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BERKELEY ANALYTICAL
815 Harbour Way South, Suite 6
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	061-038-IH-Jan0317
Report date	January 3, 2017
Certified by (Name/Title)	Raja Tannous, Laboratory Director
Signature	
Date	*January 3, 2017*

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	Not given
Project location	Not given
Project date	December 22, 2016

Laboratory Receiving Information	
Date samples received by lab	December 22, 2016
Condition of samples	No observed problems
Lab tracking numbers	061-038-01 to 061-038-18

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Sample Information, Caprolactam

Sample No.	Sample Description	Sampler No.	Date Collected	Volume* (L)	Analysis Type	Specified Method
C15-01	Arizona Rm-1st	203119	December 22 2016	4.79	Caprolactam	TO-17
C15-02	Weight Rm-2nd	203125	December 22 2016	4.76	Caprolactam	TO-17
C15-03	Group Exercise-2nd	203169	December 22 2016	4.93	Caprolactam	TO-17
C15-04	8146	242492	December 22 2016	4.61	Caprolactam	TO-17
C15-05	8424	203198	December 22 2016	4.77	Caprolactam	TO-17
C15-06	9124	242461	December 22 2016	5.14	Caprolactam	TO-17
C15-07	9111	203194	December 22 2016	6.84	Caprolactam	TO-17
C15-08	13162	242417	December 22 2016	5.52	Caprolactam	TO-17
C15-09	13353	242453	December 22 2016	5.34	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
F15-01	Arizona Rm-1st	Supelco Cart	December 22 2016	46.33	Formaldehyde	D 5197
F15-02	Weight Rm-2nd	Supelco Cart	December 22 2016	46.61	Formaldehyde	D 5197
F15-03	Group Exercise-2nd	Supelco Cart	December 22 2016	47.25	Formaldehyde	D 5197
F15-04	8146	Supelco Cart	December 22 2016	43.98	Formaldehyde	D 5197
F15-05	8424	Supelco Cart	December 22 2016	47.03	Formaldehyde	D 5197
F15-06	9124	Supelco Cart	December 22 2016	48.06	Formaldehyde	D 5197
F15-07	9111	Supelco Cart	December 22 2016	65.19	Formaldehyde	D 5197
F15-08	13162	Supelco Cart	December 22 2016	53.48	Formaldehyde	D 5197
F15-09	13353	Supelco Cart	December 22 2016	51.19	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
C15-01	061-038-01	TO-17	December 27, 2016	R. Gill	T161227_05
C15-02	061-038-02	TO-17	December 27, 2016	R. Gill	T161227_06
C15-03	061-038-03	TO-17	December 27, 2016	R. Gill	T161227_07
C15-04	061-038-04	TO-17	December 27, 2016	R. Gill	T161227_08
C15-05	061-038-05	TO-17	December 27, 2016	R. Gill	T161227_09
C15-06	061-038-06	TO-17	December 27, 2016	R. Gill	T161227_10
C15-07	061-038-07	TO-17	December 27, 2016	R. Gill	T161227_11
C15-08	061-038-08	TO-17	December 27, 2016	R. Gill	T161227_12
C15-09	061-038-09	TO-17	December 27, 2016	R. Gill	T161227_13

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Analytical Information, Formaldehyde

Sample No.	Lab Track. No.	Method	Date Analyzed	Analyst	Data File
F15-01	061-038-10	D 5197	December 30, 2016	T.Cheng	161230\161230007.D
F15-02	061-038-11	D 5197	December 30, 2016	T.Cheng	161230\161230008.D
F15-03	061-038-12	D 5197	December 30, 2016	T.Cheng	161230\161230009.D
F15-04	061-038-13	D 5197	December 30, 2016	T.Cheng	161230\161230010.D
F15-05	061-038-14	D 5197	December 30, 2016	T.Cheng	161230\161230011.D
F15-06	061-038-15	D 5197	December 30, 2016	T.Cheng	161230\161230012.D
F15-07	061-038-16	D 5197	December 30, 2016	T.Cheng	161230\161230013.D
F15-08	061-038-17	D 5197	December 30, 2016	T.Cheng	161230\161230014.D
F15-09	061-038-18	D 5197	December 30, 2016	T.Cheng	161230\161230015.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 December 22, 2016. There were nine Supelco DNPH cartridges for the analysis of formaldehyde and there were nine 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 2016, the expanded uncertainty estimated for formaldehyde was 8.6%.

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 2016, the expanded uncertainty estimated for caprolactam was 10.2%.

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)
C15-01	Arizona Rm-1st	4.79	51.0	10.6	2.3
C15-02	Weight Rm-2nd	4.76	4.30	0.9	0.2
C15-03	Group Exercise-2nd	4.93	4.20	0.8	0.2
C15-04	8146	4.61	20.8	4.5	1.0
C15-05	8424	4.77	33.0	6.9	1.5
C15-06	9124	5.14	49.9	9.7	2.1
C15-07	9111	6.84	46.8	6.8	1.5
C15-08	13162	5.52	39.9	7.2	1.6
C15-09	13353	5.34	33.5	6.3	1.4

*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)
F15-01	Arizona Rm-1st	46.33	363	323	7.0	5.7
F15-02	Weight Rm-2nd	46.61	545	505	10.8	8.8
F15-03	Group Exercise-2nd	47.25	407	367	7.8	6.3
F15-04	8146	43.98	386	346	7.9	6.4
F15-05	8424	47.03	356	316	6.7	5.5
F15-06	9124	48.06	393	353	7.4	6.0
F15-07	9111	65.19	412	372	5.7	4.7
F15-08	13162	53.48	351	311	5.8	4.7
F15-09	13353	51.19	307	267	5.2	4.2

*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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815 Harbour Way South, Suite 6
Richmond, CA 94804-3612
Phone: 510-236-2325 Fax: 510-236-2335
e-mail: baalab@berkeleyanalytical.com

CHAIN-OF-CUSTODY RECORD for ANALYTICAL SERVICES

2009 Update

Client Information*	
Company: US EPA	
Street Address:	
City/State/Zip Code:	
Country:	Contact (for reporting): Jeff Woodlee
Project/Job Name:	
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	
LEED v4.0 CREL List + TVOC by TIC; EPA TO-17	a
Quantitative GC/MS Total VOCs plus 4-PCH; LEED 2009	b
Total VOCs by GC/MS total-ion-current method (TIC)	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS analysis of abundant list of compounds	e
Odor investigation by GC/MS analysis	f
Material testing by ASTM D7706 - micro-scale chambers	g
Material testing by ASTM D5116 - small-scale chambers	h
Quantitative HPLC analysis of formaldehyde - ASTM D5197	i
Quantitative HPLC analysis of formaldehyde & acetaldehyde	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
	F15-01	12/22/16	50	46.33	Arizona Rm - 1st	f	
	F15-02	↓	50	46.61	Weight Rm - 2nd	↓	
	F15-03		50	47.25	Group Exercise - 2nd		
	F15-04		48	43.98	8446		
	F15-05		50	47.03	8424		
	F15-06		52	48.06	9124		
	F15-07		71	65.19	9111		
	F15-08		58	53.48	13162		
	F15-09	↓	54	51.19	13353		
						↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J Woodlee			12/22	USEPA
	R Grill		12/22/16	BAA

JC 661-038

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CHAIN-OF-CUSTODY RECORD for ANALYTICAL SERVICES

2009 Update

Client Information*			
Company:	US EPA		
Street Address:			
City/State/Zip Code:			
Country:	Contact (for reporting): Jeff Woodlee		
Project/Job Name:			
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	
LEED v4.0 CREL List + TVOC by TIC; EPA TO-17	a
Quantitative GC/MS Total VOCs plus 4-PCH; LEED 2009	b
Total VOCs by GC/MS total-ion-current method (TIC)	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS analysis of abundant list of compounds	e
Odor investigation by GC/MS analysis	f
Material testing by ASTM D7706 - micro-scale chambers	g
Material testing by ASTM D5116 - small-scale chambers	h
Quantitative HPLC analysis of formaldehyde - ASTM D5197	i
Quantitative HPLC analysis of formaldehyde & acetaldehyde	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
C15-01	203119	12/22/16	50	4.79	Arizona Rm - 1st	b - Caprolactam	
C15-02	203125		50	4.76	Weight Rm - 2nd		
C15-03	203169		50	4.93	Group Exercise - 2nd		
C15-04	242492		48	4.61	8146		
C15-05	203198		50	4.77	8424		
C15-06	242461		52	5.14	9124		
C15-07	203194		71	6.84	9111		
C15-08	242417		58	5.52	13162		
C15-09	242453		54	5.34	13353		

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
Woodlee			12/22	US EPA
	Rhill		12/22/16	BKA

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2009 Update

Client Information*		
Company:	US EPA	
Street Address:		
City/State/Zip Code:		
Country:	Contact (for reporting):	Jeff Woodlee
Project/Job Name:		
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	
LEED v4.0 CREL List + TVOC by TIC; EPA TO-17	a
Quantitative GC/MS Total VOCs plus 4-PCH; LEED 2009	b
Total VOCs by GC/MS total-ion-current method (TIC)	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS analysis of abundant list of compounds	e
Odor investigation by GC/MS analysis	f
Material testing by ASTM D7706 - micro-scale chambers	g
Material testing by ASTM D5116 - small-scale chambers	h
Quantitative HPLC analysis of formaldehyde - ASTM D5197	i
Quantitative HPLC analysis of formaldehyde & acetaldehyde	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
	F15-01	12/22/16	50	46.33	Arizona Rm - 1st	f	
	F15-02	↓	50	46.61	Weight Rm - 2nd	↓	
	F15-03		50	47.25	Group Exercise - 2nd		
	F15-04		48	43.98	8446		
	F15-05		50	47.03	8424		
	F15-06		52	48.06	9124		
	F15-07		71	65.19	9111		
	F15-08		58	53.48	13162		
	F15-09	↓	54	51.19	13353		
						↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J Woodlee			12/22	USEPA
	R Grill		12/22/16	BAA

JC 861-038

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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	
LEED v4.0 CREL List + TVOC by TIC; EPA TO-17	a
Quantitative GC/MS Total VOCs plus 4-PCH; LEED 2009	b
Total VOCs by GC/MS total-ion-current method (TIC)	c
Quantitative GC/MS analysis of target list of compounds	d
Quantitative GC/MS analysis of abundant list of compounds	e
Odor investigation by GC/MS analysis	f
Material testing by ASTM D7706 - micro-scale chambers	g
Material testing by ASTM D5116 - small-scale chambers	h
Quantitative HPLC analysis of formaldehyde - ASTM D5197	i
Quantitative HPLC analysis of formaldehyde & acetaldehyde	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
C15-01	203119	12/22/16	50	4.79	Arizona Rm - 1st	b - Caprolactam	
C15-02	203125	↓	50	4.76	Weight Rm - 2nd	↓	
C15-03	203169	↓	50	4.93	Group Exercise - 2nd	↓	
C15-04	242492	↓	48	4.61	8146	↓	
C15-05	203178	↓	50	4.77	8424	↓	
C15-06	242461	↓	52	5.14	9124	↓	
C15-07	203194	↓	71	6.84	9111	↓	
C15-08	242417	↓	58	5.52	13162	↓	
C15-09	242453	↓	54	5.34	13353	↓	

Sample(s) Handling

Relinquished By	Received By	Signature	Date	Company
J Woodlee			12/22	US EPA
	RBill		12/22/16	BKA

JC 061-038

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IH Testing, Invoicing and Report Checklist

Date: 12/28/16

Company: US EPA

Contact Name: Jeff Woodlee

Contact Phone: 415-972-3740

Contact Email: woodlee.jeff@epa.gov

Initiator:

Report ID & Billing Ref:

Test Methd/ Description: (highlite all applicable) TO-17; ASTM D5197

Program LEED V4

Quote #: Date:

PO #:

Sample IDs:

Notes & Deviations:

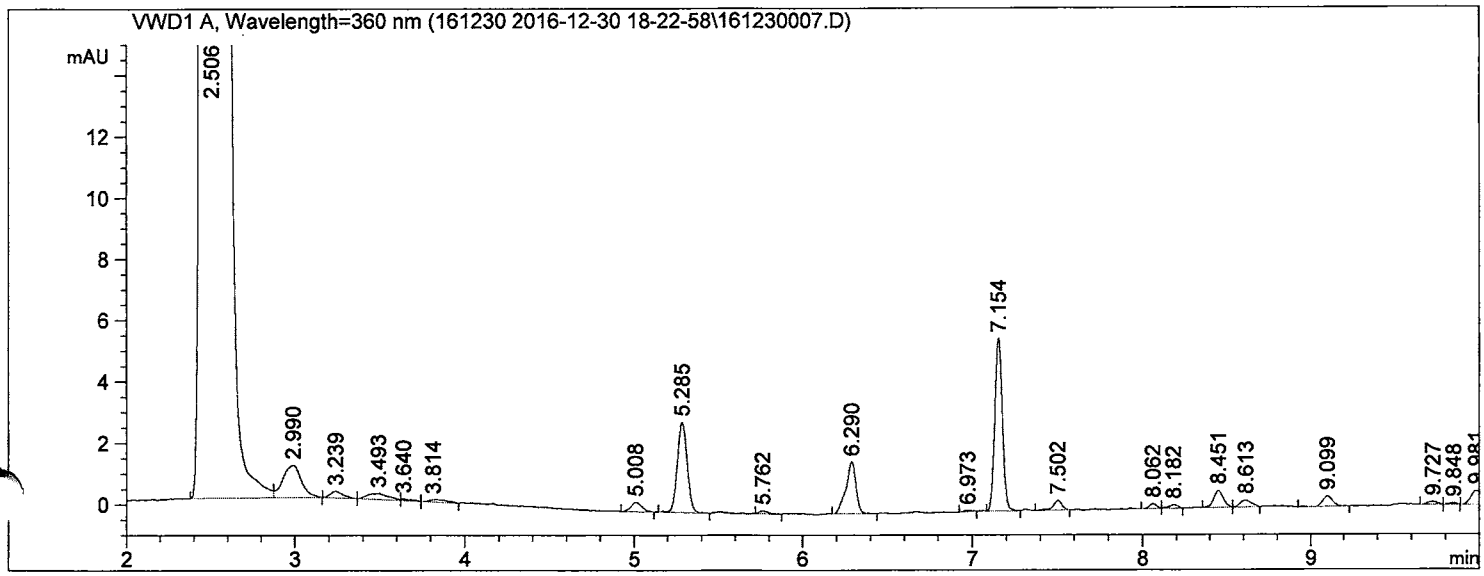
Item to Check	Initials	Notes
COC		
Is it clear what test to be performed[1]?	JH	YES / NO:
Log in samples and check the Turnaround of the report	JH	YES / NO:
Scan (to PDF) a copy of the COC form	JH	YES / NO:
Check and confirm that the samples match the COC	JH	YES / NO:
Chemical Analysis		
Analyze sampels by TO-17	JH	YES / NO:
Analyze samples by ASTM D5197		YES / NO:
Report Preparation		
Prepare the draft reprot	JH	YES / NO:
Does the Report match Method and Criteria?	JH	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)	JH	
Insert in the PDF report: - Raja or Al's signature and check signature date - the scanned COC page at the end of the report		
Print, Optimize and Secure the report		
E-mail copy of the PDF report to client and other authorized contacts and organizations (enter date sent)		1/4/16
Invoicing		
Invoice Matches PO/Quote w/ correct ReportID & Billing Reference	Yes	✓
Invoice Number and Date		56118
Date invoice sent to customer and other authorized contacts		1/5/17

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230007.D
Sample Name: 061-038-10

==========

Acq. Operator : SYSTEM Seq. Line : 5
Acq. Instrument : Agilent 1260 Location : Vial 5
Injection Date : 12/30/2016 8:03:35 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-10; F15-01; 1222; Arizona Rm-1st; 46.33L; TCheng



==========

External Standard Report

==========

Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.285	1	BB	11.95688	1.51895e-2	363.23862		Formaldehyde;50-00-0
6.290	1	BB	6.98810	1.96776e-2	275.01840		Acetaldehyde;75-07-0

Totals : 638.25702

==========

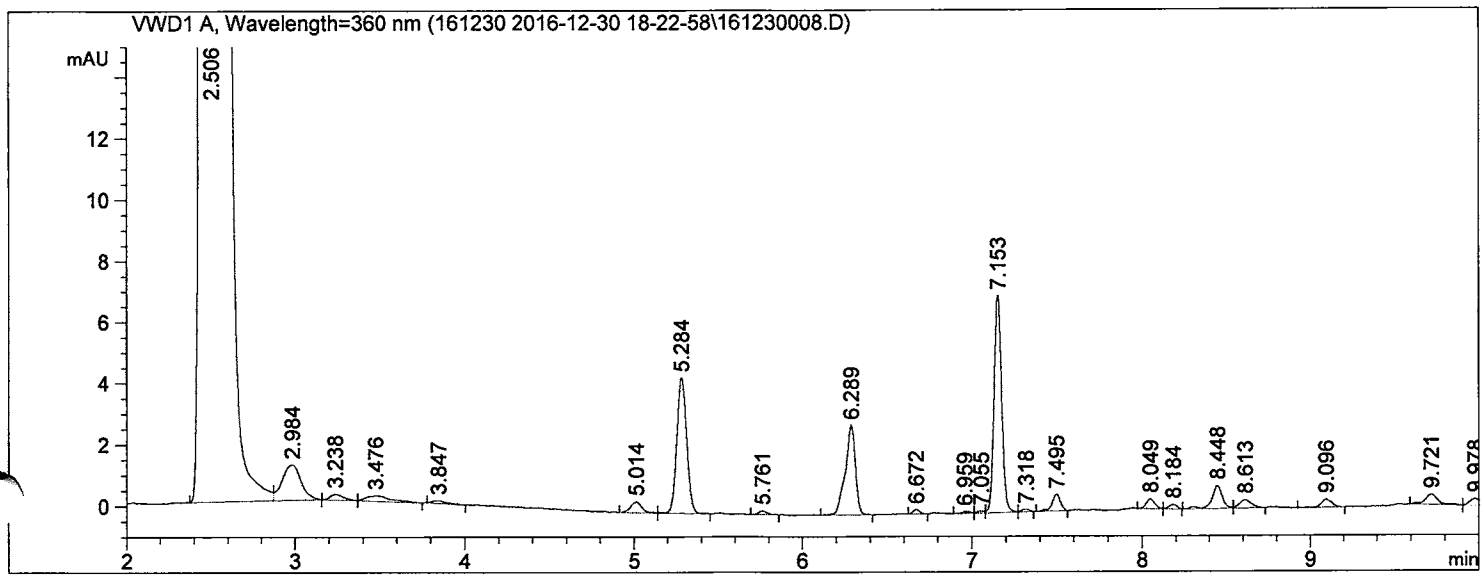
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230008.D
Sample Name: 061-038-11

==========

Acq. Operator : SYSTEM
Seq. Line : 6
Acq. Instrument : Agilent 1260
Location : Vial 6
Injection Date : 12/30/2016 8:20:15 PM
Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-11; F15-02; 1222; Weight Rm-2nd; 46.61L; TCheng



==========

External Standard Report

==========

Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.284	1	VB	17.92852	1.51895e-2	544.65132		Formaldehyde;50-00-0
6.289	1	BB	12.10613	1.96776e-2	476.43932		Acetaldehyde;75-07-0

Totals : 1021.09064

==========

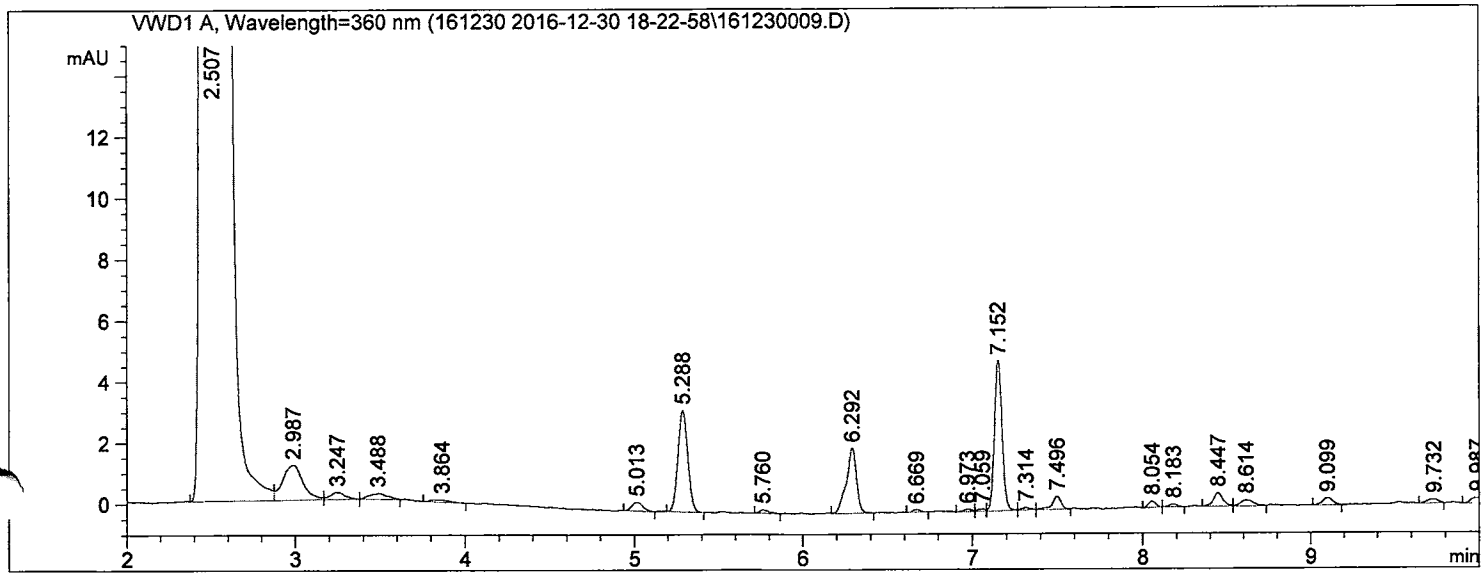
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230009.D
Sample Name: 061-038-12

==========

Acq. Operator : SYSTEM
Seq. Line : 7
Acq. Instrument : Agilent 1260
Location : Vial 7
Injection Date : 12/30/2016 8:36:55 PM
Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-12; F15-03; 1222; Group Exercise-2nd; 47.25L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.288	1	BB	13.38623	1.51895e-2	406.66097		Formaldehyde;50-00-0
6.292	1	VB	8.89228	1.96776e-2	349.95765		Acetaldehyde;75-07-0

Totals : 756.61861

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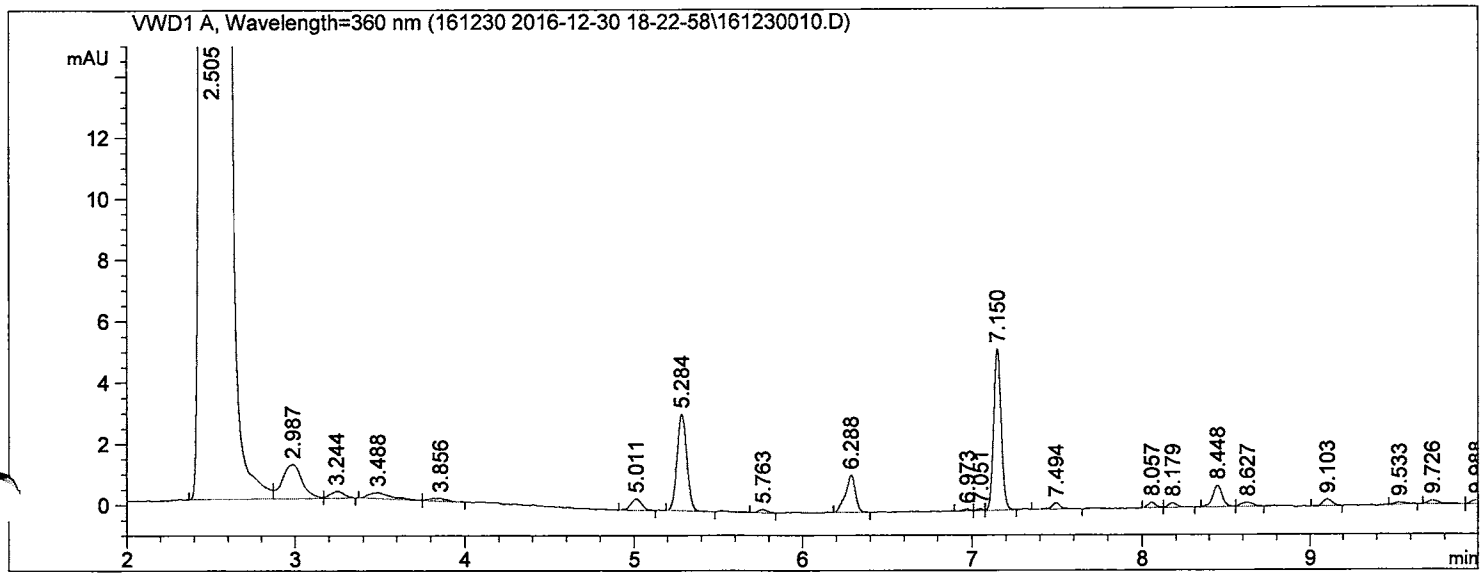
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230010.D
Sample Name: 061-038-13

==========

Acq. Operator : SYSTEM
Seq. Line : 8
Acq. Instrument : Agilent 1260
Location : Vial 8
Injection Date : 12/30/2016 8:53:36 PM
Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-13; F15-04; 1222; 8146; 43.98L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.284	1	BB	12.72258	1.51895e-2	386.49984		Formaldehyde;50-00-0
6.288	1	BB	5.03800	1.96776e-2	198.27169		Acetaldehyde;75-07-0

Totals : 584.77153

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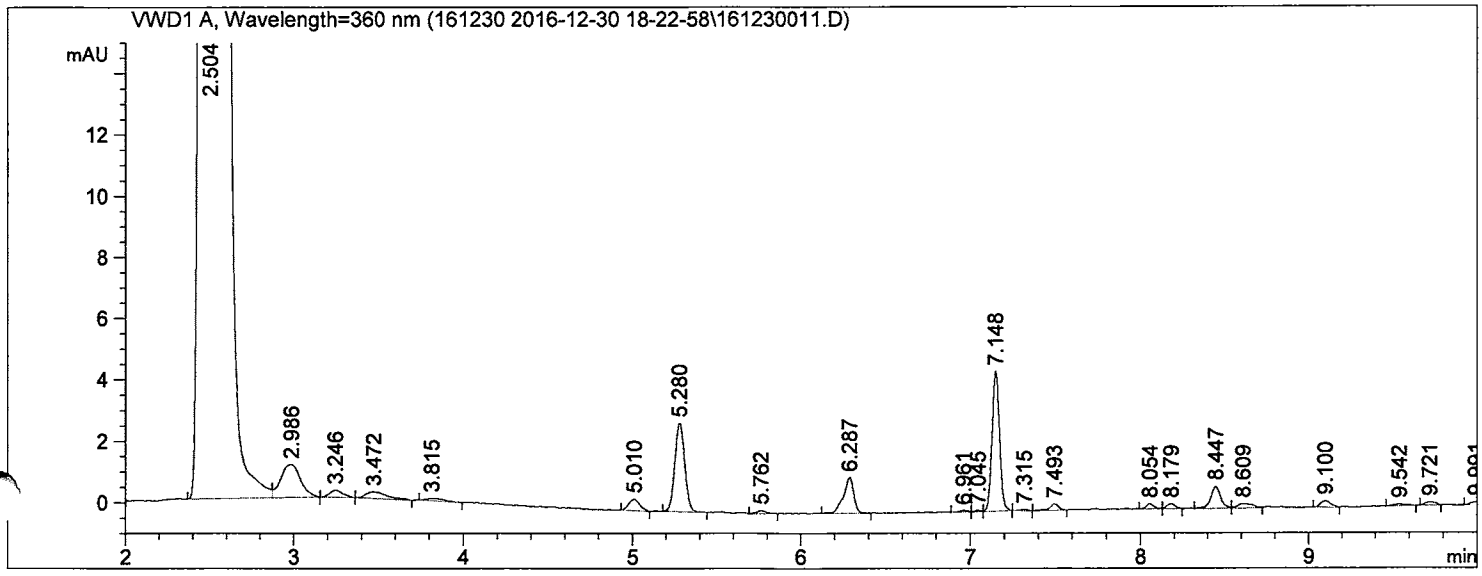
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230011.D
Sample Name: 061-038-14

==========

Acq. Operator : SYSTEM Seq. Line : 9
Acq. Instrument : Agilent 1260 Location : Vial 9
Injection Date : 12/30/2016 9:10:16 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-14; F15-05; 1222; 8424; 47.03L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.280	1	BB	11.71129	1.51895e-2	355.77777		Formaldehyde;50-00-0
6.287	1	BV	5.05045	1.96776e-2	198.76163		Acetaldehyde;75-07-0

Totals : 554.53940

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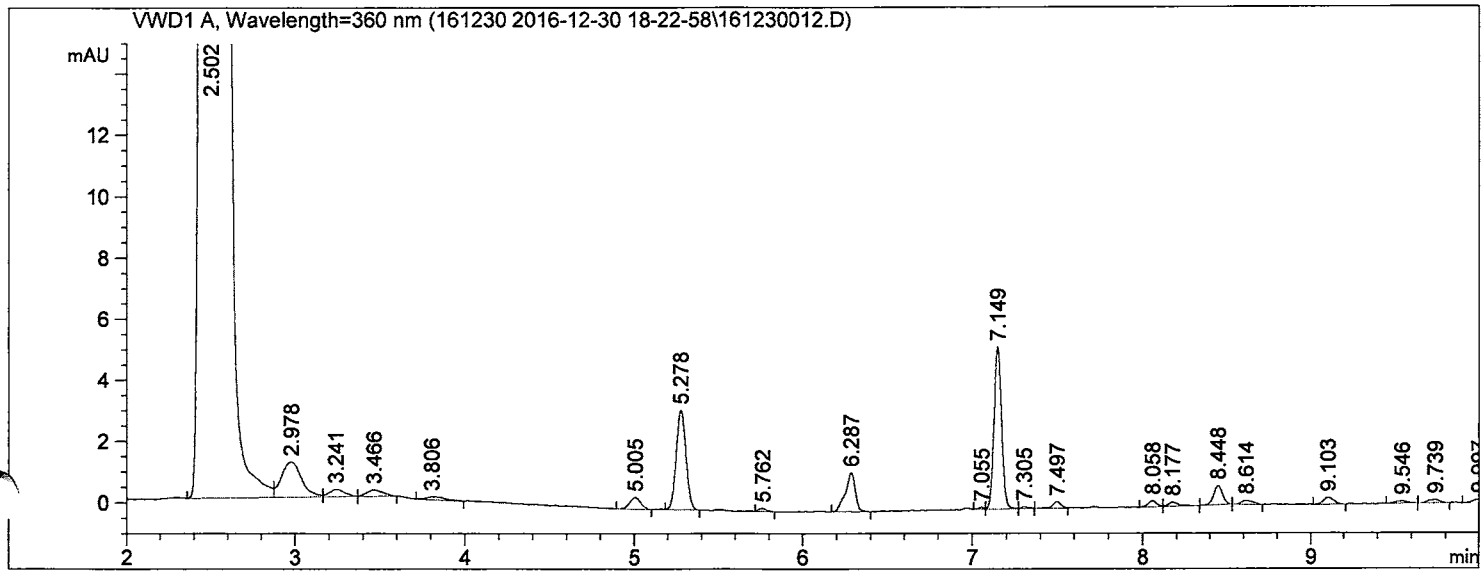
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230012.D
Sample Name: 061-038-15

==========

Acq. Operator : SYSTEM Seq. Line : 10
Acq. Instrument : Agilent 1260 Location : Vial 10
Injection Date : 12/30/2016 9:26:58 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-15; F15-06; 1222; 9124; 48.06L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.278	1	BB	12.95161	1.51895e-2	393.45757		Formaldehyde;50-00-0
6.287	1	BB	5.18249	1.96776e-2	203.95816		Acetaldehyde;75-07-0

Totals : 597.41573

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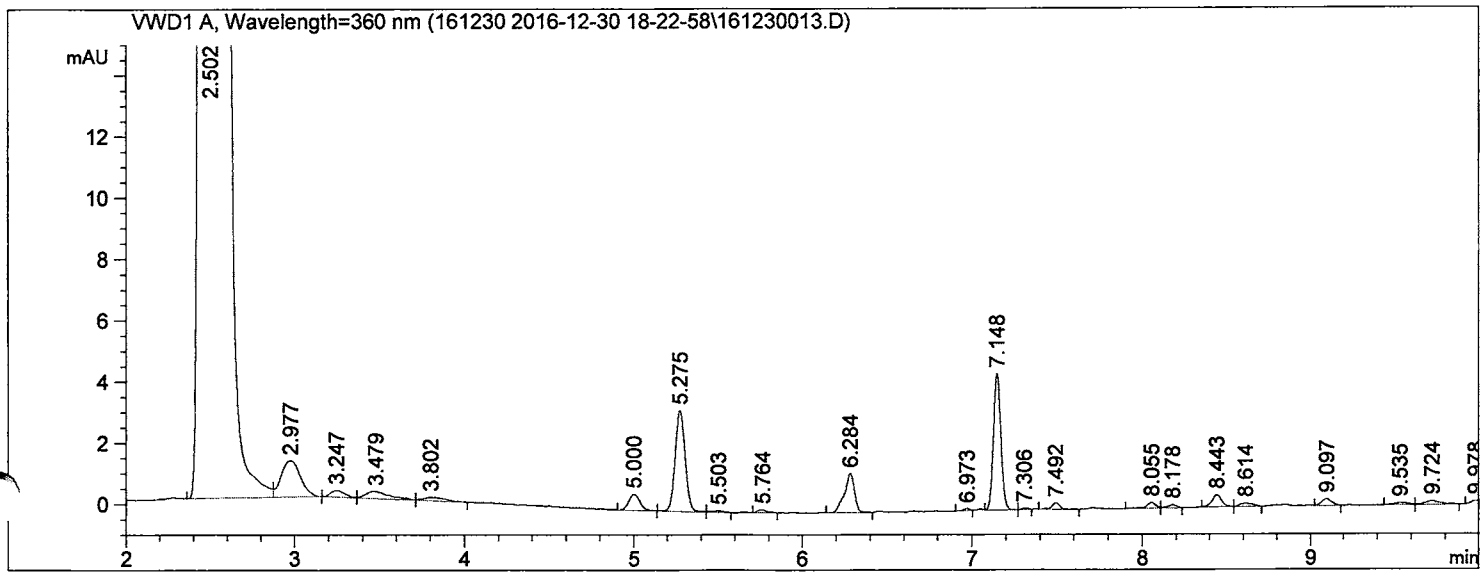
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230013.D
Sample Name: 061-038-16

==========

Acq. Operator : SYSTEM Seq. Line : 11
Acq. Instrument : Agilent 1260 Location : Vial 11
Injection Date : 12/30/2016 9:43:39 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-16; F15-07; 1222; 9111; 65.19L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.275	1	BV	13.56158	1.51895e-2	411.98791		Formaldehyde;50-00-0
6.284	1	BB	5.34244	1.96776e-2	210.25300		Acetaldehyde;75-07-0

Totals : 622.24091

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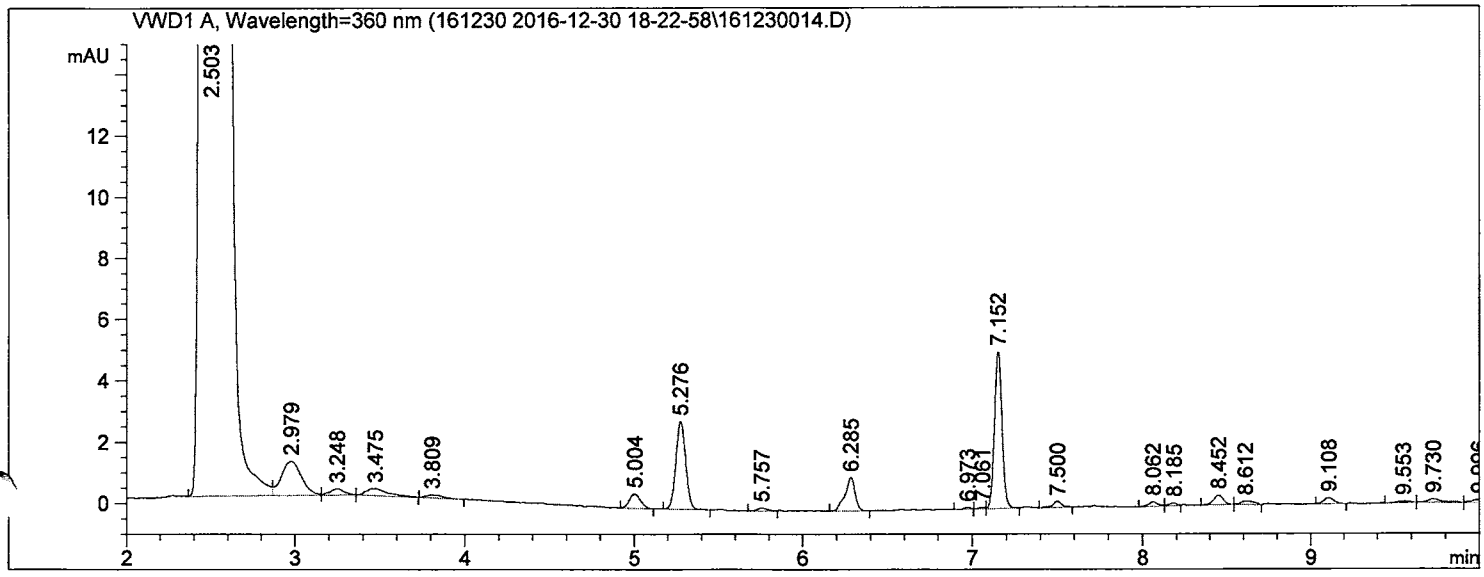
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230014.D
Sample Name: 061-038-17

==========

Acq. Operator : SYSTEM Seq. Line : 12
Acq. Instrument : Agilent 1260 Location : Vial 12
Injection Date : 12/30/2016 10:00:19 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-17; F15-08; 1222; 13162; 53.48L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.276	1	BB	11.53761	1.51895e-2	350.50147		Formaldehyde;50-00-0
6.285	1	BB	4.50606	1.96776e-2	177.33713		Acetaldehyde;75-07-0

Totals : 527.83860

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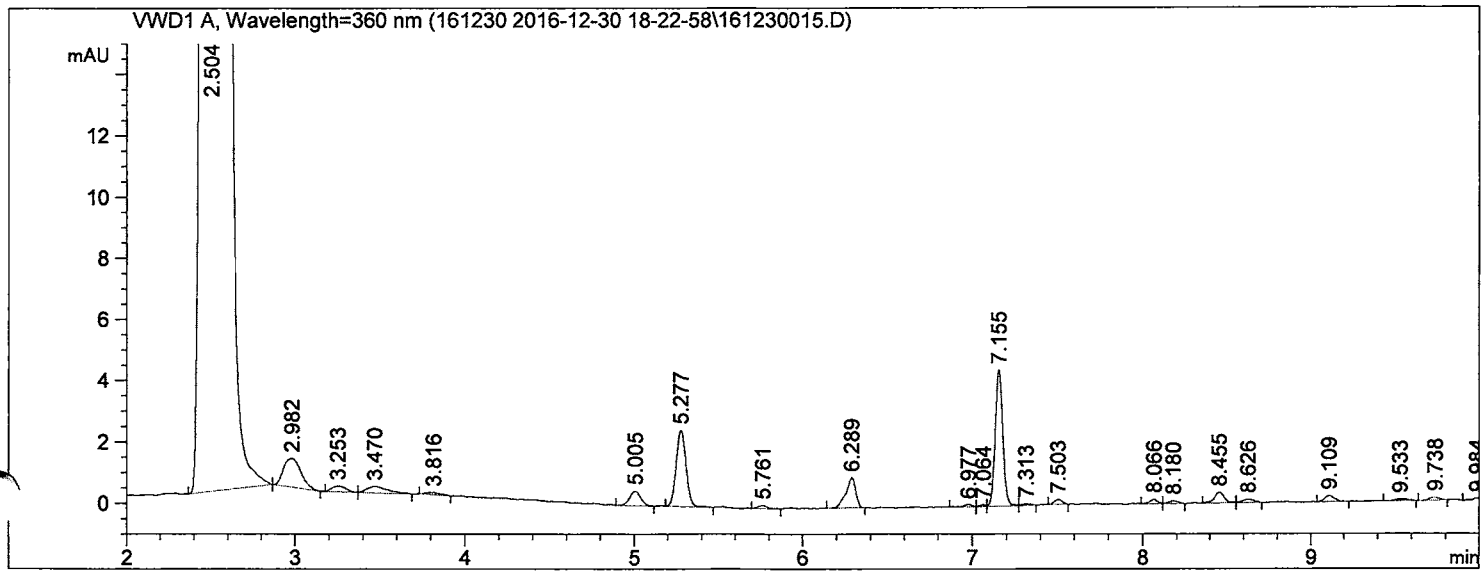
*** End of Report ***

Data File C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\161230015.D
Sample Name: 061-038-18

==========

Acq. Operator : SYSTEM Seq. Line : 13
Acq. Instrument : Agilent 1260 Location : Vial 13
Injection Date : 12/30/2016 10:17:00 PM Inj : 1
Inj Volume : 2.000 µl
Acq. Method : C:\CHEM32\1\DATA\161230 2016-12-30 18-22-58\FORMALDEHYDE.M
Last changed : 12/30/2016 6:22:58 PM by SYSTEM
Analysis Method : C:\CHEM32\1\METHODS\FORMALDEHYDE.M
Last changed : 1/3/2017 10:04:59 AM by SYSTEM
(modified after loading)
Method Info : 2.1*100; 2.7um poroshell 120 EC-C18 column;

Sample Info : US EPA 061-038-18; F15-09; 1222; 13353; 51.19L; TCheng



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External Standard Report

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Sorted By : Retention Time
Calib. Data Modified : 1/3/2017 10:04:52 AM
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
5.277	1	BB	10.09654	1.51895e-2	306.72340		Formaldehyde;50-00-0
6.289	1	BB	3.97008	1.96776e-2	156.24331		Acetaldehyde;75-07-0

Totals : 462.96672

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*** End of Report ***

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\Dec\
Data File : T161227_05.D
Acq On : 27 Dec 2016 4:01 pm
Operator : rgill
Sample : US EPA_061-038-01; 203119; 4.79L
Misc : C15-01; 111ngBFB;10:1 split
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 28 17:08:04 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.221	95	897697	111.00 ng	#	0.00
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. 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	23.938	113	90232m	51.01 ng		
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	11.231	45	177211	34.66 ng	#	38
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.D.		
27) Hexanoic acid; 142-62-1	0.000		0	N.D.		
28) 2-Ethyl-1-hexanol; 104...	17.741	57	107126	15.54 ng	#	51
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	2.390	43	384755	84.84 ng	#	25
34) Ethanol; 64-17-5	2.093	31	272236	105.69 ng	#	87
35) 2-Propanone(acetone); ...	2.390	43	384755	80.66 ng	#	85
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.516	45	103237	18.68 ng	#	62
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\Dec\
Data File : T161227_06.D
Acq On : 27 Dec 2016 4:55 pm
Operator : rgill
Sample : US EPA_061-038-02; 203125; 4.76L
Misc : C15-02; 111ngBFB;10:1 split
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 28 17:07:31 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.220	95	1021809	111.00 ng	#	0.00
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. 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. 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	23.938	113	8566m	4.25 ng		
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	11.557	43	247168	28.94 ng	#	71
25) Propylene glycol; 57-55-6	11.231	45	373343	64.14 ng	#	38
26) 2-Butoxyethanol; 111-76-2	14.206	57	157117	24.99 ng	#	44
27) Hexanoic acid; 142-62-1	0.000		0	N.D.		
28) 2-Ethyl-1-hexanol; 104...	17.750	57	4806213	612.52 ng	#	84
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	2.093	43	133701	25.90 ng	#	25
34) Ethanol; 64-17-5	2.098	31	1066120	363.63 ng		98
35) 2-Propanone(acetone); ...	2.390	43	534602	98.46 ng	#	85
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.516	45	196824	31.29 ng	#	62
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\Dec\
Data File : T161227_07.D
Acq On : 27 Dec 2016 5:49 pm
Operator : rgill
Sample : US EPA_061-038-03; 203169; 4.93L
Misc : C15-03; 111ngBFB;10:1 split
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 28 17:06:44 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.221	95	995701	111.00 ng	#	0.00
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. 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	23.943	113	8194m	4.18 ng		
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	11.562	43	160316	19.27 ng	#	47
25) Propylene glycol; 57-55-6	11.231	45	435561	76.79 ng	#	38
26) 2-Butoxyethanol; 111-76-2	14.206	57	110248	17.99 ng	#	44
27) Hexanoic acid; 142-62-1	0.000		0	N.D.		
28) 2-Ethyl-1-hexanol; 104...	17.746	57	2071692	270.95 ng	#	83
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	2.390	43	297824	59.21 ng	#	25
34) Ethanol; 64-17-5	2.093	31	405050	141.78 ng		98
35) 2-Propanone(acetone); ...	2.390	43	297824	56.29 ng	#	85
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.098	45	246873	40.28 ng	#	62
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\Dec\
Data File : T161227_08.D
Acq On : 27 Dec 2016 6:44 pm
Operator : rgill
Sample : US EPA_061-038-04; 242492; 4.61L
Misc : C15-04; 111ngBFB;10:1 split
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 28 17:06:09 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.220	95	1046482	111.00 ng	#	0.00
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.		
8) Xylene {1}; 1330-20-7	0.000		0	N.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	23.938	113	42943m	20.83 ng		
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	11.231	45	105896	17.76 ng	#	38
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	282143	53.37 ng	#	25
34) Ethanol; 64-17-5	2.098	31	326231	108.65 ng	#	87
35) 2-Propanone(acetone); ...	2.390	43	282143	50.74 ng	#	48
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.102	45	200859	31.18 ng	#	62
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\Dec\
Data File : T161227_09.D
Acq On : 27 Dec 2016 7:38 pm
Operator : rgill
Sample : US EPA_061-038-05; 203198; 4.77L
Misc : C15-05; 111ngBFB;10:1 split
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 28 17:05:37 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.221	95	1047169	111.00 ng	#	0.00
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.		
8) Xylene {1}; 1330-20-7	0.000		0	N.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	23.938	113	67983m	32.95 ng		
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	11.231	45	212775	35.67 ng	#	38
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	289115	54.65 ng	#	25
34) Ethanol; 64-17-5	2.093	31	380708	126.71 ng	#	87
35) 2-Propanone(acetone); ...	2.390	43	289115	51.96 ng	#	48
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.093	45	234131	36.32 ng	#	62
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\Dec\
Data File : T161227_10.D
Acq On : 27 Dec 2016 8:32 pm
Operator : rgill
Sample : US EPA_061-038-06; 242461; 5.14L
Misc : C15-06; 111ngBFB;10:1 split
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 28 17:05:00 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng		0.00
21) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng		0.00
32) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng	#	0.00
52) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng	#	0.00
66) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng	#	0.00
97) 1-Bromo-4-flourobenzen...	14.220	95	1057781	111.00 ng	#	0.00
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.		
8) Xylene {1}; 1330-20-7	0.000		0	N.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	23.938	113	104049	49.92 ng	#	55
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	11.231	45	207452	34.43 ng	#	38
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	442236	82.76 ng	#	25
34) Ethanol; 64-17-5	2.098	31	302524	99.68 ng	#	87
35) 2-Propanone(acetone); ...	2.390	43	442236	78.68 ng	#	84
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.		
37) 2-Propanol; 67-63-0	2.516	45	148236	22.77 ng	#	62
38) Carbon disulfide; 75-15-0	0.000		0	N.D.		
39) Dichloromethane; 75-09-2	2.784	49	296411	65.03 ng	#	38
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\Dec\
Data File : T161227_11.D
Acq On : 27 Dec 2016 9:26 pm
Operator : rgill
Sample : US EPA_061-038-07; 203194; 6.84L
Misc : C15-07; 111ngBFB;10:1 split
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 28 17:04:39 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	0.00
32) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	# 0.00
52) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	# 0.00
66) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	# 0.00
97) 1-Bromo-4-flourobenzen...	14.220	95	939292	111.00 ng	# 0.00
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.	
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	23.933	113	86549m	46.76 ng	
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	11.231	45	115554	21.60 ng	# 38
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	347104	73.15 ng	# 25
34) Ethanol; 64-17-5	2.098	31	223894	83.07 ng	# 87
35) 2-Propanone(acetone); ...	2.390	43	347104	69.55 ng	# 86
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	2.098	45	135216	23.39 ng	# 62
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\Dec\
Data File : T161227_12.D
Acq On : 27 Dec 2016 10:20 pm
Operator : rgill
Sample : US EPA_061-038-08; 242417; 5.52L
Misc : C15-08; 111ngBFB;10:1 split
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 28 17:04:04 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	0.00
32) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	# 0.00
52) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	# 0.00
66) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	# 0.00
97) 1-Bromo-4-flourobenzen...	14.221	95	1044517	111.00 ng	# 0.00

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.	
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	23.934	113	82017m	39.85 ng	
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.	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	313608	59.43 ng	# 25
34) Ethanol; 64-17-5	2.093	31	189818	63.34 ng	# 87
35) 2-Propanone(acetone); ...	2.390	43	313608	56.51 ng	# 85
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	2.093	45	114936	17.88 ng	# 62
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.	

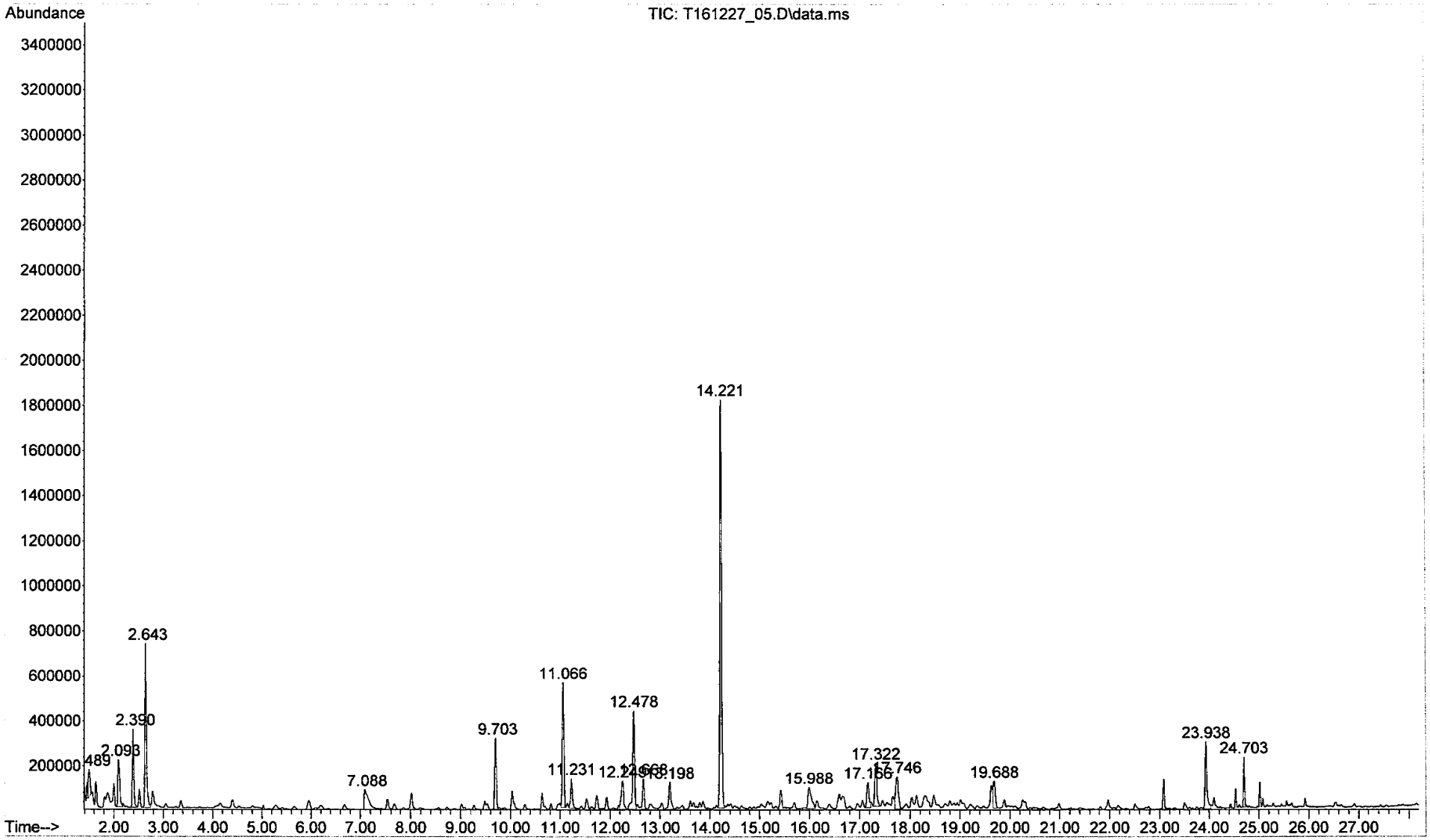
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\Dec\
Data File : T161227_13.D
Acq On : 27 Dec 2016 11:14 pm
Operator : rgill
Sample : US EPA_061-038-09; 242453; 5.34L
Misc : C15-09; 111ngBFB;10:1 split
ALS Vial : 13 Sample Multiplier: 1

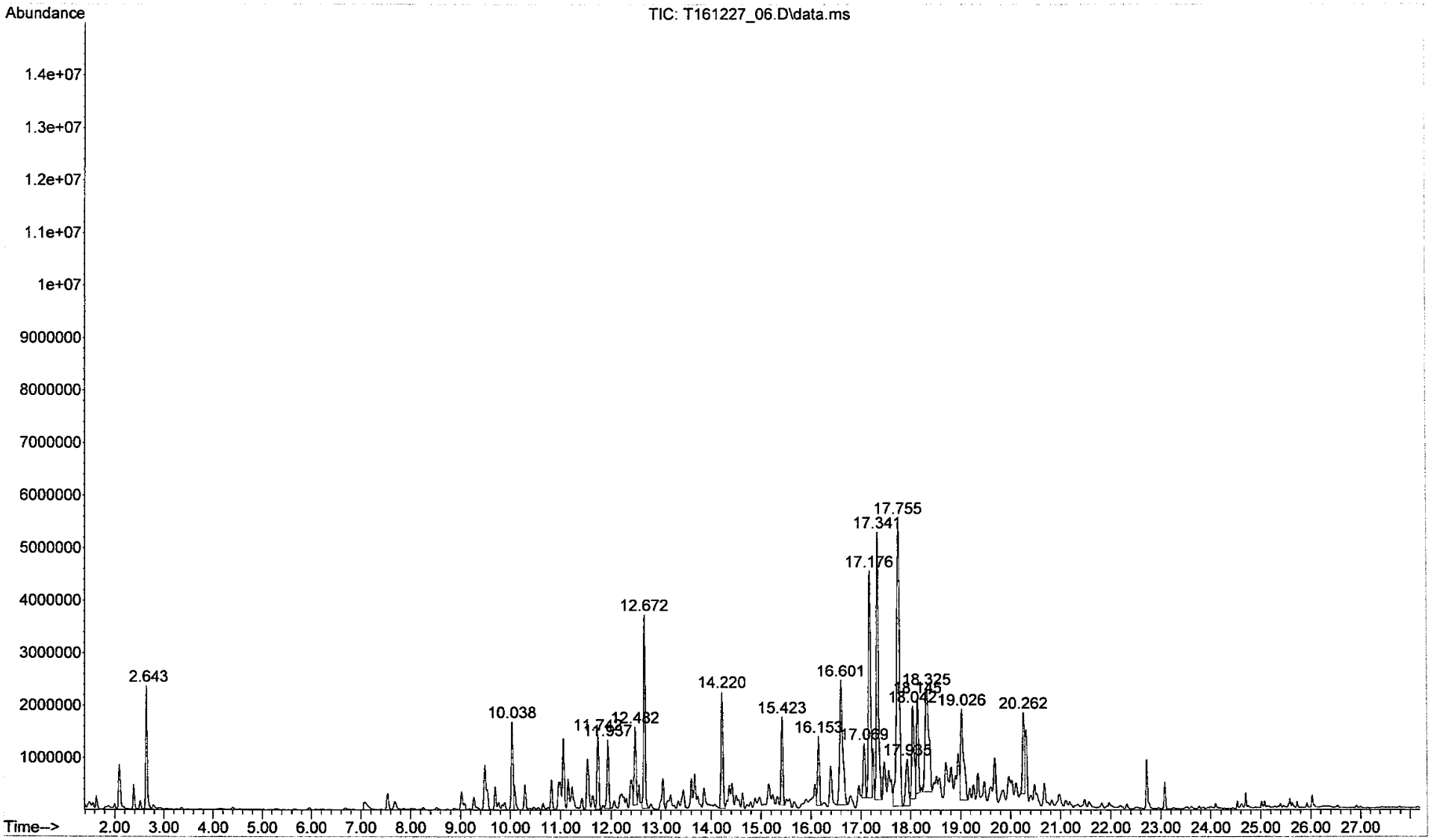
Quant Time: Dec 28 17:03:35 2016
Quant Method : \\Ba-fs1\RESOURCES\GCMSFILE\METHODS\5975 Methods\Y2K16\Desorb_Merged_2016_120
Quant Title : AB95168
QLast Update : Mon Dec 05 15:03:37 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	0.00
21) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	0.00
32) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	# 0.00
52) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	# 0.00
66) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	# 0.00
97) 1-Bromo-4-flourobenzen...	14.220	95	1016160	111.00 ng	# 0.00
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.	
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	23.938	113	66969m	33.45 ng	
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.	
26) 2-Butoxyethanol; 111-76-2	0.000		0	N.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	2.390	43	237452	46.26 ng	# 25
34) Ethanol; 64-17-5	2.098	31	311972	107.00 ng	# 87
35) 2-Propanone(acetone); ...	2.390	43	237452	43.98 ng	# 48
36) 1,1-Dichloroethylene;7...	0.000		0	N.D.	
37) 2-Propanol; 67-63-0	2.098	45	188309	30.10 ng	# 62
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.	

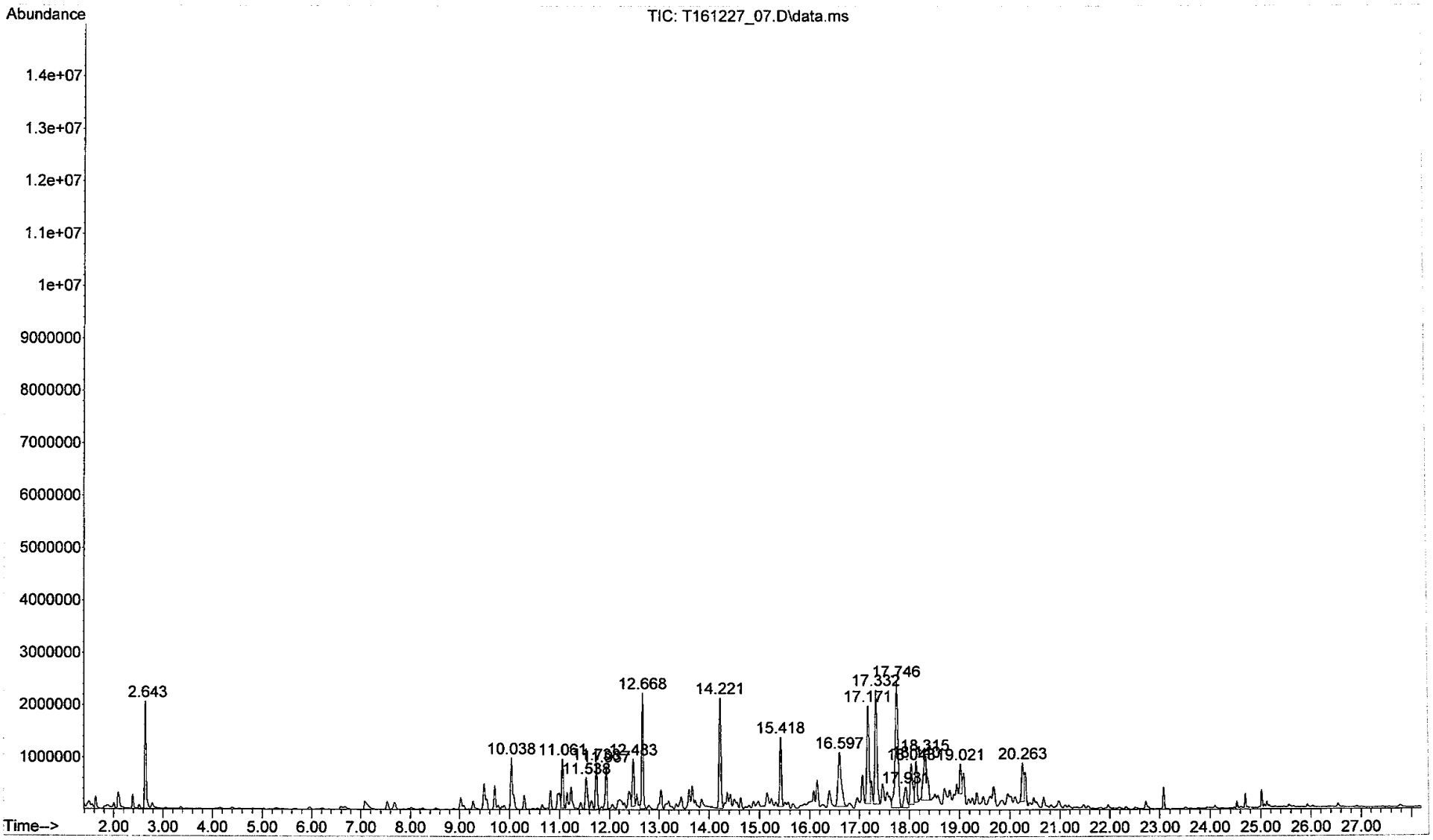
File :C:\msdchem\1\data\2016\Dec\T161227_05.D
Operator : rgill
Acquired : 27 Dec 2016 4:01 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-01; 203119; 4.79L
Misc Info : C15-01; 111ngBFB;10:1 split
Vial Number: 5



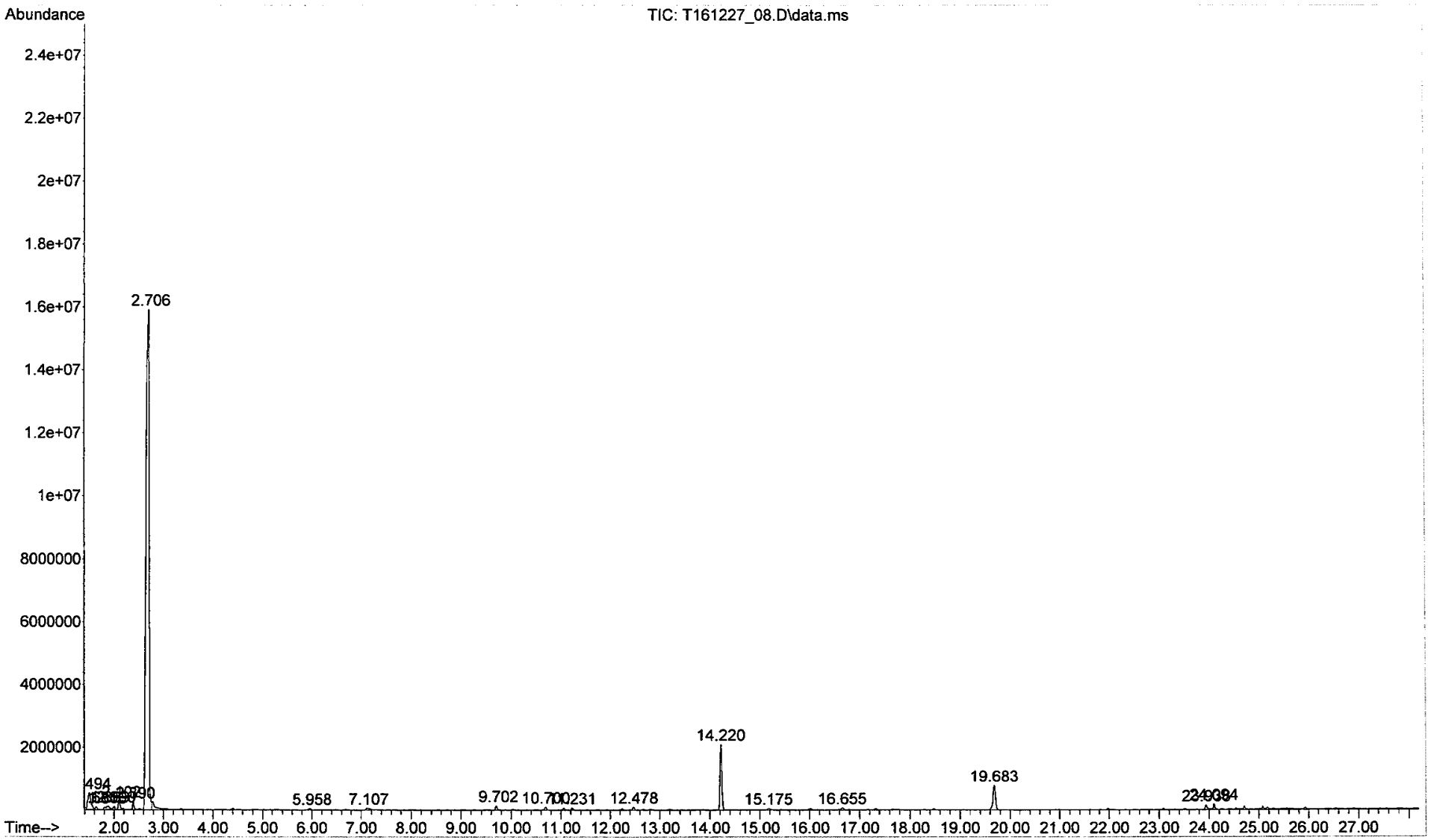
File :C:\msdchem\1\data\2016\Dec\T161227_06.D
Operator : rgill
Acquired : 27 Dec 2016 4:55 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-02; 203125; 4.76L
Misc Info : C15-02; 111ngBFB;10:1 split
Vial Number: 6



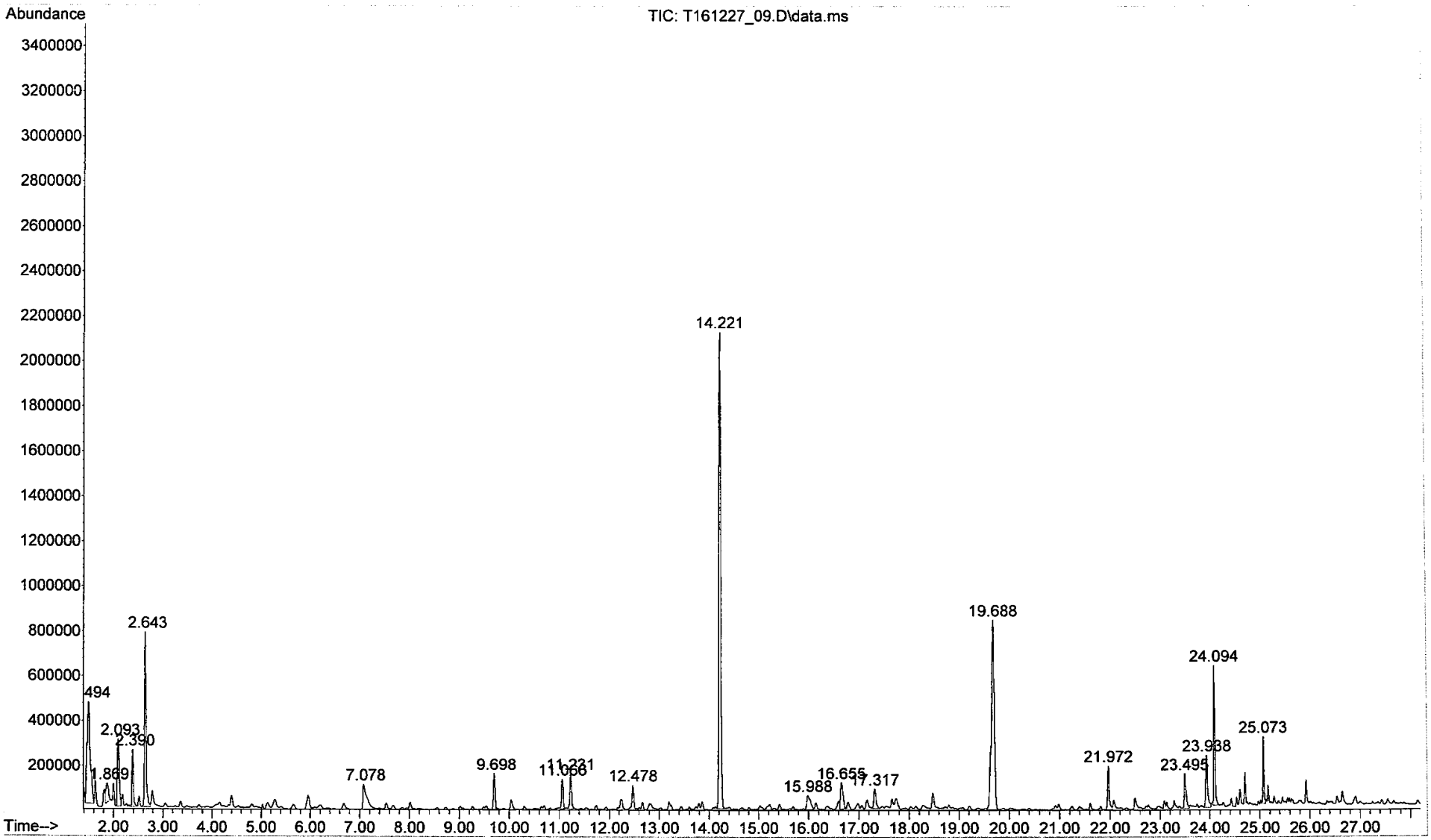
File :C:\msdchem\1\data\2016\Dec\T161227_07.D
Operator : rgill
Acquired : 27 Dec 2016 5:49 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-03; 203169; 4.93L
Misc Info : C15-03; 111ngBFB;10:1 split
Vial Number: 7



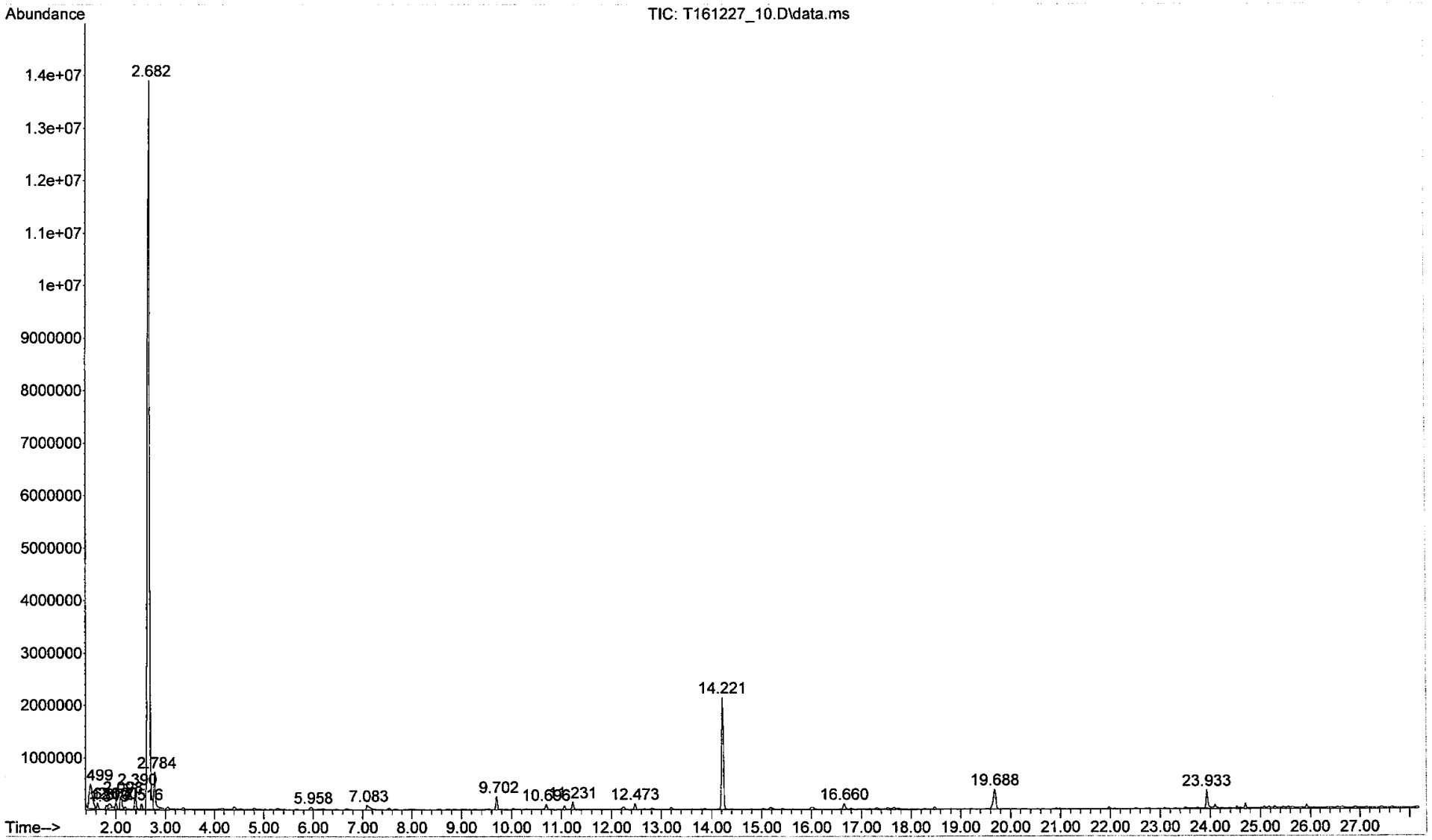
File :C:\msdchem\1\data\2016\Dec\T161227_08.D
Operator : rgill
Acquired : 27 Dec 2016 6:44 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-04; 242492; 4.61L
Misc Info : C15-04; 111ngBFB;10:1 split
Vial Number: 8



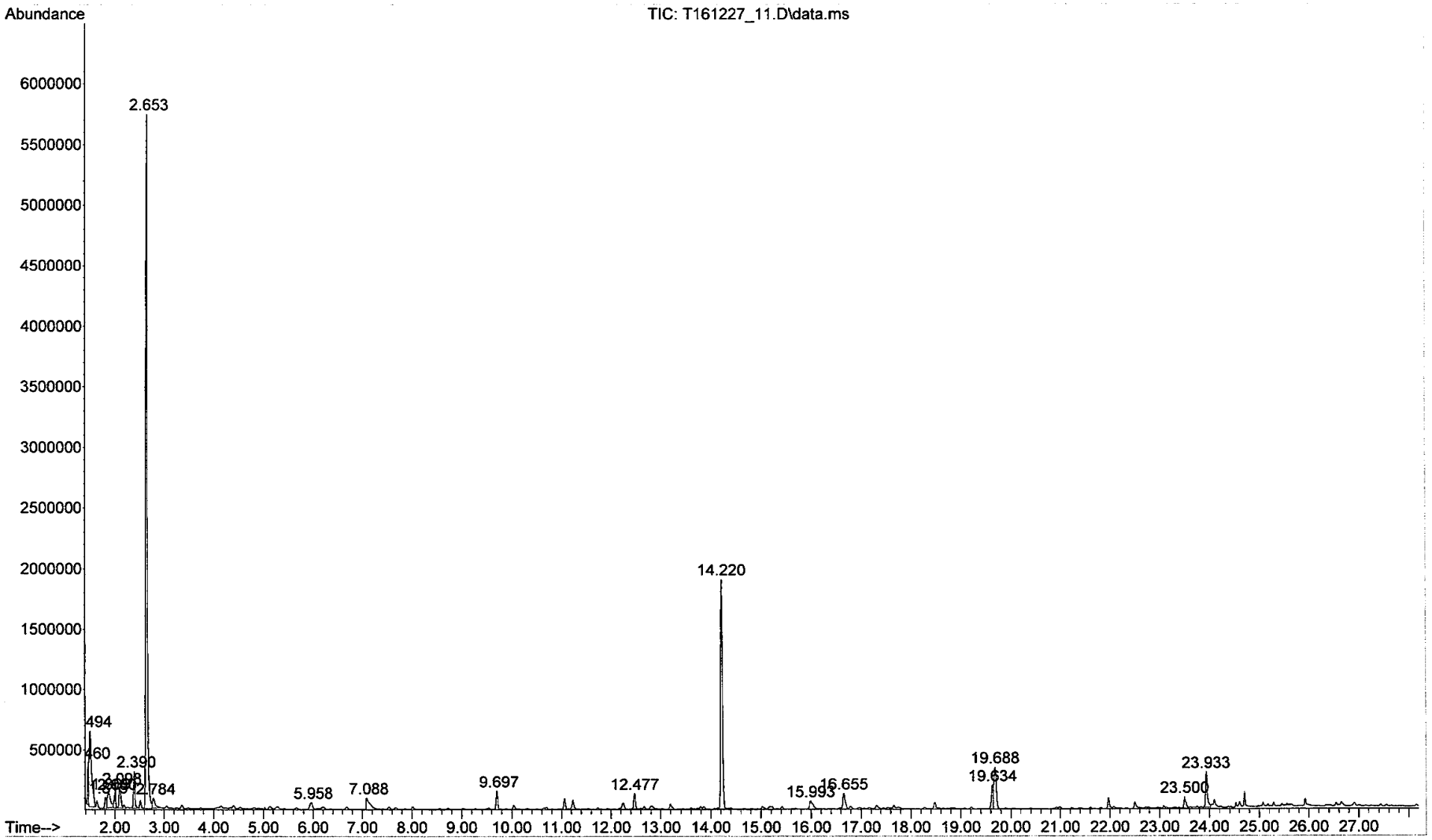
File :C:\msdchem\1\data\2016\Dec\T161227_09.D
Operator : rgill
Acquired : 27 Dec 2016 7:38 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-05; 203198; 4.77L
Misc Info : C15-05; 111ngBFB;10:1 split
Vial Number: 9



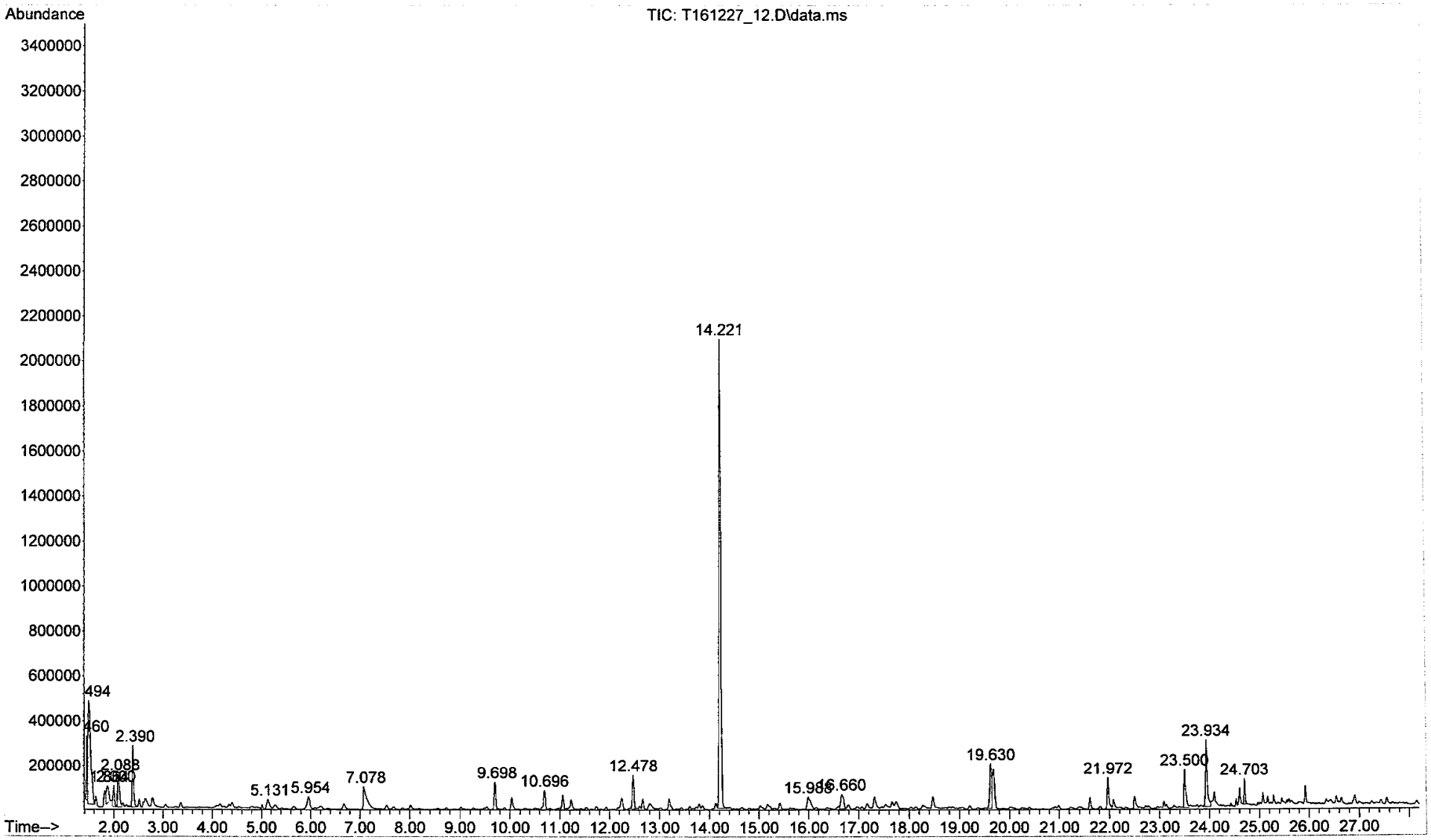
File :C:\msdchem\1\data\2016\Dec\T161227_10.D
Operator : rgill
Acquired : 27 Dec 2016 8:32 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-06; 242461; 5.14L
Misc Info : C15-06; 111ngBFB;10:1 split
Vial Number: 10



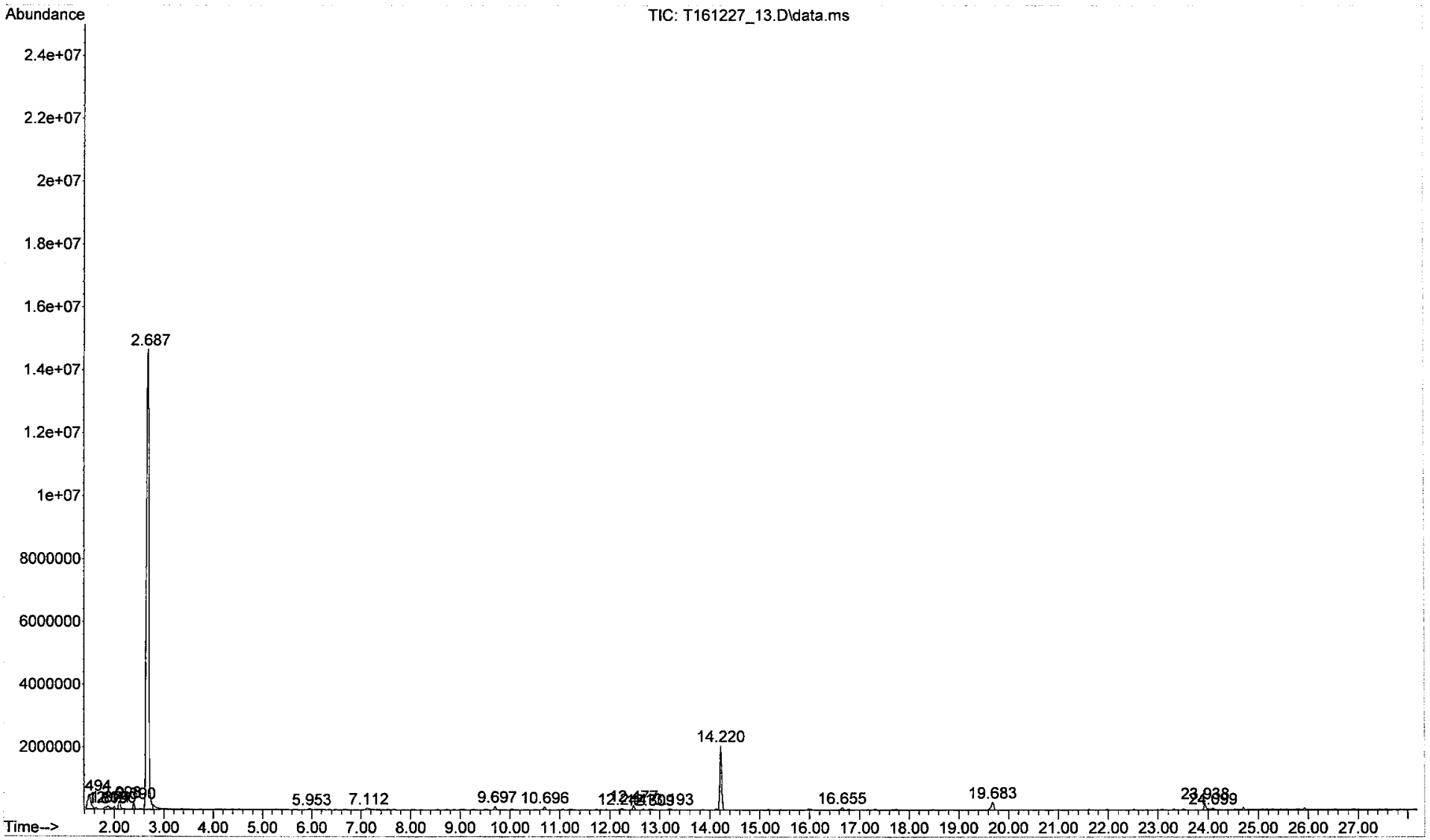
File :C:\msdchem\1\data\2016\Dec\T161227_11.D
Operator : rgill
Acquired : 27 Dec 2016 9:26 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-07; 203194; 6.84L
Misc Info : C15-07; 111ngBFB;10:1 split
Vial Number: 11



File :C:\msdchem\1\data\2016\Dec\T161227_12.D
Operator : rgill
Acquired : 27 Dec 2016 10:20 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-08; 242417; 5.52L
Misc Info : C15-08; 111ngBFB;10:1 split
Vial Number: 12



File :C:\msdchem\1\data\2016\Dec\T161227_13.D
Operator : rgill
Acquired : 27 Dec 2016 11:14 pm using AcqMethod 130812VOC.M
Instrument : GCMS_7890
Sample Name: US EPA_061-038-09; 242453; 5.34L
Misc Info : C15-09; 111ngBFB;10:1 split
Vial Number: 13



HCHO\JC061-038_EPA.XLS
Created 1/3/17, rgill

US EPA
Formaldehyde Analysis
161230
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
161230\161230007.D	F15-01	5.285		363	323	46.33	7.0	5.7
161230\161230008.D	F15-02	5.284		545	505	46.61	10.8	8.8
161230\161230009.D	F15-03	5.288		407	367	47.25	7.8	6.3
161230\161230010.D	F15-04	5.284		386	346	43.98	7.9	6.4
161230\161230011.D	F15-05	5.280		356	316	47.03	6.7	5.5
161230\161230012.D	F15-06	5.278		393	353	48.06	7.4	6.0
161230\161230013.D	F15-07	5.275		412	372	65.19	5.7	4.7
161230\161230014.D	F15-08	5.276		351	311	53.48	5.8	4.7
161230\161230015.D	F15-09	5.277		307	267	51.19	5.2	4.2

061-038; 12/28/2016
Caprolactam calculations

		mass (ng)	vol (L)	conc (ug/m3)	conc (ppb)
061-038-01	T161227_05	51.0	4.790	10.6	2.3
061-038-02	T161227_06	4.3	4.760	0.9	0.2
061-038-03	T161227_07	4.2	4.930	0.8	0.2
061-038-04	T161227_08	20.8	4.610	4.5	1.0
061-038-05	T161227_09	33.0	4.770	6.9	1.5
061-038-06	T161227_10	49.9	5.140	9.7	2.1
061-038-07	T161227_11	46.8	6.840	6.8	1.5
061-038-08	T161227_12	39.9	5.520	7.2	1.6
061-038-09	T161227_13	33.5	5.340	6.3	1.4

061-038-01 4.79 litres
US EPA
203119 collected: 12/22/2016
01; Arizona Rm-1st

061-038-02 4.76 litres
US EPA
203125 collected: 12/22/2016
C15-02; Weight Rm-2nd

061-038-03 4.93 litres
US EPA
203169 collected: 12/22/2016
C15-03; Group Exercise-2nd

061-038-04 4.61 litres
US EPA
242492 collected: 12/22/2016
C15-04; 8146

061-038-05 4.77 litres
US EPA
203198 collected: 12/22/2016
C15-05;8424

061-038-06 5.14 litres
US EPA
242461 collected: 12/22/2016
C15-06; 9124

061-038-07 6.84 litres
US EPA
203194 collected: 12/22/2016
C15-07; 9111

061-038-08 5.52 litres
US EPA
242417 collected: 12/22/2016
C15-08; 13162

061-038-09 5.34 litres
US EPA
242453 collected: 12/22/2016
C15-09; 13353

061-038-10 46.33 litres
US EPA
F15-01 collected: 12/22/2016
F15-01; Arizona Rm-1st

061-038-11 46.61 litres
US EPA
F15-02 collected: 12/22/2016
F15-02; Weight Rm-2nd

061-038-12 47.25 litres
US EPA
F15-03 collected: 12/22/2016
F15-03; Group Exercise-2nd

061-038-13 43.98 litres
US EPA
F15-04 collected: 12/22/2016
F15-04; 8146

061-038-14 47.03 litres
US EPA
F15-05 collected: 12/22/2016
F15-05; 8424

061-038-15 48.06 litres
US EPA
F15-06 collected: 12/22/2016
F15-06; 9124

061-038-16 65.19 litres
US EPA
F15-07 collected: 12/22/2016
F15-07; 9111

061-038-17 53.48 litres
US EPA
F15-08 collected: 12/22/2016
F15-08; 13162

061-038-18 51.19 litres
US EPA
F15-09 collected: 12/22/2016
F15-09; 13353