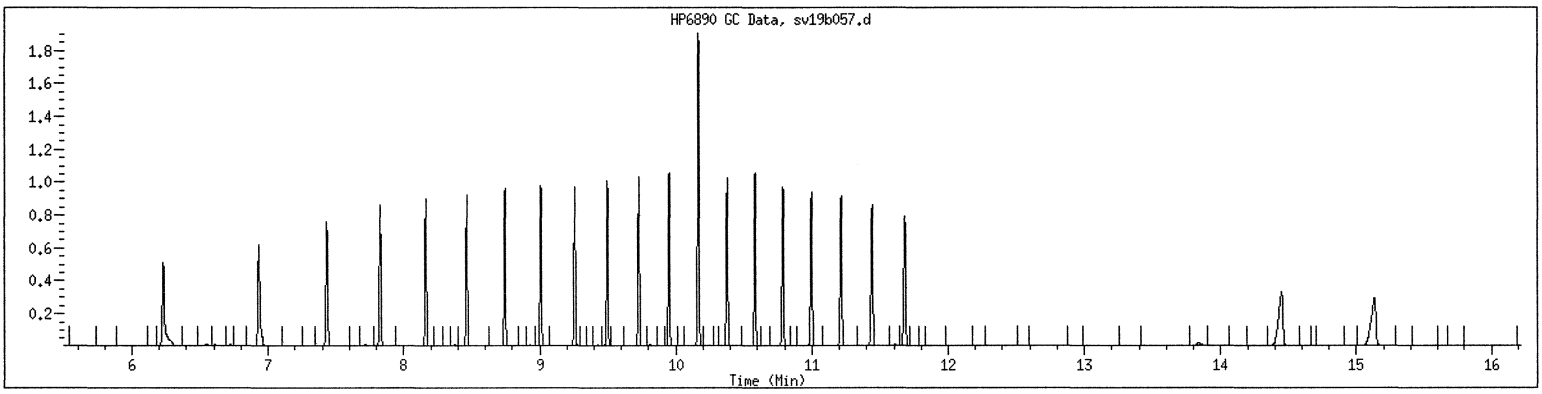
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/03/2011 14:54	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-16-2		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Cal Date : 11-Nov-2011 16:02 dlb
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcsv19b.i/2111103.b/sv19b052s.d
Level 2: /var/chem/gcsv19b.i/2111103.b/sv19b053s.d
Level 3: /var/chem/gcsv19b.i/2111103.b/sv19b054s.d
Level 4: /var/chem/gcsv19b.i/2111103.b/sv19b055s.d
Level 5: /var/chem/gcsv19b.i/2111103.b/sv19b056s.d

	Compound	1.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
	1 Naphthalene	2871371	2880452	2795766	2859339	2803867	2842159	1.389
	2 2-Methylnaphthalene	2390073	2394998	2345540	2406153	2358179	2378988	1.086
	4 Acenaphthylene	2742978	2787580	2735871	2801782	2748122	2763267	1.065
	6 Acenaphthene	2939138	2974500	2797376	2847632	2992117	2910153	2.892
	7 Fluorene	2698627	2763527	2759247	2833327	2801195	2771184	1.825
	8 Phenanthrene	2595622	2723658	2778901	2849934	2855307	2760684	3.879
	9 Anthracene	2513243	2630537	2655916	2746767	2723523	2653997	3.464
	12 Fluoranthene	2615148	2778457	2865217	2923634	2923247	2821141	4.592
	13 Pyrene	2622128	2808614	2905331	2966543	2974785	2855480	5.126
	14 Benzo(a)Anthracene	2463921	2659230	2834632	2942403	2985058	2777049	7.762
	15 Chrysene	2577178	2691296	2772251	2844436	2855699	2748172	4.223
	16 Benzo(b)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
	17 Benzo(k)Fluoranthene	2542088	2741276	2869331	2969808	2944332	2813367	6.247
	18 Benzo(a)Pyrene	2459311	2662945	2905156	2960554	2875461	2772685	7.515
	19 Indo(1,2,3cd)Pyrene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
	20 Dibenzo(a,h)Anthracene	2354342	2617747	2836757	2866551	2719863	2679052	7.715
	21 Benzo(g,h,i)Perylene	2487409	2704307	2942094	3003707	2752450	2777993	7.386
M	22 Arom C11-C22	2574648	2716361	2794440	2862290	2822200	2753988	4.124
	23 Unadjusted Arom C11-C22	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M	113 Total Surrogate Area	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	3 2-Fluorobiphenyl	2473008	2477779	2421128	2479969	2435554	2457488	1.107

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-NOV-2011 15:55
End Cal Date : 03-NOV-2011 14:30
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Cal Date : 11-Nov-2011 16:02 dlb
Curve Type : Average

	1.000	10.000	50.000	100.000	200.000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
$ 5 2-Bromonaphthalene	1570168	1562462	1600777	1661330	1449154	1568778	4.932
$ 10 O-Terphenyl	2900971	2972915	2936779	2979088	2954226	2948796	1.067
$ 11 Chloro-octadecane	2731973	2792662	2730816	2775185	2666865	2739500	1.780

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Lab Smp Id: 1201 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 15:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 15:55 Cal File: sv19b052.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.877	7.878	-0.001	2871371	1.00000	1.00(M2)
	2 2-Methylnaphthalene	8.263	8.261	0.002	2390073	1.00000	1.00(M2)
$	3 2-Fluorobiphenyl	8.450	8.450	0.000	2473008	1.00000	1.00(M2)
	4 Acenaphthylene	8.761	8.760	0.001	2742978	1.00000	1.00(M2)
$	5 2-Bromonaphthalene	8.833	8.832	0.001	1570168	1.00000	1.00(M2)
	6 Acenaphthene	8.851	8.850	0.001	2939138	1.00000	1.00(M2)
	7 Fluorene	9.126	9.128	-0.002	2698627	1.00000	1.00(M2)
	8 Phenanthrene	9.653	9.652	0.001	2595622	1.00000	1.00(M2)
	9 Anthracene	9.681	9.680	0.001	2513243	1.00000	1.00(M2)
$	10 O-Terphenyl	9.818	9.819	-0.001	2900971	1.00000	1.00(M2)
	12 Fluoranthene	10.323	10.322	0.001	2615148	1.00000	1.00(M2)
	13 Pyrene	10.463	10.461	0.002	2622128	1.00000	1.00(M2)
	14 Benzo(a)Anthracene	11.206	11.208	-0.002	2463921	1.00000	1.00(M2)

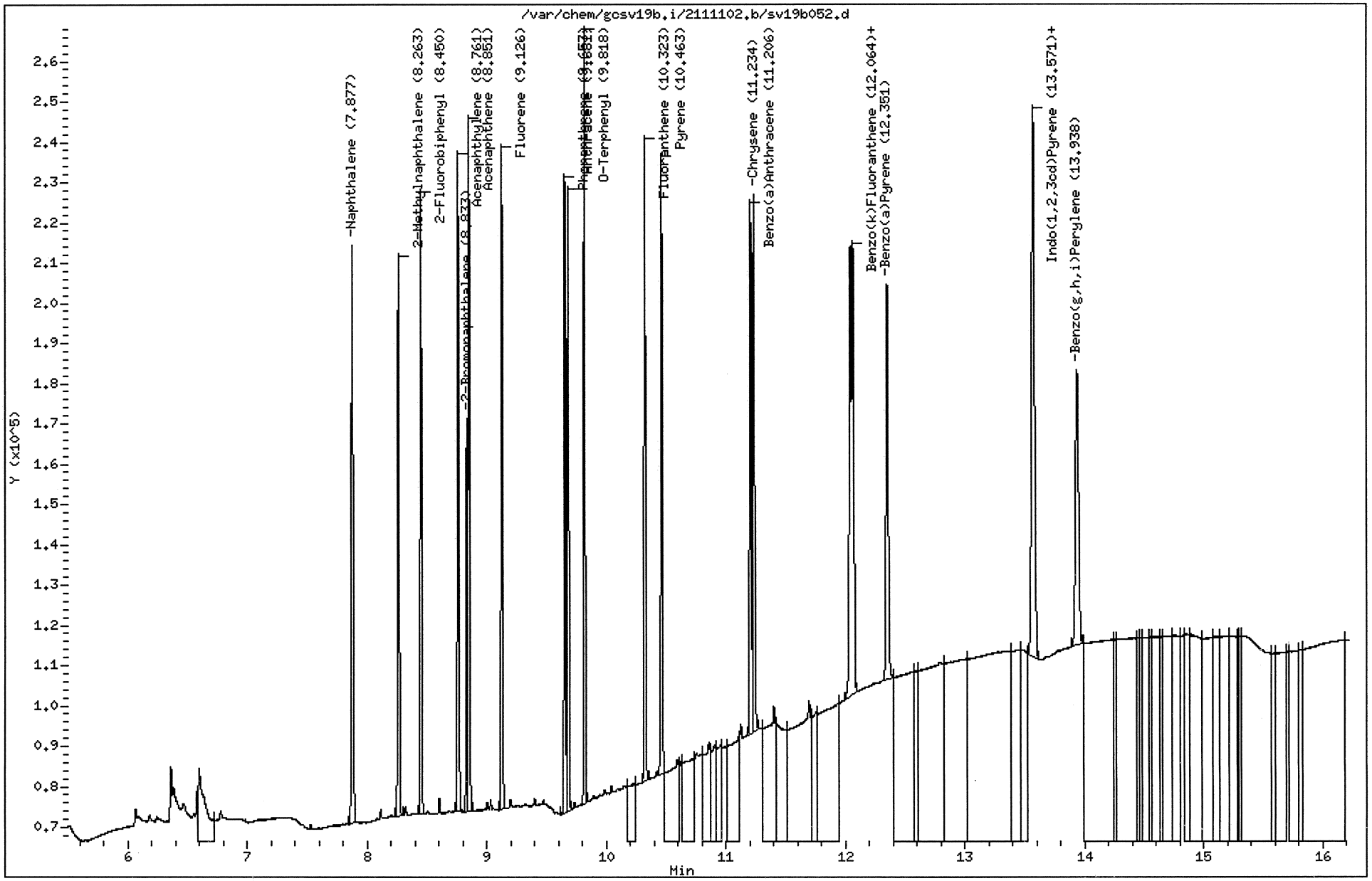
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.234	11.232	0.002	2577178	1.00000	1.00 (M2)
16	Benzo(b)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
17	Benzo(k)Fluoranthene	12.064	12.062	0.002	5084176	2.00000	2.00 (M2)
18	Benzo(a)Pyrene	12.351	12.350	0.001	2459311	1.00000	1.00 (M2)
19	Indo(1,2,3cd)Pyrene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
20	Dibenzo(a,h)Anthracene	13.571	13.570	0.001	4708685	2.00000	2.00 (M2)
21	Benzo(g,h,i)Perylene	13.938	13.939	-0.001	2487409	1.00000	1.00 (M2)
M 22	Arom C11-C22				43769008	17.0000	17.0
M 113	Total Surrogate Area				6944147	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b052.d
Date : 02-NOV-2011 15:55
Client ID: 1 84-12-8
Sample Info: 1201*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

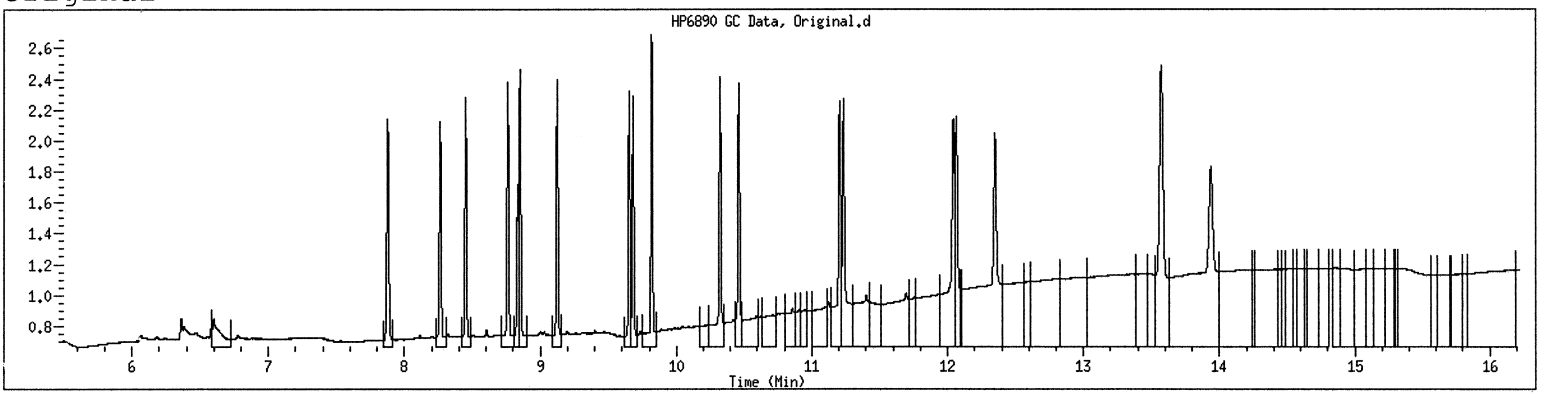
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



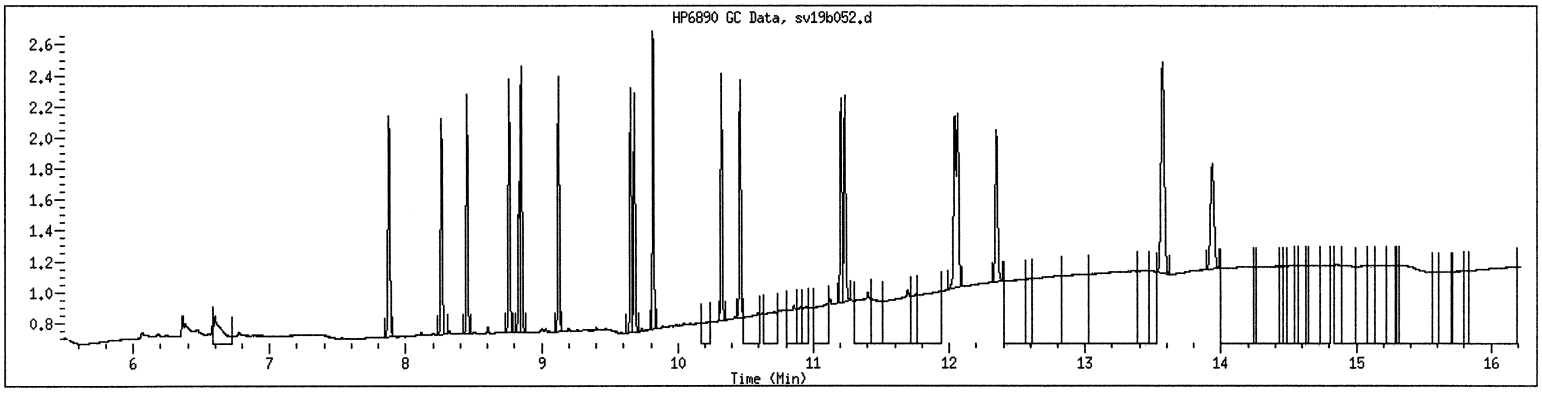
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/02/2011 15:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b053.d
Lab Smp Id: 1202 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:19
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:19 Cal File: sv19b053.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.876	7.878	-0.002	28804515	10.0000	10.0(M2)
	2 2-Methylnaphthalene	8.262	8.261	0.001	23949975	10.0000	10.0(M2)
$	3 2-Fluorobiphenyl	8.450	8.450	0.000	24777794	10.0000	10.0(M2)
	4 Acenaphthylene	8.761	8.761	0.000	27875803	10.0000	10.1(M2)
$	5 2-Bromonaphthalene	8.835	8.832	0.003	15624622	10.0000	9.98(M2)
	6 Acenaphthene	8.852	8.851	0.001	29745005	10.0000	10.1(M2)
	7 Fluorene	9.126	9.128	-0.002	27635268	10.0000	10.1(M2)
	8 Phenanthrene	9.654	9.652	0.002	27236585	10.0000	10.2(M2)
	9 Anthracene	9.682	9.681	0.001	26305372	10.0000	10.2(M2)
$	10 O-Terphenyl	9.818	9.819	-0.001	29729146	10.0000	10.1(M2)
	12 Fluoranthene	10.324	10.322	0.002	27784568	10.0000	10.3(M2)
	13 Pyrene	10.463	10.461	0.002	28086137	10.0000	10.3(M2)
	14 Benzo(a)Anthracene	11.206	11.208	-0.002	26592300	10.0000	10.4(M2)

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.235	11.235	0.000	26912958	10.0000	10.2 (M2)
16 Benzo(b)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8 (M2)
17 Benzo(k)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8 (M2)
18 Benzo(a)Pyrene	12.353	12.351	0.002	26629448	10.0000	10.4 (M2)
19 Indo(1,2,3cd)Pyrene	13.584	13.576	0.008	52354931	20.0000	21.1 (M2)
20 Dibenzo(a,h)Anthracene	13.584	13.576	0.008	52354931	20.0000	21.1 (M2)
21 Benzo(g,h,i)Perylene	13.951	13.945	0.006	27043066	10.0000	10.4 (M2)
M 22 Arom C11-C22				461781444	170.000	175
M 113 Total Surrogate Area				70131562	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b053.d

Page 1

Date : 02-NOV-2011 16:19

Client ID: 1 84-12-8

Instrument: gcsv19b.i

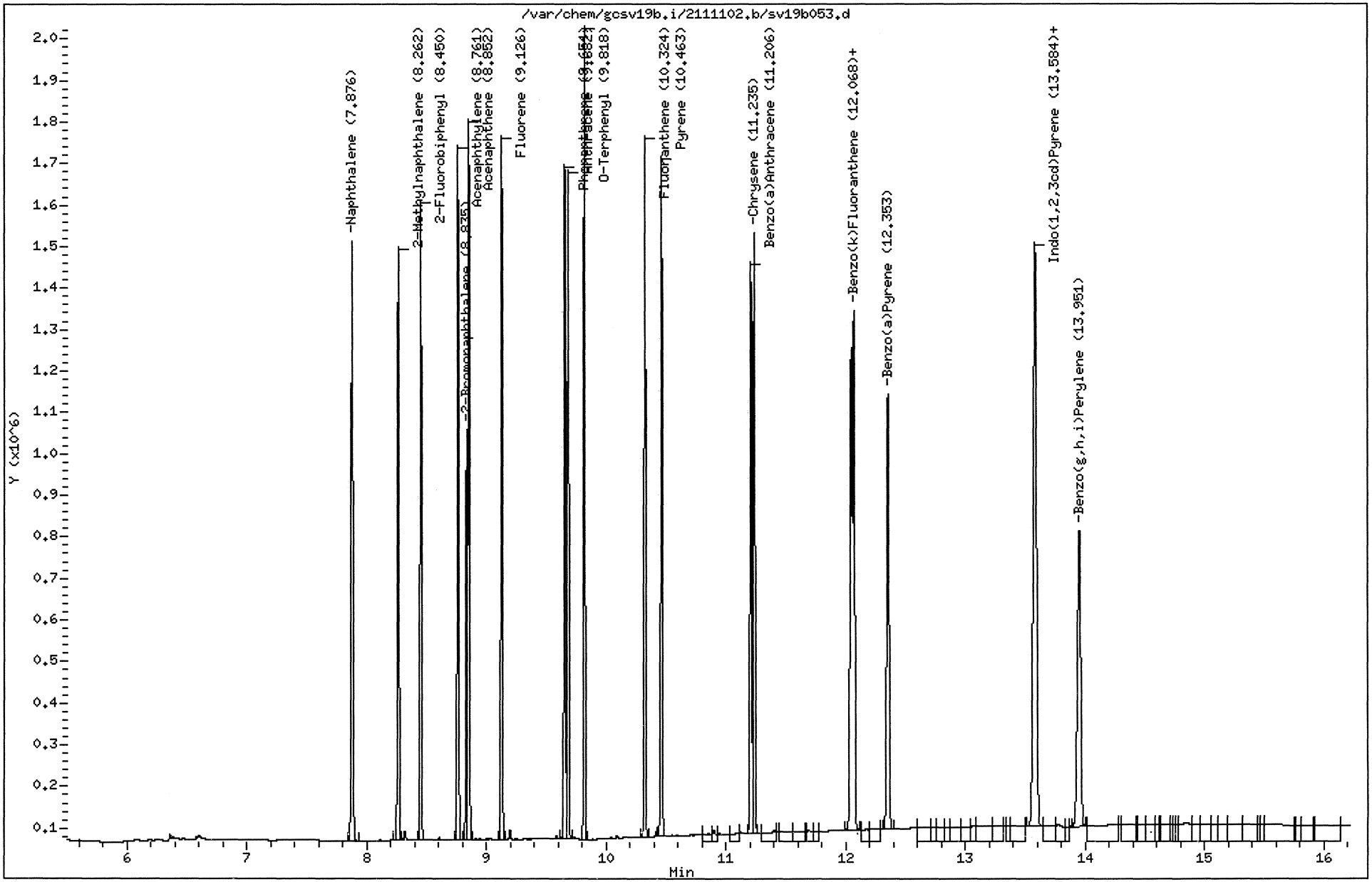
Sample Info: 1202*1 84-12-8

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

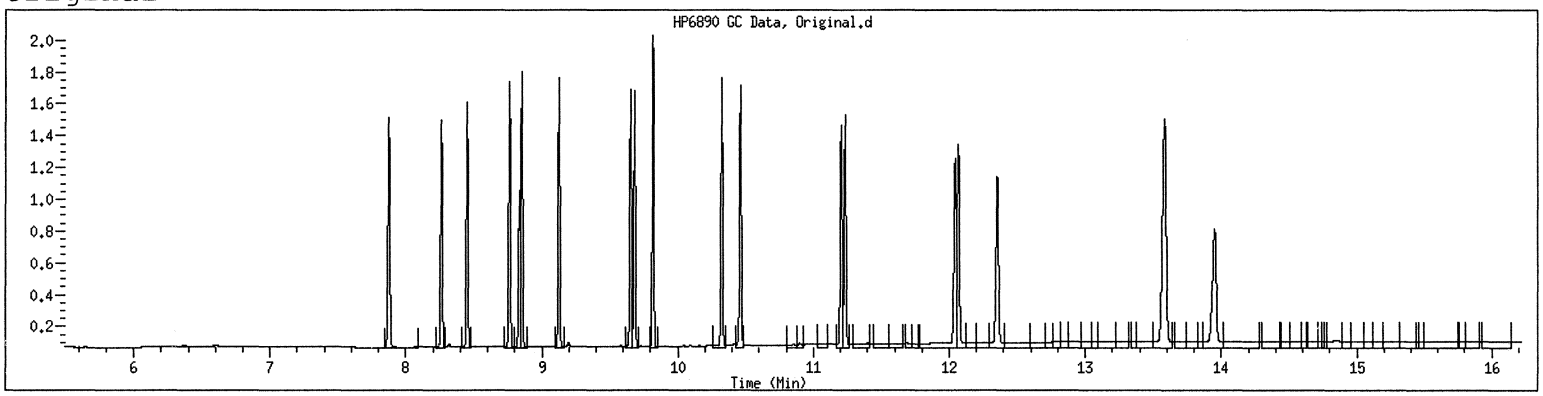
Column diameter: 0.25



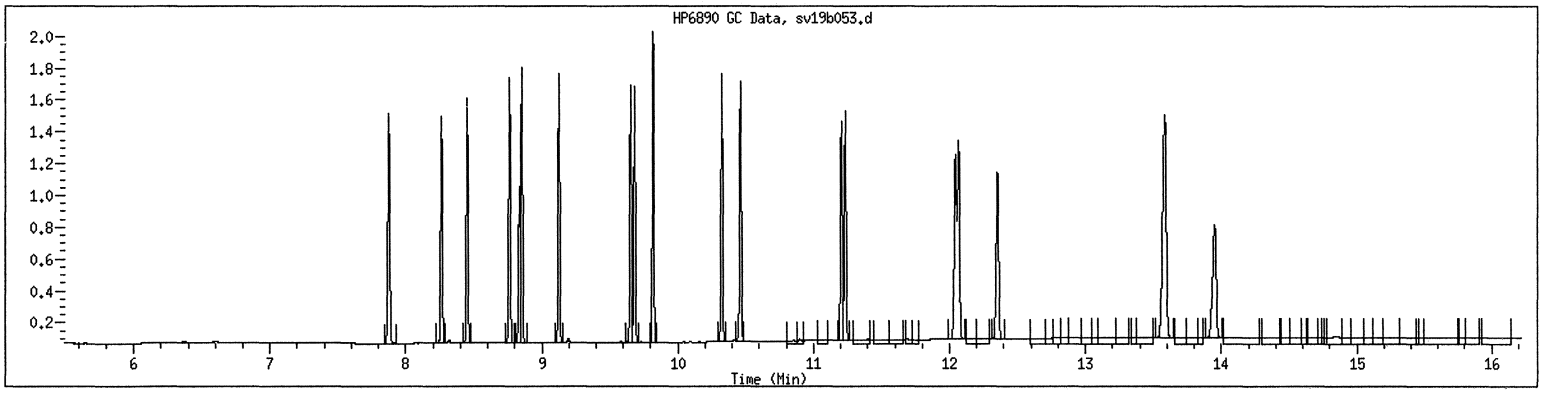
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/02/2011 16:19	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Lab Smp Id: 1203 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 16:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 16:42 Cal File: sv19b054.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.879	7.879	0.000	139788310	50.0000	49.1
	2 2-Methylnaphthalene	8.265	8.263	0.002	117276990	50.0000	49.3
$	3 2-Fluorobiphenyl	8.453	8.451	0.002	121056403	50.0000	49.3
	4 Acenaphthylene	8.765	8.762	0.003	136793555	50.0000	49.6
$	5 2-Bromonaphthalene	8.838	8.834	0.004	80038867	50.0000	50.7
	6 Acenaphthene	8.857	8.853	0.004	139868814	50.0000	48.2
	7 Fluorene	9.130	9.129	0.001	137962328	50.0000	50.3
	8 Phenanthrene	9.657	9.654	0.003	138945044	50.0000	51.5
	9 Anthracene	9.687	9.683	0.004	132795791	50.0000	51.1
$	10 O-Terphenyl	9.820	9.819	0.001	146838940	50.0000	50.0
	12 Fluoranthene	10.325	10.323	0.002	143260836	50.0000	52.0
	13 Pyrene	10.465	10.463	0.002	145266555	50.0000	52.3
	14 Benzo(a)Anthracene	11.207	11.208	-0.001	141731614	50.0000	53.4

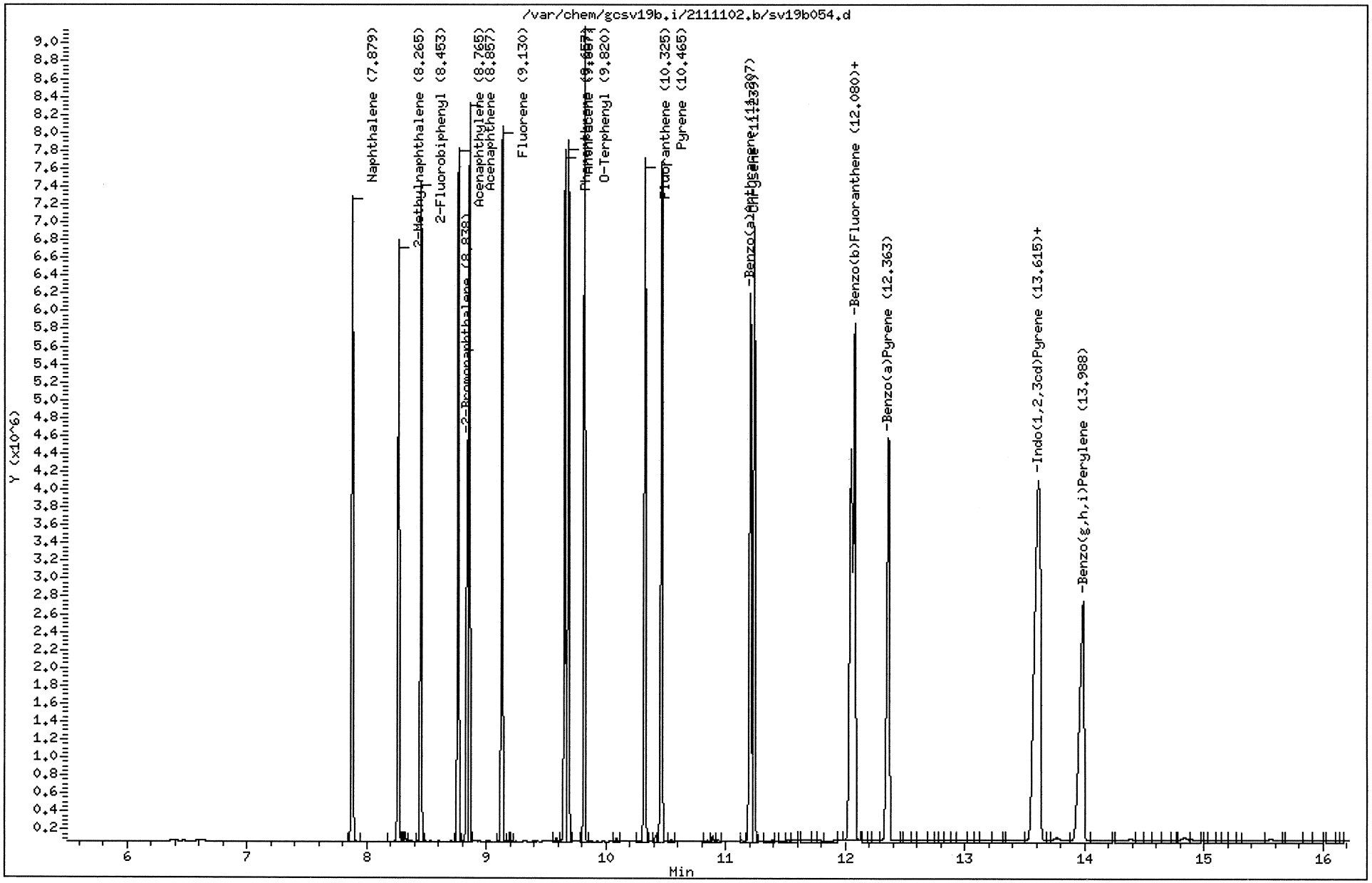
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15	Chrysene	11.239	11.236	0.003	138612563	50.0000	51.7
16	Benzo(b)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
17	Benzo(k)Fluoranthene	12.080	12.070	0.010	286933061	100.000	106(M2)
18	Benzo(a)Pyrene	12.363	12.355	0.008	145257809	50.0000	54.3
19	Indo(1,2,3cd)Pyrene	13.615	13.589	0.026	283675684	100.000	109
20	Dibenzo(a,h)Anthracene	13.615	13.589	0.026	283675684	100.000	109(M1)
21	Benzo(g,h,i)Perylene	13.988	13.959	0.029	147104717	50.0000	54.3
M 22	Arom C11-C22				2375273671	850.000	882
M 113	Total Surrogate Area				347934210	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b054.d
Date : 02-NOV-2011 16:42
Client ID: 1 84-12-8
Sample Info: 1203*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

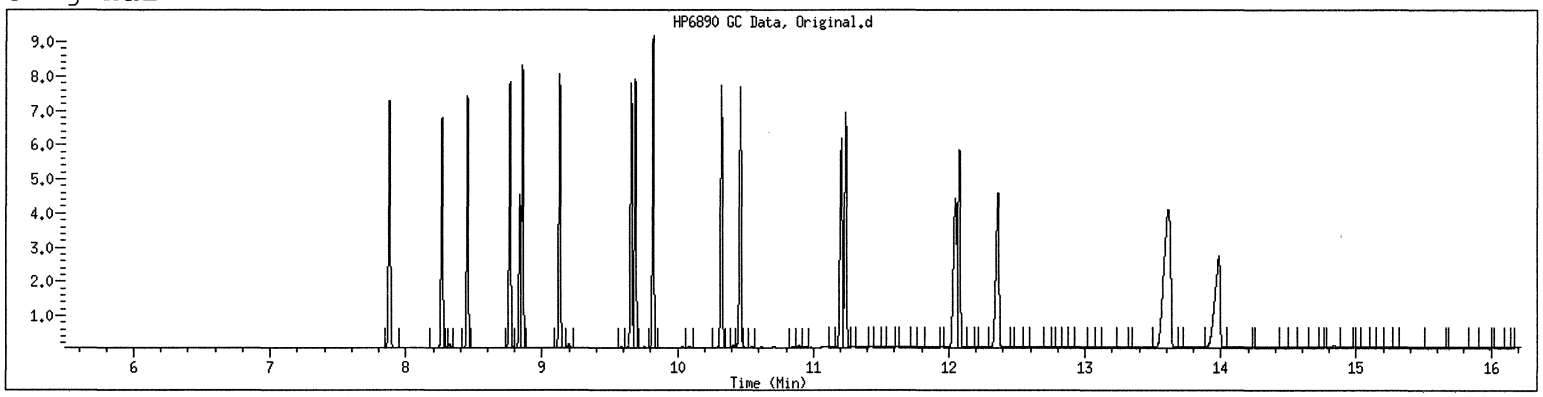
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



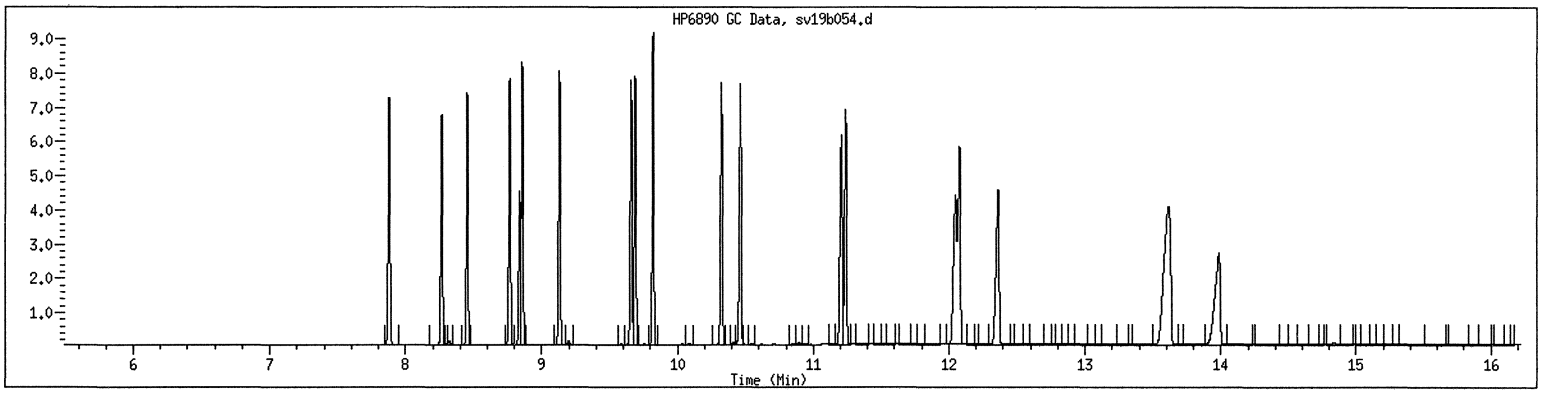
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/02/2011 16:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist: all	

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b055.d
Lab Smp Id: 1204 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:07
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:07 Cal File: sv19b055.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.882	7.879	0.003	285933881	100.000	100
	2 2-Methylnaphthalene	8.269	8.264	0.005	240615323	100.000	101
$	3 2-Fluorobiphenyl	8.457	8.453	0.004	247996907	100.000	101
	4 Acenaphthylene	8.769	8.764	0.005	280178162	100.000	101
$	5 2-Bromonaphthalene	8.843	8.836	0.007	166132975	100.000	104
	6 Acenaphthene	8.864	8.855	0.009	284763163	100.000	98.5
	7 Fluorene	9.136	9.131	0.005	283332686	100.000	103
	8 Phenanthrene	9.663	9.656	0.007	284993363	100.000	104
	9 Anthracene	9.695	9.685	0.010	274676746	100.000	104
$	10 O-Terphenyl	9.826	9.821	0.005	297908777	100.000	101
	12 Fluoranthene	10.334	10.325	0.009	292363394	100.000	105
	13 Pyrene	10.475	10.465	0.010	296654255	100.000	105
	14 Benzo(a)Anthracene	11.219	11.211	0.008	294240261	100.000	108

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
15 Chrysene	11.255	11.240	0.015	284443626	100.000	105
16 Benzo(b)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
17 Benzo(k)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214(AM2)
18 Benzo(a)Pyrene	12.387	12.363	0.024	296055391	100.000	108
19 Indo(1,2,3cd)Pyrene	13.675	13.610	0.065	573310212	200.000	215(AM2)
20 Dibenzo(a,h)Anthracene	13.675	13.610	0.065	573310212	200.000	215(AM2)
21 Benzo(g,h,i)Perylene	14.036	13.979	0.057	300370678	100.000	108
M 22 Arom C11-C22				4865892710	1700.00	1780
M 113 Total Surrogate Area				712038659	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b055.d

Date : 02-NOV-2011 17:07

Client ID: 1 84-12-8

Sample Info: 1204*1 84-12-8

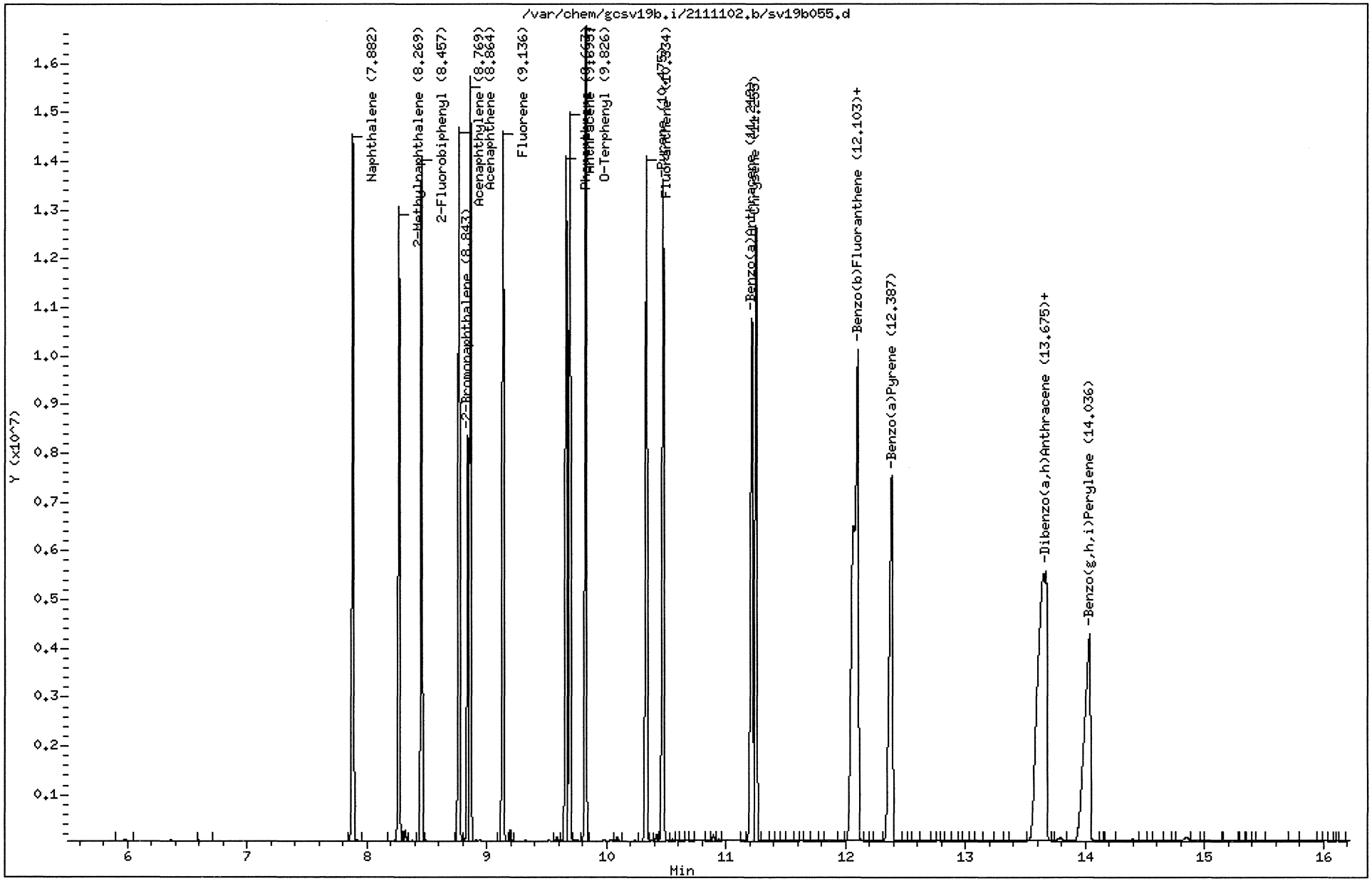
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25

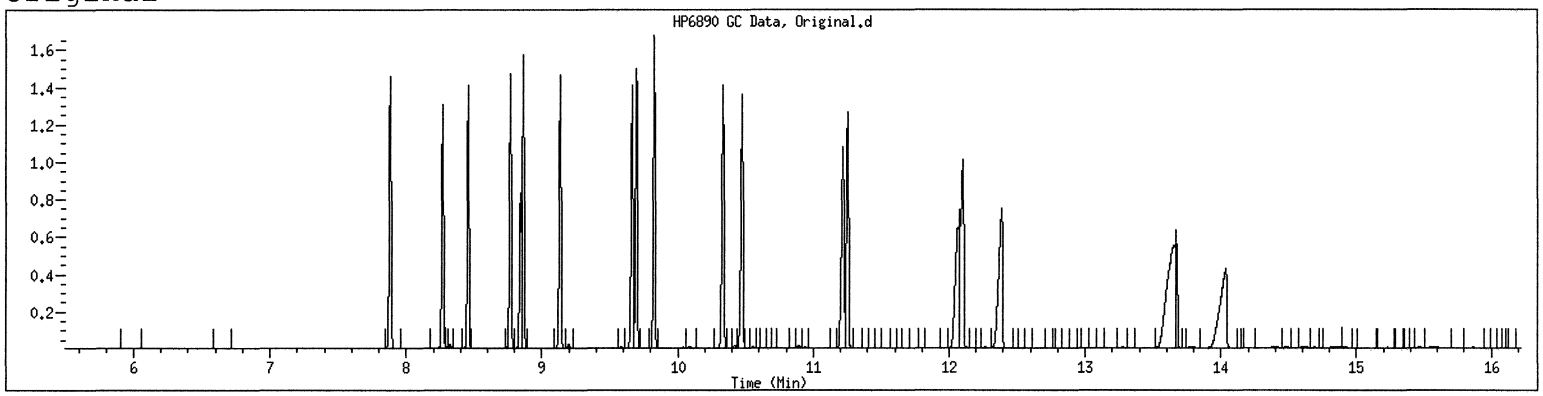


211110421 180

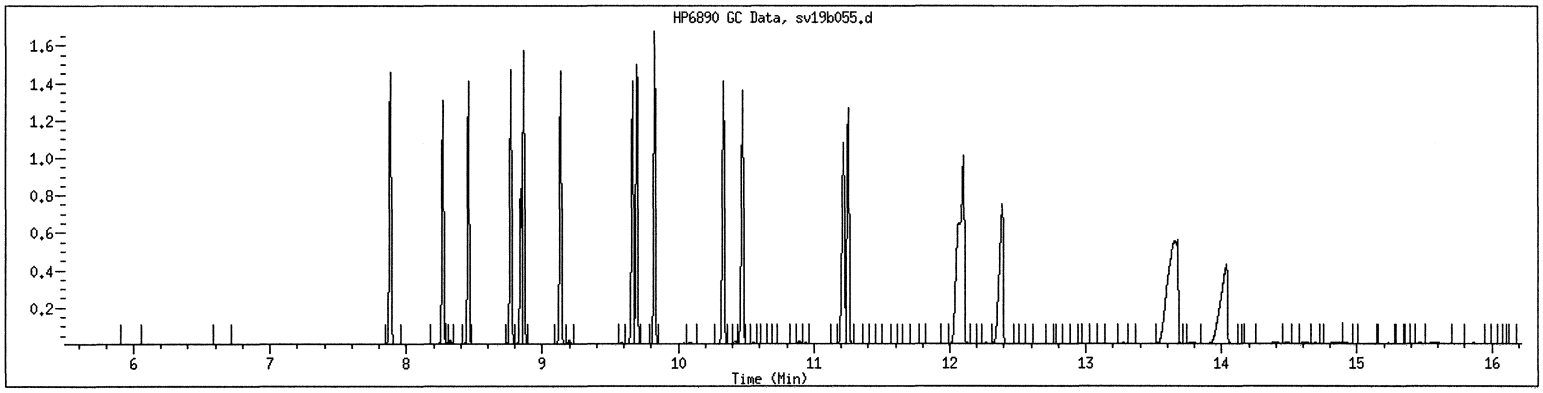
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/02/2011 17:07	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist:	all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b056.d
Lab Smp Id: 1205 Client Smp ID: 1 84-12-8
Inj Date : 02-NOV-2011 17:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:35 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.888	7.881	0.007	560773309	200.000	197
	2 2-Methylnaphthalene	8.274	8.266	0.008	471635711	200.000	198
$	3 2-Fluorobiphenyl	8.462	8.454	0.008	487110868	200.000	198
	4 Acenaphthylene	8.776	8.767	0.009	549624381	200.000	199
$	5 2-Bromonaphthalene	8.853	8.839	0.014	289830833	200.000	185
	6 Acenaphthene	8.872	8.858	0.014	598423437	200.000	206(A)
	7 Fluorene	9.143	9.133	0.010	560238934	200.000	202(A)
	8 Phenanthrene	9.671	9.658	0.013	571061474	200.000	207(A)
	9 Anthracene	9.705	9.689	0.016	544704598	200.000	205(A)
$	10 O-Terphenyl	9.832	9.823	0.009	590845256	200.000	200(A)
	12 Fluoranthene	10.343	10.329	0.014	584649476	200.000	207(A)
	13 Pyrene	10.485	10.468	0.017	594957073	200.000	208(A)
	14 Benzo(a)Anthracene	11.230	11.215	0.015	597011528	200.000	215(A)

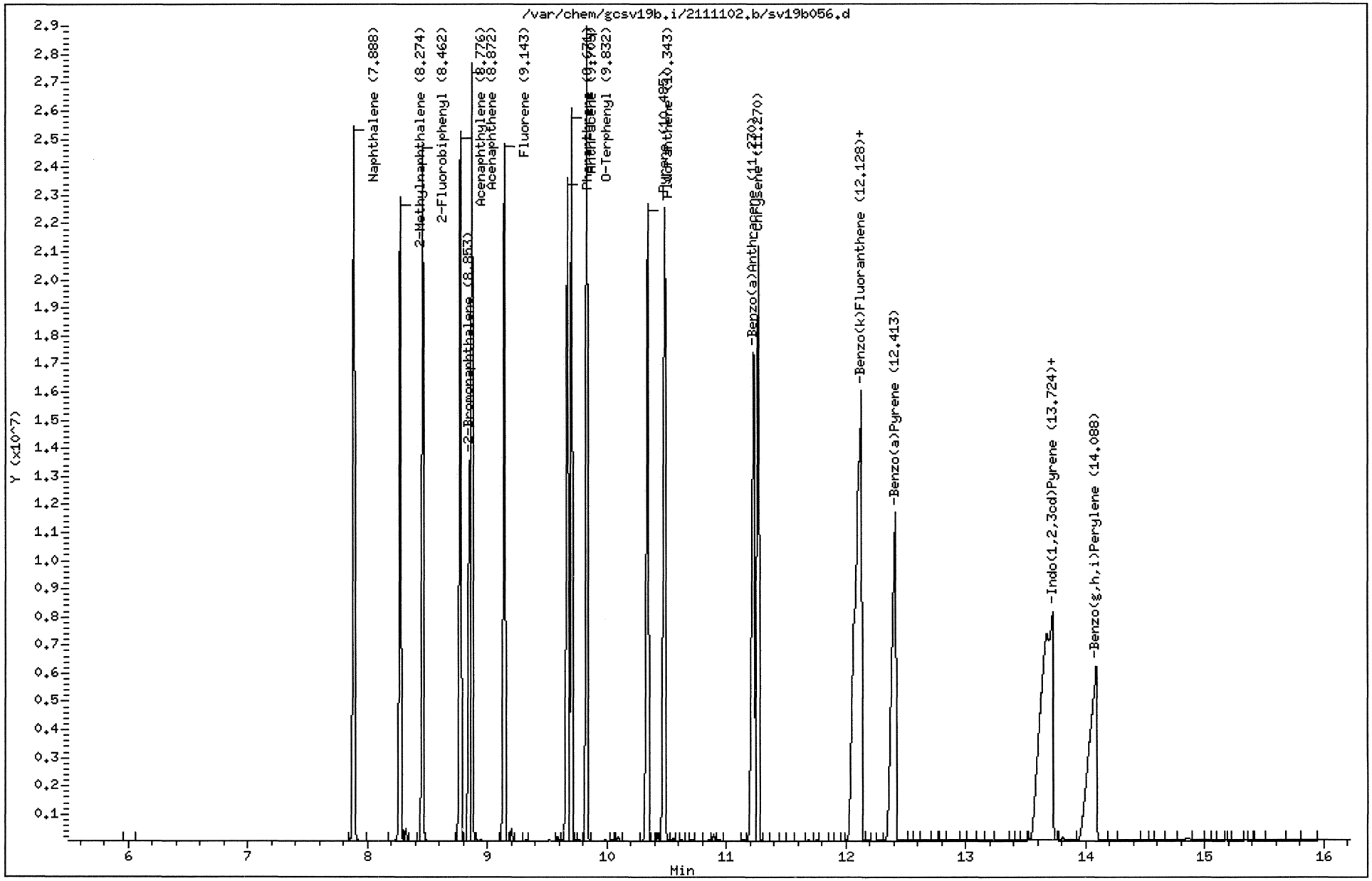
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	15 Chrysene	11.270	11.246	0.024	571139866	200.000	208(A)
	16 Benzo(b)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(AM1)
	17 Benzo(k)Fluoranthene	12.128	12.088	0.040	1177732644	400.000	419(A)
	18 Benzo(a)Pyrene	12.413	12.373	0.040	575092148	200.000	207(A)
	19 Indo(1,2,3cd)Pyrene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
	20 Dibenzo(a,h)Anthracene	13.724	13.632	0.092	1087945178	400.000	406(AM2)
	21 Benzo(g,h,i)Perylene	14.088	14.001	0.087	550489918	200.000	198
M	22 Arom C11-C22				9595479675	3400.00	3480
M	113 Total Surrogate Area				1367786957	0.00000	(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b056.d
Date : 02-NOV-2011 17:30
Client ID: 1 84-12-8
Sample Info: 1205*1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

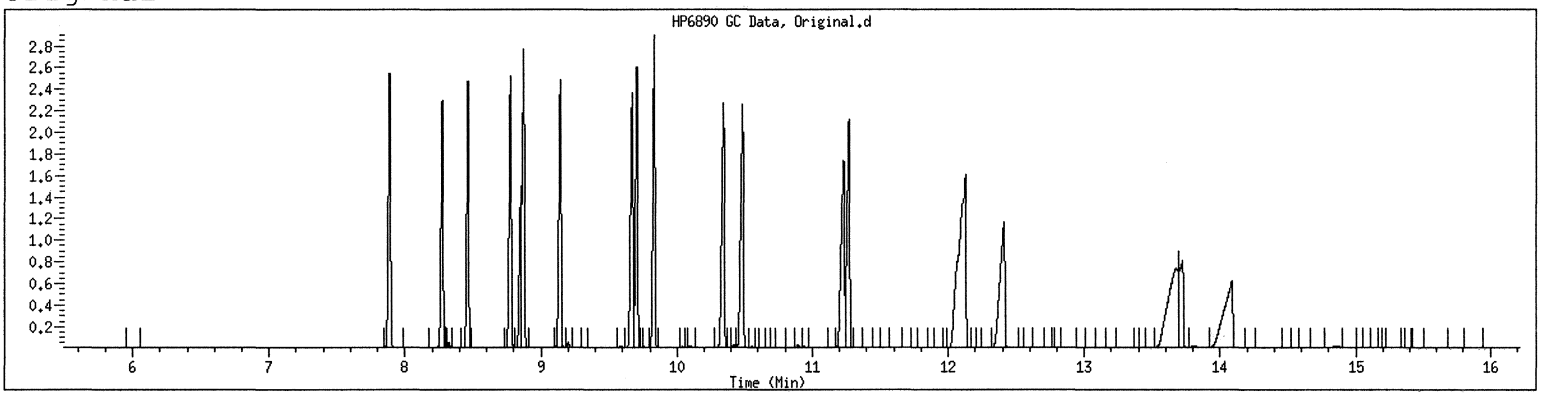
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



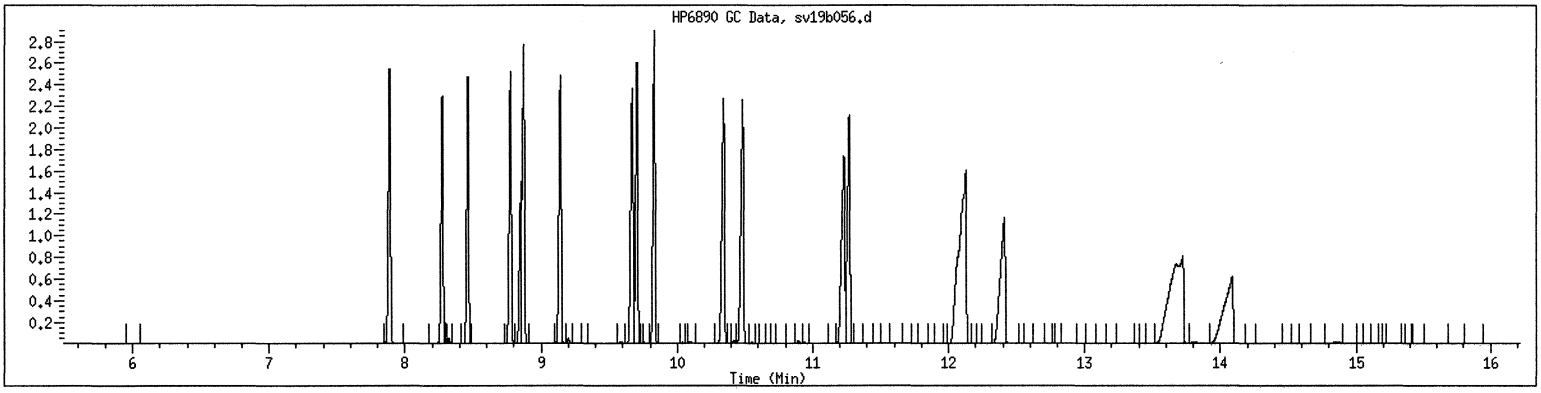
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/02/2011 17:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



Report Date: 08-Nov-2011 08:49

GCAL, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2111102
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1600 Client Smp ID: 1 84-7-10
Level: LOW Operator: smh
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: AROMICV.spk Quant Type: ESTD
Sublist File: all.sub
Method File: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Naphthalene	50.0	49.0	98.05	75-125
2 2-Methylnaphthalene	50.0	55.6	111.25	75-125
4 Acenaphthylene	50.0	49.5	98.98	75-125
6 Acenaphthene	50.0	47.9	95.74	75-125
7 Fluorene	50.0	50.0	100.07	75-125
8 Phenanthrene	50.0	50.4	100.72	75-125
9 Anthracene	50.0	50.5	100.97	75-125
12 Fluoranthene	50.0	49.6	99.22	75-125
13 Pyrene	50.0	51.1	102.27	75-125
14 Benzo(a)Anthracene	50.0	50.4	100.89	75-125
15 Chrysene	50.0	49.9	99.75	75-125
16 Benzo(b)Fluoranthene	100	101	101.11	75-125
17 Benzo(k)Fluoranthene	100	101	101.11	75-125
18 Benzo(a)Pyrene	50.0	50.9	101.88	75-125
19 Indo(1,2,3cd)Pyrene	100	104	104.37	75-125
20 Dibenzo(a,h)Anthracene	100	104	104.37	75-125
21 Benzo(g,h,i)Perylene	50.0	52.5	105.06	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 2-Fluorobiphenyl	50.0	51.5	102.93	40-140
$ 5 2-Bromonaphthalene	50.0	54.4	108.75	40-140
$ 10 O-Terphenyl	50.0	55.1	110.13	40-140
$ 11 Chloro-octadecane	50.0	0.00	*	40-140

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111102.b/sv19b057.d
Lab Smp Id: 1600 Client Smp ID: 1 84-7-10
Inj Date : 02-NOV-2011 17:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1600*1 84-7-10
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m
Meth Date : 08-Nov-2011 08:36 dlb Quant Type: ESTD
Cal Date : 02-NOV-2011 17:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1.00000	Volume of sample extracted (mL)
Vt	1.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 Naphthalene	7.879	7.881	-0.002	139338681	49.0256	49.0
	2 2-Methylnaphthalene	8.266	8.266	0.000	132335257	55.6267	55.6
$	3 2-Fluorobiphenyl	8.453	8.454	-0.001	126473294	51.4645	51.5
	4 Acenaphthylene	8.765	8.767	-0.002	136751456	49.4891	49.5
$	5 2-Bromonaphthalene	8.838	8.839	-0.001	85304529	54.3764	54.4
	6 Acenaphthene	8.858	8.858	0.000	139305778	47.8689	47.9
	7 Fluorene	9.131	9.133	-0.002	138659834	50.0363	50.0
	8 Phenanthrene	9.658	9.658	0.000	139031327	50.3612	50.4
	9 Anthracene	9.688	9.689	-0.001	133992045	50.4869	50.5
$	10 O-Terphenyl	9.822	9.823	-0.001	162371730	55.0637	55.1
	12 Fluoranthene	10.327	10.329	-0.002	139951783	49.6082	49.6
	13 Pyrene	10.467	10.468	-0.001	146018326	51.1362	51.1
	14 Benzo(a)Anthracene	11.209	11.215	-0.006	140091684	50.4462	50.4

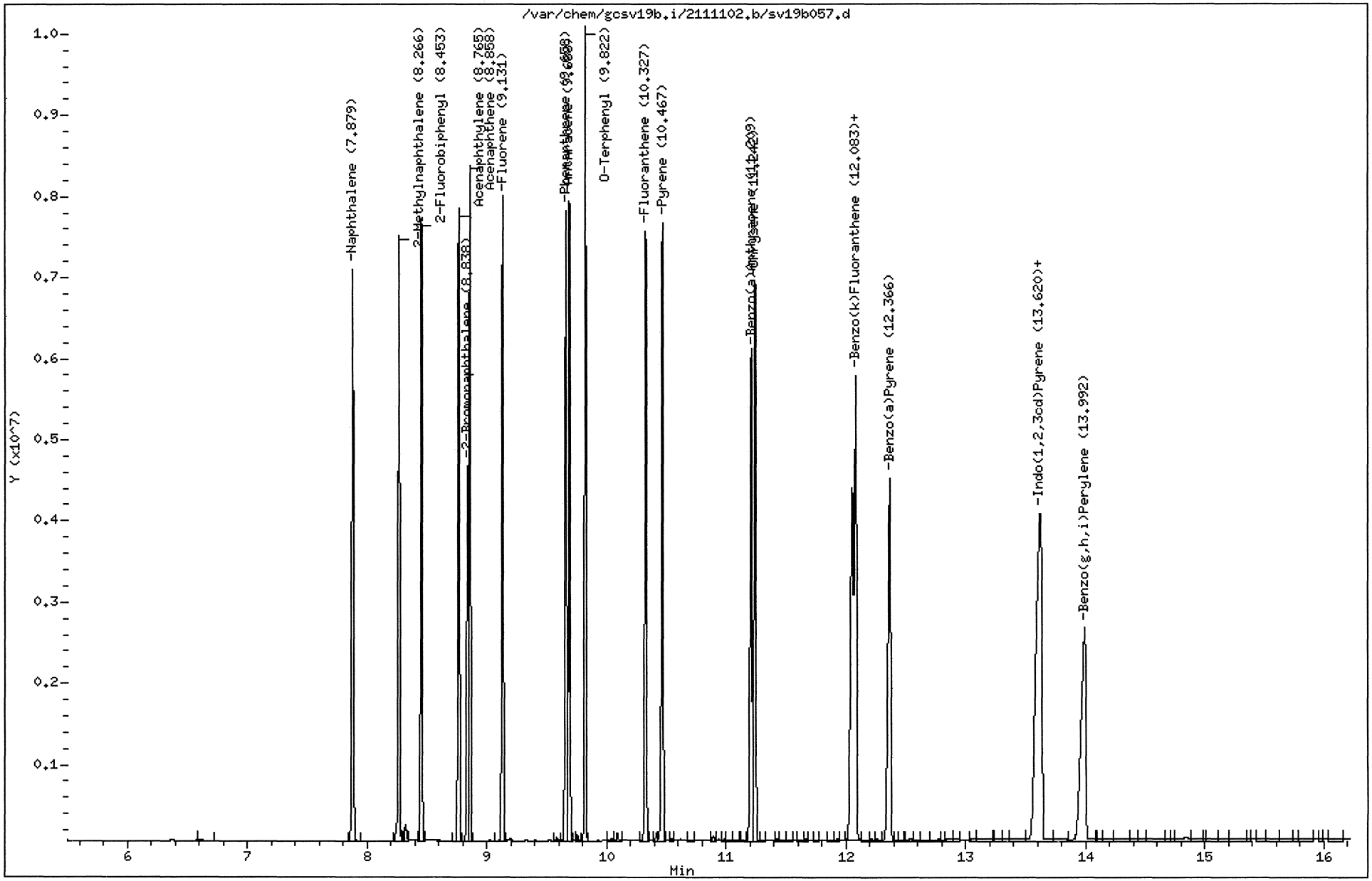
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)
15	Chrysene	11.242	11.246	-0.004	137066815	49.8756	49.9
16	Benzo(b)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101(M2)
17	Benzo(k)Fluoranthene	12.083	12.088	-0.005	284470342	101.114	101(M2)
18	Benzo(a)Pyrene	12.366	12.373	-0.007	141233811	50.9376	50.9
19	Indo(1,2,3cd)Pyrene	13.620	13.632	-0.012	279620012	104.373	104
20	Dibenzo(a,h)Anthracene	13.620	13.632	-0.012	279620012	104.373	104(M1)
21	Benzo(g,h,i)Perylene	13.992	14.001	-0.009	145927664	52.5299	52.5
M 22	Arom C11-C22				2373794815	862.915	863
M 113	Total Surrogate Area				374149553		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M1- Compound response manually integrated because
Target system did not integrate.
M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /var/chem/gcsv19b.i/2111102.b/sv19b057.d
Date : 02-NOV-2011 17:55
Client ID: 1 84-7-10
Sample Info: 1600*1 84-7-10
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

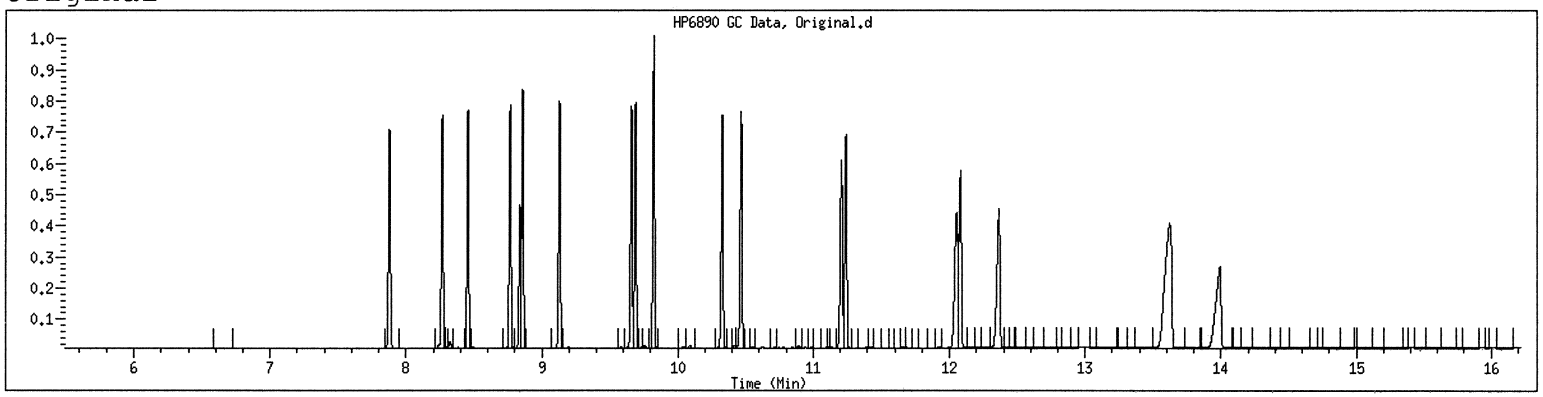
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



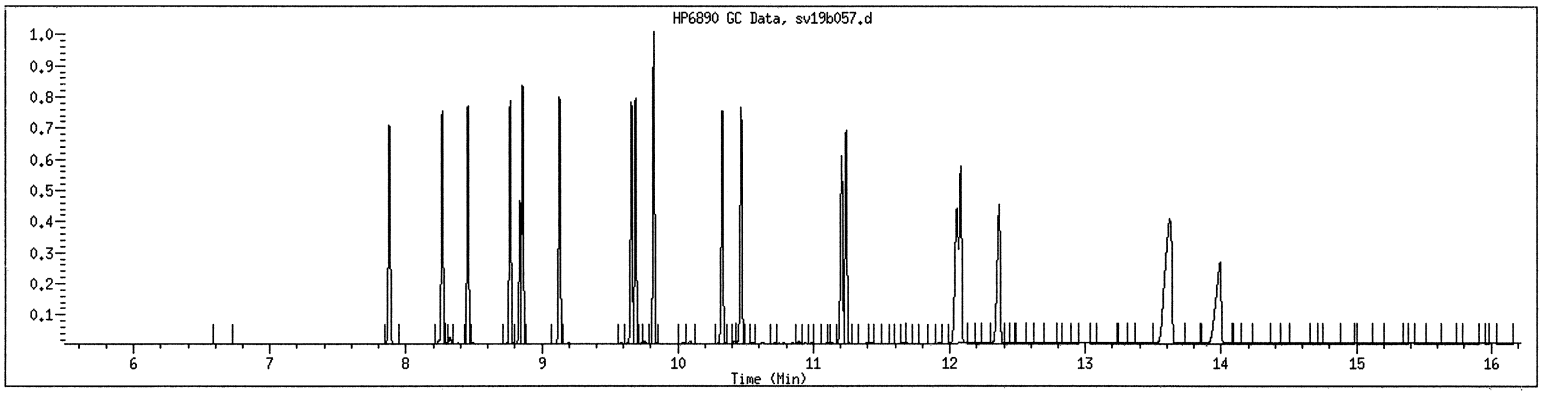
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1600	SampleType	: LCS
Injection Date	: 11/02/2011 17:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1600*1 84-7-10		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111102.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: all

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b052s.d
Lab Smp Id: 1201 Client Smp ID: 1 84-16-1
Inj Date : 03-NOV-2011 12:55
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1201*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/AROEPH.m
Meth Date : 08-Nov-2011 08:52 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 12:55 Cal File: sv19b052s.d
Als bottle: 52 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlosurr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
$ 14 Chloro-octadecane	10.185	10.305	-0.120	2731973	2.00000	2.0000(M2)

QC Flag Legend

M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b052s.d

Date : 03-NOV-2011 12:55

Client ID: 1 84-16-1

Sample Info: 1201*1 84-16-1

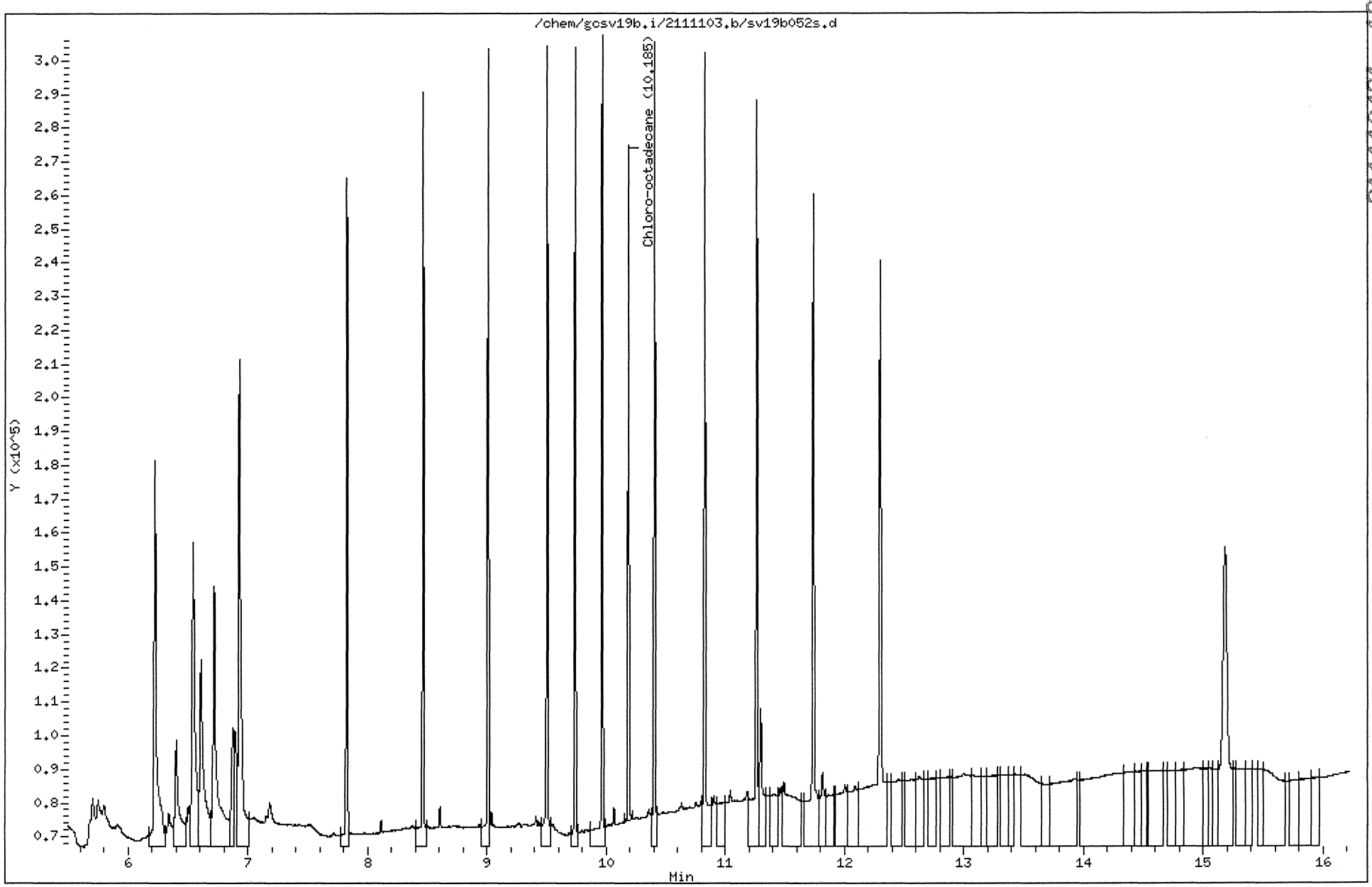
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

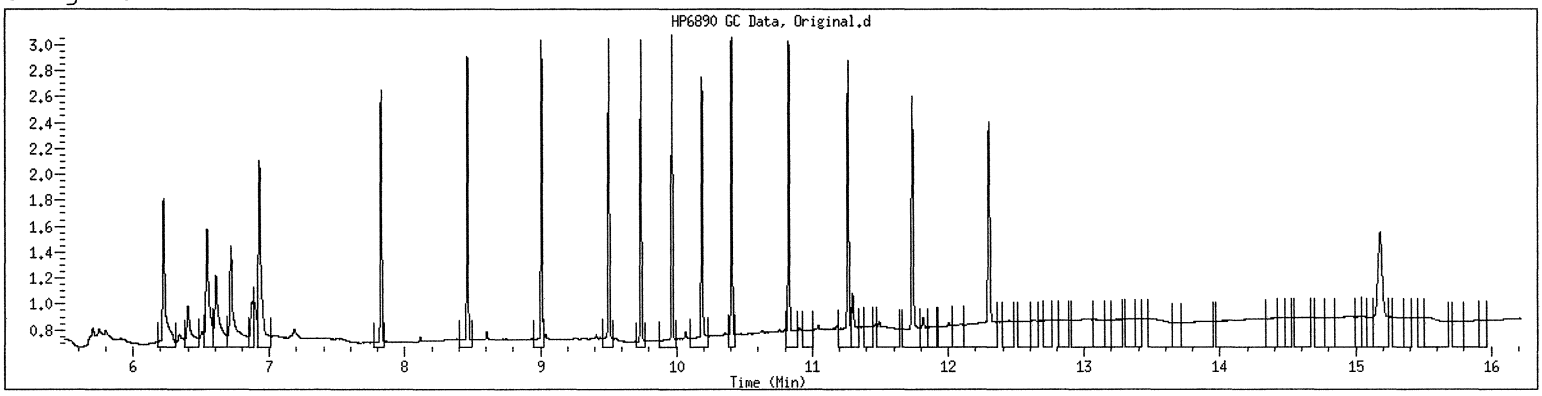
Column diameter: 0.25



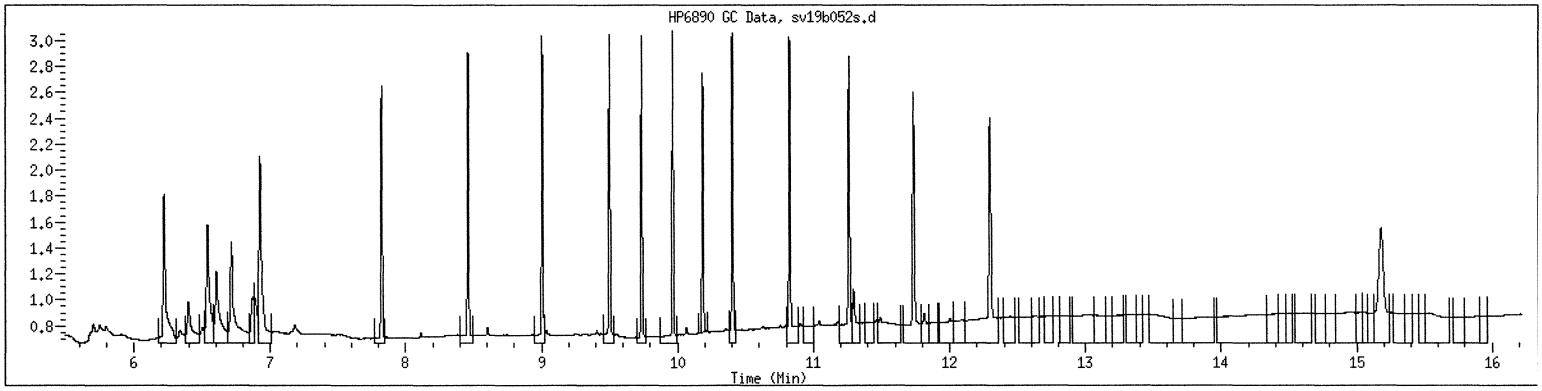
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1201	SampleType	: CALIB_1
Injection Date	: 11/03/2011 12:55	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1201*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/AROEPH.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: chlosurr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b053s.d
Lab Smp Id: 1202 Client Smp ID: 1 84-16-1
Inj Date : 03-NOV-2011 13:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1202*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/AROEPH.m
Meth Date : 08-Nov-2011 08:52 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 53 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlosurr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(UG/ML)
$ 14 Chloro-octadecane	10.165	10.305	-0.140	27926615	20.0000	20.2197(M2)

QC Flag Legend

M2- Compound response manually integrated because
Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111103.b/sv19b053s.d

Date : 03-NOV-2011 13:18

Client ID: 1 84-16-1

Sample Info: 1202x1 84-16-1

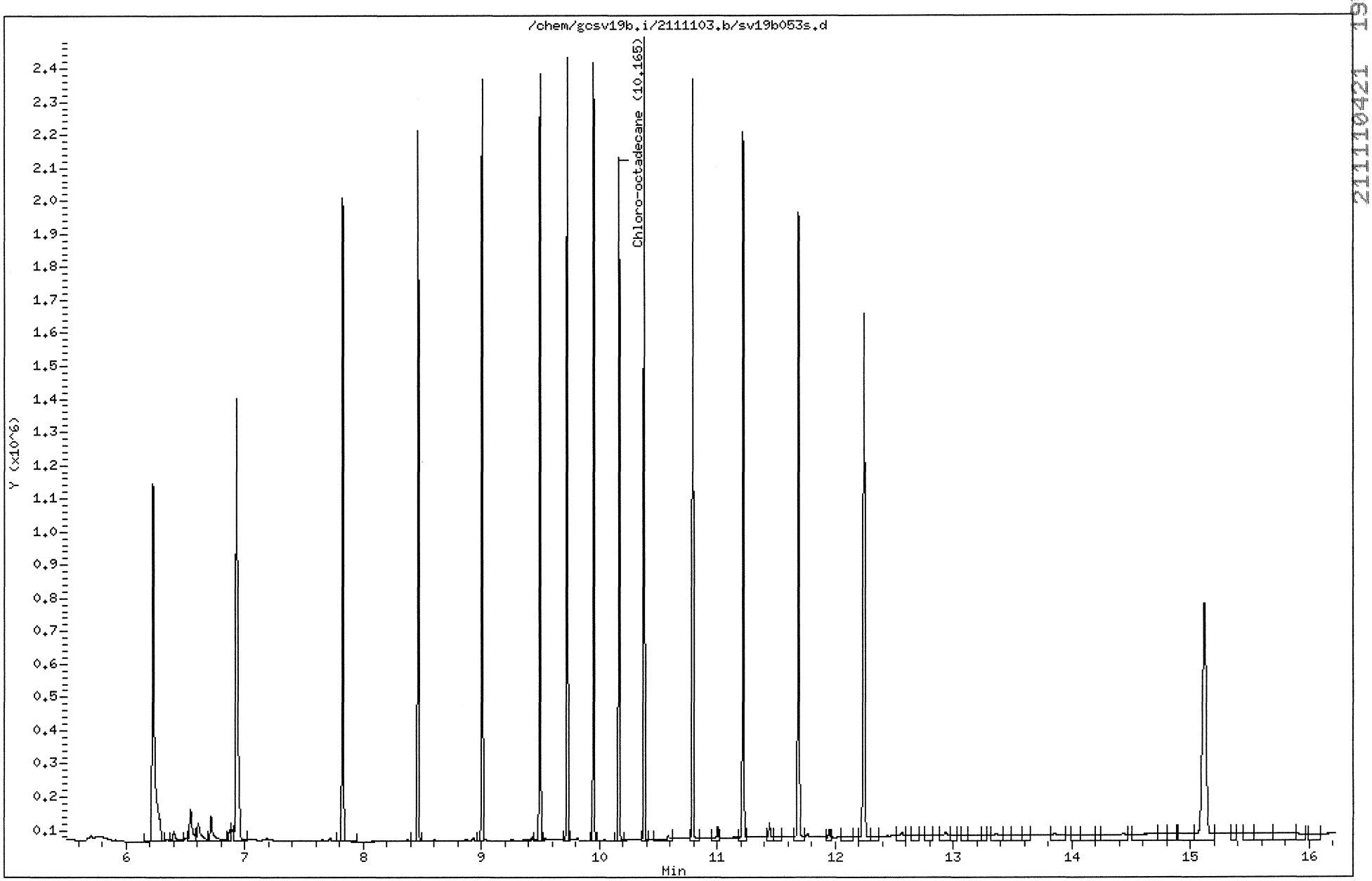
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

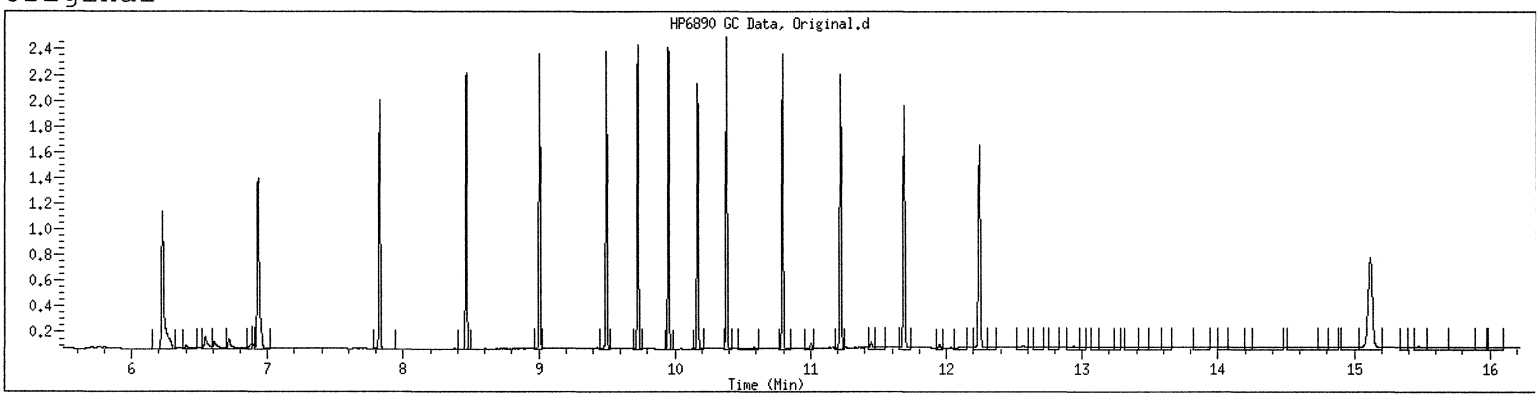
Column diameter: 0.25



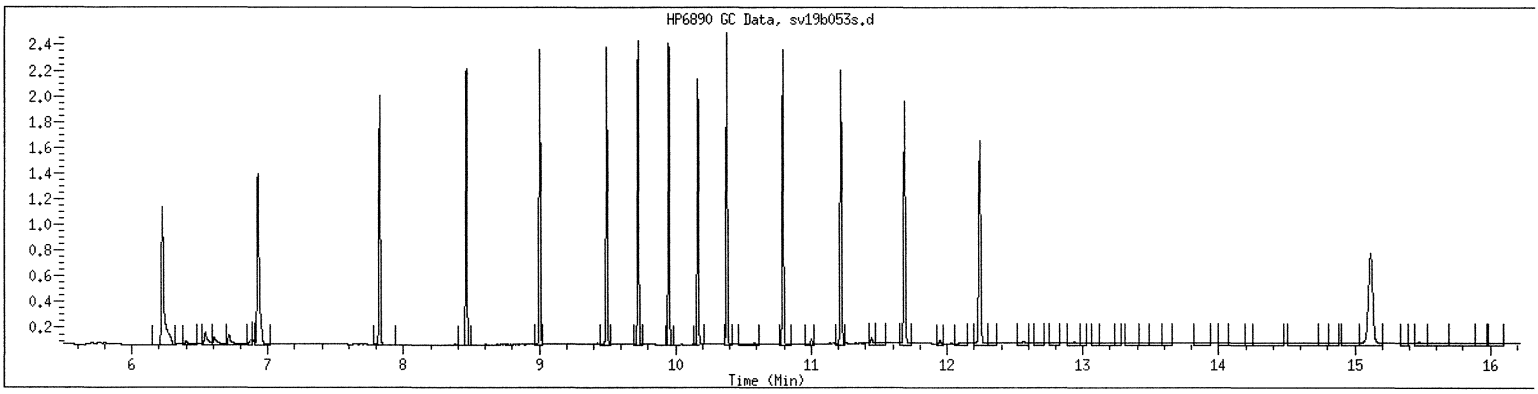
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1202	SampleType	: CALIB_2
Injection Date	: 11/03/2011 13:18	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1202*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/AROEPH.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: chlosurr

Original



Final



GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b054s.d
Lab Smp Id: 1203 Client Smp ID: 1 84-16-1
Inj Date : 03-NOV-2011 13:42
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1203*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/AROEPH.m
Meth Date : 08-Nov-2011 08:52 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:42 Cal File: sv19b054s.d
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlosurr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(UG/ML)
$ 14 Chloro-octadecane	10.166	10.259	-0.093	136540779	100.000	99.2368

Data File: /chem/gcsv19b.i/2111103.b/sv19b054s.d

Date : 03-NOV-2011 13:42

Client ID: 1 84-16-1

Sample Info: 1203*1 84-16-1

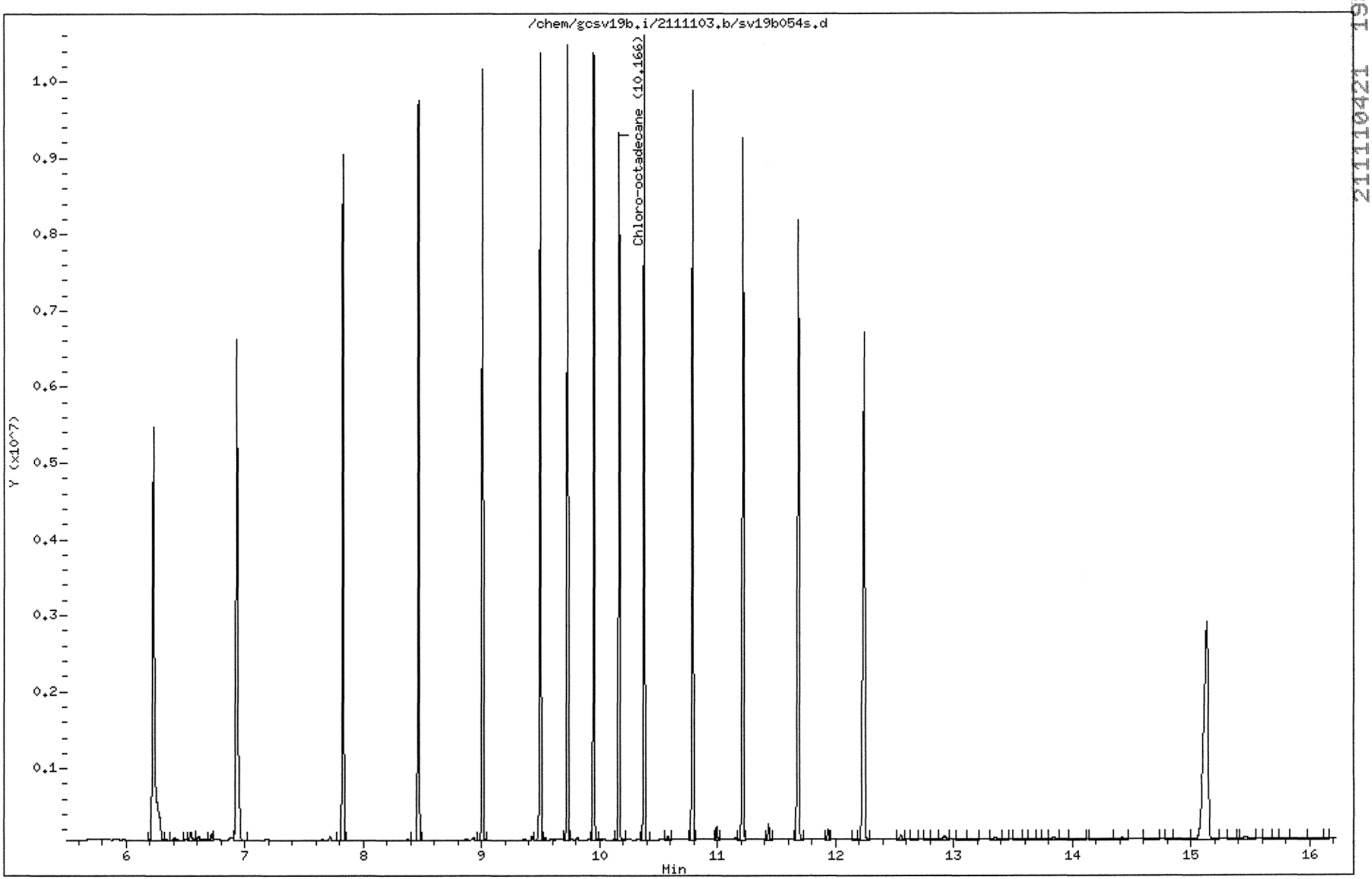
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

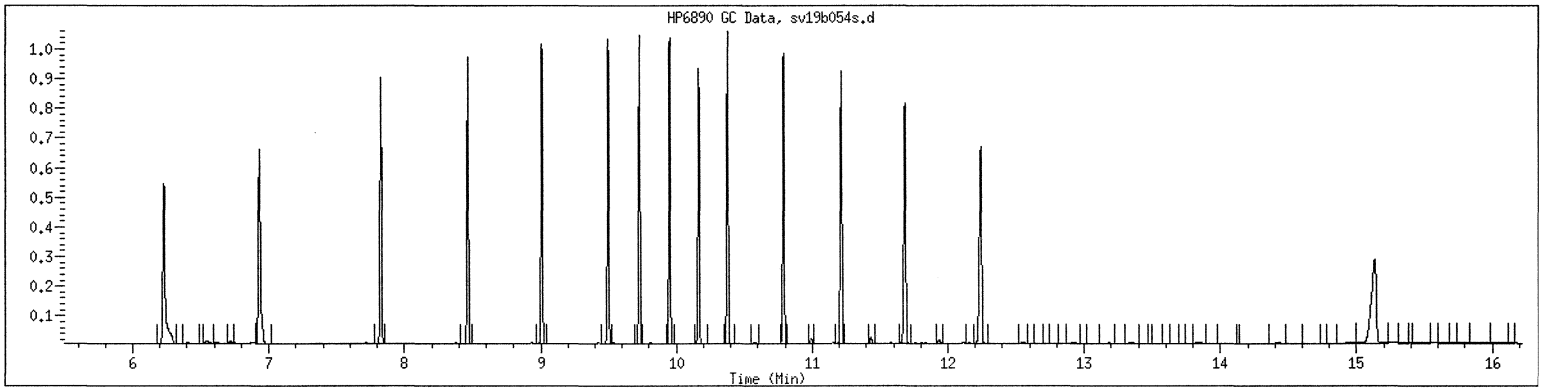
Operator: smh

Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1203	SampleType	: CALIB_3
Injection Date	: 11/03/2011 13:42	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1203*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/AROEPH.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: chlosurr



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b055s.d
Lab Smp Id: 1204 Client Smp ID: 1 84-16-1
Inj Date : 03-NOV-2011 14:06
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1204*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/AROEPH.m
Meth Date : 08-Nov-2011 08:52 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:06 Cal File: sv19b055s.d
Als bottle: 55 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlosurr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(UG/ML)
$ 14 Chloro-octadecane	10.173	10.259	-0.086	277518519	200.000	201.2711(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b055s.d

Page 1

Date : 03-NOV-2011 14:06

Client ID: 1 84-16-1

Instrument: gcsv19b.i

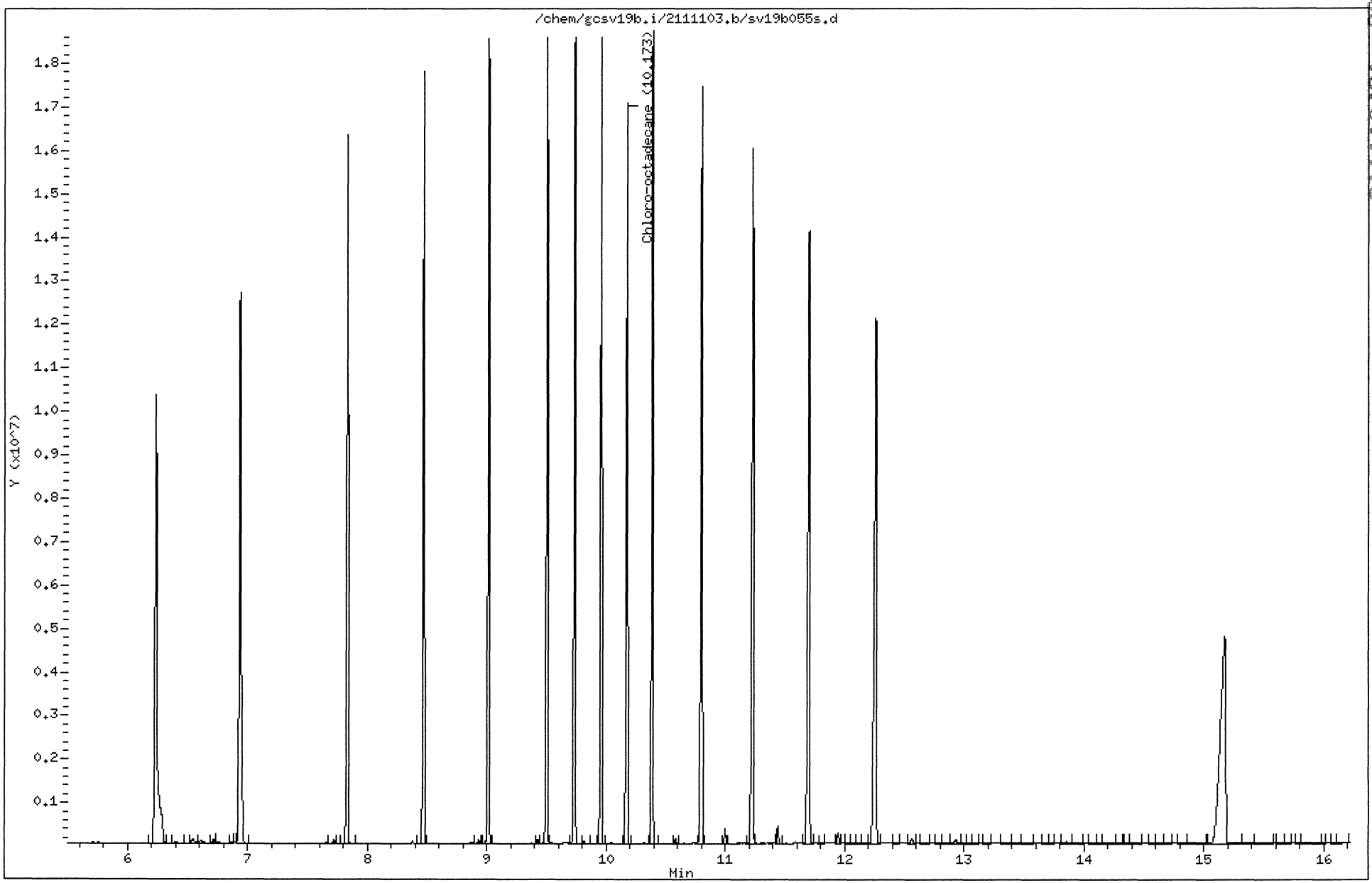
Sample Info: 1204*1 84-16-1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

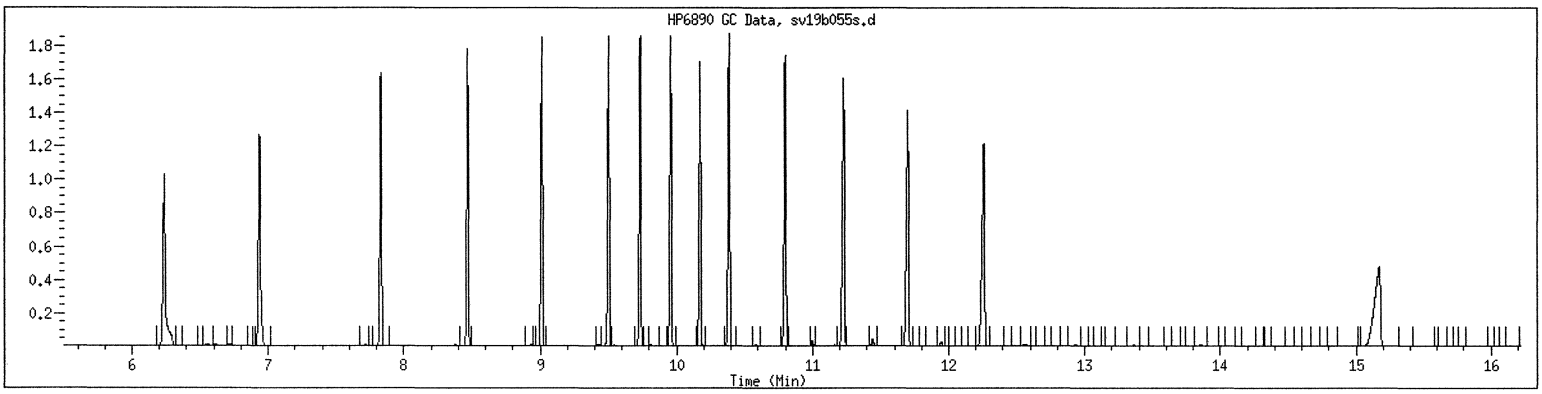
Column diameter: 0.25



211110421 201

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1204	SampleType	: CALIB_4
Injection Date	: 11/03/2011 14:06	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1204*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/AROEPH.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: chlosurr



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111103.b/sv19b056s.d
Lab Smp Id: 1205 Client Smp ID: 1 84-16-1
Inj Date : 03-NOV-2011 14:30
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1205*1 84-16-1
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111103.b/AROEPH.m
Meth Date : 08-Nov-2011 08:52 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056s.d
Als bottle: 56 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: chlosurr.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(UG/ML)
$ 14 Chloro-octadecane	10.176	10.259	-0.083	533373016	400.000	389.3944(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111103.b/sv19b056s.d

Date : 03-NOV-2011 14:30

Client ID: 1 84-16-1

Sample Info: 1205*1 84-16-1

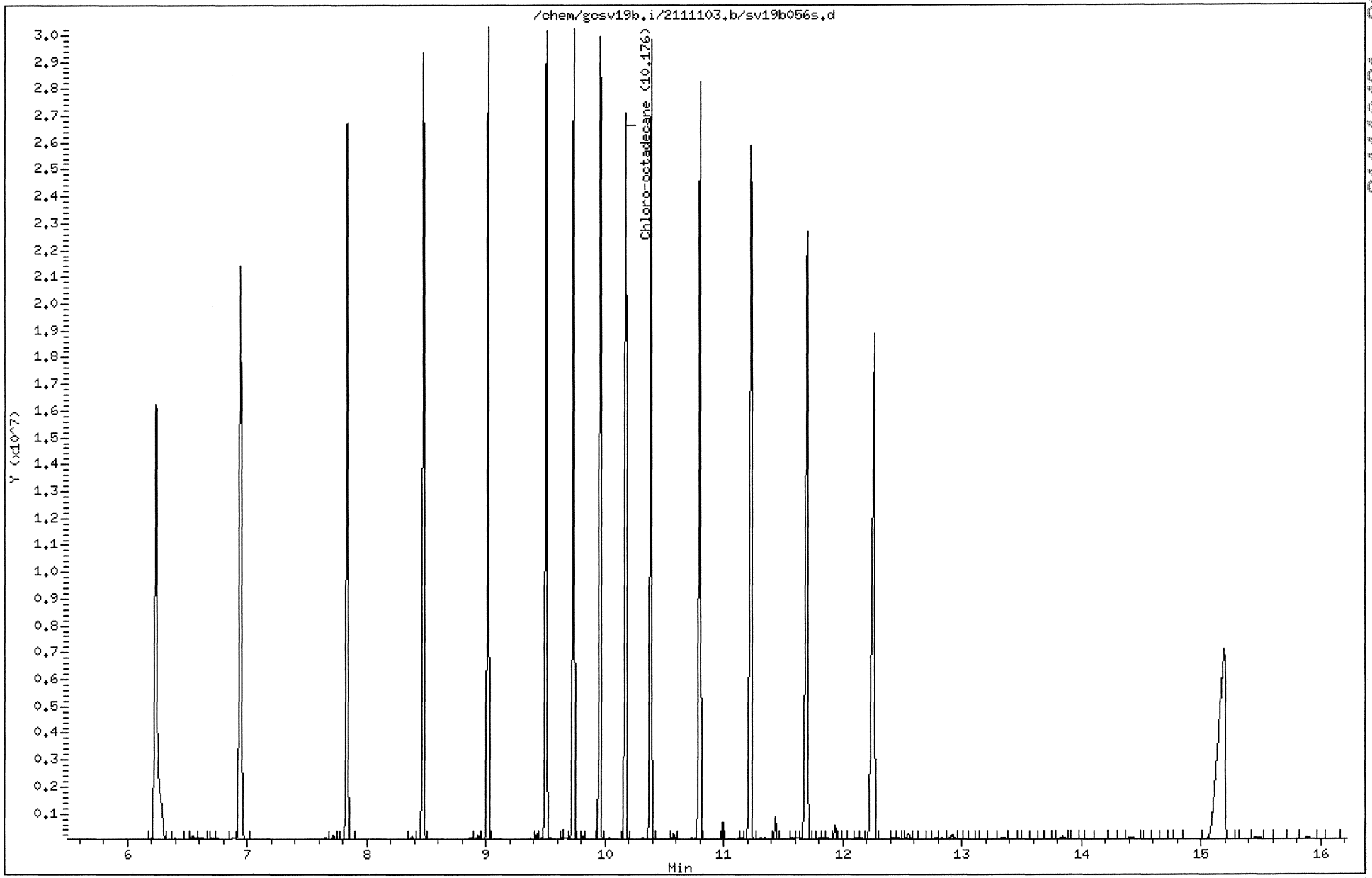
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

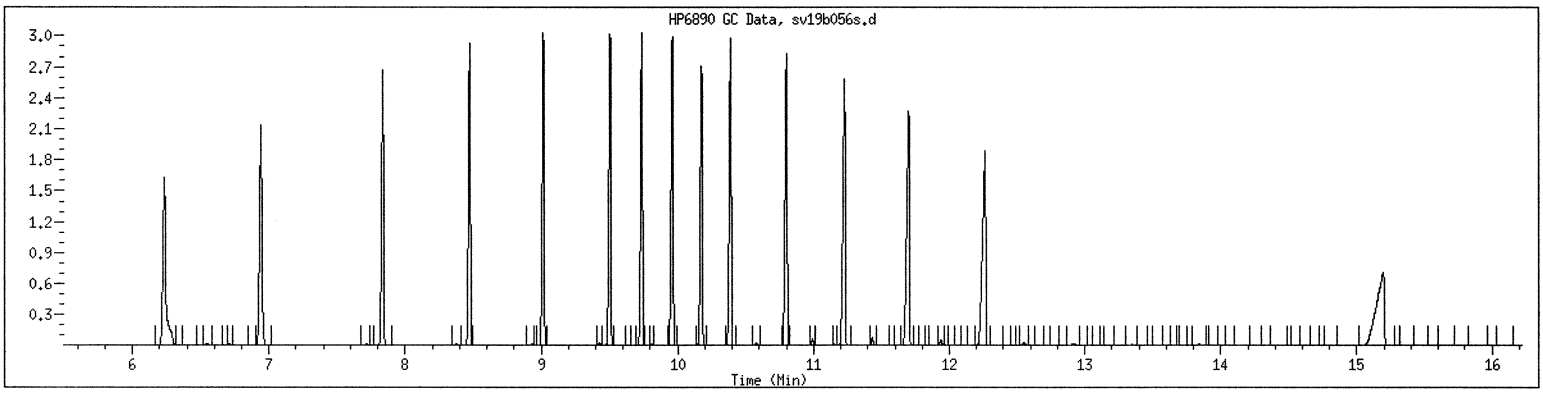
Column diameter: 0.25



Report Date: 11/08/2011 08:52

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1205	SampleType	: CALIB_5
Injection Date	: 11/03/2011 14:30	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1205*1 84-16-1		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111103.b/AROEPH.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: chlosurr



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 14:13
Lab File ID: sv19b052.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2643972	0.010	6.97310	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2214133	0.010	6.92963	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2316259	0.010	5.74686	25.00000	Averaged
4 Acenaphthylene	2763267	2583096	0.010	6.52022	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1433504	0.010	8.62289	25.00000	Averaged
6 Acenaphthene	2910153	2768868	0.010	4.85490	25.00000	Averaged
7 Fluorene	2771184	2631823	0.010	5.02896	25.00000	Averaged
8 Phenanthrene	2760684	2518615	0.010	8.76847	25.00000	Averaged
9 Anthracene	2653997	2517693	0.010	5.13583	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2752788	0.010	6.64704	25.00000	Averaged
12 Fluoranthene	2821141	2509422	0.010	11.04940	25.00000	Averaged
13 Pyrene	2855480	2647674	0.010	7.27747	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2260450	0.010	18.60244	25.00000	Averaged
15 Chrysene	2748172	2735898	0.010	0.44664	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2461671	0.010	12.50087	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2461671	0.010	12.50087	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2613952	0.010	5.72490	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2407432	0.010	10.13865	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2407432	0.010	10.13865	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2693272	0.010	3.04975	25.00000	Averaged
M 22 Arom C11-C22	2753988	2533945	0.010	7.98995	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b052.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 10-NOV-2011 14:13
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 16:02 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	132198609	50.0000	46.5
	2 2-Methylnaphthalene	8.262	8.265	-0.003	110706672	50.0000	46.5
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	115812971	50.0000	47.1
	4 Acenaphthylene	8.763	8.766	-0.003	129154777	50.0000	46.7
$	5 2-Bromonaphthalene	8.836	8.838	-0.002	71675211	50.0000	45.7
	6 Acenaphthene	8.855	8.858	-0.003	138443389	50.0000	47.6
	7 Fluorene	9.129	9.132	-0.003	131591129	50.0000	47.5
	8 Phenanthrene	9.659	9.657	0.002	125930741	50.0000	45.6
	9 Anthracene	9.689	9.688	0.001	125884626	50.0000	47.4
$	10 O-Terphenyl	9.823	9.822	0.001	137639397	50.0000	46.7
	12 Fluoranthene	10.333	10.327	0.006	125471080	50.0000	44.5
	13 Pyrene	10.475	10.467	0.008	132383678	50.0000	46.4
	14 Benzo(a)Anthracene	11.223	11.223	0.000	113022488	50.0000	40.7
	15 Chrysene	11.255	11.250	0.005	136794887	50.0000	49.8

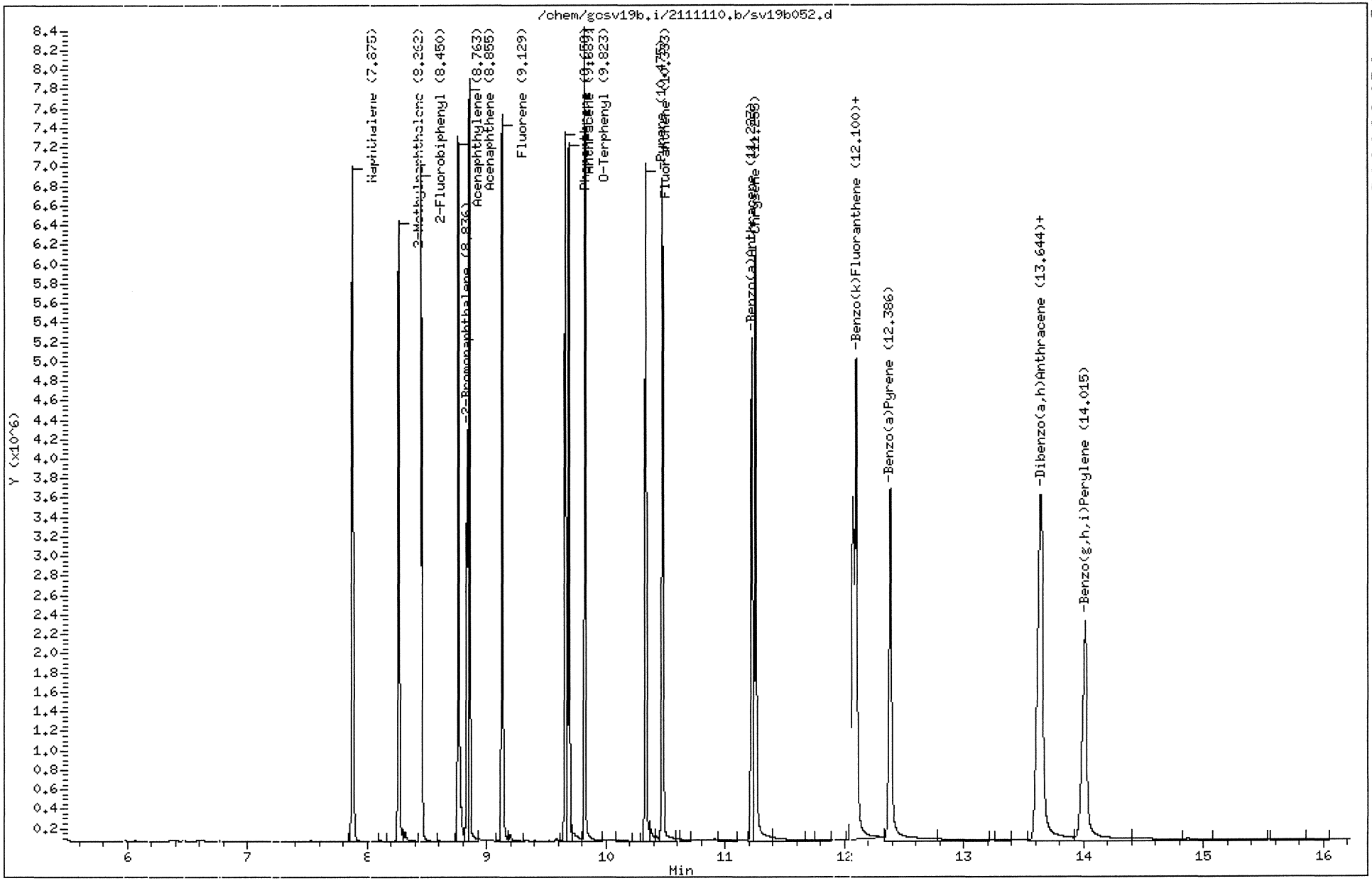
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
16	Benzo(b)Fluoranthene	12.100	12.085	0.015	246167136	100.000	87.5(M2)
17	Benzo(k)Fluoranthene	12.100	12.085	0.015	246167136	100.000	87.5(M2)
18	Benzo(a)Pyrene	12.386	12.370	0.016	130697590	50.0000	47.1
19	Indo(1,2,3cd)Pyrene	13.644	13.598	0.046	240743229	100.000	89.9(M1)
20	Dibenzo(a,h)Anthracene	13.644	13.638	0.006	240743229	100.000	89.9
21	Benzo(g,h,i)Perylene	14.015	13.997	0.018	134663577	50.0000	48.5
M 22	Arom C11-C22				2153853608	850.000	782

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111110.b/sv19b052.d
Date : 10-NOV-2011 1[illegible]:13
Client ID: 1 84-12-8
Sample Info: 1400x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

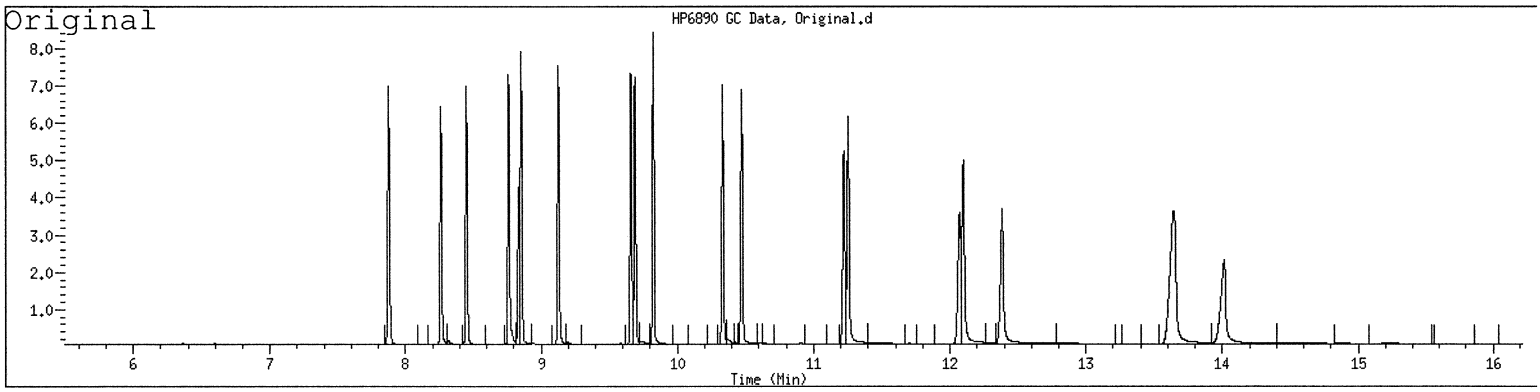
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



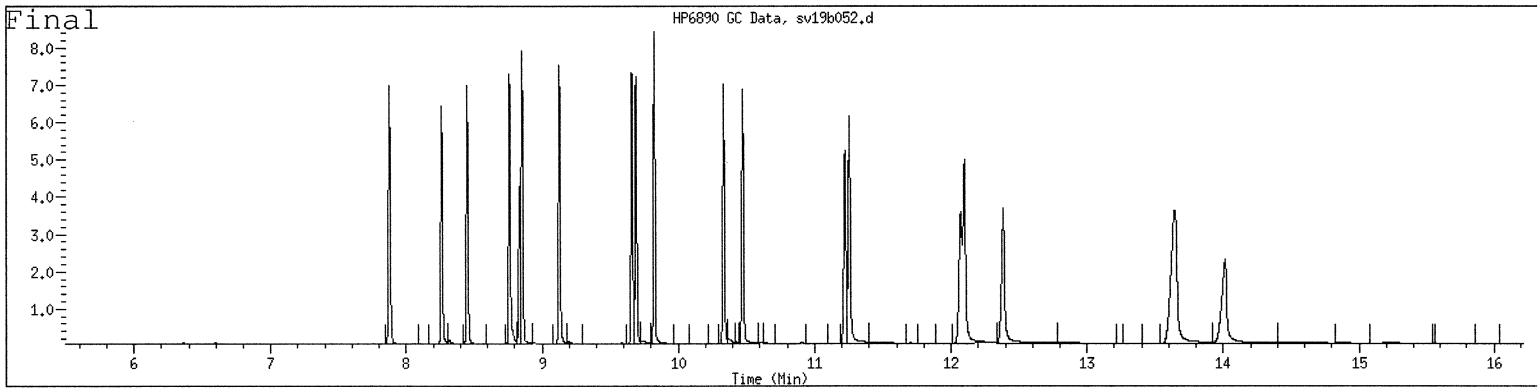
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 14:13	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist:	cal

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 14:37
Lab File ID: sv19b053.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2612883	0.010	3.91480	25.00000	Averaged
2 C-10	2739215	2651076	0.010	3.21768	25.00000	Averaged
4 C-12	2801460	2732444	0.010	2.46357	25.00000	Averaged
6 C-14	2878136	2764141	0.010	3.96074	25.00000	Averaged
8 C-16	2983102	2843571	0.010	4.67737	25.00000	Averaged
10 C-18	3021289	2807220	0.010	7.08537	25.00000	Averaged
M 11 Alip C9-C18	2857090	2735223	0.010	4.26546	25.00000	Averaged
12 C-19	3017239	2816034	0.010	6.66852	25.00000	Averaged
13 C-20	3045314	2850436	0.010	6.39926	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2573613	0.010	6.05816	25.00000	Averaged
16 C-22	3060647	2856542	0.010	6.66869	25.00000	Averaged
18 C-24	3098402	2897387	0.010	6.48770	25.00000	Averaged
20 C-26	3120089	2923933	0.010	6.28687	25.00000	Averaged
22 C-28	3095987	2886973	0.010	6.75113	25.00000	Averaged
115 C-30	3120341	2928603	0.010	6.14475	25.00000	Averaged
114 C-36	2925634	2594512	0.010	11.31796	25.00000	Averaged
M 24 Alip C19-C36	3060457	2844302	0.010	7.06281	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.59037
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b053.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 10-NOV-2011 14:37
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 17-Nov-2011 12:26 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.227	6.232	-0.005	130644166	50.0000	48.0
	2 C-10	6.927	6.928	-0.001	132553801	50.0000	48.4
	4 C-12	7.824	7.832	-0.008	136622203	50.0000	48.8
	6 C-14	8.463	8.471	-0.008	138207049	50.0000	48.0
	8 C-16	9.005	9.013	-0.008	142178545	50.0000	47.7
	10 C-18	9.496	9.503	-0.007	140360985	50.0000	46.5
M	11 Alip C9-C18				820566751	300.000	287
	12 C-19	9.726	9.774	-0.048	140801679	50.0000	46.7
	13 C-20	9.949	9.957	-0.008	142521816	50.0000	46.8
$	15 Chlorooctadecane	10.163	10.216	-0.053	128680639	50.0000	47.0
	16 C-22	10.376	10.383	-0.007	142827089	50.0000	46.7
	18 C-24	10.787	10.795	-0.008	144869340	50.0000	46.8
	20 C-26	11.214	11.222	-0.008	146196632	50.0000	46.9
	22 C-28	11.682	11.723	-0.041	144348659	50.0000	46.6

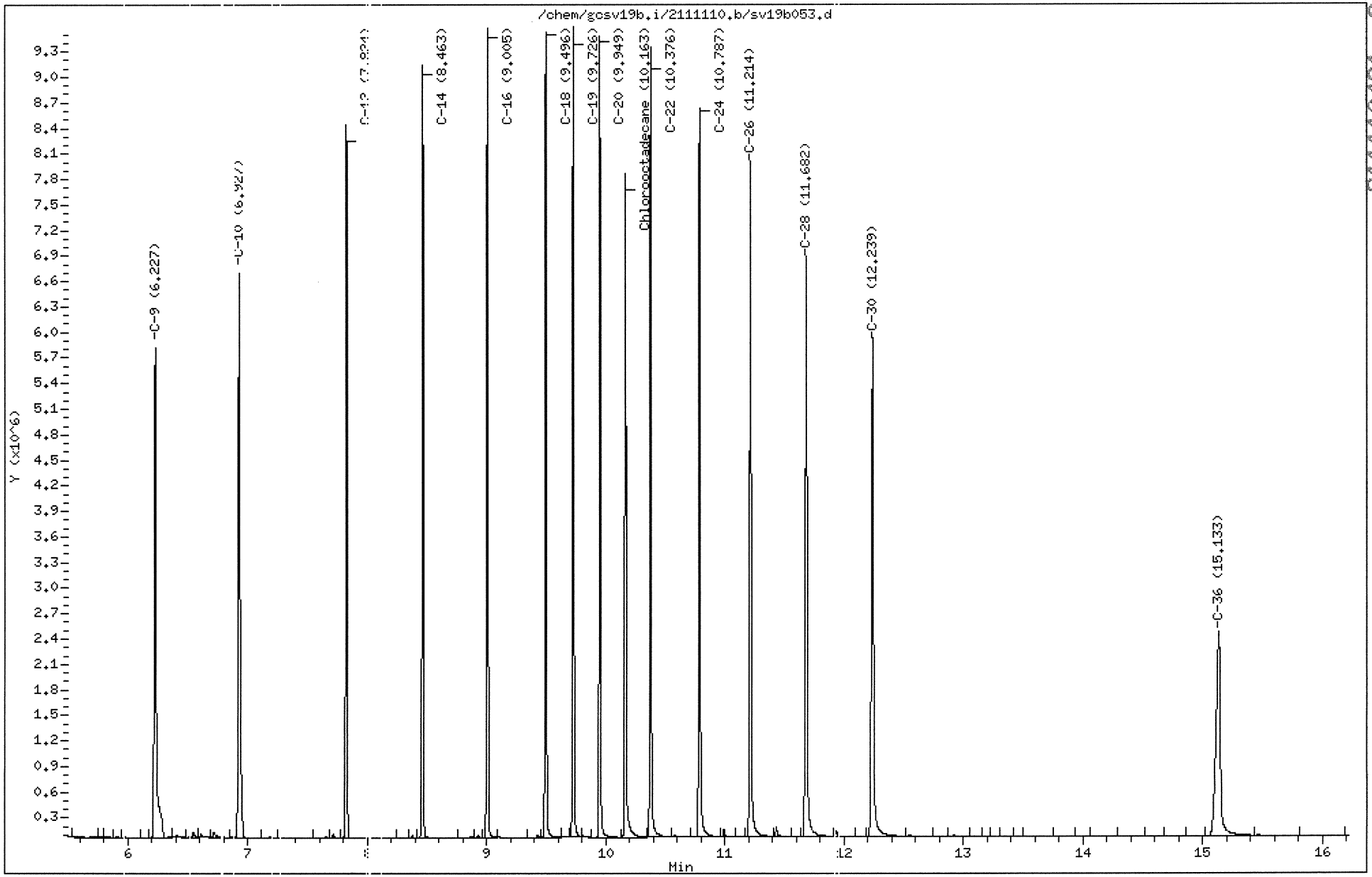
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
115 C-30	12.239	12.249	-0.010	146430165	50.0000	46.9(A)
114 C-36	15.133	15.143	-0.010	129725597	50.0000	44.3(A)
M 24 Alip C19-C36				1137720980	400.000	372

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

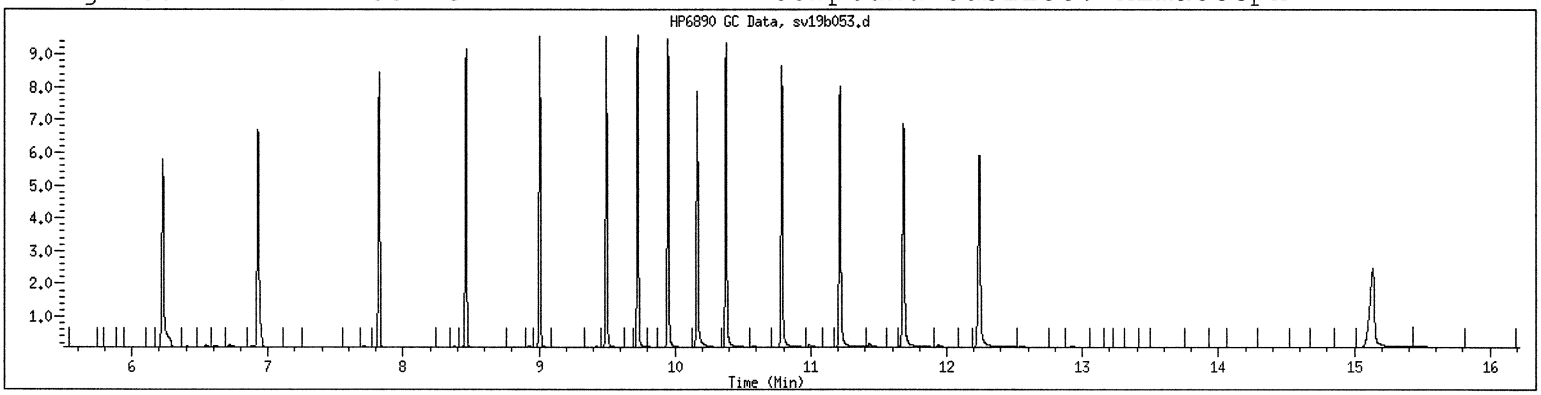
Data File: /chem/gcs\19b.i/2111110.b/s\.19b053.d
Date : 10-NOV-2011 1<:37
Client ID: 1 84-15-4
Sample Info: 140C*1 84-15-4
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcs\19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 14:37	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-15-4		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 19:16
Lab File ID: sv19b064.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2638530	0.010	7.16458	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2227337	0.010	6.37462	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2309148	0.010	6.03623	25.00000	Averaged
4 Acenaphthylene	2763267	2609326	0.010	5.57096	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1541377	0.010	1.74669	25.00000	Averaged
6 Acenaphthene	2910153	2666069	0.010	8.38733	25.00000	Averaged
7 Fluorene	2771184	2646356	0.010	4.50450	25.00000	Averaged
8 Phenanthrene	2760684	2629050	0.010	4.76820	25.00000	Averaged
9 Anthracene	2653997	2541899	0.010	4.22377	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2777283	0.010	5.81637	25.00000	Averaged
12 Fluoranthene	2821141	2690287	0.010	4.63832	25.00000	Averaged
13 Pyrene	2855480	2726104	0.010	4.53079	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2573062	0.010	7.34547	25.00000	Averaged
15 Chrysene	2748172	2646508	0.010	3.69933	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2638572	0.010	6.21302	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2638572	0.010	6.21302	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2658760	0.010	4.10883	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2591557	0.010	3.26591	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2591557	0.010	3.26591	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2748023	0.010	1.07885	25.00000	Averaged
M 22 Arom C11-C22	2753988	2615386	0.010	5.03275	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b064.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 10-NOV-2011 19:16
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 16:02 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 64 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	131926498	50.0000	46.4
	2 2-Methylnaphthalene	8.262	8.265	-0.003	111366853	50.0000	46.8
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	115457412	50.0000	47.0
	4 Acenaphthylene	8.763	8.766	-0.003	130466308	50.0000	47.2
$	5 2-Bromonaphthalene	8.836	8.838	-0.002	77068827	50.0000	49.1
	6 Acenaphthene	8.856	8.858	-0.002	133303433	50.0000	45.8
	7 Fluorene	9.129	9.132	-0.003	132317824	50.0000	47.7
	8 Phenanthrene	9.657	9.657	0.000	131452475	50.0000	47.6
	9 Anthracene	9.688	9.688	0.000	127094930	50.0000	47.9
$	10 O-Terphenyl	9.821	9.822	-0.001	138864147	50.0000	47.1
	12 Fluoranthene	10.329	10.327	0.002	134514358	50.0000	47.7
	13 Pyrene	10.469	10.467	0.002	136305219	50.0000	47.7
	14 Benzo(a)Anthracene	11.214	11.223	-0.009	128653078	50.0000	46.3
	15 Chrysene	11.247	11.250	-0.003	132325413	50.0000	48.2

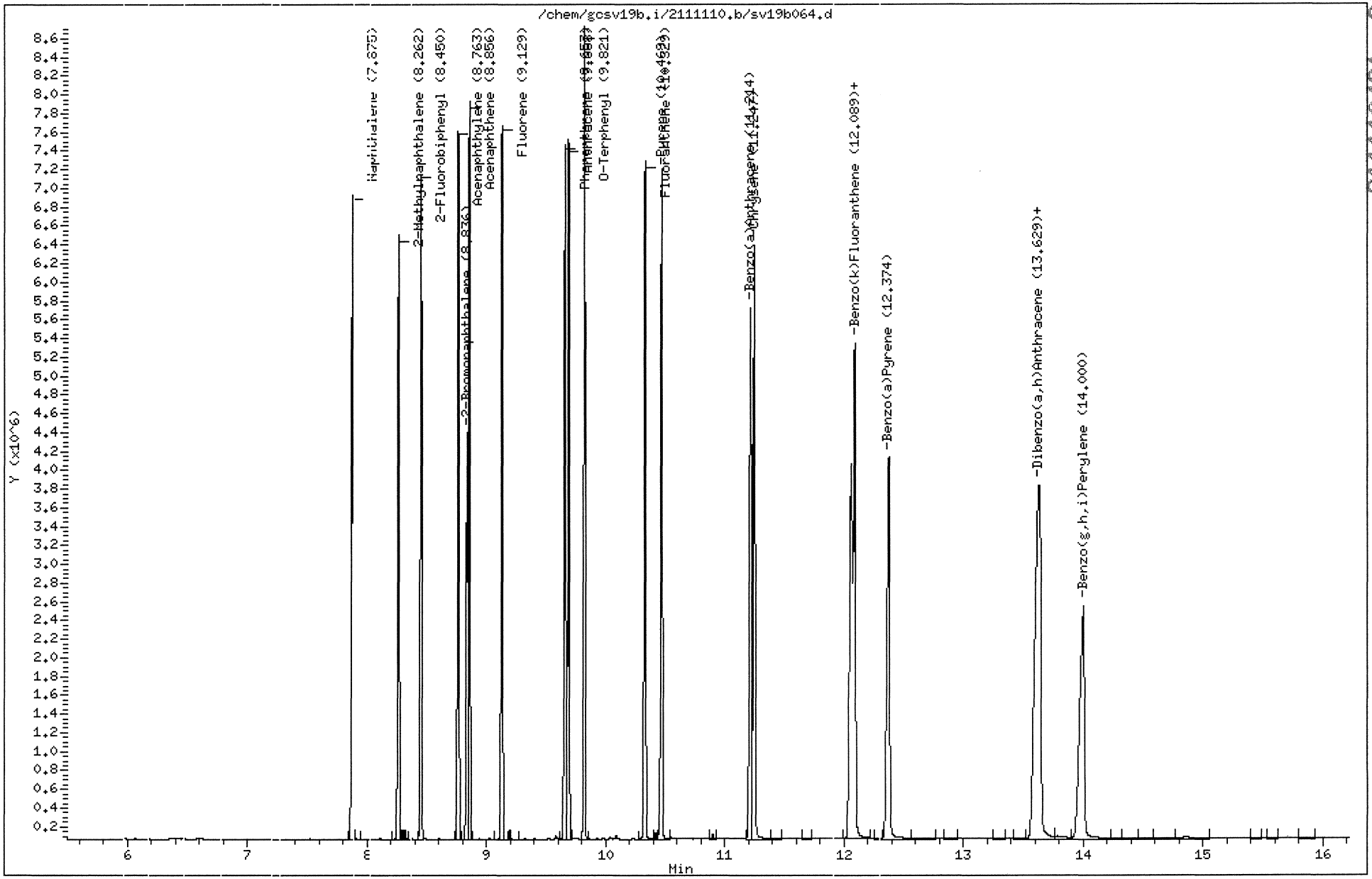
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	ON-COL (UG/ML)
16	Benzo(b)Fluoranthene	12.089	12.085	0.004	263857178	100.000	93.8(M2)
17	Benzo(k)Fluoranthene	12.089	12.085	0.004	263857178	100.000	93.8(M2)
18	Benzo(a)Pyrene	12.374	12.370	0.004	132938020	50.0000	47.9
19	Indo(1,2,3cd)Pyrene	13.629	13.598	0.031	259155661	100.000	96.7(M1)
20	Dibenzo(a,h)Anthracene	13.629	13.638	-0.009	259155661	100.000	96.7
21	Benzo(g,h,i)Perylene	14.000	13.997	0.003	137401151	50.0000	49.5
M 22	Arom C11-C22				2223078399	850.000	807

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111110.b/sv19b064.d
Date : 10-NOV-2011 19:16
Client ID: 1 84-12-8
Sample Info: 1400x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

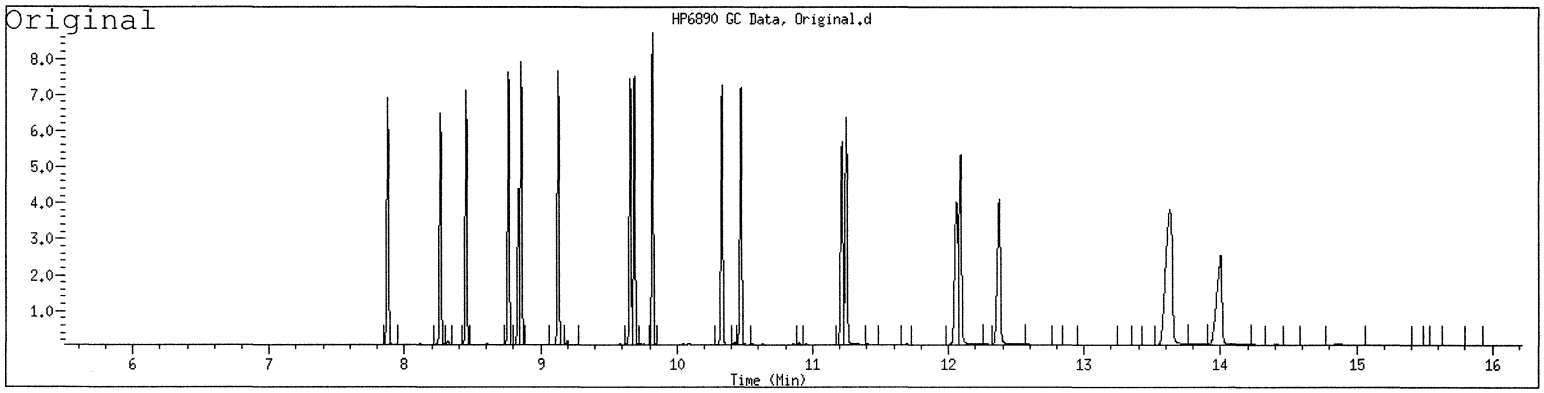
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25

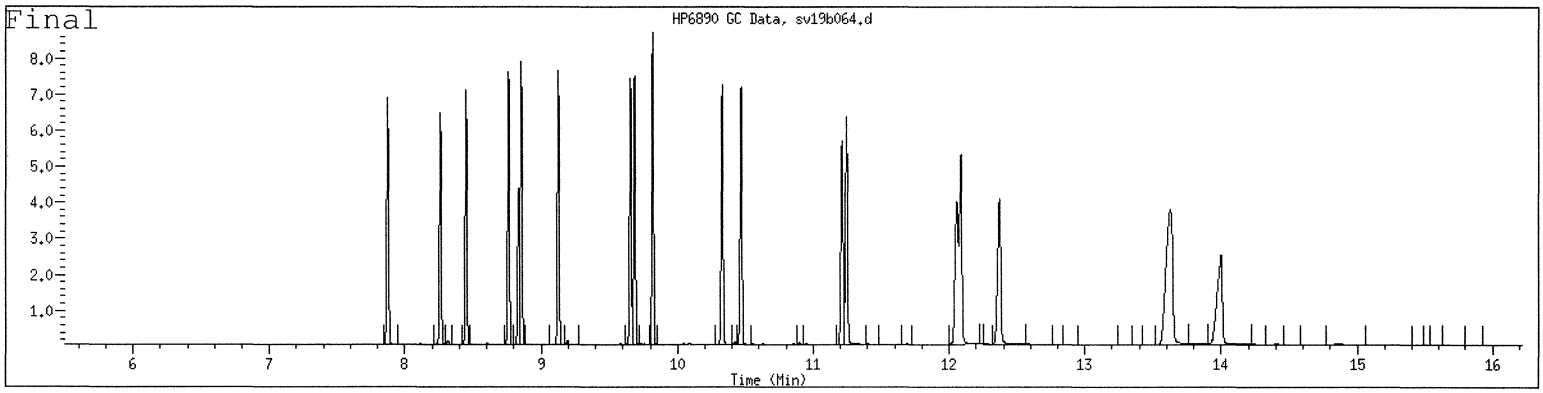


211110421 219

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 19:16	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: cal





GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 19:40
Lab File ID: sv19b065.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2659888	0.010	2.18628	25.00000	Averaged
2 C-10	2739215	2728622	0.010	0.38674	25.00000	Averaged
4 C-12	2801460	2758261	0.010	1.54200	25.00000	Averaged
6 C-14	2878136	2797478	0.010	2.80247	25.00000	Averaged
8 C-16	2983102	2910072	0.010	2.44812	25.00000	Averaged
10 C-18	3021289	2857548	0.010	5.41959	25.00000	Averaged
M 11 Alip C9-C18	2857090	2785311	0.010	2.51232	25.00000	Averaged
12 C-19	3017239	2893348	0.010	4.10609	25.00000	Averaged
13 C-20	3045314	2906107	0.010	4.57119	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2653375	0.010	3.14669	25.00000	Averaged
16 C-22	3060647	2937725	0.010	4.01622	25.00000	Averaged
18 C-24	3098402	2950236	0.010	4.78202	25.00000	Averaged
20 C-26	3120089	2991129	0.010	4.13320	25.00000	Averaged
22 C-28	3095987	2998965	0.010	3.13383	25.00000	Averaged
115 C-30	3120341	2959574	0.010	5.15223	25.00000	Averaged
114 C-36	2925634	2744376	0.010	6.19551	25.00000	Averaged
M 24 Alip C19-C36	3060457	2922682	0.010	4.50175	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.59037
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b065.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 10-NOV-2011 19:40
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 17-Nov-2011 12:26 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.227	6.232	-0.005	132994388	50.0000	48.9
	2 C-10	6.927	6.928	-0.001	136431081	50.0000	49.8
	4 C-12	7.824	7.832	-0.008	137913072	50.0000	49.2
	6 C-14	8.463	8.471	-0.008	139873879	50.0000	48.6
	8 C-16	9.005	9.013	-0.008	145503588	50.0000	48.8
	10 C-18	9.495	9.503	-0.008	142877380	50.0000	47.3
M	11 Alip C9-C18				835593388	300.000	293
	12 C-19	9.724	9.774	-0.050	144667418	50.0000	47.9
	13 C-20	9.947	9.957	-0.010	145305352	50.0000	47.7
$	15 Chlorooctadecane	10.161	10.216	-0.055	132668745	50.0000	48.4
	16 C-22	10.372	10.383	-0.011	146886232	50.0000	48.0
	18 C-24	10.783	10.795	-0.012	147511784	50.0000	47.6
	20 C-26	11.209	11.222	-0.013	149556451	50.0000	47.9
	22 C-28	11.676	11.723	-0.047	149948227	50.0000	48.4

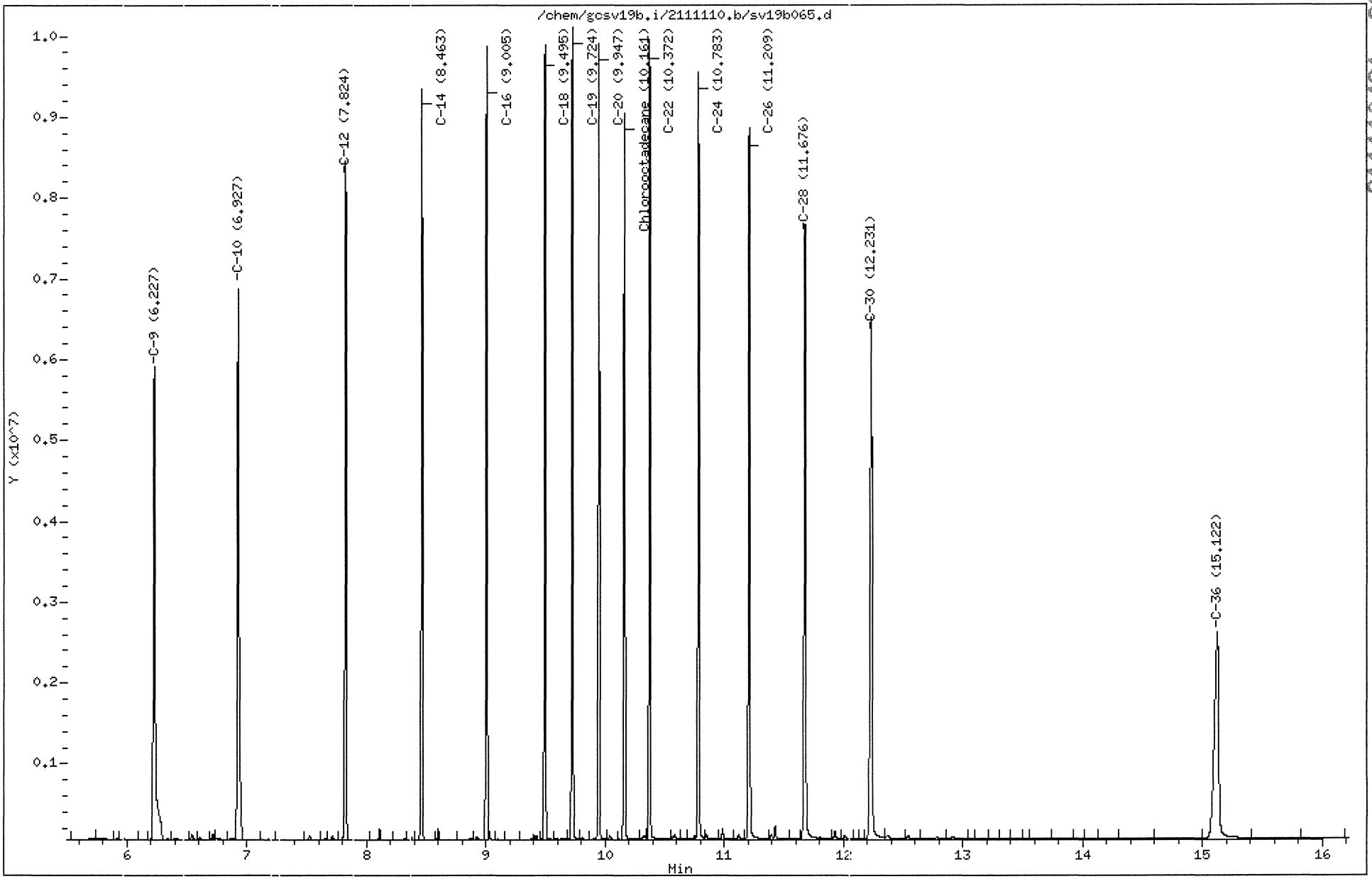
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
115 C-30	12.231	12.249	-0.018	147978676	50.0000	47.4(A)
114 C-36	15.122	15.143	-0.021	137218811	50.0000	46.9
M 24 Alip C19-C36				1169072951	400.000	382

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111110.b/sv19b065.d
Date : 10-NOV-2011 19:40
Client ID: 1 84-15-4
Sample Info: 1400x1 84-15-4
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

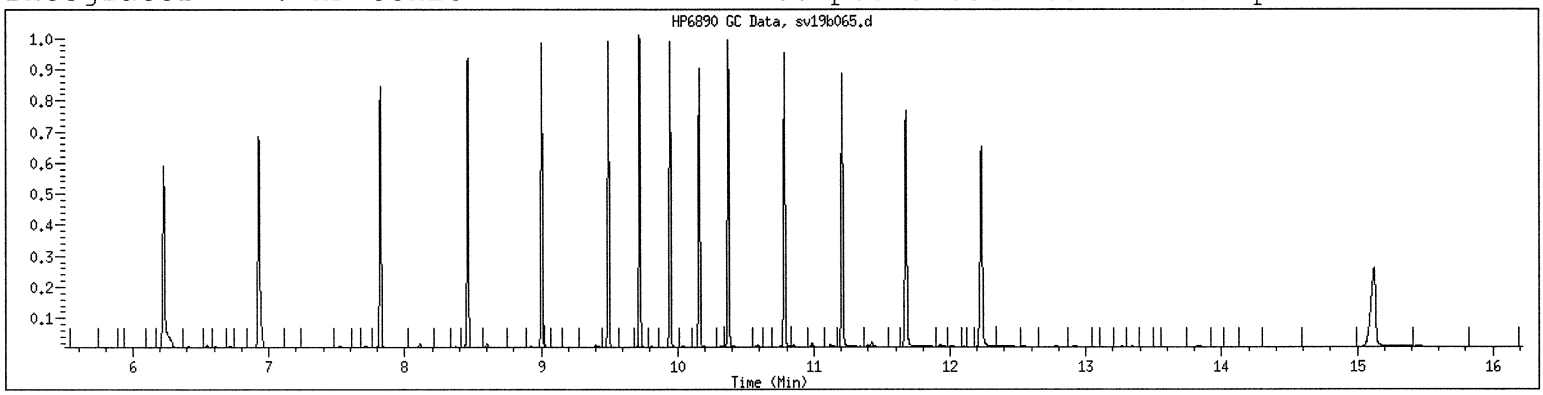
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/28/2011 13:45

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 19:40	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-15-4		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 20:04
Lab File ID: sv19b066.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2642965	0.010	7.00852	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2231406	0.010	6.20357	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2312112	0.010	5.91564	25.00000	Averaged
4 Acenaphthylene	2763267	2617415	0.010	5.27825	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1491407	0.010	4.93193	25.00000	Averaged
6 Acenaphthene	2910153	2735628	0.010	5.99711	25.00000	Averaged
7 Fluorene	2771184	2660239	0.010	4.00352	25.00000	Averaged
8 Phenanthrene	2760684	2650152	0.010	4.00381	25.00000	Averaged
9 Anthracene	2653997	2547232	0.010	4.02280	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2791334	0.010	5.33987	25.00000	Averaged
12 Fluoranthene	2821141	2708728	0.010	3.98464	25.00000	Averaged
13 Pyrene	2855480	2741506	0.010	3.99143	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2584979	0.010	6.91634	25.00000	Averaged
15 Chrysene	2748172	2670594	0.010	2.82289	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2662129	0.010	5.37567	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2662129	0.010	5.37567	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2663116	0.010	3.95173	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2615937	0.010	2.35587	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2615937	0.010	2.35587	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2791903	0.010	-0.50072	25.00000	Averaged
M 22 Arom C11-C22	2753988	2635412	0.010	4.30561	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b066.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 10-NOV-2011 20:04
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 16:02 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 64 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	132148273	50.0000	46.5
	2 2-Methylnaphthalene	8.262	8.265	-0.003	111570314	50.0000	46.9
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	115605581	50.0000	47.0
	4 Acenaphthylene	8.762	8.766	-0.004	130870729	50.0000	47.4
$	5 2-Bromonaphthalene	8.835	8.838	-0.003	74570366	50.0000	47.5
	6 Acenaphthene	8.855	8.858	-0.003	136781386	50.0000	47.0
	7 Fluorene	9.128	9.132	-0.004	133011968	50.0000	48.0
	8 Phenanthrene	9.656	9.657	-0.001	132507595	50.0000	48.0
	9 Anthracene	9.686	9.688	-0.002	127361616	50.0000	48.0
$	10 O-Terphenyl	9.819	9.822	-0.003	139566694	50.0000	47.3
	12 Fluoranthene	10.327	10.327	0.000	135436415	50.0000	48.0
	13 Pyrene	10.467	10.467	0.000	137075288	50.0000	48.0
	14 Benzo(a)Anthracene	11.212	11.223	-0.011	129248928	50.0000	46.5
	15 Chrysene	11.244	11.250	-0.006	133529716	50.0000	48.6

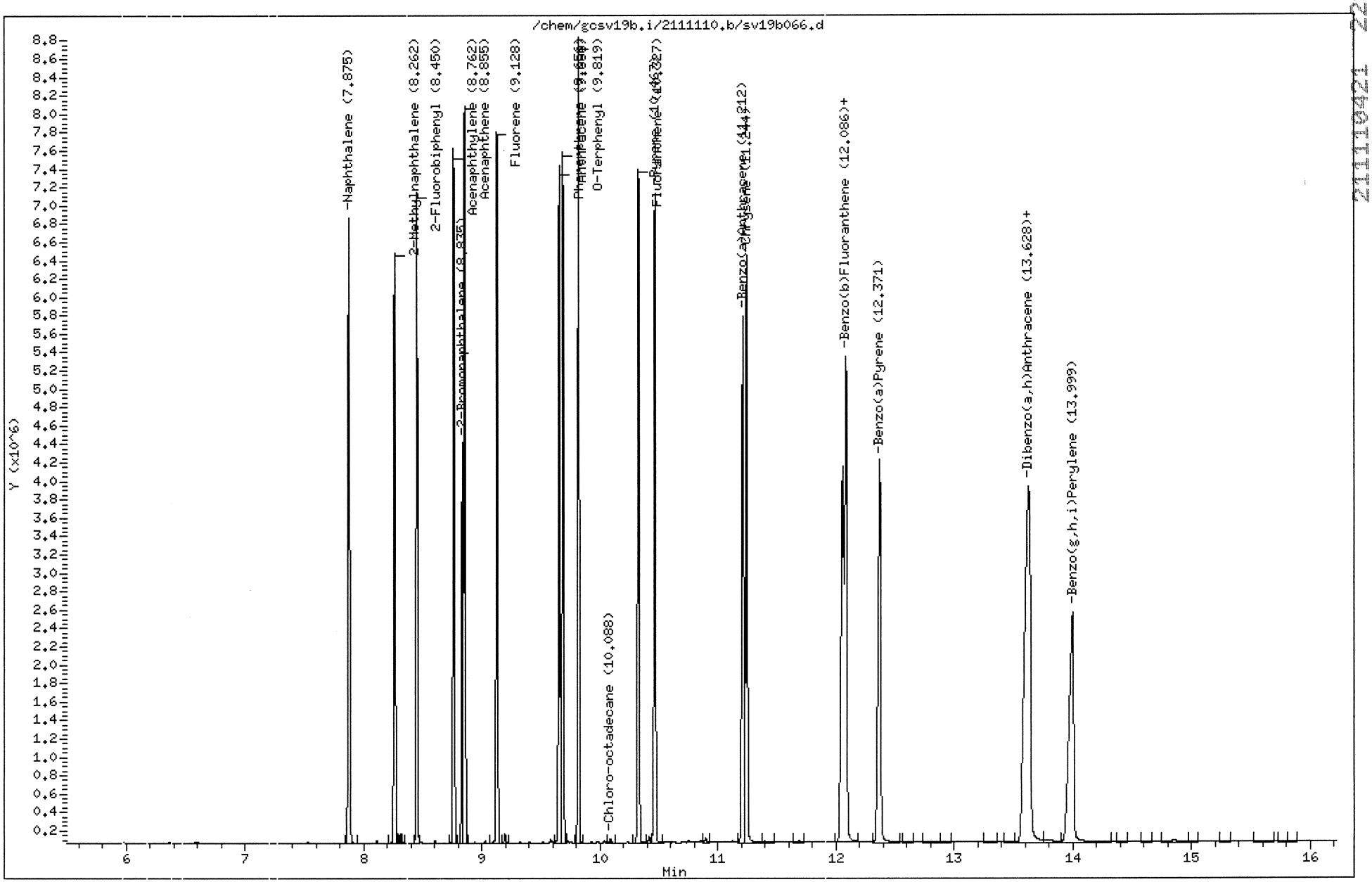
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	16 Benzo(b)Fluoranthene	12.086	12.085	0.001	266212932	100.000	94.6(M2)
	17 Benzo(k)Fluoranthene	12.086	12.085	0.001	266212932	100.000	94.6(M2)
	18 Benzo(a)Pyrene	12.371	12.370	0.001	133155810	50.0000	48.0
	19 Indo(1,2,3cd)Pyrene	13.628	13.598	0.030	261593698	100.000	97.6(M1)
	20 Dibenzo(a,h)Anthracene	13.628	13.638	-0.010	261593698	100.000	97.6
	21 Benzo(g,h,i)Perylene	13.999	13.997	0.002	139595158	50.0000	50.3
M	22 Arom C11-C22				2240099826	850.000	813

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

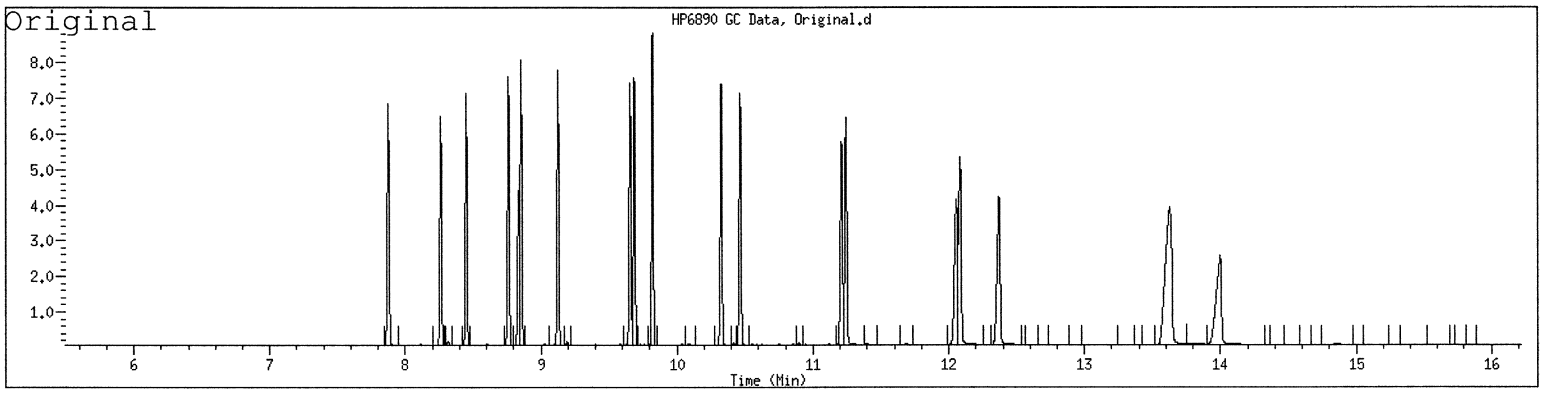
Data File: /chem/gcsv19b.i/2111110.b/sv19b066.d
Date : 10-NOV-2011 20:04
Client ID: 1 84-12-8
Sample Info: 1400*1 84-12-8
Volume Injected (uL): 1.0
Column phase: IB-5MS-30M

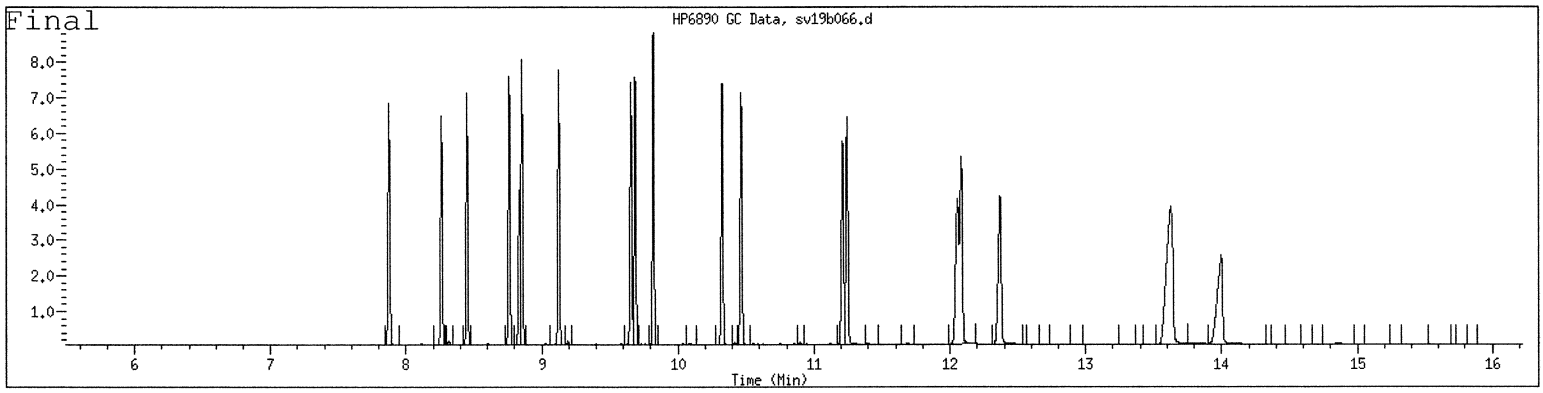
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 20:04	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: cal





GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 10-NOV-2011 20:28
Lab File ID: sv19b067.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2595159	0.010	4.56659	25.00000	Averaged
2 C-10	2739215	2674884	0.010	2.34853	25.00000	Averaged
4 C-12	2801460	2701654	0.010	3.56266	25.00000	Averaged
6 C-14	2878136	2749952	0.010	4.45371	25.00000	Averaged
8 C-16	2983102	2863214	0.010	4.01891	25.00000	Averaged
10 C-18	3021289	2811890	0.010	6.93079	25.00000	Averaged
M 11 Alip C9-C18	2857090	2732792	0.010	4.35052	25.00000	Averaged
12 C-19	3017239	2853082	0.010	5.44065	25.00000	Averaged
13 C-20	3045314	2865971	0.010	5.88913	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2610135	0.010	4.72504	25.00000	Averaged
16 C-22	3060647	2912497	0.010	4.84048	25.00000	Averaged
18 C-24	3098402	2920370	0.010	5.74594	25.00000	Averaged
20 C-26	3120089	2948477	0.010	5.50022	25.00000	Averaged
22 C-28	3095987	2920634	0.010	5.66389	25.00000	Averaged
115 C-30	3120341	2925022	0.010	6.25954	25.00000	Averaged
114 C-36	2925634	2747737	0.010	6.08063	25.00000	Averaged
M 24 Alip C19-C36	3060457	2886724	0.010	5.67670	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.59037
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b067.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 10-NOV-2011 20:28
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 17-Nov-2011 12:26 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
1	C-9	6.226	6.232	-0.006	129757950	50.0000	47.7
2	C-10	6.926	6.928	-0.002	133744206	50.0000	48.8
4	C-12	7.824	7.832	-0.008	135082679	50.0000	48.2
6	C-14	8.462	8.471	-0.009	137497622	50.0000	47.8
8	C-16	9.004	9.013	-0.009	143160681	50.0000	48.0
10	C-18	9.493	9.503	-0.010	140594499	50.0000	46.5
M 11	Alip C9-C18				819837637	300.000	287
12	C-19	9.723	9.774	-0.051	142654078	50.0000	47.3
13	C-20	9.944	9.957	-0.013	143298570	50.0000	47.1
$ 15	Chlorooctadecane	10.158	10.216	-0.058	130506738	50.0000	47.6
16	C-22	10.369	10.383	-0.014	145624855	50.0000	47.6
18	C-24	10.779	10.795	-0.016	146018488	50.0000	47.1
20	C-26	11.203	11.222	-0.019	147423847	50.0000	47.2
22	C-28	11.670	11.723	-0.053	146031701	50.0000	47.2

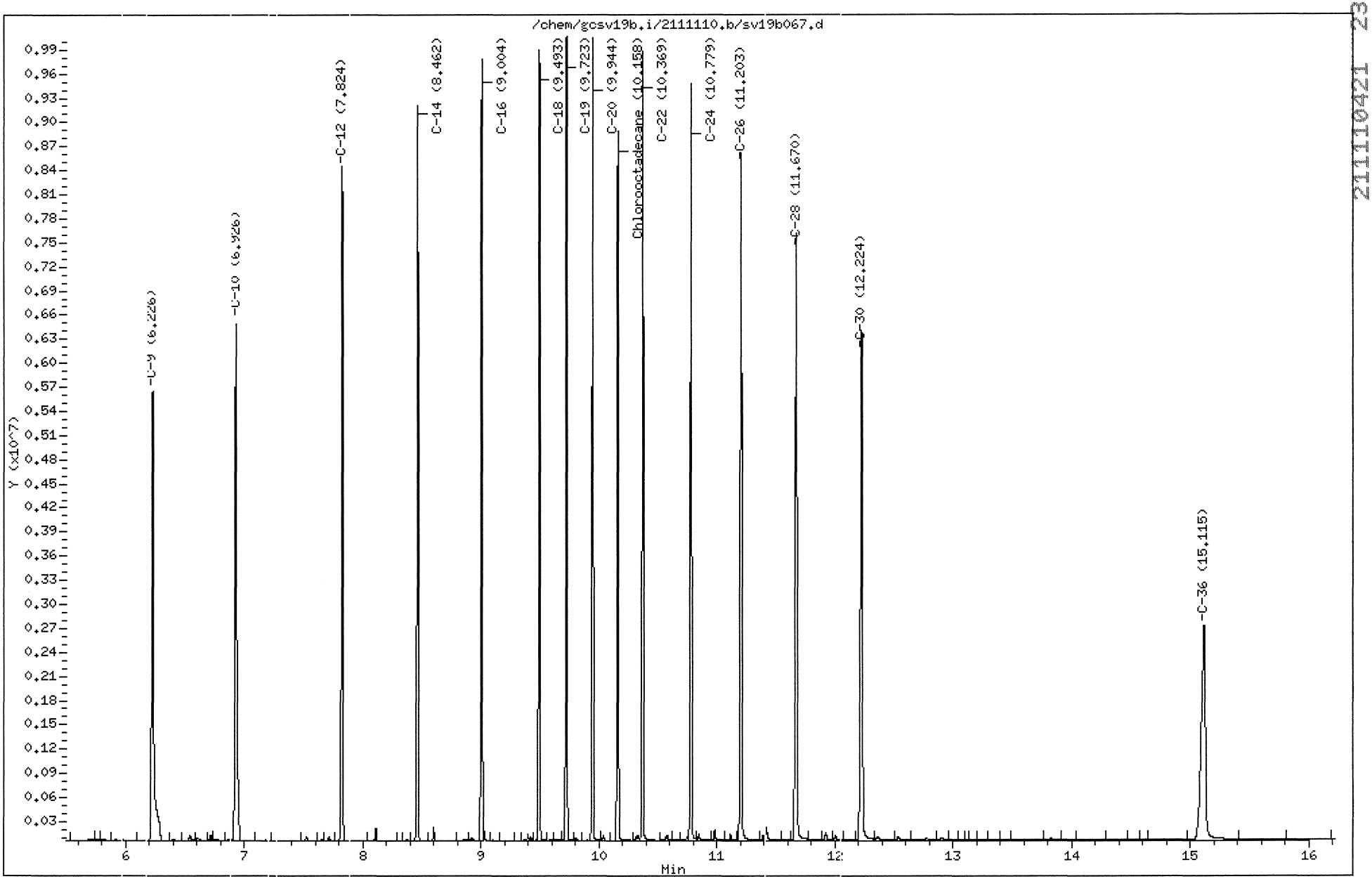
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
115 C-30	12.224	12.249	-0.025	146251088	50.0000	46.9(A)
114 C-36	15.115	15.143	-0.028	137386852	50.0000	47.0(A)
M 24 Alip C19-C36				1154689479	400.000	377

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/gcsv19b.i/2111110.b/sv19b067.d
Date : 10-NOV-2011 20:28
Client ID: 1 84-15-4
Sample Info: 1400x1 84-15-4
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

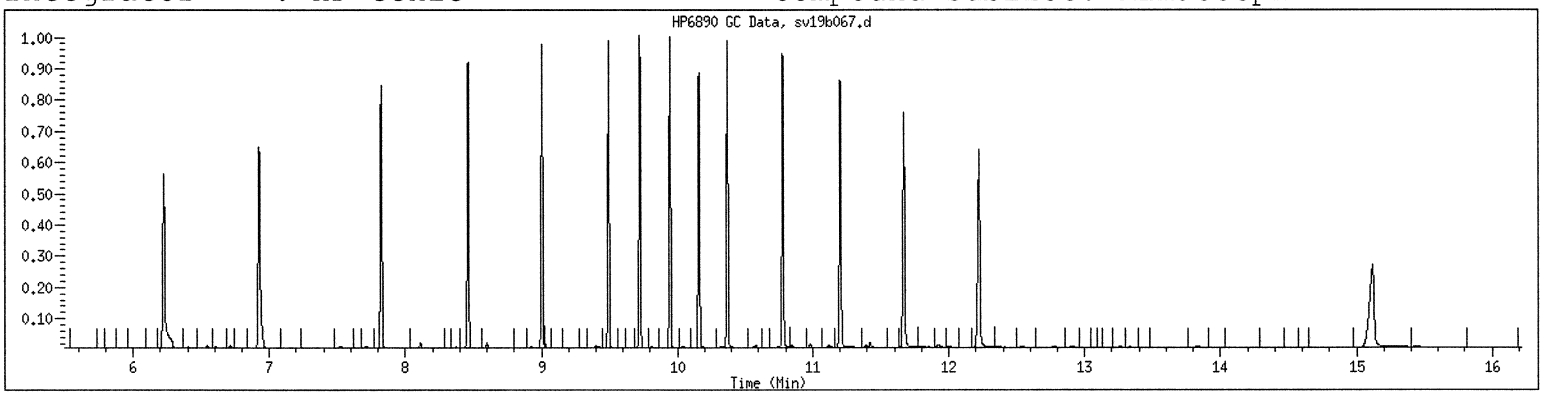
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



Report Date: 11/28/2011 13:45

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/10/2011 20:28	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-15-4		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 11-NOV-2011 00:54
Lab File ID: sv19b078.d Init. Cal. Date(s): 02-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 15:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2722174	0.010	4.22163	25.00000	Averaged
2 2-Methylnaphthalene	2378988	2297678	0.010	3.41786	25.00000	Averaged
$ 3 2-Fluorobiphenyl	2457488	2379257	0.010	3.18338	25.00000	Averaged
4 Acenaphthylene	2763267	2697278	0.010	2.38806	25.00000	Averaged
$ 5 2-Bromonaphthalene	1568778	1600937	0.010	-2.04990	25.00000	Averaged
6 Acenaphthene	2910153	2736444	0.010	5.96906	25.00000	Averaged
7 Fluorene	2771184	2729161	0.010	1.51646	25.00000	Averaged
8 Phenanthrene	2760684	2724911	0.010	1.29583	25.00000	Averaged
9 Anthracene	2653997	2633932	0.010	0.75603	25.00000	Averaged
$ 10 O-Terphenyl	2948796	2874302	0.010	2.52625	25.00000	Averaged
12 Fluoranthene	2821141	2795585	0.010	0.90585	25.00000	Averaged
13 Pyrene	2855480	2836140	0.010	0.67729	25.00000	Averaged
14 Benzo(a)Anthracene	2777049	2768248	0.010	0.31692	25.00000	Averaged
15 Chrysene	2748172	2686329	0.010	2.25033	25.00000	Averaged
16 Benzo(b)Fluoranthene	2813367	2758314	0.010	1.95682	25.00000	Averaged
17 Benzo(k)Fluoranthene	2813367	2758314	0.010	1.95682	25.00000	Averaged
18 Benzo(a)Pyrene	2772685	2773561	0.010	-0.03159	25.00000	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2695641	0.010	-0.61922	25.00000	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2695641	0.010	-0.61922	25.00000	Averaged
21 Benzo(g,h,i)Perylene	2777993	2858854	0.010	-2.91076	25.00000	Averaged
M 22 Arom C11-C22	2753988	2715777	0.010	1.38748	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 2.93784
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b078.d
Lab Smp Id: 1400 Client Smp ID: 1 84-12-8
Inj Date : 11-NOV-2011 00:54
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-12-8
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 16:02 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: cal.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 Naphthalene	7.875	7.880	-0.005	136108675	50.0000	47.9
	2 2-Methylnaphthalene	8.262	8.265	-0.003	114883891	50.0000	48.3
$	3 2-Fluorobiphenyl	8.450	8.454	-0.004	118962830	50.0000	48.4
	4 Acenaphthylene	8.761	8.766	-0.005	134863909	50.0000	48.8
$	5 2-Bromonaphthalene	8.835	8.838	-0.003	80046832	50.0000	51.0
	6 Acenaphthene	8.854	8.858	-0.004	136822196	50.0000	47.0
	7 Fluorene	9.127	9.132	-0.005	136458026	50.0000	49.2
	8 Phenanthrene	9.653	9.657	-0.004	136245536	50.0000	49.4
	9 Anthracene	9.683	9.688	-0.005	131696619	50.0000	49.6
$	10 O-Terphenyl	9.815	9.822	-0.007	143715086	50.0000	48.7
	12 Fluoranthene	10.318	10.327	-0.009	139779269	50.0000	49.5
	13 Pyrene	10.456	10.467	-0.011	141807007	50.0000	49.7
	14 Benzo(a)Anthracene	11.228	11.223	0.005	138412383	50.0000	49.8
	15 Chrysene	11.196	11.250	-0.054	134316458	50.0000	48.9

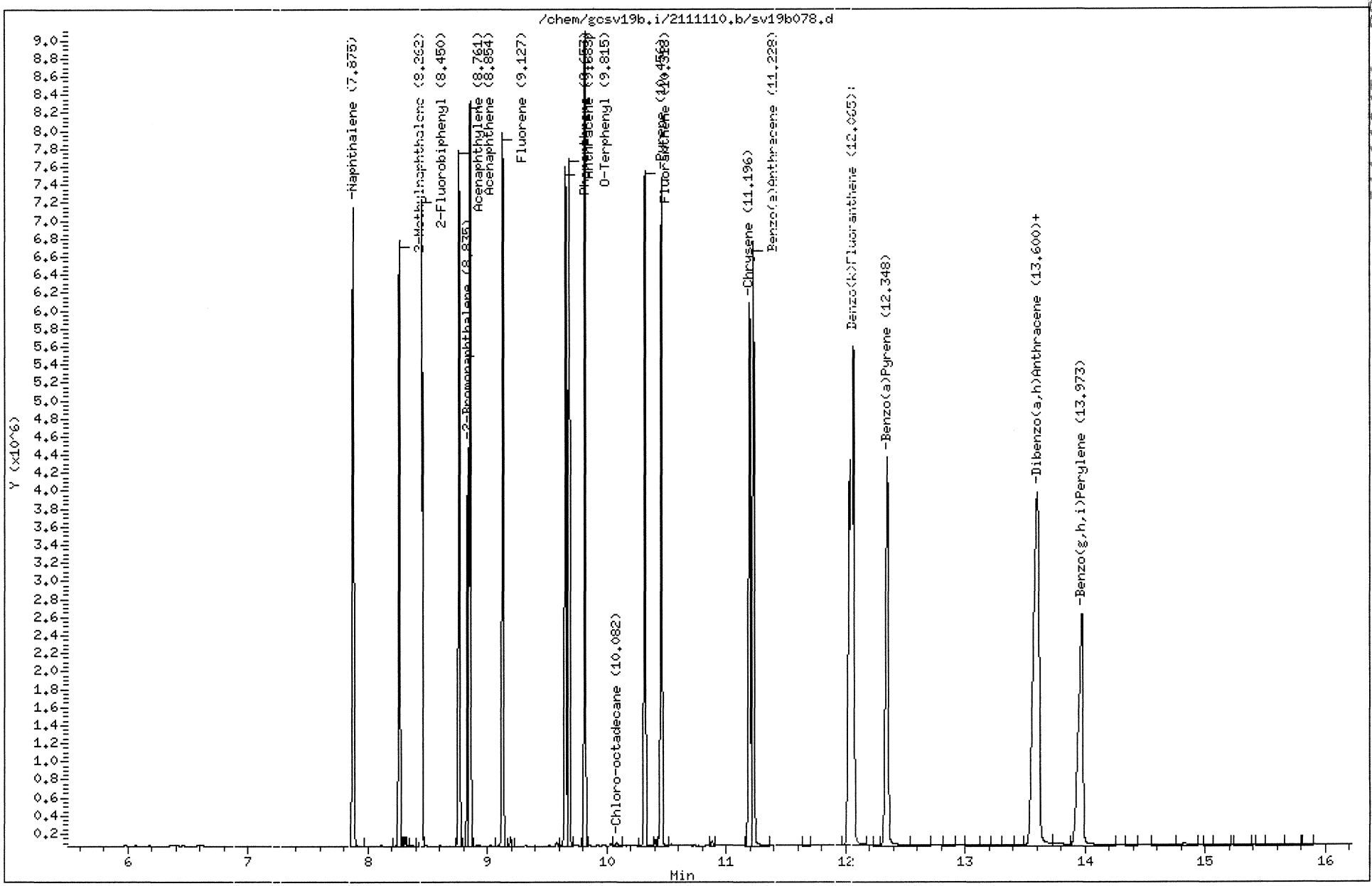
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	16 Benzo(b)Fluoranthene	12.065	12.085	-0.020	275831415	100.000	98.0 (M2)
	17 Benzo(k)Fluoranthene	12.065	12.085	-0.020	275831415	100.000	98.0 (M2)
	18 Benzo(a)Pyrene	12.348	12.370	-0.022	138678057	50.0000	50.0
	19 Indo(1,2,3cd)Pyrene	13.600	13.598	0.002	269564115	100.000	101 (M1)
	20 Dibenzo(a,h)Anthracene	13.600	13.638	-0.038	269564115	100.000	101
	21 Benzo(g,h,i)Perylene	13.973	13.997	-0.024	142942692	50.0000	51.5
M	22 Arom C11-C22				2308410248	850.000	838

QC Flag Legend

M1- Compound response manually integrated because Target system did not integrate.
M2- Compound response manually integrated because Target system integrated incorrectly.

Data File: /chem/gcsv19b.i/2111110.b/sv19b078.d
Date : 11-NOV-2011 00:54
Client ID: 1 84-12-8
Sample Info: 1400x1 84-12-8
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

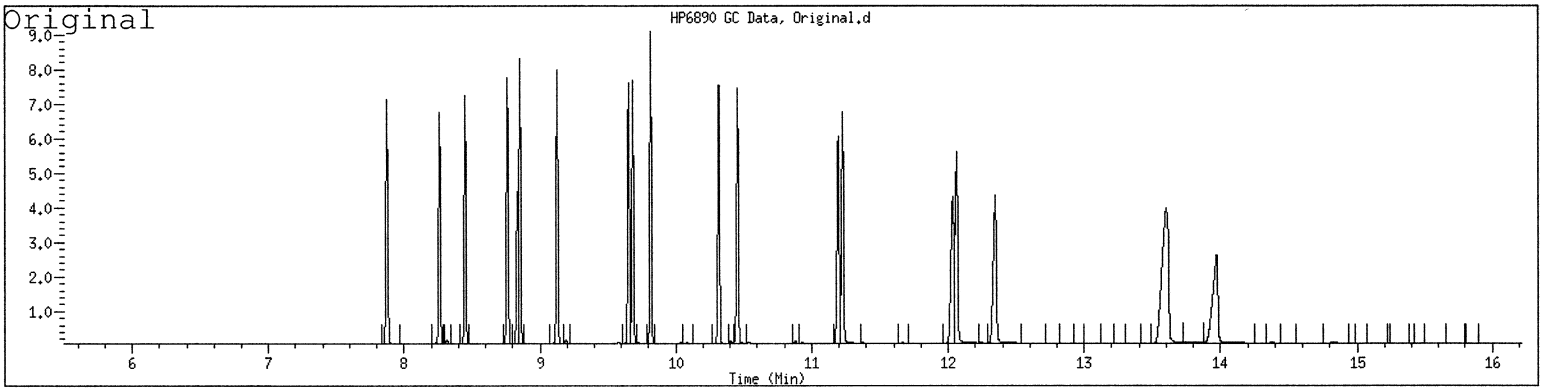
Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



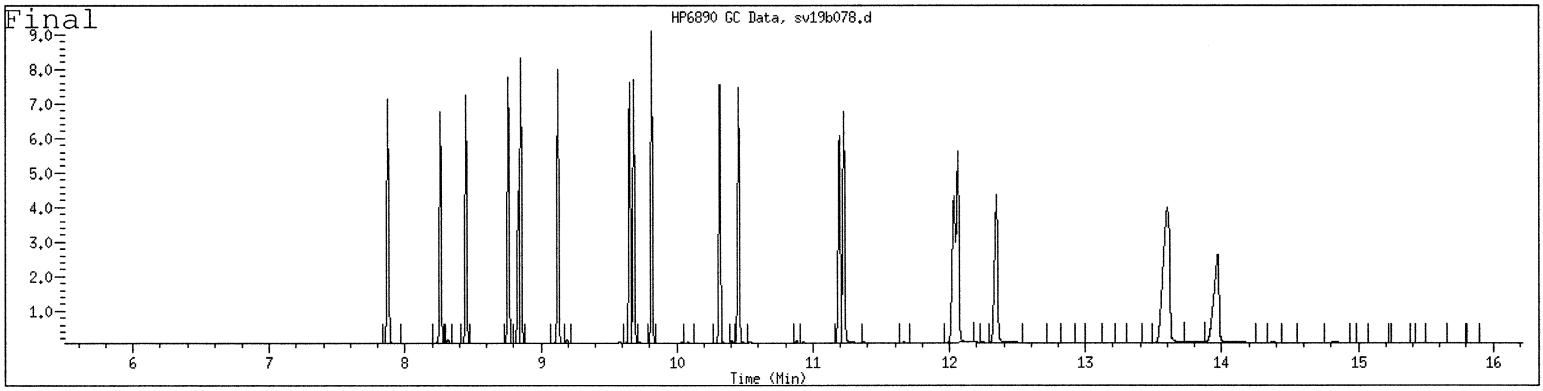
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1400	SampleType	: CCALIB_3
Injection Date	: 11/11/2011 00:54	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1400*1 84-12-8		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: cal

Original



Final



GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcsv19b.i Injection Date: 11-NOV-2011 01:18
Lab File ID: sv19b079.d Init. Cal. Date(s): 03-NOV-2011 03-NOV-2011
Analysis Type: WATER Init. Cal. Times: 12:55 14:30
Lab Sample ID: 1400 Quant Type: ESTD
Method: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2535559	0.010	6.75829	25.00000	Averaged
2 C-10	2739215	2603184	0.010	4.96608	25.00000	Averaged
4 C-12	2801460	2633816	0.010	5.98416	25.00000	Averaged
6 C-14	2878136	2682002	0.010	6.81465	25.00000	Averaged
8 C-16	2983102	2774406	0.010	6.99594	25.00000	Averaged
10 C-18	3021289	2770851	0.010	8.28913	25.00000	Averaged
M 11 Alip C9-C18	2857090	2666636	0.010	6.66602	25.00000	Averaged
12 C-19	3017239	2775880	0.010	7.99933	25.00000	Averaged
13 C-20	3045314	2803868	0.010	7.92845	25.00000	Averaged
$ 15 Chlorooctadecane	2739581	2561566	0.010	6.49789	25.00000	Averaged
16 C-22	3060647	2832289	0.010	7.46112	25.00000	Averaged
18 C-24	3098402	2856022	0.010	7.82274	25.00000	Averaged
20 C-26	3120089	2880208	0.010	7.68827	25.00000	Averaged
22 C-28	3095987	2831191	0.010	8.55290	25.00000	Averaged
115 C-30	3120341	2878931	0.010	7.73665	25.00000	Averaged
114 C-36	2925634	2673515	0.010	8.61760	25.00000	Averaged
M 24 Alip C19-C36	3060457	2816488	0.010	7.97165	25.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 3.59037
Maximun Average %D/Drift = 25.00000
* Passed Average %D/Drift Test.

GCAL, Inc.

Data file : /chem/gcsv19b.i/2111110.b/sv19b079.d
Lab Smp Id: 1400 Client Smp ID: 1 84-15-4
Inj Date : 11-NOV-2011 01:18
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1400*1 84-15-4
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 17-Nov-2011 12:26 smh Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
	1 C-9	6.225	6.232	-0.007	126777961	50.0000	46.6
	2 C-10	6.927	6.928	-0.001	130159189	50.0000	47.5
	4 C-12	7.824	7.832	-0.008	131690814	50.0000	47.0
	6 C-14	8.462	8.471	-0.009	134100079	50.0000	46.6
	8 C-16	9.003	9.013	-0.010	138720289	50.0000	46.5
	10 C-18	9.490	9.503	-0.013	138542527	50.0000	45.9
M	11 Alip C9-C18				799990859	300.000	280
	12 C-19	9.718	9.774	-0.056	138794001	50.0000	46.0
	13 C-20	9.938	9.957	-0.019	140193390	50.0000	46.0
$	15 Chlorooctadecane	10.150	10.216	-0.066	128078306	50.0000	46.8
	16 C-22	10.358	10.383	-0.025	141614428	50.0000	46.3
	18 C-24	10.763	10.795	-0.032	142801102	50.0000	46.1
	20 C-26	11.183	11.222	-0.039	144010380	50.0000	46.2
	22 C-28	11.646	11.723	-0.077	141559532	50.0000	45.7

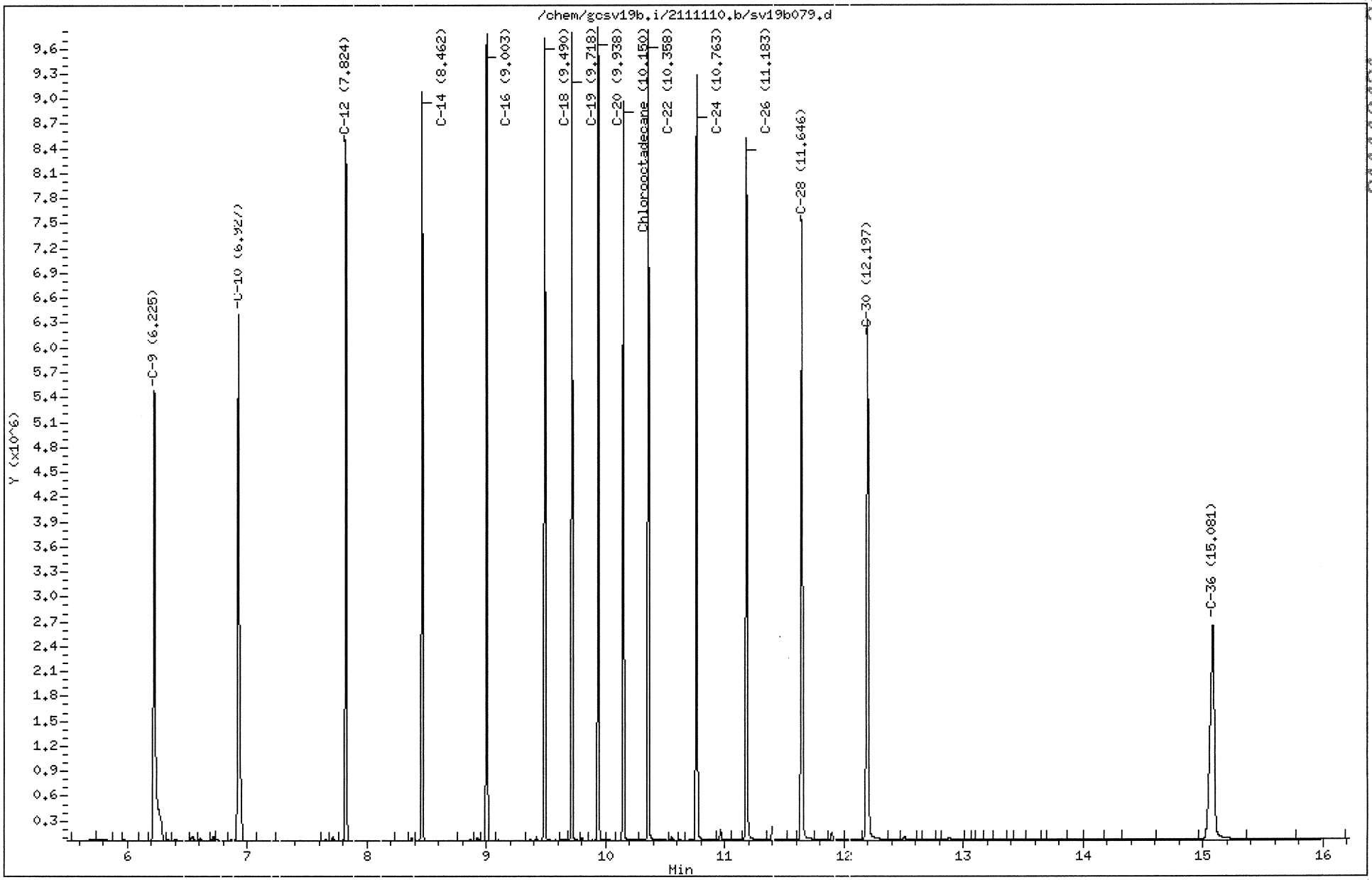
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (UG/ML)	AMOUNTS ON-COL (UG/ML)
115 C-30	12.197	12.249	-0.052	143946534	50.0000	46.1(A)
114 C-36	15.081	15.143	-0.062	133675738	50.0000	45.7(A)
M 24 Alip C19-C36				1126595105	400.000	368

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

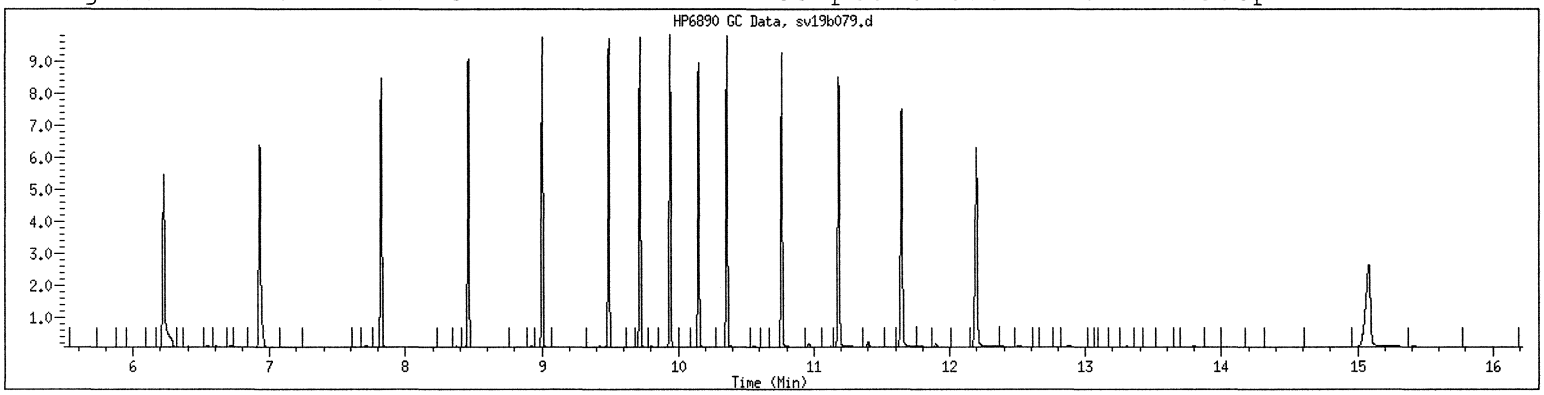
Data File: /chem/gcsv19b.i/2111110.b/sv19b079.d
Date : 11-NOV-2011 01:18
Client ID: 1 84-15-4
Sample Info: 1400*1 84-15-4
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1400 SampleType : CCALIB_3
Injection Date: 11/11/2011 01:18 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1400*1 84-15-4
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1004104

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110421

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1004104

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 1515

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b054

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	42.1	U	42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	21.8	U	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	60.0	U	31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b054.d
Lab Smp Id: 1004104 Client Smp ID: 1 MB
Inj Date : 10-NOV-2011 15:15
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004104*1 MB
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)	
$ 3 2-Fluorobiphenyl	8.448	8.454	-0.006	39667720	16.1416	32.3	
$ 5 2-Bromonaphthalene	8.833	8.838	-0.005	29843186	19.0232	38.0	
$ 10 O-Terphenyl	9.828	9.822	0.006	47260177	16.0269	32.1	
$ 11 Chloro-octadecane	10.176	10.158	0.018	35257119	12.8699	25.7	
M 113 Total Surrogate Area				152028202			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b054.d

Date : 10-NOV-2011 15:15

Client ID: 1 MB

Sample Info: 1004104*1 MB

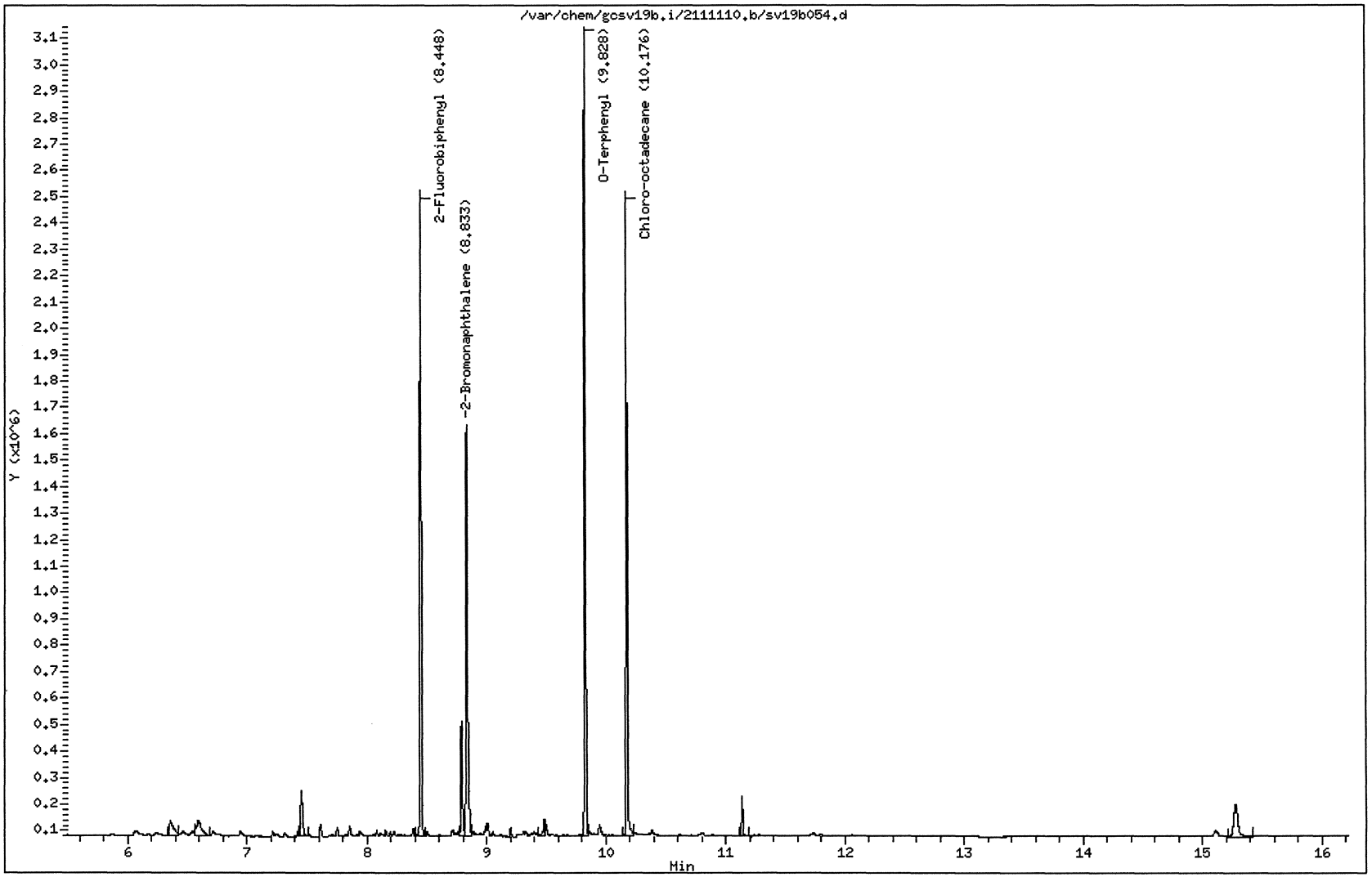
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

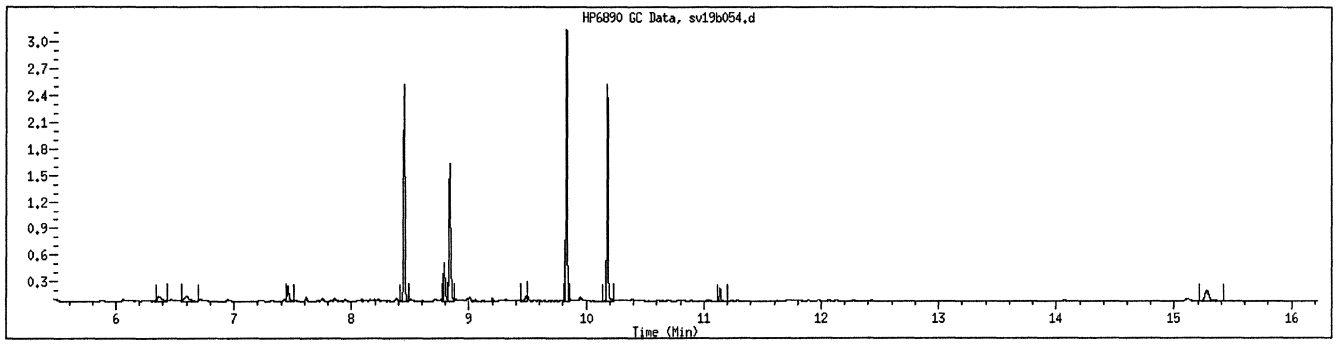
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111110.b/sv19b054.d Page: 1
Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004104 SampleType : SAMPLE
Injection Date: 11/10/2011 15:15 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004104*1 MB
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCS1004105

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110421

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1004105

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 1603

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b056

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	188		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	51.9	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	101		31.3	60.0	100

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b056.d
Lab Smp Id: 1004105 Client Smp ID: 1 LCS
Inj Date : 10-NOV-2011 16:03
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004105*1 LCS
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 56 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(UG/ML)	(ug/L)
	1 Naphthalene	7.871	7.880	-0.009	47838120	16.8316	33.7
$	3 2-Fluorobiphenyl	8.448	8.454	-0.006	46838239	19.0594	38.1
$	5 2-Bromonaphthalene	8.833	8.838	-0.005	27212745	17.3465	34.7
	6 Acenaphthene	8.850	8.858	-0.008	60129675	20.6620	41.3
	9 Anthracene	9.682	9.688	-0.006	50757402	19.1249	38.2
$	10 O-Terphenyl	9.818	9.822	-0.004	48148931	16.3283	32.7
$	11 Chloro-octadecane	10.160	10.158	0.002	25956734	9.47499	18.9
	13 Pyrene	10.465	10.467	-0.002	52673131	18.4463	36.9
	15 Chrysene	11.239	11.250	-0.011	52294743	19.0289	38.1
M	22 Arom C11-C22				263693071	94.0938	188
M	113 Total Surrogate Area				148156649		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b056.d

Date : 10-NOV-2011 16:03

Client ID: 1 LCS

Sample Info: 1004105%1 LCS

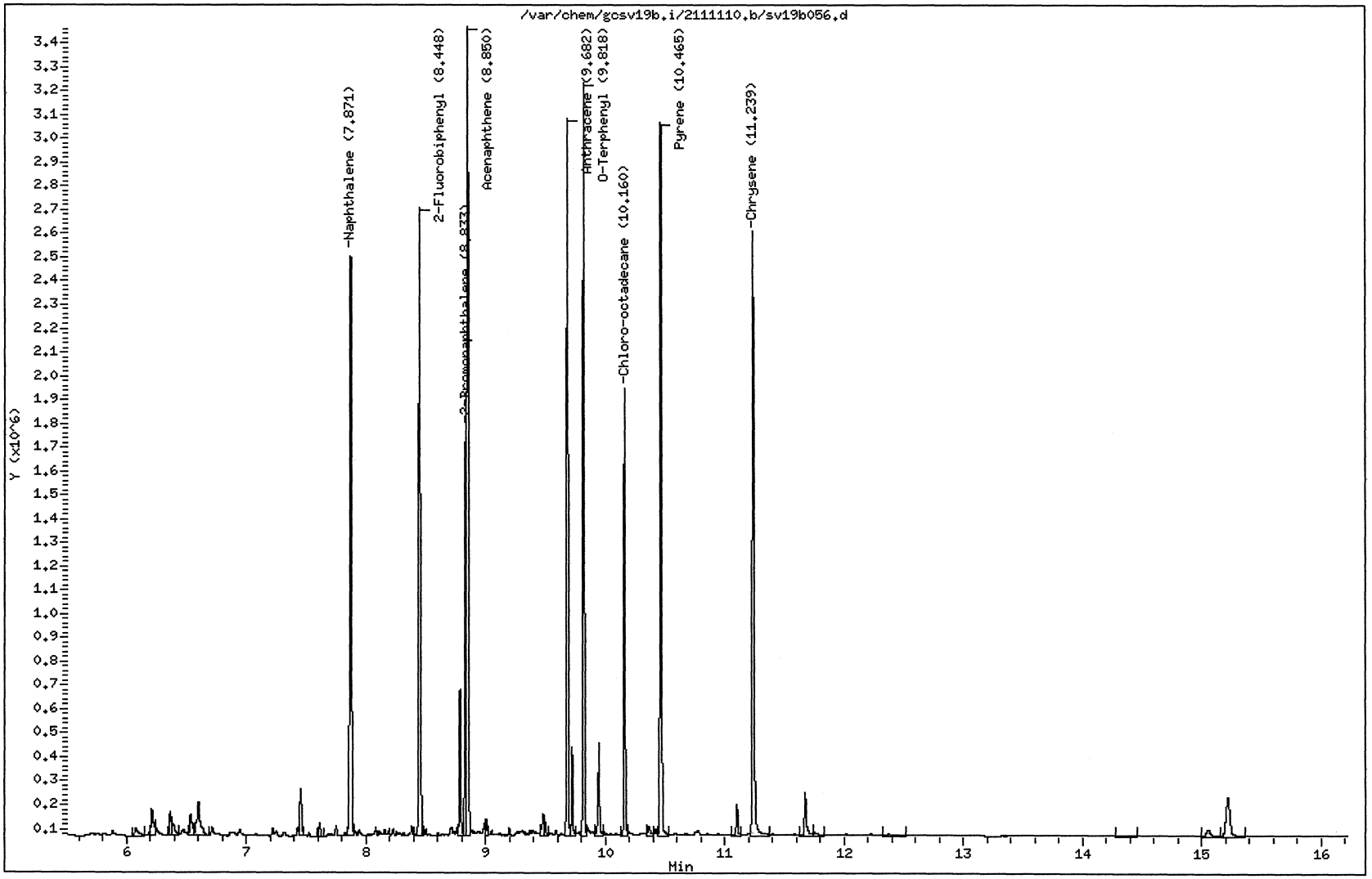
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

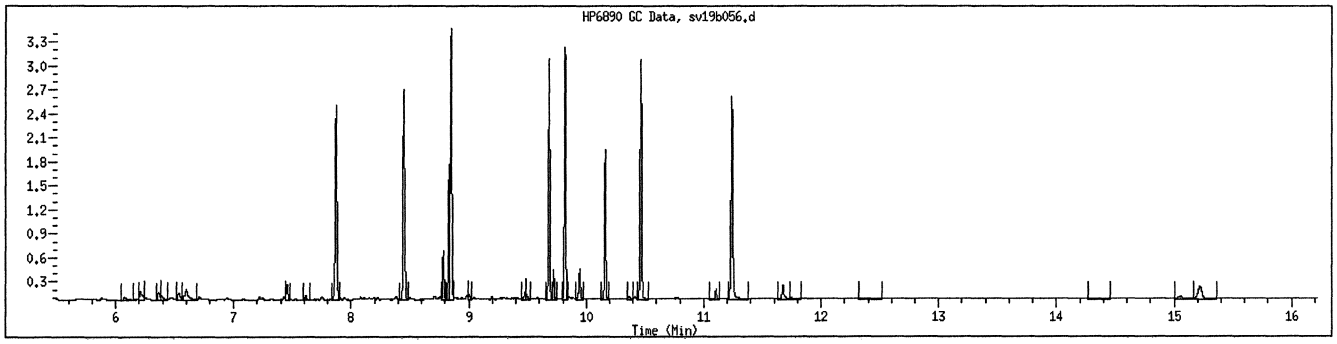
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111110.b/sv19b056.d Page: 1
Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004105 SampleType : LCS
Injection Date: 11/10/2011 16:03 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004105*1 LCS
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b057.d
Lab Smp Id: 1004105 Client Smp ID: 1 LCS
Inj Date : 10-NOV-2011 16:27
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004105*1 LCS
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:21 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 57 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

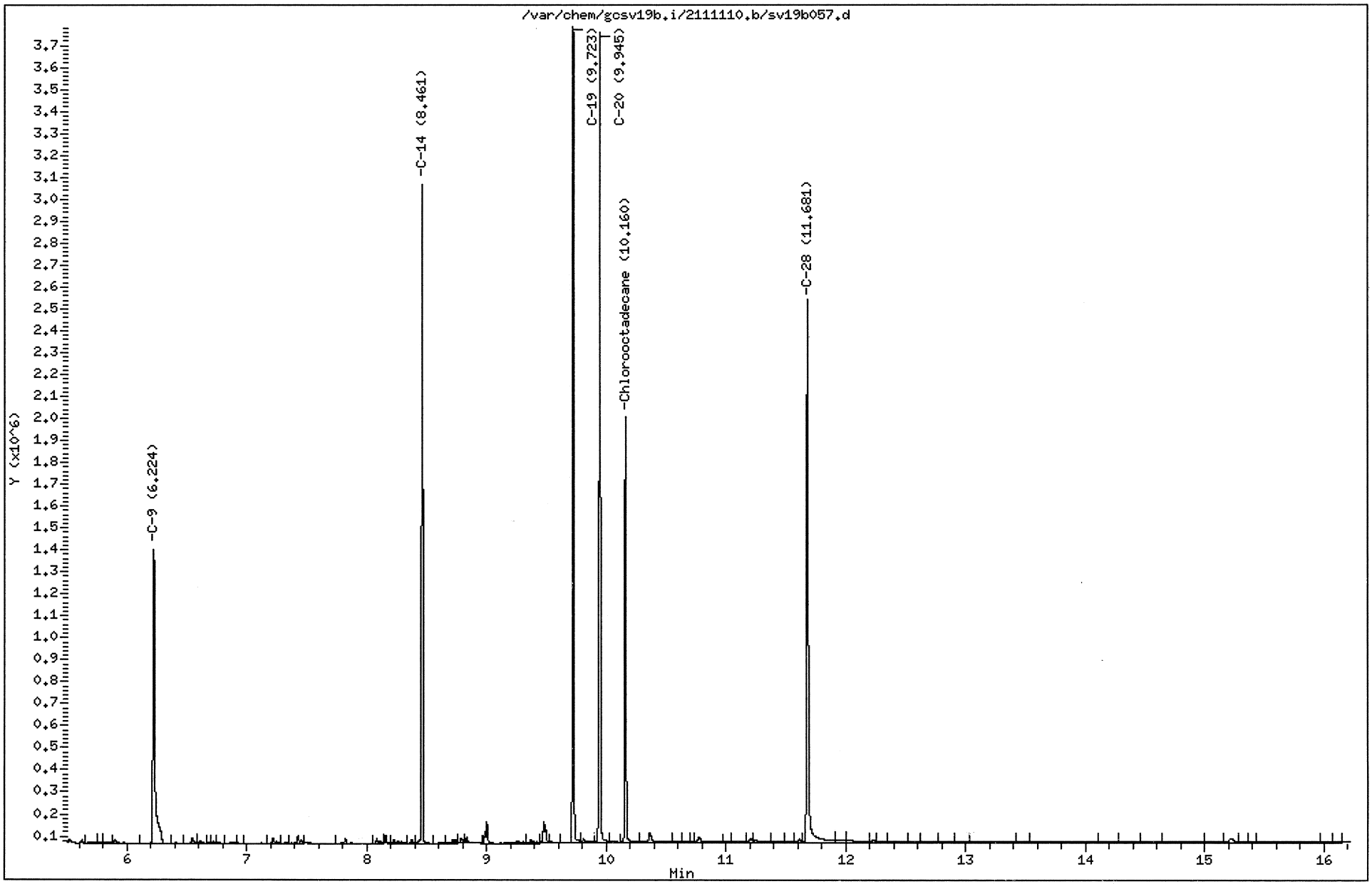
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.224	6.232	-0.008	30157800	11.0901	22.2
	6 C-14	8.461	8.470	-0.009	42709583	14.8393	29.7
M	11 Alip C9-C18				72867383	25.9294	51.9
	12 C-19	9.723	9.773	-0.050	51247556	16.9849	34.0
	13 C-20	9.945	9.956	-0.011	52736163	17.3172	34.6
$	15 Chlorooctadecane	10.160	10.215	-0.055	27978107	10.2125	20.4
	22 C-28	11.681	11.721	-0.040	50693086	16.3738	32.7(H)
M	24 Alip C19-C36				154676805	50.6759	101

QC Flag Legend

H - Operator selected an alternate compound hit.

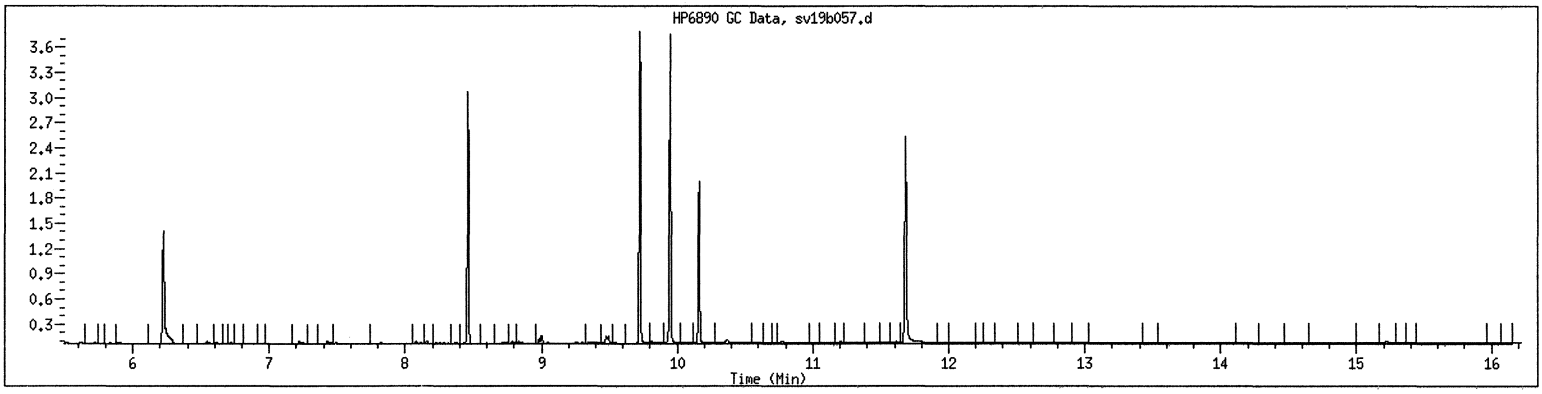
Data File: /var/chem/gcsv19b.i/2111110.b/sv19b057.d
Date : 10-NOV-2011 16:27
Client ID: 1 LCS
Sample Info: 1004105*1 LCS
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1004105	SampleType	: LCS
Injection Date	: 11/10/2011 16:27	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1004105*1 LCS		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: LCSD1004106

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 211110421

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1004106

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: DB-5MS-30M | ID: .25 (mm) | Date Extracted: 11/08/11

Concentrated Extract Volume: 2000 (µL) | Date Analyzed: 11/10/11 | Time: 1651

Soil Aliquot Volume: (µL) | Dilution Factor: 1 | Analyst: SMH

Injection Volume: 1 (µL) | Prep Method: MASS EPH

GPC Cleanup: (Y/N) N | pH: | Analytical Method: MASSEPH

Prep Batch: 468721 | Analytical Batch: 469140 | Sulfur Cleanup: (Y/N) N | Instrument ID: GCS19B

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2111110/sv19b058

CAS NO.	COMPOUND	RESULT	Q	MDL	LOD	LOQ
GCSV-02-22	C11-C22 Aromatics	191		42.1	42.1	100
GCSV-02-23	C9-C18 Aliphatic Hydrocarbons	52.8	J	21.8	21.8	100
GCSV-02-24	C19-C36 Aliphatic Hydrocarbons	94.2	J	31.3	60.0	100

FORM I ORG-1

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b058.d
Lab Smp Id: 1004106 Client Smp ID: 1 LCSD
Inj Date : 10-NOV-2011 16:51
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004106*1 LCSD
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Meth Date : 11-Nov-2011 15:43 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 13:18 Cal File: sv19b053s.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.50
Processing Host: org.gcal.com

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	FINAL (ug/L)
	1 Naphthalene	7.871	7.880	-0.009	49288016	17.3418	34.7
$	3 2-Fluorobiphenyl	8.448	8.454	-0.006	48539862	19.7518	39.5
$	5 2-Bromonaphthalene	8.833	8.838	-0.005	27183500	17.3278	34.7
	6 Acenaphthene	8.851	8.858	-0.007	61175611	21.0214	42.0
	9 Anthracene	9.683	9.688	-0.005	51333879	19.3421	38.7
$	10 O-Terphenyl	9.820	9.822	-0.002	49367854	16.7417	33.5
$	11 Chloro-octadecane	10.163	10.158	0.005	32943730	12.0255	24.1
	13 Pyrene	10.469	10.467	0.002	53212368	18.6352	37.3
	15 Chrysene	11.245	11.250	-0.005	52943561	19.2650	38.5
M	22 Arom C11-C22				267953435	95.6055	191
M	113 Total Surrogate Area				158034946		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcsv19b.i/2111110.b/sv19b058.d

Date : 10-NOV-2011 16:51

Client ID: 1 LCSD

Sample Info: 1004106*1 LCSD

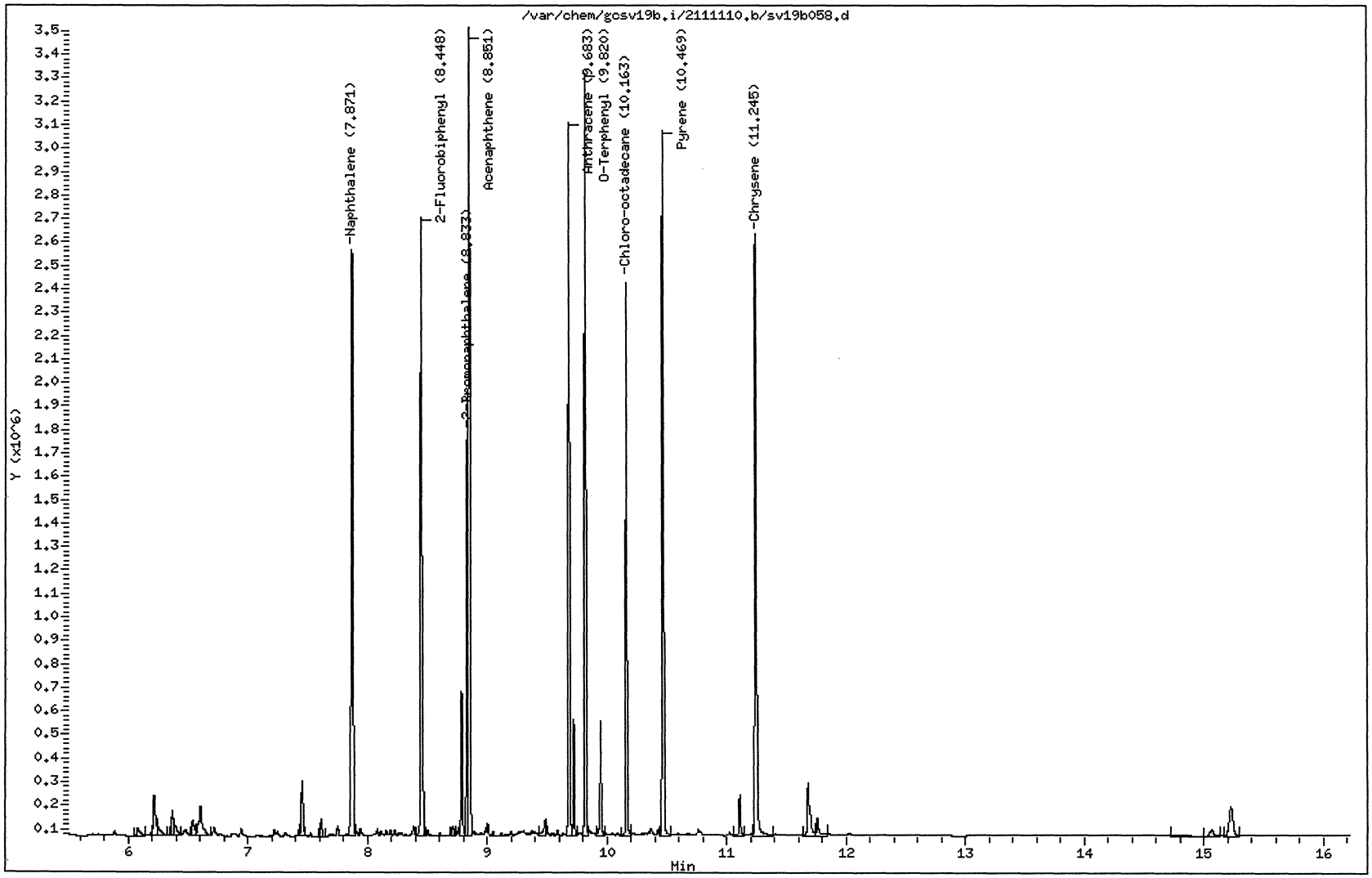
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

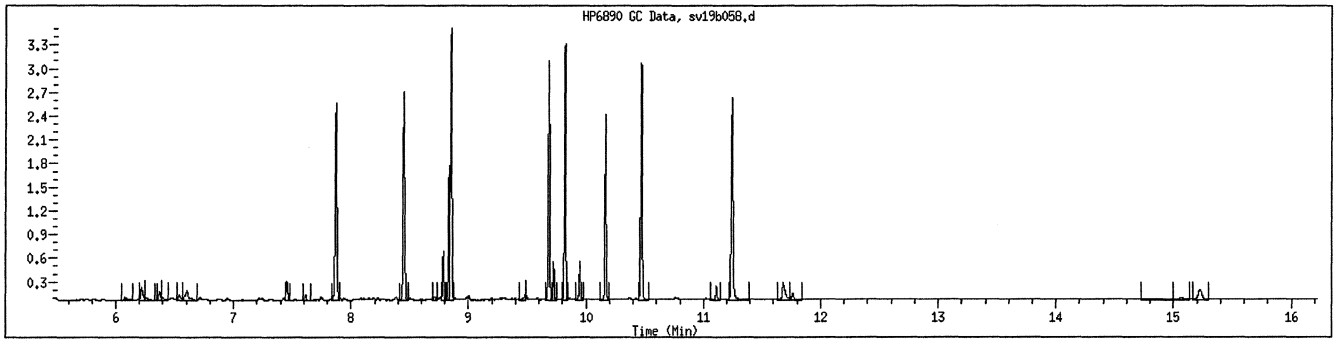
Column diameter: 0.25



Data file : /var/chem/gcsv19b.i/2111110.b/sv19b058.d Page: 1
Report Date: 11/11/2011 15:43

MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1004106 SampleType : LCS
Injection Date: 11/10/2011 16:51 Instrument : gcsv19b.i
Operator : smh
Sample Info : 1004106*1 LCSD
Misc Info :
Method : /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Dilution : 1.00
Matrix : WATER
Integrator : HP Genie Compound Sublist: all



NO MANUAL INTEGRATIONS

GCAL, Inc.

Data file : /var/chem/gcsv19b.i/2111110.b/sv19b059.d
Lab Smp Id: 1004106 Client Smp ID: 1 LCSD
Inj Date : 10-NOV-2011 17:15
Operator : smh Inst ID: gcsv19b.i
Smp Info : 1004106*1 LCSD
Misc Info :
Comment :
Method : /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m
Meth Date : 11-Nov-2011 15:05 dlb Quant Type: ESTD
Cal Date : 03-NOV-2011 14:30 Cal File: sv19b056.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ALmasseph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vo	1000.00000	Volume of sample extracted (mL)
Vt	2000.00000	Volume of final extract (uL)
Vi	1.00000	Volume injected (uL)
Uf	1.00000	Correction factor

Cpnd Variable Local Compound Variable

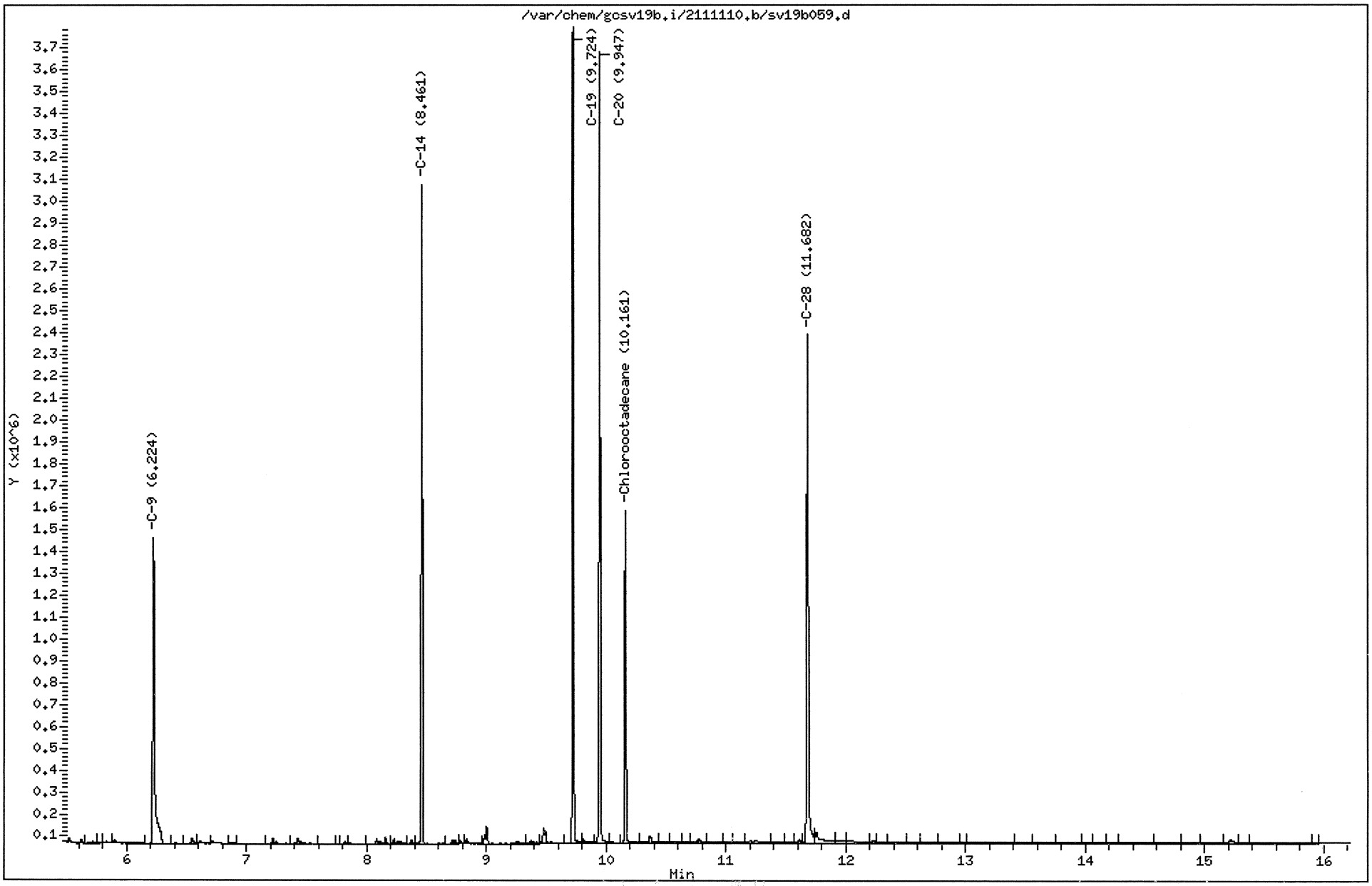
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (UG/ML)	CONCENTRATIONS FINAL (ug/L)
	1 C-9	6.224	6.232	-0.008	31225286	11.4827	23.0
	6 C-14	8.461	8.470	-0.009	42882291	14.8993	29.8
M	11 Alip C9-C18				74107577	26.3820	52.8
	12 C-19	9.724	9.773	-0.049	49945153	16.5533	33.1
	13 C-20	9.947	9.956	-0.009	50271463	16.5078	33.0
$	15 Chlorooctadecane	10.161	10.215	-0.054	21612655	7.88904	15.8(R)
	22 C-28	11.682	11.721	-0.039	43492976	14.0482	28.1
M	24 Alip C19-C36				143709592	47.1092	94.2

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

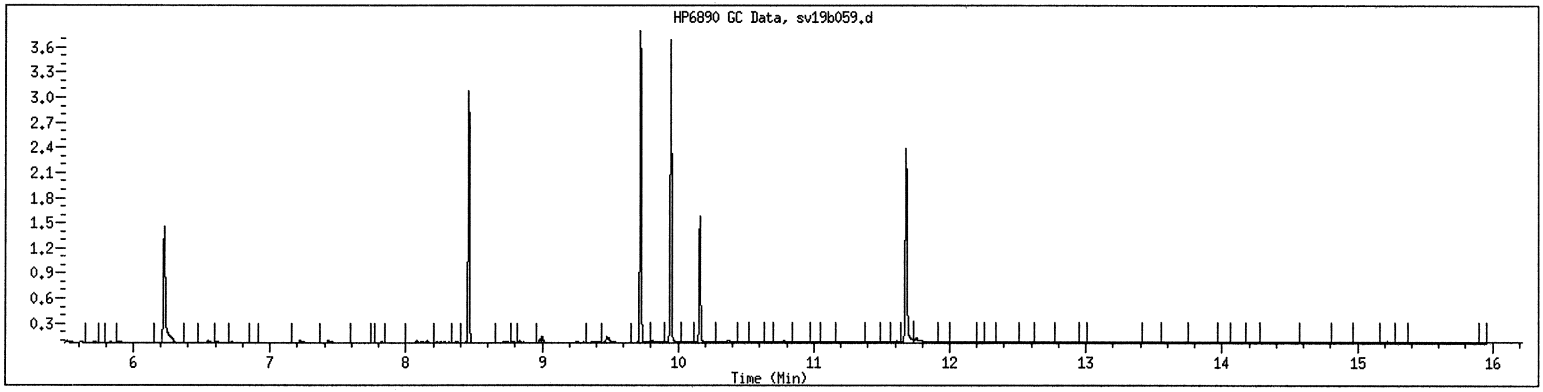
Data File: /var/chem/gcsv19b.i/2111110.b/sv19b059.d
Date : 10-NOV-2011 17:15
Client ID: 1 LCSD
Sample Info: 1004106*1 LCSD
Volume Injected (uL): 1.0
Column phase: DB-5MS-30M

Instrument: gcsv19b.i
Operator: smh
Column diameter: 0.25



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID	: 1004106	SampleType	: LCS
Injection Date	: 11/10/2011 17:15	Instrument	: gcsv19b.i
Operator	: smh		
Sample Info	: 1004106*1 LCSD		
Misc Info	:		
Method	: /var/chem/gcsv19b.i/2111110.b/ALPHEPHmass.m		
Dilution	: 1.00		
Matrix	: WATER		
Integrator	: HP Genie	Compound Sublist	: ALmasseph



NO MANUAL INTEGRATIONS

LABORATORY CHRONICLE: GCSV DEPARTMENT

Date: 11/29/2011
Instrument: gcsv19b.i
Method File: /var/chem/gcsv19b.i/2111110.b/AROEPHmass.m
Batch: /var/chem/gcsv19b.i/2111110.b
Column-Detector: DB-5MS-30M

Sample ID	Standard ID	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
dcm lot #1118		sv19b051.d	1000.00 ml	10-NOV-2011 13:49	1.000	smh	51	all
1400		sv19b052.d	1000.00 ml	10-NOV-2011 14:13	1.000	smh	52	cal
1400		sv19b053.d	1000.00 ml	10-NOV-2011 14:37	1.000	smh	53	ALmasseph
1004104		sv19b054.d	1000.00 ml	10-NOV-2011 15:15	1.000	smh	54	all
1004104		sv19b055.d	1000.00 ml	10-NOV-2011 15:39	1.000	smh	55	ALmasseph
1004105		sv19b056.d	1000.00 ml	10-NOV-2011 16:03	1.000	smh	56	all
1004105		sv19b057.d	1000.00 ml	10-NOV-2011 16:27	1.000	smh	57	ALmasseph
1004106		sv19b058.d	1000.00 ml	10-NOV-2011 16:51	1.000	smh	58	all
1004106		sv19b059.d	1000.00 ml	10-NOV-2011 17:15	1.000	smh	59	ALmasseph
21110312406		sv19b060.d	990.00 ml	10-NOV-2011 17:40	1.000	smh	60	all
21110312406		sv19b061.d	990.00 ml	10-NOV-2011 18:04	1.000	smh	61	ALmasseph
21110312408		sv19b062.d	990.00 ml	10-NOV-2011 18:28	1.000	smh	62	all
21110312408		sv19b063.d	990.00 ml	10-NOV-2011 18:52	1.000	smh	63	ALmasseph
21110312408		sv19b063s.d	990.00 ml	10-NOV-2011 18:52	1.000	smh	63	Chloro
1400		sv19b064.d	1000.00 ml	10-NOV-2011 19:16	1.000	smh	64	cal
1400		sv19b065.d	1000.00 ml	10-NOV-2011 19:40	1.000	smh	65	ALmasseph
1400		sv19b066.d	1000.00 ml	10-NOV-2011 20:04	1.000	smh	64	cal
1400		sv19b067.d	1000.00 ml	10-NOV-2011 20:28	1.000	smh	65	ALmasseph
21110312409		sv19b068.d	990.00 ml	10-NOV-2011 20:52	1.000	smh	68	all
21110312409		sv19b069.d	990.00 ml	10-NOV-2011 21:16	1.000	smh	69	ALmasseph
21110312409		sv19b069s.d	990.00 ml	10-NOV-2011 21:16	1.000	smh	69	Chloro
21110312410		sv19b070.d	990.00 ml	10-NOV-2011 21:40	1.000	smh	70	all
21110312410		sv19b071.d	990.00 ml	10-NOV-2011 22:04	1.000	smh	71	ALmasseph
21110312410		sv19b071s.d	990.00 ml	10-NOV-2011 22:04	1.000	smh	71	Chloro
21111042101		sv19b072.d	990.00 ml	10-NOV-2011 22:29	1.000	smh	72	all
21111042101		sv19b072s.d	990.00 ml	10-NOV-2011 22:29	1.000	smh	72	surr
21111042101		sv19b073.d	990.00 ml	10-NOV-2011 22:53	1.000	smh	73	ALmasseph
21111031701		sv19b074.d	1000.00 ml	10-NOV-2011 23:17	1.000	smh	74	all
21111031701		sv19b075.d	1000.00 ml	10-NOV-2011 23:41	1.000	smh	75	ALmasseph
21111031702		sv19b076.d	1000.00 ml	11-NOV-2011 00:05	1.000	smh	76	all
21111031702		sv19b077.d	1000.00 ml	11-NOV-2011 00:29	1.000	smh	77	ALmasseph
1400		sv19b078.d	1000.00 ml	11-NOV-2011 00:54	1.000	smh	78	cal
1400		sv19b079.d	1000.00 ml	11-NOV-2011 01:18	1.000	smh	79	ALmasseph
1400		sv19b080.d	1000.00 ml	11-NOV-2011 01:42	1.000	smh	78	cal
1400		sv19b081.d	1000.00 ml	11-NOV-2011 02:07	1.000	smh	79	ALmasseph

Appl-08 General Accounts/9000/211110421/11-15-11

SUBCONTRACT ORDER

APPL, Inc.

ARF: 66186 **PO: 00-66186**

SENDING LABORATORY:

APPL Labs
908 North Temperance Ave.
Clovis, CA 93611
Phone: (559) 275-2175
Fax: (559) 275-4422
Project Manager: Cynthia Clark (cclark@applinc.com) rp

RECEIVING LABORATORY:

Gulf Coast Analytical
7979 GSRI Rd.
Baton Rouge, LA 70820
Phone: (225) 769-4900x
Fax:
DOD Expiration Date:

Comments: Level IV report - DoD format (LOQ/LOD/DL), ADR (A1/A3 8.3a unchecked) EDD and Excel EDD

	APPL ID	Sample ID	LOC ID	Matrix	Collected	Analysis	Price
1.	AY50005	ES057		Water	11/02/11 11:05	MADEP-EPH	$125.00
				Water	11/02/11 11:05	MADEP-VPH	$75.00

Released By	Date	Time	Received By	Date	Time
	11/3/11	1335	FedEx		
FedEx 4796 7085 3529	11/4/11	840		11/4/11	840

To ensure timely payment, please include the PO number on your invoice

5.9

GCAL
GULF COAST ANALYTICAL LABORATORIES, INC

SAMPLE RECEIVING CHECKLIST

Workorder: 211110421 Client: 9000 - General Accounts

Profile: 227122 - Appl, Inc. Line Item: 1 - Waters

Received by: Saucier, Charlotte Received Date/Time: 11/4/2011 8:40:00 AM

Samples Received via: FEDEX Number of Coolers Received: 1

Cooler tracking numbers(s): 4796 7085 3529

Cooler temperature(s): 5.9

Were all coolers received at a temperature of 0 - 6° C?	☑ Yes	☐ No	☐ N/A
Were all custody seals intact?	☑ Yes	☐ No	☐ N/A
Were all samples received in proper containers?	☑ Yes	☐ No	☐ N/A
Were all samples properly preserved?	☑ Yes	☐ No	☐ N/A
Was preservative added to any container at the lab?	☐ Yes	☑ No	☐ N/A
Were all containers received in good condition?	☑ Yes	☐ No	☐ N/A
Were all VOA vials received with no head space?	☑ Yes	☐ No	☐ N/A
Do all sample labels match the Chain of Custody?	☑ Yes	☐ No	☐ N/A
Was the client notified about any discrepancies?	☐ Yes	☐ No	☑ N/A

Notes/Comments: