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ACCREDITED

BERKELEY ANALYTICAL
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Richmond, CA 94804
Ph. 510-236-2325; Fax 510-236-2335
E-mail info@berkeleyanalytical.com

Analysis of Field-Collected Air Samples

Customer and Project Information

Report Certification	
Report number	061-035-IH-Aug0116
Report date	August 1, 2016
Certified by (Name/Title)	Raja Tannous, Laboratory Director
Signature	
Date	*August 1, 2016*

Methods	
U.S. EPA TO-17	Determination of Volatile Organic Compounds in Ambient...
ASTM D 5197	Std. Test Method for Determination of Formaldehyde...

Customer Information	
Customer:	US EPA
City/State/Country	San Francisco, CA, USA
Contact name/Title	Jeff Woodlee
Phone number	415-972-3740

Project Information	
Project number	Not given
Project name	75 Hawthorne IAQ
Project location	Not given
Project date	July 25, 2016

Laboratory Receiving Information	
Date samples received by lab	July 27, 2016
Condition of samples	No observed problems
Lab tracking numbers	061-035-01 to 061-035-12

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Sample Information, Caprolactam

Sample No.	Sample Description	Sampler No.	Date Collected	Volume* (L)	Analysis Type	Specified Method
C13-01	15342	Mi59923	July 25, 2016	6.24	Caprolactam	TO-17
C13-02	15354	Mi58844	July 25, 2016	5.47	Caprolactam	TO-17
C13-03	15248	Mi58846	July 25, 2016	5.79	Caprolactam	TO-17
C13-04	15154	Mi51153	July 25, 2016	5.92	Caprolactam	TO-17
C13-05	15112	Mi58836	July 25, 2016	5.98	Caprolactam	TO-17
C13-06	15162	Mi59957	July 25, 2016	6.02	Caprolactam	TO-17

*Volume in liters reported by customer

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Sample Information, Formaldehyde

Sample No.	Sample Description	Sampler No.	Date Collected	Volume* (L)	Analysis Type	Specified Method
F13-01	15342	Supelco Cart	July 25, 2016	59.54	Formaldehyde	D 5197
F13-02	15354	Supelco Cart	July 25, 2016	52.09	Formaldehyde	D 5197
F13-03	15248	Supelco Cart	July 25, 2016	53.82	Formaldehyde	D 5197
F13-04	15154	Supelco Cart	July 25, 2016	55.55	Formaldehyde	D 5197
F13-05	15112	Supelco Cart	July 25, 2016	55.19	Formaldehyde	D 5197
F13-06	15162	Supelco Cart	July 25, 2016	56.43	Formaldehyde	D 5197

*Volume in liters reported by customer

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Analytical Information, Caprolactam

Sample No.	Lab Track. No.	Method	Date Analyzed	Analyst	Data File
C13-01	061-035-01	TO-17	July 27, 2016	R. Gill	T160727_07
C13-02	061-035-02	TO-17	July 27, 2016	R. Gill	T160727_08
C13-03	061-035-03	TO-17	July 27, 2016	R. Gill	T160727_09
C13-04	061-035-04	TO-17	July 27, 2016	R. Gill	T160727_10
C13-05	061-035-05	TO-17	July 27, 2016	R. Gill	T160727_11
C13-06	061-035-06	TO-17	July 27, 2016	R. Gill	T160727_12

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Analytical Information, Formaldehyde

Sample No.	Lab Track. No.	Method	Date Analyzed	Analyst	Data File
F13-01	061-035-07	D 5197	July 27, 2016	T.Cheng	160727\160727003.D
F13-02	061-035-08	D 5197	July 27, 2016	T.Cheng	160727\160727004.D
F13-03	061-035-09	D 5197	July 27, 2016	T.Cheng	160727\160727005.D
F13-04	061-035-10	D 5197	July 27, 2016	T.Cheng	160727\160727006.D
F13-05	061-035-11	D 5197	July 27, 2016	T.Cheng	160727\160727007.D
F13-06	061-035-12	D 5197	July 27, 2016	T.Cheng	160727\160727008.D

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Project Specific Information

Air samples for the analysis of formaldehyde (CAS # 50-00-0) and caprolactam (CAS # 105-60-2) were received by the laboratory on July 27, 2016. There were six Supelco DNPH cartridges for the analysis of formaldehyde and there were six multi-sorbent tubes for caprolactam analysis. The analytical results for caprolactam are presented in Table 1. The analytical results for formaldehyde are presented in Table 2. All laboratory data, including but not limited to raw instrument files, calibration files, and quality control checks used to generate the results will be made available to the customer upon request.

Formaldehyde was analyzed by HPLC following ASTM Standard Method D5197. Formaldehyde was quantified using a multi-point (4 or more points) calibration curve.

Cartridge Blank – The average Waters DNPH cartridge blank for formaldehyde is 40 ng. The average cartridge blank was subtracted from a measured mass to determine a blank subtracted sample mass.

MDL and LOQ – A Method Detection Limit (MDL) for formaldehyde of 15 ng was determined from the analysis of ten replicates of a low level standard spiked onto DNPH cartridges. The practical lower limit of quantitation (LOQ) is three times the MDL.

Uncertainty – The laboratory uses the ISO GUM method to estimate the uncertainties associated with the measurement of formaldehyde. The expanded uncertainty is equal to two times the relative standard deviation. For 2015, the expanded uncertainty estimated for formaldehyde was <9.0%.

Caprolactam was analyzed by thermal desorption GC/MS following U.S. EPA Compendium Method TO-17. Caprolactam was quantified using a multi-point (4 or more points) calibration cure prepared with a pure standard.

MDL and LOQ – A Method Detection Limit (MDL) for caprolactam of 2.3 ng was determined from the analysis of three replicates of a low level standard spiked onto multi-sorbent air sampling tubes. The practical lower limit of quantitation (LOQ) is three times the MDL.

Uncertainty – The laboratory uses the ISO GUM method to estimate the uncertainties associated with the measurement of VOCs . The expanded uncertainty is equal to two times the relative standard deviation. For 2015, the expanded uncertainty estimated for caprolactam was 11%.

All test methods used in this project are contained in the scope of Berkeley Analytical's ISO/IEC 17025 accreditation (TL-383, International Accreditation Service, Inc.).

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Results, Caprolactam

Table 1. Quantitative analysis of Caprolactam (CAS # 105-60-2)

Sample No.	Sample Name	Volume (L)	Mass (ng)	Conc ($\mu g/m^3$)	Conc* (ppb)
C13-01	15342	6.24	52.3	8.4	1.8
C13-02	15354	5.47	58.2	5.5	1.2
C13-03	15248	5.79	49.9	8.6	1.9
C13-04	15154	5.92	58.6	9.9	2.1
C13-05	15112	5.98	69.1	11.5	2.5
C13-06	15162	6.02	51.7	8.6	1.9

*Concentration in ppb calculated assuming standard conditions of 25° C and 101.3 kPa.

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Results, Formaldehyde

Table 2. Quantitative analysis of formaldehyde (CAS #50-00-0)

Sample No.	Sample Name	Volume (L)	Measured Mass (ng)	Mass – Blank* (ng)	Conc ($\mu g/m^3$)	Conc** (ppb)
F13-01	15342	59.54	549	509	8.6	7.0
F13-02	15354	52.09	603	563	10.8	8.8
F13-03	15248	53.82	491	451	8.4	6.8
F13-04	15154	55.55	488	448	8.1	6.6
F13-05	15112	55.19	444	404	7.3	6.0
F13-06	15162	56.43	530	490	8.7	7.1

*Measured mass corrected for typical 40 ng formaldehyde cartridge blank.

**Concentration in ppb calculated assuming standard conditions of 25° C and 101.3 kPa.

END OF REPORT

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CHAIN-OF-CUSTODY RECORD for ANALYTICAL SERVICES

2009 Update

Client Information*			
Company:	US EPA		
Street Address:	75 Hawthorne St		
City/State/Zip Code:	S.F. CA 94105		
Country:		Contact (for reporting):	Jeff Woodlee
Project/Job Name:	75 Hawthorne IAQ		
Project/Job #:		P.O. #:	
Phone:	(415) 972-3740	Fax:	
E-mail address:	woodlee.Jeff@epa.gov		

Received from BAA (check if applicable)	
Multi-sorbent tube samplers	☒
Aldehyde cartridge samplers	☐
Sampling pump(s)	☐
Other materials (specify):	☐

BAA Analysis Code	
Total VOCs by GC/MS total-ion-current method (TIC)	a
Qualitative GC/MS of individual VOCs	b
Qualitative GC/MS plus quantitation of up to 15 individual VOCs	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS Total VOCs plus 4-PCH	e
Quantitative HPLC analysis of formaldehyde	f
Quantitative HPLC analysis of formaldehyde & acetaldehyde	g
Quantitative HPLC analysis of formaldehyde & C2-C9 carbonyls	h
Quantitative HPLC analysis of glutaraldehyde	i
	k
Other (specify):	z

Air Sampling Record

Tube/Cartridge Sampler No.	Collected Sample ID	Date Collected	Collection Minutes	Collected Volume (L)	Sample Location / Description / Remarks	Analysis Code	BAA Remarks
	C13-01	7/25/16	65	6.24	15342	b (caprolactam)	
	C13-02	↓	56	5.47	15354	↓	
	C13-03		60	5.79	15248		
	C13-04		60	5.92	15154		
	C13-05		62	5.98	15112		
	C13-06		61	6.02	15162		

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J. Woodlee			7/26/16	USEPA
	K. Tannous		7/27/16	BKA

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Project/Job Name:	75 Hawthorne IAQ		
Project/Job #:		P.O. #:	
Phone:	(415) 972-3740	Fax:	
E-mail address:	woodlee.Jeff@epa.gov		

Received from BAA (check if applicable)	
Multi-sorbent tube samplers	☐
Aldehyde cartridge samplers	☒
Sampling pump(s)	☐
Other materials (specify):	☐

BAA Analysis Code	
Total VOCs by GC/MS total-ion-current method (TIC)	a
Qualitative GC/MS of individual VOCs	b
Qualitative GC/MS plus quantitation of up to 15 individual VOCs	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS Total VOCs plus 4-PCH	e
Quantitative HPLC analysis of formaldehyde	f
Quantitative HPLC analysis of formaldehyde & acetaldehyde	g
Quantitative HPLC analysis of formaldehyde & C2-C9 carbonyls	h
Quantitative HPLC analysis of glutaraldehyde	i
	k
Other (specify):	z

Air Sampling Record

Tube/Cartridge Sampler No.	Collected Sample ID	Date Collected	Collection Minutes	Collected Volume (L)	Sample Location / Description / Remarks	Analysis Code	BAA Remarks
	F13-01	7/25/16	65	59.54	15342	f	
	F13-02	↓	56	52.09	15354	↓	
	F13-03	↓	60	53.82	15248	↓	
	F13-04	↓	60	55.55	15154	↓	
	F13-05	↓	62	55.19	15112	↓	
	F13-06	↓	61	56.43	15162	↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J. Woodlee			7/26/16	USEPA
	K. Tannous		7/27/16	BKA

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2009 Update

Client Information*			
Company:	US EPA		
Street Address:	75 Hawthorne St		
City/State/Zip Code:	S.F. CA 94105		
Country:		Contact (for reporting):	Jeff Woodlee
Project/Job Name:	75 Hawthorne IAQ		
Project/Job #:		P.O. #:	
Phone:	(415) 972-3740	Fax:	
E-mail address:	woodlee.jeff@epa.gov		

Received from BAA (check if applicable)	
Multi-sorbent tube samplers	☐
Aldehyde cartridge samplers	☒
Sampling pump(s)	☐
Other materials (specify):	☐

BAA Analysis Code	
Total VOCs by GC/MS total-ion-current method (TIC)	a
Qualitative GC/MS of individual VOCs	b
Qualitative GC/MS plus quantitation of up to 15 individual VOCs	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS Total VOCs plus 4-PCH	e
Quantitative HPLC analysis of formaldehyde	f
Quantitative HPLC analysis of formaldehyde & acetaldehyde	g
Quantitative HPLC analysis of formaldehyde & C2-C9 carbonyls	h
Quantitative HPLC analysis of glutaraldehyde	i
	k
Other (specify):	z

Air Sampling Record

Tube/Cartridge Sampler No.	Collected Sample ID	Date Collected	Collection Minutes	Collected Volume (L)	Sample Location / Description / Remarks	Analysis Code	BAA Remarks
	F13-01	7/25/16	65	59.54	15342	f	
	F13-02	↓	56	52.09	15354	↓	
	F13-03	↓	60	53.82	15248	↓	
	F13-04	↓	60	55.55	15154	↓	
	F13-05	↓	62	55.19	15112	↓	
	F13-06	↓	61	56.43	15162	↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J. Woodlee			7/26/16	USEPA
	K. Tannous		7/27/16	BKA

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Project/Job Name: 75 Hawthorne IAQ	
Project/Job #:	P.O. #:
Phone: (415) 972-3740	Fax:
E-mail address: woodlee.jeff@epa.gov	

Received from BAA (check if applicable)	
Multi-sorbent tube samplers	☒
Aldehyde cartridge samplers	☐
Sampling pump(s)	☐
Other materials (specify):	☐

BAA Analysis Code	
Total VOCs by GC/MS total-ion-current method (TIC)	a
Qualitative GC/MS of individual VOCs	b
Qualitative GC/MS plus quantitation of up to 15 individual VOCs	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS Total VOCs plus 4-PCH	e
Quantitative HPLC analysis of formaldehyde	f
Quantitative HPLC analysis of formaldehyde & acetaldehyde	g
Quantitative HPLC analysis of formaldehyde & C2-C9 carbonyls	h
Quantitative HPLC analysis of glutaraldehyde	i
	k
Other (specify):	z

Air Sampling Record

Tube/Cartridge Sampler No.	Collected Sample ID	Date Collected	Collection Minutes	Collected Volume (L)	Sample Location / Description / Remarks	Analysis Code	BAA Remarks
	C13-01	7/25/16	65	6.24	15342	b (caprolactam)	
	C13-02	↓	56	5.47	15354	↓	
	C13-03		60	5.79	15248		
	C13-04		60	5.92	15154		
	C13-05		62	5.98	15112		
	C13-06	↓	61	6.02	15162	↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J. Woodlee			7/26/16	USEPA
	F. Tannous		7/27/16	BKA

JC061-035

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Project/Job #:		P.O. #:	
Phone:	(415) 972-3740	Fax:	
E-mail address:	woodlee.Jeff@epa.gov		

Received from BAA (check if applicable)	
Multi-sorbent tube samplers	☒
Aldehyde cartridge samplers	☐
Sampling pump(s)	☐
Other materials (specify):	☐

BAA Analysis Code	
Total VOCs by GC/MS total-ion-current method (TIC)	a
Qualitative GC/MS of individual VOCs	b
Qualitative GC/MS plus quantitation of up to 15 individual VOCs	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS Total VOCs plus 4-PCH	e
Quantitative HPLC analysis of formaldehyde	f
Quantitative HPLC analysis of formaldehyde & acetaldehyde	g
Quantitative HPLC analysis of formaldehyde & C2-C9 carbonyls	h
Quantitative HPLC analysis of glutaraldehyde	i
	k
Other (specify):	z

Air Sampling Record

Tube/Cartridge Sampler No.	Collected Sample ID	Date Collected	Collection Minutes	Collected Volume (L)	Sample Location / Description / Remarks	Analysis Code	BAA Remarks
Mi59923	C13-01	7/25/16	65	6.24	15342	b (caprolactam)	
Mi58844	C13-02	↓	56	5.47	15354	↓	
Mi58846	C13-03		60	5.79	15248		
Mi51153	C13-04		60	5.92	15154		
Mi58836	C13-05		62	5.98	15112		
Mi59957	C13-06	↓	61	6.02	15162	↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J. Woodlee			7/26/16	USEPA
	R. Tannous		7/27/16	BKA

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IH Testing, Invoicing and Report Checklist

Date:	8/1/16	Report ID & Billing Ref:	
Company:	US EPA	Test Methd/ Description: (highlite all applicable)	TO-17; ASTM D5197
Contact Name:	Jeff Woodlee	Program	LEED V4
Contact Phone:	415-972-3740	Quote #:	Date:
Contact Email:	woodlee.jeff@epa.gov	PO #:	
Initiator:		Sample IDs:	
Notes & Deviations:			

Item to Check	Initials	Notes
COC		
Is it clear what test to be performed[1]?	[illegible]	YES / NO :
Log in samples and check the Turnaround of the report	[illegible]	YES / NO :
Scan (to PDF) a copy of the COC form	[illegible]	YES / NO :
Check and confirm that the samples match the COC	[illegible]	YES / NO :
Chemical Analysis		
Analyze sampels by TO-17	[illegible]	YES / NO :
Analyze samples by ASTM D5197	[illegible]	YES / NO :
Report Preparation		
Prepare the draft reprot	[illegible]	YES / NO :
Does the Report match Method and Criteria?	[illegible]	YES / NO : *(check COC, estimate send to customer and the top part of this check list)*
Verify customer information on first page of previewed report (vs. COC or e-mail info)	[illegible]	
Insert in the PDF report: Raja or Al's signature and check signature date - the scanned COC page at the end of the report	[illegible]	
Print, Optimize and Secure the report	[illegible]	
E-mail copy of the PDF report to client and other authorized contacts and organizations (enter date sent)	[illegible]	8/1/16
Invoicing		
Invoice Matches PO/Quote w/ correct ReportID & Billing Reference	[illegible]	✓
Invoice Number and Date		55859
Date invoice sent to customer and other authorized contacts		8/2/16

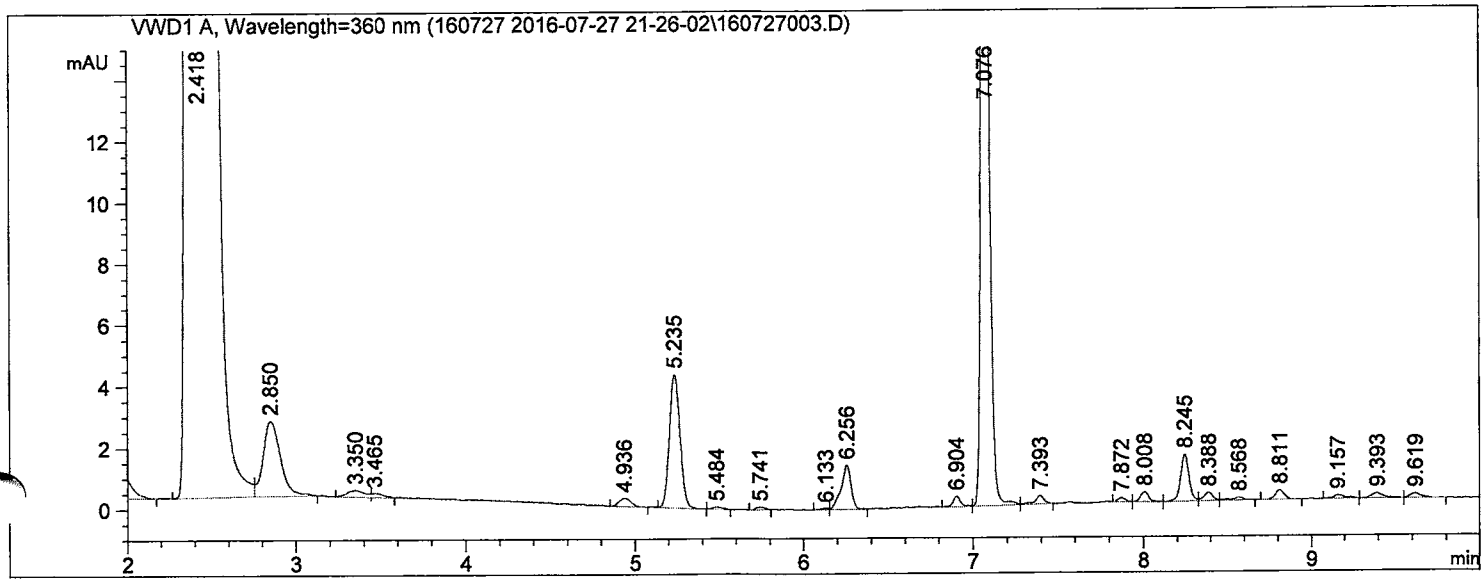
Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727003.D
Sample Name: 061-035-07

==========

Acq. Operator : SYSTEM
Seq. Line : 2
Acq. Instrument : Agilent 1260
Location : Vial 2
Injection Date : 7/27/2016 10:00:02 PM
Inj : 1
Inj Volume : 2.000 µl

Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-07; F13-01 collected: 7/25/16; 15342; 59.54L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.235	1	BB	18.85081	1.45655e-2	549.14382		Formaldehyde;50-00-0
6.256	1	VB	5.90347	1.94485e-2	229.62696		Acetaldehyde;75-07-0

Totals : 778.77078

==========

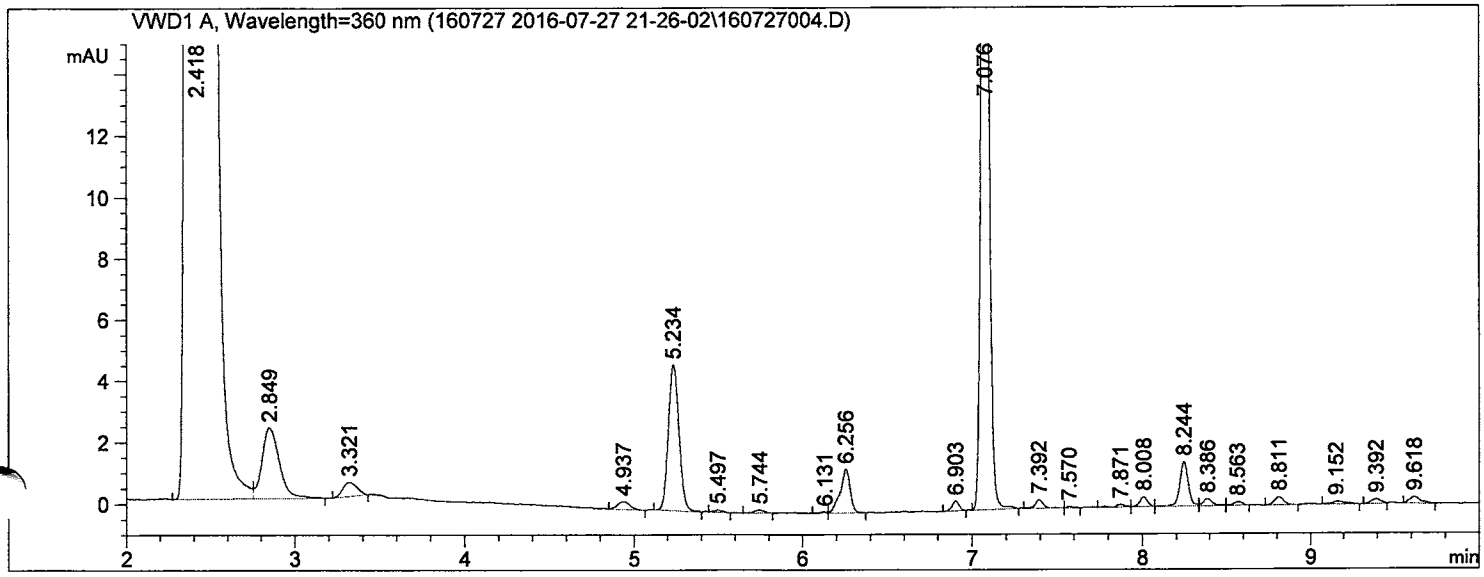
*** End of Report ***

Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727004.D
Sample Name: 061-035-08

==========

Acq. Operator : SYSTEM
Seq. Line : 3
Acq. Instrument : Agilent 1260
Location : Vial 3
Injection Date : 7/27/2016 10:16:40 PM
Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-08; F13-02 collected: 7/25/16; 15354; 52.09L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.234	1	BB	20.68397	1.45655e-2	602.54546		Formaldehyde;50-00-0
6.256	1	VB	5.79253	1.94485e-2	225.31163		Acetaldehyde;75-07-0

Totals : 827.85709

==========

*** End of Report ***

Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727005.D
Sample Name: 061-035-09

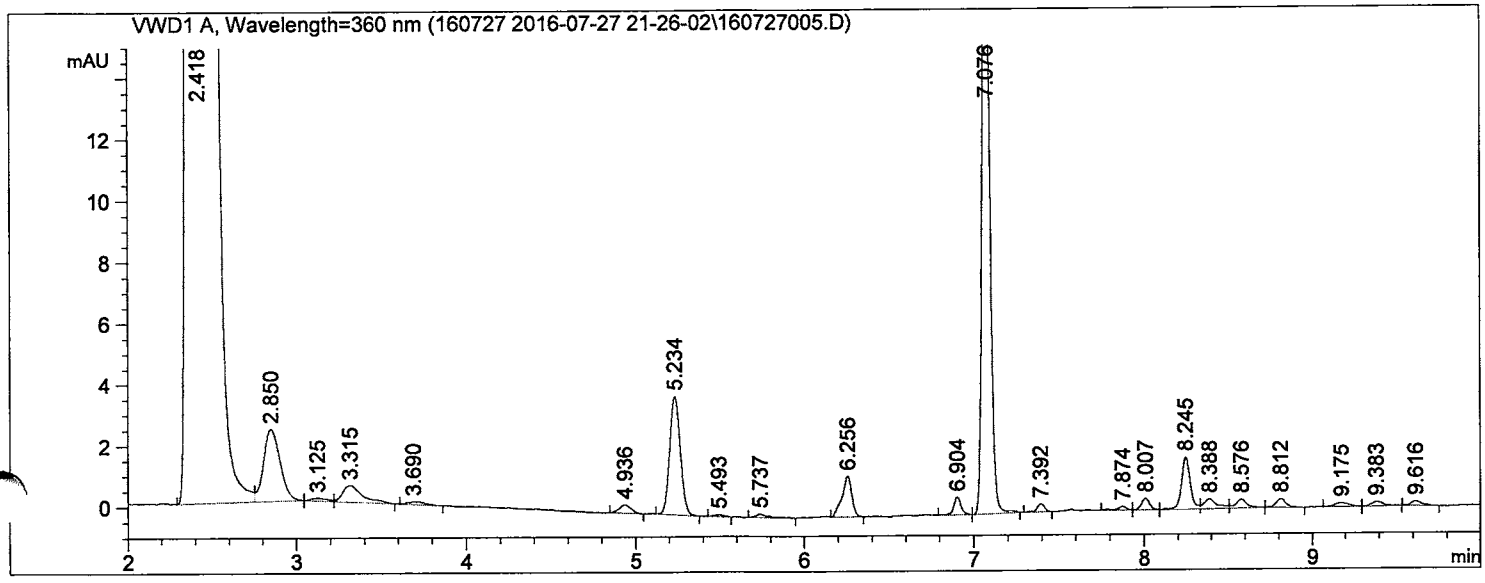
==========

Acq. Operator : SYSTEM
Acq. Instrument : Agilent 1260
Injection Date : 7/27/2016 10:33:20 PM

Seq. Line : 4
Location : Vial 4
Inj : 1
Inj Volume : 2.000 µl

Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-09; F13-03 collected: 7/25/16; 15248; 53.82L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.234	1	BB	16.85281	1.45655e-2	490.93997		Formaldehyde;50-00-0
6.256	1	VB	5.41543	1.94485e-2	210.64339		Acetaldehyde;75-07-0

Totals : 701.58336

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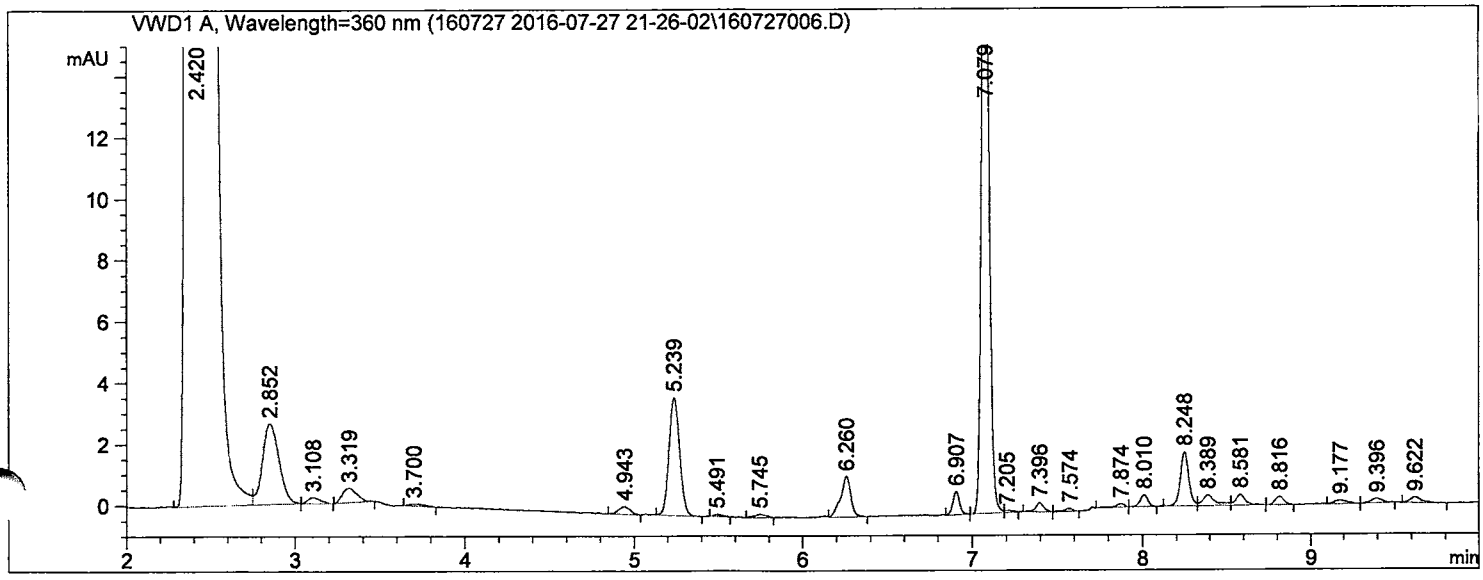
*** End of Report ***

Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727006.D
Sample Name: 061-035-10

==========

Acq. Operator : SYSTEM
Seq. Line : 5
Acq. Instrument : Agilent 1260
Location : Vial 5
Injection Date : 7/27/2016 10:50:00 PM
Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-10; F13-04 collected: 7/25/16; 15154; 55.55L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.239	1	BB	16.75633	1.45655e-2	488.12926		Formaldehyde;50-00-0
6.260	1	VB	5.48544	1.94485e-2	213.36657		Acetaldehyde;75-07-0

Totals : 701.49583

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*** End of Report ***

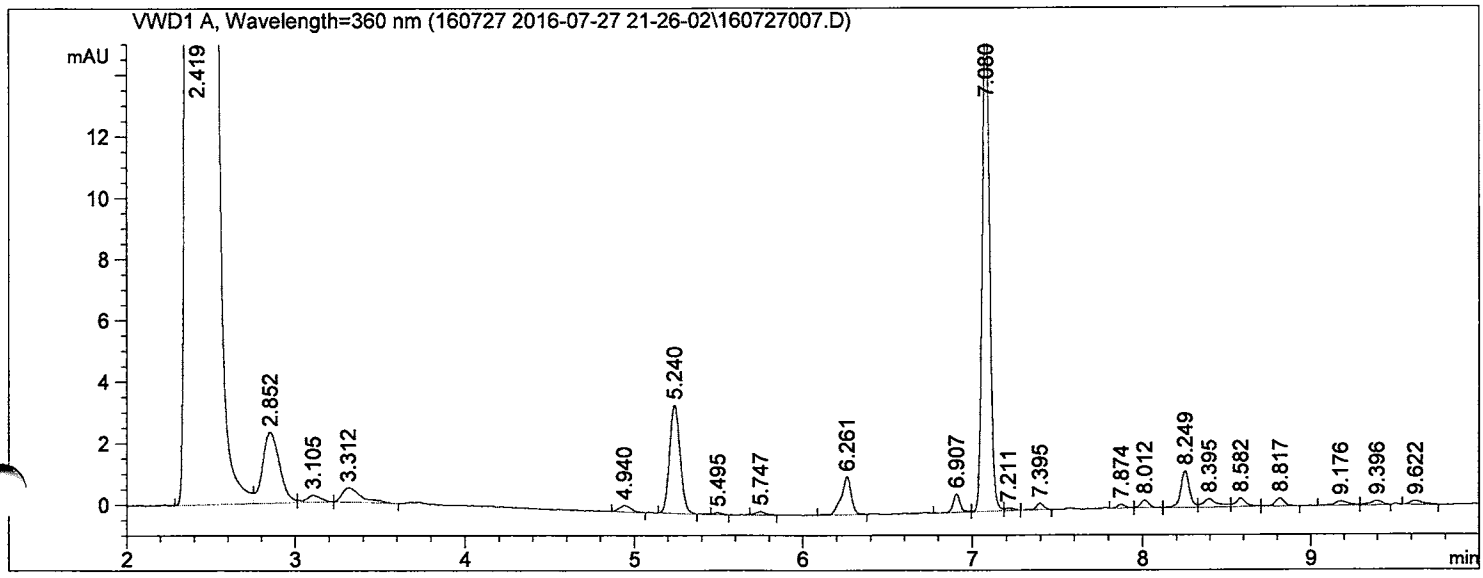
Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727007.D
Sample Name: 061-035-11

==========

Acq. Operator : SYSTEM
Seq. Line : 6
Acq. Instrument : Agilent 1260
Location : Vial 6
Injection Date : 7/27/2016 11:06:40 PM
Inj : 1
Inj Volume : 2.000 µl

Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-11; F13-05 collected: 7/25/16; 15112; 55.19L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.240	1	BB	15.25387	1.45655e-2	444.36097		Formaldehyde;50-00-0
6.261	1	BB	5.07739	1.94485e-2	197.49500		Acetaldehyde;75-07-0

Totals : 641.85597

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*** End of Report ***

Data File C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\160727008.D
Sample Name: 061-035-12

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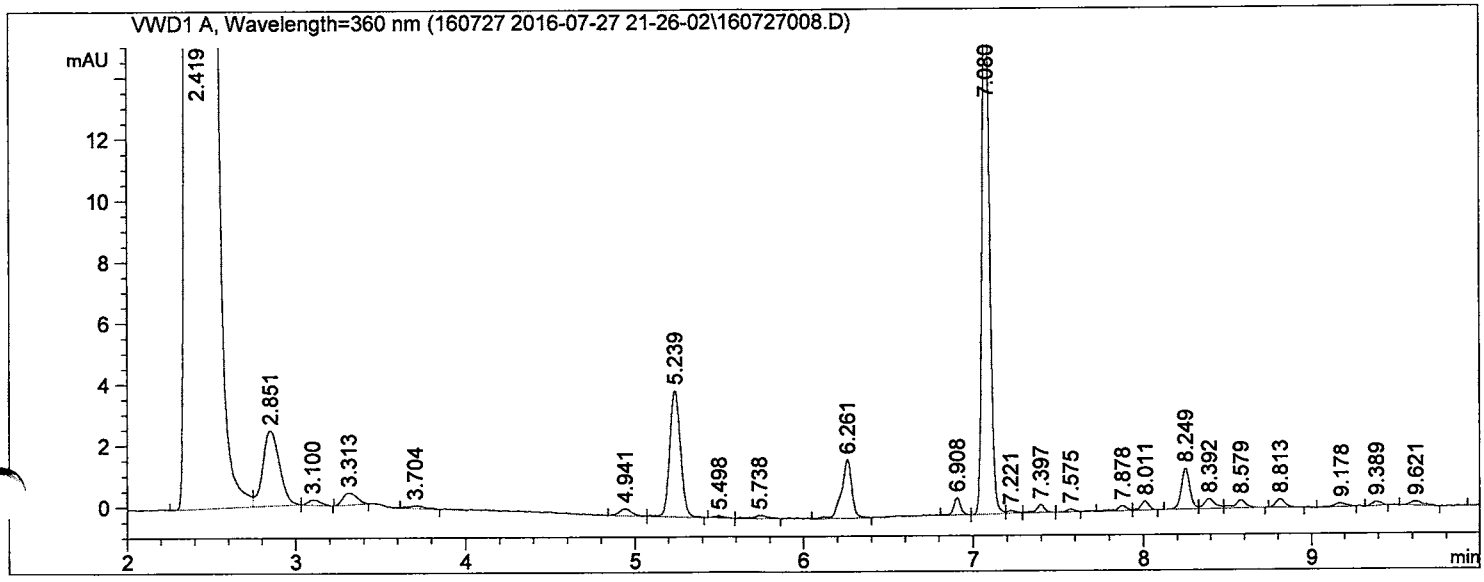
Acq. Operator : SYSTEM
Seq. Line : 7
Acq. Instrument : Agilent 1260
Location : Vial 7
Injection Date : 7/27/2016 11:23:20 PM
Inj : 1
Inj Volume : 2.000 µl

Acq. Method : C:\CHEM32\1\DATA\160727 2016-07-27 21-26-02\FORMALDEHYDE.M
Last changed : 7/27/2016 9:26:02 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 7/25/2016 12:47:02 PM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-035-12; F13-06 collected: 7/25/16; 15162; 56.43L



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 7/24/2016 8:20:54 PM
Multiplier : 2.000e3
Dilution : 1.0000
Sample Amount: : 1.00000 [ng] (not used in calc.)
Use Multiplier & Dilution Factor with ISTDs

Signal 1: VWD1 A, Wavelength=360 nm

RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount [ng]	Grp	Name
5.239	1	VB	18.17698	1.45655e-2	529.51445		Formaldehyde;50-00-0
6.261	1	BB	8.07211	1.94485e-2	313.98042		Acetaldehyde;75-07-0

Totals : 843.49487

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*** End of Report ***

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_07.D
Acq On : 27 Jul 2016 7:00 pm
Operator : rgill
Sample : 061-035-01_US EPA; Mi59923; 6.24L
Misc : C13-01; 107ngBFB;10:1 split
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 01 17:15:59 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	996419	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D. d	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D.	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D.	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.685	113	117538	52.32 ng	# 68
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D. d	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D. d	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D. d	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D.	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_08.D
Acq On : 27 Jul 2016 7:53 pm
Operator : rgill
Sample : 061-035-02_US EPA; Mi58844; 5.47L
Misc : C13-02; 107ngBFB;10:1 split
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 01 17:14:52 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	1010700	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93

Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D. d	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D. d	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D.	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.690	113	132635	58.21 ng	# 68
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D.	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D. d	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D.	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D. d	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_09.D
Acq On : 27 Jul 2016 8:47 pm
Operator : rgill
Sample : 061-035-03_US EPA; Mi58846; 5.79L
Misc : C13-03; 107ngBFB;10:1 split
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 01 17:14:18 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	1008339	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D.	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D.	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D.	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.690	113	113379	49.88 ng #	68
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D.	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D.	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D.	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D.	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_10.D
Acq On : 27 Jul 2016 9:40 pm
Operator : rgill
Sample : 061-035-04_US EPA; Mi51153; 5.92L
Misc : C13-04; 107ngBFB;10:1 split
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 01 17:13:41 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	1028008	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D. d	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D. d	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D. d	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.685	113	135692	58.55 ng	# 68
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D.	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D.	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D.	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D.	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_11.D
Acq On : 27 Jul 2016 10:35 pm
Operator : rgill
Sample : 061-035-05_US EPA; Mi58836; 5.98L
Misc : C13-05; 107ngBFB;10:1 split
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 01 17:13:05 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	1035833	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D. d	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D.	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D.	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.690	113	161255	69.05 ng	97
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D.	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D.	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D.	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D.	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

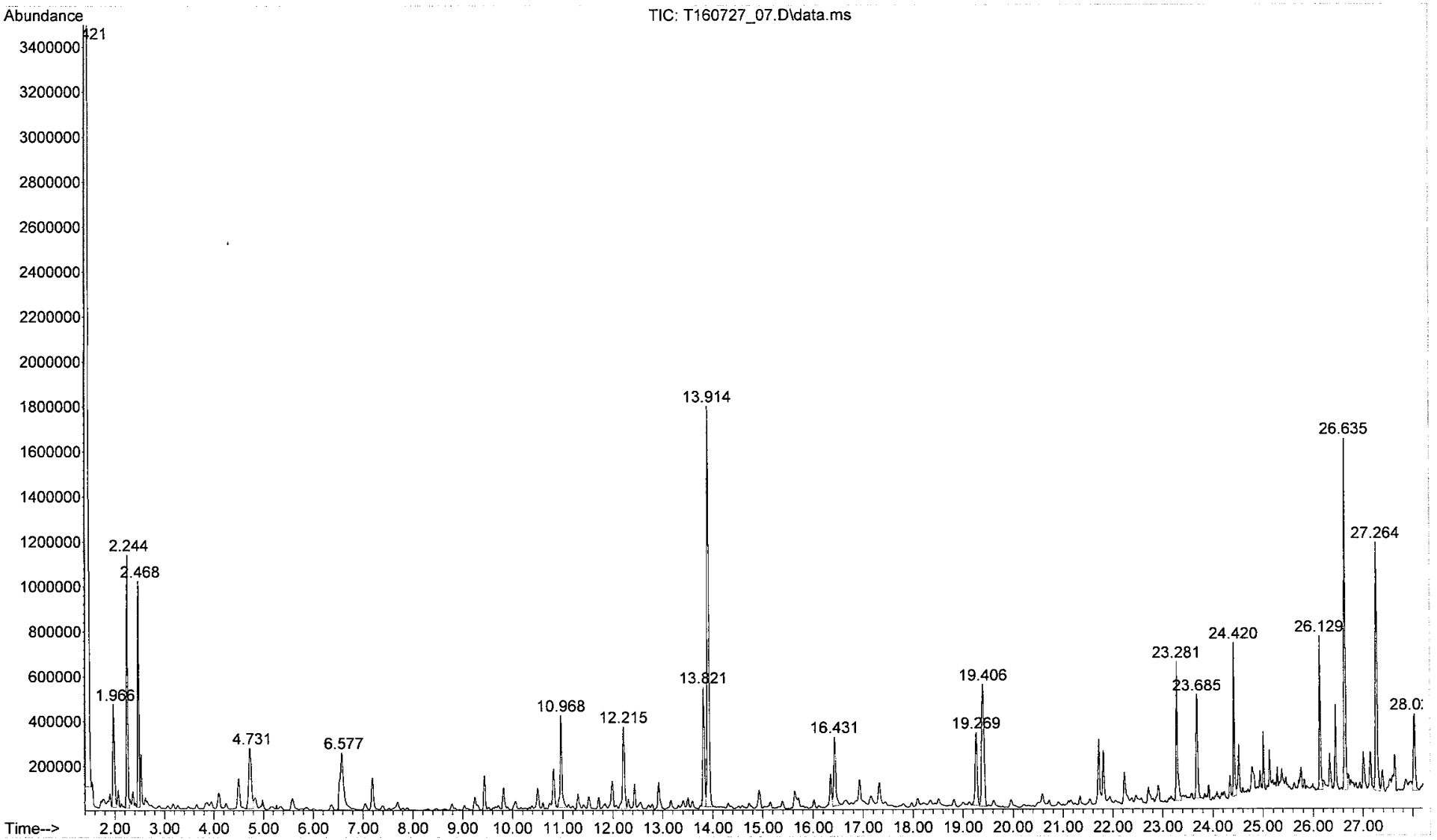
Data Path : C:\msdchem\1\data\2016\July\
Data File : T160727_12.D
Acq On : 27 Jul 2016 11:29 pm
Operator : rgill
Sample : 061-035-06_US EPA; M59957; 6.02L
Misc : C13-06; 107ngBFB;10:1 split
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 01 17:12:16 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016.M
Quant Title : AB95168
QLast Update : Thu Mar 31 15:13:53 2016
Response via : Initial Calibration

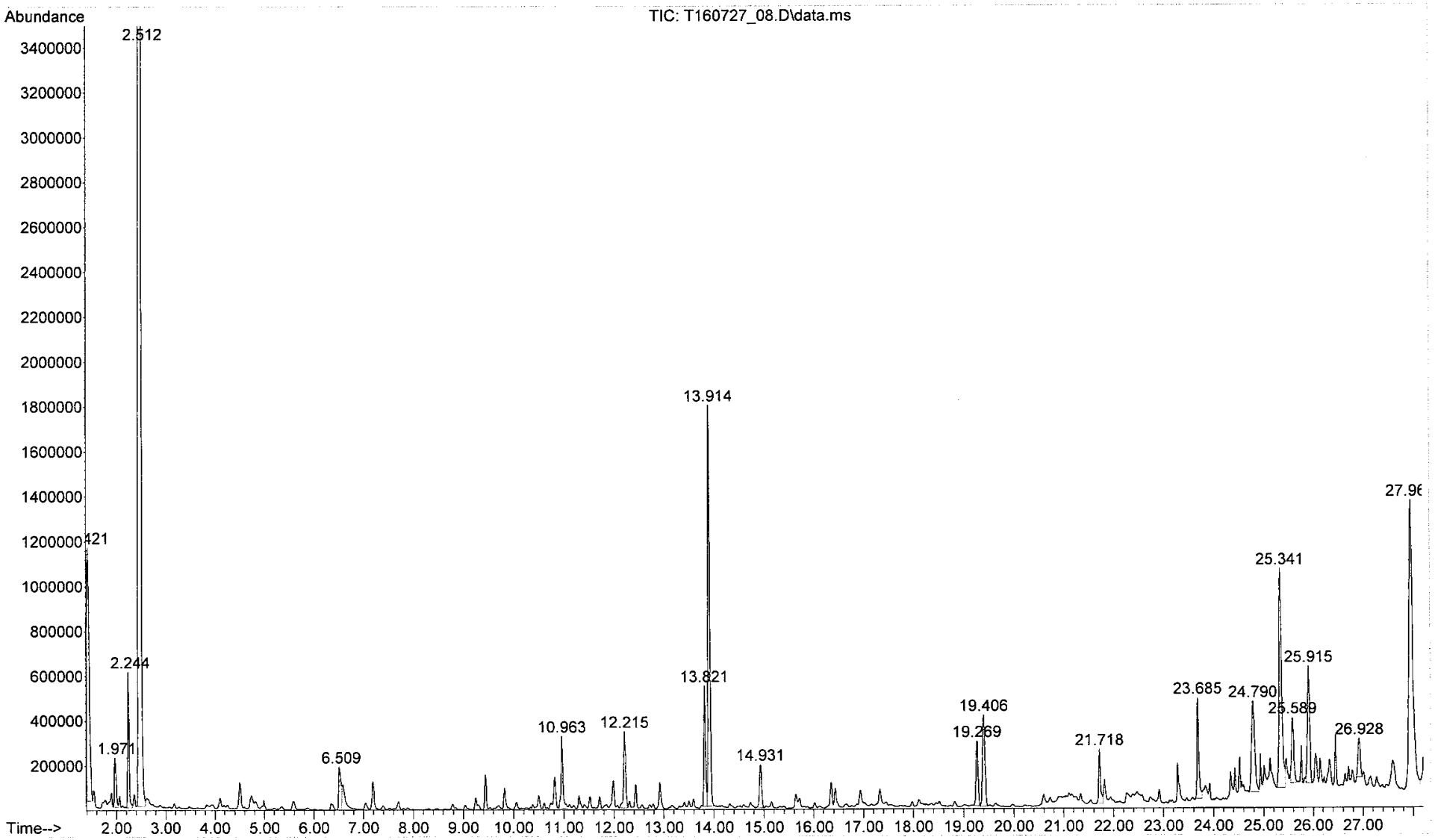
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	13.919	95	1118565	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
32) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
52) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
66) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93
97) 1-Bromo-4-flourobenzen...	0.000	95	0m	111.00 ng	-13.93

Target Compounds					Qvalue
2) Trichloroethene;79-01-6	0.000		0	N.D.	
3) Methyl methacrylate; 8...	0.000		0	N.D.	
4) Toluene; 108-88-3	0.000		0	N.D. d	
5) Tetrachloroethene; 127...	0.000		0	N.D.	
6) N,N-Dimethylformamide;...	0.000		0	N.D.	
7) Ethylbenzene; 100-41-4	0.000		0	N.D. d	
8) Xylene {1}; 1330-20-7	0.000		0	N.D. d	
9) Xylene {2}; 1330-20-7	0.000		0	N.D.	
10) Styrene; 100-42-5	0.000		0	N.D.	
11) 1,2,4-Trimethylbenzene...	0.000		0	N.D.	
12) Octanal; 124-13-0	0.000		0	N.D. d	
13) Phenol; 108-95-2	0.000		0	N.D.	
14) 1-Phenylethanone; 98-86-2	0.000		0	N.D.	
15) 1-Methyl-2-pyrrolidino...	0.000		0	N.D.	
16) Nonanal; 124-19-6	0.000		0	N.D. d	
17) 2-Ethylhexanoic acid; ...	0.000		0	N.D.	
18) Naphthalene; 91-20-3	0.000		0	N.D.	
19) 4-Phenylcyclohexene; 4...	0.000		0	N.D.	
20) Caprolactam; 105-60-2	23.690	113	130243	51.65 ng	# 68
22) 1-Methoxy-2-propanol; ...	0.000		0	N.D.	
23) Ethylene glycol; 107-21-1	0.000		0	N.D.	
24) Butyl acetate; 123-86-4	0.000		0	N.D. d	
25) Propylene glycol; 57-55-6	0.000		0	N.D. d	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D. d	
27) Hexanoic acid; 142-62-1	0.000		0	N.D.	
28) 2-Ethyl-1-hexanol; 104...	0.000		0	N.D.	
29) 2-(2-Butoxyethoxy) eth...	0.000		0	N.D.	
30) Dodecanol; 112-53-8	0.000		0	N.D.	
31) Butylated hydroxytolue...	0.000		0	N.D.	
33) n-Pentane; 109-66-0	0.000		0	N.D. d	
34) Ethanol; 64-17-5	0.000		0	N.D. d	
35) 2-Propanone(acetone); ...	0.000		0	N.D. d	
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	0.000		0	N.D. d	
38) Carbon disulfide; 75-15-0	0.000		0	N.D.	
39) Dichloromethane; 75-09-2	0.000		0	N.D.	
40) n-Hexane; 110-54-3	0.000		0	N.D.	
41) Vinyl acetate; 108-05-4	0.000		0	N.D.	
42) 2-Butanone; 78-93-3	0.000		0	N.D.	
43) Ethyl acetate; 141-78-6	0.000		0	N.D.	
44) Chloroform;67-66-3	0.000		0	N.D.	

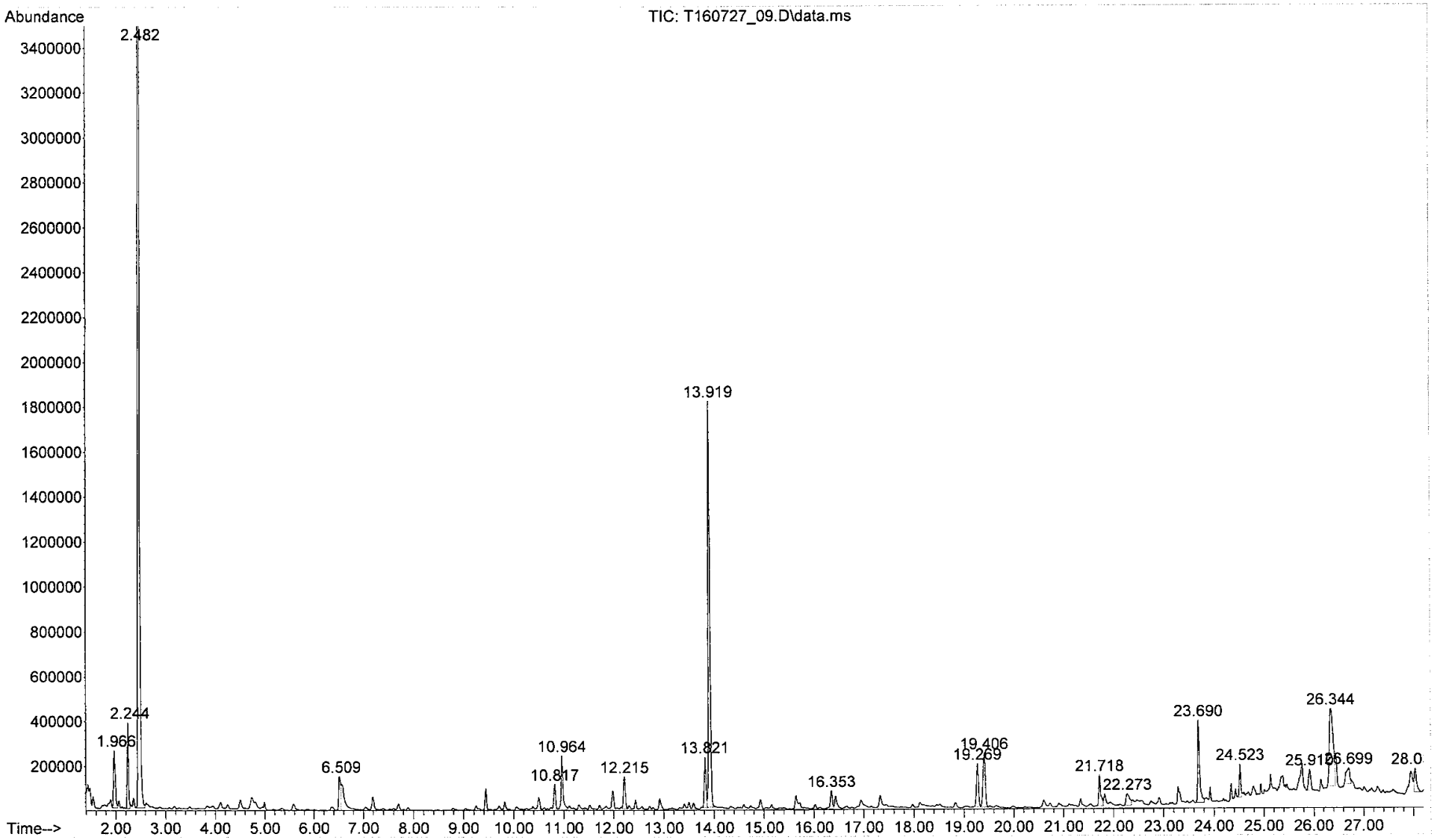
File :C:\msdchem\1\data\2016\July\T160727_07.D
Operator : rgill
Acquired : 27 Jul 2016 7:00 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-01_US EPA; Mi59923; 6.24L
Misc Info : C13-01; 107ngBFB;10:1 split
Vial Number: 7



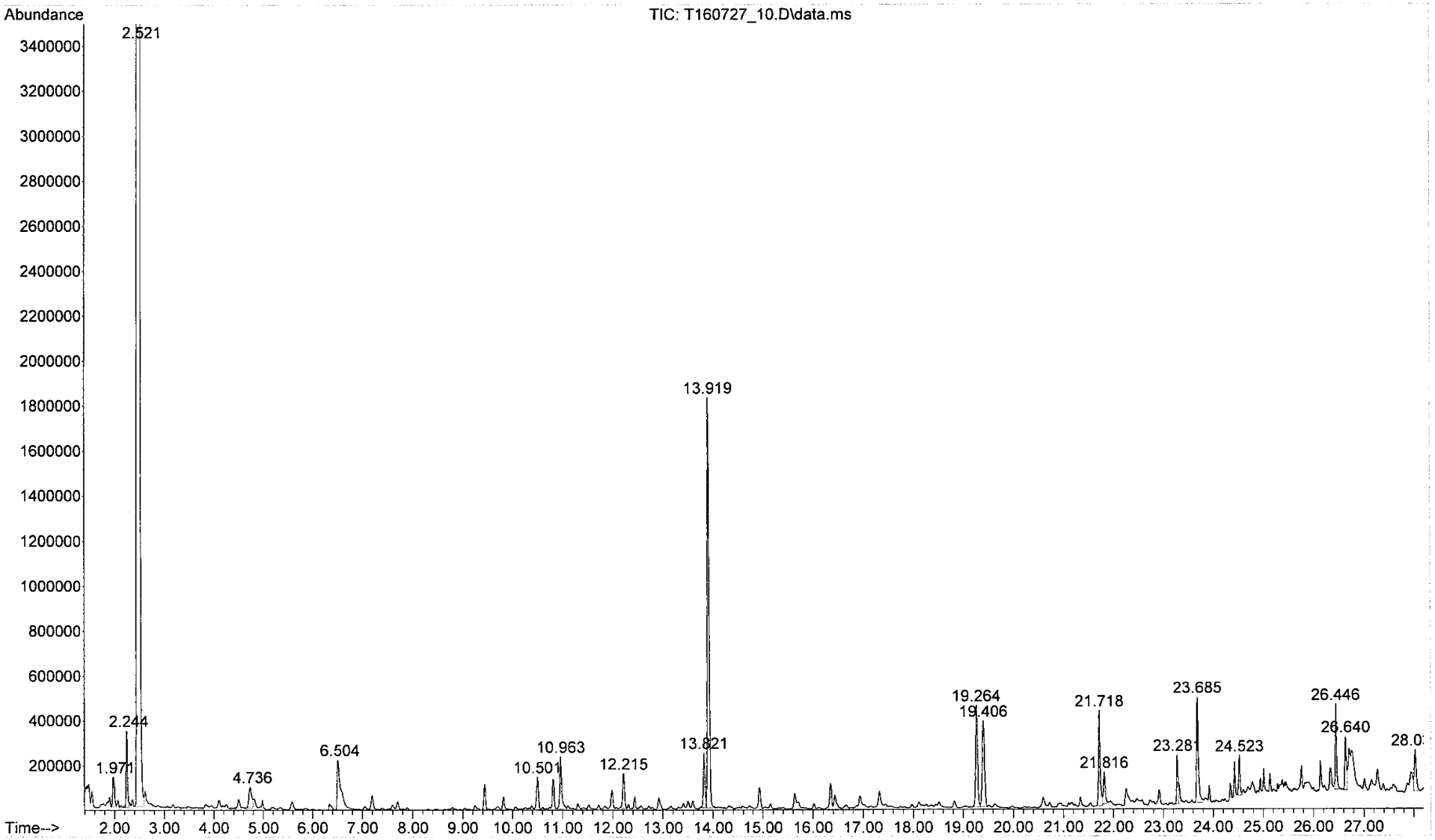
File :C:\msdchem\1\data\2016\July\T160727_08.D
Operator : rgill
Acquired : 27 Jul 2016 7:53 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-02_US EPA; Mi58844; 5.47L
Misc Info : C13-02; 107ngBFB;10:1 split
Vial Number: 8



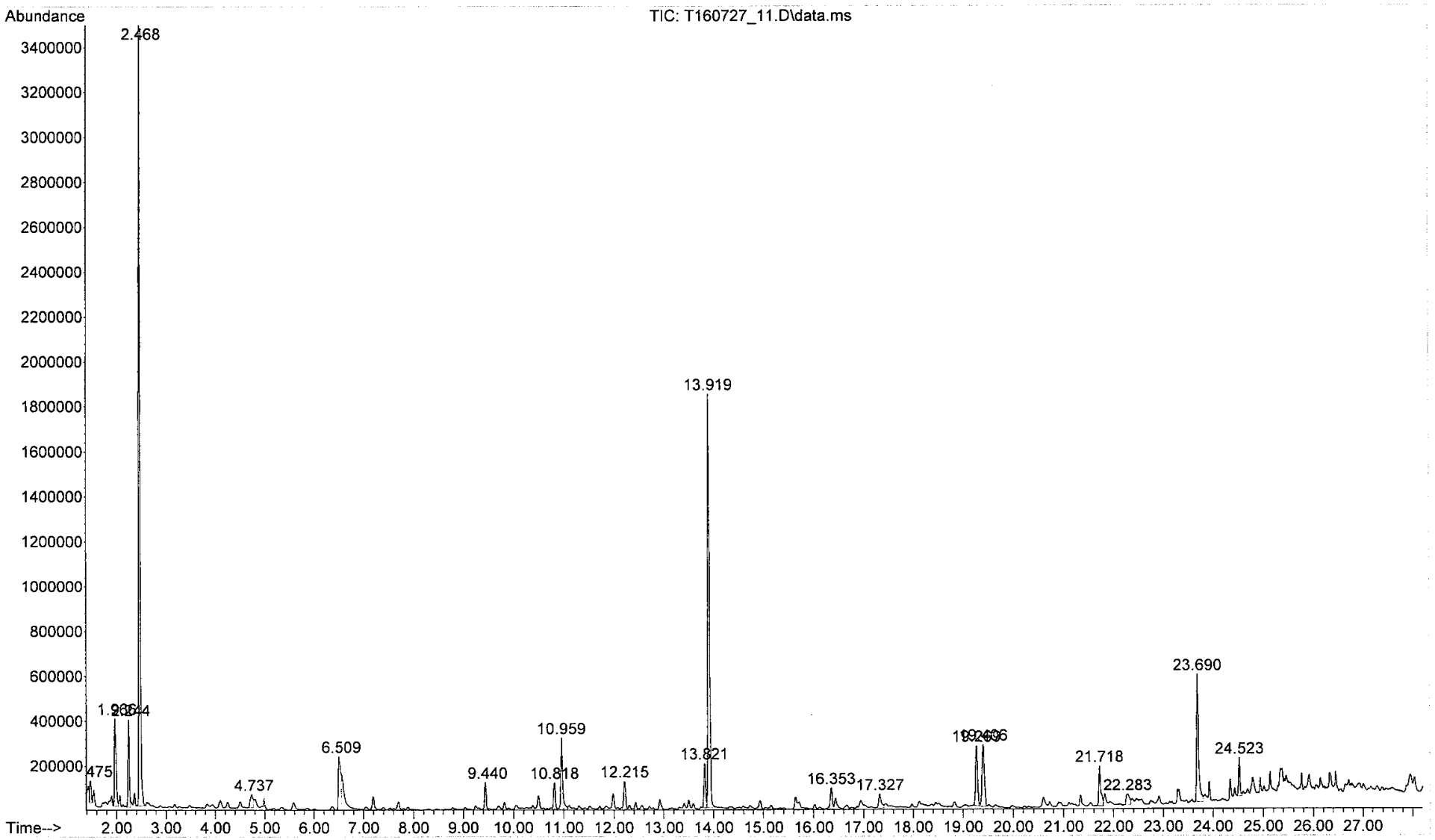
File :C:\msdchem\1\data\2016\July\T160727_09.D
Operator : rgill
Acquired : 27 Jul 2016 8:47 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-03_US EPA; Mi58846; 5.79L
Misc Info : C13-03; 107ngBFB;10:1 split
Vial Number: 9



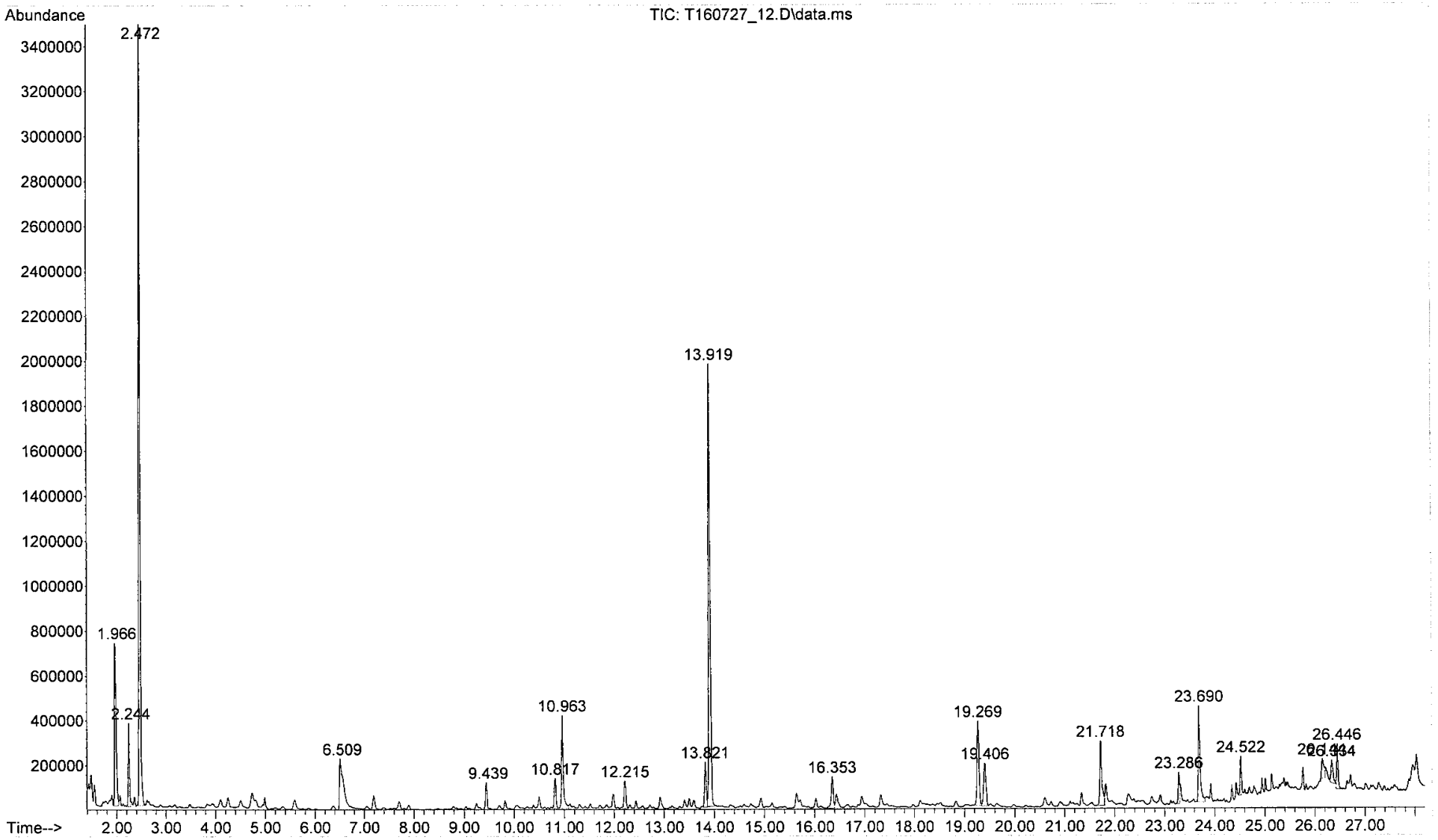
File :C:\msdchem\1\data\2016\July\T160727_10.D
Operator : rgill
Acquired : 27 Jul 2016 9:40 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-04_US EPA; Mi51153; 5.92L
Misc Info : C13-04; 107ngBFB;10:1 split
Vial Number: 10



File :C:\msdchem\1\data\2016\July\T160727_11.D
Operator : rgill
Acquired : 27 Jul 2016 10:35 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-05_US EPA; Mi58836; 5.98L
Misc Info : C13-05; 107ngBFB;10:1 split
Vial Number: 11



File :C:\msdchem\1\data\2016\July\T160727_12.D
Operator : rgill
Acquired : 27 Jul 2016 11:29 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: 061-035-06_US EPA; M59957; 6.02L
Misc Info : C13-06; 107ngBFB;10:1 split
Vial Number: 12



HCHO\JC061-035_EPA.XLS
Created 8/1/16, rgill

US EPA
Formaldehyde Analysis
Sequence 160727
Method FORMALDEHYDE.M

40 Typical cartridge blank

File	Sample ID	Rt min	Meas Conc ng/ul	Meas Mass ng	Mass -Blnk ng	Volume L	Conc ng/L	Conc ppbv
160727\160727003.D	F13-01	5.235		549	509	59.54	8.6	7.0
160727\160727004.D	F13-02	5.234		603	563	52.09	10.8	8.8
160727\160727005.D	F13-03	5.234		491	451	53.82	8.4	6.8
160727\160727006.D	F13-04	5.239		488	448	55.55	8.1	6.6
160727\160727007.D	F13-05	5.240		444	404	55.19	7.3	6.0
160727\160727008.D	F13-06	5.239		530	490	56.43	8.7	7.1

061-035; 8/1/2016
Caprolactam calculations

		mass (ng)	vol (L)	conc (ug/m3)	conc (ppb)
061-035-01	T160727_07	52.3	6.240	8.4	1.8
061-035-02	T160727_08	58.2	5.460	5.5	1.2
061-035-03	T160727_09	49.9	5.790	8.6	1.9
061-035-04	T160727_10	58.6	5.920	9.9	2.1
061-035-05	T160727_11	69.1	5.980	11.5	2.5
061-035-06	T160727_12	51.7	6.020	8.6	1.9

061-035-01 6.24 litres
US EPA
Mi59923 collected: 7/25/2016
01; 15342

061-035-02 5.47 litres
US EPA
Mi58844 collected: 7/25/2016
C13-02; 15354

061-035-03 5.79 litres
US EPA
Mi58846 collected: 7/25/2016
C13-03; 15248

061-035-04 5.92 litres
US EPA
Mi51153 collected: 7/25/2016
C13-04; 15154

061-035-05 5.98 litres
US EPA
Mi58836 collected: 7/25/2016
C13-05; 15112

061-035-06 6.02 litres
US EPA
Mi59957 collected: 7/25/2016
C13-06; 15162

061-035-07 59.54 litres
US EPA
F13-01 collected: 7/25/2016
15342

061-035-08 52.09 litres
US EPA
F13-02 collected: 7/25/2016
15354

061-035-09 53.82 litres
US EPA
F13-03 collected: 7/25/2016
15248

061-035-10 55.55 litres
US EPA
F13-04 collected: 7/25/2016
15154

061-035-11 55.19 litres
US EPA
F13-05 collected: 7/25/2016
15112

061-035-12 56.43 litres
US EPA
F13-06 collected: 7/25/2016
15162