Atmospheric Analysis & Consulting, Inc.

CLIENT	: Soil Water Air Protection Enterprise
PROJECT NAME	: Bridgeton Sanitary Landfill Air Quality Assessment
AAC PROJECT NO.	: 130783
REPORT DATE	: 06/26/2013

On June 24, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) Six-Liter Summa Canisters for Volatile Organic Compounds analysis by EPA method TO-15. Upon receipt each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab ID	Return Pressure (mmHga)
U1 W1-Canister	130783-63876	519.3
U2 V-Canister	130783-63877	654.1
D-1 W5-Canister	130783-63878	602.4
D-2 IN-Canister	130783-63879	563.7

An initial reading of each canister's vacuum was taken and recorded. Subsequently, each canister was brought to positive pressure using UHP-He and the final pressure was recorded.

TO-15 Analysis - Up to a 500 mL aliquot of sample is concentrated, put through a water and CO_2 management system, cryofocused and injected into the GC/MS (full scan mode) for analysis following EPA Method TO-15 as specified in the SOW.

No problems were encountered during receiving, preparation and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.15.10.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Marcus Hueppe
Laboratory Director

This report consists of 60 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **130783** **Received By: J. Zachman**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W1 Canister	Summa Canister	6/18/2013	Client	63876	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 V Canister	Summa Canister	6/18/2013	Client	63877	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W5 Canister	Summa Canister	6/18/2013	Client	63878	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 IN Canister	Summa Canister	6/18/2013	Client	63879	TO15 ASTM D5504

TURN AROUND TIME: Normal (10days)

Lab Due Date: 7/1/2013

Total Samples: 4

REMARKS:

Client returned 4 x Summa canisters + 4 x Flows. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."

CANISTER PRESSURE LOG

Client: Soil Water Air Protection Ent Project No.: 130783

Date: 6/24/2013

Canister #	Sample #	Initial Pressure	Final Pressure
624	63876	519.3	1028.2
765	63877	654.1	1020.0
771	63878	602.4	1015.5
751	63879	563.7	1020.0

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AAC# 130783

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011	Date: **June 18th**
Project Manager: PAUL ROSENFELD, PH.D.		Page 1 of 1
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401		
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT		
Sampled By: John Blank	Sampler Signature: John Blank	

LAB ID	SAMPLE ID NUMBER		Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt		
																					Flow #
63876	U-1 W1	Canister		18-Jun	4 Hr	X	X												Canister #	624	694
63877	U-2 V	Canister		18-Jun	4 Hr	X	X												Canister #	765	709
63878	D-1 W5	Canister		18-Jun	4 Hr	X	X												Canister #	771	805
63879	D-2 IN	Canister		18-Jun	4 Hr	X	X												Canister #	751	698

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.			QC Requirements: Provide Level IV QC Package for all Analyses.	
Relinquished By: John Blank	Date: 6/18/2013	12 Noon	Received By:	Date: / Time:
Relinquished By:	Date:	Time:	Received By:	Date: / Time:
Relinquished By:	Date:	Time:	Received By:	Date: 6/24/13 / Time: 1100

SOIL / WATER / AIR PROTECTION ENTERPRISE

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U- 1 W1** **Canister # 624** **Flow Control # 694**

AAC Batch ID: 130783 AAC Sample ID: 63867

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 14:05** Stop Date/Time: **June 18, 2013 – 18:05**

Start Temp/Pressure*: 30 C / 30.05 psi Stop Temp/Pressure*: 32 C / 29.95 psi

Initial Can Pressure**: - 30 Final Can Pressure**: - 10

** Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)*

Comments: _____

John Blank **June 18th, 2013**

Sampler Name (Print) *Sampler Signature/Date*

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 4 – Hour

Canister Serial No.: 624 Flow Controller Serial No: 694

Initial Pressure: 4.7 Certified Flow Rate: 18.0

Return Pressure: 5/9.3 Certified By/Date: 6/3/2013

Final Pressure: 1028.2 Flow Rate upon Return: 17.7 ml/min

Date Shipped From Lab: 5/23/2013 Shipped By: _____

Date Returned to Lab: 6/24/13 Received By: _____

Flow Controller Certification File ID: M603052013TC

Canister Certification File ID: M603052113C20

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

06/26/13 6/27/13

Chemist Signature/Date *Lab Manager Signature/Date*

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U- 2 V** **Canister # 765** **Flow Control # 709**

AAC Batch ID: 130783 AAC Sample ID: 63877

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 14:40** Stop Date/Time: **June 18, 2013 – 18:40**

Start Temp/Pressure*: 30 C / 30.05 psi Stop Temp/Pressure*: 32 C / 29.95 psi

Initial Can Pressure**: - 30 Final Can Pressure**: - 3

** Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)*

Comments: _____

John Blank **June 18th, 2013**

Sampler Name (Print) *Sampler Signature/Date*

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 4 – Hour

Canister Serial No.: **765** Flow Controller Serial No: **709**

Initial Pressure: 4.4 Certified Flow Rate: 18.0

Return Pressure: 654.1 Certified By/Date: 6/3/2013

Final Pressure: 1020.0 Flow Rate upon Return: 20.7 mL/min

Date Shipped From Lab: 5/23/2013 Shipped By: _____

Date Returned to Lab: 6/24/13 Received By: _____

Flow Controller Certification File ID: M503/053013Z

Canister Certification File ID: M503/052113Z1

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

06/26/13 6/27/13

Chemist Signature/Date *Lab Manager Signature/Date*

Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D- 1 W5** **Canister # 771** **Flow Control # 805**

AAC Batch ID: 130783 AAC Sample ID: 63878

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 14:55** Stop Date/Time: **June 18, 2013 – 18:55**

Start Temp/Pressure*: 30 C / 30.05 psi Stop Temp/Pressure*: 32 C / 29.95 psi

Initial Can Pressure**: - 30 Final Can Pressure**: - 8

Ambient Barometric Reading where sample is being taken (C / inHg)** ****Flow Controller Gauge Reading (inHg)

Comments: _____

John Blank

_John Blank **June 18th, 2013**

Sampler Name (Print) ***Sampler Signature/Date***

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 4 – Hour

Canister Serial No.: **771** Flow Controller Serial No: **805**

Initial Pressure: 4.5 Certified Flow Rate: 18.0

Return Pressure: 602.4 Certified By/Date: 6/3/2013

Final Pressure: 1015.5 Flow Rate upon Return: 26.5 mL/min

Date Shipped From Lab: 5/23/2013 Shipped By: _____

Date Returned to Lab: 6/24/13 Received By: _____

Flow Controller Certification File ID: M803/053113Z6

Canister Certification File ID: M803/052113ZZ

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

_____ 6/27/13

Chemist Signature/Date ***Lab Manager Signature/Date***

Sampler is required to fill out all highlighted sections during sampling.

Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet

All remaining sections will be completed upon return by the laboratory.

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D- 2 IN** **Canister # 751** **Flow Control # 698**

AAC Batch ID: 130783 AAC Sample ID: 63879

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 15:05** Stop Date/Time: **June 18, 2013 – 19:05**

Start Temp/Pressure*: 30 C / 30.05 psi Stop Temp/Pressure*: 32 C / 29.95 psi

Initial Can Pressure**: - 30 Final Can Pressure**: - 8

**** Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)***

Comments: _____

John Blank
Sampler Name (Print)

June 18th, 2013
Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 4 – Hour

Canister Serial No.: **751** Flow Controller Serial No: **698**

Initial Pressure: 4.4 Certified Flow Rate: 18.0

Return Pressure: 563.7 Certified By/Date: 5/17/2013

Final Pressure: 1020.0 Flow Rate upon Return: 20.0 mL/min

Date Shipped From Lab: 5/23/2013 Shipped By: _____

Date Returned to Lab: 6/24/13 Received By: _____

Flow Controller Certification File ID: 4503/05141322

Canister Certification File ID: 4503/05213226

Certification Type: SIM ____ SCAN ✓ NJLL ____ PAMS ____ Other ____

_____ _____

Chemist Signature/Date ***Lab Manager Signature/Date***

TO-15 REPORTS

Laboratory Analysis Report

CLIENT	**: Soil Water Air Protection Enterprise**	**DATE RECEIVED**	**: 06/24/2013**
PROJECT NO	**: 130783**	**DATE REPORTED**	**: 06/26/2013**
MATRIX	**: AIR**		
UNITS	**: PPB (v/v)**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U2 V-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63876				130783-63877				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.98				1.56				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.36	J	1.0	0.99	0.31	J	1.0	0.78	0.5
Propene	0.93	J	1.0	1.98	0.58	J	1.0	1.56	1.0
Dichlorodifluoromethane	0.55	J	1.0	0.99	0.53	J	1.0	0.78	0.5
Chloromethane	0.61	J	1.0	0.99	0.47	J	1.0	0.78	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Vinyl Chloride	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Methanol	10.3		1.0	9.9	6.55	J	1.0	7.80	5.0
1,3-Butadiene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Bromomethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Chloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Ethanol	6.38		1.0	3.96	3.24		1.0	3.12	2.0
Vinyl Bromide	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Acetone	5.68		1.0	3.96	6.07		1.0	3.12	2.0
Trichlorofluoromethane	0.26	J	1.0	0.99	0.25	J	1.0	0.78	0.5
2-Propanol (IPA)	1.13	J	1.0	3.96	0.81	J	1.0	3.12	2.0
Acrylonitrile	<SRL	U	1.0	1.98	<SRL	U	1.0	1.56	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.98	<SRL	U	1.0	1.56	1.0
Allyl Chloride	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Carbon Disulfide	NR	U	1.0	0.99	NR		1.0	0.78	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Vinyl Acetate	<SRL	U	1.0	1.98	<SRL	U	1.0	1.56	1.0
2-Butanone (MEK)	0.59	J	1.0	1.98	0.98	J	1.0	1.56	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Hexane	0.85	J	1.0	0.99	<SRL	U	1.0	0.78	0.5
Chloroform	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Ethyl Acetate	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Tetrahydrofuran	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130783
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/24/2013
DATE REPORTED : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U2 V-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63876				130783-63877				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.98				1.56				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Carbon Tetrachloride	0.10	J	1.0	0.99	0.09	J	1.0	0.78	0.5
Cyclohexane	0.18	J	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Bromodichloromethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,4-Dioxane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
2,2,4-Trimethylpentane	0.59	J	1.0	0.99	0.19	J	1.0	0.78	0.5
Heptane	0.22	J	1.0	0.99	0.22	J	1.0	0.78	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Toluene	1.45		1.0	0.99	1.93		1.0	0.78	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Dibromochloromethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Chlorobenzene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Ethylbenzene	0.38	J	1.0	0.99	0.37	J	1.0	0.78	0.5
m & p-Xylenes	1.21	J	1.0	1.98	0.92	J	1.0	1.56	1.0
Bromoform	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Styrene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
o-Xylene	0.55	J	1.0	0.99	0.34	J	1.0	0.78	0.5
4-Ethyltoluene	0.24	J	1.0	0.99	0.14	J	1.0	0.78	0.5
1,3,5-Trimethylbenzene	0.22	J	1.0	0.99	0.14	J	1.0	0.78	0.5
1,2,4-Trimethylbenzene	0.75	J	1.0	0.99	0.48	J	1.0	0.78	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.99	0.17	J	1.0	0.78	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.99	<SRL	U	1.0	0.78	0.5
BFB-Surrogate Std. % Recovery	103%				104%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130783
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 06/24/2013
DATE REPORTED : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U2 V-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63876				130783-63877				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.98				1.56				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1.3	J	1.0	3.5	1.1	J	1.0	2.8	1.8
Propene	1.6	J	1.0	3.4	1.0	J	1.0	2.7	1.7
Dichlorodifluoromethane	2.7	J	1.0	4.9	2.6	J	1.0	3.9	2.5
Chloromethane	1.3	J	1.0	2.0	1.0	J	1.0	1.6	1.0
Dichlorotetrafluoroethane	<SRL	U	1.0	6.9	<SRL	U	1.0	5.5	3.5
Vinyl Chloride	<SRL	U	1.0	2.5	<SRL	U	1.0	2.0	1.3
Methanol	13.5		1.0	13.0	8.6	J	1.0	10.2	6.6
1,3-Butadiene	<SRL	U	1.0	2.2	<SRL	U	1.0	1.7	1.1
Bromomethane	<SRL	U	1.0	3.8	<SRL	U	1.0	3.0	1.9
Chloroethane	<SRL	U	1.0	2.6	<SRL	U	1.0	2.1	1.3
Dichlorofluoromethane	<SRL	U	1.0	4.2	<SRL	U	1.0	3.3	2.1
Ethanol	12.0		1.0	7.5	6.1		1.0	5.9	3.8
Vinyl Bromide	<SRL	U	1.0	4.3	<SRL	U	1.0	3.4	2.2
Acetone	13.5		1.0	9.4	14.4		1.0	7.4	4.8
Trichlorofluoromethane	1.5	J	1.0	5.6	1.4	J	1.0	4.4	2.8
2-Propanol (IPA)	2.8	J	1.0	9.7	2.0	J	1.0	7.7	4.9
Acrylonitrile	<SRL	U	1.0	4.3	<SRL	U	1.0	3.4	2.2
1,1-Dichloroethene	<SRL	U	1.0	3.9	<SRL	U	1.0	3.1	2.0
Methylene Chloride (DCM)	<SRL	U	1.0	6.9	<SRL	U	1.0	5.4	3.5
Allyl Chloride	<SRL	U	1.0	3.1	<SRL	U	1.0	2.4	1.6
Carbon Disulfide	NR	U	1.0	3.1	NR		1.0	2.4	1.6
Trichlorotrifluoroethane	<SRL	U	1.0	7.6	<SRL	U	1.0	6.0	3.8
trans-1,2-Dichloroethene	<SRL	U	1.0	3.9	<SRL	U	1.0	3.1	2.0
1,1-Dichloroethane	<SRL	U	1.0	4.0	<SRL	U	1.0	3.2	2.0
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	3.6	<SRL	U	1.0	2.8	1.8
Vinyl Acetate	<SRL	U	1.0	7.0	<SRL	U	1.0	5.5	3.5
2-Butanone (MEK)	1.8	J	1.0	5.8	2.9	J	1.0	4.6	2.9
cis-1,2-Dichloroethene	<SRL	U	1.0	3.9	<SRL	U	1.0	3.1	2.0
Hexane	3.0	J	1.0	3.5	<SRL	U	1.0	2.7	1.8
Chloroform	<SRL	U	1.0	4.8	<SRL	U	1.0	3.8	2.4
Ethyl Acetate	<SRL	U	1.0	3.6	<SRL	U	1.0	2.8	1.8
Tetrahydrofuran	<SRL	U	1.0	2.9	<SRL	U	1.0	2.3	1.5
1,2-Dichloroethane	<SRL	U	1.0	4.0	<SRL	U	1.0	3.2	2.0
1,1,1-Trichloroethane	<SRL	U	1.0	5.4	<SRL	U	1.0	4.3	2.7

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : **Soil Water Air Protection Enterprise**
PROJECT NO : **130783**
MATRIX : **AIR**
UNITS : **ug/m3**

DATE RECEIVED : **06/24/2013**
DATE REPORTED : **06/26/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U1 W1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U2 V-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63876				130783-63877				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.98				1.56				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	<SRL	U	1.0	3.2	<SRL	U	1.0	2.5	1.6
Carbon Tetrachloride	0.6	J	1.0	6.2	0.6	J	1.0	4.9	3.1
Cyclohexane	0.6	J	1.0	3.4	<SRL	U	1.0	2.7	1.7
1,2-Dichloropropane	<SRL	U	1.0	4.6	<SRL	U	1.0	3.6	2.3
Bromodichloromethane	<SRL	U	1.0	6.6	<SRL	U	1.0	5.2	3.4
1,4-Dioxane	<SRL	U	1.0	3.6	<SRL	U	1.0	2.8	1.8
Trichloroethene (TCE)	<SRL	U	1.0	5.3	<SRL	U	1.0	4.2	2.7
2,2,4-Trimethylpentane	2.8	J	1.0	4.6	0.9	J	1.0	3.6	2.3
Heptane	0.9	J	1.0	4.1	0.9	J	1.0	3.2	2.0
cis-1,3-Dichloropropene	<SRL	U	1.0	4.5	<SRL	U	1.0	3.5	2.3
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	4.1	<SRL	U	1.0	3.2	2.0
trans-1,3-Dichloropropene	<SRL	U	1.0	4.5	<SRL	U	1.0	3.5	2.3
1,1,2-Trichloroethane	<SRL	U	1.0	5.4	<SRL	U	1.0	4.3	2.7
Toluene	5.5		1.0	3.7	7.3		1.0	2.9	1.9
2-Hexanone (MBK)	<SRL	U	1.0	4.1	<SRL	U	1.0	3.2	2.0
Dibromochloromethane	<SRL	U	1.0	8.4	<SRL	U	1.0	6.6	4.3
1,2-Dibromoethane	<SRL	U	1.0	7.6	<SRL	U	1.0	6.0	3.8
Tetrachloroethene (PCE)	<SRL	U	1.0	6.7	<SRL	U	1.0	5.3	3.4
Chlorobenzene	<SRL	U	1.0	4.6	<SRL	U	1.0	3.6	2.3
Ethylbenzene	1.6	J	1.0	4.3	1.6	J	1.0	3.4	2.2
m & p-Xylenes	5.2	J	1.0	8.6	4.0	J	1.0	6.8	4.3
Bromoform	<SRL	U	1.0	10.2	<SRL	U	1.0	8.1	5.2
Styrene	<SRL	U	1.0	4.2	<SRL	U	1.0	3.3	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	6.8	<SRL	U	1.0	5.4	3.4
o-Xylene	2.4	J	1.0	4.3	1.5	J	1.0	3.4	2.2
4-Ethyltoluene	1.2	J	1.0	4.9	0.7	J	1.0	3.8	2.5
1,3,5-Trimethylbenzene	1.1	J	1.0	4.9	0.7	J	1.0	3.8	2.5
1,2,4-Trimethylbenzene	3.7	J	1.0	4.9	2.4	J	1.0	3.8	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	5.1	<SRL	U	1.0	4.0	2.6
1,3-Dichlorobenzene	<SRL	U	1.0	6.0	<SRL	U	1.0	4.7	3.0
1,4-Dichlorobenzene	<SRL	U	1.0	6.0	1.0	J	1.0	4.7	3.0
1,2-Dichlorobenzene	<SRL	U	1.0	6.0	<SRL	U	1.0	4.7	3.0
1,2,4-Trichlorobenzene	<SRL	U	1.0	7.3	<SRL	U	1.0	5.8	3.7
Hexachlorobutadiene	<SRL	U	1.0	10.6	<SRL	U	1.0	8.3	5.3
BFB-Surrogate Std. % Recovery	103%				104%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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Laboratory Analysis Report

CLIENT	**: Soil Water Air Protection Enterprise**	**DATE RECEIVED**	**: 06/24/2013**
PROJECT NO	**: 130783**	**DATE REPORTED**	**: 06/26/2013**
MATRIX	**: AIR**		
UNITS	**: PPB (v/v)**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 IN-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63878				130783-63879				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.69				1.81				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.35	J	1.0	0.84	0.45	J	1.0	0.90	0.5
Propene	1.25	J	1.0	1.69	0.78	J	1.0	1.81	1.0
Dichlorodifluoromethane	0.52	J	1.0	0.84	0.54	J	1.0	0.90	0.5
Chloromethane	0.66	J	1.0	0.84	0.87	J	1.0	0.90	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Vinyl Chloride	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Methanol	14.9		1.0	8.4	8.49	J	1.0	9.05	5.0
1,3-Butadiene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Bromomethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Chloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Ethanol	5.46		1.0	3.37	4.36		1.0	3.62	2.0
Vinyl Bromide	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Acetone	8.90		1.0	3.37	5.46		1.0	3.62	2.0
Trichlorofluoromethane	0.25	J	1.0	0.84	0.27	J	1.0	0.90	0.5
2-Propanol (IPA)	1.21	J	1.0	3.37	0.67	J	1.0	3.62	2.0
Acrylonitrile	<SRL	U	1.0	1.69	<SRL	U	1.0	1.81	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.69	<SRL	U	1.0	1.81	1.0
Allyl Chloride	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Carbon Disulfide	NR		1.0	0.84	NR		1.0	0.90	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Vinyl Acetate	<SRL	U	1.0	1.69	<SRL	U	1.0	1.81	1.0
2-Butanone (MEK)	2.76		1.0	1.69	0.65	J	1.0	1.81	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Hexane	0.39	J	1.0	0.84	<SRL	U	1.0	0.90	0.5
Chloroform	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Ethyl Acetate	0.35	J	1.0	0.84	<SRL	U	1.0	0.90	0.5
Tetrahydrofuran	2.04		1.0	0.84	<SRL	U	1.0	0.90	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130783
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/24/2013
DATE REPORTED : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 IN-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63878				130783-63879				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.69				1.81				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	3.29		1.0	0.84	<SRL	U	1.0	0.90	0.5
Carbon Tetrachloride	0.10	J	1.0	0.84	0.09	J	1.0	0.90	0.5
Cyclohexane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Bromodichloromethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,4-Dioxane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
2,2,4-Trimethylpentane	0.20	J	1.0	0.84	0.24	J	1.0	0.90	0.5
Heptane	0.13	J	1.0	0.84	0.09	J	1.0	0.90	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
4-Methyl-2-pentanone (MiBK)	0.15	J	1.0	0.84	<SRL	U	1.0	0.90	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Toluene	1.15		1.0	0.84	0.71	J	1.0	0.90	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Dibromochloromethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Chlorobenzene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Ethylbenzene	0.34	J	1.0	0.84	0.27	J	1.0	0.90	0.5
m & p-Xylenes	0.93	J	1.0	1.69	0.96	J	1.0	1.81	1.0
Bromoform	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Styrene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
o-Xylene	0.39	J	1.0	0.84	0.51	J	1.0	0.90	0.5
4-Ethyltoluene	0.13	J	1.0	0.84	0.25	J	1.0	0.90	0.5
1,3,5-Trimethylbenzene	0.13	J	1.0	0.84	0.29	J	1.0	0.90	0.5
1,2,4-Trimethylbenzene	0.51	J	1.0	0.84	1.10		1.0	0.90	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,4-Dichlorobenzene	0.07	J	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.84	<SRL	U	1.0	0.90	0.5
BFB-Surrogate Std. % Recovery	102%				105%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130783
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 06/24/2013
DATE REPORTED : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 IN-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63878				130783-63879				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.69				1.81				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1.3	J	1.0	3.0	1.6	J	1.0	3.2	1.8
Propene	2.2	J	1.0	2.9	1.3	J	1.0	3.1	1.7
Dichlorodifluoromethane	2.6	J	1.0	4.2	2.7	J	1.0	4.5	2.5
Chloromethane	1.4	J	1.0	1.7	1.8	J	1.0	1.9	1.0
Dichlorotetrafluoroethane	<SRL	U	1.0	5.9	<SRL	U	1.0	6.3	3.5
Vinyl Chloride	<SRL	U	1.0	2.2	<SRL	U	1.0	2.3	1.3
Methanol	19.5		1.0	11.0	11.1	J	1.0	11.9	6.6
1,3-Butadiene	<SRL	U	1.0	1.9	<SRL	U	1.0	2.0	1.1
Bromomethane	<SRL	U	1.0	3.3	<SRL	U	1.0	3.5	1.9
Chloroethane	<SRL	U	1.0	2.2	<SRL	U	1.0	2.4	1.3
Dichlorofluoromethane	<SRL	U	1.0	3.5	<SRL	U	1.0	3.8	2.1
Ethanol	10.3		1.0	6.4	8.2		1.0	6.8	3.8
Vinyl Bromide	<SRL	U	1.0	3.7	<SRL	U	1.0	4.0	2.2
Acetone	21.1		1.0	8.0	13.0		1.0	8.6	4.8
Trichlorofluoromethane	1.4	J	1.0	4.7	1.5	J	1.0	5.1	2.8
2-Propanol (IPA)	3.0	J	1.0	8.3	1.7	J	1.0	8.9	4.9
Acrylonitrile	<SRL	U	1.0	3.7	<SRL	U	1.0	3.9	2.2
1,1-Dichloroethene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.6	2.0
Methylene Chloride (DCM)	<SRL	U	1.0	5.9	<SRL	U	1.0	6.3	3.5
Allyl Chloride	<SRL	U	1.0	2.6	<SRL	U	1.0	2.8	1.6
Carbon Disulfide	NR		1.0	2.6	NR		1.0	2.8	1.6
Trichlorotrifluoroethane	<SRL	U	1.0	6.5	<SRL	U	1.0	6.9	3.8
trans-1,2-Dichloroethene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.6	2.0
1,1-Dichloroethane	<SRL	U	1.0	3.4	<SRL	U	1.0	3.7	2.0
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	3.0	<SRL	U	1.0	3.3	1.8
Vinyl Acetate	<SRL	U	1.0	5.9	<SRL	U	1.0	6.4	3.5
2-Butanone (MEK)	8.2		1.0	5.0	1.9	J	1.0	5.3	2.9
cis-1,2-Dichloroethene	<SRL	U	1.0	3.3	<SRL	U	1.0	3.6	2.0
Hexane	1.4	J	1.0	3.0	<SRL	U	1.0	3.2	1.8
Chloroform	<SRL	U	1.0	4.1	<SRL	U	1.0	4.4	2.4
Ethyl Acetate	1.3	J	1.0	3.0	<SRL	U	1.0	3.3	1.8
Tetrahydrofuran	6.0		1.0	2.5	<SRL	U	1.0	2.7	1.5
1,2-Dichloroethane	<SRL	U	1.0	3.4	<SRL	U	1.0	3.7	2.0
1,1,1-Trichloroethane	<SRL	U	1.0	4.6	<SRL	U	1.0	4.9	2.7

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130783
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 06/24/2013
DATE REPORTED : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 IN-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130783-63878				130783-63879				
Date Sampled	06/18/2013				06/18/2013				
Date Analyzed	06/26/2013				06/26/2013				
Can Dilution Factor	1.69				1.81				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	10.5		1.0	2.7	<SRL	U	1.0	2.9	1.6
Carbon Tetrachloride	0.6	J	1.0	5.3	0.6	J	1.0	5.7	3.1
Cyclohexane	<SRL	U	1.0	2.9	<SRL	U	1.0	3.1	1.7
1,2-Dichloropropane	<SRL	U	1.0	3.9	<SRL	U	1.0	4.2	2.3
Bromodichloromethane	<SRL	U	1.0	5.6	<SRL	U	1.0	6.1	3.4
1,4-Dioxane	<SRL	U	1.0	3.0	<SRL	U	1.0	3.3	1.8
Trichloroethene (TCE)	<SRL	U	1.0	4.5	<SRL	U	1.0	4.9	2.7
2,2,4-Trimethylpentane	1.0	J	1.0	3.9	1.1	J	1.0	4.2	2.3
Heptane	0.6	J	1.0	3.5	0.4	J	1.0	3.7	2.0
cis-1,3-Dichloropropene	<SRL	U	1.0	3.8	<SRL	U	1.0	4.1	2.3
4-Methyl-2-pentanone (MiBK)	0.6	J	1.0	3.5	<SRL	U	1.0	3.7	2.0
trans-1,3-Dichloropropene	<SRL	U	1.0	3.8	<SRL	U	1.0	4.1	2.3
1,1,2-Trichloroethane	<SRL	U	1.0	4.6	<SRL	U	1.0	4.9	2.7
Toluene	4.3		1.0	3.2	2.7	J	1.0	3.4	1.9
2-Hexanone (MBK)	<SRL	U	1.0	3.5	<SRL	U	1.0	3.7	2.0
Dibromochloromethane	<SRL	U	1.0	7.2	<SRL	U	1.0	7.7	4.3
1,2-Dibromoethane	<SRL	U	1.0	6.5	<SRL	U	1.0	7.0	3.8
Tetrachloroethene (PCE)	<SRL	U	1.0	5.7	<SRL	U	1.0	6.1	3.4
Chlorobenzene	<SRL	U	1.0	3.9	<SRL	U	1.0	4.2	2.3
Ethylbenzene	1.5	J	1.0	3.7	1.2	J	1.0	3.9	2.2
m & p-Xylenes	4.0	J	1.0	7.3	4.2	J	1.0	7.9	4.3
Bromoform	<SRL	U	1.0	8.7	<SRL	U	1.0	9.4	5.2
Styrene	<SRL	U	1.0	3.6	<SRL	U	1.0	3.9	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	5.8	<SRL	U	1.0	6.2	3.4
o-Xylene	1.7	J	1.0	3.7	2.2	J	1.0	3.9	2.2
4-Ethyltoluene	0.7	J	1.0	4.1	1.3	J	1.0	4.4	2.5
1,3,5-Trimethylbenzene	0.7	J	1.0	4.1	1.4	J	1.0	4.4	2.5
1,2,4-Trimethylbenzene	2.5	J	1.0	4.1	5.4		1.0	4.4	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	4.4	<SRL	U	1.0	4.7	2.6
1,3-Dichlorobenzene	<SRL	U	1.0	5.1	<SRL	U	1.0	5.4	3.0
1,4-Dichlorobenzene	0.4	J	1.0	5.1	<SRL	U	1.0	5.4	3.0
1,2-Dichlorobenzene	<SRL	U	1.0	5.1	<SRL	U	1.0	5.4	3.0
1,2,4-Trichlorobenzene	<SRL	U	1.0	6.3	<SRL	U	1.0	6.7	3.7
Hexachlorobutadiene	<SRL	U	1.0	9.0	<SRL	U	1.0	9.6	5.3
BFB-Surrogate Std. % Recovery	102%				105%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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TO-15 QC REPORT

ANALYSIS DATE : 06/26/2013
ANALYST : JJG

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS041813-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 05/15/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
4-BFB (surrogate standard)	10.00	9.87	99
Chlorodifluoromethane	10.10	9.79	97
Propene	11.00	10.43	95
Dichlorodifluoromethane	9.80	9.42	96
Chloromethane	10.10	10.34	102
Dichlorotetrafluoroethane	10.10	9.98	99
Vinyl Chloride	10.20	10.40	102
Methanol	4.90	6.04	123
1,3-Butadiene	10.50	10.32	98
Bromomethane	10.20	9.25	91
Chloroethane	10.00	10.39	104
Dichlorofluoromethane	10.00	10.29	103
Ethanol	9.80	10.92	111
Vinyl Bromide	10.20	10.79	106
Acetone	10.80	10.25	95
Trichlorofluoromethane	10.10	10.47	104
2-Propanol (IPA)	11.00	10.78	98
Acrylonitrile	10.50	10.53	100
1,1-Dichloroethene	10.50	9.37	89
Methylene Chloride (DCM)	10.40	9.92	95
Allyl Chloride	11.00	10.84	99
Carbon Disulfide	10.50	9.91	94
Trichlorotrifluoroethane	10.40	10.09	97
trans-1,2-Dichloroethene	10.40	10.23	98
1,1-Dichloroethane	10.40	10.08	97
Methyl Tert Butyl Ether (MTBE)	10.60	9.93	94
Vinyl Acetate	9.70	10.13	104
2-Butanone (MEK)	10.60	10.86	102
cis-1,2-Dichloroethene	10.60	10.39	98
Hexane	10.70	10.00	93
Chloroform	10.60	10.46	99
Ethyl Acetate	11.00	11.34	103
Tetrahydrofuran	10.80	10.80	100
1,2-Dichloroethane	10.40	10.48	101
1,1,1-Trichloroethane	10.50	10.68	102

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ANALYSIS DATE : 06/26/2013
ANALYST : JJG

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS041813-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 05/15/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
Benzene	10.50	10.36	99
Carbon Tetrachloride	10.10	10.29	102
Cyclohexane	10.50	10.17	97
1,2-Dichloropropane	10.50	10.40	99
Bromodichloromethane	10.30	10.64	103
1,4-Dioxane	10.30	10.33	100
Trichloroethene (TCE)	10.30	10.29	100
2,2,4-Trimethylpentane	10.90	11.08	102
Heptane	10.70	10.82	101
cis-1,3-Dichloropropene	11.00	11.10	101
4-Methyl-2-pentanone (MiBK)	10.30	10.69	104
trans-1,3-Dichloropropene	9.80	9.71	99
1,1,2-Trichloroethane	10.60	10.68	101
Toluene	10.60	10.44	98
2-Hexanone (MBK)	10.80	11.01	102
Dibromochloromethane	11.00	11.32	103
1,2-Dibromoethane	10.40	10.40	100
Tetrachloroethene (PCE)	10.40	10.15	98
Chlorobenzene	10.60	10.28	97
Ethylbenzene	10.50	10.11	96
m & p-Xylenes	20.60	19.61	95
Bromoform	10.30	10.16	99
Styrene	10.40	9.91	95
1,1,2,2-Tetrachloroethane	10.60	10.14	96
o-Xylene	10.60	9.87	93
4-Ethyltoluene	10.40	10.35	100
1,3,5-Trimethylbenzene	10.20	9.56	94
1,2,4-Trimethylbenzene	10.20	10.02	98
Benzyl Chloride (a-Chlorotoluene)	10.00	10.89	109
1,3-Dichlorobenzene	10.00	9.84	98
1,4-Dichlorobenzene	10.00	9.48	95
1,2-Dichlorobenzene	10.00	9.74	97
1,2,4-Trichlorobenzene	9.30	9.11	98
Hexachlorobutadiene	9.80	9.22	94

* - %REC should be 70-130%

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Quality Control/Quality Assurance Report

CLIENT ID	**: Laboratory Control Spike**	**DATE ANALYZED**	**: 06/26/2013**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 06/26/2013**
MEDIA	**: Air**	**UNITS**	**: ppbv**

TO-15 Laboratory Control Spike Recovery

Compound	Sample Conc.	Spike Added	Spike Res	Dup Spike Res	Spike % Rec *	Spike Dup % Rec *	RPD** %
1,1-Dichloroethene	0.0	10.50	9.37	9.65	89	92	2.9
Methylene Chloride (DCM)	0.0	10.40	9.92	9.72	95	93	2.0
Benzene	0.0	10.50	10.36	10.38	99	99	0.2
Trichloroethene (TCE)	0.0	10.30	10.29	10.59	100	103	2.9
Toluene	0.0	10.60	10.44	10.59	98	100	1.4
Tetrachloroethene (PCE)	0.0	10.40	10.15	10.37	98	100	2.1
Chlorobenzene	0.0	10.60	10.28	10.28	97	97	0.0
Ethylbenzene	0.0	10.50	10.11	10.15	96	97	0.4
m & p-Xylenes	0.0	20.60	19.61	19.62	95	95	0.1
o-Xylene	0.0	10.60	9.87	9.79	93	92	0.8

* Must be 70-130%

** Must be < 25%

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 06/26/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 06/26/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Method Blank	RL
AAC ID	MB 062613	
Chlorodifluoromethane	<RL	0.5
Propene	<RL	1.0
Dichlorodifluoromethane	<RL	0.5
Chloromethane	<RL	0.5
Dichlorotetrafluoroethane	<RL	0.5
Vinyl Chloride	<RL	0.5
Methanol	<RL	5.0
1,3-Butadiene	<RL	0.5
Bromomethane	<RL	0.5
Chloroethane	<RL	0.5
Dichlorofluoromethane	<RL	0.5
Ethanol	<RL	2.0
Vinyl Bromide	<RL	0.5
Acetone	<RL	2.0
Trichlorofluoromethane	<RL	0.5
2-Propanol (IPA)	<RL	2.0
Acrylonitrile	<RL	1.0
1,1-Dichloroethene	<RL	0.5
Methylene Chloride (DCM)	<RL	1.0
Allyl Chloride	<RL	0.5
Carbon Disulfide	<RL	0.5
Trichlorotrifluoroethane	<RL	0.5
trans-1,2-Dichloroethene	<RL	0.5
1,1-Dichloroethane	<RL	0.5
Methyl Tert Butyl Ether (MTBE)	<RL	0.5
Vinyl Acetate	<RL	1.0
2-Butanone (MEK)	<RL	1.0
cis-1,2-Dichloroethene	<RL	0.5
Hexane	<RL	0.5
Chloroform	<RL	0.5
Ethyl Acetate	<RL	0.5
Tetrahydrofuran	<RL	0.5
1,2-Dichloroethane	<RL	0.5
1,1,1-Trichloroethane	<RL	0.5
Benzene	<RL	0.5
Carbon Tetrachloride	<RL	0.5
Cyclohexane	<RL	0.5
1,2-Dichloropropane	<RL	0.5
Bromodichloromethane	<RL	0.5
1,4-Dioxane	<RL	0.5
Trichloroethene (TCE)	<RL	0.5
2,2,4-Trimethylpentane	<RL	0.5
Heptane	<RL	0.5

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Method Blank Analysis Report

MATRIX : AIR **ANALYSIS DATE** : 06/26/2013
UNITS : ppbv **REPORT DATE** : 06/26/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 062613	RL
cis-1,3-Dichloropropene	<RL	0.5
4-Methyl-2-pentanone (MiBK)	<RL	0.5
trans-1,3-Dichloropropene	<RL	0.5
1,1,2-Trichloroethane	<RL	0.5
Toluene	<RL	0.5
2-Hexanone (MBK)	<RL	0.5
Dibromochloromethane	<RL	0.5
1,2-Dibromoethane	<RL	0.5
Tetrachloroethene (PCE)	<RL	0.5
Chlorobenzene	<RL	0.5
Ethylbenzene	<RL	0.5
m & p-Xylenes	<RL	1.0
Bromoform	<RL	0.5
Styrene	<RL	0.5
1,1,2,2-Tetrachloroethane	<RL	0.5
o-Xylene	<RL	0.5
4-Ethyltoluene	<RL	0.5
1,3,5-Trimethylbenzene	<RL	0.5
1,2,4-Trimethylbenzene	<RL	0.5
Benzyl Chloride (a-Chlorotoluene)	<RL	0.5
1,3-Dichlorobenzene	<RL	0.5
1,4-Dichlorobenzene	<RL	0.5
1,2-Dichlorobenzene	<RL	0.5
1,2,4-Trichlorobenzene	<RL	0.5
Hexachlorobutadiene	<RL	0.5
System Monitoring Compounds		
BFB-Surrogate Std. % Recovery	102%	--

RL - Reporting Limit

Marcus Hueppe
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Quality Control/Quality Assurance Report

AAC ID	**: 130783-63876**	**DATE ANALYZED**	**: 06/26/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 06/26/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane	<SRL	<SRL	0.0
Propene	<SRL	<SRL	0.0
Dichlorodifluoromethane	<SRL	<SRL	0.0
Chloromethane	<SRL	<SRL	0.0
Dichlorotetrafluoroethane	<SRL	<SRL	0.0
Vinyl Chloride	<SRL	<SRL	0.0
Methanol	10.3	10.6	2.9
1,3-Butadiene	<SRL	<SRL	0.0
Bromomethane	<SRL	<SRL	0.0
Chloroethane	<SRL	<SRL	0.0
Dichlorofluoromethane	<SRL	<SRL	0.0
Ethanol	6.38	6.49	1.7
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	5.68	5.74	1.1
Trichlorofluoromethane	<SRL	<SRL	0.0
2-Propanol (IPA)	<SRL	<SRL	0.0
Acrylonitrile	<SRL	<SRL	0.0
1,1-Dichloroethene	<SRL	<SRL	0.0
Methylene Chloride (DCM)	<SRL	<SRL	0.0
Allyl Chloride	<SRL	<SRL	0.0
Carbon Disulfide	NR	NR	NA
Trichlorotrifluoroethane	<SRL	<SRL	0.0
trans-1,2-Dichloroethene	<SRL	<SRL	0.0
1,1-Dichloroethane	<SRL	<SRL	0.0
Methyl Tert Butyl Ether (MTBE)	<SRL	<SRL	0.0
Vinyl Acetate	<SRL	<SRL	0.0
2-Butanone (MEK)	<SRL	<SRL	0.0
cis-1,2-Dichloroethene	<SRL	<SRL	0.0
Hexane	<SRL	<SRL	0.0
Chloroform	<SRL	<SRL	0.0
Ethyl Acetate	<SRL	<SRL	0.0
Tetrahydrofuran	<SRL	<SRL	0.0
1,2-Dichloroethane	<SRL	<SRL	0.0
1,1,1-Trichloroethane	<SRL	<SRL	0.0
Benzene	<SRL	<SRL	0.0
Carbon Tetrachloride	<SRL	<SRL	0.0

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Quality Control/Quality Assurance Report

AAC ID	**: 130783-63876**	**DATE ANALYZED**	**: 06/26/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 06/26/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Cyclohexane	<SRL	<SRL	0.0
1,2-Dichloropropane	<SRL	<SRL	0.0
Bromodichloromethane	<SRL	<SRL	0.0
1,4-Dioxane	<SRL	<SRL	0.0
Trichloroethene (TCE)	<SRL	<SRL	0.0
2,2,4-Trimethylpentane	<SRL	<SRL	0.0
Heptane	<SRL	<SRL	0.0
cis-1,3-Dichloropropene	<SRL	<SRL	0.0
4-Methyl-2-pentanone (MiBK)	<SRL	<SRL	0.0
trans-1,3-Dichloropropene	<SRL	<SRL	0.0
1,1,2-Trichloroethane	<SRL	<SRL	0.0
Toluene	1.45	1.37	5.7
2-Hexanone (MBK)	<SRL	<SRL	0.0
Dibromochloromethane	<SRL	<SRL	0.0
1,2-Dibromoethane	<SRL	<SRL	0.0
Tetrachloroethene (PCE)	<SRL	<SRL	0.0
Chlorobenzene	<SRL	<SRL	0.0
Ethylbenzene	<SRL	<SRL	0.0
m & p-Xylenes	<SRL	<SRL	0.0
Bromoform	<SRL	<SRL	0.0
Styrene	<SRL	<SRL	0.0
1,1,2,2-Tetrachloroethane	<SRL	<SRL	0.0
o-Xylene	<SRL	<SRL	0.0
4-Ethyltoluene	<SRL	<SRL	0.0
1,3,5-Trimethylbenzene	<SRL	<SRL	0.0
1,2,4-Trimethylbenzene	<SRL	<SRL	0.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	<SRL	0.0
1,3-Dichlorobenzene	<SRL	<SRL	0.0
1,4-Dichlorobenzene	<SRL	<SRL	0.0
1,2-Dichlorobenzene	<SRL	<SRL	0.0
1,2,4-Trichlorobenzene	<SRL	<SRL	0.0
Hexachlorobutadiene	<SRL	<SRL	0.0
System Monitoring Compounds			
BFB-Surrogate Std. % Recovery	103%	103%	0.3

SRL - Sample Reporting Limit
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratory Director

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TO-15 RAW DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:13:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	158251	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	852851	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.268	117	813183	10.00 ppbv	-0.02
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	522902	10.28 ppbv	0.00
Spiked Amount 10.000			Recovery = 102.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	5522	0.18 ppbv #	93
3) Propene	4.799	42	3855	0.47 ppbv #	83
4) Dichlorodifluoromethane	4.908	85	15132	0.28 ppbv #	95
5) Chloromethane	5.306	52	1599	0.31 ppbv #	1
6) Dichlorotetrafluoroethane	5.342	135	253	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	26562m	5.20 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.116	45	21727m	3.22 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	24625m	2.87 ppbv	
16) Trichlorofluoromethane	7.659	103	4191	0.13 ppbv #	98
17) 2-Propanol(IPA)	8.238	45	16827m	0.57 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.494	72	2613	0.30 ppbv #	16
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.459	86	1804	0.43 ppbv #	45
31) Chloroform	0.000		0	N.D. d	
32) EthylAcetate	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:13:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

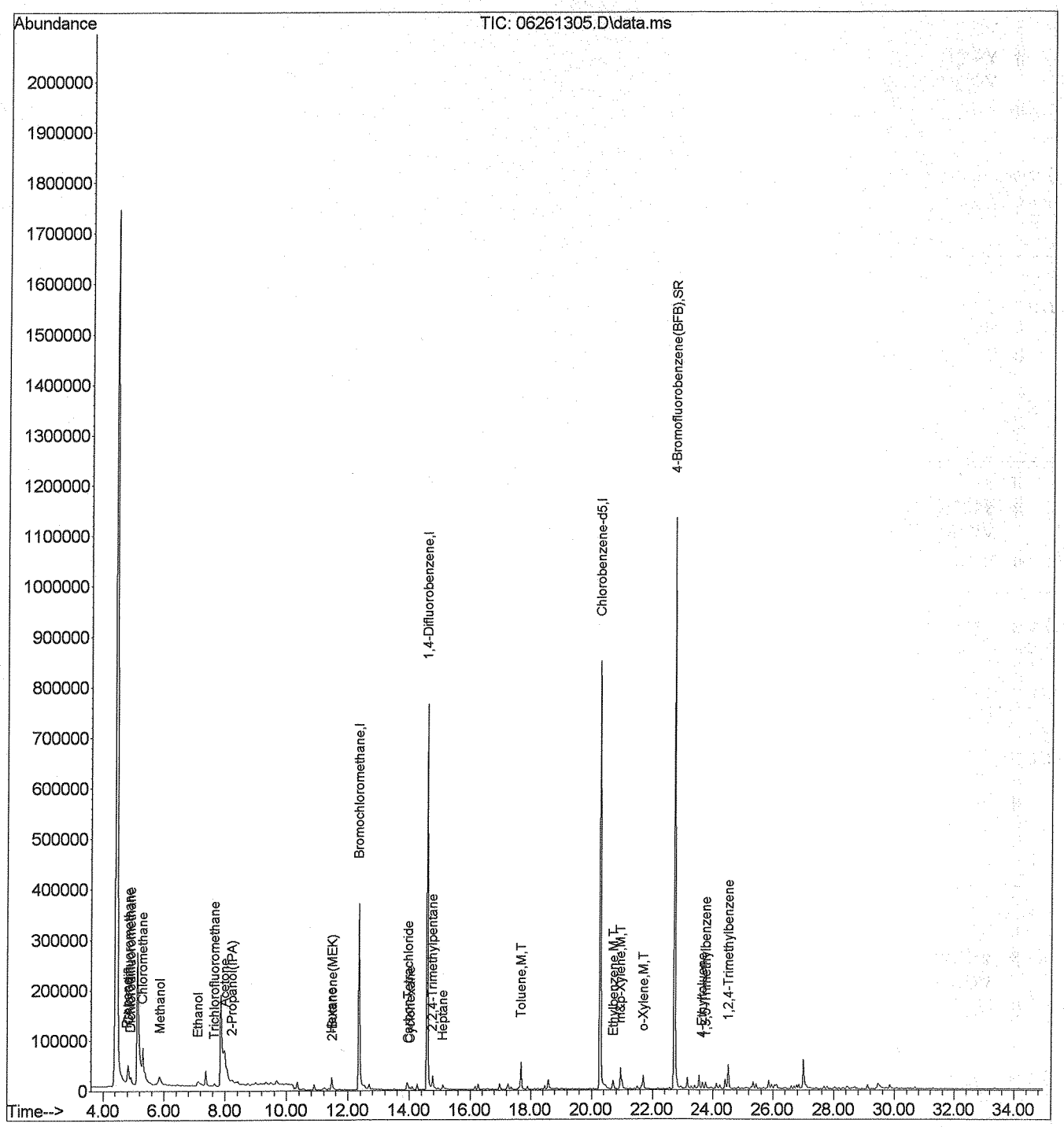
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.778	72	117	N.D.	
34) 1,2-Dichloroethane	13.616	62	110	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2401	0.05 ppbv	91
39) Cyclohexane	14.027	69	830	0.09 ppbv	78
40) 1,2-Dichloropropane	15.417	63	109	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.758	57	33436	0.30 ppbv	97
45) Heptane	15.096	71	2256	0.11 ppbv #	58
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.612	58	469	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	438	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	58346m	0.73 ppbv	
51) 2-Hexanone(MBK)	18.253	58	110	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	0.000		0	N.D.	
57) Ethylbenzene	20.713	91	20913	0.19 ppbv	98
58) m&p-Xylene	20.945	106	25813	0.61 ppbv #	89
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	1986	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.354	83	107	N.D.	
62) o-Xylene	21.694	91	23852	0.28 ppbv	98
64) 4-Ethyltoluene	23.674	120	4302	0.12 ppbv #	94
65) 1,3,5-Trimethylbenzene	23.781	120	5675	0.11 ppbv #	93
66) 1,2,4-Trimethylbenzene	24.529	120	19097	0.38 ppbv	98
67) BenzylChloride(a-Chlor...	25.189	91	875	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	859	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1378	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	1036	N.D.	
71) 1,2,4-Trichlorobenzene	0.000		0	N.D. d	
72) Hexachlorobutadiene	30.075	225	895	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:13:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



051513.M Wed Jun 26 12:13:40 2013 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261307.D
Acq On : 26 Jun 2013 12:25
Operator : JJG
Sample : 130783-63877 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 26 16:07:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	154159	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	858254	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	802021	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	520956	10.38 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	6007	0.20 ppbv #	95
3) Propene	4.799	42	3001	0.37 ppbv #	85
4) Dichlorodifluoromethane	4.908	85	18137	0.34 ppbv	97
5) Chloromethane	5.288	52	1493	0.30 ppbv #	20
6) Dichlorotetrafluoroethane	5.324	135	281	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.885	31	20965m	4.20 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.134	45	13668m	2.08 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.002	58	32492m	3.89 ppbv	
16) Trichlorofluoromethane	7.659	103	5026	0.16 ppbv #	94
17) 2-Propanol(IPA)	8.238	45	14784m	0.52 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	9.396	39	228	N.D.	
22) CarbonDisulfide	9.486	76	137311m	2.63 ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	10.888	43	750	N.D.	
28) 2-Butanone(MEK)	11.477	72	5372	0.63 ppbv #	39
29) cis-1,2-Dichloroethene	11.887	96	234	N.D.	
30) Hexane	0.000		0	N.D. d	
31) Chloroform	12.493	83	1316	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261307.D
Acq On : 26 Jun 2013 12:25
Operator : JJG
Sample : 130783-63877 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 26 16:07:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

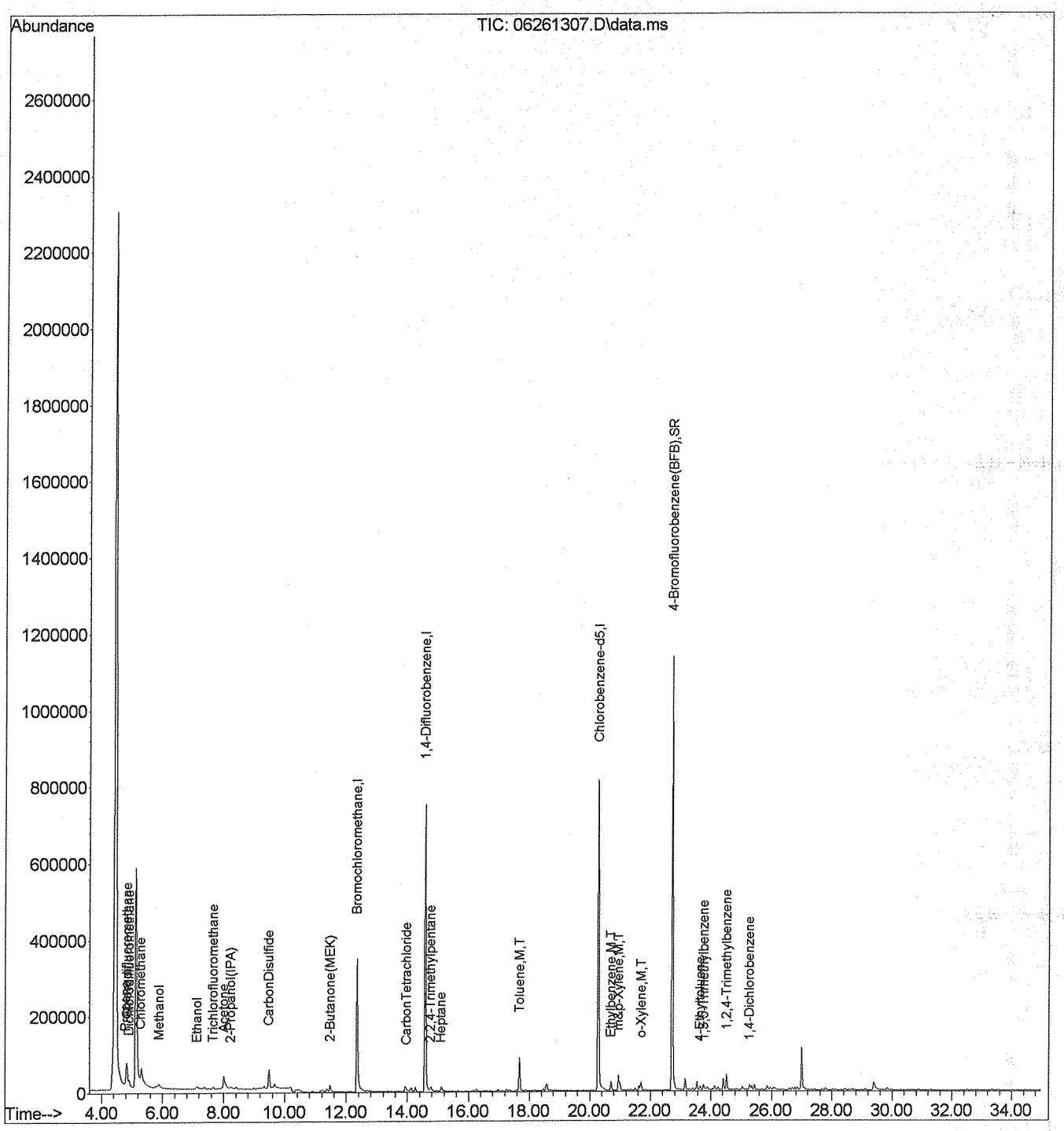
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.760	72	263	N.D.	
34) 1,2-Dichloroethane	13.616	62	499	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2943	0.06 ppbv	99
39) Cyclohexane	14.009	69	256	N.D.	
40) 1,2-Dichloropropane	15.293	63	561	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.293	130	277	N.D.	
44) 2,2,4-Trimethylpentane	14.758	57	13887	0.12 ppbv #	92
45) Heptane	15.096	71	2906	0.14 ppbv #	80
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.576	58	453	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	651	N.D.	
49) 1,1,2-Trichloroethane	17.843	97	1083	N.D.	
50) Toluene	17.682	91	99505m	1.24 ppbv	
51) 2-Hexanone(MBK)	18.181	58	859	N.D.	
52) Dibromochloromethane	19.019	129	282	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.002	166	365	N.D.	
56) Chlorobenzene	20.357	114	501	N.D.	
57) Ethylbenzene	20.696	91	25626	0.24 ppbv	98
58) m&p-Xylene	20.945	106	24477	0.59 ppbv #	87
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.659	104	1320	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	18461	0.22 ppbv #	95
64) 4-Ethyltoluene	23.674	120	3162	0.09 ppbv #	89
65) 1,3,5-Trimethylbenzene	23.781	120	4699	0.09 ppbv #	82
66) 1,2,4-Trimethylbenzene	24.529	120	15575	0.31 ppbv	93
67) BenzylChloride(a-Chlor...	25.171	91	135	N.D.	
68) 1,3-Dichlorobenzene	25.047	146	331	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	8415	0.11 ppbv	98
70) 1,2-Dichlorobenzene	25.849	146	477	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1198	N.D.	
72) Hexachlorobutadiene	30.075	225	154	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261307.D
Acq On : 26 Jun 2013 12:25
Operator : JJG
Sample : 130783-63877 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 26 16:07:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261308.D
Acq On : 26 Jun 2013 13:13
Operator : JJG
Sample : 130783-63878 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 16:09:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	156333	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	844616	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.268	117	796933	10.00 ppbv	-0.02
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	510227	10.23 ppbv	0.00
Spiked Amount 10.000			Recovery = 102.30%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.818	51	6597	0.21 ppbv #	96
3) Propene	4.799	42	6028	0.74 ppbv #	82
4) Dichlorodifluoromethane	4.908	85	16716	0.31 ppbv	96
5) Chloromethane	5.288	52	1932	0.39 ppbv #	55
6) Dichlorotetrafluoroethane	5.324	135	296	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	44047m	8.84 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.098	45	21605m	3.24 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	44676m	5.28 ppbv	
16) Trichlorofluoromethane	7.659	103	4817	0.15 ppbv #	86
17) 2-Propanol(IPA)	8.220	45	21004m	0.72 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	9.233	39	572	N.D.	
22) CarbonDisulfide	9.468	76	146127m	2.76 ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	10.888	43	974	N.D.	
28) 2-Butanone(MEK)	11.441	72	14217	1.64 ppbv #	71
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.459	86	970	0.23 ppbv #	36
31) Chloroform	12.493	83	1364	N.D.	
32) EthylAcetate	12.047	43	9321	0.21 ppbv #	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261308.D
Acq On : 26 Jun 2013 13:13
Operator : JJG
Sample : 130783-63878 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 16:09:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

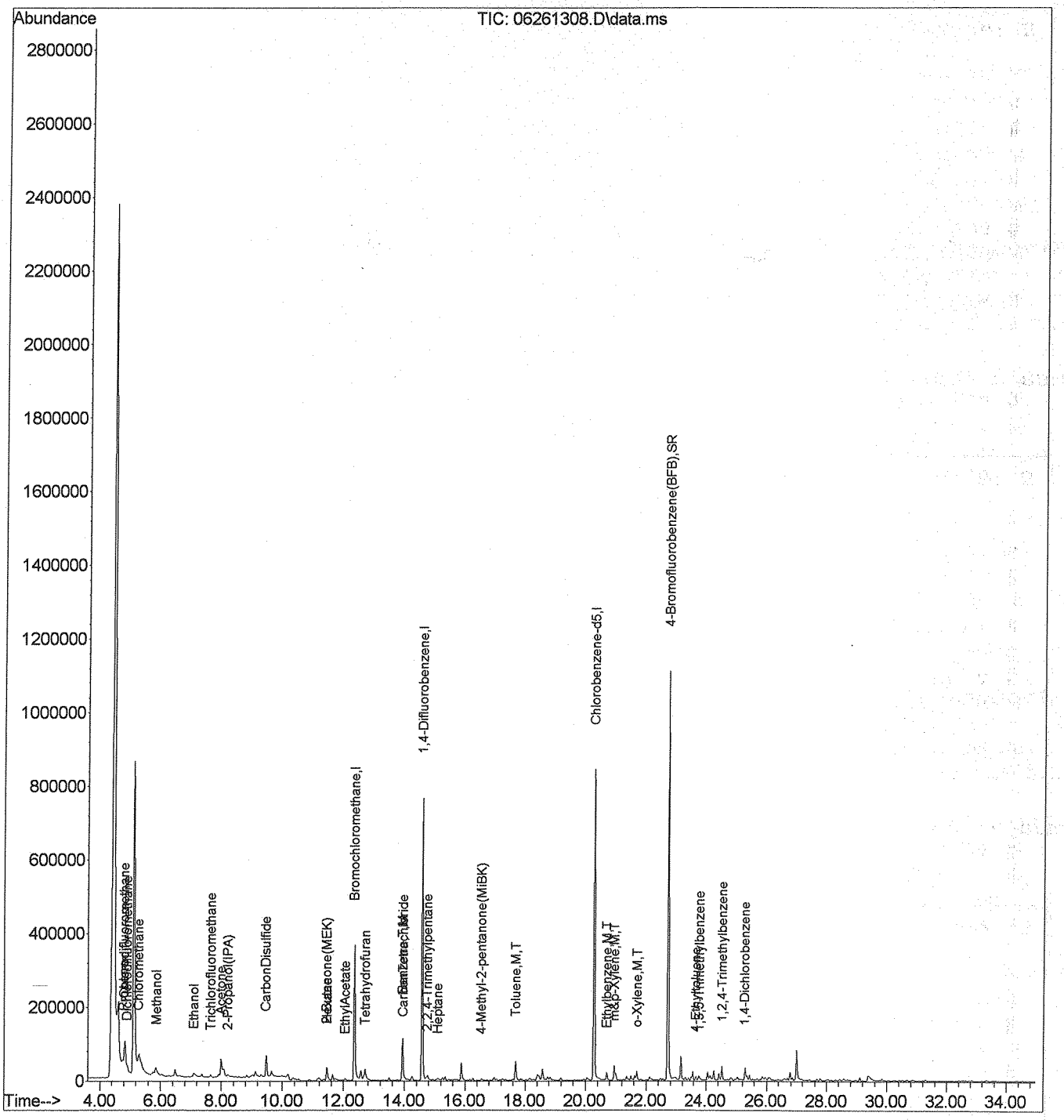
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.707	72	10599	1.21 ppbv #	77
34) 1,2-Dichloroethane	13.599	62	138	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	121304	1.95 ppbv	97
38) CarbonTetrachloride	13.955	117	3016	0.06 ppbv	98
39) Cyclohexane	14.027	69	340	N.D.	
40) 1,2-Dichloropropane	15.257	63	538	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.758	57	12785	0.12 ppbv #	90
45) Heptane	15.096	71	1493	0.08 ppbv #	40
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.541	58	2024	0.09 ppbv #	91
48) trans-1,3-Dichloropropene	17.682	75	424	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	54026	0.68 ppbv	98
51) 2-Hexanone(MBK)	18.164	58	1081	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	0.000		0	N.D.	
57) Ethylbenzene	20.696	91	21280	0.20 ppbv #	98
58) m&p-Xylene	20.945	106	22860	0.55 ppbv #	95
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.659	104	1363	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	19006	0.23 ppbv	97
64) 4-Ethyltoluene	23.674	120	2909	0.08 ppbv #	95
65) 1,3,5-Trimethylbenzene	23.781	120	4023	0.08 ppbv #	76
66) 1,2,4-Trimethylbenzene	24.529	120	14715	0.30 ppbv	98
67) BenzylChloride(a-Chlor...	25.100	91	526	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	146	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	3468	0.04 ppbv #	90
70) 1,2-Dichlorobenzene	25.849	146	307	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1009	N.D.	
72) Hexachlorobutadiene	30.075	225	132	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261308.D
Acq On : 26 Jun 2013 13:13
Operator : JJG
Sample : 130783-63878 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 16:09:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



051513.M Wed Jun 26 16:09:59 2013

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261309.D
Acq On : 26 Jun 2013 14:01
Operator : JJG
Sample : 130783-63879 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 26 16:11:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	156319	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	834663	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	782954	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	516165	10.53 ppbv	0.00
Spiked Amount 10.000			Recovery = 105.30%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.817	51	7789	0.25 ppbv #	97
3) Propene	4.781	42	3478	0.43 ppbv #	84
4) Dichlorodifluoromethane	4.890	85	15907	0.30 ppbv	96
5) Chloromethane	5.288	52	2387	0.48 ppbv #	89
6) Dichlorotetrafluoroethane	5.324	135	146	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	23705m	4.69 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	6.754	66	115	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.134	45	16035m	2.41 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.002	58	25607m	3.02 ppbv	
16) Trichlorofluoromethane	7.659	103	4557	0.15 ppbv #	89
17) 2-Propanol(IPA)	8.238	45	10739m	0.37 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	9.269	39	261	N.D.	
22) CarbonDisulfide	9.468	76	135030m	2.55 ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	10.888	43	736	N.D.	
28) 2-Butanone(MEK)	11.477	72	3119	0.36 ppbv #	19
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	0.000		0	N.D. d	
31) Chloroform	12.493	83	1036	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

06/26/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261309.D
Acq On : 26 Jun 2013 14:01
Operator : JJG
Sample : 130783-63879 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 26 16:11:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

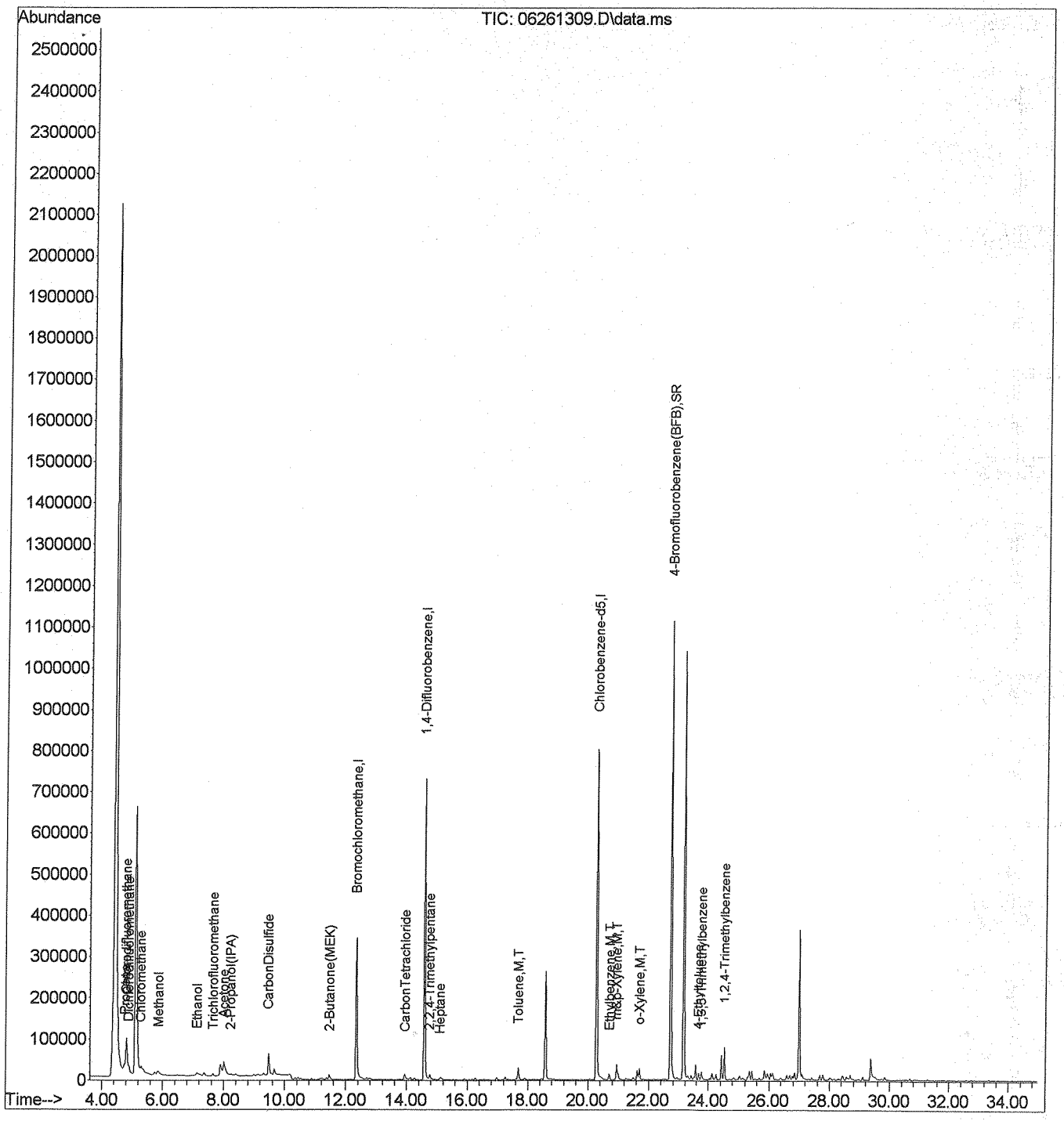
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D. d	
34) 1,2-Dichloroethane	13.598	62	121	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.955	117	2674	0.05 ppbv #	94
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	15.417	63	123	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.758	57	14153	0.13 ppbv #	98
45) Heptane	15.096	71	950	0.05 ppbv #	69
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.559	58	290	N.D.	
48) trans-1,3-Dichloropropene	17.664	75	118	N.D.	
49) 1,1,2-Trichloroethane	17.860	97	363	N.D.	
50) Toluene	17.682	91	30500	0.39 ppbv #	99
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	20.303	114	108	N.D.	
57) Ethylbenzene	20.713	91	15261	0.15 ppbv	95
58) m&p-Xylene	20.945	106	21662	0.53 ppbv #	93
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1131	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	22915	0.28 ppbv	96
64) 4-Ethyltoluene	23.673	120	4802	0.14 ppbv #	90
65) 1,3,5-Trimethylbenzene	23.780	120	7781	0.16 ppbv	93
66) 1,2,4-Trimethylbenzene	24.529	120	29420	0.61 ppbv	98
67) BenzylChloride(a-Chlor...	25.189	91	288	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	131	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	657	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	661	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261309.D
Acq On : 26 Jun 2013 14:01
Operator : JJG
Sample : 130783-63879 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 26 16:11:29 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



051513.M Wed Jun 26 16:11:53 2013

06/26/13

TO-15 RAW QC & ICAL SUMMARY

MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\062613.S
Comment: GCMS-03
Operator: JJG
Data Path: C:\MSDCHEM\1\MS03\2013\062613\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample	1 06261301 TO15-5MS TO15 BFB 062613
2)	Sample	1 06261302 TO15-5MS TO15 CCV 062613
3)	Sample	1 06261303 TO15-5MS TO15 LCSD 062613
4)	Sample	1 06261304 TO15-5MS TO15 MB 062613
5)	Sample	2 06261305 TO15-5MS 130783-63876 x1
6)	Sample	2 06261306 TO15-5MS 130783-63876 x1 dp
7)	Sample	3 06261307 TO15-5MS 130783-63877 x1
8)	Sample	4 06261308 TO15-5MS 130783-63878 x1
9)	Sample	5 06261309 TO15-5MS 130783-63879 x1
10)	Sample	6 06261310 TO15-5MS Flow Check#062613-01
11)	Sample	6 06261311 TO15-5MS Flow Check#062613-01
12)	Sample	6 06261312 TO15-5MS Flow#000641/Can#000556
13)	Sample	6 06261313 TO15-5MS Flow#000691/Can#000424
14)	Sample	6 06261314 TO15-5MS Flow#000614/Can#000542
15)	Sample	6 06261315 TO15-5MS Flow#000651/Can#000388
16)	Sample	6 06261316 TO15-5MS Flow#000621/Can#000503

06/26/13

Comments: _____

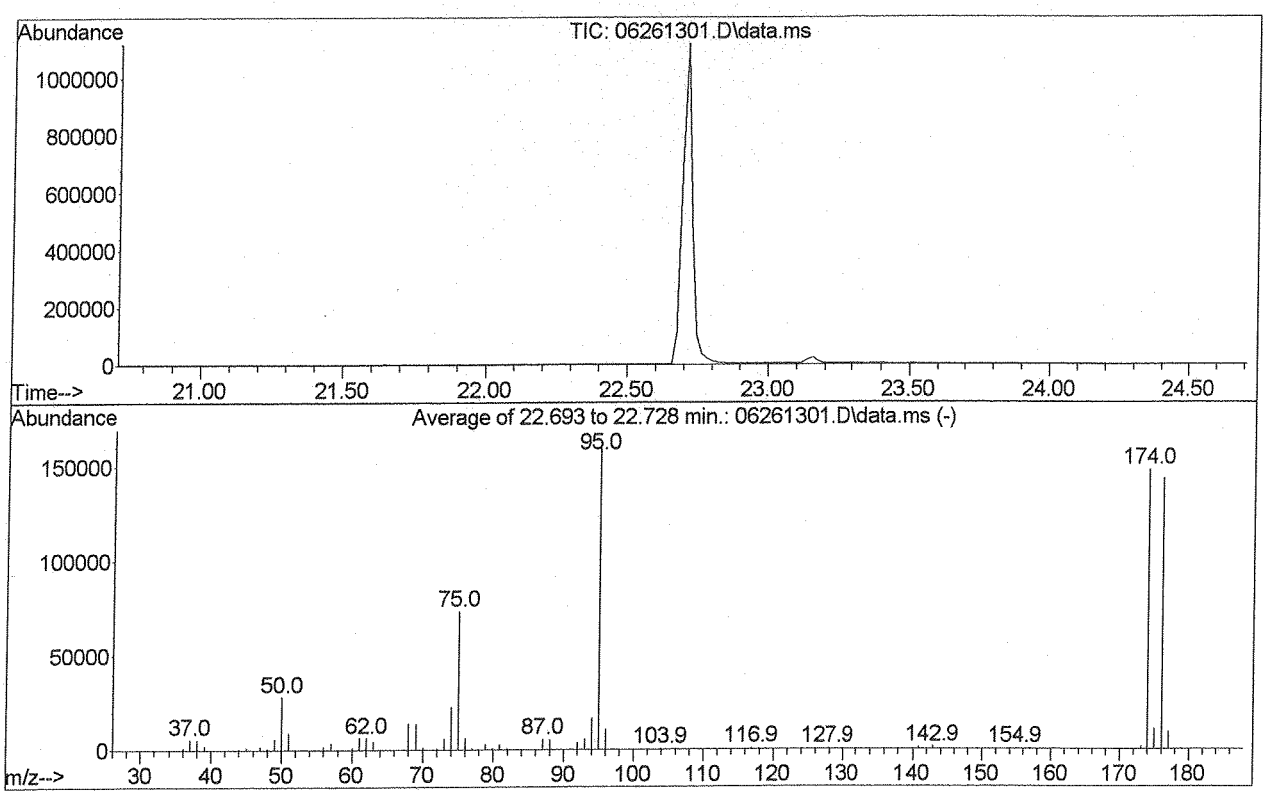
Analyst: _____ **Date:** 06/26/13

Page: 199 of ____

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261301.D
Acq On : 26 Jun 2013 7:42 am
Operator : JJG
Sample : TO15 BFB 062613
Misc : IS/Surr: PS082712-02 + 500mL cc#000459
ALS Vial : 1 Sample Multiplier: 1

Integration File: PAMS.P

Method : C:\msdchem\1\METHODS\2013\051513.M
Title : TO-15/TO-14
Last Update : Thu May 16 10:13:39 2013



AutoFind: Scans 1064, 1065, 1066; Background Corrected with Scan 1059

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	28056	PASS
75	95	30	60	45.4	73280	PASS
95	95	100	100	100.0	161477	PASS
96	95	5	9	6.8	10925	PASS
173	174	0.00	2	0.9	1341	PASS
174	95	50	100	91.6	147848	PASS
175	174	5	9	7.4	10970	PASS
176	174	95	101	97.0	143440	PASS
177	176	5	9	6.5	9365	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261302.D
Acq On : 26 Jun 2013 8:28
Operator : JJG
Sample : TO15 CCV 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 09:12:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	167631	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	858083	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	828873	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	511890	9.87	ppbv	0.00
Spiked Amount 10.000			Recovery = 98.70%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	325201m	9.79	ppbv	
3) Propene	4.781	42	90973m	10.43	ppbv	
4) Dichlorodifluoromethane	4.908	85	539740	9.42	ppbv	100
5) Chloromethane	5.288	52	55592m	10.34	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	389725m	9.98	ppbv	
7) VinylChloride	5.668	62	198258m	10.40	ppbv	
8) Methanol	5.867	31	32606m	6.04	ppbv	
9) 1,3-Butadiene	5.867	54	124913m	10.32	ppbv	
10) Bromomethane	6.446	96	126926m	9.25	ppbv	
11) Chloroethane	6.736	66	32210	10.39	ppbv	96
12) Dichlorofluoromethane	7.007	67	422217	10.29	ppbv	99
13) Ethanol	7.043	45	78061m	10.92	ppbv	
14) VinylBromide	7.260	108	173967m	10.79	ppbv	
15) Acetone	7.966	58	93067m	10.25	ppbv	
16) Trichlorofluoromethane	7.677	103	350655	10.47	ppbv	99
17) 2-Propanol(IPA)	8.165	45	334915m	10.78	ppbv	
18) Acrylonitrile	8.961	52	143162m	10.53	ppbv	
19) 1,1-Dichloroethene	8.726	96	178844m	9.37	ppbv	
20) MethyleneChloride(DCM)	9.323	84	173931m	9.92	ppbv	
21) AllylChloride	9.305	39	166584m	10.84	ppbv	
22) CarbonDisulfide	9.486	76	561534m	9.91	ppbv	
23) Trichlorotrifluoroethane	8.998	103	277198	10.09	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	210046m	10.23	ppbv	
25) 1,1-Dichloroethane	10.905	63	421929	10.08	ppbv	100
26) MethylTertButylEther(M...	10.442	73	552275	9.93	ppbv	97
27) VinylAcetate	10.888	43	524082m	10.13	ppbv	
28) 2-Butanone(MEK)	11.423	72	100820	10.86	ppbv	94
29) cis-1,2-Dichloroethene	11.904	96	229761	10.39	ppbv	99
30) Hexane	11.476	86	44312	10.00	ppbv	89
31) Chloroform	12.492	83	486681	10.46	ppbv	97
32) EthylAcetate	12.011	43	530789	11.34	ppbv	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261302.D
Acq On : 26 Jun 2013 8:28
Operator : JJG
Sample : TO15 CCV 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 09:12:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

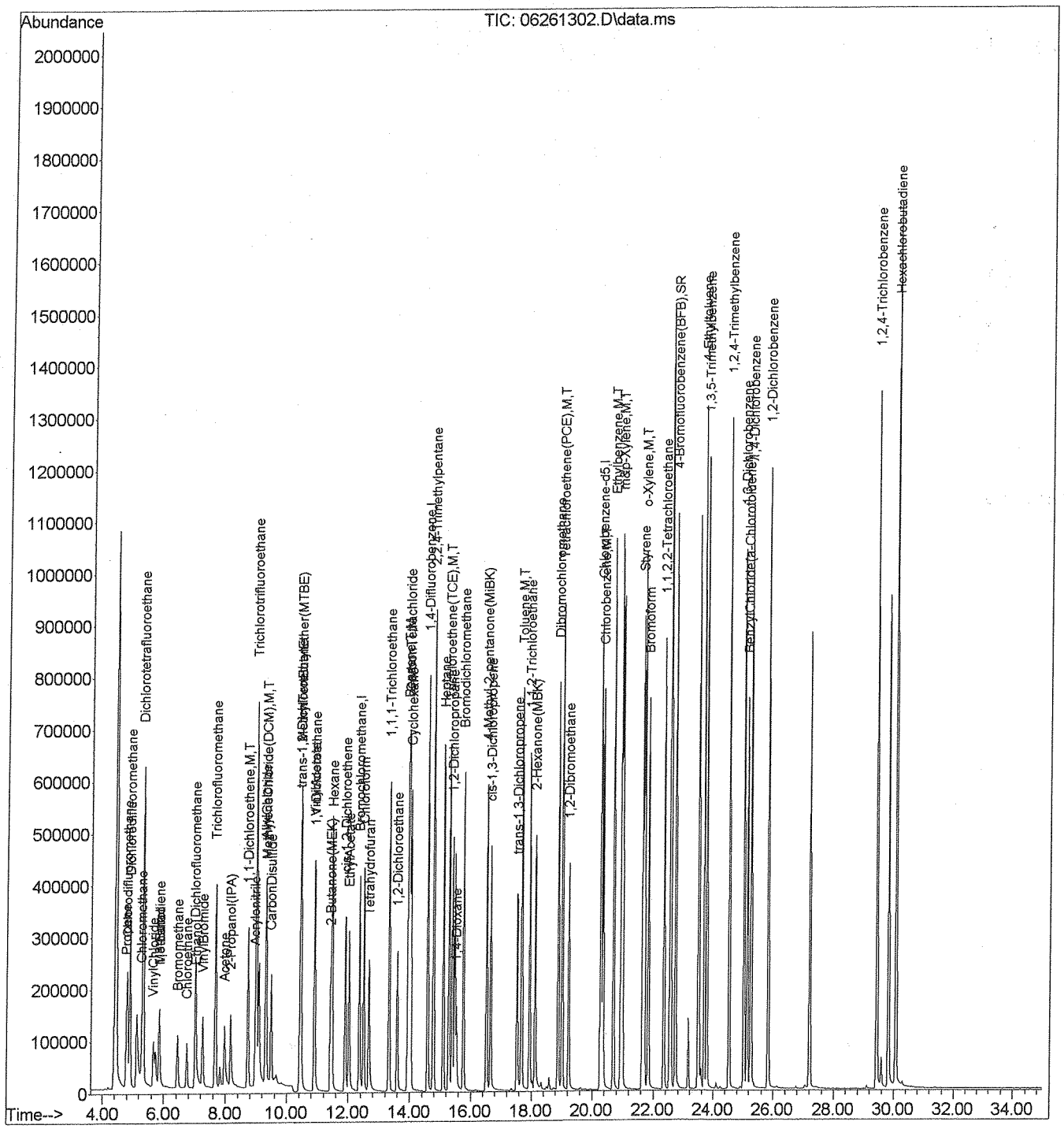
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	101056	10.80	ppbv		99
34) 1,2-Dichloroethane	13.598	62	353871	10.48	ppbv		99
35) 1,1,1-Trichloroethane	13.331	97	550005	10.68	ppbv		100
37) Benzene	13.937	78	655018	10.36	ppbv		99
38) CarbonTetrachloride	13.973	117	537887	10.29	ppbv		100
39) Cyclohexane	14.026	69	95295	10.17	ppbv		96
40) 1,2-Dichloropropane	15.399	63	264506	10.40	ppbv		98
41) Bromodichloromethane	15.756	85	347069	10.64	ppbv		99
42) 1,4-Dioxane	15.524	88	154062m	10.33	ppbv		
43) Trichloroethene(TCE)	15.292	130	315052	10.29	ppbv		99
44) 2,2,4-Trimethylpentane	14.775	57	1246800	11.08	ppbv		99
45) Heptane	15.114	71	217276	10.82	ppbv		96
46) cis-1,3-Dichloropropene	16.647	75	401795	11.10	ppbv		99
47) 4-Methyl-2-pentanone(M...	16.522	58	246354	10.69	ppbv		99
48) trans-1,3-Dichloropropene	17.539	75	358129	9.71	ppbv		99
49) 1,1,2-Trichloroethane	17.931	97	301369	10.68	ppbv		98
50) Toluene	17.682	91	837221	10.44	ppbv		100
51) 2-Hexanone(MBK)	18.127	58	314644	11.01	ppbv		100
52) Dibromochloromethane	18.876	129	613702	11.32	ppbv		98
53) 1,2-Dibromoethane	19.233	107	481123	10.40	ppbv		100
54) Tetrachloroethene(PCE)	19.019	166	456246	10.15	ppbv		99
56) Chlorobenzene	20.356	114	221513	10.28	ppbv		99
57) Ethylbenzene	20.695	91	1105903	10.11	ppbv		100
58) m&p-Xylene	20.945	106	844014	19.61	ppbv		97
59) Bromoform	21.819	173	586881	10.16	ppbv	#	97
60) Styrene	21.640	104	690090	9.91	ppbv		99
61) 1,1,2,2-Tetrachloroethane	22.336	83	632829	10.14	ppbv		99
62) o-Xylene	21.694	91	863705	9.87	ppbv		100
64) 4-Ethyltoluene	23.673	120	371676	10.35	ppbv		99
65) 1,3,5-Trimethylbenzene	23.780	120	501679	9.56	ppbv		100
66) 1,2,4-Trimethylbenzene	24.529	120	512298	10.02	ppbv		100
67) BenzylChloride(a-Chlor...	25.153	91	837793	10.89	ppbv		99
68) 1,3-Dichlorobenzene	25.046	146	791635	9.84	ppbv		99
69) 1,4-Dichlorobenzene	25.260	146	767337m	9.48	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	819343m	9.74	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	758411m	9.11	ppbv		
72) Hexachlorobutadiene	30.075	225	621120m	9.22	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261302.D
Acq On : 26 Jun 2013 8:28
Operator : JJG
Sample : TO15 CCV 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 09:12:56 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261303.D
Acq On : 26 Jun 2013 9:15
Operator : JJG
Sample : TO15 LCSD 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:49:44 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	166189	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	835810	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	822490	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	502350	9.76	ppbv	0.00
Spiked Amount 10.000			Recovery = 97.60%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	322427m	9.79	ppbv	
3) Propene	4.781	42	90860m	10.51	ppbv	
4) Dichlorodifluoromethane	4.908	85	541891	9.54	ppbv	99
5) Chloromethane	5.288	52	55332m	10.38	ppbv	
6) Dichlorotetrafluoroethane	5.342	135	390274m	10.08	ppbv	
7) VinylChloride	5.668	62	196596m	10.40	ppbv	
8) Methanol	5.867	31	32516m	6.08	ppbv	
9) 1,3-Butadiene	5.867	54	124391m	10.37	ppbv	
10) Bromomethane	6.446	96	129054m	9.48	ppbv	
11) Chloroethane	6.736	66	30253	9.84	ppbv	98
12) Dichlorofluoromethane	7.025	67	421852m	10.37	ppbv	
13) Ethanol	7.061	45	75580m	10.66	ppbv	
14) VinylBromide	7.260	108	172942m	10.82	ppbv	
15) Acetone	7.966	58	90366m	10.04	ppbv	
16) Trichlorofluoromethane	7.677	103	346055	10.43	ppbv	99
17) 2-Propanol(IPA)	8.165	45	330280m	10.72	ppbv	
18) Acrylonitrile	8.961	52	140092m	10.40	ppbv	
19) 1,1-Dichloroethene	8.726	96	182626	9.65	ppbv	99
20) MethyleneChloride(DCM)	9.323	84	168907m	9.72	ppbv	
21) AllylChloride	9.305	39	159358m	10.46	ppbv	
22) CarbonDisulfide	9.486	76	564074m	10.04	ppbv	
23) Trichlorotrifluoroethane	8.998	103	274388	10.07	ppbv	96
24) trans-1,2-Dichloroethene	10.424	96	212705m	10.45	ppbv	
25) 1,1-Dichloroethane	10.906	63	425006	10.24	ppbv	100
26) MethylTertButylEther(M...	10.442	73	559449	10.15	ppbv	98
27) VinylAcetate	10.888	43	515236	10.05	ppbv	99
28) 2-Butanone(MEK)	11.423	72	100889	10.96	ppbv	97
29) cis-1,2-Dichloroethene	11.904	96	234602	10.70	ppbv	99
30) Hexane	11.459	86	45651	10.40	ppbv	73
31) Chloroform	12.493	83	487701	10.57	ppbv	97
32) EthylAcetate	12.011	43	515829	11.12	ppbv	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261303.D
Acq On : 26 Jun 2013 9:15
Operator : JJG
Sample : TO15 LCSD 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:49:44 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

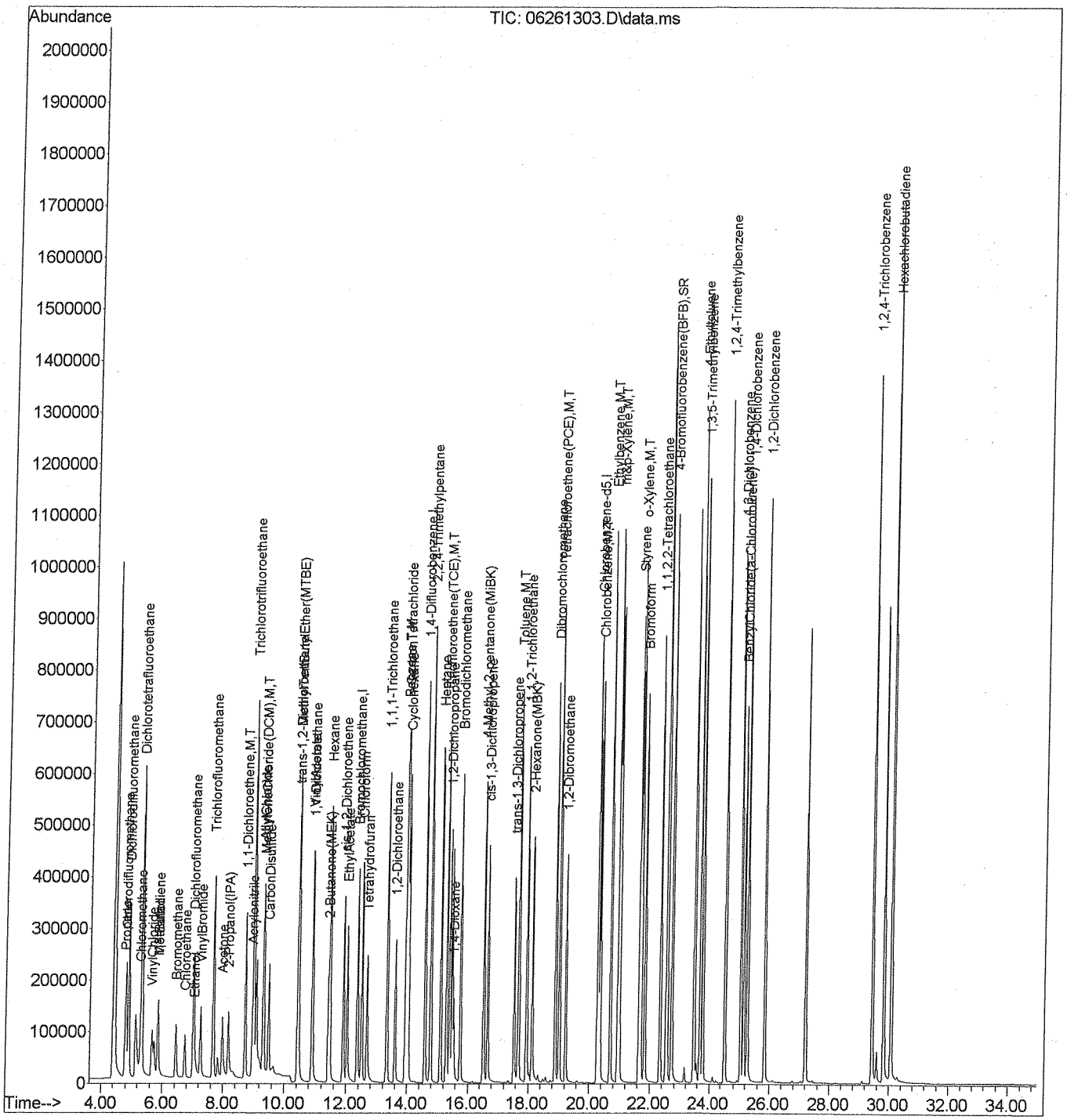
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	100001	10.78	ppbv		96
34) 1,2-Dichloroethane	13.598	62	350993	10.49	ppbv		99
35) 1,1,1-Trichloroethane	13.331	97	541086	10.60	ppbv		99
37) Benzene	13.937	78	639245	10.38	ppbv		99
38) CarbonTetrachloride	13.973	117	538189	10.57	ppbv		98
39) Cyclohexane	14.026	69	96292	10.55	ppbv		97
40) 1,2-Dichloropropane	15.399	63	262679	10.61	ppbv		98
41) Bromodichloromethane	15.756	85	346421	10.91	ppbv		99
42) 1,4-Dioxane	15.524	88	150138	10.34	ppbv		100
43) Trichloroethene(TCE)	15.292	130	316080	10.59	ppbv		99
44) 2,2,4-Trimethylpentane	14.775	57	1222284	11.15	ppbv		100
45) Heptane	15.114	71	212644	10.87	ppbv		97
46) cis-1,3-Dichloropropene	16.648	75	398963	11.32	ppbv		99
47) 4-Methyl-2-pentanone(M...	16.523	58	244594	10.90	ppbv		98
48) trans-1,3-Dichloropropene	17.521	75	365248	10.17	ppbv		95
49) 1,1,2-Trichloroethane	17.932	97	293810	10.69	ppbv		99
50) Toluene	17.682	91	826971	10.59	ppbv		100
51) 2-Hexanone(MBK)	18.128	58	306241	11.01	ppbv		99
52) Dibromochloromethane	18.877	129	612724	11.61	ppbv		99
53) 1,2-Dibromoethane	19.233	107	484410	10.75	ppbv		100
54) Tetrachloroethene(PCE)	19.019	166	453807	10.37	ppbv		100
56) Chlorobenzene	20.357	114	219747	10.28	ppbv		98
57) Ethylbenzene	20.695	91	1101569	10.15	ppbv		100
58) m&p-Xylene	20.945	106	837966	19.62	ppbv		97
59) Bromoform	21.819	173	586078	10.23	ppbv	#	97
60) Styrene	21.641	104	685324	9.92	ppbv		99
61) 1,1,2,2-Tetrachloroethane	22.336	83	631993	10.21	ppbv		99
62) o-Xylene	21.694	91	849711	9.79	ppbv		100
64) 4-Ethyltoluene	23.673	120	366389	10.28	ppbv		100
65) 1,3,5-Trimethylbenzene	23.780	120	499021	9.58	ppbv		99
66) 1,2,4-Trimethylbenzene	24.529	120	507358	10.00	ppbv		99
67) BenzylChloride(a-Chlor...	25.153	91	821187	10.75	ppbv		100
68) 1,3-Dichlorobenzene	25.046	146	804374	10.07	ppbv		99
69) 1,4-Dichlorobenzene	25.260	146	760627m	9.47	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	796813m	9.54	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	762827m	9.24	ppbv		
72) Hexachlorobutadiene	30.075	225	624277m	9.33	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261303.D
Acq On : 26 Jun 2013 9:15
Operator : JJG
Sample : TO15 LCSD 062613
Misc : IS/Surr: PS082712-02 + Cal: PS041813-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:49:44 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



6/26/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261304.D
Acq On : 26 Jun 2013 10:02
Operator : JJG
Sample : TO15 MB 062613
Misc : IS/Surr: PS082712-02 + 500mL cc#000459
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:50:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	160301	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	865511	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	812984	10.00	ppbv	-0.02
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	520016	10.22	ppbv	0.00
Spiked Amount 10.000			Recovery = 102.20%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	0.000		0	N.D.	d	
4) Dichlorodifluoromethane	0.000		0	N.D.		
5) Chloromethane	0.000		0	N.D.		
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	0.000		0	N.D.	d	
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	0.000		0	N.D.	d	
11) Chloroethane	6.699	66	110	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	0.000		0	N.D.	d	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	0.000		0	N.D.	d	
16) Trichlorofluoromethane	0.000		0	N.D.		
17) 2-Propanol(IPA)	0.000		0	N.D.	d	
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	0.000		0	N.D.	d	
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	0.000		0	N.D.		
24) trans-1,2-Dichloroethene	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
26) MethylTertButylEther(M...	0.000		0	N.D.		
27) VinylAcetate	0.000		0	N.D.		
28) 2-Butanone(MEK)	0.000		0	N.D.	d	
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	0.000		0	N.D.		
31) Chloroform	0.000		0	N.D.		
32) EthylAcetate	12.136	43	524	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261304.D
Acq On : 26 Jun 2013 10:02
Operator : JJG
Sample : TO15 MB 062613
Misc : IS/Surr: PS082712-02 + 500mL cc#000459
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:50:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

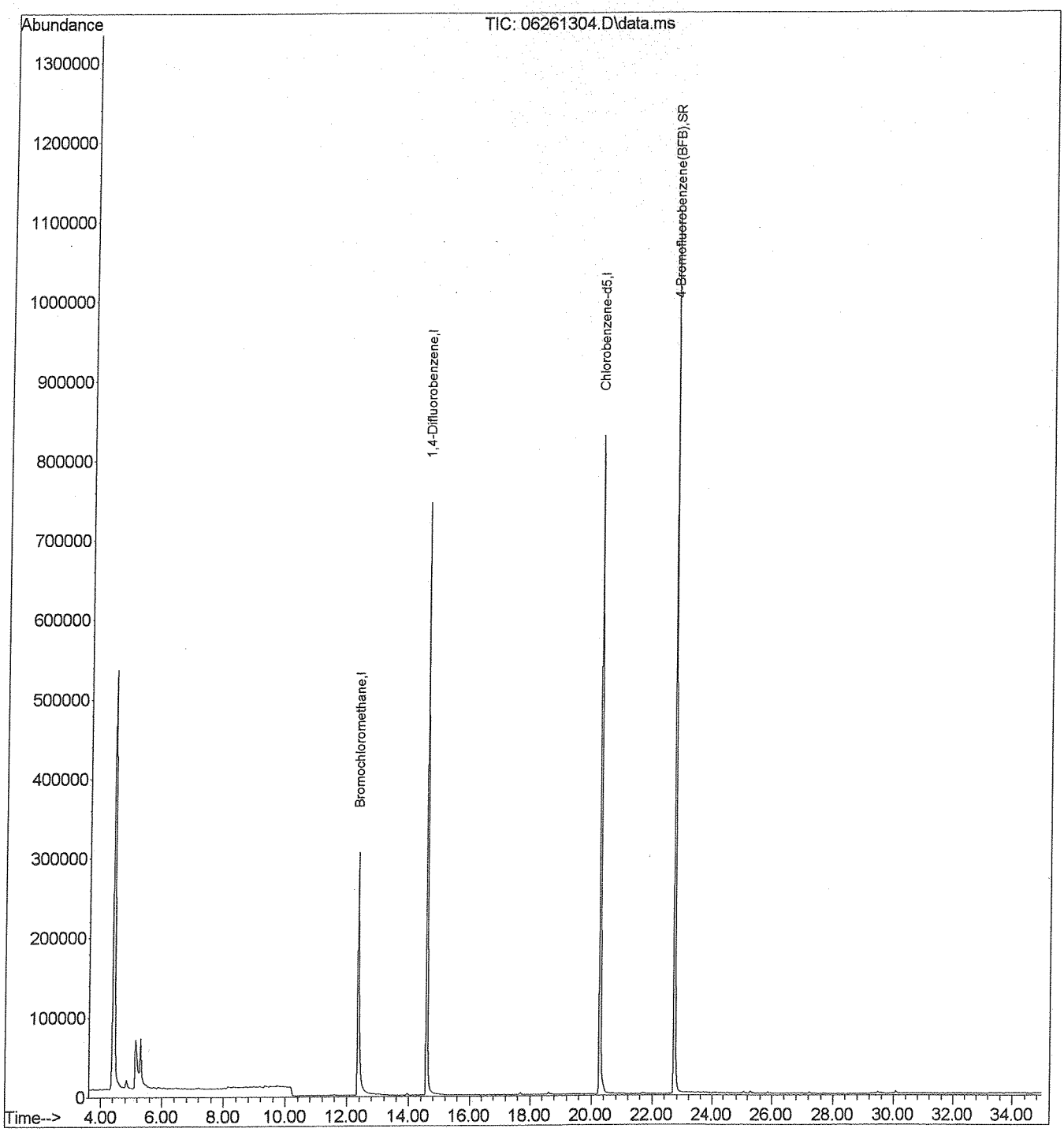
Compound	R.T.	QIon	Response	Conc Units Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.
34) 1,2-Dichloroethane	0.000		0	N.D.
35) 1,1,1-Trichloroethane	0.000		0	N.D.
37) Benzene	0.000		0	N.D. d
38) CarbonTetrachloride	0.000		0	N.D.
39) Cyclohexane	0.000		0	N.D.
40) 1,2-Dichloropropane	0.000		0	N.D.
41) Bromodichloromethane	0.000		0	N.D.
42) 1,4-Dioxane	0.000		0	N.D.
43) Trichloroethene(TCE)	0.000		0	N.D.
44) 2,2,4-Trimethylpentane	0.000		0	N.D.
45) Heptane	0.000		0	N.D.
46) cis-1,3-Dichloropropene	0.000		0	N.D.
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.
48) trans-1,3-Dichloropropene	0.000		0	N.D.
49) 1,1,2-Trichloroethane	0.000		0	N.D.
50) Toluene	0.000		0	N.D. d
51) 2-Hexanone(MBK)	0.000		0	N.D.
52) Dibromochloromethane	0.000		0	N.D.
53) 1,2-Dibromoethane	0.000		0	N.D.
54) Tetrachloroethene(PCE)	0.000		0	N.D.
56) Chlorobenzene	20.356	114	370	N.D.
57) Ethylbenzene	20.713	91	745	N.D.
58) m&p-Xylene	20.980	106	286	N.D.
59) Bromoform	0.000		0	N.D.
60) Styrene	21.694	104	521	N.D.
61) 1,1,2,2-Tetrachloroethane	22.354	83	173	N.D.
62) o-Xylene	21.712	91	595	N.D.
64) 4-Ethyltoluene	23.709	120	165	N.D.
65) 1,3,5-Trimethylbenzene	23.798	120	263	N.D.
66) 1,2,4-Trimethylbenzene	24.565	120	305	N.D.
67) BenzylChloride(a-Chlor...	25.207	91	1218	N.D.
68) 1,3-Dichlorobenzene	25.064	146	2599	N.D.
69) 1,4-Dichlorobenzene	0.000		0	N.D. d
70) 1,2-Dichlorobenzene	25.866	146	1769	N.D.
71) 1,2,4-Trichlorobenzene	29.468	180	3250	N.D.
72) Hexachlorobutadiene	30.075	225	1231	N.D.

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261304.D
Acq On : 26 Jun 2013 10:02
Operator : JJG
Sample : TO15 MB 062613
Misc : IS/Surr: PS082712-02 + 500mL cc#000459
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 26 11:50:35 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



6/26/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 11:52:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	158251	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	852851	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.268	117	813183	10.00 ppbv	-0.02
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	522902	10.28 ppbv	0.00
Spiked Amount 10.000			Recovery = 102.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	5522	0.18 ppbv #	93
3) Propene	4.799	42	3855	0.47 ppbv #	83
4) Dichlorodifluoromethane	4.908	85	15132	0.28 ppbv #	95
5) Chloromethane	5.306	52	1599	0.31 ppbv #	1
6) Dichlorotetrafluoroethane	5.342	135	253	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	26562m2	5.20 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.116	45	21727m2	3.22 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	24625m2	2.87 ppbv	
16) Trichlorofluoromethane	7.659	103	4191	0.13 ppbv #	98
17) 2-Propanol(IPA)	8.238	45	16827m2	0.57 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.494	72	2613	0.30 ppbv #	16
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.459	86	1804	0.43 ppbv #	45
31) Chloroform	0.000		0	N.D. d	
32) EthylAcetate	0.000		0	N.D. d	

Page 1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 11:52:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.778	72	117	N.D.	
34) 1,2-Dichloroethane	13.616	62	110	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2401	0.05 ppbv	91
39) Cyclohexane	14.027	69	830	0.09 ppbv	78
40) 1,2-Dichloropropane	15.417	63	109	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.758	57	33436	0.30 ppbv	97
45) Heptane	15.096	71	2256	0.11 ppbv #	58
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.612	58	469	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	438	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	58346(m)	0.73 ppbv	
51) 2-Hexanone(MBK)	18.253	58	110	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	0.000		0	N.D.	
57) Ethylbenzene	20.713	91	20913	0.19 ppbv	98
58) m&p-Xylene	20.945	106	25813	0.61 ppbv #	89
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	1986	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.354	83	107	N.D.	
62) o-Xylene	21.694	91	23852	0.28 ppbv	98
64) 4-Ethyltoluene	23.674	120	4302	0.12 ppbv #	94
65) 1,3,5-Trimethylbenzene	23.781	120	5675	0.11 ppbv	93
66) 1,2,4-Trimethylbenzene	24.529	120	19097	0.38 ppbv	98
67) BenzylChloride(a-Chlor...	25.189	91	875	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	859	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1378	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	1036	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	3382	<0.04 ppbv	95
72) Hexachlorobutadiene	30.075	225	895	N.D.	

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

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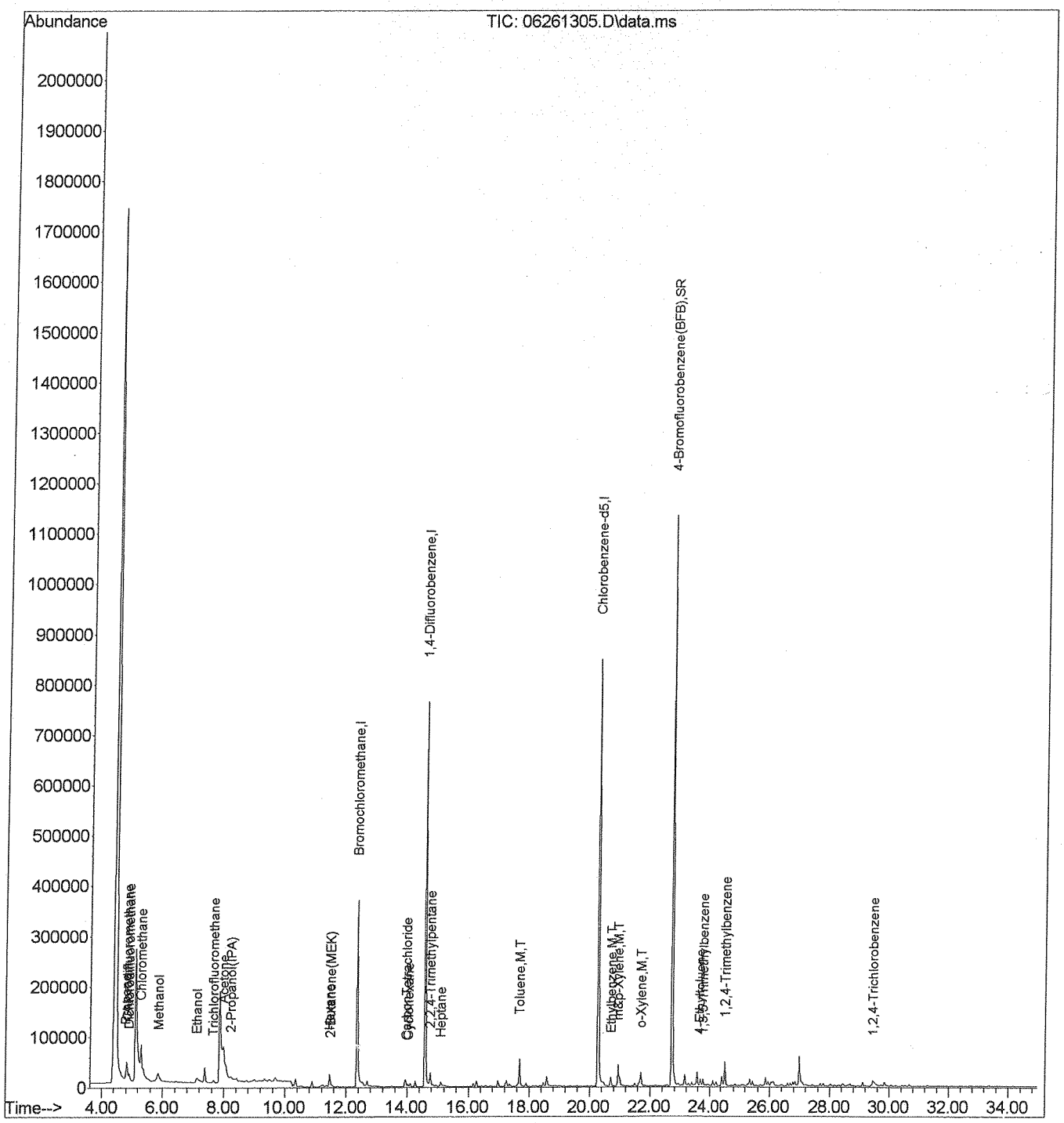
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261305.D
Acq On : 26 Jun 2013 10:50
Operator : JJG
Sample : 130783-63876 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 11:52:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261306.D
Acq On : 26 Jun 2013 11:38
Operator : JJG
Sample : 130783-63876 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:12:41 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	154596	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	866653	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.267	117	805574	10.00 ppbv	-0.02
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	519839	10.31 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.10%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	5655	0.18 ppbv #	95
3) Propene	4.799	42	3647	0.45 ppbv	84
4) Dichlorodifluoromethane	4.908	85	15629	0.30 ppbv	98
5) Chloromethane	5.288	52	1204	0.24 ppbv #	15
6) Dichlorotetrafluoroethane	5.324	135	123	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	26687m	5.35 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	6.826	66	114	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.116	45	21647m	3.28 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	24294	2.90 ppbv #	87
16) Trichlorofluoromethane	7.658	103	4112	0.13 ppbv #	90
17) 2-Propanol(IPA)	8.238	45	16325m	0.57 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	0.000		0	N.D. d	
21) AllylChloride	9.341	39	39	N.D.	
22) CarbonDisulfide	0.000		0	N.D. d	
23) Trichlorotrifluoroethane	0.000		0	N.D. d	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.494	72	2442	0.29 ppbv #	31
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.459	86	1692	0.41 ppbv #	66
31) Chloroform	0.000		0	N.D. d	
32) EthylAcetate	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261306.D
Acq On : 26 Jun 2013 11:38
Operator : JJG
Sample : 130783-63876 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:12:41 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration

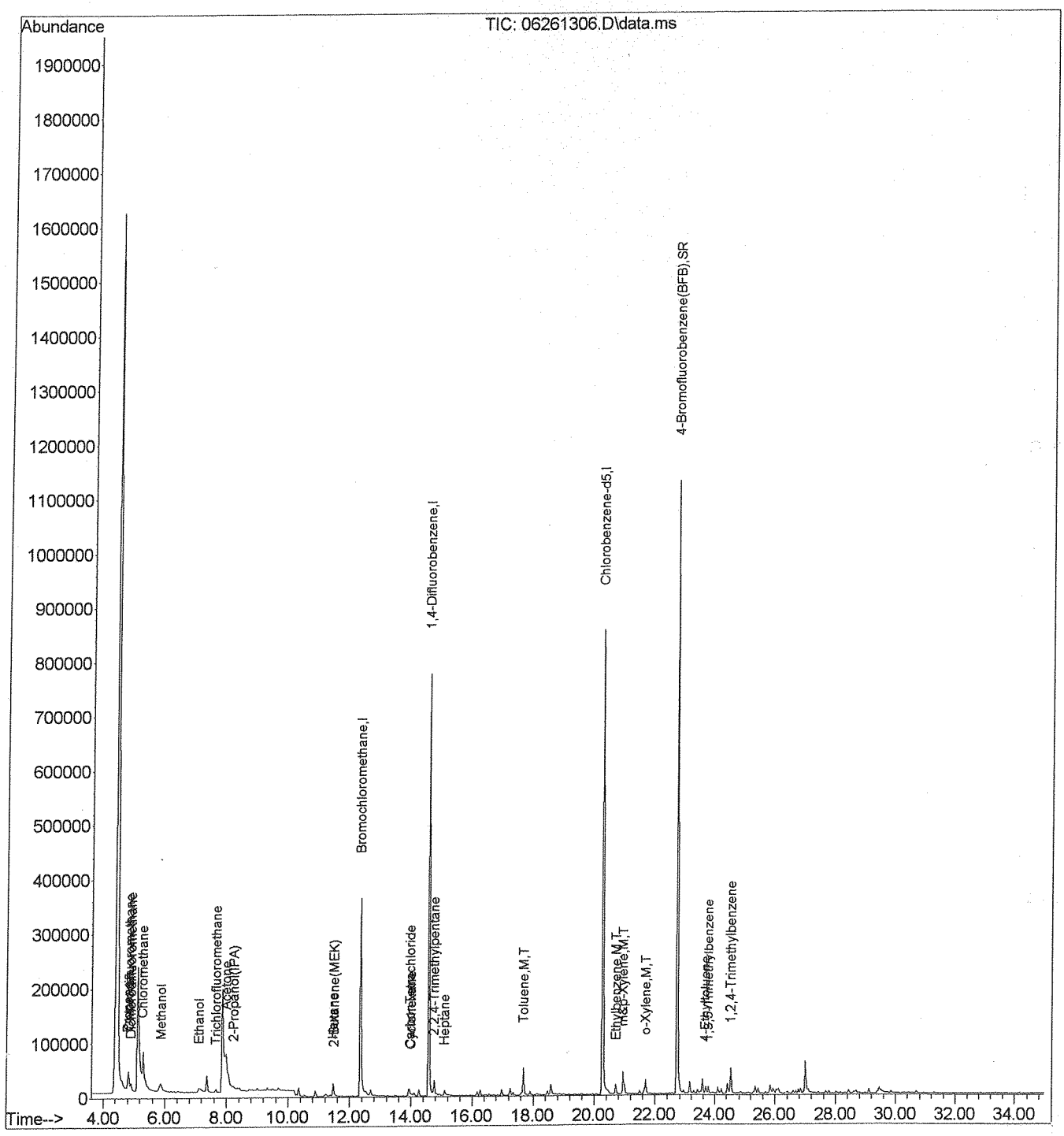
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.778	72	110	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2311	0.04 ppbv	92
39) Cyclohexane	14.009	69	732	0.08 ppbv #	70
40) 1,2-Dichloropropane	0.000		0	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	33625	0.30 ppbv #	94
45) Heptane	15.096	71	2485	0.12 ppbv #	69
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.594	58	292	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	448	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	56143m	0.69 ppbv	
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	0.000		0	N.D.	
57) Ethylbenzene	20.713	91	20612	0.19 ppbv	99
58) m&p-Xylene	20.945	106	25173	0.60 ppbv	92
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	1735	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	22979	0.27 ppbv #	96
64) 4-Ethyltoluene	23.673	120	4150	0.12 ppbv	96
65) 1,3,5-Trimethylbenzene	23.780	120	5219	0.10 ppbv #	93
66) 1,2,4-Trimethylbenzene	24.529	120	19591	0.39 ppbv	96
67) BenzylChloride(a-Chlor...	25.118	91	290	N.D.	
68) 1,3-Dichlorobenzene	25.046	146	550	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	678	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	457	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1702	N.D.	
72) Hexachlorobutadiene	30.075	225	505	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\062613\
Data File : 06261306.D
Acq On : 26 Jun 2013 11:38
Operator : JJG
Sample : 130783-63876 x1 dp
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 26 12:12:41 2013
Quant Method : C:\msdchem\1\METHODS\2013\051513.M
Quant Title : TO-15/TO-14
QLast Update : Thu May 16 10:13:39 2013
Response via : Initial Calibration



Calibration Status Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 051513.M
Title : TO-15/TO-14
Last Update : Thu May 16 10:13:39 2013
Response Via : Initial Calibration

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1	0.5	1	10	C:\msdchem\1\MS03\2013\051513\05151311.D
2	1.0	1	10	C:\msdchem\1\MS03\2013\051513\05151310.D
3	2.0	2	10	C:\msdchem\1\MS03\2013\051513\05151309.D
4	5.0	5	10	C:\msdchem\1\MS03\2013\051513\05151308.D
5	10	10	10	C:\msdchem\1\MS03\2013\051513\05151307.D
6	20	20	10	C:\msdchem\1\MS03\2013\051513\05151306.D
7	50	51	10	C:\msdchem\1\MS03\2013\051513\05151305.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.5	May 16 10:04 2013	May 15 17:01 2013	15 May 2013 16:25
2	1.0	May 16 10:04 2013	May 15 16:55 2013	15 May 2013 15:40
3	2.0	May 16 10:04 2013	May 15 16:52 2013	15 May 2013 14:53
4	5.0	May 16 10:03 2013	May 15 15:19 2013	15 May 2013 14:07
5	10	May 16 10:03 2013	May 15 13:55 2013	15 May 2013 13:21
6	20	May 16 10:03 2013	May 15 13:53 2013	15 May 2013 12:35
7	50	May 16 10:03 2013	May 15 13:50 2013	15 May 2013 11:48

051513.M Thu May 16 10:15:15 2013

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 051513.M
Title : TO-15/TO-14
Last Update : Thu May 16 10:13:39 2013
Response Via : Initial Calibration

Calibration Files
0.5 =05151311.D 1.0 =05151310.D 2.0 =05151309.D 5.0 =05151308.D 10 =05151307.D 20 =05151306.D
50 =05151305.D

		Compound	0.5	1.0	2.0	5.0	10	20	50	Avg	%RSD
1)	I	Bromochloromethane	ISTD								
2)		Chlorodifluoro...	2.089	2.153	2.101	2.025	1.904	1.810	1.786	1.981	7.44
3)		Propene	0.516	0.538	0.543	0.530	0.511	0.503	0.502	0.520	3.16
4)		Dichlorodifluo...	3.667	3.778	3.625	3.449	3.255	3.109	3.048	3.419	8.40
5)		Chloromethane	0.306	0.351	0.359	0.346	0.335	0.307	0.243	0.321	12.54
6)		Dichlorotetraf...	2.437	2.578	2.525	2.366	2.249	2.146	2.008	2.330	8.87
7)		VinylChloride	1.119	1.165	1.194	1.159	1.138	1.103	1.085	1.138	3.35
8)		Methanol		0.467	0.401	0.345	0.325	0.314	0.302	0.359	17.59
9)		1,3-Butadiene	0.661	0.757	0.783	0.769	0.750	0.696	0.638	0.722	7.88
10)		Bromomethane	0.912	0.907	0.885	0.831	0.790	0.768	0.638	0.819	11.91
11)		Chloroethane	0.201	0.195	0.200	0.184	0.171	0.177	0.167	0.185	7.45
12)		Dichlorofluoro...	2.569	2.604	2.585	2.470	2.365	2.317	2.217	2.447	6.14
13)		Ethanol	0.438	0.486	0.443	0.421	0.414	0.410	0.372	0.426	8.19
14)		VinylBromide	0.913	0.985	1.013	1.000	0.954	0.955	0.914	0.962	4.10
15)		Acetone	0.717	0.643	0.532	0.487	0.468	0.473	0.472	0.542	18.30
16)		Trichlorofluor...	2.166	2.190	2.089	1.956	1.896	1.864	1.820	1.997	7.53
17)		2-Propanol(IPA)	2.202	2.238	2.186	1.792	1.640	1.508	1.412	1.854	18.98
18)		Acrylonitrile	0.759	0.846	0.865	0.860	0.819	0.805	0.720	0.811	6.70
19)	M,T	1,1-Dichloroet...	1.126	1.244	1.222	1.158	1.131	1.093	1.000	1.139	7.17
20)	M,T	MethyleneChlor...	1.192	1.150	1.088	1.078	1.000	0.935	0.876	1.046	10.90
21)		AllylChloride	1.018	0.993	0.990	0.947	0.912	0.791	0.764	0.917	11.04
22)		CarbonDisulfide	3.799	3.684	3.581	3.365	3.184	3.094	2.965	3.382	9.36
23)		Trichlorotrifl...	1.791	1.899	1.777	1.674	1.586	1.456	1.291	1.639	12.89
24)		trans-1,2-Dich...	1.186	1.375	1.235	1.308	1.238	1.156	1.076	1.225	8.05
25)		1,1-Dichloroet...	2.829	2.839	2.719	2.571	2.383	2.197	1.949	2.498	13.53
26)		MethylTertButy...	3.471	3.740	3.529	3.441	3.284	3.047	2.705	3.317	10.38
27)		VinylAcetate	3.239	3.305	3.371	3.266	3.089	2.850	2.479	3.086	10.33
28)		2-Butanone(MEK)	0.480	0.548	0.589	0.592	0.595	0.548	0.526	0.554	7.60

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29)		cis-1,2-Dichlo...	1.339	1.387	1.385	1.382	1.308	1.264	1.167	1.319	6.17
30)		Hexane	0.270	0.298	0.295	0.272	0.256	0.239	0.219	0.264	10.89
31)		Chloroform	2.980	3.005	2.926	2.844	2.659	2.617	2.396	2.775	8.12
32)		EthylAcetate	2.836	3.052	2.959	2.914	2.819	2.582	2.380	2.792	8.36
33)		Tetrahydrofuran	0.574	0.569	0.601	0.585	0.559	0.535	0.483	0.558	7.01
34)		1,2-Dichloroet...	2.043	2.248	2.117	2.034	1.930	1.874	1.847	2.013	7.07
35)		1,1,1-Trichlor...	3.350	3.382	3.301	3.075	2.948	2.834	2.618	3.073	9.43
36)	I	1,4-Difluorobenzene	----------ISTD----------								
37)	T,M	Benzene	0.840	0.830	0.802	0.758	0.721	0.648	0.558	0.737	14.02
38)		CarbonTetrachl...	0.664	0.694	0.674	0.620	0.600	0.541	0.469	0.609	13.26
39)		Cyclohexane	0.121	0.121	0.117	0.111	0.109	0.098	0.087	0.109	11.74
40)		1,2-Dichloropr...	0.324	0.333	0.328	0.306	0.291	0.265	0.226	0.296	13.14
41)		Bromodichlorom...	0.411	0.420	0.409	0.393	0.371	0.346	0.311	0.380	10.47
42)		1,4-Dioxane	0.175	0.182	0.184	0.183	0.179	0.165	0.147	0.174	7.67
43)	M,T	Trichloroethen...	0.378	0.389	0.390	0.369	0.352	0.328	0.293	0.357	10.02
44)		2,2,4-Trimethy...	1.494	1.513	1.438	1.352	1.312	1.136	0.935	1.312	16.01
45)		Heptane	0.250	0.247	0.252	0.241	0.240	0.218	0.189	0.234	9.72
46)		cis-1,3-Dichlo...	0.443	0.456	0.446	0.443	0.425	0.389	0.351	0.422	9.07
47)		4-Methyl-2-pen...	0.264	0.293	0.298	0.287	0.277	0.248	0.212	0.269	11.25
48)		trans-1,3-Dich...	0.406	0.438	0.451	0.457	0.441	0.423	0.391	0.430	5.59
49)		1,1,2-Trichlor...	0.350	0.366	0.351	0.346	0.330	0.297	0.262	0.329	11.16
50)	M,T	Toluene	1.036	1.035	1.017	0.944	0.952	0.835	0.723	0.935	12.54
51)		2-Hexanone(MBK)	0.339	0.353	0.364	0.351	0.351	0.307	0.266	0.333	10.43
52)		Dibromochlorom...	0.667	0.684	0.678	0.663	0.647	0.577	0.504	0.632	10.56
53)		1,2-Dibromoethane	0.584	0.579	0.577	0.568	0.528	0.494	0.443	0.539	9.97
54)	M,T	Tetrachloroeth...	0.591	0.589	0.566	0.551	0.517	0.458	0.394	0.524	14.01
55)	I	Chlorobenzene-d5	----------ISTD----------								
56)	M,T	Chlorobenzene	0.280	0.286	0.275	0.270	0.258	0.243	0.208	0.260	10.37
57)	M,T	Ethylbenzene	1.493	1.508	1.428	1.373	1.283	1.189	0.964	1.320	14.66
58)	M,T	m&p-Xylene	0.595	0.611	0.556	0.534	0.502	0.455	0.383	0.519	15.49
59)		Bromoform	0.762	0.809	0.762	0.719	0.685	0.627	0.514	0.697	14.37
60)		Styrene	0.895	0.947	0.887	0.890	0.834	0.768	0.660	0.840	11.58
61)		1,1,2,2-Tetrac...	0.834	0.866	0.828	0.795	0.730	0.671	0.544	0.753	15.13
62)	M,T	o-Xylene	1.255	1.276	1.150	1.089	0.982	0.893	0.746	1.056	18.39
63)	SR	4-Bromofluorob...	0.633	0.653	0.621	0.628	0.618	0.610	0.617	0.626	2.29
64)		4-Ethyltoluene	0.453	0.499	0.463	0.465	0.439	0.394	0.321	0.433	13.60

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65)	1,3,5-Trimethy...	0.738	0.738	0.689	0.655	0.614	0.551	0.450	0.633	16.58
66)	1,2,4-Trimethy...	0.683	0.701	0.662	0.647	0.606	0.555	0.465	0.617	13.44
67)	BenzylChloride...	0.792	0.849	0.988	0.987	1.014	0.994	0.876	0.928	9.45
68)	1,3-Dichlorobe...	1.007	1.071	1.056	1.046	0.966	0.902	0.748	0.971	11.78
69)	1,4-Dichlorobe...	1.123	1.125	1.062	1.020	0.936	0.861	0.709	0.977	15.58
70)	1,2-Dichlorobe...	1.116	1.179	1.130	1.079	0.969	0.899	0.735	1.015	15.50
71)	1,2,4-Trichlor...	0.991	1.125	1.099	1.117	1.025	0.921	0.751	1.004	13.37
72)	Hexachlorobuta...	0.954	0.987	0.907	0.861	0.768	0.693	0.522	0.813	20.26

(#) = Out of Range