Atmospheric Analysis & Consulting, Inc.

CLIENT	: Soil Water Air Protection Enterprise
PROJECT NAME	: Bridgeton Sanitary Landfill Air Quality Assessment
AAC PROJECT NO.	: 130668
REPORT DATE	: 06/06/2013

On June 5, 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)
U-1 W6E-Canister	130668-63330	369.2
U-2 W5-Canister	130668-63331	462.0
D-1 W9-Canister	130668-63332	646.9
D-2 W2N-Canister	130668-63333	660.7

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 58 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate#E87837

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CANISTER PRESSURE LOG

Client: Soil Water Air Protection Ent Project No.: 130668

Date: 6/5/2013

Canister #	Sample #	Initial Pressure	Final Pressure
702	63330	369.2	1029.6
740	63331	462.0	1015.9
812	63332	646.9	1015.3
799	63333	660.7	1022.0

1

AAC# 130668

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:** May 30TH, 2013 — Page 1 of 1
Project Manager: PAUL ROSENFELD, PH.D.		
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	Carboxlyic 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
63330	U-1 W6E	Canister		May 30th	4 Hr	X	X												Canister # 702
63331	U-2 W5	Canister		May 30th	4 Hr	X	X												Canister # 740
63332	D-1 W9	Canister		May 30th	4 Hr	X	X												Canister # 812
63333	D-2 W2N	Canister		May 30th	4 Hr	X	X												Canister # 799

REQUESTED TESTS / ANALYSES

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	May 30TH, 2013 — 12 Noon	**Received By:**	**Date:** — **Time:**
Relinquished By:	**Date:** — **Time:**	**Received By:**	**Date:** — **Time:**
Relinquished By:	**Date:** — **Time:**	**Received By:**	**Date:** 6/5/13 — **Time:** 1145

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/D-1 W6E Canister # 702

AAC Batch ID: 130668 AAC Sample ID: 63330

SAMPLING INFORMATION

Start Date/Time: **May** ~~25~~ 30 **th/** 7:30 Stop Date/Time: **May** ~~25~~ 30 **th/** 11:30

Start Temp/Pressure*: ~~23~~ 23 C ~~29.88~~ psi Stop Temp/Pressure*: ~~26~~ 26 C ~~29.88~~ psi

Initial Can Pressure**: -31 Final Can Pressure**: -11

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

Comments: _____

John Blank May 25th, 2013

Sampler Name (Print) *Sampler Signature/Date*

LABORATORY INFORMATION

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

Canister Serial No.: #702 Flow Controller Serial No: 717

Initial Pressure: 4.2 Certified Flow Rate: 18.0

Return Pressure: 369.2 Certified By/Date: JJ 5/20/2013

Final Pressure: 1029.6 Flow Rate upon Return: 16.3

Date Shipped From Lab: 5/14/2013 Shipped By: JJ

Date Returned to Lab: 6/5/2013 Received By: JJ

Flow Controller Certification File ID: MS03/05201310

Canister Certification File ID: MS03/05151320

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

06/06/13 6/5/13

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/~~P~~P-2 W5 Canister # 740

AAC Batch ID: 130668 AAC Sample ID: 63331

SAMPLING INFORMATION

Start Date/Time: May ~~25th~~ 30th / 7:45 Stop Date/Time: May ~~25th~~ 30th / 11:45

Start Temp/Pressure*: 23 C 29.88 psi Stop Temp/Pressure* ~~26~~ 26° C 29.98 psi 26°C

Initial Can Pressure**: -29.5 Final Can Pressure**: -12

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

Comments: _____

John Blank May 25th, 2013

Sampler Name (Print) *Sampler Signature/Date*

LABORATORY INFORMATION

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

Canister Serial No.: 740 Flow Controller Serial No: 710

Initial Pressure: 4.3 Certified Flow Rate: 18.2

Return Pressure: 462.0 Certified By/Date: JJ 5/20/2013

Final Pressure: 1015.9 Flow Rate upon Return: 17.5

Date Shipped From Lab: 5/14/2013 Shipped By: JJ

Date Returned to Lab: 6/5/2013 Received By: JJ

Flow Controller Certification File ID: M503/05201310

Canister Certification File ID: M503/05151319

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

06/06/13 6/6/13

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~~/D-1 W9 Canister # 812

AAC Batch ID: 130668 AAC Sample ID: _____

SAMPLING INFORMATION

Start Date/Time: May ~~25~~ 30th/ 9:25 Stop Date/Time: May ~~25~~ 30th/ 13.25

Start Temp/Pressure*: 25 C 29.88 psi Stop Temp/Pressure*: 27 C 29.98 psi

Initial Can Pressure**: -29 Final Can Pressure**: -4

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

Comments: _____

John Blank
Sampler Name (Print)

Sampler Signature/Date

May 25th, 2013

LABORATORY INFORMATION

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

Canister Serial No.: # 812 Flow Controller Serial No: # 807

Initial Pressure: 4.3 Certified Flow Rate: 18.0

Return Pressure: 646.9 Certified By/Date: JJ 5/16/2013

Final Pressure: 1015.3 Flow Rate upon Return: 22.4

Date Shipped From Lab: 5/16/2013 Shipped By: JJ

Date Returned to Lab: 6/5/2013 Received By: JJ

Flow Controller Certification File ID: 4503/05141322

Canister Certification File ID: 4503/05161304

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

Chemist Signature/Date

Lab Manager Signature/Date 6/6/13

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.: MW/D-2 W2N Canister # 799

AAC Batch ID: 130668 AAC Sample ID: 63333

SAMPLING INFORMATION

Start Date/Time: **May 25th/** 9:15 Stop Date/Time: **May 25th/** 13:15

Start Temp/Pressure*: 23°C 29.88 psi Stop Temp/Pressure*: 27°C 29.98 psi

Initial Can Pressure**: -30 Final Can Pressure**: -5

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

Comments: _____

John Blank May 25th, 2013

Sampler Name (Print) *Sampler Signature/Date*

LABORATORY INFORMATION

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

Canister Serial No.: 799 Flow Controller Serial No: 806

Initial Pressure: 4.2 Certified Flow Rate: 18.0

Return Pressure: 660.7 Certified By/Date: JJ 5/16/2013

Final Pressure: 1022.0 Flow Rate upon Return: 22.2

Date Shipped From Lab: 5/16/2013 Shipped By: JJ

Date Returned to Lab: 6/5/2013 Received By: JJ

Flow Controller Certification File ID: 1303/05141322

Canister Certification File ID: 1303/05151327

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

6/6/13 6/6/13

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.

TO-15 REPORTS

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130668
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/05/2013
DATE REPORTED : 06/06/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130668-63330				130668-63331				
Date Sampled	05/30/2013				05/30/2013				
Date Analyzed	06/06/2013				06/06/2013				
Can Dilution Factor	2.79				2.20				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.33	J	1.0	1.39	0.35	J	1.0	1.10	0.5
Propene	1.51	J	1.0	2.79	2.11	J	1.0	2.20	1.0
Dichlorodifluoromethane	0.59	J	1.0	1.39	0.59	J	1.0	1.10	0.5
Chloromethane	0.59	J	1.0	1.39	0.53	J	1.0	1.10	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Vinyl Chloride	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Methanol	24.3		1.0	13.9	17.0		1.0	11.0	5.0
1,3-Butadiene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Bromomethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Chloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Dichlorofluoromethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Ethanol	3.35	J	1.0	5.58	3.32	J	1.0	4.40	2.0
Vinyl Bromide	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Acetone	4.82	J	1.0	5.58	3.61	J	1.0	4.40	2.0
Trichlorofluoromethane	0.28	J	1.0	1.39	0.26	J	1.0	1.10	0.5
2-Propanol (IPA)	4.02	J	1.0	5.58	1.65	J	1.0	4.40	2.0
Acrylonitrile	<SRL	U	1.0	2.79	<SRL	U	1.0	2.20	1.0
1,1-Dichloroethene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	2.79	<SRL	U	1.0	2.20	1.0
Allyl Chloride	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Carbon Disulfide	NR	U	1.0	1.39	NR	U	1.0	1.10	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,1-Dichloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Vinyl Acetate	<SRL	U	1.0	2.79	<SRL	U	1.0	2.20	1.0
2-Butanone (MEK)	<SRL	U	1.0	2.79	<SRL	U	1.0	2.20	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Hexane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Chloroform	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Ethyl Acetate	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Tetrahydrofuran	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2-Dichloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : **Soil Water Air Protection Enterprise**
PROJECT NO : **130668**
MATRIX : **AIR**
UNITS : **PPB (v/v)**

DATE RECEIVED : **06/05/2013**
DATE REPORTED : **06/06/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	U-1 W6E-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	U-2 W5-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130668-63330				130668-63331				
Date Sampled	05/30/2013				05/30/2013				
Date Analyzed	06/06/2013				06/06/2013				
Can Dilution Factor	2.79				2.20				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Carbon Tetrachloride	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Cyclohexane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2-Dichloropropane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Bromodichloromethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,4-Dioxane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Trichloroethene (TCE)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
2,2,4-Trimethylpentane	<SRL	U	1.0	1.39	0.09	J	1.0	1.10	0.5
Heptane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Toluene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
2-Hexanone (MBK)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Dibromochloromethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2-Dibromoethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Chlorobenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Ethylbenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
m & p-Xylenes	0.36	J	1.0	2.79	<SRL	U	1.0	2.20	1.0
Bromoform	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Styrene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
o-Xylene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
4-Ethyltoluene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,3,5-Trimethylbenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2,4-Trimethylbenzene	0.25	J	1.0	1.39	0.13	J	1.0	1.10	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	0.5
Hexachlorobutadiene	<SRL	U	1.0	1.39	<SRL	U	1.0	1.10	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

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130668
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/05/2013
DATE REPORTED : 06/06/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W9-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W2N-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130668-63332				130668-63333				
Date Sampled	05/30/2013				05/30/2013				
Date Analyzed	06/06/2013				06/06/2013				
Can Dilution Factor	1.57				1.55				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.30	J	1.0	0.78	0.34	J	1.0	0.77	0.5
Propene	0.77	J	1.0	1.57	0.79	J	1.0	1.55	1.0
Dichlorodifluoromethane	0.55	J	1.0	0.78	0.56	J	1.0	0.77	0.5
Chloromethane	0.44	J	1.0	0.78	0.48	J	1.0	0.77	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Vinyl Chloride	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Methanol	33.8		1.0	7.85	16.6		1.0	7.73	5.0
1,3-Butadiene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Bromomethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Chloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Ethanol	10.5		1.0	3.14	8.09		1.0	3.09	2.0
Vinyl Bromide	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Acetone	5.43		1.0	3.14	7.69		1.0	3.09	2.0
Trichlorofluoromethane	0.27	J	1.0	0.78	0.29	J	1.0	0.77	0.5
2-Propanol (IPA)	1.82	J	1.0	3.14	4.42		1.0	3.09	2.0
Acrylonitrile	<SRL	U	1.0	1.57	<SRL	U	1.0	1.55	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Methylene Chloride (DCM)	<SRL	U	1.0	1.57	181		10.0	15.5	1.0
Allyl Chloride	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Carbon Disulfide	NR	J	1.0	0.78	NR	U	1.0	0.77	0.5
Trichlorotrifluoroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Vinyl Acetate	<SRL	U	1.0	1.57	<SRL	U	1.0	1.55	1.0
2-Butanone (MEK)	1.38	J	1.0	1.57	0.40	J	1.0	1.55	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Hexane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Chloroform	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Ethyl Acetate	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Tetrahydrofuran	0.60	J	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130668
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/05/2013
DATE REPORTED : 06/06/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	D-1 W9-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	D-2 W2N-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130668-63332				130668-63333				
Date Sampled	05/30/2013				05/30/2013				
Date Analyzed	06/06/2013				06/06/2013				
Can Dilution Factor	1.57				1.55				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	0.88		1.0	0.78	<SRL	U	1.0	0.77	0.5
Carbon Tetrachloride	0.08	J	1.0	0.78	0.08	J	1.0	0.77	0.5
Cyclohexane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Bromodichloromethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,4-Dioxane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
2,2,4-Trimethylpentane	0.22	J	1.0	0.78	0.17	J	1.0	0.77	0.5
Heptane	0.09	J	1.0	0.78	0.15	J	1.0	0.77	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Toluene	0.71	J	1.0	0.78	0.51	J	1.0	0.77	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Dibromochloromethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Chlorobenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Ethylbenzene	0.16	J	1.0	0.78	0.12	J	1.0	0.77	0.5
m & p-Xylenes	0.46	J	1.0	1.57	0.46	J	1.0	1.55	1.0
Bromoform	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Styrene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
o-Xylene	0.19	J	1.0	0.78	0.53	J	1.0	0.77	0.5
4-Ethyltoluene	<SRL	U	1.0	0.78	1.48		1.0	0.77	0.5
1,3,5-Trimethylbenzene	0.08	J	1.0	0.78	1.21		1.0	0.77	0.5
1,2,4-Trimethylbenzene	0.28	J	1.0	0.78	3.42		1.0	0.77	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.78	<SRL	U	1.0	0.77	0.5
BFB-Surrogate Std. % Recovery	103%				103%				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 : 06/06/2013
ANALYST : JJG
INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS040413-01

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	9.60	96
Chlorodifluoromethane	10.10	9.81	97
Propene	11.00	10.62	97
Dichlorodifluoromethane	9.80	9.75	99
Chloromethane	10.10	10.05	100
Dichlorotetrafluoroethane	10.10	10.07	100
Vinyl Chloride	10.20	10.29	101
Methanol	4.90	5.38	110
1,3-Butadiene	10.50	9.96	95
Bromomethane	10.20	8.88	87
Chloroethane	10.00	9.78	98
Dichlorofluoromethane	10.00	10.44	104
Ethanol	9.80	10.29	105
Vinyl Bromide	10.20	10.53	103
Acetone	10.80	10.13	94
Trichlorofluoromethane	10.10	10.84	107
2-Propanol (IPA)	11.00	10.74	98
Acrylonitrile	10.50	11.16	106
1,1-Dichloroethene	10.50	10.64	101
Methylene Chloride (DCM)	10.40	10.26	99
Allyl Chloride	11.00	11.15	101
Carbon Disulfide	10.50	10.02	95
Trichlorotrifluoroethane	10.40	10.59	102
trans-1,2-Dichloroethene	10.40	10.30	99
1,1-Dichloroethane	10.40	10.37	100
Methyl Tert Butyl Ether (MTBE)	10.60	9.99	94
Vinyl Acetate	9.70	10.15	105
2-Butanone (MEK)	10.60	10.77	102
cis-1,2-Dichloroethene	10.60	10.37	98
Hexane	10.70	10.46	98
Chloroform	10.60	10.86	102
Ethyl Acetate	11.00	11.42	104
Tetrahydrofuran	10.80	10.65	99
1,2-Dichloroethane	10.40	10.91	105
1,1,1-Trichloroethane	10.50	11.04	105

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ANALYSIS DATE : 06/06/2013 **INSTRUMENT ID** : GC/MS-03
ANALYST : JJG **CALIBRATION STD ID** : PS040413-01

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	10.13	96
Carbon Tetrachloride	10.10	10.60	105
Cyclohexane	10.50	10.16	97
1,2-Dichloropropane	10.50	10.21	97
Bromodichloromethane	10.30	10.43	101
1,4-Dioxane	10.30	10.10	98
Trichloroethene (TCE)	10.30	10.18	99
2,2,4-Trimethylpentane	10.90	10.50	96
Heptane	10.70	10.35	97
cis-1,3-Dichloropropene	11.00	10.89	99
4-Methyl-2-pentanone (MiBK)	10.30	10.41	101
trans-1,3-Dichloropropene	9.80	9.75	99
1,1,2-Trichloroethane	10.60	10.43	98
Toluene	10.60	10.31	97
2-Hexanone (MBK)	10.80	10.66	99
Dibromochloromethane	11.00	11.11	101
1,2-Dibromoethane	10.40	10.05	97
Tetrachloroethene (PCE)	10.40	10.00	96
Chlorobenzene	10.60	10.47	99
Ethylbenzene	10.50	10.32	98
m & p-Xylenes	20.60	19.23	93
Bromoform	10.30	9.92	96
Styrene	10.40	10.04	97
1,1,2,2-Tetrachloroethane	10.60	9.80	92
o-Xylene	10.60	9.90	93
4-Ethyltoluene	10.40	10.08	97
1,3,5-Trimethylbenzene	10.20	9.49	93
1,2,4-Trimethylbenzene	10.20	9.50	93
Benzyl Chloride (a-Chlorotoluene)	10.00	9.87	99
1,3-Dichlorobenzene	10.00	9.62	96
1,4-Dichlorobenzene	10.00	9.21	92
1,2-Dichlorobenzene	10.00	9.31	93
1,2,4-Trichlorobenzene	9.30	8.64	93
Hexachlorobutadiene	9.80	9.08	93

* - %REC should be 70-130%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

CLIENT ID	**: Laboratory Control Spike**	**DATE ANALYZED**	**: 06/06/2013**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 06/06/2013**
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	10.64	10.41	101	99	2.2
Methylene Chloride (DCM)	0.0	10.40	10.26	9.63	99	93	6.3
Benzene	0.0	10.50	10.13	10.13	96	96	0.0
Trichloroethene (TCE)	0.0	10.30	10.18	10.45	99	101	2.6
Toluene	0.0	10.60	10.31	10.42	97	98	1.1
Tetrachloroethene (PCE)	0.0	10.40	10.00	10.39	96	100	3.8
Chlorobenzene	0.0	10.60	10.47	10.31	99	97	1.5
Ethylbenzene	0.0	10.50	10.32	10.21	98	97	1.1
m & p-Xylenes	0.0	20.60	19.23	19.39	93	94	0.8
o-Xylene	0.0	10.60	9.90	9.76	93	92	1.4

* Must be 70-130%

** Must be < 25%

Marcus Hueppe
Laboratory Director

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Method Blank Analysis Report

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

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Method Blank	RL
AAC ID	MB 060613	
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**	**: 06/06/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 06/06/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 060613	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
Laboratory Director

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Quality Control/Quality Assurance Report

AAC ID	**: 130668-63333**	**DATE ANALYZED**	**: 06/06/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 06/06/2013**
		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	<SRL	<SRL	0.0
1,3-Butadiene	<SRL	<SRL	0.0
Bromomethane	<SRL	<SRL	0.0
Chloroethane	<SRL	<SRL	0.0
Dichlorofluoromethane	<SRL	<SRL	0.0
Ethanol	<SRL	<SRL	0.0
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	<SRL	<SRL	0.0
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)	181	179	1.1
Allyl Chloride	<SRL	<SRL	0.0
Carbon Disulfide	<SRL	<SRL	0.0
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	**: 130668-63333**	**DATE ANALYZED**	**: 06/06/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 06/06/2013**
		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	<SRL	<SRL	0.0
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	104%	102%	2.1

SRL - Sample Reporting Limit

Marcus Hueppe
Laboratory Director

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TO-15 RAW DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061305.D
Acq On : 6 Jun 2013 12:21
Operator : JJG
Sample : 130668-63330 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 06 15:13:24 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	143425	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	803857	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.267	117	747367	10.00	ppbv	-0.02
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	482434	10.32	ppbv	0.00
Spiked Amount 10.000			Recovery = 103.20%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.835	51	3478	0.12	ppbv #	95
3) Propene	4.799	42	4021	0.54	ppbv #	80
4) Dichlorodifluoromethane	4.908	85	10541	0.21	ppbv #	96
5) Chloromethane	5.306	52	947	0.21	ppbv #	1
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.867	31	39850m	8.71	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	7.152	45	7368m	1.20	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.020	58	13452m	1.73	ppbv	
16) Trichlorofluoromethane	7.658	103	2859	0.10	ppbv	97
17) 2-Propanol(IPA)	8.201	45	38303m	1.44	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.		
22) CarbonDisulfide	0.000		0	N.D.	d	
23) Trichlorotrifluoroethane	8.998	103	794	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	12.511	83	107	N.D.		
32) EthylAcetate	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061305.D
Acq On : 6 Jun 2013 12:21
Operator : JJG
Sample : 130668-63330 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 06 15:13:24 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

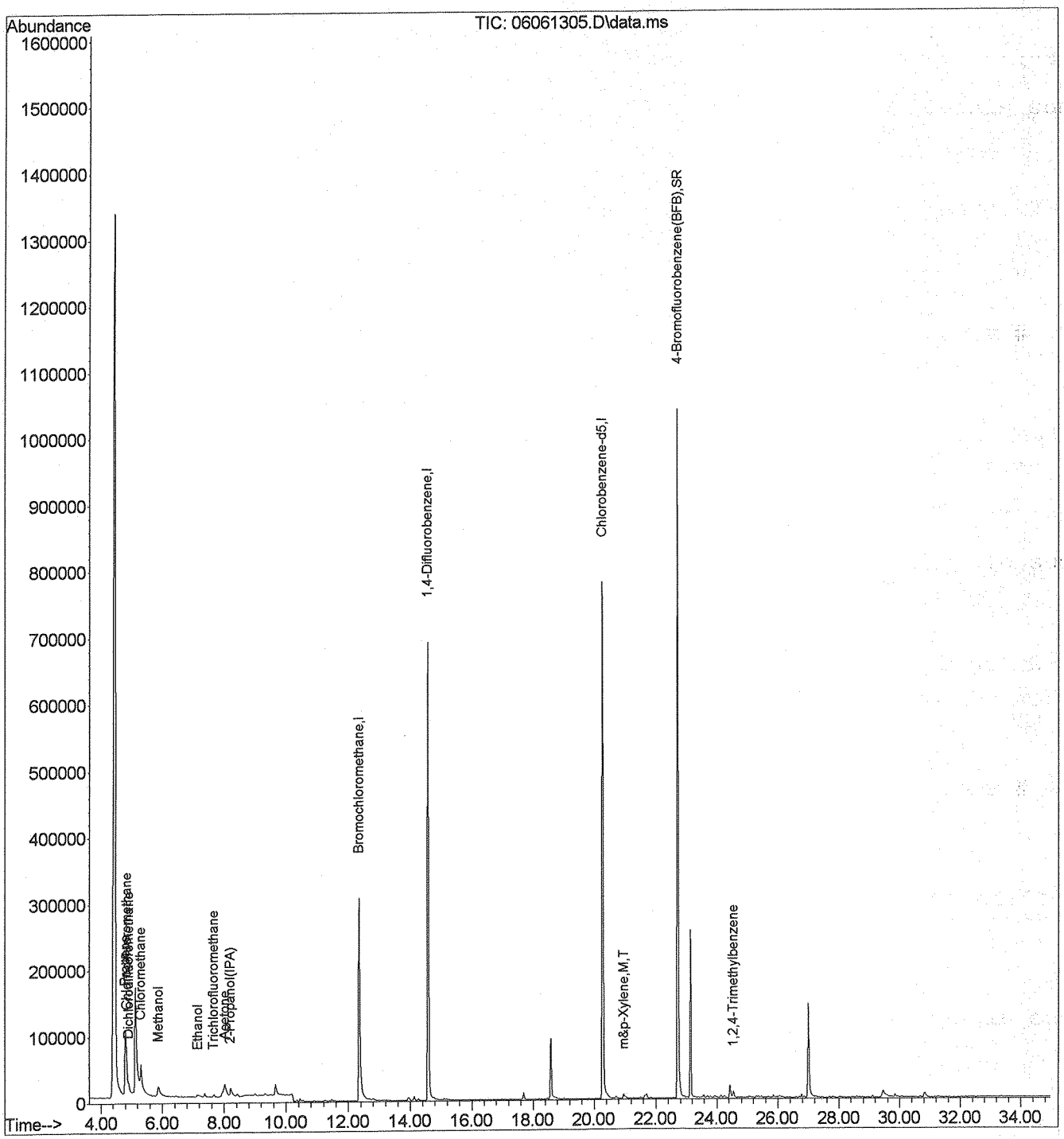
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	1468	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	0.000		0	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	169	N.D.	
44) 2,2,4-Trimethylpentane	14.757	57	3453	N.D.	
45) Heptane	15.096	71	460	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	17.682	75	251	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	19.019	129	328	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	482	N.D.	
56) Chlorobenzene	20.285	114	238	N.D.	
57) Ethylbenzene	20.713	91	3845	N.D.	
58) m&p-Xylene	20.963	106	5082m	0.13 ppbv	
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	959	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	0.000		0	N.D. d	
64) 4-Ethyltoluene	23.691	120	917	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	1229	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	3946	0.09 ppbv #	97
67) BenzylChloride(a-Chlor...	25.207	91	641	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	853	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1022	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	905	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	2429	N.D.	
72) Hexachlorobutadiene	30.075	225	735	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061305.D
Acq On : 6 Jun 2013 12:21
Operator : JJG
Sample : 130668-63330 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 06 15:13:24 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\060613\
Data File : 06061307.D
Acq On : 6 Jun 2013 14:02
Operator : JJG
Sample : 130668-63331 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 06 15:17:57 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	138236	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	791961	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	749229	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	489366	10.44 ppbv	0.00
Spiked Amount 10.000			Recovery = 104.40%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.817	51	4374	0.16 ppbv #	88
3) Propene	4.781	42	6905	0.96 ppbv	93
4) Dichlorodifluoromethane	4.890	85	12935	0.27 ppbv	98
5) Chloromethane	5.288	52	1046	0.24 ppbv #	27
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	34227m	7.74 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	7.134	45	8913m	1.51 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.020	58	12272m	1.64 ppbv	
16) Trichlorofluoromethane	7.658	103	3330	0.12 ppbv #	87
17) 2-Propanol(IPA)	8.219	45	19220m	0.75 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	122	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	10.888	43	238	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	12.492	83	255	N.D.	
32) EthylAcetate	12.118	43	1423	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061307.D
Acq On : 6 Jun 2013 14:02
Operator : JJG
Sample : 130668-63331 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 06 15:17:57 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

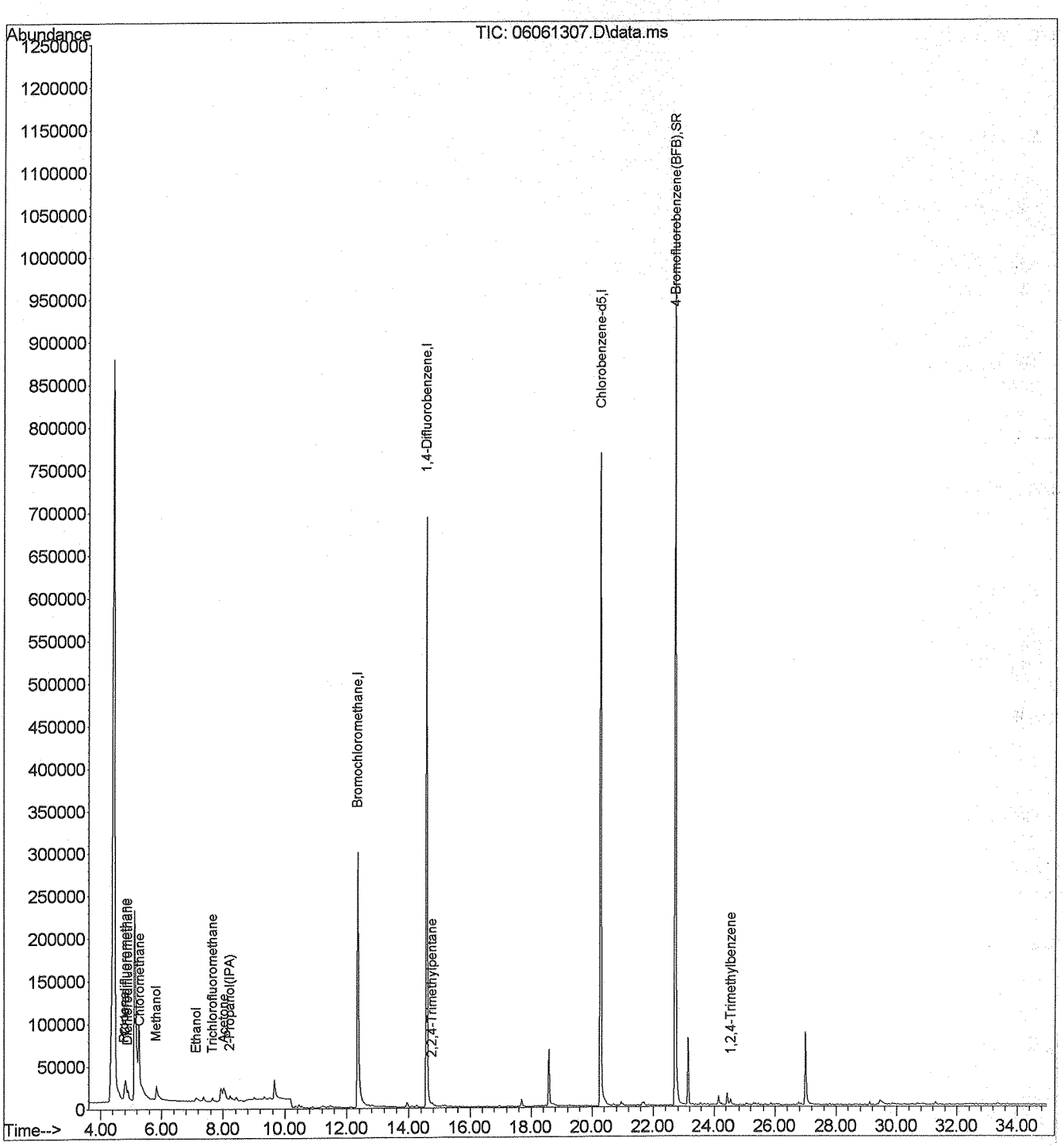
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.972	117	1786	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	0.000		0	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	14.757	57	4229	0.04 ppbv #	97
45) Heptane	15.096	71	282	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	0.000		0	N.D.	
57) Ethylbenzene	20.713	91	2275	N.D.	
58) m&p-Xylene	0.000		0	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	735	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	2743	N.D.	
64) 4-Ethyltoluene	23.691	120	478	N.D.	
65) 1,3,5-Trimethylbenzene	23.798	120	601	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	2642	0.06 ppbv #	93
67) BenzylChloride(a-Chlor...	25.296	91	568	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	242	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	532	N.D.	
70) 1,2-Dichlorobenzene	25.866	146	138	N.D.	
71) 1,2,4-Trichlorobenzene	29.450	180	864	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\060613\
Data File : 06061307.D
Acq On : 6 Jun 2013 14:02
Operator : JJG
Sample : 130668-63331 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 06 15:17:57 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



6/06/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061308.D
Acq On : 6 Jun 2013 14:50
Operator : JJG
Sample : 130668-63332 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 06 15:24:00 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	138162	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	787998	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	761490	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	490142	10.29 ppbv	0.00
Spiked Amount 10.000			Recovery = 102.90%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.817	51	5290	0.19 ppbv #	93
3) Propene	4.781	42	3491	0.49 ppbv #	76
4) Dichlorodifluoromethane	4.908	85	16386	0.35 ppbv #	97
5) Chloromethane	5.288	52	1253	0.28 ppbv #	1
6) Dichlorotetrafluoroethane	5.324	135	162	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.849	31	90730m	21.51 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	7.079	45	39451m	6.70 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	25859m	3.46 ppbv	
16) Trichlorofluoromethane	7.658	103	4589	0.17 ppbv	96
17) 2-Propanol(IPA)	8.201	45	29813m	1.16 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	9.486	76	14721m	0.32 ppbv #	97
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	940	N.D.	
28) 2-Butanone(MEK)	11.459	72	6744	0.88 ppbv #	60
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	0.000		0	N.D. d	
31) Chloroform	12.493	83	281	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

6/6/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061308.D
Acq On : 6 Jun 2013 14:50
Operator : JJG
Sample : 130668-63332 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 06 15:24:00 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	12.725	72	2935	0.38 ppbv	95
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	13.313	97	336	N.D.	
37) Benzene	13.937	78	32460	0.56 ppbv	97
38) CarbonTetrachloride	13.973	117	2363	0.05 ppbv #	97
39) Cyclohexane	14.009	69	290	N.D.	
40) 1,2-Dichloropropane	15.364	63	113	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	14588	0.14 ppbv #	91
45) Heptane	15.096	71	1197	0.06 ppbv #	68
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.576	58	667	N.D.	
48) trans-1,3-Dichloropropene	17.664	75	288	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	33357	0.45 ppbv	99
51) 2-Hexanone(MBK)	18.217	58	119	N.D.	
52) Dibromochloromethane	19.019	129	128	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	314	N.D.	
56) Chlorobenzene	20.267	114	125	N.D.	
57) Ethylbenzene	20.713	91	10229	0.10 ppbv	96
58) m&p-Xylene	20.945	106	11568	0.29 ppbv #	94
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1256	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	9859	0.12 ppbv #	92
64) 4-Ethyltoluene	0.000		0	N.D. d	
65) 1,3,5-Trimethylbenzene	23.780	120	2414	0.05 ppbv #	93
66) 1,2,4-Trimethylbenzene	24.529	120	8624	0.18 ppbv	91
67) BenzylChloride(a-Chlor...	25.207	91	109	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	479	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1874	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	350	N.D.	
71) 1,2,4-Trichlorobenzene	29.469	180	934	N.D.	
72) Hexachlorobutadiene	30.075	225	155	N.D.	

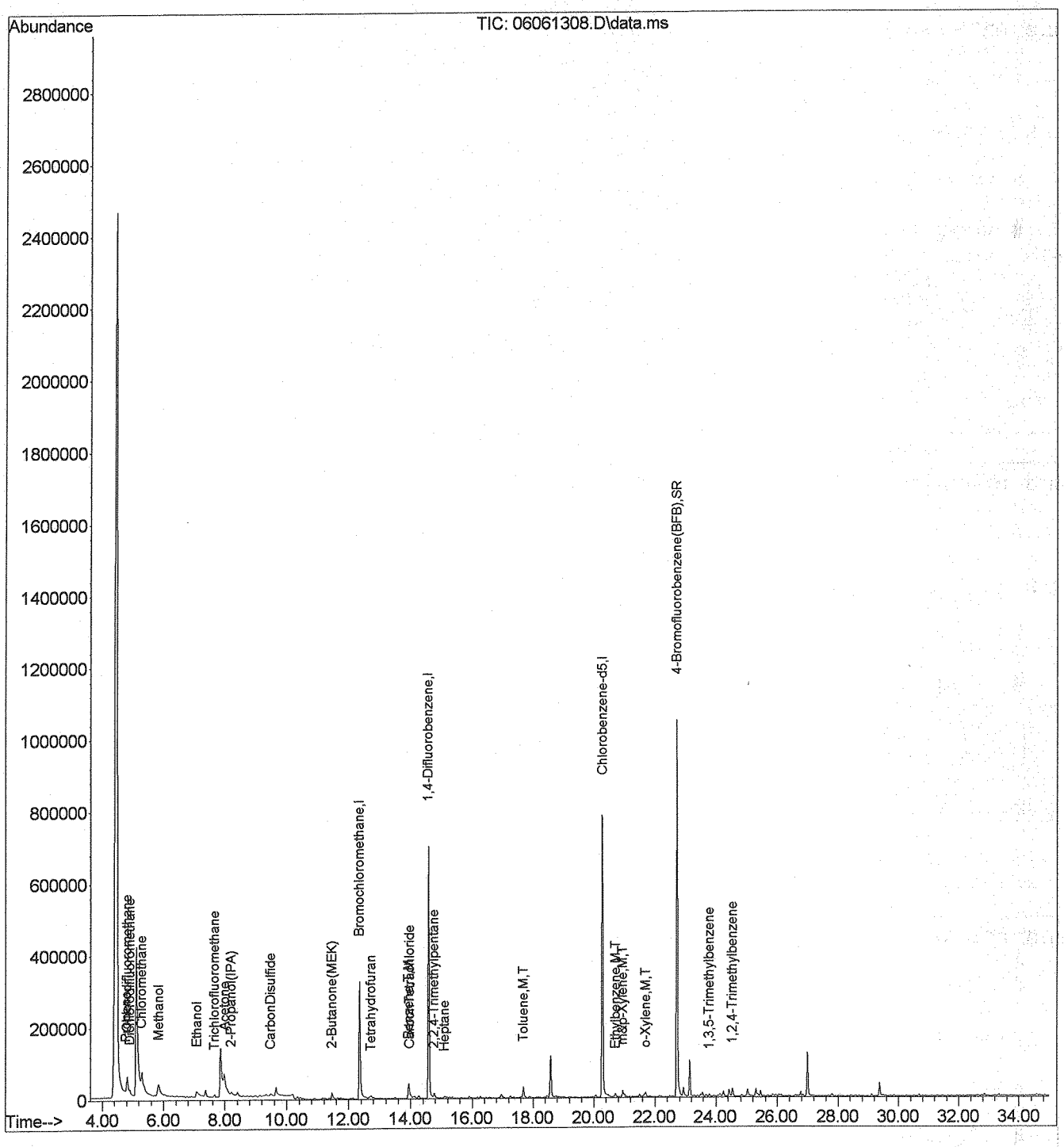
(#) = qualifier out of range (m) = manual integration (+) = signals summed

06/06/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061308.D
Acq On : 6 Jun 2013 14:50
Operator : JJG
Sample : 130668-63332 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 06 15:24:00 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



6/06/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061309.D
Acq On : 6 Jun 2013 15:37
Operator : JJG
Sample : 130668-63333 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 06 16:32:55 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	134751	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	811476	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	757292	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.711	174	487991	10.30 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.00%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	5969	0.22 ppbv #	97
3) Propene	4.799	42	3608	0.51 ppbv #	77
4) Dichlorodifluoromethane	4.908	85	16660	0.36 ppbv	97
5) Chloromethane	5.306	52	1337	0.31 ppbv #	1
6) Dichlorotetrafluoroethane	5.324	135	114	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.867	31	45805m	10.73 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	7.098	45	30073m	5.23 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.002	58	36298m	4.97 ppbv	
16) Trichlorofluoromethane	7.659	103	5195	0.19 ppbv #	97
17) 2-Propanol(IPA)	8.202	45	71533m	2.86 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	1287984m	91.41 ppbv	
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	10.888	43	976	N.D.	
28) 2-Butanone(MEK)	11.477	72	1946	0.26 ppbv #	1
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	0.000		0	N.D. d	
31) Chloroform	12.511	83	466	N.D.	
32) EthylAcetate	0.000		0	N.D. d	

6/6/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061309.D
Acq On : 6 Jun 2013 15:37
Operator : JJG
Sample : 130668-63333 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 06 16:32:55 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

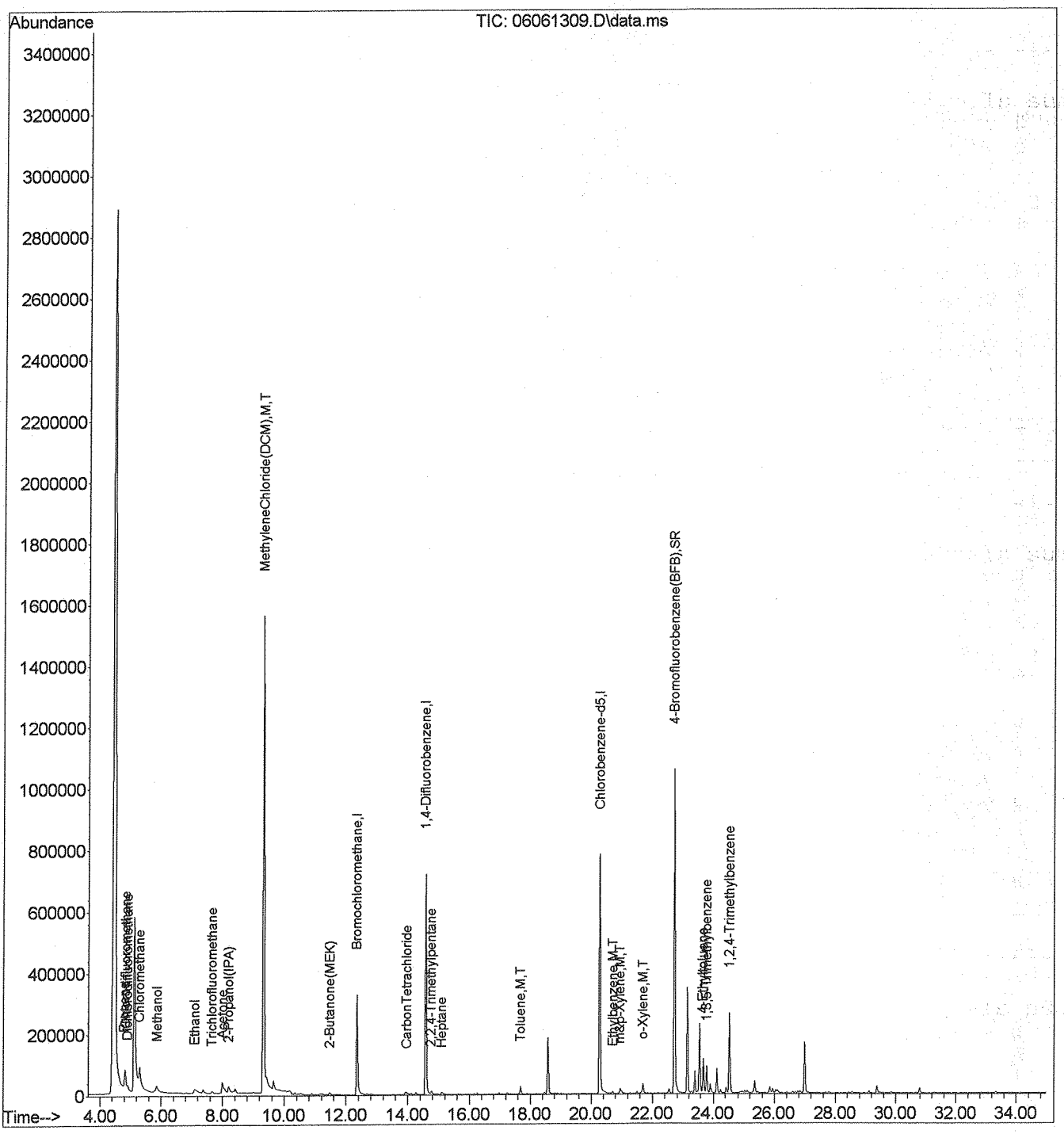
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.760	72	117	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	0.000		0	N.D. d	
38) CarbonTetrachloride	13.973	117	2532	0.05 ppbv	98
39) Cyclohexane	14.027	69	256	N.D.	
40) 1,2-Dichloropropane	15.364	63	613	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	12126	0.11 ppbv #	98
45) Heptane	15.096	71	1932	0.10 ppbv #	80
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	17.682	75	428	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D.	
50) Toluene	17.682	91	24964	0.33 ppbv #	98
51) 2-Hexanone(MBK)	0.000		0	N.D.	
52) Dibromochloromethane	19.019	129	321	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	462	N.D.	
56) Chlorobenzene	20.285	114	134	N.D.	
57) Ethylbenzene	20.713	91	7673	0.08 ppbv #	96
58) m&p-Xylene	20.945	106	11651	0.30 ppbv #	92
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.694	104	1328	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	27064	0.34 ppbv	98
64) 4-Ethyltoluene	23.674	120	31648	0.96 ppbv	97
65) 1,3,5-Trimethylbenzene	23.781	120	37623	0.78 ppbv	96
66) 1,2,4-Trimethylbenzene	24.529	120	103352	2.21 ppbv	97
67) BenzylChloride(a-Chlor...	25.118	91	2375	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	275	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	325	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	590	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\060613\
Data File : 06061309.D
Acq On : 6 Jun 2013 15:37
Operator : JJG
Sample : 130668-63333 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 06 16:32:55 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\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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	141651	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	795119	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	737716	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	480317	10.40	ppbv	0.00
Spiked Amount 10.000			Recovery = 104.00%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.836	51	591	N.D.		
3) Propene	4.799	42	486	N.D.		
4) Dichlorodifluoromethane	4.908	85	1655	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	6.428	96	336	N.D.		
11) Chloroethane	0.000		0	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.170	45	4685	N.D.		
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.093	58	4132	N.D.		
16) Trichlorofluoromethane	7.659	103	334	N.D.		
17) 2-Propanol(IPA)	8.256	45	7902	N.D.		
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.323	84	173660m	117.25	ppbv	
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	9.486	76	2599	N.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.		
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	12.118	43	112	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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

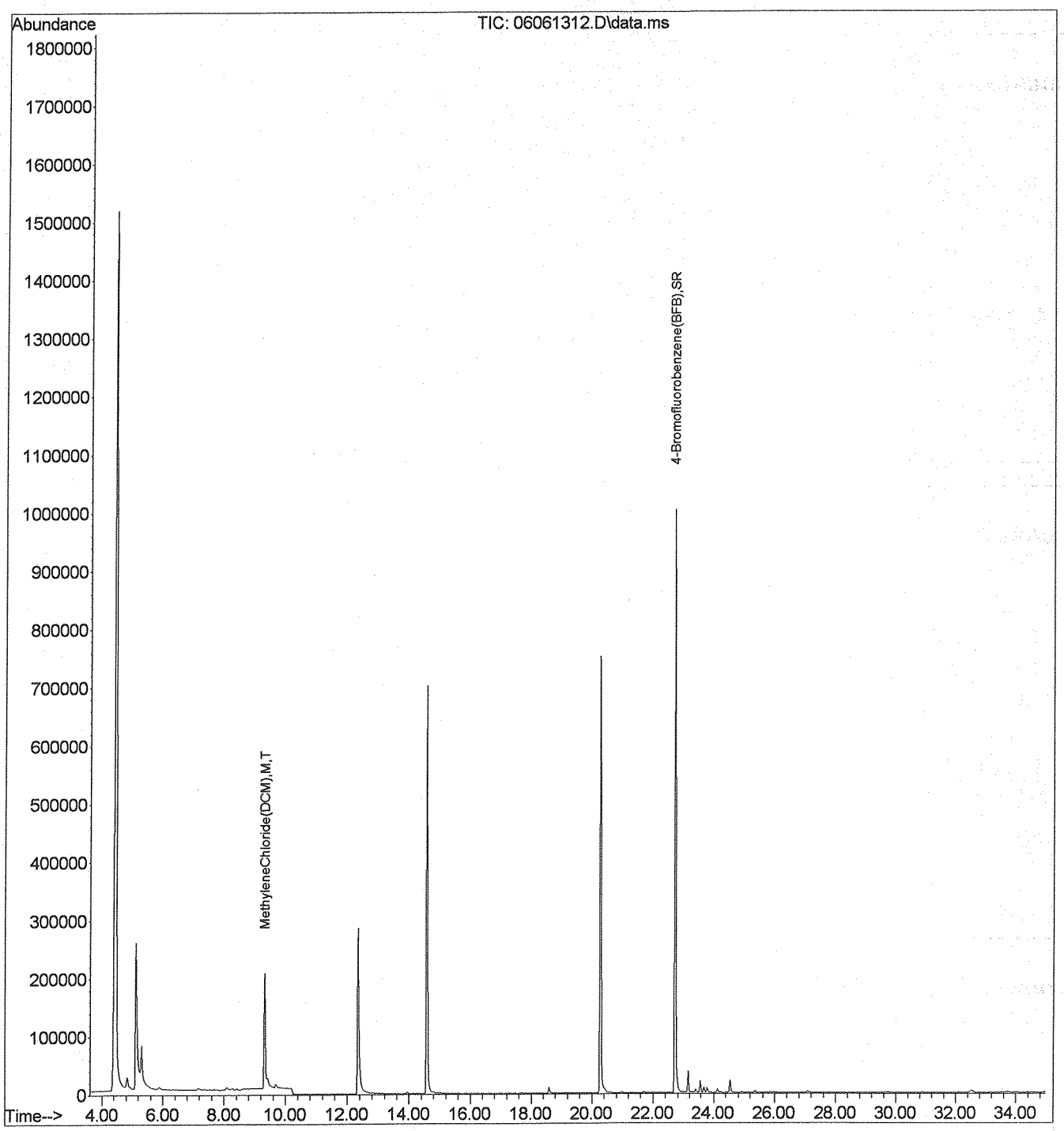
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	4324	N.D.	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	15.257	63	504	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	2065	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	17.700	91	2527	N.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	20.285	114	423	N.D.	
57) Ethylbenzene	20.731	91	676	N.D.	
58) m&p-Xylene	20.963	106	824	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	0.000		0	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.712	91	2490	N.D.	
64) 4-Ethyltoluene	23.691	120	3231	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	3527	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	9855	N.D.	
67) BenzylChloride(a-Chlor...	0.000		0	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	0.000		0	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	0.000		0	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\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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



TO-15 RAW QC & ICAL SUMMARY

MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\060613.S
Comment: GCMS-03
Operator: JJG
Data Path: C:\MSDCHEM\1\MS03\2013\060613\
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	06061301 TO15-5MS TO15 BFB 060613
2)	Sample	1	06061302 TO15-5MS TO15 CCV 060613
3)	Sample	1	06061303 TO15-5MS TO15 LCSD 060613
4)	Sample	1	06061304 TO15-5MS TO15 MB 060613
5)	Sample	2	06061305 TO15-5MS 130668-63330 x1
6)	Sample	2	06061306 TO15-5MS 130668-63330 x1 dp
7)	Sample	3	06061307 TO15-5MS 130668-63331 x1
8)	Sample	4	06061308 TO15-5MS 130668-63332 x1
9)	Sample	5	06061309 TO15-5MS 130668-63333 x1
10)	Sample	6	06061310 TO15-5MS 130667-63329 x1
11)	Sample	6	06061311 TO15-5MS 130667-63329 x20
12)	Sample	5	06061312 TO15-5MS 130668-63333 x10
13)	Sample	5	06061313 TO15-5MS 130668-63333 x10 dp

06/06/13

06/06/13

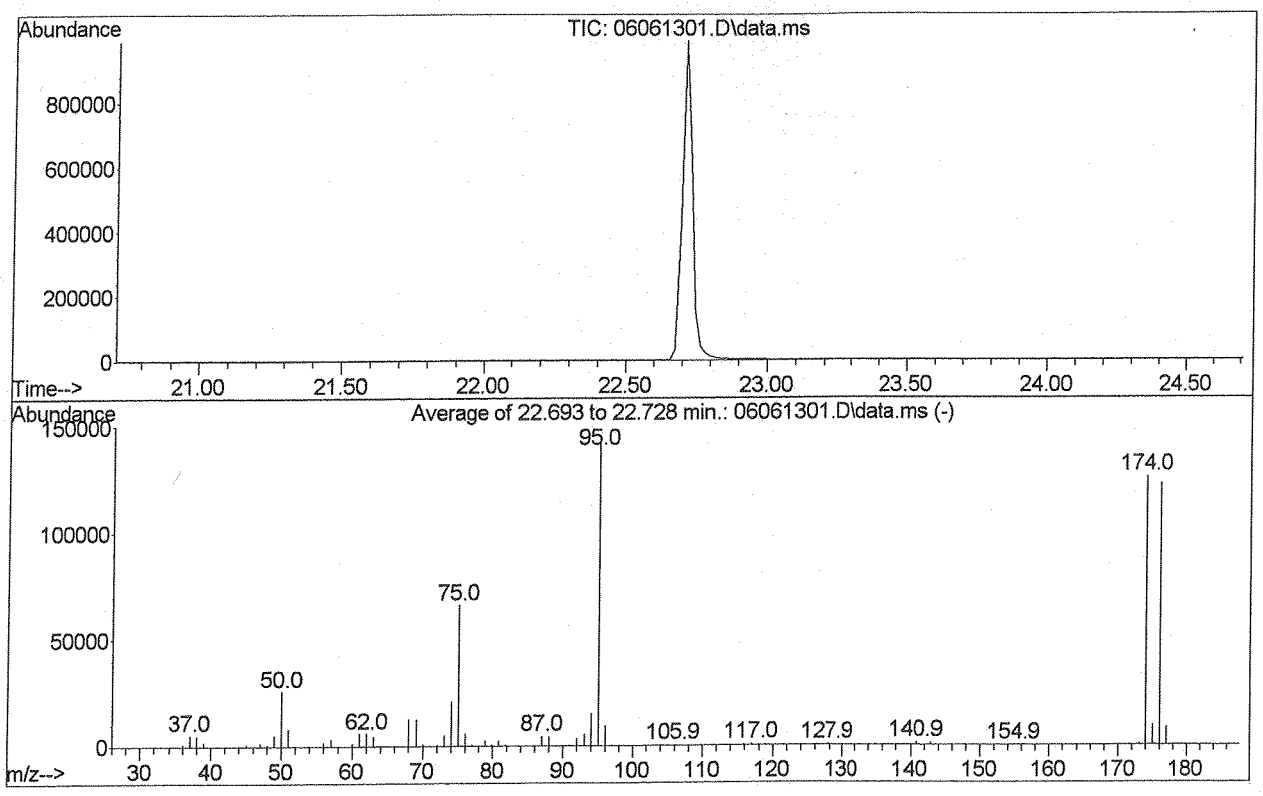
Comments: _____

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

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061301.D
Acq On : 6 Jun 2013 9:08 am
Operator : JJG
Sample : TO15 BFB 060613
Misc : IS/Surr: PS082712-02 + 50mL
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 1060

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	25864	PASS
75	95	30	60	46.2	66232	PASS
95	95	100	100	100.0	143499	PASS
96	95	5	9	6.6	9476	PASS
173	174	0.00	2	0.9	1085	PASS
174	95	50	100	87.9	126091	PASS
175	174	5	9	7.6	9582	PASS
176	174	95	101	97.5	122901	PASS
177	176	5	9	6.7	8240	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061302.D
Acq On : 6 Jun 2013 9:55
Operator : JJG
Sample : TO15 CCV 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:04:08 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	146803	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	776697	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	735691	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	442130	9.60	ppbv	0.00
Spiked Amount 10.000			Recovery = 96.00%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.818	51	285205m	9.81	ppbv	
3) Propene	4.781	42	81147m	10.62	ppbv	
4) Dichlorodifluoromethane	4.908	85	489378	9.75	ppbv	100
5) Chloromethane	5.288	52	47339m	10.05	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	344498	10.07	ppbv	88
7) VinylChloride	5.668	62	171820m	10.29	ppbv	
8) Methanol	5.849	31	25466	5.38	ppbv	93
9) 1,3-Butadiene	5.867	54	105571m	9.96	ppbv	
10) Bromomethane	6.446	96	106743m	8.88	ppbv	
11) Chloroethane	6.736	66	26577	9.78	ppbv	92
12) Dichlorofluoromethane	7.007	67	374853m	10.44	ppbv	
13) Ethanol	7.043	45	64394m	10.29	ppbv	
14) VinylBromide	7.261	108	148715m	10.53	ppbv	
15) Acetone	7.966	58	80573m	10.13	ppbv	
16) Trichlorofluoromethane	7.677	103	317722	10.84	ppbv	98
17) 2-Propanol(IPA)	8.165	45	292320m	10.74	ppbv	
18) Acrylonitrile	8.962	52	132860m	11.16	ppbv	
19) 1,1-Dichloroethene	8.726	96	177844	10.64	ppbv	95
20) MethyleneChloride(DCM)	9.324	84	157418m	10.26	ppbv	
21) AllylChloride	9.305	39	149982m	11.15	ppbv	
22) CarbonDisulfide	9.486	76	497508m	10.02	ppbv	
23) Trichlorotrifluoroethane	8.998	103	254915	10.59	ppbv	98
24) trans-1,2-Dichloroethene	10.425	96	185191m	10.30	ppbv	
25) 1,1-Dichloroethane	10.906	63	380098	10.37	ppbv	100
26) MethylTertButylEther(M...	10.442	73	486615	9.99	ppbv	97
27) VinylAcetate	10.888	43	459577	10.15	ppbv	100
28) 2-Butanone(MEK)	11.423	72	87605	10.77	ppbv	90
29) cis-1,2-Dichloroethene	11.905	96	200757	10.37	ppbv	98
30) Hexane	11.477	86	40583	10.46	ppbv	91
31) Chloroform	12.493	83	442575	10.86	ppbv	96
32) EthylAcetate	12.012	43	468046	11.42	ppbv	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061302.D
Acq On : 6 Jun 2013 9:55
Operator : JJG
Sample : TO15 CCV 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:04:08 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

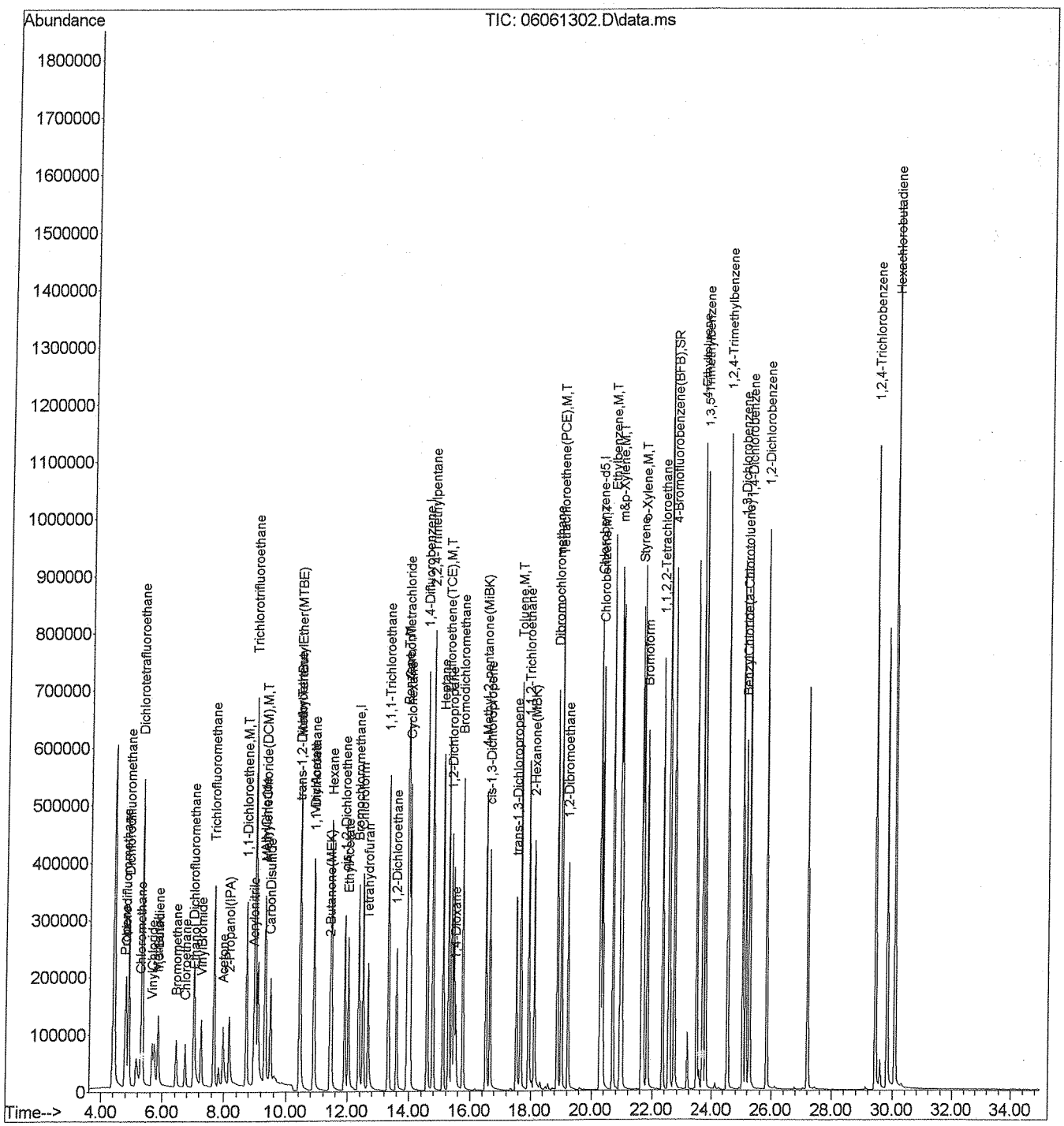
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	87250	10.65	ppbv		90
34) 1,2-Dichloroethane	13.599	62	322489	10.91	ppbv		99
35) 1,1,1-Trichloroethane	13.331	97	497932	11.04	ppbv		99
37) Benzene	13.937	78	579848	10.13	ppbv		99
38) CarbonTetrachloride	13.973	117	501126	10.60	ppbv		100
39) Cyclohexane	14.027	69	86179	10.16	ppbv		96
40) 1,2-Dichloropropane	15.400	63	234920	10.21	ppbv		97
41) Bromodichloromethane	15.756	85	307898	10.43	ppbv		99
42) 1,4-Dioxane	15.524	88	136344m	10.10	ppbv		
43) Trichloroethene(TCE)	15.293	130	282226	10.18	ppbv		99
44) 2,2,4-Trimethylpentane	14.775	57	1069522	10.50	ppbv		99
45) Heptane	15.114	71	188131	10.35	ppbv		97
46) cis-1,3-Dichloropropene	16.648	75	356737	10.89	ppbv		98
47) 4-Methyl-2-pentanone(M...	16.523	58	217161	10.41	ppbv		96
48) trans-1,3-Dichloropropene	17.539	75	325235	9.75	ppbv		99
49) 1,1,2-Trichloroethane	17.932	97	266372	10.43	ppbv		98
50) Toluene	17.682	91	748354	10.31	ppbv		99
51) 2-Hexanone(MBK)	18.128	58	275529	10.66	ppbv		98
52) Dibromochloromethane	18.877	129	544947	11.11	ppbv		100
53) 1,2-Dibromoethane	19.233	107	420756	10.05	ppbv		98
54) Tetrachloroethene(PCE)	19.019	166	406919	10.00	ppbv		99
56) Chlorobenzene	20.357	114	200196	10.47	ppbv		97
57) Ethylbenzene	20.696	91	1002443	10.32	ppbv		100
58) m&p-Xylene	20.945	106	734787	19.23	ppbv		96
59) Bromoform	21.819	173	508394	9.92	ppbv	#	96
60) Styrene	21.641	104	620529	10.04	ppbv		99
61) 1,1,2,2-Tetrachloroethane	22.336	83	542386	9.80	ppbv		99
62) o-Xylene	21.694	91	769305	9.90	ppbv		99
64) 4-Ethyltoluene	23.674	120	321357	10.08	ppbv		100
65) 1,3,5-Trimethylbenzene	23.781	120	442317	9.49	ppbv		99
66) 1,2,4-Trimethylbenzene	24.529	120	431359	9.50	ppbv		98
67) BenzylChloride(a-Chlor...	25.154	91	674223	9.87	ppbv		99
68) 1,3-Dichlorobenzene	25.047	146	687290	9.62	ppbv		99
69) 1,4-Dichlorobenzene	25.261	146	661778m	9.21	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	695430m	9.31	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	638321m	8.64	ppbv		
72) Hexachlorobutadiene	30.075	225	543052m	9.08	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061302.D
Acq On : 6 Jun 2013 9:55
Operator : JJG
Sample : TO15 CCV 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:04:08 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



Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061303.D
Acq On : 6 Jun 2013 10:40
Operator : JJG
Sample : TO15 LCSD 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:14:50 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	145537	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	760695	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	735863	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	443831	9.64	ppbv	0.00
Spiked Amount 10.000			Recovery = 96.40%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	260944m	9.05	ppbv	
3) Propene	4.799	42	74152m	9.79	ppbv	
4) Dichlorodifluoromethane	4.908	85	458690	9.22	ppbv	99
5) Chloromethane	5.306	52	44361m	9.50	ppbv	
6) Dichlorotetrafluoroethane	5.342	135	331066	9.76	ppbv	97
7) VinylChloride	5.668	62	158368m	9.57	ppbv	
8) Methanol	5.867	31	24760m	5.27	ppbv	
9) 1,3-Butadiene	5.867	54	99516m	9.47	ppbv	
10) Bromomethane	6.446	96	107111m	8.99	ppbv	
11) Chloroethane	6.736	66	25019	9.29	ppbv	
12) Dichlorofluoromethane	7.025	67	352585	9.90	ppbv	
13) Ethanol	7.061	45	59547m	9.59	ppbv	
14) VinylBromide	7.260	108	145069m	10.36	ppbv	
15) Acetone	7.966	58	75078m	9.52	ppbv	
16) Trichlorofluoromethane	7.677	103	304731	10.48	ppbv	99
17) 2-Propanol(IPA)	8.165	45	280141m	10.38	ppbv	
18) Acrylonitrile	8.961	52	131156m	11.12	ppbv	
19) 1,1-Dichloroethene	8.726	96	172533	10.41	ppbv	94
20) MethyleneChloride(DCM)	9.323	84	146498m	9.63	ppbv	
21) AllylChloride	9.305	39	153394m	11.50	ppbv	
22) CarbonDisulfide	9.486	76	485624m	9.87	ppbv	
23) Trichlorotrifluoroethane	8.998	103	243649	10.21	ppbv	97
24) trans-1,2-Dichloroethene	10.424	96	179681m	10.08	ppbv	
25) 1,1-Dichloroethane	10.906	63	371161	10.21	ppbv	99
26) MethylTertButylEther(M...	10.460	73	481977	9.98	ppbv	99
27) VinylAcetate	10.888	43	448294	9.98	ppbv	99
28) 2-Butanone(MEK)	11.423	72	87290	10.83	ppbv	97
29) cis-1,2-Dichloroethene	11.904	96	197411	10.29	ppbv	98
30) Hexane	11.476	86	41645	10.83	ppbv	95
31) Chloroform	12.510	83	434429	10.76	ppbv	99
32) EthylAcetate	12.011	43	456170	11.23	ppbv	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061303.D
Acq On : 6 Jun 2013 10:40
Operator : JJG
Sample : TO15 LCSD 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:14:50 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

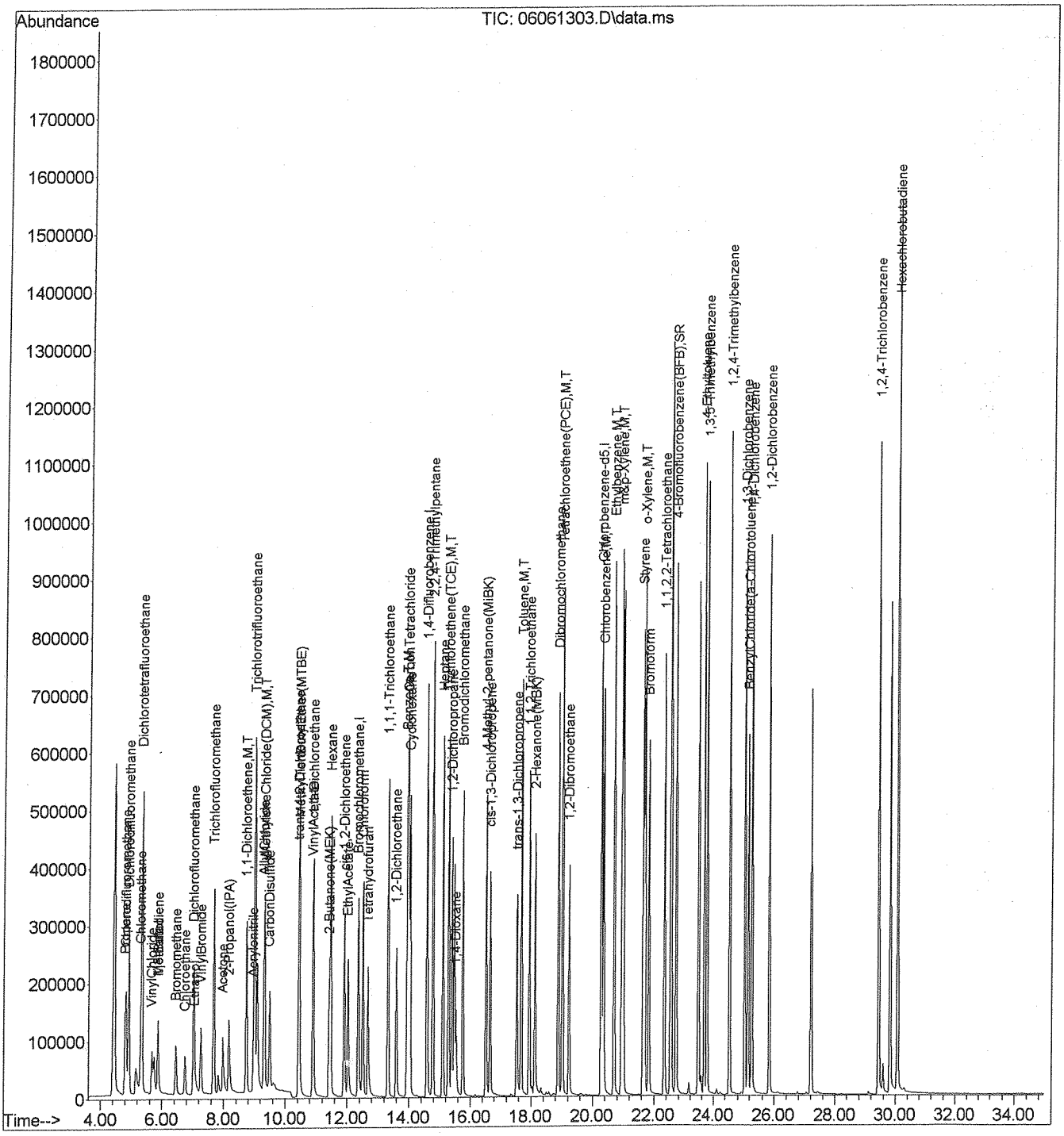
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
33) Tetrahydrofuran	12.671	72	85234	10.49	ppbv		94
34) 1,2-Dichloroethane	13.598	62	321753	10.98	ppbv		98
35) 1,1,1-Trichloroethane	13.331	97	484785	10.84	ppbv		99
37) Benzene	13.937	78	567800	10.13	ppbv		99
38) CarbonTetrachloride	13.973	117	481639	10.40	ppbv		100
39) Cyclohexane	14.026	69	85225	10.26	ppbv		95
40) 1,2-Dichloropropane	15.399	63	232399	10.31	ppbv		97
41) Bromodichloromethane	15.756	85	307041	10.62	ppbv		100
42) 1,4-Dioxane	15.524	88	136041m	10.29	ppbv		
43) Trichloroethene(TCE)	15.292	130	283814	10.45	ppbv		99
44) 2,2,4-Trimethylpentane	14.775	57	1057801	10.60	ppbv		99
45) Heptane	15.114	71	187712	10.55	ppbv		97
46) cis-1,3-Dichloropropene	16.647	75	351127	10.94	ppbv		99
47) 4-Methyl-2-pentanone(M...	16.523	58	212055	10.38	ppbv		98
48) trans-1,3-Dichloropropene	17.539	75	327652	10.03	ppbv		99
49) 1,1,2-Trichloroethane	17.931	97	263918	10.55	ppbv		99
50) Toluene	17.682	91	741182	10.42	ppbv		100
51) 2-Hexanone(MBK)	18.127	58	274030	10.82	ppbv		97
52) Dibromochloromethane	18.876	129	549781	11.44	ppbv		99
53) 1,2-Dibromoethane	19.233	107	419430	10.23	ppbv		99
54) Tetrachloroethene(PCE)	19.019	166	413799	10.39	ppbv		99
56) Chlorobenzene	20.356	114	197306	10.31	ppbv		97
57) Ethylbenzene	20.695	91	992016	10.21	ppbv		100
58) m&p-Xylene	20.945	106	741029	19.39	ppbv		95
59) Bromoform	21.819	173	508171	9.91	ppbv	#	96
60) Styrene	21.640	104	600330	9.71	ppbv		99
61) 1,1,2,2-Tetrachloroethane	22.336	83	535894	9.68	ppbv		99
62) o-Xylene	21.694	91	758021	9.76	ppbv		100
64) 4-Ethyltoluene	23.673	120	308475	9.67	ppbv		99
65) 1,3,5-Trimethylbenzene	23.780	120	431728	9.26	ppbv		100
66) 1,2,4-Trimethylbenzene	24.529	120	440972	9.71	ppbv		99
67) BenzylChloride(a-Chlor...	25.153	91	692580	10.14	ppbv		99
68) 1,3-Dichlorobenzene	25.046	146	676210	9.46	ppbv		99
69) 1,4-Dichlorobenzene	25.260	146	662682m	9.22	ppbv		
70) 1,2-Dichlorobenzene	25.831	146	688403m	9.21	ppbv		
71) 1,2,4-Trichlorobenzene	29.433	180	653865m	8.85	ppbv		
72) Hexachlorobutadiene	30.075	225	541919m	9.06	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061303.D
Acq On : 6 Jun 2013 10:40
Operator : JJG
Sample : TO15 LCSD 060613
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 11:14:50 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\060613\
Data File : 06061304.D
Acq On : 6 Jun 2013 11:28
Operator : JJG
Sample : TO15 MB 060613
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 12:05:06 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	141812	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	787689	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	730800	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	467297	10.22	ppbv	0.00
Spiked Amount 10.000			Recovery = 102.20%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	4.835	42	270	N.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	0.000		0	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	0.000		0	N.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.		
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	9.522	76	1029	N.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.		
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	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061304.D
Acq On : 6 Jun 2013 11:28
Operator : JJG
Sample : TO15 MB 060613
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 12:05:06 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

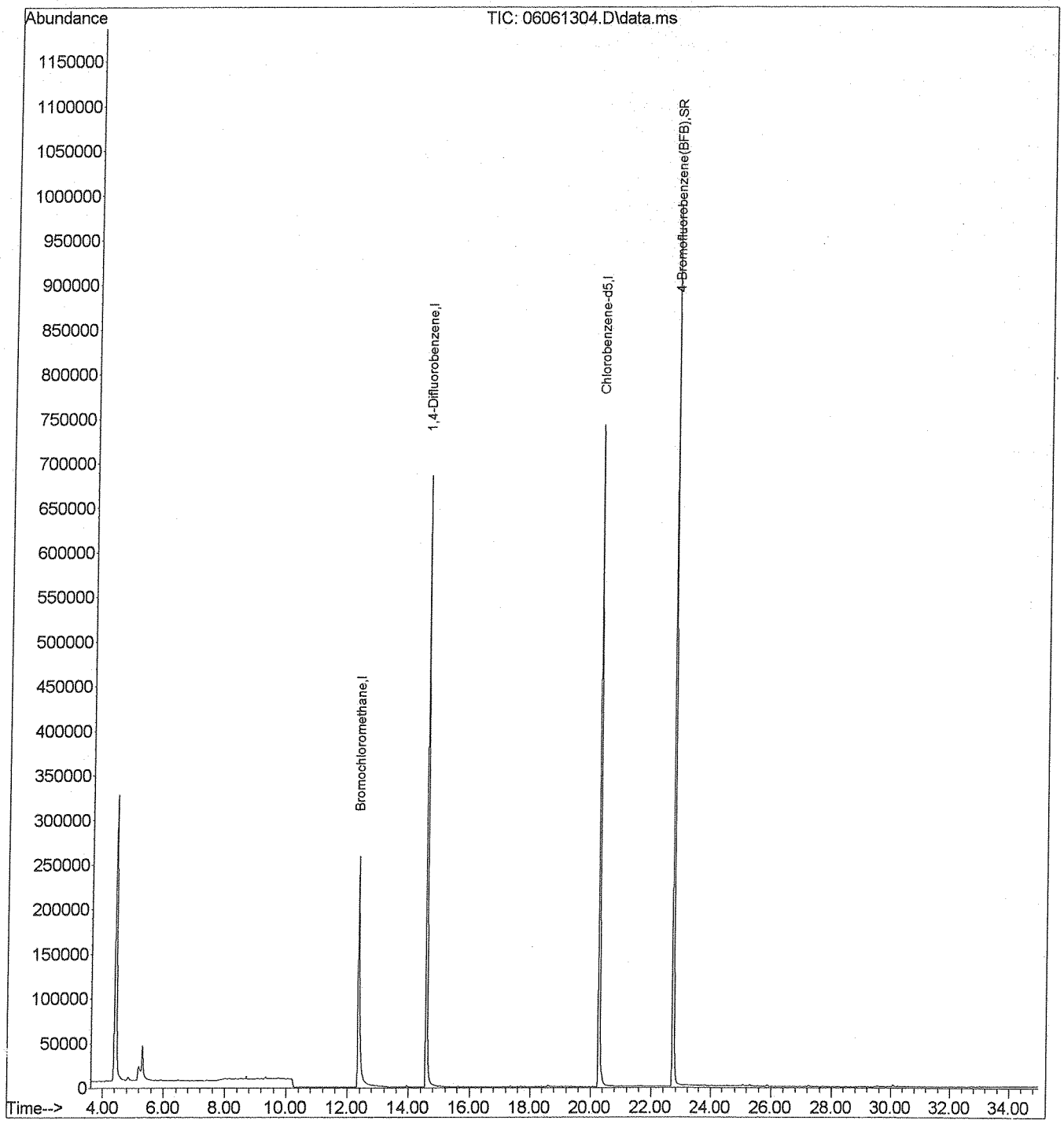
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.		
34) 1,2-Dichloroethane	0.000		0	N.D.		
35) 1,1,1-Trichloroethane	0.000		0	N.D.		
37) Benzene	0.000		0	N.D.	d	
38) CarbonTetrachloride	0.000		0	N.D.		
39) Cyclohexane	0.000		0	N.D.		
40) 1,2-Dichloropropane	0.000		0	N.D.		
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	17.700	91	578	N.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	20.357	114	264	N.D.		
57) Ethylbenzene	20.713	91	583	N.D.		
58) m&p-Xylene	0.000		0	N.D.		
59) Bromoform	0.000		0	N.D.		
60) Styrene	21.712	104	263	N.D.		
61) 1,1,2,2-Tetrachloroethane	22.354	83	147	N.D.		
62) o-Xylene	21.712	91	424	N.D.		
64) 4-Ethyltoluene	23.709	120	134	N.D.		
65) 1,3,5-Trimethylbenzene	23.798	120	246	N.D.		
66) 1,2,4-Trimethylbenzene	24.547	120	126	N.D.		
67) BenzylChloride(a-Chlor...	25.243	91	647	N.D.		
68) 1,3-Dichlorobenzene	25.082	146	1991	N.D.		
69) 1,4-Dichlorobenzene	25.296	146	2392	N.D.		
70) 1,2-Dichlorobenzene	25.867	146	1241	N.D.		
71) 1,2,4-Trichlorobenzene	29.486	180	2834	N.D.		
72) Hexachlorobutadiene	30.075	225	1102	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061304.D
Acq On : 6 Jun 2013 11:28
Operator : JJG
Sample : TO15 MB 060613
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 06 12:05:06 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\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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	141651	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	795119	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	737716	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.711	174	480317	10.40	ppbv	0.00
Spiked Amount 10.000			Recovery = 104.00%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.836	51	591	N.D.		
3) Propene	4.799	42	486	N.D.		
4) Dichlorodifluoromethane	4.908	85	1655	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	6.428	96	336	N.D.		
11) Chloroethane	0.000		0	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.170	45	4685	N.D.		
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.093	58	4132	N.D.		
16) Trichlorofluoromethane	7.659	103	334	N.D.		
17) 2-Propanol(IPA)	8.256	45	7902	N.D.		
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.323	84	173660m	117.25	ppbv	
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	9.486	76	2599	N.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.		
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	12.118	43	112	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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

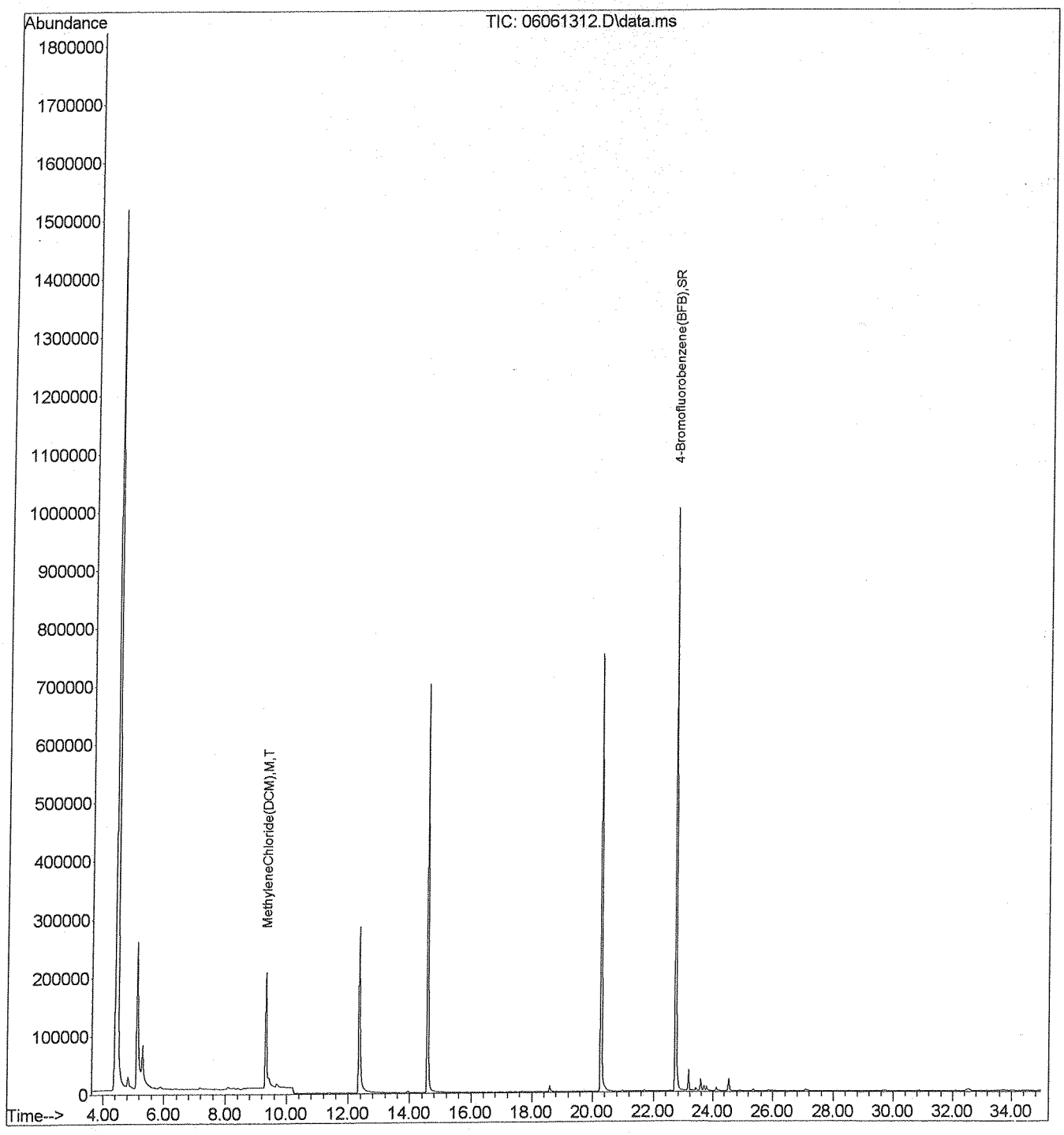
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	4324	N.D.	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	15.257	63	504	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	2065	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	17.700	91	2527	N.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	20.285	114	423	N.D.	
57) Ethylbenzene	20.731	91	676	N.D.	
58) m&p-Xylene	20.963	106	824	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	0.000		0	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.712	91	2490	N.D.	
64) 4-Ethyltoluene	23.691	120	3231	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	3527	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	9855	N.D.	
67) BenzylChloride(a-Chlor...	0.000		0	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	0.000		0	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	0.000		0	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\060613\
Data File : 06061312.D
Acq On : 6 Jun 2013 17:57
Operator : JJG
Sample : 130668-63333 x10
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 18:29:24 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



Page:

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061313.D
Acq On : 6 Jun 2013 18:42
Operator : JJG
Sample : 130668-63333 x10 dp
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 19:16:49 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	143670	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	796638	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	751767	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	478761	10.18 ppbv	0.00
Spiked Amount 10.000			Recovery = 101.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	557	N.D.	
3) Propene	4.799	42	523	N.D.	
4) Dichlorodifluoromethane	4.908	85	1584	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	6.446	96	307	N.D.	
11) Chloroethane	0.000		0	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.170	45	3813	N.D.	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.093	58	4166	N.D.	
16) Trichlorofluoromethane	7.659	103	337	N.D.	
17) 2-Propanol(IPA)	8.256	45	8298	N.D.	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.324	84	173678m	115.61 ppbv	
21) AllylChloride	0.000		0	N.D.	
22) CarbonDisulfide	9.486	76	2488	N.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.	
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	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\060613\
Data File : 06061313.D
Acq On : 6 Jun 2013 18:42
Operator : JJG
Sample : 130668-63333 x10 dp
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 19:16:49 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

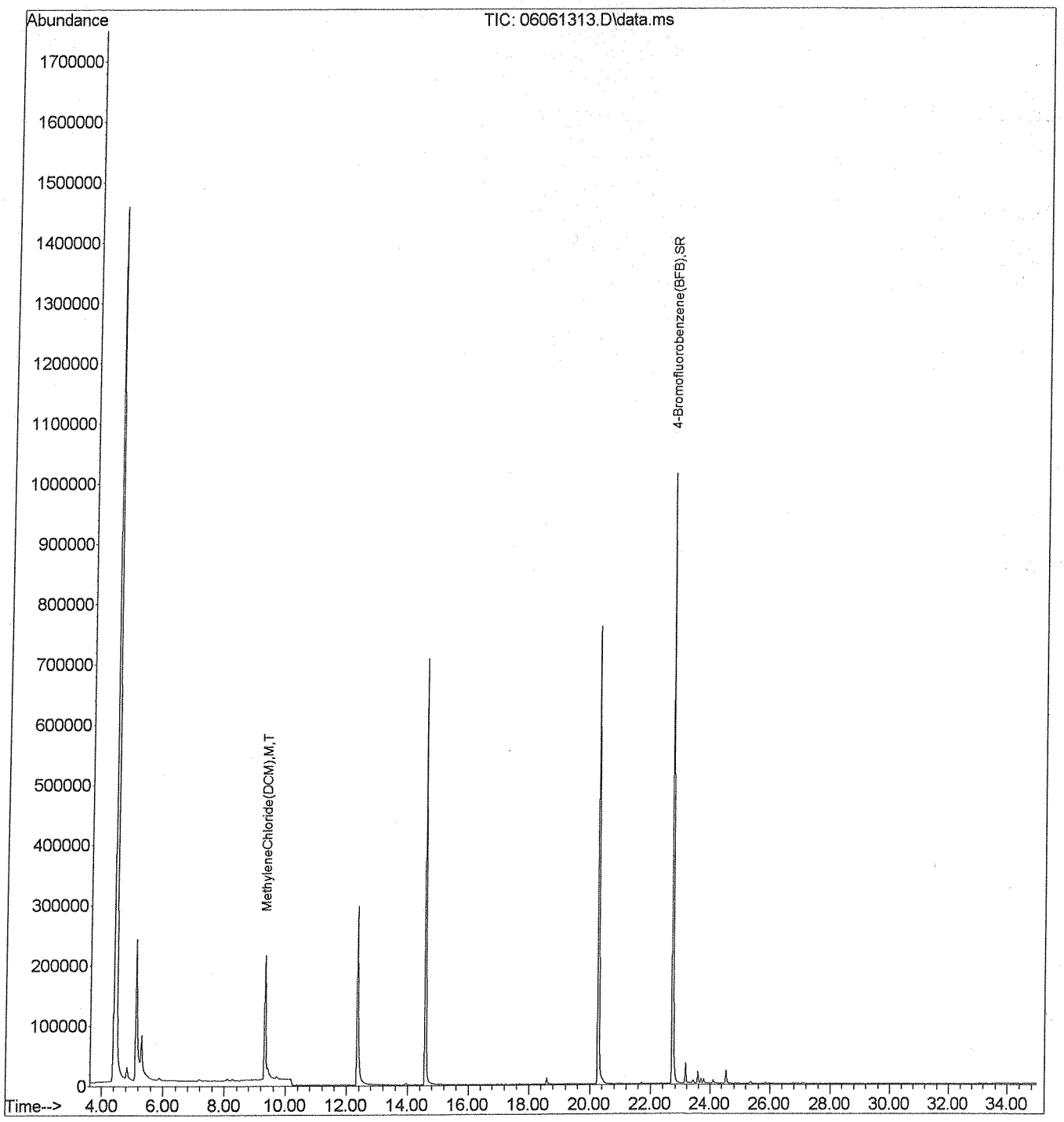
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.	
34) 1,2-Dichloroethane	0.000		0	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	4436	N.D.	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	0.000		0	N.D.	
40) 1,2-Dichloropropane	0.000		0	N.D.	
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	14.757	57	2120	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	17.700	91	2485	N.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	20.250	114	109	N.D.	
57) Ethylbenzene	20.713	91	701	N.D.	
58) m&p-Xylene	20.963	106	1048	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	0.000		0	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.712	91	2244	N.D.	
64) 4-Ethyltoluene	23.691	120	3152	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	3689	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	9309	N.D.	
67) BenzylChloride(a-Chlor...	0.000		0	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	0.000		0	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	
71) 1,2,4-Trichlorobenzene	0.000		0	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\060613\
Data File : 06061313.D
Acq On : 6 Jun 2013 18:42
Operator : JJG
Sample : 130668-63333 x10 dp
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 5 Sample Multiplier: 10

Quant Time: Jun 06 19:16:49 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

#	ID	Conc	ISTD Conc	Path\File
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

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 051513.M
Title : TO-15/TO-14

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

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 051513.M
Title : TO-15/TO-14

5)	1,3,5-Trimethy...	0.738	0.738	0.689	0.655	0.614	0.551	0.450	0.633	16.58
6)	1,2,4-Trimethy...	0.683	0.701	0.662	0.647	0.606	0.555	0.465	0.617	13.44
7)	BenzylChloride...	0.792	0.849	0.988	0.987	1.014	0.994	0.876	0.928	9.45
8)	1,3-Dichlorobe...	1.007	1.071	1.056	1.046	0.966	0.902	0.748	0.971	11.78
9)	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