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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 #: 1503058C

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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	3/17/15
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1503058C

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 #**	
DATE RECEIVED:	03/04/2015	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	03/09/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B6-AA-2	Modified TO-15 (5&20 ppbv	0.8 "Hg	4.9 psi
02A	B6-1IA	Modified TO-15 (5&20 ppbv	4.3 "Hg	5 psi
03A	B6-2IA	Modified TO-15 (5&20 ppbv	4.9 "Hg	4.9 psi
04A	B6-2IADup	Modified TO-15 (5&20 ppbv	5.5 "Hg	4.9 psi
05A	B6-1SS	Modified TO-15 (5&20 ppbv	4.3 "Hg	14.9 psi
06A	B6-2SS	Modified TO-15 (5&20 ppbv	3.1 "Hg	14.9 psi
07A	B6-2SSDup	Modified TO-15 (5&20 ppbv	5.1 "Hg	15 psi
08A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
09A	CCV	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 03/09/15

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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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
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LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
Anderson Mulholland & Associates, Inc.
Workorder# 1503058C

Four 6 Liter Summa Canister (100% Certified) and three 1 Liter Summa Canister (100% Certified) samples were received on March 04, 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
B6-AA-2	1503058C-01A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-1IA	1503058C-02A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-2IA	1503058C-03A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-2IADup	1503058C-04A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-1SS	1503058C-05A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-2SS	1503058C-06A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
B6-2SSDup	1503058C-07A	3/ 2/2015	3/ 4/2015	NA	3	3/ 5/2015	NA	Good
Lab Blank	1503058C-08A	NA	NA	NA	NA	3/ 5/2015	NA	Good
CCV	1503058C-09A	NA	NA	NA	NA	3/ 5/2015	NA	Good

Sample Results and Raw Data

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

Client Sample ID: B6-AA-2

Lab ID#: 1503058C-01A

No Detections Were Found.

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Client Sample ID: B6-AA-2

Lab ID#: 1503058C-01A

EPA METHOD TO-15 GC/MS

File Name:	**14030505**	**Date of Collection:**	**3/2/15 9:38:00 AM**
Dil. Factor:	**1.37**	**Date of Analysis:**	**3/5/15 02:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	68	Not Detected	90	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	96	70-130

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AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030505.d
Lab Smp Id: 1503058C-01A
Inj Date : 05-MAR-2015 14:43
Operator : md Inst ID: msd14.i
Smp Info : 50ml #34188
Misc Info : 0.8"Hg->4.9psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 1.37000
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	84484	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	66100			48.27- 108.27	78.24
4.749	4.749 (1.000)	49	100486			89.70- 149.70	118.94
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	361035	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	57320			0.00- 45.31	15.88
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	329073	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	172741			22.70- 82.70	52.49
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	117991	403.498	403.50	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	60009			20.38- 80.38	50.86
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	360335	401.197	401.20	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	39051			0.00- 40.88	10.84

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	234715			34.98- 94.98	65.14
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	177743	384.750	384.75	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	228871			97.88- 157.88	128.77
9.297	9.297	(1.092)	176	175700			67.35- 127.35	98.85

Report Date: 09-Mar-2015 06:16

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030505.d
Lab Smp Id: 1503058C-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 0.8"Hg->4.9psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	84484	8.99
92 1,4-Difluorobenze	329329	197597	461061	361035	9.63
125 Chlorobenzene-d5	291473	174884	408062	329073	12.90

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: 09-Mar-2015 06:16

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-01A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 0.8"Hg->4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	403.50	100.87	70-130
$ 107 Toluene-d8	400.00	401.20	100.30	70-130
$ 138 Bromofluorobenzene	400.00	384.75	96.19	70-130

Data File: /chem/msd14.i/05mar15.b/14030505.d

Date : 05-MAR-2015 14:43

Client ID:

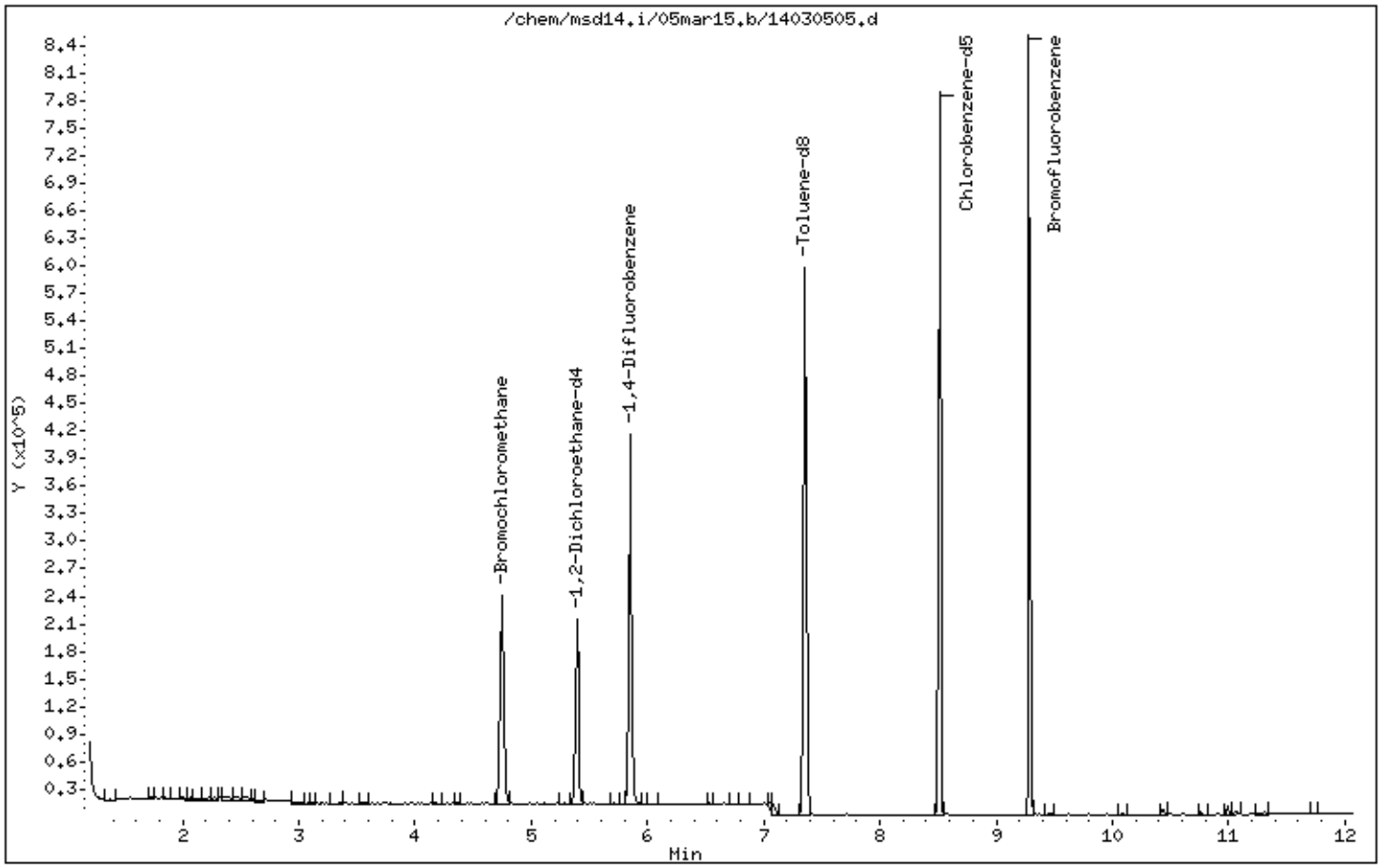
Instrument: msd14.i

Sample Info: 50ml #34188

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-1IA

Lab ID#: 1503058C-02A

No Detections Were Found.

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Client Sample ID: B6-1IA

Lab ID#: 1503058C-02A

EPA METHOD TO-15 GC/MS

File Name:	**14030506**	**Date of Collection:**	**3/2/15 12:05:00 PM**
Dil. Factor:	**1.56**	**Date of Analysis:**	**3/5/15 03:06 PM**

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	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030506.d
Lab Smp Id: 1503058C-02A
Inj Date : 05-MAR-2015 15:06
Operator : md Inst ID: msd14.i
Smp Info : 50ml #94305
Misc Info : 4.3"Hg->5psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 1.56000
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	80297	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	62783			48.27- 108.27	78.19
4.749	4.749 (1.000)	49	98345			89.70- 149.70	122.48
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	354449	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	53280			0.00- 45.31	15.03
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	316457	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	162067			22.70- 82.70	51.21
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	112253	403.887	403.89	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	57639			20.38- 80.38	51.35
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	348295	394.997	395.00	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	37988			0.00- 40.88	10.91

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	226934			34.98- 94.98	65.16
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	178273	401.283	401.28	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	226870			97.88- 157.88	127.26
9.297	9.297	(1.092)	176	173043			67.35- 127.35	97.07

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030506.d
Lab Smp Id: 1503058C-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.3"Hg->5psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	80297	3.59
92 1,4-Difluorobenze	329329	197597	461061	354449	7.63
125 Chlorobenzene-d5	291473	174884	408062	316457	8.57

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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-02A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.3"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	403.89	100.97	70-130
$ 107 Toluene-d8	400.00	395.00	98.75	70-130
$ 138 Bromofluorobenzene	400.00	401.28	100.32	70-130

Data File: /chem/msd14.i/05mar15.b/14030506.d

Date : 05-MAR-2015 15:06

Client ID:

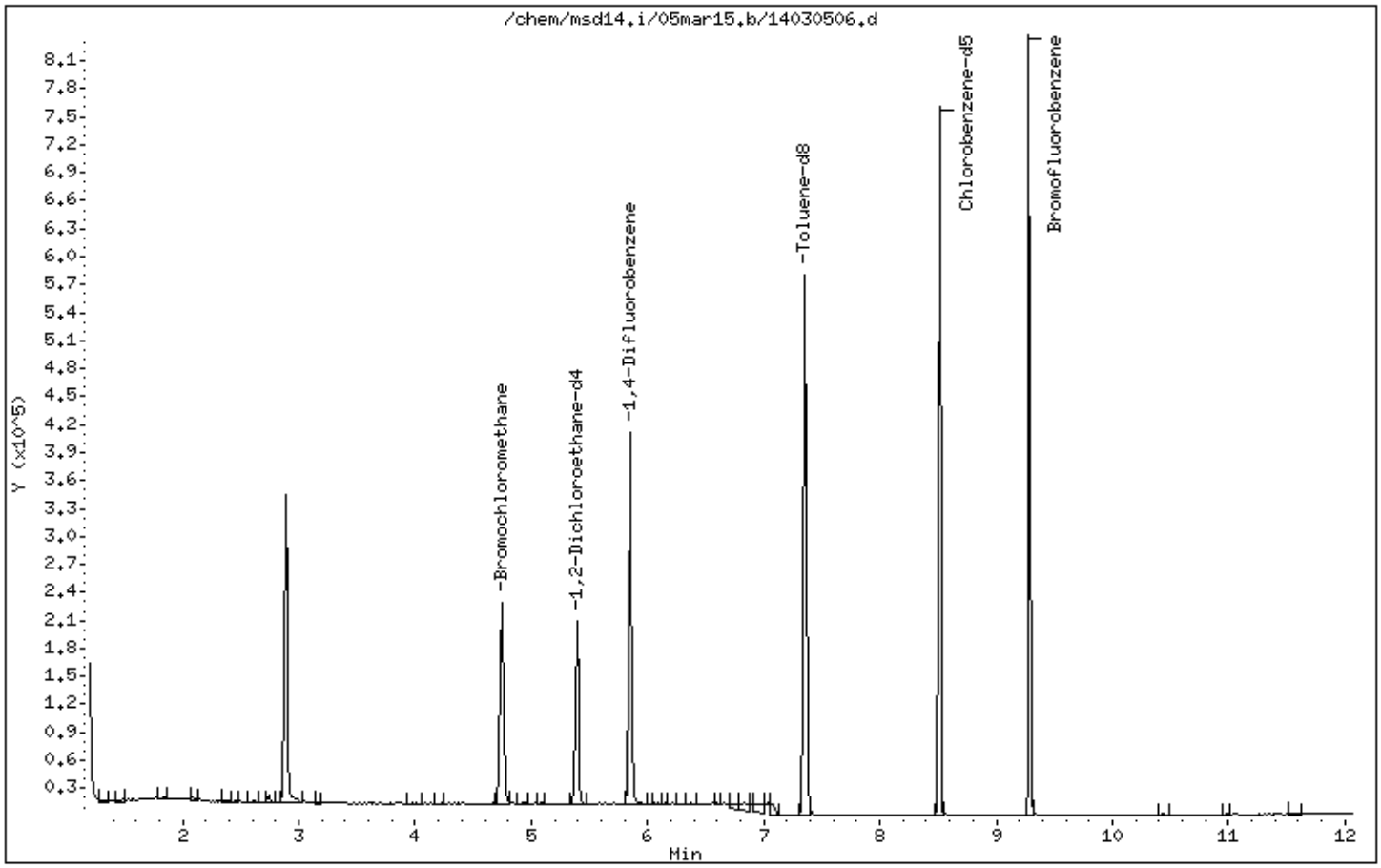
Instrument: msd14.i

Sample Info: 50ml #94305

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-2IA

Lab ID#: 1503058C-03A

No Detections Were Found.

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Client Sample ID: B6-2IA

Lab ID#: 1503058C-03A

EPA METHOD TO-15 GC/MS

File Name:	**14030507**	**Date of Collection:**	**3/2/15 12:08:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**3/5/15 04:08 PM**

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	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030507.d
Lab Smp Id: 1503058C-03A
Inj Date : 05-MAR-2015 16:08
Operator : md Inst ID: msd14.i
Smp Info : 50ml #34011
Misc Info : 4.9"Hg->4.9psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 1.59000
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	80278	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	61629			48.27- 108.27	76.77
4.749	4.749 (1.000)	49	99377			89.70- 149.70	123.79
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	348958	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	53219			0.00- 45.31	15.25
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	311761	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	164591			22.70- 82.70	52.79
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	113334	407.873	407.87	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	57681			20.38- 80.38	50.89
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	348708	401.688	401.69	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	37331			0.00- 40.88	10.71

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	230514			34.98- 94.98	66.11
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	176697	403.725	403.72	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	221784			97.88- 157.88	125.52
9.297	9.297	(1.092)	176	169598			67.35- 127.35	95.98

Report Date: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030507.d
Lab Smp Id: 1503058C-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.9"Hg->4.9psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	80278	3.57
92 1,4-Difluorobenze	329329	197597	461061	348958	5.96
125 Chlorobenzene-d5	291473	174884	408062	311761	6.96

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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-03A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.9"Hg->4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	407.87	101.97	70-130
$ 107 Toluene-d8	400.00	401.69	100.42	70-130
$ 138 Bromofluorobenzene	400.00	403.72	100.93	70-130

Data File: /chem/msd14.i/05mar15.b/14030507.d

Date : 05-MAR-2015 16:08

Client ID:

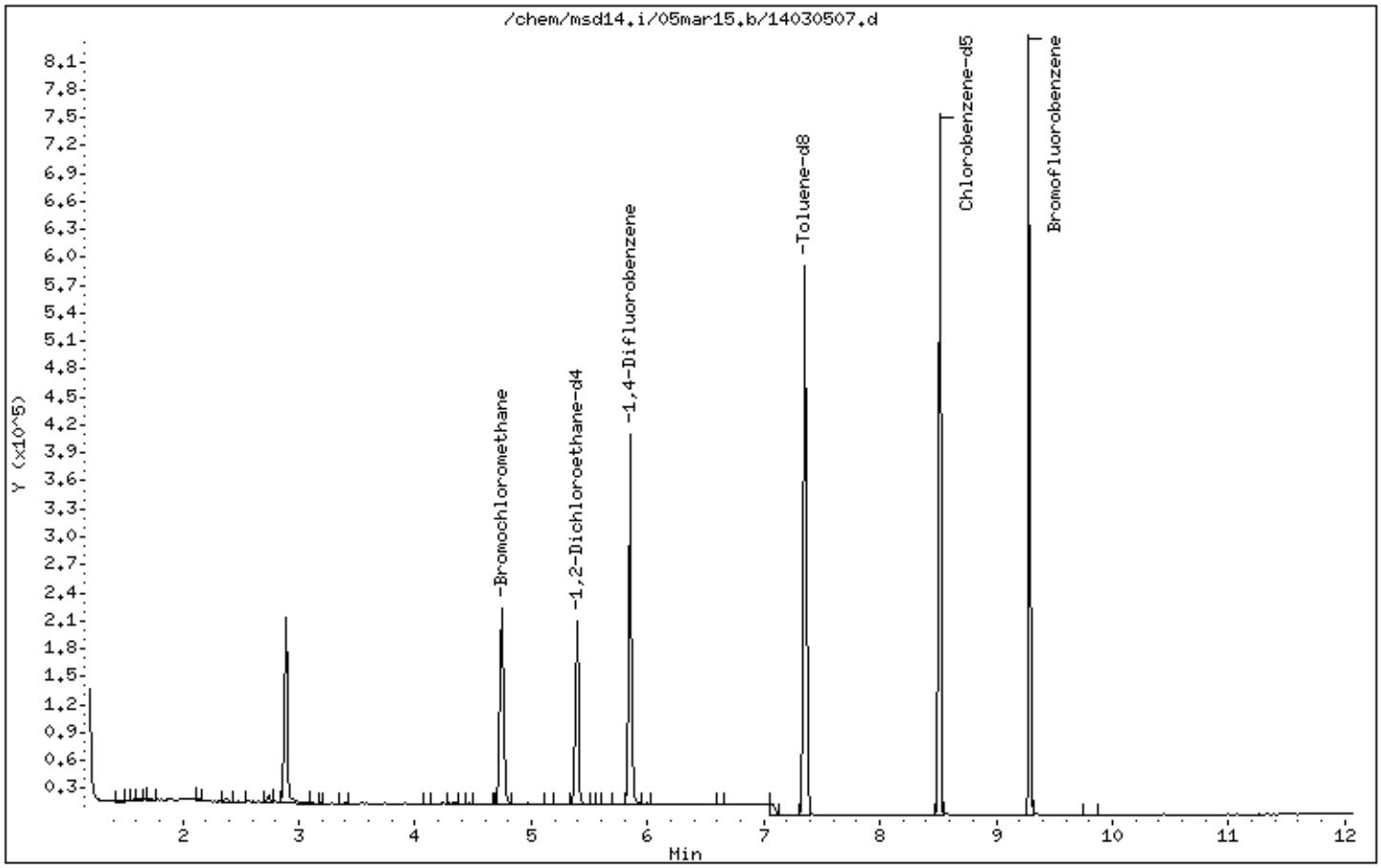
Instrument: msd14.i

Sample Info: 50ml #34011

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-2IADup

Lab ID#: 1503058C-04A

No Detections Were Found.

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Client Sample ID: B6-2IADup

Lab ID#: 1503058C-04A

EPA METHOD TO-15 GC/MS

File Name:	**14030508**	**Date of Collection:**	**3/2/15 12:08:00 PM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**3/5/15 04:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	82	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	99	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030508.d
Lab Smp Id: 1503058C-04A
Inj Date : 05-MAR-2015 16:59
Operator : md Inst ID: msd14.i
Smp Info : 50ml #35132
Misc Info : 5.5"Hg->4.9psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 1.63000
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	78751	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	61603			48.27- 108.27	78.22
4.749	4.749 (1.000)	49	98499			89.70- 149.70	125.08
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	342611	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	52673			0.00- 45.31	15.37
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	309686	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	161369			22.70- 82.70	52.11
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	113349	415.834	415.83	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	55849			20.38- 80.38	49.27
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	340089	399.016	399.02	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	36785			0.00- 40.88	10.82

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	223438			34.98- 94.98	65.70
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	172749	397.350	397.35	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	219211			97.88- 157.88	126.90
9.283	9.297	(1.090)	176	168926			67.35- 127.35	97.79

Report Date: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030508.d
Lab Smp Id: 1503058C-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 5.5"Hg->4.9psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	78751	1.60
92 1,4-Difluorobenze	329329	197597	461061	342611	4.03
125 Chlorobenzene-d5	291473	174884	408062	309686	6.25

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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-04A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 5.5"Hg->4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	415.83	103.96	70-130
$ 107 Toluene-d8	400.00	399.02	99.75	70-130
$ 138 Bromofluorobenzene	400.00	397.35	99.34	70-130

Data File: /chem/msd14.i/05mar15.b/14030508.d

Date : 05-MAR-2015 16:59

Client ID:

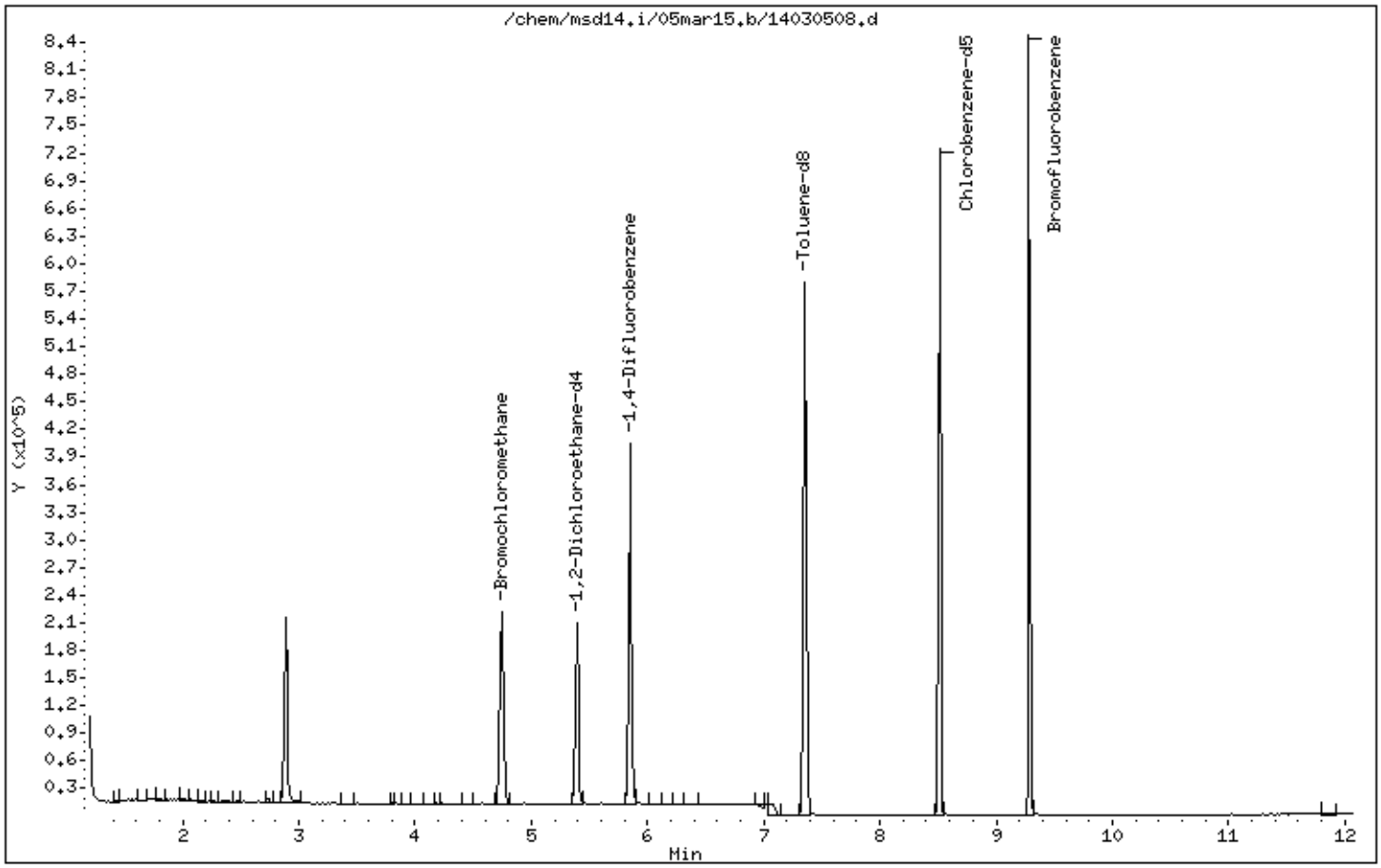
Instrument: msd14.i

Sample Info: 50ml #35132

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-1SS

Lab ID#: 1503058C-05A

No Detections Were Found.

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Client Sample ID: B6-1SS

Lab ID#: 1503058C-05A

EPA METHOD TO-15 GC/MS

File Name:	**14030509**	**Date of Collection:**	**3/2/15 4:35:00 PM**
Dil. Factor:	**2.35**	**Date of Analysis:**	**3/5/15 05:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	Not Detected	150	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030509.d
Lab Smp Id: 1503058C-05A
Inj Date : 05-MAR-2015 17:27
Operator : md Inst ID: msd14.i
Smp Info : 50ml #36415
Misc Info : 4.3"Hg->14.9psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 2.35000
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	75074	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	59253			48.27- 108.27	78.93
4.749	4.749 (1.000)	49	93230			89.70- 149.70	124.18
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	326917	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	49069			0.00- 45.31	15.01
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	295733	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	153021			22.70- 82.70	51.74
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	106862	411.238	411.24	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	52248			20.38- 80.38	48.89
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	320665	394.289	394.29	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	35005			0.00- 40.88	10.92

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	212572			34.98- 94.98	66.29
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	164287	395.714	395.71	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	209838			97.88- 157.88	127.73
9.297	9.297	(1.092)	176	159141			67.35- 127.35	96.87

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030509.d
Lab Smp Id: 1503058C-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.3"Hg->14.9psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	75074	-3.15
92 1,4-Difluorobenze	329329	197597	461061	326917	-0.73
125 Chlorobenzene-d5	291473	174884	408062	295733	1.46

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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-05A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 4.3"Hg->14.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	411.24	102.81	70-130
$ 107 Toluene-d8	400.00	394.29	98.57	70-130
$ 138 Bromofluorobenzene	400.00	395.71	98.93	70-130

Data File: /chem/msd14.i/05mar15.b/14030509.d

Date : 05-MAR-2015 17:27

Client ID:

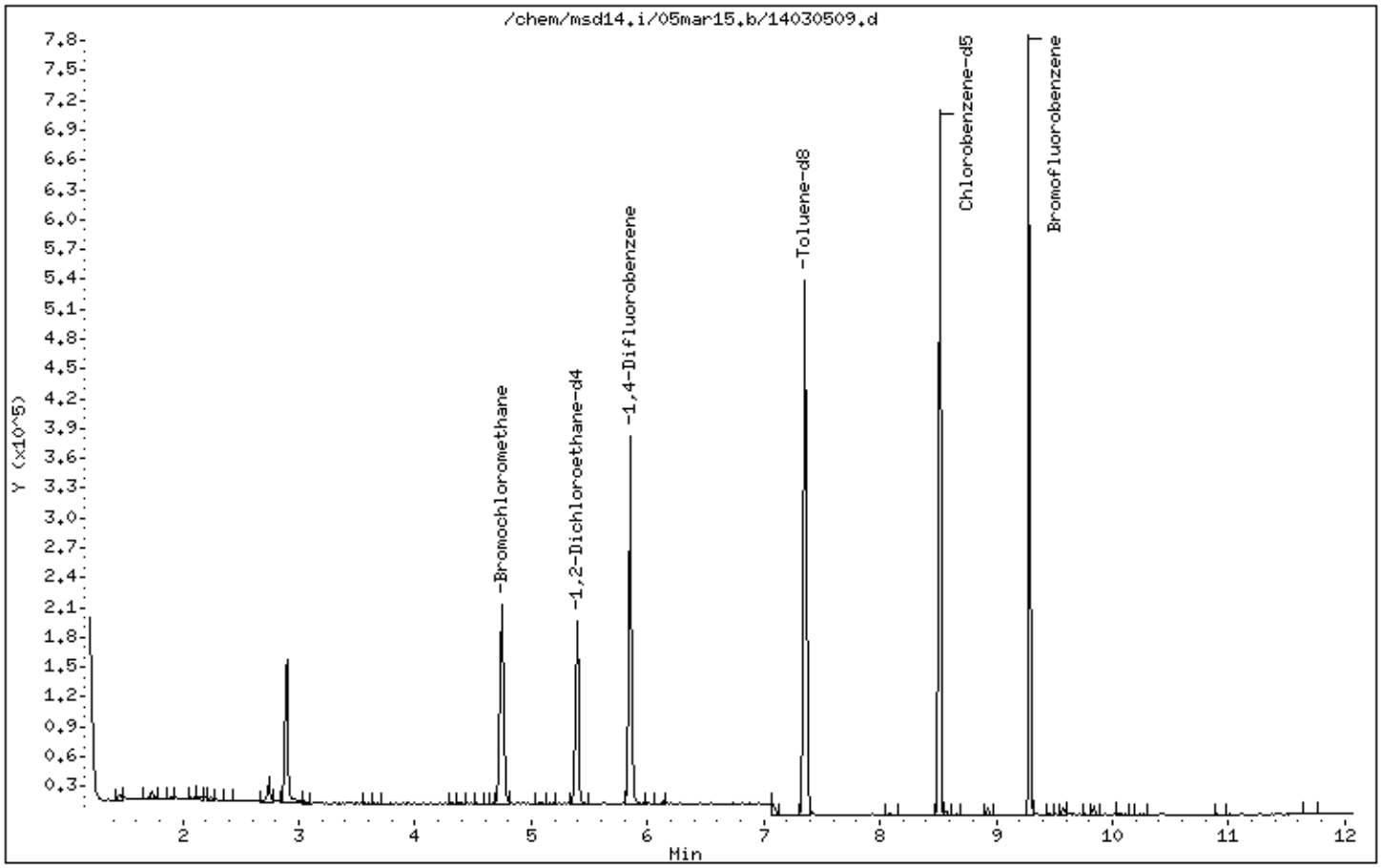
Instrument: msd14.i

Sample Info: 50ml #36415

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-2SS

Lab ID#: 1503058C-06A

No Detections Were Found.

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Client Sample ID: B6-2SS

Lab ID#: 1503058C-06A

EPA METHOD TO-15 GC/MS

File Name:	**14030510**	**Date of Collection:**	**3/2/15 3:08:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**3/5/15 06:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	110	Not Detected	150	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030510.d
Lab Smp Id: 1503058C-06A
Inj Date : 05-MAR-2015 18:20
Operator : md Inst ID: msd14.i
Smp Info : 50ml #33398
Misc Info : 3.1"Hg->14.9psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 2.24000
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	74000	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	56853			48.27- 108.27	76.83
4.749	4.749 (1.000)	49	89915			89.70- 149.70	121.51
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	323033	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	48528			0.00- 45.31	15.02
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	291342	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	153771			22.70- 82.70	52.78
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	104014	406.092	406.09	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	53462			20.38- 80.38	51.40
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	314440	391.283	391.28	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	33925			0.00- 40.88	10.79

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	209761			34.98- 94.98	66.71
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.283	9.283	(1.090)	174	165978	405.812	405.81	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	206889			97.88- 157.88	124.65
9.297	9.297	(1.092)	176	158847			67.35- 127.35	95.70

Report Date: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030510.d
Lab Smp Id: 1503058C-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 3.1"Hg->14.9psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	74000	-4.53
92 1,4-Difluorobenze	329329	197597	461061	323033	-1.91
125 Chlorobenzene-d5	291473	174884	408062	291342	-0.04

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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-06A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 3.1"Hg->14.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	406.09	101.52	70-130
$ 107 Toluene-d8	400.00	391.28	97.82	70-130
$ 138 Bromofluorobenzene	400.00	405.81	101.45	70-130

Data File: /chem/msd14.i/05mar15.b/14030510.d

Date : 05-MAR-2015 18:20

Client ID:

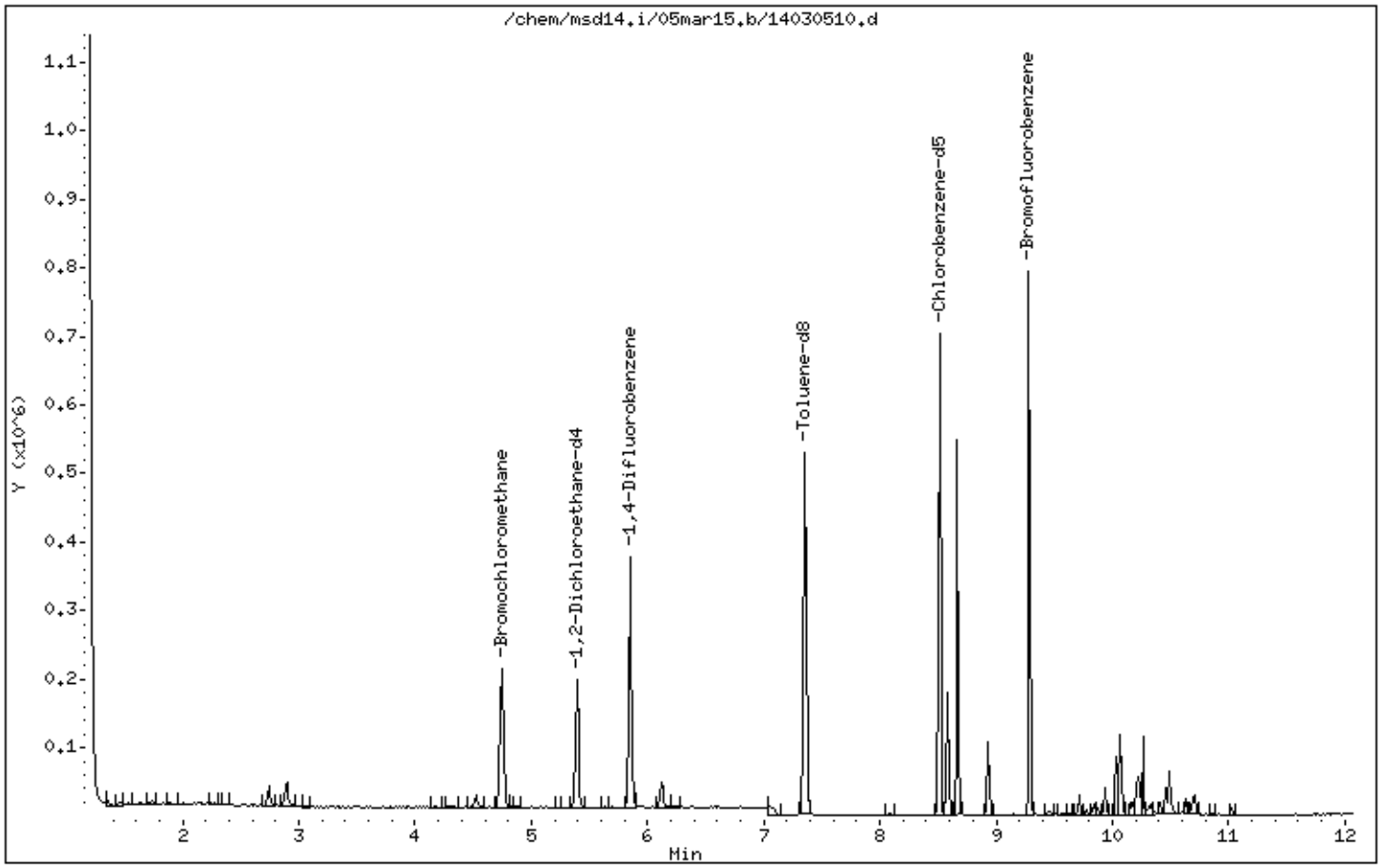
Instrument: msd14.i

Sample Info: 50ml #33398

Operator: md

Column phase: RTx-624

Column diameter: 0.53



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

Client Sample ID: B6-2SSDup

Lab ID#: 1503058C-07A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: B6-2SSDup

Lab ID#: 1503058C-07A

EPA METHOD TO-15 GC/MS

File Name:	**14030511**	**Date of Collection:**	**3/2/15 3:08:00 PM**
Dil. Factor:	**2.43**	**Date of Analysis:**	**3/5/15 06:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030511.d
Lab Smp Id: 1503058C-07A
Inj Date : 05-MAR-2015 18:40
Operator : md Inst ID: msd14.i
Smp Info : 50ml #12379
Misc Info : 5.1"Hg->15psi
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1
Dil Factor: 2.43000
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	72669	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	56066			48.27- 108.27	77.15
4.749	4.749 (1.000)	49	89170			89.70- 149.70	122.71
* 92 1,4-Difluorobenzene					CAS #: 540-36-3		
5.846	5.846 (1.000)	114	312563	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	48015			0.00- 45.31	15.36
* 125 Chlorobenzene-d5					CAS #: 3114-55-4		
8.513	8.513 (1.000)	117	286520	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	148400			22.70- 82.70	51.79
$ 84 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.390	5.390 (1.135)	65	103902	413.079	413.08	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	53429			20.38- 80.38	51.42
$ 107 Toluene-d8					CAS #: 2037-26-5		
7.352	7.352 (1.258)	98	312573	401.989	401.99	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	34763			0.00- 40.88	11.12

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	203865			34.98- 94.98	65.22
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	163863	407.386	407.39	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	204858			97.88- 157.88	125.02
9.297	9.297	(1.092)	176	155602			67.35- 127.35	94.96

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030511.d
Lab Smp Id: 1503058C-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: md
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 5.1"Hg->15psi

Calibration Date: 05-MAR-2015
Calibration Time: 12:44

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	72669	-6.25
92 1,4-Difluorobenze	329329	197597	461061	312563	-5.09
125 Chlorobenzene-d5	291473	174884	408062	286520	-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: 09-Mar-2015 06:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1503058C-07A
Level: LOW
Operator: md
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 5.1"Hg->15psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	413.08	103.27	70-130
$ 107 Toluene-d8	400.00	401.99	100.50	70-130
$ 138 Bromofluorobenzene	400.00	407.39	101.85	70-130

Data File: /chem/msd14.i/05mar15.b/14030511.d

Date : 05-MAR-2015 18:40

Client ID:

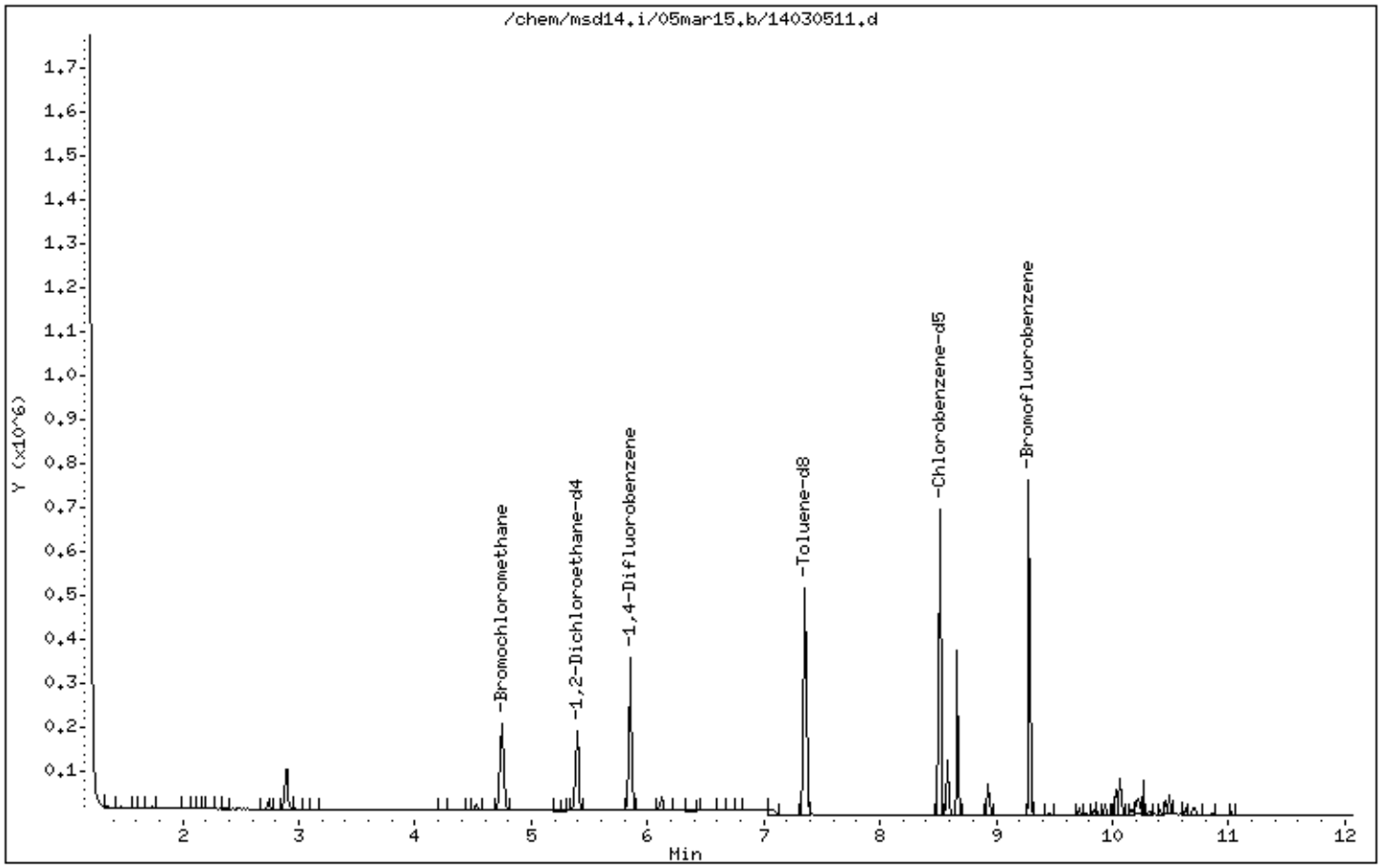
Instrument: msd14.i

Sample Info: 50ml #12379

Operator: md

Column phase: RTx-624

Column diameter: 0.53



QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1503058C-08A

EPA METHOD TO-15 GC/MS

File Name:	**14030504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/5/15 01:31 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	98	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030504.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 05-MAR-2015 13:31
Operator : cb Inst ID: msd14.i
Smp Info : 50ml #34496
Misc Info : Humid
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 13:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.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	82068	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	63040			48.27- 108.27	76.81
4.749	4.749 (1.000)	49	98562			89.70- 149.70	120.10
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	358667	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	55685			0.00- 45.31	15.53
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	315314	400.000		80.00- 120.00	100.00
8.513	8.513 (1.000)	82	163112			22.70- 82.70	51.73
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	115849	407.833	407.83	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	58038			20.38- 80.38	50.10
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	349901	392.151	392.15	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	38229			0.00- 40.88	10.93

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	231397			34.98- 94.98	66.13
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.297	9.283	(1.092)	174	179758	406.091	406.09	80.00- 120.00	100.00
9.283	9.283	(1.090)	95	228852			97.88- 157.88	127.31
9.297	9.297	(1.092)	176	174334			67.35- 127.35	96.98

Report Date: 05-Mar-2015 14:05

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030504.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: cb
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: Humid

Calibration Date: 05-MAR-2015
Calibration Time: 12:44
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	82068	5.88
92 1,4-Difluorobenze	329329	197597	461061	358667	8.91
125 Chlorobenzene-d5	291473	174884	408062	315314	8.18

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: 05-Mar-2015 14:05

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 05mar15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: cb
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	407.83	101.96	70-130
$ 107 Toluene-d8	400.00	392.15	98.04	70-130
$ 138 Bromofluorobenzene	400.00	406.09	101.52	70-130

Data File: /chem/msd14.i/05mar15.b/14030504.d

Date : 05-MAR-2015 13:31

Client ID: Lab Blank

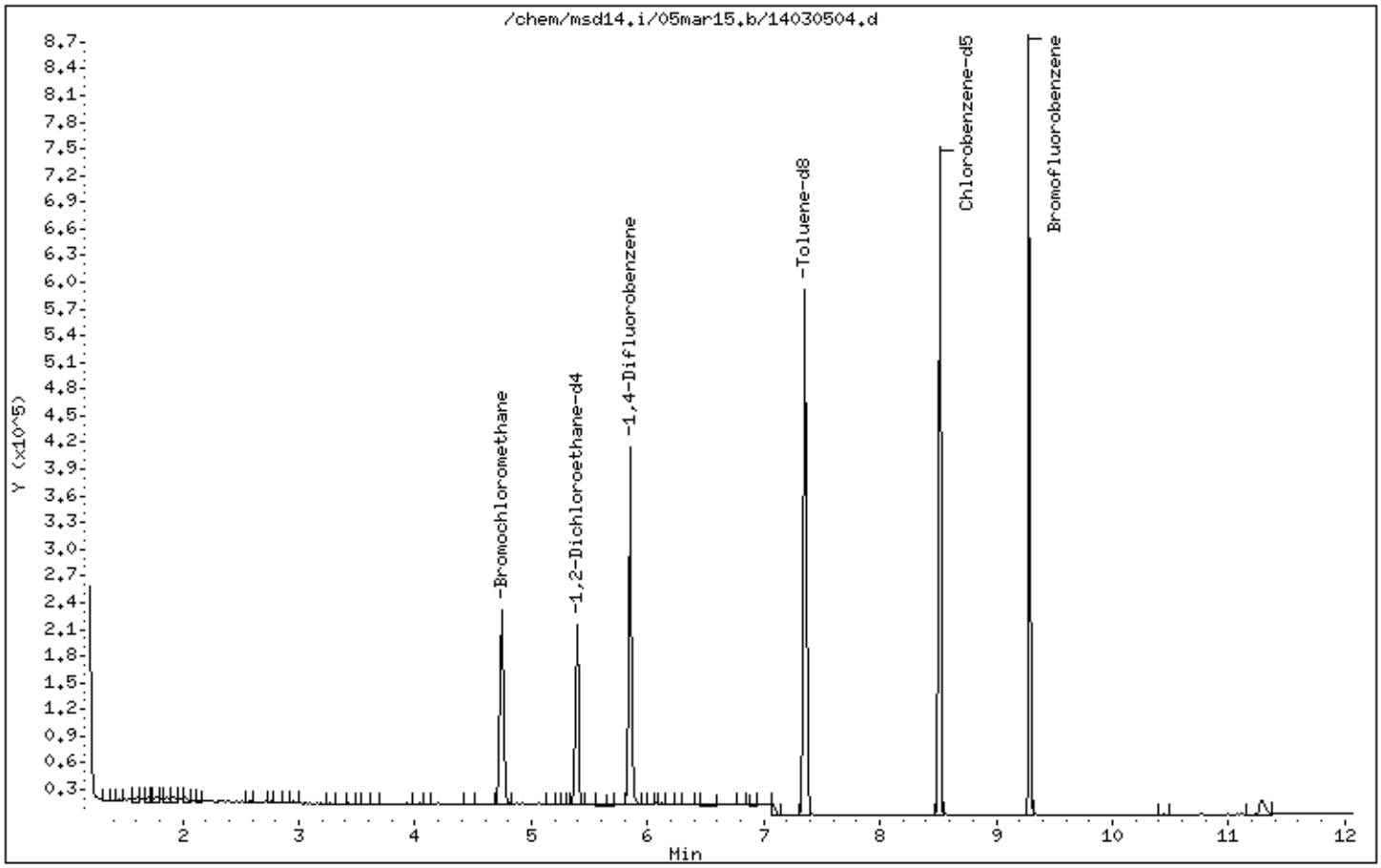
Instrument: msd14.i

Sample Info: 50ml #34496

Operator: cb

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.: 1503058C

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B6-AA-2	101		100		96				0
02	B6-1IA	101		99		100				0
03	B6-2IA	102		100		101				0
04	B6-2IADup	104		100		99				0
05	B6-1SS	103		98		99				0
06	B6-2SS	102		98		101				0
07	B6-2SSDup	103		100		102				0
08	Lab Blank	102		98		102				0
09	CCV	100		100		100				0
10										0
11										0
12										0
13										0
14										0
15										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: 1503058C

Lab File ID: 14030503a.d

Date Analyzed: 03/05/2015

Instrument ID: msd14.i

Time Analyzed: 12:44 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	291473		8.51		329329		5.85		77514		4.75	
	UPPER LIMIT	408062		08.84		461061		06.18		108520		05.08	
	LOWER LIMIT	174884		08.18		197597		05.52		46508		04.42	
	CLIENT SAMPLE NO												
01	B6-AA-2	329073		8.51		361035		5.85		84484		4.75	
02	B6-1IA	316457		8.51		354449		5.85		80297		4.75	
03	B6-2IA	311761		8.51		348958		5.85		80278		4.75	
04	B6-2IADup	309686		8.51		342611		5.85		78751		4.75	
05	B6-1SS	295733		8.51		326917		5.85		75074		4.75	
06	B6-2SS	291342		8.51		323033		5.85		74000		4.75	
07	B6-2SSDup	286520		8.51		312563		5.85		72669		4.75	
08	Lab Blank	315314		8.51		358667		5.85		82068		4.75	
09	CCV	291473		8.51		329329		5.85		77514		4.75	
10													
11													
12													
13													
14													
15													
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 : 05-MAR-2015 12:44
End Cal Date : 05-MAR-2015 12:44
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd14.i/05mar15.b/MEOH0305a.m
Cal Date : 05-Mar-2015 14:06 cbond
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd14.i/05mar15.b/14030503.d

Compound	50.000 Level 2	___ RRF	% RSD
14 Methanol	25.10039	25.10039	0.000
M 193 1,2-Dichloroethene	+++++	+++++	+++++
$ 84 1,2-Dichloroethane-d4	1.38451	1.38451	0.000
$ 107 Toluene-d8	0.99508	0.99508	0.000
$ 138 Bromofluorobenzene	0.56154	0.56154	0.000

Calibration History

Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Start Cal Date: 05-MAR-2015 12:44
End Cal Date : 05-MAR-2015 12:44

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 50.00000		
05-MAR-2015 12:44	MeOHICAL	/chem/msd14.i/05mar15.b/14030503.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 2

Ccal Level: 2 , Ccal Amount: 50.000		
05-MAR-2015 12:44	MeOHICAL	/chem/msd14.i/05mar15.b/14030503a.d
Ccal Level: 2 , Ccal Amount: 50.000		
05-MAR-2015 12:44	MeOHICAL	/chem/msd14.i/05mar15.b/14030503.d

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

CB
3/5/15

Start Cal Date : 05-MAR-2015 12:44
End Cal Date : 05-MAR-2015 12:44
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd14.i/05mar15.b/MEOH0305a.m
Cal Date : 05-Mar-2015 14:06 cbond
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd14.i/05mar15.b/14030503.d

Compound	50.000 Level 2	RRF	% RSD
14 Methanol	25.10039	25.10039	0.000
M 193 1,2-Dichloroethene	+++++	+++++	+++++
$ 84 1,2-Dichloroethane-d4	1.38451	1.38451	0.000
$ 107 Toluene-d8	0.99508	0.99508	0.000
$ 138 Bromofluorobenzene	0.56154	0.56154	0.000

MEOH0305a.M
Initial Calibration Narrative

A 1-point Methanol initial calibration was analyzed on MSD-14 on 03/05/15.

No ICV or MDL needed.

Eurofins Air Toxics, Inc. **MSD-14** **Logbook #2696**

BFB Verification of 176/174 m/z Ratio:	41469 / 42728 x100 = 97.05%
Tekmar Purge Flow:	NA
Vacuum:	3.77×10^{-6}

IS/S Std. #: 2716-126	Exp. Date: 5/24/15
BCM	77514
1,4-DFB	329329
CB-d5	291473

Verified CCV IS vs ICAL mid-point (-40%D): CB

File ID:	14030503
Compound:	toluene-d8
Initials:	CB

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (327710) x (400) = 400.00
(329329) (0.99508)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 400.00

Method Name: Me0H03059a

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	14030501	BFB Tune Check	2299-789	50ng	2mL	1.00	CB	3/5/15	1150	CB	
2	✓	02	System Blank	34496	Humid	50mL	↓	CB	↓	1222	CB	
3	✓	03	ICAL Level 2	2716-34	50ppbv	4.2mL	↓	CB	↓	1244	CB	exp 4/28/15
4	✓	04	Lab Blank	34496	Humid	50mL	↓	CB	↓	1331	CB	
5	✓	05	15030538C-01A	34188	0.8"Hg-4.9psi	50mL	1.37	CB	↓	1443	CB	
6		06	↓ -02A	94303	9.3"Hg-5psi	50mL	1.56	~~CB~~				
7												
8												
9												
10												
11												
12												
13												
14												3/5/15

Reviewed 3/5/15 Date

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030503.d
Lab Smp Id: ICAL Level 2 Client Smp ID: ICAL Level 2
Inj Date : 05-MAR-2015 12:44
Operator : cb Inst ID: msd14.i
Smp Info : 4.2ml #2716-34
Misc Info : 50ppbv (600ppbv)
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 13:36 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOHICAL.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	77514	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	60668			48.27- 108.27	78.27
4.749	4.749 (1.000)	49	92785			89.70- 149.70	119.70
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	107319	400.000	400.00	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	54072			20.38- 80.38	50.38
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	329329	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	50414			0.00- 45.31	15.31
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	327710	400.000	400.00	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	35661			0.00- 40.88	10.88
7.352	7.352 (1.258)	100	212939			34.98- 94.98	64.98
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	291473	400.000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 125 Chlorobenzene-d5 (continued)							
8.513	8.513 (1.000)	82	153596			22.70- 82.70	52.70
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.283	9.283 (1.090)	174	163674	400.000	400.00	80.00- 120.00	100.00
9.283	9.283 (1.090)	95	209308			97.88- 157.88	127.88
9.297	9.297 (1.092)	176	159336			67.35- 127.35	97.35
14 Methanol					CAS #: 67-56-1		
1.728	1.728 (0.364)	31	243204	50.0000	50.000	80.00- 120.00	100.00(a)
1.871	1.871 (0.394)	29	2292			0.00- 30.94	0.94
1.728	1.728 (0.364)	32	213939			57.97- 117.97	87.97

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030503.d
Lab Smp Id: ICAL Level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: cb
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 50ppbv (600ppbv)

Calibration Date: 05-MAR-2015
Calibration Time: 12:44
Client Smp ID: ICAL Level 2
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	77514	0.00
92 1,4-Difluorobenze	329329	197597	461061	329329	0.00
125 Chlorobenzene-d5	291473	174884	408062	291473	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/05mar15.b/14030503.d

Date : 05-MAR-2015 12:44

Client ID: ICAL Level 2

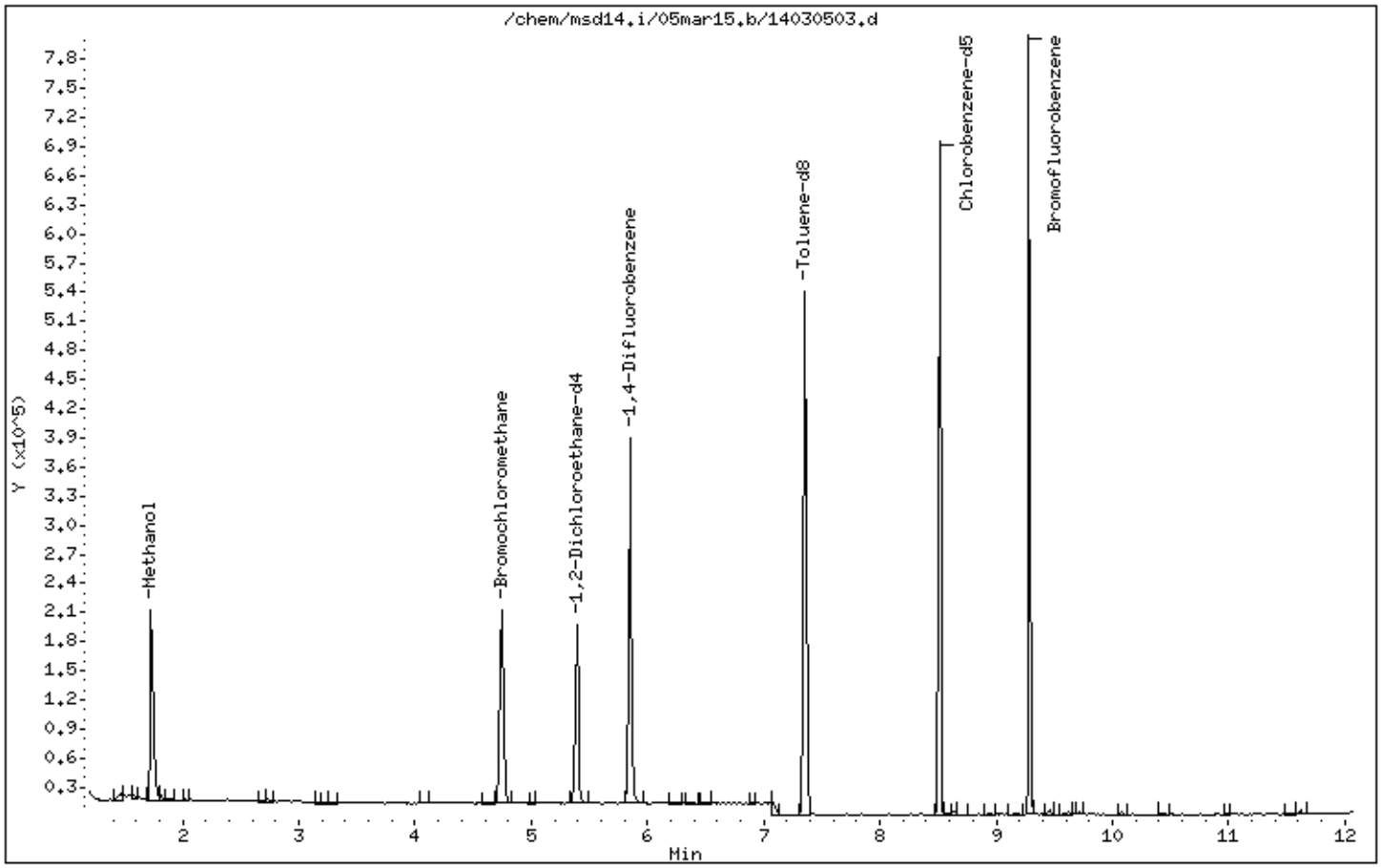
Instrument: msd14.i

Sample Info: 4.2ml #2716-34

Operator: cb

Column phase: RTx-624

Column diameter: 0.53



eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1503058C-09A

EPA METHOD TO-15 GC/MS

File Name:	**14030503a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/5/15 12:44 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: 05-MAR-2015 12:44
Lab File ID: 14030503a.d Init. Cal. Date(s): 05-MAR-2015 05-MAR-2015
Analysis Type: AIR Init. Cal. Times: 12:44 12:44
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd14.i/05mar15.b/MEOH0305a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
$ 84 1,2-Dichloroethane-d4	1.38451	1.38451	0.010	0.000e+00	30.00000	Averaged
$ 107 Toluene-d8	0.99508	0.99508	0.010	0.000e+00	30.00000	Averaged
$ 138 Bromofluorobenzene	0.56154	0.56154	0.010	0.000e+00	30.00000	Averaged
14 Methanol	25.10039	25.10039	0.010	0.000e+00	30.00000	Averaged

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msd14.i/05mar15.b/14030503a.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 05-MAR-2015 12:44
Operator : cb Inst ID: msd14.i
Smp Info : 4.2ml #2716-34
Misc Info : 50ppbv (600ppbv)
Comment :
Method : /chem/msd14.i/05mar15.b/MEOH0305a.m
Meth Date : 05-Mar-2015 16:37 cbond Quant Type: ISTD
Cal Date : 05-MAR-2015 12:44 Cal File: 14030503.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOHICAL.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	77514	400.000		80.00- 120.00	100.00
4.749	4.749 (1.000)	128	60668			48.27- 108.27	78.27
4.749	4.749 (1.000)	49	92785			89.70- 149.70	119.70
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.390	5.390 (1.135)	65	107319	400.000	400.00	80.00- 120.00	100.00
5.390	5.390 (1.135)	67	54072			20.38- 80.38	50.38
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
5.846	5.846 (1.000)	114	329329	400.000		80.00- 120.00	100.00
5.846	5.846 (1.000)	88	50414			0.00- 45.31	15.31
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.352	7.352 (1.258)	98	327710	400.000	400.00	80.00- 120.00	100.00
7.352	7.352 (1.258)	70	35661			0.00- 40.88	10.88
7.352	7.352 (1.258)	100	212939			34.98- 94.98	64.98
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.513	8.513 (1.000)	117	291473	400.000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 125 Chlorobenzene-d5 (continued)							
8.513	8.513 (1.000)	82	153596			22.70- 82.70	52.70
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.283	9.283 (1.090)	174	163674	400.000	400.00	80.00- 120.00	100.00
9.283	9.283 (1.090)	95	209308			97.88- 157.88	127.88
9.297	9.297 (1.092)	176	159336			67.35- 127.35	97.35
14 Methanol					CAS #: 67-56-1		
1.728	1.728 (0.364)	31	243204	50.0000	50.000	80.00- 120.00	100.00(a)
1.871	1.871 (0.394)	29	2292			0.00- 30.94	0.94
1.728	1.728 (0.364)	32	213939			57.97- 117.97	87.97

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 05-Mar-2015 16:37

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd14.i
Lab File ID: 14030503a.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: cb
Method File: /chem/msd14.i/05mar15.b/MEOH0305a.m
Misc Info: 50ppbv (600ppbv)

Calibration Date: 05-MAR-2015
Calibration Time: 12:44
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	77514	46508	108520	77514	0.00
92 1,4-Difluorobenze	329329	197597	461061	329329	0.00
125 Chlorobenzene-d5	291473	174884	408062	291473	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/05mar15.b/14030503a.d

Date : 05-MAR-2015 12:44

Client ID: CCV

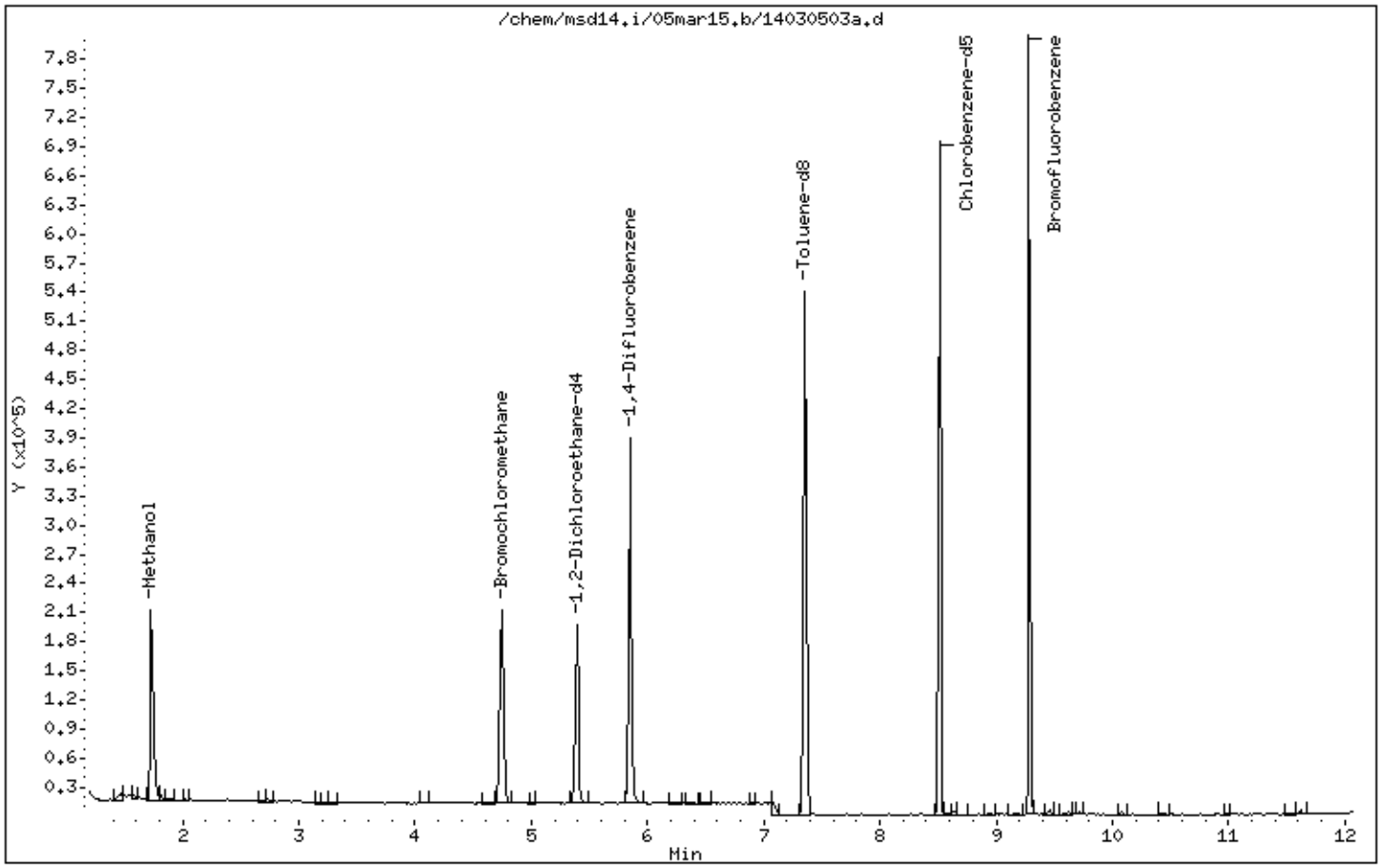
Instrument: msd14.i

Sample Info: 4.2ml #2716-34

Operator: cb

Column phase: RTx-624

Column diameter: 0.53



Eurofins Air Toxics, Inc. **MSD-14** **Logbook #2696**

BFB Verification of 176/174 m/z Ratio:	41469 / 42728 x 100 = 97.05%
Tekmar Purge Flow:	NA
Vacuum:	3.77×10^{-6}

IS/S Std. #: 2716-126	Exp. Date: 5/24/15
BCM	77514
1,4-DFB	329329
CB-d5	291473

Verified CCV IS vs ICAL mid-point (-40%D): CB

File ID:	14030503
Compound:	toluene-d8
Initials:	CB

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (327710) x (400) = 400.00
(329329) (0.99508)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 400.00

Method Name: Me OH 0305a

	Use	File	Lab ID#	Can#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	14030501	BFB Tune Check	2299-789	50ng	2mL	1.00	CB	3/5/15	1150	CB	
2	✓	02	System Blank	34496	Humid	50mL		CB		1222	CB	
3	✓	03	ICAL Level 2	2716-34	50ppbv	4.2mL		CB		1244	CB	exp 4/28/15
4	✓	04	Lab Blank	34496	Humid	50mL		CB		1331	CB	
5	✓	05	1503058C-01A	34188	0.8"Hg-4.9psi	50mL	1.37	CB		1443	CB	
6	✓	06	-02A	94305	4.3"Hg-5psi	50mL	1.56			1500	CB	
7	✓	07	-03A	34011	4.9"Hg-4.9psi	50mL	1.59 ~~1.63~~ 3/5/15			1608	CB	
8	✓	08	-04A	35182	5.5"Hg-4.9psi ~~4.3"Hg~~ 3/5/15	50mL	21.63 3/5/15			1659 ~~1727~~ 3/5/15	CB	
9	✓	09	-05A	34415	4.3"Hg-14.9psi	50mL	2.35			1727	CB	
10	✓	10	-06A	33398	3.1"Hg-14.9psi	50mL	2.24			1820	CB	
11	✓	11	-07A	12379	5.1"Hg-15psi	50mL	2.43			1840	CB	
12												
13												
14												CB 3/6/15

Reviewed Date 3/5/15

Eurofins Air Toxics Inc.

Data file : /var/chem/msd14.i/05mar15.b/14030501.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 05-MAR-2015 11:50
Operator : cb Inst ID: msd14.i
Smp Info : 2.0ul #2299-789;BFB;BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msd14.i/05mar15.b/bfb20.m
Meth Date : 05-Mar-2015 12:01 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		
2.472	2.483	-0.011	95	63664			100.00- 100.00	100.00
2.472	2.483	-0.011	50	14077			8.00- 40.00	22.11
2.472	2.483	-0.011	75	33250			30.00- 66.00	52.23
2.472	2.483	-0.011	96	4058			5.00- 9.00	6.37
2.472	2.483	-0.011	173	417			0.00- 1.99	0.98
2.472	2.483	-0.011	174	42728			50.01- 120.00	67.11
2.472	2.483	-0.011	175	3173			4.00- 9.00	7.43
2.472	2.483	-0.011	176	41469			93.00- 101.00	97.05
2.472	2.483	-0.011	177	2843			5.00- 9.00	6.86

Data File: /var/chem/msd14.i/05mar15.b/14030501.d

Date : 05-MAR-2015 11:50

Client ID: BFB

Instrument: msd14.i

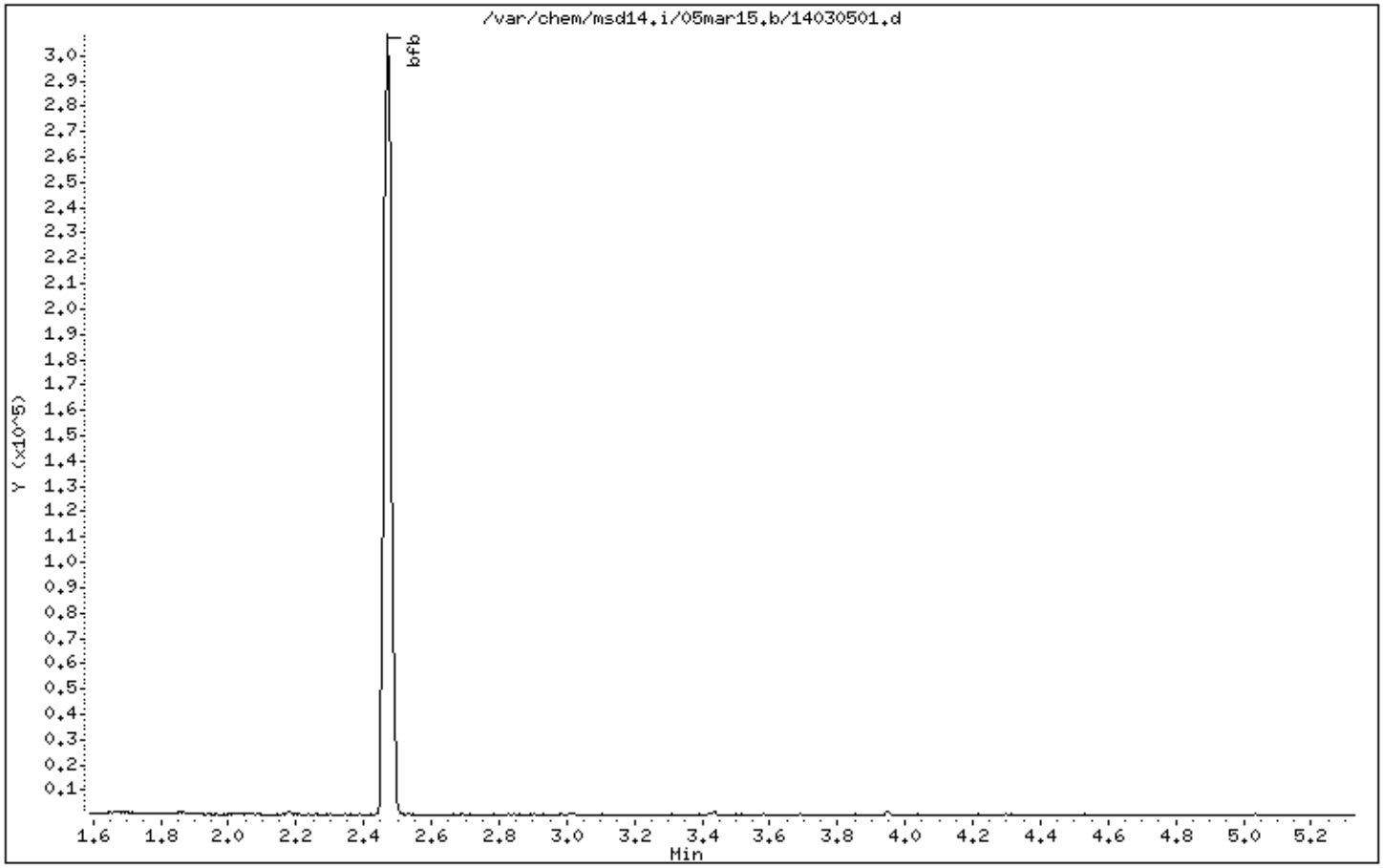
Sample Info: 2.0ul #2299-789;BFB;BFB

Volume Injected (uL): 1.0

Operator: cb

Column phase:

Column diameter: 2.00



Data File: /var/chem/msd14.i/05mar15.b/14030501.d

Date : 05-MAR-2015 11:50

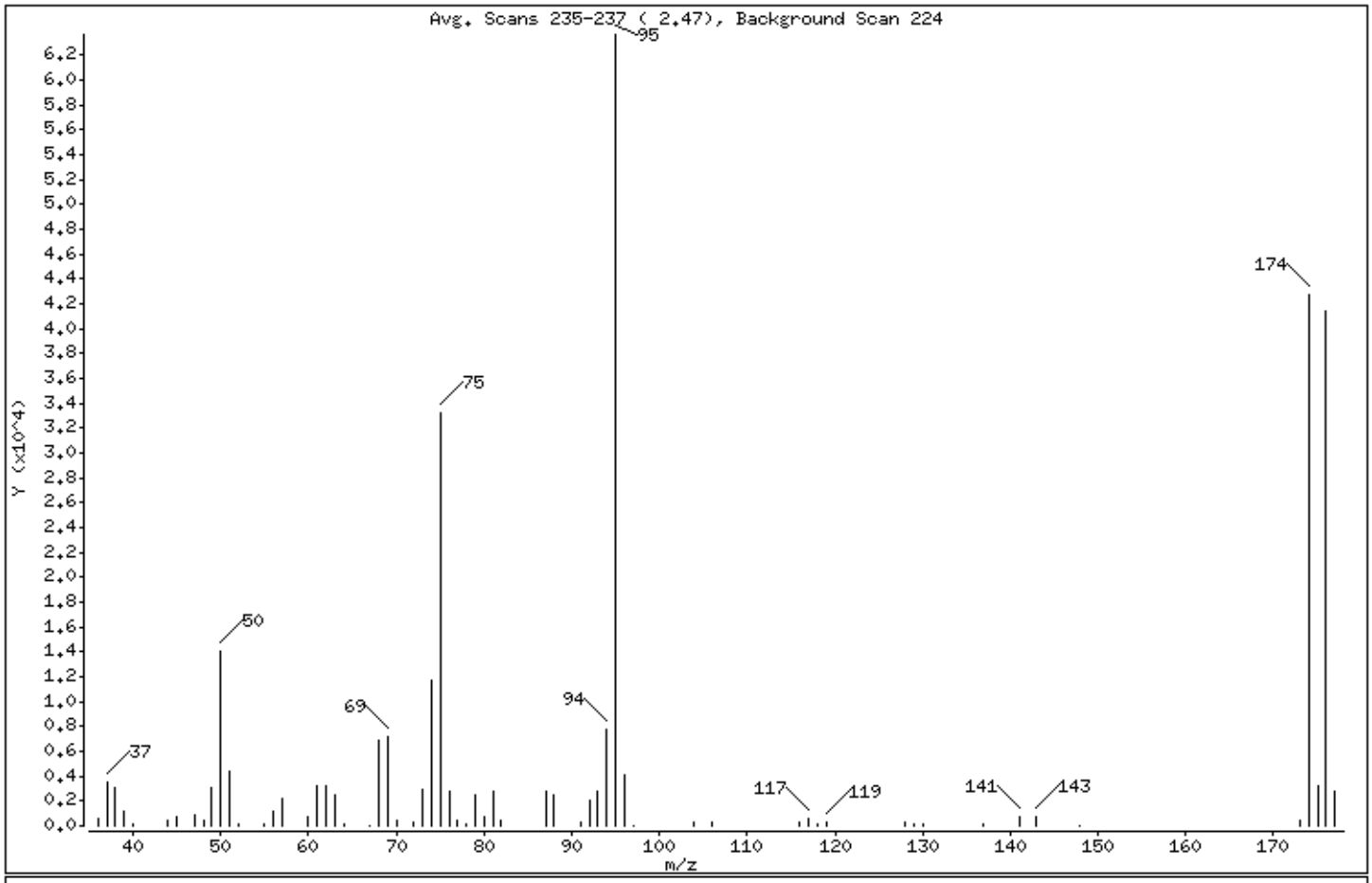
Client ID: BFB Instrument: msd14.i

Sample Info: 2.0ul #2299-789;BFB;BFB

Volume Injected (uL): 1.0 Operator: cb

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	22.11
75	30.00 - 66.00% of mass 95	52.23
96	5.00 - 9.00% of mass 95	6.37
173	Less than 1.99% of mass 174	0.66 (0.98)
174	50.01 - 120.00% of mass 95	67.11
175	4.00 - 9.00% of mass 174	4.98 (7.43)
176	93.00 - 101.00% of mass 174	65.14 (97.05)
177	5.00 - 9.00% of mass 176	4.47 (6.86)

Data File: /var/chem/msd14.i/05mar15.b/14030501.d

Date : 05-MAR-2015 11:50

Client ID: BFB

Instrument: msd14.i

Sample Info: 2.0ul #2299-789;BFB;BFB

Volume Injected (uL): 1.0

Operator: cb

Column phase:

Column diameter: 2.00

Data File: 14030501.d
Spectrum: Avg. Scans 235-237 (2.47), Background Scan 224
Location of Maximum: 95.00
Number of points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	626	60.00	659	79.00	2559	117.00	520
37.00	3473	61.00	3279	80.00	670	118.00	179
38.00	3002	62.00	3176	81.00	2805	119.00	353
39.00	1197	63.00	2529	82.00	494	128.00	238
40.00	75	64.00	207	87.00	2728	129.00	114
44.00	462	67.00	60	88.00	2476	130.00	180
45.00	707	68.00	6825	91.00	320	137.00	162
47.00	945	69.00	7213	92.00	2018	141.00	716
48.00	447	70.00	456	93.00	2830	143.00	710
49.00	3043	72.00	313	94.00	7780	148.00	53
50.00	14077	73.00	2939	95.00	63664	173.00	417
51.00	4444	74.00	11661	96.00	4058	174.00	42728
52.00	183	75.00	33248	97.00	59	175.00	3173
55.00	158	76.00	2822	104.00	344	176.00	41464
56.00	1199	77.00	408	106.00	348	177.00	2843
57.00	2225	78.00	213	116.00	328		

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

Page 1 of 1

Project Manager: Terry Taylor
Collected by: (Print and Sign) Terry Taylor
Company: AM AT Email:
Address: 2700 Westchester Ave City: Purchase State: NY Zip: 10577
Phone: 914-391-201-0400 Fax:

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

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	B6-AA-2	34188	3/2/15	0938	see below	30"	0"		
02A	B6-1IA	94305	3/2/15	1205		30"	5"		
03A	B6-2IA	34011	3/2/15	1208		30"	6"		
04A	B6-2IADup	35132	3/2/15	1208		30"	6"		
05A	B6-1SS	36415	3/2/15	1635		30"	5"		
06A	B6-2SS	33398	3/2/15	1508		30"	4"		
07A	B6-2SSDup	12379	3/2/15	1508		30"	6"		
	B6-AA-3	35142	3/3/15	0945	Hold For Analysis	30"	5"		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	3/3/15 1100		3-4-15 1200
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: Analyze for: Acetone, Benzene, Ethylbenzene, Isopropy Alcohol, Methanol, MIBK, Toluene, Xylene, and Methanol. Report to MDL

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx	773032321463	NA	Good	Yes No (None)	1503058

Form 1293 rev.11

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SAMPLE RECEIPT SUMMARY

WORKORDER 1503058C

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: 03/09/15 2:00 pm
Date Completed: 3/9/15
Date Received: 3/4/15
PO#:
Project#:

Total $: $ 822.50
Logged By: MS

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B6-AA-2	Modified TO-15 (5&20 ppbv)	3/2/2015	0.8 "Hg	$112.50
02A	B6-1IA	Modified TO-15 (5&20 ppbv)	3/2/2015	4.3 "Hg	$112.50
03A	B6-2IA	Modified TO-15 (5&20 ppbv)	3/2/2015	4.9 "Hg	$112.50
04A	B6-2IADup	Modified TO-15 (5&20 ppbv)	3/2/2015	5.5 "Hg	$112.50
05A	B6-1SS	Modified TO-15 (5&20 ppbv)	3/2/2015	4.3 "Hg	$112.50
06A	B6-2SS	Modified TO-15 (5&20 ppbv)	3/2/2015	3.1 "Hg	$112.50
07A	B6-2SSDup	Modified TO-15 (5&20 ppbv)	3/2/2015	5.1 "Hg	$112.50
08A	Lab Blank	Modified TO-15 (5&20 ppbv)	NA	NA	$0.00
09A	CCV	Modified TO-15 (5&20 ppbv)	NA	NA	$0.00

Misc. ChargeseCVP (7) @ $5.00 each. $35.00

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

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

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

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

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: 12/30/14
Workorder # 1503058C	Form F1.27	Revision #10	Revision date: 12/30/14	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: MSD-14 MY 3/5/15	S2:	S3:	S4:
✓					Daily QC and ICAL met Criteria				
✓					Lumen QC and ICAL evaluation report initialed and in folder				
NA					Manual integrations included and approved				
✓				✓	Chain of Custody verified for special comments (add comments below)				
NA					Non-standard Target sublist printed				

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

routin QC – 1 flg in MDL

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: MY 3/5/15	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				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: 01A-07A Full load

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/ Date	D1: MC 3/9/15	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: no analytical discrepancies

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: VB 3/9/15	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		
✓	✓	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*

Eurofins Air Toxics, Inc.	Reissued - Data Review Checklist			Release Date 01/29/14
	Form F 1.27	Revision #8	Revision date 01/29/14	Page 2 of 2

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