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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15 (5&20 ppbv)

INVENTORY SHEET

Work Order #: 1510351B

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	11/6/15
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1510351B

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS VI
DATE RECEIVED:	10/20/2015	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	10/23/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B30IA-1 101715	Modified TO-15 (5&20 ppbv	5.7 "Hg	5 psi
02A	B30IA-2 101715	Modified TO-15 (5&20 ppbv	6.1 "Hg	4.8 psi
03A	B30IA-3 101715	Modified TO-15 (5&20 ppbv	7.8 "Hg	4.1 psi
04A	B30IA-4 101715	Modified TO-15 (5&20 ppbv	4.7 "Hg	5.1 psi
05A	B30IA-4D 101715	Modified TO-15 (5&20 ppbv	3.7 "Hg	4.8 psi
06A	B30IA-5 101715	Modified TO-15 (5&20 ppbv	5.9 "Hg	5.2 psi
07A	B42IA-1 101715	Modified TO-15 (5&20 ppbv	6.1 "Hg	4.9 psi
08A	B42IA-2 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	4.9 psi
09A	B42IA-3 101715	Modified TO-15 (5&20 ppbv	2.6 "Hg	4.9 psi
10A	B3042AA	Modified TO-15 (5&20 ppbv	8.8 "Hg	4.9 psi
11A	B8IA-2 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	4.9 psi
12A	B8IA-2D 101715	Modified TO-15 (5&20 ppbv	7.1 "Hg	5.1 psi
13A	B8AA-1 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	5 psi
14A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
15A	CCV	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 10/23/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
Anderson Mulholland & Associates, Inc.
Workorder# 1510351B

Thirteen 6 Liter Summa Canister (100% Certified) samples were received on October 20, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B30IA-1 101715	1510351B-01A	10/18/2015	10/20/2015	NA	4	10/22/2015	NA	Good
B30IA-2 101715	1510351B-02A	10/18/2015	10/20/2015	NA	4	10/22/2015	NA	Good
B30IA-3 101715	1510351B-03A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B30IA-4 101715	1510351B-04A	10/15/2015	10/20/2015	NA	8	10/23/2015	NA	Good
B30IA-4D 101715	1510351B-05A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B30IA-5 101715	1510351B-06A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B42IA-1 101715	1510351B-07A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B42IA-2 101715	1510351B-08A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B42IA-3 101715	1510351B-09A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B3042AA	1510351B-10A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B8IA-2 101715	1510351B-11A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B8IA-2D 101715	1510351B-12A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
B8AA-1 101715	1510351B-13A	10/18/2015	10/20/2015	NA	5	10/23/2015	NA	Good
Lab Blank	1510351B-14A	NA	NA	NA	NA	10/22/2015	NA	Good
CCV	1510351B-15A	NA	NA	NA	NA	10/22/2015	NA	Good

Sample Results and Raw Data

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-1 101715

Lab ID#: 1510351B-01A

No Detections Were Found.

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Client Sample ID: B30IA-1 101715

Lab ID#: 1510351B-01A

EPA METHOD TO-15 GC/MS

File Name:	**14102231**	**Date of Collection:**	**10/18/15 11:00:00 A**
Dil. Factor:	**1.66**	**Date of Analysis:**	**10/22/15 10:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	83	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

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AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102231.d
Lab Smp Id: 1510351B-01A
Inj Date : 22-OCT-2015 22:39
Operator : js Inst ID: msd14.i
Smp Info : 50ml #34753
Misc Info : 5.7"Hg -> 5psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.66000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	50512	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	39708			45.12- 105.12	78.61
4.749	4.749 (1.000)	49	80009			101.60- 161.60	158.39
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	238444	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	40712			0.00- 45.35	17.07
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	195322	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	131386			23.98- 83.98	67.27
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	95912	407.847	407.85	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	47378			18.29- 78.29	49.40
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	253278	399.738	399.74	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	30363			0.00- 41.01	11.99

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	160314			34.42- 94.42	63.30
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	110693	393.783	393.78	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	165123			103.22- 163.22	149.17
9.283	9.283	(1.090)	176	106094			67.52- 127.52	95.84

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102231.d
Lab Smp Id: 1510351B-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: js
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 5.7"Hg -> 5psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	50512	4.56
92 1,4-Difluorobenze	222923	133754	312092	238444	6.96
125 Chlorobenzene-d5	181906	109144	254668	195322	7.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-01A
Level: LOW
Operator: js
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 5.7"Hg -> 5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	407.85	101.96	70-130
$ 107 Toluene-d8	400.00	399.74	99.93	70-130
$ 138 Bromofluorobenzene	400.00	393.78	98.45	70-130

Data File: /chem/msd14.i/22oct15a.b/14102231.d

Date : 22-OCT-2015 22:39

Client ID:

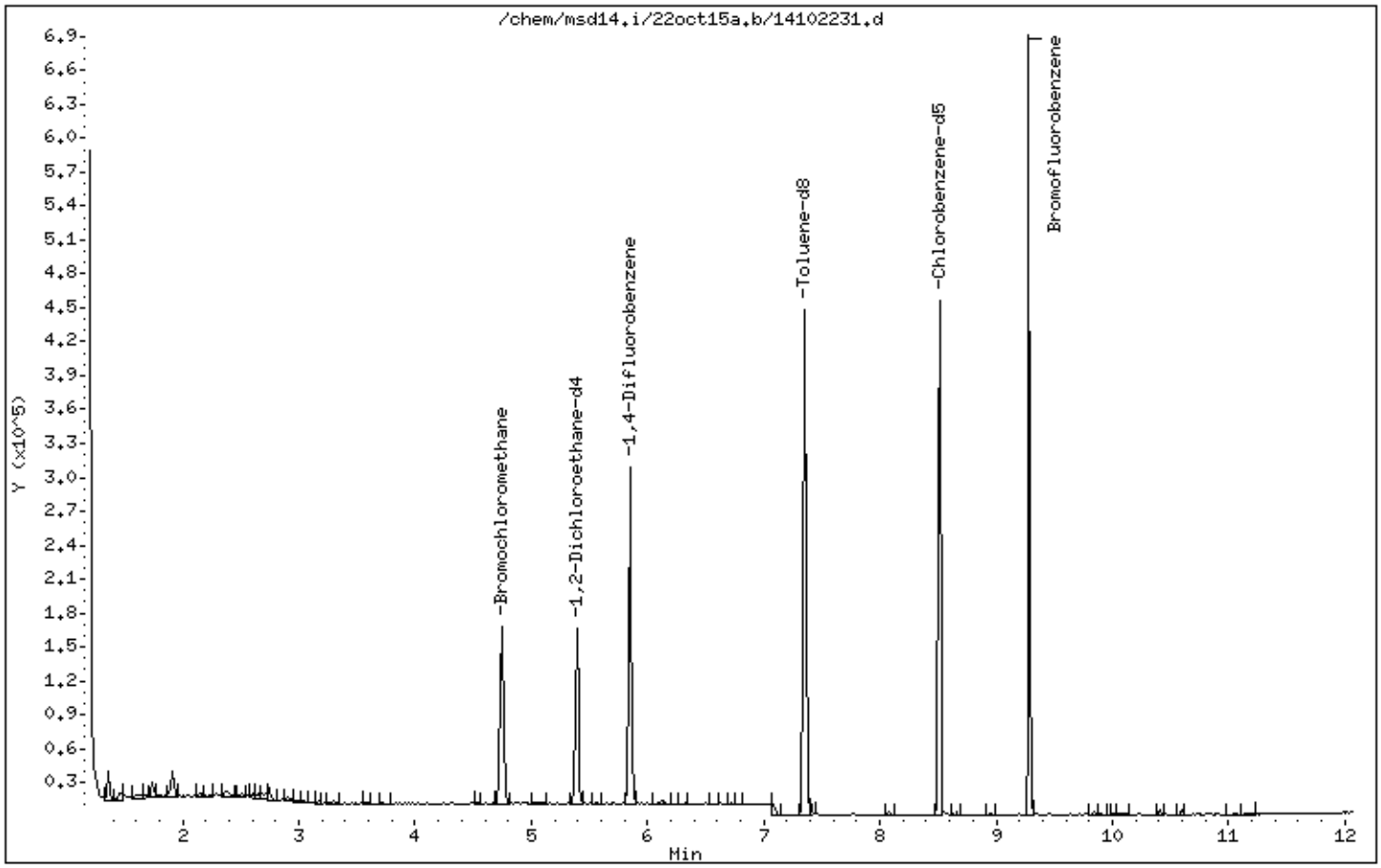
Instrument: msd14.i

Sample Info: 50ml #34753

Operator: js

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-2 101715

Lab ID#: 1510351B-02A

No Detections Were Found.

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Client Sample ID: B30IA-2 101715

Lab ID#: 1510351B-02A

EPA METHOD TO-15 GC/MS

File Name:	**14102232**	**Date of Collection:**	**10/18/15 11:26:00 A**
Dil. Factor:	**1.67**	**Date of Analysis:**	**10/22/15 11:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	84	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102232.d
Lab Smp Id: 1510351B-02A
Inj Date : 22-OCT-2015 23:04
Operator : js Inst ID: msd14.i
Smp Info : 50ml #6L1270
Misc Info : 6.1"Hg -> 4.8psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.67000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	50868	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	39557			45.12- 105.12	77.76
4.749	4.749 (1.000)	49	78933			101.60- 161.60	155.17
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	231021	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39283			0.00- 45.35	17.00
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	194168	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	130357			23.98- 83.98	67.14
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	94530	399.164	399.16	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	46069			18.29- 78.29	48.74
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	246106	400.898	400.90	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	29704			0.00- 41.01	12.07

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	155278			34.42- 94.42	63.09
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	108156	387.046	387.04	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	166629			103.22- 163.22	154.06
9.283	9.283	(1.090)	176	105058			67.52- 127.52	97.14

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102232.d
Lab Smp Id: 1510351B-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: js
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 6.1"Hg -> 4.8psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	50868	5.30
92 1,4-Difluorobenze	222923	133754	312092	231021	3.63
125 Chlorobenzene-d5	181906	109144	254668	194168	6.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 21oct15
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1510351B-02A
Level: LOW Operator: js
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926Spectra.spk Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 6.1"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	399.16	99.79	70-130
$ 107 Toluene-d8	400.00	400.90	100.22	70-130
$ 138 Bromofluorobenzene	400.00	387.04	96.76	70-130

Data File: /chem/msd14.i/22oct15a.b/14102232.d

Date : 22-OCT-2015 23:04

Client ID:

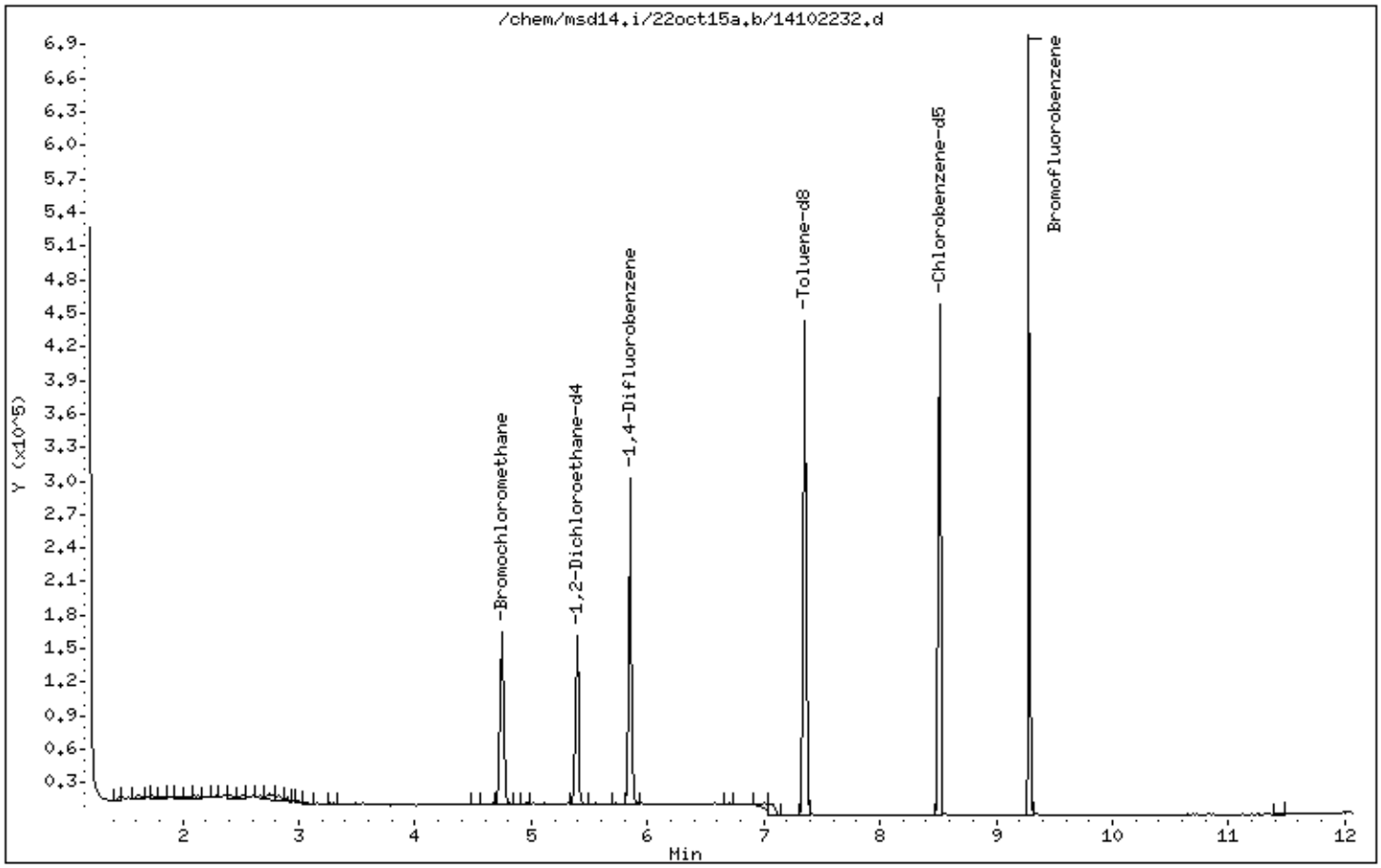
Instrument: msd14.i

Sample Info: 50ml #6L1270

Operator: js

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-3 101715

Lab ID#: 1510351B-03A

No Detections Were Found.

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Client Sample ID: B30IA-3 101715

Lab ID#: 1510351B-03A

EPA METHOD TO-15 GC/MS

File Name:	**14102235**	**Date of Collection:**	**10/18/15 11:59:00 A**
Dil. Factor:	**1.72**	**Date of Analysis:**	**10/23/15 07:13 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	86	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102235.d
Lab Smp Id: 1510351B-03A
Inj Date : 23-OCT-2015 07:13
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #34486
Misc Info : 7.8"Hg -> 4.1psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.72000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	47972	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	38705			45.12- 105.12	80.68
4.749	4.749 (1.000)	49	79377			101.60- 161.60	165.46
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	231895	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	38888			0.00- 45.35	16.77
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	192398	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	129251			23.98- 83.98	67.18
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	93957	420.688	420.69	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	46832			18.29- 78.29	49.84
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	244452	396.703	396.70	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28718			0.00- 41.01	11.75

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	155801			34.42- 94.42	63.74
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	107867	389.563	389.56	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	163500			103.22- 163.22	151.58
9.283	9.283	(1.090)	176	103320			67.52- 127.52	95.78

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102235.d
Lab Smp Id: 1510351B-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 7.8"Hg -> 4.1psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	47972	-0.69
92 1,4-Difluorobenze	222923	133754	312092	231895	4.02
125 Chlorobenzene-d5	181906	109144	254668	192398	5.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-03A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 7.8"Hg -> 4.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	420.69	105.17	70-130
$ 107 Toluene-d8	400.00	396.70	99.18	70-130
$ 138 Bromofluorobenzene	400.00	389.56	97.39	70-130

Data File: /chem/msd14.i/22oct15a.b/14102235.d

Date : 23-OCT-2015 07:13

Client ID:

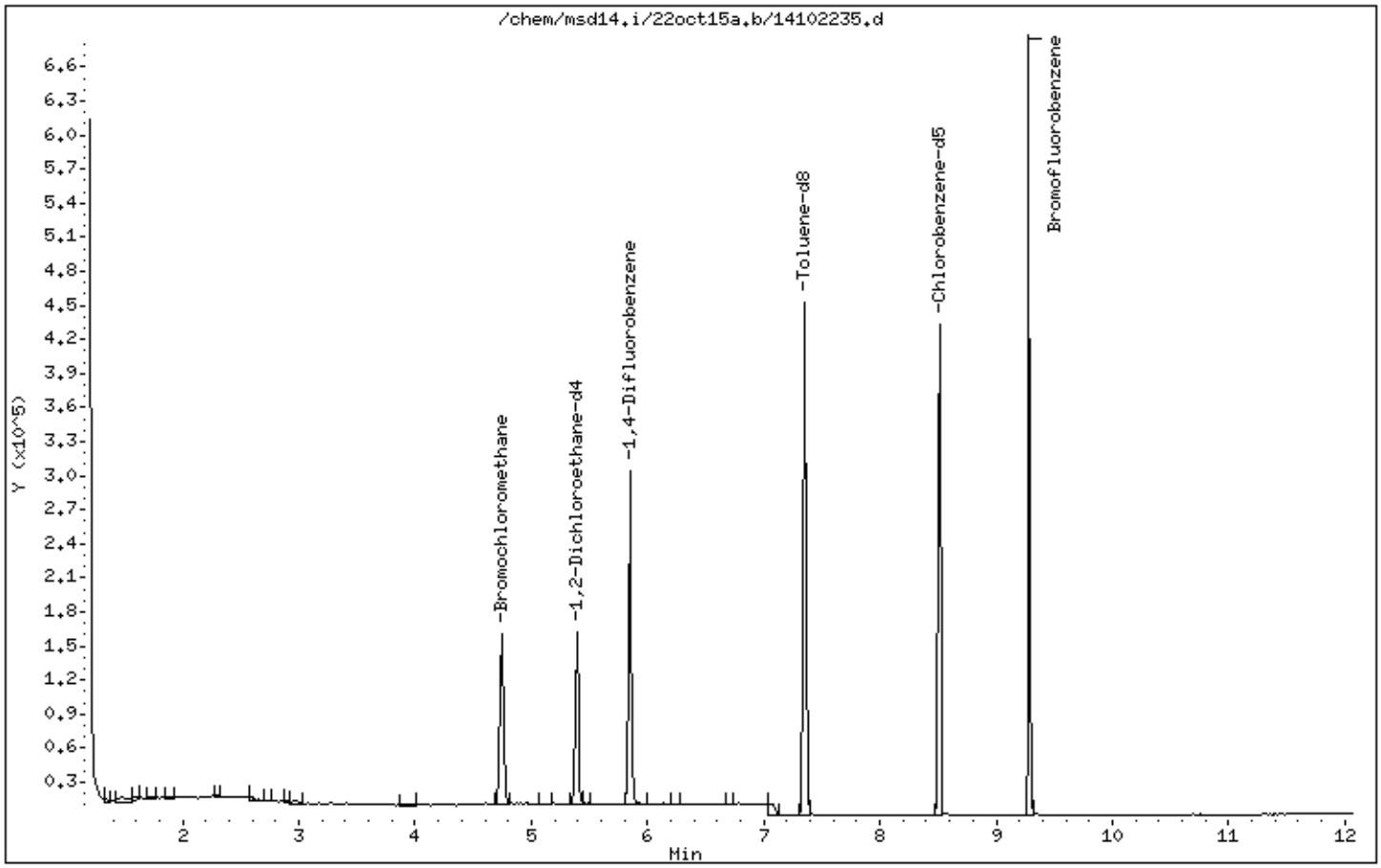
Instrument: msd14.i

Sample Info: 50ml #34486

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-4 101715

Lab ID#: 1510351B-04A

No Detections Were Found.

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Client Sample ID: B30IA-4 101715

Lab ID#: 1510351B-04A

EPA METHOD TO-15 GC/MS

File Name:	**14102234**	**Date of Collection:**	**10/15/15 11:38:00 A**
Dil. Factor:	**1.60**	**Date of Analysis:**	**10/23/15 06:52 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	80	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102234.d
Lab Smp Id: 1510351B-04A
Inj Date : 23-OCT-2015 06:52
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #33898
Misc Info : 4.7"Hg -> 5.1psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 2
Dil Factor: 1.60000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	50539	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	38283			45.12- 105.12	75.75
4.749	4.749 (1.000)	49	78195			101.60- 161.60	154.72
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	228541	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39721			0.00- 45.35	17.38
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	190226	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	126399			23.98- 83.98	66.45
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	93423	397.060	397.06	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	45628			18.29- 78.29	48.84
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	247482	407.514	407.51	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28028			0.00- 41.01	11.33

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	154786			34.42- 94.42	62.54
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	105484	385.304	385.30	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	162352			103.22- 163.22	153.91
9.283	9.283	(1.090)	176	100964			67.52- 127.52	95.72

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102234.d
Lab Smp Id: 1510351B-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.7"Hg -> 5.1psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	50539	4.62
92 1,4-Difluorobenze	222923	133754	312092	228541	2.52
125 Chlorobenzene-d5	181906	109144	254668	190226	4.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-04A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.7"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	397.06	99.26	70-130
$ 107 Toluene-d8	400.00	407.51	101.88	70-130
$ 138 Bromofluorobenzene	400.00	385.30	96.33	70-130

Data File: /chem/msd14.i/22oct15a.b/14102234.d

Date : 23-OCT-2015 06:52

Client ID:

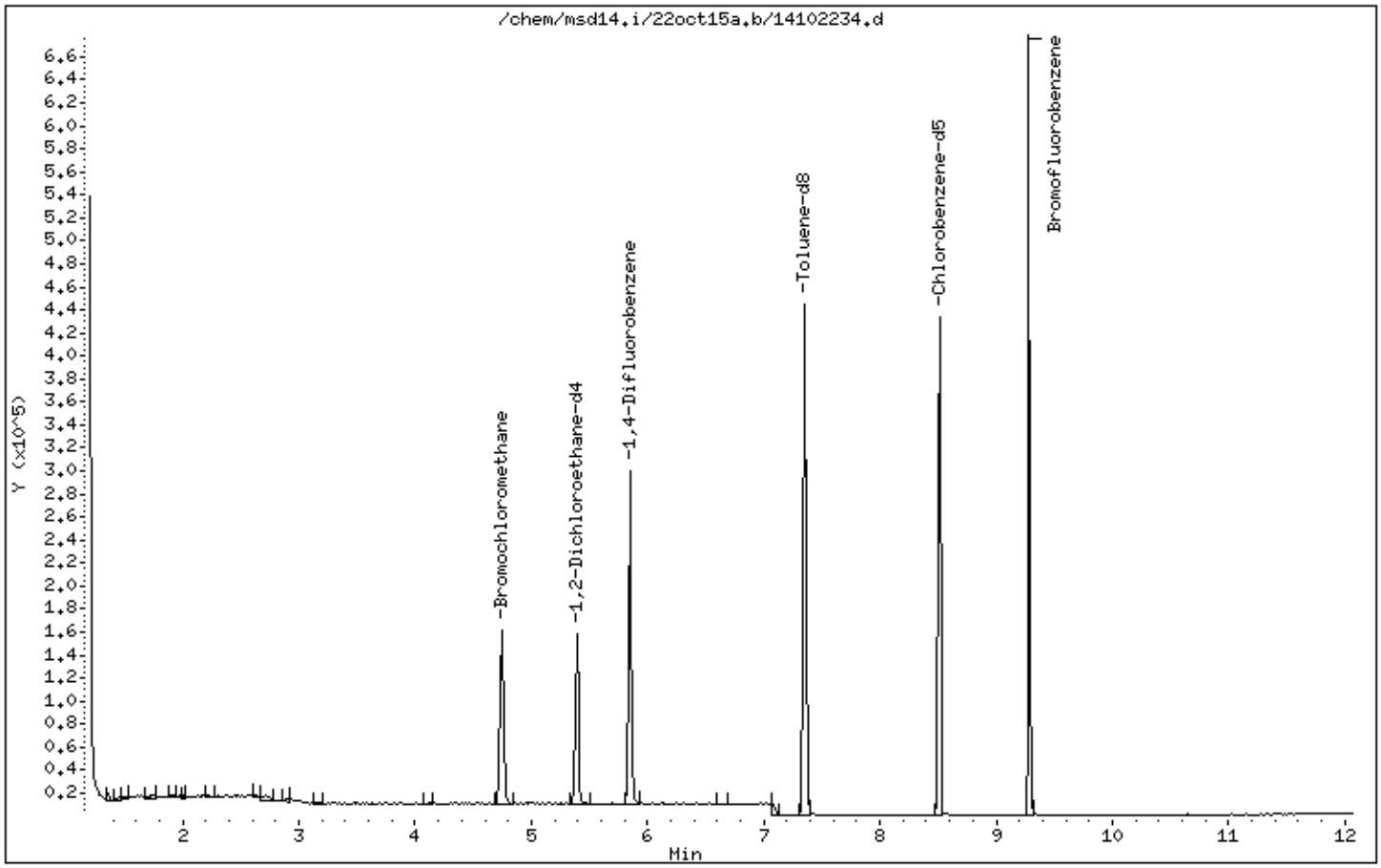
Instrument: msd14.i

Sample Info: 50ml #33898

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-4D 101715

Lab ID#: 1510351B-05A

No Detections Were Found.

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Client Sample ID: B30IA-4D 101715

Lab ID#: 1510351B-05A

EPA METHOD TO-15 GC/MS

File Name:	**14102236**	**Date of Collection:**	**10/18/15 11:38:00 A**
Dil. Factor:	**1.51**	**Date of Analysis:**	**10/23/15 07:42 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	76	Not Detected	99	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102236.d
Lab Smp Id: 1510351B-05A
Inj Date : 23-OCT-2015 07:42
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #12940
Misc Info : 3.7"Hg -> 4.8psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.51000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	49017	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37580			45.12- 105.12	76.67
4.749	4.749 (1.000)	49	78131			101.60- 161.60	159.40
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	227739	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39378			0.00- 45.35	17.29
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	190521	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	125191			23.98- 83.98	65.71
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	92669	406.086	406.08	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	45581			18.29- 78.29	49.19
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	243666	402.644	402.64	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28842			0.00- 41.01	11.84

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	154793			34.42- 94.42	63.53
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	106997	390.227	390.23	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	163271			103.22- 163.22	152.59
9.283	9.283	(1.090)	176	102929			67.52- 127.52	96.20

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102236.d
Lab Smp Id: 1510351B-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 3.7"Hg -> 4.8psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	49017	1.47
92 1,4-Difluorobenze	222923	133754	312092	227739	2.16
125 Chlorobenzene-d5	181906	109144	254668	190521	4.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-05A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 3.7"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	406.08	101.52	70-130
$ 107 Toluene-d8	400.00	402.64	100.66	70-130
$ 138 Bromofluorobenzene	400.00	390.23	97.56	70-130

Data File: /chem/msd14.i/22oct15a.b/14102236.d

Date : 23-OCT-2015 07:42

Client ID:

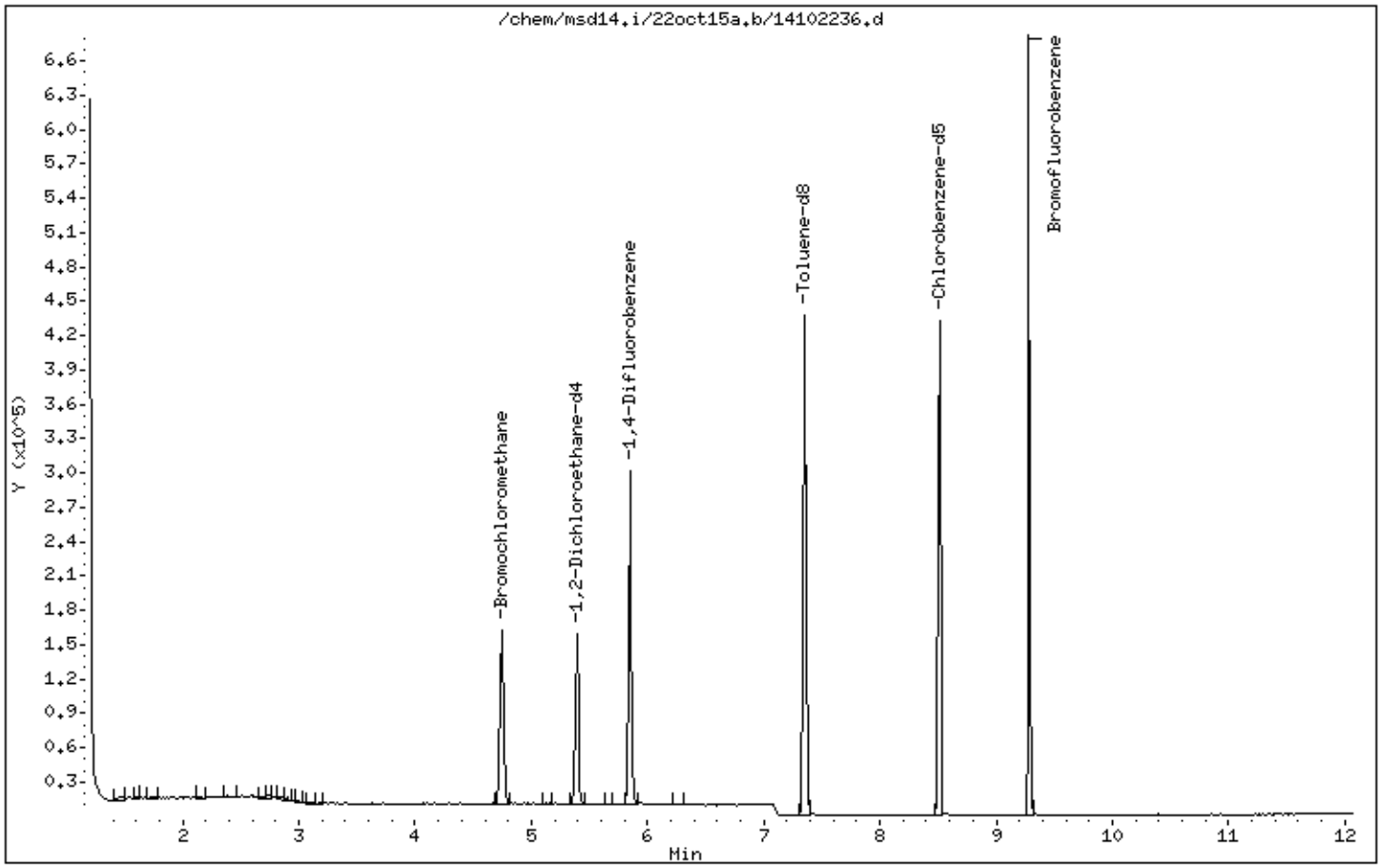
Instrument: msd14.i

Sample Info: 50ml #12940

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-5 101715

Lab ID#: 1510351B-06A

No Detections Were Found.

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Client Sample ID: B30IA-5 101715

Lab ID#: 1510351B-06A

EPA METHOD TO-15 GC/MS

File Name:	**14102237**	**Date of Collection:**	**10/18/15 11:32:00 A**
Dil. Factor:	**1.69**	**Date of Analysis:**	**10/23/15 08:03 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	84	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102237.d
Lab Smp Id: 1510351B-06A
Inj Date : 23-OCT-2015 08:03
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #916
Misc Info : 5.9"Hg -> 5.2psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.69000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48149	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37490			45.12- 105.12	77.86
4.749	4.749 (1.000)	49	79579			101.60- 161.60	165.27
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	226507	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	38862			0.00- 45.35	17.16
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	187621	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	125529			23.98- 83.98	66.91
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	93556	417.358	417.36	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	47304			18.29- 78.29	50.56
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	241064	400.510	400.51	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	29149			0.00- 41.01	12.09

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	151600			34.42- 94.42	62.89
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	103147	382.001	382.00	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	160176			103.22- 163.22	155.29
9.283	9.283	(1.090)	176	98221			67.52- 127.52	95.22

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102237.d
Lab Smp Id: 1510351B-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 5.9"Hg -> 5.2psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48149	-0.33
92 1,4-Difluorobenze	222923	133754	312092	226507	1.61
125 Chlorobenzene-d5	181906	109144	254668	187621	3.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-06A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 5.9"Hg -> 5.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	417.36	104.34	70-130
$ 107 Toluene-d8	400.00	400.51	100.13	70-130
$ 138 Bromofluorobenzene	400.00	382.00	95.50	70-130

Data File: /chem/msd14.i/22oct15a.b/14102237.d

Date : 23-OCT-2015 08:03

Client ID:

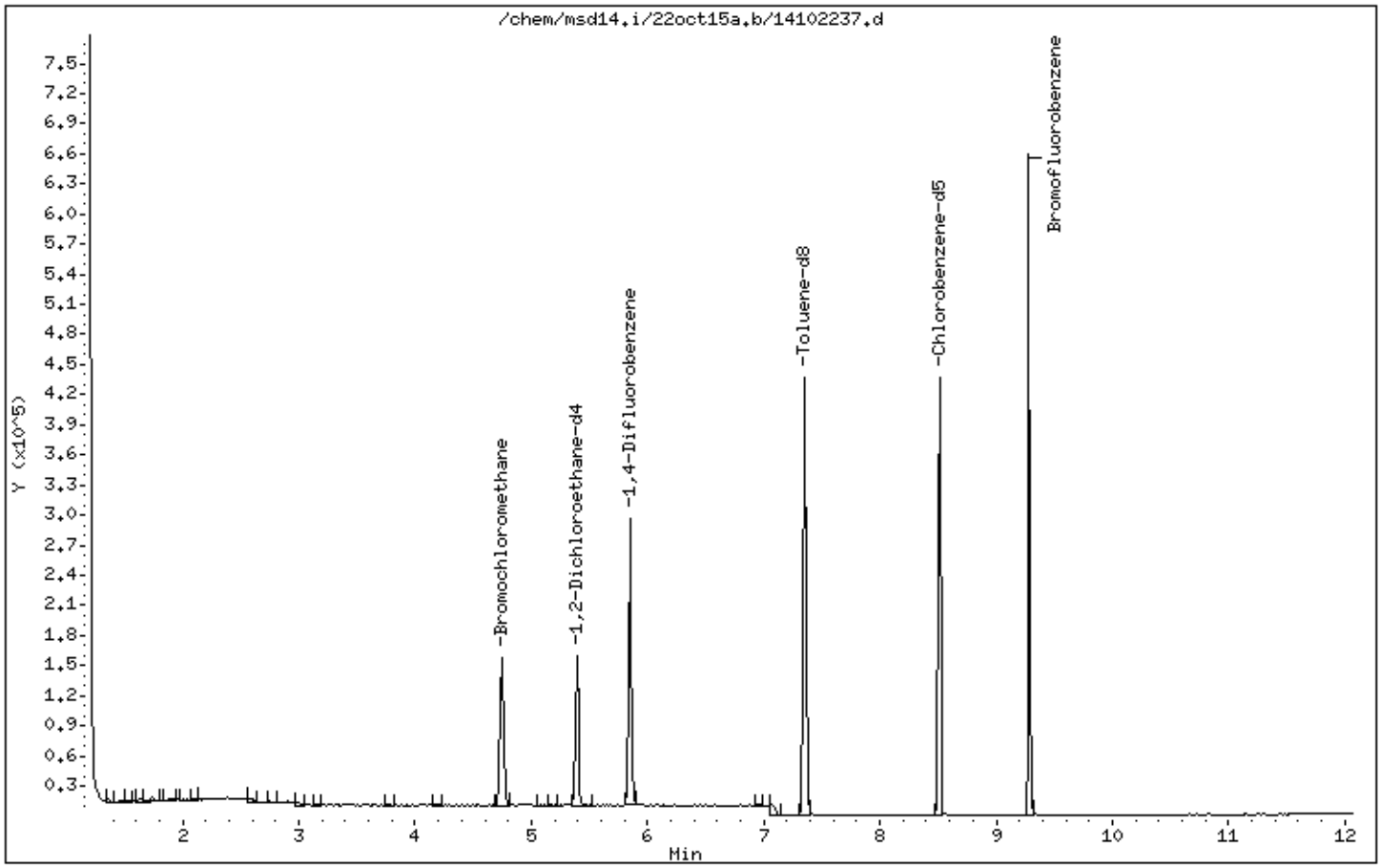
Instrument: msd14.i

Sample Info: 50ml #916

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B42IA-1 101715

Lab ID#: 1510351B-07A

No Detections Were Found.

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Client Sample ID: B42IA-1 101715

Lab ID#: 1510351B-07A

EPA METHOD TO-15 GC/MS

File Name:	**14102238**	**Date of Collection:**	**10/18/15 12:38:00 P**
Dil. Factor:	**1.68**	**Date of Analysis:**	**10/23/15 08:31 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	84	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102238.d
Lab Smp Id: 1510351B-07A
Inj Date : 23-OCT-2015 08:31
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #5681
Misc Info : 6.1"Hg -> 4.9psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48294	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37184			45.12- 105.12	77.00
4.749	4.749 (1.000)	49	79596			101.60- 161.60	164.82
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	225581	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	37985			0.00- 45.35	16.84
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	188065	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	123024			23.98- 83.98	65.42
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	93995	418.061	418.06	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	46699			18.29- 78.29	49.68
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	242990	405.367	405.37	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	29078			0.00- 41.01	11.97

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	152137			34.42- 94.42	62.61
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	104320	385.432	385.43	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	157943			103.22- 163.22	151.40
9.283	9.283	(1.090)	176	101063			67.52- 127.52	96.88

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102238.d
Lab Smp Id: 1510351B-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 6.1"Hg -> 4.9psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48294	-0.03
92 1,4-Difluorobenze	222923	133754	312092	225581	1.19
125 Chlorobenzene-d5	181906	109144	254668	188065	3.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-07A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 6.1"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	418.06	104.52	70-130
$ 107 Toluene-d8	400.00	405.37	101.34	70-130
$ 138 Bromofluorobenzene	400.00	385.43	96.36	70-130

Data File: /chem/msd14.i/22oct15a.b/14102238.d

Date : 23-OCT-2015 08:31

Client ID:

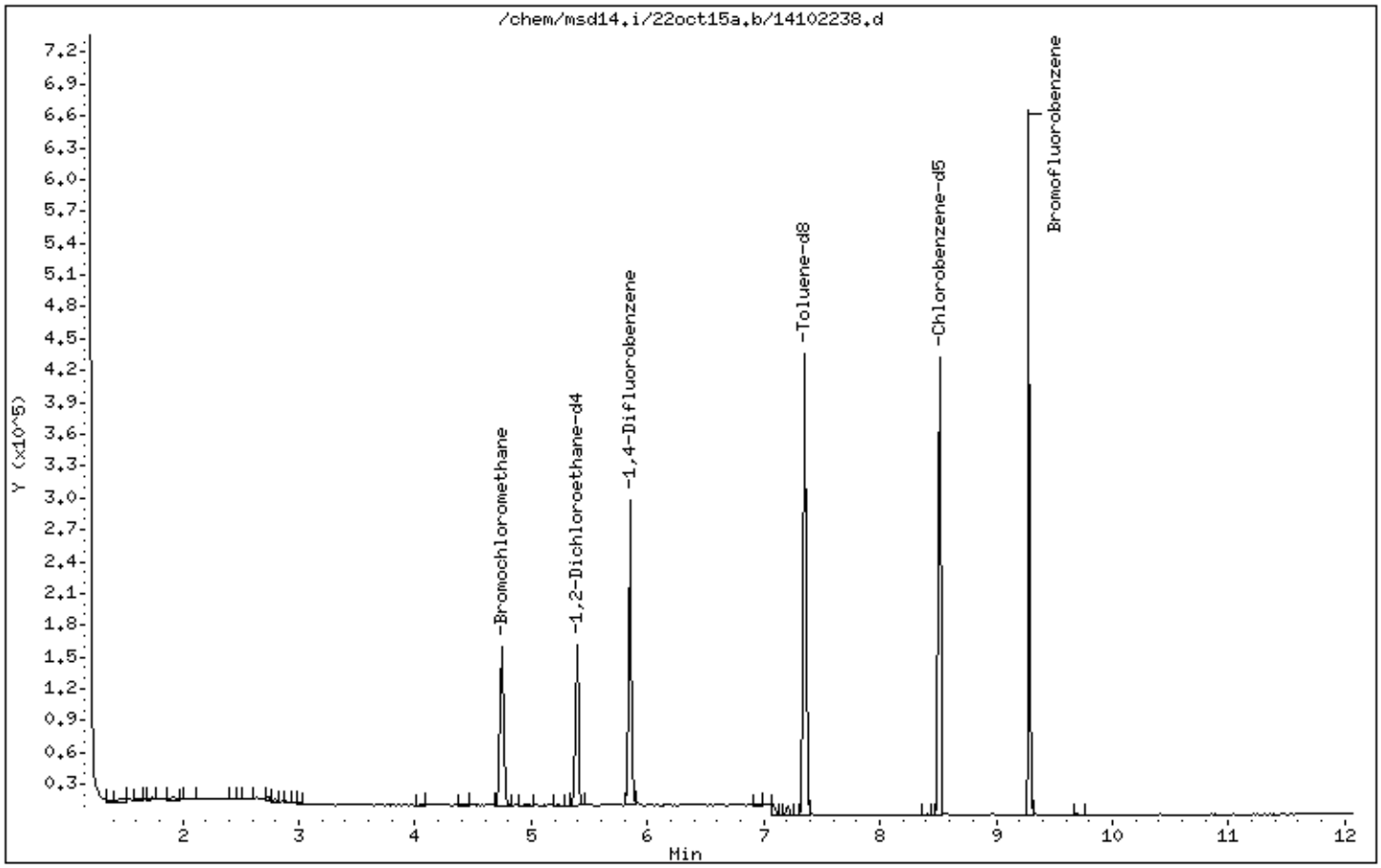
Instrument: msd14.i

Sample Info: 50ml #5681

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B42IA-2 101715

Lab ID#: 1510351B-08A

No Detections Were Found.

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Client Sample ID: B42IA-2 101715

Lab ID#: 1510351B-08A

EPA METHOD TO-15 GC/MS

File Name:	**14102239**	**Date of Collection:**	**10/18/15 7:54:00 AM**
Dil. Factor:	**1.57**	**Date of Analysis:**	**10/23/15 08:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	78	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102239.d
Lab Smp Id: 1510351B-08A
Inj Date : 23-OCT-2015 08:51
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #6L0017
Misc Info : 4.5"Hg -> 4.9psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.57000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	46554	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37707			45.12- 105.12	81.00
4.749	4.749 (1.000)	49	76198			101.60- 161.60	163.68
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	221203	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	38398			0.00- 45.35	17.36
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	185711	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	125164			23.98- 83.98	67.40
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	90332	416.783	416.78	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44954			18.29- 78.29	49.77
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	238786	406.239	406.24	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	27911			0.00- 41.01	11.69

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	147252			34.42- 94.42	61.67
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	102440	383.284	383.28	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	157544			103.22- 163.22	153.79
9.283	9.283	(1.090)	176	98260			67.52- 127.52	95.92

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102239.d
Lab Smp Id: 1510351B-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 4.9psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	46554	-3.63
92 1,4-Difluorobenze	222923	133754	312092	221203	-0.77
125 Chlorobenzene-d5	181906	109144	254668	185711	2.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-08A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	416.78	104.20	70-130
$ 107 Toluene-d8	400.00	406.24	101.56	70-130
$ 138 Bromofluorobenzene	400.00	383.28	95.82	70-130

Data File: /chem/msd14.i/22oct15a.b/14102239.d

Date : 23-OCT-2015 08:51

Client ID:

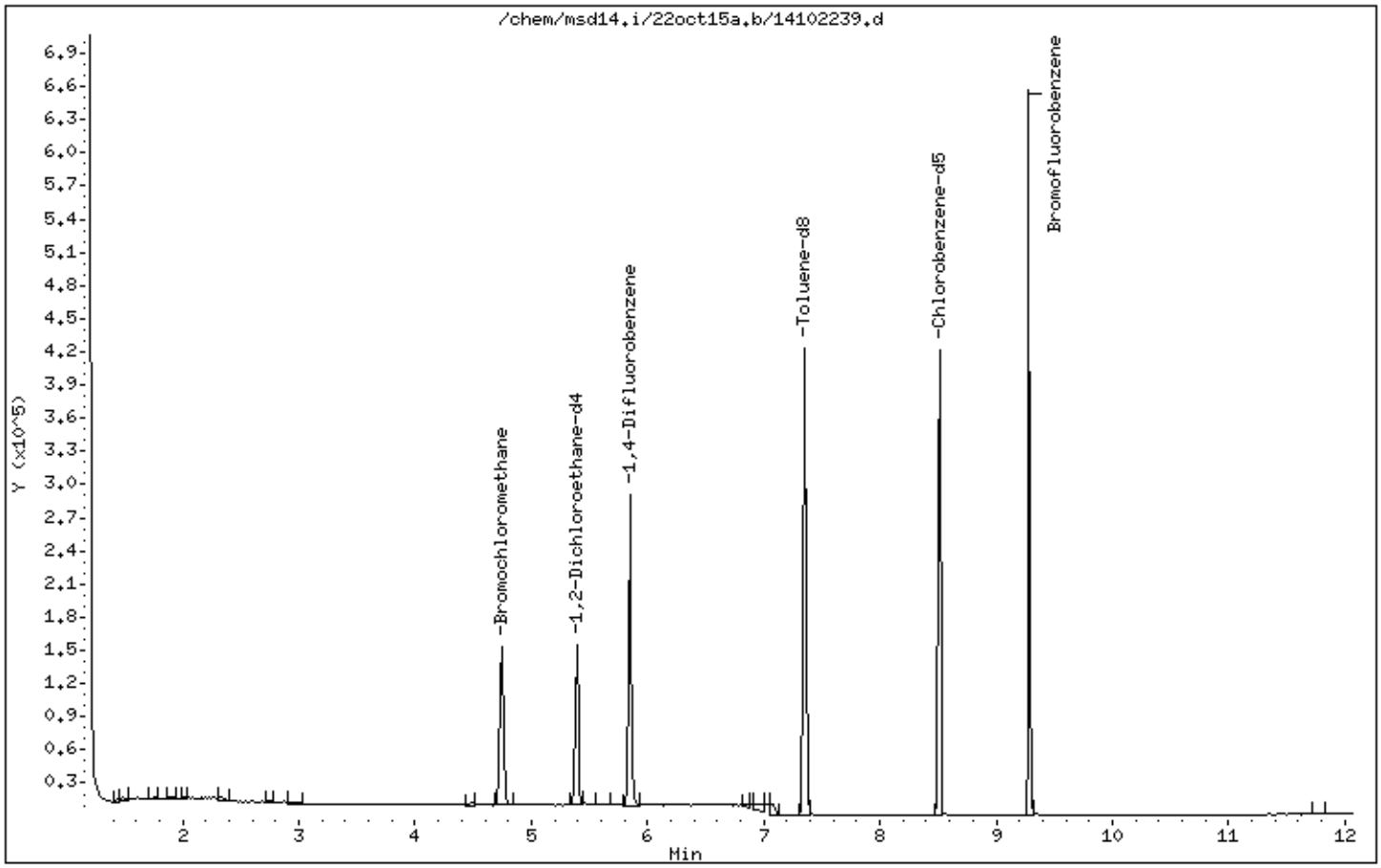
Instrument: msd14.i

Sample Info: 50ml #6L0017

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B42IA-3 101715

Lab ID#: 1510351B-09A

No Detections Were Found.

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Client Sample ID: B42IA-3 101715

Lab ID#: 1510351B-09A

EPA METHOD TO-15 GC/MS

File Name:	**14102240**	**Date of Collection:**	**10/18/15 7:52:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**10/23/15 09:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	73	Not Detected	96	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102240.d
Lab Smp Id: 1510351B-09A
Inj Date : 23-OCT-2015 09:11
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #34746
Misc Info : 2.6"Hg -> 4.9psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.46000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48100	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	38203			45.12- 105.12	79.42
4.749	4.749 (1.000)	49	76656			101.60- 161.60	159.37
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	223968	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	37913			0.00- 45.35	16.93
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	185868	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	123441			23.98- 83.98	66.41
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	90556	404.384	404.38	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44864			18.29- 78.29	49.54
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	237070	398.340	398.34	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28187			0.00- 41.01	11.89

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	146411			34.42- 94.42	61.76
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	103439	386.695	386.70	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	157646			103.22- 163.22	152.40
9.283	9.283	(1.090)	176	98939			67.52- 127.52	95.65

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102240.d
Lab Smp Id: 1510351B-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 2.6"Hg -> 4.9psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48100	-0.43
92 1,4-Difluorobenze	222923	133754	312092	223968	0.47
125 Chlorobenzene-d5	181906	109144	254668	185868	2.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-09A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 2.6"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	404.38	101.10	70-130
$ 107 Toluene-d8	400.00	398.34	99.59	70-130
$ 138 Bromofluorobenzene	400.00	386.70	96.67	70-130

Data File: /chem/msd14.i/22oct15a.b/14102240.d

Date : 23-OCT-2015 09:11

Client ID:

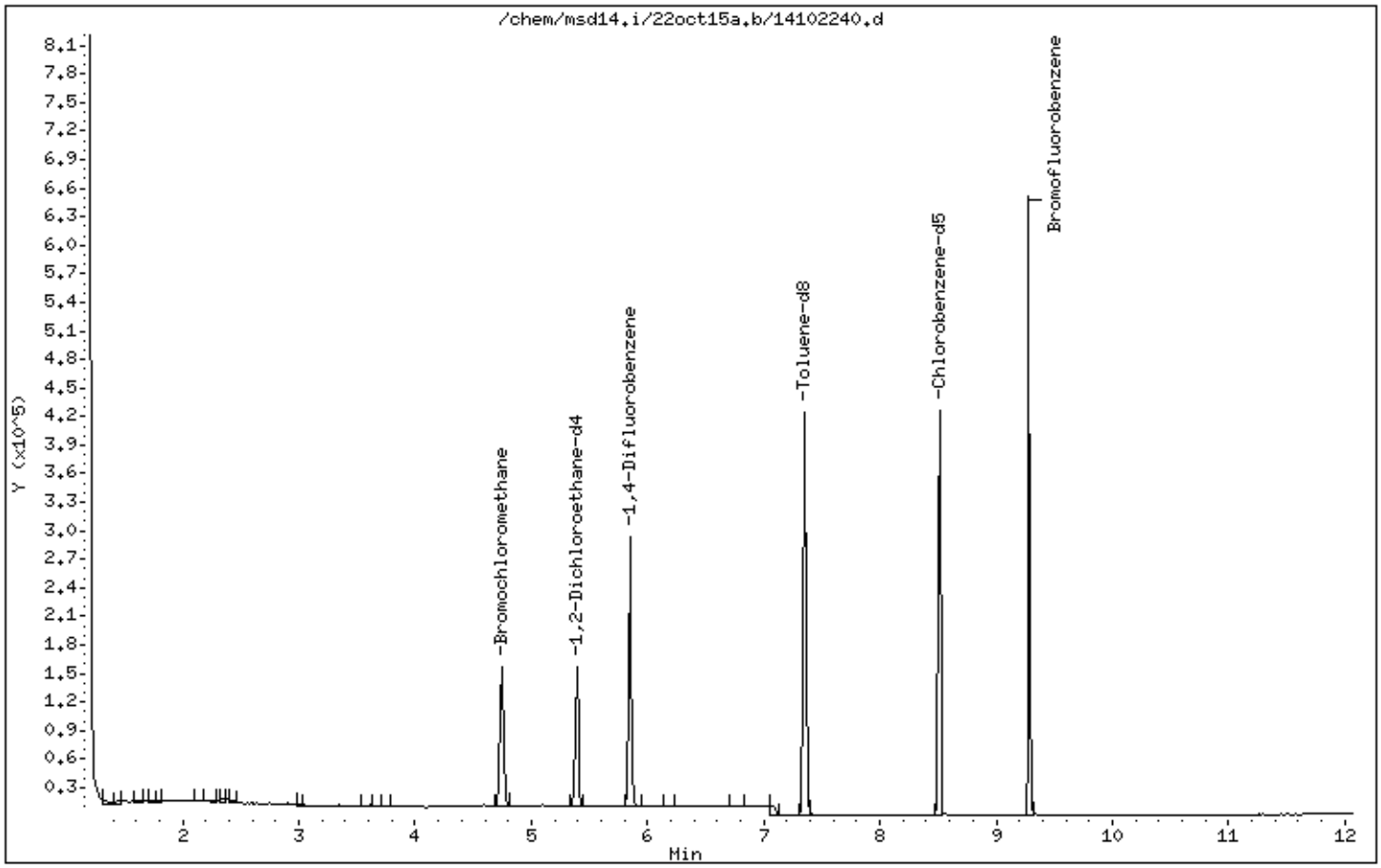
Instrument: msd14.i

Sample Info: 50ml #34746

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B3042AA

Lab ID#: 1510351B-10A

No Detections Were Found.

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Client Sample ID: B3042AA

Lab ID#: 1510351B-10A

EPA METHOD TO-15 GC/MS

File Name:	**14102241**	**Date of Collection:**	**10/18/15 1:45:00 PM**
Dil. Factor:	**1.88**	**Date of Analysis:**	**10/23/15 09:31 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	94	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102241.d
Lab Smp Id: 1510351B-10A
Inj Date : 23-OCT-2015 09:31
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #901
Misc Info : 8.8"Hg -> 4.9psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.88000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48221	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37941			45.12- 105.12	78.68
4.749	4.749 (1.000)	49	75943			101.60- 161.60	157.49
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	221518	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	37741			0.00- 45.35	17.04
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	185439	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	123511			23.98- 83.98	66.60
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	91179	406.144	406.14	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44331			18.29- 78.29	48.62
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	235428	399.957	399.96	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	27557			0.00- 41.01	11.71

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	147668			34.42- 94.42	62.72
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.282	9.283	(1.090)	174	103971	389.581	389.58	80.00- 120.00	100.00
9.282	9.283	(1.090)	95	159414			103.22- 163.22	153.33
9.282	9.283	(1.090)	176	99794			67.52- 127.52	95.98

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102241.d
Lab Smp Id: 1510351B-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 8.8"Hg -> 4.9psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48221	-0.18
92 1,4-Difluorobenze	222923	133754	312092	221518	-0.63
125 Chlorobenzene-d5	181906	109144	254668	185439	1.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-10A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 8.8"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	406.14	101.54	70-130
$ 107 Toluene-d8	400.00	399.96	99.99	70-130
$ 138 Bromofluorobenzene	400.00	389.58	97.40	70-130

Data File: /chem/msd14.i/22oct15a.b/14102241.d

Date : 23-OCT-2015 09:31

Client ID:

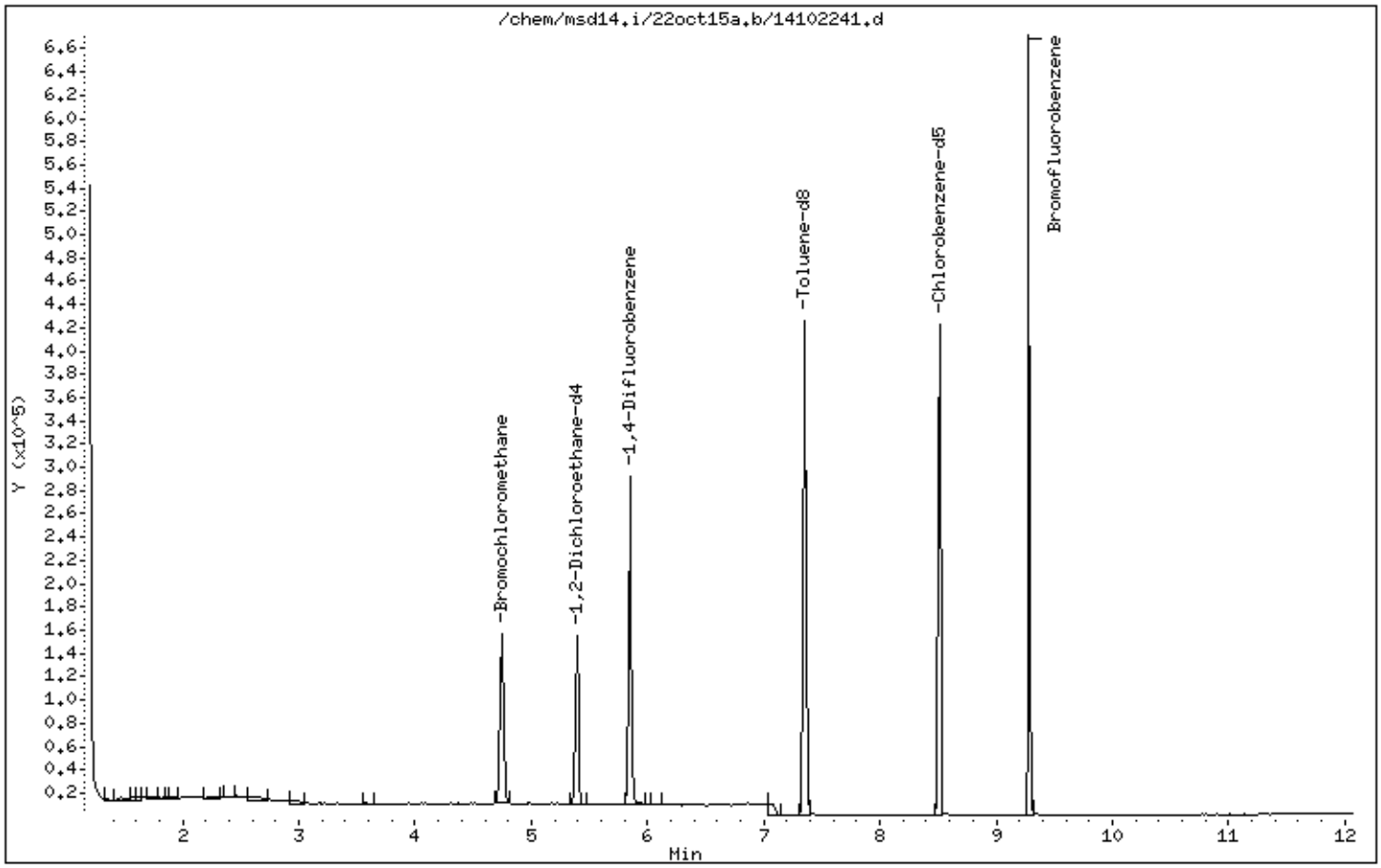
Instrument: msd14.i

Sample Info: 50ml #901

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8IA-2 101715

Lab ID#: 1510351B-11A

No Detections Were Found.

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Client Sample ID: B8IA-2 101715

Lab ID#: 1510351B-11A

EPA METHOD TO-15 GC/MS

File Name:	**14102242**	**Date of Collection:**	**10/18/15 11:45:00 A**
Dil. Factor:	**1.57**	**Date of Analysis:**	**10/23/15 09:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	78	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102242.d
Lab Smp Id: 1510351B-11A
Inj Date : 23-OCT-2015 09:58
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #6L1334
Misc Info : 4.5"Hg -> 4.9psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.57000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	47576	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	38145			45.12- 105.12	80.18
4.749	4.749 (1.000)	49	75688			101.60- 161.60	159.09
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	221068	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	37292			0.00- 45.35	16.87
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	184991	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	122155			23.98- 83.98	66.03
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	91392	412.615	412.61	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	46209			18.29- 78.29	50.56
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	232129	395.154	395.15	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	27198			0.00- 41.01	11.72

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	149606			34.42- 94.42	64.45
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	101256	380.330	380.33	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	154775			103.22- 163.22	152.85
9.283	9.283	(1.090)	176	98710			67.52- 127.52	97.49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102242.d
Lab Smp Id: 1510351B-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 4.9psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	47576	-1.51
92 1,4-Difluorobenze	222923	133754	312092	221068	-0.83
125 Chlorobenzene-d5	181906	109144	254668	184991	1.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-11A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	412.61	103.15	70-130
$ 107 Toluene-d8	400.00	395.15	98.79	70-130
$ 138 Bromofluorobenzene	400.00	380.33	95.08	70-130

Data File: /chem/msd14.i/22oct15a.b/14102242.d

Date : 23-OCT-2015 09:58

Client ID:

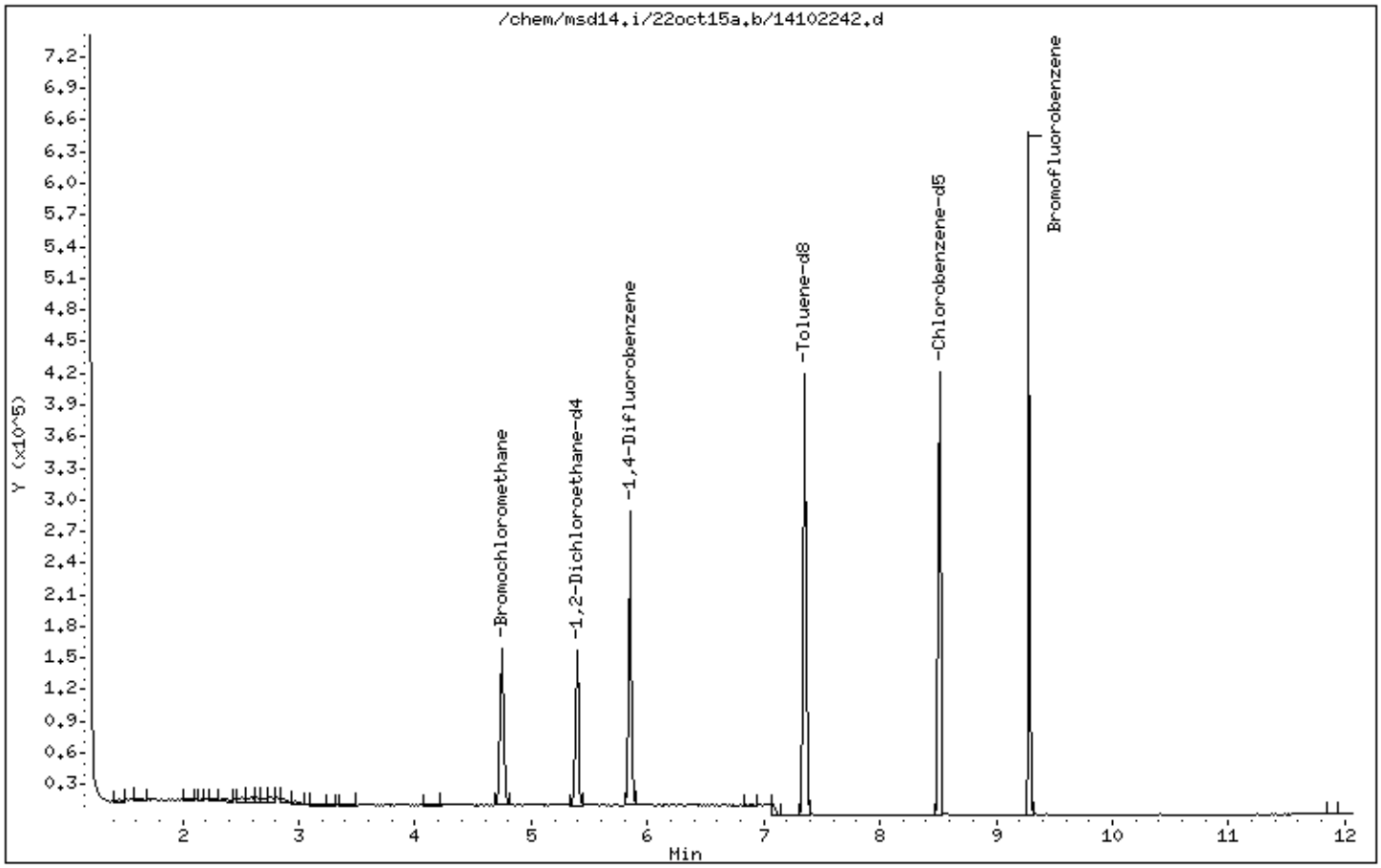
Instrument: msd14.i

Sample Info: 50ml #6L1334

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8IA-2D 101715

Lab ID#: 1510351B-12A

No Detections Were Found.

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Client Sample ID: B8IA-2D 101715

Lab ID#: 1510351B-12A

EPA METHOD TO-15 GC/MS

File Name:	**14102243**	**Date of Collection:**	**10/18/15 11:45:00 A**
Dil. Factor:	**1.77**	**Date of Analysis:**	**10/23/15 10:18 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	88	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102243.d
Lab Smp Id: 1510351B-12A
Inj Date : 23-OCT-2015 10:18
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #34226
Misc Info : 7.1"Hg -> 5.1psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.77000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	46932	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37175			45.12- 105.12	79.21
4.749	4.749 (1.000)	49	77423			101.60- 161.60	164.97
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	217573	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	38117			0.00- 45.35	17.52
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	185721	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	121935			23.98- 83.98	65.65
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	89259	408.515	408.52	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44972			18.29- 78.29	50.38
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	234942	406.367	406.37	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	26953			0.00- 41.01	11.47

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	146585			34.42- 94.42	62.39
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	102025	381.711	381.71	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	153691			103.22- 163.22	150.64
9.283	9.283	(1.090)	176	97099			67.52- 127.52	95.17

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102243.d
Lab Smp Id: 1510351B-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 7.1"Hg -> 5.1psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	46932	-2.85
92 1,4-Difluorobenze	222923	133754	312092	217573	-2.40
125 Chlorobenzene-d5	181906	109144	254668	185721	2.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-12A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 7.1"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	408.52	102.13	70-130
$ 107 Toluene-d8	400.00	406.37	101.59	70-130
$ 138 Bromofluorobenzene	400.00	381.71	95.43	70-130

Data File: /chem/msd14.i/22oct15a.b/14102243.d

Date : 23-OCT-2015 10:18

Client ID:

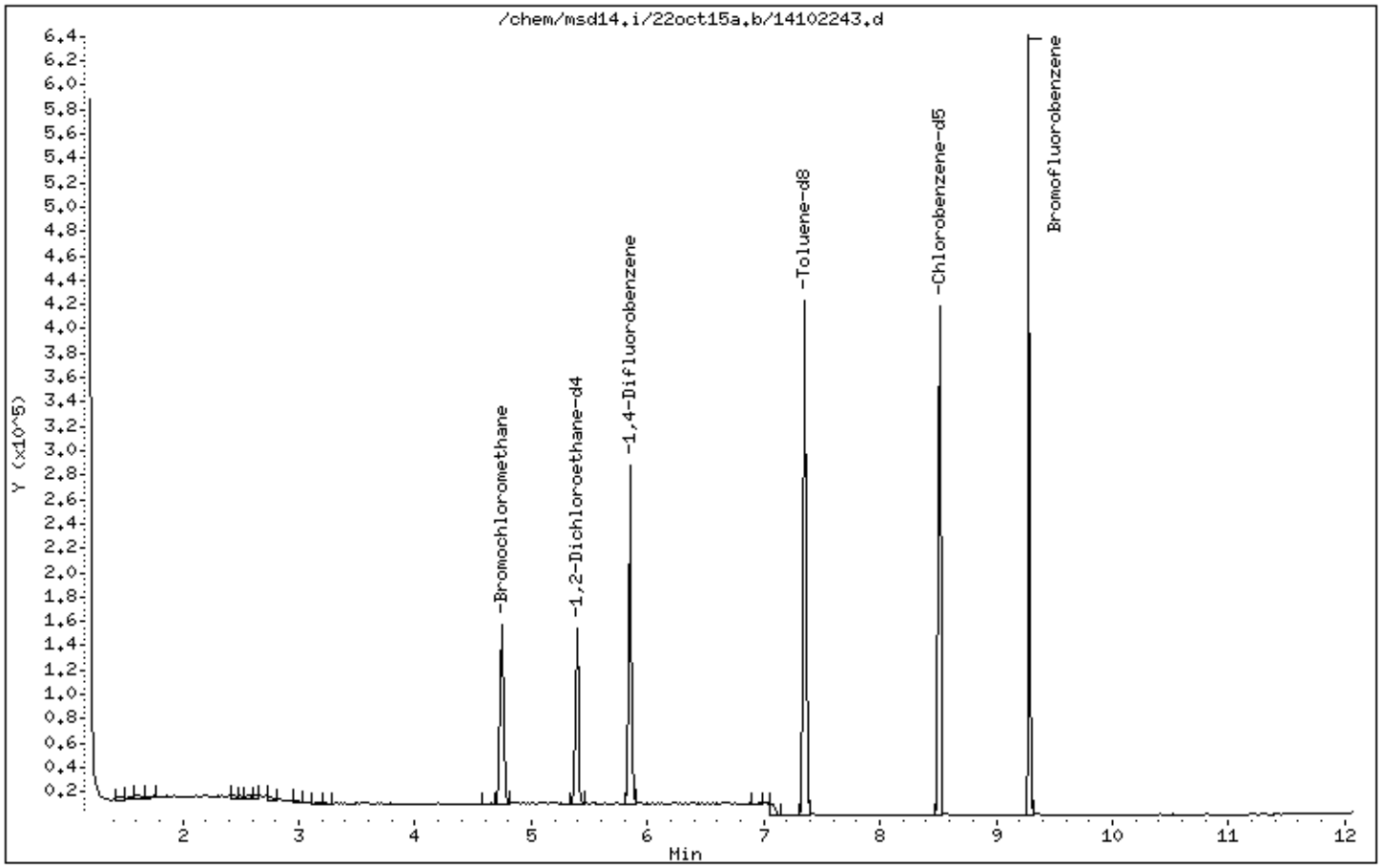
Instrument: msd14.i

Sample Info: 50ml #34226

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8AA-1 101715

Lab ID#: 1510351B-13A

No Detections Were Found.

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Client Sample ID: B8AA-1 101715

Lab ID#: 1510351B-13A

EPA METHOD TO-15 GC/MS

File Name:	**14102244**	**Date of Collection:**	**10/18/15 11:45:00 A**
Dil. Factor:	**1.58**	**Date of Analysis:**	**10/23/15 10:56 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	79	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102244.d
Lab Smp Id: 1510351B-13A
Inj Date : 23-OCT-2015 10:56
Operator : mjs Inst ID: msd14.i
Smp Info : 50ml #14881
Misc Info : 4.5"Hg -> 5.0psi
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.58000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48666	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	36806			45.12- 105.12	75.63
4.749	4.749 (1.000)	49	77268			101.60- 161.60	158.77
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	221266	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	37740			0.00- 45.35	17.06
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	184323	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	124646			23.98- 83.98	67.62
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	91366	403.259	403.26	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	45085			18.29- 78.29	49.35
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	240844	409.625	409.62	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28325			0.00- 41.01	11.76

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	148165			34.42- 94.42	61.52
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	101819	383.827	383.83	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	157895			103.22- 163.22	155.07
9.283	9.283	(1.090)	176	96312			67.52- 127.52	94.59

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102244.d
Lab Smp Id: 1510351B-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 5.0psi

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48666	0.74
92 1,4-Difluorobenze	222923	133754	312092	221266	-0.74
125 Chlorobenzene-d5	181906	109144	254668	184323	1.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Oct-2015 11:49

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1510351B-13A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 4.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	403.26	100.81	70-130
$ 107 Toluene-d8	400.00	409.62	102.41	70-130
$ 138 Bromofluorobenzene	400.00	383.83	95.96	70-130

Data File: /chem/msd14.i/22oct15a.b/14102244.d

Date : 23-OCT-2015 10:56

Client ID:

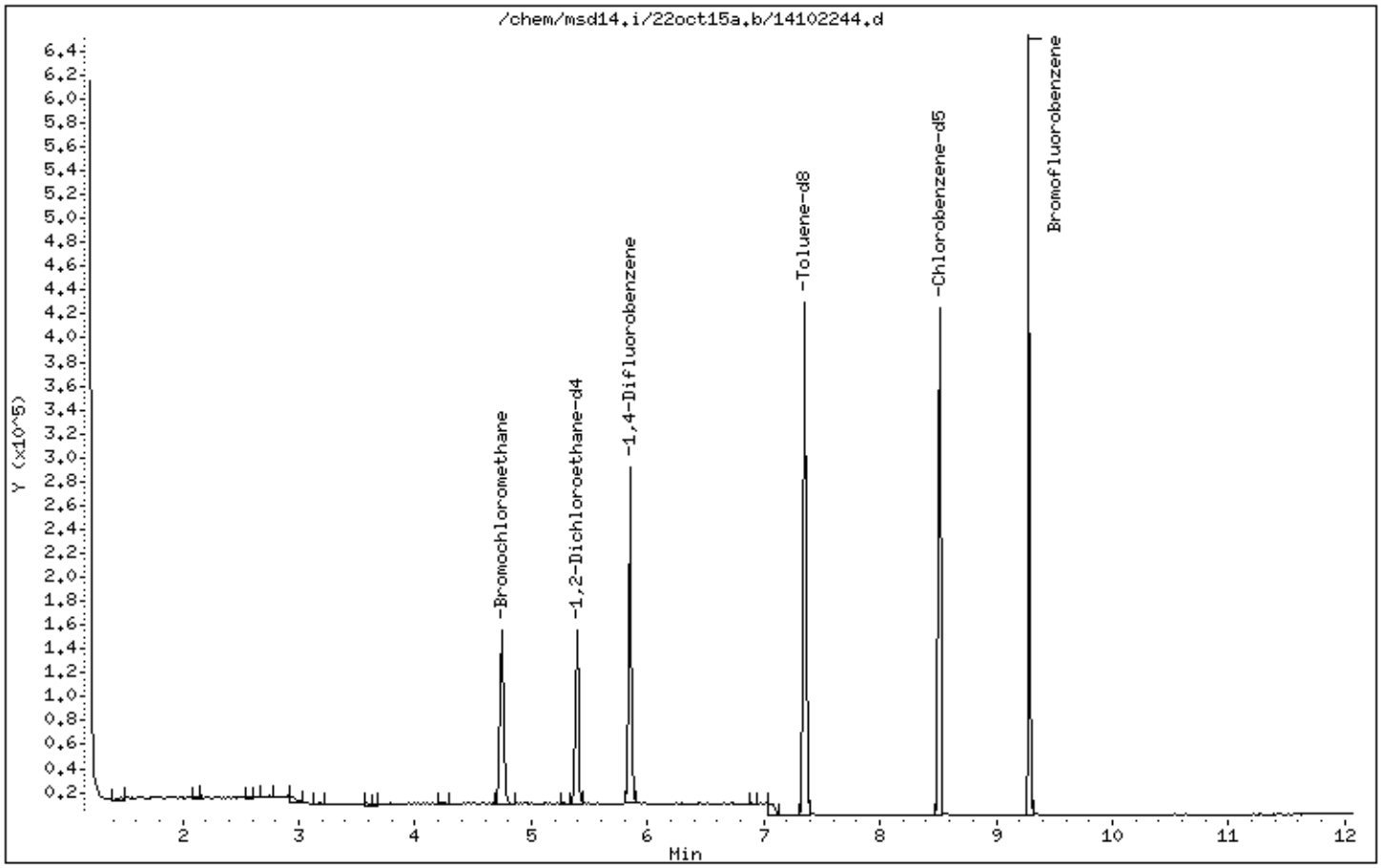
Instrument: msd14.i

Sample Info: 50ml #14881

Operator: mjs

Column phase: RTx-624

Column diameter: 0.53



QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1510351B-14A

EPA METHOD TO-15 GC/MS

File Name:	**14102230**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/22/15 10:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	50	Not Detected	66	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102230.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 22-OCT-2015 22:13
Operator : js Inst ID: msd14.i
Smp Info : 50ml #34496
Misc Info : Humid
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:22 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	49891	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	39528			45.12- 105.12	79.23
4.735	4.749 (1.000)	49	80562			101.60- 161.60	161.47
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	235089	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39399			0.00- 45.35	16.76
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	194066	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	129661			23.98- 83.98	66.81
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	94810	408.186	408.19	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	47637			18.29- 78.29	50.25
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	249416	399.260	399.26	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	30220			0.00- 41.01	12.12

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.352	7.352	(1.258)	100	155969			34.42- 94.42	62.53
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	109777	393.052	393.05	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	165894			103.22- 163.22	151.12
9.283	9.283	(1.090)	176	105212			67.52- 127.52	95.84

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102230.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: js
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: Humid

Calibration Date: 22-OCT-2015
Calibration Time: 21:51
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	49891	3.28
92 1,4-Difluorobenze	222923	133754	312092	235089	5.46
125 Chlorobenzene-d5	181906	109144	254668	194066	6.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 22-Oct-2015 22:33

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 22oct15a
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: js
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	408.19	102.05	70-130
$ 107 Toluene-d8	400.00	399.26	99.81	70-130
$ 138 Bromofluorobenzene	400.00	393.05	98.26	70-130

Data File: /chem/msd14.i/22oct15a.b/14102230.d

Date : 22-OCT-2015 22:13

Client ID: Lab Blank

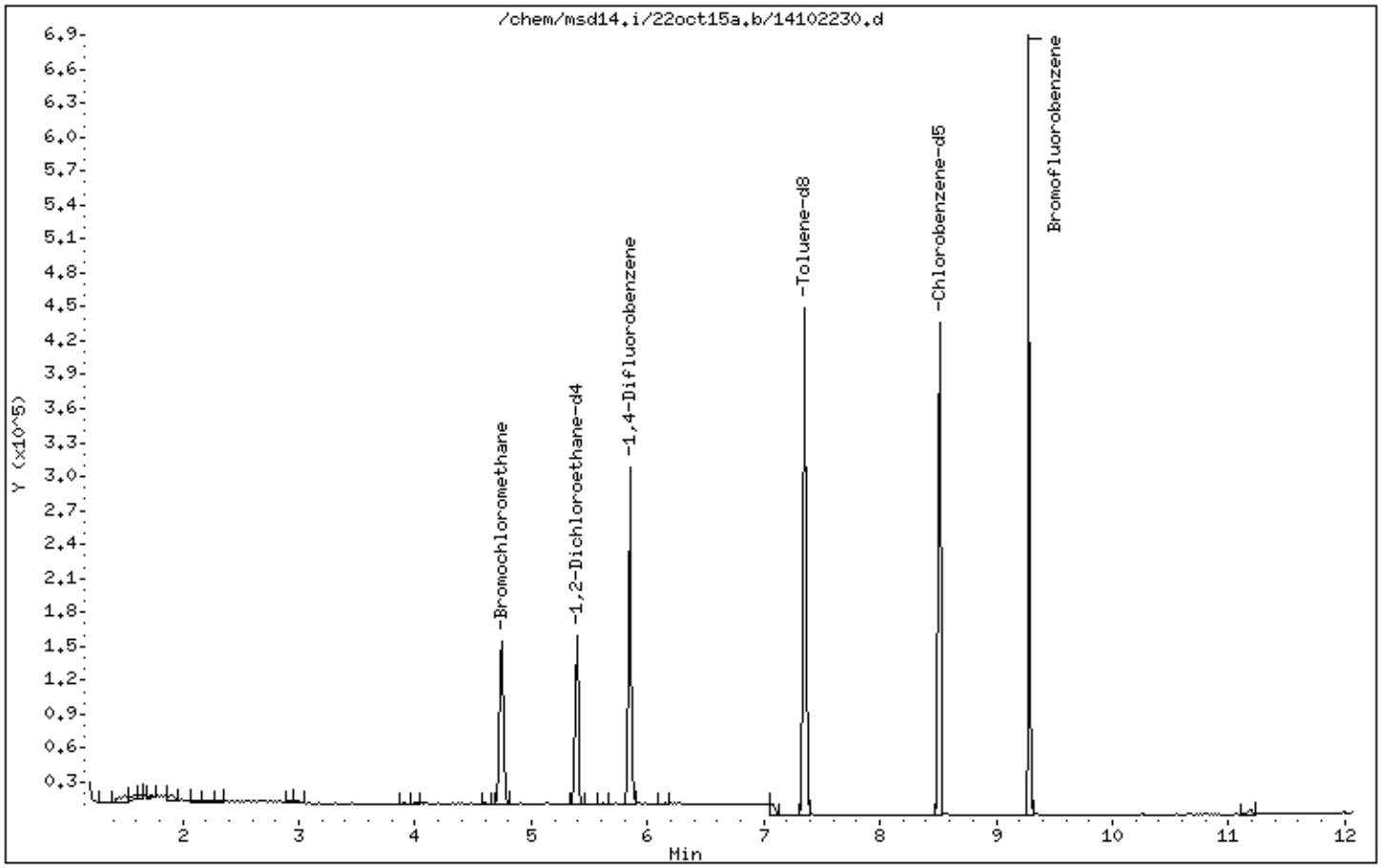
Instrument: msd14.i

Sample Info: 50ml #34496

Operator: js

Column phase: RTx-624

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-15 GC/MS

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1510351B

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B30IA-1 101715	102		100		98				0
02	B30IA-2 101715	100		100		97				0
03	B30IA-3 101715	105		99		97				0
04	B30IA-4 101715	99		102		96				0
05	B30IA-4D 101715	102		101		98				0
06	B30IA-5 101715	104		100		96				0
07	B42IA-1 101715	104		101		96				0
08	B42IA-2 101715	104		102		96				0
09	B42IA-3 101715	101		100		97				0
10	B3042AA	102		100		97				0
11	B8IA-2 101715	103		99		95				0
12	B8IA-2D 101715	102		102		95				0
13	B8AA-1 101715	101		102		96				0
14	Lab Blank	102		100		98				0
15	CCV	100		100		100				0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

EPA Method TO-15 GC/MS

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1510351B
Lab File ID:	14102229a.d	Date Analyzed:	10/22/2015
Instrument ID:	msd14.i	Time Analyzed:	09:51 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	181906		8.51		222923		5.85		48307		4.75	
	UPPER LIMIT	254668		08.84		312092		06.18		67630		05.08	
	LOWER LIMIT	109144		08.18		133754		05.52		28984		04.42	
	CLIENT SAMPLE NO												
01	B30IA-1 101715	195322		8.51		238444		5.85		50512		4.75	
02	B30IA-2 101715	194168		8.51		231021		5.85		50868		4.75	
03	B30IA-3 101715	192398		8.51		231895		5.85		47972		4.75	
04	B30IA-4 101715	190226		8.51		228541		5.85		50539		4.75	
05	B30IA-4D 101715	190521		8.51		227739		5.85		49017		4.75	
06	B30IA-5 101715	187621		8.51		226507		5.85		48149		4.75	
07	B42IA-1 101715	188065		8.51		225581		5.85		48294		4.75	
08	B42IA-2 101715	185711		8.51		221203		5.85		46554		4.75	
09	B42IA-3 101715	185868		8.51		223968		5.85		48100		4.75	
10	B3042AA	185439		8.51		221518		5.85		48221		4.75	
11	B8IA-2 101715	184991		8.51		221068		5.85		47576		4.75	
12	B8IA-2D 101715	185721		8.51		217573		5.85		46932		4.75	
13	B8AA-1 101715	184323		8.51		221266		5.85		48666		4.75	
14	Lab Blank	194066		8.51		235089		5.85		49891		4.75	
15	CCV	181906		8.51		222923		5.85		48307		4.75	
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-OCT-2015 21:51
End Cal Date : 22-OCT-2015 21:51
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Cal Date : 22-Oct-2015 22:22 jscarbro
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd14.i/22oct15a.b/14102229.d

Compound	50.000 Level 2	RRF	% RSD
14 Methanol	3.51270	3.51283	0.000
$ 84 1,2-Dichloroethane-d4	1.86224	1.86223	0.000
$ 107 Toluene-d8	1.06291	1.06291	0.000
$ 138 Bromofluorobenzene	0.57567	0.57567	0.000

Calibration History

Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Start Cal Date: 22-OCT-2015 21:51
End Cal Date : 22-OCT-2015 21:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 50.00000		
22-OCT-2015 21:51	MeOH	/chem/msd14.i/22oct15a.b/14102229.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 2

Ccal Level: 2 , Ccal Amount: 50.000		
22-OCT-2015 21:51	MeOH	/chem/msd14.i/22oct15a.b/14102229a.d
Ccal Level: 2 , Ccal Amount: 50.000		
22-OCT-2015 21:51	MeOH	/chem/msd14.i/22oct15a.b/14102229.d

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 22-OCT-2015 21:51
End Cal Date : 22-OCT-2015 21:51
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Cal Date : 22-Oct-2015 22:20 jscarbro
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd14.i/22oct15a.b/14102229.d

Compound	50.000 Level 2	RRF	% RSD
14 Methanol	3.51270	3.51283	0.000
$ 84 1,2-Dichloroethane-d4	1.86224	1.86223	0.000
$ 107 Toluene-d8	1.06291	1.06291	0.000
$ 138 Bromofluorobenzene	0.57567	0.57567	0.000

QK 10/22/15

MEOH1022a.M
Initial Calibration Narrative

A 1-point Methanol initial calibration was analyzed on MSD-14 on 10/22/15.

No ICV or MDL needed.

BFB Tune file - 14102227

MeOH only

Eurofins Air Toxics, Inc. **MSD-14** **Logbook #: 2756**

BFB Verification of 176/174 m/z Ratio: 46178/48053(100) = 96.10%	
Method Name: MEOH1022A.M	

IS/S Std. #: 2736-293	Exp. Date: 1/7/16
BCM	48307
1,4-DFB	222923
CB-d5	181906
Verified CCV IS vs ICAL mid-point (-40%D):	

SOP # (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17

0110 of 0138

Calculation Check: File ID: 14102229
Compound: Tol-d8
Initials:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}} = \frac{(236947)}{(222923)} \times \frac{(400.00)}{(1.06291)}$ = Reported Result: 400.00

	Use	File	Lab ID#	Can#	Pressure	Amount Loaded	Verified Vol Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	14102227	BFB tune check	2299-12L5	5psig	2.0ml	NA	1.00		10/22/15	2100		
2	✓	28	System blank	34496	Humid	50ml	NA	1.00			2118		~~MeOH exp 12/15/15~~ 25ml
3	✓	29	ICAL level #4	2259-16	5ppbv	12.5ml	NA	1.00			2151		MeOH exp 12/15/15
4	✓	30	Lab blank	34496	Humid	50ml	NA	1.00			2213		
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													10/22/15

Reviewed 10/22/15 Date

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102229.d
Lab Smp Id: ICAL Level #2
Inj Date : 22-OCT-2015 21:51
Operator : js Inst ID: msd14.i
Smp Info : 12.5ml #2759-16
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:20 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48307	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37716			45.12- 105.12	78.08
4.734	4.734 (1.000)	49	76584			101.60- 161.60	158.54
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	222923	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39337			0.00- 45.35	17.65
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	181906	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	123244			23.98- 83.98	67.75
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	89959	400.000	400.00	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44275			18.29- 78.29	49.22
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	236947	400.000	400.00	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28474			0.00- 41.01	12.02

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)							
7.352	7.352 (1.258)	100	147949			34.42- 94.42	62.44
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.283	9.283 (1.090)	174	104717	400.000	400.00	80.00- 120.00	100.00
9.283	9.283 (1.090)	95	157680			103.22- 163.22	150.58
9.283	9.283 (1.090)	176	100485			67.52- 127.52	95.96
14 Methanol					CAS #: 67-56-1		
1.742	1.742 (0.367)	31	21211	50.0000	50.000	80.00- 120.00	100.00
1.742	1.742 (0.367)	29	12381			0.00- 30.99	58.37
1.742	1.742 (0.367)	32	42353			61.63- 121.63	199.67

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102229.d
Lab Smp Id: ICAL Level #2
Analysis Type: VOA
Quant Type: ISTD
Operator: js
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48307	0.00
92 1,4-Difluorobenze	222923	133754	312092	222923	0.00
125 Chlorobenzene-d5	181906	109144	254668	181906	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd14.i/22oct15a.b/14102229.d

Date : 22-OCT-2015 21:51

Client ID:

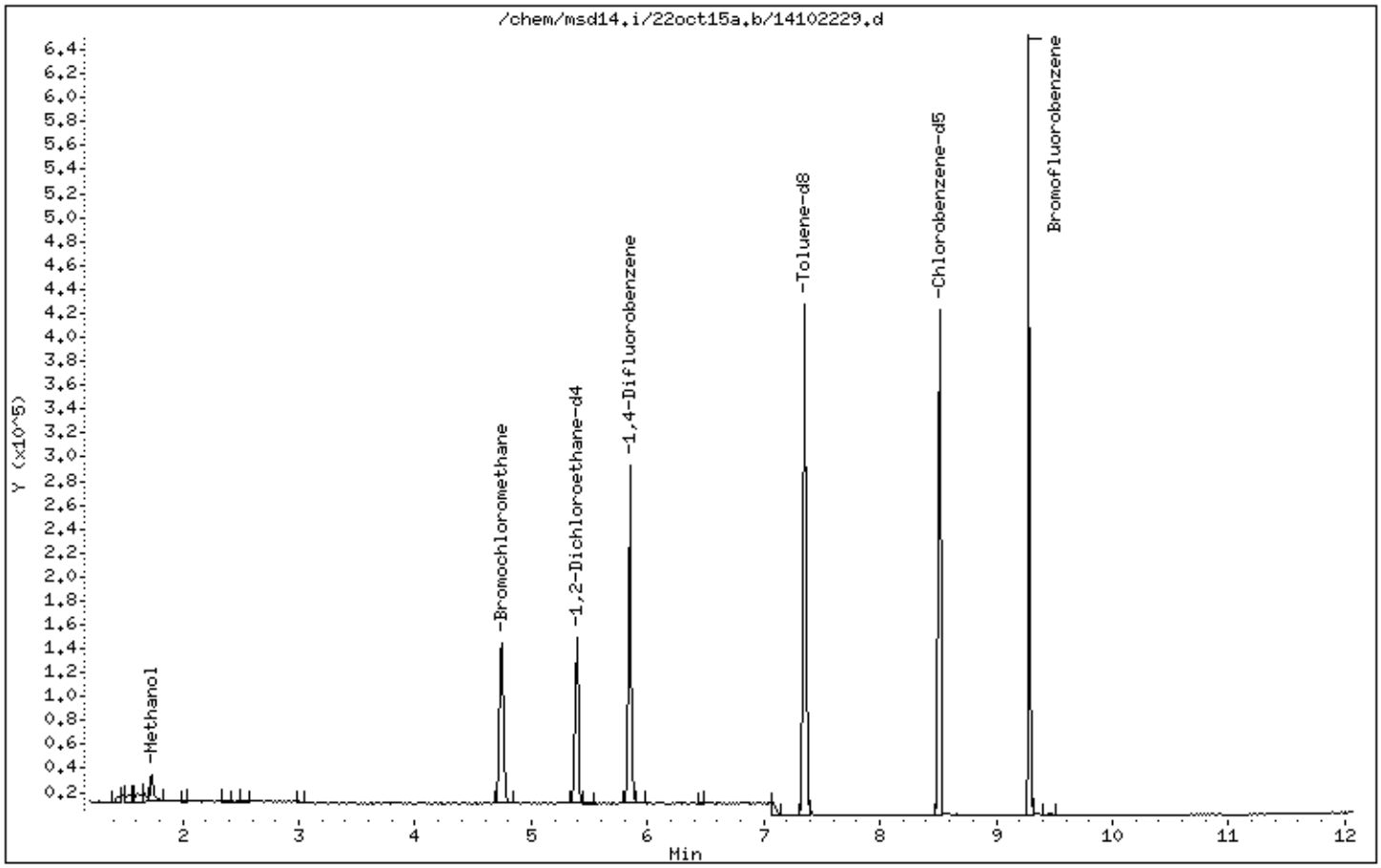
Instrument: msd14.i

Sample Info: 12.5ml #2759-16

Operator: js

Column phase: RTx-624

Column diameter: 0.53



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Client Sample ID: CCV

Lab ID#: 1510351B-15A

EPA METHOD TO-15 GC/MS

File Name:	**14102229a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/22/15 09:51 PM**	

Compound	**%Recovery**
Methanol	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd14.i Injection Date: 22-OCT-2015 21:51
Lab File ID: 14102229a.d Init. Cal. Date(s): 22-OCT-2015 22-OCT-2015
Analysis Type: AIR Init. Cal. Times: 21:51 21:51
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd14.i/22oct15a.b/MEOH1022a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 84 1,2-Dichloroethane-d4	1.86223	1.86223	0.010	0.000e+00	30.00000	Averaged
$ 107 Toluene-d8	1.06291	1.06291	0.010	-2.089e-14	30.00000	Averaged
$ 138 Bromofluorobenzene	0.57567	0.57567	0.010	1.929e-14	30.00000	Averaged
14 Methanol	3.51283	3.51283	0.010	-1.264e-14	30.00000	Averaged

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/22oct15a.b/14102229a.d
Lab Smp Id: CCV
Inj Date : 22-OCT-2015 21:51
Operator : js Inst ID: msd14.i
Smp Info : 12.5ml #2759-16
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msd14.i/22oct15a.b/MEOH1022a.m
Meth Date : 22-Oct-2015 22:21 jscarbro Quant Type: ISTD
Cal Date : 22-OCT-2015 21:51 Cal File: 14102229.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane					CAS #: 74-97-5		
4.749	4.749 (1.000)	130	48307	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	37716			45.12- 105.12	78.08
4.734	4.734 (1.000)	49	76584			101.60- 161.60	158.54
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	222923	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	39337			0.00- 45.35	17.65
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	181906	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	123244			23.98- 83.98	67.75
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	89959	400.000	400.00	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	44275			18.29- 78.29	49.22
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	236947	400.000	400.00	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	28474			0.00- 41.01	12.02

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 107 Toluene-d8 (continued)
  7.352   7.352 (1.258)   100    147949                    34.42-  94.42    62.44
-------------------------------------------------------------------------------
$ 138 Bromofluorobenzene                            CAS #: 460-00-4
  9.283   9.283 (1.090)   174    104717 400.000   400.00  80.00- 120.00   100.00
  9.283   9.283 (1.090)    95    157680                  103.22- 163.22   150.58
  9.283   9.283 (1.090)   176    100485                    67.52- 127.52    95.96
-------------------------------------------------------------------------------
   14 Methanol                                      CAS #: 67-56-1
  1.742   1.742 (0.367)    31     21211 50.0000   50.000  80.00- 120.00   100.00
  1.742   1.742 (0.367)    29     12381                     0.00-  30.99    58.37
  1.742   1.742 (0.367)    32     42353                    61.63- 121.63   199.67
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14102229a.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: js
Method File: /chem/msd14.i/22oct15a.b/MEOH1022a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 22-OCT-2015
Calibration Time: 21:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	48307	28984	67630	48307	0.00
92 1,4-Difluorobenze	222923	133754	312092	222923	0.00
125 Chlorobenzene-d5	181906	109144	254668	181906	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	4.75	4.42	5.08	4.75	0.00
92 1,4-Difluorobenze	5.85	5.52	6.18	5.85	0.00
125 Chlorobenzene-d5	8.51	8.18	8.84	8.51	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd14.i/22oct15a.b/14102229a.d

Date : 22-OCT-2015 21:51

Client ID:

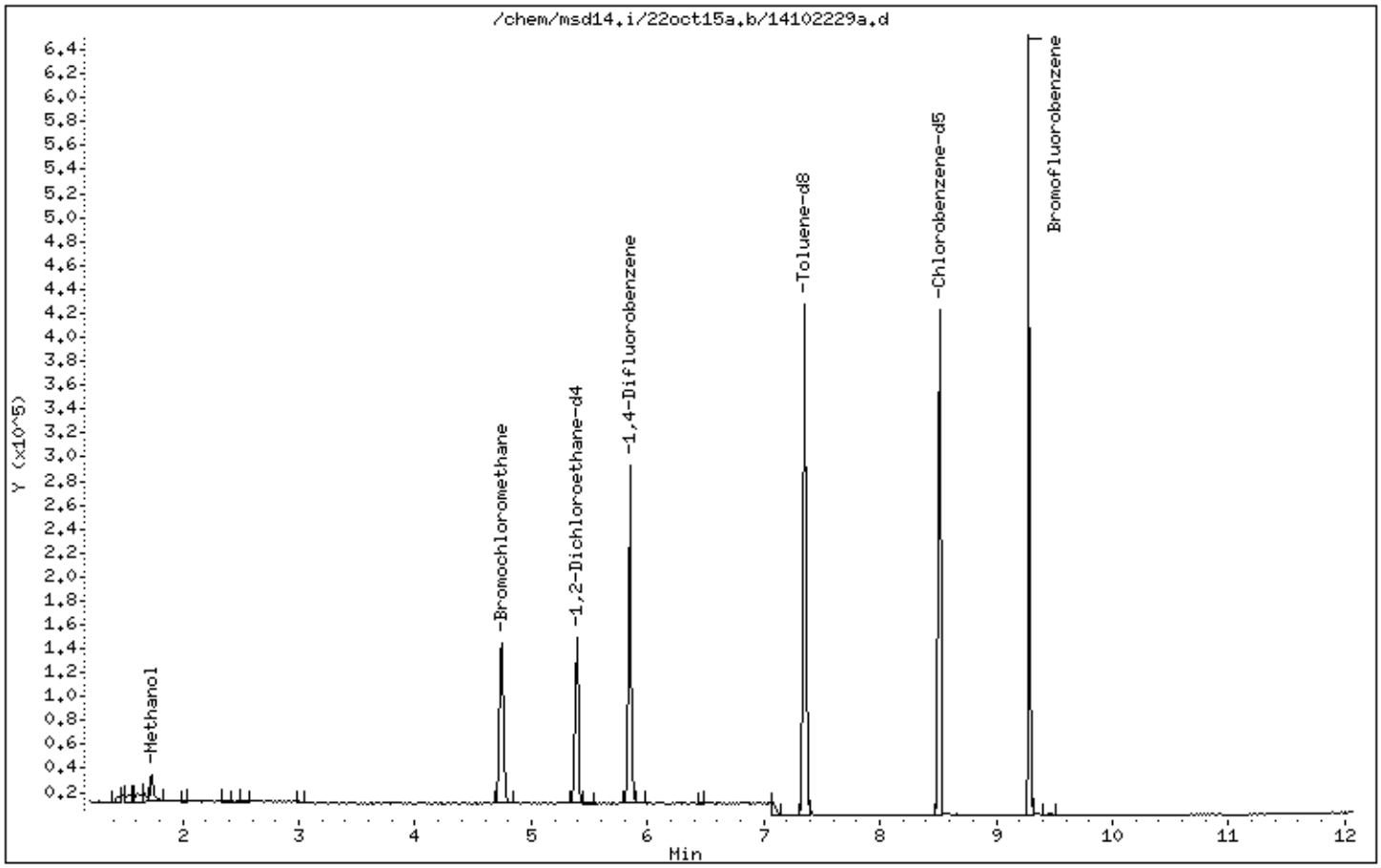
Instrument: msd14.i

Sample Info: 12.5ml #2759-16

Operator: js

Column phase: RTx-624

Column diameter: 0.53



MeOH only

Eurofins Air Toxics, Inc. **MSD-14** **Logbook #: 2756**

BFB Verification of 176/174 m/z Ratio:	46178/48053(100) = 96.10%
Method Name:	MEOH1022A-M

IS/S Std. #:	27316-293	Exp. Date:	1/7/16
BCM		48307	
1,4-DFB		222923	
CB-d5		181906	
Verified CCV IS vs ICAL mid-point (-40%D):			

SOP # (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17

Calculation Check: File ID: 14102229
Compound: Tol-d8
Initials: QV

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}} = \frac{(236,947)}{(\cancel{236,917})} \times \frac{(400.00)}{(1.06291)}$ = Reported Result: 400.00

QV 10/22/15 222923

	Use	File	Lab ID#	Can#	Pressure	Amount Loaded	Verified Vol Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	14102229	BFB tune check	2299-12LS	5psig	20µl	NA	1.00	QV	10/22/15	2100	QV	
2	✓	28	System blank	34496	Humid	50ml	NA	1.00	QV		2118	QV	~~MeOH exp 12/15/15~~ QV 10/22/15 25ml
3	✓	29	ICAL Level 4 1/2	2259-116	50ppbv	12.5ml	NA	1.00	QV		2151	QV	MeOH exp 12/15/15
4	✓	30	Lab blank	34496	Humid	50ml	NA	1.00	QV		2213	QV	
5	✓	31	IS103510-01A	34753	5.7"Hg→5psi	50ml	NA	1.66	QV		2238	MB	
6	✓	32	-02A	6L1270	6.1"Hg→4.8psi	50ml	NA	1.67	QV		2304	MB	
7	✗	33	-03A	34486	7.8"Hg→4.1psi	50mL	N/A	1.72	MB	10/23/15	0635	MB	Chemstation Error
8	✓	34	-04A	33898	4.7"Hg→5.1psi	50mL	N/A	1.60	MB		0652	MB	
9	✓	35	-03A	34486	7.8"Hg→4.1psi	50mL	N/A	1.72	MB		0713	MB	
10	✓	36	-05A	12940	3.7"Hg→4.8psi	50mL	N/A	1.51	MB		0742	MB	
11	✓	37	-06A	916	5.9"Hg→5.2psi	50mL	N/A	1.69	MB		0803	MB	
12	✓	38	-07A	5681	6.1"Hg→4.9psi	50mL	NA	1.68	MB		0831	MB	
13	✓	39	-08A	6L0017	4.5"Hg→4.9psi	50mL	N/A	1.57	MB		0851	MB	
14	✓	40	-09A	34746	2.6"Hg→4.9psi	50mL	NA	1.46	MB		0911	MB	
15	✓	41	-10A	901	8.8"Hg→4.9psi	50mL	NA	1.88	MB		0931	MB	

MB
Reviewed

10/23/15
Date

Eurofins Air Toxics, Inc.

MSD-14

Logbook #: 2756

	Use	File	Lab ID#	Can#	Pressure	Amount Loaded	Verified Vol Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
16	✓	14122242	15103518-11A	6L1334	4.5"Hg→4.9psi	50mL	NA	1.57	MB	10/23/15	0958	MB	
17	✓	43	-12A	34226	7.1"Hg→5.1psi	50mL	NA	1.77	MB	↓	1018	MB	
18	✓	44	-13A	14881	4.5"Hg→5.4psi	50mL	NA	1.58	MB	↓	1056	MB	
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36											MB	10/23/15	

MB
Reviewed

10/23/15
Date

Eurofins Air Toxics Inc.

Data file : /var/chem/msd14.i/22oct15a.b/14102227.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 22-OCT-2015 21:00
Operator : js Inst ID: msd14.i
Smp Info : 2.0ml #2299-1265;BFB;BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msd14.i/22oct15a.b/bfb20.m
Meth Date : 22-Oct-2015 21:11 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
2.468	2.483	-0.015	95	78984			100.00- 100.00	100.00
2.468	2.483	-0.015	50	17066			8.00- 40.00	21.61
2.468	2.483	-0.015	75	40824			30.00- 66.00	51.69
2.468	2.483	-0.015	96	5126			5.00- 9.00	6.49
2.468	2.483	-0.015	173	527			0.00- 1.99	1.10
2.468	2.483	-0.015	174	48053			50.01- 120.00	60.84
2.468	2.483	-0.015	175	3605			4.00- 9.00	7.50
2.468	2.483	-0.015	176	46178			93.00- 101.00	96.10
2.468	2.483	-0.015	177	2900			5.00- 9.00	6.28

Data File: /chem/msd14.i/22oct15a.b/14102227.d

Date : 22-OCT-2015 21:00

Client ID: BFB

Instrument: msd14.i

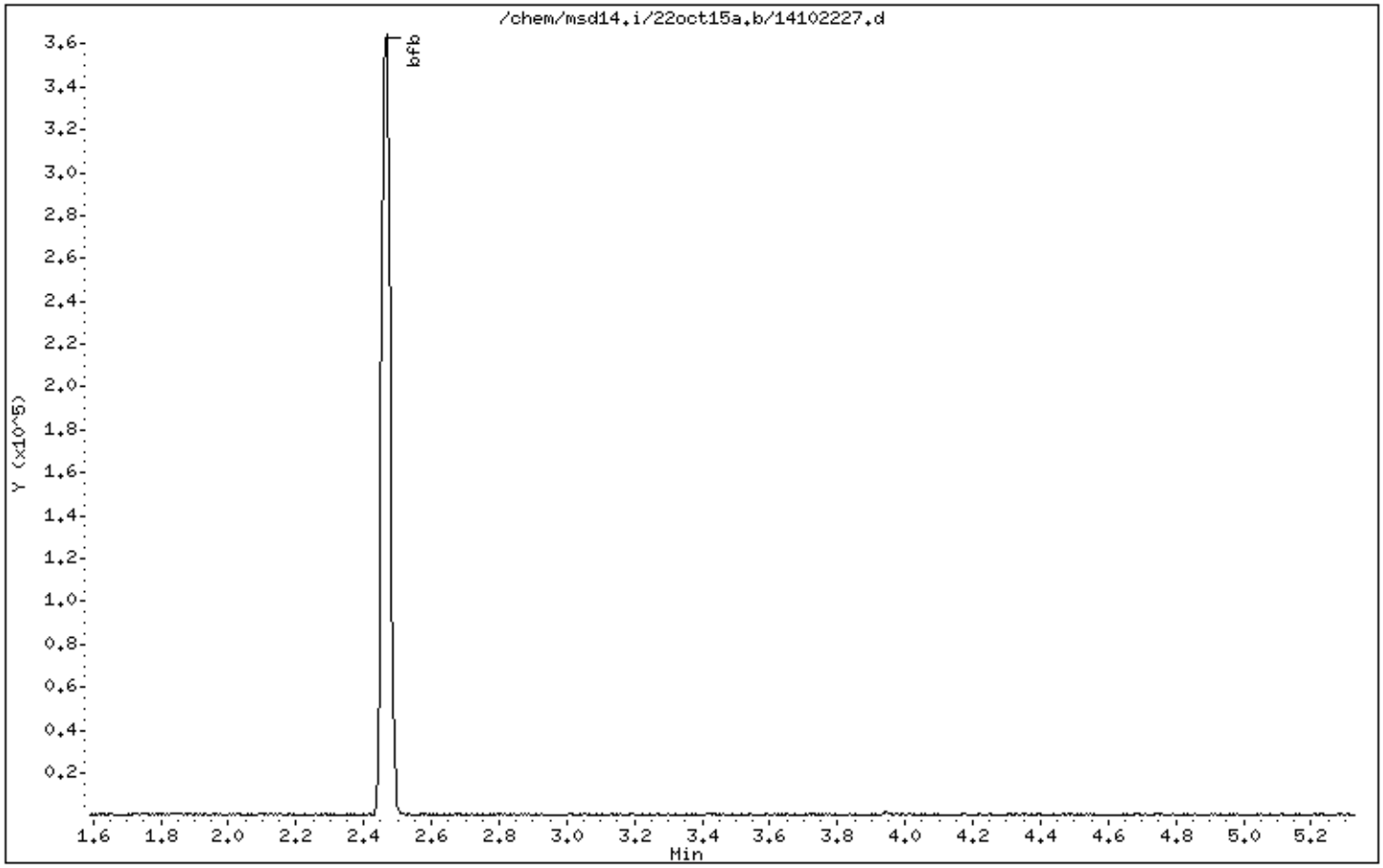
Sample Info: 2.0ml #2299-1265;BFB;BFB

Volume Injected (uL): 1.0

Operator: js

Column phase:

Column diameter: 2.00



Data File: /chem/msd14.i/22oct15a.b/14102227.d

Date : 22-OCT-2015 21:00

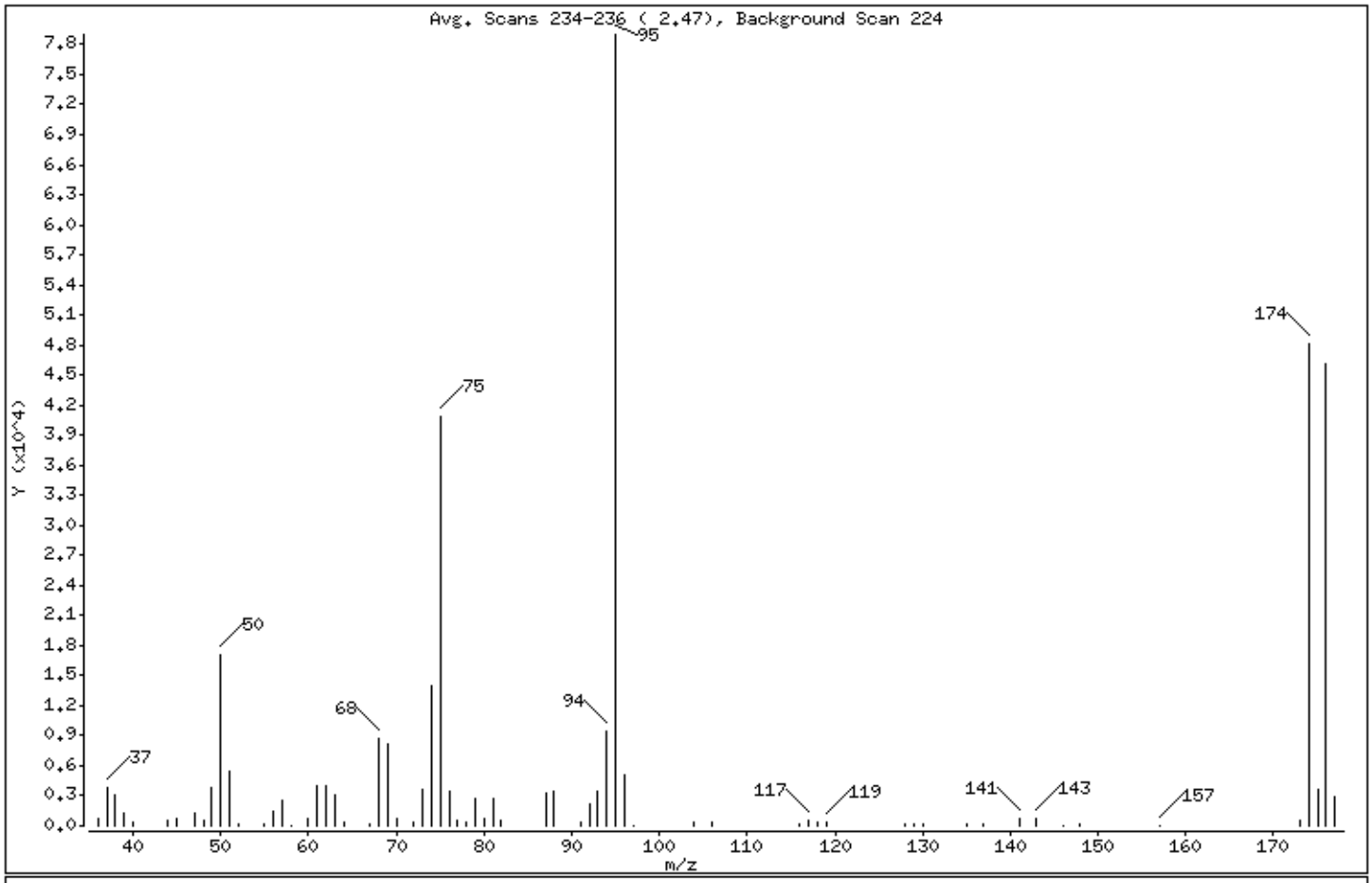
Client ID: BFB | Instrument: msd14.i

Sample Info: 2.0ml #2299-1265;BFB;BFB

Volume Injected (uL): 1.0 | Operator: js

Column phase: | Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	21.61
75	30.00 - 66.00% of mass 95	51.69
96	5.00 - 9.00% of mass 95	6.49
173	Less than 1.99% of mass 174	0.67 (1.10)
174	50.01 - 120.00% of mass 95	60.84
175	4.00 - 9.00% of mass 174	4.56 (7.50)
176	93.00 - 101.00% of mass 174	58.47 (96.10)
177	5.00 - 9.00% of mass 176	3.67 (6.28)

Data File: /chem/msd14.i/22oct15a.b/14102227.d

Date : 22-OCT-2015 21:00

Client ID: BFB

Instrument: msd14.i

Sample Info: 2.0ml #2299-1265;BFB;BFB

Volume Injected (uL): 1.0

Operator: js

Column phase:

Column diameter: 2.00

Data File: 14102227.d
Spectrum: Avg. Scans 234-236 (2.47), Background Scan 224
Location of Maximum: 95.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	678	60.00	779	80.00	699	119.00	371
37.00	3768	61.00	3932	81.00	2786	128.00	212
38.00	3173	62.00	3965	82.00	606	129.00	93
39.00	1332	63.00	3069	87.00	3359	130.00	160
40.00	322	64.00	298	88.00	3395	135.00	122
44.00	496	67.00	239	91.00	326	137.00	173
45.00	777	68.00	8768	92.00	2173	141.00	677
47.00	1289	69.00	8153	93.00	3396	143.00	793
48.00	519	70.00	636	94.00	9437	146.00	62
49.00	3868	72.00	423	95.00	78984	148.00	117
50.00	17064	73.00	3566	96.00	5126	157.00	52
51.00	5498	74.00	13997	97.00	56	173.00	527
52.00	207	75.00	40824	104.00	357	174.00	48048
55.00	241	76.00	3508	106.00	382	175.00	3605
56.00	1475	77.00	497	116.00	240	176.00	46176
57.00	2630	78.00	316	117.00	455	177.00	2900
58.00	63	79.00	2698	118.00	315		

Shipping/ Receiving Documents

Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Terry Taylor
Collected by: (Print and Sign) David Lindstrand
Company: AMAI Email:
Address: 2700 Westchester City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 Fax:

Project Info:
P.O. #:
Project #:
Project Name: BMS VI

Turn Around Time:
☐ Normal
☒ Rush 3-Day (specify)

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	B301A-1 101715	34753	10-18-15	1100	TO-15, CH4	28	6.5		
02A	B301A-2 101715	6L1270	10-18-15	1126	TO-15, CH4	29	6.5		
03A	B301A-3 101715	34486	10-18-15	1159	TO-15, CH4	30	8		
04A	B301A-4 101715	33898	10-18-15	1138	TO-15, CH4	27	5		
05A	B301A-4D 101715	12940	10-18-15	1138	TO-15, CH4	29	4		
06A	B301A-5 101715	916	10-18-15	1132	TO-15, CH4	29	6		
07A	B421A-1 101715	5681	10-18-15	1238	TO-15, CH4	29	6		
08A	B421A-2 101715	6L0017	10-18-15	0754	TO-15, CH4	30	5		
09A	B421A-3 101715	34746	10-18-15	0752	TO-15, CH4	30	3		
10A	B3042AA	901	10-18-15	1345	TO-15, CH4	29.5	8.5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
David Lindstrand	10-19-15 12:00	[illegible]	10/20/15 1035
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
Report results to MDL
Shipped via FedEx by AMAI
Tracking no. 7747 6748 2387

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		NA	Good	Yes No None	1510351

Form 1293 rev.11

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Terry Taylor
Collected by: (Print and Sign) David Lindstrand
Company: AMAI Email:
Address: 2700 Westchester City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 Fax:

Project Info:
P.O. #:
Project #:
Project Name: BMS VI

Turn Around Time:
☐ Normal
☒ Rush 3-Day (specify)

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
11A	B81A-2 101715	GL1334	10-18-15	1145	TO-15, CH_4, Naphthalene	30	4.5		
12A	B81A-2D 101715	34226	10-18-15	1145	TO-15, CH_4, Naphthalene	30	7		
13A	B8AA-1 101715	14881	10-18-15	1145	TO-15, CH_4, Naphthalene	30	4		
~~14A~~	B301A-1 101715 F	5751	10-18-15	0806	Do Not Analyze	28	0		
Per Terry									

Dal 10-19-15

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	10-19-15 12:00	[signature]	10/20/15 1035
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
Report results to MDL
Shipped via Fed Ex by AMAI
Tracking No.: 7776 748 2387

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex		NA	Good	Yes No None	151035

Form 1293 rev.11

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1510351B

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 10/23/15 2:00 pm
Date Completed: 10/23/15
Date Received: 10/20/15
PO#:
Project#: BMS VI

Total $: $ 1,527.50
Logged By: JCW

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B30IA-1 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	5.7 "Hg	$112.50
02A	B30IA-2 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	6.1 "Hg	$112.50
03A	B30IA-3 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	7.8 "Hg	$112.50
04A	B30IA-4 101715	Modified TO-15 (5&20 ppbv)	10/15/2015	4.7 "Hg	$112.50
05A	B30IA-4D 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	3.7 "Hg	$112.50
06A	B30IA-5 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	5.9 "Hg	$112.50
07A	B42IA-1 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	6.1 "Hg	$112.50
08A	B42IA-2 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	4.5 "Hg	$112.50
09A	B42IA-3 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	2.6 "Hg	$112.50
10A	B3042AA	Modified TO-15 (5&20 ppbv)	10/18/2015	8.8 "Hg	$112.50
11A	B8IA-2 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	4.5 "Hg	$112.50
12A	B8IA-2D 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	7.1 "Hg	$112.50
13A	B8AA-1 101715	Modified TO-15 (5&20 ppbv)	10/18/2015	4.5 "Hg	$112.50
14A	Lab Blank	Modified TO-15 (5&20 ppbv)	NA	NA	$0.00
15A	CCV	Modified TO-15 (5&20 ppbv)	NA	NA	$0.00

Misc. Charges eCVP (13) @ $5.00 each. $65.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: TO-15 (5&20)

REMARKS: A 50% surcharge is applied for a 72 hour turnaround time.

TERMS:

Reporting Method: TO-15 (5&20 ppbv) (Sp)-Methanol Only

Other Records

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi - [(Initial Pressure ("Hg)) (14.7 psi / 30 "Hg)]}}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

Initial Vacuum ("Hg)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.5	1.36	1.71	2.05
1.0	1.39	1.74	2.09
1.5	1.41	1.77	2.13
2.0	1.44	1.80	2.16
2.5	1.46	1.83	2.20
3.0	1.49	1.87	2.24
3.5	1.52	1.90	2.29
4.0	1.55	1.94	2.33
4.5	1.58	1.98	2.38
5.0	1.61	2.02	2.42
5.5	1.64	2.06	2.47
6.0	1.68	2.10	2.53
6.5	1.71	2.15	2.58
7.0	1.75	2.19	2.64
7.5	1.79	2.24	2.69
8.0	1.83	2.29	2.76
8.5	1.87	2.34	2.82
9.0	1.91	2.40	2.89
9.5	1.96	2.46	2.96
10.0	2.01	2.52	3.03
10.5	2.06	2.59	3.11
11.0	2.12	2.65	3.19
11.5	2.17	2.72	3.28
12.0	2.23	2.80	3.37
12.5	2.30	2.88	3.46
13.0	2.36	2.97	3.57
13.5	2.44	3.06	3.67
14.0	2.51	3.15	3.79
14.5	2.59	3.25	3.91
15.0	2.68	3.36	4.04
15.5	2.77	3.48	4.18
16.0	2.87	3.60	4.33
16.5	2.98	3.73	4.49
17.0	3.09	3.88	4.66
17.5	3.22	4.03	4.85
18.0	3.35	4.20	5.05
18.5	3.50	4.38	5.27
19.0	3.65	4.58	5.51
19.5	3.83	4.80	5.77
20.0	4.02	5.04	6.06
20.5	4.23	5.31	6.38

Initial Vacuum ("Hg)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
21.0	4.47	5.60	6.73
21.5	4.73	5.93	7.13
22.0	5.03	6.30	7.58
22.5	5.36	6.72	8.08
23.0	5.74	7.20	8.66
23.5	6.19	7.76	9.32
24.0	6.70	8.40	10.10
24.5	7.31	9.17	11.02
25.0	8.04	10.08	12.12
25.5	8.93	11.20	13.47
26.0	10.05	12.60	15.15
26.5	11.49	14.40	17.32
27.0	13.40	16.80	20.20
27.5	16.08	20.16	24.24
28.0	20.10	25.20	30.31
28.5	26.80	33.61	40.41
29.0	40.20	50.41	60.61

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{ psi} + \text{Final Pressure (psi)}}{14.7\text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound Listing

TO-15 (5&20 ppbv) (Sp)-Methanol Only

CAS Number	Compound	Detection Limit ppbv	Type
67-56-1	Methanol	50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 03/26/15
Workorder # 1510351B	Form F1.27	Revision #11	Revision date: 03/26/15	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: MSD-14 MS 10/22/15	S2:	S3:	S4:
✓					Project identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
✓					Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
NA				✓	Manual Integrations included and approved				
✓					Chain of Custody verified for special comments (add comments below)				
✓					Non-standard Target sublist printed				

Profile, analyses, reporting, special notes and unusual circumstances:

S1: 1-pt. S2: MeOH only.

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: MS 10/23/15	A2:	A3:	A4:
✓				✓	Internal Standard/Surrogate Recoveries, Dilution Factors, Load Volumes, Initial/Final Pressures, and Canister #s Verified				
NA				NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg of instrument				
NA				NA	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
✓					12/24 Hr clock time & Hold Time met for all samples				
✓				NA	Re-analysis of sample(s) have been evaluated for comparability and/or samples have been checked for trends (Inf/Eff).				
✓				✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds etc)				

Analytical and special notes:

A1: 01A-13A = full loads.

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date	D1: MSD-14 LA 10/23/15	D2:	D3:	D4:
NA						CAR # (if applicable)				
✓						Spectra Verified (documentation of spectral defense included if applicable)				
NA						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
✓						Lab Narrative is correct				
NA						TPH/NMOC calculations complete and included in folder				

Special notes:

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: LA 10/23/15	3rd Tier: (needed only for DOD or per client request)	
NA		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
NA		Manually entered results are checked		
✓		At least one result per sample is verified against Target quant sheets		
NA		Appropriate data qualifier flags are applied		
✓		Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	QA Review (Initials/Date)

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	QA Review (Initials/Date)

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable