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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1605350A

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	5/26/16
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1605350A

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:	05/18/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	05/19/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B7AA-1 (05162016)	Modified TO-15	6.5 "Hg	5.2 psi
02A	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA
04AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 05/19/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
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
Modified TO-15
Anderson Mulholland & Associates, Inc.
Workorder# 1605350A

One 6 Liter Summa Canister (100% Certified) sample was received on May 18, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All The canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

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)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B7AA-1 (05162016)	1605350A-01A	5/17/2016	5/18/2016	NA	2	5/19/2016	NA	Good
Lab Blank	1605350A-02A	NA	NA	NA	NA	5/19/2016	NA	Good
CCV	1605350A-03A	NA	NA	NA	NA	5/19/2016	NA	Good
LCS	1605350A-04A	NA	NA	NA	NA	5/19/2016	NA	Good
LCSD	1605350A-04AA	NA	NA	NA	NA	5/19/2016	NA	Good

Sample Results and Raw Data

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

Client Sample ID: B7AA-1 (05162016)

Lab ID#: 1605350A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.86	3.0
Chloromethane	0.86	0.92	1.8	1.9
Freon 11	0.17	0.31	0.97	1.7
Ethanol	0.86	2.0	1.6	3.8
Freon 113	0.17	0.19	1.3	1.5
Acetone	0.86	6.1	2.0	14
2-Propanol	0.86	0.22 J	2.1	0.54 J
Methylene Chloride	0.35	0.39	1.2	1.4
Hexane	0.17	0.051 J	0.61	0.18 J
2-Butanone (Methyl Ethyl Ketone)	0.86	0.52 J	2.6	1.5 J
Carbon Tetrachloride	0.17	0.066 J	1.1	0.42 J
Toluene	0.17	0.067 J	0.65	0.25 J

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Client Sample ID: B7AA-1 (05162016)

Lab ID#: 1605350A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051908**	**Date of Collection:**	**5/17/16 10:27:00 AM**
Dil. Factor:	**1.73**	**Date of Analysis:**	**5/19/16 02:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.86	3.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	0.92	1.8	1.9
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.4	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.31	0.97	1.7
Ethanol	0.86	2.0	1.6	3.8
Freon 113	0.17	0.19	1.3	1.5
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	6.1	2.0	14
2-Propanol	0.86	0.22 J	2.1	0.54 J
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.39	1.2	1.4
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	0.051 J	0.61	0.18 J
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.52 J	2.6	1.5 J
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.84	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Cyclohexane	0.17	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.17	0.066 J	1.1	0.42 J
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.71	Not Detected
Trichloroethene	0.17	Not Detected	0.93	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	0.067 J	0.65	0.25 J
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected

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Client Sample ID: B7AA-1 (05162016)

Lab ID#: 1605350A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051908**	**Date of Collection:**	**5/17/16 10:27:00 AM**
Dil. Factor:	**1.73**	**Date of Analysis:**	**5/19/16 02:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Ethyl Benzene	0.17	Not Detected	0.75	Not Detected
m,p-Xylene	0.17	Not Detected	0.75	Not Detected
o-Xylene	0.17	Not Detected	0.75	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.85	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.85	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.85	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.2	Not Detected
Naphthalene	0.86	Not Detected	4.5	Not Detected

J = Estimated value.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	107	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19May2016.b/20051908.d
Lab Smp Id: 1605350A-01A
Inj Date : 19-MAY-2016 14:50
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 6L1297
Misc Info : 6.5"Hg -> 5.2psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19May2016.b/2016l0210c.m
Meth Date : 19-May-2016 11:22 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1
Dil Factor: 1.73000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	81951	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	61956			46.65- 106.65	75.60
16.726	16.726 (1.000)	49	137928			153.40- 213.40	168.31
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	307689	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	54815			0.00- 48.22	17.82
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	258560	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	176003			37.02- 97.02	68.07
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	193178	5.77029	5.770	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	95396			26.73- 86.73	49.38
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	301270	4.85632	4.856	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	41705			0.00- 43.74	13.84

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    194768                    35.47-  95.47    64.65
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.466 (1.073)   174    134636 5.34767    5.348  80.00- 120.00   100.00
 25.485  25.466 (1.073)    95    194743                  125.82- 185.82   144.64
 25.485  25.466 (1.073)   176    126671                    65.90- 125.90    94.08
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.672 (0.281)    85     35092 0.35286   0.6104  80.00- 120.00   100.00
  4.672   4.672 (0.279)    87      5931                     1.87-  61.87    16.90
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.576 (0.395)    50     16910 0.52977   0.9165  80.00- 120.00   100.00
  6.601   6.576 (0.395)    52      3173                     2.97-  62.97    18.76
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101     16000 0.18003   0.3114  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     10151                    35.32-  95.32    63.45
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     12858 1.15312    1.995  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46      6964                    10.61-  70.61    54.16
 12.296  12.269 (0.735)    43      5092                     0.00-  54.10    39.61
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      4812 0.11163   0.1931  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153      4024                    35.03-  95.03    83.64
 12.736  12.763 (0.761)   101      5308                   120.75- 180.75   110.32
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58     53912 3.53381    6.113  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    193093                   344.67- 404.67   358.16
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.587  13.532 (0.812)    45      6766 0.12807   0.2216  80.00- 120.00   100.00(a)
 13.560  13.532 (0.811)    43      3038                     0.00-  54.80    44.91
  0.000  13.532 (0.000)    59         0                     0.00-  33.44     0.00
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      6354 0.22595   0.3909  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49     10046                   122.68- 182.68   158.09
 14.027  14.027 (0.839)    51      2564                    16.23-  76.23    40.36
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      1405 0.02929  0.05067  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane (continued)							
14.933	14.878 (0.893)	43	3085			38.79- 98.79	219.59
0.000	14.878 (0.000)	86	0			0.00- 45.75	0.00
92 2-Butanone					CAS #: 78-93-3		
16.365	16.344 (0.978)	72	4411	0.30041	0.5197	80.00- 120.00	100.00(a)
16.365	16.344 (0.978)	43	26127			429.73- 489.73	592.20
16.365	16.344 (0.978)	57	1533			3.86- 63.86	34.76
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2319	0.03821	0.06610	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	2237			74.42- 134.42	96.49
147 Toluene					CAS #: 108-88-3		
20.977	20.962 (1.151)	91	3381	0.03886	0.06723	80.00- 120.00	100.00(a)
20.977	20.962 (1.151)	92	1762			29.68- 89.68	52.14

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: msd20.i
Lab File ID: 20051908.d
Lab Smp Id: 1605350A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 6.5"Hg -> 5.2psi

Calibration Date: 19-MAY-2016
Calibration Time: 08:37

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	105902	63541	148263	81951	-22.62
123 1,4-Difluorobenze	416950	250170	583730	307689	-26.20
163 Chlorobenzene-d5	354592	212755	496429	258560	-27.08

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 19-May-2016 15:56

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 19May2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605350A-01A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 6.5"Hg -> 5.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.770	115.41	70-130
$ 146 Toluene-d8	5.000	4.856	97.13	70-130
$ 177 4-Bromofluorobenze	5.000	5.348	106.95	70-130

Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

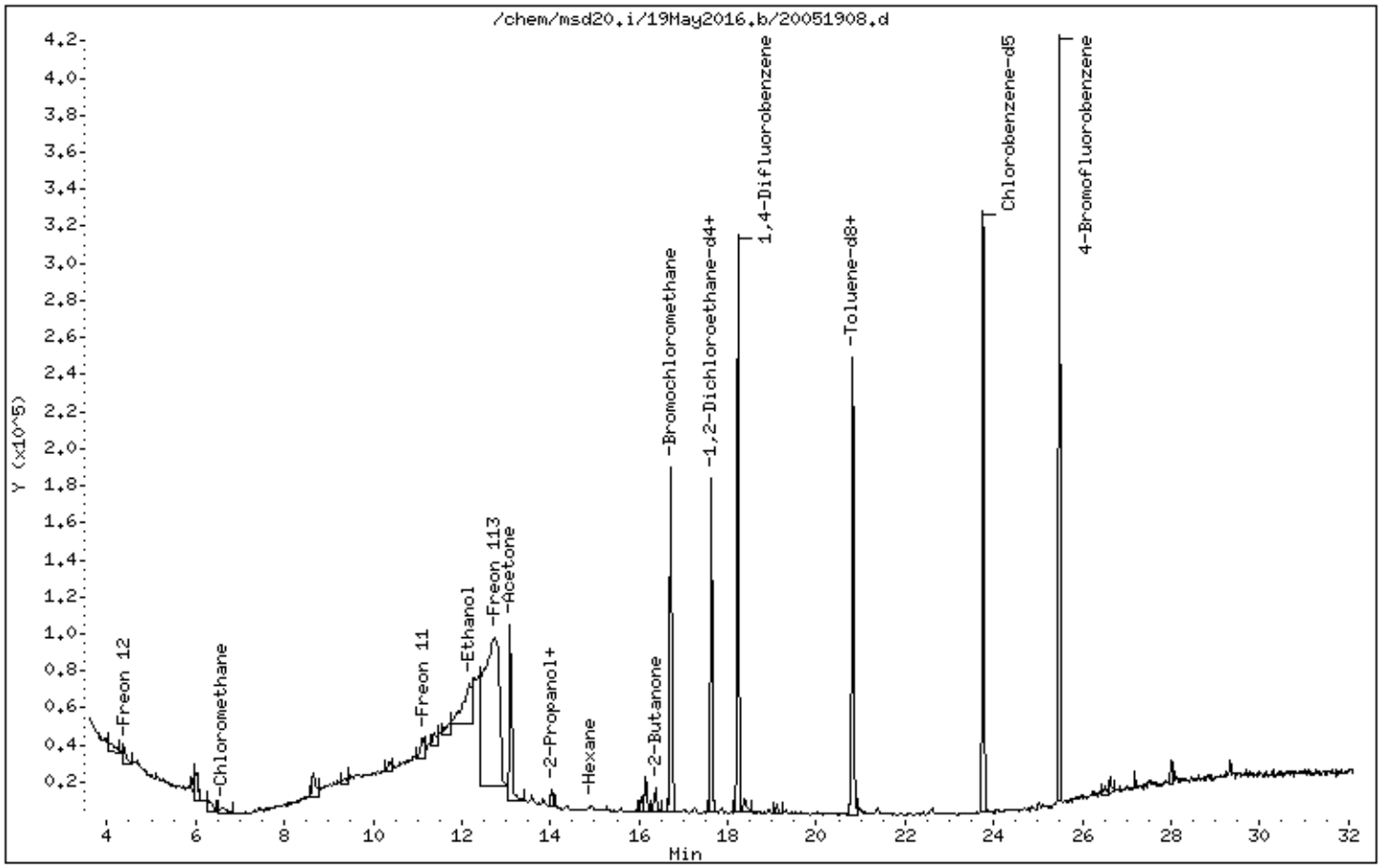
Instrument: msd20.i

Sample Info: 250mL# 6L1297

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

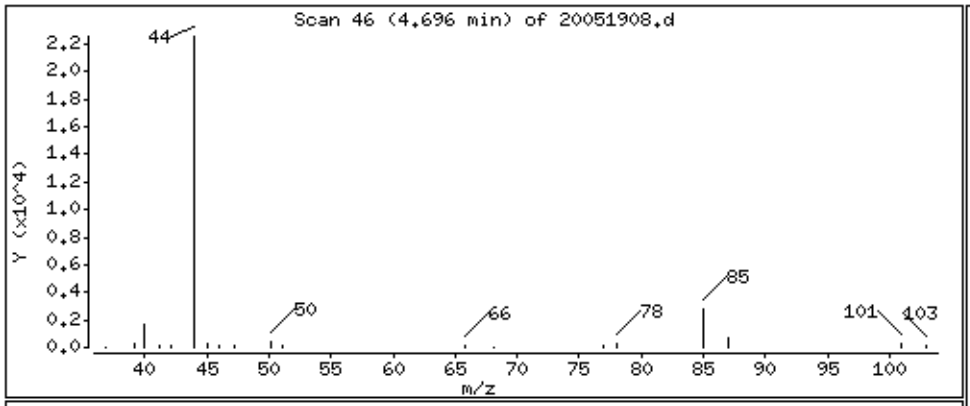
Operator: ef

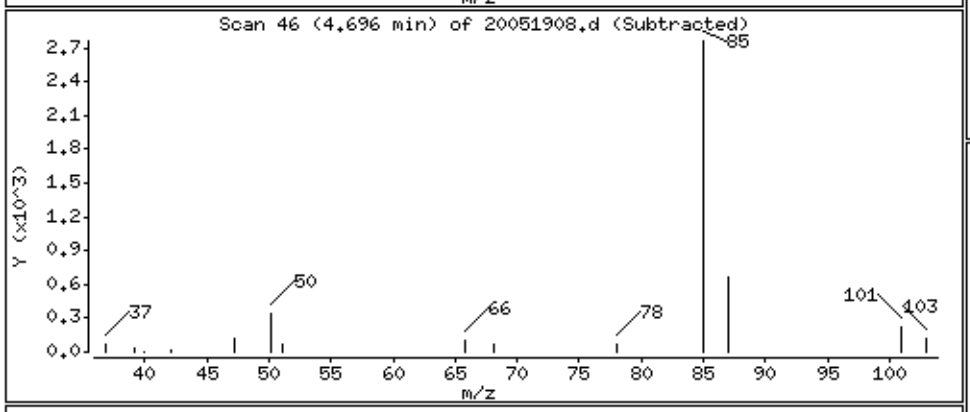
Column phase: RTX-624

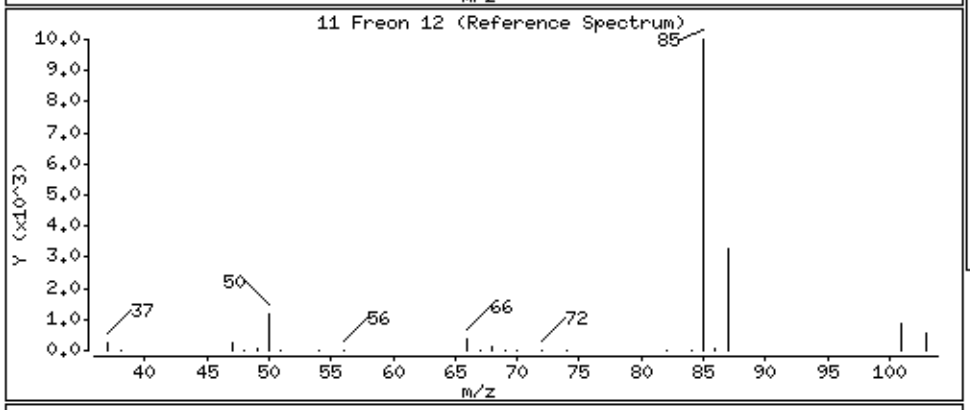
Column diameter: 0.32

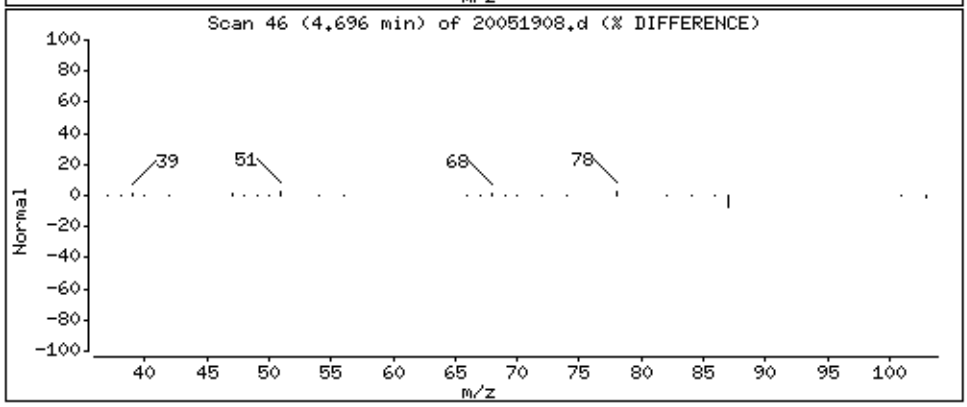
11 Freon 12

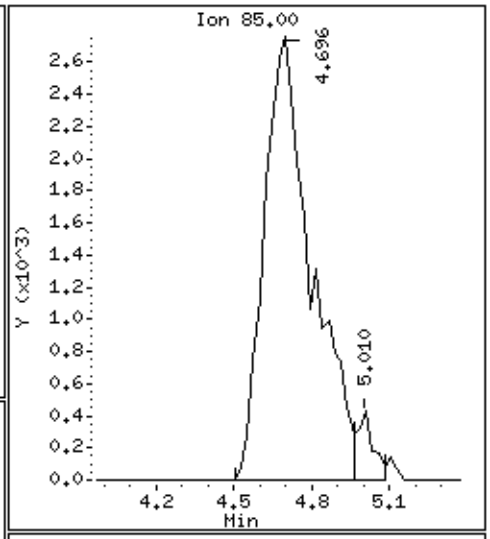
Concentration: 0.6104 PPBV

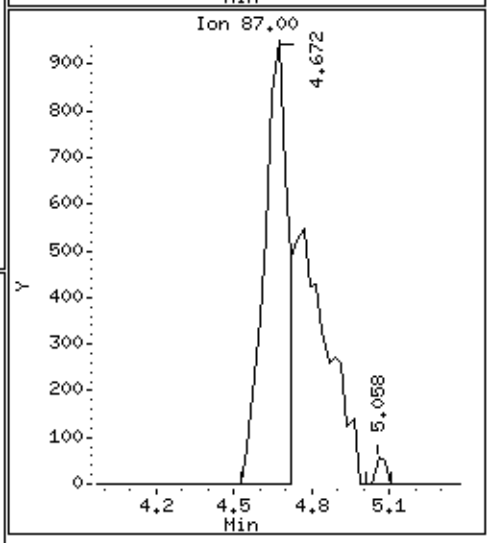












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

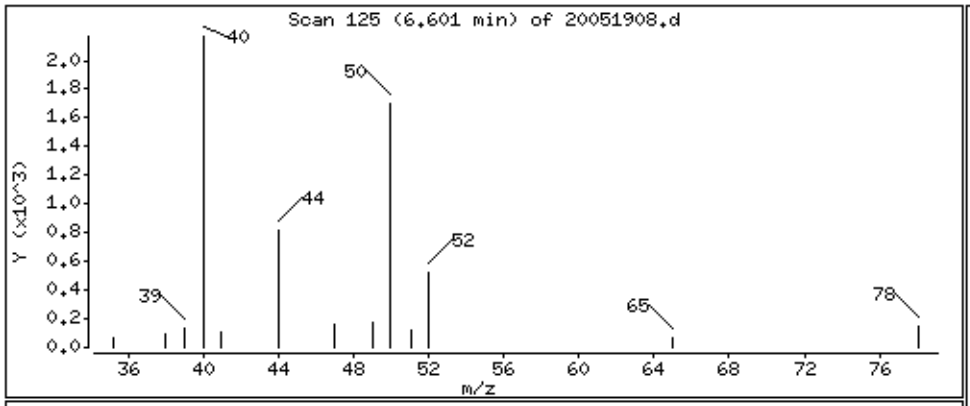
Operator: ef

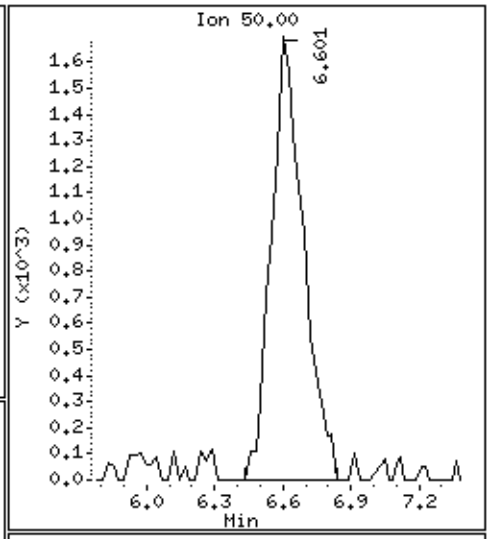
Column phase: RTX-624

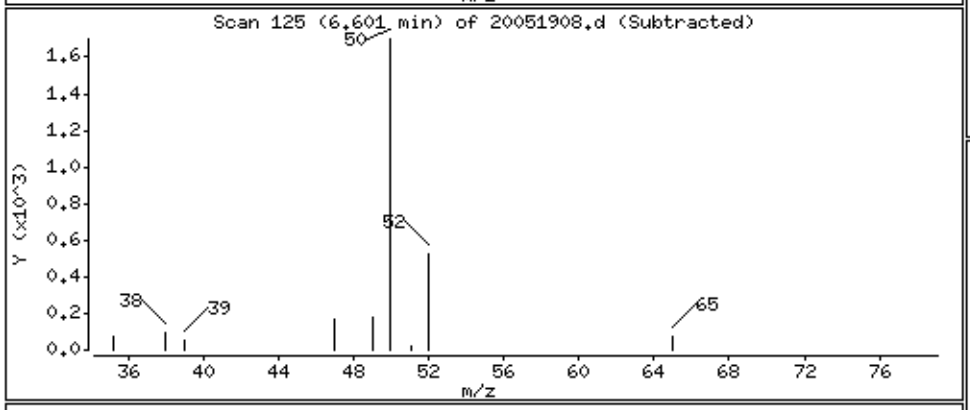
Column diameter: 0.32

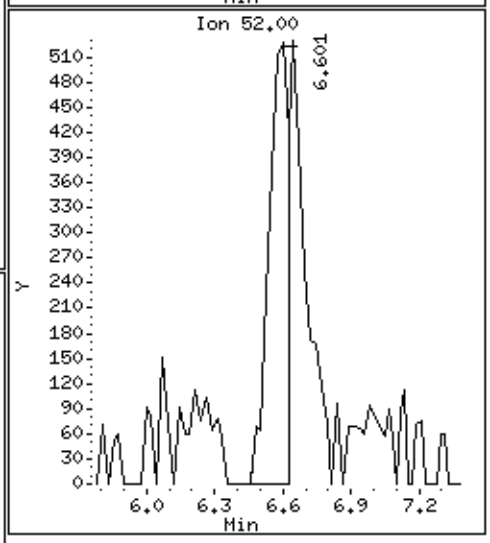
17 Chloromethane

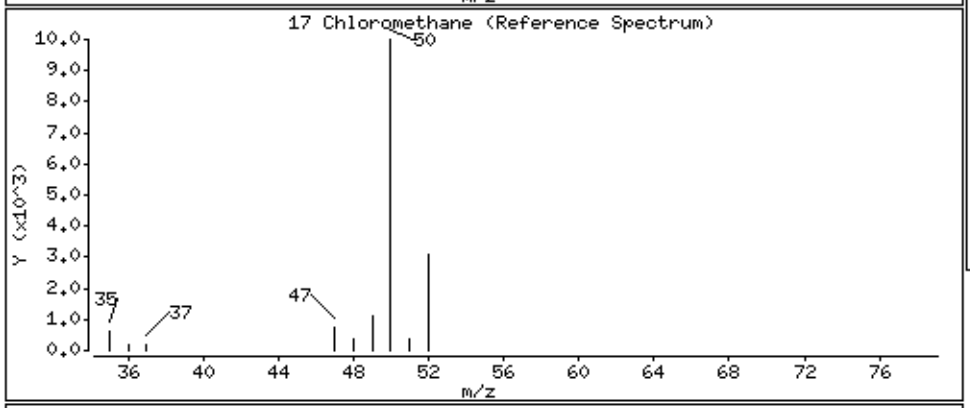
Concentration: 0.9165 PPBV

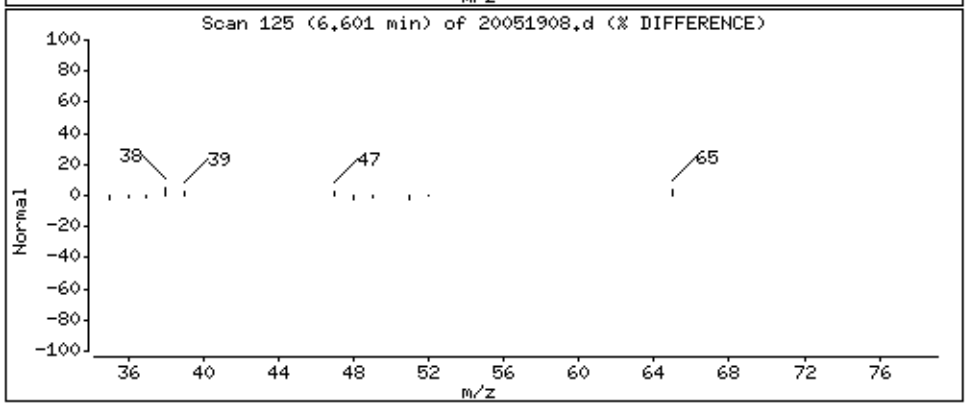












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

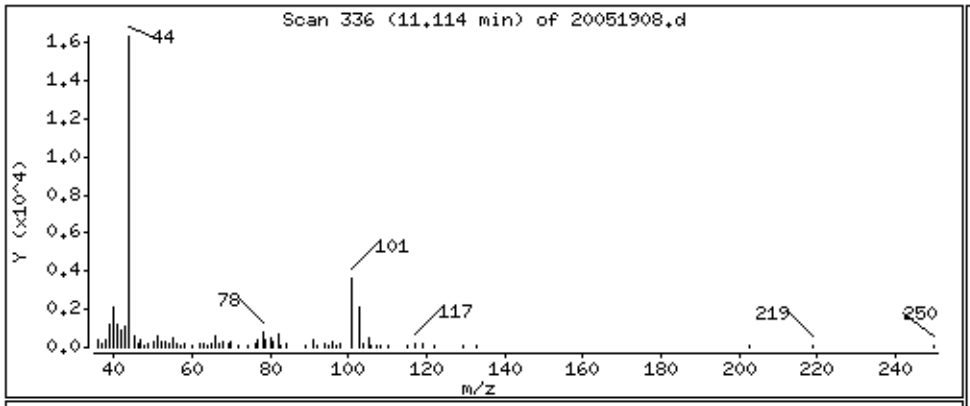
Operator: ef

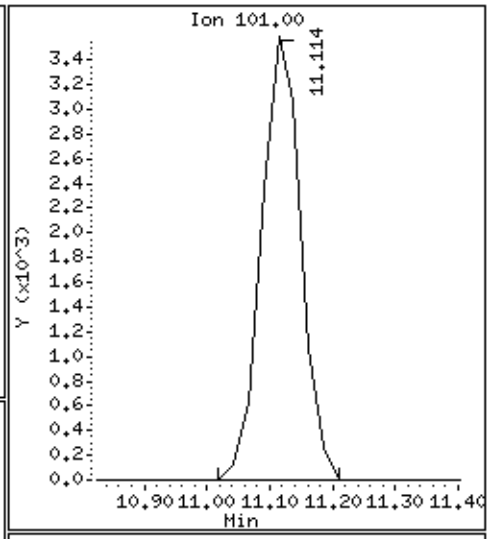
Column phase: RTX-624

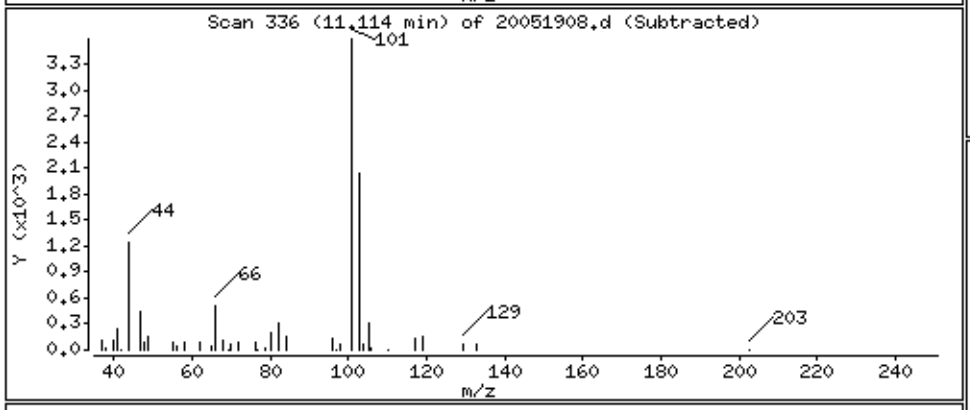
Column diameter: 0.32

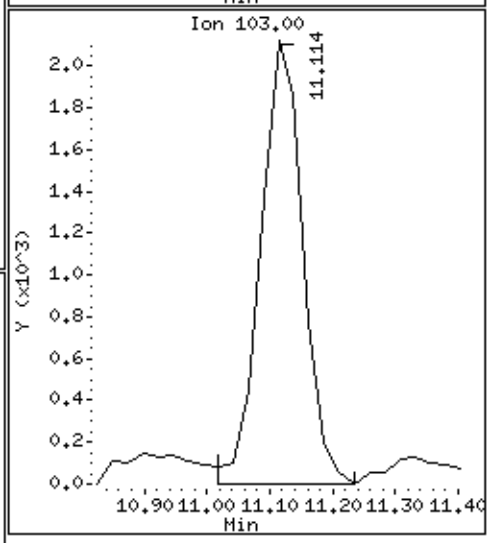
35 Freon 11

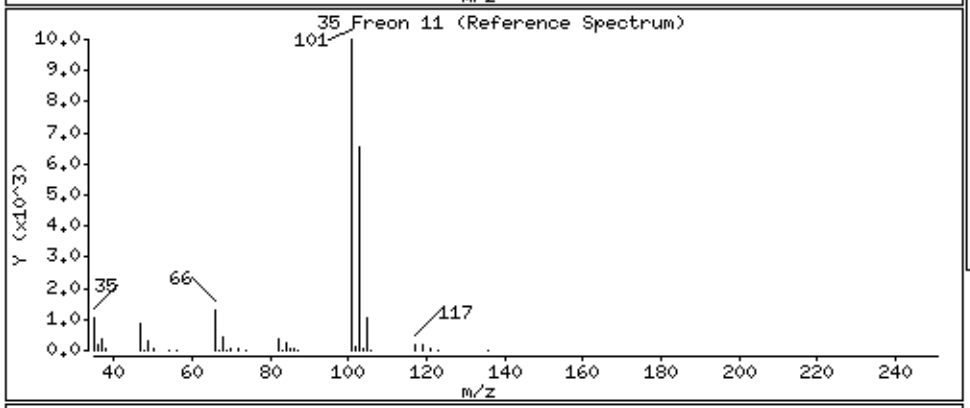
Concentration: 0.3114 PPBV

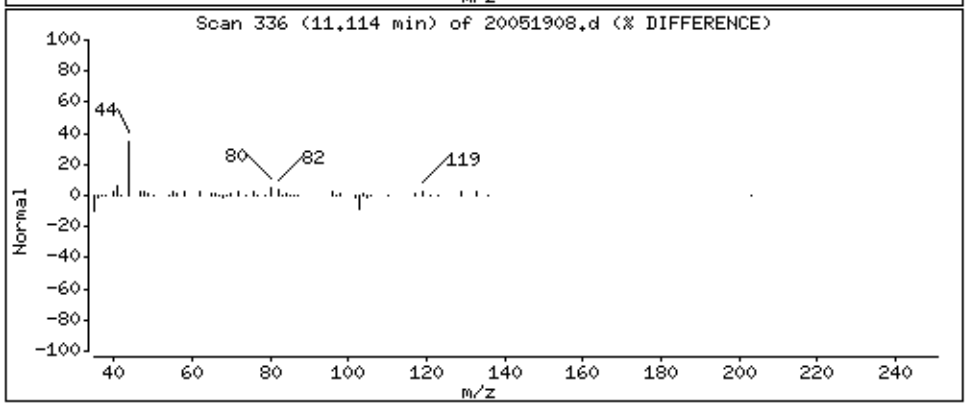












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

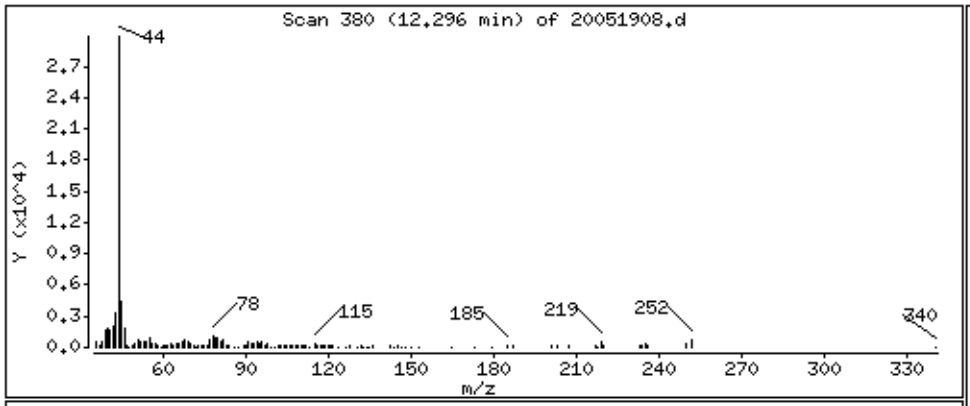
Operator: ef

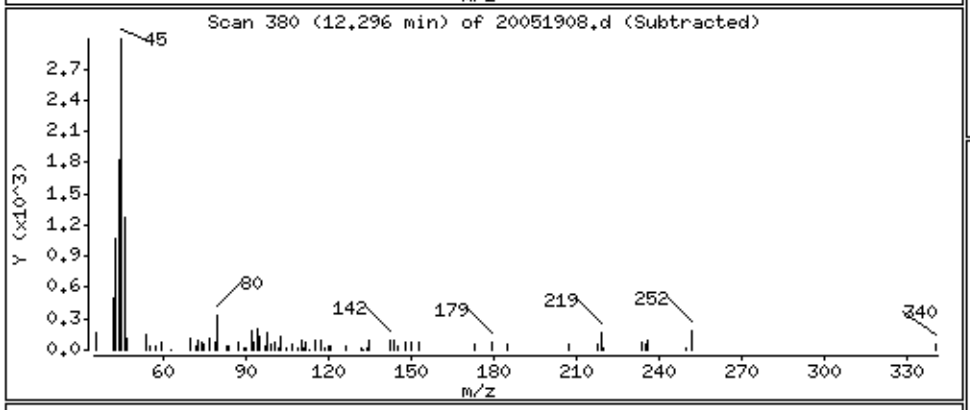
Column phase: RTX-624

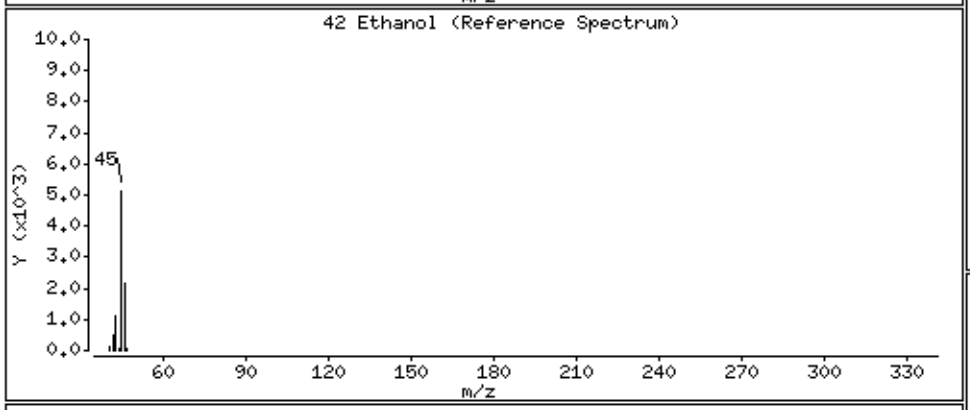
Column diameter: 0.32

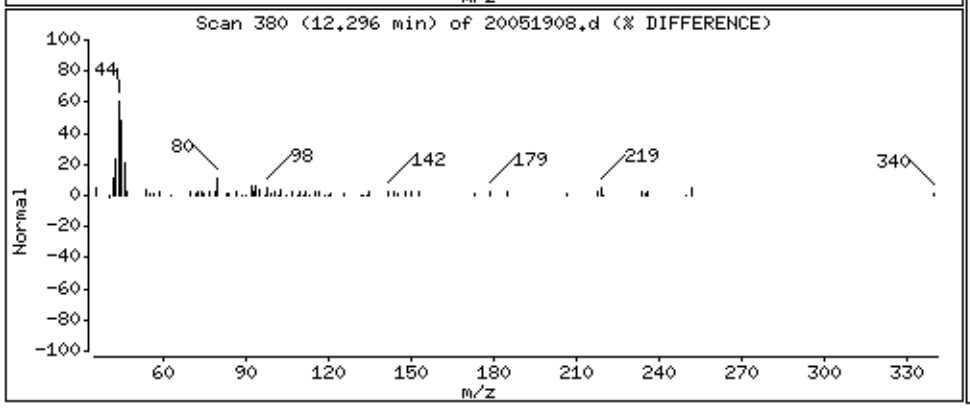
42 Ethanol

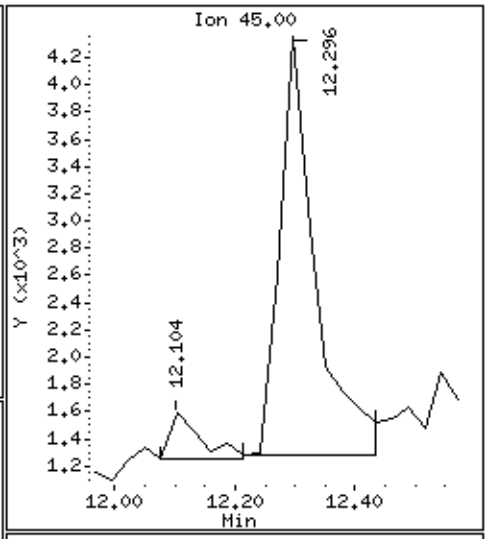
Concentration: 1.995 PPBV

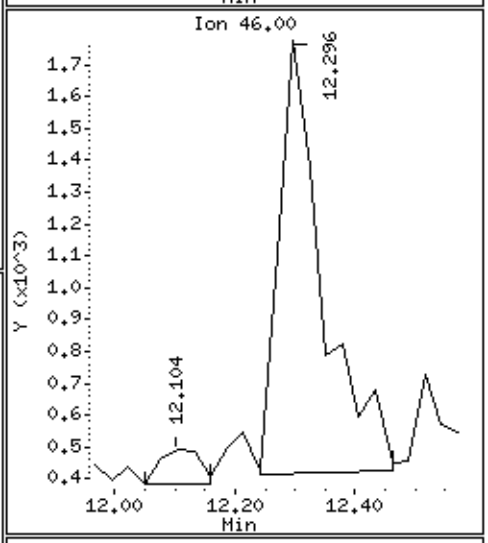


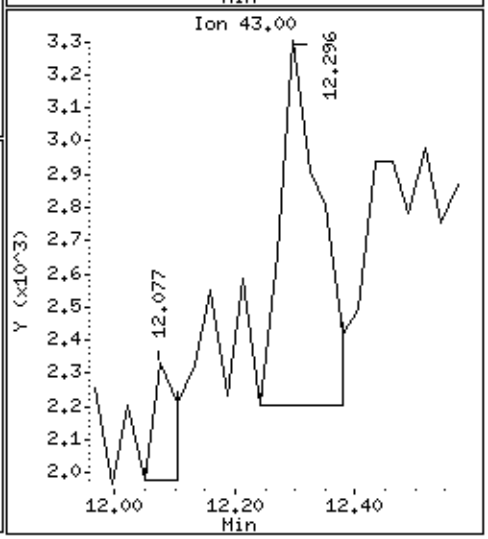












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

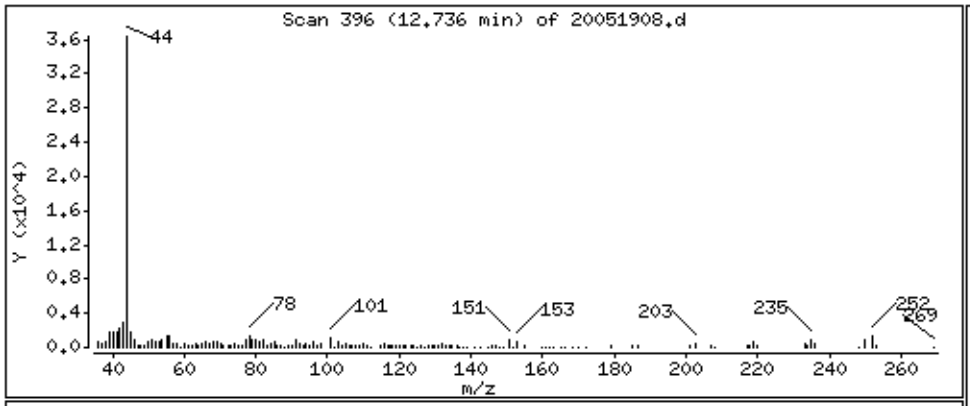
Operator: ef

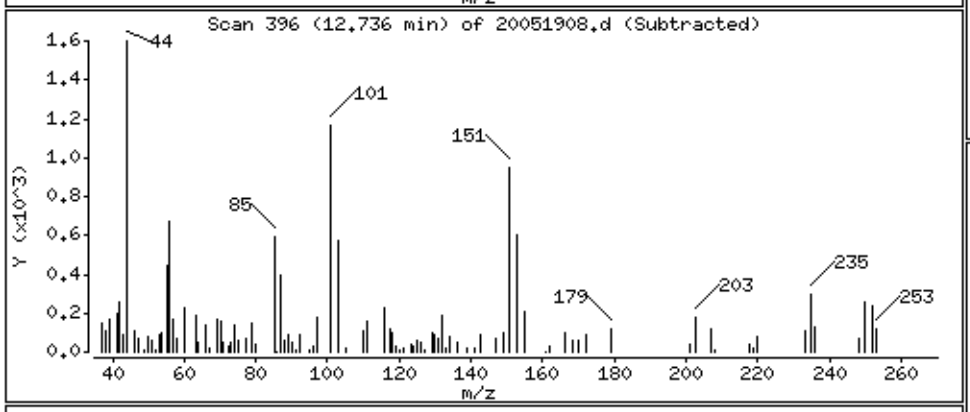
Column phase: RTX-624

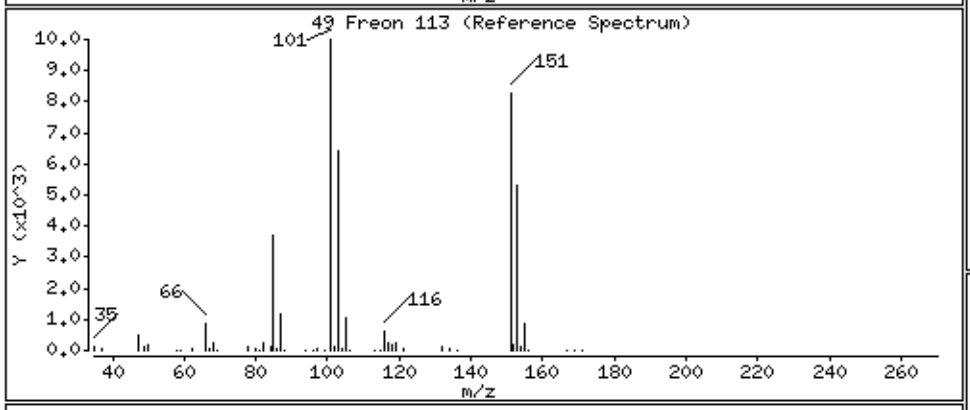
Column diameter: 0.32

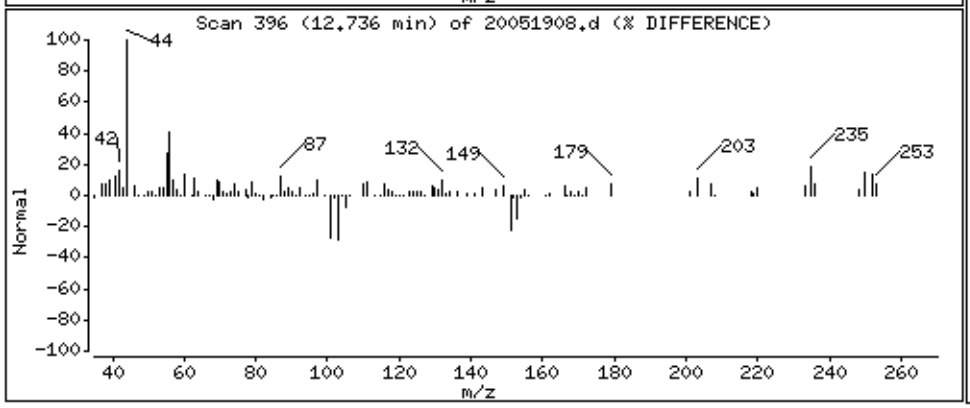
49 Freon 113

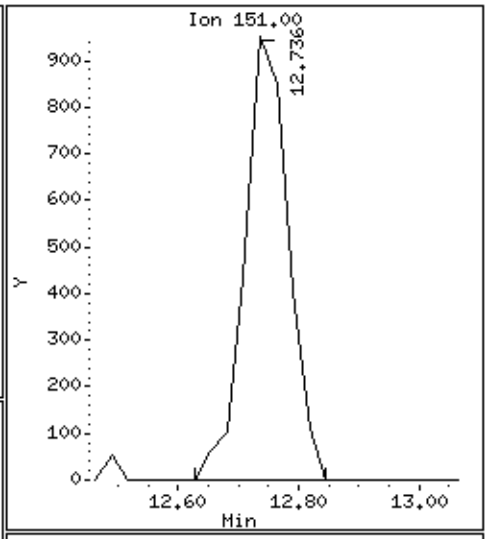
Concentration: 0.1931 PPBV

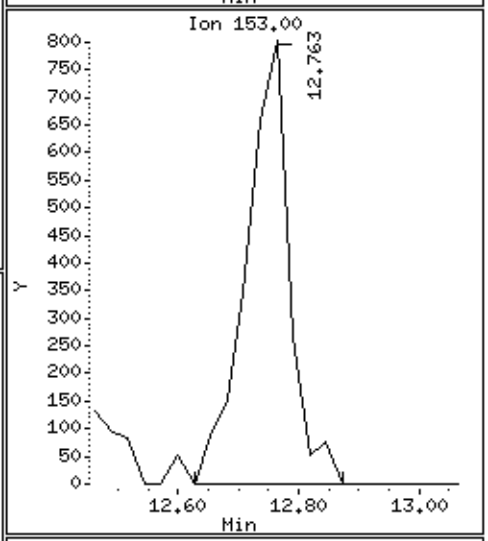


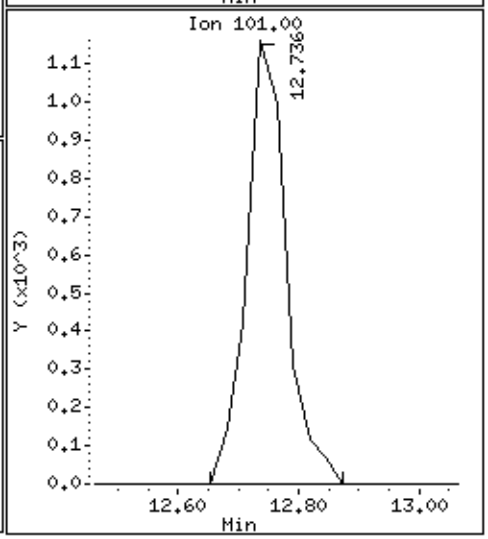












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

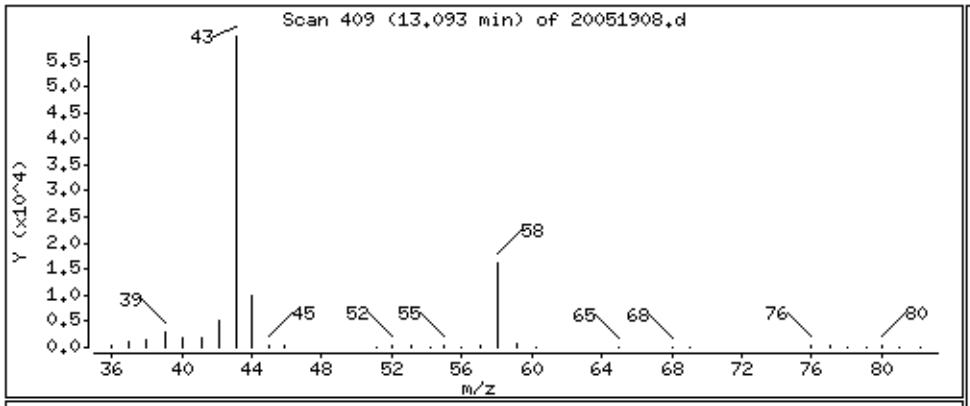
Operator: ef

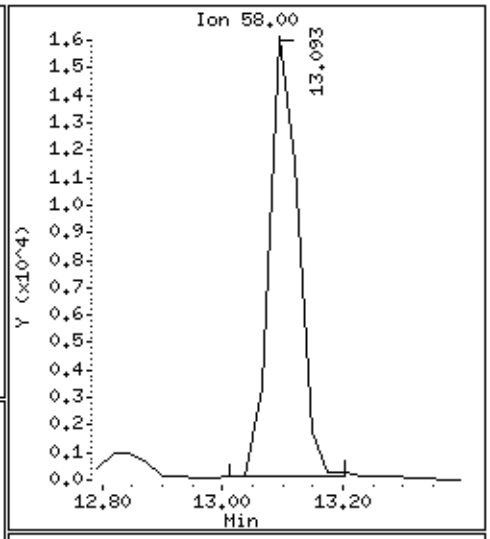
Column phase: RTX-624

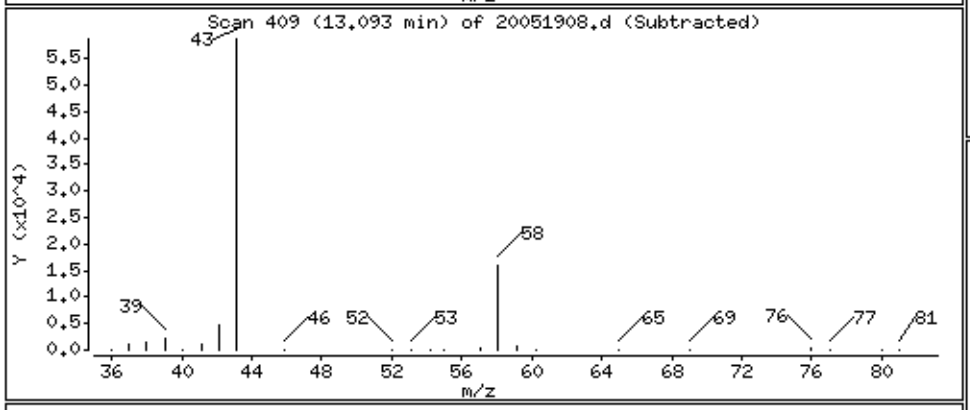
Column diameter: 0.32

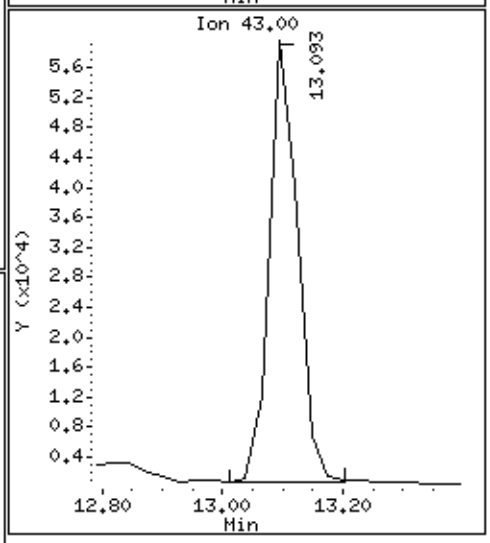
52 Acetone

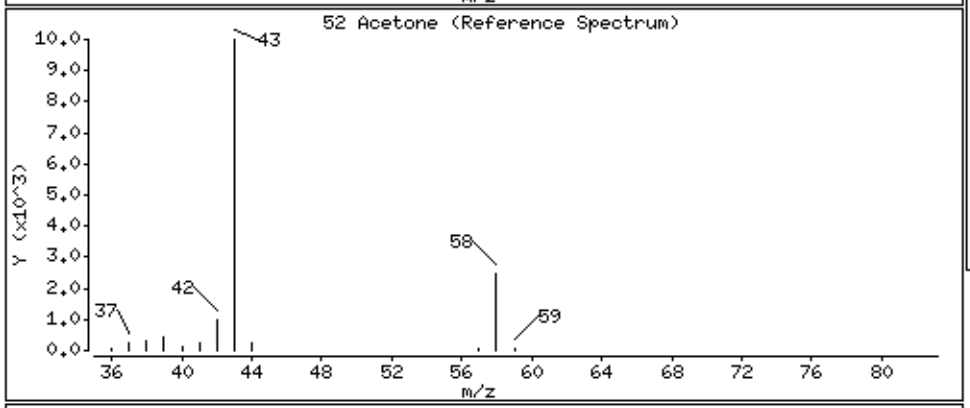
Concentration: 6.113 PPBV

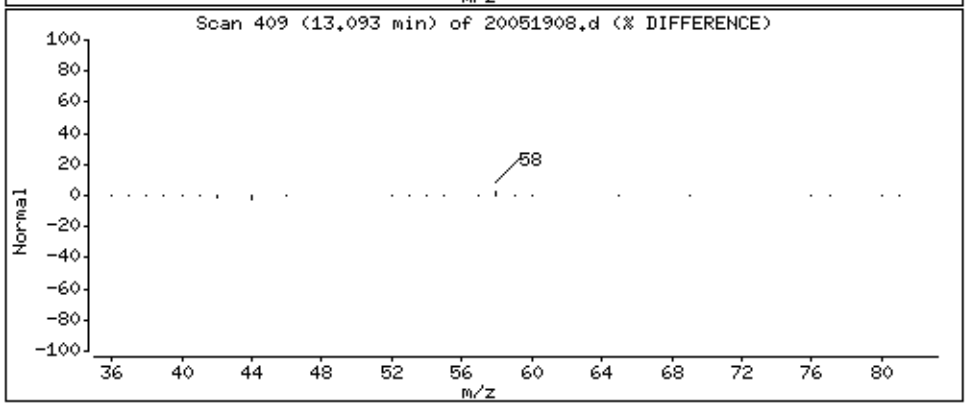












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

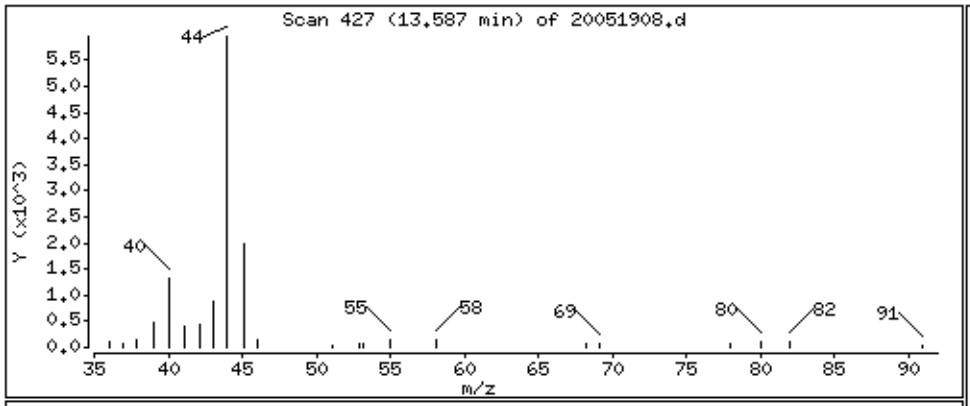
Operator: ef

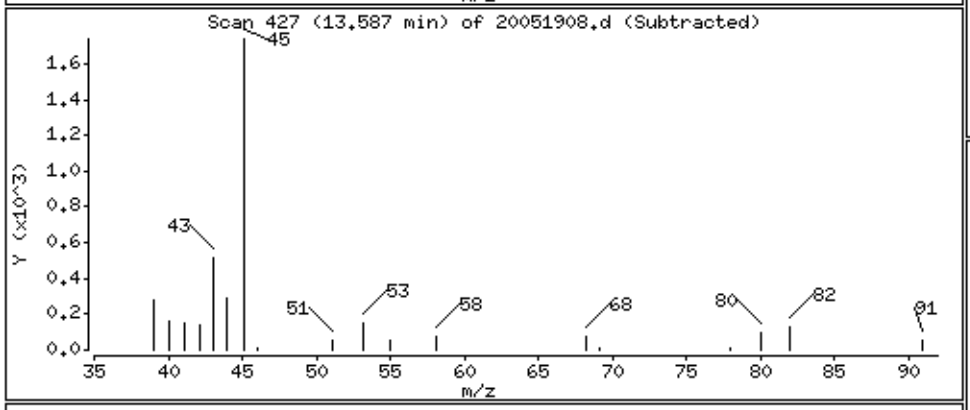
Column phase: RTX-624

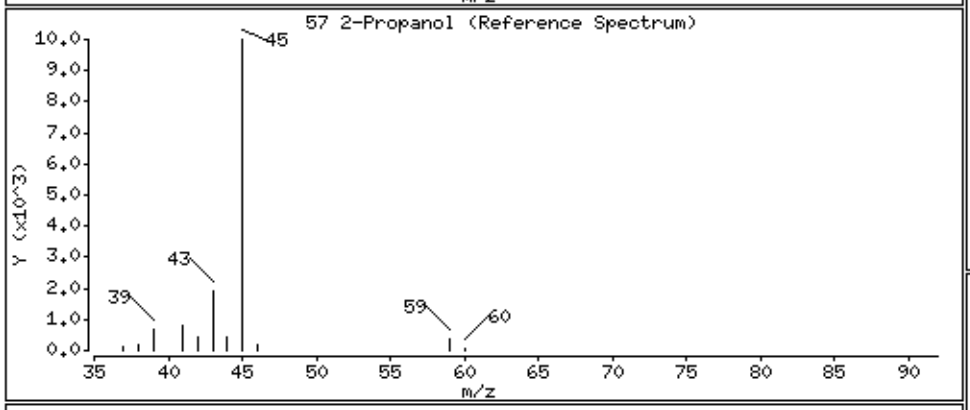
Column diameter: 0.32

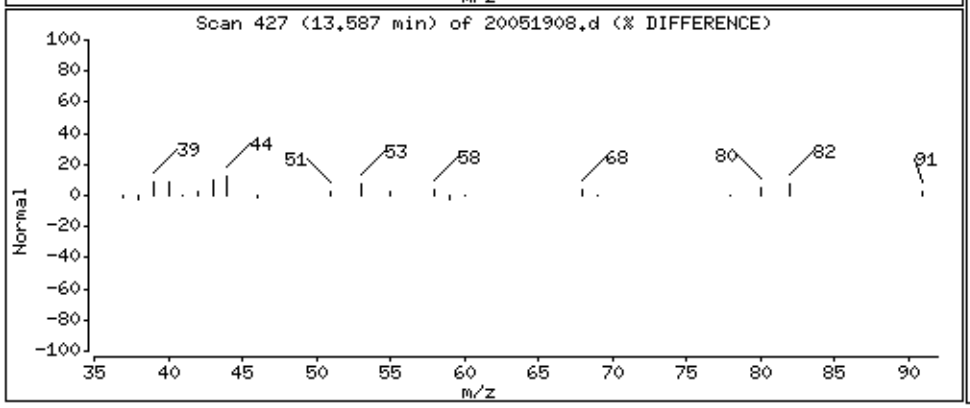
57 2-Propanol

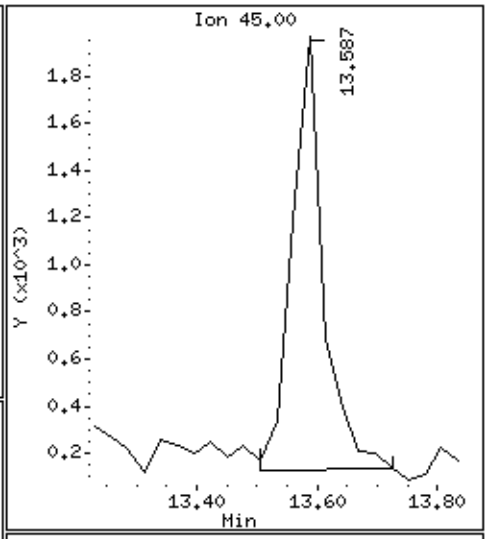
Concentration: 0.2216 PPBV

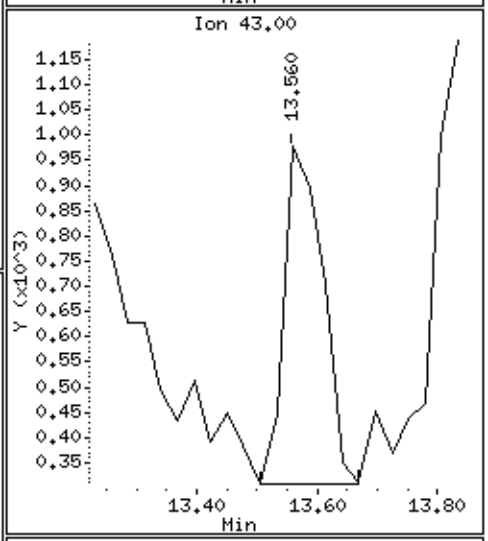


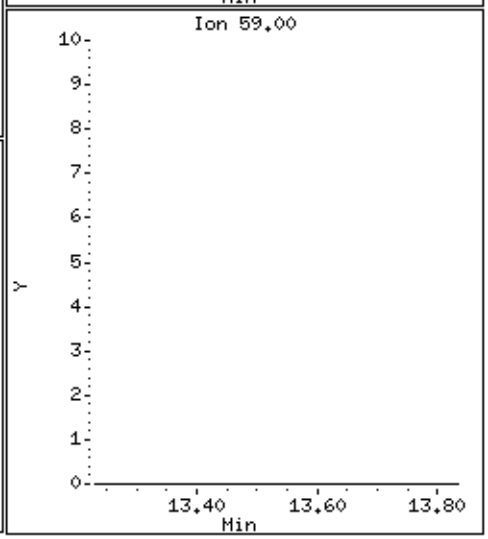












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

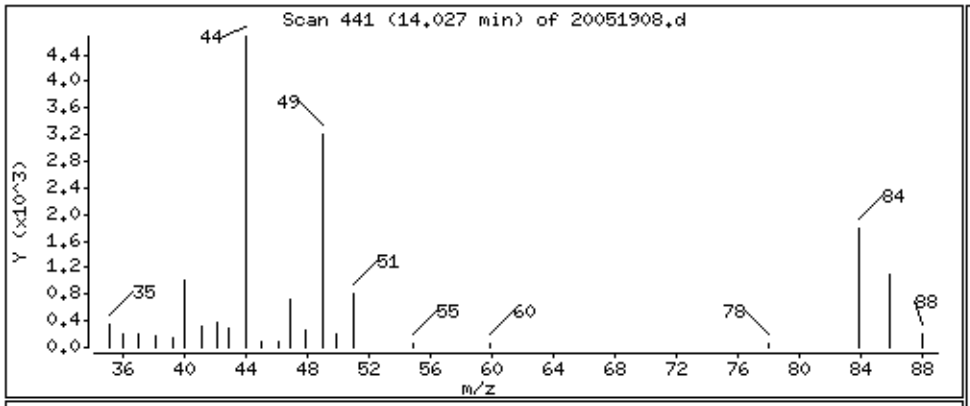
Operator: ef

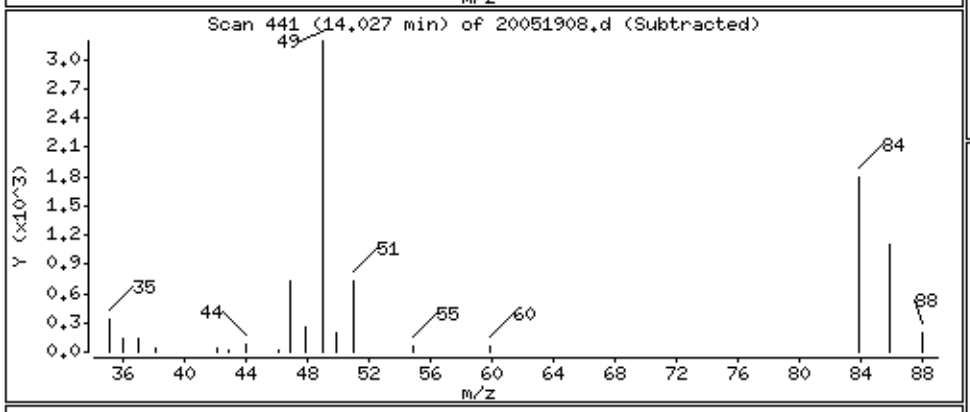
Column phase: RTX-624

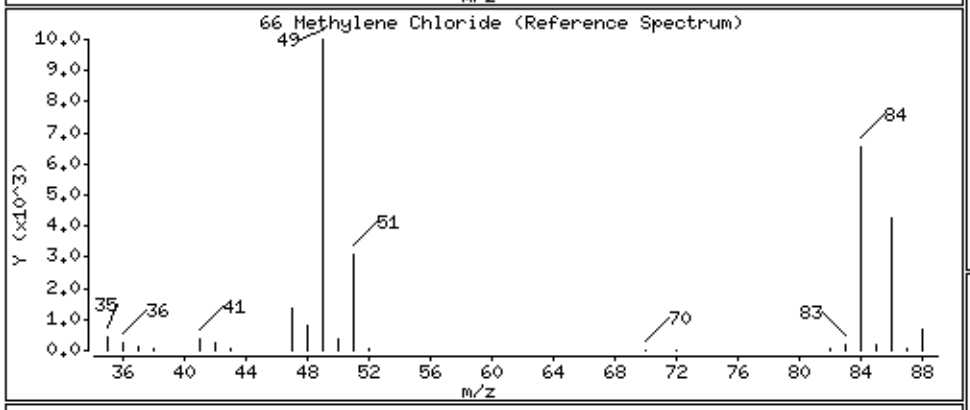
Column diameter: 0.32

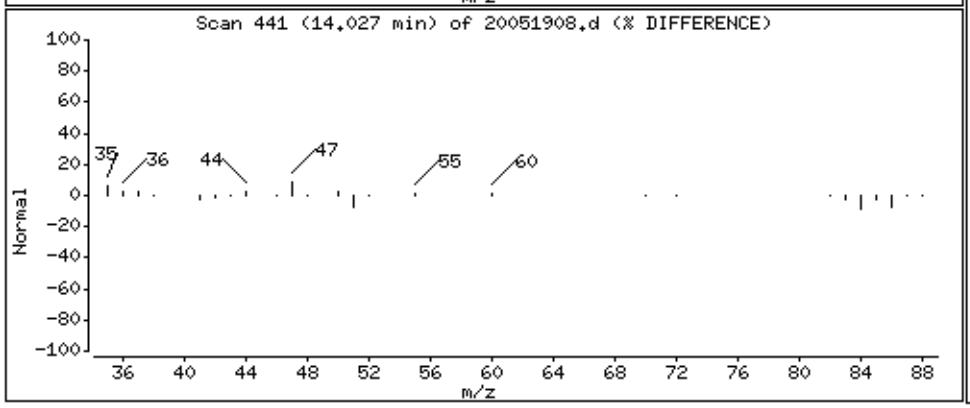
66 Methylene Chloride

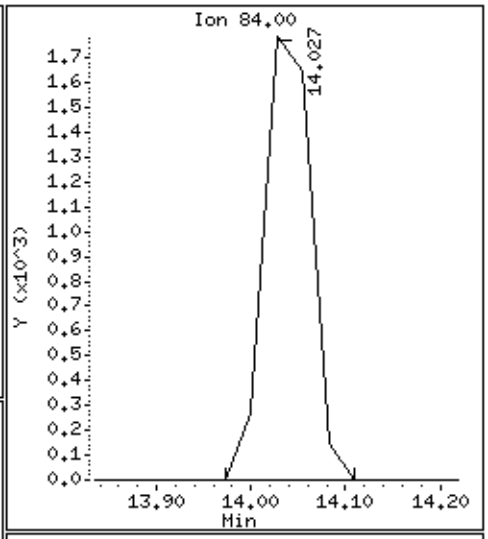
Concentration: 0.3909 PPBV

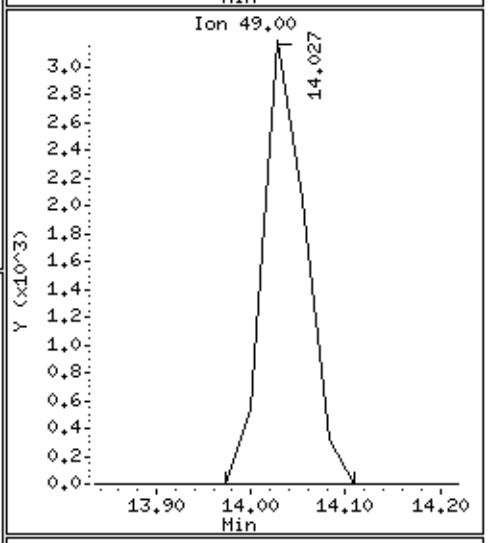


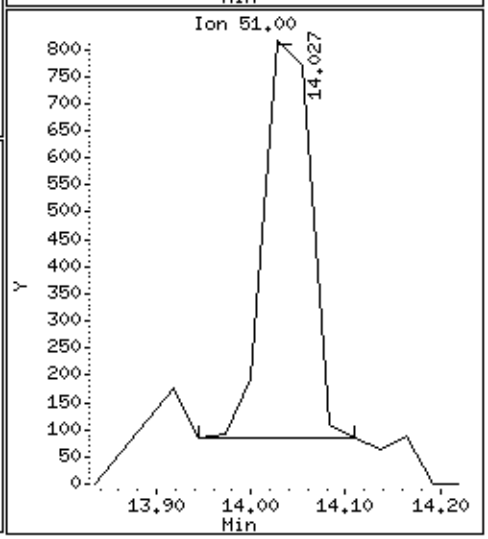












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

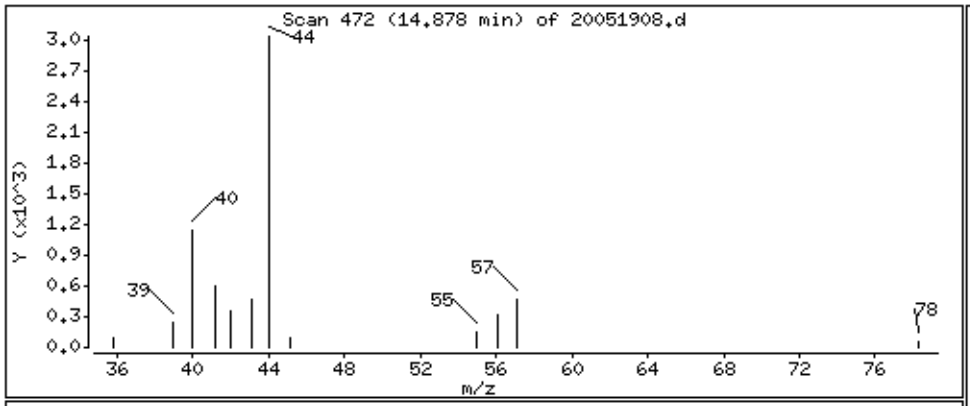
Operator: ef

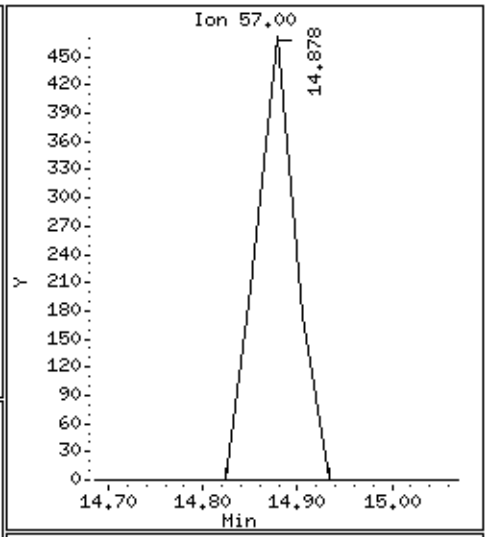
Column phase: RTX-624

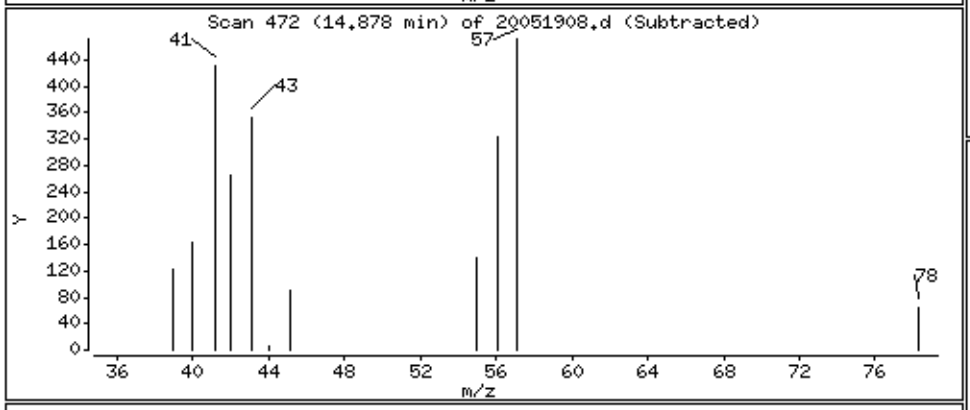
Column diameter: 0.32

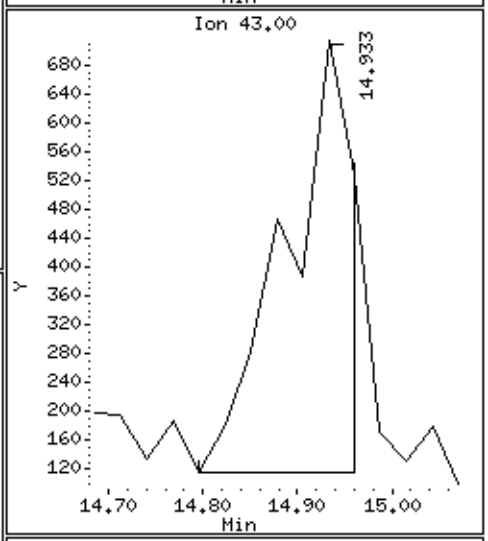
78 Hexane

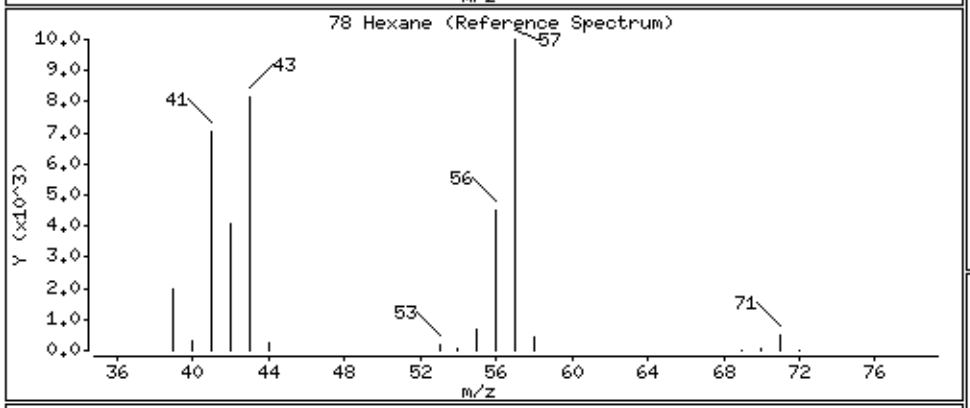
Concentration: 0.05067 PPBV

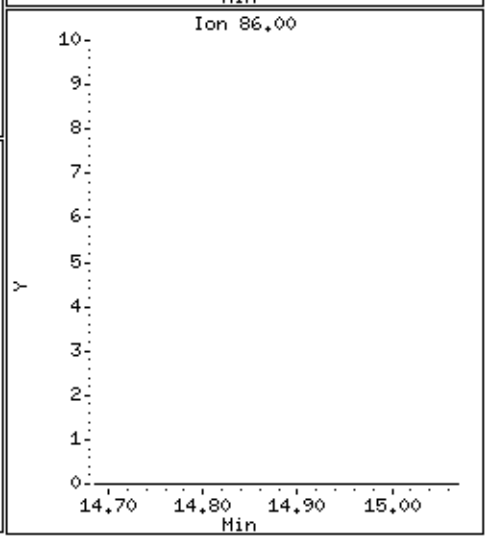


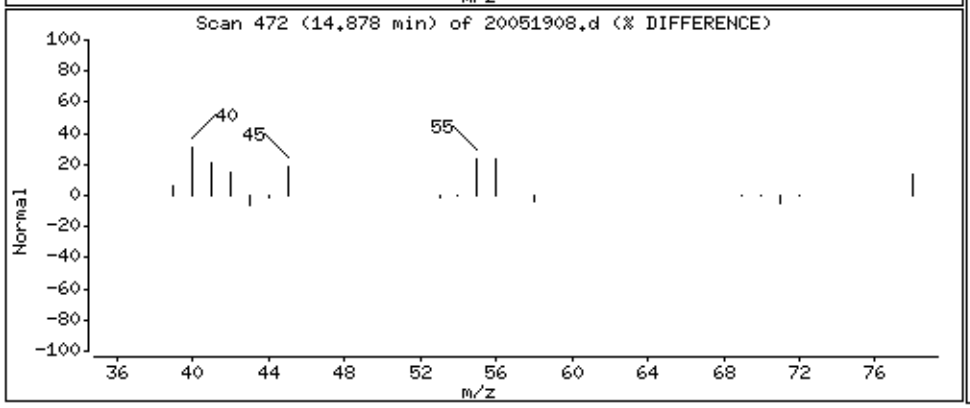












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

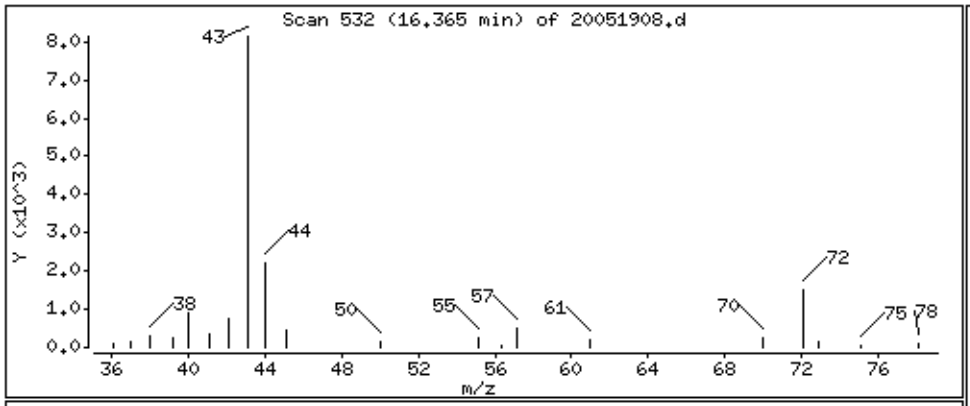
Operator: ef

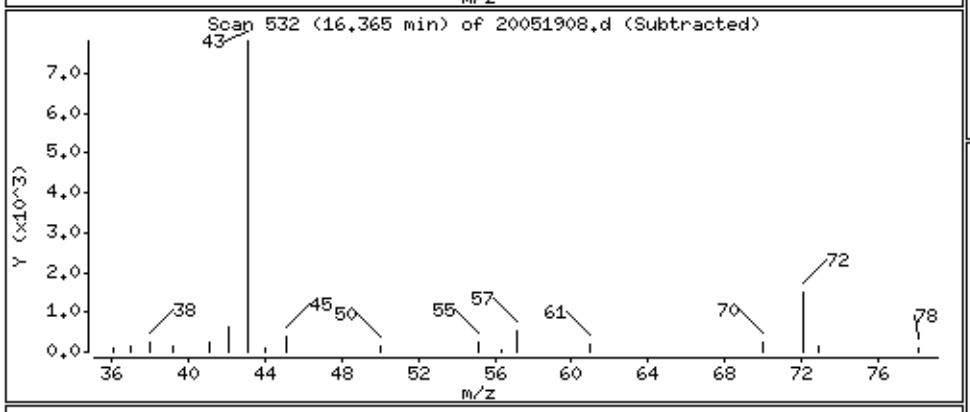
Column phase: RTX-624

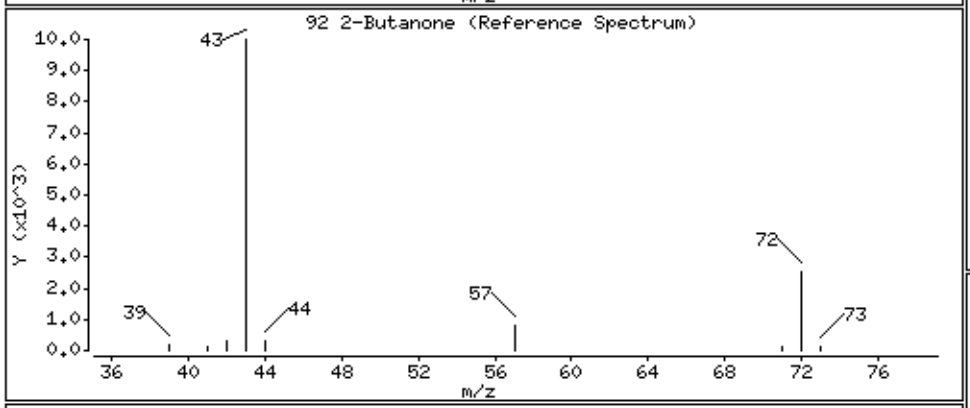
Column diameter: 0.32

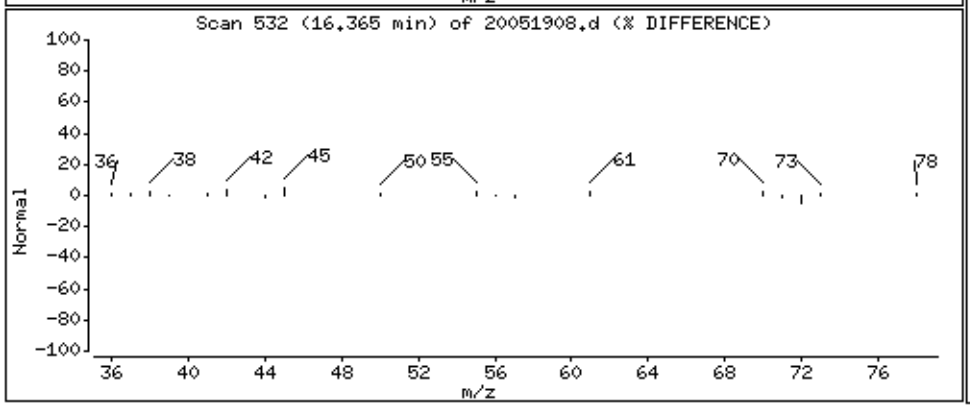
92 2-Butanone

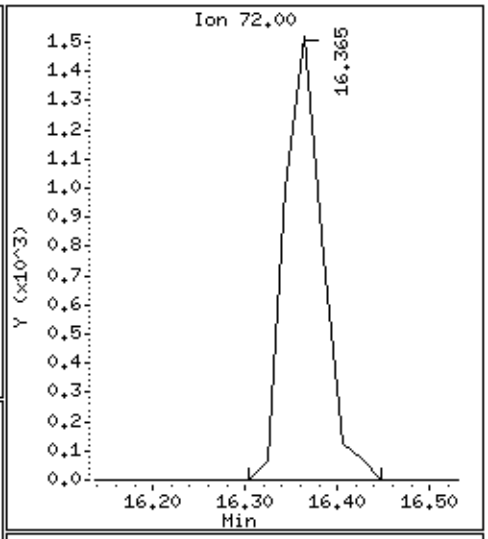
Concentration: 0.5197 PPBV

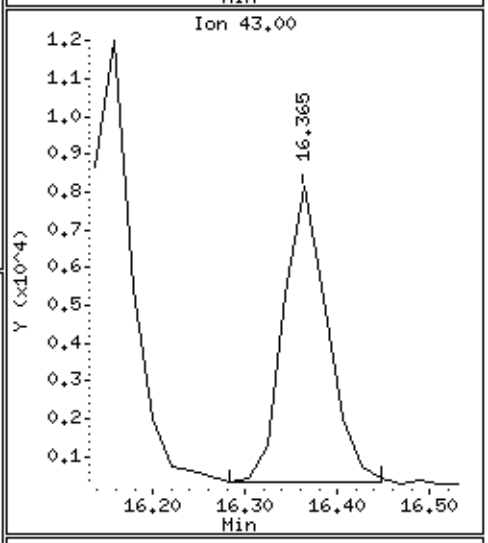


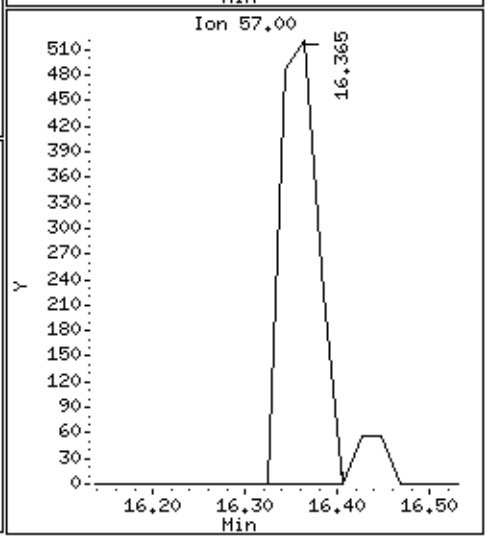












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

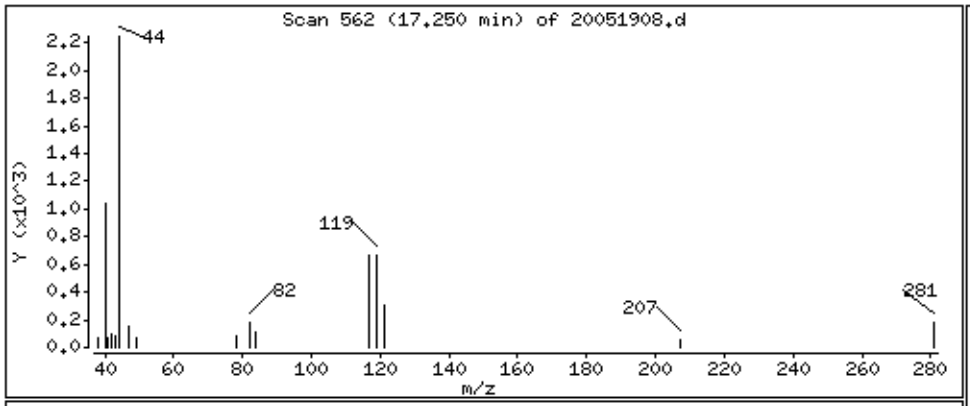
Operator: ef

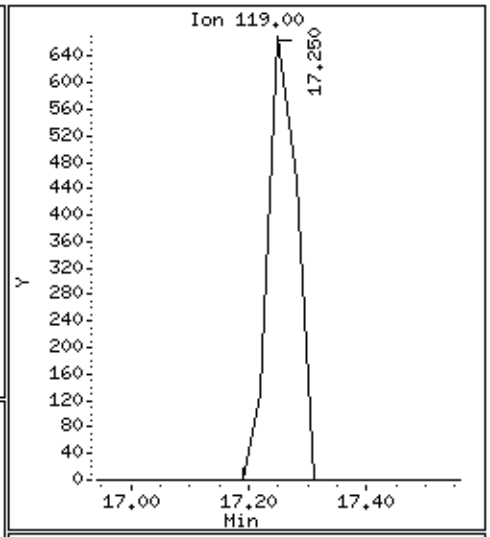
Column phase: RTX-624

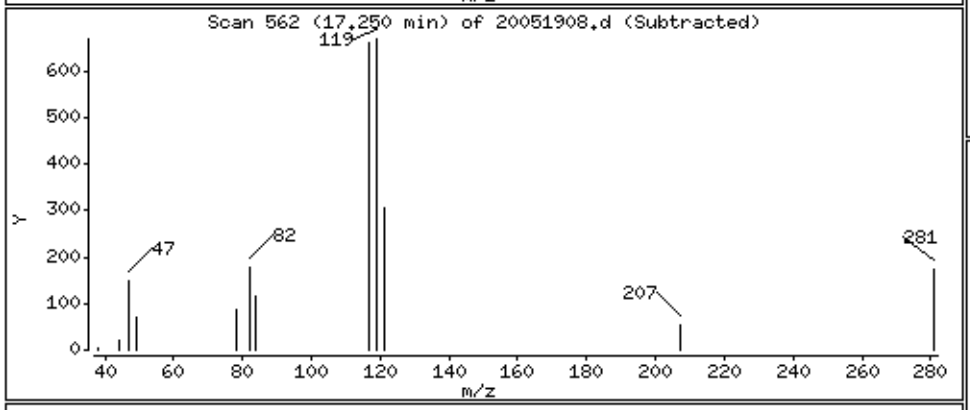
Column diameter: 0.32

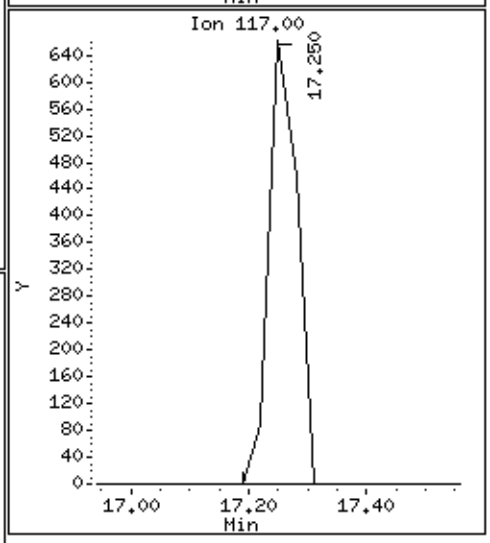
106 Carbon Tetrachloride

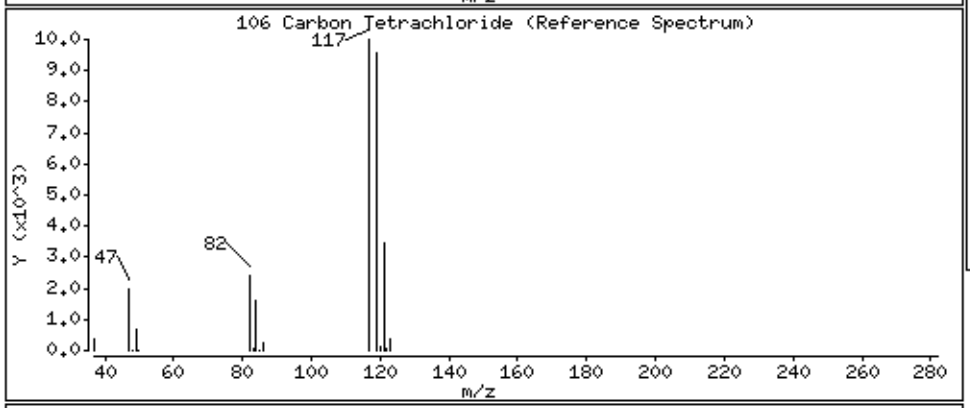
Concentration: 0.06610 PPBV

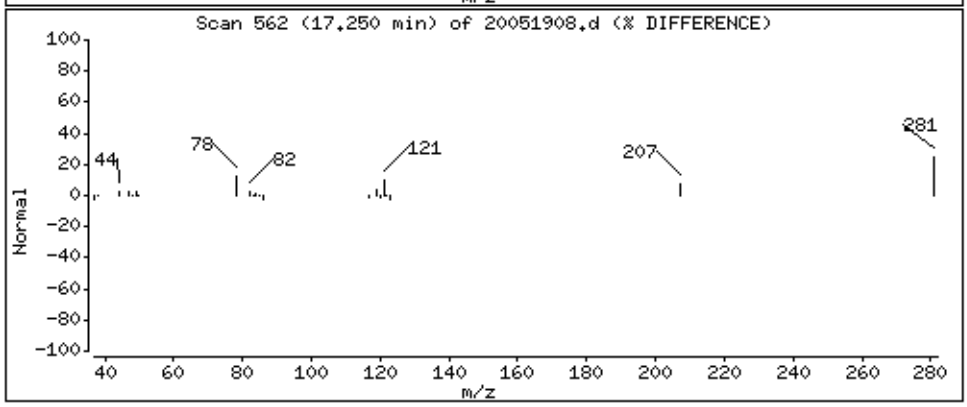












Data File: /chem/msd20.i/19May2016.b/20051908.d

Date : 19-MAY-2016 14:50

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1297

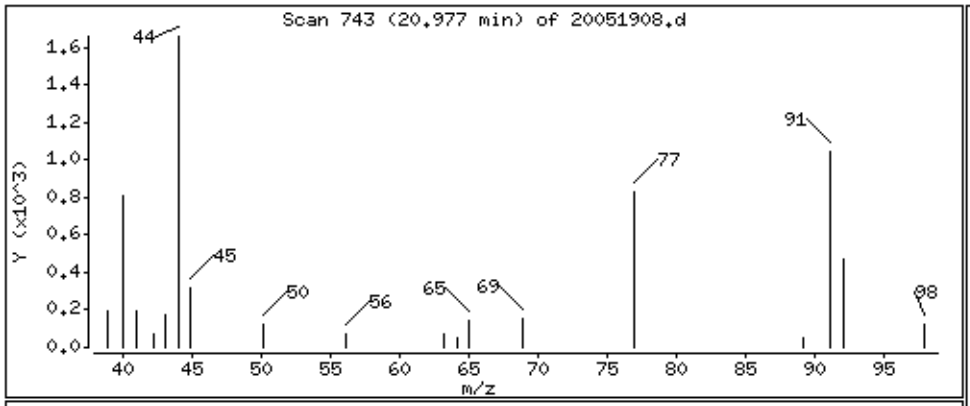
Operator: ef

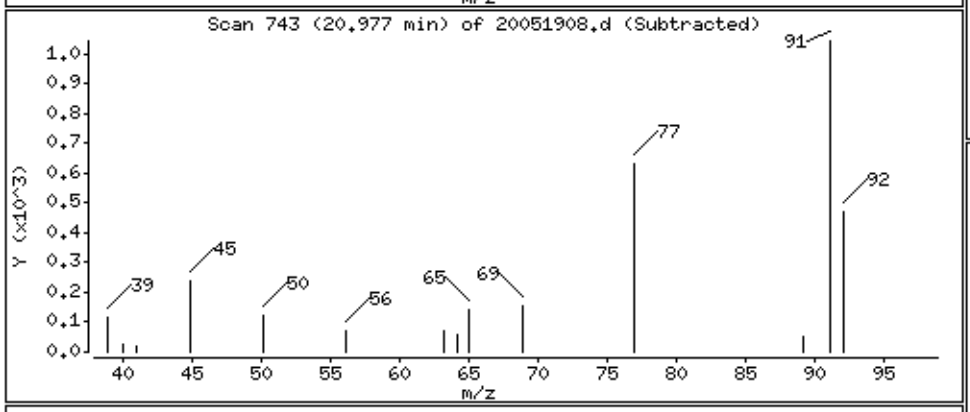
Column phase: RTX-624

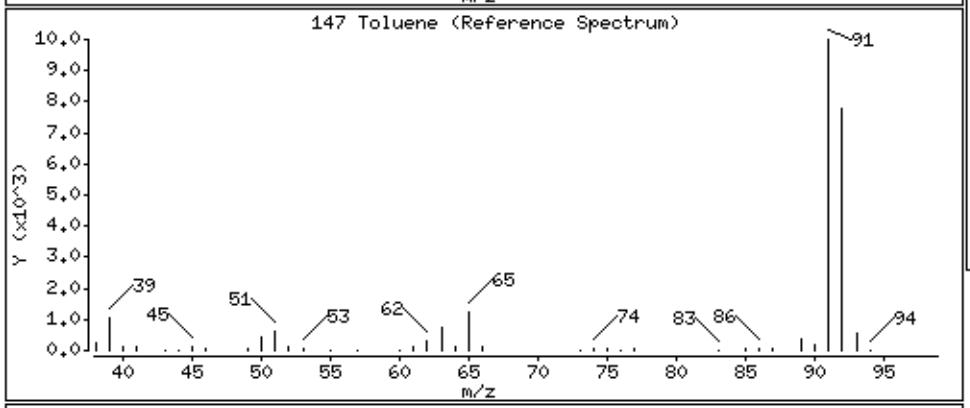
Column diameter: 0.32

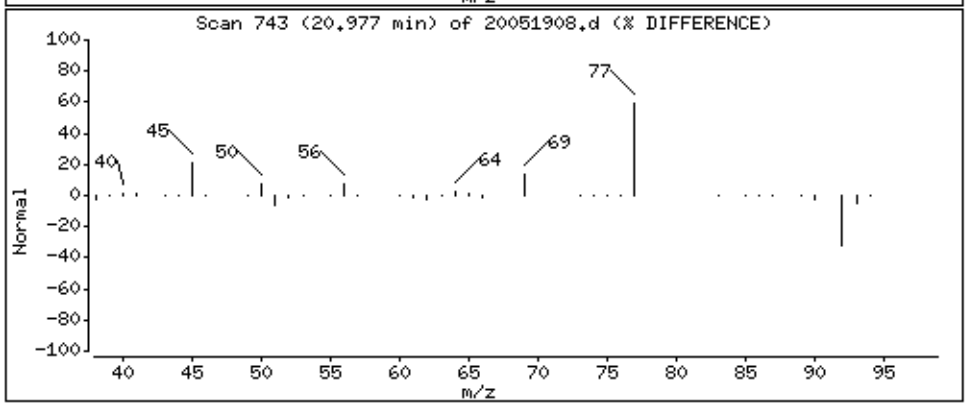
147 Toluene

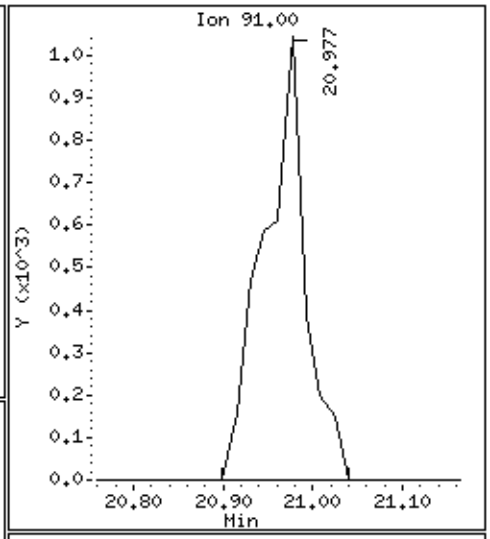
Concentration: 0.06723 PPBV

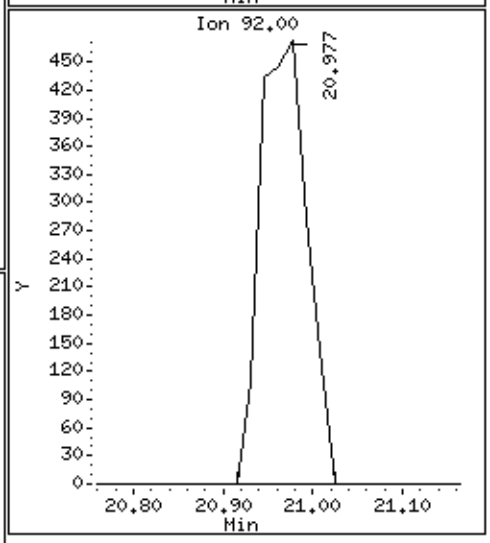












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1605350A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 11:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	0.24 J	1.2	0.58 J
2-Propanol	0.50	0.052 J	1.2	0.13 J
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	0.044 J	0.69	0.15 J
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1605350A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051906a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 11:39 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	0.023 J	3.7	0.17 J
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19May2016.b/20051906a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 19-MAY-2016 11:39
Operator : ef Inst ID: msd20.i
Smp Info : 250mL # 96107
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19May2016.b/2016l0210c.m
Meth Date : 19-May-2016 11:22 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.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
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	98378	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	76745			46.65- 106.65	78.01
16.726	16.726 (1.000)	49	164657			153.40- 213.40	167.37
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	374782	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	64804			0.00- 48.22	17.29
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	314808	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	205182			37.02- 97.02	65.18
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	206837	5.14665	5.147	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	102218			26.73- 86.73	49.42
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.822	20.821 (1.142)	98	378112	5.00386	5.004	80.00- 120.00	100.00
20.822	20.821 (1.142)	70	48847			0.00- 43.74	12.92

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.822	20.821 (1.142)	100	240547			35.47- 95.47	63.62
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	151706	4.94905	4.949	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	221301			125.82- 185.82	145.87
25.485	25.466 (1.073)	176	143636			65.90- 125.90	94.68
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	4474	0.24429	0.2443	80.00- 120.00	100.00(a)
13.093	13.093 (0.783)	43	17862			344.67- 404.67	399.22
57 2-Propanol					CAS #: 67-63-0		
13.560	13.532 (0.811)	45	3309	0.05217	0.05217	80.00- 120.00	100.00(a)
13.533	13.532 (0.809)	43	973			0.00- 54.80	29.43
0.000	13.532 (0.000)	59	0			0.00- 33.44	0.00
66 Methylene Chloride					CAS #: 75-09-2		
14.054	14.027 (0.840)	84	1482	0.04390	0.04390	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	1971			122.68- 182.68	133.00
14.027	14.027 (0.839)	51	1047			16.23- 76.23	70.66
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	1224	0.02347	0.02347	80.00- 120.00	100.00(a)
29.382	29.382 (1.237)	182	631			65.16- 125.16	51.57

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: msd20.i
Lab File ID: 20051906a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: Humid

Calibration Date: 19-MAY-2016
Calibration Time: 08:37
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	105902	63541	148263	98378	-7.10
123 1,4-Difluorobenze	416950	250170	583730	374782	-10.11
163 Chlorobenzene-d5	354592	212755	496429	314808	-11.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 19-May-2016 15:53

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 19May2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.147	102.93	70-130
$ 146 Toluene-d8	5.000	5.004	100.08	70-130
$ 177 4-Bromofluorobenze	5.000	4.949	98.98	70-130

Data File: /chem/msd20.i/19May2016.b/20051906a.d

Date : 19-MAY-2016 11:39

Client ID: Lab Blank

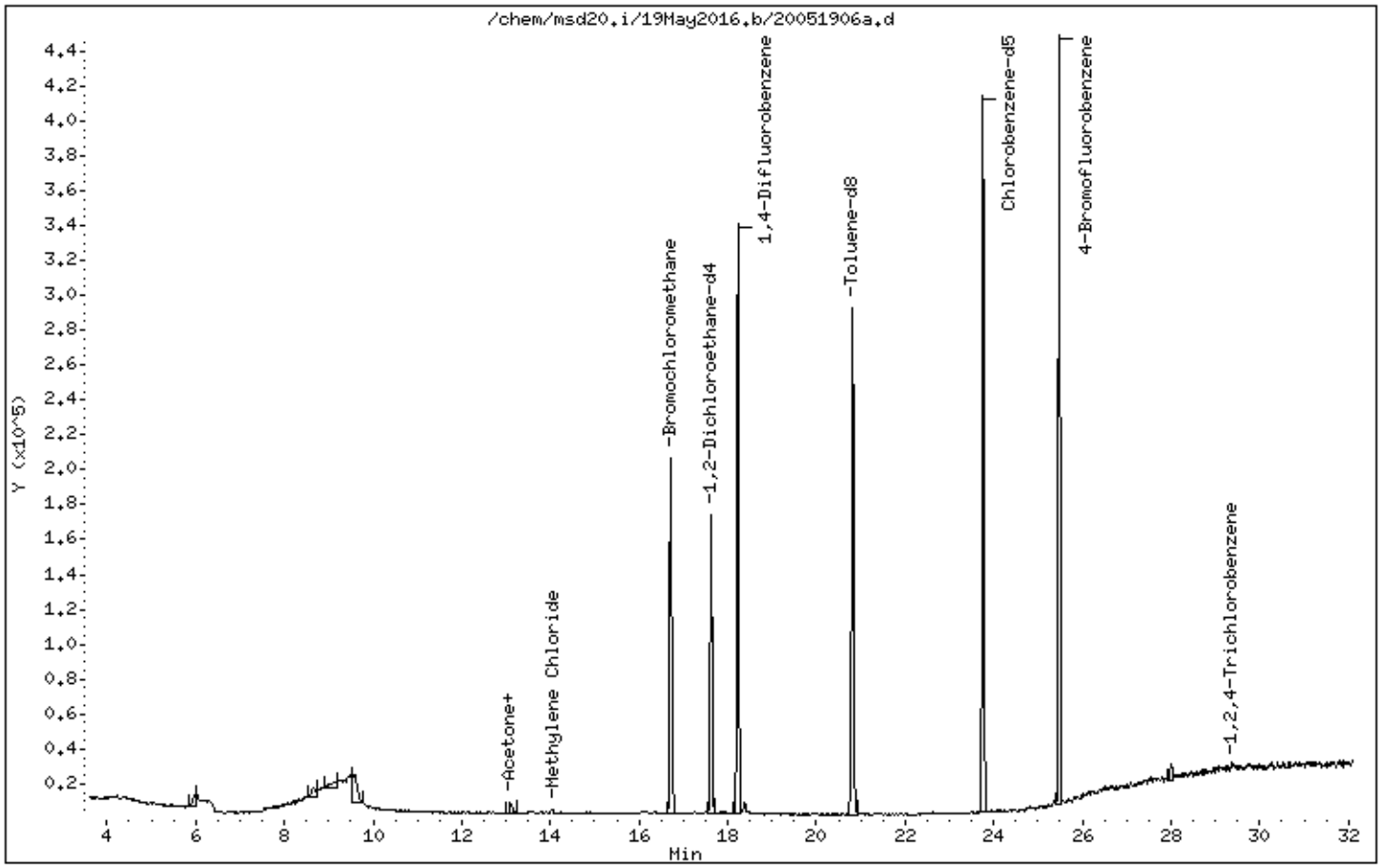
Instrument: msd20.i

Sample Info: 250mL # 96107

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/19May2016.b/20051906a.d

Date : 19-MAY-2016 11:39

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 96107

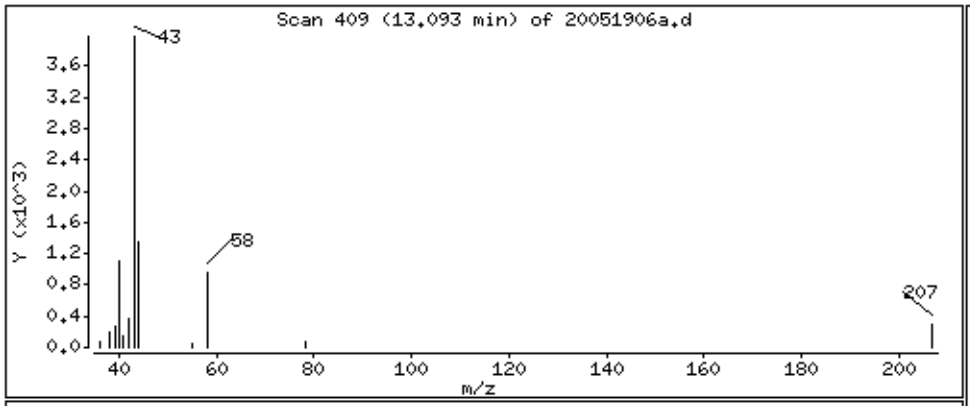
Operator: ef

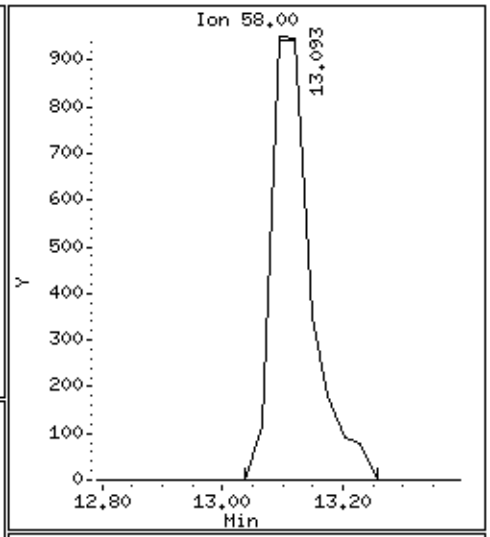
Column phase: RTX-624

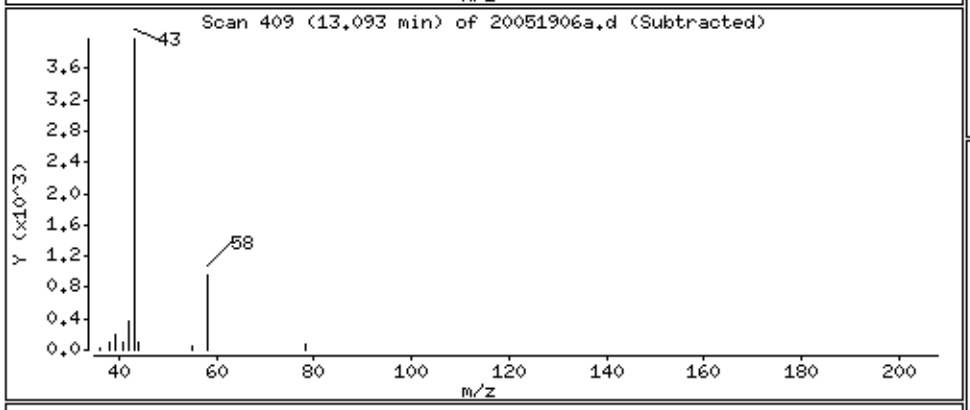
Column diameter: 0.32

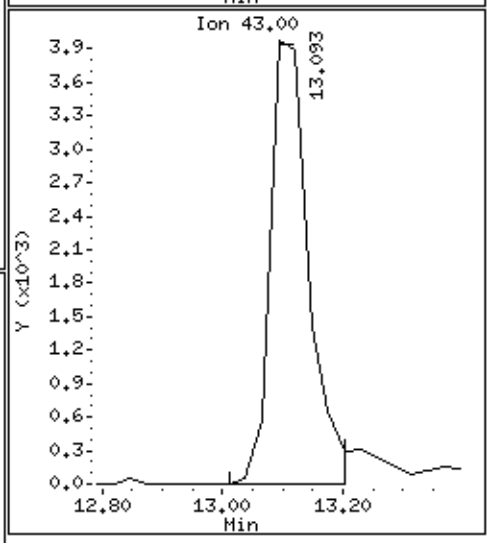
52 Acetone

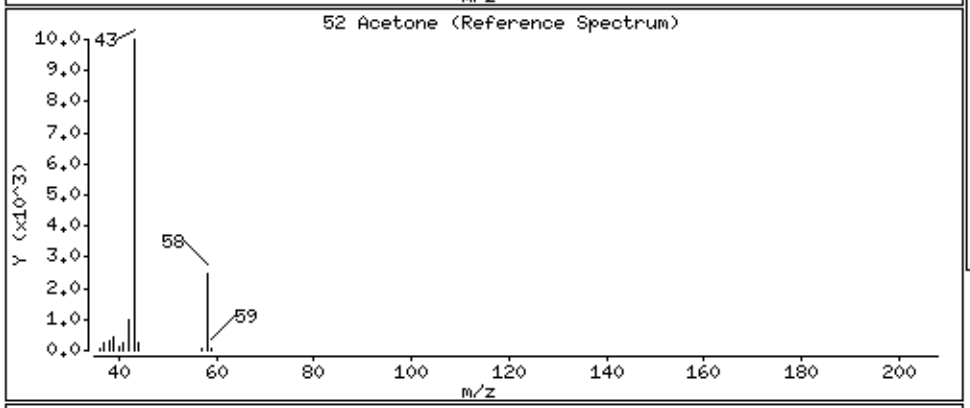
Concentration: 0.2443 PPBV

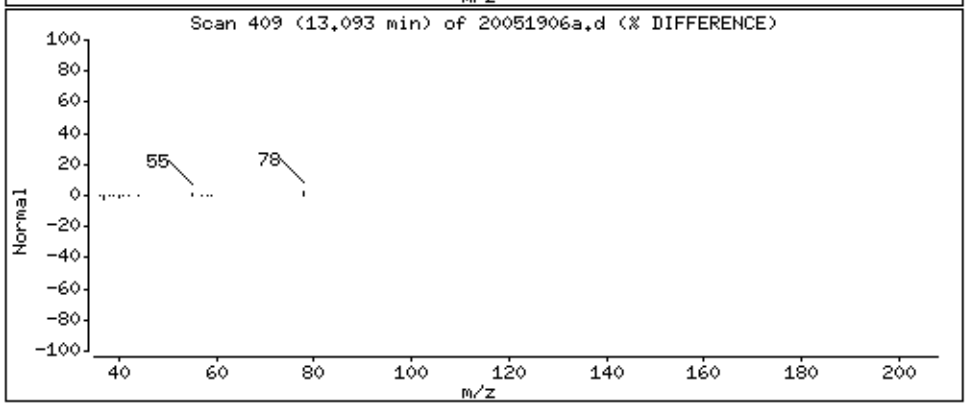












Data File: /chem/msd20.i/19May2016.b/20051906a.d

Date : 19-MAY-2016 11:39

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 96107

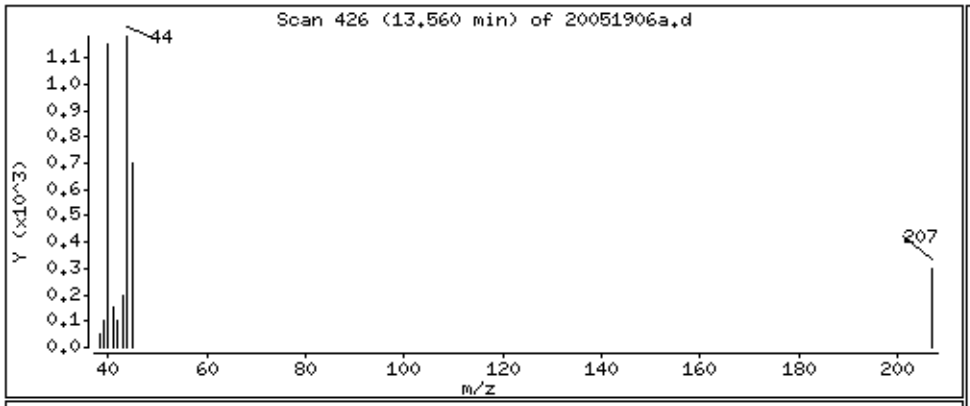
Operator: ef

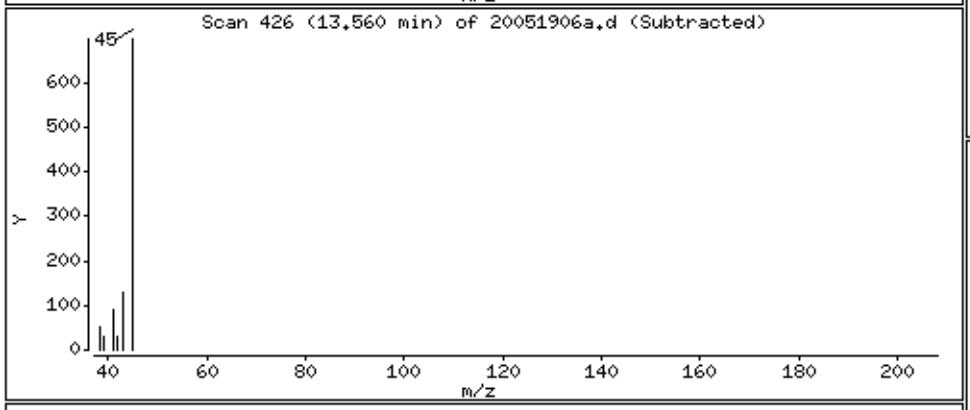
Column phase: RTX-624

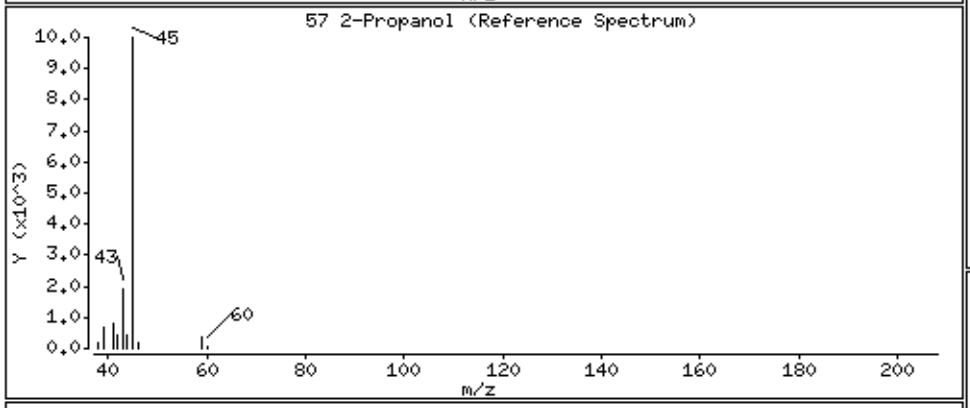
Column diameter: 0.32

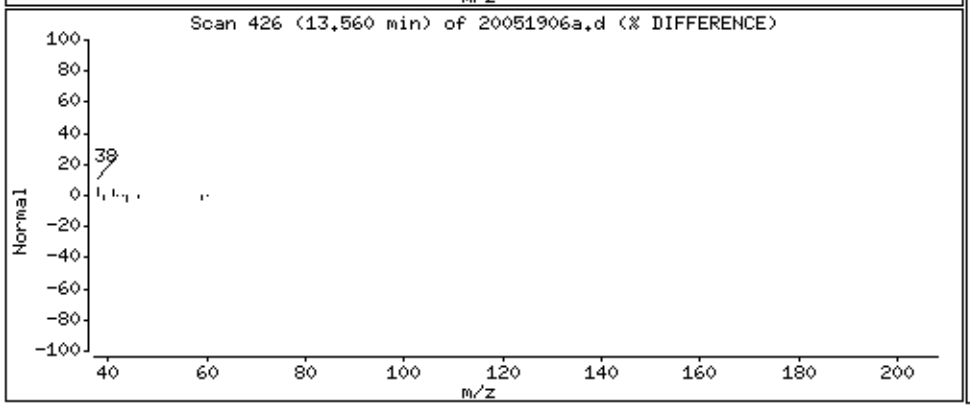
57 2-Propanol

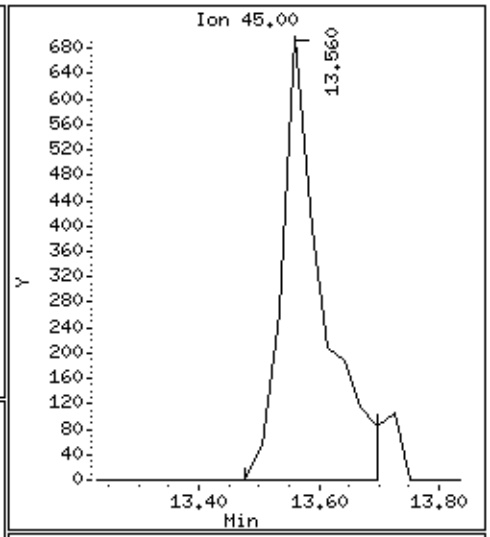
Concentration: 0.05217 PPBV

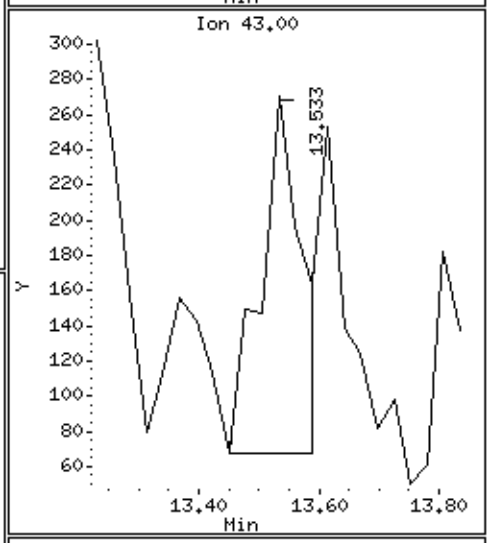


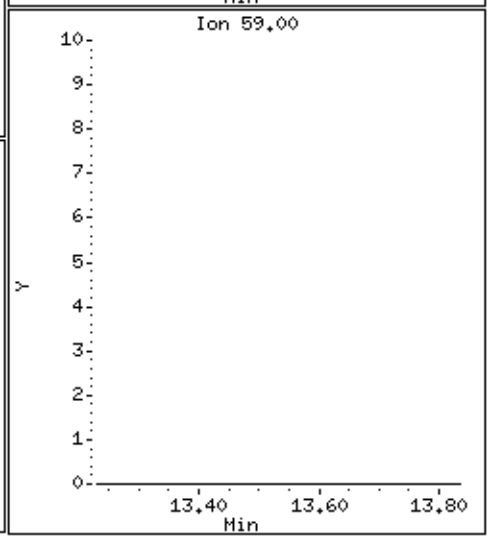












Data File: /chem/msd20.i/19May2016.b/20051906a.d

Date : 19-MAY-2016 11:39

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 96107

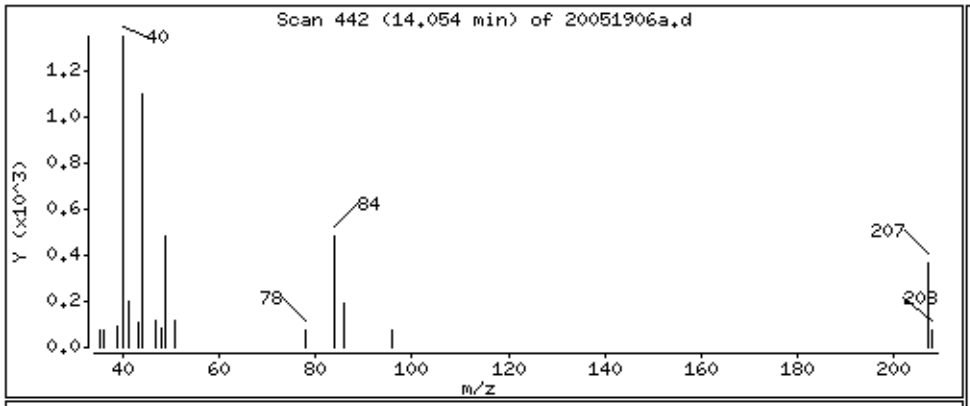
Operator: ef

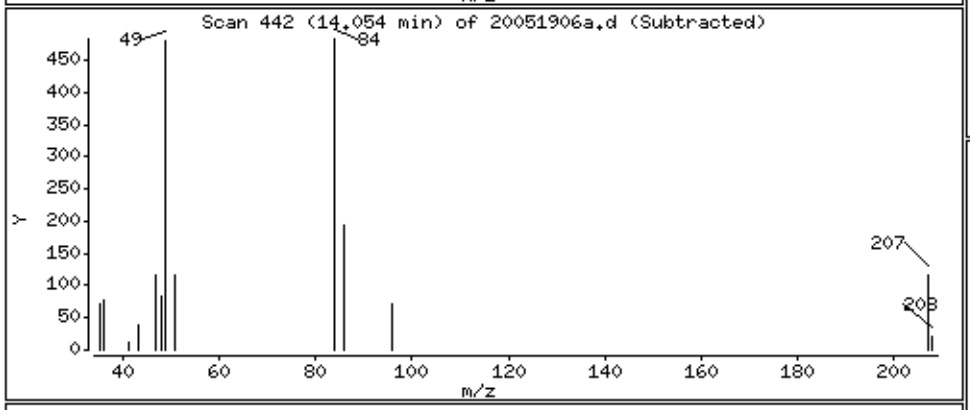
Column phase: RTX-624

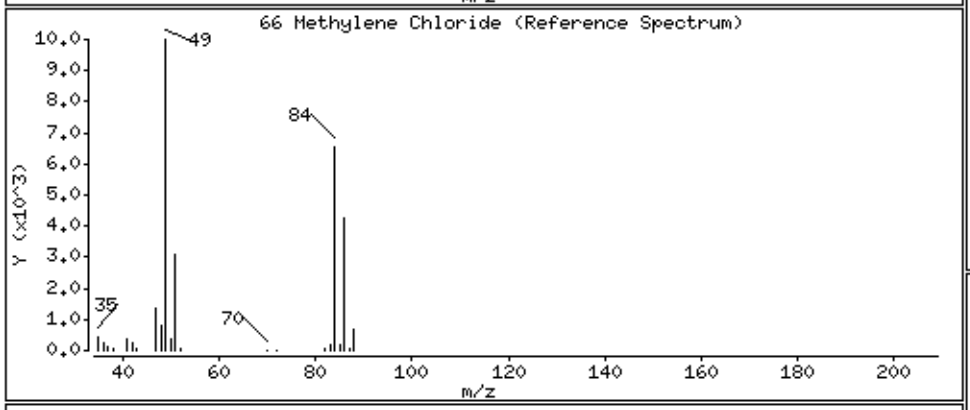
Column diameter: 0.32

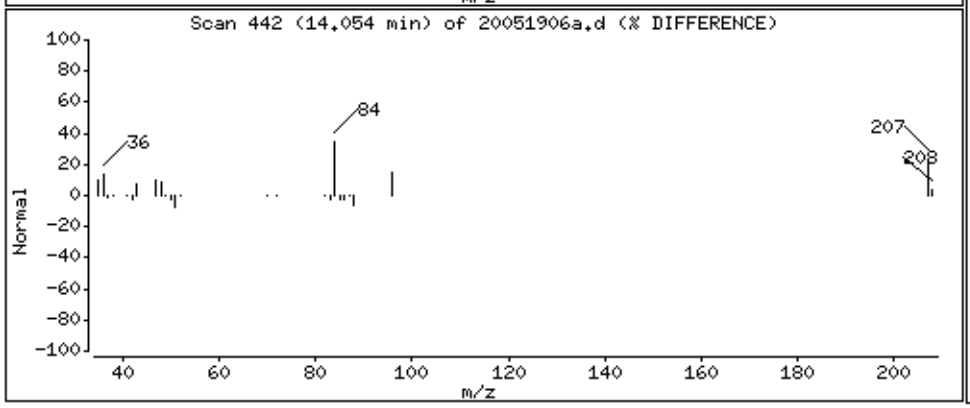
66 Methylene Chloride

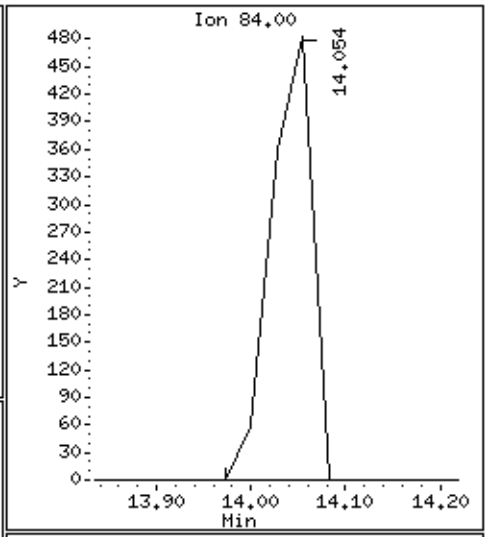
Concentration: 0.04390 PPBV

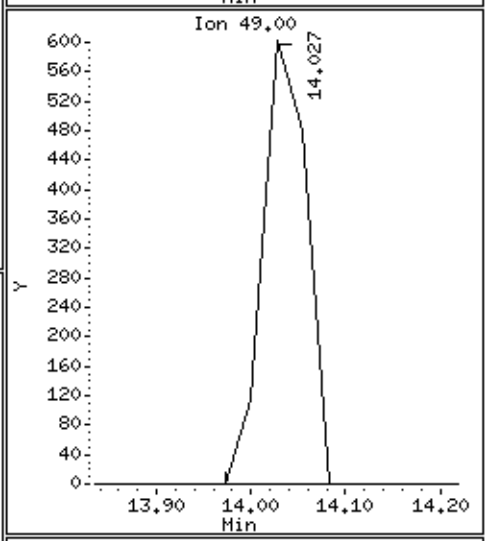


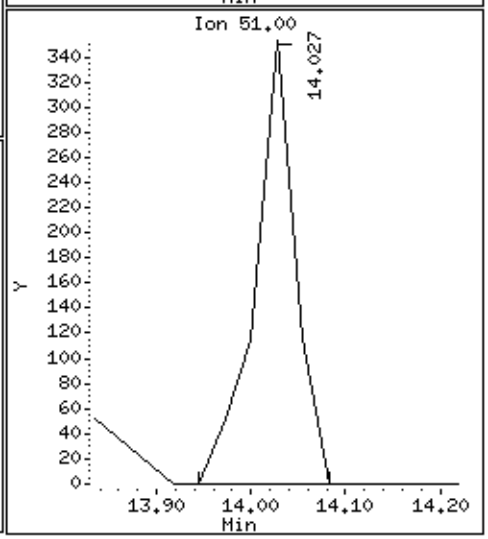












Data File: /chem/msd20.i/19May2016.b/20051906a.d

Date : 19-MAY-2016 11:39

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 96107

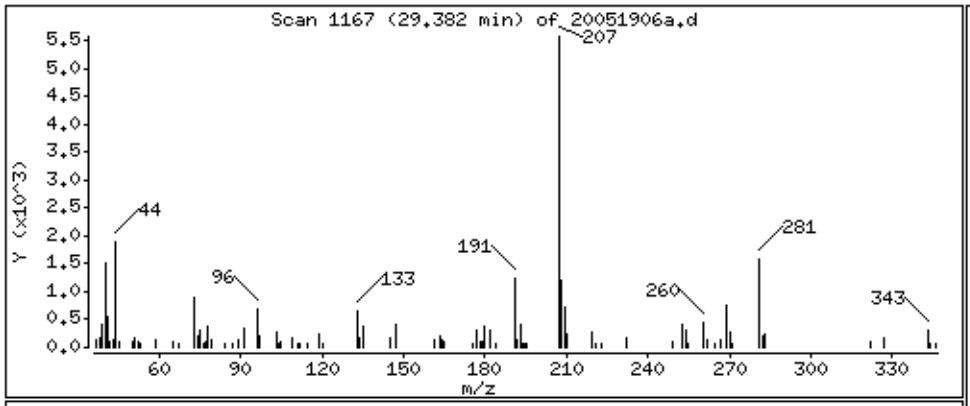
Operator: ef

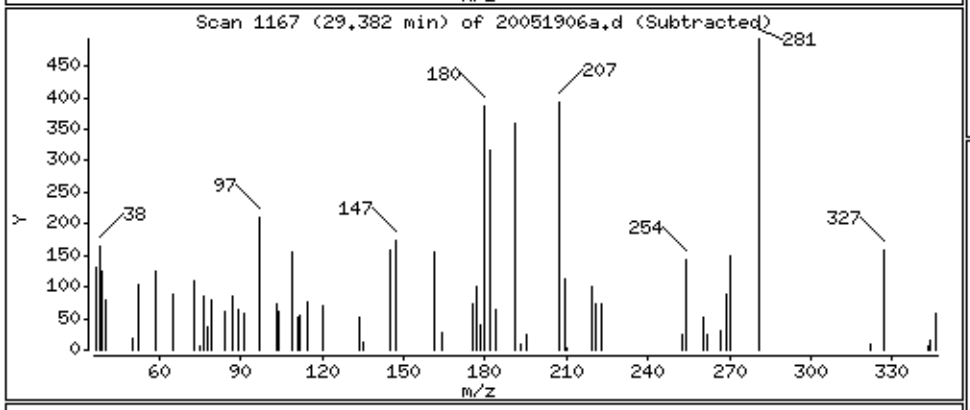
Column phase: RTX-624

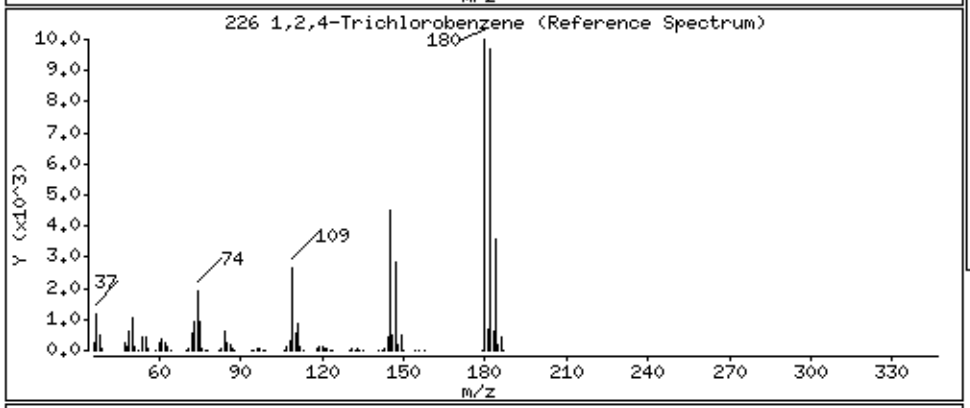
Column diameter: 0.32

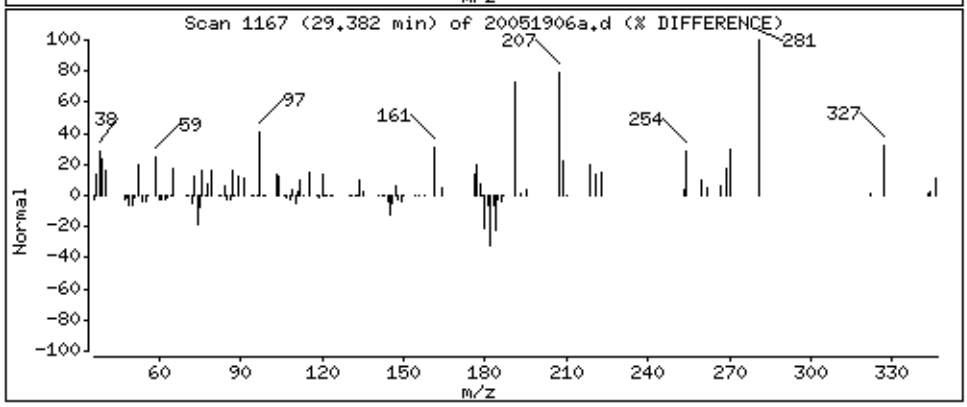
226 1,2,4-Trichlorobenzene

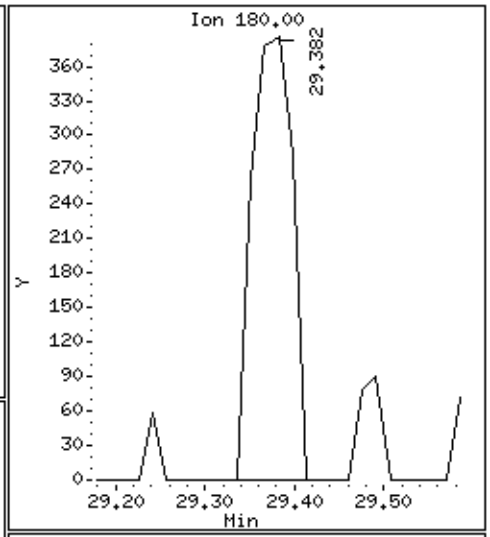
Concentration: 0.02347 PPBV

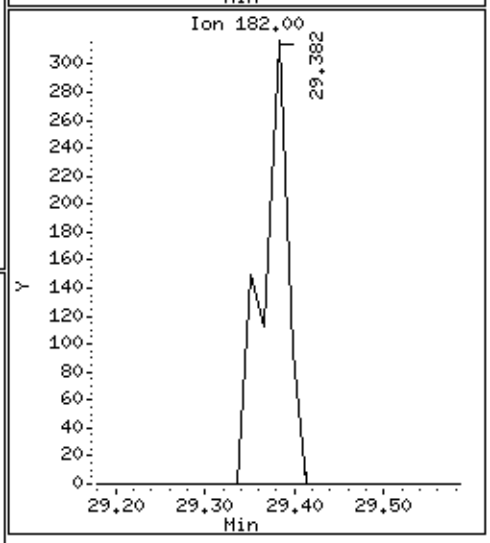












LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1605350A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B7AA-1 (05162016)	115		97		107				0
02	Lab Blank	103		100		99				0
03	CCV	95		105		106				0
04	LCS	95		104		106				0
05	LCSD	97		106		104				0
06										0
07										0
08										0
09										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

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1605350A
Lab File ID:	20051902.d	Date Analyzed:	05/19/2016
Instrument ID:	msd20.i	Time Analyzed:	08:37 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	354592		23.76		416950		18.23		105902		16.73	
	UPPER LIMIT	496429		24.09		583730		18.56		148263		17.06	
	LOWER LIMIT	212755		23.43		250170		17.90		63541		16.40	
	CLIENT SAMPLE NO												
01	B7AA-1 (05162016)	258560		23.76		307689		18.23		81951		16.73	
02	Lab Blank	314808		23.76		374782		18.23		98378		16.73	
03	CCV	354592		23.76		416950		18.23		105902		16.73	
04	LCS	357659		23.76		421934		18.23		107562		16.73	
05	LCSD	364159		23.76		424222		18.23		107040		16.73	
06													
07													
08													
09													
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

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20051904.d & 20051903.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 5/19/16 & 5/19/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	114		115		0.87	
79-34-5	1,1,2,2-Tetrachloroethane	125		122		2.4	
79-00-5	1,1,2-Trichloroethane	115		118		2.6	
75-34-3	1,1-Dichloroethane	109		109		0	
75-35-4	1,1-Dichloroethene	112		121		7.7	
120-82-1	1,2,4-Trichlorobenzene	116		120		3.4	
95-63-6	1,2,4-Trimethylbenzene	116		119		2.6	
106-93-4	1,2-Dibromoethane (EDB)	128		128		0	
95-50-1	1,2-Dichlorobenzene	111		110		0.90	
107-06-2	1,2-Dichloroethane	125		123		1.6	
78-87-5	1,2-Dichloropropane	113		114		0.88	
108-67-8	1,3,5-Trimethylbenzene	120		121		0.83	
106-99-0	1,3-Butadiene	114		113		0.88	
541-73-1	1,3-Dichlorobenzene	110		111		0.90	
106-46-7	1,4-Dichlorobenzene	107		110		2.8	
123-91-1	1,4-Dioxane	117		114		2.6	
540-84-1	2,2,4-Trimethylpentane	112		113		0.89	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	108		110		1.8	
591-78-6	2-Hexanone	107		110		2.8	
67-63-0	2-Propanol	100		108		7.7	
107-05-1	3-Chloropropene	96		106		9.9	
622-96-8	4-Ethyltoluene	102		107		4.8	
108-10-1	4-Methyl-2-pentanone	119		121		1.7	
67-64-1	Acetone	113		125		10	
100-44-7	alpha-Chlorotoluene	125		125		0	
71-43-2	Benzene	117		119		1.7	
75-27-4	Bromodichloromethane	128		128		0	
75-25-2	Bromoform	145		145		0	
74-83-9	Bromomethane	115		125		8.3	
75-15-0	Carbon Disulfide	99		108		8.7	
56-23-5	Carbon Tetrachloride	130		130		0	
108-90-7	Chlorobenzene	116		116		0	
75-00-3	Chloroethane	113		120		6.0	
67-66-3	Chloroform	113		115		1.8	
74-87-3	Chloromethane	104		103		0.97	
156-59-2	cis-1,2-Dichloroethene	106		107		0.94	
10061-01-5	cis-1,3-Dichloropropene	109		108		0.92	
98-82-8	Cumene	123		125		1.6	
110-82-7	Cyclohexane	110		111		0.90	
124-48-1	Dibromochloromethane	138		137		0.73	
64-17-5	Ethanol	109		122		11	
100-41-4	Ethyl Benzene	122		124		1.6	
75-69-4	Freon 11	119		115		3.4	
76-13-1	Freon 113	113		114		0.88	
76-14-2	Freon 114	117		116		0.86	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20051904.d & 20051903.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 5/19/16 & 5/19/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	114		114		0	
142-82-5	Heptane	123		122		0.82	
87-68-3	Hexachlorobutadiene	115		118		2.6	
110-54-3	Hexane	108		109		0.92	
108-38-3	m,p-Xylene	120		117		2.5	
1634-04-4	Methyl tert-butyl ether	109		109		0	
75-09-2	Methylene Chloride	108		108		0	
91-20-3	Naphthalene	75		76		1.3	
95-47-6	o-Xylene	119		121		1.7	
103-65-1	Propylbenzene	111		112		0.90	
100-42-5	Styrene	123		127		3.2	
127-18-4	Tetrachloroethene	128		125		2.4	
109-99-9	Tetrahydrofuran	108		110		1.8	
108-88-3	Toluene	116		118		1.7	
156-60-5	trans-1,2-Dichloroethene	114		113		0.88	
10061-02-6	trans-1,3-Dichloropropene	122		122		0	
79-01-6	Trichloroethene	115		116		0.86	
75-01-4	Vinyl Chloride	121		120		0.83	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/10Feb2016.b/20021006.d
Level 6: /chem/msd20.i/10Feb2016.b/20021007.d
Level 7: /chem/msd20.i/16May2016.b/20051609.d
Level 8: /chem/msd20.i/16May2016.b/20051610.d
Level 9: /chem/msd20.i/16May2016.b/20051611.d
Level 11: /chem/msd20.i/16May2016.b/20051612.d
Level 12: /chem/msd20.i/16May2016.b/20051613.d
Level 13: /chem/msd20.i/10Feb2016.b/20021011.d
Level 15: /chem/msd20.i/10Feb2016.b/20021012.d
Level 16: /chem/msd20.i/10Feb2016.b/20021013.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
9 Propylene	+++++	+++++	1.88662	1.87642	+++++	+++++		
	2.03291	1.94019	1.84224	1.70246			1.88014	5.827
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
11 Freon 12	+++++	6.95964	6.68322	6.60369	+++++	+++++		
	6.24262	5.83913	5.35196	4.79278			6.06758	12.911
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
15 Freon 114	3.74059	3.58133	3.48000	3.36709	+++++	+++++		
	3.14050	3.00273	2.84989	2.66269			3.22810	11.658
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
17 Chloromethane	+++++	+++++	2.35244	2.19734	+++++	+++++		
	1.95348	1.83700	1.70191	1.64271			1.94748	14.375
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
19 Isobutylene	+++++	+++++	1.17927	1.17136	1.13192	1.23387		
	1.25463	+++++	+++++	+++++			1.19421	4.155
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
23 Butane	+++++	+++++	0.48445	0.45908	+++++	+++++		
	0.45002	0.44214	0.42865	0.40612			0.44508	6.001
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
25 Vinyl Chloride	+++++	2.25372	2.19010	2.15552	+++++	+++++		
	2.03929	1.96290	1.85553	1.70171			2.02268	9.761
26 1,3-Butadiene	+++++	1.93441	1.65687	1.60835	+++++	+++++		
	1.59357	1.56578	1.50574	1.41939			1.61201	10.030

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
29 Bromomethane	+++++	+++++	1.02936	1.19721	+++++	+++++		
	1.24871	1.31895	1.17269	1.17974			1.19111	8.082
30 Chloroethane	+++++	+++++	0.91828	0.97291	+++++	+++++		
	0.93890	0.90651	0.87035	0.82246			0.90490	5.838
31 Isopentane	+++++	+++++	1.66271	1.63075	+++++	+++++		
	1.62872	1.55819	1.48914	1.40480			1.56238	6.359
32 Vinyl Bromide	+++++	+++++	1.31745	1.22924	+++++	+++++		
	1.21648	+++++	+++++	+++++			1.25439	4.384
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
34 Pentane	+++++	+++++	4.46281	4.08010	+++++	+++++		
	4.27311	+++++	+++++	+++++			4.27201	4.479
35 Freon 11	6.06690	6.04110	5.82204	5.64645	+++++	+++++		
	5.44902	5.07454	4.77990	4.49949			5.42243	10.786
36 1-Pentene	+++++	+++++	1.61251	1.37637	+++++	+++++		
	1.52725	+++++	+++++	+++++			1.50538	7.944

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
42 Ethanol	+++++	+++++	0.62719	0.64180	+++++	+++++		
	0.71383	0.69996	0.71482	0.68433			0.68032	5.508
43 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
44 Ethyl Ether	+++++	+++++	0.78165	0.68635	+++++	+++++		
	0.72141	+++++	+++++	+++++			0.72980	6.605
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
49 Freon 113	2.64442	3.00824	2.80650	2.80943	+++++	+++++		
	2.62070	2.43121	2.36745	2.35191			2.62998	9.004
50 1,1-Dichloroethene	+++++	1.00792	1.01112	1.09484	+++++	+++++		
	1.07043	1.00635	0.97772	0.96773			1.01944	4.579
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
52 Acetone	+++++	+++++	1.05703	0.97487	+++++	+++++		
	0.90465	0.90683	0.87696	0.86448			0.93080	7.811
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00876	+++++	+++++	+++++			0.00876	0.000
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
56 Carbon Disulfide	+++++	+++++	4.87945	4.96360	+++++	+++++		
	5.44597	5.19754	5.06569	4.88597			5.07304	4.310

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
57 2-Propanol	+++++	+++++	2.89630	3.01875	+++++	+++++		
	3.26205	3.33605	3.39995	3.42699			3.22335	6.735
58 3-Chloropropene	+++++	0.86134	0.67102	0.61788	+++++	+++++		
	0.75378	0.76230	0.75833	0.72943			0.73630	10.437
59 Cyclopentene	+++++	+++++	2.85125	2.56536	+++++	+++++		
	2.82458	+++++	+++++	+++++			2.74707	5.749
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
64 Cyclopentane	+++++	+++++	1.34783	1.31108	+++++	+++++		
	1.23975	+++++	+++++	+++++			1.29955	4.228
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
66 Methylene Chloride	+++++	2.02494	1.75859	1.77723	+++++	+++++		
	1.72716	1.64173	1.56993	1.51048			1.71572	9.817

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
71 tert-Butyl alcohol	+++++	+++++	3.21962	3.36064	+++++	+++++		
	4.00754	4.06690	4.06991	4.00076			3.78756	10.269
72 Methyl tert-butyl ether	+++++	5.19643	4.76509	5.22054	+++++	+++++		
	5.68512	5.48525	5.31241	5.10726			5.25316	5.538
73 trans-1,2-Dichloroethene	+++++	1.20262	1.24607	1.21578	+++++	+++++		
	1.14149	1.09469	1.04059	1.00940			1.13580	8.020
74 Acrylonitrile	+++++	+++++	1.12792	1.10974	+++++	+++++		
	1.23975	+++++	+++++	+++++			1.15914	6.074
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
76 1-Hexene	+++++	+++++	1.04009	1.04302	+++++	+++++		
	1.15989	+++++	+++++	+++++			1.08100	6.322

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
78 Hexane	+++++	3.14725	2.77483	2.77663	+++++	+++++		
	3.19068	2.98932	2.86330	2.74525			2.92675	6.312
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
82 1,1-Dichloroethane	+++++	4.38775	3.92406	4.08090	+++++	+++++		
	3.94558	3.69129	3.49912	3.29961			3.83262	9.564
83 Isopropyl ether	+++++	+++++	6.29113	6.31929	+++++	+++++		
	7.24863	6.88288	6.65189	6.30107			6.61582	5.914
84 1-Propanol	+++++	+++++	0.20680	0.18276	+++++	+++++		
	0.24133	+++++	+++++	+++++			0.21030	13.998
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
86 Vinyl Acetate	+++++	+++++	0.22879	0.32586	+++++	+++++		
	0.37381	0.41085	0.42630	0.44691			0.36875	21.913

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
88 Ethyl-tert-butyl ether	+++++	+++++	5.58877	5.78624	+++++	+++++		
	6.76015	6.58366	6.48115	6.29545			6.24924	7.435
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
90 2,2-Dichloropropane	+++++	+++++	3.47028	3.12859	+++++	+++++		
	3.25132	+++++	+++++	+++++			3.28339	5.272
91 cis-1,2-Dichloroethene	+++++	1.26284	1.20065	1.18921	+++++	+++++		
	1.21319	1.14920	1.11913	1.07518			1.17277	5.365
92 2-Butanone	+++++	+++++	0.81056	0.86732	+++++	+++++		
	0.94505	0.94440	0.91607	0.89170			0.89585	5.755
93 Methyl Acrylate	+++++	+++++	2.10397	2.03098	+++++	+++++		
	2.49216	+++++	+++++	+++++			2.20904	11.222
94 Ethyl Acetate	+++++	+++++	0.28760	0.29155	+++++	+++++		
	0.30202	+++++	+++++	+++++			0.29372	2.538
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
99 Tetrahydrofuran	+++++	+++++	2.18954	2.12271	+++++	+++++		
	2.52695	2.47946	2.43848	2.34824			2.35090	6.945
100 Chloroform	+++++	4.87069	4.56013	4.39534	+++++	+++++		
	4.46047	4.18541	4.03240	3.85161			4.33658	7.902
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
102 Cyclohexane	+++++	2.56659	2.37155	2.50047	+++++	+++++		
	2.65665	2.56943	2.48644	2.41242			2.50908	3.904
103 1,1,1-Trichloroethane	5.01696	5.11272	4.42099	4.55712	+++++	+++++		
	4.62956	4.34825	4.24676	4.12215			4.55681	7.750
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
106 Carbon Tetrachloride	2.73296	3.38172	3.57548	3.54601	+++++	+++++		
	4.30135	4.09089	4.04842	3.94636			3.70290	13.588
107 1,1-Dichloropropene	+++++	+++++	0.72472	0.68467	+++++	+++++		
	0.73059	+++++	+++++	+++++			0.71333	3.504

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
113 2,2,4-Trimethylpentane	+++++	2.61469	2.45616	2.55306	+++++	+++++		
	2.99032	2.98249	2.88956	2.76263			2.74984	7.784
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
115 Isobutanol	+++++	+++++	1.19188	0.99202	+++++	+++++		
	1.25226	+++++	+++++	+++++			1.14539	11.892
116 Benzene	+++++	1.44646	1.22839	1.28937	+++++	+++++		
	1.40025	1.26895	1.23141	1.14621			1.28729	8.081
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
119 tert-Amyl methyl ether	+++++	+++++	0.23511	0.24160	+++++	+++++		
	0.30837	0.29829	0.29523	0.28778			0.27773	11.260

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
120 1,2-Dichloroethane	0.78822	0.67859	0.75178	0.72811	+++++	+++++		
	0.76098	0.69857	0.67774	0.62905			0.71413	7.365
121 Heptane	+++++	0.37134	0.34777	0.35557	+++++	+++++		
	0.44393	0.42870	0.41125	0.38847			0.39243	9.383
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
124 n-Butanol	+++++	+++++	0.36672	0.36776	+++++	+++++		
	0.44548	+++++	+++++	+++++			0.39332	11.485
125 Trichloroethene	0.54390	0.65054	0.51934	0.53857	+++++	+++++		
	0.56513	0.53027	0.51861	0.49898			0.54567	8.561
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
127 Methylcyclohexane	+++++	+++++	0.68664	0.67348	+++++	+++++		
	0.87184	0.81719	0.78547	0.73914			0.76229	10.110
128 Ethyl acrylate	+++++	+++++	0.11369	0.11345	+++++	+++++		
	0.14736	+++++	+++++	+++++			0.12483	15.629
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
131 2-Pentanone	+++++	+++++	2.95956	3.03647	+++++	+++++		
	3.72575	+++++	+++++	+++++			3.24060	13.020
132 1,2-Dichloropropane	+++++	0.58797	0.56487	0.50288	+++++	+++++		
	0.59089	0.54628	0.53428	0.50500			0.54745	6.584
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
134 Methyl Methacrylate	+++++	+++++	1.24898	1.35780	+++++	+++++		
	1.62527	+++++	+++++	+++++			1.41068	13.727
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
136 1,4-Dioxane	+++++	0.27310	0.27349	0.27461	+++++	+++++		
	0.34036	0.33489	0.32724	0.30982			0.30479	10.020
137 Dibromomethane	+++++	+++++	0.25101	0.24149	+++++	+++++		
	0.24817	+++++	+++++	+++++			0.24689	1.980
138 Bromodichloromethane	1.04302	1.21733	1.13745	1.10148	+++++	+++++		
	1.29364	1.24097	1.14830	1.12803			1.16378	6.993
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
140 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
143 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
144 cis-1,3-Dichloropropene	+++++	0.78514	0.69348	0.70789	+++++	+++++		
	0.94214	0.91725	0.92724	0.90613			0.83990	12.889
145 4-Methyl-2-pentanone	+++++	0.94281	0.83407	0.88796	+++++	+++++		
	1.29657	1.29644	1.28292	1.21320			1.10771	18.918
147 Toluene	+++++	1.48252	1.35314	1.33762	+++++	+++++		
	1.55623	1.45709	1.39723	1.31258			1.41377	6.252
148 Octane	+++++	+++++	0.37158	0.36015	+++++	+++++		
	0.39056	+++++	+++++	+++++			0.37410	4.106
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
150 trans-1,3-Dichloropropene	+++++	0.76461	0.79805	0.72029	+++++	+++++		
	0.95679	0.95330	0.90383	0.88379			0.85438	10.979
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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152 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
155 1,1,2-Trichloroethane	0.69156	0.78580	0.63750	0.60425	+++++	+++++		
	0.67216	0.64235	0.58803	0.57330			0.64937	10.523
156 Tetrachloroethene	0.79591	0.76258	0.69185	0.64959	+++++	+++++		
	0.76580	0.72644	0.68666	0.68569			0.72056	6.988
157 1,3-Dichloropropane	+++++	+++++	0.64903	0.61397	+++++	+++++		
	0.61617	+++++	+++++	+++++			0.62639	3.135
158 2-Hexanone	+++++	+++++	0.37325	0.38699	+++++	+++++		
	0.64378	0.68189	0.67906	0.68024			0.57420	26.309
159 Butyl Acetate	+++++	+++++	0.06697	0.07615	+++++	+++++		
	0.08509	+++++	+++++	+++++			0.07607	11.910
160 Dibromochloromethane	0.84251	0.89213	0.84929	0.84495	+++++	+++++		
	1.10436	1.12045	1.07162	1.09541			0.97759	13.326
161 1,2-Dibromoethane (EDB)	0.86956	0.87071	0.78697	0.85056	+++++	+++++		
	0.99613	0.96503	0.90443	0.91693			0.89504	7.385

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162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
165 Chlorobenzene	+++++	1.36526	1.28338	1.20727	+++++	+++++		
	1.34019	1.29056	1.18922	1.16445			1.26290	6.121
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
167 Ethyl Benzene	+++++	0.48790	0.54029	0.55625	+++++	+++++		
	0.65061	0.63502	0.59825	0.60076			0.58130	9.779
168 1,1,1,2-Tetrachloroethane	+++++	+++++	0.54579	0.48891	+++++	+++++		
	0.52143	+++++	+++++	+++++			0.51871	5.501
169 m,p-Xylene	+++++	0.69955	0.54149	0.55589	+++++	+++++		
	0.69427	0.67831	0.64476	0.65644			0.63867	10.110
170 Nonane	+++++	+++++	1.42248	1.12371	+++++	+++++		
	1.00431	+++++	+++++	+++++			1.18350	18.201
171 o-Xylene	+++++	0.59265	0.50316	0.55849	+++++	+++++		
	0.64514	0.65102	0.62572	0.62335			0.59993	8.873
172 Styrene	+++++	0.74578	0.64073	0.69950	+++++	+++++		
	0.93926	0.96823	0.96185	0.99968			0.85072	17.577

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
173 2-Heptanone	+++++	+++++	0.39829	0.40911	+++++	+++++		
	0.53161	+++++	+++++	+++++			0.44633	16.591
174 Bromoform	0.76317	0.68173	0.69561	0.70045	+++++	+++++		
	0.96273	1.01263	0.99857	1.05486			0.85872	18.914
175 Cumene	+++++	1.86737	1.69598	1.67677	+++++	+++++		
	2.19042	2.23932	2.15255	2.12758			1.99286	12.071
176 Cyclohexanone	+++++	+++++	0.37761	0.34911	+++++	+++++		
	0.42249	+++++	+++++	+++++			0.38307	9.657
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
180 Bromobenzene	+++++	+++++	0.43385	0.43012	+++++	+++++		
	0.41137	+++++	+++++	+++++			0.42511	2.835
181 1,1,2,2-Tetrachloroethane	1.35584	1.28318	1.32289	1.28191	+++++	+++++		
	1.48869	1.43029	1.32554	1.29029			1.34733	5.587
182 Propylbenzene	+++++	2.67573	2.04330	1.87349	+++++	+++++		
	2.15178	2.19044	2.11505	2.13042			2.16860	11.374
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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184 trans-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	0.27603	0.28304	+++++	+++++		
	0.27531	+++++	+++++	+++++			0.27813	1.534
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
187 Decane	+++++	+++++	2.82098	2.11032	+++++	+++++		
	1.90538	+++++	+++++	+++++			2.27889	21.085
188 4-Ethyltoluene	2.50502	2.14205	1.57870	1.45387	+++++	+++++		
	1.68416	1.63362	1.59165	1.59311			1.77277	20.274
189 2-Chlorotoluene	+++++	+++++	0.33434	0.30639	+++++	+++++		
	0.29942	+++++	+++++	+++++			0.31338	5.898
190 1,3,5-Trimethylbenzene	1.89440	1.67805	1.35563	1.30623	+++++	+++++		
	1.53533	1.45393	1.31732	1.29173			1.47908	14.506
191 4-Chlorotoluene	+++++	+++++	0.28642	0.25378	+++++	+++++		
	0.25652	+++++	+++++	+++++			0.26558	6.818
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
195 tert-Butylbenzene	+++++	+++++	0.84116	0.74566	+++++	+++++		
	0.74969	+++++	+++++	+++++			0.77883	6.935
196 1,2,4-Trimethylbenzene	1.97397	1.98791	1.45148	1.28588	+++++	+++++		
	1.55183	1.38437	1.20289	1.15286			1.49890	21.629
197 Pentachloroethane	+++++	+++++	0.27053	0.26627	+++++	+++++		
	0.29708	+++++	+++++	+++++			0.27796	6.006
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
203 sec-Butylbenzene	+++++	+++++	1.65249	1.26887	+++++	+++++		
	1.23482	+++++	+++++	+++++			1.38539	16.742

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204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
206 bis(2-Chloroethyl) Ether	+++++	+++++	0.58076	0.76446	+++++	+++++		
	0.84778	+++++	+++++	+++++			0.73100	18.690
207 p-Cymene	+++++	+++++	1.08811	0.95249	+++++	+++++		
	0.76362	+++++	+++++	+++++			0.93474	17.435
208 1,3-Dichlorobenzene	1.54112	1.19726	0.90096	0.83093	+++++	+++++		
	0.93376	0.92190	0.87645	0.88824			1.01133	23.852
209 1,4-Dichlorobenzene	1.24626	1.13772	0.84731	0.74198	+++++	+++++		
	0.83726	0.83955	0.79684	0.81883			0.90822	19.890
210 1,2,3-Trimethylbenzene	+++++	+++++	0.42256	0.40790	+++++	+++++		
	0.33336	+++++	+++++	+++++			0.38794	12.329
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
212 alpha-Chlorotoluene	+++++	1.05687	0.99881	1.06193	+++++	+++++		
	1.40620	1.51115	1.55499	1.60851			1.31407	20.162
213 Butylbenzene	+++++	+++++	0.34879	0.30950	+++++	+++++		
	0.21178	+++++	+++++	+++++			0.29002	24.326

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
214 1,2-Dichlorobenzene	1.25467	1.19872	0.84720	0.75558	+++++	+++++		
	0.86743	0.85403	0.80552	0.82272			0.92573	20.473
215 Undecane	+++++	+++++	3.51055	2.48855	+++++	+++++		
	2.02021	+++++	+++++	+++++			2.67311	28.511
216 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
220 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
221 1,2-Dibromo-3-chloropropane	+++++	+++++	0.24455	0.23798	+++++	+++++		
	0.29008	+++++	+++++	+++++			0.25754	11.018
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
225 Dodecane	+++++	+++++	1.26847	0.68905	+++++	+++++		
	0.47807	+++++	+++++	+++++			0.81186	50.410 <-
226 1,2,4-Trichlorobenzene	1.24831	0.91277	0.85075	0.74700	+++++	+++++		
	0.78503	0.75930	0.68796	0.63463			0.82822	23.022
227 Hexachlorobutadiene	+++++	0.86519	0.68835	0.60981	+++++	+++++		
	0.58937	0.57267	0.58602	0.62592			0.64819	15.896
228 Naphthalene	+++++	+++++	+++++	1.79353	+++++	+++++		
	1.82084	1.87442	1.69846	1.52173			1.74180	7.956
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
234 Acenaphthylene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (Total)	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydrocarbons	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexane	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
243 TPH reference to Heptane	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
244 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
245 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
246 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
247 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
248 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
249 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
250 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
251 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
252 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
253 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
262 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
263 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
264 C8-C10 Aliphatic ref Decane	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref Dodecan	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,2,3-TMB	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,4,5-TMB	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naphthalene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
$ 112 Benzene-d6	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	+++++	+++++
$ 117 1,2-Dichloroethane-d4	2.06667 / 1.91416	1.97343 / 2.00630	2.05190 / 2.09522	2.14169 / 2.09116	+++++	+++++	2.04256	3.617
$ 146 Toluene-d8	0.97653 / 1.04086	0.98739 / 1.01905	1.00572 / 1.03502	1.02512 / 0.97516	+++++	+++++	1.00811	2.577

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/2016l0210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
$ 177 4-Bromofluorobenzene	0.44826	0.46200	0.49076	0.49228	+++++	+++++		
	0.47850	0.48439	0.51569	0.52300			0.48686	5.129

Calibration History

Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Start Cal Date: 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
10-FEB-2016 16:18	Level5	/chem/msd20.i/10Feb2016.b/20021006.d

Cal Level: 6 , Cal Amount: 0.10000		
10-FEB-2016 16:57	Level6	/chem/msd20.i/10Feb2016.b/20021007.d

Cal Level: 7 , Cal Amount: 0.50000		
16-MAY-2016 15:22	IsobutyleneICAL	/chem/msd20.i/16May2016.b/20051609.d
17-FEB-2016 11:02	ComboICAL	/chem/msd20.i/17Feb2016.b/20021705.d
10-FEB-2016 17:47	HILOcrvFULL	/chem/msd20.i/10Feb2016.b/20021008.d

Cal Level: 8 , Cal Amount: 1.00000		
16-MAY-2016 16:11	IsobutyleneICAL	/chem/msd20.i/16May2016.b/20051610.d
17-FEB-2016 11:42	ComboICAL	/chem/msd20.i/17Feb2016.b/20021706.d
10-FEB-2016 18:41	HILOcrvFULL	/chem/msd20.i/10Feb2016.b/20021009.d

Cal Level: 9 , Cal Amount: 2.00000		
16-MAY-2016 16:57	IsobutyleneICAL	/chem/msd20.i/16May2016.b/20051611.d

Cal Level: 11, Cal Amount: 4.00000		
16-MAY-2016 17:59	IsobutyleneICAL	/chem/msd20.i/16May2016.b/20051612.d

Cal Level: 12, Cal Amount: 5.00000		
16-MAY-2016 19:01	IsobutyleneICAL	/chem/msd20.i/16May2016.b/20051613.d
17-FEB-2016 12:22	ComboICAL	/chem/msd20.i/17Feb2016.b/20021707.d

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|10-FEB-2016 19:33 |HILOcrvFULL      |/chem/msd20.i/10Feb2016.b/20021010.d    |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 13, Cal Amount: 10.00000                                         |
+=============================================================================+
|10-FEB-2016 20:20 |HILOcrvFULL      |/chem/msd20.i/10Feb2016.b/20021011.d    |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 15, Cal Amount: 20.00000                                         |
+=============================================================================+
|10-FEB-2016 21:03 |HILOcrvFULL      |/chem/msd20.i/10Feb2016.b/20021012.d    |
+------------------+-----------------+----------------------------------------+

+------------------+-----------------+----------------------------------------+
| Cal Level: 16, Cal Amount: 40.00000                                         |
+=============================================================================+
|10-FEB-2016 21:59 |HILOcrvFULL      |/chem/msd20.i/10Feb2016.b/20021013.d    |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 12
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                          |
+=============================================================================+
|16-MAY-2016 08:38 |AT12             |/chem/msd20.i/16May2016.b/20051602.d    |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 8 , Ccal Amount: 1.000                                          |
+=============================================================================+
|16-MAY-2016 16:11 |IsobutyleneCCV   |/chem/msd20.i/16May2016.b/20051610a.d   |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                          |
+=============================================================================+
|16-MAY-2016 08:38 |AT12             |/chem/msd20.i/16May2016.b/20051602a.d   |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                          |
+=============================================================================+
|16-MAY-2016 19:01 |IsobutyleneICAL  |/chem/msd20.i/16May2016.b/20051613.d    |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 16-MAY-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/16May2016.b/201610210c.m
Cal Date : 17-May-2016 09:18 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/10Feb2016.b/20021006.d
Level 6: /chem/msd20.i/10Feb2016.b/20021007.d
Level 7: /chem/msd20.i/16May2016.b/20051609.d
Level 8: /chem/msd20.i/16May2016.b/20051610.d
Level 9: /chem/msd20.i/16May2016.b/20051611.d
Level 11: /chem/msd20.i/16May2016.b/20051612.d
Level 12: /chem/msd20.i/16May2016.b/20051613.d
Level 13: /chem/msd20.i/10Feb2016.b/20021011.d
Level 15: /chem/msd20.i/10Feb2016.b/20021012.d
Level 16: /chem/msd20.i/10Feb2016.b/20021013.d

EF 5/17/16
MB 5/17/16

Please see Calibration History page(s) for all the calibration files.

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
19 Isobutylene	+++++	+++++	1.17927	1.17136	1.13192	1.23387		
	1.25463	+++++	+++++	+++++			1.19421	4.155

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 17-FEB-2016 12:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/17Feb2016.b/201610210b.m
Cal Date : 17-Feb-2016 14:09 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/10Feb2016.b/20021006.d
Level 6: /chem/msd20.i/10Feb2016.b/20021007.d
Level 7: /chem/msd20.i/17Feb2016.b/20021705.d
Level 8: /chem/msd20.i/17Feb2016.b/20021706.d
Level 12: /chem/msd20.i/17Feb2016.b/20021707.d
Level 13: /chem/msd20.i/10Feb2016.b/20021011.d
Level 15: /chem/msd20.i/10Feb2016.b/20021012.d
Level 16: /chem/msd20.i/10Feb2016.b/20021013.d

2/17/16
ED 2/17/16

Please see Calibration History page(s) for all the calibration files.

Compound	0.05000 Level 5 / 20.000 Level 15	0.10000 Level 6 / 40.000 Level 16	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2016 16:18
End Cal Date : 10-FEB-2016 21:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/10Feb2016.b/201610210a.m
Cal Date : 11-Feb-2016 12:34 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/10Feb2016.b/20021006.d
Level 6: /chem/msd20.i/10Feb2016.b/20021007.d
Level 7: /chem/msd20.i/10Feb2016.b/20021008.d
Level 8: /chem/msd20.i/10Feb2016.b/20021009.d
Level 12: /chem/msd20.i/10Feb2016.b/20021010.d
Level 13: /chem/msd20.i/10Feb2016.b/20021011.d
Level 15: /chem/msd20.i/10Feb2016.b/20021012.d
Level 16: /chem/msd20.i/10Feb2016.b/20021013.d

2/11/16

2/11/16

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Curve Name: 2016L0210C

Initial Calibration Narrative

An initial calibration curve was analyzed on 2/10/16 on MSD-20.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

Tune Files: 20021001, 20021701, 20051601.
ICAL: Zero (0) out.
ICV: Zero (0) out.
In House control limits: Zero (0) out.
DOD control limits: Zero (0) out.
File 20021016.

BTEX R.L. Verification Spike: 20021007x.
Naphthalene was calibrated from 0.1ppbv to 4.0ppbv.

The following compounds were calibrated down to a special RL of 0.05ppbv:

Freon 114	Bromodichloromethane	4-Ethyltoluene
Freon 11	1,1,2-Trichloroethane	1,3,5-Trimethylbenzene
Freon 113	Tetrachloroethene	1,2,4-Trimethylbenzene
1,1,1-Trichloroethane	Dibromochloromethane	1,3-Dichlorobenzene
Carbon Tetrachloride	1,2-Dibromomethane (EDB)	1,4-Dichlorobenzene
1,2-Dichloroethane	Bromoform	1,2-Dichlorobenzene
Trichloroethene	1,1,2,2-Tetrachloroethane	1,2,4-Trichlorobenzene

A three (3) point initial calibration for the Combination special was analyzed on 2/17/16 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv. One (1) out: Dodecane @ 50.4%. Iodomethane calibrated at 5.0ppbv only due to poor peak quality at the lower levels. Acetonitrile and trans-1,4-Dichloro-2-Butene were left out of the ICAL due to interference from co-eluting compounds.

No Acetonitrile or trans-1,4-Dichloro-2-Butene.

A five (5) point initial calibration for Isobutylene was analyzed on 5/16/16 at levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv.

MDL was run on 2/11/16.

Nominal Flow: 30.3 mL/min Actual Flow: 24.8 mL/min

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2747**

BFB Verification of 176/174 m/z Ratio:	(395441/416085) 100 = 95.04%
Tekmar Purge Flow:	
Vacuum:	83 2/10/16

IS/S Std. #:	2759-134	Exp. Date:	3/10/16
BCM	LC: 131484		Sim: 142411
1,4-DFB	519912		543671
CB-d5	453774		461137

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

File ID:	20021010
Compound:	Toluene-D8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (541156) x (5.000) = 5.162
(519912) (1.00811)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.162

Method Name: 20160210A / 20160210A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By/Initials	Date Analyzed	Time Analyzed	Reviewed By/Initials	Comments/Standard Expiration Date
1	✓	20021001	BFB Tune Check	2299-1276	50ng	2ml	1.00	83	2/10/16	1249	83	
2	✓	02	ICAL level #1	2759-242	0.003ppbv	15mL	1.00	83		1311	83	exp 4/6/16
3	✓	03	2		0.005ppbv	25mL	1.00	83		1401	83	
4	✓	04	3		0.01ppbv	50mL	1.00	83		1459	83	
5	✓	05	4		0.02ppbv	100mL	1.00	83		1538	83	
6	✓	06	5		0.05ppbv	250mL	1.00	83		1618	MB	
7	✓	07	6	2759-243	0.1ppbv	25mL	1.00	83		1657	MB	
8	✓	08	7		0.5ppbv	125mL	1.00	gd		1747	MB	
9	✓	09	8		1.0ppbv	250mL	1.00	MB		1841	MB	
10	✓	10	12	2759-222	5.0ppbv	25mL	1.00	MB		1933	MB	
11	✓	11	13		10ppbv	50mL	1.00	MB		2020	MB	
12	✓	12	15		20ppbv	100mL	1.00	MB		2103	MB	
13	✓	13	16		40ppbv	200mL	1.00	MB		2159	MB	
14	X	14	System Blank	34764	Humid	250mL	1.00	MB		2252	gd	

MB
Reviewed

2/10/16
Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By:Initials	Date Analyzed	Time Analyzed	Reviewed By:Initials	Comments/Standard Expiration Date
15		20021015	System Blank	34764	Humid	250mL	1.00	EE	2/11/16	0858	EE	
16		1 16	ICV (50ppbv)	2759-193	5.0ppbv	25mL	1.00	EE	1	0943	EE	Exp. 4/14/16
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												

EE 2/11/16

Reviewed

2/11/16
Date

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2747**

BFB Verification of 176/174 m/z Ratio: (276357 / 291242) x 100 = 94.89	
Tekmar Purge Flow:	
Vacuum:	2/17/16

IS/S Std. #: 2759-134		Exp. Date: 3/10/16
BCM	4: 110789	SIM: 118794
1,4-DFB	434029	450029
CB-d5	376533	380773

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

File ID:	20021702
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (452897) x (5000) = 5.175
(434029) (1.00811)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.175

Method Name: 20160210B / 20160210B A

Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
✓	20021701	BFB Tune check	2299-1276	50ng	2.0mL	1.00		2/17/16	0816		
✓	02	CCV (5ppbv)	2759-222	5.0ppbv	25mL	1.00			0839		Exp 4/16/16 ϕ out
✓	03	LCS (5ppbv)	2759-193	5.0ppbv	25mL	1.00			0924		Exp. 4/14/16 ϕ out
✓	04	LCSD (5ppbv)	2759-193	5.0ppbv	25mL	1.00			1006		Exp. 4/14/16 ϕ
✓	05	ICAL Level 7	2759-263	0.5ppbv	25mL	1.00			1102		Exp. 2/20/16 Contro
✓	06	8		1.0ppbv	50mL	1.00			1142		
✓	07	12		5.0ppbv	250mL	1.00			1222		
	08		35248	14mmHg	250mL	1.00					
											2/17/16

Reviewed 2/17/16 Date

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2796**

BFB Verification of 176/174 m/z Ratio: (252009 / 259754) x100 = 97.02	
Method Name: 2016ev0210c / 2016s0210A	

IS/S Std. #: 2789-89		Exp. Date: 7/21/16
BCM	LL: 117101	Sim: 122835
1,4-DFB	464540	484413
CB-d5	389521	400635

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

SOP# (Circle one): 6 / 88 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20 8 spike 0516001	BFB Tune check	2789-2796	50ng	2.0 mL	1.80	KS	5/16/16	0817	KS	
2	✓	02	ccv (50ppbv)	2789-50	5.0 ppbv	25 mL	1.00	KS		0833	KS	Exp. 7/14/16 LL: 2 out sim: 1 out
3	✓	03	lcs (50ppbv)	2789-9	5.0 ppbv	25 mL	1.00	KS		0923	KS	Exp. 6/14/16 4: 2 out sim: ∅ out
4	✓	04	lcsd (50ppbv)	2789-7	5.0 ppbv	25 mL	1.00	KS		1006	KS	Exp. 6/14/16
5	✓	05	System Blank	House Air	Dry	280 mL	1.00	KS		1104	KS	
6	✓	06	Manifold Check	94603	KS 5/16/16 Humid Dry	280 mL	1.00	KS		1144	KS	M10102 · 051416 · 1236
7	X	07	Manifold Check	1728	Dry	280 mL	1.00	KS		1341	KS	Mode · 051416 · 1131
8		08	Lab Blank	34764	Hu							KS 5/16/16
9	✓	20051608	System Blank	34764	Humid	280 mL	1.00	KS	5/16/16	1436	KS	
10	✓	09	ICAL Level 7 KS 5/16/16	2789-143	0.5 ppbv	25 mL	1.00	KS		1622	KS	Exp. 8/16/16 Isobutylene
11	✓	10	8		1.0 ppbv	50 mL	1.00	KS		1641	KS	CCV
12	✓	11	9		2.0 ppbv	100 mL	1.00	KS		1657	MB	
13	✓	12	10 KS 5/16/16		4.0 ppbv	200 mL	1.00	MB		1759	MB	
14	✓	13	12		5.0 ppbv	250 mL	1.00	MB		1901	MB	
15	✓	14	Lab Blank	35248	Humid	250 mL	1.00	MB		1955	MB	
16	✓	15	1605135A-03A	34613	6.5" Hg-7 15.2 psi	250 mL	2.60	MB		2052	MB	
17	✓	16	-04A	3024	4.3" Hg-7 15.4 psi	250 mL	2.39	MB		2142	MB	

MB
Reviewed

5/16/16
Date

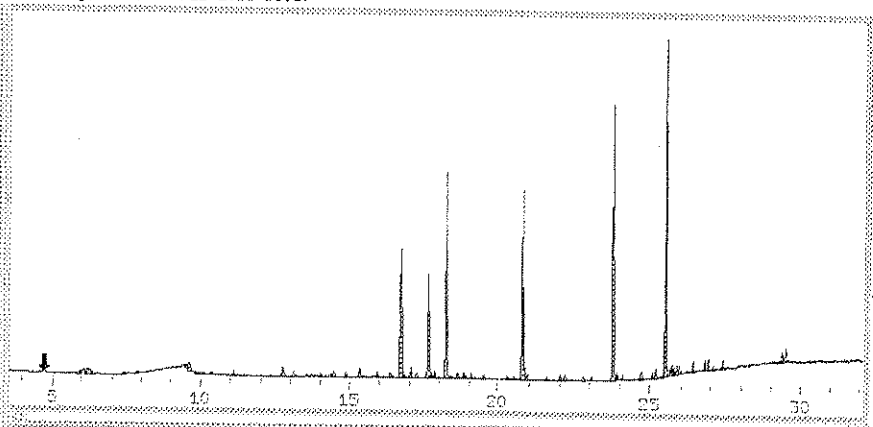
Target/Reviewer: anyone ICAL /chsmnms20.0/10Feb2016/20021007.d

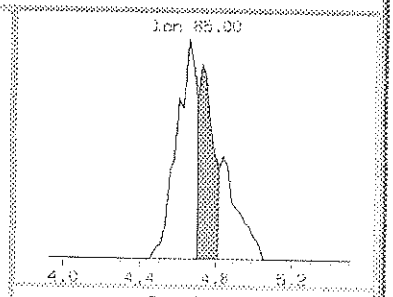
File Selected Edit Analysis Spectra Report Help

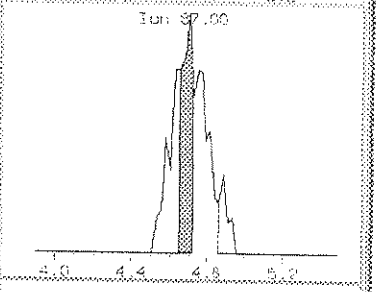
Sample: ICAL Type: CALIB_6 Inj.Date: 10-FEB-2016 16:57

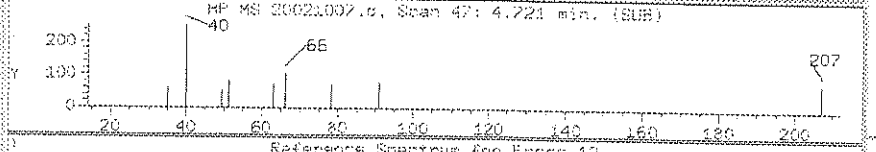
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 35 Freon 11
- 49 Freon 113
- 50 1,1-Dichloroetl
- 58 3-Chloropropen
- 66 Methylene Chlo
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- 78 Hexane
- 82 1,1-Dichloroetl
- 91 cis-1,2-Dichlo
- 98 Bromochloromet
- 100 Chloroform
- 102 Cyclohexane
- 103 1,1,1-Trichlor
- 106 Carbon Tetrach
- 113 2,2,4-Trimethy
- 116 Benzene
- 117 1,2-Dichloroetl
- 120 1,2-Dichloroetl

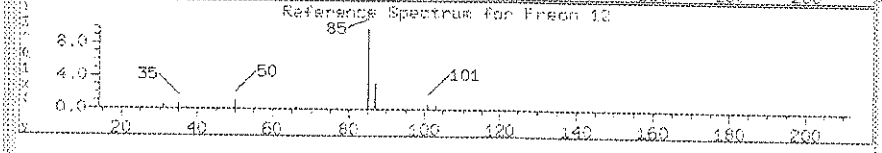
20021007.d



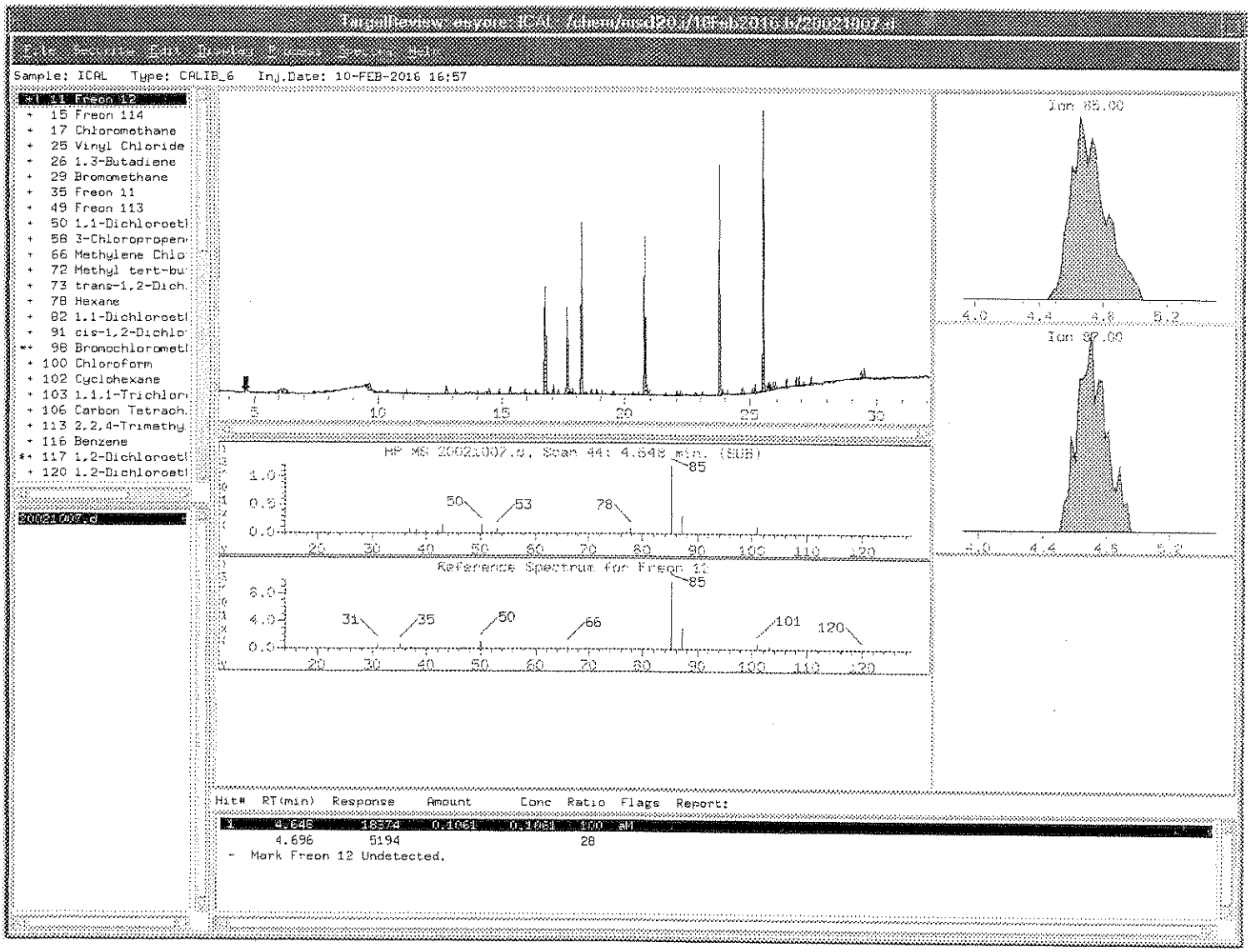








Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.648	9075	0.06185	0.06185	100	Ta	
	4.624	1605			18		
2	4.721	6946	0.04734	0.04734	100	a	
	4.696	1932			28		
3	4.841	4350	0.02965	0.02965	100	Ta	
	4.889	482			11		



2/11/16

After 2/11/16

Correct Baseline	
Split Peak	X
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

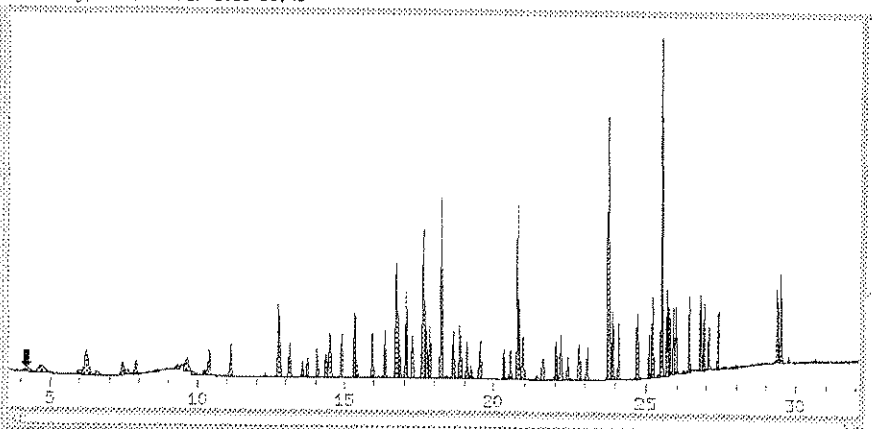
TargetReview: ezyore ICAL /chem/ms120.i/10Feb2016.i/20021000.i

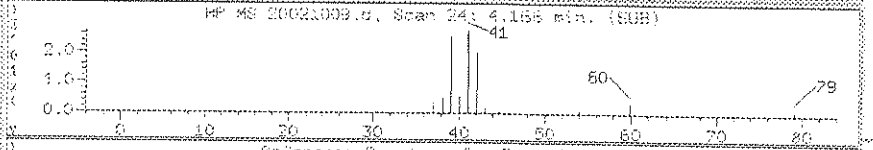
File Results Edit Display Z Zoom Zoom Out Help

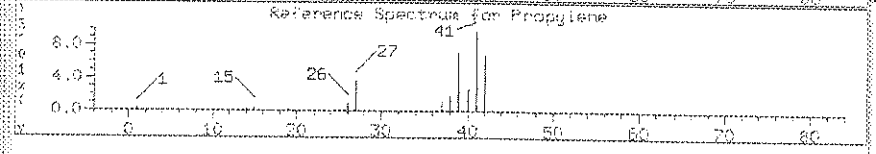
Sample: ICAL Type: CALIB_8 Inj.Date: 10-FEB-2016 18:41

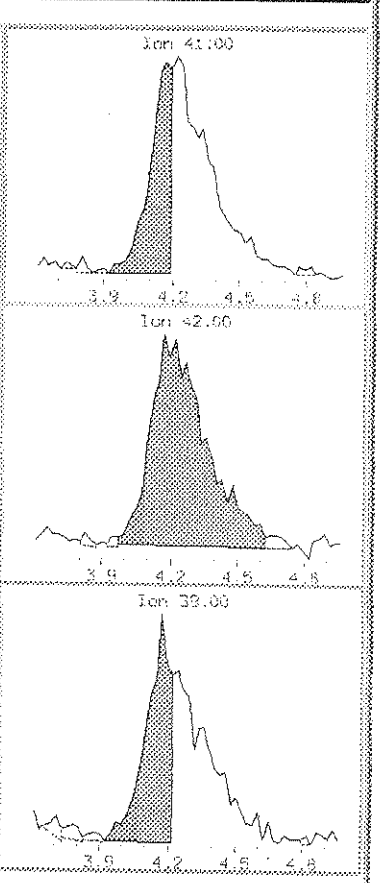
- 9 Propylene
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 23 Butane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- 31 Isopentane
- 35 Freon 11
- 42 Ethanol
- 49 Freon 113
- 50 1,1-Dichloroetl
- 52 Acetone
- 56 Carbon Disulfi
- 57 2-Propanol
- 58 3-Chloropropen
- 66 Methylene Chlo
- 71 tert-Butyl alc
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- 78 Hexane
- 83 Isopropyl ethe
- 82 1,1-Dichloroet

20021009.d



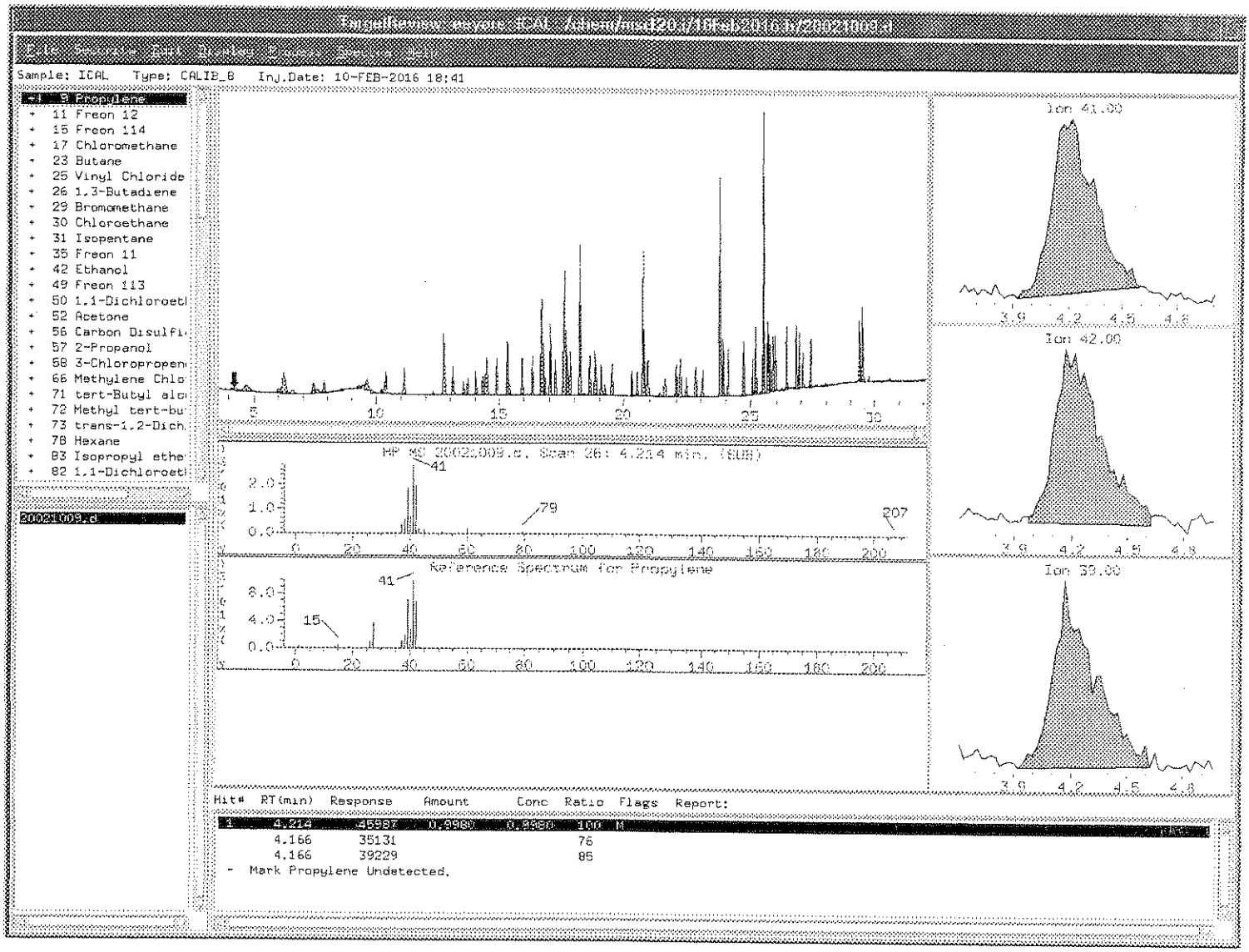






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	3.829	369			75		
	3.780	677			177		
3	3.901	166	0.003989	0.003989	100	Ta	
	3.949	351			211		
	3.877	488			293		
4	4.166	19675	0.4719	0.4719	100		

Bstone



SS 2/11/16

After

SS 2/11/16

Correct Baseline	X
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

Modified EPA Methods TO-14A/TO-15 Low Level
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 11-FEB-2016 09:43
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2759-193
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 21:59 Cal File: 20021013.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	145262	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	114544			46.65- 106.65	78.85
16.726	16.726 (1.000)	49	251346			153.40- 213.40	173.03
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	574952	5.00000		80.00- 120.00	100.00
18.231	18.209 (1.000)	88	104033			0.00- 48.22	18.09
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	506679	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	334835			37.02- 97.02	66.08
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.620	17.620 (1.053)	65	268637	4.52696	4.527	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	146522			26.73- 86.73	54.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	602523	5.19763	5.198	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	80097			0.00- 43.74	13.29
20.821	20.821 (1.142)	100	393125			35.47- 95.47	65.25
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	243761	4.94078	4.941	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	362478			125.82- 185.82	148.70
25.466	25.466 (1.072)	176	230350			65.90- 125.90	94.50
9 Propylene					CAS #: 115-07-1		
4.166	4.190 (0.249)	41	276135	5.05530	5.055	80.00- 120.00	100.00
4.142	4.166 (0.248)	42	190672			0.00- 53.15	69.05
4.142	4.190 (0.248)	39	209268			47.58- 107.58	75.78
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	899272	5.10142	5.101	80.00- 120.00	100.00
4.648	4.672 (0.278)	87	290108			1.87- 61.87	32.26
15 Freon 114					CAS #: 76-14-2		
6.215	6.239 (0.372)	135	489204	5.21625	5.216	80.00- 120.00	100.00
6.215	6.239 (0.372)	137	157244			1.11- 61.11	32.14
6.215	6.215 (0.372)	85	764484			144.76- 204.76	156.27
17 Chloromethane					CAS #: 74-87-3		
6.552	6.601 (0.392)	50	279995	4.94872	4.949	80.00- 120.00	100.00
6.552	6.601 (0.392)	52	89605			2.97- 62.97	32.00
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	65765	5.08604	5.086	80.00- 120.00	100.00
7.434	7.434 (0.444)	43	507025			739.71- 799.71	770.96
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.590 (0.453)	62	300165	5.10797	5.108	80.00- 120.00	100.00
7.573	7.590 (0.453)	64	94240			1.00- 61.00	31.40
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	226284	4.83170	4.832	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	250144			81.21- 141.21	110.54
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	202315	5.84647	5.846	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	186546			64.13- 124.13	92.21
30 Chloroethane					CAS #: 75-00-3		
10.174	10.198 (0.608)	64	131020	4.98372	4.984	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
10.174	10.198 (0.608)	49	36986			0.00- 58.76	28.23
10.174	10.198 (0.608)	66	42912			2.67- 62.67	32.75
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	232708	5.12671	5.127	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	360404			130.15- 190.15	154.87
10.367	10.367 (0.620)	42	326626			114.07- 174.07	140.36
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	809182	5.13650	5.136	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	510561			35.32- 95.32	63.10
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	105732	5.34948	5.349	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	43523			10.61- 70.61	41.16
12.269	12.269 (0.734)	43	26188			0.00- 54.10	24.77
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	383696	5.02169	5.022	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	245418			35.03- 95.03	63.96
12.763	12.763 (0.763)	101	549796			120.75- 180.75	143.29
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	151807	5.12561	5.126	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	473285			282.13- 342.13	311.77
12.736	12.736 (0.761)	96	243402			125.40- 185.40	160.34
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	132476	4.89886	4.899	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	466819			344.67- 404.67	352.38
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	673029	4.56647	4.566	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	480234	5.12816	5.128	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	113898			0.00- 54.80	23.72
13.532	13.532 (0.809)	59	18726			0.00- 33.44	3.90
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	104584	4.88912	4.889	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	342070			306.81- 366.81	327.07
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	246602	4.94727	4.947	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
66 Methylene Chloride (continued)							
14.027	14.027 (0.839)	49	364890			122.68- 182.68	147.97
14.027	14.027 (0.839)	51	107704			16.23- 76.23	43.68
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	803094	5.26213	5.262	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	182779			0.00- 53.36	22.76
14.439	14.439 (0.863)	41	213066			0.00- 57.08	26.53
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	142922	4.33124	4.331	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	373885			242.30- 302.30	261.60
14.494	14.494 (0.866)	96	226480			130.73- 190.73	158.46
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	457083	5.37558	5.376	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	316024			38.79- 98.79	69.14
14.878	14.878 (0.889)	86	75161			0.00- 45.75	16.44
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	539971	4.84943	4.849	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	172652			1.12- 61.12	31.97
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	57217	5.34084	5.341	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	60575			85.15- 145.15	105.87
15.400	15.400 (0.921)	43	666529			1231.92-1291.92	1164.90
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.976)	98	191422	5.61816	5.618	80.00- 120.00	100.00
16.323	16.323 (0.976)	61	458775			215.99- 275.99	239.67
16.323	16.323 (0.976)	96	304356			128.72- 188.72	159.00
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	135857	5.21992	5.220	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	586938			429.73- 489.73	432.02
16.344	16.344 (0.977)	57	43545			3.86- 63.86	32.05
99 Tetrahydrofuran					CAS #: 109-99-9		
16.695	16.695 (0.998)	42	350028	5.12490	5.125	80.00- 120.00	100.00
16.695	16.695 (0.998)	71	120593			5.73- 65.73	34.45
16.695	16.695 (0.998)	72	133352			7.14- 67.14	38.10
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	622306	4.93938	4.939	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	399302			34.71- 94.71	64.16

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	382728	5.25039	5.250	80.00- 120.00	100.00
17.035	17.035 (1.018)	56	485778			96.90- 156.90	126.93
17.035	17.035 (1.018)	41	298969			49.25- 109.25	78.12
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.035 (1.020)	97	655594	4.95209	4.952	80.00- 120.00	100.00
17.065	17.035 (1.020)	99	413520			34.75- 94.75	63.08
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	591692	5.50009	5.500	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	607858			74.42- 134.42	102.73
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	442475	5.53856	5.538	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	1319416			271.04- 331.04	298.19
17.579	17.579 (1.051)	41	399149			64.98- 124.98	90.21
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	796752	5.38250	5.382	80.00- 120.00	100.00
17.620	17.620 (0.966)	77	185312			0.00- 53.23	23.26
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	427762	5.20911	5.209	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	138347			1.10- 61.10	32.34
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	248806	5.51361	5.514	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	81294			1.33- 61.33	32.67
17.847	17.847 (0.979)	43	515571			175.11- 235.11	207.22
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	330763	5.27142	5.271	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	370463			84.12- 144.12	112.00
18.610	18.610 (1.021)	97	232729			43.34- 103.34	70.36
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	500293	5.70744	5.707	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	454629			60.57- 120.57	90.87
18.833	18.833 (1.033)	56	145807			0.00- 58.53	29.14
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.056 (1.045)	63	336239	5.34120	5.341	80.00- 120.00	100.00
19.056	19.056 (1.045)	62	243910			42.42- 102.42	72.54
19.056	19.056 (1.045)	41	240341			41.51- 101.51	71.48

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	188428	5.37637	5.376	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	156074			50.32- 110.32	82.83
19.213	19.213 (1.054)	57	52002			0.00- 56.87	27.60
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	644431	5.46440	5.464	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	408625			33.43- 93.43	63.41
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	503522	5.21352	5.214	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	160907			1.18- 61.18	31.96
20.338	20.338 (1.116)	39	303848			30.96- 90.96	60.34
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	702044	5.51159	5.512	80.00- 120.00	100.00
20.572	20.556 (1.128)	58	254868			6.36- 66.36	36.30
20.572	20.556 (1.128)	85	103094			0.00- 44.79	14.68
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	899664	5.53400	5.534	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	532913			29.68- 89.68	59.23
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.535 (0.908)	75	475234	5.48899	5.489	80.00- 120.00	100.00
21.564	21.535 (0.908)	77	151286			0.89- 60.89	31.83
21.564	21.535 (0.908)	39	263601			25.98- 85.98	55.47
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	338774	5.14819	5.148	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	206560			32.06- 92.06	60.97
21.999	21.999 (0.926)	83	303744			59.95- 119.95	89.66
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	415647	5.69231	5.692	80.00- 120.00	100.00
22.174	22.145 (0.933)	129	330570			51.43- 111.43	79.53
22.174	22.145 (0.933)	131	311733			46.81- 106.81	75.00
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	303057	5.20830	5.208	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	610818			168.77- 228.77	201.55
22.406	22.406 (0.943)	100	55811			0.00- 48.17	18.42
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	570474	5.75857	5.758	80.00- 120.00	100.00
22.784	22.784 (0.959)	127	440436			50.40- 110.40	77.21

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	513006	5.65608	5.656	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	485565			64.13- 124.13	94.65
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	672384	5.25392	5.254	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	213585			1.85- 61.85	31.77
23.823	23.823 (1.003)	77	464297			40.34- 100.34	69.05
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.905 (1.006)	106	321103	5.45110	5.451	80.00- 120.00	100.00
23.905	23.905 (1.006)	91	1081124			302.97- 362.97	336.69
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	344128	5.31715	5.317	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	747218			185.70- 245.70	217.13
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	343830	5.65560	5.656	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	783545			201.87- 261.87	227.89
172 Styrene					CAS #: 100-42-5		
24.730	24.730 (1.041)	104	471284	5.46681	5.467	80.00- 120.00	100.00
24.730	24.730 (1.041)	78	288352			30.45- 90.45	61.18
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	684229	7.86298	7.863	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	345902			22.22- 82.22	50.55
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	1111227	5.50254	5.502	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	286230			0.00- 55.53	25.76
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	730606	5.35114	5.351	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	469637			31.99- 91.99	64.28
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.713 (1.082)	91	1104032	5.02388	5.024	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	228802			0.00- 51.03	20.72
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	839780	4.67465	4.675	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	242276			0.00- 59.04	28.85
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	795738	5.30904	5.309	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
25.940	25.940 (1.092)	120	368466			16.07- 76.07	46.30
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	785009	5.16819	5.168	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	337149			13.07- 73.07	42.95
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	491129	4.79227	4.792	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	314736			36.17- 96.17	64.08
26.794	26.794 (1.128)	111	218887			17.10- 77.10	44.57
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.903 (1.132)	146	432807	4.70263	4.703	80.00- 120.00	100.00
26.903	26.903 (1.132)	148	273597			33.17- 93.17	63.21
26.903	26.903 (1.132)	111	181647			13.98- 73.98	41.97
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.059	27.059 (1.139)	91	723320	5.43188	5.432	80.00- 120.00	100.00
27.059	27.059 (1.139)	126	132623			0.00- 47.62	18.34
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	438933	4.67896	4.679	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	281609			33.03- 93.03	64.16
27.371	27.371 (1.152)	111	204552			16.58- 76.58	46.60
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	452805	5.39515	5.395	80.00- 120.00	100.00
29.366	29.366 (1.236)	182	432410			65.16- 125.16	95.50
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	324917	4.94660	4.947	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	205354			34.44- 94.44	63.20
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	75385	0.42710	0.4271	80.00- 120.00	100.00(a)
29.756	29.756 (1.252)	127	10394			0.00- 42.14	13.79

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: msd20.i
Lab File ID: 20021016.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	145262	10.48
123 1,4-Difluorobenze	519912	311947	727877	574952	10.59
163 Chlorobenzene-d5	453774	272264	635284	506679	11.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 11-Feb-2016 12:34

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 10Feb2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.055	101.11	60-140
11 Freon 12	5.000	5.101	102.03	70-130
15 Freon 114	5.000	5.216	104.33	70-130
17 Chloromethane	5.000	4.949	98.97	70-130
23 Butane	5.000	5.086	101.72	60-140
25 Vinyl Chloride	5.000	5.108	102.16	70-130
26 1,3-Butadiene	5.000	4.832	96.63	70-130
29 Bromomethane	5.000	5.846	116.93	70-130
30 Chloroethane	5.000	4.984	99.67	70-130
31 Isopentane	5.000	5.127	102.53	60-140
35 Freon 11	5.000	5.136	102.73	70-130
42 Ethanol	5.000	5.349	106.99	70-130
49 Freon 113	5.000	5.022	100.43	70-130
50 1,1-Dichloroethene	5.000	5.126	102.51	70-130
52 Acetone	5.000	4.899	97.98	70-130
56 Carbon Disulfide	5.000	4.566	91.33	70-130
57 2-Propanol	5.000	5.128	102.56	70-130
58 3-Chloropropene	5.000	4.889	97.78	70-130
66 Methylene Chloride	5.000	4.947	98.95	70-130
72 Methyl tert-butyl	5.000	5.262	105.24	70-130
73 trans-1,2-Dichloro	4.250	4.331	101.91	70-130
78 Hexane	5.000	5.376	107.51	70-130
82 1,1-Dichloroethane	5.000	4.849	96.99	70-130
86 Vinyl Acetate	5.000	5.341	106.82	60-140
91 cis-1,2-Dichloroet	5.650	5.618	99.44	70-130
92 2-Butanone	5.000	5.220	104.40	70-130
99 Tetrahydrofuran	5.000	5.125	102.50	70-130
100 Chloroform	5.000	4.939	98.79	70-130
103 1,1,1-Trichloroeth	5.000	4.952	99.04	70-130
106 Carbon Tetrachlori	5.000	5.500	110.00	70-130
102 Cyclohexane	5.000	5.250	105.01	70-130
113 2,2,4-Trimethylpen	5.000	5.538	110.77	70-130
116 Benzene	5.000	5.382	107.65	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.209	104.18	70-130
121 Heptane	5.000	5.514	110.27	70-130
125 Trichloroethene	5.000	5.271	105.43	70-130
127 Methylcyclohexane	5.000	5.707	114.15	60-140
132 1,2-Dichloropropan	5.000	5.341	106.82	70-130
136 1,4-Dioxane	5.000	5.376	107.53	70-130
138 Bromodichlorometha	5.000	5.464	109.29	70-130
144 cis-1,3-Dichloropr	5.000	5.214	104.27	70-130
145 4-Methyl-2-pentano	5.000	5.512	110.23	70-130
147 Toluene	5.000	5.534	110.68	70-130
150 trans-1,3-Dichloro	5.000	5.489	109.78	70-130
155 1,1,2-Trichloroeth	5.000	5.148	102.96	70-130
156 Tetrachloroethene	5.000	5.692	113.85	70-130
158 2-Hexanone	5.000	5.208	104.17	70-130
160 Dibromochlorometha	5.000	5.758	115.17	70-130
161 1,2-Dibromoethane	5.000	5.656	113.12	70-130
165 Chlorobenzene	5.000	5.254	105.08	70-130
167 Ethyl Benzene	5.000	5.451	109.02	70-130
169 m,p-Xylene	5.000	5.317	106.34	70-130
171 o-Xylene	5.000	5.656	113.11	70-130
172 Styrene	5.000	5.467	109.34	70-130
174 Bromoform	6.500	7.863	120.97	70-130
175 Cumene	5.000	5.502	110.05	70-130
181 1,1,2,2-Tetrachlor	5.000	5.351	107.02	70-130
182 Propylbenzene	5.000	5.024	100.48	70-130
188 4-Ethyltoluene	5.000	4.675	93.49	70-130
190 1,3,5-Trimethylben	5.000	5.309	106.18	70-130
196 1,2,4-Trimethylben	5.000	5.168	103.36	70-130
208 1,3-Dichlorobenzen	5.000	4.792	95.85	70-130
209 1,4-Dichlorobenzen	5.000	4.703	94.05	70-130
212 alpha-Chlorotoluen	5.000	5.432	108.64	70-130
214 1,2-Dichlorobenzen	5.000	4.679	93.58	70-130
226 1,2,4-Trichloroben	5.000	5.395	107.90	70-130
227 Hexachlorobutadien	5.000	4.947	98.93	70-130
228 Naphthalene	0.5000	0.4271	85.42	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.527	90.54	70-130
$ 146 Toluene-d8	5.000	5.198	103.95	70-130
$ 177 4-Bromofluorobenze	5.000	4.941	98.82	70-130

Data File: /chem/msd20.i/10Feb2016.b/20021016.d

Date : 11-FEB-2016 09:43

Client ID: ICV

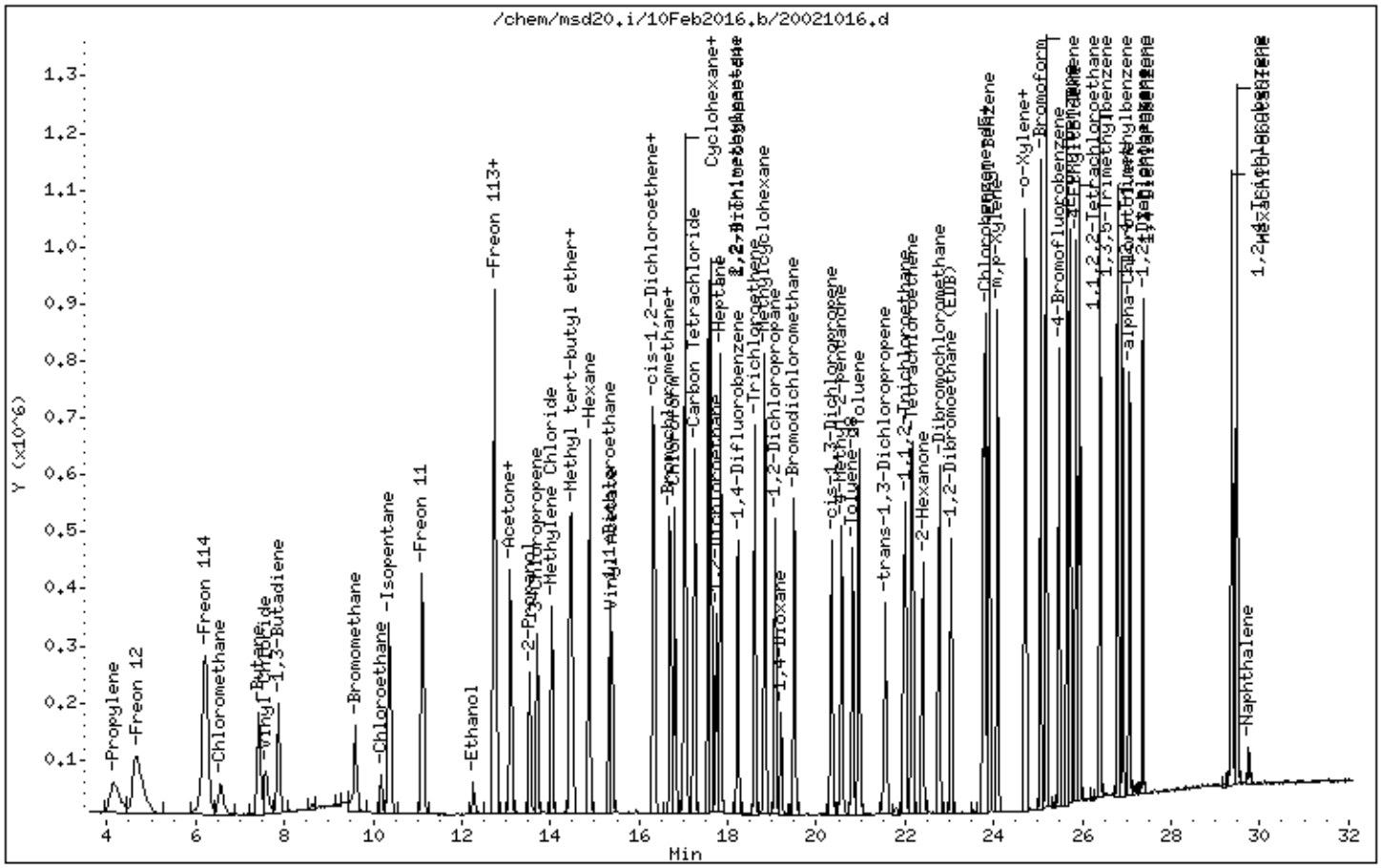
Instrument: msd20.i

Sample Info: 25mL# 2759-193

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021006.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 10-FEB-2016 16:18
Operator : sab Inst ID: msd20.i
Smp Info : 250mL# 2759-242
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 16:18 Cal File: 20021006.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	4774	0.05000	0.05794	80.00- 120.00	100.00(a)
6.239	6.239 (0.373)	137	698			1.11- 61.11	14.62
6.239	6.239 (0.373)	85	7666			144.76- 204.76	160.58
35 Freon 11					CAS #: 75-69-4		
11.138	11.138 (0.666)	101	7743	0.05000	0.05594	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	5291			35.32- 95.32	68.33
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	3375	0.05000	0.05027	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	2454			35.03- 95.03	72.71
12.763	12.763 (0.763)	101	5288			120.75- 180.75	156.68
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	127627	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	99224			46.65- 106.65	77.75

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

*  98 Bromochloromethane (continued)
 16.726  16.726 (1.000)    49    230827                  153.40- 213.40   180.86
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97      6403 0.05000  0.05505  80.00- 120.00   100.00(a)
 17.065  17.065 (1.020)    99      3778                   34.75-  94.75    59.00
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      3488 0.05000  0.03690  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      3268                   74.42- 134.42    93.69
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    263763 5.00000    5.059  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    129069                   26.73-  86.73    48.93
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.744  17.744 (0.973)    62      4194 0.05000  0.05519  80.00- 120.00   100.00(a)
 17.744  17.744 (0.973)    64      2126                    1.10-  61.10    50.69
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.231  18.231 (1.000)   114    532086 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     95578                    0.00-  48.22    17.96
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 18.633  18.633 (1.022)   130      2894 0.05000  0.04984  80.00- 120.00   100.00(a)
 18.610  18.610 (1.021)    95      3319                   84.12- 144.12   114.69
 18.633  18.633 (1.022)    97      2259                   43.34- 103.34    78.06
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83      4588 0.05000  0.04481  80.00- 120.00   100.00(a)
 19.503  19.503 (0.821)    85      3210                   33.43-  93.43    69.97
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    519596 5.00000    4.843  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     69860                    0.00-  43.74    13.45
 20.821  20.821 (1.142)   100    334399                   35.47-  95.47    64.36
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97      3042 0.05000  0.05325  80.00- 120.00   100.00(a)
 21.999  21.999 (0.926)    99      1969                   32.06-  92.06    64.73
 21.999  21.999 (0.926)    83      3428                   59.95- 119.95   112.69
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166      3501 0.05000  0.05523  80.00- 120.00   100.00(a)
 22.145  22.145 (0.932)   129      2908                   51.43- 111.43    83.06
 22.145  22.145 (0.932)   131      2455                   46.81- 106.81    70.12
-------------------------------------------------------------------------------
```

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

  160 Dibromochloromethane                          CAS #: 124-48-1
 22.784  22.784 (0.959)   129      3706 0.05000  0.04309  80.00- 120.00   100.00(a)
 22.755  22.755 (0.958)   127      2408                   50.40- 110.40    64.98
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.045  23.045 (0.970)   107      3825 0.05000  0.04858  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109      3588                   64.13- 124.13    93.80
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    439876 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    293686                   37.02-  97.02    66.77
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 25.068  25.068 (1.055)   173      3357 0.05000  0.04444  80.00- 120.00   100.00(a)
 25.049  25.049 (1.054)   171      1052                   22.22-  82.22    31.34
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    197180 5.00000    4.604  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    310218                  125.82- 185.82   157.33
 25.466  25.466 (1.072)   176    185979                   65.90- 125.90    94.32
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83      5964 0.05000  0.05032  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      3535                   31.99-  91.99    59.27
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105     11019 0.05000  0.07065  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      3267                    0.00-  59.04    29.65
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105      8333 0.05000  0.06404  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120      4196                   16.07-  76.07    50.35
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105      8683 0.05000  0.06585  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      3969                   13.07-  73.07    45.71
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.794  26.794 (1.128)   146      6779 0.05000  0.07619  80.00- 120.00   100.00(a)
 26.794  26.794 (1.128)   148      3544                   36.17-  96.17    52.28
 26.794  26.794 (1.128)   111      2273                   17.10-  77.10    33.53
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.903  26.903 (1.132)   146      5482 0.05000  0.06861  80.00- 120.00   100.00(a)
 26.903  26.903 (1.132)   148      4498                   33.17-  93.17    82.05
 26.903  26.903 (1.132)   111      2567                   13.98-  73.98    46.83
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	5519	0.05000	0.06777	80.00- 120.00	100.00(a)
27.371	27.371 (1.152)	148	3384			33.03- 93.03	61.32
27.355	27.355 (1.151)	111	2960			16.58- 76.58	53.63
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	5491	0.05000	0.07536	80.00- 120.00	100.00(a)
29.366	29.366 (1.236)	182	4405			65.16- 125.16	80.22

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: msd20.i
Lab File ID: 20021006.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	127627	-2.93
123 1,4-Difluorobenze	519912	311947	727877	532086	2.34
163 Chlorobenzene-d5	453774	272264	635284	439876	-3.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021006.d

Date : 10-FEB-2016 16:18

Client ID: Level 5

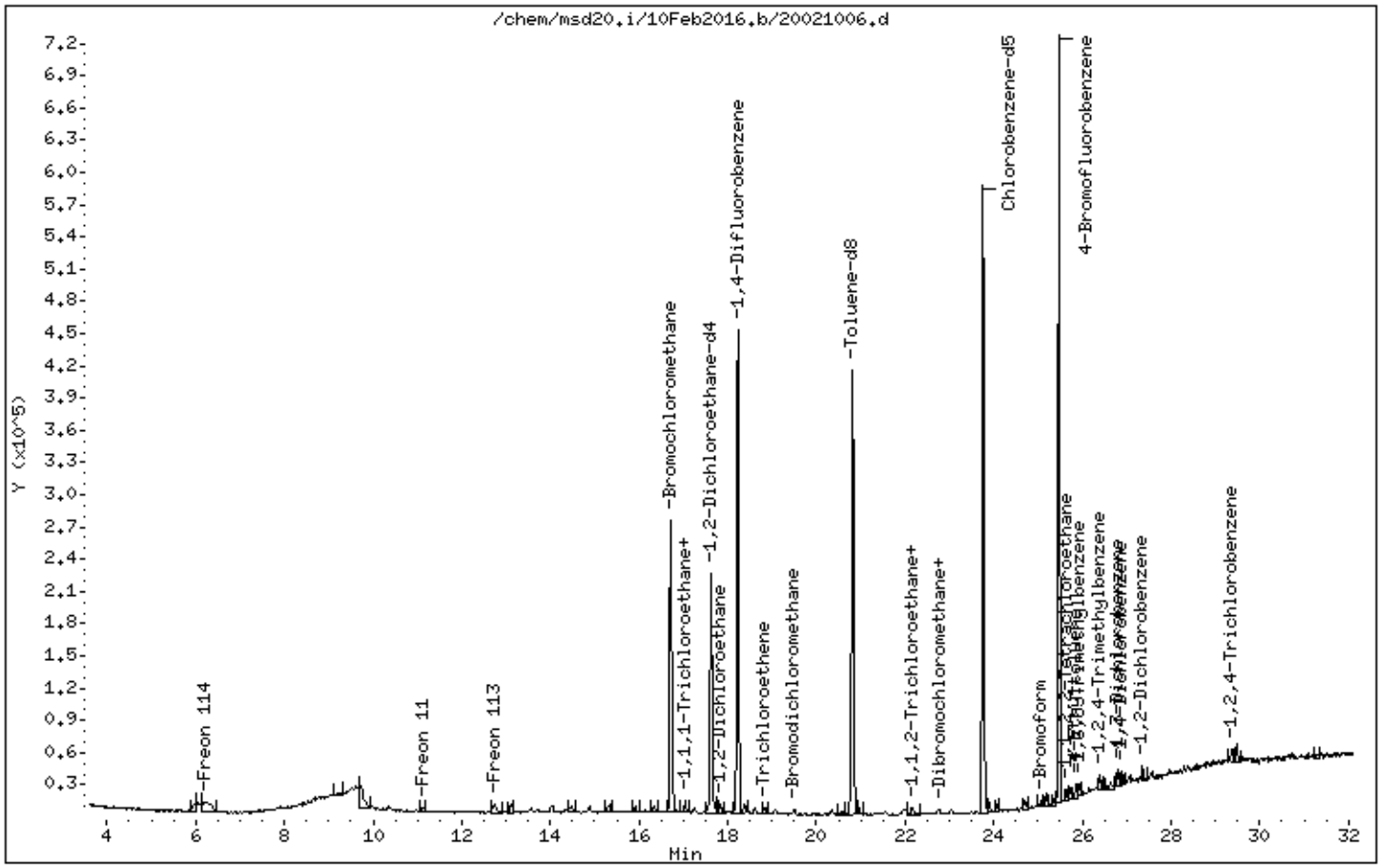
Instrument: msd20.i

Sample Info: 250mL# 2759-242

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021007.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 10-FEB-2016 16:57
Operator : sab Inst ID: msd20.i
Smp Info : 25mL# 2759-243
Misc Info : 0.1ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 16:57 Cal File: 20021007.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	18374	0.10000	0.1147	80.00- 120.00	100.00(aM)
4.696	4.696 (0.281)	87	5194			1.87- 61.87	28.27
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	9455	0.10000	0.1109	80.00- 120.00	100.00(a)
6.191	6.191 (0.370)	137	2578			1.11- 61.11	27.27
6.239	6.239 (0.373)	85	16174			144.76- 204.76	171.06
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	7731	0.10000	0.1504	80.00- 120.00	100.00(a)
6.601	6.601 (0.395)	52	3650			2.97- 62.97	47.21
25 Vinyl Chloride					CAS #: 75-01-4		
7.555	7.555 (0.452)	62	5950	0.10000	0.1114	80.00- 120.00	100.00(a)
7.555	7.555 (0.452)	64	1954			1.00- 61.00	32.84

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
26 1,3-Butadiene					CAS #: 106-99-0		
7.885	7.885 (0.471)	54	5107	0.10000	0.1200	80.00- 120.00	100.00(a)
7.868	7.868 (0.470)	39	6059			81.21- 141.21	118.64
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	15949	0.10000	0.1114	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	10850			35.32- 95.32	68.03
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	7942	0.10000	0.1144	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	5277			35.03- 95.03	66.44
12.763	12.763 (0.763)	101	12619			120.75- 180.75	158.89
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	2661	0.10000	0.09887	80.00- 120.00	100.00(a)
12.736	12.736 (0.761)	61	10296			282.13- 342.13	386.92
12.736	12.736 (0.761)	96	6157			125.40- 185.40	231.38
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	2274	0.10000	0.1170	80.00- 120.00	100.00(a)
13.697	13.697 (0.819)	41	5269			306.81- 366.81	231.71
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	5346	0.10000	0.1180	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	7727			122.68- 182.68	144.54
14.027	14.027 (0.839)	51	2795			16.23- 76.23	52.28
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.466	14.466 (0.865)	73	13719	0.10000	0.09892	80.00- 120.00	100.00(a)
14.439	14.439 (0.863)	57	3902			0.00- 53.36	28.44
14.466	14.466 (0.865)	41	5054			0.00- 57.08	36.84
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	3175	0.10000	0.1059	80.00- 120.00	100.00(a)
14.494	14.494 (0.866)	61	8096			242.30- 302.30	254.99
14.494	14.494 (0.866)	96	4798			130.73- 190.73	151.12
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	8309	0.10000	0.1075	80.00- 120.00	100.00(a)
14.878	14.878 (0.889)	43	6193			38.79- 98.79	74.53
14.878	14.878 (0.889)	86	1306			0.00- 45.75	15.72
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	11584	0.10000	0.1145	80.00- 120.00	100.00(a)
15.345	15.345 (0.917)	65	3389			1.12- 61.12	29.26

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

   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.324  16.324 (0.976)    98      3334 0.10000   0.1077  80.00- 120.00   100.00(a)
 16.324  16.324 (0.976)    61      8953                  215.99- 275.99   268.54
 16.324  16.324 (0.976)    96      6181                  128.72- 188.72   185.39
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    132004 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    105939                   46.65- 106.65    80.25
 16.726  16.726 (1.000)    49    240388                  153.40- 213.40   182.11
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.819  16.819 (1.006)    83     12859 0.10000   0.1123  80.00- 120.00   100.00(a)
 16.819  16.819 (1.006)    85      8192                   34.71-  94.71    63.71
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.035  17.035 (1.018)    84      6776 0.10000   0.1023  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56      8866                   96.90- 156.90   130.84
 17.035  17.035 (1.018)    41      5704                   49.25- 109.25    84.18
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.065  17.065 (1.020)    97     13498 0.10000   0.1122  80.00- 120.00   100.00(a)
 17.065  17.065 (1.020)    99      8546                   34.75-  94.75    63.31
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 17.250  17.250 (1.031)   119      8928 0.10000  0.09133  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      9494                   74.42- 134.42   106.34
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 17.559  17.559 (1.050)    56      6903 0.10000  0.09508  80.00- 120.00   100.00(a)
 17.579  17.579 (1.051)    57     19765                  271.04- 331.04   286.32
 17.579  17.579 (1.051)    41      8684                   64.98- 124.98   125.80
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 17.621  17.621 (0.966)    78     15164 0.10000   0.1124  80.00- 120.00   100.00(a)
 17.621  17.621 (0.966)    77      4439                    0.00-  53.23    29.27
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    260500 5.00000    4.831  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    130697                   26.73-  86.73    50.17
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                          CAS #: 107-06-2
 17.744  17.744 (0.973)    62      7114 0.10000  0.09502  80.00- 120.00   100.00(a)
 17.744  17.744 (0.973)    64      3664                    1.10-  61.10    51.50
-------------------------------------------------------------------------------
  121 Heptane                                     CAS #: 142-82-5
 17.847  17.847 (0.979)    57      3893 0.10000  0.09463  80.00- 120.00   100.00(a)
```

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

  121 Heptane (continued)
 17.847  17.847 (0.979)   100      1195                     1.33-  61.33    30.70
 17.847  17.847 (0.979)    43      8509                   175.11- 235.11   218.57
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.231  18.231 (1.000)   114    524176 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     95520                    0.00-  48.22    18.22
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130      6820 0.10000   0.1192  80.00- 120.00   100.00(a)
 18.610  18.610 (1.021)    95      7136                   84.12- 144.12   104.63
 18.610  18.610 (1.021)    97      4831                   43.34- 103.34    70.84
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.057  19.057 (1.045)    63      6164 0.10000   0.1074  80.00- 120.00   100.00(a)
 19.057  19.057 (1.045)    62      4984                   42.42- 102.42    80.86
 19.079  19.079 (1.046)    41      5968                   41.51- 101.51    96.82
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 19.213  19.213 (1.054)    88      2863 0.10000  0.08960  80.00- 120.00   100.00(a)
 19.213  19.213 (1.054)    58      2074                   50.32- 110.32    72.44
 19.213  19.213 (1.054)    57      1129                    0.00-  56.87    39.43
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 19.503  19.503 (0.821)    83     10796 0.10000   0.1046  80.00- 120.00   100.00(a)
 19.503  19.503 (0.821)    85      7000                   33.43-  93.43    64.84
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 20.338  20.338 (1.116)    75      8231 0.10000  0.09348  80.00- 120.00   100.00(a)
 20.338  20.338 (1.116)    77      2754                    1.18-  61.18    33.46
 20.323  20.323 (1.115)    39      5442                   30.96-  90.96    66.12
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 20.557  20.557 (1.128)    43      9884 0.10000  0.08511  80.00- 120.00   100.00(a)
 20.572  20.572 (1.128)    58      2603                    6.36-  66.36    26.34
 20.557  20.557 (1.128)    85      1328                    0.00-  44.79    13.44
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 20.822  20.822 (1.142)    98    517567 5.00000    4.897  80.00- 120.00   100.00
 20.822  20.822 (1.142)    70     69548                    0.00-  43.74    13.44
 20.822  20.822 (1.142)   100    338317                   35.47-  95.47    65.37
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 20.962  20.962 (1.150)    91     15542 0.10000   0.1049  80.00- 120.00   100.00(a)
 20.962  20.962 (1.150)    92      9177                   29.68-  89.68    59.05
-------------------------------------------------------------------------------
```

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

  150 trans-1,3-Dichloropropene                     CAS #: 10061-02-6
 21.535  21.535 (0.906)    75      6781 0.10000  0.08949  80.00- 120.00   100.00(a)
 21.564  21.564 (0.908)    77      3196                    0.89-  60.89    47.13
 21.564  21.564 (0.908)    39      5128                   25.98-  85.98    75.62
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 21.999  21.999 (0.926)    97      6969 0.10000   0.1210  80.00- 120.00   100.00(a)
 21.999  21.999 (0.926)    99      3661                   32.06-  92.06    52.53
 21.999  21.999 (0.926)    83      5871                   59.95- 119.95    84.24
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 22.174  22.174 (0.933)   166      6763 0.10000   0.1058  80.00- 120.00   100.00(a)
 22.145  22.145 (0.932)   129      6270                   51.43- 111.43    92.71
 22.174  22.174 (0.933)   131      6449                   46.81- 106.81    95.36
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.784  22.784 (0.959)   129      7912 0.10000  0.09126  80.00- 120.00   100.00(a)
 22.784  22.784 (0.959)   127      6427                   50.40- 110.40    81.23
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.045  23.045 (0.970)   107      7722 0.10000  0.09728  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109      8583                   64.13- 124.13   111.15
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    443431 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    295103                   37.02-  97.02    66.55
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 23.823  23.823 (1.003)   112     12108 0.10000   0.1081  80.00- 120.00   100.00(a)
 23.823  23.823 (1.003)   114      4734                    1.85-  61.85    39.10
 23.823  23.823 (1.003)    77     15926                   40.34- 100.34   131.53
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 23.906  23.906 (1.006)   106      4327 0.10000  0.08393  80.00- 120.00   100.00(a)
 23.906  23.906 (1.006)    91     17010                  302.97- 362.97   393.11
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 24.091  24.091 (1.014)   106      6204 0.10000   0.1095  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91     12512                  185.70- 245.70   201.68
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 24.710  24.710 (1.040)   106      5256 0.10000  0.09879  80.00- 120.00   100.00(a)
 24.710  24.710 (1.040)    91     11676                  201.87- 261.87   222.15
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 24.731  24.731 (1.041)   104      6614 0.10000  0.08766  80.00- 120.00   100.00(a)
```

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

  172 Styrene (continued)
 24.731  24.731 (1.041)    78      4168                    30.45-  90.45    63.02
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173      6046 0.10000  0.07939  80.00- 120.00   100.00(a)
 25.068  25.068 (1.055)   171      3651                    22.22-  82.22    60.39
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105     16561 0.10000  0.09370  80.00- 120.00   100.00(a)
 25.182  25.182 (1.060)   120      3952                     0.00-  55.53    23.86
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 25.466  25.466 (1.072)   174    204866 5.00000    4.745  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    318154                  125.82- 185.82   155.30
 25.466  25.466 (1.072)   176    189395                    65.90- 125.90    92.45
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83     11380 0.10000  0.09524  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      8422                    31.99-  91.99    74.01
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.713  25.713 (1.082)    91     23730 0.10000   0.1234  80.00- 120.00   100.00(a)
 25.713  25.713 (1.082)   120      4469                     0.00-  51.03    18.83
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105     18997 0.10000   0.1208  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      5706                     0.00-  59.04    30.04
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105     14882 0.10000   0.1134  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120      7374                    16.07-  76.07    49.55
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105     17630 0.10000   0.1326  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      7530                    13.07-  73.07    42.71
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 26.794  26.794 (1.128)   146     10618 0.10000   0.1184  80.00- 120.00   100.00(a)
 26.794  26.794 (1.128)   148      6432                    36.17-  96.17    60.58
 26.794  26.794 (1.128)   111      4736                    17.10-  77.10    44.60
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 26.903  26.903 (1.132)   146     10090 0.10000   0.1253  80.00- 120.00   100.00(a)
 26.903  26.903 (1.132)   148      7002                    33.17-  93.17    69.40
 26.903  26.903 (1.132)   111      4783                    13.98-  73.98    47.40
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
212 alpha-Chlorotoluene						CAS #: 100-44-7	
27.059	27.059 (1.139)	91	9373	0.10000	0.08043	80.00- 120.00	100.00(a)
27.059	27.059 (1.139)	126	2468			0.00- 47.62	26.33
214 1,2-Dichlorobenzene						CAS #: 95-50-1	
27.371	27.371 (1.152)	146	10631	0.10000	0.1295	80.00- 120.00	100.00(a)
27.371	27.371 (1.152)	148	6309			33.03- 93.03	59.35
27.371	27.371 (1.152)	111	5335			16.58- 76.58	50.18
226 1,2,4-Trichlorobenzene						CAS #: 120-82-1	
29.367	29.367 (1.236)	180	8095	0.10000	0.1102	80.00- 120.00	100.00(a)
29.367	29.367 (1.236)	182	7280			65.16- 125.16	89.93
227 Hexachlorobutadiene						CAS #: 87-68-3	
29.491	29.491 (1.241)	225	7673	0.10000	0.1335	80.00- 120.00	100.00(a)
29.491	29.491 (1.241)	223	4495			34.44- 94.44	58.58

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021007.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	132004	0.40
123 1,4-Difluorobenze	519912	311947	727877	524176	0.82
163 Chlorobenzene-d5	453774	272264	635284	443431	-2.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021007.d

Date : 10-FEB-2016 16:57

Client ID: Level 6

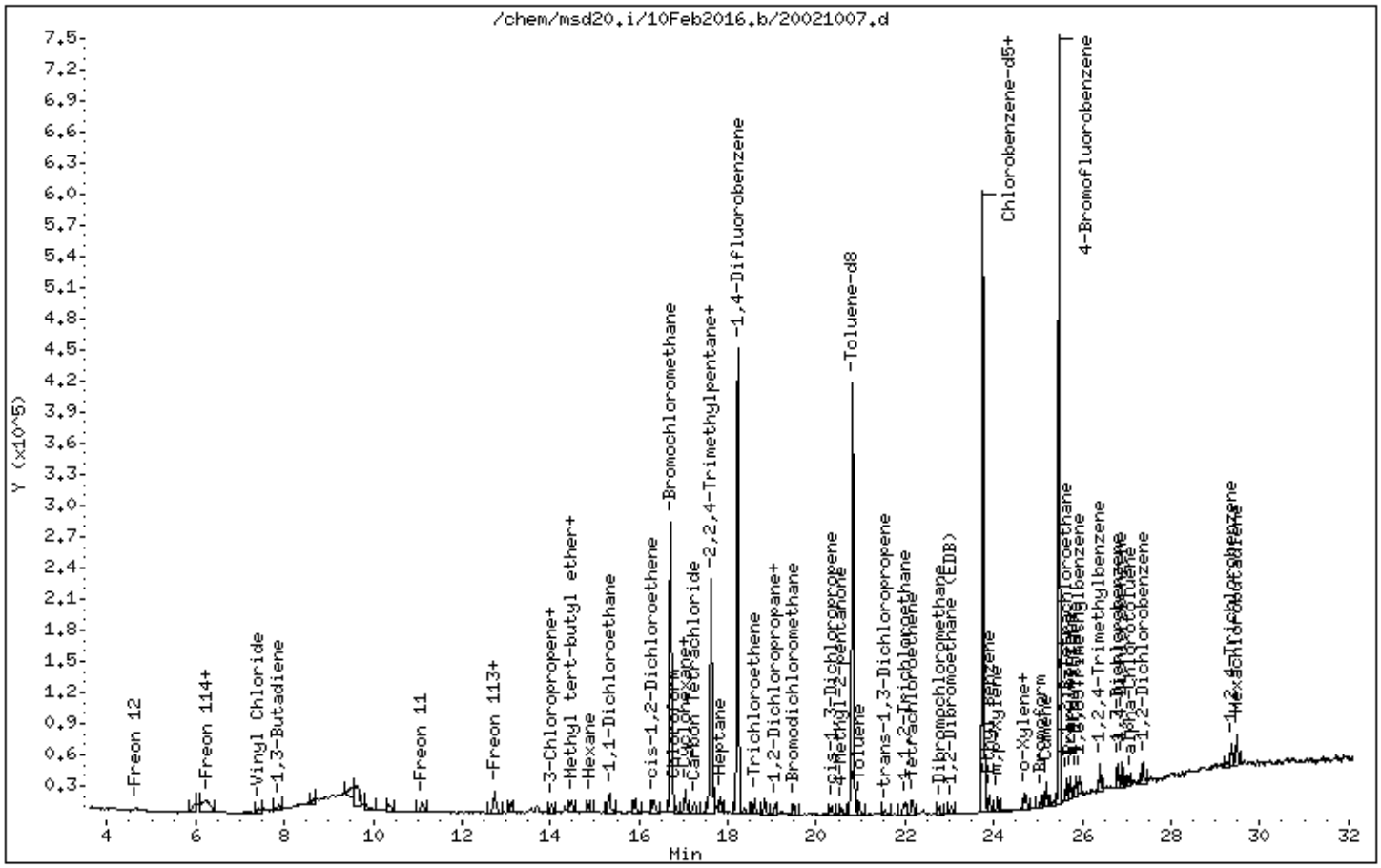
Instrument: msd20.i

Sample Info: 25mL# 2759-243

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/16May2016.b/20051609.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 16-MAY-2016 15:22
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-143
Misc Info : 0.5ppbv (5.0ppbv) Isobutylene
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Meth Date : 16-May-2016 17:56 mskidmor Quant Type: ISTD
Cal Date : 16-MAY-2016 15:22 Cal File: 20051609.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: IsobutyleneICAL.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
19 Isobutylene					CAS #: 115-11-7		
7.312	7.312 (0.437)	56	13568	0.50000	0.5000	0.00- 0.00	100.00
7.312	7.312 (0.437)	41	29066			0.00- 0.00	214.22
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	115054	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	92934			46.65- 106.65	80.77
16.726	16.726 (1.000)	49	192555			153.40- 213.40	167.36
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	444265	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	80100			0.00- 48.22	18.03
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	379044	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	238273			37.02- 97.02	62.86

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051609.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/16May2016.b/2016l0210c.m
Misc Info: 0.5ppbv (5.0ppbv) Isobutylene

Calibration Date: 16-MAY-2016
Calibration Time: 08:38
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117101	70261	163941	115054	-1.75
123 1,4-Difluorobenze	464540	278724	650356	444265	-4.36
163 Chlorobenzene-d5	389521	233713	545329	379044	-2.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/16May2016.b/20051609.d

Date : 16-MAY-2016 15:22

Client ID: Level 7

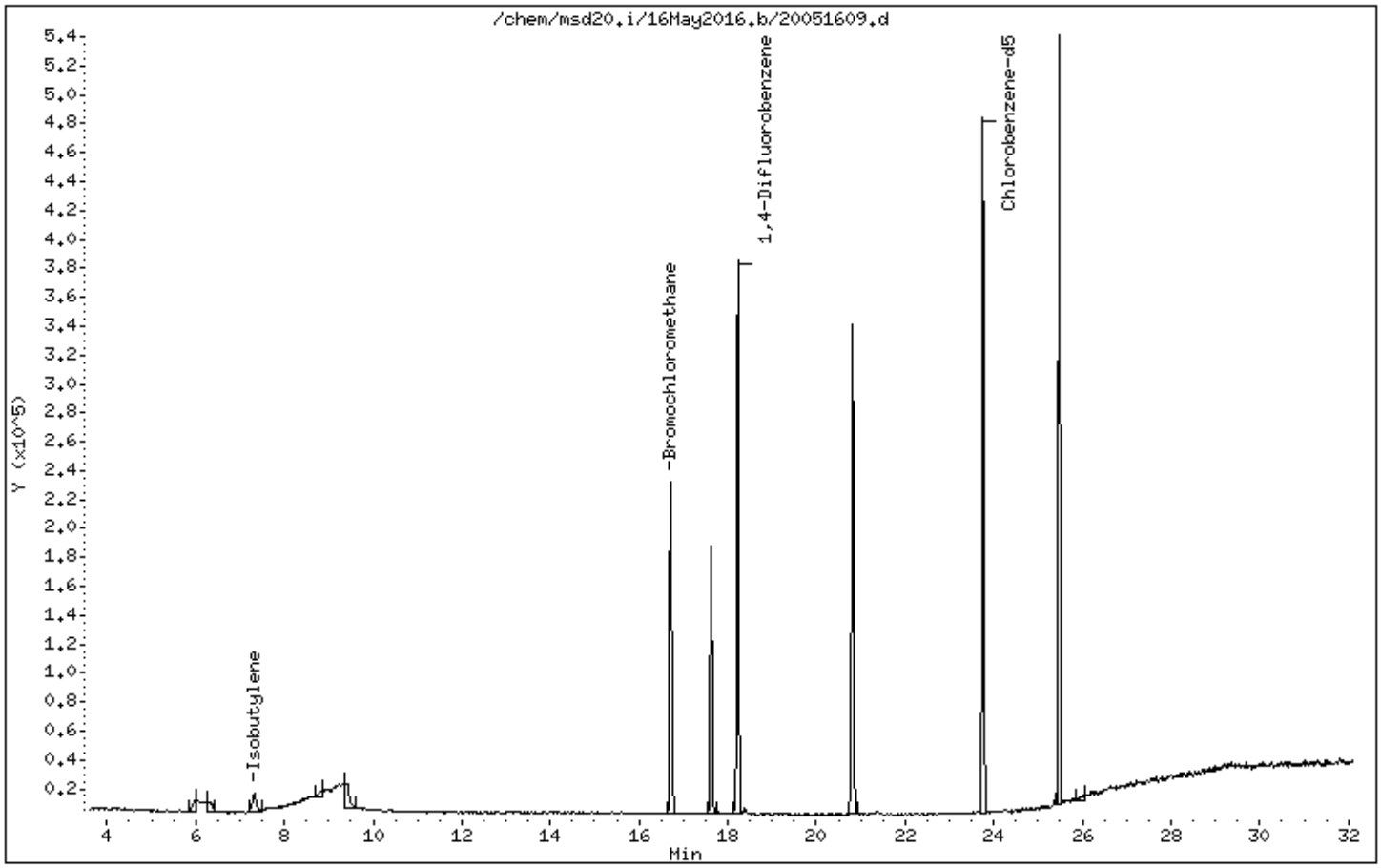
Instrument: msd20.i

Sample Info: 25mL# 2789-143

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/17Feb2016.b/20021705.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 17-FEB-2016 11:02
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2759-263
Misc Info : 0.5ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/17Feb2016.b/2016l0210b.m
Meth Date : 17-Feb-2016 14:02 efinn Quant Type: ISTD
Cal Date : 17-FEB-2016 11:02 Cal File: 20021705.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.897	10.897 (0.651)	106	15181	0.50000	0.5251	0.00- 0.00	100.00
10.897	10.897 (0.651)	108	14256			0.00- 0.00	93.91
36 1-Pentene					CAS #: 109-67-1		
11.210	11.210 (0.670)	55	18581	0.50000	0.5356	0.00- 0.00	100.00
11.210	11.210 (0.670)	42	26472			0.00- 0.00	142.47
34 Pentane					CAS #: 109-66-0		
11.379	11.379 (0.680)	43	51425	0.50000	0.5223	0.00- 0.00	100.00
11.379	11.379 (0.680)	57	8073			0.00- 0.00	15.70
11.379	11.379 (0.680)	72	5745			0.00- 0.00	11.17
44 Ethyl Ether					CAS #: 60-29-7		
12.242	12.242 (0.732)	74	9007	0.50000	0.5355	0.00- 0.00	100.00(T)
12.242	12.242 (0.732)	59	12073			0.00- 0.00	134.04
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

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

   59 Cyclopentene                                CAS #: 142-29-0
 13.725  13.725 (0.821)    67     32855 0.50000   0.5190   0.00-   0.00   100.00
 13.725  13.725 (0.821)    68     11720                    0.00-   0.00    35.67
 13.725  13.725 (0.821)    53      6904                    0.00-   0.00    21.01
-------------------------------------------------------------------------------
   64 Cyclopentane                                CAS #: 287-92-3
 13.917  13.917 (0.832)    70     15531 0.50000   0.5186   0.00-   0.00   100.00
 13.917  13.917 (0.832)    55     18509                    0.00-   0.00   119.17
-------------------------------------------------------------------------------
   74 Acrylonitrile                               CAS #: 107-13-1
 14.658  14.658 (0.876)    53     12997 0.50000   0.4865   0.00-   0.00   100.00(a)
 14.658  14.658 (0.876)    52     10485                    0.00-   0.00    80.67
-------------------------------------------------------------------------------
   76 1-Hexene                                    CAS #: 592-41-6
 14.741  14.741 (0.881)    55     11985 0.50000   0.4811   0.00-   0.00   100.00(a)
 14.741  14.741 (0.881)    41     20286                    0.00-   0.00   169.26
 14.741  14.741 (0.881)    84      3745                    0.00-   0.00    31.25
-------------------------------------------------------------------------------
   84 1-Propanol                                  CAS #: 71-23-8
 15.564  15.564 (0.931)    59      2383 0.50000   0.4917   0.00-   0.00   100.00(a)
 15.564  15.564 (0.931)    42      2861                    0.00-   0.00   120.06
 15.564  15.564 (0.931)    41      2026                    0.00-   0.00    85.02
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                         CAS #: 594-20-7
 16.261  16.261 (0.972)    77     39988 0.50000   0.5284   0.00-   0.00   100.00
 16.261  16.261 (0.972)    79     13391                    0.00-   0.00    33.49
 16.282  16.282 (0.973)    97      6344                    0.00-   0.00    15.86
-------------------------------------------------------------------------------
   94 Ethyl Acetate                               CAS #: 141-78-6
 16.365  16.365 (0.978)    70      3314 0.50000   0.4896   0.00-   0.00   100.00(a)
 16.365  16.365 (0.978)    43     34387                    0.00-   0.00  1037.63
 16.365  16.365 (0.978)    61      4316                    0.00-   0.00   130.24
-------------------------------------------------------------------------------
   93 Methyl Acrylate                             CAS #: 96-33-3
 16.448  16.448 (0.983)    55     24244 0.50000   0.4762   0.00-   0.00   100.00(a)
 16.448  16.448 (0.983)    85      3713                    0.00-   0.00    15.32
 16.448  16.448 (0.983)    58      2283                    0.00-   0.00     9.42
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 16.726  16.726 (1.000)   130    115230 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128     95388                   46.65- 106.65    82.78
 16.726  16.726 (1.000)    49    217104                  153.40- 213.40   188.41
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                         CAS #: 563-58-6
 17.312  17.312 (1.035)   110      8351 0.50000   0.5080   0.00-   0.00   100.00
 17.312  17.312 (1.035)    75     28993                    0.00-   0.00   347.18
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
115 Isobutanol					CAS #: 78-83-1		
17.456	17.456 (1.044)	43	13734	0.50000	0.5203	0.00- 0.00	100.00
17.456	17.456 (1.044)	41	13252			0.00- 0.00	96.49
17.456	17.456 (1.044)	55	2230			0.00- 0.00	16.24
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	464524	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	83854			0.00- 48.22	18.05
124 n-Butanol					CAS #: 71-36-3		
18.432	18.432 (1.011)	56	17035	0.50000	0.4662	0.00- 0.00	100.00(a)
18.432	18.432 (1.011)	41	15717			0.00- 0.00	92.26
18.432	18.432 (1.011)	43	9129			0.00- 0.00	53.59
128 Ethyl acrylate					CAS #: 140-88-5		
18.722	18.722 (1.119)	99	1310	0.50000	0.4554	0.00- 0.00	100.00(a)
18.722	18.722 (1.119)	45	2760			0.00- 0.00	210.69
18.722	18.722 (1.119)	55	19885			0.00- 0.00	1517.94
131 2-Pentanone					CAS #: 107-87-9		
18.923	18.923 (1.131)	43	34103	0.50000	0.4566	0.00- 0.00	100.00(a)
18.923	18.923 (1.131)	58	2587			0.00- 0.00	7.59
18.923	18.923 (1.131)	86	5216			0.00- 0.00	15.29
134 Methyl Methacrylate					CAS #: 80-62-6		
19.123	19.123 (1.143)	41	14392	0.50000	0.4427	0.00- 0.00	100.00(a)
19.101	19.101 (1.142)	69	10248			0.00- 0.00	71.21
19.123	19.123 (1.143)	100	3596			0.00- 0.00	24.99
137 Dibromomethane					CAS #: 74-95-3		
19.280	19.280 (1.058)	174	11660	0.50000	0.5083	0.00- 0.00	100.00
19.280	19.280 (1.058)	93	16140			0.00- 0.00	138.42
19.302	19.302 (1.059)	95	13296			0.00- 0.00	114.03
148 Octane					CAS #: 111-65-9		
20.931	20.931 (1.148)	57	17261	0.50000	0.4966	0.00- 0.00	100.00(a)
20.931	20.931 (1.148)	85	16440			0.00- 0.00	95.24
20.931	20.931 (1.148)	43	43791			0.00- 0.00	253.70
157 1,3-Dichloropropane					CAS #: 142-28-9		
22.377	22.377 (1.227)	76	30149	0.50000	0.5181	0.00- 0.00	100.00
22.377	22.377 (1.227)	41	24655			0.00- 0.00	81.78
22.377	22.377 (1.227)	78	10558			0.00- 0.00	35.02
159 Butyl Acetate					CAS #: 123-86-4		
22.551	22.551 (0.949)	56	2591	0.50000	0.4402	0.00- 0.00	100.00(a)

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

  159 Butyl Acetate (continued)
 22.551  22.551 (0.949)    73      1476                     0.00-   0.00    56.97
 22.551  22.551 (0.949)    43      6409                     0.00-   0.00   247.36
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    386908 5.00000            80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    252215                    37.02-  97.02    65.19
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 23.926  23.926 (1.007)   131     21117 0.50000   0.5261   0.00-   0.00   100.00
 23.947  23.947 (1.008)   117     14646                    0.00-   0.00    69.36
 23.947  23.947 (1.008)    95     11299                    0.00-   0.00    53.51
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 23.947  23.947 (1.008)    43     55037 0.50000   0.6010   0.00-   0.00   100.00
 23.947  23.947 (1.008)    57     44678                    0.00-   0.00    81.18
 23.947  23.947 (1.008)    85     16037                    0.00-   0.00    29.14
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 24.854  24.854 (1.046)    58     15410 0.50000   0.4462   0.00-   0.00   100.00(a)
 24.854  24.854 (1.046)    43     29617                    0.00-   0.00   192.19
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 25.428  25.428 (1.070)    55     14610 0.50000   0.4929   0.00-   0.00   100.00(a)
 25.428  25.428 (1.070)    98      5087                    0.00-   0.00    34.82
 25.428  25.428 (1.070)    42     10364                    0.00-   0.00    70.94
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 25.675  25.675 (1.081)   156     16786 0.50000   0.5103   0.00-   0.00   100.00
 25.675  25.675 (1.081)   158     15454                    0.00-   0.00    92.06
 25.675  25.675 (1.081)    77     32536                    0.00-   0.00   193.83
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 25.751  25.751 (1.084)   110     10680 0.50000   0.4962   0.00-   0.00   100.00(a)
 25.751  25.751 (1.084)    75     34247                    0.00-   0.00   320.66
 25.751  25.751 (1.084)    61      9307                    0.00-   0.00    87.14
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 25.807  25.807 (1.086)    57    109146 0.50000   0.6189   0.00-   0.00   100.00
 25.807  25.807 (1.086)    71     41531                    0.00-   0.00    38.05
 25.826  25.826 (1.087)   142      4852                    0.00-   0.00     4.45
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                               CAS #: 95-49-8
 25.883  25.883 (1.089)   126     12936 0.50000   0.5334   0.00-   0.00   100.00
 25.883  25.883 (1.089)    91     43559                    0.00-   0.00   336.73
 25.883  25.883 (1.089)    65      4866                    0.00-   0.00    37.62
-------------------------------------------------------------------------------
```

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

  191 4-Chlorotoluene                                CAS #: 106-43-4
 26.035  26.035 (1.096)   126     11082 0.50000   0.5392   0.00-   0.00   100.00
 26.035  26.035 (1.096)    91     36308                    0.00-   0.00   327.63
 26.035  26.035 (1.096)    63      5750                    0.00-   0.00    51.89
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 26.319  26.319 (1.108)   119     32545 0.50000   0.5400   0.00-   0.00   100.00
 26.319  26.319 (1.108)   134      8061                    0.00-   0.00    24.77
 26.319  26.319 (1.108)    91     24711                    0.00-   0.00    75.93
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 26.414  26.414 (1.112)   167     10467 0.50000   0.4866   0.00-   0.00   100.00(a)
 26.414  26.414 (1.112)   117     10472                    0.00-   0.00   100.05
 26.414  26.414 (1.112)   169      4833                    0.00-   0.00    46.17
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 26.585  26.585 (1.119)   105     63936 0.50000   0.5964   0.00-   0.00   100.00
 26.585  26.585 (1.119)   134     12108                    0.00-   0.00    18.94
 26.585  26.585 (1.119)    91     12206                    0.00-   0.00    19.09
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                       CAS #: 111-44-4
 26.685  26.685 (1.123)    93     22470 0.50000   0.3972   0.00-   0.00   100.00(a)
 26.685  26.685 (1.123)    95     10553                    0.00-   0.00    46.96
 26.685  26.685 (1.123)    63     18986                    0.00-   0.00    84.49
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 26.732  26.732 (1.125)   119     42100 0.50000   0.5820   0.00-   0.00   100.00
 26.748  26.748 (1.126)   134     10760                    0.00-   0.00    25.56
 26.732  26.732 (1.125)    91     11499                    0.00-   0.00    27.31
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 26.903  26.903 (1.132)   120     16349 0.50000   0.5446   0.00-   0.00   100.00
 26.903  26.903 (1.132)   105     40874                    0.00-   0.00   250.01
 26.903  26.903 (1.132)    77      7112                    0.00-   0.00    43.50
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 27.231  27.231 (1.146)   134     13495 0.50000   0.6013   0.00-   0.00   100.00
 27.231  27.231 (1.146)    91     55634                    0.00-   0.00   412.26
 27.231  27.231 (1.146)    92     31296                    0.00-   0.00   231.91
-------------------------------------------------------------------------------
  215 Undecane                                       CAS #: 1120-21-4
 27.200  27.200 (1.145)    57    135826 0.50000   0.6566   0.00-   0.00   100.00
 27.200  27.200 (1.145)    43    124414                    0.00-   0.00    91.60
 27.200  27.200 (1.145)    85     33264                    0.00-   0.00    24.49
-------------------------------------------------------------------------------
  221 1,2-Dibromo-3-chloropropane                    CAS #: 96-12-8
 28.338  28.338 (1.193)   157      9462 0.50000   0.4748   0.00-   0.00   100.00(a)
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
221 1,2-Dibromo-3-chloropropane (continued)								
28.338	28.338	(1.193)	75	10176			0.00- 0.00	107.55
28.338	28.338	(1.193)	155	6972			0.00- 0.00	73.68
225 Dodecane						CAS #: 112-40-3		
28.462	28.462	(1.198)	85	49078	0.50000	0.7812	0.00- 0.00	100.00
28.462	28.462	(1.198)	57	163474			0.00- 0.00	333.09
28.462	28.462	(1.198)	43	145103			0.00- 0.00	295.66

QC Flag Legend

T - Target compound detected outside RT window.
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: msd20.i
Lab File ID: 20021705.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/17Feb2016.b/2016l0210b.m
Misc Info: 0.5ppbv (5.0ppbv) Combo

Calibration Date: 17-FEB-2016
Calibration Time: 08:39
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	110399	66239	154559	115230	4.38
123 1,4-Difluorobenze	434029	260417	607641	464524	7.03
163 Chlorobenzene-d5	376538	225923	527153	386908	2.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/17Feb2016.b/20021705.d

Date : 17-FEB-2016 11:02

Client ID: Level 7

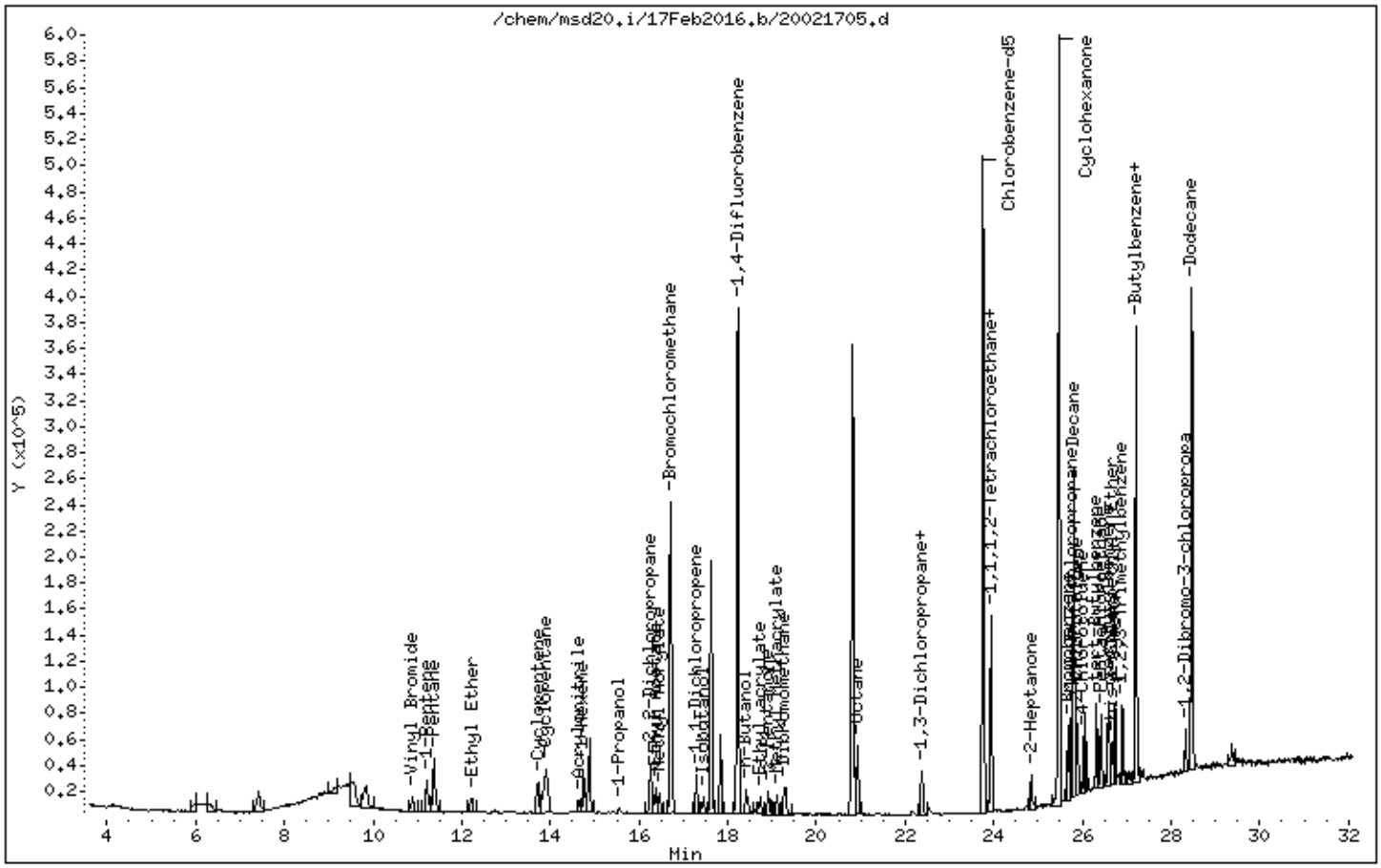
Instrument: msd20.i

Sample Info: 25mL# 2759-263

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021008.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 10-FEB-2016 17:47
Operator : gd Inst ID: msd20.i
Smp Info : 125mL# 2759-243
Misc Info : 0.5ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 17:47 Cal File: 20021008.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	23592	0.50000	0.5017	80.00- 120.00	100.00
4.142	4.142 (0.248)	42	8931			0.00- 53.15	37.86
4.190	4.190 (0.251)	39	13425			47.58- 107.58	56.90
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	83573	0.50000	0.5507	80.00- 120.00	100.00
4.648	4.648 (0.278)	87	11084			1.87- 61.87	13.26
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	43517	0.50000	0.5390	80.00- 120.00	100.00
6.191	6.191 (0.370)	137	13127			1.11- 61.11	30.17
6.191	6.191 (0.370)	85	74202			144.76- 204.76	170.51
17 Chloromethane					CAS #: 74-87-3		
6.552	6.552 (0.392)	50	29417	0.50000	0.6040	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	9167			2.97- 62.97	31.16

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.416	7.416 (0.443)	58	6058	0.50000	0.5442	80.00- 120.00	100.00
7.416	7.416 (0.443)	43	43172			739.71- 799.71	712.64
25 Vinyl Chloride					CAS #: 75-01-4		
7.555	7.555 (0.452)	62	27387	0.50000	0.5414	80.00- 120.00	100.00
7.555	7.555 (0.452)	64	8300			1.00- 61.00	30.31
26 1,3-Butadiene					CAS #: 106-99-0		
7.850	7.850 (0.469)	54	20719	0.50000	0.5139	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	24472			81.21- 141.21	118.11
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	12872	0.50000	0.4321	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	12062			64.13- 124.13	93.71
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	11483	0.50000	0.5074	80.00- 120.00	100.00
10.174	10.174 (0.608)	49	3429			0.00- 58.76	29.86
10.174	10.174 (0.608)	66	4495			2.67- 62.67	39.14
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	20792	0.50000	0.5321	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	32922			130.15- 190.15	158.34
10.367	10.367 (0.620)	42	31195			114.07- 174.07	150.03
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	72804	0.50000	0.5368	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	47007			35.32- 95.32	64.57
42 Ethanol					CAS #: 64-17-5		
12.296	12.296 (0.735)	45	7843	0.50000	0.4610	80.00- 120.00	100.00
12.296	12.296 (0.735)	46	3026			10.61- 70.61	38.58
12.296	12.296 (0.735)	43	2459			0.00- 54.10	31.35
49 Freon 113					CAS #: 76-13-1		
12.736	12.736 (0.761)	151	35095	0.50000	0.5336	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	23189			35.03- 95.03	66.07
12.736	12.736 (0.761)	101	51051			120.75- 180.75	145.47
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	12644	0.50000	0.4959	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	42570			282.13- 342.13	336.68
12.736	12.736 (0.761)	96	20328			125.40- 185.40	160.77
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	13218	0.50000	0.5678	80.00- 120.00	100.00

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43     46631                   344.67- 404.67   352.78
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.093  13.093 (0.783)    76     61017 0.50000   0.4809  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.533  13.533 (0.809)    45     36218 0.50000   0.4493  80.00- 120.00   100.00
 13.533  13.533 (0.809)    43     10810                    0.00-  54.80    29.85
 13.560  13.560 (0.811)    59      1808                    0.00-  33.44     4.99
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76      8391 0.50000   0.4557  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41     25768                   306.81- 366.81   307.09
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84     21991 0.50000   0.5125  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49     34004                   122.68- 182.68   154.63
 14.027  14.027 (0.839)    51     10997                    16.23-  76.23    50.01
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59     40261 0.50000   0.4250  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41     13164                    0.00-  58.55    32.70
 14.329  14.329 (0.857)    57      5286                    0.00-  41.33    13.13
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73     59587 0.50000   0.4535  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57     14913                    0.00-  53.36    25.03
 14.439  14.439 (0.863)    41     20702                    0.00-  57.08    34.74
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98     15582 0.50000   0.5485  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61     38092                   242.30- 302.30   244.46
 14.494  14.494 (0.866)    96     22724                   130.73- 190.73   145.83
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57     34699 0.50000   0.4740  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43     25566                    38.79-  98.79    73.68
 14.878  14.878 (0.889)    86      5600                    0.00-  45.75    16.14
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45     78670 0.50000   0.4755  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87     17388                    0.00-  52.38    22.10
 15.317  15.317 (0.916)    59      9270                    0.00-  40.55    11.78
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63     49070 0.50000   0.5119  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65     15129                     1.12-  61.12    30.83
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86      2861 0.50000   0.3102  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42      4287                   85.15- 145.15   149.84
 15.400  15.400 (0.921)    43     36123                 1231.92-1291.92  1262.60
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59     69887 0.50000   0.4472  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87     26538                    7.22-  67.22    37.97
 15.930  15.930 (0.952)    41     20176                    0.00-  52.37    28.87
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.324  16.324 (0.976)    98     15014 0.50000   0.5119  80.00- 120.00   100.00
 16.324  16.324 (0.976)    61     35061                  215.99- 275.99   233.52
 16.324  16.324 (0.976)    96     24283                  128.72- 188.72   161.74
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72     10136 0.50000   0.4524  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     47271                  429.73- 489.73   466.37
 16.344  16.344 (0.977)    57      3308                    3.86-  63.86    32.64
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42     27380 0.50000   0.4657  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71      9060                    5.73-  65.73    33.09
 16.696  16.696 (0.998)    72     10142                    7.14-  67.14    37.04
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    125049 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    100801                   46.65- 106.65    80.61
 16.726  16.726 (1.000)    49    232730                  153.40- 213.40   186.11
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83     57024 0.50000   0.5258  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     35656                   34.71-  94.71    62.53
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84     29656 0.50000   0.4726  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     37026                   96.90- 156.90   124.85
 17.035  17.035 (1.018)    41     25072                   49.25- 109.25    84.54
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97     55284 0.50000   0.4851  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99     35678                   34.75-  94.75    64.54
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119     44711 0.50000   0.4828  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117     46797                   74.42- 134.42   104.67
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56     30714 0.50000   0.4466  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57     92812                  271.04- 331.04   302.18
 17.579  17.579 (1.051)    41     30376                   64.98- 124.98    98.90
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.966)    78     63506 0.50000   0.4771  80.00- 120.00   100.00
 17.621  17.621 (0.966)    77     18959                    0.00-  53.23    29.85
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    256588 5.00000    5.023  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    129602                   26.73-  86.73    50.51
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87     12155 0.50000   0.4233  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73     52813                  419.18- 479.18   434.50
 17.682  17.682 (0.970)    55     19964                  109.81- 169.81   164.25
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62     38866 0.50000   0.5264  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64     11387                    1.10-  61.10    29.30
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57     17979 0.50000   0.4431  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100      4784                    1.33-  61.33    26.61
 17.847  17.847 (0.979)    43     38752                  175.11- 235.11   215.54
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    516984 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    100340                    0.00-  48.22    19.41
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130     26849 0.50000   0.4759  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95     30165                   84.12- 144.12   112.35
 18.610  18.610 (1.021)    97     19526                   43.34- 103.34    72.73
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83     35498 0.50000   0.4504  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55     33972                   60.57- 120.57    95.70
 18.833  18.833 (1.033)    56     11380                    0.00-  58.53    32.06
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.057  19.057 (1.045)    63     29203 0.50000   0.5159  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.057  19.057 (1.045)    62     19889                    42.42- 102.42    68.11
 19.057  19.057 (1.045)    41     21369                    41.51- 101.51    73.17
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88     14139 0.50000   0.4486  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58     11376                    50.32- 110.32    80.46
 19.213  19.213 (1.054)    57      3369                     0.00-  56.87    23.83
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83     49996 0.50000   0.4887  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85     30452                    33.43-  93.43    60.91
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75     35852 0.50000   0.4128  80.00- 120.00   100.00
 20.338  20.338 (1.116)    77     11079                     1.18-  61.18    30.90
 20.338  20.338 (1.116)    39     23897                    30.96-  90.96    66.65
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.572  20.572 (1.128)    43     43120 0.50000   0.3765  80.00- 120.00   100.00
 20.572  20.572 (1.128)    58     14976                     6.36-  66.36    34.73
 20.572  20.572 (1.128)    85      6223                     0.00-  44.79    14.43
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    519942 5.00000    4.988  80.00- 120.00   100.00
 20.806  20.806 (1.141)    70     73317                     0.00-  43.74    14.10
 20.821  20.821 (1.142)   100    335691                    35.47-  95.47    64.56
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91     69955 0.50000   0.4786  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92     38736                    29.68-  89.68    55.37
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75     35078 0.50000   0.4670  80.00- 120.00   100.00
 21.535  21.535 (0.906)    77     11740                     0.89-  60.89    33.47
 21.564  21.564 (0.908)    39     19186                    25.98-  85.98    54.70
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97     28021 0.50000   0.4909  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99     17470                    32.06-  92.06    62.35
 21.999  21.999 (0.926)    83     23705                    59.95- 119.95    84.60
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.145  22.145 (0.932)   166     30410 0.50000   0.4801  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129     24969                    51.43- 111.43    82.11
 22.174  22.174 (0.933)   131     25361                    46.81- 106.81    83.40
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                    CAS #: 591-78-6
 22.406  22.406 (0.943)    58     16406 0.50000   0.3250  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43     32388                  168.77- 228.77   197.42
 22.406  22.406 (0.943)   100      2617                    0.00-  48.17    15.95
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.784  22.784 (0.959)   129     37330 0.50000   0.4344  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127     30656                   50.40- 110.40    82.12
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 23.045  23.045 (0.970)   107     34591 0.50000   0.4396  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109     33837                   64.13- 124.13    97.82
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    439544 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    295179                   37.02-  97.02    67.16
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 23.823  23.823 (1.003)   112     56410 0.50000   0.5081  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114     17688                    1.85-  61.85    31.36
 23.823  23.823 (1.003)    77     44939                   40.34- 100.34    79.66
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 23.906  23.906 (1.006)   106     23748 0.50000   0.4647  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91     74943                  302.97- 362.97   315.58
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 24.091  24.091 (1.014)   106     23801 0.50000   0.4239  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91     52068                  185.70- 245.70   218.76
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 24.710  24.710 (1.040)   106     22116 0.50000   0.4193  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91     53544                  201.87- 261.87   242.11
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 24.731  24.731 (1.041)   104     28163 0.50000   0.3766  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78     18200                   30.45-  90.45    64.62
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 25.068  25.068 (1.055)   173     30575 0.50000   0.4050  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171     16830                   22.22-  82.22    55.04
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 25.182  25.182 (1.060)   105     74546 0.50000   0.4255  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120     18231                    0.00-  55.53    24.46
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	215709	5.00000	5.040	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	337314			125.82- 185.82	156.37
25.466	25.466 (1.072)	176	204495			65.90- 125.90	94.80
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	58147	0.50000	0.4909	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	36135			31.99- 91.99	62.14
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.713 (1.082)	91	89812	0.50000	0.4711	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	19231			0.00- 51.03	21.41
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	69391	0.50000	0.4453	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	18985			0.00- 59.04	27.36
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	59586	0.50000	0.4583	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	26932			16.07- 76.07	45.20
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	63799	0.50000	0.4842	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	27913			13.07- 73.07	43.75
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	39601	0.50000	0.4454	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	24827			36.17- 96.17	62.69
26.794	26.794 (1.128)	111	16993			17.10- 77.10	42.91
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.903 (1.132)	146	37243	0.50000	0.4665	80.00- 120.00	100.00
26.903	26.903 (1.132)	148	22708			33.17- 93.17	60.97
26.903	26.903 (1.132)	111	16438			13.98- 73.98	44.14
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.059	27.059 (1.139)	91	43902	0.50000	0.3800	80.00- 120.00	100.00
27.059	27.059 (1.139)	126	7866			0.00- 47.62	17.92
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	37238	0.50000	0.4576	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	24014			33.03- 93.03	64.49
27.371	27.371 (1.152)	111	16763			16.58- 76.58	45.02
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	37394	0.50000	0.5136	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.366	29.366	(1.236)	182	36247			65.16- 125.16	96.93
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	30256	0.50000	0.5310	80.00- 120.00	100.00
29.491	29.491	(1.241)	223	20412			34.44- 94.44	67.46

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021008.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	125049	-4.89
123 1,4-Difluorobenze	519912	311947	727877	516984	-0.56
163 Chlorobenzene-d5	453774	272264	635284	439544	-3.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021008.d

Date : 10-FEB-2016 17:47

Client ID: Level 7

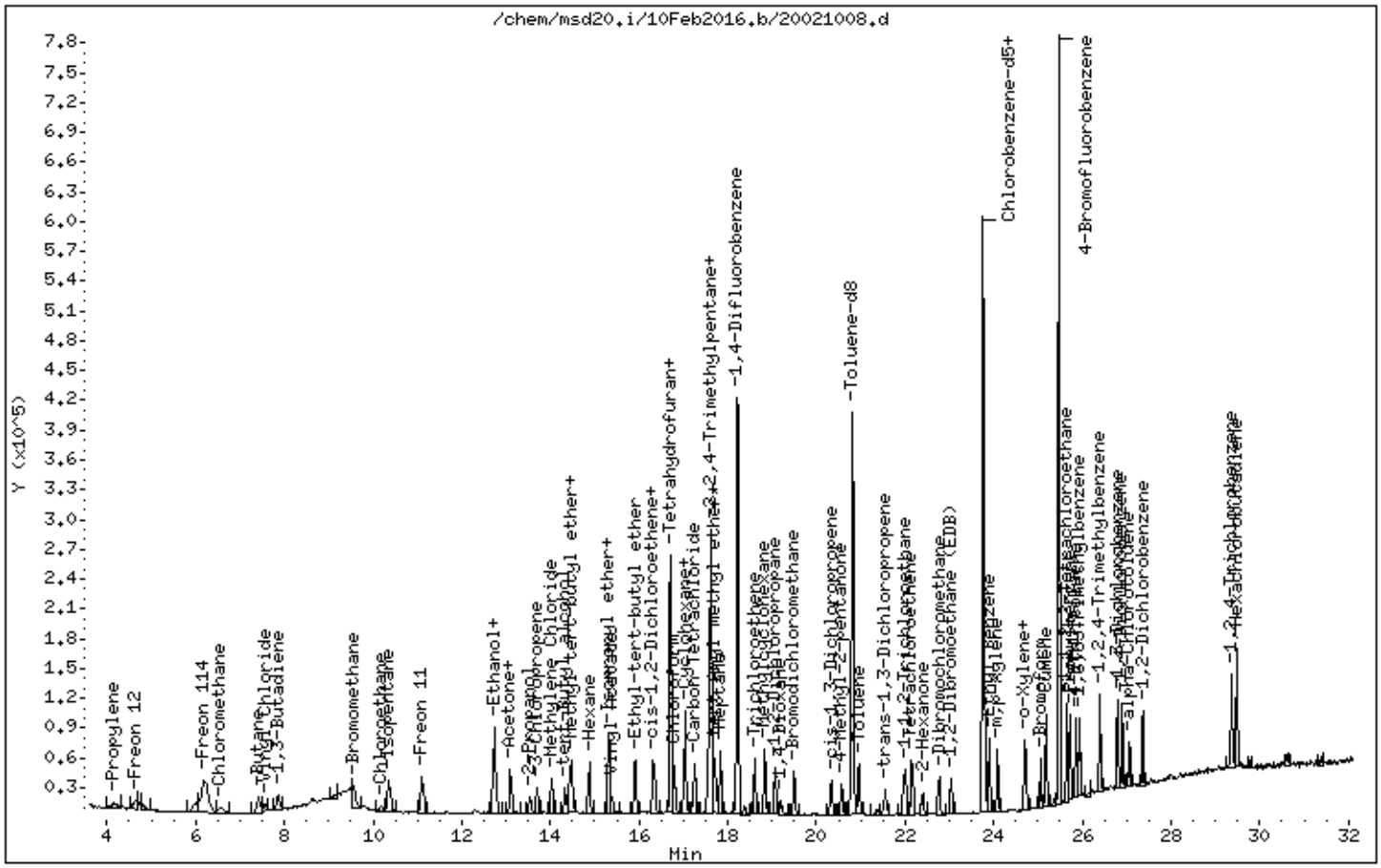
Instrument: msd20.i

Sample Info: 125mL# 2759-243

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/16May2016.b/20051610.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 16-MAY-2016 16:11
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2789-143
Misc Info : 1.0ppbv (5.0ppbv) Isobutylene
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Meth Date : 17-May-2016 09:18 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 16:11 Cal File: 20051610.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: IsobutyleneICAL.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
19 Isobutylene					CAS #: 115-11-7		
7.312	7.312 (0.437)	56	26866	1.00000	0.9809	0.00- 0.00	100.00
7.330	7.330 (0.438)	41	52644			0.00- 0.00	195.95
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	114679	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	87469			46.65- 106.65	76.27
16.726	16.726 (1.000)	49	190388			153.40- 213.40	166.02
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	418255	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	75101			0.00- 48.22	17.96
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	357538	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	231274			37.02- 97.02	64.69

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051610.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/16May2016.b/2016l0210c.m
Misc Info: 1.0ppbv (5.0ppbv) Isobutylene

Calibration Date: 16-MAY-2016
Calibration Time: 08:38
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117101	70261	163941	114679	-2.07
123 1,4-Difluorobenze	464540	278724	650356	418255	-9.96
163 Chlorobenzene-d5	389521	233713	545329	357538	-8.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/16May2016.b/20051610.d

Date : 16-MAY-2016 16:11

Client ID: Level 8

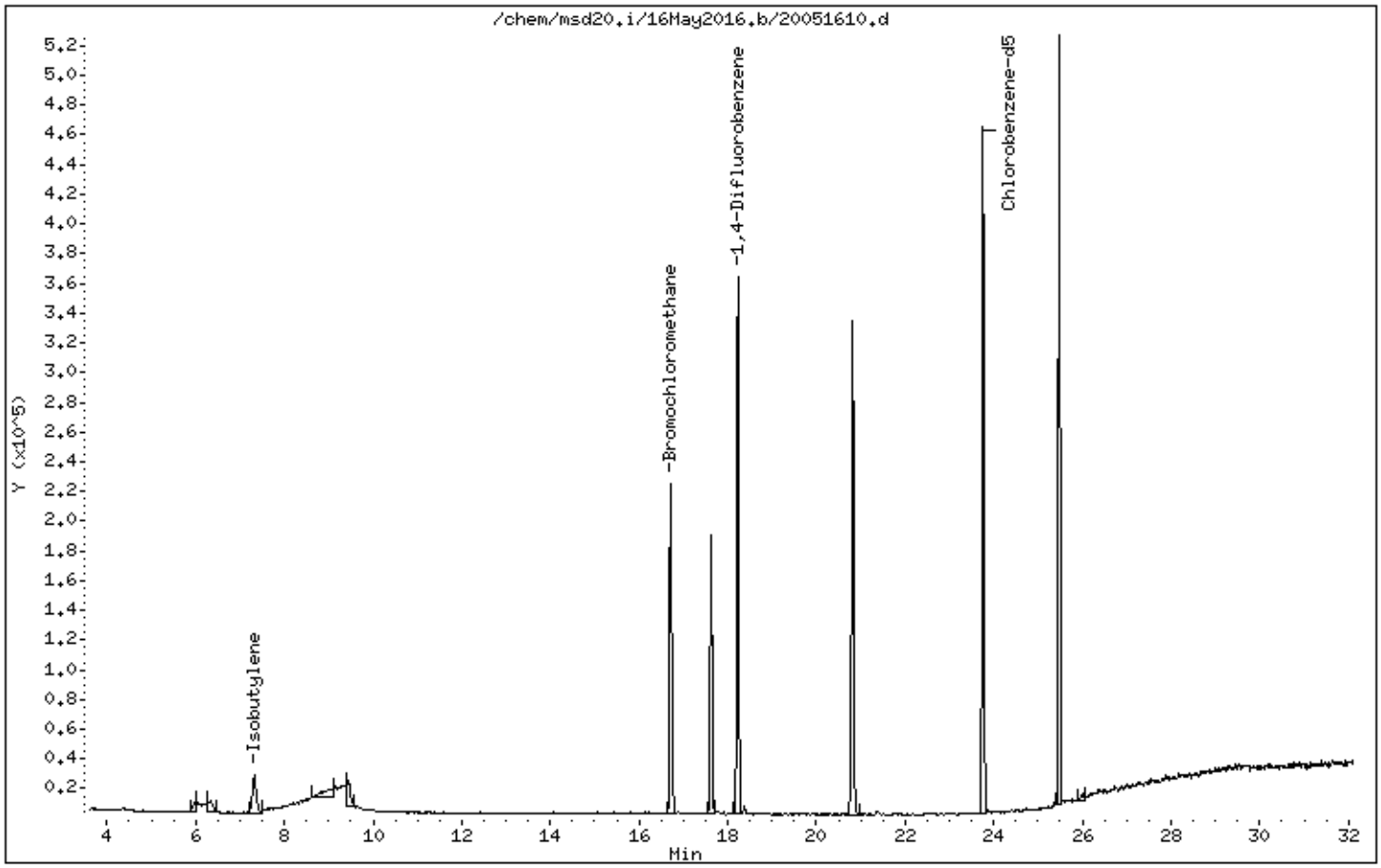
Instrument: msd20.i

Sample Info: 50mL# 2789-143

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/17Feb2016.b/20021706.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 17-FEB-2016 11:42
Operator : ef Inst ID: msd20.i
Smp Info : 50mL# 2759-263
Misc Info : 1.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/17Feb2016.b/2016l0210b.m
Meth Date : 17-Feb-2016 14:02 efinn Quant Type: ISTD
Cal Date : 17-FEB-2016 11:42 Cal File: 20021706.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.897	10.897 (0.651)	106	28464	1.00000	0.9800	0.00- 0.00	100.00
10.897	10.897 (0.651)	108	26702			0.00- 0.00	93.81
36 1-Pentene					CAS #: 109-67-1		
11.235	11.235 (0.672)	55	31871	1.00000	0.9143	0.00- 0.00	100.00
11.235	11.235 (0.672)	42	46681			0.00- 0.00	146.47
34 Pentane					CAS #: 109-66-0		
11.379	11.379 (0.680)	43	94478	1.00000	0.9551	0.00- 0.00	100.00
11.379	11.379 (0.680)	57	13721			0.00- 0.00	14.52
11.379	11.379 (0.680)	72	11172			0.00- 0.00	11.82
44 Ethyl Ether					CAS #: 60-29-7		
12.242	12.242 (0.732)	74	15893	1.00000	0.9404	0.00- 0.00	100.00(T)
12.242	12.242 (0.732)	59	22147			0.00- 0.00	139.35
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
59 Cyclopentene					CAS #: 142-29-0		
13.725	13.725 (0.821)	67	59403	1.00000	0.9338	0.00- 0.00	100.00
13.725	13.725 (0.821)	68	23353			0.00- 0.00	39.31
13.725	13.725 (0.821)	53	12963			0.00- 0.00	21.82
64 Cyclopentane					CAS #: 287-92-3		
13.917	13.917 (0.832)	70	30359	1.00000	1.009	0.00- 0.00	100.00
13.917	13.917 (0.832)	55	35342			0.00- 0.00	116.41
74 Acrylonitrile					CAS #: 107-13-1		
14.658	14.658 (0.876)	53	25697	1.00000	0.9574	0.00- 0.00	100.00
14.658	14.658 (0.876)	52	21512			0.00- 0.00	83.71
76 1-Hexene					CAS #: 592-41-6		
14.741	14.741 (0.881)	55	24152	1.00000	0.9649	0.00- 0.00	100.00
14.741	14.741 (0.881)	41	37795			0.00- 0.00	156.49
14.768	14.768 (0.883)	84	9319			0.00- 0.00	38.58
84 1-Propanol					CAS #: 71-23-8		
15.564	15.564 (0.931)	59	4232	1.00000	0.8691	0.00- 0.00	100.00
15.564	15.564 (0.931)	42	5355			0.00- 0.00	126.54
15.564	15.564 (0.931)	41	3411			0.00- 0.00	80.60
90 2,2-Dichloropropane					CAS #: 594-20-7		
16.282	16.282 (0.973)	77	72445	1.00000	0.9528	0.00- 0.00	100.00
16.282	16.282 (0.973)	79	23848			0.00- 0.00	32.92
16.282	16.282 (0.973)	97	12553			0.00- 0.00	17.33
94 Ethyl Acetate					CAS #: 141-78-6		
16.365	16.365 (0.978)	70	6751	1.00000	0.9926	0.00- 0.00	100.00
16.365	16.365 (0.978)	43	66808			0.00- 0.00	989.60
16.365	16.365 (0.978)	61	8460			0.00- 0.00	125.31
93 Methyl Acrylate					CAS #: 96-33-3		
16.448	16.448 (0.983)	55	47029	1.00000	0.9194	0.00- 0.00	100.00
16.448	16.448 (0.983)	85	7890			0.00- 0.00	16.78
16.448	16.448 (0.983)	58	5212			0.00- 0.00	11.08
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	115779	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	89808			46.65- 106.65	77.57
16.726	16.726 (1.000)	49	210306			153.40- 213.40	181.64
107 1,1-Dichloropropene					CAS #: 563-58-6		
17.312	17.312 (1.035)	110	15854	1.00000	0.9598	0.00- 0.00	100.00
17.312	17.312 (1.035)	75	51320			0.00- 0.00	323.70

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
115 Isobutanol					CAS #: 78-83-1		
17.456	17.456 (1.044)	43	22971	1.00000	0.8661	0.00- 0.00	100.00
17.456	17.456 (1.044)	41	19440			0.00- 0.00	84.63
17.456	17.456 (1.044)	55	3355			0.00- 0.00	14.61
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	463421	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	83969			0.00- 48.22	18.12
124 n-Butanol					CAS #: 71-36-3		
18.432	18.432 (1.011)	56	34086	1.00000	0.9350	0.00- 0.00	100.00
18.432	18.432 (1.011)	41	28994			0.00- 0.00	85.06
18.432	18.432 (1.011)	43	21494			0.00- 0.00	63.06
128 Ethyl acrylate					CAS #: 140-88-5		
18.722	18.722 (1.119)	99	2627	1.00000	0.9088	0.00- 0.00	100.00
18.722	18.722 (1.119)	45	4140			0.00- 0.00	157.59
18.722	18.722 (1.119)	55	40635			0.00- 0.00	1546.82
131 2-Pentanone					CAS #: 107-87-9		
18.923	18.923 (1.131)	43	70312	1.00000	0.9370	0.00- 0.00	100.00
18.923	18.923 (1.131)	58	5138			0.00- 0.00	7.31
18.923	18.923 (1.131)	86	10900			0.00- 0.00	15.50
134 Methyl Methacrylate					CAS #: 80-62-6		
19.124	19.124 (1.143)	41	31441	1.00000	0.9625	0.00- 0.00	100.00
19.124	19.124 (1.143)	69	18163			0.00- 0.00	57.77
19.124	19.124 (1.143)	100	6702			0.00- 0.00	21.32
137 Dibromomethane					CAS #: 74-95-3		
19.302	19.302 (1.059)	174	22382	1.00000	0.9781	0.00- 0.00	100.00
19.280	19.280 (1.058)	93	30333			0.00- 0.00	135.52
19.302	19.302 (1.059)	95	24723			0.00- 0.00	110.46
148 Octane					CAS #: 111-65-9		
20.931	20.931 (1.148)	57	33380	1.00000	0.9627	0.00- 0.00	100.00
20.931	20.931 (1.148)	85	32611			0.00- 0.00	97.70
20.931	20.931 (1.148)	43	84314			0.00- 0.00	252.59
157 1,3-Dichloropropane					CAS #: 142-28-9		
22.377	22.377 (1.227)	76	56905	1.00000	0.9802	0.00- 0.00	100.00
22.377	22.377 (1.227)	41	44794			0.00- 0.00	78.72
22.377	22.377 (1.227)	78	18345			0.00- 0.00	32.24
159 Butyl Acetate					CAS #: 123-86-4		
22.551	22.551 (0.949)	56	5888	1.00000	1.001	0.00- 0.00	100.00

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

  159 Butyl Acetate (continued)
 22.551  22.551 (0.949)    73      2957                     0.00-   0.00    50.22
 22.551  22.551 (0.949)    43     12693                     0.00-   0.00   215.57
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    386612 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    255365                   37.02-  97.02    66.05
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 23.947  23.947 (1.008)   131     37804 1.00000   0.9426   0.00-   0.00   100.00
 23.947  23.947 (1.008)   117     26952                    0.00-   0.00    71.29
 23.947  23.947 (1.008)    95     19233                    0.00-   0.00    50.88
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 23.947  23.947 (1.008)    43     86888 1.00000   0.9495   0.00-   0.00   100.00
 23.947  23.947 (1.008)    57     70143                    0.00-   0.00    80.73
 23.947  23.947 (1.008)    85     25167                    0.00-   0.00    28.96
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 24.854  24.854 (1.046)    58     31633 1.00000   0.9166   0.00-   0.00   100.00
 24.854  24.854 (1.046)    43     60417                    0.00-   0.00   190.99
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 25.428  25.428 (1.070)    55     26994 1.00000   0.9113   0.00-   0.00   100.00
 25.428  25.428 (1.070)    98      9902                    0.00-   0.00    36.68
 25.428  25.428 (1.070)    42     18059                    0.00-   0.00    66.90
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 25.675  25.675 (1.081)   156     33258 1.00000    1.012   0.00-   0.00   100.00
 25.675  25.675 (1.081)   158     30022                    0.00-   0.00    90.27
 25.675  25.675 (1.081)    77     64798                    0.00-   0.00   194.83
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 25.751  25.751 (1.084)   110     21885 1.00000    1.018   0.00-   0.00   100.00
 25.751  25.751 (1.084)    75     74978                    0.00-   0.00   342.60
 25.751  25.751 (1.084)    61     17747                    0.00-   0.00    81.09
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 25.808  25.808 (1.086)    57    163175 1.00000   0.9260   0.00-   0.00   100.00
 25.808  25.808 (1.086)    71     63311                    0.00-   0.00    38.80
 25.808  25.808 (1.086)   142      7997                    0.00-   0.00     4.90
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                               CAS #: 95-49-8
 25.883  25.883 (1.089)   126     23691 1.00000   0.9777   0.00-   0.00   100.00
 25.883  25.883 (1.089)    91     77472                    0.00-   0.00   327.01
 25.883  25.883 (1.089)    65      9556                    0.00-   0.00    40.34
-------------------------------------------------------------------------------
```

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

  191 4-Chlorotoluene                                CAS #: 106-43-4
 26.035  26.035 (1.096)   126     19623 1.00000   0.9556   0.00-   0.00   100.00
 26.035  26.035 (1.096)    91     68589                    0.00-   0.00   349.53
 26.035  26.035 (1.096)    63     10126                    0.00-   0.00    51.60
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 26.320  26.320 (1.108)   119     57656 1.00000   0.9574   0.00-   0.00   100.00
 26.320  26.320 (1.108)   134     14734                    0.00-   0.00    25.56
 26.320  26.320 (1.108)    91     47456                    0.00-   0.00    82.31
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 26.414  26.414 (1.112)   167     20589 1.00000   0.9580   0.00-   0.00   100.00
 26.414  26.414 (1.112)   117     25032                    0.00-   0.00   121.58
 26.414  26.414 (1.112)   169     10126                    0.00-   0.00    49.18
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 26.585  26.585 (1.119)   105     98112 1.00000   0.9159   0.00-   0.00   100.00
 26.585  26.585 (1.119)   134     18586                    0.00-   0.00    18.94
 26.585  26.585 (1.119)    91     20794                    0.00-   0.00    21.19
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                       CAS #: 111-44-4
 26.685  26.685 (1.123)    93     59110 1.00000    1.046   0.00-   0.00   100.00
 26.685  26.685 (1.123)    95     18082                    0.00-   0.00    30.59
 26.685  26.685 (1.123)    63     35025                    0.00-   0.00    59.25
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 26.732  26.732 (1.125)   119     73649 1.00000    1.019   0.00-   0.00   100.00
 26.748  26.748 (1.126)   134     19307                    0.00-   0.00    26.21
 26.732  26.732 (1.125)    91     20411                    0.00-   0.00    27.71
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 26.904  26.904 (1.132)   120     31540 1.00000    1.051   0.00-   0.00   100.00
 26.904  26.904 (1.132)   105     77682                    0.00-   0.00   246.30
 26.904  26.904 (1.132)    77     10749                    0.00-   0.00    34.08
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 27.231  27.231 (1.146)   134     23931 1.00000    1.067   0.00-   0.00   100.00
 27.231  27.231 (1.146)    91    102139                    0.00-   0.00   426.81
 27.231  27.231 (1.146)    92     57114                    0.00-   0.00   238.66
-------------------------------------------------------------------------------
  215 Undecane                                       CAS #: 1120-21-4
 27.200  27.200 (1.145)    57    192421 1.00000   0.9310   0.00-   0.00   100.00
 27.200  27.200 (1.145)    43    178545                    0.00-   0.00    92.79
 27.200  27.200 (1.145)    85     49510                    0.00-   0.00    25.73
-------------------------------------------------------------------------------
  221 1,2-Dibromo-3-chloropropane                    CAS #: 96-12-8
 28.338  28.338 (1.193)   157     18401 1.00000   0.9240   0.00-   0.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
221 1,2-Dibromo-3-chloropropane (continued)								
28.338	28.338	(1.193)	75	23892			0.00- 0.00	129.84
28.338	28.338	(1.193)	155	14805			0.00- 0.00	80.46
225 Dodecane						CAS #: 112-40-3		
28.462	28.462	(1.198)	85	53279	1.00000	0.8487	0.00- 0.00	100.00
28.462	28.462	(1.198)	57	190769			0.00- 0.00	358.06
28.462	28.462	(1.198)	43	164209			0.00- 0.00	308.21

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021706.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/17Feb2016.b/2016l0210b.m
Misc Info: 1.0ppbv (5.0ppbv) Combo

Calibration Date: 17-FEB-2016
Calibration Time: 08:39
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	110399	66239	154559	115779	4.87
123 1,4-Difluorobenze	434029	260417	607641	463421	6.77
163 Chlorobenzene-d5	376538	225923	527153	386612	2.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/17Feb2016.b/20021706.d

Date : 17-FEB-2016 11:42

Client ID: Level 8

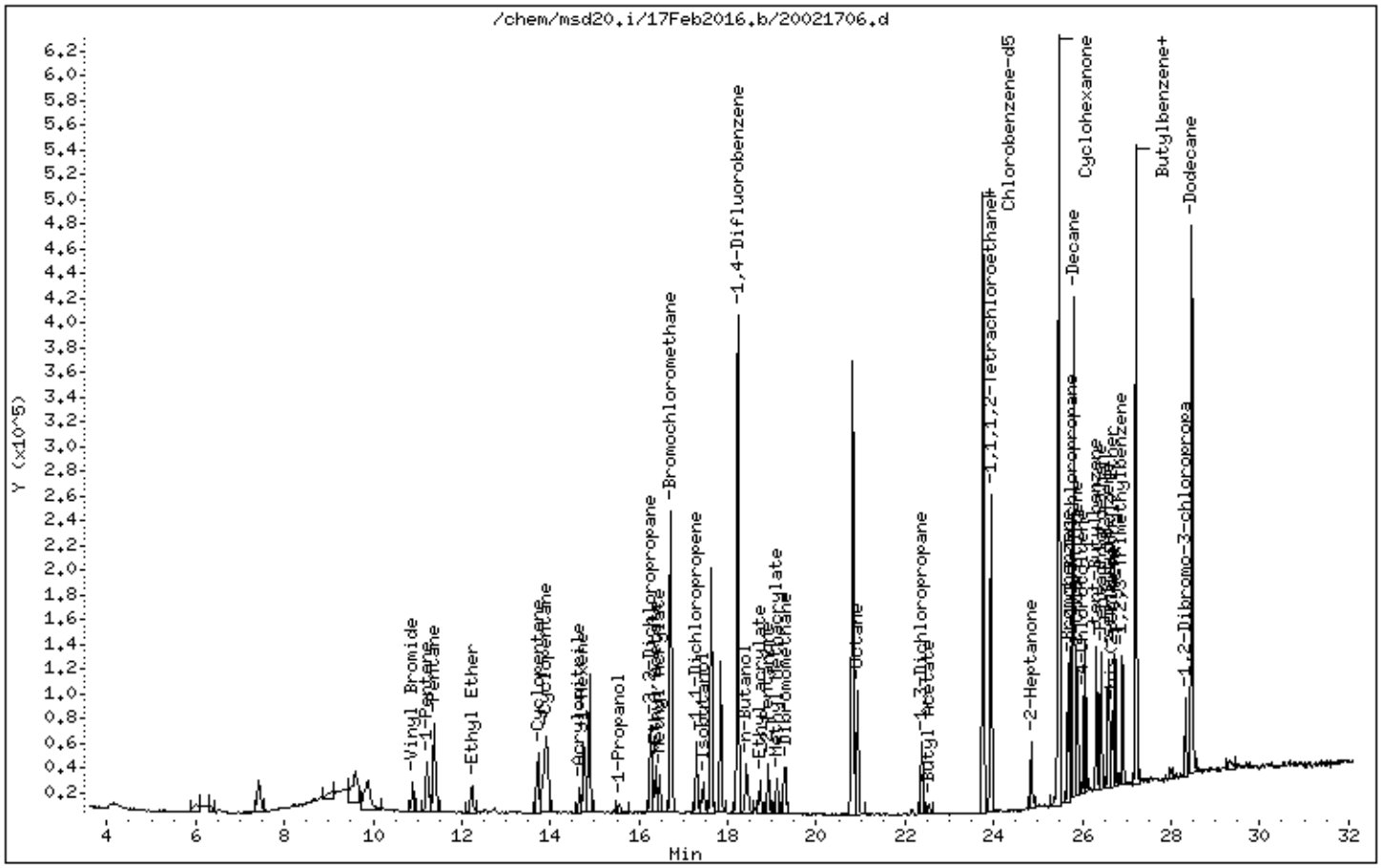
Instrument: msd20.i

Sample Info: 50mL# 2759-263

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021009.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 10-FEB-2016 18:41
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL# 2759-243
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 18:41 Cal File: 20021009.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.214	4.214 (0.252)	41	45987	1.00000	0.9980	80.00- 120.00	100.00(M)
4.166	4.166 (0.249)	42	35131			0.00- 53.15	76.39
4.166	4.166 (0.249)	39	39229			47.58- 107.58	85.30
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	161842	1.00000	1.088	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	27780			1.87- 61.87	17.16
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	82520	1.00000	1.043	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	26761			1.11- 61.11	32.43
6.215	6.215 (0.372)	85	147737			144.76- 204.76	179.03
17 Chloromethane					CAS #: 74-87-3		
6.601	6.601 (0.395)	50	53852	1.00000	1.128	80.00- 120.00	100.00
6.625	6.625 (0.396)	52	17019			2.97- 62.97	31.60

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	11251	1.00000	1.031	80.00- 120.00	100.00
7.434	7.434 (0.444)	43	86603			739.71- 799.71	769.74
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	52827	1.00000	1.066	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	17525			1.00- 61.00	33.17
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	39417	1.00000	0.9977	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	41980			81.21- 141.21	106.50
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	29341	1.00000	1.005	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	26071			64.13- 124.13	88.86
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	23844	1.00000	1.075	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	6714			0.00- 58.76	28.16
10.198	10.198 (0.610)	66	7165			2.67- 62.67	30.05
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	39966	1.00000	1.044	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	62633			130.15- 190.15	156.72
10.367	10.367 (0.620)	42	57895			114.07- 174.07	144.86
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	138382	1.00000	1.041	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	86966			35.32- 95.32	62.84
42 Ethanol					CAS #: 64-17-5		
12.296	12.296 (0.735)	45	15729	1.00000	0.9434	80.00- 120.00	100.00
12.296	12.296 (0.735)	46	6320			10.61- 70.61	40.18
12.296	12.296 (0.735)	43	5695			0.00- 54.10	36.21
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	68853	1.00000	1.068	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	43291			35.03- 95.03	62.87
12.763	12.763 (0.763)	101	97659			120.75- 180.75	141.84
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	26832	1.00000	1.074	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	81712			282.13- 342.13	304.53
12.736	12.736 (0.761)	96	41442			125.40- 185.40	154.45
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	23892	1.00000	1.047	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.093	13.093 (0.783)	43	87699			344.67- 404.67	367.06
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	121647	1.00000	0.9784	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	73983	1.00000	0.9365	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	22237			0.00- 54.80	30.06
13.532	13.532 (0.809)	59	2853			0.00- 33.44	3.86
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	15143	1.00000	0.8392	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	48663			306.81- 366.81	321.36
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	43556	1.00000	1.036	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	66833			122.68- 182.68	153.44
14.027	14.027 (0.839)	51	20515			16.23- 76.23	47.10
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.329	14.329 (0.857)	59	82362	1.00000	0.8873	80.00- 120.00	100.00
14.329	14.329 (0.857)	41	25724			0.00- 58.55	31.23
14.329	14.329 (0.857)	57	9445			0.00- 41.33	11.47
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	127944	1.00000	0.9938	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	30441			0.00- 53.36	23.79
14.439	14.439 (0.863)	41	39111			0.00- 57.08	30.57
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	29796	1.00000	1.070	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	78333			242.30- 302.30	262.90
14.494	14.494 (0.866)	96	46484			130.73- 190.73	156.01
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	68049	1.00000	0.9487	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	52488			38.79- 98.79	77.13
14.878	14.878 (0.889)	86	10883			0.00- 45.75	15.99
83 Isopropyl ether					CAS #: 108-20-3		
15.317	15.317 (0.916)	45	154872	1.00000	0.9552	80.00- 120.00	100.00
15.317	15.317 (0.916)	87	33768			0.00- 52.38	21.80
15.317	15.317 (0.916)	59	17779			0.00- 40.55	11.48
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	100014	1.00000	1.065	80.00- 120.00	100.00

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65     30358                     1.12-  61.12    30.35
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86      7986 1.00000   0.8837  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42      8561                   85.15- 145.15   107.20
 15.400  15.400 (0.921)    43     88531                 1231.92-1291.92  1108.58
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59    141808 1.00000   0.9259  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87     53283                    7.22-  67.22    37.57
 15.909  15.909 (0.951)    41     36617                    0.00-  52.37    25.82
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.323  16.323 (0.976)    98     29145 1.00000    1.014  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61     72459                  215.99- 275.99   248.62
 16.323  16.323 (0.976)    96     47917                  128.72- 188.72   164.41
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72     21256 1.00000   0.9681  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     95055                  429.73- 489.73   447.19
 16.344  16.344 (0.977)    57      6923                    3.86-  63.86    32.57
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.695  16.695 (0.998)    42     52023 1.00000   0.9029  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71     18617                    5.73-  65.73    35.79
 16.695  16.695 (0.998)    72     19381                    7.14-  67.14    37.25
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    122539 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128     93631                   46.65- 106.65    76.41
 16.726  16.726 (1.000)    49    217280                  153.40- 213.40   177.31
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83    107720 1.00000    1.014  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     70144                   34.71-  94.71    65.12
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84     61281 1.00000   0.9966  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     71991                   96.90- 156.90   117.48
 17.035  17.035 (1.018)    41     47706                   49.25- 109.25    77.85
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97    111685 1.00000    1.000  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99     73084                   34.75-  94.75    65.44
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119     86905 1.00000   0.9576  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117     93437                   74.42- 134.42   107.52
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56     62570 1.00000   0.9284  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57    187209                  271.04- 331.04   299.20
 17.579  17.579 (1.051)    41     64439                   64.98- 124.98   102.99
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78    134066 1.00000    1.002  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77     30444                    0.00-  53.23    22.71
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    262440 5.00000    5.243  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    129002                   26.73-  86.73    49.15
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.682  17.682 (0.970)    87     25121 1.00000   0.8699  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    121525                  419.18- 479.18   483.76
 17.703  17.703 (0.971)    55     39286                  109.81- 169.81   156.39
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62     75707 1.00000    1.020  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64     25058                    1.10-  61.10    33.10
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57     36971 1.00000   0.9061  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     11312                    1.33-  61.33    30.60
 17.847  17.847 (0.979)    43     78614                  175.11- 235.11   212.64
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    519888 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88     97546                    0.00-  48.22    18.76
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130     55999 1.00000   0.9870  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95     58301                   84.12- 144.12   104.11
 18.610  18.610 (1.021)    97     36575                   43.34- 103.34    65.31
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83     70027 1.00000   0.8835  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55     64386                   60.57- 120.57    91.94
 18.833  18.833 (1.033)    56     19887                    0.00-  58.53    28.40
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.056  19.056 (1.045)    63     52288 1.00000   0.9186  80.00- 120.00   100.00
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane (continued)							
19.056	19.056 (1.045)	62	37363			42.42- 102.42	71.46
19.056	19.056 (1.045)	41	40466			41.51- 101.51	77.39
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	28553	1.00000	0.9010	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	22774			50.32- 110.32	79.76
19.213	19.213 (1.054)	57	7744			0.00- 56.87	27.12
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	99540	1.00000	0.9465	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	61682			33.43- 93.43	61.97
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	73605	1.00000	0.8428	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	22672			1.18- 61.18	30.80
20.338	20.338 (1.116)	39	46622			30.96- 90.96	63.34
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.128)	43	92328	1.00000	0.8016	80.00- 120.00	100.00
20.557	20.557 (1.128)	58	31441			6.36- 66.36	34.05
20.557	20.557 (1.128)	85	13401			0.00- 44.79	14.51
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	532945	5.00000	5.084	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	72748			0.00- 43.74	13.65
20.821	20.821 (1.142)	100	344427			35.47- 95.47	64.63
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	139083	1.00000	0.9461	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	83763			29.68- 89.68	60.23
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	65092	1.00000	0.8430	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	21811			0.89- 60.89	33.51
21.564	21.564 (0.908)	39	36712			25.98- 85.98	56.40
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	54606	1.00000	0.9305	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	34546			32.06- 92.06	63.26
21.999	21.999 (0.926)	83	49251			59.95- 119.95	90.19
156 Tetrachloroethene					CAS #: 127-18-4		
22.145	22.145 (0.932)	166	58703	1.00000	0.9015	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	51390			51.43- 111.43	87.54
22.174	22.174 (0.933)	131	49437			46.81- 106.81	84.22

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

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58     34972 1.00000   0.6740  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43     73612                  168.77- 228.77   210.49
 22.406  22.406 (0.943)   100      6460                    0.00-  48.17    18.47
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129     76358 1.00000   0.8643  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127     60725                   50.40- 110.40    79.53
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107     76865 1.00000   0.9503  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109     73150                   64.13- 124.13    95.17
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    451847 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    306040                   37.02-  97.02    67.73
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112    109100 1.00000   0.9559  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114     33502                    1.85-  61.85    30.71
 23.823  23.823 (1.003)    77     85152                   40.34- 100.34    78.05
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.905  23.905 (1.006)   106     50268 1.00000   0.9569  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91    165490                  302.97- 362.97   329.22
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106     50235 1.00000   0.8704  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    110923                  185.70- 245.70   220.81
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106     50470 1.00000   0.9309  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    110638                  201.87- 261.87   219.22
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.730  24.730 (1.041)   104     63213 1.00000   0.8222  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78     37859                   30.45-  90.45    59.89
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173     63299 1.00000   0.8157  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171     32166                   22.22-  82.22    50.82
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105    151529 1.00000   0.8414  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120     39016                    0.00-  55.53    25.75
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	222435	5.00000	5.056	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	341801			125.82- 185.82	153.66
25.466	25.466 (1.072)	176	216562			65.90- 125.90	97.36
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	115845	1.00000	0.9514	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	75627			31.99- 91.99	65.28
182 Propylbenzene					CAS #: 103-65-1		
25.713	25.713 (1.082)	91	169306	1.00000	0.8639	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	35192			0.00- 51.03	20.79
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	131385	1.00000	0.8201	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	36692			0.00- 59.04	27.93
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	118043	1.00000	0.8831	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	54958			16.07- 76.07	46.56
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	116204	1.00000	0.8579	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	52467			13.07- 73.07	45.15
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	75091	1.00000	0.8216	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	49469			36.17- 96.17	65.88
26.794	26.794 (1.128)	111	35645			17.10- 77.10	47.47
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.903 (1.132)	146	67052	1.00000	0.8170	80.00- 120.00	100.00
26.903	26.903 (1.132)	148	44552			33.17- 93.17	66.44
26.903	26.903 (1.132)	111	30810			13.98- 73.98	45.95
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.059	27.059 (1.139)	91	95966	1.00000	0.8081	80.00- 120.00	100.00
27.059	27.059 (1.139)	126	16767			0.00- 47.62	17.47
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	68281	1.00000	0.8162	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	43952			33.03- 93.03	64.37
27.371	27.371 (1.152)	111	34266			16.58- 76.58	50.18
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.366 (1.236)	180	67506	1.00000	0.9019	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
29.366	29.366 (1.236)	182	63232			65.16- 125.16	93.67
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	55108	1.00000	0.9408	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	33962			34.44- 94.44	61.63
228 Naphthalene					CAS #: 91-20-3		
29.756	29.756 (1.252)	128	16208	0.10000	0.1030	80.00- 120.00	100.00
29.772	29.772 (1.253)	127	3377			0.00- 42.14	20.84

QC Flag Legend

M - Compound response manually integrated.

Report Date: 11-Feb-2016 12:34

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021009.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	122539	-6.80
123 1,4-Difluorobenze	519912	311947	727877	519888	0.00
163 Chlorobenzene-d5	453774	272264	635284	451847	-0.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021009.d

Date : 10-FEB-2016 18:41

Client ID: Level 8

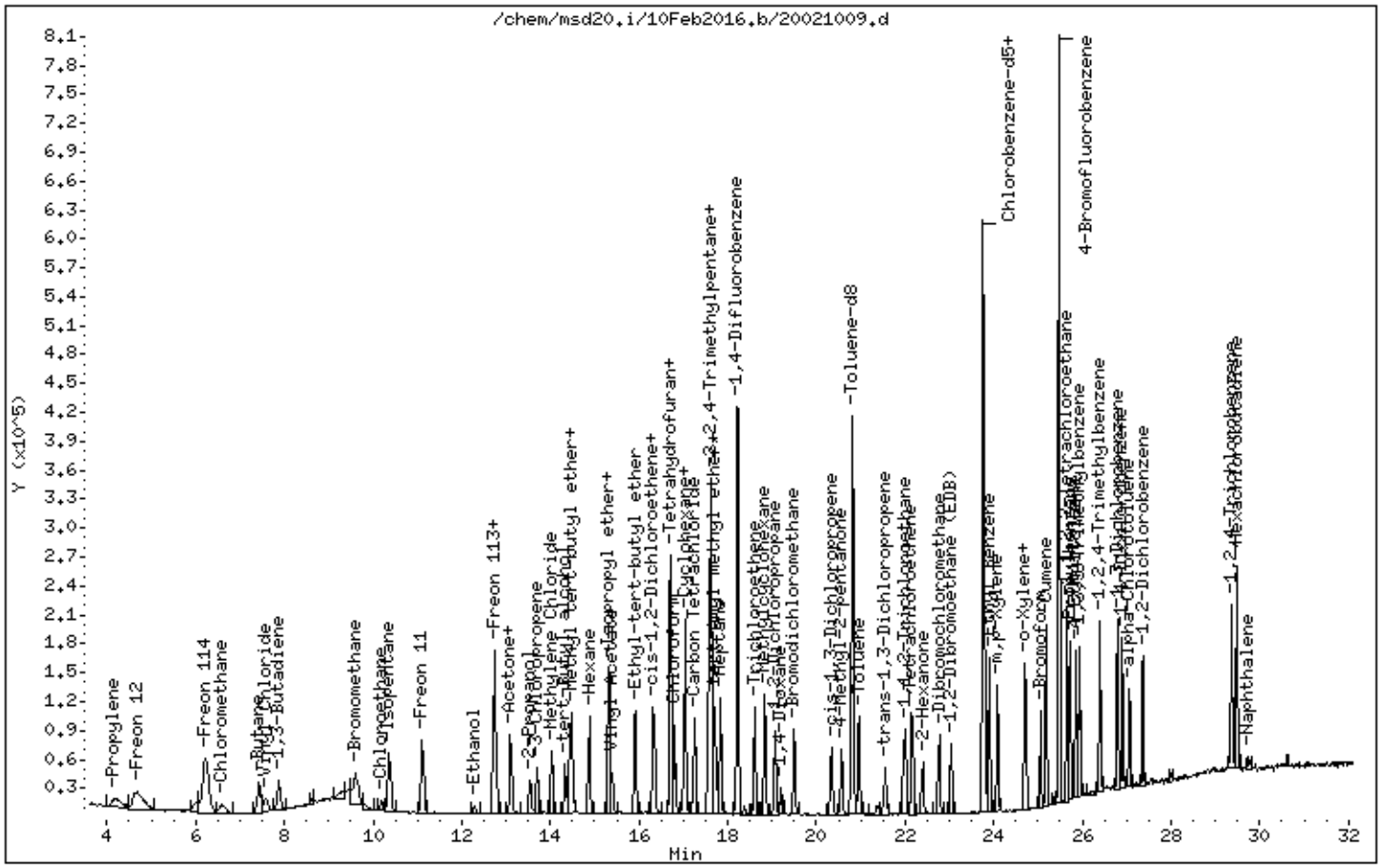
Instrument: msd20.i

Sample Info: 250mL# 2759-243

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/16May2016.b/20051611.d
Lab Smp Id: ICAL Client Smp ID: Level 9
Inj Date : 16-MAY-2016 16:57
Operator : ef Inst ID: msd20.i
Smp Info : 100mL# 2789-143
Misc Info : 2.0ppbv (5.0ppbv) Isobutylene
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Meth Date : 16-May-2016 17:56 mskidmor Quant Type: ISTD
Cal Date : 16-MAY-2016 16:57 Cal File: 20051611.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: IsobutyleneICAL.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
19 Isobutylene					CAS #: 115-11-7		
7.330	7.330 (0.438)	56	50138	2.00000	1.950	0.00- 0.00	100.00
7.330	7.330 (0.438)	41	99284			0.00- 0.00	198.02
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	110737	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	86069			46.65- 106.65	77.72
16.726	16.726 (1.000)	49	182181			153.40- 213.40	164.52
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	419630	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	72653			0.00- 48.22	17.31
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	352931	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	231219			37.02- 97.02	65.51

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051611.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/16May2016.b/2016l0210c.m
Misc Info: 2.0ppbv (5.0ppbv) Isobutylene

Calibration Date: 16-MAY-2016
Calibration Time: 08:38
Client Smp ID: Level 9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117101	70261	163941	110737	-5.43
123 1,4-Difluorobenze	464540	278724	650356	419630	-9.67
163 Chlorobenzene-d5	389521	233713	545329	352931	-9.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/16May2016.b/20051611.d

Date : 16-MAY-2016 16:57

Client ID: Level 9

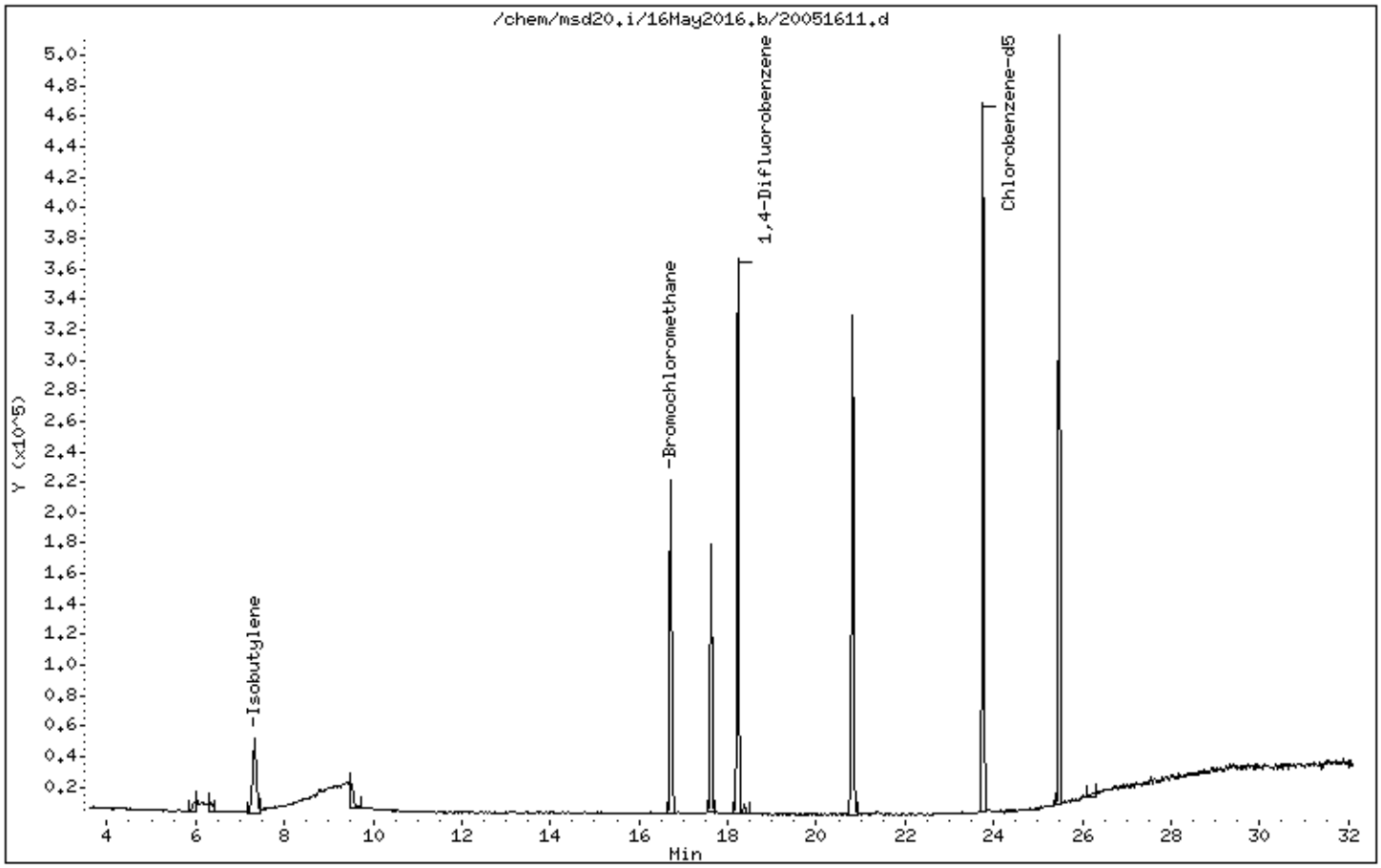
Instrument: msd20.i

Sample Info: 100mL# 2789-143

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/16May2016.b/20051612.d
Lab Smp Id: ICAL Client Smp ID: Level 11
Inj Date : 16-MAY-2016 17:59
Operator : mjs Inst ID: msd20.i
Smp Info : 200mL# 2789-143
Misc Info : 4.0ppbv (5.0ppbv) Isobutylene
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Meth Date : 16-May-2016 18:50 mskidmor Quant Type: ISTD
Cal Date : 16-MAY-2016 17:59 Cal File: 20051612.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: IsobutyleneICAL.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
19 Isobutylene					CAS #: 115-11-7		
7.330	7.330 (0.438)	56	102827	4.00000	4.186	0.00- 0.00	100.00
7.330	7.330 (0.438)	41	199679			0.00- 0.00	194.19
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	104171	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	81591			46.65- 106.65	78.32
16.726	16.726 (1.000)	49	175262			153.40- 213.40	168.24
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	395502	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	70462			0.00- 48.22	17.82
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	338077	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	220738			37.02- 97.02	65.29

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051612.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/16May2016.b/2016l0210c.m
Misc Info: 4.0ppbv (5.0ppbv) Isobutylene

Calibration Date: 16-MAY-2016
Calibration Time: 08:38
Client Smp ID: Level 11
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117101	70261	163941	104171	-11.04
123 1,4-Difluorobenze	464540	278724	650356	395502	-14.86
163 Chlorobenzene-d5	389521	233713	545329	338077	-13.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/16May2016.b/20051612.d

Date : 16-MAY-2016 17:59

Client ID: Level 11

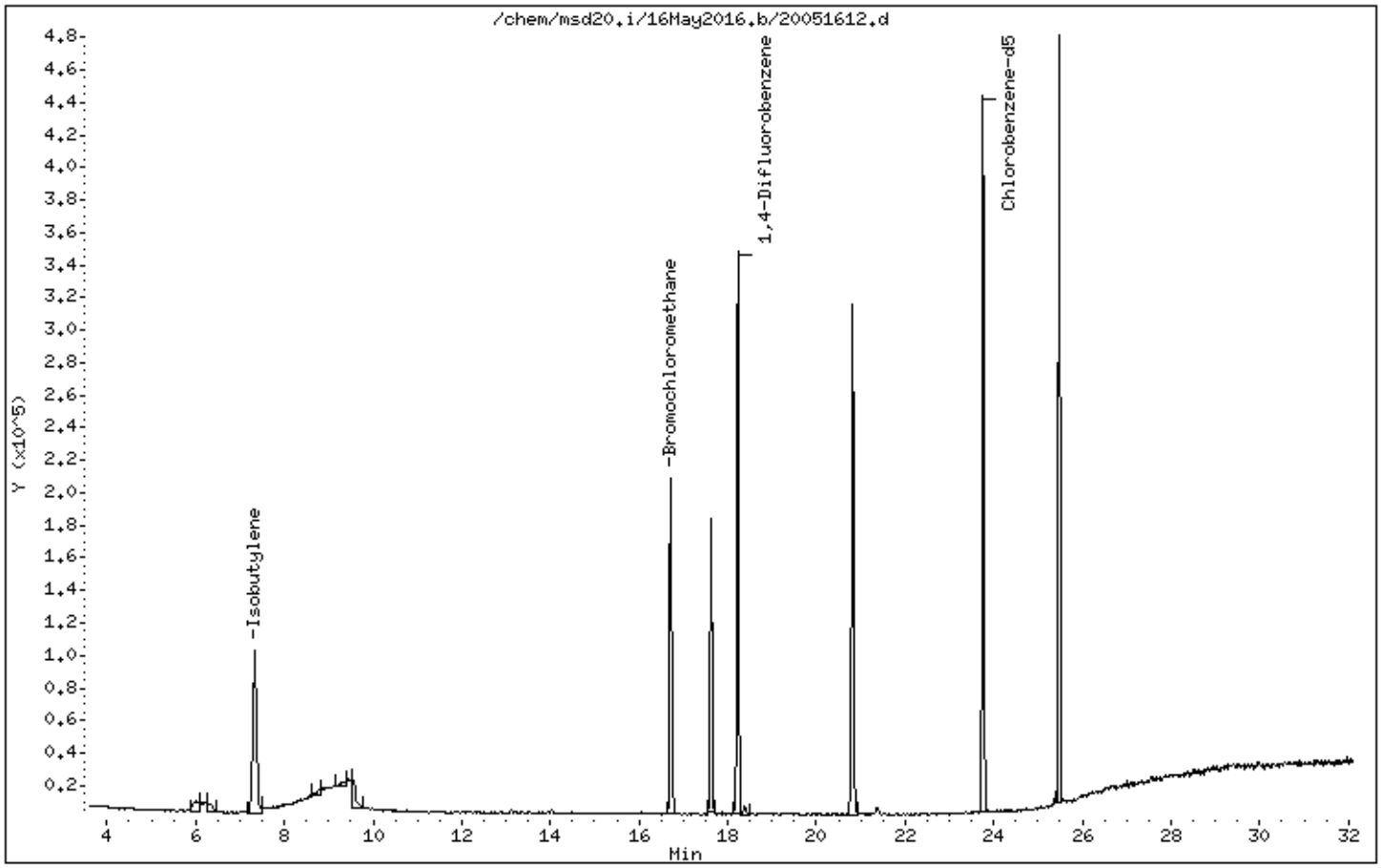
Instrument: msd20.i

Sample Info: 200mL# 2789-143

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/16May2016.b/20051613.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 16-MAY-2016 19:01
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL# 2789-143
Misc Info : 5.0ppbv (5.0ppbv) Isobutylene
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/16May2016.b/2016l0210c.m
Meth Date : 17-May-2016 09:16 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: IsobutyleneICAL.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
19 Isobutylene					CAS #: 115-11-7		
7.330	7.330 (0.438)	56	129219	5.00000	5.253	0.00- 0.00	100.00(A)
7.330	7.330 (0.438)	41	252677			0.00- 0.00	195.54
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	102994	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	81401			46.65- 106.65	79.03
16.726	16.726 (1.000)	49	169467			153.40- 213.40	164.54
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	397722	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	73508			0.00- 48.22	18.48
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	347748	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	225187			37.02- 97.02	64.76

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Report Date: 17-May-2016 09:16

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051613.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/16May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (5.0ppbv) Isobutylene

Calibration Date: 16-MAY-2016
Calibration Time: 08:38
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117101	70261	163941	102994	-12.05
123 1,4-Difluorobenze	464540	278724	650356	397722	-14.38
163 Chlorobenzene-d5	389521	233713	545329	347748	-10.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/16May2016.b/20051613.d

Date : 16-MAY-2016 19:01

Client ID: Level 12

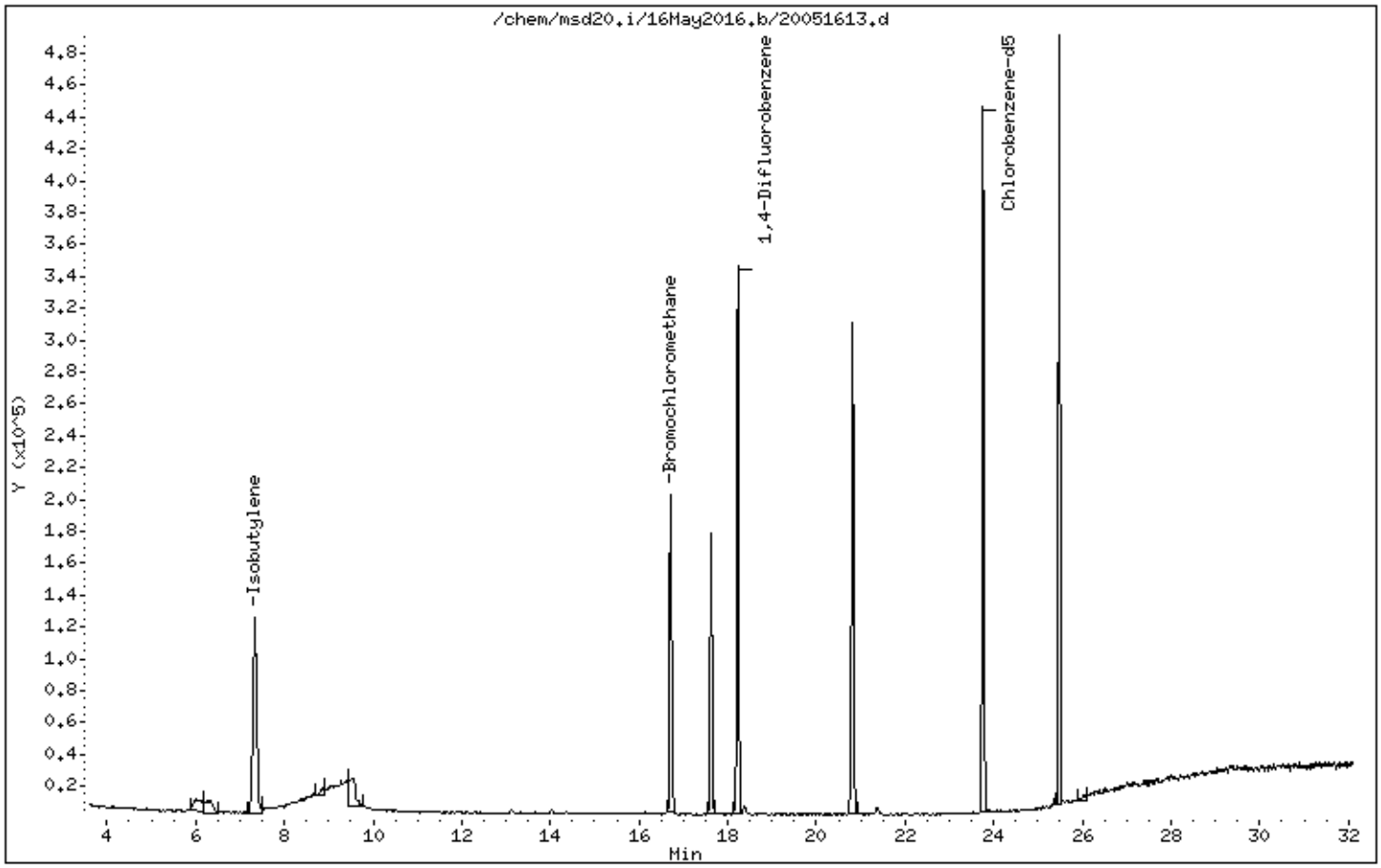
Instrument: msd20.i

Sample Info: 250mL# 2789-143

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/17Feb2016.b/20021707.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 17-FEB-2016 12:22
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 2759-263
Misc Info : 5.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/17Feb2016.b/2016l0210b.m
Meth Date : 17-Feb-2016 14:02 efinn Quant Type: ISTD
Cal Date : 17-FEB-2016 12:22 Cal File: 20021707.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.897	10.897 (0.651)	106	143038	5.00000	4.849	0.00- 0.00	100.00
10.897	10.897 (0.651)	108	134522			0.00- 0.00	94.05
36 1-Pentene					CAS #: 109-67-1		
11.234	11.234 (0.672)	55	179580	5.00000	5.073	0.00- 0.00	100.00
11.234	11.234 (0.672)	42	251514			0.00- 0.00	140.06
34 Pentane					CAS #: 109-66-0		
11.379	11.379 (0.680)	43	502449	5.00000	5.001	0.00- 0.00	100.00
11.379	11.379 (0.680)	57	71968			0.00- 0.00	14.32
11.379	11.379 (0.680)	72	51746			0.00- 0.00	10.30
44 Ethyl Ether					CAS #: 60-29-7		
12.241	12.241 (0.732)	74	84826	5.00000	4.942	0.00- 0.00	100.00(T)
12.241	12.241 (0.732)	59	125324			0.00- 0.00	147.74
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

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

   53 Iodomethane                                     CAS #: 74-88-4
 13.093  13.093 (0.783)   142      1030 5.00000    5.000   0.00-   0.00   100.00
 13.093  13.093 (0.783)   127       387                    0.00-   0.00    37.57
-------------------------------------------------------------------------------
   59 Cyclopentene                                    CAS #: 142-29-0
 13.725  13.725 (0.821)    67    332126 5.00000    5.141   0.00-   0.00   100.00
 13.725  13.725 (0.821)    68    130877                    0.00-   0.00    39.41
 13.725  13.725 (0.821)    53     68749                    0.00-   0.00    20.70
-------------------------------------------------------------------------------
   64 Cyclopentane                                    CAS #: 287-92-3
 13.917  13.917 (0.832)    70    145775 5.00000    4.770   0.00-   0.00   100.00
 13.917  13.917 (0.832)    55    187441                    0.00-   0.00   128.58
-------------------------------------------------------------------------------
   74 Acrylonitrile                                   CAS #: 107-13-1
 14.658  14.658 (0.876)    53    145775 5.00000    5.348   0.00-   0.00   100.00
 14.658  14.658 (0.876)    52    114895                    0.00-   0.00    78.82
-------------------------------------------------------------------------------
   76 1-Hexene                                        CAS #: 592-41-6
 14.741  14.741 (0.881)    55    136385 5.00000    5.365   0.00-   0.00   100.00
 14.741  14.741 (0.881)    41    218195                    0.00-   0.00   159.98
 14.741  14.741 (0.881)    84     50770                    0.00-   0.00    37.23
-------------------------------------------------------------------------------
   84 1-Propanol                                      CAS #: 71-23-8
 15.564  15.564 (0.931)    59     28376 5.00000    5.738   0.00-   0.00   100.00
 15.564  15.564 (0.931)    42     32549                    0.00-   0.00   114.71
 15.564  15.564 (0.931)    41     23549                    0.00-   0.00    82.99
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                             CAS #: 594-20-7
 16.282  16.282 (0.973)    77    382303 5.00000    4.951   0.00-   0.00   100.00
 16.282  16.282 (0.973)    79    120483                    0.00-   0.00    31.52
 16.282  16.282 (0.973)    97     64040                    0.00-   0.00    16.75
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                   CAS #: 141-78-6
 16.365  16.365 (0.978)    70     35513 5.00000    5.141   0.00-   0.00   100.00
 16.365  16.365 (0.978)    43    374760                    0.00-   0.00  1055.28
 16.365  16.365 (0.978)    61     46058                    0.00-   0.00   129.69
-------------------------------------------------------------------------------
   93 Methyl Acrylate                                 CAS #: 96-33-3
 16.448  16.448 (0.983)    55    293038 5.00000    5.641   0.00-   0.00   100.00
 16.448  16.448 (0.983)    85     45204                    0.00-   0.00    15.43
 16.448  16.448 (0.983)    58     27185                    0.00-   0.00     9.28
-------------------------------------------------------------------------------
*  98 Bromochloromethane                              CAS #: 74-97-5
 16.726  16.726 (1.000)   130    117584 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128     90167                   46.65- 106.65    76.68
 16.726  16.726 (1.000)    49    205122                  153.40- 213.40   174.45
-------------------------------------------------------------------------------
```

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

  107 1,1-Dichloropropene                          CAS #: 563-58-6
 17.312  17.312 (1.035)   110     85906 5.00000    5.121   0.00-   0.00   100.00
 17.312  17.312 (1.035)    75    284114                    0.00-   0.00   330.73
-------------------------------------------------------------------------------
  115 Isobutanol                                   CAS #: 78-83-1
 17.456  17.456 (1.044)    43    147246 5.00000    5.466   0.00-   0.00   100.00
 17.456  17.456 (1.044)    41    125631                    0.00-   0.00    85.32
 17.456  17.456 (1.044)    55     13462                    0.00-   0.00     9.14
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.231  18.231 (1.000)   114    487566 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     87916                    0.00-  48.22    18.03
-------------------------------------------------------------------------------
  124 n-Butanol                                    CAS #: 71-36-3
 18.432  18.432 (1.011)    56    217199 5.00000    5.663   0.00-   0.00   100.00
 18.432  18.432 (1.011)    41    193831                    0.00-   0.00    89.24
 18.432  18.432 (1.011)    43    127790                    0.00-   0.00    58.84
-------------------------------------------------------------------------------
  128 Ethyl acrylate                               CAS #: 140-88-5
 18.722  18.722 (1.119)    99     17327 5.00000    5.902   0.00-   0.00   100.00
 18.722  18.722 (1.119)    45     25347                    0.00-   0.00   146.29
 18.722  18.722 (1.119)    55    260663                    0.00-   0.00  1504.37
-------------------------------------------------------------------------------
  131 2-Pentanone                                  CAS #: 107-87-9
 18.923  18.923 (1.131)    43    438089 5.00000    5.748   0.00-   0.00   100.00
 18.923  18.923 (1.131)    58     31653                    0.00-   0.00     7.23
 18.923  18.923 (1.131)    86     67734                    0.00-   0.00    15.46
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                          CAS #: 80-62-6
 19.101  19.101 (1.142)    41    191106 5.00000    5.760   0.00-   0.00   100.00
 19.101  19.101 (1.142)    69    129070                    0.00-   0.00    67.54
 19.123  19.123 (1.143)   100     43169                    0.00-   0.00    22.59
-------------------------------------------------------------------------------
  137 Dibromomethane                               CAS #: 74-95-3
 19.302  19.302 (1.059)   174    121000 5.00000    5.026   0.00-   0.00   100.00
 19.280  19.280 (1.058)    93    158151                    0.00-   0.00   130.70
 19.302  19.302 (1.059)    95    125622                    0.00-   0.00   103.82
-------------------------------------------------------------------------------
  148 Octane                                       CAS #: 111-65-9
 20.930  20.930 (1.148)    57    190424 5.00000    5.220   0.00-   0.00   100.00
 20.930  20.930 (1.148)    85    197257                    0.00-   0.00   103.59
 20.930  20.930 (1.148)    43    513216                    0.00-   0.00   269.51
-------------------------------------------------------------------------------
  157 1,3-Dichloropropane                          CAS #: 142-28-9
 22.377  22.377 (1.227)    76    300425 5.00000    4.918   0.00-   0.00   100.00
 22.377  22.377 (1.227)    41    230033                    0.00-   0.00    76.57
```

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

  157 1,3-Dichloropropane (continued)
 22.377  22.377 (1.227)    78     96763                     0.00-   0.00    32.21
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 22.551  22.551 (0.949)    56     33863 5.00000    5.593   0.00-   0.00   100.00
 22.551  22.551 (0.949)    73     11324                     0.00-   0.00    33.44
 22.551  22.551 (0.949)    43     84320                     0.00-   0.00   249.00
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    397989 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    262897                   37.02-  97.02    66.06
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 23.947  23.947 (1.008)   131    207525 5.00000    5.026   0.00-   0.00   100.00
 23.947  23.947 (1.008)   117    133852                     0.00-   0.00    64.50
 23.947  23.947 (1.008)    95     98889                     0.00-   0.00    47.65
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 23.947  23.947 (1.008)    43    399703 5.00000    4.243   0.00-   0.00   100.00
 23.947  23.947 (1.008)    57    319633                     0.00-   0.00    79.97
 23.947  23.947 (1.008)    85    119994                     0.00-   0.00    30.02
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 24.854  24.854 (1.046)    58    211575 5.00000    5.955   0.00-   0.00   100.00
 24.854  24.854 (1.046)    43    364447                     0.00-   0.00   172.25
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 25.428  25.428 (1.070)    55    168146 5.00000    5.514   0.00-   0.00   100.00
 25.428  25.428 (1.070)    98     66362                     0.00-   0.00    39.47
 25.428  25.428 (1.070)    42    127884                     0.00-   0.00    76.06
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 25.675  25.675 (1.081)   156    163719 5.00000    4.838   0.00-   0.00   100.00
 25.675  25.675 (1.081)   158    158170                     0.00-   0.00    96.61
 25.675  25.675 (1.081)    77    348699                     0.00-   0.00   212.99
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 25.750  25.750 (1.084)   110    109572 5.00000    4.949   0.00-   0.00   100.00
 25.750  25.750 (1.084)    75    395227                     0.00-   0.00   360.70
 25.750  25.750 (1.084)    61     89701                     0.00-   0.00    81.86
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 25.807  25.807 (1.086)    57    758320 5.00000    4.180   0.00-   0.00   100.00
 25.807  25.807 (1.086)    71    287842                     0.00-   0.00    37.96
 25.807  25.807 (1.086)   142     35518                     0.00-   0.00     4.68
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE		RATIO
189 2-Chlorotoluene					CAS #: 95-49-8			
25.883	25.883 (1.089)	126	119165	5.00000	4.777	0.00-	0.00	100.00
25.883	25.883 (1.089)	91	399206			0.00-	0.00	335.00
25.883	25.883 (1.089)	65	42690			0.00-	0.00	35.82
191 4-Chlorotoluene					CAS #: 106-43-4			
26.035	26.035 (1.096)	126	102094	5.00000	4.830	0.00-	0.00	100.00
26.035	26.035 (1.096)	91	339315			0.00-	0.00	332.36
26.035	26.035 (1.096)	63	53297			0.00-	0.00	52.20
195 tert-Butylbenzene					CAS #: 98-06-6			
26.319	26.319 (1.108)	119	298369	5.00000	4.813	0.00-	0.00	100.00
26.319	26.319 (1.108)	134	69591			0.00-	0.00	23.32
26.319	26.319 (1.108)	91	233144			0.00-	0.00	78.14
197 Pentachloroethane					CAS #: 76-01-7			
26.414	26.414 (1.112)	167	118235	5.00000	5.344	0.00-	0.00	100.00
26.414	26.414 (1.112)	117	131055			0.00-	0.00	110.84
26.414	26.414 (1.112)	169	58636			0.00-	0.00	49.59
203 sec-Butylbenzene					CAS #: 135-98-8			
26.585	26.585 (1.119)	105	491443	5.00000	4.456	0.00-	0.00	100.00
26.585	26.585 (1.119)	134	92742			0.00-	0.00	18.87
26.585	26.585 (1.119)	91	84728			0.00-	0.00	17.24
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
26.685	26.685 (1.123)	93	337409	5.00000	5.799	0.00-	0.00	100.00
26.685	26.685 (1.123)	95	104935			0.00-	0.00	31.10
26.685	26.685 (1.123)	63	198257			0.00-	0.00	58.76
207 p-Cymene					CAS #: 99-87-6			
26.732	26.732 (1.125)	119	303914	5.00000	4.085	0.00-	0.00	100.00
26.732	26.732 (1.125)	134	75612			0.00-	0.00	24.88
26.732	26.732 (1.125)	91	85759			0.00-	0.00	28.22
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8			
26.903	26.903 (1.132)	120	132674	5.00000	4.296	0.00-	0.00	100.00
26.903	26.903 (1.132)	105	328875			0.00-	0.00	247.88
26.903	26.903 (1.132)	77	47090			0.00-	0.00	35.49
213 Butylbenzene					CAS #: 104-51-8			
27.231	27.231 (1.146)	134	84286	5.00000	3.651	0.00-	0.00	100.00
27.231	27.231 (1.146)	91	368919			0.00-	0.00	437.70
27.231	27.231 (1.146)	92	198776			0.00-	0.00	235.84
215 Undecane					CAS #: 1120-21-4			
27.200	27.200 (1.145)	57	804022	5.00000	3.779	0.00-	0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
215 Undecane (continued)								
27.200	27.200	(1.145)	43	754593			0.00- 0.00	93.85
27.200	27.200	(1.145)	85	208463			0.00- 0.00	25.93
221 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
28.338	28.338	(1.193)	157	115449	5.00000	5.632	0.00- 0.00	100.00
28.338	28.338	(1.193)	75	153627			0.00- 0.00	133.07
28.338	28.338	(1.193)	155	90173			0.00- 0.00	78.11
225 Dodecane						CAS #: 112-40-3		
28.462	28.462	(1.198)	85	190267	5.00000	2.944	0.00- 0.00	100.00
28.462	28.462	(1.198)	57	636188			0.00- 0.00	334.37
28.462	28.462	(1.198)	43	570534			0.00- 0.00	299.86

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021707.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/17Feb2016.b/2016l0210b.m
Misc Info: 5.0ppbv (5.0ppbv) Combo

Calibration Date: 17-FEB-2016
Calibration Time: 08:39
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	110399	66239	154559	117584	6.51
123 1,4-Difluorobenze	434029	260417	607641	487566	12.33
163 Chlorobenzene-d5	376538	225923	527153	397989	5.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/17Feb2016.b/20021707.d

Date : 17-FEB-2016 12:22

Client ID: Level 12

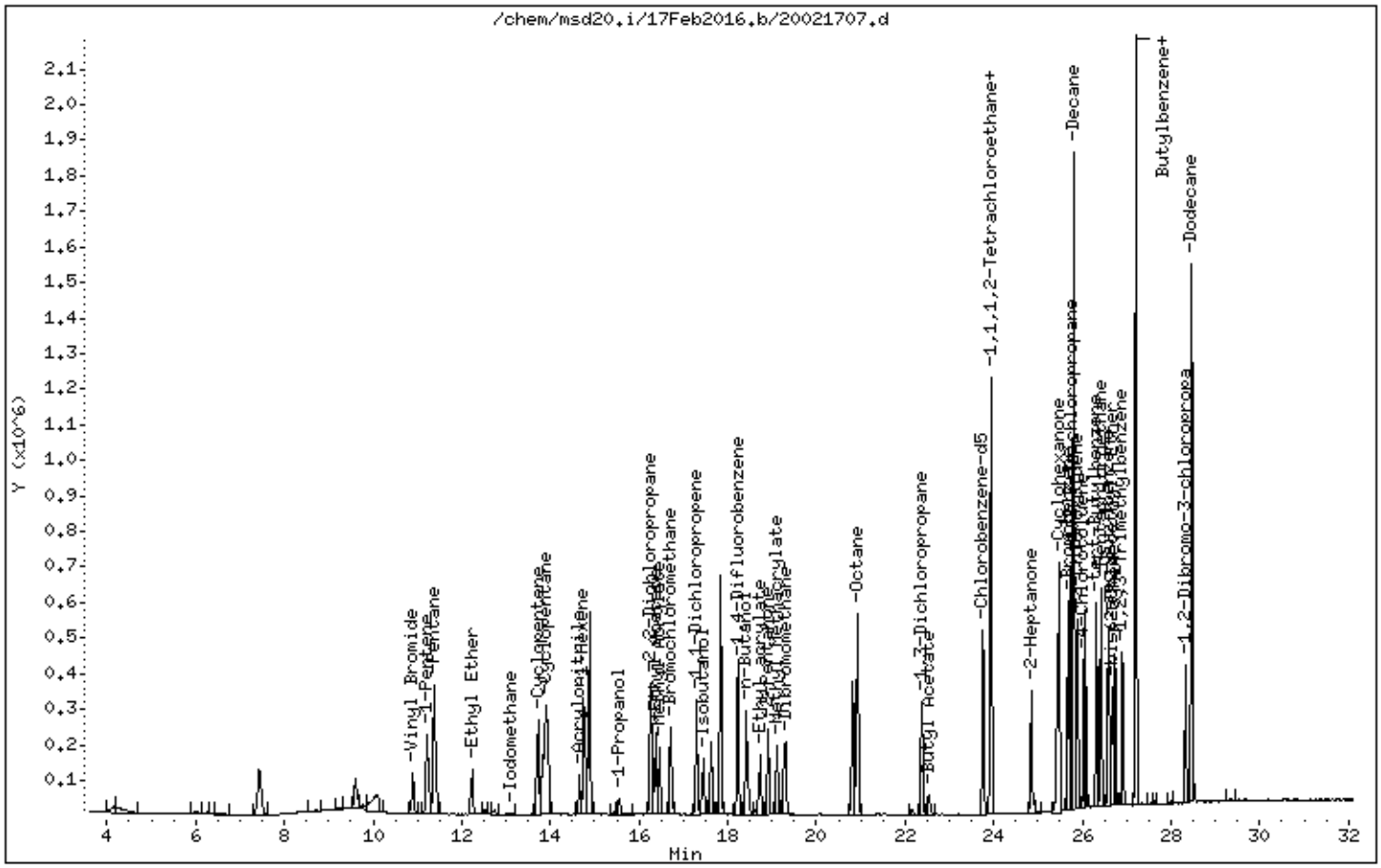
Instrument: msd20.i

Sample Info: 250mL# 2759-263

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021010.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 10-FEB-2016 19:33
Operator : mjs Inst ID: msd20.i
Smp Info : 25mL# 2759-222
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 19:33 Cal File: 20021010.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	267295	5.00000	5.406	80.00- 120.00	100.00
4.118	4.118 (0.246)	42	61883			0.00- 53.15	23.15
4.166	4.166 (0.249)	39	207370			47.58- 107.58	77.58
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	820805	5.00000	5.144	80.00- 120.00	100.00
4.648	4.648 (0.278)	87	261619			1.87- 61.87	31.87
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	412925	5.00000	4.864	80.00- 120.00	100.00
6.191	6.191 (0.370)	137	128452			1.11- 61.11	31.11
6.215	6.215 (0.372)	85	721623			144.76- 204.76	174.76
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	256852	5.00000	5.015	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	84687			2.97- 62.97	32.97

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

   23 Butane                                          CAS #: 106-97-8
  7.434   7.434 (0.444)    58     59170 5.00000    5.055  80.00- 120.00   100.00
  7.416   7.416 (0.443)    43    455436                  739.71- 799.71   769.71
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                  CAS #: 75-01-4
  7.573   7.573 (0.453)    62    268134 5.00000    5.041  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64     83121                    1.00-  61.00    31.00
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                   CAS #: 106-99-0
  7.868   7.868 (0.470)    54    209529 5.00000    4.943  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    233019                   81.21- 141.21   111.21
-------------------------------------------------------------------------------
   29 Bromomethane                                    CAS #: 74-83-9
  9.596   9.596 (0.574)    94    164185 5.00000    5.242  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    154541                   64.13- 124.13    94.13
-------------------------------------------------------------------------------
   30 Chloroethane                                    CAS #: 75-00-3
 10.174  10.174 (0.608)    64    123450 5.00000    5.188  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     35502                    0.00-  58.76    28.76
 10.174  10.174 (0.608)    66     40334                    2.67-  62.67    32.67
-------------------------------------------------------------------------------
   31 Isopentane                                      CAS #: 78-78-4
 10.367  10.367 (0.620)    57    214151 5.00000    5.212  80.00- 120.00   100.00
 10.367  10.367 (0.620)    43    342962                  130.15- 190.15   160.15
 10.367  10.367 (0.620)    42    308527                  114.07- 174.07   144.07
-------------------------------------------------------------------------------
   35 Freon 11                                        CAS #: 75-69-4
 11.114  11.114 (0.664)   101    716459 5.00000    5.024  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    467980                   35.32-  95.32    65.32
-------------------------------------------------------------------------------
   42 Ethanol                                         CAS #: 64-17-5
 12.269  12.269 (0.734)    45     93857 5.00000    5.246  80.00- 120.00   100.00
 12.269  12.269 (0.734)    46     38118                   10.61-  70.61    40.61
 12.269  12.269 (0.734)    43     22619                    0.00-  54.10    24.10
-------------------------------------------------------------------------------
   49 Freon 113                                       CAS #: 76-13-1
 12.763  12.763 (0.763)   151    344580 5.00000    4.982  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153    224090                   35.03-  95.03    65.03
 12.736  12.736 (0.761)   101    519454                  120.75- 180.75   150.75
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                              CAS #: 75-35-4
 12.736  12.736 (0.761)    98    140745 5.00000    5.250  80.00- 120.00   100.00
 12.736  12.736 (0.761)    61    439304                  282.13- 342.13   312.13
 12.736  12.736 (0.761)    96    218724                  125.40- 185.40   155.40
-------------------------------------------------------------------------------
   52 Acetone                                         CAS #: 67-64-1
 13.093  13.093 (0.783)    58    118947 5.00000    4.860  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43    445659                   344.67- 404.67   374.67
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.121  13.121 (0.784)    76    716058 5.00000    5.368  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.533  13.533 (0.809)    45    428908 5.00000    5.060  80.00- 120.00   100.00
 13.533  13.533 (0.809)    43    106360                    0.00-  54.80    24.80
 13.533  13.533 (0.809)    59     14751                    0.00-  33.44     3.44
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76     99110 5.00000    5.119  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41    333808                   306.81- 366.81   336.81
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84    227094 5.00000    5.033  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49    346730                   122.68- 182.68   152.68
 14.027  14.027 (0.839)    51    104985                    16.23-  76.23    46.23
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59    526928 5.00000    5.290  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41    150413                    0.00-  58.55    28.55
 14.329  14.329 (0.857)    57     59684                    0.00-  41.33    11.33
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73    747502 5.00000    5.411  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    174644                    0.00-  53.36    23.36
 14.439  14.439 (0.863)    41    202425                    0.00-  57.08    27.08
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98    150088 5.00000    5.025  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61    408686                   242.30- 302.30   272.30
 14.494  14.494 (0.866)    96    241238                   130.73- 190.73   160.73
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57    419524 5.00000    5.451  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    288581                   38.79-  98.79    68.79
 14.878  14.878 (0.889)    86     66071                    0.00-  45.75    15.75
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45    953079 5.00000    5.478  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    213341                    0.00-  52.38    22.38
 15.317  15.317 (0.916)    59    100564                    0.00-  40.55    10.55
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63    518781 5.00000    5.147  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    161425                     1.12-  61.12    31.12
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86     49150 5.00000    5.068  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42     56597                    85.15- 145.15   115.15
 15.400  15.400 (0.921)    43    620233                  1231.92-1291.92  1261.92
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59    888852 5.00000    5.409  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    330875                     7.22-  67.22    37.22
 15.909  15.909 (0.951)    41    198845                     0.00-  52.37    22.37
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.324  16.324 (0.976)    98    159515 5.00000    5.172  80.00- 120.00   100.00
 16.324  16.324 (0.976)    61    392393                  215.99- 275.99   245.99
 16.324  16.324 (0.976)    96    253186                  128.72- 188.72   158.72
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72    124259 5.00000    5.274  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    571253                  429.73- 489.73   459.73
 16.344  16.344 (0.977)    57     42072                    3.86-  63.86    33.86
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42    332253 5.00000    5.374  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    118698                     5.73-  65.73    35.73
 16.696  16.696 (0.998)    72    123399                     7.14-  67.14    37.14
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    131484 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    100779                   46.65- 106.65    76.65
 16.726  16.726 (1.000)    49    241147                  153.40- 213.40   183.40
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83    586481 5.00000    5.143  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    379537                   34.71-  94.71    64.71
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84    349307 5.00000    5.294  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    443254                   96.90- 156.90   126.90
 17.035  17.035 (1.018)    41    276834                   49.25- 109.25    79.25
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97    608713 5.00000    5.080  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99    394158                   34.75-  94.75    64.75
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119    565559 5.00000    5.808  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    590546                   74.42- 134.42   104.42
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    393179 5.00000    5.437  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   1183622                  271.04- 331.04   301.04
 17.579  17.579 (1.051)    41    373456                   64.98- 124.98    94.98
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.966)    78    728008 5.00000    5.439  80.00- 120.00   100.00
 17.621  17.621 (0.966)    77    169083                    0.00-  53.23    23.23
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    251681 5.00000    4.686  80.00- 120.00   100.00
 17.621  17.621 (1.053)    67    142791                   26.73-  86.73    56.73
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    160325 5.00000    5.552  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    720140                  419.18- 479.18   449.18
 17.682  17.682 (0.970)    55    224145                  109.81- 169.81   139.81
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62    395645 5.00000    5.328  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    123046                    1.10-  61.10    31.10
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    230802 5.00000    5.656  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     72301                    1.33-  61.33    31.33
 17.847  17.847 (0.979)    43    473402                  175.11- 235.11   205.11
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    519912 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88     94746                    0.00-  48.22    18.22
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130    293819 5.00000    5.178  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95    335302                   84.12- 144.12   114.12
 18.610  18.610 (1.021)    97    215495                   43.34- 103.34    73.34
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.834  18.834 (1.033)    83    453279 5.00000    5.718  80.00- 120.00   100.00
 18.834  18.834 (1.033)    55    410529                   60.57- 120.57    90.57
 18.834  18.834 (1.033)    56    129324                    0.00-  58.53    28.53
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.057  19.057 (1.045)    63    307212 5.00000    5.397  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.057  19.057 (1.045)    62    222473                    42.42- 102.42    72.42
 19.057  19.057 (1.045)    41    219695                    41.51- 101.51    71.51
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88    176958 5.00000    5.584  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    142128                    50.32- 110.32    80.32
 19.213  19.213 (1.054)    57     47553                     0.00-  56.87    26.87
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83    587019 5.00000    5.558  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    372343                    33.43-  93.43    63.43
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.339  20.339 (1.116)    75    489831 5.00000    5.609  80.00- 120.00   100.00
 20.339  20.339 (1.116)    77    152709                     1.18-  61.18    31.18
 20.339  20.339 (1.116)    39    298598                    30.96-  90.96    60.96
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.128)    43    674101 5.00000    5.852  80.00- 120.00   100.00
 20.572  20.572 (1.128)    58    245122                     6.36-  66.36    36.36
 20.557  20.557 (1.128)    85     99726                     0.00-  44.79    14.79
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.822  20.822 (1.142)    98    541156 5.00000    5.162  80.00- 120.00   100.00
 20.806  20.806 (1.141)    70     74377                     0.00-  43.74    13.74
 20.822  20.822 (1.142)   100    354315                    35.47-  95.47    65.47
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91    809101 5.00000    5.504  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    482859                    29.68-  89.68    59.68
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75    434167 5.00000    5.599  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    134134                     0.89-  60.89    30.89
 21.564  21.564 (0.908)    39    243065                    25.98-  85.98    55.98
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.000  22.000 (0.926)    97    305010 5.00000    5.175  80.00- 120.00   100.00
 22.000  22.000 (0.926)    99    189281                    32.06-  92.06    62.06
 22.000  22.000 (0.926)    83    274364                    59.95- 119.95    89.95
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.145  22.145 (0.932)   166    347500 5.00000    5.314  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    282985                    51.43- 111.43    81.43
 22.174  22.174 (0.933)   131    266901                    46.81- 106.81    76.81
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58    292132 5.00000    5.606  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43    580681                  168.77- 228.77   198.77
 22.406  22.406 (0.943)   100     53093                    0.00-  48.17    18.17
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129    501130 5.00000    5.648  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    402889                   50.40- 110.40    80.40
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107    452019 5.00000    5.565  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    425466                   64.13- 124.13    94.13
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    453774 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    304135                   37.02-  97.02    67.02
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112    608143 5.00000    5.306  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    193702                    1.85-  61.85    31.85
 23.823  23.823 (1.003)    77    427773                   40.34- 100.34    70.34
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.906  23.906 (1.006)   106    295230 5.00000    5.596  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91    983025                  302.97- 362.97   332.97
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106    315041 5.00000    5.435  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    679547                  185.70- 245.70   215.70
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106    292749 5.00000    5.377  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    678794                  201.87- 261.87   231.87
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.731  24.731 (1.041)   104    426212 5.00000    5.520  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    257646                   30.45-  90.45    60.45
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173    436864 5.00000    5.606  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    228115                   22.22-  82.22    52.22
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105    993954 5.00000    5.496  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    253768                    0.00-  55.53    25.53
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
25.466	25.466 (1.072)	174	217133	5.00000	4.914	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	338329			125.82- 185.82	155.82
25.466	25.466 (1.072)	176	208233			65.90- 125.90	95.90
181 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5	
25.656	25.656 (1.080)	83	675529	5.00000	5.525	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	418763			31.99- 91.99	61.99
182 Propylbenzene						CAS #: 103-65-1	
25.713	25.713 (1.082)	91	976422	5.00000	4.961	80.00- 120.00	100.00
25.713	25.713 (1.082)	120	205356			0.00- 51.03	21.03
188 4-Ethyltoluene						CAS #: 622-96-8	
25.864	25.864 (1.089)	105	764226	5.00000	4.750	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	221897			0.00- 59.04	29.04
190 1,3,5-Trimethylbenzene						CAS #: 108-67-8	
25.940	25.940 (1.092)	105	696692	5.00000	5.190	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	320975			16.07- 76.07	46.07
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6	
26.395	26.395 (1.111)	105	704180	5.00000	5.176	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	303295			13.07- 73.07	43.07
208 1,3-Dichlorobenzene						CAS #: 541-73-1	
26.794	26.794 (1.128)	146	423718	5.00000	4.616	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	280378			36.17- 96.17	66.17
26.794	26.794 (1.128)	111	199591			17.10- 77.10	47.10
209 1,4-Dichlorobenzene						CAS #: 106-46-7	
26.904	26.904 (1.132)	146	379925	5.00000	4.609	80.00- 120.00	100.00
26.904	26.904 (1.132)	148	239991			33.17- 93.17	63.17
26.904	26.904 (1.132)	111	167074			13.98- 73.98	43.98
212 alpha-Chlorotoluene						CAS #: 100-44-7	
27.059	27.059 (1.139)	91	638097	5.00000	5.350	80.00- 120.00	100.00
27.059	27.059 (1.139)	126	112440			0.00- 47.62	17.62
214 1,2-Dichlorobenzene						CAS #: 95-50-1	
27.371	27.371 (1.152)	146	393619	5.00000	4.685	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	248101			33.03- 93.03	63.03
27.371	27.371 (1.152)	111	183337			16.58- 76.58	46.58
226 1,2,4-Trichlorobenzene						CAS #: 120-82-1	
29.367	29.367 (1.236)	180	356227	5.00000	4.739	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 29.367  29.367 (1.236)   182    338995                    65.16- 125.16    95.16
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225    267443 5.00000    4.546  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    172352                    34.44-  94.44    64.44
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.756  29.756 (1.252)   128     82625 0.50000   0.5227  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127     10034                     0.00-  42.14    12.14
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021010.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	131484	0.00
123 1,4-Difluorobenze	519912	311947	727877	519912	0.00
163 Chlorobenzene-d5	453774	272264	635284	453774	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021010.d

Date : 10-FEB-2016 19:33

Client ID: Level 12

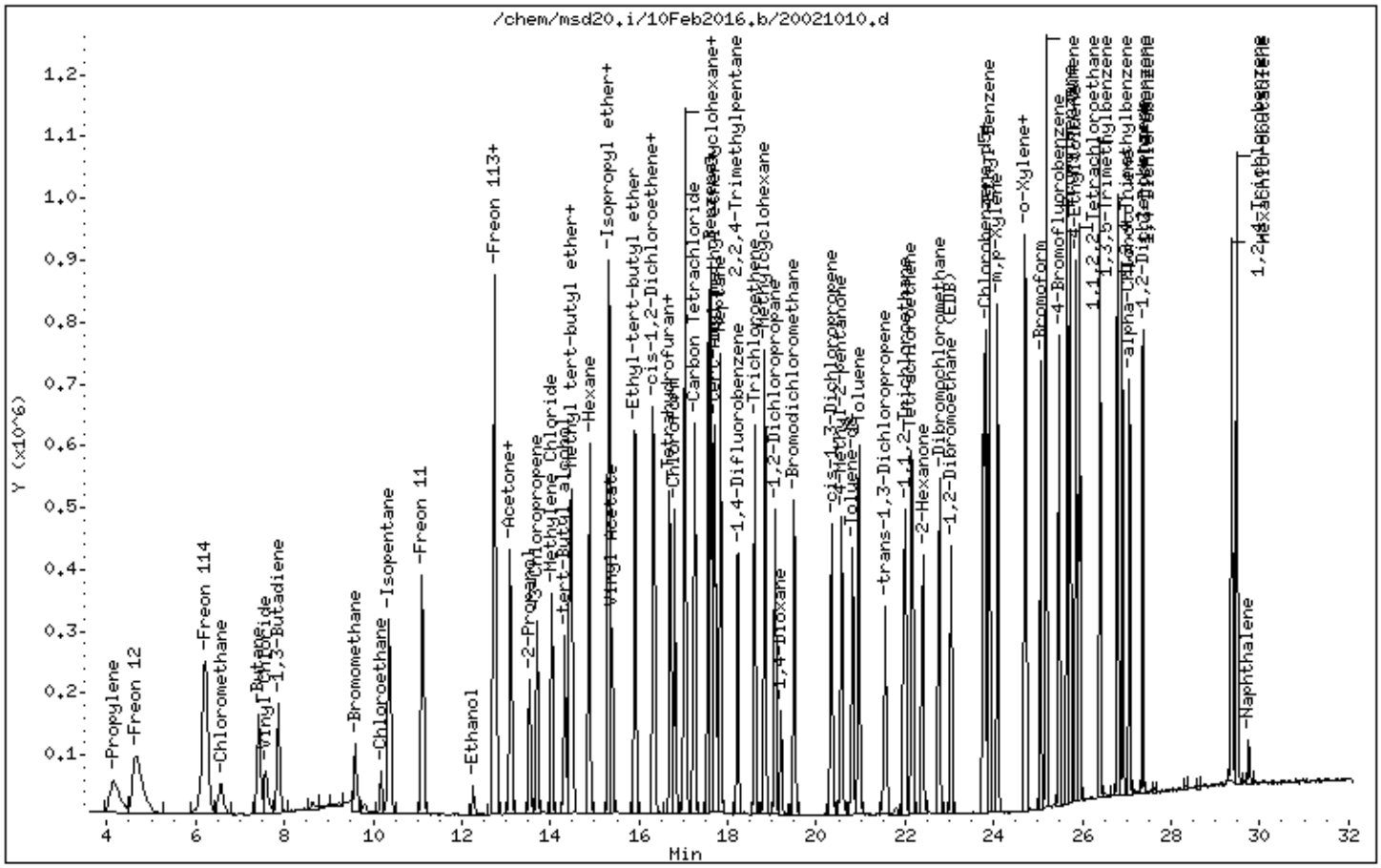
Instrument: msd20.i

Sample Info: 25mL# 2759-222

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021011.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 10-FEB-2016 20:20
Operator : mjs Inst ID: msd20.i
Smp Info : 50mL# 2759-222
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 20:20 Cal File: 20021011.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	536861	10.0000	10.319	80.00- 120.00	100.00
4.142	4.142 (0.248)	42	372350			0.00- 53.15	69.36
4.166	4.166 (0.249)	39	407324			47.58- 107.58	75.87
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	1615722	10.0000	9.623	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	520200			1.87- 61.87	32.20
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	830873	10.0000	9.302	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	257607			1.11- 61.11	31.00
6.215	6.215 (0.372)	85	1424392			144.76- 204.76	171.43
17 Chloromethane					CAS #: 74-87-3		
6.576	6.576 (0.393)	50	508308	10.0000	9.433	80.00- 120.00	100.00
6.576	6.576 (0.393)	52	161877			2.97- 62.97	31.85

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

   23 Butane                                          CAS #: 106-97-8
  7.434   7.434 (0.444)    58    122343 10.0000    9.934  80.00- 120.00   100.00
  7.434   7.434 (0.444)    43    931236                  739.71- 799.71   761.17
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                  CAS #: 75-01-4
  7.573   7.573 (0.453)    62    543147 10.0000    9.704  80.00- 120.00   100.00
  7.590   7.590 (0.454)    64    173609                    1.00-  61.00    31.96
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                   CAS #: 106-99-0
  7.868   7.868 (0.470)    54    433260 10.0000    9.713  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    476701                   81.21- 141.21   110.03
-------------------------------------------------------------------------------
   29 Bromomethane                                    CAS #: 74-83-9
  9.596   9.596 (0.574)    94    364961 10.0000   11.073  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    338105                   64.13- 124.13    92.64
-------------------------------------------------------------------------------
   30 Chloroethane                                    CAS #: 75-00-3
 10.198  10.198 (0.610)    64    250836 10.0000   10.018  80.00- 120.00   100.00
 10.198  10.198 (0.610)    49     72445                    0.00-  58.76    28.88
 10.198  10.198 (0.610)    66     76854                    2.67-  62.67    30.64
-------------------------------------------------------------------------------
   31 Isopentane                                      CAS #: 78-78-4
 10.367  10.367 (0.620)    57    431160 10.0000    9.973  80.00- 120.00   100.00
 10.367  10.367 (0.620)    43    675294                  130.15- 190.15   156.62
 10.367  10.367 (0.620)    42    607926                  114.07- 174.07   141.00
-------------------------------------------------------------------------------
   35 Freon 11                                        CAS #: 75-69-4
 11.114  11.114 (0.664)   101   1404157 10.0000    9.358  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    901302                   35.32-  95.32    64.19
-------------------------------------------------------------------------------
   42 Ethanol                                         CAS #: 64-17-5
 12.269  12.269 (0.734)    45    193682 10.0000   10.289  80.00- 120.00   100.00
 12.269  12.269 (0.734)    46     75692                   10.61-  70.61    39.08
 12.269  12.269 (0.734)    43     45549                    0.00-  54.10    23.52
-------------------------------------------------------------------------------
   49 Freon 113                                       CAS #: 76-13-1
 12.763  12.763 (0.763)   151    672730 10.0000    9.244  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153    430644                   35.03-  95.03    64.01
 12.763  12.763 (0.763)   101   1016772                  120.75- 180.75   151.14
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                              CAS #: 75-35-4
 12.736  12.736 (0.761)    98    278462 10.0000    9.872  80.00- 120.00   100.00
 12.736  12.736 (0.761)    61    877076                  282.13- 342.13   314.97
 12.736  12.736 (0.761)    96    441759                  125.40- 185.40   158.64
-------------------------------------------------------------------------------
   52 Acetone                                         CAS #: 67-64-1
 13.093  13.093 (0.783)    58    250924 10.0000    9.742  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.093	13.093 (0.783)	43	897776			344.67- 404.67	357.79
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	1438190	10.0000	10.245	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	923104	10.0000	10.350	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	213328			0.00- 54.80	23.11
13.532	13.532 (0.809)	59	34148			0.00- 33.44	3.70
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	210934	10.0000	10.353	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	694421			306.81- 366.81	329.21
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	454277	10.0000	9.569	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	686471			122.68- 182.68	151.11
14.027	14.027 (0.839)	51	208205			16.23- 76.23	45.83
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.329	14.329 (0.857)	59	1125336	10.0000	10.738	80.00- 120.00	100.00
14.329	14.329 (0.857)	41	301675			0.00- 58.55	26.81
14.329	14.329 (0.857)	57	125830			0.00- 41.33	11.18
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1517802	10.0000	10.442	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	350494			0.00- 53.36	23.09
14.439	14.439 (0.863)	41	393876			0.00- 57.08	25.95
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.493	14.493 (0.866)	98	302907	10.0000	9.638	80.00- 120.00	100.00
14.493	14.493 (0.866)	61	798256			242.30- 302.30	263.53
14.493	14.493 (0.866)	96	470875			130.73- 190.73	155.45
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	827162	10.0000	10.214	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	580478			38.79- 98.79	70.18
14.878	14.878 (0.889)	86	131597			0.00- 45.75	15.91
83 Isopropyl ether					CAS #: 108-20-3		
15.317	15.317 (0.916)	45	1904533	10.0000	10.404	80.00- 120.00	100.00
15.317	15.317 (0.916)	87	431533			0.00- 52.38	22.66
15.317	15.317 (0.916)	59	203864			0.00- 40.55	10.70
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	1021401	10.0000	9.631	80.00- 120.00	100.00

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    321306                     1.12-  61.12    31.46
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.399  15.399 (0.921)    86    113685 10.0000   11.142  80.00- 120.00   100.00
 15.399  15.399 (0.921)    42    119093                    85.15- 145.15   104.76
 15.399  15.399 (0.921)    43   1350043                  1231.92-1291.92  1187.53
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59   1821739 10.0000   10.535  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    682372                     7.22-  67.22    37.46
 15.909  15.909 (0.951)    41    389222                     0.00-  52.37    21.37
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.323  16.323 (0.976)    98    317990 10.0000    9.799  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61    785710                   215.99- 275.99   247.09
 16.323  16.323 (0.976)    96    506877                   128.72- 188.72   159.40
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72    261322 10.0000   10.542  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   1159395                   429.73- 489.73   443.67
 16.344  16.344 (0.977)    57     85831                     3.86-  63.86    32.84
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.695  16.695 (0.998)    42    686081 10.0000   10.547  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71    237549                     5.73-  65.73    34.62
 16.695  16.695 (0.998)    72    259017                     7.14-  67.14    37.75
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    138353 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    107961                    46.65- 106.65    78.03
 16.726  16.726 (1.000)    49    248951                   153.40- 213.40   179.94
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83   1158129 10.0000    9.651  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    740939                    34.71-  94.71    63.98
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84    710976 10.0000   10.240  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    898951                    96.90- 156.90   126.44
 17.035  17.035 (1.018)    41    543245                    49.25- 109.25    76.41
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97   1203186 10.0000    9.542  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99    775283                    34.75-  94.75    64.44
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   1131973 10.0000   11.048  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117   1177696                   74.42- 134.42   104.04
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    825273 10.0000   10.846  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   2413241                  271.04- 331.04   292.42
 17.579  17.579 (1.051)    41    726568                   64.98- 124.98    88.04
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78   1413234 10.0000    9.857  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77    337014                    0.00-  53.23    23.85
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    277577 5.00000    4.911  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    160801                   26.73-  86.73    57.93
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    332205 10.0000   10.740  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73   1469298                  419.18- 479.18   442.29
 17.703  17.703 (0.971)    55    422673                  109.81- 169.81   127.23
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62    777999 10.0000    9.782  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    249687                    1.10-  61.10    32.09
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    477442 10.0000   10.924  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    146451                    1.33-  61.33    30.67
 17.847  17.847 (0.979)    43    945752                  175.11- 235.11   198.09
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    556853 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88     98232                    0.00-  48.22    17.64
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130    590560 10.0000    9.718  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95    667265                   84.12- 144.12   112.99
 18.610  18.610 (1.021)    97    414325                   43.34- 103.34    70.16
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83    910112 10.0000   10.720  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55    824750                   60.57- 120.57    90.62
 18.833  18.833 (1.033)    56    261735                    0.00-  58.53    28.76
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.056  19.056 (1.045)    63    608396 10.0000    9.978  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.056  19.056 (1.045)    62    438953                    42.42- 102.42    72.15
 19.056  19.056 (1.045)    41    429404                    41.51- 101.51    70.58
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88    372970 10.0000   10.988  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    295268                    50.32- 110.32    79.17
 19.213  19.213 (1.054)    57     98650                     0.00-  56.87    26.45
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   1177785 10.0000   10.663  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    746122                    33.43-  93.43    63.35
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75   1021549 10.0000   10.921  80.00- 120.00   100.00
 20.338  20.338 (1.116)    77    323952                     1.18-  61.18    31.71
 20.338  20.338 (1.116)    39    615945                    30.96-  90.96    60.30
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.556  20.556 (1.128)    43   1443855 10.0000   11.704  80.00- 120.00   100.00
 20.556  20.556 (1.128)    58    522642                     6.36-  66.36    36.20
 20.572  20.572 (1.128)    85    208394                     0.00-  44.79    14.43
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    567463 5.00000    5.054  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     78102                     0.00-  43.74    13.76
 20.821  20.821 (1.142)   100    377294                    35.47-  95.47    66.49
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91   1622767 10.0000   10.306  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    958988                    29.68-  89.68    59.10
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75    904763 10.0000   11.158  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    281521                     0.89-  60.89    31.12
 21.535  21.535 (0.906)    39    496905                    25.98-  85.98    54.92
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97    609642 10.0000    9.892  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99    370832                    32.06-  92.06    60.83
 21.999  21.999 (0.926)    83    542030                    59.95- 119.95    88.91
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.145  22.145 (0.932)   166    689454 10.0000   10.082  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    573067                    51.43- 111.43    83.12
 22.145  22.145 (0.932)   131    554157                    46.81- 106.81    80.38
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58    647172 10.0000   11.875  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43   1282729                  168.77- 228.77   198.21
 22.406  22.406 (0.943)   100    117958                    0.00-  48.17    18.23
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129   1063396 10.0000   11.461  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    828689                   50.40- 110.40    77.93
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107    915888 10.0000   10.782  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    862995                   64.13- 124.13    94.22
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    474541 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    322045                   37.02-  97.02    67.86
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112   1224850 10.0000   10.219  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    387198                    1.85-  61.85    31.61
 23.823  23.823 (1.003)    77    841193                   40.34- 100.34    68.68
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.905  23.905 (1.006)   106    602687 10.0000   10.924  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91   2022687                  302.97- 362.97   335.61
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106    643772 10.0000   10.621  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   1410559                  185.70- 245.70   219.11
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106    617871 10.0000   10.852  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   1420772                  201.87- 261.87   229.95
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.730  24.730 (1.041)   104    918932 10.0000   11.381  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78    573426                   30.45-  90.45    62.40
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173    961073 10.0000   11.792  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    489352                   22.22-  82.22    50.92
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105   2125297 10.0000   11.237  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    534438                    0.00-  55.53    25.15
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    229863 5.00000    4.975  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    368335                  125.82- 185.82   160.24
 25.466  25.466 (1.072)   176    227103                   65.90- 125.90    98.80
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83   1357467 10.0000   10.616  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    857326                   31.99-  91.99    63.16
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.712  25.712 (1.082)    91   2078904 10.0000   10.101  80.00- 120.00   100.00
 25.712  25.712 (1.082)   120    427223                    0.00-  51.03    20.55
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105   1550440 10.0000    9.215  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    449131                    0.00-  59.04    28.97
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105   1379896 10.0000    9.830  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    636640                   16.07-  76.07    46.14
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105   1313882 10.0000    9.236  80.00- 120.00   100.00
 26.395  26.395 (1.111)   120    567502                   13.07-  73.07    43.19
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.794  26.794 (1.128)   146    874956 10.0000    9.116  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148    568053                   36.17-  96.17    64.92
 26.794  26.794 (1.128)   111    404769                   17.10-  77.10    46.26
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.903  26.903 (1.132)   146    796804 10.0000    9.244  80.00- 120.00   100.00
 26.903  26.903 (1.132)   148    503022                   33.17-  93.17    63.13
 26.903  26.903 (1.132)   111    345147                   13.98-  73.98    43.32
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.059  27.059 (1.139)    91   1434202 10.0000   11.500  80.00- 120.00   100.00
 27.059  27.059 (1.139)   126    262111                    0.00-  47.62    18.28
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146    810546 10.0000    9.225  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    508607                   33.03-  93.03    62.75
 27.371  27.371 (1.152)   111    378985                   16.58-  76.58    46.76
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.366  29.366 (1.236)   180    720637 10.0000    9.168  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.366	29.366	(1.236)	182	689412			65.16- 125.16	95.67
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	543508	10.0000	8.835	80.00- 120.00	100.00
29.491	29.491	(1.241)	223	337260			34.44- 94.44	62.05
228 Naphthalene						CAS #: 91-20-3		
29.756	29.756	(1.252)	128	177898	1.00000	1.076	80.00- 120.00	100.00
29.756	29.756	(1.252)	127	23610			0.00- 42.14	13.27

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021011.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	138353	5.22
123 1,4-Difluorobenze	519912	311947	727877	556853	7.11
163 Chlorobenzene-d5	453774	272264	635284	474541	4.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021011.d

Date : 10-FEB-2016 20:20

Client ID: Level 13

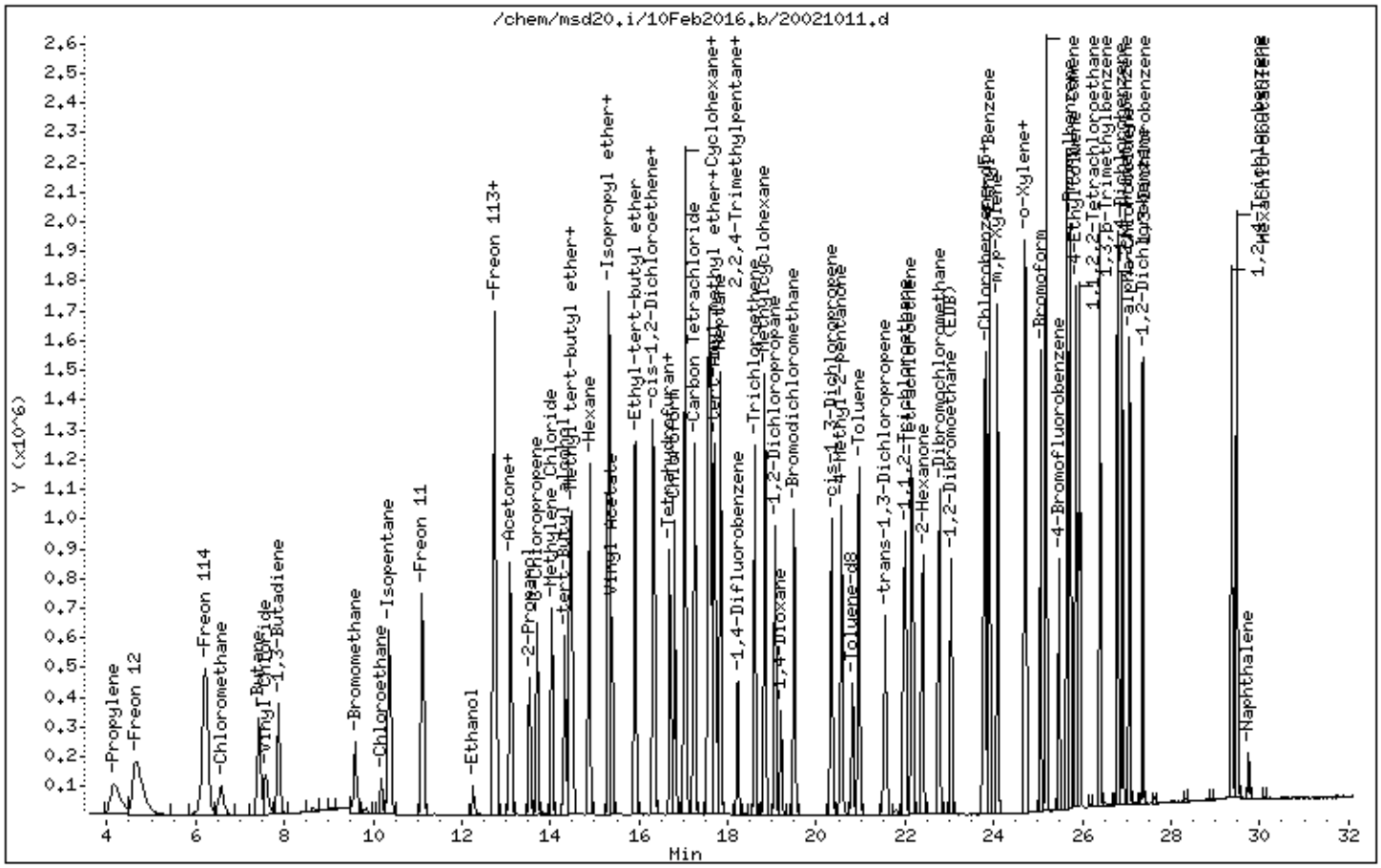
Instrument: msd20.i

Sample Info: 50mL# 2759-222

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021012.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 10-FEB-2016 21:03
Operator : mjs Inst ID: msd20.i
Smp Info : 100mL# 2759-222
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 21:03 Cal File: 20021012.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.190	4.190 (0.250)	41	1098808	20.0000	19.597	80.00- 120.00	100.00
4.166	4.166 (0.249)	42	741402			0.00- 53.15	67.47
4.190	4.190 (0.250)	39	817303			47.58- 107.58	74.38
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	3192188	20.0000	17.641	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	1033974			1.87- 61.87	32.39
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	1699821	20.0000	17.657	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	531858			1.11- 61.11	31.29
6.215	6.215 (0.372)	85	2879807			144.76- 204.76	169.42
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	1015108	20.0000	17.478	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	333226			2.97- 62.97	32.83

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	255669	20.0000	19.262	80.00- 120.00	100.00
7.434	7.434 (0.444)	43	1930911			739.71- 799.71	755.24
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	1106734	20.0000	18.347	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	350311			1.00- 61.00	31.65
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	898100	20.0000	18.681	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	980501			81.21- 141.21	109.18
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	699454	20.0000	19.691	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	653113			64.13- 124.13	93.37
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	519123	20.0000	19.236	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	140462			0.00- 58.76	27.06
10.198	10.198 (0.610)	66	163023			2.67- 62.67	31.40
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	888198	20.0000	19.062	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	1394260			130.15- 190.15	156.98
10.367	10.367 (0.620)	42	1239838			114.07- 174.07	139.59
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	2850980	20.0000	17.630	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	1821710			35.32- 95.32	63.90
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	426356	20.0000	21.014	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	171705			10.61- 70.61	40.27
12.269	12.269 (0.734)	43	96174			0.00- 54.10	22.56
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	1412073	20.0000	18.004	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	903107			35.03- 95.03	63.96
12.763	12.763 (0.763)	101	2077855			120.75- 180.75	147.15
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	583161	20.0000	19.181	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	1826213			282.13- 342.13	313.16
12.736	12.736 (0.761)	96	926680			125.40- 185.40	158.91
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	523067	20.0000	18.843	80.00- 120.00	100.00

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43   1887879                   344.67- 404.67   360.92
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.120  13.120 (0.784)    76   3021443 20.0000   19.971  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.532  13.532 (0.809)    45   2027909 20.0000   21.096  80.00- 120.00   100.00
 13.532  13.532 (0.809)    43    433842                    0.00-  54.80    21.39
 13.532  13.532 (0.809)    59     72756                    0.00-  33.44     3.59
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76    452308 20.0000   20.598  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41   1481237                   306.81- 366.81   327.48
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84    936387 20.0000   18.300  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49   1417571                   122.68- 182.68   151.39
 14.027  14.027 (0.839)    51    426015                    16.23-  76.23    45.50
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59   2427508 20.0000   21.491  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41    608577                    0.00-  58.55    25.07
 14.329  14.329 (0.857)    57    272794                    0.00-  41.33    11.24
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73   3168595 20.0000   20.226  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    716899                    0.00-  53.36    22.63
 14.439  14.439 (0.863)    41    782500                    0.00-  57.08    24.70
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98    620660 20.0000   18.323  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61   1628675                   242.30- 302.30   262.41
 14.494  14.494 (0.866)    96    984985                   130.73- 190.73   158.70
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57   1707820 20.0000   19.566  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43   1188150                    38.79-  98.79    69.57
 14.878  14.878 (0.889)    86    279255                    0.00-  45.75    16.35
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45   3967534 20.0000   20.109  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    899544                    0.00-  52.38    22.67
 15.317  15.317 (0.916)    59    423173                    0.00-  40.55    10.67
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63   2087060 20.0000   18.260  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    659129                     1.12-  61.12    31.58
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.400  15.400 (0.921)    86    254270 20.0000   23.121  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42    255601                   85.15- 145.15   100.52
 15.400  15.400 (0.921)    43   3020111                 1231.92-1291.92  1187.76
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.909  15.909 (0.951)    59   3865693 20.0000   20.742  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87   1447666                    7.22-  67.22    37.45
 15.909  15.909 (0.951)    41    775421                    0.00-  52.37    20.06
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.323  16.323 (0.976)    98    667508 20.0000   19.085  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61   1614511                  215.99- 275.99   241.87
 16.323  16.323 (0.976)    96   1051708                  128.72- 188.72   157.56
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72    546393 20.0000   20.451  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   2433506                  429.73- 489.73   445.38
 16.344  16.344 (0.977)    57    181466                    3.86-  63.86    33.21
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 16.695  16.695 (0.998)    42   1454439 20.0000   20.745  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71    523419                    5.73-  65.73    35.99
 16.695  16.695 (0.998)    72    547098                    7.14-  67.14    37.62
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    149113 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    114797                   46.65- 106.65    76.99
 16.726  16.726 (1.000)    49    271305                  153.40- 213.40   181.95
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83   2405131 20.0000   18.597  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85   1535924                   34.71-  94.71    63.86
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84   1483043 20.0000   19.820  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   1869553                   96.90- 156.90   126.06
 17.035  17.035 (1.018)    41   1150914                   49.25- 109.25    77.60
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97   2532991 20.0000   18.639  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99   1615280                   34.75-  94.75    63.77
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   2414687 20.0000   21.866  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117   2504012                   74.42- 134.42   103.70
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56   1723481 20.0000   21.016  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   5136539                  271.04- 331.04   298.03
 17.579  17.579 (1.051)    41   1502095                   64.98- 124.98    87.15
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78   2974984 20.0000   19.132  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77    711225                    0.00-  53.23    23.91
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    312424 5.00000    5.129  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    193779                   26.73-  86.73    62.02
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    713247 20.0000   21.260  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73   3102150                  419.18- 479.18   434.93
 17.703  17.703 (0.971)    55    865341                  109.81- 169.81   121.32
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62   1637375 20.0000   18.981  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    524138                    1.10-  61.10    32.01
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    993550 20.0000   20.959  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    307989                    1.33-  61.33    31.00
 17.847  17.847 (0.979)    43   1994120                  175.11- 235.11   200.71
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    603981 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88    108945                    0.00-  48.22    18.04
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130   1252934 20.0000   19.008  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95   1376206                   84.12- 144.12   109.84
 18.610  18.610 (1.021)    97    886335                   43.34- 103.34    70.74
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83   1897646 20.0000   20.608  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55   1687825                   60.57- 120.57    88.94
 18.833  18.833 (1.033)    56    551757                    0.00-  58.53    29.08
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.056  19.056 (1.045)    63   1290789 20.0000   19.519  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane (continued)							
19.056	19.056 (1.045)	62	931925			42.42- 102.42	72.20
19.056	19.056 (1.045)	41	885716			41.51- 101.51	68.62
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	790597	20.0000	21.474	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	607012			50.32- 110.32	76.78
19.213	19.213 (1.054)	57	202069			0.00- 56.87	25.56
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	2496579	20.0000	19.734	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	1582203			33.43- 93.43	63.37
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	2240142	20.0000	22.080	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	710726			1.18- 61.18	31.73
20.338	20.338 (1.116)	39	1333307			30.96- 90.96	59.52
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.557 (1.128)	43	3099433	20.0000	23.163	80.00- 120.00	100.00
20.557	20.557 (1.128)	58	1128380			6.36- 66.36	36.41
20.572	20.572 (1.128)	85	461855			0.00- 44.79	14.90
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	625130	5.00000	5.133	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	82883			0.00- 43.74	13.26
20.821	20.821 (1.142)	100	404002			35.47- 95.47	64.63
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	3375612	20.0000	19.766	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	2008672			29.68- 89.68	59.51
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.535	21.535 (0.906)	75	1965063	20.0000	21.158	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	618084			0.89- 60.89	31.45
21.535	21.535 (0.906)	39	1063362			25.98- 85.98	54.11
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	1278463	20.0000	18.111	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	797838			32.06- 92.06	62.41
21.999	21.999 (0.926)	83	1134064			59.95- 119.95	88.71
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	1492899	20.0000	19.059	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	1213145			51.43- 111.43	81.26
22.145	22.145 (0.932)	131	1170507			46.81- 106.81	78.40

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

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58   1476371 20.0000   23.652  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43   2875501                  168.77- 228.77   194.77
 22.406  22.406 (0.943)   100    266217                    0.00-  48.17    18.03
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129   2329861 20.0000   21.924  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127   1816865                   50.40- 110.40    77.98
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107   1966371 20.0000   20.210  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109   1860456                   64.13- 124.13    94.61
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    543536 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    356806                   37.02-  97.02    65.65
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112   2585537 20.0000   18.833  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    831315                    1.85-  61.85    32.15
 23.823  23.823 (1.003)    77   1762856                   40.34- 100.34    68.18
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.905  23.905 (1.006)   106   1300680 20.0000   20.583  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91   4402745                  302.97- 362.97   338.50
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106   1401795 20.0000   20.190  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   3064963                  185.70- 245.70   218.65
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106   1360407 20.0000   20.860  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   3097295                  201.87- 261.87   227.67
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.730  24.730 (1.041)   104   2091204 20.0000   22.613  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78   1259966                   30.45-  90.45    60.25
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173   2171045 20.0000   23.257  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171   1126619                   22.22-  82.22    51.89
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105   4679943 20.0000   21.603  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120   1190999                    0.00-  55.53    25.45
-------------------------------------------------------------------------------
```

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

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    280297 5.00000    5.296  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    422617                  125.82- 185.82   150.77
 25.466  25.466 (1.072)   176    268992                   65.90- 125.90    95.97
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83   2881915 20.0000   19.676  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   1832443                   31.99-  91.99    63.58
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.713  25.713 (1.082)    91   4598413 20.0000   19.506  80.00- 120.00   100.00
 25.713  25.713 (1.082)   120    968924                    0.00-  51.03    21.07
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105   3460481 20.0000   17.957  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120   1002760                    0.00-  59.04    28.98
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105   2864039 20.0000   17.813  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120   1330825                   16.07-  76.07    46.47
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105   2615264 20.0000   16.050  80.00- 120.00   100.00
 26.395  26.395 (1.111)   120   1145738                   13.07-  73.07    43.81
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.794  26.794 (1.128)   146   1905528 20.0000   17.333  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148   1223495                   36.17-  96.17    64.21
 26.794  26.794 (1.128)   111    868539                   17.10-  77.10    45.58
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.903  26.903 (1.132)   146   1732442 20.0000   17.547  80.00- 120.00   100.00
 26.903  26.903 (1.132)   148   1119917                   33.17-  93.17    64.64
 26.903  26.903 (1.132)   111    753341                   13.98-  73.98    43.48
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.059  27.059 (1.139)    91   3380783 20.0000   23.667  80.00- 120.00   100.00
 27.059  27.059 (1.139)   126    602186                    0.00-  47.62    17.81
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146   1751323 20.0000   17.403  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148   1126123                   33.03-  93.03    64.30
 27.371  27.371 (1.152)   111    826690                   16.58-  76.58    47.20
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.366  29.366 (1.236)   180   1495726 20.0000   16.613  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.366	29.366	(1.236)	182	1411802			65.16- 125.16	94.39
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	1274084	20.0000	18.082	80.00- 120.00	100.00
29.491	29.491	(1.241)	223	800905			34.44- 94.44	62.86
228 Naphthalene						CAS #: 91-20-3		
29.756	29.756	(1.252)	128	369270	2.00000	1.950	80.00- 120.00	100.00
29.756	29.756	(1.252)	127	48900			0.00- 42.14	13.24

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021012.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	149113	13.41
123 1,4-Difluorobenze	519912	311947	727877	603981	16.17
163 Chlorobenzene-d5	453774	272264	635284	543536	19.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021012.d

Date : 10-FEB-2016 21:03

Client ID: Level 15

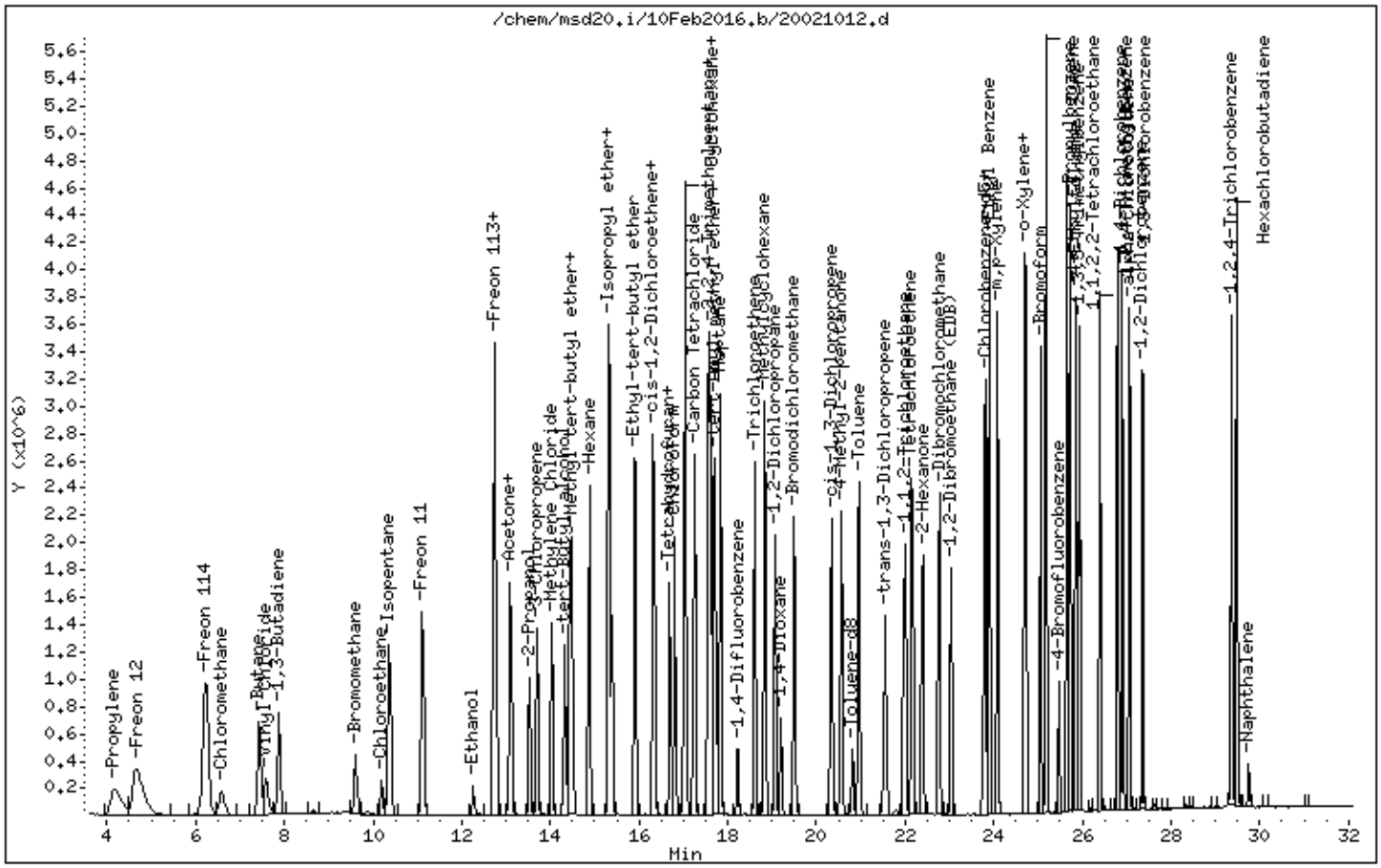
Instrument: msd20.i

Sample Info: 100mL# 2759-222

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/10Feb2016.b/20021013.d
Lab Smp Id: ICAL Client Smp ID: Level 16
Inj Date : 10-FEB-2016 21:59
Operator : mjs Inst ID: msd20.i
Smp Info : 200mL# 2759-222
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/10Feb2016.b/2016l0210a.m
Meth Date : 11-Feb-2016 12:34 efinn Quant Type: ISTD
Cal Date : 10-FEB-2016 21:59 Cal File: 20021013.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.190	4.190 (0.250)	41	2309676	40.0000	36.220	80.00- 120.00	100.00
4.166	4.166 (0.249)	42	1552818			0.00- 53.15	67.23
4.190	4.190 (0.250)	39	1738595			47.58- 107.58	75.27
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	6502227	40.0000	31.596	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	2082152			1.87- 61.87	32.02
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	3612402	40.0000	32.994	80.00- 120.00	100.00
6.239	6.239 (0.373)	137	1150019			1.11- 61.11	31.84
6.215	6.215 (0.372)	85	6010897			144.76- 204.76	166.40
17 Chloromethane					CAS #: 74-87-3		
6.601	6.601 (0.395)	50	2228625	40.0000	33.740	80.00- 120.00	100.00
6.601	6.601 (0.395)	52	716113			2.97- 62.97	32.13

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

   23 Butane                                          CAS #: 106-97-8
  7.434   7.434 (0.444)    58    550976 40.0000   36.499  80.00- 120.00   100.00
  7.434   7.434 (0.444)    43   4096822                  739.71- 799.71   743.56
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                  CAS #: 75-01-4
  7.590   7.590 (0.454)    62   2308662 40.0000   33.652  80.00- 120.00   100.00
  7.590   7.590 (0.454)    64    727036                    1.00-  61.00    31.49
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                   CAS #: 106-99-0
  7.868   7.868 (0.470)    54   1925640 40.0000   35.220  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39   2080307                   81.21- 141.21   108.03
-------------------------------------------------------------------------------
   29 Bromomethane                                    CAS #: 74-83-9
  9.596   9.596 (0.574)    94   1600526 40.0000   39.618  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96   1492039                   64.13- 124.13    93.22
-------------------------------------------------------------------------------
   30 Chloroethane                                    CAS #: 75-00-3
 10.198  10.198 (0.610)    64   1115806 40.0000   36.356  80.00- 120.00   100.00
 10.198  10.198 (0.610)    49    300461                    0.00-  58.76    26.93
 10.198  10.198 (0.610)    66    352323                    2.67-  62.67    31.58
-------------------------------------------------------------------------------
   31 Isopentane                                      CAS #: 78-78-4
 10.367  10.367 (0.620)    57   1905855 40.0000   35.966  80.00- 120.00   100.00
 10.367  10.367 (0.620)    43   2972332                  130.15- 190.15   155.96
 10.367  10.367 (0.620)    42   2653595                  114.07- 174.07   139.23
-------------------------------------------------------------------------------
   35 Freon 11                                        CAS #: 75-69-4
 11.114  11.114 (0.664)   101   6104337 40.0000   33.192  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103   3956381                   35.32-  95.32    64.81
-------------------------------------------------------------------------------
   42 Ethanol                                         CAS #: 64-17-5
 12.269  12.269 (0.734)    45    928415 40.0000   40.236  80.00- 120.00   100.00(A)
 12.269  12.269 (0.734)    46    379829                   10.61-  70.61    40.91
 12.269  12.269 (0.734)    43    209404                    0.00-  54.10    22.55
-------------------------------------------------------------------------------
   49 Freon 113                                       CAS #: 76-13-1
 12.763  12.763 (0.763)   151   3190767 40.0000   35.771  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153   2008577                   35.03-  95.03    62.95
 12.763  12.763 (0.763)   101   4565167                  120.75- 180.75   143.07
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                              CAS #: 75-35-4
 12.736  12.736 (0.761)    98   1312891 40.0000   37.971  80.00- 120.00   100.00
 12.736  12.736 (0.761)    61   3980207                  282.13- 342.13   303.16
 12.736  12.736 (0.761)    96   2064485                  125.40- 185.40   157.25
-------------------------------------------------------------------------------
   52 Acetone                                         CAS #: 67-64-1
 13.093  13.093 (0.783)    58   1172812 40.0000   37.150  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43   4135934                   344.67- 404.67   352.65
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.120  13.120 (0.784)    76   6628658 40.0000   38.525  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.532  13.532 (0.809)    45   4649296 40.0000   42.527  80.00- 120.00   100.00(A)
 13.532  13.532 (0.809)    43    946176                    0.00-  54.80    20.35
 13.532  13.532 (0.809)    59    170983                    0.00-  33.44     3.68
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76    989599 40.0000   39.627  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41   3217688                   306.81- 366.81   325.15
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84   2049229 40.0000   35.215  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49   2980011                   122.68- 182.68   145.42
 14.027  14.027 (0.839)    51    913026                    16.23-  76.23    44.55
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59   5427722 40.0000   42.252  80.00- 120.00   100.00(A)
 14.329  14.329 (0.857)    41   1279083                    0.00-  58.55    23.57
 14.329  14.329 (0.857)    57    606511                    0.00-  41.33    11.17
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73   6928875 40.0000   38.889  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57   1574571                    0.00-  53.36    22.72
 14.439  14.439 (0.863)    41   1647895                    0.00-  57.08    23.78
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98   1369423 40.0000   35.548  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61   3524130                   242.30- 302.30   257.34
 14.494  14.494 (0.866)    96   2165505                   130.73- 190.73   158.13
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57   3724399 40.0000   37.519  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43   2552378                    38.79-  98.79    68.53
 14.878  14.878 (0.889)    86    607823                    0.00-  45.75    16.32
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45   8548482 40.0000   38.097  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87   1983862                    0.00-  52.38    23.21
 15.317  15.317 (0.916)    59    912444                    0.00-  40.55    10.67
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63   4476489 40.0000   34.437  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65   1410039                     1.12-  61.12    31.50
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86    606305 40.0000   48.478  80.00- 120.00   100.00(A)
 15.400  15.400 (0.921)    42    666773                   85.15- 145.15   109.97
 15.400  15.400 (0.921)    43   8056642                 1231.92-1291.92  1328.81
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.909  15.909 (0.951)    59   8540859 40.0000   40.296  80.00- 120.00   100.00(A)
 15.909  15.909 (0.951)    87   3258989                    7.22-  67.22    38.16
 15.909  15.909 (0.951)    41   1630174                    0.00-  52.37    19.09
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.323  16.323 (0.976)    98   1458667 40.0000   36.671  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61   3471861                  215.99- 275.99   238.02
 16.323  16.323 (0.976)    96   2312998                  128.72- 188.72   158.57
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72   1209746 40.0000   39.815  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   5353395                  429.73- 489.73   442.52
 16.344  16.344 (0.977)    57    398683                    3.86-  63.86    32.96
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.695  16.695 (0.998)    42   3185785 40.0000   39.955  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71   1137854                    5.73-  65.73    35.72
 16.695  16.695 (0.998)    72   1220860                    7.14-  67.14    38.32
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    169584 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    134945                   46.65- 106.65    79.57
 16.726  16.726 (1.000)    49    298012                  153.40- 213.40   175.73
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83   5225376 40.0000   35.527  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85   3352677                   34.71-  94.71    64.16
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84   3272864 40.0000   38.459  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   4099032                   96.90- 156.90   125.24
 17.035  17.035 (1.018)    41   2434160                   49.25- 109.25    74.37
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.035  17.035 (1.018)    97   5592409 40.0000   36.184  80.00- 120.00   100.00
 17.035  17.035 (1.018)    99   3600332                   34.75-  94.75    64.38
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   5353912 40.0000   42.630  80.00- 120.00   100.00(A)
 17.250  17.250 (1.031)   117   5575561                   74.42- 134.42   104.14
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56   3747983 40.0000   40.186  80.00- 120.00   100.00(A)
 17.579  17.579 (1.051)    57  11331443                  271.04- 331.04   302.33
 17.579  17.579 (1.051)    41   3236772                   64.98- 124.98    86.36
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78   6426192 40.0000   35.616  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77   1519262                    0.00-  53.23    23.64
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.620  17.620 (1.053)    65    354628 5.00000    5.119  80.00- 120.00   100.00
 17.620  17.620 (1.053)    67    191994                   26.73-  86.73    54.14
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87   1613448 40.0000   41.448  80.00- 120.00   100.00(A)
 17.703  17.703 (0.971)    73   7033423                  419.18- 479.18   435.92
 17.703  17.703 (0.971)    55   1826300                  109.81- 169.81   113.19
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62   3526736 40.0000   35.234  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64   1129963                    1.10-  61.10    32.04
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57   2177964 40.0000   39.596  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    708846                    1.33-  61.33    32.55
 17.847  17.847 (0.979)    43   4393545                  175.11- 235.11   201.73
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    700809 5.00000           80.00- 120.00   100.00
 18.209  18.209 (1.000)    88    121844                    0.00-  48.22    17.39
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130   2797493 40.0000   36.577  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95   3056472                   84.12- 144.12   109.26
 18.610  18.610 (1.021)    97   1966522                   43.34- 103.34    70.30
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83   4143942 40.0000   38.785  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55   3645505                   60.57- 120.57    87.97
 18.833  18.833 (1.033)    56   1157988                    0.00-  58.53    27.94
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.056  19.056 (1.045)    63   2831283 40.0000   36.898  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.056  19.056 (1.045)    62   2057724                    42.42- 102.42    72.68
 19.056  19.056 (1.045)    41   1877217                    41.51- 101.51    66.30
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88   1736994 40.0000   40.660  80.00- 120.00   100.00(A)
 19.213  19.213 (1.054)    58   1332243                    50.32- 110.32    76.70
 19.213  19.213 (1.054)    57    438916                     0.00-  56.87    25.27
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   5492644 40.0000   38.771  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85   3493190                    33.43-  93.43    63.60
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75   5080173 40.0000   43.154  80.00- 120.00   100.00(A)
 20.338  20.338 (1.116)    77   1600461                     1.18-  61.18    31.50
 20.338  20.338 (1.116)    39   2911802                    30.96-  90.96    57.32
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.556  20.556 (1.128)    43   6801764 40.0000   43.809  80.00- 120.00   100.00(A)
 20.556  20.556 (1.128)    58   2516677                     6.36-  66.36    37.00
 20.556  20.556 (1.128)    85   1031694                     0.00-  44.79    15.17
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    683403 5.00000    4.837  80.00- 120.00   100.00
 20.806  20.806 (1.141)    70     91118                     0.00-  43.74    13.33
 20.821  20.821 (1.142)   100    447172                    35.47-  95.47    65.43
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91   7358962 40.0000   37.137  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92   4393695                    29.68-  89.68    59.71
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.535  21.535 (0.906)    75   4303387 40.0000   41.377  80.00- 120.00   100.00(A)
 21.535  21.535 (0.906)    77   1343015                     0.89-  60.89    31.21
 21.535  21.535 (0.906)    39   2285158                    25.98-  85.98    53.10
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97   2791542 40.0000   35.314  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99   1733951                    32.06-  92.06    62.11
 21.999  21.999 (0.926)    83   2485220                    59.95- 119.95    89.03
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166   3338777 40.0000   38.064  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129   2672436                    51.43- 111.43    80.04
 22.145  22.145 (0.932)   131   2555037                    46.81- 106.81    76.53
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58   3312227 40.0000   47.387  80.00- 120.00   100.00(A)
 22.406  22.406 (0.943)    43   6484449                  168.77- 228.77   195.77
 22.406  22.406 (0.943)   100    627801                    0.00-  48.17    18.95
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129   5333806 40.0000   44.821  80.00- 120.00   100.00(A)
 22.784  22.784 (0.959)   127   4170957                   50.40- 110.40    78.20
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107   4464720 40.0000   40.978  80.00- 120.00   100.00(A)
 23.045  23.045 (0.970)   109   4160662                   64.13- 124.13    93.19
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    608652 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    390124                   37.02-  97.02    64.10
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112   5669974 40.0000   36.882  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114   1814584                    1.85-  61.85    32.00
 23.823  23.823 (1.003)    77   3799149                   40.34- 100.34    67.00
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.905  23.905 (1.006)   106   2925232 40.0000   41.339  80.00- 120.00   100.00(A)
 23.905  23.905 (1.006)    91   9794381                  302.97- 362.97   334.82
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106   3196353 40.0000   41.113  80.00- 120.00   100.00(A)
 24.091  24.091 (1.014)    91   6811984                  185.70- 245.70   213.12
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106   3035213 40.0000   41.561  80.00- 120.00   100.00(A)
 24.710  24.710 (1.040)    91   6776416                  201.87- 261.87   223.26
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.730  24.730 (1.041)   104   4867642 40.0000   47.004  80.00- 120.00   100.00(A)
 24.730  24.730 (1.041)    78   2840787                   30.45-  90.45    58.36
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173   5136337 40.0000   49.136  80.00- 120.00   100.00(A)
 25.068  25.068 (1.055)   171   2652339                   22.22-  82.22    51.64
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105  10359650 40.0000   42.704  80.00- 120.00   100.00(A)
 25.182  25.182 (1.060)   120   2656918                    0.00-  55.53    25.65
-------------------------------------------------------------------------------
```

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

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    318327 5.00000    5.371  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    463054                  125.82- 185.82   145.46
 25.466  25.466 (1.072)   176    306392                   65.90- 125.90    96.25
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83   6282705 40.0000   38.307  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   4006326                   31.99-  91.99    63.77
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.713  25.713 (1.082)    91  10373452 40.0000   39.296  80.00- 120.00   100.00
 25.713  25.713 (1.082)   120   2243595                    0.00-  51.03    21.63
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105   7757194 40.0000   35.946  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120   2292804                    0.00-  59.04    29.56
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105   6289732 40.0000   34.934  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120   2960801                   16.07-  76.07    47.07
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105   5613528 40.0000   30.766  80.00- 120.00   100.00
 26.395  26.395 (1.111)   120   2452615                   13.07-  73.07    43.69
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.794  26.794 (1.128)   146   4325041 40.0000   35.132  80.00- 120.00   100.00
 26.794  26.794 (1.128)   148   2778653                   36.17-  96.17    64.25
 26.794  26.794 (1.128)   111   1919294                   17.10-  77.10    44.38
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.903  26.903 (1.132)   146   3987036 40.0000   36.063  80.00- 120.00   100.00
 26.903  26.903 (1.132)   148   2548720                   33.17-  93.17    63.93
 26.903  26.903 (1.132)   111   1681576                   13.98-  73.98    42.18
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.059  27.059 (1.139)    91   7832184 40.0000   48.963  80.00- 120.00   100.00(A)
 27.059  27.059 (1.139)   126   1464521                    0.00-  47.62    18.70
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146   4005995 40.0000   35.549  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148   2542324                   33.03-  93.03    63.46
 27.371  27.371 (1.152)   111   1827424                   16.58-  76.58    45.62
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.366  29.366 (1.236)   180   3090136 40.0000   30.650  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.366	29.366	(1.236)	182	2934925			65.16- 125.16	94.98
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	3047759	40.0000	38.626	80.00- 120.00	100.00
29.491	29.491	(1.241)	223	1927434			34.44- 94.44	63.24
228 Naphthalene						CAS #: 91-20-3		
29.756	29.756	(1.252)	128	740964	4.00000	3.495	80.00- 120.00	100.00
29.756	29.756	(1.252)	127	95238			0.00- 42.14	12.85

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 11-Feb-2016 12:34

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20021013.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/10Feb2016.b/2016l0210a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 10-FEB-2016
Calibration Time: 19:33
Client Smp ID: Level 16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131484	78890	184078	169584	28.98
123 1,4-Difluorobenze	519912	311947	727877	700809	34.79
163 Chlorobenzene-d5	453774	272264	635284	608652	34.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/10Feb2016.b/20021013.d

Date : 10-FEB-2016 21:59

Client ID: Level 16

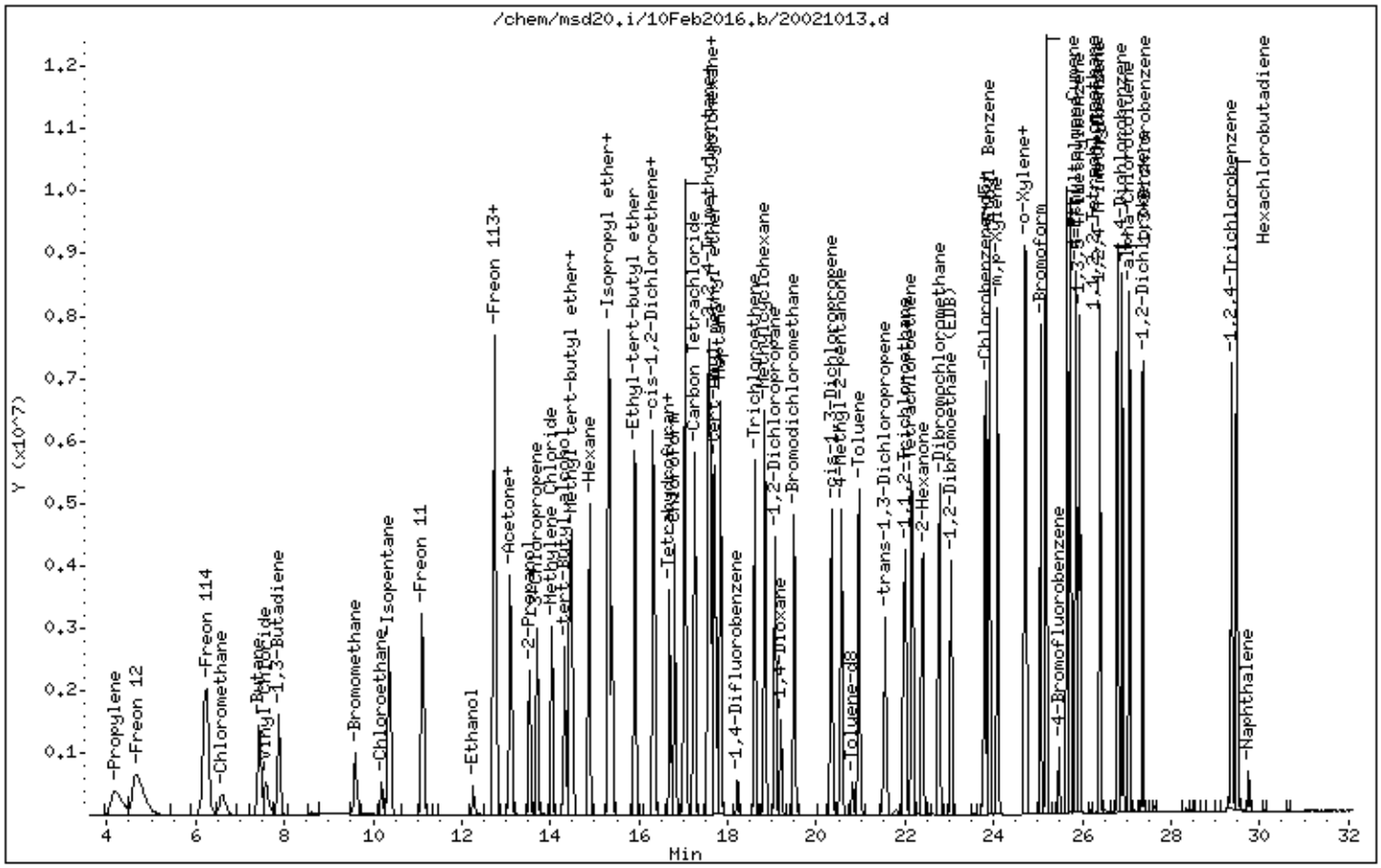
Instrument: msd20.i

Sample Info: 200mL# 2759-222

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Report Date : 12-Feb-2016 08:50

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT 0.1 ppbv LL MDL

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Spec FOR 1,2,4-TCB, Hexachlorobutadiene
* 2759-243 (1.0ppbv) = 25 mL LOAD.

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021106	20021107	20021108	20021109	20021110	20021111	20021112	20021113
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016
INJ.TIME:	14:19	15:03	15:42	16:22	17:07	17:54	18:34	19:18

PETV (ms)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	111.01	107.23	106.24	101.96	98.83	112.28	106.19	113.44	107.15	5.05	15.14	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	108.58	121.58	107.97	104.59	105.84	116.86	116.24	115.37	112.13	6.16	18.47	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL VERIFICATION:
2759-243 (0.08ppbv)
20mL LOAD, FILE 20021107

Reviewer 1 _____ Date: 2/15/16
Reviewer 2 _____ Date: 2/16/16

2/16/16
$\bar{X}$ = ~~0.~~ 0.021
$2\bar{x}$ = 0.042
$3\bar{x}$ = 0.063
$4\bar{x}$ = 0.084

All 0.1 ppbv COMPOUNDS:
THE RATIO OF THE MEAN RECOVERED CONCENTRATION
AND THE MDL IS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	103.90	109.95	111.90	110.22	113.99	127.37	110.41	103.52	111.41	7.41	22.23	100
26 1,3-Butadiene	114.10	110.22	119.21	110.53	122.77	108.93	112.94	117.14	114.48	4.86	14.56	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	109.50	105.03	104.01	109.11	107.49	112.61	117.22	111.56	109.57	4.27	12.81	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
41 trans-2-Pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
42 Ethanol	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
43 1,2-Dichloro-1-fluoroe	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
44 Ethyl Ether	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
45 cis-2-Pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
46 Acrolein	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
47 Freon 123a	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
48 Freon 123	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
49 Freon 113	128.84	124.16	110.13	104.31	113.03	109.97	128.47	121.48	117.55	9.37	28.08	100
50 1,1-Dichloroethene	102.88	96.62	107.84	118.61	109.35	113.37	111.55	106.83	108.38	6.68	20.02	100
51 2,2-Dimethylbutane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
52 Acetone	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
53 Iodomethane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
54 Bromoethane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
55 4-Methyl-1-pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
56 Carbon Disulfide	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
57 2-Propanol	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
58 3-Chloropropene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
59 Cyclopentene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
60 2-Methylpentane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
61 Methyl Acetate	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
62 3-Methylpentane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
63 Acetonitrile	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	

Eurofins Air Toxics Inc.
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Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
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Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	116.19	125.61	120.64	109.85	111.95	120.60	117.89	118.53	117.66	5.03	15.09	200
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl etha	107.99	103.76	95.41	99.20	96.16	105.54	101.83	99.83	101.21	4.42	13.26	100
73 trans-1,2-Dichloroethe	106.44	104.20	96.74	98.47	114.90	118.39	104.84	98.74	104.09	9.92	29.74	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	109.38	91.58	112.13	101.46	96.92	106.90	104.95	99.35	102.83	6.82	20.46	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	109.17	108.82	104.47	107.02	114.78	109.10	117.84	109.88	110.14	4.25	12.75	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	105.39	97.62	96.68	102.22	115.26	121.52	115.14	98.37	106.50	9.57	28.70	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	103.34	102.64	94.51	99.27	105.94	115.22	112.50	103.48	104.61	6.70	20.08	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	105.26	91.17	93.47	92.54	87.30	100.23	92.36	95.80	94.77	5.63	16.89	100
103 1,1,1-Trichloroethane	106.93	93.98	99.04	95.06	103.28	119.04	99.38	101.17	102.11	7.89	23.67	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	97.59	95.93	96.04	95.89	93.50	98.50	103.90	95.78	97.14	3.10	9.29	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	112.76	109.42	119.38	126.14	138.97	115.60	128.97	108.48	119.94	10.66	31.96	100
$ 117 1,2-Dichloroethane-d4	4728.49	4675.54	4814.38	4679.41	4638.74	4844.78	4834.94	4759.16	4746.93	79.03	236.94	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	127.97	118.06	111.61	114.51	104.90	123.96	130.55	138.79	121.29	11.10	33.28	100
121 Heptane	106.06	97.82	111.00	114.26	95.21	96.16	97.31	96.30	101.77	7.55	22.65	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	133.68	105.13	120.84	107.89	108.57	100.50	118.95	96.11	110.16	9.93	29.78	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropene	99.24	108.17	114.44	116.84	113.84	111.82	106.18	123.37	111.74	7.30	21.88	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	93.45	75.95	95.17	83.10	82.87	106.83	97.63	95.87	91.36	9.97	29.89	100
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	103.06	105.04	100.90	101.79	94.78	111.84	104.75	97.83	102.50	5.12	15.35	100
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	97.73	97.19	95.50	98.16	80.85	84.77	99.49	97.80	93.94	7.03	21.09	100
145 4-Methyl-2-pentanone	80.17	79.46	84.98	80.40	69.40	68.24	71.29	73.94	75.98	6.09	18.26	100
$ 146 Toluene-d8	4859.37	4871.03	4922.01	4805.76	4896.52	4721.80	4926.35	4964.93	4870.97	77.27	231.64	
147 Toluene	106.64	108.90	113.27	109.30	109.50	114.78	115.71	103.98	110.26	4.05	12.16	100
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	107.54	89.01	83.33	94.38	88.18	92.37	92.36	96.16	92.91	7.14	21.42	100
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	96.16	74.38	112.51	105.70	126.14	121.35	113.90	118.47	108.58	16.67	49.97	100
156 Tetrachloroethene	109.23	104.05	112.34	101.41	112.00	127.65	124.36	109.30	112.62	9.12	27.34	100
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	98.26	87.06	93.66	94.23	81.79	94.02	97.01	89.34	91.92	5.50	16.49	100
161 1,2-Dibromoethane (EDB	101.26	91.94	97.00	97.97	103.19	100.76	95.11	110.69	99.75	5.71	17.13	100
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	113.62	100.67	108.76	99.89	99.57	123.38	106.20	113.31	108.18	8.37	25.09	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	121.85	98.56	91.01	93.09	103.78	100.91	104.16	98.55	101.49	9.45	28.33	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	93.44	95.21	83.15	96.86	93.71	100.60	101.21	99.45	95.45	5.81	17.41	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	104.77	108.45	99.61	97.43	81.93	103.92	103.24	103.25	100.32	8.13	24.38	100
172 Styrene	91.67	98.83	90.89	93.62	89.29	94.81	90.53	88.38	92.25	3.39	10.17	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	86.70	85.62	75.97	76.26	71.14	79.46	86.90	78.03	80.26	6.18	18.53	100
175 Cumene	99.13	97.33	92.79	92.12	92.86	100.17	90.09	83.91	93.55	5.31	15.91	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	4636.83	4760.03	4887.01	4937.95	4720.67	4706.05	4723.13	4825.24	4774.61	100.95	302.64	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	101.69	99.11	93.02	95.55	101.07	93.70	94.35	98.33	97.10	3.39	10.17	100
182 Propylbenzene	122.57	128.88	112.95	125.64	114.04	122.41	122.63	113.51	120.32	6.07	18.20	100

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	114.67	118.55	110.37	108.15	107.18	127.28	122.10	118.08	115.80	7.05	21.13	100
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	123.80	127.61	117.24	115.64	117.20	114.39	108.64	119.99	118.06	5.82	17.46	100
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	129.73	132.28	120.12	116.55	113.01	122.84	119.94	117.77	121.53	6.55	19.64	100
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	115.36	120.46	109.73	105.54	113.00	113.53	112.22	110.78	112.58	4.34	13.02	100
209 1,4-Dichlorobenzene	136.32	132.41	126.01	131.10	137.41	124.67	131.84	127.11	130.96	4.66	13.97	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	82.56	93.39	82.28	84.05	85.63	85.28	101.54	80.90	86.95	7.02	21.05	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	119.38	136.88	114.68	104.17	121.56	120.98	133.03	116.16	120.85	10.33	30.95	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	118.79	106.23	120.38	105.87	103.37	103.39	107.28	112.30	109.70	6.72	20.14	500
227 Hexachlorobutadiene	128.18	132.89	136.75	119.47	124.32	113.68	131.44	137.42	128.02	8.39	25.15	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
N 237 1,2 Dichloroethene (To	211.83	201.82	183.42	200.69	230.17	239.91	219.98	196.92	210.59	18.64	55.89	N/A
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 239 Total Xylene	198.22	203.66	182.76	194.29	175.64	204.51	204.45	202.70	195.78	10.98	32.93	N/A
M 240 3 and 4 Ethyltoluene	114.67	118.55	110.37	108.15	107.18	127.28	122.10	118.08	115.80	7.05	21.13	
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
245 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C9-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 12-Feb-2016 16:06

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

0.5 ppbv W MDL

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

* 2759-243 (1.0 ppbv) = 125 mL LOAD

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021114	20021115	20021116	20021117	20021118	20021119	20021120	20021121
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016
INJ.TIME:	19:58	21:31	22:11	22:50	05:50	06:30	07:10	07:49

RL (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	444.09	435.06	343.89	420.81	440.65	368.73	485.61	392.20	417.13	44.39	133.07	500
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	595.27	650.20	612.19	561.59	618.02	565.36	564.73	520.68	586.13	40.74	122.14	500

MDL VERIFICATION:
2759-243 (0.3 ppbv)
75 mL LOAD, FIVE 20021206

Reviewer 1 [signature] Date: 2/12/16
Reviewer 2 [signature] Date: 2/16/16

$\bar{x}$ = 0.075
$2\bar{x}$ = 0.15
$3\bar{x}$ = 0.23
$4\bar{x}$ = 0.30

DIMETHYL ETHER: THE RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL IS GREATER THAN 20. ALL OTHER COMPOUNDS — THE RATIOS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	520.92	536.08	303.94	489.96	551.65	475.09	538.89	515.83	491.54	79.96	239.72	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	436.36	503.99	497.46	587.69	514.13	561.89	588.81	527.98	527.29	51.42	154.14	500
30 Chloroethane	450.31	514.10	471.14	482.20	437.12	473.98	437.40	447.61	464.23	26.40	79.14	500
31 Isopentane	487.57	500.04	462.29	487.56	530.32	486.12	504.22	482.75	492.61	19.72	59.11	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	487.00	488.50	589.46	545.04	561.45	507.58	541.70	537.30	532.25	35.81	107.35	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	498.60	514.82	499.84	499.34	525.38	462.08	524.07	473.00	499.64	22.71	68.09	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	474.24	490.22	493.49	500.93	508.62	515.62	482.40	496.39	495.24	13.43	40.26	500
57 2-Propanol	428.31	424.69	422.25	422.47	441.27	428.25	446.26	456.50	433.75	12.72	38.13	500
58 3-Chloropropene	419.36	425.22	418.43	431.76	437.81	411.14	401.14	427.69	421.57	11.70	35.09	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	404.45	419.08	404.34	416.44	410.26	437.99	430.63	417.34	417.57	11.90	35.69	600
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	448.49	449.87	455.87	454.21	431.63	445.98	437.22	433.20	444.57	9.40	28.19	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	326.12	330.98	361.56	267.09	337.68	314.86	333.68	323.84	324.48	26.90	80.65	500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	425.90	420.08	421.49	432.49	423.78	427.55	427.58	414.50	424.29	5.57	16.70	5bb
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	453.26	435.68	430.80	430.51	423.37	455.50	426.29	439.22	436.83	11.92	35.73	5bb
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	471.00	464.84	480.61	435.99	416.22	449.73	417.17	402.95	442.31	28.67	85.96	50a
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	457.74	466.60	488.45	444.05	440.76	419.00	434.83	444.38	449.47	21.23	63.65	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	4977.05	4973.12	4813.91	4938.83	5001.68	5118.96	4990.34	5001.47	4976.93	84.18	252.37	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	423.29	420.44	426.35	540.00	470.20	439.50	432.44	449.39	450.20	39.77	119.24	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	415.46	463.53	468.95	451.43	442.73	457.33	467.94	440.78	451.02	17.90	53.65	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 146 Toluene-d8	4854.55	4956.89	4838.33	4970.56	5009.99	5037.26	4980.08	4931.05	4947.34	70.18	210.39
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 2-Hexanone	329.07	309.29	314.15	324.98	307.23	285.49	291.30	335.05	312.07	17.55	52.63

500

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4-Bromofluorobenzene	4738.57	4505.93	4660.80	4603.63	4668.90	4505.76	4599.59	4709.37	4624.07	86.78	260.17
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	54.46	49.85	47.97	57.59	51.24	52.99	58.34	50.51	52.87	3.70	11.10
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference Mineral S	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Client Sample ID: CCV

Lab ID#: 1605350A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 08:37 AM**

Compound	%Recovery
Freon 12	112
Freon 114	111
Chloromethane	107
Vinyl Chloride	117
1,3-Butadiene	115
Bromomethane	119
Chloroethane	117
Freon 11	111
Ethanol	121
Freon 113	115
1,1-Dichloroethene	107
Acetone	106
2-Propanol	99
Carbon Disulfide	113
3-Chloropropene	106
Methylene Chloride	108
Methyl tert-butyl ether	115
trans-1,2-Dichloroethene	109
Hexane	108
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	113
Tetrahydrofuran	111
Chloroform	114
1,1,1-Trichloroethane	117
Cyclohexane	110
Carbon Tetrachloride	120
2,2,4-Trimethylpentane	112
Benzene	119
1,2-Dichloroethane	126
Heptane	124
Trichloroethene	115
1,2-Dichloropropane	115
1,4-Dioxane	121
Bromodichloromethane	125
cis-1,3-Dichloropropene	116
4-Methyl-2-pentanone	121
Toluene	118
trans-1,3-Dichloropropene	123
1,1,2-Trichloroethane	115
Tetrachloroethene	126
2-Hexanone	113

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Client Sample ID: CCV

Lab ID#: 1605350A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051902**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 08:37 AM**

Compound	%Recovery
Dibromochloromethane	137 Q
1,2-Dibromoethane (EDB)	128
Chlorobenzene	120
Ethyl Benzene	123
m,p-Xylene	119
o-Xylene	121
Styrene	124
Bromoform	136 Q
Cumene	125
1,1,2,2-Tetrachloroethane	123
Propylbenzene	114
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	127
1,2,4-Trimethylbenzene	121
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	112
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	114
Naphthalene	78

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 19-MAY-2016 08:37
Lab File ID: 20051902.d Init. Cal. Date(s): 10-FEB-2016 16-MAY-2016
Analysis Type: AIR Init. Cal. Times: 16:18 19:01
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/19May2016.b/2016l0210c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	2.04256	1.94014	0.010	5.01436	30.00000	Averaged
$ 146 Toluene-d8	1.00811	1.05983	0.010	-5.13126	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.48686	0.51840	0.010	-6.47710	30.00000	Averaged
9 Propylene	1.88014	2.29510	0.010	-22.07090	40.00000	Averaged
11 Freon 12	6.06758	6.79665	0.010	-12.01590	30.00000	Averaged
15 Freon 114	3.22810	3.59237	0.010	-11.28425	30.00000	Averaged
17 Chloromethane	1.94748	2.09099	0.010	-7.36894	30.00000	Averaged
23 Butane	0.44508	0.48780	0.010	-9.59915	40.00000	Averaged
25 Vinyl Chloride	2.02268	2.36601	0.010	-16.97384	30.00000	Averaged
26 1,3-Butadiene	1.61201	1.85152	0.010	-14.85777	30.00000	Averaged
29 Bromomethane	1.19111	1.42074	0.010	-19.27852	30.00000	Averaged
30 Chloroethane	0.90490	1.05547	0.010	-16.63880	30.00000	Averaged
31 Isopentane	1.56238	1.78687	0.010	-14.36812	40.00000	Averaged
35 Freon 11	5.42243	6.04071	0.010	-11.40221	30.00000	Averaged
42 Ethanol	0.68032	0.82562	0.010	-21.35765	30.00000	Averaged
49 Freon 113	2.62998	3.02847	0.010	-15.15166	30.00000	Averaged
50 1,1-Dichloroethene	1.01944	1.08903	0.010	-6.82544	30.00000	Averaged
52 Acetone	0.93080	0.99132	0.010	-6.50187	30.00000	Averaged
56 Carbon Disulfide	5.07304	5.72509	0.010	-12.85340	30.00000	Averaged
57 2-Propanol	3.22335	3.19434	0.010	0.89998	30.00000	Averaged
58 3-Chloropropene	0.73630	0.77895	0.010	-5.79231	30.00000	Averaged
66 Methylene Chloride	1.71572	1.85931	0.010	-8.36907	30.00000	Averaged
71 tert-Butyl alcohol	3.78756	3.94289	0.010	-4.10096	40.00000	Averaged
72 Methyl tert-butyl ether	5.25316	6.03528	0.010	-14.88858	30.00000	Averaged
73 trans-1,2-Dichloroethene	1.13580	1.23947	0.010	-9.12679	30.00000	Averaged
78 Hexane	2.92675	3.16764	0.010	-8.23045	30.00000	Averaged
83 Isopropyl ether	6.61582	7.24669	0.010	-9.53586	40.00000	Averaged
82 1,1-Dichloroethane	3.83262	4.23338	0.010	-10.45655	30.00000	Averaged
86 Vinyl Acetate	0.36875	0.47612	0.010	-29.11614	40.00000	Averaged
88 Ethyl-tert-butyl ether	6.24924	6.91892	0.010	-10.71617	40.00000	Averaged
91 cis-1,2-Dichloroethene	1.17277	1.32129	0.010	-12.66367	30.00000	Averaged
92 2-Butanone	0.89585	0.98944	0.010	-10.44731	30.00000	Averaged
99 Tetrahydrofuran	2.35090	2.61858	0.010	-11.38651	30.00000	Averaged
100 Chloroform	4.33658	4.94768	0.010	-14.09174	30.00000	Averaged
102 Cyclohexane	2.50908	2.75161	0.010	-9.66616	30.00000	Averaged
103 1,1,1-Trichloroethane	4.55681	5.32915	0.010	-16.94909	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 19-MAY-2016 08:37
Lab File ID: 20051902.d Init. Cal. Date(s): 10-FEB-2016 16-MAY-2016
Analysis Type: AIR Init. Cal. Times: 16:18 19:01
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/19May2016.b/2016l0210c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
106 Carbon Tetrachloride	3.70290	4.44189	0.010	-19.95711	30.00000	Averaged
113 2,2,4-Trimethylpentane	2.74984	3.07995	0.010	-12.00457	30.00000	Averaged
116 Benzene	1.28729	1.53253	0.010	-19.05043	30.00000	Averaged
119 tert-Amyl methyl ether	0.27773	0.33563	0.010	-20.84839	40.00000	Averaged
120 1,2-Dichloroethane	0.71413	0.90269	0.010	-26.40392	30.00000	Averaged
121 Heptane	0.39243	0.48749	0.010	-24.22342	30.00000	Averaged
125 Trichloroethene	0.54567	0.62545	0.010	-14.62099	30.00000	Averaged
127 Methylcyclohexane	0.76229	0.88933	0.010	-16.66539	40.00000	Averaged
132 1,2-Dichloropropane	0.54745	0.63079	0.010	-15.22202	30.00000	Averaged
136 1,4-Dioxane	0.30479	0.37031	0.010	-21.49661	30.00000	Averaged
138 Bromodichloromethane	1.16378	1.45615	0.010	-25.12259	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.83990	0.97249	0.010	-15.78727	30.00000	Averaged
145 4-Methyl-2-pentanone	1.10771	1.33750	0.010	-20.74493	30.00000	Averaged
147 Toluene	1.41377	1.66521	0.010	-17.78494	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.85438	1.05389	0.010	-23.35156	30.00000	Averaged
155 1,1,2-Trichloroethane	0.64937	0.74999	0.010	-15.49429	30.00000	Averaged
156 Tetrachloroethene	0.72056	0.90903	0.010	-26.15527	30.00000	Averaged
158 2-Hexanone	0.57420	0.65051	0.010	-13.28908	30.00000	Averaged
160 Dibromochloromethane	0.97759	1.33725	0.010	-36.79053	30.00000	Averaged <-
161 1,2-Dibromoethane (EDB)	0.89504	1.14819	0.010	-28.28374	30.00000	Averaged
165 Chlorobenzene	1.26290	1.51400	0.010	-19.88276	30.00000	Averaged
167 Ethyl Benzene	0.58130	0.71473	0.010	-22.95363	30.00000	Averaged
169 m,p-Xylene	0.63867	0.75804	0.010	-18.68973	30.00000	Averaged
171 o-Xylene	0.59993	0.72472	0.010	-20.80083	30.00000	Averaged
172 Styrene	0.85072	1.05416	0.010	-23.91395	30.00000	Averaged
174 Bromoform	0.85872	1.17156	0.010	-36.43110	30.00000	Averaged <-
175 Cumene	1.99286	2.49616	0.010	-25.25538	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.34733	1.65932	0.010	-23.15598	30.00000	Averaged
182 Propylbenzene	2.16860	2.46628	0.010	-13.72674	30.00000	Averaged
188 4-Ethyltoluene	1.77277	1.90145	0.010	-7.25872	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.47908	1.87841	0.010	-26.99858	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.49890	1.81992	0.010	-21.41733	30.00000	Averaged
208 1,3-Dichlorobenzene	1.01133	1.12907	0.010	-11.64267	30.00000	Averaged
209 1,4-Dichlorobenzene	0.90822	0.99069	0.010	-9.08049	30.00000	Averaged
212 alpha-Chlorotoluene	1.31407	1.61301	0.010	-22.74987	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 19-MAY-2016 08:37
Lab File ID: 20051902.d Init. Cal. Date(s): 10-FEB-2016 16-MAY-2016
Analysis Type: AIR Init. Cal. Times: 16:18 19:01
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/19May2016.b/2016l0210c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	0.92573	1.04010	0.010	-12.35404	30.00000	Averaged
226 1,2,4-Trichlorobenzene	0.82822	0.95221	0.010	-14.97065	30.00000	Averaged
227 Hexachlorobutadiene	0.64819	0.73908	0.010	-14.02186	30.00000	Averaged
228 Naphthalene	1.74180	1.36261	0.010	21.76995	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19May2016.b/20051902.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-MAY-2016 08:37
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-50
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19May2016.b/2016l0210c.m
Meth Date : 19-May-2016 09:20 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	105902	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	82792			46.65- 106.65	78.18
16.726	16.726 (1.000)	49	178217			153.40- 213.40	168.28
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	416950	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	75784			0.00- 48.22	18.18
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	354592	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	228513			37.02- 97.02	64.44
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	205465	5.00000	4.749	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	119478			26.73- 86.73	58.15
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	441898	5.00000	5.256	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	59099			0.00- 43.74	13.37

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    287923                    35.47-  95.47    65.16
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    183819 5.00000    5.324  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    274264                  125.82- 185.82   149.20
 25.485  25.485 (1.073)   176    174157                    65.90- 125.90    94.74
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.166   4.166 (0.249)    41    243056 5.00000    6.104  80.00- 120.00   100.00
  4.142   4.142 (0.248)    42    161932                     0.00-  53.15    66.62
  4.142   4.142 (0.248)    39    188642                    47.58- 107.58    77.61
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.672 (0.279)    85    719779 5.00000    5.601  80.00- 120.00   100.00
  4.672   4.672 (0.279)    87    233839                     1.87-  61.87    32.49
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135    380439 5.00000    5.564  80.00- 120.00   100.00
  6.215   6.215 (0.372)   137    121323                     1.11-  61.11    31.89
  6.215   6.215 (0.372)    85    669238                   144.76- 204.76   175.91
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.576   6.576 (0.393)    50    221440 5.00000    5.368  80.00- 120.00   100.00
  6.576   6.576 (0.393)    52     70288                     2.97-  62.97    31.74
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.434 (0.444)    58     51659 5.00000    5.480  80.00- 120.00   100.00
  7.434   7.434 (0.444)    43    390010                   739.71- 799.71   754.97
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.590 (0.454)    62    250565 5.00000    5.849  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64     78989                     1.00-  61.00    31.52
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    196080 5.00000    5.743  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    209865                    81.21- 141.21   107.03
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    150459 5.00000    5.964  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    138480                    64.13- 124.13    92.04
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.174 (0.608)    64    111776 5.00000    5.832  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     30859                     0.00-  58.76    27.61
 10.174  10.174 (0.608)    66     36308                     2.67-  62.67    32.48
-------------------------------------------------------------------------------
```

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

   31 Isopentane                                      CAS #: 78-78-4
 10.367  10.367 (0.620)    57    189233 5.00000    5.718  80.00- 120.00   100.00
 10.367  10.367 (0.620)    43    308801                  130.15- 190.15   163.19
 10.367  10.367 (0.620)    42    281651                  114.07- 174.07   148.84
-------------------------------------------------------------------------------
   35 Freon 11                                        CAS #: 75-69-4
 11.114  11.114 (0.664)   101    639723 5.00000    5.570  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    409240                   35.32-  95.32    63.97
-------------------------------------------------------------------------------
   42 Ethanol                                         CAS #: 64-17-5
 12.269  12.269 (0.734)    45     87435 5.00000    6.068  80.00- 120.00   100.00
 12.269  12.269 (0.734)    46     34089                   10.61-  70.61    38.99
 12.269  12.269 (0.734)    43     22636                    0.00-  54.10    25.89
-------------------------------------------------------------------------------
   49 Freon 113                                       CAS #: 76-13-1
 12.763  12.763 (0.763)   151    320721 5.00000    5.758  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153    208566                   35.03-  95.03    65.03
 12.763  12.763 (0.763)   101    455201                  120.75- 180.75   141.93
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                              CAS #: 75-35-4
 12.736  12.736 (0.761)    98    115330 5.00000    5.341  80.00- 120.00   100.00
 12.736  12.736 (0.761)    61    376587                  282.13- 342.13   326.53
 12.736  12.736 (0.761)    96    185004                  125.40- 185.40   160.41
-------------------------------------------------------------------------------
   52 Acetone                                         CAS #: 67-64-1
 13.093  13.093 (0.783)    58    104983 5.00000    5.325  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    398401                  344.67- 404.67   379.49
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.120  13.120 (0.784)    76    606299 5.00000    5.643  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.532  13.532 (0.809)    45    338287 5.00000    4.955  80.00- 120.00   100.00
 13.532  13.532 (0.809)    43     94385                    0.00-  54.80    27.90
 13.532  13.532 (0.809)    59     12786                    0.00-  33.44     3.78
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76     82492 5.00000    5.290  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41    273676                  306.81- 366.81   331.76
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84    196905 5.00000    5.418  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49    293474                  122.68- 182.68   149.04
 14.027  14.027 (0.839)    51     87251                   16.23-  76.23    44.31
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59    417560 5.00000    5.205  80.00- 120.00   100.00
```

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

   71 tert-Butyl alcohol (continued)
 14.329  14.329 (0.857)    41    133327                     0.00-  58.55    31.93
 14.329  14.329 (0.857)    57     50270                     0.00-  41.33    12.04
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                       CAS #: 1634-04-4
 14.439  14.439 (0.863)    73    639148 5.00000    5.744  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    146717                     0.00-  53.36    22.96
 14.439  14.439 (0.863)    41    172875                     0.00-  57.08    27.05
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.493  14.493 (0.866)    98    131262 5.00000    5.456  80.00- 120.00   100.00
 14.493  14.493 (0.866)    61    346799                   242.30- 302.30   264.20
 14.493  14.493 (0.866)    96    210100                   130.73- 190.73   160.06
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57    335459 5.00000    5.412  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    238532                    38.79-  98.79    71.11
 14.878  14.878 (0.889)    86     58149                     0.00-  45.75    17.33
-------------------------------------------------------------------------------
   83 Isopropyl ether                               CAS #: 108-20-3
 15.317  15.317 (0.916)    45    767439 5.00000    5.477  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    171546                     0.00-  52.38    22.35
 15.317  15.317 (0.916)    59     82425                     0.00-  40.55    10.74
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 15.345  15.345 (0.917)    63    448323 5.00000    5.523  80.00- 120.00   100.00
 15.345  15.345 (0.917)    65    139543                     1.12-  61.12    31.13
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.399  15.399 (0.921)    86     50422 5.00000    6.456  80.00- 120.00   100.00
 15.399  15.399 (0.921)    42     53046                    85.15- 145.15   105.20
 15.399  15.399 (0.921)    43    592637                  1231.92-1291.92  1175.35
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.930  15.930 (0.952)    59    732727 5.00000    5.536  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    274904                     7.22-  67.22    37.52
 15.930  15.930 (0.952)    41    175470                     0.00-  52.37    23.95
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.323  16.323 (0.976)    98    139927 5.00000    5.633  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61    344138                   215.99- 275.99   245.94
 16.323  16.323 (0.976)    96    216948                   128.72- 188.72   155.04
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72    104784 5.00000    5.522  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    479624                   429.73- 489.73   457.73
```

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

   92 2-Butanone (continued)
 16.344  16.344 (0.977)    57     37647                     3.86-  63.86    35.93
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.695  16.695 (0.998)    42    277313 5.00000    5.569  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71     96588                     5.73-  65.73    34.83
 16.695  16.695 (0.998)    72    104444                     7.14-  67.14    37.66
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
 16.819  16.819 (1.006)    83    523969 5.00000    5.704  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    338338                    34.71-  94.71    64.57
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
 17.035  17.035 (1.018)    84    291401 5.00000    5.483  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    372084                    96.90- 156.90   127.69
 17.035  17.035 (1.018)    41    234353                    49.25- 109.25    80.42
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
 17.065  17.065 (1.020)    97    564368 5.00000    5.847  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99    357309                    34.75-  94.75    63.31
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
 17.250  17.250 (1.031)   119    470405 5.00000    5.998  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    490752                    74.42- 134.42   104.33
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 17.579  17.579 (1.051)    56    326173 5.00000    5.600  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57    981486                   271.04- 331.04   300.91
 17.579  17.579 (1.051)    41    307958                    64.98- 124.98    94.42
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
 17.620  17.620 (0.966)    78    638987 5.00000    5.952  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77    153684                     0.00-  53.23    24.05
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
 17.703  17.703 (0.971)    87    139942 5.00000    6.042  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    602022                   419.18- 479.18   430.19
 17.703  17.703 (0.971)    55    198806                   109.81- 169.81   142.06
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
 17.744  17.744 (0.973)    62    376376 5.00000    6.320  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    118600                     1.10-  61.10    31.51
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 17.847  17.847 (0.979)    57    203260 5.00000    6.211  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     58601                     1.33-  61.33    28.83
```

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

  121 Heptane (continued)
 17.847  17.847 (0.979)    43    401734                  175.11- 235.11   197.65
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 18.610  18.610 (1.021)   130    260781 5.00000    5.731  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95    287531                   84.12- 144.12   110.26
 18.610  18.610 (1.021)    97    187234                   43.34- 103.34    71.80
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
 18.833  18.833 (1.033)    83    370807 5.00000    5.833  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55    340678                   60.57- 120.57    91.87
 18.833  18.833 (1.033)    56    110633                    0.00-  58.53    29.84
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.079  19.079 (1.046)    63    263007 5.00000    5.761  80.00- 120.00   100.00
 19.079  19.079 (1.046)    62    185224                   42.42- 102.42    70.43
 19.056  19.056 (1.045)    41    191322                   41.51- 101.51    72.74
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.213  19.213 (1.054)    88    154399 5.00000    6.075  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    124128                   50.32- 110.32    80.39
 19.213  19.213 (1.054)    57     40252                    0.00-  56.87    26.07
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
 19.503  19.503 (0.821)    83    516339 5.00000    6.256  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    333158                   33.43-  93.43    64.52
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 20.338  20.338 (1.116)    75    405481 5.00000    5.789  80.00- 120.00   100.00
 20.354  20.354 (1.116)    77    127426                    1.18-  61.18    31.43
 20.338  20.338 (1.116)    39    246126                   30.96-  90.96    60.70
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 20.572  20.572 (1.128)    43    557672 5.00000    6.037  80.00- 120.00   100.00
 20.556  20.556 (1.128)    58    197501                    6.36-  66.36    35.42
 20.572  20.572 (1.128)    85     82945                    0.00-  44.79    14.87
-------------------------------------------------------------------------------
  147 Toluene                                        CAS #: 108-88-3
 20.962  20.962 (1.150)    91    694310 5.00000    5.889  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    406872                   29.68-  89.68    58.60
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                      CAS #: 10061-02-6
 21.564  21.564 (0.908)    75    373702 5.00000    6.168  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    118088                    0.89-  60.89    31.60
 21.564  21.564 (0.908)    39    201590                   25.98-  85.98    53.94
-------------------------------------------------------------------------------
```

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

  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97    265939 5.00000    5.775  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99    170027                   32.06-  92.06    63.93
 21.999  21.999 (0.926)    83    229761                   59.95- 119.95    86.40
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166    322335 5.00000    6.308  80.00- 120.00   100.00
 22.174  22.174 (0.933)   129    257489                   51.43- 111.43    79.88
 22.174  22.174 (0.933)   131    246229                   46.81- 106.81    76.39
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.406  22.406 (0.943)    58    230665 5.00000    5.664  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43    468557                  168.77- 228.77   203.13
 22.406  22.406 (0.943)   100     44452                    0.00-  48.17    19.27
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.784  22.784 (0.959)   129    474179 5.00000    6.840  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    362606                   50.40- 110.40    76.47
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.045  23.045 (0.970)   107    407140 5.00000    6.414  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    386809                   64.13- 124.13    95.01
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.823  23.823 (1.003)   112    536854 5.00000    5.994  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    177657                    1.85-  61.85    33.09
 23.823  23.823 (1.003)    77    361491                   40.34- 100.34    67.34
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106    253436 5.00000    6.148  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91    864427                  302.97- 362.97   341.08
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    268794 5.00000    5.934  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    596102                  185.70- 245.70   221.77
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    256981 5.00000    6.040  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    588103                  201.87- 261.87   228.85
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.730  24.730 (1.041)   104    373796 5.00000    6.196  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78    226491                   30.45-  90.45    60.59
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173    415426 5.00000    6.822  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
174 Bromoform (continued)							
25.068	25.068 (1.055)	171	216793			22.22- 82.22	52.19
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	885118	5.00000	6.263	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	223921			0.00- 55.53	25.30
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	588380	5.00000	6.158	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	373566			31.99- 91.99	63.49
182 Propylbenzene					CAS #: 103-65-1		
25.731	25.731 (1.083)	91	874522	5.00000	5.686	80.00- 120.00	100.00
25.731	25.731 (1.083)	120	181250			0.00- 51.03	20.73
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	674240	5.00000	5.363	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	195644			0.00- 59.04	29.02
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	666068	5.00000	6.350	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	304567			16.07- 76.07	45.73
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	645330	5.00000	6.071	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	281586			13.07- 73.07	43.63
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	400360	5.00000	5.582	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	253744			36.17- 96.17	63.38
26.794	26.794 (1.128)	111	178893			17.10- 77.10	44.68
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	351290	5.00000	5.454	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	226217			33.17- 93.17	64.40
26.919	26.919 (1.133)	111	151403			13.98- 73.98	43.10
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	571962	5.00000	6.137	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	102143			0.00- 47.62	17.86
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	368811	5.00000	5.618	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	230399			33.03- 93.03	62.47
27.371	27.371 (1.152)	111	174599			16.58- 76.58	47.34

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	337645	5.00000	5.748	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	319030			65.16- 125.16	94.49
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	262071	5.00000	5.701	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	166664			34.44- 94.44	63.59
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	48317	0.50000	0.3912	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	6506			0.00- 42.14	13.47

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: msd20.i
Lab File ID: 20051902.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 19-MAY-2016
Calibration Time: 08:37
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	105902	63541	148263	105902	0.00
123 1,4-Difluorobenze	416950	250170	583730	416950	0.00
163 Chlorobenzene-d5	354592	212755	496429	354592	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19May2016.b/20051902.d

Date : 19-MAY-2016 08:37

Client ID: CCV

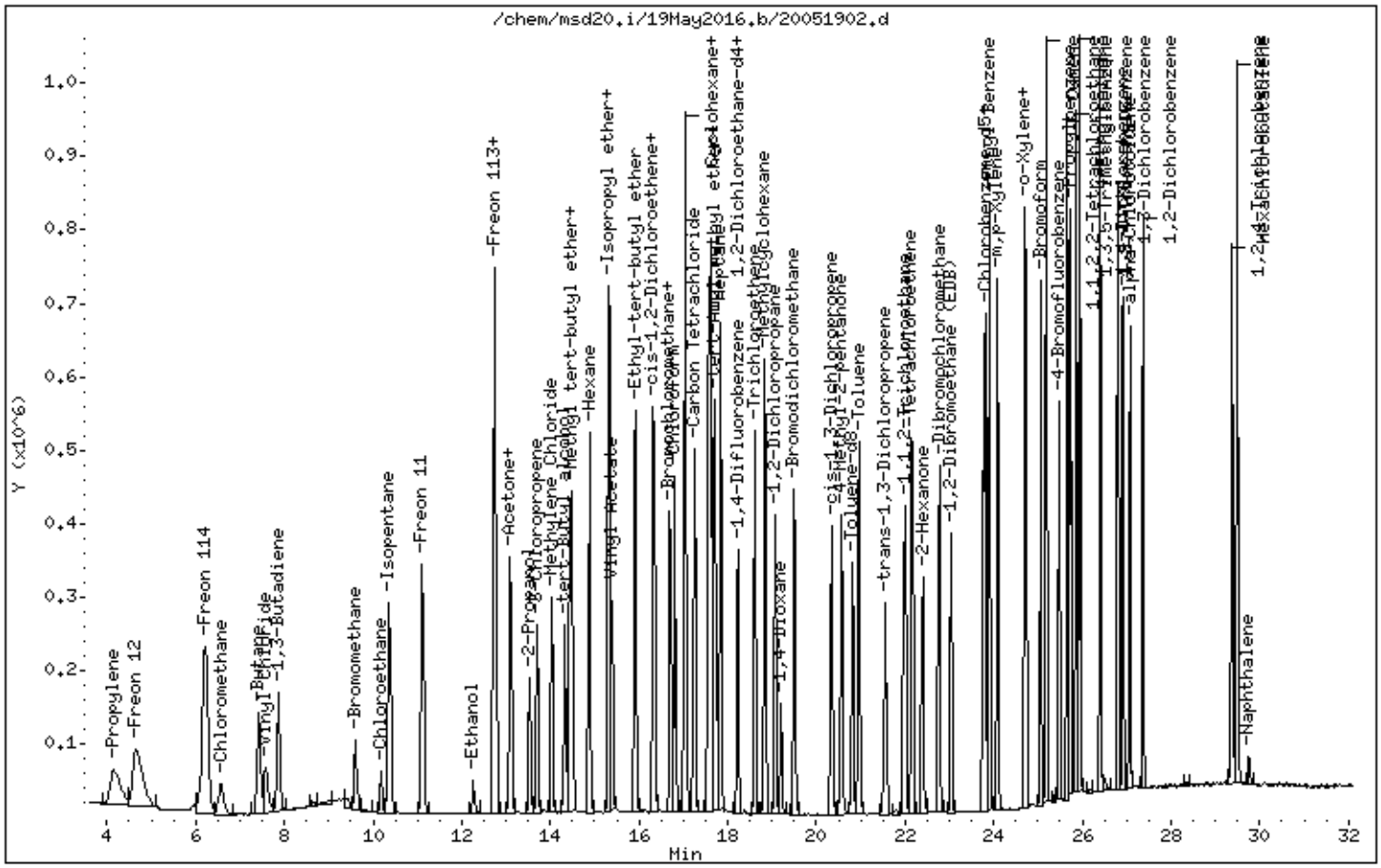
Instrument: msd20.i

Sample Info: 25mL# 2789-50

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCS

Lab ID#: 1605350A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 09:22 AM**	

Compound	%Recovery	Method Limits
Freon 12	114	70-130
Freon 114	117	70-130
Chloromethane	104	70-130
Vinyl Chloride	121	70-130
1,3-Butadiene	114	70-130
Bromomethane	115	70-130
Chloroethane	113	70-130
Freon 11	119	70-130
Ethanol	109	70-130
Freon 113	113	70-130
1,1-Dichloroethene	112	70-130
Acetone	113	70-130
2-Propanol	100	70-130
Carbon Disulfide	99	70-130
3-Chloropropene	96	70-130
Methylene Chloride	108	70-130
Methyl tert-butyl ether	109	70-130
trans-1,2-Dichloroethene	114	70-130
Hexane	108	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	108	70-130
Chloroform	113	70-130
1,1,1-Trichloroethane	114	70-130
Cyclohexane	110	70-130
Carbon Tetrachloride	130	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	117	70-130
1,2-Dichloroethane	125	70-130
Heptane	123	70-130
Trichloroethene	115	70-130
1,2-Dichloropropane	113	70-130
1,4-Dioxane	117	70-130
Bromodichloromethane	128	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	119	70-130
Toluene	116	70-130
trans-1,3-Dichloropropene	122	70-130
1,1,2-Trichloroethane	115	70-130
Tetrachloroethene	128	70-130
2-Hexanone	107	70-130

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Client Sample ID: LCS

Lab ID#: 1605350A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 09:22 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	138 Q	70-130
1,2-Dibromoethane (EDB)	128	70-130
Chlorobenzene	116	70-130
Ethyl Benzene	122	70-130
m,p-Xylene	120	70-130
o-Xylene	119	70-130
Styrene	123	70-130
Bromoform	145 Q	70-130
Cumene	123	70-130
1,1,2,2-Tetrachloroethane	125	70-130
Propylbenzene	111	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	120	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	125	70-130
1,2-Dichlorobenzene	111	70-130
1,2,4-Trichlorobenzene	116	70-130
Hexachlorobutadiene	115	70-130
Naphthalene	75	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	106	70-130

Report Date: 19-May-2016 10:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 19May2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.612	112.24	60-140
11 Freon 12	5.000	5.728	114.55	70-130
15 Freon 114	5.000	5.861	117.22	70-130
17 Chloromethane	5.000	5.216	104.32	70-130
23 Butane	5.000	6.040	120.80	60-140
25 Vinyl Chloride	5.000	6.032	120.64	70-130
26 1,3-Butadiene	5.000	5.693	113.87	70-130
29 Bromomethane	5.000	5.746	114.91	70-130
30 Chloroethane	5.000	5.638	112.77	70-130
31 Isopentane	5.000	5.542	110.84	60-140
35 Freon 11	5.000	5.966	119.32	70-130
42 Ethanol	5.000	5.437	108.75	70-130
49 Freon 113	5.000	5.650	112.99	70-130
50 1,1-Dichloroethene	5.000	5.604	112.07	70-130
52 Acetone	5.000	5.639	112.79	70-130
56 Carbon Disulfide	5.000	4.932	98.64	70-130
57 2-Propanol	5.000	5.010	100.20	70-130
58 3-Chloropropene	5.000	4.803	96.07	70-130
66 Methylene Chloride	5.000	5.409	108.18	70-130
72 Methyl tert-butyl	5.000	5.454	109.09	70-130
73 trans-1,2-Dichloro	4.250	4.851	114.13	70-130
78 Hexane	5.000	5.405	108.10	70-130
82 1,1-Dichloroethane	5.000	5.441	108.82	70-130
86 Vinyl Acetate	5.000	5.612	112.25	60-140
91 cis-1,2-Dichloroet	5.650	5.989	106.01	70-130
92 2-Butanone	5.000	5.412	108.25	70-130
99 Tetrahydrofuran	5.000	5.426	108.52	70-130
100 Chloroform	5.000	5.651	113.02	70-130
103 1,1,1-Trichloroeth	5.000	5.699	113.98	70-130
106 Carbon Tetrachlori	5.000	6.480	129.61	70-130
102 Cyclohexane	5.000	5.483	109.65	70-130
113 2,2,4-Trimethylpen	5.000	5.609	112.18	70-130
116 Benzene	5.000	5.852	117.04	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	6.266	125.32	70-130
121 Heptane	5.000	6.163	123.27	70-130
125 Trichloroethene	5.000	5.731	114.63	70-130
127 Methylcyclohexane	5.000	5.937	118.73	60-140
132 1,2-Dichloropropan	5.000	5.668	113.36	70-130
136 1,4-Dioxane	5.000	5.832	116.64	70-130
138 Bromodichlorometha	5.000	6.404	128.09	70-130
144 cis-1,3-Dichloropr	5.000	5.461	109.22	70-130
145 4-Methyl-2-pentano	5.000	5.966	119.31	70-130
147 Toluene	5.000	5.807	116.13	70-130
150 trans-1,3-Dichloro	5.000	6.112	122.25	70-130
155 1,1,2-Trichloroeth	5.000	5.772	115.44	70-130
156 Tetrachloroethene	5.000	6.377	127.55	70-130
158 2-Hexanone	5.000	5.363	107.27	70-130
160 Dibromochlorometha	5.000	6.923	138.47*	70-130
161 1,2-Dibromoethane	5.000	6.391	127.82	70-130
165 Chlorobenzene	5.000	5.797	115.93	70-130
167 Ethyl Benzene	5.000	6.093	121.86	70-130
169 m,p-Xylene	5.000	5.995	119.90	70-130
171 o-Xylene	5.000	5.973	119.46	70-130
172 Styrene	5.000	6.174	123.47	70-130
174 Bromoform	6.500	9.410	144.77*	70-130
175 Cumene	5.000	6.155	123.10	70-130
181 1,1,2,2-Tetrachlor	5.000	6.233	124.66	70-130
182 Propylbenzene	5.000	5.558	111.15	70-130
188 4-Ethyltoluene	5.000	5.126	102.51	70-130
190 1,3,5-Trimethylben	5.000	6.009	120.18	70-130
196 1,2,4-Trimethylben	5.000	5.780	115.60	70-130
208 1,3-Dichlorobenzen	5.000	5.519	110.39	70-130
209 1,4-Dichlorobenzen	5.000	5.330	106.60	70-130
212 alpha-Chlorotoluen	5.000	6.233	124.67	70-130
214 1,2-Dichlorobenzen	5.000	5.535	110.71	70-130
226 1,2,4-Trichloroben	5.000	5.797	115.95	70-130
227 Hexachlorobutadien	5.000	5.754	115.08	70-130
228 Naphthalene	0.5000	0.3745	74.91	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.755	95.11	70-130
$ 146 Toluene-d8	5.000	5.226	104.53	70-130
$ 177 4-Bromofluorobenze	5.000	5.304	106.09	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19May2016.b/20051903.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 19-MAY-2016 09:22
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-9
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19May2016.b/2016l0210c.m
Meth Date : 19-May-2016 09:20 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	107562	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	85642			46.65- 106.65	79.62
16.726	16.726 (1.000)	49	182353			153.40- 213.40	169.53
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	421934	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	75329			0.00- 48.22	17.85
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	357659	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	235181			37.02- 97.02	65.76
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	208960	4.75549	4.755	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	114964			26.73- 86.73	55.02
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	444630	5.22658	5.226	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	61074			0.00- 43.74	13.74

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    290053                    35.47-  95.47    65.23
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    184727 5.30429    5.304  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    272440                  125.82- 185.82   147.48
 25.466  25.485 (1.072)   176    172626                    65.90- 125.90    93.45
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.166   4.166 (0.249)    41    226978 5.61181    5.612  80.00- 120.00   100.00
  4.166   4.142 (0.249)    42    151185                     0.00-  53.15    66.61
  4.166   4.142 (0.249)    39    175170                    47.58- 107.58    77.17
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.672 (0.279)    85    747608 5.72751    5.728  80.00- 120.00   100.00
  4.672   4.672 (0.279)    87    237847                     1.87-  61.87    31.81
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135    407027 5.86117    5.861  80.00- 120.00   100.00
  6.215   6.215 (0.372)   137    129531                     1.11-  61.11    31.82
  6.215   6.215 (0.372)    85    618215                   144.76- 204.76   151.89
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.577   6.576 (0.393)    50    218531 5.21612    5.216  80.00- 120.00   100.00
  6.577   6.576 (0.393)    52     70086                     2.97-  62.97    32.07
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.434 (0.444)    58     57829 6.03984    6.040  80.00- 120.00   100.00
  7.434   7.434 (0.444)    43    442477                   739.71- 799.71   765.13
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.590 (0.454)    62    262468 6.03193    6.032  80.00- 120.00   100.00
  7.590   7.573 (0.454)    64     83504                     1.00-  61.00    31.82
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    197438 5.69337    5.693  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    220358                    81.21- 141.21   111.61
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    147222 5.74553    5.746  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    137413                    64.13- 124.13    93.34
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.198  10.174 (0.610)    64    109762 5.63846    5.638  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     30822                     0.00-  58.76    28.08
 10.174  10.174 (0.608)    66     33554                     2.67-  62.67    30.57
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	186267	5.54187	5.542	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	283636			130.15- 190.15	152.27
10.367	10.367 (0.620)	42	258928			114.07- 174.07	139.01
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	695950	5.96611	5.966	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	452115			35.32- 95.32	64.96
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	79579	5.43746	5.437	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	32060			10.61- 70.61	40.29
12.269	12.269 (0.734)	43	21127			0.00- 54.10	26.55
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	319637	5.64952	5.650	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	206847			35.03- 95.03	64.71
12.763	12.763 (0.763)	101	456141			120.75- 180.75	142.71
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	122889	5.60350	5.604	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	381172			282.13- 342.13	310.17
12.736	12.736 (0.761)	96	190128			125.40- 185.40	154.71
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	112922	5.63938	5.639	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	419937			344.67- 404.67	371.88
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	538261	4.93211	4.932	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.532 (0.809)	45	347414	5.01012	5.010	80.00- 120.00	100.00
13.533	13.532 (0.809)	43	95424			0.00- 54.80	27.47
13.533	13.532 (0.809)	59	12610			0.00- 33.44	3.63
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	76084	4.80344	4.803	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	252343			306.81- 366.81	331.66
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	199636	5.40879	5.409	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	295775			122.68- 182.68	148.16
14.027	14.027 (0.839)	51	88937			16.23- 76.23	44.55
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	616411	5.45453	5.454	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   72 Methyl tert-butyl ether (continued)
 14.439  14.439 (0.863)    57    133390                     0.00-  53.36    21.64
 14.439  14.439 (0.863)    41    178994                     0.00-  57.08    29.04
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.494  14.493 (0.866)    98    118522 4.85070    4.851  80.00- 120.00   100.00
 14.494  14.493 (0.866)    61    307258                  242.30- 302.30   259.24
 14.494  14.493 (0.866)    96    181565                  130.73- 190.73   153.19
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57    340309 5.40500    5.405  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    238715                   38.79-  98.79    70.15
 14.878  14.878 (0.889)    86     56450                    0.00-  45.75    16.59
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 15.345  15.345 (0.917)    63    448621 5.44117    5.441  80.00- 120.00   100.00
 15.345  15.345 (0.917)    65    139772                    1.12-  61.12    31.16
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.400  15.399 (0.921)    86     44522 5.61243    5.612  80.00- 120.00   100.00
 15.400  15.399 (0.921)    42     51877                   85.15- 145.15   116.52
 15.400  15.399 (0.921)    43    541407                  1231.92-1291.92  1216.03
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.324  16.323 (0.976)    98    151108 5.98940    5.989  80.00- 120.00   100.00
 16.324  16.323 (0.976)    61    371088                  215.99- 275.99   245.58
 16.324  16.323 (0.976)    96    238281                  128.72- 188.72   157.69
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72    104309 5.41247    5.412  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    474947                  429.73- 489.73   455.33
 16.344  16.344 (0.977)    57     36138                    3.86-  63.86    34.65
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 16.696  16.695 (0.998)    42    274421 5.42615    5.426  80.00- 120.00   100.00
 16.696  16.695 (0.998)    71     93633                    5.73-  65.73    34.12
 16.696  16.695 (0.998)    72    101744                    7.14-  67.14    37.08
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83    527206 5.65120    5.651  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    338671                   34.71-  94.71    64.24
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84    295934 5.48262    5.483  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    372827                   96.90- 156.90   125.98
 17.035  17.035 (1.018)    41    236348                   49.25- 109.25    79.87
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	558687	5.69921	5.699	80.00- 120.00	100.00
17.065	17.065 (1.020)	99	360694			34.75- 94.75	64.56
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	516230	6.48051	6.480	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	536587			74.42- 134.42	103.94
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	331795	5.60879	5.609	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	1003567			271.04- 331.04	302.47
17.579	17.579 (1.051)	41	305196			64.98- 124.98	91.98
116 Benzene					CAS #: 71-43-2		
17.621	17.620 (0.966)	78	635712	5.85205	5.852	80.00- 120.00	100.00
17.621	17.620 (0.966)	77	155911			0.00- 53.23	24.53
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	377619	6.26616	6.266	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	121251			1.10- 61.10	32.11
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	204105	6.16332	6.163	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	64882			1.33- 61.33	31.79
17.847	17.847 (0.979)	43	401500			175.11- 235.11	196.71
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	263912	5.73136	5.731	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	294875			84.12- 144.12	111.73
18.610	18.610 (1.021)	97	184661			43.34- 103.34	69.97
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	381888	5.93662	5.937	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	341410			60.57- 120.57	89.40
18.833	18.833 (1.033)	56	106263			0.00- 58.53	27.83
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.079	19.079 (1.046)	63	261858	5.66817	5.668	80.00- 120.00	100.00
19.057	19.079 (1.045)	62	191504			42.42- 102.42	73.13
19.057	19.056 (1.045)	41	196952			41.51- 101.51	75.21
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	149996	5.83191	5.832	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	115166			50.32- 110.32	76.78
19.213	19.213 (1.054)	57	40451			0.00- 56.87	26.97

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	533144	6.40436	6.404	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	339184			33.43- 93.43	63.62
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	387040	5.46079	5.461	80.00- 120.00	100.00
20.354	20.354 (1.116)	77	121485			1.18- 61.18	31.39
20.338	20.338 (1.116)	39	228283			30.96- 90.96	58.98
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.572 (1.128)	43	557635	5.96553	5.966	80.00- 120.00	100.00
20.557	20.556 (1.128)	58	204040			6.36- 66.36	36.59
20.572	20.572 (1.128)	85	80309			0.00- 44.79	14.40
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	692758	5.80667	5.807	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	413512			29.68- 89.68	59.69
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	373571	6.11255	6.112	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	119520			0.89- 60.89	31.99
21.564	21.564 (0.908)	39	198782			25.98- 85.98	53.21
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	268107	5.77187	5.772	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	165393			32.06- 92.06	61.69
21.999	21.999 (0.926)	83	236869			59.95- 119.95	88.35
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	328717	6.37750	6.377	80.00- 120.00	100.00
22.145	22.174 (0.932)	129	258336			51.43- 111.43	78.59
22.145	22.174 (0.932)	131	245785			46.81- 106.81	74.77
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	220297	5.36346	5.363	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	451894			168.77- 228.77	205.13
22.406	22.406 (0.943)	100	41583			0.00- 48.17	18.88
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	484141	6.92334	6.923	80.00- 120.00	100.00(R)
22.784	22.784 (0.959)	127	370745			50.40- 110.40	76.58
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	409162	6.39077	6.391	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	379671			64.13- 124.13	92.79

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene                                CAS #: 108-90-7
 23.823  23.823 (1.003)   112    523657 5.79665    5.797  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    170227                     1.85-  61.85    32.51
 23.823  23.823 (1.003)    77    363677                    40.34- 100.34    69.45
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.905 (1.006)   106    253355 6.09302    6.093  80.00- 120.00   100.00
 23.906  23.905 (1.006)    91    857348                   302.97- 362.97   338.40
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    273885 5.99505    5.995  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    593502                   185.70- 245.70   216.70
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    256328 5.97303    5.973  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    596745                   201.87- 261.87   232.81
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.730 (1.041)   104    375691 6.17371    6.174  80.00- 120.00   100.00
 24.731  24.730 (1.041)    78    229010                    30.45-  90.45    60.96
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173    578039 9.41037    9.410  80.00- 120.00   100.00(R)
 25.068  25.068 (1.055)   171    291366                    22.22-  82.22    50.41
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105    877421 6.15507    6.155  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    225444                     0.00-  55.53    25.69
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 25.656  25.656 (1.080)    83    600724 6.23308    6.233  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    381947                    31.99-  91.99    63.58
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 25.732  25.731 (1.083)    91    862118 5.55761    5.558  80.00- 120.00   100.00
 25.732  25.731 (1.083)   120    181217                     0.00-  51.03    21.02
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 25.864  25.864 (1.089)   105    649991 5.12572    5.126  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    186953                     0.00-  59.04    28.76
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 25.940  25.940 (1.092)   105    635746 6.00888    6.009  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    288006                    16.07-  76.07    45.30
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 26.395  26.395 (1.111)   105    619740 5.78013    5.780  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	273155			13.07- 73.07	44.08
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	399276	5.51928	5.519	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	250549			36.17- 96.17	62.75
26.794	26.794 (1.128)	111	177654			17.10- 77.10	44.49
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	346284	5.33021	5.330	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	220909			33.17- 93.17	63.79
26.919	26.919 (1.133)	111	153513			13.98- 73.98	44.33
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	585929	6.23345	6.233	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	106501			0.00- 47.62	18.18
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	366557	5.53549	5.535	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	230595			33.03- 93.03	62.91
27.371	27.371 (1.152)	111	164717			16.58- 76.58	44.94
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.367	29.382 (1.236)	180	343454	5.79729	5.797	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	323206			65.16- 125.16	94.10
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	266789	5.75397	5.754	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	165279			34.44- 94.44	61.95
228 Naphthalene					CAS #: 91-20-3		
29.756	29.772 (1.252)	128	46665	0.37454	0.3745	80.00- 120.00	100.00(a)
29.756	29.772 (1.252)	127	7261			0.00- 42.14	15.56

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051903.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 19-MAY-2016
Calibration Time: 08:37
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	105902	63541	148263	107562	1.57
123 1,4-Difluorobenze	416950	250170	583730	421934	1.20
163 Chlorobenzene-d5	354592	212755	496429	357659	0.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19May2016.b/20051903.d

Date : 19-MAY-2016 09:22

Client ID: LCS

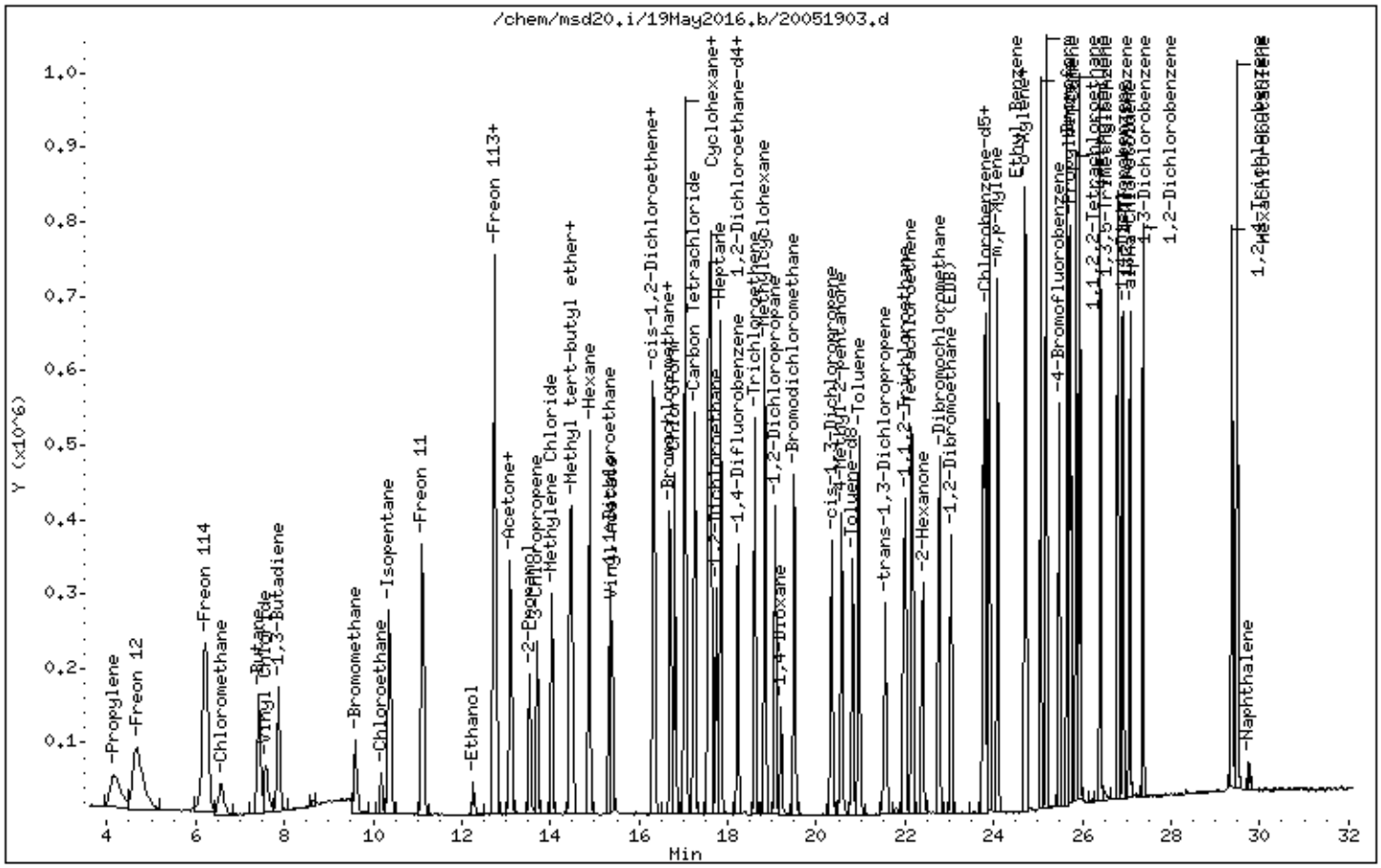
Instrument: msd20.i

Sample Info: 25mL# 2789-9

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1605350A-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 10:06 AM**	

Compound	%Recovery	Method Limits
Freon 12	114	70-130
Freon 114	116	70-130
Chloromethane	103	70-130
Vinyl Chloride	120	70-130
1,3-Butadiene	113	70-130
Bromomethane	125	70-130
Chloroethane	120	70-130
Freon 11	115	70-130
Ethanol	122	70-130
Freon 113	114	70-130
1,1-Dichloroethene	121	70-130
Acetone	125	70-130
2-Propanol	108	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	106	70-130
Methylene Chloride	108	70-130
Methyl tert-butyl ether	109	70-130
trans-1,2-Dichloroethene	113	70-130
Hexane	109	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	110	70-130
cis-1,2-Dichloroethene	107	70-130
Tetrahydrofuran	110	70-130
Chloroform	115	70-130
1,1,1-Trichloroethane	115	70-130
Cyclohexane	111	70-130
Carbon Tetrachloride	130	70-130
2,2,4-Trimethylpentane	113	70-130
Benzene	119	70-130
1,2-Dichloroethane	123	70-130
Heptane	122	70-130
Trichloroethene	116	70-130
1,2-Dichloropropane	114	70-130
1,4-Dioxane	114	70-130
Bromodichloromethane	128	70-130
cis-1,3-Dichloropropene	108	70-130
4-Methyl-2-pentanone	121	70-130
Toluene	118	70-130
trans-1,3-Dichloropropene	122	70-130
1,1,2-Trichloroethane	118	70-130
Tetrachloroethene	125	70-130
2-Hexanone	110	70-130

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Client Sample ID: LCSD

Lab ID#: 1605350A-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20051904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/19/16 10:06 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	137 Q	70-130
1,2-Dibromoethane (EDB)	128	70-130
Chlorobenzene	116	70-130
Ethyl Benzene	124	70-130
m,p-Xylene	117	70-130
o-Xylene	121	70-130
Styrene	127	70-130
Bromoform	145 Q	70-130
Cumene	125	70-130
1,1,2,2-Tetrachloroethane	122	70-130
Propylbenzene	112	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	119	70-130
1,3-Dichlorobenzene	111	70-130
1,4-Dichlorobenzene	110	70-130
alpha-Chlorotoluene	125	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	120	70-130
Hexachlorobutadiene	118	70-130
Naphthalene	76	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	104	70-130

Report Date: 19-May-2016 10:48

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 19May2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.492	109.85	60-140
11 Freon 12	5.000	5.694	113.87	70-130
15 Freon 114	5.000	5.818	116.35	70-130
17 Chloromethane	5.000	5.165	103.30	70-130
23 Butane	5.000	5.210	104.20	60-140
25 Vinyl Chloride	5.000	6.006	120.12	70-130
26 1,3-Butadiene	5.000	5.634	112.69	70-130
29 Bromomethane	5.000	6.257	125.14	70-130
30 Chloroethane	5.000	6.004	120.07	70-130
31 Isopentane	5.000	5.809	116.18	60-140
35 Freon 11	5.000	5.768	115.36	70-130
42 Ethanol	5.000	6.089	121.78	70-130
49 Freon 113	5.000	5.706	114.12	70-130
50 1,1-Dichloroethene	5.000	6.040	120.80	70-130
52 Acetone	5.000	6.240	124.80	70-130
56 Carbon Disulfide	5.000	5.377	107.54	70-130
57 2-Propanol	5.000	5.399	107.97	70-130
58 3-Chloropropene	5.000	5.300	106.00	70-130
66 Methylene Chloride	5.000	5.412	108.23	70-130
72 Methyl tert-butyl	5.000	5.463	109.26	70-130
73 trans-1,2-Dichloro	4.250	4.788	112.66	70-130
78 Hexane	5.000	5.468	109.36	70-130
82 1,1-Dichloroethane	5.000	5.474	109.47	70-130
86 Vinyl Acetate	5.000	5.845	116.89	60-140
91 cis-1,2-Dichloroet	5.650	6.071	107.45	70-130
92 2-Butanone	5.000	5.522	110.45	70-130
99 Tetrahydrofuran	5.000	5.503	110.06	70-130
100 Chloroform	5.000	5.773	115.46	70-130
103 1,1,1-Trichloroeth	5.000	5.768	115.36	70-130
106 Carbon Tetrachlori	5.000	6.481	129.63	70-130
102 Cyclohexane	5.000	5.565	111.30	70-130
113 2,2,4-Trimethylpen	5.000	5.662	113.25	70-130
116 Benzene	5.000	5.942	118.83	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	6.132	122.64	70-130
121 Heptane	5.000	6.092	121.84	70-130
125 Trichloroethene	5.000	5.792	115.85	70-130
127 Methylcyclohexane	5.000	5.922	118.45	60-140
132 1,2-Dichloropropan	5.000	5.680	113.59	70-130
136 1,4-Dioxane	5.000	5.725	114.50	70-130
138 Bromodichlorometha	5.000	6.420	128.41	70-130
144 cis-1,3-Dichloropr	5.000	5.389	107.79	70-130
145 4-Methyl-2-pentano	5.000	6.052	121.04	70-130
147 Toluene	5.000	5.919	118.39	70-130
150 trans-1,3-Dichloro	5.000	6.090	121.81	70-130
155 1,1,2-Trichloroeth	5.000	5.884	117.67	70-130
156 Tetrachloroethene	5.000	6.258	125.16	70-130
158 2-Hexanone	5.000	5.483	109.67	70-130
160 Dibromochlorometha	5.000	6.838	136.76*	70-130
161 1,2-Dibromoethane	5.000	6.421	128.42	70-130
165 Chlorobenzene	5.000	5.811	116.21	70-130
167 Ethyl Benzene	5.000	6.186	123.72	70-130
169 m,p-Xylene	5.000	5.861	117.22	70-130
171 o-Xylene	5.000	6.059	121.18	70-130
172 Styrene	5.000	6.335	126.70	70-130
174 Bromoform	6.500	9.399	144.61*	70-130
175 Cumene	5.000	6.233	124.66	70-130
181 1,1,2,2-Tetrachlor	5.000	6.084	121.68	70-130
182 Propylbenzene	5.000	5.628	112.56	70-130
188 4-Ethyltoluene	5.000	5.331	106.62	70-130
190 1,3,5-Trimethylben	5.000	6.044	120.89	70-130
196 1,2,4-Trimethylben	5.000	5.969	119.38	70-130
208 1,3-Dichlorobenzen	5.000	5.536	110.73	70-130
209 1,4-Dichlorobenzen	5.000	5.485	109.70	70-130
212 alpha-Chlorotoluen	5.000	6.265	125.31	70-130
214 1,2-Dichlorobenzen	5.000	5.477	109.55	70-130
226 1,2,4-Trichloroben	5.000	6.011	120.23	70-130
227 Hexachlorobutadien	5.000	5.898	117.97	70-130
228 Naphthalene	0.5000	0.3789	75.79	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.868	97.36	70-130
$ 146 Toluene-d8	5.000	5.300	106.01	70-130
$ 177 4-Bromofluorobenze	5.000	5.178	103.57	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/19May2016.b/20051904.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 19-MAY-2016 10:06
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-9
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/19May2016.b/2016l0210c.m
Meth Date : 19-May-2016 09:20 efinn Quant Type: ISTD
Cal Date : 16-MAY-2016 19:01 Cal File: 20051613.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.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
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	107040	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	86228			46.65- 106.65	80.56
16.726	16.726 (1.000)	49	183725			153.40- 213.40	171.64
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	424222	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	77957			0.00- 48.22	18.38
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	364159	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	237408			37.02- 97.02	65.19
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	212866	4.86804	4.868	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	118534			26.73- 86.73	55.68
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	453367	5.30054	5.300	80.00- 120.00	100.00
20.821	20.821 (1.142)	70	61291			0.00- 43.74	13.52

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    297736                    35.47-  95.47    65.67
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.466  25.466 (1.072)   174    183627 5.17858    5.178  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    275203                  125.82- 185.82   149.87
 25.466  25.485 (1.072)   176    181207                    65.90- 125.90    98.68
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.166   4.166 (0.249)    41    221068 5.49237    5.492  80.00- 120.00   100.00
  4.166   4.142 (0.249)    42    146136                     0.00-  53.15    66.10
  4.118   4.142 (0.246)    39    172263                    47.58- 107.58    77.92
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.648   4.672 (0.278)    85    739576 5.69366    5.694  80.00- 120.00   100.00
  4.648   4.672 (0.278)    87    240836                     1.87-  61.87    32.56
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135    402045 5.81771    5.818  80.00- 120.00   100.00
  6.215   6.215 (0.372)   137    129064                     1.11-  61.11    32.10
  6.191   6.215 (0.370)    85    633550                   144.76- 204.76   157.58
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.552   6.576 (0.392)    50    215347 5.16523    5.165  80.00- 120.00   100.00
  6.552   6.576 (0.392)    52     71145                     2.97-  62.97    33.04
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.416   7.434 (0.443)    58     49641 5.20998    5.210  80.00- 120.00   100.00
  7.416   7.434 (0.443)    43    393608                   739.71- 799.71   792.90
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.573   7.590 (0.453)    62    260060 6.00578    6.006  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64     84023                     1.00-  61.00    32.31
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    194438 5.63426    5.634  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    213786                    81.21- 141.21   109.95
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    159543 6.25678    6.257  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    146255                    64.13- 124.13    91.67
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.174 (0.608)    64    116302 6.00358    6.004  80.00- 120.00   100.00
 10.174  10.174 (0.608)    49     32743                     0.00-  58.76    28.15
 10.174  10.174 (0.608)    66     36563                     2.67-  62.67    31.44
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	194295	5.80896	5.809	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	314976			130.15- 190.15	162.11
10.367	10.367 (0.620)	42	284067			114.07- 174.07	146.20
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	669552	5.76786	5.768	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	424611			35.32- 95.32	63.42
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	88680	6.08889	6.089	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	36605			10.61- 70.61	41.28
12.269	12.269 (0.734)	43	22572			0.00- 54.10	25.45
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	321254	5.70584	5.706	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	203279			35.03- 95.03	63.28
12.763	12.763 (0.763)	101	476232			120.75- 180.75	148.24
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	131823	6.04023	6.040	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	396405			282.13- 342.13	300.71
12.736	12.736 (0.761)	96	201056			125.40- 185.40	152.52
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	124342	6.24002	6.240	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	430355			344.67- 404.67	346.10
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	583938	5.37679	5.377	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.532 (0.809)	45	372533	5.39861	5.399	80.00- 120.00	100.00
13.533	13.532 (0.809)	43	97892			0.00- 54.80	26.28
13.533	13.532 (0.809)	59	13722			0.00- 33.44	3.68
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	83543	5.30011	5.300	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	273227			306.81- 366.81	327.05
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	198766	5.41154	5.412	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	297919			122.68- 182.68	149.88
14.027	14.027 (0.839)	51	90302			16.23- 76.23	45.43
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	614356	5.46291	5.463	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   72 Methyl tert-butyl ether (continued)
 14.439  14.439 (0.863)    57    138518                     0.00-  53.36    22.55
 14.439  14.439 (0.863)    41    176623                     0.00-  57.08    28.75
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.494  14.493 (0.866)    98    116421 4.78800    4.788  80.00- 120.00   100.00
 14.494  14.493 (0.866)    61    305150                  242.30- 302.30   262.11
 14.494  14.493 (0.866)    96    186057                  130.73- 190.73   159.81
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57    342602 5.46800    5.468  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    245414                   38.79-  98.79    71.63
 14.878  14.878 (0.889)    86     56491                    0.00-  45.75    16.49
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 15.345  15.345 (0.917)    63    449100 5.47359    5.474  80.00- 120.00   100.00
 15.345  15.345 (0.917)    65    139174                    1.12-  61.12    30.99
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.400  15.399 (0.921)    86     46138 5.84460    5.845  80.00- 120.00   100.00
 15.400  15.399 (0.921)    42     49352                   85.15- 145.15   106.97
 15.400  15.399 (0.921)    43    545407                  1231.92-1291.92  1182.10
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.323  16.323 (0.976)    98    152418 6.07082    6.071  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61    376090                  215.99- 275.99   246.75
 16.323  16.323 (0.976)    96    242659                  128.72- 188.72   159.21
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72    105910 5.52237    5.522  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    473305                  429.73- 489.73   446.89
 16.344  16.344 (0.977)    57     35994                    3.86-  63.86    33.99
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 16.696  16.695 (0.998)    42    276953 5.50297    5.503  80.00- 120.00   100.00
 16.696  16.695 (0.998)    71     95774                    5.73-  65.73    34.58
 16.696  16.695 (0.998)    72    102436                    7.14-  67.14    36.99
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
 16.819  16.819 (1.006)    83    535970 5.77321    5.773  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    341119                   34.71-  94.71    63.65
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
 17.035  17.035 (1.018)    84    298928 5.56514    5.565  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    380344                   96.90- 156.90   127.24
 17.035  17.035 (1.018)    41    235375                   49.25- 109.25    78.74
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	562672	5.76790	5.768	80.00- 120.00	100.00
17.065	17.065 (1.020)	99	360129			34.75- 94.75	64.00
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	513781	6.48128	6.481	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	544687			74.42- 134.42	106.02
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	333333	5.66233	5.662	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	1005912			271.04- 331.04	301.77
17.579	17.579 (1.051)	41	310594			64.98- 124.98	93.18
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	648951	5.94171	5.942	80.00- 120.00	100.00
17.620	17.620 (0.966)	77	158291			0.00- 53.23	24.39
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	371525	6.13180	6.132	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	119487			1.10- 61.10	32.16
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	202835	6.09195	6.092	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	67268			1.33- 61.33	33.16
17.847	17.847 (0.979)	43	403776			175.11- 235.11	199.07
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	268173	5.79247	5.792	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	285536			84.12- 144.12	106.47
18.610	18.610 (1.021)	97	187331			43.34- 103.34	69.85
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	383044	5.92248	5.922	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	353259			60.57- 120.57	92.22
18.833	18.833 (1.033)	56	110254			0.00- 58.53	28.78
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.057	19.079 (1.045)	63	263805	5.67953	5.680	80.00- 120.00	100.00
19.079	19.079 (1.046)	62	190303			42.42- 102.42	72.14
19.057	19.056 (1.045)	41	194488			41.51- 101.51	73.72
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	148051	5.72524	5.725	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	122553			50.32- 110.32	82.78
19.213	19.213 (1.054)	57	39781			0.00- 56.87	26.87

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	544187	6.42032	6.420	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	348462			33.43- 93.43	64.03
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	384058	5.38950	5.389	80.00- 120.00	100.00
20.338	20.354 (1.116)	77	126122			1.18- 61.18	32.84
20.338	20.338 (1.116)	39	235853			30.96- 90.96	61.41
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.572 (1.128)	43	568776	6.05190	6.052	80.00- 120.00	100.00
20.572	20.556 (1.128)	58	200463			6.36- 66.36	35.24
20.572	20.572 (1.128)	85	85321			0.00- 44.79	15.00
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	710029	5.91933	5.919	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	408046			29.68- 89.68	57.47
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	378988	6.09049	6.090	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	122218			0.89- 60.89	32.25
21.564	21.564 (0.908)	39	209167			25.98- 85.98	55.19
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	278261	5.88354	5.884	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	165109			32.06- 92.06	59.34
21.999	21.999 (0.926)	83	242070			59.95- 119.95	86.99
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	328430	6.25819	6.258	80.00- 120.00	100.00
22.145	22.174 (0.932)	129	266007			51.43- 111.43	80.99
22.145	22.174 (0.932)	131	261150			46.81- 106.81	79.51
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	229315	5.48338	5.483	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	467045			168.77- 228.77	203.67
22.406	22.406 (0.943)	100	44784			0.00- 48.17	19.53
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	486870	6.83810	6.838	80.00- 120.00	100.00(R)
22.784	22.784 (0.959)	127	383303			50.40- 110.40	78.73
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	418578	6.42114	6.421	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	387261			64.13- 124.13	92.52

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	534461	5.81065	5.811	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	172786			1.85- 61.85	32.33
23.823	23.823 (1.003)	77	373141			40.34- 100.34	69.82
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.905 (1.006)	106	261895	6.18599	6.186	80.00- 120.00	100.00
23.906	23.905 (1.006)	91	870659			302.97- 362.97	332.44
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	272620	5.86083	5.861	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	596675			185.70- 245.70	218.87
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	264743	6.05901	6.059	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	604881			201.87- 261.87	228.48
172 Styrene					CAS #: 100-42-5		
24.731	24.730 (1.041)	104	392513	6.33503	6.335	80.00- 120.00	100.00
24.731	24.730 (1.041)	78	240484			30.45- 90.45	61.27
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	587854	9.39934	9.399	80.00- 120.00	100.00(R)
25.068	25.068 (1.055)	171	304281			22.22- 82.22	51.76
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	904642	6.23275	6.233	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	226715			0.00- 55.53	25.06
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	596999	6.08386	6.084	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	391484			31.99- 91.99	65.58
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.731 (1.083)	91	888919	5.62811	5.628	80.00- 120.00	100.00
25.732	25.731 (1.083)	120	182448			0.00- 51.03	20.52
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	688334	5.33121	5.331	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	192530			0.00- 59.04	27.97
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	651111	6.04427	6.044	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	302173			16.07- 76.07	46.41
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	651609	5.96890	5.969	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	279550			13.07- 73.07	42.90
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	407802	5.53652	5.536	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	263934			36.17- 96.17	64.72
26.794	26.794 (1.128)	111	185712			17.10- 77.10	45.54
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.903	26.919 (1.132)	146	362804	5.48481	5.485	80.00- 120.00	100.00
26.903	26.919 (1.132)	148	228503			33.17- 93.17	62.98
26.903	26.919 (1.132)	111	157277			13.98- 73.98	43.35
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	599636	6.26542	6.265	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	110012			0.00- 47.62	18.35
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	369302	5.47741	5.477	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	239668			33.03- 93.03	64.90
27.371	27.371 (1.152)	111	171696			16.58- 76.58	46.49
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.366	29.382 (1.236)	180	362602	6.01126	6.011	80.00- 120.00	100.00
29.366	29.382 (1.236)	182	350327			65.16- 125.16	96.61
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	278455	5.89837	5.898	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	170864			34.44- 94.44	61.36
228 Naphthalene					CAS #: 91-20-3		
29.756	29.772 (1.252)	128	48070	0.37893	0.3789	80.00- 120.00	100.00(a)
29.756	29.772 (1.252)	127	6532			0.00- 42.14	13.59

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20051904.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/19May2016.b/2016l0210c.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 19-MAY-2016
Calibration Time: 08:37
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	105902	63541	148263	107040	1.07
123 1,4-Difluorobenze	416950	250170	583730	424222	1.74
163 Chlorobenzene-d5	354592	212755	496429	364159	2.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/19May2016.b/20051904.d

Date : 19-MAY-2016 10:06

Client ID: LCSD

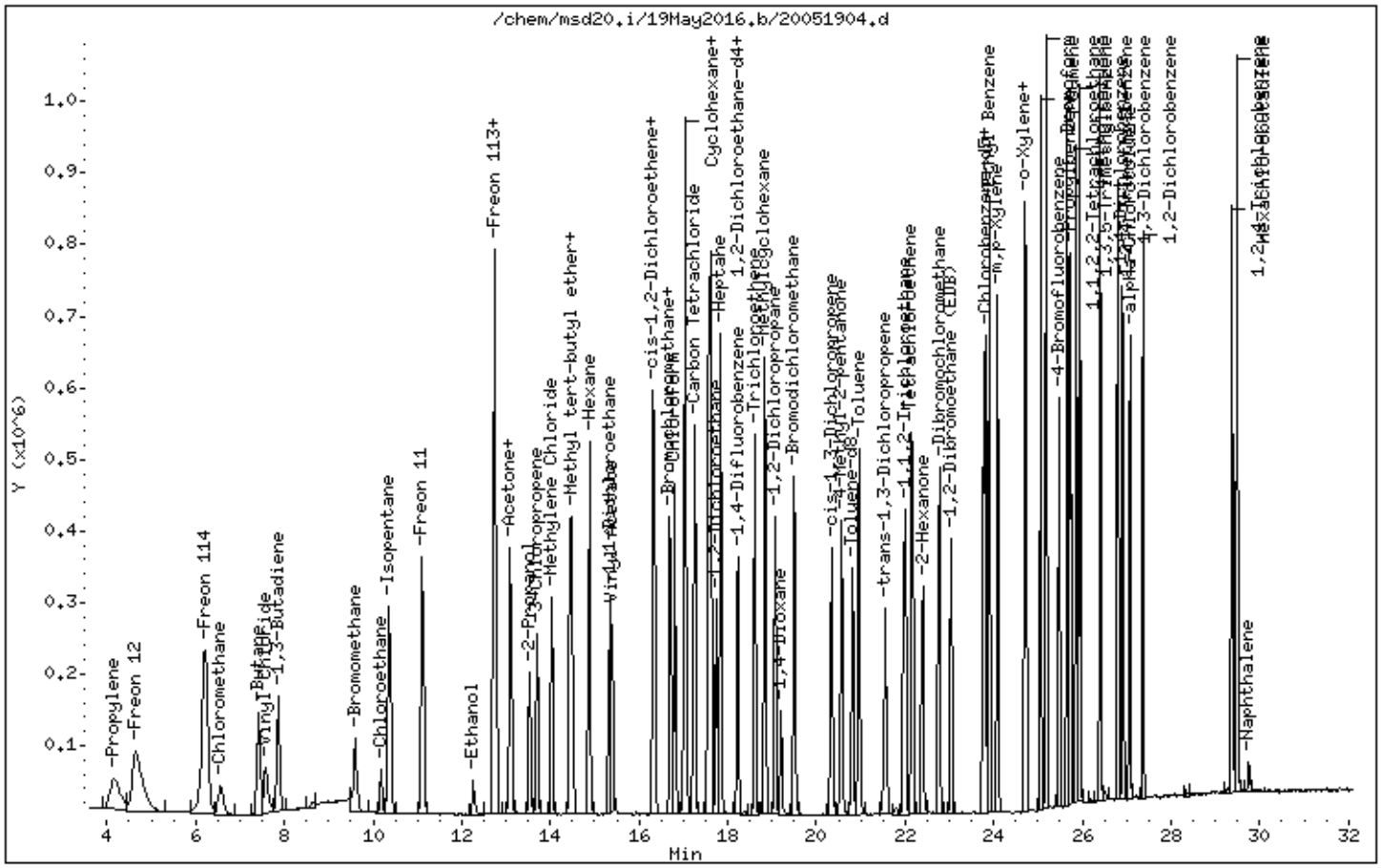
Instrument: msd20.i

Sample Info: 25mL# 2789-9

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2796**

BFB Verification of 176/174 m/z Ratio: (251872/237616)x100= 96.77	
Method Name: 2016L0210C / 2016S0210A	

IS/S Std. #: 2789 - 89		Exp. Date: 7/21/16	
BCM	u: 1059102	5ml:	1111812
1,4-DFB	416950		433940
CB-d5	354892		361654

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

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	/	20051901	BFB Tune check	2789-1416	50 ng	2.0 mL	1.00	SS	5/19/16	0817	SS	
2	/	02	CCV (50 ppbv)	2789-58	5.0 ppbv	25 mL	1.00	SS		0837	SS	Exp. 7/1/16 u: 2 out 5ml: 1 out
3	/	03	LCS (50 ppbv)	2789-9	5.0 ppbv	25 mL	1.00	SS		0922	SS	Exp. 6/1/16 u: 2 out 5ml: 1 out
4	/	04	LCSD (50 ppbv)	2789-9	5.0 ppbv	25 mL	1.00	SS		1006	SS	Exp. 6/1/16
5	X	05	Lab Blank	96107	Humid	250 mL	1.00	SS		1059	SS	
6	/	06	Lab Blank	96107	Humid	250 mL	1.00	SS		1139	SS	
7	X	07	1605350A-01A	6L1277	6.5" Hg; 5.2 psi	25 mL	17.3	SS		1215	SS	Overpurge
8	/	08	1 -01A	6L1297	6.5" Hg; 5.2 psi	250 mL	1.73	SS		1450	SS	
9		~~09~~	~~1605362 - 01A~~	~~25249~~	~~6.1" Hg; 5.2 psi~~	~~250 mL~~	~~1.70~~	~~SS~~				
10												
11												
12												
13												
14												
15												
16												
17												SS 5/19/16

Reviewed 5/19/16 Date

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/10Feb2016.b/20021001.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 10-FEB-2016 12:49
Operator : sab Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/10Feb2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn 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		
6.369	6.640	-0.271	95	662314			100.00- 100.00	100.00
6.369	6.640	-0.271	50	152458			8.00- 40.00	23.02
6.369	6.640	-0.271	75	374521			30.00- 66.00	56.55
6.369	6.640	-0.271	96	45784			5.00- 9.00	6.91
6.369	6.640	-0.271	173	2519			0.00- 1.99	0.61
6.369	6.640	-0.271	174	416085			50.00- 120.00	62.82
6.369	6.640	-0.271	175	30616			4.00- 9.00	7.36
6.369	6.640	-0.271	176	395441			93.00- 101.00	95.04
6.369	6.640	-0.271	177	26380			5.00- 9.00	6.67

Data File: /chem/msd20.i/10Feb2016.b/20021001.d

Date : 10-FEB-2016 12:49

Client ID: BFB

Instrument: msd20.i

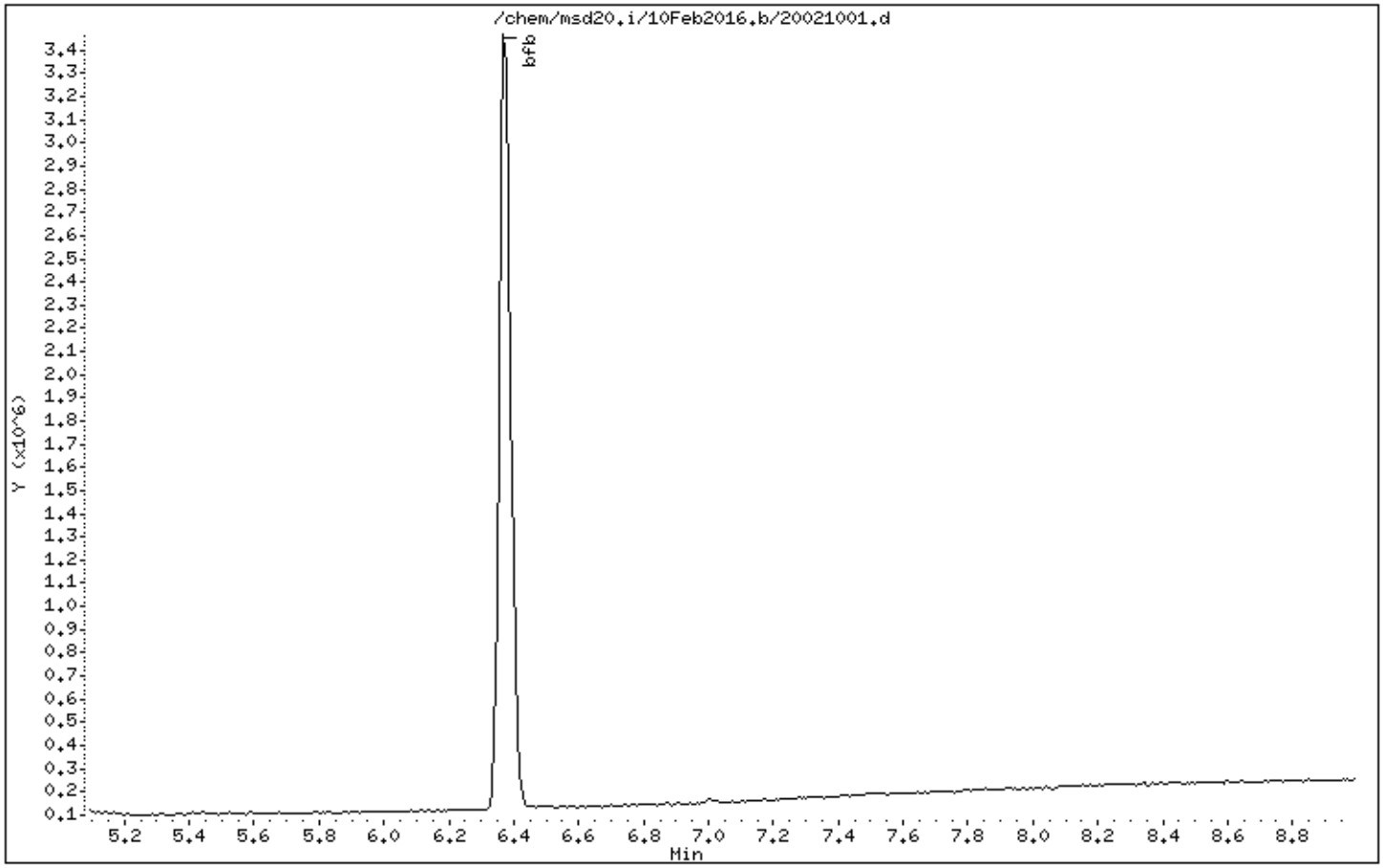
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/10Feb2016.b/20021001.d

Date : 10-FEB-2016 12:49

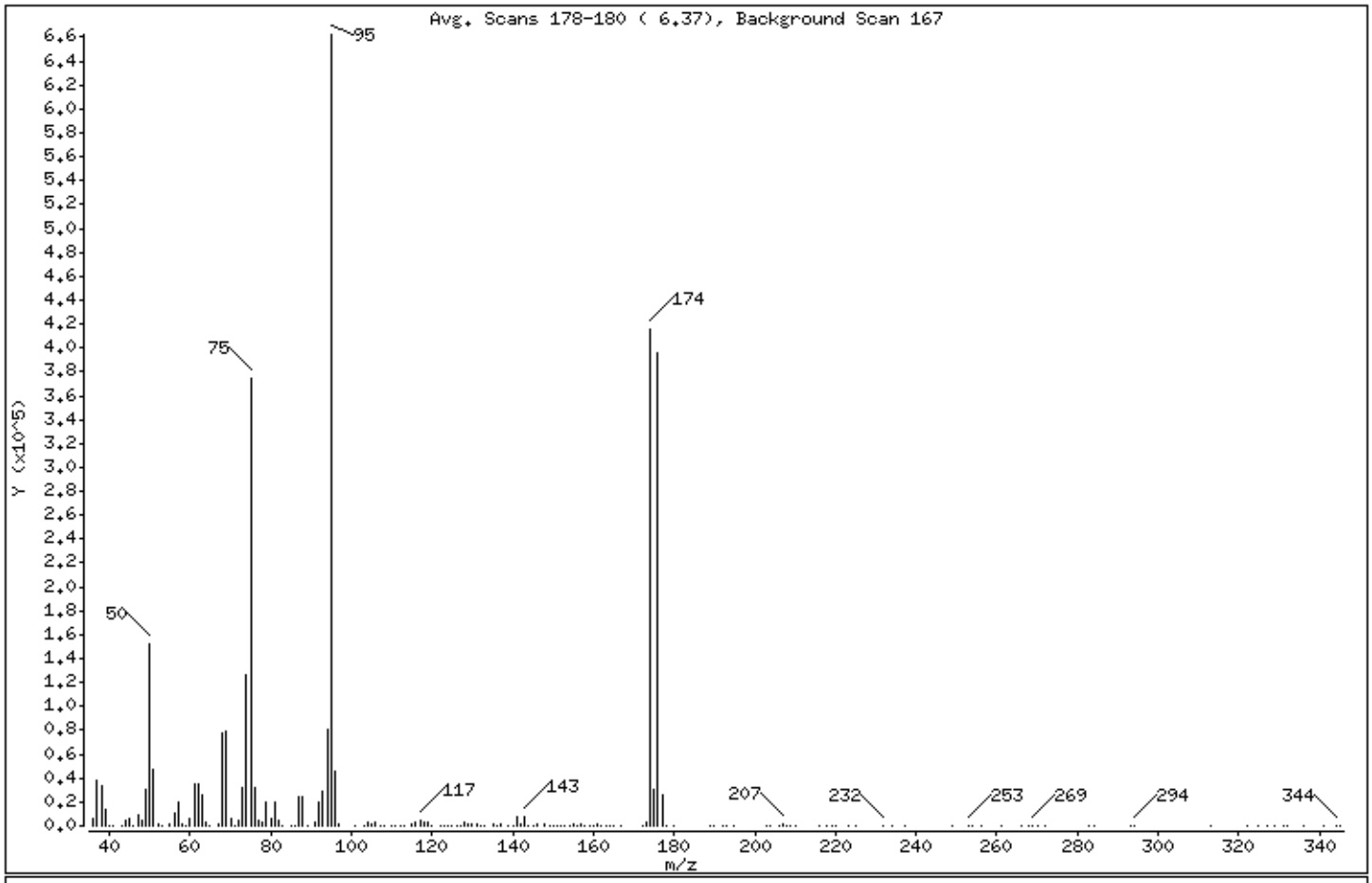
Client ID: BFB Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0 Operator: sab

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	23.02
75	30.00 - 66.00% of mass 95	56.55
96	5.00 - 9.00% of mass 95	6.91
173	Less than 1.99% of mass 174	0.38 (0.61)
174	50.00 - 120.00% of mass 95	62.82
175	4.00 - 9.00% of mass 174	4.62 (7.36)
176	93.00 - 101.00% of mass 174	59.71 (95.04)
177	5.00 - 9.00% of mass 176	3.98 (6.67)

Data File: /chem/msd20.i/10Feb2016.b/20021001.d

Date : 10-FEB-2016 12:49

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20021001.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 167
Location of Maximum: 95.00
Number of points: 170

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6720	82.00	4181	135.00	1410	203.00	67
37.00	38008	83.00	755	136.00	121	204.00	53
38.00	33808	85.00	42	137.00	977	206.00	282
39.00	13371	86.00	682	139.00	319	207.00	1885
40.00	369	87.00	24656	140.00	495	208.00	593
41.00	196	88.00	24128	141.00	7519	209.00	570
43.00	456	89.00	134	142.00	840	210.00	290
44.00	3986	91.00	2481	143.00	7629	216.00	118
45.00	6470	92.00	20480	144.00	413	218.00	23
46.00	467	93.00	28616	145.00	500	219.00	65
47.00	9571	94.00	80544	146.00	852	220.00	57
48.00	4482	95.00	662272	148.00	1619	223.00	157
49.00	30528	96.00	45784	149.00	505	225.00	52
50.00	152448	97.00	1303	150.00	627	232.00	385
51.00	47056	101.00	112	151.00	113	234.00	56
52.00	2280	103.00	620	152.00	255	237.00	66
53.00	149	104.00	3056	153.00	486	249.00	8
55.00	2087	105.00	1105	154.00	322	253.00	395
56.00	10779	106.00	3390	155.00	1570	254.00	60
57.00	20296	107.00	758	156.00	518	256.00	95
58.00	939	108.00	335	157.00	1137	261.00	96
59.00	257	110.00	475	158.00	448	266.00	151
60.00	6841	111.00	655	159.00	708	268.00	28
61.00	34400	112.00	365	160.00	55	269.00	364
62.00	34944	113.00	725	161.00	998	270.00	286
63.00	26128	115.00	844	162.00	309	272.00	90
64.00	2470	116.00	2574	163.00	306	283.00	208
65.00	405	117.00	4069	164.00	164	284.00	197
67.00	1745	118.00	2443	165.00	97	293.00	13
68.00	78120	119.00	3417	167.00	77	294.00	85
69.00	78552	120.00	526	172.00	433	313.00	72
70.00	6286	122.00	159	173.00	2519	322.00	164
71.00	430	123.00	262	174.00	416064	325.00	187
72.00	3930	124.00	389	175.00	30616	327.00	177
73.00	31640	125.00	411	176.00	395392	329.00	24

Data File: /chem/msd20.i/10Feb2016.b/20021001.d

Date : 10-FEB-2016 12:49

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: 20021001.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 167
Location of Maximum: 95.00
Number of points: 170

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	125856	126.00	457	177.00	26376	331.00	205
75.00	374464	127.00	155	178.00	556	332.00	57
76.00	32496	128.00	2321	180.00	118	336.00	133
77.00	4178	129.00	1188	189.00	278	341.00	196
78.00	2332	130.00	2173	190.00	143	344.00	364
79.00	19296	131.00	939	192.00	409	345.00	47
80.00	6162	132.00	270	193.00	449		
81.00	20352	133.00	291	195.00	184		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/17Feb2016.b/20021701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 17-FEB-2016 08:16
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/17Feb2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn 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	
6.376	6.640	-0.264	95	465045			100.00- 100.00	100.00
6.376	6.640	-0.264	50	106851			8.00- 40.00	22.98
6.376	6.640	-0.264	75	263272			30.00- 66.00	56.61
6.376	6.640	-0.264	96	31700			5.00- 9.00	6.82
6.376	6.640	-0.264	173	1615			0.00- 1.99	0.55
6.376	6.640	-0.264	174	291242			50.00- 120.00	62.63
6.376	6.640	-0.264	175	21469			4.00- 9.00	7.37
6.376	6.640	-0.264	176	276359			93.00- 101.00	94.89
6.376	6.640	-0.264	177	18106			5.00- 9.00	6.55

Data File: /chem/msd20.i/17Feb2016.b/20021701.d

Date : 17-FEB-2016 08:16

Client ID: BFB

Instrument: msd20.i

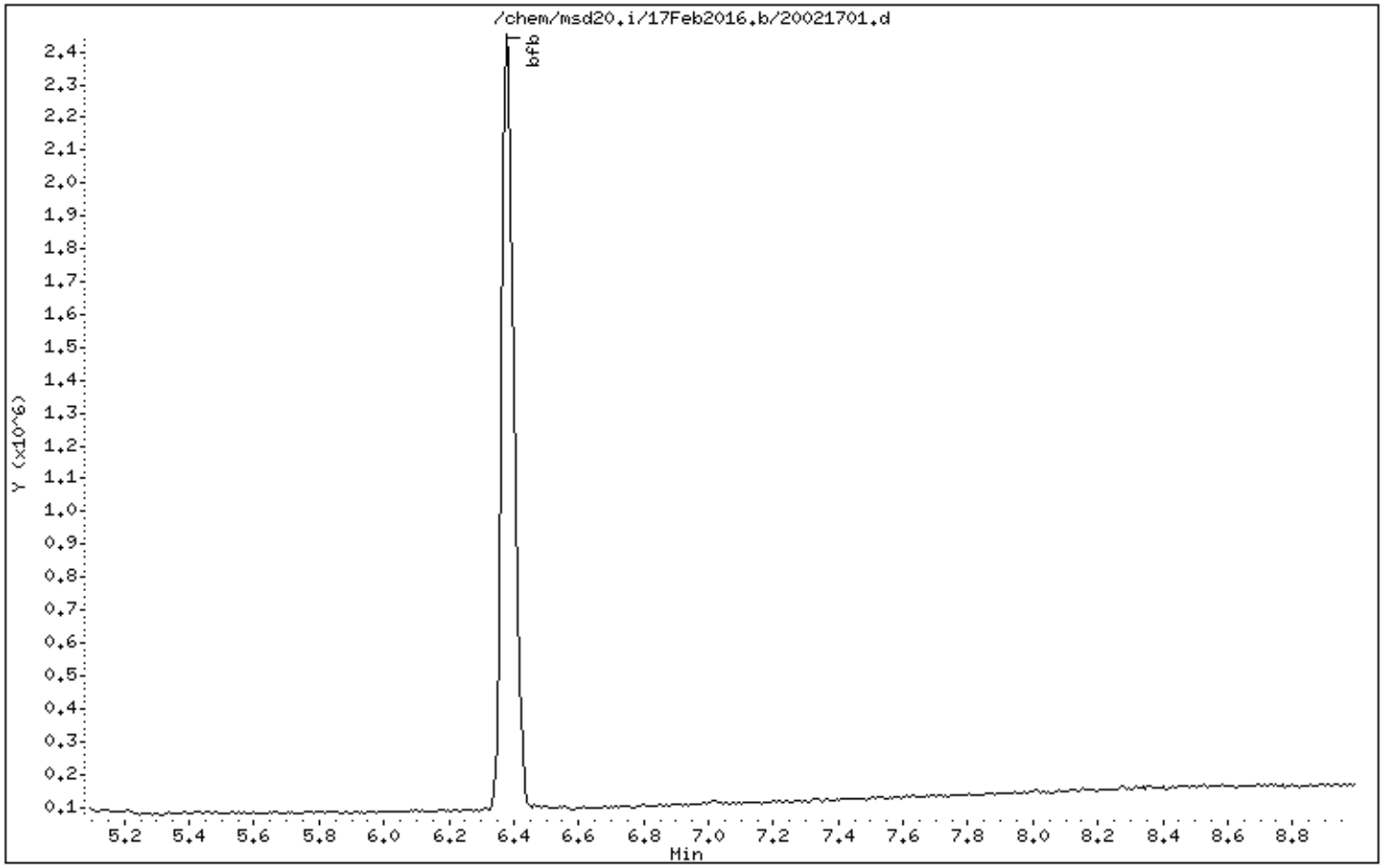
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/17Feb2016.b/20021701.d

Date : 17-FEB-2016 08:16

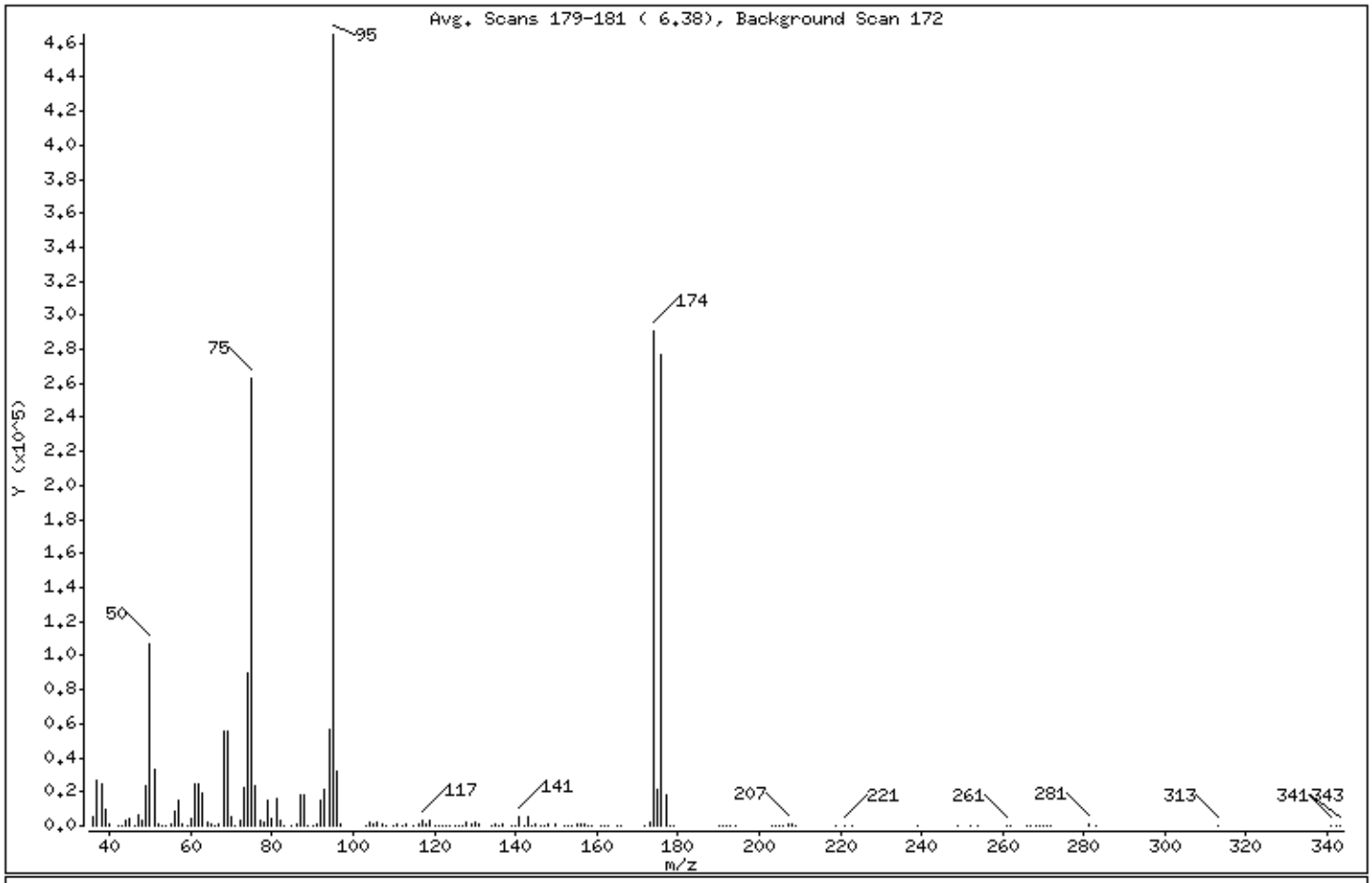
Client ID: BFB Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0 Operator: ef

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	22.98
75	30.00 - 66.00% of mass 95	56.61
96	5.00 - 9.00% of mass 95	6.82
173	Less than 1.99% of mass 174	0.35 (0.55)
174	50.00 - 120.00% of mass 95	62.63
175	4.00 - 9.00% of mass 174	4.62 (7.37)
176	93.00 - 101.00% of mass 174	59.43 (94.89)
177	5.00 - 9.00% of mass 176	3.89 (6.55)

Data File: /chem/msd20.i/17Feb2016.b/20021701.d

Date : 17-FEB-2016 08:16

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20021701.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 172
Location of Maximum: 95.00
Number of points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4908	77.00	3317	125.00	115	177.00	18104
37.00	26432	78.00	1888	126.00	312	178.00	323
38.00	24512	79.00	14886	127.00	498	179.00	139
39.00	10134	80.00	4451	128.00	1883	190.00	132
40.00	666	81.00	15780	129.00	717	191.00	233
42.00	59	82.00	3421	130.00	1702	192.00	60
43.00	279	83.00	319	131.00	785	193.00	18
44.00	2873	85.00	170	134.00	42	194.00	180
45.00	4737	86.00	569	135.00	793	203.00	258
46.00	448	87.00	18016	136.00	398	204.00	52
47.00	6920	88.00	18560	137.00	795	205.00	163
48.00	3185	89.00	88	139.00	123	206.00	219
49.00	23008	90.00	55	140.00	384	207.00	1293
50.00	106848	91.00	1442	141.00	5252	208.00	624
51.00	33408	92.00	15141	142.00	506	209.00	253
52.00	1197	93.00	20912	143.00	5029	219.00	148
53.00	67	94.00	56656	144.00	325	221.00	280
54.00	59	95.00	465024	145.00	677	223.00	199
55.00	1454	96.00	31696	146.00	420	239.00	210
56.00	8449	97.00	779	147.00	200	249.00	130
57.00	15398	103.00	121	148.00	878	252.00	50
58.00	746	104.00	2466	150.00	542	254.00	219
59.00	123	105.00	793	152.00	234	261.00	340
60.00	4325	106.00	2131	153.00	281	262.00	226
61.00	24824	107.00	583	154.00	257	266.00	69
62.00	24496	108.00	129	155.00	1124	267.00	139
63.00	19360	110.00	309	156.00	556	268.00	164
64.00	1864	111.00	622	157.00	760	269.00	24
65.00	630	112.00	426	158.00	348	270.00	72
66.00	79	113.00	571	159.00	512	271.00	56
67.00	1453	115.00	459	161.00	460	272.00	50
68.00	55536	116.00	1553	162.00	157	281.00	796
69.00	56088	117.00	2934	163.00	275	283.00	203
70.00	4966	118.00	1555	165.00	167	313.00	51
71.00	368	119.00	2733	166.00	89	341.00	226

Data File: /chem/msd20.i/17Feb2016.b/20021701.d

Date : 17-FEB-2016 08:16

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20021701.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 172
Location of Maximum: 95.00
Number of points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2688	120.00	225	172.00	443	342.00	62
73.00	22808	121.00	13	173.00	1615	343.00	170
74.00	89496	122.00	85	174.00	291200		
75.00	263232	123.00	154	175.00	21464		
76.00	23680	124.00	300	176.00	276352		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/16May2016.b/20051601.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 16-MAY-2016 08:17
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/16May2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn 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	
6.383	6.640	-0.257	95	413930			100.00- 100.00	100.00
6.383	6.640	-0.257	50	97897			8.00- 40.00	23.65
6.383	6.640	-0.257	75	238466			30.00- 66.00	57.61
6.383	6.640	-0.257	96	27797			5.00- 9.00	6.72
6.383	6.640	-0.257	173	1531			0.00- 1.99	0.59
6.383	6.640	-0.257	174	259754			50.00- 120.00	62.75
6.383	6.640	-0.257	175	18839			4.00- 9.00	7.25
6.383	6.640	-0.257	176	252009			93.00- 101.00	97.02
6.383	6.640	-0.257	177	16744			5.00- 9.00	6.64

Data File: /chem/msd20.i/16May2016.b/20051601.d

Date : 16-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

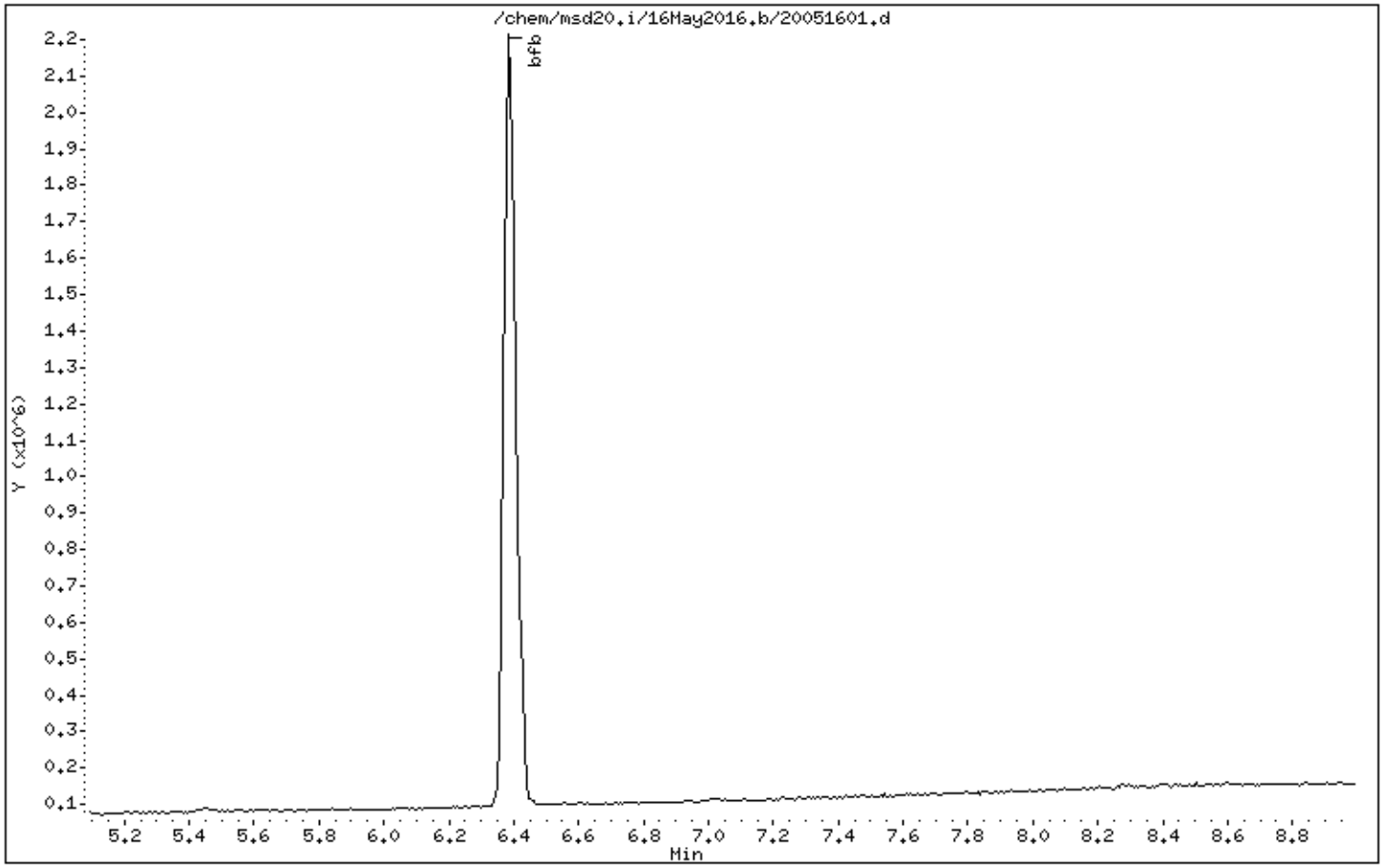
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/16May2016.b/20051601.d

Date : 16-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

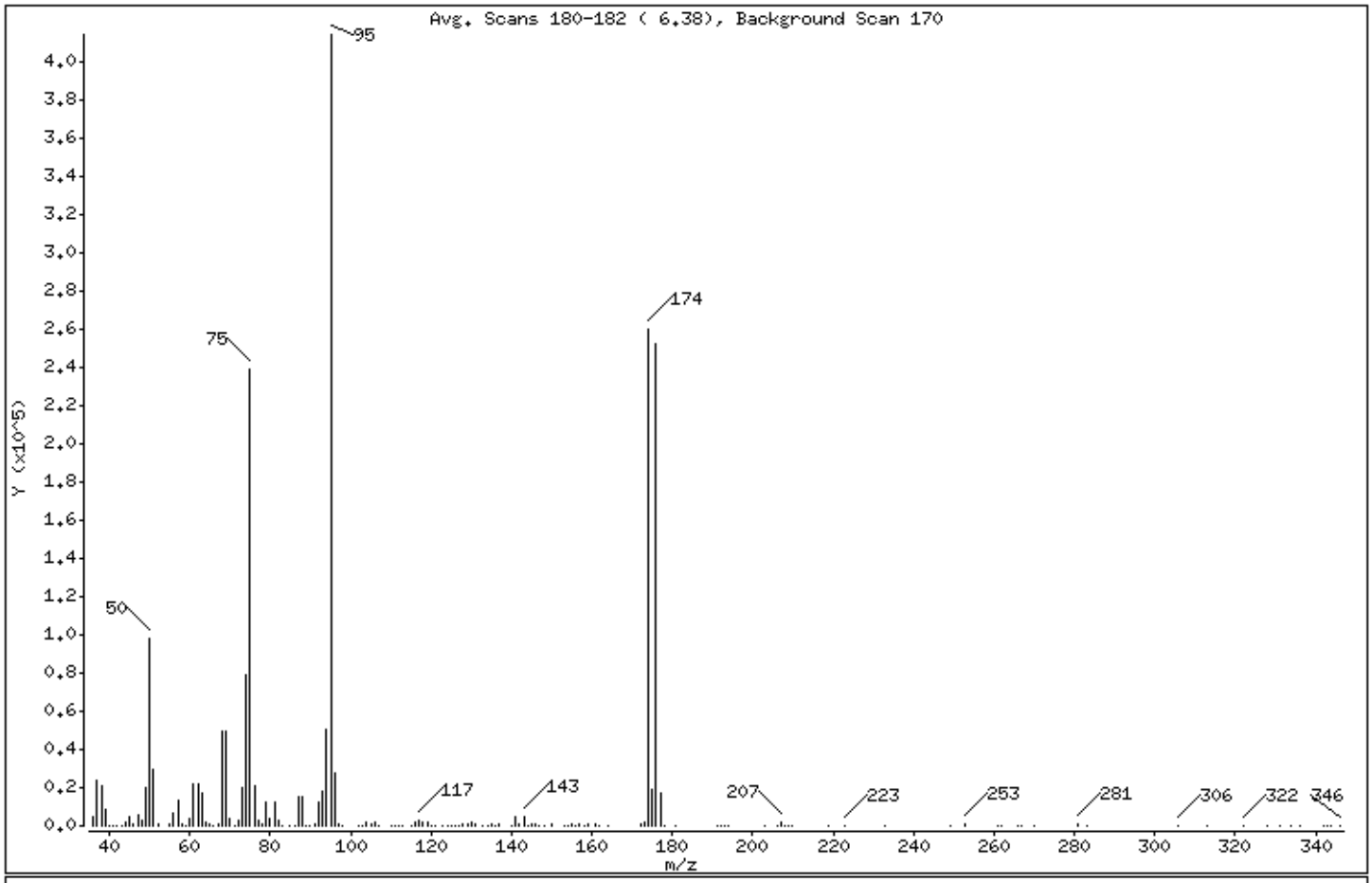
Volume Injected (uL): 1.0

Operator: ef

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	23.65
75	30.00 - 66.00% of mass 95	57.61
96	5.00 - 9.00% of mass 95	6.72
173	Less than 1.99% of mass 174	0.37 (0.59)
174	50.00 - 120.00% of mass 95	62.75
175	4.00 - 9.00% of mass 174	4.55 (7.25)
176	93.00 - 101.00% of mass 174	60.88 (97.02)
177	5.00 - 9.00% of mass 176	4.05 (6.64)

Data File: /chem/msd20.i/16May2016.b/20051601.d

Date : 16-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20051601.d
Spectrum: Avg. Scans 180-182 (6.38), Background Scan 170
Location of Maximum: 95.00
Number of points: 152

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4294	77.00	2594	124.00	225	178.00	474
37.00	23768	78.00	1365	125.00	128	181.00	118
38.00	20944	79.00	11985	126.00	97	191.00	39
39.00	8308	80.00	3945	127.00	335	192.00	40
40.00	268	81.00	12478	128.00	1170	193.00	170
41.00	54	82.00	2960	129.00	702	194.00	33
42.00	21	83.00	148	130.00	1588	203.00	205
43.00	247	85.00	181	131.00	668	206.00	184
44.00	2160	86.00	360	133.00	275	207.00	1976
45.00	4384	87.00	15155	134.00	120	208.00	406
46.00	516	88.00	15348	135.00	817	209.00	318
47.00	5829	89.00	374	136.00	106	210.00	101
48.00	2798	90.00	59	137.00	923	219.00	115
49.00	19816	91.00	1350	140.00	354	223.00	136
50.00	97896	92.00	12392	141.00	4531	233.00	43
51.00	29808	93.00	18392	142.00	629	249.00	4
52.00	1253	94.00	50712	143.00	4718	253.00	713
55.00	1294	95.00	413888	144.00	376	261.00	15
56.00	6565	96.00	27792	145.00	525	262.00	46
57.00	13068	97.00	1224	146.00	584	266.00	65
58.00	561	98.00	65	147.00	419	267.00	55
59.00	187	102.00	59	148.00	411	270.00	174
60.00	4043	103.00	432	150.00	586	281.00	751
61.00	22008	104.00	1860	153.00	339	283.00	134
62.00	21816	105.00	644	154.00	315	306.00	205
63.00	16688	106.00	1736	155.00	1095	313.00	70
64.00	1570	107.00	294	156.00	109	322.00	298
65.00	643	110.00	311	157.00	654	328.00	152
66.00	110	111.00	360	158.00	234	331.00	58
67.00	1267	112.00	286	159.00	660	334.00	112
68.00	49600	113.00	424	161.00	550	336.00	73
69.00	49624	115.00	435	162.00	238	342.00	77
70.00	3578	116.00	1519	164.00	29	343.00	48
71.00	210	117.00	2665	172.00	571	344.00	1
72.00	2585	118.00	1438	173.00	1531	346.00	62

Data File: /chem/msd20.i/16May2016.b/20051601.d

Date : 16-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20051601.d
Spectrum: Avg. Scans 180-182 (6.38), Background Scan 170
Location of Maximum: 95.00
Number of points: 152

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	20368	119.00	2129	174.00	259712		
74.00	79032	120.00	238	175.00	18832		
75.00	238464	121.00	66	176.00	251968		
76.00	21344	123.00	131	177.00	16744		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/19May2016.b/20051901.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 19-MAY-2016 08:17
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/19May2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn 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	
6.384	6.640	-0.256	95	385962			100.00- 100.00	100.00
6.384	6.640	-0.256	50	92216			8.00- 40.00	23.89
6.384	6.640	-0.256	75	224043			30.00- 66.00	58.05
6.384	6.640	-0.256	96	26195			5.00- 9.00	6.79
6.384	6.640	-0.256	173	1475			0.00- 1.99	0.62
6.384	6.640	-0.256	174	239658			50.00- 120.00	62.09
6.384	6.640	-0.256	175	17356			4.00- 9.00	7.24
6.384	6.640	-0.256	176	231916			93.00- 101.00	96.77
6.384	6.640	-0.256	177	15217			5.00- 9.00	6.56

Data File: /chem/msd20.i/19May2016.b/20051901.d

Date : 19-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

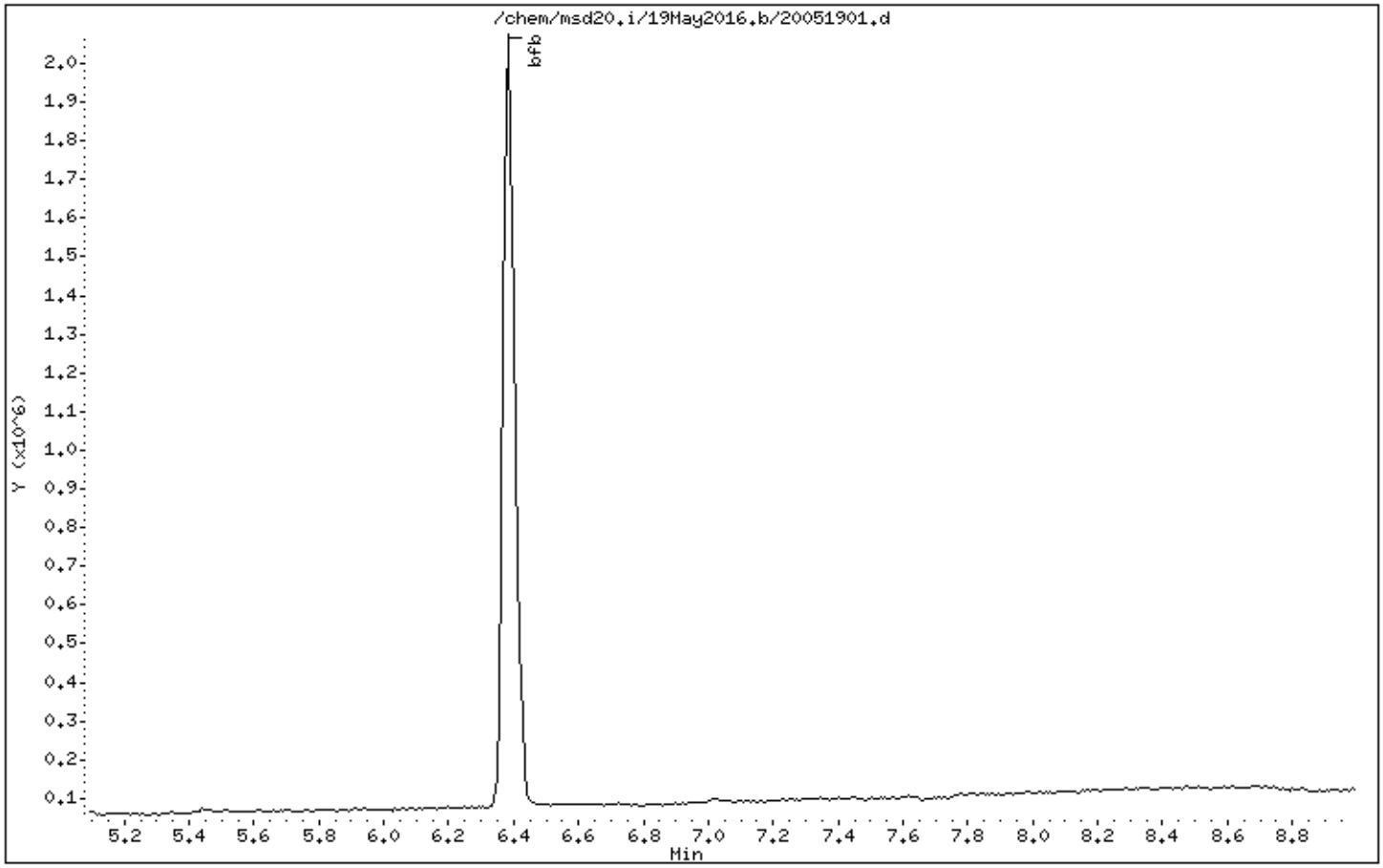
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/19May2016.b/20051901.d

Date : 19-MAY-2016 08:17

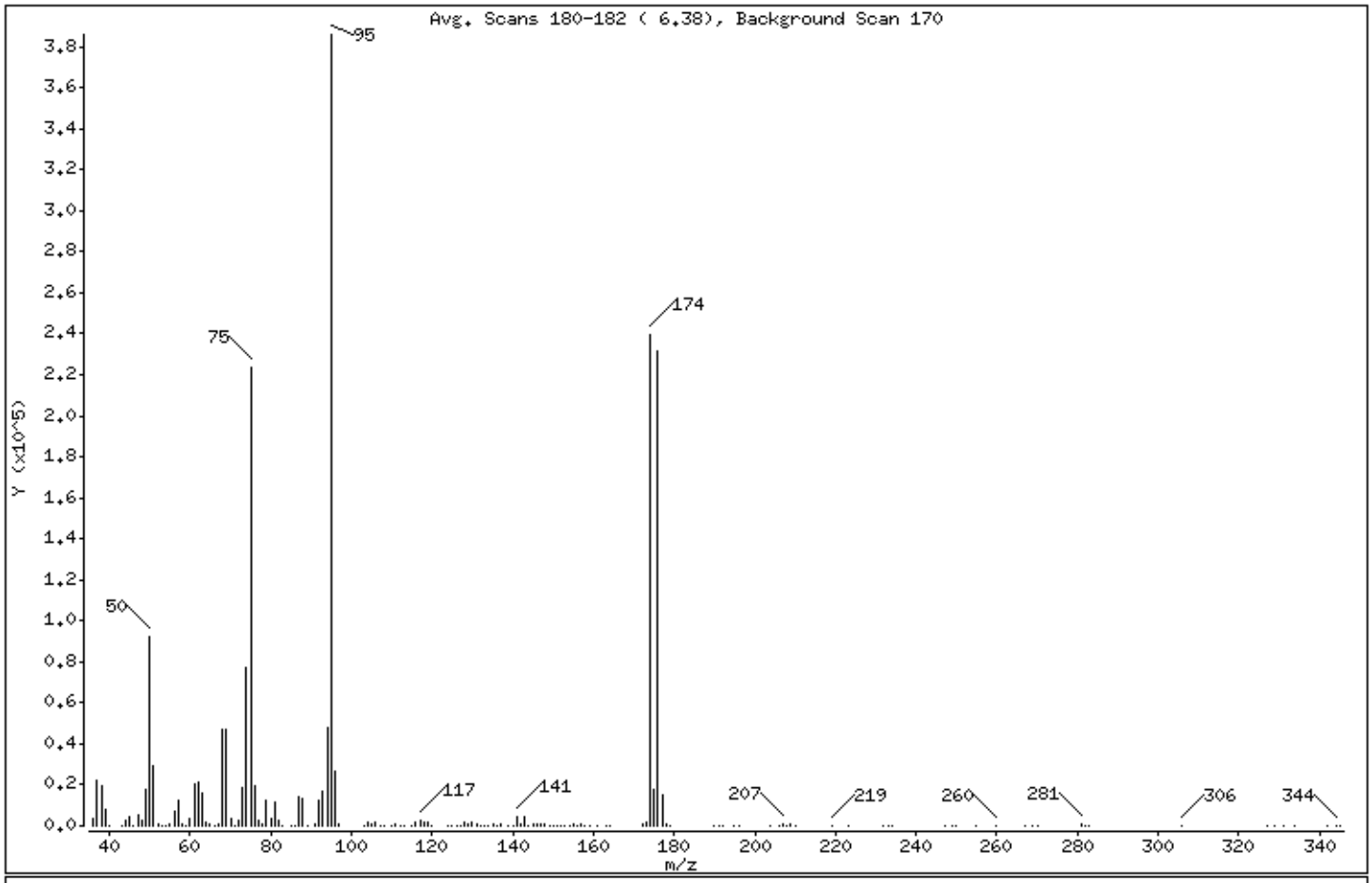
Client ID: BFB Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0 Operator: ef

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	23.89
75	30.00 - 66.00% of mass 95	58.05
96	5.00 - 9.00% of mass 95	6.79
173	Less than 1.99% of mass 174	0.38 (0.62)
174	50.00 - 120.00% of mass 95	62.09
175	4.00 - 9.00% of mass 174	4.50 (7.24)
176	93.00 - 101.00% of mass 174	60.09 (96.77)
177	5.00 - 9.00% of mass 176	3.94 (6.56)

Data File: /chem/msd20.i/19May2016.b/20051901.d

Date : 19-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20051901.d
Spectrum: Avg. Scans 180-182 (6.38), Background Scan 170
Location of Maximum: 95.00
Number of points: 155

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3904	77.00	2379	128.00	1388	177.00	15217
37.00	22192	78.00	1252	129.00	597	178.00	643
38.00	19800	79.00	12009	130.00	1411	179.00	265
39.00	7808	80.00	3596	131.00	713	190.00	59
40.00	131	81.00	11719	132.00	183	191.00	426
43.00	356	82.00	2541	133.00	325	192.00	83
44.00	2588	83.00	290	134.00	88	195.00	208
45.00	4300	85.00	162	135.00	605	196.00	50
46.00	324	86.00	362	136.00	290	204.00	50
47.00	5499	87.00	14583	137.00	828	206.00	69
48.00	2672	88.00	13676	139.00	117	207.00	984
49.00	17864	89.00	132	140.00	366	208.00	30
50.00	92216	91.00	1095	141.00	4412	209.00	550
51.00	29600	92.00	12076	142.00	495	210.00	55
52.00	1038	93.00	17264	143.00	4314	219.00	195
53.00	105	94.00	47792	144.00	331	223.00	61
54.00	55	95.00	385920	145.00	535	232.00	161
55.00	1014	96.00	26192	146.00	631	233.00	47
56.00	6695	97.00	1072	147.00	451	234.00	64
57.00	12477	103.00	332	148.00	1022	247.00	193
58.00	567	104.00	1658	149.00	263	249.00	143
59.00	159	105.00	726	150.00	396	250.00	122
60.00	3945	106.00	1871	151.00	208	255.00	62
61.00	20744	107.00	436	152.00	103	260.00	276
62.00	20872	108.00	107	153.00	235	267.00	174
63.00	16032	110.00	368	154.00	349	269.00	415
64.00	1579	111.00	484	155.00	871	270.00	189
65.00	663	112.00	318	156.00	310	281.00	542
66.00	31	113.00	432	157.00	638	282.00	339
67.00	1235	115.00	277	158.00	97	283.00	98
68.00	47096	116.00	1757	159.00	427	306.00	120
69.00	47360	117.00	2280	161.00	103	327.00	55
70.00	3585	118.00	1393	163.00	208	329.00	133
71.00	272	119.00	2079	164.00	236	331.00	52
72.00	2324	120.00	106	172.00	510	334.00	109

Data File: /chem/msd20.i/19May2016.b/20051901.d

Date : 19-MAY-2016 08:17

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20051901.d
Spectrum: Avg. Scans 180-182 (6.38), Background Scan 170
Location of Maximum: 95.00
Number of points: 155

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	19064	124.00	208	173.00	1475	342.00	66
74.00	77488	125.00	313	174.00	239616	344.00	159
75.00	224000	126.00	138	175.00	17352	345.00	55
76.00	19328	127.00	377	176.00	231872		

Shipping/ Receiving Documents

eurofins | Air Toxics

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

FedEx tracking 7831 0105 4196

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

0311 of 0321

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

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

Turn Around Time:
☐ Normal
☒ Rush 24-hour 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 (in Hg vac)	Final (in Hg vac)	Receipt	Final (psi)
01a	B7AA-1 (05162016)	6L1297	5/17/16	10:27	TO-15	>30	8.0		
	B7AA-1 (05132016)	12695	5/14/16	21:05	Do Not Analyze	730	28.5		

Relinquished by: (signature) Date/Time: 05/17/16 1500
Received by: (signature) Date/Time: Fed Ex
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time: EATL 1045 5/18/16
Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	fedex		N/A		Yes No None	1605350

Form 1293 rev.11

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1605350A

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: 05/19/16 11:59 pm
Date Completed: 5/19/16
Date Received: 5/18/16
PO#:
Project#:

Total $: $ 451.00
Logged By: KK

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B7AA-1 (05162016)	Modified TO-15	5/17/2016	6.5 "Hg	$270.00
02A	Lab Blank	Modified TO-15	NA	NA	$0.00
03A	CCV	Modified TO-15	NA	NA	$0.00
04A	LCS	Modified TO-15	NA	NA	$0.00
04AA	LCSD	Modified TO-15	NA	NA	$0.00

Misc. Charges	6 Liter Summa Canister (100% Certified) (2) @ $55.00 each., Shipme	$110.00
	Flow Controller-24 hr (100% Certified) (2) @ $25.00 each., Shipment	$50.00
	eCVP (1) @ $5.00 each.	$5.00
	Duplicate Sampling T (2) @ $8.00 each.	$16.00

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: pptv

REMARKS: A 100% surcharge is applied for a 24 hour turnaround time.

TERMS:

Reporting Method: Modified TO-15-LL + Naph

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

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

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.10	
76-14-2	Freon 114	0.10	
75-35-4	1,1-Dichloroethene	0.10	
67-64-1	Acetone	0.50	
67-63-0	2-Propanol	0.50	
75-15-0	Carbon Disulfide	0.50	
75-09-2	Methylene Chloride	0.20	
1634-04-4	Methyl tert-butyl ether	0.10	
156-60-5	trans-1,2-Dichloroethene	0.10	
110-54-3	Hexane	0.10	
75-34-3	1,1-Dichloroethane	0.10	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50	
156-59-2	cis-1,2-Dichloroethene	0.10	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.10	
71-55-6	1,1,1-Trichloroethane	0.10	
110-82-7	Cyclohexane	0.10	
56-23-5	Carbon Tetrachloride	0.10	
71-43-2	Benzene	0.10	
107-06-2	1,2-Dichloroethane	0.10	
142-82-5	Heptane	0.10	
79-01-6	Trichloroethene	0.10	
78-87-5	1,2-Dichloropropane	0.10	
123-91-1	1,4-Dioxane	0.10	
75-27-4	Bromodichloromethane	0.10	
10061-01-5	cis-1,3-Dichloropropene	0.10	
108-10-1	4-Methyl-2-pentanone	0.10	
108-88-3	Toluene	0.10	
10061-02-6	trans-1,3-Dichloropropene	0.10	
79-00-5	1,1,2-Trichloroethane	0.10	
127-18-4	Tetrachloroethene	0.10	
591-78-6	2-Hexanone	0.50	
124-48-1	Dibromochloromethane	0.10	
106-93-4	1,2-Dibromoethane (EDB)	0.10	
108-90-7	Chlorobenzene	0.10	
100-41-4	Ethyl Benzene	0.10	
108-38-3	m,p-Xylene	0.10	
95-47-6	o-Xylene	0.10	
100-42-5	Styrene	0.10	
75-25-2	Bromoform	0.10	
98-82-8	Cumene	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	0.10	
103-65-1	Propylbenzene	0.10	
622-96-8	4-Ethyltoluene	0.10	
108-67-8	1,3,5-Trimethylbenzene	0.10	
95-63-6	1,2,4-Trimethylbenzene	0.10	

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
541-73-1	1,3-Dichlorobenzene	0.10	
106-46-7	1,4-Dichlorobenzene	0.10	
100-44-7	alpha-Chlorotoluene	0.10	
95-50-1	1,2-Dichlorobenzene	0.10	
120-82-1	1,2,4-Trichlorobenzene	0.50	
87-68-3	Hexachlorobutadiene	0.50	
91-20-3	Naphthalene	0.50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		
107-05-1	3-Chloropropene	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
74-87-3	Chloromethane	0.50	
75-01-4	Vinyl Chloride	0.10	
106-99-0	1,3-Butadiene	0.10	
74-83-9	Bromomethane	0.50	
75-00-3	Chloroethane	0.50	
75-69-4	Freon 11	0.10	
64-17-5	Ethanol	0.50	
76-13-1	Freon 113	0.10	

eurofins | Air Toxics

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 6L1297
Can#: 107384-6L1297
Date : 05/02/16 20:01
Data File: d050217.d

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		93.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	93.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	88.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	88.00	% Recovery
Toluene-d8	2037-26-5	0.050	98.00	% Recovery
Toluene-d8	2037-26-5	0.250	98.00	% Recovery

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1605380A	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: 33 MS2a 5/19/16	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 verified (MDL, LOD, RL, control limits, etc.)				

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

J-flag TO MDL. 2 out in CCV, 2 out in LCS.

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: 55 5/19/16	A2:	A3:	A4:
✓				✓	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, 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(s) 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				
✓				✓	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
✓				✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: OIA: Fan load.

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/ Date	D1: 55 5/19/16	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: 55 5/19/16	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

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