

# **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

<b>ND</b>	Indicates the result was Not Detected at the specified RDL
<b>DO</b>	Indicates the result was Diluted Out
<b>MI</b>	Indicates the result was subject to Matrix Interference
<b>TNTC</b>	Indicates the result was Too Numerous To Count
<b>SUBC</b>	Indicates the analysis was Sub-Contracted
<b>FLD</b>	Indicates the analysis was performed in the Field
<b>PQL</b>	Practical Quantitation Limit
<b>MDL</b>	Method Detection Limit
<b>RDL</b>	Reporting Detection Limit
<b>00:00</b>	Reported as a time equivalent to 12:00 AM

## Reporting Flags Utilized in this Report

<b>J</b>	Indicates an estimated value
<b>U</b>	Indicates the compound was analyzed for but not detected
<b>B</b>	(ORGANICS) Indicates the analyte was detected in the associated Method Blank
<b>B</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 Miguez  
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				SMC1				SMC2				SMC2				TOT OUT
	1-(1)	Lo	Hi	F	1-(2)	Lo	Hi	F	2-(1)	Lo	Hi	F	2-(2)	Lo	Hi	F	
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

FORM III ORG-1

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	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

## 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): \_\_\_\_\_ (mm)  
 GC Column (1): DB-5MS-30M ID: 25 (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_  
 Method: MASSEPH Prep Batch: 468306 Analytical Batch: 468719  
 Lab File ID: 2111104/sv19b0

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	<b>SAMPLE NO.</b>	<b>LAB SAMPLE ID</b>	<b>DATE ANALYZED</b>	<b>TIME ANALYZED</b>	<b>INSTRUMENT ID</b>
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

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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)	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)	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

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Date : 04-NOV-2011 14:31

Client ID: 1

Instrument: gcsv19b.i

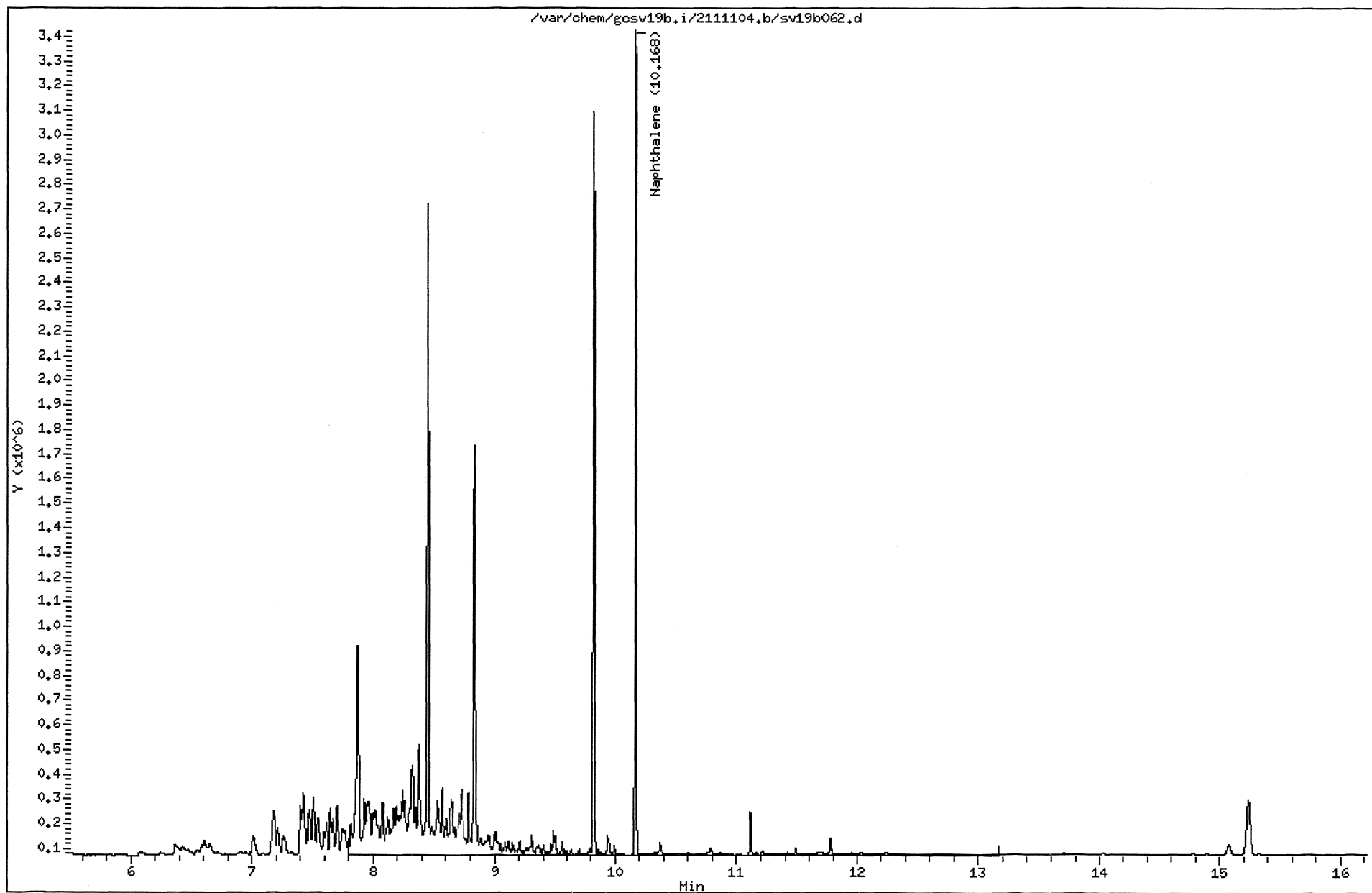
Sample Info: 21110312401\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

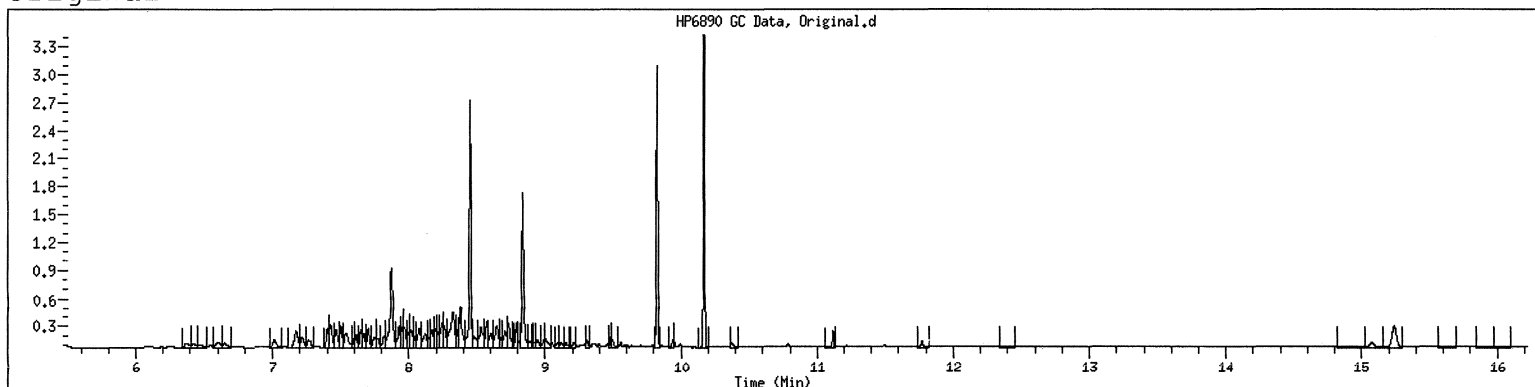


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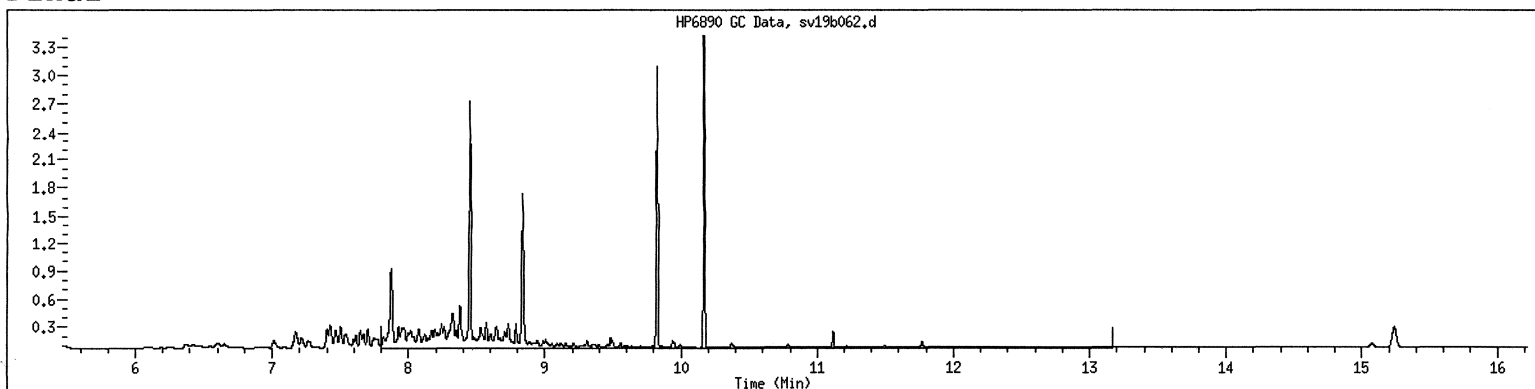
MANUAL INTEGRATION GRAPHIC REPORT

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/AROEPMass.m  
Dilution : 1.00  
Matrix : WATER  
Integrator : HP Genie                      Compound Sublist: all

Original



Final



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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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (UG/ML)	FINAL ( 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)	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/gosv19b.i/2111104.b/sv19b063.d

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Date: 04-NOV-2011 14:56

Client ID: 1

Instrument: gosv19b.i

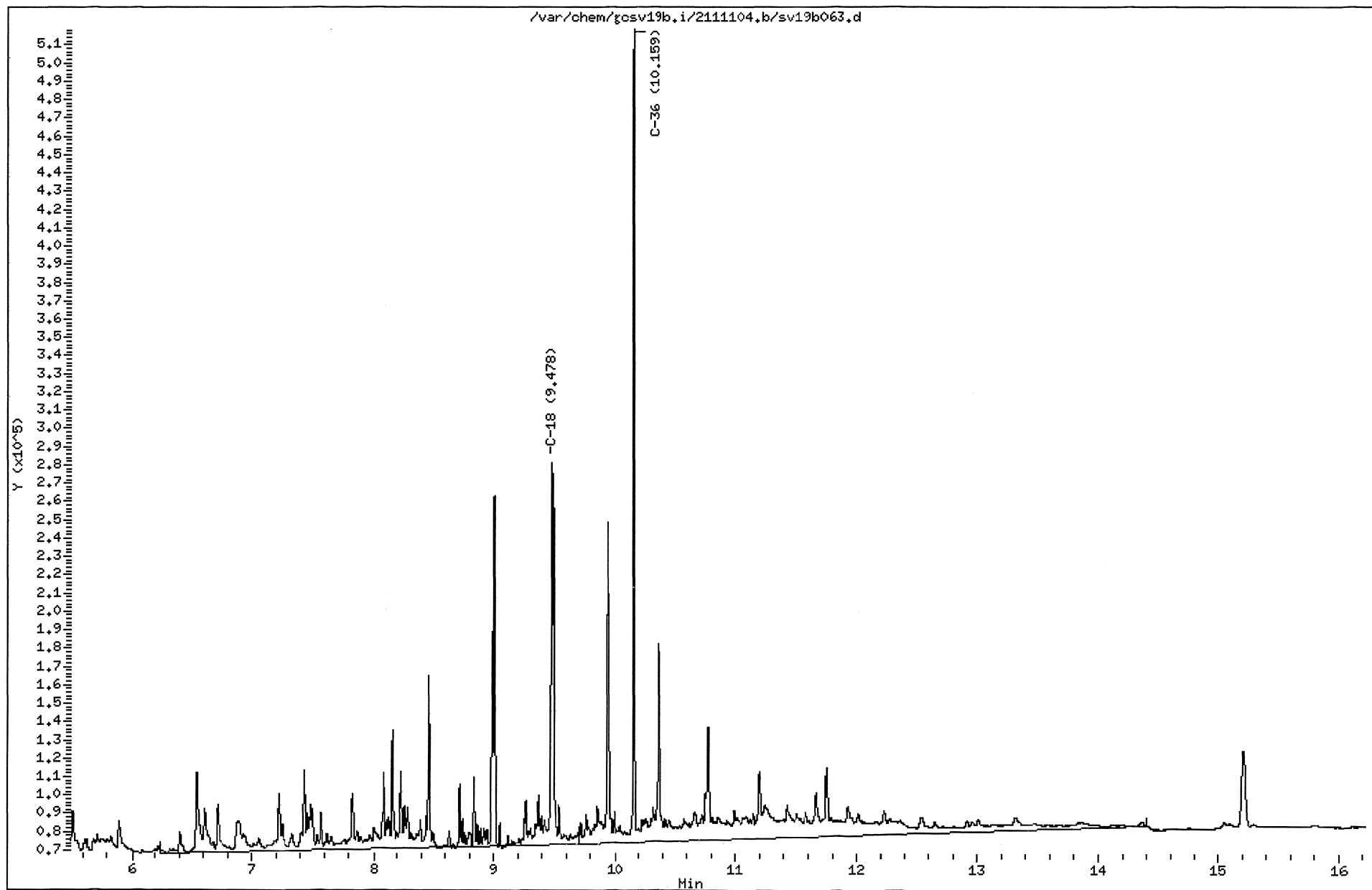
Sample Info: 21110312401\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

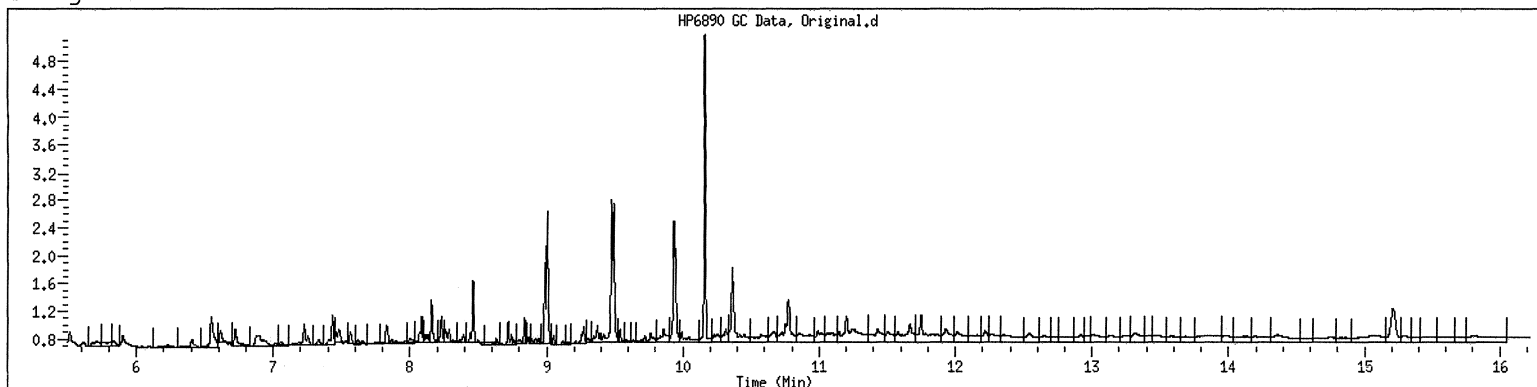


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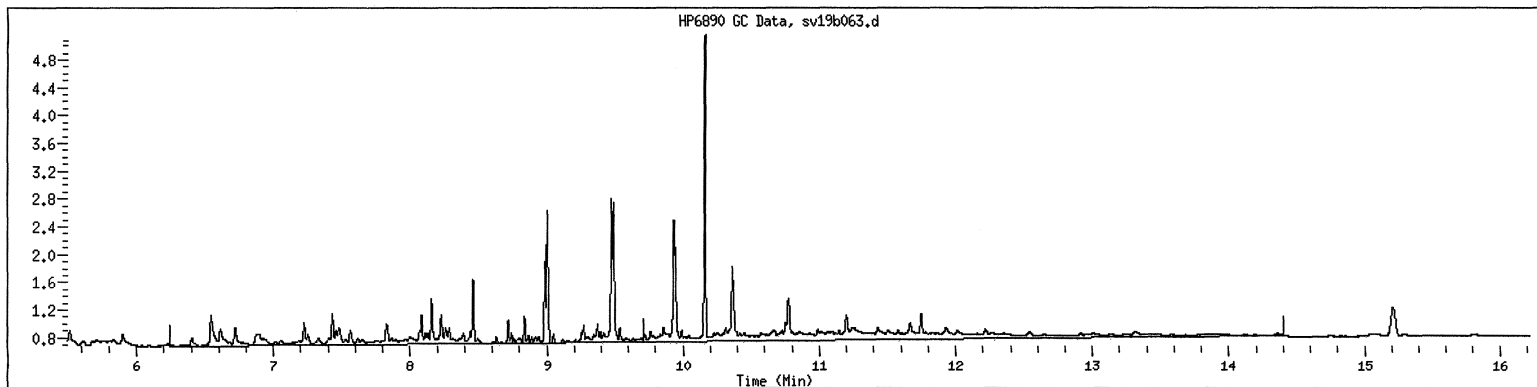
MANUAL INTEGRATION GRAPHIC REPORT

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: ALmaseph

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

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)	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)	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

Page 1

Date : 04-NOV-2011 16:58

Client ID: 1

Instrument: gcsv19b.i

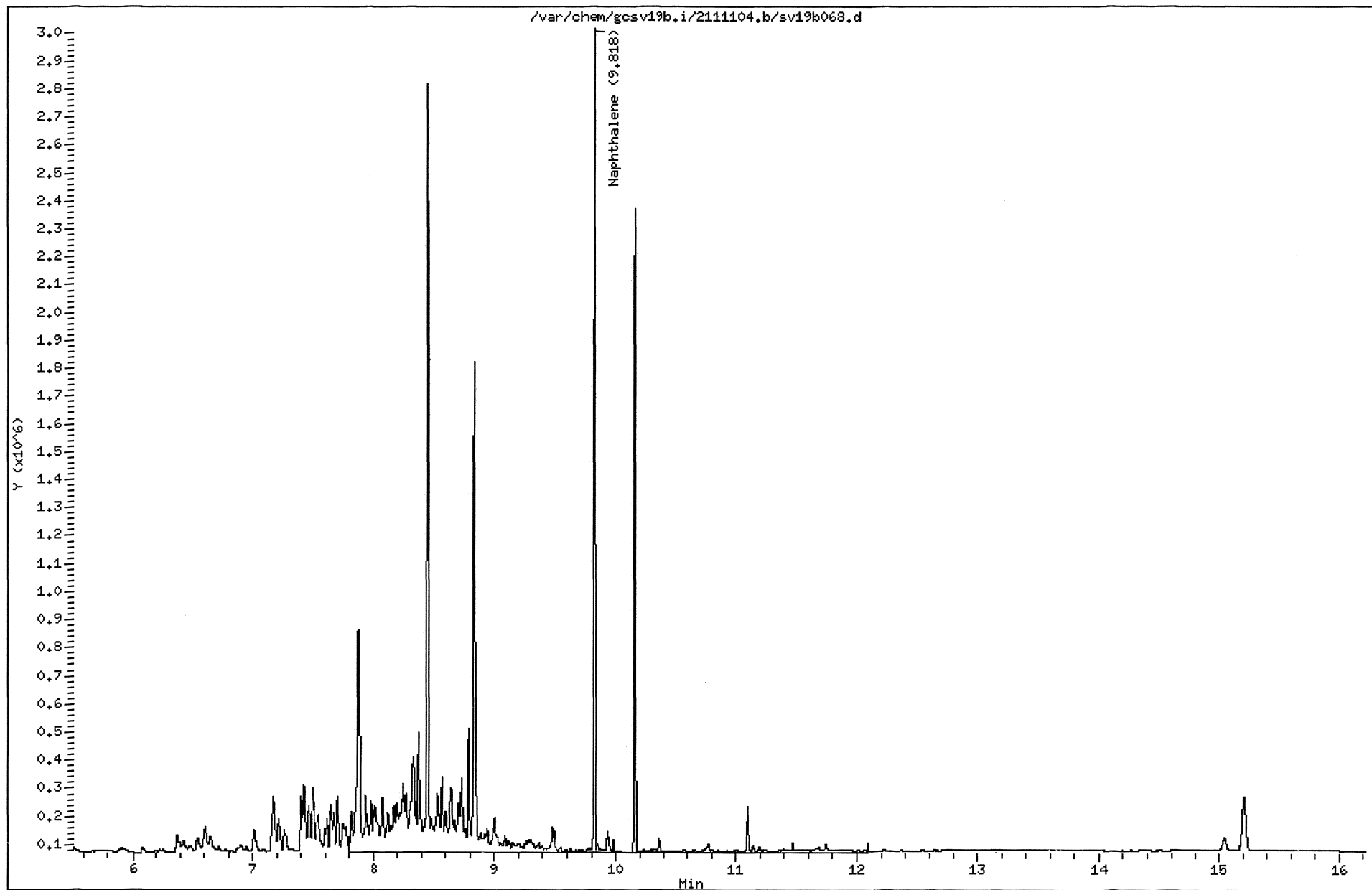
Sample Info: 21110312402\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

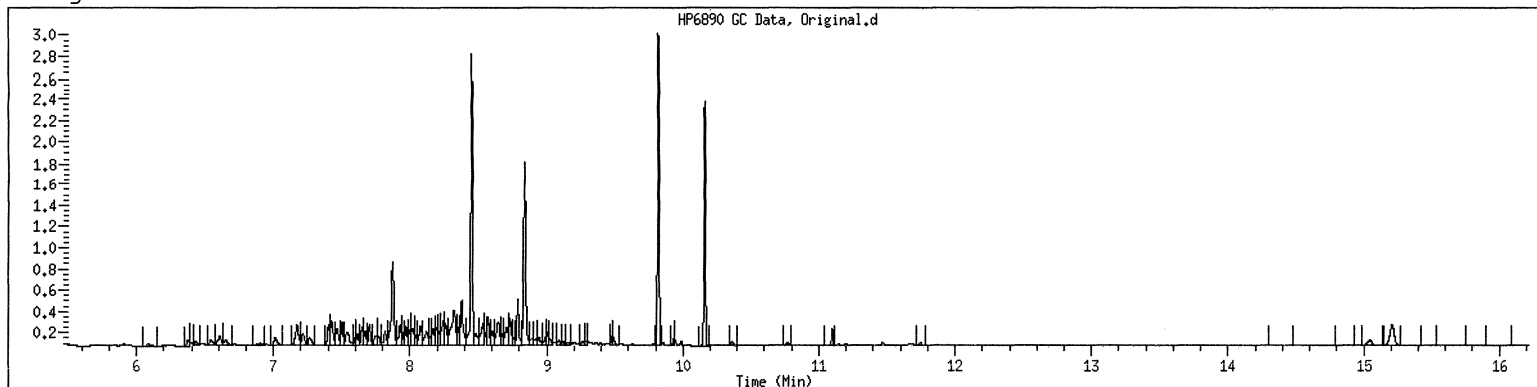


211103124 21

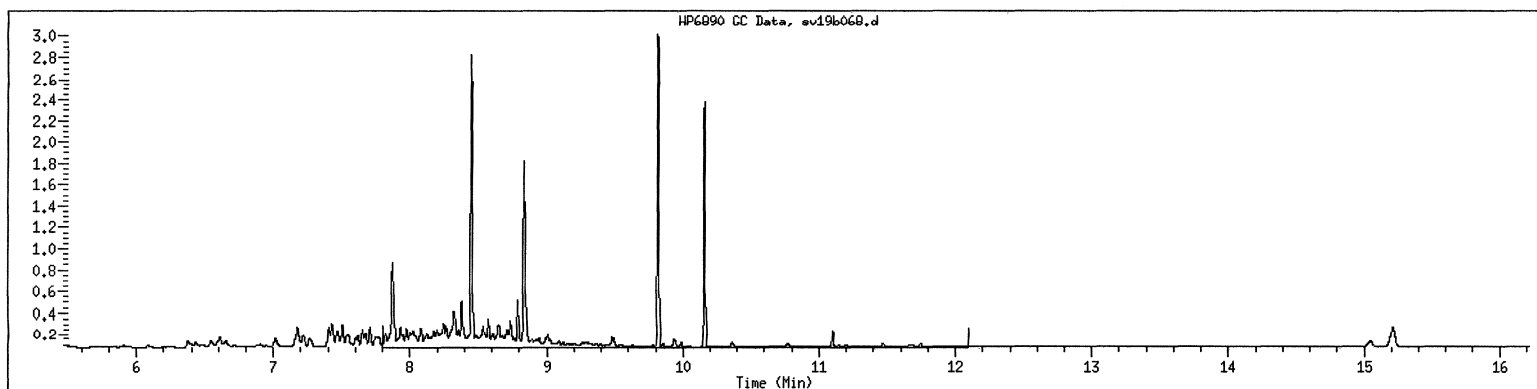
MANUAL INTEGRATION GRAPHIC REPORT

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: ALmaseph.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)
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)	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

Page 1

Date: 04-NOV-2011 17:23

Client ID: 1

Instrument: gcsv19b.i

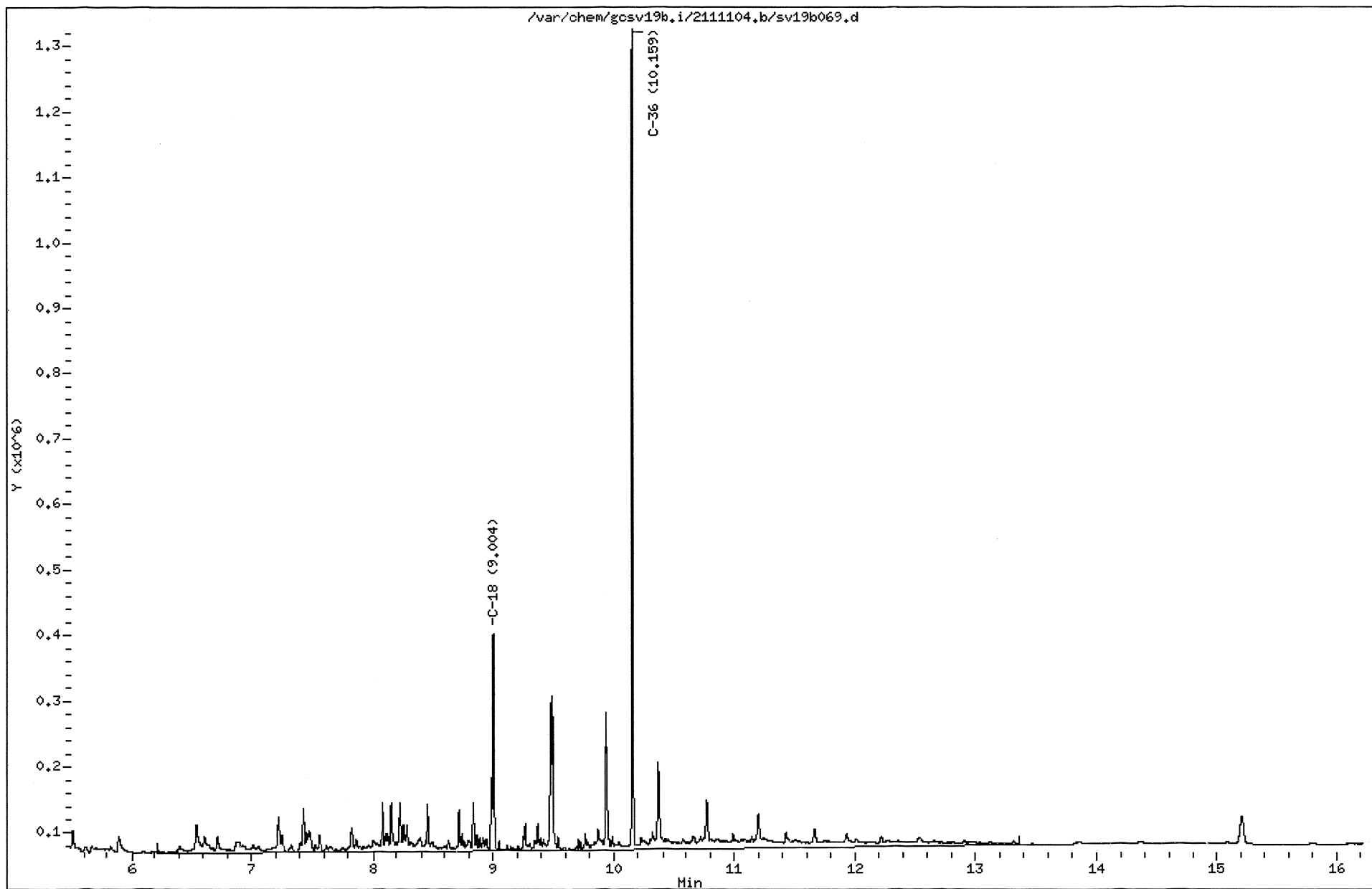
Sample Info: 21110312402\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

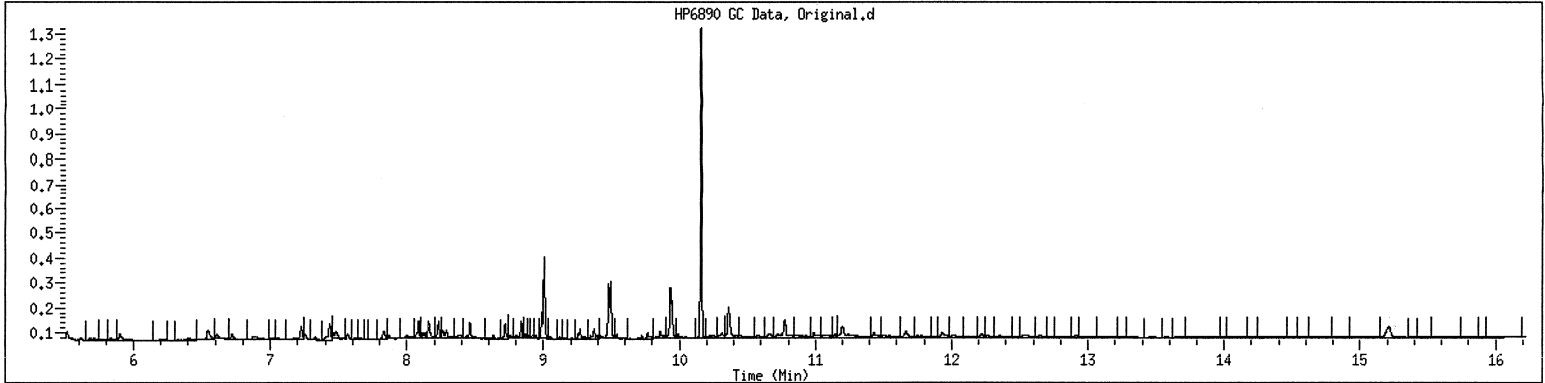


211103124 25

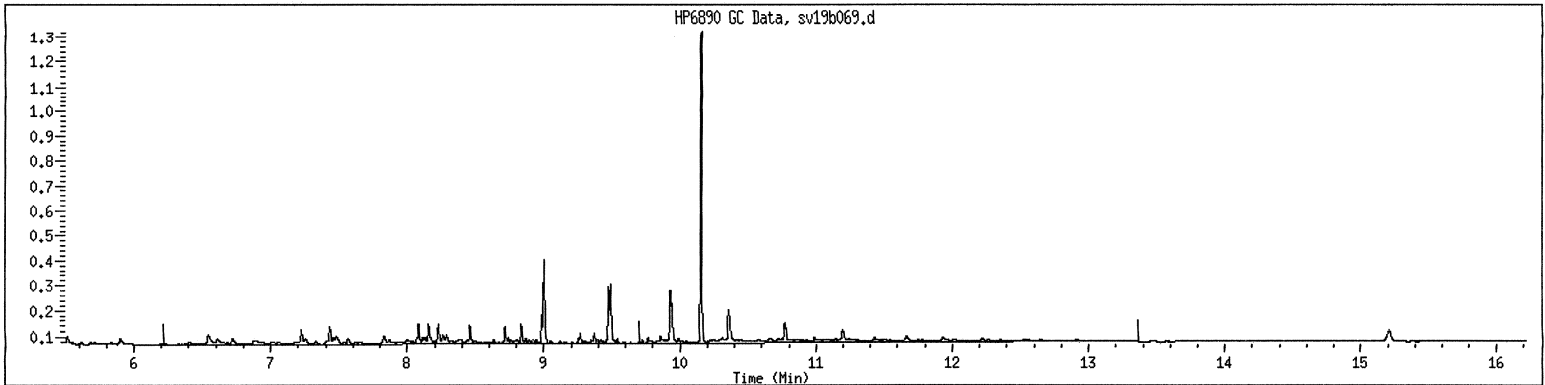
MANUAL INTEGRATION GRAPHIC REPORT

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/AROEPMass.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)	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).

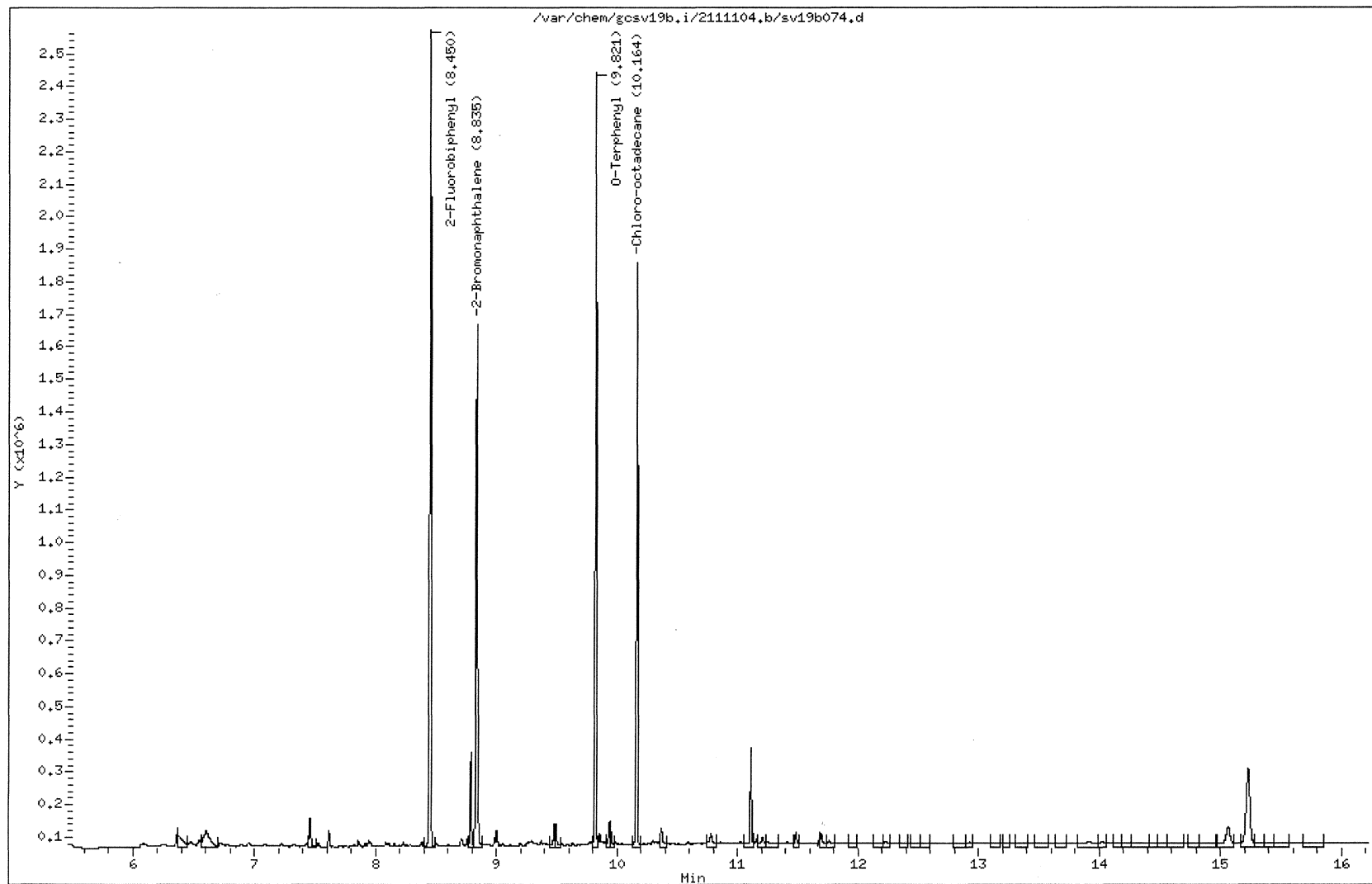
Data File: /var/chem/gosv19b.i/2111104.b/sv19b074.d  
Date : 04-NOV-2011 19:25  
Client ID: 1  
Sample Info: 21110312405x1  
Volume Injected (uL): 1.0  
Column phase: DB-5MS-30M

Page 1

Instrument: gosv19b.i

Operator: smh

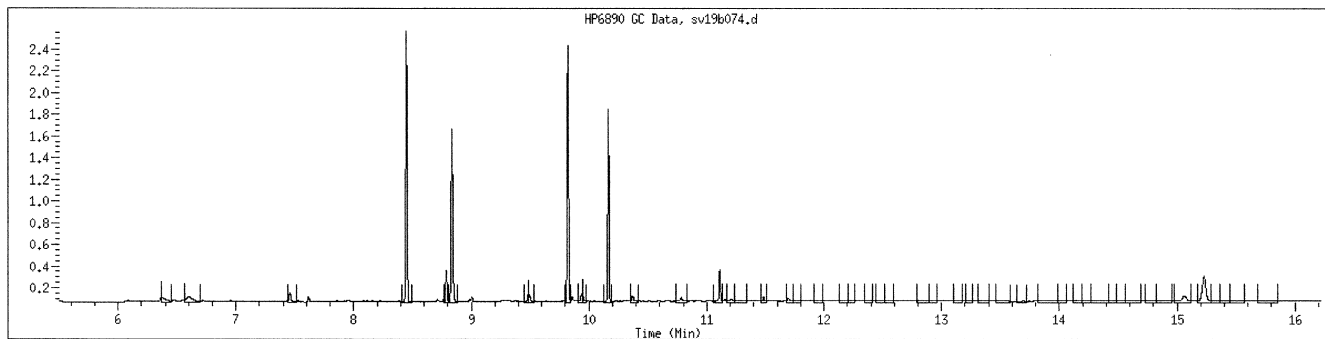
Column diameter: 0.25



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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/AROEPMass.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: ALmaseph.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)	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	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (UG/ML)	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

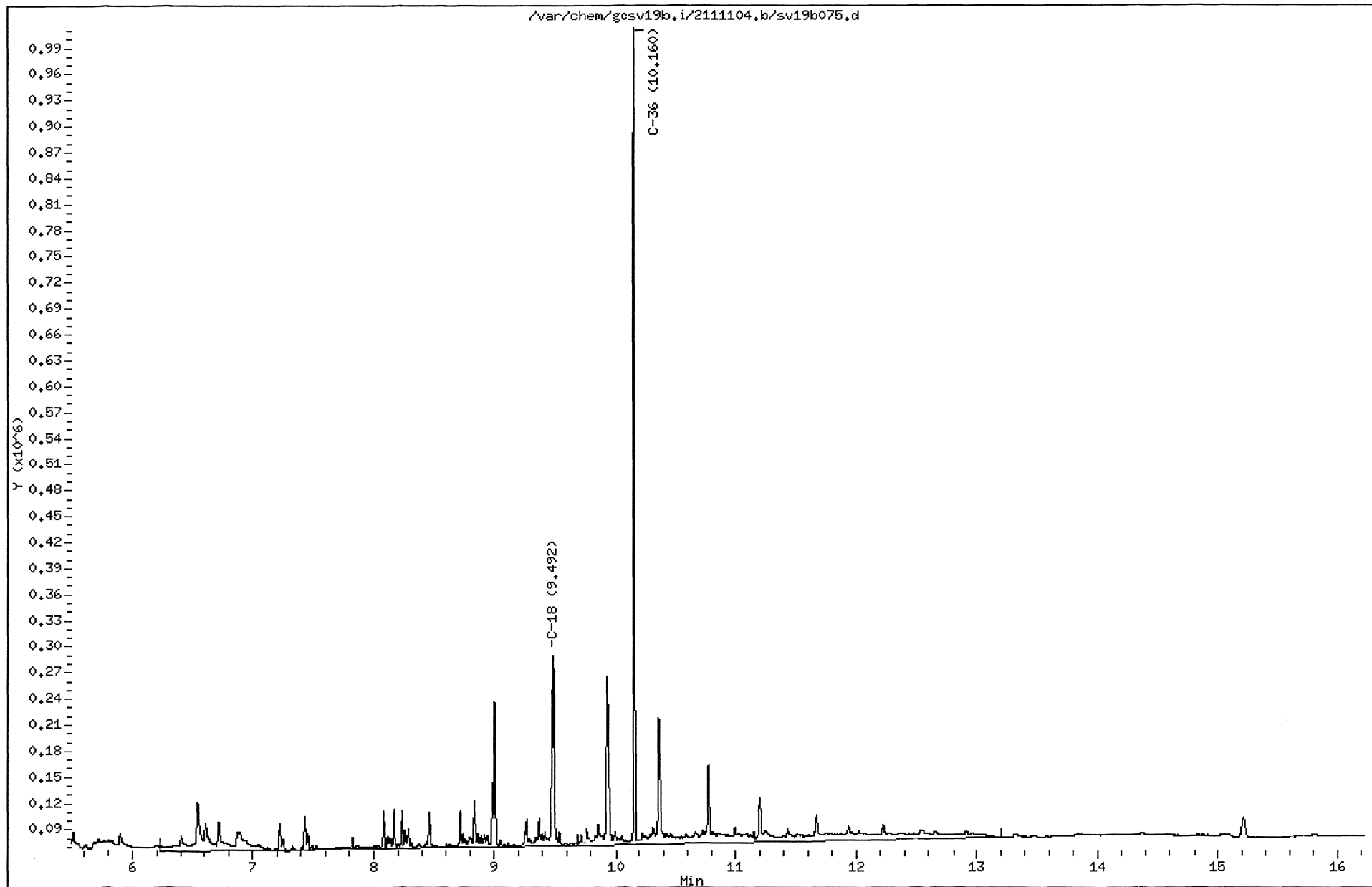
Sample Info: 21110312405\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

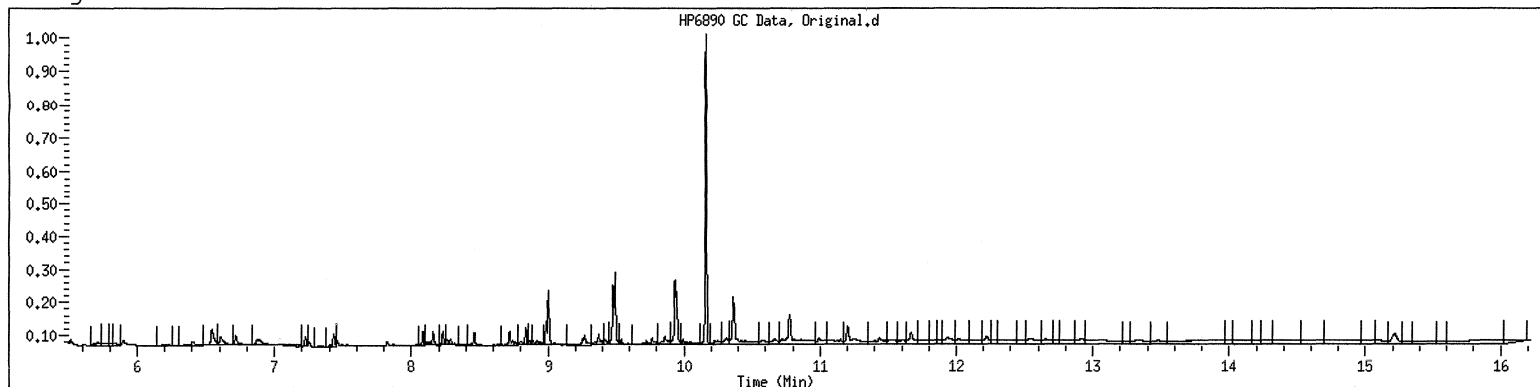


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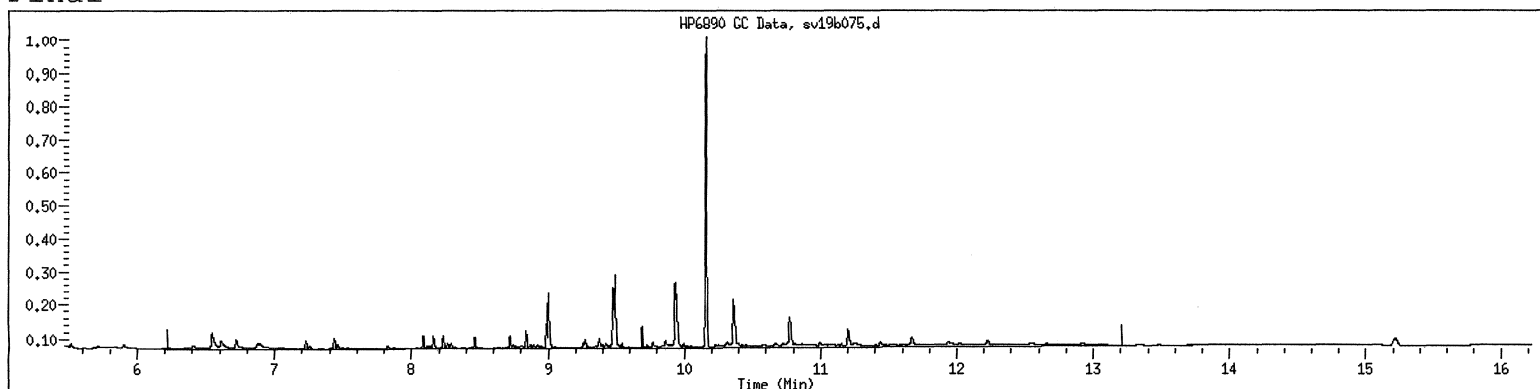
MANUAL INTEGRATION GRAPHIC REPORT

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

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/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)	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)	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.

Date : 03-NOV-2011 12:55

Client ID: 1 84-15-4

Sample Info: 1201x1 84-16-1

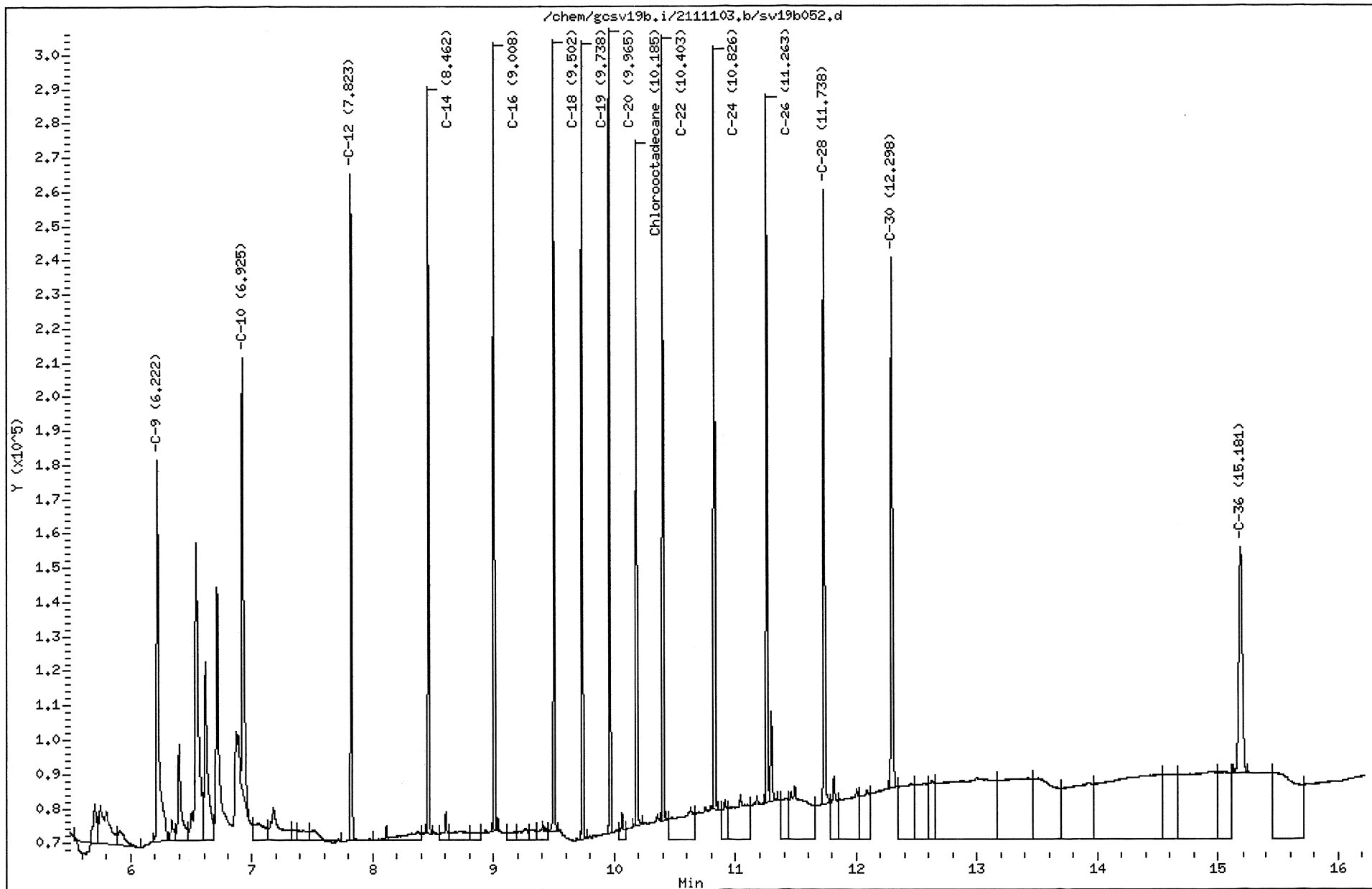
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25





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: ALmaseph.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)	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)

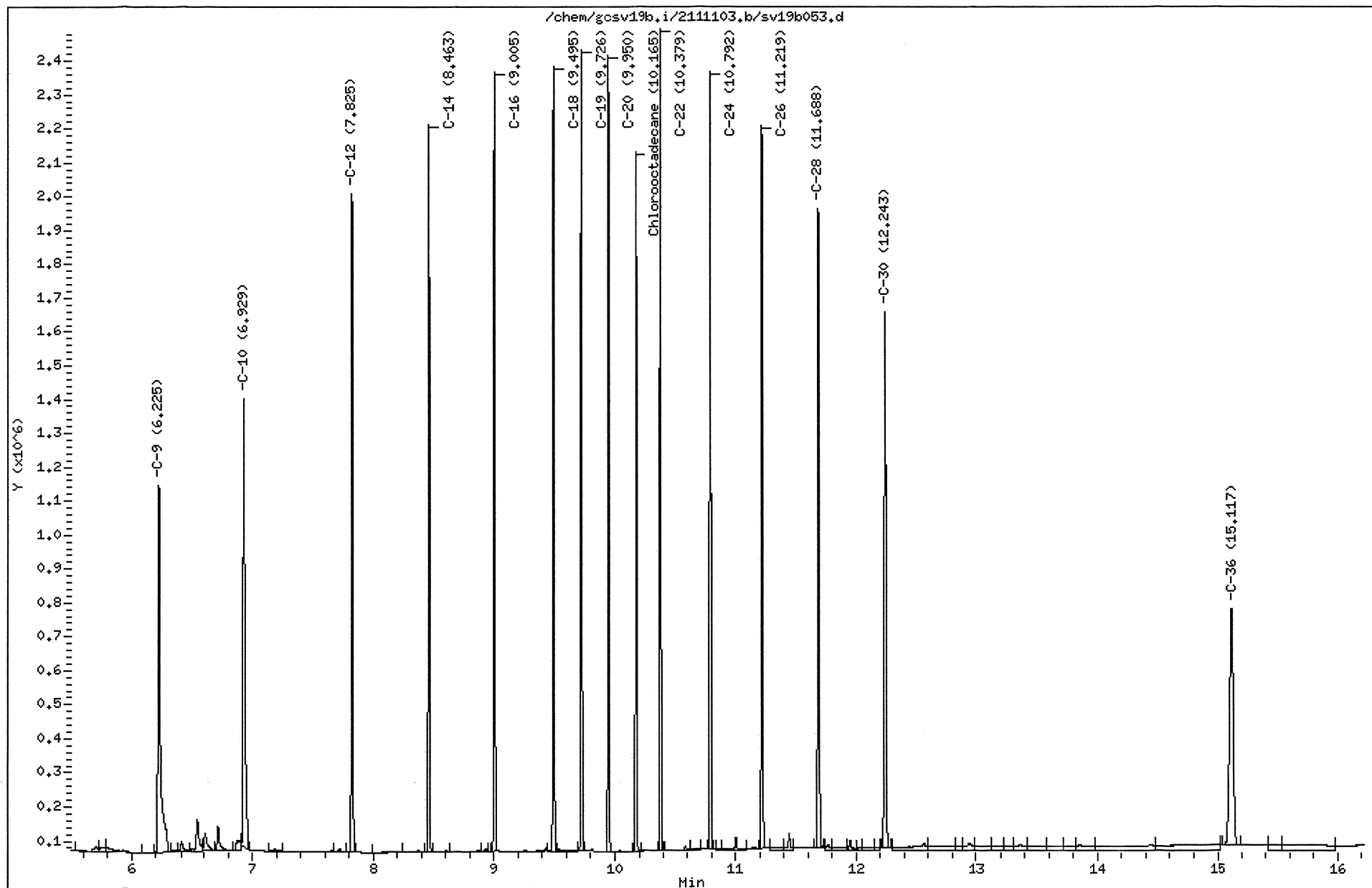
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (UG/ML)	ON-COL (UG/ML)
22 C-28	11.688	11.724	-0.036	31603121	10.0000	10.1 (M2)
115 C-30	12.243	12.250	-0.007	31878310	10.0000	10.1 (AM2)
114 C-36	15.117	15.144	-0.027	30029788	10.0000	10.2 (AM2)
M 24 Alip C19-C36				251463212	80.0000	81.0

### 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: 1202x1 84-16-1  
Volume Injected (uL): 1.0  
Column phase: DB-5MS-30M

Instrument: gcsv19b.i  
Operator: smh  
Column diameter: 0.25







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: ALmaseph.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	AMOUNTS						
	RT	EXP RT	DLT RT	RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 03-NOV-2011 13:42

Client ID: 1 84-15-4

Instrument: gosv19b.i

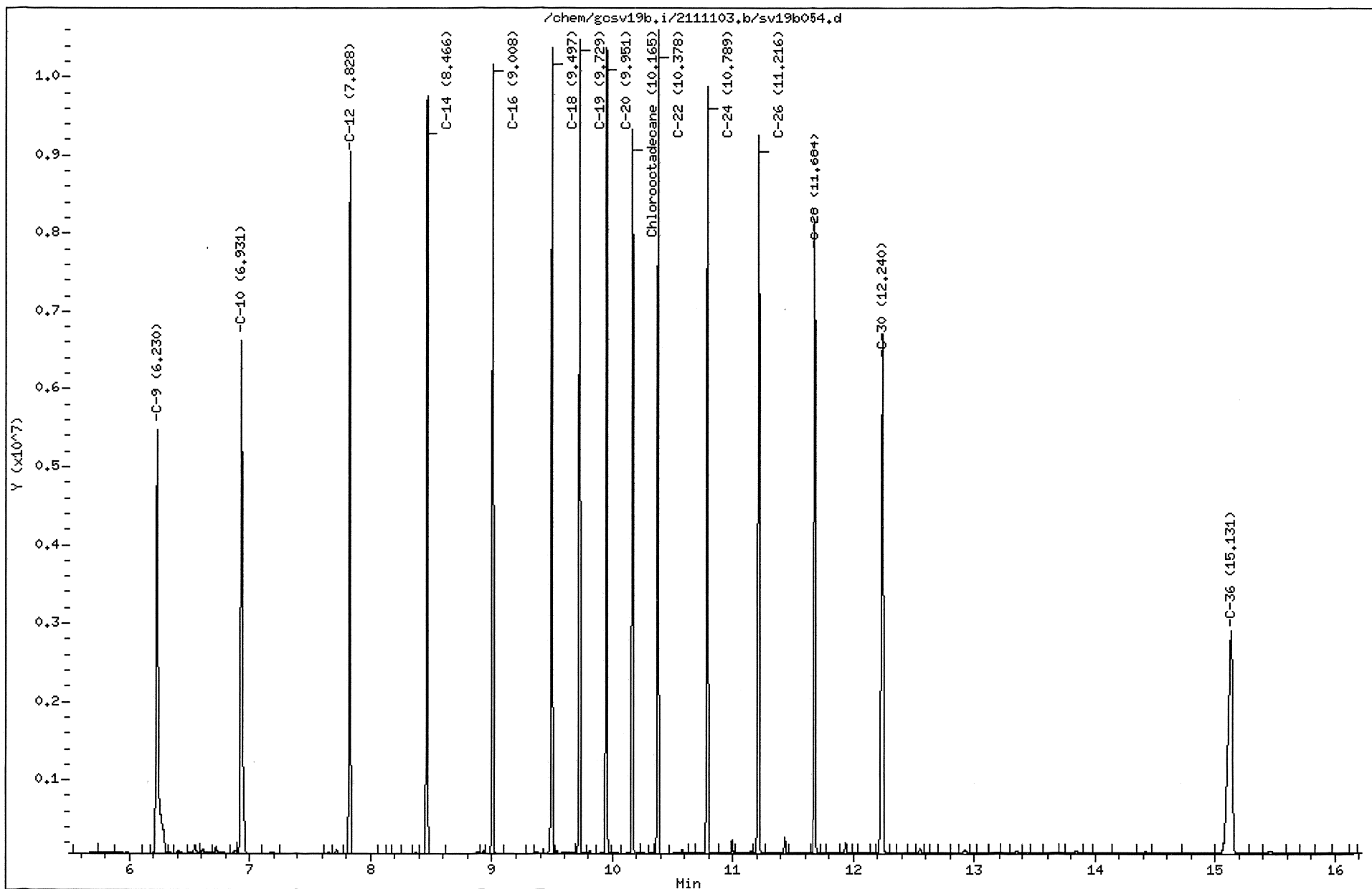
Sample Info: 1203\*1 84-16-1

Volume Injected (uL): 1.0

Operator: sah

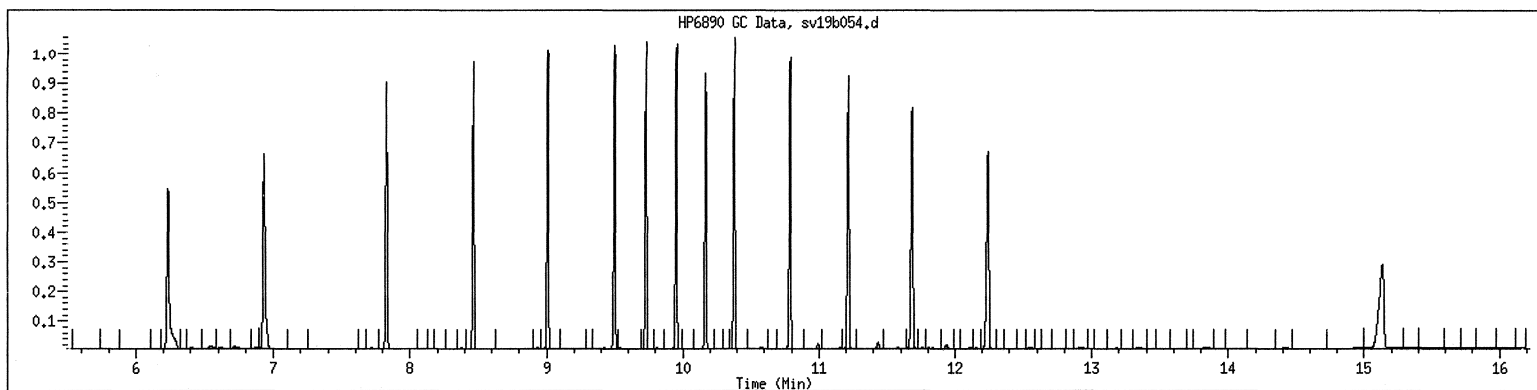
Column phase: DB-5MS-30M

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: ALmaseph.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)	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

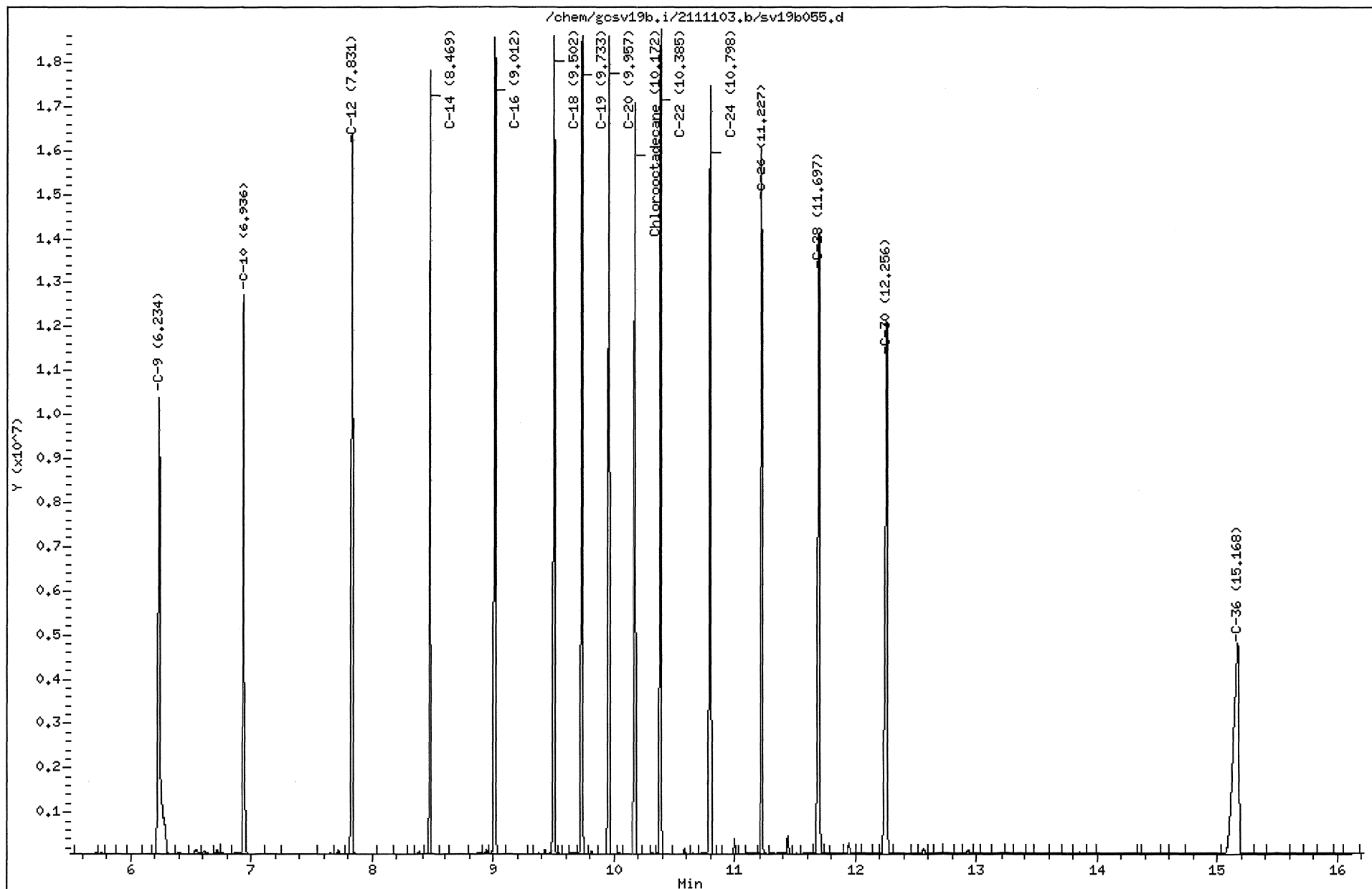
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (UG/ML)	ON-COL (UG/ML)
22 C-28	11.697	11.724	-0.027	312584380	100.000	100
115 C-30	12.256	12.250	0.006	315370277	100.000	100 (A)
114 C-36	15.168	15.144	0.024	296156565	100.000	100 (A)
M 24 Alip C19-C36				2465856464	800.000	799

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







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: ALmaseph.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)	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)	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.

Date : 03-NOV-2011 14:30

Client ID: 1 84-15-4

Sample Info: 1205x1 84-16-1

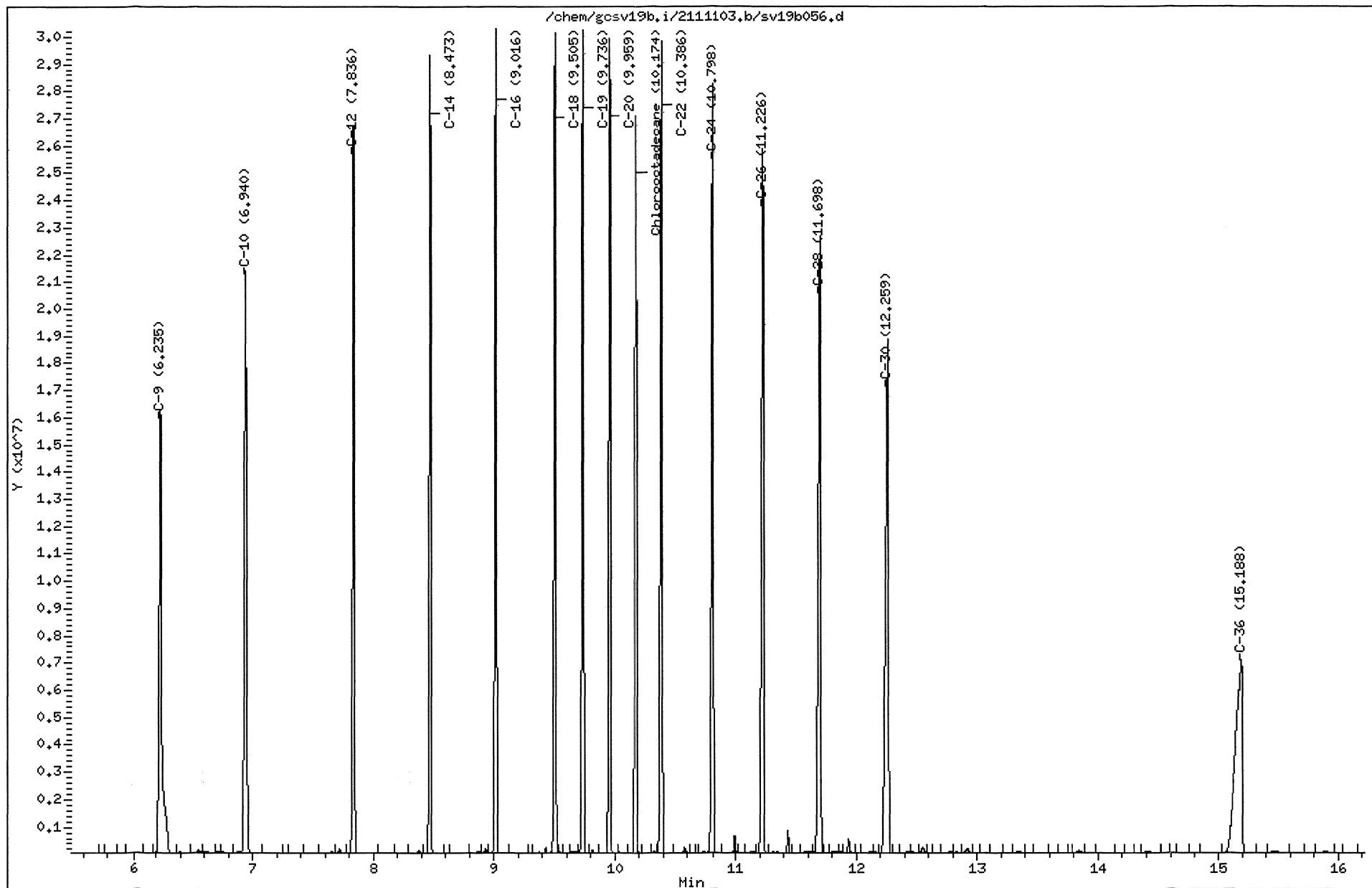
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25





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: ALmaseph.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)	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)	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.



Date : 03-NOV-2011 14:54

Client ID: 1 84-16-2

Instrument: gcsv19b.i

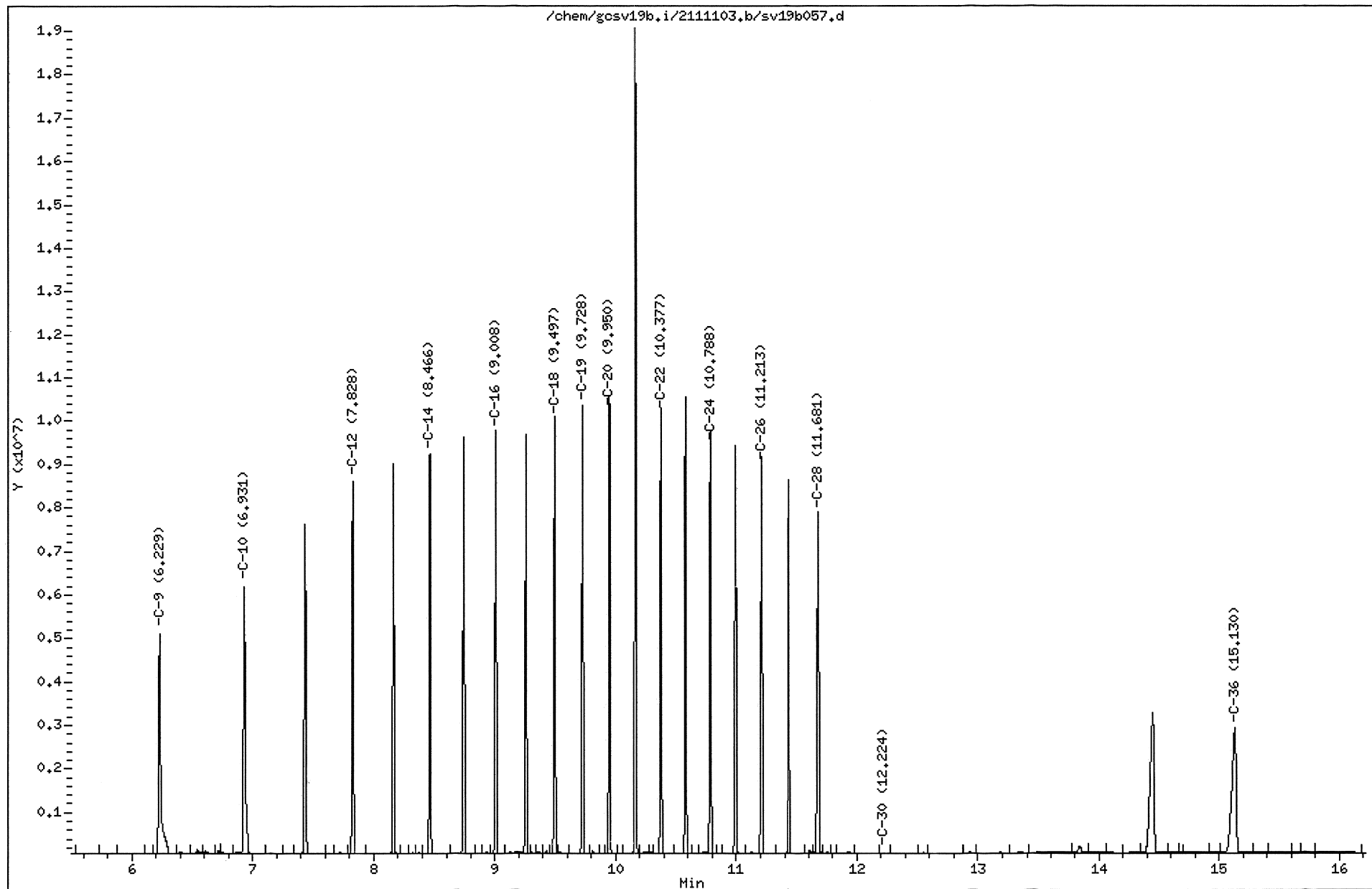
Sample Info: 1600x1 84-16-2

Operator: smh

Volume Injected (uL): 1.0

Column diameter: 0,25

Column phase: DB-5MS-30M

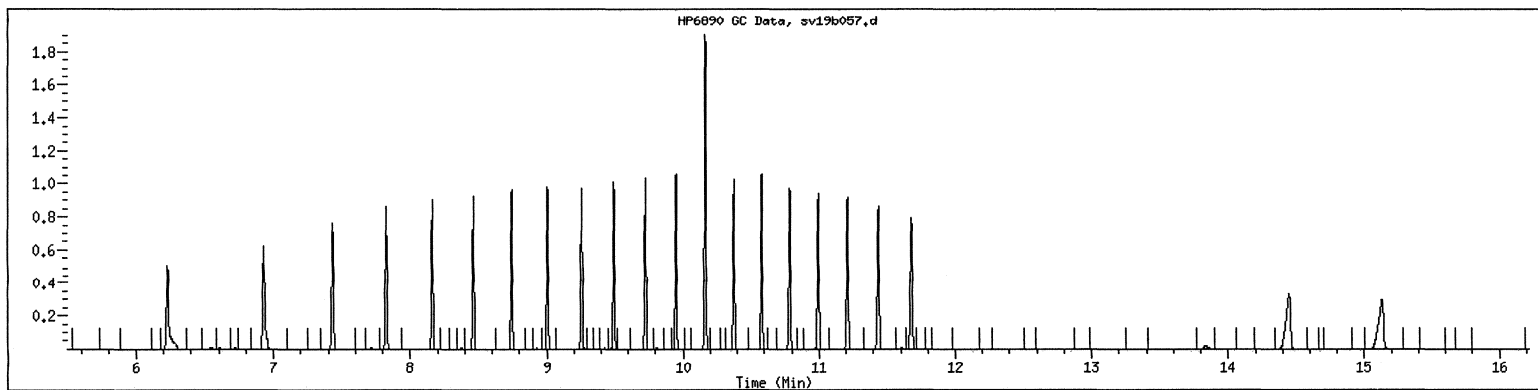


MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1600  
Injection Date: 11/03/2011 14:54  
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

SampleType : LCS  
Instrument : gcsv19b.i

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	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2365533	0.010	13.01075	Averaged
2 C-10	2739215	2446747	0.010	10.67710	Averaged
4 C-12	2801460	2459169	0.010	12.21829	Averaged
6 C-14	2878136	2530922	0.010	12.06385	Averaged
8 C-16	2983102	2629735	0.010	11.84563	Averaged
10 C-18	3021289	2649368	0.010	12.31001	Averaged
M 11 Alip C9-C18	2857090	2513579	0.010	12.02312	Averaged
12 C-19	3017239	2648833	0.010	12.21005	Averaged
13 C-20	3045314	2681325	0.010	11.95243	Averaged
\$ 15 Chlorooctadecane	2739581	2405528	0.010	12.19356	Averaged
16 C-22	3060647	2701322	0.010	11.74016	Averaged
18 C-24	3098402	2735843	0.010	11.70147	Averaged
20 C-26	3120089	2767306	0.010	11.30680	Averaged
22 C-28	3095987	2745481	0.010	11.32130	Averaged
115 C-30	3120341	2775943	0.010	11.03719	Averaged
114 C-36	2925634	2622070	0.010	10.37602	Averaged
M 24 Alip C19-C36	3060457	2709765	0.010	11.45879	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: ALmaseph.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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 04-NOV-2011 09:12

Client ID: 1 84-16-1

Sample Info: 1400\*1 84-16-1

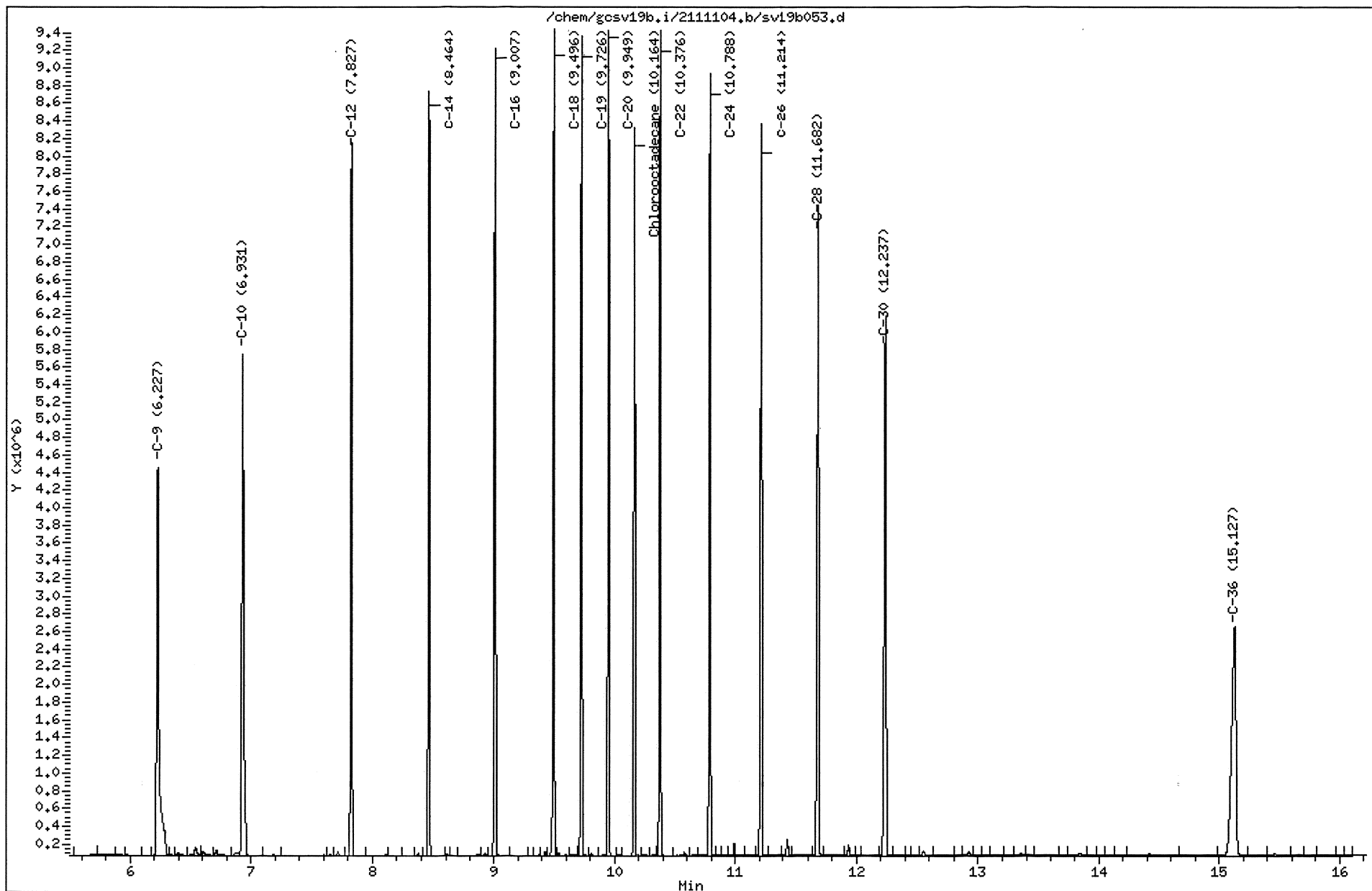
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

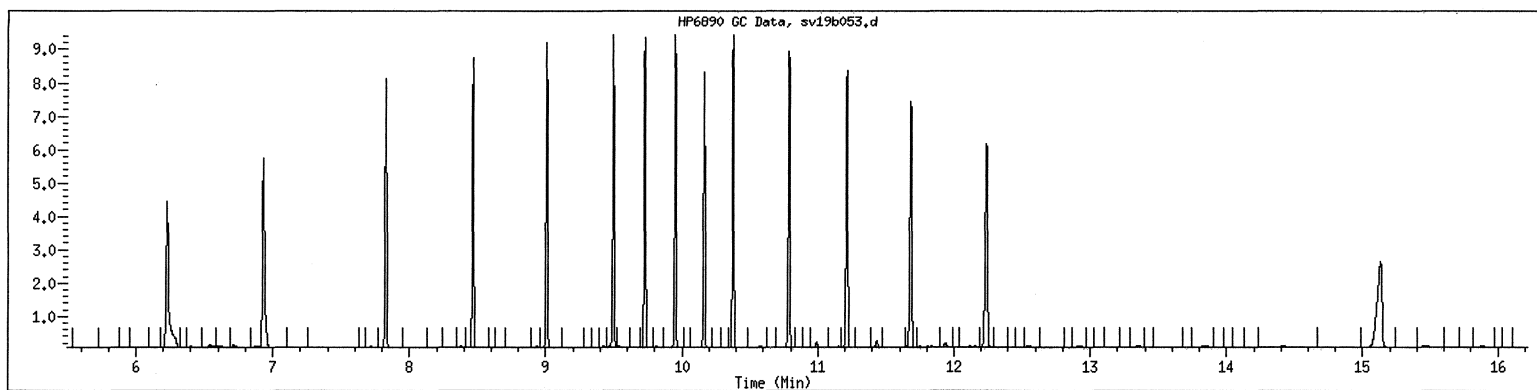
Operator: smh

Column diameter: 0.25



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	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
S 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: ALmaseph.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	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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

Page 1

Date : 04-NOV-2011 15:45

Client ID: 1 84-16-1

Instrument: gcsv19b.i

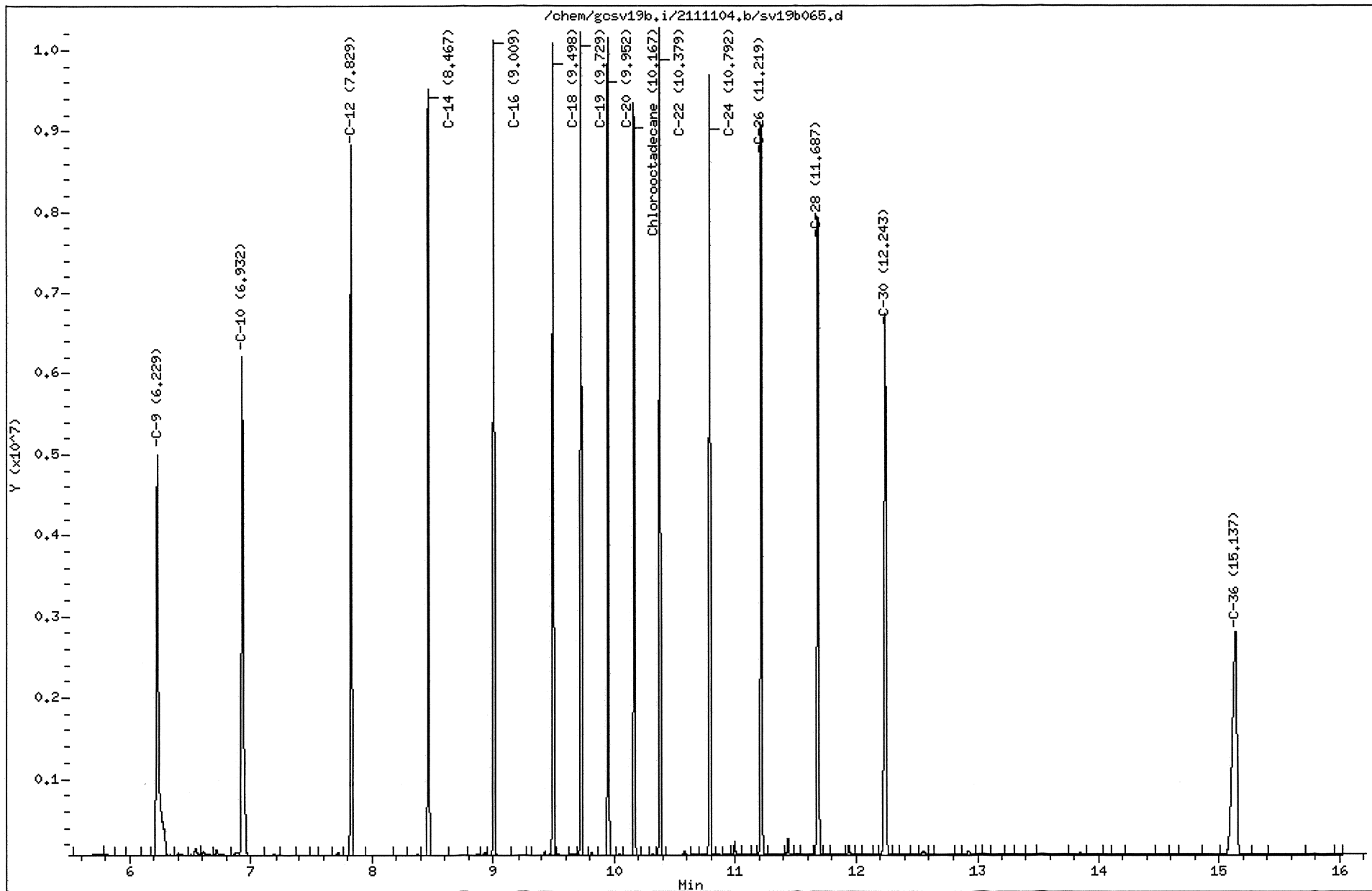
Sample Info: 1400x1 84-16-1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

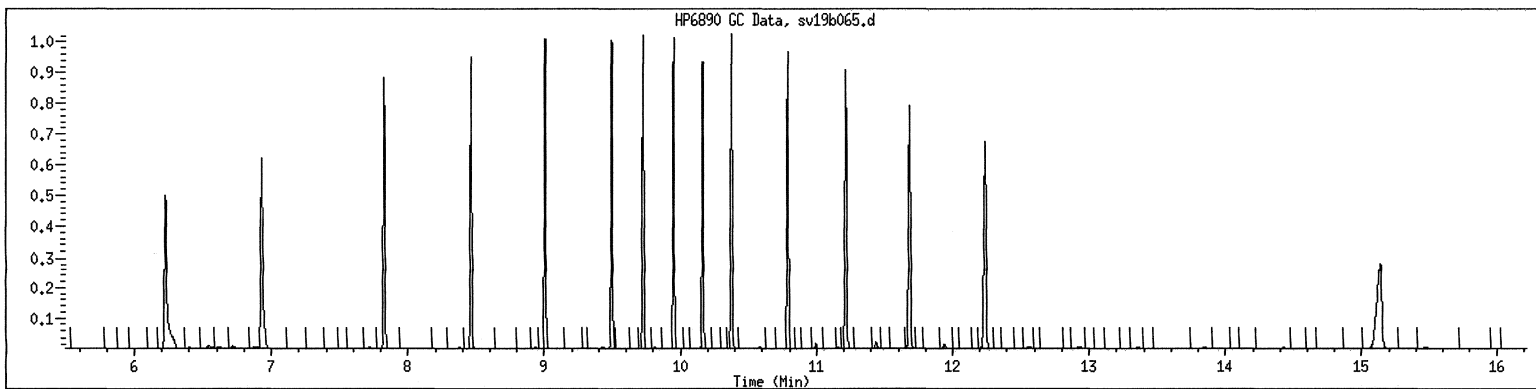
Column diameter: 0.25



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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	MAX %D / %DRIFT	CURVE TYPE
1 C-9	2719340	2581871	0.010	5.05525	Averaged
2 C-10	2739215	2671823	0.010	2.46029	Averaged
4 C-12	2801460	2693394	0.010	3.85748	Averaged
6 C-14	2878136	2768059	0.010	3.82460	Averaged
8 C-16	2983102	2866747	0.010	3.90046	Averaged
10 C-18	3021289	2887292	0.010	4.43511	Averaged
M 11 Alip C9-C18	2857090	2744864	0.010	3.92799	Averaged
12 C-19	3017239	2898780	0.010	3.92607	Averaged
13 C-20	3045314	2941955	0.010	3.39402	Averaged
S 15 Chlorooctadecane	2739581	2663692	0.010	2.77009	Averaged
16 C-22	3060647	2966763	0.010	3.06746	Averaged
18 C-24	3098402	3022447	0.010	2.45141	Averaged
20 C-26	3120089	3056143	0.010	2.04949	Averaged
22 C-28	3095987	3033627	0.010	2.01425	Averaged
115 C-30	3120341	3058955	0.010	1.96727	Averaged
114 C-36	2925634	2883428	0.010	1.44262	Averaged
M 24 Alip C19-C36	3060457	2982762	0.010	2.53865	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: ALmaseph.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	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 04-NOV-2011 21:26

Client ID: 1 84-16-1

Sample Info: 1400\*1 84-16-1

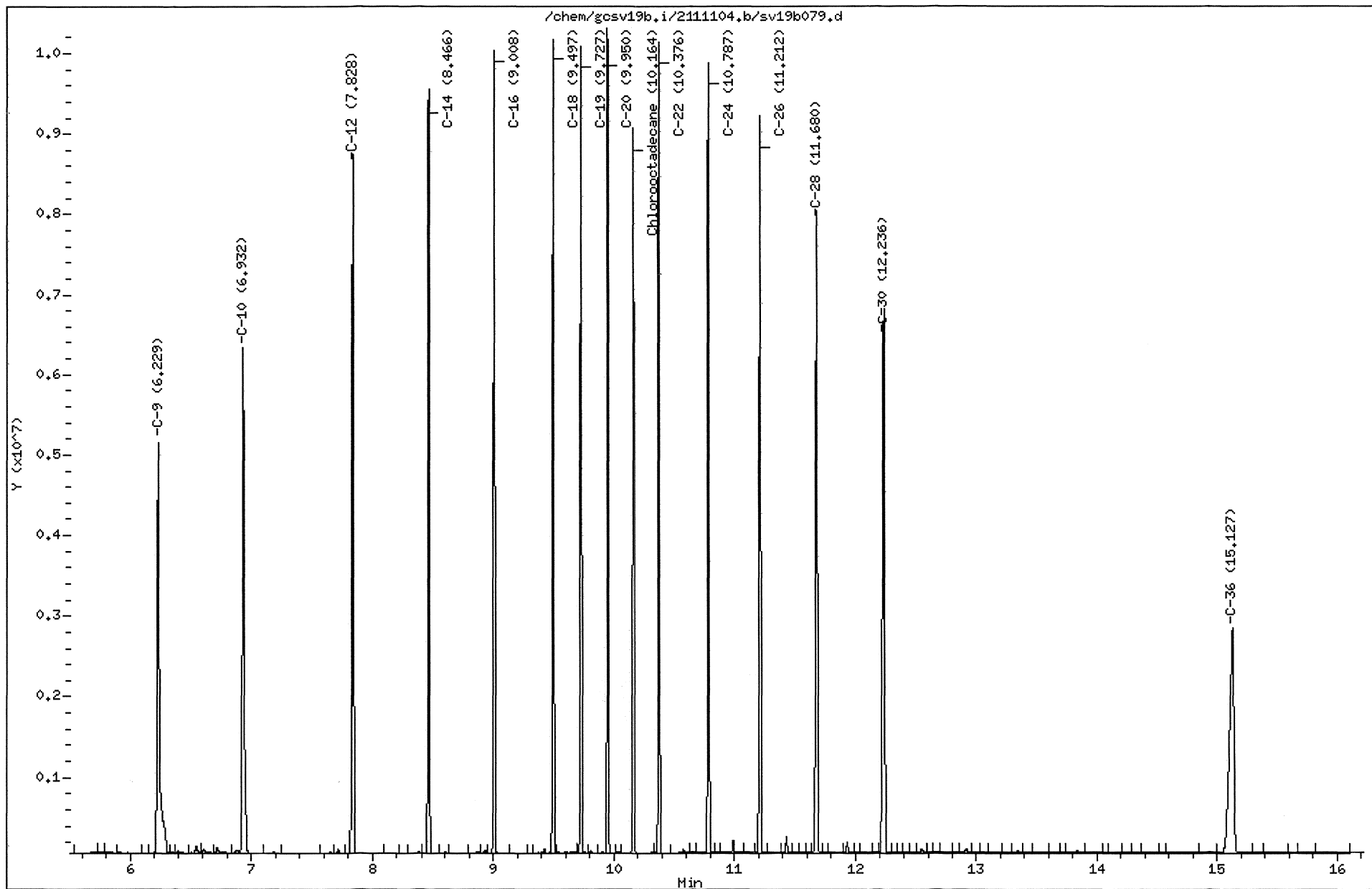
Volume Injected (uL): 1.0

Column phase: IB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

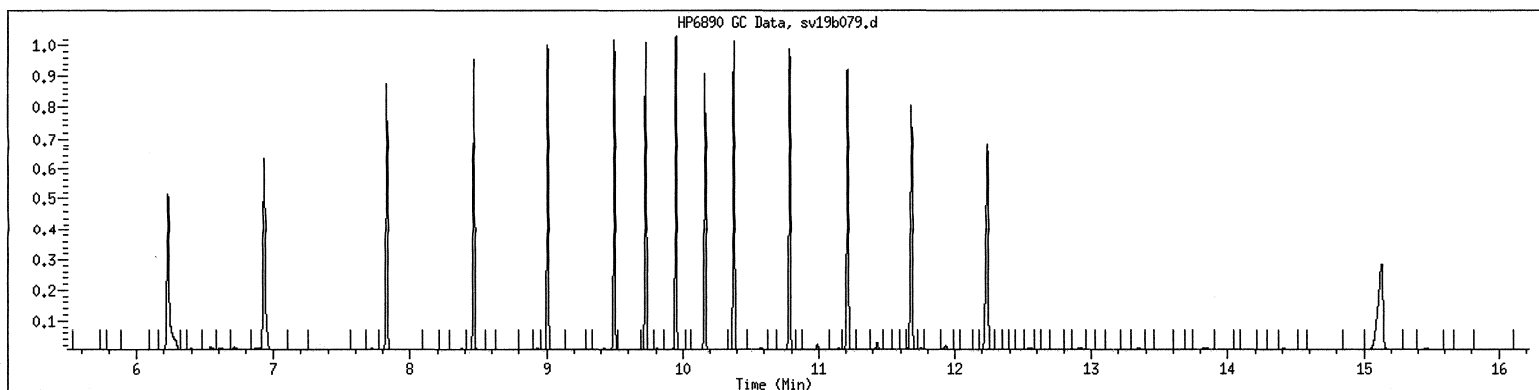
Column diameter: 0.25





MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 1400 SampleType : CCALIB\_3  
Injection Date: 11/04/2011 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

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
M 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)	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)	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.

Date : 02-NOV-2011 15:55

Client ID: 1 84-12-8

Sample Info: 1201x1 84-12-8

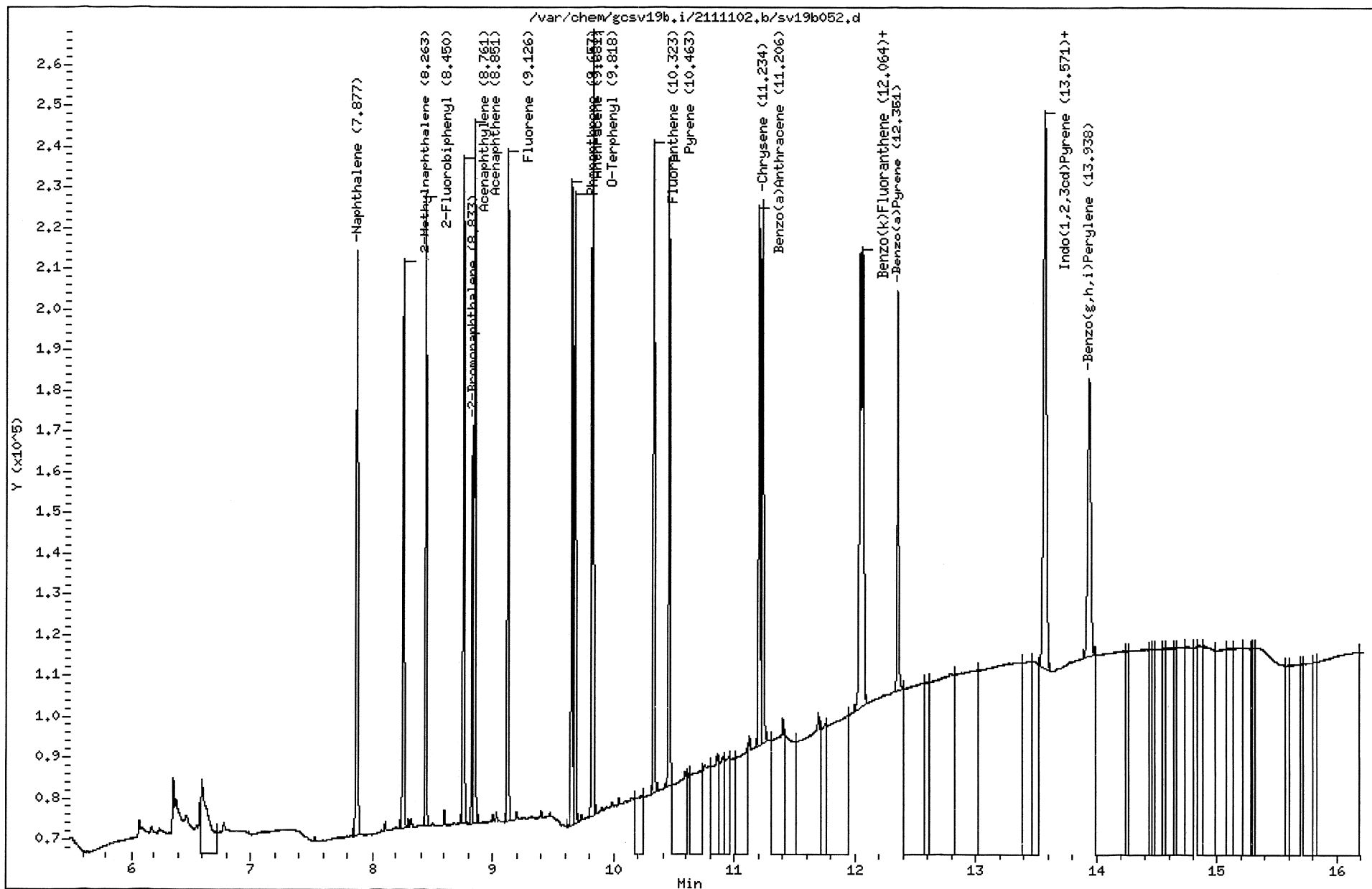
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25





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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	



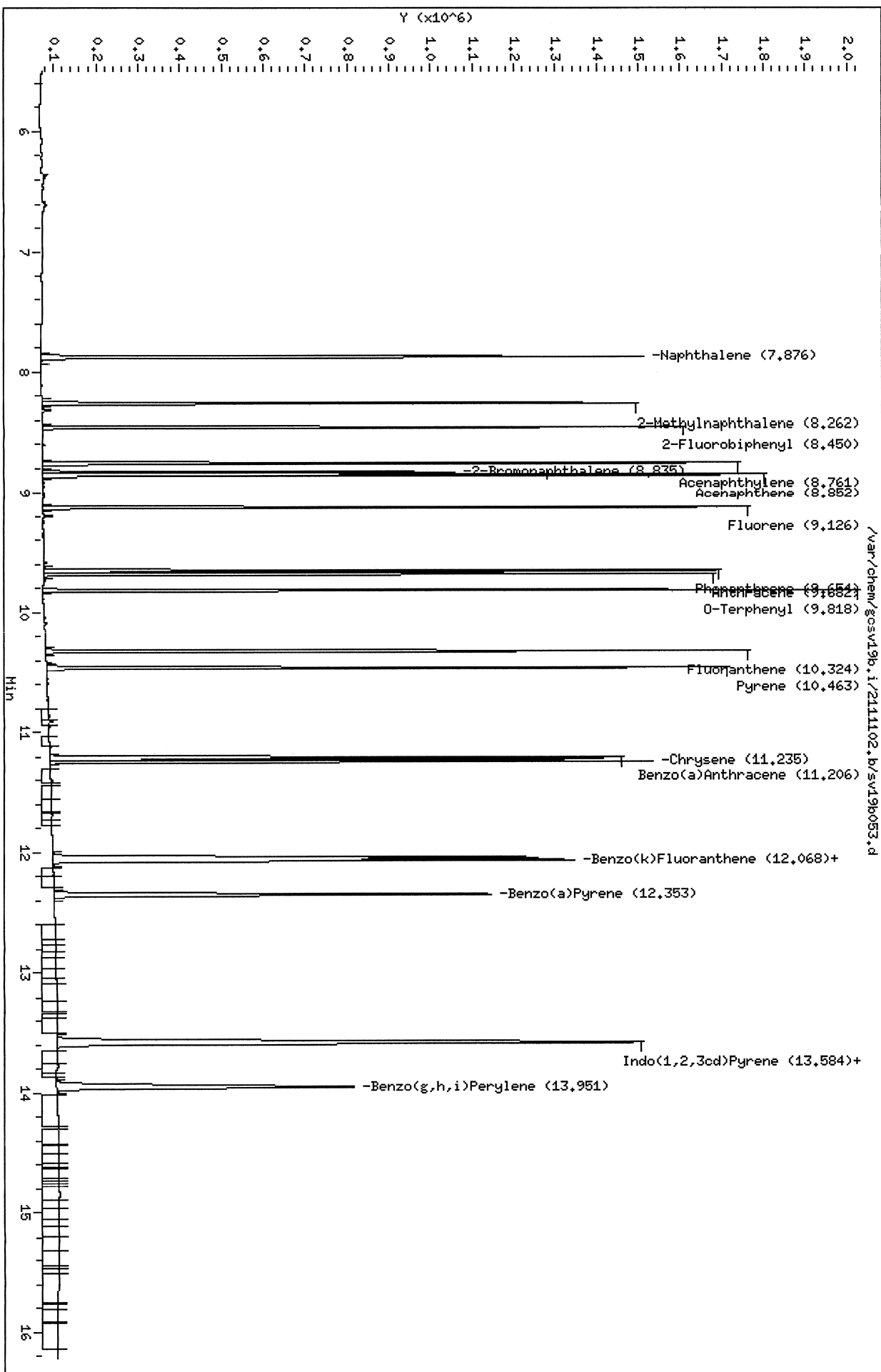
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (UG/ML)	ON-COL (UG/ML)
15 Chrysene	11.235	11.235	0.000	26912958	10.0000	10.2 (M2)
16 Benzo(b)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8 (M2)
17 Benzo(k)Fluoranthene	12.068	12.066	0.002	54825513	20.0000	20.8 (M2)
18 Benzo(a)Pyrene	12.353	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/gcosv19b.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-5HS-30M

Instrument: gcosv19b.i  
 Operator: smh  
 Column diameter: 0.25





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/AROEPMass.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	AMOUNTS						
	RT	EXP RT	DLT RT	RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 02-NOV-2011 16:42

Client ID: 1 84-12-8

Sample Info: 1203\*1 84-12-8

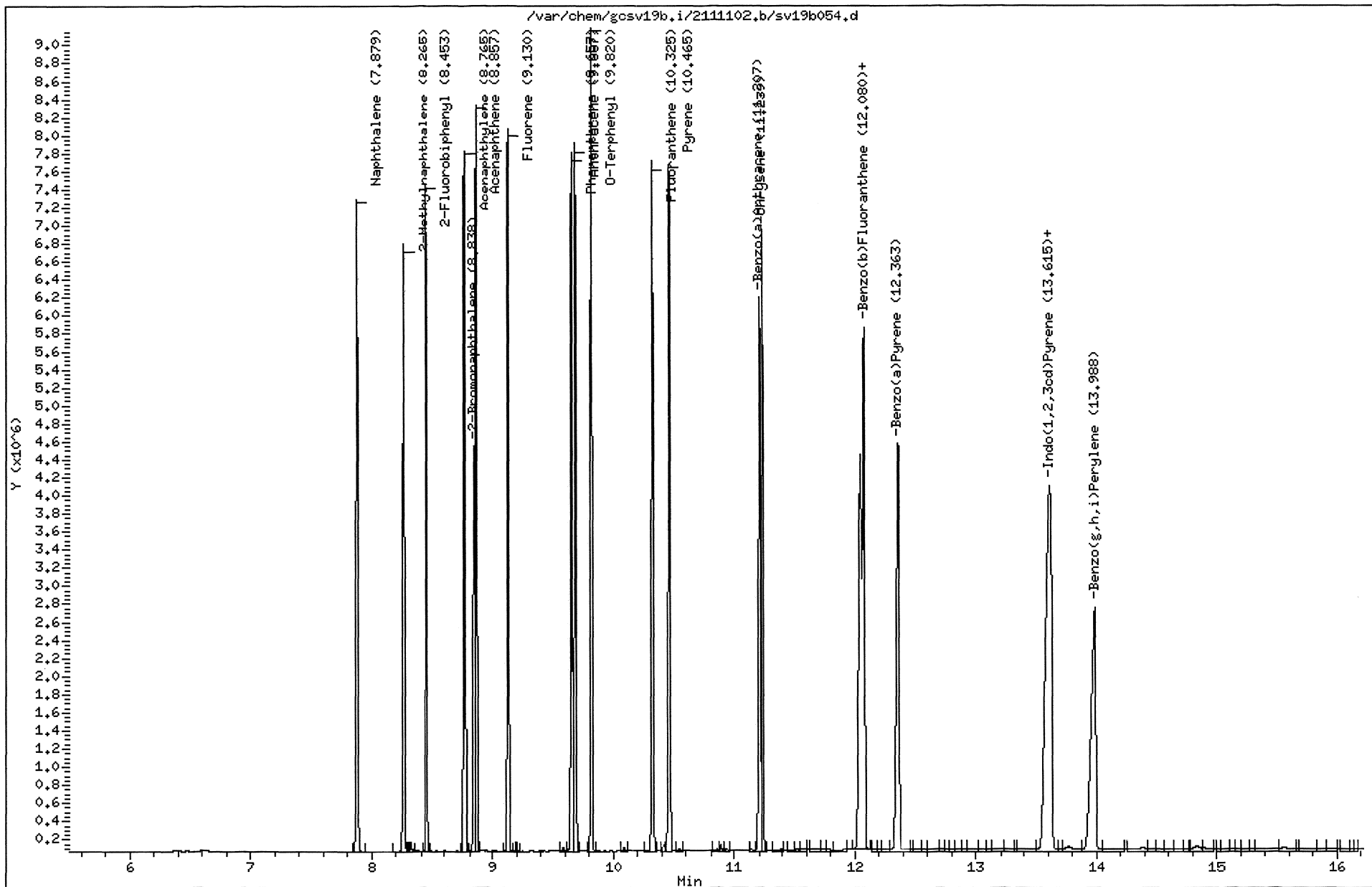
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25





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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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	



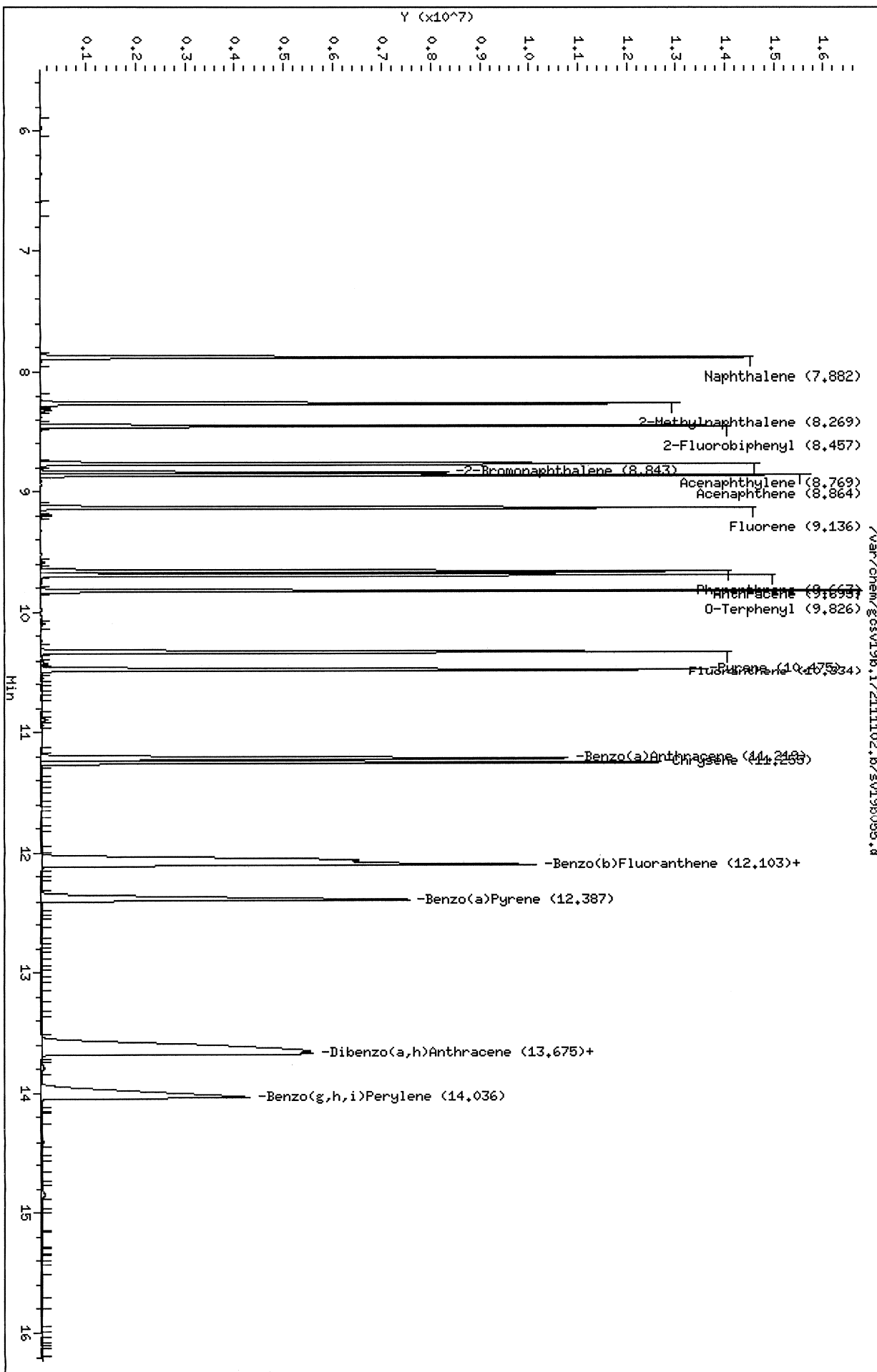
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (UG/ML)	ON-COL (UG/ML)
15 Chrysene	11.255	11.240	0.015	284443626	100.000	105
16 Benzo(b)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214 (AM2)
17 Benzo(k)Fluoranthene	12.103	12.078	0.025	593961569	200.000	214 (AM2)
18 Benzo(a)Pyrene	12.387	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/gcsw19b.i/2111102.b/sv19b055.d  
 Date: 02-NOV-2011 17:07  
 Client ID: 1 84-12-8  
 Sample Info: 1204x1 84-12-8  
 Volume Injected (uL): 1.0  
 Column phase: DB-5MS-30M

Instrument: gcsw19b.i  
 Operator: smh  
 Column diameter: 0.25





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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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.

Date : 02-NOV-2011 17:30

Client ID: 1 84-12-8

Sample Info: 1205x1 84-12-8

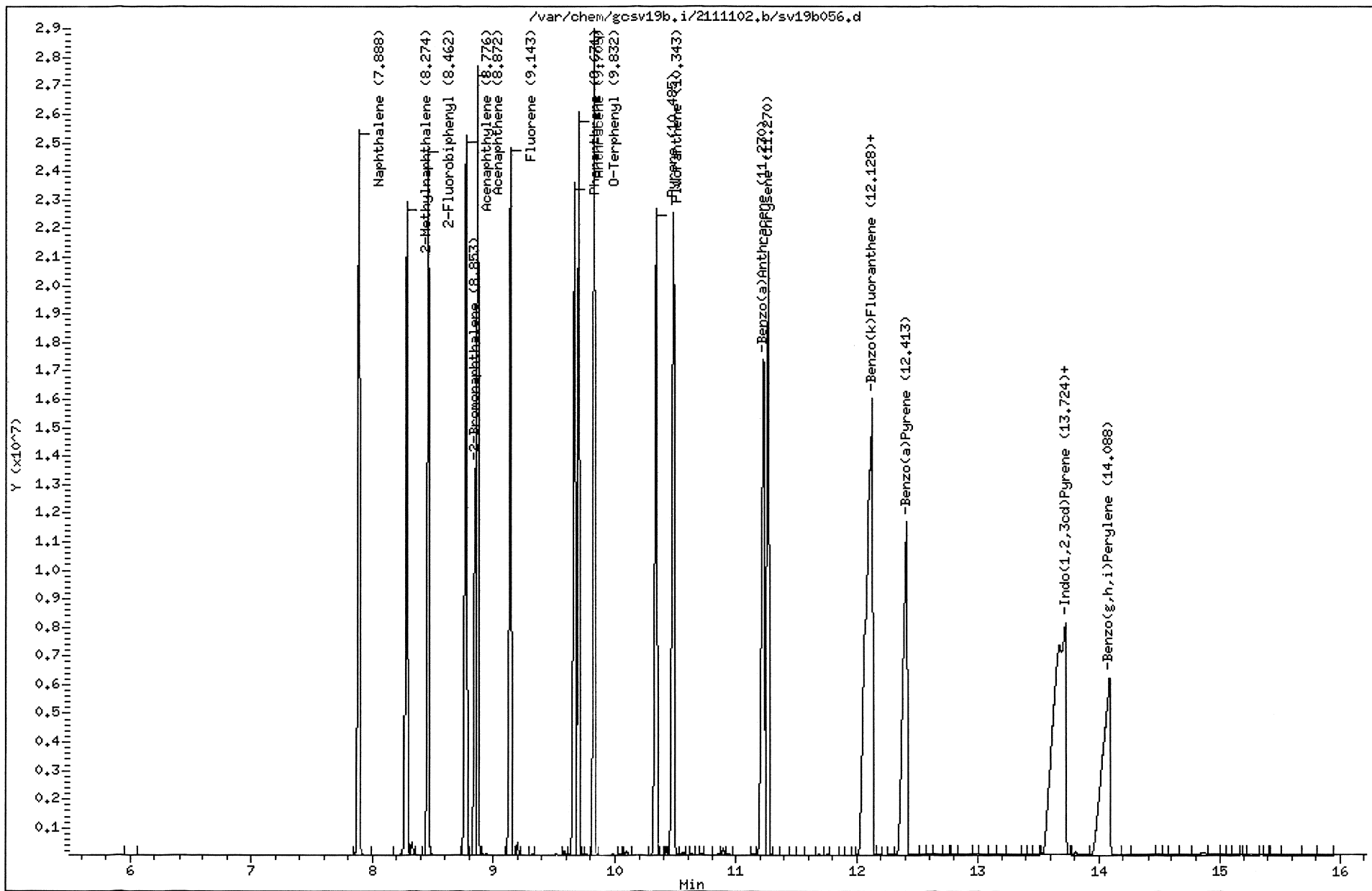
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b,i

Operator: smh

Column diameter: 0.25





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)	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.

Date : 02-NOV-2011 17:55

Client ID: 1 84-7-10

Sample Info: 1600x1 84-7-10

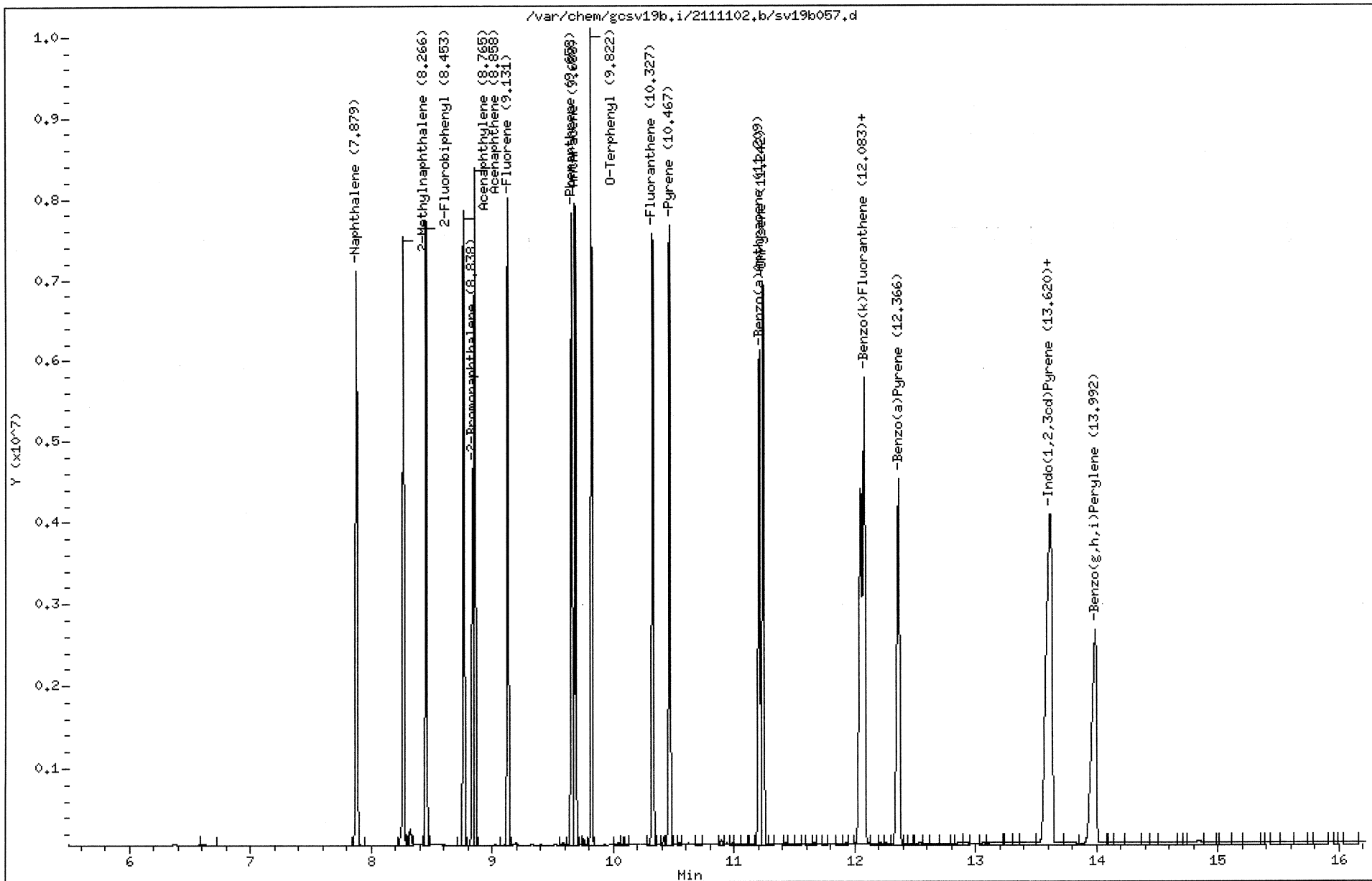
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gosv19b.i

Operator: smh

Column diameter: 0.25





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		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 04-NOV-2011 08:48

Client ID: 1 84-12-8

Sample Info: 1400x1 84-12-8

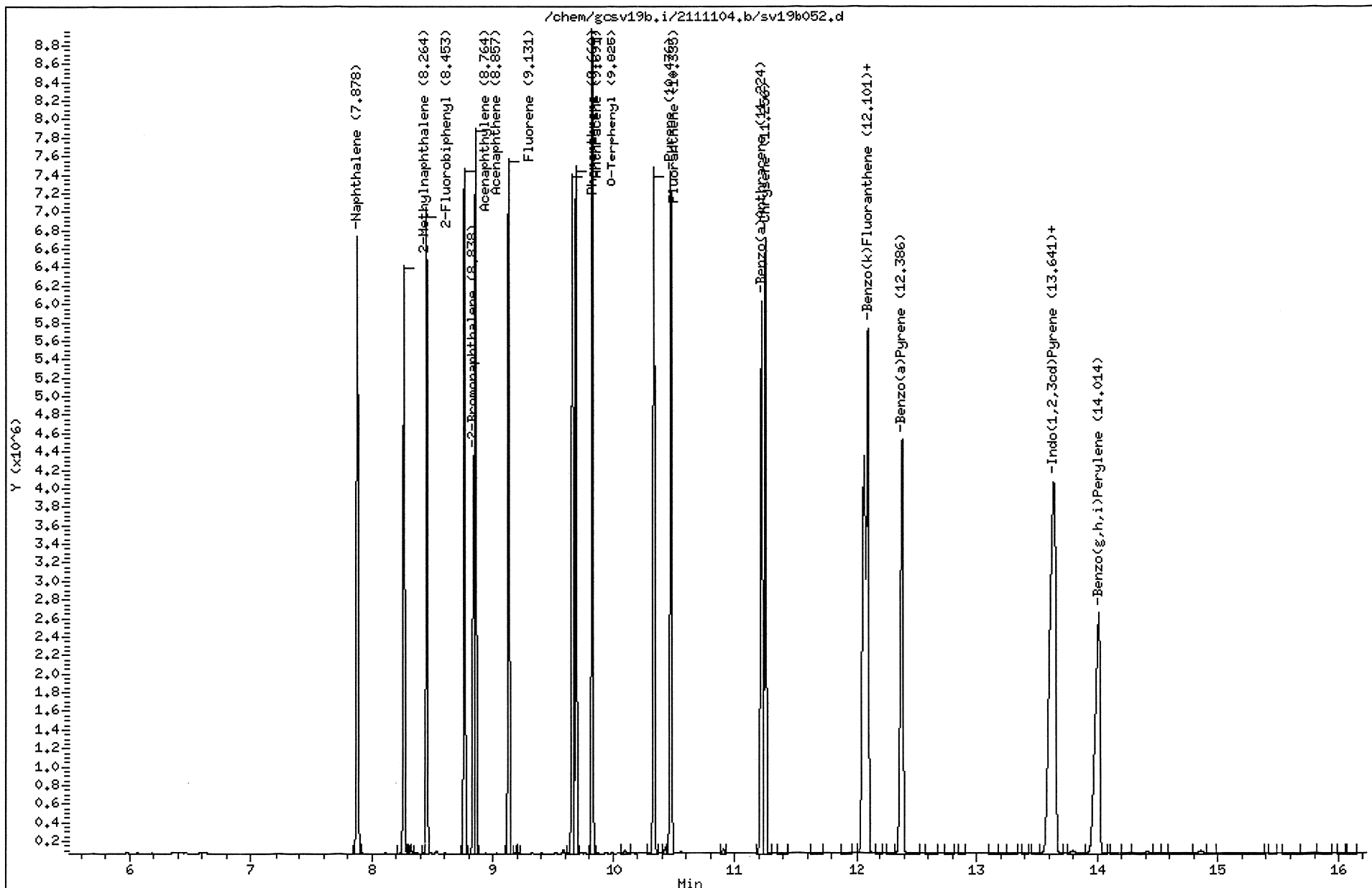
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25







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		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D	%DRIFT	
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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 04-NOV-2011 15:20

Client ID: 1 84-12-8

Instrument: gcsv19b.i

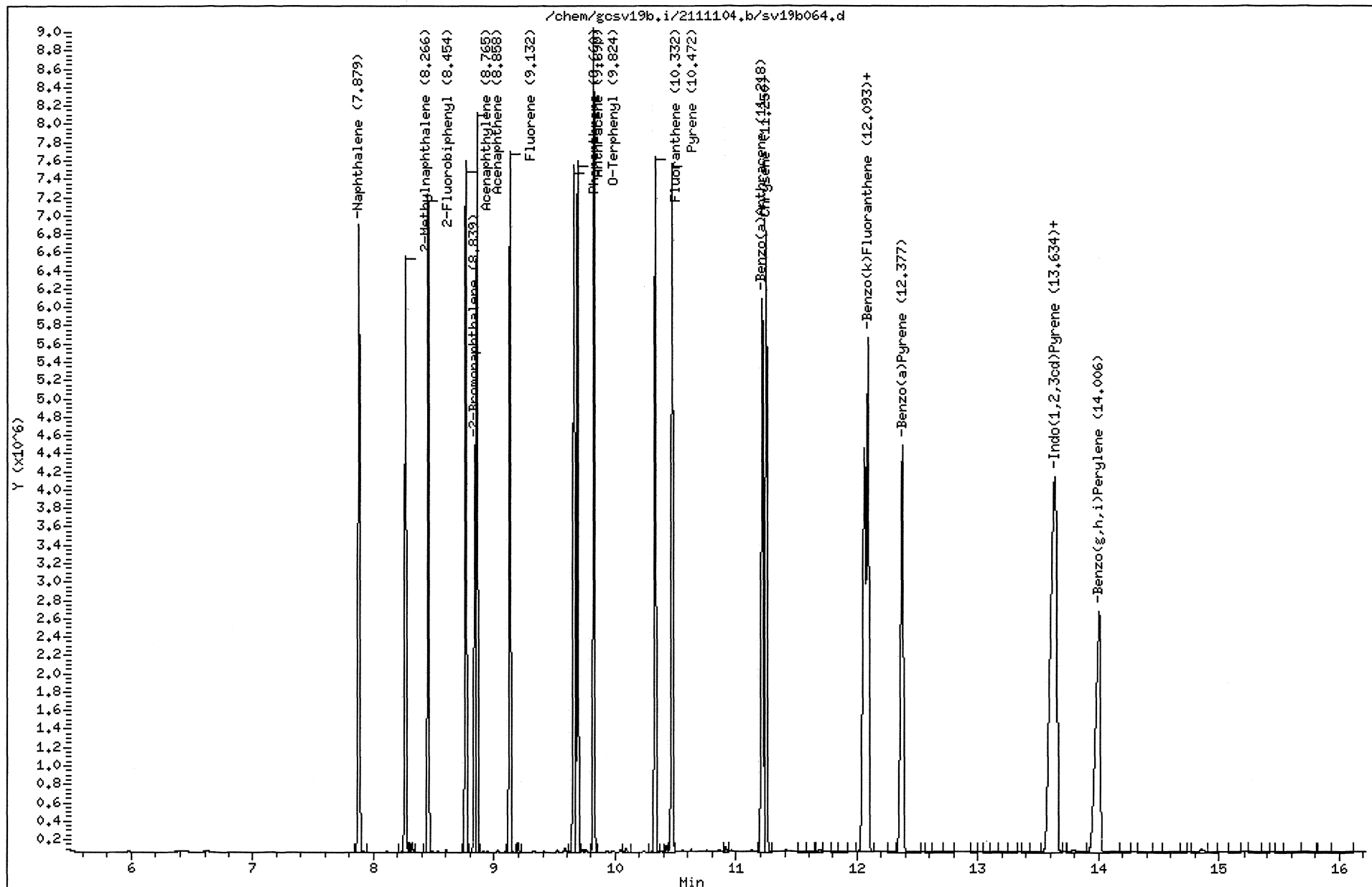
Sample Info: 1400\*1 84-12-8

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25





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/AROEPMass.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	MAX %D / %DRIFT	CURVE TYPE
1 Naphthalene	2842159	2738058	0.010	3.66273	Averaged
2 2-Methylnaphthalene	2378988	2294921	0.010	3.53373	Averaged
3 2-Fluorobiphenyl	2457488	2378493	0.010	3.21447	Averaged
4 Acenaphthylene	2763267	2684675	0.010	2.84417	Averaged
5 2-Bromonaphthalene	1568778	1616043	0.010	-3.01283	Averaged
6 Acenaphthene	2910153	2709141	0.010	6.90725	Averaged
7 Fluorene	2771184	2705485	0.010	2.37081	Averaged
8 Phenanthrene	2760684	2732439	0.010	1.02312	Averaged
9 Anthracene	2653997	2601571	0.010	1.97535	Averaged
10 O-Terphenyl	2948796	2905163	0.010	1.47967	Averaged
11 Chloro-octadecane	2739500	++++	0.010	+++	Averaged<-
12 Fluoranthene	2821141	2829367	0.010	-0.29161	Averaged
13 Pyrene	2855480	2878648	0.010	-0.81133	Averaged
14 Benzo(a)Anthracene	2777049	2821100	0.010	-1.58626	Averaged
15 Chrysene	2748172	2767613	0.010	-0.70740	Averaged
16 Benzo(b)Fluoranthene	2813367	2894257	0.010	-2.87521	Averaged
17 Benzo(k)Fluoranthene	2813367	2894257	0.010	-2.87521	Averaged
18 Benzo(a)Pyrene	2772685	2879567	0.010	-3.85480	Averaged
19 Indo(1,2,3cd)Pyrene	2679052	2824695	0.010	-5.43636	Averaged
20 Dibenzo(a,h)Anthracene	2679052	2824695	0.010	-5.43636	Averaged
21 Benzo(g,h,i)Perylene	2777993	2907536	0.010	-4.66317	Averaged
M 22 Arom C11-C22	2753988	2764001	0.010	-0.36361	Averaged
23 Unadjusted Arom C11-C22	++++	++++	0.010	+++	Averaged<-
M 113 Total Surrogate Area	++++	++++	0.010	+++	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/AROEPMass.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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (UG/ML)	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)	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.

Date : 04-NOV-2011 21:02

Client ID: 1 84-12-8

Sample Info: 1400x1 84-12-8

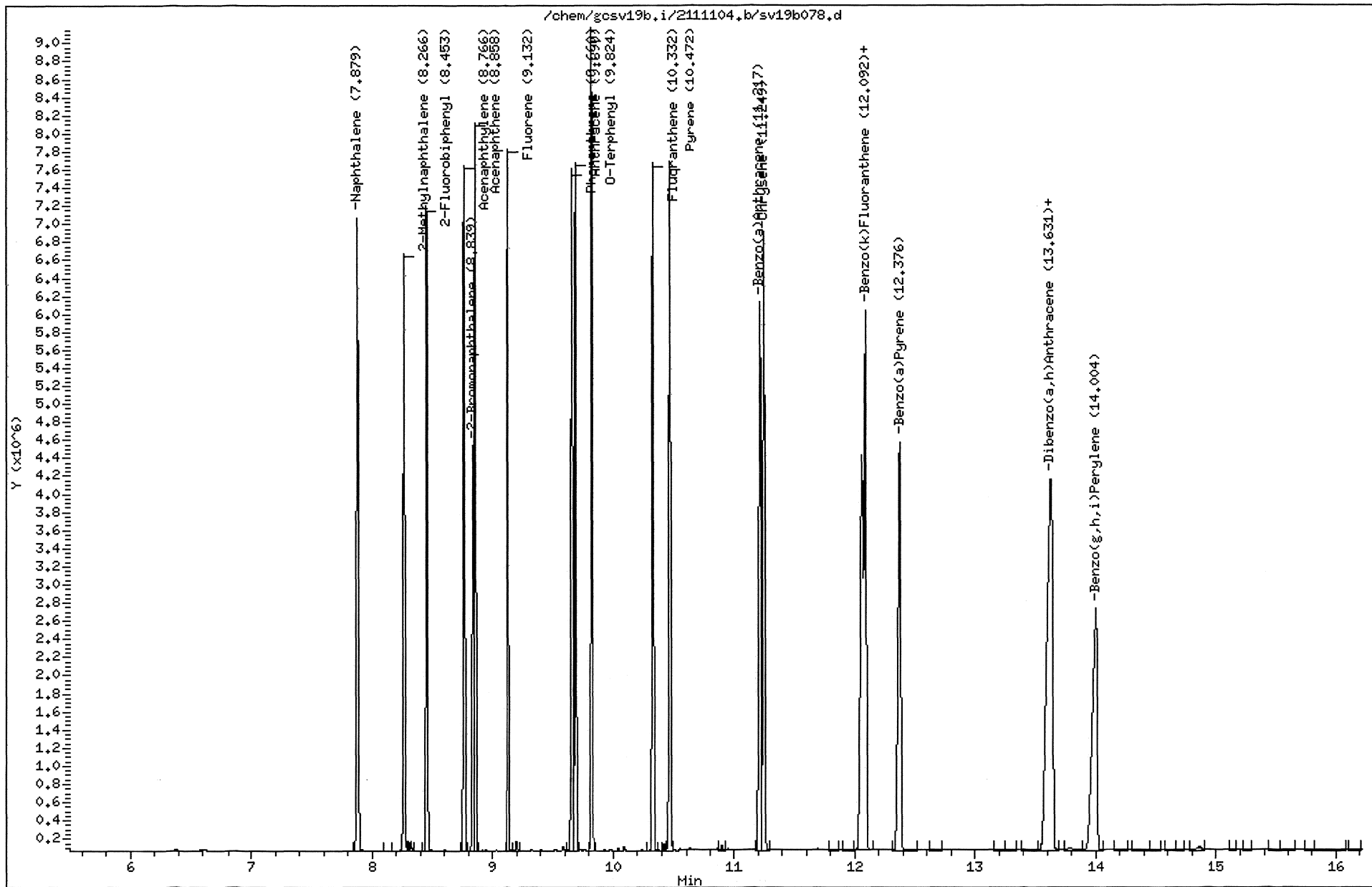
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b.i

Operator: smh

Column diameter: 0.25





1D  
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)	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)

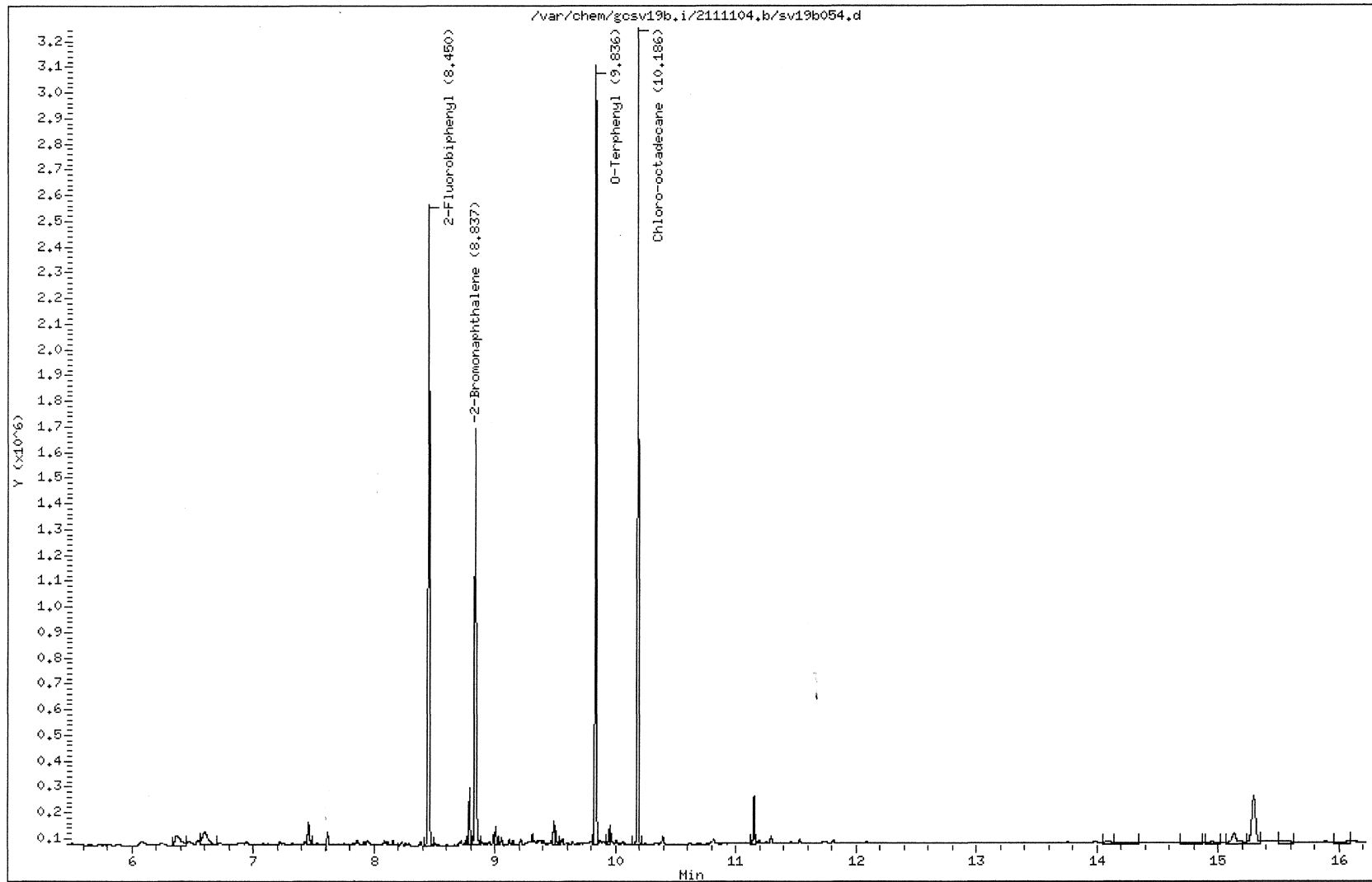
QC Flag Legend

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

Page 1

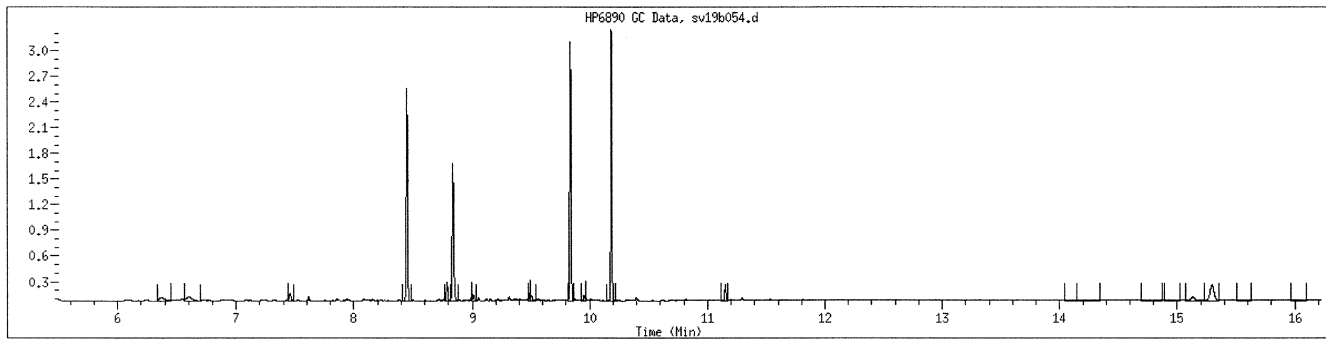
Instrument: gcsv19b.i  
Operator: smh  
Column diameter: 0.25



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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)	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/gosv19b.i/2111104.b/sv19b055.d

Page 1

Date : 04-NOV-2011 11:42

Client ID: 1 mb w

Instrument: gosv19b.i

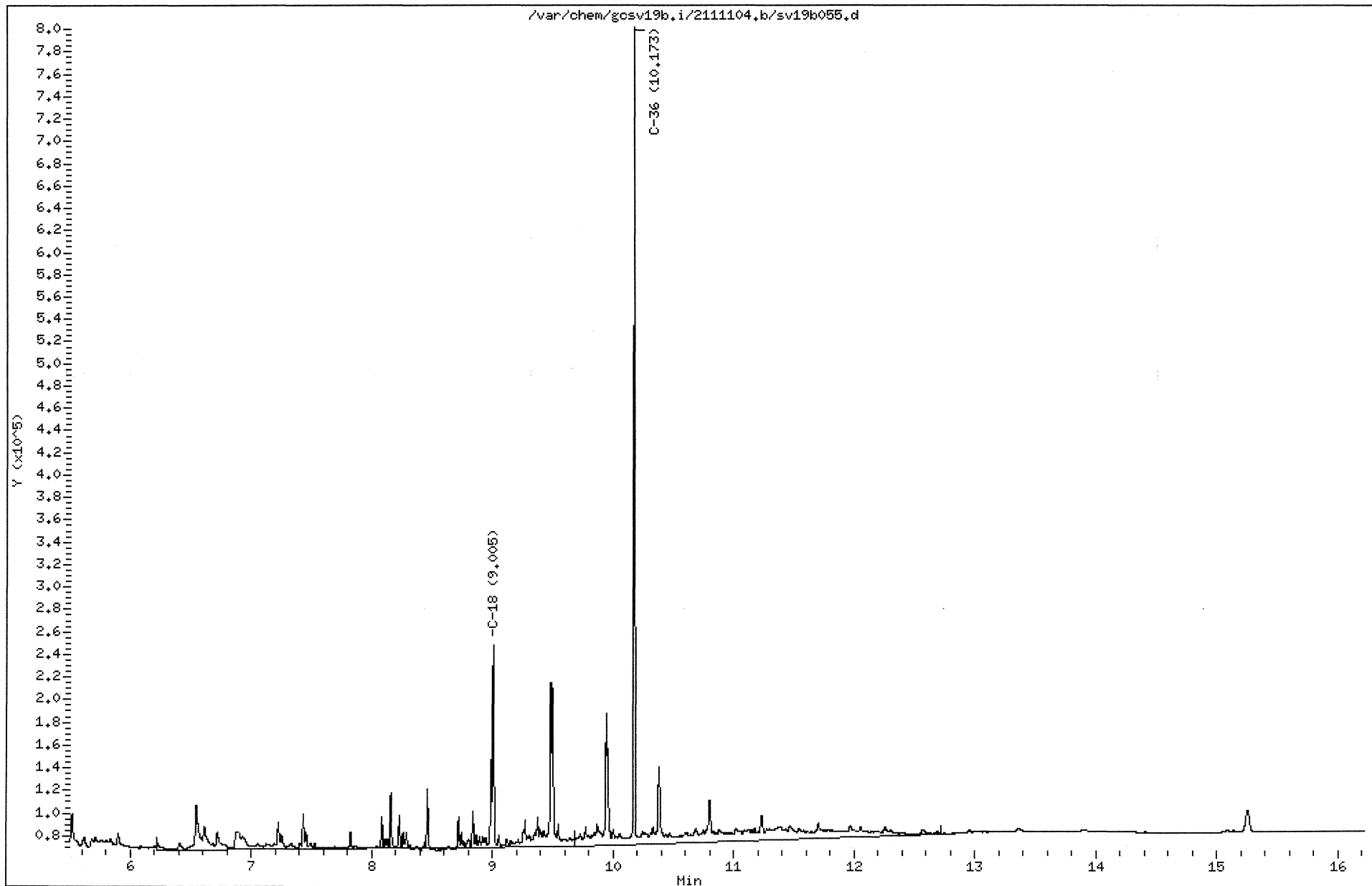
Sample Info: 1002043\*1 mb w

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25



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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).

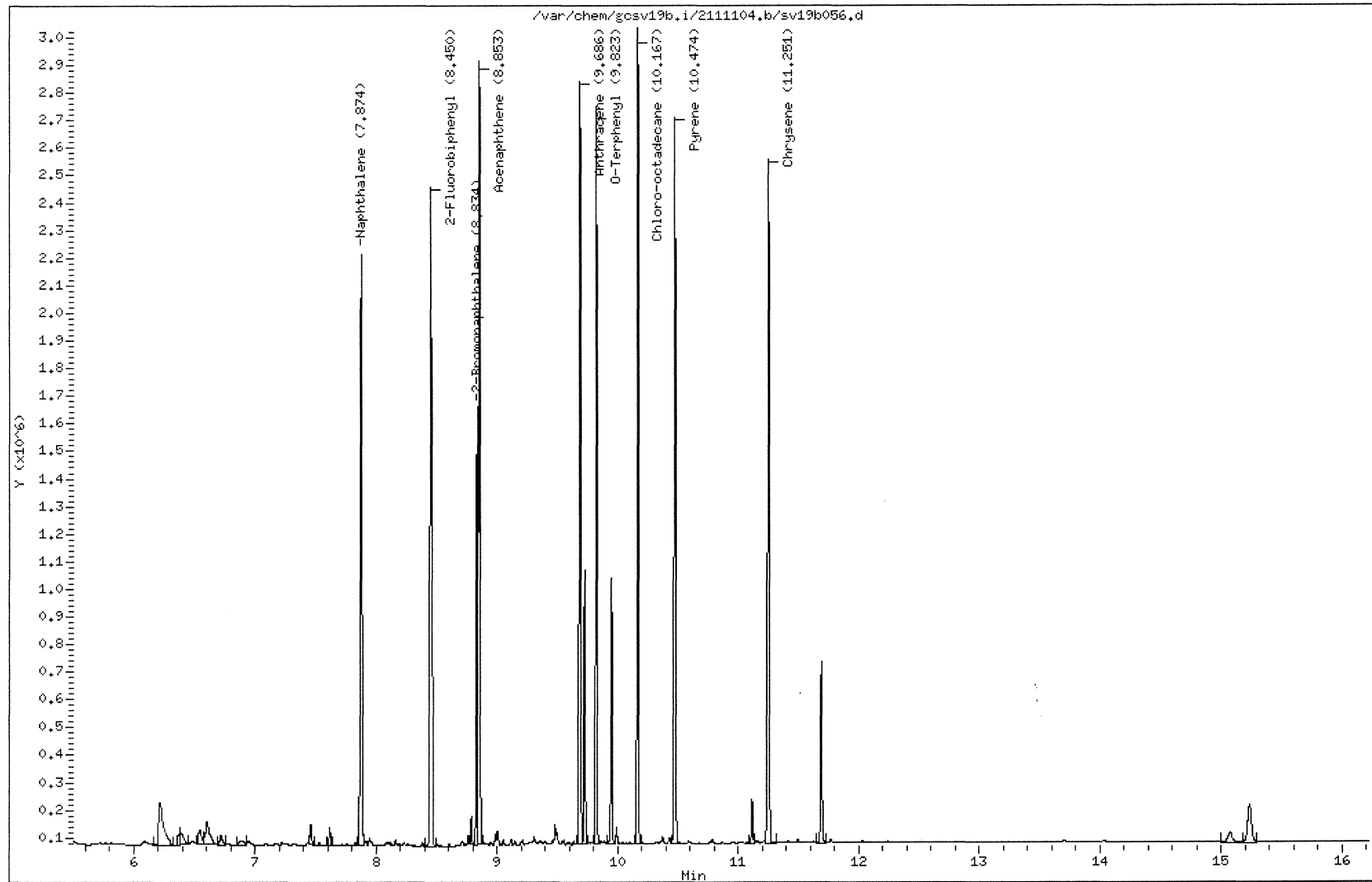
Data File: /var/chem/gcsv19b.i/2111104.b/sv19b056.d  
Date : 04-NOV-2011 12:06  
Client ID: 1 lcs  
Sample Info: 1002044\*1 lcs  
Volume Injected (uL): 1.0  
Column phase: DB-5MS-30M

Page 1

Instrument: gcsv19b.i

Operator: smh

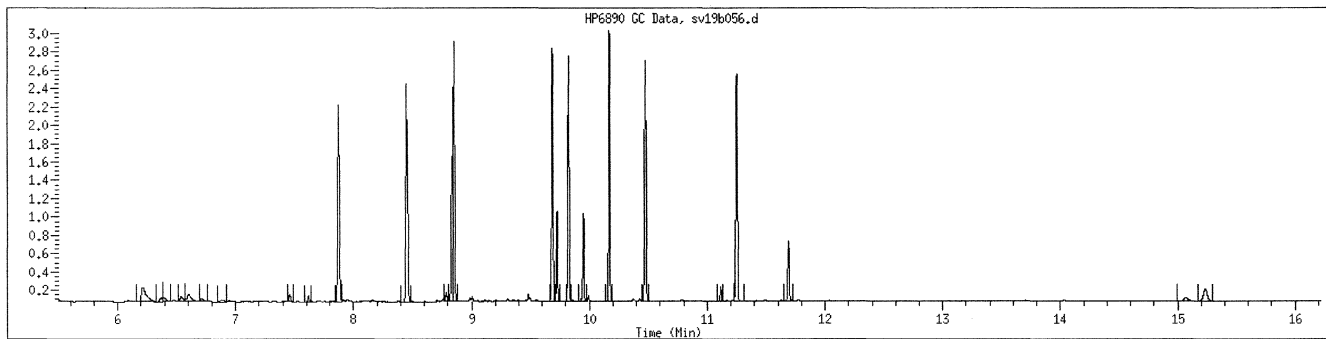
Column diameter: 0.25



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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)	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.





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

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)	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)

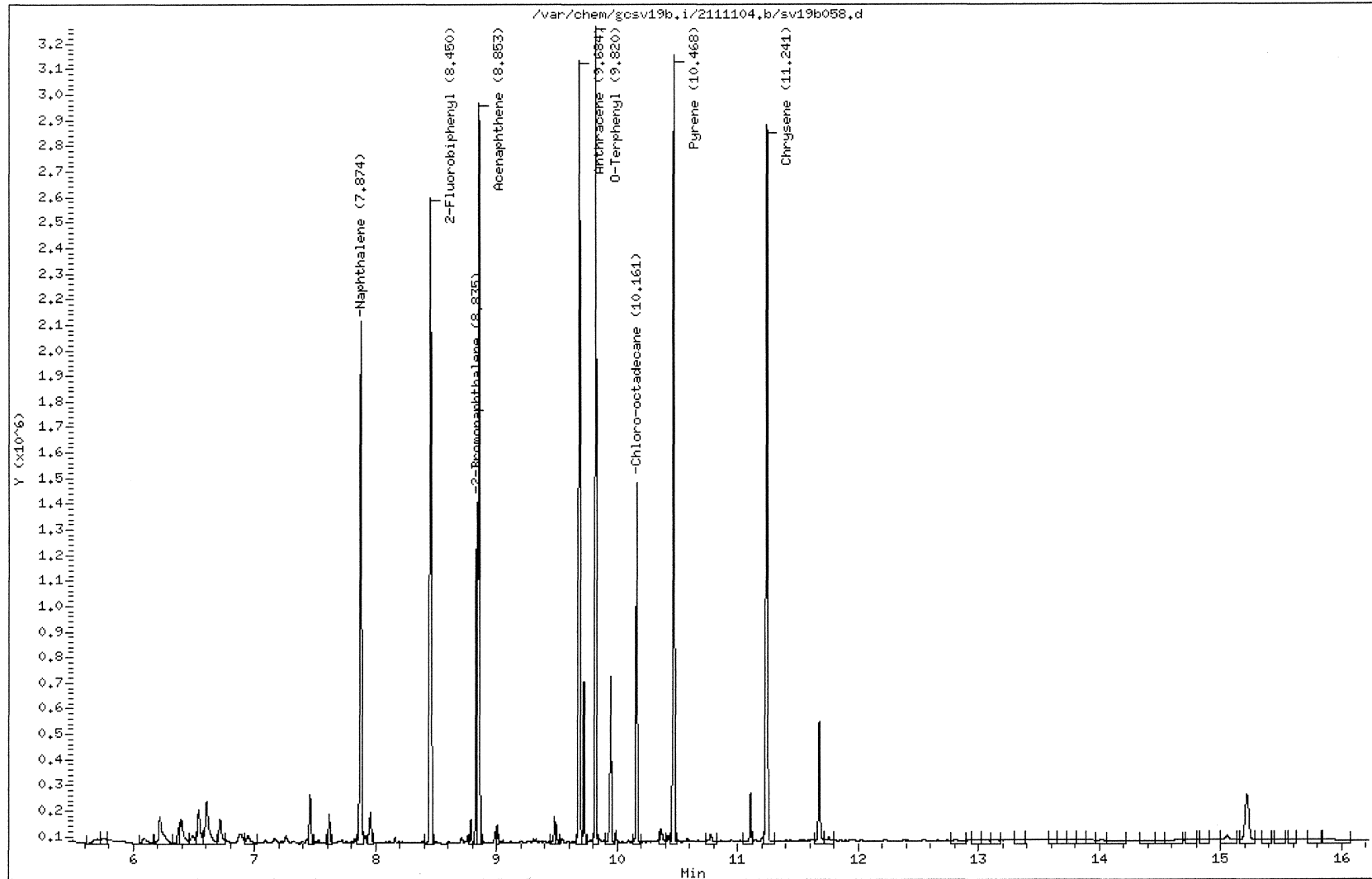
QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gosv19b.i/2111104.b/sv19b058.d  
Date : 04-NOV-2011 12:54  
Client ID: 1 losd  
Sample Info: 1002045\* 1 losd  
Volume Injected (uL): 1.0  
Column phase: DB-5MS-30M

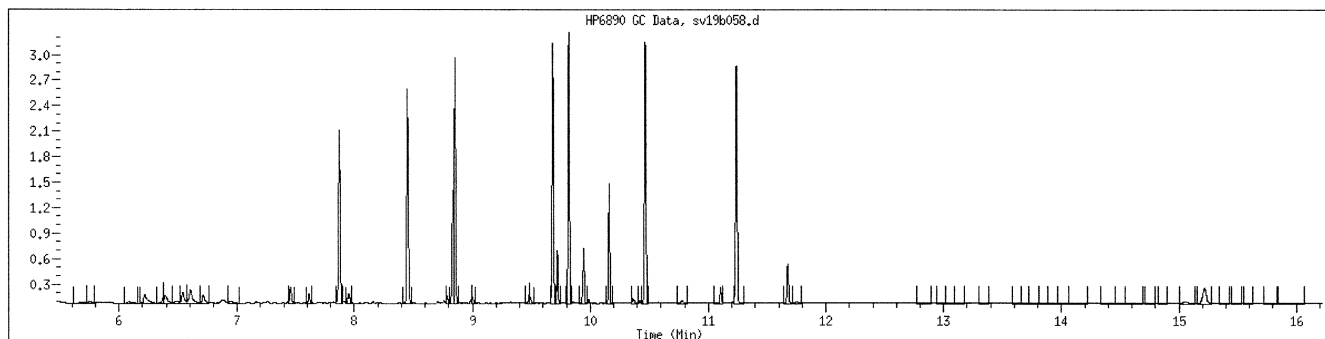
Page 1

Instrument: gosv19b.i  
Operator: smh  
Column diameter: 0.25



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: ALmaseph.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 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.

Date : 04-NOV-2011 13:18

Client ID: 1 lcsd

Sample Info: 1002045\*1 lcsd

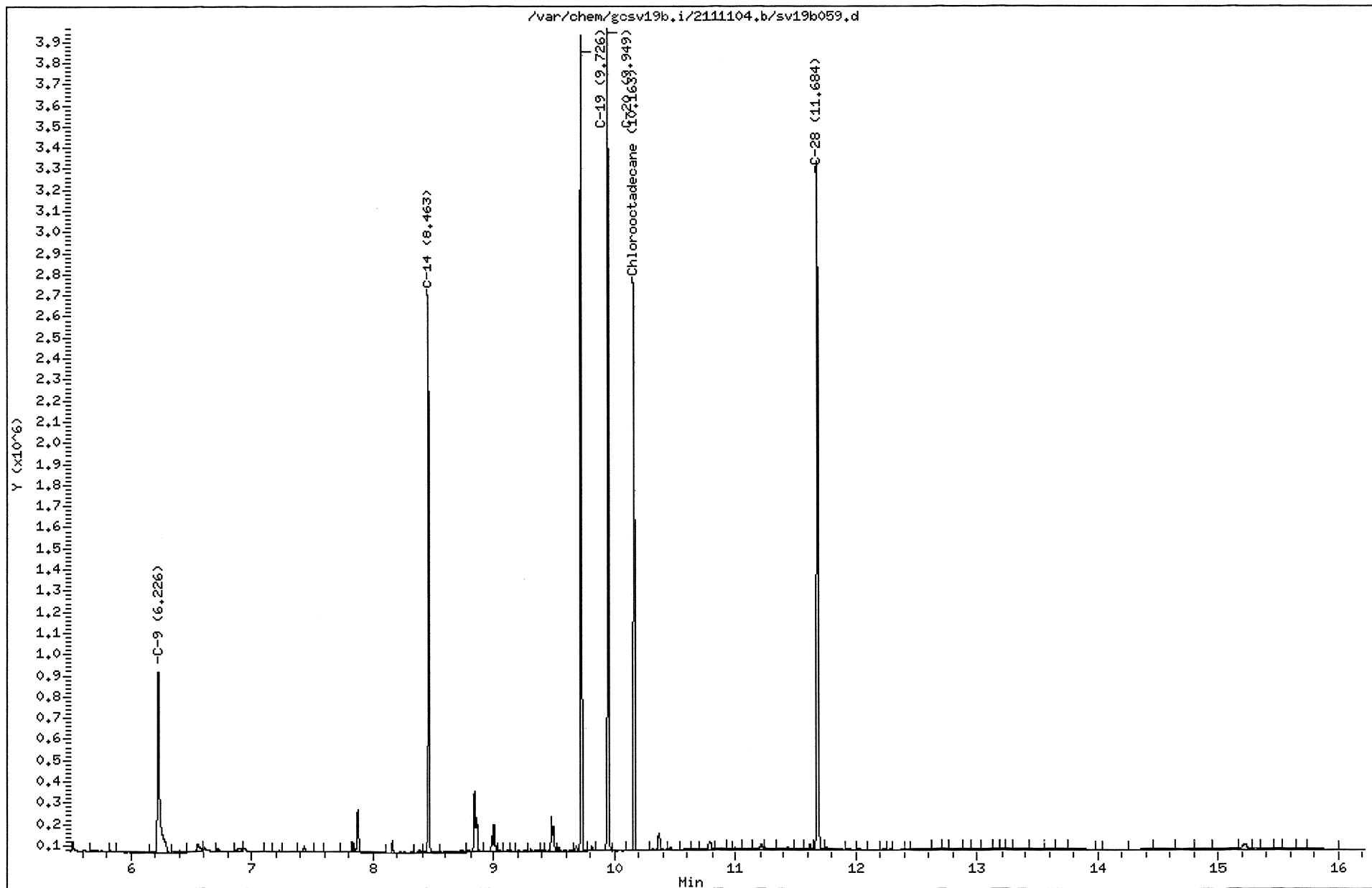
Volume Injected (uL): 1.0

Column phase: DB-5MS-30M

Instrument: gcsv19b,i

Operator: smh

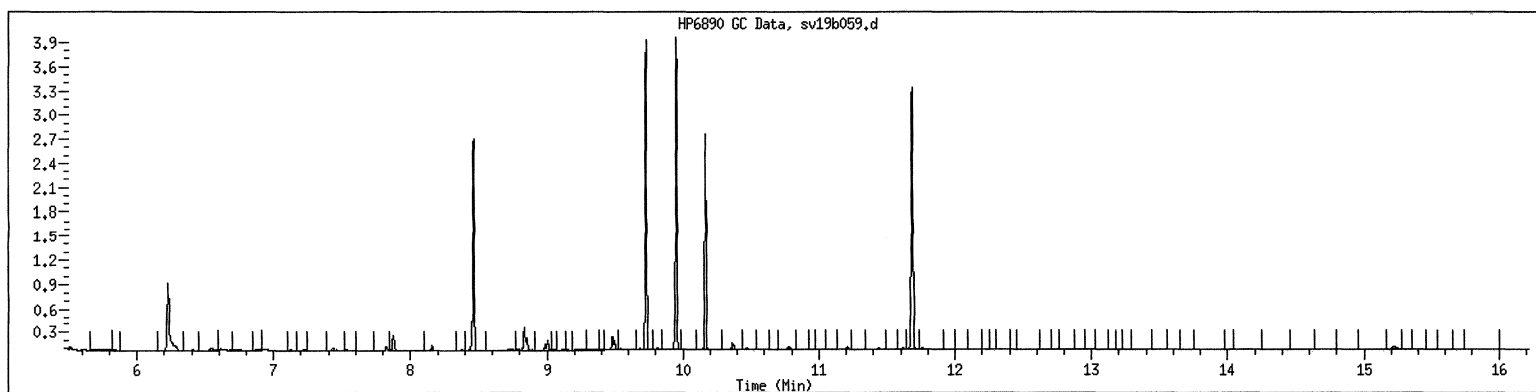
Column diameter: 0.25





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: <u>GCAL</u>	Sample ID: <u>ES047 MS</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Water</u>	SAS No.: _____ SDG No.: <u>211103124</u>
Sample wt/vol: <u>980</u> Units: <u>mL</u>	Lab Sample ID: <u>21110312403</u>
Level: (low/med) <u>LOW</u>	Date Collected: <u>10/24/11</u> Time: <u>0830</u>
% Moisture: _____ decanted: (Y/N) _____	Date Received: <u>10/29/11</u>
GC Column: <u>DB-5MS-30M</u> ID: <u>.25</u> (mm)	Date Extracted: <u>11/02/11</u>
Concentrated Extract Volume: <u>2000</u> (µL)	Date Analyzed: <u>11/04/11</u> Time: <u>1747</u>
Soil Aliquot Volume: _____ (µL)	Dilution Factor: <u>1</u> Analyst: <u>SMH</u>
Injection Volume: <u>1</u> (µL)	Prep Method: <u>MASS EPH</u>
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>MASSEPH</u>
Prep Batch: <u>468306</u> Analytical Batch: <u>468719</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>GCS19B</u>
CONCENTRATION UNITS: <u>ug/L</u>	Lab File ID: <u>2111104/sv19b070s</u>

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)	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

Page 1

Date : 04-NOV-2011 17:47

Client ID: 1

Instrument: gcsv19b.i

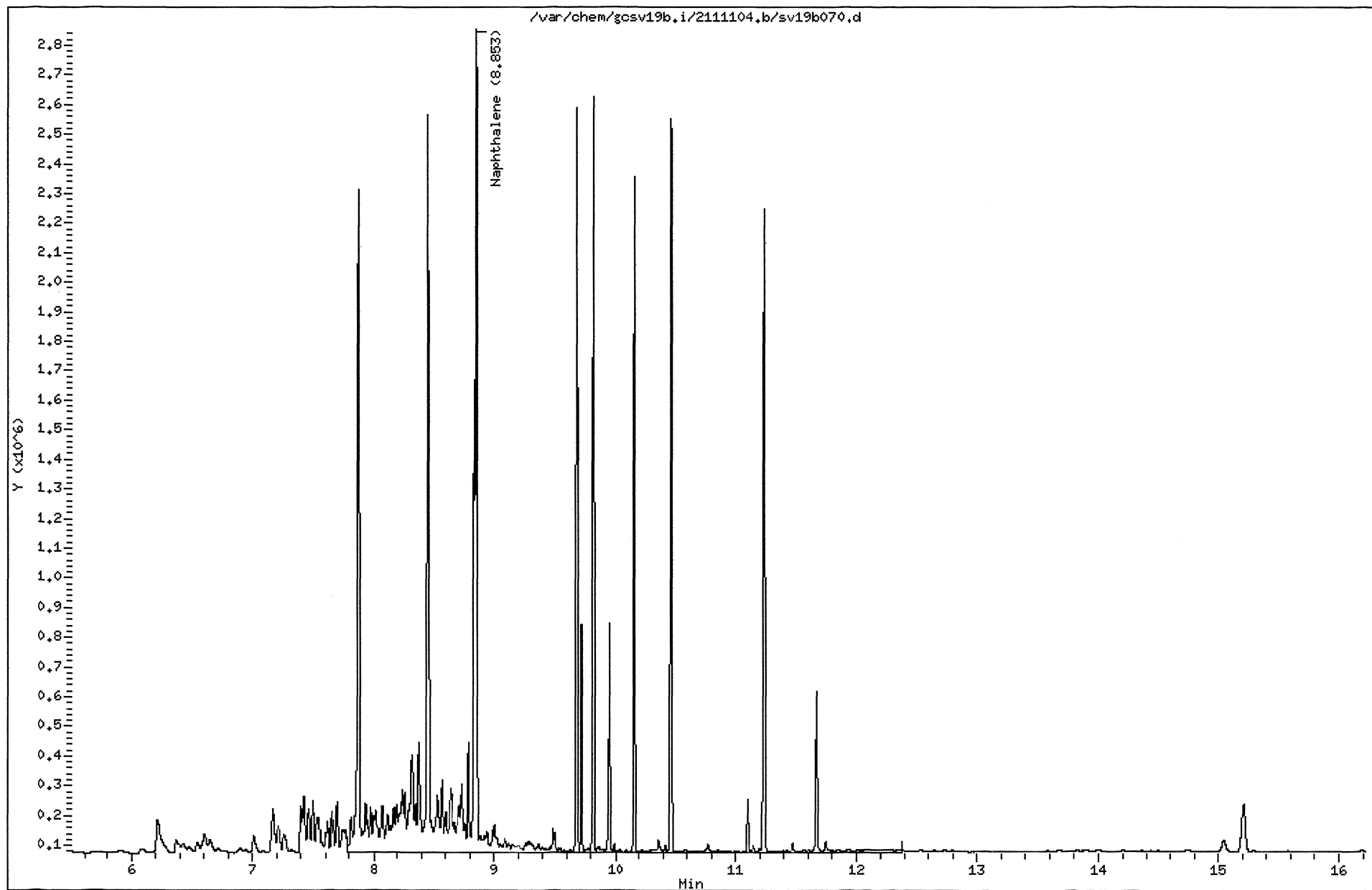
Sample Info: 21110312403\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

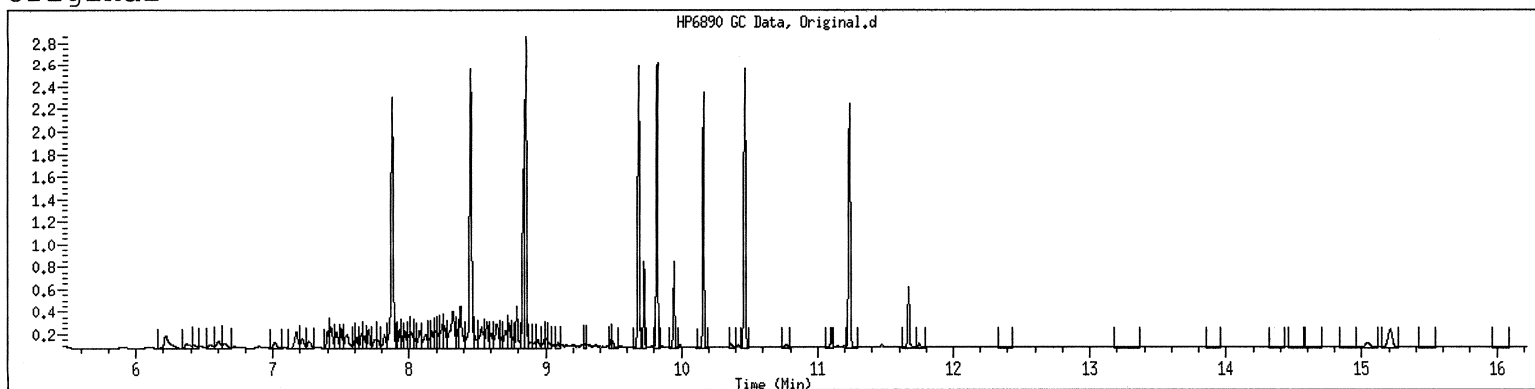


211103124 145

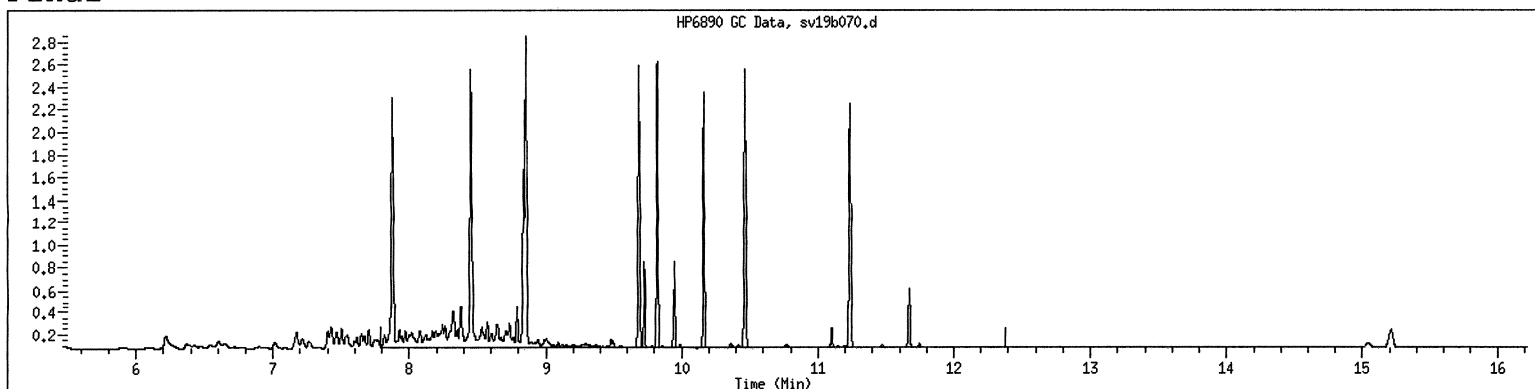
MANUAL INTEGRATION GRAPHIC REPORT

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)	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	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (UG/ML)	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/gosv19b.i/2111104.b/sv19b071.d

Page 1

Date : 04-NOV-2011 18:12

Client ID: 1

Instrument: gosv19b.i

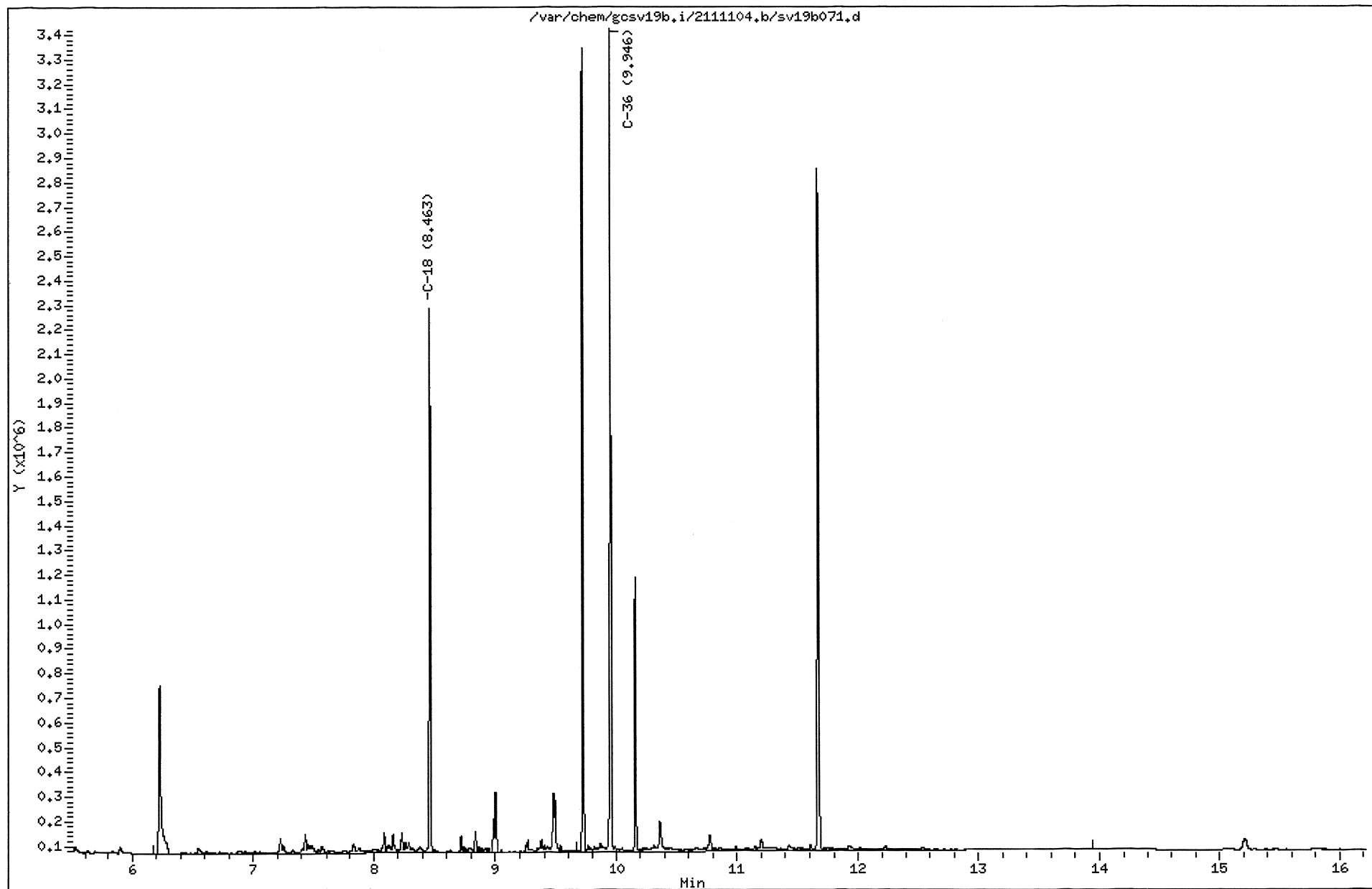
Sample Info: 21110312403\*1 ms

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

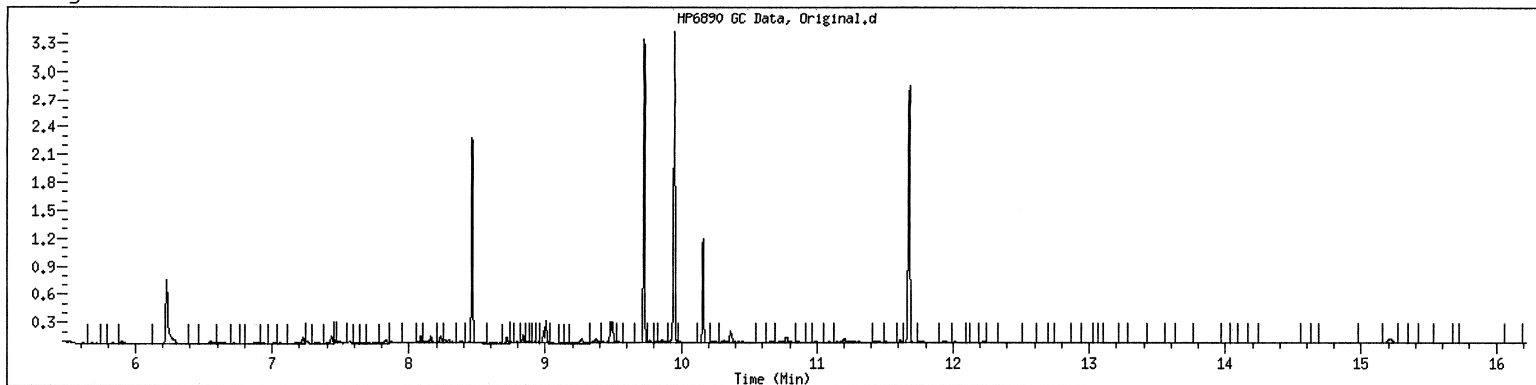


211103124 149

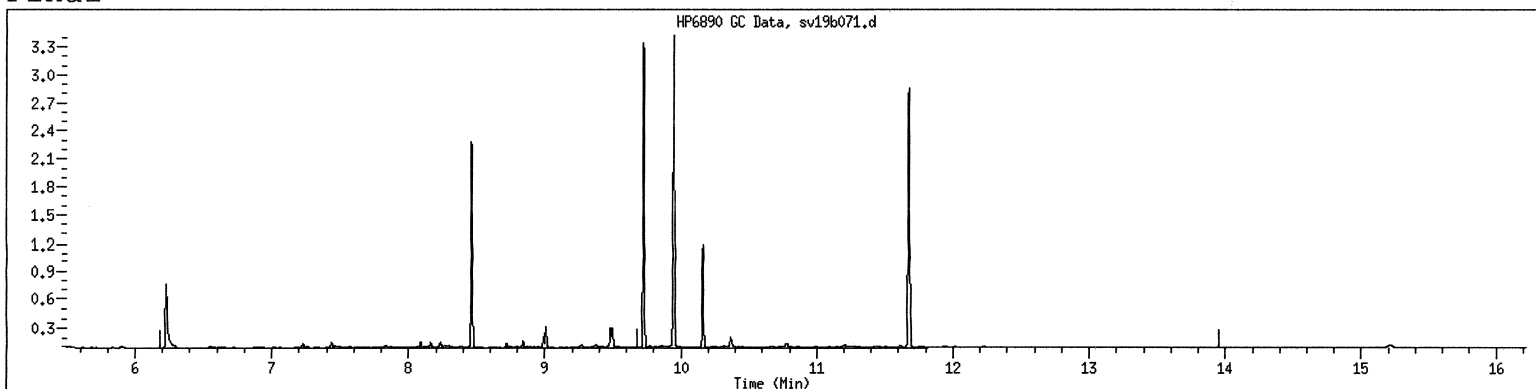
MANUAL INTEGRATION GRAPHIC REPORT

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/AROEPMass.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)	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/gosv19b.i/2111104.b/sv19b072.d

Page 1

Date : 04-NOV-2011 18:36

Client ID: 1

Instrument: gosv19b.i

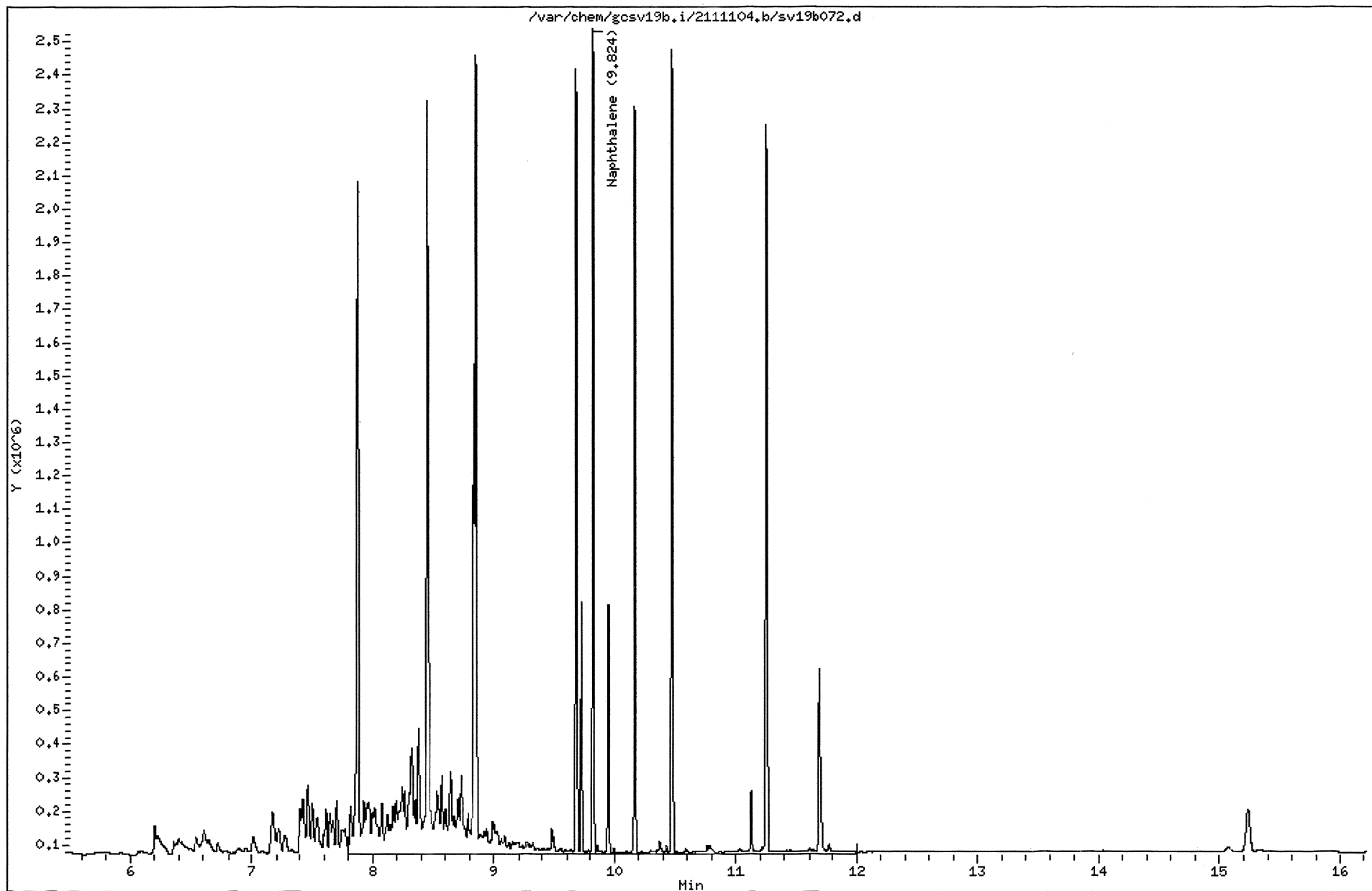
Sample Info: 21110312404\*1

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-SMS-30M

Column diameter: 0.25



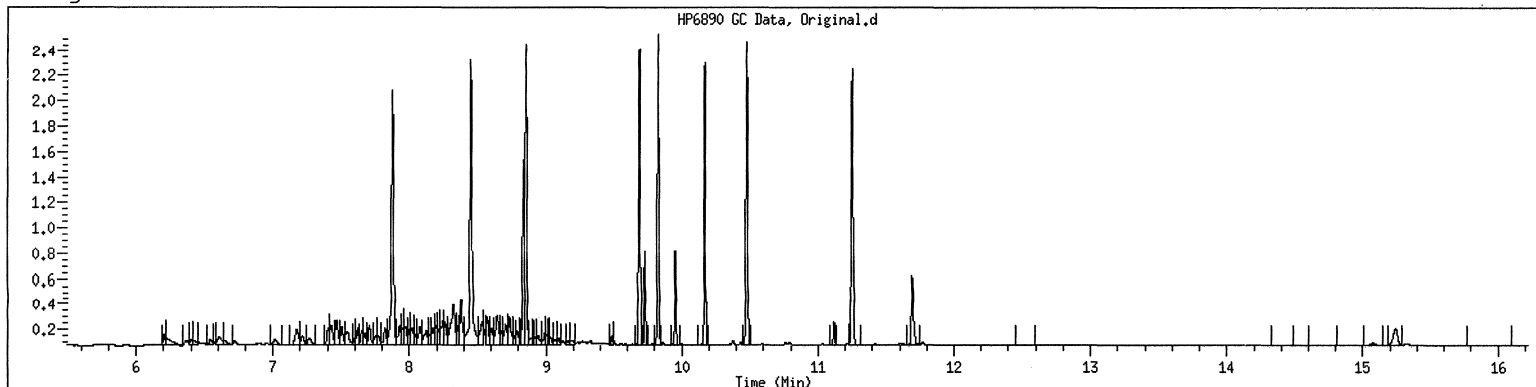
211103124 155



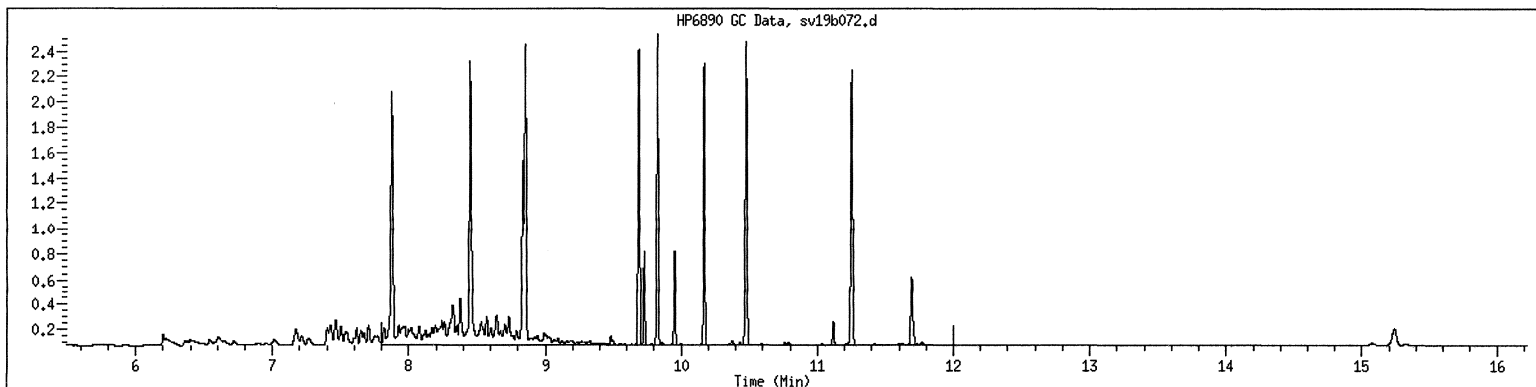
MANUAL INTEGRATION GRAPHIC REPORT

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: ALmaseph.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)
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)	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/gosv19b.i/2111104.b/sv19b073.d

Page 1

Date : 04-NOV-2011 19:01

Client ID: 1

Instrument: gosv19b.i

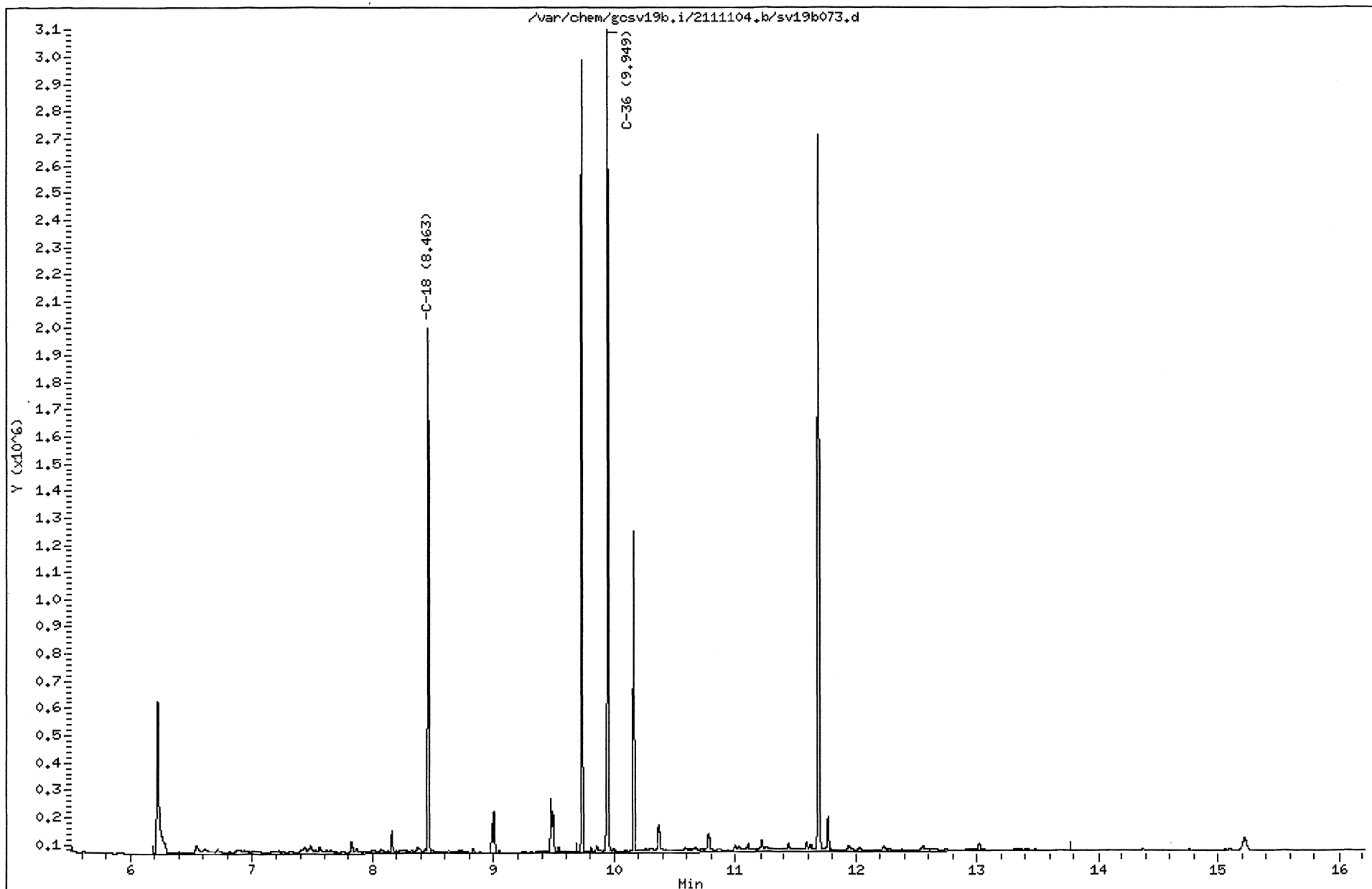
Sample Info: 21110312404\*1.msd

Volume Injected (uL): 1.0

Operator: smh

Column phase: DB-5MS-30M

Column diameter: 0.25

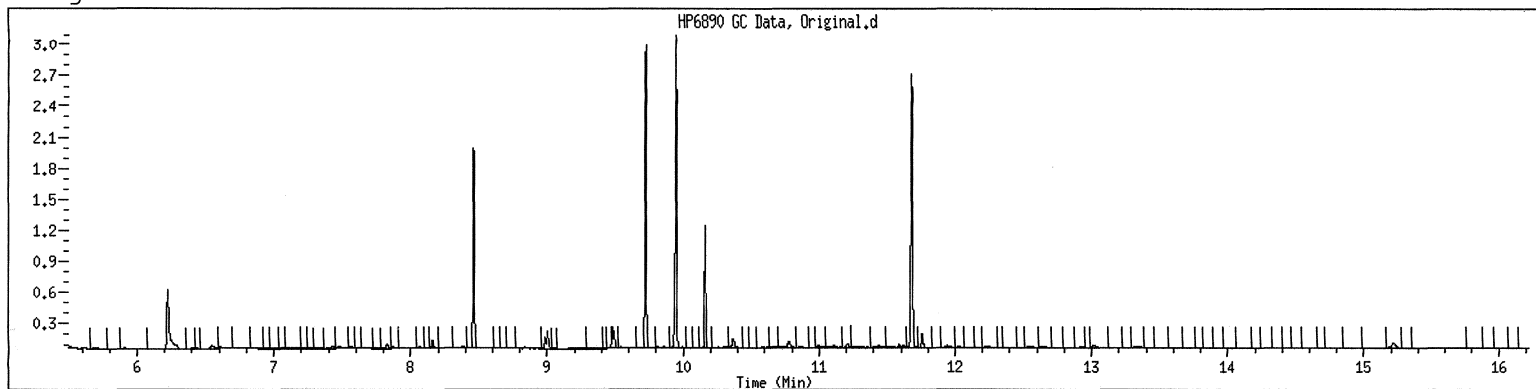


211103124 159

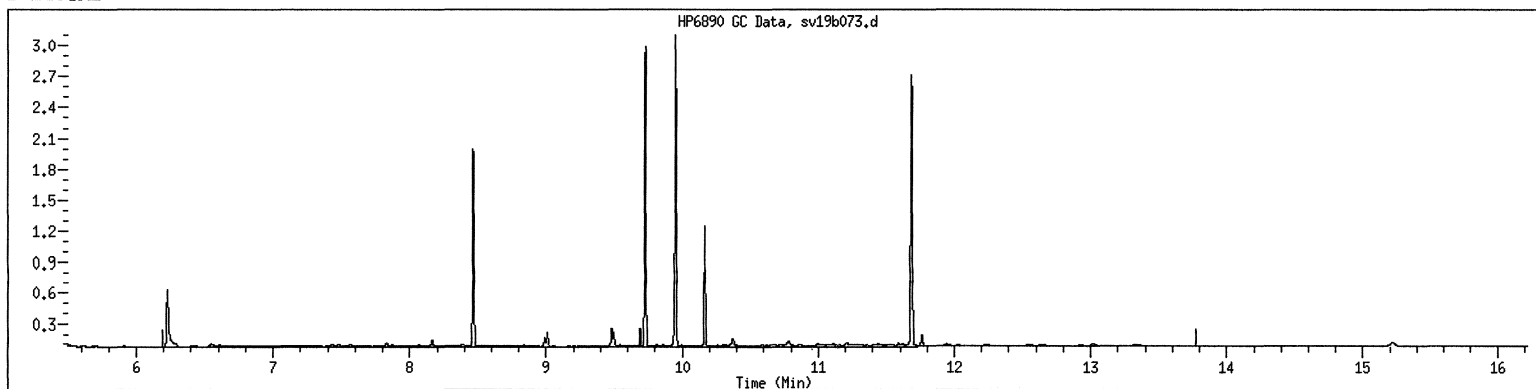
MANUAL INTEGRATION GRAPHIC REPORT

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



✓ BT

FRACTIONATION SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 11/2/11		Start: 0800	End: 11/3/11	BATCH NO: 468306	EPH				
MATRIX:		WATER <input checked="" type="checkbox"/>	SOIL <input type="checkbox"/>	OTHER <input type="checkbox"/>	LEVEL:		LOW <input checked="" type="checkbox"/>	MEDIUM <input type="checkbox"/>	
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	20	7	10.0	15.0	MB	SHAKER
2	QC ACCOUNT LCS for HBN 468306 [EXTO/30070]	1002044	1000	20	7	10.0	15.0	LCS	NA
3	QC ACCOUNT LCSD for HBN 468306 [EXTO/30070]	1002045	1000	20	7	10.0	15.0	LCSD	SEPARATORY FUNNEL/3510
4	0080 UST 1011 - EPH PE	21110202113	990	20	7.2	10.0	15.0	SAMPLE	SOXHLET/3540
5	9000 ES046	21110312401	1000	2.0	7.2	10.0	15.0	SAMPLE	
6	9000 ES047	21110312402	990	2.0	7.2	10.0	15.0	SAMPLE	NA
7	9000 ES047 MS	21110312403	980	2.0	7.2	10.0	15.0	MS	
8	9000 ES047 MSD	21110312404	980	2.0	7.2	10.0	15.0	MSD	
9	9000 ES049	21110312405	960	2.0	7.2	10.0	15.0	SAMPLE	
10	9000 ES050	21110312406	990	2.0	7.2	10.0	15.0	SAMPLE	
11	9000 ES051	21110312407	970	2.0	7.2	10.0	15.0	SAMPLE	
12	9000 ES053	21110312408	980	2.0	7.2	10.0	15.0	SAMPLE	
13	9000 ES053 MS	21110312409	990	2.0	7.2	10.0	15.0	MS	
14	9000 ES053 MSD	21110312410	980	2.0	7.2	10.0	15.0	MSD	
15	9000 ES055	21110312411	990	2.0	7.2	10.0	15.0	SAMPLE	
16	9000 ES056	21110312412	990	2.0	7.2	10.0	15.0	SAMPLE	
17									
18									
19									
20									
21									
22									
23									MeCL2 Lot
24									No: 114853
25									HEXANE Lot
26									No: 100351
27									PENTANE Lot
28									No: NA

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: NA

TEMP: 10.1

SURROGATE ID	<u>507-29-5</u>	SPIKE ID	<u>507-29-9</u>	<u>Fractionation</u>	<u>507-29-2</u>	TECHNICIAN	DATE
VOLUME	<u>1.0 ml</u>	VOLUME	<u>1.0 ml</u>		<u>1.0 ml</u>	<u>Erica Beggs</u>	<u>11/2/11</u>
CONCENTRATION	<u>100 ug/ml</u>	CONCENTRATION	<u>500 ug/ml</u>		<u>400 ug/ml</u>	<u>MC</u>	<u>11/2</u>
SPIKE WITNESS	<u>BT</u>					<u>[Signature]</u>	<u>11/3/11</u>

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		sv19b0521a.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		sv19b0531a.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		sv19b0541a.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		sv19b0551a.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		sv19b0561a.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		sv19b0571a.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		sv19b0521a.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		sv19b0531a.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		sv19b0541a.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		sv19b0551a.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		sv19b0561a.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		sv19b0571a.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				SMC1				SMC2				SMC2				TOT OUT
	1-(1)	Lo	Hi	F	1-(2)	Lo	Hi	F	2-(1)	Lo	Hi	F	2-(2)	Lo	Hi	F	
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	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

FORM III ORG-1

## 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): \_\_\_\_\_ (mm)  
 GC Column (1): \_\_\_\_\_ ID: \_\_\_\_\_ (mm) GC Column (2): \_\_\_\_\_ ID: \_\_\_\_\_  
 Method: MASSVPH Prep Batch: \_\_\_\_\_ Analytical Batch: 468512  
 Lab File ID: 2111107/v5003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	<i>SAMPLE NO.</i>	<i>LAB SAMPLE ID</i>	<i>DATE ANALYZED</i>	<i>TIME ANALYZED</i>	<i>INSTRUMENT ID</i>
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			RESPONSE	CONCENTRATIONS	
	RT	EXP RT	DLT RT		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/gov5b.i/2111107.b/v5012.d

Page 1

Date : 07-NOV-2011 18:26

Client ID: 21110312401

Instrument: gov5b.i

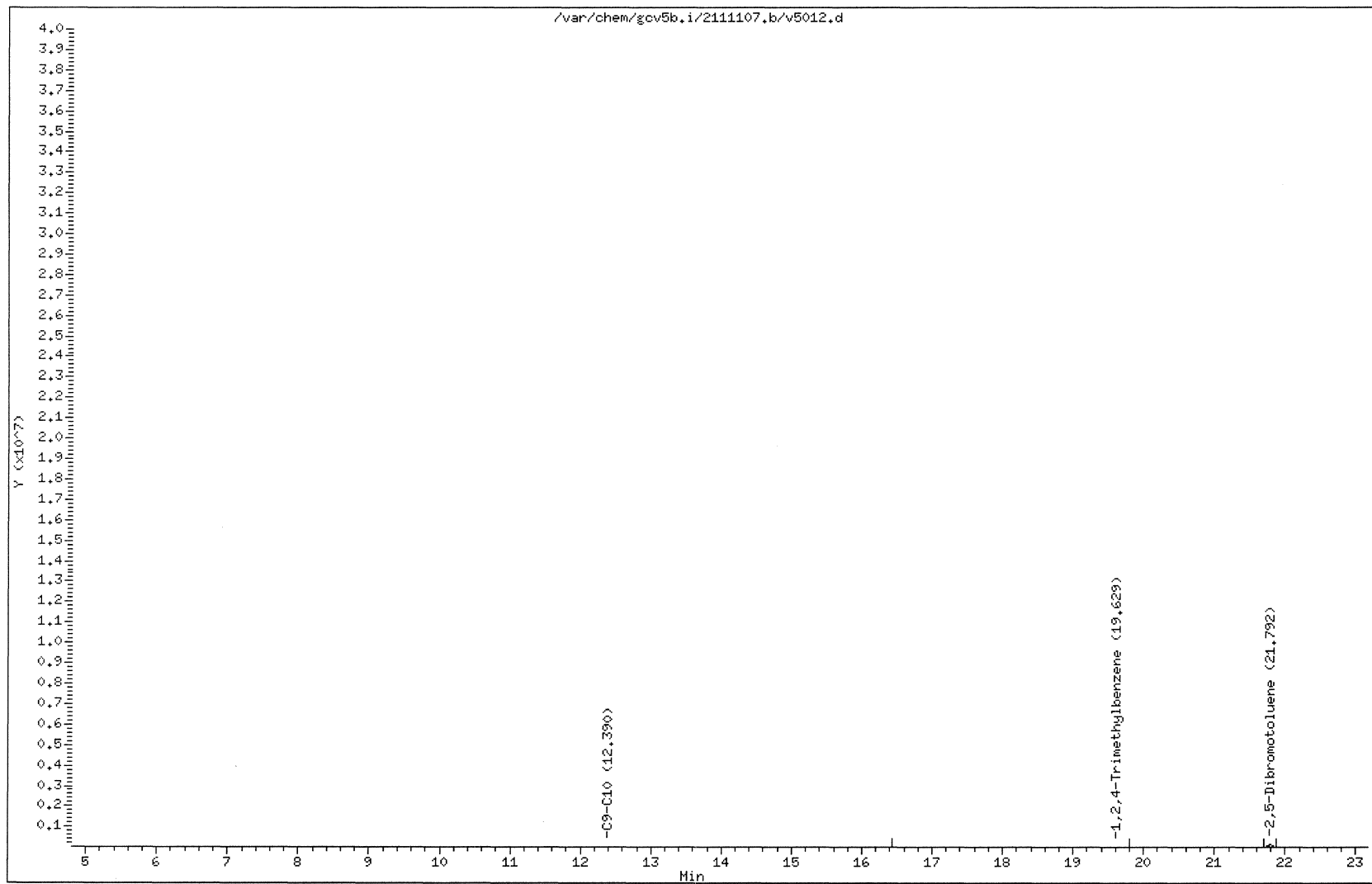
Sample Info: 21110312401\*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

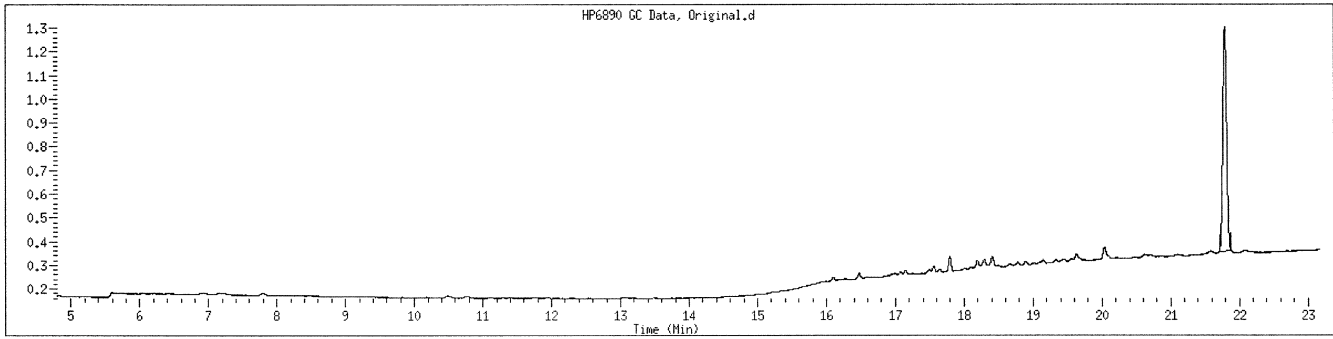


211103124 172

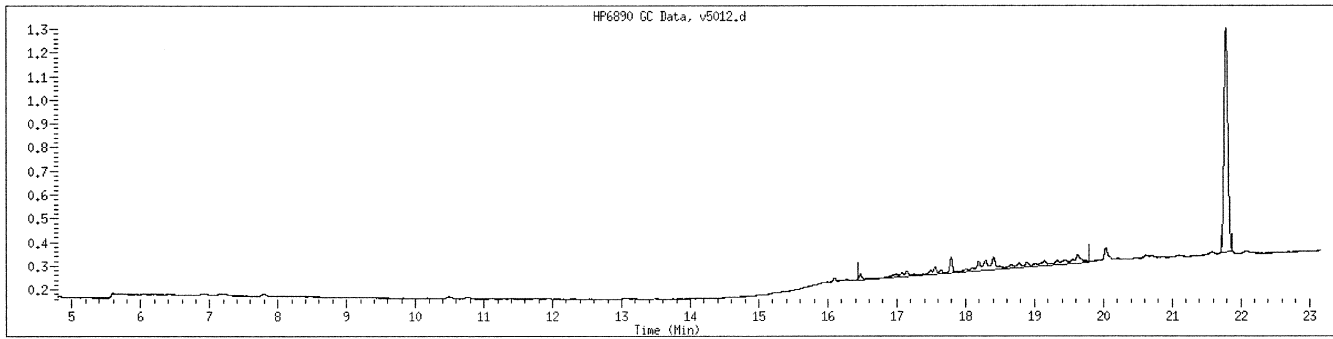
MANUAL INTEGRATION GRAPHIC REPORT

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.

Date : 07-NOV-2011 18:26

Client ID: 21110312401

Instrument: gcv5a.i

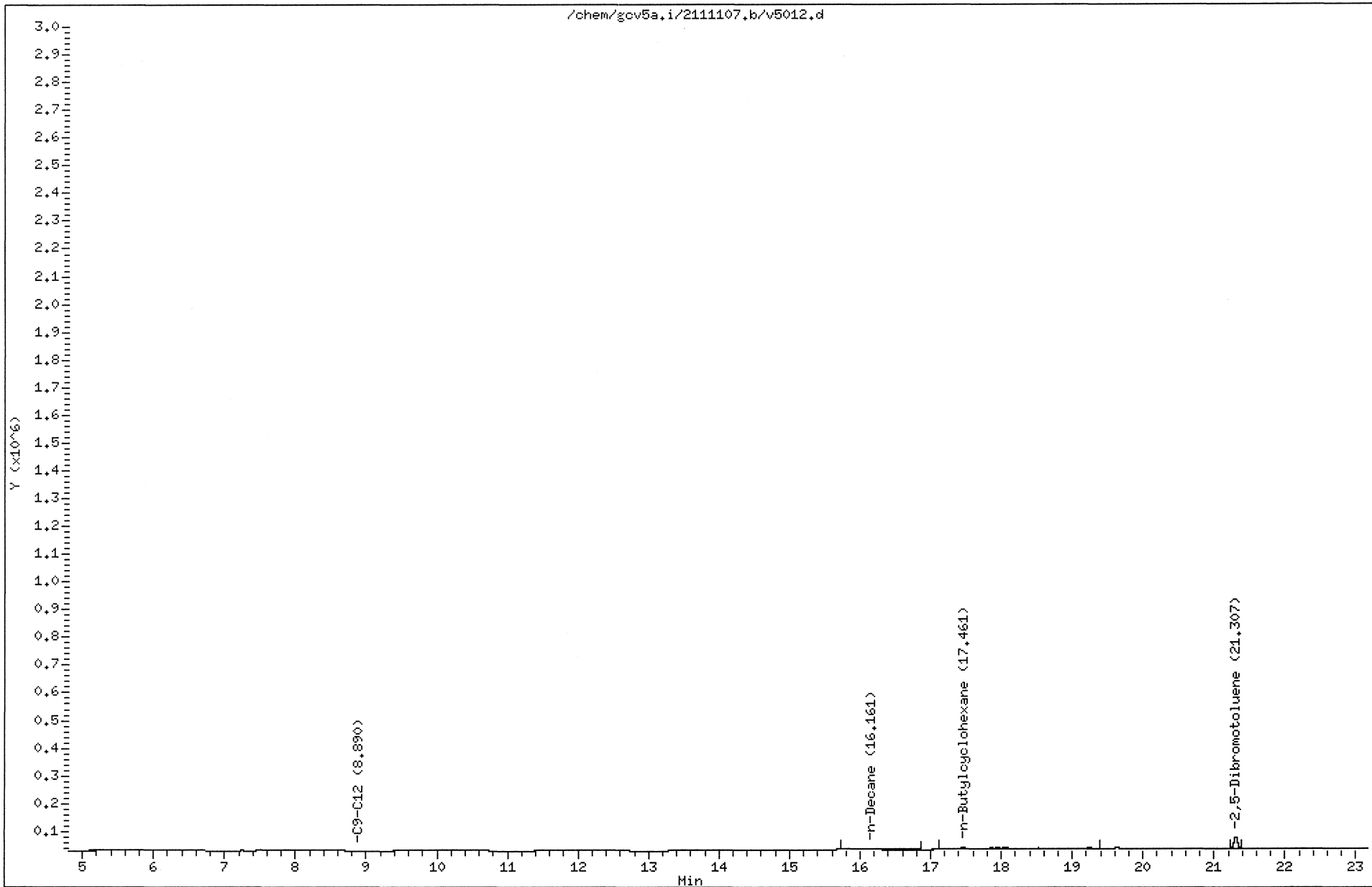
Sample Info: 21110312401\*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

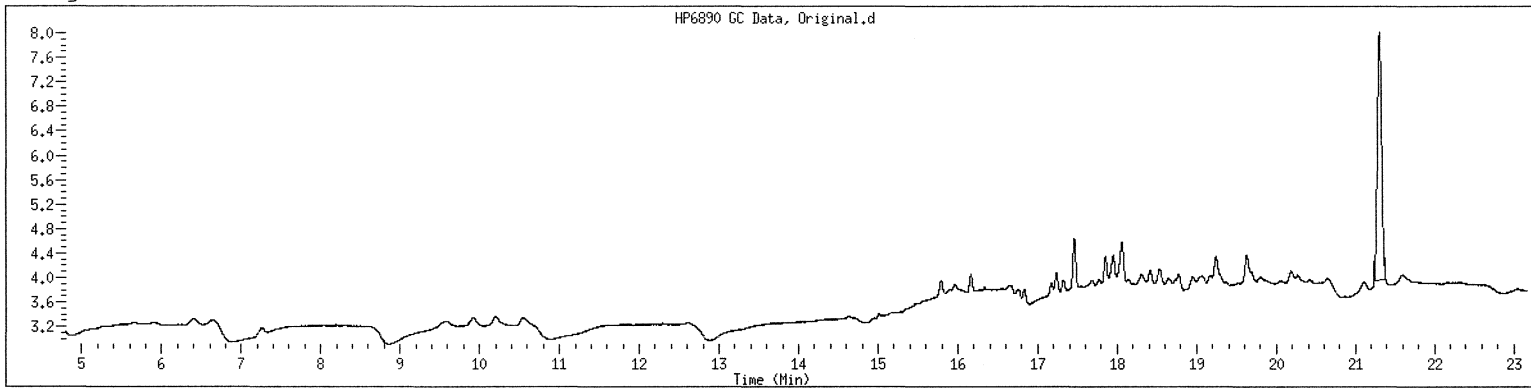


211103124 175

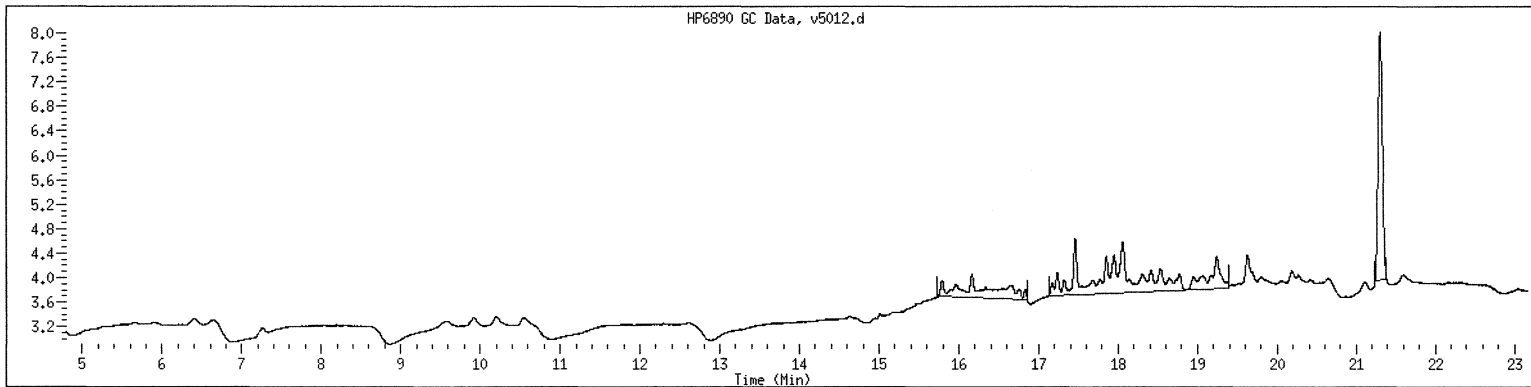
MANUAL INTEGRATION GRAPHIC REPORT

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 (  $\mu$ L ) Date Analyzed: 11/07/11 Time: 1855  
 Soil Aliquot Volume: \_\_\_\_\_ (  $\mu$ L ) Dilution Factor: 10 Analyst: JAR  
 Injection Volume: 1 (  $\mu$ L ) 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

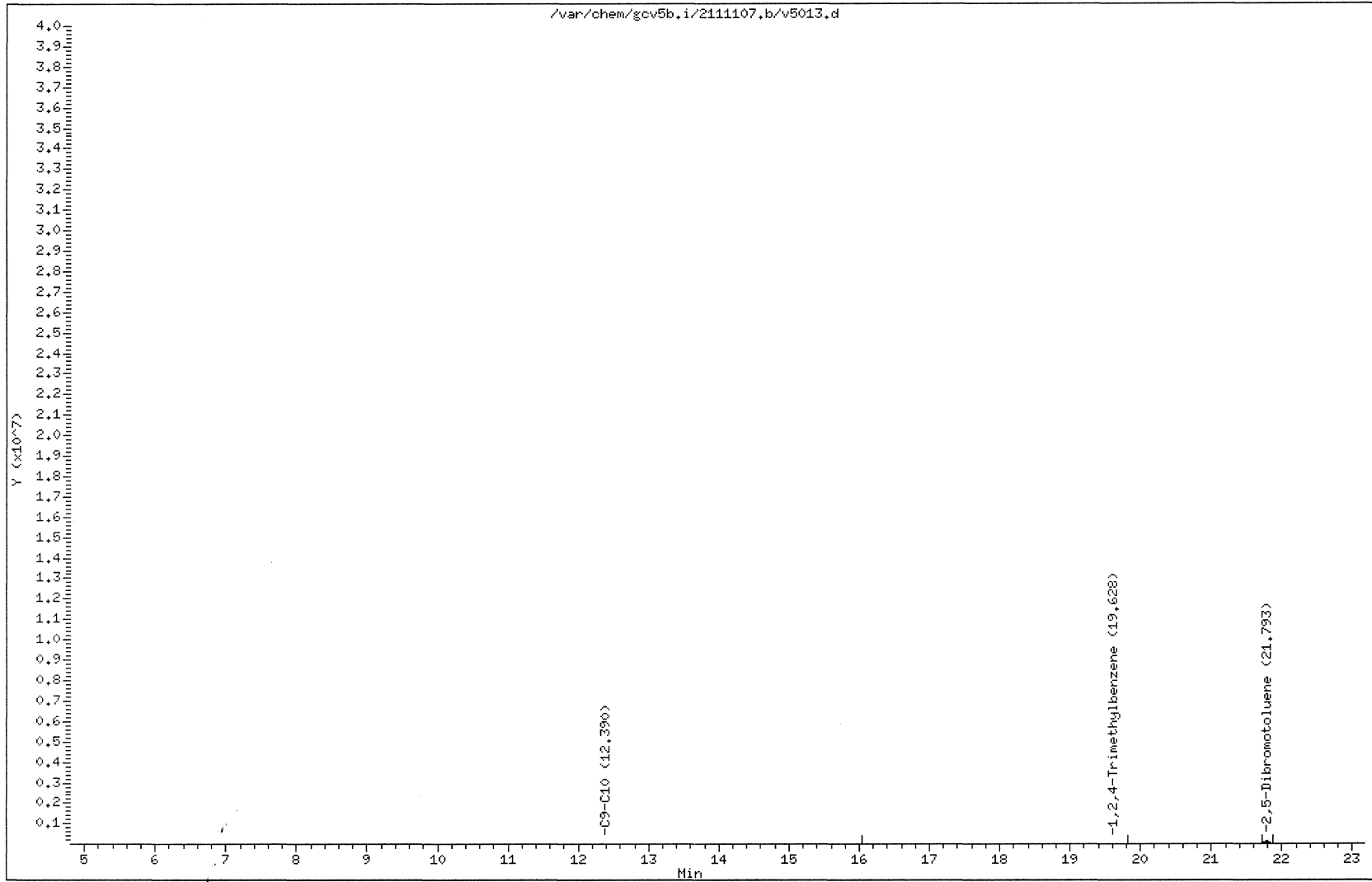
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN ( ug/L)	FINAL ( ug/L)
7 1,2,4-Trimethylbenzene	19.628	16.983	2.645	209265	17.3968	174 (M1)
M 9 C9-C10				209265	17.3968	174
\$ 10 2,5-Dibromotoluene	21.793	21.781	0.012	350440	50.1197	501

QC Flag Legend

M1- Compound response manually integrated because  
Target system did not integrate.

Data File: /var/chem/gcv5b.i/2111107.b/v5013.d  
Date : 07-NOV-2011 18:55  
Client ID: 21110312402  
Sample Info: 21110312402\*10  
Volume Injected (uL): 1.0  
Column phase: DB-624-30

Instrument: gcv5b.i  
Operator: JAR  
Column diameter: 0.53

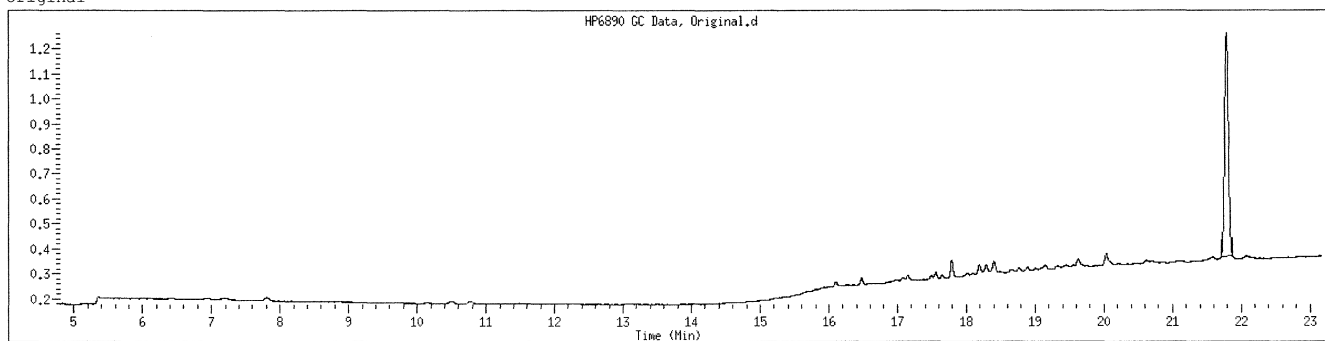




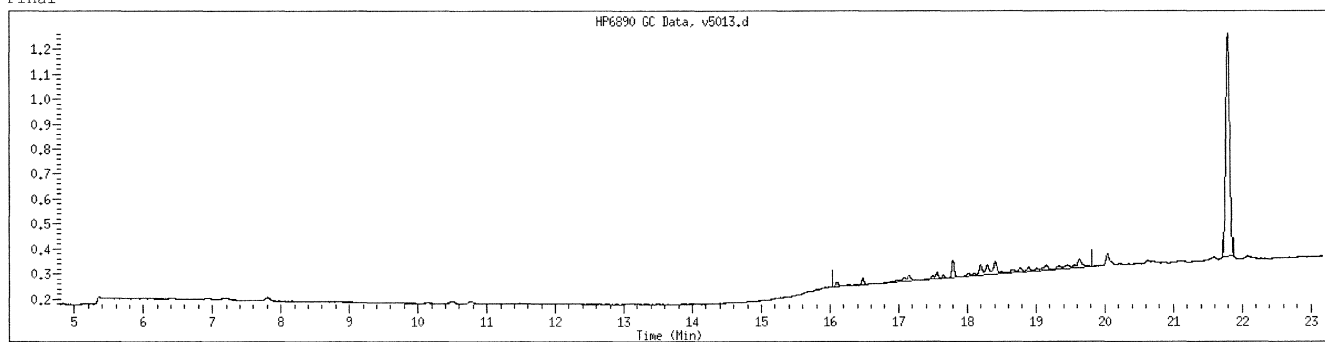
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 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)	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.

Date : 07-NOV-2011 18:55

Client ID: 21110312402

Sample Info: 21110312402\*10

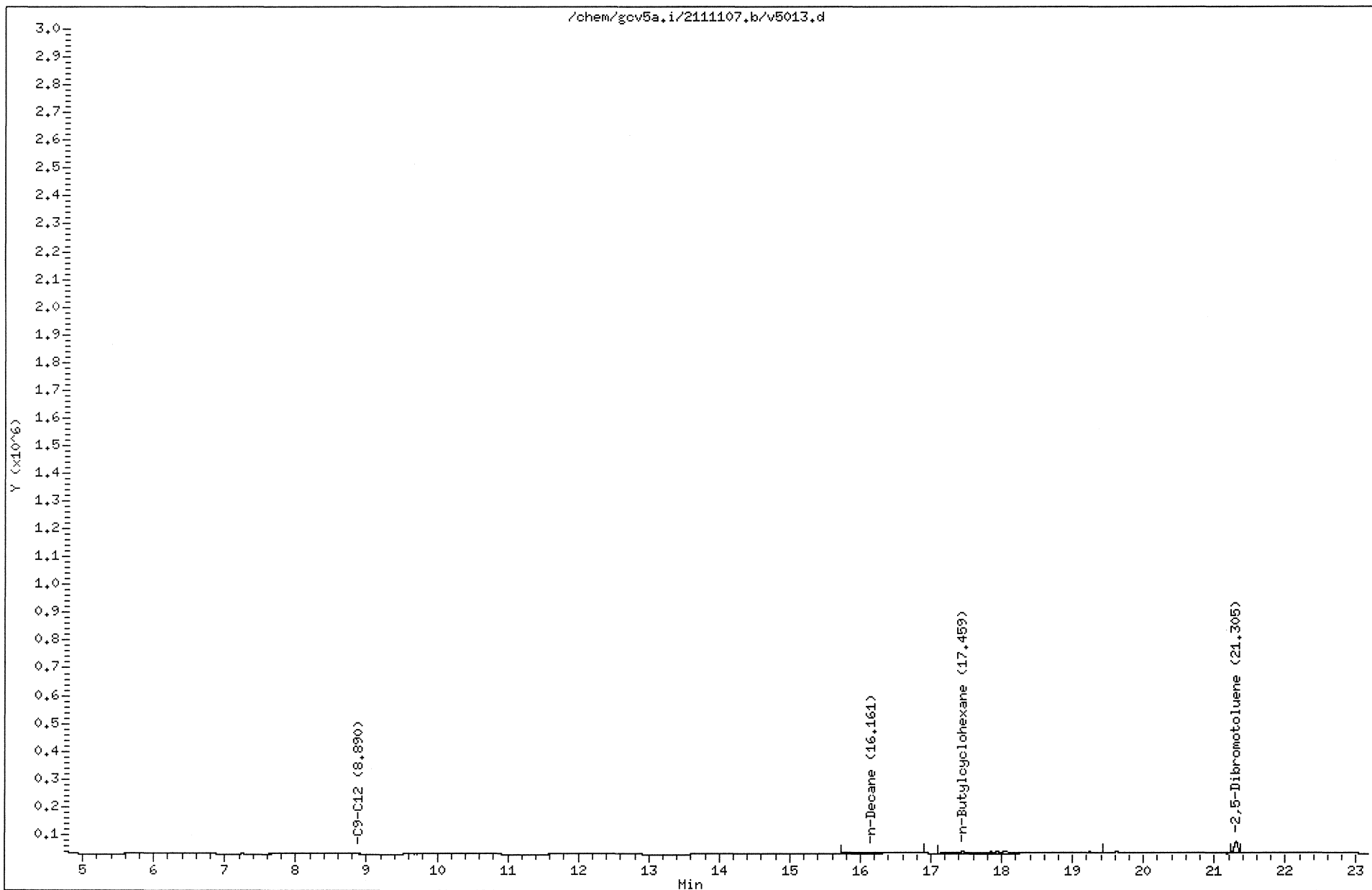
Volume Injected (uL): 1.0

Column phase: DB-624-30

Instrument: gcv5a.i

Operator: JAR

Column diameter: 0.53

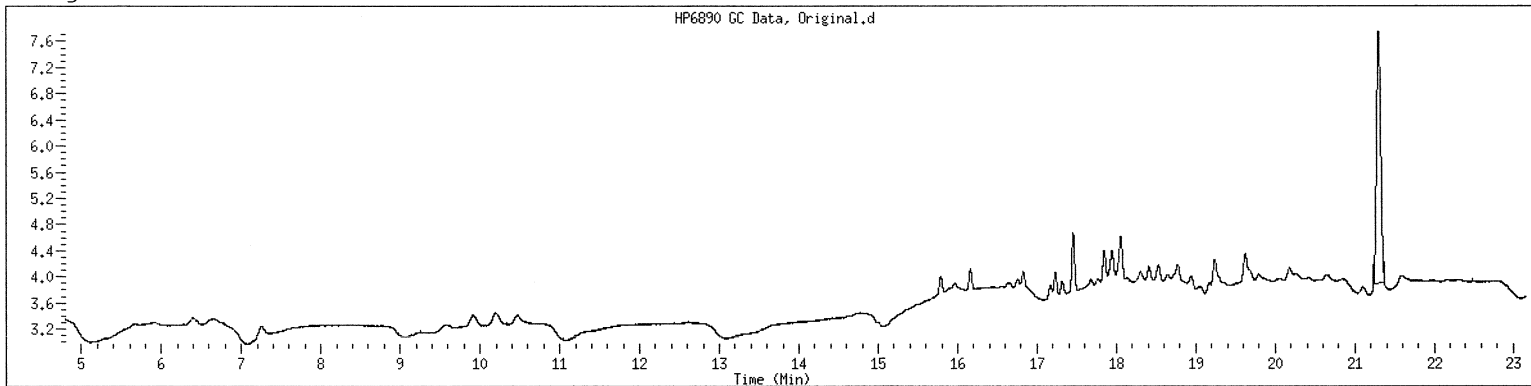


211103124 182

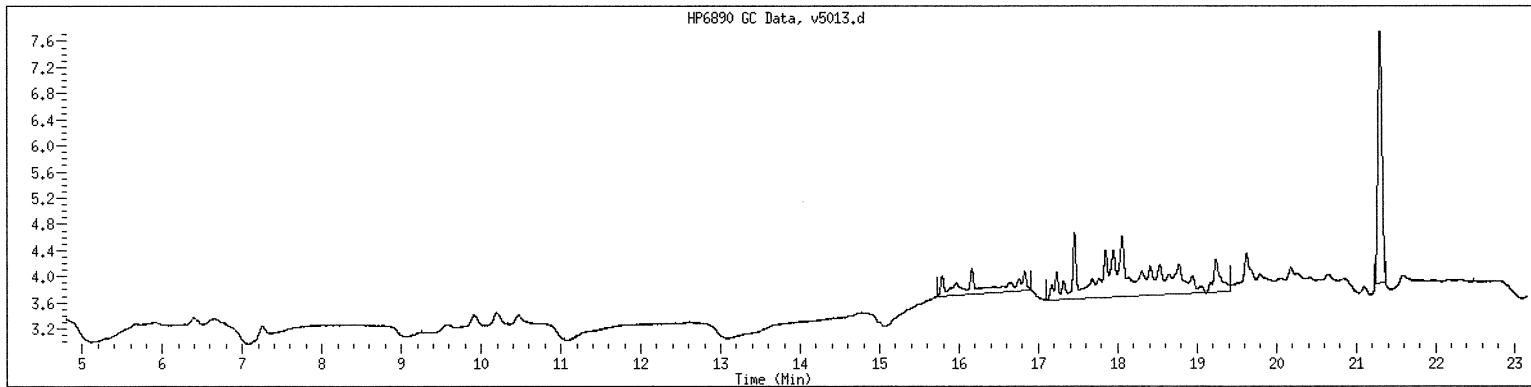
MANUAL INTEGRATION GRAPHIC REPORT

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

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

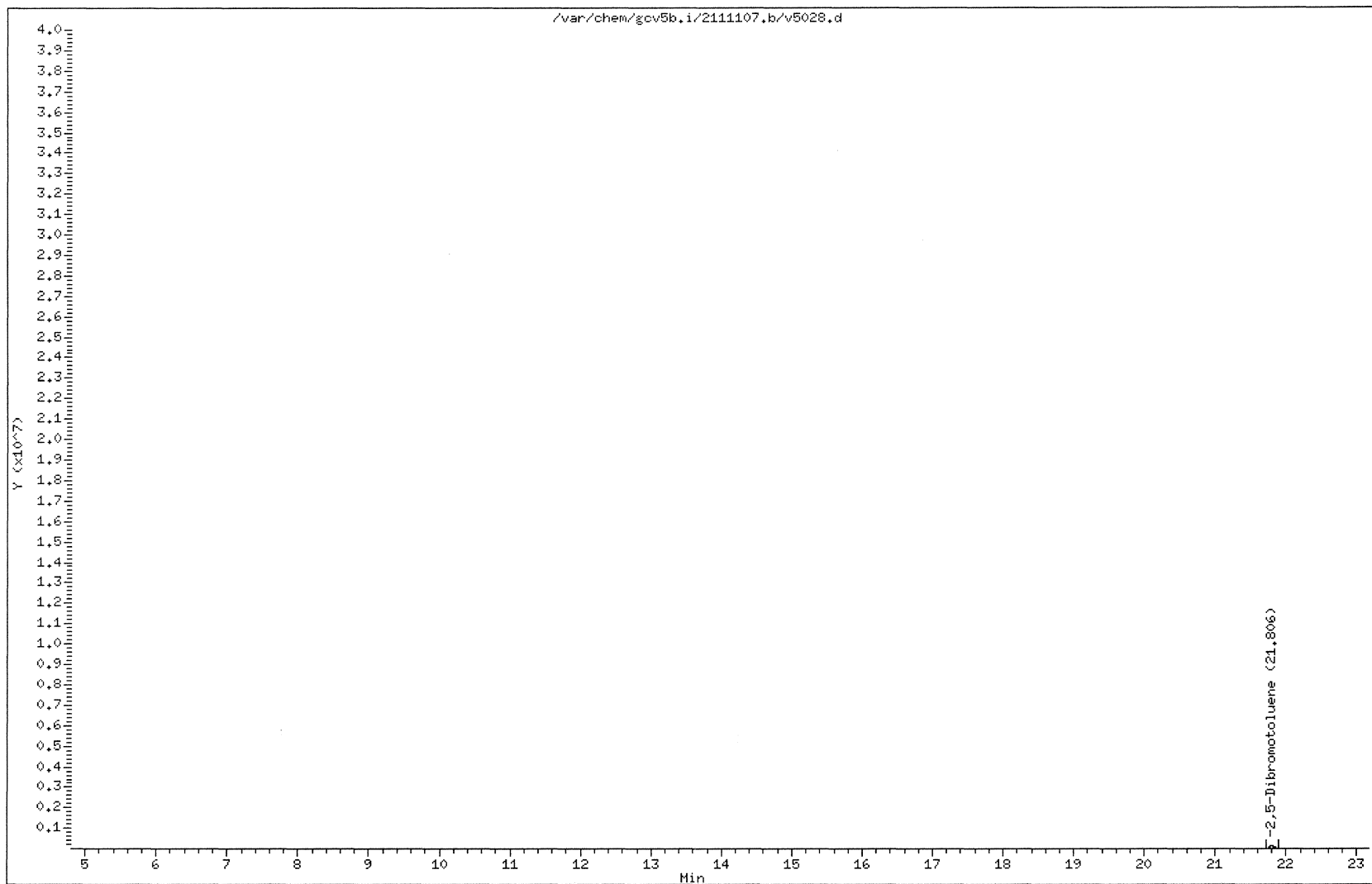
Compounds					CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
=====	==	=====	=====	=====	=====	=====
\$ 10 2,5-Dibromotoluene	21.806	21.781	0.025	413385	59.1220	59.1

Data File: /var/chem/gcv5b.i/2111107,b/v5028.d  
Date : 08-NOV-2011 11:23  
Client ID: 21110312405  
Sample Info: 21110312405  
Volume Injected (uL): 1.0  
Column phase: DB-624-30

Instrument: gcv5b.i

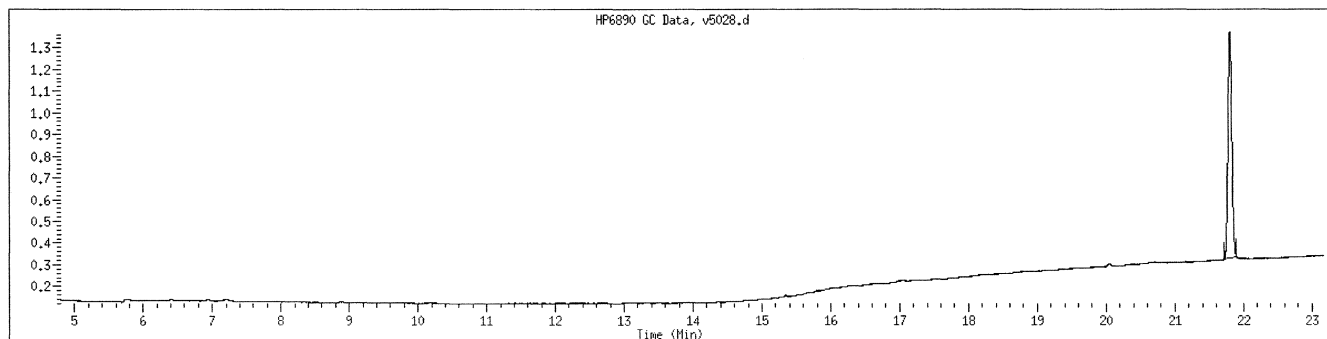
Operator: JAR

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 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	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN ( ug/L)	FINAL ( ug/L)
----- \$ 17 2,5-Dibromotoluene	21.321	21.301	0.020	169425	56.6708	56.7

Date : 08-NOV-2011 11:23

Client ID: 21110312405

Instrument: gcv5a.i

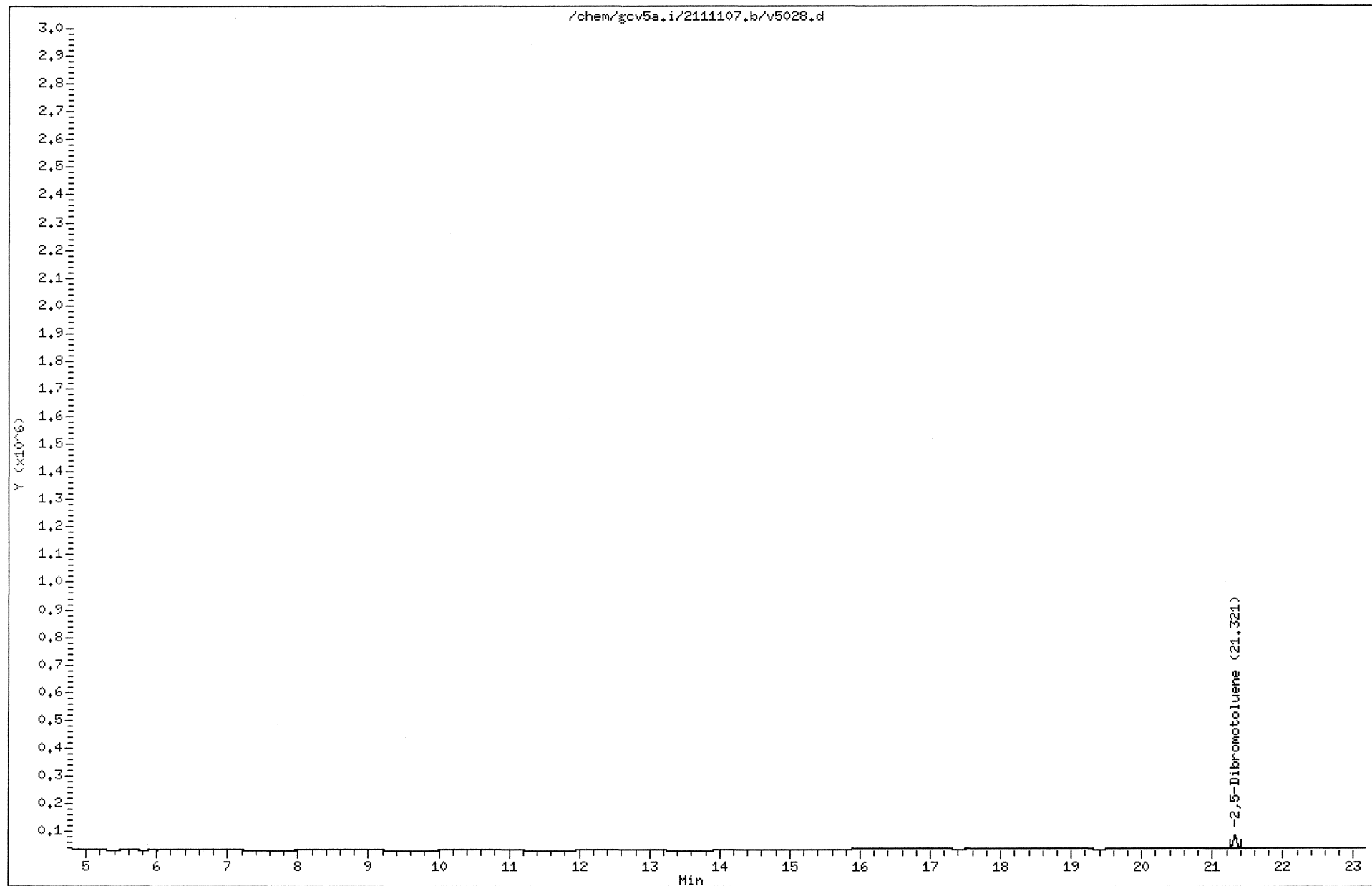
Sample Info: 21110312405

Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

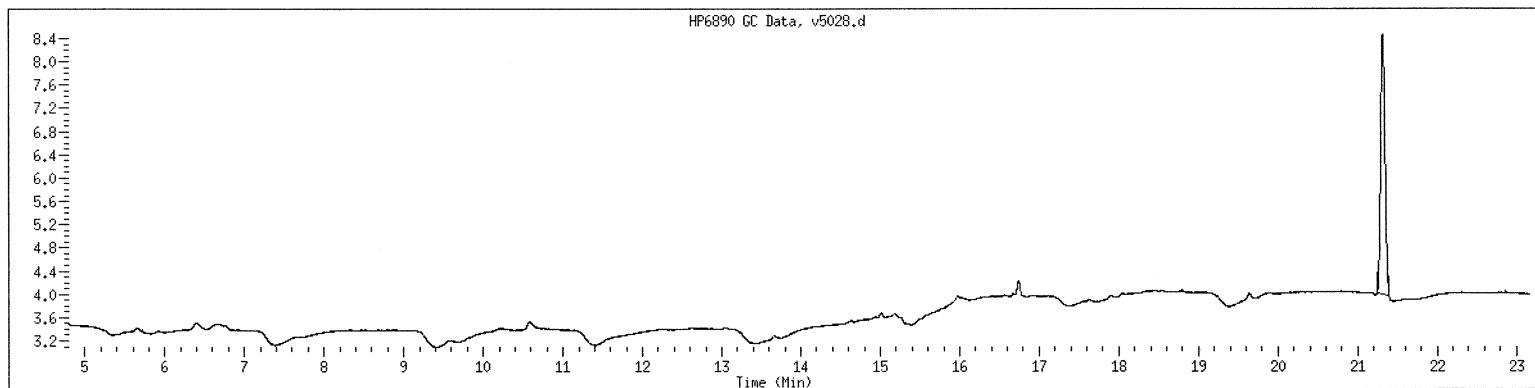
Column phase: DB-624-30



211103124 189

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  
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  
Cal Date : 04-NOV-2011 20:57  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.50  
Processing Host: org.gcal.com  
Inst ID: gcv5b.i  
Quant Type: ESTD  
Cal File: v5001.d  
Calibration Sample, Level: 6  
Compound Sublist: aromatic.sub

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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT ( ug/L)	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	

Date : 04-NOV-2011 20:57

Client ID:

Instrument: gcv5b.i

Sample Info: VPH05/6/12/4

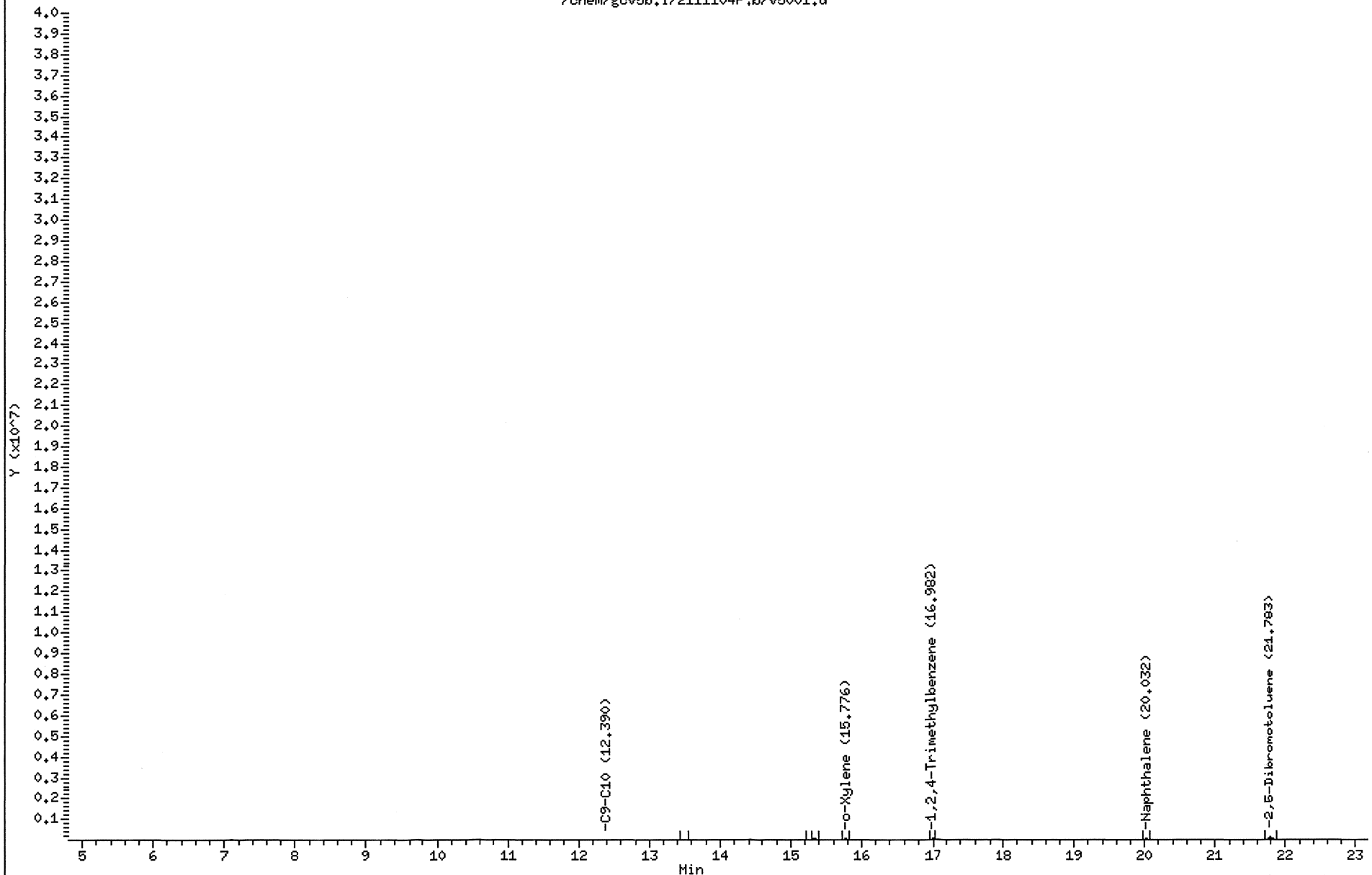
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

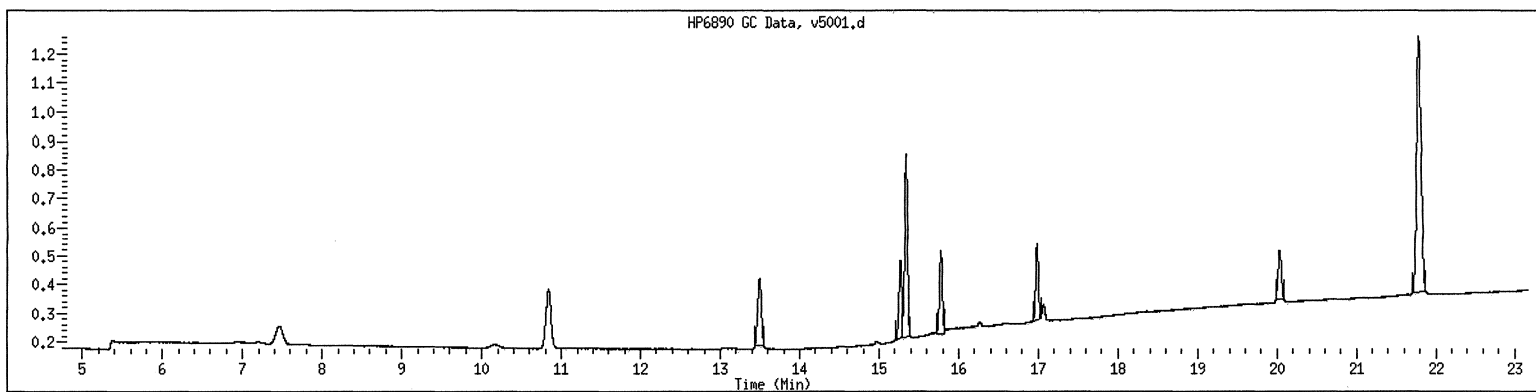
Column diameter: 0.53

/chem/gcv5b,i/2111104P,b/v5001,d



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  
 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  
 Cal Date : 04-NOV-2011 21:56  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i  
 Quant Type: ESTD  
 Cal File: v5003.d  
 Calibration Sample, Level: 1  
 Compound Sublist: aromatic.sub

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)
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



Date : 04-NOV-2011 21:56

Client ID:

Instrument: gov5b.i

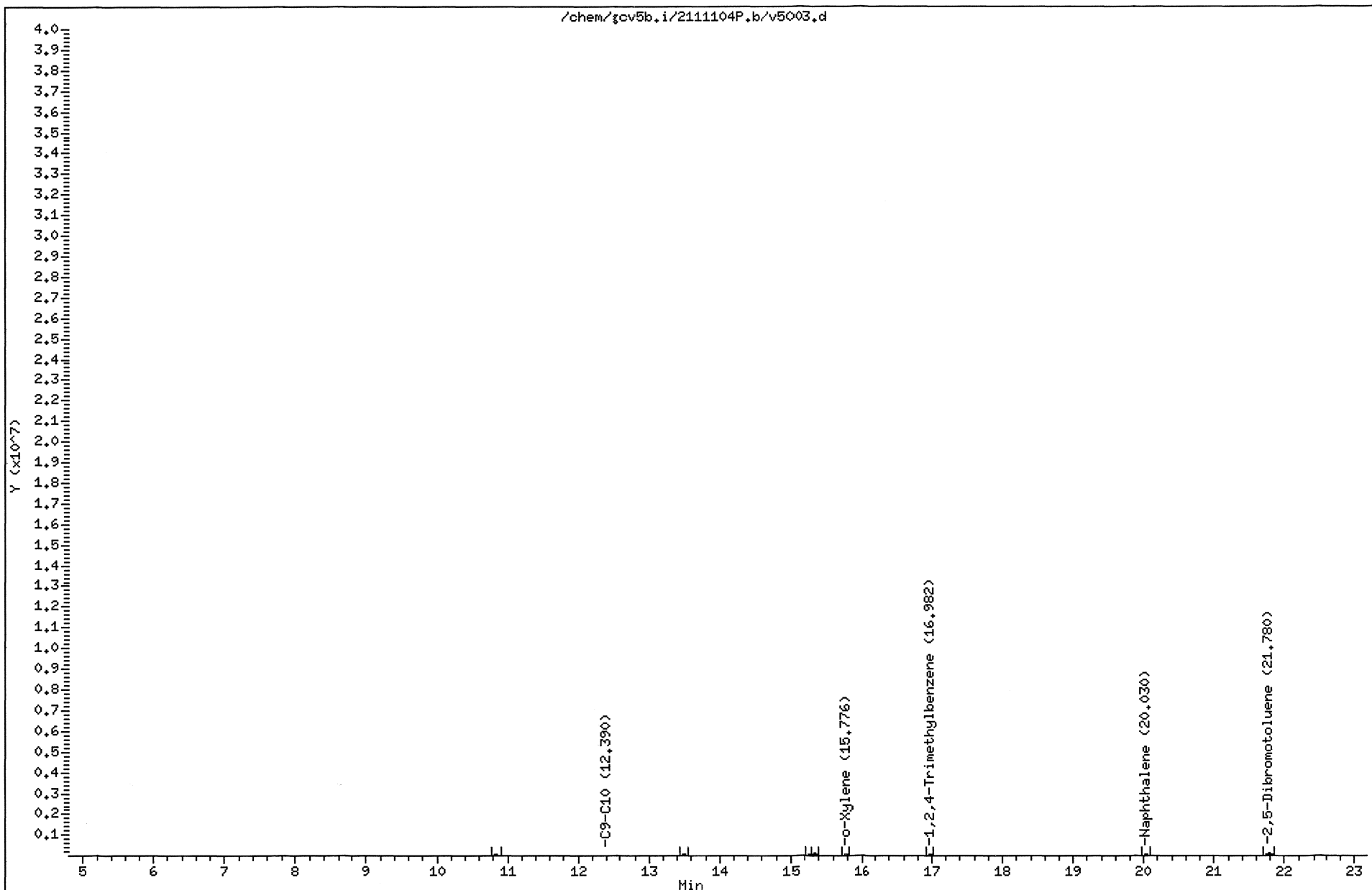
Sample Info: VPH10/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

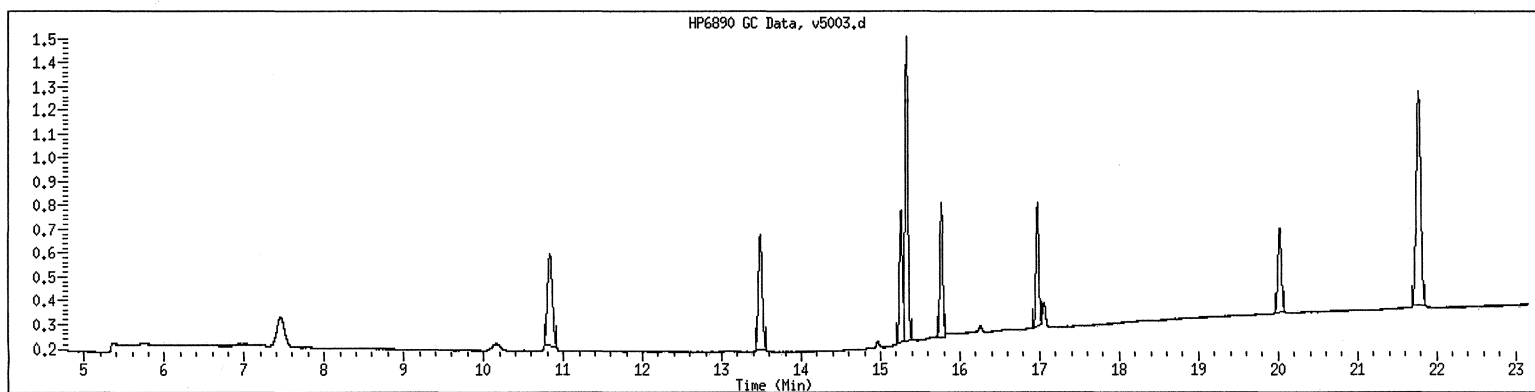
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : 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  
 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  
 Cal Date : 04-NOV-2011 22:55  
 Als bottle: 1  
 Dil Factor: 50.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i  
 Quant Type: ESTD  
 Cal File: v5005.d  
 Calibration Sample, Level: 2  
 Compound Sublist: aromatic.sub

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)	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

Date : 04-NOV-2011 22:55

Client ID:

Instrument: gcv5b.i

Sample Info: VPH20/6/12/4

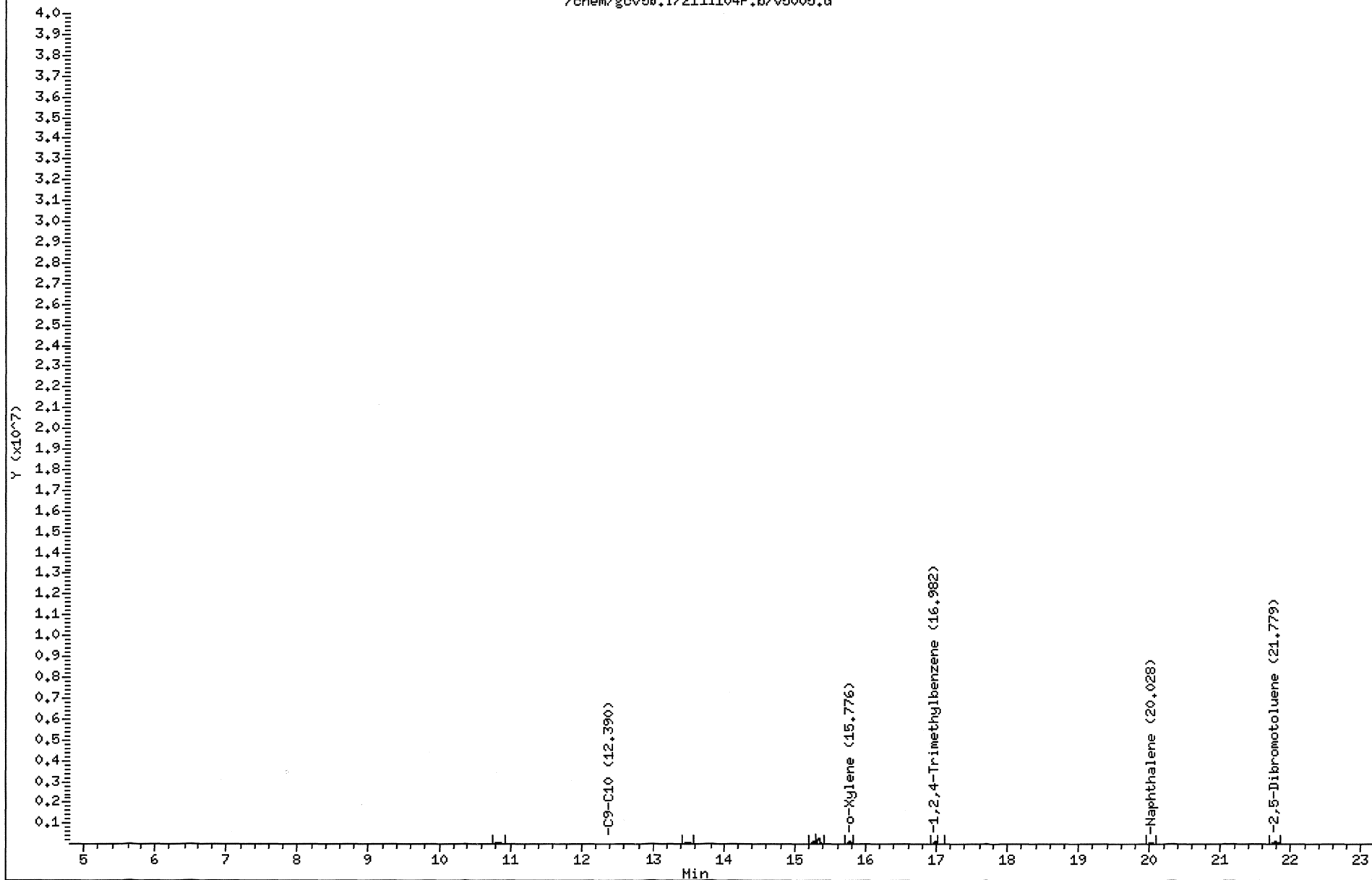
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

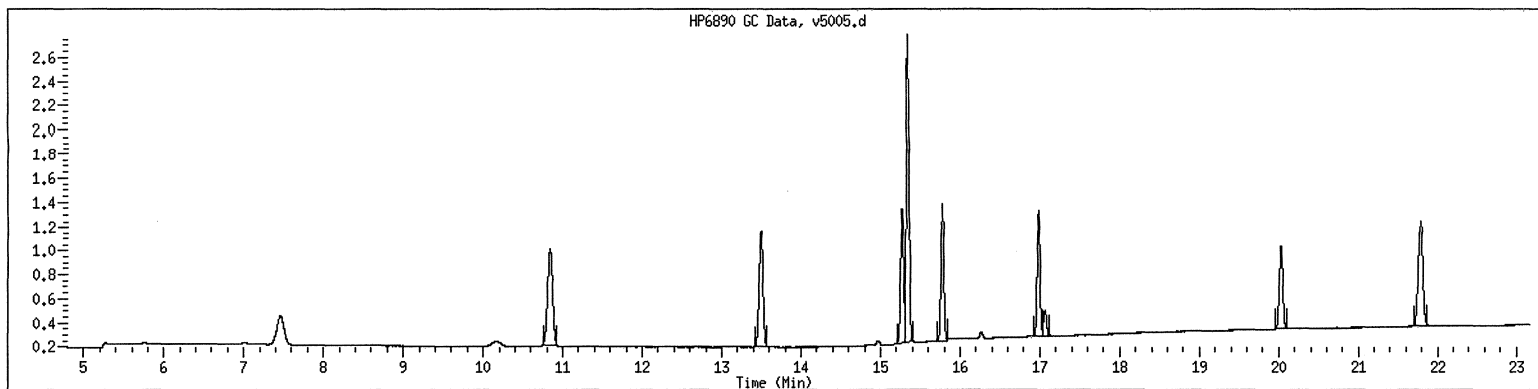
Column diameter: 0.53

/chem/gcv5b.i/2111104P.b/v5005.d



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  
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  
Cal Date : 04-NOV-2011 23:54  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.50  
Processing Host: org.gcal.com  
Inst ID: gcv5b.i  
Quant Type: ESTD  
Cal File: v5007.d  
Calibration Sample, Level: 3  
Compound Sublist: aromatic.sub

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)
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

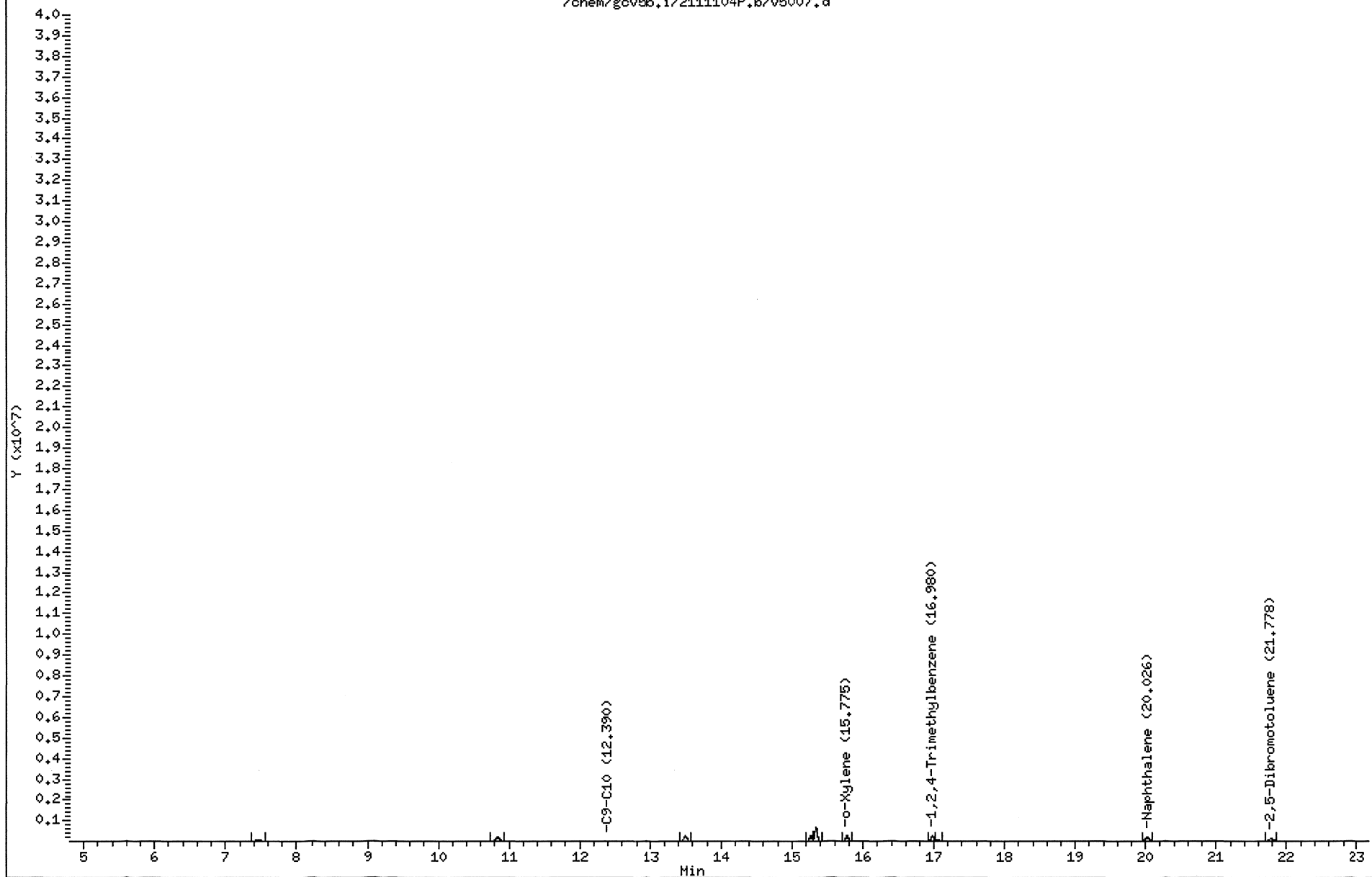
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

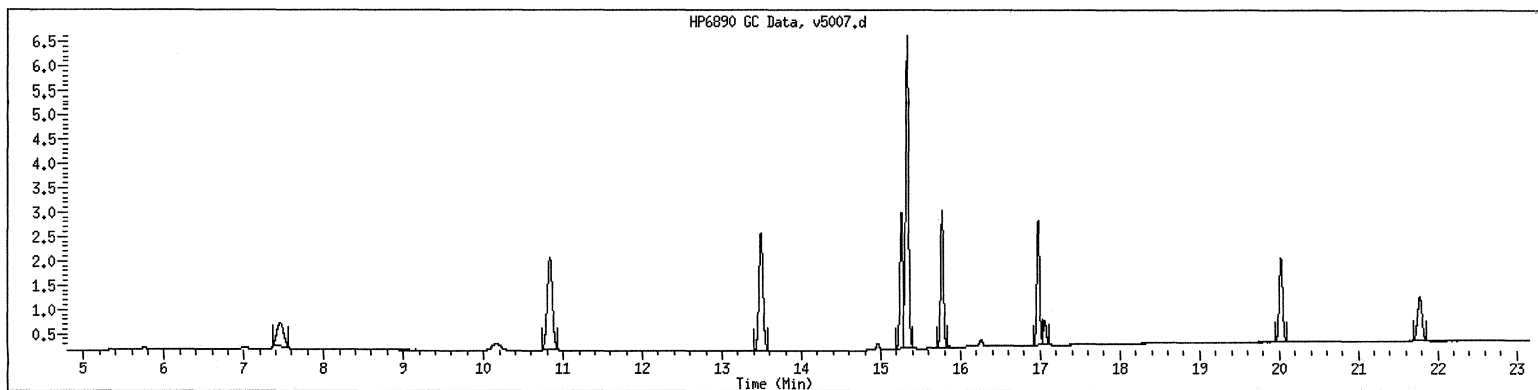
/chem/gcv5b.i/2111104P,b/v5007.d



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  
 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  
 Cal Date : 05-NOV-2011 00:53  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i

Quant Type: ESTD

Cal File: v5009.d

Calibration Sample, Level: 4

Compound Sublist: aromatic.sub

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)
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

Date : 05-NOV-2011 00:53

Client ID:

Instrument: gcv5b.i

Sample Info: VPH80/6/12/4

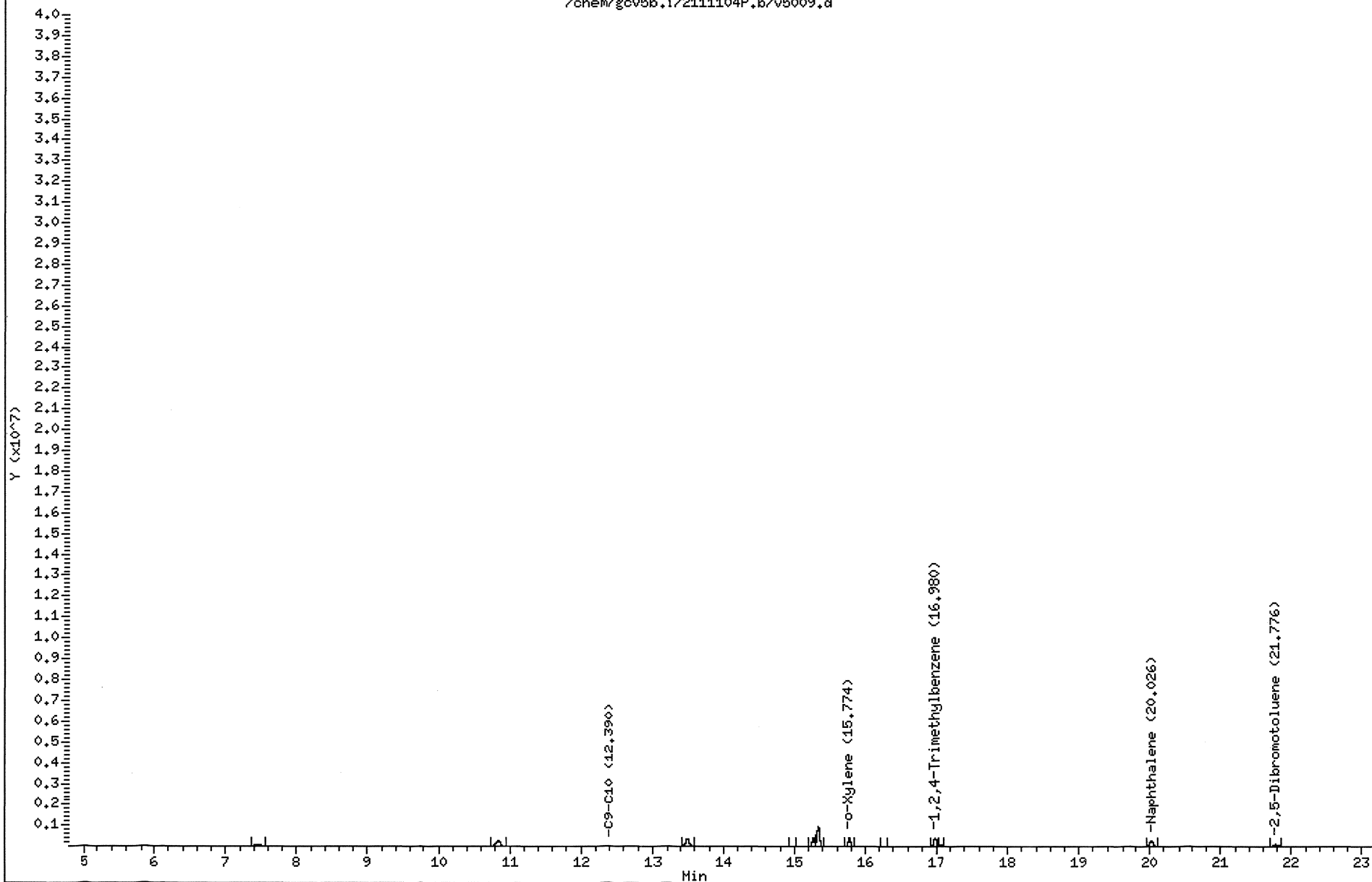
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

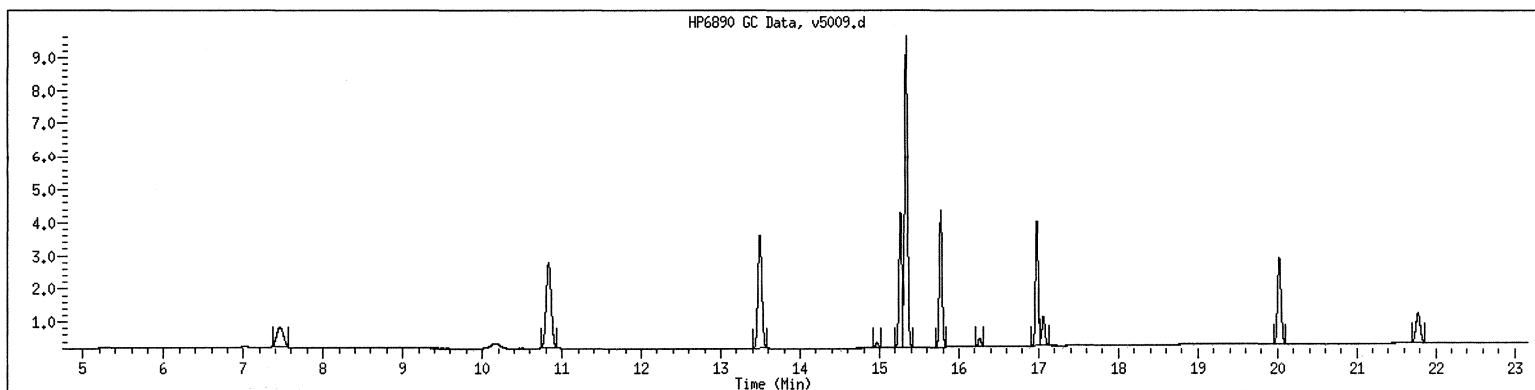
Column diameter: 0.53

/chem/gcv5b.i/2111104P.b/v5009.d



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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Calibration Sample, Level: 5  
 Compound Sublist: aromatic.sub

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)
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

Page 1

Date : 05-NOV-2011 01:52

Client ID:

Instrument: gcv5b.i

Sample Info: VPH100/6/12/4

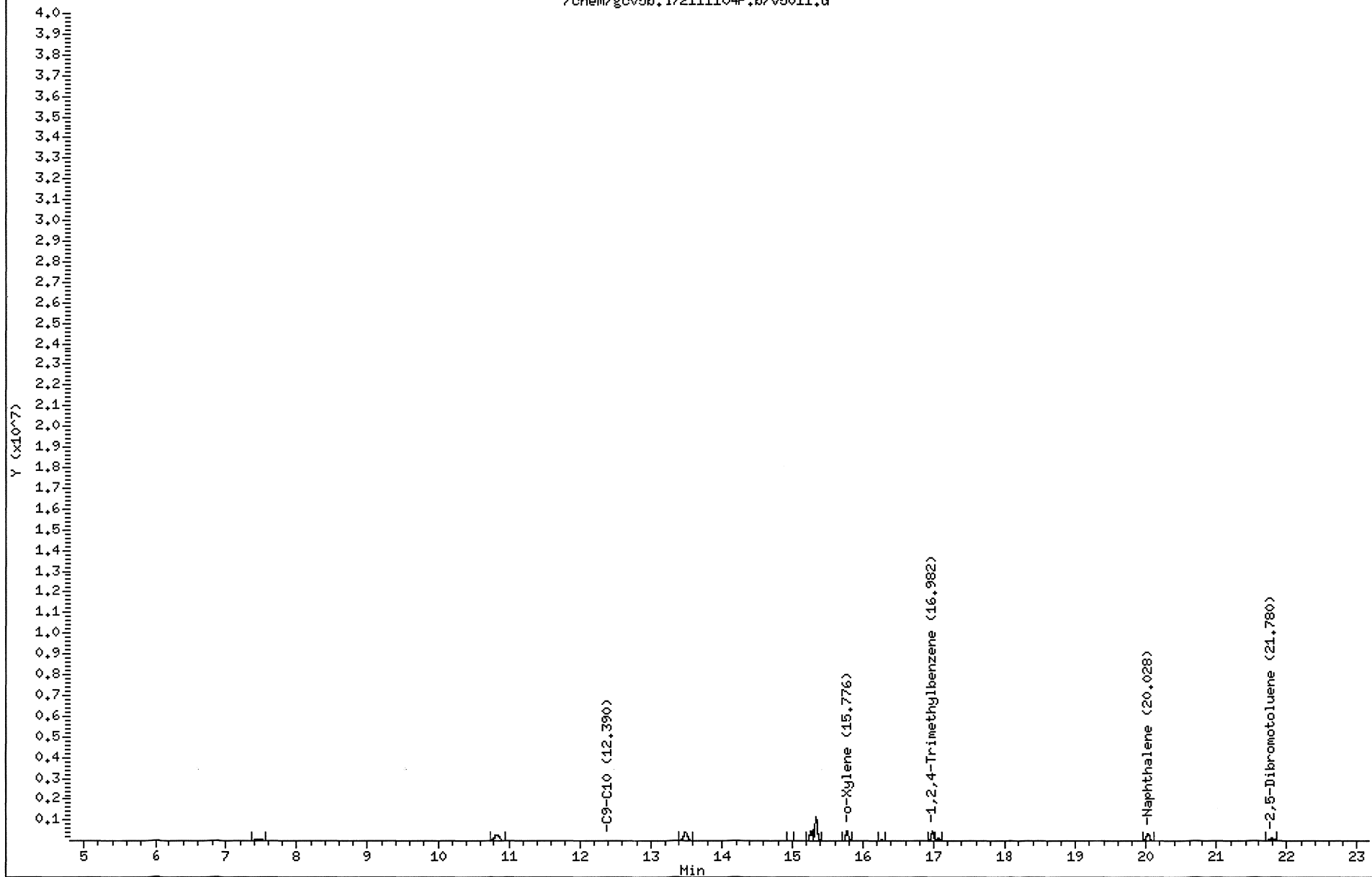
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

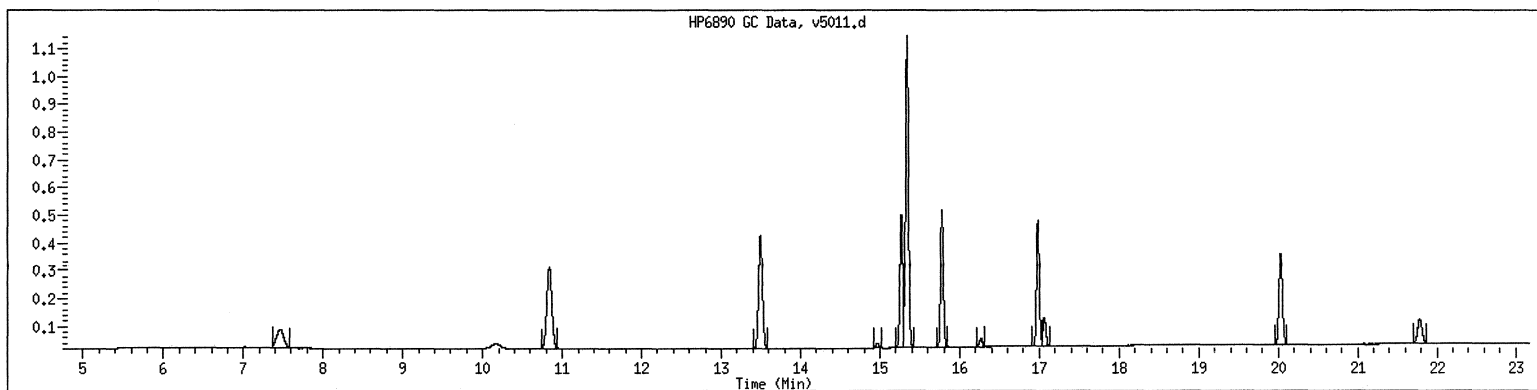
/chem/gcv5b.i/2111104P.b/v5011.d



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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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 50.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 QC Sample: LCS  
 Compound Sublist: aromatic.sub

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)	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



Date : 05-NOV-2011 02:51

Client ID:

Instrument: gcv5b.i

Sample Info: ICV6/12/5

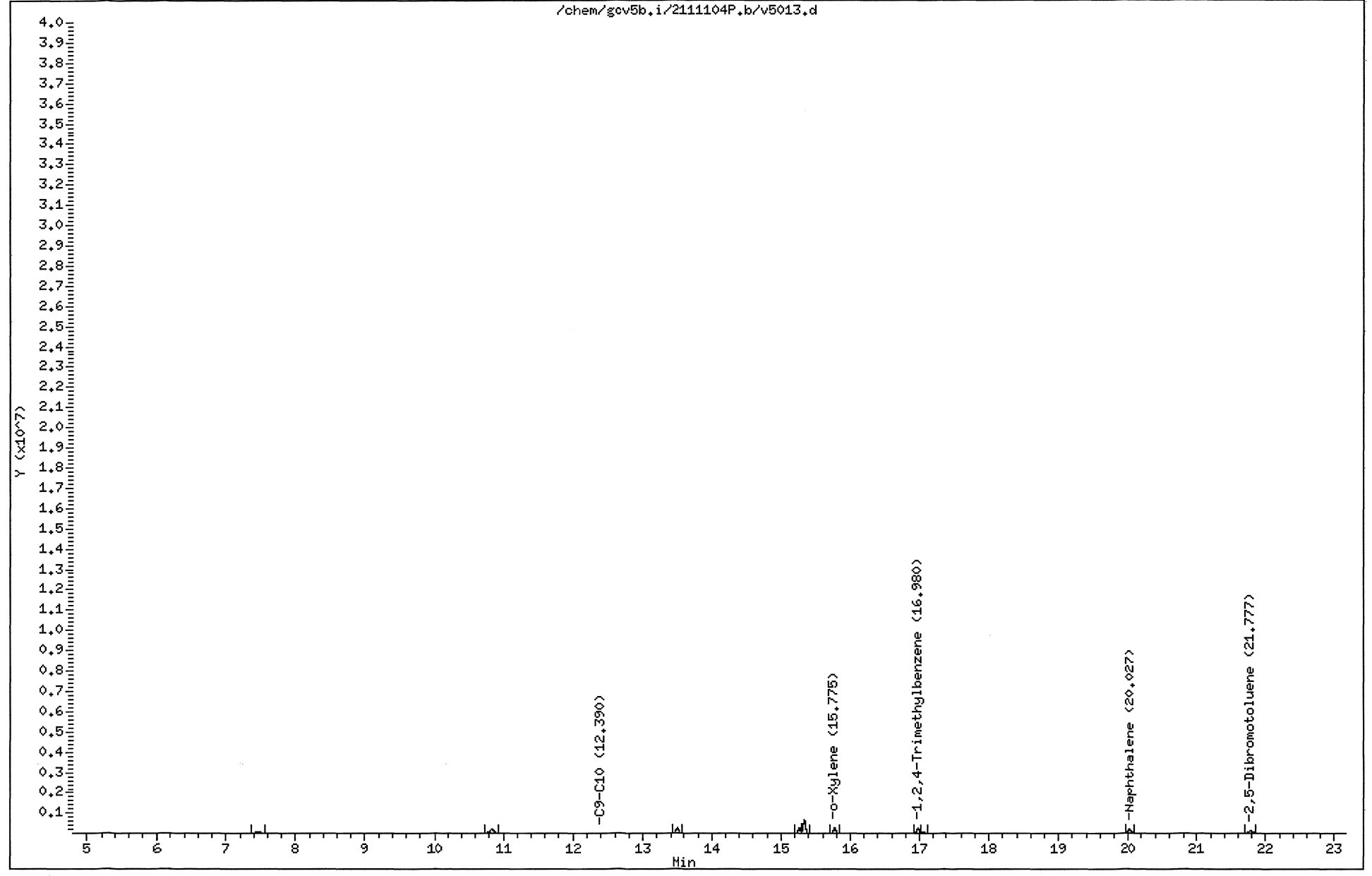
Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

Column phase: DB-624-30

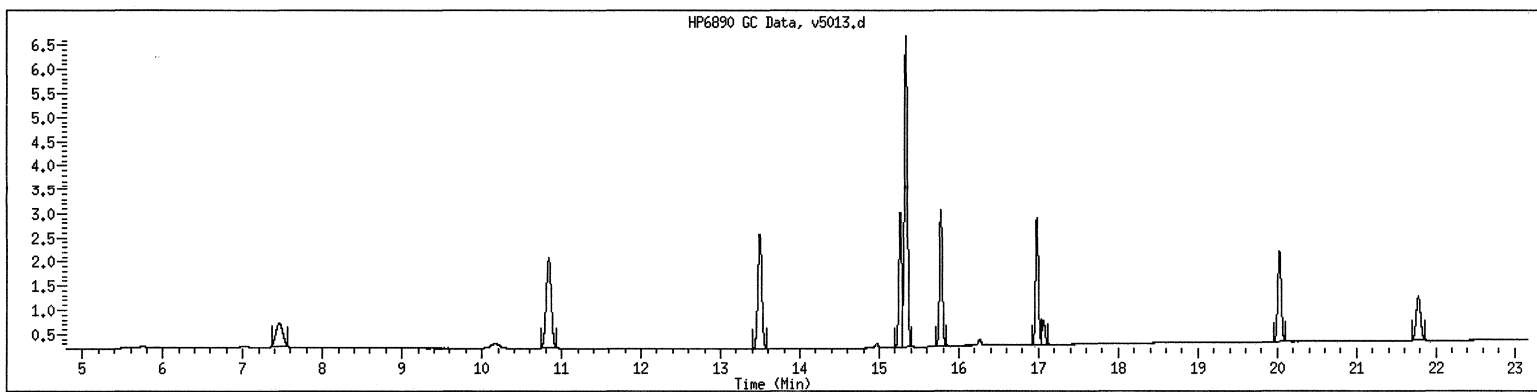
/chem/gcv5b.i/2111104P.b/v5013.d



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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	MIN %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
IM 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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 50.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Continuing Calibration Sample  
 Compound Sublist: aromatic.sub

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	Weight 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)	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

Date : 07-NOV-2011 11:22

Client ID:

Instrument: gcv5b.i

Sample Info: VPH6/12/4

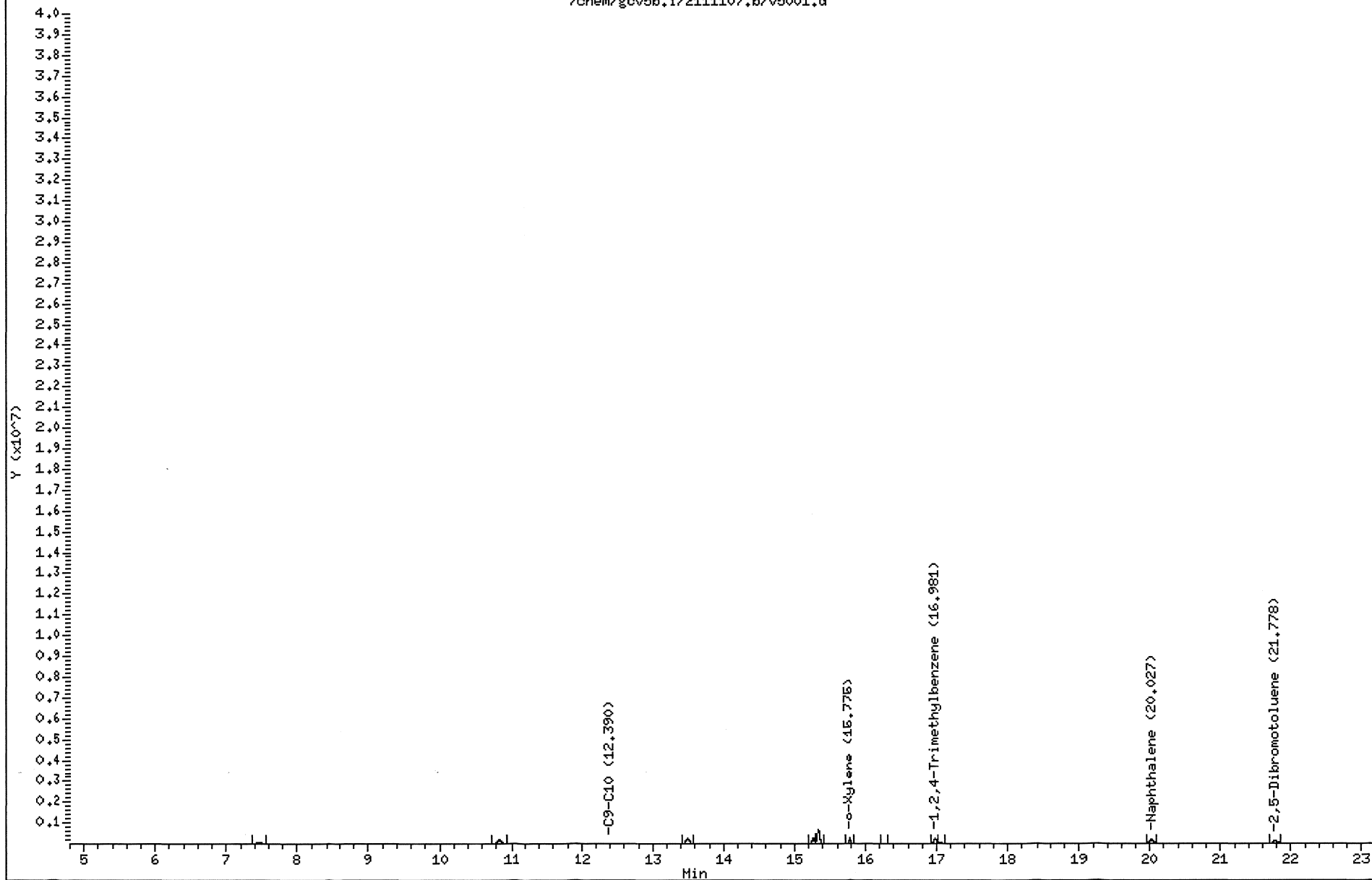
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

/chem/gcv5b.i/2111107.b/v5001.d

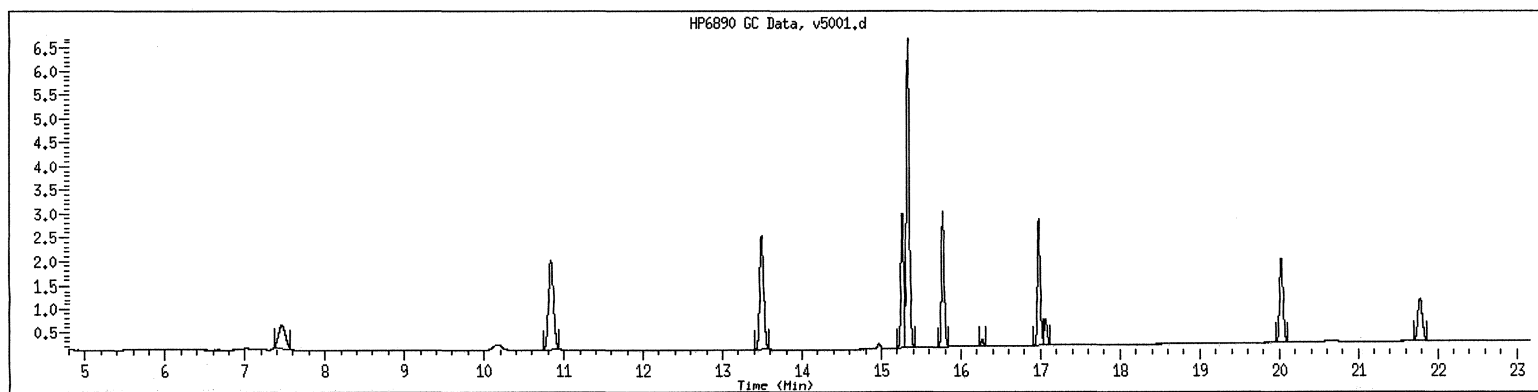


MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : VPH6/12/4  
Injection Date: 11/07/2011 11:22  
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

SampleType : CCALIB\_3  
Instrument : gcv5b.i

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	MIN %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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 50.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i

Quant Type: ESTD

Cal File: v5011.d

Continuing Calibration Sample

Compound Sublist: aromatic.sub

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	Weight 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)	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:

Instrument: gcv5b.i

Sample Info: VPH6/12/4

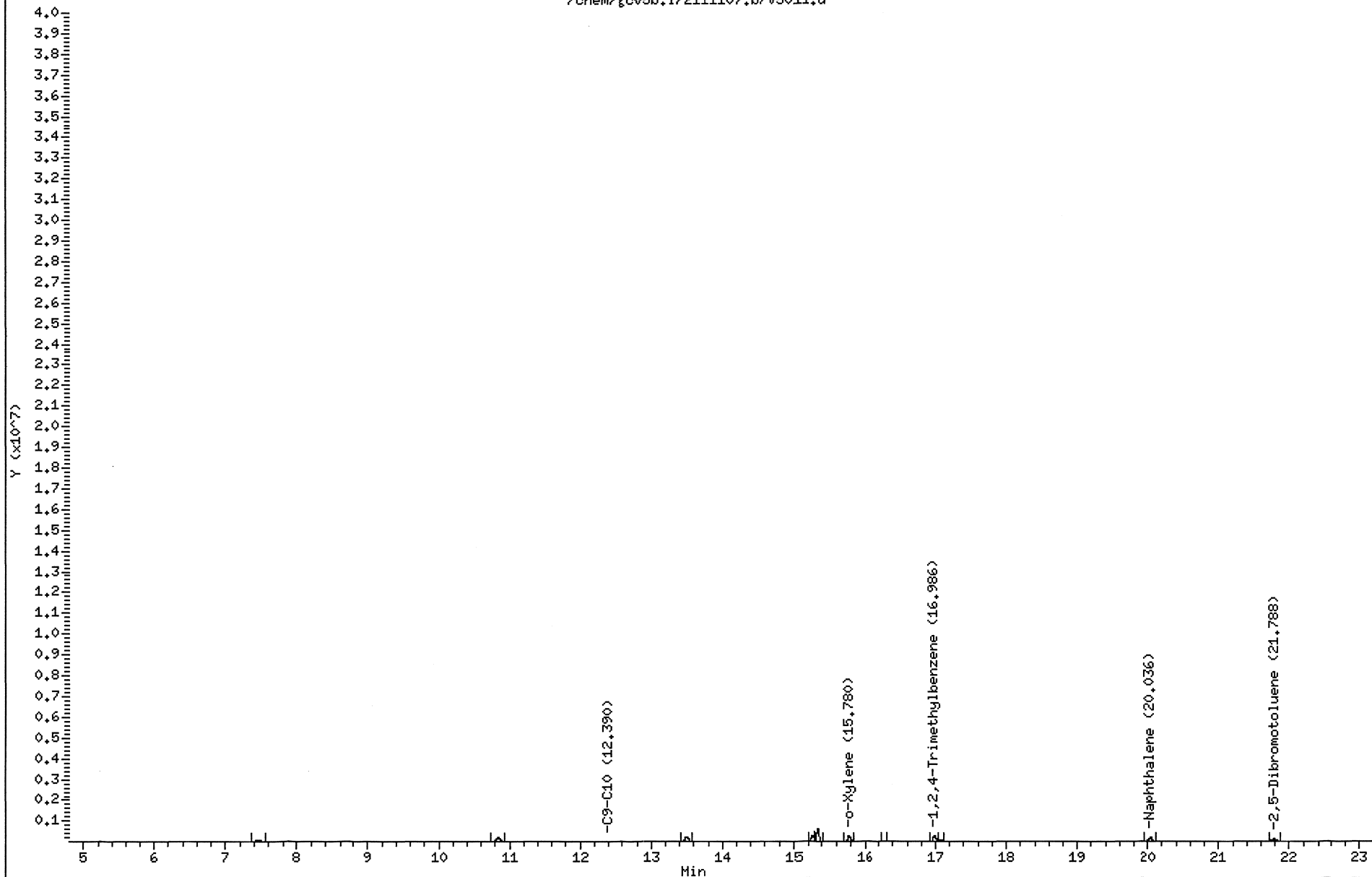
Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

Column phase: DB-624-30

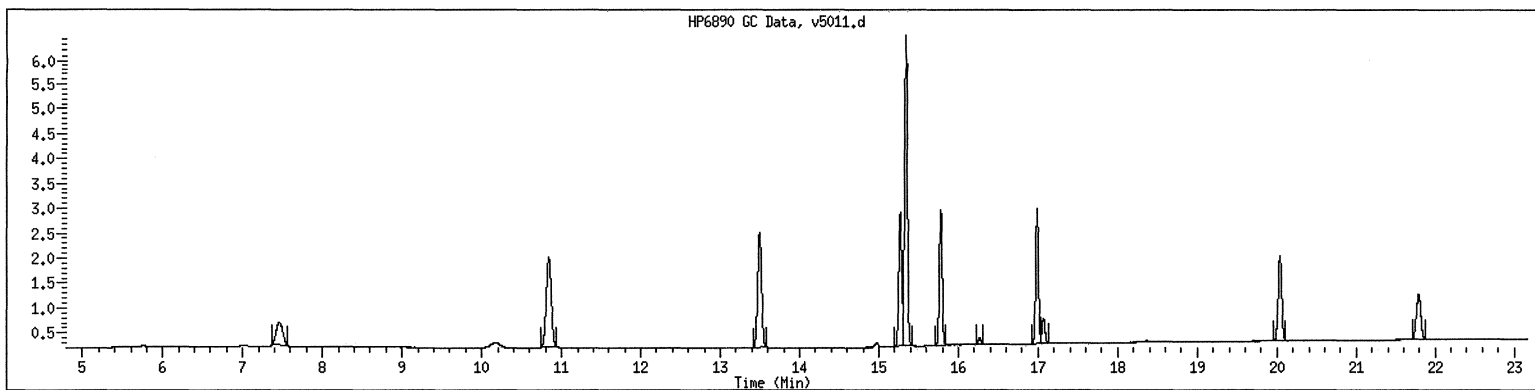
/chem/gcv5b.i/2111107.b/v5011.d



2111103124 220

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	MIN %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
9 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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i

Quant Type: ESTD

Cal File: v5011.d

Continuing Calibration Sample

Compound Sublist: aromatic.sub

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)
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

Date : 07-NOV-2011 23:22

Client ID:

Instrument: gov5b.i

Sample Info: VPH6/12/4

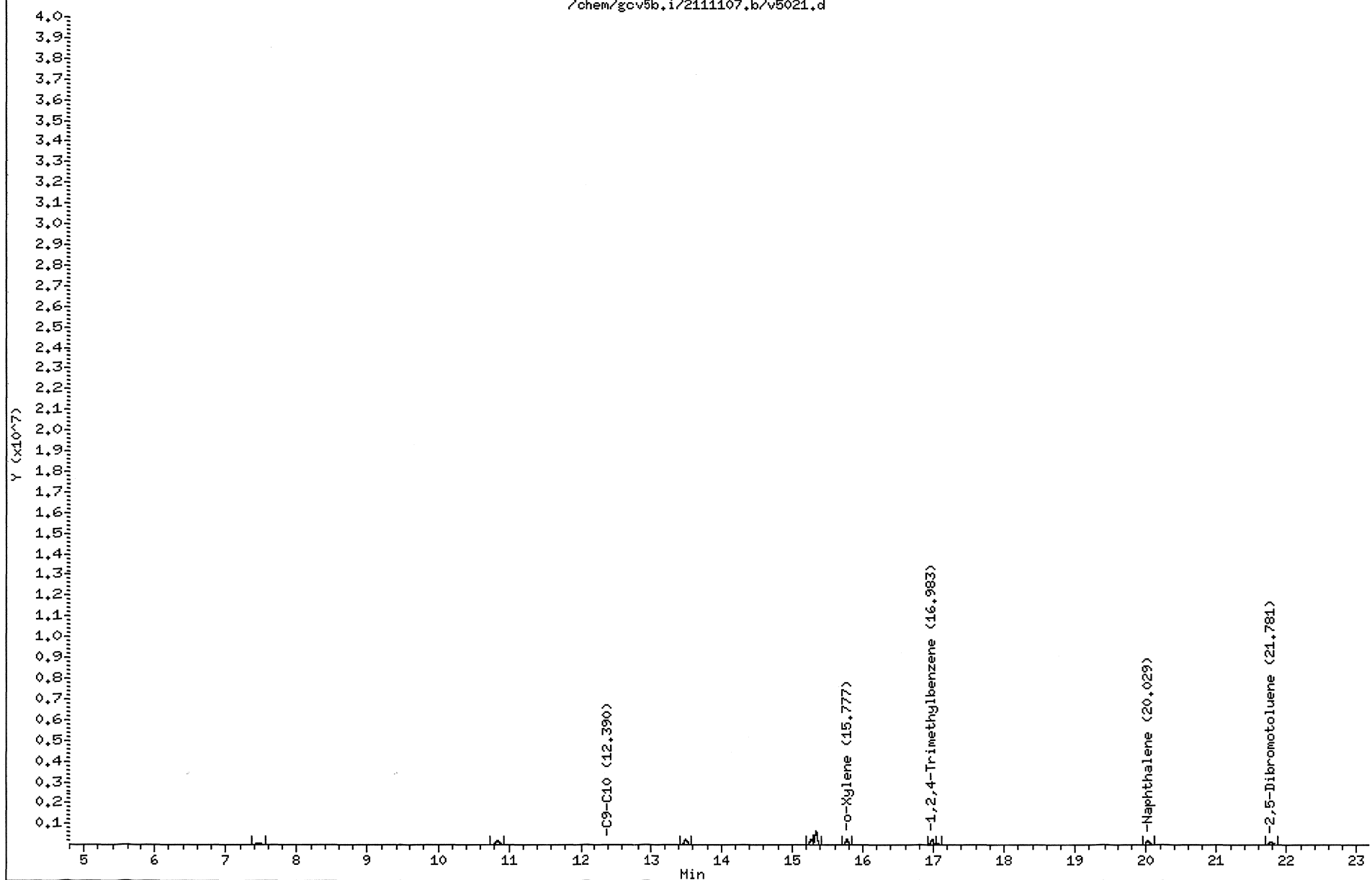
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

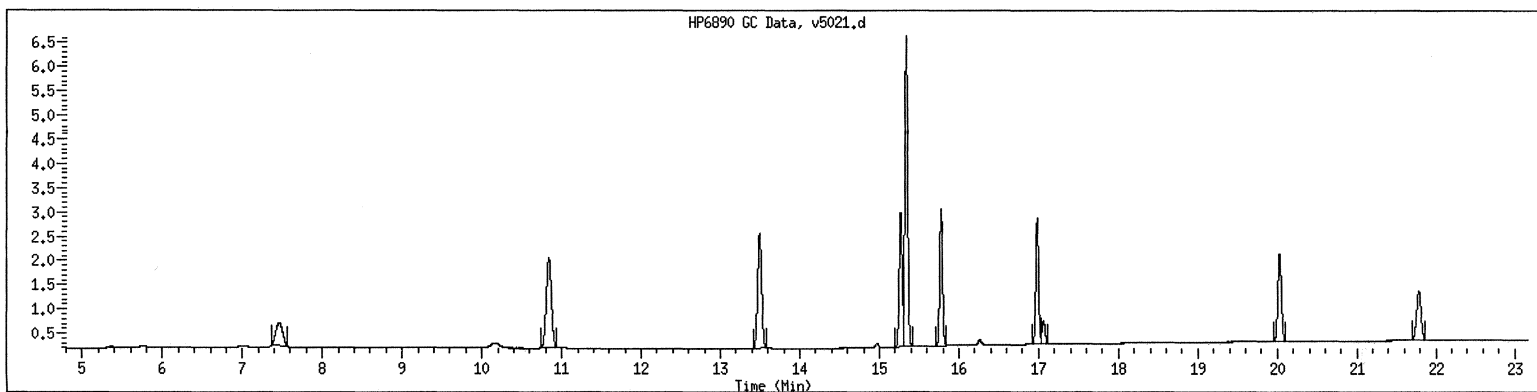
Column diameter: 0.53

/chem/gov5b.i/2111107.b/v5021.d



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/PIDMVP.H.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	MIN %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
5 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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5b.i

Quant Type: ESTD

Cal File: v5011.d

Continuing Calibration Sample

Compound Sublist: aromatic.sub

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)
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



Date : 08-NOV-2011 01:49

Client ID:

Instrument: gov5b.i

Sample Info: VPH6/12/4

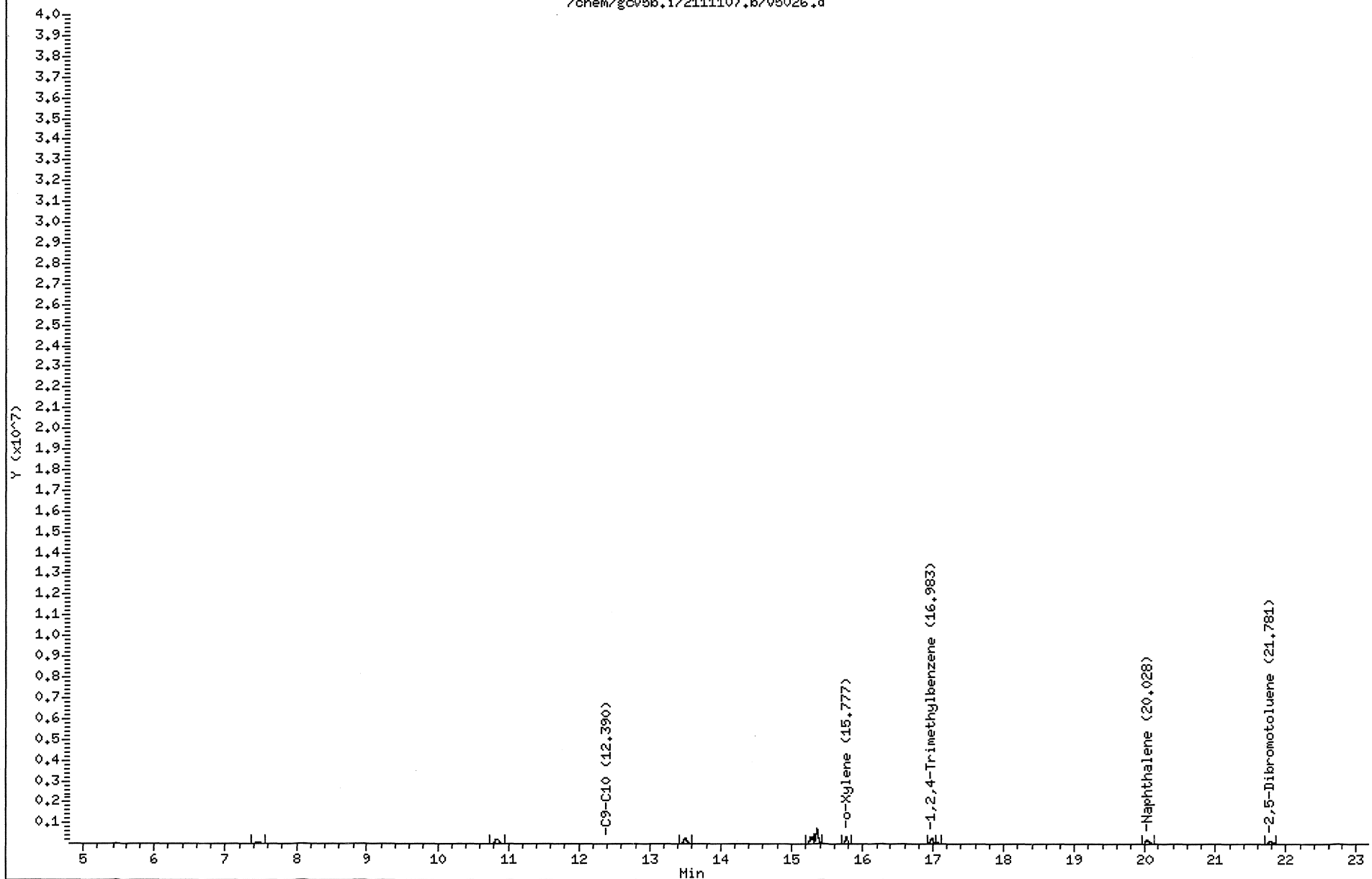
Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

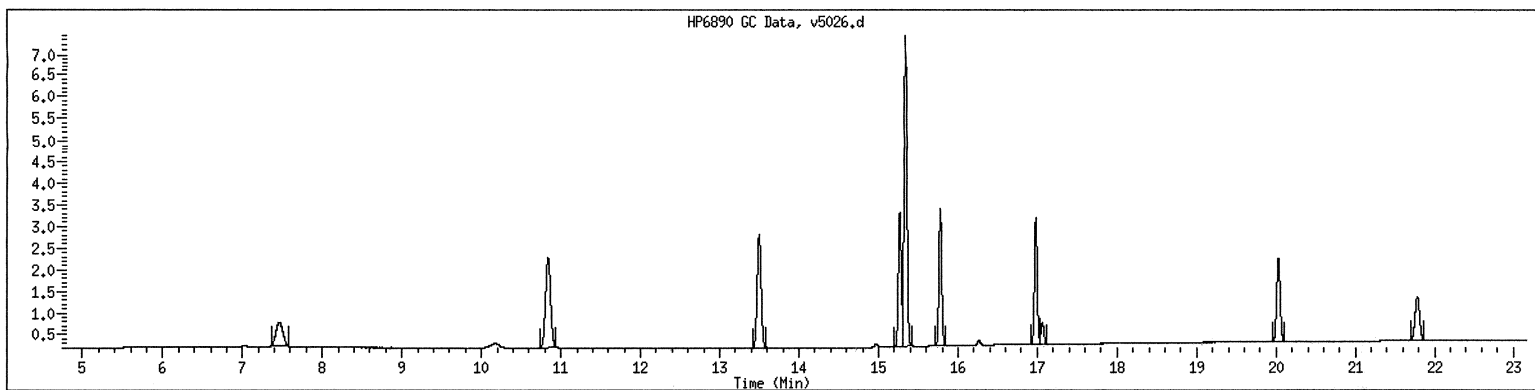
Column phase: DB-624-30

/chem/gov5b.i/2111107.b/v5026.d



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		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D	%DRIFT	
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  
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  
Cal Date : 05-NOV-2011 01:52  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.50  
Processing Host: org.gcal.com  
Inst ID: gcv5b.i  
Quant Type: ESTD  
Cal File: v5011.d  
Continuing Calibration Sample  
Compound Sublist: aromatic.sub

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	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT ( ug/L)	ON-COL ( 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	

Date : 08-NOV-2011 12:51

Client ID:

Instrument: gov5b.i

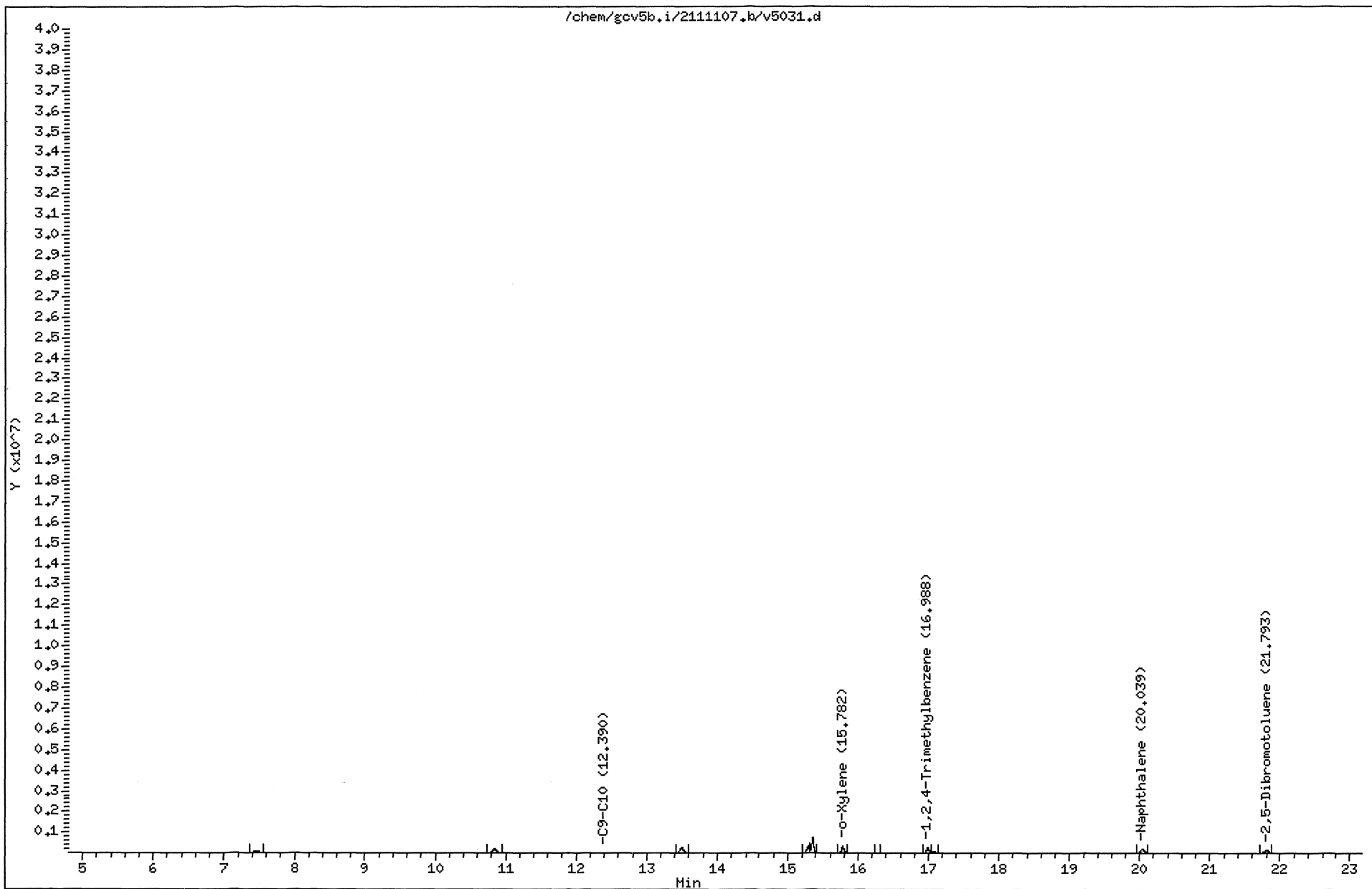
Sample Info: vph6/12/4

Volume Injected (uL): 1.0

Operator: JAR

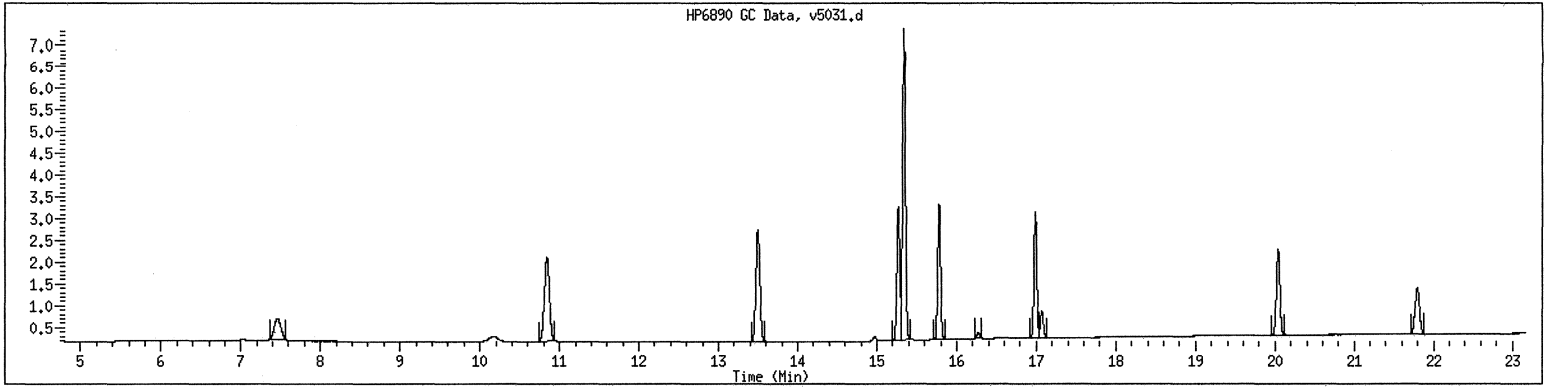
Column phase: DB-624-30

Column diameter: 0.53



MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : vph6/12/4                                    SampleType : CCALIB\_3  
Injection Date: 11/08/2011 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

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.

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  
 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  
 Cal Date : 04-NOV-2011 20:57  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5001.d  
 Calibration Sample, Level: 6  
 Compound Sublist: aliphatic1+surr.sub

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				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.

Date : 04-NOV-2011 20:57

Client ID:

Instrument: gcv5a.i

Sample Info: VPH05/6/12/4

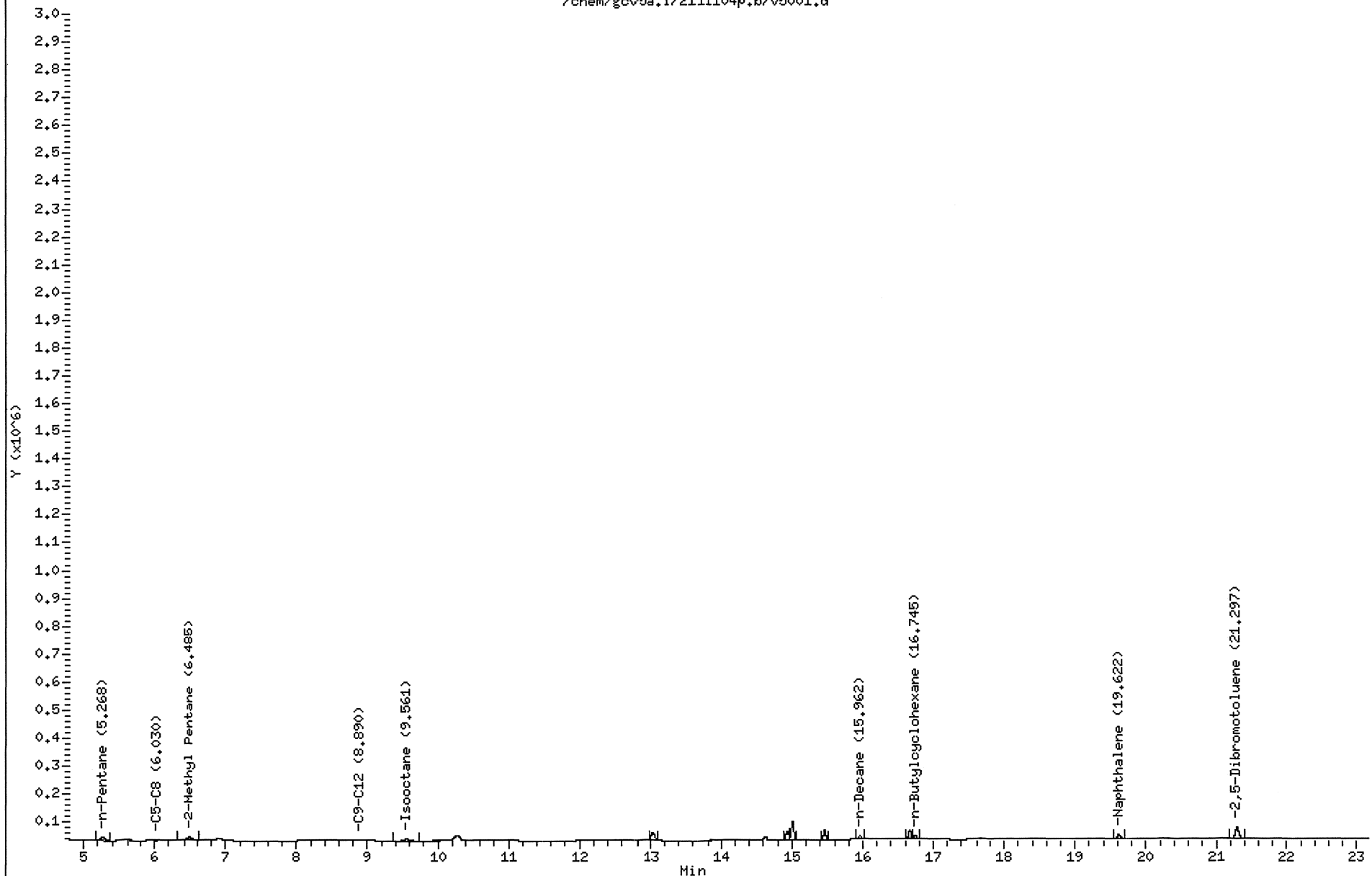
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

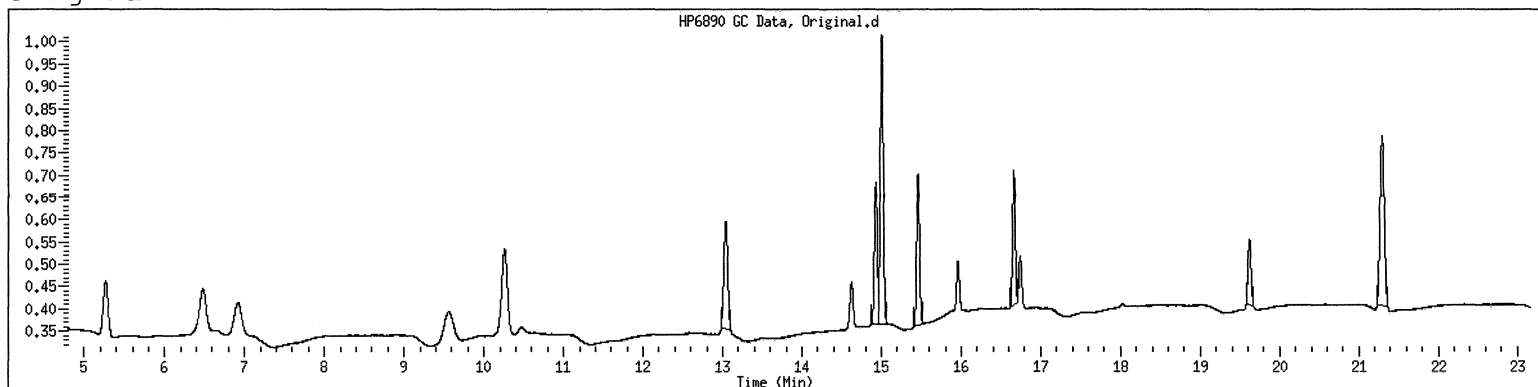
/chem/gcv5a.i/2111104p.b/v5001.d



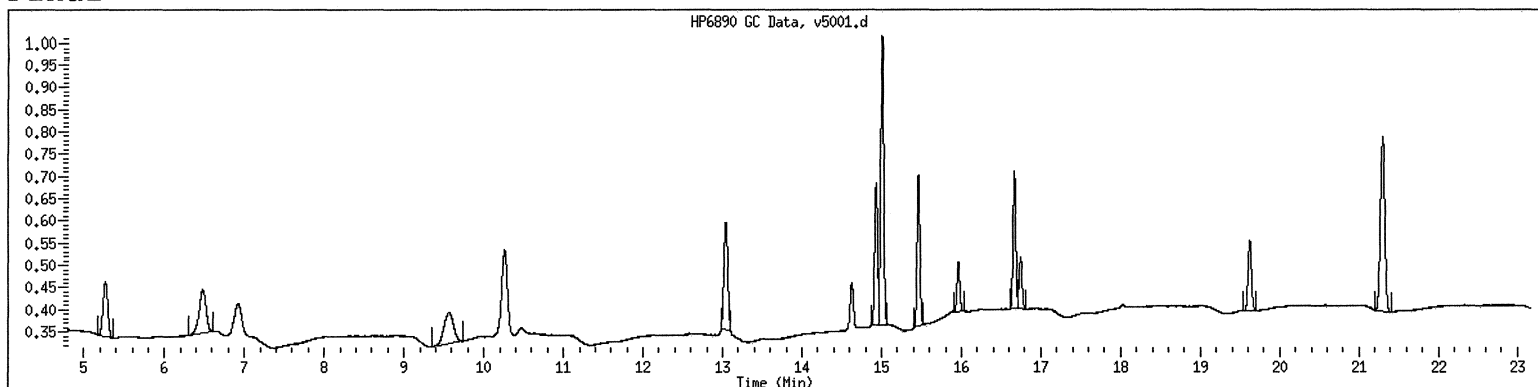
MANUAL INTEGRATION GRAPHIC REPORT

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  
 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  
 Cal Date : 04-NOV-2011 21:56  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5003.d  
 Calibration Sample, Level: 1  
 Compound Sublist: aliphatic1+surr.sub

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				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

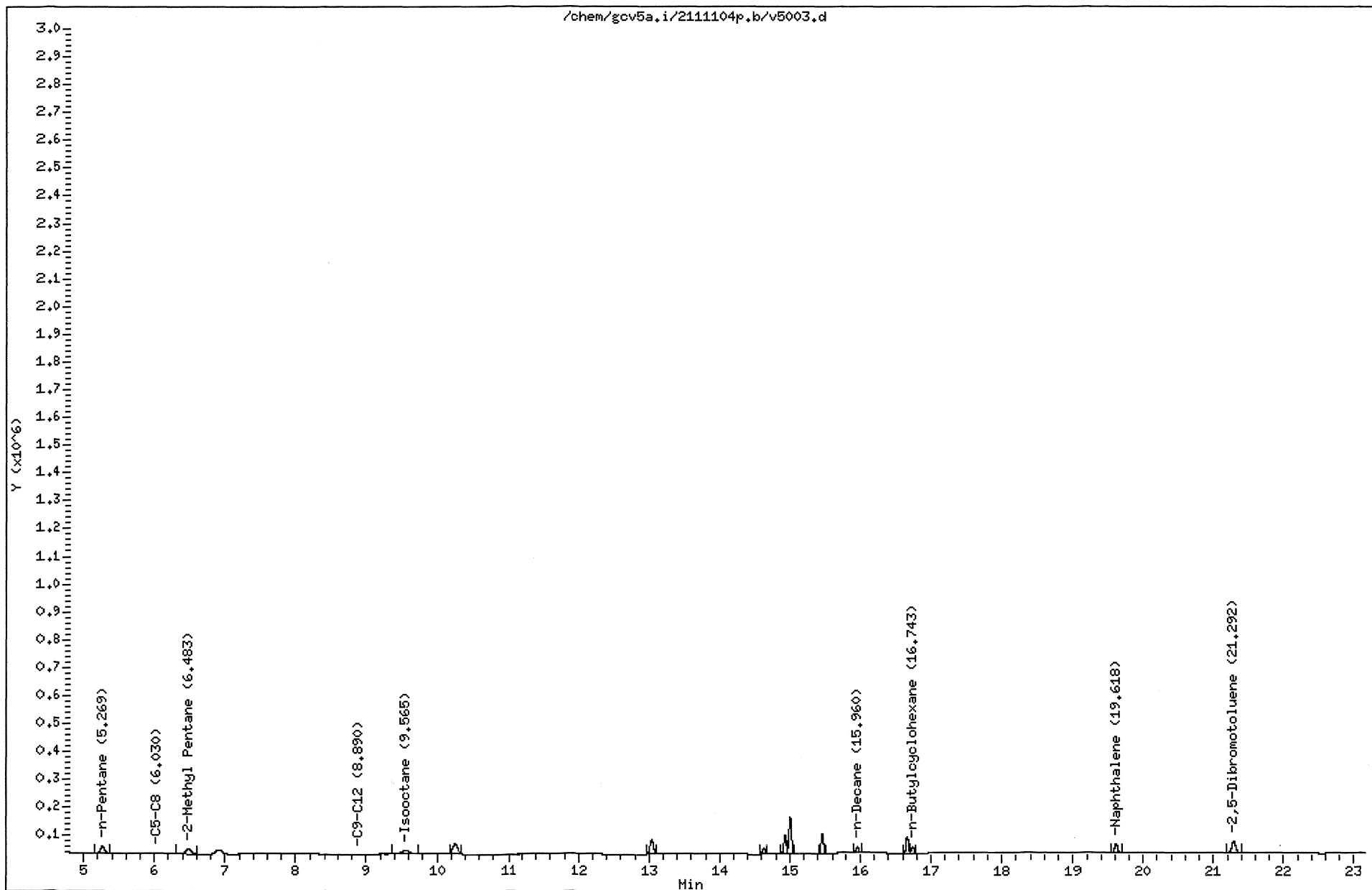
Sample Info: VPH10/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

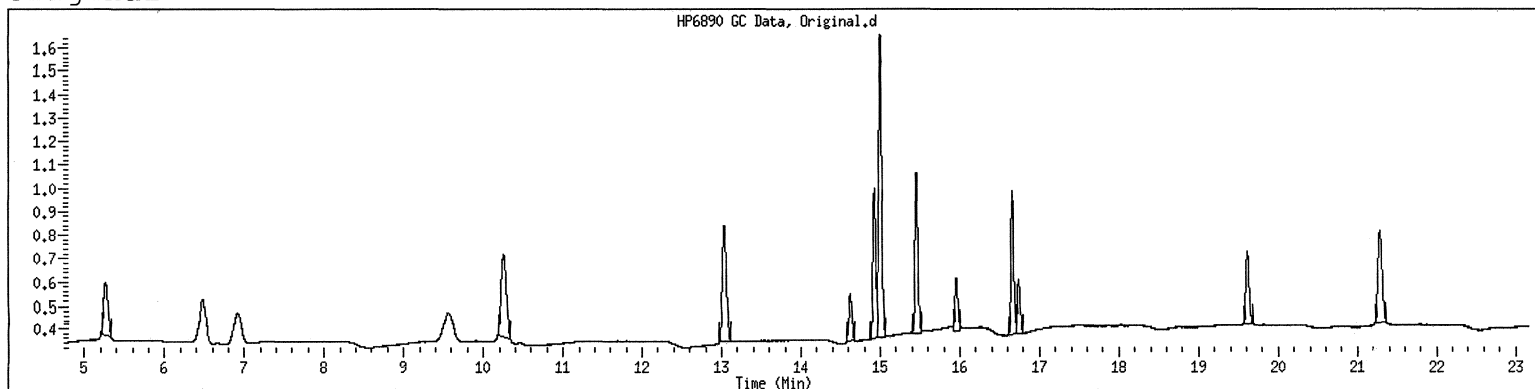


211103124 241

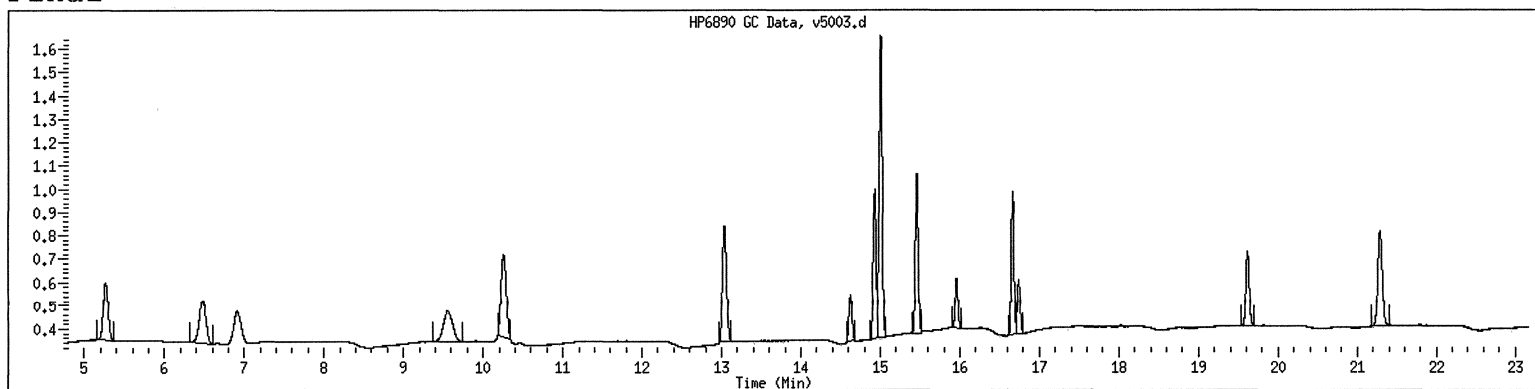
MANUAL INTEGRATION GRAPHIC REPORT

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  
 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  
 Cal Date : 04-NOV-2011 22:55  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5005.d  
 Calibration Sample, Level: 2  
 Compound Sublist: aliphatic1+surr.sub

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.

Date : 04-NOV-2011 22:55

Client ID:

Instrument: gcv5a.i

Sample Info: WPH20/6/12/4

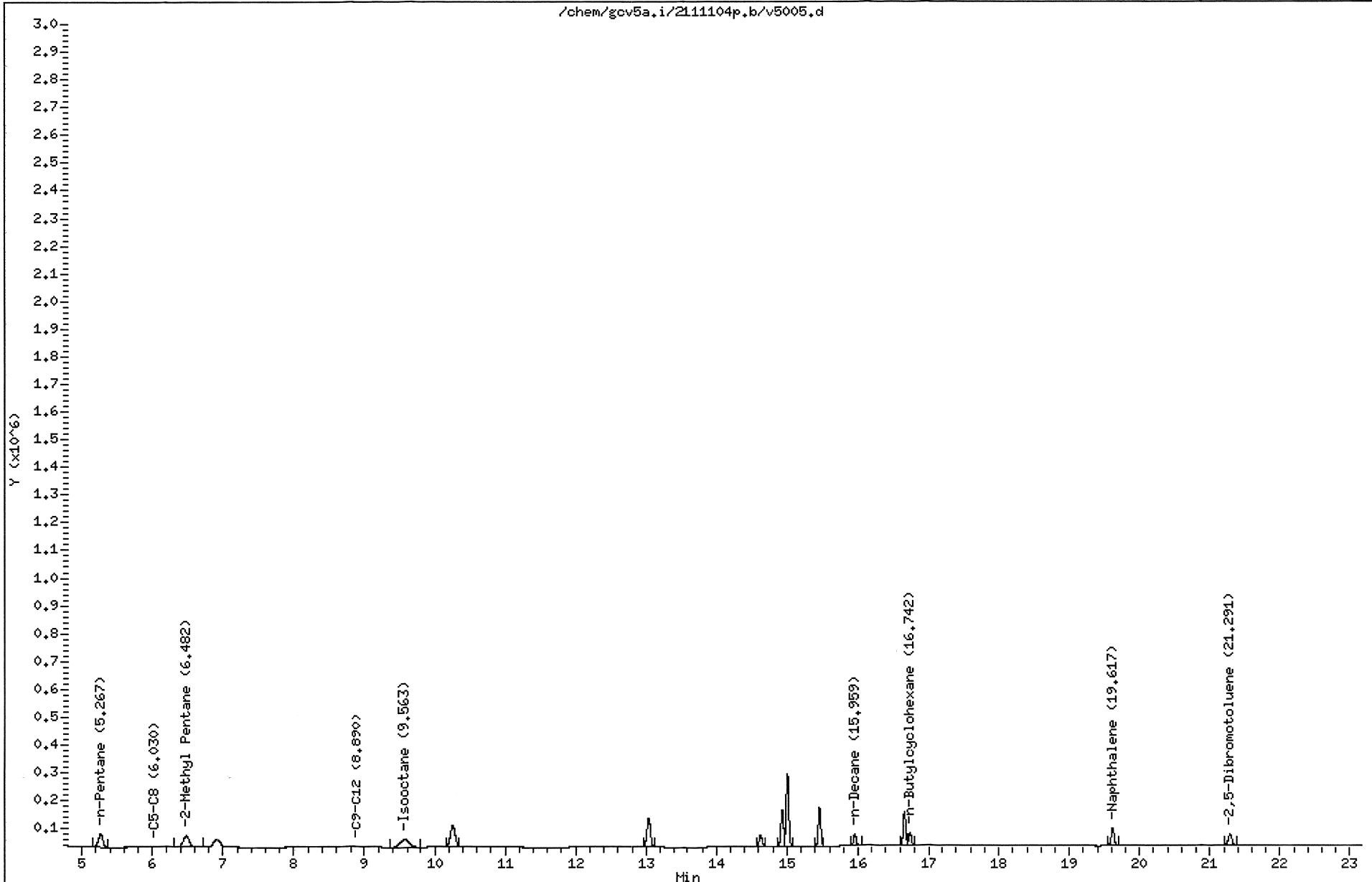
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

/chem/gcv5a.i/2111104p.b/v5005.d

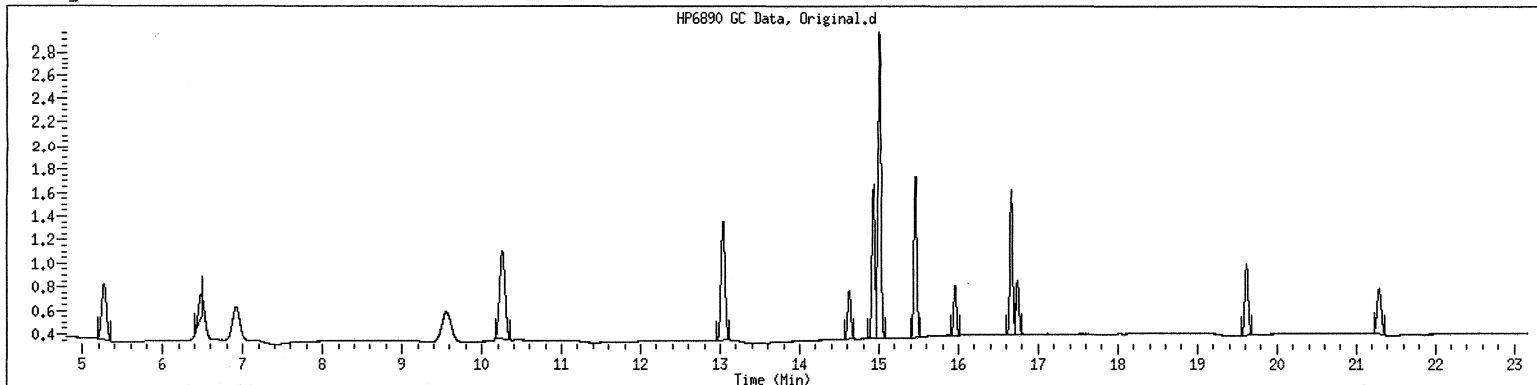


211103124 245

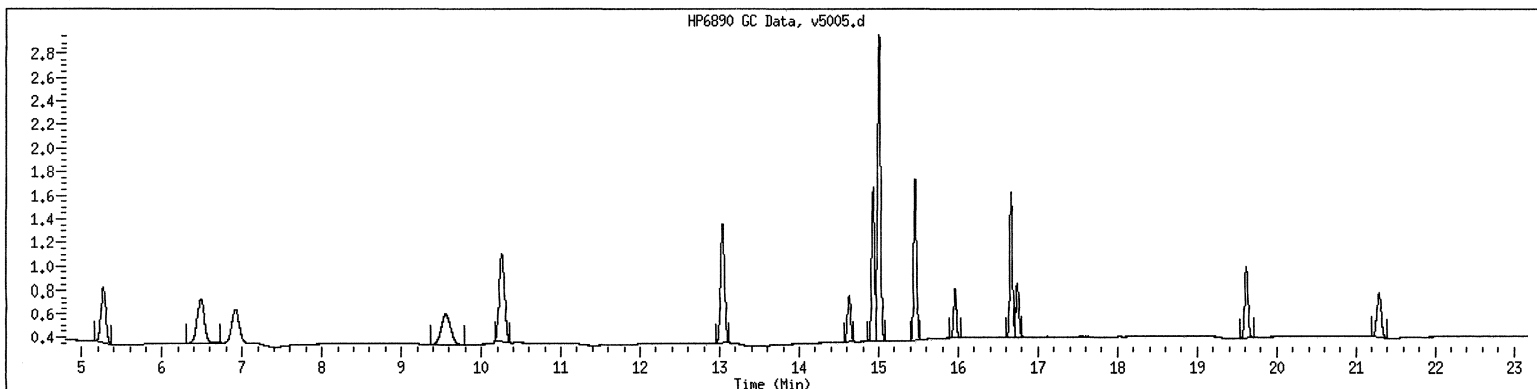
MANUAL INTEGRATION GRAPHIC REPORT

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  
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  
Cal Date : 04-NOV-2011 23:54  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.50  
Processing Host: org.gcal.com  
Inst ID: gcv5a.i  
Quant Type: ESTD  
Cal File: v5007.d  
Calibration Sample, Level: 3  
Compound Sublist: aliphatic1+surr.sub

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				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.

Date : 04-NOV-2011 23:54

Client ID:

Instrument: gov5a.i

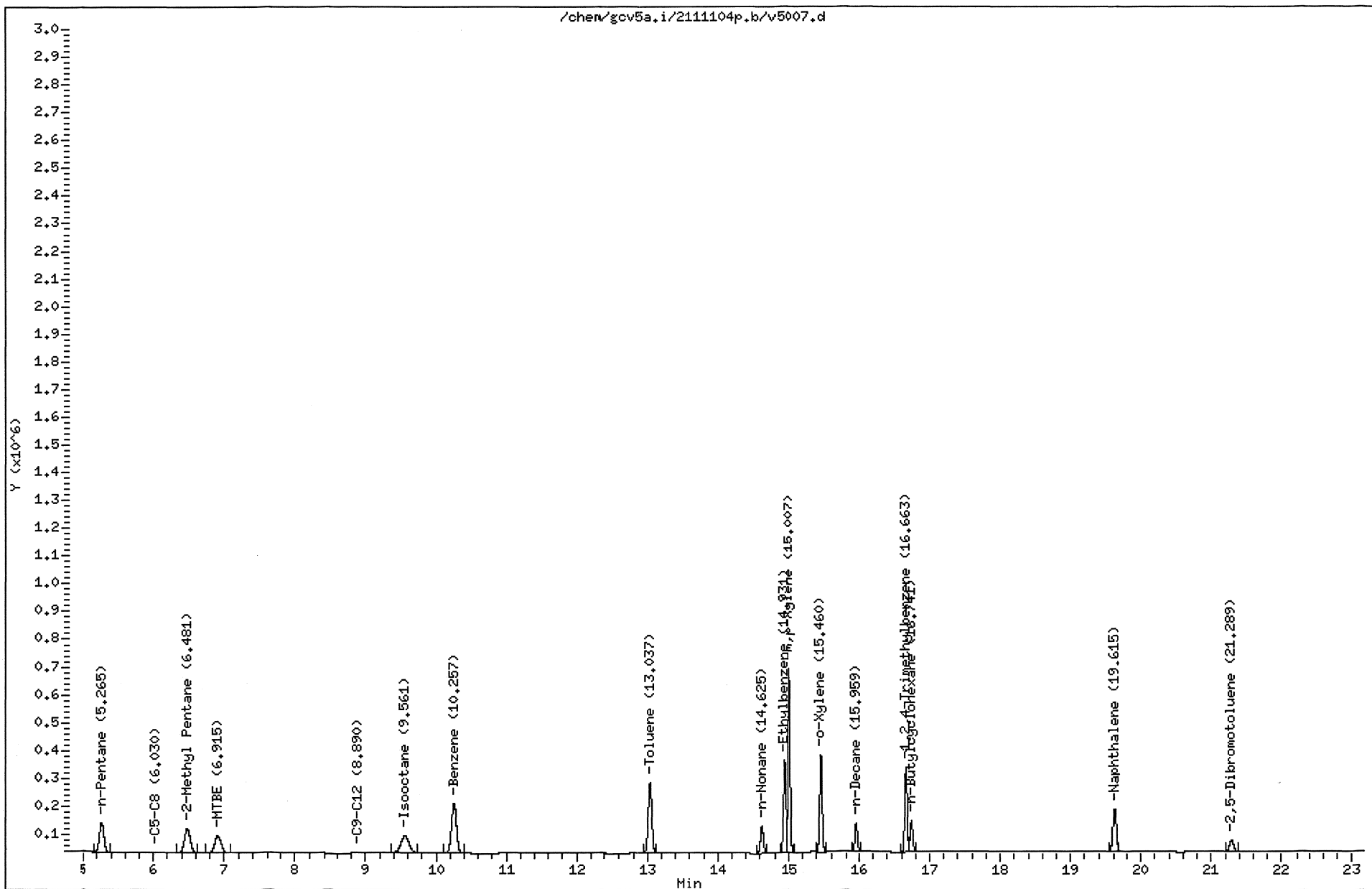
Sample Info: VPH50/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

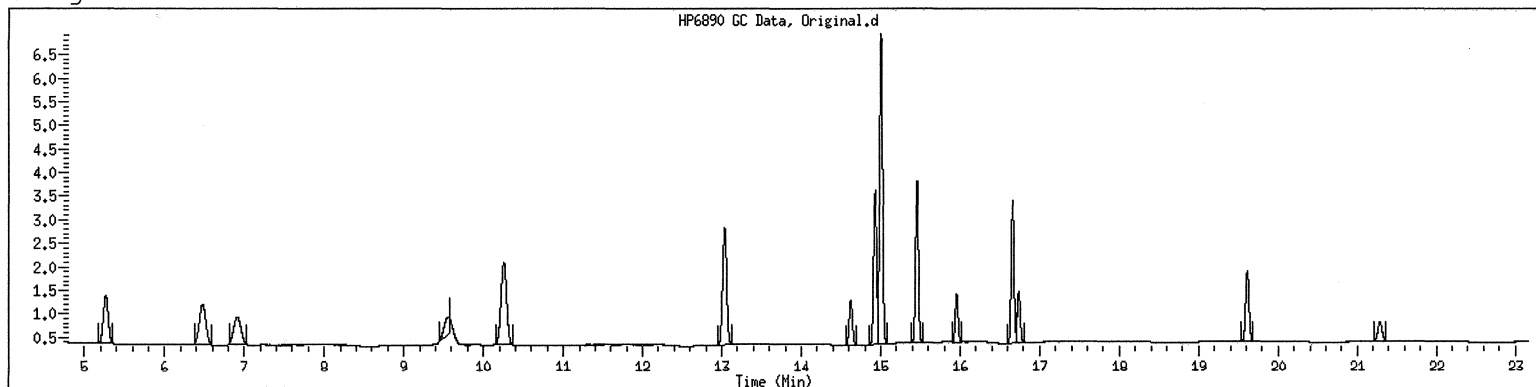


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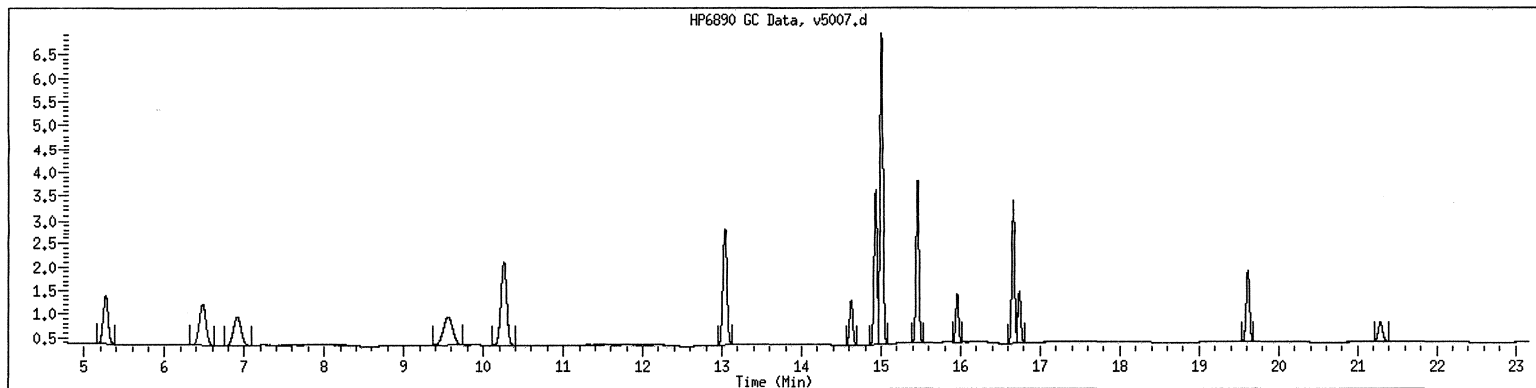
MANUAL INTEGRATION GRAPHIC REPORT

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  
 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  
 Cal Date : 05-NOV-2011 00:53  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5009.d  
 Calibration Sample, Level: 4  
 Compound Sublist: aliphatic1+surr.sub

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				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.

Date : 05-NOV-2011 00:53

Client ID:

Instrument: gcv5a.i

Sample Info: VPH80/6/12/4

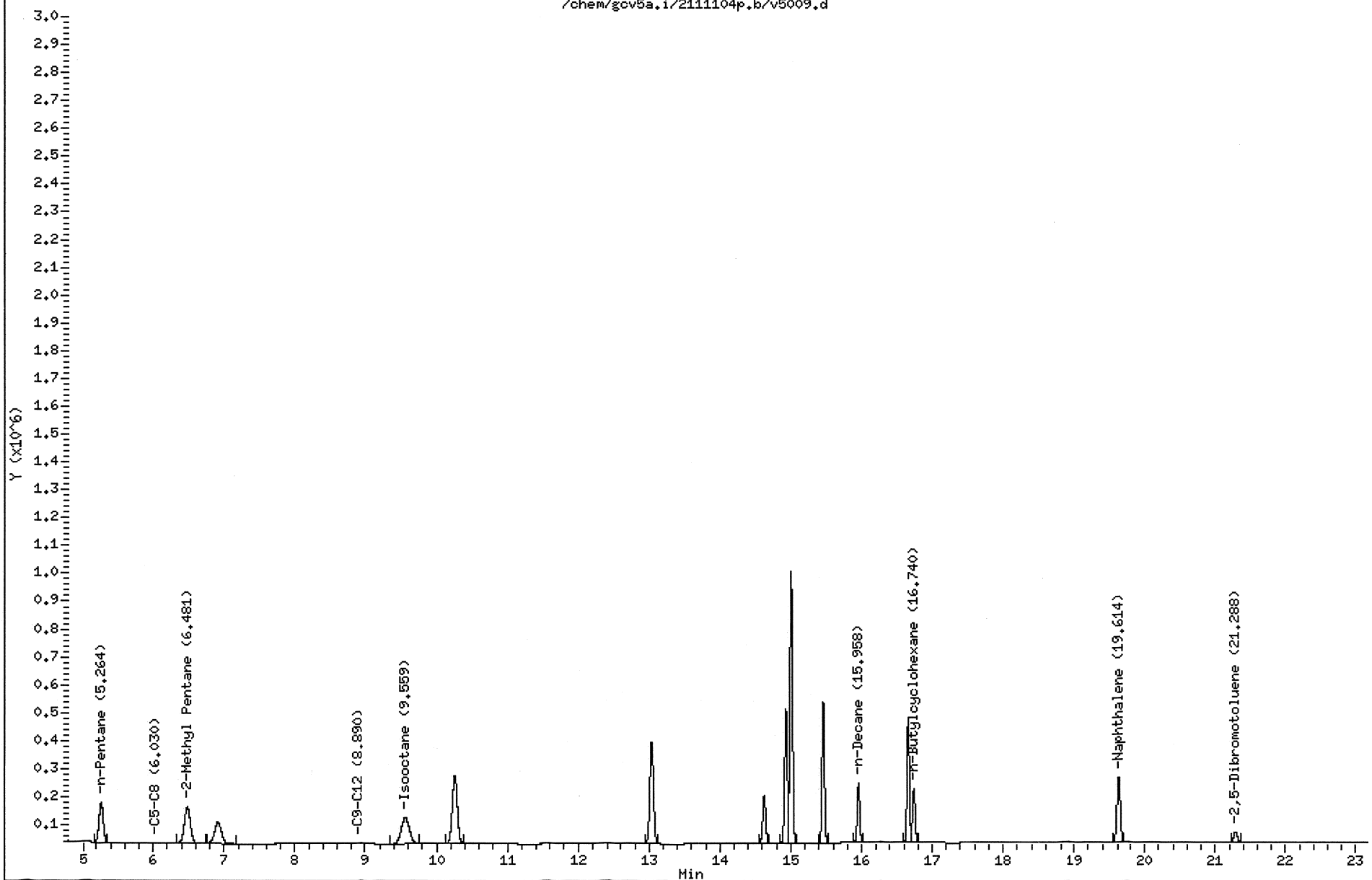
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

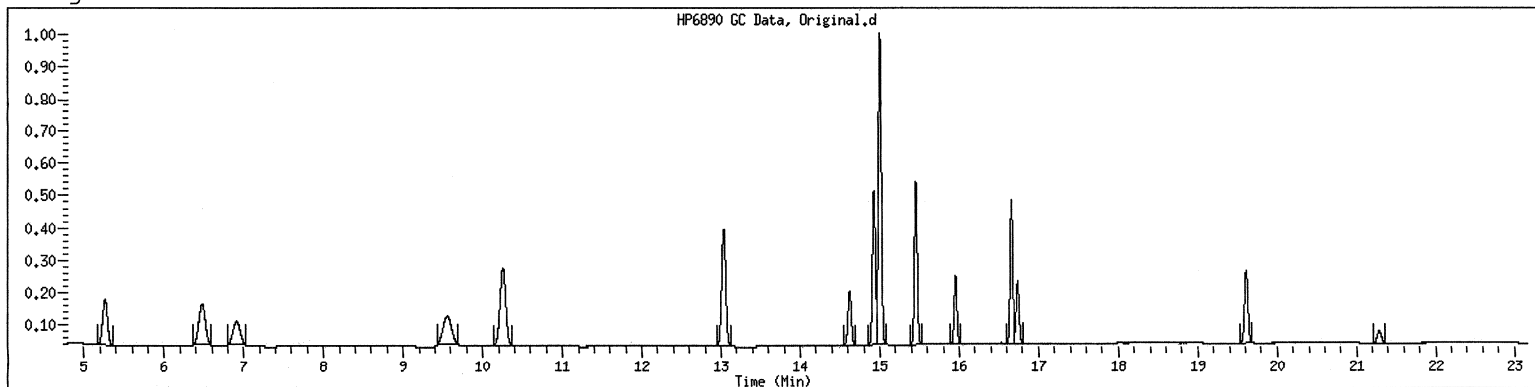
/chem/gcv5a.i/2111104p.b/v5009.d



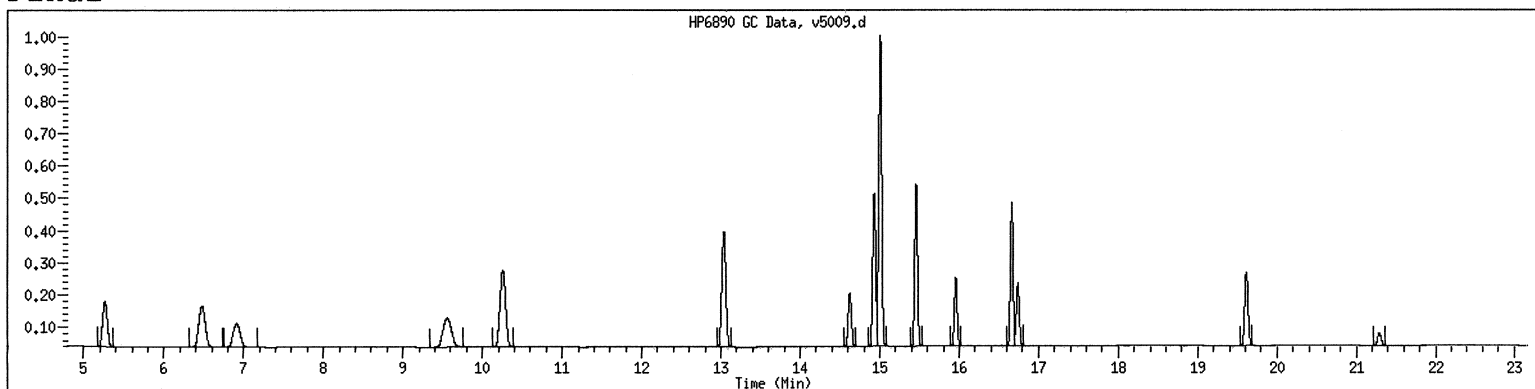
MANUAL INTEGRATION GRAPHIC REPORT

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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Calibration Sample, Level: 5  
 Compound Sublist: aliphatic1+surr.sub

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				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

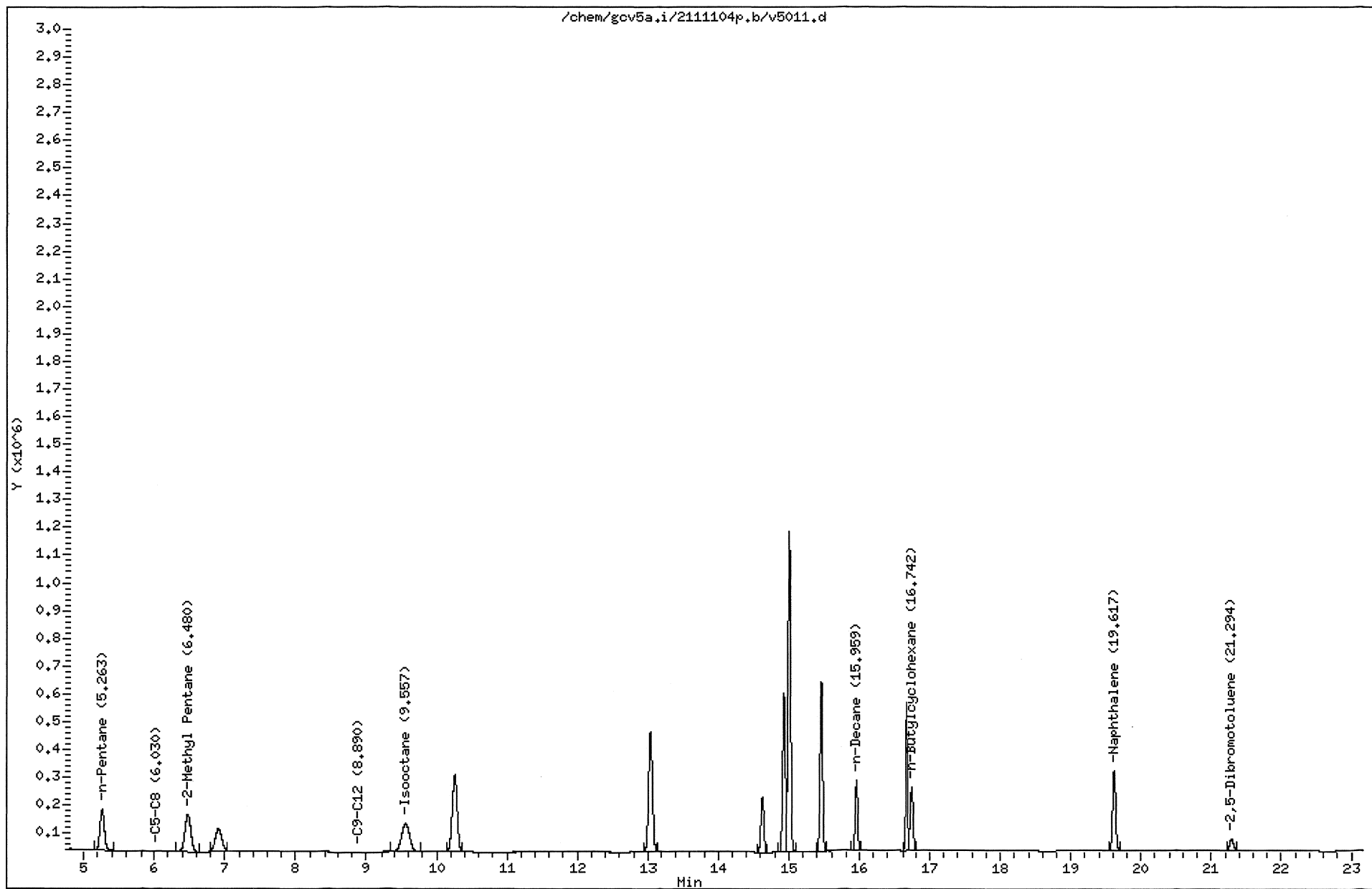
Sample Info: VPH100/6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

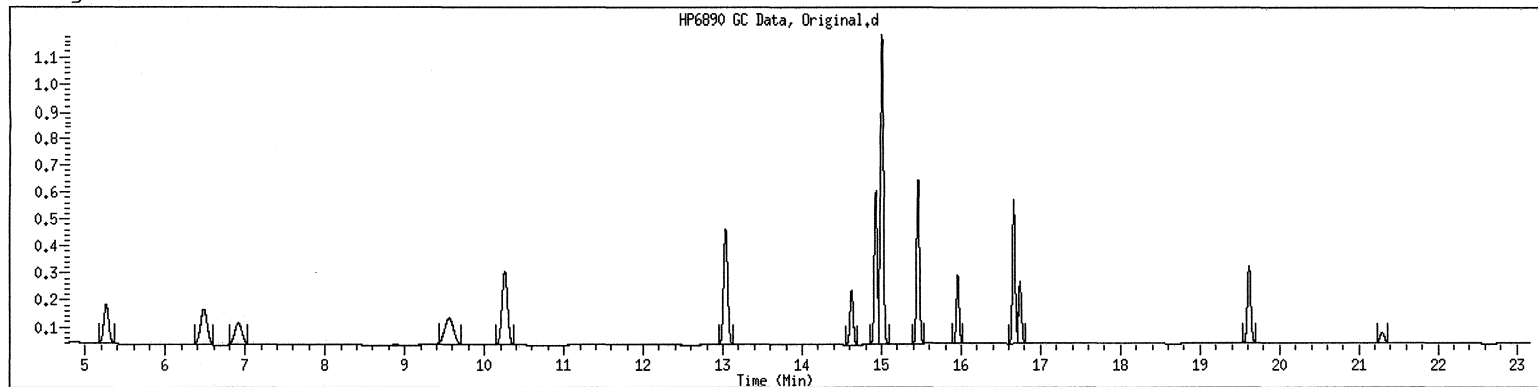


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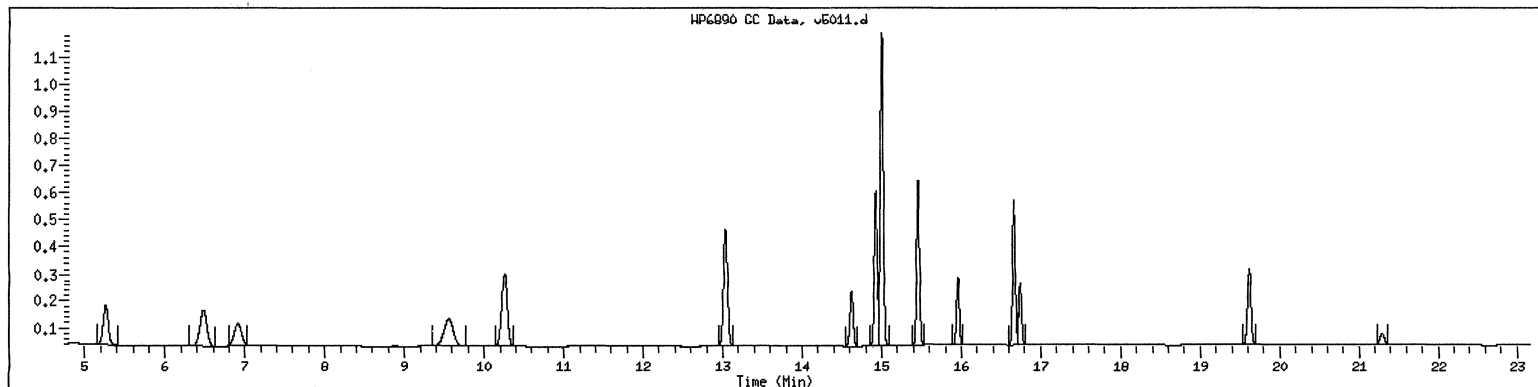
MANUAL INTEGRATION GRAPHIC REPORT

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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 QC Sample: LCS  
 Compound Sublist: aliphatic1+surr.sub

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)
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.

Date : 05-NOV-2011 02:51

Client ID:

Instrument: gcv5a.i

Sample Info: ICV6/12/5

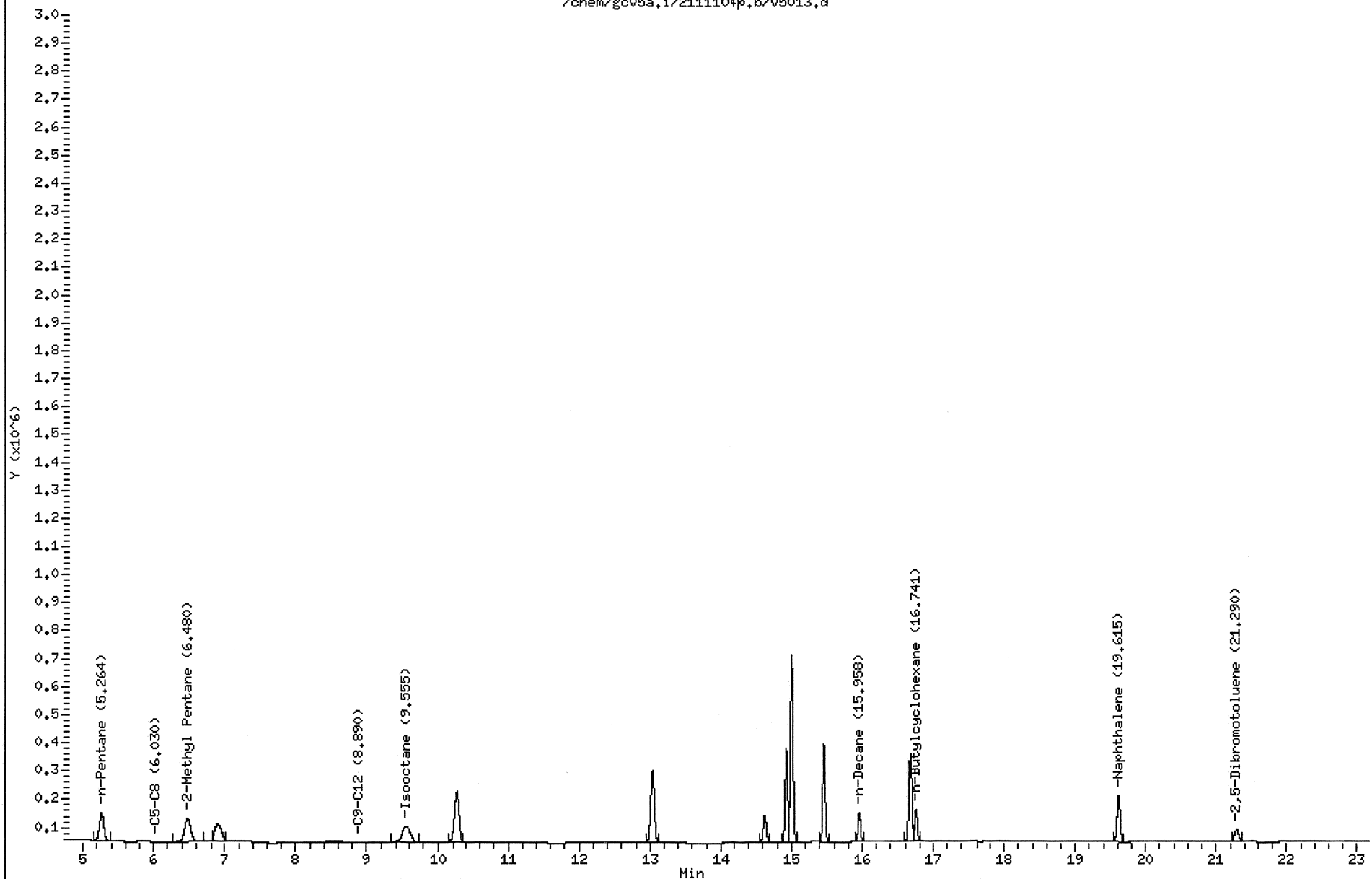
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

/chem/gcv5a.i/2111104p.b/v5013.d



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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		MAX		CURVE TYPE
			RRF	%D / %DRIFT	%D / %DRIFT		
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
S 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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Continuing Calibration Sample  
 Compound Sublist: aliphatic1+surr.sub

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						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.

Date : 07-NOV-2011 11:22

Client ID:

Instrument: gcv5a.i

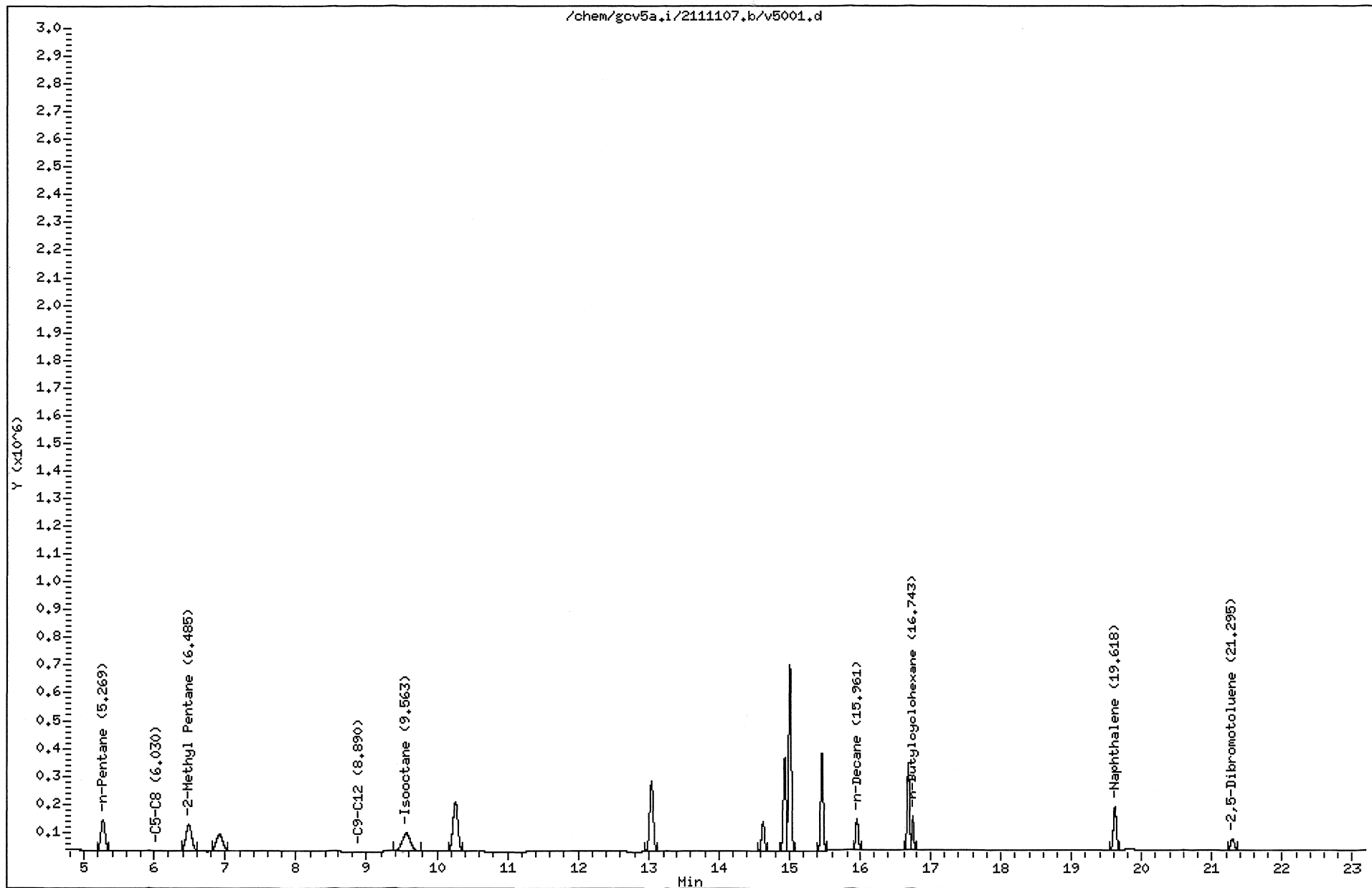
Sample Info: VPH6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53







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	MIN %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 2 C5-C8	9822	9001	0.010	8.35987	25.00000	Averaged
I1 n-Pentane	9000	8133	0.010	9.63580	25.00000	Averaged
I3 2-Methyl Pentane	10438	9389	0.010	10.04971	25.00000	Averaged
I6 Isooctane	10027	9480	0.010	5.45566	25.00000	Averaged
I13 n-Decane	5555	5714	0.010	-2.86154	25.00000	Averaged
I15 n-Butylcyclohexane	5958	5735	0.010	3.75193	25.00000	Averaged
I16 Naphthalene	8853	8972	0.010	-1.34067	25.00000	Averaged
M 5 C9-C12	5437	5724	0.010	-5.27663	25.00000	Averaged
I\$ 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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Continuing Calibration Sample  
 Compound Sublist: aliphatic1+surr.sub

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				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.

Date : 07-NOV-2011 16:16

Client ID:

Instrument: gcv5a.i

Sample Info: VPH6/12/4

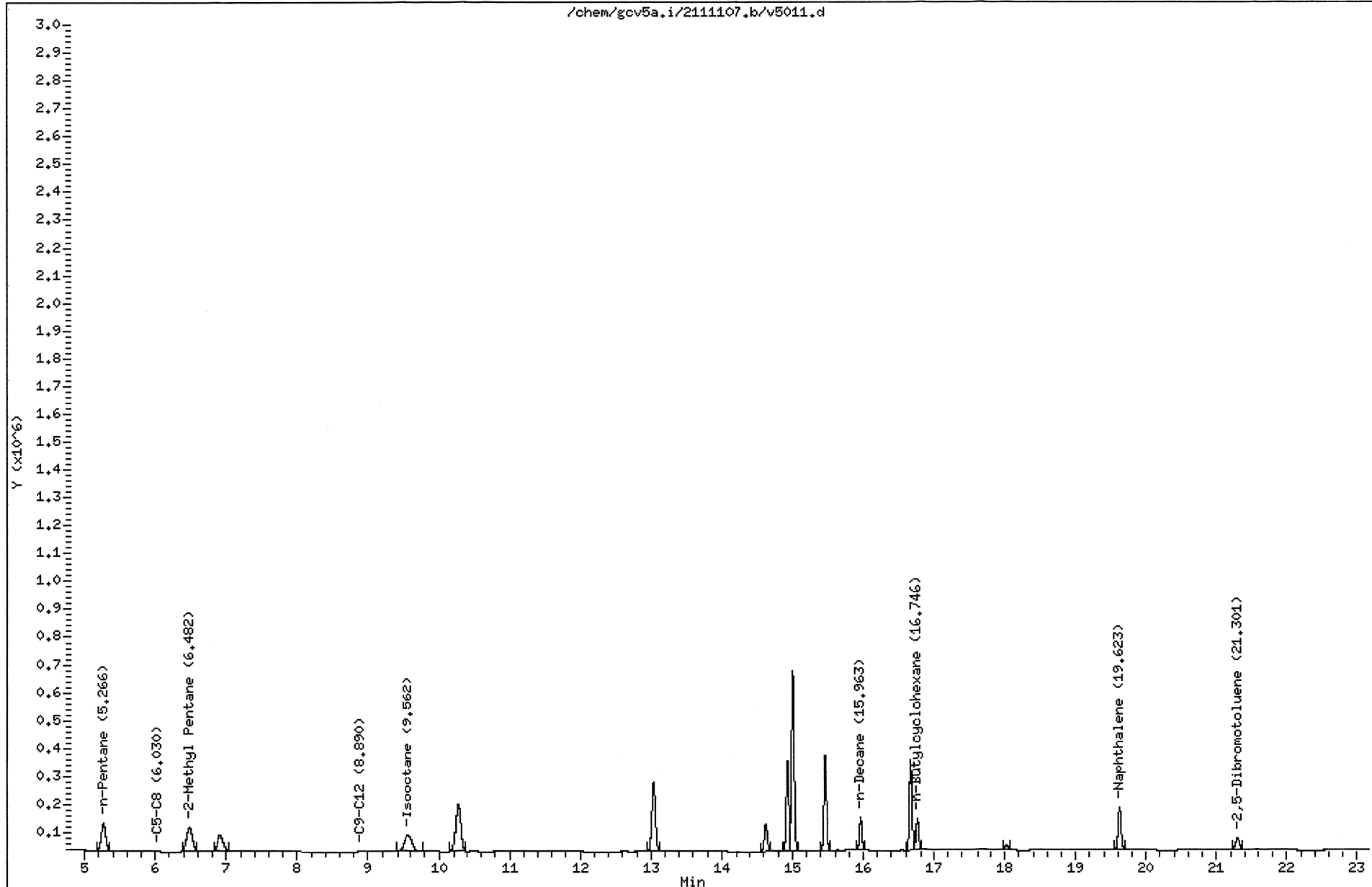
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

/chem/gcv5a.i/2111107.b/v5011.d





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	MIN %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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Compound Sublist: aliphatic1+surr.sub

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)
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/gov5a.i/2111107.b/v5021.d

Page 1

Date : 07-NOV-2011 23:22

Client ID:

Instrument: gov5a.i

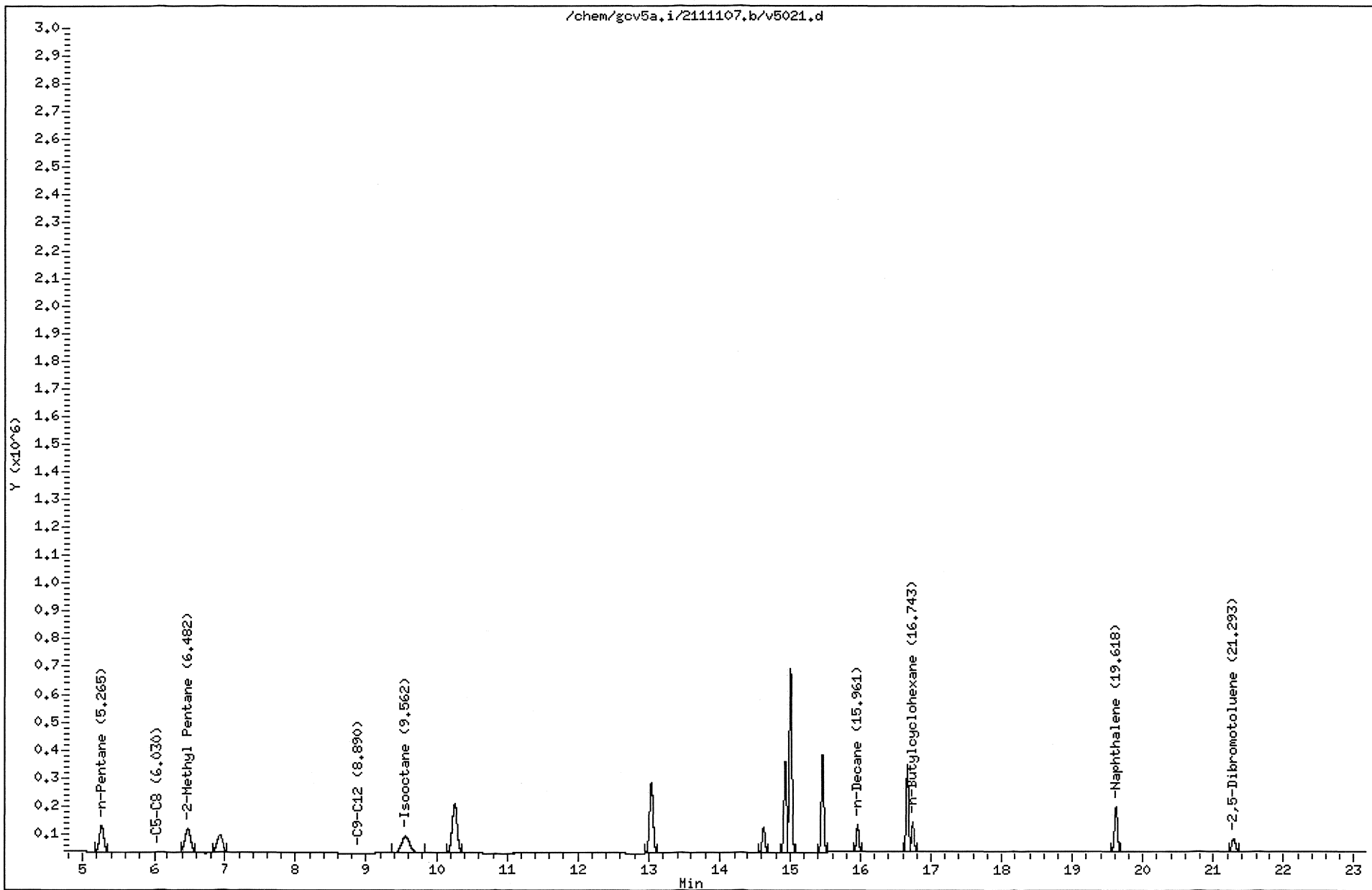
Sample Info: VPH6/12/4

Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

Column phase: DB-624-30



211103124 277



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 RRF	%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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 Compound Sublist: aliphatic1+surr.sub

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)
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.

Date : 08-NOV-2011 01:49

Client ID:

Instrument: gcv5a.i

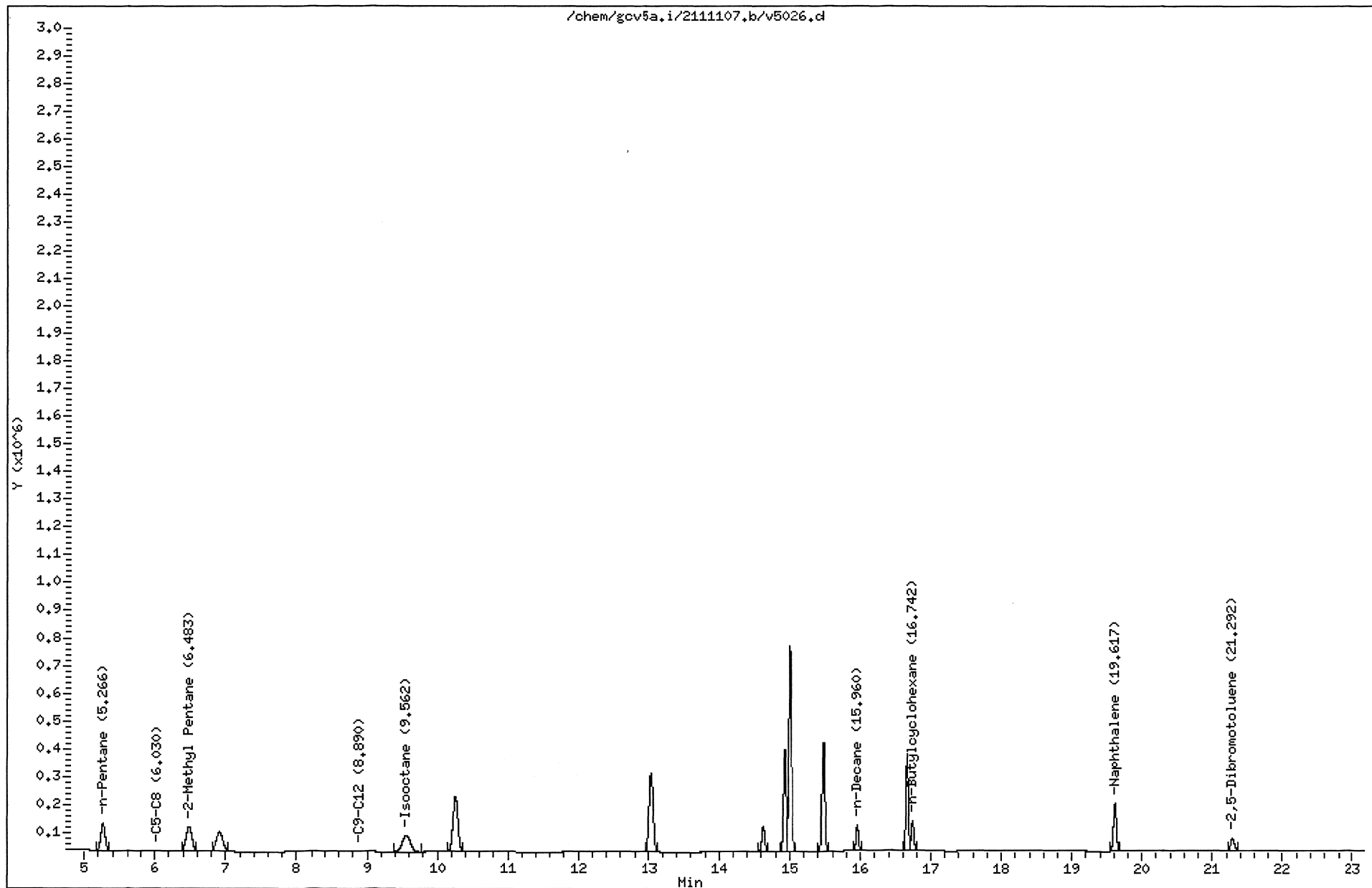
Sample Info: VPH6/12/4

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

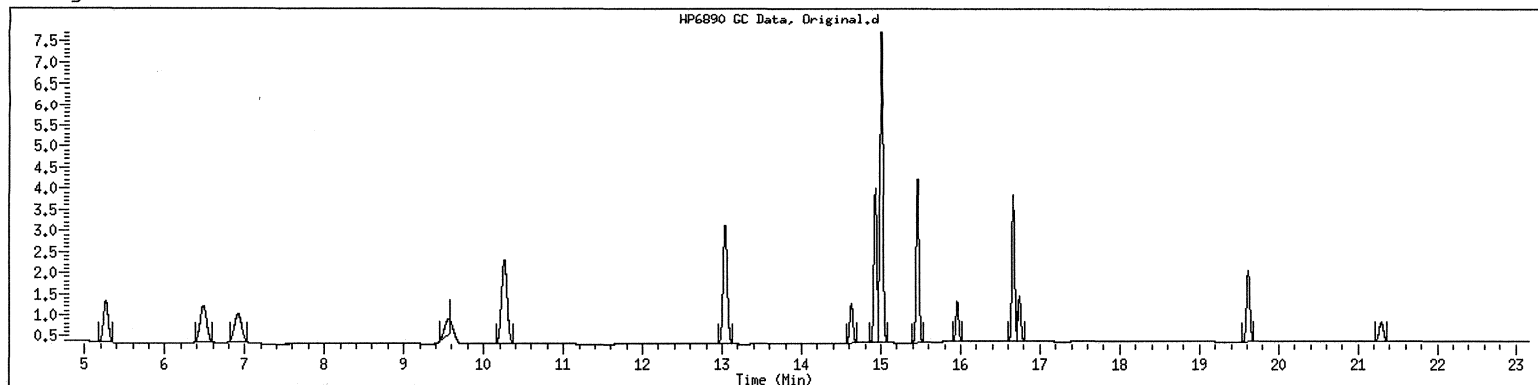
Column diameter: 0.53



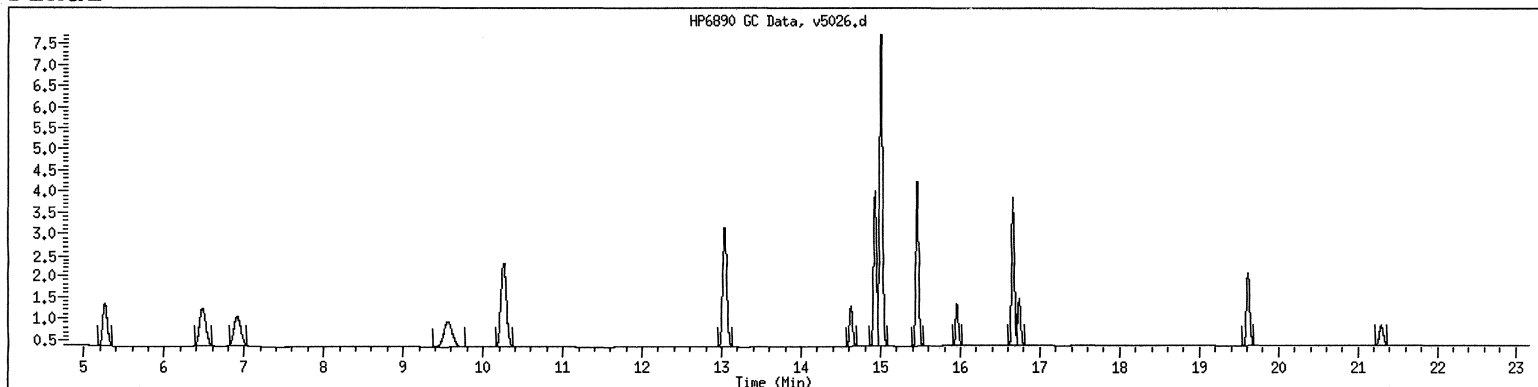
MANUAL INTEGRATION GRAPHIC REPORT

Lab ID : VPH6/12/4                                      SampleType : 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	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  
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  
Cal Date : 05-NOV-2011 01:52  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: Falcon  
Target Version: 3.50  
Processing Host: org.gcal.com  
Inst ID: gcv5a.i  
Quant Type: ESTD  
Cal File: v5011.d  
Continuing Calibration Sample  
Compound Sublist: aliphatic1+surr.sub

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				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.

Date : 08-NOV-2011 12:51

Client ID:

Instrument: gcv5a.i

Sample Info: vph6/12/4

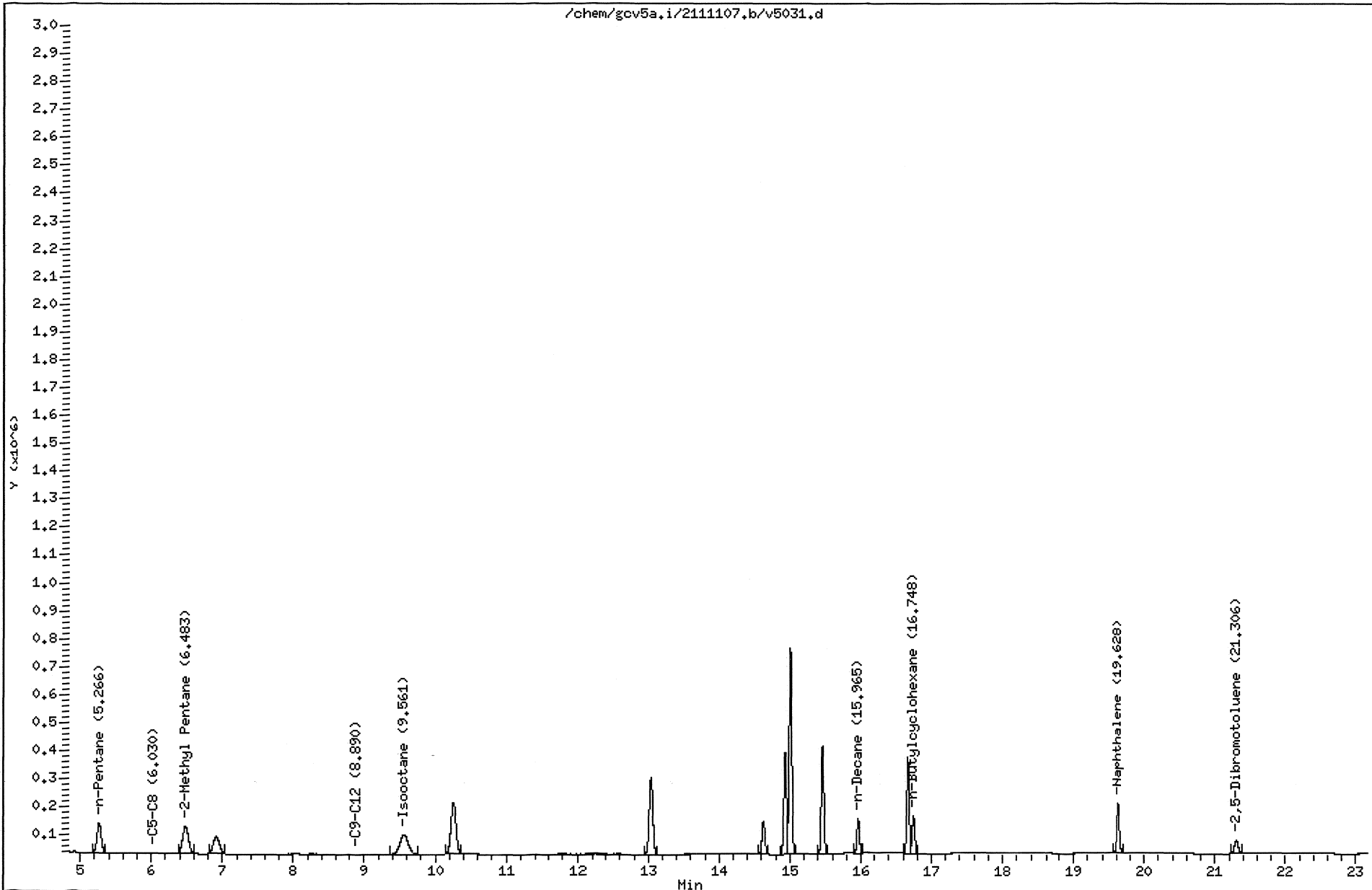
Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

/chem/gcv5a.i/2111107.b/v5031.d





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/PIDMVP.H.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

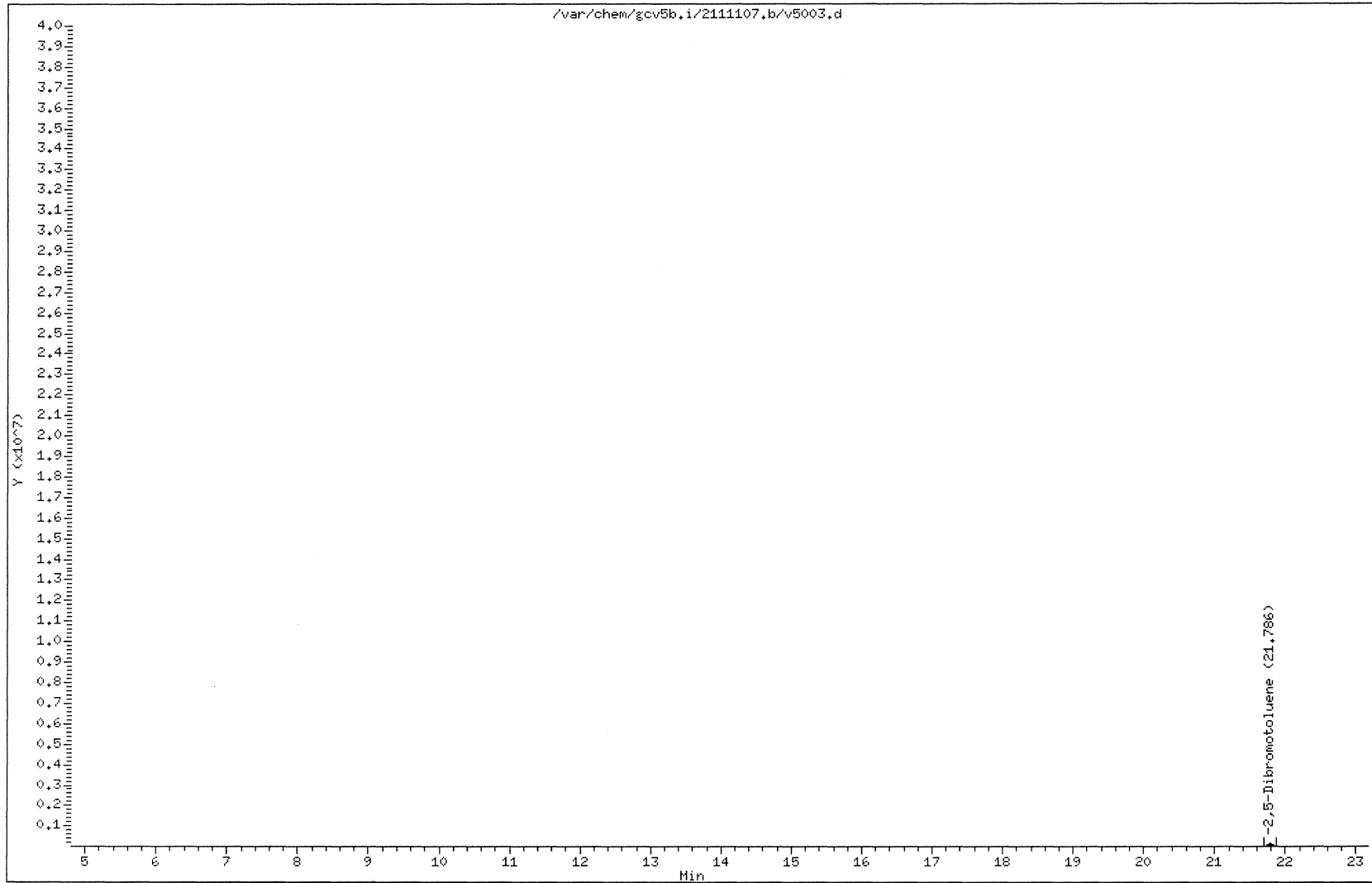
Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable                    Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN ( ug/L)	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

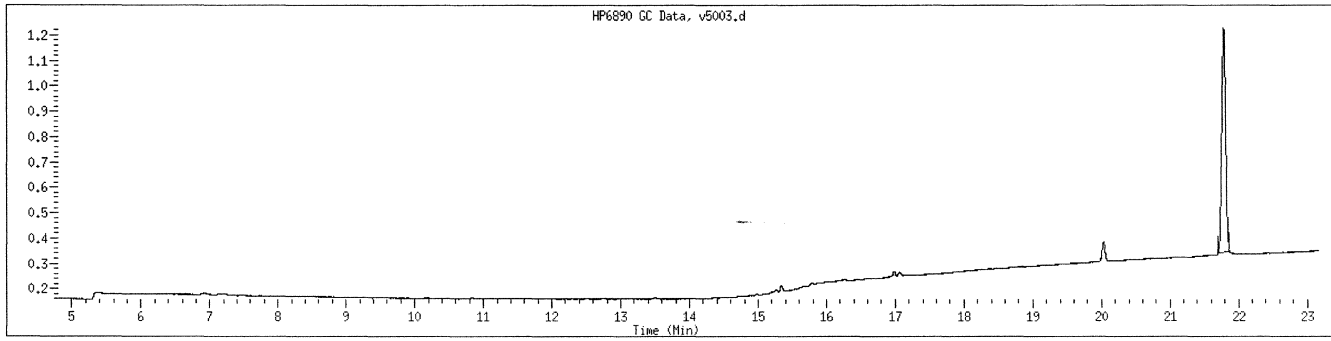
Instrument: gcv5b.i  
Operator: JAR  
Column diameter: 0.53





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



Date : 07-NOV-2011 12:21

Client ID:

Instrument: gcv5a.i

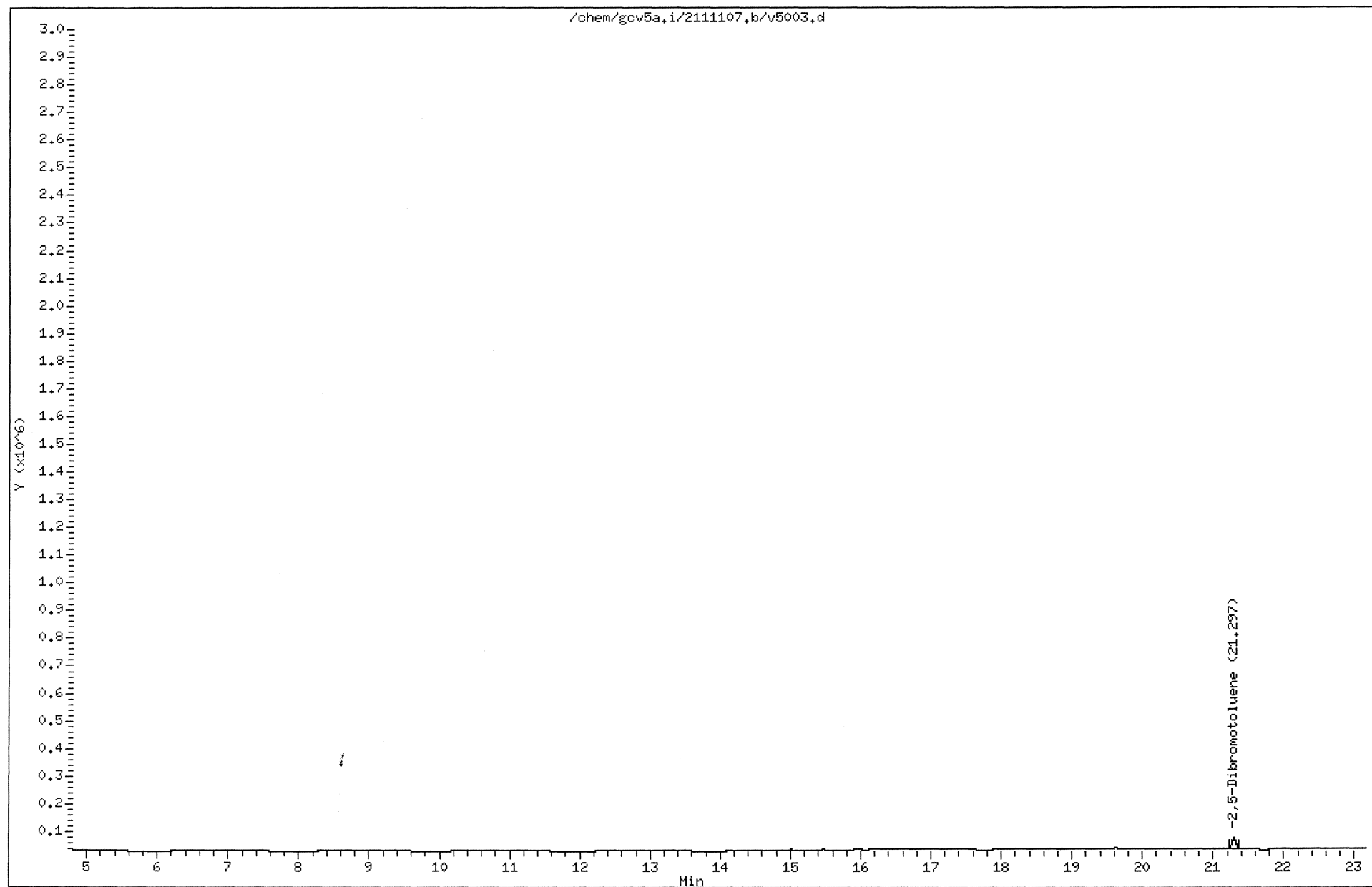
Sample Info: BLK

Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

Column phase: DB-624-30



211109124 294



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 (  $\mu$ L ) Date Analyzed: 11/07/11 Time: 1151  
 Soil Aliquot Volume: \_\_\_\_\_ (  $\mu$ L ) Dilution Factor: 1 Analyst: JAR  
 Injection Volume: 1 (  $\mu$ L ) 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)

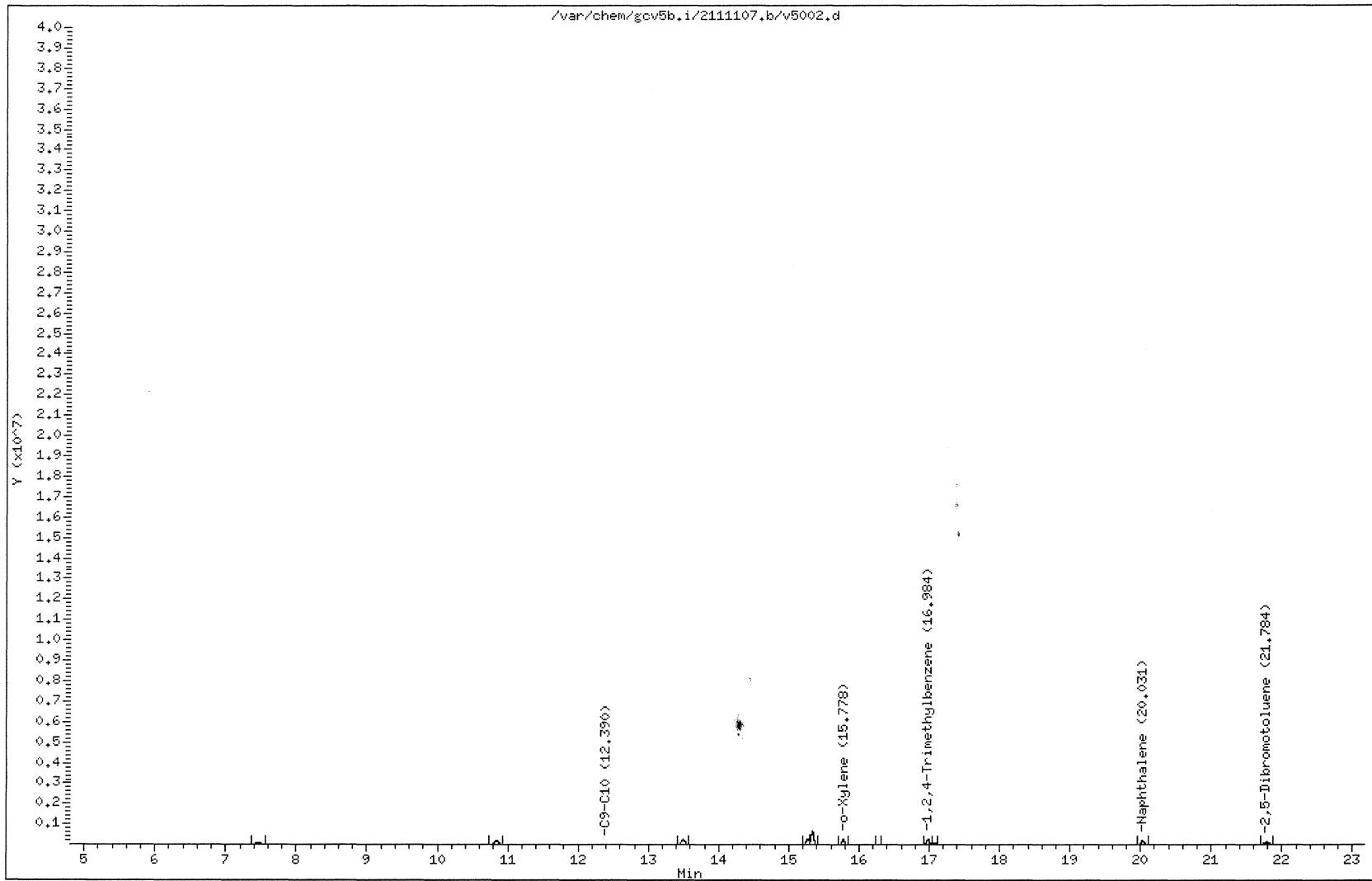
Cpnd Variable Local Compound Variable

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  
Date : 07-NOV-2011 11:51  
Client ID: 1003188  
Sample Info: 1003188  
Volume Injected (uL): 1.0  
Column phase: DB-624-30

Page 1

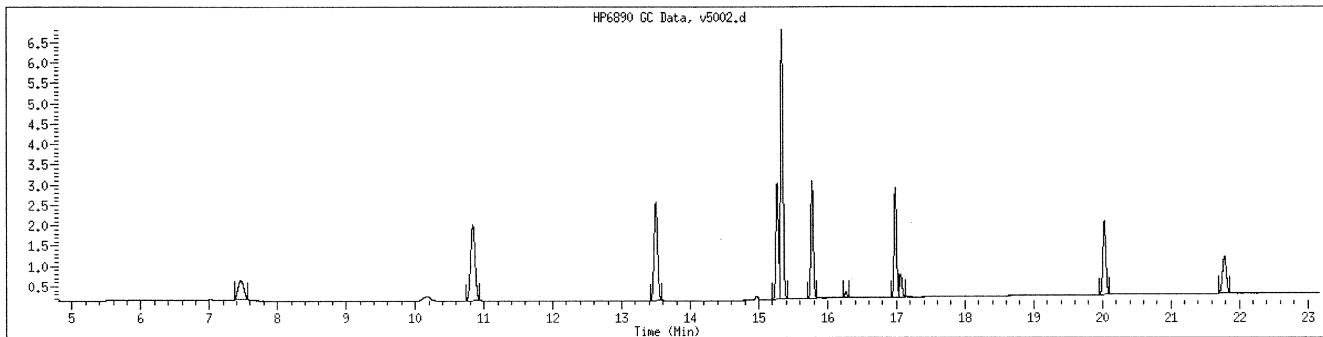
Instrument: gcv5b.i  
Operator: JAR  
Column diameter: 0.53



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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  
 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  
 Cal Date : 05-NOV-2011 01:52  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: Falcon  
 Target Version: 3.50  
 Processing Host: org.gcal.com

Inst ID: gcv5a.i  
 Quant Type: ESTD  
 Cal File: v5011.d  
 QC Sample: LCS  
 Compound Sublist: aliphatic1+surr.sub

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)
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.

Date : 07-NOV-2011 11:51

Client ID:

Instrument: gcv5a.i

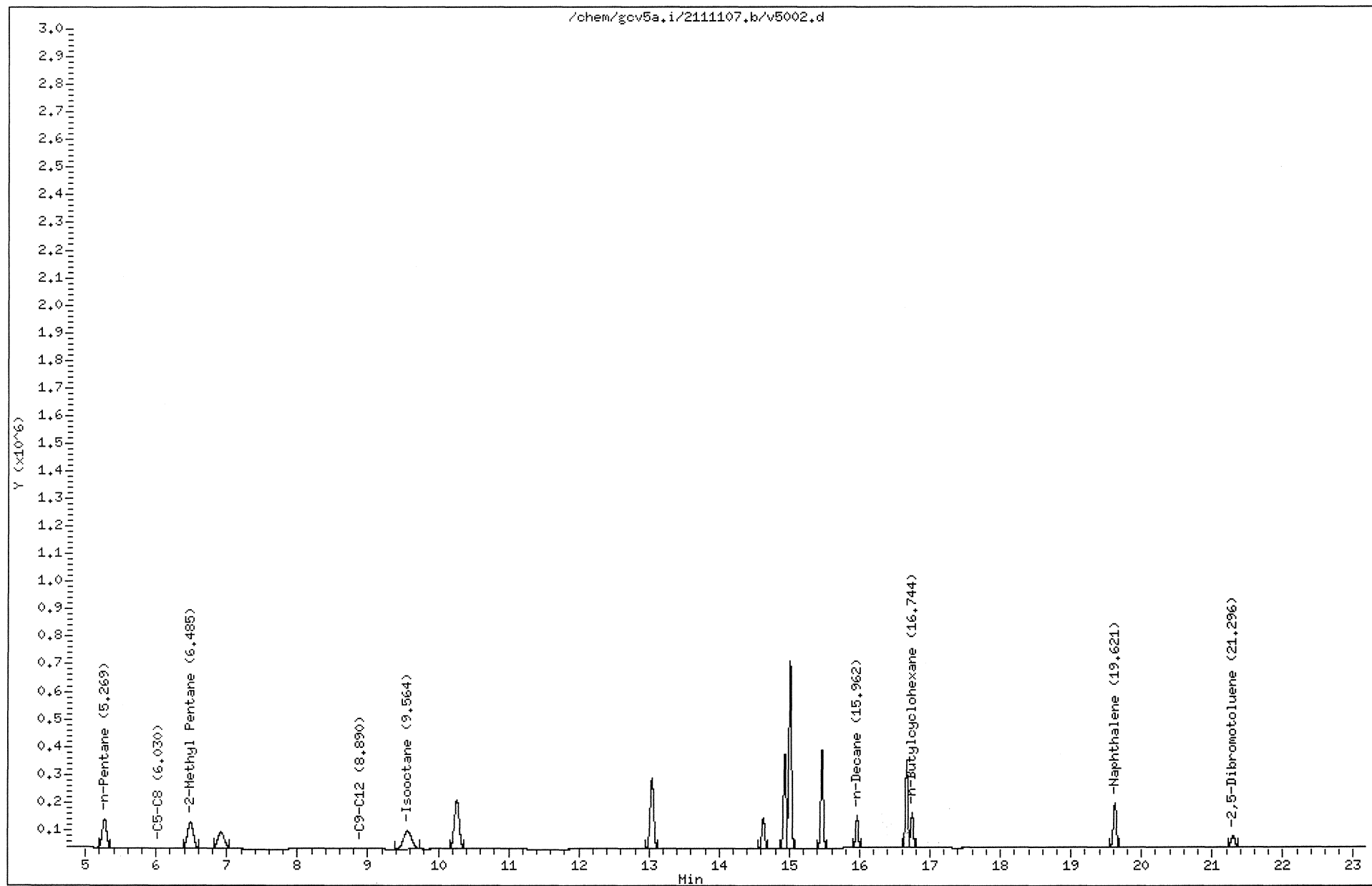
Sample Info: lcs6/12/4

Operator: JAR

Volume Injected (uL): 1.0

Column diameter: 0.53

Column phase: DB-624-30

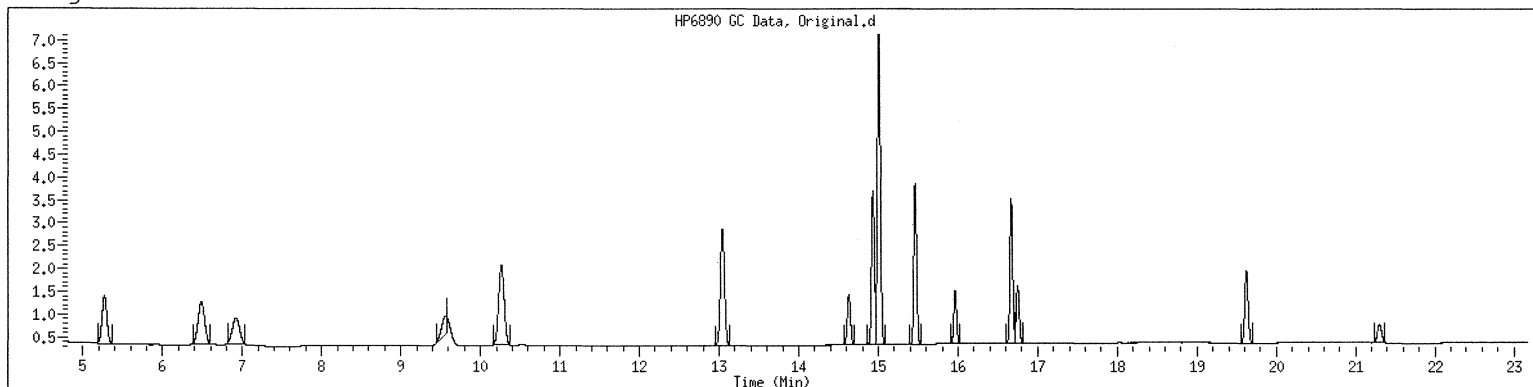


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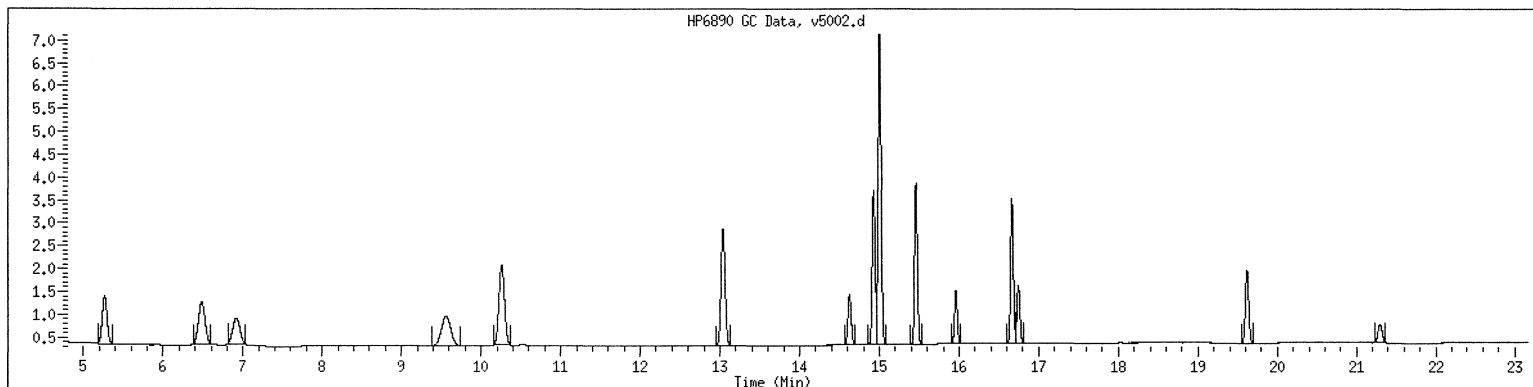
MANUAL INTEGRATION GRAPHIC REPORT

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: <u>GCAL</u>	Sample ID: <u>ES047 MS</u>
Lab Code: <u>LA024</u> Case No.: _____	Contract: _____
Matrix: <u>Water</u>	SAS No.: _____      SDG No.: <u>211103124</u>
Sample wt/vol: <u>5</u> Units: <u>mL</u>	Lab Sample ID: <u>21110312403</u>
Level: (low/med) _____	Date Collected: <u>10/24/11</u> Time: <u>0830</u>
% Moisture: _____      decanted: (Y/N) _____	Date Received: <u>10/29/11</u>
GC Column: _____      ID: _____      (mm)	Date Extracted: _____
Concentrated Extract Volume: <u>5000</u> (µL)	Date Analyzed: <u>11/07/11</u> Time: <u>1925</u>
Soil Aliquot Volume: _____      (µL)	Dilution Factor: <u>10</u> Analyst: <u>JAR</u>
Injection Volume: <u>1</u> (µL)	Prep Method: _____
GPC Cleanup: (Y/N) <u>N</u> pH: _____	Analytical Method: <u>MASSVPH</u>
Prep Batch: _____      Analytical Batch: <u>468512</u>	Sulfur Cleanup: (Y/N) <u>N</u> Instrument ID: <u>GCV5B</u>
CONCENTRATION UNITS: <u>ug/L</u>	Lab File ID: <u>2111107/5014</u>

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

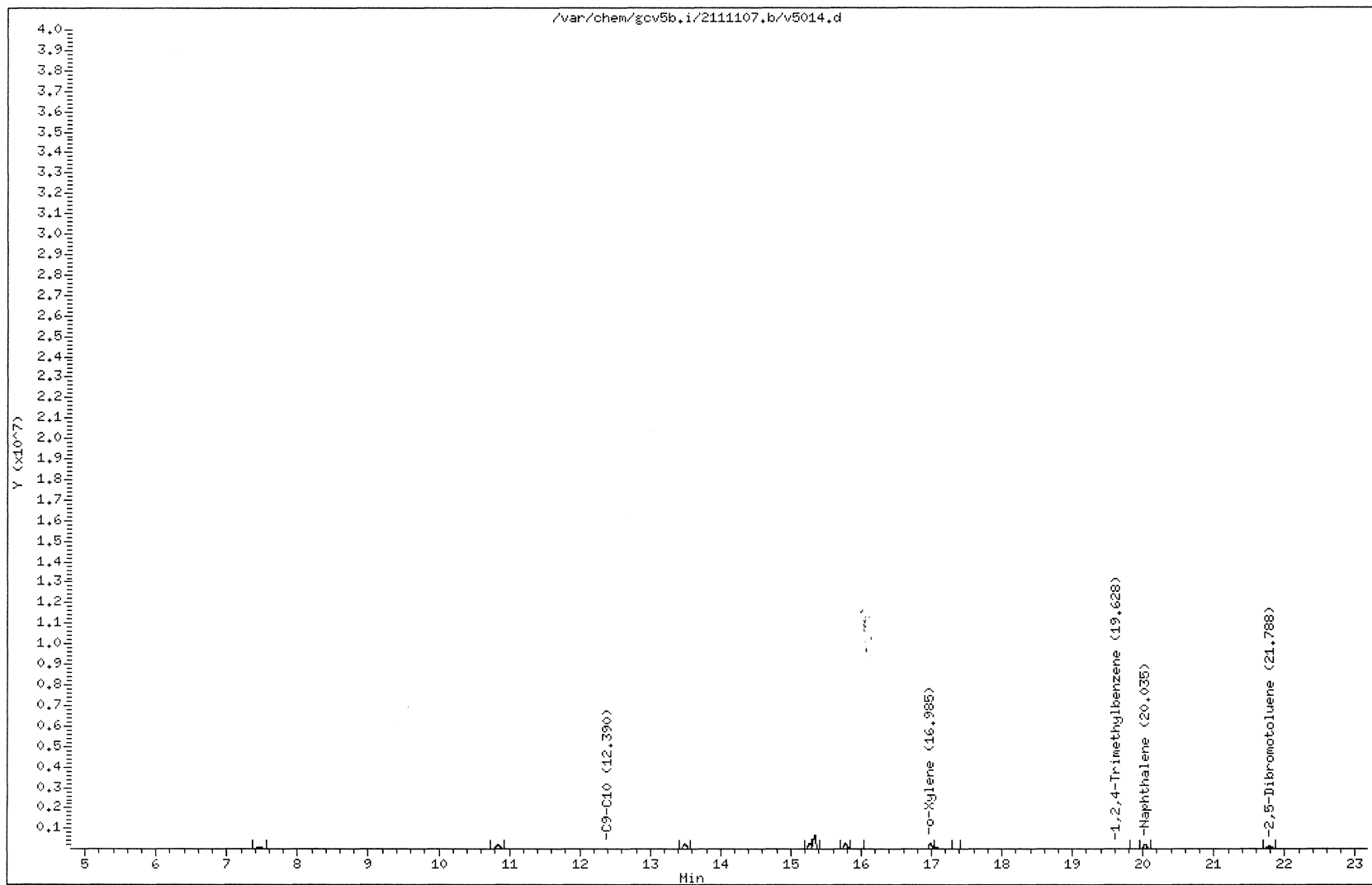
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN ( ug/L)	FINAL ( ug/L)
6 o-Xylene	16.985	15.777	1.208	722379	53.2347	532(M1)
7 1,2,4-Trimethylbenzene	19.628	16.983	2.645	166981	13.8816	139(RM1)
M 9 C9-C10				889360	73.9349	739(R)
8 Naphthalene	20.035	20.028	0.007	553290	54.3174	543
S 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

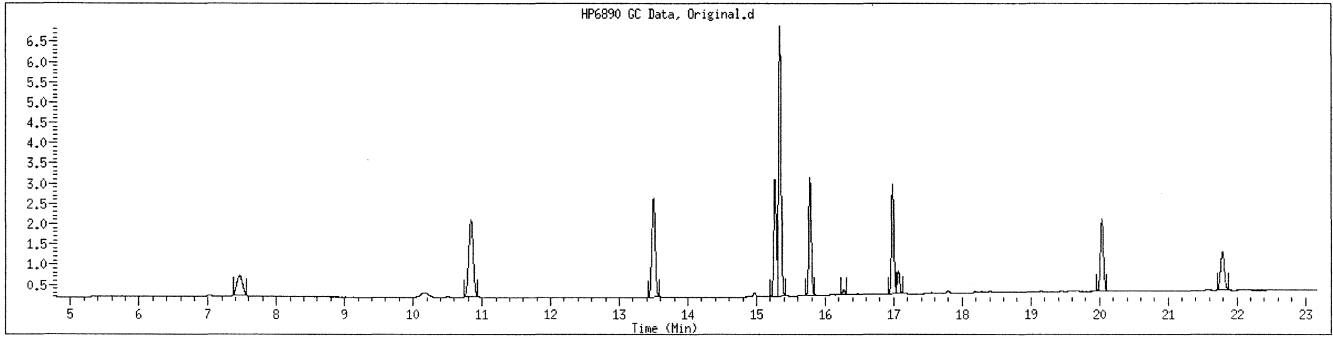
Instrument: gcv5b.i  
Operator: JAR  
Column diameter: 0.53



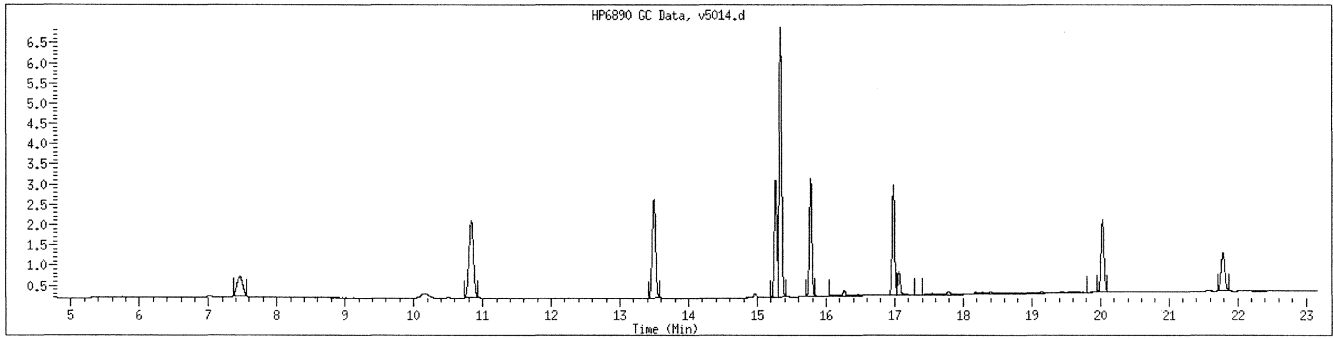
MANUAL INTEGRATION GRAPHIC REPORT

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)	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.

Date : 07-NOV-2011 19:25

Client ID: 21110312403

Instrument: gcv5a.i

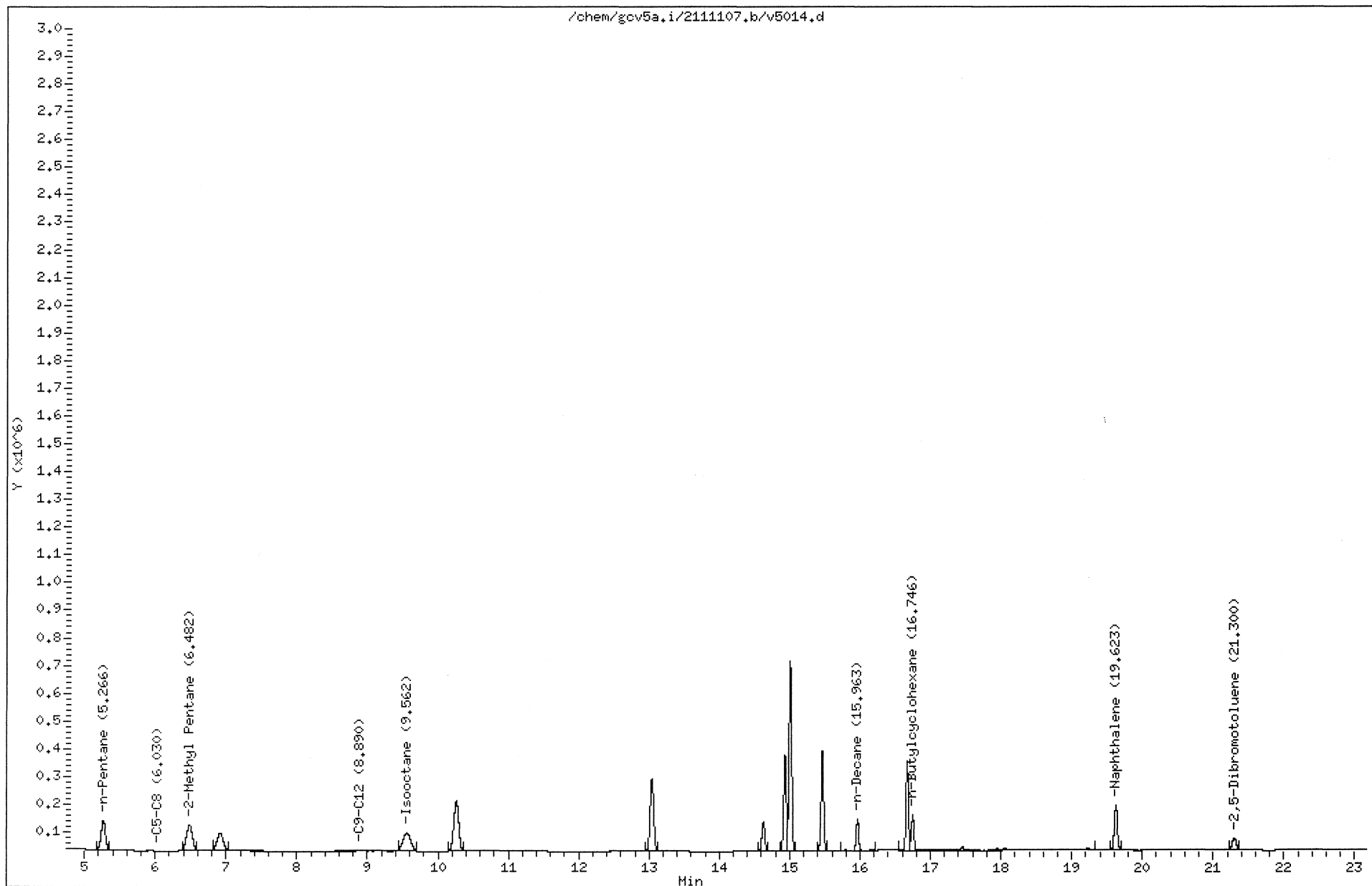
Sample Info: 21110312403\*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

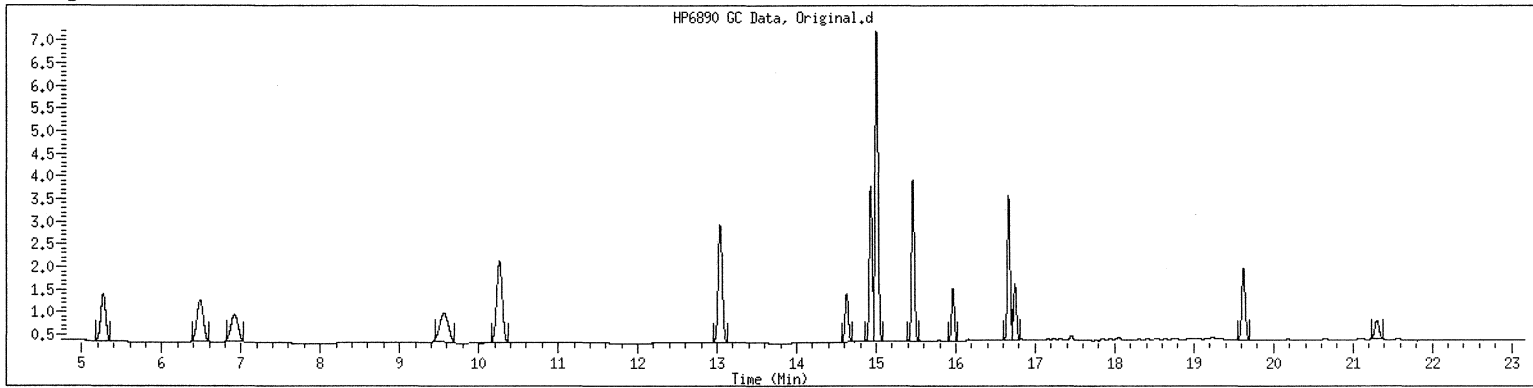


211103124 310

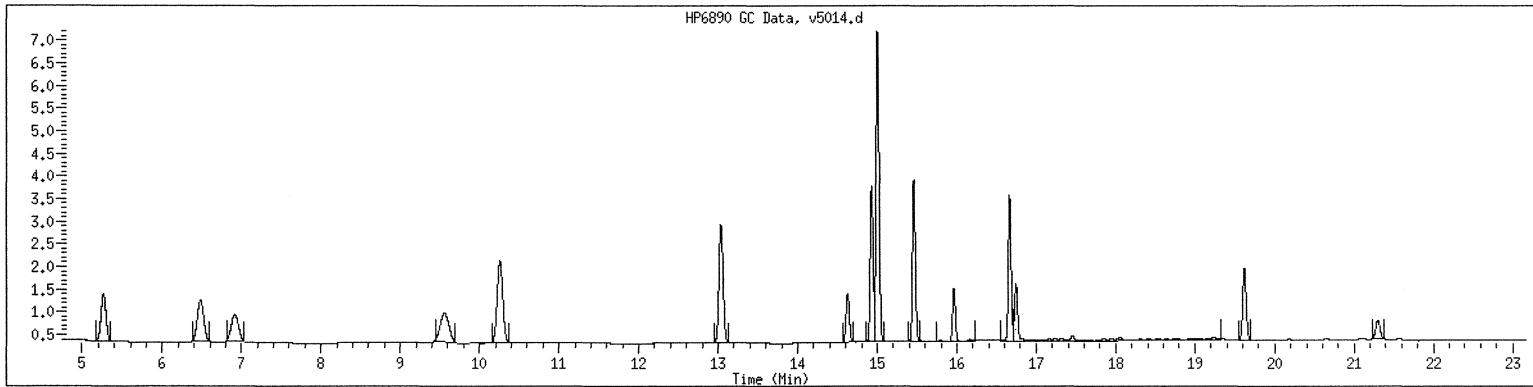
MANUAL INTEGRATION GRAPHIC REPORT

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 (  $\mu$ L ) Date Analyzed: 11/07/11 Time: 1955  
 Soil Aliquot Volume: \_\_\_\_\_ (  $\mu$ L ) Dilution Factor: 10 Analyst: JAR  
 Injection Volume: 1 (  $\mu$ L ) 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/PIDMVP.H.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

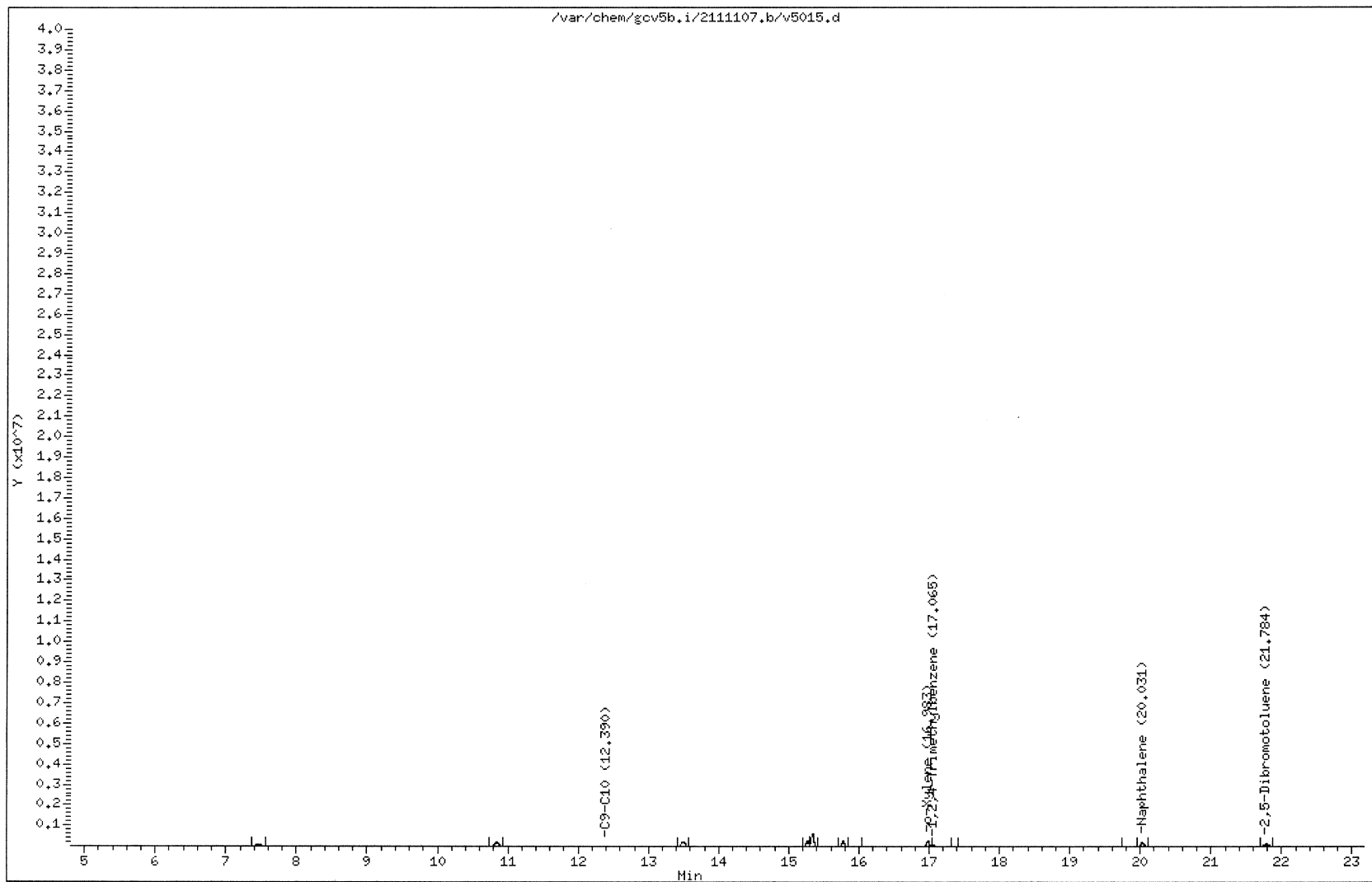
QC Flag Legend

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: 21110312404\*10  
Volume Injected (uL): 1.0  
Column phase: DB-624-30

Page 1

Instrument: gcv5b.i  
Operator: JAR  
Column diameter: 0.53

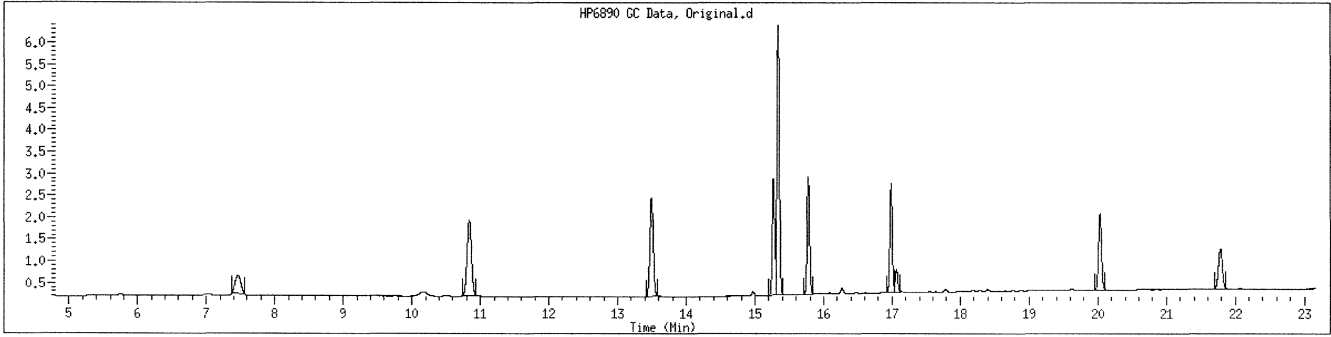


211103124 314

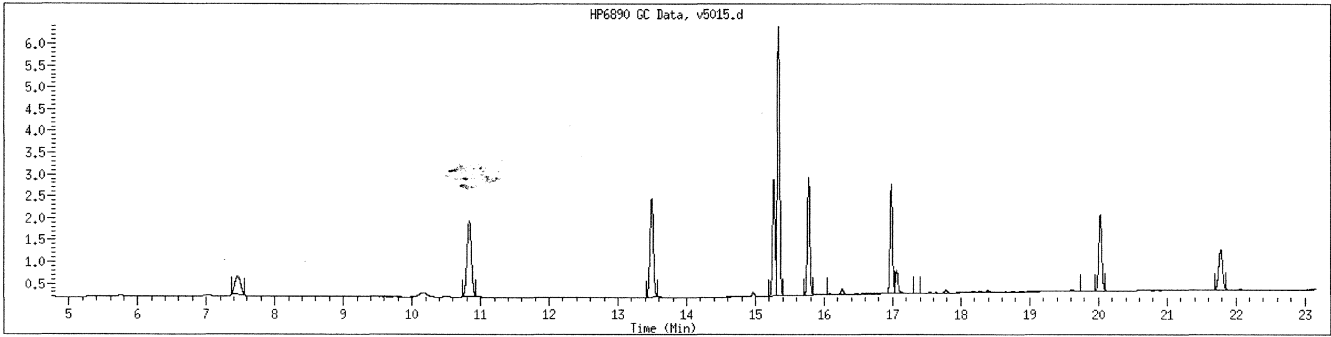
MANUAL INTEGRATION GRAPHIC REPORT

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN ( ug/L)	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.

Date : 07-NOV-2011 19:55

Client ID: 21110312404

Instrument: gov5a.i

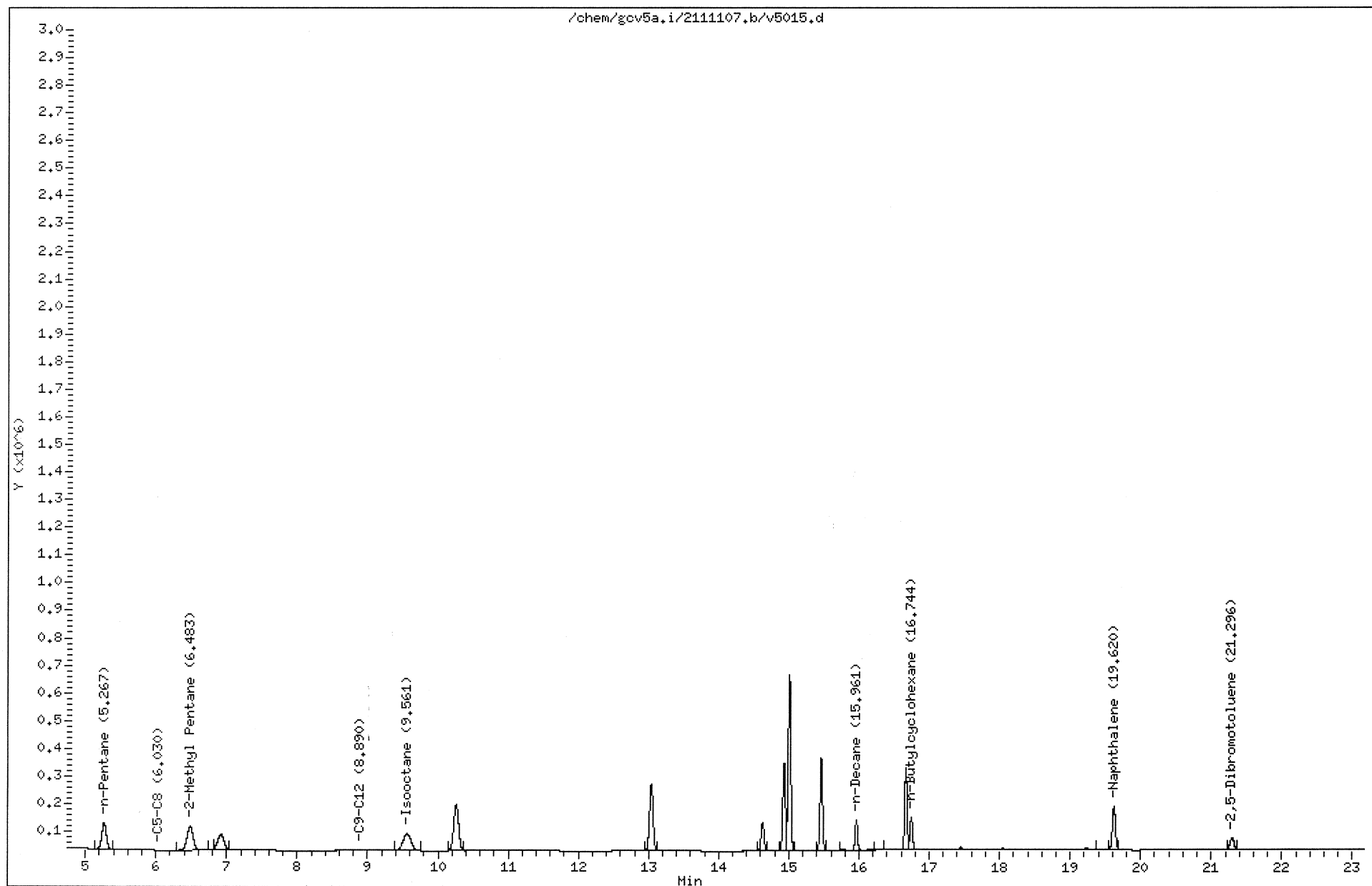
Sample Info: 21110312404\*10

Volume Injected (uL): 1.0

Operator: JAR

Column phase: DB-624-30

Column diameter: 0.53

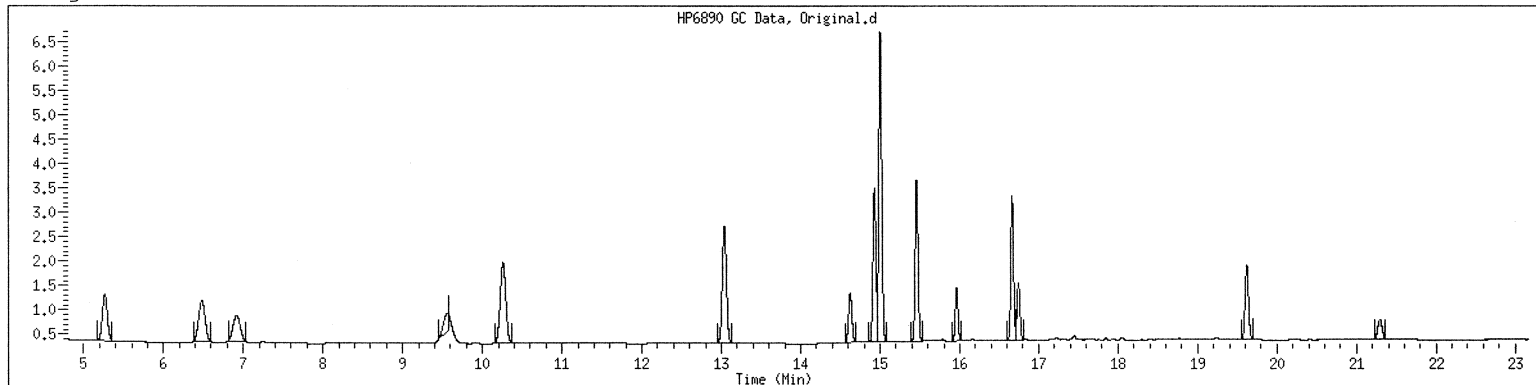


211103124 318

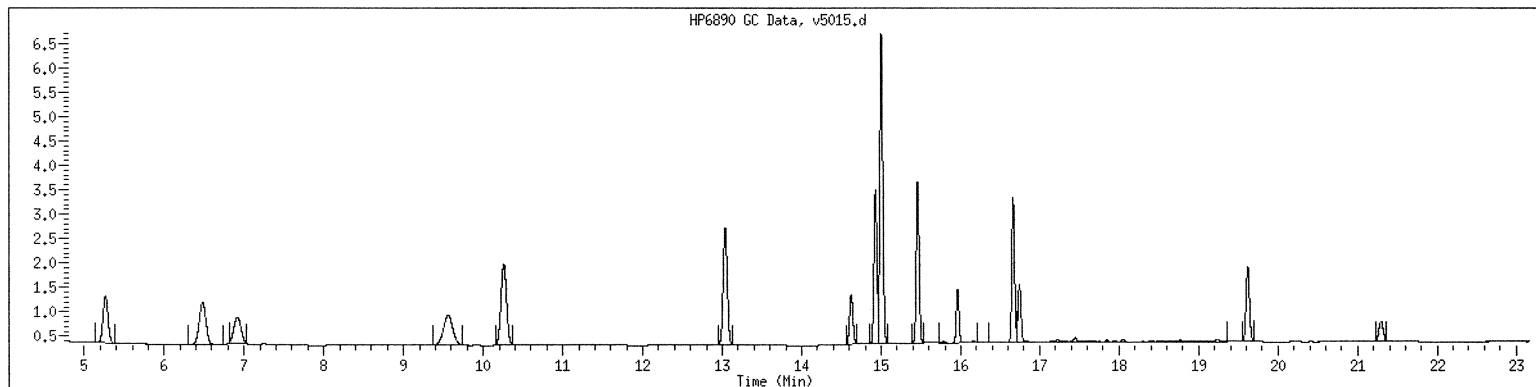
MANUAL INTEGRATION GRAPHIC REPORT

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) *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.	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	<i>ms/msd</i>	Water	10/24/11 08:30	MADEP-EPH	<i>2,3,4</i>	\$125.00
				Water	10/24/11 08:30	MADEP-VPH		\$75.00
3.	AY49336	ES049		Water	10/24/11 14:35	MADEP-EPH	<i>5</i>	\$125.00
				Water	10/24/11 14:35	MADEP-VPH		\$75.00

*5.9*  
*5.8*  
*3.4*

*4796 7085 3230*

<i>Yang</i>	<i>10/28/11</i>	<i>14:30</i>					
Released By	Date	Time	Received By	Date	Time		
			<i>Chaucier</i>	<i>10/29/11</i>	<i>910</i>		
Released By	Date	Time	Received By	Date	Time		

**To ensure timely payment, please include the PO number on your invoice**

*4796 7085 3231*

*4796 7085 3242*



### 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: \_\_\_\_\_

\_\_\_\_\_

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