@Air Toxics Ltd. GC-9 **Logbook #:** 1906

Method: ASTM 1945/1946 **Leak Test :** Ly

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	90417 03	System Blank	14014	NA	~~1.0 ml NA~~	~~1.00 NA~~	4/17/10	0901	Ly	
2	✓	04	1830 - 28	94301		4/17/10	1.00		0926		Level -1
3	✓	05	1830 - 25	14867					0948		-2
4	✓	06	1544-365B	34219		(20:50) 1.0 ml			1012		-3
5	✓	07	"	"		1.0 ml			1034		-4 /ccv
6	✓	08	1476-1669 : N_2	Bag		"			1058		-5
7	✓	09	1476-750 O_2	NA		(15:50) 1.0 ml			1124		-5
8	✓	10	1476-971 CO_2	NA		(35:50) 1.0 ml			1210		-5
9	✓	11	1476-599 CO	NA		(5:50) 1.0 ml			1233		-5
10	✓	12	1476-1477 NGAS	NA		1.0 ml			1256		LCS
11	✓	13	N_2 Lab Blank	33868					1324		
12	✓	14	1830-29 He/H_2	Bag	He : 0.04935% H_2 : 0.01%				1345		Level -1
13	✓	15	1544-365B He	34219	He: 0.987%				1407		-2
14	✓	16	1476-977 H_2	NA	H_2: 0.40%	(10:50) 1.0 ml			1430		-2
15	✓	17	"	"	H_2 : 2.0%	~~(10:50)~~ 4/17/10 1.0 ml			1453		-3

Calculation Check: File ID: 9041712 Compound: CO_2 Initials: Ly

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(\ 5205049331\ )}{(\ 519170311\ )} \times (\ 1.00\ ) =$ **10.0**

Reported Result: **10.0**

Lydia Yohas
Signed

4/17/10
Date

@Air Toxics Ltd. **GC-9** **Logbook #: 1906**

Method: ASTM 1945/1946 **Leak Test :** Ly

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9041718	1476-1670 He	NA	He : 50 %.	(25:50) 1.0 ml	1.00	4/17/10	1517	Ly	Level-3
2	✓	19	He		He 100 %.	1.0 ml			1547		Level-4
3	✓	20	1476-1671 H_2		H_2 25 %.	(10:40) 1.0 ml			1610		Level-4
4	✓	21	1476-1477 He N_2 gas		NA	1.0 ml			1632		LCS exp 7/5/11
5	✓	22	1476-1450 H_2						1656		LCS exp 12/4/11
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Ly 4/17/10

Calculation Check: File ID: ~~9041719~~ 9041721 Compound: He Initials: Ly

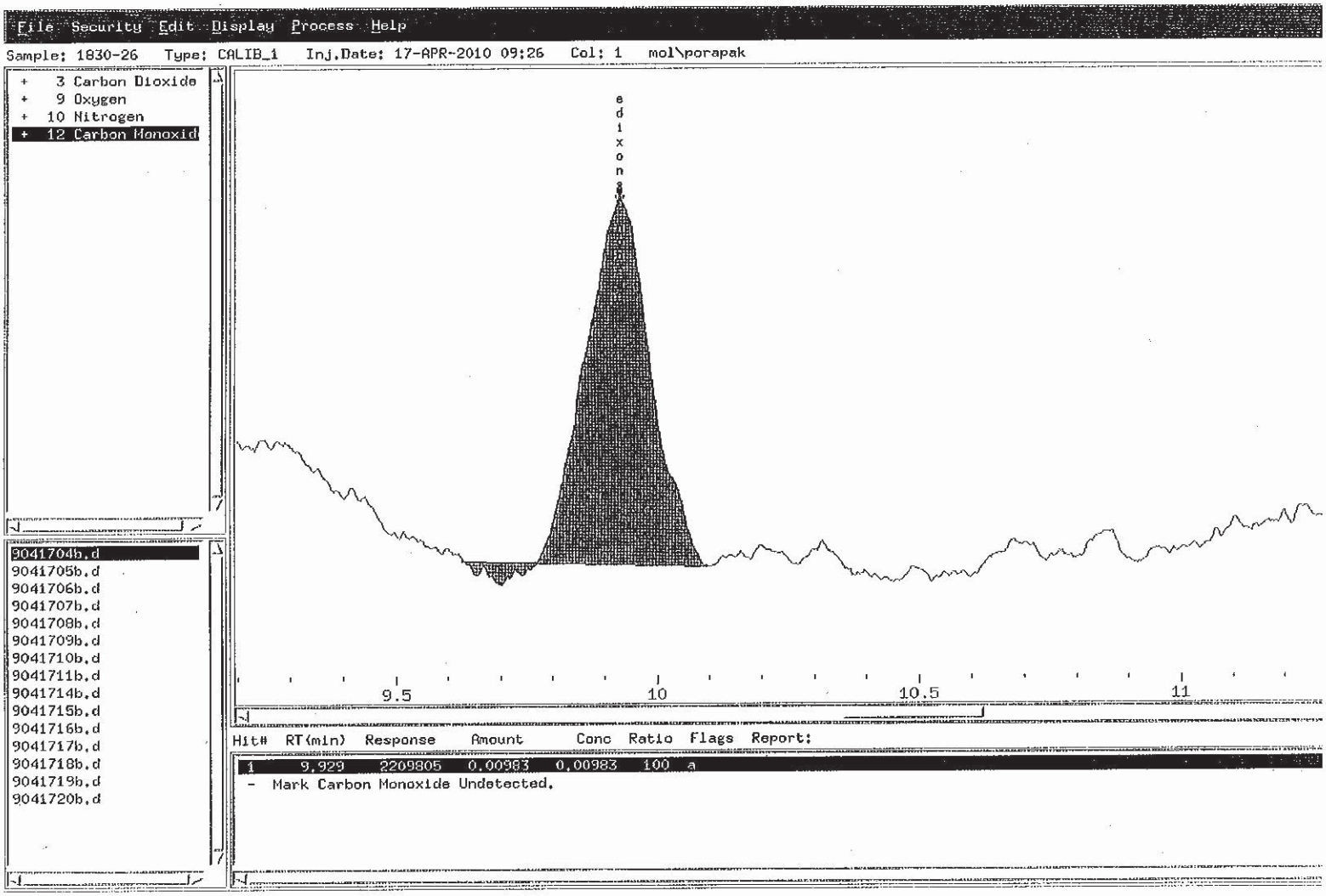
Ly 4/17/10

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(\ 6697646\ )}{(\ 6895606\ )} \times (\quad) =$ 0.971

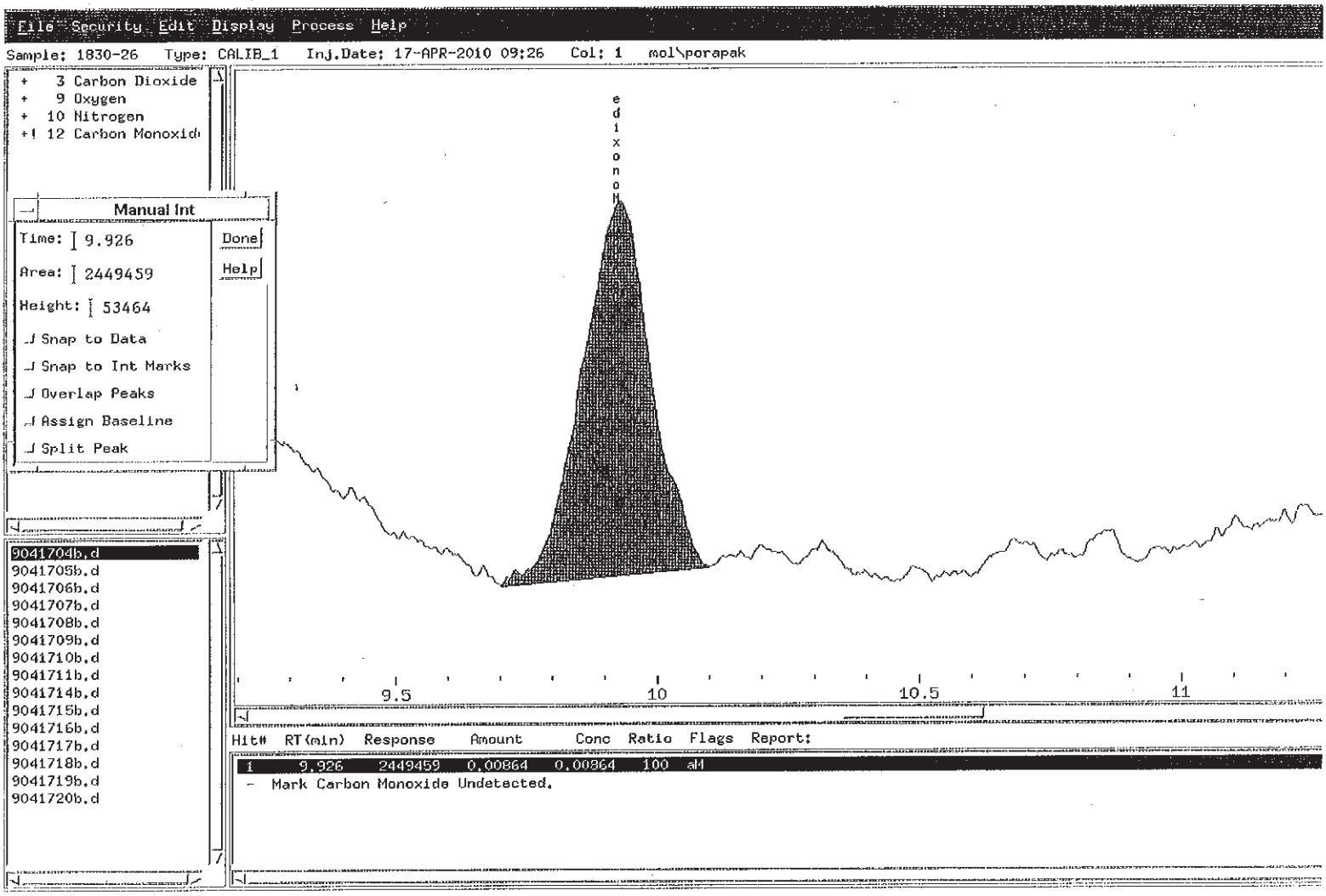
Reported Result: 0.971

Lyd Thao
Signed

4/17/10
Date



Before
gm
4/19/10

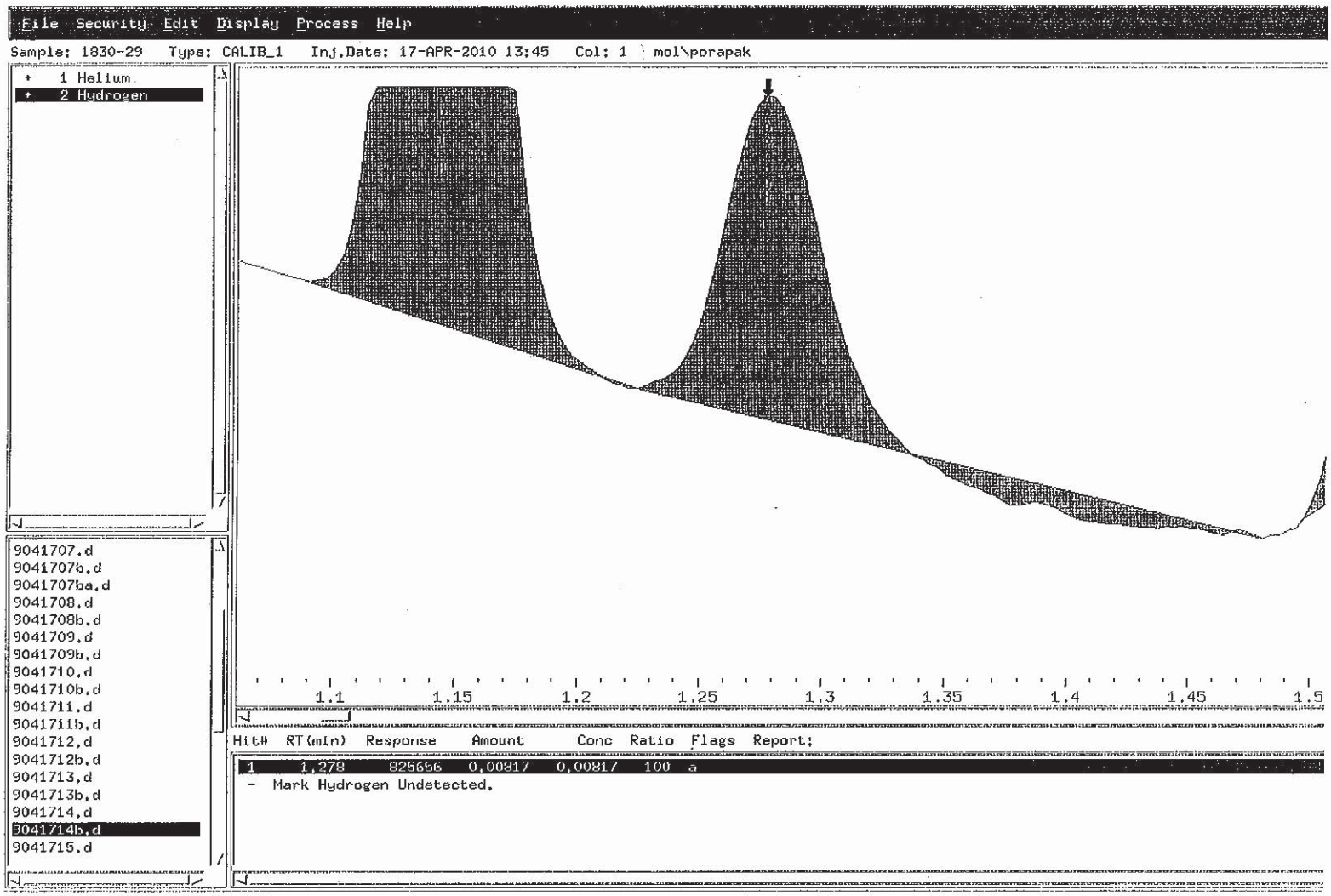


After

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

mr 4/19/10

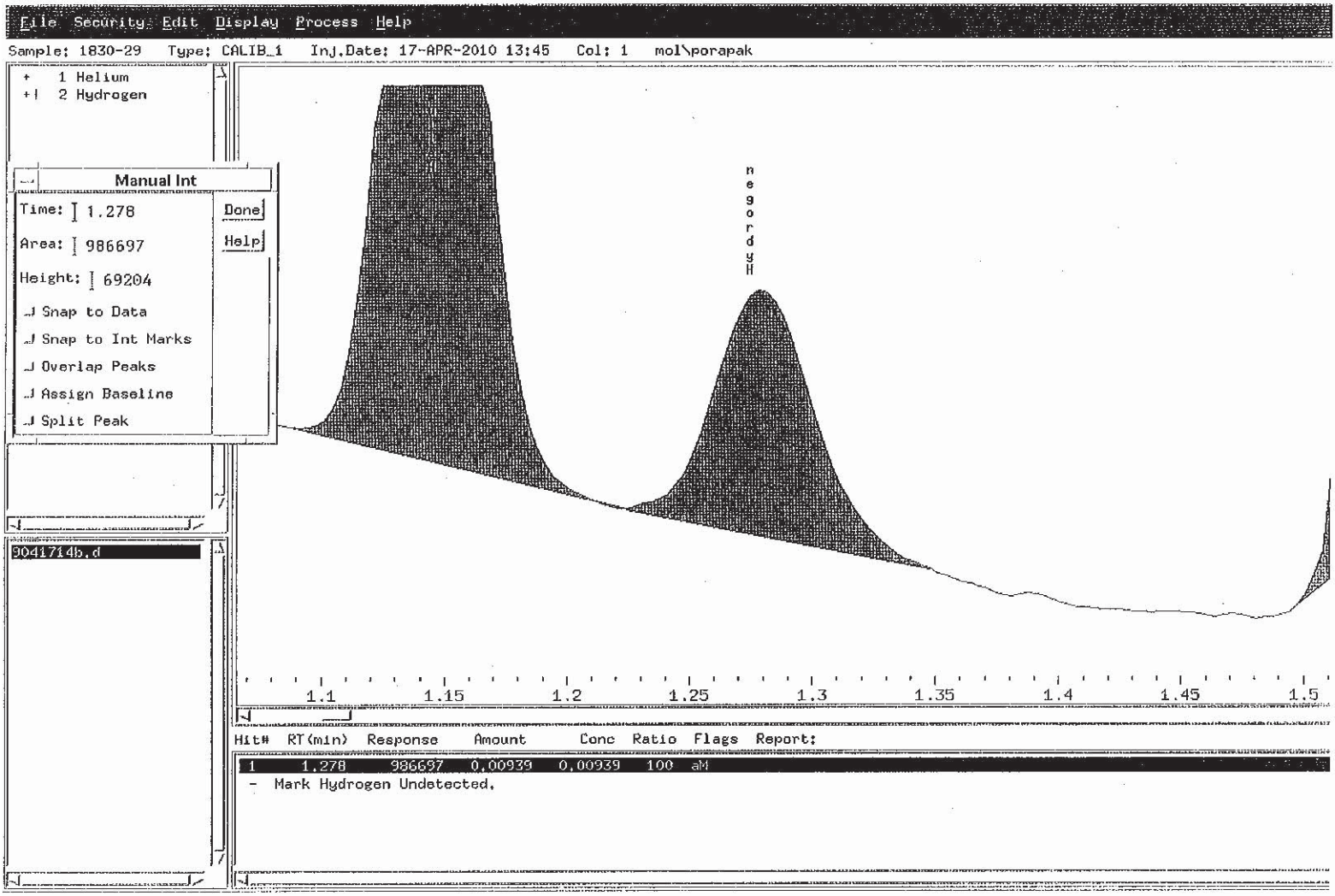
gm 4/19/10



Before

gm

4/19/10



After

Correct Baseline	✓
Split Peak	N/A
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

MM 4/19/10

gm 4/19/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041712b.d
Lab Smp Id: 1476-1477 Ngas Client Smp ID: LCS
Inj Date : 17-APR-2010 12:56
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,;1476-1477 Ngas;LCS;
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	3.365	3.376	-0.011	5205049331	9.45627	9.46
9 Oxygen	8.339	8.340	-0.001	766371728	2.35156	2.35
10 Nitrogen	8.550	8.555	-0.005	24090602022	66.0214	66.0
12 Carbon Monoxide	9.892	9.902	-0.010	310059257	1.09398	1.09

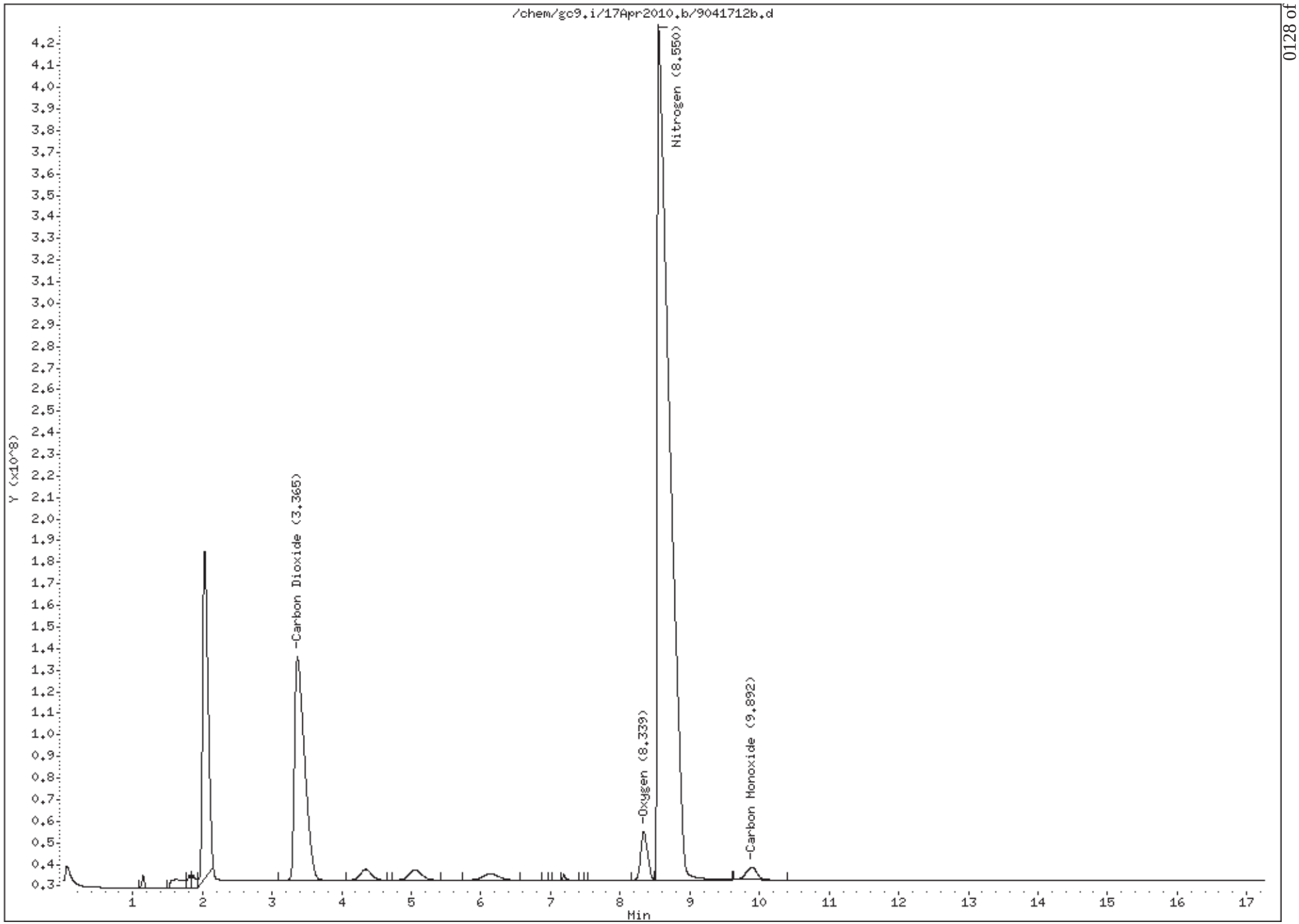
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

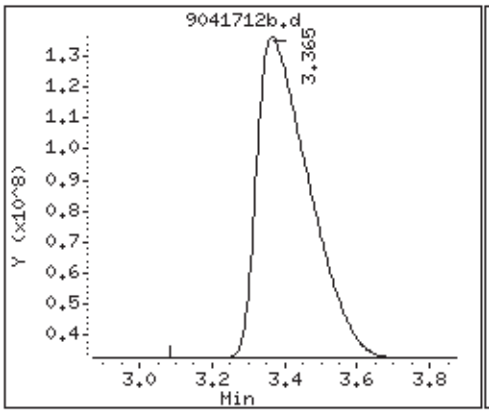
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Ngas Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477-He.spk Quant Type: ESTD
Sublist File: ngas-H2He.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: LCS

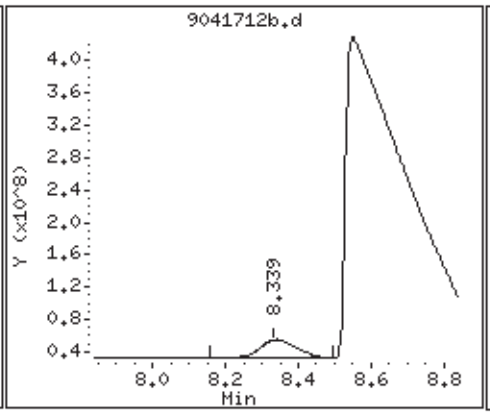
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	9.46	94.75	85-115
9 Oxygen	2.49	2.35	94.44	85-115
10 Nitrogen	70.5	66.0	93.65	85-115
12 Carbon Monoxide	1.00	1.09	109.40	85-115


/chem/gc9.i/17Apr2010.b/9041712b.d
Y (x10^8)
Min
Carbon Dioxide (3.365)
Oxygen (8.339)
Nitrogen (8.550)
Carbon Monoxide (9.892)

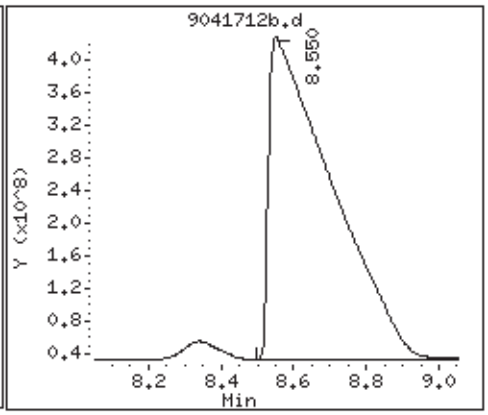
3 Carbon Dioxide



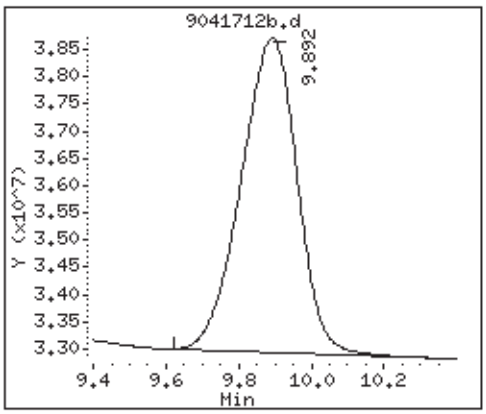
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041721b.d
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Inj Date : 17-APR-2010 16:32
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1477;LCS;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.149	1.149	0.000	65754918	0.98345	0.983

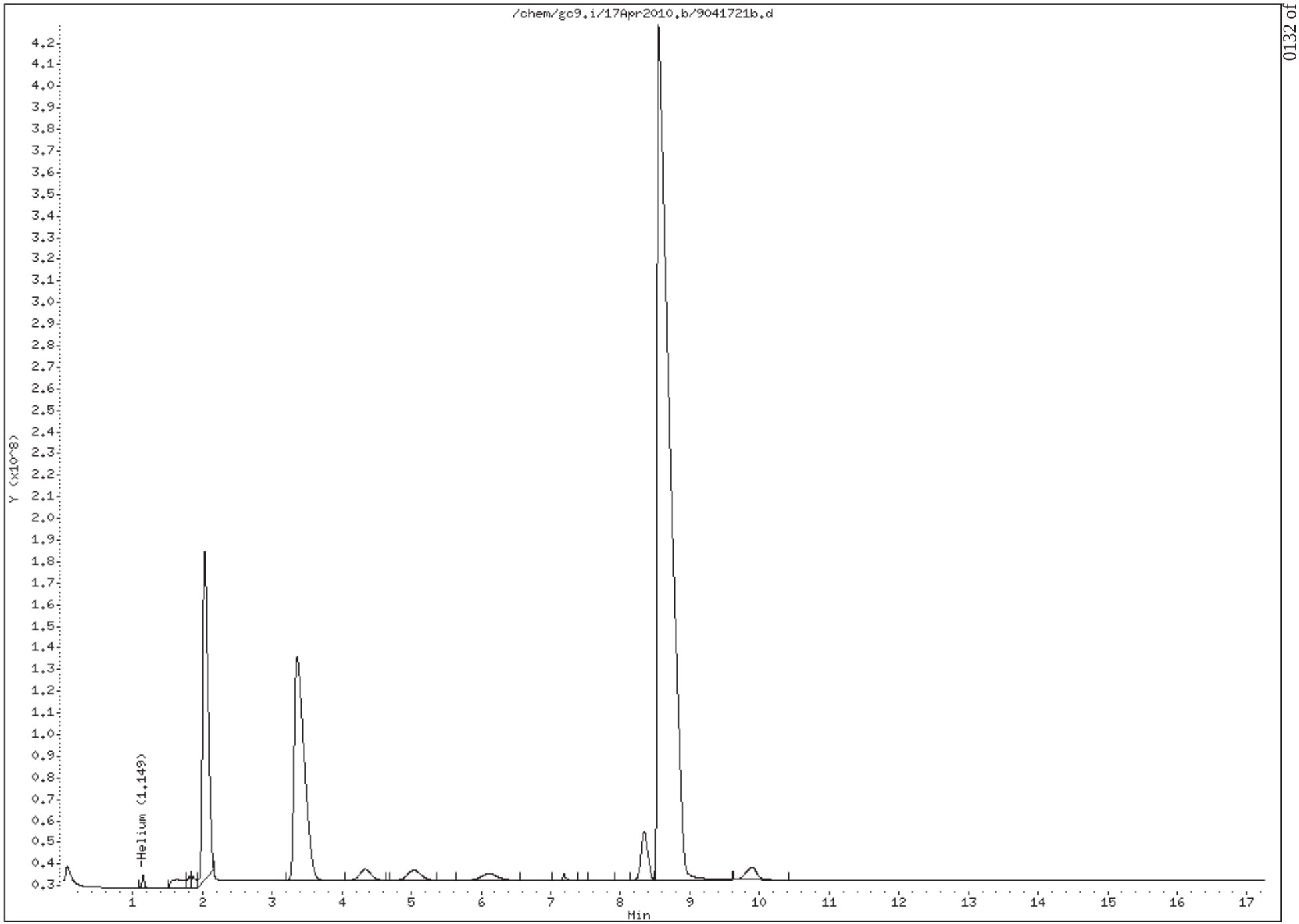
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

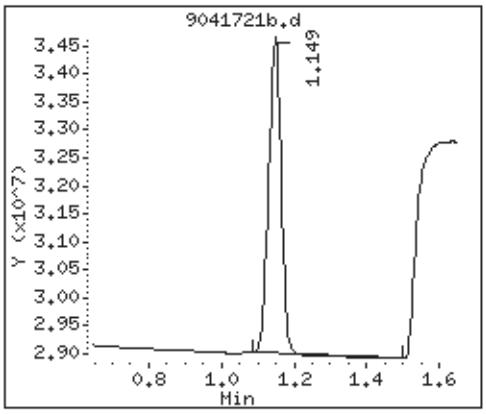
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 0.998%He.spk Quant Type: ESTD
Sublist File: he.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: He

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
1 Helium	0.998	0.983	98.54	85-115


/chem/gc9.i/17Apr2010.b/9041721b.d
Y (x10^8)
Helium (1.149)
Min

1 Helium


9041721b.d
1.149
3.45
3.40
3.35
3.30
3.25
3.20
3.15
3.10
3.05
3.00
2.95
2.90
Y (x10^7)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041722b.d
Lab Smp Id: 1476-1450 Client Smp ID: LCS
Inj Date : 17-APR-2010 16:56
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1450;LCS;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.289	1.288	0.001	217194805	2.06634	2.07

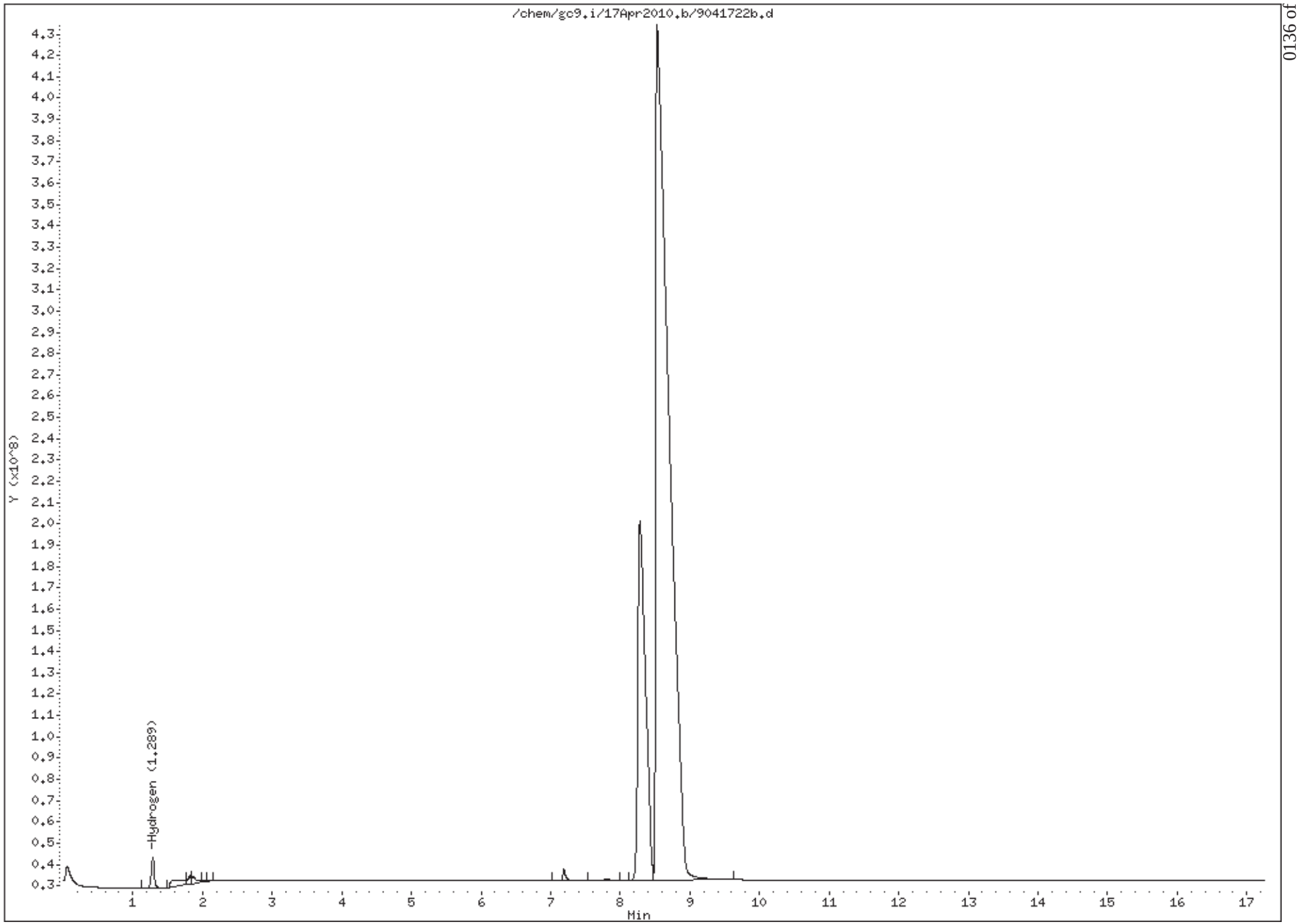
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

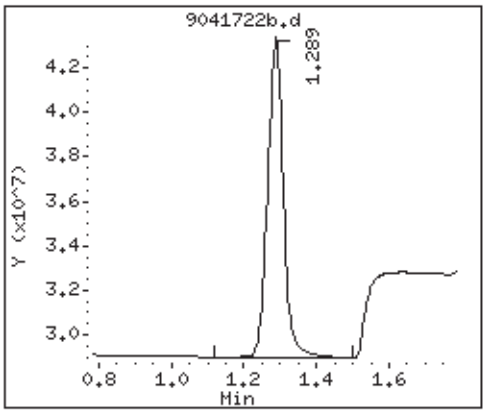
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.0%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: H2

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.00	2.07	103.52	85-115


/chem/gc9.i/17Apr2010.b/9041722b.d
Y (x10^8)
Hydrogen (1.289)
Min

2 Hydrogen



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041714b.d
Lab Smp Id: 1830-29 Client Smp ID: Level-1
Inj Date : 17-APR-2010 13:45
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,Bag;1830-29;Level-1;
Misc Info : H2He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:48 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: heh2.sub
Target Version: 3.50
Processing Host: eeyore

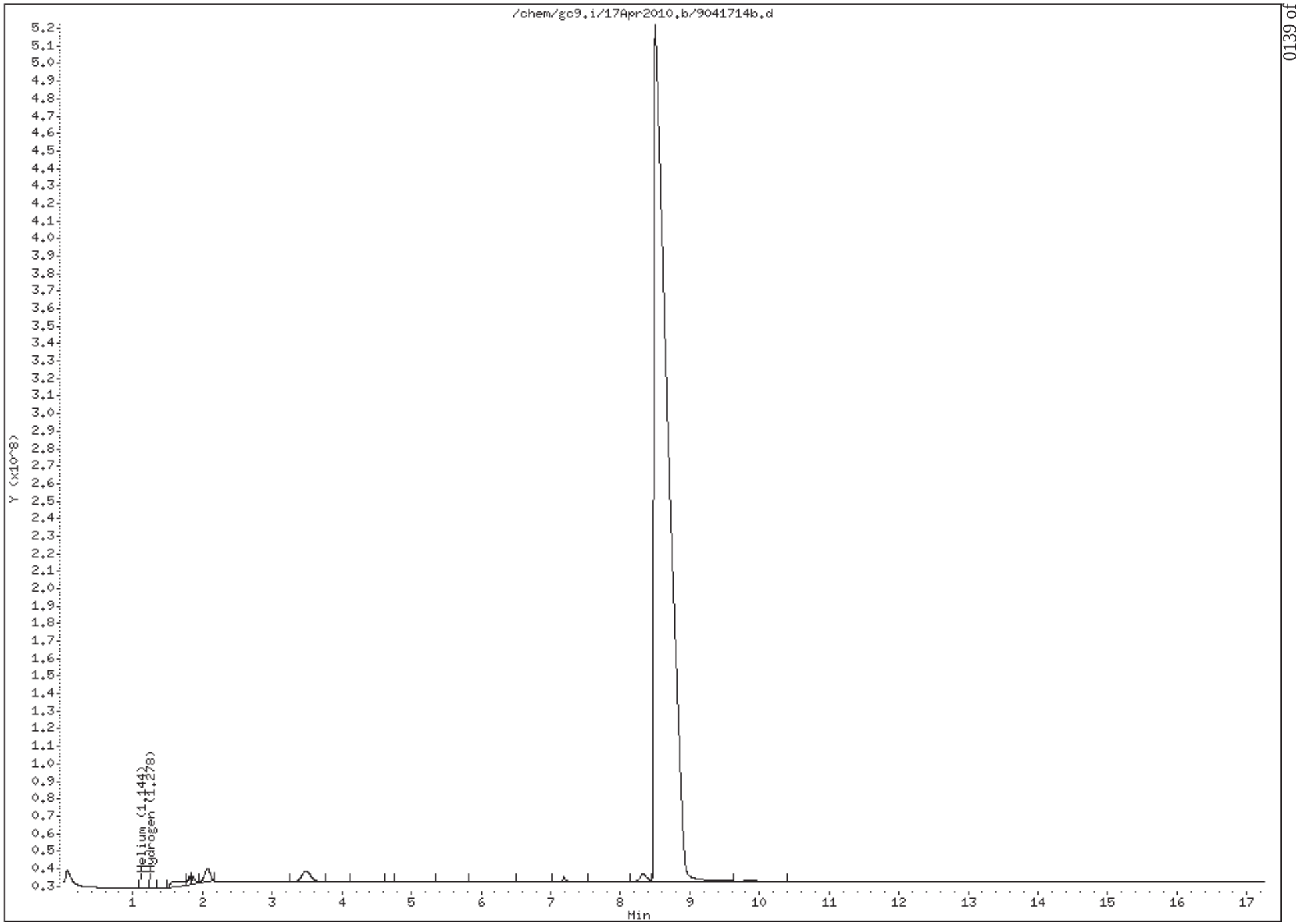
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

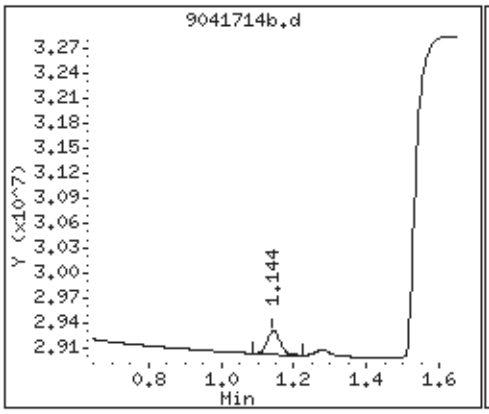
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.144	1.149	-0.005	3347395	0.04935	0.0501
2 Hydrogen	1.278	1.288	-0.010	986697	0.01000	0.00939(aM)

QC Flag Legend

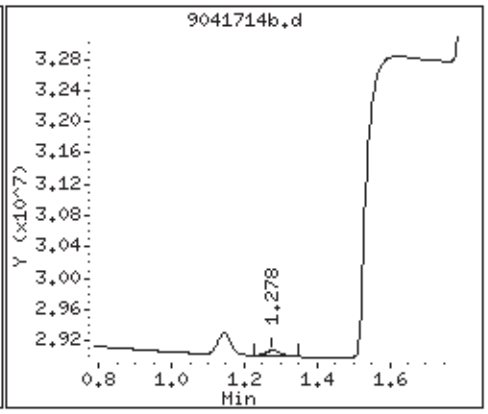
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


/chem/gc9.i/17Apr2010.b/9041714b.d
Y (x10^8)
Min
Helium (1.144)
Hydrogen (1.278)

1 Helium



2 Hydrogen



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041704b.d
Lab Smp Id: 1830-26 Client Smp ID: Level-1
Inj Date : 17-APR-2010 09:26
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,94301;1830-26;Level-1;
Misc Info : Level-1
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

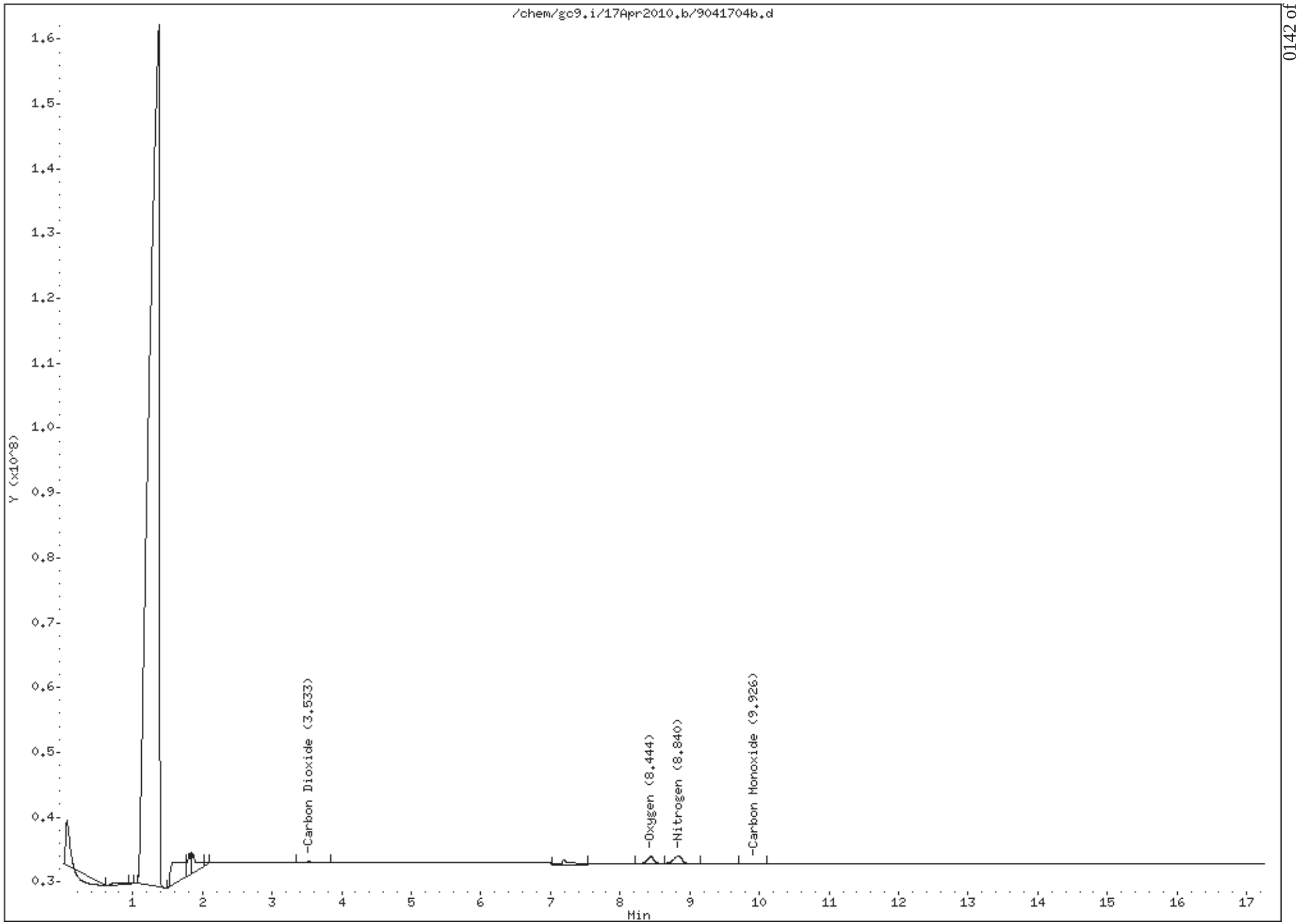
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

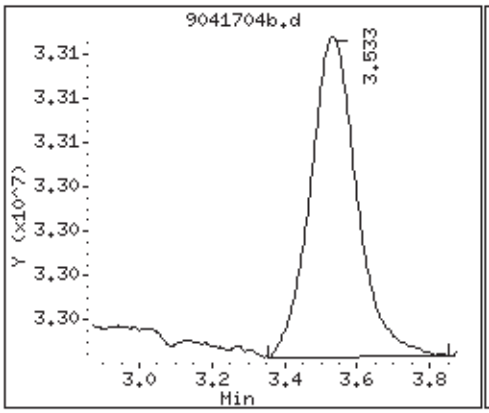
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.533	3.376	0.157	6503827	0.00988	0.0118
9 Oxygen	8.444	8.340	0.104	31723482	0.09860	0.0973(a)
10 Nitrogen	8.840	8.555	0.285	45342607	0.09900	0.124
12 Carbon Monoxide	9.926	9.902	0.024	2449459	0.00983	0.00864(aM)

QC Flag Legend

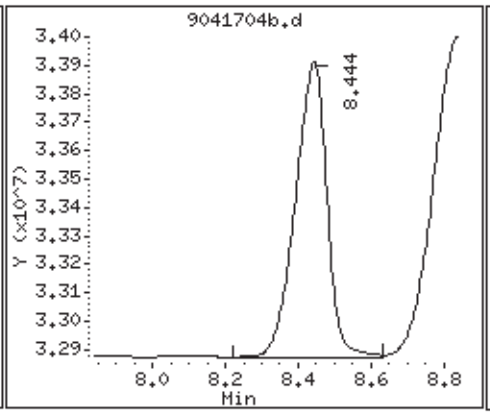
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


/chem/gc9.i/17Apr2010.b/9041704b.d
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Dioxide (3.533)
-Oxygen (8.444)
-Nitrogen (8.840)
-Carbon Monoxide (9.926)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

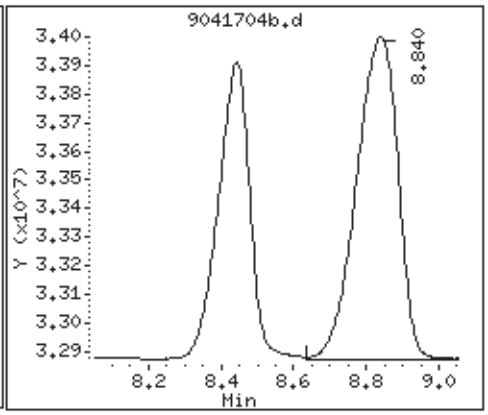
3 Carbon Dioxide



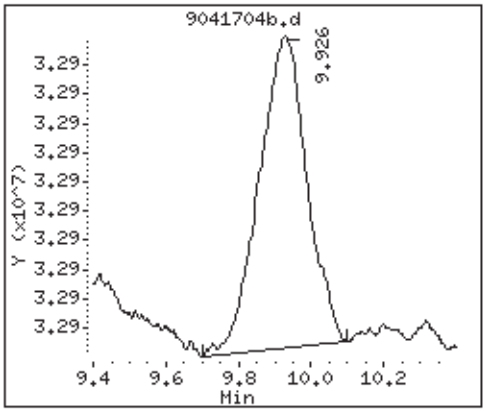
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

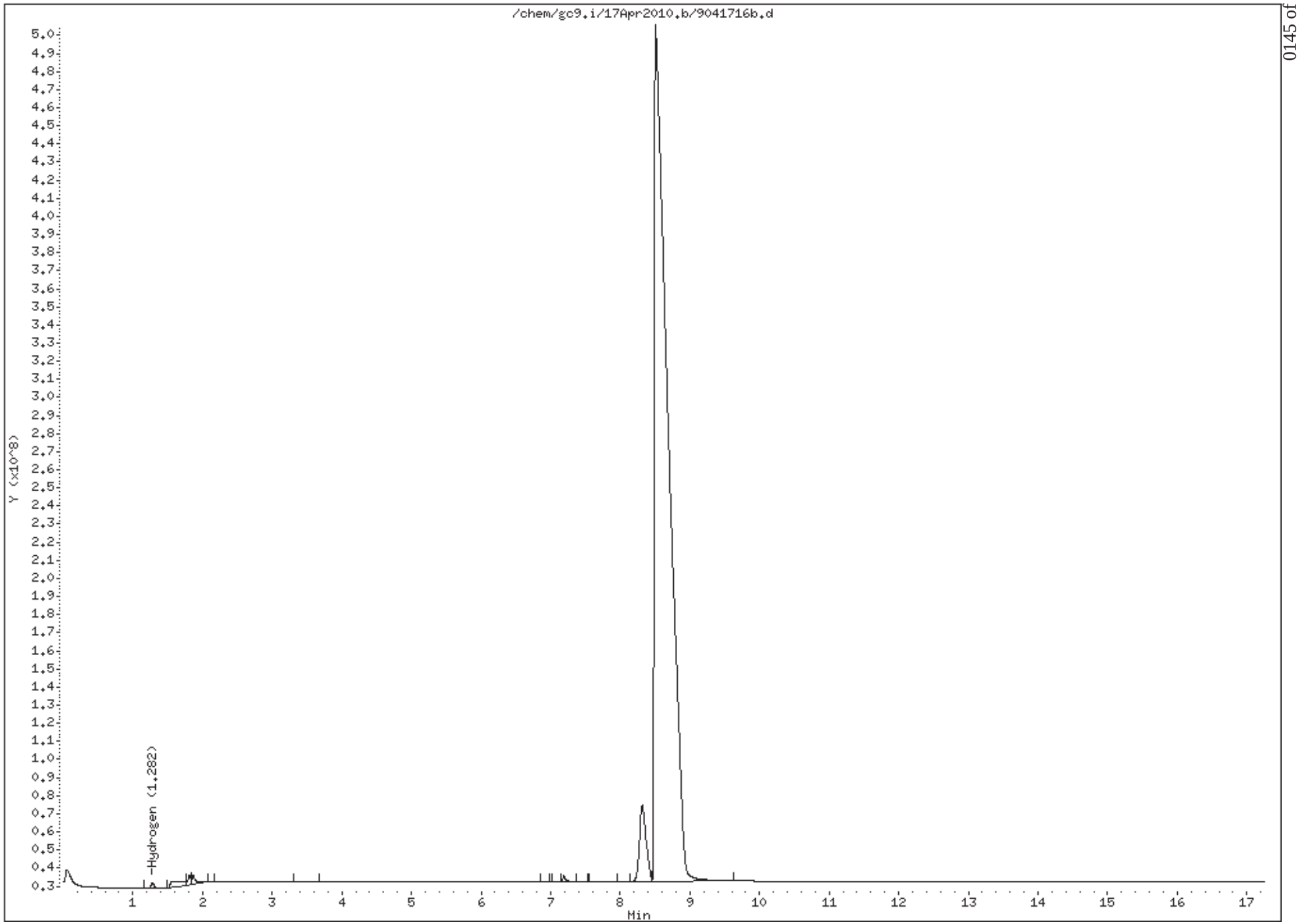
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041716b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: Level-2
Inj Date : 17-APR-2010 14:30
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(10:50);1476-977 H2;Level-2;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

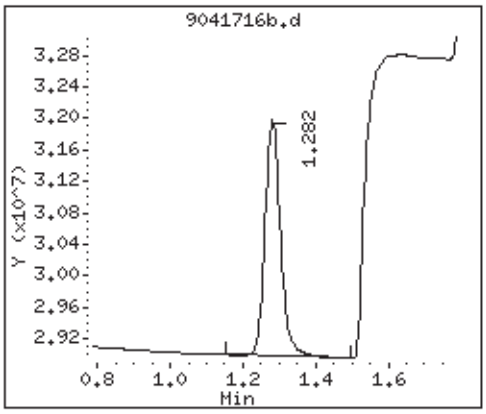
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.282	1.288	-0.006	44458302	0.40000	0.440


/chem/gc9.i/17Apr2010.b/9041716b.d
Y (x10^8)
Hydrogen (1.282)
Min

2 Hydrogen


9041716b.d
3.28
3.24
3.20
3.16
3.12
3.08
3.04
3.00
2.96
2.92
Y (x10^7)
1.282
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

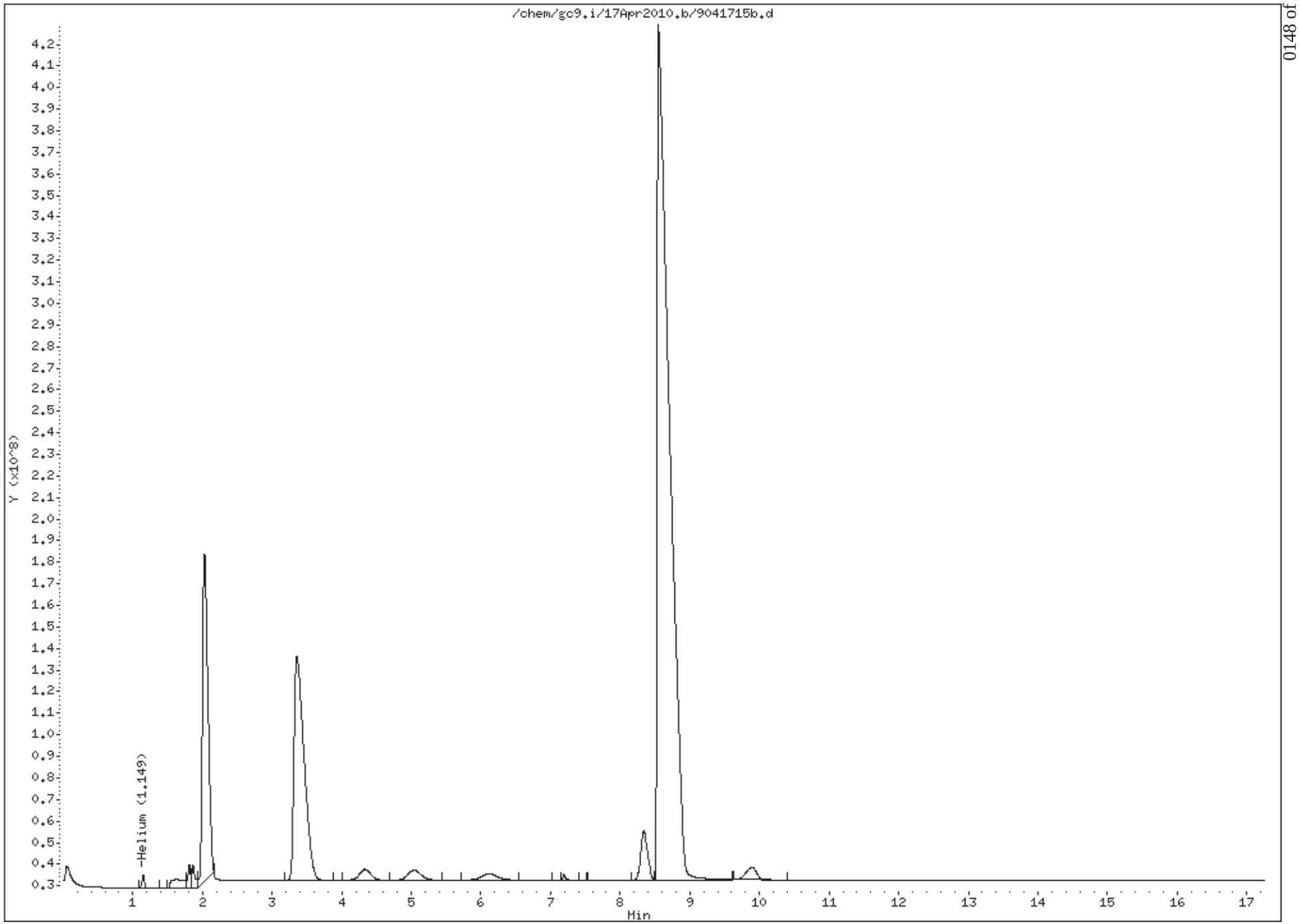
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041715b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-2
Inj Date : 17-APR-2010 14:07
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-2;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

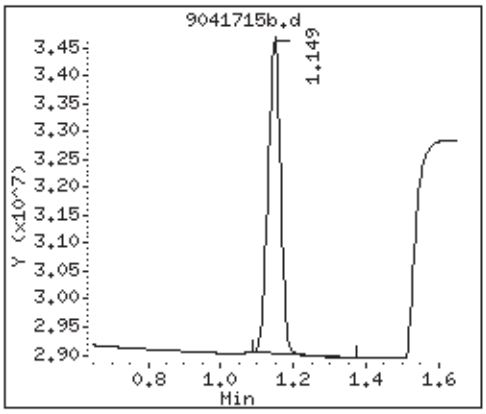
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.149	1.149	0.000	67048029	0.98700	1.00


/chem/gc9.i/17Apr2010.b/9041715b.d
Y (x10^8)
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Helium (1.149)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

1 Helium


9041715b.d
1.149
3.45
3.40
3.35
3.30
3.25
3.20
3.15
3.10
3.05
3.00
2.95
2.90
Y (x10^7)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

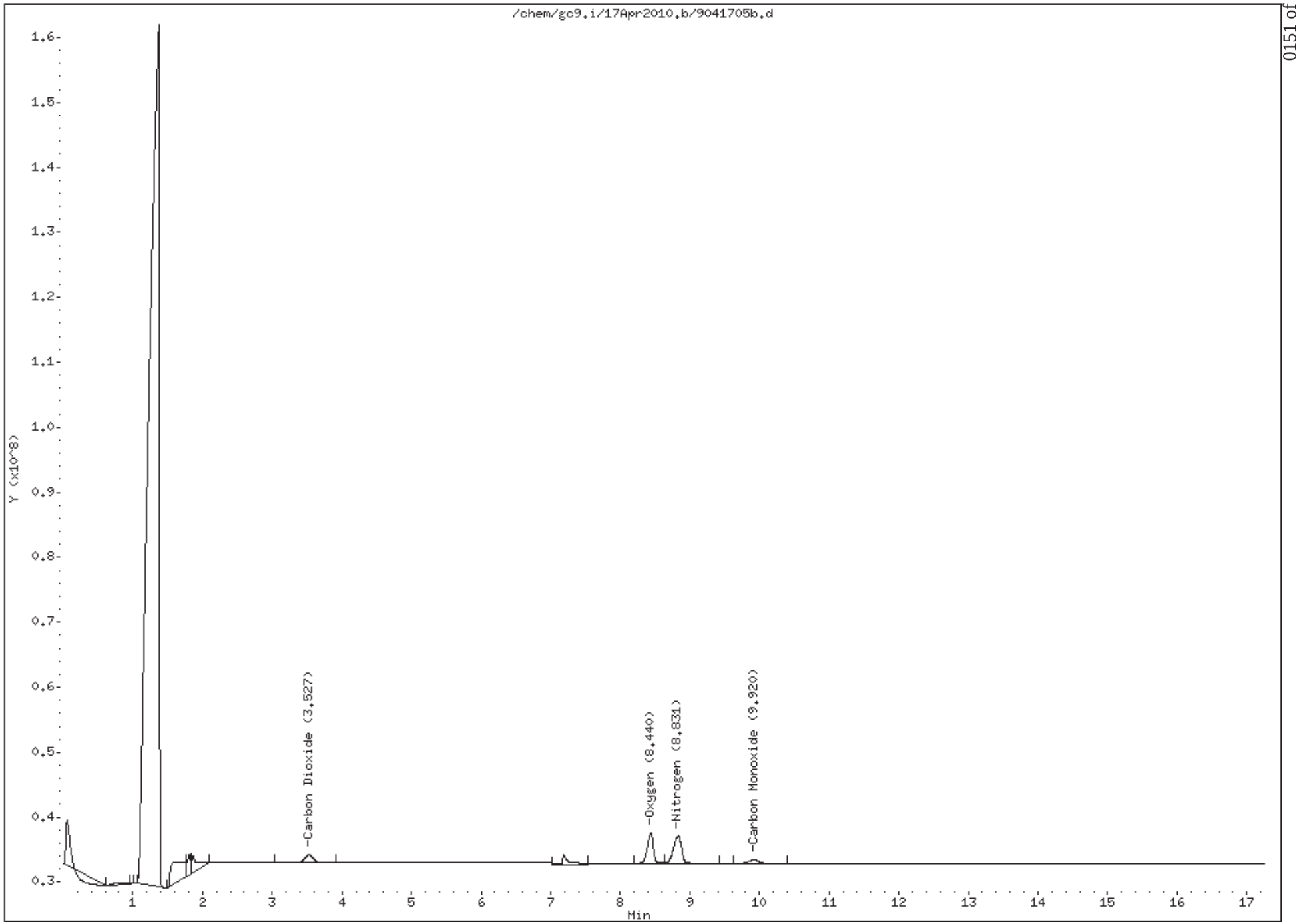
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041705b.d
Lab Smp Id: 1830-25 Client Smp ID: Level-2
Inj Date : 17-APR-2010 09:48
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,14867;1830-25;Level-2;
Misc Info : Level-2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

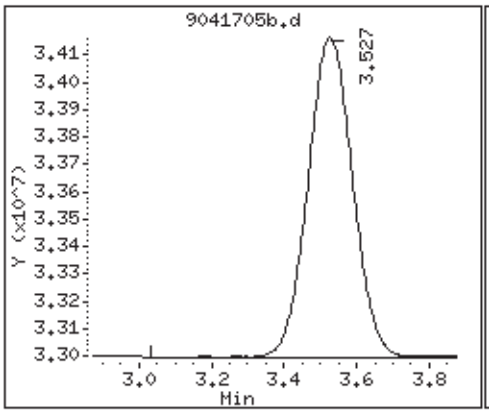
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

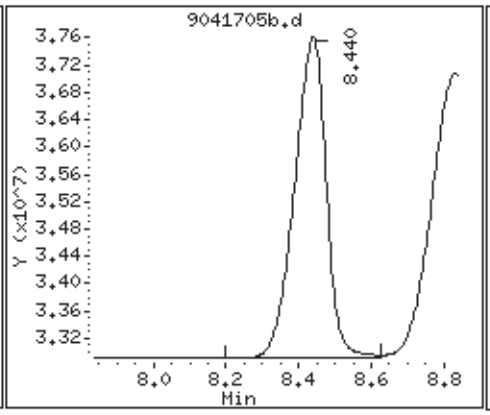
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.527	3.376	0.151	50263423	0.09880	0.0913
9 Oxygen	8.440	8.340	0.100	142795018	0.49310	0.438
10 Nitrogen	8.831	8.555	0.276	167233543	0.49500	0.458
12 Carbon Monoxide	9.920	9.902	0.018	25878143	0.10240	0.0913


/chem/gc9.i/17Apr2010.b/9041705b.d
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Dioxide (3.527)
-Oxygen (8.440)
-Nitrogen (8.831)
-Carbon Monoxide (9.920)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

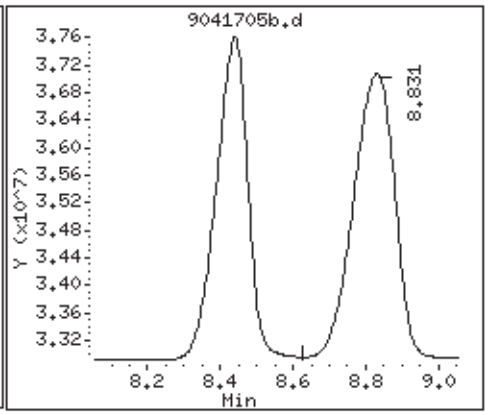
3 Carbon Dioxide



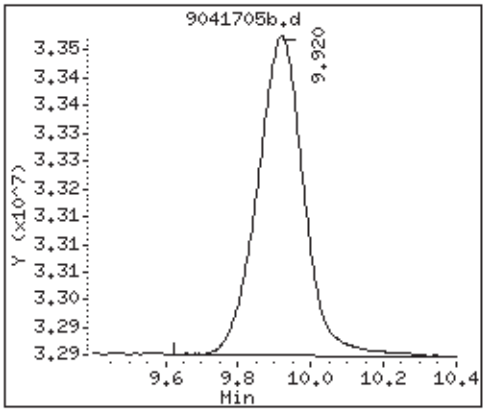
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

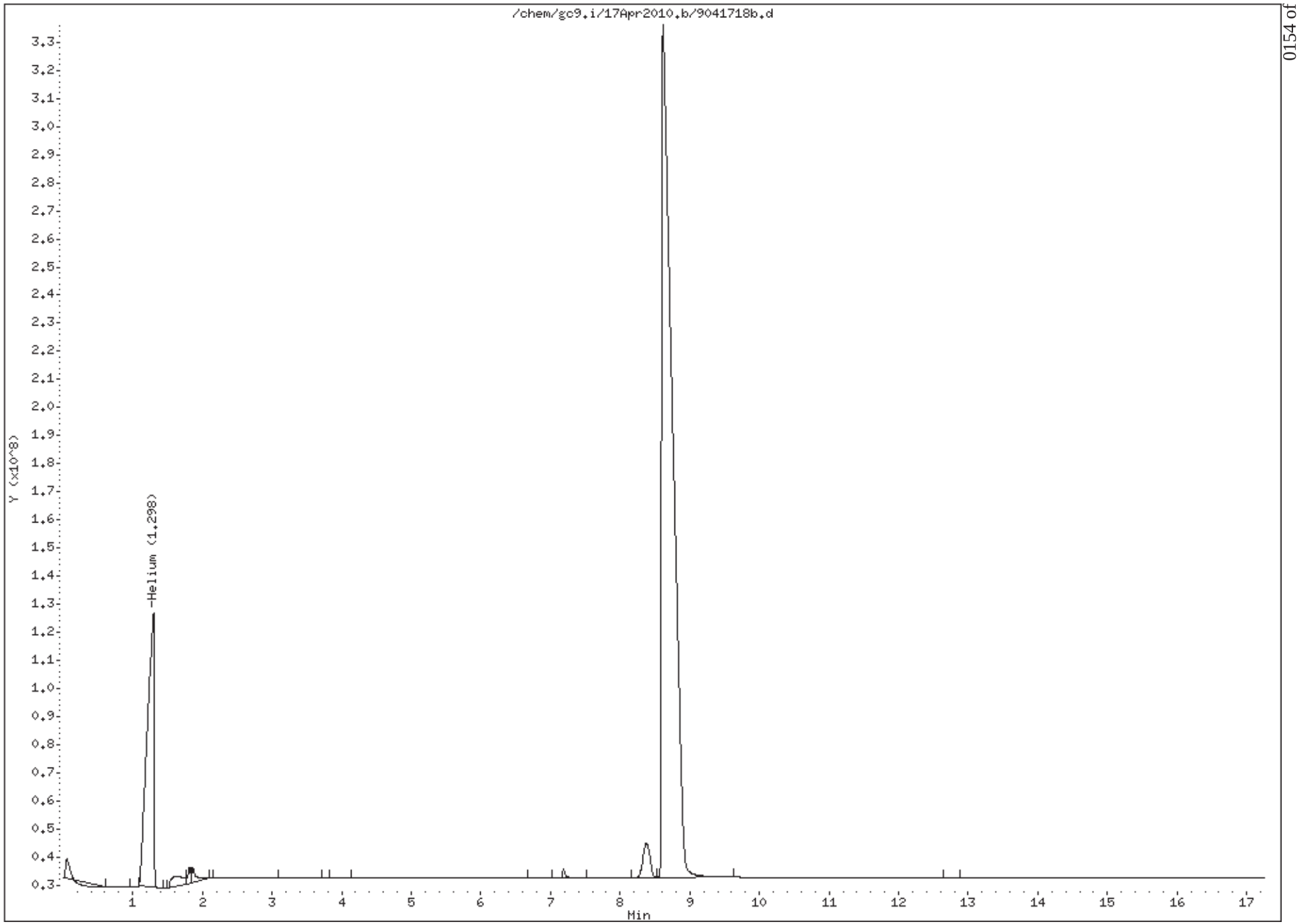
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041718b.d
Lab Smp Id: 1476-1670 Client Smp ID: Level-4
Inj Date : 17-APR-2010 15:17
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(25:50);1476-1670;Level-4;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

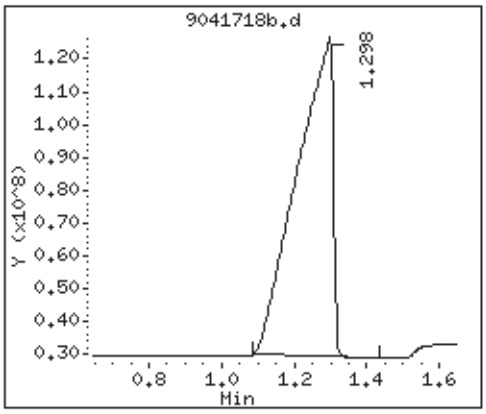
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.298	1.149	0.149	3355520328	50.0000	50.2


/chem/gc9.i/17Apr2010.b/9041718b.d
Y (x10^8)
Helium (1.298)
Min

1 Helium


9041718b.d
1.298
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
Y (x10^8)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

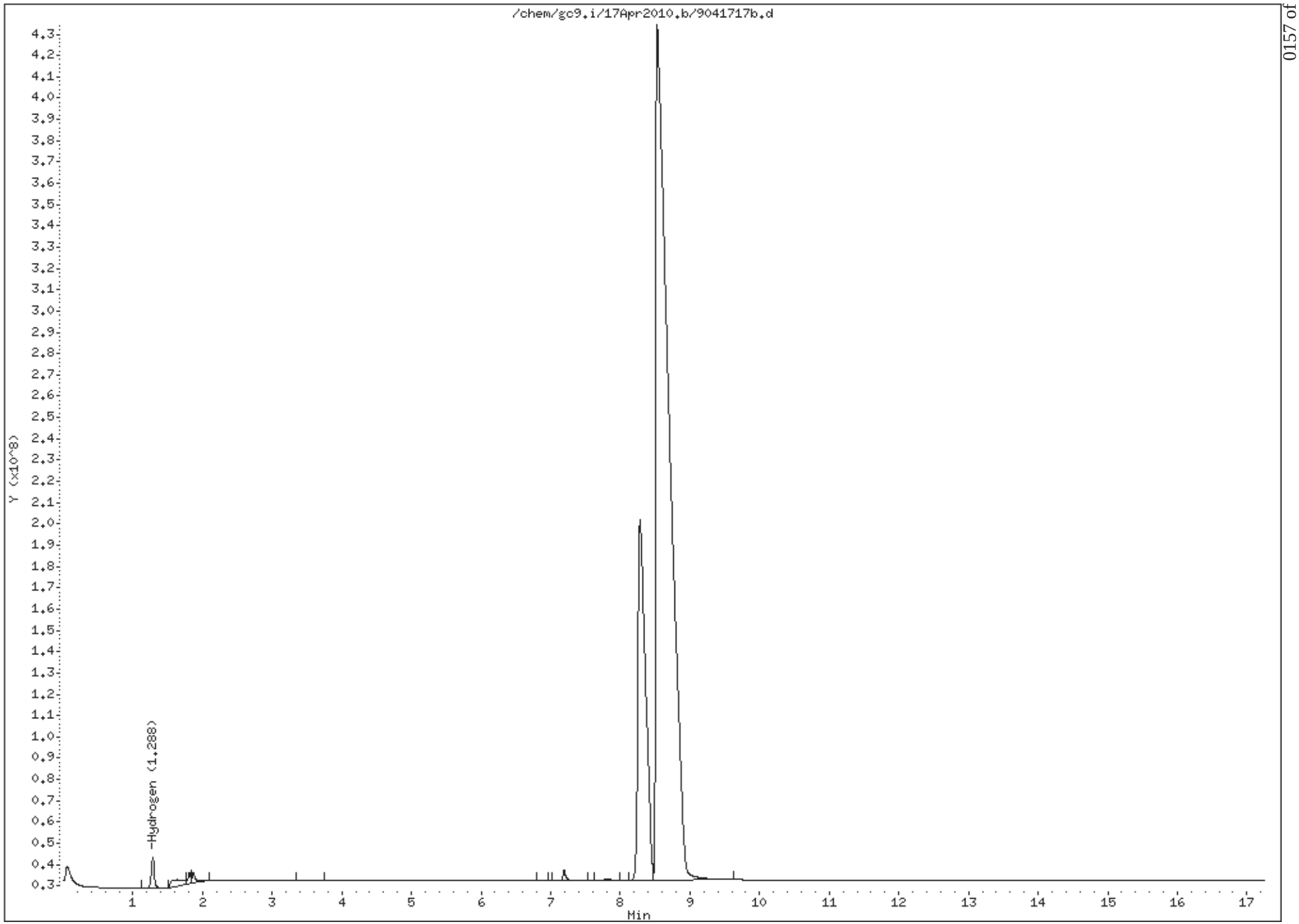
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041717b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: Level-3
Inj Date : 17-APR-2010 14:53
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-977 H2;Level-3;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

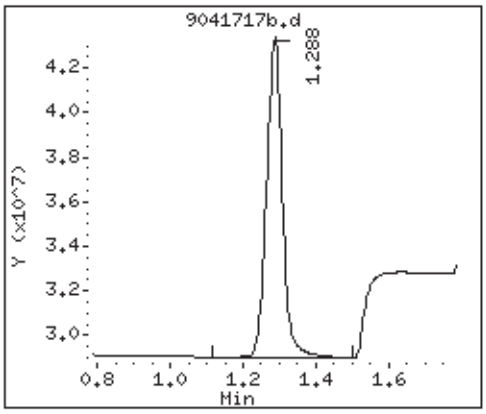
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.288	1.288	0.000	217281925	2.00000	2.15


/chem/gc9.i/17Apr2010.b/9041717b.d
Y (x10^8)
Hydrogen (1.288)
Min

2 Hydrogen



Air Toxics Ltd.

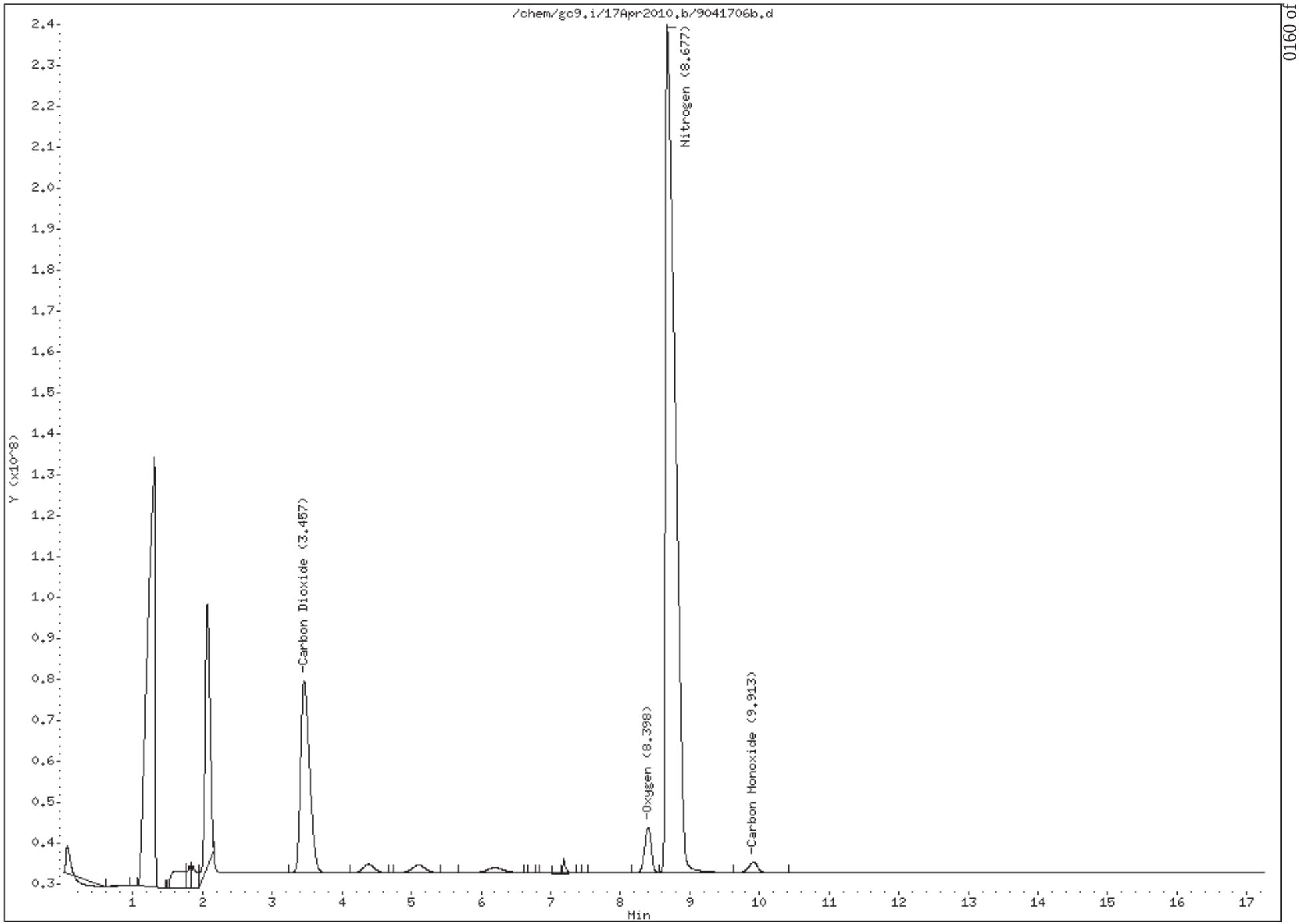
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041706b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-3
Inj Date : 17-APR-2010 10:12
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-3;
Misc Info : Level-3
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

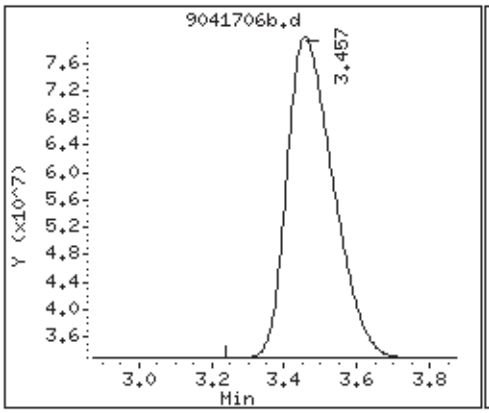
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

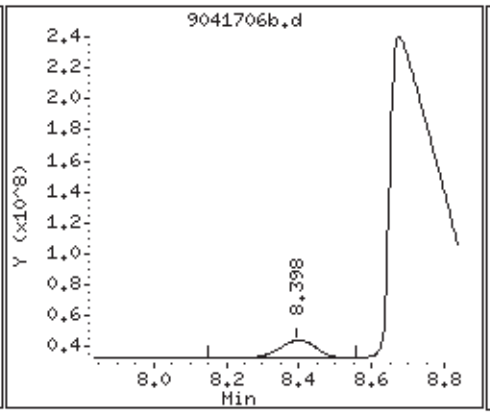
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.457	3.376	0.081	2102189021	4.00000	3.82
9 Oxygen	8.398	8.340	0.058	386868260	1.00000	1.19
10 Nitrogen	8.677	8.555	0.122	9872464302	28.2100	27.0
12 Carbon Monoxide	9.913	9.902	0.011	117140988	0.40400	0.413


/chem/gc9.i/17Apr2010.b/9041706b.d
Y (x10^8)
Min
Nitrogen (8.677)
Carbon Dioxide (3.457)
Oxygen (8.398)
Carbon Monoxide (9.913)

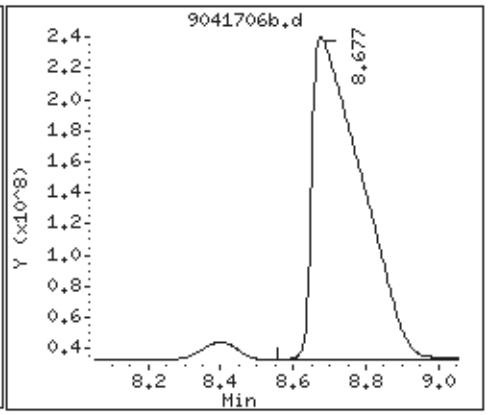
3 Carbon Dioxide



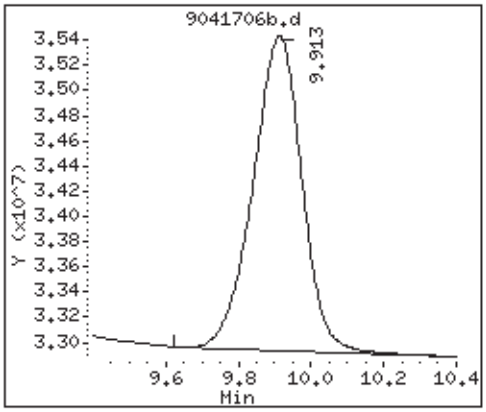
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041720b.d
Lab Smp Id: 1476-1671 Client Smp ID: Level-4
Inj Date : 17-APR-2010 16:10
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1671;Level-4;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

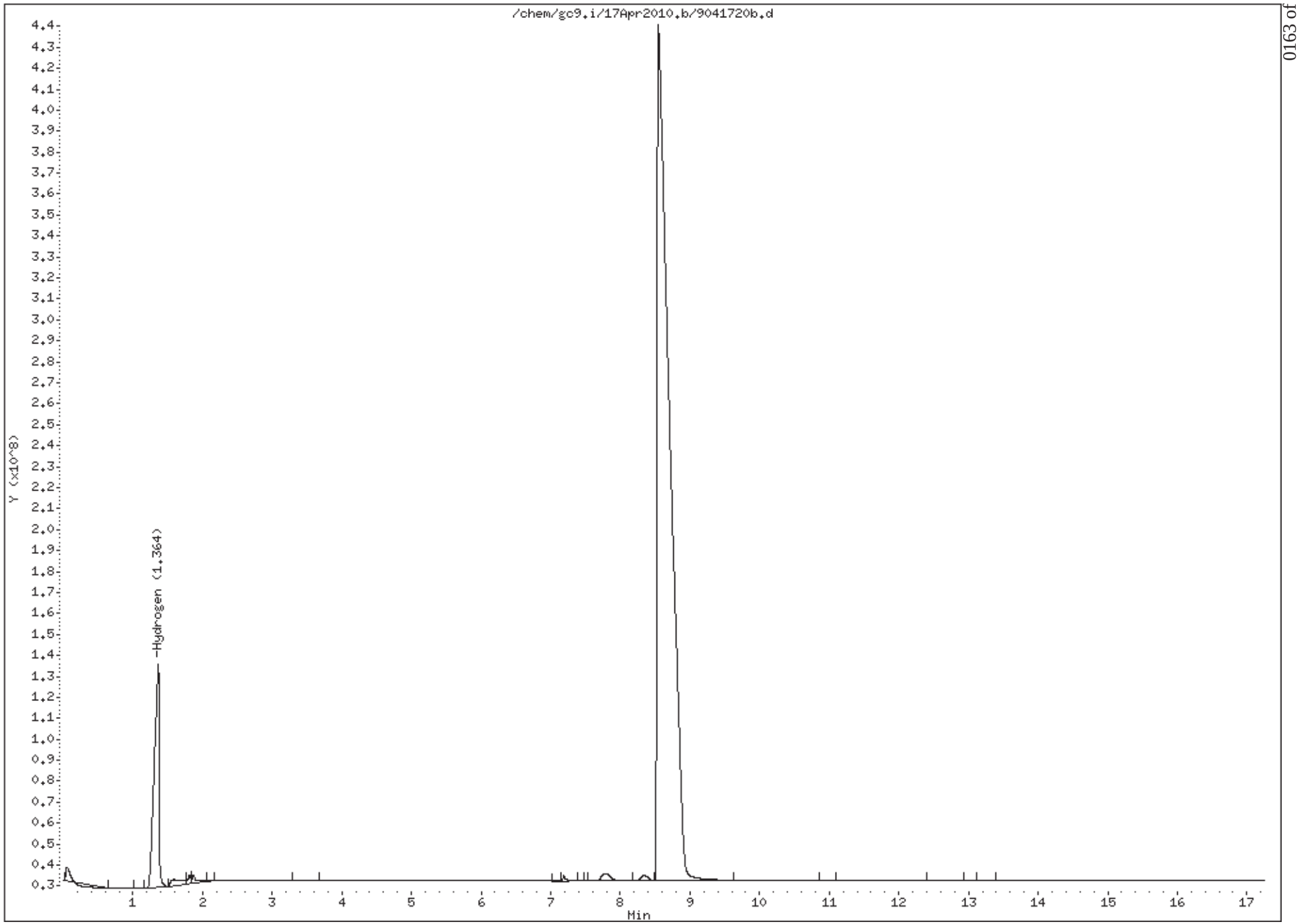
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

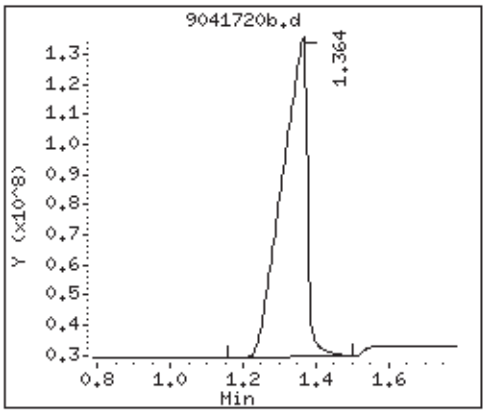
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.364	1.288	0.076	2549654950	25.0000	25.2(A)

QC Flag Legend

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


/chem/gc9.i/17Apr2010.b/9041720b.d
Y (x10^8)
Hydrogen (1.364)
Min

2 Hydrogen


9041720b.d
1.364
Y (x10^8)
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

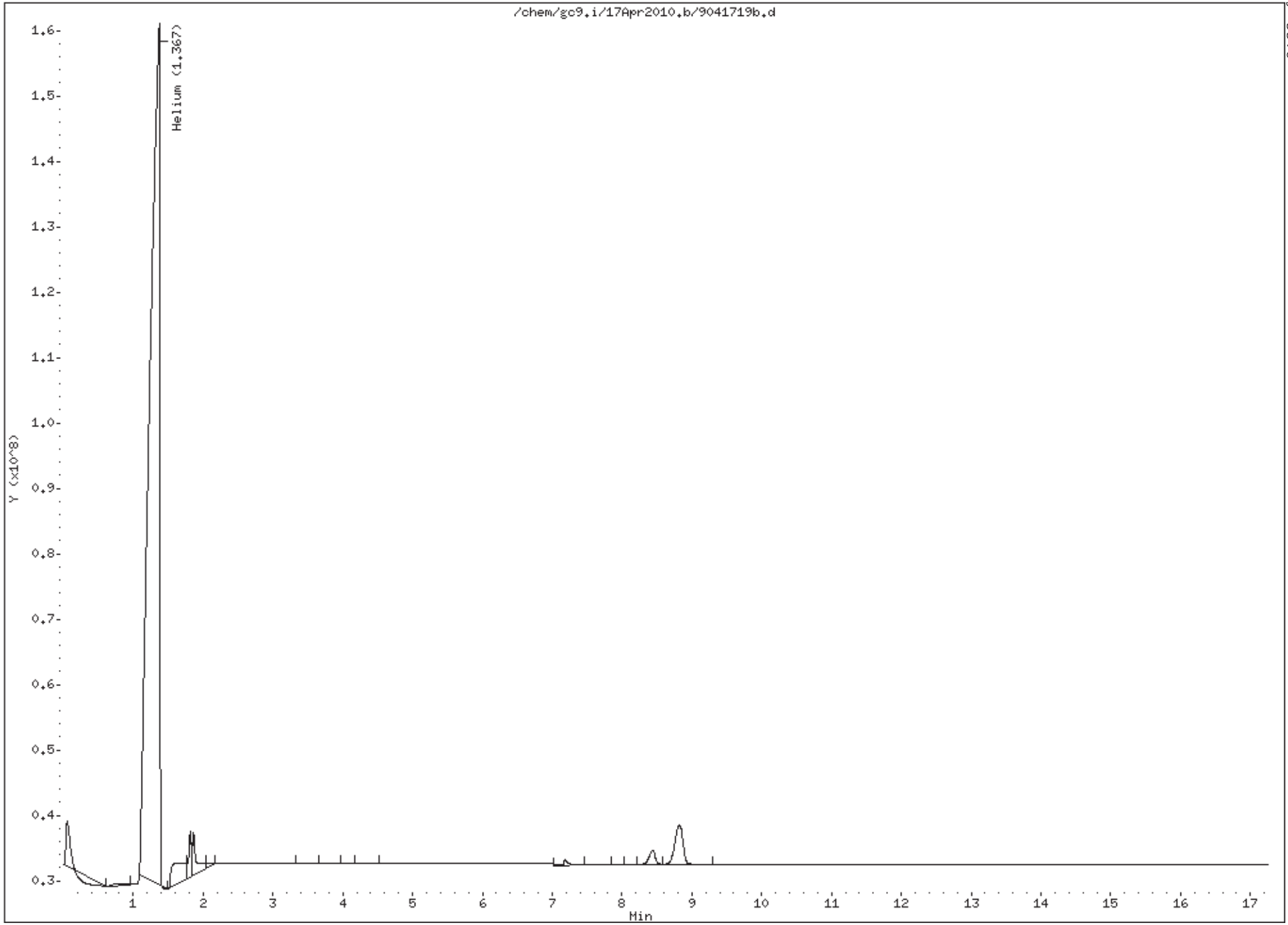
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041719b.d
Lab Smp Id: 1476-1670 Client Smp ID: Level-4
Inj Date : 17-APR-2010 15:47
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1670;Level-4;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

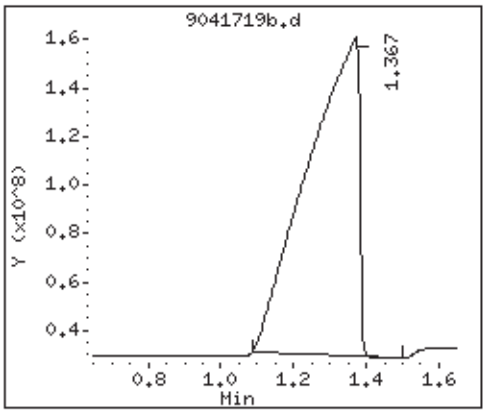
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
==========	==	======	======	========	=======	=======
1 Helium	1.367	1.149	0.218	6457384801	100.000	96.6


/chem/gc9.i/17Apr2010.b/9041719b.d
Helium (1.367)
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

1 Helium



Air Toxics Ltd.

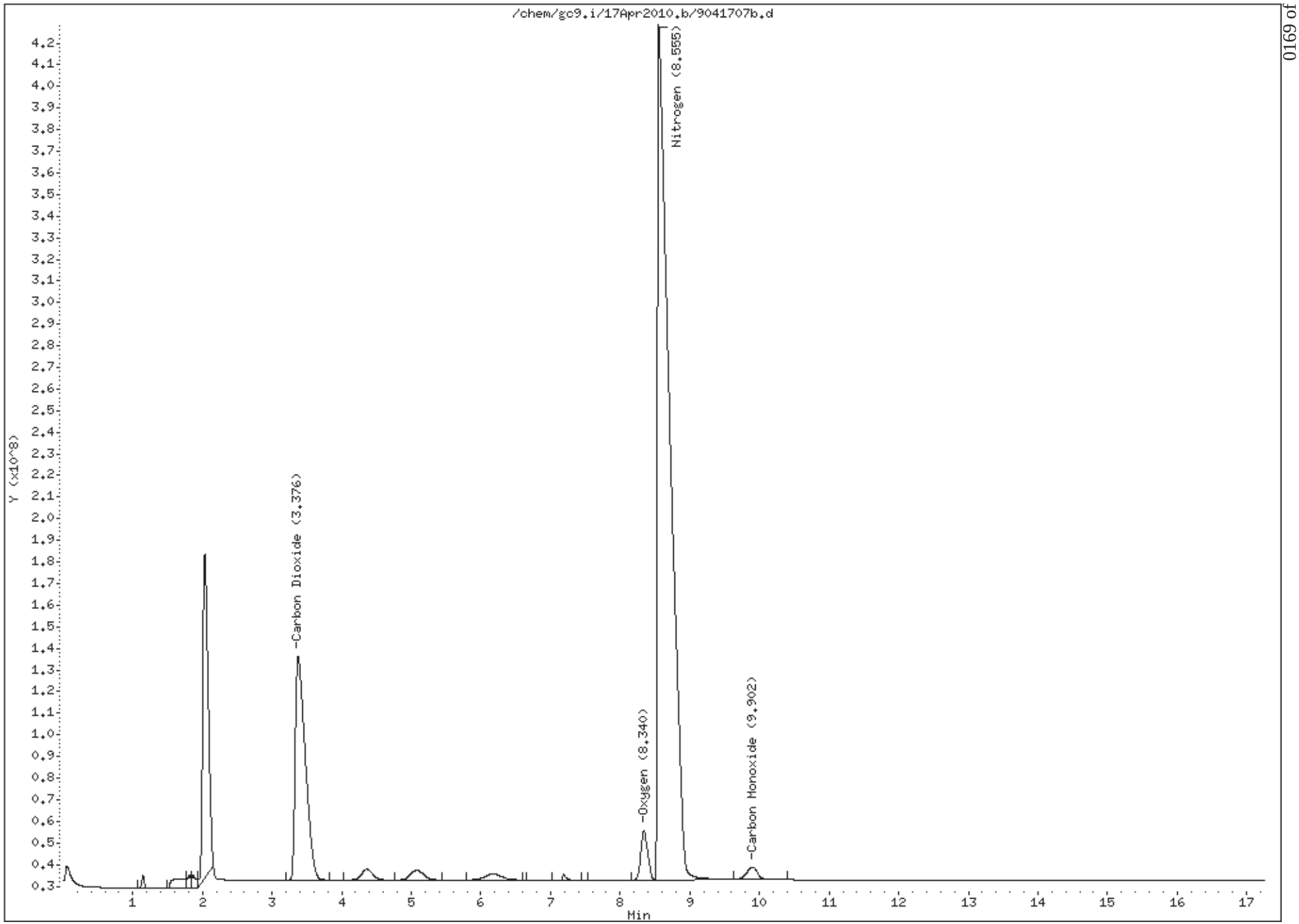
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041707b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-4
Inj Date : 17-APR-2010 10:34
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-4;
Misc Info : Level-4
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

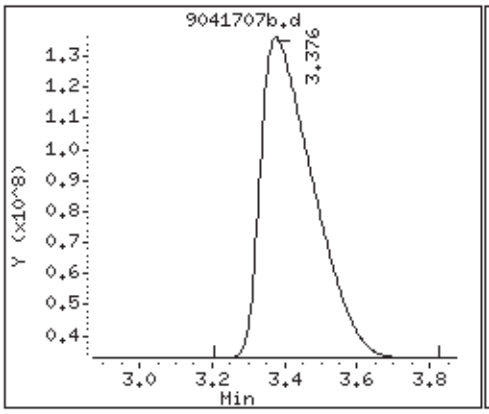
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

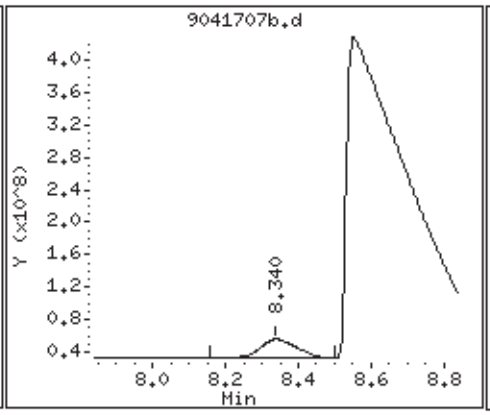
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.376	3.376	0.000	5191703107	10.0000	9.43
9 Oxygen	8.340	8.340	0.000	779481410	2.50000	2.39
10 Nitrogen	8.555	8.555	0.000	24051474674	70.5240	65.9
12 Carbon Monoxide	9.902	9.902	0.000	310213791	1.01000	1.09


/chem/gc9.i/17Apr2010.b/9041707b.d
Y (x10^8)
Min
Carbon Dioxide (3.376)
Oxygen (8.340)
Nitrogen (8.555)
Carbon Monoxide (9.902)

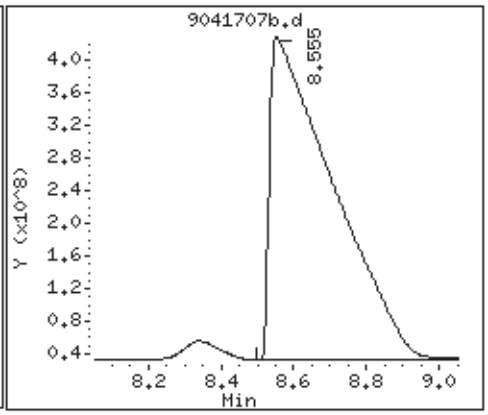
3 Carbon Dioxide



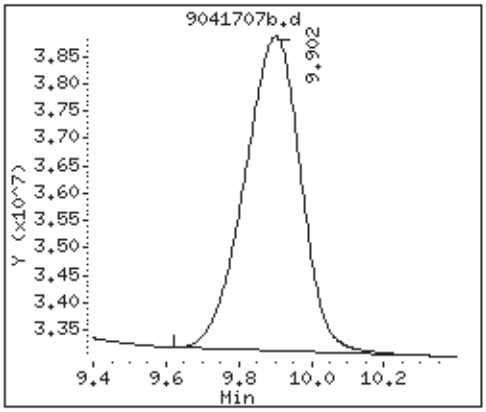
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

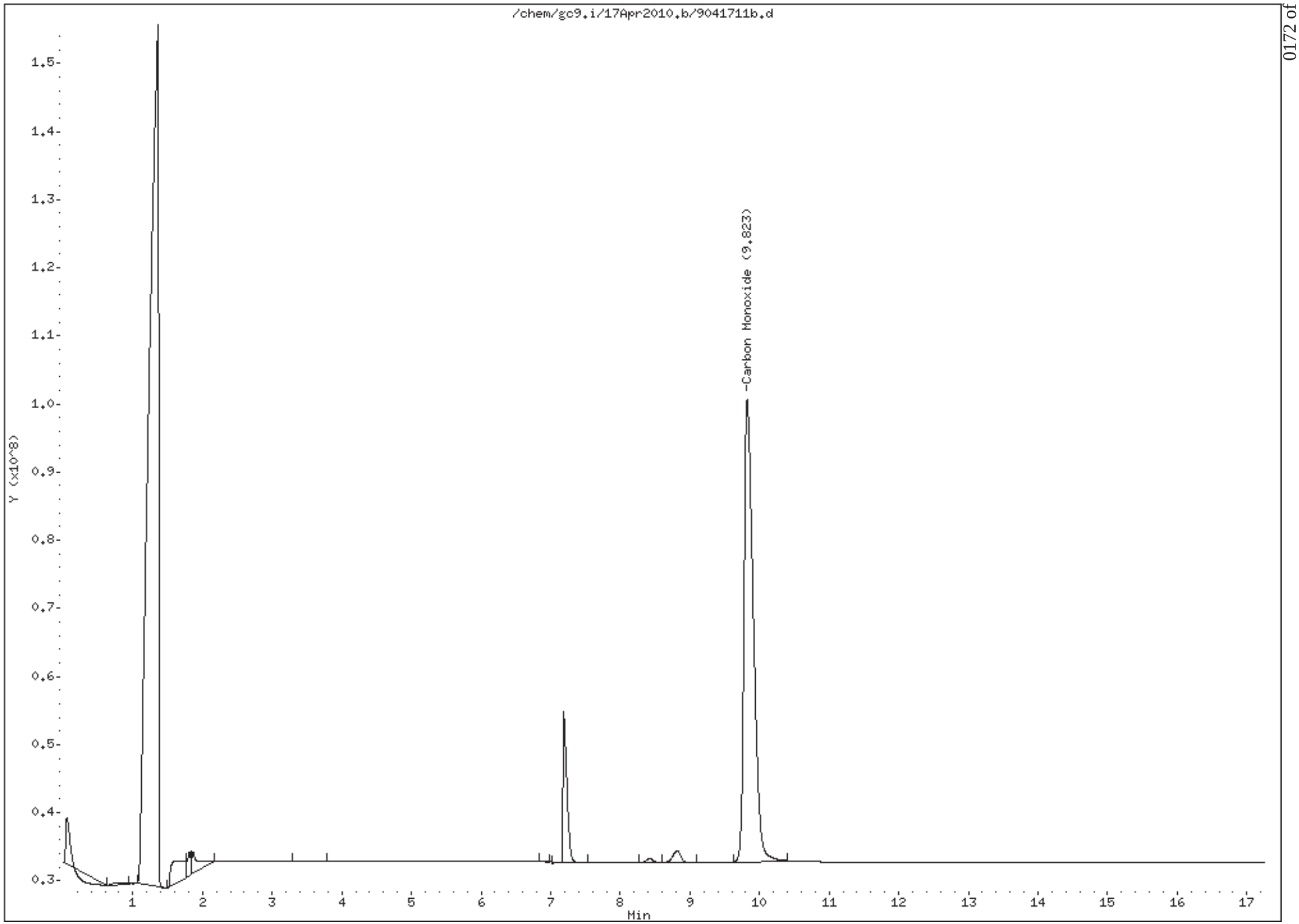
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041711b.d
Lab Smp Id: 1476-599 Client Smp ID: Level-5
Inj Date : 17-APR-2010 12:33
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(5:50),;1476-599;Level-5;
Misc Info : CO
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: co.sub
Target Version: 3.50
Processing Host: eeyore

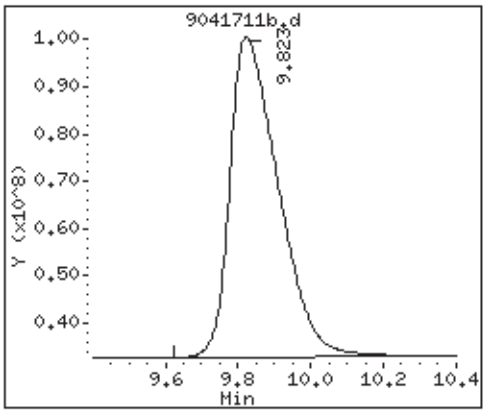
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
12 Carbon Monoxide	9.823	9.902	-0.079	3158919196	9.93000	11.1


/chem/gc9.i/17Apr2010.b/9041711b.d
Y (x10^8)
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Monoxide (9.823)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

12 Carbon Monoxide



Air Toxics Ltd.

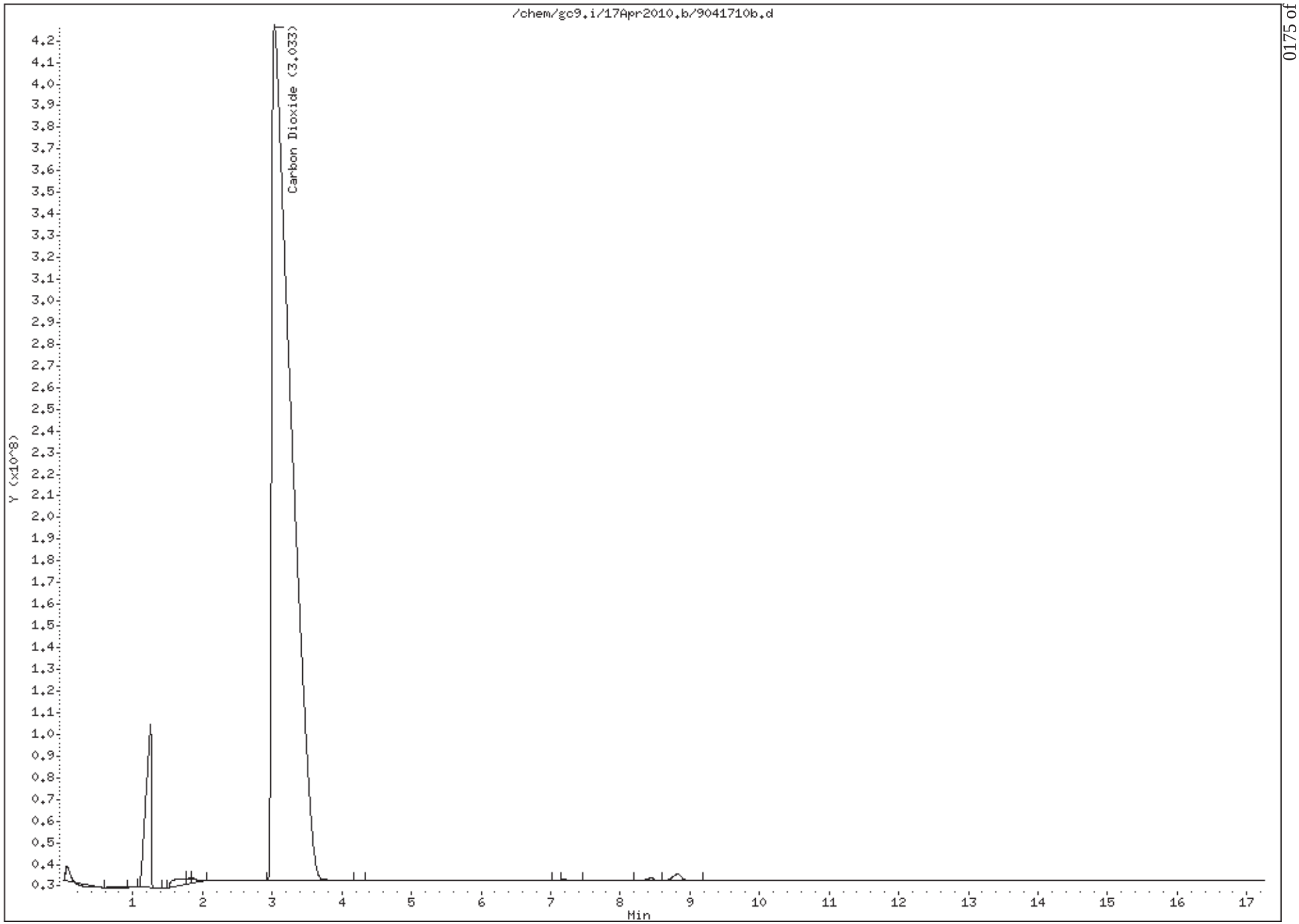
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041710b.d
Lab Smp Id: 1476-971 Client Smp ID: Level-5
Inj Date : 17-APR-2010 12:10
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(35:50),;1476-971;Level-5;
Misc Info : CO2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: co2.sub
Target Version: 3.50
Processing Host: eeyore

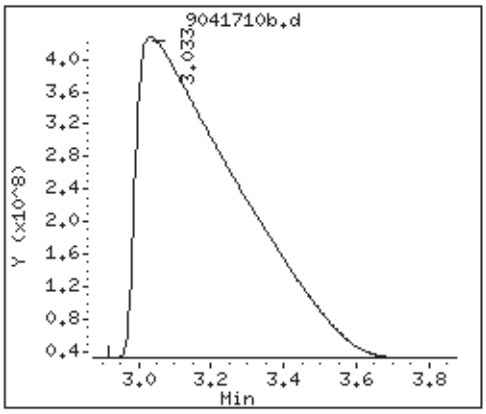
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.033	3.376	-0.343	37716679096	69.7900	68.5


/chem/gc9.i/17Apr2010.b/9041710b.d
Carbon Dioxide (3.033)
Y (x10^8)
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

3 Carbon Dioxide



Air Toxics Ltd.

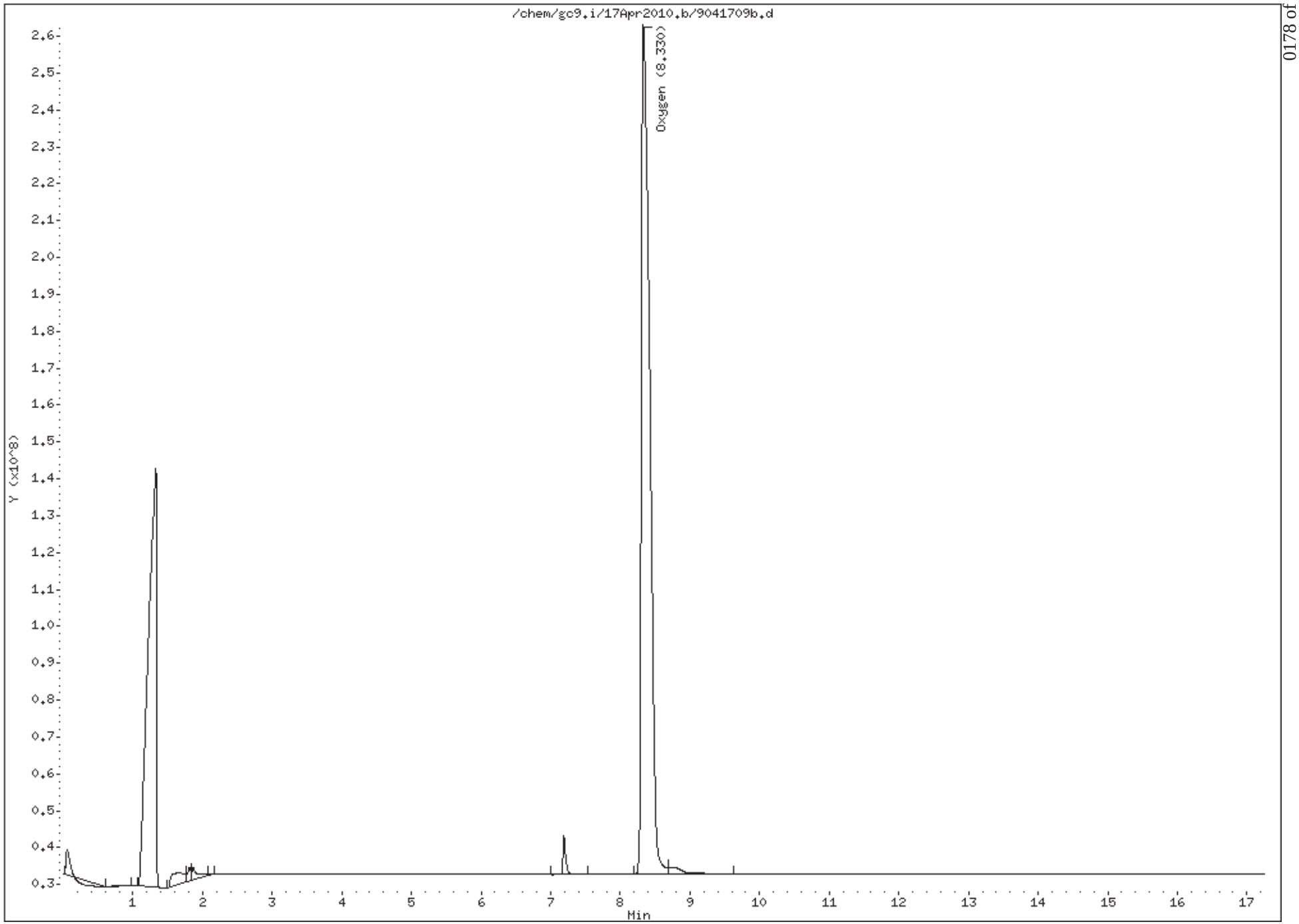
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041709b.d
Lab Smp Id: 1476-750 Client Smp ID: Level-5
Inj Date : 17-APR-2010 11:24
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(15:50),;1476-750;Level-5;
Misc Info : O2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: O2.sub
Target Version: 3.50
Processing Host: eeyore

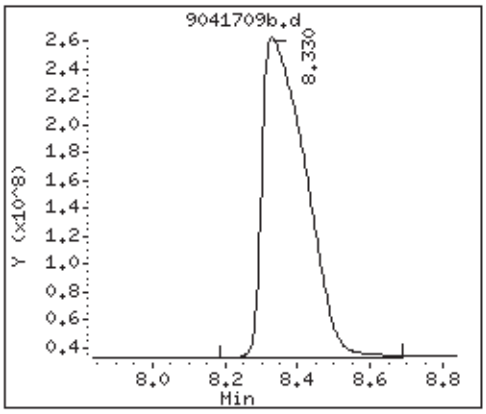
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
9 Oxygen	8.330	8.340	-0.010	9556518978	29.9100	29.3


/chem/gc9.i/17Apr2010.b/9041709b.d
Oxygen (8.330)
Y (x10^8)
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

9 Oxygen


9041709b.d
8.330
Y (x10^8)
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
8.0
8.2
8.4
8.6
8.8
Min

Air Toxics Ltd.

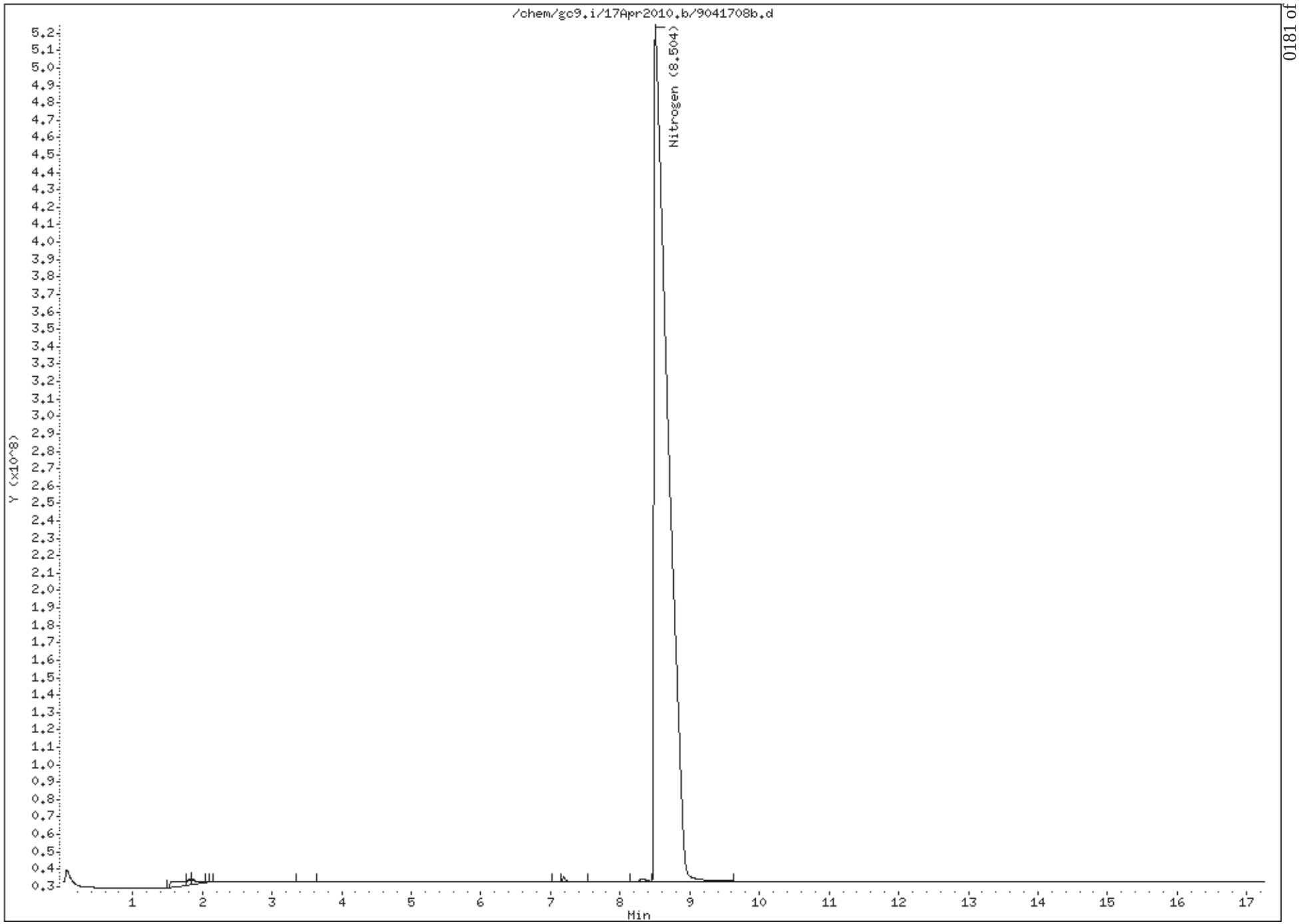
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041708b.d
Lab Smp Id: 1830-N2 Client Smp ID: Level-5
Inj Date : 17-APR-2010 10:58
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,Bag;1830-N2;Level-5;
Misc Info : N2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: n2.sub
Target Version: 3.50
Processing Host: eeyore

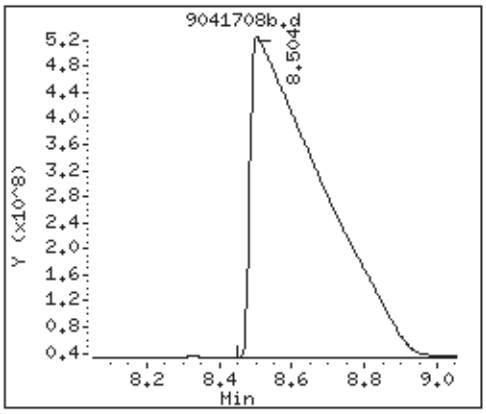
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
10 Nitrogen	8.504	8.555	-0.051	33759844822	100.000	92.5


/chem/gc9.i/17Apr2010.b/9041708b.d
Nitrogen (8.504)
Y (x10^8)
Min

10 Nitrogen


9041708b.d
8.504
Y (x10^8)
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4
8.2
8.4
8.6
8.8
9.0
Min

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 02-JUN-2010 10:32
Lab File ID: 9060201.d Init. Cal. Date(s): 30-APR-2010 30-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:54 17:55
Lab Sample ID: 1544-365BNgas Quant Type: ESTD
Method: /chem/gc9.i/02Jun2010.b/910n0430.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
2 Methane	165565421	155166097	0.010	6.28110	15.00000	Averaged
3 ethane	304581453	303648497	0.010	0.30631	15.00000	Averaged
4 ethene	298927340	299502058	0.010	-0.19226	15.00000	Averaged
5 propane	462210877	459132778	0.010	0.66595	15.00000	Averaged
7 acetylene	373659611	377422782	0.010	-1.00711	15.00000	Averaged
8 iso-butane	608569261	611806952	0.010	-0.53202	15.00000	Averaged
10 n-butane	627463688	614664644	0.010	2.03981	15.00000	Averaged
15 neo-pentane	809133482	812503911	0.010	-0.41655	15.00000	Averaged
16 isopentane	746501171	769276329	0.010	-3.05092	15.00000	Averaged
17 pentane	773098274	779382895	0.010	-0.81291	15.00000	Averaged
M 37 C6+ Hydrocarbons	1.021e+09	1.026e+09	0.010	-0.49955	15.00000	Averaged
S 22 c6-c7	1.021e+09	1.024e+09	0.010	-0.24561	15.00000	Averaged
S 36 c8+	1.021e+09	++++	0.010	++++	15.00000	Averaged <-

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/02Jun2010.b/9060201.d
Lab Smp Id: 1544-365BNgas Client Smp ID: CCV
Inj Date : 02-JUN-2010 10:32
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : CCV
Comment : GC FID
Method : /chem/gc9.i/02Jun2010.b/910n0430.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

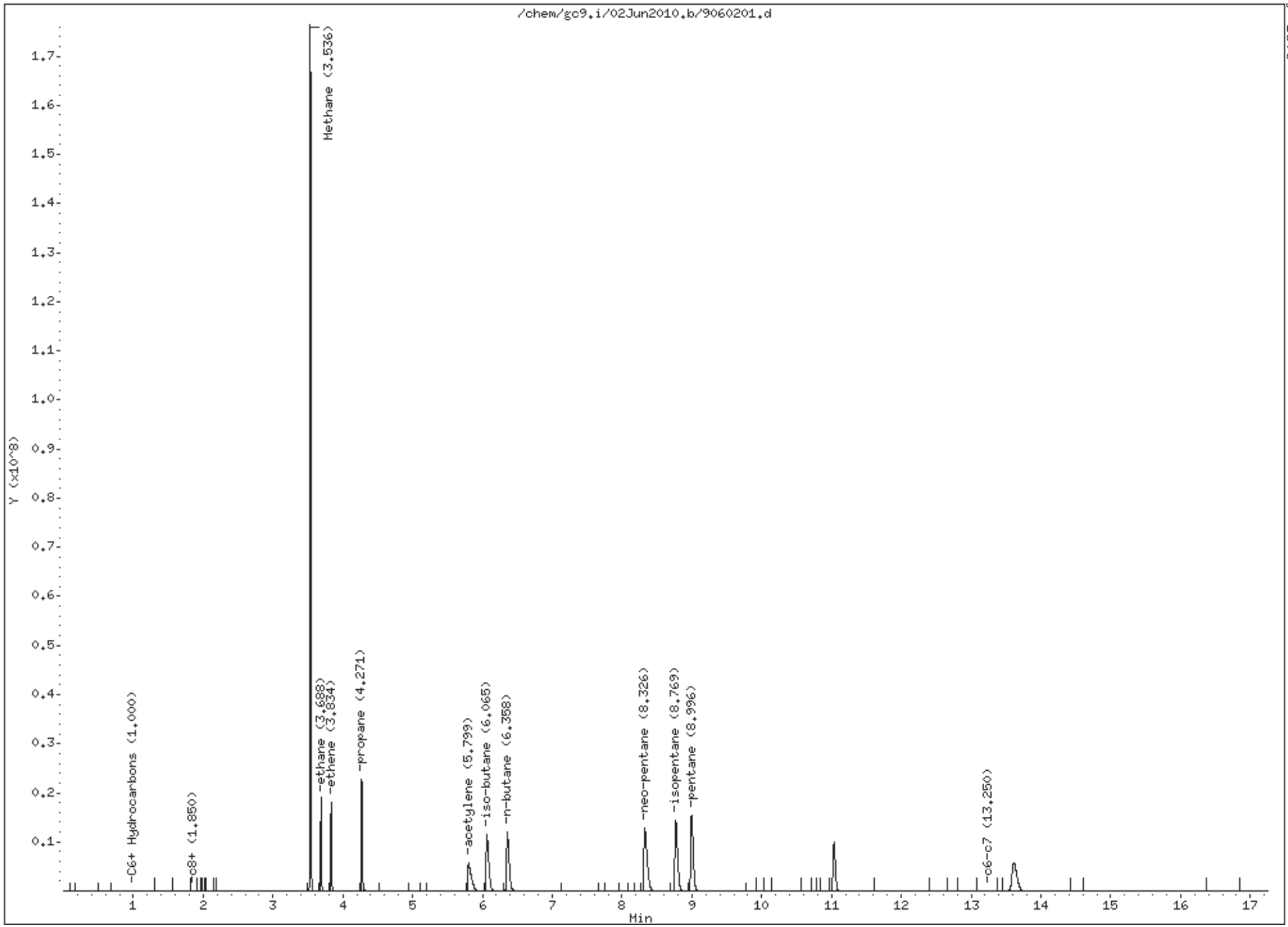
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

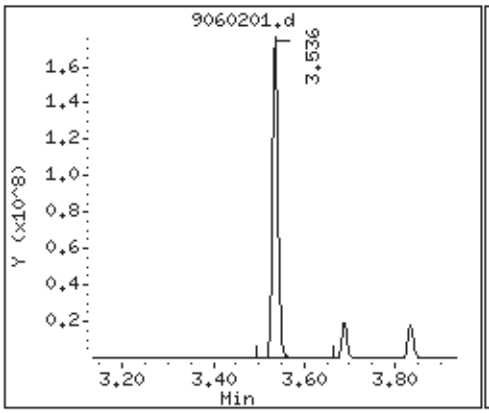
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
	2 Methane	3.536	3.536	0.000	1543902663	9.95000	9.32
	3 ethane	3.688	3.688	0.000	150913303	0.49700	0.495
	4 ethene	3.834	3.834	0.000	149751029	0.50000	0.501
	5 propane	4.271	4.271	0.000	231402920	0.50400	0.501
	7 acetylene	5.799	5.799	0.000	189088814	0.50100	0.506(A)
	8 iso-butane	6.065	6.065	0.000	305903476	0.50000	0.503(A)
	10 n-butane	6.358	6.358	0.000	307332322	0.50000	0.490
	15 neo-pentane	8.326	8.326	0.000	410314475	0.50500	0.507(A)
	16 isopentane	8.769	8.769	0.000	388484546	0.50500	0.520
	17 pentane	8.996	8.996	0.000	393588362	0.50500	0.509
M	37 C6+ Hydrocarbons				525418764	0.51200	0.514
S	22 c6-c7	9.250-17.250			524091147	0.51200	0.513
S	36 c8+	0.700-3.000			1327617	0.00000	0.00130

QC Flag Legend

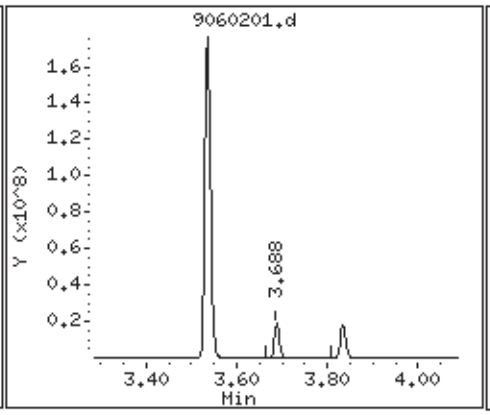
A - Target compound detected but, quantitated amount exceeded maximum amount.


/chem/gc9.i/02Jun2010.b/9060201.d
Y (x10^8)
Min
-C6+ Hydrocarbons (1.000)
c8+ (1.850)
-ethane (3.688)
-ethene (3.834)
Methane (3.536)
-propane (4.271)
-acetylene (5.799)
-iso-butane (6.065)
-n-butane (6.358)
-neo-pentane (8.326)
-isopentane (8.769)
-pentane (8.996)
-c6-c7 (13.250)

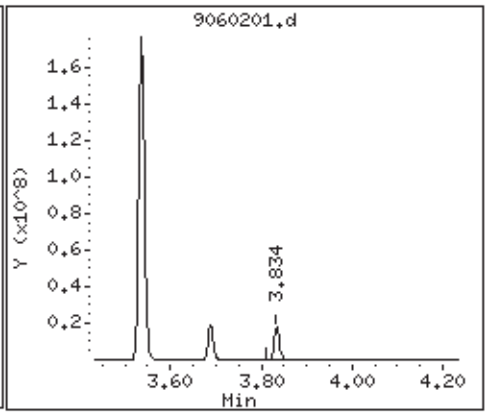
2 Methane



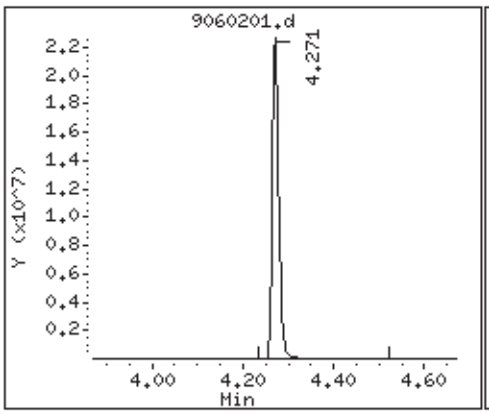
3 ethane



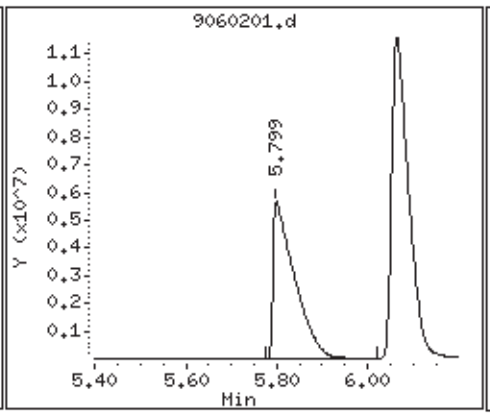
4 ethene



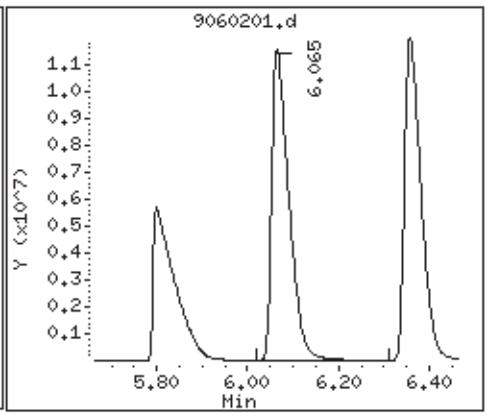
5 propane



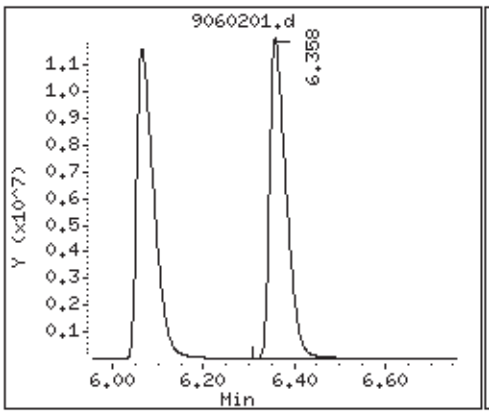
7 acetylene



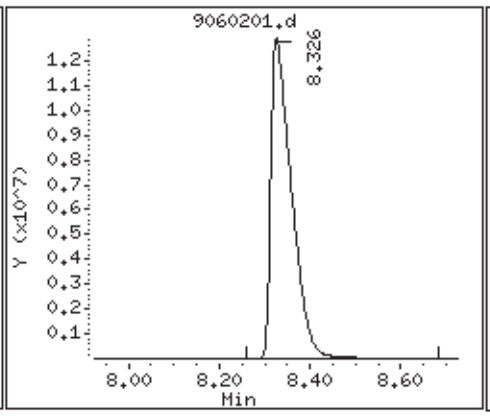
8 iso-butane



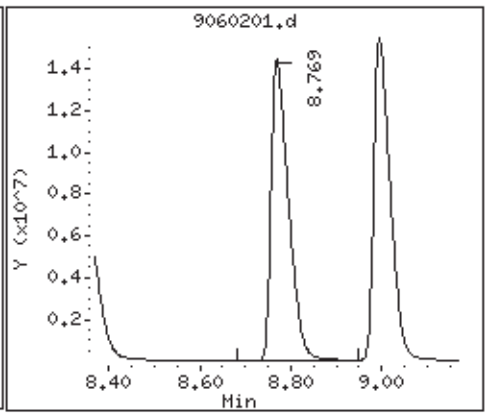
10 n-butane



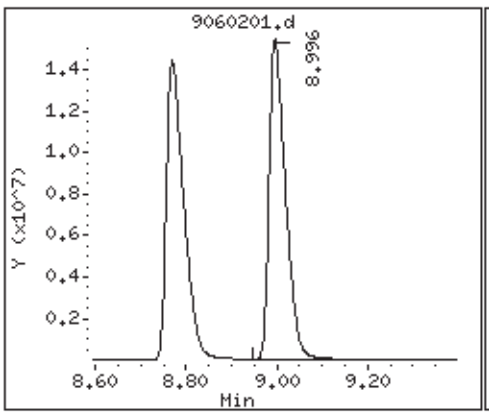
15 neo-pentane



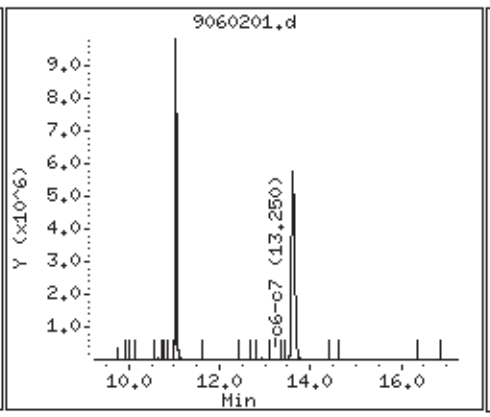
16 isopentane



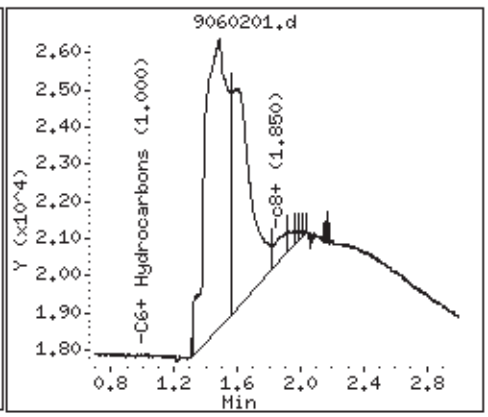
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 02-JUN-2010 10:32
Lab File ID: 9060201b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1544-365BNgas Quant Type: ESTD
Method: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 Carbon Dioxide	550433949	503688788	0.010	8.49242	15.00000	Averaged
1 Helium	66861269	66665262	0.010	0.29315	15.00000	Averaged
9 Oxygen	325899096	313606750	0.010	3.77183	15.00000	Averaged
10 Nitrogen	364890596	341344319	0.010	6.45297	15.00000	Averaged
12 Carbon Monoxide	283422459	309695864	0.010	-9.27005	15.00000	Averaged

Air Toxics Ltd.

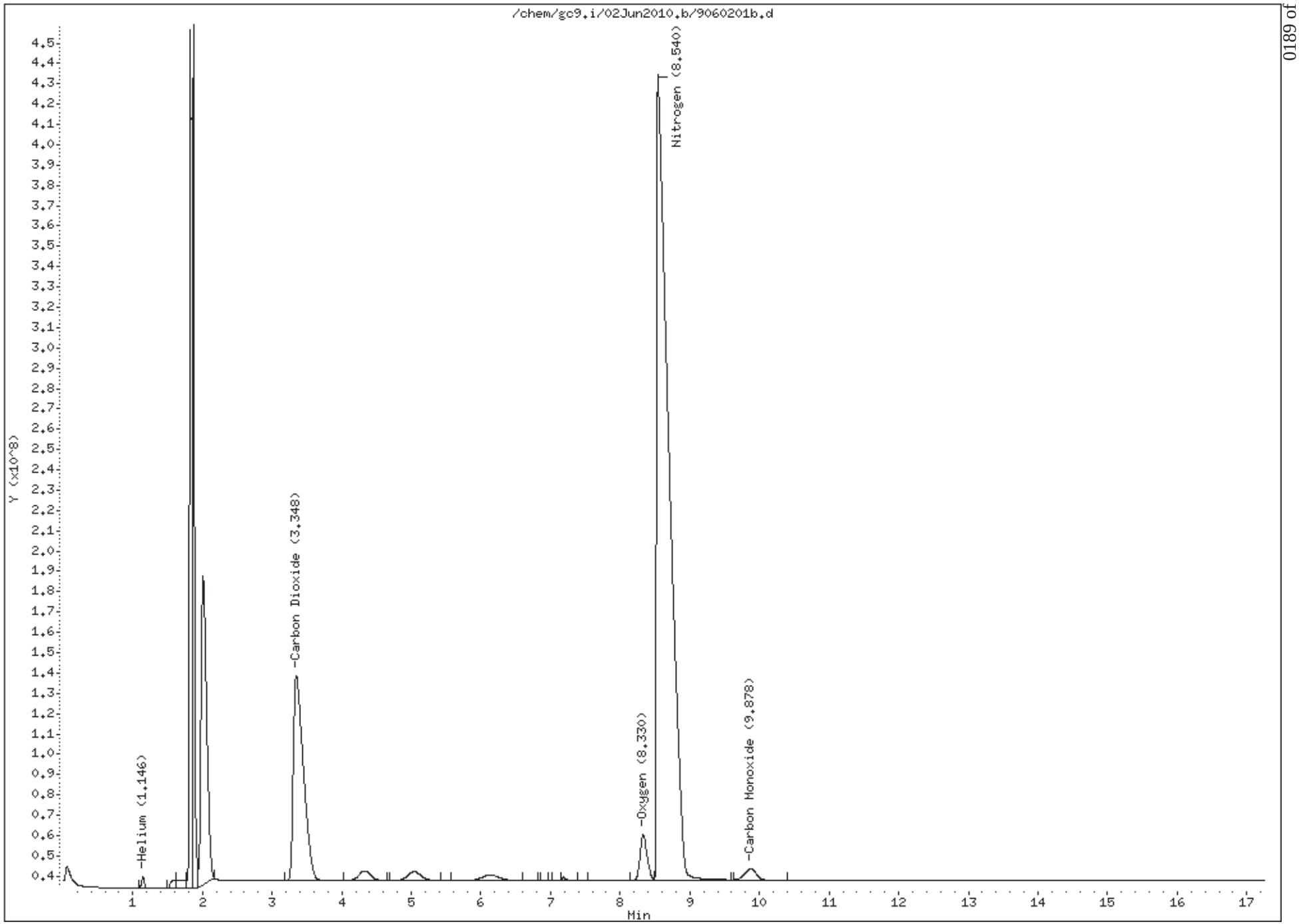
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060201b.d
Lab Smp Id: 1544-365BNgas Client Smp ID: CCV
Inj Date : 02-JUN-2010 10:32
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ng+He-H2.sub
Target Version: 3.50
Processing Host: eeyore

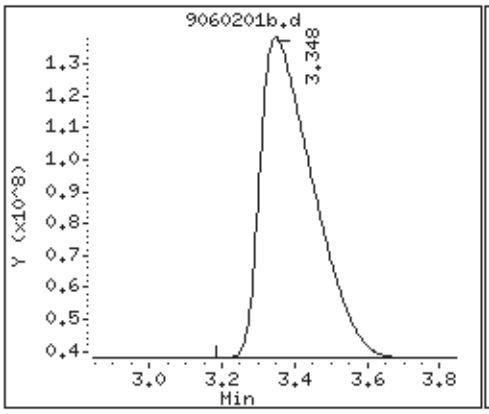
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

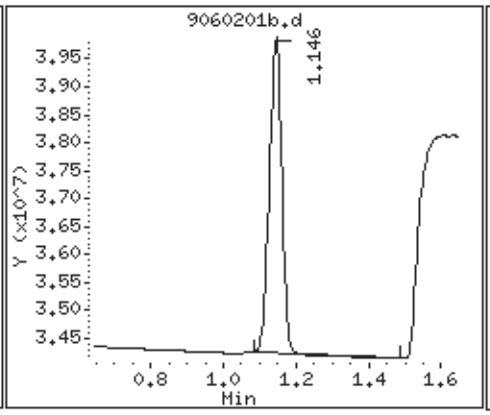
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
3 Carbon Dioxide	3.348	3.348	0.000	5036887880	10.0000	9.15
1 Helium	1.146	1.146	0.000	65798614	0.98700	0.984
9 Oxygen	8.330	8.330	0.000	784016876	2.50000	2.40
10 Nitrogen	8.540	8.540	0.000	24072966764	70.5240	66.0
12 Carbon Monoxide	9.878	9.878	0.000	312792823	1.01000	1.10


/chem/gc9.i/02Jun2010.b/9060201b.d
Y (x10^8)
Min
-Helium (1.146)
-Carbon Dioxide (3.348)
-Oxygen (8.330)
Nitrogen (8.540)
-Carbon Monoxide (9.878)

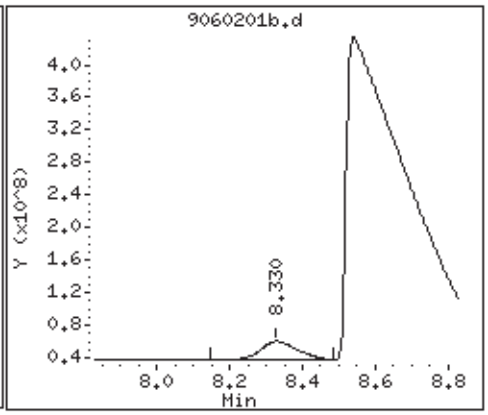
3 Carbon Dioxide



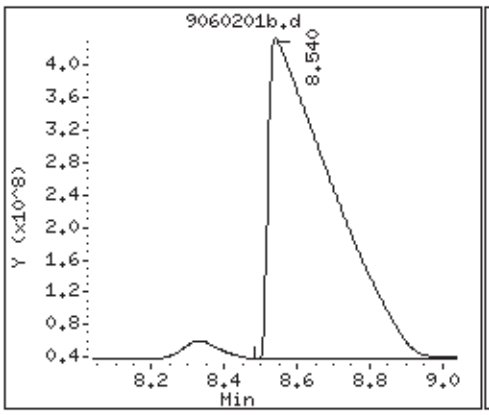
1 Helium



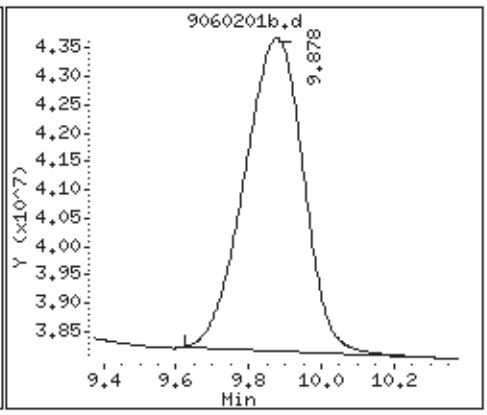
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 02-JUN-2010 11:04
Lab File ID: 9060202b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1476-977 H2 Quant Type: ESTD
Method: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
2 Hydrogen	105110654	104354462	0.010	0.71942	15.00000	Averaged

Air Toxics Ltd.

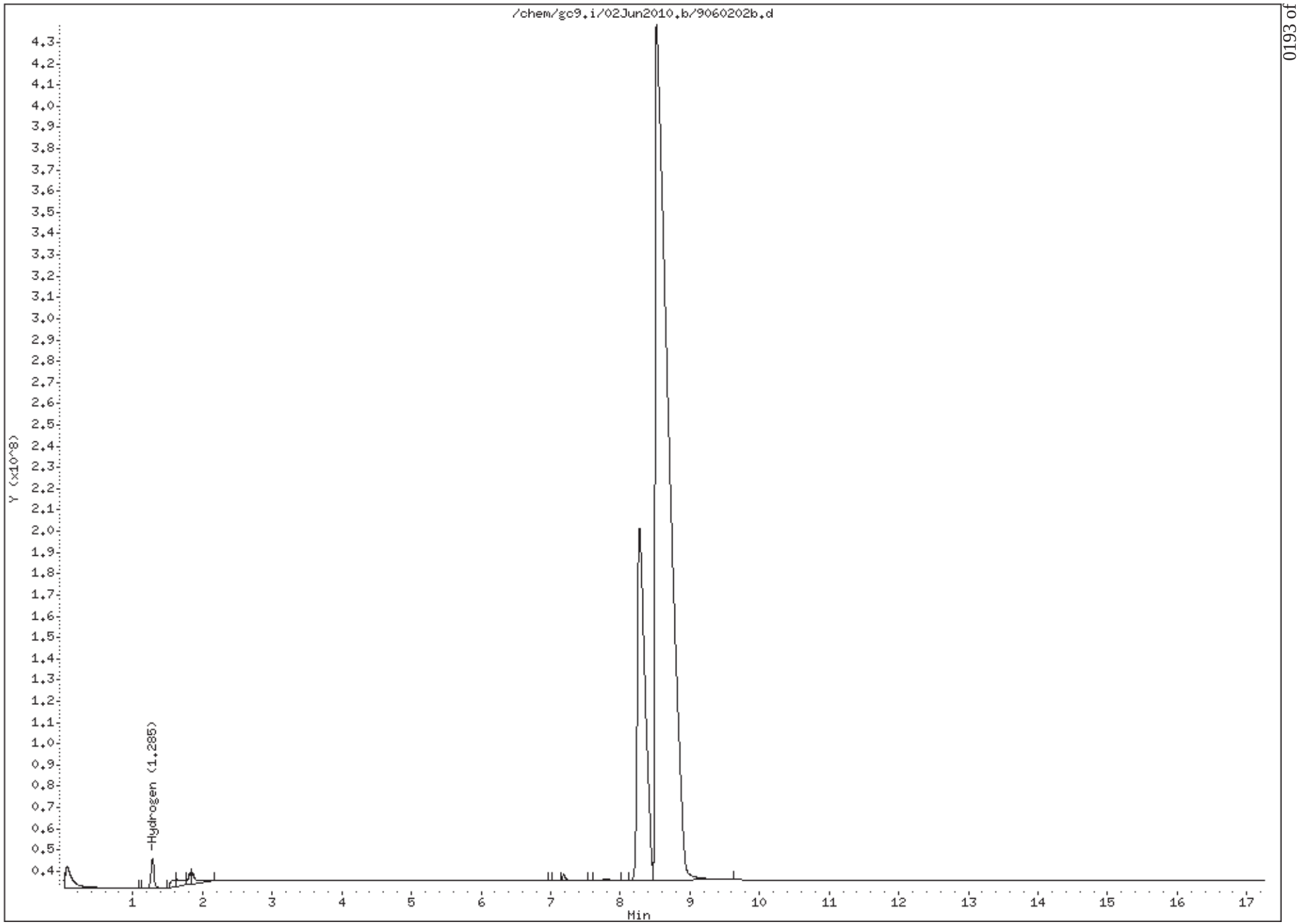
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060202b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: CCV
Inj Date : 02-JUN-2010 11:04
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,;1476-977 H2;CCV;
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 11:22 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 11:04 Cal File: 9060202b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

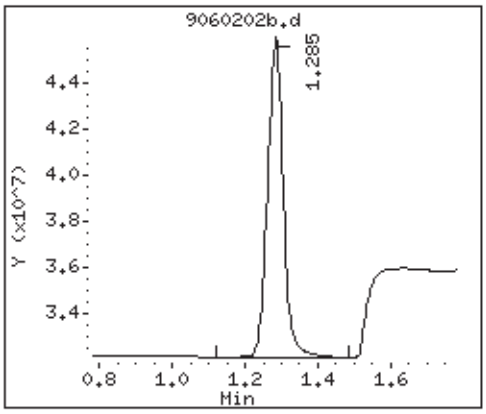
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.285	1.285	0.000	208708924	2.00000	1.98


/chem/gc9.i/02Jun2010.b/9060202b.d
Y (x10^8)
Hydrogen (1.285)
Min

2 Hydrogen



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005522B-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060229**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/2/10 10:02 PM**	

Compound	%Recovery
Oxygen	98
Nitrogen	100
Carbon Monoxide	100
Methane	97
Carbon Dioxide	101
Ethane	98
Ethene	98
Acetylene	100
Propane	96
Isobutane	96
Butane	94
Neopentane	97
Isopentane	98
Pentane	97
C6+	98
Helium	100

Container Type: NA - Not Applicable

Report Date: 02-Jun-2010 22:26

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m
Misc Info: LCS

	SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
	2 Methane	9.99	9.70	97.13	85-115
	3 ethane	0.498	0.487	97.80	85-115
	4 ethene	0.500	0.488	97.71	85-115
	5 propane	0.499	0.480	96.19	85-115
	7 acetylene	0.500	0.501	100.30	85-115
	8 iso-butane	0.500	0.482	96.43	85-115
	10 n-butane	0.498	0.470	94.48	85-115
	15 neo-pentane	0.510	0.494	96.86	85-115
	16 isopentane	0.505	0.493	97.59	85-115
	17 pentane	0.503	0.488	97.06	85-115
M	37 C6+ Hydrocarbons	0.516	0.507	98.30	85-115

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/02Jun2010.b/9060229.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/02Jun2010.b/910n0430.m
Meth Date : 02-Jun-2010 10:55 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

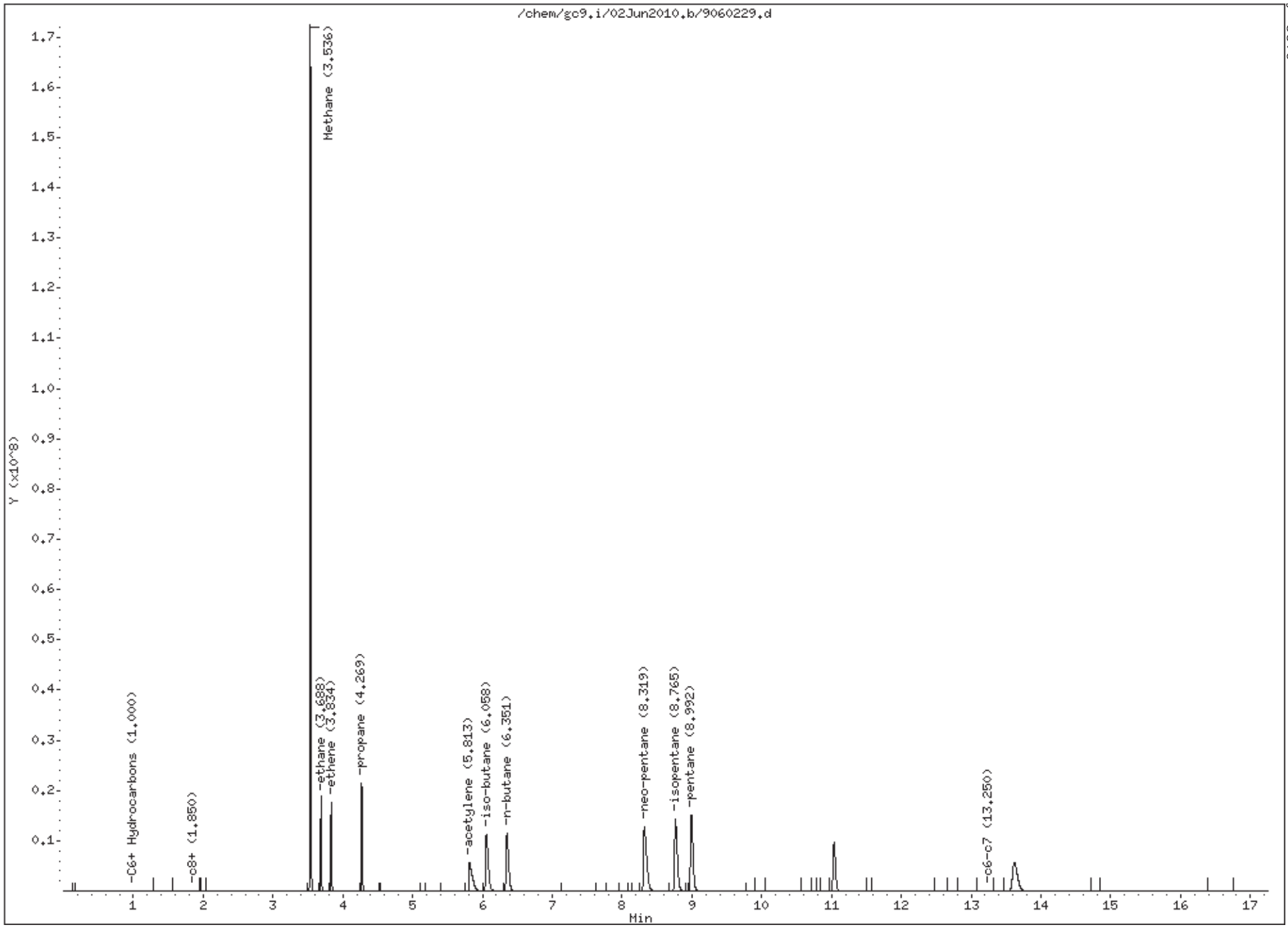
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

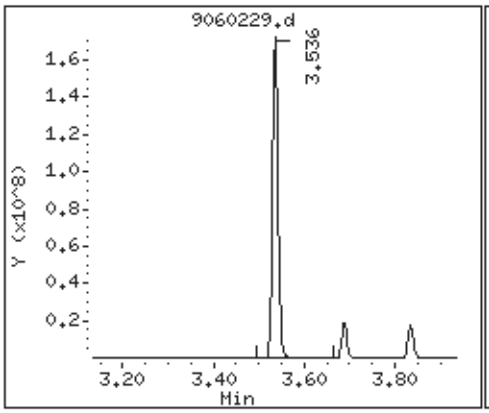
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.536	3.536	0.000	1505553335	9.70285	9.70
	3 ethane	3.688	3.688	0.000	147890192	0.48704	0.487
	4 ethene	3.834	3.834	0.000	146314966	0.48853	0.488
	5 propane	4.269	4.271	-0.002	220376787	0.47998	0.480
	7 acetylene	5.813	5.799	0.014	189276167	0.50150	0.501(A)
	8 iso-butane	6.058	6.065	-0.007	294985893	0.48216	0.482
	10 n-butane	6.351	6.358	-0.007	289195525	0.47049	0.470
	15 neo-pentane	8.319	8.326	-0.007	401368088	0.49399	0.494
	16 isopentane	8.765	8.769	-0.004	379128398	0.49284	0.493
	17 pentane	8.992	8.996	-0.004	380508109	0.48822	0.488
M	37 C6+ Hydrocarbons				520615211	0.50721	0.507
S	22 c6-c7	9.250-17.250			519187198	0.50721	0.507
S	36 c8+	0.700-3.000			1428013		(a)

QC Flag Legend

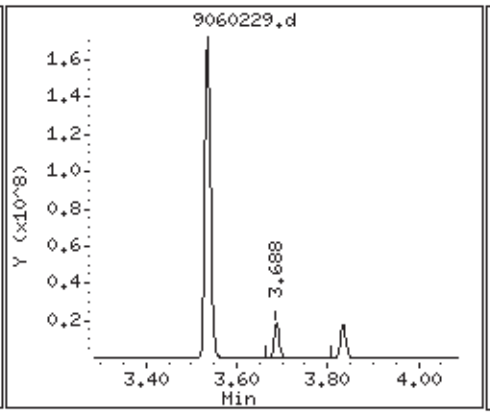
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


/chem/gc9.i/02Jun2010.b/9060229.d
Y (x10^8)
Min
Methane (3.536)
-ethane (3.688)
-ethene (3.834)
-propane (4.269)
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
-acetylene (5.813)
-iso-butane (6.058)
-n-butane (6.351)
-neo-pentane (8.319)
-isopentane (8.765)
-pentane (8.992)
-c6-c7 (13.250)

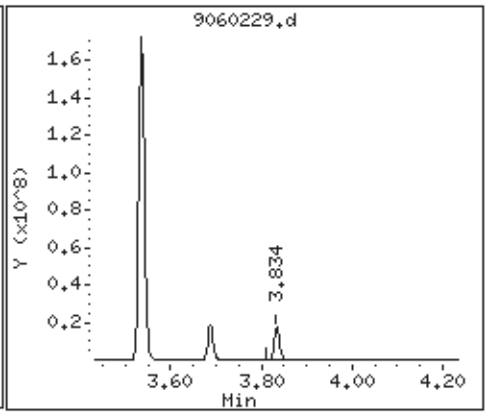
2 Methane



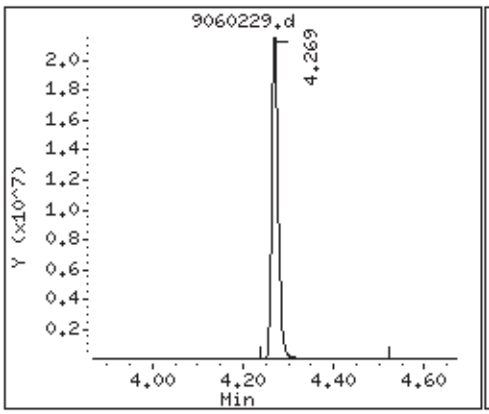
3 ethane



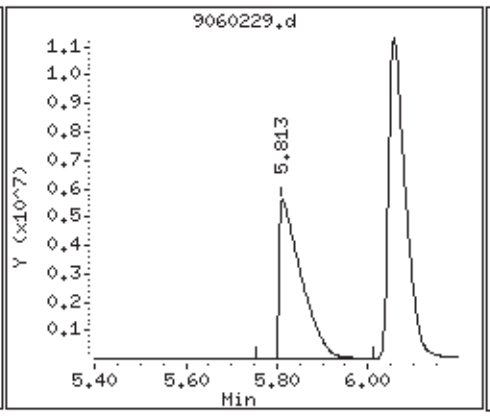
4 ethene



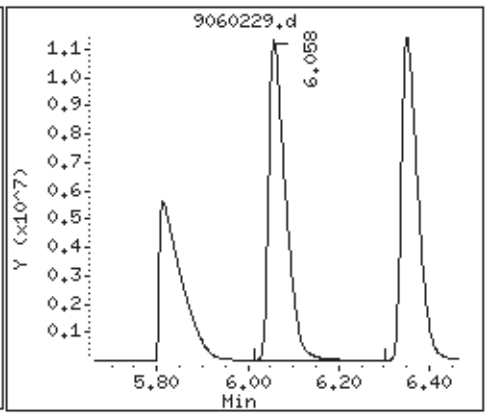
5 propane



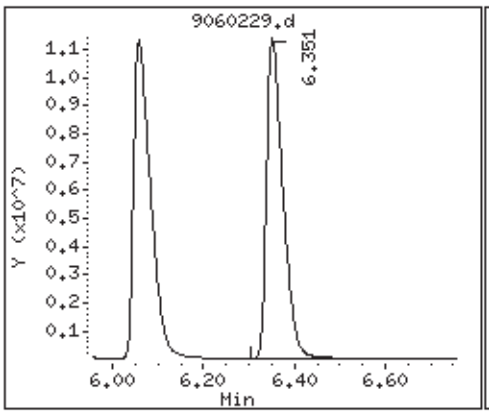
7 acetylene



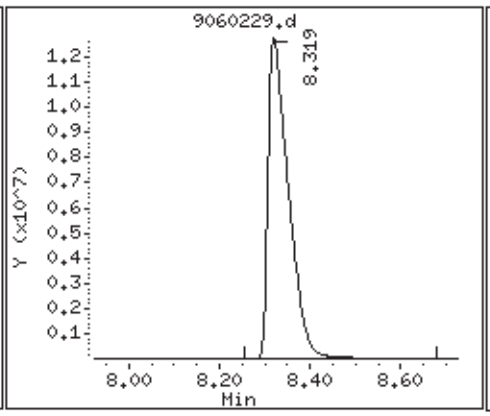
8 iso-butane



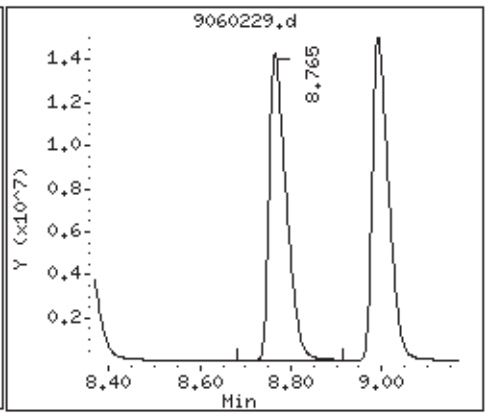
10 n-butane



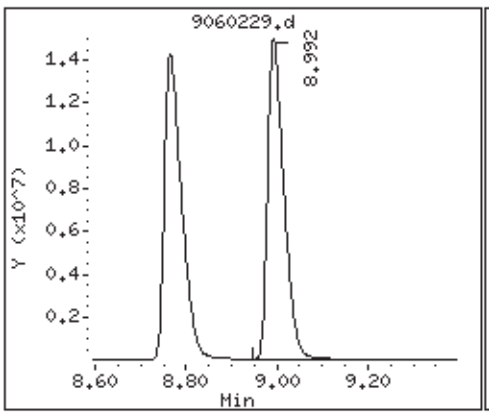
15 neo-pentane



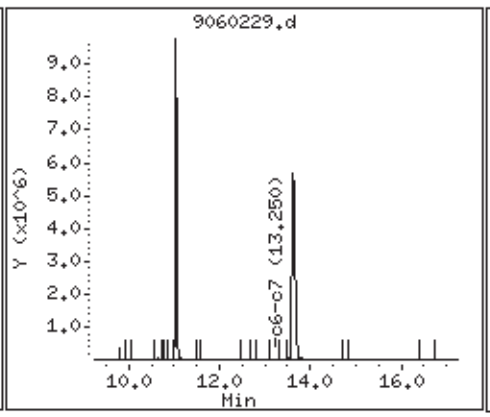
16 isopentane



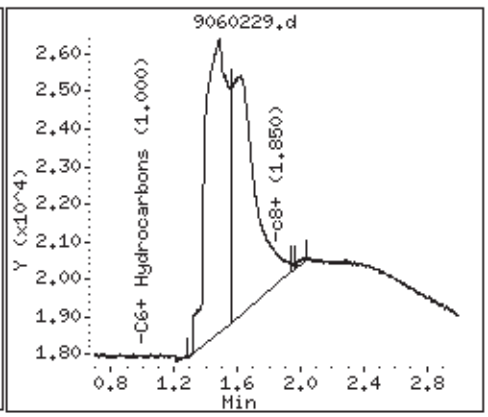
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060229b.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1477 ngas;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	3.358	3.348	0.010	5061061492	10.0480	10.0
1 Helium	1.147	1.146	0.001	66513510	0.99772	0.998
9 Oxygen	8.332	8.330	0.002	764679324	2.43834	2.44
10 Nitrogen	8.541	8.540	0.001	24040332064	70.4284	70.4
12 Carbon Monoxide	9.872	9.878	-0.006	309332940	0.99883	0.999

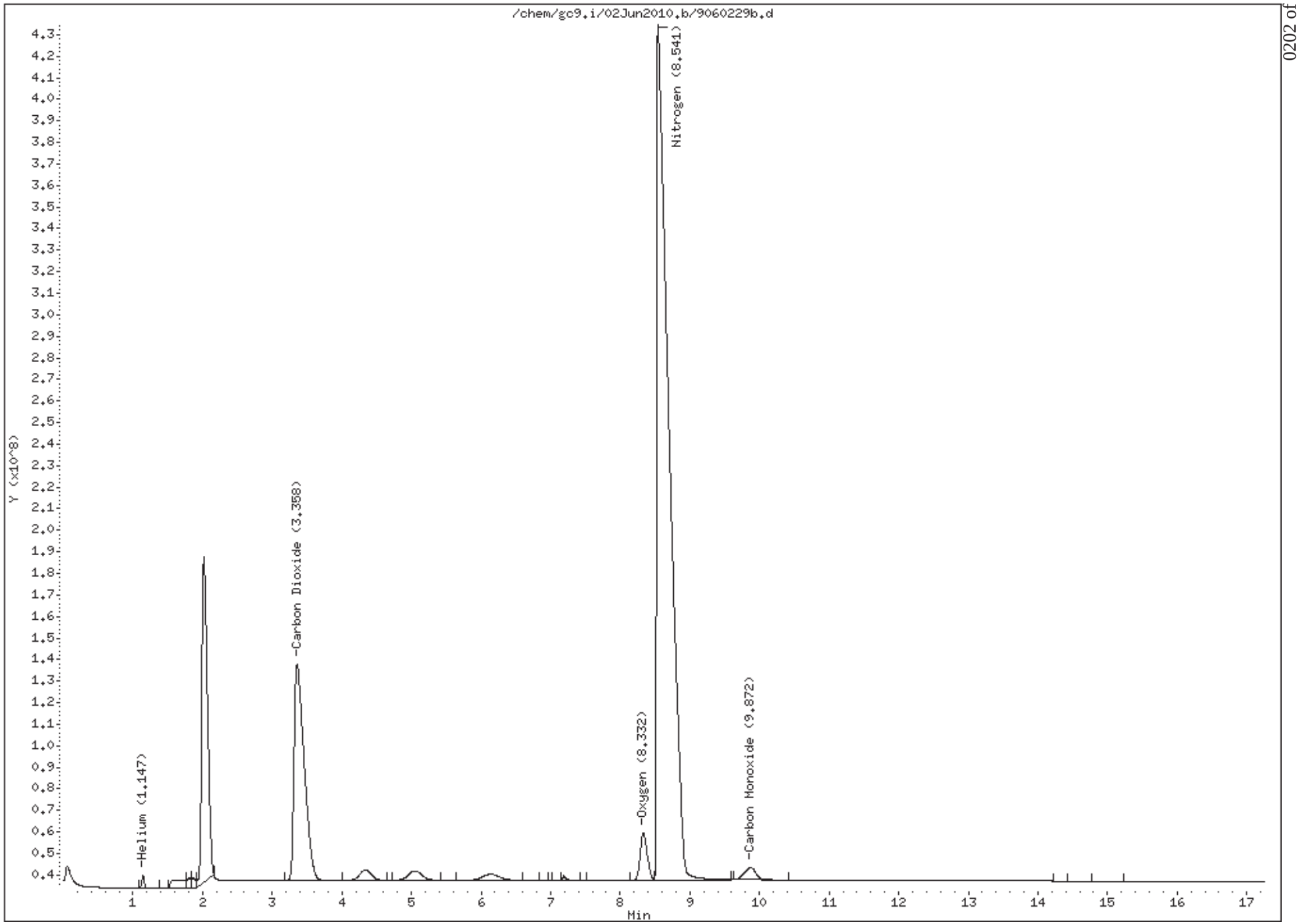
Report Date: 02-Jun-2010 22:28

Air Toxics Ltd.

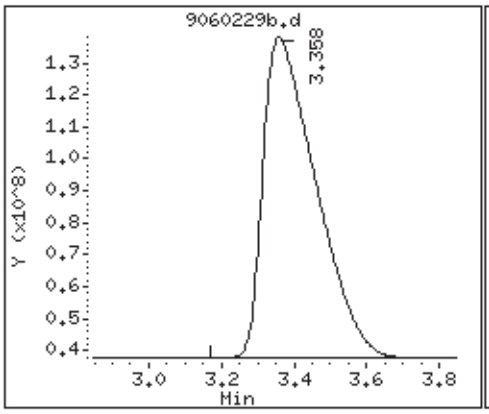
RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas-H2.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

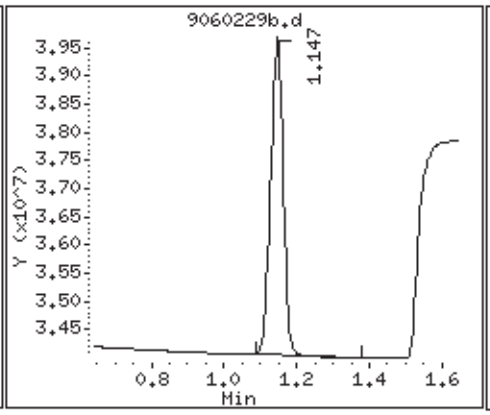
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	10.0	100.68	85-115
9 Oxygen	2.49	2.44	97.93	85-115
10 Nitrogen	70.5	70.4	99.90	85-115
12 Carbon Monoxide	1.00	0.999	99.88	85-115
1 Helium	0.998	0.998	99.97	85-115


/chem/gc9.i/02Jun2010.b/9060229b.d
Y (x10^8)
Min
-Helium (1.147)
-Carbon Dioxide (3.358)
-Oxygen (8.332)
Nitrogen (8.541)
-Carbon Monoxide (9.872)

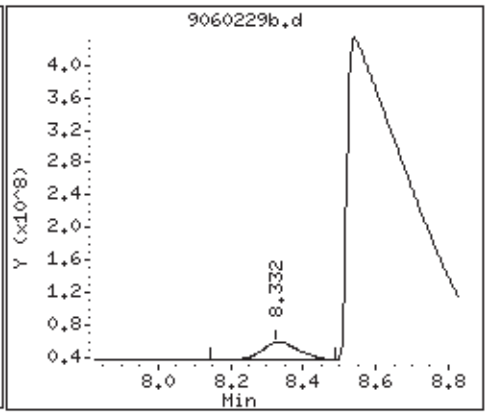
3 Carbon Dioxide



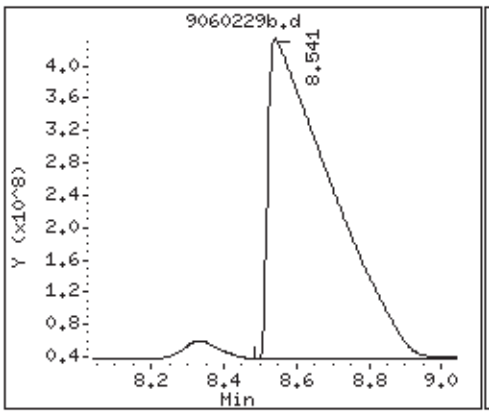
1 Helium



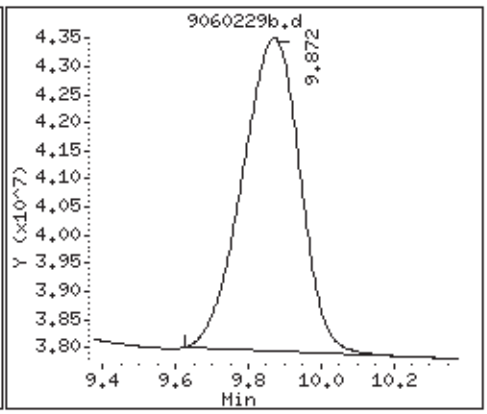
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005522B-13B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060231b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/2/10 10:48 PM**	

Compound	%Recovery
Hydrogen	100

Container Type: NA - Not Applicable

Report Date: 02-Jun-2010 23:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 02Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.01%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.01	2.01	100.12	85-115

Air Toxics Ltd.

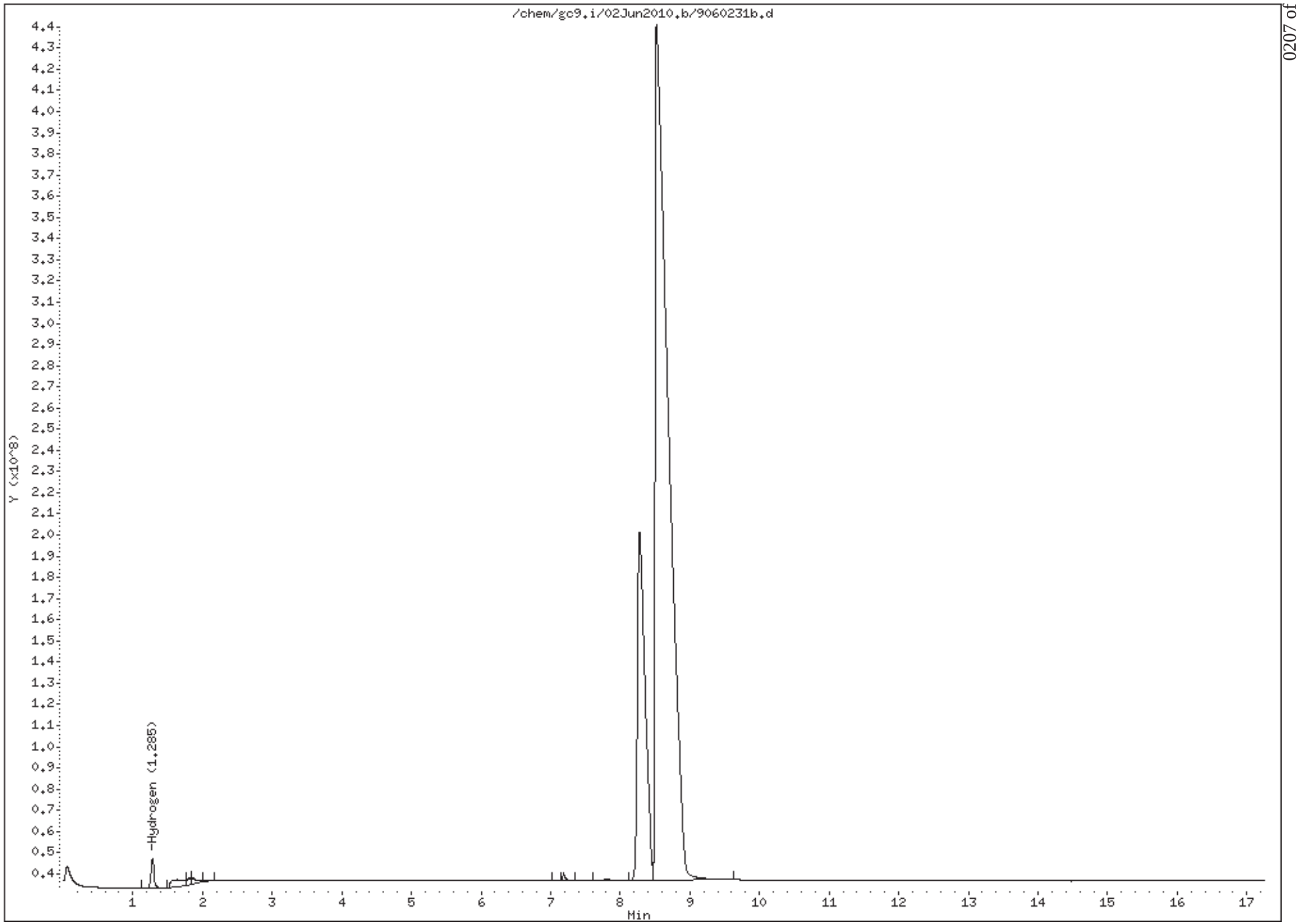
Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060231b.d
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Inj Date : 02-JUN-2010 22:48
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1450 H2;LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

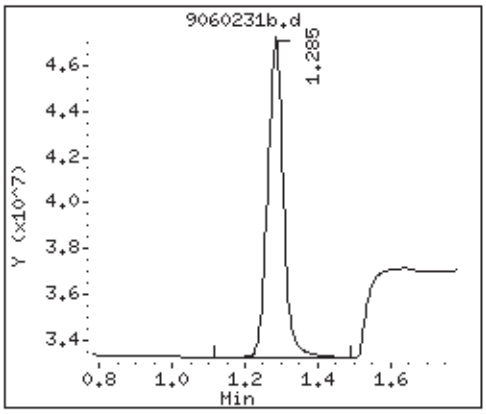
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.285	1.285	0.000	210000348	2.01238	2.01


/chem/gc9.i/02Jun2010.b/9060231b.d
Y (x10^8)
Hydrogen (1.285)
Min

2 Hydrogen



@Air Toxics Ltd. GC-9 **Logbook #: 1969**

Method: ASTM 1945/194C Leak Test : cy

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060201	1544-365B N_2 gas	34219	NA	1.0 ml	1.00	6/2/10 ~~6/3/10~~ 6/2/10	1032	cy	ccv
2	✓	02	1476-977 H_2	NA				6/2/10	1104		ccv
3	✓	03	N_2 Lab Blank	33868					1127		
4	✓	04	He Lab Blank	14014					1152	↓	
5	✓	05	1006001B-01A	34607	28.2" Hg → 15psi				1218	gm	TripBlank_027RL
6	C	06	↓ -01A	↓	↓		↓		1240		Confirmation
7	✓	07	1006002B - 01A gd 6/14/10	2169	4.4" Hg → 15psi		2.37		1304	gd	
8	✓	08	↓ -02A	2107	4.0" Hg → 15psi		2.33		1330	cy	
9	✓	09	1005453B - 03A	33382	8.4" Hg → 15psi		1.86		1402	gd	
10	C	10	-03AA						1424		Dup
11	✓	11	1006002B - 03A gd 6/14/10	3028	6.4" Hg → 15psi		2.57		1450		
12	✓	12	1006005C - 01A	11441	3.0" Hg → 15psi		2.24		1512		
13	✓	13	↓ - 02A	1478	5.0" Hg → 15psi		2.42		1533		
14	✓	14	↓ - 03A	2130			2.42		1556		
15	✓	15	1006003C - 01A	3046	3.8" Hg → 15psi	↓	2.31	↓	1620	↓	

Calculation Check: File ID: 9060201 Compound: CH_4 Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(154\,3902663)}{(155\,166097)} \times (1.00) =$ **9.95 %**

Reported Result: **9.95 %**

gd — Signed

6/2/10 — Date

@Air Toxics Ltd.
Method: Astm 1945/1946

GC-9

Logbook #: 1969
Leak Test : gd

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060216	1606603C - 02A	9450	2.8 "Hg → 15psi	1.0mL	2.23	6/2/10	1643	gd	
2	✓	17	↓ -03A	31756	3.6 "Hg → 15psi		2.30		1705		
3	✓	18	606604C - 01A	34122	4.0 "Hg → 15psi		2.33		1739		
4	✓	19	-01AA	↓	↓		↓		1803		Dup
5	✓	20	-02A	35623	4.8 "Hg → 15psi		2.40		1825		
6	✓	21	-03A	37435	5.0 "Hg → 15psi		2.42		1848		
7	✓	22	1605488B - 01A	33945	4.0 "Hg → 5psi		1.55		1911		TCH4
8	✓	2322	6/2/10 ↓ -01B	↓	↓	(10:40) 1.0mL	6.20		1937		CH4 only
9	✓	2423	1605522B - 01A	33559	5.4 "Hg → 5psi	1.0mL	1.63		2002		
10	✓	2524	-01AA	↓	↓	↓	↓		2028		Dup
11	✓	2625	-02A	34445	6.0 "Hg → 5psi		1.68		2056		
12	✓	27	-04A	35285	4.0 "Hg → 5psi		1.55		2118		gd 6/2/10
13	✓	28	-11A	4235	28.5 "Hg → 5psi		1.60		2140		TB
14	✓	29	1476-1477 Ngas	NA	NA		1.00		2202		LCS
15	✓	↓ 30	↓	↓	↓	↓	↓	↓	2226	↓	LCSD

Calculation Check: File ID: 9060216 Compound: Oxygen Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(2982969477)}{(313606751)} \times (2.23) =$ **21.2 %.**

Reported Result: **21.2 %.**

gd
Signed

6/2/10
Date

@Air Toxics Ltd.
Method: Astm 1945/1946

GC-9

Logbook #: 1969
Leak Test : gd

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060231	1476-1450 H2	NA	NA	1.0mL	1.60	6/2/10	2248	gd	LCS
2	✓	↓ 32	↓	↓	↓	↓	↓	↓	2311	↓	LCSD
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15							gd	6/2/10			

Calculation Check: File ~~ID~~: _____ Compound: _____ ~~Initials~~: _____

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × ~~Dilution Factor~~ = $\frac{(\quad)}{(\quad)}$ × ( ) = [redacted]

Reported Result: [redacted] gd 6/2/10

gd
Signed

6/2/10
Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. 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

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody 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 Chain of Custody (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

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

CHAIN-OF-CUSTODY RECORD

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0001
Project Name: Heglar Kranquist

Turn Around Time:
[X] Normal
[ ] Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	D-1	33559	5-19-10	1423	TO-15, ASTM 1945, gas-range hydrocarbons	27.8	4.6		
02A	D-10	34445	5-19-10	1423	↓	28.0	4.8		
03A	Blank	4243	5-19-10	1952	Hold	27.0	8.0		
04A	GV-12	2416	5-16-10	2300	TO-15, gas-range petroleum hydrocarbons and ASTM D-1945	28.7	8.0		
11A	Trip Blank	4235	—	—	TO-15 and gas-range pet. hydrocarbons	—	—		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.20.10 / 1600	Monica Gregson ATL	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
5/21/10 850
- D-1 and D-10 are downhole samples
- GV-12 is also a downhole sample

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005522

Form 1293 rev.11

revised COC rec'd 5/27/10

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar Kranquist

Turn Around Time:
☒ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	D-1	33559	5-19-10	1423	TO-15, ASTM 1945, gas-range hydrocarbons	27.8	4.6		
02A	D-10	34445	5-19-10	1423	↓	28.0	4.8		
03A	Blank	4243	5-19-10	1952	Hold	27.0	8.0		
04A	Trip Blank	2416	—	—	TO-15, gas-range petroleum hydrocarbons	—	—		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.20.10 / 1600	Monica Gregersen ATL	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: 5/21/10 850

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes / No / None	1005522

Form 1293 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005522B

Client

Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8774

Fax

425-643-9827

Date Promised: 06/07/10
Date Completed: 6/9/10
Date Received: 5/21/10
PO#:
Project#: 0907194.000.0601 Heglar Kronquist

Total $: $ 600.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	D-1	Modified ASTM D-1945	5/19/2010	5.4 "Hg	$150.00
01AA	D-1 Lab Duplicate	Modified ASTM D-1945	5/19/2010	5.4 "Hg	$0.00
02A	D-10	Modified ASTM D-1945	5/19/2010	6.0 "Hg	$150.00
03A(on hold)	Blank	Modified ASTM D-1945	5/19/2010	9.0 "Hg	$0.00
04A	GV-12	Modified ASTM D-1945	5/16/2010	4.0 "Hg	$150.00
11A	Trip Blank	Modified ASTM D-1945	NA	28.5 "Hg	$150.00
12A	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
12B	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
13A	LCS	Modified ASTM D-1945	NA	NA	$0.00
13B	LCS	Modified ASTM D-1945	NA	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: ASTM

TERMS: NET 30

Reporting Method: Modified ASTM D-1945 + He

Sample Discrepancy Report

Identification

Initiated By: MW **Project ID:**14301 **PM**: KL **Date:** 5/24/2010 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1005522 **Sample(s) affected:** See below (11A)

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☒ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Describe the Discrepancy: Extra can labeled "Field Blank" w/can # 4235 - analyze?

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:KL Person notified: Melissa Kleven Date: 5/24/2010

☐ Waiting for Client Reply

Comments: **Called client and asked to put canister on hold.**

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☒

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060224b.d
Lab Smp Id: 1005522B-01A
Inj Date : 02-JUN-2010 20:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,33559;1005522B-01A;
Misc Info : 5.4"Hg->5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.63000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.282	1.285	-0.003	103280638	0.98971	1.61
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.750	3.348	0.402	5392470	0.01071	0.0174
9 Oxygen	8.299	8.330	-0.031	3181544820	10.1450	16.5
10 Nitrogen	8.506	8.540	-0.034	29924223204	87.6658	~~.143~~ 82% by diff.
12 Carbon Monoxide	Compound Not Detected.					

gm 6/4/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060225b.d
Lab Smp Id: 1005522B-01AA
Inj Date : 02-JUN-2010 20:28
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,33559;1005522B-01AA;
Misc Info : 5.4"Hg->5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.63000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.282	1.285	-0.003	102773537	0.98485	1.60
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.763	3.348	0.415	6184931	0.01228	0.0200
9 Oxygen	8.298	8.330	-0.032	3174832835	10.1236	16.5
10 Nitrogen	8.508	8.540	-0.032	29906798742	87.6148	~~143~~ 82.1, by dij
12 Carbon Monoxide	Compound Not Detected.					

✓

JM 6/4/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060226b.d
Lab Smp Id: 1005522B-02A
Inj Date : 02-JUN-2010 20:56
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34445;1005522B-02A;
Misc Info : 6.0"Hg->5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.68000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.282	1.285	-0.003	99370869	0.95224	1.60
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.759	3.348	0.411	5273013	0.01047	0.0176
9 Oxygen	8.298	8.330	-0.032	3142939635	10.0219	16.8
10 Nitrogen	8.508	8.540	-0.032	29947106151	87.7328	~~147~~ 81.4. by dff
12 Carbon Monoxide	Compound Not Detected.					

gm
6/4/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/02Jun2010.b/9060227b.d
Lab Smp Id: 1005522B-04A
Inj Date : 02-JUN-2010 21:18
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,35285;1005522B-04A;
Misc Info : 4.0"Hg->5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/02Jun2010.b/910n0430.m/910C0417.m
Meth Date : 02-Jun-2010 22:28 lyohanne Quant Type: ESTD
Cal Date : 02-JUN-2010 10:32 Cal File: 9060201b.d
Als bottle: 1
Dil Factor: 1.55000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.277	1.285	-0.008	4077615	0.03907	0.0606
1 Helium	1.145	1.146	-0.001	32063865	0.48097	0.746
3 Carbon Dioxide	3.484	3.348	0.136	60248645	0.11961	0.185
9 Oxygen	8.293	8.330	-0.037	3874117770	12.3534	19.1
10 Nitrogen	8.511	8.540	-0.029	29390403794	86.1019	~~133~~
12 Carbon Monoxide	Compound Not Detected.					

80 % by diff.

gm
6/4/10

DILUTION FACTORS

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

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

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

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

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

DILUTION FACTORS

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

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound List

Modified ASTM D-1945 + He

CAS Number	Compound	Detection Limit %	Type
7782-44-7	Oxygen	0.10	
7727-37-9	Nitrogen	0.10	
630-08-0	Carbon Monoxide	0.010	
74-82-8	Methane	0.00010	
124-38-9	Carbon Dioxide	0.010	
74-84-0	Ethane	0.0010	
74-85-1	Ethene	0.0010	
74-86-2	Acetylene	0.0010	
74-98-6	Propane	0.0010	
75-28-5	Isobutane	0.0010	
106-97-8	Butane	0.0010	
463-82-1	Neopentane	0.0010	
78-78-4	Isopentane	0.0010	
109-66-0	Pentane	0.0010	
C6+	C6+	0.010	
1333-74-0	Hydrogen	0.010	
7440-59-7	Helium	0.050	

@ Air Toxics Ltd	Title: Data Review Checklist			Release Date: 03/01/10
	Form #: F1.2	Revision #: 2	Revision Date:03/01/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1005522B

A_1	A_2	R	T	M	Q	
☑	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
NA	☐			☑		Non-Standard sublist printed/verified, LOQ and LOD verified
	☐	☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☑	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
NA	☐	NA	☐	NA	☐	Corrective Action issued - #
☐	☐	NA	☐	☐	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / NO)***

☑	☐	☑	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☐	☑	☐	☑	☐	Hold time is met for all samples
		NA	☐	NA	☐	Appropriate data qualifier flags are applied
		NA	☐	NA	☐	Manual integrations for samples and QC are properly documented
☑	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☑	☐			Retention times have been verified
☑	☐	☑	☐		☐	Appropriate ICAL(s) included
		☐	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☑	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		NA	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
☑	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☑	☐	NA	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☐		☐		Special units for all samples in the final report are correctly calculated
		☐	☐	☐		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
				☐		Verify sample id's vs. chain of custody
☑		☐				Date MDL(s) performed per instrument(s) 10/14/09, 1/4/10, 1/22/10
☑	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☑	☐	☑				Final pressure consistent with canister size (6L vs. 1L)
☑	☐	☑				Verify receipt pressures
☐	☐	☑				Verify canister ID #'s
		☑		☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		☑	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

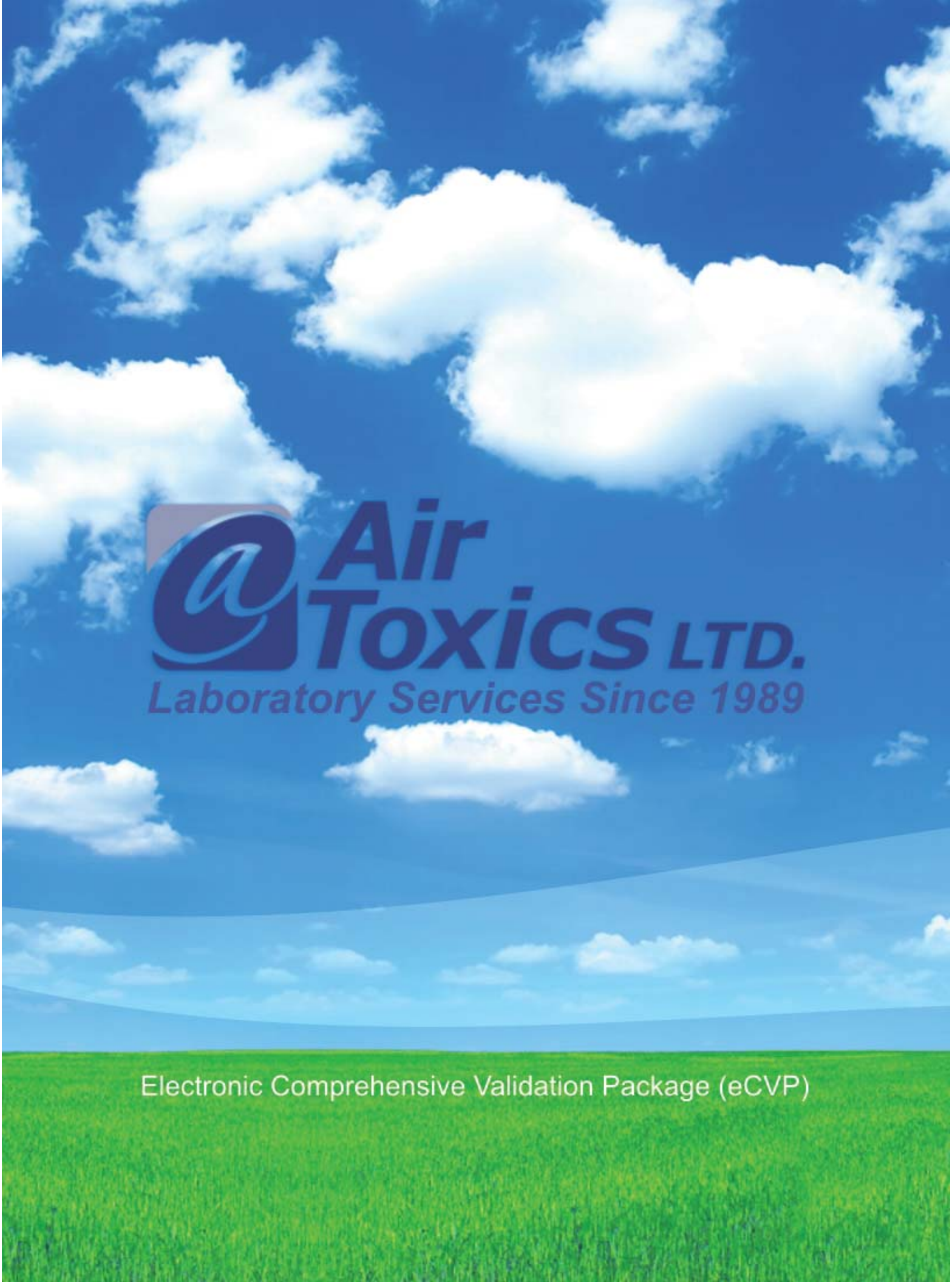
A/R: Dup - 01A

M/Q: Pressure info missing

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: gpl 6/2/10	R: gm 6/4/10	6/4/10	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Modified TO-10A

INVENTORY SHEET

Work Order #: 1005522C

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b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	6/9/10
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005522C

Work Order Summary

CLIENT:	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8774	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar Kronquist
DATE RECEIVED:	05/21/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/07/2010		

FRACTION #	NAME	TEST
05A	D-1	Modified TO-10A
06A	D-10	Modified TO-10A
07A	Field Blank - PCBs	Modified TO-10A
08A	Lab Blank PUF/XAD	Modified TO-10A
08B	Lab Blank PUF	Modified TO-10A
09A	LCS PUF/XAD	Modified TO-10A
09B	LCS PUF	Modified TO-10A

CERTIFIED BY: Linda D. Fruman DATE: 06/07/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-10A
Exponent
Workorder# 1005522C

Two PUF/XAD Cartridge-Low Volume samples and one PUF Cartridge-Low Volume sample were received on May 21, 2010. The laboratory performed analysis via Modified EPA Method TO-10A using GC/ECD. The method involves extracting the PUF sample using Pressurized Fluid Extraction (PFE) by EPA Method 3545A in methylene chloride. Following the extraction, the solvent is exchanged to hexane and the extract concentrated to 1.0mL. Requests for PCB analysis without pesticides will require post-extraction cleanup with sulfuric acid. Analysis is carried out on a HP GC/ECD and second column confirmation is used to positively identify results. Duplicate extraction cannot be performed on PUF media, therefore duplicate results are derived from analyzing the extract twice. Method modifications taken to run these samples include:

Requirement	***Method TO-10A***	***ATL Modifications***
Extraction Solvent	5 % Diethyl Ether in Hexane	DCM, exchanging to Hexane during the concentration step.
Reagent Blank	Set up extraction system without filter/PUF; reflux with solvent	No Reagent Blank is extracted. Reagent lots are certified as acceptable prior to use.
PCB Quantitation	Requires a minimum of 5 peaks	Use 4 peaks for quantitation.
Frequency of Continuing Calibration Verification	Every 10 samples.	Every 20 samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 400 L was assumed for all QC samples.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
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 detection limit.
M - Reported value may be biased due to apparent matrix interferences.

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
D-1	1005522C-05A	5/19/2010	5/21/2010	5/26/2010	7	6/ 4/2010	9	Good
D-10	1005522C-06A	5/19/2010	5/21/2010	5/26/2010	7	6/ 4/2010	9	Good
Field Blank - PCBs	1005522C-07A	5/19/2010	5/21/2010	5/26/2010	7	6/ 4/2010	9	Good
Lab Blank PUF/XAD	1005522C-08A	NA	NA	5/26/2010	NA	6/ 4/2010	9	Good
Lab Blank PUF	1005522C-08B	NA	NA	5/26/2010	NA	6/ 4/2010	9	Good
LCS PUF/XAD	1005522C-09A	NA	NA	5/26/2010	NA	6/ 4/2010	9	Good
LCS PUF	1005522C-09B	NA	NA	5/26/2010	NA	6/ 4/2010	9	Good

Sample Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-10A GC/ECD

Client Sample ID: D-1

Lab ID#: 1005522C-05A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-1

Lab ID#: 1005522C-05A

EPA METHOD TO-10A GC/ECD

File Name:	**P060309**	**Date of Collection: 5/19/10 5:37:00 PM**
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 01:53 AM**
		Date of Extraction: 5/26/10

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Aroclor 1016/1242	1.0	2.6	Not Detected	Not Detected
Aroclor-1221	1.0	2.6	Not Detected	Not Detected
Aroclor-1232	1.0	2.6	Not Detected	Not Detected
Aroclor-1248	1.0	2.6	Not Detected	Not Detected
Aroclor-1254	1.0	2.6	Not Detected	Not Detected
Aroclor-1260	1.0	2.6	Not Detected	Not Detected

Air Sample Volume(L): 383

Container Type: PUF Cartridge-Low Volume

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	87	60-120
2,4,5,6-Tetrachloro-m-xylene	87	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060309.d
Lab Smp Id: 1005522C-05A
Inj Date : 04-JUN-2010 08:53
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C-05A
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all_42.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
$	2 TCMX	5.917	5.925	(0.351)	6282971897	0.52203	0.522
M	3 pcb1016/1242	Compound Not Detected.					
	4 pcb1016/1242-1	Compound Not Detected.					
	5 pcb1016/1242-2	Compound Not Detected.					
	6 pcb1016/1242-3	Compound Not Detected.					
	7 pcb1016/1242-4	Compound Not Detected.					
M	8 pcb1260	Compound Not Detected.					
	9 pcb1260-1	Compound Not Detected.					
	10 pcb1260-2	Compound Not Detected.					
	11 pcb1260-3	Compound Not Detected.					
	12 pcb1260-4	Compound Not Detected.					
M	13 pcb1221	Compound Not Detected.					
	14 pcb1221-1	Compound Not Detected.					
	15 pcb1221-2	Compound Not Detected.					
	16 pcb1221-3	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
	17	pcb1221-4	Compound Not Detected.					
M	18	pcb1232	Compound Not Detected.					
	19	pcb1232-1	Compound Not Detected.					
	20	pcb1232-2	Compound Not Detected.					
	21	pcb1232-3	Compound Not Detected.					
	22	pcb1232-4	Compound Not Detected.					
M	28	pcb1248	Compound Not Detected.					
	29	pcb1248-1	Compound Not Detected.					
	30	pcb1248-2	Compound Not Detected.					
	31	pcb1248-3	Compound Not Detected.					
	32	pcb1248-4	Compound Not Detected.					
M	33	pcb1254	Compound Not Detected.					
	34	pcb1254-1	Compound Not Detected.					
	35	pcb1254-2	Compound Not Detected.					
	36	pcb1254-3	Compound Not Detected.					
	37	pcb1254-4	Compound Not Detected.					
$	38	DCB	15.227	15.241	(0.904)	5522647684	0.52309	0.523
*	39	Decachlorodiphenyl Ether	16.844	16.861	(1.000)	21121811478	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060309.d
Lab Smp Id: 1005522C-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	21121811478	-3.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 04-Jun-2010 17:10

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C-05A
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: all_42.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$ 2 TCMX	0.600	0.522	87.01	60-120
$ 38 DCB	0.600	0.523	87.18	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060309.d

Page 1

Date : 04-JUN-2010 08:53

Client ID:

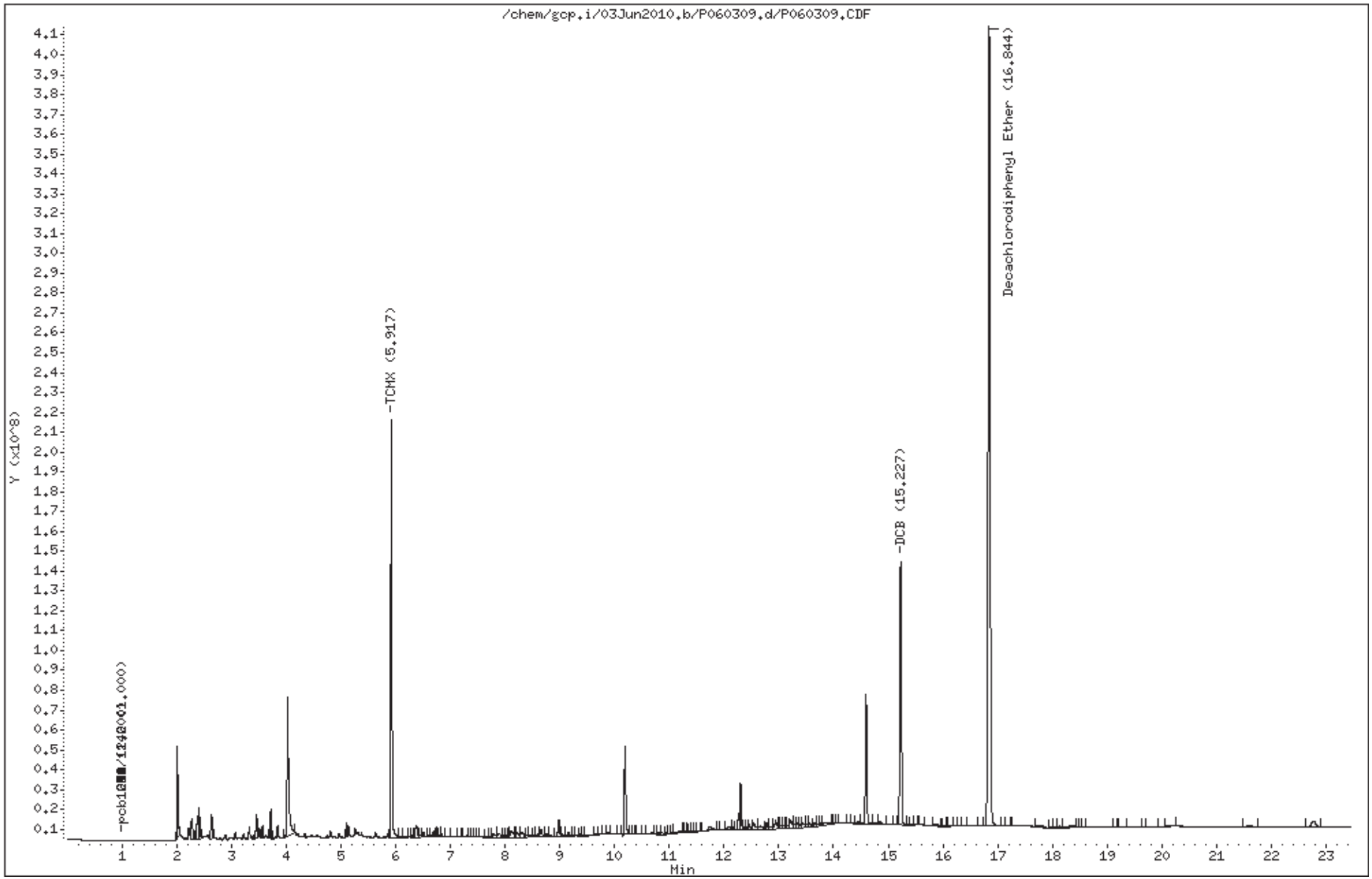
Instrument: gcp.i

Sample Info: 1005522C-05A

Operator: CRL

Column phase:

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-10A GC/ECD

Client Sample ID: D-10

Lab ID#: 1005522C-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-10

Lab ID#: 1005522C-06A

EPA METHOD TO-10A GC/ECD

File Name:	**P060310**	**Date of Collection: 5/19/10 5:37:00 PM**
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 02:20 AM**
		Date of Extraction: 5/26/10

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Aroclor 1016/1242	1.0	2.6	Not Detected	Not Detected
Aroclor-1221	1.0	2.6	Not Detected	Not Detected
Aroclor-1232	1.0	2.6	Not Detected	Not Detected
Aroclor-1248	1.0	2.6	Not Detected	Not Detected
Aroclor-1254	1.0	2.6	Not Detected	Not Detected
Aroclor-1260	1.0	2.6	Not Detected	Not Detected

Air Sample Volume(L): 378

Container Type: PUF/XAD Cartridge-Low Volume

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	76	60-120
2,4,5,6-Tetrachloro-m-xylene	73	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060310.d
Lab Smp Id: 1005522C-06A
Inj Date : 04-JUN-2010 09:20
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C-06A
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all_42.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
$	2 TCMX	5.917	5.925	(0.351)	5100135046	0.43650	0.436
M	3 pcb1016/1242	Compound Not Detected.					
	4 pcb1016/1242-1	Compound Not Detected.					
	5 pcb1016/1242-2	Compound Not Detected.					
	6 pcb1016/1242-3	Compound Not Detected.					
	7 pcb1016/1242-4	Compound Not Detected.					
M	8 pcb1260	Compound Not Detected.					
	9 pcb1260-1	Compound Not Detected.					
	10 pcb1260-2	Compound Not Detected.					
	11 pcb1260-3	Compound Not Detected.					
	12 pcb1260-4	Compound Not Detected.					
M	13 pcb1221	Compound Not Detected.					
	14 pcb1221-1	Compound Not Detected.					
	15 pcb1221-2	Compound Not Detected.					
	16 pcb1221-3	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
	17	pcb1221-4	Compound Not Detected.					
M	18	pcb1232	Compound Not Detected.					
	19	pcb1232-1	Compound Not Detected.					
	20	pcb1232-2	Compound Not Detected.					
	21	pcb1232-3	Compound Not Detected.					
	22	pcb1232-4	Compound Not Detected.					
M	28	pcb1248	Compound Not Detected.					
	29	pcb1248-1	Compound Not Detected.					
	30	pcb1248-2	Compound Not Detected.					
	31	pcb1248-3	Compound Not Detected.					
	32	pcb1248-4	Compound Not Detected.					
M	33	pcb1254	Compound Not Detected.					
	34	pcb1254-1	Compound Not Detected.					
	35	pcb1254-2	Compound Not Detected.					
	36	pcb1254-3	Compound Not Detected.					
	37	pcb1254-4	Compound Not Detected.					
$	38	DCB	15.226	15.241	(0.904)	4701123511	0.45867	0.459
*	39	Decachlorodiphenyl Ether	16.841	16.861	(1.000)	20504977472	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060310.d
Lab Smp Id: 1005522C-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	20504977472	-6.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 04-Jun-2010 17:13

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C-06A
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: all_42.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$ 2 TCMX	0.600	0.436	72.75	60-120
$ 38 DCB	0.600	0.459	76.45	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060310.d

Date : 04-JUN-2010 09:20

Client ID:

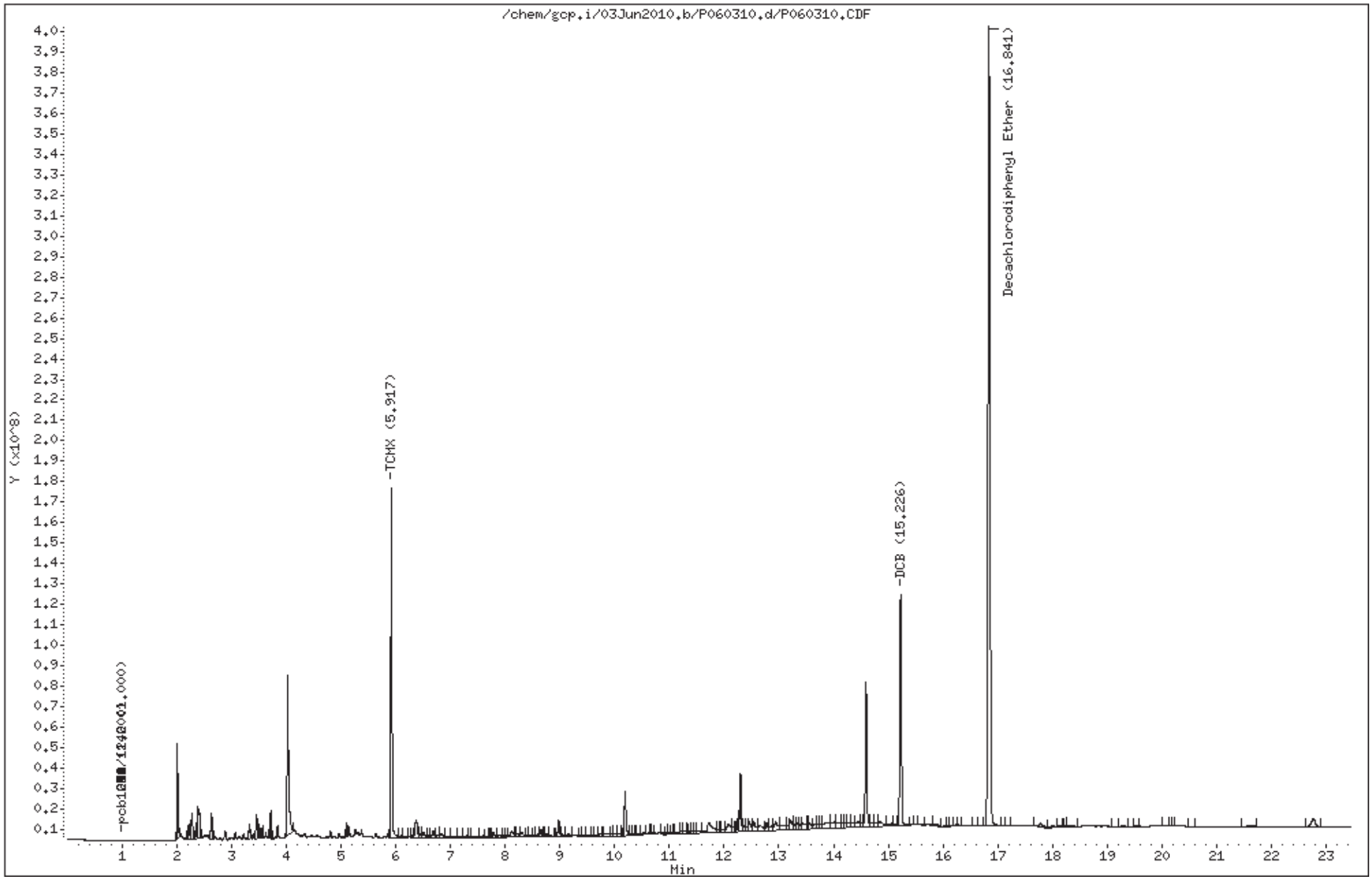
Instrument: gcp.i

Sample Info: 1005522C-06A

Operator: CRL

Column phase:

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-10A GC/ECD

Client Sample ID: Field Blank - PCBs

Lab ID#: 1005522C-07A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Field Blank - PCBs

Lab ID#: 1005522C-07A

EPA METHOD TO-10A GC/ECD

File Name:	**P060311**	**Date of Collection: 5/19/10 8:22:00 PM**
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 02:47 AM**
		Date of Extraction: 5/26/10

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Aroclor 1016/1242	1.0	2.5	Not Detected	Not Detected
Aroclor-1221	1.0	2.5	Not Detected	Not Detected
Aroclor-1232	1.0	2.5	Not Detected	Not Detected
Aroclor-1248	1.0	2.5	Not Detected	Not Detected
Aroclor-1254	1.0	2.5	Not Detected	Not Detected
Aroclor-1260	1.0	2.5	Not Detected	Not Detected

Air Sample Volume(L): 400

Container Type: PUF Cartridge-Low Volume

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	84	60-120
2,4,5,6-Tetrachloro-m-xylene	87	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060311.d
Lab Smp Id: 1005522C-07A
Inj Date : 04-JUN-2010 09:47
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C-07A
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all_42.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
$	2 TCMX	5.918	5.925	(0.351)	6634724955	0.52325	0.523
M	3 pcb1016/1242	Compound Not Detected.					
	4 pcb1016/1242-1	Compound Not Detected.					
	5 pcb1016/1242-2	Compound Not Detected.					
	6 pcb1016/1242-3	Compound Not Detected.					
	7 pcb1016/1242-4	Compound Not Detected.					
M	8 pcb1260	Compound Not Detected.					
	9 pcb1260-1	Compound Not Detected.					
	10 pcb1260-2	Compound Not Detected.					
	11 pcb1260-3	Compound Not Detected.					
	12 pcb1260-4	Compound Not Detected.					
M	13 pcb1221	Compound Not Detected.					
	14 pcb1221-1	Compound Not Detected.					
	15 pcb1221-2	Compound Not Detected.					
	16 pcb1221-3	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
	17	pcb1221-4	Compound Not Detected.					
M	18	pcb1232	Compound Not Detected.					
	19	pcb1232-1	Compound Not Detected.					
	20	pcb1232-2	Compound Not Detected.					
	21	pcb1232-3	Compound Not Detected.					
	22	pcb1232-4	Compound Not Detected.					
M	28	pcb1248	Compound Not Detected.					
	29	pcb1248-1	Compound Not Detected.					
	30	pcb1248-2	Compound Not Detected.					
	31	pcb1248-3	Compound Not Detected.					
	32	pcb1248-4	Compound Not Detected.					
M	33	pcb1254	Compound Not Detected.					
	34	pcb1254-1	Compound Not Detected.					
	35	pcb1254-2	Compound Not Detected.					
	36	pcb1254-3	Compound Not Detected.					
	37	pcb1254-4	Compound Not Detected.					
$	38	DCB	15.227	15.241	(0.904)	5628022997	0.50598	0.506
*	39	Decachlorodiphenyl Ether	16.842	16.861	(1.000)	22252436369	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060311.d
Lab Smp Id: 1005522C-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	22252436369	1.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.11

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 04-Jun-2010 17:14

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C-07A
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: all_42.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$ 2 TCMX	0.600	0.523	87.21	60-120
$ 38 DCB	0.600	0.506	84.33	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060311.d

Date : 04-JUN-2010 09:47

Client ID:

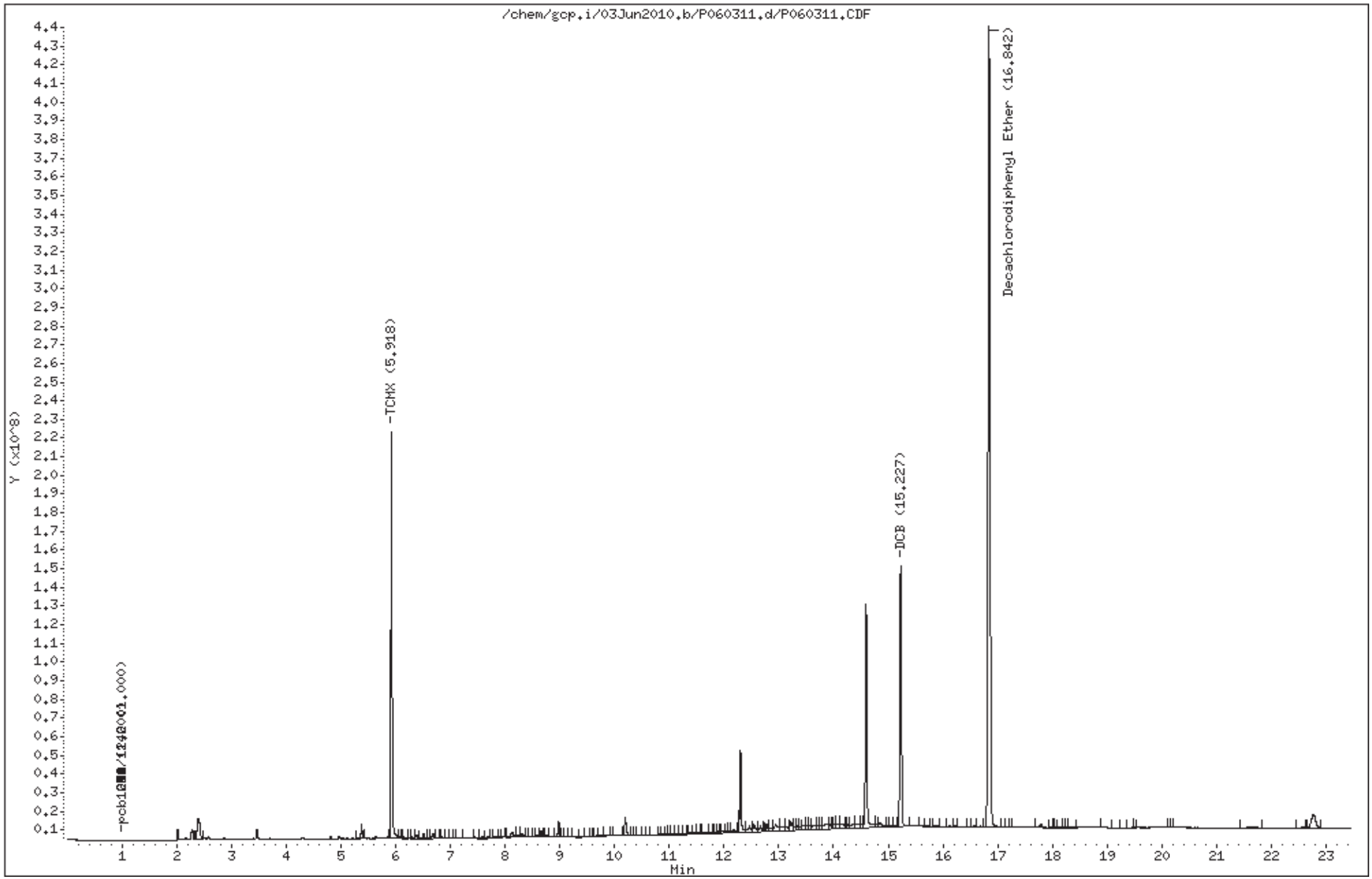
Instrument: gcp.i

Sample Info: 1005522C-07A

Operator: CRL

Column phase:

Column diameter: 2.00



QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank PUF/XAD

Lab ID#: 1005522C-08A

EPA METHOD TO-10A GC/ECD

File Name:	**P060308**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 01:27 AM**	
		Date of Extraction: 5/26/10	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Aroclor 1016/1242	1.0	2.5	Not Detected	Not Detected
Aroclor-1221	1.0	2.5	Not Detected	Not Detected
Aroclor-1232	1.0	2.5	Not Detected	Not Detected
Aroclor-1248	1.0	2.5	Not Detected	Not Detected
Aroclor-1254	1.0	2.5	Not Detected	Not Detected
Aroclor-1260	1.0	2.5	Not Detected	Not Detected

Air Sample Volume(L): 400

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	86	60-120
2,4,5,6-Tetrachloro-m-xylene	86	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060308.d
Lab Smp Id: 1005522C Client Smp ID: Lab Blank PUF/XAD
Inj Date : 04-JUN-2010 08:27
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C Lab Blank PUF/XAD
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all_42.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
$	2 TCMX	5.918	5.925	(0.351)	6339503031	0.51505	0.515
M	3 pcb1016/1242	Compound Not Detected.					
	4 pcb1016/1242-1	Compound Not Detected.					
	5 pcb1016/1242-2	Compound Not Detected.					
	6 pcb1016/1242-3	Compound Not Detected.					
	7 pcb1016/1242-4	Compound Not Detected.					
M	8 pcb1260	Compound Not Detected.					
	9 pcb1260-1	Compound Not Detected.					
	10 pcb1260-2	Compound Not Detected.					
	11 pcb1260-3	Compound Not Detected.					
	12 pcb1260-4	Compound Not Detected.					
M	13 pcb1221	Compound Not Detected.					
	14 pcb1221-1	Compound Not Detected.					
	15 pcb1221-2	Compound Not Detected.					
	16 pcb1221-3	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
	17	pcb1221-4	Compound Not Detected.					
M	18	pcb1232	Compound Not Detected.					
	19	pcb1232-1	Compound Not Detected.					
	20	pcb1232-2	Compound Not Detected.					
	21	pcb1232-3	Compound Not Detected.					
	22	pcb1232-4	Compound Not Detected.					
M	28	pcb1248	Compound Not Detected.					
	29	pcb1248-1	Compound Not Detected.					
	30	pcb1248-2	Compound Not Detected.					
	31	pcb1248-3	Compound Not Detected.					
	32	pcb1248-4	Compound Not Detected.					
M	33	pcb1254	Compound Not Detected.					
	34	pcb1254-1	Compound Not Detected.					
	35	pcb1254-2	Compound Not Detected.					
	36	pcb1254-3	Compound Not Detected.					
	37	pcb1254-4	Compound Not Detected.					
$	38	DCB	15.227	15.241	(0.904)	5556628865	0.51464	0.515
*	39	Decachlorodiphenyl Ether	16.843	16.861	(1.000)	21600835854	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060308.d
Lab Smp Id: 1005522C
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: Lab Blank PUF/XAD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	21600835854	-1.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 04-Jun-2010 17:09

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C Client Smp ID: Lab Blank PUF/XAD
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: all_42.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$ 2 TCMX	0.600	0.515	85.84	60-120
$ 38 DCB	0.600	0.515	85.77	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060308.d

Date : 04-JUN-2010 08:27

Client ID: Lab Blank PUF/XAD

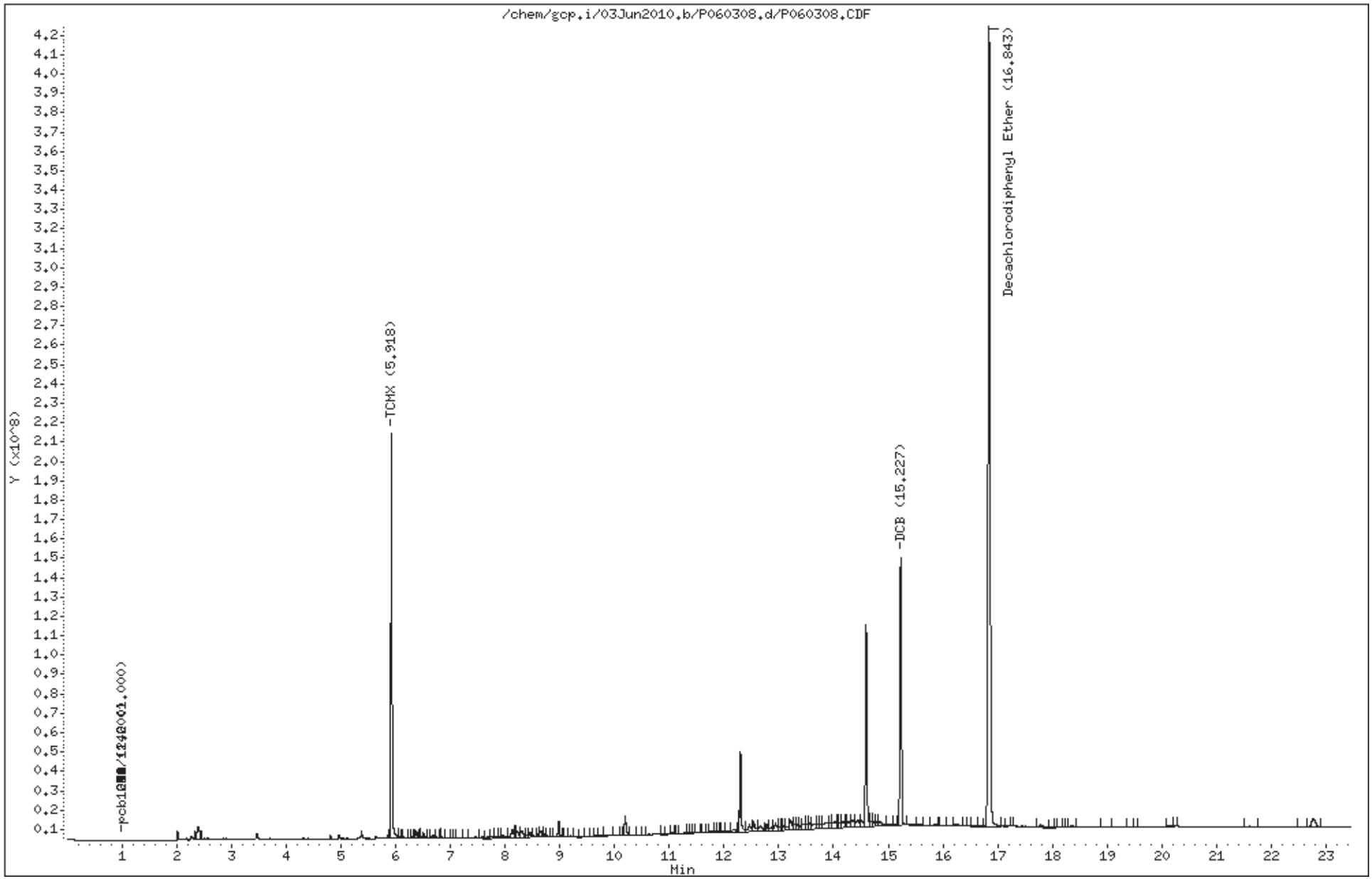
Instrument: gcp.i

Sample Info: 1005522C Lab Blank PUF/XAD

Operator: CRL

Column phase:

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank PUF

Lab ID#: 1005522C-08B

EPA METHOD TO-10A GC/ECD

File Name:	**P060307**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 01:00 AM**	
		Date of Extraction: 5/26/10	

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Aroclor 1016/1242	1.0	2.5	Not Detected	Not Detected
Aroclor-1221	1.0	2.5	Not Detected	Not Detected
Aroclor-1232	1.0	2.5	Not Detected	Not Detected
Aroclor-1248	1.0	2.5	Not Detected	Not Detected
Aroclor-1254	1.0	2.5	Not Detected	Not Detected
Aroclor-1260	1.0	2.5	Not Detected	Not Detected

Air Sample Volume(L): 400

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	82	60-120
2,4,5,6-Tetrachloro-m-xylene	87	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060307.d
Lab Smp Id: 1005522C Client Smp ID: Lab Blank PUF
Inj Date : 04-JUN-2010 08:00
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C Lab Blank PUF
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all_42.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
$	2 TCMX	5.917	5.925	(0.351)	6407671298	0.52364	0.524
M	3 pcb1016/1242	Compound Not Detected.					
	4 pcb1016/1242-1	Compound Not Detected.					
	5 pcb1016/1242-2	Compound Not Detected.					
	6 pcb1016/1242-3	Compound Not Detected.					
	7 pcb1016/1242-4	Compound Not Detected.					
M	8 pcb1260	Compound Not Detected.					
	9 pcb1260-1	Compound Not Detected.					
	10 pcb1260-2	Compound Not Detected.					
	11 pcb1260-3	Compound Not Detected.					
	12 pcb1260-4	Compound Not Detected.					
M	13 pcb1221	Compound Not Detected.					
	14 pcb1221-1	Compound Not Detected.					
	15 pcb1221-2	Compound Not Detected.					
	16 pcb1221-3	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
	17	pcb1221-4	Compound Not Detected.					
M	18	pcb1232	Compound Not Detected.					
	19	pcb1232-1	Compound Not Detected.					
	20	pcb1232-2	Compound Not Detected.					
	21	pcb1232-3	Compound Not Detected.					
	22	pcb1232-4	Compound Not Detected.					
M	28	pcb1248	Compound Not Detected.					
	29	pcb1248-1	Compound Not Detected.					
	30	pcb1248-2	Compound Not Detected.					
	31	pcb1248-3	Compound Not Detected.					
	32	pcb1248-4	Compound Not Detected.					
M	33	pcb1254	Compound Not Detected.					
	34	pcb1254-1	Compound Not Detected.					
	35	pcb1254-2	Compound Not Detected.					
	36	pcb1254-3	Compound Not Detected.					
	37	pcb1254-4	Compound Not Detected.					
$	38	DCB	15.227	15.241	(0.904)	5261189068	0.49013	0.490
*	39	Decachlorodiphenyl Ether	16.843	16.861	(1.000)	21474992374	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060307.d
Lab Smp Id: 1005522C
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: Lab Blank PUF
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	21474992374	-2.07

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C Client Smp ID: Lab Blank PUF
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: Quant Type: ISTD
Sublist File: all_42.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$ 2 TCMX	0.600	0.524	87.27	60-120
$ 38 DCB	0.600	0.490	81.69	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060307.d

Date : 04-JUN-2010 08:00

Client ID: Lab Blank PUF

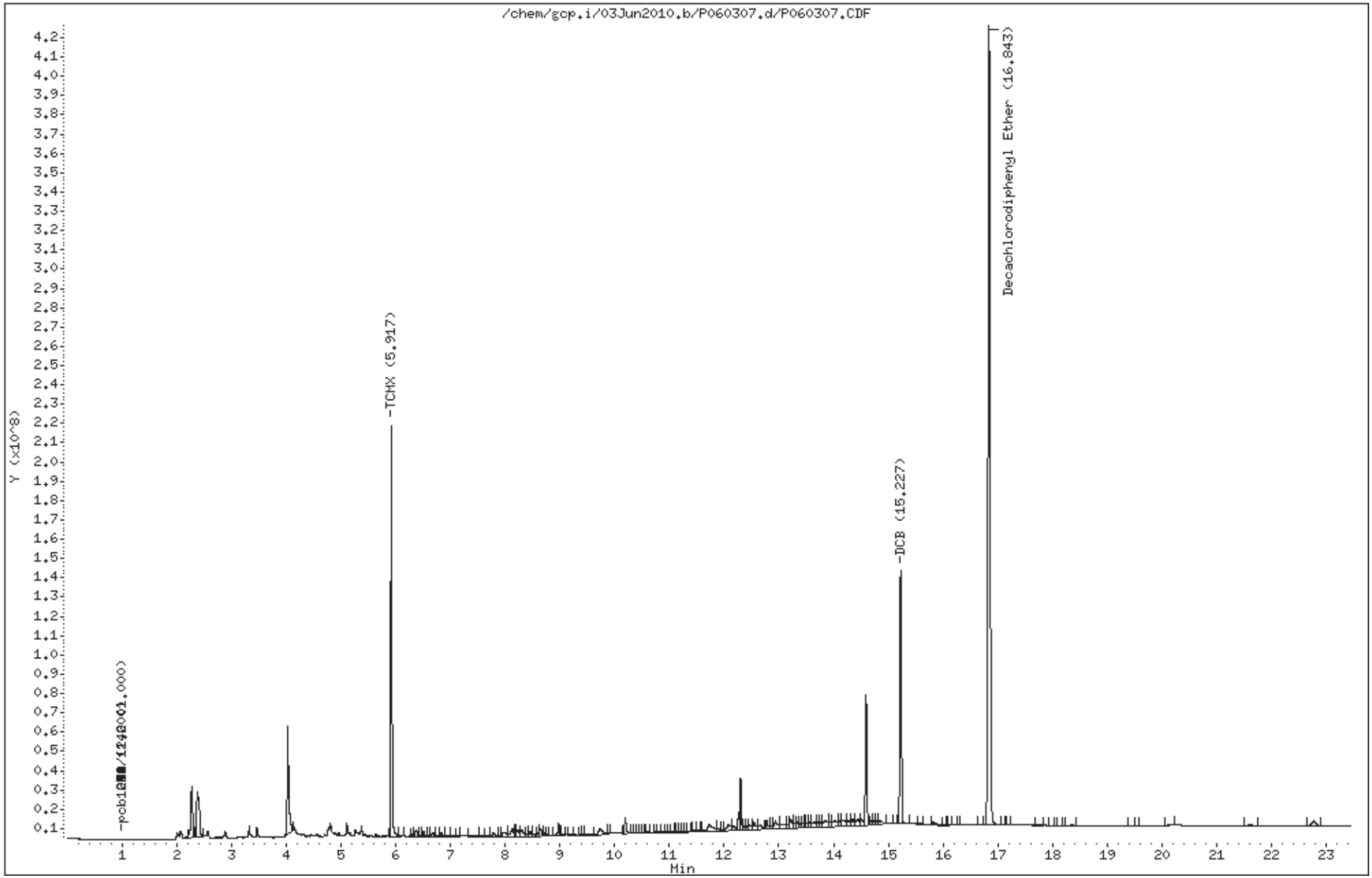
Instrument: gcp.i

Sample Info: 1005522C Lab Blank PUF

Operator: CRL

Column phase:

Column diameter: 2.00



LEVEL-IV VALIDATABLE

EPA METHOD TO-10A GC/ECD

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1005522C

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Decachlorobiphenyl	#	2,4,5,6-Tetrachloro-m-xylene	#		#		#	TOTAL OUT
01	D-1	87		87						0
02	D-10	76		73						0
03	Field Blank - PCBs	84		87						0
04	Lab Blank PUF/XAD	86		86						0
05	Lab Blank PUF	82		87						0
06	LCS PUF/XAD	80		84						0
07	LCS PUF	81		87						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

Decachlorobiphenyl 60 - 120

2,4,5,6-Tetrachloro-m-xylene 60 - 120

* Designates values outside of QC limits

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gcp.i/06Apr2010.b/p10p0406.m
Cal Date : 16-Apr-2010 12:28 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcp.i/06Apr2010.b/P040605.d
Level 2: /chem/gcp.i/06Apr2010.b/P040606.d
Level 3: /var/chem/gcp.i/06Apr2010.b/P041604.d
Level 4: /chem/gcp.i/06Apr2010.b/P040608.d
Level 5: /chem/gcp.i/06Apr2010.b/P040609.d
Level 6: /chem/gcp.i/06Apr2010.b/P040610.d
Level 7: /chem/gcp.i/06Apr2010.b/P040611.d

Compound	1.000 Level 1	3.000 Level 2	5.000 Level 3	8.000 Level 4	10.000 Level 5	12.000 Level 6	15.000 Level 7	RRF	% RSD	
M 3 pcb1016/1242	0.10318	0.15473	0.14475	0.14012	0.13595	0.13803				
	0.13198							0.13554	11.822	
4 pcb1016/1242-1	0.02338	0.02328	0.02219	0.02179	0.02125	0.02165				
	0.02075							0.02204	4.486	
5 pcb1016/1242-2	0.01532	0.06210	0.05838	0.05618	0.05457	0.05536				
	0.05258							0.05064	31.338	<-
6 pcb1016/1242-3	0.03726	0.04265	0.03866	0.03702	0.03554	0.03600				
	0.03431							0.03735	7.266	
7 pcb1016/1242-4	0.02722	0.02670	0.02552	0.02512	0.02458	0.02503				
	0.02434							0.02550	4.221	
M 8 pcb1260	0.33815	0.32879	0.31373	0.31128	0.30711	0.31345				
	0.30403							0.31665	3.885	
9 pcb1260-1	0.05867	0.05492	0.05187	0.05089	0.04975	0.05062				
	0.04884							0.05222	6.580	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gcp.i/06Apr2010.b/p10p0406.m
Cal Date : 16-Apr-2010 12:28 lzhang
Curve Type : Average

Compound	1.000 Level 1	3.000 Level 2	5.000 Level 3	8.000 Level 4	10.000 Level 5	12.000 Level 6	15.000 Level 7	___ RRF	% RSD
10 pcb1260-2	0.08012	0.07787	0.07437	0.07338	0.07232	0.07368			
	0.07108							0.07469	4.272
11 pcb1260-3	0.06038	0.05859	0.05565	0.05510	0.05461	0.05586			
	0.05418							0.05634	4.053
12 pcb1260-4	0.13898	0.13741	0.13184	0.13190	0.13042	0.13329			
	0.12993							0.13339	2.613
M 13 pcb1221	+++++	+++++	0.05782	+++++	+++++	+++++			
	+++++							0.05782	0.000
14 pcb1221-1	+++++	+++++	0.00586	+++++	+++++	+++++			
	+++++							0.00586	0.000
15 pcb1221-2	+++++	+++++	0.01246	+++++	+++++	+++++			
	+++++							0.01246	0.000
16 pcb1221-3	+++++	+++++	0.00756	+++++	+++++	+++++			
	+++++							0.00756	0.000
17 pcb1221-4	+++++	+++++	0.03194	+++++	+++++	+++++			
	+++++							0.03194	0.000
M 18 pcb1232	+++++	+++++	0.03351	+++++	+++++	+++++			
	+++++							0.03351	0.000
19 pcb1232-1	+++++	+++++	0.00781	+++++	+++++	+++++			
	+++++							0.00781	0.000

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gcp.i/06Apr2010.b/p10p0406.m
Cal Date : 16-Apr-2010 12:28 lzhang
Curve Type : Average

Compound	1.000 Level 1	3.000 Level 2	5.000 Level 3	8.000 Level 4	10.000 Level 5	12.000 Level 6	15.000 Level 7	___ RRF	% RSD
20 pcb1232-2	*****	*****	0.01068	*****	*****	*****	*****	0.01068	0.000
21 pcb1232-3	*****	*****	0.00756	*****	*****	*****	*****	0.00756	0.000
22 pcb1232-4	*****	*****	0.00745	*****	*****	*****	*****	0.00745	0.000
M 23 pcb1242	*****	*****	*****	*****	*****	*****	*****	*****	*****
24 pcb1242-1	*****	*****	*****	*****	*****	*****	*****	*****	*****
25 pcb1242-2	*****	*****	*****	*****	*****	*****	*****	*****	*****
26 pcb1242-3	*****	*****	*****	*****	*****	*****	*****	*****	*****
27 pcb1242-4	*****	*****	*****	*****	*****	*****	*****	*****	*****
M 28 pcb1248	*****	*****	0.07765	*****	*****	*****	*****	0.07765	0.000
29 pcb1248-1	*****	*****	0.02007	*****	*****	*****	*****	0.02007	0.000

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gcp.i/06Apr2010.b/p10p0406.m
Cal Date : 16-Apr-2010 12:28 lzhang
Curve Type : Average

Compound	1.000 Level 1	3.000 Level 2	5.000 Level 3	8.000 Level 4	10.000 Level 5	12.000 Level 6	15.000 Level 7	___ RRF	% RSD
30 pcb1248-2	*****	*****	0.01615	*****	*****	*****	*****	0.01615	0.000
31 pcb1248-3	*****	*****	0.02781	*****	*****	*****	*****	0.02781	0.000
32 pcb1248-4	*****	*****	0.01362	*****	*****	*****	*****	0.01362	0.000
M 33 pcb1254	*****	*****	0.25008	*****	*****	*****	*****	0.25008	0.000
34 pcb1254-1	*****	*****	0.05512	*****	*****	*****	*****	0.05512	0.000
35 pcb1254-2	*****	*****	0.05448	*****	*****	*****	*****	0.05448	0.000
36 pcb1254-3	*****	*****	0.07359	*****	*****	*****	*****	0.07359	0.000
37 pcb1254-4	*****	*****	0.06689	*****	*****	*****	*****	0.06689	0.000
$ 2 TCMX	1.17467	1.18356	1.14014	1.13047	1.11374	1.13443	1.10047	1.13964	2.650
$ 38 DCB	1.04458	1.01694	0.98554	0.98969	0.98099	1.00221	0.97798	0.99970	2.395

Calibration History

Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Start Cal Date: 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
06-APR-2010 19:31	CCV	/chem/gcp.i/06Apr2010.b/P040605.d
Cal Level: 2 , Cal Amount: 3.00000		
06-APR-2010 19:57	CCV	/chem/gcp.i/06Apr2010.b/P040606.d
Cal Level: 3 , Cal Amount: 5.00000		
16-APR-2010 18:19	1221+1254NS	/var/chem/gcp.i/06Apr2010.b/P041604.d
06-APR-2010 23:57	1232NS	/chem/gcp.i/06Apr2010.b/P040615.d
06-APR-2010 23:31	1248NS	/chem/gcp.i/06Apr2010.b/P040614.d
06-APR-2010 20:24	CCV	/var/chem/gcp.i/06Apr2010.b/P040607.d
Cal Level: 4 , Cal Amount: 8.00000		
06-APR-2010 20:51	CCV	/chem/gcp.i/06Apr2010.b/P040608.d
Cal Level: 5 , Cal Amount: 10.00000		
06-APR-2010 21:17	CCV	/chem/gcp.i/06Apr2010.b/P040609.d
Cal Level: 6 , Cal Amount: 12.00000		
06-APR-2010 21:44	CCV	/chem/gcp.i/06Apr2010.b/P040610.d
Cal Level: 7 , Cal Amount: 15.00000		
06-APR-2010 22:11	CCV	/chem/gcp.i/06Apr2010.b/P040611.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 3

Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 20:24	CCV	/var/chem/gcp.i/06Apr2010.b/P040607.d
Ccal Level: 3 , Ccal Amount: 5.00		
16-APR-2010 18:19	1221+1254NS	/var/chem/gcp.i/06Apr2010.b/P041604.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 20:24	CCV	/var/chem/gcp.i/06Apr2010.b/P040607a.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 20:24	CCV	/chem/gcp.i/06Apr2010.b/P040607a.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 20:24	CCV	/chem/gcp.i/06Apr2010.b/P040607a.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 20:24	CCV	/chem/gcp.i/06Apr2010.b/P040607a.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 23:57	1232NS	/chem/gcp.i/06Apr2010.b/P040615.d
Ccal Level: 3 , Ccal Amount: 5.00		
06-APR-2010 23:31	1248NS	/chem/gcp.i/06Apr2010.b/P040614.d
Ccal Level: 3 , Ccal Amount: 5.00		
07-APR-2010 00:24	1221+1254NS	/chem/gcp.i/06Apr2010.b/P040616.d

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2010 19:31
End Cal Date : 16-APR-2010 18:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gcp.i/06Apr2010.b/p10p0406.m
Cal Date : 16-Apr-2010 12:28 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcp.i/06Apr2010.b/P040605.d
Level 2: /chem/gcp.i/06Apr2010.b/P040606.d
Level 3: /var/chem/gcp.i/06Apr2010.b/P041604.d
Level 4: /chem/gcp.i/06Apr2010.b/P040608.d
Level 5: /chem/gcp.i/06Apr2010.b/P040609.d
Level 6: /chem/gcp.i/06Apr2010.b/P040610.d
Level 7: /chem/gcp.i/06Apr2010.b/P040611.d

See history 2nd source : P040612.d P040618.d P040619.d P041605.d

Based on 1.0 µL injection

unit ng/mL or ng/sample.

Compound	1.000 Level 1	3.000 Level 2	5.000 Level 3	8.000 Level 4	10.000 Level 5	12.000 Level 6	15.000 Level 7	RRF	% RSD	
M 3 pcb1016/1242	0.10318	0.15473	0.14475	0.14012	0.13595	0.13803	0.13198	0.13554	11.822	
4 pcb1016/1242-1	0.02338	0.02328	0.02219	0.02179	0.02125	0.02165	0.02075	0.02204	4.486	
5 pcb1016/1242-2	0.01532	0.06210	0.05838	0.05618	0.05457	0.05536	0.05258	0.05064	31.338	<-
6 pcb1016/1242-3	0.03726	0.04265	0.03866	0.03702	0.03554	0.03600	0.03431	0.03735	7.266	
7 pcb1016/1242-4	0.02722	0.02670	0.02552	0.02512	0.02458	0.02503	0.02434	0.02550	4.221	
M 8 pcb1260	0.33815	0.32879	0.31373	0.31128	0.30711	0.31345	0.30403	0.31665	3.885	
9 pcb1260-1	0.05867	0.05492	0.05187	0.05089	0.04975	0.05062	0.04884	0.05222	6.580	

5/13/10

4/24/10

GC-P Instrument Run Log

@Air Toxics Ltd.

Logbook: 1766

Method: Mod. TO-4A/TO-10A

147

IS Std ID	IS	Area Counts		Breakdown %	
	1-Bromo-2-Nitrobenzene	Front:		Endrin	Front:
		Back: ≥ 411510			Back:
1869-7-50	Decafluorodiphenyl Ether	Front: 2066092825 3		DDT	Front:
		Back: 1552131 7328			Back: ≥ 411410
		Front:			
		Back: ≥ 411510		must be ≤15%	

Injection Volume: 1.0 µL

	USE	File #	Sample / Client Name	Vial #	Dil. Factor	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	P040604	Hexane Wash	2	1.00	Li	4/6/10	~~1944~~ 1904	Li	
2	✓	05	1869-46-1	3			≥411510	~~1948~~ 1931		
3	✓	06	-3	4				1957		
4	✓	07	-5	5				2024		
5	✓	08	-8	6				2051		
6	✓	09	-10	7				2117		
7	✓	10	-12	8				2144		
8	✓	11	-15	9				2211		
9	✓	12	1869-47-5, LCS	10				2237		
10	✓	13	1869-48-5, PCB 1242	11				2304		
11	✓	14	1869-48-5, PCB 1248	12				2331		
12	✓	15	1232	13				2357		
13	X	16	1254 1221	14			4/7/10	0024		
14	X	17	-49-5 1254 1221	15				0051		
15	✓	18	1232	16				0117		
16	✓	19	1248	17				0144		
17	✓	20	Hexane Wash	18				0211		
18	✓	21	PCB MDL 3/12/10, Blank Lab	19				0237		
19	✓	22	PCB MDL 3/12/10, MDL-1	20				0304		
20	✓	23	-2	21				0331		
21	✓	24	-3	22				0357		
22	✓	25	-4	23				0424		
23	✓	26	-5	24				0451 ≥411510		
24	X	27	-6	25				0517		

Calculation Check: File ID: P040612 Compound: PCB 1016/1242 Initials: Li

nG On Column = Area of Compound in Sample / Area of Int. Standard in Sample × Conc. Int. Standard / ICAL RRF_{AVG} = (~~1790394057~~ 7963741892) × (2.00) / (205592785 4) (0.13554) = 5.72

µG/Sample = nG On Column X 1000 µL Final Vol. × D.F. / 1.0 µL Inj. Vol. X 1000 nG/µG = (5.72) × (1000) × (1.00) / (1000) = 5.72

Reported Result = 5.72

Signed

4/19/10
Date

GC-P Instrument Run Log

@Air Toxics Ltd.

Logbook: 1766

151

Method: Mod. TO-4A/TO-10A

IS Std ID	IS	Area Counts	Breakdown %	
	1-Bromo-2-Nitrobenzene	Front: ≈	Endrin	Front: ≈
		Back: ≈ 4/20/10		Back:
1869-7-50	Decafluorodiphenyl Ether	Front: 20452543959	DDT	Front:
		Back: 15734512015		Back: ≈ 4/20/10
		Front: ≈	must be ≤15%	
		Back: ≈ 4/20/10		

Injection Volume: 1.0 µL

	USE	File #	Sample / Client Name	Vial #	Dil. Factor	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	P041601	Hex Wash	1	1.00	≈	4116/10	1633	≈	
2	✓	2	↓	1				1700		
3	✓	3	1869-46-5 PCB 1016/1260	2				1726		
4	✓	4	1869-48-5 PCB 1221/1254	3				1819		
5	✓	5	1869-49-5 PCB 1221/1254	4				1845		
6	✓	6	1869-44-0.4 Pest CCV	5				1912		
7	✓	7	Hexane Blank	6				1944		
8	✓	8	PCB 1016/1260 MDL 4/14/10 Blank	7				2011		cert for P0316 too ≈ 4/16/10
9	✓	9	1 MDL-1 4/14/10	8				2038		
10	✓	10	-2	9				2104		
11	✓	11	-3	10				2131		
12	✓	12	-4	11				2158		
13	✓	13	-5	12				2225		
14	✓	14	-6	13				2251		
15	✓	15	-7	14				2318		
16	✓	16	-8	15				2345		
17	✓	17	1869-46-5 PCB 1016/1260	16			≈ 4/20/10 4/17/10	0011		
18	✓	18	1869-44-0.4 Pest CCV	17				0038		
19										
20										
21										
22										
23										
24							≈ 4/16/10			

Calculation Check: File ID: P041603 Compound: PCB 1260 Initials: ≈

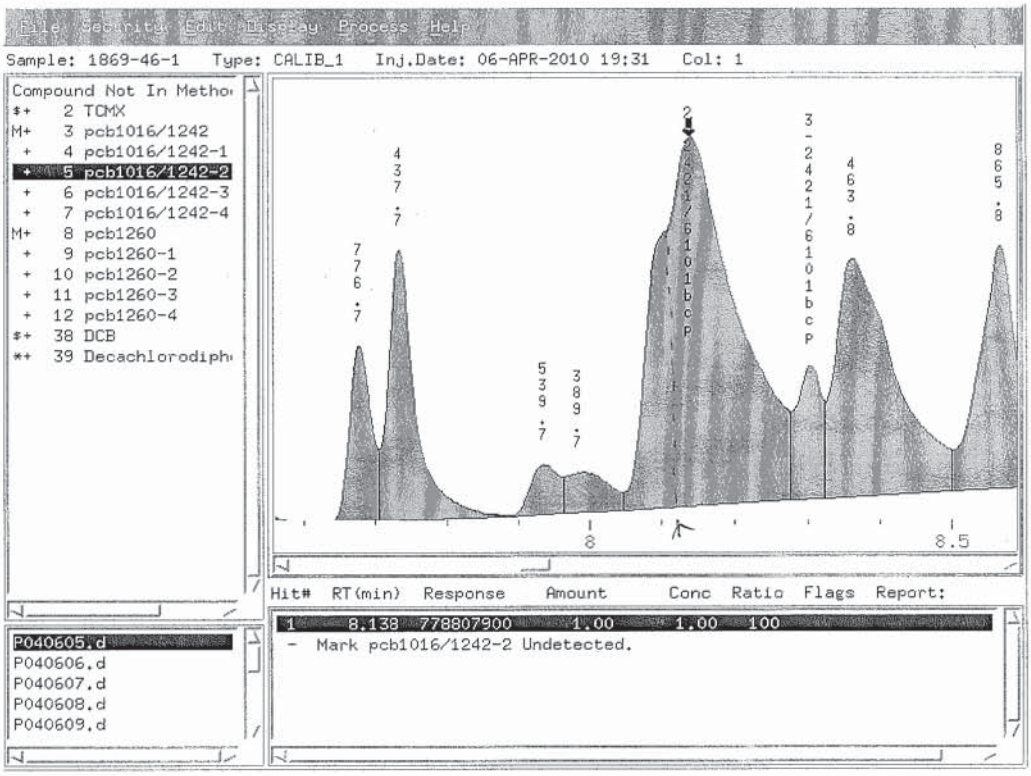
nG On Column = Area of Compound in Sample / Area of Int. Standard in Sample × Conc. Int. Standard / ICAL RRF_{AVG} = (160547/1767) × (2.0) / (20452543959) (0.31665) = 4.96

µG/Sample = nG On Column X 1000 µL Final Vol. × D.F. / 1.0 µL Inj. Vol. X 1000 nG/µG = (4.96) × (1000) × (1.00) / (1000) = 4.96

Reported Result = 4.96

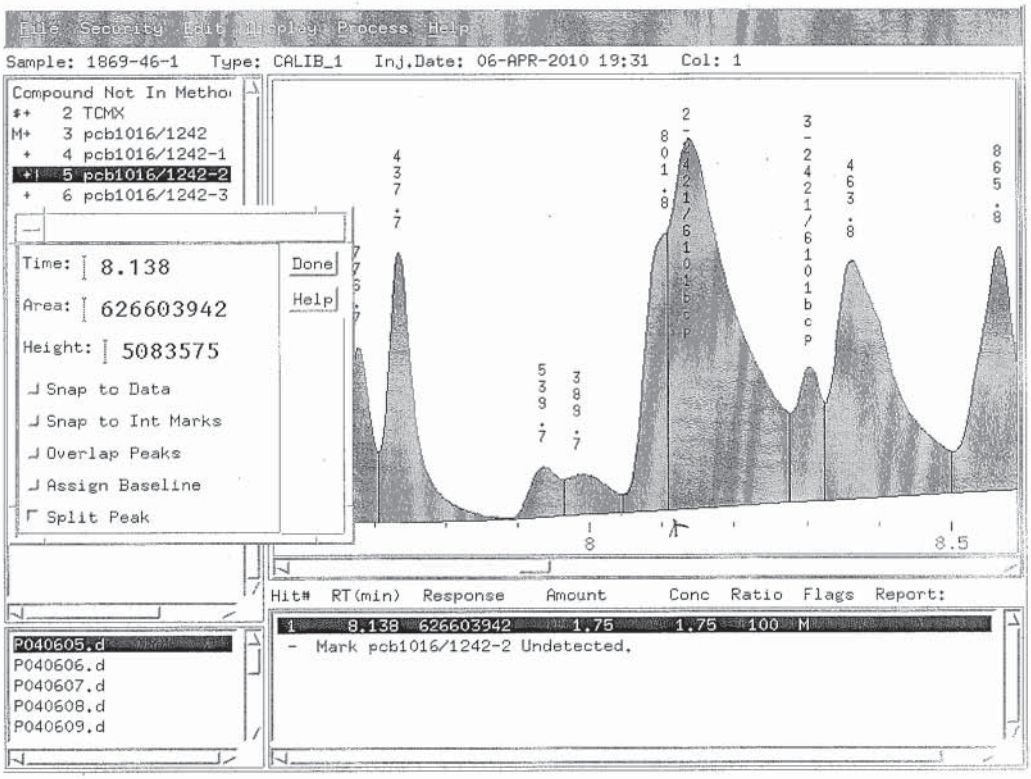
Signed

4/16/10
Date



Before

W-411510



After

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

4/15/10

4/16/10

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/06Apr2010.b/P040612.d
Lab Smp Id: 1869-47-5 Client Smp ID: LCS
Inj Date : 06-APR-2010 22:37
Operator : lz Inst ID: gcp.i
Smp Info : PCB 1016/1260
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 15-Apr-2010 15:03 lzhang Quant Type: ISTD
Cal Date : 07-APR-2010 00:24 Cal File: P040616.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
Compounds		RT	EXP RT	REL RT	RESPONSE			
$	2 TCMX	5.923	5.922	(0.351)	11790384859		1.00643	1.01
M	3 pcb1016/1242				7963741892		5.71594	5.72
	4 pcb1016/1242-1	7.314	7.312	(0.434)	1218135869		5.37602	5.38
	5 pcb1016/1242-2	8.111	8.109	(0.481)	3205170997		6.15679	6.16(R)
	6 pcb1016/1242-3	8.343	8.341	(0.495)	2160225508		5.62662	5.63
	7 pcb1016/1242-4	9.165	9.164	(0.544)	1380209519		5.26506	5.26
M	8 pcb1260				16055554002		4.93255	4.93
	9 pcb1260-1	11.230	11.230	(0.666)	2818239716		5.24969	5.25
	10 pcb1260-2	11.541	11.540	(0.685)	4042722970		5.26536	5.26
	11 pcb1260-3	12.611	12.611	(0.748)	2765276211		4.77473	4.77
	12 pcb1260-4	12.949	12.949	(0.768)	6429315105		4.68869	4.69
$	38 DCB	15.233	15.232	(0.904)	10260649941		0.99845	0.998
*	39 Decachlorodiphenyl Ether	16.852	16.851	(1.000)	20559278561		2.00000	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040612.d
Lab Smp Id: 1869-47-5
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20559278561	-0.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 15-Apr-2010 15:04

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 06Apr2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1869-47-5 Client Smp ID: LCS
Level: LOW Operator: lz
Data Type: GC DATA SampleType: LCS
SpikeList File: second.spk Quant Type: ISTD
Sublist File: CCV.sub
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	1.00	1.01	100.64	85-115
M	3 pcb1016/1242	5.00	5.72	114.32	85-115
	4 pcb1016/1242-1	5.00	5.38	107.52	85-115
	5 pcb1016/1242-2	5.00	6.16	123.14*	85-115
	6 pcb1016/1242-3	5.00	5.63	112.53	85-115
	7 pcb1016/1242-4	5.00	5.26	105.30	85-115
M	8 pcb1260	5.00	4.93	98.65	85-115
	9 pcb1260-1	5.00	5.25	104.99	85-115
	10 pcb1260-2	5.00	5.26	105.31	85-115
	11 pcb1260-3	5.00	4.77	95.49	85-115
	12 pcb1260-4	5.00	4.69	93.77	85-115
$	38 DCB	1.00	0.998	99.84	85-115

	SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	0.600	1.01	100.64	60-120
$	38 DCB	0.600	0.998	99.84	60-120

Data File: /var/chem/gcp.i/06Apr2010.b/P040612.d

Date : 06-APR-2010 22:37

Client ID: LCS

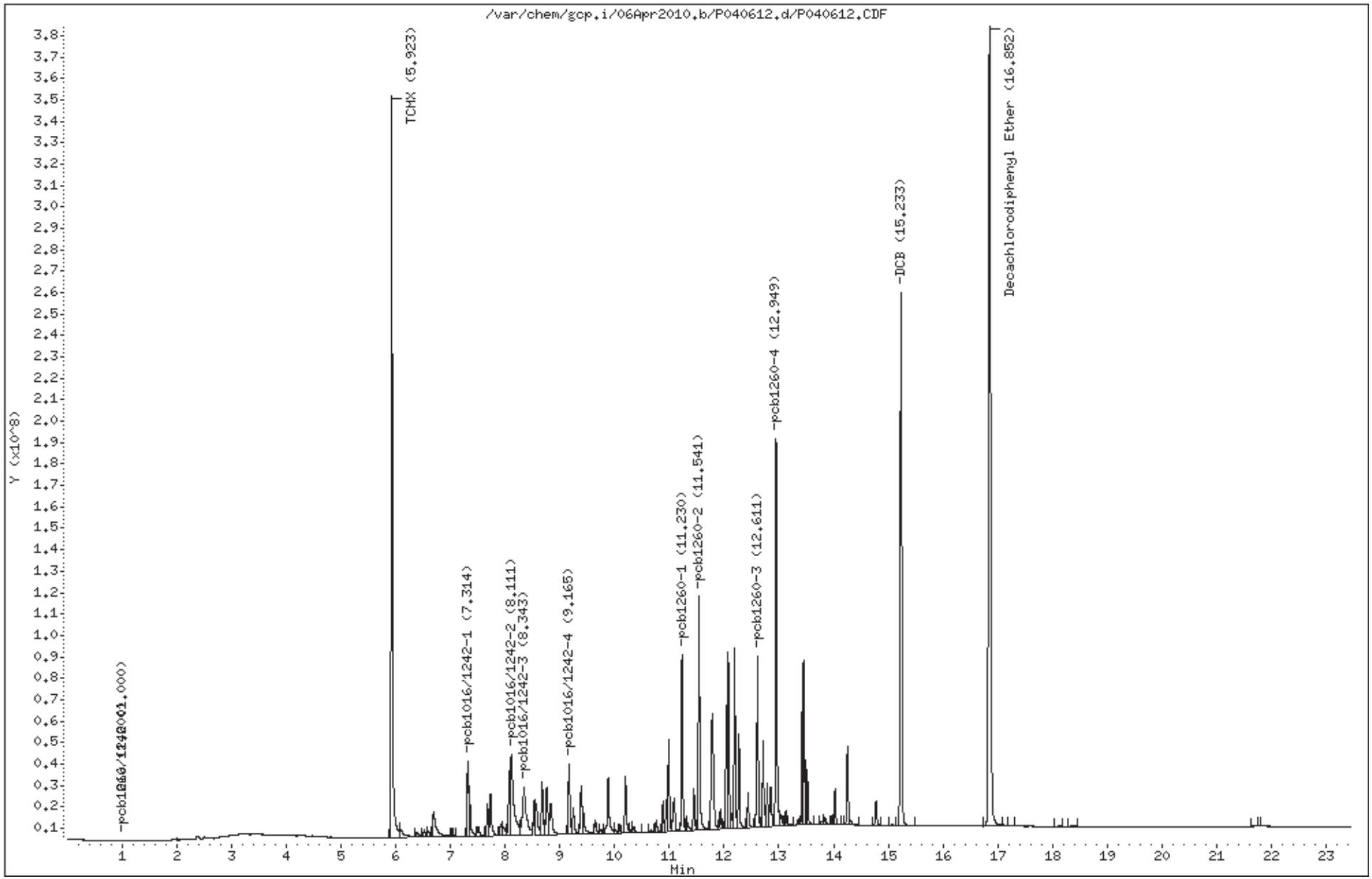
Instrument: gcp.i

Sample Info: PCB 1016/1260

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/06Apr2010.b/P040618.d
Lab Smp Id: 1869-49-5 PCB 1232 Client Smp ID: LCS
Inj Date : 07-APR-2010 01:17
Operator : lz Inst ID: gcp.i
Smp Info : 1869-49-5 PCB 1232
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 15-Apr-2010 15:03 lzhang Quant Type: ISTD
Cal Date : 07-APR-2010 00:24 Cal File: P040616.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1232NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
M	18 pcb1232				2029659697	5.48378	5.48
	19 pcb1232-1	7.732	7.734	(0.459)	481215501	5.57861	5.58
	20 pcb1232-2	8.567	8.568	(0.508)	639564435	5.41988	5.42
	21 pcb1232-3	8.674	8.677	(0.515)	457083477	5.47159	5.47
	22 pcb1232-4	8.759	8.762	(0.520)	451796284	5.48837	5.49
*	39 Decachlorodiphenyl Ether	16.851	16.851	(1.000)	22088372569	2.00000	

Report Date: 15-Apr-2010 15:04

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040618.d
Lab Smp Id: 1869-49-5 PCB 1232
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	22088372569	6.91

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 15-Apr-2010 15:04

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 06Apr2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1869-49-5 PCB 1232 Client Smp ID: LCS
Level: LOW Operator: lz
Data Type: GC DATA SampleType: LCS
SpikeList File: 12322nd.spk Quant Type: ISTD
Sublist File: 1232NS.sub
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
M	18 pcb1232	5.00	5.48	109.68	85-115
	19 pcb1232-1	5.00	5.58	111.57	85-115
	20 pcb1232-2	5.00	5.42	108.40	85-115
	21 pcb1232-3	5.00	5.47	109.43	85-115
	22 pcb1232-4	5.00	5.49	109.77	85-115

Data File: /var/chem/gcp.i/06Apr2010.b/P040618.d

Date : 07-APR-2010 01:17

Client ID: LCS

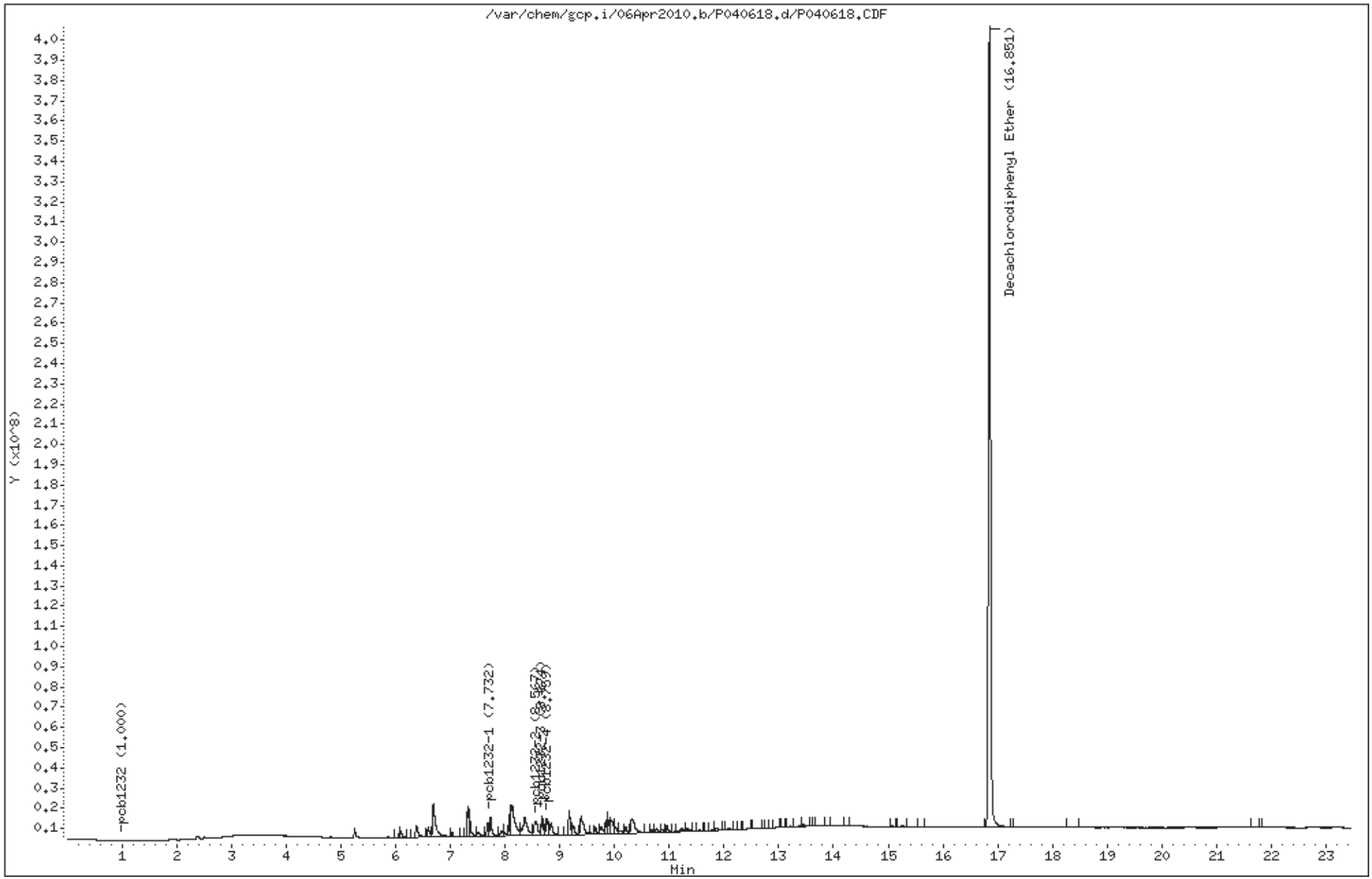
Instrument: gcp.i

Sample Info: 1869-49-5 PCB 1232

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/06Apr2010.b/P040619.d
Lab Smp Id: 1869-49-5 PCB 1248 Client Smp ID: LCS
Inj Date : 07-APR-2010 01:44
Operator : lz Inst ID: gcp.i
Smp Info : 1869-49-5 PCB 1248
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 15-Apr-2010 15:03 lzhang Quant Type: ISTD
Cal Date : 07-APR-2010 00:24 Cal File: P040616.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1248NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
M	28 pcb1248				4272839450	5.01274	5.01
	29 pcb1248-1	8.832	8.832	(0.524)	1111814421	5.04548	5.04
	30 pcb1248-2	9.733	9.732	(0.578)	869863303	4.90662	4.91
	31 pcb1248-3	9.833	9.831	(0.584)	1519028113	4.97663	4.98
	32 pcb1248-4	10.760	10.760	(0.639)	772133613	5.16403	5.16
*	39 Decachlorodiphenyl Ether	16.851	16.851	(1.000)	21953913413	2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040619.d
Lab Smp Id: 1869-49-5 PCB 1248
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	21953913413	6.26

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 15-Apr-2010 15:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 06Apr2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1869-49-5 PCB 1248 Client Smp ID: LCS
Level: LOW Operator: lz
Data Type: GC DATA SampleType: LCS
SpikeList File: 12482nd.spk Quant Type: ISTD
Sublist File: 1248NS.sub
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
M	28 pcb1248	5.00	5.01	100.25	85-115
	29 pcb1248-1	5.00	5.04	100.91	85-115
	30 pcb1248-2	5.00	4.91	98.13	85-115
	31 pcb1248-3	5.00	4.98	99.53	85-115
	32 pcb1248-4	5.00	5.16	103.28	85-115

Data File: /var/chem/gcp.i/06Apr2010.b/P040619.d

Date : 07-APR-2010 01:44

Client ID: LCS

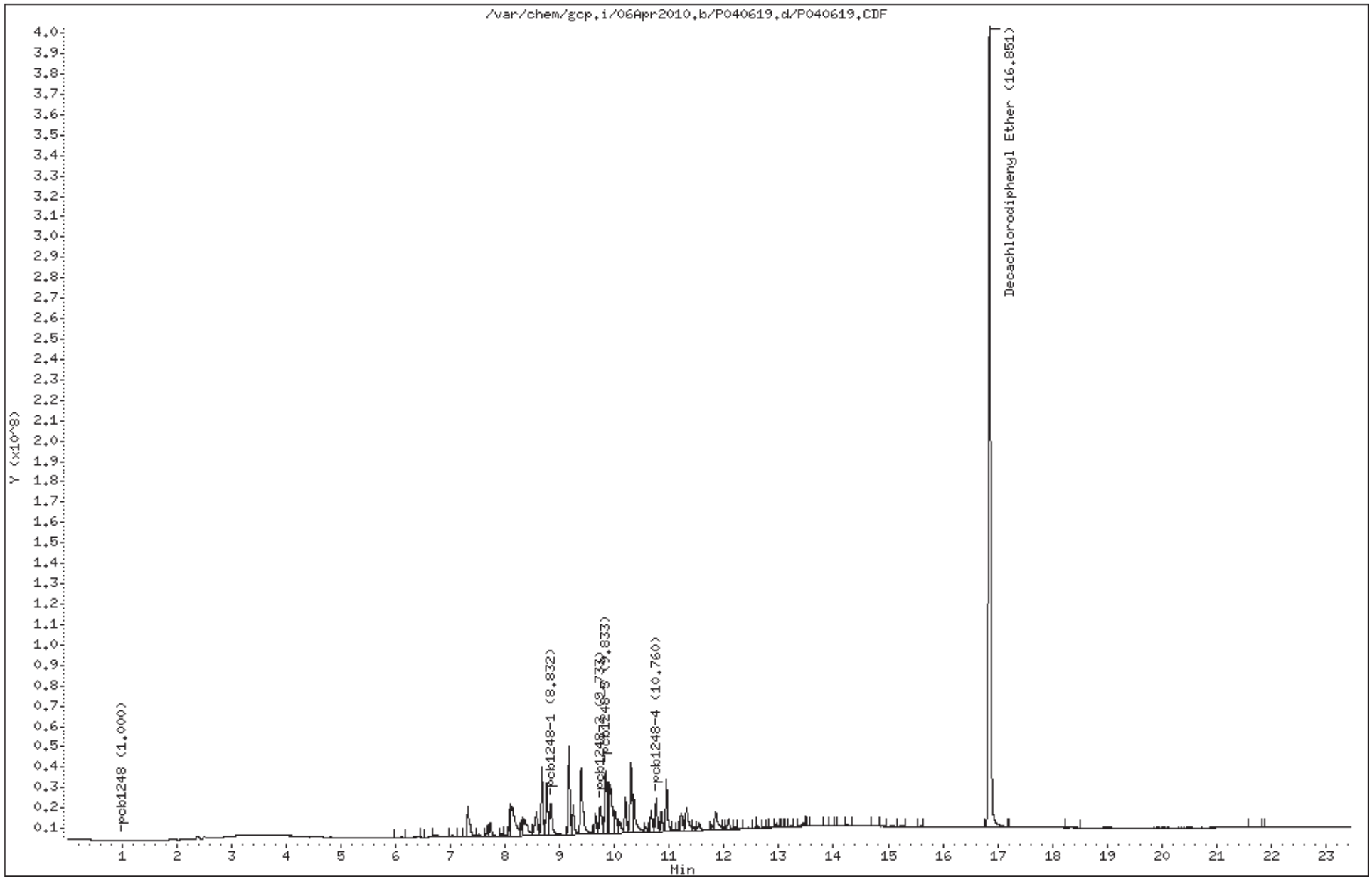
Instrument: gcp.i

Sample Info: 1869-49-5 PCB 1248

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P041605.d
Lab Smp Id: 1869-49-5
Inj Date : 16-APR-2010 18:45
Operator : lz Inst ID: gcp.i
Smp Info : 1869-49-5 pcb1221+1254
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 16-Apr-2010 12:28 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1221+1254NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
M	13 pcb1221				3374162189	5.36930	5.37
	14 pcb1221-1	5.241	5.249	(0.311)	312447148	4.90382	4.90
	15 pcb1221-2	6.365	6.374	(0.378)	740128125	5.46543	5.46
	16 pcb1221-3	6.581	6.591	(0.391)	437027022	5.32140	5.32
	17 pcb1221-4	6.675	6.686	(0.396)	1884559894	5.42857	5.43
M	33 pcb1254				12809342836	4.71308	4.71
	34 pcb1254-1	9.877	9.889	(0.586)	2810723079	4.69241	4.69
	35 pcb1254-2	10.189	10.201	(0.605)	2692266320	4.54680	4.55
	36 pcb1254-3	10.935	10.946	(0.649)	3724657693	4.65696	4.66
	37 pcb1254-4	12.069	12.079	(0.716)	3581695743	4.92732	4.93
*	39 Decachlorodiphenyl Ether	16.847	16.851	(1.000)	21735380570	2.00000	

Report Date: 16-Apr-2010 12:28

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P041605.d
Lab Smp Id: 1869-49-5
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	21735380570	5.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 16-Apr-2010 12:28

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 16Apr2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1869-49-5
Level: LOW Operator: lz
Data Type: GC DATA SampleType: LCS
SpikeList File: 1221+12542nd.spk Quant Type: ISTD
Sublist File: 1221+1254NS.sub
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
M	13 pcb1221	5.00	5.37	107.39	85-115
	14 pcb1221-1	5.00	4.90	98.08	85-115
	15 pcb1221-2	5.00	5.46	109.31	85-115
	16 pcb1221-3	5.00	5.32	106.43	85-115
	17 pcb1221-4	5.00	5.43	108.57	85-115
M	33 pcb1254	5.00	4.71	94.26	85-115
	34 pcb1254-1	5.00	4.69	93.85	85-115
	35 pcb1254-2	5.00	4.55	90.94	85-115
	36 pcb1254-3	5.00	4.66	93.14	85-115
	37 pcb1254-4	5.00	4.93	98.55	85-115

Data File: /var/chem/gcp.i/06Apr2010.b/P041605.d

Date : 16-APR-2010 18:45

Client ID:

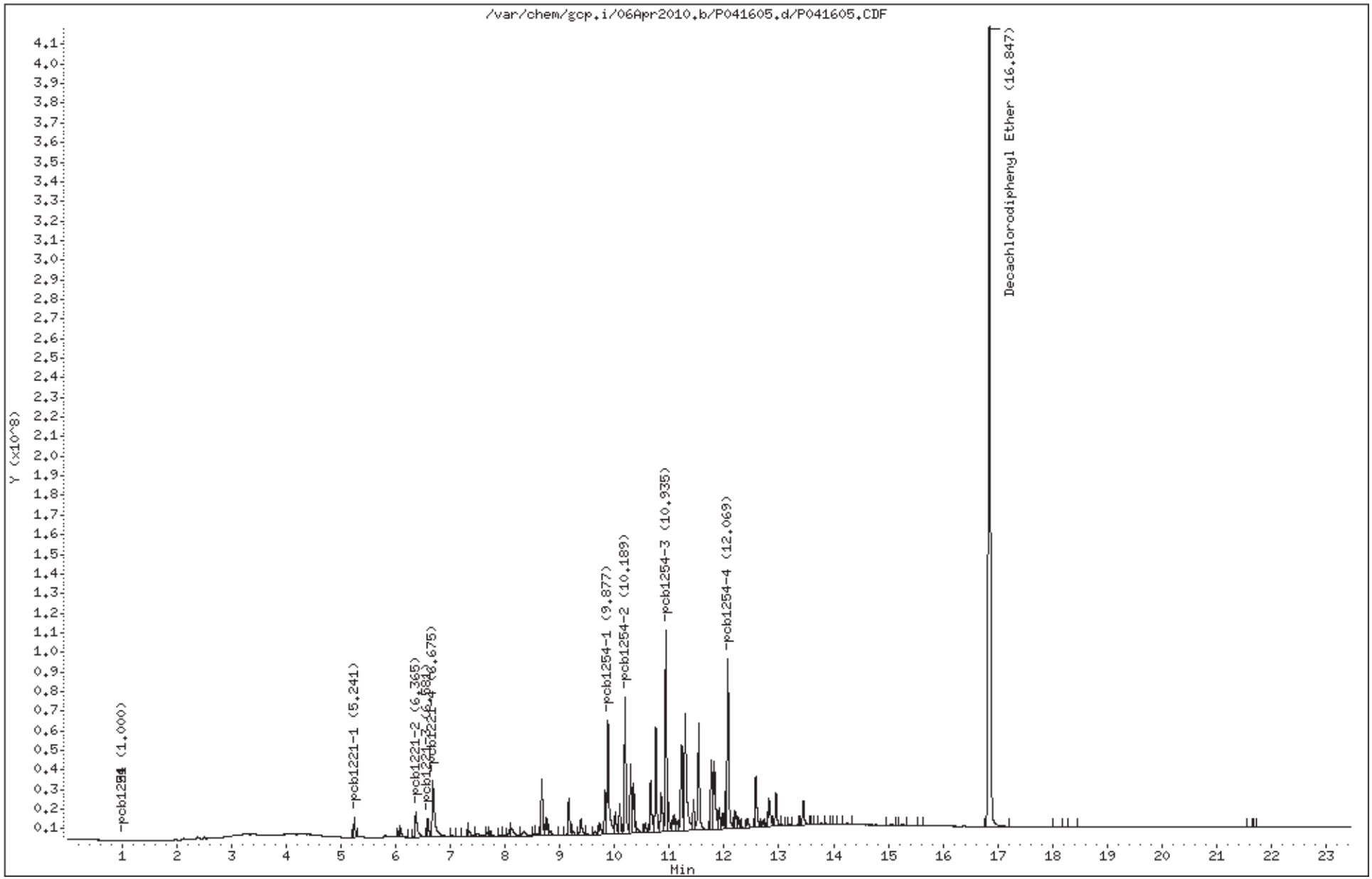
Instrument: gcp.i

Sample Info: 1869-49-5 pcb1221+1254

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040605.d
Lab Smp Id: 1869-46-1
Inj Date : 06-APR-2010 19:31
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 19:31 Cal File: P040605.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.925	5.922	(0.352)	2400671547		0.20000	0.206
M	3 pcb1016/1242				1054320414		1.00000	0.761
	4 pcb1016/1242-1	7.317	7.312	(0.434)	238900858		1.00000	1.06
	5 pcb1016/1242-2	8.108	8.109	(0.481)	156521861		1.00000	0.302(M)
	6 pcb1016/1242-3	8.364	8.341	(0.496)	380731064		1.00000	0.998
	7 pcb1016/1242-4	9.168	9.164	(0.544)	278166631		1.00000	1.07
M	8 pcb1260				3455410070		1.00000	1.07
	9 pcb1260-1	11.231	11.230	(0.667)	599499372		1.00000	1.12
	10 pcb1260-2	11.543	11.540	(0.685)	818741846		1.00000	1.07
	11 pcb1260-3	12.611	12.611	(0.749)	617007377		1.00000	1.07
	12 pcb1260-4	12.951	12.949	(0.769)	1420161475		1.00000	1.04
$	38 DCB	15.230	15.232	(0.904)	2134799774		0.20000	0.209
*	39 Decachlorodiphenyl Ether	16.847	16.851	(1.000)	20436903056		2.00000	

QC Flag Legend

M - Compound response manually integrated.

Report Date: 24-Apr-2010 12:07

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040605.d
Lab Smp Id: 1869-46-1
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20436903056	-1.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040605.d

Date : 06-APR-2010 19:31

Client ID:

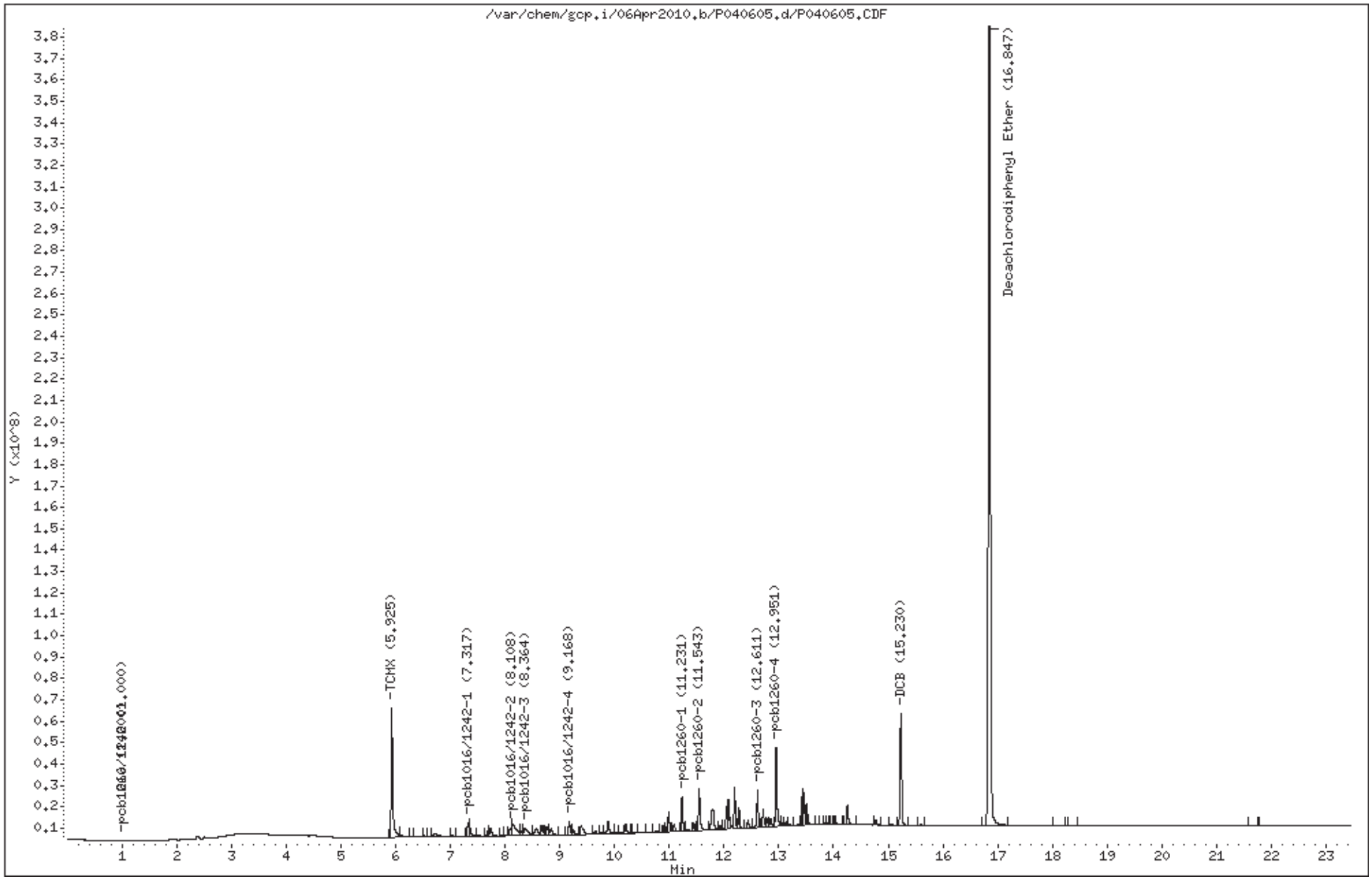
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040606.d
Lab Smp Id: 1869-46-3
Inj Date : 06-APR-2010 19:57
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 19:57 Cal File: P040606.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.923	5.922	(0.352)	7200506435		0.60000	0.623
M	3 pcb1016/1242				4706689944		3.00000	3.42
	4 pcb1016/1242-1	7.314	7.312	(0.434)	708193252		3.00000	3.17
	5 pcb1016/1242-2	8.116	8.109	(0.482)	1889155588		3.00000	3.68
	6 pcb1016/1242-3	8.346	8.341	(0.495)	1297249706		3.00000	3.42
	7 pcb1016/1242-4	9.164	9.164	(0.544)	812091398		3.00000	3.14
M	8 pcb1260				10001416338		3.00000	3.12
	9 pcb1260-1	11.230	11.230	(0.666)	1670712384		3.00000	3.16
	10 pcb1260-2	11.541	11.540	(0.685)	2368743469		3.00000	3.13
	11 pcb1260-3	12.610	12.611	(0.748)	1782161958		3.00000	3.12
	12 pcb1260-4	12.949	12.949	(0.768)	4179798527		3.00000	3.09
$	38 DCB	15.231	15.232	(0.904)	6186785641		0.60000	0.610
*	39 Decachlorodiphenyl Ether	16.850	16.851	(1.000)	20279167572		2.00000	

Report Date: 24-Apr-2010 12:07

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040606.d
Lab Smp Id: 1869-46-3
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20279167572	-1.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040606.d

Date : 06-APR-2010 19:57

Client ID:

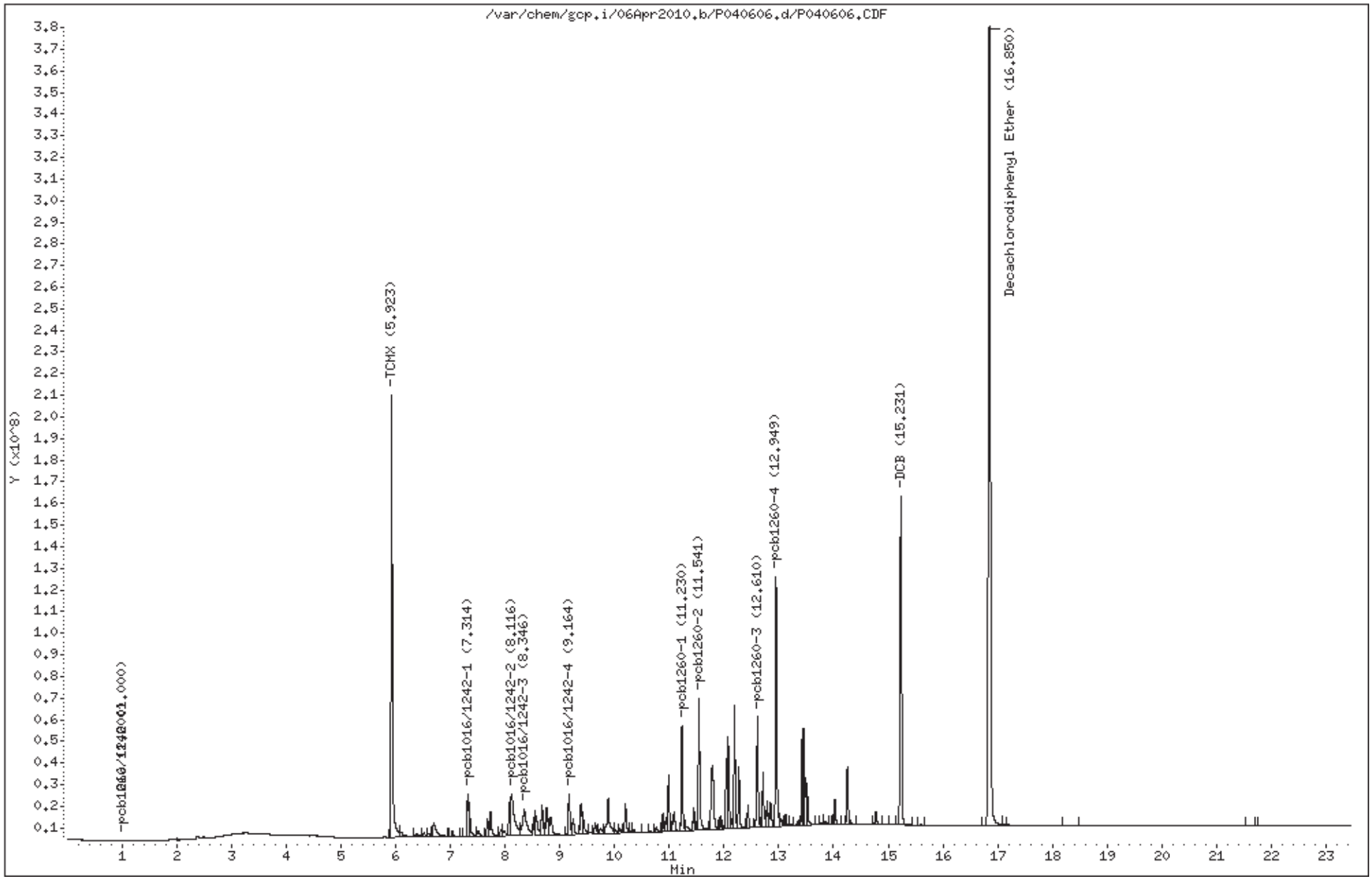
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P041604.d
Lab Smp Id: 1869-48-5 1221+1254
Inj Date : 16-APR-2010 18:19
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 16-Apr-2010 12:27 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1221+1254NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
M	13 pcb1221				2901748880	5.00000	5.00
	14 pcb1221-1	5.249	5.249	(0.311)	294207544	5.00000	5.00
	15 pcb1221-2	6.374	6.374	(0.378)	625308728	5.00000	5.00
	16 pcb1221-3	6.591	6.591	(0.391)	379222683	5.00000	5.00
	17 pcb1221-4	6.686	6.686	(0.397)	1603009925	5.00000	5.00
M	33 pcb1254				12549701137	5.00000	5.00
	34 pcb1254-1	9.889	9.889	(0.586)	2765884564	5.00000	5.00
	35 pcb1254-2	10.201	10.201	(0.605)	2734160091	5.00000	5.00
	36 pcb1254-3	10.946	10.946	(0.649)	3693136210	5.00000	5.00
	37 pcb1254-4	12.079	12.079	(0.716)	3356520271	5.00000	5.00
*	39 Decachlorodiphenyl Ether	16.862	16.862	(1.000)	20072844680	2.00000	

Report Date: 16-Apr-2010 12:27

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P041604.d
Lab Smp Id: 1869-48-5 1221+1254
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 16-APR-2010
Calibration Time: 18:19
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20072844680	10036422340	40145689361	20072844680	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.86	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P041604.d

Date : 16-APR-2010 18:19

Client ID:

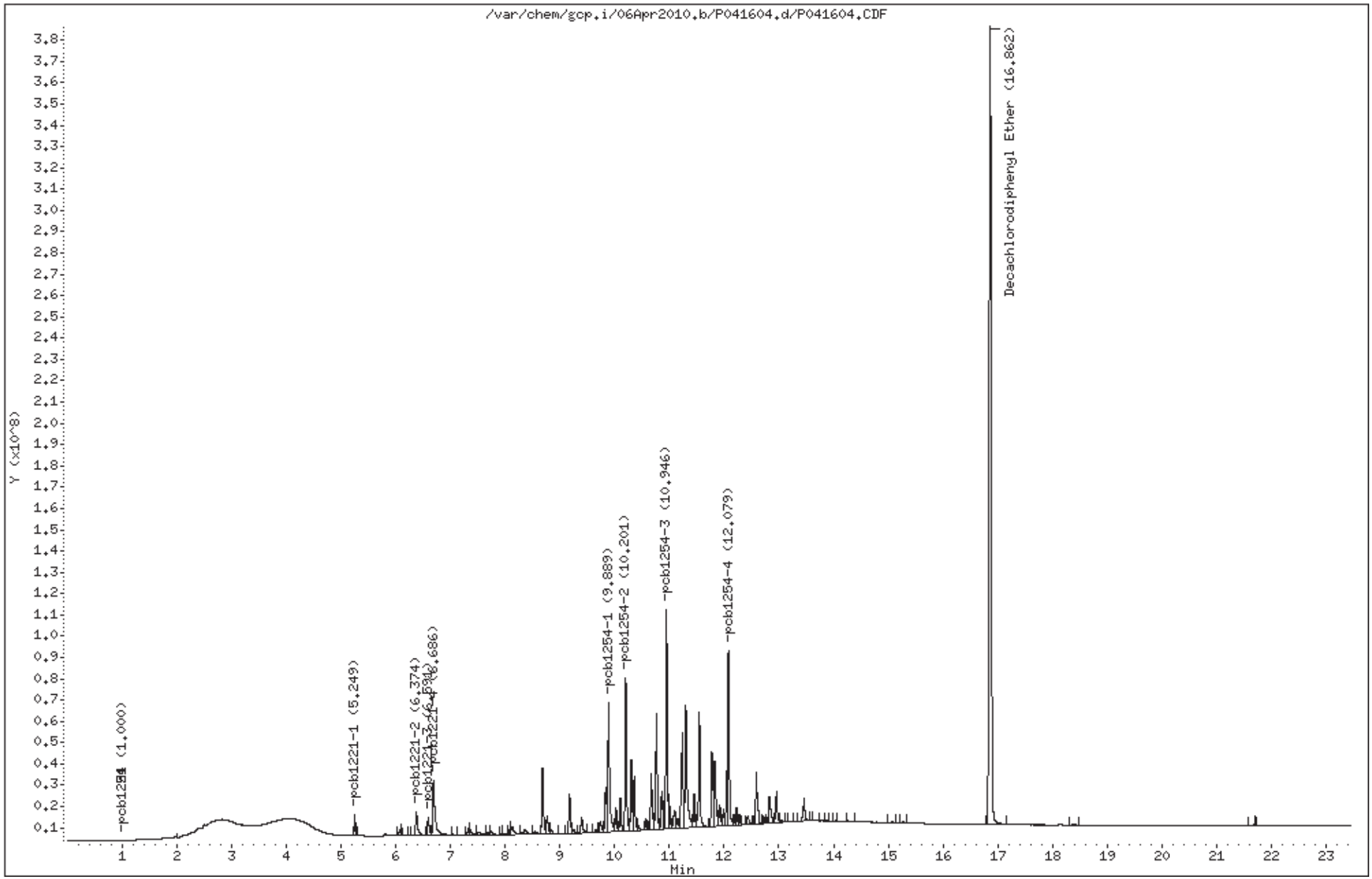
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/06Apr2010.b/P040615.d
Lab Smp Id: 1869-48-5 Client Smp ID: PCB 1232
Inj Date : 06-APR-2010 23:57
Operator : lz Inst ID: gcp.i
Smp Info : 1869-48-5 PCB 1232
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 15-Apr-2010 15:44 lzhang Quant Type: ISTD
Cal Date : 07-APR-2010 00:24 Cal File: P040616.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1232NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
M	18 pcb1232				1788702996	5.00000	5.00
	19 pcb1232-1	7.734	7.734	(0.459)	416877596	5.00000	5.00
	20 pcb1232-2	8.568	8.568	(0.508)	570281882	5.00000	5.00
	21 pcb1232-3	8.677	8.677	(0.515)	403716626	5.00000	5.00
	22 pcb1232-4	8.762	8.762	(0.520)	397826892	5.00000	5.00
*	39 Decachlorodiphenyl Ether	16.853	16.853	(1.000)	21349541892	2.00000	

Report Date: 15-Apr-2010 15:44

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040615.d
Lab Smp Id: 1869-48-5
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 23:57
Client Smp ID: PCB 1232
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21349541892	10674770946	42699083783	21349541892	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040615.d

Date : 06-APR-2010 23:57

Client ID: PCB 1232

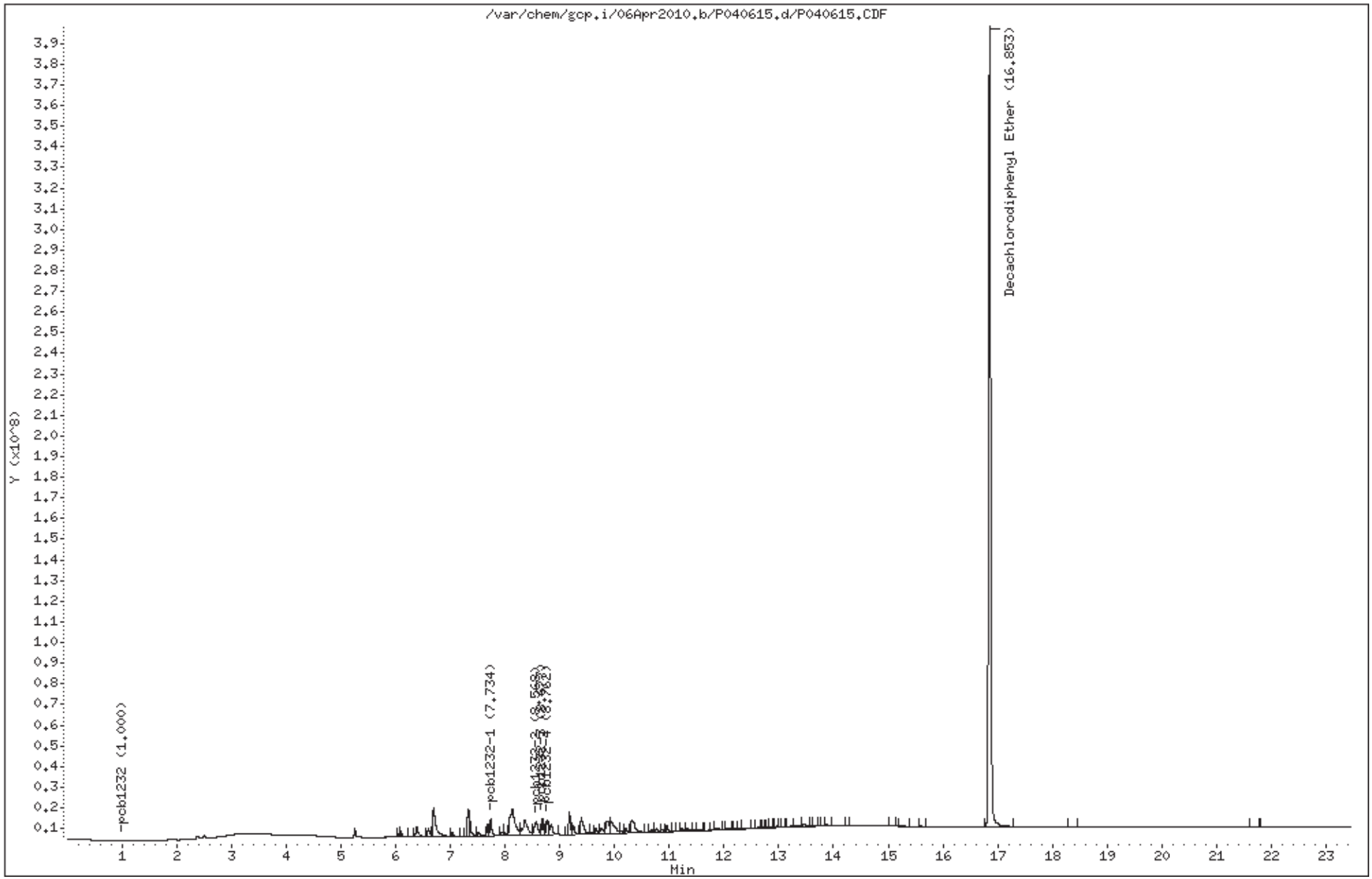
Instrument: gcp.i

Sample Info: 1869-48-5 PCB 1232

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/06Apr2010.b/P040614.d
Lab Smp Id: 1869-48-5 Client Smp ID: PCB 1248
Inj Date : 06-APR-2010 23:31
Operator : lz Inst ID: gcp.i
Smp Info : 1869-48-5 PCB 1248
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 15-Apr-2010 15:44 lzhang Quant Type: ISTD
Cal Date : 07-APR-2010 00:24 Cal File: P040616.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: 1248NS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
M	28 pcb1248				4220921995	5.00000	5.00
	29 pcb1248-1	8.832	8.832	(0.524)	1091178608	5.00000	5.00
	30 pcb1248-2	9.732	9.732	(0.578)	877879752	5.00000	5.00
	31 pcb1248-3	9.831	9.831	(0.583)	1511458312	5.00000	5.00
	32 pcb1248-4	10.760	10.760	(0.639)	740405323	5.00000	5.00
*	39 Decachlorodiphenyl Ether	16.850	16.850	(1.000)	21742424170	2.00000	

Report Date: 15-Apr-2010 15:44

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040614.d
Lab Smp Id: 1869-48-5
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 23:31
Client Smp ID: PCB 1248
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21742424170	10871212085	43484848340	21742424170	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040614.d

Date : 06-APR-2010 23:31

Client ID: PCB 1248

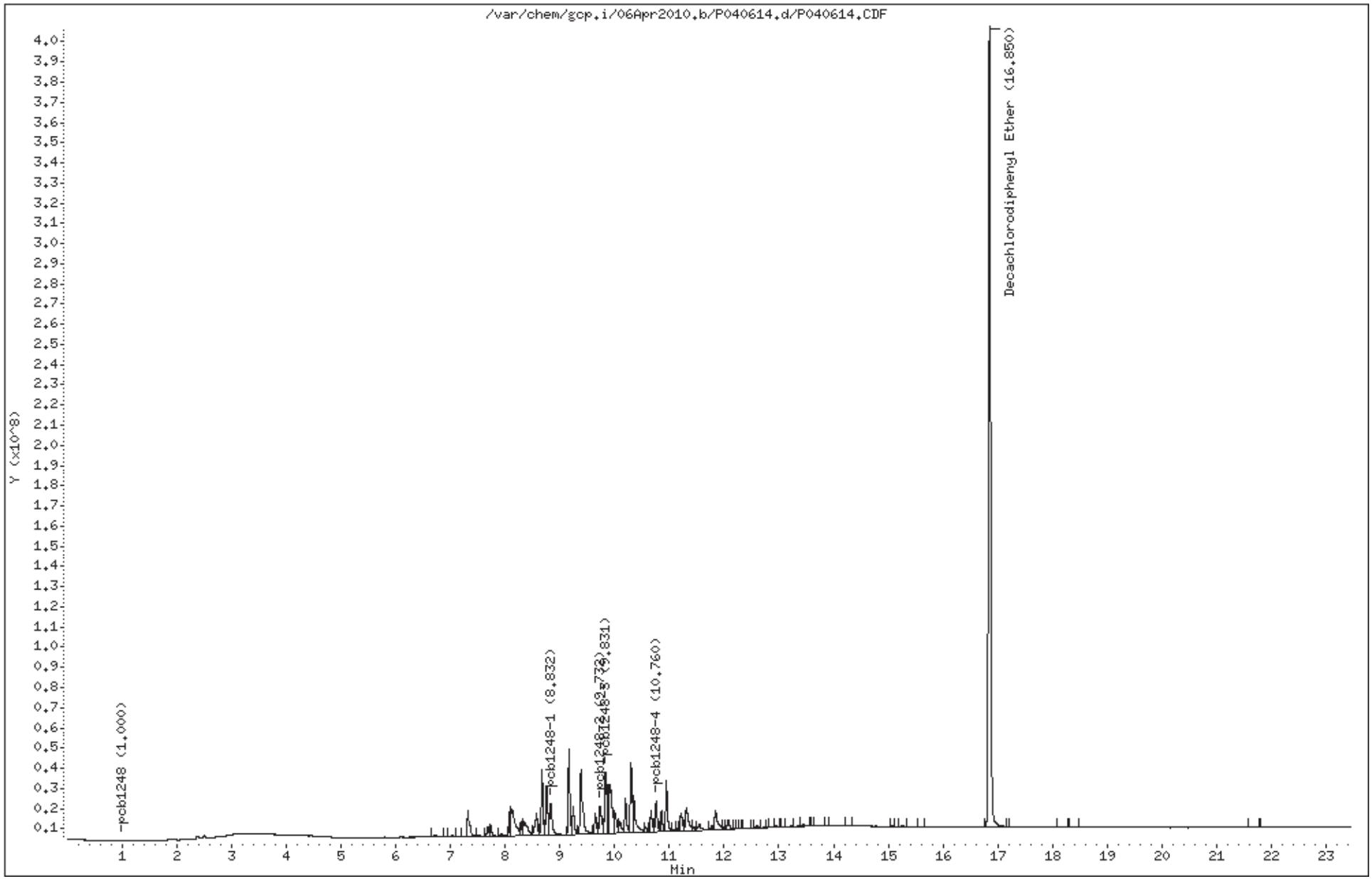
Instrument: gcp.i

Sample Info: 1869-48-5 PCB 1248

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040607.d
Lab Smp Id: 1869-46-5
Inj Date : 06-APR-2010 20:24
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:08 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.922	5.922	(0.351)	11778165738		1.00000	1.00
M	3 pcb1016/1242				7476704028		5.00000	5.34
	4 pcb1016/1242-1	7.312	7.312	(0.434)	1146420835		5.00000	5.03
	5 pcb1016/1242-2	8.109	8.109	(0.481)	3015567531		5.00000	5.76
	6 pcb1016/1242-3	8.341	8.341	(0.495)	1996708874		5.00000	5.18
	7 pcb1016/1242-4	9.164	9.164	(0.544)	1318006788		5.00000	5.00
M	8 pcb1260				16204943000		5.00000	4.95
	9 pcb1260-1	11.230	11.230	(0.666)	2679192253		5.00000	4.97
	10 pcb1260-2	11.540	11.540	(0.685)	3841543265		5.00000	4.98
	11 pcb1260-3	12.611	12.611	(0.748)	2874346253		5.00000	4.94
	12 pcb1260-4	12.949	12.949	(0.768)	6809861229		5.00000	4.94
$	38 DCB	15.232	15.232	(0.904)	10181037100		1.00000	0.986
*	39 Decachlorodiphenyl Ether	16.851	16.851	(1.000)	20660928253		2.00000	

Report Date: 24-Apr-2010 12:08

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040607.d
Lab Smp Id: 1869-46-5
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20660928253	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040607.d

Date : 06-APR-2010 20:24

Client ID:

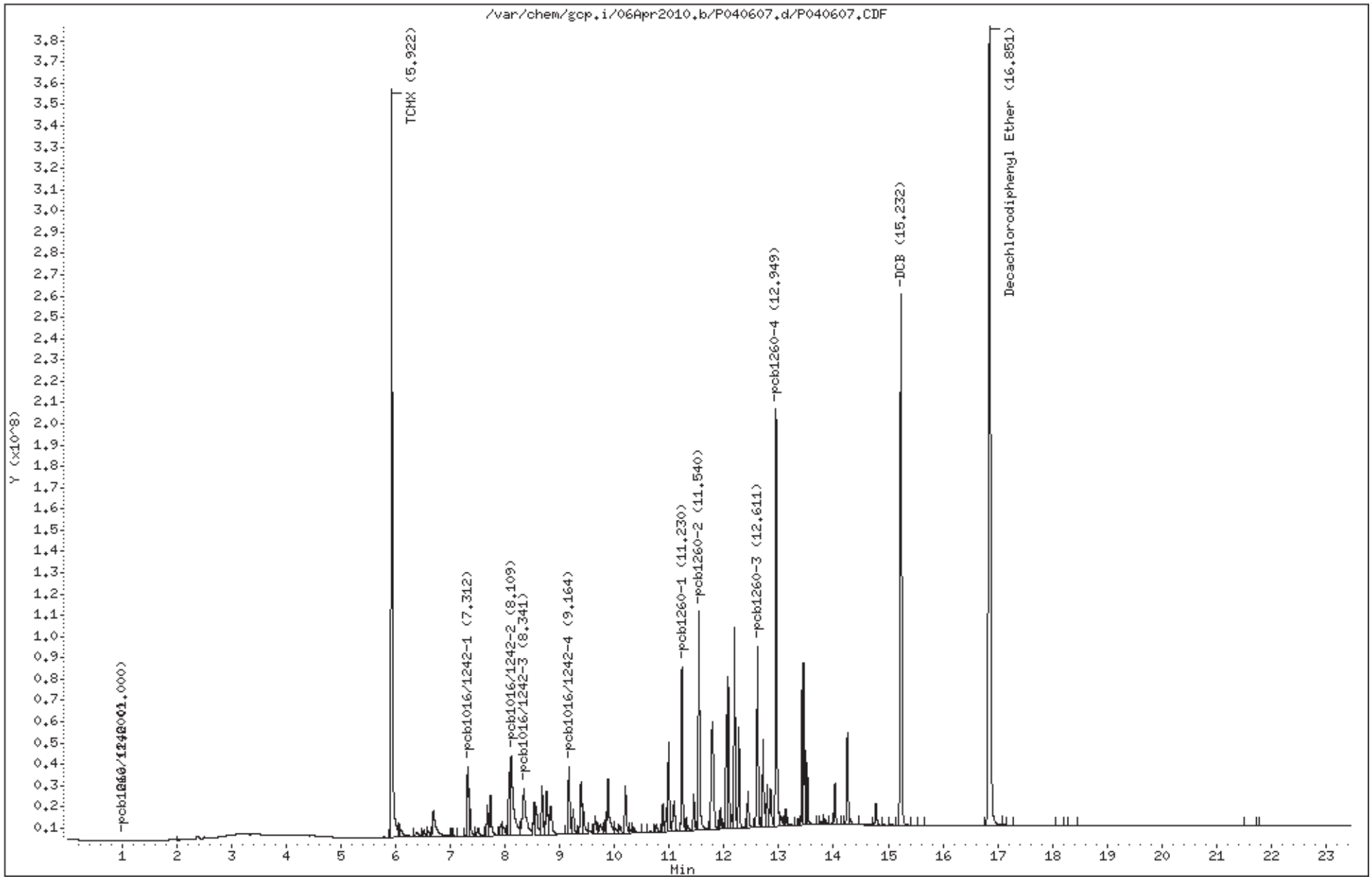
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040608.d
Lab Smp Id: 1869-46-8
Inj Date : 06-APR-2010 20:51
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 20:51 Cal File: P040608.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.922	5.922	(0.351)	18782112868		1.60000	1.59
M	3 pcb1016/1242				11640219091		8.00000	8.27
	4 pcb1016/1242-1	7.311	7.312	(0.434)	1810242632		8.00000	7.91
	5 pcb1016/1242-2	8.102	8.109	(0.481)	4667231860		8.00000	8.88
	6 pcb1016/1242-3	8.335	8.341	(0.495)	3075613897		8.00000	7.93
	7 pcb1016/1242-4	9.162	9.164	(0.544)	2087130703		8.00000	7.88
M	8 pcb1260				25858312267		8.00000	7.86
	9 pcb1260-1	11.229	11.230	(0.666)	4227950478		8.00000	7.80
	10 pcb1260-2	11.538	11.540	(0.685)	6095833953		8.00000	7.86
	11 pcb1260-3	12.610	12.611	(0.748)	4577528111		8.00000	7.82
	12 pcb1260-4	12.948	12.949	(0.768)	10956999725		8.00000	7.91
$	38 DCB	15.232	15.232	(0.904)	16443076761		1.60000	1.58
*	39 Decachlorodiphenyl Ether	16.851	16.851	(1.000)	20768043357		2.00000	

Report Date: 24-Apr-2010 12:07

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040608.d
Lab Smp Id: 1869-46-8
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20768043357	0.52

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040608.d

Date : 06-APR-2010 20:51

Client ID:

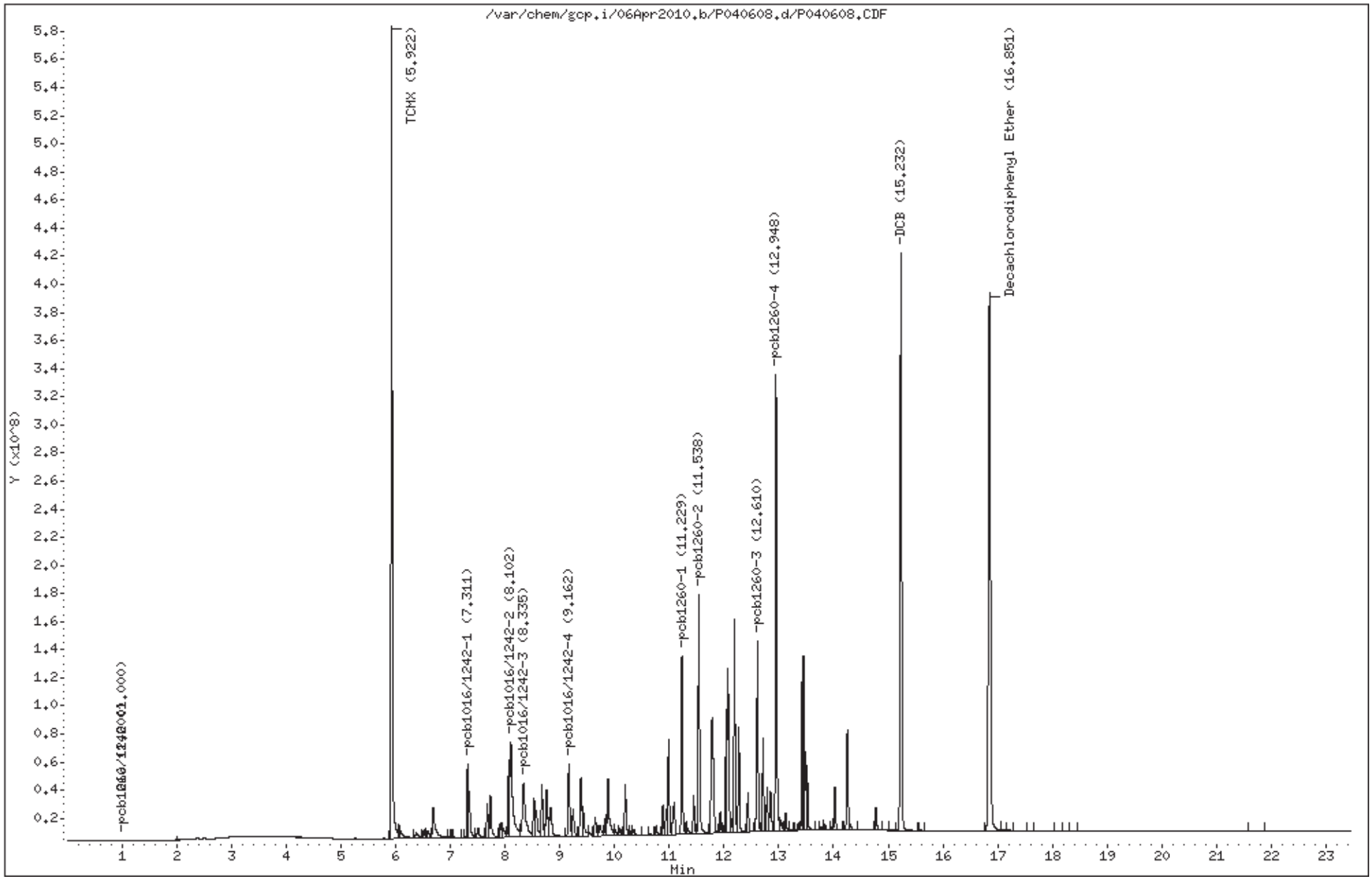
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040609.d
Lab Smp Id: 1869-46-10
Inj Date : 06-APR-2010 21:17
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 21:17 Cal File: P040609.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.921	5.922	(0.351)	23023742462		2.00000	1.95
M	3 pcb1016/1242				14052059713		10.0000	10.0
	4 pcb1016/1242-1	7.310	7.312	(0.434)	2196922638		10.0000	9.64
	5 pcb1016/1242-2	8.100	8.109	(0.481)	5640789037		10.0000	10.8
	6 pcb1016/1242-3	8.334	8.341	(0.495)	3673998122		10.0000	9.52
	7 pcb1016/1242-4	9.161	9.164	(0.544)	2540349916		10.0000	9.64
M	8 pcb1260				31743377538		10.0000	9.70
	9 pcb1260-1	11.228	11.230	(0.666)	5142530814		10.0000	9.53
	10 pcb1260-2	11.538	11.540	(0.685)	7475424333		10.0000	9.68
	11 pcb1260-3	12.610	12.611	(0.748)	5645026367		10.0000	9.69
	12 pcb1260-4	12.947	12.949	(0.768)	13480396025		10.0000	9.78
$	38 DCB	15.231	15.232	(0.904)	20279649368		2.00000	1.96
*	39 Decachlorodiphenyl Ether	16.849	16.851	(1.000)	20672544345		2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040609.d
Lab Smp Id: 1869-46-10
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20672544345	0.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040609.d

Date : 06-APR-2010 21:17

Client ID:

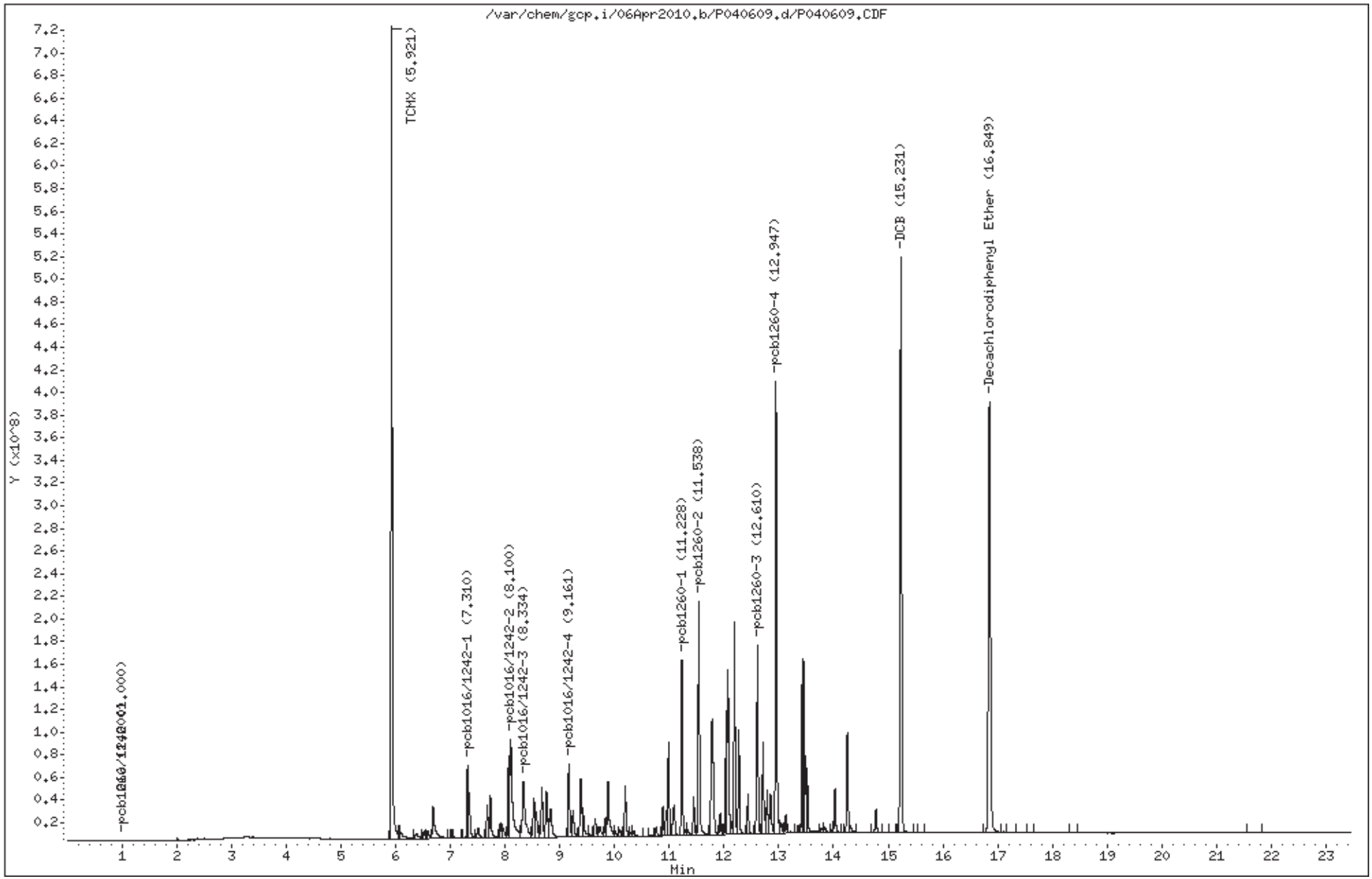
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040610.d
Lab Smp Id: 1869-46-12
Inj Date : 06-APR-2010 21:44
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 21:44 Cal File: P040610.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.921	5.922	(0.351)	28119220893		2.40000	2.39
M	3 pcb1016/1242				17107091870		12.0000	12.2
	4 pcb1016/1242-1	7.311	7.312	(0.434)	2683093102		12.0000	11.8
	5 pcb1016/1242-2	8.098	8.109	(0.481)	6860854666		12.0000	13.1
	6 pcb1016/1242-3	8.333	8.341	(0.494)	4461217152		12.0000	11.6
	7 pcb1016/1242-4	9.161	9.164	(0.544)	3101926951		12.0000	11.8
M	8 pcb1260				38847468508		12.0000	11.9
	9 pcb1260-1	11.228	11.230	(0.666)	6273131233		12.0000	11.6
	10 pcb1260-2	11.538	11.540	(0.685)	9131933039		12.0000	11.8
	11 pcb1260-3	12.609	12.611	(0.748)	6923565864		12.0000	11.9
	12 pcb1260-4	12.947	12.949	(0.768)	16518838372		12.0000	12.0
$	38 DCB	15.232	15.232	(0.904)	24841802652		2.40000	2.41
*	39 Decachlorodiphenyl Ether	16.850	16.851	(1.000)	20655952890		2.00000	

Report Date: 24-Apr-2010 12:07

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040610.d
Lab Smp Id: 1869-46-12
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	20655952890	-0.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040610.d

Date : 06-APR-2010 21:44

Client ID:

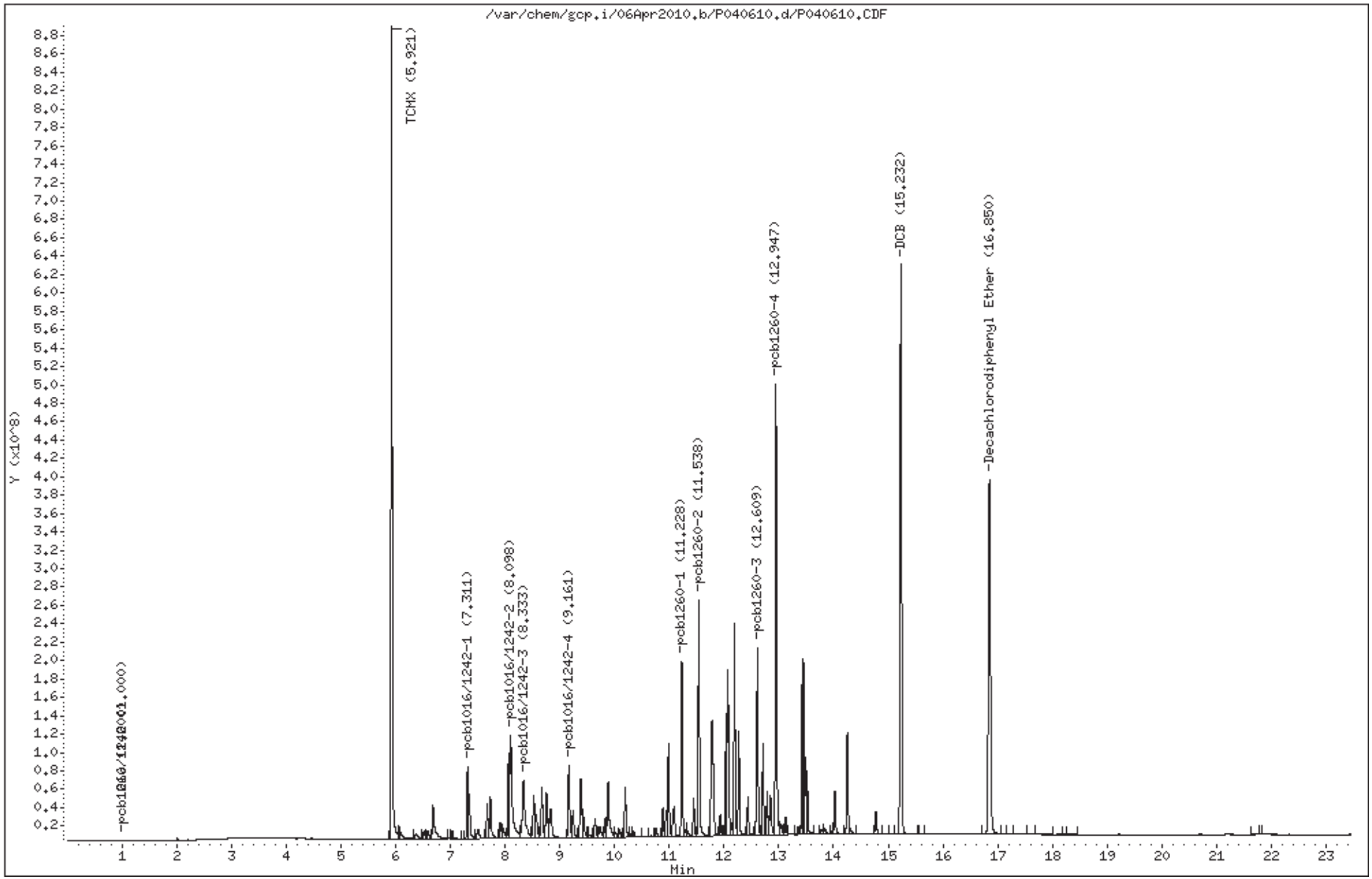
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

PCB analysis

Data file : /var/chem/gcp.i/06Apr2010.b/P040611.d
Lab Smp Id: 1869-46-15
Inj Date : 06-APR-2010 22:11
Operator : lz Inst ID: gcp.i
Smp Info :
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/06Apr2010.b/p10p0406.m
Meth Date : 24-Apr-2010 12:07 lzhang Quant Type: ISTD
Cal Date : 06-APR-2010 22:11 Cal File: P040611.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.921	5.922	(0.351)	35019363338		3.00000	2.90
M	3 pcb1016/1242				21000191751		15.0000	14.6
	4 pcb1016/1242-1	7.311	7.312	(0.434)	3300832963		15.0000	14.1
	5 pcb1016/1242-2	8.098	8.109	(0.481)	8366402110		15.0000	15.6(A)
	6 pcb1016/1242-3	8.332	8.341	(0.494)	5459589379		15.0000	13.8
	7 pcb1016/1242-4	9.162	9.164	(0.544)	3873367300		15.0000	14.3
M	8 pcb1260				48373973658		15.0000	14.4
	9 pcb1260-1	11.229	11.230	(0.666)	7770990353		15.0000	14.0
	10 pcb1260-2	11.538	11.540	(0.685)	11310219903		15.0000	14.3
	11 pcb1260-3	12.611	12.611	(0.748)	8620144264		15.0000	14.4
	12 pcb1260-4	12.948	12.949	(0.768)	20672619138		15.0000	14.6
$	38 DCB	15.233	15.232	(0.904)	31121488531		3.00000	2.93
*	39 Decachlorodiphenyl Ether	16.852	16.851	(1.000)	21214772534		2.00000	

QC Flag Legend

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

Report Date: 24-Apr-2010 12:07

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P040611.d
Lab Smp Id: 1869-46-15
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/06Apr2010.b/p10p0406.m
Misc Info: None

Calibration Date: 06-APR-2010
Calibration Time: 20:24
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	20660928253	10330464127	41321856506	21214772534	2.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.85	16.35	17.35	16.85	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcp.i/06Apr2010.b/P040611.d

Date : 06-APR-2010 22:11

Client ID:

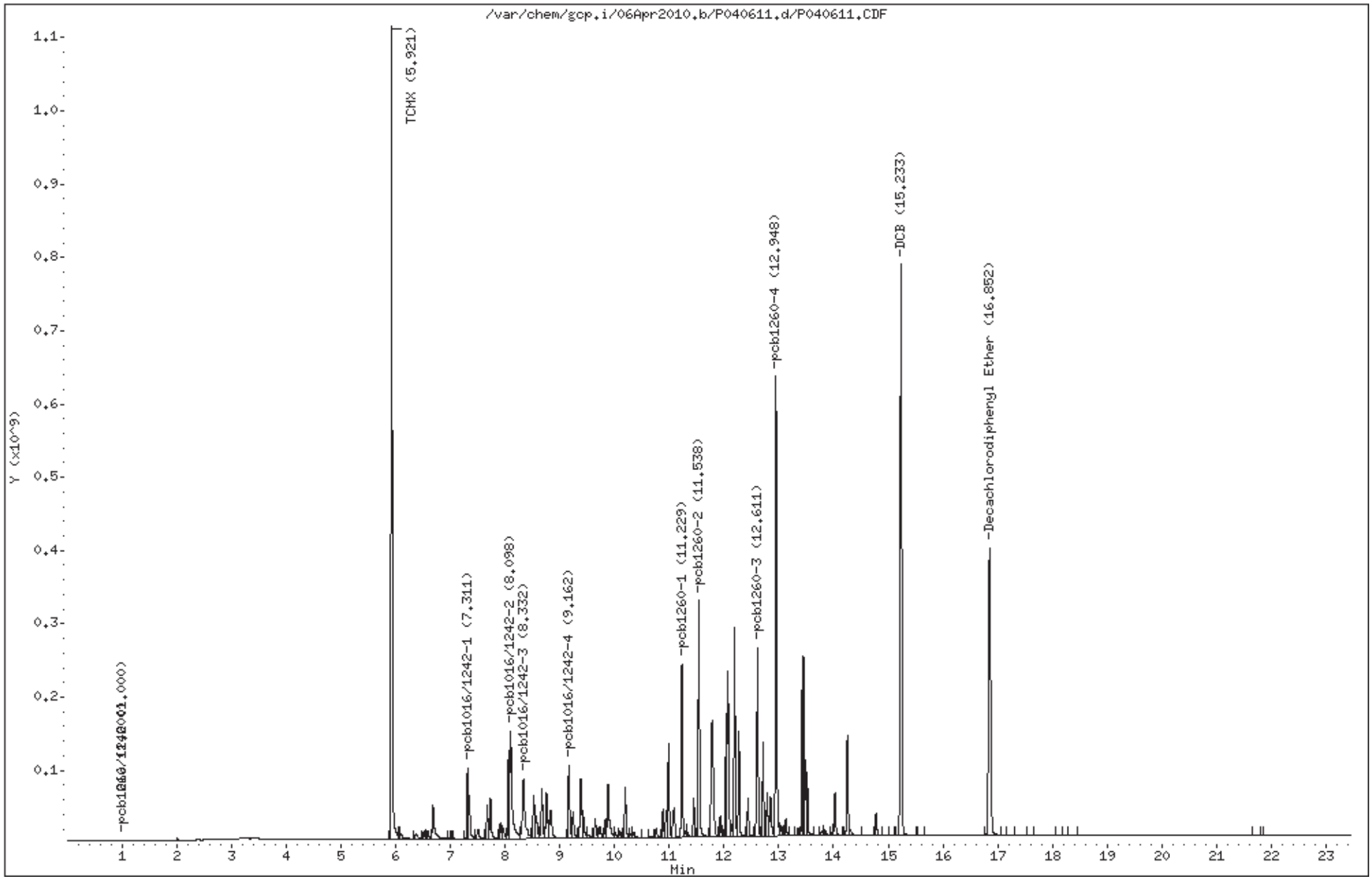
Instrument: gcp.i

Sample Info:

Operator: lz

Column phase:

Column diameter: 2.00



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcp.i Injection Date: 04-JUN-2010 01:12
Lab File ID: P060303.d Init. Cal. Date(s): 06-APR-2010 16-APR-2010
Analysis Type: AIR Init. Cal. Times: 19:31 18:19
Lab Sample ID: 1869-46-5 ppm Quant Type: ISTD
Method: /chem/gcp.i/03Jun2010.b/p10p0406.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF5	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
$ 2 TCMX	1.13964	1.24648	0.010	-9.37527	15.00000	Averaged
M 3 pcb1016/1242	0.13554	0.15333	0.010	-13.12636	15.00000	Averaged
4 pcb1016/1242-1	0.02204	0.02442	0.010	-10.80926	15.00000	Averaged
5 pcb1016/1242-2	0.05064	0.06160	0.010	-21.63657	15.00000	Averaged <-
6 pcb1016/1242-3	0.03735	0.03985	0.010	-6.70725	15.00000	Averaged
7 pcb1016/1242-4	0.02550	0.02745	0.010	-7.63007	15.00000	Averaged
M 8 pcb1260	0.31665	0.31361	0.010	0.95816	15.00000	Averaged
9 pcb1260-1	0.05222	0.05296	0.010	-1.41088	15.00000	Averaged
10 pcb1260-2	0.07469	0.07465	0.010	0.04936	15.00000	Averaged
11 pcb1260-3	0.05634	0.05520	0.010	2.02923	15.00000	Averaged
12 pcb1260-4	0.13339	0.13080	0.010	1.94214	15.00000	Averaged
$ 38 DCB	0.99970	0.96789	0.010	3.18271	15.00000	Averaged

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060303.d
Lab Smp Id: 1869-46-5 ppm Client Smp ID: CCV
Inj Date : 04-JUN-2010 01:12
Operator : lz Inst ID: gcp.i
Smp Info : 1869-46-5 ppm pcb1016/1260 CCV
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 03-Jun-2010 19:02 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							AMOUNTS	
							CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	2 TCMX	5.925	5.925	(0.351)	13667281130		1.00000	1.09
M	3 pcb1016/1242				8405837589		5.00000	5.66
	4 pcb1016/1242-1	7.317	7.317	(0.434)	1339053910		5.00000	5.54
	5 pcb1016/1242-2	8.109	8.109	(0.481)	3377134395		5.00000	6.08
	6 pcb1016/1242-3	8.342	8.342	(0.495)	2184905586		5.00000	5.34
	7 pcb1016/1242-4	9.169	9.169	(0.544)	1504743698		5.00000	5.38
M	8 pcb1260				17193338771		5.00000	4.95
	9 pcb1260-1	11.236	11.236	(0.666)	2903464543		5.00000	5.07
	10 pcb1260-2	11.545	11.545	(0.685)	4092787031		5.00000	5.00
	11 pcb1260-3	12.616	12.616	(0.748)	3026030511		5.00000	4.90
	12 pcb1260-4	12.954	12.954	(0.768)	7171056686		5.00000	4.90
$	38 DCB	15.241	15.241	(0.904)	10612532849		1.00000	0.968
*	39 Decachlorodiphenyl Ether	16.861	16.861	(1.000)	21929322917		2.00000	

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060303.d
Lab Smp Id: 1869-46-5 ppm
Analysis Type: VOA
Quant Type: ISTD
Operator: lz
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	21929322917	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.86	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/gcp.i/03Jun2010.b/P060303.d

Date : 04-JUN-2010 01:12

Client ID: CCV

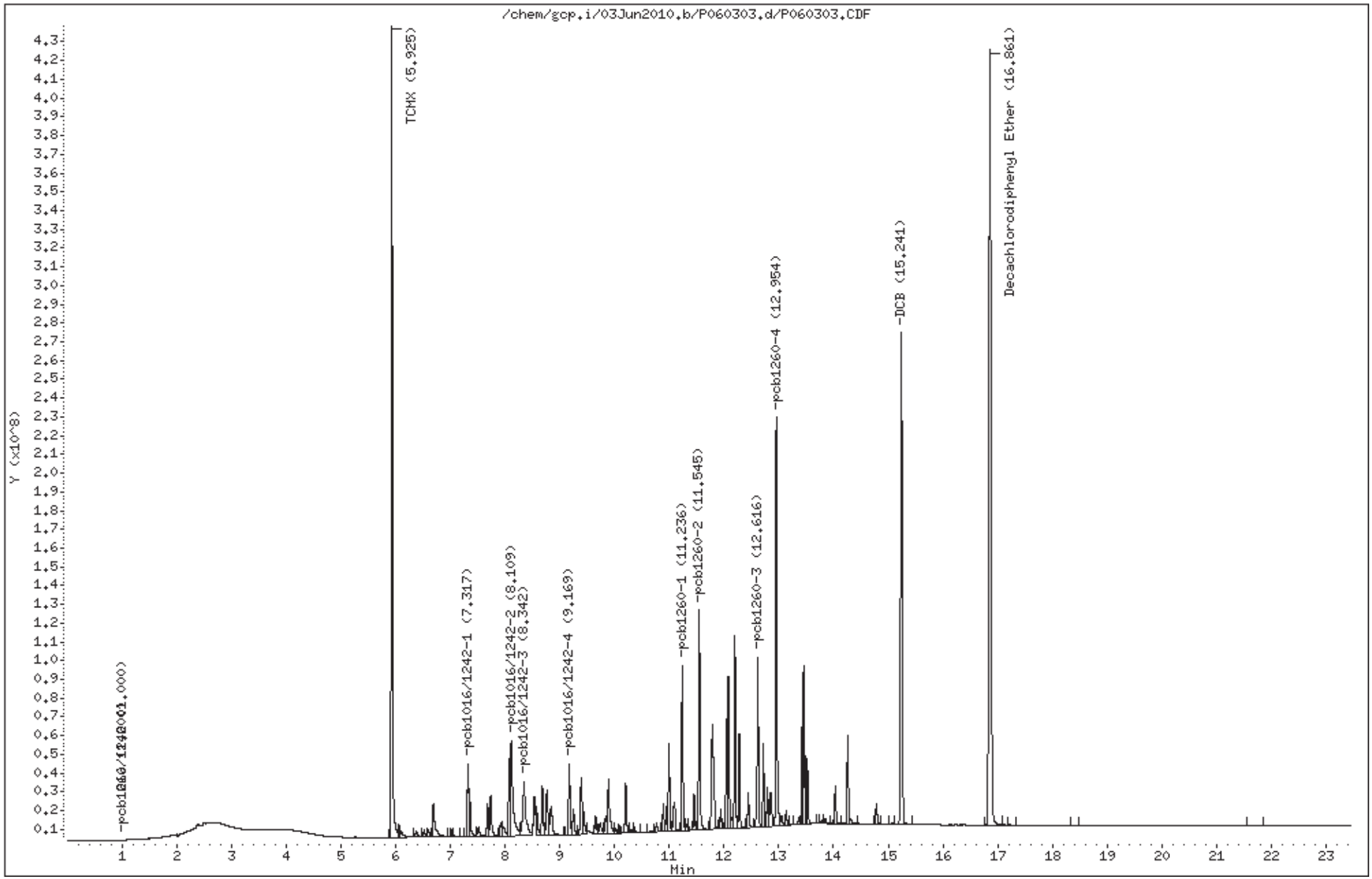
Sample Info: 1869-46-5 ppm pcb1016/1260 CCV

Column phase:

Instrument: gcp.i

Operator: lz

Column diameter: 2.00



Air Toxics Ltd.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1869-46-5 pcb
Sample Location:
Sample Date:
Sample Matrix: AIR
Analysis Type: VOA
Data Type: GC DATA
Misc Info: None

Client SDG: 03Jun2010
Client Smp ID: CCV
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: CRL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) uG	Q
9999-9999-098	pcb1016/1242	5.54	
----------	pcb1016/1242-1	5.40	
----------	pcb1016/1242-2	5.96	
----------	pcb1016/1242-3	5.27	
----------	pcb1016/1242-4	5.21	
11096-82-5	pcb1260	4.83	
----------	pcb1260-1	4.82	
----------	pcb1260-2	4.86	
----------	pcb1260-3	4.83	
----------	pcb1260-4	4.82	
877-09-8	TCMX	1.06	
2051-24-3	DCB	0.978	

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060313.d
Lab Smp Id: 1869-46-5 pcb Client Smp ID: CCV
Inj Date : 04-JUN-2010 10:40
Operator : CRL Inst ID: gcp.i
Smp Info : 1869-46-5 pcb1016/1260
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: CCV.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
Compounds		RT	EXP RT	REL RT	RESPONSE			
$	2 TCMX	5.919	5.925	(0.351)	15129531099		1.06492	1.06
M	3 pcb1016/1242				9356054420		5.53731	5.54
	4 pcb1016/1242-1	7.307	7.317	(0.434)	1484132136		5.40100	5.40
	5 pcb1016/1242-2	8.098	8.109	(0.481)	3763222441		5.96073	5.96(R)
	6 pcb1016/1242-3	8.332	8.342	(0.495)	2452229385		5.26679	5.27
	7 pcb1016/1242-4	9.157	9.169	(0.544)	1656470457		5.21049	5.21
M	8 pcb1260				19079092356		4.83325	4.83
	9 pcb1260-1	11.225	11.236	(0.666)	3136806263		4.81814	4.82
	10 pcb1260-2	11.535	11.545	(0.685)	4527597242		4.86248	4.86
	11 pcb1260-3	12.606	12.616	(0.748)	3389820472		4.82640	4.83
	12 pcb1260-4	12.944	12.954	(0.768)	8024868379		4.82570	4.82
$	38 DCB	15.227	15.241	(0.904)	12194162590		0.97845	0.978
*	39 Decachlorodiphenyl Ether	16.843	16.861	(1.000)	24932843548		2.00000	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060313.d
Lab Smp Id: 1869-46-5 pcb
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	24932843548	13.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1869-46-5 pcb Client Smp ID: CCV
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: METHSPIKE
SpikeList File: CCV10.spk Quant Type: ISTD
Sublist File: CCV.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	1.00	1.06	106.49	85-115
M	3 pcb1016/1242	5.00	5.54	110.75	85-115
	4 pcb1016/1242-1	5.00	5.40	108.02	85-115
	5 pcb1016/1242-2	5.00	5.96	119.21*	85-115
	6 pcb1016/1242-3	5.00	5.27	105.34	85-115
	7 pcb1016/1242-4	5.00	5.21	104.21	85-115
M	8 pcb1260	5.00	4.83	96.67	85-115
	9 pcb1260-1	5.00	4.82	96.36	85-115
	10 pcb1260-2	5.00	4.86	97.25	85-115
	11 pcb1260-3	5.00	4.83	96.53	85-115
	12 pcb1260-4	5.00	4.82	96.51	85-115
$	38 DCB	1.00	0.978	97.85	85-115

	SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	0.600	1.06	106.49	60-120
$	38 DCB	0.600	0.978	97.85	60-120

Data File: /chem/gcp.i/03Jun2010.b/P060313.d

Date : 04-JUN-2010 10:40

Client ID: CCV

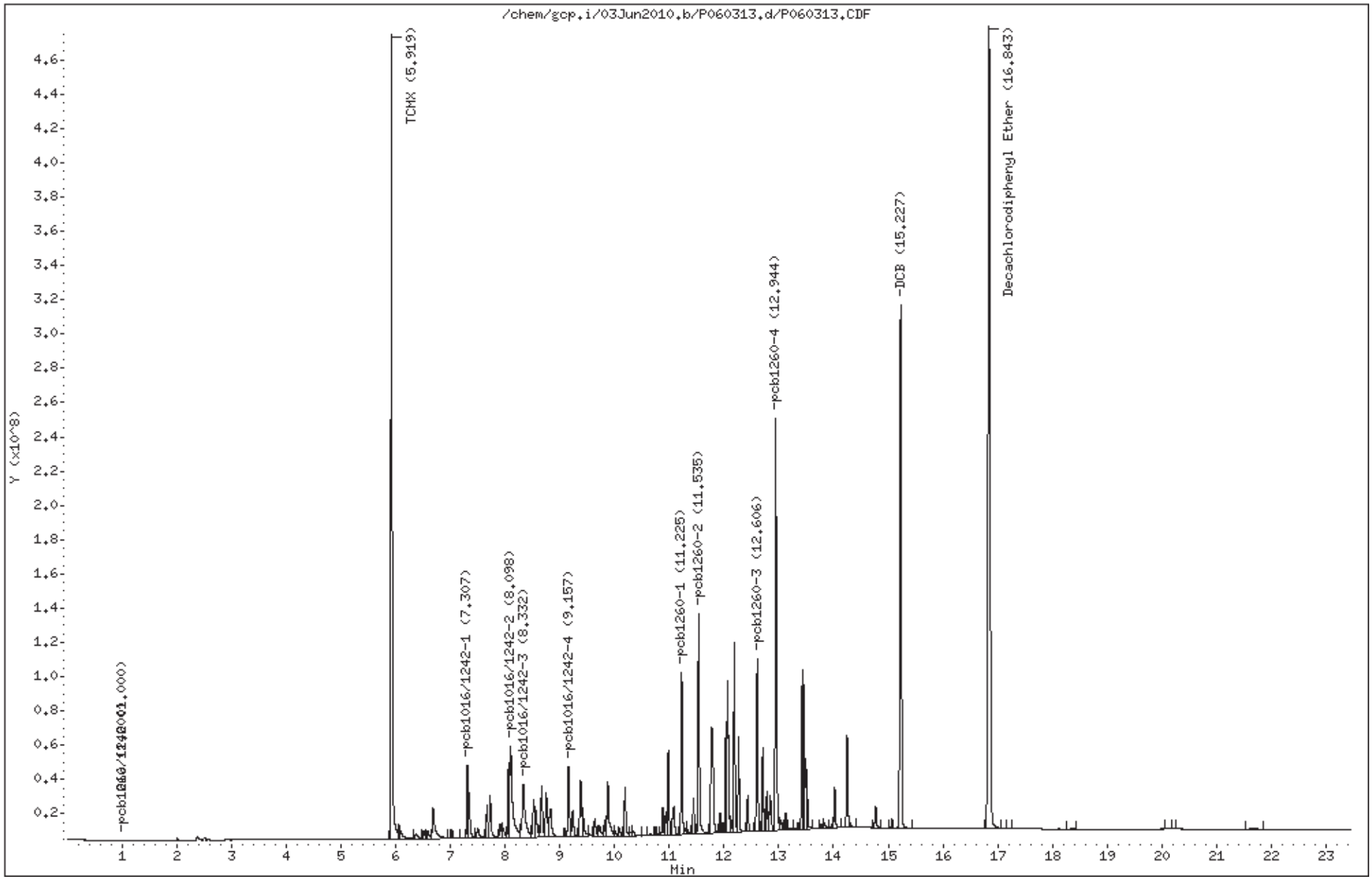
Sample Info: 1869-46-5 pcb1016/1260

Column phase:

Instrument: gcp.i

Operator: CRL

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS PUF/XAD

Lab ID#: 1005522C-09A

EPA METHOD TO-10A GC/ECD

File Name:	**P060306**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 12:33 AM**
		Date of Extraction: 5/26/10

Compound	%Recovery
Aroclor 1016/1242	92
Aroclor-1221	Not Spiked
Aroclor-1232	Not Spiked
Aroclor-1248	Not Spiked
Aroclor-1254	Not Spiked
Aroclor-1260	78

Air Sample Volume(L): 400
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	80	60-120
2,4,5,6-Tetrachloro-m-xylene	84	60-120

Report Date: 04-Jun-2010 11:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C Client Smp ID: LCS PUF/XAD
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: LCS
SpikeList File: LCS10.spk Quant Type: ISTD
Sublist File: LCS.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
M	3 pcb1016/1242	5.00	4.58	91.52	65-125
	4 pcb1016/1242-1	5.00	4.45	89.08	65-125
	5 pcb1016/1242-2	5.00	4.79	95.74	65-125
	6 pcb1016/1242-3	5.00	4.49	89.88	65-125
	7 pcb1016/1242-4	5.00	4.38	87.67	65-125
M	8 pcb1260	5.00	3.92	78.45	65-125
	9 pcb1260-1	5.00	3.85	77.00	65-125
	10 pcb1260-2	5.00	4.06	81.12	65-125
	11 pcb1260-3	5.00	4.03	80.64	65-125
	12 pcb1260-4	5.00	3.83	76.59	65-125

	SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	0.600	0.505	84.15	60-120
$	38 DCB	0.600	0.482	80.32	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060306.d
Lab Smp Id: 1005522C Client Smp ID: LCS PUF/XAD
Inj Date : 04-JUN-2010 07:33
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C LCS PUF/XAD
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: LCS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
Compounds		RT	EXP RT	REL RT	RESPONSE			
$	2 TCMX	5.916	5.925	(0.351)	6114134623		0.50489	0.505
M	3 pcb1016/1242				6590751497		4.57624	4.58
	4 pcb1016/1242-1	7.304	7.317	(0.434)	1043269015		4.45416	4.45
	5 pcb1016/1242-2	8.091	8.109	(0.480)	2576141993		4.78715	4.79
	6 pcb1016/1242-3	8.324	8.342	(0.494)	1783512946		4.49396	4.49
	7 pcb1016/1242-4	9.154	9.169	(0.543)	1187827541		4.38345	4.38
M	8 pcb1260				13197992664		3.92245	3.92
	9 pcb1260-1	11.223	11.236	(0.666)	2136553502		3.85011	3.85
	10 pcb1260-2	11.533	11.545	(0.685)	3219229931		4.05611	4.06
	11 pcb1260-3	12.605	12.616	(0.748)	2413735757		4.03185	4.03
	12 pcb1260-4	12.943	12.954	(0.768)	5428473475		3.82973	3.83
$	38 DCB	15.227	15.241	(0.904)	5119627295		0.48194	0.482
*	39 Decachlorodiphenyl Ether	16.843	16.861	(1.000)	21252203345		2.00000	

Report Date: 04-Jun-2010 11:05

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060306.d
Lab Smp Id: 1005522C
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: LCS PUF/XAD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	21252203345	-3.09

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.84	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/gcp.i/03Jun2010.b/P060306.d

Page 1

Date : 04-JUN-2010 07:33

Client ID: LCS PUF/XAD

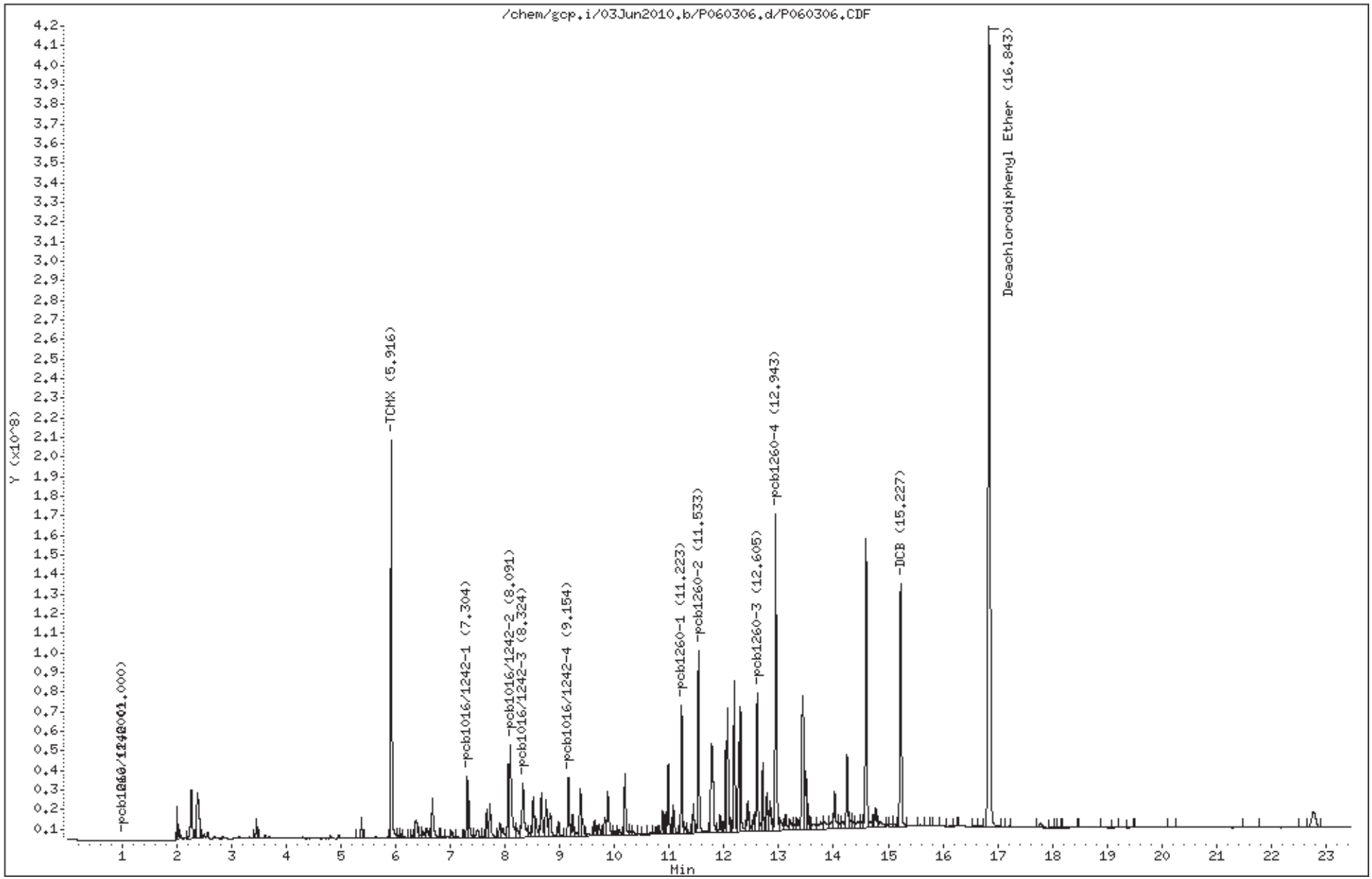
Instrument: gcp.i

Sample Info: 1005522C LCS PUF/XAD

Operator: CRL

Column phase:

Column diameter: 2.00



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS PUF

Lab ID#: 1005522C-09B

EPA METHOD TO-10A GC/ECD

File Name:	**P060305**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/4/10 12:07 AM**
		Date of Extraction: 5/26/10

Compound	%Recovery
Aroclor 1016/1242	96
Aroclor-1221	Not Spiked
Aroclor-1232	Not Spiked
Aroclor-1248	Not Spiked
Aroclor-1254	Not Spiked
Aroclor-1260	90

Air Sample Volume(L): 400

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Decachlorobiphenyl	81	60-120
2,4,5,6-Tetrachloro-m-xylene	87	60-120

Report Date: 04-Jun-2010 11:05

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2010
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005522C Client Smp ID: LCS PUF
Level: LOW Operator: CRL
Data Type: GC DATA SampleType: LCS
SpikeList File: LCS10.spk Quant Type: ISTD
Sublist File: LCS.sub
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

	SPIKE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
M	3 pcb1016/1242	5.00	4.82	96.44	65-125
	4 pcb1016/1242-1	5.00	4.76	95.28	65-125
	5 pcb1016/1242-2	5.00	5.07	101.45	65-125
	6 pcb1016/1242-3	5.00	4.66	93.14	65-125
	7 pcb1016/1242-4	5.00	4.62	92.34	65-125
M	8 pcb1260	5.00	4.50	90.05	65-125
	9 pcb1260-1	5.00	4.62	92.35	65-125
	10 pcb1260-2	5.00	4.47	89.33	65-125
	11 pcb1260-3	5.00	5.10	101.94	65-125
	12 pcb1260-4	5.00	4.23	84.53	65-125

	SURROGATE COMPOUND	CONC ADDED uG	CONC RECOVERED uG	% RECOVERED	LIMITS
$	2 TCMX	0.600	0.523	87.22	60-120
$	38 DCB	0.600	0.488	81.41	60-120

Air Toxics Ltd.

PCB analysis

Data file : /chem/gcp.i/03Jun2010.b/P060305.d
Lab Smp Id: 1005522C Client Smp ID: LCS PUF
Inj Date : 04-JUN-2010 07:07
Operator : CRL Inst ID: gcp.i
Smp Info : 1005522C LCS PUF
Misc Info : None
Comment : Rtx-CLPesticide II
Method : /chem/gcp.i/03Jun2010.b/p10p0406.m
Meth Date : 04-Jun-2010 10:59 lzhang Quant Type: ISTD
Cal Date : 16-APR-2010 18:19 Cal File: P041604.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: LCS.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * *vf/vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
vf	1.00000	Final extract volume(mL)
vi	1.00000	Initial sample volume(L)

Cpnd Variable Local Compound Variable

							CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (uG)
Compounds		RT	EXP RT	REL RT	RESPONSE			
$	2 TCMX	5.925	5.925	(0.351)	5766810112		0.52335	0.523
M	3 pcb1016/1242				6319129461		4.82198	4.82
	4 pcb1016/1242-1	7.316	7.317	(0.434)	1015308799		4.76389	4.76
	5 pcb1016/1242-2	8.104	8.109	(0.481)	2483751523		5.07235	5.07
	6 pcb1016/1242-3	8.336	8.342	(0.494)	1681698403		4.65688	4.66
	7 pcb1016/1242-4	9.168	9.169	(0.544)	1138370734		4.61679	4.62
M	8 pcb1260				13784814641		4.50241	4.50
	9 pcb1260-1	11.236	11.236	(0.666)	2331540987		4.61739	4.62
	10 pcb1260-2	11.545	11.545	(0.685)	3225513717		4.46633	4.47
	11 pcb1260-3	12.617	12.616	(0.748)	2776495767		5.09690	5.10
	12 pcb1260-4	12.954	12.954	(0.768)	5451264170		4.22651	4.23
$	38 DCB	15.241	15.241	(0.904)	4721550672		0.48847	0.488
*	39 Decachlorodiphenyl Ether	16.863	16.861	(1.000)	19337916271		2.00000	

Report Date: 04-Jun-2010 11:05

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: gcp.i
Lab File ID: P060305.d
Lab Smp Id: 1005522C
Analysis Type: VOA
Quant Type: ISTD
Operator: CRL
Method File: /chem/gcp.i/03Jun2010.b/p10p0406.m
Misc Info: None

Calibration Date: 04-JUN-2010
Calibration Time: 01:12
Client Smp ID: LCS PUF
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	21929322917	10964661458	43858645833	19337916271	-11.82

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
39 Decachlorodipheny	16.86	16.36	17.36	16.86	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/gcp.i/03Jun2010.b/P060305.d

Date : 04-JUN-2010 07:07

Client ID: LCS PUF

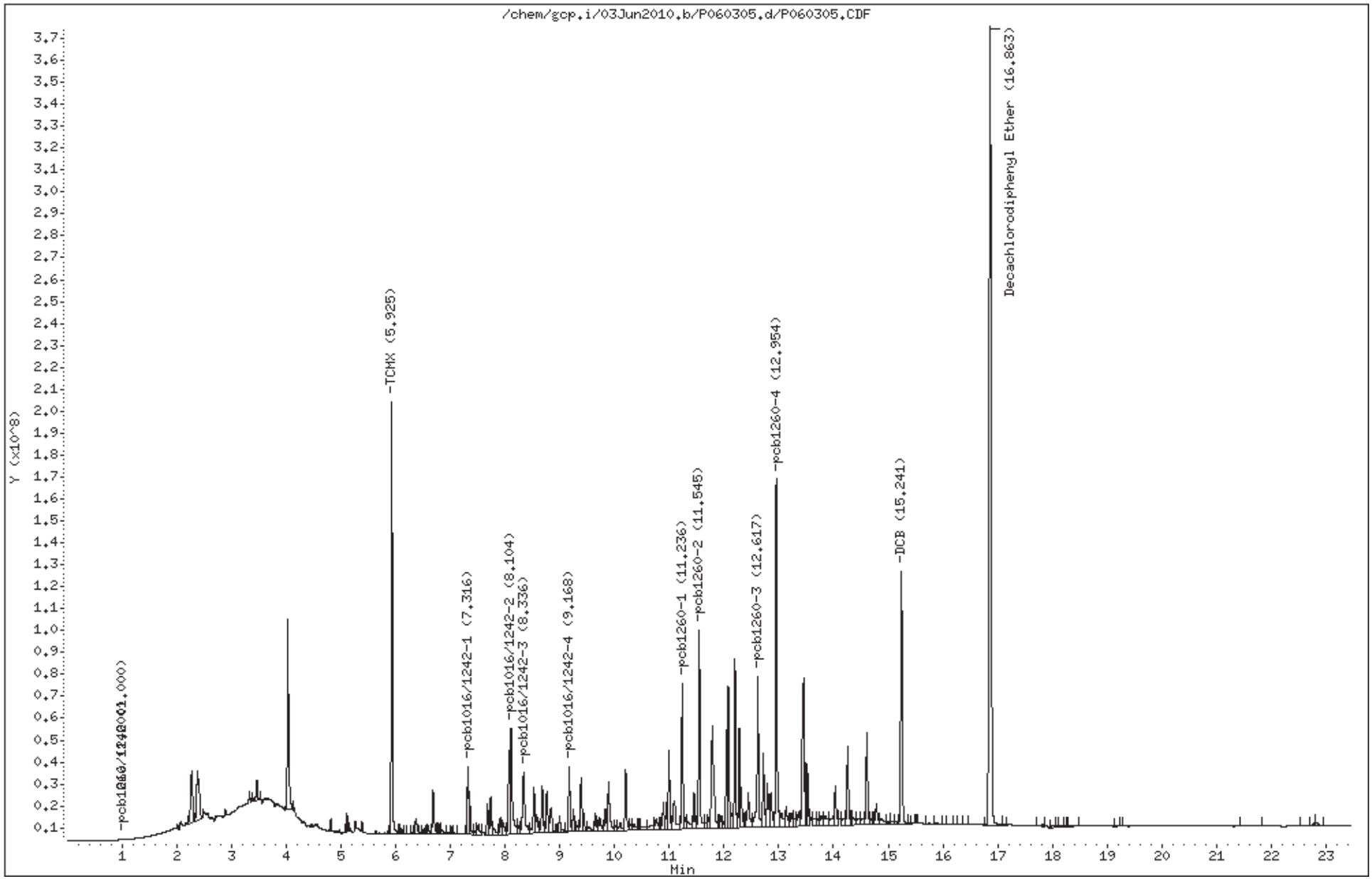
Instrument: gcp.i

Sample Info: 1005522C LCS PUF

Operator: CRL

Column phase:

Column diameter: 2.00



TO-4A/TO-10A ASE Extraction Logbook @Air Toxics Ltd. Logbook #: 1807

Date Extracted: 5/26/10
Set-up By: Fm
Spiked By: Fm
Spike Date: 5/26/10
Initial Solvent: Dichloromethane
Initial Solvent Lot#: DB252

Spike Witness: MJS
Date Witnessed: 5/26/10
☑ *Proj.Pr./COC checked* ☑ *Spike ID Verified*
☑ *Spike Amt. Verified* ☑ *Equipment checked*
☑ *Verified Media Certified*

Final Solvent: Hexane
Final Solvent Lot#: 094584
Concentrated By: GRL
Date Concentrated: 6/3/10

ATL Sample ID #	Clients I.D. #	Car. #	PUF / XAD/Filter Lot #	Surr. ID/Conc. (µg/mL)	Surr. Amt (mL)	LCS ID/Conc. (µg/mL)	LCS Amt (mL)	Fin. Vol. (mL)	Add acid Y/N
1005535-01A	1(Z) 052010	3	P100503	*All samples spiked with 0.250mL of →	981-82-2.4	NA	N/A	1.0	
-02A	2(I) 052010	↓	↓	↓	↓	↓	↓	↓	
BLK	NA	↓	P100503	↓	↓	↓	↓	↓	
PCB LCS	↓	↓	↓	↓	↓	981-83	0.25	↓	
Fm 5/26/10 1005522~~0~~-05A	D-1	↓	P100319/X100507	~~P100319/X100507~~	↓	NA	N/A	↓	N
-06A	D-10	↓	↓	↓	↓	↓	↓	↓	↓
-07A	Field blank-PCBs	↓	P100319	P100319	↓	↓	↓	↓	↓
-BLK	NA	↓	P100319/X100507	P100319/X100507	↓	↓	↓	↓	↓
PCB -LCS	↓	↓	↓	↓	↓	981-83	0.25	↓	↓
1005522 -BLK2	N/A	3	P100319	P100319	↓	NA	N/A	↓	↓
PCB -LCS2	↓	↓	↓	↓ GRL 6/3/10	↓	981-83	0.25	↓	↓

GRL 6/3/10

Comments: Samples 522-05A, 06A were puf/XAD vs normal TO-10, Puf only, and were spiked w/TO-13 Field surrogate 1698-93-100, Exp. 7/28/10 by Fm on 5/12/10. Since the field blank was normal TO-10 puf only so 2 sets of QCs will be set up. Fm 5/26/10

GRL 6/3/10

Signed: [signature] Date: 6/3/10

GC-P Instrument Run Log

@Air Toxics Ltd.

Logbook: 1766

156

Method: Mod. TO-4A/TO-10A

IS Std ID	IS	Area Counts		Breakdown %	
	1-Bromo-2-Nitrobenzene	Front:		Endrin	Front:
		Back:	li 6/4/10		Back:
1869-7A-50	Decafluorodiphenyl Ether	Front:	219293229 17	DDT	Front:
		Back:	153922 62269		Back: li 6/4/10
		Front:			
		Back:	li 6/4/10		must be ≤15%

Injection Volume: 1.0 µL

GMT

	USE	File #	Sample / Client Name	Vial #	Dil. Factor	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	P060303	1869-46-5ppm PCB 1016/1260	2	1.00	W	6/4/10	0112	li	
2	✓	4	Hexane Blank	3				0138		
3	✓	5	100522C-LCS	4				0707		PUF
4	✓	6	-LCS	5				0733		PUF/XAD
5	✓	7	-Lab BLK	6				0800		PUF
6	✓	8	-Lab BLK	7				0827		PUF/XAD
7	✓	9	-05A	8				0853		PUF/XAD
8	✓	10	-06A	9				0920		"
9	✓	11	-07A	10				0947		PUF
10	X	12	-07AA	10				1014		Not used Field BLK
11	✓	13	1869-46-5ppm PCB 1016/1260	2				1040		
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24							li 6/4/10			

Calculation Check: File ID: P060305 Compound: PCB 1016 Initials: li

nG On Column = Area of Compound in Sample / Area of Int. Standard in Sample × Conc. Int. Standard / ICAL RRF_{AVG} = (6319129461) / (193379162?1) × (2.0) / (0.13554) = 4.82

µG/Sample = nG On Column X 1000 µL Final Vol. × D.F. / 1.0 µL Inj. Vol. X 1000 nG/µG = (4.82) × (1000) × (1.00) / (1000) = 4.82

Reported Result = 4.82

Signed

6/4/10
Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. 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

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody 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 Chain of Custody (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

Revised COC
5-27-10

SORBENT SAMPLE COLLECTION

Air Toxics LTD.
CHAIN-OF-CUSTODY RECORD

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

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl. #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar Kronquist

Turn Around Time:
☒ Normal
☐ Rush
specify

Circle Reporting Units:
ppbv ppmv (ug/m³) mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
05A	D-1	—	5-19-10	1337	1737	4 hr	383.04L	EPA ~~TO-15~~ TO-10A
06A	D-10	—		1337	1737	4 hr	377.52L	EPA ~~TO-15~~ TO-10A
07A	Field Blank - PCBs	—		1922	2022	1 hr	-0-	EPA ~~TO-15~~ TO-10A
~~08A~~	D-1	—		1456	1756	3 hr	20.7L	Method 71
09A	D-10	—		1456	1756	3 hr	20.7L	Method 71
10A	FB - Siloxane	—		1952	2022	0.5 hr	-0-	HOLD

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	5-20-10/1600	Monica Gregson ATL	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
			5/21/10 8:50
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:
Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005522

SORBENT SAMPLE COLLECTION

@Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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.

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Project Manager: Melissa Kleven
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Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl. #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0401
Project Name: Heglar Kronquist

Turn Around Time:
☒ Normal
☐ Rush
specify

Circle Reporting Units:
ppbv ppmv (ug/m³) mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
05A	D-1	—	5-19-10	1337	1737	4 hr	360 L	EPA ~~TO-15~~ TO-10A
06A	D-10	—		1337	1737	4 hr	360 L	EPA ~~TO-15~~ TO-10A
07A	Field Blank - PCBs	—		1922	2022	1 hr	0	EPA ~~TO-15~~ TO-10A
~~08A~~	D-1	—		1456	1756	3 hr	20.7L	Method 71
09A	D-10	—		1456	1756	3 hr	20.7L	Method 71
~~10A~~	FB - Siloxane	—	↓	1952	2022	1 hr	0	HOLD
MJ 5/21/10								

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.20-10/1600	Monica Gregsen ATL	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time 5/21/10 8:50
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:
Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex.		NA	Good	(Yes) No None	1005522

PRINTED KL 5/27/2010

Karen Lopez

From: Melissa Kleven [mkleven@exponent.com]
Sent: Thursday, May 27, 2010 10:52 AM
To: Karen Lopez
Cc: Keri Whetter
Subject: RE: Corrections to Log-In

Hi Karen

Answers in blue below. This should allow you to get started on the analyses. We are working on corrected COCs and they will be sent today as soon as they are done.

Thanks
Melissa

Also, please note the following:

- "D-" samples are downhole samples (in dross borehole cut into landfill)
- "GV" samples are downhole samples (down landfill gas vent pipe)
- "AOS" and "ALF" samples are ambient samples

Work Order #1005453A:

- Note corrected final Siloxane volumes:
  - GV-1: 20.70 L
  - GV-6: 20.815 L
  - GV-7: 20.70 L
  - GV-9: 20.70 L
  - GV-10: 20.70 L
  - GV-11: 20.70 L
  - GV-12: 20.70 L
  - GV-13: 20.70 L
  - ALF-1: 20.70 L
  - ALF-2: 20.70 L
  - ALF-3: 20.70 L
  - ALF-4: 20.70 L
  - ALF-5: 21.16 L
  - AOS-1: 20.70 L
  - AOS-2: 20.70 L
  - AOS-3: 20.70 L

From: Karen Lopez [mailto:klopez@airtoxics.com]
Sent: Thursday, May 27, 2010 9:18 AM
To: Keri Whetter
Cc: 'Phua Penney'; Melissa Kleven
Subject: RE: Corrections to Log-In

Hi Keri,

Thank you for the list of corrections for WO#'s 1005522A and 1005453A. Per our SOP, we would prefer that you provide a revised COC, however, if this is not possible, we will accept the email below as formal documentation for your requested changes to these two work orders.

Before we proceed with the requested changes, I have a some questions. Please see my comments below in red.

Work Order #1005522A:

- Sample Field Blank (Lab Sample #11A) needs to be deleted. This was a Summa that was labeled, but was never used. Sorry for the confusion. – Please confirm that you do not want analysis for Lab Sample #11A. **Yes – Please delete this from the log-in. This was an extra summa that was not used on our project but was sent back.**
- Summas - The field notes indicate that D-1 and D-10 end times for the Summa canisters are 14:53, is this the same end time noted on the tags? If not, please let me know.
  - D-1 - The end time noted on the tag is 14:23, however, a time of 14:53 was originally documented, but was lined out. Which end time should we use? **Start time is 14:23 and end time is 14:53.**
  - D-10 – The end time noted on the tag is 14:23. This matches the end time documented on the COC. **Start time is 14:23 and end time is 14:53.**
- **D-1 and D-10 are down hole samples.**
- **PCBs, D-1: Final volume is 383.04 L**
- **PCBs, D-10: Final volume is 377.52 L**

Work Order #1005453A:

- Does the information on the Summa tag for Sample AOS-3 match the information noted on the COC? Yes, the Summa tag for Sample AOS-3 matches the information noted on the COC.
- Summas – Sample GV-10 (Lab Sample 02A), initial canister pressure is listed as 29.1 in the field notes, does this correspond to the Summa tag? The initial pressure listed on the Summa tag is 29.0"Hg. Which initial canister pressure should we use? **Initial canister pressure is 29.1"Hg.**
- Summas – Sample GV-12 (Lab Sample 04A), initial canister pressure is listed as 28.7 in the field notes and the canister # is noted as #2416, does this correspond to the Summa tag? The canister number for Sample GV-12 tag is 1330. The following information was also on the Summa tag: initial canister vacuum is 29.0" Hg, Final Vacuum 14" Hg@ 23:00 5/15/10/KW. **We need to find 2416. It had an initial pressure of 28.7"Hg and ending of 8"Hg. Please keep 1330 and hold in case we cannot locate 2416.**
- PCBs - Did you find the PCB samples, GV-9, GV-10 and PCB Trip Blank? Per my discussion with Melissa Kleven, we have searched through all coolers that were submitted to Air Toxics on May 19, 2010 and we found the Siloxane samples, however, we were unable to find the PCB samples. There were two ziplock bags inside the sample cooler which contained the siloxane samples. One bag was noted as Calibration and a calibration tube was found inside that tube. The other bag simply had a piece of tightly wrapped foil in a ball. On Friday, May 21, 2010, another set of samples were submitted to the laboratory. The Receiving Department and myself searched through the media as well as the unused media and were unable to locate the PCB samples.

Please provide information where needed. I look forward to your response in order to correct the Sample Receipt Logins. Please note that all samples are on hold until the Sample Receipt Logins are complete.

Sincerely,

Karen P. Lopez
Project Manager
Air Toxics Ltd.
180 Blue Ravine Rd. Ste. B
Folsom, CA 95630

916-605-3410 (Direct)
916-985-1020 (Fax)
klopez@airtoxics.com

www.airtoxics.com
Celebrating 20 Years of Excellence

From: Keri Whetter [mailto:kwhetter@exponent.com]
Sent: Wednesday, May 26, 2010 3:50 PM
To: Karen Lopez
Cc: Melissa Kleven
Subject: Corrections to Log-In

Hi Karen,

Here is a list of corrections that need to be made to the sample log-ins:

Work Order #1005522A:

- Please keep sample IDs as noted on the COC. Do not use sample IDs noted on sample containers. Please label the Siloxane samples as D-1 (not D-1 1/2) and D-10 (not D-10 1/2).
- Sample Field Blank (Lab Sample #11A) needs to be deleted. This was a Summa that was labeled, but was never used. Sorry for the confusion.
- PCB s- Final volume for Sample D-1 for TO-10A should be 383.04 L
- PCBs - Final volume for Sample D-10 for TO-10A should be 377.52 L
- Summas - The field notes indicate that D-1 and D-10 end times for the Summa canisters are 14:53, is this the same end time noted on the tags? If not, please let me know.
- Siloxanes - Duration of Sample FB-Siloxane is actually 0.5 hours.

Work Order #1005453A:

- Does the information on the Summa tag for Sample AOS-3 match the information noted on the COC?
- Please keep all sample ID's as follows for all analyses:
    - GV-1
    - GV-6
    - GV-7
    - GV-9
    - GV-10
    - GV-11
    - GV-12
    - GV-13
    - ALF-1

- ALF-2
- ALF-3
- ALF-4
- ALF-5
- AOS-1
- AOS-2
- AOS-3

For example, don't use GV-07, use GV-7.
And don't use GV1-1/GV1-2, etc. for the siloxane IDs, just use GV-1, etc.

- Siloxanes - Collection dates for ALF-1 and ALF-2 (Lab Samples 25AB and 26AB) are incorrect. Correct collection dates are May 17, 2010 for both samples.
- Siloxanes - Sample ALF-2 (Lab Sample 26AB) is incorrectly listed as ALS-2.
- Siloxanes - Sample ALF-5 (Lab Sample 29AB), correct end time is 18:01, and correct final volume is 20.61 L.
- Siloxanes - Sample GV-6 (Lab Sample 18AB), correct end time is 16:20, and correct final volume is 20.27 L.
- Summas – Sample GV-10 (Lab Sample 02A), initial canister pressure is listed as 29.1 in the field notes, does this correspond to the Summa tag?
- Summas – Sample GV-12 (Lab Sample 04A), initial canister pressure is listed as 28.7 in the field notes and the canister # is noted as #2416, does this correspond to the Summa tag?
- PCBs - Did you find the PCB samples, GV-9, GV-10 and PCB Trip Blank?

Please call with any questions.

Keri Whetter
Senior Associate
E^xponent®, Inc.
15375 SE 30th Place, Suite 250
Bellevue, WA 98007
Direct: 425.519.8750
Main: 425.519.8700
kwhetter@exponent.com

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005522C

Client

Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8774

Fax

425-643-9827

Date Promised: 06/07/10
Date Completed: 6/7/10
Date Received: 5/21/10
PO#:
Project#: 0907194.000.0601 Heglar Kronquist

Total $: $ 900.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
05A	D-1	Modified TO-10A	5/19/2010	$300.00
06A	D-10	Modified TO-10A	5/19/2010	$300.00
07A	Field Blank - PCBs	Modified TO-10A	5/19/2010	$300.00
08A	Lab Blank PUF/XAD	Modified TO-10A	NA	$0.00
08B	Lab Blank PUF	Modified TO-10A	NA	$0.00
09A	LCS PUF/XAD	Modified TO-10A	NA	$0.00
09B	LCS PUF	Modified TO-10A	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: Pest/PCB

TERMS: NET 30

Reporting Method: Modified TO-10A (Sh)-PCBs

Sample Discrepancy Report

Identification

Initiated By: MW **Project ID:**14301 **PM**: KL **Date:** 5/21/2010 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1005522 **Sample(s) affected:** All

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☒ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☒ blue ice (check one) was present. A temp. Blank ☒ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Describe the Discrepancy: sample arrived at 10C

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:KL Person notified: Melissa Kleven Date: 5/24/2010

☐ Waiting for Client Reply

Comments: **Notified client, ok to proceed.**

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☒

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records

Compound List

Modified TO-10A (Sh)-PCBs

CAS Number	Compound	Detection Limit ug	Type
11141-16-5	Aroclor-1232	1.0	
12672-29-6	Aroclor-1248	1.0	
11097-69-1	Aroclor-1254	1.0	
11096-82-5	Aroclor-1260	1.0	
2051-24-3	Decachlorobiphenyl		
877-09-8	2,4,5,6-Tetrachloro-m-xylene		
9999-9999-098	Aroclor 1016/1242	1.0	
11104-28-2	Aroclor-1221	1.0	

DATA REVIEW CHECKLIST

Work Order #: 10055226

A_1	A_2	R	T	M	Q	
☐	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
☐	☐			☑		Non-Standard sublist printed/verified, LOQ and LOD verified
	☐	☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☑	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
☐	☐	☑	☐	☑	☐	Corrective Action issued - #
☐	☐	☐	☐	☑	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / NO)***

☐	☐	☑	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☐	☐	☑	☐	☑	☐	Hold time is met for all samples
		☑	☐	☑	☐	Appropriate data qualifier flags are applied
		☑	☐	☑	☐	Manual integrations for samples and QC are properly documented
☐	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☑	☐			Retention times have been verified
☐	☐	☑	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☐	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☐	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☐	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
☐	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☐	☐	☑	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☑		☑		Special units for all samples in the final report are correctly calculated
		☑	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☐	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
☐		☑				Date MDL(s) performed per instrument(s) 4/15/10
☐	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☑ Other (i.e. Tedlar bag, cartridge, sorbent)
☐	☐	☐				Final pressure consistent with canister size (6L vs. 1L)
☐	☐	☐				Verify receipt pressures
☐	☐	☐				Verify canister ID #'s
		☑		☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		☑	☐	☐	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

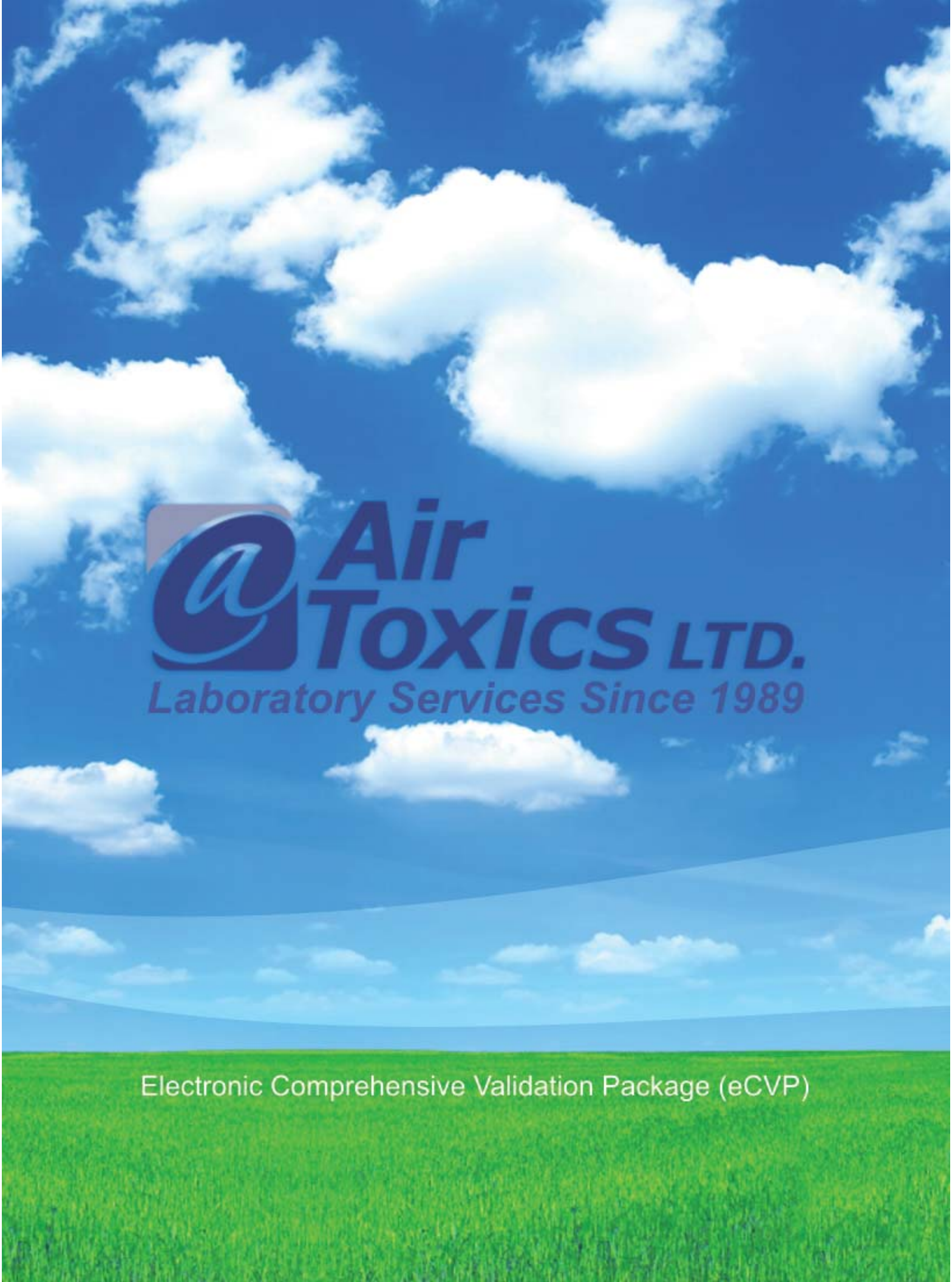
A/R: All QC met. Sample volumes provided by the client. 400 L used to report QC. ug/m³ requested on COC.

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1:	R: 6/14/10	6/7/10	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Siloxanes

INVENTORY SHEET

Work Order #: 1005522D

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b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
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-Chromatogram(s) and Ion Profiles (If Applicable)		
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Comments:

Completed by:

Kara McKiernan Kara McKiernan / Document Control 6/8/10

(Signature) (Print Name & Title) (Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005522D

Work Order Summary

CLIENT:	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Melissa Kleven Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8774	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar Kronquist
DATE RECEIVED:	05/21/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/03/2010		

FRACTION #	NAME	TEST
08AB	D-1	Siloxanes
08ABB	D-1 Lab Duplicate	Siloxanes
09A	D-10 Front	Siloxanes
09B	D-10 Back	Siloxanes
10AB(on hold)	FB-Siloxane	Siloxanes
11A	Lab Blank	Siloxanes
11B	Lab Blank	Siloxanes
12A	LCS	Siloxanes
12B	LCS	Siloxanes

CERTIFIED BY: Linda D. Frumarn DATE: 06/04/10

Laboratory Director

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

LABORATORY NARRATIVE
Siloxanes
Exponent
Workorder# 1005522D

Six Vial samples were received on May 21, 2010. The laboratory performed analysis for siloxanes by GC/MS. A sample volume of 1.0 uL was injected directly onto the GC column. Initial results are in ug/mL. The units are converted to total micrograms (ug) by multiplying the result (ug/mL) by the total volume (mL) contained in the impinger. See the data sheets for the reporting limits for each compound.

Receiving Notes

A Temperature Blank was included with the shipment. The temperature was measured and was not within 4 ± 2°C. Coolant in the form of blue ice was present. Internal stability studies at Air Toxics Ltd. indicate Siloxane compounds may be stable for up to five days from collection at room temperature. Analysis proceeded.

The tag information for samples D-1 1/2, D-10 1/2 and FB-Siloxane 1/2 did not match the entries on the sample tags with regard to the COC. Therefore the information on the sample tag was used to process and report the samples.

Samples FB-Siloxane 1/2 were placed on hold per the client's request.

Analytical Notes

Impinger volumes were measured at the laboratory using a graduated cylinder and documented in the analytical logbook.

A front and back impinger was received for each sample. Each impinger was analyzed separately. The results for each analyte were then additively combined and reported as a single concentration. The reported surrogate recovery is derived from the front impinger analysis only.

The recoveries of internal standard Benzene-d6, Toluene-d8 and BFB in sample D-10 Back were not within control limits. The sample wes reanalyzed and recovery did not improve. Analysis was repeated with a diluted aliquot and resultant recovery was within control limits. This confirmed matrix effect with regard to the undiluted run. Reported results are derived from the diluted analysis.

Sampling volume was supplied by the client. A sample volume of 20.7 L was assumed for all QC samples.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated Value.
E - Exceeds instrument calibration range.
S - Saturated peak.

Q - Exceeds quality control limits.
M - Reported value may be biased due to apparent matrix interferences.

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
D-1	1005522D-08AB	5/19/2010	5/21/2010	NA	10	5/29/2010	NA	Good
D-1 Lab Duplicate	1005522D-08AB	5/19/2010	5/21/2010	NA	10	5/29/2010	NA	Good
D-10 Front	1005522D-09A	5/19/2010	5/21/2010	NA	10	5/29/2010	NA	Good
D-10 Back	1005522D-09B	5/19/2010	5/21/2010	NA	13	6/ 1/2010	NA	Good
Lab Blank	1005522D-11A	NA	NA	NA	NA	5/28/2010	NA	Good
Lab Blank	1005522D-11B	NA	NA	NA	NA	6/ 1/2010	NA	Good
LCS	1005522D-12A	NA	NA	NA	NA	5/28/2010	NA	Good
LCS	1005522D-12B	NA	NA	NA	NA	6/ 1/2010	NA	Good

Sample Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: D-1

Lab ID#: 1005522D-08AB

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexamethyldisiloxane	26	79	1300	3800

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-1

Lab ID#: 1005522D-08AB

SILOXANES - GC/MS

File Name:	**k052848**	**Date of Collection:**	**5/19/10 5:56:00 PM**
Dil. Factor:	**1.00**	**Date of Analysis:**	**5/29/10 03:57 AM**

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	26	Not Detected	1300	Not Detected
Decamethylcylopentasiloxane (D5)	26	Not Detected	1300	Not Detected
Dodecamethylcyclohexasiloxane (D6)	53	Not Detected	2500	Not Detected
Hexamethyldisiloxane	26	79	1300	3800
Octamethyltrisiloxane	26	Not Detected	1300	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 26.3

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	90	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052848.d
Lab Smp Id: 1005522D-08AB
Inj Date : 29-MAY-2010 03:57
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-08A;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.20000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.880	2.881	(1.000)	597927	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.932	2.933	(1.018)	899614	36.1558	36.2
5	hexamethyldisiloxane(mm)	147	3.066	3.068	(1.065)	90157	3.91800	51.7
* 6	Toluene-d8	98	5.146	5.158	(1.000)	540119	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.354	8.376	(1.000)	174911	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052848.d
Lab Smp Id: 1005522D-08AB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	597927	-22.10
6 Toluene-d8	708584	354292	1417168	540119	-23.77
8 4-Bromofluorobenz	250041	125020	500082	174911	-30.05

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.88	-0.05
6 Toluene-d8	5.16	4.66	5.66	5.15	-0.23
8 4-Bromofluorobenz	8.38	7.88	8.88	8.35	-0.26

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:43

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005522D-08AB
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	36.2	90.39	70-130

Data File: /chem/msdk.i/k28may10a.b/k052848.d

Page 1

Date : 29-MAY-2010 03:57

Client ID:

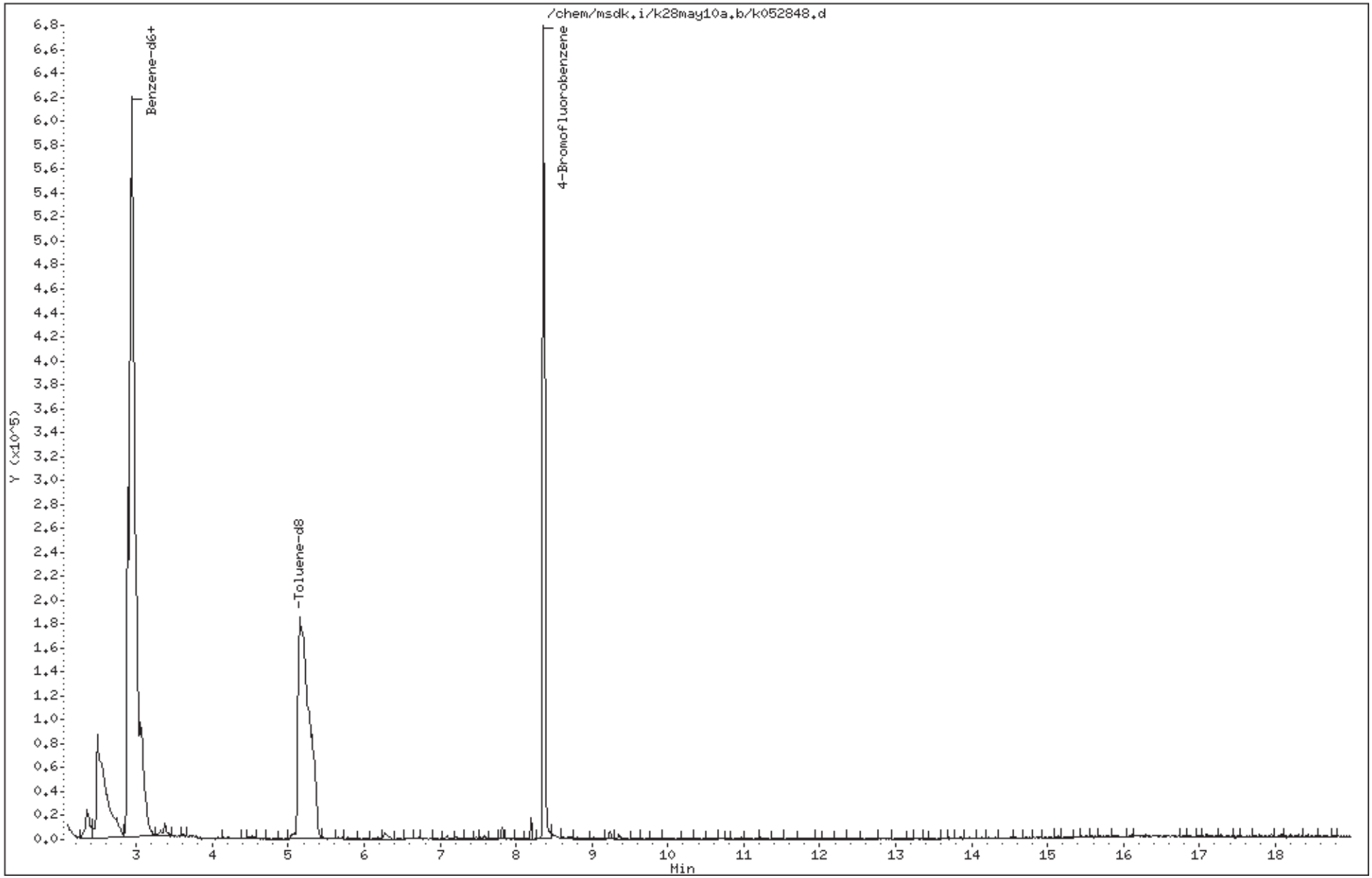
Instrument: msdk.i

Sample Info: ;1005522D-08A;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10a.b/k052848.d

Date : 29-MAY-2010 03:57

Client ID:

Instrument: msdk.i

Sample Info: ;1005522D-08A;

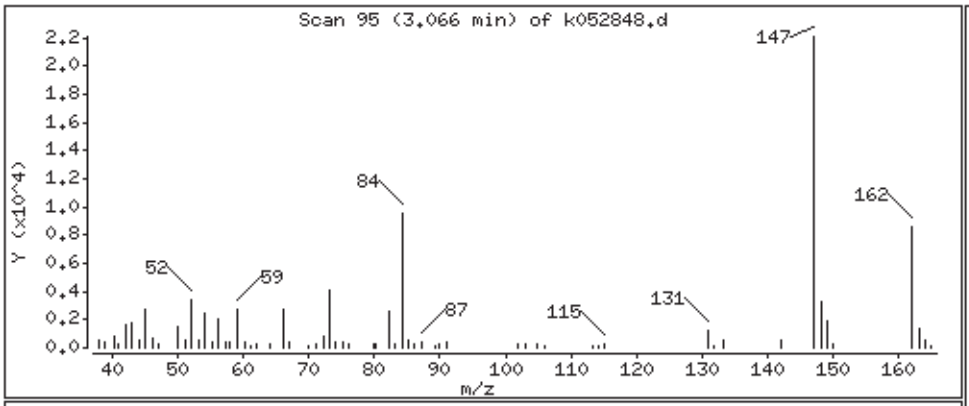
Operator: LZ

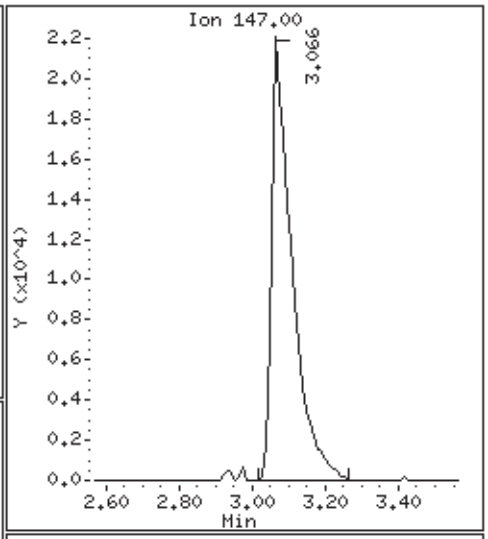
Column phase: DB-5.625

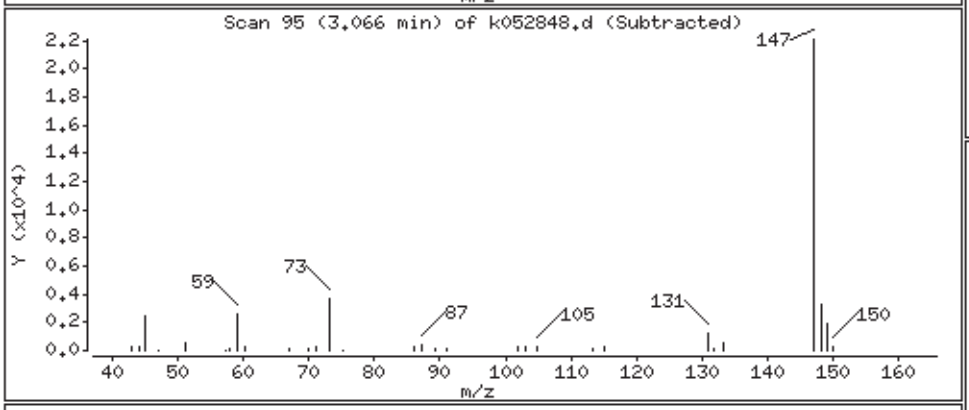
Column diameter: 0.25

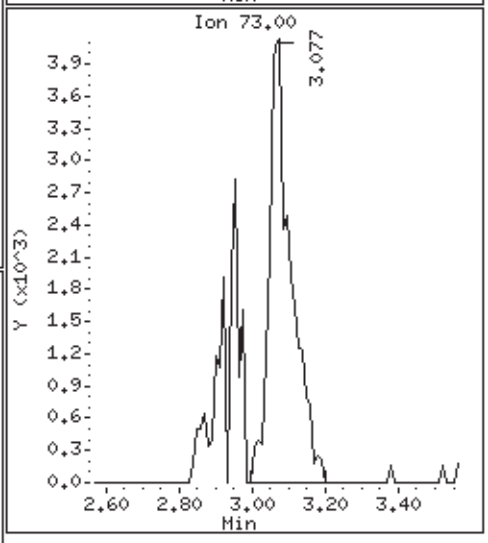
5 hexamethyldisiloxane(mm)

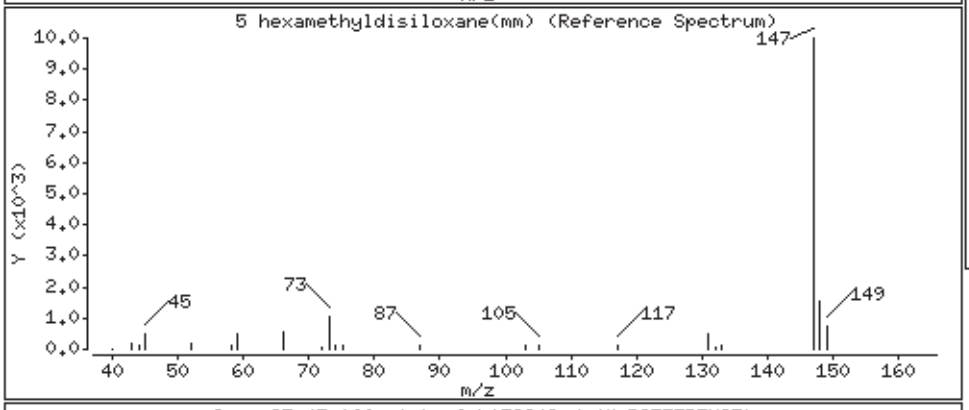
Concentration: 51.7 ug

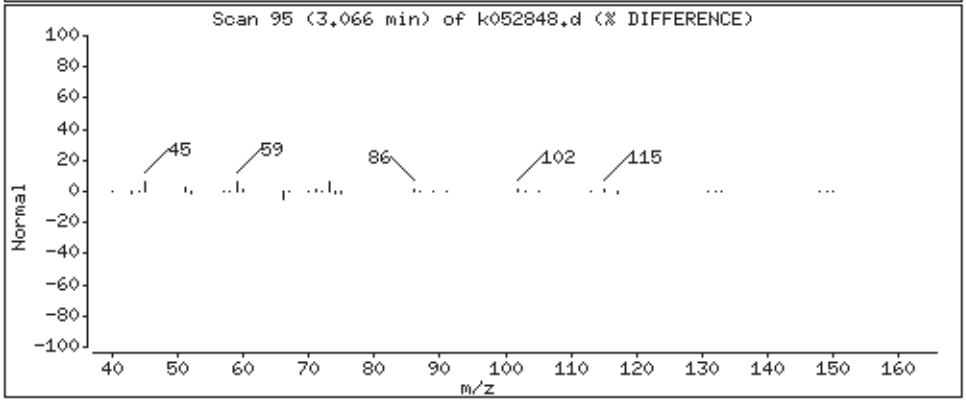












Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: D-1 Lab Duplicate

Lab ID#: 1005522D-08ABB

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexamethyldisiloxane	26	79	1300	3800

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-1 Lab Duplicate

Lab ID#: 1005522D-08ABB

SILOXANES - GC/MS

File Name:	**k052849**	**Date of Collection: 5/19/10 5:56:00 PM**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/29/10 04:21 AM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	26	Not Detected	1300	Not Detected
Decamethylcylopentasiloxane (D5)	26	Not Detected	1300	Not Detected
Dodecamethylcyclohexasiloxane (D6)	53	Not Detected	2500	Not Detected
Hexamethyldisiloxane	26	79	1300	3800
Octamethyltrisiloxane	26	Not Detected	1300	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 26.3

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	90	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052849.d
Lab Smp Id: 1005522D-08ABB
Inj Date : 29-MAY-2010 04:21
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-08AA;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.20000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.870	2.881	(1.000)	728769	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.921	2.933	(1.018)	1097990	36.2058	36.2
5	hexamethyldisiloxane(mm)	147	3.046	3.068	(1.061)	111753	3.98458	52.6
* 6	Toluene-d8	98	5.146	5.158	(1.000)	649719	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.364	8.376	(1.000)	207483	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Report Date: 02-Jun-2010 20:43

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052849.d
Lab Smp Id: 1005522D-08ABB
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	728769	-5.06
6 Toluene-d8	708584	354292	1417168	649719	-8.31
8 4-Bromofluorobenz	250041	125020	500082	207483	-17.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.87	-0.41
6 Toluene-d8	5.16	4.66	5.66	5.15	-0.23
8 4-Bromofluorobenz	8.38	7.88	8.88	8.36	-0.14

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:43

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005522D-08ABB
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	36.2	90.51	70-130

Data File: /chem/msdk.i/k28may10a.b/k052849.d

Page 1

Date : 29-MAY-2010 04:21

Client ID:

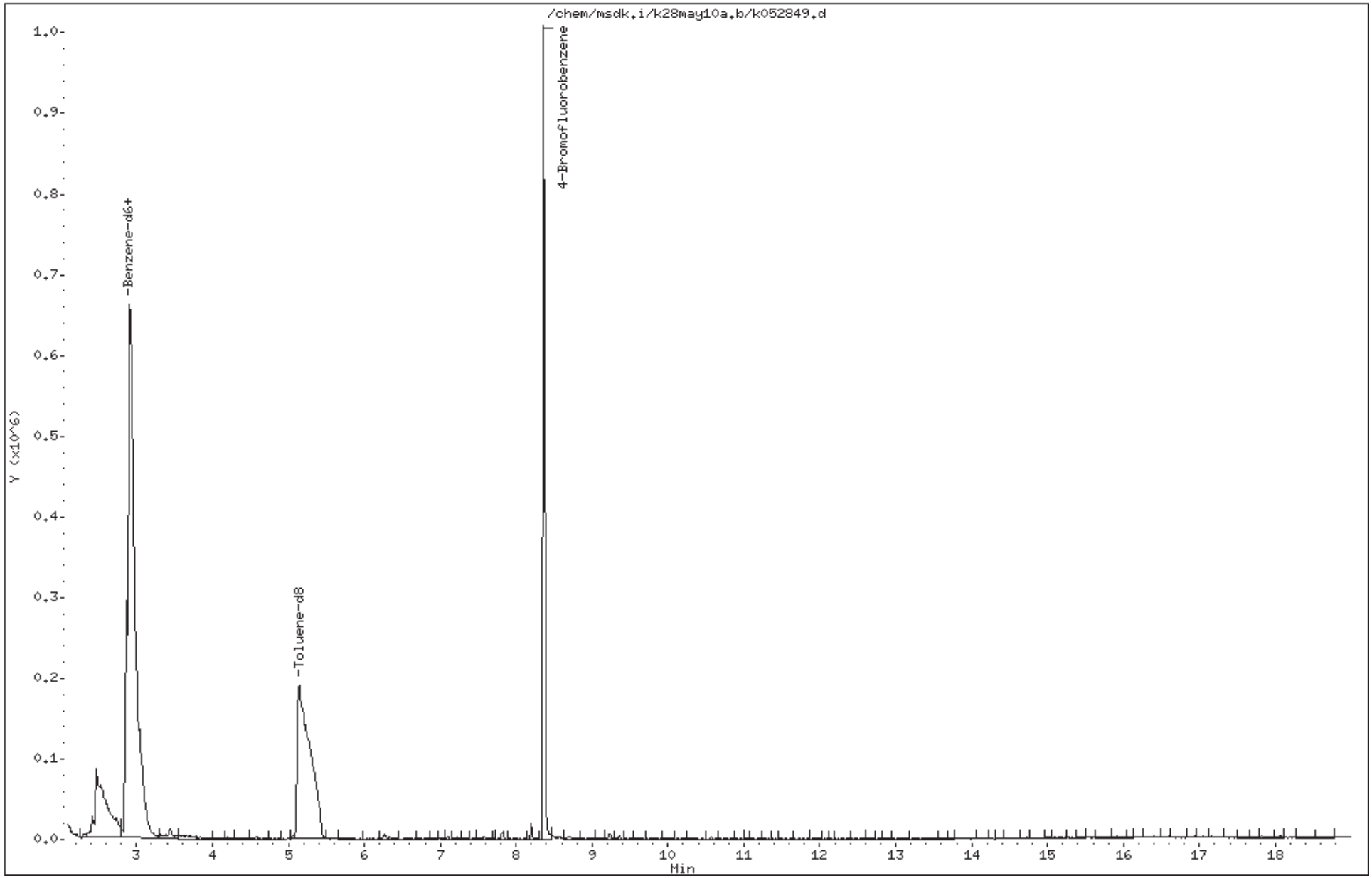
Instrument: msdk.i

Sample Info: ;1005522D-08AA;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10a.b/k052849.d

Date : 29-MAY-2010 04:21

Client ID:

Instrument: msdk.i

Sample Info: ;1005522D-08AA;

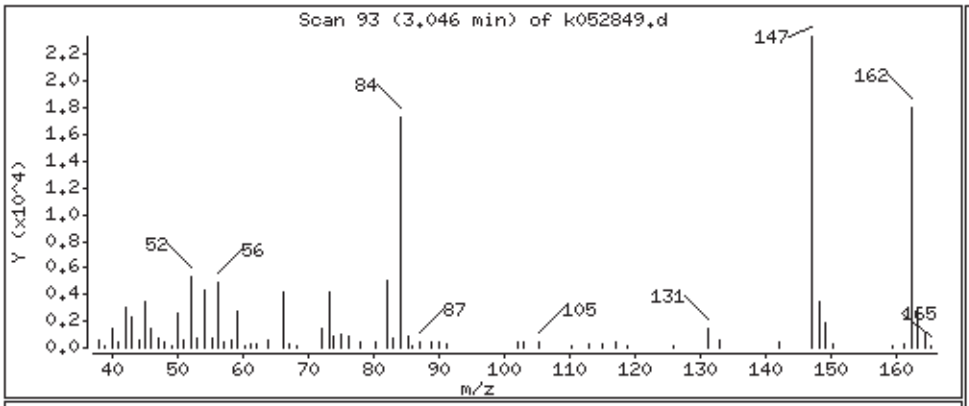
Operator: LZ

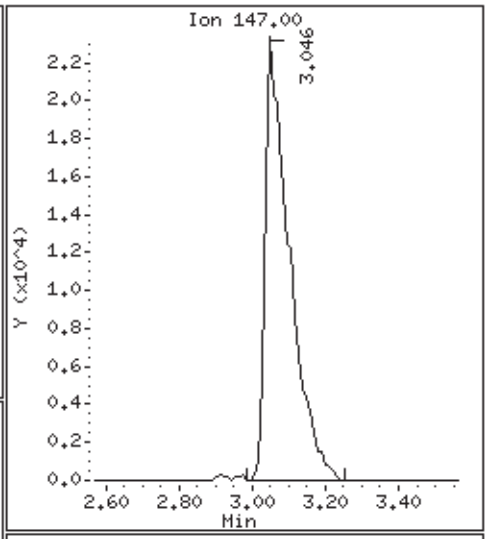
Column phase: DB-5.625

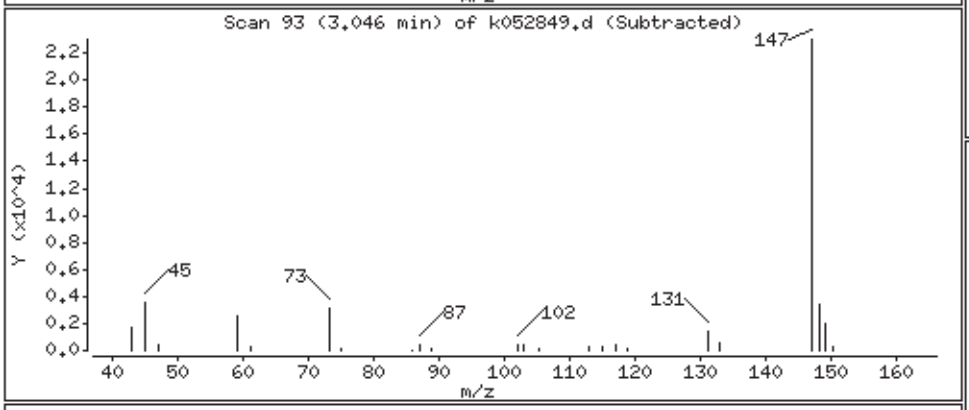
Column diameter: 0.25

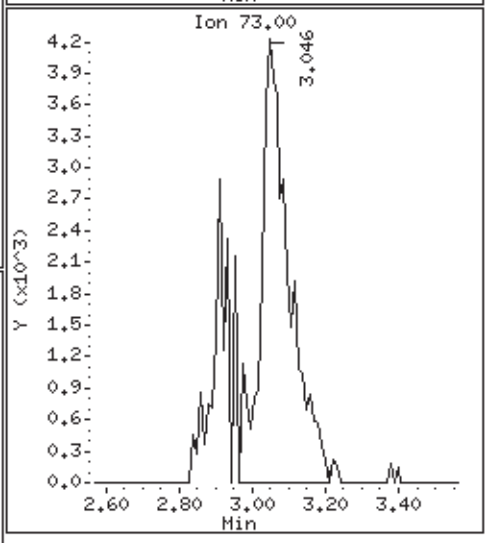
5 hexamethyldisiloxane(mm)

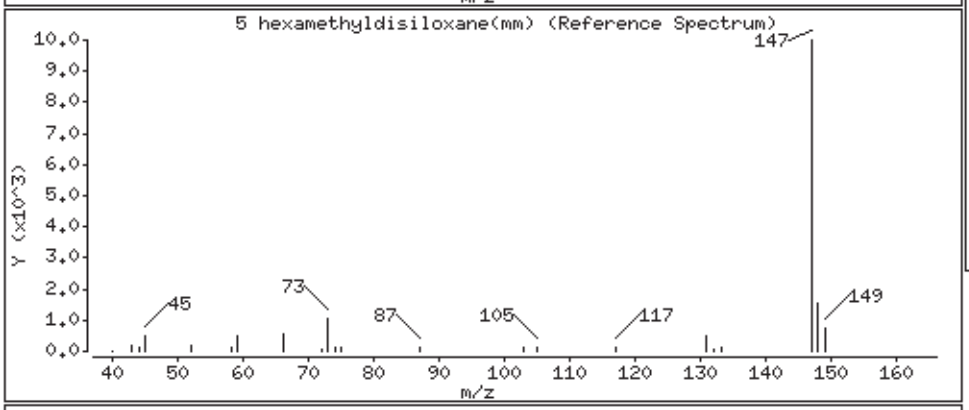
Concentration: 52.6 ug

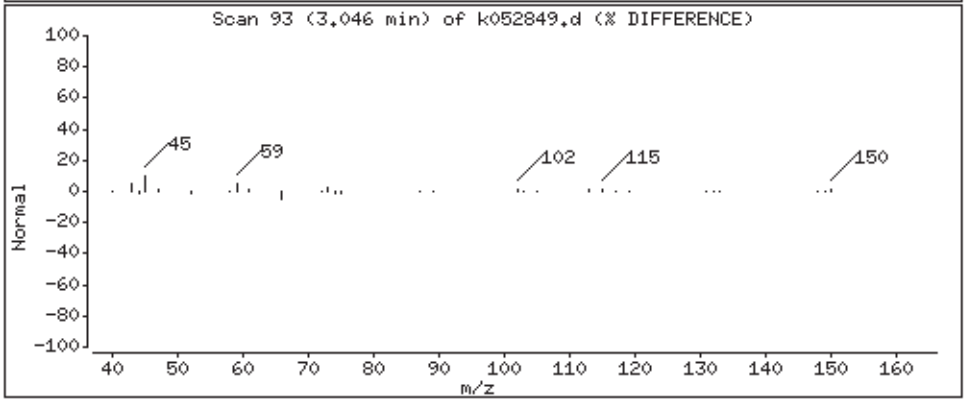












Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: D-10 Front

Lab ID#: 1005522D-09A

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexamethyldisiloxane	13	52	620	2500

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-10 Front

Lab ID#: 1005522D-09A

SILOXANES - GC/MS

File Name:	**k052852**	**Date of Collection: 5/19/10 5:56:00 PM**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/29/10 05:32 AM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	13	Not Detected	620	Not Detected
Decamethylcylopentasiloxane (D5)	13	Not Detected	620	Not Detected
Dodecamethylcyclohexasiloxane (D6)	26	Not Detected	1200	Not Detected
Hexamethyldisiloxane	13	52	620	2500
Octamethyltrisiloxane	13	Not Detected	620	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 12.9

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	87	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052852.d
Lab Smp Id: 1005522D-09A
Inj Date : 29-MAY-2010 05:32
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-09A;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 12.90000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.870	2.881	(1.000)	655106	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.932	2.933	(1.022)	952226	34.9300	34.9
5	hexamethyldisiloxane(mm)	147	3.056	3.068	(1.065)	101599	4.02987	52.0
* 6	Toluene-d8	98	5.136	5.158	(1.000)	553104	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.355	8.376	(1.000)	181643	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052852.d
Lab Smp Id: 1005522D-09A
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	655106	-14.65
6 Toluene-d8	708584	354292	1417168	553104	-21.94
8 4-Bromofluorobenz	250041	125020	500082	181643	-27.35

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.87	-0.39
6 Toluene-d8	5.16	4.66	5.66	5.14	-0.42
8 4-Bromofluorobenz	8.38	7.88	8.88	8.35	-0.26

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 02-Jun-2010 20:43

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005522D-09A
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	34.9	87.32	70-130

Data File: /chem/msdk.i/k28may10a.b/k052852.d

Date : 29-MAY-2010 05:32

Client ID:

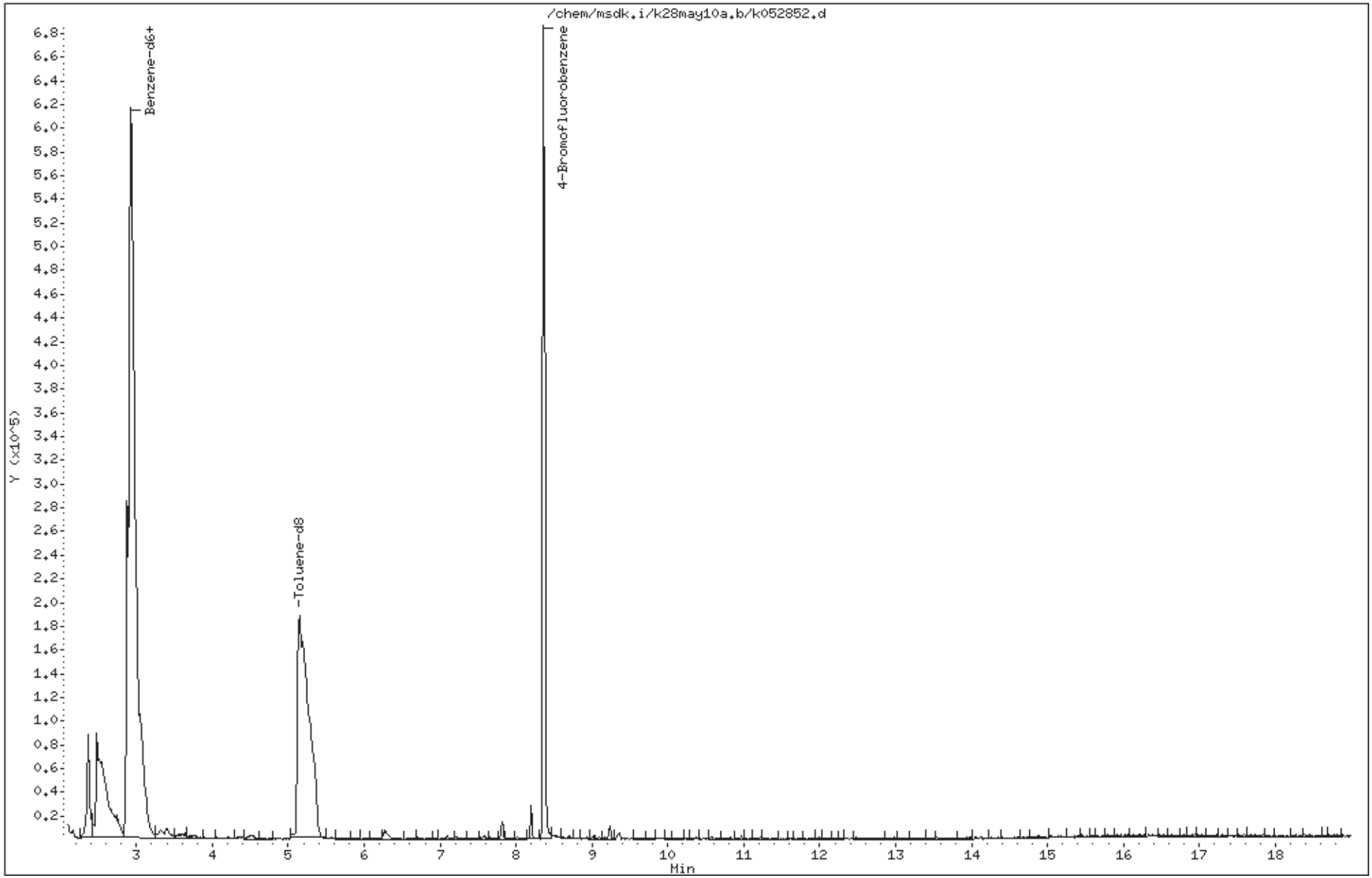
Instrument: msdk.i

Sample Info: ;1005522D-09A;

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10a.b/k052852.d

Date : 29-MAY-2010 05:32

Client ID:

Instrument: msdk.i

Sample Info: ;1005522D-09A;

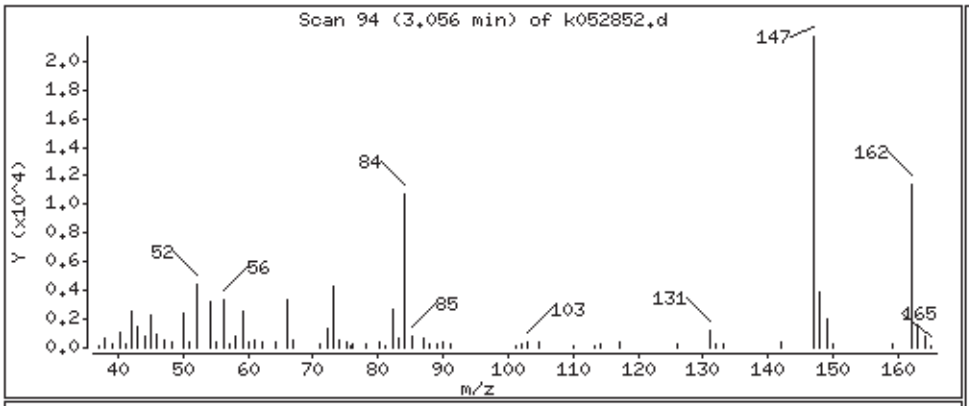
Operator: LZ

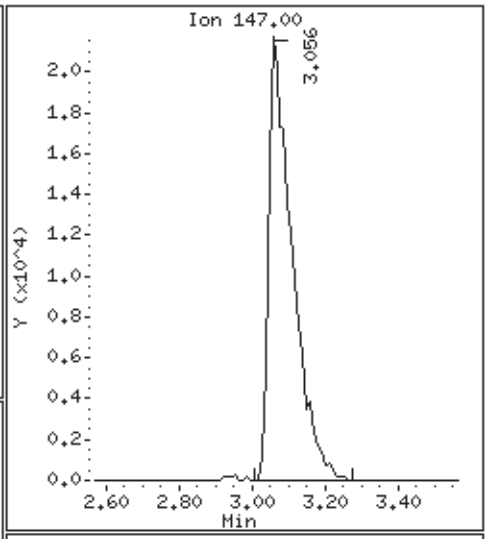
Column phase: DB-5.625

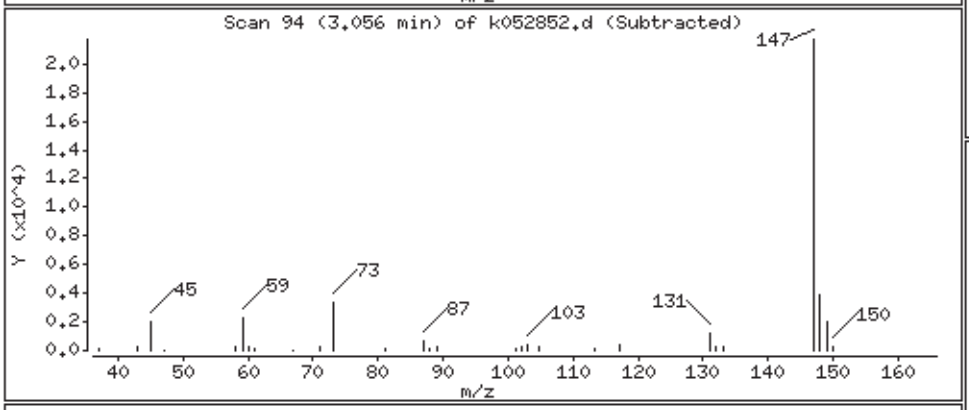
Column diameter: 0.25

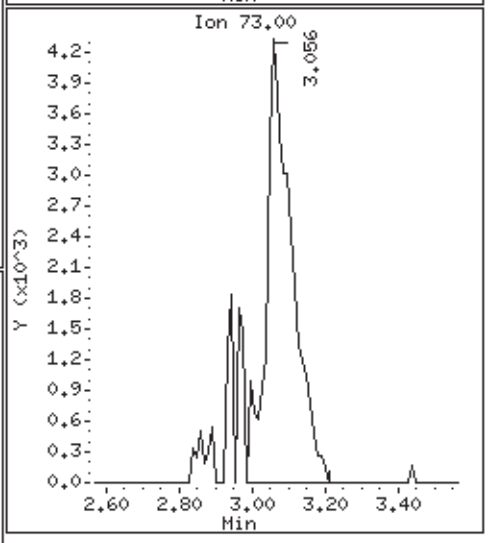
5 hexamethyldisiloxane(mm)

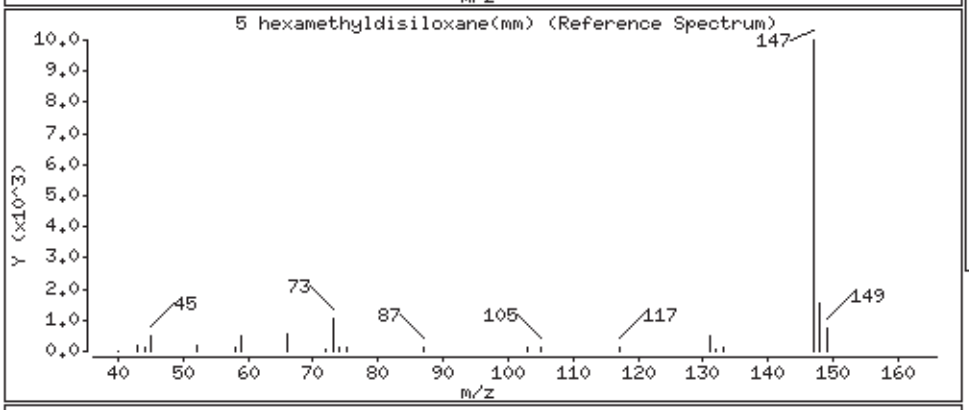
Concentration: 52.0 ug

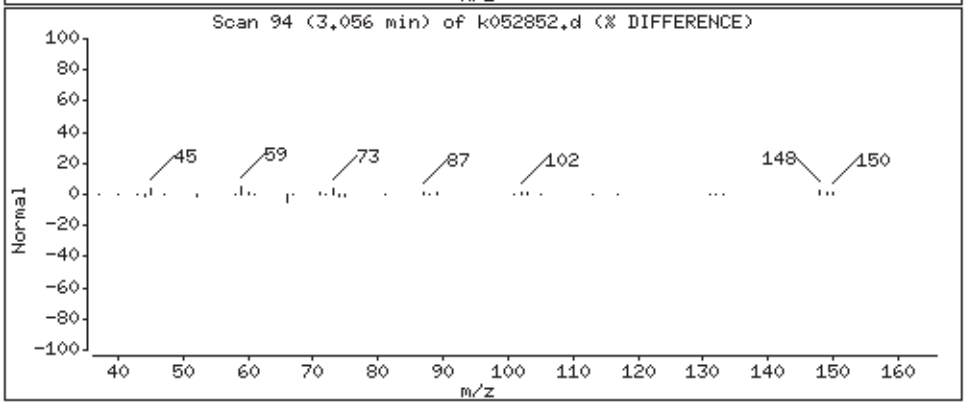












Summary of Detected Compounds
SILOXANES - GC/MS

Client Sample ID: D-10 Back

Lab ID#: 1005522D-09B

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: D-10 Back

Lab ID#: 1005522D-09B

SILOXANES - GC/MS

File Name:	**k060113**	**Date of Collection:**	**5/19/10 5:56:00 PM**
Dil. Factor:	**8.00**	**Date of Analysis:**	**6/1/10 04:13 PM**

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	120	Not Detected	5900	Not Detected
Decamethylcylopentasiloxane (D5)	120	Not Detected	5900	Not Detected
Dodecamethylcyclohexasiloxane (D6)	240	Not Detected	12000	Not Detected
Hexamethyldisiloxane	120	Not Detected	5900	Not Detected
Octamethyltrisiloxane	120	Not Detected	5900	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 15.2

Container Type: Vial

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	90	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k01jun10.b/k060113.d
Lab Smp Id: 1005522D-09B Client Smp ID: 8x
Inj Date : 01-JUN-2010 16:13
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-09B;8x
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k01jun10.b/k10k0323.m
Meth Date : 01-Jun-2010 13:45 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 9
Dil Factor: 8.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 15.20000 final volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3 Benzene-d6	84	2.870	2.872	(1.000)	822966	40.0000	
$ 4 Hexamethyldisiloxane-d18	162	2.922	2.924	(1.018)	1226146	35.8039	35.8
5 hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6 Toluene-d8	98	5.157	5.149	(1.000)	708008	40.0000	
7 octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8 4-Bromofluorobenzene	174	8.375	8.367	(1.000)	233695	40.0000	
9 octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10 deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165 Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k060113.d
Lab Smp Id: 1005522D-09B
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

Calibration Date: 01-JUN-2010
Calibration Time: 13:18
Client Smp ID: 8x
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	941825	470912	1883650	822966	-12.62
6 Toluene-d8	865787	432894	1731574	708008	-18.22
8 4-Bromofluorobenz	303940	151970	607880	233695	-23.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	-0.08
6 Toluene-d8	5.15	4.65	5.65	5.16	0.15
8 4-Bromofluorobenz	8.37	7.87	8.87	8.38	0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k01jun10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1005522D-09B Client Smp ID: 8x
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	35.8	89.51	70-130

Data File: /chem/msdk.i/k01jun10.b/k060113.d

Page 1

Date : 01-JUN-2010 16:13

Client ID: 8x

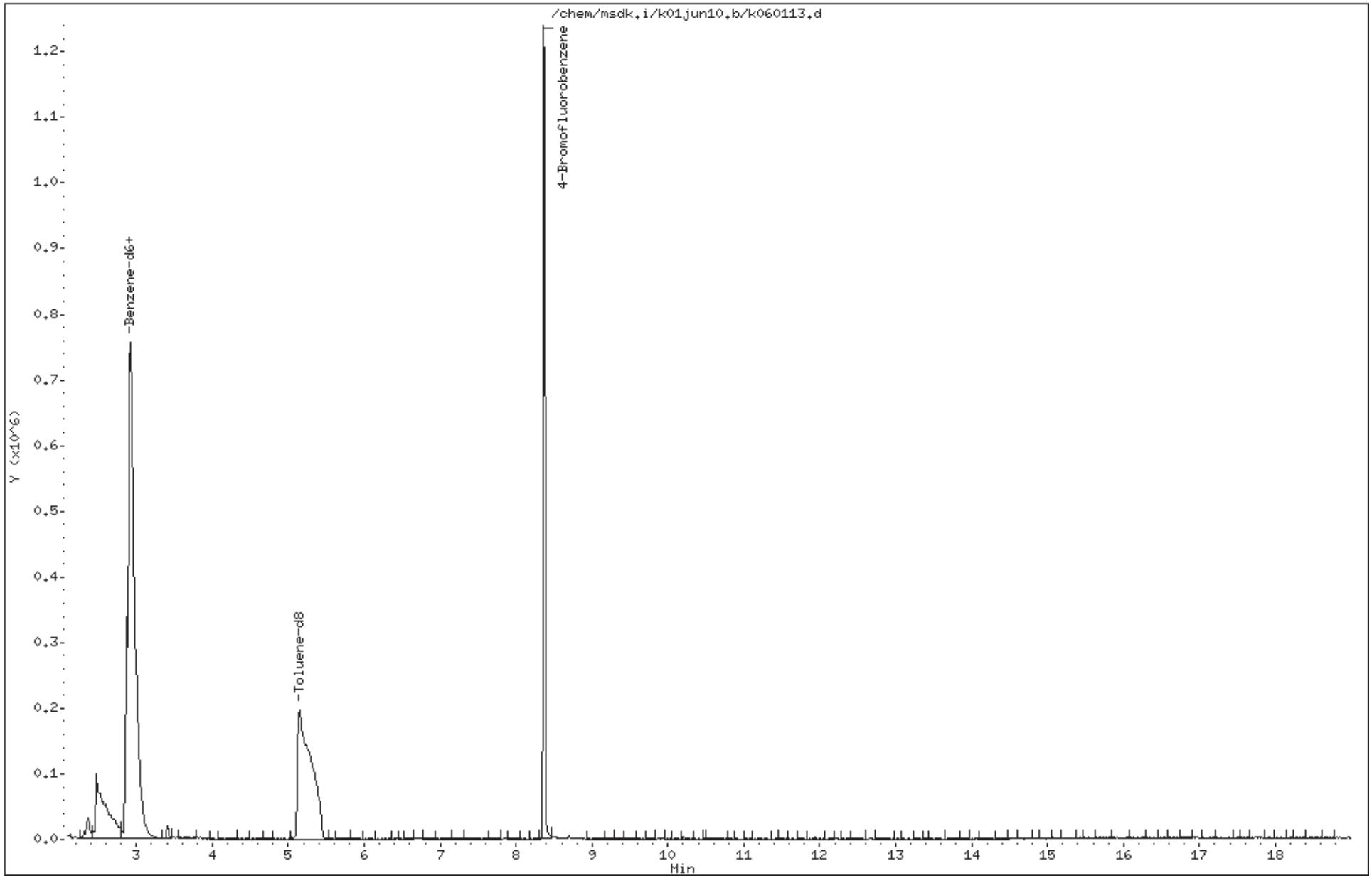
Instrument: msdk.i

Sample Info: ;1005522D-09B;8x

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005522D-11A

SILOXANES - GC/MS

File Name:	**k052830**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/10 08:49 PM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	1.0	Not Detected	48	Not Detected
Decamethylcylopentasiloxane (D5)	1.0	Not Detected	48	Not Detected
Dodecamethylcyclohexasiloxane (D6)	2.0	Not Detected	97	Not Detected
Hexamethyldisiloxane	1.0	Not Detected	48	Not Detected
Octamethyltrisiloxane	1.0	Not Detected	48	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	101	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052830.d
Lab Smp Id: MeOH Blank Client Smp ID: Lab Blank
Inj Date : 28-MAY-2010 20:49
Operator : LZ Inst ID: msdk.i
Smp Info : ;MeOH Blank;Lab Blank
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.873	2.881	(1.000)	803578	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.925	2.933	(1.018)	1348187	40.3174	40.3
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.139	5.158	(1.000)	724345	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.378	8.376	(1.000)	233923	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052830.d
Lab Smp Id: MeOH Blank
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Client Smp ID: Lab Blank
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	803578	4.69
6 Toluene-d8	708584	354292	1417168	724345	2.22
8 4-Bromofluorobenz	250041	125020	500082	233923	-6.45

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.87	-0.30
6 Toluene-d8	5.16	4.66	5.66	5.14	-0.37
8 4-Bromofluorobenz	8.38	7.88	8.88	8.38	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: MeOH Blank Client Smp ID: Lab Blank
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	40.3	100.79	70-130

Data File: /chem/msdk.i/k28may10a.b/k052830.d

Page 1

Date : 28-MAY-2010 20:49

Client ID: Lab Blank

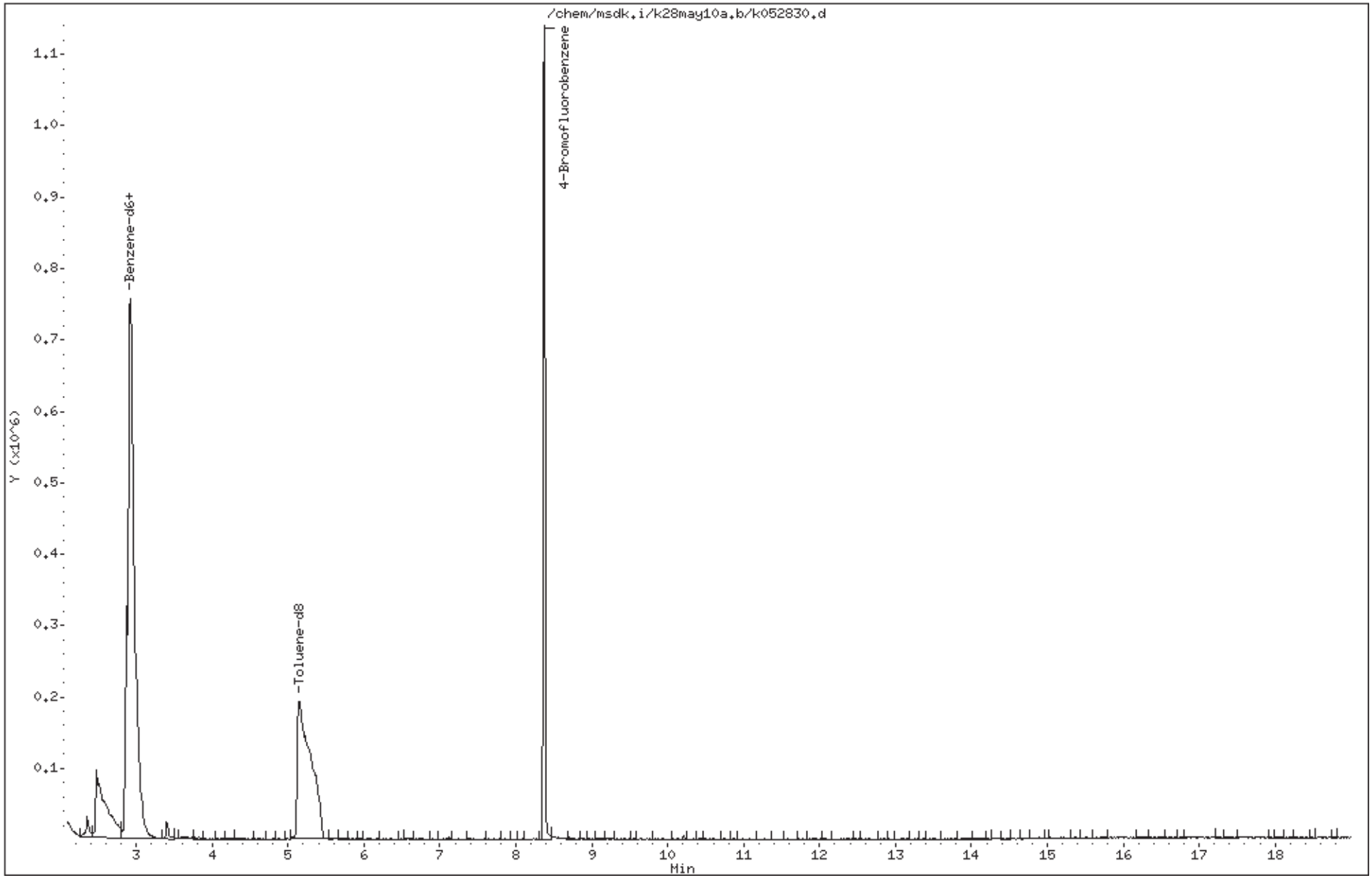
Instrument: msdk.i

Sample Info: ;MeOH Blank;Lab Blank

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005522D-11B

SILOXANES - GC/MS

File Name:	**k060109**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/1/10 02:19 PM**	

Compound	Rpt. Limit (ug)	Amount (ug)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Octamethylcyclotetrasiloxane (D4)	1.0	Not Detected	48	Not Detected
Decamethylcylopentasiloxane (D5)	1.0	Not Detected	48	Not Detected
Dodecamethylcyclohexasiloxane (D6)	2.0	Not Detected	97	Not Detected
Hexamethyldisiloxane	1.0	Not Detected	48	Not Detected
Octamethyltrisiloxane	1.0	Not Detected	48	Not Detected

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	101	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k01jun10.b/k060109.d
Lab Smp Id: MeOH Blank Client Smp ID: Lab Blank
Inj Date : 01-JUN-2010 14:19
Operator : LZ Inst ID: msdk.i
Smp Info : ;MeOH Blank;Lab Blank
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k01jun10.b/k10k0323.m
Meth Date : 01-Jun-2010 13:45 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.870	2.872	(1.000)	987173	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.922	2.924	(1.018)	1654397	40.2732	40.3
5	hexamethyldisiloxane(mm)	147	Compound Not Detected.					
* 6	Toluene-d8	98	5.147	5.149	(1.000)	894217	40.0000	
7	octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
* 8	4-Bromofluorobenzene	174	8.365	8.367	(1.000)	280622	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
10	deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
165	Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

Report Date: 01-Jun-2010 14:42

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k060109.d
Lab Smp Id: MeOH Blank
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

Calibration Date: 01-JUN-2010
Calibration Time: 13:18
Client Smp ID: Lab Blank
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	941825	470912	1883650	987173	4.81
6 Toluene-d8	865787	432894	1731574	894217	3.28
8 4-Bromofluorobenz	303940	151970	607880	280622	-7.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	-0.07
6 Toluene-d8	5.15	4.65	5.65	5.15	-0.04
8 4-Bromofluorobenz	8.37	7.87	8.87	8.37	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Report Date: 01-Jun-2010 14:42

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k01jun10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: MeOH Blank Client Smp ID: Lab Blank
Level: MED Operator: LZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	40.3	100.68	70-130

Data File: /chem/msdk.i/k01jun10.b/k060109.d

Page 1

Date : 01-JUN-2010 14:19

Client ID: Lab Blank

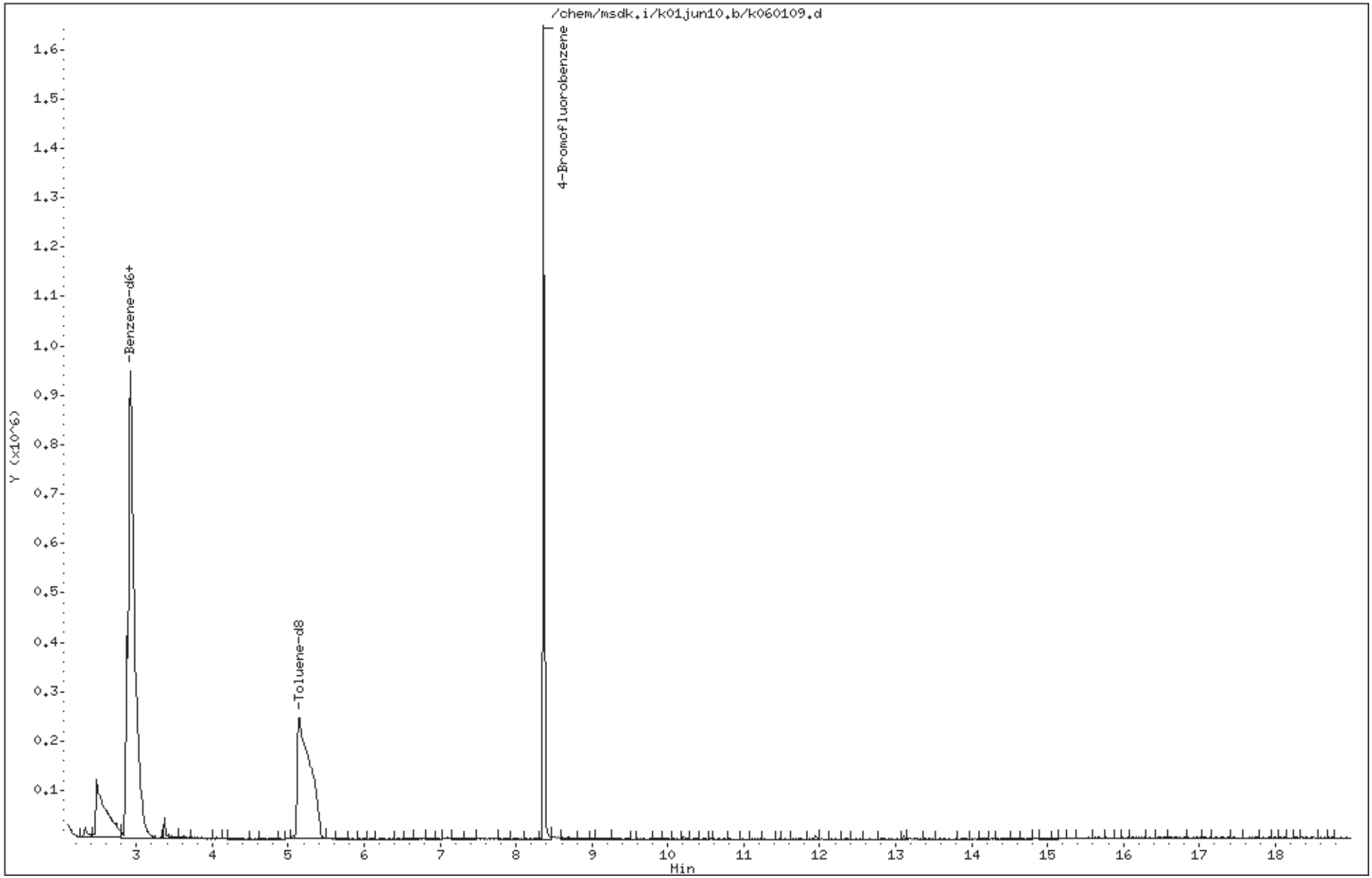
Instrument: msdk.i

Sample Info: ;MeOH Blank;Lab Blank

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



LEVEL-IV VALIDATABLE

SILOXANES - GC/MS

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1005522D

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Hexamethyl disiloxane -d18	#		#		#		#	TOTAL OUT
01	D-1	90								0
02	D-1 Lab Duplicate	90								0
03	D-10 Front	87								0
04	D-10 Back	90								0
05	Lab Blank	101								0
06	Lab Blank	101								0
07	LCS	103								0
08	LCS	106								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

Hexamethyl disiloxane -d18 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Siloxanes - GC/MS

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1005522D
Lab File ID: k052828.d
Date Analyzed: 05/28/2010
Instrument ID: msdk.i
Time Analyzed: 07:59 PM

		Benzene-d6 Area	#	RT	#	Toluene-d8 Area	#	RT	#	4-Bromofluorobenzene Area	#	RT	#
	24-HOUR STD	767574		2.88		708584		5.16		250041		8.38	
	UPPER LIMIT	1074604		03.21		992018		05.49		350057		08.71	
	LOWER LIMIT	460544		02.55		425150		04.83		150025		08.05	
	CLIENT SAMPLE NO												
01	D-1	597927		2.88		540119		5.15		174911		8.35	
02	D-1 Lab Duplicate	728769		2.87		649719		5.15		207483		8.36	
03	D-10 Front	655106		2.87		553104		5.14		181643		8.35	
04	Lab Blank	803578		2.87		724345		5.14		233923		8.38	
05	LCS	949186		2.88		891976		5.16		305819		8.37	
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

LEVEL-IV VALIDATABLE

Siloxanes - GC/MS

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD
SDG No: 1005522D
Lab File ID: k060107.d
Date Analyzed: 06/01/2010
Instrument ID: msdk.i
Time Analyzed: 01:18 PM

		Benzene-d6 Area	#	RT	#	Toluene-d8 Area	#	RT	#	4-Bromofluorobenzene Area	#	RT	#
	24-HOUR STD	941825		2.87		865787		5.15		303940		8.37	
	UPPER LIMIT	1318555		03.20		1212102		05.48		425516		08.70	
	LOWER LIMIT	565095		02.54		519472		04.82		182364		08.04	
	CLIENT SAMPLE NO												
01	D-10 Back	822966		2.87		708008		5.16		233695		8.38	
02	Lab Blank	987173		2.87		894217		5.15		280622		8.37	
03	LCS	1133463		2.87		1081002		5.14		369495		8.36	
04													
05													
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: k052849.d & k052848.d

Lab Sample ID: 08AB & 08ABB

Dilution: 1.00 & 1.00

Client Sample ID: &

Date Analyzed: 5/29/10 & 5/29/10

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
541-02-6	Decamethylcylopentasiloxane (D5)	ND	U	ND	U	0	
540-97-6	Dodecamethylcyclohexasiloxane (D6)	ND	U	ND	U	0	
107-46-0	Hexamethyldisiloxane	79		79.1		0.13	Y
556-67-2	Octamethylcyclotetrasiloxane (D4)	ND	U	ND	U	0	
107-51-7	Octamethyltrisiloxane	ND	U	ND	U	0	

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

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 16:55
End Cal Date : 23-MAR-2010 19:43
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Cal Date : 24-Mar-2010 10:06 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/msdk.i/k23mar10.b/k032308.d
Level 2: /var/chem/msdk.i/k23mar10.b/k032309.d
Level 3: /var/chem/msdk.i/k23mar10.b/k032310.d
Level 4: /var/chem/msdk.i/k23mar10.b/k032311.d
Level 5: /var/chem/msdk.i/k23mar10.b/k032312.d
Level 6: /var/chem/msdk.i/k23mar10.b/k032313.d
Level 7: /var/chem/msdk.i/k23mar10.b/k032314.d
Level 8: /var/chem/msdk.i/k23mar10.b/k032315.d

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	120.000 Level 7	160.000 Level 8	___ RRF	% RSD
2 pentamethyldisiloxane	+++++	+++++	+++++	+++++	+++++	+++++				
	+++++	+++++							+++++	+++++
5 hexamethyldisiloxane(mm)	1.58458	1.58462	1.57218	1.55755	1.58424	1.49981				
	1.48733	1.44476							1.53938	3.536
7 octamethyltrisiloxane(mdm)	1.00340	1.05245	1.06043	1.00456	0.98356	0.88734				
	0.84292	0.79268							0.95342	10.466
9 octa-m-cyclotetrasiloxane(d4)	3.87474	3.61221	3.70492	3.47554	3.67527	3.11910				
	2.95255	2.76052							3.39686	11.843
10 deca-m-cyclopentasiloxane(d5)	1.16303	1.20176	1.19980	1.14325	1.15407	1.01437				
	0.94701	0.90119							1.09056	10.884
165 Dodeca-mcyclohexasiloxane(d6)	1.40023	1.02744	1.02324	0.96460	0.94451	0.90170				
	0.85624	0.82693							0.99311	18.081
$ 4 Hexamethyldisiloxane-d18	1.67742	1.70467	1.65925	1.67671	1.66548	1.65476				
	1.65525	1.62264							1.66452	1.416

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 16:55
End Cal Date : 23-MAR-2010 19:43
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Cal Date : 24-Mar-2010 10:06 lzhang
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	120.000 Level 7	160.000 Level 8	___ RRF	% RSD
$ 166 Divinyltetramethyldisiloxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Calibration History

Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Start Cal Date: 23-MAR-2010 16:55
End Cal Date : 23-MAR-2010 19:43

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
23-MAR-2010 16:55	silo	/var/chem/msdk.i/k23mar10.b/k032308.d
Cal Level: 2 , Cal Amount: 5.00000		
23-MAR-2010 17:19	silo	/var/chem/msdk.i/k23mar10.b/k032309.d
Cal Level: 3 , Cal Amount: 10.00000		
23-MAR-2010 17:43	silo	/var/chem/msdk.i/k23mar10.b/k032310.d
Cal Level: 4 , Cal Amount: 25.00000		
23-MAR-2010 18:07	silo	/var/chem/msdk.i/k23mar10.b/k032311.d
Cal Level: 5 , Cal Amount: 50.00000		
23-MAR-2010 18:31	silo	/var/chem/msdk.i/k23mar10.b/k032312.d
Cal Level: 6 , Cal Amount: 100.00000		
23-MAR-2010 18:55	silo	/var/chem/msdk.i/k23mar10.b/k032313.d
Cal Level: 7 , Cal Amount: 120.00000		
23-MAR-2010 19:19	silo	/var/chem/msdk.i/k23mar10.b/k032314.d
Cal Level: 8 , Cal Amount: 160.00000		
23-MAR-2010 19:43	silo	/var/chem/msdk.i/k23mar10.b/k032315.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 50.0		
23-MAR-2010 18:31	silo	/var/chem/msdk.i/k23mar10.b/k032312.d

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 16:55
End Cal Date : 23-MAR-2010 19:43
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Cal Date : 24-Mar-2010 10:03 lzhang
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/msdk.i/k23mar10.b/k032308.d
Level 2: /var/chem/msdk.i/k23mar10.b/k032309.d
Level 3: /var/chem/msdk.i/k23mar10.b/k032310.d
Level 4: /var/chem/msdk.i/k23mar10.b/k032311.d
Level 5: /var/chem/msdk.i/k23mar10.b/k032312.d
Level 6: /var/chem/msdk.i/k23mar10.b/k032313.d
Level 7: /var/chem/msdk.i/k23mar10.b/k032314.d
Level 8: /var/chem/msdk.i/k23mar10.b/k032315.d

2nd source: k032316.

Based on cell injection

unit ng/mL

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	120.000 Level 7	160.000 Level 8						
2 pentamethyldisiloxane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 hexamethyldisiloxane(mm)	1.58458	1.58462	1.57218	1.55755	1.58424	1.49981		
	1.48733	1.44476					1.53938	3.536
7 octamethyltrisiloxane(mdm)	1.00340	1.05245	1.06043	1.00456	0.98356	0.88734		
	0.84292	0.79268					0.95342	10.466
9 octa-m-cyclotetrasiloxane(d4)	✓3.87474	✓3.61221	✓3.70492	✓3.47554	✓3.67527	✓3.11910		
	✓2.95255	✓2.76052	✓				✓3.39686	✓11.843
10 deca-m-cyclopentasiloxane(d5)	1.16303	1.20176	1.19980	1.14325	1.15407	1.01437		
	0.94701	0.90119					1.09056	10.884
165 Dodeca-mcyclohexasiloxane(d6)	1.40023	1.02744	1.02324	0.96460	0.94451	0.90170		
	0.85624	0.82693					0.99311	18.081
$ 4 Hexamethyldisiloxane-d18	1.67742	1.70467	1.65925	1.67671	1.66548	1.65476		
	1.65525	1.62264					1.66452	1.416

✓ 3/23/10

✓ 3/24/10

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAR-2010 16:55
End Cal Date : 23-MAR-2010 19:43
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Cal Date : 24-Mar-2010 10:03 lzhang
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	120.000 Level 7	160.000 Level 8	___ RRF	% RSD
$ 166 Divinyltetramethyldisiloxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Method: Siloxanes/ TO-13

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base peak, 100.00% relative abundance	100.00
51	30.00 - 60.00% of mass 198	54.28
68	Less than 2.00% of mass 69	0.11 (0.29) [1]
69	Less than 99.90% of mass 198	36.33
70	Less than 2.00% of mass 69	0.16 (0.45) [1]
127	40.00 – 60.00% of mass 198	42.48
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 30.00% of mass 198	22.49
365	Greater than 1.00% of mass 198	3.05
441	Present, but less than mass 443	13.68
442	40.00 - 100.00% of mass 198	93.08
443	17.00 - 23.00% of mass 442	17.91 (19.24) [2]

1 - value in parenthesis is % mass 69 2 - value in parenthesis is % mass 442

Injection Volume: 1.0 µL

DFTPP File ID: K032306

DFTPP Injection Date: 3123110

DFTPP Injection Time 1607

IS 1869-69-1000	Area Counts
1,4-Dichlorobenzene-d_4:	
Naphthalene-d_8:	
Acenaphthene-d_{10}:	
Phenanthrene-d_{10}:	
Chrysene-d_{12}:	
Perylene-d_{12}:	W3123110
Benzene-d_6:	1471066
Toluene-d_8:	1312511
4-Bromofluorobenzene:	437743

This Tune Check Applies To The Following Samples, Blanks And Standards:

	Use	File #	Sample / Client Name	Vial #	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	K032306	1869-64-50 Tune	2	1.00	W	3123110	1607	W	
2	✓	7	MeOH Blank	3				1630		
3	✓	8	1869-39-10	4				1655		Level 1
4	✓	9	-50	5				1719		2
5	✓	10	-10	6				1743		3
6	✓	11	-25	7				1807		4
7	✓	12	1869-20-50	8				1831		5
8	✓	13	1869-39-100	9				1855		6
9	✓	14	-120	10				1919		7
10	✓	15	-160	11				1943		8
11	✓	16	1869-21-50 LCS	12				2007		
12										
13										
14										
15										
16										
17										
18										
19										
20						W 3124110				

Calculation Check: File ID: K032306 Compound: D4 Initials: W

nG On Column = Area of Compound in Sample X Conc. Int. Standard = (200620) X (40.00) = 51.7
Area of Int. Standard in Sample ICAL $RRF_{average}$ (456157) (3.39686)

µG/Sample = nG On Column X 1000 µL Final Vol. X D.F. = (51.7) X (1000) X (1.00) = 51.7
1.0 µL Inj. Vol. X 1000 nG/µG (1000)

Reported Result = 51.7

Signed

3123110
Date

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032316.d
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Inj Date : 23-MAR-2010 20:07
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-21-50;LCS
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:06 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.983	2.983	(1.000)	1629413	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2667288	39.3377	39.3
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	3297627	52.5876	52.6
* 6	Toluene-d8	98	5.363	5.332	(1.000)	1452355	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.436)	1897402	54.8105	54.8
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	456157	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.182	9.181	(1.086)	2001620	51.6714	51.7
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	630721	50.7147	50.7
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	492934	43.5249	43.5

Report Date: 24-Mar-2010 10:06

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032316.d
Lab Smp Id: 1869-21-50
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: LCS
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1629413	10.76
6 Toluene-d8	1312511	656256	2625022	1452355	10.65
8 4-Bromofluorobenz	437743	218872	875486	456157	4.21

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.02
6 Toluene-d8	5.33	4.83	5.83	5.36	0.59
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k23mar10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Level: MED Operator: lz
Data Type: MS DATA SampleType: LCS
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
5 hexamethyldisiloxa	50.0	52.6	105.18	70-130
7 octamethyltrisilox	50.0	54.8	109.62	70-130
9 octa-m-cyclotetras	50.0	51.7	103.34	70-130
10 deca-m-cyclopentas	50.0	50.7	101.43	70-130
165 Dodeca-mcyclohexas	50.0	43.5	87.05	70-130

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	39.3	98.34	70-130

Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Page 1

Date : 23-MAR-2010 20:07

Client ID: LCS

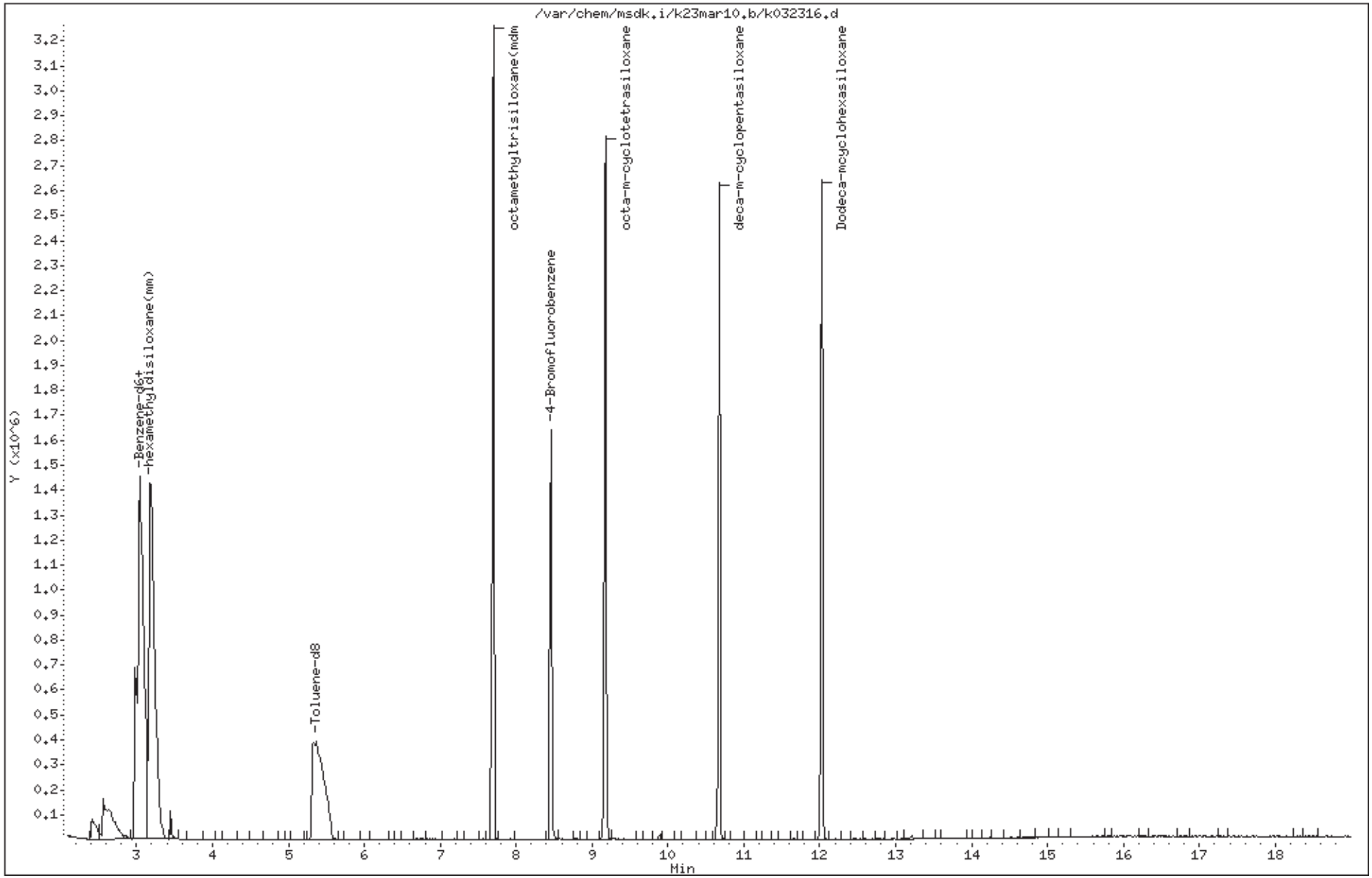
Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Date : 23-MAR-2010 20:07

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

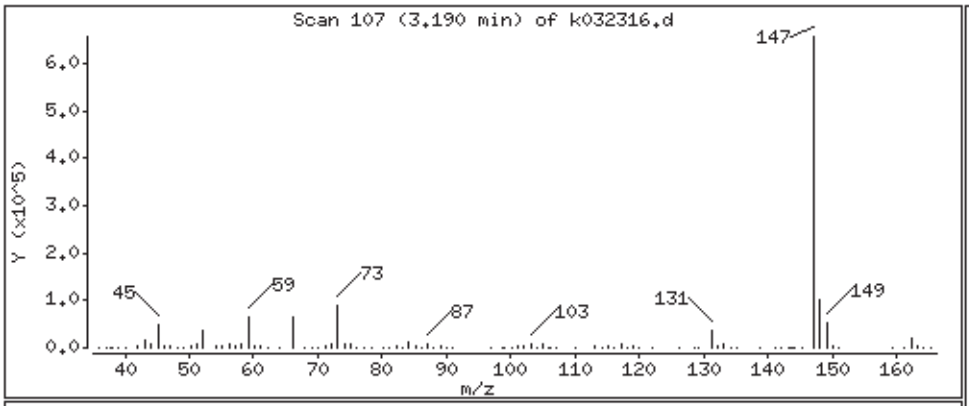
Operator: lz

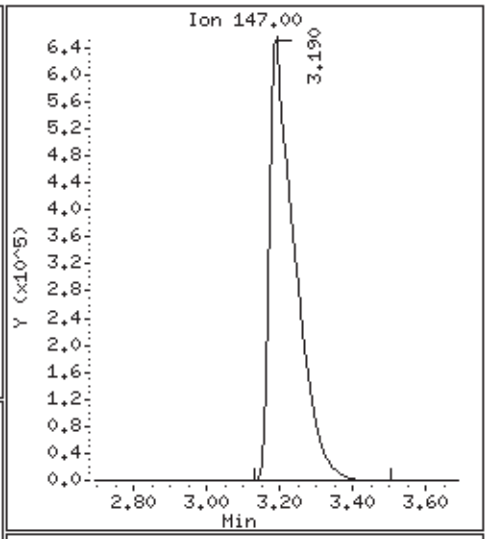
Column phase: DB-5.625

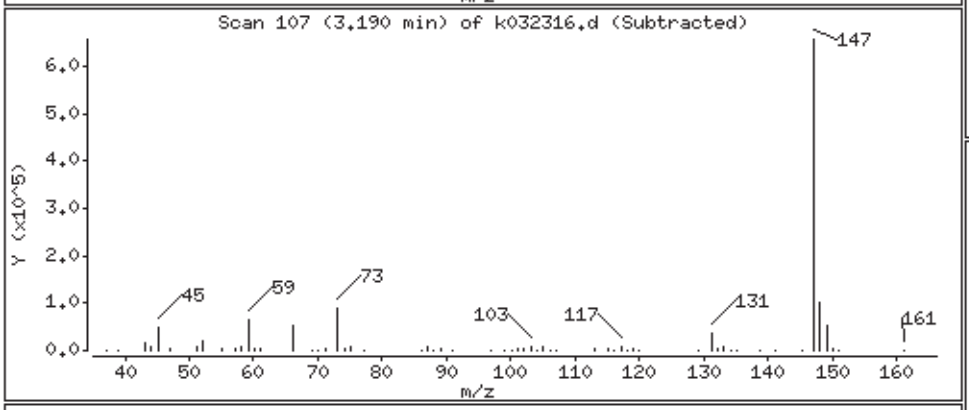
Column diameter: 0.25

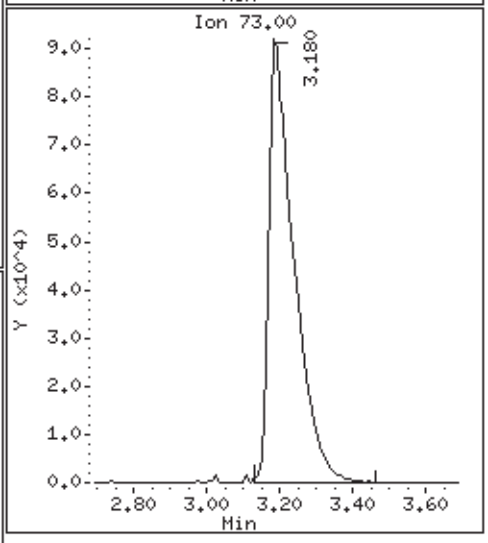
5 hexamethyldisiloxane(mm)

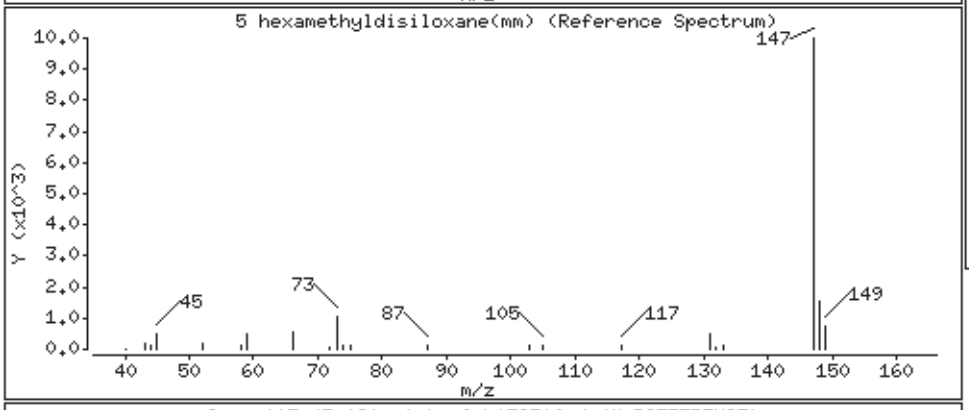
Concentration: 52.6 ug

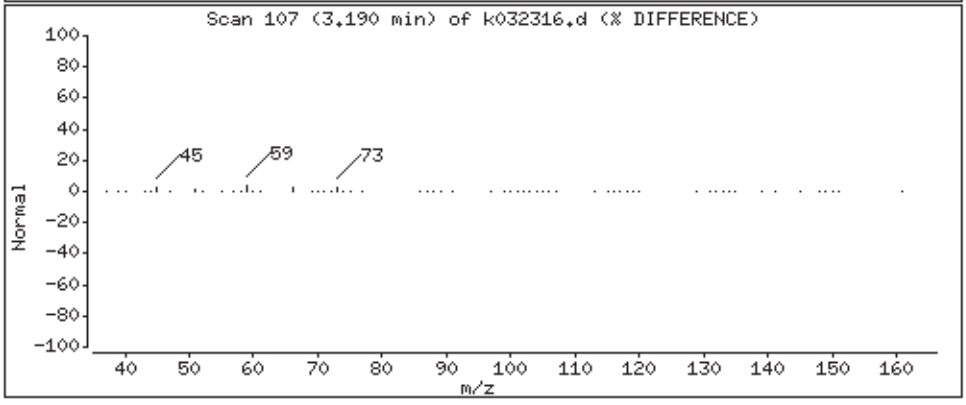












Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Date : 23-MAR-2010 20:07

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

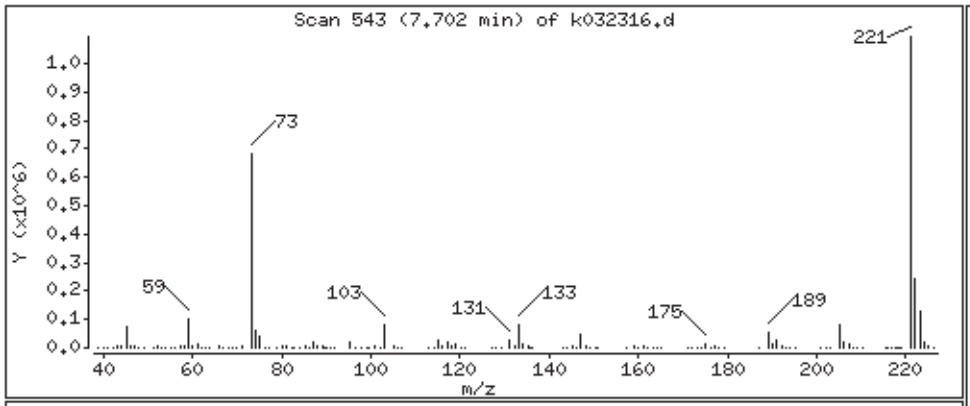
Operator: lz

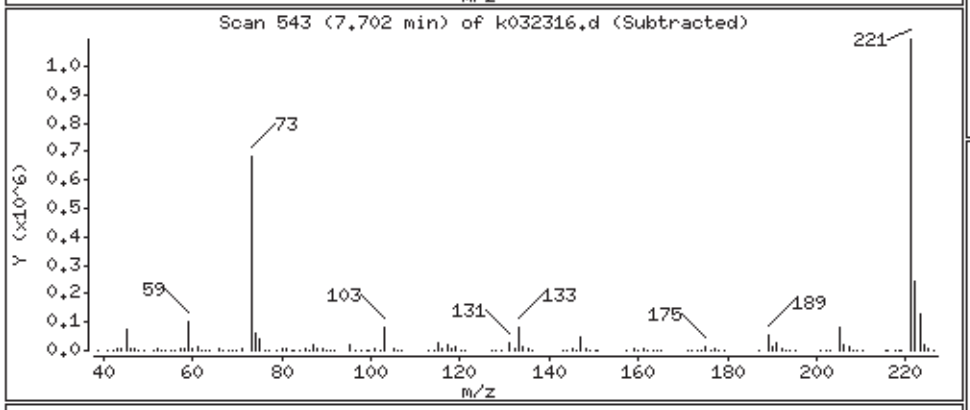
Column phase: DB-5.625

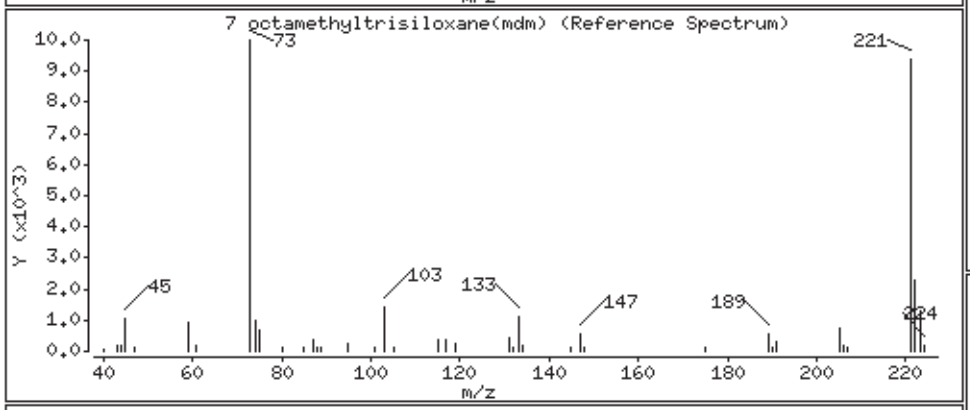
Column diameter: 0.25

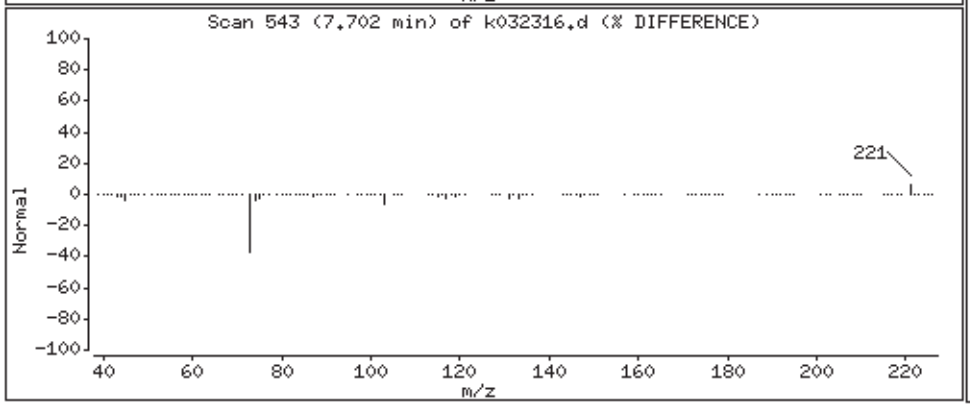
7 octamethyltrisiloxane(mdm)

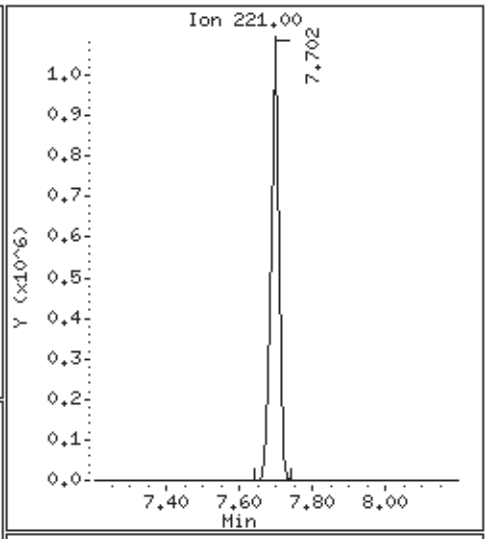
Concentration: 54.8 ug

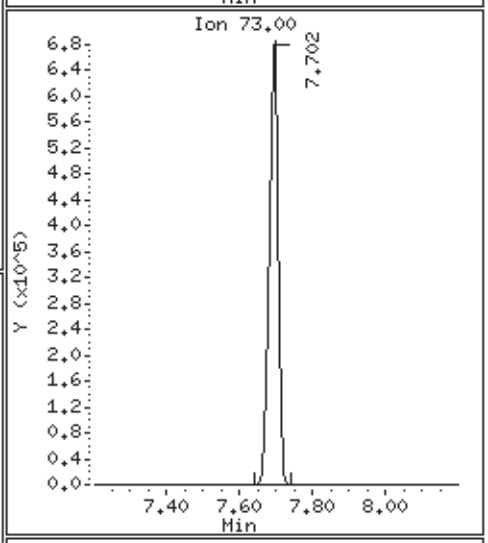


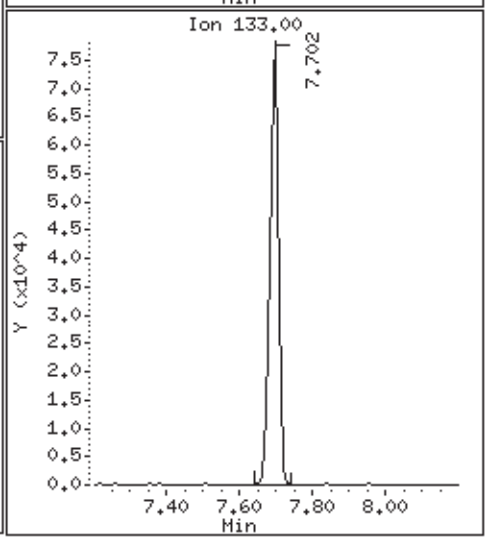












Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Date : 23-MAR-2010 20:07

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

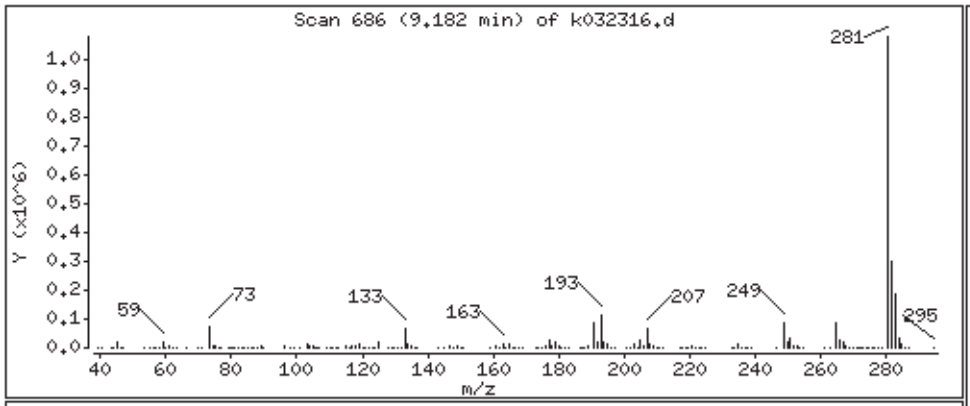
Operator: lz

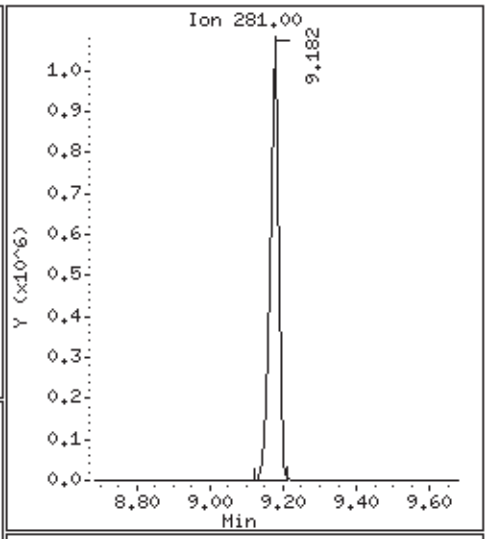
Column phase: DB-5.625

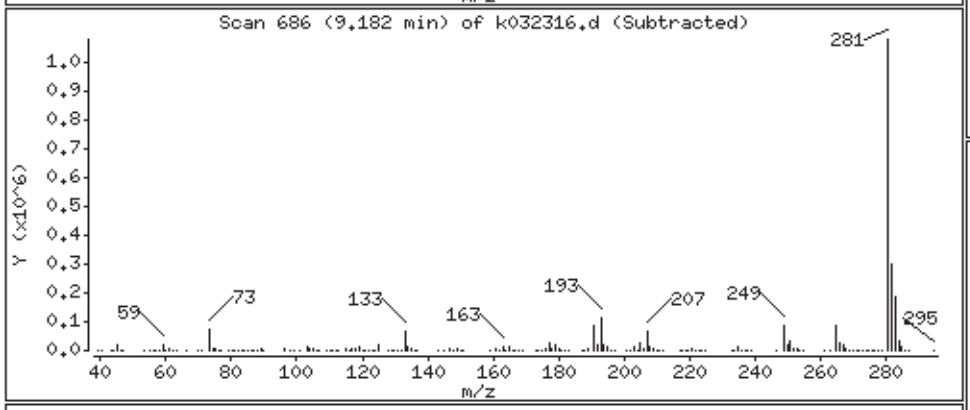
Column diameter: 0.25

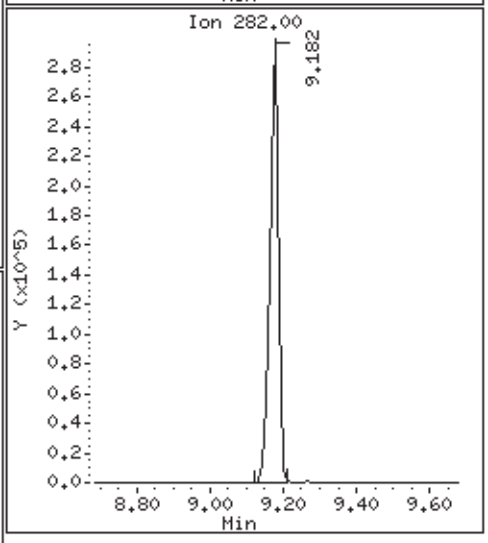
9 octa-m-cyclotetrasiloxane(d4)

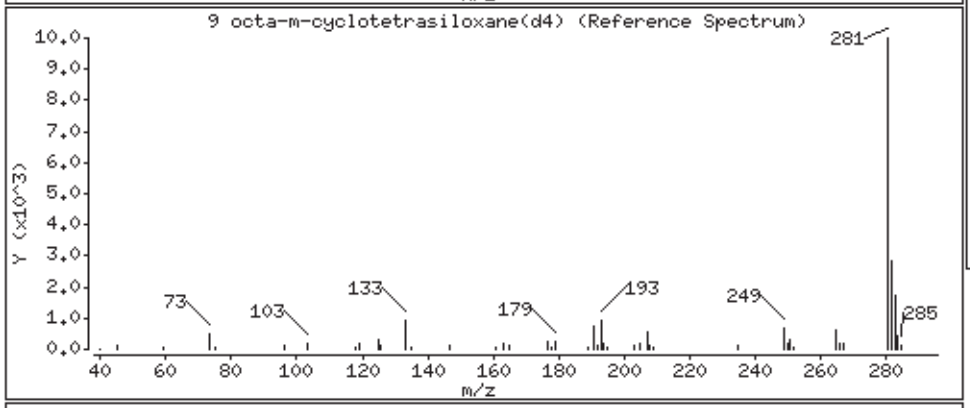
Concentration: 51.7 ug

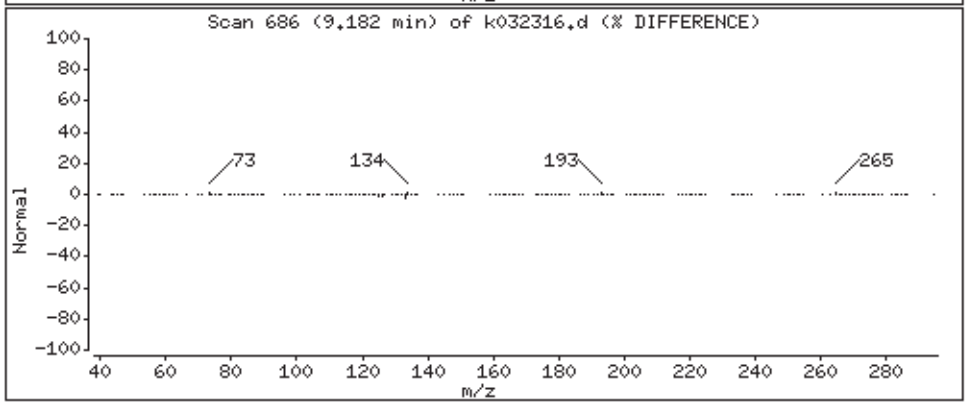












Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Date : 23-MAR-2010 20:07

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

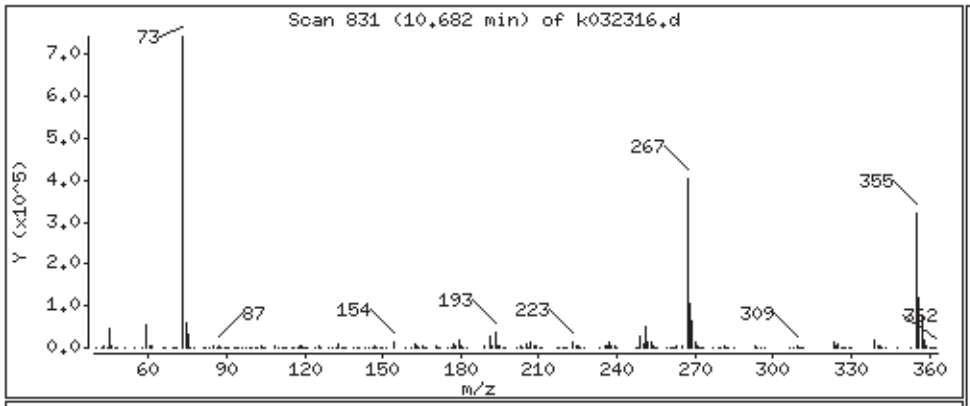
Operator: lz

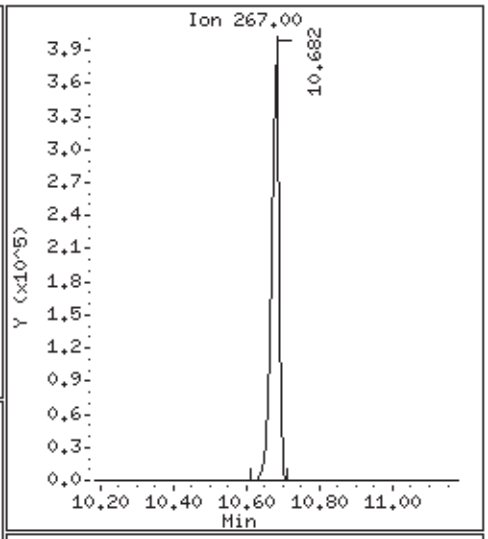
Column phase: DB-5.625

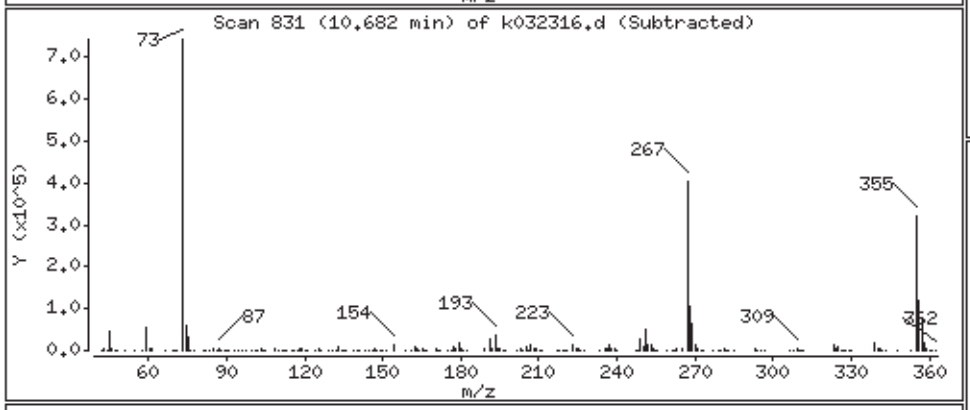
Column diameter: 0.25

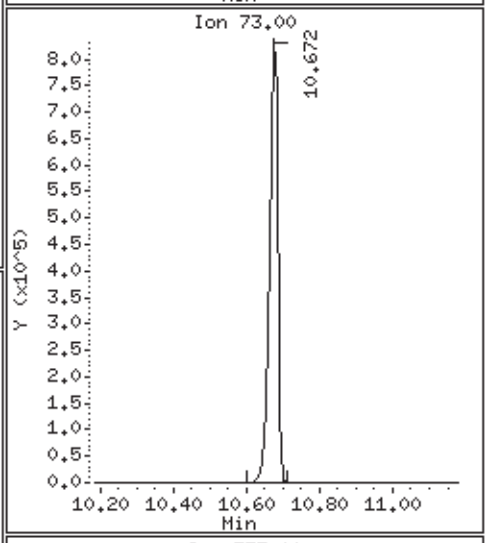
10 deca-m-cyclopentasiloxane(d5)

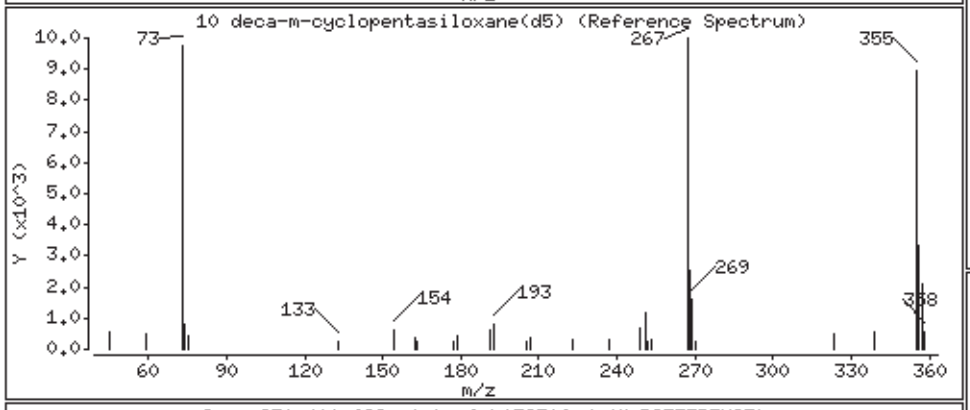
Concentration: 50.7 ug

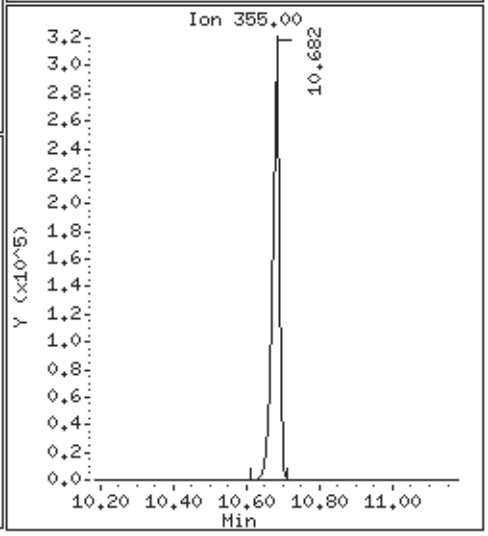


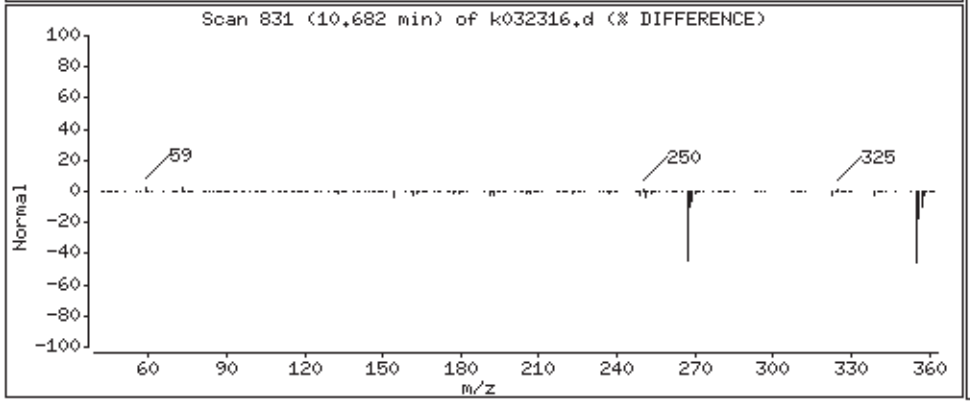












Data File: /var/chem/msdk.i/k23mar10.b/k032316.d

Date : 23-MAR-2010 20:07

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

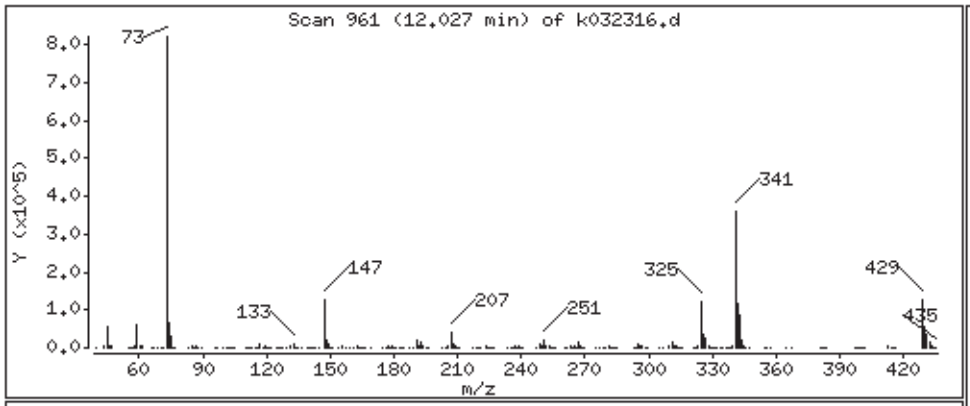
Operator: lz

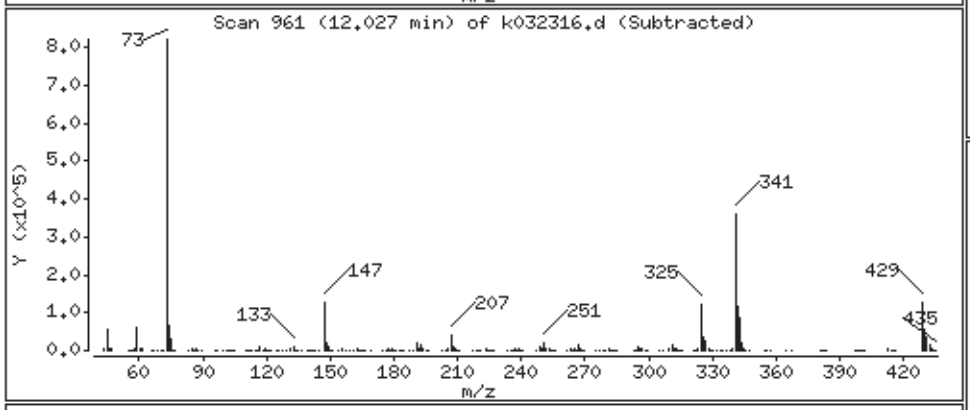
Column phase: DB-5.625

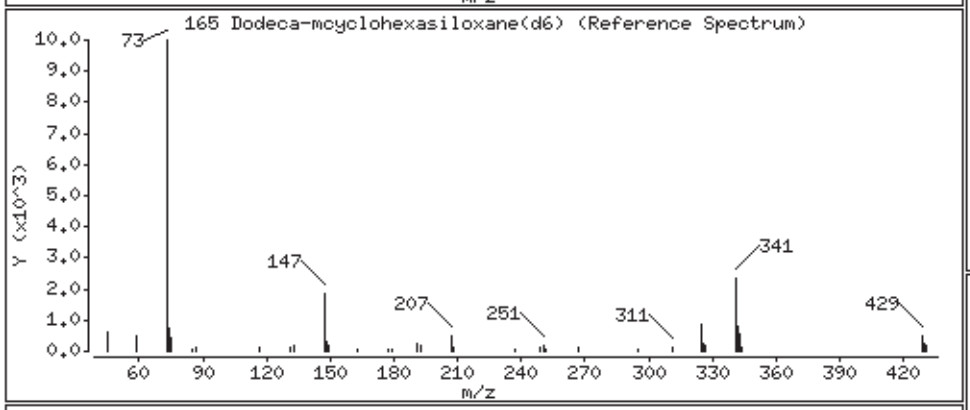
Column diameter: 0.25

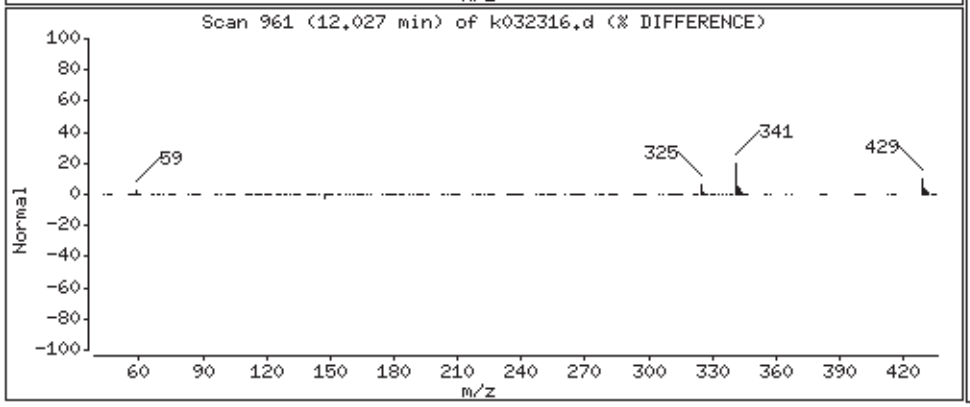
165 Dodeca-mcyclohexasiloxane(d6)

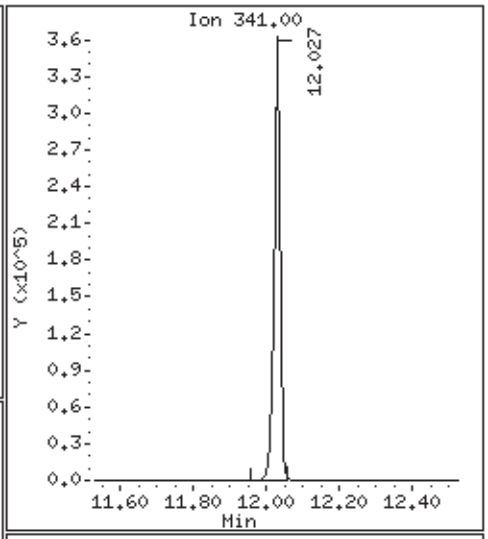
Concentration: 43.5 ug

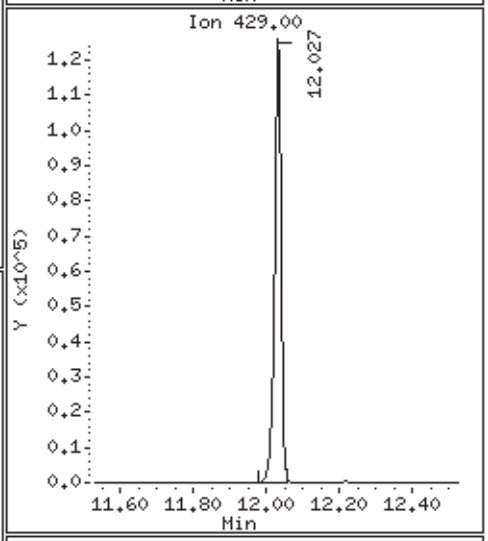


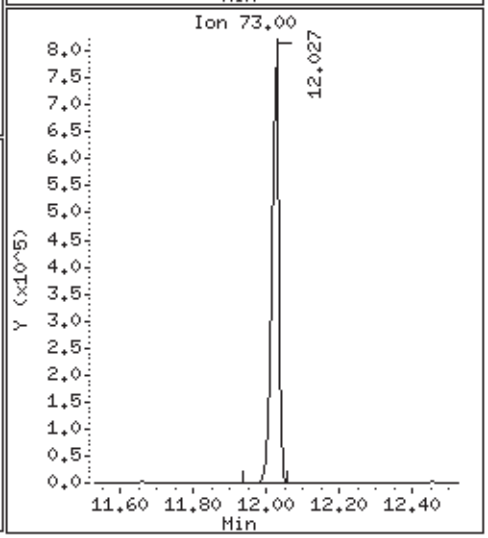












Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032308.d
Lab Smp Id: 1869-39-1.0 Client Smp ID: Level 1
Inj Date : 23-MAR-2010 16:55
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-1.0;Level 1
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 16:55 Cal File: k032308.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	ON-COL (uG/mL)
*	3 Benzene-d6	84	2.983	2.983	(1.000)	1611409	40.0000	
$	4 Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2703007	40.0000	40.3
	5 hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	63835	1.00000	1.0
*	6 Toluene-d8	98	5.332	5.332	(1.000)	1431735	40.0000	
	7 octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.444)	35915	1.00000	1.0
*	8 4-Bromofluorobenzene	174	8.457	8.457	(1.000)	449413	40.0000	
	9 octa-m-cyclotetrasiloxane(d4)	281	9.182	9.182	(1.086)	43534	1.00000	1.1
	10 deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	13067	1.00000	1.1
	165 Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	15732	1.00000	1.4(a)

QC Flag Legend

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

Report Date: 24-Mar-2010 10:02

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032308.d
Lab Smp Id: 1869-39-1.0
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 1
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1611409	9.54
6 Toluene-d8	1312511	656256	2625022	1431735	9.08
8 4-Bromofluorobenz	437743	218872	875486	449413	2.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.01
6 Toluene-d8	5.33	4.83	5.83	5.33	0.01
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032308.d

Date : 23-MAR-2010 16:55

Client ID: Level 1

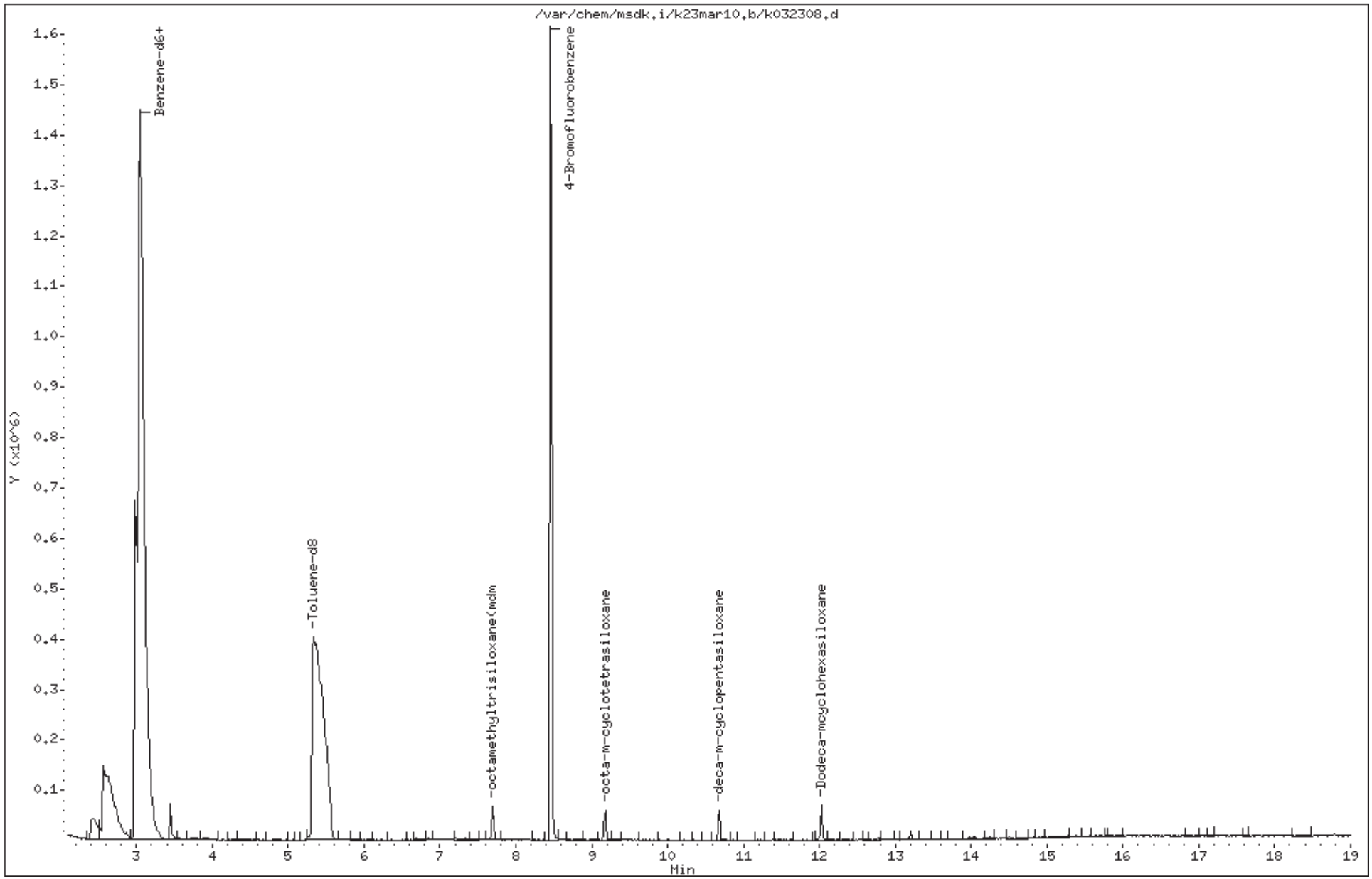
Instrument: msdk.i

Sample Info: ;1869-39-1.0;Level 1

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032309.d
Lab Smp Id: 1869-39-5.0 Client Smp ID: Level 2
Inj Date : 23-MAR-2010 17:19
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-5.0;Level 2
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 17:19 Cal File: k032309.d
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	AMOUNTS ON-COL (uG/mL)
* 3	Benzene-d6	84	2.984	2.984	(1.000)	1484099	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.056	3.056	(1.024)	2529897	40.0000	41.0
5	hexamethyldisiloxane(mm)	147	3.191	3.191	(1.069)	293967	5.00000	5.1
* 6	Toluene-d8	98	5.364	5.364	(1.000)	1337951	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.703	7.703	(1.436)	176015	5.00000	5.5
* 8	4-Bromofluorobenzene	174	8.458	8.458	(1.000)	427508	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.182	9.182	(1.086)	193031	5.00000	5.3
10	deca-m-cyclopentasiloxane(d5)	267	10.683	10.683	(1.263)	64220	5.00000	5.5
165	Dodeca-mcyclohexasiloxane(d6)	341	12.028	12.028	(1.422)	54905	5.00000	5.2

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032309.d
Lab Smp Id: 1869-39-5.0
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 2
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1484099	0.89
6 Toluene-d8	1312511	656256	2625022	1337951	1.94
8 4-Bromofluorobenz	437743	218872	875486	427508	-2.34

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.04
6 Toluene-d8	5.33	4.83	5.83	5.36	0.60
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032309.d

Page 1

Date : 23-MAR-2010 17:19

Client ID: Level 2

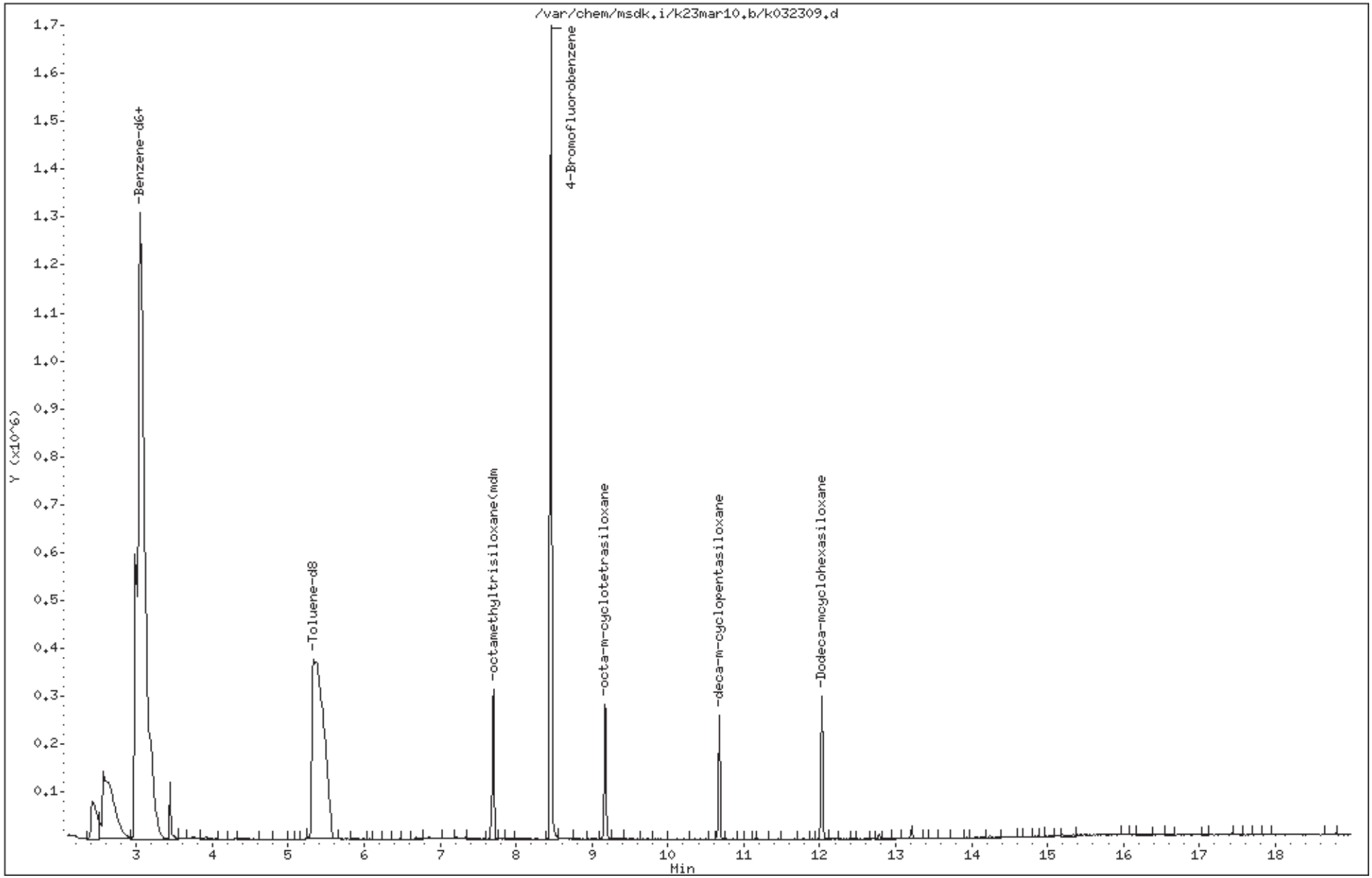
Instrument: msdk.i

Sample Info: ;1869-39-5.0;Level 2

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032310.d
Lab Smp Id: 1869-39-10 Client Smp ID: Level 3
Inj Date : 23-MAR-2010 17:43
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-10;Level 3
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 17:43 Cal File: k032310.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	AMOUNTS ON-COL (uG/mL)
* 3	Benzene-d6	84	2.993	2.993	(1.000)	1464263	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.017)	2429585	40.0000	39.9
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.066)	575522	10.0000	10.2
* 6	Toluene-d8	98	5.332	5.332	(1.000)	1301538	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.444)	345049	10.0000	11.1
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	412057	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.181	9.181	(1.086)	381660	10.0000	10.9
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	123596	10.0000	11.0
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	105408	10.0000	10.3

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032310.d
Lab Smp Id: 1869-39-10
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 3
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1464263	-0.46
6 Toluene-d8	1312511	656256	2625022	1301538	-0.84
8 4-Bromofluorobenz	437743	218872	875486	412057	-5.87

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.99	0.35
6 Toluene-d8	5.33	4.83	5.83	5.33	0.00
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032310.d

Page 1

Date : 23-MAR-2010 17:43

Client ID: Level 3

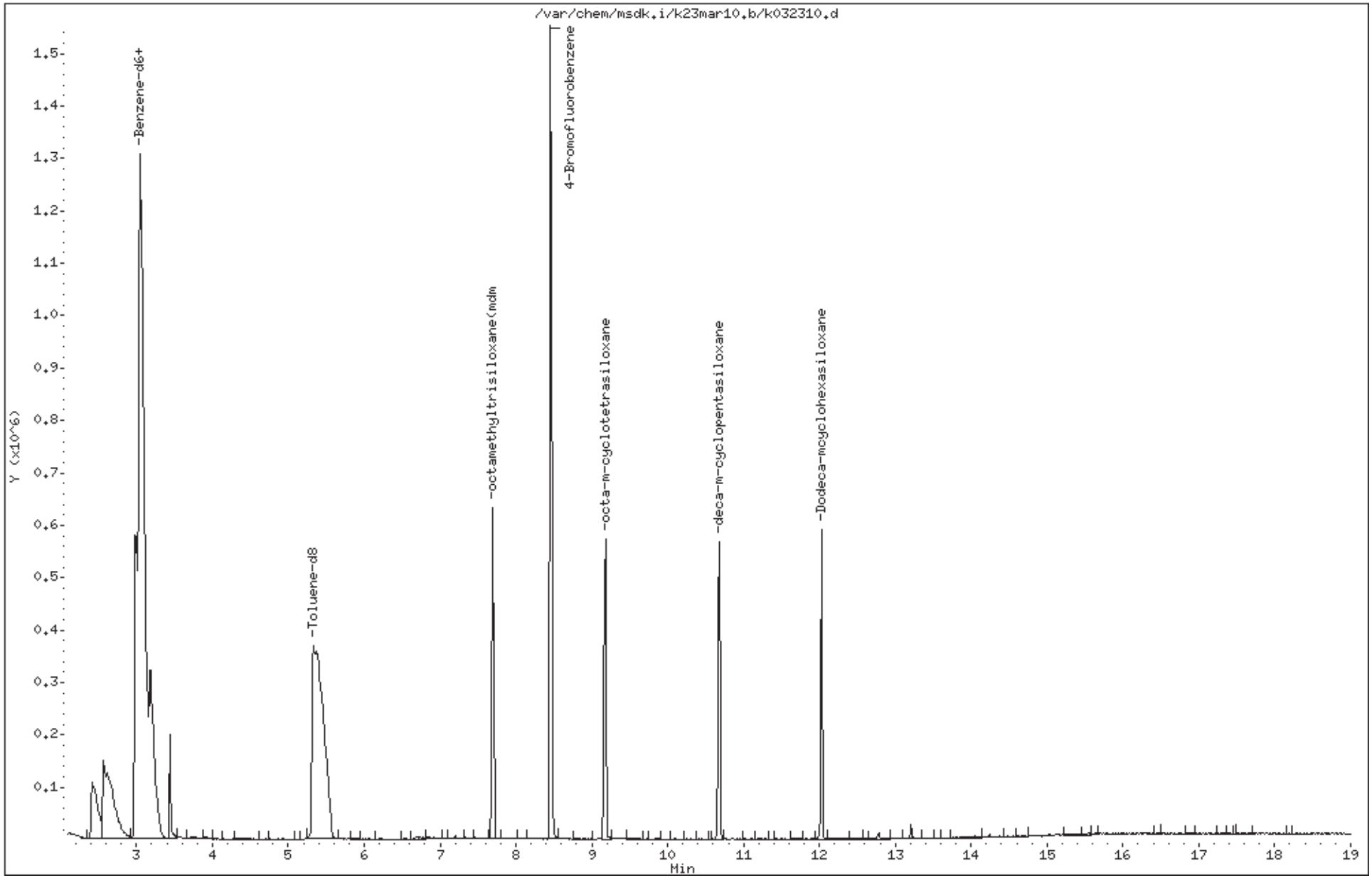
Instrument: msdk.i

Sample Info: ;1869-39-10;Level 3

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032311.d
Lab Smp Id: 1869-39-25 Client Smp ID: Level 4
Inj Date : 23-MAR-2010 18:07
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-25;Level 4
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:07 Cal File: k032311.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	AMOUNTS ON-COL (uG/mL)
* 3	Benzene-d6	84	2.987	2.987	(1.000)	1527659	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.049	3.049	(1.021)	2561438	40.0000	40.3
5	hexamethyldisiloxane(mm)	147	3.183	3.183	(1.066)	1487129	25.0000	25.3
* 6	Toluene-d8	98	5.325	5.325	(1.000)	1354418	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.705	7.705	(1.447)	850373	25.0000	26.3
* 8	4-Bromofluorobenzene	174	8.461	8.461	(1.000)	431768	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.175	9.175	(1.084)	937892	25.0000	25.6
10	deca-m-cyclopentasiloxane(d5)	267	10.675	10.675	(1.262)	308512	25.0000	26.2
165	Dodeca-mcyclohexasiloxane(d6)	341	12.031	12.031	(1.422)	260303	25.0000	24.3

Report Date: 24-Mar-2010 10:02

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032311.d
Lab Smp Id: 1869-39-25
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 4
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1527659	3.85
6 Toluene-d8	1312511	656256	2625022	1354418	3.19
8 4-Bromofluorobenz	437743	218872	875486	431768	-1.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.99	0.13
6 Toluene-d8	5.33	4.83	5.83	5.33	-0.12
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032311.d

Page 1

Date : 23-MAR-2010 18:07

Client ID: Level 4

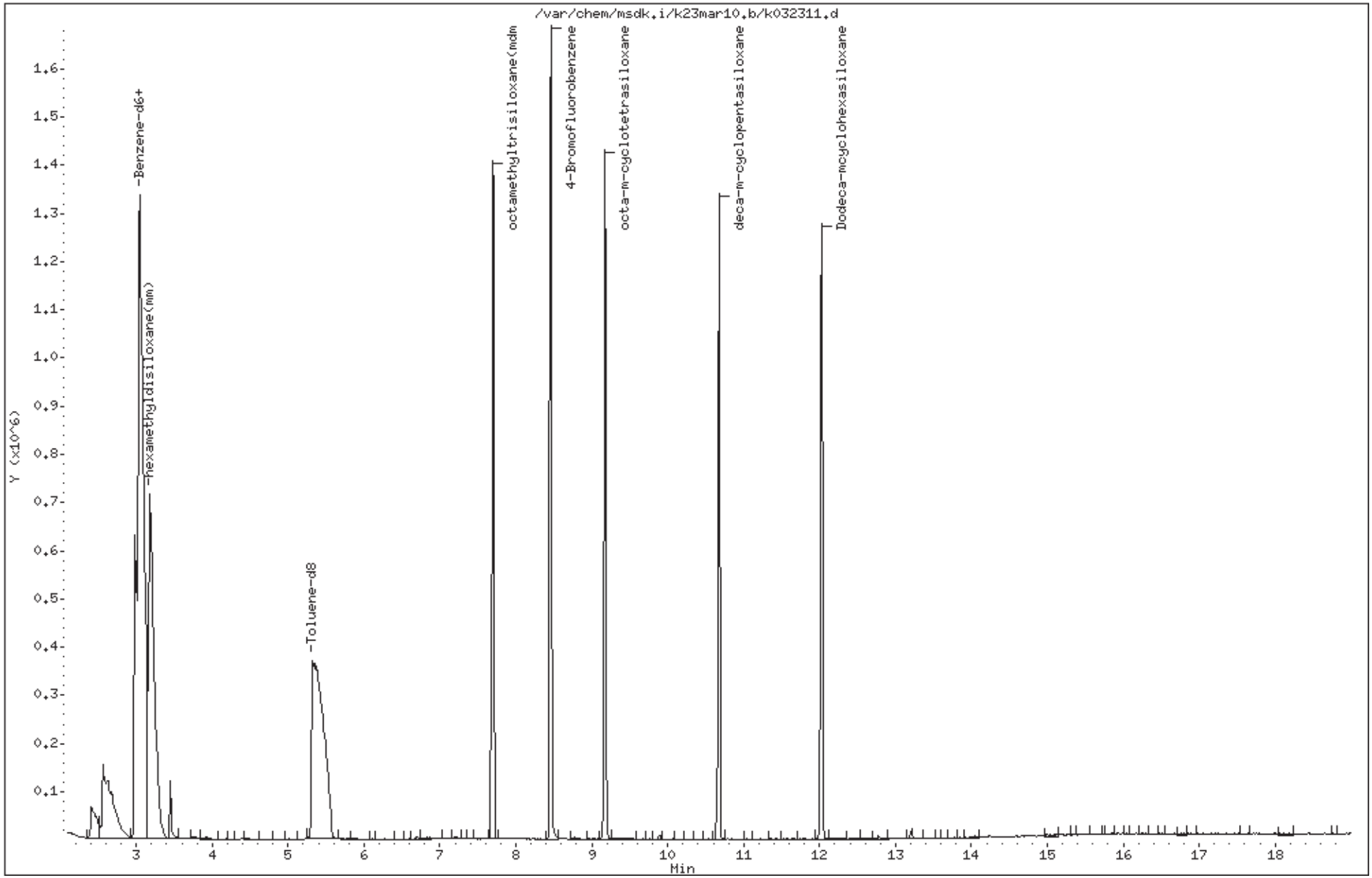
Instrument: msdk.i

Sample Info: ;1869-39-25;Level 4

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032312.d
Lab Smp Id: 1869-20-50 Client Smp ID: Level 5
Inj Date : 23-MAR-2010 18:31
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-20-50;Level 5
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:06 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 8 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	ON-COL (uG/mL)
* 3	Benzene-d6	84	2.983	2.983	(1.000)	1471066	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2450038	40.0000	40.0
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	2913161	50.0000	51.4
* 6	Toluene-d8	98	5.332	5.332	(1.000)	1312511	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.444)	1613666	50.0000	51.6
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	437743	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.181	9.181	(1.086)	2011028	50.0000	54.1
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	631480	50.0000	52.9
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	516814	50.0000	47.6

Report Date: 24-Mar-2010 10:06

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032312.d
Lab Smp Id: 1869-20-50
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 5
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1471066	0.00
6 Toluene-d8	1312511	656256	2625022	1312511	0.00
8 4-Bromofluorobenz	437743	218872	875486	437743	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.00
6 Toluene-d8	5.33	4.83	5.83	5.33	0.00
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032312.d

Page 1

Date : 23-MAR-2010 18:31

Client ID: Level 5

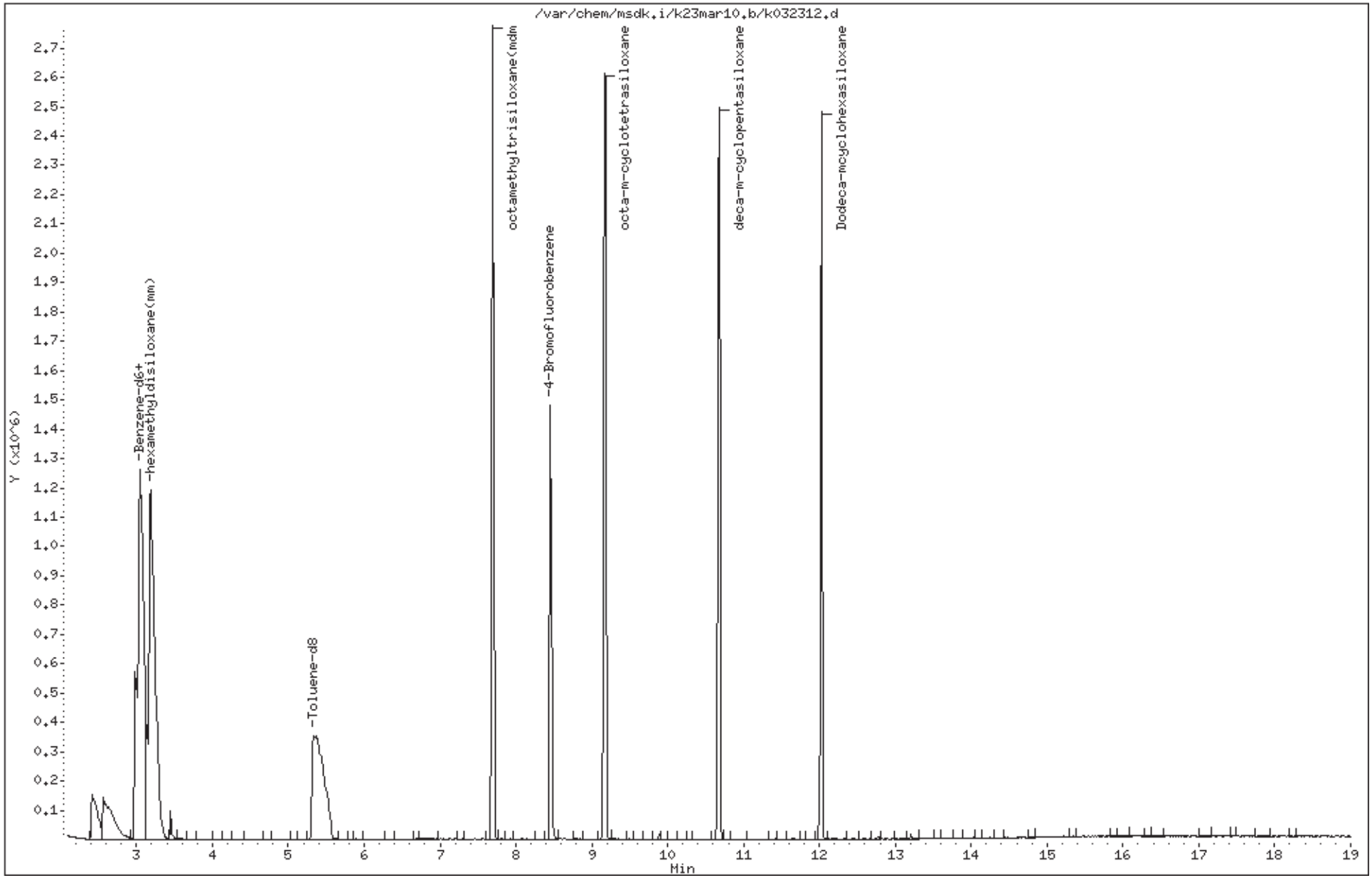
Instrument: msdk.i

Sample Info: ;1869-20-50;Level 5

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032313.d
Lab Smp Id: 1869-39-100 Client Smp ID: Level 6
Inj Date : 23-MAR-2010 18:55
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-100;Level 6
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:55 Cal File: k032313.d
Als bottle: 9 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	AMOUNTS ON-COL (uG/mL)
* 3	Benzene-d6	84	2.983	2.983	(1.000)	1486401	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2459643	40.0000	39.6
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	5573293	100.000	95.9
* 6	Toluene-d8	98	5.332	5.332	(1.000)	1338190	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.444)	2968558	100.000	88.8
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	434557	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.181	9.181	(1.086)	3388571	100.000	87.2
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	1102003	100.000	88.5
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	979603	100.000	86.4

Report Date: 24-Mar-2010 10:02

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032313.d
Lab Smp Id: 1869-39-100
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 6
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1486401	1.04
6 Toluene-d8	1312511	656256	2625022	1338190	1.96
8 4-Bromofluorobenz	437743	218872	875486	434557	-0.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.00
6 Toluene-d8	5.33	4.83	5.83	5.33	0.00
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032313.d

Page 1

Date : 23-MAR-2010 18:55

Client ID: Level 6

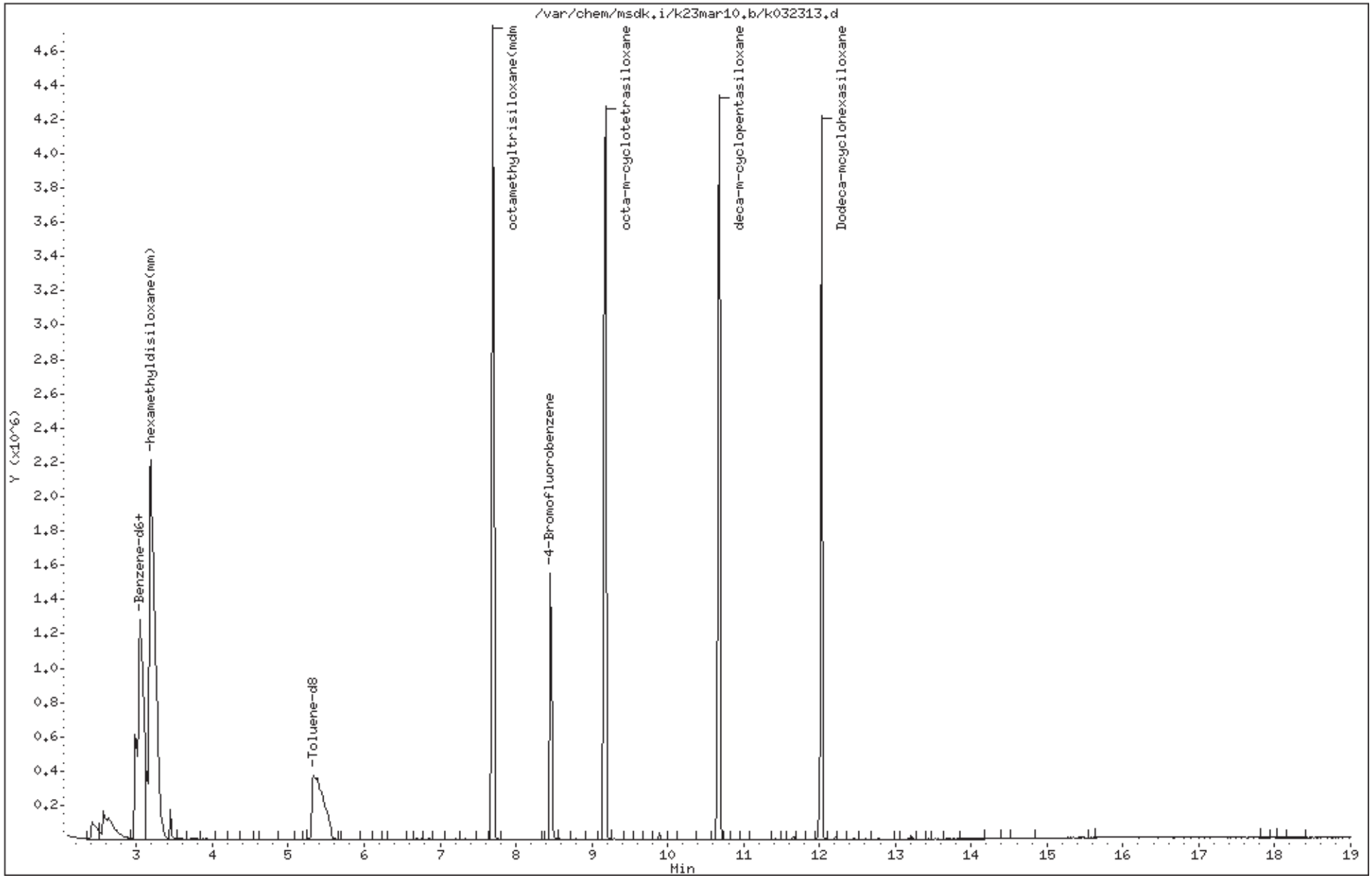
Instrument: msdk.i

Sample Info: ;1869-39-100;Level 6

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032314.d
Lab Smp Id: 1869-39-120 Client Smp ID: Level 7
Inj Date : 23-MAR-2010 19:19
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-120;Level 7
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 19:19 Cal File: k032314.d
Als bottle: 10 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	ON-COL (uG/mL)
* 3	Benzene-d6	84	2.983	2.983	(1.000)	1560192	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2582507	40.0000	39.6
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	6961549	120.000	115
* 6	Toluene-d8	98	5.342	5.342	(1.000)	1401311	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.701	7.701	(1.442)	3543598	120.000	104
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	446586	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.181	9.181	(1.086)	3955701	120.000	102
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	1268768	120.000	102
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	1147152	120.000	101

Report Date: 24-Mar-2010 10:02

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032314.d
Lab Smp Id: 1869-39-120
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 7
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1560192	6.06
6 Toluene-d8	1312511	656256	2625022	1401311	6.77
8 4-Bromofluorobenz	437743	218872	875486	446586	2.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	-0.01
6 Toluene-d8	5.33	4.83	5.83	5.34	0.19
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032314.d

Page 1

Date : 23-MAR-2010 19:19

Client ID: Level 7

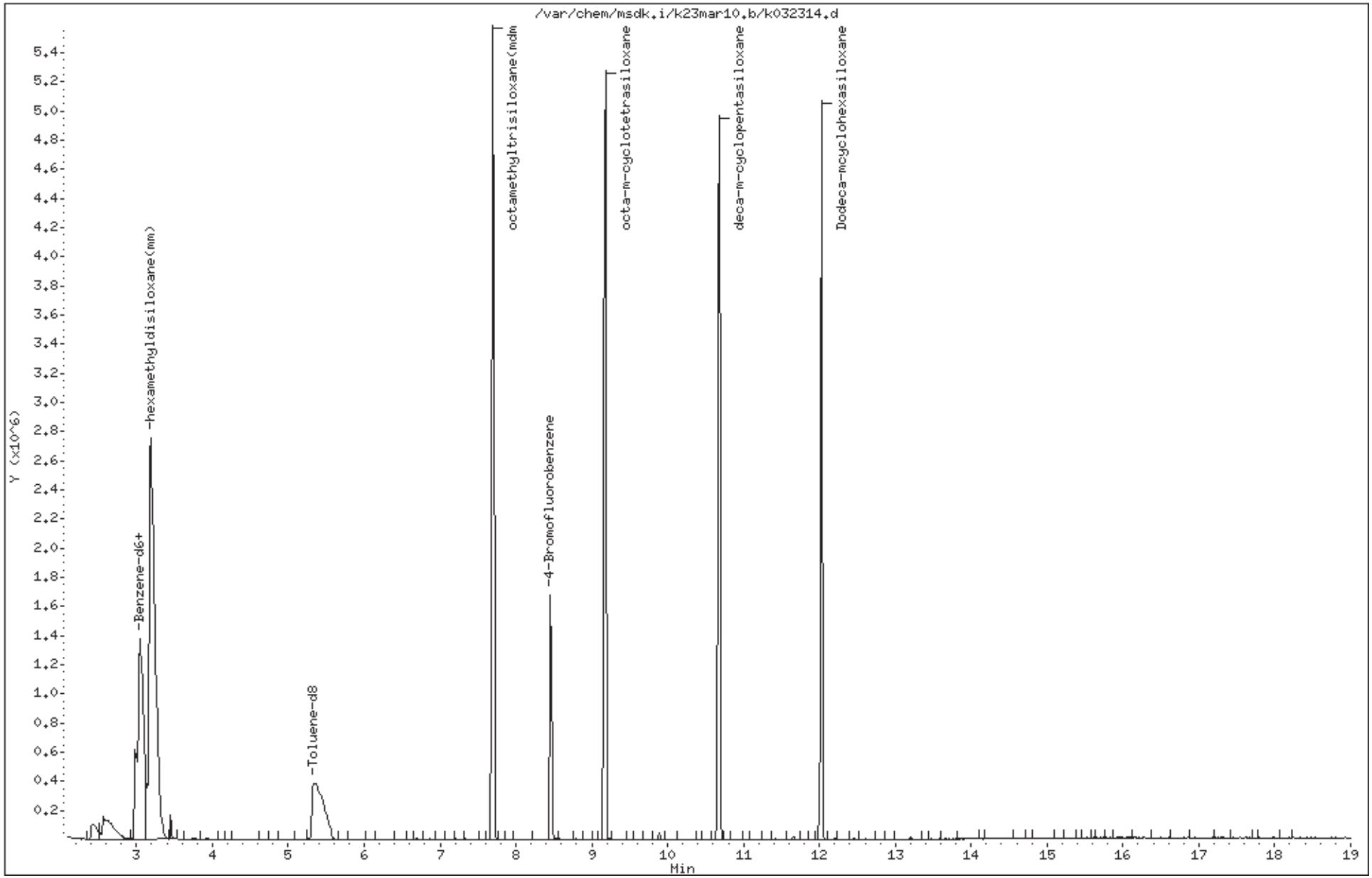
Instrument: msdk.i

Sample Info: ;1869-39-120;Level 7

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /var/chem/msdk.i/k23mar10.b/k032315.d
Lab Smp Id: 1869-39-160 Client Smp ID: Level 8
Inj Date : 23-MAR-2010 19:43
Operator : lz Inst ID: msdk.i
Smp Info : ;1869-39-160;Level 8
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /var/chem/msdk.i/k23mar10.b/k10k0323.m
Meth Date : 24-Mar-2010 10:02 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 19:43 Cal File: k032315.d
Als bottle: 11 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	ON-COL (uG/mL)
* 3	Benzene-d6	84	2.983	2.983	(1.000)	1549666	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	3.045	3.045	(1.021)	2514548	40.0000	39.0
5	hexamethyldisiloxane(mm)	147	3.190	3.190	(1.069)	8955592	160.000	150
* 6	Toluene-d8	98	5.353	5.353	(1.000)	1395390	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.702	7.702	(1.439)	4424387	160.000	133
* 8	4-Bromofluorobenzene	174	8.457	8.457	(1.000)	458922	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.182	9.182	(1.086)	5067446	160.000	130
10	deca-m-cyclopentasiloxane(d5)	267	10.682	10.682	(1.263)	1654309	160.000	132
165	Dodeca-mcyclohexasiloxane(d6)	341	12.027	12.027	(1.422)	1517986	160.000	133

Report Date: 24-Mar-2010 10:02

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k032315.d
Lab Smp Id: 1869-39-160
Analysis Type: SV
Quant Type: ISTD
Operator: lz
Method File: /var/chem/msdk.i/k23mar10.b/k10k0323.m
Misc Info:

Calibration Date: 23-MAR-2010
Calibration Time: 18:31
Client Smp ID: Level 8
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	1471066	735533	2942132	1549666	5.34
6 Toluene-d8	1312511	656256	2625022	1395390	6.31
8 4-Bromofluorobenz	437743	218872	875486	458922	4.84

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.98	2.48	3.48	2.98	0.01
6 Toluene-d8	5.33	4.83	5.83	5.35	0.39
8 4-Bromofluorobenz	8.46	7.96	8.96	8.46	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/msdk.i/k23mar10.b/k032315.d

Page 1

Date : 23-MAR-2010 19:43

Client ID: Level 8

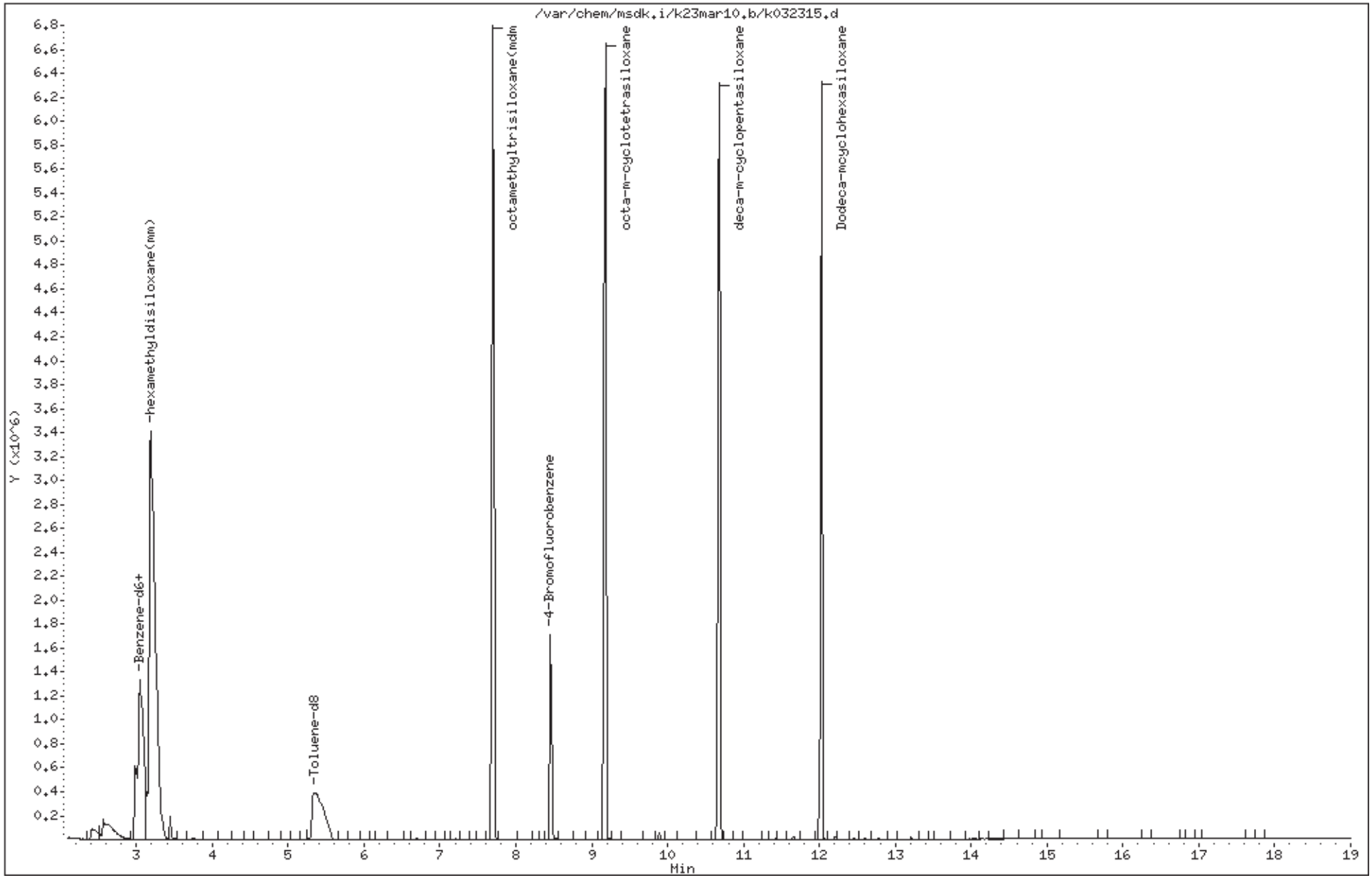
Instrument: msdk.i

Sample Info: ;1869-39-160;Level 8

Operator: lz

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdk.i Injection Date: 28-MAY-2010 19:59
Lab File ID: k052828.d Init. Cal. Date(s): 23-MAR-2010 23-MAR-2010
Analysis Type: WATER Init. Cal. Times: 16:55 19:43
Lab Sample ID: 1869-20-50 Quant Type: ISTD
Method: /chem/msdk.i/k28may10a.b/k10k0323.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Hexamethyldisiloxane-d18	1.66452	1.68527	0.050	-1.24645	30.00000	Averaged
5 hexamethyldisiloxane(mm)	1.53938	1.12568	0.050	26.87495	30.00000	Averaged
7 octamethyltrisiloxane(mdm)	0.95342	0.86727	0.050	9.03611	30.00000	Averaged
9 octa-m-cyclotetrasiloxane(d	3.39686	3.26632	0.050	3.84290	30.00000	Averaged
10 deca-m-cyclopentasiloxane(d	1.09056	1.22935	0.050	-12.72695	30.00000	Averaged
165 Dodeca-mcyclohexasiloxane(d	0.99311	0.83467	0.050	15.95405	30.00000	Averaged

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052828.d
Lab Smp Id: 1869-20-50 Client Smp ID: CCV
Inj Date : 28-MAY-2010 19:59
Operator : LZ Inst ID: msdk.i
Smp Info : ;1869-20-50;CCV
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	AMOUNTS ON-COL (uG/mL)
* 3	Benzene-d6	84	2.881	2.881	(1.000)	767574	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.933	2.933	(1.018)	1293570	40.0000	40.5
5	hexamethyldisiloxane(mm)	147	3.068	3.068	(1.065)	1080049	50.0000	36.6
* 6	Toluene-d8	98	5.158	5.158	(1.000)	708584	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.600	7.600	(1.473)	768163	50.0000	45.5
* 8	4-Bromofluorobenzene	174	8.376	8.376	(1.000)	250041	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.080	9.080	(1.084)	1020892	50.0000	48.1
10	deca-m-cyclopentasiloxane(d5)	267	10.591	10.591	(1.264)	384236	50.0000	56.4
165	Dodeca-mcyclohexasiloxane(d6)	341	11.936	11.936	(1.425)	260877	50.0000	42.0

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052828.d
Lab Smp Id: 1869-20-50
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Client Smp ID: CCV
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	767574	0.00
6 Toluene-d8	708584	354292	1417168	708584	0.00
8 4-Bromofluorobenz	250041	125020	500082	250041	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.88	0.00
6 Toluene-d8	5.16	4.66	5.66	5.16	0.00
8 4-Bromofluorobenz	8.38	7.88	8.88	8.38	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdk.i/k28may10a.b/k052828.d

Page 1

Date : 28-MAY-2010 19:59

Client ID: CCV

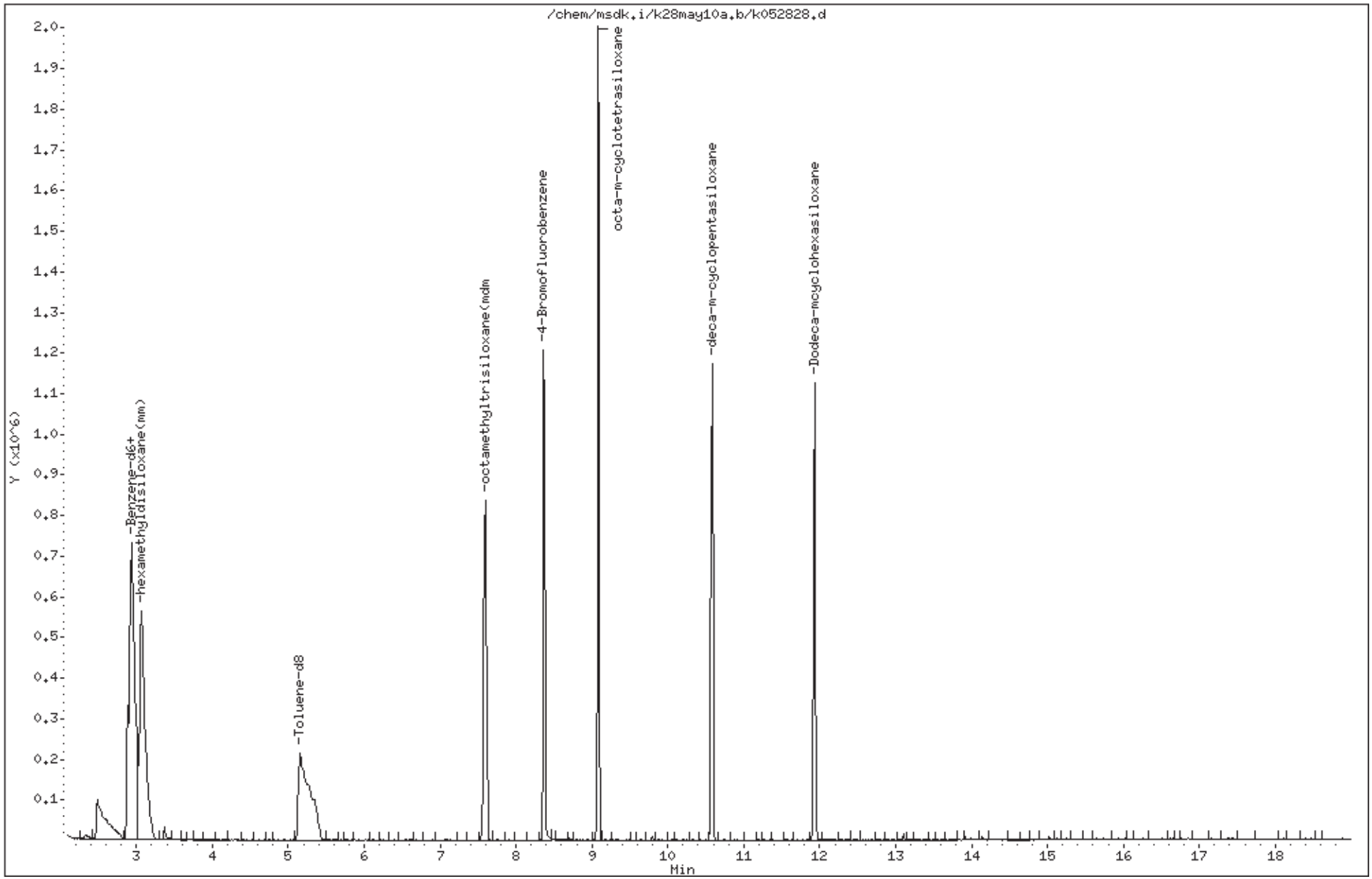
Instrument: msdk.i

Sample Info: ;1869-20-50;CCV

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdk.i Injection Date: 01-JUN-2010 13:18
Lab File ID: k060107.d Init. Cal. Date(s): 23-MAR-2010 23-MAR-2010
Analysis Type: WATER Init. Cal. Times: 16:55 19:43
Lab Sample ID: 1869-20-50 Quant Type: ISTD
Method: /chem/msdk.i/k01jun10.b/k10k0323.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 Hexamethyldisiloxane-d18	1.66452	1.77104	0.050	-6.39925	30.00000	Averaged
5 hexamethyldisiloxane(mm)	1.53938	1.18386	0.050	23.09495	30.00000	Averaged
7 octamethyltrisiloxane(mdm)	0.95342	0.88489	0.050	7.18764	30.00000	Averaged
9 octa-m-cyclotetrasiloxane(d	3.39686	3.27904	0.050	3.46839	30.00000	Averaged
10 deca-m-cyclopentasiloxane(d	1.09056	1.28095	0.050	-17.45783	30.00000	Averaged
165 Dodeca-mcyclohexasiloxane(d	0.99311	0.83384	0.050	16.03773	30.00000	Averaged

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k01jun10.b/k060107.d
Lab Smp Id: 1869-20-50 Client Smp ID: CCV
Inj Date : 01-JUN-2010 13:18
Operator : LZ Inst ID: msdk.i
Smp Info : ;1869-20-50;CCV
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k01jun10.b/k10k0323.m
Meth Date : 01-Jun-2010 13:45 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (uG/mL)	ON-COL (uG/mL)
* 3	Benzene-d6	84	2.872	2.872	(1.000)	941825	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.924	2.924	(1.018)	1668011	40.0000	42.6
5	hexamethyldisiloxane(mm)	147	3.059	3.059	(1.065)	1393742	50.0000	38.4
* 6	Toluene-d8	98	5.149	5.149	(1.000)	865787	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.601	7.601	(1.476)	957657	50.0000	46.4
* 8	4-Bromofluorobenzene	174	8.367	8.367	(1.000)	303940	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.081	9.081	(1.085)	1245789	50.0000	48.3
10	deca-m-cyclopentasiloxane(d5)	267	10.592	10.592	(1.266)	486663	50.0000	58.7
165	Dodeca-mcyclohexasiloxane(d6)	341	11.937	11.937	(1.427)	316796	50.0000	42.0

Report Date: 01-Jun-2010 13:45

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k060107.d
Lab Smp Id: 1869-20-50
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

Calibration Date: 01-JUN-2010
Calibration Time: 13:18
Client Smp ID: CCV
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	941825	470912	1883650	941825	0.00
6 Toluene-d8	865787	432894	1731574	865787	0.00
8 4-Bromofluorobenz	303940	151970	607880	303940	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	0.00
6 Toluene-d8	5.15	4.65	5.65	5.15	0.00
8 4-Bromofluorobenz	8.37	7.87	8.87	8.37	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdk.i/k01jun10.b/k060107.d

Date : 01-JUN-2010 13:18

Client ID: CCV

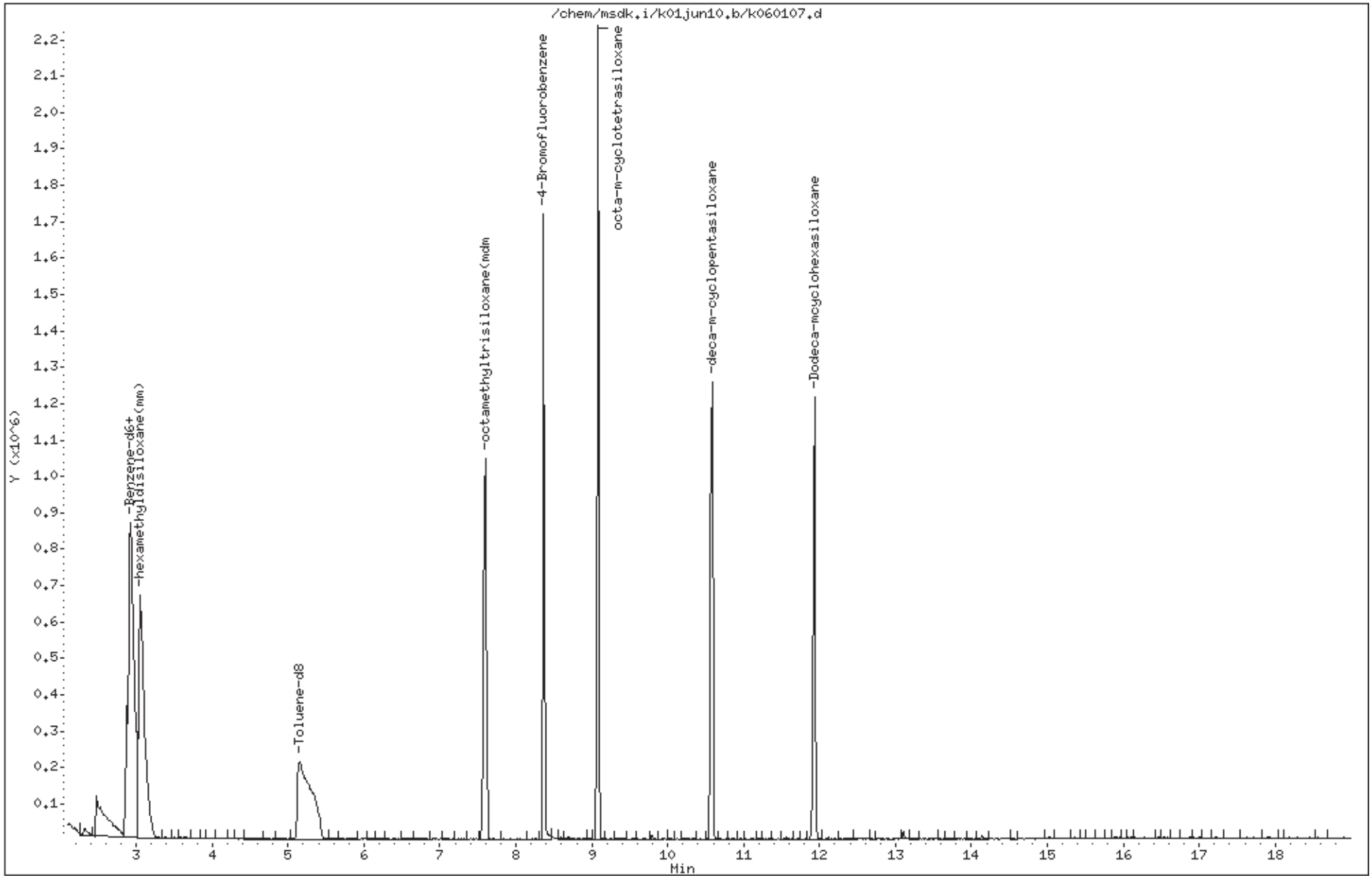
Sample Info: ;1869-20-50;CCV

Column phase: DB-5.625

Instrument: msdk.i

Operator: LZ

Column diameter: 0.25



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1005522D-12A

SILOXANES - GC/MS

File Name:	**k052829**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/10 08:25 PM**	

Compound	%Recovery
Octamethylcyclotetrasiloxane (D4)	89
Decamethylcylopentasiloxane (D5)	102
Dodecamethylcyclohexasiloxane (D6)	77
Hexamethyldisiloxane	71
Octamethyltrisiloxane	92

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	103	70-130

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k28may10a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Level: MED Operator: LZ
Data Type: MS DATA SampleType: LCS
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
5 hexamethyldisiloxa	50.0	35.7	71.41	70-130
7 octamethyltrisilox	50.0	46.2	92.41	70-130
9 octa-m-cyclotetras	50.0	44.5	89.06	70-130
10 deca-m-cyclopentas	50.0	51.2	102.31	70-130
165 Dodeca-mcyclohexas	50.0	38.4	76.91	70-130

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	41.1	102.81	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052829.d
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Inj Date : 28-MAY-2010 20:25
Operator : LZ Inst ID: msdk.i
Smp Info : ;1869-21-50;LCS
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.880	2.881	(1.000)	949186	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.931	2.933	(1.018)	1624338	41.1240	41.1
5	hexamethyldisiloxane(mm)	147	3.066	3.068	(1.065)	1304199	35.7031	35.7
* 6	Toluene-d8	98	5.156	5.158	(1.000)	891976	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.598	7.600	(1.474)	982338	46.2045	46.2
* 8	4-Bromofluorobenzene	174	8.374	8.376	(1.000)	305819	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.088	9.080	(1.085)	1156520	44.5319	44.5
10	deca-m-cyclopentasiloxane(d5)	267	10.589	10.591	(1.264)	426510	51.1535	51.2
165	Dodeca-mcyclohexasiloxane(d6)	341	11.934	11.936	(1.425)	291997	38.4571	38.4

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k052829.d
Lab Smp Id: 1869-21-50
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k28may10a.b/k10k0323.m
Misc Info:

Calibration Date: 28-MAY-2010
Calibration Time: 19:59
Client Smp ID: LCS
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	767574	383787	1535148	949186	23.66
6 Toluene-d8	708584	354292	1417168	891976	25.88
8 4-Bromofluorobenz	250041	125020	500082	305819	22.31

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.88	2.38	3.38	2.88	-0.07
6 Toluene-d8	5.16	4.66	5.66	5.16	-0.04
8 4-Bromofluorobenz	8.38	7.88	8.88	8.37	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdk.i/k28may10a.b/k052829.d

Page 1

Date : 28-MAY-2010 20:25

Client ID: LCS

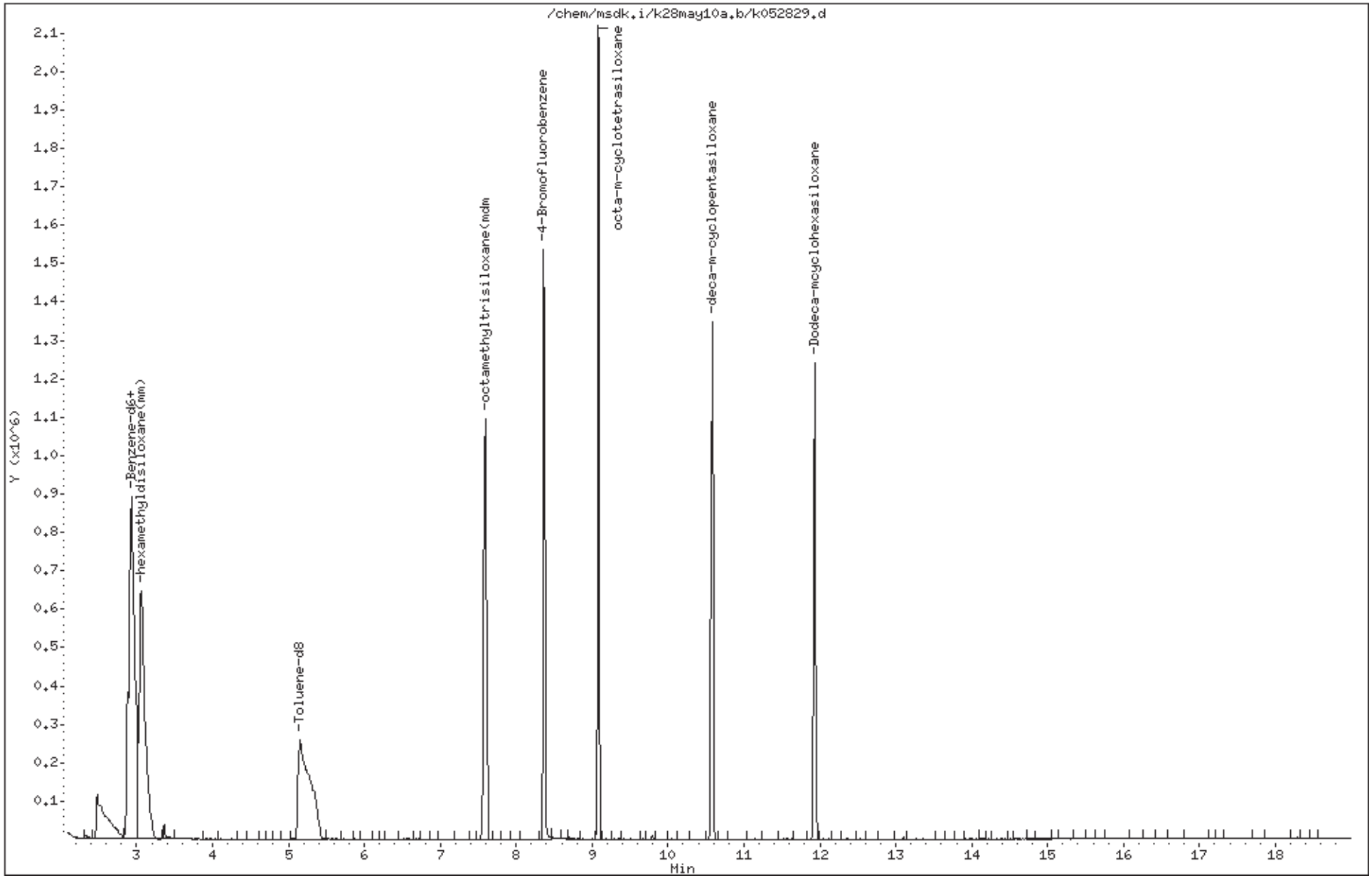
Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10a.b/k052829.d

Date : 28-MAY-2010 20:25

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

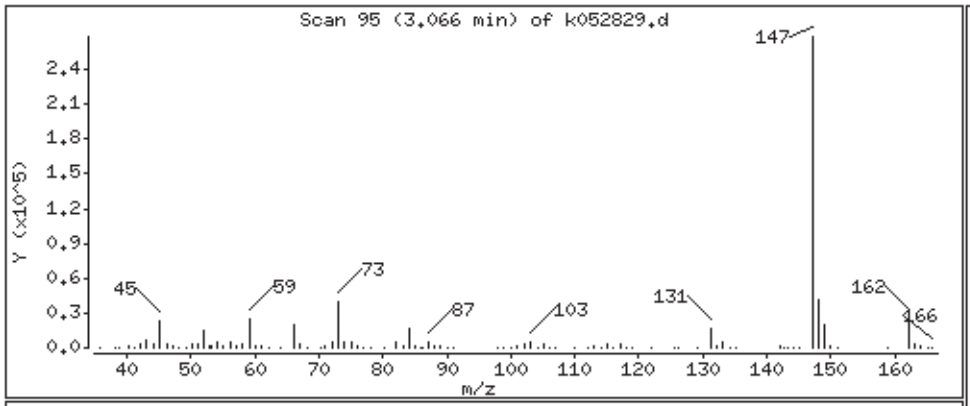
Operator: LZ

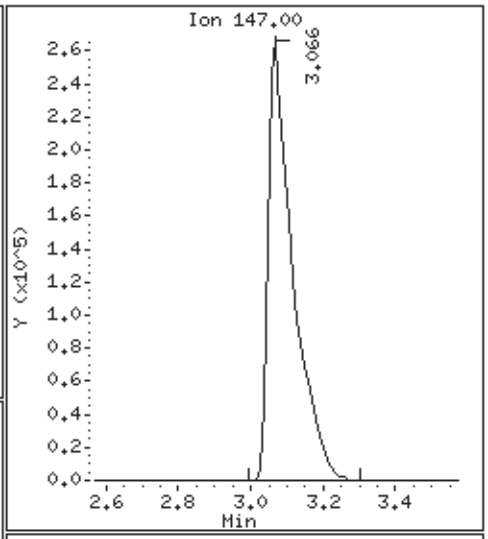
Column phase: DB-5.625

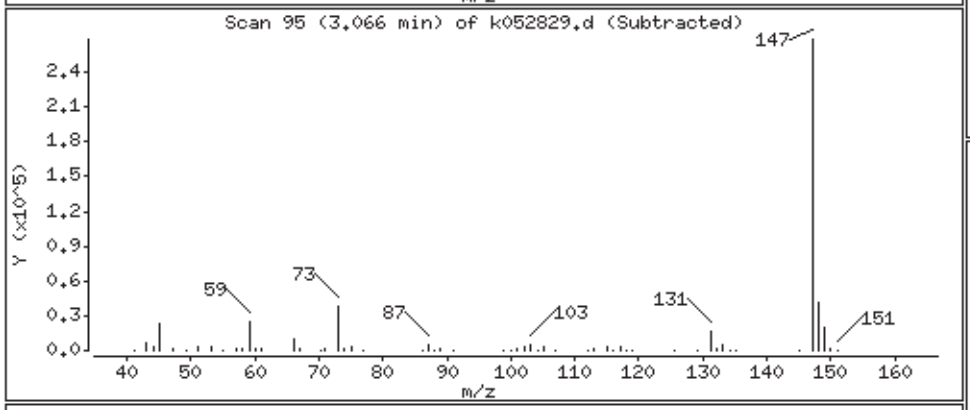
Column diameter: 0.25

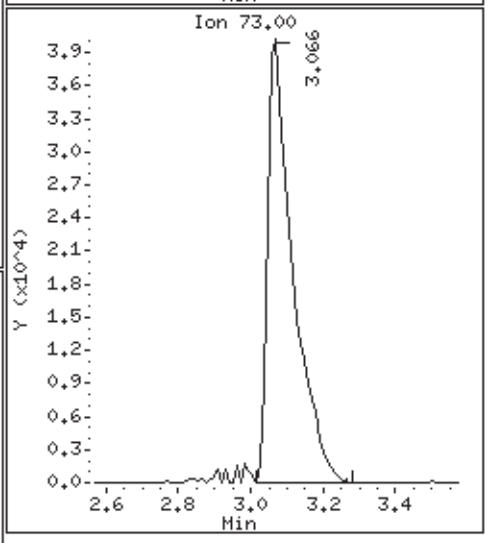
5 hexamethyldisiloxane(mm)

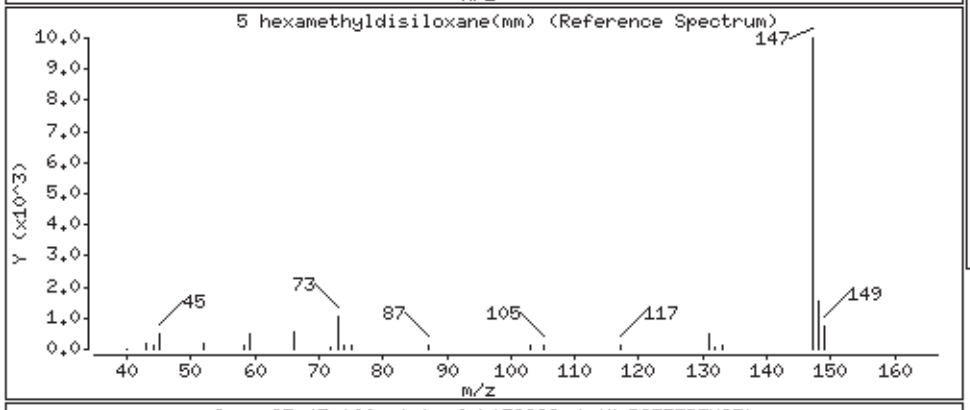
Concentration: 35.7 ug

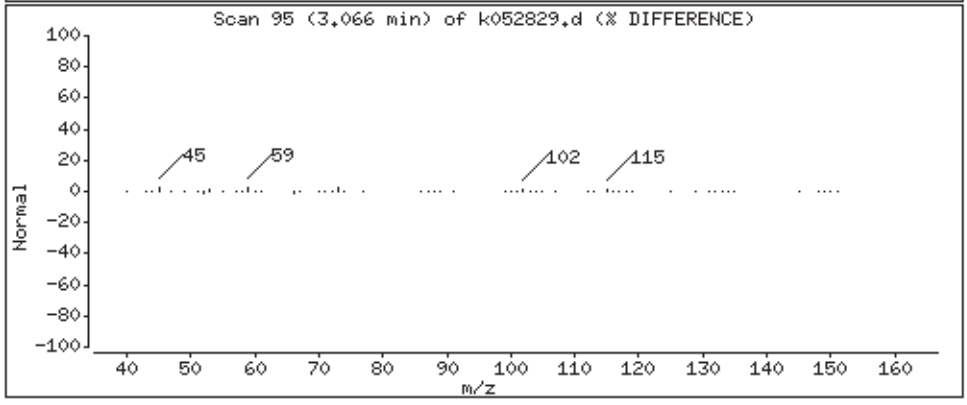












Data File: /chem/msdk.i/k28may10a.b/k052829.d

Date : 28-MAY-2010 20:25

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

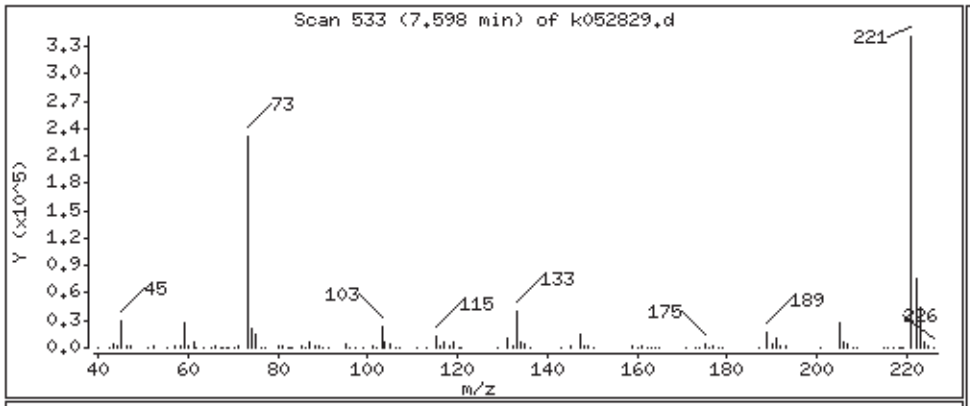
Operator: LZ

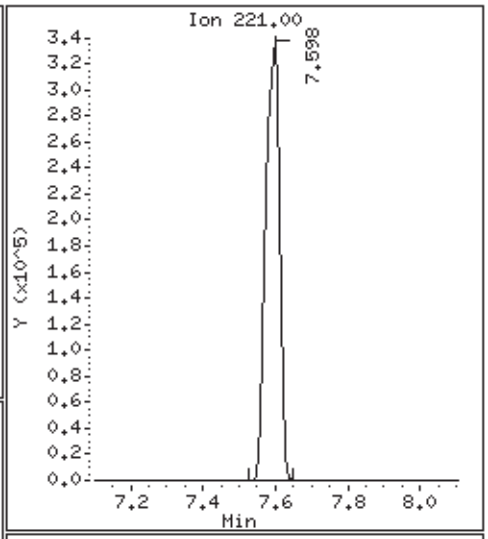
Column phase: DB-5.625

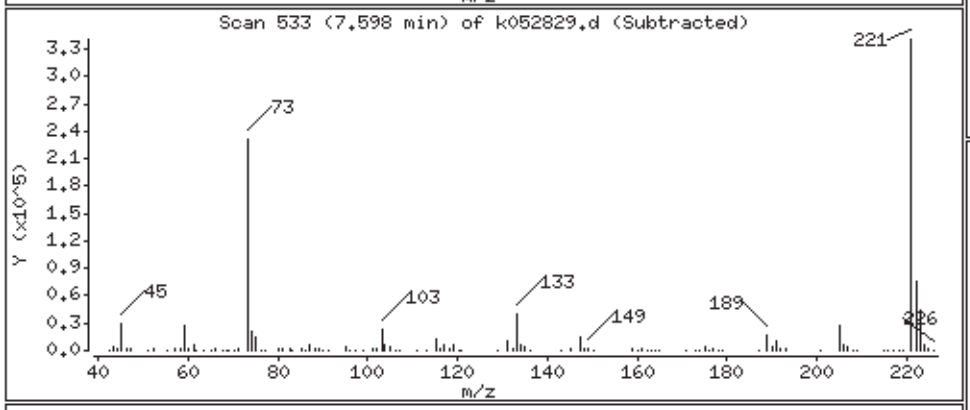
Column diameter: 0.25

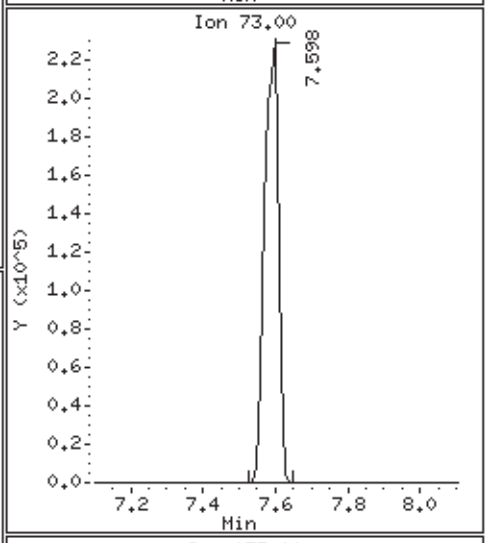
7 octamethyltrisiloxane(mdm)

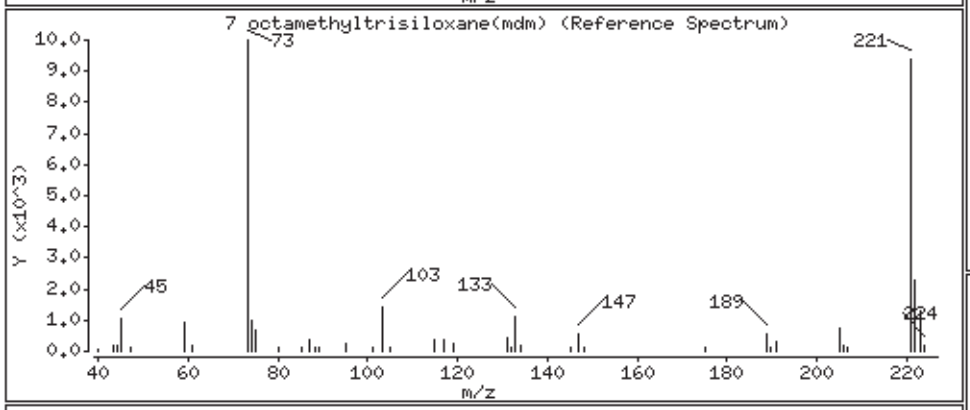
Concentration: 46.2 ug

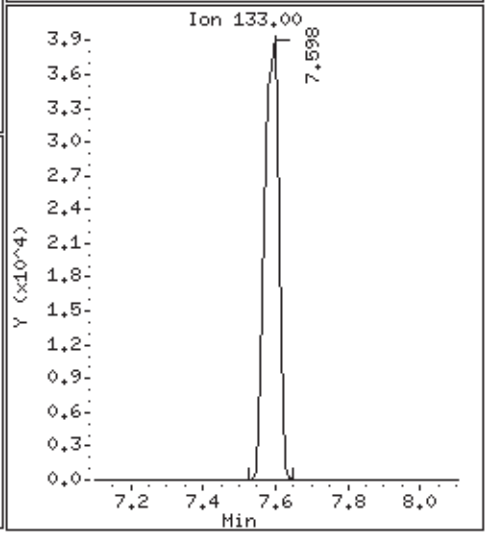


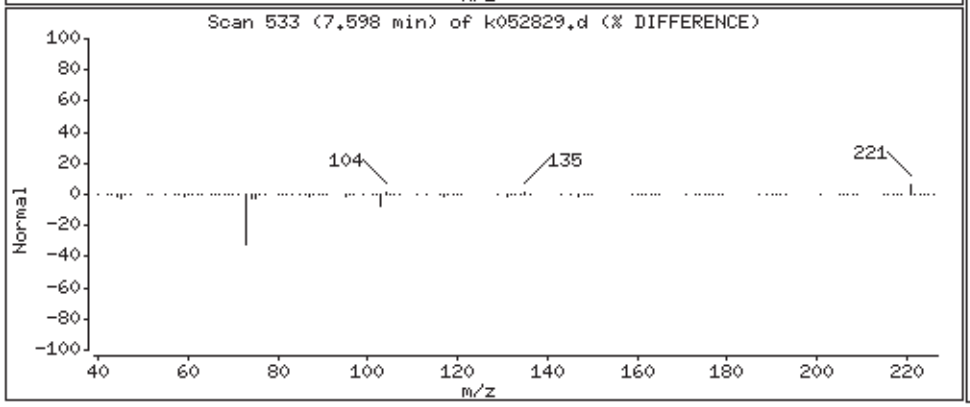












Data File: /chem/msdk.i/k28may10a.b/k052829.d

Date : 28-MAY-2010 20:25

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

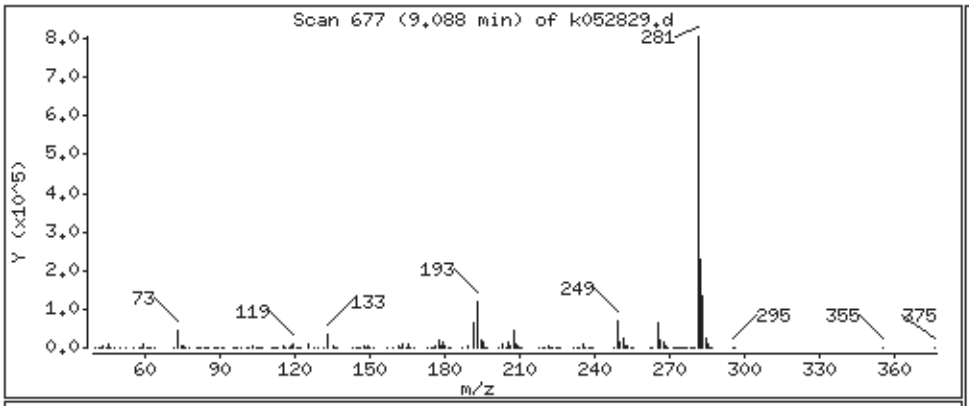
Operator: LZ

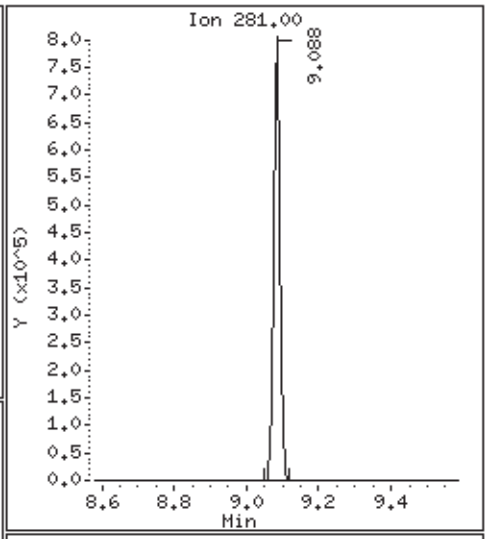
Column phase: DB-5.625

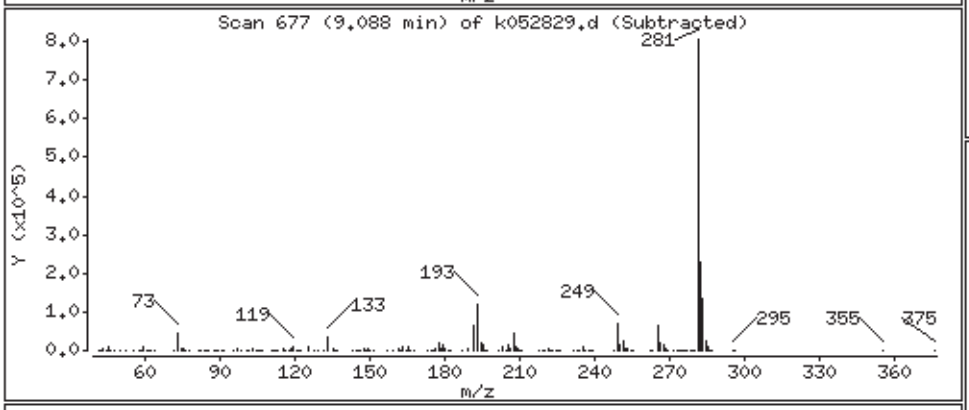
Column diameter: 0.25

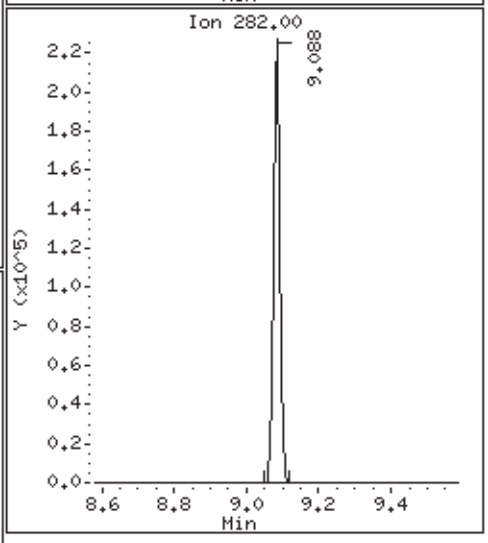
9 octa-m-cyclotetrasiloxane(d4)

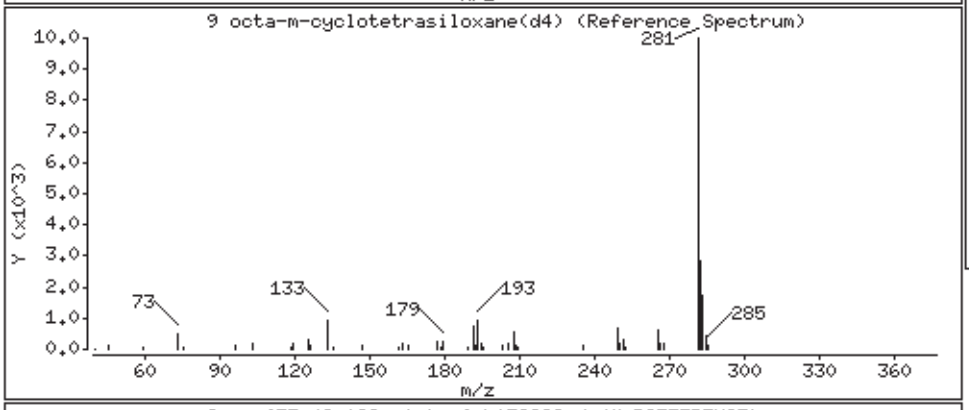
Concentration: 44.5 ug

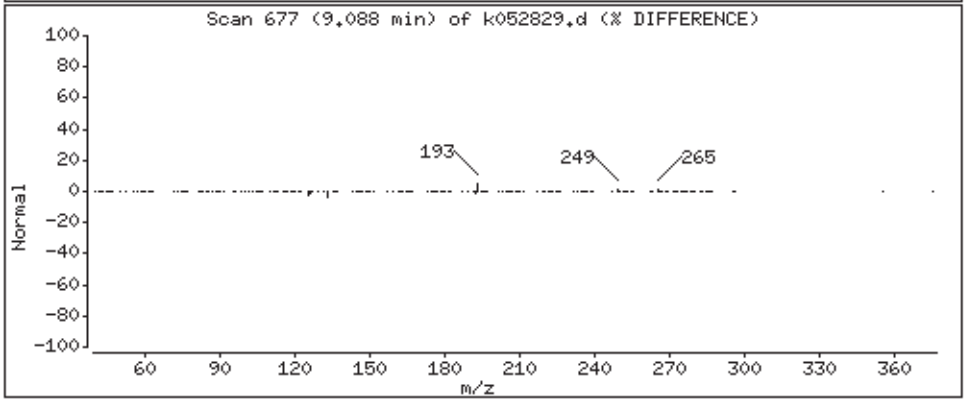












Data File: /chem/msdk.i/k28may10a.b/k052829.d

Date : 28-MAY-2010 20:25

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

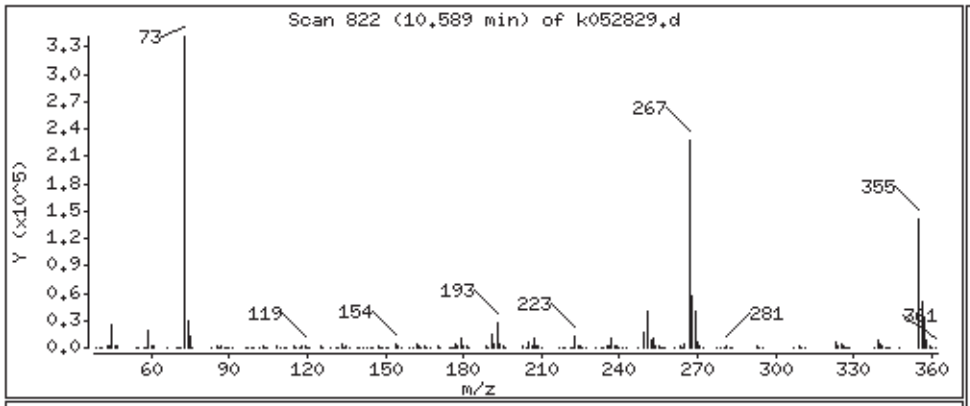
Operator: LZ

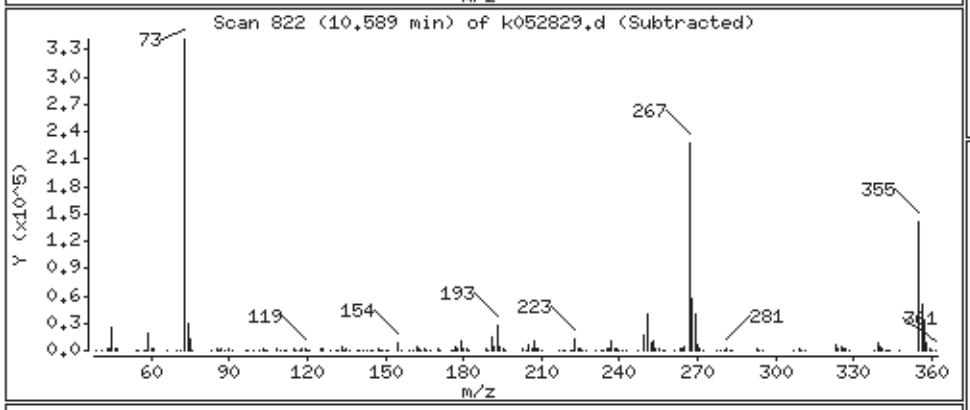
Column phase: DB-5.625

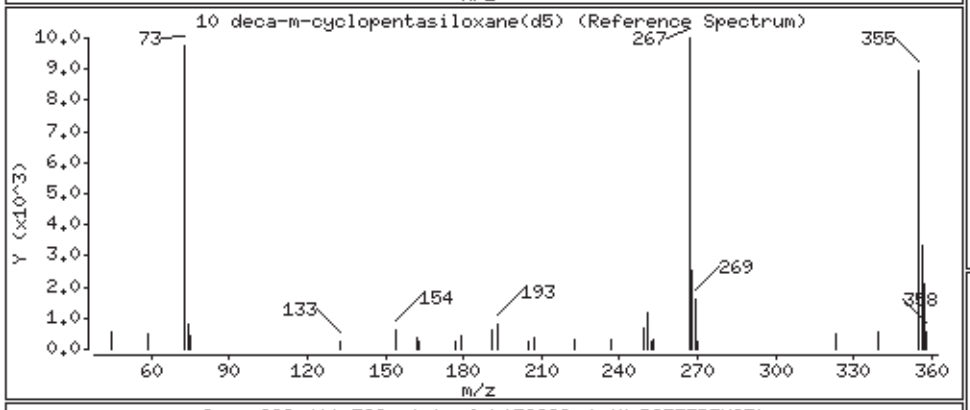
Column diameter: 0.25

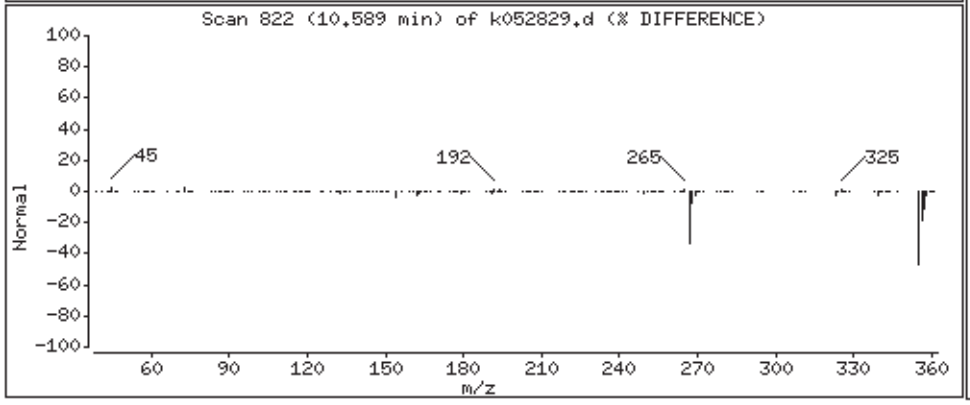
10 deca-m-cyclopentasiloxane(d5)

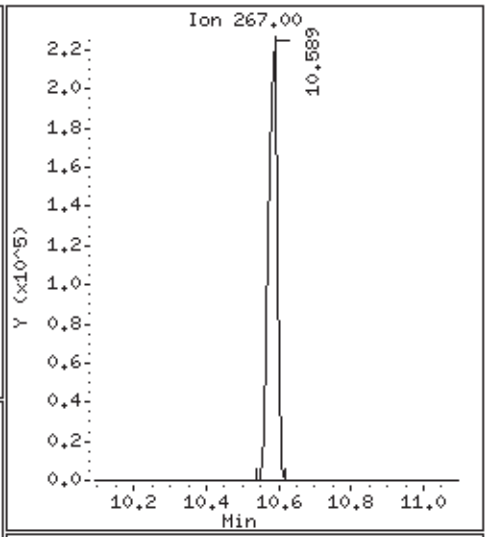
Concentration: 51.2 ug

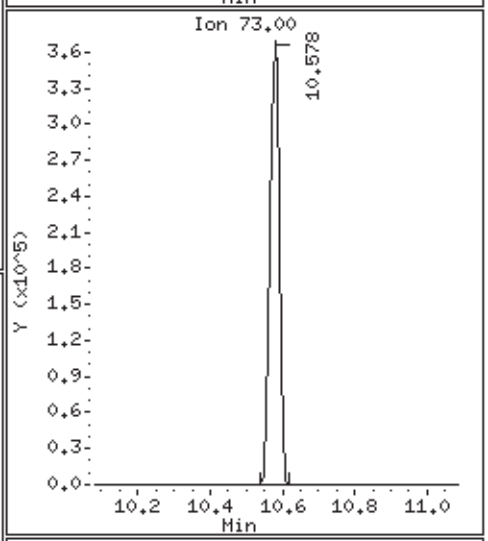


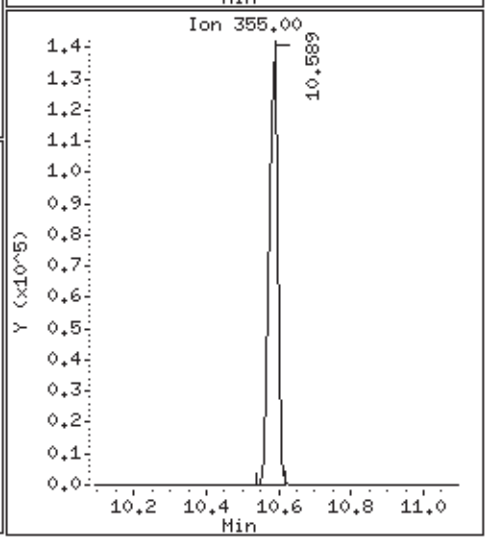












Data File: /chem/msdk.i/k28may10a.b/k052829.d

Date : 28-MAY-2010 20:25

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

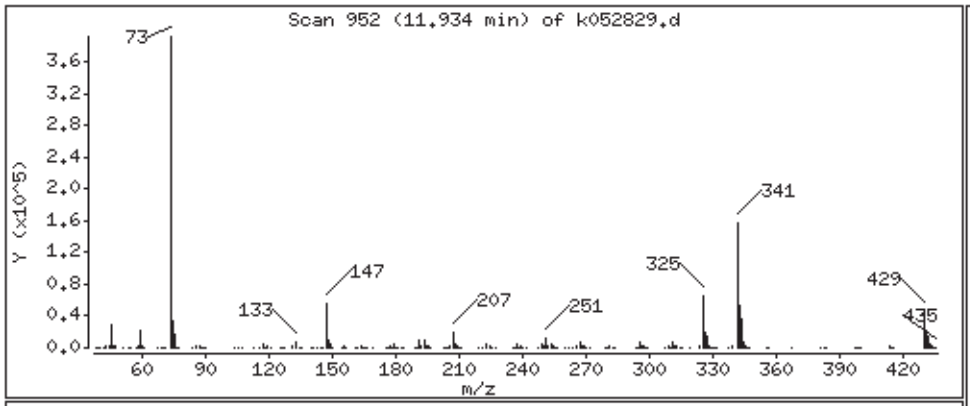
Operator: LZ

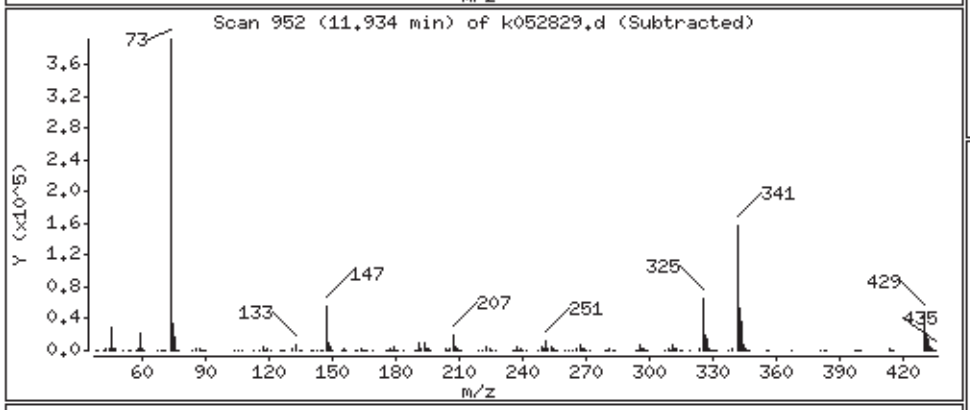
Column phase: DB-5.625

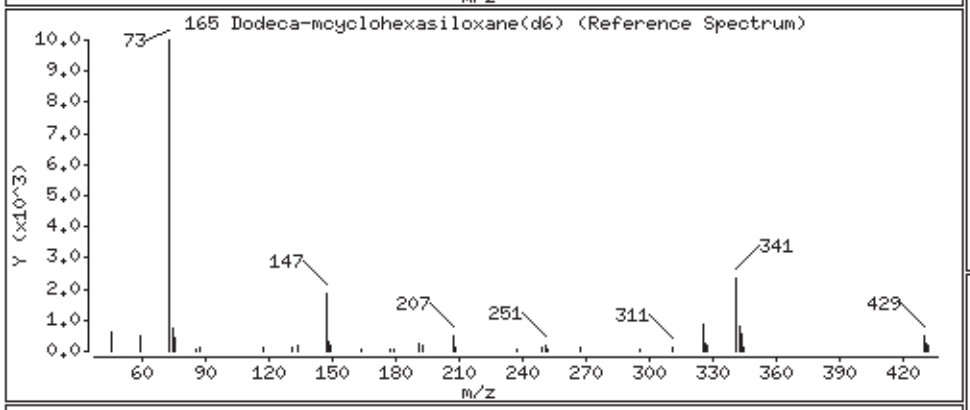
Column diameter: 0.25

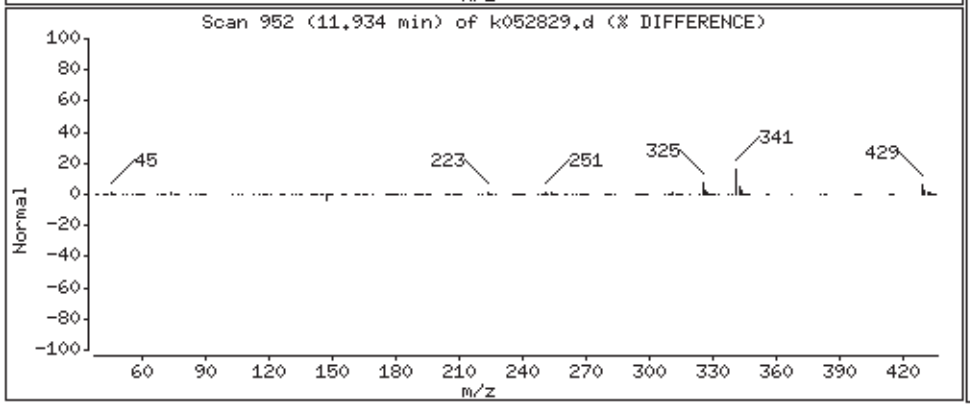
165 Dodeca-mcyclohexasiloxane(d6)

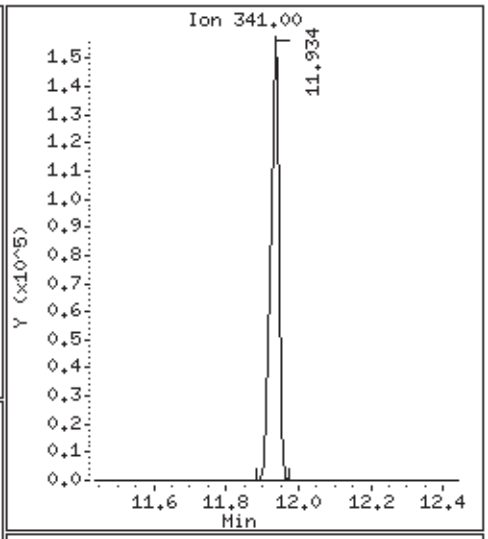
Concentration: 38.4 ug

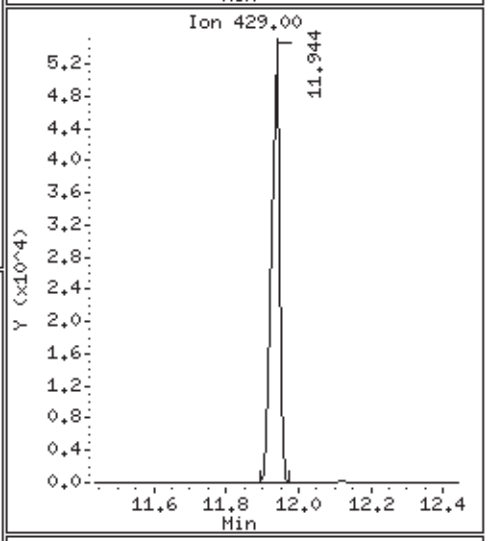


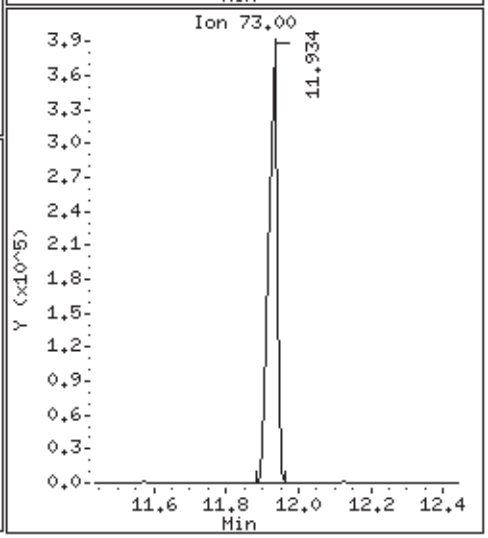












Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1005522D-12B
SILOXANES - GC/MS

File Name:	**k060108**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/1/10 01:43 PM**	

Compound	%Recovery
Octamethylcyclotetrasiloxane (D4)	87
Decamethylcylopentasiloxane (D5)	105
Dodecamethylcyclohexasiloxane (D6)	76
Hexamethyldisiloxane	73
Octamethyltrisiloxane	93

Air Sample Volume(L): 20.7
Impinger Total Volume(mL): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Hexamethyl disiloxane -d18	106	70-130

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: k01jun10
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Level: MED Operator: LZ
Data Type: MS DATA SampleType: LCS
SpikeList File: LCS50.spk Quant Type: ISTD
Sublist File: silo.sub
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug	CONC RECOVERED ug	% RECOVERED	LIMITS
5 hexamethyldisiloxa	50.0	36.7	73.42	70-130
7 octamethyltrisilox	50.0	46.4	92.86	70-130
9 octa-m-cyclotetras	50.0	43.5	87.09	70-130
10 deca-m-cyclopentas	50.0	52.4	104.87	70-130
165 Dodeca-mcyclohexas	50.0	38.0	76.11	70-130

SURROGATE COMPOUND	AMOUNT ADDED uG/mL	AMOUNT RECOVERED uG/mL	% RECOVERED	LIMITS
$ 4 Hexamethyldisiloxa	40.0	42.5	106.22	70-130

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k01jun10.b/k060108.d
Lab Smp Id: 1869-21-50 Client Smp ID: LCS
Inj Date : 01-JUN-2010 13:43
Operator : LZ Inst ID: msdk.i
Smp Info : ;1869-21-50;LCS
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k01jun10.b/k10k0323.m
Meth Date : 01-Jun-2010 13:45 lzhang Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 0.00000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
* 3	Benzene-d6	84	2.869	2.872	(1.000)	1133463	40.0000	
$ 4	Hexamethyldisiloxane-d18	162	2.921	2.924	(1.018)	2004090	42.4894	42.5
5	hexamethyldisiloxane(mm)	147	3.056	3.059	(1.065)	1601302	36.7096	36.7
* 6	Toluene-d8	98	5.136	5.149	(1.000)	1081002	40.0000	
7	octamethyltrisiloxane(mdm)	221	7.598	7.601	(1.480)	1196365	46.4316	46.4
* 8	4-Bromofluorobenzene	174	8.364	8.367	(1.000)	369495	40.0000	
9	octa-m-cyclotetrasiloxane(d4)	281	9.078	9.081	(1.085)	1366333	43.5442	43.5
10	deca-m-cyclopentasiloxane(d5)	267	10.589	10.592	(1.266)	528231	52.4356	52.4
165	Dodeca-mcyclohexasiloxane(d6)	341	11.934	11.937	(1.427)	349117	38.0561	38.0

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdk.i
Lab File ID: k060108.d
Lab Smp Id: 1869-21-50
Analysis Type: SV
Quant Type: ISTD
Operator: LZ
Method File: /chem/msdk.i/k01jun10.b/k10k0323.m
Misc Info:

Calibration Date: 01-JUN-2010
Calibration Time: 13:18
Client Smp ID: LCS
Level: MED
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	941825	470912	1883650	1133463	20.35
6 Toluene-d8	865787	432894	1731574	1081002	24.86
8 4-Bromofluorobenz	303940	151970	607880	369495	21.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
3 Benzene-d6	2.87	2.37	3.37	2.87	-0.10
6 Toluene-d8	5.15	4.65	5.65	5.14	-0.26
8 4-Bromofluorobenz	8.37	7.87	8.87	8.36	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdk.i/k01jun10.b/k060108.d

Page 1

Date : 01-JUN-2010 13:43

Client ID: LCS

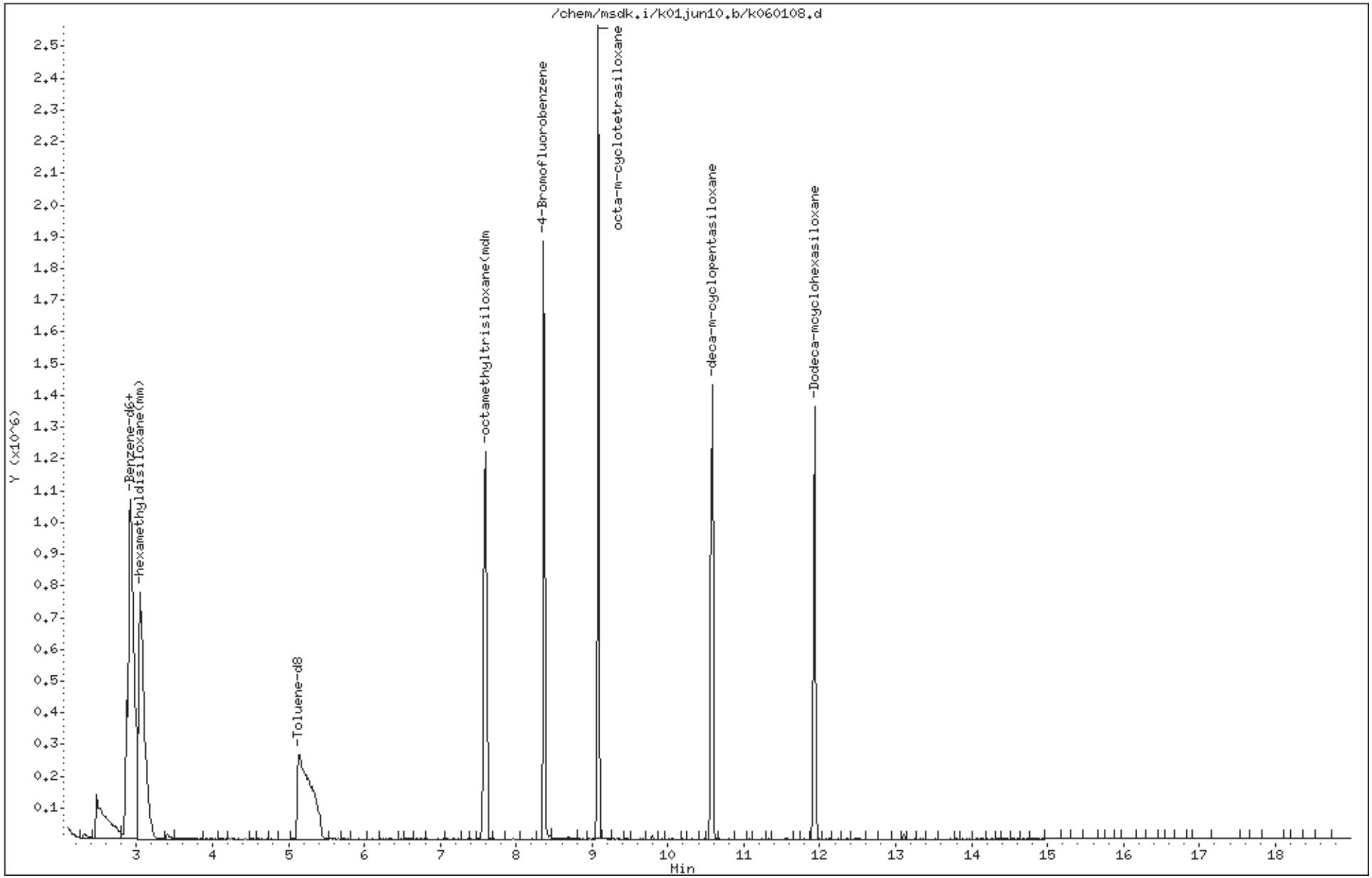
Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

Operator: LZ

Column phase: DB-5.625

Column diameter: 0.25



Data File: /chem/msdk.i/k01jun10.b/k060108.d

Date : 01-JUN-2010 13:43

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

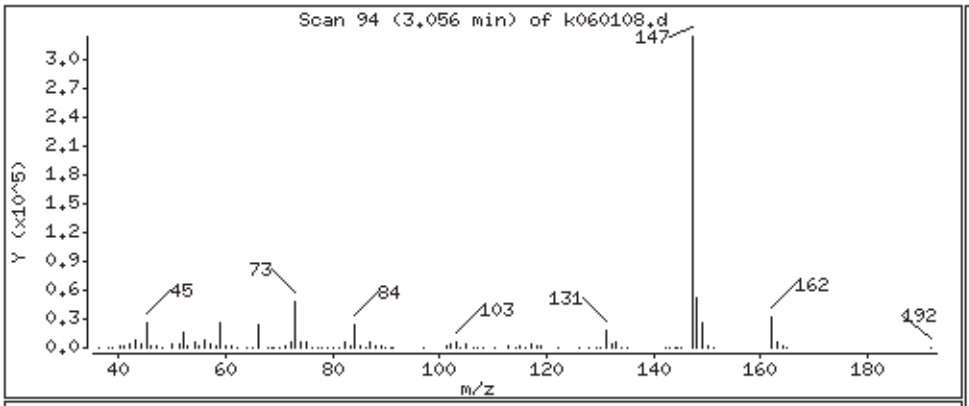
Operator: LZ

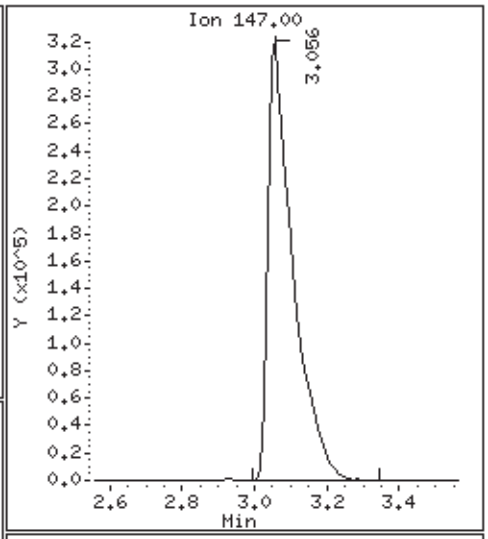
Column phase: DB-5.625

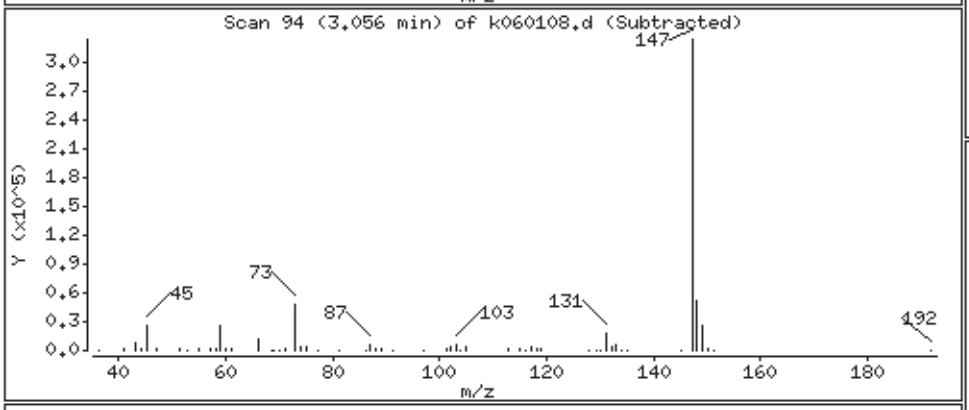
Column diameter: 0.25

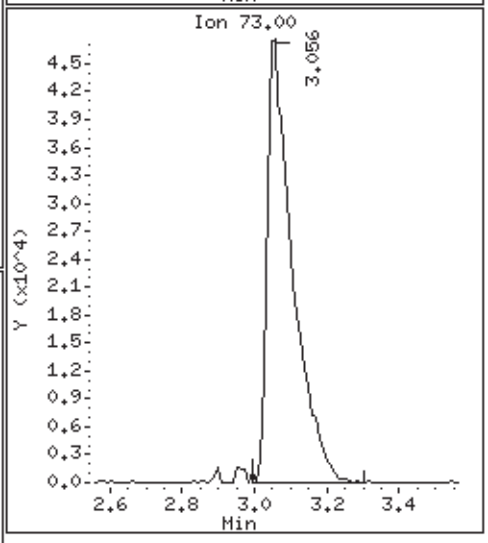
5 hexamethyldisiloxane(mm)

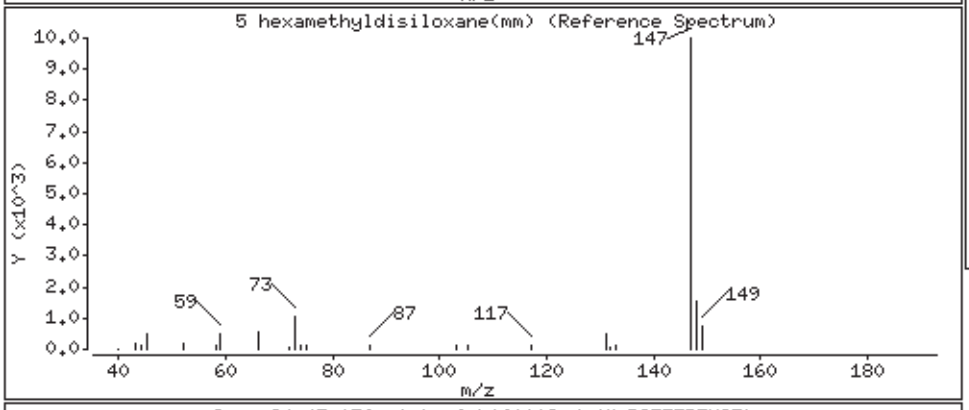
Concentration: 36.7 ug

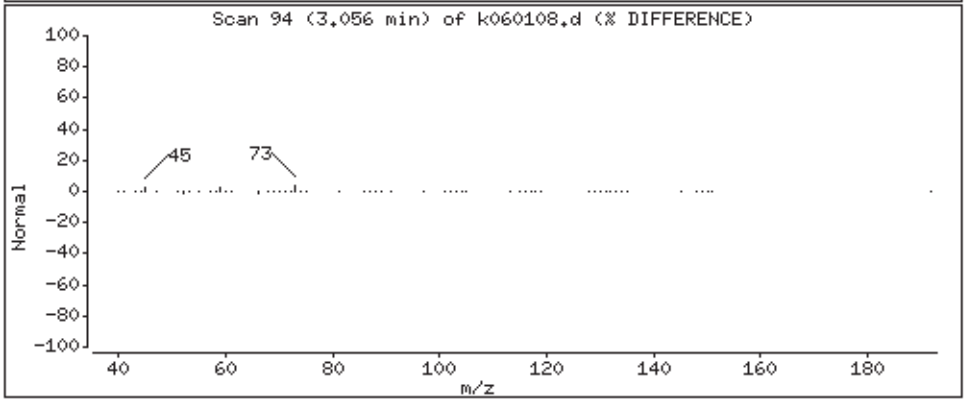












Data File: /chem/msdk.i/k01jun10.b/k060108.d

Date : 01-JUN-2010 13:43

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

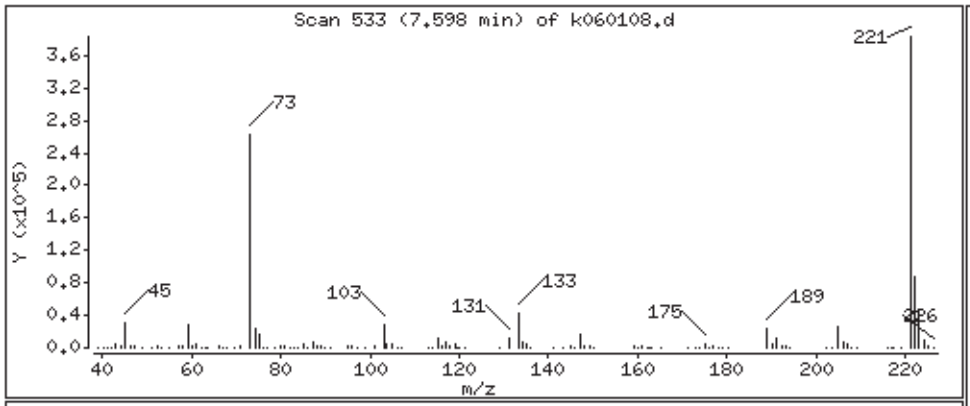
Operator: LZ

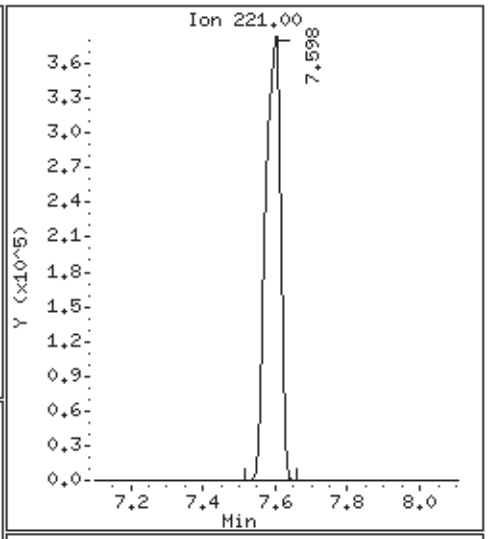
Column phase: DB-5.625

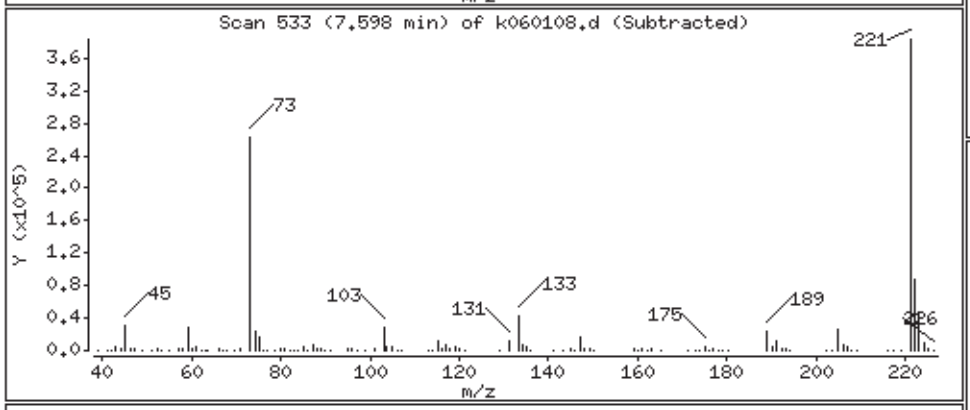
Column diameter: 0.25

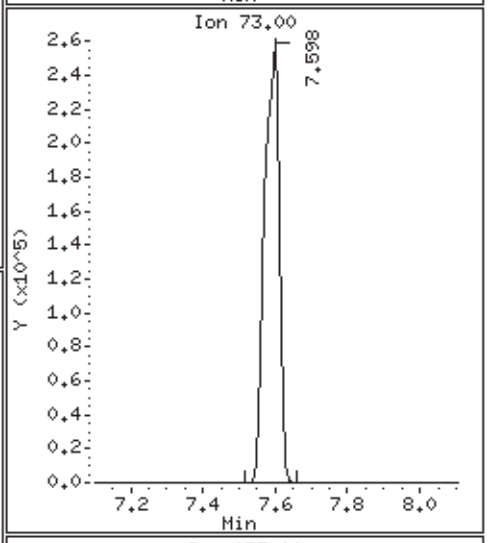
7 octamethyltrisiloxane(mdm)

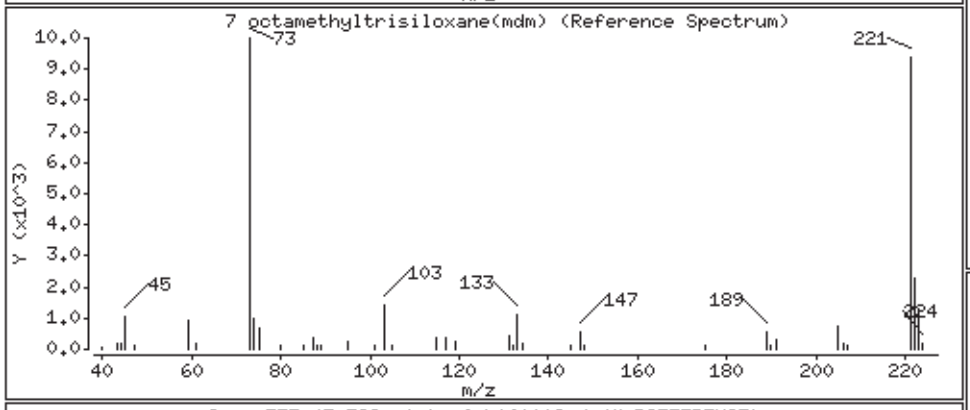
Concentration: 46.4 ug

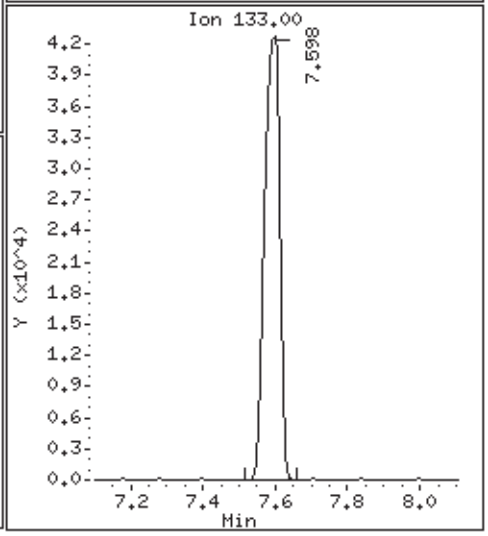


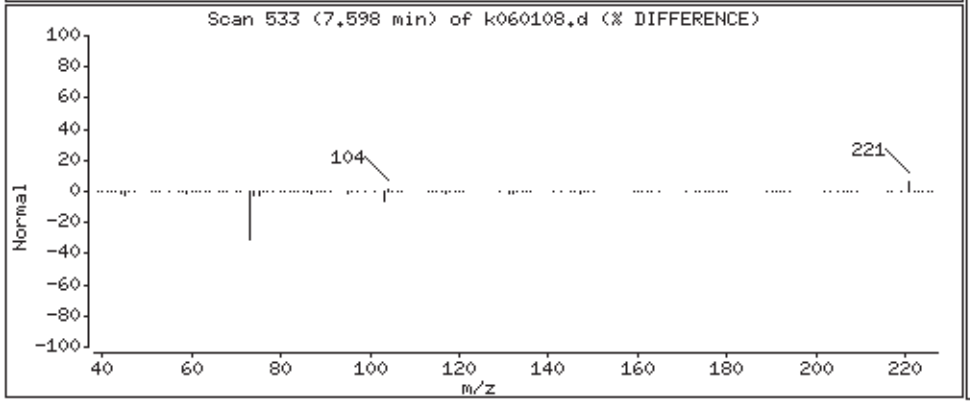












Data File: /chem/msdk.i/k01jun10.b/k060108.d

Date : 01-JUN-2010 13:43

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

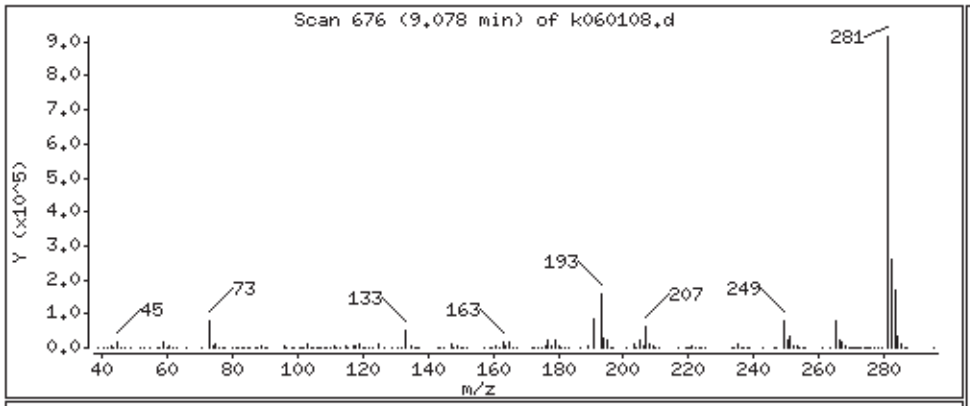
Operator: LZ

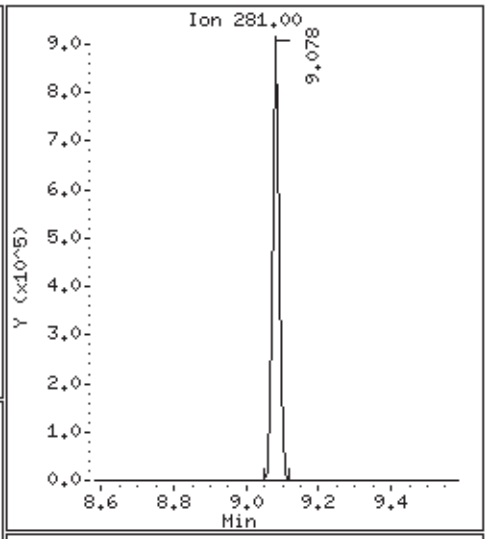
Column phase: DB-5.625

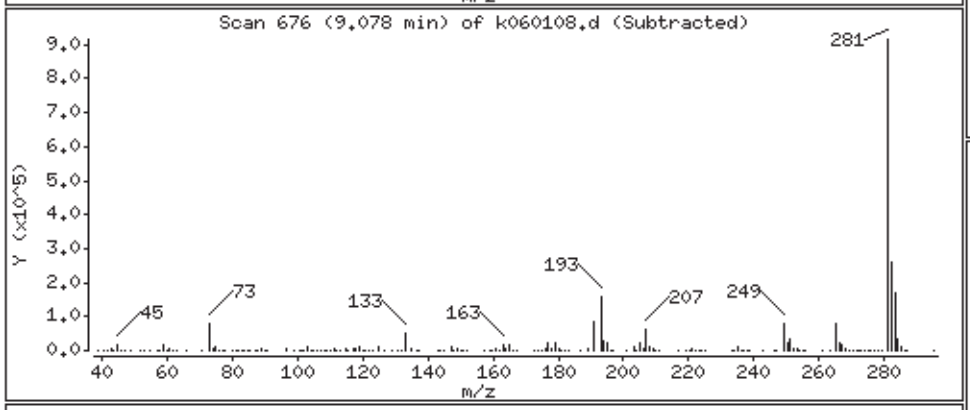
Column diameter: 0.25

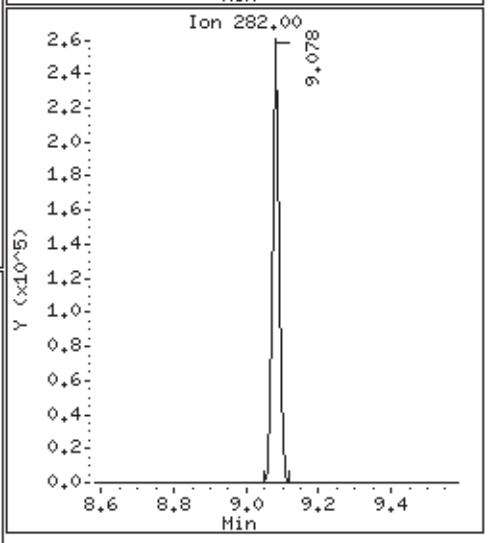
9 octa-m-cyclotetrasiloxane(d4)

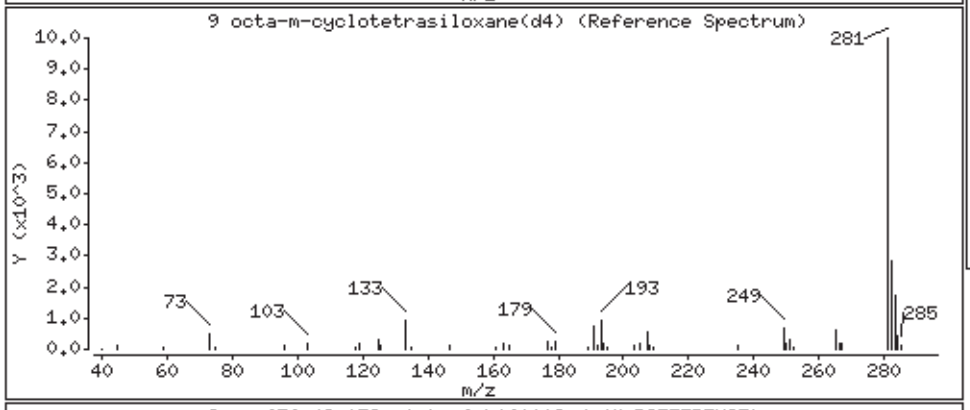
Concentration: 43.5 ug

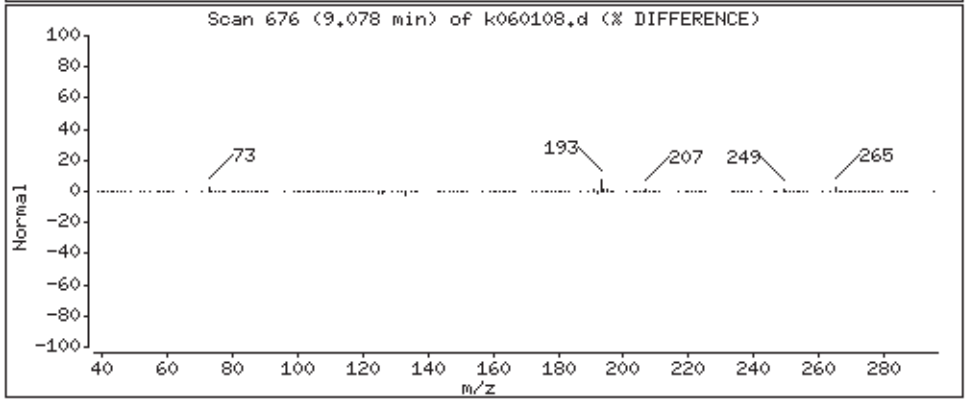












Data File: /chem/msdk.i/k01jun10.b/k060108.d

Date : 01-JUN-2010 13:43

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

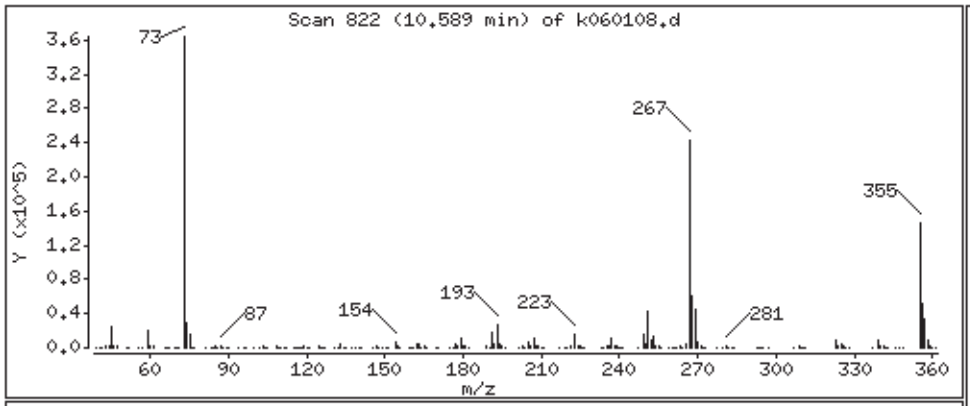
Operator: LZ

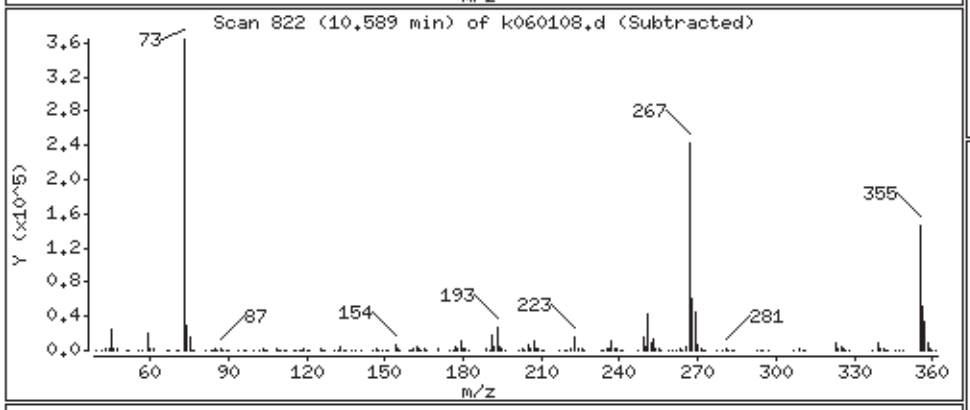
Column phase: DB-5.625

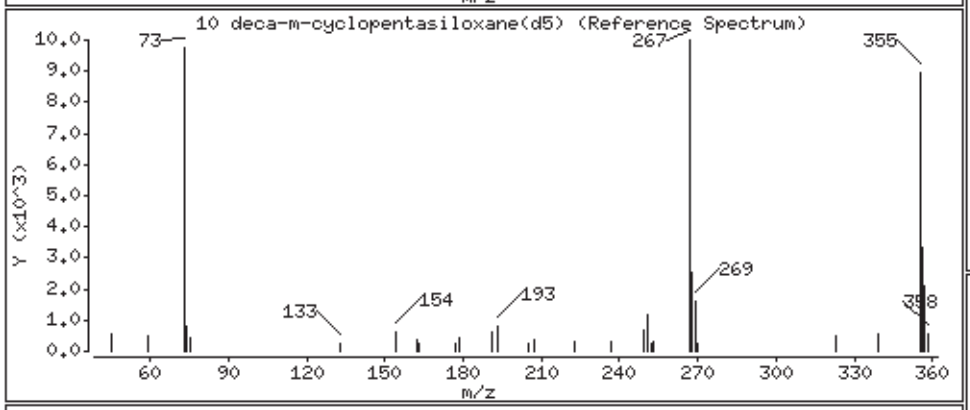
Column diameter: 0.25

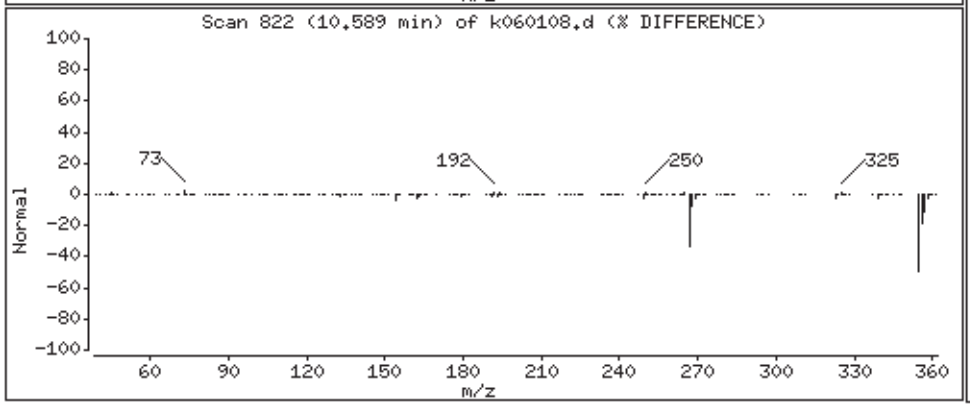
10 deca-m-cyclopentasiloxane(d5)

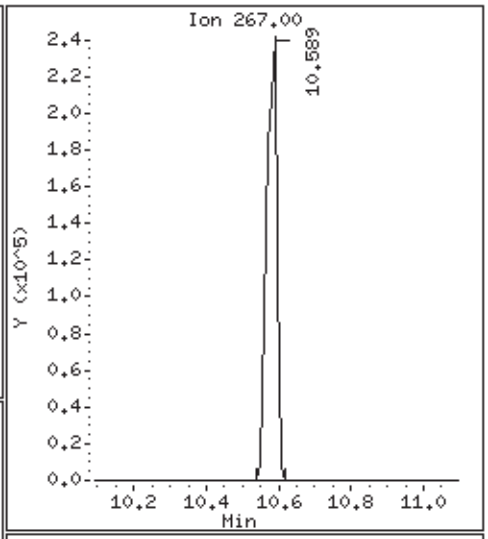
Concentration: 52.4 ug

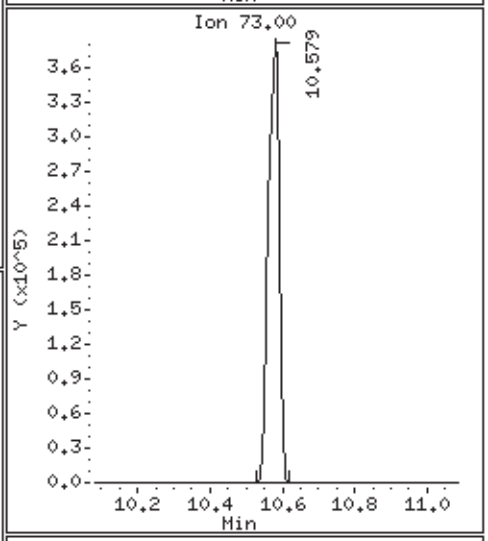


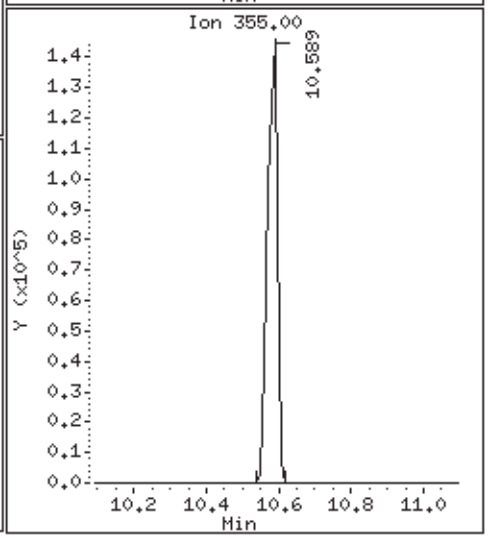












Data File: /chem/msdk.i/k01jun10.b/k060108.d

Date : 01-JUN-2010 13:43

Client ID: LCS

Instrument: msdk.i

Sample Info: ;1869-21-50;LCS

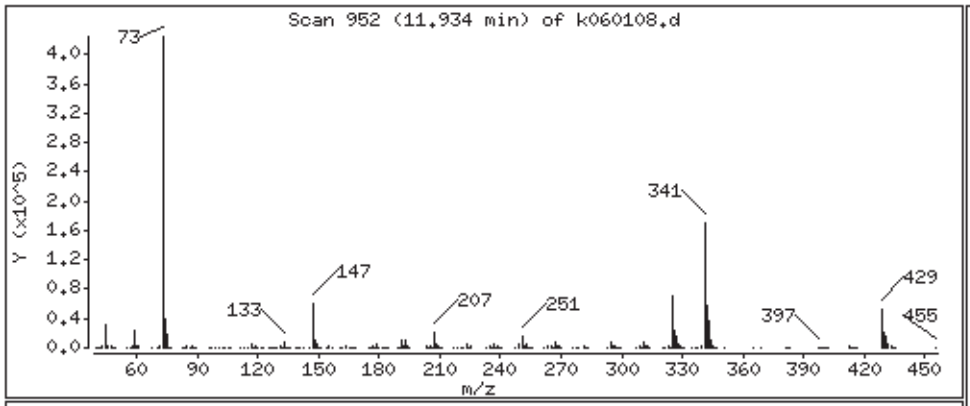
Operator: LZ

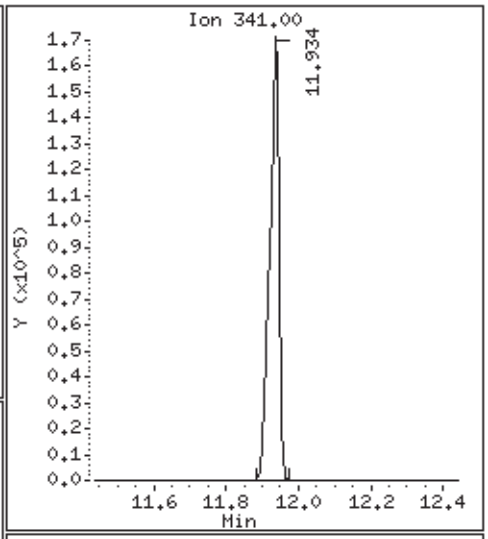
Column phase: DB-5.625

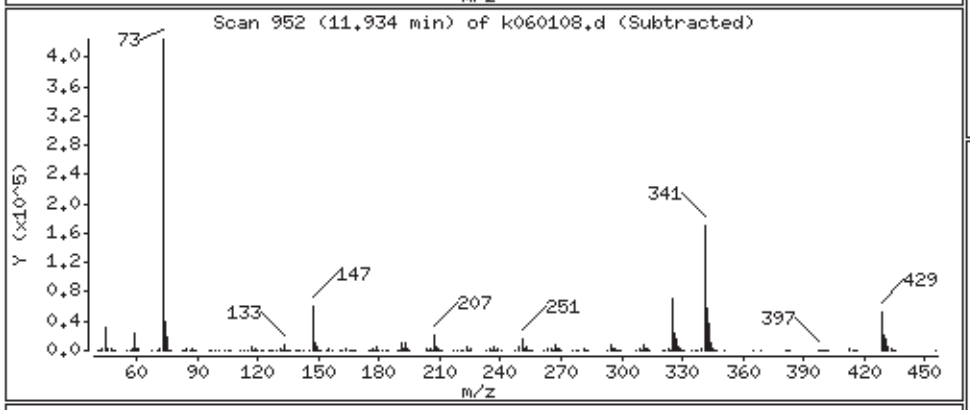
Column diameter: 0.25

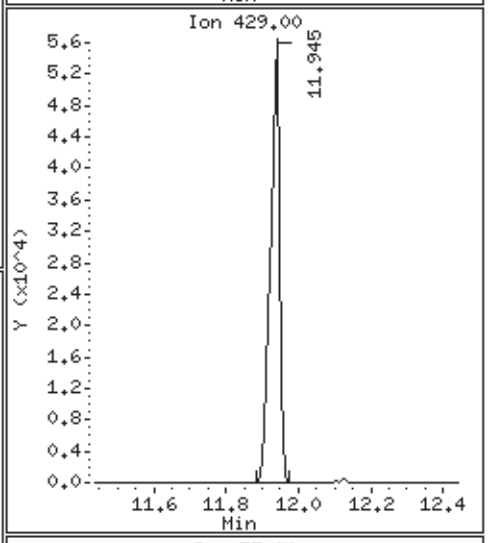
165 Dodeca-mcyclohexasiloxane(d6)

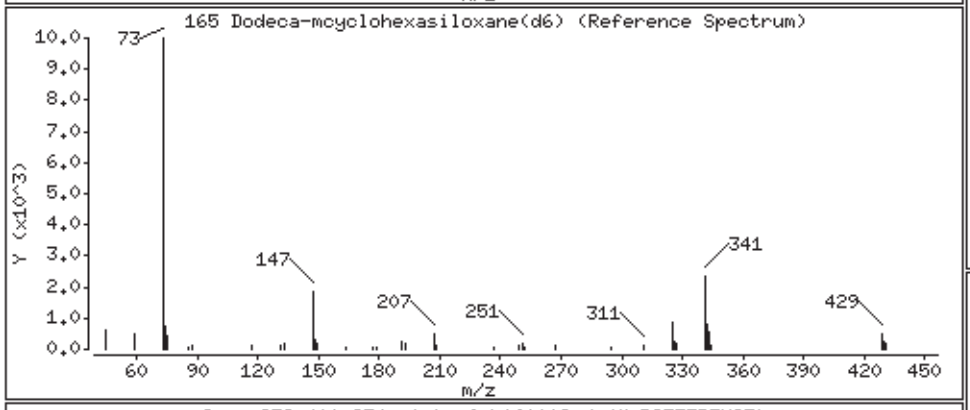
Concentration: 38.0 ug

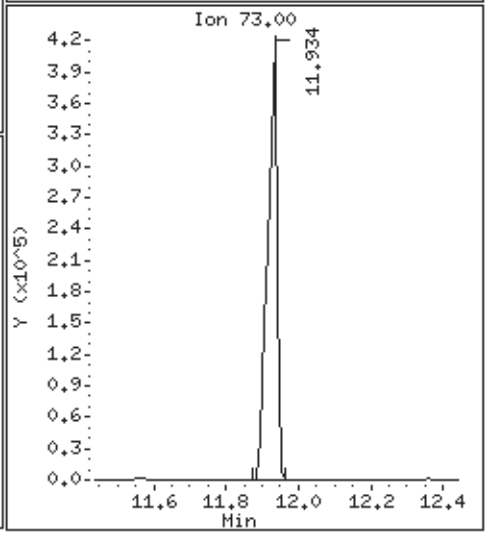


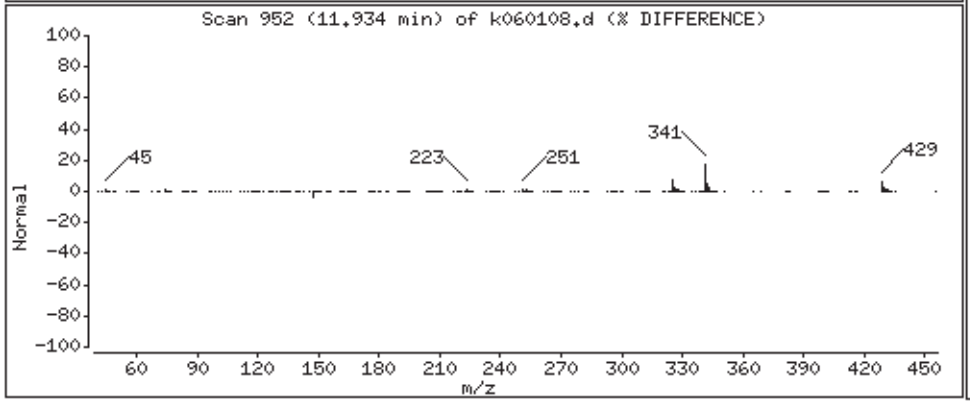












@Air Toxics Ltd. MSD-K Logbook: 1113

Method: Siloxanes/ TO-13

140

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base peak, 100.00% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.00
68	Less than 2.00% of mass 69	0.06 (0.14) [1]
69	Less than 99.90% of mass 198	38.97
70	Less than 2.00% of mass 69	0.28 (0.72) [1]
127	40.00 – 60.00% of mass 198	45.87
197	Less than 1.00% of mass 198	0.33
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	23.79
365	Greater than 1.00% of mass 198	3.87
441	Present, but less than mass 443	4.09
442	40.00 - 100.00% of mass 198	68.45
443	17.00 - 23.00% of mass 442	13.66 (19.95) [2]

1 - value in parenthesis is % mass 69 2 - value in parenthesis is % mass 442

Injection Volume: 1.0 µL

DFTPP File ID: K052827

DFTPP Injection Date: 5/28/10

DFTPP Injection Time 1939

IS 1869-19-1000	Area Counts
1,4-Dichlorobenzene-d_4:	
Naphthalene-d_8:	
Acenaphthene-d_{10}:	
Phenanthrene-d_{10}:	
Chrysene-d_{12}:	
Perylene-d_{12}:	L=5/28/10
Benzene-d_6:	767574
Toluene-d_8: L=5/28/10	~~708~~ 708584
4-Bromofluorobenzene:	250041

This Tune Check Applies To The Following Samples, Blanks And Standards:

	Use	File #	Sample / Client Name	Vial #	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	K052827	1869-6B-50 Tune	2	1.00	W	5/28/10	1939	W	
2	✓	28	1869-20-50 CCV	3				1959		
3	✓	29	1869-21-50 LCS	4				2025		
4	✓	30	MeOH Lab Blk	5				2049		
5	✓	31	1005670-01A	6				2112		13.2mL
6	✓	32	-01AA	6				2136		
7	✓	33	-02A	7				2200		13.1mL
8	✓	34	-02B	8				2224		14.0mL
9	✓	35	-01B	9				2248		14.7mL
10	✓	36	1005453C-18A	10				2311		12.2mL
11	✓	37	-18B	11				2335		14.3mL
12	✓	38	-24A	12				2359		14.3mL
13	✓	39	-24B	13			5/29/10	0023		15.1mL
14	✓	40	-25A	14				0047		11.2mL
15	✓	41	-25B	15				0110		15.2mL
16	✓	42	-26A	16				0134		12.7mL
17	✓	43	-26B	17				0158		14.3mL
18	✓	44	-27A	18				0222		13.6mL
19	✓	45	-27B L=5/28/10	19				0246		14.2mL
20	✓	46	-28A	20				0309		13.3mL

Calculation Check: File ID: K052829 Compound: D4 Initials: W

nG On Column = Area of Compound in Sample / Area of Int. Standard in Sample X Conc. Int. Standard / ICAL $RRF_{average}$ = (1165520) / (305819) X (40.0) / (3.39686) = 44.5

µG/Sample = nG On Column X 1000 µL Final Vol. X D.F. / 1.0 µL Inj. Vol. X 1000 nG/µG = (44.5) X (1000) X (1.00) / (1000) = 44.5

Reported Result = 44.5

Signed

6/11/10
Date

Revised 11/06

@Air Toxics ~~Ltd~~

Method: Siloxanes/ TO-13

MSD-K

Logbook: 1773

141

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base peak, 100.00% relative abundance	
51	30.00 - 60.00% of mass 198	
68	Less than 2.00% of mass 69	( )[1]
69	Less than 99.90% of mass 198	
70	Less than 2.00% of mass 69	( )[1]
127	40.00 – 60.00% of mass 198	
197	Less than 1.00% of mass 198	
199	5.00 - 9.00% of mass 198	
275	10.00 - 30.00% of mass 198	
365	Greater than 1.00% of mass 198	
441	Present, but less than mass 443	
442	40.00 - 100.00% of mass 198	
443	17.00 - 23.00% of mass 442	( )[2]

1 - value in parenthesis is % mass 69 2 - value in parenthesis is % mass 442

Injection Volume: 1.0 µL con't from Pg. 140

DFTPP File ID: _____

DFTPP Injection Date: _____

DFTPP Injection Time _____

IS	Area Counts
1,4-Dichlorobenzene-d_4:	
Naphthalene-d_8:	
Acenaphthene-d_{10}:	
Phenanthrene-d_{10}:	
Chrysene-d_{12}:	
Perylene-d_{12}:	
~~Benzene-d_6~~:	
Toluene-d_8:	
4-Bromofluorobenzene:	

w 5/28/10

This Tune Check Applies To The Following Samples, Blanks And Standards:

	Use	File #	Sample / Client Name	Vial #	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	K052847	1005453C-28B	21	1.00	W	5/29/10	0333	W	15.9 mL
2	✓	48	1005522D-08A	22				0357		13.2 mL
3	✓	49	-08AA	22				0421		
4	✓	50	-08B	23				0444		13.1 mL
5	✓	51	-08BB	w 5/28/10 ~~24~~ 23				0508		
6	✓	52	-09A	24				0532		12.9 mL
7	X	53	-09B	25				0556		15J
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Calculation Check: File ID: _____ Compound: _____ *Initials:* _____

nG On Column = Area of Compound in Sample X Conc. Int. Standard = ( ) X ( ) =
Area of Int. Standard in Sample ICAL $RRF_{average}$ ( ) ( )

µG/Sample = nG On Column X 1000 µL Final Vol. X D.F. = ( ) X ( ) X ( ) =
1.0 µL Inj. Vol. X 1000 nG/µG ( )

w 6/11/10

Reported Result = _____

Signed

6/11/10
Date

@Air Toxics Ltd.
Method: Siloxanes/ TO-13

MSD-K

Logbook: 1773

142

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base peak, 100.00% relative abundance	100.00
51	30.00 - 60.00% of mass 198	52.93
68	Less than 2.00% of mass 69	0.00 (0.00) [1]
69	Less than 99.90% of mass 198	39.38
70	Less than 2.00% of mass 69	0.23 (0.57) [1]
127	40.00 – 60.00% of mass 198	47.40
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	22.57
365	Greater than 1.00% of mass 198	3.61
441	Present, but less than mass 443	8.35
442	40.00 - 100.00% of mass 198	54.72
443	17.00 - 23.00% of mass 442	10.54 (19.26) [2]

1 - value in parenthesis is % mass 69 2 - value in parenthesis is % mass 442

Injection Volume: 1.0 µL

DFTPP File ID: K060103
DFTPP Injection Date: 6/1/10
DFTPP Injection Time 1105

IS 1869-29-100 / 1869-50-1000		Area Counts
1,4-Dichlorobenzene-d_4:	NR	570787
Naphthalene-d_8:	2=7108	1229778
Acenaphthene-d_{10}:	127641	744030
Phenanthrene-d_{10}:	201787	1144852
Chrysene-d_{12}:	190750	1219321
Perylene-d_{12}:	157157	1104388
Benzene-d_6:	941825	
Toluene-d_8:	865787	
4-Bromofluorobenzene:	303940	

This Tune Check Applies To The Following Samples, Blanks And Standards: Siloxane ISID = 1869-19-1000

	Use	File #	Sample / Client Name	Vial #	DF	Loader Init.	Date Analyzed	Time Analyzed	Review Init.	Comments
1	✓	K060103	1869-6B-50 Tune	2	1.00	LS	6/1/10	1105	LS	23 = 0%
2	X	4	1869-36B-4 CCV	3				1137		15↓
3	✓	5	1869-36-4 CCV	3				1211		
4	✓	6	1869-35A-50 CCV	4				1242		
5	✓	7	1869-20-50 CCV	5				1318		
6	✓	8	1869-21-50 LCS	6				1343		
7	✓	9	MeOH Lab Blk	7				1419		
8	X	10	1005522D-09B	8	1.00			1443		15↓
9	X	11	-09B	9	2.00			1521		↓
10	X	12	-09B	10	4.00			1549		↓
11	✓	13	-09B	9	8.00			1613		15.2 mL
12	✓	14	1005538B-LCS	5	1.00			~~1714~~ 1639		
13	✓	15	1005594D-LCS	6				1742 1711		
14	✓	16	-Lab Blk	7				1814 1742		
15	✓	17	1005538B-Lab Blk	8				1845 1814		
16	X	18	1005237A-04B	9	↓			1923 1845		15↓
17	✓	19	1005237A-04B ~~1005538B-17A~~	10	2.00 6/1/10			1954 1923		
18	✓	20	1005538B-17A	11	1.00			2026 1954		
19	✓	21	1005594D-02A	12				2057 2026		
20	✓	22	-04A	13				~~2129~~ 2057		

Calculation Check: File ID: K060114 (W 6/1/10 LS 6/1/10) Compound: Naphthalene (W 6/2/10 LS 6/2/10) Initials: LS

nG On Column = Area of Compound in Sample / Area of Int. Standard in Sample X Conc. Int. Standard / ICAL $RRF_{average}$ = (790299) / (733108) X (60.0) / (1.31803) = **37.20**

µG/Sample = nG On Column X 1000 µL Final Vol. X D.F. / 1.0 µL Inj. Vol. X 1000 nG/µG = (37.20) X (1000) X (1.00) / (1000) = **37.20**

Reported Result = 37.20

Signed 6/1/10 Date

Air Toxics Ltd.

Data file : /chem/msdk.i/k23mar10.b/k032306.d
Lab Smp Id: DFTPP 50ng Client Smp ID: DFTPP 50ng
Inj Date : 23-MAR-2010 16:07
Operator : ss Inst ID: msdk.i
Smp Info : ;1869-6A-50;Tune
Misc Info :
Comment :
Method : /chem/msdk.i/k23mar10.b/dftpp.m
Meth Date : 23-Mar-2010 13:58 Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

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

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

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
1 dftpp					CAS #:		
7.766	7.836 (0.000)	198	453440			100.00- 100.00	100.00
7.766	7.836 (0.000)	51	246106			30.00- 60.00	54.28
7.766	7.836 (0.000)	68	485			0.00- 2.00	0.29
7.766	7.836 (0.000)	69	164750			0.00- 99.90	36.33
7.766	7.836 (0.000)	70	741			0.00- 2.00	0.45
7.766	7.836 (0.000)	127	192629			40.00- 60.00	42.48
7.766	7.836 (0.000)	197	0			0.00- 1.00	0.00
7.766	7.836 (0.000)	199	30240			5.00- 9.00	6.67
7.766	7.836 (0.000)	275	101986			10.00- 30.00	22.49
7.766	7.836 (0.000)	365	13830			1.00- 0.00	3.05
7.766	7.836 (0.000)	441	62012			0.01- 99.99	76.38
7.766	7.836 (0.000)	442	422045			40.00- 100.00	93.08
7.766	7.836 (0.000)	443	81189			17.00- 23.00	19.24

Data File: /chem/msdk.i/k23mar10.b/k032306.d

Page 1

Date : 23-MAR-2010 16:07

Client ID: DFTPP 50ng

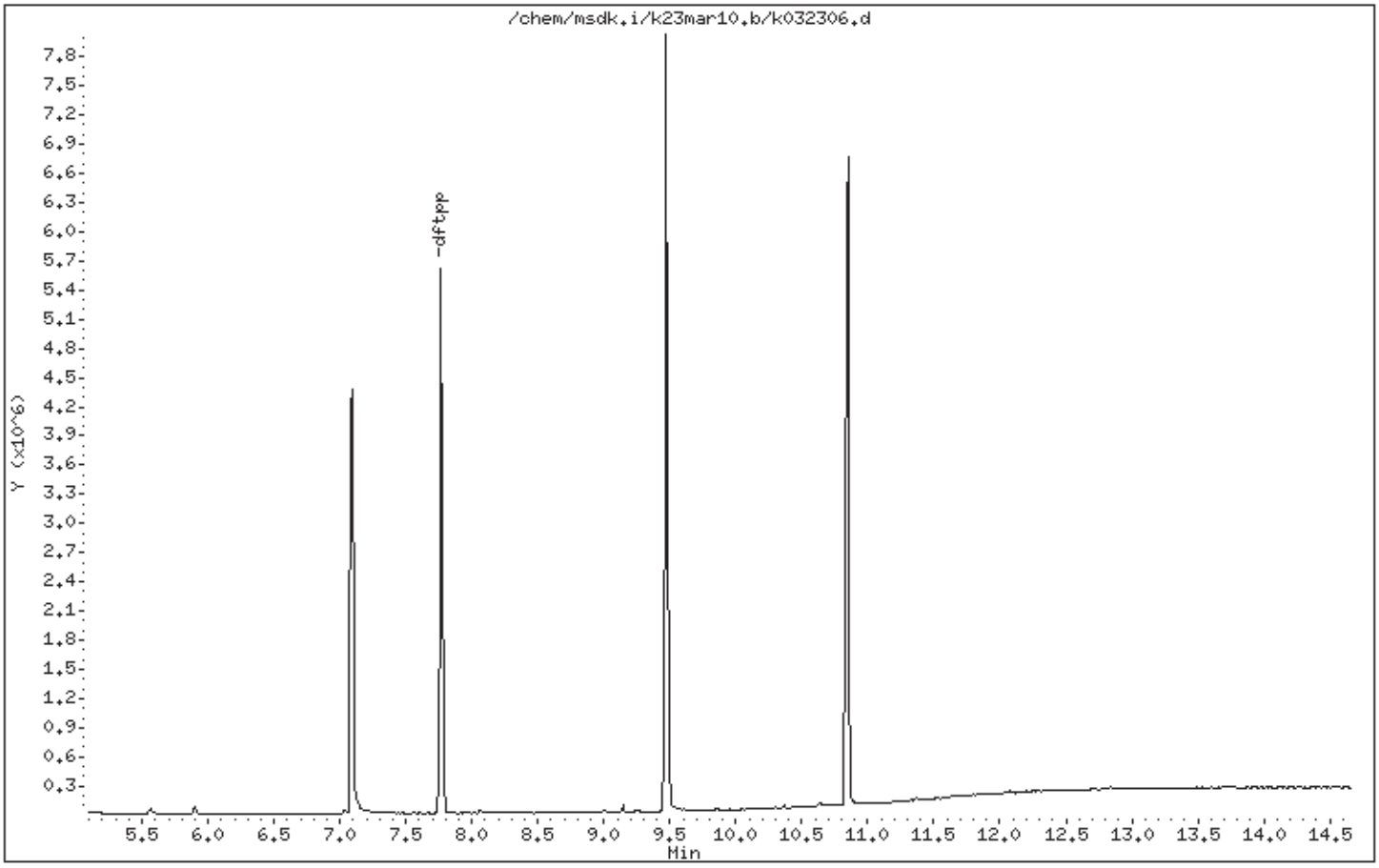
Instrument: msdk.i

Sample Info: ;1869-6A-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25



Data File: /chem/msdk.i/k23mar10.b/k032306.d

Date : 23-MAR-2010 16:07

Client ID: DFTPP 50ng

Instrument: msdk.i

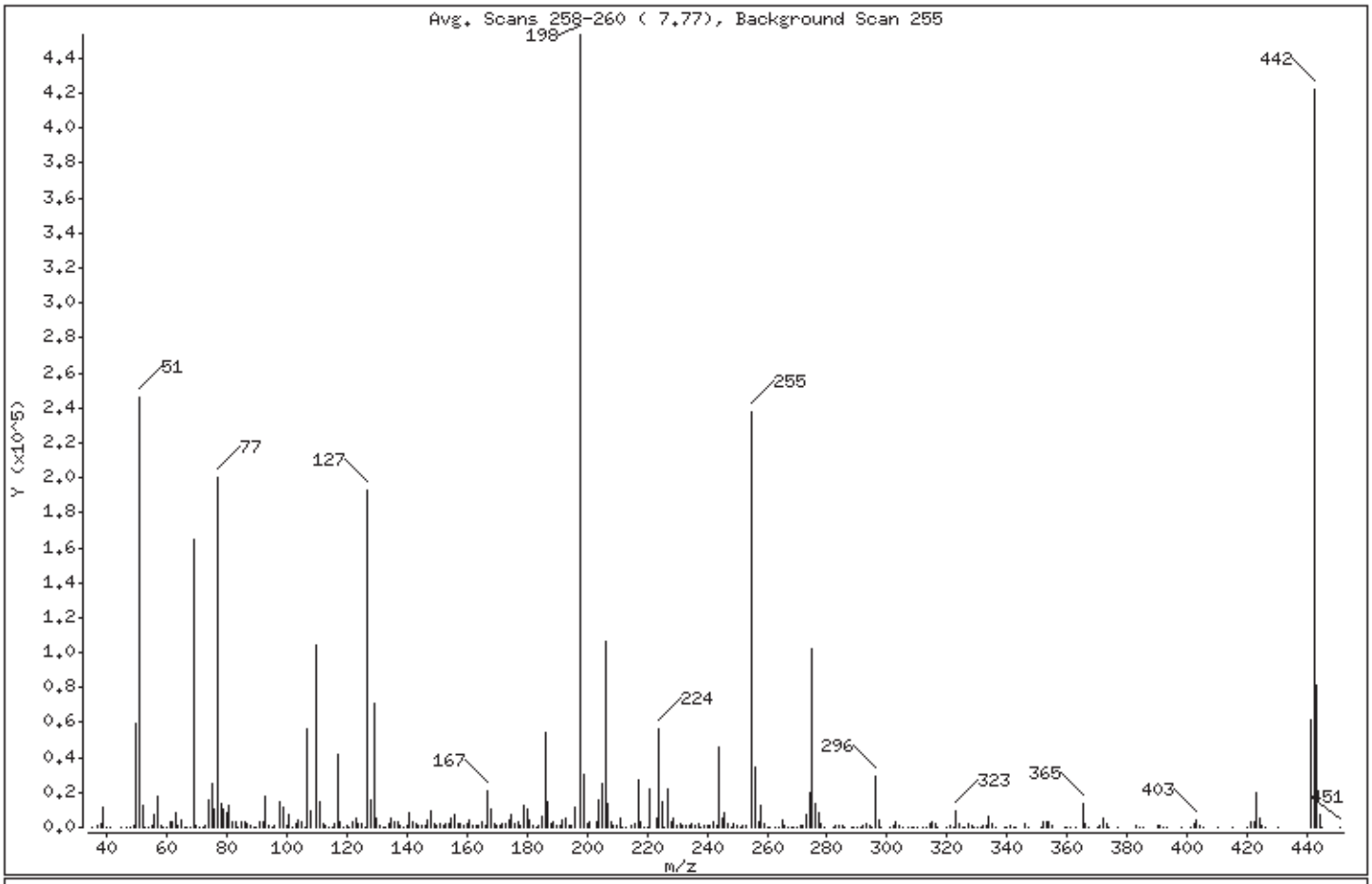
Sample Info: ;1869-6A-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	54.28
68	Less than 2.00% of mass 69	0.11 (0.29)
69	Less than 99.90% of mass 198	36.33
70	Less than 2.00% of mass 69	0.16 (0.45)
127	40.00 - 60.00% of mass 198	42.48
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 30.00% of mass 198	22.49
365	Greater than 1.00% of mass 198	3.05
441	Present, but less than mass 443	13.68
442	40.00 - 100.00% of mass 198	93.08
443	17.00 - 23.00% of mass 442	17.91 (19.24)

Date : 23-MAR-2010 16:07

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6A-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k032306.d
Spectrum: Avg. Scans 258-260 (7.77), Background Scan 255
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	50	126.00	228	212.00	273	305.00	279
37.00	711	127.00	192576	213.00	294	307.00	56
38.00	1870	128.00	15199	215.00	969	308.00	373
39.00	11839	129.00	70728	216.00	2368	309.00	336
40.00	269	130.00	5723	217.00	27328	310.00	376
41.00	423	131.00	1084	218.00	3586	312.00	69
45.00	406	132.00	436	219.00	473	313.00	307
47.00	176	133.00	185	220.00	135	314.00	1668
48.00	239	134.00	2013	221.00	21904	315.00	3108
49.00	618	135.00	5488	223.00	5567	316.00	1990
50.00	59456	136.00	2680	224.00	56760	317.00	495
51.00	246080	137.00	3383	225.00	15014	320.00	286
52.00	13008	138.00	731	226.00	514	321.00	1279
53.00	353	139.00	462	227.00	22104	322.00	306
54.00	231	140.00	544	228.00	3593	323.00	9621
55.00	1172	141.00	8160	229.00	5067	324.00	1792
56.00	7375	142.00	3034	230.00	900	325.00	238
57.00	17600	143.00	1733	231.00	2055	326.00	190
58.00	996	144.00	549	232.00	553	327.00	2157
59.00	71	145.00	554	233.00	550	328.00	1005
60.00	390	146.00	1392	234.00	1240	329.00	133
61.00	3135	147.00	3973	235.00	1737	330.00	50
62.00	2895	148.00	9391	236.00	1341	331.00	54
63.00	8479	149.00	2050	237.00	2552	332.00	919
64.00	1473	150.00	623	238.00	478	333.00	981
65.00	4453	151.00	1680	239.00	1075	334.00	6013
66.00	515	152.00	1015	240.00	805	335.00	1670
67.00	448	153.00	2589	241.00	1465	336.00	261
68.00	485	154.00	2021	242.00	3118	339.00	187
69.00	164736	155.00	4767	243.00	565	340.00	79
70.00	741	156.00	7581	244.00	45416	341.00	1196
71.00	52	157.00	1612	245.00	5700	342.00	364
72.00	65	158.00	1664	246.00	8647	343.00	55
73.00	1224	159.00	1156	247.00	1855	346.00	2390
74.00	15891	160.00	2482	248.00	507	347.00	456

Date : 23-MAR-2010 16:07

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6A-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k032306.d
Spectrum: Avg. Scans 258-260 (7.77), Background Scan 255
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	25208	161.00	4047	249.00	1769	351.00	125
76.00	10470	162.00	1374	250.00	855	352.00	3218
77.00	200448	163.00	534	251.00	492	353.00	2614
78.00	13197	164.00	614	252.00	673	354.00	3327
79.00	10663	165.00	2940	253.00	812	355.00	761
80.00	7895	166.00	649	255.00	237440	359.00	184
81.00	12138	167.00	20664	256.00	34824	360.00	110
82.00	2833	168.00	10413	257.00	3003	361.00	141
83.00	3074	169.00	1588	258.00	12537	363.00	53
84.00	128	170.00	679	259.00	2248	365.00	13830
85.00	2817	171.00	1034	260.00	388	366.00	2127
86.00	3131	172.00	1906	261.00	505	367.00	55
87.00	1739	173.00	1884	263.00	158	370.00	245
88.00	776	174.00	4113	264.00	30	371.00	928
89.00	352	175.00	7668	265.00	4234	372.00	5563
90.00	57	176.00	2391	266.00	622	373.00	1652
91.00	2939	177.00	3491	267.00	69	374.00	365
92.00	3025	178.00	1123	268.00	66	377.00	175
93.00	17336	179.00	12602	269.00	101	383.00	1418
94.00	1305	180.00	10128	270.00	421	384.00	459
95.00	277	181.00	4517	271.00	833	385.00	308
96.00	1154	182.00	905	272.00	741	390.00	950
98.00	14599	183.00	413	273.00	7262	391.00	592
99.00	11853	184.00	1157	274.00	19768	392.00	411
100.00	1179	185.00	6541	275.00	101984	393.00	152
101.00	6812	186.00	54672	276.00	13637	398.00	51
102.00	327	187.00	14868	277.00	8246	401.00	452
103.00	2394	188.00	2060	278.00	1594	402.00	2322
104.00	3968	189.00	2711	279.00	462	403.00	4538
105.00	3394	190.00	552	282.00	415	404.00	1407
106.00	168	191.00	949	283.00	847	405.00	340
107.00	56120	192.00	4169	284.00	912	410.00	60
108.00	9022	193.00	5461	285.00	1547	415.00	222
110.00	104528	194.00	1375	286.00	321	420.00	77
111.00	15031	195.00	967	288.00	59	421.00	2623

Date : 23-MAR-2010 16:07

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6A-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k032306.d
Spectrum: Avg. Scans 258-260 (7.77), Background Scan 255
Location of Maximum: 198.00
Number of points: 334

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	1908	196.00	11086	289.00	321	422.00	2998
113.00	686	198.00	453440	290.00	337	423.00	19976
114.00	310	199.00	30240	291.00	312	424.00	5199
115.00	276	200.00	1978	292.00	586	425.00	667
116.00	1908	201.00	2782	293.00	2174	426.00	155
117.00	41400	203.00	2635	294.00	601	430.00	51
118.00	2657	204.00	15190	295.00	243	441.00	62008
119.00	458	205.00	24928	296.00	28976	442.00	422016
120.00	1048	206.00	106152	297.00	4112	443.00	81184
121.00	61	207.00	13223	298.00	486	444.00	7631
122.00	2989	208.00	3377	301.00	496	445.00	394
123.00	5000	209.00	976	302.00	771	451.00	53
124.00	2207	210.00	806	303.00	3379		
125.00	2584	211.00	4974	304.00	1042		

Air Toxics Ltd.

Data file : /chem/msdk.i/k28may10a.b/k052827.d
Lab Smp Id: DFTPP 50ng Client Smp ID: DFTPP 50ng
Inj Date : 28-MAY-2010 19:39
Operator : ss Inst ID: msdk.i
Smp Info : ;1869-6B-50;Tune
Misc Info :
Comment :
Method : /chem/msdk.i/k28may10a.b/dftpp.m
Meth Date : 28-May-2010 09:10 Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

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

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

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp					CAS #:		
7.660	7.836 (0.000)	198	146277		100.00	100.00 - 100.00	100.00
7.660	7.836 (0.000)	51	77522		30.00	60.00 - 60.00	53.00
7.660	7.836 (0.000)	68	82		0.00	2.00 - 2.00	0.14
7.660	7.836 (0.000)	69	57010		0.00	99.90 - 99.90	38.97
7.660	7.836 (0.000)	70	411		0.00	2.00 - 2.00	0.72
7.660	7.836 (0.000)	127	67098		40.00	60.00 - 60.00	45.87
7.660	7.836 (0.000)	197	487		0.00	1.00 - 1.00	0.33
7.660	7.836 (0.000)	199	9954		5.00	9.00 - 9.00	6.80
7.660	7.836 (0.000)	275	34800		10.00	30.00 - 30.00	23.79
7.660	7.836 (0.000)	365	5656		1.00	0.00 - 0.00	3.87
7.660	7.836 (0.000)	441	5976		0.01	99.99 - 99.99	29.92
7.660	7.836 (0.000)	442	100133		40.00	100.00 - 100.00	68.45
7.660	7.836 (0.000)	443	19975		17.00	23.00 - 23.00	19.95

Data File: /chem/msdk.i/k28may10a.b/k052827.d

Page 1

Date : 28-MAY-2010 19:39

Client ID: DFTPP 50ng

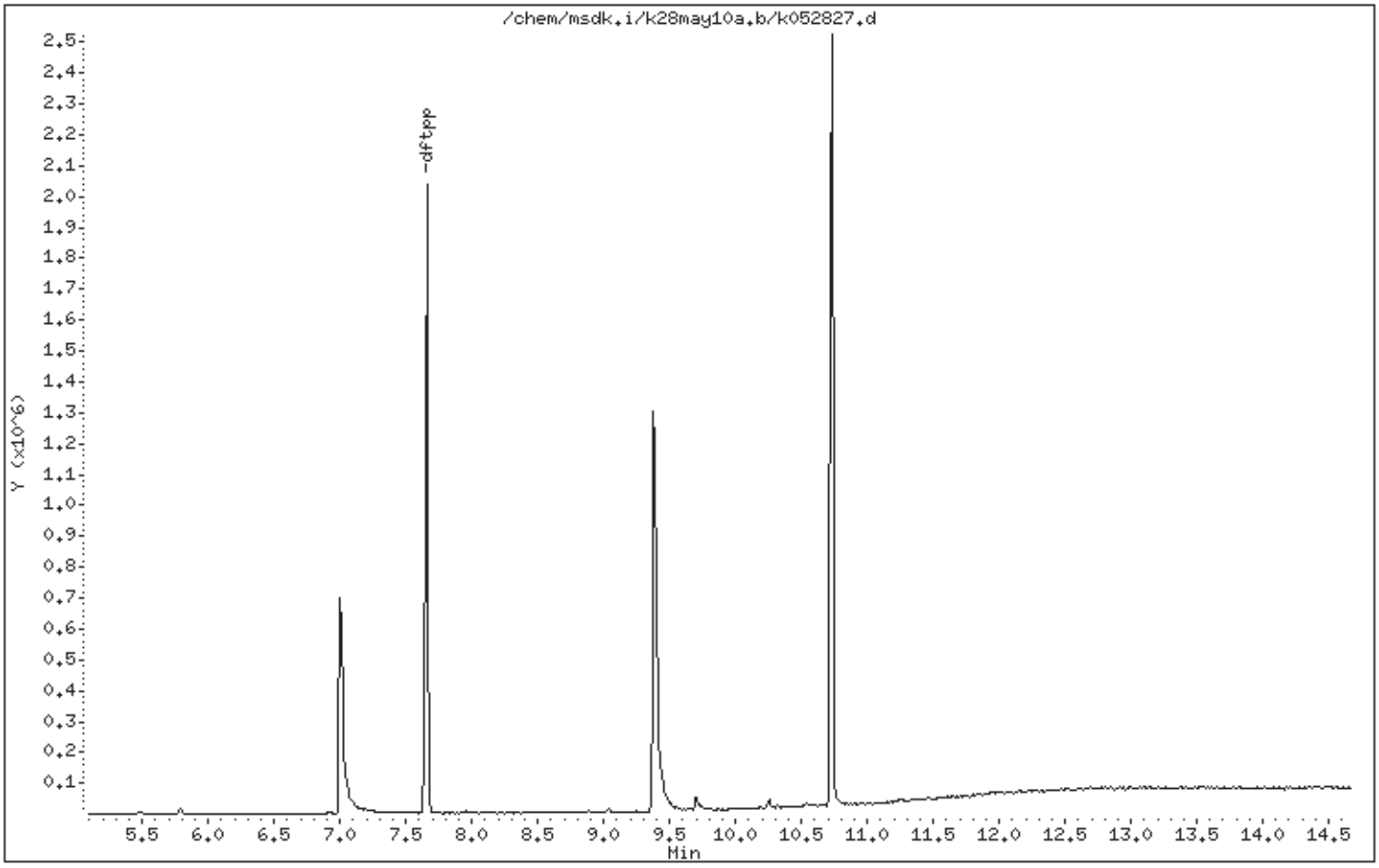
Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25



Data File: /chem/msdk.i/k28may10a.b/k052827.d

Date : 28-MAY-2010 19:39

Client ID: DFTPP 50ng

Instrument: msdk.i

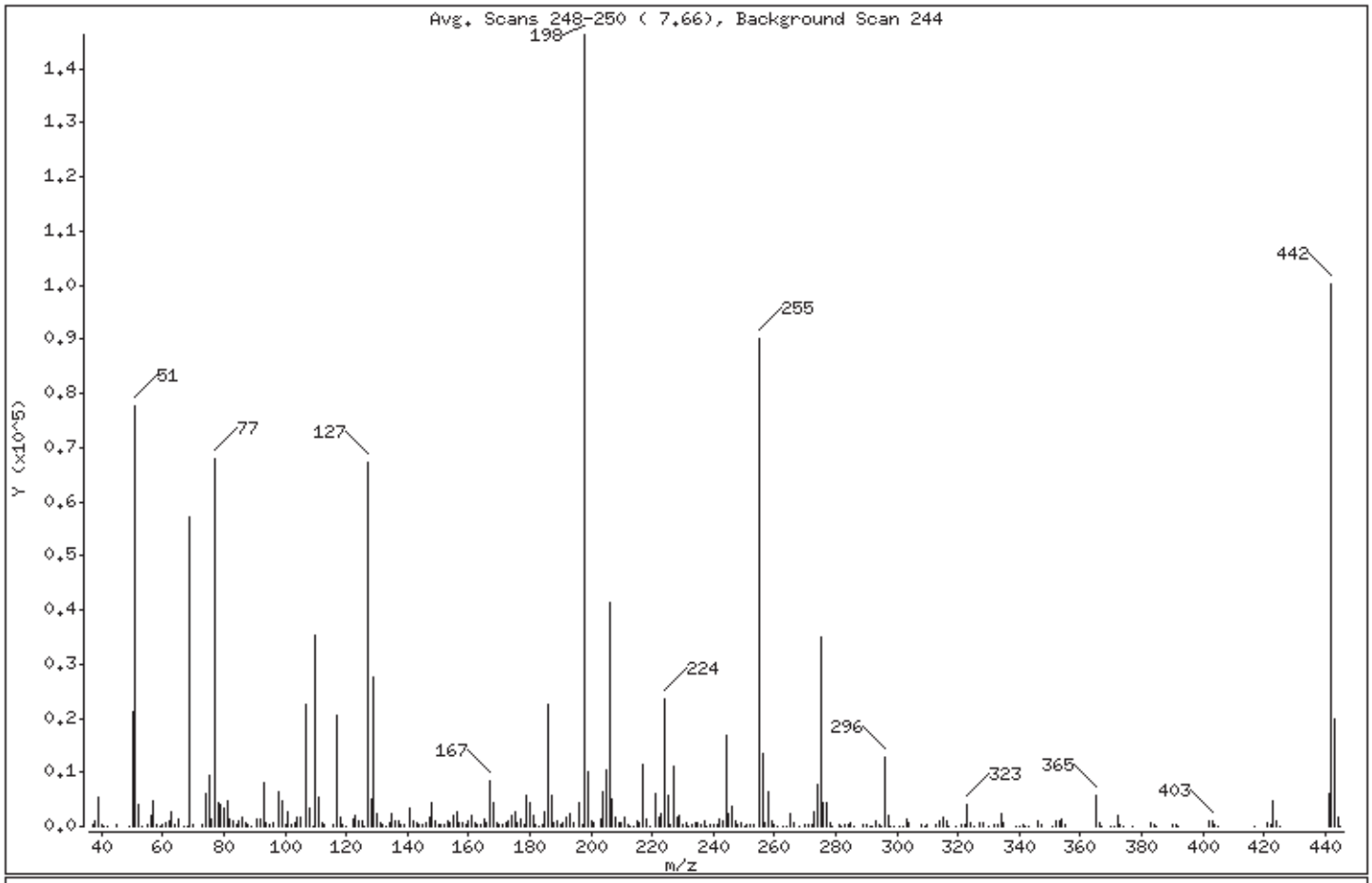
Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.00
68	Less than 2.00% of mass 69	0.06 (0.14)
69	Less than 99.90% of mass 198	38.97
70	Less than 2.00% of mass 69	0.28 (0.72)
127	40.00 - 60.00% of mass 198	45.87
197	Less than 1.00% of mass 198	0.33
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	23.79
365	Greater than 1.00% of mass 198	3.87
441	Present, but less than mass 443	4.09
442	40.00 - 100.00% of mass 198	68.45
443	17.00 - 23.00% of mass 442	13.66 (19.95)

Date : 28-MAY-2010 19:39

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k052827.d
Spectrum: Avg. Scans 248-250 (7.66), Background Scan 244
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	399	129.00	27448	209.00	701	294.00	346
38.00	979	130.00	2209	210.00	617	295.00	92
39.00	5478	131.00	528	211.00	1798	296.00	12618
40.00	212	132.00	228	212.00	366	297.00	1952
41.00	22	133.00	135	213.00	69	298.00	79
42.00	109	134.00	787	214.00	145	299.00	50
45.00	261	135.00	2274	215.00	1001	301.00	156
49.00	88	136.00	943	216.00	682	302.00	157
50.00	21056	137.00	1135	217.00	11517	303.00	1494
51.00	77520	138.00	433	218.00	1476	304.00	520
52.00	4148	139.00	225	219.00	50	308.00	272
53.00	68	141.00	3319	221.00	6077	309.00	132
55.00	384	142.00	985	222.00	1547	310.00	362
56.00	2063	143.00	684	223.00	2490	313.00	170
57.00	4784	144.00	271	224.00	23520	314.00	1044
58.00	254	145.00	188	225.00	5849	315.00	1720
59.00	64	146.00	618	226.00	186	316.00	1085
60.00	210	147.00	1707	227.00	11022	317.00	163
61.00	776	148.00	4409	228.00	1785	319.00	68
62.00	850	149.00	955	229.00	2058	321.00	476
63.00	2540	150.00	269	230.00	395	322.00	247
64.00	298	151.00	413	231.00	653	323.00	3910
65.00	1382	152.00	270	232.00	112	324.00	793
67.00	157	153.00	1051	233.00	262	325.00	54
68.00	82	154.00	665	234.00	635	327.00	592
69.00	57008	155.00	2143	235.00	762	328.00	615
70.00	411	156.00	2600	236.00	501	330.00	55
73.00	378	157.00	641	237.00	895	332.00	278
74.00	6152	158.00	660	238.00	65	333.00	422
75.00	9253	159.00	478	239.00	306	334.00	2385
76.00	1489	160.00	1078	240.00	421	335.00	726
77.00	67928	161.00	1931	241.00	407	339.00	63
78.00	4421	162.00	620	242.00	1190	340.00	113
79.00	4110	163.00	197	243.00	1041	341.00	409
80.00	3252	164.00	342	244.00	16856	342.00	154

Date : 28-MAY-2010 19:39

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k052827.d
Spectrum: Avg. Scans 248-250 (7.66), Background Scan 244
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	4851	165.00	1362	245.00	2244	343.00	54
82.00	1251	166.00	810	246.00	3825	346.00	968
83.00	997	167.00	8555	247.00	903	347.00	223
84.00	218	168.00	4218	248.00	465	351.00	94
85.00	1023	169.00	654	249.00	611	352.00	1176
86.00	1546	170.00	357	250.00	52	353.00	906
87.00	747	171.00	435	251.00	274	354.00	1233
88.00	324	172.00	530	252.00	201	355.00	284
89.00	75	173.00	924	253.00	352	365.00	5656
91.00	1203	174.00	1877	255.00	90000	366.00	824
92.00	1309	175.00	2827	256.00	13554	367.00	73
93.00	8086	176.00	829	257.00	517	370.00	62
94.00	547	177.00	1315	258.00	6233	371.00	87
95.00	216	178.00	398	259.00	1155	372.00	2137
96.00	556	179.00	5641	260.00	190	373.00	489
98.00	6385	180.00	4265	261.00	85	374.00	78
99.00	4639	181.00	1878	263.00	55	377.00	69
100.00	403	182.00	356	264.00	70	383.00	511
101.00	2645	183.00	54	265.00	2412	384.00	261
102.00	206	184.00	497	266.00	639	385.00	55
103.00	646	185.00	2797	268.00	80	390.00	232
104.00	1668	186.00	22384	270.00	174	391.00	170
105.00	1523	187.00	5641	271.00	192	392.00	77
107.00	22560	188.00	713	272.00	289	402.00	929
108.00	3359	189.00	1139	273.00	2751	403.00	1079
109.00	108	190.00	214	274.00	7573	404.00	432
110.00	35248	191.00	593	275.00	34800	405.00	57
111.00	5384	192.00	1847	276.00	4474	417.00	60
112.00	725	193.00	2466	277.00	4244	421.00	727
113.00	213	194.00	564	278.00	774	422.00	383
116.00	177	196.00	4377	279.00	99	423.00	4724
117.00	20472	197.00	487	281.00	195	424.00	1174
118.00	1703	198.00	146240	282.00	139	425.00	55
119.00	170	199.00	9954	283.00	447	441.00	5976
120.00	165	200.00	953	284.00	296	442.00	100128

Date : 28-MAY-2010 19:39

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k052827.d
Spectrum: Avg. Scans 248-250 (7.66), Background Scan 244
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	1200	201.00	813	285.00	744	443.00	19968
123.00	2139	203.00	1232	286.00	111	444.00	1831
124.00	1044	204.00	6225	289.00	191	445.00	62
125.00	903	205.00	10410	290.00	190		
126.00	123	206.00	41200	291.00	55		
127.00	67096	207.00	5163	292.00	106		
128.00	5153	208.00	1724	293.00	916		

Air Toxics Ltd.

Data file : /chem/msdk.i/k01jun10.b/k060103.d
Lab Smp Id: DFTPP 50ng Client Smp ID: DFTPP 50ng
Inj Date : 01-JUN-2010 11:05
Operator : ss Inst ID: msdk.i
Smp Info : ;1869-6B-50;Tune
Misc Info :
Comment :
Method : /chem/msdk.i/k01jun10.b/dftpp.m
Meth Date : 01-Jun-2010 10:49 Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

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

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

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 dftpp					CAS #:		
7.650	7.836 (0.000)	198	172717			100.00- 100.00	100.00
7.650	7.836 (0.000)	51	91422			30.00- 60.00	52.93
7.650	7.836 (0.000)	68	0			0.00- 2.00	0.00
7.650	7.836 (0.000)	69	68013			0.00- 99.90	39.38
7.650	7.836 (0.000)	70	391			0.00- 2.00	0.57
7.650	7.836 (0.000)	127	81874			40.00- 60.00	47.40
7.650	7.836 (0.000)	197	0			0.00- 1.00	0.00
7.650	7.836 (0.000)	199	11738			5.00- 9.00	6.80
7.650	7.836 (0.000)	275	38989			10.00- 30.00	22.57
7.650	7.836 (0.000)	365	6238			1.00- 0.00	3.61
7.650	7.836 (0.000)	441	14422			0.01- 99.99	79.25
7.650	7.836 (0.000)	442	94505			40.00- 100.00	54.72
7.650	7.836 (0.000)	443	18198			17.00- 23.00	19.26

Data File: /chem/msdk.i/k01jun10.b/k060103.d

Date : 01-JUN-2010 11:05

Client ID: DFTPP 50ng

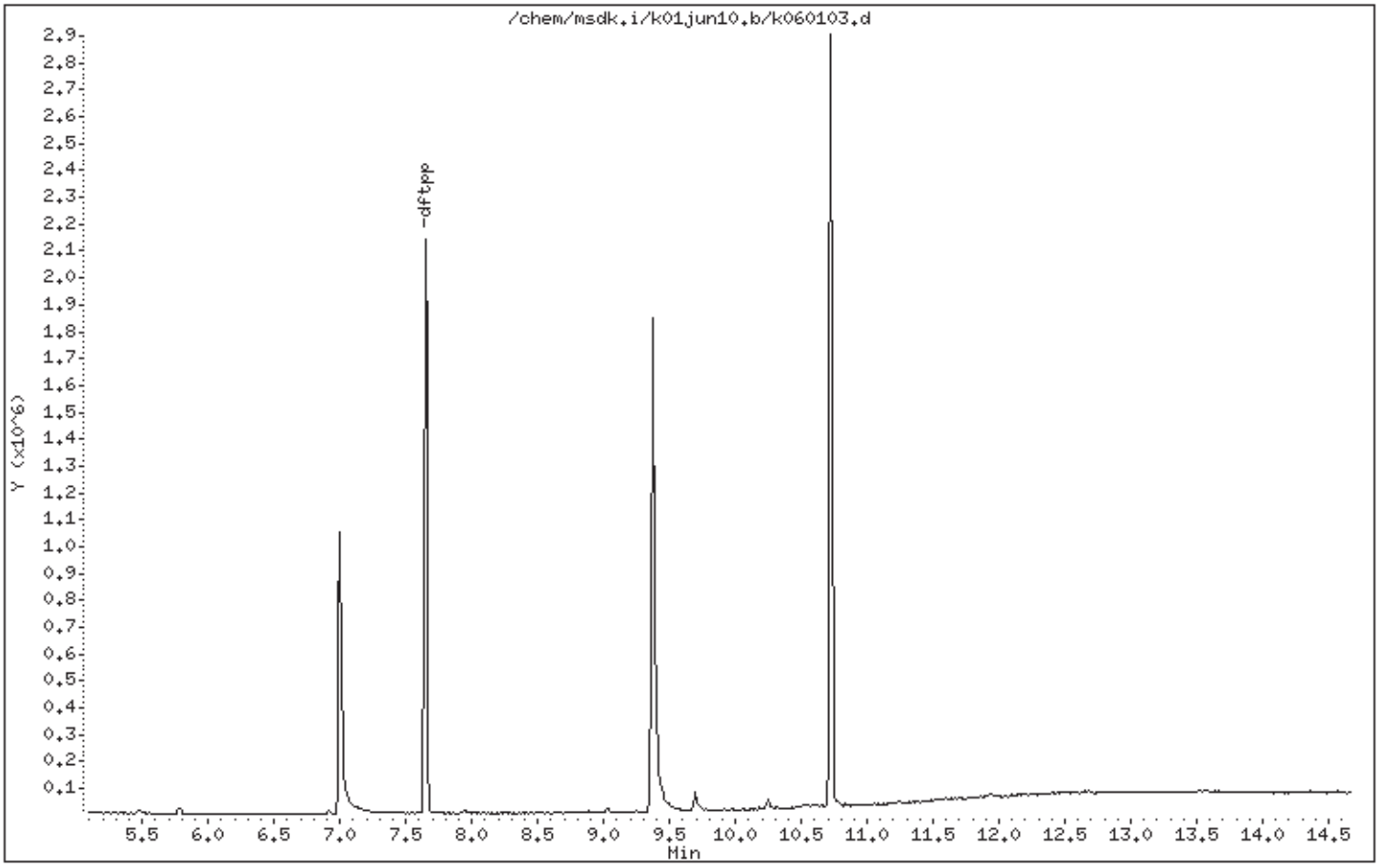
Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25



Data File: /chem/msdk.i/k01jun10.b/k060103.d

Date : 01-JUN-2010 11:05

Client ID: DFTPP 50ng

Instrument: msdk.i

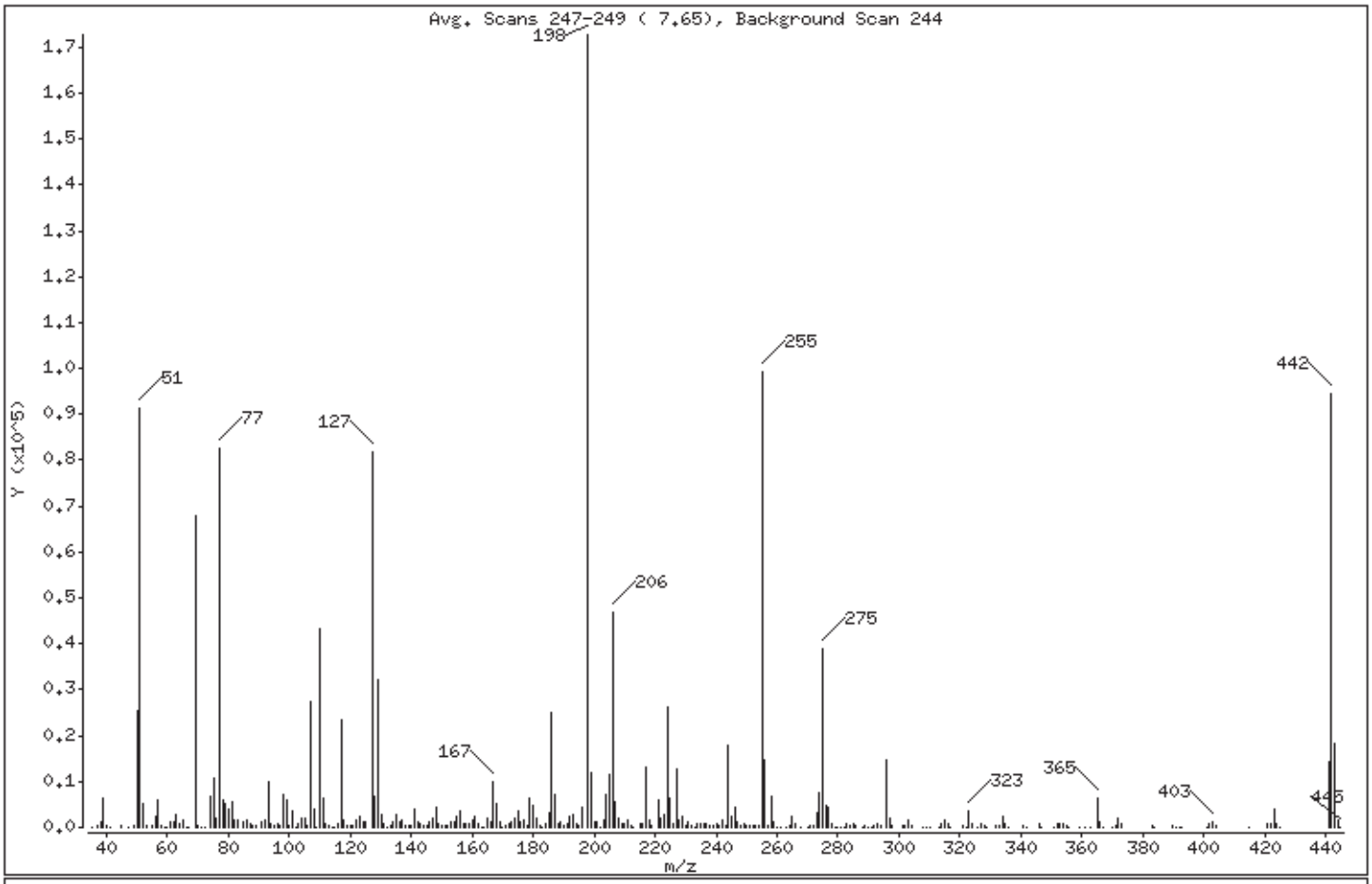
Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase:

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	52.93
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Less than 99.90% of mass 198	39.38
70	Less than 2.00% of mass 69	0.23 (0.57)
127	40.00 - 60.00% of mass 198	47.40
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	22.57
365	Greater than 1.00% of mass 198	3.61
441	Present, but less than mass 443	8.35
442	40.00 - 100.00% of mass 198	54.72
443	17.00 - 23.00% of mass 442	10.54 (19.26)

Date : 01-JUN-2010 11:05

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k060103.d
Spectrum: Avg. Scans 247-249 (7.65), Background Scan 244
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	64	124.00	1290	204.00	7229	288.00	85
37.00	266	125.00	1157	205.00	11659	289.00	273
38.00	1110	127.00	81872	206.00	46664	290.00	102
39.00	6174	128.00	6611	207.00	5572	291.00	63
40.00	331	129.00	32160	208.00	2086	292.00	257
41.00	109	130.00	2673	209.00	676	293.00	977
45.00	367	131.00	820	210.00	646	294.00	389
47.00	69	132.00	182	211.00	1578	296.00	14644
49.00	260	133.00	267	212.00	199	297.00	1921
50.00	25256	134.00	1070	213.00	124	298.00	278
51.00	91416	135.00	2676	215.00	699	301.00	259
52.00	5187	136.00	1032	216.00	884	302.00	295
53.00	263	137.00	1527	217.00	13128	303.00	1586
55.00	454	138.00	468	218.00	1554	304.00	469
56.00	2205	139.00	223	219.00	204	308.00	188
57.00	5795	140.00	353	221.00	5941	309.00	79
58.00	230	141.00	3990	222.00	2097	310.00	165
59.00	6	142.00	1054	223.00	2839	313.00	123
60.00	129	143.00	895	224.00	26072	314.00	698
61.00	1099	144.00	229	225.00	6329	315.00	1529
62.00	1068	145.00	279	226.00	618	316.00	940
63.00	2831	146.00	995	227.00	12528	317.00	120
64.00	685	147.00	1971	228.00	1542	321.00	379
65.00	1541	148.00	4546	229.00	2473	322.00	189
66.00	155	149.00	934	230.00	414	323.00	3685
67.00	160	150.00	343	231.00	993	324.00	767
69.00	68008	151.00	486	232.00	201	326.00	195
70.00	391	152.00	365	233.00	64	327.00	683
71.00	118	153.00	1343	234.00	909	328.00	361
72.00	61	154.00	1109	235.00	802	329.00	70
74.00	6839	155.00	2298	236.00	650	332.00	327
75.00	10784	156.00	3413	237.00	951	333.00	378
76.00	2075	157.00	610	238.00	287	334.00	2275
77.00	82544	158.00	626	239.00	452	335.00	634
78.00	5894	159.00	733	240.00	620	336.00	131

Date : 01-JUN-2010 11:05

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k060103.d
Spectrum: Avg. Scans 247-249 (7.65), Background Scan 244
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	4972	160.00	1396	241.00	538	341.00	421
80.00	3986	161.00	2189	242.00	1566	342.00	166
81.00	5413	162.00	642	243.00	554	346.00	891
82.00	1514	163.00	170	244.00	17944	347.00	76
83.00	1461	164.00	196	245.00	2527	351.00	91
85.00	1152	165.00	1792	246.00	4335	352.00	977
86.00	1606	166.00	1204	247.00	999	353.00	777
87.00	685	167.00	9854	248.00	227	354.00	920
88.00	332	168.00	5097	249.00	760	355.00	366
89.00	317	169.00	1105	250.00	325	356.00	60
91.00	1125	170.00	189	251.00	295	359.00	56
92.00	1558	171.00	249	252.00	272	361.00	56
93.00	9805	172.00	787	253.00	530	363.00	50
94.00	600	173.00	1257	254.00	201	365.00	6238
95.00	359	174.00	1918	255.00	99152	366.00	1183
96.00	630	175.00	3659	256.00	14857	367.00	59
97.00	336	176.00	995	257.00	535	370.00	135
98.00	7287	177.00	1571	258.00	6798	371.00	304
99.00	5964	178.00	530	259.00	1005	372.00	1996
100.00	513	179.00	6480	260.00	157	373.00	603
101.00	3466	180.00	4604	261.00	99	383.00	570
102.00	192	181.00	2074	263.00	138	384.00	143
103.00	802	182.00	349	264.00	244	390.00	339
104.00	1846	183.00	121	265.00	2259	391.00	170
105.00	1800	184.00	625	266.00	879	392.00	78
106.00	584	185.00	3105	268.00	95	393.00	55
107.00	27320	186.00	25176	270.00	194	401.00	195
108.00	3967	187.00	7063	271.00	308	402.00	807
109.00	150	188.00	712	272.00	237	403.00	1335
110.00	43344	189.00	1388	273.00	3154	404.00	381
111.00	6504	190.00	325	274.00	7664	415.00	63
112.00	885	191.00	841	275.00	38984	421.00	888
113.00	385	192.00	2281	276.00	4807	422.00	676
114.00	62	193.00	2781	277.00	4509	423.00	4109
115.00	146	194.00	790	278.00	659	424.00	917

Date : 01-JUN-2010 11:05

Client ID: DFTPP 50ng Instrument: msdk.i

Sample Info: ;1869-6B-50;Tune

Operator: ss

Column phase: Column diameter: 0.25

Data File: k060103.d
Spectrum: Avg. Scans 247-249 (7.65), Background Scan 244
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	676	195.00	449	279.00	169	425.00	56
117.00	23512	196.00	4265	280.00	60	441.00	14422
118.00	1542	198.00	172672	281.00	3	442.00	94504
119.00	227	199.00	11738	282.00	63	443.00	18192
120.00	450	200.00	1104	283.00	625	444.00	1747
121.00	214	201.00	1066	284.00	427	445.00	149
122.00	1451	202.00	27	285.00	888		
123.00	2228	203.00	1540	286.00	316		

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. 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

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody 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 Chain of Custody (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

Revised COC
5-27-10

SORBENT SAMPLE COLLECTION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl. #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0401
Project Name: Heglar Kranquist

Turn Around Time: [X] Normal [ ] Rush ____ specify

Circle Reporting Units: ppbv ppmv (ug/m³) mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
08A	D-1	—	5-19-10	1337	1737	4 hr	383.04L	EPA ~~TO-15~~ TO-10A
09A	D-10	—		1337	1737	4 hr	377.52L	EPA ~~TO-15~~ TO-10A
07A	Field Blank - PCBs	—		1922	2022	1 hr	-0-	EPA ~~TO-15~~ TO-10A
08AB	D-1	—		1456	1756	3 hr	20.7L	Method 71
09AB	D-10	—		1456	1756	3 hr	20.7L	Method 71
10AB	FB - Siloxane	—		1952	2022	0.5 hr	-0-	HOLD

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	5.20-10/1600	Monica Gregson AM	5/21/10 850
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:
Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	~~Fed Ex~~		NA	Good	(Yes) No None	1005522

SORBENT SAMPLE COLLECTION

@Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Eric Cherry
Company: Exponent Email: mkleven@exponent.com
Address: 15375 SE 30th Pl. #250 City: Bellevue State: WA Zip: 98007
Phone: 425-519-8774 Fax: 425-519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0401
Project Name: Heglar Rhonquist

Turn Around Time: [X] Normal [ ] Rush ____ specify

Circle Reporting Units: ppbv ppmv (ug/m3) mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
MWS/21/10								
07A	D-1	—	5-19-10	1337	1737	4 hr	360 L	EPA TO-10A (KW)
08A	D-10	—		1337	1737	4 hr	360 L	EPA TO-10A (KW)
09A	Field Blank - PCBs	—		1922	2022	1 hr	0	EPA TO-10A (KW)
09AB	D-1	—		1456	1756	3 hr	20.7L	Method 71
09AB	D-10	—		1456	1756	3 hr	20.7L	Method 71
10AB	FB - Siloxane	—	↓	1952	2022	1 hr	0	HOLD

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5.20-10/1600	Monica Gropen AT	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
			5/21/10 8:50
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:
Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	(Yes) No None	1005522

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005522D

Client

Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8774

Fax

425-643-9827

Date Promised: 06/07/10
Date Completed: 6/4/10
Date Received: 5/21/10
PO#:
Project#: 0907194.000.0601 Heglar Kronquist

Total $: $ 450.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
08AB	D-1	Siloxanes	5/19/2010	$225.00
08ABB	D-1 Lab Duplicate	Siloxanes	5/19/2010	$0.00
09A	D-10 Front	Siloxanes	5/19/2010	$225.00
09B	D-10 Back	Siloxanes	5/19/2010	$0.00
10AB(on hol	FB-Siloxane	Siloxanes	5/19/2010	$0.00
11A	Lab Blank	Siloxanes	NA	$0.00
11B	Lab Blank	Siloxanes	NA	$0.00
12A	LCS	Siloxanes	NA	$0.00
12B	LCS	Siloxanes	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Melissa Kleven
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: Other GC

TERMS: NET 30

Reporting Method: Siloxanes-GC/MS

Sample Discrepancy Report

Identification

Initiated By: MW **Project ID:**14301 **PM**: KL **Date:** 5/21/2010 **Discrepancy Type:** ☒ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1005522 **Sample(s) affected:** All

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☒ Other (describe below).

Describe the Discrepancy: went with ID's on vials since the ones on COC are non-unique for the front and back vials

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☒ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☒ blue ice (check one) was present. A temp. Blank ☒ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

Describe the Discrepancy: sample arrived at 10C

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:KL Person notified: Melissa Kleven Date: 5/24/2010

☐ Waiting for Client Reply

Comments: **Notified client, ok to proceed.**

☐ Notify Lab Name: _____ Date: **Notify Receiving:** ☒

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052850.d
Lab Smp Id: 1005522D-08B
Inj Date : 29-MAY-2010 04:44
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-08B;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.10000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
*	3 Benzene-d6	84	2.872	2.881	(1.000)	723456	40.0000	
$	4 Hexamethyldisiloxane-d18	162	2.924	2.933	(1.018)	1106232	36.7455	36.7
	5 hexamethyldisiloxane(mm)	147	3.069	3.068	(1.068)	57982	2.08254	27.3
*	6 Toluene-d8	98	5.149	5.158	(1.000)	636878	40.0000	
	7 octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
*	8 4-Bromofluorobenzene	174	8.367	8.376	(1.000)	204488	40.0000	
	9 octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
	10 deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
	165 Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

+51.7 = 79 ug

W613110

Air Toxics Ltd.

Siloxane Analysis by GC/MS

Data file : /chem/msdk.i/k28may10a.b/k052851.d
Lab Smp Id: 1005522D-08BB
Inj Date : 29-MAY-2010 05:08
Operator : LZ Inst ID: msdk.i
Smp Info : ;1005522D-08BB;
Misc Info :
Comment : HP5MS 30m x 0.25 mm 0.25u
Method : /chem/msdk.i/k28may10a.b/k10k0323.m
Meth Date : 28-May-2010 20:50 atoyama Quant Type: ISTD
Cal Date : 23-MAR-2010 18:31 Cal File: k032312.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: silo.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * v * CpndVariable
v 13.10000 final volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (uG/mL)	FINAL (ug)
*	3 Benzene-d6	84	2.871	2.881	(1.000)	728894	40.0000	
$	4 Hexamethyldisiloxane-d18	162	2.922	2.933	(1.018)	1099882	36.2620	36.3
	5 hexamethyldisiloxane(mm)	147	3.057	3.068	(1.065)	56734	2.02252	26.5
*	6 Toluene-d8	98	5.147	5.158	(1.000)	636011	40.0000	
	7 octamethyltrisiloxane(mdm)	221	Compound Not Detected.					
*	8 4-Bromofluorobenzene	174	8.376	8.376	(1.000)	214220	40.0000	
	9 octa-m-cyclotetrasiloxane(d4)	281	Compound Not Detected.					
	10 deca-m-cyclopentasiloxane(d5)	267	Compound Not Detected.					
	165 Dodeca-mcyclohexasiloxane(d6)	341	Compound Not Detected.					

+52.6 = 79.1 ug

L 613110

Compound List

Siloxanes-GC/MS

CAS Number	Compound	Detection Limit ug	Type
556-67-2	Octamethylcyclotetrasiloxane (D4)	1.0	
541-02-6	Decamethylcylopentasiloxane (D5)	1.0	
9999-9999-204	Hexamethyl disiloxane -d18		
107-46-0	Hexamethyldisiloxane	1.0	
107-51-7	Octamethyltrisiloxane	1.0	
540-97-6	Dodecamethylcyclohexasiloxane (D6	2.0	

@ Air Toxics Ltd	Title: Data Review Checklist			Release Date: 03/01/10
	Form #: F1.2	Revision #: 2	Revision Date:03/01/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1605524D

A_1	A_2	R	T	M	Q	
☐	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
☐	☐			☑		Non-Standard sublist printed/verified, LOQ and LOD verified
	☐	☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☑	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
☐	☐	☑	☐	☑	☐	Corrective Action issued - #
☐	☐	☑	☐	☑	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / (NO))***

☐	☐	☑	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☐	☐	☑	☐	☑	☐	Hold time is met for all samples
		☑	☐	☑	☐	Appropriate data qualifier flags are applied
		☑	☐	☑	☐	Manual integrations for samples and QC are properly documented
☐	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☑	☐			Retention times have been verified
☐	☐	☑	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☐	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☐	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☑	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☑	☐			TICs resemble reference spectra
		☑	☐			TICs between duplicate samples are consistent
☐	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☐	☐	☑	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☑		☑		Special units for all samples in the final report are correctly calculated
		☑	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☐	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
☐		☑				Date MDL(s) performed per instrument(s) 10/11/09
☐	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☐	☐	☑				Final pressure consistent with canister size (6L vs. 1L)
☐	☐	☑				Verify receipt pressures
☐	☐	☑				Verify canister ID #'s
		☑		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		☑	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Impinger volume ~~oBB~~ oSAB = 13.2 + 13.1 = 26.3 (mL)
LL613110

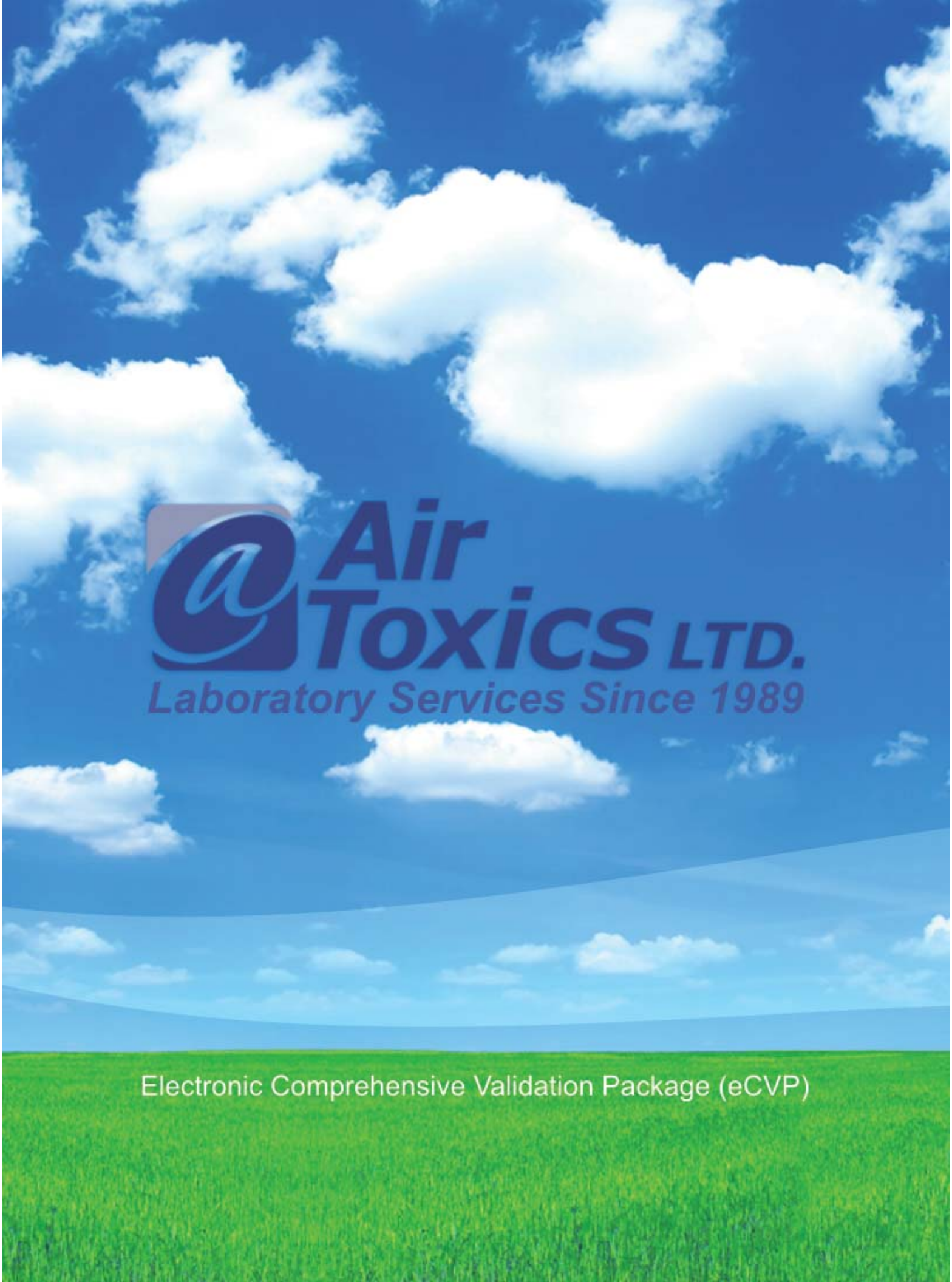
Report in ug/m3.
Dilution on oQB due to ZS out.

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1:	R: 6/3/10	6/4/10	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1005647A

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Comments:

Completed by:

Kara McKiernan Kara McKiernan / Document Control 6/16/10

(Signature) (Print Name & Title) (Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005647A

Work Order Summary

CLIENT:	Ms. Keri Whetter Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Keri Whetter Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8750	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar Kronquist
DATE RECEIVED:	05/27/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/15/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	AOS-1	Modified TO-15	5.0 "Hg	5 psi
02A	AOS-2	Modified TO-15	8.0 "Hg	5 psi
03A	AOS-3	Modified TO-15	6.5 "Hg	5 psi
04A	ALF-1	Modified TO-15	9.0 "Hg	5 psi
05A	ALF-2	Modified TO-15	8.5 "Hg	5 psi
06A	ALF-3	Modified TO-15	8.0 "Hg	5 psi
07A	ALF-4	Modified TO-15	8.5 "Hg	5 psi
08A	ALF-5	Modified TO-15	6.5 "Hg	5 psi
09A	Lab Blank	Modified TO-15	NA	NA
09B	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
10B	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA
11B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 06/15/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-15
Exponent
Workorder# 1005647A

Eight 6 Liter Summa Canister samples were received on May 27, 2010. 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*
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The results for TPH gasoline were reported as not-detected in all of the samples since the chromatographic profiles were not consistent with a gasoline pattern.

Dilution was performed on all of the samples except sample AOS-1 due to the presence of high level non-target species.

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.
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
AOS-1	1005647A-01A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
AOS-2	1005647A-02A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
AOS-3	1005647A-03A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
ALF-1	1005647A-04A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
ALF-2	1005647A-05A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
ALF-3	1005647A-06A	5/20/2010	5/27/2010	NA	22	6/11/2010	NA	Good
ALF-4	1005647A-07A	5/20/2010	5/27/2010	NA	23	6/12/2010	NA	Good
ALF-5	1005647A-08A	5/20/2010	5/27/2010	NA	23	6/12/2010	NA	Good
Lab Blank	1005647A-09A	NA	NA	NA	NA	6/10/2010	NA	Good
Lab Blank	1005647A-09B	NA	NA	NA	NA	6/11/2010	NA	Good
CCV	1005647A-10A	NA	NA	NA	NA	6/10/2010	NA	Good
CCV	1005647A-10B	NA	NA	NA	NA	6/11/2010	NA	Good
LCS	1005647A-11A	NA	NA	NA	NA	6/10/2010	NA	Good
LCS	1005647A-11B	NA	NA	NA	NA	6/11/2010	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: AOS-1

Lab ID#: 1005647A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	3.2	8.1	7.6	19
2-Butanone (Methyl Ethyl Ketone)	0.80	0.98	2.4	2.9

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-1

Lab ID#: 1005647A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061038**	**Date of Collection:**	**5/20/10 11:07:00 AM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**6/11/10 12:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	4.0	Not Detected
Freon 114	0.80	Not Detected	5.6	Not Detected
Chloromethane	3.2	Not Detected	6.6	Not Detected
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
1,3-Butadiene	0.80	Not Detected	1.8	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.80	Not Detected	4.5	Not Detected
Ethanol	3.2	Not Detected	6.1	Not Detected
Freon 113	0.80	Not Detected	6.2	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Acetone	3.2	8.1	7.6	19
2-Propanol	3.2	Not Detected	7.9	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	3.2	Not Detected	10	Not Detected
Methylene Chloride	0.80	Not Detected	2.8	Not Detected
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Hexane	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	0.98	2.4	2.9
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.80	Not Detected	3.9	Not Detected
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
Carbon Tetrachloride	0.80	Not Detected	5.1	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.80	Not Detected	2.6	Not Detected
1,2-Dichloroethane	0.80	Not Detected	3.2	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
1,2-Dichloropropane	0.80	Not Detected	3.7	Not Detected
1,4-Dioxane	3.2	Not Detected	12	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
Toluene	0.80	Not Detected	3.0	Not Detected
trans-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-1

Lab ID#: 1005647A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061038**	**Date of Collection: 5/20/10 11:07:00 AM**	
Dil. Factor:	**1.61**	**Date of Analysis: 6/11/10 12:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	Not Detected
2-Hexanone	3.2	Not Detected	13	Not Detected
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
1,2-Dibromoethane (EDB)	0.80	Not Detected	6.2	Not Detected
Chlorobenzene	0.80	Not Detected	3.7	Not Detected
Ethyl Benzene	0.80	Not Detected	3.5	Not Detected
m,p-Xylene	0.80	Not Detected	3.5	Not Detected
o-Xylene	0.80	Not Detected	3.5	Not Detected
Styrene	0.80	Not Detected	3.4	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
Cumene	0.80	Not Detected	4.0	Not Detected
1,1,2,2-Tetrachloroethane	0.80	Not Detected	5.5	Not Detected
Propylbenzene	0.80	Not Detected	4.0	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
1,3,5-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,2,4-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,3-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.80	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	24	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected
TPH ref. to Gasoline (MW=100)	16	Not Detected	66	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061038.d
Lab Smp Id: 1005647A-01A
Inj Date : 11-JUN-2010 12:52
Operator : LL Inst ID: msd3.i
Smp Info : 200mL #34401
Misc Info : 5.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.845 (1.000)	130	216831	25.0000		80.00- 120.00	100.00
4.852	4.845 (1.000)	128	169377			28.35- 128.35	78.11
4.852	4.845 (1.000)	49	328408			99.84- 199.84	151.46
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	802897	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	127751			0.00- 66.08	15.91
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	690080	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	378587			4.13- 104.13	54.86
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	298123	24.3588	24.359	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	160407			7.34- 107.34	53.81
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	6.994 (1.215)	98	770563	24.4509	24.451	80.00- 120.00	100.00
7.001	6.994 (1.215)	70	86465			0.00- 61.54	11.22

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	510370			16.89- 116.89	66.23
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	307792	23.6586	23.659	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	447856			93.92- 193.92	145.51
9.236	9.236 (1.121)	176	295827			46.28- 146.28	96.11
34 Acetone					CAS #: 67-64-1		
2.818	2.811 (0.581)	58	26254	5.05538	8.139	80.00- 120.00	100.00
2.818	2.811 (0.581)	43	85236			296.41- 396.41	324.65
74 2-Butanone					CAS #: 78-93-3		
4.644	4.637 (0.957)	72	3677	0.60772	0.9784	80.00- 120.00	100.00
4.644	4.637 (0.957)	43	16729			387.49- 487.49	454.93
4.652	4.637 (0.959)	57	1605			0.00- 81.47	43.66

Report Date: 15-Jun-2010 16:44

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061038.d
Lab Smp Id: 1005647A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 5.0"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	216831	-22.51
97 1,4-Difluorobenze	995344	597206	1393482	802897	-19.33
144 Chlorobenzene-d5	835020	501012	1169028	690080	-17.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 15-Jun-2010 16:44

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-01A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 5.0"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.359	97.44	70-130
$ 115 Toluene-d8	25.000	24.451	97.80	70-130
$ 159 Bromofluorobenzene	25.000	23.659	94.63	70-130

Data File: /chem/msd3.i/10jun10a.b/3061038.d

Date : 11-JUN-2010 12:52

Client ID:

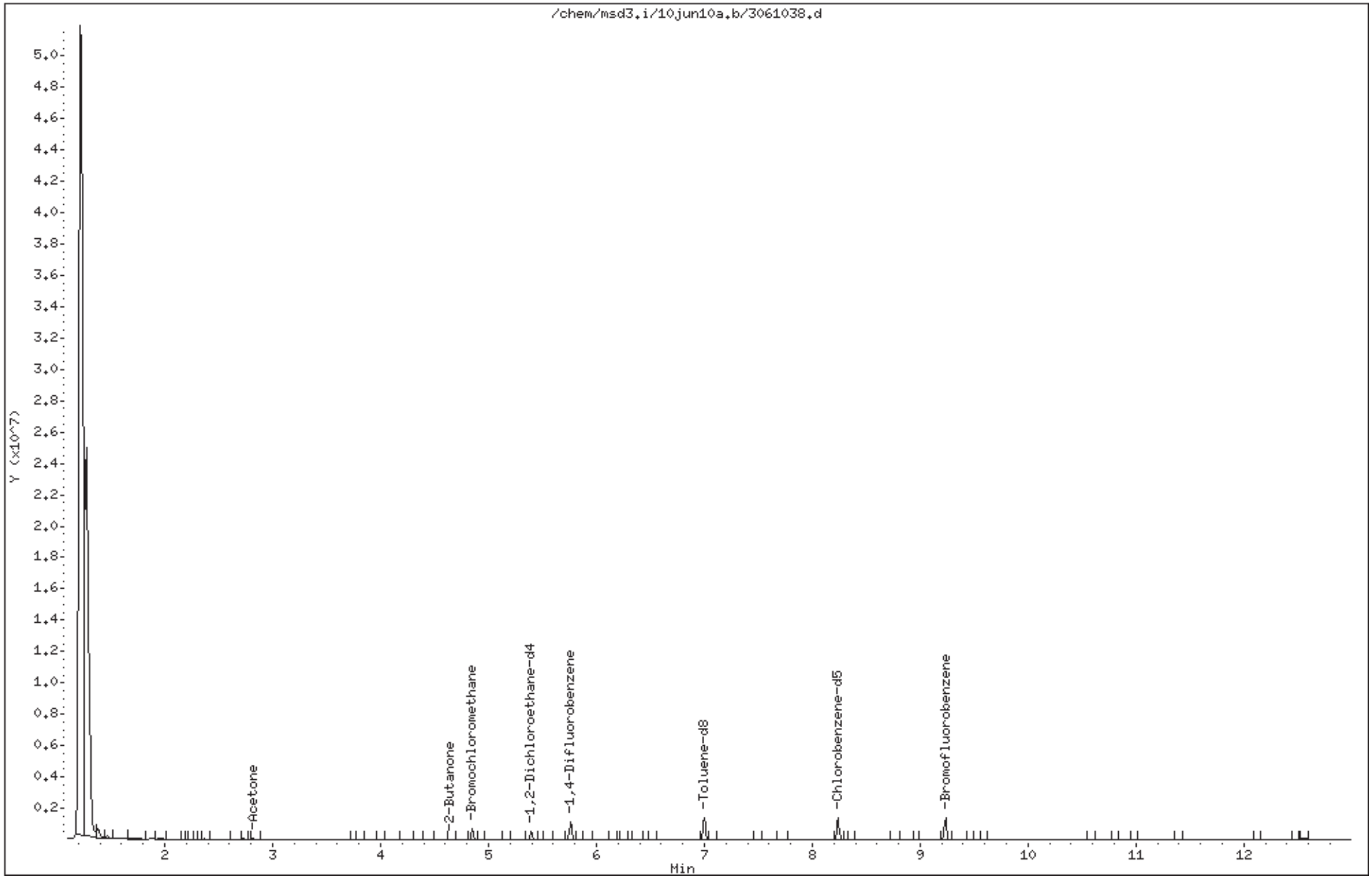
Instrument: msd3.i

Sample Info: 200mL #34401

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd3.i/10jun10a.b/3061038.d

Date : 11-JUN-2010 12:52

Client ID:

Instrument: msd3.i

Sample Info: 200mL #34401

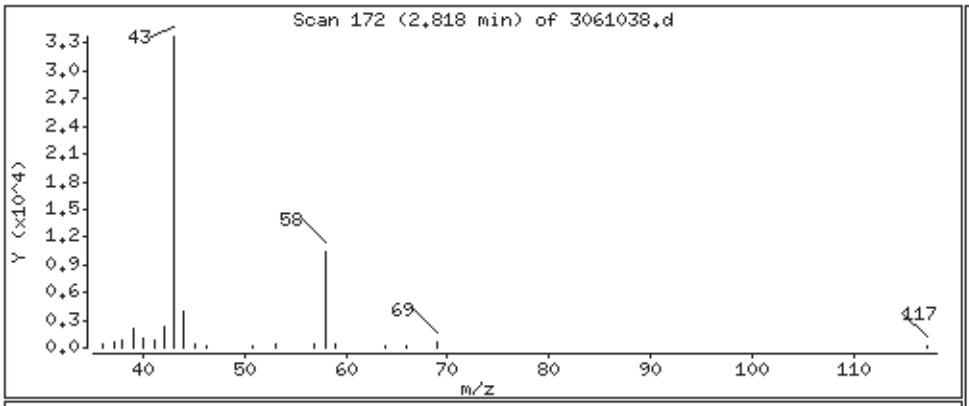
Operator: LL

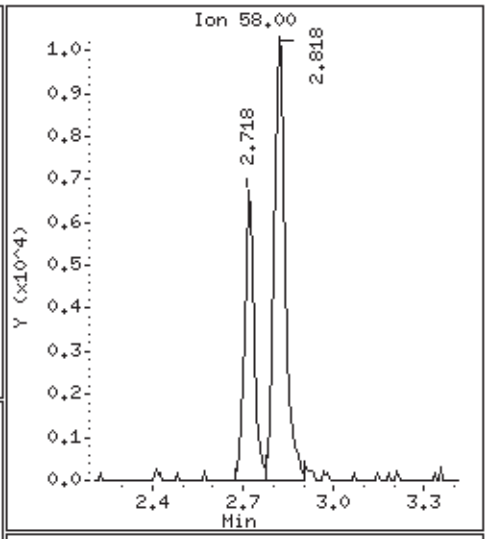
Column phase: RTx-624

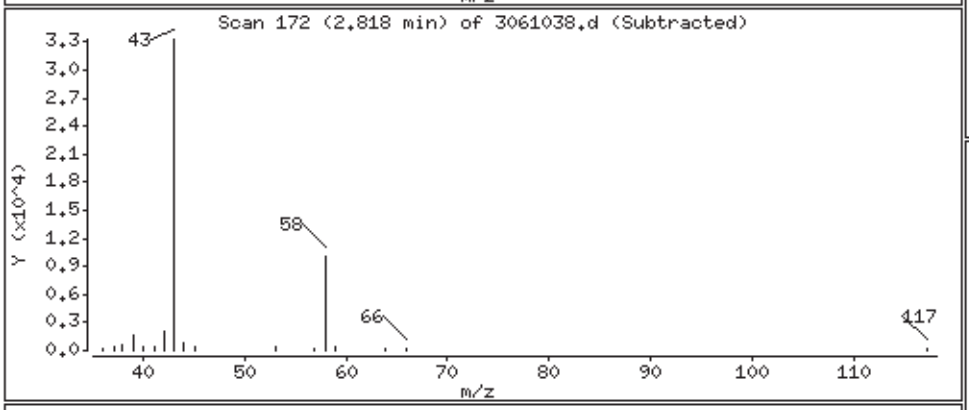
Column diameter: 0.53

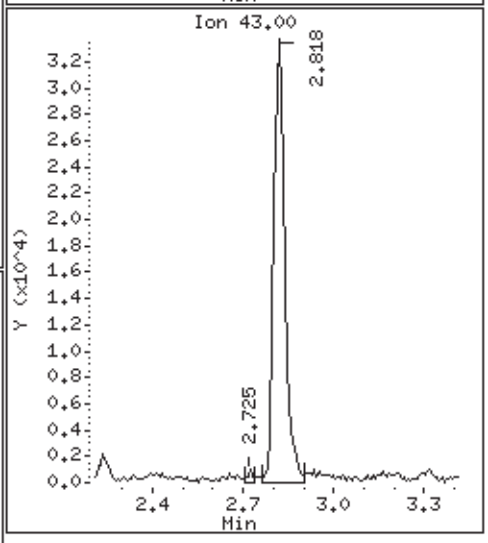
34 Acetone

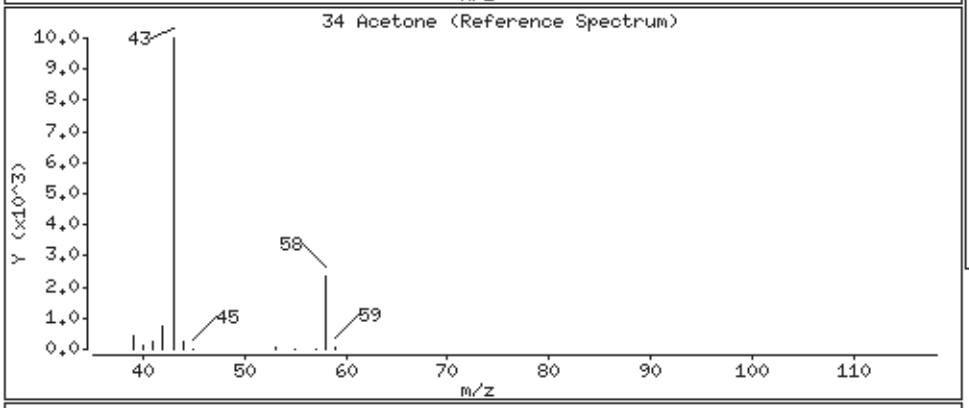
Concentration: 8.139 PPBV

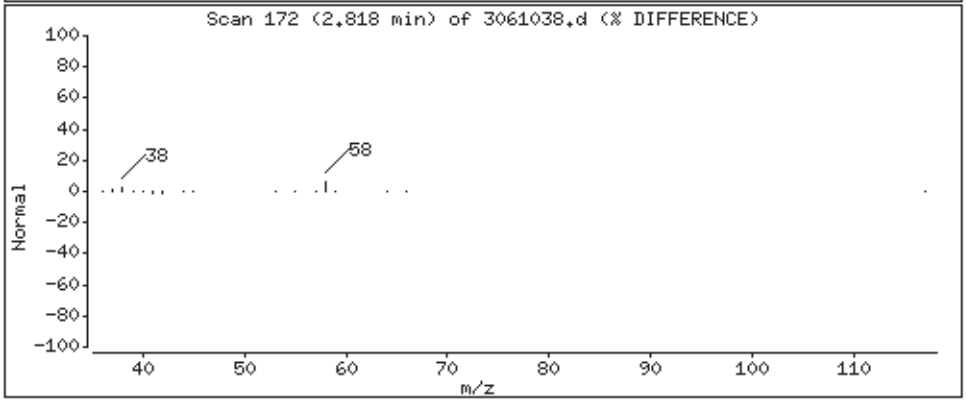












Data File: /chem/msd3.i/10jun10a.b/3061038.d

Date : 11-JUN-2010 12:52

Client ID:

Instrument: msd3.i

Sample Info: 200mL #34401

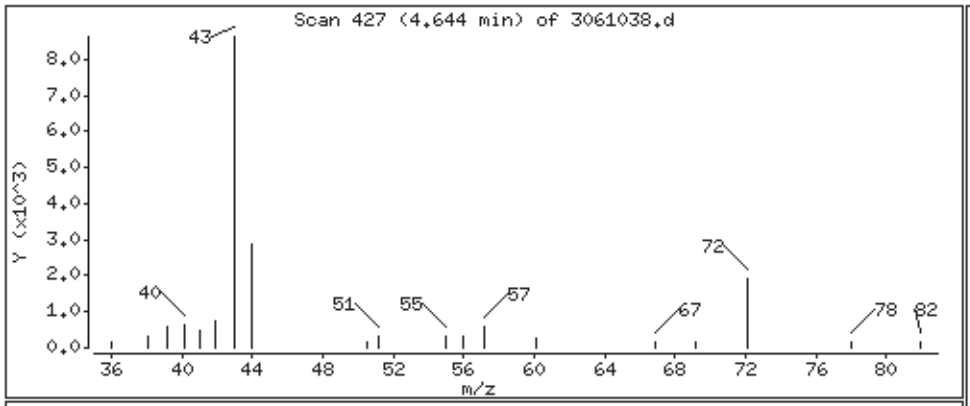
Operator: LL

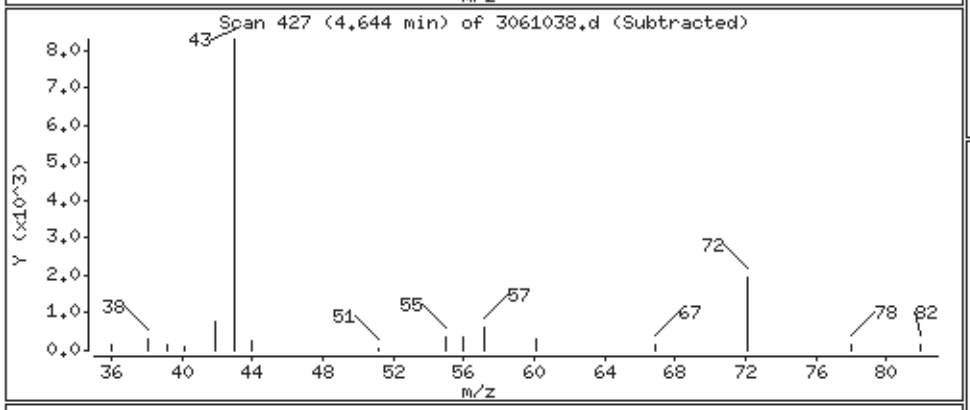
Column phase: RTx-624

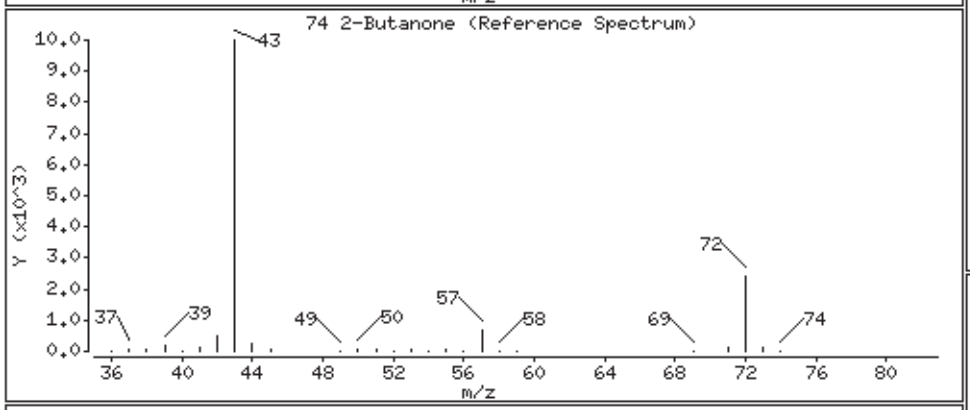
Column diameter: 0.53

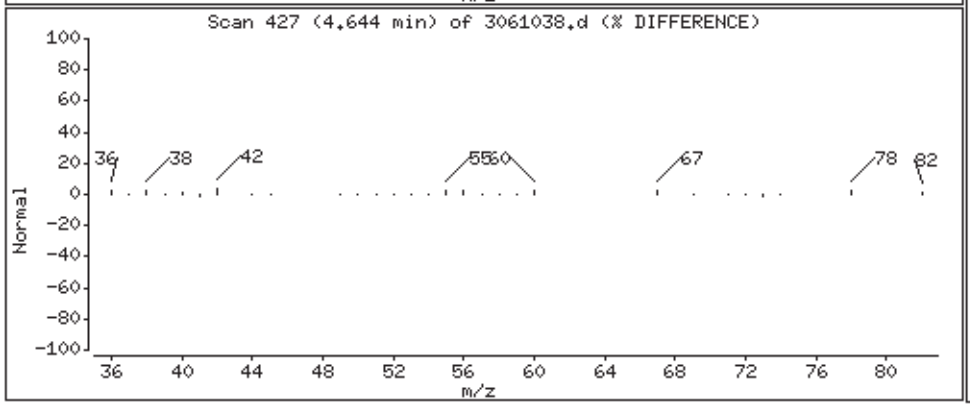
74 2-Butanone

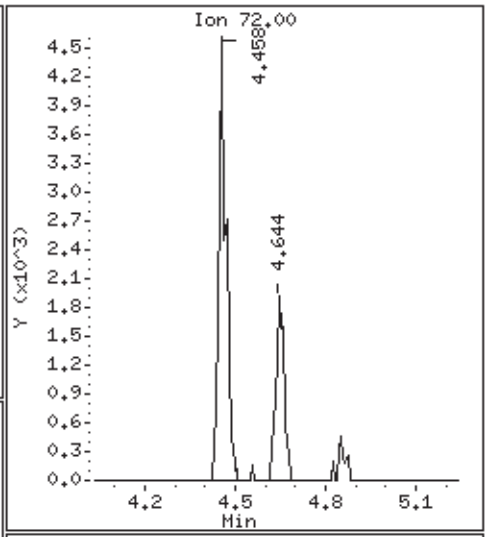
Concentration: 0.9784 PPBV

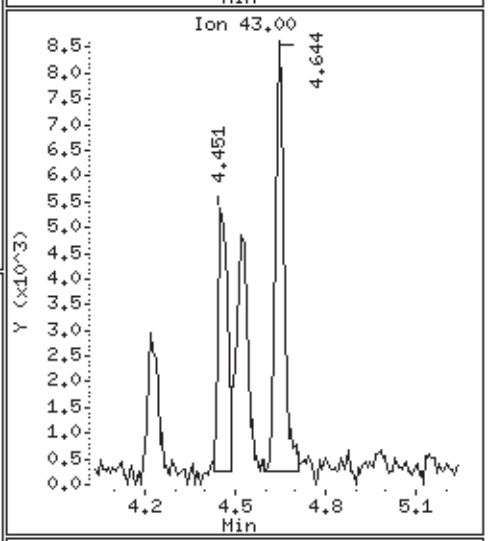


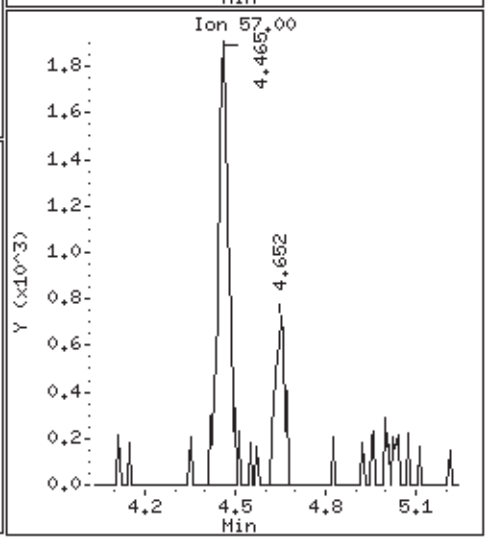












Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: AOS-2

Lab ID#: 1005647A-02A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-2

Lab ID#: 1005647A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061039**	**Date of Collection:**	**5/20/10 10:23:00 AM**
Dil. Factor:	**6.10**	**Date of Analysis:**	**6/11/10 01:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.0	Not Detected	15	Not Detected
Freon 114	3.0	Not Detected	21	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	3.0	Not Detected	7.8	Not Detected
1,3-Butadiene	3.0	Not Detected	6.7	Not Detected
Bromomethane	3.0	Not Detected	12	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
Freon 11	3.0	Not Detected	17	Not Detected
Ethanol	12	Not Detected	23	Not Detected
Freon 113	3.0	Not Detected	23	Not Detected
1,1-Dichloroethene	3.0	Not Detected	12	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	12	Not Detected	30	Not Detected
Carbon Disulfide	3.0	Not Detected	9.5	Not Detected
3-Chloropropene	12	Not Detected	38	Not Detected
Methylene Chloride	3.0	Not Detected	10	Not Detected
Methyl tert-butyl ether	3.0	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Hexane	3.0	Not Detected	11	Not Detected
1,1-Dichloroethane	3.0	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.0	Not Detected	9.0	Not Detected
cis-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Tetrahydrofuran	3.0	Not Detected	9.0	Not Detected
Chloroform	3.0	Not Detected	15	Not Detected
1,1,1-Trichloroethane	3.0	Not Detected	17	Not Detected
Cyclohexane	3.0	Not Detected	10	Not Detected
Carbon Tetrachloride	3.0	Not Detected	19	Not Detected
2,2,4-Trimethylpentane	3.0	Not Detected	14	Not Detected
Benzene	3.0	Not Detected	9.7	Not Detected
1,2-Dichloroethane	3.0	Not Detected	12	Not Detected
Heptane	3.0	Not Detected	12	Not Detected
Trichloroethene	3.0	Not Detected	16	Not Detected
1,2-Dichloropropane	3.0	Not Detected	14	Not Detected
1,4-Dioxane	12	Not Detected	44	Not Detected
Bromodichloromethane	3.0	Not Detected	20	Not Detected
cis-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected
4-Methyl-2-pentanone	3.0	Not Detected	12	Not Detected
Toluene	3.0	Not Detected	11	Not Detected
trans-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-2

Lab ID#: 1005647A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061039**	**Date of Collection: 5/20/10 10:23:00 AM**	
Dil. Factor:	**6.10**	**Date of Analysis: 6/11/10 01:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	3.0	Not Detected	17	Not Detected
Tetrachloroethene	3.0	Not Detected	21	Not Detected
2-Hexanone	12	Not Detected	50	Not Detected
Dibromochloromethane	3.0	Not Detected	26	Not Detected
1,2-Dibromoethane (EDB)	3.0	Not Detected	23	Not Detected
Chlorobenzene	3.0	Not Detected	14	Not Detected
Ethyl Benzene	3.0	Not Detected	13	Not Detected
m,p-Xylene	3.0	Not Detected	13	Not Detected
o-Xylene	3.0	Not Detected	13	Not Detected
Styrene	3.0	Not Detected	13	Not Detected
Bromoform	3.0	Not Detected	32	Not Detected
Cumene	3.0	Not Detected	15	Not Detected
1,1,2,2-Tetrachloroethane	3.0	Not Detected	21	Not Detected
Propylbenzene	3.0	Not Detected	15	Not Detected
4-Ethyltoluene	3.0	Not Detected	15	Not Detected
1,3,5-Trimethylbenzene	3.0	Not Detected	15	Not Detected
1,2,4-Trimethylbenzene	3.0	Not Detected	15	Not Detected
1,3-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,4-Dichlorobenzene	3.0	Not Detected	18	Not Detected
alpha-Chlorotoluene	3.0	Not Detected	16	Not Detected
1,2-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,2,4-Trichlorobenzene	12	Not Detected	90	Not Detected
Hexachlorobutadiene	12	Not Detected	130	Not Detected
TPH ref. to Gasoline (MW=100)	61	Not Detected	250	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061039.d
Lab Smp Id: 1005647A-02A
Inj Date : 11-JUN-2010 13:33
Operator : LL Inst ID: msd3.i
Smp Info : 60mL #14121
Misc Info : 8.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 6.10000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.845 (1.000)	130	216073	25.0000		80.00- 120.00	100.00
4.852	4.845 (1.000)	128	168353			28.35- 128.35	77.92
4.845	4.845 (1.000)	49	332379			99.84- 199.84	153.83
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	788947	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	130151			0.00- 66.08	16.50
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.226	8.240 (1.000)	117	678307	25.0000		80.00- 120.00	100.00
8.226	8.240 (1.000)	82	362814			4.13- 104.13	53.49
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	297924	24.4279	24.428	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	160086			7.34- 107.34	53.73
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.987	6.994 (1.213)	98	756583	24.4318	24.432	80.00- 120.00	100.00
6.987	6.994 (1.213)	70	85888			0.00- 61.54	11.35

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.987	7.001 (1.213)	100	499987			16.89- 116.89	66.08
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.215	9.236 (1.120)	174	300923	23.5321	23.532	80.00- 120.00	100.00
9.215	9.236 (1.120)	95	441367			93.92- 193.92	146.67
9.215	9.236 (1.120)	176	286230			46.28- 146.28	95.12

Report Date: 15-Jun-2010 16:45

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061039.d
Lab Smp Id: 1005647A-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.0"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	216073	-22.78
97 1,4-Difluorobenze	995344	597206	1393482	788947	-20.74
144 Chlorobenzene-d5	835020	501012	1169028	678307	-18.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.23	-0.17

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: 15-Jun-2010 16:45

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-02A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.0"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.428	97.71	70-130
$ 115 Toluene-d8	25.000	24.432	97.73	70-130
$ 159 Bromofluorobenzene	25.000	23.532	94.13	70-130

Data File: /chem/msd3.i/10jun10a.b/3061039.d

Date : 11-JUN-2010 13:33

Client ID:

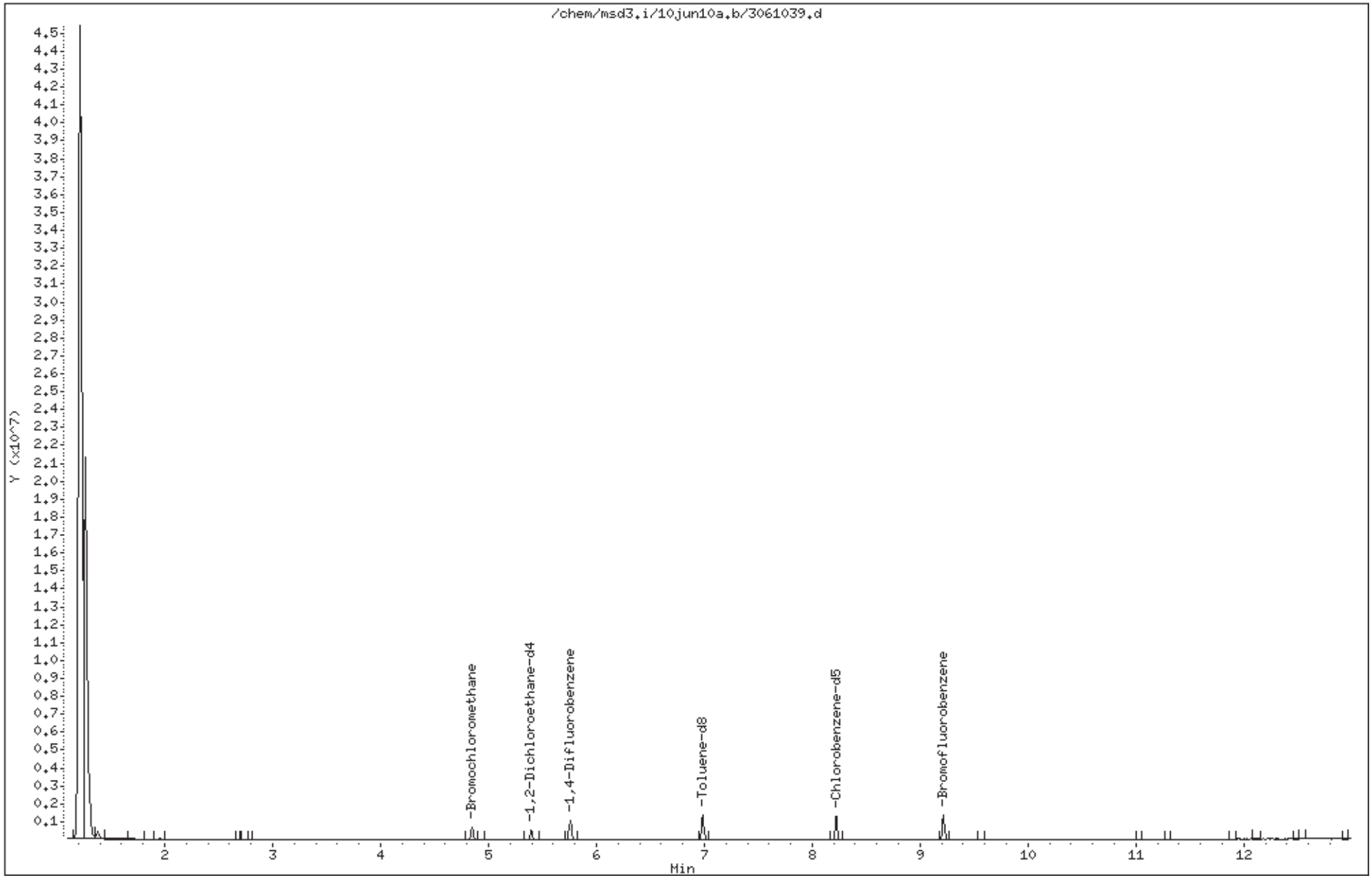
Instrument: msd3.i

Sample Info: 60mL #14121

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: AOS-3

Lab ID#: 1005647A-03A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-3

Lab ID#: 1005647A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061040**	**Date of Collection: 5/20/10 10:07:00 AM**	
Dil. Factor:	**5.70**	**Date of Analysis: 6/11/10 01:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.8	Not Detected	14	Not Detected
Freon 114	2.8	Not Detected	20	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	2.8	Not Detected	7.3	Not Detected
1,3-Butadiene	2.8	Not Detected	6.3	Not Detected
Bromomethane	2.8	Not Detected	11	Not Detected
Chloroethane	2.8	Not Detected	7.5	Not Detected
Freon 11	2.8	Not Detected	16	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Freon 113	2.8	Not Detected	22	Not Detected
1,1-Dichloroethene	2.8	Not Detected	11	Not Detected
Acetone	11	Not Detected	27	Not Detected
2-Propanol	11	Not Detected	28	Not Detected
Carbon Disulfide	2.8	Not Detected	8.9	Not Detected
3-Chloropropene	11	Not Detected	36	Not Detected
Methylene Chloride	2.8	Not Detected	9.9	Not Detected
Methyl tert-butyl ether	2.8	Not Detected	10	Not Detected
trans-1,2-Dichloroethene	2.8	Not Detected	11	Not Detected
Hexane	2.8	Not Detected	10	Not Detected
1,1-Dichloroethane	2.8	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.8	Not Detected	8.4	Not Detected
cis-1,2-Dichloroethene	2.8	Not Detected	11	Not Detected
Tetrahydrofuran	2.8	Not Detected	8.4	Not Detected
Chloroform	2.8	Not Detected	14	Not Detected
1,1,1-Trichloroethane	2.8	Not Detected	16	Not Detected
Cyclohexane	2.8	Not Detected	9.8	Not Detected
Carbon Tetrachloride	2.8	Not Detected	18	Not Detected
2,2,4-Trimethylpentane	2.8	Not Detected	13	Not Detected
Benzene	2.8	Not Detected	9.1	Not Detected
1,2-Dichloroethane	2.8	Not Detected	12	Not Detected
Heptane	2.8	Not Detected	12	Not Detected
Trichloroethene	2.8	Not Detected	15	Not Detected
1,2-Dichloropropane	2.8	Not Detected	13	Not Detected
1,4-Dioxane	11	Not Detected	41	Not Detected
Bromodichloromethane	2.8	Not Detected	19	Not Detected
cis-1,3-Dichloropropene	2.8	Not Detected	13	Not Detected
4-Methyl-2-pentanone	2.8	Not Detected	12	Not Detected
Toluene	2.8	Not Detected	11	Not Detected
trans-1,3-Dichloropropene	2.8	Not Detected	13	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-3

Lab ID#: 1005647A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061040**	**Date of Collection: 5/20/10 10:07:00 AM**	
Dil. Factor:	**5.70**	**Date of Analysis: 6/11/10 01:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	2.8	Not Detected	16	Not Detected
Tetrachloroethene	2.8	Not Detected	19	Not Detected
2-Hexanone	11	Not Detected	47	Not Detected
Dibromochloromethane	2.8	Not Detected	24	Not Detected
1,2-Dibromoethane (EDB)	2.8	Not Detected	22	Not Detected
Chlorobenzene	2.8	Not Detected	13	Not Detected
Ethyl Benzene	2.8	Not Detected	12	Not Detected
m,p-Xylene	2.8	Not Detected	12	Not Detected
o-Xylene	2.8	Not Detected	12	Not Detected
Styrene	2.8	Not Detected	12	Not Detected
Bromoform	2.8	Not Detected	29	Not Detected
Cumene	2.8	Not Detected	14	Not Detected
1,1,2,2-Tetrachloroethane	2.8	Not Detected	20	Not Detected
Propylbenzene	2.8	Not Detected	14	Not Detected
4-Ethyltoluene	2.8	Not Detected	14	Not Detected
1,3,5-Trimethylbenzene	2.8	Not Detected	14	Not Detected
1,2,4-Trimethylbenzene	2.8	Not Detected	14	Not Detected
1,3-Dichlorobenzene	2.8	Not Detected	17	Not Detected
1,4-Dichlorobenzene	2.8	Not Detected	17	Not Detected
alpha-Chlorotoluene	2.8	Not Detected	15	Not Detected
1,2-Dichlorobenzene	2.8	Not Detected	17	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	85	Not Detected
Hexachlorobutadiene	11	Not Detected	120	Not Detected
TPH ref. to Gasoline (MW=100)	57	Not Detected	230	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061040.d
Lab Smp Id: 1005647A-03A
Inj Date : 11-JUN-2010 13:56
Operator : LL Inst ID: msd3.i
Smp Info : 60mL #9414
Misc Info : 6.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 5.70000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.845 (1.000)	130	201973	25.0000		80.00- 120.00	100.00
4.852	4.845 (1.000)	128	154262			28.35- 128.35	76.38
4.852	4.845 (1.000)	49	303119			99.84- 199.84	150.08
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	740510	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	117390			0.00- 66.08	15.85
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.241	8.240 (1.000)	117	671752	25.0000		80.00- 120.00	100.00
8.241	8.240 (1.000)	82	362699			4.13- 104.13	53.99
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	280226	24.5809	24.581	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	149478			7.34- 107.34	53.34
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	6.994 (1.215)	98	723048	24.8761	24.876	80.00- 120.00	100.00
7.001	6.994 (1.215)	70	81578			0.00- 61.54	11.28

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	475282			16.89- 116.89	65.73
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	297942	23.5263	23.526	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	433964			93.92- 193.92	145.65
9.236	9.236 (1.121)	176	291330			46.28- 146.28	97.78

Report Date: 15-Jun-2010 16:46

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061040.d
Lab Smp Id: 1005647A-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 6.5"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	201973	-27.82
97 1,4-Difluorobenze	995344	597206	1393482	740510	-25.60
144 Chlorobenzene-d5	835020	501012	1169028	671752	-19.55

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 15-Jun-2010 16:46

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-03A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 6.5"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.581	98.32	70-130
$ 115 Toluene-d8	25.000	24.876	99.50	70-130
$ 159 Bromofluorobenzene	25.000	23.526	94.11	70-130

Data File: /chem/msd3.i/10jun10a.b/3061040.d

Date : 11-JUN-2010 13:56

Client ID:

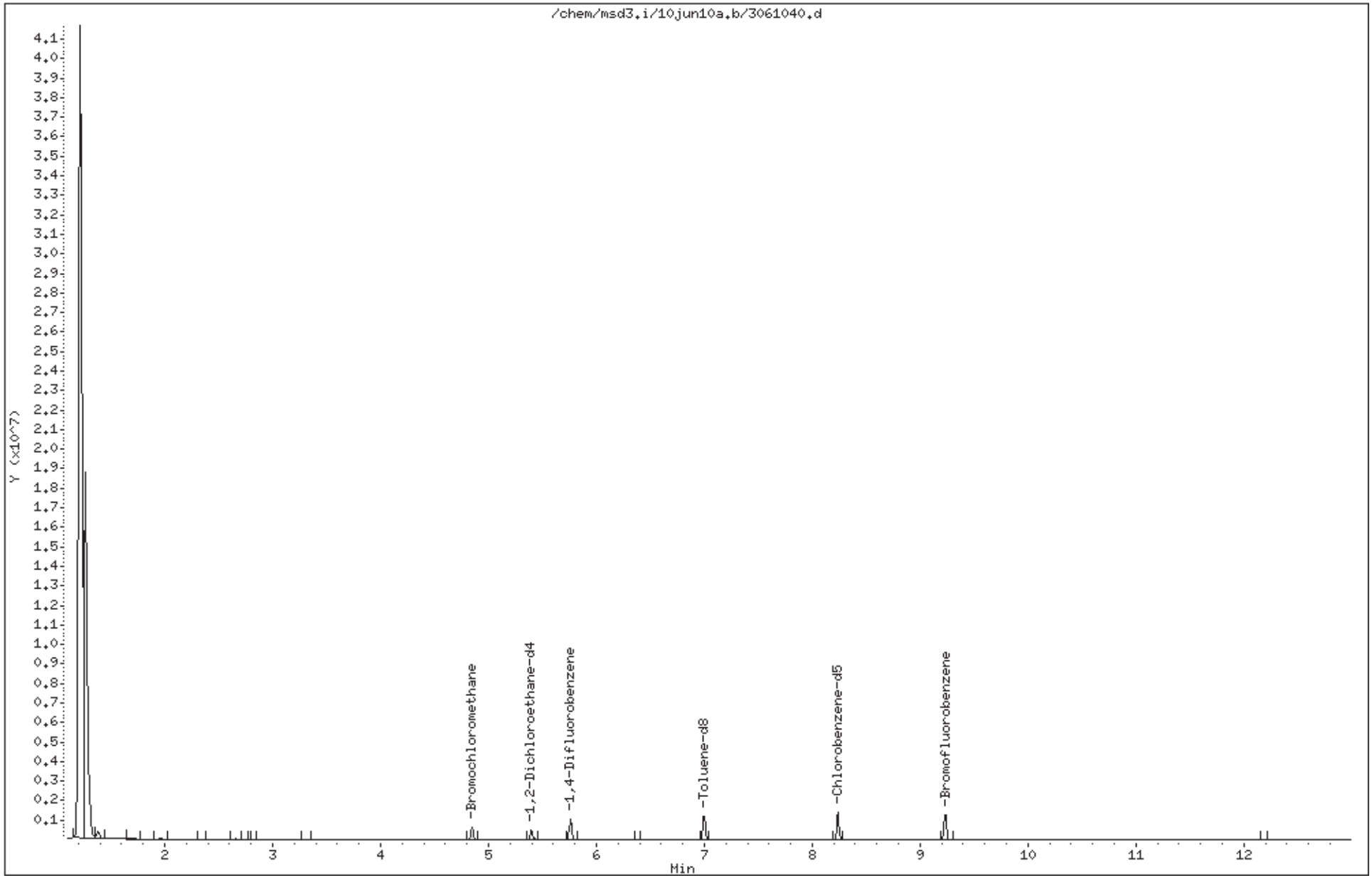
Instrument: msd3.i

Sample Info: 60mL #9414

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: ALF-1

Lab ID#: 1005647A-04A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-1

Lab ID#: 1005647A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061041**	**Date of Collection:**	**5/20/10 9:40:00 AM**
Dil. Factor:	**15.3**	**Date of Analysis:**	**6/11/10 02:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	7.6	Not Detected	38	Not Detected
Freon 114	7.6	Not Detected	53	Not Detected
Chloromethane	31	Not Detected	63	Not Detected
Vinyl Chloride	7.6	Not Detected	20	Not Detected
1,3-Butadiene	7.6	Not Detected	17	Not Detected
Bromomethane	7.6	Not Detected	30	Not Detected
Chloroethane	7.6	Not Detected	20	Not Detected
Freon 11	7.6	Not Detected	43	Not Detected
Ethanol	31	Not Detected	58	Not Detected
Freon 113	7.6	Not Detected	59	Not Detected
1,1-Dichloroethene	7.6	Not Detected	30	Not Detected
Acetone	31	Not Detected	73	Not Detected
2-Propanol	31	Not Detected	75	Not Detected
Carbon Disulfide	7.6	Not Detected	24	Not Detected
3-Chloropropene	31	Not Detected	96	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
Methyl tert-butyl ether	7.6	Not Detected	28	Not Detected
trans-1,2-Dichloroethene	7.6	Not Detected	30	Not Detected
Hexane	7.6	Not Detected	27	Not Detected
1,1-Dichloroethane	7.6	Not Detected	31	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.6	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	7.6	Not Detected	30	Not Detected
Tetrahydrofuran	7.6	Not Detected	22	Not Detected
Chloroform	7.6	Not Detected	37	Not Detected
1,1,1-Trichloroethane	7.6	Not Detected	42	Not Detected
Cyclohexane	7.6	Not Detected	26	Not Detected
Carbon Tetrachloride	7.6	Not Detected	48	Not Detected
2,2,4-Trimethylpentane	7.6	Not Detected	36	Not Detected
Benzene	7.6	Not Detected	24	Not Detected
1,2-Dichloroethane	7.6	Not Detected	31	Not Detected
Heptane	7.6	Not Detected	31	Not Detected
Trichloroethene	7.6	Not Detected	41	Not Detected
1,2-Dichloropropane	7.6	Not Detected	35	Not Detected
1,4-Dioxane	31	Not Detected	110	Not Detected
Bromodichloromethane	7.6	Not Detected	51	Not Detected
cis-1,3-Dichloropropene	7.6	Not Detected	35	Not Detected
4-Methyl-2-pentanone	7.6	Not Detected	31	Not Detected
Toluene	7.6	Not Detected	29	Not Detected
trans-1,3-Dichloropropene	7.6	Not Detected	35	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-1

Lab ID#: 1005647A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061041**	**Date of Collection: 5/20/10 9:40:00 AM**	
Dil. Factor:	**15.3**	**Date of Analysis: 6/11/10 02:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	7.6	Not Detected	42	Not Detected
Tetrachloroethene	7.6	Not Detected	52	Not Detected
2-Hexanone	31	Not Detected	120	Not Detected
Dibromochloromethane	7.6	Not Detected	65	Not Detected
1,2-Dibromoethane (EDB)	7.6	Not Detected	59	Not Detected
Chlorobenzene	7.6	Not Detected	35	Not Detected
Ethyl Benzene	7.6	Not Detected	33	Not Detected
m,p-Xylene	7.6	Not Detected	33	Not Detected
o-Xylene	7.6	Not Detected	33	Not Detected
Styrene	7.6	Not Detected	32	Not Detected
Bromoform	7.6	Not Detected	79	Not Detected
Cumene	7.6	Not Detected	38	Not Detected
1,1,2,2-Tetrachloroethane	7.6	Not Detected	52	Not Detected
Propylbenzene	7.6	Not Detected	38	Not Detected
4-Ethyltoluene	7.6	Not Detected	38	Not Detected
1,3,5-Trimethylbenzene	7.6	Not Detected	38	Not Detected
1,2,4-Trimethylbenzene	7.6	Not Detected	38	Not Detected
1,3-Dichlorobenzene	7.6	Not Detected	46	Not Detected
1,4-Dichlorobenzene	7.6	Not Detected	46	Not Detected
alpha-Chlorotoluene	7.6	Not Detected	40	Not Detected
1,2-Dichlorobenzene	7.6	Not Detected	46	Not Detected
1,2,4-Trichlorobenzene	31	Not Detected	230	Not Detected
Hexachlorobutadiene	31	Not Detected	330	Not Detected
TPH ref. to Gasoline (MW=100)	150	Not Detected	620	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061041.d
Lab Smp Id: 1005647A-04A
Inj Date : 11-JUN-2010 14:33
Operator : LL Inst ID: msd3.i
Smp Info : 25mL #4384
Misc Info : 9.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 15.30000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.845 (1.000)	130	189794	25.0000		80.00- 120.00	100.00
4.845	4.845 (1.000)	128	152439			28.35- 128.35	80.32
4.845	4.845 (1.000)	49	297133			99.84- 199.84	156.55
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	690039	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	110286			0.00- 66.08	15.98
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	610929	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	329296			4.13- 104.13	53.90
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	267490	24.9693	24.969	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	142149			7.34- 107.34	53.14
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	6.994 (1.215)	98	686640	25.3514	25.351	80.00- 120.00	100.00
7.001	6.994 (1.215)	70	75373			0.00- 61.54	10.98

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	449591			16.89- 116.89	65.48
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	276108	23.9729	23.973	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	394278			93.92- 193.92	142.80
9.236	9.236 (1.121)	176	266818			46.28- 146.28	96.64

Report Date: 15-Jun-2010 16:47

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061041.d
Lab Smp Id: 1005647A-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 9.0"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	189794	-32.17
97 1,4-Difluorobenze	995344	597206	1393482	690039	-30.67
144 Chlorobenzene-d5	835020	501012	1169028	610929	-26.84

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 15-Jun-2010 16:47

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-04A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 9.0"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.969	99.88	70-130
$ 115 Toluene-d8	25.000	25.351	101.41	70-130
$ 159 Bromofluorobenzene	25.000	23.973	95.89	70-130

Data File: /chem/msd3.i/10jun10a.b/3061041.d

Date : 11-JUN-2010 14:33

Client ID:

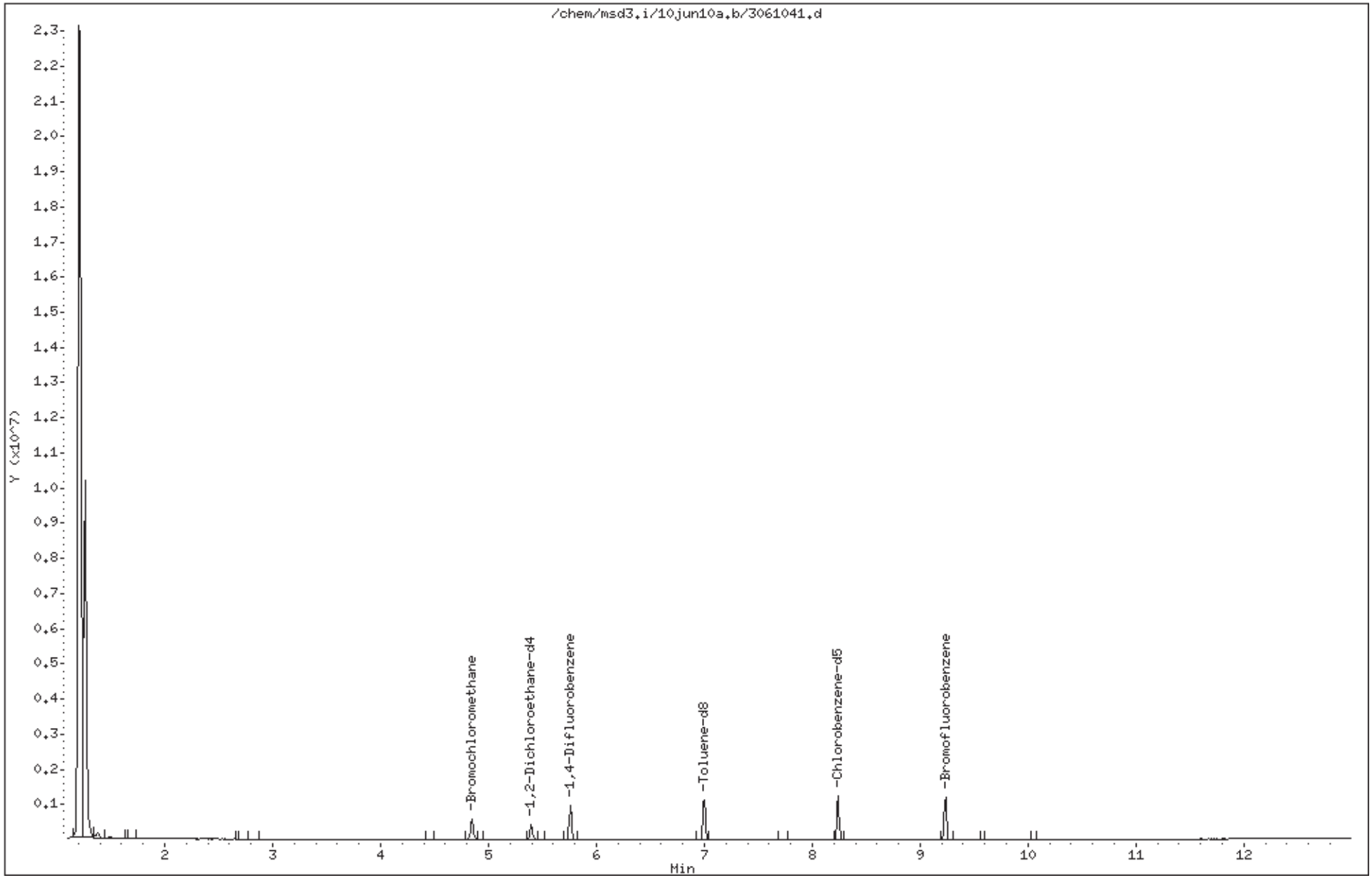
Instrument: msd3.i

Sample Info: 25mL #4384

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: ALF-2

Lab ID#: 1005647A-05A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-2

Lab ID#: 1005647A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061042**	**Date of Collection:**	**5/20/10 9:35:00 AM**
Dil. Factor:	**15.0**	**Date of Analysis:**	**6/11/10 03:51 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	7.5	Not Detected	37	Not Detected
Freon 114	7.5	Not Detected	52	Not Detected
Chloromethane	30	Not Detected	62	Not Detected
Vinyl Chloride	7.5	Not Detected	19	Not Detected
1,3-Butadiene	7.5	Not Detected	16	Not Detected
Bromomethane	7.5	Not Detected	29	Not Detected
Chloroethane	7.5	Not Detected	20	Not Detected
Freon 11	7.5	Not Detected	42	Not Detected
Ethanol	30	Not Detected	56	Not Detected
Freon 113	7.5	Not Detected	57	Not Detected
1,1-Dichloroethene	7.5	Not Detected	30	Not Detected
Acetone	30	Not Detected	71	Not Detected
2-Propanol	30	Not Detected	74	Not Detected
Carbon Disulfide	7.5	Not Detected	23	Not Detected
3-Chloropropene	30	Not Detected	94	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
Methyl tert-butyl ether	7.5	Not Detected	27	Not Detected
trans-1,2-Dichloroethene	7.5	Not Detected	30	Not Detected
Hexane	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	7.5	Not Detected	30	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.5	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	7.5	Not Detected	30	Not Detected
Tetrahydrofuran	7.5	Not Detected	22	Not Detected
Chloroform	7.5	Not Detected	37	Not Detected
1,1,1-Trichloroethane	7.5	Not Detected	41	Not Detected
Cyclohexane	7.5	Not Detected	26	Not Detected
Carbon Tetrachloride	7.5	Not Detected	47	Not Detected
2,2,4-Trimethylpentane	7.5	Not Detected	35	Not Detected
Benzene	7.5	Not Detected	24	Not Detected
1,2-Dichloroethane	7.5	Not Detected	30	Not Detected
Heptane	7.5	Not Detected	31	Not Detected
Trichloroethene	7.5	Not Detected	40	Not Detected
1,2-Dichloropropane	7.5	Not Detected	35	Not Detected
1,4-Dioxane	30	Not Detected	110	Not Detected
Bromodichloromethane	7.5	Not Detected	50	Not Detected
cis-1,3-Dichloropropene	7.5	Not Detected	34	Not Detected
4-Methyl-2-pentanone	7.5	Not Detected	31	Not Detected
Toluene	7.5	Not Detected	28	Not Detected
trans-1,3-Dichloropropene	7.5	Not Detected	34	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-2

Lab ID#: 1005647A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061042**	**Date of Collection:**	**5/20/10 9:35:00 AM**
Dil. Factor:	**15.0**	**Date of Analysis:**	**6/11/10 03:51 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	7.5	Not Detected	41	Not Detected
Tetrachloroethene	7.5	Not Detected	51	Not Detected
2-Hexanone	30	Not Detected	120	Not Detected
Dibromochloromethane	7.5	Not Detected	64	Not Detected
1,2-Dibromoethane (EDB)	7.5	Not Detected	58	Not Detected
Chlorobenzene	7.5	Not Detected	34	Not Detected
Ethyl Benzene	7.5	Not Detected	32	Not Detected
m,p-Xylene	7.5	Not Detected	32	Not Detected
o-Xylene	7.5	Not Detected	32	Not Detected
Styrene	7.5	Not Detected	32	Not Detected
Bromoform	7.5	Not Detected	78	Not Detected
Cumene	7.5	Not Detected	37	Not Detected
1,1,2,2-Tetrachloroethane	7.5	Not Detected	51	Not Detected
Propylbenzene	7.5	Not Detected	37	Not Detected
4-Ethyltoluene	7.5	Not Detected	37	Not Detected
1,3,5-Trimethylbenzene	7.5	Not Detected	37	Not Detected
1,2,4-Trimethylbenzene	7.5	Not Detected	37	Not Detected
1,3-Dichlorobenzene	7.5	Not Detected	45	Not Detected
1,4-Dichlorobenzene	7.5	Not Detected	45	Not Detected
alpha-Chlorotoluene	7.5	Not Detected	39	Not Detected
1,2-Dichlorobenzene	7.5	Not Detected	45	Not Detected
1,2,4-Trichlorobenzene	30	Not Detected	220	Not Detected
Hexachlorobutadiene	30	Not Detected	320	Not Detected
TPH ref. to Gasoline (MW=100)	150	Not Detected	610	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	92	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061042.d
Lab Smp Id: 1005647A-05A
Inj Date : 11-JUN-2010 15:51
Operator : dfm Inst ID: msd3.i
Smp Info : 25mL #20938
Misc Info : 8.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 15.00000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.845 (1.000)	130	184156	25.0000		80.00- 120.00	100.00
4.845	4.845 (1.000)	128	144858			28.35- 128.35	78.66
4.845	4.845 (1.000)	49	283564			99.84- 199.84	153.98
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	683600	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	110295			0.00- 66.08	16.13
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	595326	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	320874			4.13- 104.13	53.90
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	264242	25.4213	25.421	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	141169			7.34- 107.34	53.42
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.994	6.994 (1.214)	98	666702	24.8471	24.847	80.00- 120.00	100.00
6.994	6.994 (1.214)	70	73576			0.00- 61.54	11.04

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.994	7.001 (1.214)	100	446192			16.89- 116.89	66.93
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	258724	23.0523	23.052	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	388069			93.92- 193.92	149.99
9.236	9.236 (1.121)	176	251360			46.28- 146.28	97.15

Report Date: 15-Jun-2010 16:48

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061042.d
Lab Smp Id: 1005647A-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.5"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	184156	-34.19
97 1,4-Difluorobenze	995344	597206	1393482	683600	-31.32
144 Chlorobenzene-d5	835020	501012	1169028	595326	-28.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 15-Jun-2010 16:48

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-05A
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.5"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	25.421	101.69	70-130
$ 115 Toluene-d8	25.000	24.847	99.39	70-130
$ 159 Bromofluorobenzene	25.000	23.052	92.21	70-130

Data File: /chem/msd3.i/10jun10a.b/3061042.d

Date : 11-JUN-2010 15:51

Client ID:

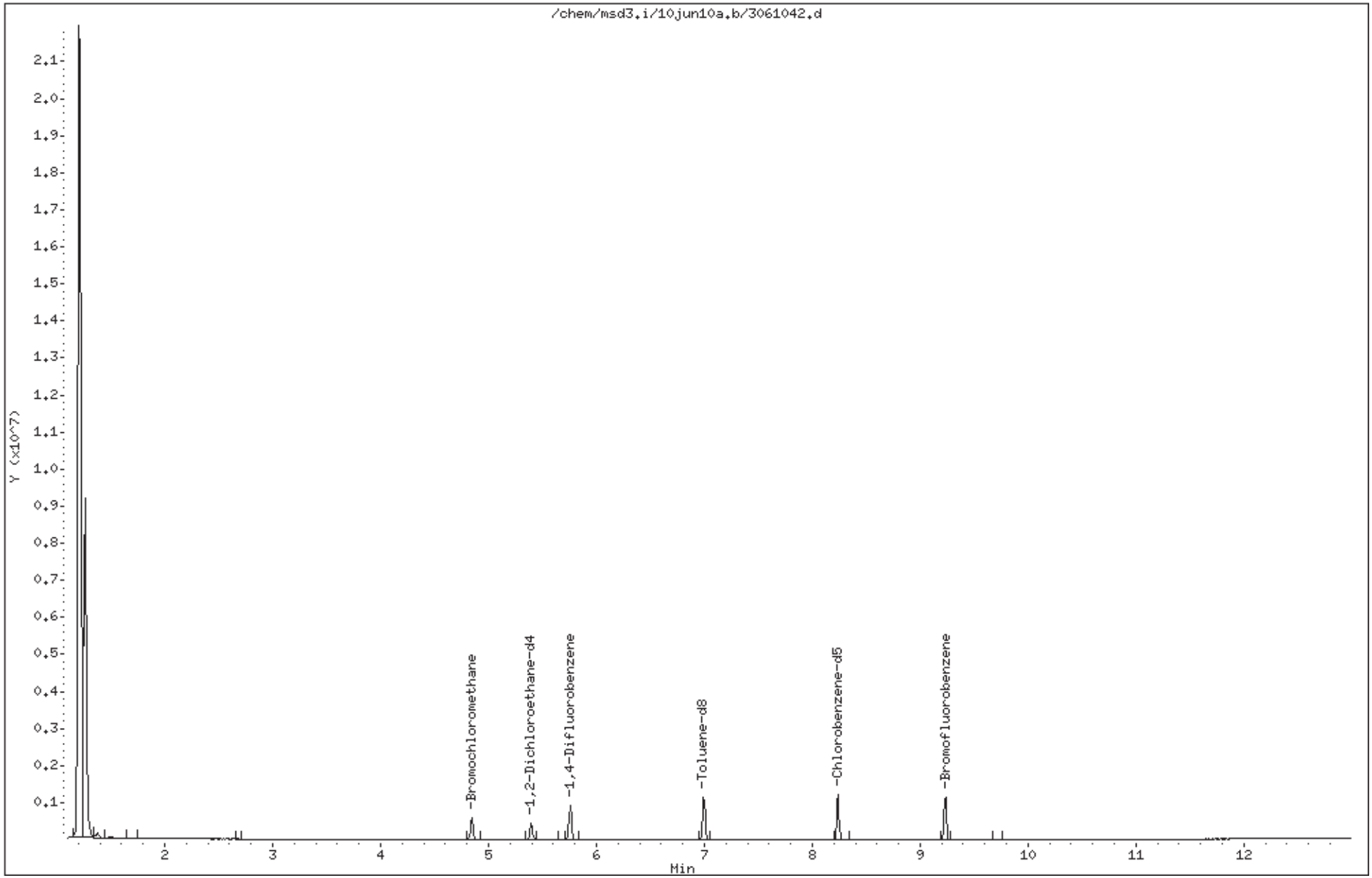
Instrument: msd3.i

Sample Info: 25mL #20938

Operator: dfm

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: ALF-3

Lab ID#: 1005647A-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-3

Lab ID#: 1005647A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061043**	**Date of Collection:**	**5/20/10 9:21:00 AM**
Dil. Factor:	**14.6**	**Date of Analysis:**	**6/11/10 04:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	7.3	Not Detected	36	Not Detected
Freon 114	7.3	Not Detected	51	Not Detected
Chloromethane	29	Not Detected	60	Not Detected
Vinyl Chloride	7.3	Not Detected	19	Not Detected
1,3-Butadiene	7.3	Not Detected	16	Not Detected
Bromomethane	7.3	Not Detected	28	Not Detected
Chloroethane	7.3	Not Detected	19	Not Detected
Freon 11	7.3	Not Detected	41	Not Detected
Ethanol	29	Not Detected	55	Not Detected
Freon 113	7.3	Not Detected	56	Not Detected
1,1-Dichloroethene	7.3	Not Detected	29	Not Detected
Acetone	29	Not Detected	69	Not Detected
2-Propanol	29	Not Detected	72	Not Detected
Carbon Disulfide	7.3	Not Detected	23	Not Detected
3-Chloropropene	29	Not Detected	91	Not Detected
Methylene Chloride	7.3	Not Detected	25	Not Detected
Methyl tert-butyl ether	7.3	Not Detected	26	Not Detected
trans-1,2-Dichloroethene	7.3	Not Detected	29	Not Detected
Hexane	7.3	Not Detected	26	Not Detected
1,1-Dichloroethane	7.3	Not Detected	30	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.3	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	7.3	Not Detected	29	Not Detected
Tetrahydrofuran	7.3	Not Detected	22	Not Detected
Chloroform	7.3	Not Detected	36	Not Detected
1,1,1-Trichloroethane	7.3	Not Detected	40	Not Detected
Cyclohexane	7.3	Not Detected	25	Not Detected
Carbon Tetrachloride	7.3	Not Detected	46	Not Detected
2,2,4-Trimethylpentane	7.3	Not Detected	34	Not Detected
Benzene	7.3	Not Detected	23	Not Detected
1,2-Dichloroethane	7.3	Not Detected	30	Not Detected
Heptane	7.3	Not Detected	30	Not Detected
Trichloroethene	7.3	Not Detected	39	Not Detected
1,2-Dichloropropane	7.3	Not Detected	34	Not Detected
1,4-Dioxane	29	Not Detected	100	Not Detected
Bromodichloromethane	7.3	Not Detected	49	Not Detected
cis-1,3-Dichloropropene	7.3	Not Detected	33	Not Detected
4-Methyl-2-pentanone	7.3	Not Detected	30	Not Detected
Toluene	7.3	Not Detected	28	Not Detected
trans-1,3-Dichloropropene	7.3	Not Detected	33	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-3

Lab ID#: 1005647A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061043**	**Date of Collection:**	**5/20/10 9:21:00 AM**
Dil. Factor:	**14.6**	**Date of Analysis:**	**6/11/10 04:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	7.3	Not Detected	40	Not Detected
Tetrachloroethene	7.3	Not Detected	50	Not Detected
2-Hexanone	29	Not Detected	120	Not Detected
Dibromochloromethane	7.3	Not Detected	62	Not Detected
1,2-Dibromoethane (EDB)	7.3	Not Detected	56	Not Detected
Chlorobenzene	7.3	Not Detected	34	Not Detected
Ethyl Benzene	7.3	Not Detected	32	Not Detected
m,p-Xylene	7.3	Not Detected	32	Not Detected
o-Xylene	7.3	Not Detected	32	Not Detected
Styrene	7.3	Not Detected	31	Not Detected
Bromoform	7.3	Not Detected	75	Not Detected
Cumene	7.3	Not Detected	36	Not Detected
1,1,2,2-Tetrachloroethane	7.3	Not Detected	50	Not Detected
Propylbenzene	7.3	Not Detected	36	Not Detected
4-Ethyltoluene	7.3	Not Detected	36	Not Detected
1,3,5-Trimethylbenzene	7.3	Not Detected	36	Not Detected
1,2,4-Trimethylbenzene	7.3	Not Detected	36	Not Detected
1,3-Dichlorobenzene	7.3	Not Detected	44	Not Detected
1,4-Dichlorobenzene	7.3	Not Detected	44	Not Detected
alpha-Chlorotoluene	7.3	Not Detected	38	Not Detected
1,2-Dichlorobenzene	7.3	Not Detected	44	Not Detected
1,2,4-Trichlorobenzene	29	Not Detected	220	Not Detected
Hexachlorobutadiene	29	Not Detected	310	Not Detected
TPH ref. to Gasoline (MW=100)	150	Not Detected	600	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061043.d
Lab Smp Id: 1005647A-06A
Inj Date : 11-JUN-2010 16:23
Operator : dfm Inst ID: msd3.i
Smp Info : 25mL #5553
Misc Info : 8.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 14.60000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.845 (1.000)	130	190575	25.0000		80.00- 120.00	100.00
4.845	4.845 (1.000)	128	149662			28.35- 128.35	78.53
4.845	4.845 (1.000)	49	290370			99.84- 199.84	152.37
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	668327	25.0000		80.00- 120.00	100.00
5.755	5.755 (1.000)	88	108616			0.00- 66.08	16.25
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.233	8.240 (1.000)	117	602140	25.0000		80.00- 120.00	100.00
8.233	8.240 (1.000)	82	326046			4.13- 104.13	54.15
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	264115	24.5533	24.553	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	140324			7.34- 107.34	53.13
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.009	6.994 (1.216)	98	666553	25.4093	25.409	80.00- 120.00	100.00
7.009	6.994 (1.216)	70	74700			0.00- 61.54	11.21

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.009	7.001 (1.216)	100	442389			16.89- 116.89	66.37
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.222	9.236 (1.120)	174	271489	23.9159	23.916	80.00- 120.00	100.00
9.222	9.236 (1.120)	95	390131			93.92- 193.92	143.70
9.222	9.236 (1.120)	176	258153			46.28- 146.28	95.09

Report Date: 15-Jun-2010 16:49

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061043.d
Lab Smp Id: 1005647A-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.0"Hg->5psi

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	190575	-31.89
97 1,4-Difluorobenze	995344	597206	1393482	668327	-32.85
144 Chlorobenzene-d5	835020	501012	1169028	602140	-27.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.23	-0.09

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: 15-Jun-2010 16:49

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-06A
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 8.0"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.553	98.21	70-130
$ 115 Toluene-d8	25.000	25.409	101.64	70-130
$ 159 Bromofluorobenzene	25.000	23.916	95.66	70-130

Data File: /chem/msd3.i/10jun10a.b/3061043.d

Page 1

Date : 11-JUN-2010 16:23

Client ID:

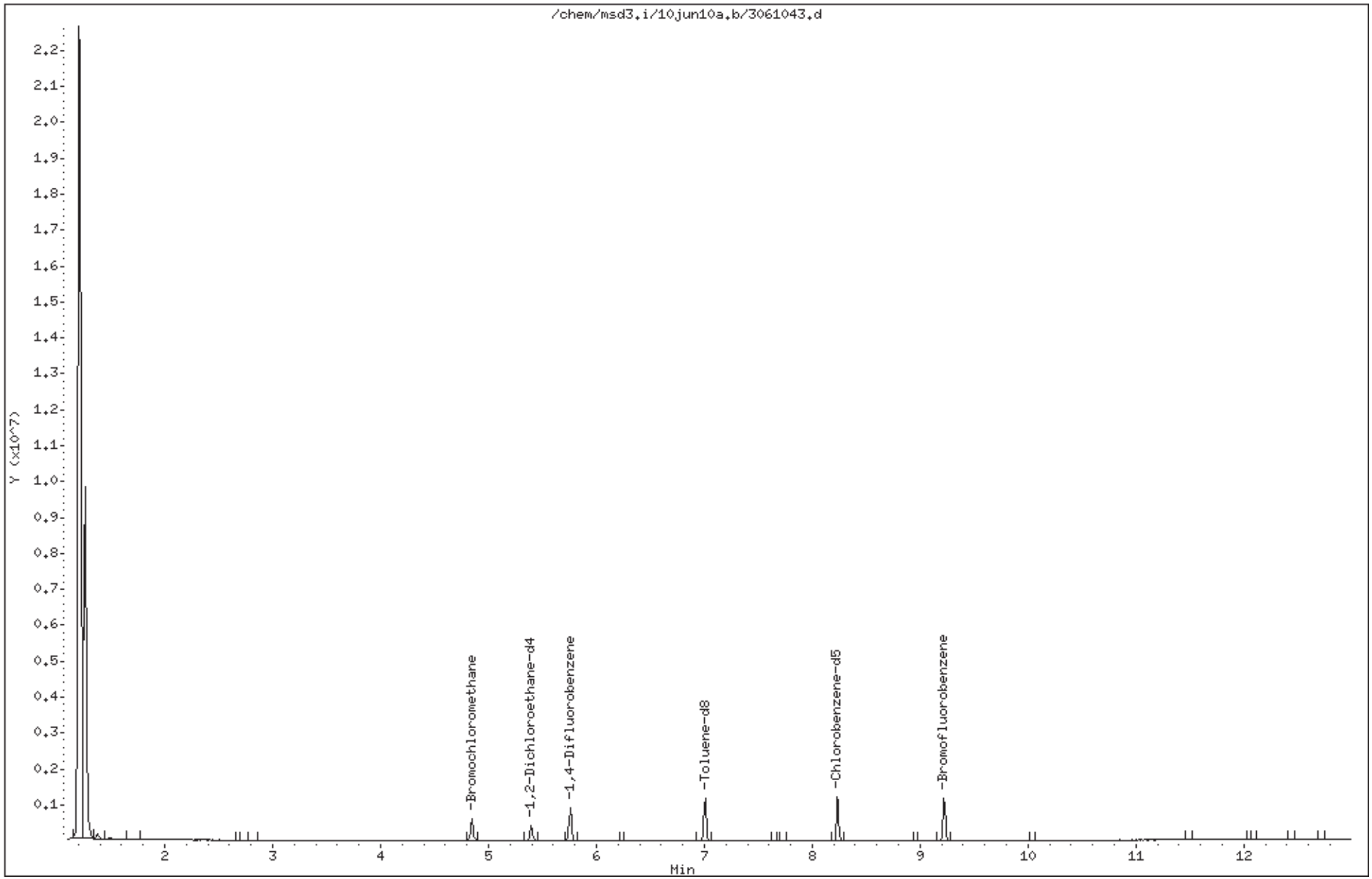
Instrument: msd3.i

Sample Info: 25mL #5553

Operator: dfm

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: ALF-4

Lab ID#: 1005647A-07A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-4

Lab ID#: 1005647A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061114**	**Date of Collection:**	**5/20/10 9:18:00 AM**
Dil. Factor:	**24.9**	**Date of Analysis:**	**6/12/10 11:38 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	62	Not Detected
Freon 114	12	Not Detected	87	Not Detected
Chloromethane	50	Not Detected	100	Not Detected
Vinyl Chloride	12	Not Detected	32	Not Detected
1,3-Butadiene	12	Not Detected	28	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	12	Not Detected	33	Not Detected
Freon 11	12	Not Detected	70	Not Detected
Ethanol	50	Not Detected	94	Not Detected
Freon 113	12	Not Detected	95	Not Detected
1,1-Dichloroethene	12	Not Detected	49	Not Detected
Acetone	50	Not Detected	120	Not Detected
2-Propanol	50	Not Detected	120	Not Detected
Carbon Disulfide	12	Not Detected	39	Not Detected
3-Chloropropene	50	Not Detected	160	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	12	Not Detected	45	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	49	Not Detected
Hexane	12	Not Detected	44	Not Detected
1,1-Dichloroethane	12	Not Detected	50	Not Detected
2-Butanone (Methyl Ethyl Ketone)	12	Not Detected	37	Not Detected
cis-1,2-Dichloroethene	12	Not Detected	49	Not Detected
Tetrahydrofuran	12	Not Detected	37	Not Detected
Chloroform	12	Not Detected	61	Not Detected
1,1,1-Trichloroethane	12	Not Detected	68	Not Detected
Cyclohexane	12	Not Detected	43	Not Detected
Carbon Tetrachloride	12	Not Detected	78	Not Detected
2,2,4-Trimethylpentane	12	Not Detected	58	Not Detected
Benzene	12	Not Detected	40	Not Detected
1,2-Dichloroethane	12	Not Detected	50	Not Detected
Heptane	12	Not Detected	51	Not Detected
Trichloroethene	12	Not Detected	67	Not Detected
1,2-Dichloropropane	12	Not Detected	58	Not Detected
1,4-Dioxane	50	Not Detected	180	Not Detected
Bromodichloromethane	12	Not Detected	83	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	56	Not Detected
4-Methyl-2-pentanone	12	Not Detected	51	Not Detected
Toluene	12	Not Detected	47	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	56	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-4

Lab ID#: 1005647A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061114**	**Date of Collection: 5/20/10 9:18:00 AM**	
Dil. Factor:	**24.9**	**Date of Analysis: 6/12/10 11:38 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	12	Not Detected	68	Not Detected
Tetrachloroethene	12	Not Detected	84	Not Detected
2-Hexanone	50	Not Detected	200	Not Detected
Dibromochloromethane	12	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	96	Not Detected
Chlorobenzene	12	Not Detected	57	Not Detected
Ethyl Benzene	12	Not Detected	54	Not Detected
m,p-Xylene	12	Not Detected	54	Not Detected
o-Xylene	12	Not Detected	54	Not Detected
Styrene	12	Not Detected	53	Not Detected
Bromoform	12	Not Detected	130	Not Detected
Cumene	12	Not Detected	61	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	85	Not Detected
Propylbenzene	12	Not Detected	61	Not Detected
4-Ethyltoluene	12	Not Detected	61	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	61	Not Detected
1,2,4-Trimethylbenzene	12	Not Detected	61	Not Detected
1,3-Dichlorobenzene	12	Not Detected	75	Not Detected
1,4-Dichlorobenzene	12	Not Detected	75	Not Detected
alpha-Chlorotoluene	12	Not Detected	64	Not Detected
1,2-Dichlorobenzene	12	Not Detected	75	Not Detected
1,2,4-Trichlorobenzene	50	Not Detected	370	Not Detected
Hexachlorobutadiene	50	Not Detected	530	Not Detected
TPH ref. to Gasoline (MW=100)	250	Not Detected	1000	Not Detected

Container Type: 6 Liter Summa Canister

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

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061114.d
Lab Smp Id: 1005647A-07A
Inj Date : 12-JUN-2010 11:38
Operator : LL Inst ID: msd3.i
Smp Info : 15mL #11892
Misc Info : 8.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 24.90000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.852 (1.000)	130	191990	25.0000		80.00- 120.00	100.00
4.845	4.852 (1.000)	128	151667			28.35- 128.35	79.00
4.845	4.852 (1.000)	49	300124			99.84- 199.84	156.32
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	702441	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	110721			0.00- 66.08	15.76
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	654809	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	357372			4.13- 104.13	54.58
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	271846	25.0857	25.086	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	144995			7.34- 107.34	53.34
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	696580	25.2643	25.264	80.00- 120.00	100.00
7.001	7.001 (1.215)	70	79094			0.00- 61.54	11.35

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	467578			16.89- 116.89	67.12
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	300023	24.3036	24.304	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	432001			93.92- 193.92	143.99
9.236	9.236 (1.121)	176	287888			46.28- 146.28	95.96

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061114.d
Lab Smp Id: 1005647A-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 8.5"Hg->5psi

Calibration Date: 11-JUN-2010
Calibration Time: 21:43
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	222468	133481	311455	191990	-13.70
97 1,4-Difluorobenze	779027	467416	1090638	702441	-9.83
144 Chlorobenzene-d5	679504	407702	951306	654809	-3.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	-0.14
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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.

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 11jun10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-07A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 8.5"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	25.086	100.34	70-130
$ 115 Toluene-d8	25.000	25.264	101.06	70-130
$ 159 Bromofluorobenzene	25.000	24.304	97.21	70-130

Data File: /chem/msd3.i/11jun10.b/3061114.d

Page 1

Date : 12-JUN-2010 11:38

Client ID:

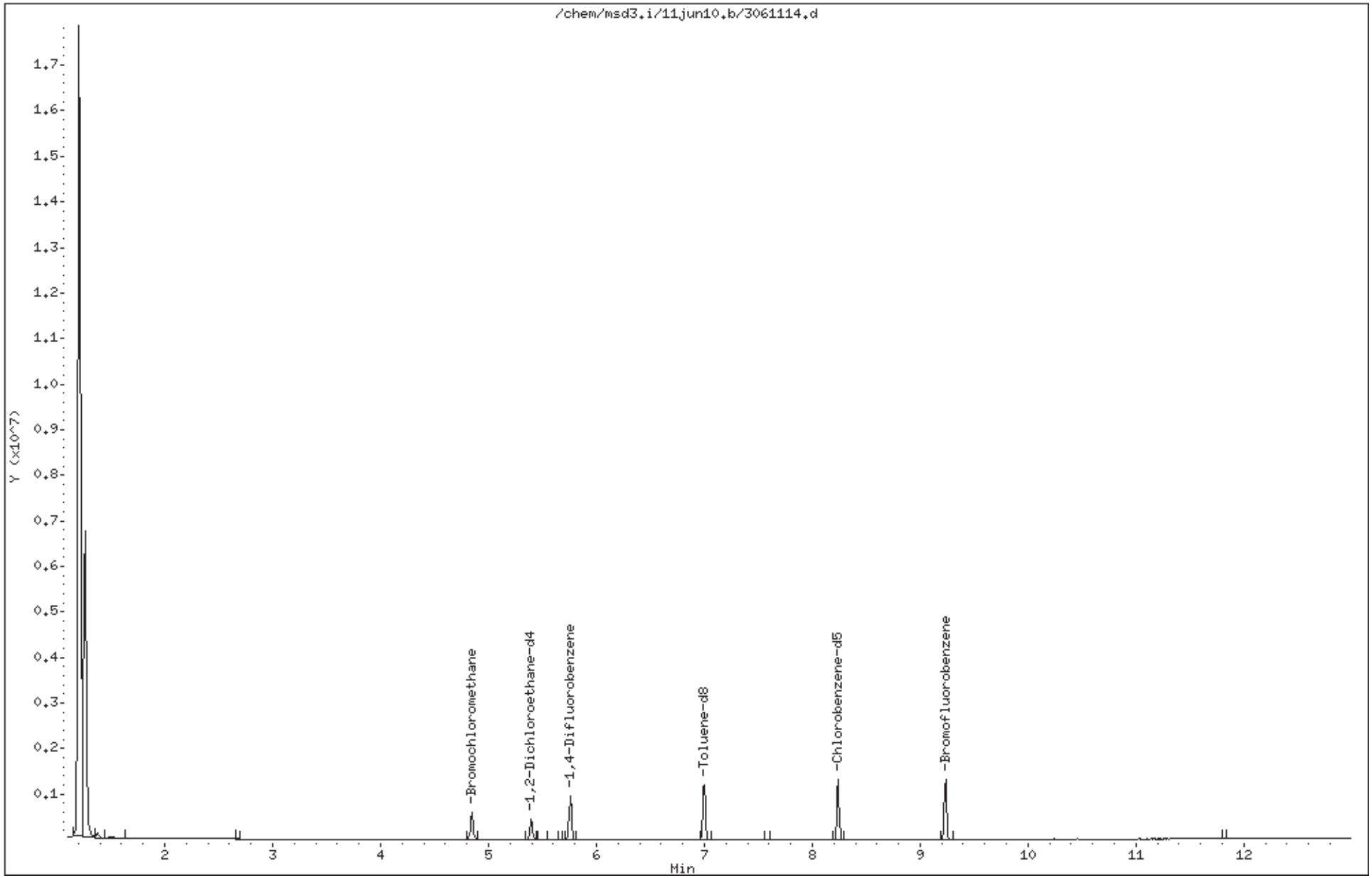
Instrument: msd3.i

Sample Info: 15mL #11892

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

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

Client Sample ID: ALF-5

Lab ID#: 1005647A-08A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-5

Lab ID#: 1005647A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061115**	**Date of Collection:**	**5/20/10 9:05:00 AM**
Dil. Factor:	**22.8**	**Date of Analysis:**	**6/12/10 12:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	11	Not Detected	56	Not Detected
Freon 114	11	Not Detected	80	Not Detected
Chloromethane	46	Not Detected	94	Not Detected
Vinyl Chloride	11	Not Detected	29	Not Detected
1,3-Butadiene	11	Not Detected	25	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	11	Not Detected	30	Not Detected
Freon 11	11	Not Detected	64	Not Detected
Ethanol	46	Not Detected	86	Not Detected
Freon 113	11	Not Detected	87	Not Detected
1,1-Dichloroethene	11	Not Detected	45	Not Detected
Acetone	46	Not Detected	110	Not Detected
2-Propanol	46	Not Detected	110	Not Detected
Carbon Disulfide	11	Not Detected	36	Not Detected
3-Chloropropene	46	Not Detected	140	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	11	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	11	Not Detected	45	Not Detected
Hexane	11	Not Detected	40	Not Detected
1,1-Dichloroethane	11	Not Detected	46	Not Detected
2-Butanone (Methyl Ethyl Ketone)	11	Not Detected	34	Not Detected
cis-1,2-Dichloroethene	11	Not Detected	45	Not Detected
Tetrahydrofuran	11	Not Detected	34	Not Detected
Chloroform	11	Not Detected	56	Not Detected
1,1,1-Trichloroethane	11	Not Detected	62	Not Detected
Cyclohexane	11	Not Detected	39	Not Detected
Carbon Tetrachloride	11	Not Detected	72	Not Detected
2,2,4-Trimethylpentane	11	Not Detected	53	Not Detected
Benzene	11	Not Detected	36	Not Detected
1,2-Dichloroethane	11	Not Detected	46	Not Detected
Heptane	11	Not Detected	47	Not Detected
Trichloroethene	11	Not Detected	61	Not Detected
1,2-Dichloropropane	11	Not Detected	53	Not Detected
1,4-Dioxane	46	Not Detected	160	Not Detected
Bromodichloromethane	11	Not Detected	76	Not Detected
cis-1,3-Dichloropropene	11	Not Detected	52	Not Detected
4-Methyl-2-pentanone	11	Not Detected	47	Not Detected
Toluene	11	Not Detected	43	Not Detected
trans-1,3-Dichloropropene	11	Not Detected	52	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-5

Lab ID#: 1005647A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061115**	**Date of Collection: 5/20/10 9:05:00 AM**	
Dil. Factor:	**22.8**	**Date of Analysis: 6/12/10 12:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	11	Not Detected	62	Not Detected
Tetrachloroethene	11	Not Detected	77	Not Detected
2-Hexanone	46	Not Detected	190	Not Detected
Dibromochloromethane	11	Not Detected	97	Not Detected
1,2-Dibromoethane (EDB)	11	Not Detected	88	Not Detected
Chlorobenzene	11	Not Detected	52	Not Detected
Ethyl Benzene	11	Not Detected	49	Not Detected
m,p-Xylene	11	Not Detected	50	Not Detected
o-Xylene	11	Not Detected	50	Not Detected
Styrene	11	Not Detected	48	Not Detected
Bromoform	11	Not Detected	120	Not Detected
Cumene	11	Not Detected	56	Not Detected
1,1,2,2-Tetrachloroethane	11	Not Detected	78	Not Detected
Propylbenzene	11	Not Detected	56	Not Detected
4-Ethyltoluene	11	Not Detected	56	Not Detected
1,3,5-Trimethylbenzene	11	Not Detected	56	Not Detected
1,2,4-Trimethylbenzene	11	Not Detected	56	Not Detected
1,3-Dichlorobenzene	11	Not Detected	68	Not Detected
1,4-Dichlorobenzene	11	Not Detected	68	Not Detected
alpha-Chlorotoluene	11	Not Detected	59	Not Detected
1,2-Dichlorobenzene	11	Not Detected	68	Not Detected
1,2,4-Trichlorobenzene	46	Not Detected	340	Not Detected
Hexachlorobutadiene	46	Not Detected	490	Not Detected
TPH ref. to Gasoline (MW=100)	230	Not Detected	930	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	93	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061115.d
Lab Smp Id: 1005647A-08A
Inj Date : 12-JUN-2010 12:23
Operator : LL Inst ID: msd3.i
Smp Info : 15mL #22508
Misc Info : 6.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 22.80000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.852 (1.000)	130	200195	25.0000		80.00- 120.00	100.00
4.845	4.852 (1.000)	128	155459			28.35- 128.35	77.65
4.845	4.852 (1.000)	49	313002			99.84- 199.84	156.35
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	704301	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	111844			0.00- 66.08	15.88
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	646336	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	349542			4.13- 104.13	54.08
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	277263	24.5369	24.537	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	149063			7.34- 107.34	53.76
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	700704	25.3468	25.347	80.00- 120.00	100.00
6.994	7.001 (1.214)	70	80897			0.00- 61.54	11.55

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	472095			16.89- 116.89	67.37
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	282861	23.2138	23.214	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	412614			93.92- 193.92	145.87
9.236	9.236 (1.121)	176	278624			46.28- 146.28	98.50

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061115.d
Lab Smp Id: 1005647A-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: LL
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 6.5"Hg->5psi

Calibration Date: 11-JUN-2010
Calibration Time: 21:43
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	222468	133481	311455	200195	-10.01
97 1,4-Difluorobenze	779027	467416	1090638	704301	-9.59
144 Chlorobenzene-d5	679504	407702	951306	646336	-4.88

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	-0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 15-Jun-2010 16:56

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 11jun10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1005647A-08A
Level: LOW Operator: LL
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: TO15.sub
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 6.5"Hg->5psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.537	98.15	70-130
$ 115 Toluene-d8	25.000	25.347	101.39	70-130
$ 159 Bromofluorobenzene	25.000	23.214	92.86	70-130

Data File: /chem/msd3.i/11jun10.b/3061115.d

Date : 12-JUN-2010 12:23

Client ID:

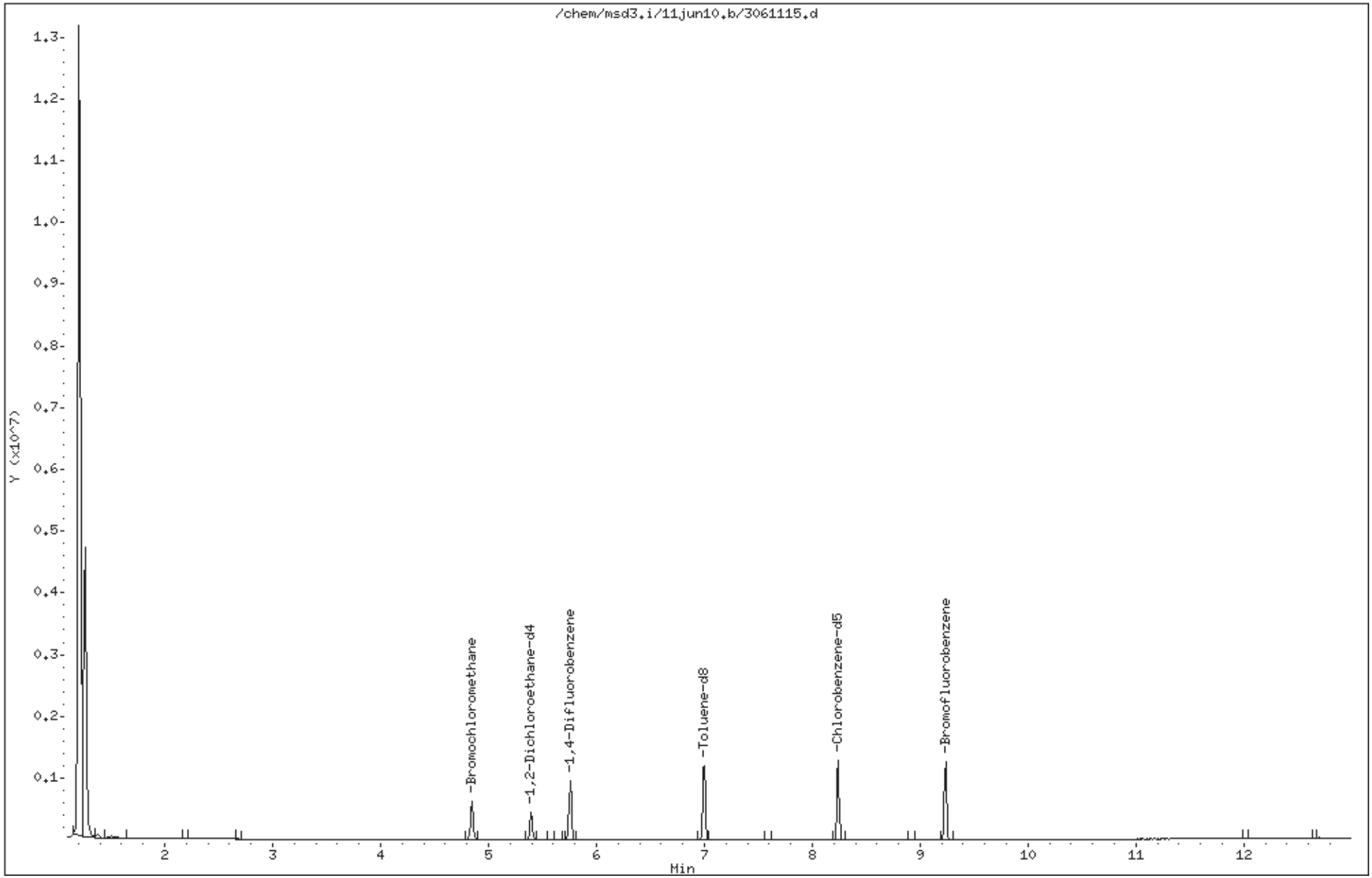
Instrument: msd3.i

Sample Info: 15mL #22508

Operator: LL

Column phase: RTx-624

Column diameter: 0.53



QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061027**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 11:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061027**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 11:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061027.d
Lab Smp Id: lab blank Client Smp ID: lab blank
Inj Date : 10-JUN-2010 23:31
Operator : dfm Inst ID: msd3.i
Smp Info : 200mL #917
Misc Info : humid
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.845 (1.000)	130	269801	25.0000		80.00- 120.00	100.00
4.852	4.845 (1.000)	128	207165			28.35- 128.35	76.78
4.852	4.845 (1.000)	49	378305			99.84- 199.84	140.22
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	963836	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	157646			0.00- 66.08	16.36
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	808880	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	438394			4.13- 104.13	54.20
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	341648	22.4345	22.434	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	185697			7.34- 107.34	54.35
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	6.994 (1.215)	98	922338	24.3800	24.380	80.00- 120.00	100.00
7.001	6.994 (1.215)	70	105383			0.00- 61.54	11.43

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	608637			16.89- 116.89	65.99
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	384726	25.2289	25.229	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	539870			93.92- 193.92	140.33
9.236	9.236 (1.121)	176	376195			46.28- 146.28	97.78

Report Date: 11-Jun-2010 06:22

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061027.d
Lab Smp Id: lab blank
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: humid

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Client Smp ID: lab blank
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	269801	-3.58
97 1,4-Difluorobenze	995344	597206	1393482	963836	-3.17
144 Chlorobenzene-d5	835020	501012	1169028	808880	-3.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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-Jun-2010 06:22

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lab blank Client Smp ID: lab blank
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT10.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	22.434	89.74	70-130
$ 115 Toluene-d8	25.000	24.380	97.52	70-130
$ 159 Bromofluorobenzene	25.000	25.229	100.92	70-130

Data File: /chem/msd3.i/10jun10a.b/3061027.d

Date : 10-JUN-2010 23:31

Client ID: lab blank

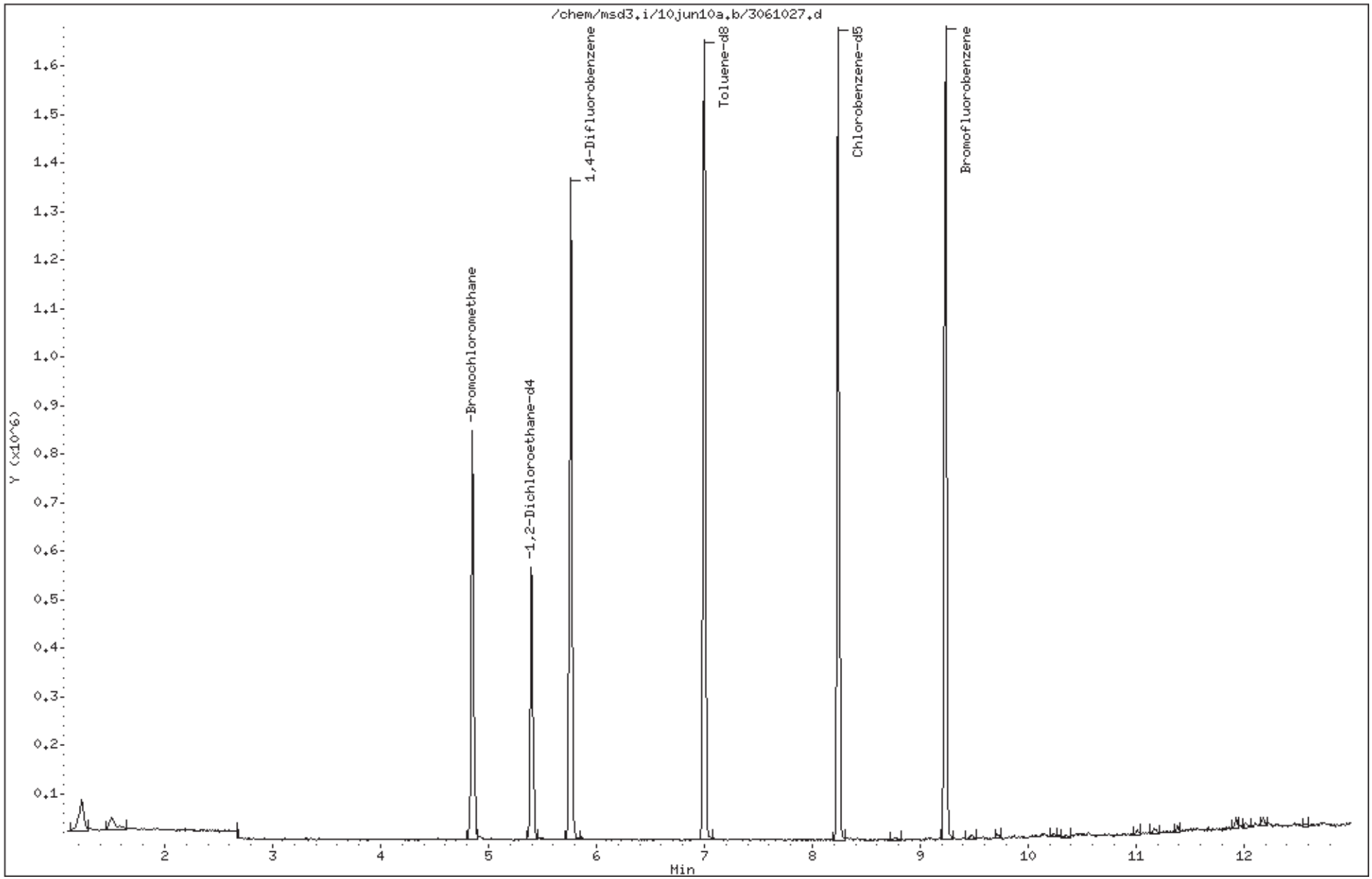
Sample Info: 200mL #917

Column phase: RTx-624

Instrument: msd3.i

Operator: dfm

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647A-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061107**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 11:41 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647A-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061107**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 11:41 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061107.d
Lab Smp Id: lab blank Client Smp ID: lab blank
Inj Date : 11-JUN-2010 23:41
Operator : dfm Inst ID: msd3.i
Smp Info : 200mL #5619
Misc Info : humid
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	205774	25.0000		80.00- 120.00	100.00
4.852	4.852 (1.000)	128	162444			28.35- 128.35	78.94
4.852	4.852 (1.000)	49	323801			99.84- 199.84	157.36
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	722888	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	118336			0.00- 66.08	16.37
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.241	8.240 (1.000)	117	668246	25.0000		80.00- 120.00	100.00
8.241	8.240 (1.000)	82	359251			4.13- 104.13	53.76
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	288087	24.8036	24.804	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	151856			7.34- 107.34	52.71
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	718707	25.3295	25.330	80.00- 120.00	100.00
7.001	7.001 (1.215)	70	81507			0.00- 61.54	11.34

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	477264			16.89- 116.89	66.41
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	309950	24.6029	24.603	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	446981			93.92- 193.92	144.21
9.236	9.236 (1.121)	176	299816			46.28- 146.28	96.73

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061107.d
Lab Smp Id: lab blank
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: humid

Calibration Date: 11-JUN-2010
Calibration Time: 21:43
Client Smp ID: lab blank
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	222468	133481	311455	205774	-7.50
97 1,4-Difluorobenze	779027	467416	1090638	722888	-7.21
144 Chlorobenzene-d5	679504	407702	951306	668246	-1.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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: 12-Jun-2010 08:42

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 11jun10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lab blank Client Smp ID: lab blank
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT10.sub
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.804	99.21	70-130
$ 115 Toluene-d8	25.000	25.330	101.32	70-130
$ 159 Bromofluorobenzene	25.000	24.603	98.41	70-130

Data File: /chem/msd3.i/11jun10.b/3061107.d

Date : 11-JUN-2010 23:41

Client ID: lab blank

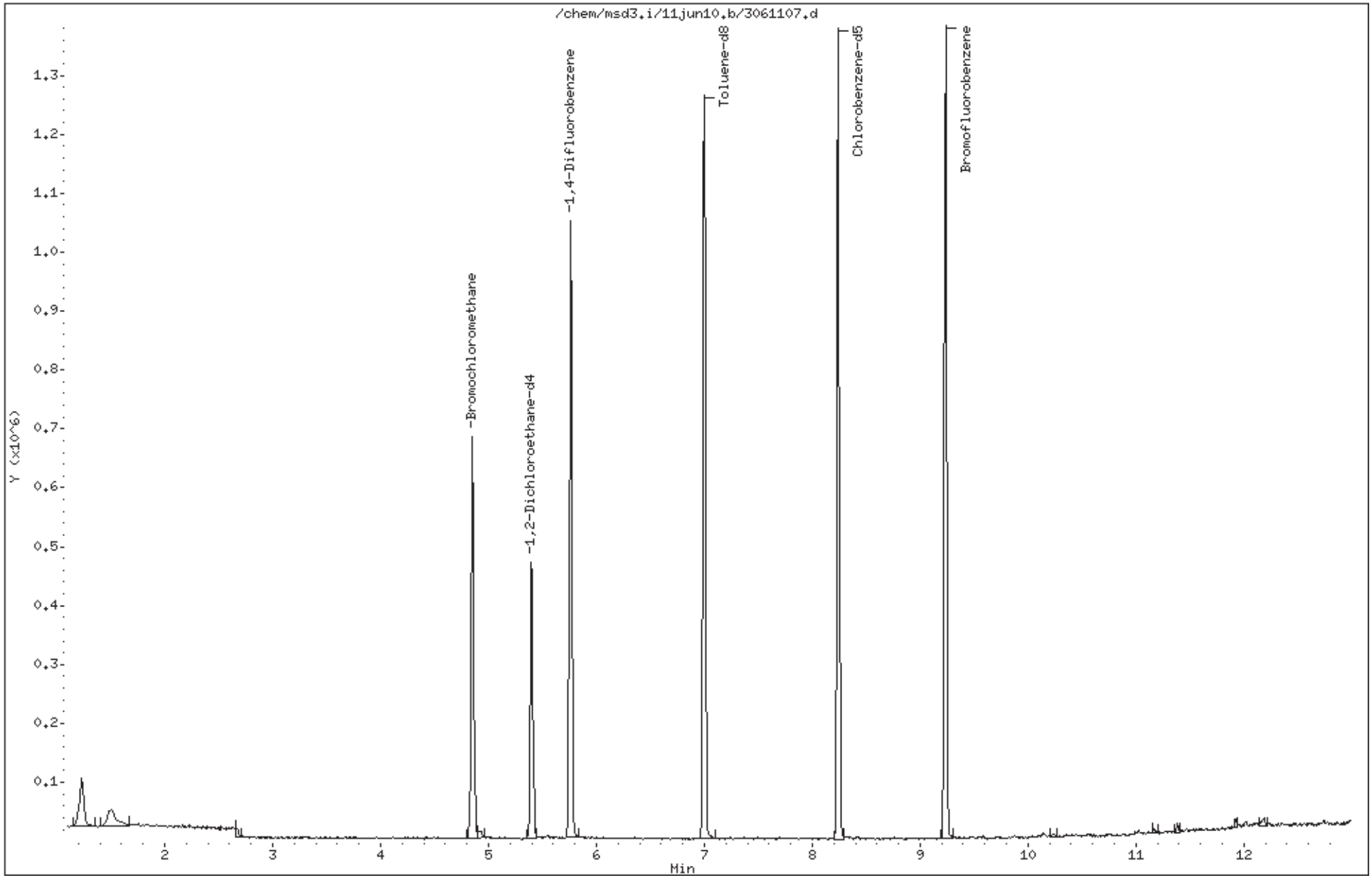
Sample Info: 200mL #5619

Column phase: RTx-624

Instrument: msd3.i

Operator: dfm

Column diameter: 0.53



LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1005647A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	AOS-1	97		98		95				0
02	AOS-2	98		98		94				0
03	AOS-3	98		100		94				0
04	ALF-1	100		101		96				0
05	ALF-2	102		99		92				0
06	ALF-3	98		102		96				0
07	ALF-4	100		101		97				0
08	ALF-5	98		101		93				0
09	Lab Blank	90		98		101				0
10	Lab Blank	99		101		98				0
11	CCV	89		100		103				0
12	CCV	97		101		103				0
13	LCS	91		101		102				0
14	LCS	97		102		103				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: 1005647A
Lab File ID: 3061022.d
Date Analyzed: 06/10/2010
Instrument ID: msd3.i
Time Analyzed: 09:16 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	835020		8.24		995344		5.76		279821		4.85	
	UPPER LIMIT	1169028		08.57		1393482		06.09		391749		05.18	
	LOWER LIMIT	501012		07.91		597206		05.43		167893		04.52	
	CLIENT SAMPLE NO												
01	AOS-1	690080		8.24		802897		5.76		216831		4.85	
02	AOS-2	678307		8.23		788947		5.76		216073		4.85	
03	AOS-3	671752		8.24		740510		5.76		201973		4.85	
04	ALF-1	610929		8.24		690039		5.76		189794		4.85	
05	ALF-2	595326		8.24		683600		5.76		184156		4.85	
06	ALF-3	602140		8.23		668327		5.76		190575		4.85	
07	Lab Blank	808880		8.24		963836		5.76		269801		4.85	
08	CCV	835020		8.24		995344		5.76		279821		4.85	
09	LCS	878282		8.24		1047887		5.76		283355		4.85	
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

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: 1005647A
Lab File ID: 3061102.d
Date Analyzed: 06/11/2010
Instrument ID: msd3.i
Time Analyzed: 09:43 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	679504		8.24		779027		5.76		222468		4.85	
	UPPER LIMIT	951306		08.57		1090638		06.09		311455		05.18	
	LOWER LIMIT	407702		07.91		467416		05.43		133481		04.52	
	CLIENT SAMPLE NO												
01	ALF-4	654809		8.24		702441		5.76		191990		4.85	
02	ALF-5	646336		8.24		704301		5.76		200195		4.85	
03	Lab Blank	668246		8.24		722888		5.76		205774		4.85	
04	CCV	679504		8.24		779027		5.76		222468		4.85	
05	LCS	738784		8.23		836089		5.76		227648		4.85	
06													
07													
08													
09													
10													
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14													
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17													
18													
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20													
21													
22													

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

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Calibration File Names:
Level 1: /chem/msd3.i/08jun10.b/3060802.d
Level 2: /chem/msd3.i/08jun10.b/3060803.d
Level 3: /chem/msd3.i/08jun10.b/3060804.d
Level 4: /chem/msd3.i/08jun10.b/3060805.d
Level 5: /chem/msd3.i/08jun10.b/3060806.d
Level 6: /chem/msd3.i/08jun10.b/3060807.d
Level 7: /chem/msd3.i/08jun10.b/3060808.d

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 152a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propylene	+++++	+++++	1.15869	1.01576	0.91761	0.93206	0.94455	0.99373	10.027
7 Dichlorodifluoromethane/Fr12	+++++	3.39840	3.87292	3.61156	2.96947	3.03300	3.09694	3.33038	10.836

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
8 2-Methyl-1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Freon 22	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	2.80275	2.66291	2.76135	2.43287	2.22313	2.23573	2.51979	10.275
11 Chloromethane	+++++	+++++	0.88938	0.72760	0.56950	0.55099	0.61809	0.67111	20.861
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Butane	+++++	+++++	0.34430	0.30965	0.27123	0.24567	0.24310	0.28279	15.405
14 Vinyl Chloride	+++++	1.33413	1.44622	1.36484	1.16042	1.18583	1.20336	1.28247	9.010
15 1,3-Butadiene	+++++	1.16282	1.13780	1.06082	1.02005	0.93463	0.92635	1.04041	9.563
16 Freon142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
18 Propanal	#####	#####	#####	#####	#####	#####	#####	#####	#####
19 Freon 14	#####	#####	#####	#####	#####	#####	#####	#####	#####
20 Vinyl Fluoride	#####	#####	#####	#####	#####	#####	#####	#####	#####
21 Bromomethane	#####	1.47997	1.30800	1.22724	1.04631	1.06516	1.06882	1.19925	14.433
22 Bromoethane	#####	#####	#####	#####	#####	#####	#####	#####	#####
23 Isobutylene	#####	#####	#####	#####	#####	#####	#####	#####	#####
24 Chloroethane	#####	1.20611	0.89484	0.77604	0.72479	0.65532	0.62505	0.81369	26.391
25 Isopentane	#####	#####	2.06535	2.19103	2.09301	1.83350	1.49357	1.93529	14.447
26 2,3-Dimethylbutane	#####	#####	#####	#####	#####	#####	#####	#####	#####
27 Freon143a	#####	#####	#####	#####	#####	#####	#####	#####	#####

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Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
28 Trichlorofluoromethane/Fr11	+++++	3.77019	3.69068	3.73758	3.38077	3.68705	2.88242	3.52478	9.768
29 Ethanol	+++++	+++++	0.43906	0.48797	0.41933	0.42703	0.44442	0.44356	6.021
30 Freon 113	+++++	2.45666	2.34842	2.39032	2.24518	2.05107	1.98730	2.24649	8.460
31 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 1,1-Dichloroethene	+++++	1.40473	1.39948	1.35786	1.22907	1.15857	1.16362	1.28555	8.977
33 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Acetone	+++++	+++++	0.69149	0.64823	0.56685	0.54062	0.54666	0.59877	11.253
35 Carbon Disulfide	+++++	3.91233	3.89386	3.81100	3.38683	3.24529	3.29291	3.59037	8.750
36 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 2-Propanol	+++++	+++++	1.94061	2.32290	2.18456	2.04985	2.08614	2.11681	6.827

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Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
38 3-Methyl-1-Hexene	*****	*****	*****	*****	*****	*****	*****	*****	*****
39 Vinyl Bromide	*****	*****	*****	*****	*****	*****	*****	*****	*****
40 Methacrylonitrile	*****	*****	*****	*****	*****	*****	*****	*****	*****
41 3-Chloropropene	*****	*****	0.57940	0.64960	0.58940	0.55311	0.56034	0.58637	6.516
42 Pentane	*****	*****	*****	*****	*****	*****	*****	*****	*****
43 Methylene Chloride	*****	1.54410	1.69631	1.59963	1.39697	1.29459	1.32221	1.47563	10.980
44 1-Pentene	*****	*****	*****	*****	*****	*****	*****	*****	*****
45 Dichlorofluoromethane/Fr21	*****	*****	*****	*****	*****	*****	*****	*****	*****
46 tert-Butyl-Alcohol	*****	*****	0.36714	0.26108	0.36760	0.32677	0.32752	0.33002	13.173
47 MTBE	*****	3.38428	3.34778	3.44891	3.39008	3.26047	3.21975	3.34188	2.580

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
48 trans-1,2-Dichloroethene	+++++	1.06813	1.00660	0.94338	0.86005	0.80784	0.81295	0.91649	11.706
49 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Hexane	+++++	2.25896	2.09538	2.42661	2.31346	2.13810	2.03082	2.21055	6.723
52 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 Freon123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Freon123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Methyl acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
58 Isopropyl ether	+++++	+++++	7.53001	6.85361	6.54583	6.11028	6.00653	6.60925	9.339
59 1,1-Dichloroethane	+++++	2.72358	2.66731	2.91758	2.60018	2.39812	2.31571	2.60375	8.452
60 Pentanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 Vinyl Acetate	+++++	+++++	0.32786	0.37300	0.34673	0.34050	0.33466	0.34455	5.041
62 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
64 2,4,4-Trimethyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 2,4,4-Trimethyl-2-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
68 t-Butylethyl Ether	+++++	+++++	3.79230	4.06198	3.75778	3.62556	3.97840	3.84320	4.570
69 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 cis-1,2-Dichloroethene	+++++	0.90771	0.87663	0.91641	0.84482	0.82087	0.82519	0.86527	4.777
74 2-Butanone	+++++	0.75006	0.61461	0.76072	0.70882	0.67579	0.67563	0.69760	7.775
75 Tetrahydrofuran	+++++	2.01867	1.63570	1.85783	1.74029	1.62854	1.60302	1.74734	9.344
77 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 Chloroform	+++++	2.99004	2.91172	2.87788	2.63626	2.48757	2.44084	2.72405	8.585

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Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
79 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 Cyclohexane	+++++	2.07608	1.80907	1.91723	1.88345	1.80919	1.77564	1.87844	5.869
81 1,1,1-Trichloroethane	+++++	2.56338	2.54742	2.66091	2.58502	2.48716	2.41187	2.54263	3.357
82 Carbon Tetrachloride	+++++	2.48259	2.40825	2.62519	2.54448	2.39289	2.32752	2.46348	4.432
83 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
87 2,2,4-Trimethylpentane	+++++	6.69401	6.82308	7.01101	6.93057	6.43896	6.27295	6.69509	4.305
88 Benzene	+++++	1.23142	1.22954	1.25397	1.12352	1.06377	1.03154	1.15563	8.277

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
90 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
91 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 tert-amyl-Methyl Ether	+++++	+++++	2.86693	3.86729	3.03171	2.87399	3.28559	3.18510	13.106
93 1,2-Dichloroethane	+++++	0.52247	0.53945	0.55450	0.48467	0.47033	0.44861	0.50334	8.297
94 Heptane	+++++	0.41744	0.40654	0.46313	0.41858	0.41713	0.40893	0.42196	4.923
95 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
101 Epichlorohydrin	*****	*****	*****	*****	*****	*****	*****	*****	*****
102 Trichloroethene	*****	0.48585	0.46592	0.50108	0.44933	0.46137	0.45600	0.46993	4.183
103 2-Chloroethyl vinyl ether	*****	*****	*****	*****	*****	*****	*****	*****	*****
104 Methyl Cyclohexane	*****	2.55690	2.25649	2.51520	2.44801	2.38603	2.41082	2.42891	4.360
105 Octane	*****	*****	*****	*****	*****	*****	*****	*****	*****
106 1,2-Dichloropropane	*****	0.42796	0.42872	0.46586	0.41412	0.42236	0.41063	0.42827	4.622
107 1,4-Dioxane	*****	*****	0.20629	0.25896	0.24383	0.25139	0.25095	0.24228	8.594
108 1,3-Dichloropropane	*****	*****	*****	*****	*****	*****	*****	*****	*****
109 Bromodichloromethane	*****	0.66911	0.65784	0.79262	0.68960	0.71036	0.70042	0.70333	6.807
110 Butyl Acetate	*****	*****	*****	*****	*****	*****	*****	*****	*****

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Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
111 Nonane	*****	*****	*****	*****	*****	*****	*****	*****	*****
112 cis-1,3-Dichloropropene	*****	0.50359	0.47574	0.59704	0.54093	0.54844	0.56521	0.53849	8.053
113 2-Heptanone	*****	*****	*****	*****	*****	*****	*****	*****	*****
114 4-Methyl-2-pentanone	*****	0.30374	0.24741	0.34330	0.33580	0.34043	0.35085	0.32026	12.250
116 Toluene	*****	1.35285	1.29742	1.32825	1.21642	1.18362	1.18136	1.25998	6.002
117 Cyclohexanone	*****	*****	*****	*****	*****	*****	*****	*****	*****
118 Bromobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****
119 trans-1,4-dichloro-2-butene	*****	*****	*****	*****	*****	*****	*****	*****	*****
120 1,2,3-Trichloropropane	*****	*****	*****	*****	*****	*****	*****	*****	*****
121 2-Chlorotoluene	*****	*****	*****	*****	*****	*****	*****	*****	*****

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Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	200.000 Level 7							
122 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
123 trans-1,3-Dichloropropene	+++++	0.47870	0.53536	0.69255	0.63424	0.65104		
	0.65398						0.60764	13.530
124 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
125 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
126 1,1,1,2-Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
127 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
128 1,1,2-Trichloroethane	+++++	0.50693	0.49427	0.54059	0.47173	0.47233		
	0.47052						0.49273	5.628
129 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
130 bis(2-chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
131 Tetrachloroethene	+++++	0.68586	0.64568	0.67097	0.60537	0.60656		
	0.62099						0.63924	5.314

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
132 p-Cymene	*****	*****	*****	*****	*****	*****	*****	*****	*****
133 1,2,3-Trimethylbenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****
134 alpha-Pinene	*****	*****	*****	*****	*****	*****	*****	*****	*****
135 2-Hexanone	*****	0.38651	0.38695	0.55101	0.53052	0.54423	0.55719	0.49273	16.761
136 Butylbenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****
137 Decane	*****	*****	*****	*****	*****	*****	*****	*****	*****
138 Dibromochloromethane	*****	0.56641	0.62393	0.84642	0.75485	0.78251	0.78167	0.72596	14.773
139 Alphamethylstyrene	*****	*****	*****	*****	*****	*****	*****	*****	*****
140 1,2-Dibromoethane	*****	0.71609	0.75953	0.81154	0.73248	0.72531	0.73312	0.74635	4.699
141 1,2-Dibromo-3-Chloropropane	*****	*****	*****	*****	*****	*****	*****	*****	*****

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
142 beta-Pinene	*****	*****	*****	*****	*****	*****	*****	*****	*****
143 Dodecane	*****	*****	*****	*****	*****	*****	*****	*****	*****
145 Chlorobenzene	*****	1.22426	1.19066	1.22717	1.10518	1.08698	1.07740	1.15194	6.058
146 D-Limonene	*****	*****	*****	*****	*****	*****	*****	*****	*****
147 Ethyl Benzene	*****	0.63452	0.55977	0.62383	0.57357	0.57111	0.58778	0.59176	5.155
148 Hexachloroethane	*****	*****	*****	*****	*****	*****	*****	*****	*****
149 Undecane	*****	*****	*****	*****	*****	*****	*****	*****	*****
150 m,p-Xylene	*****	0.72789	0.71227	0.77411	0.70827	0.71836	0.73002	0.72848	3.282
151 Indan	*****	*****	*****	*****	*****	*****	*****	*****	*****
152 Indene	*****	*****	*****	*****	*****	*****	*****	*****	*****

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
153 o-Xylene	+++++	0.71278	0.67831	0.72486	0.68147	0.69915	0.71926	0.70264	2.793
154 Styrene	+++++	1.02993	0.95742	1.19760	1.11210	1.13929	1.14211	1.09641	7.967
155 Bromoform	+++++	0.53453	0.45190	0.69914	0.65710	0.70439	0.74775	0.63247	18.126
156 Cumene	+++++	1.86016	1.91385	2.05410	1.94124	1.93230	1.84090	1.92376	3.916
157 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Isooctyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,1,2,2-Tetrachloroethane	+++++	1.17844	1.16655	1.17396	1.09277	1.09895	1.07399	1.13078	4.166
162 Propylbenzene	+++++	2.47108	2.34419	2.52104	2.38621	2.33376	2.14212	2.36640	5.578
163 4-Ethyltoluene	+++++	0.65267	0.60718	0.67619	0.63634	0.65468	0.67783	0.65081	4.068

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD	
164 1,3,5-Trimethylbenzene	0.82281	0.82312	0.80492	0.89289	0.83845	0.86762	0.87060	0.84577	3.763	
165 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
166 1,2,4-Trimethylbenzene	0.79544	0.67882	0.72333	0.79957	0.76717	0.79586	0.82147	0.76881	6.574	
167 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
168 1,3-Dichlorobenzene	+++++	1.17181	1.10086	1.10545	1.08144	1.11464	1.14318	1.11956	2.912	
169 1,4-Dichlorobenzene	+++++	1.12737	1.10994	1.11230	1.10437	1.13247	1.13772	1.12070	1.214	
170 alpha-Chlorotoluene	+++++	0.76640	0.69792	1.42568	1.44700	1.52316	1.52079	1.23016	31.566	<-
171 1,2-Dichlorobenzene	+++++	0.98577	0.97375	1.00535	1.00861	1.03706	1.05830	1.01147	3.119	
172 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
173 Isooctyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
174 1,2,4-Trichlorobenzene	+++++	+++++	0.52661	0.64947	0.71433	0.77757	0.88483	0.71056	18.940
175 Hexachlorobutadiene	+++++	+++++	0.34837	0.37522	0.39447	0.43574	0.53341	0.41744	17.301
176 Naphthalene	+++++	+++++	3.50974	2.82956	2.99797	3.15928	3.28110	3.15553	8.269
$ 89 1,2-Dichloroethane-d4	1.39771	1.42164	1.39258	1.40990	1.46380	1.36974	1.42235	1.41110	2.096
$ 115 Toluene-d8	0.96201	0.99382	0.98412	0.96790	1.00161	0.96628	0.99323	0.98128	1.610
$ 159 Bromofluorobenzene	0.43481	0.45873	0.45020	0.47011	0.49038	0.49599	0.49897	0.47131	5.251

Calibration History

Method : /chem/msd3.i/08jun10.b/310q0608a.m
Start Cal Date: 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.30000		
08-JUN-2010 09:05	AFCEElow	/chem/msd3.i/08jun10.b/3060802.d
Cal Level: 2 , Cal Amount: 0.50000		
08-JUN-2010 09:28	AT10low	/chem/msd3.i/08jun10.b/3060803.d
Cal Level: 3 , Cal Amount: 2.00000		
08-JUN-2010 09:52	AT10ICAL	/chem/msd3.i/08jun10.b/3060804.d
Cal Level: 4 , Cal Amount: 25.00000		
08-JUN-2010 10:26	AT10	/chem/msd3.i/08jun10.b/3060805.d
Cal Level: 5 , Cal Amount: 50.00000		
08-JUN-2010 10:50	AT10	/chem/msd3.i/08jun10.b/3060806.d
Cal Level: 6 , Cal Amount: 100.00000		
08-JUN-2010 11:13	AT10	/chem/msd3.i/08jun10.b/3060807.d
Cal Level: 7 , Cal Amount: 200.00000		
08-JUN-2010 11:37	AT10	/chem/msd3.i/08jun10.b/3060808.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 50.000

08-JUN-2010 10:50	AT10	/chem/msd3.i/08jun10.b/3060806a.d
Ccal Level: 5 , Ccal Amount: 50.000		
08-JUN-2010 10:50	AT10	/chem/msd3.i/08jun10.b/3060806.d

DM 6/9/10

Report Date : 09-Jun-2010 14:40 6/9/10

No tert-Butyl Alcohol

Air Toxics Ltd.

INITIAL CALIBRATION DATA

ICAL : 1 out α-CT 3206

Start Cal Date : 08-JUN-2010 09:05
End Cal Date : 08-JUN-2010 11:37
Quant Method : ISTD
Origin : Disabled ICV : ϕ out; 3060810 #1936-114, 50ppbv
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd3.i/08jun10.b/310q0608a.m
Cal Date : 08-Jun-2010 23:15 dmendoza
Curve Type : Average

AFCEE 4.0 oK

Calibration File Names:
Level 1: /chem/msd3.i/08jun10.b/3060802.d
Level 2: /chem/msd3.i/08jun10.b/3060803.d
Level 3: /chem/msd3.i/08jun10.b/3060804.d
Level 4: /chem/msd3.i/08jun10.b/3060805.d
Level 5: /chem/msd3.i/08jun10.b/3060806.d
Level 6: /chem/msd3.i/08jun10.b/3060807.d
Level 7: /chem/msd3.i/08jun10.b/3060808.d

1,3,5 and 1,2,4-TMB @ 0.3ppbv

Compound	0.30000 Level 1	0.50000 Level 2	2.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	___ RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 152a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propylene	+++++	+++++	1.15869	1.01576	0.91761	0.93206	0.94455	0.99373	10.027
7 Dichlorodifluoromethane/Fr12	+++++	3.39840	3.87292	3.61156	2.96947	3.03300	3.09694	3.33038	10.836

6/9/10

Initial Calibration Narrative

A 7 point initial calibration was analyzed on MSD-3 on 6/08/2010.
1 compound out past 30% RSD: alpha-chlorotoluene @ 32%
No tert-butyl alcohol.

@ Air Toxics Ltd.

MSD-3

Logbook #: 1995

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	15.0 – 40.0% of mass 95	18.04
75	30.0 – 60.0% of mass 95	43.16
95	Base peak, 100.00% relative abundance	100.00
96	5.0 – 9.0% of mass 95	6.45
173	Less than 2.0% of mass 174	0.49 (0.69)[1]
174	50.0 – 100% of mass 95	69.97
175	5.0 – 9.0% of mass 174	4.84 (6.91)[1]
176	Greater than 95.0% but less than 101.0% of mass 174	66.54 (95.10)[1]
177	5.0 – 9.0% of mass 176	4.52 (6.80)[2]

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 6/8/10
BFB Injection Time: 0811
BFB File ID: 30608G1
Tekmar Purge Flow: 2
Vacuum: KJ 6/8/10

IS/S Std.#: 1936-174	Exp. Date: 8/13/10
BCM 611343	
1,4-DFB 797132	
CB-d5 700447	

Verified CCV IS vs ICAL mid-point (- 40%D) AES / KJ *initials*

Verify 176/174 m/z Ratio: (168064/176768) X100 = 95.08%

NOAH Cart #: NA **File #:** NA

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}} = \frac{(\ 798419\ )}{(\ 797132\ )} \times \frac{(\ 25.00\ )}{(\ 0.968128\ )} = 25.518$$

File ID:	30608G6a
Compound:	toluene-d8
Initials:	KJ

Reported Result 25.518

Method: 310g0608a

	Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loaded by Init.	Date Analyzed	Time Analyzed	Reviewed by Init.	Comments
1	✓	30608G1	BFB Tune Check	1936-174	36psig	1mL	1.00	AES	6/8/10	0811	KJ/DM	
2	/	02	ICAL level #1	1968-7	0.3ppbv	30mL	/	KJ	/	0905	DM	
3	/	03	2	/	0.5ppbv	50mL	/	/	/	0928	/	
4	/	04	3	↓	2.0ppbv	200mL	/	/	/	0952	/	
5	/	05	4	1968-53	25ppbv	25mL	/	/	/	1026	/	
6	/	06	5	/	50 ppbv	50 mL	/	/	/	1050	/	
7	/	07	6	/	100 ppbv	100 mL	/	/	/	1113	/	
8	/	08	7	/	200 ppbv	200 mL	↓	↓	↓	1137	↓	

Signature

6/8/10
Date

@ Air Toxics Ltd.

MSD-3

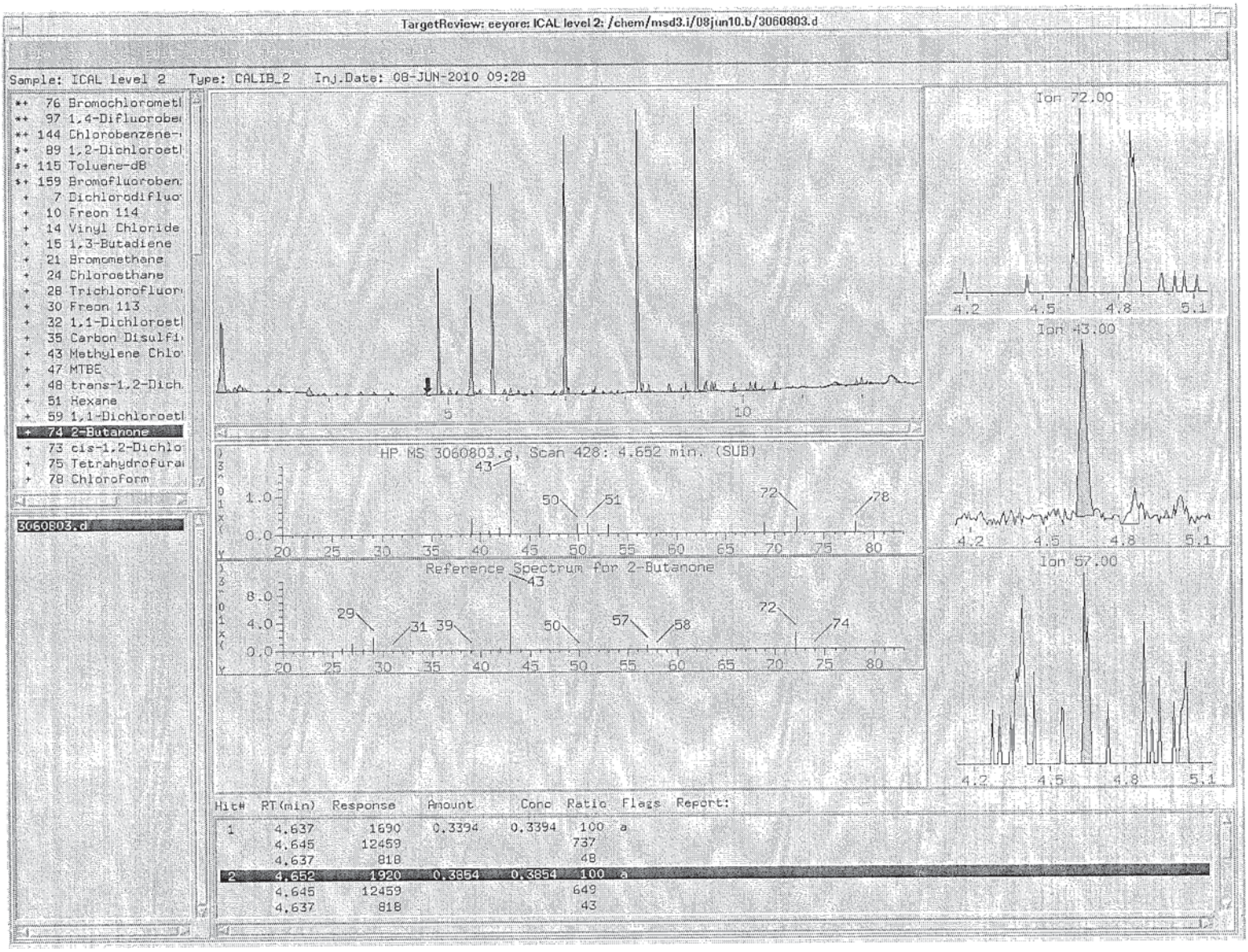
Logbook #: 1995

9	X	3060809	system blank	917	Humid	$200mL (KJ 6/8/10)	1.00	KJ	6/8/10	1207	KJ/—		
10	✓	10	LCS	1936-14	200ppbv-50ppbv	50mL	↓	↓	↓	1327	KJ/DM		ϕ out
11	✓	11	APH CCV	1960-24	1	1	↓	↓	↓	1357	[illegible]		
12	X	12	lab blank	917	Humid	200mL	↓	↓	↓	~~1513~~ DM 6/8/10	DM		TA=1431
13	X	13	↓	↓	↓	↓	↓	↓	↓	1513	DM		remade blank
14	X	14	↓	↓	↓	↓	↓	DM	↓	1638	DM		
15	✓	15	Lab Blank	917	Humid	↓	↓	↓	↓	1730	DM		
16	✓	16	1006142A-01A	35601	4.0"Hg → 15psi	200mL	2.33	DM	↓	1822	DM		
17	~~—~~	17	01AA	35638	3.0"Hg → 15psi		2.24						DM 6/8/10
18	~~—~~	18											DM 6/8/10
19	✓	17	1006142A-01AA	35601	4.0"Hg → 15psi	200mL	2.33	DM	6/8/10	1905	DM		
20	✓	18	1006142A-02A	35638	3.0"Hg → 15psi	↓	2.24	↓	↓	1928	DM		
21	✓	19	03A	35661	3.5"Hg → 15psi	↓	2.29	↓	↓	2000	DM		
22													
23													
24													
25													DM 6/8/10
26													
27													
28													
29													
30													
31													

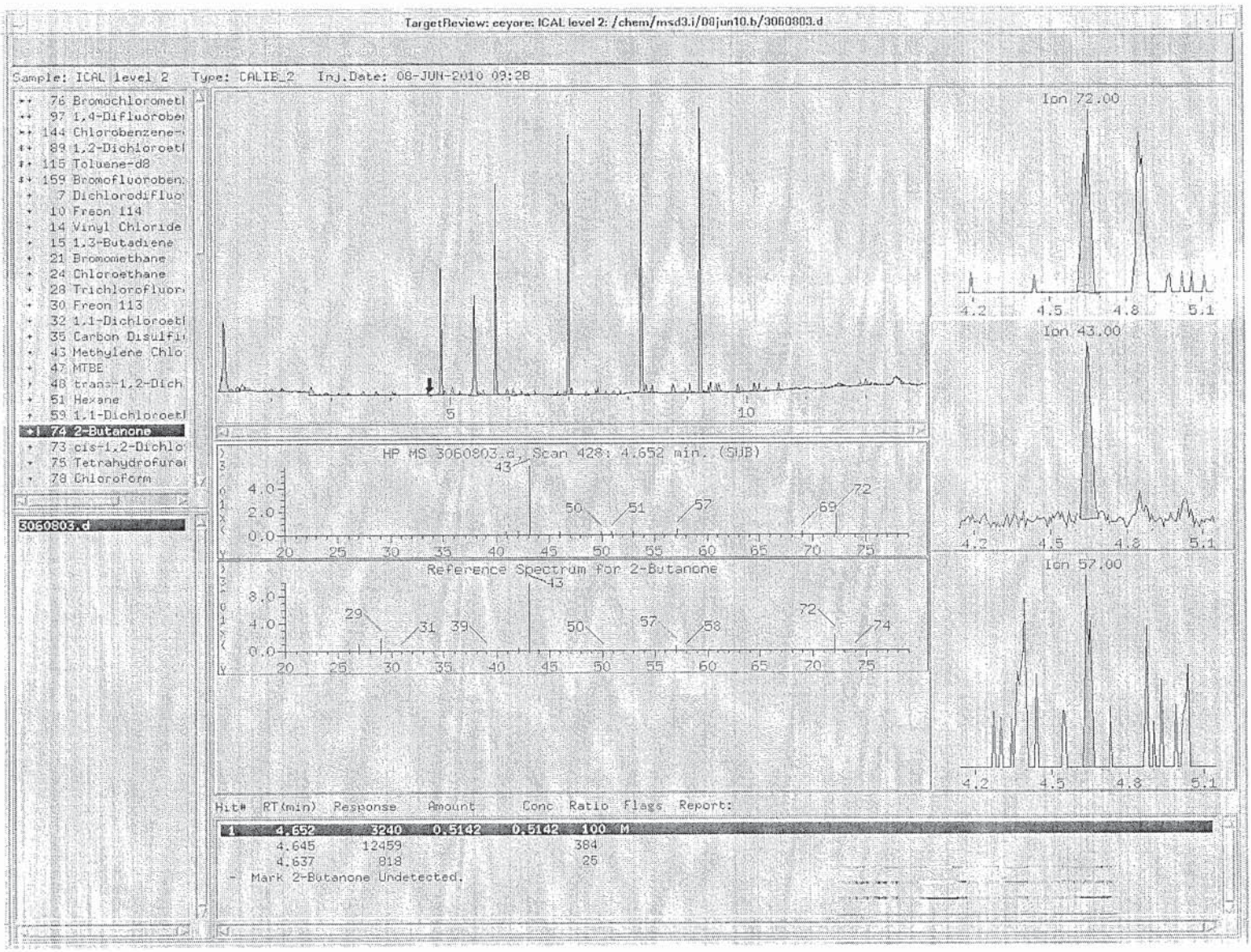
Comments:

Signature

6/8/10
Date



Before an 6/8/10



After AM 6/8/10

6/9/10

Team A

Date / Initial	AM 6/8/10
Poor Integration	
Split Peak	X
Peak Tailing	
Background Subtraction	
Zoom In	
Missed Peak	
Merged Peaks	

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060810.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 08-JUN-2010 13:27
Operator : kjj Inst ID: msd3.i
Smp Info : 50mL #1936-114
Misc Info : 200ppbv->50ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 23:08 dmendoza Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	274020	25.0000		50.00- 150.00	100.00
4.852	4.852 (1.000)	128	215992			28.35- 128.35	78.82
4.852	4.852 (1.000)	49	394553			99.84- 199.84	143.99
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	995959	25.0000		50.00- 150.00	100.00
5.762	5.762 (1.000)	88	159581			0.00- 66.08	16.02
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	830970	25.0000		50.00- 150.00	100.00
8.240	8.240 (1.000)	82	459164			4.13- 104.13	55.26
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	355046	22.9554	22.955	50.00- 150.00	100.00
5.397	5.397 (1.112)	67	213858			7.34- 107.34	60.23
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	962338	24.6169	24.617	50.00- 150.00	100.00
7.001	7.001 (1.215)	70	108398			0.00- 61.54	11.26

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	650007			16.89- 116.89	67.54
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	393100	25.0928	25.093	50.00- 150.00	100.00
9.236	9.236 (1.121)	95	552719			93.92- 193.92	140.61
9.236	9.236 (1.121)	176	376431			46.28- 146.28	95.76
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	496647	45.5970	45.597	50.00- 150.00	100.00
1.311	1.311 (0.270)	42	333959			17.42- 117.42	67.24
1.311	1.311 (0.270)	39	374996			24.45- 124.45	75.51
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1789032	49.0097	49.010	50.00- 150.00	100.00
1.339	1.339 (0.276)	87	589372			0.00- 82.39	32.94
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	1342650	48.6135	48.613	50.00- 150.00	100.00
1.437	1.437 (0.296)	137	431189			0.00- 81.83	32.11
11 Chloromethane					CAS #: 74-87-3		
1.492	1.492 (0.308)	50	344820	46.8765	46.876	50.00- 150.00	100.00
1.492	1.492 (0.308)	52	115556			0.00- 86.13	33.51
13 Butane					CAS #: 106-97-8		
1.562	1.576 (0.322)	58	142922	46.1096	46.110	50.00- 150.00	100.00
1.562	1.576 (0.322)	43	1064691			695.67- 795.67	744.94
14 Vinyl Chloride					CAS #: 75-01-4		
1.590	1.590 (0.328)	62	707341	50.3201	50.320	50.00- 150.00	100.00
1.590	1.590 (0.328)	64	229128			0.00- 92.01	32.39
15 1,3-Butadiene					CAS #: 106-99-0		
1.604	1.618 (0.331)	54	564059	49.4627	49.463	50.00- 150.00	100.00
1.604	1.618 (0.331)	39	680007			70.78- 170.78	120.56
21 Bromomethane					CAS #: 74-83-9		
1.884	1.898 (0.388)	94	649900	49.4419	49.442	50.00- 150.00	100.00
1.884	1.898 (0.388)	96	611430			45.80- 145.80	94.08
24 Chloroethane					CAS #: 75-00-3		
1.968	1.982 (0.406)	64	430287	48.2454	48.245	50.00- 150.00	100.00
1.968	1.982 (0.406)	66	122485			0.00- 80.64	28.47
1.968	1.982 (0.406)	49	95761			0.00- 74.97	22.26

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	935068	44.0814	44.081	50.00- 150.00	100.00
1.996	1.996 (0.411)	57	616527			12.68- 112.68	65.93
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.180 (0.448)	101	1704403	44.1162	44.116	50.00- 150.00	100.00
2.173	2.180 (0.448)	103	1102432			12.39- 112.39	64.68
29 Ethanol					CAS #: 64-17-5		
2.388	2.395 (0.492)	45	238045	48.9622	48.962	50.00- 150.00	100.00
2.388	2.395 (0.492)	43	52048			0.00- 74.96	21.87
2.388	2.395 (0.492)	46	96992			0.00- 90.46	40.75
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	1011651	41.0851	41.085	50.00- 150.00	100.00
2.668	2.668 (0.550)	153	644691			14.27- 114.27	63.73
2.668	2.668 (0.550)	101	1311826			83.92- 183.92	129.67
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.703	2.703 (0.557)	96	614252	43.5927	43.593	50.00- 150.00	100.00
2.703	2.703 (0.557)	98	394462			13.88- 113.88	64.22
2.696	2.703 (0.556)	61	979173			114.74- 214.74	159.41
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	307770	46.8947	46.895	50.00- 150.00	100.00
2.811	2.811 (0.579)	43	1016968			296.41- 396.41	330.43
35 Carbon Disulfide					CAS #: 75-15-0		
2.918	2.925 (0.601)	76	1921771	48.8338	48.834	50.00- 150.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.940	2.947 (0.606)	45	1111026	47.8851	47.885	50.00- 150.00	100.00
2.940	2.947 (0.606)	43	230556			0.00- 71.77	20.75
2.947	2.947 (0.607)	59	41989			0.00- 53.59	3.78
41 3-Chloropropene					CAS #: 107-05-1		
3.126	3.133 (0.644)	76	316515	49.2471	49.247	50.00- 150.00	100.00
3.126	3.133 (0.644)	41	911317			246.04- 346.04	287.92
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.305 (0.680)	49	710048	43.9002	43.900	50.00- 150.00	100.00
3.298	3.305 (0.680)	84	561682			28.40- 128.40	79.10
3.298	3.305 (0.680)	51	219019			0.00- 83.23	30.85
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.398	3.405 (0.700)	57	13410	3.70739	3.707	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.405 (0.700)	41	44014			220.86- 320.86	328.20
3.398	3.405 (0.700)	59	152589			964.11-1064.11	1137.81
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	1671364	45.6288	45.629	50.00- 150.00	100.00
3.520	3.520 (0.725)	57	373653			0.00- 73.87	22.36
3.520	3.520 (0.725)	41	421050			0.00- 78.02	25.19
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.541	3.549 (0.730)	98	462196	46.0105	46.010	50.00- 150.00	100.00
3.541	3.549 (0.730)	61	1038670			172.17- 272.17	224.72
3.541	3.549 (0.730)	96	726263			102.08- 202.08	157.13
51 Hexane					CAS #: 110-54-3		
3.756	3.763 (0.774)	57	1102608	45.5070	45.507	50.00- 150.00	100.00
3.756	3.763 (0.774)	43	746819			22.12- 122.12	67.73
3.756	3.763 (0.774)	86	188900			0.00- 66.41	17.13
58 Isopropyl ether					CAS #: 108-20-3		
4.028	4.021 (0.830)	45	322351	4.44974	4.450	50.00- 150.00	100.00
4.028	4.021 (0.830)	87	97316			0.00- 78.32	30.19
4.028	4.021 (0.830)	59	37394			0.00- 61.56	11.60
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.028	4.036 (0.830)	63	1269527	44.4837	44.484	50.00- 150.00	100.00
4.028	4.036 (0.830)	65	408293			0.00- 80.42	32.16
61 Vinyl Acetate					CAS #: 108-05-4		
4.071	4.071 (0.839)	86	180914	47.9046	47.904	50.00- 150.00	100.00
4.071	4.071 (0.839)	43	2068761			1146.06-1246.06	1143.50
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	196629	4.66780	4.668	50.00- 150.00	100.00
4.387	4.387 (0.904)	87	75740			0.00- 89.80	38.52
4.379	4.387 (0.903)	41	46839			0.00- 80.87	23.82
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	448742	47.3154	47.315	50.00- 150.00	100.00
4.616	4.616 (0.951)	96	715092			108.84- 208.84	159.35
4.616	4.616 (0.951)	61	953700			162.75- 262.75	212.53
74 2-Butanone					CAS #: 78-93-3		
4.637	4.637 (0.956)	72	356841	46.6685	46.668	50.00- 150.00	100.00
4.637	4.637 (0.956)	43	1533139			387.49- 487.49	429.64
4.637	4.637 (0.956)	57	111516			0.00- 81.47	31.25

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	885794	46.2501	46.250	50.00- 150.00	100.00
4.845	4.845 (0.999)	71	319869			0.00- 84.18	36.11
4.845	4.845 (0.999)	72	341496			0.00- 86.49	38.55
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	1334968	44.7109	44.711	50.00- 150.00	100.00
4.917	4.917 (1.013)	85	870365			15.60- 115.60	65.20
80 Cyclohexane					CAS #: 110-82-7		
5.031	5.031 (1.037)	84	945166	45.9058	45.906	50.00- 150.00	100.00
5.031	5.031 (1.037)	56	1143492			70.03- 170.03	120.98
5.031	5.031 (1.037)	41	672537			25.61- 125.61	71.16
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	1245194	44.6799	44.680	50.00- 150.00	100.00
5.046	5.046 (1.040)	99	804355			15.90- 115.90	64.60
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.167 (1.063)	119	1211374	44.8628	44.863	50.00- 150.00	100.00
5.160	5.167 (1.063)	117	1244031			52.89- 152.89	102.70
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.375 (1.106)	57	3532830	48.1420	48.142	50.00- 150.00	100.00
5.368	5.375 (1.106)	56	1184933			0.00- 84.28	33.54
5.368	5.375 (1.106)	41	928894			0.00- 78.49	26.29
88 Benzene					CAS #: 71-43-2		
5.375	5.382 (0.933)	78	2077189	45.1187	45.119	50.00- 150.00	100.00
5.382	5.382 (0.934)	77	493722			0.00- 74.28	23.77
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	161831	4.63552	4.636	50.00- 150.00	100.00
5.454	5.454 (1.124)	87	34470			0.00- 72.44	21.30
5.454	5.454 (1.124)	55	52590			0.00- 87.72	32.50
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	882559	44.0133	44.013	50.00- 150.00	100.00
5.468	5.468 (0.949)	64	286383			0.00- 83.28	32.45
94 Heptane					CAS #: 142-82-5		
5.547	5.547 (0.963)	71	789335	46.9559	46.956	50.00- 150.00	100.00
5.540	5.547 (0.961)	43	1437655			140.08- 240.08	182.13
5.540	5.547 (0.961)	57	740386			43.69- 143.69	93.80
102 Trichloroethene					CAS #: 79-01-6		
5.955	5.963 (1.034)	95	872050	46.5812	46.581	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.963	5.963 (1.035)	130	899206			53.39- 153.39	103.11
5.955	5.963 (1.034)	97	561088			14.84- 114.84	64.34
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	1253797	47.0950	47.095	50.00- 150.00	100.00
6.063	6.063 (1.249)	98	594046			0.00- 97.38	47.38
6.063	6.063 (1.249)	55	1045369			34.54- 134.54	83.38
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	791330	46.3804	46.380	50.00- 150.00	100.00
6.199	6.199 (1.076)	62	565215			23.66- 123.66	71.43
6.199	6.199 (1.076)	41	442804			13.65- 113.65	55.96
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	455626	47.2046	47.204	50.00- 150.00	100.00
6.285	6.285 (1.091)	58	335853			26.05- 126.05	73.71
6.285	6.285 (1.091)	57	107547			0.00- 74.82	23.60
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1283975	45.8246	45.825	50.00- 150.00	100.00
6.428	6.428 (1.116)	85	826716			14.68- 114.68	64.39
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	1046705	48.7916	48.792	50.00- 150.00	100.00
6.815	6.815 (1.183)	77	333492			0.00- 81.50	31.86
6.815	6.815 (1.183)	39	554290			6.29- 106.29	52.96
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	619138	48.5277	48.528	50.00- 150.00	100.00
6.930	6.930 (1.203)	43	1721861			237.28- 337.28	278.11
6.930	6.930 (1.203)	85	246702			0.00- 88.81	39.85
116 Toluene					CAS #: 108-88-3		
7.058	7.058 (1.225)	91	2161725	43.0659	43.066	50.00- 150.00	100.00
7.058	7.058 (1.225)	92	1286289			8.79- 108.79	59.50
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	1060846	52.5240	52.524	50.00- 150.00	100.00
7.302	7.302 (0.886)	77	337514			0.00- 83.09	31.82
7.302	7.302 (0.886)	39	544584			5.18- 105.18	51.33
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.452	7.460 (0.904)	97	772637	47.1760	47.176	50.00- 150.00	100.00
7.452	7.460 (0.904)	99	487644			11.85- 111.85	63.11
7.452	7.460 (0.904)	83	676796			37.54- 137.54	87.60

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.495	7.495 (0.910)	166	987307	46.4669	46.467	50.00- 150.00	100.00
7.495	7.495 (0.910)	129	750472			24.54- 124.54	76.01
7.495	7.495 (0.910)	131	715309			23.12- 123.12	72.45
135 2-Hexanone					CAS #: 591-78-6		
7.631	7.631 (0.926)	58	850088	51.9047	51.905	50.00- 150.00	100.00
7.631	7.631 (0.926)	43	1675838			152.66- 252.66	197.14
7.631	7.631 (0.926)	100	160876			0.00- 69.00	18.92
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	1224818	50.7588	50.759	50.00- 150.00	100.00
7.768	7.768 (0.943)	127	942944			27.39- 127.39	76.99
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	1235946	49.8211	49.821	50.00- 150.00	100.00
7.882	7.882 (0.957)	109	1172186			44.04- 144.04	94.84
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	1798351	46.9676	46.968	50.00- 150.00	100.00
8.262	8.262 (1.003)	114	573541			0.00- 80.98	31.89
8.262	8.262 (1.003)	77	1040138			16.55- 116.55	57.84
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	943310	47.9579	47.958	50.00- 150.00	100.00
8.319	8.319 (1.010)	91	2842629			251.61- 351.61	301.35
150 m,p-Xylene					CAS #: 108-38-3		
8.419	8.419 (1.022)	106	1175465	48.5449	48.545	50.00- 150.00	100.00
8.419	8.419 (1.022)	91	2219209			143.04- 243.04	188.79
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	1100142	47.1056	47.106	50.00- 150.00	100.00
8.763	8.763 (1.063)	91	2201123			145.82- 245.82	200.08
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	1784320	48.9615	48.961	50.00- 150.00	100.00
8.778	8.785 (1.065)	78	859741			0.00- 97.81	48.18
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	1032468	49.1126	49.112	50.00- 150.00	100.00
8.971	8.971 (1.089)	171	533060			1.57- 101.57	51.63
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	3016212	47.1700	47.170	50.00- 150.00	100.00
9.057	9.057 (1.099)	120	872300			0.00- 78.20	28.92

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.050	9.057 (1.098)	51	316515			0.00- 60.54	10.49
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	1714596	45.6183	45.618	50.00- 150.00	100.00
9.365	9.365 (1.136)	85	1122603			14.67- 114.67	65.47
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	3682005	46.8113	46.811	50.00- 150.00	100.00
9.401	9.401 (1.141)	120	900863			0.00- 74.44	24.47
9.401	9.401 (1.141)	105	135543			0.00- 54.32	3.68
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	1014008	46.8747	46.875	50.00- 150.00	100.00
9.494	9.494 (1.152)	105	3181370			267.54- 367.54	313.74
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.551	9.551 (1.159)	120	1369193	48.7042	48.704	50.00- 150.00	100.00
9.551	9.551 (1.159)	105	2571344			144.39- 244.39	187.80
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	1235807	48.3601	48.360	50.00- 150.00	100.00
9.874	9.874 (1.198)	105	2483662			152.28- 252.28	200.97
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	1710206	45.9572	45.957	50.00- 150.00	100.00
10.153	10.153 (1.232)	148	1105874			13.05- 113.05	64.66
10.153	10.153 (1.232)	111	692382			0.00- 90.20	40.49
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	1761882	47.2981	47.298	50.00- 150.00	100.00
10.232	10.232 (1.242)	148	1134621			14.32- 114.32	64.40
10.232	10.232 (1.242)	111	680839			0.00- 88.82	38.64
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.353	10.353 (1.256)	91	2171592	53.1094	53.109	50.00- 150.00	100.00
10.353	10.353 (1.256)	126	488364			0.00- 71.70	22.49
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.561	10.561 (1.282)	146	1606243	47.7762	47.776	50.00- 150.00	100.00
10.561	10.561 (1.282)	148	1036674			14.70- 114.70	64.54
10.554	10.561 (1.281)	111	668965			0.00- 93.01	41.65
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.929	11.929 (1.448)	180	1133074	47.9745	47.974	50.00- 150.00	100.00
11.929	11.929 (1.448)	182	1078263			45.25- 145.25	95.16

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.022	12.022 (1.459)	225	635582	45.8070	45.807	50.00- 150.00	100.00
12.022	12.022 (1.459)	223	407408			12.77- 112.77	64.10
176 Naphthalene					CAS #: 91-20-3		
12.180	12.180 (1.478)	128	382026	3.64231	3.642	50.00- 150.00	100.00
12.180	12.180 (1.478)	127	49142			0.00- 63.93	12.86

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060810.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	274020	29.66
97 1,4-Difluorobenze	797132	478279	1115985	995959	24.94
144 Chlorobenzene-d5	700417	420250	980584	830970	18.64

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.23	7.90	8.56	8.24	0.17

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: 08-Jun-2010 23:09

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 08jun10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: kjj
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT10.sub
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
6 Propylene	50.000	45.597	91.19	60-140
7 Dichlorodifluorome	50.000	49.010	98.02	70-130
10 Freon 114	50.000	48.613	97.23	70-130
11 Chloromethane	50.000	46.876	93.75	70-130
14 Vinyl Chloride	50.000	50.320	100.64	70-130
15 1,3-Butadiene	50.000	49.463	98.93	60-140
21 Bromomethane	50.000	49.442	98.88	70-130
24 Chloroethane	50.000	48.245	96.49	70-130
28 Trichlorofluoromet	50.000	44.116	88.23	70-130
29 Ethanol	50.000	48.962	97.92	60-140
30 Freon 113	50.000	41.085	82.17	70-130
32 1,1-Dichloroethene	50.000	43.593	87.19	70-130
34 Acetone	50.000	46.895	93.79	60-140
35 Carbon Disulfide	50.000	48.834	97.67	60-140
37 2-Propanol	50.000	47.885	95.77	60-140
43 Methylene Chloride	50.000	43.900	87.80	70-130
47 MTBE	50.000	45.629	91.26	60-140
48 trans-1,2-Dichloro	50.000	46.010	92.02	60-140
51 Hexane	50.000	45.507	91.01	60-140
61 Vinyl Acetate	50.000	47.904	95.81	60-140
59 1,1-Dichloroethane	50.000	44.484	88.97	70-130
73 cis-1,2-Dichloroet	50.000	47.315	94.63	70-130
74 2-Butanone	50.000	46.668	93.34	60-140
75 Tetrahydrofuran	50.000	46.250	92.50	60-140
78 Chloroform	50.000	44.711	89.42	70-130
80 Cyclohexane	50.000	45.906	91.81	60-140
81 1,1,1-Trichloroeth	50.000	44.680	89.36	70-130
82 Carbon Tetrachlori	50.000	44.863	89.73	70-130
88 Benzene	50.000	45.119	90.24	70-130
93 1,2-Dichloroethane	50.000	44.013	88.03	70-130
94 Heptane	50.000	46.956	93.91	60-140
102 Trichloroethene	50.000	46.581	93.16	70-130
106 1,2-Dichloropropan	50.000	46.380	92.76	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
107 1,4-Dioxane	50.000	47.204	94.41	60-140
109 Bromodichlorometha	50.000	45.825	91.65	60-140
112 cis-1,3-Dichloropr	50.000	48.792	97.58	70-130
114 4-Methyl-2-pentano	50.000	48.528	97.06	60-140
116 Toluene	50.000	43.066	86.13	70-130
123 trans-1,3-Dichloro	50.000	52.524	105.05	70-130
128 1,1,2-Trichloroeth	50.000	47.176	94.35	70-130
131 Tetrachloroethene	50.000	46.467	92.93	70-130
135 2-Hexanone	50.000	51.905	103.81	60-140
138 Dibromochlorometha	50.000	50.759	101.52	60-140
140 1,2-Dibromoethane	50.000	49.821	99.64	70-130
145 Chlorobenzene	50.000	46.968	93.94	70-130
147 Ethyl Benzene	50.000	47.958	95.92	70-130
150 m,p-Xylene	50.000	48.545	97.09	70-130
153 o-Xylene	50.000	47.106	94.21	70-130
154 Styrene	50.000	48.961	97.92	70-130
155 Bromoform	50.000	49.112	98.23	60-140
161 1,1,2,2-Tetrachlor	50.000	45.618	91.24	70-130
163 4-Ethyltoluene	50.000	46.875	93.75	60-140
164 1,3,5-Trimethylben	50.000	48.704	97.41	70-130
166 1,2,4-Trimethylben	50.000	48.360	96.72	70-130
168 1,3-Dichlorobenzen	50.000	45.957	91.91	70-130
169 1,4-Dichlorobenzen	50.000	47.298	94.60	70-130
170 alpha-Chlorotoluen	50.000	53.109	106.22	70-130
171 1,2-Dichlorobenzen	50.000	47.776	95.55	70-130
174 1,2,4-Trichloroben	50.000	47.974	95.95	70-130
175 Hexachlorobutadien	50.000	45.807	91.61	70-130
162 Propylbenzene	50.000	46.811	93.62	60-140
156 Cumene	50.000	47.170	94.34	60-140
41 3-Chloropropene	50.000	49.247	98.49	60-140
87 2,2,4-Trimethylpen	50.000	48.142	96.28	60-140
25 Isopentane	50.000	44.081	88.16	70-130
13 Butane	50.000	46.110	92.22	70-130
104 Methyl Cyclohexane	50.000	47.095	94.19	70-130
46 tert-Butyl-Alcohol	5.000	3.707	74.15	60-140
176 Naphthalene	5.000	3.642	72.85	60-140
58 Isopropyl ether	5.000	4.450	88.99	60-140
68 t-Butylethyl Ether	5.000	4.668	93.36	60-140
92 tert-amyl-Methyl E	5.000	4.636	92.71	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	22.955	91.82	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 115 Toluene-d8	25.000	24.617	98.47	70-130
$ 159 Bromofluorobenzene	25.000	25.093	100.37	70-130

Data File: /chem/msd3.i/08jun10.b/3060810.d

Date : 08-JUN-2010 13:27

Client ID: LCS

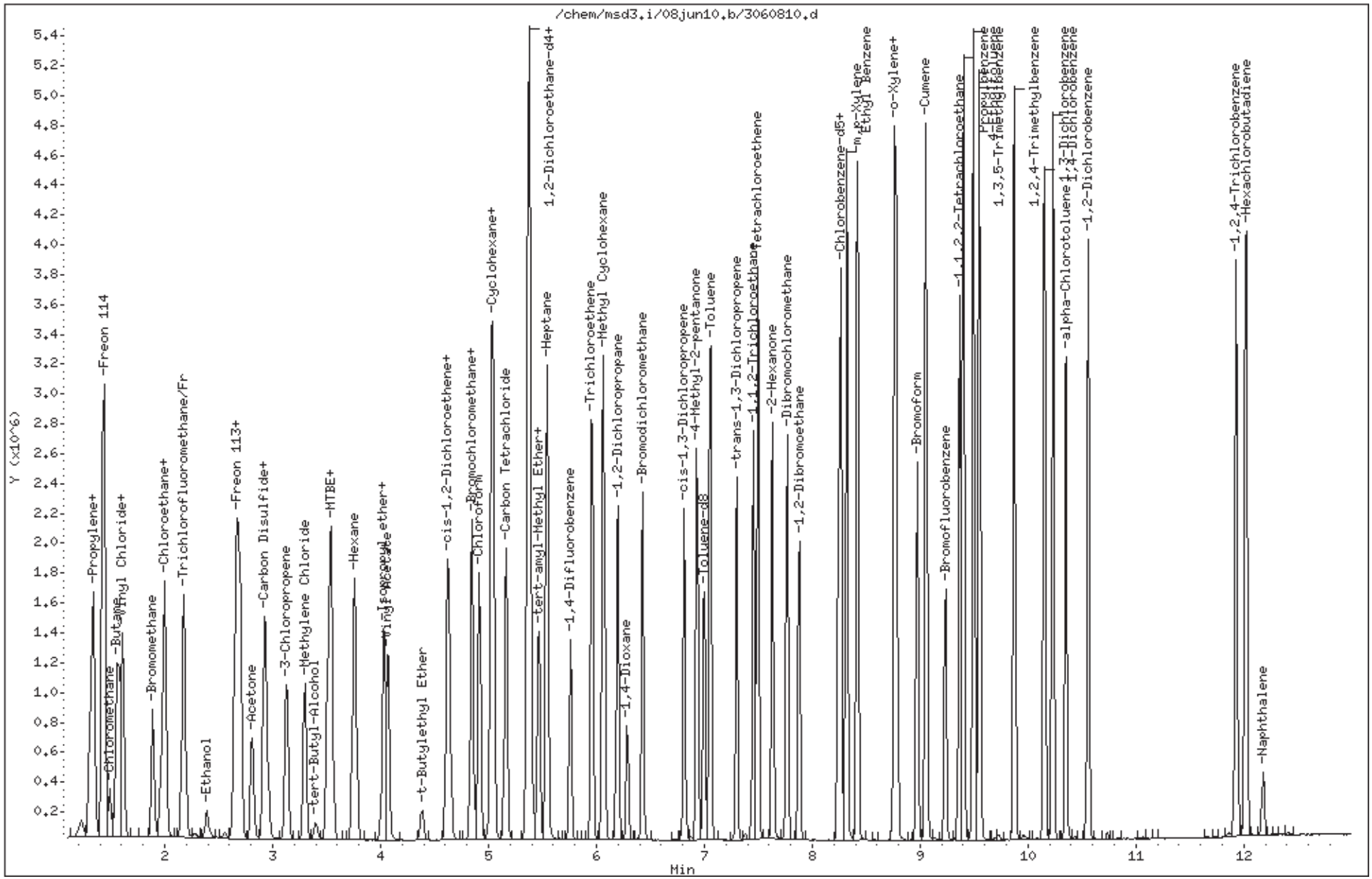
Sample Info: 50mL #1936-114

Instrument: msd3.i

Operator: kjj

Column phase: RTx-624

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060802.d
Lab Smp Id: ICAL level 1 Client Smp ID: ICAL level 1
Inj Date : 08-JUN-2010 09:05
Operator : kjj Inst ID: msd3.i
Smp Info : 30mL #1968-7
Misc Info : 2.0ppbv->0.3ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:38 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 09:05 Cal File: 3060802.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AFCEElow.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
RT	EXP RT (REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.831	4.831 (1.000)	130	210957	25.0000		50.00- 150.00	100.00
4.831	4.831 (1.000)	128	165901			28.61- 128.61	78.64
4.831	4.831 (1.000)	49	315163			99.66- 199.66	149.40
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.740	5.740 (1.000)	114	800940	25.0000		50.00- 150.00	100.00
5.740	5.740 (1.000)	88	128150			0.00- 66.01	16.00
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.219	8.219 (1.000)	117	687986	25.0000		50.00- 150.00	100.00
8.219	8.219 (1.000)	82	372987			4.46- 104.46	54.21
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.382	5.382 (1.114)	65	294856	25.0000	24.422	50.00- 150.00	100.00
5.382	5.382 (1.114)	67	158223			6.59- 106.59	53.66
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.980	6.980 (1.216)	98	770515	25.0000	24.496	50.00- 150.00	100.00
6.980	6.980 (1.216)	70	90727			0.00- 61.56	11.77

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.980	6.980 (1.216)	100	510078			16.58- 116.58	66.20
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.214	9.214 (1.121)	174	299145	25.0000	23.499	50.00- 150.00	100.00
9.214	9.214 (1.121)	95	444689			93.75- 193.75	148.65
9.214	9.214 (1.121)	176	283920			46.06- 146.06	94.91
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.852 (1.199)	120	6567	0.30000	0.3054	50.00- 150.00	100.00(a)
9.852	9.852 (1.199)	105	13758			156.11- 256.11	209.49
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.530	9.530 (1.159)	120	6793	0.30000	0.2972	50.00- 150.00	100.00(a)
9.530	9.530 (1.159)	105	14048			147.11- 247.11	206.81

QC Flag Legend

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

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060802.d
Lab Smp Id: ICAL level 1
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 2.0ppbv->0.3ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 1
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	210957	-0.18
97 1,4-Difluorobenze	797132	478279	1115985	800940	0.48
144 Chlorobenzene-d5	700417	420250	980584	687986	-1.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.83	-0.45
97 1,4-Difluorobenze	5.76	5.43	6.09	5.74	-0.38
144 Chlorobenzene-d5	8.23	7.90	8.56	8.22	-0.09

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/msd3.i/08jun10.b/3060802.d

Date : 08-JUN-2010 09:05

Client ID: ICAL level 1

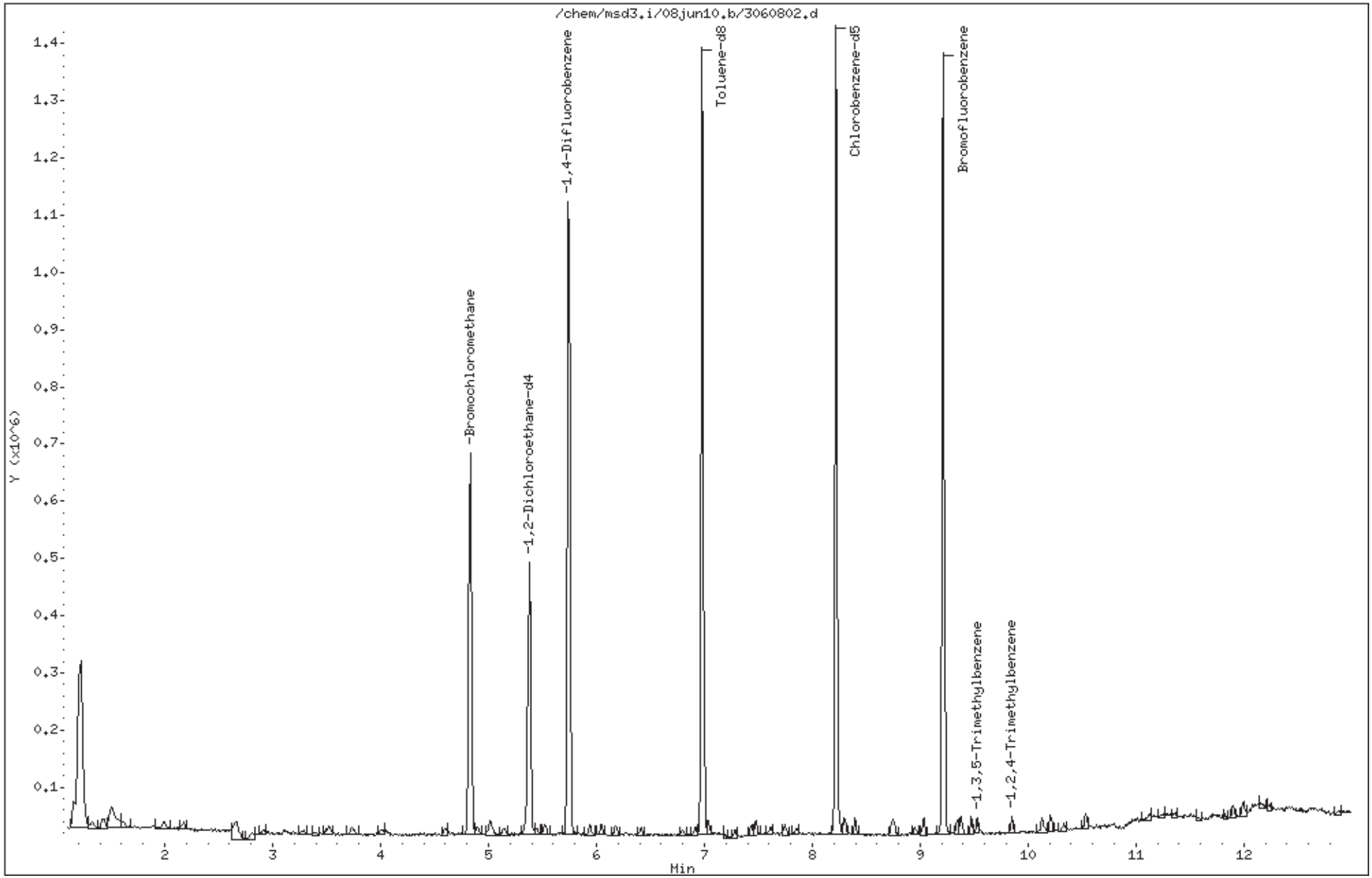
Sample Info: 30mL #1968-7

Column phase: RTx-624

Instrument: msd3.i

Operator: kjj

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060803.d
Lab Smp Id: ICAL level 2 Client Smp ID: ICAL level 2
Inj Date : 08-JUN-2010 09:28
Operator : kjj Inst ID: msd3.i
Smp Info : 50mL #1968-7
Misc Info : 2.0ppbv->0.5ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:45 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 09:28 Cal File: 3060803.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	215984	25.0000		50.00- 150.00	100.00
4.852	4.852 (1.000)	128	170805			28.59- 128.59	79.08
4.845	4.845 (1.000)	49	324390			100.20- 200.20	150.19
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	789335	25.0000		50.00- 150.00	100.00
5.762	5.762 (1.000)	88	126327			0.00- 66.04	16.00
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.226	8.226 (1.000)	117	724561	25.0000		50.00- 150.00	100.00
8.226	8.226 (1.000)	82	392895			4.21- 104.21	54.23
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	307052	25.0000	25.048	50.00- 150.00	100.00
5.397	5.397 (1.112)	67	163410			5.12- 105.12	53.22
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.994	6.994 (1.214)	98	784453	25.0000	25.214	50.00- 150.00	100.00
6.994	6.994 (1.214)	70	91828			0.00- 61.58	11.71

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.994	6.994 (1.214)	100	523010			16.59- 116.59	66.67
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.215	9.215 (1.120)	174	332377	25.0000	25.011	50.00- 150.00	100.00
9.215	9.215 (1.120)	95	483016			94.79- 194.79	145.32
9.215	9.215 (1.120)	176	321027			46.21- 146.21	96.59
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	14680	0.50000	0.4978	50.00- 150.00	100.00(a)
1.339	1.339 (0.276)	87	4656			0.00- 82.53	31.72
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	12107	0.50000	0.5323	50.00- 150.00	100.00
1.437	1.437 (0.296)	137	3684			0.00- 81.75	30.43
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.591 (0.328)	62	5763	0.50000	0.5078	50.00- 150.00	100.00
1.591	1.591 (0.328)	64	4044			0.00- 98.55	70.17
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.619 (0.334)	54	5023	0.50000	0.5253	50.00- 150.00	100.00
1.619	1.619 (0.334)	39	7018			73.42- 173.42	139.72
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.388)	94	6393	0.50000	0.5790	50.00- 150.00	100.00
1.884	1.884 (0.388)	96	6543			47.18- 147.18	102.35
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	5210	0.50000	0.6402	50.00- 150.00	100.00
1.968	1.968 (0.406)	66	1584			0.00- 79.75	30.40
1.968	1.968 (0.406)	49	1298			0.00- 73.54	24.91
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.448)	101	16286	0.50000	0.5216	50.00- 150.00	100.00
2.173	2.173 (0.448)	103	10240			14.90- 114.90	62.88
30 Freon 113					CAS #: 76-13-1		
2.675	2.675 (0.551)	151	10612	0.50000	0.5227	50.00- 150.00	100.00
2.675	2.675 (0.551)	153	7028			14.42- 114.42	66.23
2.668	2.668 (0.550)	101	14968			85.18- 185.18	141.05
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.703	2.703 (0.557)	96	6068	0.50000	0.5224	50.00- 150.00	100.00
2.703	2.703 (0.557)	98	3848			13.83- 113.83	63.41
2.711	2.711 (0.559)	61	9673			114.24- 214.24	159.41

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
35 Carbon Disulfide					CAS #: 75-15-0		
2.926	2.926 (0.603)	76	16900	0.50000	0.5243	50.00- 150.00	100.00
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	6670	0.50000	0.4994	50.00- 150.00	100.00(a)
3.305	3.305 (0.681)	84	5672			29.36- 129.36	85.04
3.298	3.298 (0.680)	51	2887			0.00- 85.03	43.28
47 MTBE					CAS #: 1634-04-4		
3.527	3.527 (0.727)	73	14619	0.50000	0.5015	50.00- 150.00	100.00
3.527	3.527 (0.727)	57	3768			0.00- 74.54	25.77
3.527	3.527 (0.727)	41	4727			0.00- 79.30	32.33
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.556	3.556 (0.733)	98	4614	0.50000	0.5459	50.00- 150.00	100.00
3.542	3.542 (0.730)	61	9203			166.28- 266.28	199.46
3.542	3.542 (0.730)	96	6523			98.37- 198.37	141.37
51 Hexane					CAS #: 110-54-3		
3.756	3.756 (0.774)	57	9758	0.50000	0.5082	50.00- 150.00	100.00
3.756	3.756 (0.774)	43	7892			24.41- 124.41	80.88
3.764	3.764 (0.776)	86	1420			0.00- 66.19	14.55
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.036	4.036 (0.832)	63	11765	0.50000	0.5112	50.00- 150.00	100.00
4.036	4.036 (0.832)	65	3033			0.00- 79.76	25.78
74 2-Butanone					CAS #: 78-93-3		
4.652	4.652 (0.959)	72	3240	0.50000	0.5426	50.00- 150.00	100.00(M)
4.645	4.645 (0.957)	43	12459			386.85- 486.85	384.54
4.637	4.637 (0.956)	57	818			0.00- 81.20	25.25
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	3921	0.50000	0.5179	50.00- 150.00	100.00
4.616	4.616 (0.951)	96	6225			110.10- 210.10	158.76
4.616	4.616 (0.951)	61	7752			160.44- 260.44	197.70
75 Tetrahydrofuran					CAS #: 109-99-9		
4.860	4.860 (1.001)	42	8720	0.50000	0.5613	50.00- 150.00	100.00
4.852	4.852 (1.000)	71	2717			0.00- 83.26	31.16
4.852	4.852 (1.000)	72	2871			0.00- 85.57	32.92
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	12916	0.50000	0.5253	50.00- 150.00	100.00
4.910	4.910 (1.012)	85	8532			15.67- 115.67	66.06

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.039	5.039 (1.038)	97	11073	0.50000	0.4996	50.00- 150.00	100.00(a)
5.053	5.053 (1.041)	99	7794			17.01- 117.01	70.39
80 Cyclohexane					CAS #: 110-82-7		
5.039	5.039 (1.038)	84	8968	0.50000	0.5398	50.00- 150.00	100.00
5.031	5.031 (1.037)	56	9929			69.71- 169.71	110.72
5.031	5.031 (1.037)	41	7123			27.89- 127.89	79.43
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.168	5.168 (1.065)	119	10724	0.50000	0.5008	50.00- 150.00	100.00
5.168	5.168 (1.065)	117	10702			51.89- 151.89	99.79
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.368 (1.106)	57	28916	0.50000	0.4910	50.00- 150.00	100.00(a)
5.375	5.375 (1.108)	56	10414			0.00- 84.66	36.01
5.375	5.375 (1.108)	41	9101			0.00- 79.17	31.47
88 Benzene					CAS #: 71-43-2		
5.375	5.375 (0.933)	78	19440	0.50000	0.5153	50.00- 150.00	100.00
5.375	5.375 (0.933)	77	5081			0.00- 74.67	26.14
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	8248	0.50000	0.5067	50.00- 150.00	100.00
5.461	5.461 (0.948)	64	3046			0.00- 83.70	36.93
94 Heptane					CAS #: 142-82-5		
5.540	5.540 (0.961)	71	6590	0.50000	0.5039	50.00- 150.00	100.00
5.540	5.540 (0.961)	43	12370			141.90- 241.90	187.71
5.540	5.540 (0.961)	57	6527			44.23- 144.23	99.04
102 Trichloroethene					CAS #: 79-01-6		
5.955	5.955 (1.034)	95	7670	0.50000	0.5201	50.00- 150.00	100.00
5.955	5.955 (1.034)	130	7891			54.30- 154.30	102.88
5.963	5.963 (1.035)	97	5175			14.95- 114.95	67.47
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	11045	0.50000	0.5282	50.00- 150.00	100.00
6.063	6.063 (1.249)	98	4984			0.00- 97.56	45.12
6.063	6.063 (1.249)	55	8904			34.55- 134.55	80.62
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	6756	0.50000	0.5051	50.00- 150.00	100.00
6.192	6.192 (1.075)	62	5427			25.12- 125.12	80.33
6.199	6.199 (1.076)	41	5333			17.00- 117.00	78.94

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	10563	0.50000	0.4977	50.00- 150.00	100.00(a)
6.428	6.428 (1.116)	85	7122			14.29- 114.29	67.42
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	7950	0.50000	0.4969	50.00- 150.00	100.00(a)
6.815	6.815 (1.183)	77	2473			0.00- 81.38	31.11
6.815	6.815 (1.183)	39	4583			7.49- 107.49	57.65
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	4795	0.50000	0.5137	50.00- 150.00	100.00
6.930	6.930 (1.203)	43	12580			238.56- 338.56	262.36
6.930	6.930 (1.203)	85	1561			0.00- 88.17	32.55
116 Toluene					CAS #: 108-88-3		
7.051	7.051 (1.224)	91	21357	0.50000	0.5248	50.00- 150.00	100.00
7.051	7.051 (1.224)	92	12964			8.66- 108.66	60.70
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.888)	75	6937	0.50000	0.4356	50.00- 150.00	100.00(a)
7.295	7.295 (0.887)	77	2516			0.00- 83.98	36.27
7.295	7.295 (0.887)	39	4262			6.49- 106.49	61.44
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.445	7.445 (0.905)	97	7346	0.50000	0.5162	50.00- 150.00	100.00
7.453	7.453 (0.906)	99	4340			11.60- 111.60	59.08
7.453	7.453 (0.906)	83	6316			36.94- 136.94	85.98
131 Tetrachloroethene					CAS #: 127-18-4		
7.488	7.488 (0.910)	166	9939	0.50000	0.5312	50.00- 150.00	100.00
7.488	7.488 (0.910)	129	6762			23.51- 123.51	68.04
7.488	7.488 (0.910)	131	7414			22.61- 122.61	74.60
135 2-Hexanone					CAS #: 591-78-6		
7.624	7.624 (0.927)	58	5601	0.50000	0.4446	50.00- 150.00	100.00(a)
7.624	7.624 (0.927)	43	11341			153.37- 253.37	202.48
7.624	7.624 (0.927)	100	1077			0.00- 68.45	19.23
138 Dibromochloromethane					CAS #: 124-48-1		
7.761	7.761 (0.943)	129	8208	0.50000	0.4368	50.00- 150.00	100.00(a)
7.753	7.753 (0.943)	127	6235			27.84- 127.84	75.96
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.868	7.868 (0.956)	107	10377	0.50000	0.4864	50.00- 150.00	100.00(a)
7.875	7.875 (0.957)	109	9793			43.24- 143.24	94.37

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
145 Chlorobenzene					CAS #: 108-90-7		
8.255	8.255 (1.003)	112	17741	0.50000	0.5217	50.00- 150.00	100.00
8.255	8.255 (1.003)	114	5075			0.00- 80.38	28.61
8.255	8.255 (1.003)	77	16578			22.37- 122.37	93.44
147 Ethyl Benzene					CAS #: 100-41-4		
8.312	8.312 (1.010)	106	9195	0.50000	0.5384	50.00- 150.00	100.00
8.305	8.305 (1.010)	91	25865			251.89- 351.89	281.29
150 m,p-Xylene					CAS #: 108-38-3		
8.405	8.405 (1.022)	106	10548	0.50000	0.5082	50.00- 150.00	100.00
8.405	8.405 (1.022)	91	20421			145.16- 245.16	193.60
153 o-Xylene					CAS #: 95-47-6		
8.749	8.749 (1.064)	106	10329	0.50000	0.5159	50.00- 150.00	100.00
8.742	8.742 (1.063)	91	19587			142.77- 242.77	189.63
154 Styrene					CAS #: 100-42-5		
8.763	8.763 (1.065)	104	14925	0.50000	0.4984	50.00- 150.00	100.00(a)
8.763	8.763 (1.065)	78	7041			0.00- 97.70	47.18
155 Bromoform					CAS #: 75-25-2		
8.957	8.957 (1.089)	173	7746	0.50000	0.4878	50.00- 150.00	100.00(a)
8.964	8.964 (1.090)	171	3916			1.60- 101.60	50.56
156 Cumene					CAS #: 98-82-8		
9.036	9.036 (1.098)	105	26956	0.50000	0.4882	50.00- 150.00	100.00(a)
9.043	9.043 (1.099)	120	7038			0.00- 77.57	26.11
9.043	9.043 (1.099)	51	2971			0.00- 60.51	11.02
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.351	9.351 (1.137)	83	17077	0.50000	0.5142	50.00- 150.00	100.00
9.351	9.351 (1.137)	85	11014			14.50- 114.50	64.50
162 Propylbenzene					CAS #: 103-65-1		
9.379	9.379 (1.140)	91	35809	0.50000	0.5147	50.00- 150.00	100.00
9.387	9.387 (1.141)	120	8466			0.00- 74.34	23.64
9.394	9.394 (1.142)	105	2305			0.00- 54.72	6.44
163 4-Ethyltoluene					CAS #: 622-96-8		
9.480	9.480 (1.152)	120	9458	0.50000	0.5163	50.00- 150.00	100.00
9.480	9.480 (1.152)	105	30624			271.89- 371.89	323.79
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.537	9.537 (1.159)	120	11928	0.50000	0.5005	50.00- 150.00	100.00
9.530	9.530 (1.158)	105	24457			148.35- 248.35	205.04

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.852 (1.198)	120	9837	0.50000	0.4579	50.00- 150.00	100.00(a)
9.852	9.852 (1.198)	105	20645			154.03- 254.03	209.87
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.132	10.132 (1.232)	146	16981	0.50000	0.5240	50.00- 150.00	100.00
10.132	10.132 (1.232)	148	9739			12.03- 112.03	57.35
10.124	10.124 (1.231)	111	6107			0.00- 89.66	35.96
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.210	10.210 (1.241)	146	16337	0.50000	0.5060	50.00- 150.00	100.00
10.210	10.210 (1.241)	148	10630			14.15- 114.15	65.07
10.210	10.210 (1.241)	111	5832			0.00- 88.67	35.70
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.332	10.332 (1.256)	91	11106	0.50000	0.3949	50.00- 150.00	100.00(a)
10.332	10.332 (1.256)	126	2209			0.00- 71.33	19.89
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.540	10.540 (1.281)	146	14285	0.50000	0.4982	50.00- 150.00	100.00(a)
10.533	10.533 (1.280)	148	9160			14.41- 114.41	64.12
10.540	10.540 (1.281)	111	6061			0.00- 93.23	42.43

QC Flag Legend

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

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060803.d
Lab Smp Id: ICAL level 2
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 2.0ppbv->0.5ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 2
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	215984	2.20
97 1,4-Difluorobenze	797132	478279	1115985	789335	-0.98
144 Chlorobenzene-d5	700417	420250	980584	724561	3.45

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.23	7.90	8.56	8.23	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/msd3.i/08jun10.b/3060803.d

Date : 08-JUN-2010 09:28

Client ID: ICAL level 2

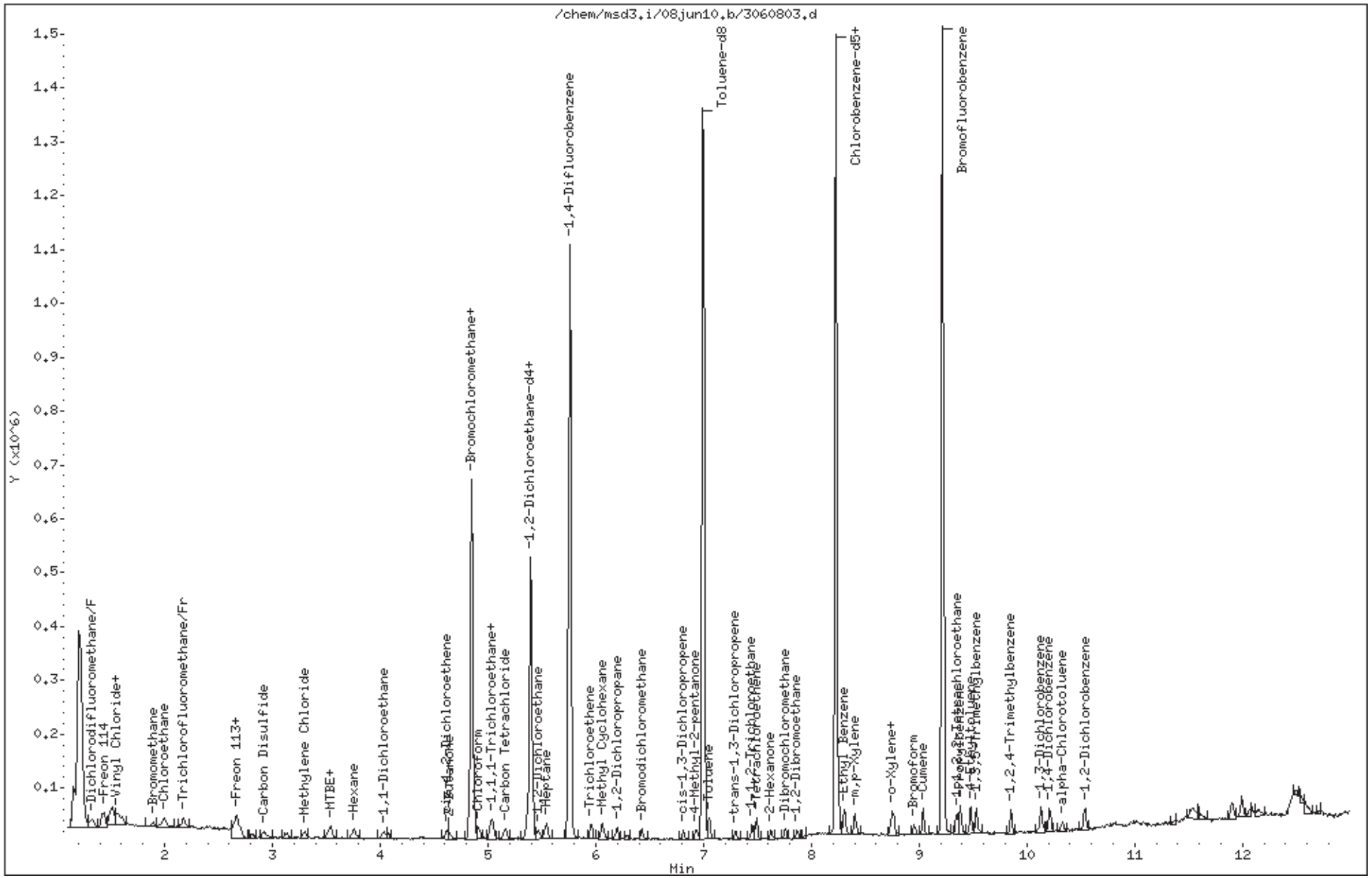
Sample Info: 50mL #1968-7

Column phase: RTx-624

Instrument: msd3.i

Operator: kjj

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060804.d
Lab Smp Id: ICAL level 3 Client Smp ID: ICAL level 3
Inj Date : 08-JUN-2010 09:52
Operator : kjj Inst ID: msd3.i
Smp Info : 2000mL #1968-7
Misc Info : 2.0ppbv->2.0ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:45 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 09:52 Cal File: 3060804.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	224369	25.0000		50.00- 150.00	100.00
4.852	4.852 (1.000)	128	175174			28.59- 128.59	78.07
4.852	4.852 (1.000)	49	339451			100.20- 200.20	151.29
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	803673	25.0000		50.00- 150.00	100.00
5.762	5.762 (1.000)	88	129663			0.00- 66.04	16.13
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.241	8.241 (1.000)	117	714405	25.0000		50.00- 150.00	100.00
8.241	8.241 (1.000)	82	383592			4.21- 104.21	53.69
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	312451	25.0000	24.536	50.00- 150.00	100.00
5.404	5.404 (1.114)	67	168961			5.12- 105.12	54.08
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	790914	25.0000	24.968	50.00- 150.00	100.00
7.001	7.001 (1.215)	70	91066			0.00- 61.58	11.51

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	526256			16.59- 116.59	66.54
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	321627	25.0000	24.546	50.00- 150.00	100.00
9.236	9.236 (1.121)	95	470601			94.79- 194.79	146.32
9.236	9.236 (1.121)	176	309155			46.21- 146.21	96.12
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	20798	2.00000	2.232	50.00- 150.00	100.00
1.311	1.311 (0.270)	42	13868			17.47- 117.47	66.68
1.311	1.311 (0.270)	39	14611			22.71- 122.71	70.25
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	69517	2.00000	2.269	50.00- 150.00	100.00
1.339	1.339 (0.276)	87	23200			0.00- 82.53	33.37
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	47798	2.00000	2.023	50.00- 150.00	100.00
1.437	1.437 (0.296)	137	15406			0.00- 81.75	32.23
11 Chloromethane					CAS #: 74-87-3		
1.521	1.521 (0.313)	50	15964	2.00000	2.438	50.00- 150.00	100.00
1.521	1.521 (0.313)	52	6346			0.00- 87.45	39.75
13 Butane					CAS #: 106-97-8		
1.563	1.563 (0.322)	58	6180	2.00000	2.237	50.00- 150.00	100.00
1.563	1.563 (0.322)	43	45190			699.31- 799.31	731.23
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.591 (0.328)	62	25959	2.00000	2.202	50.00- 150.00	100.00
1.591	1.591 (0.328)	64	11213			0.00- 98.55	43.20
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.619 (0.334)	54	20423	2.00000	2.056	50.00- 150.00	100.00
1.619	1.619 (0.334)	39	23931			73.42- 173.42	117.18
21 Bromomethane					CAS #: 74-83-9		
1.898	1.898 (0.391)	94	23478	2.00000	2.047	50.00- 150.00	100.00
1.898	1.898 (0.391)	96	22139			47.18- 147.18	94.30
24 Chloroethane					CAS #: 75-00-3		
1.982	1.982 (0.409)	64	16062	2.00000	1.900	50.00- 150.00	100.00(a)
1.982	1.982 (0.409)	66	4980			0.00- 79.75	31.00
1.982	1.982 (0.409)	49	3758			0.00- 73.54	23.40

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	37072	2.00000	1.987	50.00- 150.00	100.00(a)
1.996	1.996 (0.411)	57	20966			9.90- 109.90	56.55
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.448)	101	66246	2.00000	2.042	50.00- 150.00	100.00
2.181	2.181 (0.449)	103	44657			14.90- 114.90	67.41
29 Ethanol					CAS #: 64-17-5		
2.403	2.403 (0.495)	45	7881	2.00000	2.046	50.00- 150.00	100.00
2.410	2.410 (0.497)	43	2534			0.00- 77.21	32.15
2.403	2.403 (0.495)	46	3210			0.00- 90.28	40.73
30 Freon 113					CAS #: 76-13-1		
2.675	2.675 (0.551)	151	42153	2.00000	1.998	50.00- 150.00	100.00(a)
2.668	2.668 (0.550)	153	26577			14.42- 114.42	63.05
2.675	2.675 (0.551)	101	55711			85.18- 185.18	132.16
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.711	2.711 (0.559)	96	25120	2.00000	2.082	50.00- 150.00	100.00
2.704	2.704 (0.557)	98	16135			13.83- 113.83	64.23
2.704	2.704 (0.557)	61	41712			114.24- 214.24	166.05
34 Acetone					CAS #: 67-64-1		
2.818	2.818 (0.581)	58	12412	2.00000	2.198	50.00- 150.00	100.00
2.818	2.818 (0.581)	43	46726			309.23- 409.23	376.46
35 Carbon Disulfide					CAS #: 75-15-0		
2.926	2.926 (0.603)	76	69893	2.00000	2.087	50.00- 150.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.954	2.954 (0.609)	45	34833	2.00000	1.882	50.00- 150.00	100.00(a)
2.947	2.947 (0.607)	43	7651			0.00- 71.98	21.96
2.947	2.947 (0.607)	59	986			0.00- 53.32	2.83
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.646)	76	10400	2.00000	1.983	50.00- 150.00	100.00(a)
3.133	3.133 (0.646)	41	31193			248.70- 348.70	299.93
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	30448	2.00000	2.195	50.00- 150.00	100.00
3.298	3.298 (0.680)	84	23697			29.36- 129.36	77.83
3.312	3.312 (0.683)	51	9700			0.00- 85.03	31.86
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.420	3.420 (0.705)	57	659	0.20000	0.1999	50.00- 150.00	100.00(aM)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.398 (0.700)	41	1785			220.86- 320.86	270.86
3.398	3.398 (0.700)	59	6683			964.11-1064.11	1014.11
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	60091	2.00000	1.984	50.00- 150.00	100.00(a)
3.520	3.520 (0.725)	57	14915			0.00- 74.54	24.82
3.520	3.520 (0.725)	41	17399			0.00- 79.30	28.95
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.549	3.549 (0.731)	98	18068	2.00000	2.058	50.00- 150.00	100.00
3.549	3.549 (0.731)	61	39413			166.28- 266.28	218.14
3.549	3.549 (0.731)	96	26270			98.37- 198.37	145.40
51 Hexane					CAS #: 110-54-3		
3.764	3.764 (0.776)	57	37611	2.00000	1.886	50.00- 150.00	100.00(a)
3.756	3.756 (0.774)	43	27877			24.41- 124.41	74.12
3.764	3.764 (0.776)	86	6536			0.00- 66.19	17.38
58 Isopropyl ether					CAS #: 108-20-3		
4.029	4.029 (0.830)	45	13516	0.20000	0.2140	50.00- 150.00	100.00(a)
4.036	4.036 (0.832)	87	3595			0.00- 77.52	26.60
4.036	4.036 (0.832)	59	1430			0.00- 61.25	10.58
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.036	4.036 (0.832)	63	47877	2.00000	2.003	50.00- 150.00	100.00
4.029	4.029 (0.830)	65	15231			0.00- 79.76	31.81
61 Vinyl Acetate					CAS #: 108-05-4		
4.072	4.072 (0.839)	86	5885	2.00000	1.944	50.00- 150.00	100.00(a)
4.072	4.072 (0.839)	43	71687			1162.89-1262.89	1218.13
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	6807	0.20000	0.2009	50.00- 150.00	100.00(a)
4.387	4.387 (0.904)	87	2938			0.00- 90.81	43.16
4.387	4.387 (0.904)	41	3352			0.00- 87.46	49.24
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	15735	2.00000	2.000	50.00- 150.00	100.00
4.616	4.616 (0.951)	96	25823			110.10- 210.10	164.11
4.623	4.623 (0.953)	61	34088			160.44- 260.44	216.64
74 2-Butanone					CAS #: 78-93-3		
4.645	4.645 (0.957)	72	11032	2.00000	1.778	50.00- 150.00	100.00(a)
4.645	4.645 (0.957)	43	54162			386.85- 486.85	490.95
4.645	4.645 (0.957)	57	4047			0.00- 81.20	36.68

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.852	4.852 (1.000)	42	29360	2.00000	1.819	50.00- 150.00	100.00(a)
4.852	4.852 (1.000)	71	10032			0.00- 83.26	34.17
4.852	4.852 (1.000)	72	10730			0.00- 85.57	36.55
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	52264	2.00000	2.046	50.00- 150.00	100.00
4.924	4.924 (1.015)	85	34109			15.67- 115.67	65.26
80 Cyclohexane					CAS #: 110-82-7		
5.032	5.032 (1.037)	84	32472	2.00000	1.882	50.00- 150.00	100.00(a)
5.032	5.032 (1.037)	56	40349			69.71- 169.71	124.26
5.032	5.032 (1.037)	41	25966			27.89- 127.89	79.96
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	45725	2.00000	1.986	50.00- 150.00	100.00(a)
5.046	5.046 (1.040)	99	29877			17.01- 117.01	65.34
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.063)	119	43227	2.00000	1.943	50.00- 150.00	100.00(a)
5.168	5.168 (1.065)	117	44428			51.89- 151.89	102.78
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.375	5.375 (1.108)	57	122471	2.00000	2.002	50.00- 150.00	100.00
5.375	5.375 (1.108)	56	42007			0.00- 84.66	34.30
5.375	5.375 (1.108)	41	34809			0.00- 79.17	28.42
88 Benzene					CAS #: 71-43-2		
5.382	5.382 (0.934)	78	79052	2.00000	2.058	50.00- 150.00	100.00
5.382	5.382 (0.934)	77	19112			0.00- 74.67	24.18
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.461	5.461 (1.125)	73	5146	0.20000	0.1944	50.00- 150.00	100.00(a)
5.461	5.461 (1.125)	87	1268			0.00- 73.01	24.64
5.454	5.454 (1.124)	55	2671			0.00- 93.14	51.90
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	34683	2.00000	2.093	50.00- 150.00	100.00
5.468	5.468 (0.949)	64	11071			0.00- 83.70	31.92
94 Heptane					CAS #: 142-82-5		
5.547	5.547 (0.963)	71	26138	2.00000	1.963	50.00- 150.00	100.00(a)
5.547	5.547 (0.963)	43	52027			141.90- 241.90	199.05
5.540	5.540 (0.961)	57	23709			44.23- 144.23	90.71
102 Trichloroethene					CAS #: 79-01-6		
5.963	5.963 (1.035)	95	29956	2.00000	1.995	50.00- 150.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.963	5.963 (1.035)	130	32054			54.30- 154.30	107.00
5.963	5.963 (1.035)	97	18830			14.95- 114.95	62.86
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	40503	2.00000	1.864	50.00- 150.00	100.00(a)
6.063	6.063 (1.249)	98	20231			0.00- 97.56	49.95
6.063	6.063 (1.249)	55	35689			34.55- 134.55	88.11
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	27564	2.00000	2.024	50.00- 150.00	100.00
6.199	6.199 (1.076)	62	19949			25.12- 125.12	72.37
6.192	6.192 (1.075)	41	17242			17.00- 117.00	62.55
107 1,4-Dioxane					CAS #: 123-91-1		
6.292	6.292 (1.092)	88	13263	2.00000	1.833	50.00- 150.00	100.00(a)
6.292	6.292 (1.092)	58	10581			27.57- 127.57	79.78
6.292	6.292 (1.092)	57	3592			0.00- 75.54	27.08
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	42295	2.00000	1.957	50.00- 150.00	100.00(a)
6.428	6.428 (1.116)	85	26171			14.29- 114.29	61.88
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	30587	2.00000	1.878	50.00- 150.00	100.00(a)
6.815	6.815 (1.183)	77	9661			0.00- 81.38	31.59
6.815	6.815 (1.183)	39	18319			7.49- 107.49	59.89
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.937	6.937 (1.204)	58	15907	2.00000	1.674	50.00- 150.00	100.00(a)
6.937	6.937 (1.204)	43	51008			238.56- 338.56	320.66
6.937	6.937 (1.204)	85	6803			0.00- 88.17	42.77
116 Toluene					CAS #: 108-88-3		
7.059	7.059 (1.225)	91	83416	2.00000	2.013	50.00- 150.00	100.00
7.059	7.059 (1.225)	92	47195			8.66- 108.66	56.58
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	30597	2.00000	1.949	50.00- 150.00	100.00(a)
7.302	7.302 (0.886)	77	10356			0.00- 83.98	33.85
7.302	7.302 (0.886)	39	16845			6.49- 106.49	55.05
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.460	7.460 (0.905)	97	28249	2.00000	2.013	50.00- 150.00	100.00
7.460	7.460 (0.905)	99	17829			11.60- 111.60	63.11
7.460	7.460 (0.905)	83	24354			36.94- 136.94	86.21

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.496	7.496 (0.910)	166	36902	2.00000	2.000	50.00- 150.00	100.00
7.496	7.496 (0.910)	129	27873			23.51- 123.51	75.53
7.496	7.496 (0.910)	131	25977			22.61- 122.61	70.39
135 2-Hexanone					CAS #: 591-78-6		
7.632	7.632 (0.926)	58	22115	2.00000	1.780	50.00- 150.00	100.00(a)
7.632	7.632 (0.926)	43	46090			153.37- 253.37	208.41
7.632	7.632 (0.926)	100	3693			0.00- 68.45	16.70
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	35659	2.00000	1.924	50.00- 150.00	100.00(a)
7.768	7.768 (0.943)	127	28263			27.84- 127.84	79.26
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	43409	2.00000	2.064	50.00- 150.00	100.00
7.882	7.882 (0.957)	109	39063			43.24- 143.24	89.99
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	68049	2.00000	2.029	50.00- 150.00	100.00
8.262	8.262 (1.003)	114	20679			0.00- 80.38	30.39
8.262	8.262 (1.003)	77	45131			22.37- 122.37	66.32
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	31992	2.00000	1.900	50.00- 150.00	100.00(a)
8.319	8.319 (1.010)	91	102123			251.89- 351.89	319.21
150 m,p-Xylene					CAS #: 108-38-3		
8.420	8.420 (1.022)	106	40708	2.00000	1.989	50.00- 150.00	100.00(a)
8.420	8.420 (1.022)	91	80976			145.16- 245.16	198.92
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	38767	2.00000	1.964	50.00- 150.00	100.00(a)
8.763	8.763 (1.063)	91	72620			142.77- 242.77	187.32
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	54719	2.00000	1.853	50.00- 150.00	100.00(a)
8.778	8.778 (1.065)	78	26200			0.00- 97.70	47.88
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	25827	2.00000	1.650	50.00- 150.00	100.00(a)
8.971	8.971 (1.089)	171	13437			1.60- 101.60	52.03
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	109381	2.00000	2.009	50.00- 150.00	100.00
9.050	9.050 (1.098)	120	30433			0.00- 77.57	27.82

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.050	9.050 (1.098)	51	10951			0.00- 60.51	10.01
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	66671	2.00000	2.036	50.00- 150.00	100.00
9.365	9.365 (1.136)	85	43400			14.50- 114.50	65.10
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	133976	2.00000	1.953	50.00- 150.00	100.00(a)
9.401	9.401 (1.141)	120	33638			0.00- 74.34	25.11
9.401	9.401 (1.141)	105	5431			0.00- 54.72	4.05
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	34702	2.00000	1.921	50.00- 150.00	100.00(a)
9.494	9.494 (1.152)	105	112931			271.89- 371.89	325.43
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	41340	2.00000	1.952	50.00- 150.00	100.00(a)
9.874	9.874 (1.198)	105	80198			154.03- 254.03	194.00
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	62917	2.00000	1.969	50.00- 150.00	100.00(a)
10.153	10.153 (1.232)	148	39871			12.03- 112.03	63.37
10.146	10.146 (1.231)	111	26373			0.00- 89.66	41.92
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	63436	2.00000	1.993	50.00- 150.00	100.00(a)
10.232	10.232 (1.242)	148	39910			14.15- 114.15	62.91
10.232	10.232 (1.242)	111	26360			0.00- 88.67	41.55
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.354	10.354 (1.256)	91	39888	2.00000	1.438	50.00- 150.00	100.00(a)
10.354	10.354 (1.256)	126	8646			0.00- 71.33	21.68
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.561	10.561 (1.282)	146	55652	2.00000	1.968	50.00- 150.00	100.00(a)
10.561	10.561 (1.282)	148	35998			14.41- 114.41	64.68
10.554	10.554 (1.281)	111	25070			0.00- 93.23	45.05
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.930	11.930 (1.448)	180	30097	2.00000	1.697	50.00- 150.00	100.00(a)
11.930	11.930 (1.448)	182	29207			46.08- 146.08	97.04

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.023	12.023 (1.459)	225	19910	2.00000	1.876	50.00- 150.00	100.00(a)
12.023	12.023 (1.459)	223	12694			13.14- 113.14	63.76
176 Naphthalene					CAS #: 91-20-3		
12.173	12.173 (1.477)	128	20059	0.20000	0.2157	50.00- 150.00	100.00(a)
12.187	12.187 (1.479)	127	3628			0.00- 65.37	18.09

QC Flag Legend

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

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060804.d
Lab Smp Id: ICAL level 3
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 2.0ppbv->2.0ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 3
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	224369	6.16
97 1,4-Difluorobenze	797132	478279	1115985	803673	0.82
144 Chlorobenzene-d5	700417	420250	980584	714405	2.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.23	7.90	8.56	8.24	0.17

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/msd3.i/08jun10.b/3060804.d

Date : 08-JUN-2010 09:52

Client ID: ICAL level 3

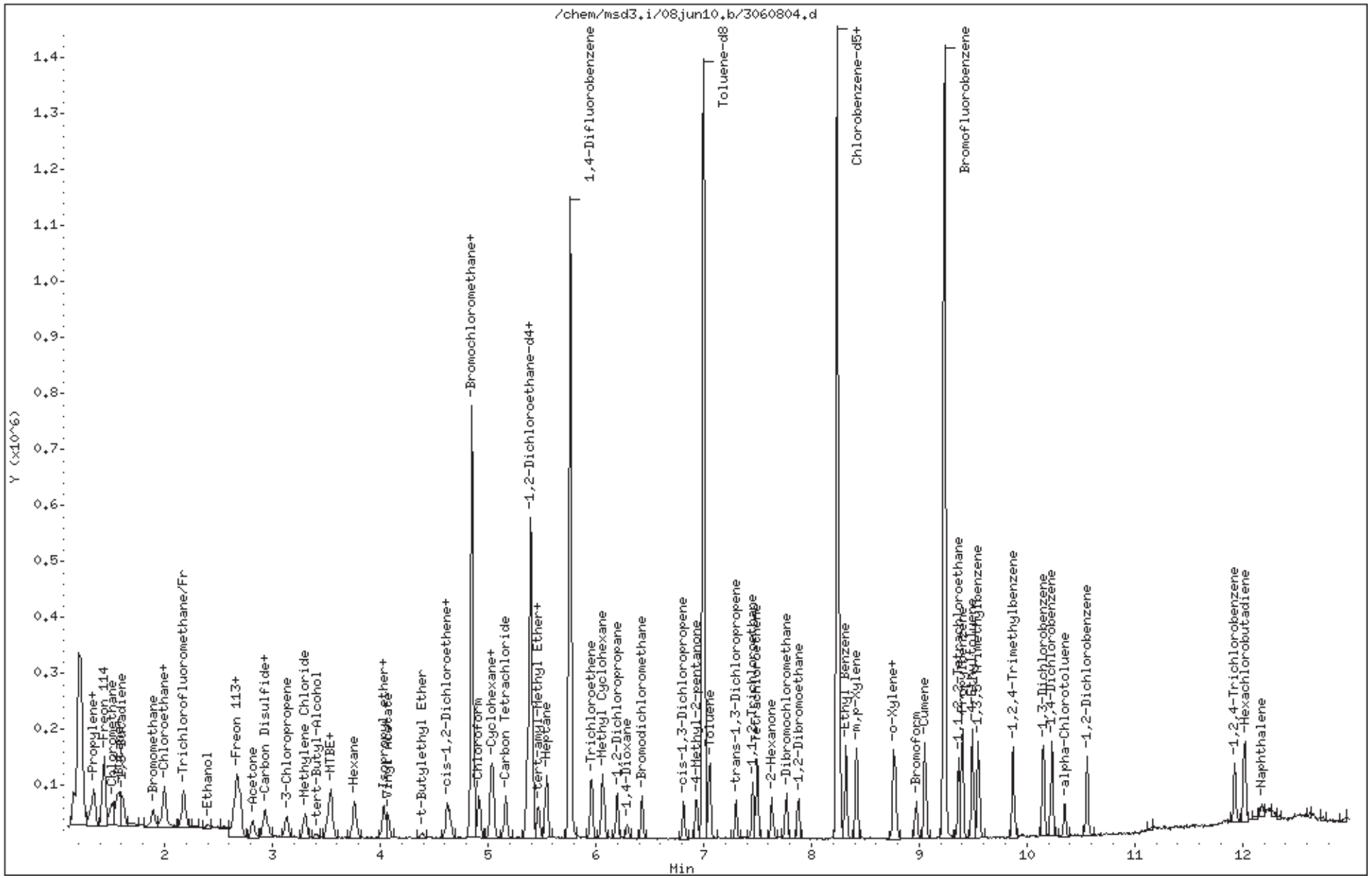
Sample Info: 2000mL #1968-7

Column phase: RTx-624

Instrument: msd3.i

Operator: kjj

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060805.d
Lab Smp Id: ICAL level 4 Client Smp ID: ICAL level 4
Inj Date : 08-JUN-2010 10:26
Operator : kjj Inst ID: msd3.i
Smp Info : 25mL #1968-53
Misc Info : 200ppbv->25ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:48 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 10:26 Cal File: 3060805.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.831	4.831 (1.000)	130	207714	25.0000		50.00- 150.00	100.00
4.831	4.831 (1.000)	128	162312			28.50- 128.50	78.14
4.831	4.831 (1.000)	49	317979			100.78- 200.78	153.08
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.740	5.740 (1.000)	114	756579	25.0000		50.00- 150.00	100.00
5.740	5.740 (1.000)	88	121861			0.00- 66.05	16.11
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.219	8.219 (1.000)	117	648971	25.0000		50.00- 150.00	100.00
8.219	8.219 (1.000)	82	350574			4.17- 104.17	54.02
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.375	5.375 (1.113)	65	292857	25.0000	24.873	50.00- 150.00	100.00
5.375	5.375 (1.113)	67	168531			5.61- 105.61	57.55
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.980	6.980 (1.216)	98	732291	25.0000	24.644	50.00- 150.00	100.00
6.980	6.980 (1.216)	70	84156			0.00- 61.56	11.49

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.980	6.980 (1.216)	100	494292			16.77- 116.77	67.50
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.215	9.215 (1.121)	174	305087	25.0000	25.502	50.00- 150.00	100.00
9.215	9.215 (1.121)	95	440246			94.69- 194.69	144.30
9.215	9.215 (1.121)	176	294016			46.24- 146.24	96.37
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.271)	41	210987	25.0000	24.638	50.00- 150.00	100.00
1.311	1.311 (0.271)	42	142819			17.54- 117.54	67.69
1.311	1.311 (0.271)	39	164199			24.41- 124.41	77.82
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.325	1.325 (0.274)	85	750171	25.0000	26.072	50.00- 150.00	100.00
1.325	1.325 (0.274)	87	238812			0.00- 82.35	31.83
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.297)	135	573572	25.0000	25.904	50.00- 150.00	100.00
1.437	1.437 (0.297)	137	181517			0.00- 81.72	31.65
11 Chloromethane					CAS #: 74-87-3		
1.478	1.478 (0.306)	50	151133	25.0000	24.958	50.00- 150.00	100.00
1.478	1.478 (0.306)	52	50532			0.00- 86.11	33.44
13 Butane					CAS #: 106-97-8		
1.562	1.562 (0.323)	58	64319	25.0000	25.102	50.00- 150.00	100.00
1.562	1.562 (0.323)	43	473572			694.97- 794.97	736.28
14 Vinyl Chloride					CAS #: 75-01-4		
1.576	1.576 (0.326)	62	283497	25.0000	25.724	50.00- 150.00	100.00
1.576	1.576 (0.326)	64	91412			0.00- 94.47	32.24
15 1,3-Butadiene					CAS #: 106-99-0		
1.604	1.604 (0.332)	54	220347	25.0000	24.211	50.00- 150.00	100.00
1.604	1.604 (0.332)	39	265515			72.69- 172.69	120.50
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.390)	94	254914	25.0000	24.246	50.00- 150.00	100.00
1.884	1.884 (0.390)	96	239186			46.34- 146.34	93.83
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.407)	64	161194	25.0000	21.546	50.00- 150.00	100.00
1.968	1.968 (0.407)	66	49367			0.00- 79.97	30.63
1.954	1.954 (0.405)	49	41315			0.00- 74.06	25.63

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.413)	43	455107	25.0000	25.881	50.00- 150.00	100.00
1.996	1.996 (0.413)	57	297383			11.71- 111.71	65.34
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.166	2.166 (0.448)	101	776347	25.0000	25.636	50.00- 150.00	100.00
2.166	2.166 (0.448)	103	499687			14.76- 114.76	64.36
29 Ethanol					CAS #: 64-17-5		
2.374	2.374 (0.491)	45	101358	25.0000	27.182	50.00- 150.00	100.00
2.381	2.381 (0.493)	43	23893			0.00- 76.00	23.57
2.374	2.374 (0.491)	46	42679			0.00- 90.89	42.11
30 Freon 113					CAS #: 76-13-1		
2.660	2.660 (0.551)	151	496502	25.0000	25.320	50.00- 150.00	100.00
2.653	2.653 (0.549)	153	314803			14.17- 114.17	63.40
2.653	2.653 (0.549)	101	661898			84.71- 184.71	133.31
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.682	2.682 (0.555)	96	282046	25.0000	25.187	50.00- 150.00	100.00
2.689	2.689 (0.557)	98	180576			13.88- 113.88	64.02
2.682	2.682 (0.555)	61	469810			114.82- 214.82	166.57
34 Acetone					CAS #: 67-64-1		
2.789	2.789 (0.577)	58	134647	25.0000	25.500	50.00- 150.00	100.00
2.796	2.796 (0.579)	43	447393			300.25- 400.25	332.27
35 Carbon Disulfide					CAS #: 75-15-0		
2.904	2.904 (0.601)	76	791598	25.0000	25.400	50.00- 150.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.925	2.925 (0.606)	45	482498	25.0000	27.018	50.00- 150.00	100.00
2.925	2.925 (0.606)	43	109716			0.00- 72.23	22.74
2.925	2.925 (0.606)	59	18853			0.00- 53.52	3.91
41 3-Chloropropene					CAS #: 107-05-1		
3.112	3.112 (0.644)	76	134931	25.0000	26.793	50.00- 150.00	100.00
3.112	3.112 (0.644)	41	395703			246.89- 346.89	293.26
43 Methylene Chloride					CAS #: 75-09-2		
3.276	3.276 (0.678)	49	332265	25.0000	25.647	50.00- 150.00	100.00
3.276	3.276 (0.678)	84	253224			28.57- 128.57	76.21
3.276	3.276 (0.678)	51	101425			0.00- 83.90	30.53
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.398	3.398 (0.703)	57	5423	2.50000	1.966	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.384	3.384 (0.700)	41	22817			220.86- 320.86	420.73
3.384	3.384 (0.700)	59	76491			964.11-1064.11	1410.43
47 MTBE					CAS #: 1634-04-4		
3.498	3.498 (0.724)	73	716387	25.0000	25.414	50.00- 150.00	100.00
3.498	3.498 (0.724)	57	165832			0.00- 74.19	23.15
3.498	3.498 (0.724)	41	192097			0.00- 78.68	26.81
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.527	3.527 (0.730)	98	195953	25.0000	24.325	50.00- 150.00	100.00
3.527	3.527 (0.730)	61	458041			170.65- 270.65	233.75
3.527	3.527 (0.730)	96	309058			100.70- 200.70	157.72
51 Hexane					CAS #: 110-54-3		
3.742	3.742 (0.775)	57	504040	25.0000	26.682	50.00- 150.00	100.00
3.742	3.742 (0.775)	43	349948			23.16- 123.16	69.43
3.735	3.735 (0.773)	86	83727			0.00- 66.30	16.61
58 Isopropyl ether					CAS #: 108-20-3		
4.007	4.007 (0.829)	45	142359	2.50000	2.456	50.00- 150.00	100.00
4.000	4.000 (0.828)	87	41353			0.00- 78.03	29.05
4.007	4.007 (0.829)	59	16570			0.00- 61.38	11.64
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.014	4.014 (0.831)	63	606023	25.0000	26.746	50.00- 150.00	100.00
4.014	4.014 (0.831)	65	187749			0.00- 80.06	30.98
61 Vinyl Acetate					CAS #: 108-05-4		
4.050	4.050 (0.838)	86	77477	25.0000	26.704	50.00- 150.00	100.00
4.050	4.050 (0.838)	43	926359			1157.14-1257.14	1195.64
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.365	4.365 (0.904)	59	84373	2.50000	2.624	50.00- 150.00	100.00
4.365	4.365 (0.904)	87	32847			0.00- 90.19	38.93
4.358	4.358 (0.902)	41	20584			0.00- 83.11	24.40
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.594	4.594 (0.951)	98	190352	25.0000	25.847	50.00- 150.00	100.00
4.594	4.594 (0.951)	96	301030			109.61- 209.61	158.14
4.594	4.594 (0.951)	61	416285			162.50- 262.50	218.69
74 2-Butanone					CAS #: 78-93-3		
4.623	4.623 (0.957)	72	158013	25.0000	26.841	50.00- 150.00	100.00
4.623	4.623 (0.957)	43	702107			388.72- 488.72	444.33
4.623	4.623 (0.957)	57	50822			0.00- 81.44	32.16

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.824	4.824 (0.998)	42	385897	25.0000	25.616	50.00- 150.00	100.00
4.824	4.824 (0.998)	71	134269			0.00- 83.64	34.79
4.824	4.824 (0.998)	72	143924			0.00- 86.00	37.30
78 Chloroform					CAS #: 67-66-3		
4.895	4.895 (1.013)	83	597775	25.0000	25.209	50.00- 150.00	100.00
4.895	4.895 (1.013)	85	390813			15.60- 115.60	65.38
80 Cyclohexane					CAS #: 110-82-7		
5.010	5.010 (1.037)	84	398235	25.0000	24.945	50.00- 150.00	100.00
5.010	5.010 (1.037)	56	480923			69.98- 169.98	120.76
5.010	5.010 (1.037)	41	291343			26.71- 126.71	73.16
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.024	5.024 (1.040)	97	552709	25.0000	25.692	50.00- 150.00	100.00
5.024	5.024 (1.040)	99	357939			16.45- 116.45	64.76
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.139	5.139 (1.064)	119	545288	25.0000	26.094	50.00- 150.00	100.00
5.146	5.146 (1.065)	117	572460			52.66- 152.66	104.98
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.346	5.346 (1.107)	57	1456284	25.0000	25.533	50.00- 150.00	100.00
5.346	5.346 (1.107)	56	487495			0.00- 84.37	33.48
5.346	5.346 (1.107)	41	404807			0.00- 78.83	27.80
88 Benzene					CAS #: 71-43-2		
5.361	5.361 (0.934)	78	948725	25.0000	25.917	50.00- 150.00	100.00
5.361	5.361 (0.934)	77	224998			0.00- 74.44	23.72
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.432	5.432 (1.125)	73	80329	2.50000	2.970	50.00- 150.00	100.00
5.440	5.440 (1.126)	87	16532			0.00- 72.20	20.58
5.432	5.432 (1.125)	55	25199			0.00- 89.22	31.37
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.447	5.447 (0.949)	62	419524	25.0000	26.391	50.00- 150.00	100.00
5.447	5.447 (0.949)	64	138471			0.00- 83.52	33.01
94 Heptane					CAS #: 142-82-5		
5.526	5.526 (0.963)	71	350393	25.0000	27.152	50.00- 150.00	100.00
5.526	5.526 (0.963)	43	668072			141.59- 241.59	190.66
5.526	5.526 (0.963)	57	326162			43.94- 143.94	93.08
102 Trichloroethene					CAS #: 79-01-6		
5.941	5.941 (1.035)	95	379110	25.0000	26.342	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.941	5.941 (1.035)	130	387865			53.80- 153.80	102.31
5.941	5.941 (1.035)	97	246661			14.98- 114.98	65.06
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.048	6.048 (1.252)	83	522443	25.0000	25.727	50.00- 150.00	100.00
6.048	6.048 (1.252)	98	243997			0.00- 97.35	46.70
6.048	6.048 (1.252)	55	441519			34.54- 134.54	84.51
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.177	6.177 (1.076)	63	352457	25.0000	26.825	50.00- 150.00	100.00
6.177	6.177 (1.076)	62	252450			24.24- 124.24	71.63
6.177	6.177 (1.076)	41	210155			15.16- 115.16	59.63
107 1,4-Dioxane					CAS #: 123-91-1		
6.271	6.271 (1.092)	88	195923	25.0000	27.391	50.00- 150.00	100.00
6.271	6.271 (1.092)	58	146940			26.71- 126.71	75.00
6.271	6.271 (1.092)	57	48200			0.00- 75.23	24.60
109 Bromodichloromethane					CAS #: 75-27-4		
6.414	6.414 (1.117)	83	599682	25.0000	28.216	50.00- 150.00	100.00
6.414	6.414 (1.117)	85	390534			14.50- 114.50	65.12
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.793	6.793 (1.183)	75	451708	25.0000	28.198	50.00- 150.00	100.00
6.793	6.793 (1.183)	77	140422			0.00- 81.31	31.09
6.793	6.793 (1.183)	39	246694			6.77- 106.77	54.61
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.915	6.915 (1.205)	58	259737	25.0000	27.905	50.00- 150.00	100.00
6.915	6.915 (1.205)	43	757719			239.35- 339.35	291.72
6.915	6.915 (1.205)	85	104167			0.00- 88.65	40.11
116 Toluene					CAS #: 108-88-3		
7.037	7.037 (1.226)	91	1004926	25.0000	25.568	50.00- 150.00	100.00
7.037	7.037 (1.226)	92	586384			8.59- 108.59	58.35
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.280	7.280 (0.886)	75	449442	25.0000	29.585	50.00- 150.00	100.00
7.280	7.280 (0.886)	77	142581			0.00- 83.42	31.72
7.280	7.280 (0.886)	39	239888			5.71- 105.71	53.37
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.438	7.438 (0.905)	97	350830	25.0000	26.848	50.00- 150.00	100.00
7.438	7.438 (0.905)	99	216061			11.60- 111.60	61.59
7.438	7.438 (0.905)	83	306704			37.06- 137.06	87.42

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.481	7.481 (0.910)	166	435443	25.0000	25.729	50.00- 150.00	100.00
7.474	7.474 (0.909)	129	329050			24.02- 124.02	75.57
7.474	7.474 (0.909)	131	324355			23.08- 123.08	74.49
135 2-Hexanone					CAS #: 591-78-6		
7.610	7.610 (0.926)	58	357589	25.0000	29.704	50.00- 150.00	100.00
7.610	7.610 (0.926)	43	736501			154.02- 254.02	205.96
7.610	7.610 (0.926)	100	70798			0.00- 68.79	19.80
138 Dibromochloromethane					CAS #: 124-48-1		
7.746	7.746 (0.942)	129	549302	25.0000	30.320	50.00- 150.00	100.00
7.746	7.746 (0.942)	127	421132			27.55- 127.55	76.67
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.861	7.861 (0.956)	107	526668	25.0000	26.875	50.00- 150.00	100.00
7.861	7.861 (0.956)	109	501072			43.72- 143.72	95.14
145 Chlorobenzene					CAS #: 108-90-7		
8.240	8.240 (1.003)	112	796400	25.0000	25.850	50.00- 150.00	100.00
8.240	8.240 (1.003)	114	252622			0.00- 80.72	31.72
8.240	8.240 (1.003)	77	456513			18.61- 118.61	57.32
147 Ethyl Benzene					CAS #: 100-41-4		
8.298	8.298 (1.010)	106	404847	25.0000	26.083	50.00- 150.00	100.00
8.298	8.298 (1.010)	91	1228012			252.25- 352.25	303.33
150 m,p-Xylene					CAS #: 108-38-3		
8.398	8.398 (1.022)	106	502373	25.0000	26.488	50.00- 150.00	100.00
8.398	8.398 (1.022)	91	944152			143.35- 243.35	187.94
153 o-Xylene					CAS #: 95-47-6		
8.742	8.742 (1.064)	106	470412	25.0000	25.912	50.00- 150.00	100.00
8.742	8.742 (1.064)	91	945927			144.85- 244.85	201.08
154 Styrene					CAS #: 100-42-5		
8.763	8.763 (1.066)	104	777207	25.0000	27.870	50.00- 150.00	100.00
8.756	8.756 (1.065)	78	365519			0.00- 97.53	47.03
155 Bromoform					CAS #: 75-25-2		
8.949	8.949 (1.089)	173	453720	25.0000	29.844	50.00- 150.00	100.00
8.949	8.949 (1.089)	171	233172			1.55- 101.55	51.39
156 Cumene					CAS #: 98-82-8		
9.028	9.028 (1.098)	105	1333054	25.0000	26.438	50.00- 150.00	100.00
9.035	9.035 (1.099)	120	385603			0.00- 77.91	28.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.028	9.028 (1.098)	51	138793			0.00- 60.48	10.41
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.343	9.343 (1.137)	83	761868	25.0000	25.456	50.00- 150.00	100.00
9.343	9.343 (1.137)	85	492856			14.55- 114.55	64.69
162 Propylbenzene					CAS #: 103-65-1		
9.379	9.379 (1.141)	91	1636082	25.0000	25.930	50.00- 150.00	100.00
9.379	9.379 (1.141)	120	398800			0.00- 74.35	24.38
9.379	9.379 (1.141)	105	60084			0.00- 54.46	3.67
163 4-Ethyltoluene					CAS #: 622-96-8		
9.472	9.472 (1.153)	120	438829	25.0000	26.287	50.00- 150.00	100.00
9.472	9.472 (1.153)	105	1370129			269.47- 369.47	312.22
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.530	9.530 (1.159)	120	579457	25.0000	26.687	50.00- 150.00	100.00
9.530	9.530 (1.159)	105	1085086			146.13- 246.13	187.26
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.852 (1.199)	120	518899	25.0000	26.551	50.00- 150.00	100.00
9.852	9.852 (1.199)	105	1030695			152.95- 252.95	198.63
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.131	10.131 (1.233)	146	717404	25.0000	24.788	50.00- 150.00	100.00
10.131	10.131 (1.233)	148	458179			12.49- 112.49	63.87
10.124	10.124 (1.232)	111	297274			0.00- 90.11	41.44
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.210	10.210 (1.242)	146	721853	25.0000	24.973	50.00- 150.00	100.00
10.210	10.210 (1.242)	148	460345			14.06- 114.06	63.77
10.210	10.210 (1.242)	111	284494			0.00- 88.86	39.41
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.325	10.325 (1.256)	91	925227	25.0000	32.872	50.00- 150.00	100.00
10.325	10.325 (1.256)	126	201664			0.00- 71.45	21.80
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.533	10.533 (1.282)	146	652445	25.0000	25.302	50.00- 150.00	100.00
10.533	10.533 (1.282)	148	420640			14.43- 114.43	64.47
10.533	10.533 (1.282)	111	279906			0.00- 93.15	42.90
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.901	11.901 (1.448)	180	421487	25.0000	25.767	50.00- 150.00	100.00
11.901	11.901 (1.448)	182	396408			45.40- 145.40	94.05

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
11.994	11.994 (1.459)	225	243509	25.0000	25.170	50.00- 150.00	100.00
11.994	11.994 (1.459)	223	150525			12.70- 112.70	61.82
176 Naphthalene					CAS #: 91-20-3		
12.151	12.151 (1.478)	128	183630	2.50000	2.273	50.00- 150.00	100.00
12.151	12.151 (1.478)	127	23391			0.00- 64.50	12.74

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060805.d
Lab Smp Id: ICAL level 4
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->25ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 4
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	207714	-1.72
97 1,4-Difluorobenze	797132	478279	1115985	756579	-5.09
144 Chlorobenzene-d5	700417	420250	980584	648971	-7.35

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.83	-0.45
97 1,4-Difluorobenze	5.76	5.43	6.09	5.74	-0.38
144 Chlorobenzene-d5	8.23	7.90	8.56	8.22	-0.09

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/msd3.i/08jun10.b/3060805.d

Date : 08-JUN-2010 10:26

Client ID: ICAL level 4

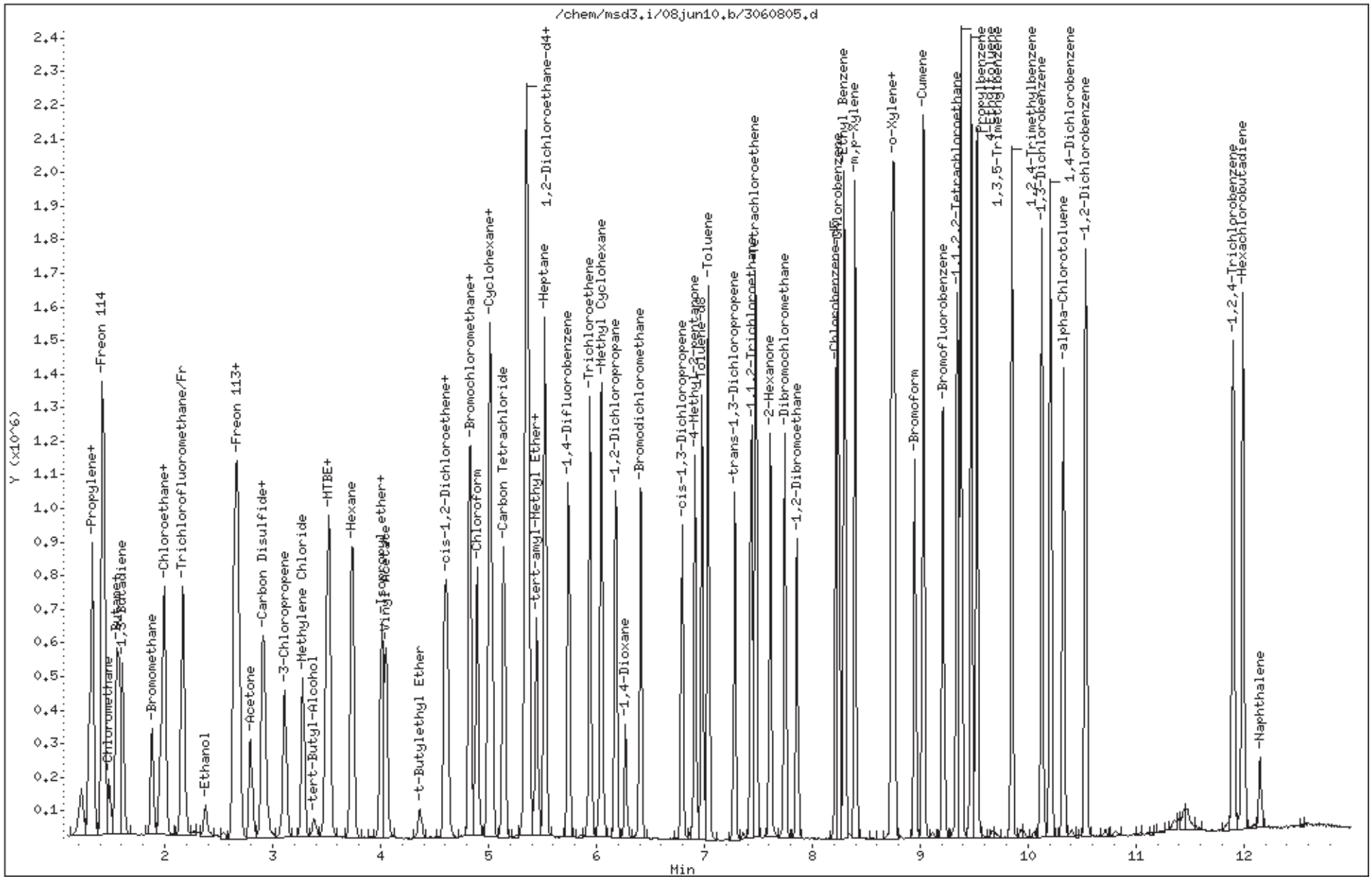
Sample Info: 25mL #1968-53

Column phase: RTx-624

Instrument: msd3.i

Operator: kjj

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060806.d
Lab Smp Id: ICAL level 5 Client Smp ID: ICAL level 5
Inj Date : 08-JUN-2010 10:50
Operator : kjj Inst ID: msd3.i
Smp Info : 50mL #1968-53
Misc Info : 200ppbv->50ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:36 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 10:50 Cal File: 3060806.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	211343	25.0000		80.00- 120.00	100.00
4.852	4.852 (1.000)	128	166062			28.57- 128.57	78.57
4.845	4.845 (1.000)	49	316854			99.92- 199.92	149.92
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	797132	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	127740			0.00- 66.02	16.02
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.226	8.226 (1.000)	117	700417	25.0000		80.00- 120.00	100.00
8.226	8.226 (1.000)	82	383124			4.70- 104.70	54.70
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	309363	25.0000	25.000	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	184151			9.53- 109.53	59.53
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.994	6.994 (1.214)	98	798419	25.0000	25.000	80.00- 120.00	100.00
6.994	6.994 (1.214)	70	90513			0.00- 61.34	11.34

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.994	6.994 (1.214)	100	534562			16.95- 116.95	66.95
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.222	9.222 (1.121)	174	343467	25.0000	25.000	80.00- 120.00	100.00
9.215	9.215 (1.120)	95	476895			88.85- 188.85	138.85
9.222	9.222 (1.121)	176	333862			47.20- 147.20	97.20
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	387861	50.0000	50.000	80.00- 120.00	100.00
1.311	1.311 (0.270)	42	264768			18.26- 118.26	68.26
1.311	1.311 (0.270)	39	291540			25.17- 125.17	75.17
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1255152	50.0000	50.000	80.00- 120.00	100.00
1.339	1.339 (0.276)	87	407741			0.00- 82.49	32.49
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	1028339	50.0000	50.000	80.00- 120.00	100.00
1.437	1.437 (0.296)	137	335148			0.00- 82.59	32.59
11 Chloromethane					CAS #: 74-87-3		
1.493	1.493 (0.308)	50	240719	50.0000	50.000	80.00- 120.00	100.00
1.493	1.493 (0.308)	52	84622			0.00- 85.15	35.15
13 Butane					CAS #: 106-97-8		
1.563	1.563 (0.322)	58	114646	50.0000	50.000	80.00- 120.00	100.00
1.563	1.563 (0.322)	43	879789			717.39- 817.39	767.39
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.591 (0.328)	62	490492	50.0000	50.000	80.00- 120.00	100.00
1.591	1.591 (0.328)	64	158281			0.00- 82.27	32.27
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.619 (0.334)	54	431159	50.0000	50.000	80.00- 120.00	100.00
1.605	1.605 (0.331)	39	488785			63.37- 163.37	113.37
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.388)	94	442262	50.0000	50.000	80.00- 120.00	100.00
1.884	1.884 (0.388)	96	419723			44.90- 144.90	94.90
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	306359	50.0000	50.000	80.00- 120.00	100.00
1.968	1.968 (0.406)	66	85314			0.00- 77.85	27.85
1.968	1.968 (0.406)	49	68307			0.00- 72.30	22.30

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	884684	50.0000	50.000	80.00- 120.00	100.00
1.996	1.996 (0.411)	57	559448			13.24- 113.24	63.24
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.448)	101	1429005	50.0000	50.000	80.00- 120.00	100.00
2.173	2.173 (0.448)	103	920283			14.40- 114.40	64.40
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.492)	45	177246	50.0000	50.000	80.00- 120.00	100.00
2.388	2.388 (0.492)	43	39454			0.00- 72.26	22.26
2.388	2.388 (0.492)	46	70586			0.00- 89.82	39.82
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	949006	50.0000	50.000	80.00- 120.00	100.00
2.668	2.668 (0.550)	153	607302			13.99- 113.99	63.99
2.668	2.668 (0.550)	101	1255797			82.33- 182.33	132.33
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.696	2.696 (0.556)	96	519512	50.0000	50.000	80.00- 120.00	100.00
2.704	2.704 (0.557)	98	331614			13.83- 113.83	63.83
2.704	2.704 (0.557)	61	868870			117.25- 217.25	167.25
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	239599	50.0000	50.000	80.00- 120.00	100.00
2.811	2.811 (0.579)	43	819445			292.01- 392.01	342.01
35 Carbon Disulfide					CAS #: 75-15-0		
2.918	2.918 (0.601)	76	1431566	50.0000	50.000	80.00- 120.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.940	2.940 (0.606)	45	923381	50.0000	50.000	80.00- 120.00	100.00
2.940	2.940 (0.606)	43	203122			0.00- 72.00	22.00
2.940	2.940 (0.606)	59	35212			0.00- 53.81	3.81
41 3-Chloropropene					CAS #: 107-05-1		
3.126	3.126 (0.644)	76	249132	50.0000	50.000	80.00- 120.00	100.00
3.126	3.126 (0.644)	41	741085			247.47- 347.47	297.47
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	590478	50.0000	50.000	80.00- 120.00	100.00
3.298	3.298 (0.680)	84	444087			25.21- 125.21	75.21
3.298	3.298 (0.680)	51	176853			0.00- 79.95	29.95
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.398	3.398 (0.700)	57	15538	5.00000	5.000	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.398 (0.700)	41	40802			0.00- 50.00	262.59
3.406	3.406 (0.702)	59	149026			0.00- 50.00	959.08
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	1432941	50.0000	50.000	80.00- 120.00	100.00
3.520	3.520 (0.725)	57	330065			0.00- 73.03	23.03
3.520	3.520 (0.725)	41	381282			0.00- 76.61	26.61
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.542	3.542 (0.730)	98	363530	50.0000	50.000	80.00- 120.00	100.00
3.542	3.542 (0.730)	61	840672			181.25- 281.25	231.25
3.542	3.542 (0.730)	96	575577			108.33- 208.33	158.33
51 Hexane					CAS #: 110-54-3		
3.756	3.756 (0.774)	57	977869	50.0000	50.000	80.00- 120.00	100.00
3.756	3.756 (0.774)	43	667246			18.23- 118.23	68.23
3.756	3.756 (0.774)	86	162863			0.00- 66.65	16.65
58 Isopropyl ether					CAS #: 108-20-3		
4.022	4.022 (0.829)	45	276683	5.00000	5.000	80.00- 120.00	100.00
4.029	4.029 (0.830)	87	78710			0.00- 78.45	28.45
4.022	4.022 (0.829)	59	32990			0.00- 61.92	11.92
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.029	4.029 (0.830)	63	1099060	50.0000	50.000	80.00- 120.00	100.00
4.029	4.029 (0.830)	65	348188			0.00- 81.68	31.68
61 Vinyl Acetate					CAS #: 108-05-4		
4.072	4.072 (0.839)	86	146560	50.0000	50.000	80.00- 120.00	100.00
4.072	4.072 (0.839)	43	1769943			1157.65-1257.65	1207.65
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	158836	5.00000	5.000	80.00- 120.00	100.00
4.387	4.387 (0.904)	87	61093			0.00- 88.46	38.46
4.380	4.380 (0.903)	41	40797			0.00- 75.69	25.69
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	357093	50.0000	50.000	80.00- 120.00	100.00
4.616	4.616 (0.951)	96	562146			107.42- 207.42	157.42
4.616	4.616 (0.951)	61	774835			166.98- 266.98	216.98
74 2-Butanone					CAS #: 78-93-3		
4.638	4.638 (0.956)	72	299609	50.0000	50.000	80.00- 120.00	100.00
4.638	4.638 (0.956)	43	1303512			385.07- 485.07	435.07
4.645	4.645 (0.957)	57	94877			0.00- 81.67	31.67

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	735597	50.0000	50.000	80.00- 120.00	100.00
4.845	4.845 (0.999)	71	253463			0.00- 84.46	34.46
4.845	4.845 (0.999)	72	273942			0.00- 87.24	37.24
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	1114312	50.0000	50.000	80.00- 120.00	100.00
4.917	4.917 (1.013)	85	732075			15.70- 115.70	65.70
80 Cyclohexane					CAS #: 110-82-7		
5.032	5.032 (1.037)	84	796109	50.0000	50.000	80.00- 120.00	100.00
5.032	5.032 (1.037)	56	988498			74.17- 174.17	124.17
5.032	5.032 (1.037)	41	591370			24.28- 124.28	74.28
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	1092653	50.0000	50.000	80.00- 120.00	100.00
5.046	5.046 (1.040)	99	713469			15.30- 115.30	65.30
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.063)	119	1075514	50.0000	50.000	80.00- 120.00	100.00
5.160	5.160 (1.063)	117	1108815			53.10- 153.10	103.10
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.368 (1.106)	57	2929454	50.0000	50.000	80.00- 120.00	100.00
5.368	5.368 (1.106)	56	986609			0.00- 83.68	33.68
5.368	5.368 (1.106)	41	808861			0.00- 77.61	27.61
88 Benzene					CAS #: 71-43-2		
5.375	5.375 (0.933)	78	1791192	50.0000	50.000	80.00- 120.00	100.00
5.383	5.383 (0.934)	77	424707			0.00- 73.71	23.71
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	128146	5.00000	5.000	80.00- 120.00	100.00
5.454	5.454 (1.124)	87	27394			0.00- 71.38	21.38
5.454	5.454 (1.124)	55	44046			0.00- 84.37	34.37
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	772696	50.0000	50.000	80.00- 120.00	100.00
5.468	5.468 (0.949)	64	249129			0.00- 82.24	32.24
94 Heptane					CAS #: 142-82-5		
5.540	5.540 (0.961)	71	667329	50.0000	50.000	80.00- 120.00	100.00
5.540	5.540 (0.961)	43	1260809			138.93- 238.93	188.93
5.540	5.540 (0.961)	57	620142			42.93- 142.93	92.93
102 Trichloroethene					CAS #: 79-01-6		
5.956	5.956 (1.034)	95	716345	50.0000	50.000	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.963	5.963 (1.035)	130	737957			53.02- 153.02	103.02
5.956	5.956 (1.034)	97	462241			14.53- 114.53	64.53
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	1034738	50.0000	50.000	80.00- 120.00	100.00
6.063	6.063 (1.249)	98	492601			0.00- 97.61	47.61
6.063	6.063 (1.249)	55	878675			34.92- 134.92	84.92
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	660217	50.0000	50.000	80.00- 120.00	100.00
6.199	6.199 (1.076)	62	479628			22.65- 122.65	72.65
6.199	6.199 (1.076)	41	392958			9.52- 109.52	59.52
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	388723	50.0000	50.000	80.00- 120.00	100.00
6.285	6.285 (1.091)	58	292949			25.36- 125.36	75.36
6.285	6.285 (1.091)	57	93271			0.00- 73.99	23.99
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1099398	50.0000	50.000	80.00- 120.00	100.00
6.428	6.428 (1.116)	85	698835			13.57- 113.57	63.57
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	862379	50.0000	50.000	80.00- 120.00	100.00
6.815	6.815 (1.183)	77	271271			0.00- 81.46	31.46
6.815	6.815 (1.183)	39	473725			4.93- 104.93	54.93
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	535361	50.0000	50.000	80.00- 120.00	100.00
6.930	6.930 (1.203)	43	1513288			232.67- 332.67	282.67
6.930	6.930 (1.203)	85	209750			0.00- 89.18	39.18
116 Toluene					CAS #: 108-88-3		
7.051	7.051 (1.224)	91	1939288	50.0000	50.000	80.00- 120.00	100.00
7.051	7.051 (1.224)	92	1138656			8.72- 108.72	58.72
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.295	7.295 (0.887)	75	888462	50.0000	50.000	80.00- 120.00	100.00
7.295	7.295 (0.887)	77	282710			0.00- 81.82	31.82
7.295	7.295 (0.887)	39	470571			2.96- 102.96	52.96
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.453	7.453 (0.906)	97	660815	50.0000	50.000	80.00- 120.00	100.00
7.453	7.453 (0.906)	99	413740			12.61- 112.61	62.61
7.453	7.453 (0.906)	83	585764			38.64- 138.64	88.64

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.488	7.488 (0.910)	166	848017	50.0000	50.000	80.00- 120.00	100.00
7.488	7.488 (0.910)	129	652604			26.96- 126.96	76.96
7.488	7.488 (0.910)	131	617687			22.84- 122.84	72.84
135 2-Hexanone					CAS #: 591-78-6		
7.625	7.625 (0.927)	58	743167	50.0000	50.000	80.00- 120.00	100.00
7.625	7.625 (0.927)	43	1480432			149.21- 249.21	199.21
7.625	7.625 (0.927)	100	144280			0.00- 69.41	19.41
138 Dibromochloromethane					CAS #: 124-48-1		
7.761	7.761 (0.943)	129	1057418	50.0000	50.000	80.00- 120.00	100.00
7.761	7.761 (0.943)	127	827940			28.30- 128.30	78.30
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.868	7.868 (0.956)	107	1026087	50.0000	50.000	80.00- 120.00	100.00
7.868	7.868 (0.956)	109	978619			45.37- 145.37	95.37
145 Chlorobenzene					CAS #: 108-90-7		
8.255	8.255 (1.003)	112	1548167	50.0000	50.000	80.00- 120.00	100.00
8.255	8.255 (1.003)	114	497675			0.00- 82.15	32.15
8.255	8.255 (1.003)	77	887765			7.34- 107.34	57.34
147 Ethyl Benzene					CAS #: 100-41-4		
8.305	8.305 (1.010)	106	803479	50.0000	50.000	80.00- 120.00	100.00
8.305	8.305 (1.010)	91	2451956			255.17- 355.17	305.17
150 m,p-Xylene					CAS #: 108-38-3		
8.405	8.405 (1.022)	106	992165	50.0000	50.000	80.00- 120.00	100.00
8.405	8.405 (1.022)	91	1914441			142.96- 242.96	192.96
153 o-Xylene					CAS #: 95-47-6		
8.749	8.749 (1.064)	106	954623	50.0000	50.000	80.00- 120.00	100.00
8.749	8.749 (1.064)	91	1922232			151.36- 251.36	201.36
154 Styrene					CAS #: 100-42-5		
8.763	8.763 (1.065)	104	1557871	50.0000	50.000	80.00- 120.00	100.00
8.763	8.763 (1.065)	78	748335			0.00- 98.04	48.04
155 Bromoform					CAS #: 75-25-2		
8.957	8.957 (1.089)	173	920490	50.0000	50.000	80.00- 120.00	100.00
8.957	8.957 (1.089)	171	480747			2.23- 102.23	52.23
156 Cumene					CAS #: 98-82-8		
9.036	9.036 (1.098)	105	2719349	50.0000	50.000	80.00- 120.00	100.00
9.036	9.036 (1.098)	120	782213			0.00- 78.76	28.76

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.036	9.036 (1.098)	51	285218			0.00- 60.49	10.49
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.351	9.351 (1.137)	83	1530795	50.0000	50.000	80.00- 120.00	100.00
9.351	9.351 (1.137)	85	978472			13.92- 113.92	63.92
162 Propylbenzene					CAS #: 103-65-1		
9.379	9.379 (1.140)	91	3342678	50.0000	50.000	80.00- 120.00	100.00
9.387	9.387 (1.141)	120	810916			0.00- 74.26	24.26
9.387	9.387 (1.141)	105	122430			0.00- 53.66	3.66
163 4-Ethyltoluene					CAS #: 622-96-8		
9.480	9.480 (1.152)	120	891403	50.0000	50.000	80.00- 120.00	100.00
9.480	9.480 (1.152)	105	2820862			266.45- 366.45	316.45
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.530	9.530 (1.158)	120	1174523	50.0000	50.000	80.00- 120.00	100.00
9.530	9.530 (1.158)	105	2201187			137.41- 237.41	187.41
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.852 (1.198)	120	1074683	50.0000	50.000	80.00- 120.00	100.00
9.852	9.852 (1.198)	105	2178724			152.73- 252.73	202.73
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.132	10.132 (1.232)	146	1514918	50.0000	50.000	80.00- 120.00	100.00
10.132	10.132 (1.232)	148	990329			15.37- 115.37	65.37
10.132	10.132 (1.232)	111	622708			0.00- 91.11	41.11
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.210	10.210 (1.241)	146	1547044	50.0000	50.000	80.00- 120.00	100.00
10.210	10.210 (1.241)	148	997429			14.47- 114.47	64.47
10.210	10.210 (1.241)	111	599795			0.00- 88.77	38.77
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.332	10.332 (1.256)	91	2027010	50.0000	50.000	80.00- 120.00	100.00
10.332	10.332 (1.256)	126	454707			0.00- 72.43	22.43
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.540	10.540 (1.281)	146	1412900	50.0000	50.000	80.00- 120.00	100.00
10.540	10.540 (1.281)	148	910216			14.42- 114.42	64.42
10.540	10.540 (1.281)	111	596310			0.00- 92.20	42.20
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.908	11.908 (1.448)	180	1000664	50.0000	50.000	80.00- 120.00	100.00
11.908	11.908 (1.448)	182	951719			45.11- 145.11	95.11

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.001	12.001 (1.459)	225	552582	50.0000	50.000	80.00- 120.00	100.00
12.001	12.001 (1.459)	223	345465			12.52- 112.52	62.52
176 Naphthalene					CAS #: 91-20-3		
12.159	12.159 (1.478)	128	419966	5.00000	5.000	80.00- 120.00	100.00
12.152	12.152 (1.477)	127	53171			0.00- 62.66	12.66

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060806.d
Lab Smp Id: ICAL level 5
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 5
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	211343	0.00
97 1,4-Difluorobenze	797132	478279	1115985	797132	0.00
144 Chlorobenzene-d5	700417	420250	980584	700417	0.00

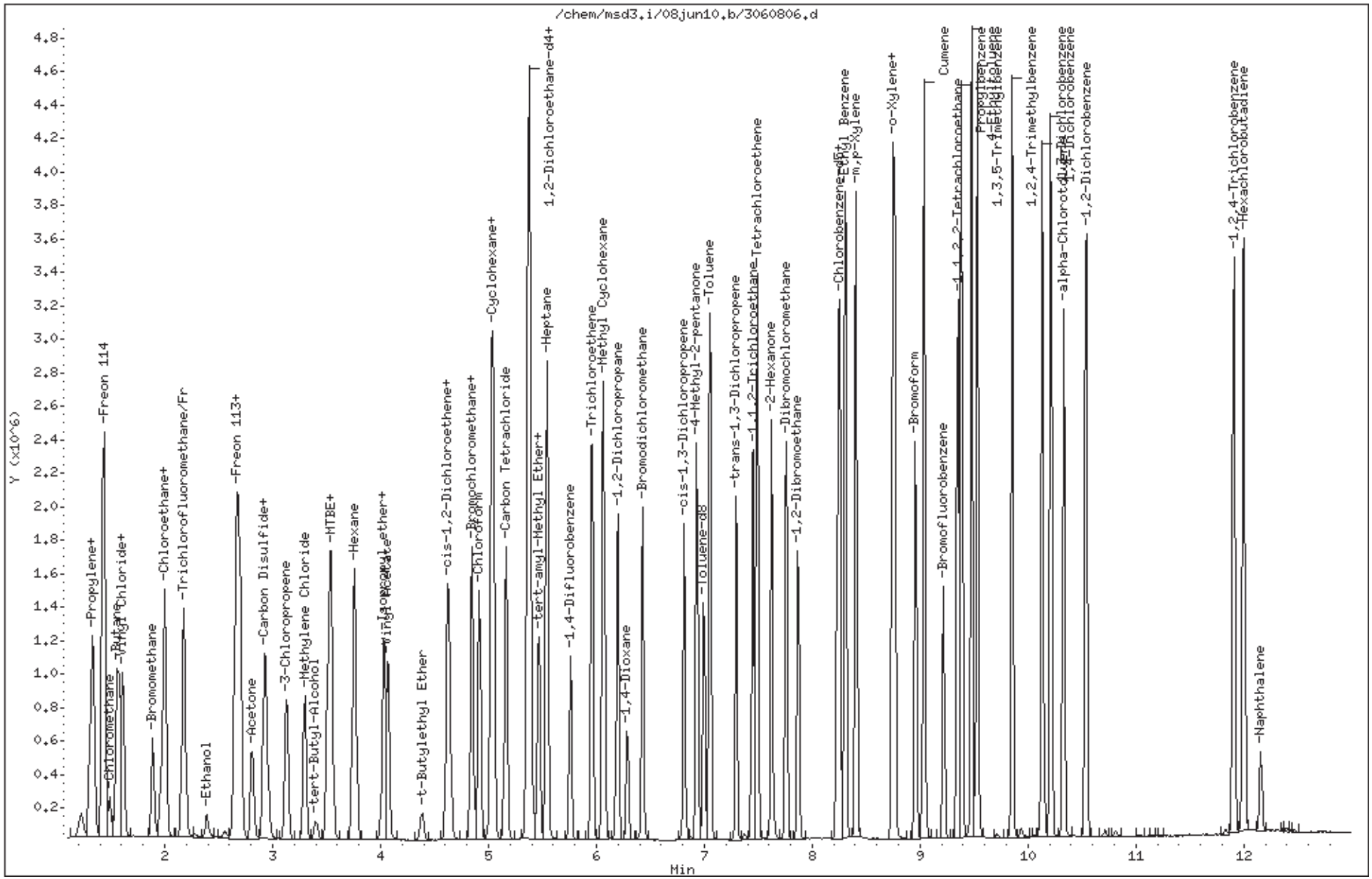
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.23	7.90	8.56	8.23	0.00

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/msd3.i/08jun10.b/3060806.d
Date : 08-JUN-2010 10:50
Client ID: ICAL level 5
Sample Info: 50mL #1968-53

Instrument: msd3.i
Operator: kjj
Column diameter: 0.53

Column phase: RTx-624



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060807.d
Lab Smp Id: ICAL level 6 Client Smp ID: ICAL level 6
Inj Date : 08-JUN-2010 11:13
Operator : kjj Inst ID: msd3.i
Smp Info : 100mL #1968-53
Misc Info : 200ppbv->100ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:48 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 11:13 Cal File: 3060807.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.831	4.831 (1.000)	130	228623	25.0000		50.00- 150.00	100.00
4.831	4.831 (1.000)	128	177328			28.35- 128.35	77.56
4.831	4.831 (1.000)	49	331876			99.84- 199.84	145.16
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.741	5.741 (1.000)	114	826160	25.0000		50.00- 150.00	100.00
5.741	5.741 (1.000)	88	134166			0.00- 66.08	16.24
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.219	8.219 (1.000)	117	713618	25.0000		50.00- 150.00	100.00
8.219	8.219 (1.000)	82	385003			4.13- 104.13	53.95
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.382	5.382 (1.114)	65	313153	25.0000	24.299	50.00- 150.00	100.00
5.382	5.382 (1.114)	67	206759			7.34- 107.34	66.02
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.980	6.980 (1.216)	98	798301	25.0000	24.668	50.00- 150.00	100.00
6.980	6.980 (1.216)	70	91342			0.00- 61.54	11.44

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.980	6.980 (1.216)	100	538888			16.89- 116.89	67.50
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.215	9.215 (1.121)	174	353947	25.0000	26.569	50.00- 150.00	100.00
9.215	9.215 (1.121)	95	495881			93.92- 193.92	140.10
9.215	9.215 (1.121)	176	341482			46.28- 146.28	96.48
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.271)	41	852357	100.000	92.647	50.00- 150.00	100.00
1.311	1.311 (0.271)	42	571503			17.42- 117.42	67.05
1.311	1.311 (0.271)	39	635570			24.45- 124.45	74.57
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.277)	85	2773652	100.000	89.812	50.00- 150.00	100.00
1.339	1.339 (0.277)	87	902501			0.00- 82.39	32.54
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.297)	135	2033033	100.000	86.281	50.00- 150.00	100.00
1.437	1.437 (0.297)	137	656102			0.00- 81.83	32.27
11 Chloromethane					CAS #: 74-87-3		
1.493	1.493 (0.309)	50	503877	100.000	80.511	50.00- 150.00	100.00
1.493	1.493 (0.309)	52	182217			0.00- 86.13	36.16
13 Butane					CAS #: 106-97-8		
1.563	1.563 (0.323)	58	224665	100.000	83.929	50.00- 150.00	100.00
1.563	1.563 (0.323)	43	1680008			695.67- 795.67	747.78
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.591 (0.329)	62	1084430	100.000	91.338	50.00- 150.00	100.00
1.591	1.591 (0.329)	64	348691			0.00- 92.01	32.15
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.619 (0.335)	54	854709	100.000	87.905	50.00- 150.00	100.00
1.619	1.619 (0.335)	39	967162			70.78- 170.78	113.16
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.390)	94	974078	100.000	86.928	50.00- 150.00	100.00
1.884	1.884 (0.390)	96	912095			45.80- 145.80	93.64
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.407)	64	599289	100.000	76.968	50.00- 150.00	100.00
1.968	1.968 (0.407)	66	199703			0.00- 80.64	33.32
1.968	1.968 (0.407)	49	167019			0.00- 74.82	27.87

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.413)	43	1676724	100.000	89.626	50.00- 150.00	100.00
1.996	1.996 (0.413)	57	1099800			12.68- 112.68	65.59
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.450)	101	3371778	100.000	100.92	50.00- 150.00	100.00
2.173	2.173 (0.450)	103	1784428			12.39- 112.39	52.92
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.494)	45	390519	100.000	96.320	50.00- 150.00	100.00
2.381	2.381 (0.493)	43	85346			0.00- 74.96	21.85
2.388	2.388 (0.494)	46	152932			0.00- 90.46	39.16
30 Freon 113					CAS #: 76-13-1		
2.660	2.660 (0.551)	151	1875691	100.000	89.242	50.00- 150.00	100.00
2.660	2.660 (0.551)	153	1213059			14.27- 114.27	64.67
2.660	2.660 (0.551)	101	2452099			83.92- 183.92	130.73
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.696	2.696 (0.558)	96	1059499	100.000	88.444	50.00- 150.00	100.00
2.696	2.696 (0.558)	98	676986			13.88- 113.88	63.90
2.689	2.689 (0.557)	61	1741849			114.74- 214.74	164.40
34 Acetone					CAS #: 67-64-1		
2.797	2.797 (0.579)	58	494392	100.000	88.366	50.00- 150.00	100.00
2.797	2.797 (0.579)	43	1655757			296.41- 396.41	334.91
35 Carbon Disulfide					CAS #: 75-15-0		
2.911	2.911 (0.603)	76	2967793	100.000	88.915	50.00- 150.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.933	2.933 (0.607)	45	1874575	100.000	96.487	50.00- 150.00	100.00
2.933	2.933 (0.607)	43	381721			0.00- 71.77	20.36
2.933	2.933 (0.607)	59	71348			0.00- 53.59	3.81
41 3-Chloropropene					CAS #: 107-05-1		
3.119	3.119 (0.646)	76	505816	100.000	93.292	50.00- 150.00	100.00
3.119	3.119 (0.646)	41	1484536			246.04- 346.04	293.49
43 Methylene Chloride					CAS #: 75-09-2		
3.284	3.284 (0.680)	49	1183896	100.000	85.944	50.00- 150.00	100.00
3.284	3.284 (0.680)	84	920139			28.40- 128.40	77.72
3.291	3.291 (0.681)	51	361431			0.00- 83.23	30.53
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.391	3.391 (0.702)	57	29883	10.0000	9.883	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.391	3.391 (0.702)	41	82158			220.86- 320.86	274.93
3.384	3.384 (0.700)	59	294848			964.11-1064.11	986.66
47 MTBE					CAS #: 1634-04-4		
3.506	3.506 (0.726)	73	2981671	100.000	96.856	50.00- 150.00	100.00
3.506	3.506 (0.726)	57	672860			0.00- 73.87	22.57
3.506	3.506 (0.726)	41	756571			0.00- 78.02	25.37
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.534	3.534 (0.732)	98	738759	100.000	86.197	50.00- 150.00	100.00
3.534	3.534 (0.732)	61	1686316			172.17- 272.17	228.26
3.534	3.534 (0.732)	96	1164122			102.08- 202.08	157.58
51 Hexane					CAS #: 110-54-3		
3.742	3.742 (0.775)	57	1955276	100.000	95.174	50.00- 150.00	100.00
3.742	3.742 (0.775)	43	1328024			22.12- 122.12	67.92
3.749	3.749 (0.776)	86	329396			0.00- 66.41	16.85
58 Isopropyl ether					CAS #: 108-20-3		
4.007	4.007 (0.829)	45	558780	10.0000	9.039	50.00- 150.00	100.00
4.007	4.007 (0.829)	87	163138			0.00- 78.32	29.20
4.014	4.014 (0.831)	59	67494			0.00- 61.56	12.08
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.014	4.014 (0.831)	63	2193058	100.000	90.109	50.00- 150.00	100.00
4.014	4.014 (0.831)	65	698830			0.00- 80.42	31.87
61 Vinyl Acetate					CAS #: 108-05-4		
4.057	4.057 (0.840)	86	311387	100.000	98.120	50.00- 150.00	100.00
4.057	4.057 (0.840)	43	3620731			1146.05-1246.05	1162.77
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.365	4.365 (0.904)	59	331555	10.0000	9.517	50.00- 150.00	100.00
4.372	4.372 (0.905)	87	128113			0.00- 89.80	38.64
4.365	4.365 (0.904)	41	80138			0.00- 80.87	24.17
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.602	4.602 (0.953)	98	750682	100.000	93.998	50.00- 150.00	100.00
4.602	4.602 (0.953)	96	1169371			108.84- 208.84	155.77
4.602	4.602 (0.953)	61	1604396			162.75- 262.75	213.73
74 2-Butanone					CAS #: 78-93-3		
4.623	4.623 (0.957)	72	618000	100.000	96.266	50.00- 150.00	100.00
4.623	4.623 (0.957)	43	2673126			387.49- 487.49	432.54
4.623	4.623 (0.957)	57	195294			0.00- 81.47	31.60

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.824	4.824 (0.998)	42	1489290	100.000	91.686	50.00- 150.00	100.00
4.831	4.831 (1.000)	71	540574			0.00- 84.18	36.30
4.831	4.831 (1.000)	72	572428			0.00- 86.49	38.44
78 Chloroform					CAS #: 67-66-3		
4.903	4.903 (1.015)	83	2274862	100.000	89.458	50.00- 150.00	100.00
4.895	4.895 (1.013)	85	1492289			15.60- 115.60	65.60
80 Cyclohexane					CAS #: 110-82-7		
5.010	5.010 (1.037)	84	1654486	100.000	95.270	50.00- 150.00	100.00
5.010	5.010 (1.037)	56	1989838			70.03- 170.03	120.27
5.010	5.010 (1.037)	41	1178192			25.61- 125.61	71.21
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.031	5.031 (1.042)	97	2274484	100.000	96.822	50.00- 150.00	100.00
5.031	5.031 (1.042)	99	1449053			15.90- 115.90	63.71
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.146	5.146 (1.065)	119	2188276	100.000	96.074	50.00- 150.00	100.00
5.146	5.146 (1.065)	117	2271618			52.89- 152.89	103.81
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.354	5.354 (1.108)	57	5888378	100.000	94.976	50.00- 150.00	100.00
5.354	5.354 (1.108)	56	1998265			0.00- 84.28	33.94
5.354	5.354 (1.108)	41	1597299			0.00- 78.49	27.13
88 Benzene					CAS #: 71-43-2		
5.361	5.361 (0.934)	78	3515375	100.000	90.116	50.00- 150.00	100.00
5.361	5.361 (0.934)	77	831515			0.00- 74.28	23.65
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.433	5.433 (1.125)	73	262824	10.0000	9.095	50.00- 150.00	100.00
5.440	5.440 (1.126)	87	60876			0.00- 72.44	23.16
5.440	5.440 (1.126)	55	87390			0.00- 87.72	33.25
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.447	5.447 (0.949)	62	1554263	100.000	91.453	50.00- 150.00	100.00
5.447	5.447 (0.949)	64	502000			0.00- 83.28	32.30
94 Heptane					CAS #: 142-82-5		
5.526	5.526 (0.963)	71	1378458	100.000	98.249	50.00- 150.00	100.00
5.526	5.526 (0.963)	43	2537202			140.08- 240.08	184.06
5.526	5.526 (0.963)	57	1277903			43.69- 143.69	92.71
102 Trichloroethene					CAS #: 79-01-6		
5.941	5.941 (1.035)	95	1524647	100.000	97.600	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.941	5.941 (1.035)	130	1551091			53.39- 153.39	101.73
5.941	5.941 (1.035)	97	980316			14.84- 114.84	64.30
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.049	6.049 (1.252)	83	2182001	100.000	98.088	50.00- 150.00	100.00
6.049	6.049 (1.252)	98	1036690			0.00- 97.38	47.51
6.049	6.049 (1.252)	55	1844169			34.54- 134.54	84.52
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.178	6.178 (1.076)	63	1395757	100.000	97.814	50.00- 150.00	100.00
6.178	6.178 (1.076)	62	995180			23.66- 123.66	71.30
6.178	6.178 (1.076)	41	804330			13.65- 113.65	57.63
107 1,4-Dioxane					CAS #: 123-91-1		
6.271	6.271 (1.092)	88	830762	100.000	104.70	50.00- 150.00	100.00
6.263	6.263 (1.091)	58	615173			26.05- 126.05	74.05
6.263	6.263 (1.091)	57	195917			0.00- 74.82	23.58
109 Bromodichloromethane					CAS #: 75-27-4		
6.407	6.407 (1.116)	83	2347491	100.000	100.92	50.00- 150.00	100.00
6.407	6.407 (1.116)	85	1535394			14.68- 114.68	65.41
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.794	6.794 (1.183)	75	1812390	100.000	102.87	50.00- 150.00	100.00
6.794	6.794 (1.183)	77	584747			0.00- 81.50	32.26
6.794	6.794 (1.183)	39	985058			6.29- 106.29	54.35
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.915	6.915 (1.205)	58	1124987	100.000	108.37	50.00- 150.00	100.00
6.908	6.908 (1.203)	43	3138349			237.28- 337.28	278.97
6.915	6.915 (1.205)	85	443908			0.00- 88.81	39.46
116 Toluene					CAS #: 108-88-3		
7.037	7.037 (1.226)	91	3911445	100.000	92.781	50.00- 150.00	100.00
7.037	7.037 (1.226)	92	2331650			8.79- 108.79	59.61
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.281	7.281 (0.886)	75	1858389	100.000	108.80	50.00- 150.00	100.00
7.281	7.281 (0.886)	77	591123			0.00- 83.09	31.81
7.281	7.281 (0.886)	39	986442			5.18- 105.18	53.08
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.438	7.438 (0.905)	97	1348254	100.000	95.004	50.00- 150.00	100.00
7.438	7.438 (0.905)	99	847652			11.85- 111.85	62.87
7.438	7.438 (0.905)	83	1206002			37.54- 137.54	89.45

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.474	7.474 (0.909)	166	1731415	100.000	94.350	50.00- 150.00	100.00
7.474	7.474 (0.909)	129	1326412			24.54- 124.54	76.61
7.474	7.474 (0.909)	131	1268746			23.12- 123.12	73.28
135 2-Hexanone					CAS #: 591-78-6		
7.610	7.610 (0.926)	58	1553477	100.000	113.42	50.00- 150.00	100.00
7.610	7.610 (0.926)	43	3064340			152.66- 252.66	197.26
7.610	7.610 (0.926)	100	308775			0.00- 69.00	19.88
138 Dibromochloromethane					CAS #: 124-48-1		
7.746	7.746 (0.942)	129	2233639	100.000	109.47	50.00- 150.00	100.00
7.746	7.746 (0.942)	127	1714650			27.39- 127.39	76.76
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.861	7.861 (0.956)	107	2070383	100.000	96.838	50.00- 150.00	100.00
7.861	7.861 (0.956)	109	1973314			44.04- 144.04	95.31
145 Chlorobenzene					CAS #: 108-90-7		
8.248	8.248 (1.003)	112	3102762	100.000	93.155	50.00- 150.00	100.00
8.248	8.248 (1.003)	114	993354			0.00- 80.98	32.02
8.241	8.241 (1.003)	77	1809228			16.55- 116.55	58.31
147 Ethyl Benzene					CAS #: 100-41-4		
8.298	8.298 (1.010)	106	1630219	100.000	96.380	50.00- 150.00	100.00
8.298	8.298 (1.010)	91	4874977			251.61- 351.61	299.04
150 m,p-Xylene					CAS #: 108-38-3		
8.398	8.398 (1.022)	106	2050526	100.000	98.651	50.00- 150.00	100.00
8.398	8.398 (1.022)	91	3932499			143.04- 243.04	191.78
153 o-Xylene					CAS #: 95-47-6		
8.742	8.742 (1.064)	106	1995701	100.000	99.977	50.00- 150.00	100.00
8.742	8.742 (1.064)	91	3985718			145.82- 245.82	199.72
154 Styrene					CAS #: 100-42-5		
8.763	8.763 (1.066)	104	3252077	100.000	104.78	50.00- 150.00	100.00
8.763	8.763 (1.066)	78	1591257			0.00- 97.81	48.93
155 Bromoform					CAS #: 75-25-2		
8.957	8.957 (1.090)	173	2010658	100.000	115.58	50.00- 150.00	100.00
8.957	8.957 (1.090)	171	1038344			1.57- 101.57	51.64
156 Cumene					CAS #: 98-82-8		
9.036	9.036 (1.099)	105	5515684	100.000	99.586	50.00- 150.00	100.00
9.036	9.036 (1.099)	120	1620393			0.00- 78.20	29.38

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.036	9.036 (1.099)	51	592886			0.00- 60.54	10.75
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.351	9.351 (1.138)	83	3136936	100.000	96.219	50.00- 150.00	100.00
9.351	9.351 (1.138)	85	2044290			14.67- 114.67	65.17
162 Propylbenzene					CAS #: 103-65-1		
9.379	9.379 (1.141)	91	6661646	100.000	96.786	50.00- 150.00	100.00
9.387	9.387 (1.142)	120	1653322			0.00- 74.44	24.82
9.387	9.387 (1.142)	105	251711			0.00- 54.32	3.78
163 4-Ethyltoluene					CAS #: 622-96-8		
9.480	9.480 (1.153)	120	1868755	100.000	101.44	50.00- 150.00	100.00
9.480	9.480 (1.153)	105	5789483			267.54- 367.54	309.80
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.530	9.530 (1.159)	120	2476605	100.000	103.09	50.00- 150.00	100.00
9.530	9.530 (1.159)	105	4598759			144.39- 244.39	185.69
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.852 (1.199)	120	2271750	100.000	104.71	50.00- 150.00	100.00(A)
9.852	9.852 (1.199)	105	4519888			152.28- 252.28	198.96
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.132	10.132 (1.233)	146	3181713	100.000	99.982	50.00- 150.00	100.00
10.132	10.132 (1.233)	148	2077360			13.05- 113.05	65.29
10.132	10.132 (1.233)	111	1291306			0.00- 90.20	40.59
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.210	10.210 (1.242)	146	3232613	100.000	101.36	50.00- 150.00	100.00
10.210	10.210 (1.242)	148	2113337			14.32- 114.32	65.38
10.210	10.210 (1.242)	111	1250484			0.00- 88.82	38.68
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.332	10.332 (1.257)	91	4347818	100.000	129.96	50.00- 150.00	100.00
10.332	10.332 (1.257)	126	986508			0.00- 71.70	22.69
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.540	10.540 (1.282)	146	2960255	100.000	103.49	50.00- 150.00	100.00
10.540	10.540 (1.282)	148	1947229			14.70- 114.70	65.78
10.540	10.540 (1.282)	111	1257281			0.00- 93.01	42.47
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.908	11.908 (1.449)	180	2219542	100.000	116.58	50.00- 150.00	100.00
11.908	11.908 (1.449)	182	2104216			45.25- 145.25	94.80

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
175 Hexachlorobutadiene					CAS #: 87-68-3		
11.994	11.994 (1.459)	225	1243796	100.000	112.17	50.00- 150.00	100.00
11.994	11.994 (1.459)	223	783386			12.77- 112.77	62.98
176 Naphthalene					CAS #: 91-20-3		
12.152	12.152 (1.478)	128	901808	10.0000	10.112	50.00- 150.00	100.00
12.152	12.152 (1.478)	127	110332			0.00- 63.93	12.23

QC Flag Legend

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

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060807.d
Lab Smp Id: ICAL level 6
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->100ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 6
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	228623	8.18
97 1,4-Difluorobenze	797132	478279	1115985	826160	3.64
144 Chlorobenzene-d5	700417	420250	980584	713618	1.88

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.83	-0.44
97 1,4-Difluorobenze	5.76	5.43	6.09	5.74	-0.37
144 Chlorobenzene-d5	8.23	7.90	8.56	8.22	-0.09

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/msd3.i/08jun10.b/3060807.d
Date : 08-JUN-2010 11:13
Client ID: ICAL level 6
Sample Info: 100mL #1968-53
Column phase: RTx-624

Instrument: msd3.i
Operator: kjj
Column diameter: 0.53

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/08jun10.b/3060808.d
Lab Smp Id: ICAL level 7 Client Smp ID: ICAL level 7
Inj Date : 08-JUN-2010 11:37
Operator : kjj Inst ID: msd3.i
Smp Info : 200mL #1968-53
Misc Info : 200ppbv->200ppbv
Comment :
Method : /chem/msd3.i/08jun10.b/310q0608a.m
Meth Date : 08-Jun-2010 22:48 abarton Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
==	====== ========	====	========	=======	=======	==========	=====
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	238119	25.0000		50.00- 150.00	100.00
4.852	4.852 (1.000)	128	187718			28.35- 128.35	78.83
4.852	4.852 (1.000)	49	340935			99.84- 199.84	143.18
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	858322	25.0000		50.00- 150.00	100.00
5.762	5.762 (1.000)	88	140114			0.00- 66.08	16.32
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	756321	25.0000		50.00- 150.00	100.00
8.240	8.240 (1.000)	82	418063			4.13- 104.13	55.28
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	338688	25.0000	25.199	50.00- 150.00	100.00
5.397	5.397 (1.112)	67	241945			7.34- 107.34	71.44
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	852507	25.0000	25.304	50.00- 150.00	100.00
7.001	7.001 (1.215)	70	99476			0.00- 61.54	11.67

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	571035			16.89- 116.89	66.98
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	377378	25.0000	26.467	50.00- 150.00	100.00
9.236	9.236 (1.121)	95	520137			93.92- 193.92	137.83
9.236	9.236 (1.121)	176	365385			46.28- 146.28	96.82
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	1799325	200.000	190.10	50.00- 150.00	100.00
1.311	1.311 (0.270)	42	1218955			17.42- 117.42	67.75
1.311	1.311 (0.270)	39	1360721			24.45- 124.45	75.62
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	5899528	200.000	185.98	50.00- 150.00	100.00
1.339	1.339 (0.276)	87	1938789			0.00- 82.39	32.86
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	4258953	200.000	177.45	50.00- 150.00	100.00
1.437	1.437 (0.296)	137	1393794			0.00- 81.83	32.73
11 Chloromethane					CAS #: 74-87-3		
1.492	1.492 (0.308)	50	1177431	200.000	184.20	50.00- 150.00	100.00
1.492	1.492 (0.308)	52	383079			0.00- 86.13	32.54
13 Butane					CAS #: 106-97-8		
1.576	1.576 (0.325)	58	463099	200.000	171.93	50.00- 150.00	100.00
1.576	1.576 (0.325)	43	3458705			695.67- 795.67	746.86
14 Vinyl Chloride					CAS #: 75-01-4		
1.590	1.590 (0.328)	62	2292337	200.000	187.66	50.00- 150.00	100.00
1.590	1.590 (0.328)	64	745179			0.00- 92.01	32.51
15 1,3-Butadiene					CAS #: 106-99-0		
1.618	1.618 (0.334)	54	1764661	200.000	178.07	50.00- 150.00	100.00
1.618	1.618 (0.334)	39	1995686			70.78- 170.78	113.09
21 Bromomethane					CAS #: 74-83-9		
1.898	1.898 (0.391)	94	2036050	200.000	178.25	50.00- 150.00	100.00
1.898	1.898 (0.391)	96	1969952			45.80- 145.80	96.75
24 Chloroethane					CAS #: 75-00-3		
1.982	1.982 (0.408)	64	1190693	200.000	153.63	50.00- 150.00	100.00
1.982	1.982 (0.408)	66	380992			0.00- 80.64	32.00
1.982	1.982 (0.408)	49	306299			0.00- 74.97	25.72

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	2845181	200.000	154.35	50.00- 150.00	100.00
1.996	1.996 (0.411)	57	2157964			12.68- 112.68	75.85
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.180	2.180 (0.449)	101	5490873	200.000	163.55	50.00- 150.00	100.00
2.180	2.180 (0.449)	103	3604037			12.39- 112.39	65.64
29 Ethanol					CAS #: 64-17-5		
2.395	2.395 (0.494)	45	846603	200.000	200.39	50.00- 150.00	100.00(A)
2.395	2.395 (0.494)	43	183339			0.00- 74.96	21.66
2.395	2.395 (0.494)	46	334329			0.00- 90.46	39.49
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	3785719	200.000	176.92	50.00- 150.00	100.00
2.668	2.668 (0.550)	153	2435626			14.27- 114.27	64.34
2.668	2.668 (0.550)	101	4820733			83.92- 183.92	127.34
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.703	2.703 (0.557)	96	2216633	200.000	181.03	50.00- 150.00	100.00
2.703	2.703 (0.557)	98	1432592			13.88- 113.88	64.63
2.703	2.703 (0.557)	61	3600600			114.74- 214.74	162.44
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	1041359	200.000	182.59	50.00- 150.00	100.00
2.811	2.811 (0.579)	43	3473736			296.41- 396.41	333.58
35 Carbon Disulfide					CAS #: 75-15-0		
2.925	2.925 (0.603)	76	6272843	200.000	183.43	50.00- 150.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.947	2.947 (0.607)	45	3973995	200.000	197.10	50.00- 150.00	100.00
2.947	2.947 (0.607)	43	786543			0.00- 71.77	19.79
2.947	2.947 (0.607)	59	149330			0.00- 53.59	3.76
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.646)	76	1067416	200.000	191.12	50.00- 150.00	100.00
3.133	3.133 (0.646)	41	3104523			246.04- 346.04	290.84
43 Methylene Chloride					CAS #: 75-09-2		
3.305	3.305 (0.681)	49	2518753	200.000	179.20	50.00- 150.00	100.00
3.305	3.305 (0.681)	84	1952707			28.40- 128.40	77.53
3.305	3.305 (0.681)	51	769101			0.00- 83.23	30.53
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.405	3.405 (0.702)	57	62391	20.0000	19.848	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.398 (0.700)	41	163193			220.86- 320.86	261.56
3.398	3.398 (0.700)	59	606184			964.11-1064.11	971.58
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	6133460	200.000	192.69	50.00- 150.00	100.00
3.513	3.513 (0.724)	57	1396048			0.00- 73.87	22.76
3.520	3.520 (0.725)	41	1520454			0.00- 78.02	24.79
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.549	3.549 (0.731)	98	1548633	200.000	177.40	50.00- 150.00	100.00
3.549	3.549 (0.731)	61	3440117			172.17- 272.17	222.14
3.549	3.549 (0.731)	96	2408706			102.08- 202.08	155.54
51 Hexane					CAS #: 110-54-3		
3.763	3.763 (0.776)	57	3868613	200.000	183.74	50.00- 150.00	100.00
3.763	3.763 (0.776)	43	2610761			22.12- 122.12	67.49
3.763	3.763 (0.776)	86	672025			0.00- 66.41	17.37
58 Isopropyl ether					CAS #: 108-20-3		
4.021	4.021 (0.829)	45	1144216	20.0000	18.176	50.00- 150.00	100.00
4.028	4.028 (0.830)	87	337291			0.00- 78.32	29.48
4.028	4.028 (0.830)	59	131504			0.00- 61.56	11.49
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.036	4.036 (0.832)	63	4411319	200.000	177.87	50.00- 150.00	100.00
4.036	4.036 (0.832)	65	1429433			0.00- 80.42	32.40
61 Vinyl Acetate					CAS #: 108-05-4		
4.071	4.071 (0.839)	86	637514	200.000	194.26	50.00- 150.00	100.00
4.071	4.071 (0.839)	43	6896310			1146.06-1246.06	1081.75
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	757867	20.0000	20.704	50.00- 150.00	100.00
4.387	4.387 (0.904)	87	294566			0.00- 89.80	38.87
4.387	4.387 (0.904)	41	172694			0.00- 80.87	22.79
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	1571945	200.000	190.73	50.00- 150.00	100.00
4.616	4.616 (0.951)	96	2444658			108.84- 208.84	155.52
4.616	4.616 (0.951)	61	3286425			162.75- 262.75	209.07
74 2-Butanone					CAS #: 78-93-3		
4.637	4.637 (0.956)	72	1287038	200.000	193.70	50.00- 150.00	100.00
4.637	4.637 (0.956)	43	5356447			387.49- 487.49	416.18
4.637	4.637 (0.956)	57	393916			0.00- 81.47	30.61

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	3053685	200.000	183.48	50.00- 150.00	100.00
4.845	4.845 (0.999)	71	1116130			0.00- 84.18	36.55
4.845	4.845 (0.999)	72	1189036			0.00- 86.49	38.94
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	4649679	200.000	179.21	50.00- 150.00	100.00
4.917	4.917 (1.013)	85	3054549			15.60- 115.60	65.69
80 Cyclohexane					CAS #: 110-82-7		
5.031	5.031 (1.037)	84	3382504	200.000	189.05	50.00- 150.00	100.00
5.031	5.031 (1.037)	56	4016310			70.03- 170.03	118.74
5.031	5.031 (1.037)	41	2353390			25.61- 125.61	69.58
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	4594489	200.000	189.71	50.00- 150.00	100.00
5.046	5.046 (1.040)	99	2960836			15.90- 115.90	64.44
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.167	5.167 (1.065)	119	4433813	200.000	188.96	50.00- 150.00	100.00
5.160	5.160 (1.063)	117	4585838			52.89- 152.89	103.43
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.375	5.375 (1.108)	57	11949662	200.000	187.39	50.00- 150.00	100.00
5.375	5.375 (1.108)	56	4140803			0.00- 84.28	34.65
5.375	5.375 (1.108)	41	3306939			0.00- 78.49	27.67
88 Benzene					CAS #: 71-43-2		
5.382	5.382 (0.934)	78	7083176	200.000	178.52	50.00- 150.00	100.00
5.382	5.382 (0.934)	77	1716578			0.00- 74.28	24.23
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	625890	20.0000	20.631	50.00- 150.00	100.00
5.454	5.454 (1.124)	87	142781			0.00- 72.44	22.81
5.454	5.454 (1.124)	55	197204			0.00- 87.72	31.51
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	3080406	200.000	178.25	50.00- 150.00	100.00
5.468	5.468 (0.949)	64	1019192			0.00- 83.28	33.09
94 Heptane					CAS #: 142-82-5		
5.547	5.547 (0.963)	71	2807977	200.000	193.83	50.00- 150.00	100.00
5.547	5.547 (0.963)	43	5071356			140.08- 240.08	180.61
5.547	5.547 (0.963)	57	2609175			43.69- 143.69	92.92
102 Trichloroethene					CAS #: 79-01-6		
5.963	5.963 (1.035)	95	3131183	200.000	194.07	50.00- 150.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.963	5.963 (1.035)	130	3252487			53.39- 153.39	103.87
5.963	5.963 (1.035)	97	2042167			14.84- 114.84	65.22
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	4592489	200.000	198.51	50.00- 150.00	100.00
6.070	6.070 (1.251)	98	2201955			0.00- 97.38	47.95
6.063	6.063 (1.249)	55	3818409			34.54- 134.54	83.14
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	2819615	200.000	191.76	50.00- 150.00	100.00
6.199	6.199 (1.076)	62	2026095			23.66- 123.66	71.86
6.199	6.199 (1.076)	41	1598185			13.65- 113.65	56.68
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	1723172	200.000	207.15	50.00- 150.00	100.00(A)
6.285	6.285 (1.091)	58	1267739			26.05- 126.05	73.57
6.285	6.285 (1.091)	57	403816			0.00- 74.82	23.43
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	4809511	200.000	199.17	50.00- 150.00	100.00
6.428	6.428 (1.116)	85	3142476			14.68- 114.68	65.34
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	3881063	200.000	209.92	50.00- 150.00	100.00(A)
6.815	6.815 (1.183)	77	1243883			0.00- 81.50	32.05
6.815	6.815 (1.183)	39	2078346			6.29- 106.29	53.55
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	2409143	200.000	219.11	50.00- 150.00	100.00(A)
6.930	6.930 (1.203)	43	6412303			237.28- 337.28	266.17
6.930	6.930 (1.203)	85	974448			0.00- 88.81	40.45
116 Toluene					CAS #: 108-88-3		
7.058	7.058 (1.225)	91	8111868	200.000	187.52	50.00- 150.00	100.00
7.058	7.058 (1.225)	92	4959211			8.79- 108.79	61.14
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	3956936	200.000	215.25	50.00- 150.00	100.00(A)
7.302	7.302 (0.886)	77	1287189			0.00- 83.09	32.53
7.302	7.302 (0.886)	39	2058149			5.18- 105.18	52.01
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.460	7.460 (0.905)	97	2846918	200.000	190.98	50.00- 150.00	100.00
7.460	7.460 (0.905)	99	1802956			11.85- 111.85	63.33
7.452	7.452 (0.904)	83	2501345			37.54- 137.54	87.86

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.495	7.495 (0.910)	166	3757371	200.000	194.29	50.00- 150.00	100.00
7.495	7.495 (0.910)	129	2879043			24.54- 124.54	76.62
7.495	7.495 (0.910)	131	2728579			23.12- 123.12	72.62
135 2-Hexanone					CAS #: 591-78-6		
7.631	7.631 (0.926)	58	3371319	200.000	226.16	50.00- 150.00	100.00(A)
7.631	7.631 (0.926)	43	6411357			152.66- 252.66	190.17
7.631	7.631 (0.926)	100	659316			0.00- 69.00	19.56
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	4729561	200.000	215.35	50.00- 150.00	100.00(A)
7.768	7.768 (0.943)	127	3674030			27.39- 127.39	77.68
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	4435814	200.000	196.46	50.00- 150.00	100.00
7.882	7.882 (0.957)	109	4235390			44.04- 144.04	95.48
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	6518901	200.000	187.06	50.00- 150.00	100.00
8.262	8.262 (1.003)	114	2156688			0.00- 80.98	33.08
8.262	8.262 (1.003)	77	3850480			16.55- 116.55	59.07
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	3556420	200.000	198.65	50.00- 150.00	100.00
8.319	8.319 (1.010)	91	10045312			251.61- 351.61	282.46
150 m,p-Xylene					CAS #: 108-38-3		
8.419	8.419 (1.022)	106	4417020	200.000	200.42	50.00- 150.00	100.00(A)
8.419	8.419 (1.022)	91	8170069			143.04- 243.04	184.97
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	4351943	200.000	204.73	50.00- 150.00	100.00(A)
8.763	8.763 (1.063)	91	8391880			145.82- 245.82	192.83
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	6910390	200.000	208.34	50.00- 150.00	100.00(A)
8.778	8.778 (1.065)	78	3446653			0.00- 97.81	49.88
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	4524323	200.000	236.46	50.00- 150.00	100.00(A)
8.971	8.971 (1.089)	171	2342966			1.57- 101.57	51.79
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	11138473	200.000	191.38	50.00- 150.00	100.00(A)
9.057	9.057 (1.099)	120	3507616			0.00- 78.20	31.49

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.050	9.050 (1.098)	51	1245166			0.00- 60.54	11.18
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	6498254	200.000	189.96	50.00- 150.00	100.00
9.365	9.365 (1.136)	85	4337003			14.67- 114.67	66.74
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	12961067	200.000	181.04	50.00- 150.00	100.00(A)
9.401	9.401 (1.141)	120	3554828			0.00- 74.44	27.43
9.401	9.401 (1.141)	105	557002			0.00- 54.32	4.30
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	4101239	200.000	208.30	50.00- 150.00	100.00(A)
9.494	9.494 (1.152)	105	11527684			267.54- 367.54	281.08
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.551	9.551 (1.159)	120	5267599	200.000	205.87	50.00- 150.00	100.00(A)
9.551	9.551 (1.159)	105	9516525			144.39- 244.39	180.66
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	4970336	200.000	213.70	50.00- 150.00	100.00(A)
9.874	9.874 (1.198)	105	9519061			152.28- 252.28	191.52
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	6916886	200.000	204.22	50.00- 150.00	100.00(A)
10.153	10.153 (1.232)	148	4609740			13.05- 113.05	66.64
10.153	10.153 (1.232)	111	2877729			0.00- 90.20	41.60
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	6883823	200.000	203.04	50.00- 150.00	100.00(A)
10.232	10.232 (1.242)	148	4594791			14.32- 114.32	66.75
10.232	10.232 (1.242)	111	2749241			0.00- 88.82	39.94
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.353	10.353 (1.256)	91	9201644	200.000	247.25	50.00- 150.00	100.00(A)
10.353	10.353 (1.256)	126	2210749			0.00- 71.70	24.03
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.561	10.561 (1.282)	146	6403326	200.000	209.26	50.00- 150.00	100.00(A)
10.561	10.561 (1.282)	148	4263297			14.70- 114.70	66.58
10.561	10.561 (1.282)	111	2781000			0.00- 93.01	43.43
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.929	11.929 (1.448)	180	5353752	200.000	249.05	50.00- 150.00	100.00(A)
11.929	11.929 (1.448)	182	5119327			45.25- 145.25	95.62

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.022	12.022 (1.459)	225	3227432	200.000	255.56	50.00- 150.00	100.00(A)
12.022	12.022 (1.459)	223	2046633			12.77- 112.77	63.41
176 Naphthalene					CAS #: 91-20-3		
12.180	12.180 (1.478)	128	1985250	20.0000	20.796	50.00- 150.00	100.00
12.180	12.180 (1.478)	127	238254			0.00- 63.93	12.00

QC Flag Legend

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

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3060808.d
Lab Smp Id: ICAL level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: kjj
Method File: /chem/msd3.i/08jun10.b/310q0608a.m
Misc Info: 200ppbv->200ppbv

Calibration Date: 08-JUN-2010
Calibration Time: 10:50
Client Smp ID: ICAL level 7
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	211343	126806	295880	238119	12.67
97 1,4-Difluorobenze	797132	478279	1115985	858322	7.68
144 Chlorobenzene-d5	700417	420250	980584	756321	7.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.23	7.90	8.56	8.24	0.17

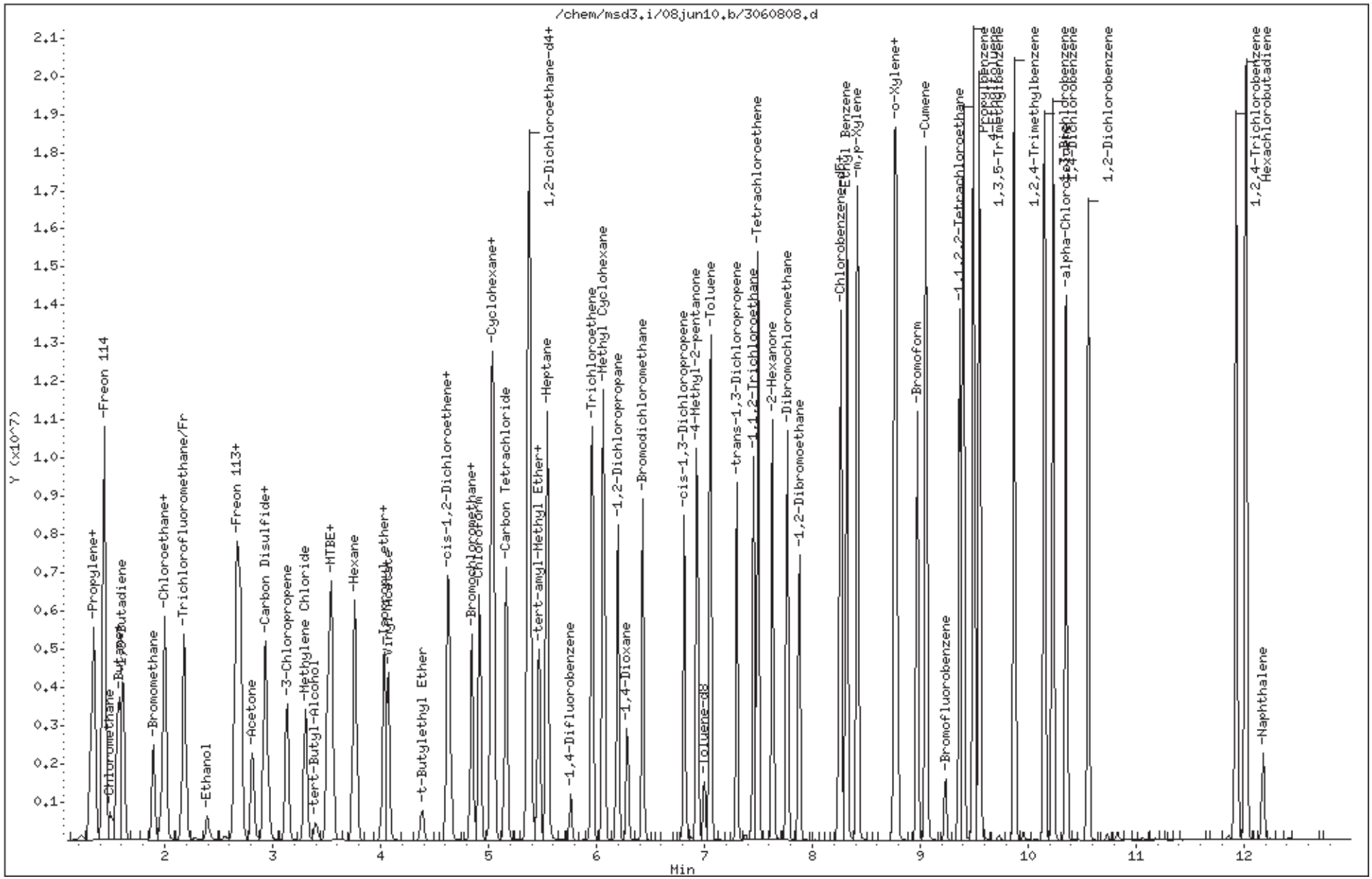
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd3.i/08jun10.b/3060808.d
Date : 08-JUN-2010 11:37
Client ID: ICAL level 7
Sample Info: 200mL #1968-53

Instrument: msd3.i

Operator: kjj
Column diameter: 0.53

Column phase: RTx-624



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1005647A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061022**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 09:16 PM**	

Compound	%Recovery
Freon 12	92
Freon 114	92
Chloromethane	84
Vinyl Chloride	91
1,3-Butadiene	88
Bromomethane	92
Chloroethane	90
Freon 11	84
Ethanol	96
Freon 113	90
1,1-Dichloroethene	92
Acetone	92
2-Propanol	92
Carbon Disulfide	93
3-Chloropropene	93
Methylene Chloride	88
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	91
Hexane	88
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	96
Tetrahydrofuran	89
Chloroform	91
1,1,1-Trichloroethane	90
Cyclohexane	92
Carbon Tetrachloride	90
2,2,4-Trimethylpentane	94
Benzene	94
1,2-Dichloroethane	91
Heptane	96
Trichloroethene	96
1,2-Dichloropropane	96
1,4-Dioxane	102
Bromodichloromethane	97
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	103
Toluene	95
trans-1,3-Dichloropropene	108

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1005647A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061022**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 09:16 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	99
Tetrachloroethene	98
2-Hexanone	109
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	100
Chlorobenzene	96
Ethyl Benzene	97
m,p-Xylene	97
o-Xylene	95
Styrene	98
Bromoform	102
Cumene	98
1,1,2,2-Tetrachloroethane	92
Propylbenzene	97
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	103
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	91
TPH ref. to Gasoline (MW=100)	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 10-JUN-2010 21:16
Lab File ID: 3061022.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/10jun10a.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 89 1,2-Dichloroethane-d4	1.41110	1.25807	0.010	10.84513	30.00000	Averaged
$ 115 Toluene-d8	0.98128	0.98586	0.010	-0.46644	30.00000	Averaged
$ 159 Bromofluorobenzene	0.47131	0.48597	0.010	-3.10966	30.00000	Averaged
6 Propylene	0.99373	0.89475	0.010	9.96100	30.00000	Averaged
7 Dichlorodifluoromethane/Fr1	3.33038	3.05466	0.010	8.27905	30.00000	Averaged
10 Freon 114	2.51979	2.30647	0.010	8.46571	30.00000	Averaged
11 Chloromethane	0.67111	0.56521	0.010	15.78049	30.00000	Averaged
13 Butane	0.28279	0.23855	0.010	15.64419	40.00000	Averaged
14 Vinyl Chloride	1.28247	1.17129	0.010	8.66878	30.00000	Averaged
15 1,3-Butadiene	1.04041	0.91577	0.010	11.97988	30.00000	Averaged
21 Bromomethane	1.19925	1.10881	0.010	7.54172	30.00000	Averaged
24 Chloroethane	0.81369	0.73645	0.010	9.49281	30.00000	Averaged
25 Isopentane	1.93529	1.47009	0.010	24.03790	40.00000	Averaged
28 Trichlorofluoromethane/Fr11	3.52478	2.95007	0.010	16.30477	30.00000	Averaged
29 Ethanol	0.44356	0.42641	0.010	3.86714	30.00000	Averaged
30 Freon 113	2.24649	2.03172	0.010	9.56012	30.00000	Averaged
32 1,1-Dichloroethene	1.28555	1.18496	0.010	7.82482	30.00000	Averaged
34 Acetone	0.59877	0.54945	0.010	8.23677	30.00000	Averaged
35 Carbon Disulfide	3.59037	3.32832	0.010	7.29863	30.00000	Averaged
37 2-Propanol	2.11681	1.94913	0.010	7.92124	30.00000	Averaged
41 3-Chloropropene	0.58637	0.54516	0.010	7.02746	30.00000	Averaged
43 Methylene Chloride	1.47563	1.30182	0.010	11.77906	30.00000	Averaged
46 tert-Butyl-Alcohol	0.33002	0.29954	0.010	9.23757	40.00000	Averaged
47 MTBE	3.34188	3.10904	0.010	6.96712	30.00000	Averaged
48 trans-1,2-Dichloroethene	0.91649	0.83323	0.010	9.08483	30.00000	Averaged
51 Hexane	2.21055	1.95786	0.010	11.43139	30.00000	Averaged
58 Isopropyl ether	6.60925	5.51006	0.010	16.63101	40.00000	Averaged
59 1,1-Dichloroethane	2.60375	2.32404	0.010	10.74229	30.00000	Averaged
61 Vinyl Acetate	0.34455	0.33330	0.010	3.26695	40.00000	Averaged
68 t-Butylethyl Ether	3.84320	3.84114	0.010	0.05361	40.00000	Averaged
73 cis-1,2-Dichloroethene	0.86527	0.82712	0.010	4.40957	30.00000	Averaged
74 2-Butanone	0.69760	0.66599	0.010	4.53177	30.00000	Averaged
75 Tetrahydrofuran	1.74734	1.55980	0.010	10.73295	30.00000	Averaged
78 Chloroform	2.72405	2.47602	0.010	9.10525	30.00000	Averaged
80 Cyclohexane	1.87844	1.72572	0.010	8.13037	30.00000	Averaged
81 1,1,1-Trichloroethane	2.54263	2.29522	0.010	9.73041	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 10-JUN-2010 21:16
Lab File ID: 3061022.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/10jun10a.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
82 Carbon Tetrachloride	2.46348	2.21682	0.010	10.01286	30.00000	Averaged
87 2,2,4-Trimethylpentane	6.69509	6.29512	0.010	5.97419	30.00000	Averaged
88 Benzene	1.15563	1.08186	0.010	6.38366	30.00000	Averaged
92 tert-amyl-Methyl Ether	3.18510	3.45485	0.010	-8.46896	40.00000	Averaged
93 1,2-Dichloroethane	0.50334	0.45838	0.010	8.93256	30.00000	Averaged
94 Heptane	0.42196	0.40672	0.010	3.61087	30.00000	Averaged
102 Trichloroethene	0.46993	0.44915	0.010	4.42005	30.00000	Averaged
104 Methyl Cyclohexane	2.42891	2.30600	0.010	5.06015	40.00000	Averaged
106 1,2-Dichloropropane	0.42827	0.40914	0.010	4.46751	30.00000	Averaged
107 1,4-Dioxane	0.24228	0.24775	0.010	-2.25648	30.00000	Averaged
109 Bromodichloromethane	0.70333	0.68529	0.010	2.56380	30.00000	Averaged
112 cis-1,3-Dichloropropene	0.53849	0.55196	0.010	-2.50165	30.00000	Averaged
114 4-Methyl-2-pentanone	0.32026	0.33122	0.010	-3.42495	30.00000	Averaged
116 Toluene	1.25998	1.19300	0.010	5.31624	30.00000	Averaged
123 trans-1,3-Dichloropropene	0.60764	0.65817	0.010	-8.31560	30.00000	Averaged
128 1,1,2-Trichloroethane	0.49273	0.48638	0.010	1.28900	30.00000	Averaged
131 Tetrachloroethene	0.63924	0.62360	0.010	2.44708	30.00000	Averaged
135 2-Hexanone	0.49273	0.53690	0.010	-8.96335	30.00000	Averaged
138 Dibromochloromethane	0.72596	0.75842	0.010	-4.47069	30.00000	Averaged
140 1,2-Dibromoethane	0.74635	0.74295	0.010	0.45504	30.00000	Averaged
145 Chlorobenzene	1.15194	1.10551	0.010	4.03053	30.00000	Averaged
147 Ethyl Benzene	0.59176	0.57503	0.010	2.82751	30.00000	Averaged
150 m,p-Xylene	0.72848	0.70937	0.010	2.62374	30.00000	Averaged
153 o-Xylene	0.70264	0.66516	0.010	5.33386	30.00000	Averaged
154 Styrene	1.09641	1.07001	0.010	2.40774	30.00000	Averaged
155 Bromoform	0.63247	0.64240	0.010	-1.57069	30.00000	Averaged
156 Cumene	1.92376	1.89296	0.010	1.60074	30.00000	Averaged
161 1,1,2,2-Tetrachloroethane	1.13078	1.03850	0.010	8.16086	30.00000	Averaged
162 Propylbenzene	2.36640	2.28944	0.010	3.25213	30.00000	Averaged
163 4-Ethyltoluene	0.65081	0.62905	0.010	3.34421	30.00000	Averaged
164 1,3,5-Trimethylbenzene	0.84577	0.81788	0.010	3.29825	30.00000	Averaged
166 1,2,4-Trimethylbenzene	0.76881	0.74213	0.010	3.46966	30.00000	Averaged
168 1,3-Dichlorobenzene	1.11956	1.04632	0.010	6.54223	30.00000	Averaged
169 1,4-Dichlorobenzene	1.12070	1.06157	0.010	5.27584	30.00000	Averaged
170 alpha-Chlorotoluene	1.23016	1.26573	0.010	-2.89152	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 10-JUN-2010 21:16
Lab File ID: 3061022.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/10jun10a.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
171 1,2-Dichlorobenzene	1.01147	0.94670	0.010	6.40364	30.00000	Averaged
174 1,2,4-Trichlorobenzene	0.71056	0.69476	0.010	2.22443	30.00000	Averaged
175 Hexachlorobutadiene	0.41744	0.38065	0.010	8.81442	30.00000	Averaged
176 Naphthalene	3.15553	2.87780	0.010	8.80121	40.00000	Averaged

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061022.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-JUN-2010 21:16
Operator : dfm Inst ID: msd3.i
Smp Info : 50mL #1936-53
Misc Info : 200ppbv->50ppbv
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.845	4.845 (1.000)	130	279821	25.0000		80.00- 120.00	100.00
4.845	4.845 (1.000)	128	221547			28.35- 128.35	79.17
4.845	4.845 (1.000)	49	383888			99.84- 199.84	137.19
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	995344	25.0000		80.00- 120.00	100.00
5.755	5.755 (1.000)	88	155067			0.00- 66.08	15.58
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	835020	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	460627			4.13- 104.13	55.16
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.114)	65	352033	25.0000	22.289	80.00- 120.00	100.00
5.397	5.397 (1.114)	67	209797			7.34- 107.34	59.60
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.994	6.994 (1.214)	98	981268	25.0000	25.117	80.00- 120.00	100.00
6.994	6.994 (1.214)	70	109835			0.00- 61.54	11.19

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
7.001	7.001 (1.215)	100	658415			16.89- 116.89	67.10
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	405793	25.0000	25.777	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	552343			93.92- 193.92	136.11
9.236	9.236 (1.121)	176	393566			46.28- 146.28	96.99
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	500738	50.0000	45.019	80.00- 120.00	100.00
1.311	1.311 (0.270)	42	327050			17.42- 117.42	65.31
1.311	1.311 (0.270)	39	372246			24.45- 124.45	74.34
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1709513	50.0000	45.860	80.00- 120.00	100.00
1.339	1.339 (0.276)	87	557263			0.00- 82.39	32.60
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	1290798	50.0000	45.767	80.00- 120.00	100.00
1.437	1.437 (0.296)	137	421508			0.00- 81.83	32.65
11 Chloromethane					CAS #: 74-87-3		
1.493	1.493 (0.308)	50	316313	50.0000	42.110	80.00- 120.00	100.00
1.493	1.493 (0.308)	52	105267			0.00- 86.13	33.28
13 Butane					CAS #: 106-97-8		
1.563	1.563 (0.322)	58	133503	50.0000	42.178	80.00- 120.00	100.00
1.563	1.563 (0.322)	43	1006516			695.67- 795.67	753.93
14 Vinyl Chloride					CAS #: 75-01-4		
1.590	1.590 (0.328)	62	655503	50.0000	45.666	80.00- 120.00	100.00
1.590	1.590 (0.328)	64	213361			0.00- 92.01	32.55
15 1,3-Butadiene					CAS #: 106-99-0		
1.604	1.604 (0.331)	54	512503	50.0000	44.010	80.00- 120.00	100.00
1.604	1.604 (0.331)	39	605556			70.78- 170.78	118.16
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.389)	94	620534	50.0000	46.229	80.00- 120.00	100.00
1.884	1.884 (0.389)	96	586247			45.80- 145.80	94.47
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	412148	50.0000	45.254	80.00- 120.00	100.00
1.968	1.968 (0.406)	66	121381			0.00- 80.64	29.45
1.968	1.968 (0.406)	49	88459			0.00- 74.97	21.46

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.412)	43	822722	50.0000	37.981	80.00- 120.00	100.00
1.996	1.996 (0.412)	57	591293			12.68- 112.68	71.87
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.449)	101	1650984	50.0000	41.848	80.00- 120.00	100.00
2.173	2.173 (0.449)	103	1073895			12.39- 112.39	65.05
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.493)	45	238637	50.0000	48.066	80.00- 120.00	100.00
2.381	2.381 (0.491)	43	52046			0.00- 74.96	21.81
2.388	2.388 (0.493)	46	95364			0.00- 90.46	39.96
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.551)	151	1137038	50.0000	45.220	80.00- 120.00	100.00
2.668	2.668 (0.551)	153	737298			14.27- 114.27	64.84
2.668	2.668 (0.551)	101	1444000			83.92- 183.92	127.00
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.696	2.696 (0.556)	96	663154	50.0000	46.088	80.00- 120.00	100.00
2.696	2.696 (0.556)	98	427178			13.88- 113.88	64.42
2.696	2.696 (0.556)	61	1049484			114.74- 214.74	158.26
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.580)	58	307496	50.0000	45.882	80.00- 120.00	100.00
2.811	2.811 (0.580)	43	1005232			296.41- 396.41	326.91
35 Carbon Disulfide					CAS #: 75-15-0		
2.918	2.918 (0.602)	76	1862668	50.0000	46.351	80.00- 120.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.940	2.940 (0.607)	45	1090816	50.0000	46.039	80.00- 120.00	100.00
2.940	2.940 (0.607)	43	228638			0.00- 71.77	20.96
2.940	2.940 (0.607)	59	40881			0.00- 53.59	3.75
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.647)	76	305096	50.0000	46.486	80.00- 120.00	100.00
3.126	3.126 (0.645)	41	872223			246.04- 346.04	285.88
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.681)	49	728552	50.0000	44.110	80.00- 120.00	100.00
3.298	3.298 (0.681)	84	590331			28.40- 128.40	81.03
3.298	3.298 (0.681)	51	224246			0.00- 83.23	30.78
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.398	3.398 (0.701)	57	16763	5.00000	4.538	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.398 (0.701)	41	48197			220.86- 320.86	287.52
3.398	3.398 (0.701)	59	165200			964.11-1064.11	985.48
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.726)	73	1739951	50.0000	46.516	80.00- 120.00	100.00
3.520	3.520 (0.726)	57	385194			0.00- 73.87	22.14
3.513	3.513 (0.725)	41	439284			0.00- 78.02	25.25
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.541	3.541 (0.731)	98	466310	50.0000	45.458	80.00- 120.00	100.00
3.541	3.541 (0.731)	61	1010234			172.17- 272.17	216.64
3.541	3.541 (0.731)	96	722385			102.08- 202.08	154.92
51 Hexane					CAS #: 110-54-3		
3.756	3.756 (0.775)	57	1095699	50.0000	44.284	80.00- 120.00	100.00
3.756	3.756 (0.775)	43	741565			22.12- 122.12	67.68
3.764	3.764 (0.777)	86	192729			0.00- 66.41	17.59
58 Isopropyl ether					CAS #: 108-20-3		
4.021	4.021 (0.830)	45	308366	5.00000	4.168	80.00- 120.00	100.00
4.029	4.029 (0.831)	87	95010			0.00- 78.32	30.81
4.021	4.021 (0.830)	59	37675			0.00- 61.56	12.22
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.029	4.029 (0.831)	63	1300633	50.0000	44.629	80.00- 120.00	100.00
4.029	4.029 (0.831)	65	417508			0.00- 80.42	32.10
61 Vinyl Acetate					CAS #: 108-05-4		
4.072	4.072 (0.840)	86	186526	50.0000	48.366	80.00- 120.00	100.00
4.072	4.072 (0.840)	43	2050147			1146.06-1246.06	1099.12
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.905)	59	214966	5.00000	4.997	80.00- 120.00	100.00
4.380	4.380 (0.904)	87	88038			0.00- 89.80	40.95
4.387	4.387 (0.905)	41	49379			0.00- 80.87	22.97
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.953)	98	462888	50.0000	47.795	80.00- 120.00	100.00
4.616	4.616 (0.953)	96	726036			108.84- 208.84	156.85
4.616	4.616 (0.953)	61	956326			162.75- 262.75	206.60
74 2-Butanone					CAS #: 78-93-3		
4.637	4.637 (0.957)	72	372716	50.0000	47.734	80.00- 120.00	100.00
4.637	4.637 (0.957)	43	1559974			387.49- 487.49	418.54
4.637	4.637 (0.957)	57	115659			0.00- 81.47	31.03

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (1.000)	42	872929	50.0000	44.634	80.00- 120.00	100.00
4.845	4.845 (1.000)	71	318914			0.00- 84.18	36.53
4.845	4.845 (1.000)	72	343929			0.00- 86.49	39.40
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.015)	83	1385683	50.0000	45.447	80.00- 120.00	100.00
4.917	4.917 (1.015)	85	900116			15.60- 115.60	64.96
80 Cyclohexane					CAS #: 110-82-7		
5.024	5.024 (1.037)	84	965784	50.0000	45.935	80.00- 120.00	100.00
5.024	5.024 (1.037)	56	1155896			70.03- 170.03	119.68
5.024	5.024 (1.037)	41	663659			25.61- 125.61	68.72
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.041)	97	1284500	50.0000	45.135	80.00- 120.00	100.00
5.046	5.046 (1.041)	99	834222			15.90- 115.90	64.95
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.065)	119	1240625	50.0000	44.994	80.00- 120.00	100.00
5.160	5.160 (1.065)	117	1279393			52.89- 152.89	103.12
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.368 (1.108)	57	3523011	50.0000	47.013	80.00- 120.00	100.00
5.368	5.368 (1.108)	56	1174282			0.00- 84.28	33.33
5.368	5.368 (1.108)	41	926649			0.00- 78.49	26.30
88 Benzene					CAS #: 71-43-2		
5.375	5.375 (0.933)	78	2153637	50.0000	46.808	80.00- 120.00	100.00
5.375	5.375 (0.933)	77	515928			0.00- 74.28	23.96
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.126)	73	193347	5.00000	5.423	80.00- 120.00	100.00
5.454	5.454 (1.126)	87	43626			0.00- 72.44	22.56
5.454	5.454 (1.126)	55	62276			0.00- 87.72	32.21
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	912483	50.0000	45.534	80.00- 120.00	100.00
5.468	5.468 (0.949)	64	294981			0.00- 83.28	32.33
94 Heptane					CAS #: 142-82-5		
5.540	5.540 (0.961)	71	809656	50.0000	48.194	80.00- 120.00	100.00
5.540	5.540 (0.961)	43	1458585			140.08- 240.08	180.15
5.540	5.540 (0.961)	57	727439			43.69- 143.69	89.85
102 Trichloroethene					CAS #: 79-01-6		
5.955	5.955 (1.034)	95	894127	50.0000	47.790	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.955	5.955 (1.034)	130	936233			53.39- 153.39	104.71
5.955	5.955 (1.034)	97	576902			14.84- 114.84	64.52
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.251)	83	1290535	50.0000	47.470	80.00- 120.00	100.00
6.063	6.063 (1.251)	98	607556			0.00- 97.38	47.08
6.063	6.063 (1.251)	55	1063605			34.54- 134.54	82.42
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	814471	50.0000	47.766	80.00- 120.00	100.00
6.199	6.199 (1.076)	62	580308			23.66- 123.66	71.25
6.199	6.199 (1.076)	41	456625			13.65- 113.65	56.06
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	493193	50.0000	51.128	80.00- 120.00	100.00
6.285	6.285 (1.091)	58	369716			26.05- 126.05	74.96
6.285	6.285 (1.091)	57	112262			0.00- 74.82	22.76
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1364205	50.0000	48.718	80.00- 120.00	100.00
6.428	6.428 (1.116)	85	878227			14.68- 114.68	64.38
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	1098782	50.0000	51.251	80.00- 120.00	100.00
6.815	6.815 (1.183)	77	343554			0.00- 81.50	31.27
6.815	6.815 (1.183)	39	565561			6.29- 106.29	51.47
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	659364	50.0000	51.712	80.00- 120.00	100.00
6.930	6.930 (1.203)	43	1806926			237.28- 337.28	274.04
6.930	6.930 (1.203)	85	263789			0.00- 88.81	40.01
116 Toluene					CAS #: 108-88-3		
7.059	7.059 (1.225)	91	2374892	50.0000	47.342	80.00- 120.00	100.00
7.051	7.051 (1.224)	92	1399685			8.79- 108.79	58.94
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	1099177	50.0000	54.158	80.00- 120.00	100.00
7.302	7.302 (0.886)	77	348874			0.00- 83.09	31.74
7.302	7.302 (0.886)	39	561305			5.18- 105.18	51.07
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.452	7.452 (0.904)	97	812272	50.0000	49.355	80.00- 120.00	100.00
7.452	7.452 (0.904)	99	504392			11.85- 111.85	62.10
7.452	7.452 (0.904)	83	719080			37.54- 137.54	88.53

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.495	7.495 (0.910)	166	1041432	50.0000	48.776	80.00- 120.00	100.00
7.495	7.495 (0.910)	129	805774			24.54- 124.54	77.37
7.495	7.495 (0.910)	131	749201			23.12- 123.12	71.94
135 2-Hexanone					CAS #: 591-78-6		
7.632	7.632 (0.926)	58	896643	50.0000	54.482	80.00- 120.00	100.00
7.632	7.632 (0.926)	43	1752185			152.66- 252.66	195.42
7.632	7.632 (0.926)	100	174213			0.00- 69.00	19.43
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	1266593	50.0000	52.235	80.00- 120.00	100.00
7.768	7.768 (0.943)	127	971799			27.39- 127.39	76.73
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	1240758	50.0000	49.772	80.00- 120.00	100.00
7.882	7.882 (0.957)	109	1184795			44.04- 144.04	95.49
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	1846252	50.0000	47.985	80.00- 120.00	100.00
8.262	8.262 (1.003)	114	591611			0.00- 80.98	32.04
8.262	8.262 (1.003)	77	1074448			16.55- 116.55	58.20
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	960326	50.0000	48.586	80.00- 120.00	100.00
8.319	8.319 (1.010)	91	2910738			251.61- 351.61	303.10
150 m,p-Xylene					CAS #: 108-38-3		
8.419	8.419 (1.022)	106	1184679	50.0000	48.688	80.00- 120.00	100.00
8.419	8.419 (1.022)	91	2285970			143.04- 243.04	192.96
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	1110843	50.0000	47.333	80.00- 120.00	100.00
8.763	8.763 (1.063)	91	2233809			145.82- 245.82	201.09
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	1786962	50.0000	48.796	80.00- 120.00	100.00
8.778	8.778 (1.065)	78	858787			0.00- 97.81	48.06
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	1072837	50.0000	50.785	80.00- 120.00	100.00
8.971	8.971 (1.089)	171	549577			1.57- 101.57	51.23
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	3161326	50.0000	49.200	80.00- 120.00	100.00
9.057	9.057 (1.099)	120	897045			0.00- 78.20	28.38

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.057	9.057 (1.099)	51	328361			0.00- 60.54	10.39
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	1734332	50.0000	45.920	80.00- 120.00	100.00
9.365	9.365 (1.136)	85	1136034			14.67- 114.67	65.50
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	3823462	50.0000	48.374	80.00- 120.00	100.00
9.401	9.401 (1.141)	120	930700			0.00- 74.44	24.34
9.401	9.401 (1.141)	105	140025			0.00- 54.32	3.66
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	1050539	50.0000	48.328	80.00- 120.00	100.00
9.494	9.494 (1.152)	105	3239288			267.54- 367.54	308.35
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.551	9.551 (1.159)	120	1365886	50.0000	48.351	80.00- 120.00	100.00
9.551	9.551 (1.159)	105	2581832			144.39- 244.39	189.02
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	1239393	50.0000	48.265	80.00- 120.00	100.00
9.874	9.874 (1.198)	105	2481619			152.28- 252.28	200.23
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	1747397	50.0000	46.729	80.00- 120.00	100.00
10.153	10.153 (1.232)	148	1134923			13.05- 113.05	64.95
10.146	10.146 (1.231)	111	708818			0.00- 90.20	40.56
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	1772867	50.0000	47.362	80.00- 120.00	100.00
10.232	10.232 (1.242)	148	1150455			14.32- 114.32	64.89
10.232	10.232 (1.242)	111	687534			0.00- 88.82	38.78
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.354	10.354 (1.256)	91	2113820	50.0000	51.446	80.00- 120.00	100.00
10.354	10.354 (1.256)	126	473383			0.00- 71.70	22.39
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.568	10.568 (1.282)	146	1581033	50.0000	46.798	80.00- 120.00	100.00
10.568	10.568 (1.282)	148	1021953			14.70- 114.70	64.64
10.568	10.568 (1.282)	111	663017			0.00- 93.01	41.94
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.937	11.937 (1.449)	180	1160273	50.0000	48.888	80.00- 120.00	100.00
11.937	11.937 (1.449)	182	1105695			45.25- 145.25	95.30

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.023	12.023 (1.459)	225	635693	50.0000	45.593	80.00- 120.00	100.00
12.023	12.023 (1.459)	223	404637			12.77- 112.77	63.65
176 Naphthalene					CAS #: 91-20-3		
12.180	12.180 (1.478)	128	480605	5.00000	4.560	80.00- 120.00	100.00
12.180	12.180 (1.478)	127	58114			0.00- 63.93	12.09

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061022.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	279821	0.00
97 1,4-Difluorobenze	995344	597206	1393482	995344	0.00
144 Chlorobenzene-d5	835020	501012	1169028	835020	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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/msd3.i/10jun10a.b/3061022.d
Date : 10-JUN-2010 21:16
Client ID: CCV
Sample Info: 50mL #1936-53
Column phase: RTx-624

Instrument: msd3.i
Operator: dfm
Column diameter: 0.53

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Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /var/chem/msd3.i/10jun10a.b/3061025.d
Lab Smp Id: TPHg ccv Client Smp ID: tph ccv
Inj Date : 10-JUN-2010 22:44
Operator : dfm Inst ID: msd3.i
Smp Info : 40mL #1936-214
Misc Info : 2500ppbv->500ppbv
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA		COMPOUNDS
1.213	1151390	310228	0.269	2.12	SYS	UNKNOWN
1.437	81126	47104	0.581	0.15		~~24 Chloroethane~~
1.563	561700	205368	0.366	1.04		6 Propylene
1.633	69953	27038	0.387	0.13		
1.716	42524	19065	0.448	0.08		
1.912	33756	14003	0.415	0.06		
1.996	2737723	1024661	0.374	5.05		15 1,3-Butadiene
2.238	1011853	329089	0.325	1.87		42 Pentane
2.381	809125	301818	0.373	1.49		29 Ethanol
2.474	186485	66892	0.359	0.34		Cyclopropane, 1,2-dime
2.539	603970	221882	0.367	1.11		2-Butene, 2-methyl-
2.668	317712	96066	0.302	0.59		Butane, 2,2-dimethyl-
3.198	1571468	381667	0.243	2.90		Pentane, 2-methyl-
3.276	301432	85016	0.282	0.56		~~43 Methylene Chloride~~
3.470	605073	203489	0.336	1.12		46 tert-Butyl-Alcohol
3.678	117310	42592	0.363	0.22		
3.756	456148	185028	0.406	0.84		51 Hexane
3.878	102044	44674	0.438	0.19		
3.943	189094	76519	0.405	0.35		2-Hexene, (E)-
3.986	311328	124175	0.399	0.57		2-Pentene, 4-methyl-
4.079	109716	41189	0.375	0.20		
4.143	104677	40441	0.386	0.19		
4.208	38937	17448	0.448	0.07		
4.251	178355	77131	0.432	0.33		

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
4.294	282788	95970	0.339	0.52	Pentane, 2,4-dimethyl-
4.387	446711	188714	0.422	0.82	Cyclobutane, ethyl-
4.451	72275	31407	0.435	0.13	
4.852	1590294	726096	0.457	2.93	* 76 Bromochloromethane
4.974	662208	285580	0.431	1.22	75 Tetrahydrofuran
5.046	597827	194595	0.326	1.10	80 Cyclohexane
5.139	762162	346820	0.455	1.41	74 2-Butanone
5.375	3341597	916553	0.274	6.16	$ 89 1,2-Dichloroethane-d4
5.461	89008	44501	0.500	0.16	
5.540	575638	316805	0.550	1.06	94 Heptane
5.683	184488	65833	0.357	0.34	Cyclopentanecarboxalde
5.762	2355086	1365419	0.580	4.34	* 97 1,4-Difluorobenzene
5.805	44935	26435	0.588	0.08	
5.884	106556	29914	0.281	0.20	
6.049	597754	210729	0.353	1.10	104 Methyl Cyclohexane
6.092	349866	172415	0.493	0.65	Heptane, 2,2,3,3,5,6,6
6.156	78606	33500	0.426	0.14	
6.228	93830	42354	0.451	0.17	
6.263	51064	21049	0.412	0.09	
6.414	736131	349720	0.475	1.36	Pentane, 2,3,4-trimeth
6.521	907425	362597	0.400	1.67	Pentane, 2,3,3-trimeth
6.579	182247	129489	0.711	0.34	
6.708	469009	209113	0.446	0.87	Hexane, 1-(hexyloxy)-2
6.837	271629	134048	0.493	0.50	Heptane, 2,2-dimethyl-
6.908	77125	30222	0.392	0.14	
7.001	2673721	1733960	0.649	4.93	$ 115 Toluene-d8
7.059	5615151	3528196	0.628	10.39	112 cis-1,3-Dichloropropen
7.159	25457	16883	0.663	0.05	
7.209	27161	13671	0.503	0.05	
7.324	115043	49699	0.432	0.21	
7.388	39495	20776	0.526	0.07	
7.467	41570	17783	0.428	0.08	
7.567	94026	35859	0.381	0.17	
7.710	32709	15850	0.485	0.06	
7.861	49496	23240	0.470	0.09	
7.925	153976	89539	0.582	0.28	
8.026	83883	59177	0.705	0.15	
8.233	2472144	1733818	0.701	4.56	* 144 Chlorobenzene-d5
8.312	1027789	713629	0.694	1.90	140 1,2-Dibromoethane
8.348	72328	54514	0.754	0.13	
8.412	3934431	2653804	0.675	7.26	150 m,p-Xylene
8.570	28118	14458	0.514	0.05	
8.749	1410391	963126	0.683	2.60	153 o-Xylene
9.043	125640	61864	0.492	0.23	156 Cumene
9.100	98524	47176	0.479	0.18	
9.165	26148	14802	0.566	0.05	
9.222	2491228	1740273	0.699	4.60	$ 159 Bromofluorobenzene
9.265	39450	20220	0.513	0.07	
9.387	311878	212979	0.683	0.58	162 Propylbenzene
9.458	1650306	815104	0.494	3.04	163 4-Ethyltoluene

RT	AREA	HEIGHT	HT/AREA	% AREA		COMPOUNDS
9.537	560326	366816	0.655	1.03	164	1,3,5-Trimethylbenzene
9.716	480284	267372	0.557	0.89		Benzene, 1-ethyl-2-met
9.859	1609394	1053833	0.655	2.97	166	1,2,4-Trimethylbenzene
9.952	88616	40779	0.460	0.16		
10.060	49273	21831	0.443	0.09		
10.103	51243	26974	0.526	0.09		
10.160	86150	38716	0.449	0.16		
10.225	330985	207079	0.626	0.61		Benzene, 1,3,5-trimeth
10.382	216805	94076	0.434	0.40		Benzene, 1-methyl-3-pr
10.404	124913	76742	0.614	0.23		
10.432	268146	135969	0.507	0.49		Benzene, 1,2,3,5-tetra
10.540	34216	18169	0.531	0.06		
10.597	57505	29924	0.520	0.11		
10.669	92301	53819	0.583	0.17		
10.697	81761	53810	0.658	0.15		
10.755	118848	77274	0.650	0.22		
10.876	57047	24683	0.433	0.11		
10.991	21455	12371	0.577	0.04 SYS		
11.027	30666	17094	0.557	0.06		
11.106	80575	48459	0.601	0.15		
11.149	142354	88321	0.620	0.26		
11.364	133568	58171	0.436	0.25		
11.528	91508	27815	0.304	0.17		
11.808	20385	10586	0.519	0.04 SYS		
11.915	26467	16379	0.619	0.05 cl		
12.159	101356	54806	0.541	0.19	176	Naphthalene
	54215367	27884729		100.000		

SYS. Peaks = 1219697

Total IS/S Area from Lab Blank = 11934212

Total unknown % area = 26.150

$$\frac{54215367 - [11934212 + 1219697]}{8\,3884.11} = 489.5$$

$$\%R = \left(\frac{489.5}{500}\right) \times 100 = 98\ \%$$

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1005647A-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 09:43 PM**	

Compound	%Recovery
Freon 12	102
Freon 114	96
Chloromethane	102
Vinyl Chloride	104
1,3-Butadiene	101
Bromomethane	112
Chloroethane	101
Freon 11	92
Ethanol	112
Freon 113	91
1,1-Dichloroethene	98
Acetone	102
2-Propanol	107
Carbon Disulfide	104
3-Chloropropene	104
Methylene Chloride	104
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	96
Hexane	100
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	98
Tetrahydrofuran	97
Chloroform	94
1,1,1-Trichloroethane	94
Cyclohexane	93
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	99
Benzene	98
1,2-Dichloroethane	98
Heptane	99
Trichloroethene	96
1,2-Dichloropropane	97
1,4-Dioxane	99
Bromodichloromethane	98
cis-1,3-Dichloropropene	101
4-Methyl-2-pentanone	103
Toluene	96
trans-1,3-Dichloropropene	104

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1005647A-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 09:43 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	96
Tetrachloroethene	95
2-Hexanone	107
Dibromochloromethane	103
1,2-Dibromoethane (EDB)	98
Chlorobenzene	96
Ethyl Benzene	96
m,p-Xylene	98
o-Xylene	97
Styrene	99
Bromoform	102
Cumene	101
1,1,2,2-Tetrachloroethane	95
Propylbenzene	99
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	94
TPH ref. to Gasoline (MW=100)	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 11-JUN-2010 21:43
Lab File ID: 3061102.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/11jun10.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 89 1,2-Dichloroethane-d4	1.41110	1.37155	0.010	2.80270	30.00000	Averaged
$ 115 Toluene-d8	0.98128	0.99236	0.010	-1.12892	30.00000	Averaged
$ 159 Bromofluorobenzene	0.47131	0.48421	0.010	-2.73663	30.00000	Averaged
6 Propylene	0.99373	1.03778	0.010	-4.43250	30.00000	Averaged
7 Dichlorodifluoromethane/Fr1	3.33038	3.41183	0.010	-2.44579	30.00000	Averaged
10 Freon 114	2.51979	2.41956	0.010	3.97767	30.00000	Averaged
11 Chloromethane	0.67111	0.68704	0.010	-2.37340	30.00000	Averaged
13 Butane	0.28279	0.28079	0.010	0.70877	40.00000	Averaged
14 Vinyl Chloride	1.28247	1.34005	0.010	-4.48999	30.00000	Averaged
15 1,3-Butadiene	1.04041	1.04883	0.010	-0.80899	30.00000	Averaged
21 Bromomethane	1.19925	1.34443	0.010	-12.10601	30.00000	Averaged
24 Chloroethane	0.81369	0.82160	0.010	-0.97171	30.00000	Averaged
25 Isopentane	1.93529	1.89063	0.010	2.30789	40.00000	Averaged
28 Trichlorofluoromethane/Fr11	3.52478	3.23895	0.010	8.10931	30.00000	Averaged
29 Ethanol	0.44356	0.49600	0.010	-11.82170	30.00000	Averaged
30 Freon 113	2.24649	2.05514	0.010	8.51790	30.00000	Averaged
32 1,1-Dichloroethene	1.28555	1.25702	0.010	2.21954	30.00000	Averaged
34 Acetone	0.59877	0.61332	0.010	-2.43017	30.00000	Averaged
35 Carbon Disulfide	3.59037	3.75077	0.010	-4.46750	30.00000	Averaged
37 2-Propanol	2.11681	2.27324	0.010	-7.38981	30.00000	Averaged
41 3-Chloropropene	0.58637	0.60703	0.010	-3.52412	30.00000	Averaged
43 Methylene Chloride	1.47563	1.53387	0.010	-3.94640	30.00000	Averaged
46 tert-Butyl-Alcohol	0.33002	0.33905	0.010	-2.73623	40.00000	Averaged
47 MTBE	3.34188	3.28420	0.010	1.72582	30.00000	Averaged
48 trans-1,2-Dichloroethene	0.91649	0.88168	0.010	3.79862	30.00000	Averaged
51 Hexane	2.21055	2.20152	0.010	0.40884	30.00000	Averaged
58 Isopropyl ether	6.60925	6.24319	0.010	5.53850	40.00000	Averaged
59 1,1-Dichloroethane	2.60375	2.53483	0.010	2.64682	30.00000	Averaged
61 Vinyl Acetate	0.34455	0.35056	0.010	-1.74473	40.00000	Averaged
68 t-Butylethyl Ether	3.84320	3.69231	0.010	3.92613	40.00000	Averaged
73 cis-1,2-Dichloroethene	0.86527	0.84660	0.010	2.15814	30.00000	Averaged
74 2-Butanone	0.69760	0.69085	0.010	0.96810	30.00000	Averaged
75 Tetrahydrofuran	1.74734	1.69571	0.010	2.95493	30.00000	Averaged
78 Chloroform	2.72405	2.55286	0.010	6.28423	30.00000	Averaged
80 Cyclohexane	1.87844	1.75571	0.010	6.53360	30.00000	Averaged
81 1,1,1-Trichloroethane	2.54263	2.38786	0.010	6.08685	30.00000	Averaged

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 11-JUN-2010 21:43
Lab File ID: 3061102.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/11jun10.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
82 Carbon Tetrachloride	2.46348	2.27584	0.010	7.61718	30.00000	Averaged
87 2,2,4-Trimethylpentane	6.69509	6.62931	0.010	0.98258	30.00000	Averaged
88 Benzene	1.15563	1.13260	0.010	1.99260	30.00000	Averaged
92 tert-amyl-Methyl Ether	3.18510	3.14861	0.010	1.14570	40.00000	Averaged
93 1,2-Dichloroethane	0.50334	0.49403	0.010	1.84837	30.00000	Averaged
94 Heptane	0.42196	0.41706	0.010	1.16108	30.00000	Averaged
102 Trichloroethene	0.46993	0.44938	0.010	4.37225	30.00000	Averaged
104 Methyl Cyclohexane	2.42891	2.26323	0.010	6.82113	40.00000	Averaged
106 1,2-Dichloropropane	0.42827	0.41553	0.010	2.97472	30.00000	Averaged
107 1,4-Dioxane	0.24228	0.23948	0.010	1.15796	30.00000	Averaged
109 Bromodichloromethane	0.70333	0.68629	0.010	2.42204	30.00000	Averaged
112 cis-1,3-Dichloropropene	0.53849	0.54399	0.010	-1.02085	30.00000	Averaged
114 4-Methyl-2-pentanone	0.32026	0.32902	0.010	-2.73753	30.00000	Averaged
116 Toluene	1.25998	1.21179	0.010	3.82508	30.00000	Averaged
123 trans-1,3-Dichloropropene	0.60764	0.63149	0.010	-3.92438	30.00000	Averaged
128 1,1,2-Trichloroethane	0.49273	0.47540	0.010	3.51801	30.00000	Averaged
131 Tetrachloroethene	0.63924	0.60899	0.010	4.73280	30.00000	Averaged
135 2-Hexanone	0.49273	0.52941	0.010	-7.44336	30.00000	Averaged
138 Dibromochloromethane	0.72596	0.74550	0.010	-2.69060	30.00000	Averaged
140 1,2-Dibromoethane	0.74635	0.73504	0.010	1.51496	30.00000	Averaged
145 Chlorobenzene	1.15194	1.10058	0.010	4.45890	30.00000	Averaged
147 Ethyl Benzene	0.59176	0.56846	0.010	3.93798	30.00000	Averaged
150 m,p-Xylene	0.72848	0.71704	0.010	1.57139	30.00000	Averaged
153 o-Xylene	0.70264	0.67966	0.010	3.26964	30.00000	Averaged
154 Styrene	1.09641	1.09039	0.010	0.54940	30.00000	Averaged
155 Bromoform	0.63247	0.64413	0.010	-1.84439	30.00000	Averaged
156 Cumene	1.92376	1.93965	0.010	-0.82629	30.00000	Averaged
161 1,1,2,2-Tetrachloroethane	1.13078	1.07647	0.010	4.80291	30.00000	Averaged
162 Propylbenzene	2.36640	2.34329	0.010	0.97649	30.00000	Averaged
163 4-Ethyltoluene	0.65081	0.63647	0.010	2.20388	30.00000	Averaged
164 1,3,5-Trimethylbenzene	0.84577	0.82911	0.010	1.96942	30.00000	Averaged
166 1,2,4-Trimethylbenzene	0.76881	0.76174	0.010	0.91937	30.00000	Averaged
168 1,3-Dichlorobenzene	1.11956	1.07336	0.010	4.12670	30.00000	Averaged
169 1,4-Dichlorobenzene	1.12070	1.08142	0.010	3.50459	30.00000	Averaged
170 alpha-Chlorotoluene	1.23016	1.38572	0.010	-12.64588	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i Injection Date: 11-JUN-2010 21:43
Lab File ID: 3061102.d Init. Cal. Date(s): 08-JUN-2010 08-JUN-2010
Analysis Type: AIR Init. Cal. Times: 09:05 11:37
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd3.i/11jun10.b/310q0608a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
171 1,2-Dichlorobenzene	1.01147	0.99483	0.010	1.64598	30.00000	Averaged
174 1,2,4-Trichlorobenzene	0.71056	0.72053	0.010	-1.40314	30.00000	Averaged
175 Hexachlorobutadiene	0.41744	0.39483	0.010	5.41664	30.00000	Averaged
176 Naphthalene	3.15553	3.09351	0.010	1.96539	40.00000	Averaged

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061102.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2010 21:43
Operator : dfm Inst ID: msd3.i
Smp Info : 50mL #1968-53
Misc Info : 200ppbv->50ppbv
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	222468	25.0000		80.00- 120.00	100.00
4.852	4.852 (1.000)	128	173057			28.35- 128.35	77.79
4.852	4.852 (1.000)	49	337806			99.84- 199.84	151.84
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	779027	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	122974			0.00- 66.08	15.79
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	679504	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	372970			4.13- 104.13	54.89
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	305127	25.0000	24.299	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	183251			7.34- 107.34	60.06
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	7.001 (1.215)	98	773075	25.0000	25.282	80.00- 120.00	100.00
7.001	7.001 (1.215)	70	87579			0.00- 61.54	11.33

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	520108			16.89- 116.89	67.28
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	329022	25.0000	25.684	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	464616			93.92- 193.92	141.21
9.236	9.236 (1.121)	176	316774			46.28- 146.28	96.28
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	461747	50.0000	52.216	80.00- 120.00	100.00
1.311	1.311 (0.270)	42	304956			17.42- 117.42	66.04
1.311	1.311 (0.270)	39	348722			24.45- 124.45	75.52
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1518052	50.0000	51.223	80.00- 120.00	100.00
1.339	1.339 (0.276)	87	482014			0.00- 82.39	31.75
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	1076552	50.0000	48.011	80.00- 120.00	100.00
1.437	1.437 (0.296)	137	343868			0.00- 81.83	31.94
11 Chloromethane					CAS #: 74-87-3		
1.492	1.492 (0.308)	50	305690	50.0000	51.187	80.00- 120.00	100.00
1.492	1.492 (0.308)	52	98871			0.00- 86.13	32.34
13 Butane					CAS #: 106-97-8		
1.562	1.562 (0.322)	58	124932	50.0000	49.646	80.00- 120.00	100.00
1.562	1.562 (0.322)	43	946521			695.67- 795.67	757.63
14 Vinyl Chloride					CAS #: 75-01-4		
1.590	1.590 (0.328)	62	596237	50.0000	52.245	80.00- 120.00	100.00
1.590	1.590 (0.328)	64	197825			0.00- 92.01	33.18
15 1,3-Butadiene					CAS #: 106-99-0		
1.604	1.604 (0.331)	54	466662	50.0000	50.404	80.00- 120.00	100.00
1.604	1.604 (0.331)	39	582680			70.78- 170.78	124.86
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.388)	94	598187	50.0000	56.053	80.00- 120.00	100.00
1.884	1.884 (0.388)	96	504006			45.80- 145.80	84.26
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	365560	50.0000	50.486	80.00- 120.00	100.00
1.968	1.968 (0.406)	66	105610			0.00- 80.64	28.89
1.968	1.968 (0.406)	49	93703			0.00- 74.97	25.63

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	841210	50.0000	48.846	80.00- 120.00	100.00
1.996	1.996 (0.411)	57	569380			12.68- 112.68	67.69
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.173	2.173 (0.448)	101	1441127	50.0000	45.945	80.00- 120.00	100.00
2.173	2.173 (0.448)	103	933106			12.39- 112.39	64.75
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.492)	45	220689	50.0000	55.911	80.00- 120.00	100.00
2.388	2.388 (0.492)	43	48861			0.00- 74.96	22.14
2.388	2.388 (0.492)	46	87857			0.00- 90.46	39.81
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	914407	50.0000	45.741	80.00- 120.00	100.00
2.668	2.668 (0.550)	153	593050			14.27- 114.27	64.86
2.668	2.668 (0.550)	101	1231532			83.92- 183.92	134.68
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.703	2.703 (0.557)	96	559295	50.0000	48.890	80.00- 120.00	100.00
2.703	2.703 (0.557)	98	362165			13.88- 113.88	64.75
2.703	2.703 (0.557)	61	951462			114.74- 214.74	170.12
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	272889	50.0000	51.215	80.00- 120.00	100.00
2.811	2.811 (0.579)	43	929647			296.41- 396.41	340.67
35 Carbon Disulfide					CAS #: 75-15-0		
2.925	2.925 (0.603)	76	1668857	50.0000	52.234	80.00- 120.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.940	2.940 (0.606)	45	1011448	50.0000	53.695	80.00- 120.00	100.00
2.940	2.940 (0.606)	43	213510			0.00- 71.77	21.11
2.940	2.940 (0.606)	59	36752			0.00- 53.59	3.63
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.646)	76	270092	50.0000	51.762	80.00- 120.00	100.00
3.126	3.126 (0.644)	41	810527			246.04- 346.04	300.09
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	682475	50.0000	51.973	80.00- 120.00	100.00
3.298	3.298 (0.680)	84	508265			28.40- 128.40	74.47
3.298	3.298 (0.680)	51	208202			0.00- 83.23	30.51
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.398	3.398 (0.700)	57	15085	5.00000	5.137	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.405	3.405 (0.702)	41	44460			220.86- 320.86	294.72
3.405	3.405 (0.702)	59	144014			964.11-1064.11	954.64
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	1461263	50.0000	49.137	80.00- 120.00	100.00
3.520	3.520 (0.725)	57	339427			0.00- 73.87	23.23
3.520	3.520 (0.725)	41	387336			0.00- 78.02	26.51
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.549	3.549 (0.731)	98	392291	50.0000	48.101	80.00- 120.00	100.00
3.549	3.549 (0.731)	61	914657			172.17- 272.17	233.16
3.549	3.549 (0.731)	96	617459			102.08- 202.08	157.40
51 Hexane					CAS #: 110-54-3		
3.756	3.756 (0.774)	57	979536	50.0000	49.796	80.00- 120.00	100.00
3.763	3.763 (0.776)	43	667059			22.12- 122.12	68.10
3.756	3.756 (0.774)	86	161010			0.00- 66.41	16.44
58 Isopropyl ether					CAS #: 108-20-3		
4.021	4.021 (0.829)	45	277783	5.00000	4.723	80.00- 120.00	100.00
4.028	4.028 (0.830)	87	77252			0.00- 78.32	27.81
4.028	4.028 (0.830)	59	32247			0.00- 61.56	11.61
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.028	4.028 (0.830)	63	1127840	50.0000	48.676	80.00- 120.00	100.00
4.028	4.028 (0.830)	65	354731			0.00- 80.42	31.45
61 Vinyl Acetate					CAS #: 108-05-4		
4.071	4.071 (0.839)	86	155978	50.0000	50.872	80.00- 120.00	100.00
4.071	4.071 (0.839)	43	1804495			1146.06-1246.06	1156.88
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	164284	5.00000	4.804	80.00- 120.00	100.00
4.387	4.387 (0.904)	87	63813			0.00- 89.80	38.84
4.387	4.387 (0.904)	41	39526			0.00- 80.87	24.06
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	376682	50.0000	48.921	80.00- 120.00	100.00
4.616	4.616 (0.951)	96	583930			108.84- 208.84	155.02
4.616	4.616 (0.951)	61	818731			162.75- 262.75	217.35
74 2-Butanone					CAS #: 78-93-3		
4.637	4.637 (0.956)	72	307385	50.0000	49.516	80.00- 120.00	100.00
4.637	4.637 (0.956)	43	1349409			387.49- 487.49	439.00
4.637	4.637 (0.956)	57	95656			0.00- 81.47	31.12

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	754484	50.0000	48.522	80.00- 120.00	100.00
4.845	4.845 (0.999)	71	260886			0.00- 84.18	34.58
4.845	4.845 (0.999)	72	277016			0.00- 86.49	36.72
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	1135864	50.0000	46.858	80.00- 120.00	100.00
4.917	4.917 (1.013)	85	750628			15.60- 115.60	66.08
80 Cyclohexane					CAS #: 110-82-7		
5.031	5.031 (1.037)	84	781181	50.0000	46.733	80.00- 120.00	100.00
5.031	5.031 (1.037)	56	958473			70.03- 170.03	122.70
5.031	5.031 (1.037)	41	574686			25.61- 125.61	73.57
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	1062448	50.0000	46.956	80.00- 120.00	100.00
5.046	5.046 (1.040)	99	675243			15.90- 115.90	63.56
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.063)	119	1012604	50.0000	46.191	80.00- 120.00	100.00
5.160	5.160 (1.063)	117	1064836			52.89- 152.89	105.16
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.368 (1.106)	57	2949627	50.0000	49.509	80.00- 120.00	100.00
5.368	5.368 (1.106)	56	988999			0.00- 84.28	33.53
5.368	5.368 (1.106)	41	796231			0.00- 78.49	26.99
88 Benzene					CAS #: 71-43-2		
5.382	5.382 (0.934)	78	1764653	50.0000	49.004	80.00- 120.00	100.00
5.382	5.382 (0.934)	77	420412			0.00- 74.28	23.82
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	140093	5.00000	4.943	80.00- 120.00	100.00
5.454	5.454 (1.124)	87	31603			0.00- 72.44	22.56
5.454	5.454 (1.124)	55	47478			0.00- 87.72	33.89
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	769730	50.0000	49.076	80.00- 120.00	100.00
5.468	5.468 (0.949)	64	254325			0.00- 83.28	33.04
94 Heptane					CAS #: 142-82-5		
5.540	5.540 (0.961)	71	649801	50.0000	49.419	80.00- 120.00	100.00
5.540	5.540 (0.961)	43	1237168			140.08- 240.08	190.39
5.540	5.540 (0.961)	57	608900			43.69- 143.69	93.71
102 Trichloroethene					CAS #: 79-01-6		
5.955	5.955 (1.034)	95	700158	50.0000	47.814	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.962	5.962 (1.035)	130	721118			53.39- 153.39	102.99
5.955	5.955 (1.034)	97	447152			14.84- 114.84	63.86
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	1006994	50.0000	46.589	80.00- 120.00	100.00
6.063	6.063 (1.249)	98	483109			0.00- 97.38	47.98
6.063	6.063 (1.249)	55	855477			34.54- 134.54	84.95
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	647424	50.0000	48.513	80.00- 120.00	100.00
6.199	6.199 (1.076)	62	463868			23.66- 123.66	71.65
6.199	6.199 (1.076)	41	381867			13.65- 113.65	58.98
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	373119	50.0000	49.421	80.00- 120.00	100.00
6.285	6.285 (1.091)	58	275383			26.05- 126.05	73.81
6.285	6.285 (1.091)	57	88850			0.00- 74.82	23.81
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1069278	50.0000	48.789	80.00- 120.00	100.00
6.428	6.428 (1.116)	85	689734			14.68- 114.68	64.50
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	847562	50.0000	50.510	80.00- 120.00	100.00
6.815	6.815 (1.183)	77	268013			0.00- 81.50	31.62
6.815	6.815 (1.183)	39	465482			6.29- 106.29	54.92
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	512635	50.0000	51.369	80.00- 120.00	100.00
6.930	6.930 (1.203)	43	1447283			237.28- 337.28	282.32
6.930	6.930 (1.203)	85	208903			0.00- 88.81	40.75
116 Toluene					CAS #: 108-88-3		
7.058	7.058 (1.225)	91	1888034	50.0000	48.087	80.00- 120.00	100.00
7.058	7.058 (1.225)	92	1101332			8.79- 108.79	58.33
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	858201	50.0000	51.962	80.00- 120.00	100.00
7.302	7.302 (0.886)	77	270701			0.00- 83.09	31.54
7.302	7.302 (0.886)	39	461356			5.18- 105.18	53.76
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.452	7.452 (0.904)	97	646066	50.0000	48.241	80.00- 120.00	100.00
7.452	7.452 (0.904)	99	402208			11.85- 111.85	62.26
7.452	7.452 (0.904)	83	570493			37.54- 137.54	88.30

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.495	7.495 (0.910)	166	827616	50.0000	47.634	80.00- 120.00	100.00
7.495	7.495 (0.910)	129	632603			24.54- 124.54	76.44
7.495	7.495 (0.910)	131	591443			23.12- 123.12	71.46
135 2-Hexanone					CAS #: 591-78-6		
7.631	7.631 (0.926)	58	719471	50.0000	53.722	80.00- 120.00	100.00
7.631	7.631 (0.926)	43	1434221			152.66- 252.66	199.34
7.631	7.631 (0.926)	100	142014			0.00- 69.00	19.74
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	1013137	50.0000	51.345	80.00- 120.00	100.00
7.768	7.768 (0.943)	127	786535			27.39- 127.39	77.63
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	998925	50.0000	49.242	80.00- 120.00	100.00
7.882	7.882 (0.957)	109	945880			44.04- 144.04	94.69
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	1495695	50.0000	47.770	80.00- 120.00	100.00
8.262	8.262 (1.003)	114	482723			0.00- 80.98	32.27
8.262	8.262 (1.003)	77	863948			16.55- 116.55	57.76
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	772542	50.0000	48.031	80.00- 120.00	100.00
8.319	8.319 (1.010)	91	2361213			251.61- 351.61	305.64
150 m,p-Xylene					CAS #: 108-38-3		
8.419	8.419 (1.022)	106	974459	50.0000	49.214	80.00- 120.00	100.00
8.419	8.419 (1.022)	91	1849767			143.04- 243.04	189.82
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	923668	50.0000	48.365	80.00- 120.00	100.00
8.763	8.763 (1.063)	91	1842114			145.82- 245.82	199.43
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	1481843	50.0000	49.725	80.00- 120.00	100.00
8.785	8.785 (1.066)	78	700339			0.00- 97.81	47.26
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	875382	50.0000	50.922	80.00- 120.00	100.00
8.971	8.971 (1.089)	171	449607			1.57- 101.57	51.36
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	2636004	50.0000	50.413	80.00- 120.00	100.00
9.057	9.057 (1.099)	120	759968			0.00- 78.20	28.83

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.050	9.050 (1.098)	51	274460			0.00- 60.54	10.41
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	1462929	50.0000	47.598	80.00- 120.00	100.00
9.365	9.365 (1.136)	85	952588			14.67- 114.67	65.12
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	3184554	50.0000	49.512	80.00- 120.00	100.00
9.401	9.401 (1.141)	120	782762			0.00- 74.44	24.58
9.401	9.401 (1.141)	105	118770			0.00- 54.32	3.73
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	864970	50.0000	48.898	80.00- 120.00	100.00
9.494	9.494 (1.152)	105	2673378			267.54- 367.54	309.07
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.551	9.551 (1.159)	120	1126773	50.0000	49.015	80.00- 120.00	100.00
9.551	9.551 (1.159)	105	2137726			144.39- 244.39	189.72
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	1035211	50.0000	49.540	80.00- 120.00	100.00
9.874	9.874 (1.198)	105	2057602			152.28- 252.28	198.76
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	1458709	50.0000	47.937	80.00- 120.00	100.00
10.153	10.153 (1.232)	148	947242			13.05- 113.05	64.94
10.153	10.153 (1.232)	111	594183			0.00- 90.20	40.73
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	1469660	50.0000	48.248	80.00- 120.00	100.00
10.232	10.232 (1.242)	148	946085			14.32- 114.32	64.37
10.232	10.232 (1.242)	111	581684			0.00- 88.82	39.58
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.353	10.353 (1.256)	91	1883209	50.0000	56.323	80.00- 120.00	100.00
10.353	10.353 (1.256)	126	422293			0.00- 71.70	22.42
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.561	10.561 (1.282)	146	1351976	50.0000	49.177	80.00- 120.00	100.00
10.561	10.561 (1.282)	148	876384			14.70- 114.70	64.82
10.561	10.561 (1.282)	111	579004			0.00- 93.01	42.83
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.929	11.929 (1.448)	180	979210	50.0000	50.702	80.00- 120.00	100.00
11.929	11.929 (1.448)	182	931087			45.25- 145.25	95.09

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.022	12.022 (1.459)	225	536576	50.0000	47.292	80.00- 120.00	100.00
12.022	12.022 (1.459)	223	338522			12.77- 112.77	63.09
176 Naphthalene					CAS #: 91-20-3		
12.173	12.173 (1.477)	128	420410	5.00000	4.902	80.00- 120.00	100.00
12.173	12.173 (1.477)	127	52316			0.00- 63.93	12.44

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061102.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 11-JUN-2010
Calibration Time: 21:43
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	222468	133481	311455	222468	0.00
97 1,4-Difluorobenze	779027	467416	1090638	779027	0.00
144 Chlorobenzene-d5	679504	407702	951306	679504	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.00
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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/msd3.i/11jun10.b/3061102.d

Date : 11-JUN-2010 21:43

Client ID: CCV

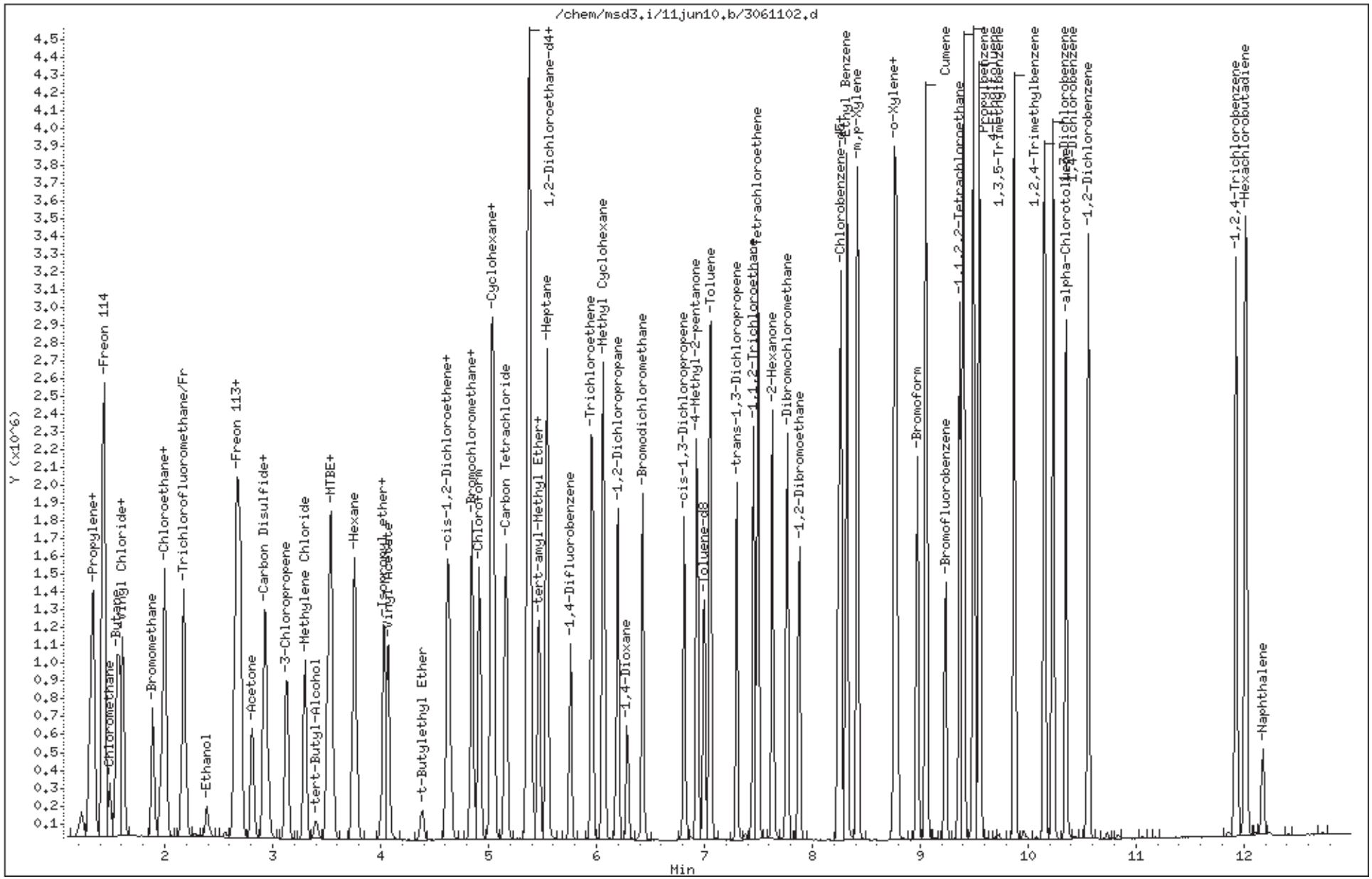
Sample Info: 50mL #1968-53

Column phase: RTx-624

Instrument: msd3.i

Operator: dfm

Column diameter: 0.53



Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /var/chem/msd3.i/11jun10.b/3061105.d
Lab Smp Id: tphgccv Client Smp ID: tphgccv
Inj Date : 11-JUN-2010 22:54
Operator : dfm Inst ID: msd3.i
Smp Info : 40mL #1936-214
Misc Info : 2500ppbv->500ppbv
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.199	1518614	399291	0.263	3.21	UNKNOWN
1.437	88346	49546	0.561	0.19	6 Propylene
1.507	95416	28585	0.300	0.20	
1.563	506185	207439	0.410	1.07	13 Butane
1.633	66084	27458	0.415	0.14	~~24 Chloroethane~~
1.716	44470	21489	0.483	0.09	
1.912	42114	13393	0.318	0.09	
1.996	2477262	974899	0.394	5.24	15 1,3-Butadiene
2.238	945535	304000	0.322	2.00	42 Pentane
2.381	794463	289509	0.364	1.68	29 Ethanol
2.481	172785	61469	0.356	0.37	
2.539	576143	211801	0.368	1.22	Cyclopropane, 1,1-dime
2.660	315530	90292	0.286	0.67	Butane, 2,2-dimethyl-
3.198	1400113	345972	0.247	2.96	Pentane, 2-methyl-
3.276	287307	78925	0.275	0.61	~~43 Methylene Chloride~~
3.470	545657	190388	0.349	1.15	46 tert-Butyl-Alcohol
3.678	106231	36581	0.344	0.22	
3.756	417137	173084	0.415	0.88	51 Hexane
3.878	89628	38237	0.427	0.19	
3.943	148814	68879	0.463	0.31	
3.993	296073	113867	0.385	0.63	2-Pentene, 4-methyl-,
4.072	95058	34897	0.367	0.20	
4.143	86824	35385	0.408	0.18	
4.251	200137	65409	0.327	0.42	2-Pentene, 3-methyl-,

RT	AREA	HEIGHT	HT/AREA	% AREA			COMPOUNDS
4.294	239250	85818	0.359	0.51			Pentane, 2,4-dimethyl-
4.394	393192	162983	0.415	0.83			Cyclopentane, methyl-
4.458	61143	25162	0.412	0.13			
4.852	1461037	638287	0.437	3.09	*	76	Bromochloromethane
4.974	634551	261984	0.413	1.34		75	Tetrahydrofuran
5.046	586887	186188	0.317	1.24		80	Cyclohexane
5.139	699666	304616	0.435	1.48		74	2-Butanone
5.368	2967200	818053	0.276	6.27	$	89	1,2-Dichloroethane-d4
5.454	117876	45985	0.390	0.25			
5.540	552678	285320	0.516	1.17		94	Heptane
5.583	38496	22737	0.591	0.08			
5.676	185005	58516	0.316	0.39			1-Butene, 2-ethyl-3-me
5.755	1943595	1125376	0.579	4.11	*	97	1,4-Difluorobenzene
5.798	43289	22406	0.518	0.09			
5.877	81188	24832	0.306	0.17			
6.041	471437	183046	0.388	1.00		104	Methyl Cyclohexane
6.084	336496	144505	0.429	0.71			UNKNOWN
6.149	66030	30068	0.455	0.14			
6.213	90422	36545	0.404	0.19			
6.263	34311	17878	0.521	0.07			
6.400	623077	304658	0.489	1.32			Pentane, 2,3,4-trimeth
6.507	763138	304784	0.399	1.61			Pentane, 2,3,3-trimeth
6.564	364195	163267	0.448	0.77			UNKNOWN
6.600	104463	74075	0.709	0.22			
6.693	399907	175202	0.438	0.85			Heptane, 3-methyl-
6.822	233515	114284	0.489	0.49			Hexane, 2,2,5-trimethy
6.887	47962	25524	0.532	0.10			
6.987	2076641	1314950	0.633	4.39	$	115	Toluene-d8
7.037	4451451	2670633	0.600	9.39		~~112~~	~~cis-1,3-Dichloropropen~~
7.137	22725	13578	0.597	0.05			
7.195	24633	13567	0.551	0.05			
7.302	87580	37664	0.430	0.19			
7.374	31894	16939	0.531	0.07			
7.445	36528	15922	0.436	0.08			
7.553	56894	27388	0.481	0.12			
7.689	28871	14837	0.514	0.06			
7.847	39969	17866	0.447	0.08			
7.911	122768	71095	0.579	0.26			
8.011	66414	48353	0.728	0.14			
8.169	20220	12340	0.610	0.04			
8.219	2089536	1368736	0.655	4.42	*	144	Chlorobenzene-d5
8.305	857597	553806	0.646	1.81		140	1,2-Dibromoethane
8.398	3182043	2127274	0.669	6.72		150	m,p-Xylene
8.742	1142551	791655	0.693	2.41		153	o-Xylene
9.036	102033	51335	0.503	0.22		156	Cumene
9.093	81088	41147	0.507	0.17			
9.165	21789	12641	0.580	0.05			
9.215	2098060	1461040	0.696	4.43	$	159	Bromofluorobenzene
9.379	257904	171478	0.665	0.55		162	Propylbenzene
9.451	1355055	638218	0.471	2.86		163	4-Ethyltoluene

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.530	458677	306966	0.669	0.97	164 1,3,5-Trimethylbenzene
9.709	353030	215397	0.610	0.75	Benzene, 1-ethyl-2-met
9.852	1344624	948851	0.706	2.84	166 1,2,4-Trimethylbenzene
9.945	82325	35327	0.429	0.17	
9.981	27256	14552	0.534	0.06	
10.053	59604	24809	0.416	0.13	
10.103	54320	25439	0.468	0.11	
10.160	91184	38587	0.423	0.19	
10.217	283022	173812	0.614	0.60	Benzene, 1,2,4-trimeth
10.375	260874	80148	0.307	0.55	Benzene, 1-methyl-3-pr
10.425	264881	116726	0.441	0.56	Benzene, 1-ethyl-3,5-d
10.533	34551	16003	0.463	0.07	
10.597	45239	24025	0.531	0.10	
10.669	86481	45189	0.523	0.18	
10.690	65883	43449	0.659	0.14	
10.755	108548	71702	0.661	0.23	
10.876	42558	17774	0.418	0.09	
11.027	30985	14181	0.458	0.07	
11.099	77795	41752	0.537	0.16	
11.149	117192	72372	0.618	0.25	
11.371	86556	44530	0.514	0.18	
11.528	67370	22358	0.332	0.14	
11.901	23540	12606	0.536	0.05	cal
12.008	26513	11807	0.445	0.06	SYS
12.159	92881	48305	0.520	0.20	176 Naphthalene
12.896	24824	9105	0.367	0.05	SYS
	47320888	23471128		100.000	

Total IS/S Area from Lab Blank = 9568784

System Peaks = 1593491

Total unknown % area = 28.130

$$\frac{47320888 - [9568784 + 1593491]}{83884.11} = 431$$

$$\%R = \left(\frac{431}{500}\right) \times 100 = 86\ \%$$

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061023**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 09:44 PM**	

Compound	%Recovery
Freon 12	92
Freon 114	94
Chloromethane	83
Vinyl Chloride	93
1,3-Butadiene	92
Bromomethane	94
Chloroethane	90
Freon 11	84
Ethanol	87
Freon 113	81
1,1-Dichloroethene	84
Acetone	86
2-Propanol	89
Carbon Disulfide	93
3-Chloropropene	92
Methylene Chloride	82
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	89
Hexane	87
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	93
cis-1,2-Dichloroethene	95
Tetrahydrofuran	89
Chloroform	89
1,1,1-Trichloroethane	90
Cyclohexane	93
Carbon Tetrachloride	90
2,2,4-Trimethylpentane	94
Benzene	88
1,2-Dichloroethane	85
Heptane	92
Trichloroethene	92
1,2-Dichloropropane	92
1,4-Dioxane	95
Bromodichloromethane	92
cis-1,3-Dichloropropene	99
4-Methyl-2-pentanone	97
Toluene	88
trans-1,3-Dichloropropene	104

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061023**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/10/10 09:44 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	96
Tetrachloroethene	93
2-Hexanone	104
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	100
Chlorobenzene	93
Ethyl Benzene	94
m,p-Xylene	96
o-Xylene	94
Styrene	97
Bromoform	98
Cumene	94
1,1,2,2-Tetrachloroethane	91
Propylbenzene	92
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	91
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	105
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	94
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	102	70-130

Report Date: 10-Jun-2010 22:02

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 10jun10a
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lcs Client Smp ID: lcs
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT10.sub
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
6 Propylene	50.000	42.412	84.82	60-140
7 Dichlorodifluorome	50.000	46.058	92.12	70-130
10 Freon 114	50.000	46.872	93.74	70-130
11 Chloromethane	50.000	41.701	83.40	70-130
14 Vinyl Chloride	50.000	46.490	92.98	70-130
15 1,3-Butadiene	50.000	45.939	91.88	60-140
21 Bromomethane	50.000	46.786	93.57	70-130
24 Chloroethane	50.000	44.798	89.60	70-130
28 Trichlorofluoromet	50.000	42.047	84.09	70-130
29 Ethanol	50.000	43.726	87.45	60-140
30 Freon 113	50.000	40.353	80.71	70-130
32 1,1-Dichloroethene	50.000	42.046	84.09	70-130
34 Acetone	50.000	43.111	86.22	60-140
35 Carbon Disulfide	50.000	46.422	92.85	60-140
37 2-Propanol	50.000	44.336	88.67	60-140
43 Methylene Chloride	50.000	41.024	82.05	70-130
47 MTBE	50.000	46.326	92.65	60-140
48 trans-1,2-Dichloro	50.000	44.359	88.72	60-140
51 Hexane	50.000	43.526	87.05	60-140
61 Vinyl Acetate	50.000	47.378	94.76	60-140
59 1,1-Dichloroethane	50.000	43.231	86.46	70-130
73 cis-1,2-Dichloroet	50.000	47.320	94.64	70-130
74 2-Butanone	50.000	46.745	93.49	60-140
75 Tetrahydrofuran	50.000	44.461	88.92	60-140
78 Chloroform	50.000	44.442	88.88	70-130
80 Cyclohexane	50.000	46.309	92.62	60-140
81 1,1,1-Trichloroeth	50.000	44.989	89.98	70-130
82 Carbon Tetrachlori	50.000	44.913	89.83	70-130
88 Benzene	50.000	44.240	88.48	70-130
93 1,2-Dichloroethane	50.000	42.519	85.04	70-130
94 Heptane	50.000	45.915	91.83	60-140
102 Trichloroethene	50.000	45.816	91.63	70-130
106 1,2-Dichloropropan	50.000	45.841	91.68	70-130

	SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
107	1,4-Dioxane	50.000	47.721	95.44	60-140
109	Bromodichlorometha	50.000	46.234	92.47	60-140
112	cis-1,3-Dichloropr	50.000	49.736	99.47	70-130
114	4-Methyl-2-pentano	50.000	48.476	96.95	60-140
116	Toluene	50.000	43.870	87.74	70-130
123	trans-1,3-Dichloro	50.000	52.265	104.53	70-130
128	1,1,2-Trichloroeth	50.000	47.764	95.53	70-130
131	Tetrachloroethene	50.000	46.315	92.63	70-130
135	2-Hexanone	50.000	52.141	104.28	60-140
138	Dibromochlorometha	50.000	50.261	100.52	60-140
140	1,2-Dibromoethane	50.000	50.250	100.50	70-130
145	Chlorobenzene	50.000	46.745	93.49	70-130
147	Ethyl Benzene	50.000	47.241	94.48	70-130
150	m,p-Xylene	50.000	48.248	96.50	70-130
153	o-Xylene	50.000	47.004	94.01	70-130
154	Styrene	50.000	48.408	96.82	70-130
155	Bromoform	50.000	49.160	98.32	60-140
161	1,1,2,2-Tetrachlor	50.000	45.443	90.89	70-130
163	4-Ethyltoluene	50.000	46.810	93.62	60-140
164	1,3,5-Trimethylben	50.000	48.004	96.01	70-130
166	1,2,4-Trimethylben	50.000	46.922	93.84	70-130
168	1,3-Dichlorobenzen	50.000	45.380	90.76	70-130
169	1,4-Dichlorobenzen	50.000	46.688	93.38	70-130
170	alpha-Chlorotoluen	50.000	52.464	104.93	70-130
171	1,2-Dichlorobenzen	50.000	47.301	94.60	70-130
174	1,2,4-Trichloroben	50.000	48.514	97.03	70-130
175	Hexachlorobutadien	50.000	47.298	94.60	70-130
162	Propylbenzene	50.000	46.024	92.05	60-140
156	Cumene	50.000	47.146	94.29	60-140
41	3-Chloropropene	50.000	46.131	92.26	60-140
87	2,2,4-Trimethylpen	50.000	47.239	94.48	60-140
25	Isopentane	50.000	41.167	82.33	70-130
13	Butane	50.000	42.292	84.58	70-130
104	Methyl Cyclohexane	50.000	47.337	94.67	70-130
46	tert-Butyl-Alcohol	5.000	4.197	83.95	60-140
176	Naphthalene	5.000	3.638	72.76	60-140
58	Isopropyl ether	5.000	4.246	84.92	60-140
68	t-Butylethyl Ether	5.000	5.275	105.50	60-140
92	tert-amyl-Methyl E	5.000	5.646	112.91	60-140

	SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89	1,2-Dichloroethane	25.000	22.769	91.07	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 115 Toluene-d8	25.000	25.298	101.19	70-130
$ 159 Bromofluorobenzene	25.000	25.460	101.84	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061023.d
Lab Smp Id: lcs Client Smp ID: lcs
Inj Date : 10-JUN-2010 21:44
Operator : dfm Inst ID: msd3.i
Smp Info : 50mL #1936-114
Misc Info : 200ppbv->50ppbv
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.845 (1.000)	130	283355	25.0000		80.00- 120.00	100.00
4.852	4.845 (1.000)	128	223028			28.35- 128.35	78.71
4.845	4.845 (1.000)	49	391601			99.84- 199.84	138.20
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	1047887	25.0000		80.00- 120.00	100.00
5.762	5.755 (1.000)	88	166523			0.00- 66.08	15.89
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.240	8.240 (1.000)	117	878282	25.0000		80.00- 120.00	100.00
8.240	8.240 (1.000)	82	479140			4.13- 104.13	54.55
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	364155	22.7686	22.769	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	217201			7.34- 107.34	59.65
$ 115 Toluene-d8					CAS #: 2037-26-5		
7.001	6.994 (1.215)	98	1040520	25.2978	25.298	80.00- 120.00	100.00
7.001	6.994 (1.215)	70	116514			0.00- 61.54	11.20

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
7.001	7.001 (1.215)	100	690594			16.89- 116.89	66.37
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.236	9.236 (1.121)	174	421565	25.4602	25.460	80.00- 120.00	100.00
9.236	9.236 (1.121)	95	599007			93.92- 193.92	142.09
9.236	9.236 (1.121)	176	405056			46.28- 146.28	96.08
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	477690	42.4116	42.412	80.00- 120.00	100.00
1.311	1.311 (0.270)	42	319721			17.42- 117.42	66.93
1.311	1.311 (0.270)	39	354667			24.45- 124.45	74.25
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1738585	46.0586	46.058	80.00- 120.00	100.00
1.339	1.339 (0.276)	87	564239			0.00- 82.39	32.45
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	1338662	46.8722	46.872	80.00- 120.00	100.00
1.437	1.437 (0.296)	137	427536			0.00- 81.83	31.94
11 Chloromethane					CAS #: 74-87-3		
1.493	1.493 (0.308)	50	317199	41.7009	41.701	80.00- 120.00	100.00
1.493	1.493 (0.308)	52	109072			0.00- 86.13	34.39
13 Butane					CAS #: 106-97-8		
1.563	1.563 (0.322)	58	135554	42.2916	42.292	80.00- 120.00	100.00
1.563	1.563 (0.322)	43	1009621			695.67- 795.67	744.81
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.590 (0.328)	62	675767	46.4900	46.490	80.00- 120.00	100.00
1.591	1.590 (0.328)	64	220132			0.00- 92.01	32.58
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.604 (0.334)	54	541721	45.9388	45.939	80.00- 120.00	100.00
1.619	1.604 (0.334)	39	638666			70.78- 170.78	117.90
21 Bromomethane					CAS #: 74-83-9		
1.884	1.884 (0.388)	94	635941	46.7860	46.786	80.00- 120.00	100.00
1.884	1.884 (0.388)	96	604103			45.80- 145.80	94.99
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	413154	44.7982	44.798	80.00- 120.00	100.00
1.968	1.968 (0.406)	66	116485			0.00- 80.64	28.19
1.968	1.968 (0.406)	49	103692			0.00- 74.97	25.10

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	903001	41.1671	41.167	80.00- 120.00	100.00
1.996	1.996 (0.411)	57	598571			12.68- 112.68	66.29
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.181	2.173 (0.449)	101	1679798	42.0468	42.047	80.00- 120.00	100.00
2.173	2.173 (0.448)	103	1265377			12.39- 112.39	75.33
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.492)	45	219828	43.7256	43.726	80.00- 120.00	100.00
2.388	2.381 (0.492)	43	49590			0.00- 74.96	22.56
2.388	2.388 (0.492)	46	85540			0.00- 90.46	38.91
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	1027474	40.3529	40.353	80.00- 120.00	100.00
2.668	2.668 (0.550)	153	658250			14.27- 114.27	64.06
2.668	2.668 (0.550)	101	1286920			83.92- 183.92	125.25
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.703	2.696 (0.557)	96	612640	42.0459	42.046	80.00- 120.00	100.00
2.703	2.696 (0.557)	98	384613			13.88- 113.88	62.78
2.703	2.696 (0.557)	61	956136			114.74- 214.74	156.07
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	292579	43.1114	43.111	80.00- 120.00	100.00
2.811	2.811 (0.579)	43	994906			296.41- 396.41	340.05
35 Carbon Disulfide					CAS #: 75-15-0		
2.925	2.918 (0.603)	76	1889121	46.4226	46.422	80.00- 120.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.940	2.940 (0.606)	45	1063716	44.3356	44.336	80.00- 120.00	100.00
2.940	2.940 (0.606)	43	226886			0.00- 71.77	21.33
2.940	2.940 (0.606)	59	40500			0.00- 53.59	3.81
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.646)	76	306587	46.1308	46.131	80.00- 120.00	100.00
3.133	3.126 (0.646)	41	869010			246.04- 346.04	283.45
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	686141	41.0245	41.024	80.00- 120.00	100.00
3.298	3.298 (0.680)	84	553283			28.40- 128.40	80.64
3.298	3.298 (0.680)	51	214144			0.00- 83.23	31.21
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.405	3.398 (0.702)	57	15700	4.19725	4.197	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.398	3.398 (0.700)	41	41883			220.86- 320.86	266.77
3.405	3.398 (0.702)	59	149013			964.11-1064.11	949.13
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	1754719	46.3261	46.326	80.00- 120.00	100.00
3.520	3.520 (0.725)	57	394804			0.00- 73.87	22.50
3.513	3.513 (0.724)	41	431197			0.00- 78.02	24.57
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.549	3.541 (0.731)	98	460793	44.3594	44.359	80.00- 120.00	100.00
3.549	3.541 (0.731)	61	1024079			172.17- 272.17	222.24
3.549	3.541 (0.731)	96	723413			102.08- 202.08	156.99
51 Hexane					CAS #: 110-54-3		
3.756	3.756 (0.774)	57	1090541	43.5261	43.526	80.00- 120.00	100.00
3.756	3.756 (0.774)	43	733861			22.12- 122.12	67.29
3.764	3.764 (0.776)	86	191212			0.00- 66.41	17.53
58 Isopropyl ether					CAS #: 108-20-3		
4.029	4.021 (0.830)	45	318086	4.24621	4.246	80.00- 120.00	100.00
4.029	4.029 (0.830)	87	93783			0.00- 78.32	29.48
4.029	4.021 (0.830)	59	37473			0.00- 61.56	11.78
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.029	4.029 (0.830)	63	1275801	43.2307	43.231	80.00- 120.00	100.00
4.029	4.029 (0.830)	65	403324			0.00- 80.42	31.61
61 Vinyl Acetate					CAS #: 108-05-4		
4.072	4.072 (0.839)	86	185021	47.3780	47.378	80.00- 120.00	100.00
4.072	4.072 (0.839)	43	2037471			1146.06-1246.06	1101.20
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	229767	5.27477	5.275	80.00- 120.00	100.00
4.387	4.380 (0.904)	87	90777			0.00- 89.80	39.51
4.380	4.387 (0.903)	41	50632			0.00- 80.87	22.04
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	464074	47.3200	47.320	80.00- 120.00	100.00
4.616	4.616 (0.951)	96	726624			108.84- 208.84	156.57
4.616	4.616 (0.951)	61	948886			162.75- 262.75	204.47
74 2-Butanone					CAS #: 78-93-3		
4.637	4.637 (0.956)	72	369606	46.7454	46.745	80.00- 120.00	100.00
4.637	4.637 (0.956)	43	1534907			387.49- 487.49	415.28
4.637	4.637 (0.956)	57	113976			0.00- 81.47	30.84

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	880534	44.4608	44.461	80.00- 120.00	100.00
4.845	4.845 (0.999)	71	322255			0.00- 84.18	36.60
4.845	4.845 (0.999)	72	349719			0.00- 86.49	39.72
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	1372149	44.4421	44.442	80.00- 120.00	100.00
4.917	4.917 (1.013)	85	901375			15.60- 115.60	65.69
80 Cyclohexane					CAS #: 110-82-7		
5.031	5.024 (1.037)	84	985950	46.3090	46.309	80.00- 120.00	100.00
5.031	5.024 (1.037)	56	1164055			70.03- 170.03	118.06
5.031	5.024 (1.037)	41	667425			25.61- 125.61	67.69
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	1296513	44.9886	44.989	80.00- 120.00	100.00
5.046	5.046 (1.040)	99	838469			15.90- 115.90	64.67
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.063)	119	1254047	44.9130	44.913	80.00- 120.00	100.00
5.160	5.160 (1.063)	117	1284898			52.89- 152.89	102.46
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.368	5.368 (1.106)	57	3584660	47.2389	47.239	80.00- 120.00	100.00
5.368	5.368 (1.106)	56	1209885			0.00- 84.28	33.75
5.368	5.368 (1.106)	41	939849			0.00- 78.49	26.22
88 Benzene					CAS #: 71-43-2		
5.382	5.375 (0.934)	78	2142926	44.2400	44.240	80.00- 120.00	100.00
5.375	5.375 (0.933)	77	512991			0.00- 74.28	23.94
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	203815	5.64575	5.646	80.00- 120.00	100.00
5.454	5.454 (1.124)	87	45761			0.00- 72.44	22.45
5.454	5.454 (1.124)	55	62096			0.00- 87.72	30.47
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	897054	42.5193	42.519	80.00- 120.00	100.00
5.468	5.468 (0.949)	64	296447			0.00- 83.28	33.05
94 Heptane					CAS #: 142-82-5		
5.540	5.540 (0.961)	71	812079	45.9149	45.915	80.00- 120.00	100.00
5.540	5.540 (0.961)	43	1450705			140.08- 240.08	178.64
5.540	5.540 (0.961)	57	730764			43.69- 143.69	89.99
102 Trichloroethene					CAS #: 79-01-6		
5.955	5.955 (1.034)	95	902436	45.8155	45.816	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.955	5.955 (1.034)	130	944422			53.39- 153.39	104.65
5.955	5.955 (1.034)	97	576344			14.84- 114.84	63.87
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	1303171	47.3368	47.337	80.00- 120.00	100.00
6.063	6.063 (1.249)	98	625848			0.00- 97.38	48.03
6.063	6.063 (1.249)	55	1077149			34.54- 134.54	82.66
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	822907	45.8411	45.841	80.00- 120.00	100.00
6.199	6.199 (1.076)	62	589367			23.66- 123.66	71.62
6.199	6.199 (1.076)	41	453788			13.65- 113.65	55.14
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	484627	47.7211	47.721	80.00- 120.00	100.00
6.285	6.285 (1.091)	58	345735			26.05- 126.05	71.34
6.285	6.285 (1.091)	57	113273			0.00- 74.82	23.37
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1362985	46.2339	46.234	80.00- 120.00	100.00
6.428	6.428 (1.116)	85	878707			14.68- 114.68	64.47
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.815	6.815 (1.183)	75	1122602	49.7363	49.736	80.00- 120.00	100.00
6.815	6.815 (1.183)	77	358523			0.00- 81.50	31.94
6.815	6.815 (1.183)	39	587374			6.29- 106.29	52.32
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.930	6.930 (1.203)	58	650725	48.4760	48.476	80.00- 120.00	100.00
6.930	6.930 (1.203)	43	1800035			237.28- 337.28	276.62
6.930	6.930 (1.203)	85	263093			0.00- 88.81	40.43
116 Toluene					CAS #: 108-88-3		
7.059	7.059 (1.225)	91	2316901	43.8700	43.870	80.00- 120.00	100.00
7.051	7.051 (1.224)	92	1361944			8.79- 108.79	58.78
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.302	7.302 (0.886)	75	1115726	52.2653	52.265	80.00- 120.00	100.00
7.302	7.302 (0.886)	77	358762			0.00- 83.09	32.16
7.302	7.302 (0.886)	39	567506			5.18- 105.18	50.86
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.453	7.452 (0.904)	97	826801	47.7637	47.764	80.00- 120.00	100.00
7.453	7.452 (0.904)	99	508196			11.85- 111.85	61.47
7.453	7.452 (0.904)	83	720836			37.54- 137.54	87.18

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.496	7.495 (0.910)	166	1040104	46.3147	46.315	80.00- 120.00	100.00
7.496	7.495 (0.910)	129	800807			24.54- 124.54	76.99
7.496	7.495 (0.910)	131	756903			23.12- 123.12	72.77
135 2-Hexanone					CAS #: 591-78-6		
7.632	7.632 (0.926)	58	902584	52.1413	52.141	80.00- 120.00	100.00
7.632	7.632 (0.926)	43	1759350			152.66- 252.66	194.92
7.632	7.632 (0.926)	100	173519			0.00- 69.00	19.22
138 Dibromochloromethane					CAS #: 124-48-1		
7.768	7.768 (0.943)	129	1281856	50.2608	50.261	80.00- 120.00	100.00
7.768	7.768 (0.943)	127	1002243			27.39- 127.39	78.19
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.882	7.882 (0.957)	107	1317561	50.2500	50.250	80.00- 120.00	100.00
7.882	7.882 (0.957)	109	1246193			44.04- 144.04	94.58
145 Chlorobenzene					CAS #: 108-90-7		
8.262	8.262 (1.003)	112	1891733	46.7450	46.745	80.00- 120.00	100.00
8.262	8.262 (1.003)	114	604733			0.00- 80.98	31.97
8.262	8.262 (1.003)	77	1089784			16.55- 116.55	57.61
147 Ethyl Benzene					CAS #: 100-41-4		
8.319	8.319 (1.010)	106	982121	47.2414	47.241	80.00- 120.00	100.00
8.319	8.319 (1.010)	91	2986103			251.61- 351.61	304.05
150 m,p-Xylene					CAS #: 108-38-3		
8.420	8.419 (1.022)	106	1234805	48.2485	48.248	80.00- 120.00	100.00
8.420	8.419 (1.022)	91	2377079			143.04- 243.04	192.51
153 o-Xylene					CAS #: 95-47-6		
8.763	8.763 (1.063)	106	1160282	47.0044	47.004	80.00- 120.00	100.00
8.763	8.763 (1.063)	91	2313329			145.82- 245.82	199.38
154 Styrene					CAS #: 100-42-5		
8.785	8.785 (1.066)	104	1864582	48.4077	48.408	80.00- 120.00	100.00
8.785	8.778 (1.066)	78	901436			0.00- 97.81	48.35
155 Bromoform					CAS #: 75-25-2		
8.971	8.971 (1.089)	173	1092316	49.1605	49.160	80.00- 120.00	100.00
8.971	8.971 (1.089)	171	565254			1.57- 101.57	51.75
156 Cumene					CAS #: 98-82-8		
9.057	9.057 (1.099)	105	3186328	47.1461	47.146	80.00- 120.00	100.00
9.057	9.057 (1.099)	120	917218			0.00- 78.20	28.79

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.050	9.057 (1.098)	51	325909			0.00- 60.54	10.23
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.365	9.365 (1.136)	83	1805272	45.4434	45.443	80.00- 120.00	100.00
9.365	9.365 (1.136)	85	1172590			14.67- 114.67	64.95
162 Propylbenzene					CAS #: 103-65-1		
9.401	9.401 (1.141)	91	3826214	46.0243	46.024	80.00- 120.00	100.00
9.401	9.401 (1.141)	120	937167			0.00- 74.44	24.49
9.401	9.401 (1.141)	105	141370			0.00- 54.32	3.69
163 4-Ethyltoluene					CAS #: 622-96-8		
9.494	9.494 (1.152)	120	1070251	46.8095	46.810	80.00- 120.00	100.00
9.494	9.494 (1.152)	105	3302264			267.54- 367.54	308.55
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.551	9.551 (1.159)	120	1426339	48.0038	48.004	80.00- 120.00	100.00
9.551	9.551 (1.159)	105	2699679			144.39- 244.39	189.27
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.874	9.874 (1.198)	120	1267333	46.9222	46.922	80.00- 120.00	100.00
9.874	9.874 (1.198)	105	2577781			152.28- 252.28	203.40
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.153	10.153 (1.232)	146	1784876	45.3800	45.380	80.00- 120.00	100.00
10.153	10.153 (1.232)	148	1162789			13.05- 113.05	65.15
10.153	10.146 (1.232)	111	725595			0.00- 90.20	40.65
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.232	10.232 (1.242)	146	1838172	46.6878	46.688	80.00- 120.00	100.00
10.232	10.232 (1.242)	148	1191221			14.32- 114.32	64.80
10.232	10.232 (1.242)	111	714571			0.00- 88.82	38.87
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.354	10.354 (1.256)	91	2267359	52.4644	52.464	80.00- 120.00	100.00
10.354	10.354 (1.256)	126	500710			0.00- 71.70	22.08
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.561	10.568 (1.282)	146	1680804	47.3008	47.301	80.00- 120.00	100.00
10.561	10.568 (1.282)	148	1089892			14.70- 114.70	64.84
10.561	10.568 (1.282)	111	705727			0.00- 93.01	41.99
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.929	11.937 (1.448)	180	1211049	48.5138	48.514	80.00- 120.00	100.00
11.929	11.937 (1.448)	182	1165477			45.25- 145.25	96.24

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.023	12.023 (1.459)	225	693644	47.2986	47.298	80.00- 120.00	100.00
12.023	12.023 (1.459)	223	438114			12.77- 112.77	63.16
176 Naphthalene					CAS #: 91-20-3		
12.180	12.180 (1.478)	128	403273	3.63775	3.638	80.00- 120.00	100.00
12.180	12.180 (1.478)	127	48550			0.00- 63.93	12.04

Air Toxics Ltd.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061023.d
Lab Smp Id: lcs
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/10jun10a.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 10-JUN-2010
Calibration Time: 21:16
Client Smp ID: lcs
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	279821	167893	391749	283355	1.26
97 1,4-Difluorobenze	995344	597206	1393482	1047887	5.28
144 Chlorobenzene-d5	835020	501012	1169028	878282	5.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.15
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.24	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/msd3.i/10jun10a.b/3061023.d

Date : 10-JUN-2010 21:44

Client ID: lcs

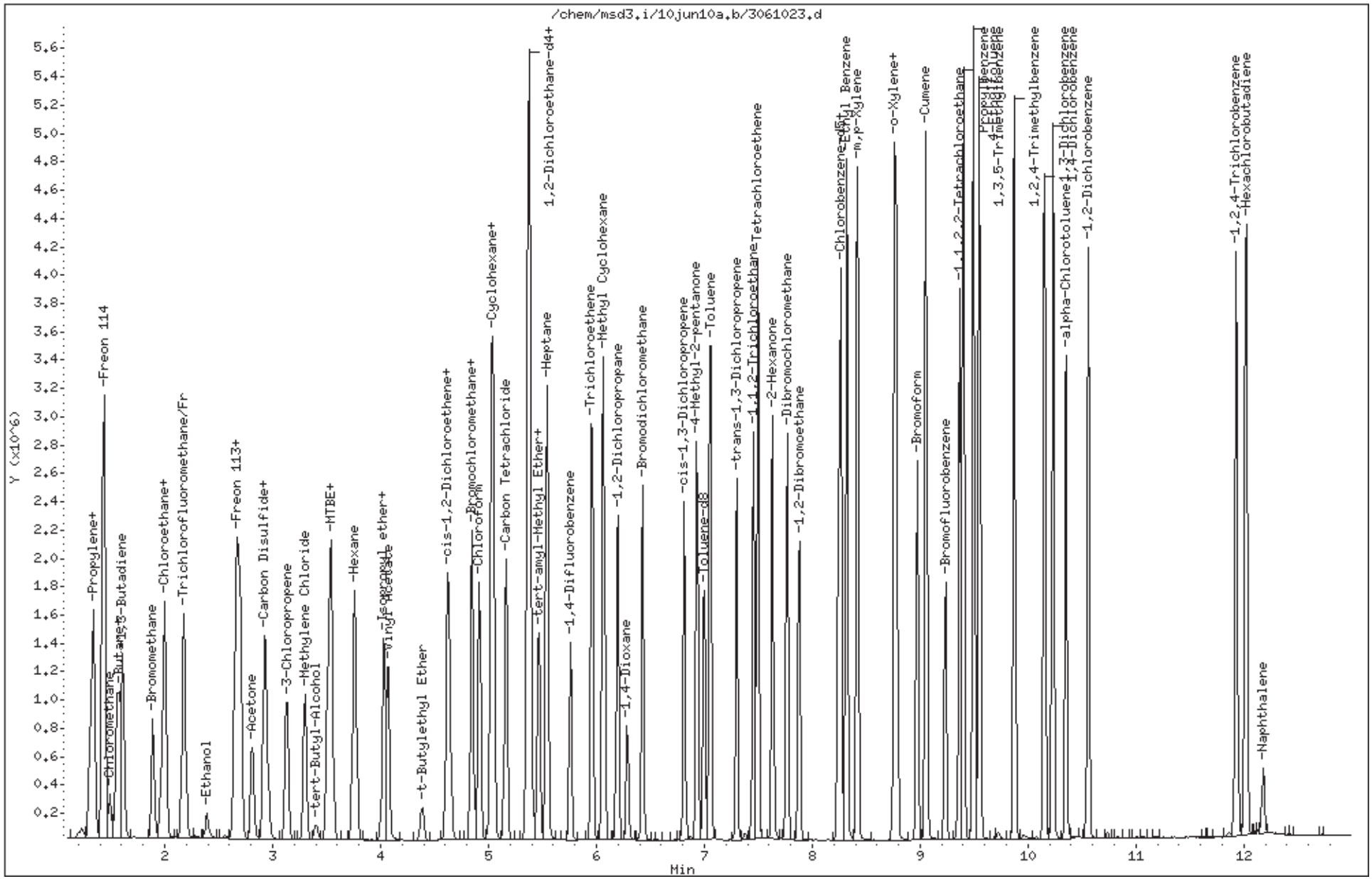
Sample Info: 50mL #1936-114

Instrument: msd3.i

Operator: dfm

Column phase: RTx-624

Column diameter: 0.53



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647A-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 10:06 PM**	

Compound	%Recovery
Freon 12	87
Freon 114	85
Chloromethane	86
Vinyl Chloride	90
1,3-Butadiene	90
Bromomethane	90
Chloroethane	85
Freon 11	83
Ethanol	83
Freon 113	82
1,1-Dichloroethene	80
Acetone	85
2-Propanol	89
Carbon Disulfide	88
3-Chloropropene	90
Methylene Chloride	80
Methyl tert-butyl ether	97
trans-1,2-Dichloroethene	86
Hexane	95
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	93
cis-1,2-Dichloroethene	89
Tetrahydrofuran	91
Chloroform	87
1,1,1-Trichloroethane	92
Cyclohexane	93
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	97
Benzene	91
1,2-Dichloroethane	88
Heptane	96
Trichloroethene	92
1,2-Dichloropropane	94
1,4-Dioxane	93
Bromodichloromethane	93
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	98
Toluene	88
trans-1,3-Dichloropropene	101

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647A-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3061103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/10 10:06 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	91
Tetrachloroethene	89
2-Hexanone	102
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	96
Chlorobenzene	91
Ethyl Benzene	93
m,p-Xylene	94
o-Xylene	91
Styrene	97
Bromoform	99
Cumene	94
1,1,2,2-Tetrachloroethane	91
Propylbenzene	92
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	92
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

Report Date: 11-Jun-2010 22:18

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 11jun10
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: lcs Client Smp ID: lcs
Level: LOW Operator: dfm
Data Type: MS DATA SampleType: LCS
SpikeList File: 2926spectra.spk Quant Type: ISTD
Sublist File: AT10.sub
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
6 Propylene	50.000	42.405	84.81	60-140
7 Dichlorodifluorome	50.000	43.340	86.68	70-130
10 Freon 114	50.000	42.418	84.84	70-130
11 Chloromethane	50.000	42.755	85.51	70-130
14 Vinyl Chloride	50.000	44.769	89.54	70-130
15 1,3-Butadiene	50.000	45.053	90.11	60-140
21 Bromomethane	50.000	44.764	89.53	70-130
24 Chloroethane	50.000	42.430	84.86	70-130
28 Trichlorofluoromet	50.000	41.747	83.49	70-130
29 Ethanol	50.000	41.458	82.92	60-140
30 Freon 113	50.000	40.871	81.74	70-130
32 1,1-Dichloroethene	50.000	39.829	79.66	70-130
34 Acetone	50.000	42.373	84.75	60-140
35 Carbon Disulfide	50.000	43.925	87.85	60-140
37 2-Propanol	50.000	44.511	89.02	60-140
43 Methylene Chloride	50.000	40.038	80.08	70-130
47 MTBE	50.000	48.586	97.17	60-140
48 trans-1,2-Dichloro	50.000	43.028	86.06	60-140
51 Hexane	50.000	47.450	94.90	60-140
61 Vinyl Acetate	50.000	47.632	95.26	60-140
59 1,1-Dichloroethane	50.000	43.682	87.36	70-130
73 cis-1,2-Dichloroet	50.000	44.567	89.13	70-130
74 2-Butanone	50.000	46.491	92.98	60-140
75 Tetrahydrofuran	50.000	45.496	90.99	60-140
78 Chloroform	50.000	43.694	87.39	70-130
80 Cyclohexane	50.000	46.439	92.88	60-140
81 1,1,1-Trichloroeth	50.000	45.913	91.83	70-130
82 Carbon Tetrachlori	50.000	45.482	90.96	70-130
88 Benzene	50.000	45.396	90.79	70-130
93 1,2-Dichloroethane	50.000	44.258	88.52	70-130
94 Heptane	50.000	47.921	95.84	60-140
102 Trichloroethene	50.000	45.943	91.89	70-130
106 1,2-Dichloropropan	50.000	47.272	94.54	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
107 1,4-Dioxane	50.000	46.646	93.29	60-140
109 Bromodichlorometha	50.000	46.383	92.77	60-140
112 cis-1,3-Dichloropr	50.000	49.234	98.47	70-130
114 4-Methyl-2-pentano	50.000	49.186	98.37	60-140
116 Toluene	50.000	44.044	88.09	70-130
123 trans-1,3-Dichloro	50.000	50.440	100.88	70-130
128 1,1,2-Trichloroeth	50.000	45.449	90.90	70-130
131 Tetrachloroethene	50.000	44.627	89.25	70-130
135 2-Hexanone	50.000	50.914	101.83	60-140
138 Dibromochlorometha	50.000	49.602	99.20	60-140
140 1,2-Dibromoethane	50.000	48.054	96.11	70-130
145 Chlorobenzene	50.000	45.732	91.46	70-130
147 Ethyl Benzene	50.000	46.552	93.10	70-130
150 m,p-Xylene	50.000	47.008	94.02	70-130
153 o-Xylene	50.000	45.514	91.03	70-130
154 Styrene	50.000	48.730	97.46	70-130
155 Bromoform	50.000	49.620	99.24	60-140
161 1,1,2,2-Tetrachlor	50.000	45.483	90.97	70-130
163 4-Ethyltoluene	50.000	45.986	91.97	60-140
164 1,3,5-Trimethylben	50.000	48.203	96.41	70-130
166 1,2,4-Trimethylben	50.000	47.270	94.54	70-130
168 1,3-Dichlorobenzen	50.000	45.865	91.73	70-130
169 1,4-Dichlorobenzen	50.000	47.691	95.38	70-130
170 alpha-Chlorotoluen	50.000	53.714	107.43	70-130
171 1,2-Dichlorobenzen	50.000	47.744	95.49	70-130
174 1,2,4-Trichloroben	50.000	48.498	97.00	70-130
175 Hexachlorobutadien	50.000	45.804	91.61	70-130
162 Propylbenzene	50.000	46.202	92.40	60-140
156 Cumene	50.000	46.835	93.67	60-140
41 3-Chloropropene	50.000	44.958	89.92	60-140
87 2,2,4-Trimethylpen	50.000	48.525	97.05	60-140
25 Isopentane	50.000	46.450	92.90	70-130
13 Butane	50.000	42.332	84.66	70-130
104 Methyl Cyclohexane	50.000	47.526	95.05	70-130
46 tert-Butyl-Alcohol	5.000	4.544	90.87	60-140
176 Naphthalene	5.000	3.751	75.02	60-140
58 Isopropyl ether	5.000	4.545	90.90	60-140
68 t-Butylethyl Ether	5.000	4.988	99.77	60-140
92 tert-amyl-Methyl E	5.000	4.883	97.67	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 89 1,2-Dichloroethane	25.000	24.295	97.18	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 115 Toluene-d8	25.000	25.578	102.31	70-130
$ 159 Bromofluorobenzene	25.000	25.701	102.80	70-130

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061103.d
Lab Smp Id: lcs Client Smp ID: lcs
Inj Date : 11-JUN-2010 22:06
Operator : dfm Inst ID: msd3.i
Smp Info : 50mL #1936-114
Misc Info : 200ppbv->50ppbv
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: ISTD
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 76 Bromochloromethane					CAS #: 74-97-5		
4.852	4.852 (1.000)	130	227648	25.0000		80.00- 120.00	100.00
4.852	4.852 (1.000)	128	179917			28.35- 128.35	79.03
4.852	4.852 (1.000)	49	347179			99.84- 199.84	152.51
* 97 1,4-Difluorobenzene					CAS #: 540-36-3		
5.762	5.762 (1.000)	114	836089	25.0000		80.00- 120.00	100.00
5.762	5.762 (1.000)	88	133705			0.00- 66.08	15.99
* 144 Chlorobenzene-d5					CAS #: 3114-55-4		
8.226	8.240 (1.000)	117	738784	25.0000		80.00- 120.00	100.00
8.226	8.240 (1.000)	82	409428			4.13- 104.13	55.42
$ 89 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.397	5.397 (1.112)	65	312179	24.2952	24.295	80.00- 120.00	100.00
5.397	5.397 (1.112)	67	187997			7.34- 107.34	60.22
$ 115 Toluene-d8					CAS #: 2037-26-5		
6.994	7.001 (1.214)	98	839414	25.5782	25.578	80.00- 120.00	100.00
6.987	7.001 (1.213)	70	96777			0.00- 61.54	11.53

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
$ 115 Toluene-d8 (continued)							
6.994	7.001 (1.214)	100	565168			16.89- 116.89	67.33
$ 159 Bromofluorobenzene					CAS #: 460-00-4		
9.215	9.236 (1.120)	174	357962	25.7011	25.701	80.00- 120.00	100.00
9.215	9.236 (1.120)	95	502269			93.92- 193.92	140.31
9.215	9.236 (1.120)	176	354990			46.28- 146.28	99.17
6 Propylene					CAS #: 115-07-1		
1.311	1.311 (0.270)	41	383721	42.4054	42.405	80.00- 120.00	100.00
1.311	1.311 (0.270)	42	257056			17.42- 117.42	66.99
1.311	1.311 (0.270)	39	293911			24.45- 124.45	76.59
7 Dichlorodifluoromethane/Fr12					CAS #: 75-71-8		
1.339	1.339 (0.276)	85	1314328	43.3396	43.340	80.00- 120.00	100.00
1.339	1.339 (0.276)	87	423138			0.00- 82.39	32.19
10 Freon 114					CAS #: 76-14-2		
1.437	1.437 (0.296)	135	973275	42.4176	42.418	80.00- 120.00	100.00
1.437	1.437 (0.296)	137	314761			0.00- 81.83	32.34
11 Chloromethane					CAS #: 74-87-3		
1.493	1.492 (0.308)	50	261280	42.7549	42.755	80.00- 120.00	100.00
1.493	1.492 (0.308)	52	85248			0.00- 86.13	32.63
13 Butane					CAS #: 106-97-8		
1.563	1.562 (0.322)	58	109008	42.3320	42.332	80.00- 120.00	100.00
1.563	1.562 (0.322)	43	815496			695.67- 795.67	748.10
14 Vinyl Chloride					CAS #: 75-01-4		
1.591	1.590 (0.328)	62	522817	44.7692	44.769	80.00- 120.00	100.00
1.591	1.590 (0.328)	64	174541			0.00- 92.01	33.38
15 1,3-Butadiene					CAS #: 106-99-0		
1.619	1.604 (0.334)	54	426825	45.0527	45.053	80.00- 120.00	100.00
1.619	1.604 (0.334)	39	481958			70.78- 170.78	112.92
21 Bromomethane					CAS #: 74-83-9		
1.885	1.884 (0.388)	94	488837	44.7641	44.764	80.00- 120.00	100.00
1.885	1.884 (0.388)	96	456528			45.80- 145.80	93.39
24 Chloroethane					CAS #: 75-00-3		
1.968	1.968 (0.406)	64	314381	42.4298	42.430	80.00- 120.00	100.00
1.968	1.968 (0.406)	66	88981			0.00- 80.64	28.30
1.968	1.968 (0.406)	49	82668			0.00- 74.97	26.30

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
25 Isopentane					CAS #: 78-78-4		
1.996	1.996 (0.411)	43	818564	46.4496	46.450	80.00- 120.00	100.00
1.996	1.996 (0.411)	57	500999			12.68- 112.68	61.20
28 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
2.181	2.173 (0.449)	101	1339920	41.7467	41.747	80.00- 120.00	100.00
2.181	2.173 (0.449)	103	872750			12.39- 112.39	65.13
29 Ethanol					CAS #: 64-17-5		
2.388	2.388 (0.492)	45	167450	41.4576	41.458	80.00- 120.00	100.00
2.388	2.388 (0.492)	43	34140			0.00- 74.96	20.39
2.396	2.388 (0.494)	46	65635			0.00- 90.46	39.20
30 Freon 113					CAS #: 76-13-1		
2.668	2.668 (0.550)	151	836072	40.8709	40.871	80.00- 120.00	100.00
2.675	2.668 (0.551)	153	533135			14.27- 114.27	63.77
2.668	2.668 (0.550)	101	1107851			83.92- 183.92	132.51
32 1,1-Dichloroethene					CAS #: 75-35-4		
2.704	2.703 (0.557)	96	466246	39.8291	39.829	80.00- 120.00	100.00
2.704	2.703 (0.557)	98	295956			13.88- 113.88	63.48
2.704	2.703 (0.557)	61	771052			114.74- 214.74	165.37
34 Acetone					CAS #: 67-64-1		
2.811	2.811 (0.579)	58	231033	42.3730	42.373	80.00- 120.00	100.00
2.811	2.811 (0.579)	43	773000			296.41- 396.41	334.58
35 Carbon Disulfide					CAS #: 75-15-0		
2.926	2.925 (0.603)	76	1436061	43.9247	43.925	80.00- 120.00	100.00
37 2-Propanol					CAS #: 67-63-0		
2.947	2.940 (0.607)	45	857970	44.5108	44.511	80.00- 120.00	100.00
2.947	2.940 (0.607)	43	190093			0.00- 71.77	22.16
2.947	2.940 (0.607)	59	33466			0.00- 53.59	3.90
41 3-Chloropropene					CAS #: 107-05-1		
3.133	3.133 (0.646)	76	240053	44.9584	44.958	80.00- 120.00	100.00
3.133	3.126 (0.646)	41	712485			246.04- 346.04	296.80
43 Methylene Chloride					CAS #: 75-09-2		
3.298	3.298 (0.680)	49	537999	40.0385	40.038	80.00- 120.00	100.00
3.298	3.298 (0.680)	84	415307			28.40- 128.40	77.19
3.298	3.298 (0.680)	51	167682			0.00- 83.23	31.17
46 tert-Butyl-Alcohol					CAS #: 75-65-0		
3.406	3.398 (0.702)	57	13654	4.54373	4.544	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
46 tert-Butyl-Alcohol (continued)							
3.406	3.405 (0.702)	41	35267			220.86- 320.86	258.28
3.406	3.405 (0.702)	59	124006			964.11-1064.11	908.16
47 MTBE					CAS #: 1634-04-4		
3.520	3.520 (0.725)	73	1478532	48.5864	48.586	80.00- 120.00	100.00
3.520	3.520 (0.725)	57	334143			0.00- 73.87	22.60
3.520	3.520 (0.725)	41	380443			0.00- 78.02	25.73
48 trans-1,2-Dichloroethene					CAS #: 156-60-5		
3.549	3.549 (0.731)	98	359095	43.0285	43.028	80.00- 120.00	100.00
3.549	3.549 (0.731)	61	830995			172.17- 272.17	231.41
3.549	3.549 (0.731)	96	564736			102.08- 202.08	157.27
51 Hexane					CAS #: 110-54-3		
3.764	3.756 (0.776)	57	955133	47.4502	47.450	80.00- 120.00	100.00
3.764	3.763 (0.776)	43	664924			22.12- 122.12	69.62
3.764	3.756 (0.776)	86	164632			0.00- 66.41	17.24
58 Isopropyl ether					CAS #: 108-20-3		
4.029	4.021 (0.830)	45	273522	4.54481	4.545	80.00- 120.00	100.00
4.022	4.028 (0.829)	87	78140			0.00- 78.32	28.57
4.029	4.028 (0.830)	59	31780			0.00- 61.56	11.62
59 1,1-Dichloroethane					CAS #: 75-34-3		
4.036	4.028 (0.832)	63	1035671	43.6816	43.682	80.00- 120.00	100.00
4.036	4.028 (0.832)	65	329534			0.00- 80.42	31.82
61 Vinyl Acetate					CAS #: 108-05-4		
4.072	4.071 (0.839)	86	149443	47.6319	47.632	80.00- 120.00	100.00
4.072	4.071 (0.839)	43	1714052			1146.06-1246.06	1146.95
68 t-Butylethyl Ether					CAS #: 637-92-3		
4.387	4.387 (0.904)	59	174570	4.98830	4.988	80.00- 120.00	100.00
4.394	4.387 (0.906)	87	67247			0.00- 89.80	38.52
4.387	4.387 (0.904)	41	42467			0.00- 80.87	24.33
73 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.616	4.616 (0.951)	98	351152	44.5675	44.567	80.00- 120.00	100.00
4.616	4.616 (0.951)	96	559640			108.84- 208.84	159.37
4.616	4.616 (0.951)	61	758686			162.75- 262.75	216.06
74 2-Butanone					CAS #: 78-93-3		
4.645	4.637 (0.957)	72	295324	46.4906	46.491	80.00- 120.00	100.00
4.638	4.637 (0.956)	43	1280387			387.49- 487.49	433.55
4.638	4.637 (0.956)	57	93882			0.00- 81.47	31.79

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
75 Tetrahydrofuran					CAS #: 109-99-9		
4.845	4.845 (0.999)	42	723892	45.4957	45.496	80.00- 120.00	100.00
4.845	4.845 (0.999)	71	248262			0.00- 84.18	34.30
4.845	4.845 (0.999)	72	274011			0.00- 86.49	37.85
78 Chloroform					CAS #: 67-66-3		
4.917	4.917 (1.013)	83	1083841	43.6944	43.694	80.00- 120.00	100.00
4.917	4.917 (1.013)	85	703705			15.60- 115.60	64.93
80 Cyclohexane					CAS #: 110-82-7		
5.032	5.031 (1.037)	84	794334	46.4387	46.439	80.00- 120.00	100.00
5.032	5.031 (1.037)	56	981011			70.03- 170.03	123.50
5.032	5.031 (1.037)	41	578259			25.61- 125.61	72.80
81 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.046	5.046 (1.040)	97	1063019	45.9128	45.913	80.00- 120.00	100.00
5.046	5.046 (1.040)	99	682836			15.90- 115.90	64.24
82 Carbon Tetrachloride					CAS #: 56-23-5		
5.160	5.160 (1.063)	119	1020277	45.4824	45.482	80.00- 120.00	100.00
5.168	5.160 (1.065)	117	1062509			52.89- 152.89	104.14
87 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.375	5.368 (1.108)	57	2958338	48.5250	48.525	80.00- 120.00	100.00
5.375	5.368 (1.108)	56	986373			0.00- 84.28	33.34
5.368	5.368 (1.106)	41	797995			0.00- 78.49	26.97
88 Benzene					CAS #: 71-43-2		
5.383	5.382 (0.934)	78	1754500	45.3966	45.396	80.00- 120.00	100.00
5.383	5.382 (0.934)	77	421776			0.00- 74.28	24.04
92 tert-amyl-Methyl Ether					CAS #: 994-05-8		
5.454	5.454 (1.124)	73	141631	4.88328	4.883	80.00- 120.00	100.00
5.454	5.454 (1.124)	87	30779			0.00- 72.44	21.73
5.454	5.454 (1.124)	55	48108			0.00- 87.72	33.97
93 1,2-Dichloroethane					CAS #: 107-06-2		
5.468	5.468 (0.949)	62	745019	44.2585	44.258	80.00- 120.00	100.00
5.468	5.468 (0.949)	64	241638			0.00- 83.28	32.43
94 Heptane					CAS #: 142-82-5		
5.547	5.540 (0.963)	71	676258	47.9215	47.921	80.00- 120.00	100.00
5.540	5.540 (0.961)	43	1259975			140.08- 240.08	186.32
5.540	5.540 (0.961)	57	632499			43.69- 143.69	93.53
102 Trichloroethene					CAS #: 79-01-6		
5.963	5.955 (1.035)	95	722042	45.9432	45.943	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
102 Trichloroethene (continued)							
5.963	5.962 (1.035)	130	739818			53.39- 153.39	102.46
5.963	5.955 (1.035)	97	463540			14.84- 114.84	64.20
104 Methyl Cyclohexane					CAS #: 108-87-2		
6.063	6.063 (1.249)	83	1051169	47.5266	47.526	80.00- 120.00	100.00
6.070	6.063 (1.251)	98	494199			0.00- 97.38	47.01
6.063	6.063 (1.249)	55	887480			34.54- 134.54	84.43
106 1,2-Dichloropropane					CAS #: 78-87-5		
6.199	6.199 (1.076)	63	677070	47.2715	47.272	80.00- 120.00	100.00
6.199	6.199 (1.076)	62	494007			23.66- 123.66	72.96
6.192	6.199 (1.075)	41	392754			13.65- 113.65	58.01
107 1,4-Dioxane					CAS #: 123-91-1		
6.285	6.285 (1.091)	88	377960	46.6456	46.646	80.00- 120.00	100.00
6.285	6.285 (1.091)	58	282396			26.05- 126.05	74.72
6.285	6.285 (1.091)	57	92931			0.00- 74.82	24.59
109 Bromodichloromethane					CAS #: 75-27-4		
6.428	6.428 (1.116)	83	1091011	46.3832	46.383	80.00- 120.00	100.00
6.428	6.428 (1.116)	85	697737			14.68- 114.68	63.95
112 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
6.808	6.815 (1.181)	75	886664	49.2344	49.234	80.00- 120.00	100.00
6.808	6.815 (1.181)	77	281503			0.00- 81.50	31.75
6.808	6.815 (1.181)	39	479355			6.29- 106.29	54.06
114 4-Methyl-2-pentanone					CAS #: 108-10-1		
6.923	6.930 (1.201)	58	526807	49.1861	49.186	80.00- 120.00	100.00
6.923	6.930 (1.201)	43	1483045			237.28- 337.28	281.52
6.923	6.930 (1.201)	85	207124			0.00- 88.81	39.32
116 Toluene					CAS #: 108-88-3		
7.044	7.058 (1.223)	91	1855941	44.0440	44.044	80.00- 120.00	100.00
7.044	7.058 (1.223)	92	1099907			8.79- 108.79	59.26
123 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.288	7.302 (0.886)	75	905731	50.4397	50.440	80.00- 120.00	100.00
7.288	7.302 (0.886)	77	286351			0.00- 83.09	31.62
7.288	7.302 (0.886)	39	480262			5.18- 105.18	53.02
128 1,1,2-Trichloroethane					CAS #: 79-00-5		
7.446	7.452 (0.905)	97	661772	45.4488	45.449	80.00- 120.00	100.00
7.446	7.452 (0.905)	99	418455			11.85- 111.85	63.23
7.446	7.452 (0.905)	83	579543			37.54- 137.54	87.57

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
131 Tetrachloroethene					CAS #: 127-18-4		
7.488	7.495 (0.910)	166	843030	44.6275	44.627	80.00- 120.00	100.00
7.488	7.495 (0.910)	129	647263			24.54- 124.54	76.78
7.488	7.495 (0.910)	131	620008			23.12- 123.12	73.55
135 2-Hexanone					CAS #: 591-78-6		
7.617	7.631 (0.926)	58	741363	50.9145	50.914	80.00- 120.00	100.00
7.617	7.631 (0.926)	43	1468888			152.66- 252.66	198.13
7.617	7.631 (0.926)	100	138605			0.00- 69.00	18.70
138 Dibromochloromethane					CAS #: 124-48-1		
7.754	7.768 (0.943)	129	1064127	49.6022	49.602	80.00- 120.00	100.00
7.754	7.768 (0.943)	127	824648			27.39- 127.39	77.50
140 1,2-Dibromoethane					CAS #: 106-93-4		
7.868	7.882 (0.956)	107	1059853	48.0538	48.054	80.00- 120.00	100.00
7.868	7.882 (0.956)	109	1007026			44.04- 144.04	95.02
145 Chlorobenzene					CAS #: 108-90-7		
8.248	8.262 (1.003)	112	1556787	45.7321	45.732	80.00- 120.00	100.00
8.248	8.262 (1.003)	114	494796			0.00- 80.98	31.78
8.248	8.262 (1.003)	77	892748			16.55- 116.55	57.35
147 Ethyl Benzene					CAS #: 100-41-4		
8.305	8.319 (1.010)	106	814073	46.5520	46.552	80.00- 120.00	100.00
8.305	8.319 (1.010)	91	2494971			251.61- 351.61	306.48
150 m,p-Xylene					CAS #: 108-38-3		
8.405	8.419 (1.022)	106	1011965	47.0076	47.008	80.00- 120.00	100.00
8.405	8.419 (1.022)	91	1958701			143.04- 243.04	193.55
153 o-Xylene					CAS #: 95-47-6		
8.742	8.763 (1.063)	106	945042	45.5138	45.514	80.00- 120.00	100.00
8.742	8.763 (1.063)	91	1915978			145.82- 245.82	202.74
154 Styrene					CAS #: 100-42-5		
8.764	8.785 (1.065)	104	1578876	48.7302	48.730	80.00- 120.00	100.00
8.764	8.785 (1.065)	78	757589			0.00- 97.81	47.98
155 Bromoform					CAS #: 75-25-2		
8.957	8.971 (1.089)	173	927405	49.6196	49.620	80.00- 120.00	100.00
8.957	8.971 (1.089)	171	477906			1.57- 101.57	51.53
156 Cumene					CAS #: 98-82-8		
9.036	9.057 (1.098)	105	2662539	46.8348	46.835	80.00- 120.00	100.00
9.036	9.057 (1.098)	120	761380			0.00- 78.20	28.60

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
156 Cumene (continued)							
9.036	9.050 (1.098)	51	278258			0.00- 60.54	10.45
161 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.351	9.365 (1.137)	83	1519876	45.4835	45.483	80.00- 120.00	100.00
9.351	9.365 (1.137)	85	993046			14.67- 114.67	65.34
162 Propylbenzene					CAS #: 103-65-1		
9.380	9.401 (1.140)	91	3230933	46.2022	46.202	80.00- 120.00	100.00
9.387	9.401 (1.141)	120	787381			0.00- 74.44	24.37
9.380	9.401 (1.140)	105	118845			0.00- 54.32	3.68
163 4-Ethyltoluene					CAS #: 622-96-8		
9.480	9.494 (1.152)	120	884425	45.9861	45.986	80.00- 120.00	100.00
9.480	9.494 (1.152)	105	2775670			267.54- 367.54	313.84
164 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
9.530	9.551 (1.158)	120	1204769	48.2029	48.203	80.00- 120.00	100.00
9.530	9.551 (1.158)	105	2223878			144.39- 244.39	184.59
166 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
9.852	9.874 (1.198)	120	1073935	47.2697	47.270	80.00- 120.00	100.00
9.852	9.874 (1.198)	105	2146145			152.28- 252.28	199.84
168 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.132	10.153 (1.232)	146	1517421	45.8648	45.865	80.00- 120.00	100.00
10.132	10.153 (1.232)	148	979361			13.05- 113.05	64.54
10.132	10.153 (1.232)	111	615692			0.00- 90.20	40.57
169 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.218	10.232 (1.242)	146	1579433	47.6909	47.691	80.00- 120.00	100.00
10.218	10.232 (1.242)	148	1014511			14.32- 114.32	64.23
10.218	10.232 (1.242)	111	605610			0.00- 88.82	38.34
170 alpha-Chlorotoluene					CAS #: 100-44-7		
10.332	10.353 (1.256)	91	1952672	53.7144	53.714	80.00- 120.00	100.00
10.332	10.353 (1.256)	126	442743			0.00- 71.70	22.67
171 1,2-Dichlorobenzene					CAS #: 95-50-1		
10.540	10.561 (1.281)	146	1427084	47.7439	47.744	80.00- 120.00	100.00
10.540	10.561 (1.281)	148	914794			14.70- 114.70	64.10
10.540	10.561 (1.281)	111	603436			0.00- 93.01	42.28
174 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
11.908	11.929 (1.448)	180	1018365	48.4980	48.498	80.00- 120.00	100.00
11.908	11.929 (1.448)	182	970442			45.25- 145.25	95.29

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
175 Hexachlorobutadiene					CAS #: 87-68-3		
12.001	12.022 (1.459)	225	565035	45.8040	45.804	80.00- 120.00	100.00
12.001	12.022 (1.459)	223	364161			12.77- 112.77	64.45
176 Naphthalene					CAS #: 91-20-3		
12.159	12.173 (1.478)	128	349792	3.75112	3.751	80.00- 120.00	100.00
12.152	12.173 (1.477)	127	43240			0.00- 63.93	12.36

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd3.i
Lab File ID: 3061103.d
Lab Smp Id: lcs
Analysis Type: VOA
Quant Type: ISTD
Operator: dfm
Method File: /var/chem/msd3.i/11jun10.b/310q0608a.m
Misc Info: 200ppbv->50ppbv

Calibration Date: 11-JUN-2010
Calibration Time: 21:43
Client Smp ID: lcs
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	222468	133481	311455	227648	2.33
97 1,4-Difluorobenze	779027	467416	1090638	836089	7.32
144 Chlorobenzene-d5	679504	407702	951306	738784	8.72

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
76 Bromochloromethan	4.85	4.52	5.18	4.85	0.01
97 1,4-Difluorobenze	5.76	5.43	6.09	5.76	0.00
144 Chlorobenzene-d5	8.24	7.91	8.57	8.23	-0.17

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/msd3.i/11jun10.b/3061103.d

Date : 11-JUN-2010 22:06

Client ID: lcs

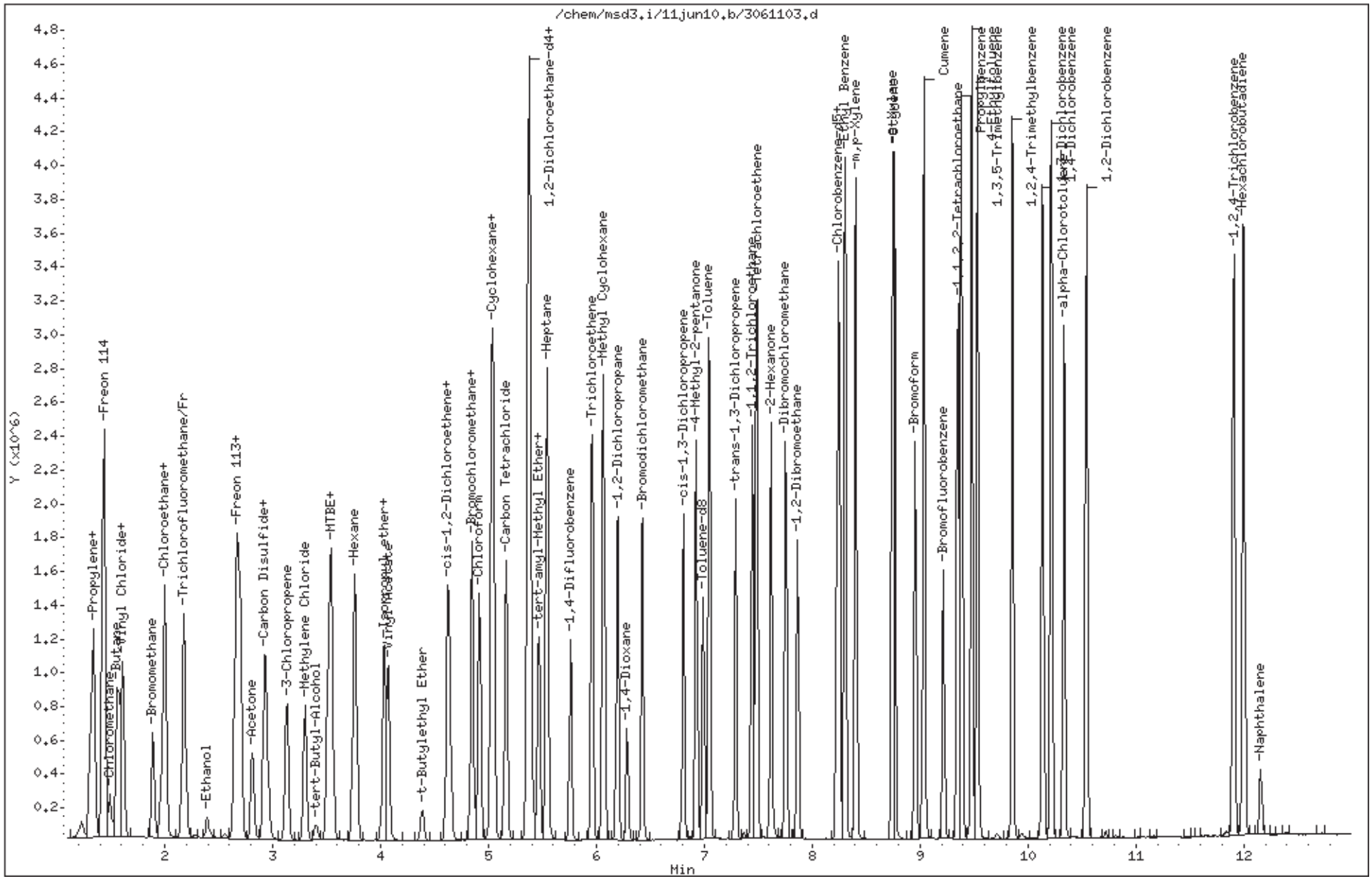
Sample Info: 50mL #1936-114

Column phase: RTx-624

Instrument: msd3.i

Operator: dfm

Column diameter: 0.53



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MSD-3

Logbook #: 1995

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	15.0 – 40.0% of mass 95	18.67
75	30.0 – 60.0% of mass 95	43.90
95	Base peak, 100.00% relative abundance	100.00
96	5.0 – 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	(0.51)[1]
174	50.0 – 100% of mass 95	71.88
175	5.0 – 9.0% of mass 174	(7.30)[1]
176	Greater than 95.0% but less than 101.0% of mass 174	(97.57)[1]
177	5.0 – 9.0% of mass 176	(6.22)[2]

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 6/10/10
BFB Injection Time: ~~3061021~~ 2027
BFB File ID: 3061021
Tekmar Purge Flow: ~~On~~ On 6/10/10
Vacuum:

IS/S Std.#:	1936-174	Exp. Date: 8/13/10
BCM	279821	
1,4-DFB	995344	
CB-d5	835020	

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

Verify 176/174 m/z Ratio: 228010/233685 X100 = 97.57 % **NOAH Cart #:** NA **File #:** NA

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc.}_{\text{IS}}}{\text{RRF}}$ = $\frac{(\ 981268\ )}{(\ 995344\ )} \times \frac{(\ 25.00\ )}{(\ 0.98128\ )}$ = 25.117

Reported Result 25.117

File ID:	3061022
Compound:	Toluene-d8
Initials:	DM

Method: 3100608a.m

	Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loaded by Init.	Date Analyzed	Time Analyzed	Reviewed by Init.	Comments
1	✓	3061021	BFB Tune check	1936-174	36mg	1.0 mL	1.00	DM	6/10/10	2027	DM	
2	✓	22	CCV (200 ppbv)	1968-53	50 ppbv	50mL				2116	DM	∅ out
3	✓	23	LCS (↓)	1936-114	↓	↓				2144	DM	∅ out
4	✓	24	CCV-2 APH (200ppbv)	1968-24	↓	↓				2220	DM	
5	✓	25	TPHg CCV (2500ppbv)	1936-214	500ppbv	40mL				2244	DM	
6	✗	26	System Blank	917	Humid	200mL				2307	—	
7	✓	27	Lab Blank	↓	↓	↓	↓	↓	↓	2331	DM	
8	✓	28	1006184A-06A	34502	1.4 "Hg/15psi	25mL	~~84.8~~ 17.0	LL	6/11/10	0714	LL/DM	

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6/11/10
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MSD-3

Logbook #: 1995

9	X	3061029	10061104A-01A	37407	28.0"Hg→15psi	200mL	1.00	LL	6/11/10	0754	LL/RO	TB		
10	✓	30	-05A	34111	4.5"Hg→15psi	10mL	47.6			0818	RO			
11	✓	6/11/10 31	10061104A-05AA	↓	↓	↓	↓			0846	RO			
12	X	32	-01A	37407	28.0"Hg→15psi	200mL	1.00			0910	—	PCE carry over		
13	X	33	10060090-06A	36434	8.0"Hg→15psi		2.76			NA	—	Sample did not Load		
14	✓	34	10061104A-01A	37407	28.0"Hg→15psi		1.00			1030	RO	~~Confirmation~~ 6/11/10		
15	✓	35	10062074-01A	1036	3.6"Hg→15psi		2.30			1116	DM			
16	✓	36	-02A	11893	4.4"Hg→15psi		2.57			1139 ~~1203~~ 6/11/10	DM			
17	✓	37	-03A	34516	3.8"Hg→15psi		2.31			1203	DM			
18	✓	38	10056474-01A	34401	5.0"Hg→5psi	↓	1.61			1252	DM			
19	✓	39	-02A	14121	8.0"Hg→5psi	60mL	6.10			1333	DM	Diluted for NTC		
20	✓	40	-03A	9414	6.5"Hg→5psi	↓	5.70			1354	DM	↓		
21	✓	41	-04A	4384	9.0"Hg→5psi	25mL	15.3			1433	DM	↓		
22	—	~~42~~	~~System~~									~~DM 6/11/10~~		
23	—	~~42~~	~~10056474-04AA~~	~~4384~~	~~9.0"Hg→5psi~~							~~DM 6/11/10~~		
24	✓	3061042	10056474-05A	20938	8.5"Hg→5psi	25mL	15.0	DM	6/11/10	1551	DM	Diluted for NTC		
25	✓	43	06A	5553	8.0"Hg→5psi	25mL	14.6	↓	↓	1623	DM	↓		
26	X	44	07A	11892	8.5"Hg→5psi	↓	15.0			1647	DM	IS ↓		
27	X	45	08A	22508	6.5"Hg→5psi	↓	13.7			1710	DM	↓		
28	X	46	System Blank	Dry ~~36533~~ 6/11/10	↓	Dry	1.00			1752	DM	IS in		
29	X	47	↓ 6/11/10	↓	↓	↓				1815	DM	↓		
30	✓	48	10061431B-04AB	33635	4.5"Hg→15psi	200mL	2.38	DM		1915	DM			
31	✓	49	04AA	↓	↓	↓	↓	↓	↓	1939	DM			

Comments: cont'd next page p. 19 ~~p. 18~~ 6/11/10

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MSD-3

Logbook #: 1995

m/z	ION ABUNDANCE CRITERIA	% REL. ABUNDANCE
50	15.0 – 40.0% of mass 95	18.25
75	30.0 – 60.0% of mass 95	45.34
95	Base peak, 100.00% relative abundance	100.00
96	5.0 – 9.0% of mass 95	7.09
173	Less than 2.0% of mass 174	(0.58)[1]
174	50.0 – 100% of mass 95	69.93
175	5.0 – 9.0% of mass 174	(6.87)[1]
176	Greater than 95.0% but less than 101.0% of mass 174	(97.53)[1]
177	5.0 – 9.0% of mass 176	(6.46)[2]

[1] - value in parenthesis is % mass 174 [2] - value in parenthesis is % mass 176

BFB Injection Date: 6/11/2010
BFB Injection Time: 2117
BFB File ID: 3061101
Tekmar Purge Flow: ~~7~~ 6 6/11/10
Vacuum:

IS/S Std.#:	1936-174	Exp. Date: 8/13/10
BCM	222468	
1,4-DFB	779027	
CB-d5	679504	

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

Verify 176/174 m/z Ratio: 176896/181376 x 100 = 97.5306

NOAH Cart #: NA **File #:** NA

Calculation Check:

ppbv of compound $= \frac{Area_{Sample}}{Area_{IS}} \times \frac{Conc._{IS}}{RRF} = \frac{(773075)}{(779027)} \times \frac{(25.0)}{(0.98128)} = 25.282$

File ID:	3061102
Compound:	Toluene-d8
Initials:	DM

Reported Result 25.282

Method: 310Q0608a.m

	Use	File #	Sample / Client Name	Can #	Pressure	Amt Loaded	DF	Loaded by Init.	Date Analyzed	Time Analyzed	Reviewed by Init.	Comments
1	✓	3061101	BFB Tune Check	1936-174	36mg	1.0mL	1.00	DM	6/11/10	2117	DM	
2	✓	02	CCV (200 ppbv)	1968-53	50 ppbv	50mL	↓	↓	↓	2143	DM	∅ out
3	✓	03	LCS (↓)	1936-114	↓	↓	↓	↓	↓	2206	DM	↓
4	✓	04	CCV-2 Apff (↓)	1968-24	↓	↓	↓	↓	↓	2230	DM	
5	✓	05	TPHg CCV (2500 ppbv)	1936-214	500 ppbv	40mL	↓	↓	↓	2254	DM	
6	X	06	System Blank	5619	Humid	200mL	↓	↓	↓	2317	—	
7	✓	07	Lab Blank	↓	↓	↓	↓	↓	↓	2341	DM	
8	✓	08	1006143-01A	2045	27.5 "Hg / 9 psi	200mL	1.00	LL	6/12/10	0908	LL/DM	

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6/12/10
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MSD-3

Logbook #: 1995

9	✓	30411 09	1006233A - 01A	36408	5.6"Hg>15psi	200mL	2.48	LL	6/12/10	0931	LL/DM	
10	✓	10	-02A	37402	4.4"Hg>15psi		2.37			1055	DM	
11	✓	11	1006234A -01A	37323						1019	DM	
12	✓	12	-02A	37389	4.6"Hg>15psi		2.39			1044	DM	
13	✓	13	-01AA	37323	4.4"Hg>15psi		2.37			1110	DM	Dup-01A
14	—	14	-03A	36502	4.2"Hg>15psi	10mL	47.0					6/12/10
15	✓	30412 14	1005647A -07A	11892	~~6.5"Hg~~>15psi	15mL	~~22.8~~ 24.9	LL	6/12/10	1138	LL/DM	Diluted for NTC
16	✓	15	-08A	22508						1223	DM	↓
17	X	16	1006234A-03A	36502	4.2"Hg>15psi	10mL	47.0			1251	—	over Diluted
18	✓	17	1006234A-03A	↓		200mL	2.35			1345	DM	
19	✓	18	1006090-04A	3040	7.0"Hg>15psi		2.64			1417	DM	
20	✓	19	-04A	36434	8.0"Hg>15psi		2.73			1459	DM	
21	✓	20	-03A	3042	7.0"Hg>15psi		2.64			1523	DM	
22	✓	21	1006230-01A	36520	3.1"Hg>15psi		2.30			1605	DM	
23	✓	22	-02A	1446	3.2"Hg		2.20			1629	DM	
24	✓	23	1005676A-01A	3047	7.4"Hg>15psi	200mL	2.68	DM		1712	DM	
25	✓	24	01AA	3047	↓	↓	↓	↓		1735	DM	
26												
27												
28												
29												
30												6/15/10
31												

0271 of 0313

Comments:

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6/12/10
Date

Air Toxics Ltd.

Data file : /var/chem/msd3.i/08jun10.b/3060801.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 08-JUN-2010 08:11
Operator : acb Inst ID: msd3.i
Smp Info : 1mL #1936-174;BFB Tune Check; BFB Tune Check
Misc Info : 36ng
Comment :
Method : /var/chem/msd3.i/08jun10.b/bfb30.m
Meth Date : 08-Jun-2010 08:21 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 5 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)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
9.236	9.235	0.001	95	252629			100.00- 100.00	100.00
9.236	9.235	0.001	50	45564			15.00- 40.00	18.04
9.236	9.235	0.001	75	109032			30.00- 60.00	43.16
9.236	9.235	0.001	96	16288			5.00- 9.00	6.45
9.236	9.235	0.001	173	1226			0.00- 1.99	0.69
9.236	9.235	0.001	174	176768			50.01- 100.00	69.97
9.236	9.235	0.001	175	12220			5.00- 9.00	6.91
9.236	9.235	0.001	176	168106			95.01- 100.99	95.10
9.236	9.235	0.001	177	11429			5.00- 9.00	6.80

Data File: /chem/msd3.i/08jun10.b/3060801.d

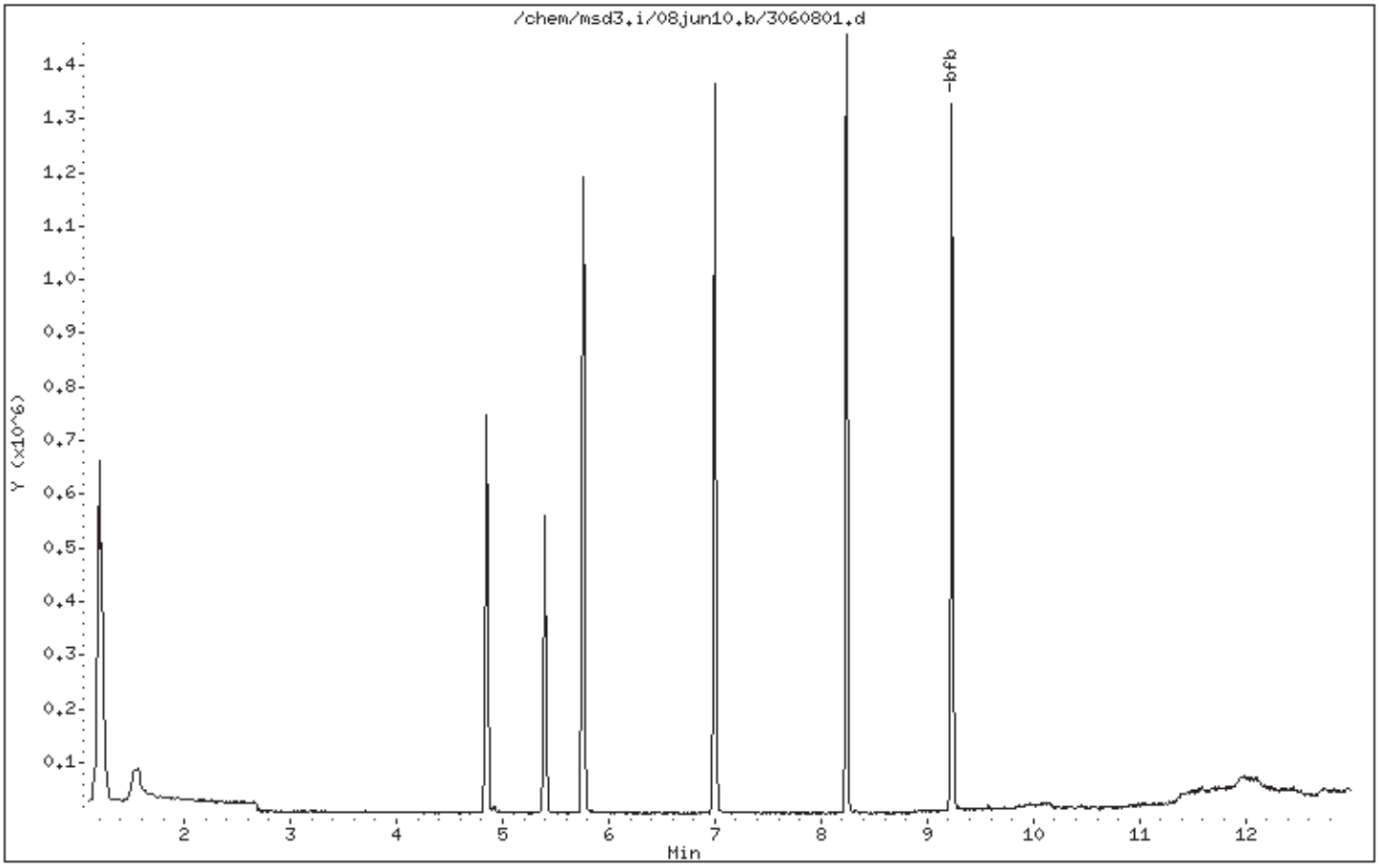
Date : 08-JUN-2010 08:11

Client ID: BFB Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: acb

Column phase: Column diameter: 2.00



Data File: /chem/msd3.i/08jun10.b/3060801.d

Date : 08-JUN-2010 08:11

Client ID: BFB

Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

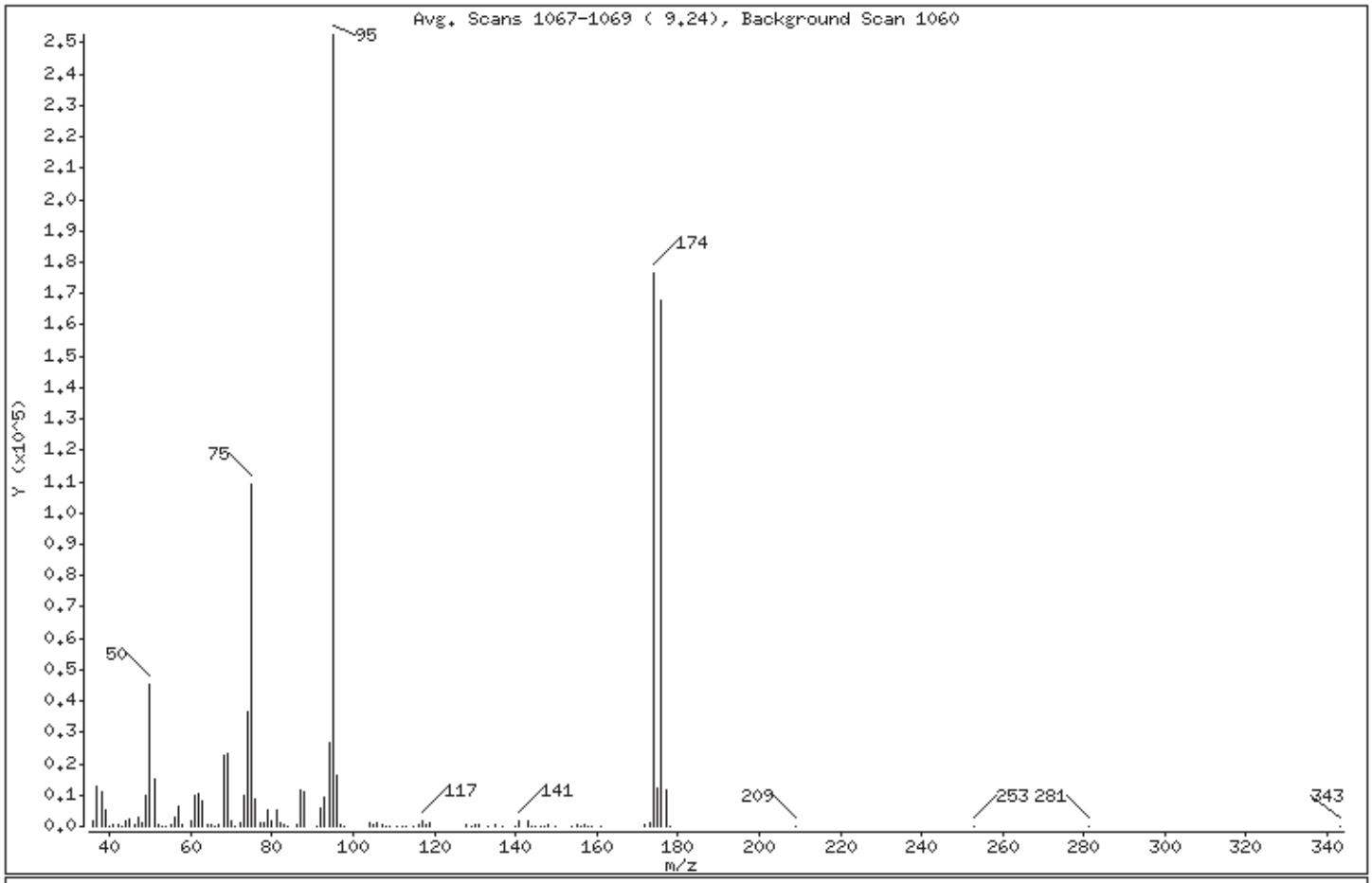
Volume Injected (uL): 1.0

Operator: acb

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.04
75	30.00 - 60.00% of mass 95	43.16
96	5.00 - 9.00% of mass 95	6.45
173	Less than 1.99% of mass 174	0.49 (0.69)
174	50.01 - 100.00% of mass 95	69.97
175	5.00 - 9.00% of mass 174	4.84 (6.91)
176	95.01 - 100.99% of mass 174	66.54 (95.10)
177	5.00 - 9.00% of mass 176	4.52 (6.80)

Date : 08-JUN-2010 08:11

Client ID: BFB Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: acb

Column phase: Column diameter: 2.00

Data File: 3060801.d
Spectrum: Avg. Scans 1067-1069 (9.24), Background Scan 1060
Location of Maximum: 95.00
Number of points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1782	64.00	837	94.00	26712	141.00	1850
37.00	12490	65.00	584	95.00	252608	143.00	1654
38.00	10946	66.00	56	96.00	16288	144.00	23
39.00	5060	67.00	580	97.00	476	145.00	124
40.00	267	68.00	22440	98.00	58	146.00	190
41.00	397	69.00	23096	104.00	1009	147.00	246
42.00	317	70.00	2026	105.00	489	148.00	558
43.00	132	71.00	70	106.00	1051	150.00	103
44.00	1811	72.00	1127	107.00	450	154.00	154
45.00	2512	73.00	9671	108.00	155	155.00	632
46.00	301	74.00	36456	109.00	66	156.00	109
47.00	3022	75.00	109032	111.00	221	157.00	389
48.00	1375	76.00	8823	112.00	141	158.00	59
49.00	9867	77.00	1409	113.00	130	159.00	60
50.00	45560	78.00	903	115.00	256	161.00	135
51.00	14831	79.00	5276	116.00	774	172.00	642
52.00	803	80.00	1825	117.00	1454	173.00	1226
53.00	90	81.00	5480	118.00	802	174.00	176768
54.00	77	82.00	1287	119.00	1109	175.00	12220
55.00	473	83.00	324	128.00	717	176.00	168064
56.00	3017	84.00	113	129.00	202	177.00	11429
57.00	6474	86.00	376	130.00	724	178.00	144
58.00	358	87.00	11841	131.00	456	209.00	51
60.00	2031	88.00	10810	133.00	153	253.00	178
61.00	9877	91.00	267	135.00	443	281.00	84
62.00	10308	92.00	6085	137.00	221	343.00	51
63.00	8149	93.00	9336	140.00	159		

Air Toxics Ltd.

Data file : /var/chem/msd3.i/10jun10a.b/3061021.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 10-JUN-2010 20:27
Operator : dfm Inst ID: msd3.i
Smp Info : 1mL #1936-174;BFB Tune Check; BFB Tune Check
Misc Info : 36ng
Comment :
Method : /var/chem/msd3.i/10jun10a.b/bfb30.m
Meth Date : 10-Jun-2010 20:37 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 5 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)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.236	9.235	0.001	95	325098			100.00- 100.00	100.00
9.236	9.235	0.001	50	60704			15.00- 40.00	18.67
9.236	9.235	0.001	75	142706			30.00- 60.00	43.90
9.236	9.235	0.001	96	22005			5.00- 9.00	6.77
9.236	9.235	0.001	173	1187			0.00- 1.99	0.51
9.236	9.235	0.001	174	233685			50.01- 100.00	71.88
9.236	9.235	0.001	175	17050			5.00- 9.00	7.30
9.236	9.235	0.001	176	228010			95.01- 100.99	97.57
9.236	9.235	0.001	177	14178			5.00- 9.00	6.22

Data File: /var/chem/msd3.i/10jun10a.b/3061021.d

Date : 10-JUN-2010 20:27

Client ID: BFB

Instrument: msd3.i

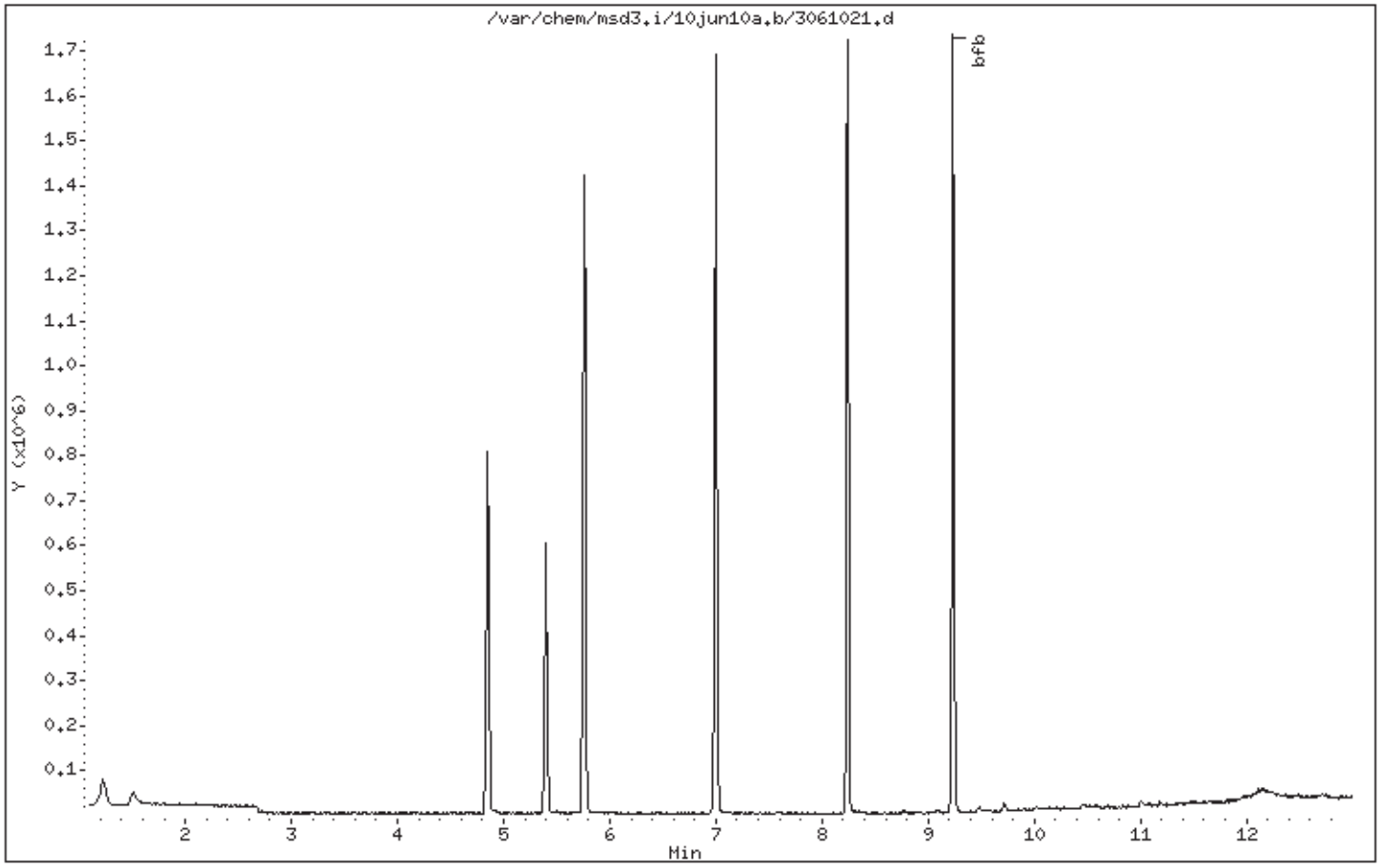
Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0

Operator: dfm

Column phase:

Column diameter: 2.00



Data File: /var/chem/msd3.i/10jun10a.b/3061021.d

Date : 10-JUN-2010 20:27

Client ID: BFB

Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

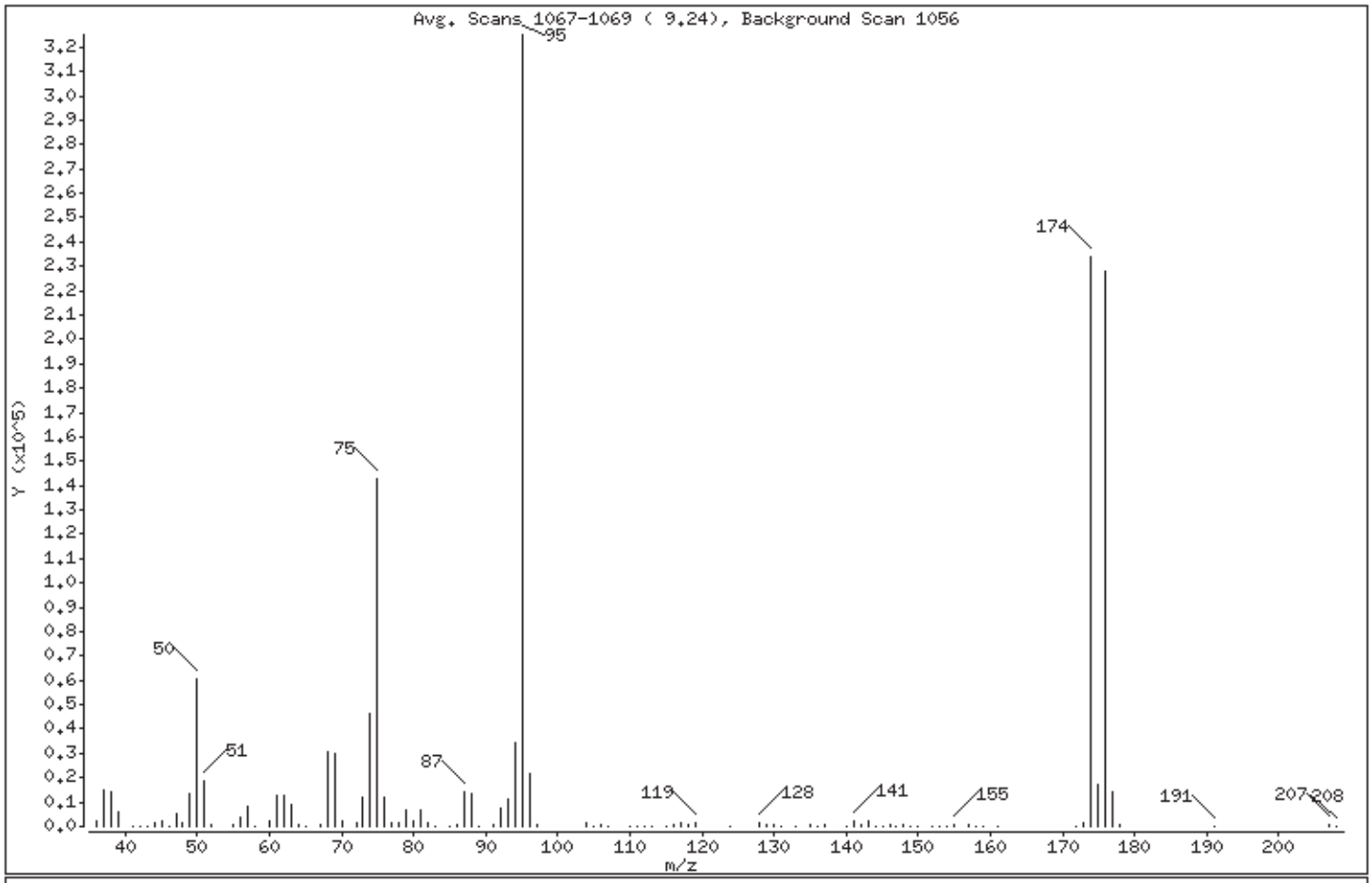
Volume Injected (uL): 1.0

Operator: dfm

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.67
75	30.00 - 60.00% of mass 95	43.90
96	5.00 - 9.00% of mass 95	6.77
173	Less than 1.99% of mass 174	0.37 (0.51)
174	50.01 - 100.00% of mass 95	71.88
175	5.00 - 9.00% of mass 174	5.24 (7.30)
176	95.01 - 100.99% of mass 174	70.14 (97.57)
177	5.00 - 9.00% of mass 176	4.36 (6.22)

Date : 10-JUN-2010 20:27

Client ID: BFB Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: dfm

Column phase: Column diameter: 2.00

Data File: 3061021.d
Spectrum: Avg. Scans 1067-1069 (9.24), Background Scan 1056
Location of Maximum: 95.00
Number of points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2535	68.00	30592	104.00	1145	145.00	230
37.00	14978	69.00	30232	105.00	306	146.00	531
38.00	13976	70.00	2392	106.00	994	147.00	310
39.00	5862	72.00	1665	107.00	200	148.00	611
41.00	30	73.00	12131	110.00	72	149.00	294
42.00	273	74.00	46520	111.00	359	150.00	299
43.00	323	75.00	142656	112.00	185	152.00	85
44.00	1537	76.00	11611	113.00	193	153.00	89
45.00	2416	77.00	1771	115.00	192	154.00	163
46.00	210	78.00	1201	116.00	920	155.00	681
47.00	4863	79.00	6598	117.00	1338	157.00	411
48.00	1448	80.00	2337	118.00	649	158.00	66
49.00	13239	81.00	6685	119.00	1434	159.00	300
50.00	60704	82.00	1695	124.00	162	161.00	165
51.00	18576	83.00	247	128.00	1137	172.00	359
52.00	672	85.00	87	129.00	500	173.00	1187
55.00	728	86.00	464	130.00	923	174.00	233664
56.00	3721	87.00	14529	131.00	348	175.00	17048
57.00	8279	88.00	13214	133.00	76	176.00	227968
58.00	301	89.00	56	135.00	508	177.00	14178
60.00	2272	91.00	924	136.00	68	178.00	564
61.00	12640	92.00	7440	137.00	411	191.00	152
62.00	12682	93.00	11207	140.00	124	207.00	396
63.00	9184	94.00	34488	141.00	2315	208.00	86
64.00	899	95.00	325056	142.00	390		
65.00	284	96.00	22000	143.00	1996		
67.00	769	97.00	554	144.00	53		

Air Toxics Ltd.

Data file : /var/chem/msd3.i/11jun10.b/3061101.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 11-JUN-2010 21:17
Operator : dfm Inst ID: msd3.i
Smp Info : 1mL #1936-174;BFB Tune Check; BFB Tune Check
Misc Info : 36ng
Comment :
Method : /var/chem/msd3.i/11jun10.b/bfb30.m
Meth Date : 11-Jun-2010 21:27 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 5 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)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
9.236	9.235	0.001	95	259370			100.00- 100.00	100.00
9.236	9.235	0.001	50	47330			15.00- 40.00	18.25
9.236	9.235	0.001	75	117600			30.00- 60.00	45.34
9.236	9.235	0.001	96	18379			5.00- 9.00	7.09
9.236	9.235	0.001	173	1048			0.00- 1.99	0.58
9.236	9.235	0.001	174	181376			50.01- 100.00	69.93
9.236	9.235	0.001	175	12457			5.00- 9.00	6.87
9.236	9.235	0.001	176	176896			95.01- 100.99	97.53
9.236	9.235	0.001	177	11425			5.00- 9.00	6.46

Data File: /var/chem/msd3.i/11jun10.b/3061101.d

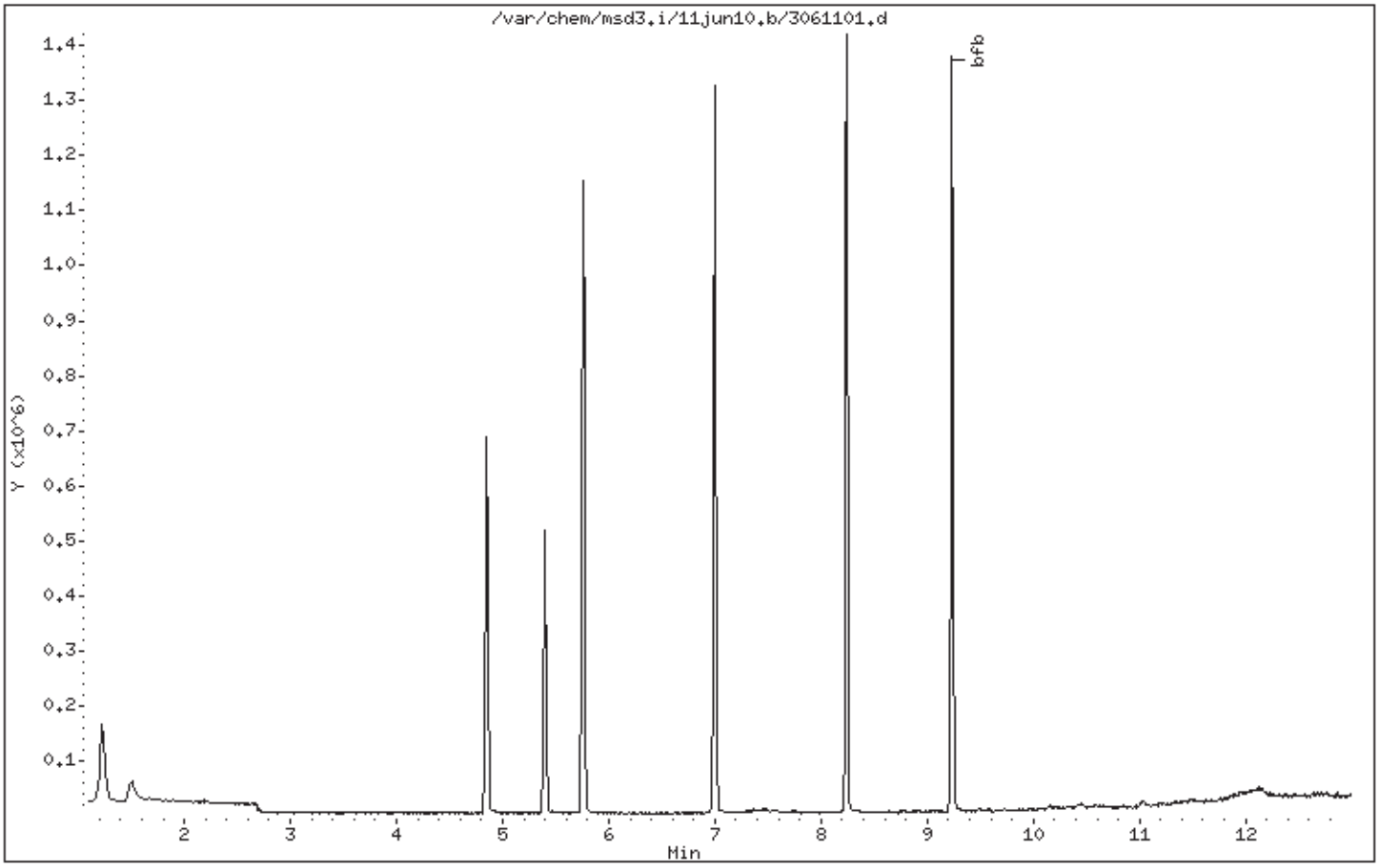
Date : 11-JUN-2010 21:17

Client ID: BFB Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: dfm

Column phase: Column diameter: 2.00



Data File: /var/chem/msd3.i/11jun10.b/3061101.d

Date : 11-JUN-2010 21:17

Client ID: BFB

Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

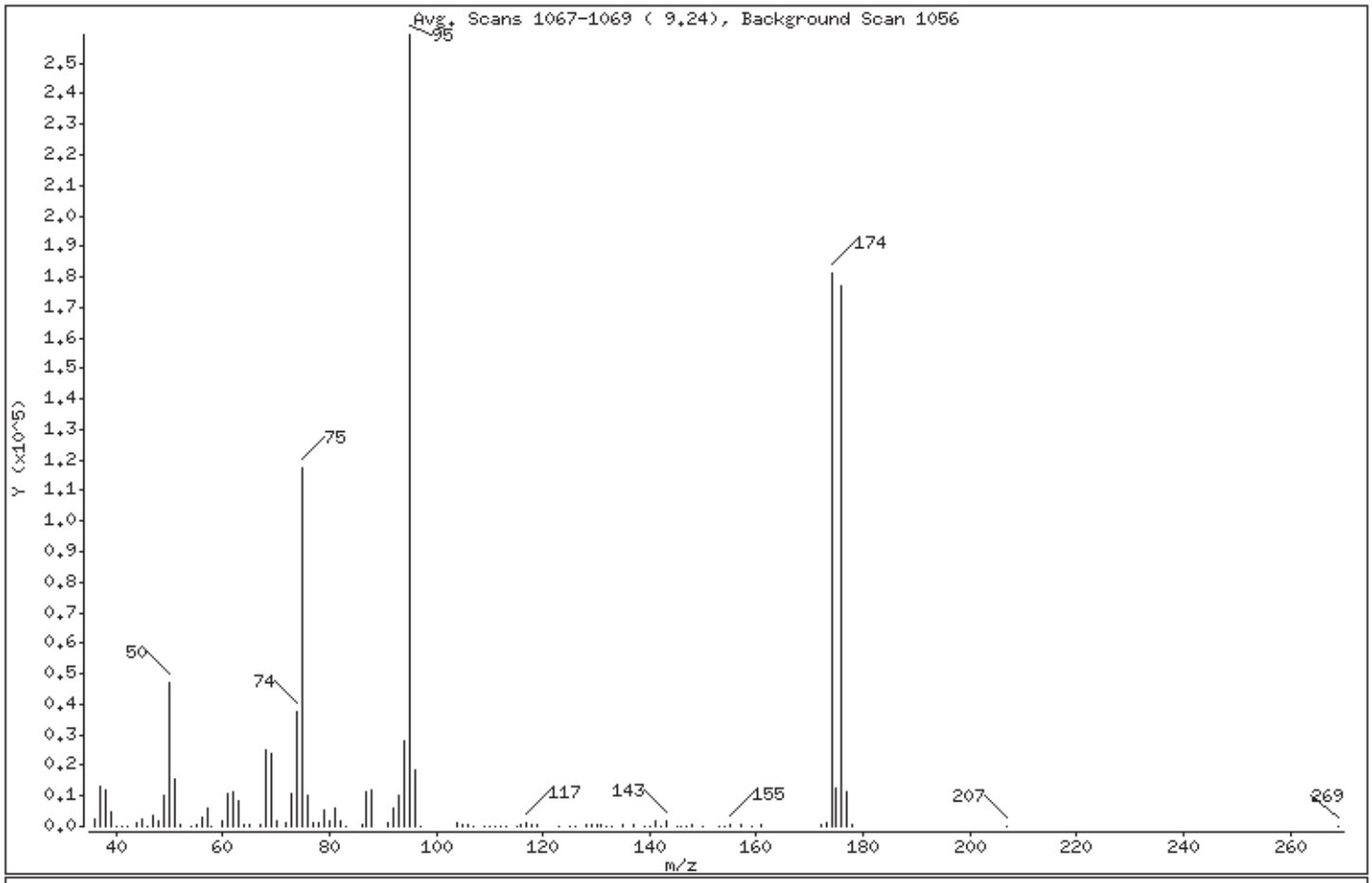
Volume Injected (uL): 1.0

Operator: dfm

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.25
75	30.00 - 60.00% of mass 95	45.34
96	5.00 - 9.00% of mass 95	7.09
173	Less than 1.99% of mass 174	0.40 (0.58)
174	50.01 - 100.00% of mass 95	69.93
175	5.00 - 9.00% of mass 174	4.80 (6.87)
176	95.01 - 100.99% of mass 174	68.20 (97.53)
177	5.00 - 9.00% of mass 176	4.40 (6.46)

Date : 11-JUN-2010 21:17

Client ID: BFB Instrument: msd3.i

Sample Info: 1mL #1936-174;BFB Tune Check; BFB Tune Check

Volume Injected (uL): 1.0 Operator: dfm

Column phase: Column diameter: 2.00

Data File: 3061101.d
Spectrum: Avg. Scans 1067-1069 (9.24), Background Scan 1056
Location of Maximum: 95.00
Number of points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2454	65.00	381	97.00	198	139.00	52
37.00	13222	67.00	642	104.00	952	140.00	57
38.00	11869	68.00	24816	105.00	400	141.00	1684
39.00	5034	69.00	23920	106.00	755	142.00	292
40.00	74	70.00	1880	107.00	298	143.00	1863
41.00	134	72.00	1095	109.00	64	145.00	237
42.00	55	73.00	10439	110.00	124	146.00	177
44.00	1425	74.00	37624	111.00	188	147.00	78
45.00	2538	75.00	117600	112.00	140	148.00	401
46.00	237	76.00	9913	113.00	241	150.00	246
47.00	3793	77.00	1351	115.00	125	153.00	56
48.00	1591	78.00	1063	116.00	717	154.00	148
49.00	10345	79.00	5561	117.00	1182	155.00	513
50.00	47328	80.00	2012	118.00	753	157.00	383
51.00	15202	81.00	5703	119.00	843	159.00	196
52.00	769	82.00	1511	123.00	119	161.00	328
54.00	72	83.00	45	125.00	60	172.00	457
55.00	638	86.00	305	126.00	150	173.00	1048
56.00	3150	87.00	11176	128.00	819	174.00	181376
57.00	6162	88.00	11733	129.00	394	175.00	12457
58.00	198	91.00	981	130.00	868	176.00	176896
60.00	1885	92.00	6087	131.00	383	177.00	11425
61.00	10956	93.00	10061	132.00	50	178.00	391
62.00	11118	94.00	27752	133.00	151	207.00	43
63.00	8171	95.00	259328	135.00	425	269.00	168
64.00	815	96.00	18376	137.00	323		

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. 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

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody 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 Chain of Custody (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

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Page 1 of 1

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Keri Whetter / KW
Company: Exponent Email:
Address: 15375 SE 30th Pl, #250 City: Bellevue State: WA Zip: 98007
Phone: (425) 519-8774 Fax: (425) 519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar - Kronquist

Turn Around Time:
[X] Normal
[ ] Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	AOS-1	1956	5/20/10	11:07	ASTM D-1945 and TO-15 w/ gas range petroleum hydrocarbons	28.5	6.0		
02A	AOS-2	14121		10:23		28.5	7.5		
03A	AOS-3	9414		10:07		29.0	7.0		
04A	ALF-1	1046		9:40		29.0	8.5		
05A	ALF-2	20938		9:35		29.0	8.0		
06A	ALF-3	1124		9:21		28.5	7.5		
07A	ALF-4	11892		9:18		29.5	9.0		
08A	ALF-5	22508		9:05		27.0	5.0		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
KW	5/26/10 1730	Monica Gregson, ATL	5/27/10 850

Notes:

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
FedEx		NA	Good	Yes / No / None	1005647

MG 5/27/10

Form 1293 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005647A

Client

Ms. Keri Whetter
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8750

Fax

425-643-9827

Date Promised: 06/11/10
Date Completed: 6/15/10
Date Received: 5/27/10
PO#:
Project#: 0907194.000.0601 Heglar Kronquist

Total $: $ 1,940.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	AOS-1	Modified TO-15	5/20/2010	5.0 "Hg	$170.00
02A	AOS-2	Modified TO-15	5/20/2010	8.0 "Hg	$170.00
03A	AOS-3	Modified TO-15	5/20/2010	6.5 "Hg	$170.00
04A	ALF-1	Modified TO-15	5/20/2010	9.0 "Hg	$170.00
05A	ALF-2	Modified TO-15	5/20/2010	8.5 "Hg	$170.00
06A	ALF-3	Modified TO-15	5/20/2010	8.0 "Hg	$170.00
07A	ALF-4	Modified TO-15	5/20/2010	8.5 "Hg	$170.00
08A	ALF-5	Modified TO-15	5/20/2010	6.5 "Hg	$170.00
09A	Lab Blank	Modified TO-15	NA	NA	$0.00
09B	Lab Blank	Modified TO-15	NA	NA	$0.00
10A	CCV	Modified TO-15	NA	NA	$0.00
10B	CCV	Modified TO-15	NA	NA	$0.00
11A	LCS	Modified TO-15	NA	NA	$0.00
11B	LCS	Modified TO-15	NA	NA	$0.00

Misc. Charges	6 Liter Summa Canister (8) @ $45.00 each., Shipment 72713	$360.00
	Blue Body Flow Controller (8) @ $25.00 each., Shipment 72713	$200.00
	Fitting w/ Pink Ferrule (10) @ $2.00 each.	$20.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Keri Whetter
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: TO-14A

TERMS:

Reporting Method: Modified TO-15 + TPHg

Other Records

TPH Curve 05/21/2010 MSD - 3

	Total Area	IS/Surr	System Peaks	TPH Area	Conc. (ppbv)	RF
Level 1	18500752	14087266	2549259	1864227	25	74569.08
Level 2	60339155	14390510	1471274	44477371	500	88954.74
Level 3	236761744	14390510	2049990	220321244	2500	88128.50
					Average=	83884.11
					%RSD=	9.63

Prepared by: 5/24/10

Reviewed by: 5/24/10

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /var/chem/msd3.i/10jun10a.b/3061025.d
Lab Smp Id: TPHg ccv Client Smp ID: tph ccv
Inj Date : 10-JUN-2010 22:44
Operator : dfm Inst ID: msd3.i
Smp Info : 40mL #1936-214
Misc Info : 2500ppbv->500ppbv
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA		COMPOUNDS
1.213	1151390	310228	0.269	2.12	SYS	UNKNOWN
1.437	81126	47104	0.581	0.15	24	~~Chloroethane~~
1.563	561700	205368	0.366	1.04	6	Propylene
1.633	69953	27038	0.387	0.13		
1.716	42524	19065	0.448	0.08		
1.912	33756	14003	0.415	0.06		
1.996	2737723	1024661	0.374	5.05	15	1,3-Butadiene
2.238	1011853	329089	0.325	1.87	42	Pentane
2.381	809125	301818	0.373	1.49	29	Ethanol
2.474	186485	66892	0.359	0.34		Cyclopropane, 1,2-dime
2.539	603970	221882	0.367	1.11		2-Butene, 2-methyl-
2.668	317712	96066	0.302	0.59		Butane, 2,2-dimethyl-
3.198	1571468	381667	0.243	2.90		Pentane, 2-methyl-
3.276	301432	85016	0.282	0.56	43	~~Methylene Chloride~~
3.470	605073	203489	0.336	1.12	46	tert-Butyl-Alcohol
3.678	117310	42592	0.363	0.22		
3.756	456148	185028	0.406	0.84	51	Hexane
3.878	102044	44674	0.438	0.19		
3.943	189094	76519	0.405	0.35		2-Hexene, (E)-
3.986	311328	124175	0.399	0.57		2-Pentene, 4-methyl-
4.079	109716	41189	0.375	0.20		
4.143	104677	40441	0.386	0.19		
4.208	38937	17448	0.448	0.07		
4.251	178355	77131	0.432	0.33		

RT	AREA	HEIGHT	HT/AREA	% AREA			COMPOUNDS
4.294	282788	95970	0.339	0.52			Pentane, 2,4-dimethyl-
4.387	446711	188714	0.422	0.82			Cyclobutane, ethyl-
4.451	72275	31407	0.435	0.13			
4.852	1590294	726096	0.457	2.93	*	76	Bromochloromethane
4.974	662208	285580	0.431	1.22		75	Tetrahydrofuran
5.046	597827	194595	0.326	1.10		80	Cyclohexane
5.139	762162	346820	0.455	1.41		74	2-Butanone
5.375	3341597	916553	0.274	6.16	$	89	1,2-Dichloroethane-d4
5.461	89008	44501	0.500	0.16			
5.540	575638	316805	0.550	1.06		94	Heptane
5.683	184488	65833	0.357	0.34			Cyclopentanecarboxalde
5.762	2355086	1365419	0.580	4.34	*	97	1,4-Difluorobenzene
5.805	44935	26435	0.588	0.08			
5.884	106556	29914	0.281	0.20			
6.049	597754	210729	0.353	1.10		104	Methyl Cyclohexane
6.092	349866	172415	0.493	0.65			Heptane, 2,2,3,3,5,6,6
6.156	78606	33500	0.426	0.14			
6.228	93830	42354	0.451	0.17			
6.263	51064	21049	0.412	0.09			
6.414	736131	349720	0.475	1.36			Pentane, 2,3,4-trimeth
6.521	907425	362597	0.400	1.67			Pentane, 2,3,3-trimeth
6.579	182247	129489	0.711	0.34			
6.708	469009	209113	0.446	0.87			Hexane, 1-(hexyloxy)-2
6.837	271629	134048	0.493	0.50			Heptane, 2,2-dimethyl-
6.908	77125	30222	0.392	0.14			
7.001	2673721	1733960	0.649	4.93	$	115	Toluene-d8
7.059	5615151	3528196	0.628	10.39		112	cis-1,3-Dichloropropen
7.159	25457	16883	0.663	0.05			
7.209	27161	13671	0.503	0.05			
7.324	115043	49699	0.432	0.21			
7.388	39495	20776	0.526	0.07			
7.467	41570	17783	0.428	0.08			
7.567	94026	35859	0.381	0.17			
7.710	32709	15850	0.485	0.06			
7.861	49496	23240	0.470	0.09			
7.925	153976	89539	0.582	0.28			
8.026	83883	59177	0.705	0.15			
8.233	2472144	1733818	0.701	4.56	*	144	Chlorobenzene-d5
8.312	1027789	713629	0.694	1.90		140	1,2-Dibromoethane
8.348	72328	54514	0.754	0.13			
8.412	3934431	2653804	0.675	7.26		150	m,p-Xylene
8.570	28118	14458	0.514	0.05			
8.749	1410391	963126	0.683	2.60		153	o-Xylene
9.043	125640	61864	0.492	0.23		156	Cumene
9.100	98524	47176	0.479	0.18			
9.165	26148	14802	0.566	0.05			
9.222	2491228	1740273	0.699	4.60	$	159	Bromofluorobenzene
9.265	39450	20220	0.513	0.07			
9.387	311878	212979	0.683	0.58		162	Propylbenzene
9.458	1650306	815104	0.494	3.04		163	4-Ethyltoluene

RT	AREA	HEIGHT	HT/AREA	% AREA		COMPOUNDS
9.537	560326	366816	0.655	1.03	164	1,3,5-Trimethylbenzene
9.716	480284	267372	0.557	0.89		Benzene, 1-ethyl-2-met
9.859	1609394	1053833	0.655	2.97	166	1,2,4-Trimethylbenzene
9.952	88616	40779	0.460	0.16		
10.060	49273	21831	0.443	0.09		
10.103	51243	26974	0.526	0.09		
10.160	86150	38716	0.449	0.16		
10.225	330985	207079	0.626	0.61		Benzene, 1,3,5-trimeth
10.382	216805	94076	0.434	0.40		Benzene, 1-methyl-3-pr
10.404	124913	76742	0.614	0.23		
10.432	268146	135969	0.507	0.49		Benzene, 1,2,3,5-tetra
10.540	34216	18169	0.531	0.06		
10.597	57505	29924	0.520	0.11		
10.669	92301	53819	0.583	0.17		
10.697	81761	53810	0.658	0.15		
10.755	118848	77274	0.650	0.22		
10.876	57047	24683	0.433	0.11		
10.991	21455	12371	0.577	0.04	SYS	
11.027	30666	17094	0.557	0.06		
11.106	80575	48459	0.601	0.15		
11.149	142354	88321	0.620	0.26		
11.364	133568	58171	0.436	0.25		
11.528	91508	27815	0.304	0.17		
11.808	20385	10586	0.519	0.04	SYS	
11.915	26467	16379	0.619	0.05	cl	
12.159	101356	54806	0.541	0.19	176	Naphthalene
	54215367	27884729		100.000		

SYS. Peaks = 1219697

Total IS/S Area from Lab Blank = 11934212

Total unknown % area = 26.150

$$\frac{54215367 - [11934212 + 1219697]}{8\,3884.11} = 489.5$$

$$\%R = \left(\frac{489.5}{500}\right) \times 100 = 98\ \%$$

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061027.d
Lab Smp Id: lab blank Client Smp ID: lab blank
Inj Date : 10-JUN-2010 23:31
Operator : dfm Inst ID: msd3.i
Smp Info : 200mL #917
Misc Info : humid
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern
HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.227	224583	63099	0.281	1.79	
1.507	128370	25676	0.200	1.02	SYS
2.675	16097	13266	0.824	0.13	
4.852	1446233	841991	0.582	11.52	* 76 Bromochloromethane
5.397	981903	562162	0.573	7.82	$ 89 1,2-Dichloroethane-d4
5.762	2205229	1362816	0.618	17.57	* 97 1,4-Difluorobenzene
7.001	2461779	1646937	0.669	19.64	$ 115 Toluene-d8
8.240	2416243	1675313	0.693	19.25	* 144 Chlorobenzene-d5
8.771	16756	5404	0.323	0.13	
9.236	2422825	1675464	0.692	19.30	$ 159 Bromofluorobenzene
9.472	24820	9669	0.390	0.20	
9.716	11715	7351	0.627	0.09	
10.246	14686	5779	0.394	0.12	SYS
10.354	14084	4840	0.344	0.11	SYS
11.013	19118	9168	0.480	0.15	
11.170	27944	9996	0.358	0.22	
11.385	19421	14358	0.739	0.15	
11.929	36913	21801	0.591	0.29	SYS
12.015	21684	8603	0.397	0.17	SYS
12.180	29124	15411	0.529	0.23	
12.574	12521	5619	0.449	0.10	SYS
	12552047	7984723		100.000	

TPHg < RL
ME 6/11/10

Total IS/S Area = 1193412 ✓

Total unknown % area = 4.900

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061038.d
Lab Smp Id: 1005647A-01A
Inj Date : 11-JUN-2010 12:52
Operator : LL Inst ID: msd3.i
Smp Info : 200mL #34401
Misc Info : 5.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

ND

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA			COMPOUNDS
1.213	153472678	51617733	0.336	64.20			
1.283	72482608	24724316	0.341	30.34			UNKNOWN
1.381	1298812	543603	0.419	0.54			
1.464	302351	136677	0.452	0.13			UNKNOWN
1.702	214674	65953	0.307	0.09			UNKNOWN
1.968	49232	17067	0.347	0.02			
2.173	13492	7948	0.589	0.01			
2.223	16754	8676	0.518	0.01			
2.338	22623	16769	0.741	0.01			
2.367	55603	20888	0.376	0.02			
2.660	55442	17848	0.322	0.02			
2.725	107429	97265	0.905	0.04			1-Propene, 1,1,2,3,3,3
2.789	29960	30452	1.016	0.01			
2.818	126007	50689	0.402	0.05		34	Acetone
3.763	10504	7752	0.738	0.00			
3.785	24152	8678	0.359	0.01			
3.993	12142	4642	0.382	0.01			
4.229	19582	7170	0.366	0.01			
4.458	66142	29862	0.451	0.03			
4.644	28865	13201	0.457	0.01		74	2-Butanone
4.852	1210404	707333	0.584	0.51	*	76	Bromochloromethane
4.917	63003	30488	0.484	0.03			
5.153	12162	4412	0.363	0.01			
5.397	857281	499064	0.582	0.36	$	89	1,2-Dichloroethane-d4

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
5.554	16660	6815	0.409	0.01	
5.762	1852216	1132432	0.611	0.78	* 97 1,4-Difluorobenzene
5.905	27518	13667	0.497	0.01	
6.156	12502	6163	0.493	0.01	
6.249	42717	27439	0.642	0.02	
6.378	41622	19770	0.475	0.02	
6.521	13582	5224	0.385	0.01	
7.001	2057135	1370760	0.666	0.86	$ 115 Toluene-d8
7.066	18106	7007	0.387	0.01	
7.495	13394	6806	0.508	0.01	
7.717	50534	31357	0.621	0.02	
8.240	2050516	1432567	0.699	0.86	* 144 Chlorobenzene-d5
8.355	12905	6316	0.489	0.01	
8.778	11166	5197	0.465	0.00	
8.964	23818	15645	0.657	0.01	
9.236	1967638	1391686	0.707	0.82	$ 159 Bromofluorobenzene
9.480	11357	6856	0.604	0.00	
9.580	11402	8302	0.728	0.00	
10.575	13124	4743	0.361	0.01	
10.819	11285	4663	0.413	0.00	
10.998	20191	8096	0.401	0.01	
11.385	18902	8263	0.437	0.01	
12.123	12470	5904	0.473	0.01	
12.488	17679	7970	0.451	0.01	
12.545	48873	15831	0.324	0.02	
	238929212	84217965		100.000	

Total unknown % area = 95.750

IS/surr = 11,934,212
RF = 83884
Qi + surr = 227,727,175

$$TPH_g = \frac{(238929212) - (11934212) - (227,727,175) \times 1.61}{83884} = 0 \text{ ppb}$$

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061039.d
Lab Smp Id: 1005647A-02A
Inj Date : 11-JUN-2010 13:33
Operator : LL Inst ID: msd3.i
Smp Info : 60mL #14121
Misc Info : 8.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 6.10000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern
HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.213	123906547	45337829	0.366	68.37	> cal/sys
1.269	45896535	21264620	0.463	25.33	> cal/sys
1.381	904100	363492	0.402	0.50	sys UNKNOWN
1.479	311111	55110	0.177	0.17	
1.703	55802	14226	0.255	0.03	
1.954	25981	8787	0.338	0.01	
2.661	29740	14997	0.504	0.02	
2.725	32355	28091	0.868	0.02	
2.790	11242	7290	0.648	0.01	
4.852	1212230	665484	0.549	0.67	* 76 Bromochloromethane
4.910	18490	9264	0.501	0.01	sys
5.397	865099	507249	0.586	0.48	$ 89 1,2-Dichloroethane-d4
5.762	1839428	1077363	0.586	1.02	* 97 1,4-Difluorobenzene
6.987	2025666	1356515	0.670	1.12	$ 115 Toluene-d8
8.226	2000276	1302305	0.651	1.10	* 144 Chlorobenzene-d5
9.215	1923728	1337361	0.695	1.06	$ 159 Bromofluorobenzene
9.559	12293	7054	0.574	0.01	system
11.013	13517	7484	0.554	0.01	
11.285	13712	6308	0.460	0.01	sys
11.922	13076	6478	0.495	0.01	sys
12.087	26797	9385	0.350	0.01	sys
12.495	15545	6856	0.441	0.01	
12.546	19825	10869	0.548	0.01	
12.940	10297	7064	0.686	0.01	

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
	181183392	73411481		100.000	

Total unknown % area = 94.550

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061040.d
Lab Smp Id: 1005647A-03A
Inj Date : 11-JUN-2010 13:56
Operator : LL Inst ID: msd3.i
Smp Info : 60mL #9414
Misc Info : 6.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 5.70000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern HSB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.213	109522031	41593372	0.380	67.88	
1.269	40819596	18732105	0.459	25.30	
1.381	909336	357682	0.393	0.56	UNKNOWN
1.479	327643	67260	0.205	0.20	Sulfur dioxide
1.703	97885	37219	0.380	0.06	UNKNOWN
1.954	39273	10374	0.264	0.02	
2.353	18835	6272	0.333	0.01	
2.661	88422	27811	0.315	0.05	2-Propenal
2.725	34527	26921	0.780	0.02	
2.825	15694	8423	0.537	0.01	
3.298	13444	4876	0.363	0.01	
4.852	1123784	628586	0.559	0.70	* 76 Bromochloromethane
5.397	793438	457993	0.577	0.49	$ 89 1,2-Dichloroethane-d4
5.762	1709728	1048256	0.613	1.06	* 97 1,4-Difluorobenzene
6.378	10559	6206	0.588	0.01	
7.001	1911419	1210806	0.633	1.18	$ 115 Toluene-d8
8.241	1980293	1375691	0.695	1.23	* 144 Chlorobenzene-d5
9.236	1934986	1281172	0.662	1.20	$ 159 Bromofluorobenzene
12.159	13124	4690	0.357	0.01	
	161364018	66885715		100.000	

Total unknown % area = 94.140

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061041.d
Lab Smp Id: 1005647A-04A
Inj Date : 11-JUN-2010 14:33
Operator : LL Inst ID: msd3.i
Smp Info : 25mL #4384
Misc Info : 9.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 15.30000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPH pattern

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.199	52202070	23070521	0.442	62.73	1-Propene, 1,1,2,3,3,3
1.269	21407489	10138859	0.474	25.72	
1.381	413879	155626	0.376	0.50	UNKNOWN
1.479	208033	40751	0.196	0.25	Sulfur dioxide
1.702	27816	10114	0.364	0.03	
2.660	20829	11090	0.532	0.03	
2.811	29837	11713	0.393	0.04	
4.451	11538	4307	0.373	0.01	
4.845	1087827	597550	0.549	1.31	* 76 Bromochloromethane
4.910	19123	8677	0.454	0.02	
5.397	751885	430886	0.573	0.90	$ 89 1,2-Dichloroethane-d4
5.483	12996	6083	0.468	0.02	
5.762	1600789	954340	0.596	1.92	* 97 1,4-Difluorobenzene
7.001	1826494	1141918	0.625	2.19	$ 115 Toluene-d8
7.718	12579	6427	0.511	0.02	
8.240	1803266	1226821	0.680	2.17	* 144 Chlorobenzene-d5
9.236	1765655	1203028	0.681	2.12	$ 159 Bromofluorobenzene
9.580	10192	6462	0.634	0.01	
10.053	10099	5793	0.574	0.01	
	83222395	39030966		100.000	

Total unknown % area = 89.390

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061042.d
Lab Smp Id: 1005647A-05A
Inj Date : 11-JUN-2010 15:51
Operator : dfm Inst ID: msd3.i
Smp Info : 25mL #20938
Misc Info : 8.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 15.00000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

NO TPHg pattern
HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.199	48794297	21885779	0.449	63.08	1-Propene, 1,1,2,3,3,3
1.269	19304289	9150875	0.474	24.96	
1.381	386150	139886	0.362	0.50	UNKNOWN
1.479	204457	41071	0.201	0.26	
1.702	19420	5671	0.292	0.03	
2.668	25924	14117	0.545	0.03	
4.845	1043112	582875	0.559	1.35	* 76 Bromochloromethane
5.397	734136	426869	0.581	0.95	$ 89 1,2-Dichloroethane-d4
5.676	12800	3906	0.305	0.02	
5.755	1582387	917645	0.580	2.05	* 97 1,4-Difluorobenzene
6.994	1780314	1144728	0.643	2.30	$ 115 Toluene-d8
8.240	1762910	1206379	0.684	2.28	* 144 Chlorobenzene-d5
9.236	1680050	1128149	0.671	2.17	$ 159 Bromofluorobenzene
9.716	11843	5381	0.454	0.02	
	77342091	36653331		100.000	

Total unknown % area = 88.900

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/10jun10a.b/3061043.d
Lab Smp Id: 1005647A-06A
Inj Date : 11-JUN-2010 16:23
Operator : dfm Inst ID: msd3.i
Smp Info : 25mL #5553
Misc Info : 8.0"Hg->5psi
Comment :
Method : /var/chem/msd3.i/10jun10a.b/310q0608a.m
Meth Date : 10-Jun-2010 21:30 llarson Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 14.60000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.199	50417282	22590300	0.448	62.62	1-Propene, 1,1,2,3,3,3
1.269	20572762	9765109	0.475	25.55	
1.381	393496	145022	0.369	0.49	UNKNOWN
1.479	193209	38200	0.198	0.24	
1.703	39645	12565	0.317	0.05	
2.675	19436	11991	0.617	0.02	
2.811	18566	7941	0.428	0.02	
4.845	1069567	590841	0.552	1.33	* 76 Bromochloromethane
5.397	744471	430961	0.579	0.92	$ 89 1,2-Dichloroethane-d4
5.762	1552298	904469	0.583	1.93	* 97 1,4-Difluorobenzene
6.242	10148	6794	0.669	0.01	
7.009	1812073	1173548	0.648	2.25	$ 115 Toluene-d8
7.639	13939	7384	0.530	0.02	
7.718	13030	7606	0.584	0.02	
8.233	1800539	1207218	0.670	2.24	* 144 Chlorobenzene-d5
8.943	12305	7595	0.617	0.02	
9.222	1748530	1189295	0.680	2.17	$ 159 Bromofluorobenzene
10.039	14242	7723	0.542	0.02	
11.500	10418	6397	0.614	0.01	
12.058	11650	9463	0.812	0.01	
12.094	16105	8105	0.503	0.02	
12.445	15239	5224	0.343	0.02	
12.710	19554	7024	0.359	0.02	
	80518505	38140775		100.000	

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /var/chem/msd3.i/11jun10.b/3061105.d
Lab Smp Id: tphgccv Client Smp ID: tphgccv
Inj Date : 11-JUN-2010 22:54
Operator : dfm Inst ID: msd3.i
Smp Info : 40mL #1936-214
Misc Info : 2500ppbv->500ppbv
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA		COMPOUNDS
1.199	1518614	399291	0.263	3.21		UNKNOWN
1.437	88346	49546	0.561	0.19	6	Propylene
1.507	95416	28585	0.300	0.20		
1.563	506185	207439	0.410	1.07	13	Butane
1.633	66084	27458	0.415	0.14	24	~~Chloroethane~~
1.716	44470	21489	0.483	0.09		
1.912	42114	13393	0.318	0.09		
1.996	2477262	974899	0.394	5.24	15	1,3-Butadiene
2.238	945535	304000	0.322	2.00	42	Pentane
2.381	794463	289509	0.364	1.68	29	Ethanol
2.481	172785	61469	0.356	0.37		
2.539	576143	211801	0.368	1.22		Cyclopropane, 1,1-dime
2.660	315530	90292	0.286	0.67		Butane, 2,2-dimethyl-
3.198	1400113	345972	0.247	2.96		Pentane, 2-methyl-
3.276	287307	78925	0.275	0.61	43	~~Methylene Chloride~~
3.470	545657	190388	0.349	1.15	46	tert-Butyl-Alcohol
3.678	106231	36581	0.344	0.22		
3.756	417137	173084	0.415	0.88	51	Hexane
3.878	89628	38237	0.427	0.19		
3.943	148814	68879	0.463	0.31		
3.993	296073	113867	0.385	0.63		2-Pentene, 4-methyl-,
4.072	95058	34897	0.367	0.20		
4.143	86824	35385	0.408	0.18		
4.251	200137	65409	0.327	0.42		2-Pentene, 3-methyl-,

RT	AREA	HEIGHT	HT/AREA	% AREA			COMPOUNDS
4.294	239250	85818	0.359	0.51			Pentane, 2,4-dimethyl-
4.394	393192	162983	0.415	0.83			Cyclopentane, methyl-
4.458	61143	25162	0.412	0.13			
4.852	1461037	638287	0.437	3.09	*	76	Bromochloromethane
4.974	634551	261984	0.413	1.34		75	Tetrahydrofuran
5.046	586887	186188	0.317	1.24		80	Cyclohexane
5.139	699666	304616	0.435	1.48		74	2-Butanone
5.368	2967200	818053	0.276	6.27	$	89	1,2-Dichloroethane-d4
5.454	117876	45985	0.390	0.25			
5.540	552678	285320	0.516	1.17		94	Heptane
5.583	38496	22737	0.591	0.08			
5.676	185005	58516	0.316	0.39			1-Butene, 2-ethyl-3-me
5.755	1943595	1125376	0.579	4.11	*	97	1,4-Difluorobenzene
5.798	43289	22406	0.518	0.09			
5.877	81188	24832	0.306	0.17			
6.041	471437	183046	0.388	1.00		104	Methyl Cyclohexane
6.084	336496	144505	0.429	0.71			UNKNOWN
6.149	66030	30068	0.455	0.14			
6.213	90422	36545	0.404	0.19			
6.263	34311	17878	0.521	0.07			
6.400	623077	304658	0.489	1.32			Pentane, 2,3,4-trimeth
6.507	763138	304784	0.399	1.61			Pentane, 2,3,3-trimeth
6.564	364195	163267	0.448	0.77			UNKNOWN
6.600	104463	74075	0.709	0.22			
6.693	399907	175202	0.438	0.85			Heptane, 3-methyl-
6.822	233515	114284	0.489	0.49			Hexane, 2,2,5-trimethy
6.887	47962	25524	0.532	0.10			
6.987	2076641	1314950	0.633	4.39	$	115	Toluene-d8
7.037	4451451	2670633	0.600	9.39		~~112~~	~~cis-1,3-Dichloropropen~~
7.137	22725	13578	0.597	0.05			
7.195	24633	13567	0.551	0.05			
7.302	87580	37664	0.430	0.19			
7.374	31894	16939	0.531	0.07			
7.445	36528	15922	0.436	0.08			
7.553	56894	27388	0.481	0.12			
7.689	28871	14837	0.514	0.06			
7.847	39969	17866	0.447	0.08			
7.911	122768	71095	0.579	0.26			
8.011	66414	48353	0.728	0.14			
8.169	20220	12340	0.610	0.04			
8.219	2089536	1368736	0.655	4.42	*	144	Chlorobenzene-d5
8.305	857597	553806	0.646	1.81		140	1,2-Dibromoethane
8.398	3182043	2127274	0.669	6.72		150	m,p-Xylene
8.742	1142551	791655	0.693	2.41		153	o-Xylene
9.036	102033	51335	0.503	0.22		156	Cumene
9.093	81088	41147	0.507	0.17			
9.165	21789	12641	0.580	0.05			
9.215	2098060	1461040	0.696	4.43	$	159	Bromofluorobenzene
9.379	257904	171478	0.665	0.55		162	Propylbenzene
9.451	1355055	638218	0.471	2.86		163	4-Ethyltoluene

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
9.530	458677	306966	0.669	0.97	164 1,3,5-Trimethylbenzene
9.709	353030	215397	0.610	0.75	Benzene, 1-ethyl-2-met
9.852	1344624	948851	0.706	2.84	166 1,2,4-Trimethylbenzene
9.945	82325	35327	0.429	0.17	
9.981	27256	14552	0.534	0.06	
10.053	59604	24809	0.416	0.13	
10.103	54320	25439	0.468	0.11	
10.160	91184	38587	0.423	0.19	
10.217	283022	173812	0.614	0.60	Benzene, 1,2,4-trimeth
10.375	260874	80148	0.307	0.55	Benzene, 1-methyl-3-pr
10.425	264881	116726	0.441	0.56	Benzene, 1-ethyl-3,5-d
10.533	34551	16003	0.463	0.07	
10.597	45239	24025	0.531	0.10	
10.669	86481	45189	0.523	0.18	
10.690	65883	43449	0.659	0.14	
10.755	108548	71702	0.661	0.23	
10.876	42558	17774	0.418	0.09	
11.027	30985	14181	0.458	0.07	
11.099	77795	41752	0.537	0.16	
11.149	117192	72372	0.618	0.25	
11.371	86556	44530	0.514	0.18	
11.528	67370	22358	0.332	0.14	
11.901	23540	12606	0.536	0.05	cal
12.008	26513	11807	0.445	0.06	SYS
12.159	92881	48305	0.520	0.20	176 Naphthalene
12.896	24824	9105	0.367	0.05	SYS
	47320888	23471128		100.000	

Total IS/S Area from Lab Blank = 9568784

System Peaks = 1593491

Total unknown % area = 28.130

$$\frac{47320888 - [9568784 + 1593491]}{83884.11} = 431$$

$$\%R = \left(\frac{431}{500}\right) \times 100 = 86\ \%$$

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061107.d
Lab Smp Id: lab blank Client Smp ID: lab blank
Inj Date : 11-JUN-2010 23:41
Operator : dfm Inst ID: msd3.i
Smp Info : 200mL #5619
Misc Info : humid
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT10.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern
HMB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.227	263219	81331	0.309	2.59	} SYS
1.507	177806	28509	0.160	1.75	
2.668	25268	14411	0.570	0.25	
4.852	1175137	681227	0.580	11.57	* 76 Bromochloromethane
4.917	28730	11442	0.398	0.28	
5.397	812041	469535	0.578	7.99	$ 89 1,2-Dichloroethane-d4
5.762	1689762	1046764	0.619	16.64	* 97 1,4-Difluorobenzene
7.001	1924747	1262607	0.656	18.95	$ 115 Toluene-d8
8.241	1986041	1376878	0.693	19.56	* 144 Chlorobenzene-d5
9.236	1981056	1378492	0.696	19.50	$ 159 Bromofluorobenzene
10.232	12550	5739	0.457	0.12	
11.170	12860	7186	0.559	0.13	
11.385	22651	16621	0.734	0.22	
11.930	16733	12831	0.767	0.16	cl
12.187	29175	13927	0.477	0.29	
	10157774	6407500		100.000	

Total IS/S from Lab Blank = 9568784

Total unknown % area = 5.790

TPHg < RL
WL 6/12/10

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061114.d
Lab Smp Id: 1005647A-07A
Inj Date : 12-JUN-2010 11:38
Operator : LL Inst ID: msd3.i
Smp Info : 15mL #11892
Misc Info : 6.5"Hg->5psi
Comment : 8
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1 24.9 HAB 6/15/10
Dil Factor: 22.80000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TMHg pattern HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA	COMPOUNDS
1.199	35746757	17784692	0.498	60.00	cl 1-Propene, 1,1,2,3,3,3
1.269	14117616	6706067	0.475	23.70	cl
1.381	257810	109216	0.424	0.43	sys UNKNOWN
1.507	176085	34070	0.193	0.30	sys
2.675	21349	12758	0.598	0.04	sys
4.845	1078460	591717	0.549	1.81	* 76 Bromochloromethane
5.397	769082	449160	0.584	1.29	$ 89 1,2-Dichloroethane-d4
5.483	15645	5743	0.367	0.03	
5.676	10699	6535	0.611	0.02	cl
5.762	1613901	947905	0.587	2.71	* 97 1,4-Difluorobenzene
7.001	1877562	1195642	0.637	3.15	$ 115 Toluene-d8
7.589	10962	5912	0.539	0.02	
8.240	1948826	1320038	0.677	3.27	* 144 Chlorobenzene-d5
9.236	1913134	1329524	0.695	3.21	$ 159 Bromofluorobenzene
11.829	12904	6661	0.516	0.02	sys
	59570792	30505640		100.000	

IS/Surr = 9,568,784 RF = 83884

Total unknown % area = 84.560

Air Toxics Ltd.

AMBIENT AIR METHOD TO14

Data file : /chem/msd3.i/11jun10.b/3061115.d
Lab Smp Id: 1005647A-08A
Inj Date : 12-JUN-2010 12:23
Operator : LL Inst ID: msd3.i
Smp Info : 15mL #22508
Misc Info : 6.5"Hg->5psi
Comment :
Method : /var/chem/msd3.i/11jun10.b/310q0608a.m
Meth Date : 11-Jun-2010 21:55 jparker Quant Type: AREA%
Cal Date : 08-JUN-2010 11:37 Cal File: 3060808.d
Als bottle: 1
Dil Factor: 22.80000
Integrator: HP RTE Compound Sublist: TO15.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

no TPHg pattern
HAB 6/15/10

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% AREA			COMPOUNDS
1.199	26047749	13113235	0.503	57.29			1-Propene, 1,1,2,3,3,3
1.269	9823013	4690573	0.478	21.61			
1.381	168014	71130	0.423	0.37			UNKNOWN
1.507	153738	31342	0.204	0.34			
2.180	12133	5110	0.421	0.03			
2.668	21473	13404	0.624	0.05			
4.845	1129434	619216	0.548	2.48	*	76	Bromochloromethane
5.397	777474	449344	0.578	1.71	$	89	1,2-Dichloroethane-d4
5.475	14616	5661	0.387	0.03			
5.683	13967	6205	0.444	0.03			
5.762	1632391	958417	0.587	3.59	*	97	1,4-Difluorobenzene
7.001	1871729	1182788	0.632	4.12	$	115	Toluene-d8
7.581	16266	8098	0.498	0.04			
8.240	1907091	1283460	0.673	4.20	*	144	Chlorobenzene-d5
8.921	10467	5531	0.528	0.02			
9.236	1829741	1257082	0.687	4.03	$	159	Bromofluorobenzene
12.037	12782	6196	0.485	0.03			
12.653	11836	7010	0.592	0.03			
	45453914	23713802		100.000			

IS/Surr = 9,568,784 RF = 83884

Total unknown % area = 79.870

DILUTION FACTORS

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

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

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

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

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

DILUTION FACTORS

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

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

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

Compound List

Modified TO-15 + TPHg

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.50	
76-14-2	Freon 114	0.50	
75-35-4	1,1-Dichloroethene	0.50	
67-64-1	Acetone	2.0	
67-63-0	2-Propanol	2.0	
75-15-0	Carbon Disulfide	0.50	
107-05-1	3-Chloropropene	2.0	
75-09-2	Methylene Chloride	0.50	
1634-04-4	Methyl tert-butyl ether	0.50	
156-60-5	trans-1,2-Dichloroethene	0.50	
110-54-3	Hexane	0.50	
75-34-3	1,1-Dichloroethane	0.50	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50	
156-59-2	cis-1,2-Dichloroethene	0.50	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.50	
71-55-6	1,1,1-Trichloroethane	0.50	
110-82-7	Cyclohexane	0.50	
56-23-5	Carbon Tetrachloride	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
71-43-2	Benzene	0.50	
107-06-2	1,2-Dichloroethane	0.50	
142-82-5	Heptane	0.50	
79-01-6	Trichloroethene	0.50	
78-87-5	1,2-Dichloropropane	0.50	
123-91-1	1,4-Dioxane	2.0	
75-27-4	Bromodichloromethane	0.50	
10061-01-5	cis-1,3-Dichloropropene	0.50	
108-10-1	4-Methyl-2-pentanone	0.50	
108-88-3	Toluene	0.50	
10061-02-6	trans-1,3-Dichloropropene	0.50	
79-00-5	1,1,2-Trichloroethane	0.50	
127-18-4	Tetrachloroethene	0.50	
591-78-6	2-Hexanone	2.0	
124-48-1	Dibromochloromethane	0.50	
106-93-4	1,2-Dibromoethane (EDB)	0.50	
108-90-7	Chlorobenzene	0.50	
100-41-4	Ethyl Benzene	0.50	
108-38-3	m,p-Xylene	0.50	
95-47-6	o-Xylene	0.50	
100-42-5	Styrene	0.50	
75-25-2	Bromoform	0.50	
98-82-8	Cumene	0.50	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	
103-65-1	Propylbenzene	0.50	
622-96-8	4-Ethyltoluene	0.50	

Compound List

Modified TO-15 + TPHg

CAS Number	Compound	Detection Limit ppbv	Type
108-67-8	1,3,5-Trimethylbenzene	0.50	
95-63-6	1,2,4-Trimethylbenzene	0.50	
541-73-1	1,3-Dichlorobenzene	0.50	
106-46-7	1,4-Dichlorobenzene	0.50	
100-44-7	alpha-Chlorotoluene	0.50	
95-50-1	1,2-Dichlorobenzene	0.50	
120-82-1	1,2,4-Trichlorobenzene	2.0	
87-68-3	Hexachlorobutadiene	2.0	
9999-9999-038	TPH ref. to Gasoline (MW=100)	10	
2037-26-5	Toluene-d8		
17060-07-0	1,2-Dichloroethane-d4		
460-00-4	4-Bromofluorobenzene		
74-87-3	Chloromethane	2.0	
75-01-4	Vinyl Chloride	0.50	
106-99-0	1,3-Butadiene	0.50	
74-83-9	Bromomethane	0.50	
75-00-3	Chloroethane	0.50	
75-69-4	Freon 11	0.50	
64-17-5	Ethanol	2.0	
76-13-1	Freon 113	0.50	

@ Air Toxics Ltd	Title: Data Review Checklist			Release Date: 03/01/10
	Form #: F1.2	Revision #: 2	Revision Date:03/01/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1005647A

A_1	A_2	R	T	M	Q	
☑	☑	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
☑	☑			NA		Non-Standard sublist printed/verified, LOQ and LOD verified
	☑	☐	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
	NA	☐	☐	NA	☐	Sample Discrepancy Report (SDR) is completed
☑	☑	☑	☐	NA	☐	Corrective Action issued - #
☐	☐	☐	☐	☐	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / NO)***

☑	☑	☐	☐	☐	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☑	☐	☐	☐	☐	Hold time is met for all samples
		☐	☐	☐	☐	Appropriate data qualifier flags are applied
		☐	☐	☐	☐	Manual integrations for samples and QC are properly documented
☑	☐	☐	☐		☐	Samples analyzed within the project or method specific clock
		☐	☐			Retention times have been verified
☑	☑	☐	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☐	☑	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☑	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☑	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		NA	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
☐	☑	☐	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
NA	NA	☐	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☑		NA		Special units for all samples in the final report are correctly calculated
		☑	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
				☐		Verify sample id's vs. chain of custody
☑		☑				Date MDL(s) performed per instrument(s) 11/16/09
☑	☑	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☑	☑	☑				Final pressure consistent with canister size (6L vs. 1L) 6/14/10
☐	☑	☐				Verify receipt pressures
☑	☐	☑				Verify canister ID #'s
		☑		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		☑	☐	☑	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Out in QC MSD2 6/10/2010 (01A–06A) and 6/11/10 (07A + 08A)
Dup=4/12/10

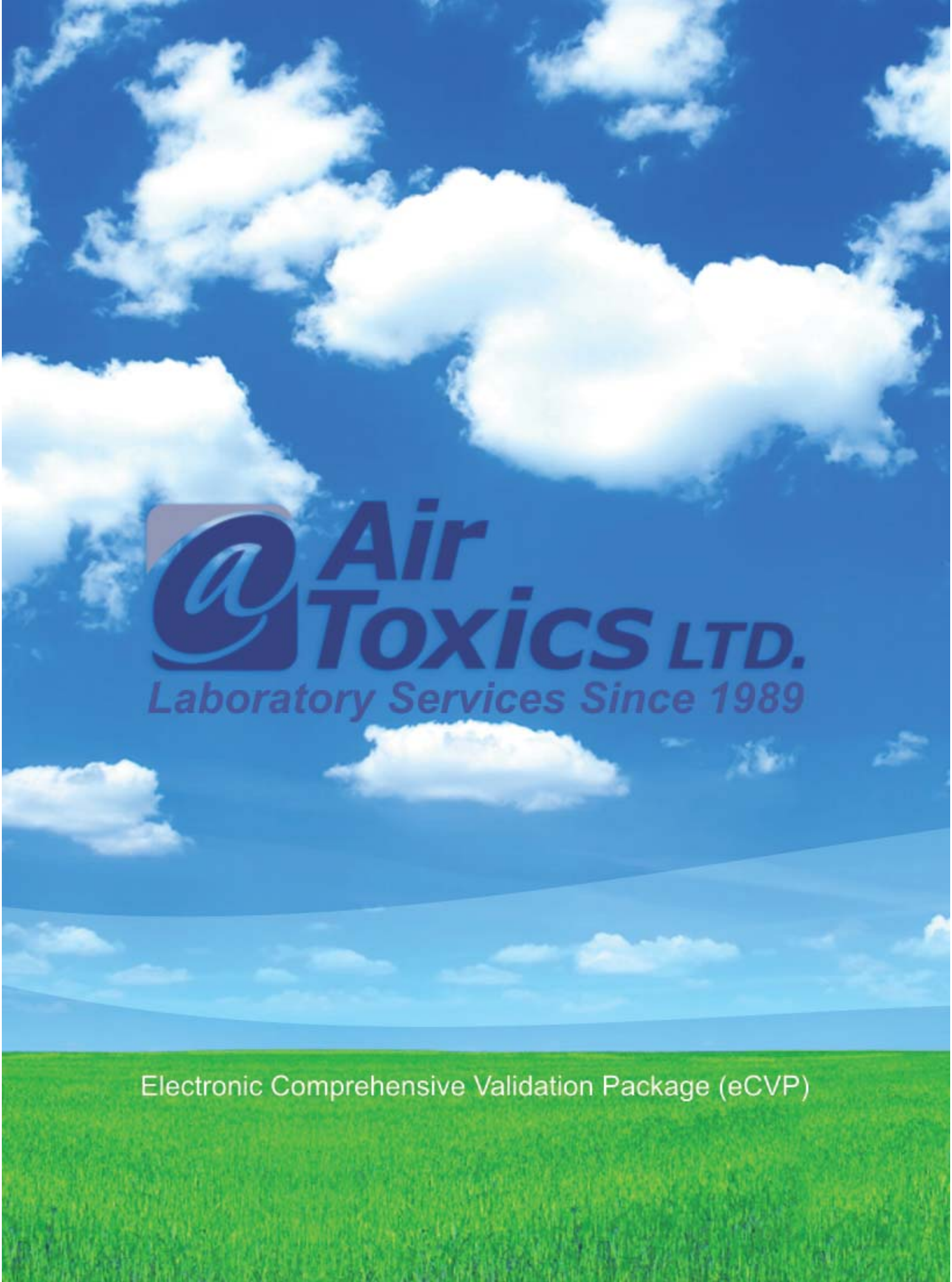
No TPHg pattern in all of the samples.

M/Q: -02A, -03A, -04A, -05A, -07A, -08A > diluted for non-target cpds.
-06A

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: 6/11/10	R: 6-15-10	6/15/10	
A_2: 4/12/10	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable


Air
Toxics LTD.
Laboratory Services Since 1989
Electronic Comprehensive Validation Package (eCVP)

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

Modified ASTM D-1945

INVENTORY SHEET

Work Order #: 1005647B

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b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results+ Raw Data)	78	89
b. Surrogate Recover Summary Form (If Applicable)	--	--
c. Internal Standard Summary Form (If Applicable)	--	--
d. Duplicate Results Summary Sheet	90	90
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data	--	--
f. Initial Calibration Data (Summary Sheet + Raw Data)	91	214
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d. Misc Shipping/Receiving Records (list of individual records)		
Sample Receipt Discrepancy Report	--	--
5. Other Records (describe or list)		
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Comments:

Completed by:

Kara McKiernan	Kara McKiernan / Document Control	6/11/10
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005647B

Work Order Summary

CLIENT:	Ms. Keri Whetter Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007	**BILL TO:**	Ms. Keri Whetter Exponent 15375 SE 30th Place Suite 250 Bellevue, WA 98007
PHONE:	425-519-8750	**P.O. #**	
FAX:	425-643-9827	**PROJECT #**	0907194.000.0601 Heglar Kronquist
DATE RECEIVED:	05/27/2010	**CONTACT:**	Karen Lopez
DATE COMPLETED:	06/10/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	AOS-1	Modified ASTM D-1945	5.0 "Hg	5 psi
01AA	AOS-1 Lab Duplicate	Modified ASTM D-1945	5.0 "Hg	5 psi
02A	AOS-2	Modified ASTM D-1945	8.0 "Hg	5 psi
03A	AOS-3	Modified ASTM D-1945	6.5 "Hg	5 psi
04A	ALF-1	Modified ASTM D-1945	9.0 "Hg	5 psi
05A	ALF-2	Modified ASTM D-1945	8.5 "Hg	5 psi
06A	ALF-3	Modified ASTM D-1945	8.0 "Hg	5 psi
07A	ALF-4	Modified ASTM D-1945	8.5 "Hg	5 psi
08A	ALF-5	Modified ASTM D-1945	6.5 "Hg	5 psi
09A	Lab Blank	Modified ASTM D-1945	NA	NA
09B	Lab Blank	Modified ASTM D-1945	NA	NA
10A	LCS	Modified ASTM D-1945	NA	NA
10B	LCS	Modified ASTM D-1945	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 06/10/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified ASTM D-1945
Exponent
Workorder# 1005647B

Eight 6 Liter Summa Canister samples were received on May 27, 2010. The laboratory performed analysis via modified ASTM Method D-1945 for Methane and fixed gases in natural gas using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

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

Requirement	***ASTM D-1945***	***ATL Modifications***
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 85-115%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD </= 15%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:
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 detection limit.
M - Reported value may be biased due to apparent matrix interferences.

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
AOS-1	1005647B-01A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
AOS-1 Lab Duplicate	1005647B-01AA	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
AOS-2	1005647B-02A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
AOS-3	1005647B-03A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
ALF-1	1005647B-04A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
ALF-2	1005647B-05A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
ALF-3	1005647B-06A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
ALF-4	1005647B-07A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
ALF-5	1005647B-08A	5/20/2010	5/27/2010	NA	19	6/ 8/2010	NA	Good
Lab Blank	1005647B-09A	NA	NA	NA	NA	6/ 8/2010	NA	Good
Lab Blank	1005647B-09B	NA	NA	NA	NA	6/ 8/2010	NA	Good
LCS	1005647B-10A	NA	NA	NA	NA	6/ 8/2010	NA	Good
LCS	1005647B-10B	NA	NA	NA	NA	6/ 8/2010	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: AOS-1

Lab ID#: 1005647B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.16	79
Methane	0.00016	0.00020
Carbon Dioxide	0.016	0.042

Air Toxics LTD.
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Client Sample ID: AOS-1

Lab ID#: 1005647B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060815**	**Date of Collection: 5/20/10 11:07:00 AM**	
Dil. Factor:	**1.61**	**Date of Analysis: 6/8/10 03:52 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.16	79
Carbon Monoxide	0.016	Not Detected
Methane	0.00016	0.00020
Carbon Dioxide	0.016	0.042
Ethane	0.0016	Not Detected
Ethene	0.0016	Not Detected
Acetylene	0.0016	Not Detected
Propane	0.0016	Not Detected
Isobutane	0.0016	Not Detected
Butane	0.0016	Not Detected
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	Not Detected
C6+	0.016	Not Detected
Hydrogen	0.016	Not Detected
Helium	0.080	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

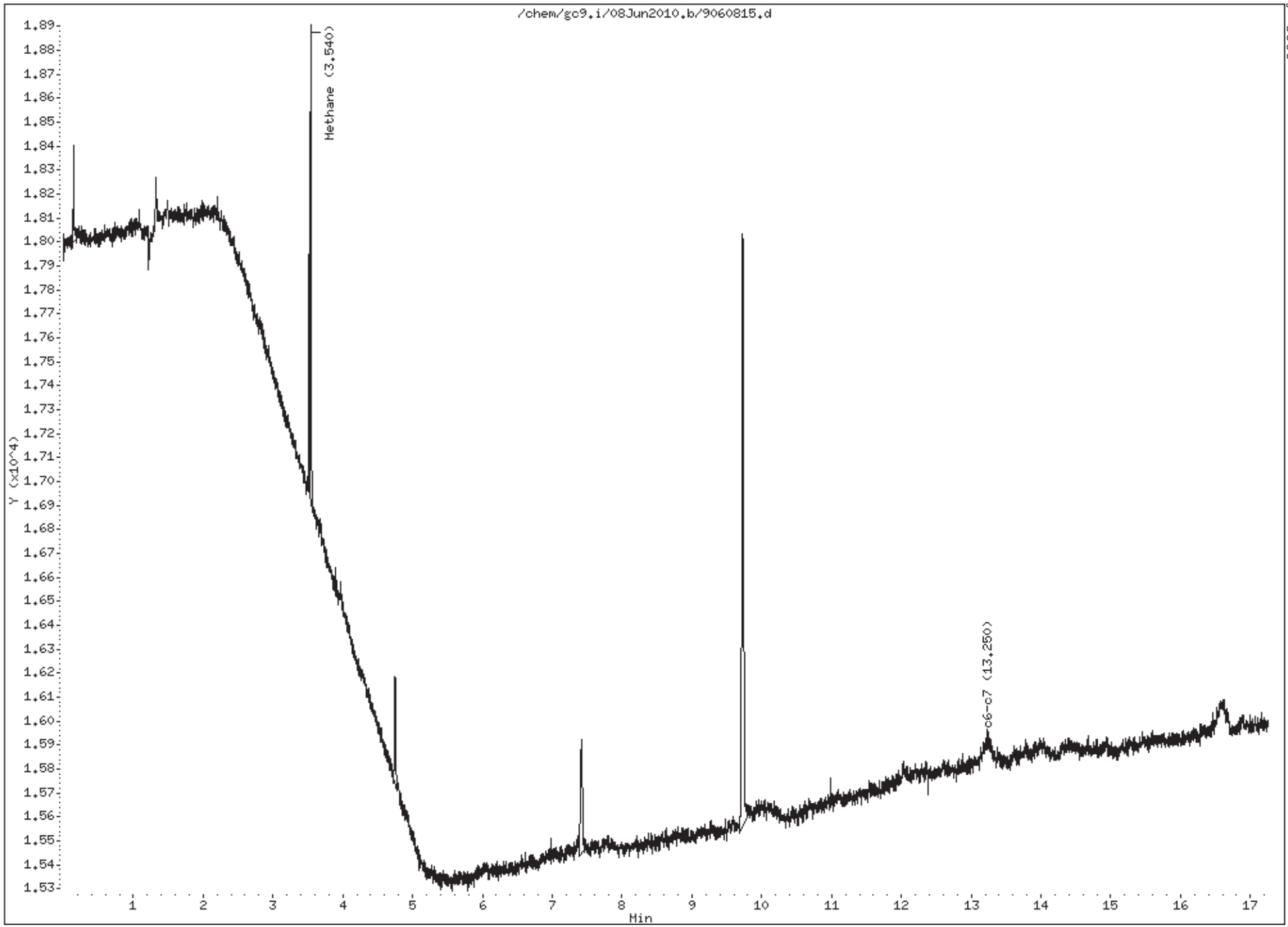
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060815.d
Lab Smp Id: 1005647B-01A
Inj Date : 08-JUN-2010 15:52
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01A;
Misc Info : 5.0"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

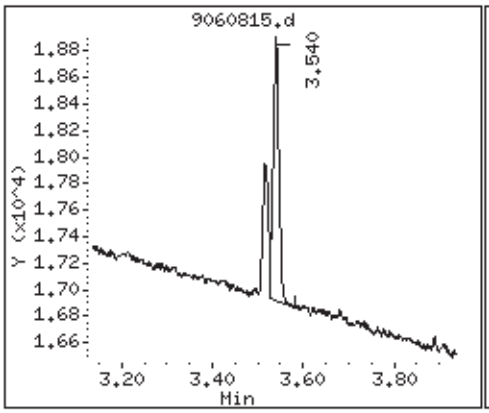
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

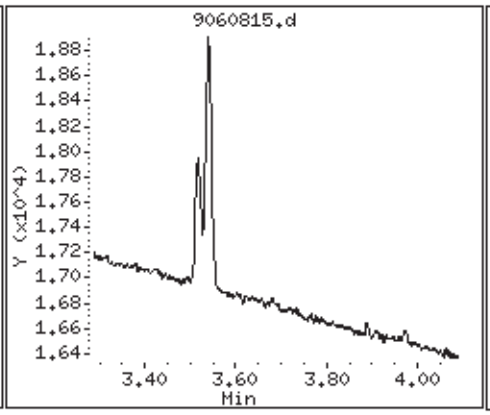
						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	2 Methane	3.540	3.538	0.002	18269	0.000122	0.000196
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060815.d
Methane (3.540)
c6-c7 (13.250)
Y (x10^4)
Min

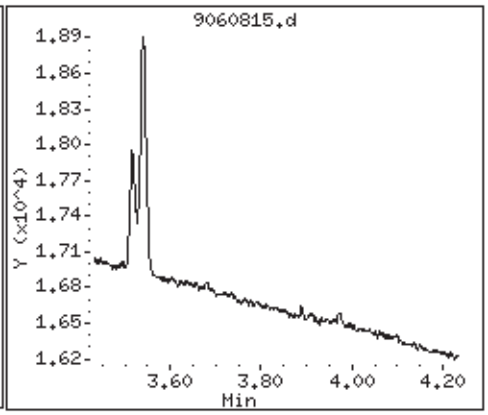
2 Methane



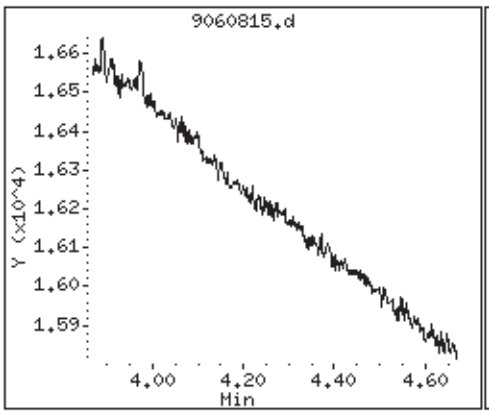
3 ethane (Undetected)



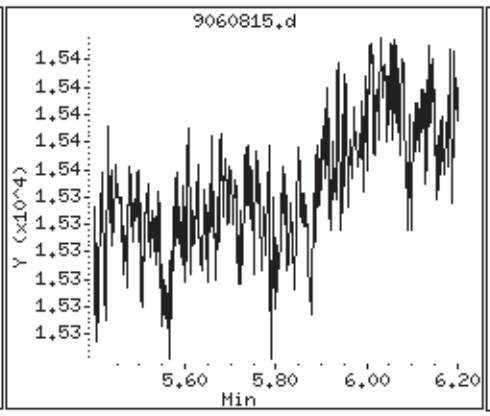
4 ethene (Undetected)



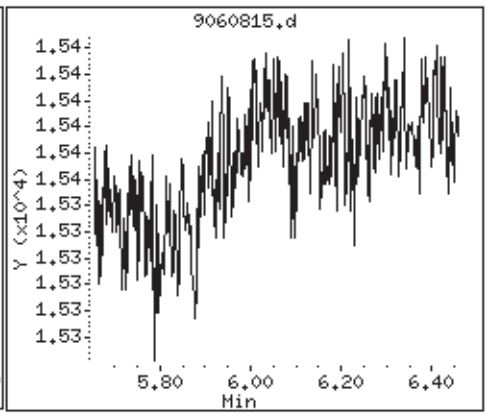
5 propane (Undetected)



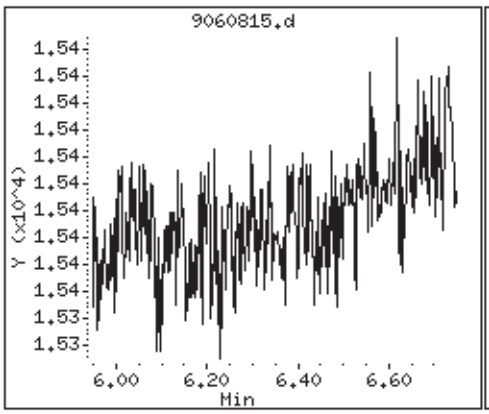
7 acetylene (Undetected)



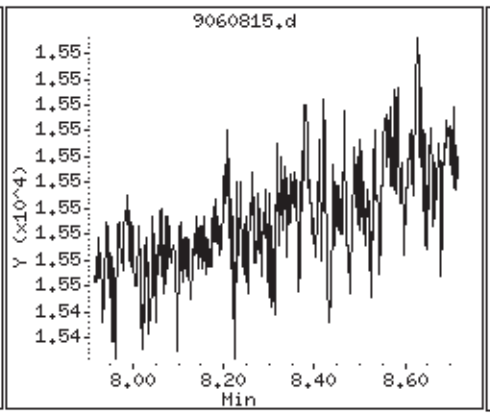
8 iso-butane (Undetected)



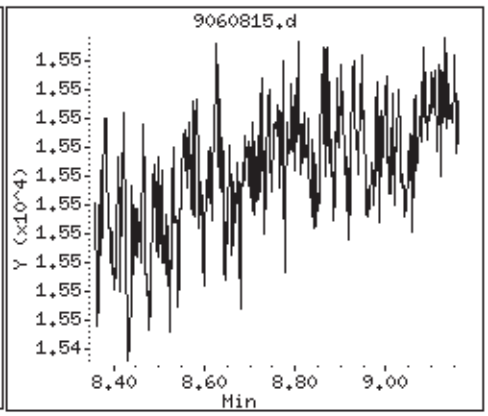
10 n-butane (Undetected)



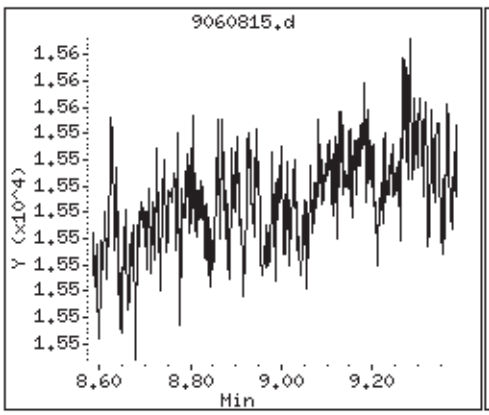
15 neo-pentane (Undetected



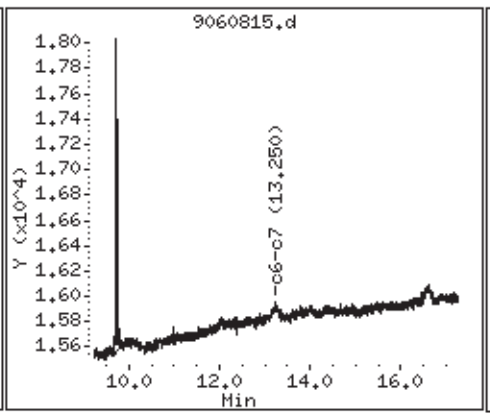
16 isopentane (Undetected)



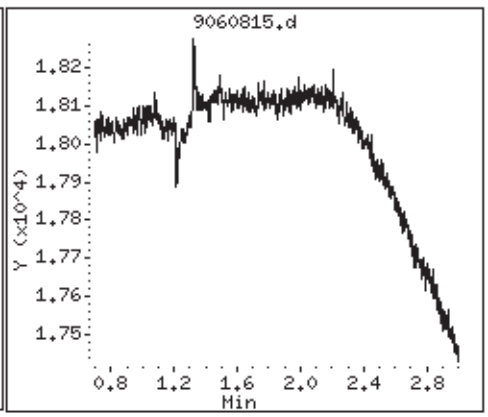
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

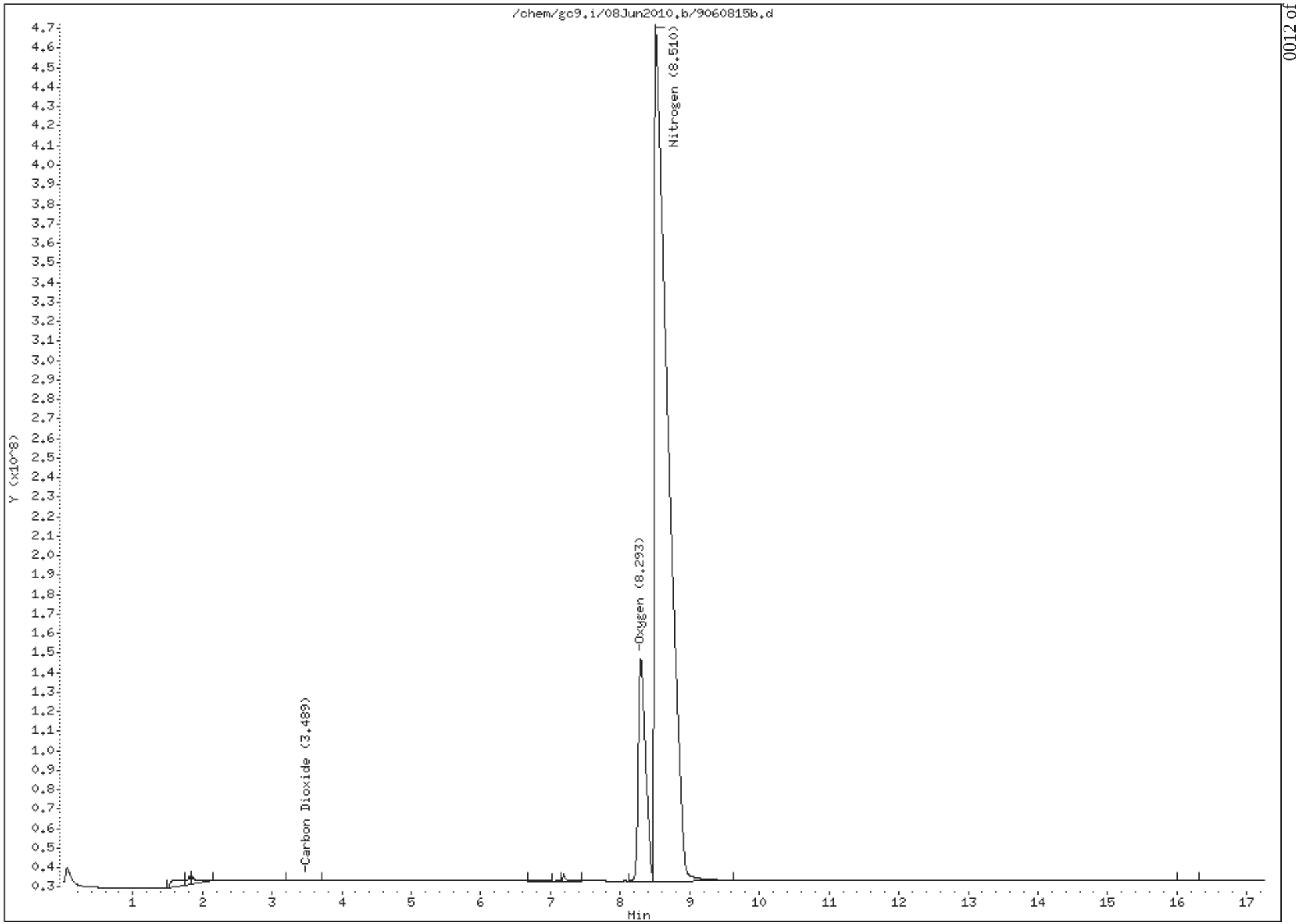
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060815b.d
Lab Smp Id: 1005647B-01A
Inj Date : 08-JUN-2010 15:52
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01A;
Misc Info : 5.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

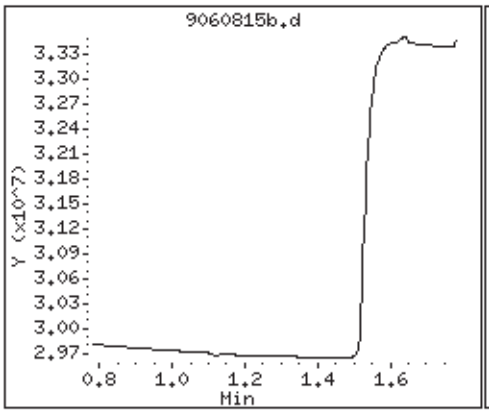
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

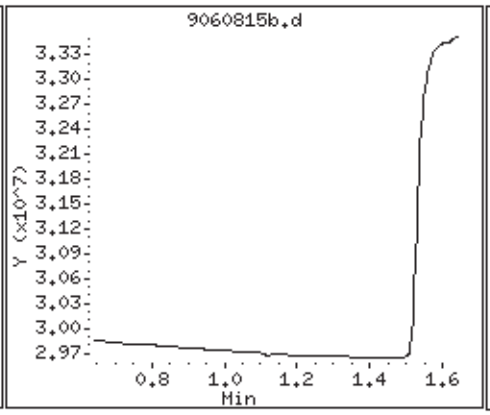
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.489	3.355	0.134	13060144	0.02582	0.0416
9 Oxygen	8.293	8.330	-0.037	4150079312	12.9437	20.8
10 Nitrogen	8.510	8.541	-0.031	29369650793	86.0901	139
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060815b.d
Y (x10^8)
Min
Carbon Dioxide (3.489)
Oxygen (8.293)
Nitrogen (8.510)

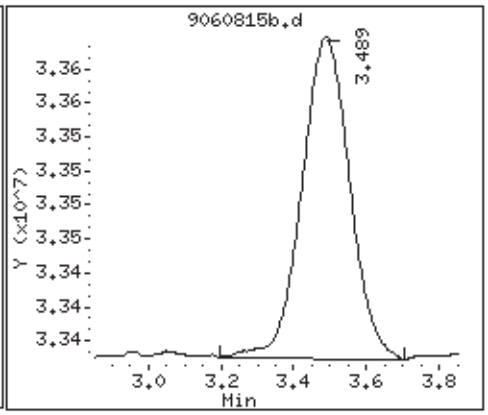
2 Hydrogen (Undetected)



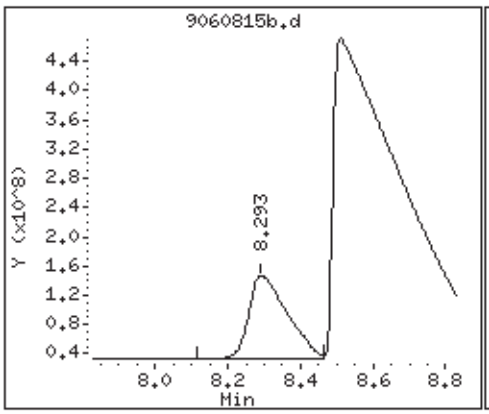
1 Helium (Undetected)



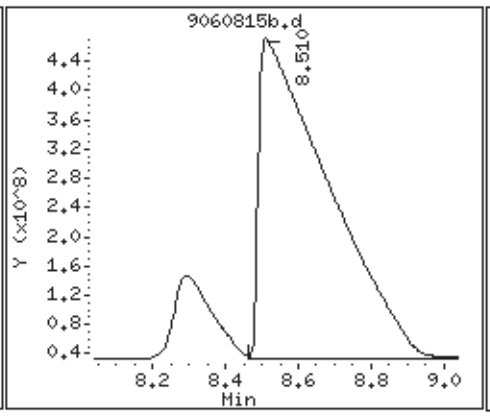
3 Carbon Dioxide



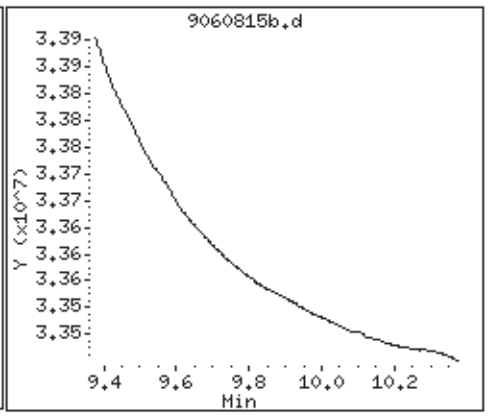
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: AOS-1 Lab Duplicate

Lab ID#: 1005647B-01AA

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.16	79
Methane	0.00016	0.00019
Carbon Dioxide	0.016	0.039

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-1 Lab Duplicate

Lab ID#: 1005647B-01AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060816**	**Date of Collection: 5/20/10 11:07:00 AM**	
Dil. Factor:	**1.61**	**Date of Analysis: 6/8/10 04:41 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.16	79
Carbon Monoxide	0.016	Not Detected
Methane	0.00016	0.00019
Carbon Dioxide	0.016	0.039
Ethane	0.0016	Not Detected
Ethene	0.0016	Not Detected
Acetylene	0.0016	Not Detected
Propane	0.0016	Not Detected
Isobutane	0.0016	Not Detected
Butane	0.0016	Not Detected
Neopentane	0.0016	Not Detected
Isopentane	0.0016	Not Detected
Pentane	0.0016	Not Detected
C6+	0.016	Not Detected
Hydrogen	0.016	Not Detected
Helium	0.080	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

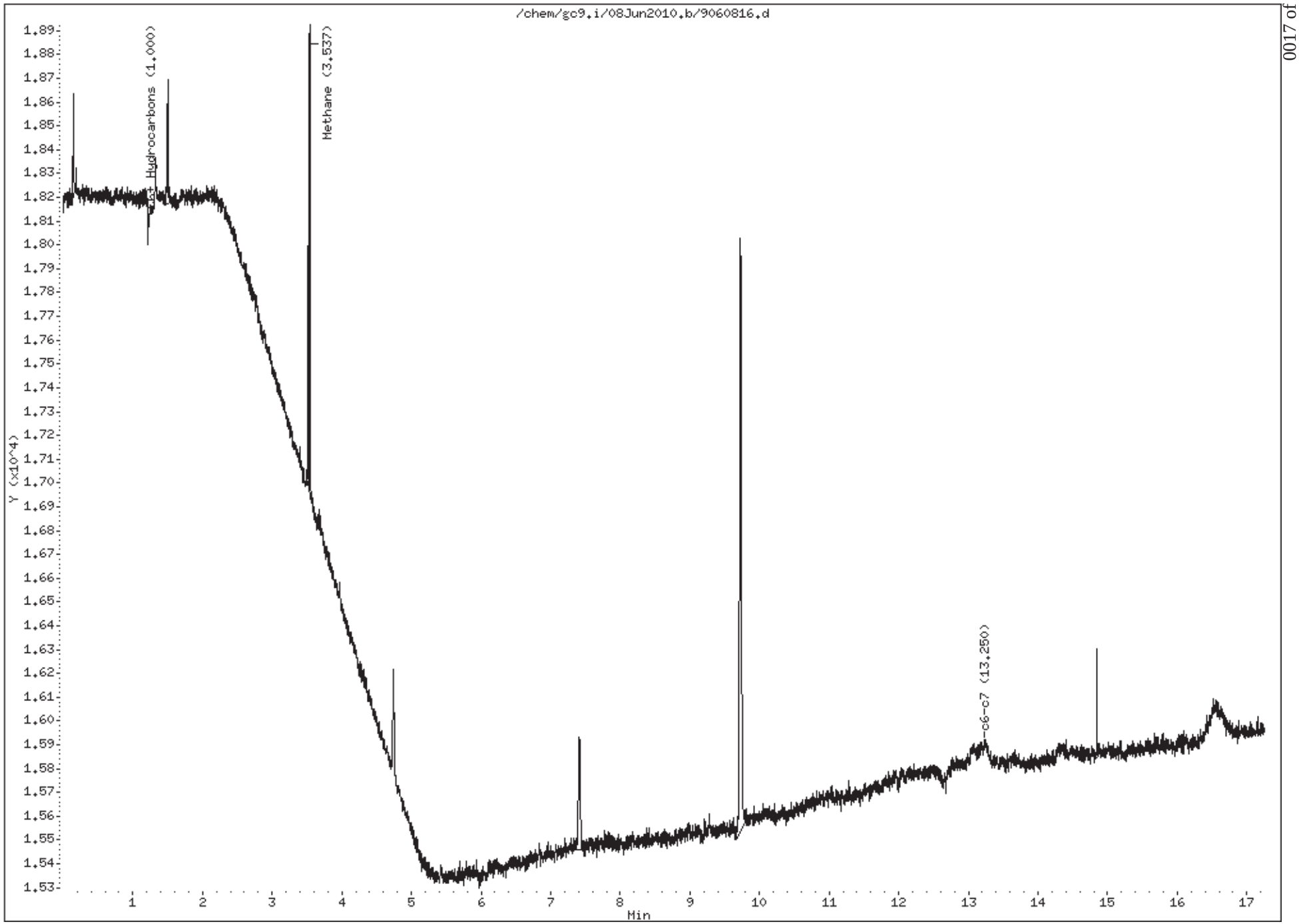
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060816.d
Lab Smp Id: 1005647B-01AA
Inj Date : 08-JUN-2010 16:41
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01AA;
Misc Info : 5.0"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 10-Jun-2010 14:35 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

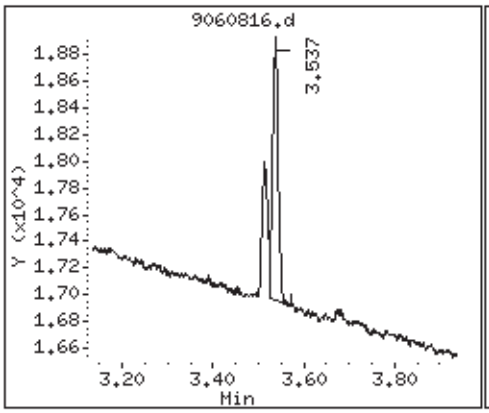
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

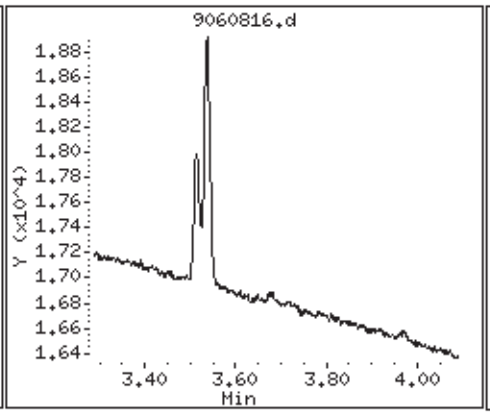
						CONCENTRATIONS	
						ON-COLUMN	FINAL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	2 Methane	3.537	3.538	-0.001	17549	0.000117	0.000188
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060816.d
Hydrocarbons (1.000)
Methane (3.537)
c6-c7 (13.250)
Y (x10^4)
Min

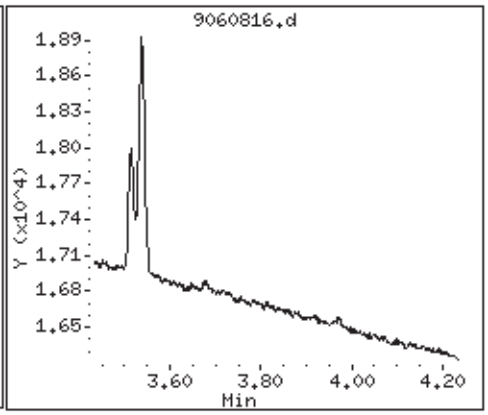
2 Methane



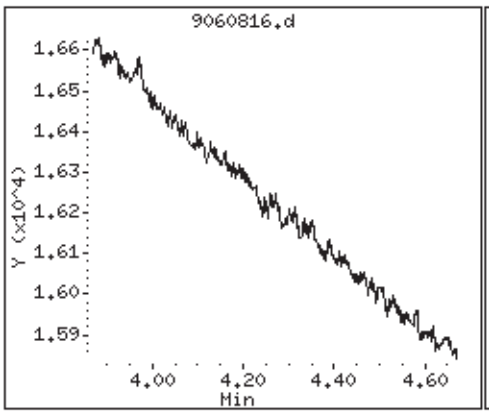
3 ethane (Undetected)



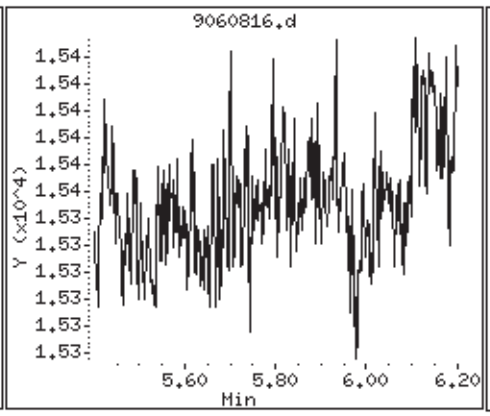
4 ethene (Undetected)



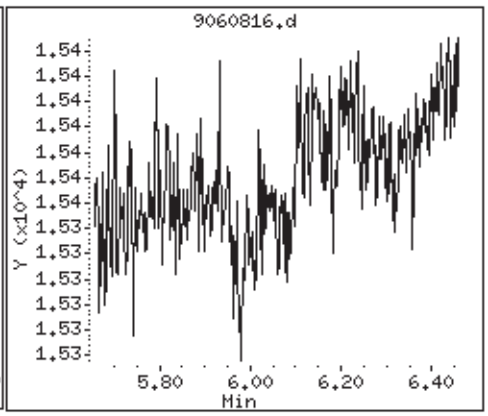
5 propane (Undetected)



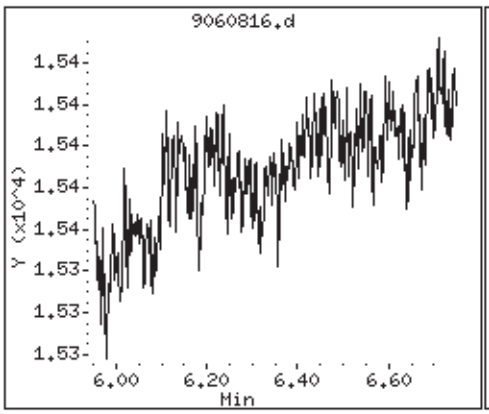
7 acetylene (Undetected)



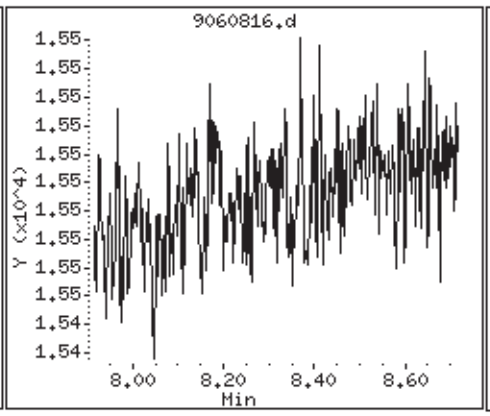
8 iso-butane (Undetected)



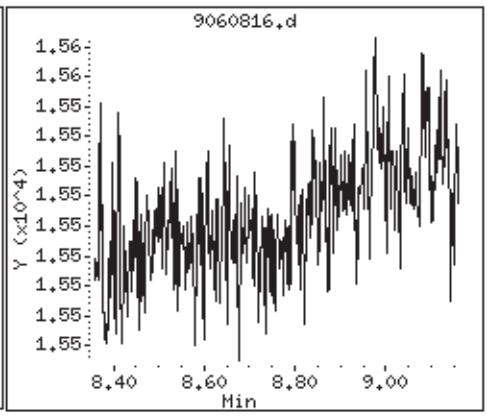
10 n-butane (Undetected)



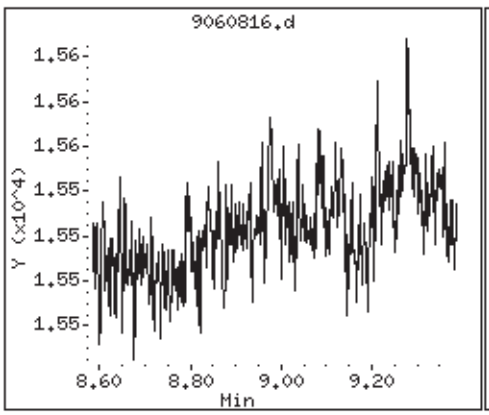
15 neo-pentane (Undetected



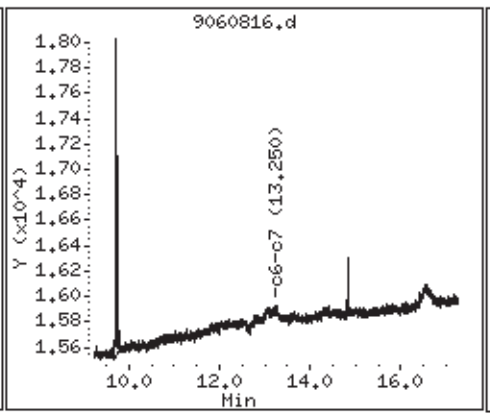
16 isopentane (Undetected)



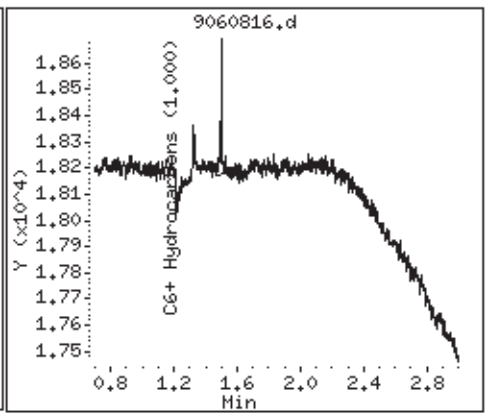
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

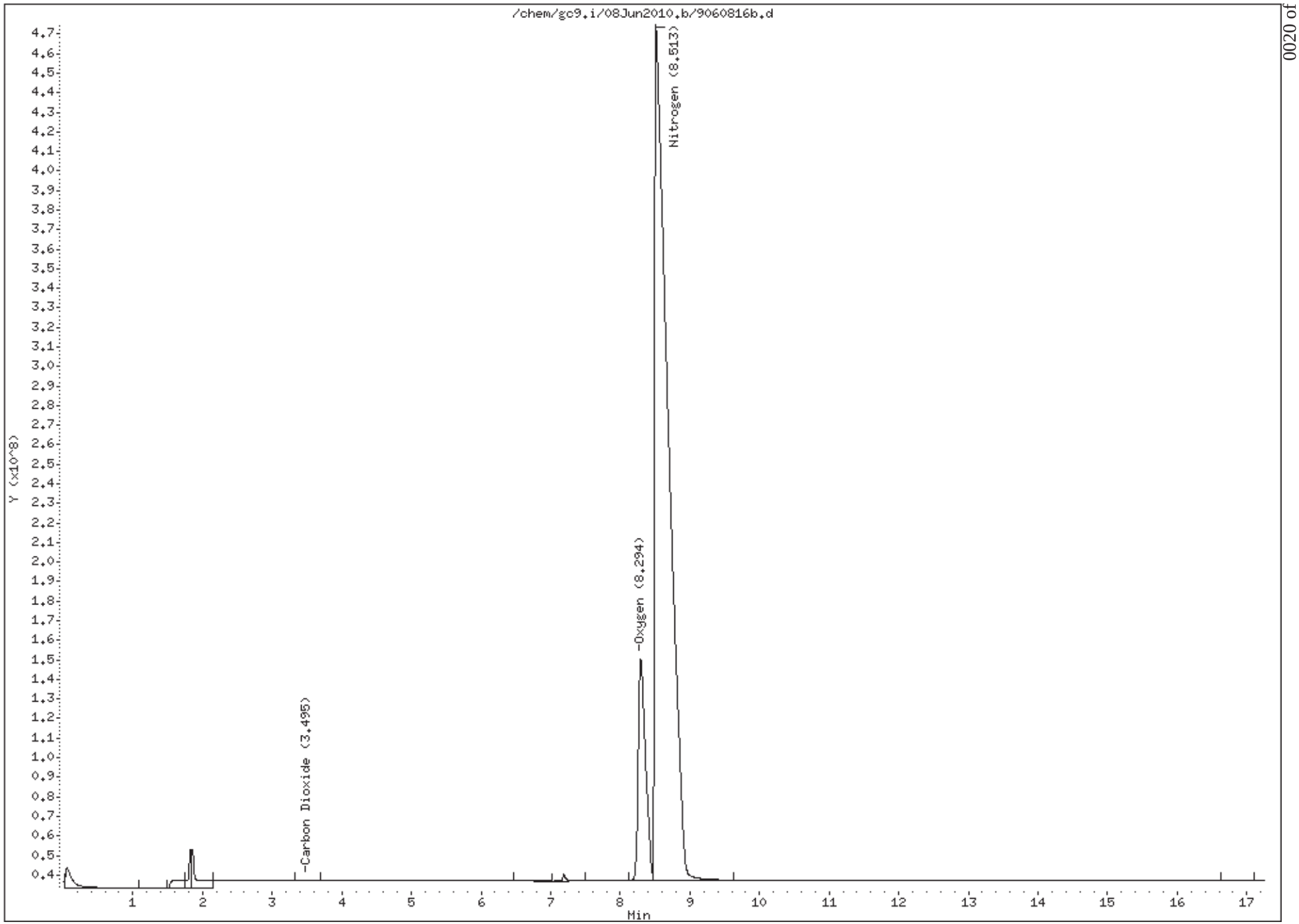
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060816b.d
Lab Smp Id: 1005647B-01AA
Inj Date : 08-JUN-2010 16:41
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01AA;
Misc Info : 5.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

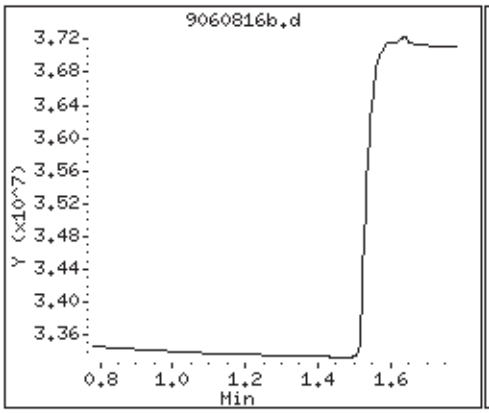
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

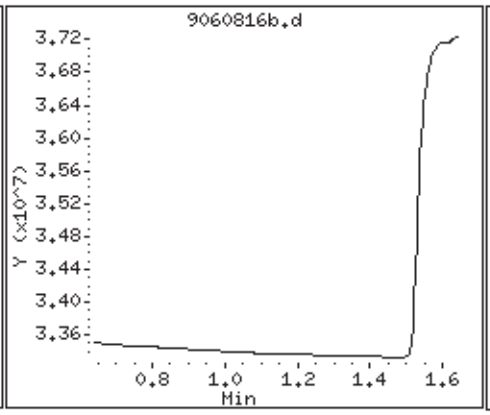
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.495	3.355	0.140	12277191	0.02427	0.0391
9 Oxygen	8.294	8.330	-0.036	4142896937	12.9213	20.8
10 Nitrogen	8.513	8.541	-0.028	29330357521	85.9749	138
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060816b.d
Y (x10^8)
Min
Nitrogen (8.513)
Oxygen (8.294)
Carbon Dioxide (3.495)

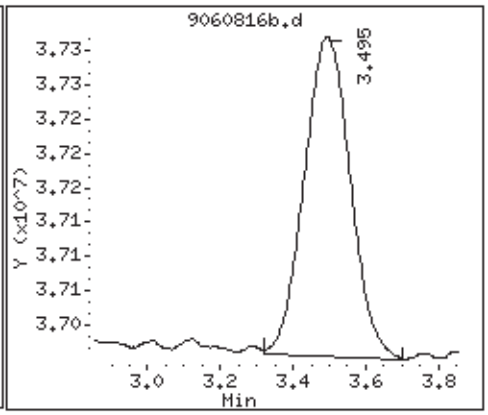
2 Hydrogen (Undetected)



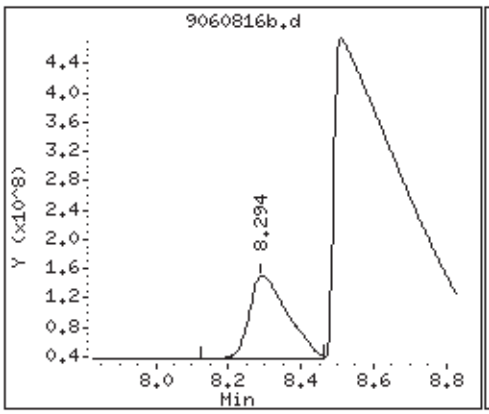
1 Helium (Undetected)



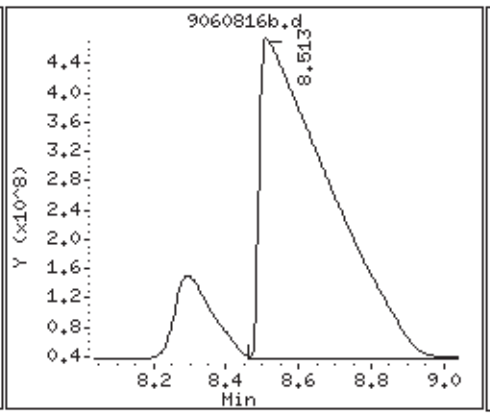
3 Carbon Dioxide



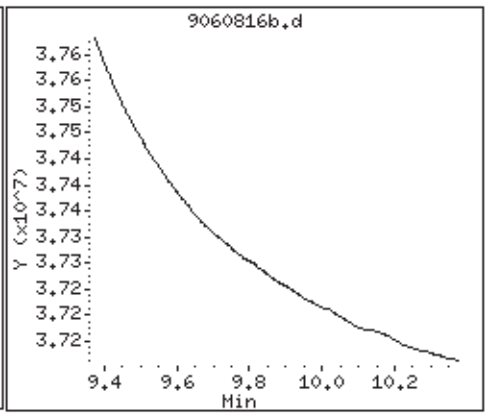
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: AOS-2

Lab ID#: 1005647B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.18	79
Methane	0.00018	0.00020
Carbon Dioxide	0.018	0.044

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-2

Lab ID#: 1005647B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060817**	**Date of Collection: 5/20/10 10:23:00 AM**	
Dil. Factor:	**1.83**	**Date of Analysis: 6/8/10 05:20 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.18	79
Carbon Monoxide	0.018	Not Detected
Methane	0.00018	0.00020
Carbon Dioxide	0.018	0.044
Ethane	0.0018	Not Detected
Ethene	0.0018	Not Detected
Acetylene	0.0018	Not Detected
Propane	0.0018	Not Detected
Isobutane	0.0018	Not Detected
Butane	0.0018	Not Detected
Neopentane	0.0018	Not Detected
Isopentane	0.0018	Not Detected
Pentane	0.0018	Not Detected
C6+	0.018	Not Detected
Hydrogen	0.018	Not Detected
Helium	0.092	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

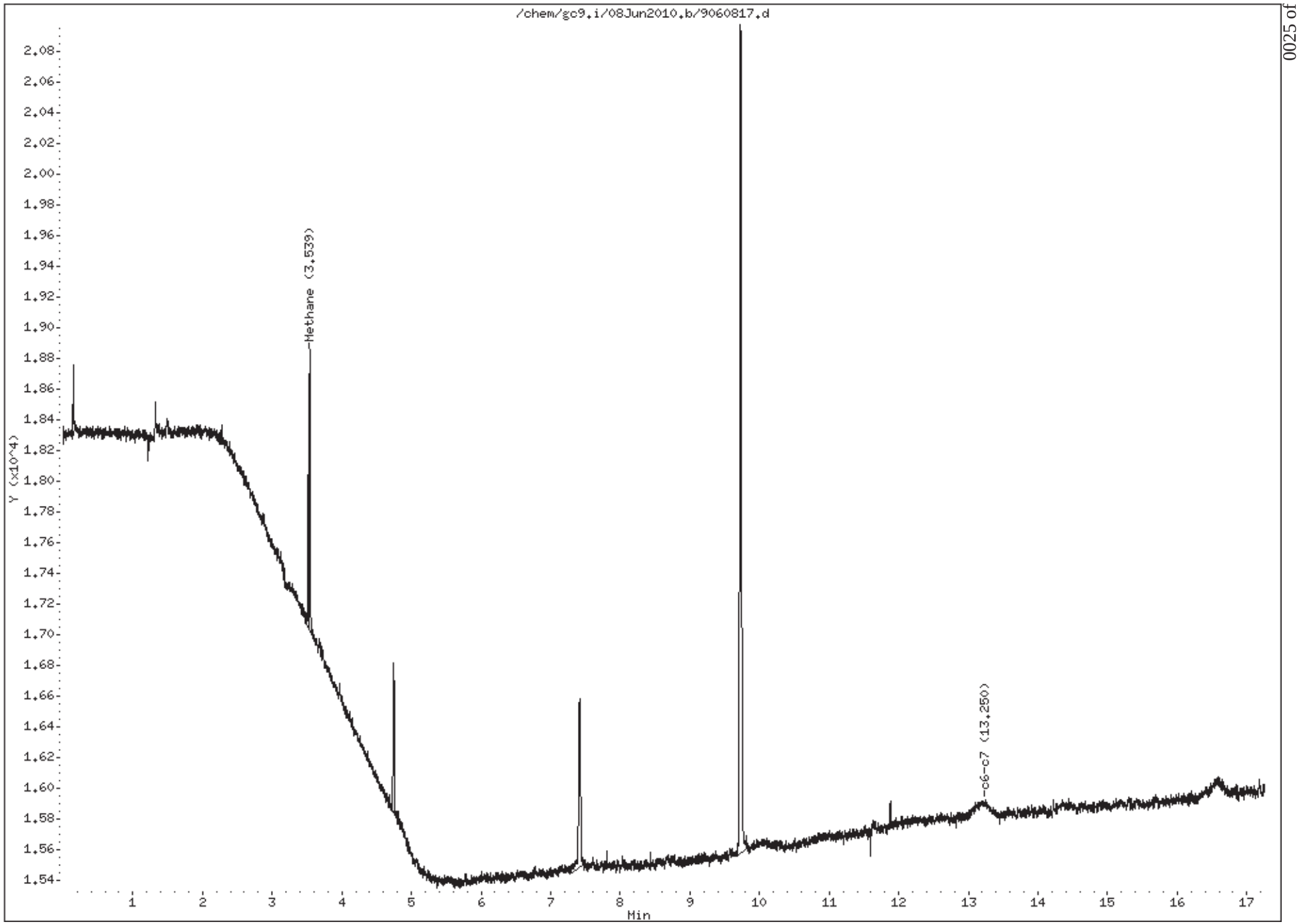
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060817.d
Lab Smp Id: 1005647B-02A
Inj Date : 08-JUN-2010 17:20
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,14121;1005647B-02A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

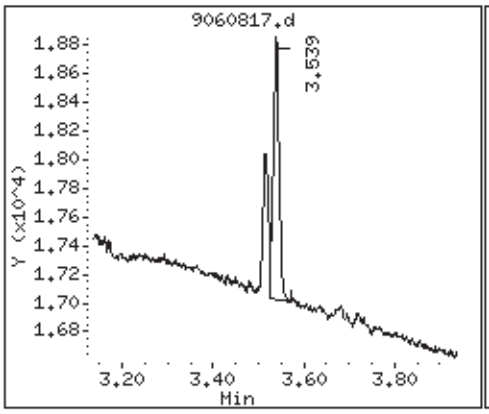
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

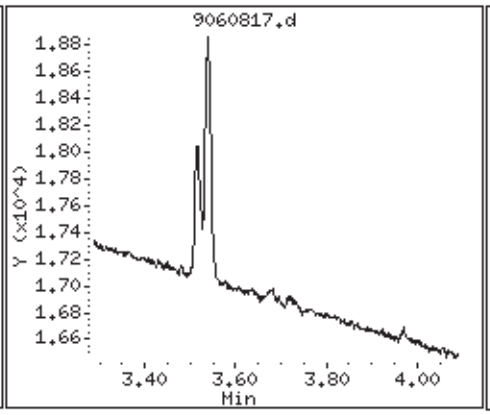
						CONCENTRATIONS	
						ON-COLUMN	FINAL
Compounds		RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	2 Methane	3.539	3.538	0.001	16640	0.000111	0.000202
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060817.d
Methane (3.539)
c6-c7 (13.250)
Y (x10^4)
Min

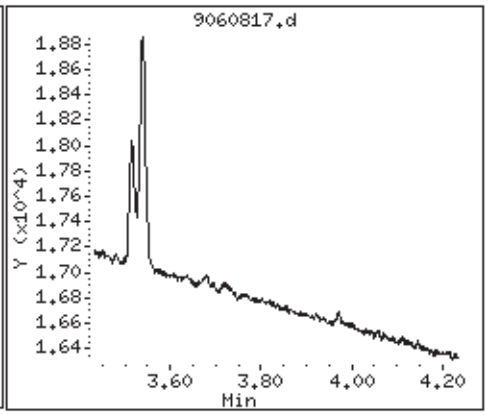
2 Methane



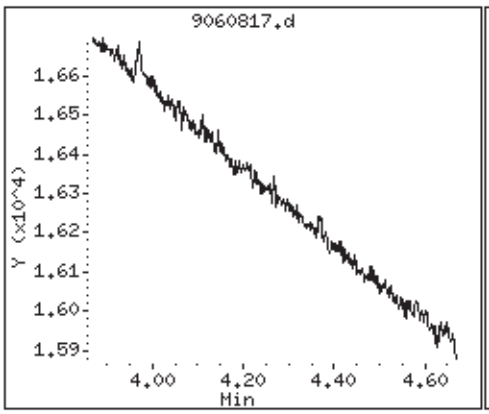
3 ethane (Undetected)



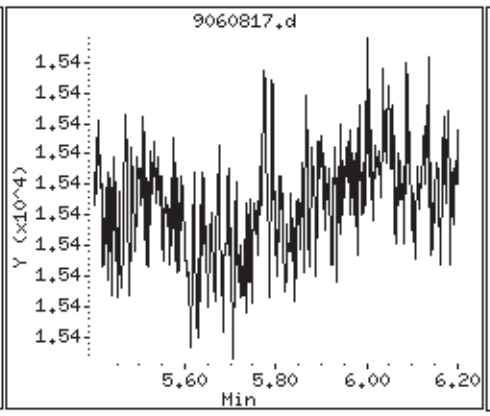
4 ethene (Undetected)



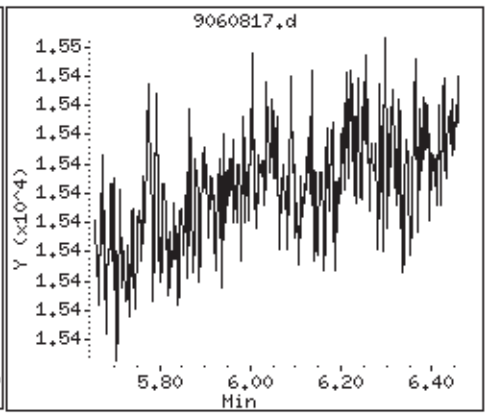
5 propane (Undetected)



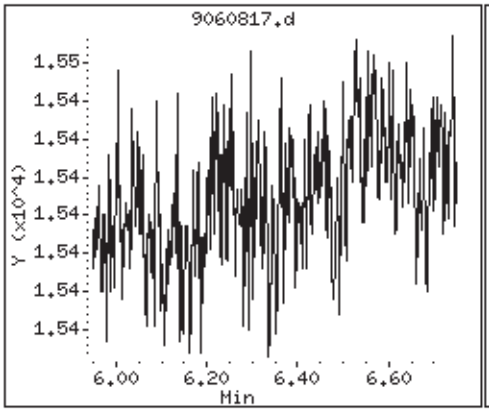
7 acetylene (Undetected)



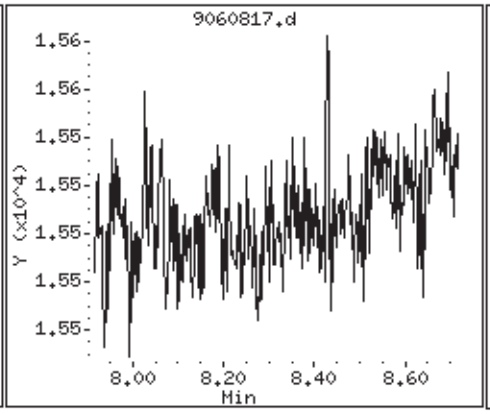
8 iso-butane (Undetected)



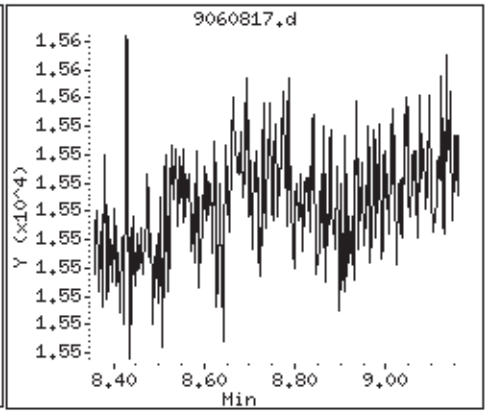
10 n-butane (Undetected)



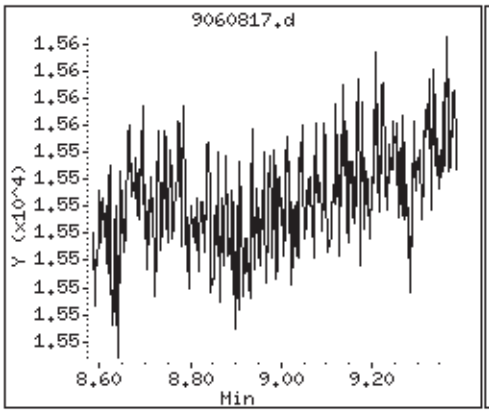
15 neo-pentane (Undetected



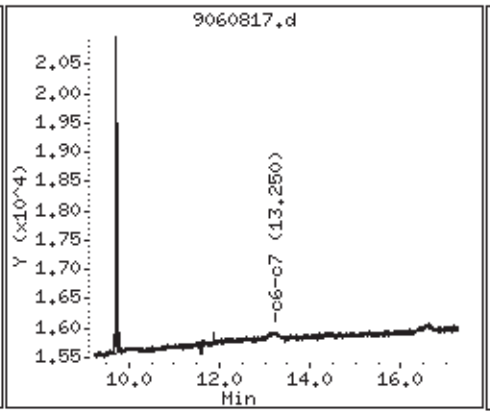
16 isopentane (Undetected)



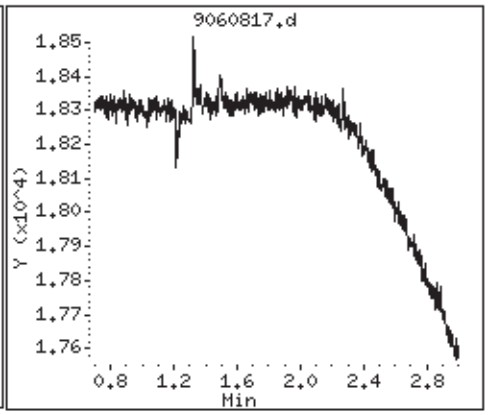
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

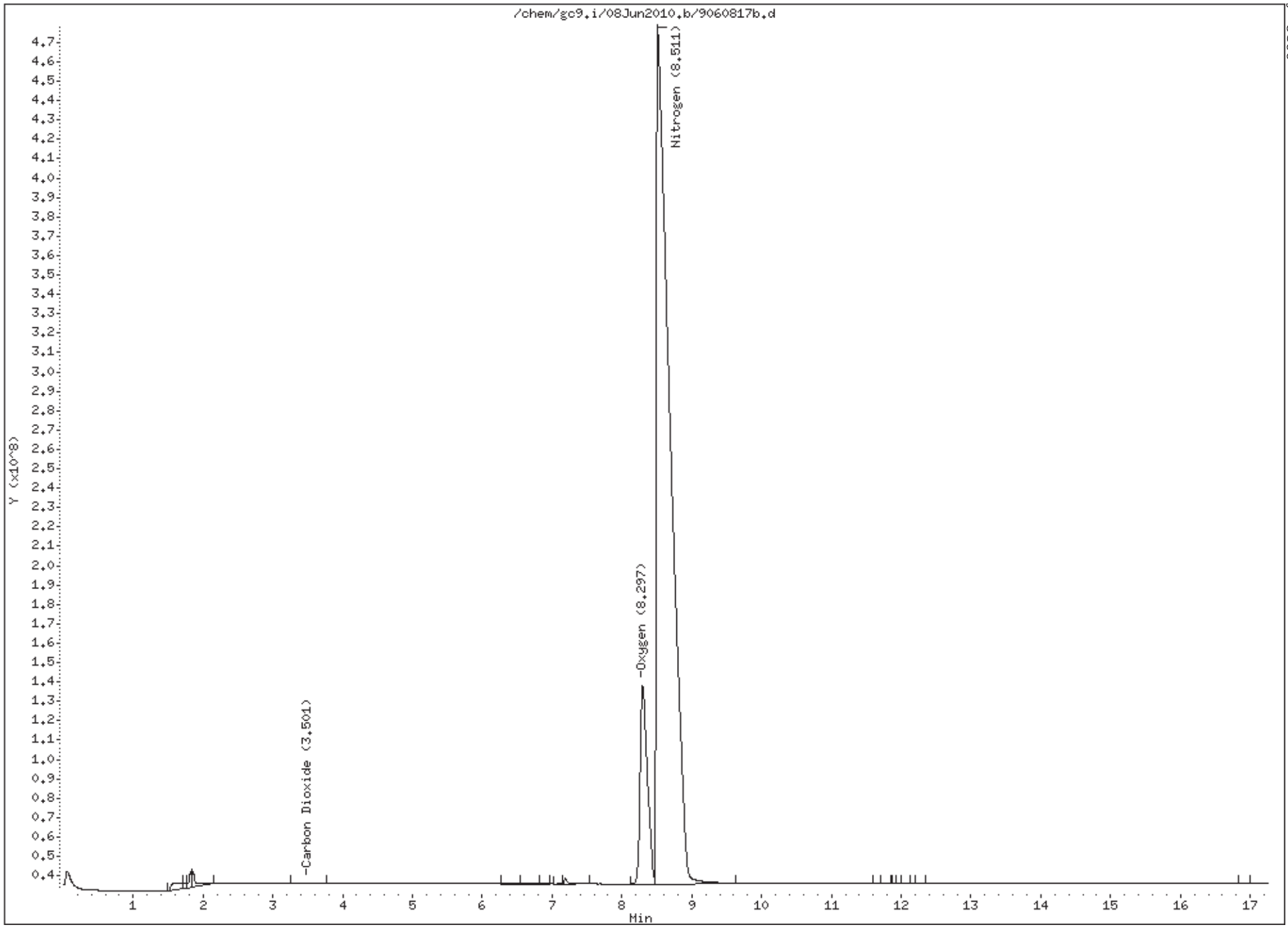
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060817b.d
Lab Smp Id: 1005647B-02A
Inj Date : 08-JUN-2010 17:20
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,14121;1005647B-02A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

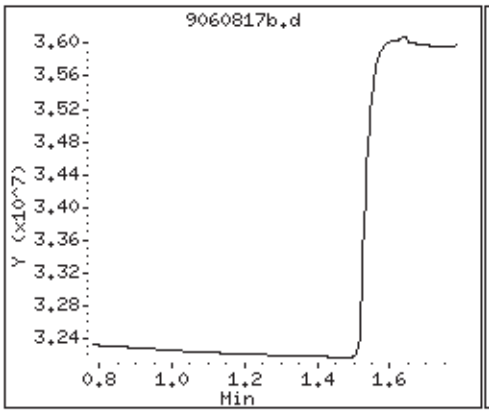
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

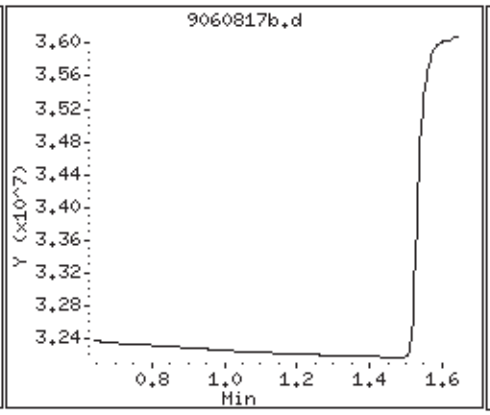
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.501	3.355	0.146	12273251	0.02426	0.0444
9 Oxygen	8.297	8.330	-0.033	3693323121	11.5191	21.1
10 Nitrogen	8.511	8.541	-0.030	29787101933	87.3138	160
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060817b.d
Y (x10^8)
Min
Carbon Dioxide (3.501)
Oxygen (8.297)
Nitrogen (8.511)

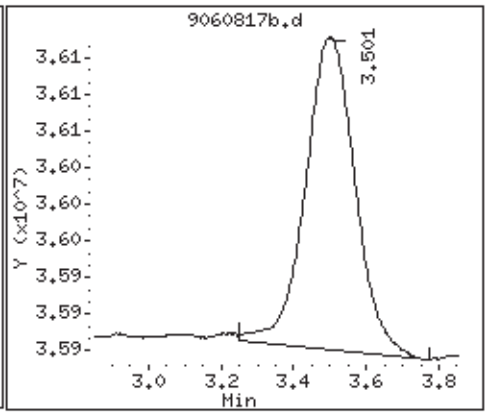
2 Hydrogen (Undetected)



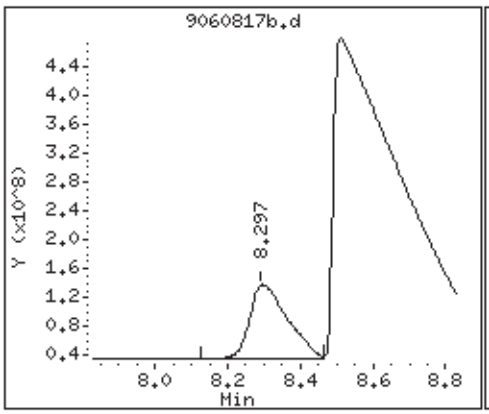
1 Helium (Undetected)



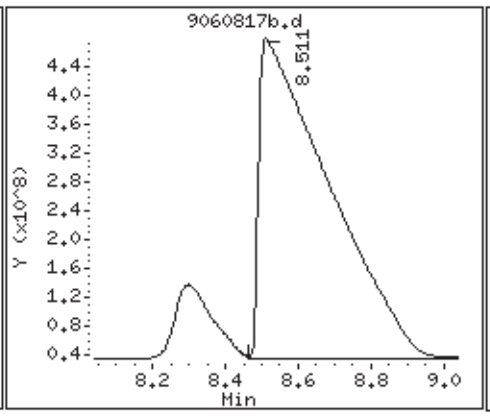
3 Carbon Dioxide



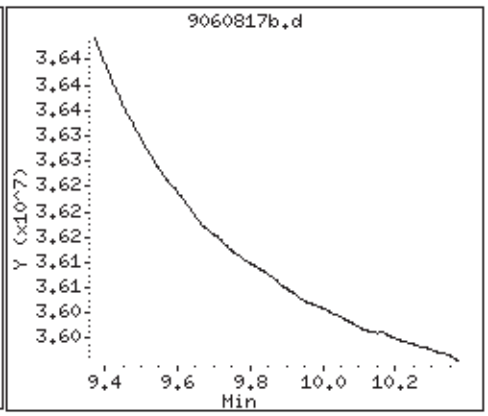
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: AOS-3

Lab ID#: 1005647B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.17	79
Methane	0.00017	0.00020
Carbon Dioxide	0.017	0.043

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: AOS-3

Lab ID#: 1005647B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060818**	**Date of Collection:**	**5/20/10 10:07:00 AM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**6/8/10 05:42 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.17	79
Carbon Monoxide	0.017	Not Detected
Methane	0.00017	0.00020
Carbon Dioxide	0.017	0.043
Ethane	0.0017	Not Detected
Ethene	0.0017	Not Detected
Acetylene	0.0017	Not Detected
Propane	0.0017	Not Detected
Isobutane	0.0017	Not Detected
Butane	0.0017	Not Detected
Neopentane	0.0017	Not Detected
Isopentane	0.0017	Not Detected
Pentane	0.0017	Not Detected
C6+	0.017	Not Detected
Hydrogen	0.017	Not Detected
Helium	0.086	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

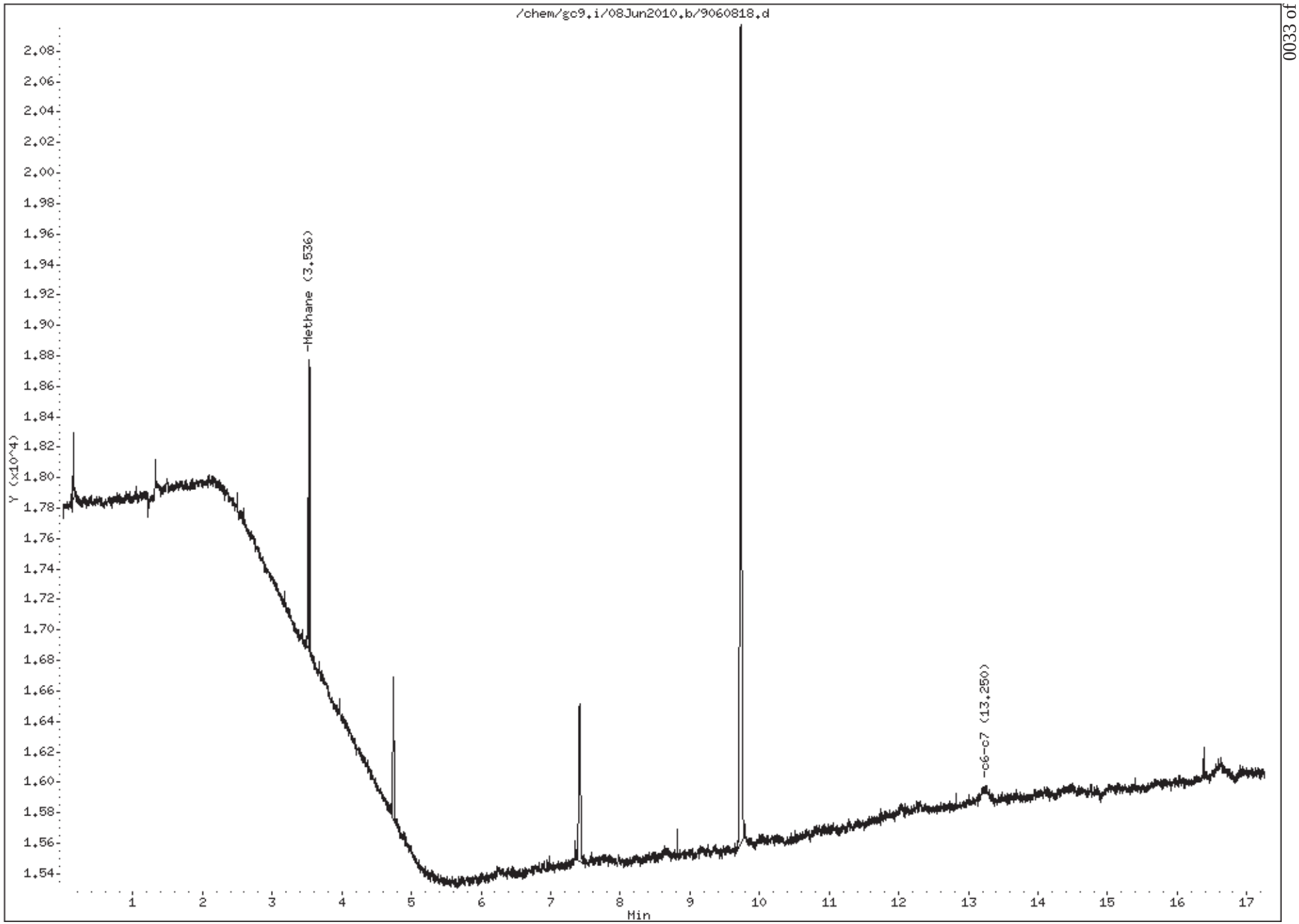
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060818.d
Lab Smp Id: 1005647B-03A
Inj Date : 08-JUN-2010 17:42
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,9414;1005647B-03A;
Misc Info : 6.5"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

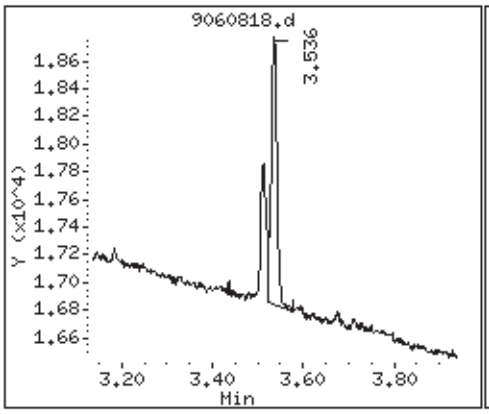
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

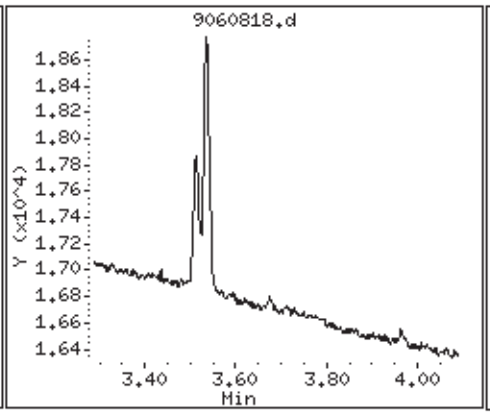
						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	2 Methane	3.536	3.538	-0.002	17254	0.000115	0.000196
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060818.d
Y (x10^4)
2.08
2.06
2.04
2.02
2.00
1.98
1.96
1.94
1.92
1.90
1.88
1.86
1.84
1.82
1.80
1.78
1.76
1.74
1.72
1.70
1.68
1.66
1.64
1.62
1.60
1.58
1.56
1.54
-Methane (3.536)
-c6-c7 (13.250)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

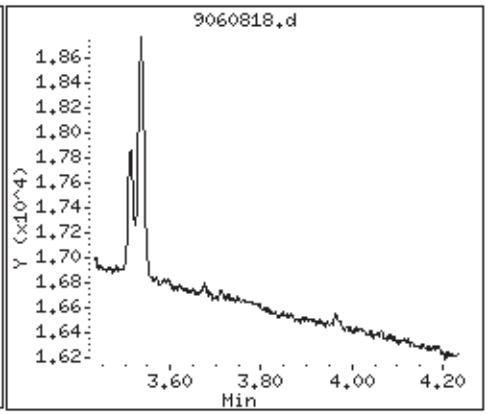
2 Methane



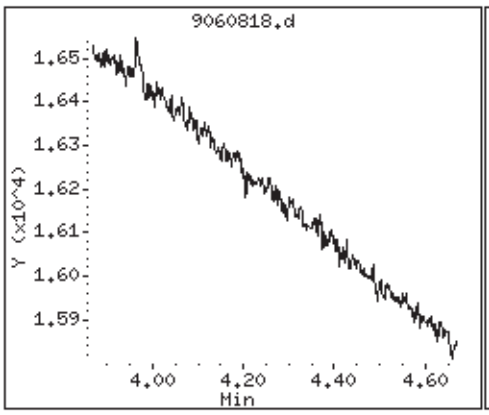
3 ethane (Undetected)



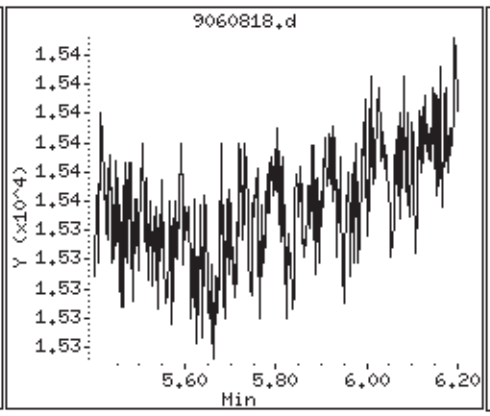
4 ethene (Undetected)



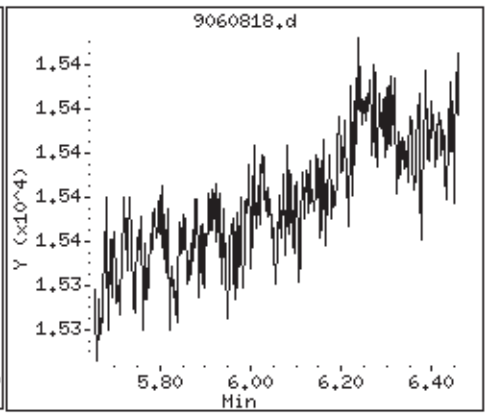
5 propane (Undetected)



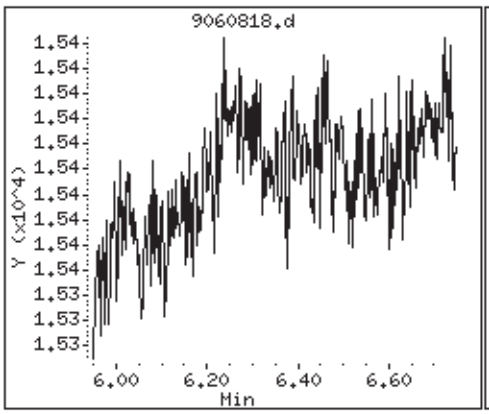
7 acetylene (Undetected)



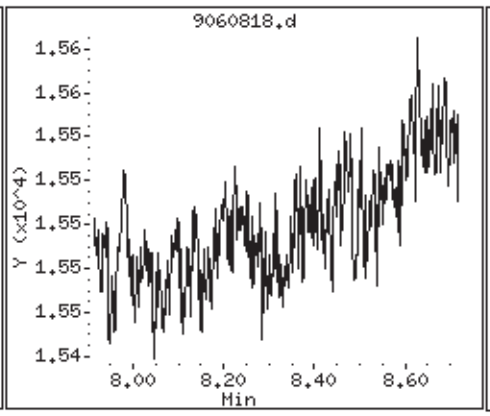
8 iso-butane (Undetected)



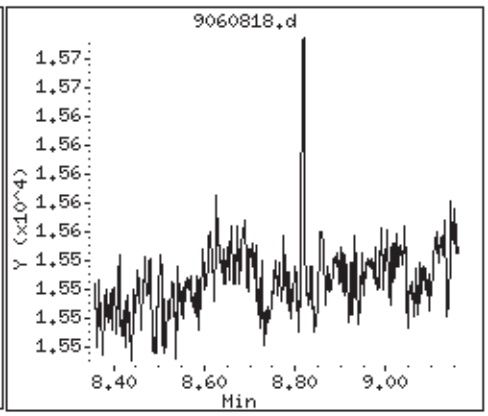
10 n-butane (Undetected)



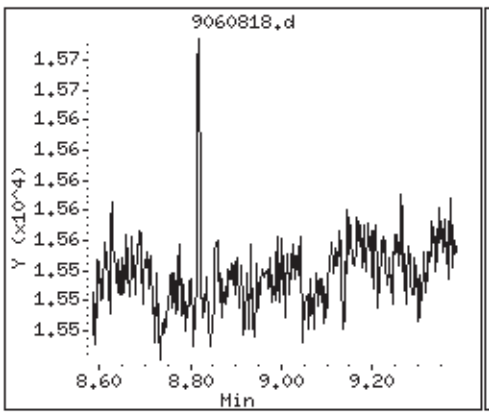
15 neo-pentane (Undetected



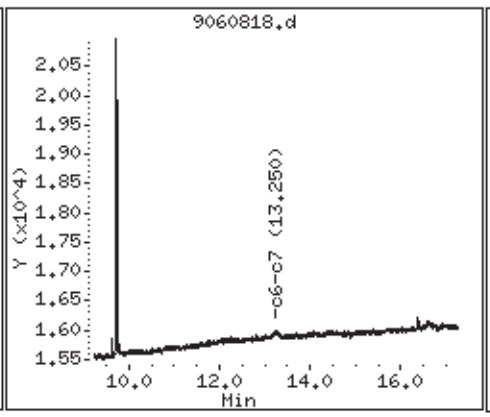
16 isopentane (Undetected)



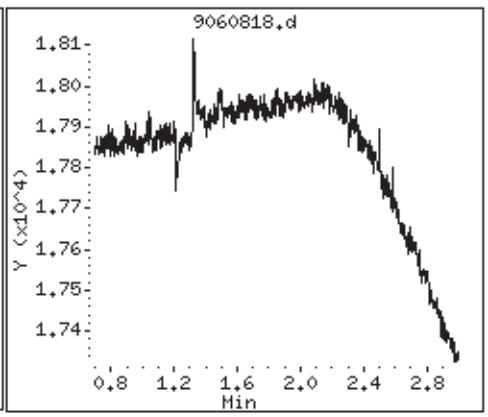
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

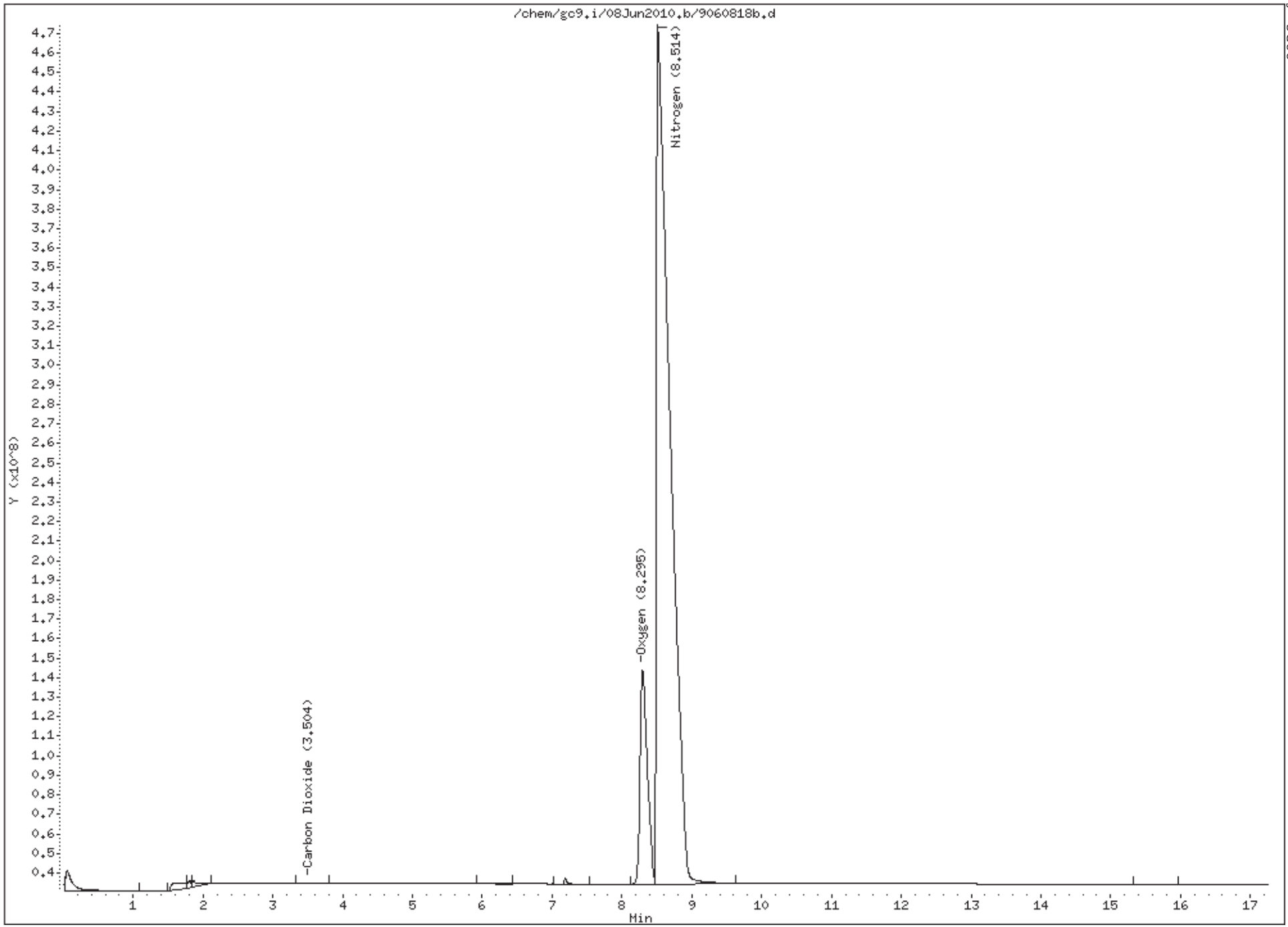
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060818b.d
Lab Smp Id: 1005647B-03A
Inj Date : 08-JUN-2010 17:42
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,9414;1005647B-03A;
Misc Info : 6.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

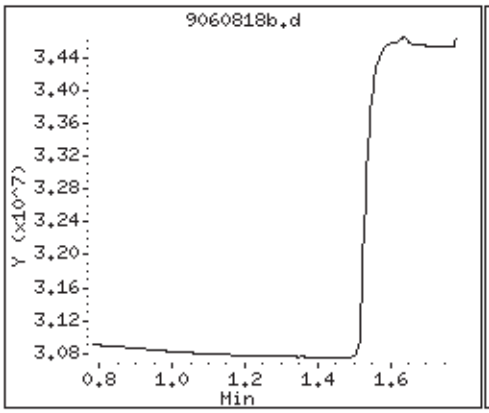
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

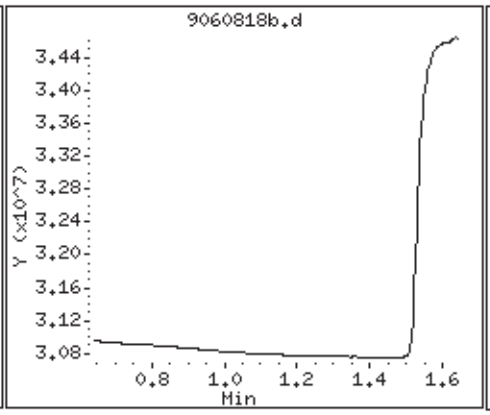
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.504	3.355	0.149	12632611	0.02497	0.0427
9 Oxygen	8.295	8.330	-0.035	3988166126	12.4387	21.3
10 Nitrogen	8.514	8.541	-0.027	29590185837	86.7366	148
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060818b.d
Y (x10^8)
Min
Carbon Dioxide (3.504)
Oxygen (8.295)
Nitrogen (8.514)

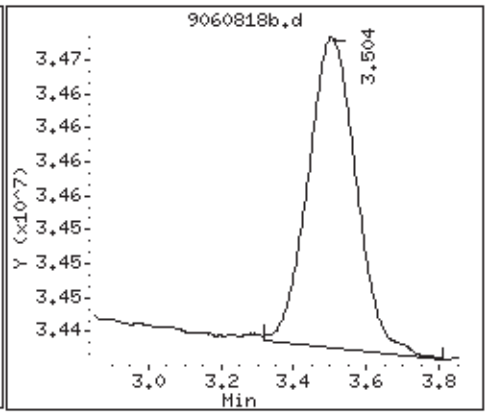
2 Hydrogen (Undetected)



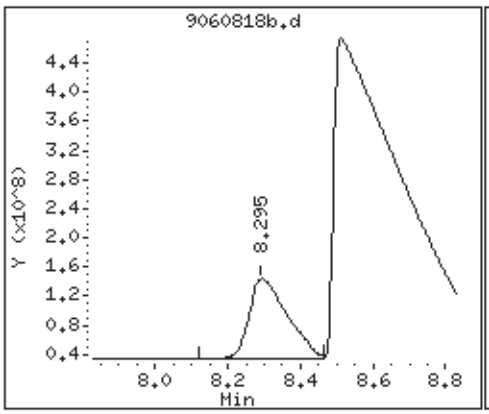
1 Helium (Undetected)



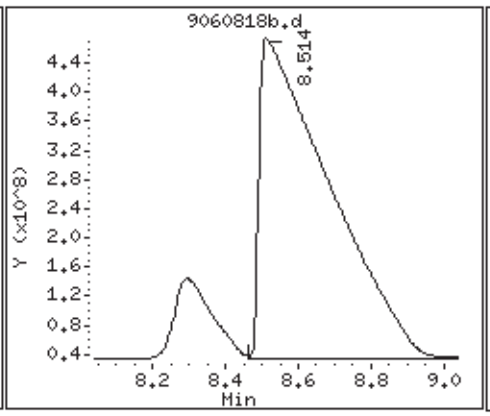
3 Carbon Dioxide



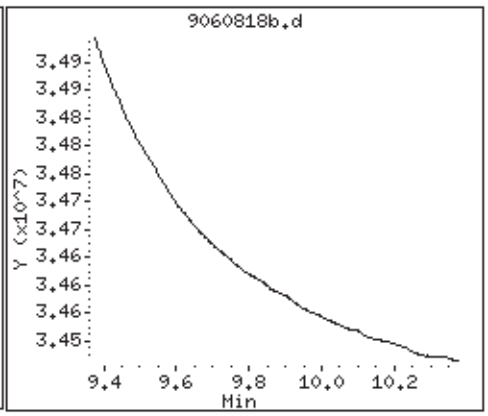
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: ALF-1

Lab ID#: 1005647B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.040

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-1

Lab ID#: 1005647B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060819**	**Date of Collection:**	**5/20/10 9:40:00 AM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**6/8/10 06:10 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Carbon Monoxide	0.019	Not Detected
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.040
Ethane	0.0019	Not Detected
Ethene	0.0019	Not Detected
Acetylene	0.0019	Not Detected
Propane	0.0019	Not Detected
Isobutane	0.0019	Not Detected
Butane	0.0019	Not Detected
Neopentane	0.0019	Not Detected
Isopentane	0.0019	Not Detected
Pentane	0.0019	Not Detected
C6+	0.019	Not Detected
Hydrogen	0.019	Not Detected
Helium	0.096	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

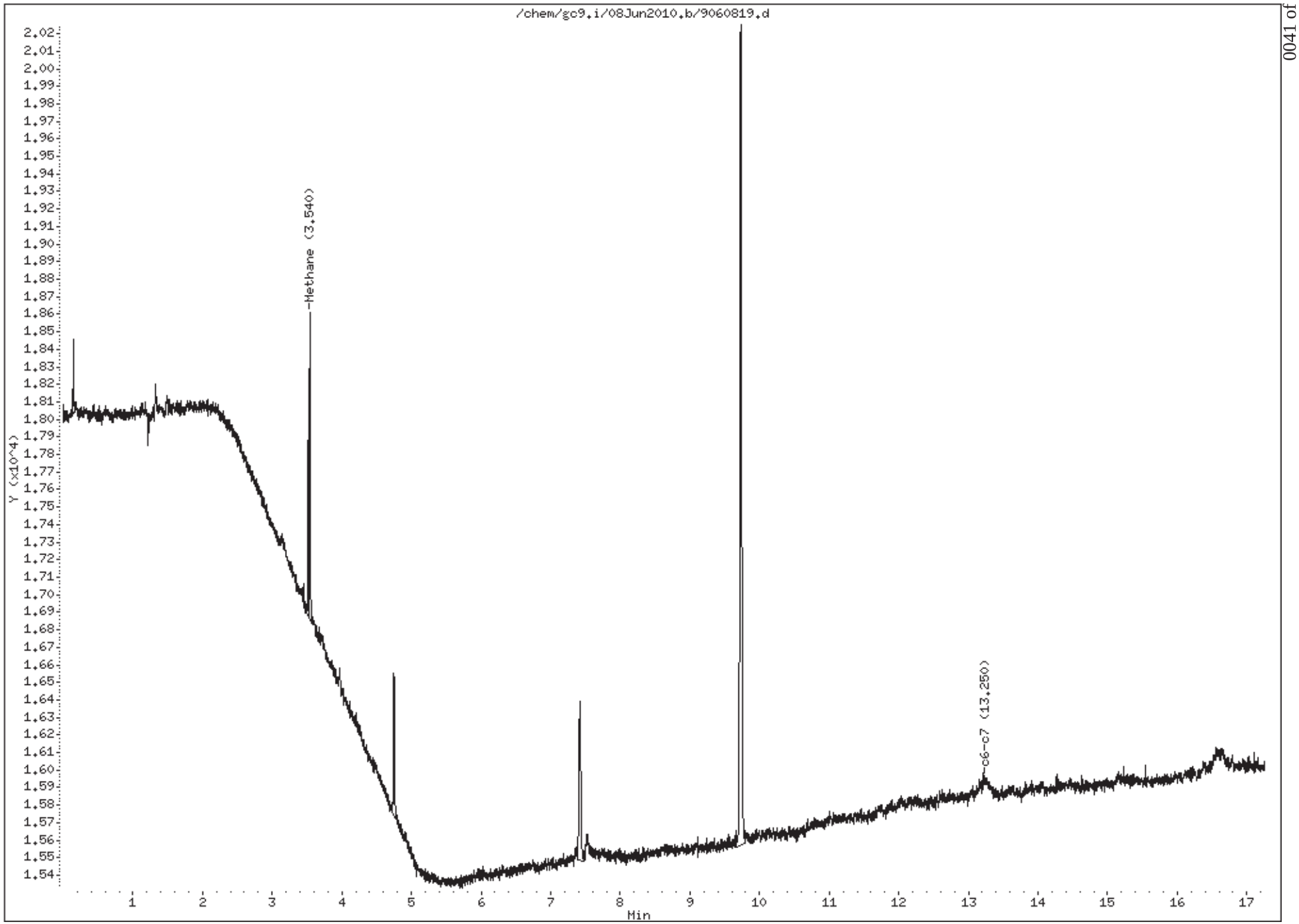
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060819.d
Lab Smp Id: 1005647B-04A
Inj Date : 08-JUN-2010 18:10
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,4384;1005647B-04A;
Misc Info : 9"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

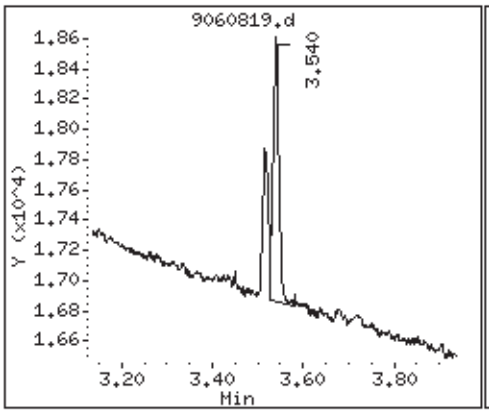
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

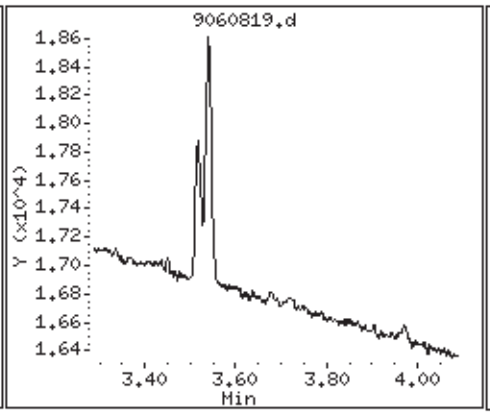
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.540	3.538	0.002	16121	0.000107	0.000205
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060819.d
Methane (3.540)
c6-c7 (13.250)
Y (x10^4)
Min

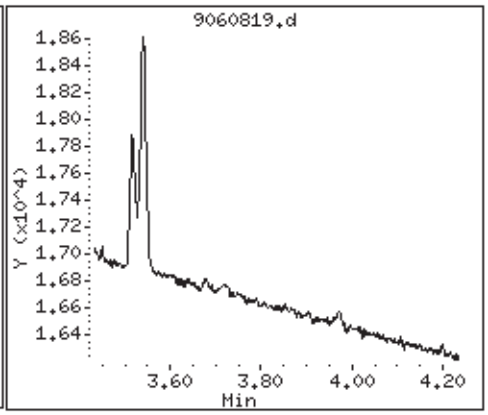
2 Methane



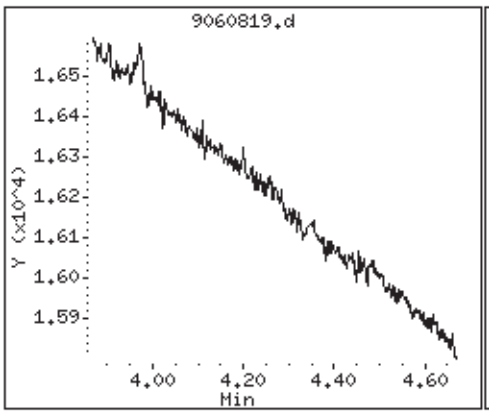
3 ethane (Undetected)



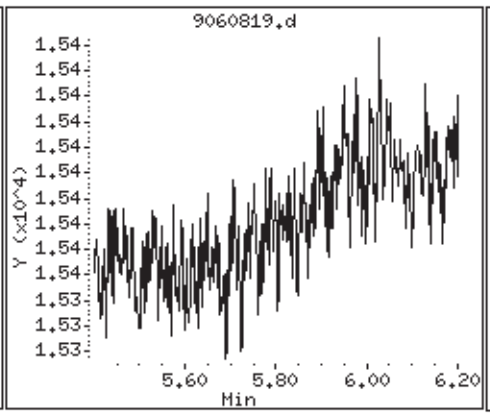
4 ethene (Undetected)



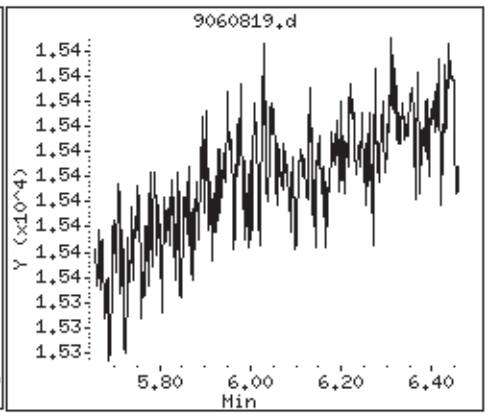
5 propane (Undetected)



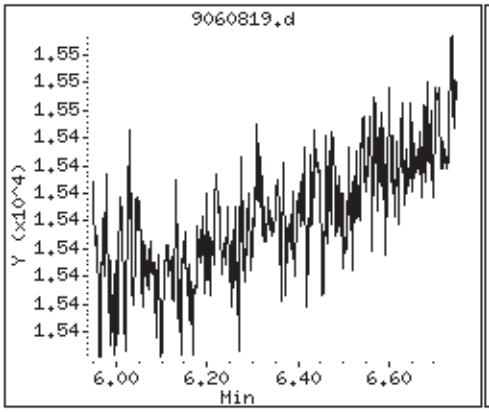
7 acetylene (Undetected)



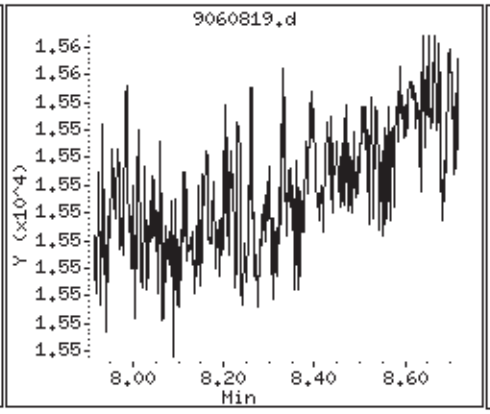
8 iso-butane (Undetected)



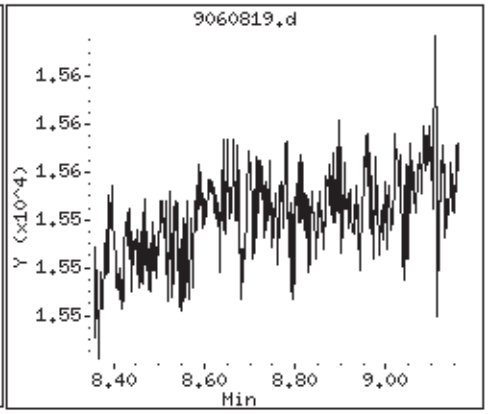
10 n-butane (Undetected)



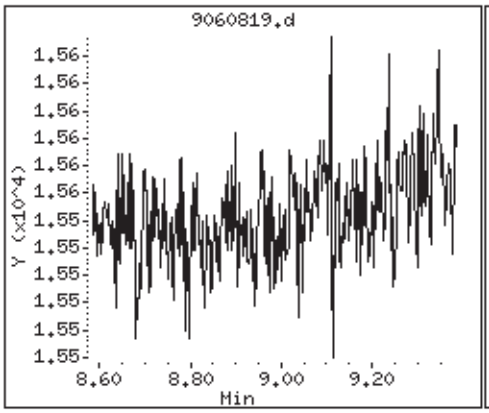
15 neo-pentane (Undetected



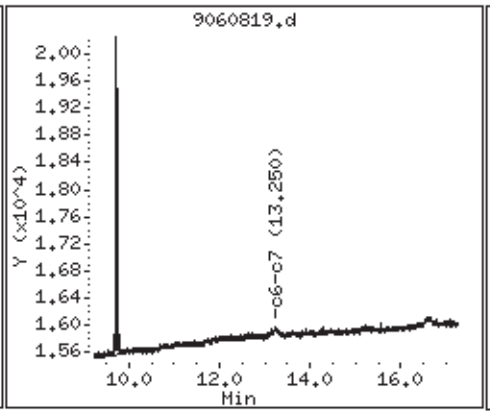
16 isopentane (Undetected)



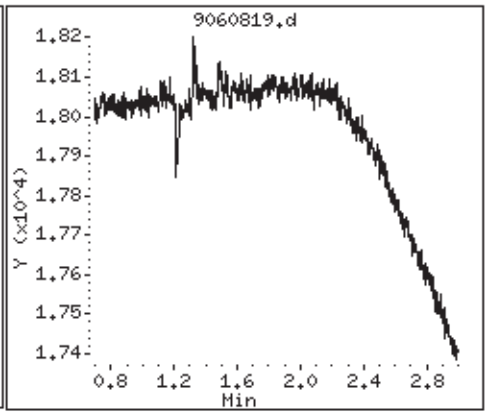
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

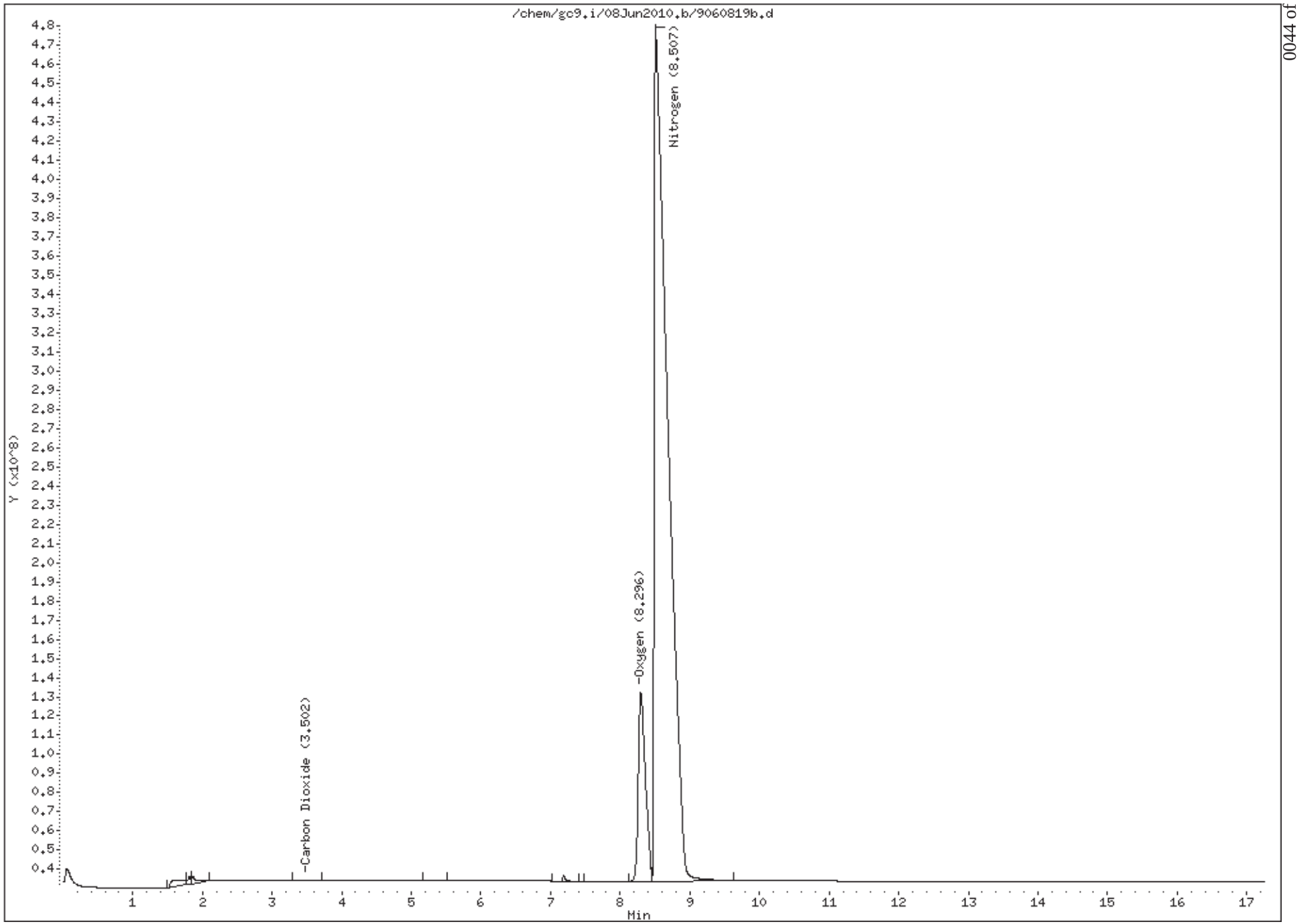
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060819b.d
Lab Smp Id: 1005647B-04A
Inj Date : 08-JUN-2010 18:10
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,4384;1005647B-04A;
Misc Info : 9"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

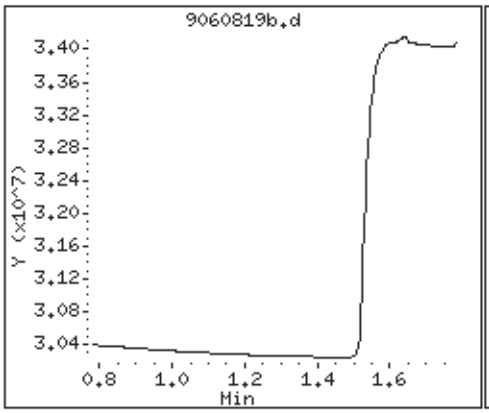
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

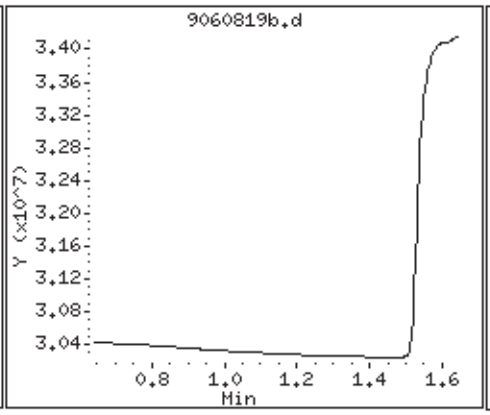
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.502	3.355	0.147	10690897	0.02113	0.0404
9 Oxygen	8.296	8.330	-0.034	3522112648	10.9852	21.0
10 Nitrogen	8.507	8.541	-0.034	30007389899	87.9595	168
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060819b.d
Y (x10^8)
Min
Carbon Dioxide (3.502)
Oxygen (8.296)
Nitrogen (8.507)

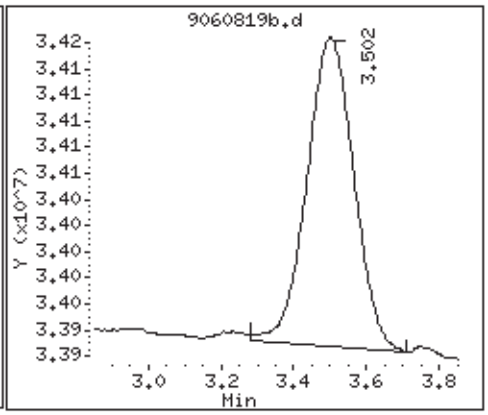
2 Hydrogen (Undetected)



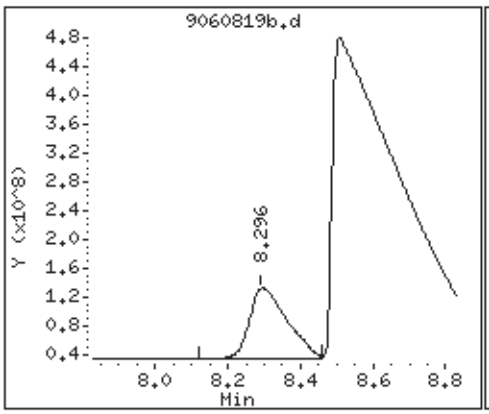
1 Helium (Undetected)



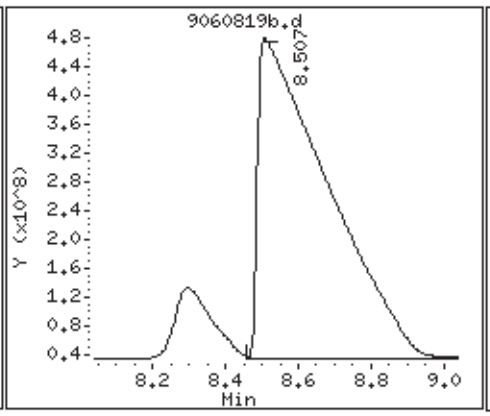
3 Carbon Dioxide



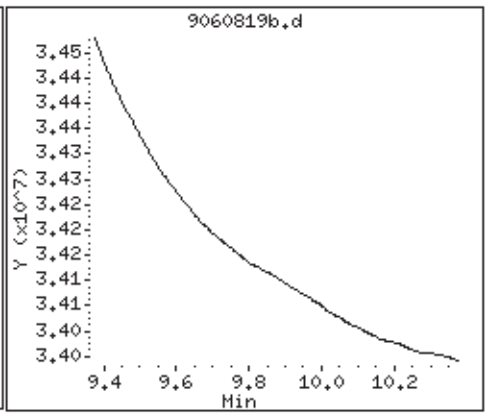
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: ALF-2

Lab ID#: 1005647B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.040

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-2

Lab ID#: 1005647B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060820**	**Date of Collection: 5/20/10 9:35:00 AM**	
Dil. Factor:	**1.87**	**Date of Analysis: 6/8/10 07:17 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Carbon Monoxide	0.019	Not Detected
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.040
Ethane	0.0019	Not Detected
Ethene	0.0019	Not Detected
Acetylene	0.0019	Not Detected
Propane	0.0019	Not Detected
Isobutane	0.0019	Not Detected
Butane	0.0019	Not Detected
Neopentane	0.0019	Not Detected
Isopentane	0.0019	Not Detected
Pentane	0.0019	Not Detected
C6+	0.019	Not Detected
Hydrogen	0.019	Not Detected
Helium	0.094	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

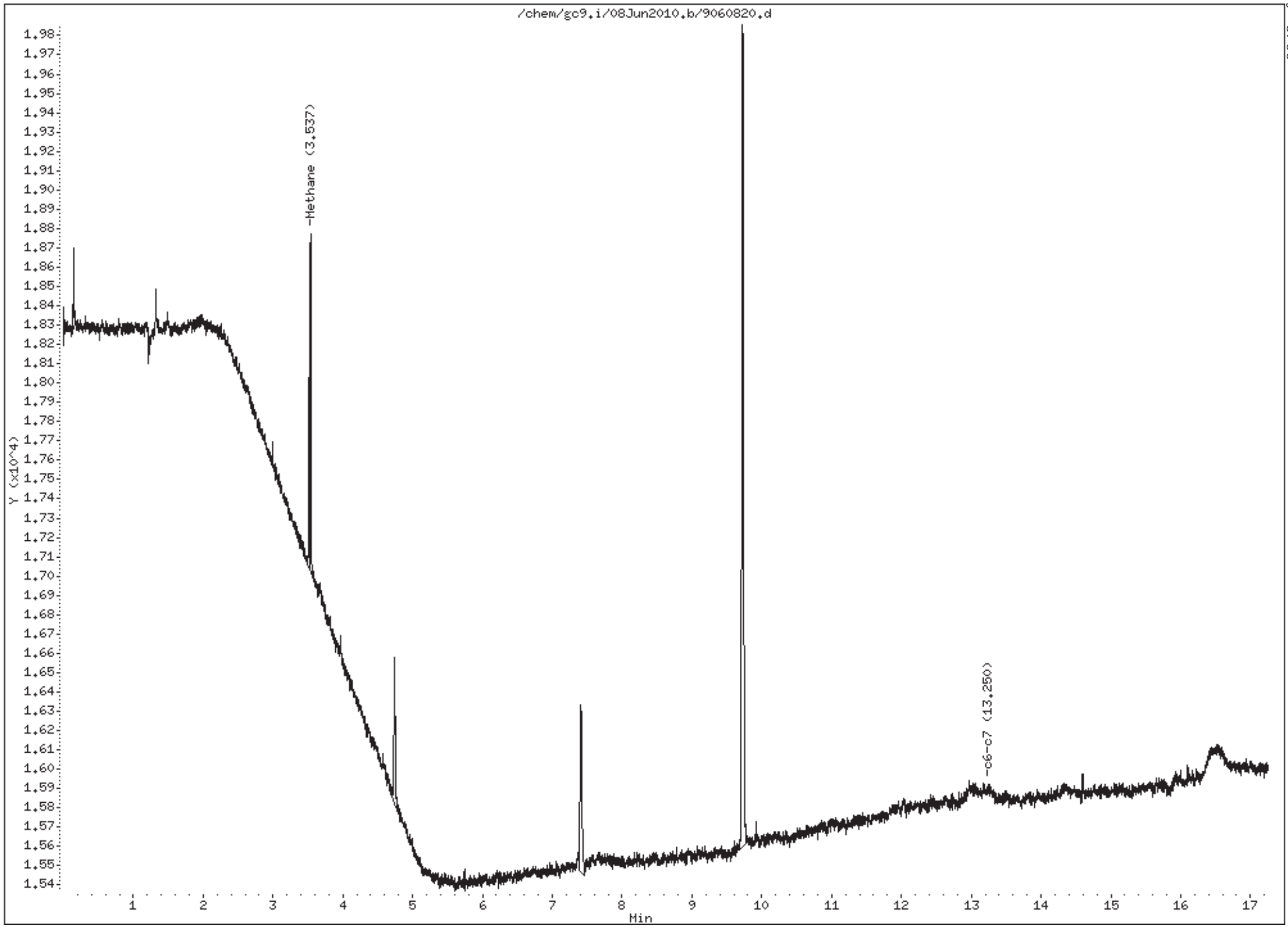
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060820.d
Lab Smp Id: 1005647B-05A
Inj Date : 08-JUN-2010 19:17
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,20938;1005647B-05A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

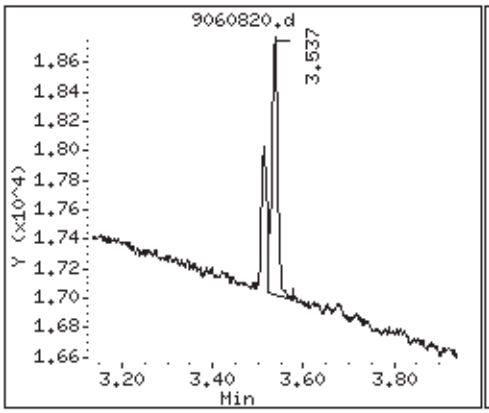
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

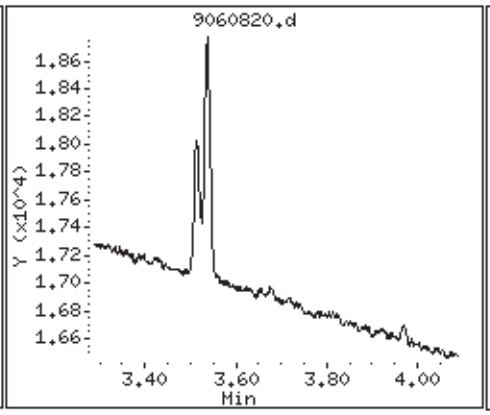
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.537	3.538	-0.001	16018	0.000107	0.000199
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060820.d
Methane (3.537)
c6-c7 (13.250)
Y (x10^4)
Min

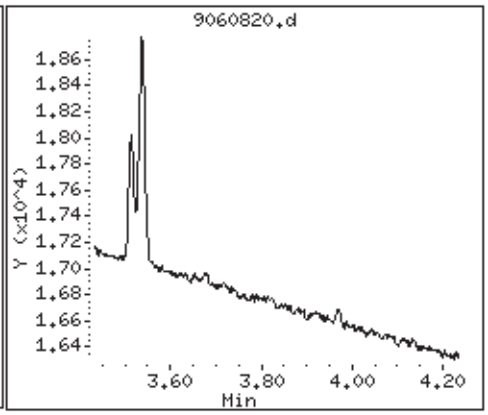
2 Methane



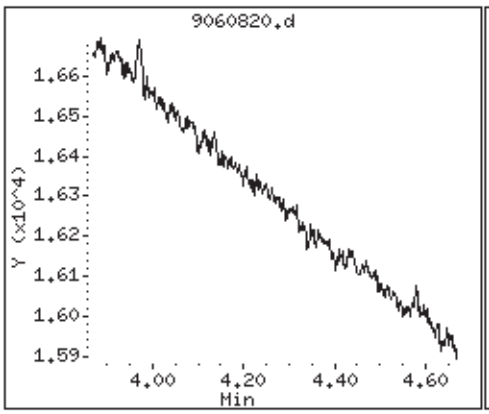
3 ethane (Undetected)



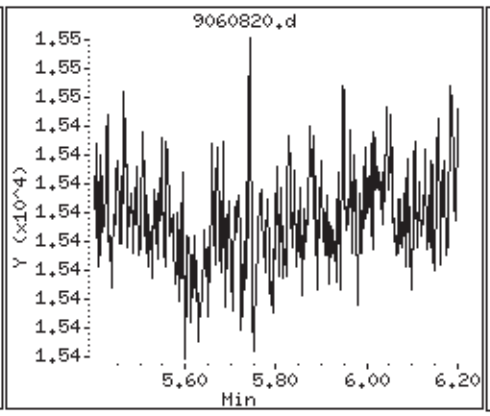
4 ethene (Undetected)



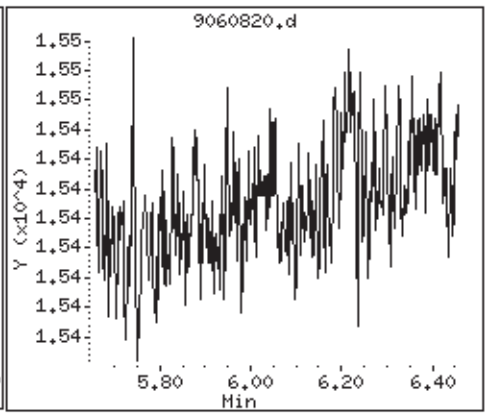
5 propane (Undetected)



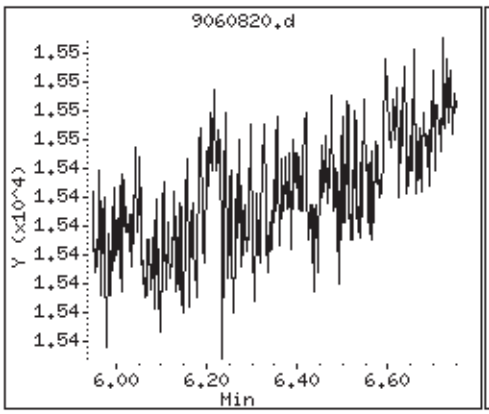
7 acetylene (Undetected)



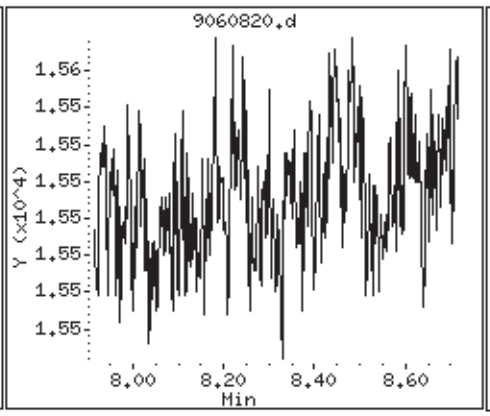
8 iso-butane (Undetected)



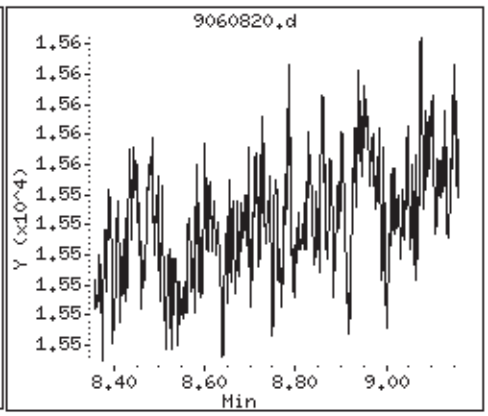
10 n-butane (Undetected)



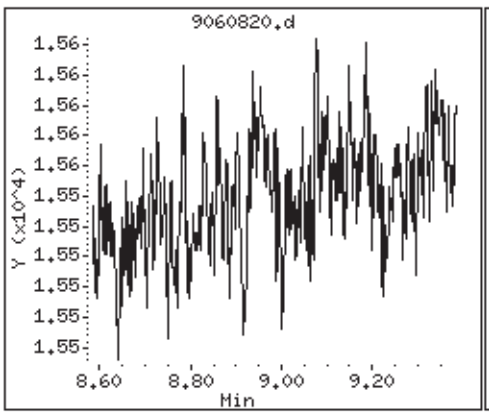
15 neo-pentane (Undetected



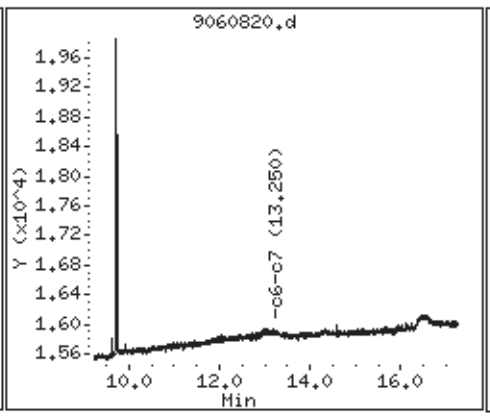
16 isopentane (Undetected)



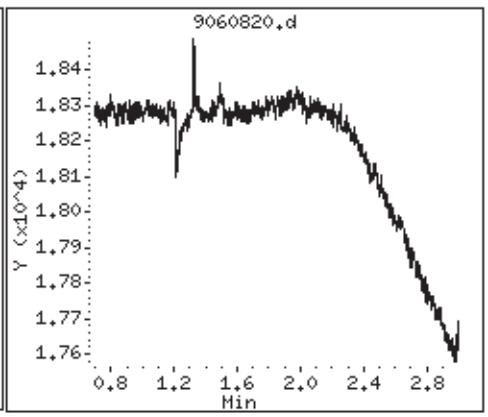
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

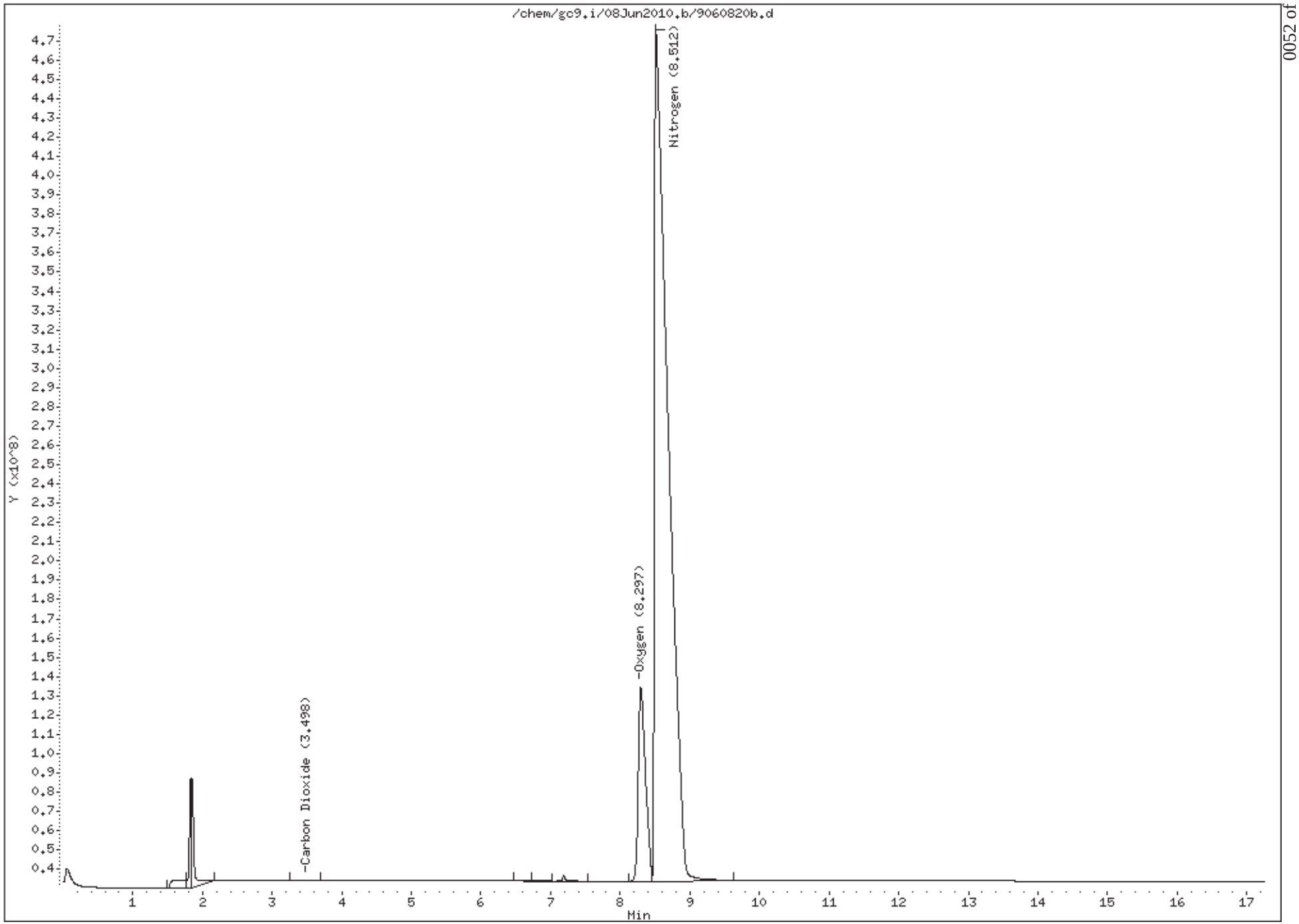
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060820b.d
Lab Smp Id: 1005647B-05A
Inj Date : 08-JUN-2010 19:17
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,20938;1005647B-05A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

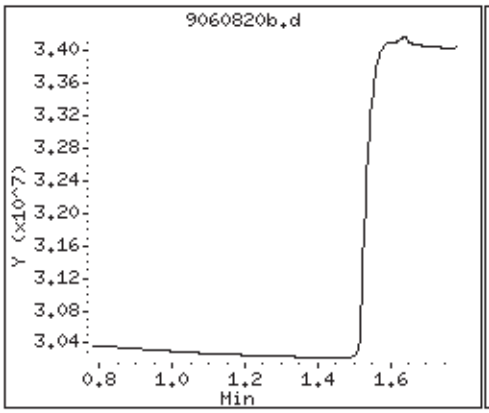
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

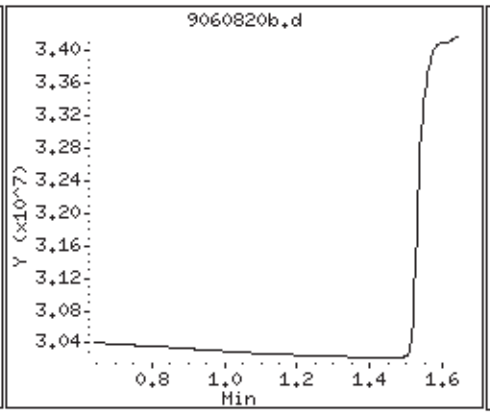
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.498	3.355	0.143	10796543	0.02134	0.0399
9 Oxygen	8.297	8.330	-0.033	3610422381	11.2606	21.0
10 Nitrogen	8.512	8.541	-0.029	29884391402	87.5990	164
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060820b.d
Y (x10^8)
Min
Nitrogen (8.512)
Oxygen (8.297)
Carbon Dioxide (3.498)

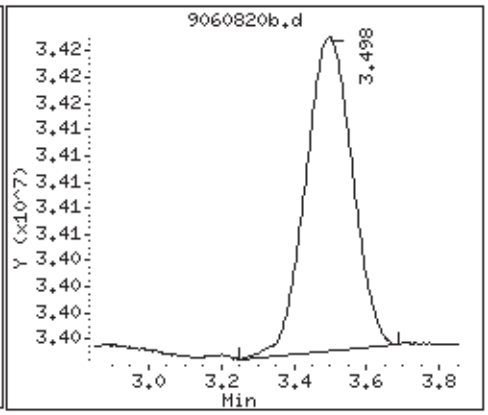
2 Hydrogen (Undetected)



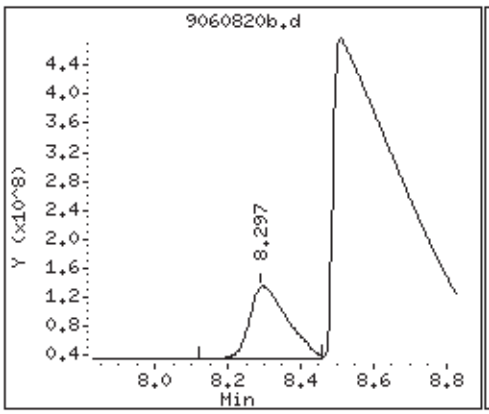
1 Helium (Undetected)



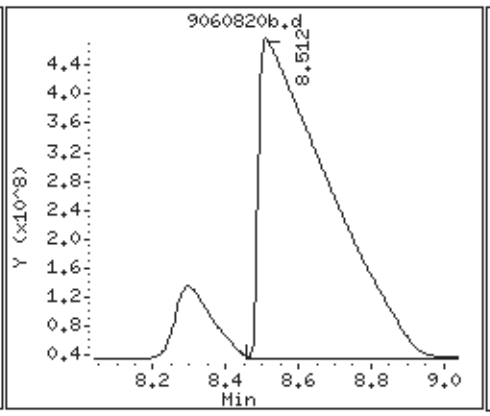
3 Carbon Dioxide



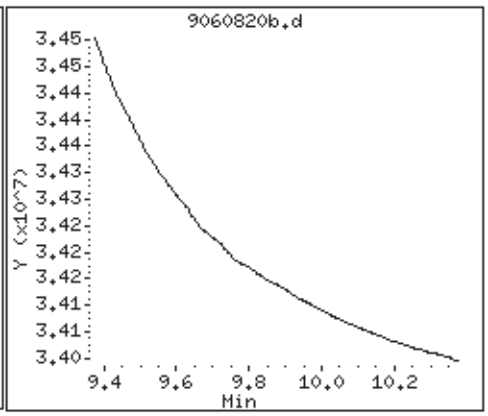
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: ALF-3

Lab ID#: 1005647B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.18	79
Methane	0.00018	0.00020
Carbon Dioxide	0.018	0.040

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-3

Lab ID#: 1005647B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060821**	**Date of Collection:**	**5/20/10 9:21:00 AM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**6/8/10 07:44 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.18	79
Carbon Monoxide	0.018	Not Detected
Methane	0.00018	0.00020
Carbon Dioxide	0.018	0.040
Ethane	0.0018	Not Detected
Ethene	0.0018	Not Detected
Acetylene	0.0018	Not Detected
Propane	0.0018	Not Detected
Isobutane	0.0018	Not Detected
Butane	0.0018	Not Detected
Neopentane	0.0018	Not Detected
Isopentane	0.0018	Not Detected
Pentane	0.0018	Not Detected
C6+	0.018	Not Detected
Hydrogen	0.018	Not Detected
Helium	0.092	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

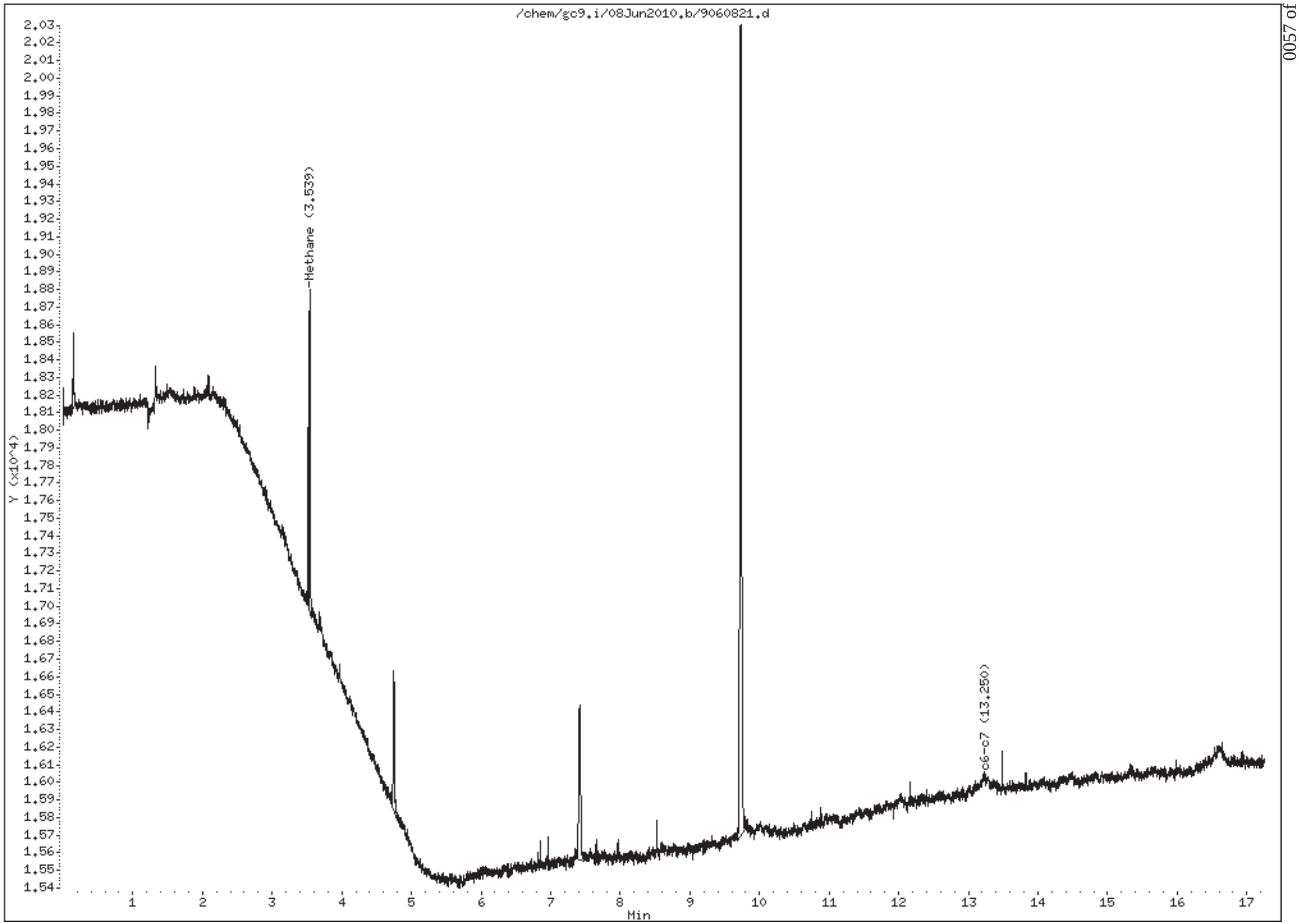
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060821.d
Lab Smp Id: 1005647B-06A
Inj Date : 08-JUN-2010 19:44
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,5553;1005647B-06A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

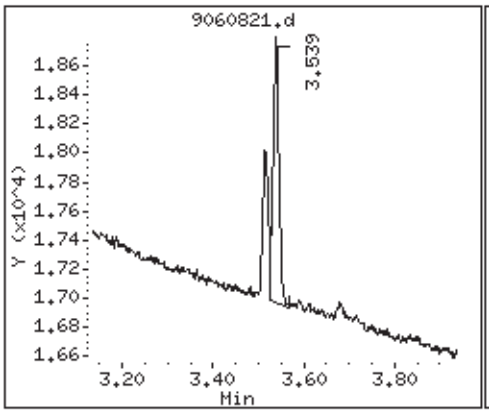
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

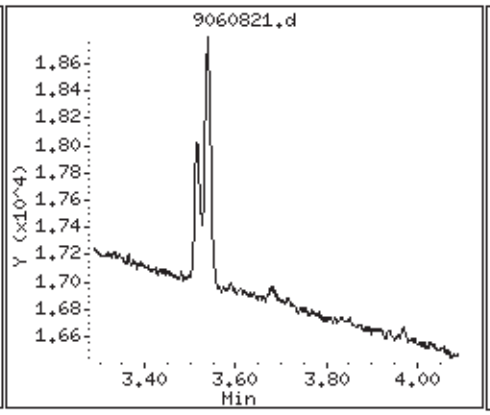
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.539	3.538	0.001	16778	0.000112	0.000204
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060821.d
Methane (3.539)
c6-c7 (13.250)
Y (x10^4)
Min

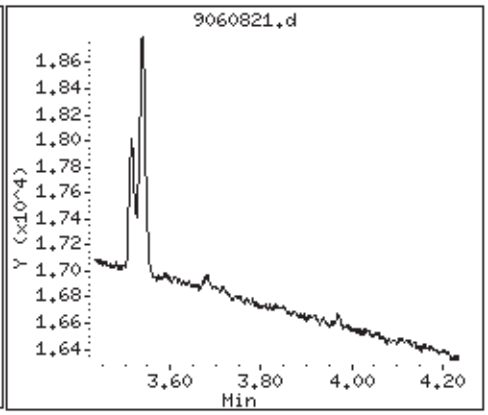
2 Methane



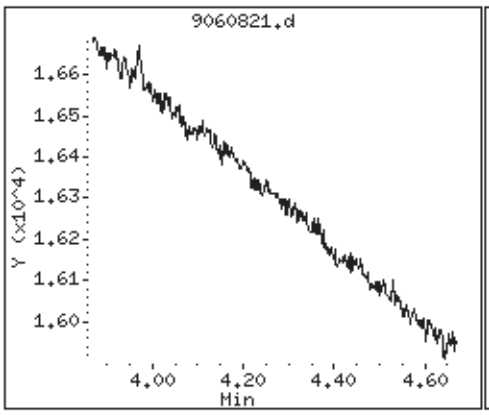
3 ethane (Undetected)



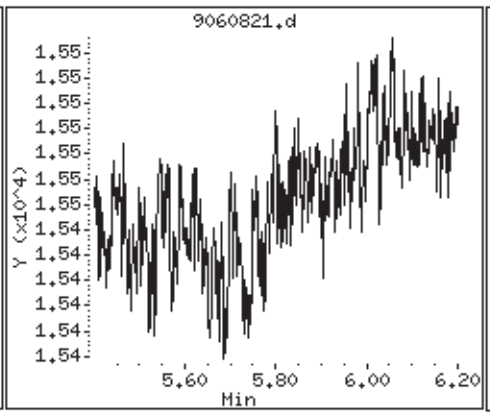
4 ethene (Undetected)



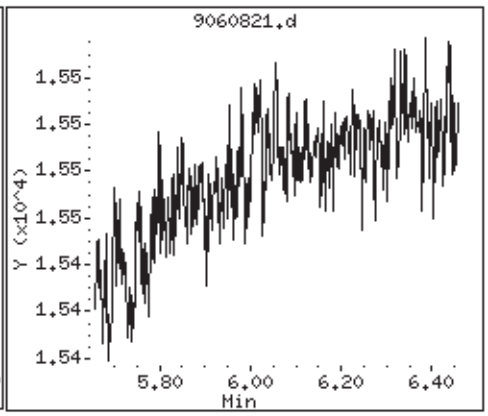
5 propane (Undetected)



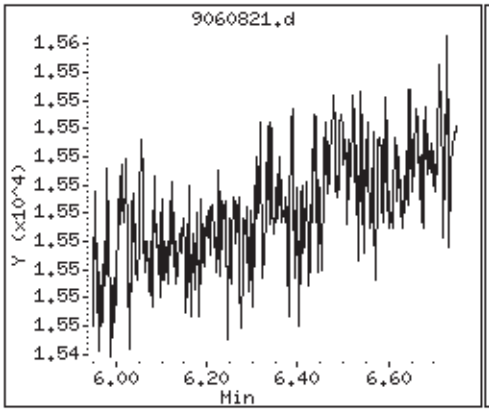
7 acetylene (Undetected)



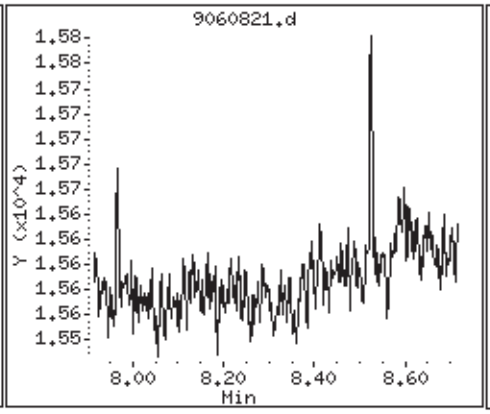
8 iso-butane (Undetected)



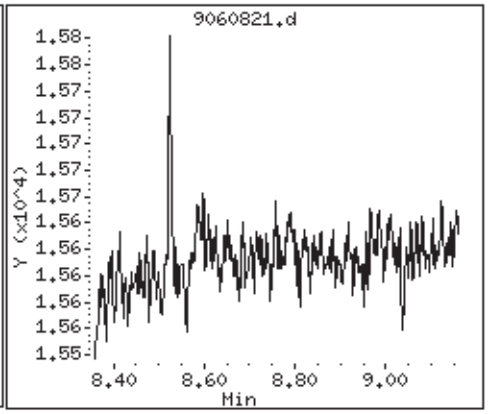
10 n-butane (Undetected)



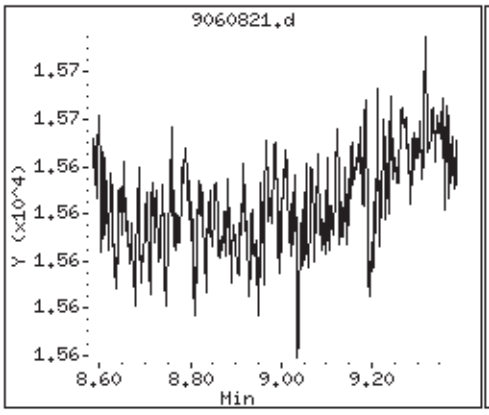
15 neo-pentane (Undetected



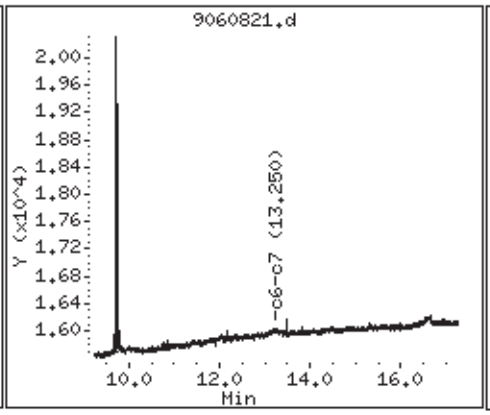
16 isopentane (Undetected)



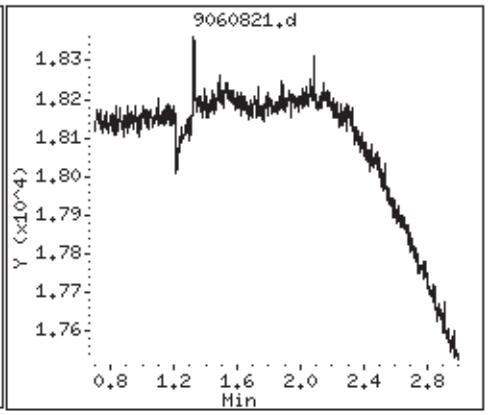
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

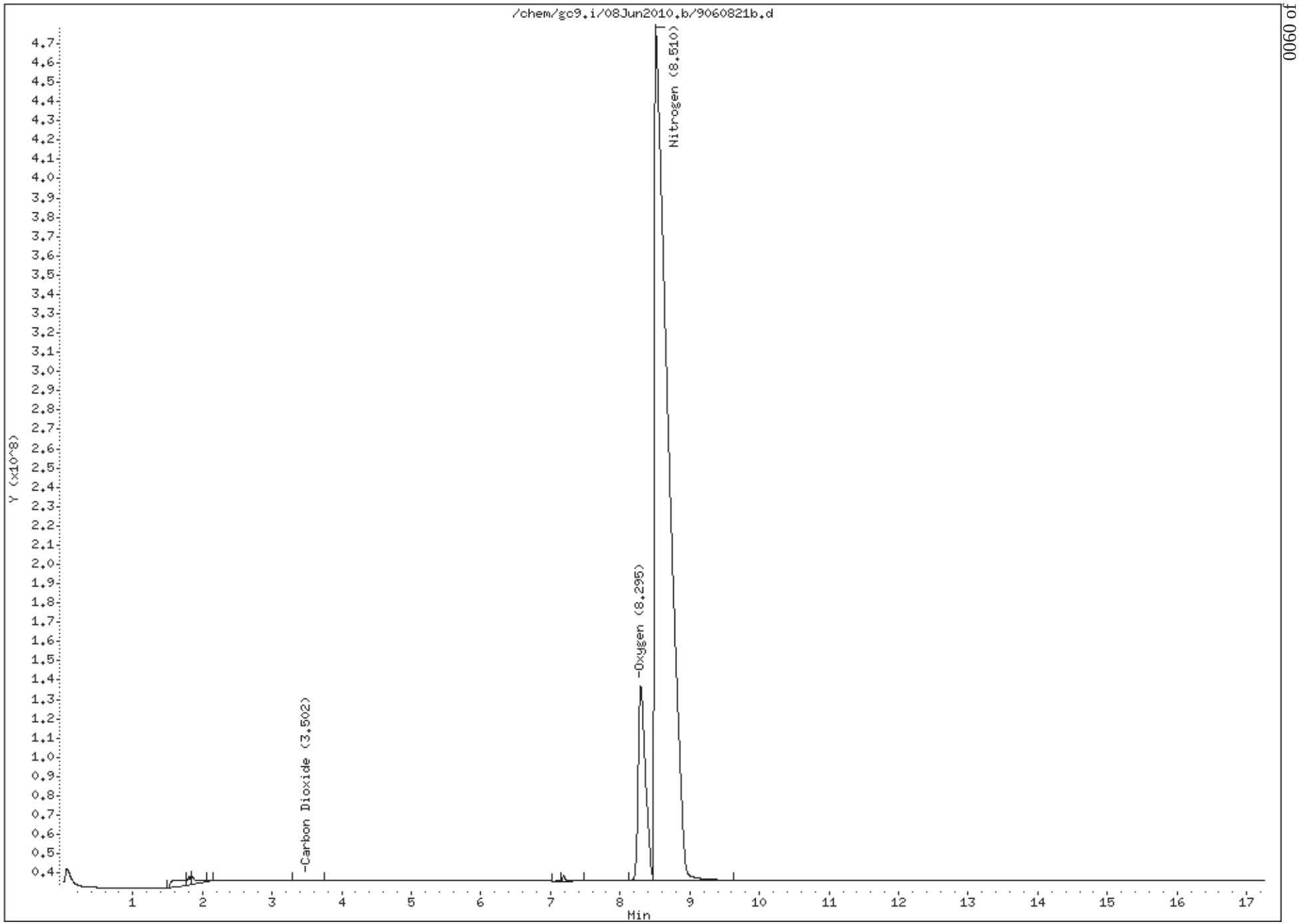
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060821b.d
Lab Smp Id: 1005647B-06A
Inj Date : 08-JUN-2010 19:44
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,5553;1005647B-06A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

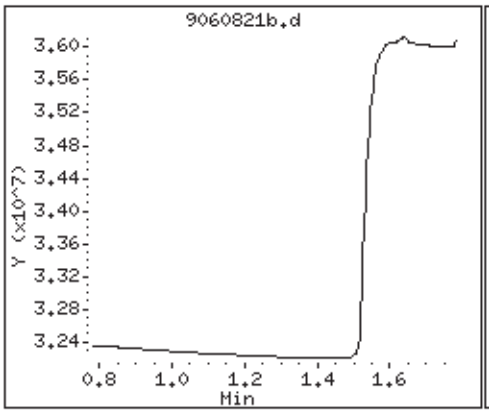
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

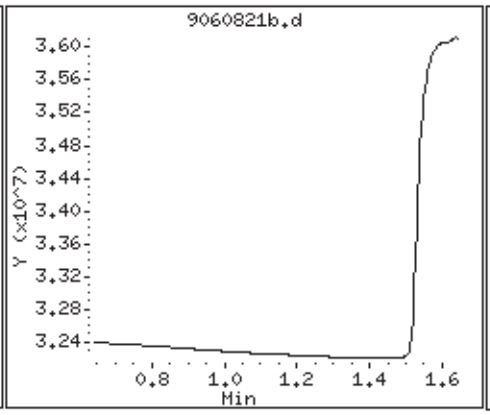
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.502	3.355	0.147	11087697	0.02192	0.0401
9 Oxygen	8.295	8.330	-0.035	3656430463	11.4041	20.9
10 Nitrogen	8.510	8.541	-0.031	29854313392	87.5108	160
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060821b.d
Y (x10^8)
Min
Carbon Dioxide (3.502)
Oxygen (8.295)
Nitrogen (8.510)

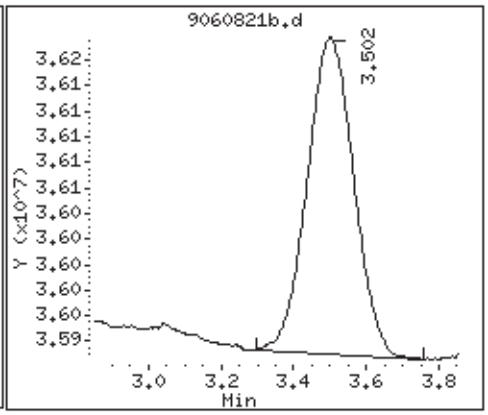
2 Hydrogen (Undetected)



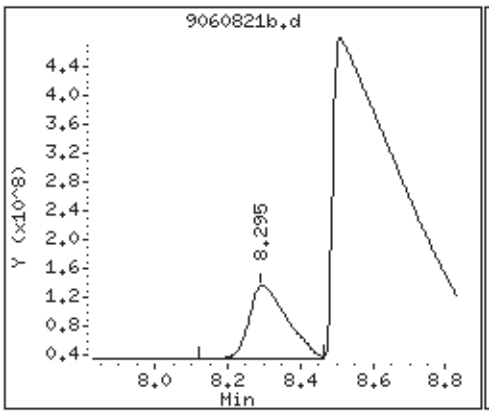
1 Helium (Undetected)



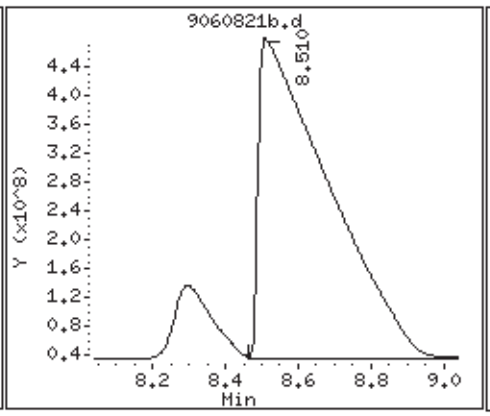
3 Carbon Dioxide



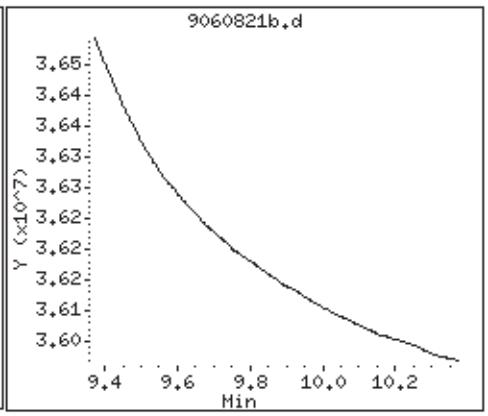
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: ALF-4

Lab ID#: 1005647B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.038

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-4

Lab ID#: 1005647B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060822**	**Date of Collection: 5/20/10 9:18:00 AM**	
Dil. Factor:	**1.87**	**Date of Analysis: 6/8/10 08:12 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.19	21
Nitrogen	0.19	79
Carbon Monoxide	0.019	Not Detected
Methane	0.00019	0.00020
Carbon Dioxide	0.019	0.038
Ethane	0.0019	Not Detected
Ethene	0.0019	Not Detected
Acetylene	0.0019	Not Detected
Propane	0.0019	Not Detected
Isobutane	0.0019	Not Detected
Butane	0.0019	Not Detected
Neopentane	0.0019	Not Detected
Isopentane	0.0019	Not Detected
Pentane	0.0019	Not Detected
C6+	0.019	Not Detected
Hydrogen	0.019	Not Detected
Helium	0.094	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

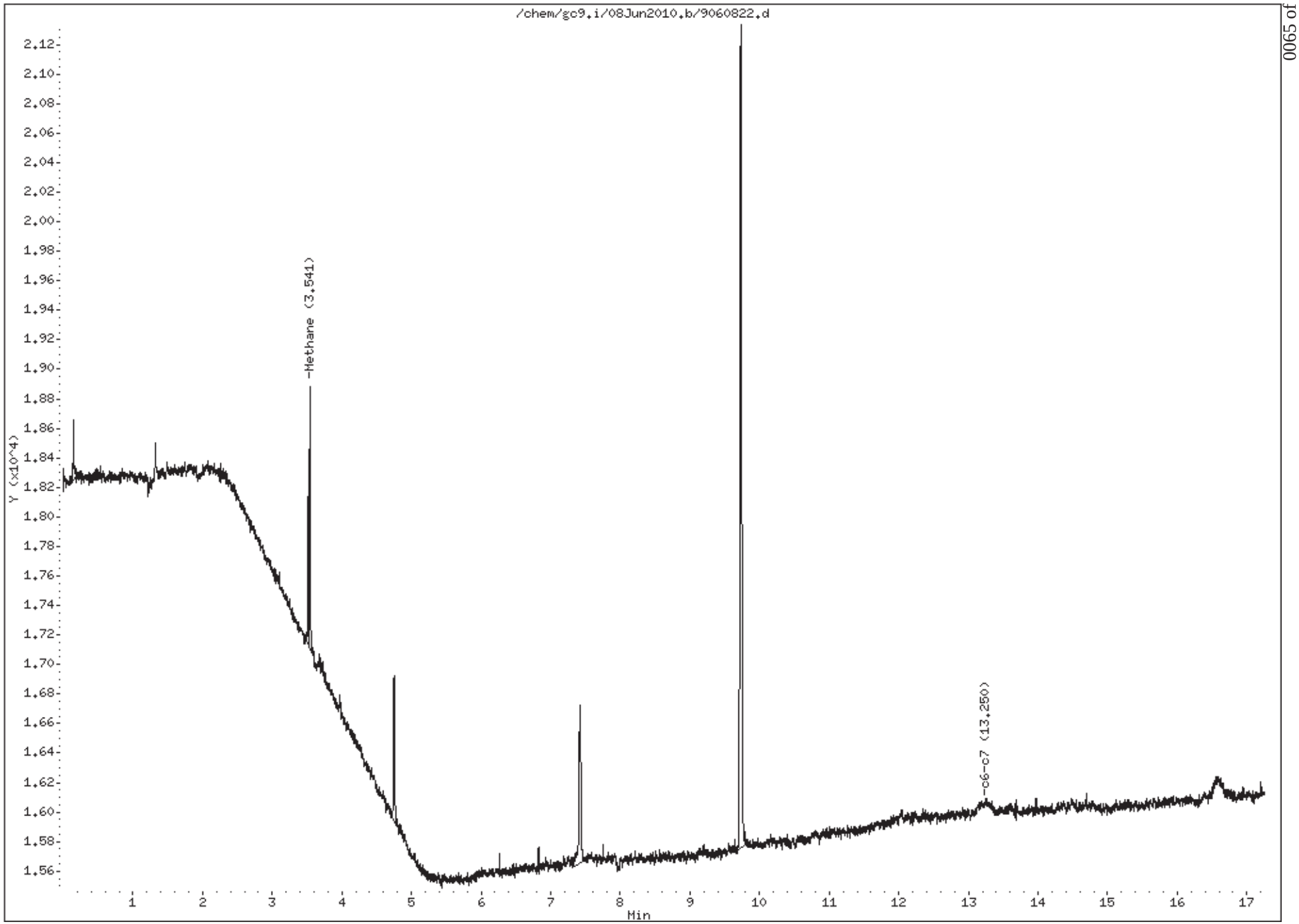
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060822.d
Lab Smp Id: 1005647B-07A
Inj Date : 08-JUN-2010 20:12
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,11892;1005647B-07A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

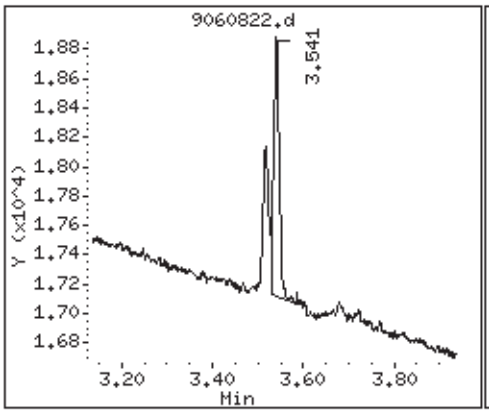
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

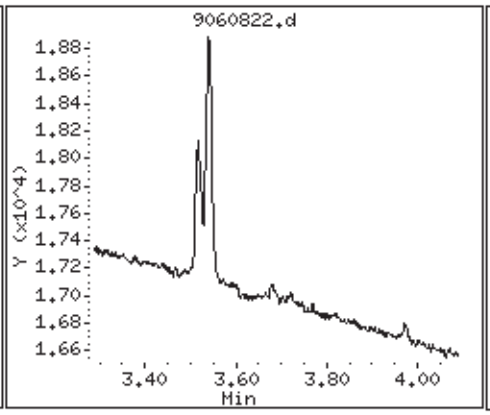
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.541	3.538	0.003	16400	0.000109	0.000204
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060822.d
Y (x10^4)
2.12
2.10
2.08
2.06
2.04
2.02
2.00
1.98
1.96
1.94
1.92
1.90
1.88
1.86
1.84
1.82
1.80
1.78
1.76
1.74
1.72
1.70
1.68
1.66
1.64
1.62
1.60
1.58
1.56
Methane (3.541)
c6-c7 (13.250)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

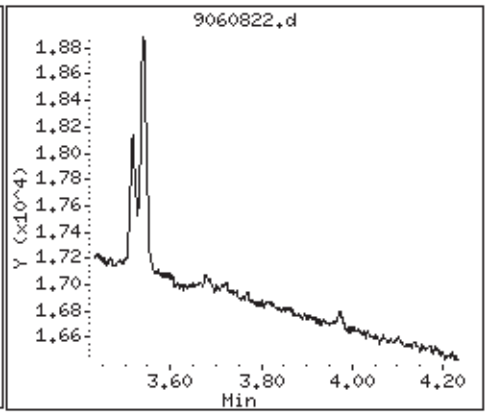
2 Methane



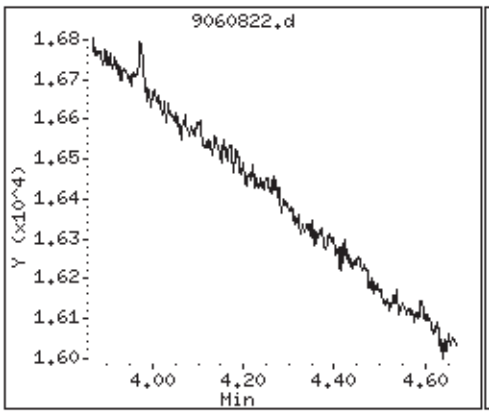
3 ethane (Undetected)



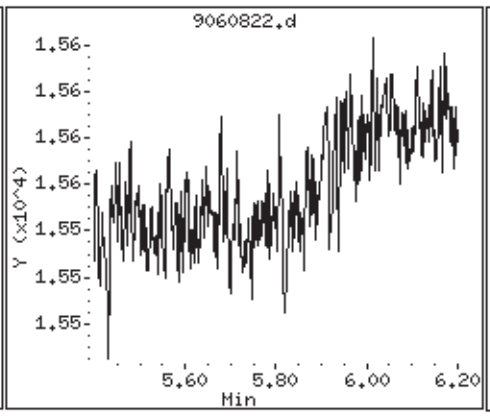
4 ethene (Undetected)



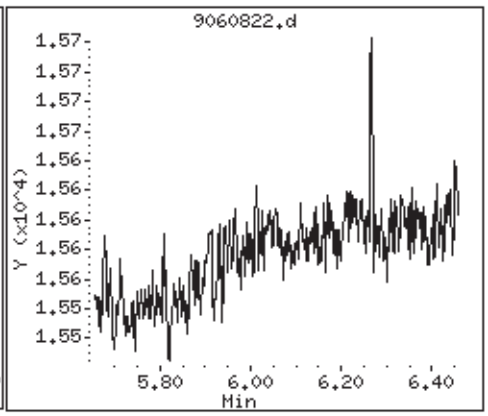
5 propane (Undetected)



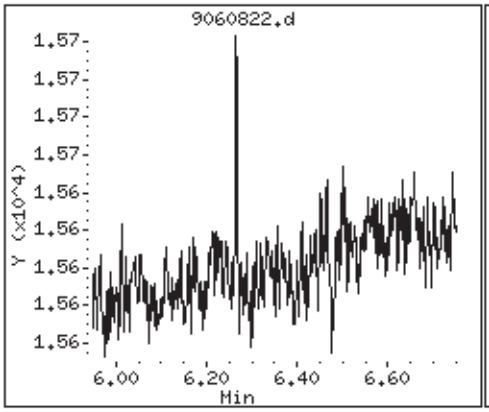
7 acetylene (Undetected)



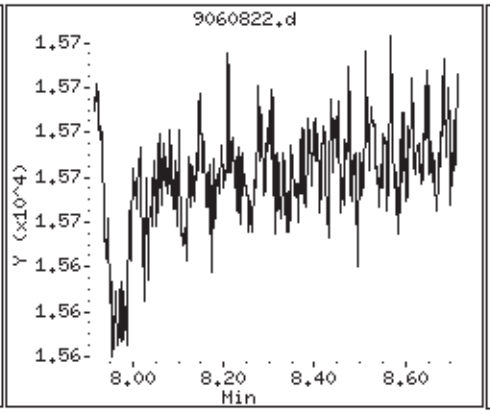
8 iso-butane (Undetected)



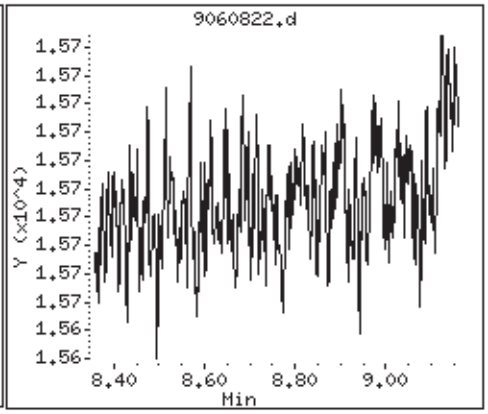
10 n-butane (Undetected)



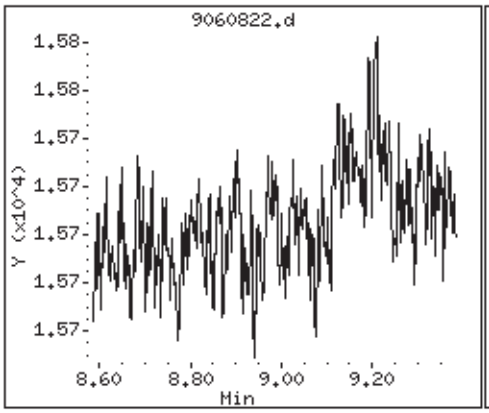
15 neo-pentane (Undetected



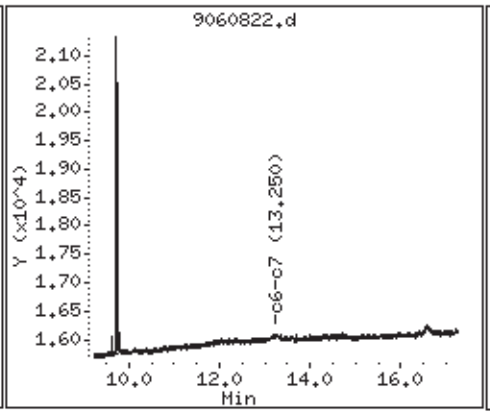
16 isopentane (Undetected)



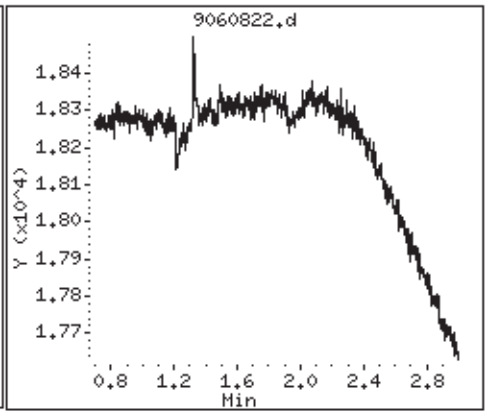
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

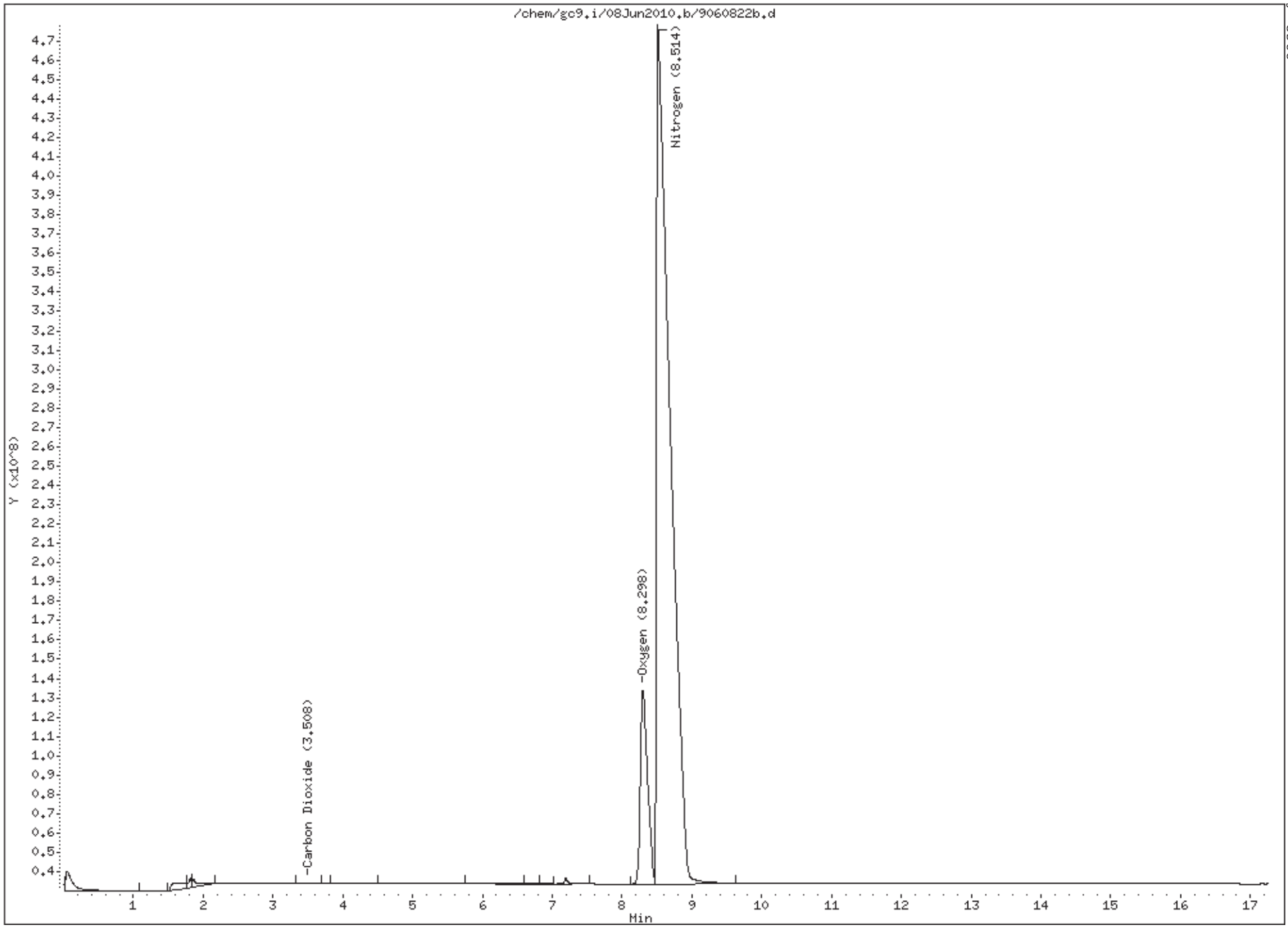
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060822b.d
Lab Smp Id: 1005647B-07A
Inj Date : 08-JUN-2010 20:12
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,11892;1005647B-07A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

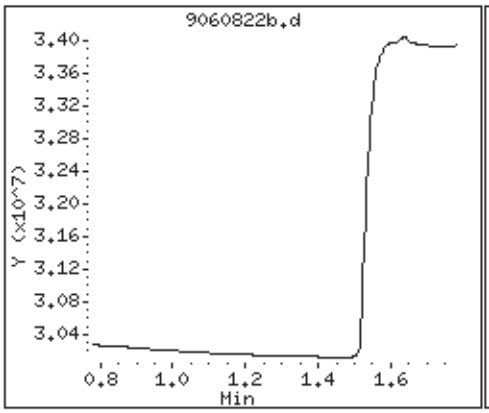
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

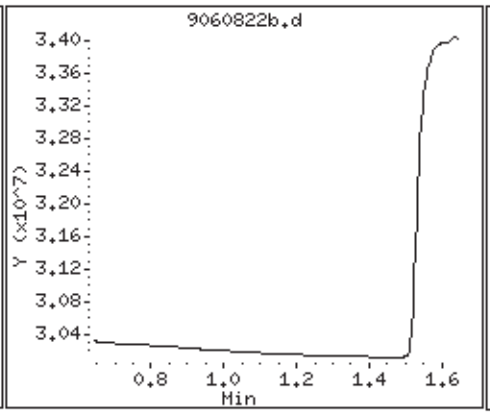
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.508	3.355	0.153	10270887	0.02030	0.0380
9 Oxygen	8.298	8.330	-0.032	3606577921	11.2486	21.0
10 Nitrogen	8.514	8.541	-0.027	29892691660	87.6233	164
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060822b.d
Nitrogen (8.514)
Oxygen (8.298)
Carbon Dioxide (3.508)
Y (x10^8)
Min

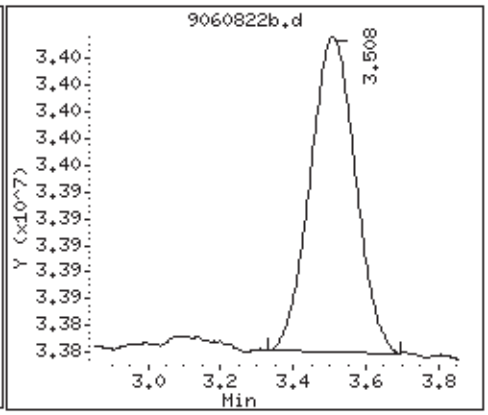
2 Hydrogen (Undetected)



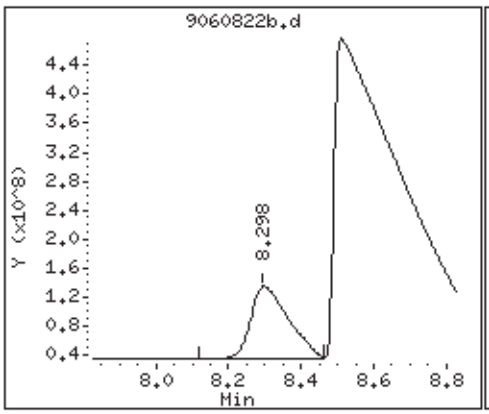
1 Helium (Undetected)



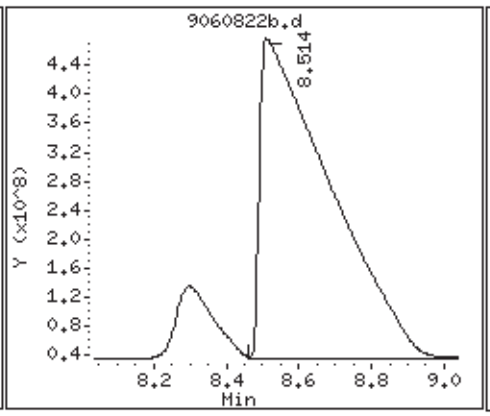
3 Carbon Dioxide



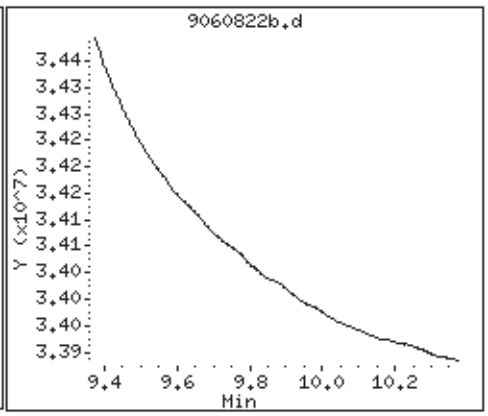
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: ALF-5

Lab ID#: 1005647B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.17	79
Methane	0.00017	0.00020
Carbon Dioxide	0.017	0.045

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: ALF-5

Lab ID#: 1005647B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060823**	**Date of Collection: 5/20/10 9:05:00 AM**	
Dil. Factor:	**1.71**	**Date of Analysis: 6/8/10 08:43 PM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.17	79
Carbon Monoxide	0.017	Not Detected
Methane	0.00017	0.00020
Carbon Dioxide	0.017	0.045
Ethane	0.0017	Not Detected
Ethene	0.0017	Not Detected
Acetylene	0.0017	Not Detected
Propane	0.0017	Not Detected
Isobutane	0.0017	Not Detected
Butane	0.0017	Not Detected
Neopentane	0.0017	Not Detected
Isopentane	0.0017	Not Detected
Pentane	0.0017	Not Detected
C6+	0.017	Not Detected
Hydrogen	0.017	Not Detected
Helium	0.086	Not Detected

Container Type: 6 Liter Summa Canister

Air Toxics Ltd.

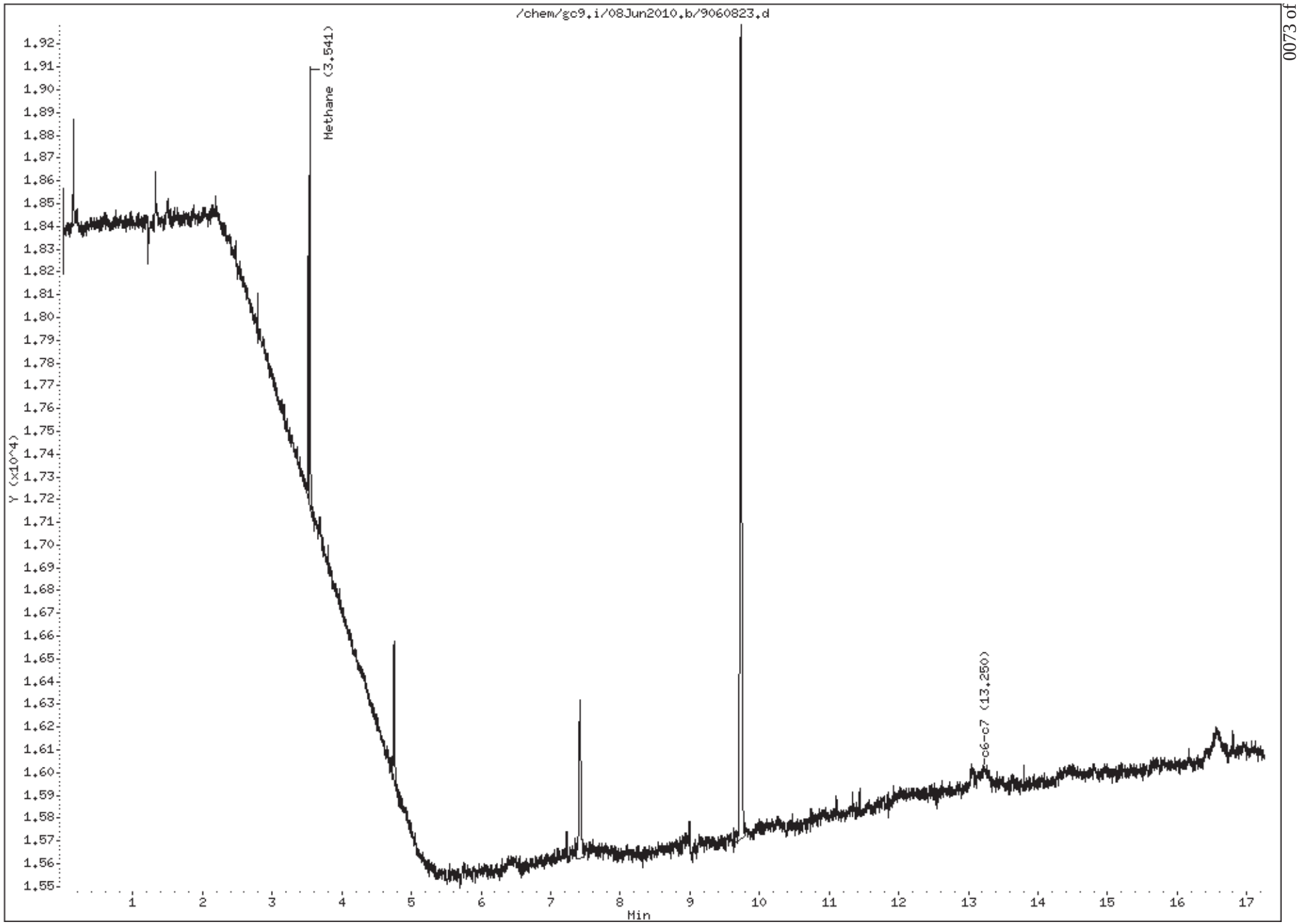
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060823.d
Lab Smp Id: 1005647B-08A
Inj Date : 08-JUN-2010 20:43
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,22508;1005647B-08A;
Misc Info : 6.5"Hg>5psi, Exponent
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

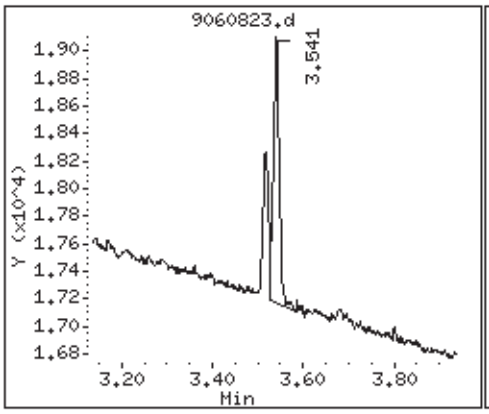
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

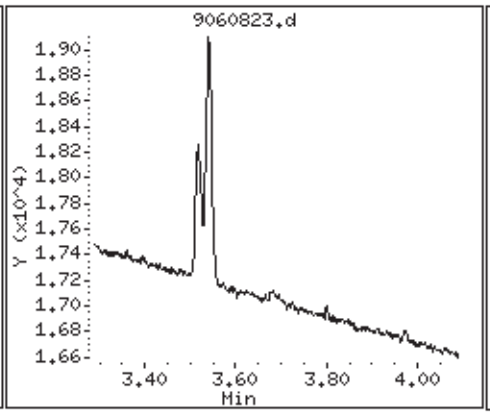
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.541	3.538	0.003	17768	0.000118	0.000202
	3 ethane	Compound Not Detected.					
	4 ethene	Compound Not Detected.					
	5 propane	Compound Not Detected.					
	7 acetylene	Compound Not Detected.					
	8 iso-butane	Compound Not Detected.					
	10 n-butane	Compound Not Detected.					
	15 neo-pentane	Compound Not Detected.					
	16 isopentane	Compound Not Detected.					
	17 pentane	Compound Not Detected.					
M	37 C6+ Hydrocarbons	Compound Not Detected.					
S	22 c6-c7	Compound Not Detected.					
S	36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060823.d
Methane (3.541)
c6-c7 (13.250)
Y (x10^4)
Min

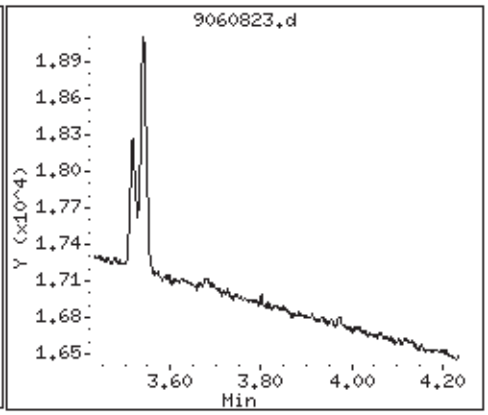
2 Methane



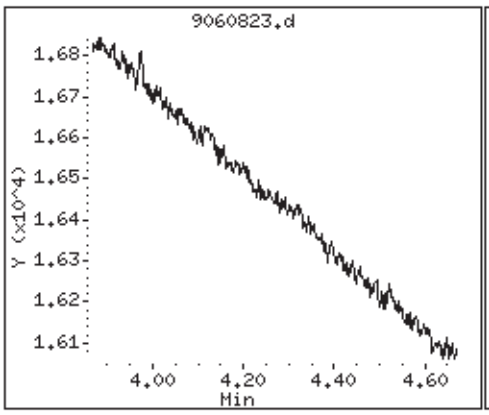
3 ethane (Undetected)



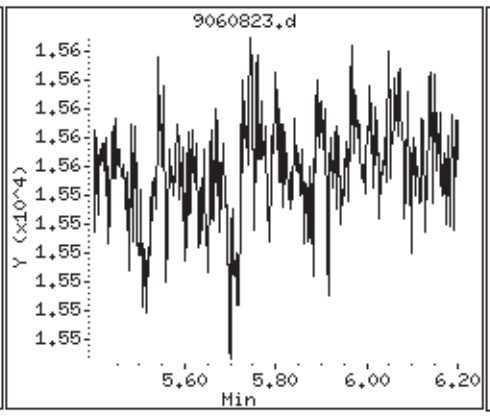
4 ethene (Undetected)



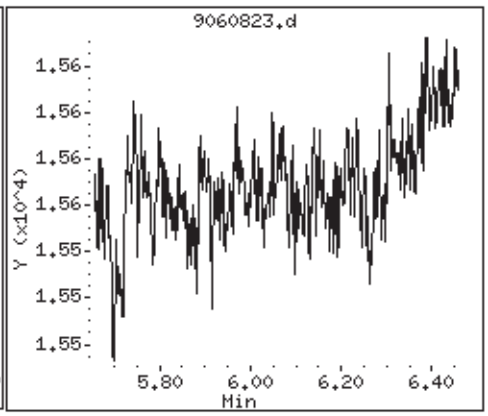
5 propane (Undetected)



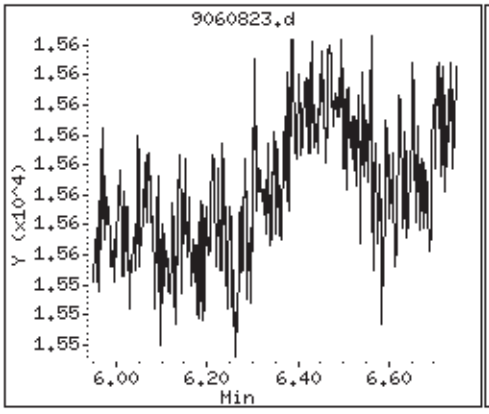
7 acetylene (Undetected)



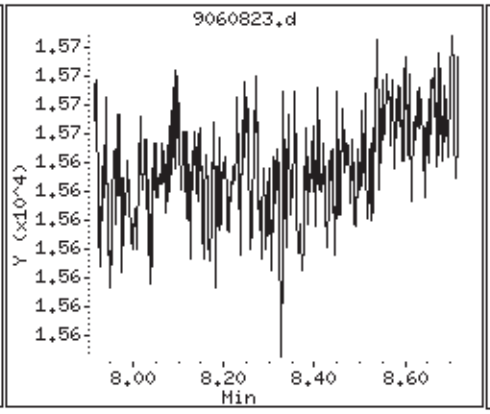
8 iso-butane (Undetected)



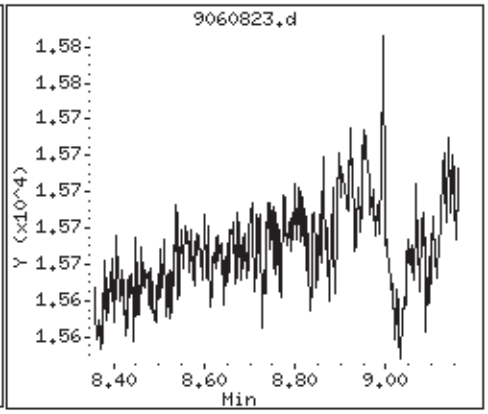
10 n-butane (Undetected)



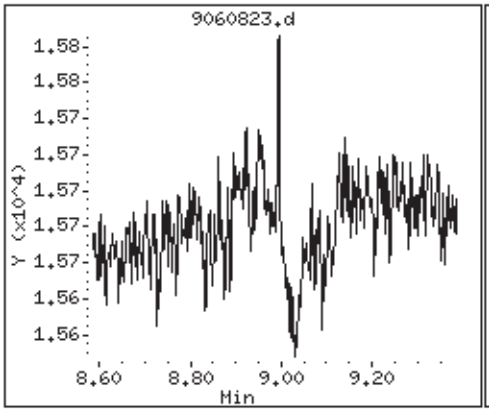
15 neo-pentane (Undetected



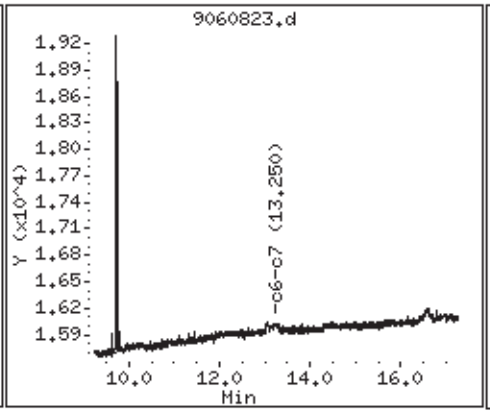
16 isopentane (Undetected)



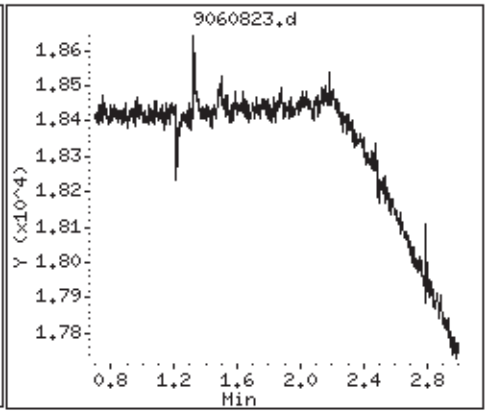
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

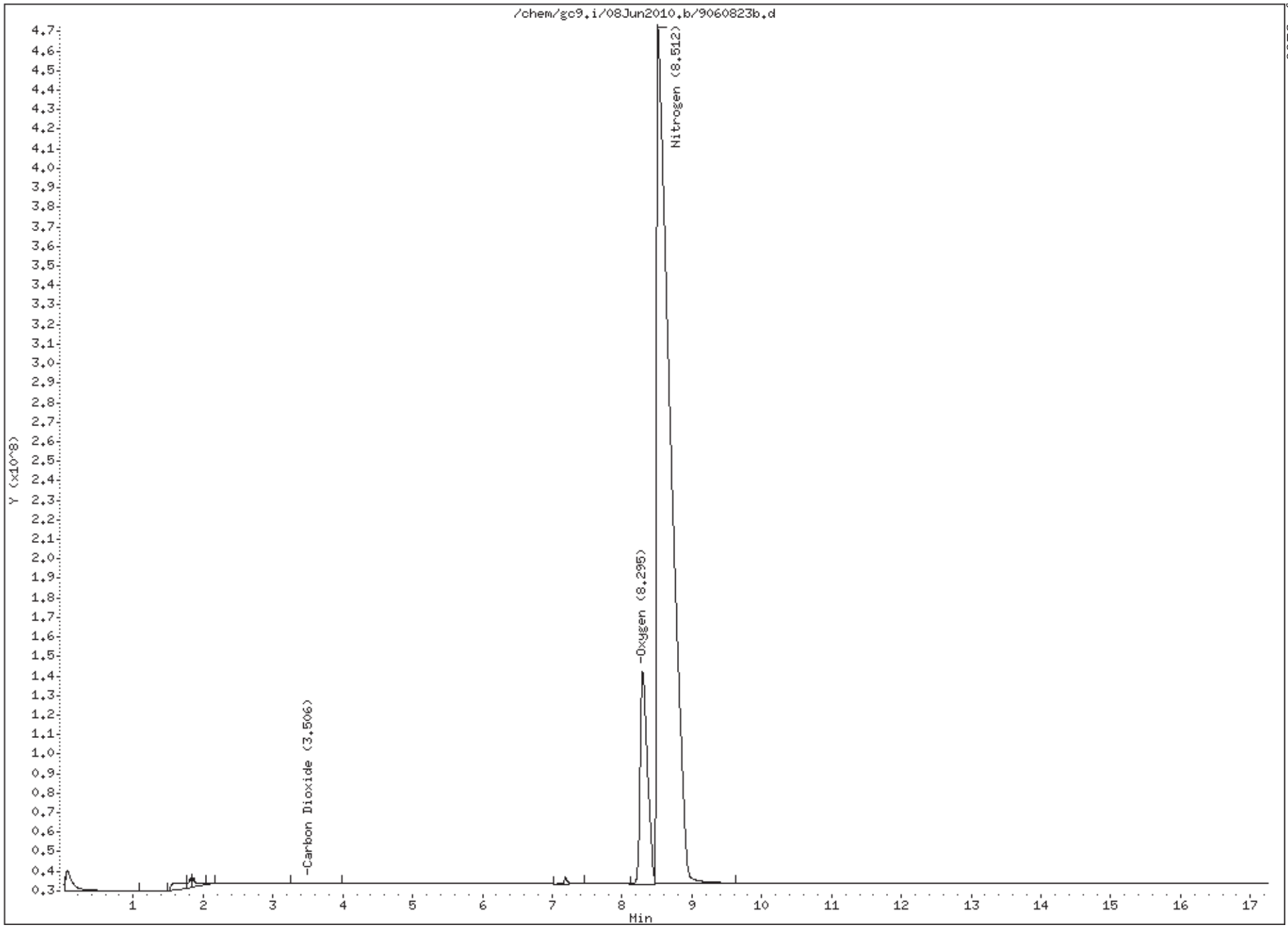
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060823b.d
Lab Smp Id: 1005647B-08A
Inj Date : 08-JUN-2010 20:43
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,22508;1005647B-08A;
Misc Info : 6.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

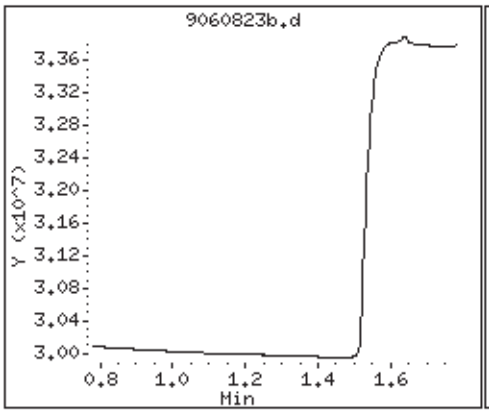
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

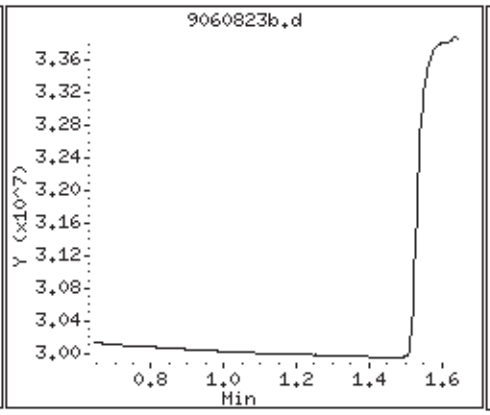
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.506	3.355	0.151	13312440	0.02631	0.0450
9 Oxygen	8.295	8.330	-0.035	3945916824	12.3070	21.0
10 Nitrogen	8.512	8.541	-0.029	29509601985	86.5004	148
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060823b.d
Y (x10^8)
Min
Carbon Dioxide (3.506)
Oxygen (8.295)
Nitrogen (8.512)

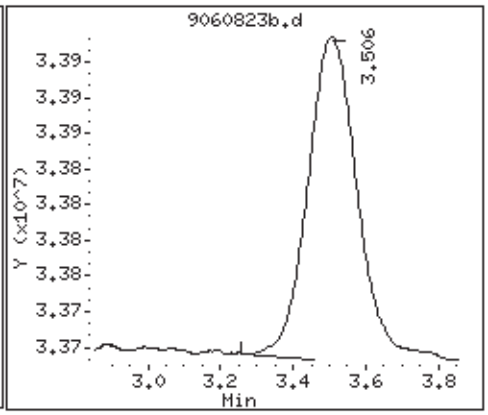
2 Hydrogen (Undetected)



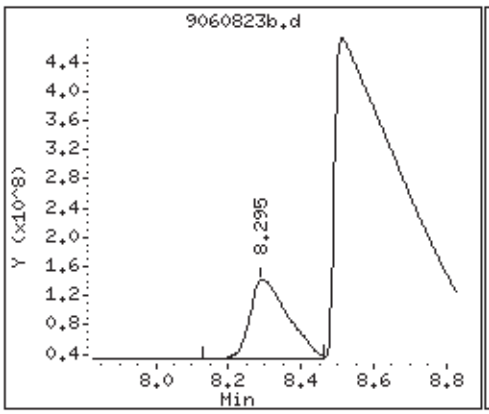
1 Helium (Undetected)



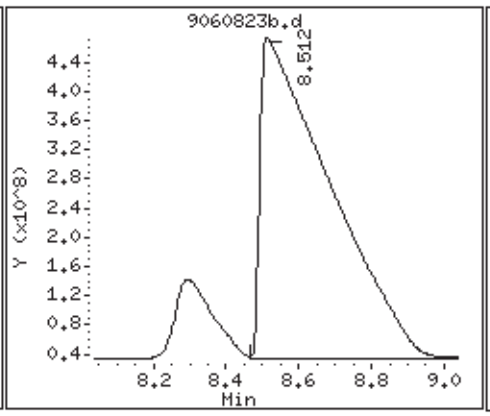
3 Carbon Dioxide



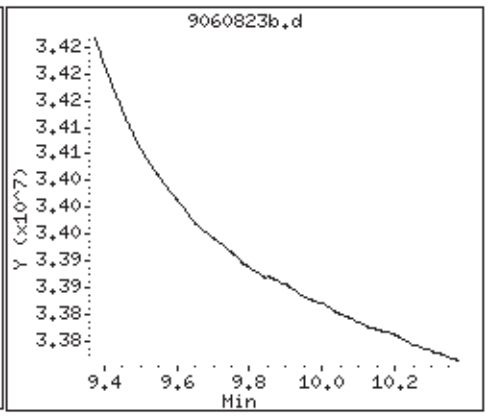
9 Oxygen



10 Nitrogen



12 Carbon Monoxide (Undete



QC Results and Raw Data

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/10 09:57 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Monoxide	0.010	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected
Ethane	0.0010	Not Detected
Ethene	0.0010	Not Detected
Acetylene	0.0010	Not Detected
Propane	0.0010	Not Detected
Isobutane	0.0010	Not Detected
Butane	0.0010	Not Detected
Neopentane	0.0010	Not Detected
Isopentane	0.0010	Not Detected
Pentane	0.0010	Not Detected
C6+	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics Ltd.

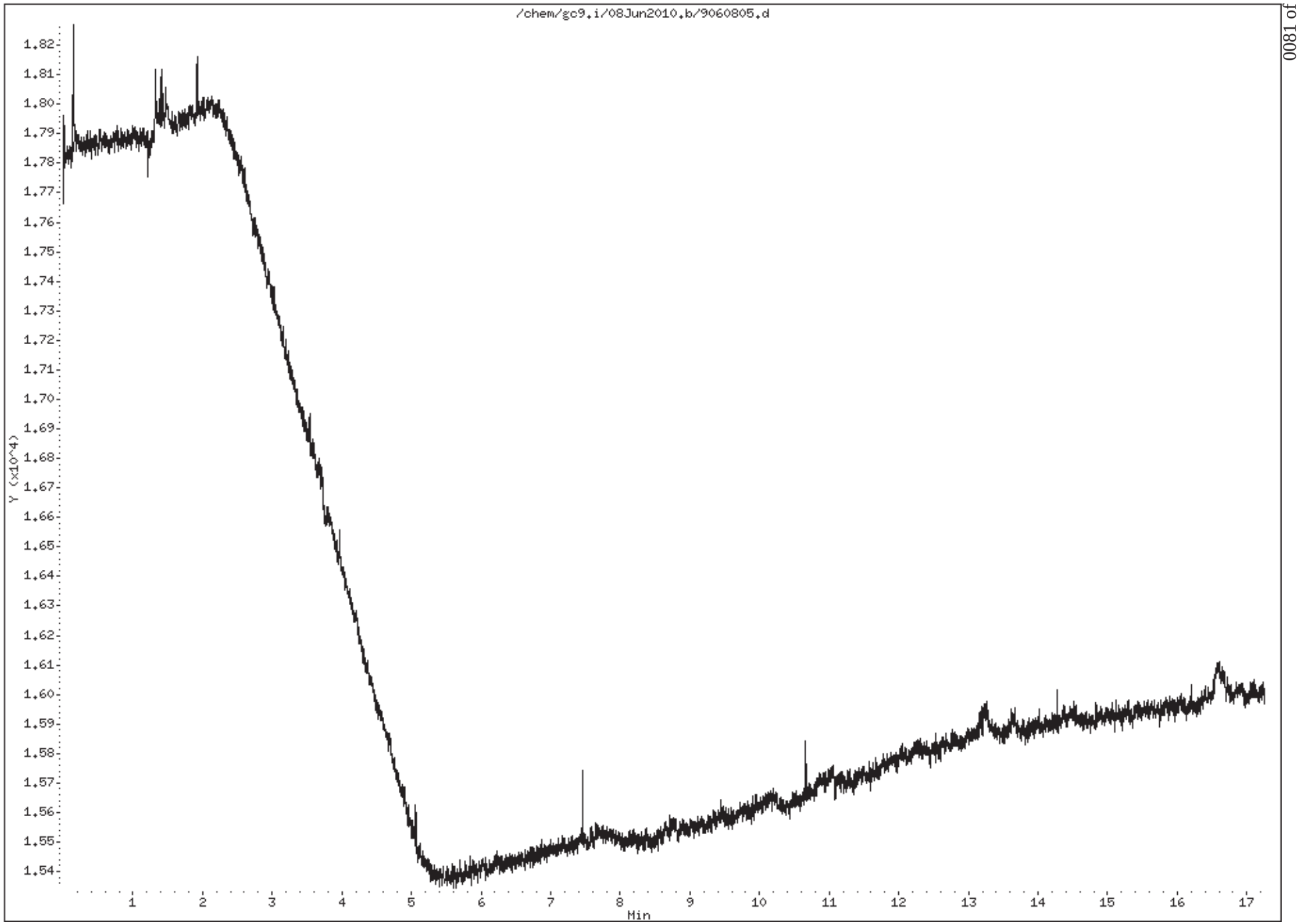
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060805.d
Lab Smp Id: He Lab Blank Client Smp ID: Lab Blank
Inj Date : 08-JUN-2010 09:57
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,14014;He Lab Blank;Lab Blank;
Misc Info : He
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

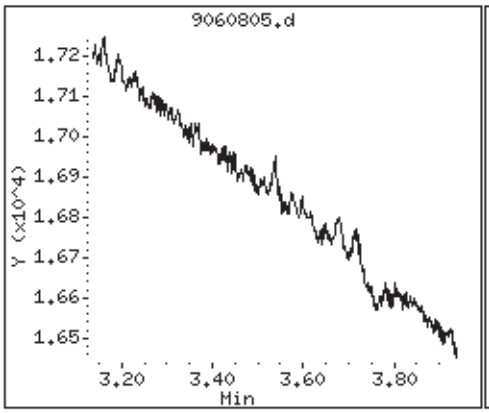
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

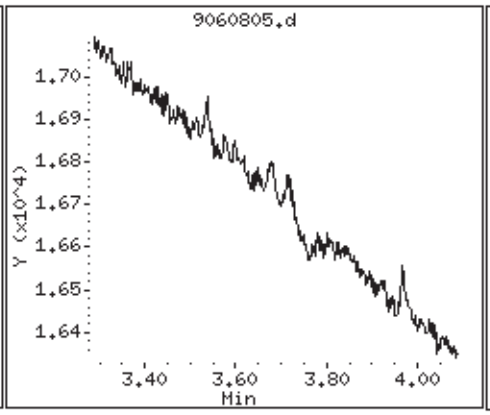
					CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
Compounds	RT	EXP RT	DLT RT	RESPONSE		
2 Methane	Compound Not Detected.					
3 ethane	Compound Not Detected.					
4 ethene	Compound Not Detected.					
5 propane	Compound Not Detected.					
7 acetylene	Compound Not Detected.					
8 iso-butane	Compound Not Detected.					
10 n-butane	Compound Not Detected.					
15 neo-pentane	Compound Not Detected.					
16 isopentane	Compound Not Detected.					
17 pentane	Compound Not Detected.					
M 37 C6+ Hydrocarbons	Compound Not Detected.					
S 22 c6-c7	Compound Not Detected.					
S 36 c8+	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060805.d
Y (x10^4)
1.82
1.81
1.80
1.79
1.78
1.77
1.76
1.75
1.74
1.73
1.72
1.71
1.70
1.69
1.68
1.67
1.66
1.65
1.64
1.63
1.62
1.61
1.60
1.59
1.58
1.57
1.56
1.55
1.54
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

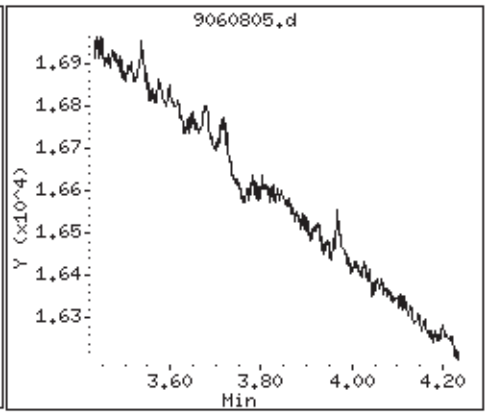
2 Methane (Undetected)



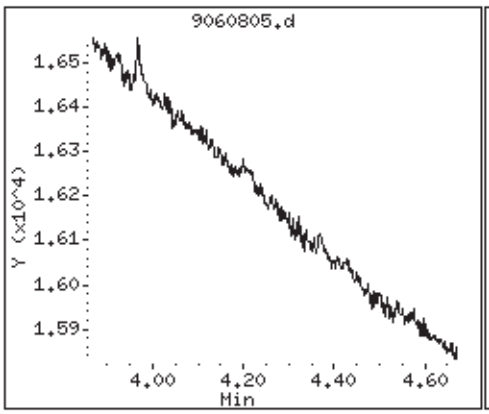
3 ethane (Undetected)



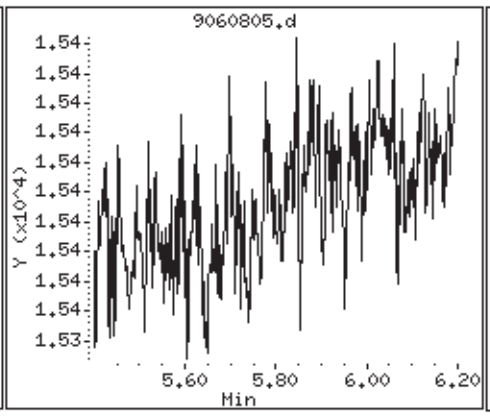
4 ethene (Undetected)



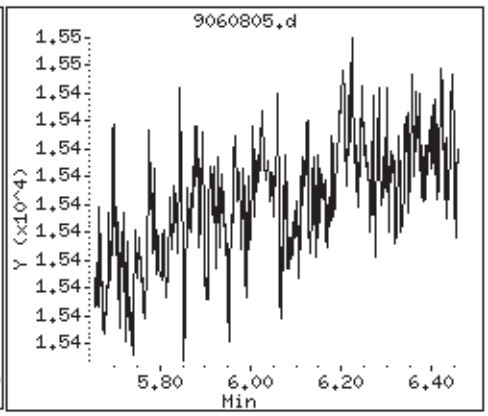
5 propane (Undetected)



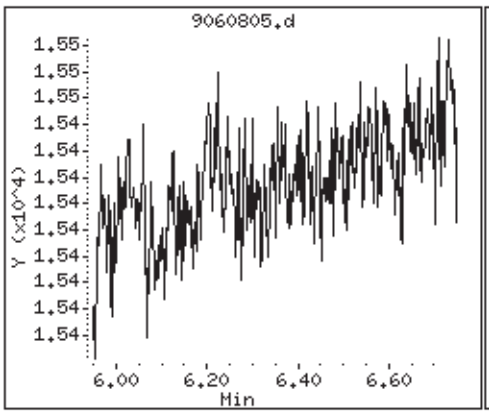
7 acetylene (Undetected)



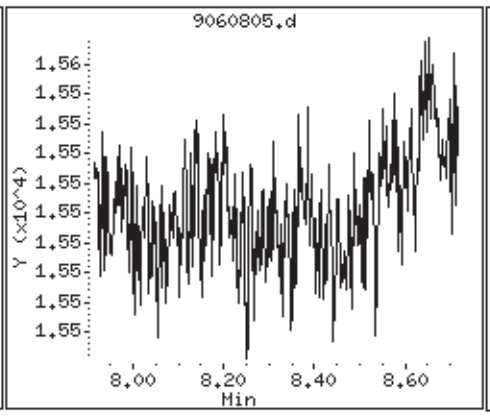
8 iso-butane (Undetected)



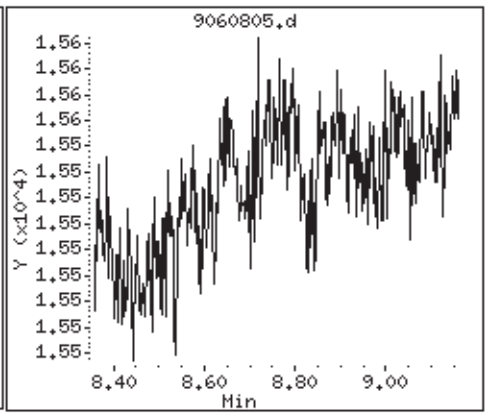
10 n-butane (Undetected)



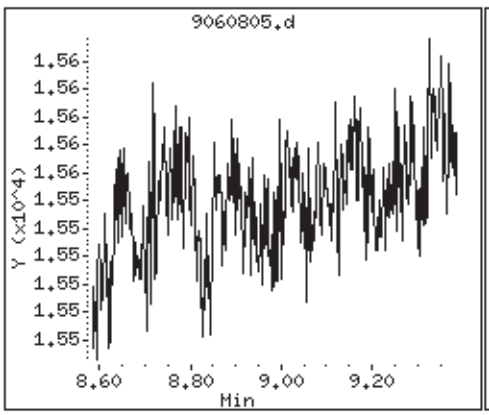
15 neo-pentane (Undetected



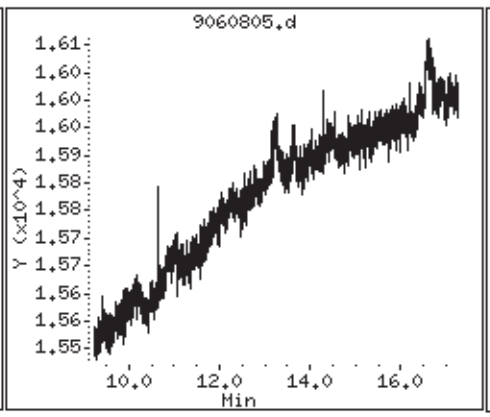
16 isopentane (Undetected)



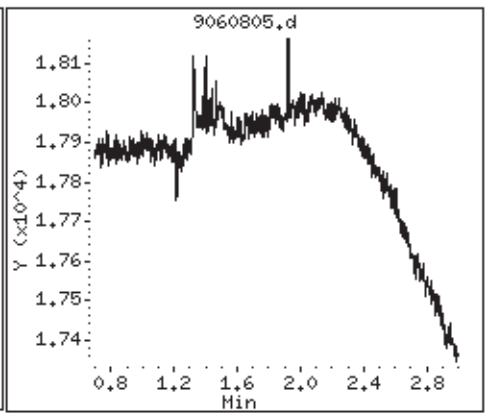
17 pentane (Undetected)



S 22 c6-c7 (Undetected)



S 36 c8+ (Undetected)



Air Toxics Ltd.

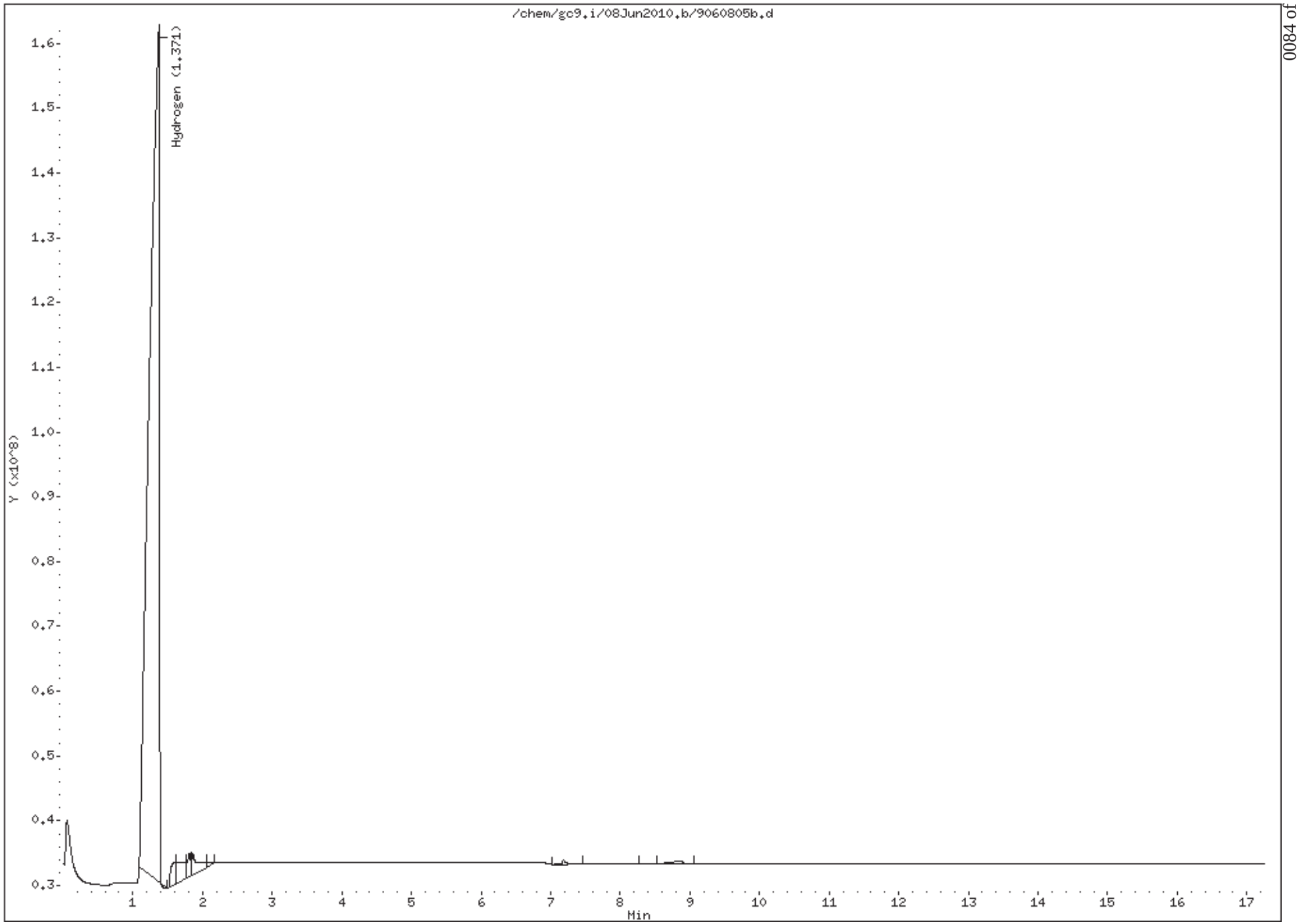
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060805b.d
Lab Smp Id: He Lab Blank Client Smp ID: Lab Blank
Inj Date : 08-JUN-2010 09:57
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,14014;He Lab Blank;Lab Blank;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

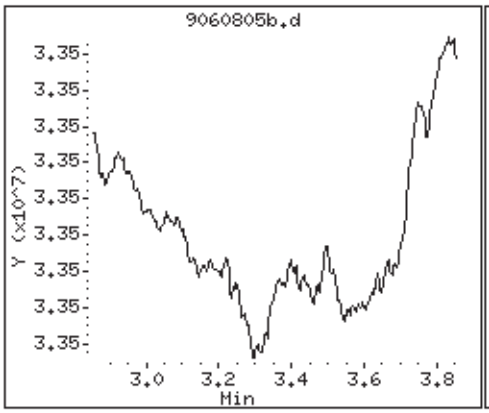
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

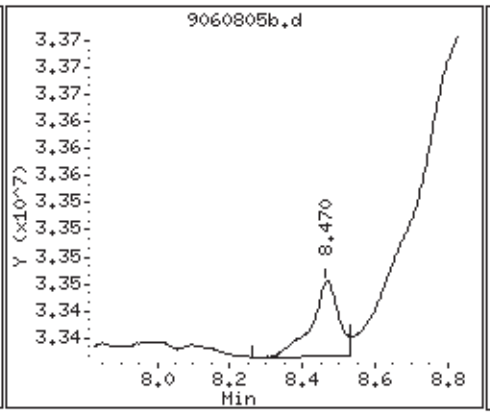
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	Compound Not Detected.					
9 Oxygen	Compound Not Detected.					
10 Nitrogen	Compound Not Detected.					
12 Carbon Monoxide	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060805b.d
Hydrogen (1.371)
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

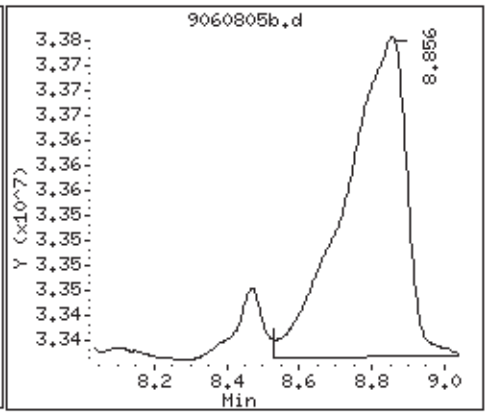
3 Carbon Dioxide (Undetec



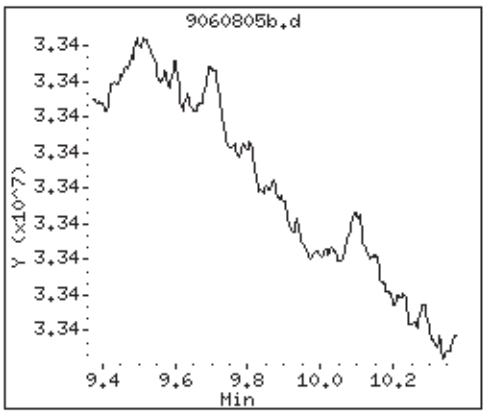
9 Oxygen (Undetected)



10 Nitrogen (Undetected)



12 Carbon Monoxide (Undete



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1005647B-09B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060804b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/10 09:34 AM**	

Compound	Rpt. Limit (%)	Amount (%)
Hydrogen	0.010	Not Detected
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Air Toxics Ltd.

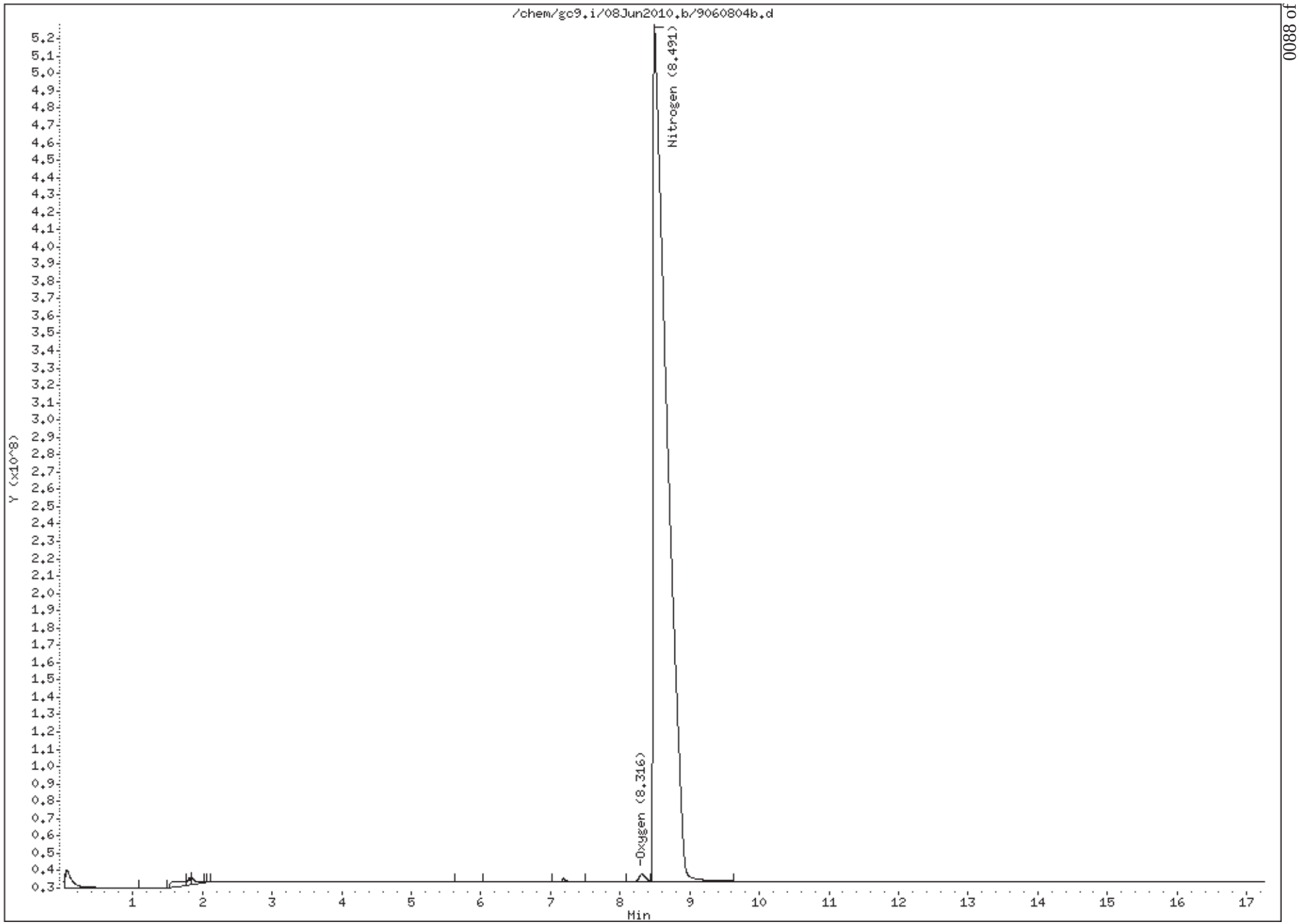
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060804b.d
Lab Smp Id: N2 Lab Blank Client Smp ID: Lab Blank
Inj Date : 08-JUN-2010 09:34
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,33868;N2 Lab Blank;Lab Blank;
Misc Info : N2
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: heh2.sub
Target Version: 3.50
Processing Host: eeyore

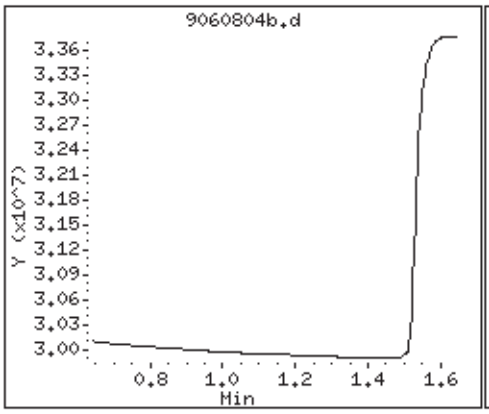
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

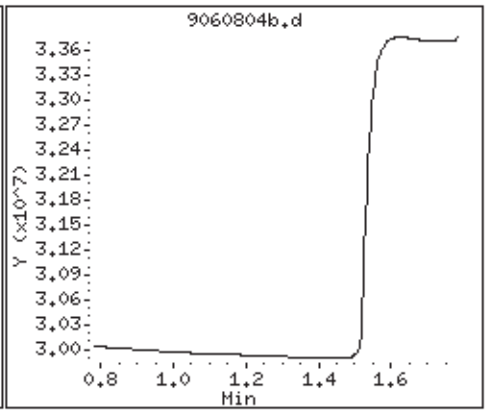
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
1 Helium	Compound Not Detected.					
2 Hydrogen	Compound Not Detected.					


/chem/gc9.i/08Jun2010.b/9060804b.d
Nitrogen (8.491)
Oxygen (8.316)
Y (x10^8)
Min

1 Helium (Undetected)



2 Hydrogen (Undetected)



SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 9060816.d & 9060815.d

Lab Sample ID: 01A & 01AA

Dilution: 1.61 & 1.61

Client Sample ID: &

Date Analyzed: 6/8/10 & 6/8/10

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
74-86-2	Acetylene	ND	U	ND	U	0	
106-97-8	Butane	ND	U	ND	U	0	
C6+	C6+	ND	U	ND		0	
124-38-9	Carbon Dioxide	0.0416		0.0391		6.2	Y
630-08-0	Carbon Monoxide	ND	U	ND	U	0	
74-84-0	Ethane	ND	U	ND	U	0	
74-85-1	Ethene	ND	U	ND	U	0	
7440-59-7	Helium	ND	U	ND	U	0	
1333-74-0	Hydrogen	ND	U	ND	U	0	
75-28-5	Isobutane	ND	U	ND	U	0	
78-78-4	Isopentane	ND	U	ND	U	0	
74-82-8	Methane	0.000196		0.000188		4.2	Y
463-82-1	Neopentane	ND	U	ND	U	0	
7727-37-9	Nitrogen	79		79		0	
7782-44-7	Oxygen	20.8		20.8		0	
109-66-0	Pentane	ND	U	ND	U	0	
74-98-6	Propane	ND	U	ND	U	0	

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

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2010 09:54
End Cal Date : 30-APR-2010 17:55
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gc9.i/30Apr2010.b/910n0430.m
Cal Date : 03-May-2010 11:56 tstriepe
Curve Type : Average

Calibration File Names:
Level 1: /chem/gc9.i/30Apr2010.b/9043002.d
Level 2: /chem/gc9.i/30Apr2010.b/9043003a.d
Level 3: /chem/gc9.i/30Apr2010.b/9043004a.d
Level 4: /chem/gc9.i/30Apr2010.b/9043005a.d
Level 5: /chem/gc9.i/30Apr2010.b/9043006a.d
Level 6: /chem/gc9.i/30Apr2010.b/9043015.d

		0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	2 Methane	202080000	153736294	155083221	164416716	152510874	+++++	165565421	12.651
	3 ethane	+++++	298674490	300191532	318558652	298734521	306748072	304581453	2.788
	4 ethene	+++++	294083838	295770942	314597500	294555688	295628733	298927340	2.940
	5 propane	+++++	444823000	453448907	481920337	452081585	478780558	462210877	3.660
	7 acetylene	+++++	359859596	367637600	394417525	372723723	+++++	373659611	3.965
	8 iso-butane	+++++	586741414	602800200	641421360	603314068	+++++	608569261	3.814
	10 n-butane	+++++	589788889	601382966	642135900	606050212	697960475	627463688	7.012
	15 neo-pentane	+++++	784290000	802413690	848947248	800882990	+++++	809133482	3.434
	16 isopentane	+++++	746938000	758502381	802097129	758571360	666396985	746501171	6.630
	17 pentane	+++++	752239000	764838889	810372376	768282568	769758534	773098274	2.839
	39 Hexane	+++++	901288000	913222709	972456653	920953817	+++++	926980295	3.385
	40 Heptane	+++++	1.028e+09	1.048e+09	1.148e+09	1.079e+09	+++++	1.076e+09	4.870
S	22 c6-c7	+++++	+++++	983751953	1.070e+09	1.010e+09	+++++	1.021e+09	4.327
M	37 C6+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	1.021e+09	+++++
S	36 c8+	+++++	+++++	+++++	+++++	+++++	+++++	1.021e+09	+++++

Calibration History

Method : /var/chem/gc9.i/30Apr2010.b/910n0430.m
Start Cal Date: 30-APR-2010 09:54
End Cal Date : 30-APR-2010 17:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00000		
30-APR-2010 09:54	ch4	/chem/gc9.i/30Apr2010.b/9043002.d
Cal Level: 2 , Cal Amount: 0.00000		
30-APR-2010 10:17	HexHep	/chem/gc9.i/30Apr2010.b/9043003a.d
30-APR-2010 10:17	ngas	/chem/gc9.i/30Apr2010.b/9043003.d
Cal Level: 3 , Cal Amount: 0.00000		
30-APR-2010 10:42	HexHep	/chem/gc9.i/30Apr2010.b/9043004a.d
30-APR-2010 10:42	ngas	/chem/gc9.i/30Apr2010.b/9043004.d
Cal Level: 4 , Cal Amount: 0.00000		
30-APR-2010 11:13	HexHep	/chem/gc9.i/30Apr2010.b/9043005a.d
30-APR-2010 11:13	ngas	/chem/gc9.i/30Apr2010.b/9043005.d
Cal Level: 5 , Cal Amount: 0.00000		
30-APR-2010 11:37	HexHep	/chem/gc9.i/30Apr2010.b/9043006a.d
30-APR-2010 11:37	ngas	/chem/gc9.i/30Apr2010.b/9043006.d
Cal Level: 6 , Cal Amount: 0.00000		
30-APR-2010 17:55	isopentane	/chem/gc9.i/30Apr2010.b/9043015.d
30-APR-2010 15:55	Butane	/chem/gc9.i/30Apr2010.b/9043012.d
30-APR-2010 15:29	propane	/chem/gc9.i/30Apr2010.b/9043011.d
30-APR-2010 15:02	ehtene	/chem/gc9.i/30Apr2010.b/9043010.d
30-APR-2010 14:28	ehtane	/chem/gc9.i/30Apr2010.b/9043009.d
30-APR-2010 13:54	Pentane	/chem/gc9.i/30Apr2010.b/9043008.d

GC-9
FID-Curve

Report Date : 03-May-2010 11:58

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2010 09:54
End Cal Date : 30-APR-2010 17:55
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /var/chem/gc9.i/30Apr2010.b/910n0430.m
Cal Date : 03-May-2010 11:56 tstriepe
Curve Type : Average

5/3/10

Calibration File Names: See Calibration History
Level 1: /chem/gc9.i/30Apr2010.b/9043002.d
Level 2: /chem/gc9.i/30Apr2010.b/9043003a.d
Level 3: /chem/gc9.i/30Apr2010.b/9043004a.d
Level 4: /chem/gc9.i/30Apr2010.b/9043005a.d
Level 5: /chem/gc9.i/30Apr2010.b/9043006a.d
Level 6: /chem/gc9.i/30Apr2010.b/9043015.d

gw 5/3/10

Based on 1-0mL loop load - Second Sourcefile # 9043016

	Compound	0.000e+00 Level 1	0.000e+00 Level 2	0.000e+00 Level 3	0.000e+00 Level 4	0.000e+00 Level 5	0.000e+00 Level 6	RRF	% RSD
	2 Methane	202080000	153736294	155083221	164416716	152510874	+++++	165565421	12.651
	3 ethane	+++++	298674490	300191532	318558652	298734521	306748072	304581453	2.788
	4 ethene	+++++	294083838	295770942	314597500	294555688	295628733	298927340	2.940
	5 propane	+++++	444823000	453448907	481920337	452081585	478780558	462210877	3.660
	7 acetylene	+++++	359859596	367637600	394417525	372723723	+++++	373659611	3.965
	8 iso-butane	+++++	586741414	602800200	641421360	603314068	+++++	608569261	3.814
	10 n-butane	+++++	589788889	601382966	642135900	606050212	697960475	627463688	7.012
	15 neo-pentane	+++++	784290000	802413690	848947248	800882990	+++++	809133482	3.434
	16 isopentane	+++++	746938000	758502381	802097129	758571360	666396985	746501171	6.630
	17 pentane	+++++	752239000	764838889	810372376	768282568	769758534	773098274	2.839
	39 Hexane	+++++	901288000	913222709	972456653	920953817	+++++	926980295	3.385
	40 Heptane	+++++	1.028e+09	1.048e+09	1.148e+09	1.079e+09	+++++	1.076e+09	4.870
S	22 c6-c7	+++++	+++++	983751953	1.070e+09	1.010e+09	+++++	1.021e+09	4.327
M	37 C6+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	1.021e+09	+++++
S	36 c8+	+++++	+++++	+++++	+++++	+++++	+++++	1.021e+09	+++++

gw 5/3/10

Compound	Level1(%)	Level 2(%)	Level 3(%)	Level 4(%)	Level 5(%)	Level 6(%)
Methane	0.00010	0.01970	0.09935	0.9950	9.950	NA
Ethane	NA	0.00098	0.00496	0.0497	0.497	24.975
Ethene	NA	0.00099	0.00499	0.0500	0.500	24.875
Propane	NA	0.00100	0.00503	0.0504	0.504	19.900
Acetylene	NA	0.00099	0.00500	0.0501	0.501	NA
iso-Btuane	NA	0.00099	0.00499	0.0500	0.500	NA
n-Butane	NA	0.00099	0.00499	0.0500	0.500	9.990
neo-Pentane	NA	0.00100	0.00504	0.0505	0.505	NA
iso-Pentane	NA	0.00100	0.00504	0.0505	0.505	4.950
n-Pentane	NA	0.00100	0.00504	0.0505	0.505	9.990
Hexane	NA	0.00050	0.00251	0.0251	0.251	NA
C6-C7	NA	NA	0.00512	0.0512	0.512	NA

@Air Toxics Ltd. GC-9 **Logbook #: 1969**

Method: ASTM 1945/1946 **Leak Test :** ej

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9043001	System Blank	14014	NA	1.0 mL	1.00	4/30/10	0918	ej	
2	✓	02	1830-35	34368					0954		Level 1
3	✓	03	-34	13671					1017		2
4	✓	04	-33	4267					1042		3
5	✓	05	1544-365 B Ngas	34219		(10:100) 1.0 mL			1113		4
6	✓	06	↓	|	↓	1.0 mL			1137		5
7	X	07	843-2965	NA	CH4 99.0%	(25:50) 1.0 mL			1234		Not used, Bad STD
8	✓	08	1476-910		Pentane 99.9%	(10:100) 1.0 mL			1354		Level 6
9	✓	09	1476-438		Ethane 99.9%	(12.5:50) 1.0 mL			1428	↓	6
10	✓	10	1476-437		~~Propane~~ Ethane 99.5%	↓			1502	ej	6
11	✓	11	843-471		Propane 99.5%	(10:50) 1.0 mL			1529		6
12	✓	12	1476-897		Butane 99.9%	(5:50) 1.0 mL			1555		6
13	X	13	843-2965		Methane 99%	(25:50) 1.0 mL			1646		Not used, Bad STD
14	X	14	843-2965		↓	1.0 mL			1719		↓
15	✓	15	1476-898	↓	Isopentane 99%	(5:100) 1.0 mL	↓	↓	1755	↓	Level-6

Calculation Check: File ID: 9043006C Compound: Propane Initials: gmw

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(\ 2278\,49119\ )}{(\ 46221087)}$ × (1.00) = 0.493 ✓

Reported Result: 0.493 ✓

gmw
Signed

5/3/10
Date

@Air Toxics Ltd. GC-9 **Logbook #: 1969**

Method: ASTM 1945/1946 **Leak Test :** gd

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	90430 16	1476 - 1477 N2/O2	NA	NA	1.0 ml	1.00	4/30/10	1826	gd	LCS
2	✓	17	1476 - 977 H_2	↓					1916		CCV
3	✓	18	N_2 Lab Blank	33868					1942		
4	✓	19	He Lab Blank	14014					2004		
5	✓	20	100 4650 -01A	Bag	11 00406 203 DIV then OX				2028		↑ Isobutane
6	X	21	-01A	↓	↓				2054		carryover
7	X	22	He System Blank	14014	NA				2116		
8	✓	23	↓	14014	↓	↓			2141		
9	✓	24	100 4650 - 01B	Bag	11 00406 203 DIV then OX	5:50 1.0 ml	10.0		2203		Isobutane only
10	✓	25	He System Blank	14014 4/30/10	NA	1.0 ml			2227		
11	✓	26	100 4650 -02A	Bag	11 00406 423 DIV then OX				2256		↑ Isobutane
12	✓	27	He System Blank	14014	NA	↓			2318		
13	✓	28	100 4650 - 02B	Bag	11 00406 423 DIV Then OX	(10:60) 1.0 ml	60.0	↓	2341	↓	Isobutane only
14	✓	29	100 4634 B -01AA		# Residence south outdoor	1.0 ml		5/01/10	0005	lg	
15	✓	30	-01A		↓	↓	↓	↓	0734	↓	

Calculation Check: File ID: 90430116C Compound: Pentane Initials: gm

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(384483557)}{(768282569)}$ × (1.00) = **0.500 %**

Reported Result: **0.500 %**

gm 5/3/10

Signed Date

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043016.d
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Inj Date : 30-APR-2010 18:26
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 12:03 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:37 Cal File: 9043006a.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
	2 Methane	3.537	3.536	0.001	1535970513	9.27712	9.28
	3 ethane	3.688	3.688	0.000	151041695	0.49590	0.496
	4 ethene	3.833	3.833	0.000	149589597	0.50042	0.500
	5 propane	4.267	4.267	0.000	225369165	0.48759	0.488
	7 acetylene	5.789	5.792	-0.003	194864021	0.52150	0.522(A)
	8 iso-butane	6.049	6.049	0.000	302158117	0.49651	0.496
	10 n-butane	6.342	6.342	0.000	296019102	0.47177	0.472
	15 neo-pentane	8.310	8.309	0.001	406364666	0.50222	0.502
	16 isopentane	8.755	8.754	0.001	383359393	0.51354	0.514
	17 pentane	8.983	8.981	0.002	384483557	0.49733	0.497
M	37 C6+ Hydrocarbons				524049634	0.51322	0.513
S	22 c6-c7	9.250-17.250			522490758	0.51169	0.512
S	36 c8+	0.700-3.000			1558876	0.00153	0.00153

QC Flag Legend

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

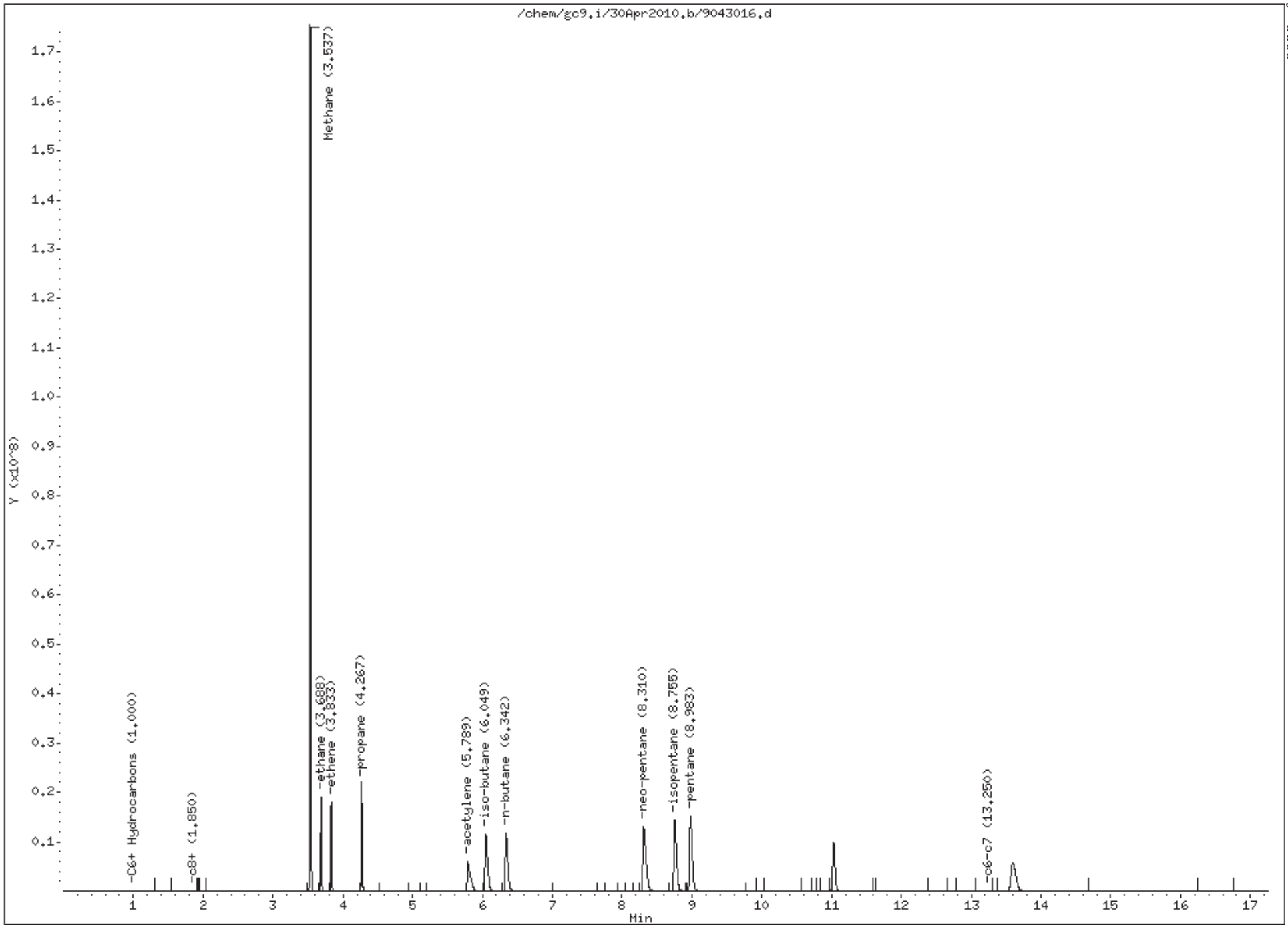
Report Date: 03-May-2010 12:04

Air Toxics Ltd.

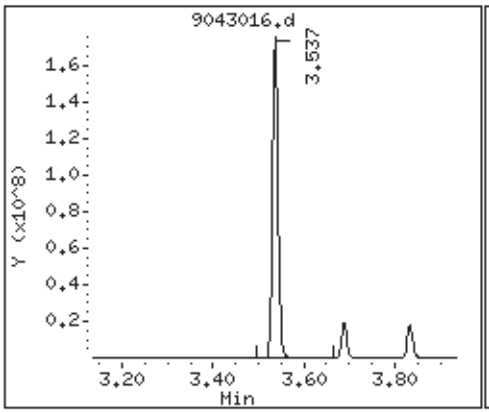
RECOVERY REPORT

Client Name: Client SDG: 30Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas.sub
Method File: /chem/gc9.i/30Apr2010.b/910n0430.m
Misc Info: LCS

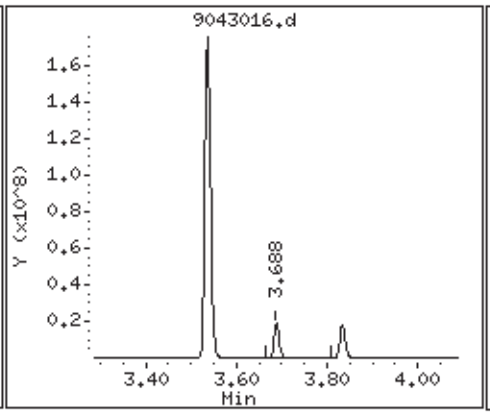
SPIKE		COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
	2	Methane	9.99	9.28	92.86	85-115
	3	ethane	0.498	0.496	99.58	85-115
	4	ethene	0.500	0.500	100.08	85-115
	5	propane	0.499	0.488	97.71	85-115
	7	acetylene	0.500	0.522	104.30	85-115
	8	iso-butane	0.500	0.496	99.30	85-115
	10	n-butane	0.498	0.472	94.73	85-115
	15	neo-pentane	0.510	0.502	98.47	85-115
	16	isopentane	0.505	0.514	101.69	85-115
	17	pentane	0.503	0.497	98.87	85-115
M	37	C6+ Hydrocarbons	0.516	0.513	99.46	85-115


/chem/gc9.i/30Apr2010.b/9043016.d
Y (x10^8)
Min
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
Methane (3.537)
-ethane (3.688)
-ethene (3.833)
-propane (4.267)
-acetylene (5.789)
-iso-butane (6.049)
-n-butane (6.342)
-neo-pentane (8.310)
-isopentane (8.755)
-pentane (8.983)
-c6-c7 (13.250)

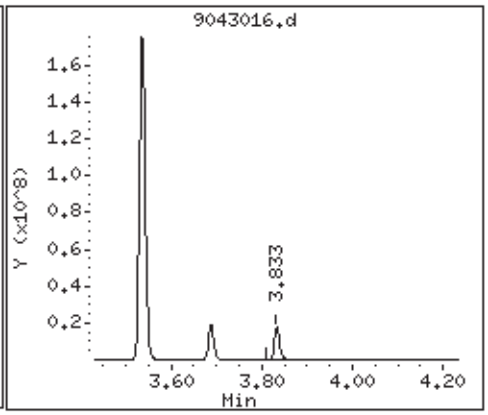
2 Methane



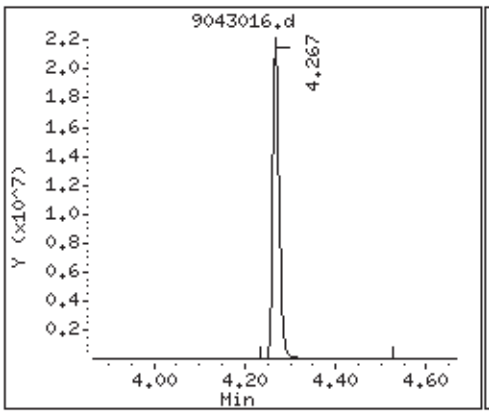
3 ethane



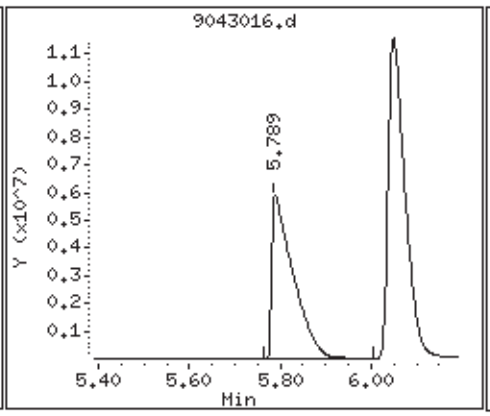
4 ethene



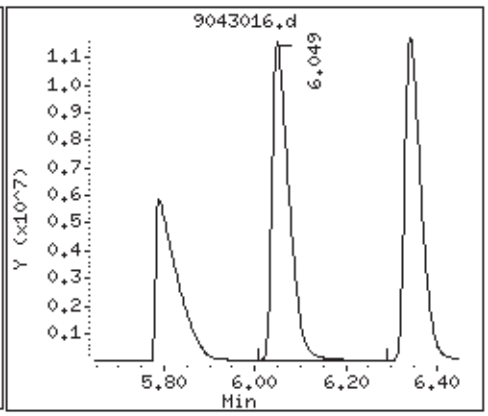
5 propane



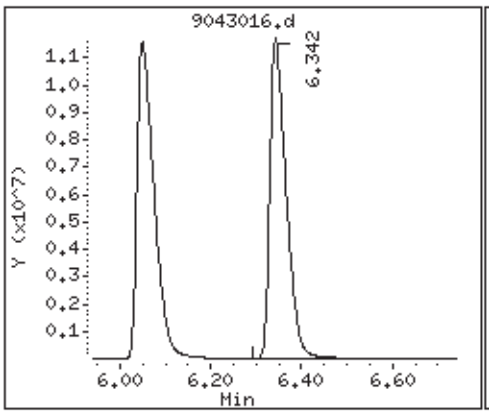
7 acetylene



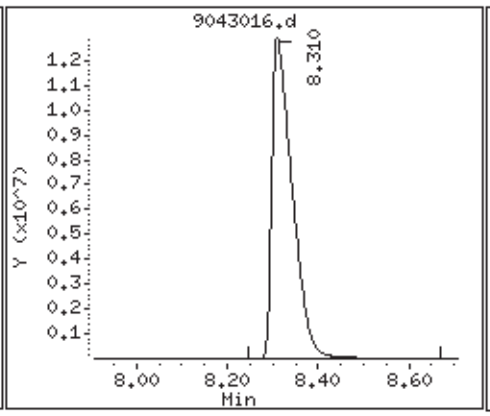
8 iso-butane



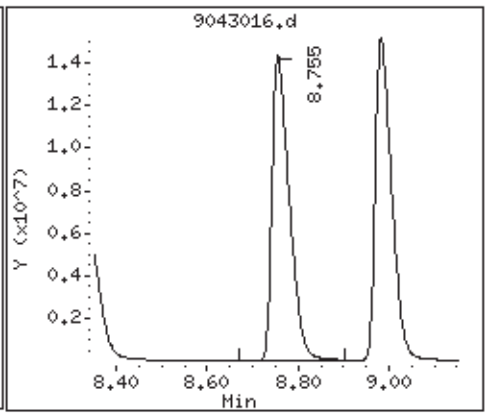
10 n-butane



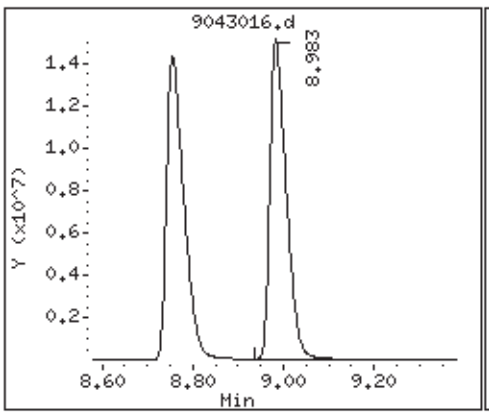
15 neo-pentane



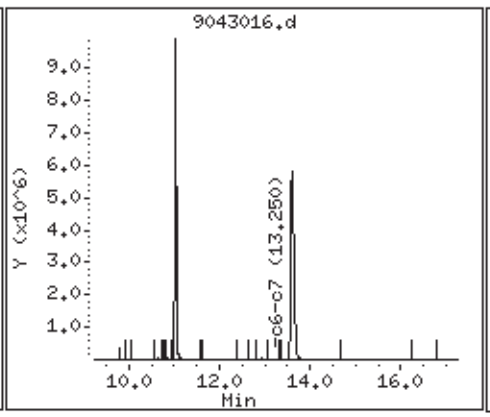
16 isopentane



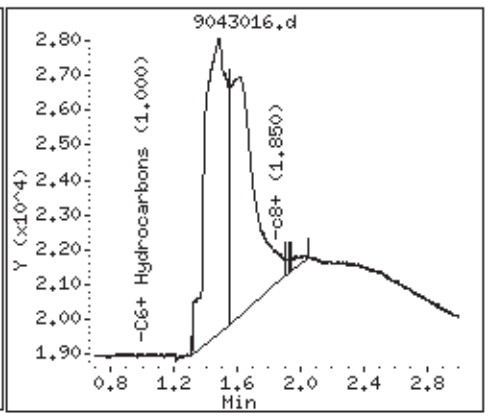
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043016a.d
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Inj Date : 30-APR-2010 18:26
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 12:06 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:37 Cal File: 9043006a.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: HexHep.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
39 Hexane	11.029	11.098	-0.069	236087796	0.25468	0.255(A)
40 Heptane	13.598	13.593	0.005	282444526	0.26247	0.262(A)

QC Flag Legend

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

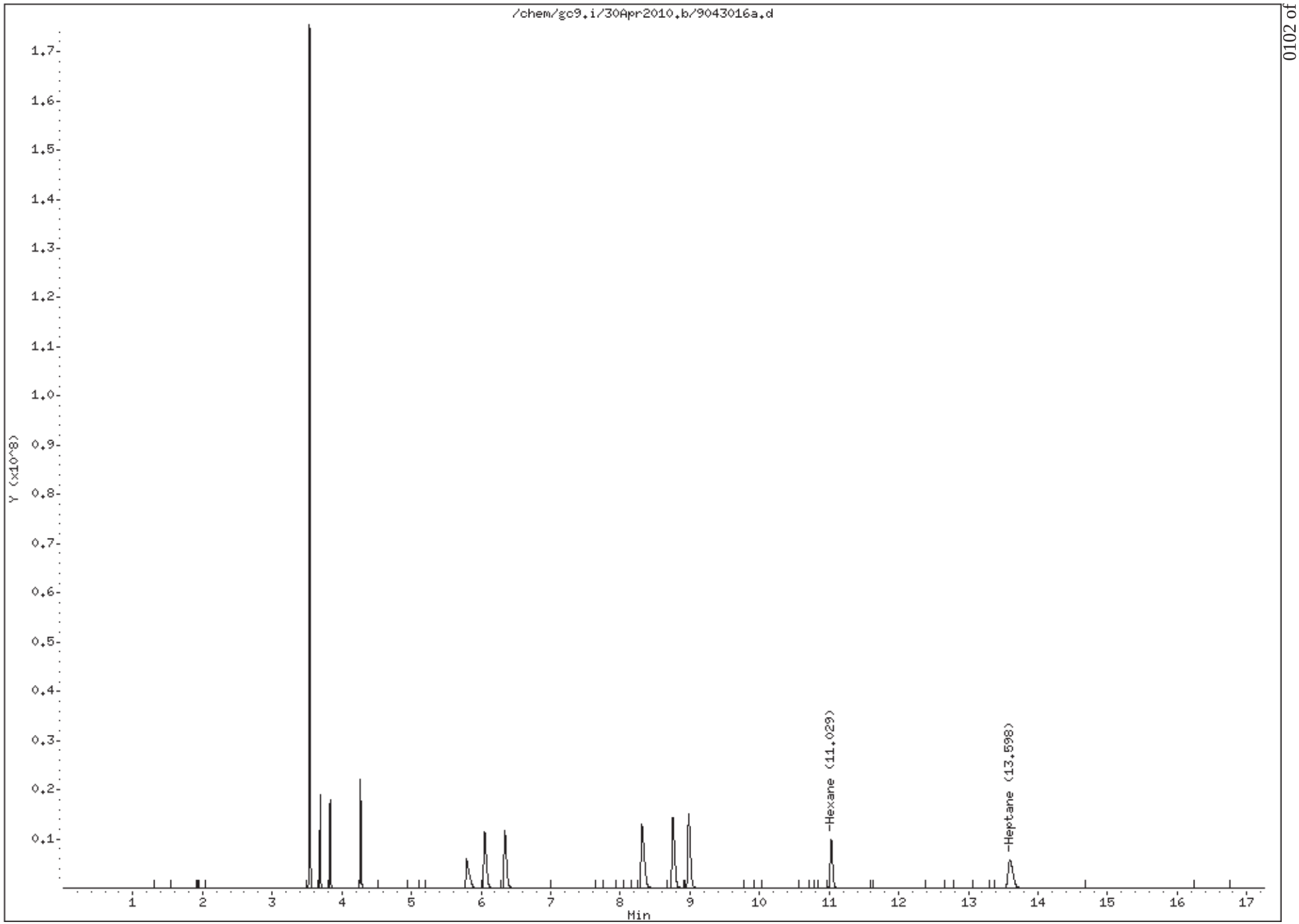
Report Date: 03-May-2010 12:06

Air Toxics Ltd.

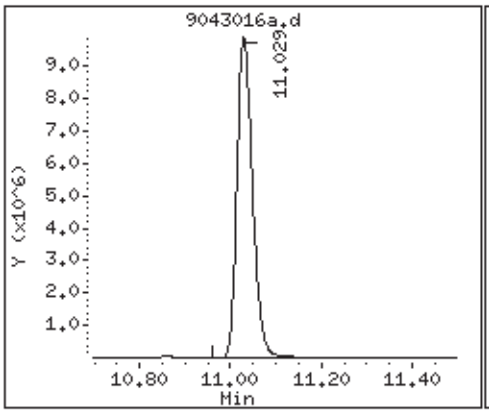
RECOVERY REPORT

Client Name: Client SDG: 30Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: HexHep.spk Quant Type: ESTD
Sublist File: HexHep.sub
Method File: /chem/gc9.i/30Apr2010.b/910n0430.m
Misc Info: LCS

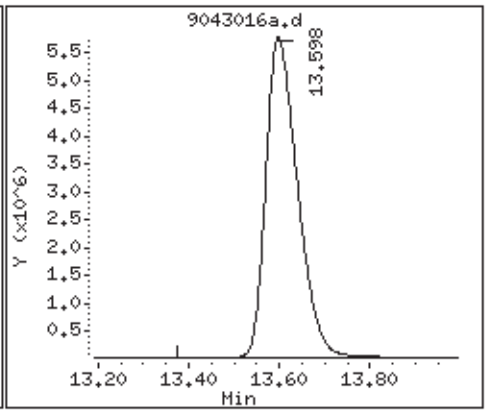
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
39 Hexane	0.257	0.255	99.10	85-115
40 Heptane	0.259	0.262	101.34	85-115


/chem/gc9.i/30Apr2010.b/9043016a.d
Y (x10^8)
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min
-Hexane (11.029)
-Heptane (13.598)

39 Hexane



40 Heptane



Air Toxics Ltd.

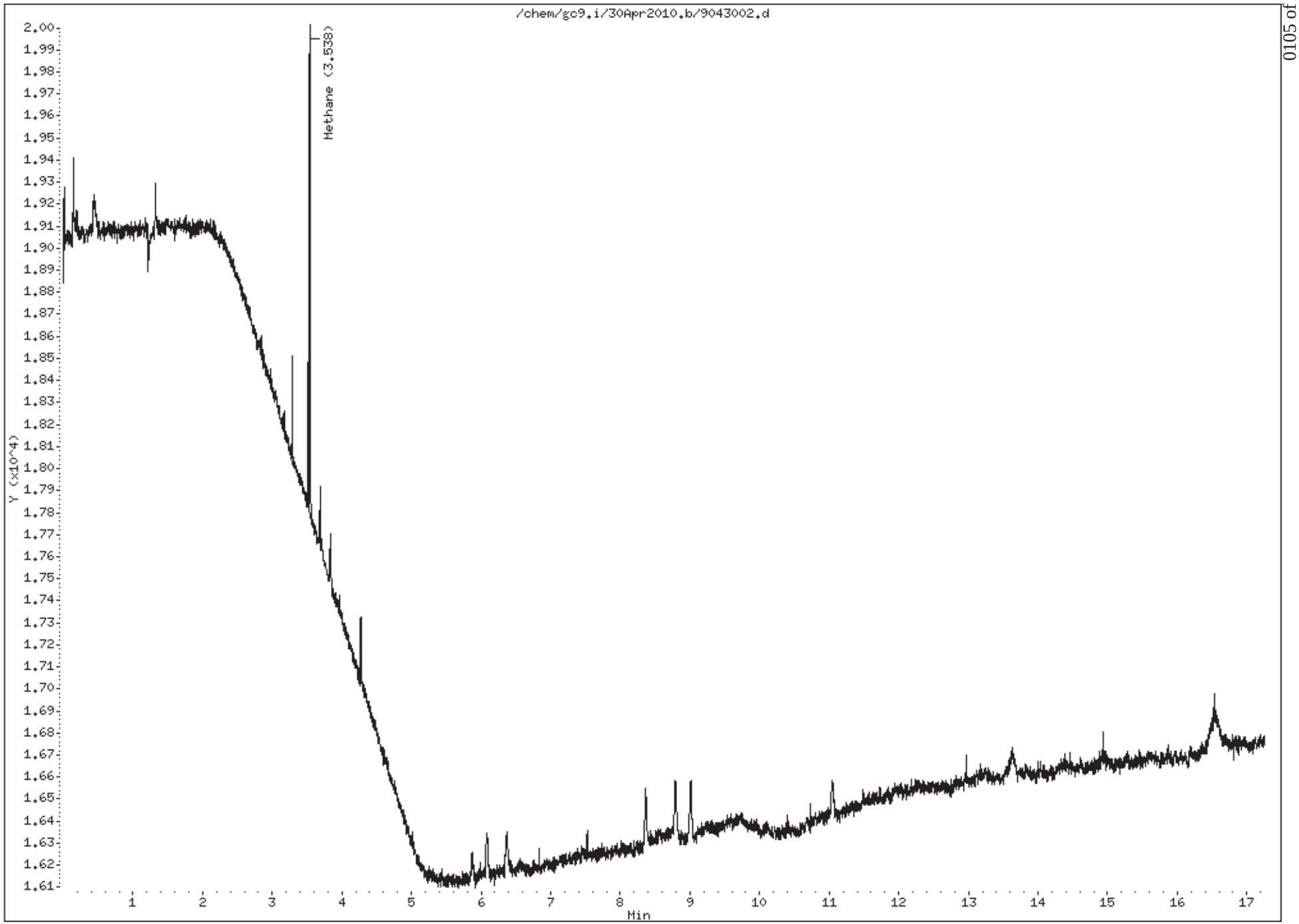
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043002.d
Lab Smp Id: 1830-35 Client Smp ID: Level-1:
Inj Date : 30-APR-2010 09:54
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34368
Misc Info : CH4
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 09:54 Cal File: 9043002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ch4.sub
Target Version: 3.50
Processing Host: eeyore

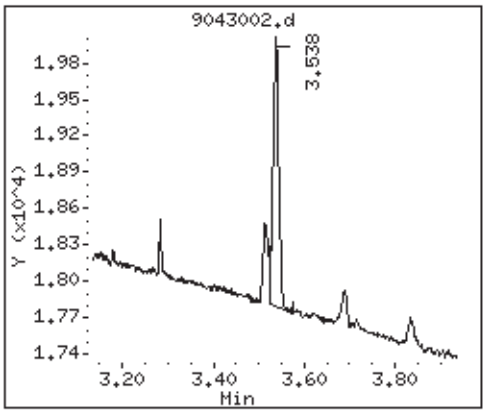
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Methane	3.538	3.536	0.002	20208	0.00010	0.000100


/chem/gc9.i/30Apr2010.b/9043002.d
Methane (3.538)
Y (x10^4)
2.00
1.99
1.98
1.97
1.96
1.95
1.94
1.93
1.92
1.91
1.90
1.89
1.88
1.87
1.86
1.85
1.84
1.83
1.82
1.81
1.80
1.79
1.78
1.77
1.76
1.75
1.74
1.73
1.72
1.71
1.70
1.69
1.68
1.67
1.66
1.65
1.64
1.63
1.62
1.61
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

2 Methane


9043002.d
3.538
1.98
1.95
1.92
1.89
1.86
1.83
1.80
1.77
1.74
Y (x10^4)
3.20
3.40
3.60
3.80
Min

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043003a.d
Lab Smp Id: 1830-34 Client Smp ID: Level-2:
Inj Date : 30-APR-2010 10:17
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,13671
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:43 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 10:17 Cal File: 9043003a.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: HexHep.sub
Target Version: 3.50
Processing Host: eeyore

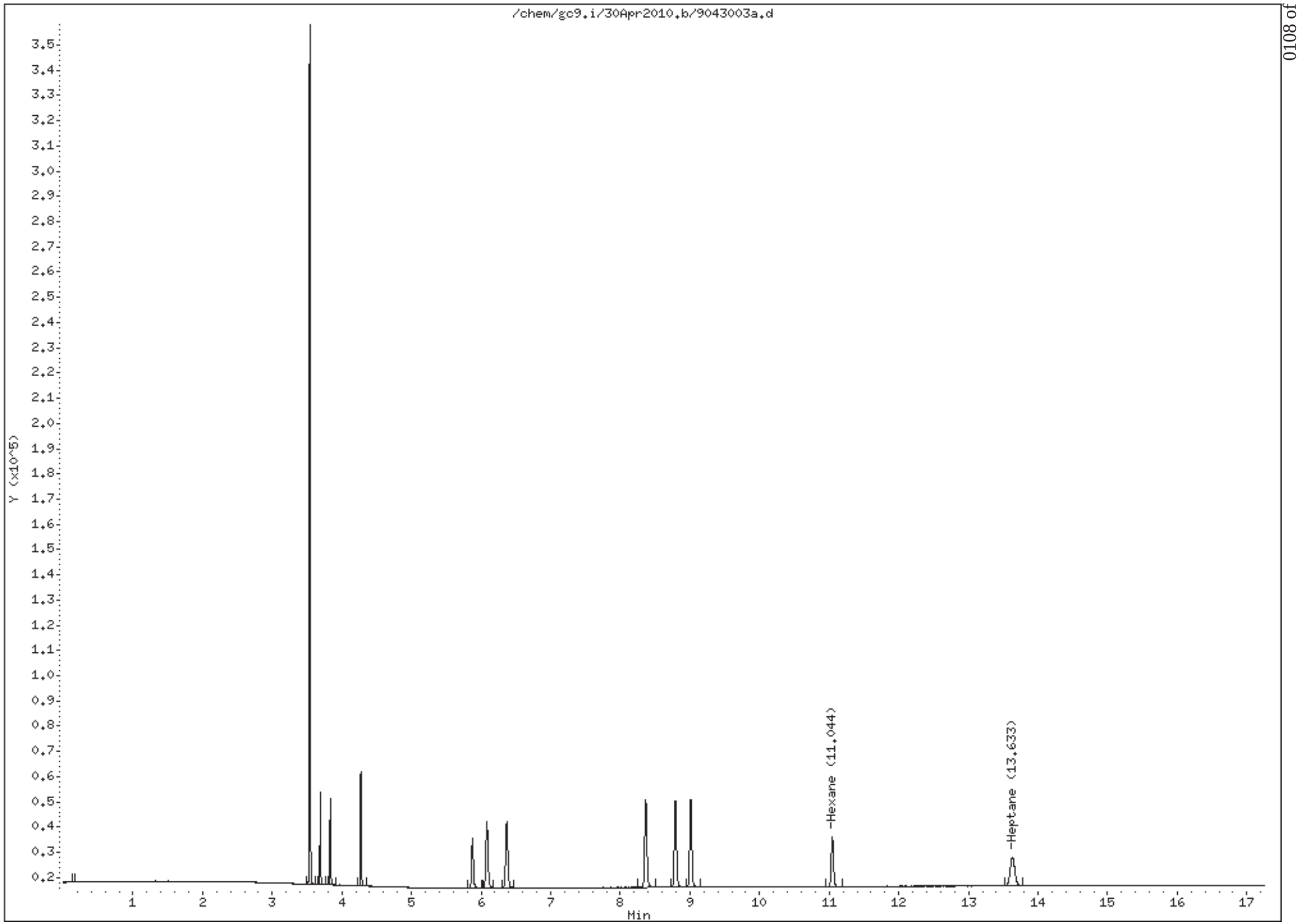
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

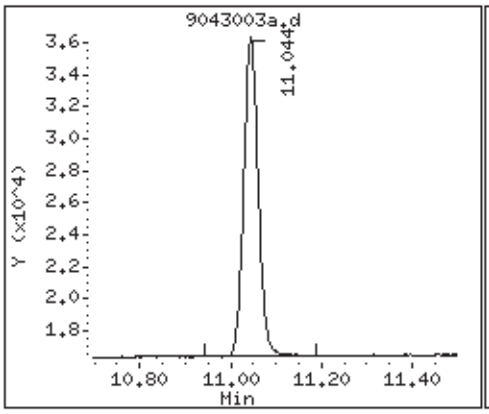
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
39 Hexane	11.044	11.098	-0.054	450644	0.00050	0.000486(a)
40 Heptane	13.633	13.593	0.040	534811	0.00052	0.000497(a)

QC Flag Legend

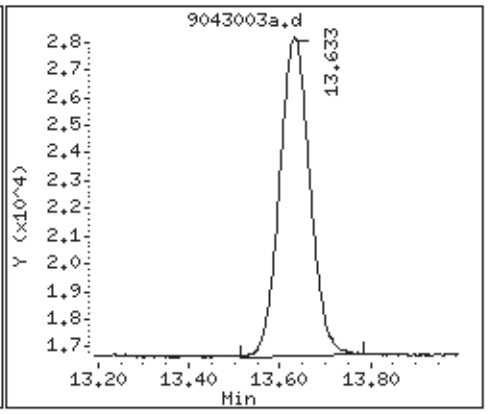
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


/chem/gc9.i/30Apr2010.b/9043003a.d
Y (x10^5)
Min
-Hexane (11.044)
-Heptane (13.633)

39 Hexane



40 Heptane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043003.d
Lab Smp Id: 1830-34 Client Smp ID: Level-2:
Inj Date : 30-APR-2010 10:17
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,13671
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 10:17 Cal File: 9043003.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

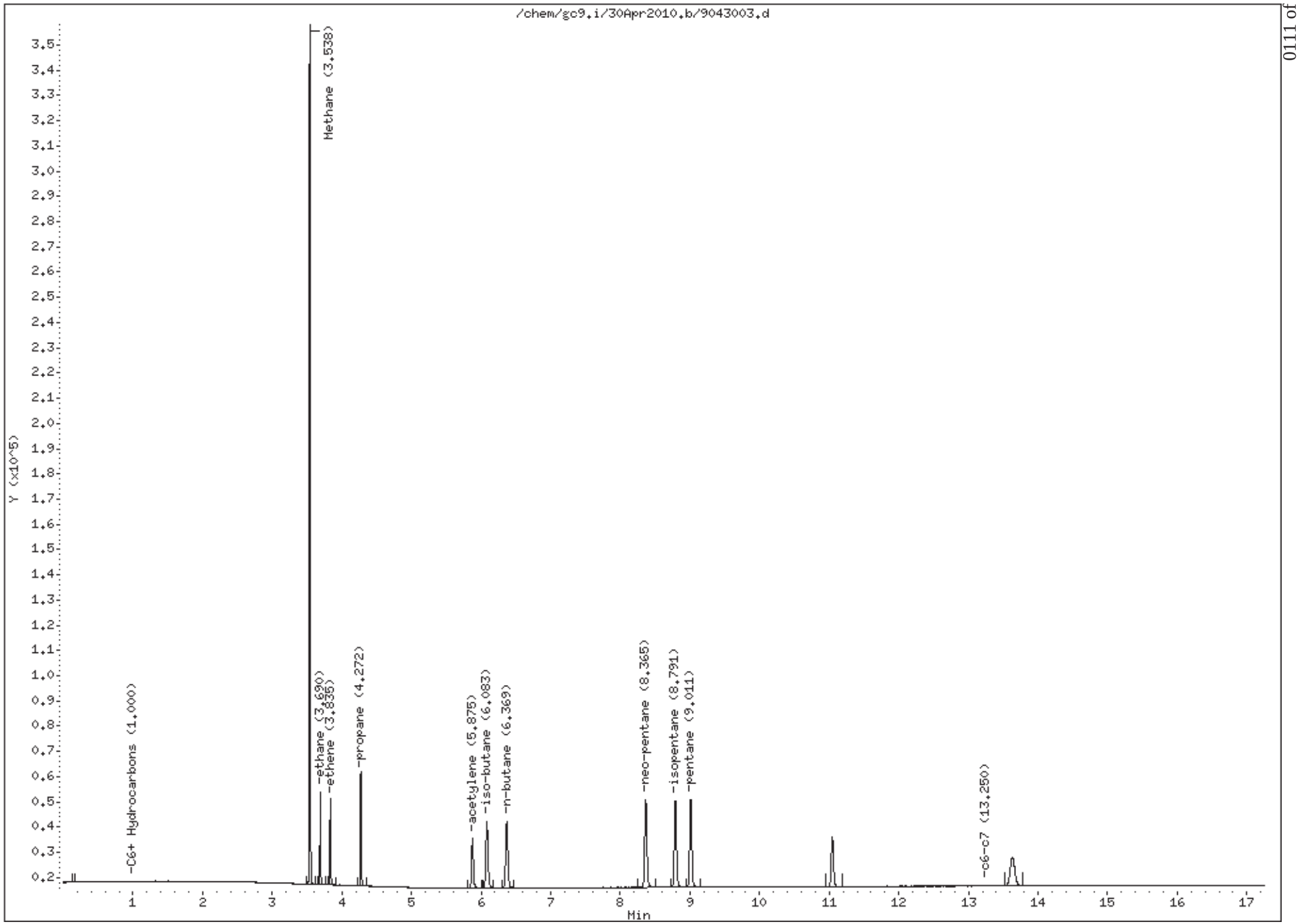
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

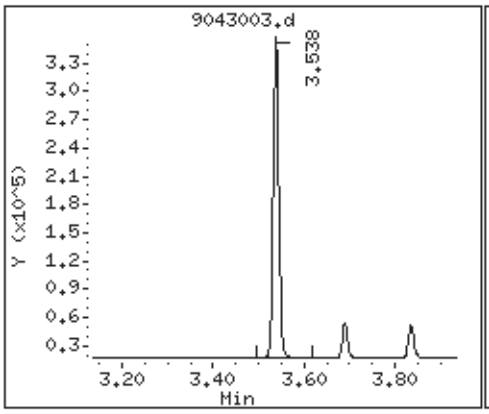
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Methane	3.538	3.536	0.002	3028605	0.01970	0.0170
3 ethane	3.690	3.688	0.002	292701	0.00098	0.000980(a)
4 ethene	3.835	3.833	0.002	291143	0.00099	0.000990(a)
5 propane	4.272	4.267	0.005	444823	0.00100	0.00100
7 acetylene	5.875	5.792	0.083	356261	0.00099	0.000990(a)
8 iso-butane	6.083	6.049	0.034	580874	0.00099	0.000990(a)
10 n-butane	6.369	6.342	0.027	583891	0.00099	0.000990(a)
15 neo-pentane	8.365	8.309	0.056	784290	0.00100	0.00100
16 isopentane	8.791	8.754	0.037	746938	0.00100	0.00100
17 pentane	9.011	8.981	0.030	752239	0.00100	0.00100
S 36 c8+	Compound Not Detected.					

QC Flag Legend

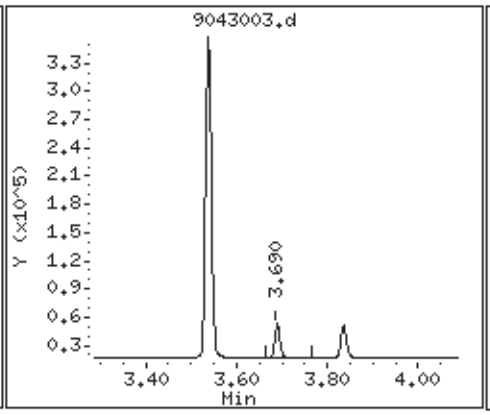
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


/chem/gc9.i/30Apr2010.b/9043003.d
Y (x10^5)
Min
-C6+ Hydrocarbons (1.000)
-ethane (3.690)
-etheme (3.835)
Methane (3.538)
-propane (4.272)
-acetylene (5.875)
-iso-butane (6.083)
-n-butane (6.369)
-neo-pentane (8.365)
-isopentane (8.791)
-pentane (9.011)
-c6-c7 (13.250)

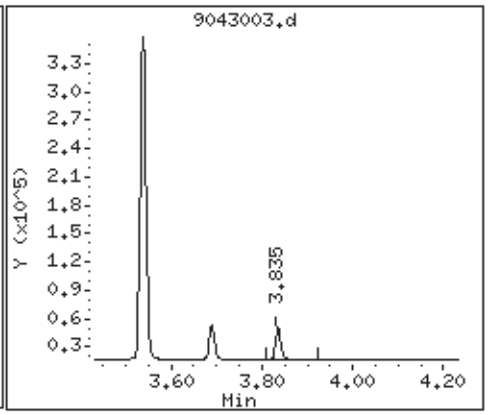
2 Methane



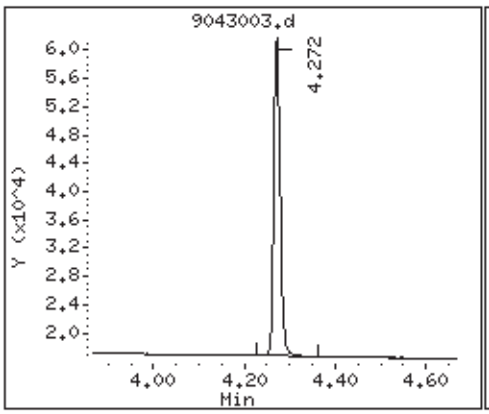
3 ethane



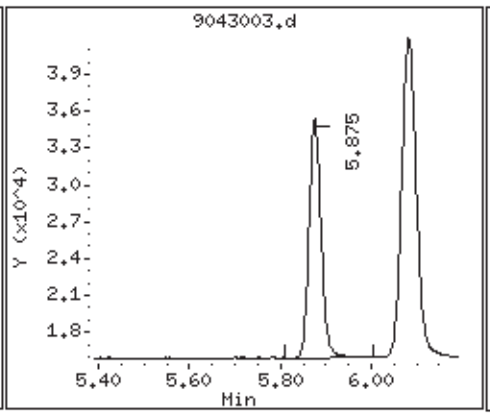
4 ethene



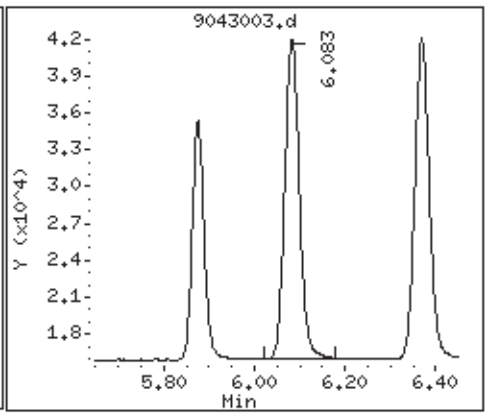
5 propane



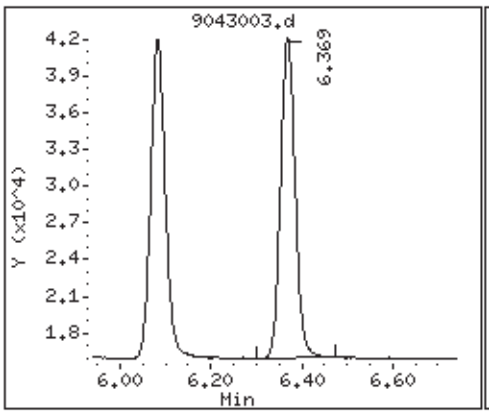
7 acetylene



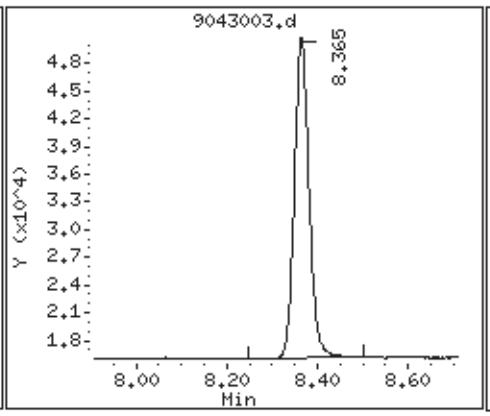
8 iso-butane



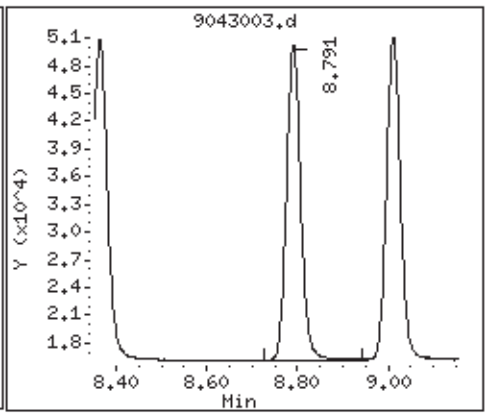
10 n-butane



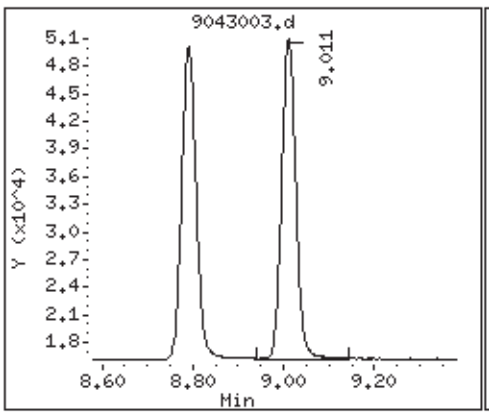
15 neo-pentane



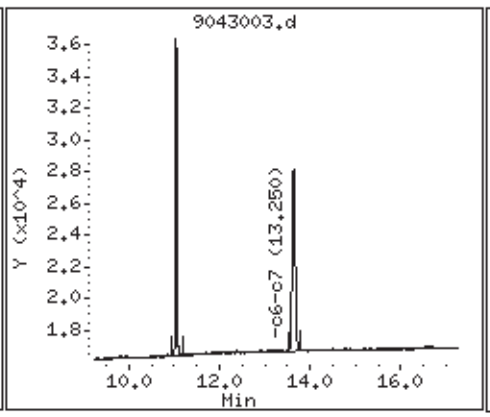
16 isopentane



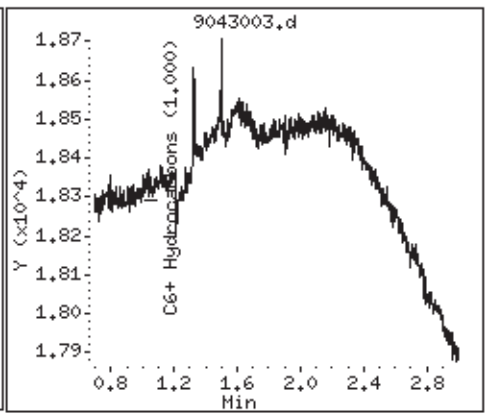
17 pentane



S 22 c6-c7



S 36 c8+ (Undetected)



Air Toxics Ltd.

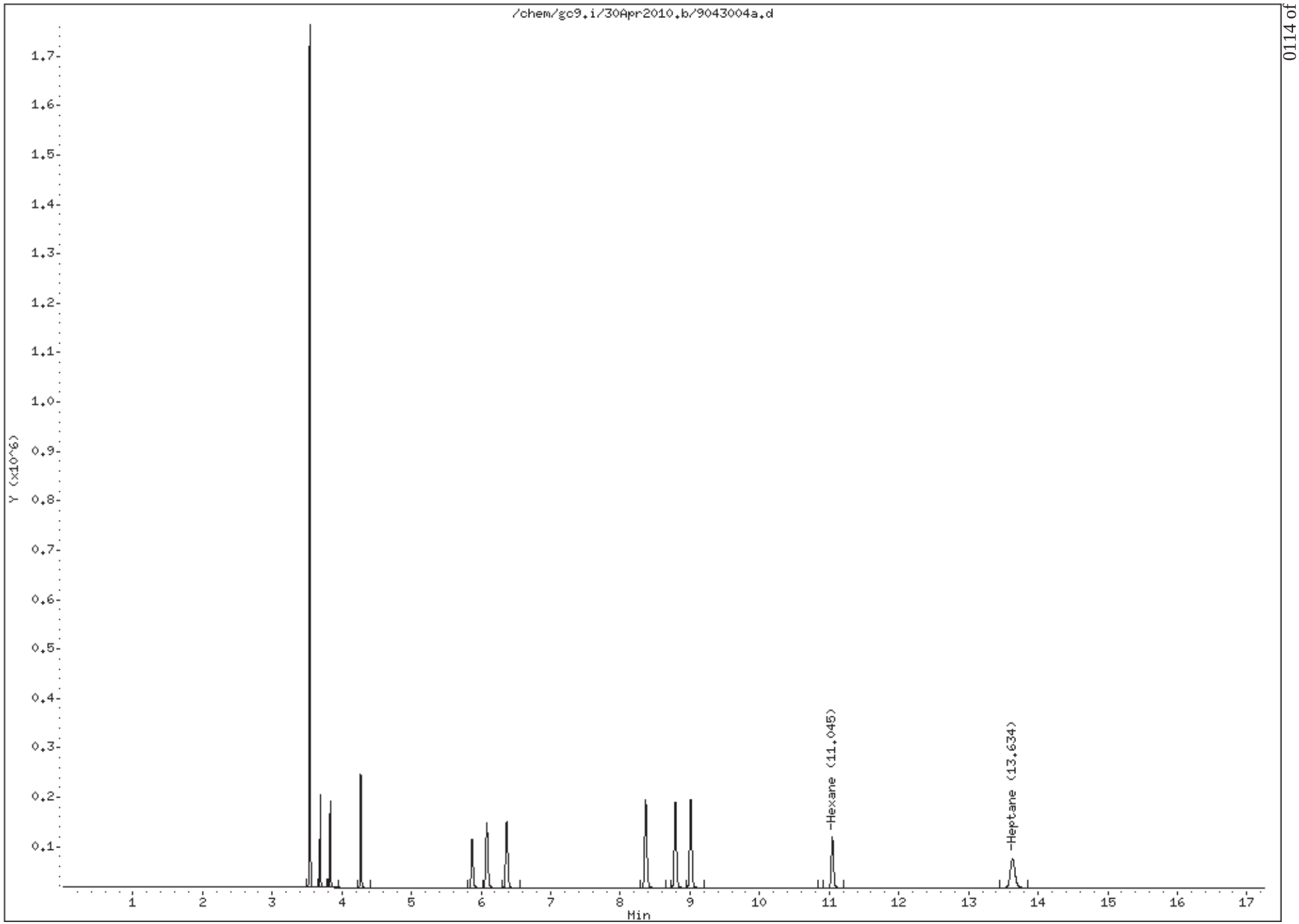
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043004a.d
Lab Smp Id: 1830-33 Client Smp ID: Level-3:
Inj Date : 30-APR-2010 10:42
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,4267
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:43 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 10:42 Cal File: 9043004a.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: HexHep.sub
Target Version: 3.50
Processing Host: eeyore

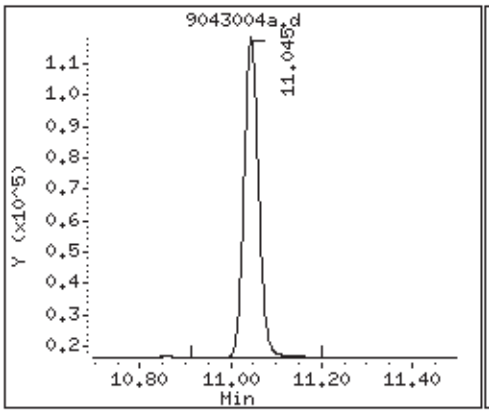
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

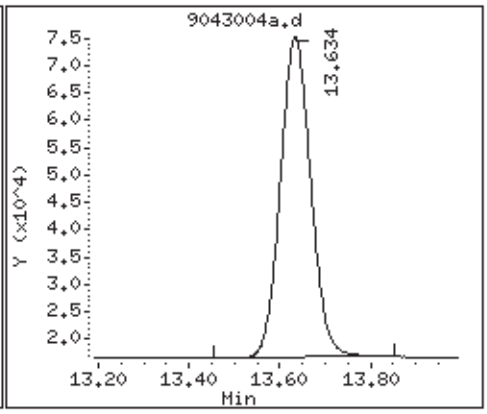
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
39 Hexane	11.045	11.098	-0.053	2292189	0.00251	0.00247
40 Heptane	13.634	13.593	0.041	2735957	0.00261	0.00254


/chem/gc9.i/30Apr2010.b/9043004a.d
Y (x10^6)
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min
-Hexane (11.045)
-Heptane (13.634)

39 Hexane



40 Heptane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043004.d
Lab Smp Id: 1830-33 Client Smp ID: Level-3:
Inj Date : 30-APR-2010 10:42
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,4267
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 10:42 Cal File: 9043004.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

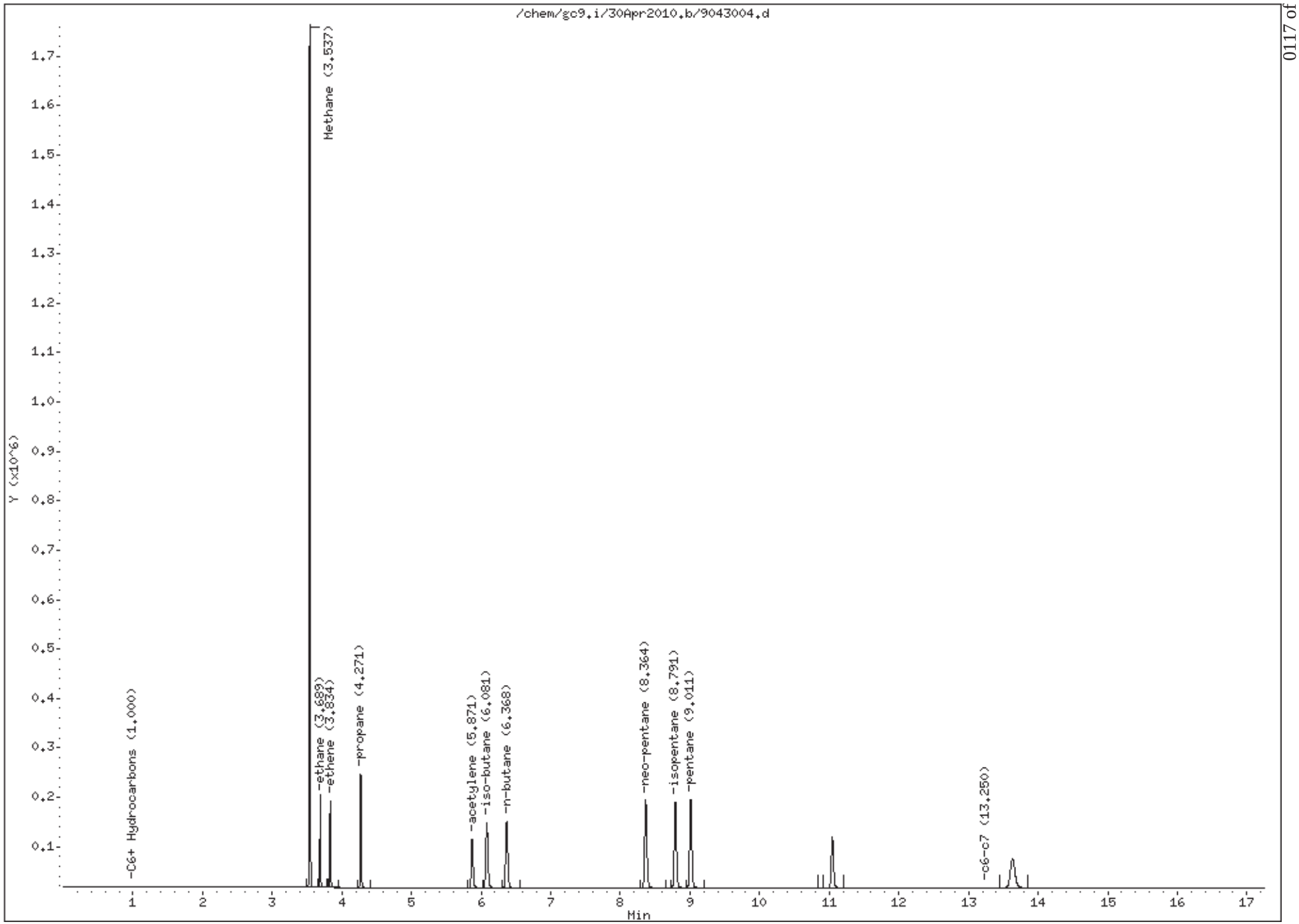
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

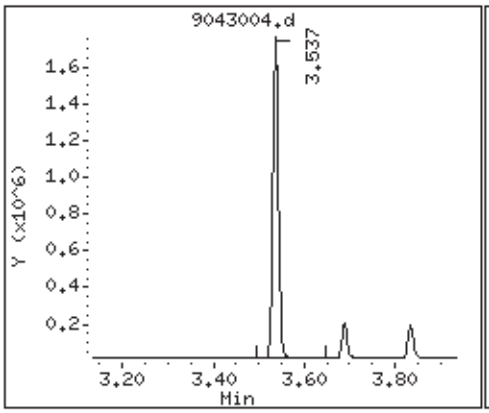
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
	2 Methane	3.537	3.536	0.001	15407518	0.09935	0.0905
	3 ethane	3.689	3.688	0.001	1488950	0.00496	0.00497
	4 ethene	3.834	3.833	0.001	1475897	0.00499	0.00500
	5 propane	4.271	4.267	0.004	2280848	0.00503	0.00508
	7 acetylene	5.871	5.792	0.079	1838188	0.00500	0.00505
	8 iso-butane	6.081	6.049	0.032	3007973	0.00499	0.00506
	10 n-butane	6.368	6.342	0.026	3000901	0.00499	0.00504
	15 neo-pentane	8.364	8.309	0.055	4044165	0.00504	0.00510
	16 isopentane	8.791	8.754	0.037	3822852	0.00504	0.00508
	17 pentane	9.011	8.981	0.030	3854788	0.00504	0.00508
M	37 C6+ Hydrocarbons				5036810	0.00507	0.00512(a)
S	22 c6-c7	9.250-17.250			5036810	0.00512	0.00512
S	36 c8+	Compound Not Detected.					

QC Flag Legend

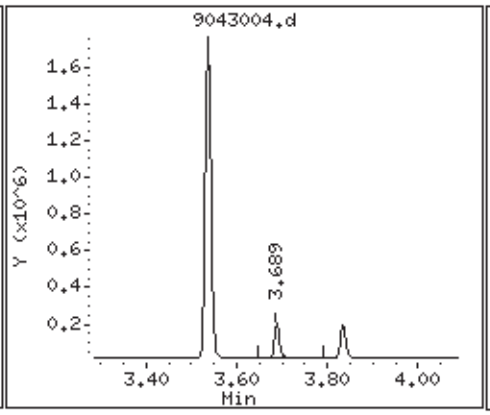
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


/chem/gc9.i/30Apr2010.b/9043004.d
Y (x10^6)
Min
-C6+ Hydrocarbons (1.000)
-ethane (3.689)
-ethene (3.834)
Methane (3.537)
-propane (4.271)
-acetylene (5.871)
-iso-butane (6.081)
-n-butane (6.368)
-neo-pentane (8.364)
-isopentane (8.791)
-pentane (9.011)
-c6-c7 (13.250)

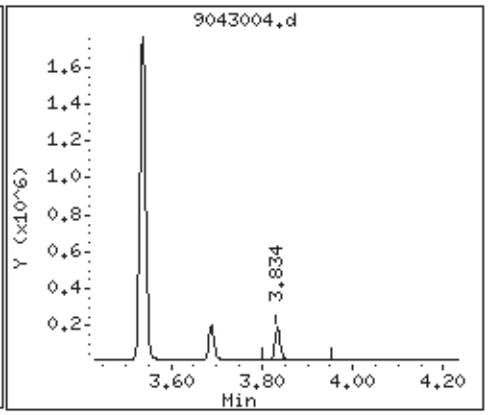
2 Methane



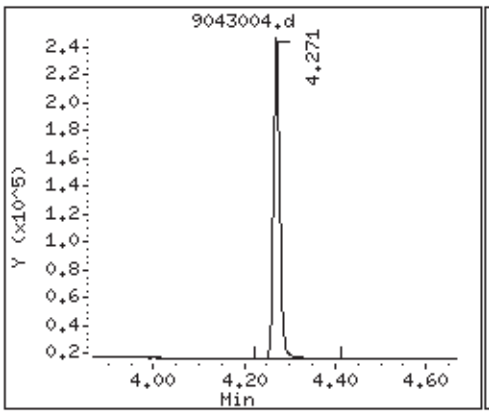
3 ethane



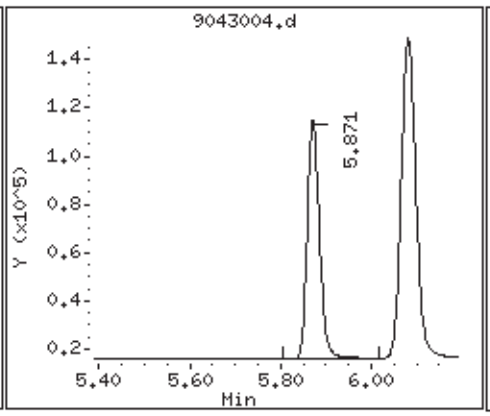
4 ethene



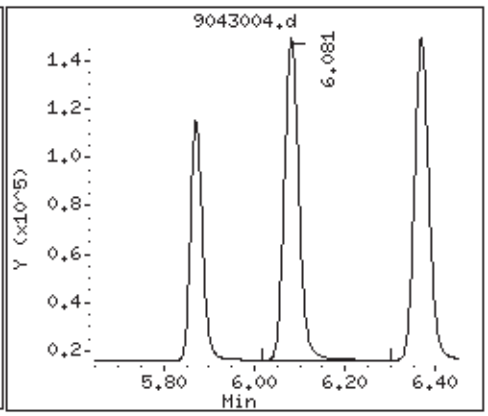
5 propane



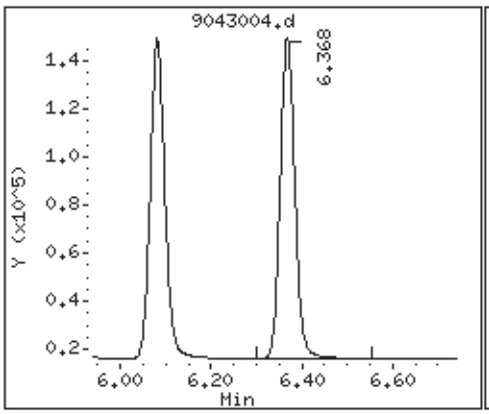
7 acetylene



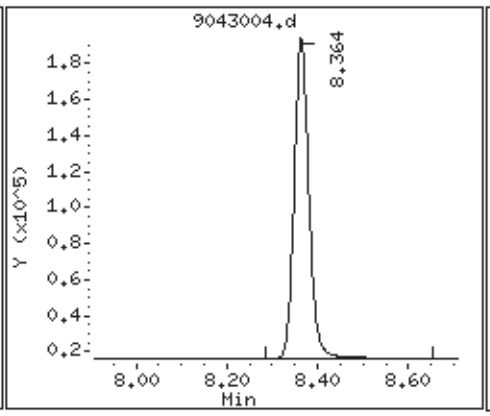
8 iso-butane



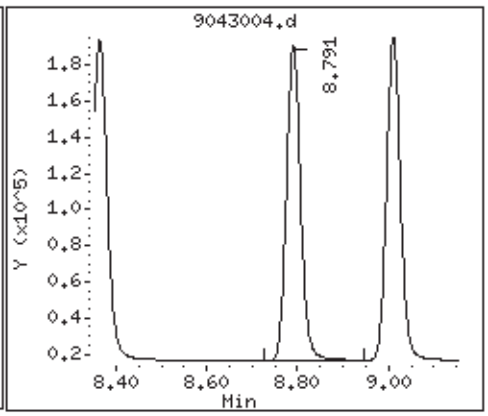
10 n-butane



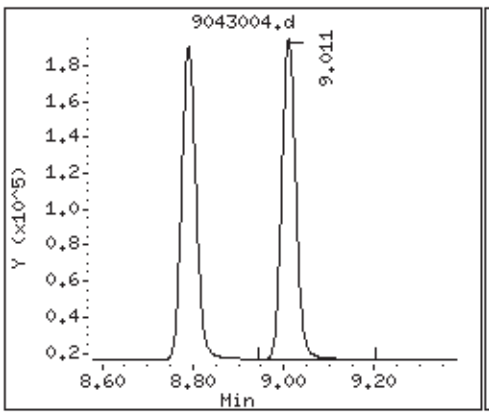
15 neo-pentane



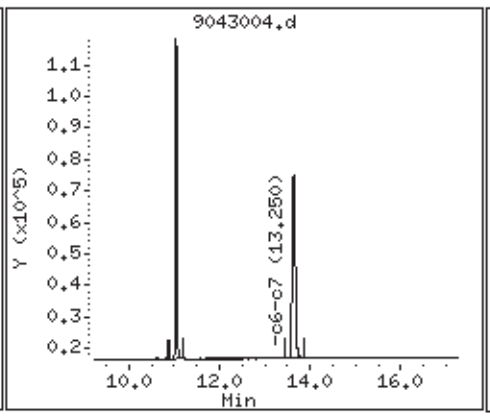
16 isopentane



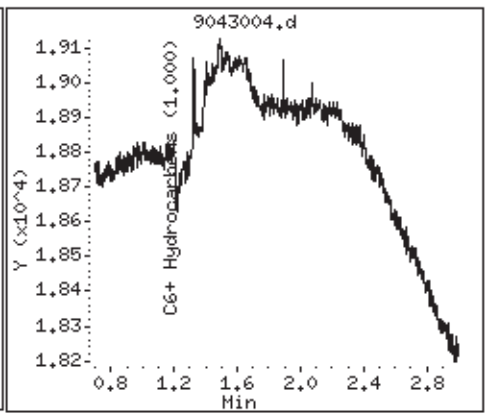
17 pentane



S 22 c6-c7



S 36 c8+ (Undetected)



Air Toxics Ltd.

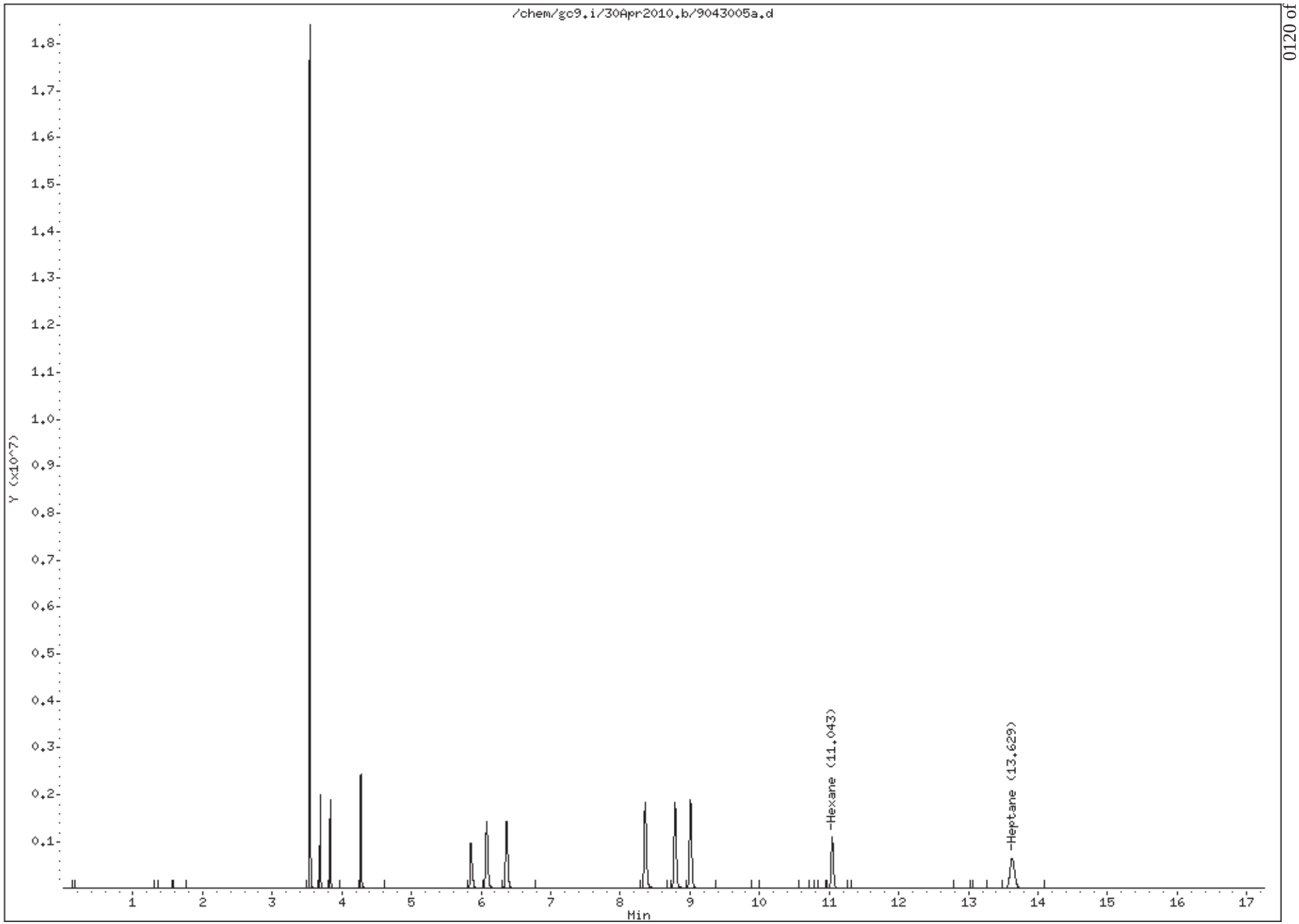
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043005a.d
Lab Smp Id: 1544-365B Client Smp ID: Level-4:
Inj Date : 30-APR-2010 11:13
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:43 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:13 Cal File: 9043005a.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: HexHep.sub
Target Version: 3.50
Processing Host: eeyore

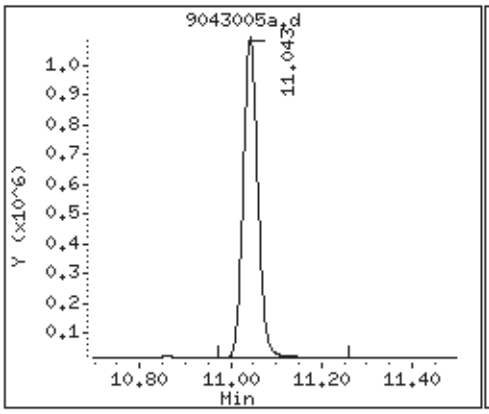
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

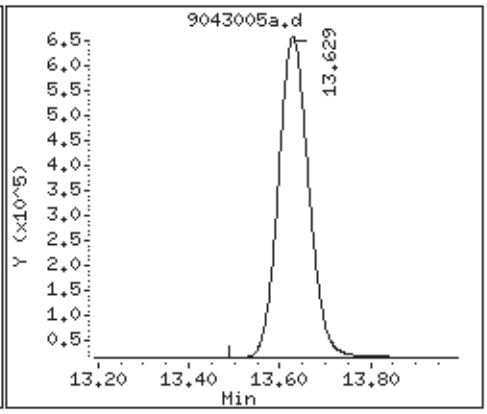
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
39 Hexane	11.043	11.098	-0.055	24408662	0.02510	0.0263
40 Heptane	13.629	13.593	0.036	29965543	0.02610	0.0278


/chem/gc9.i/30Apr2010.b/9043005a.d
Y (x10^7)
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min
-Hexane (11.043)
-Heptane (13.629)

39 Hexane



40 Heptane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043005.d
Lab Smp Id: 1544-365B Client Smp ID: Level-4:
Inj Date : 30-APR-2010 11:13
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:13 Cal File: 9043005.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

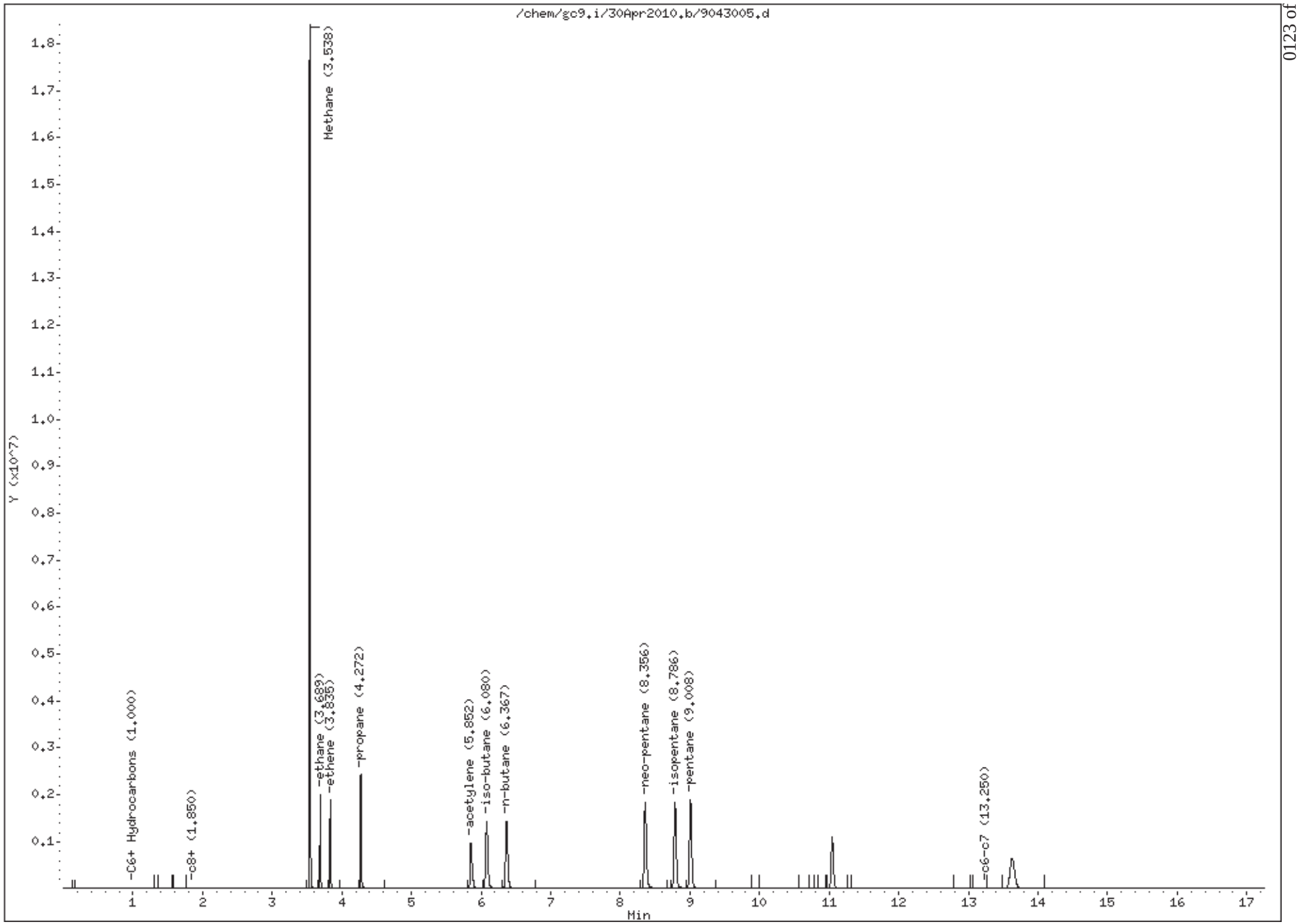
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

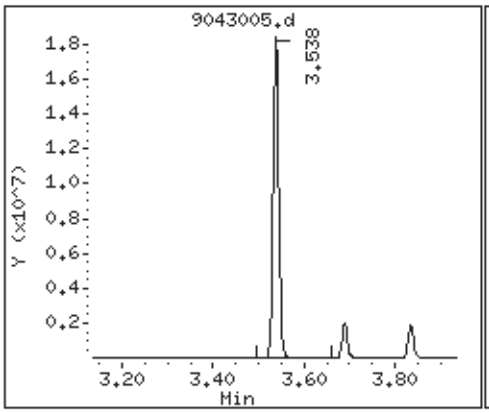
						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	==========	==	======	======	========	=======	=======
	2 Methane	3.538	3.536	0.002	163594632	0.99500	0.969
	3 ethane	3.689	3.688	0.001	15832365	0.04970	0.0518
	4 ethene	3.835	3.833	0.002	15729875	0.05000	0.0522
	5 propane	4.272	4.267	0.005	24288785	0.05040	0.0528
	7 acetylene	5.852	5.792	0.060	19760318	0.05010	0.0528
	8 iso-butane	6.080	6.049	0.031	32071068	0.05000	0.0525
	10 n-butane	6.367	6.342	0.025	32106795	0.05000	0.0525
	15 neo-pentane	8.356	8.309	0.047	42871836	0.05050	0.0528
	16 isopentane	8.786	8.754	0.032	40505905	0.05050	0.0527
	17 pentane	9.008	8.981	0.027	40923805	0.05050	0.0527
M	37 C6+ Hydrocarbons				55003418	0.50700	0.0533
S	22 c6-c7	9.250-17.250			54778043	0.05120	0.0533
S	36 c8+	0.700-3.000			225375	0.02000	(a)

QC Flag Legend

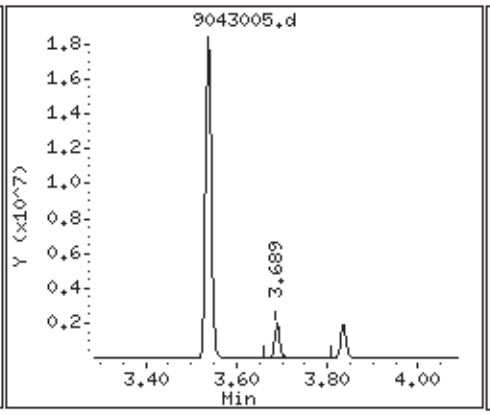
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


/chem/gc9.i/30Apr2010.b/9043005.d
Y (x10^7)
Min
Methane (3.538)
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
-ethane (3.689)
-etheme (3.835)
-propane (4.272)
-acetylene (5.852)
-iso-butane (6.080)
-n-butane (6.367)
-neo-pentane (8.356)
-isopentane (8.786)
-pentane (9.008)
=c6-c7 (13.250)

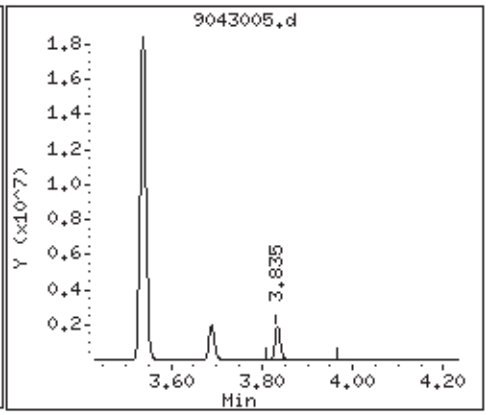
2 Methane



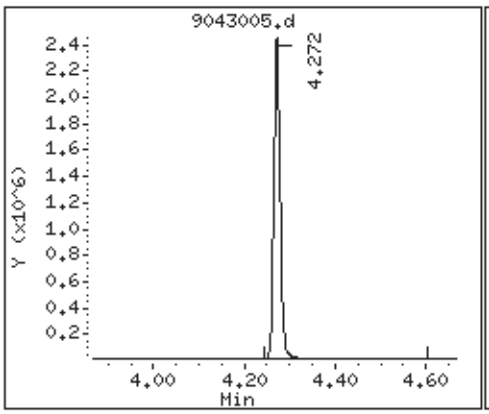
3 ethane



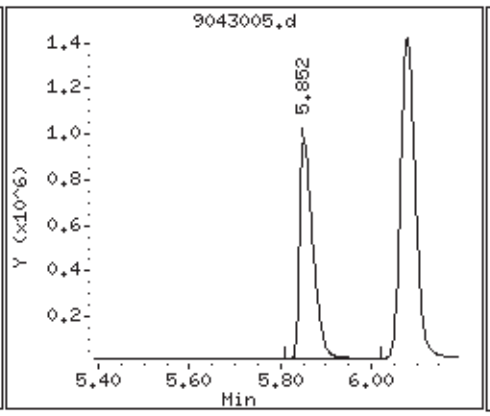
4 ethene



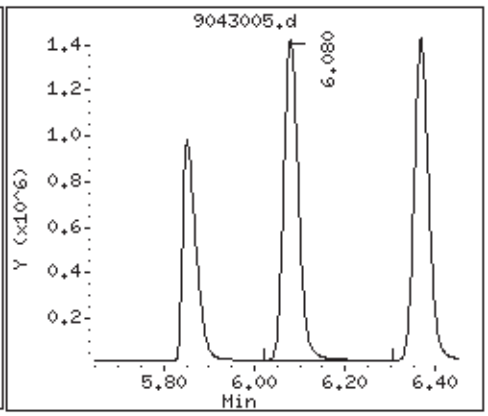
5 propane



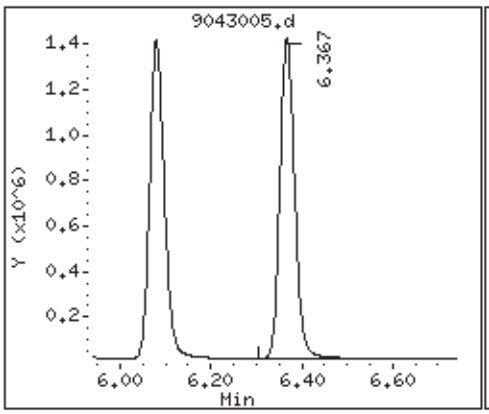
7 acetylene



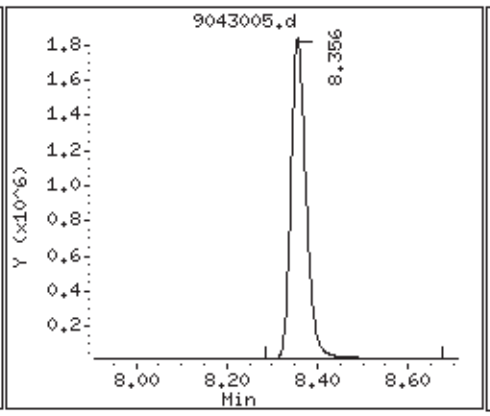
8 iso-butane



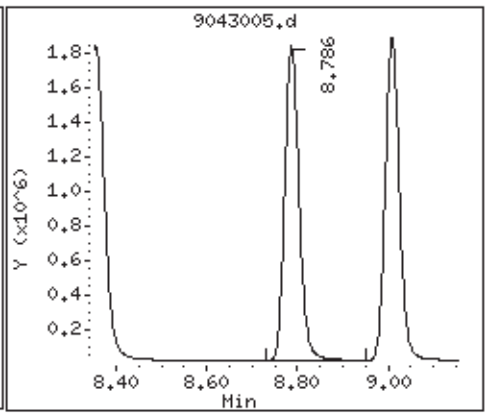
10 n-butane



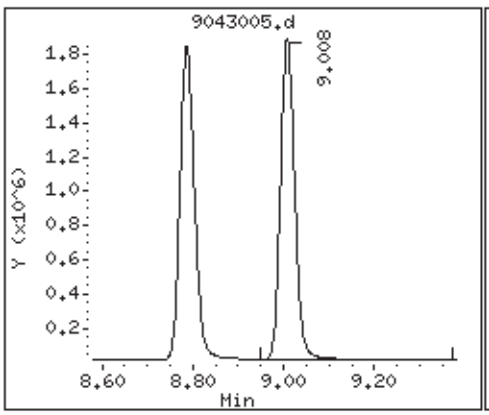
15 neo-pentane



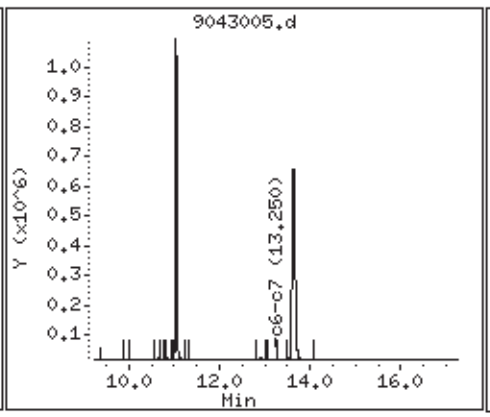
16 isopentane



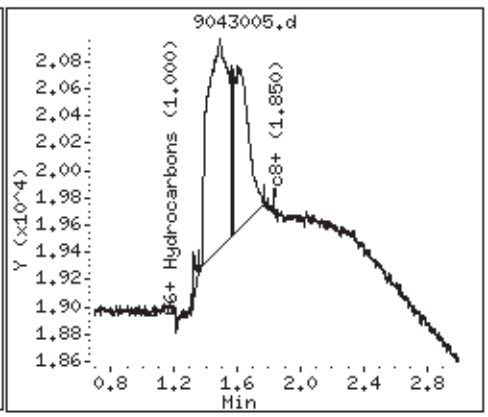
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043006a.d
Lab Smp Id: 1544-365B Client Smp ID: Level-5:
Inj Date : 30-APR-2010 11:37
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:43 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:37 Cal File: 9043006a.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: HexHep.sub
Target Version: 3.50
Processing Host: eeyore

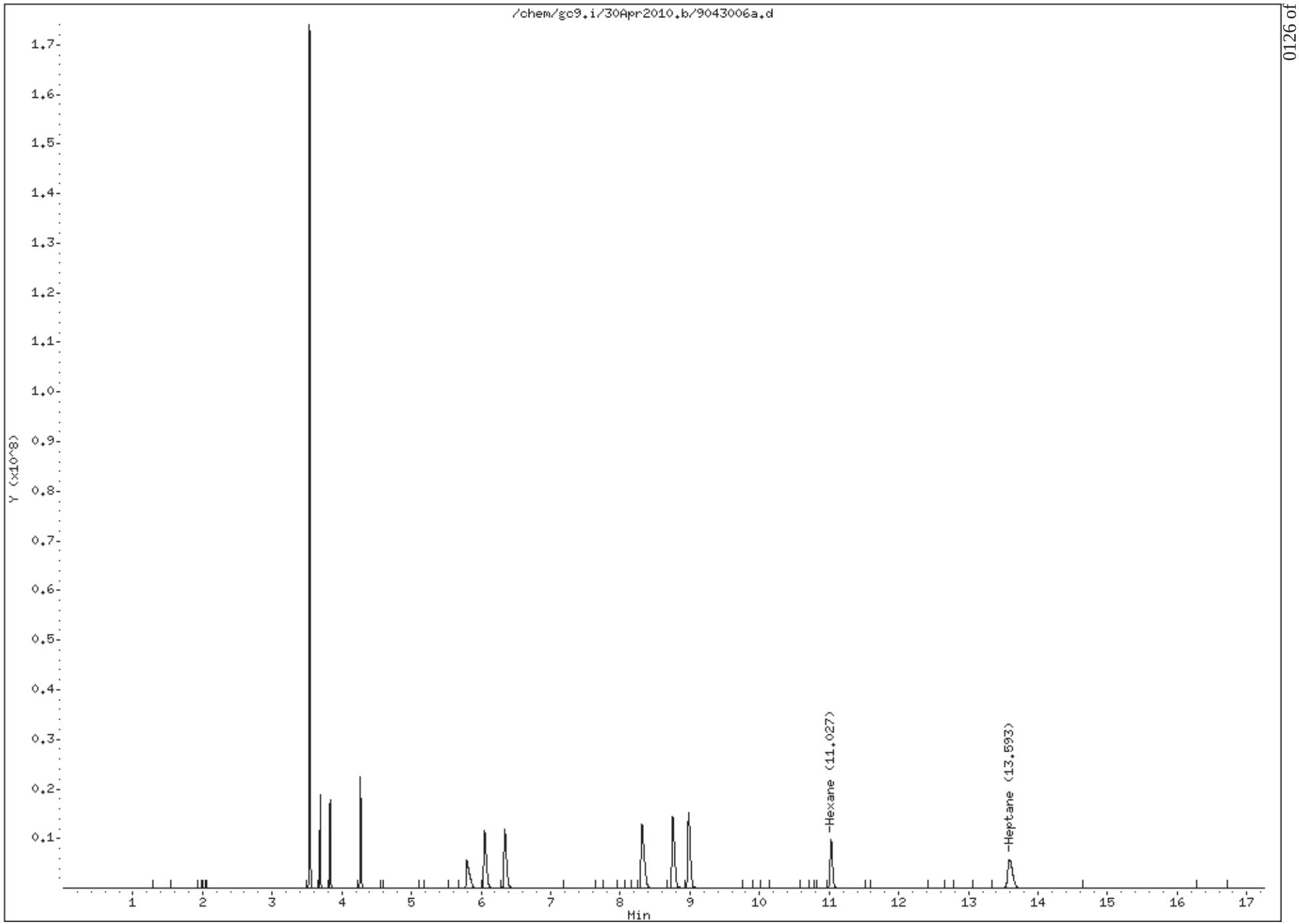
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

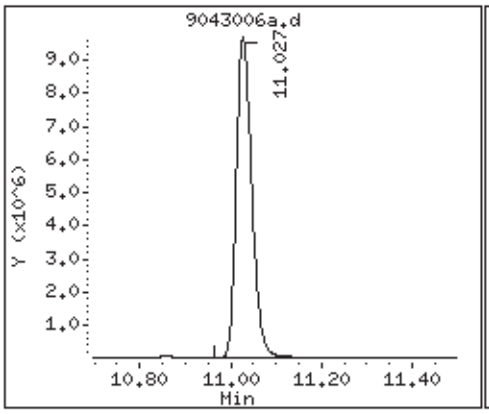
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
39 Hexane	11.027	11.098	-0.071	231159408	0.25100	0.249
40 Heptane	13.593	13.593	0.000	281747777	0.26100	0.262(A)

QC Flag Legend

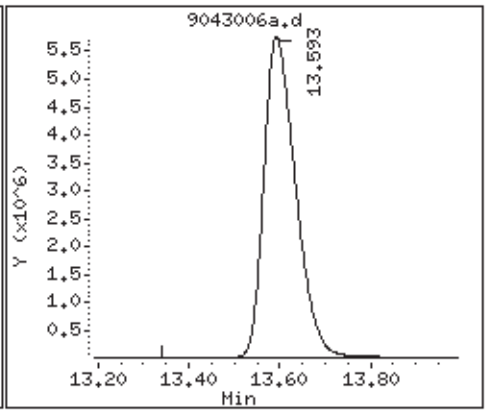
A - Target compound detected but, quantitated amount exceeded maximum amount.


/chem/gc9.i/30Apr2010.b/9043006a.d
Y (x10^8)
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min
-Hexane (11.027)
-Heptane (13.593)

39 Hexane



40 Heptane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043006.d
Lab Smp Id: 1544-365B Client Smp ID: Level-5:
Inj Date : 30-APR-2010 11:37
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : C1-C6
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 11:37 Cal File: 9043006.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

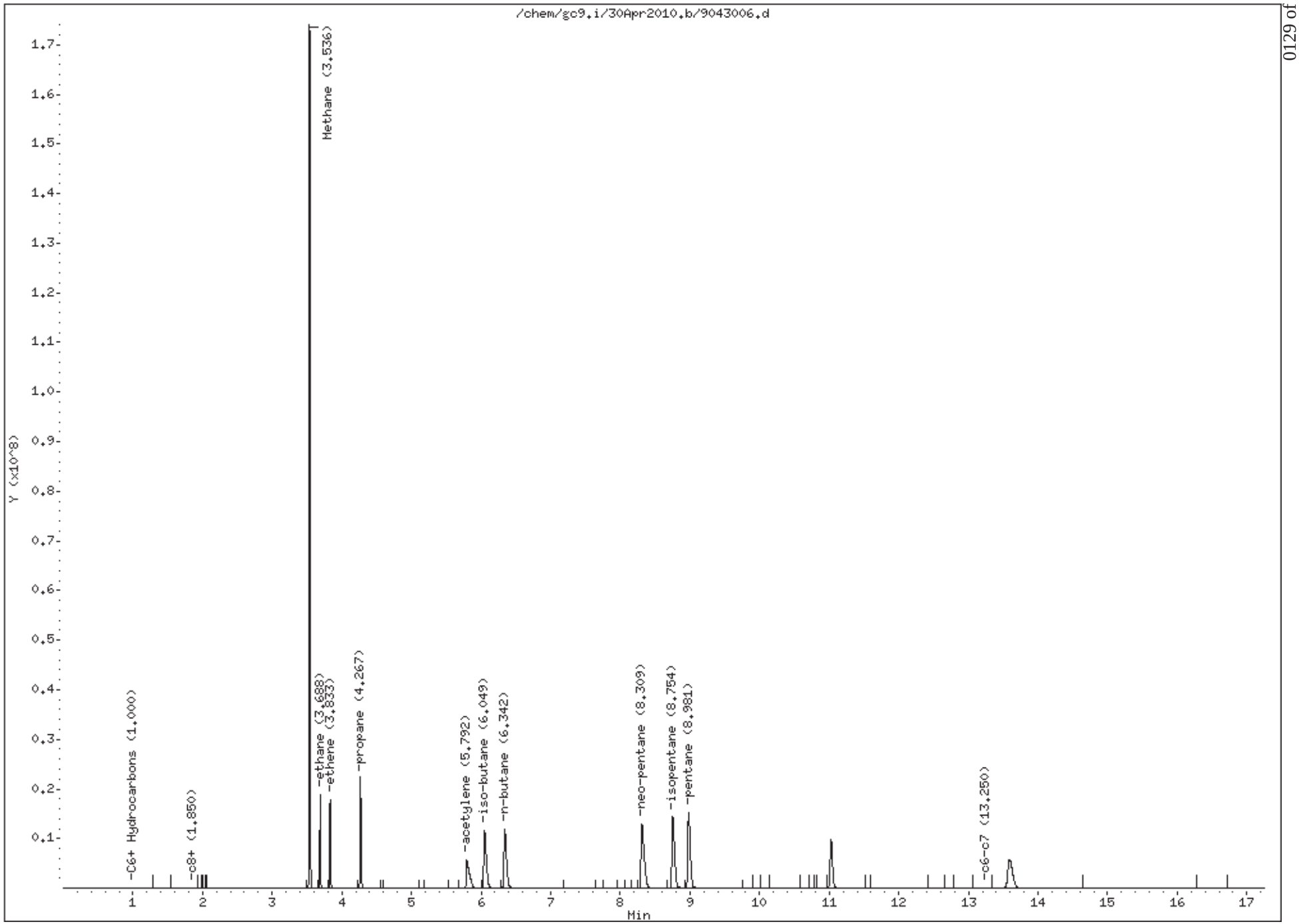
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

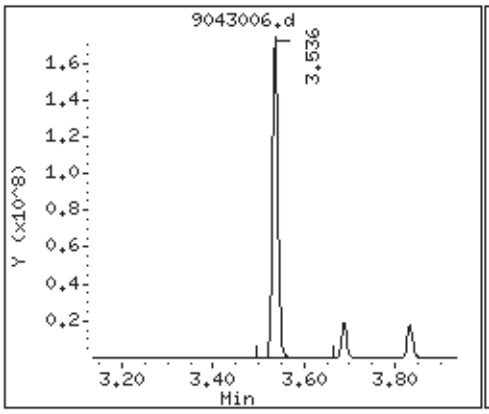
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
	2 Methane	3.536	3.536	0.000	1517483193	9.95000	9.16
	3 ethane	3.688	3.688	0.000	148471057	0.49700	0.488
	4 ethene	3.833	3.833	0.000	147277844	0.50000	0.491
	5 propane	4.267	4.267	0.000	227849119	0.50400	0.497
	7 acetylene	5.792	5.792	0.000	186734585	0.50100	0.500
	8 iso-butane	6.049	6.049	0.000	301657034	0.50000	0.496
	10 n-butane	6.342	6.342	0.000	303025106	0.50000	0.497
	15 neo-pentane	8.309	8.309	0.000	404445910	0.50500	0.500
	16 isopentane	8.754	8.754	0.000	383078537	0.50500	0.500
	17 pentane	8.981	8.981	0.000	387982697	0.50500	0.501
M	37 C6+ Hydrocarbons				518462389	0.50000	0.506
S	22 c6-c7	9.250-17.250			516959851	0.51200	0.506
S	36 c8+	0.700-3.000			1502538	0.00000	(a)

QC Flag Legend

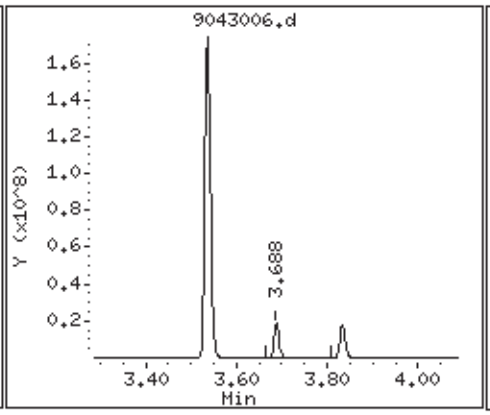
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


/chem/gc9.i/30Apr2010.b/9043006.d
Y (x10^8)
Min
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
Methane (3.536)
-ethane (3.688)
-ethene (3.833)
-propane (4.267)
-acetylene (5.792)
-iso-butane (6.049)
-n-butane (6.342)
-neo-pentane (8.309)
-isopentane (8.754)
-pentane (8.981)
-c6-c7 (13.250)

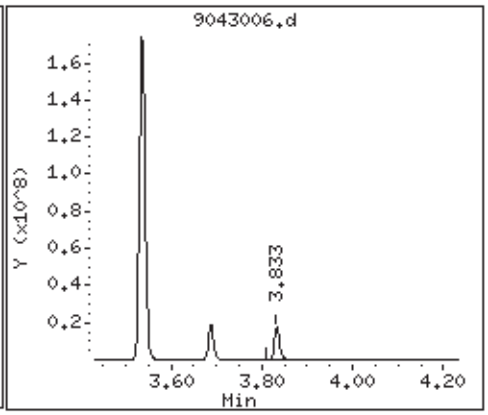
2 Methane



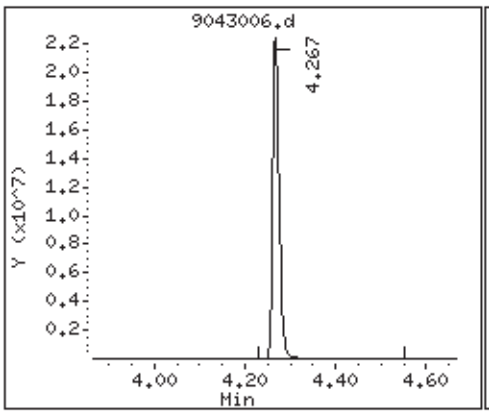
3 ethane



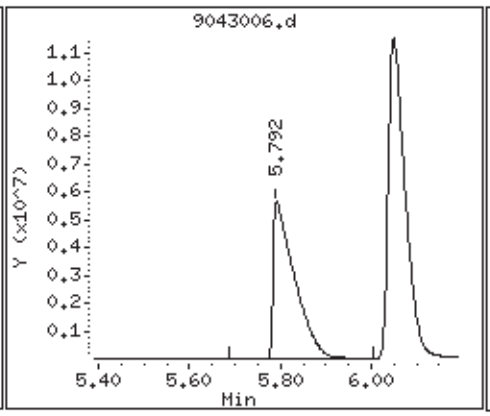
4 ethene



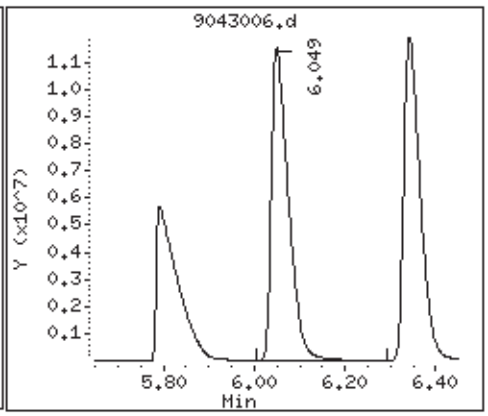
5 propane



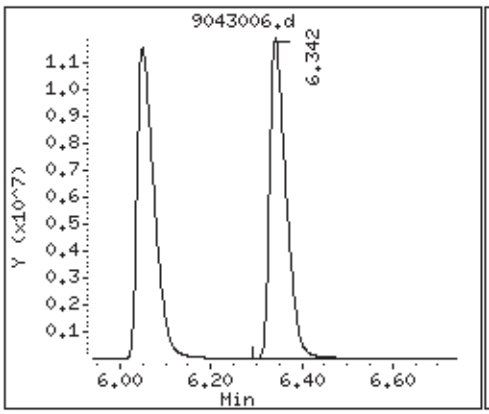
7 acetylene



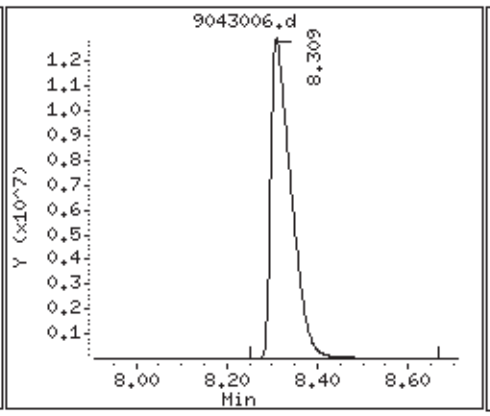
8 iso-butane



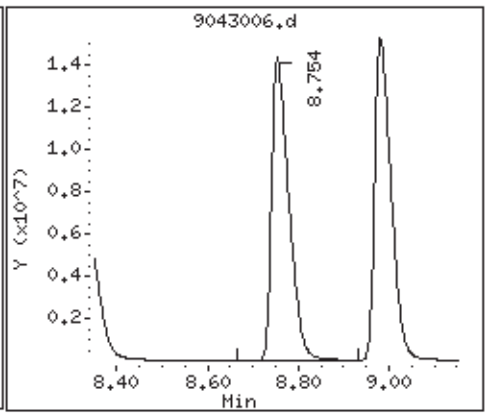
10 n-butane



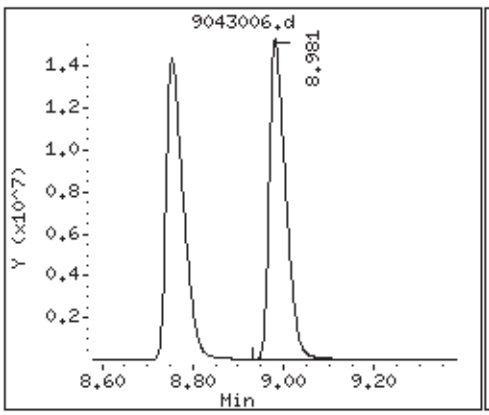
15 neo-pentane



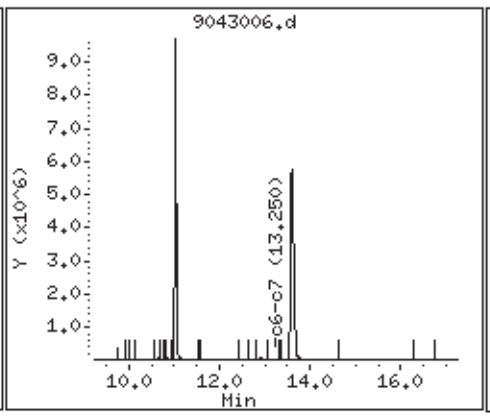
16 isopentane



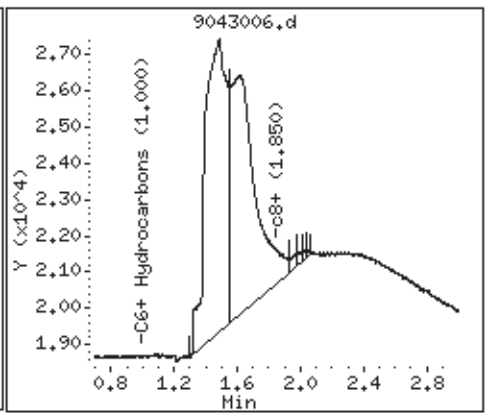
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043015.d
Lab Smp Id: 1476-898 Client Smp ID: Level-6
Inj Date : 30-APR-2010 17:55
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL(5:100),
Misc Info : Isopentane
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 17:55 Cal File: 9043015.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: isopentane.sub
Target Version: 3.50
Processing Host: eeyore

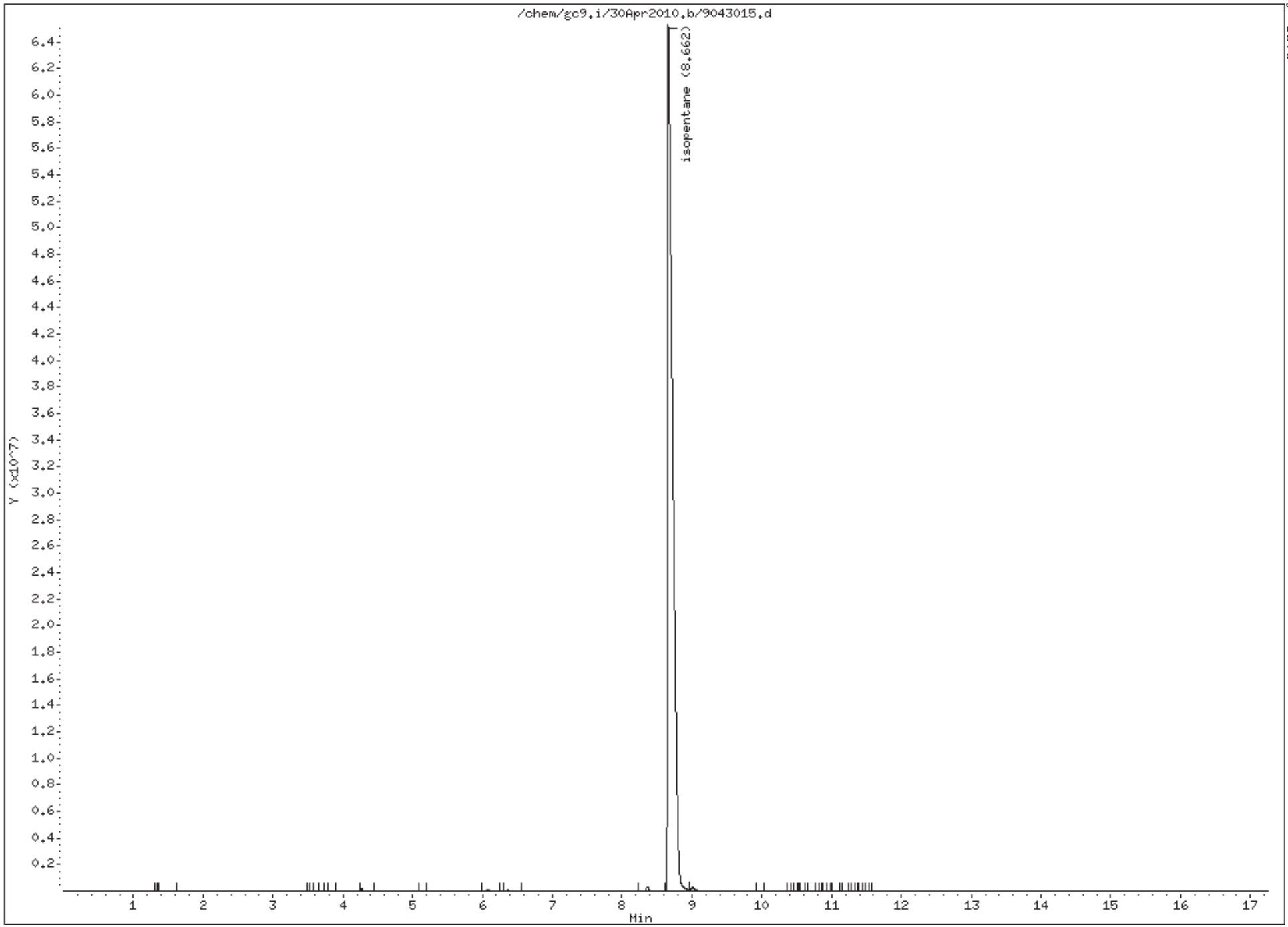
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

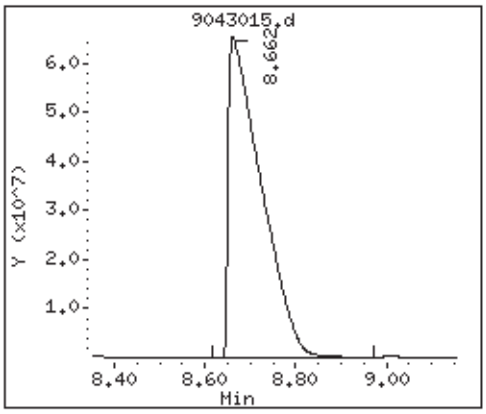
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
16 isopentane	8.662	8.754	-0.092	3298665077	4.95000	4.42(A)

QC Flag Legend

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


/chem/gc9.i/30Apr2010.b/9043015.d
isopentane (8.662)
Y (x10^7)
Min

16 isopentane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043012.d
Lab Smp Id: 1476-897 Client Smp ID: Level-6
Inj Date : 30-APR-2010 15:55
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL(5:50),
Misc Info : Butane
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 15:55 Cal File: 9043012.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Butane.sub
Target Version: 3.50
Processing Host: eeyore

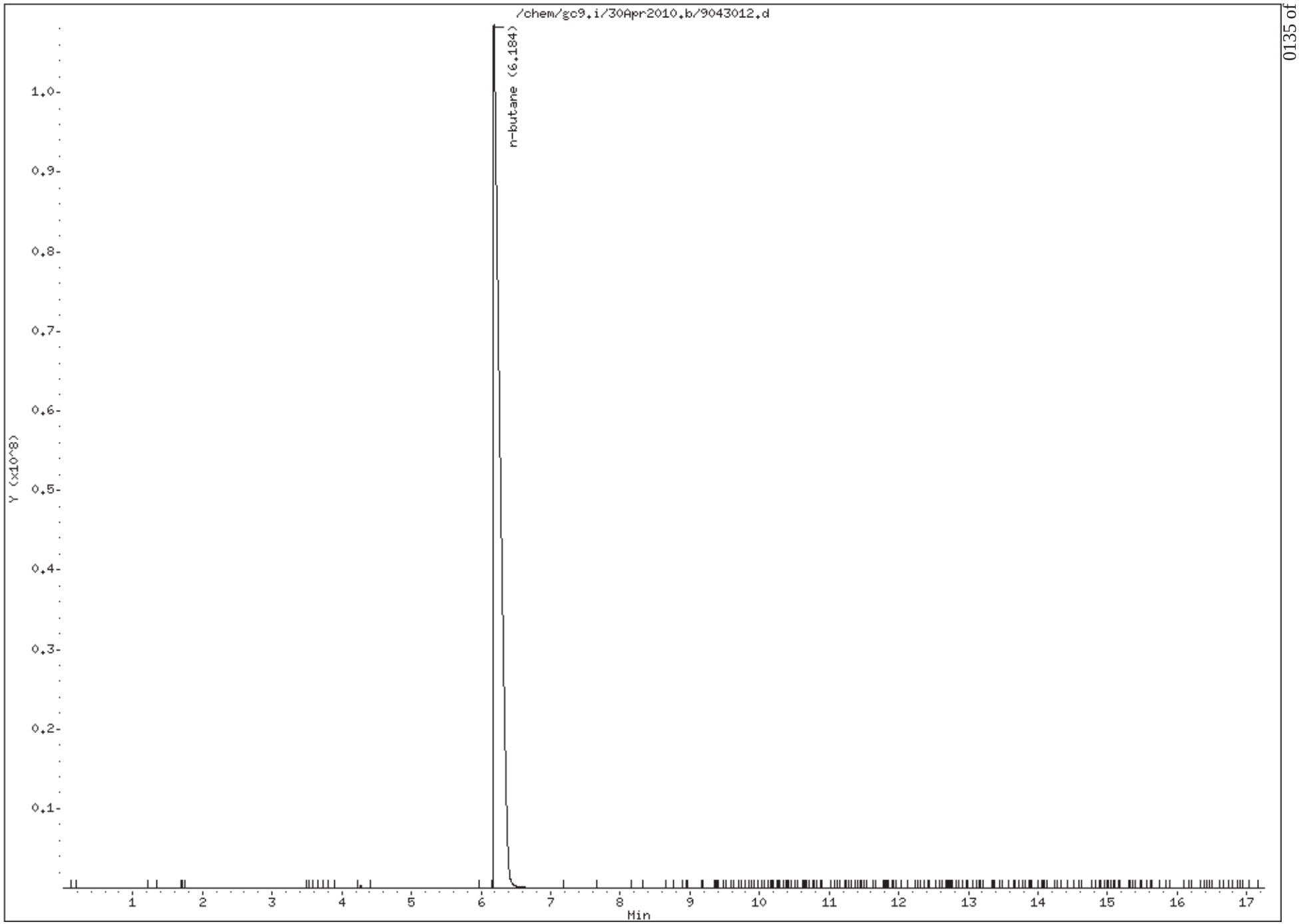
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

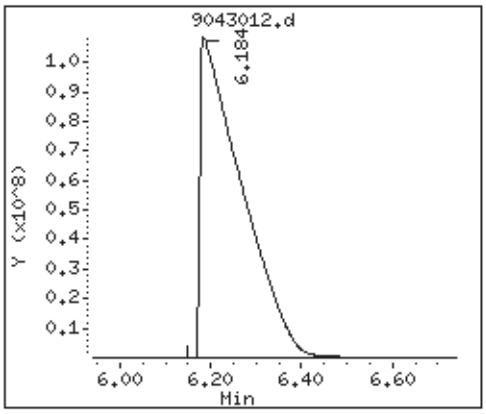
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
10 n-butane	6.184	6.342	-0.158	6972625144	9.99000	11.1(A)

QC Flag Legend

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


/chem/gc9.i/30Apr2010.b/9043012.d
n-butane (6.184)
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

10 n-butane


9043012.d
6.184
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
6.00
6.20
6.40
6.60
Min

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043011.d
Lab Smp Id: 843-471 Client Smp ID: Level-6
Inj Date : 30-APR-2010 15:29
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL(10:50),
Misc Info : Propane
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 15:29 Cal File: 9043011.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: propane.sub
Target Version: 3.50
Processing Host: eeyore

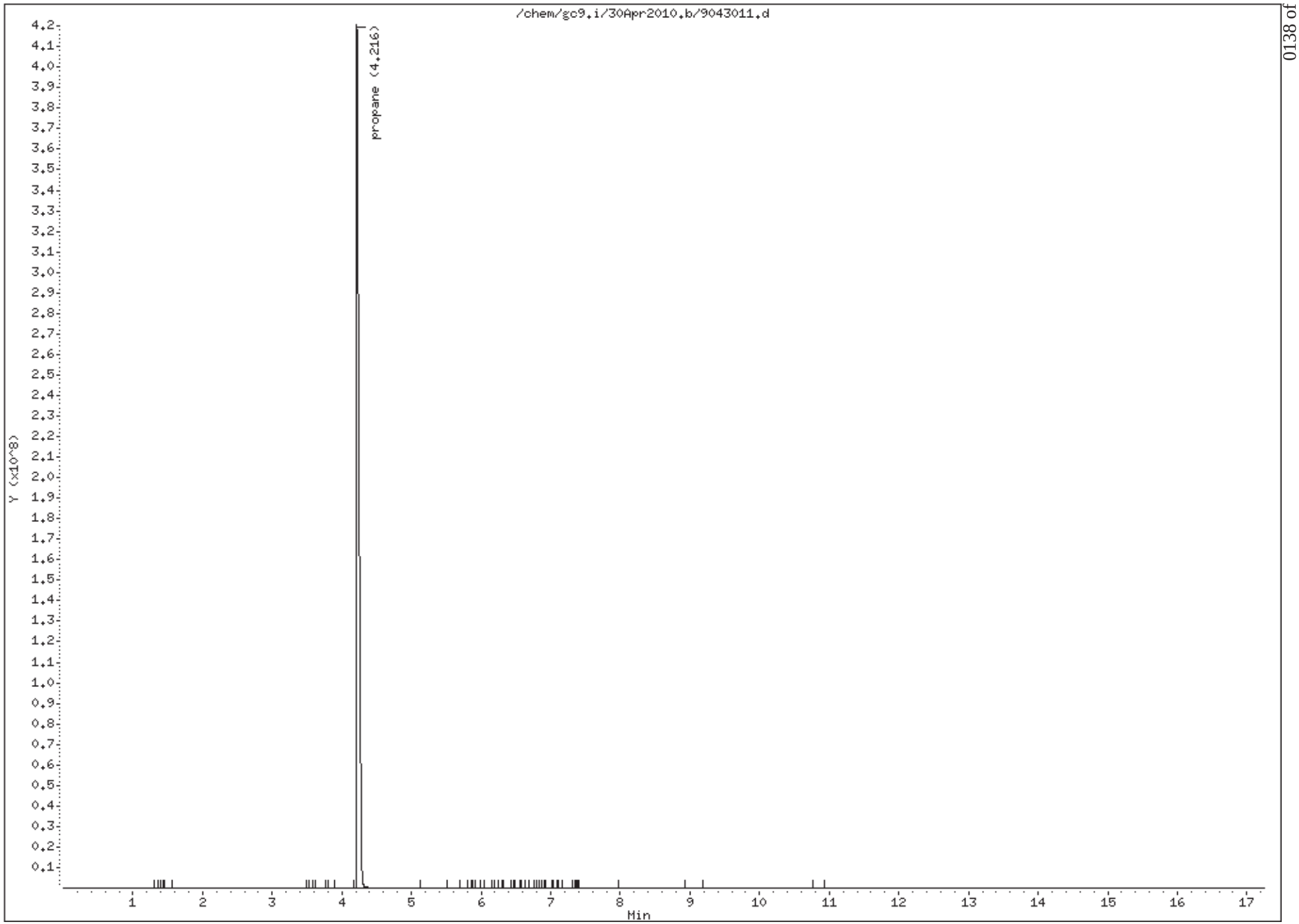
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

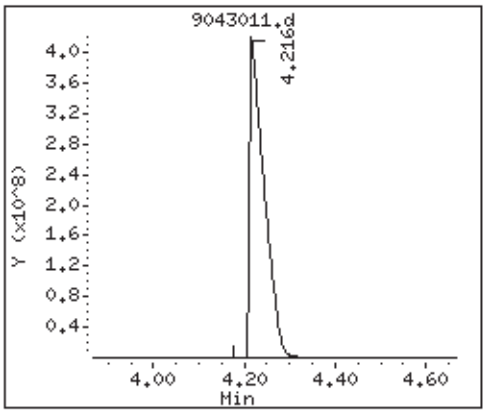
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
5 propane	4.216	4.267	-0.051	9527733099	19.9000	20.6(A)

QC Flag Legend

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


/chem/gc9.i/30Apr2010.b/9043011.d
propane (4.216)
Y (x10^8)
Min

5 propane


9043011.d
4.216
Y (x10^8)
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4
4.00
4.20
4.40
4.60
Min

Air Toxics Ltd.

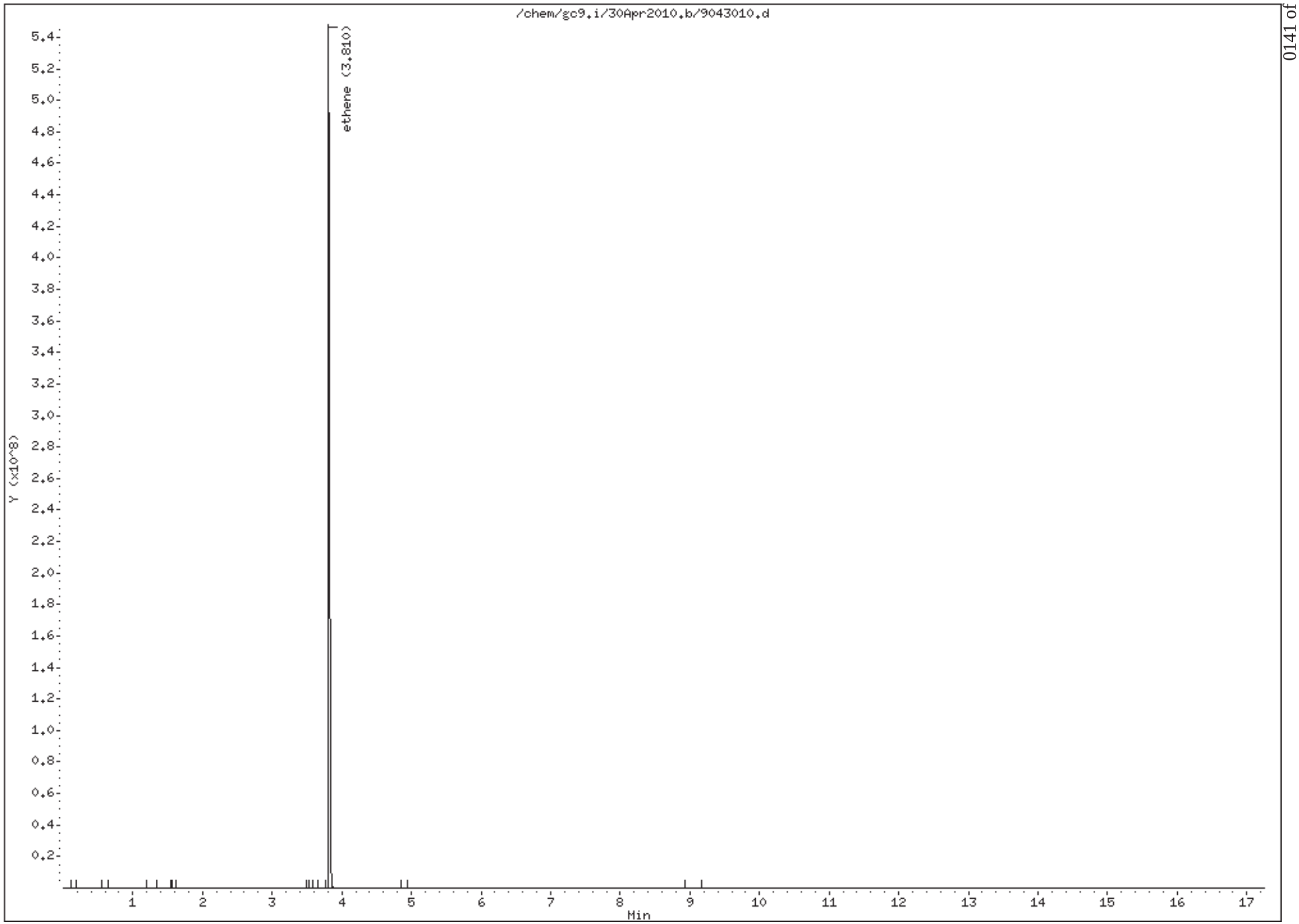
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043010.d
Lab Smp Id: 1476-437 Client Smp ID: Level-6
Inj Date : 30-APR-2010 15:02
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL(12.5:50),
Misc Info : Ethene
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 15:02 Cal File: 9043010.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ehtene.sub
Target Version: 3.50
Processing Host: eeyore

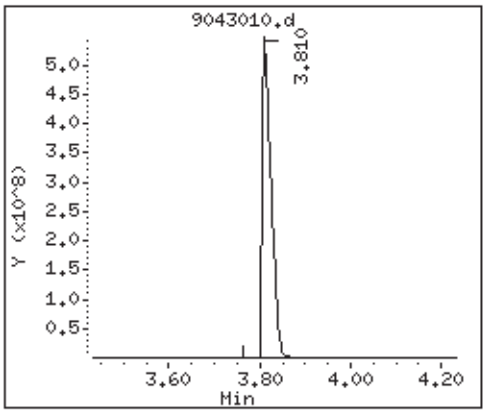
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
4 ethene	3.810	3.833	-0.023	7353764724	24.8750	24.6


/chem/gc9.i/30Apr2010.b/9043010.d
ethene (3.810)
Y (x10^8)
5.4
5.2
5.0
4.8
4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

4 ethene


9043010.d
3.810
Y (x10^8)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
3.60
3.80
4.00
4.20
Min

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043009.d
Lab Smp Id: 1476-438 Client Smp ID: Level-6:
Inj Date : 30-APR-2010 14:28
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL(12.5:50),
Misc Info : Ethane
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 14:28 Cal File: 9043009.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ehtane.sub
Target Version: 3.50
Processing Host: eeyore

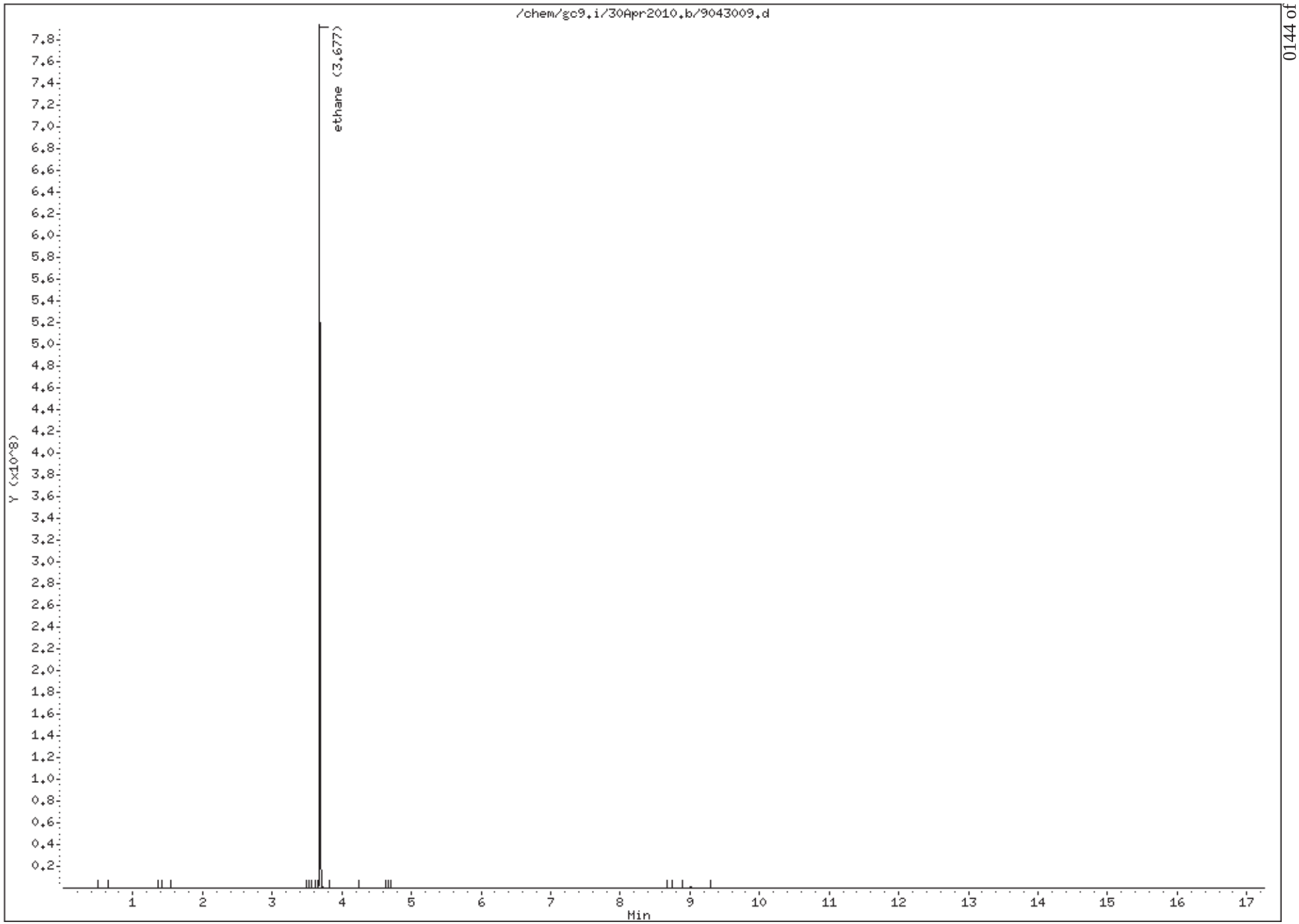
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

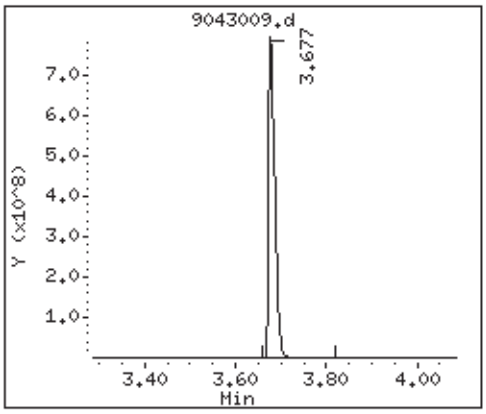
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 ethane	3.677	3.688	-0.011	7661033105	24.9750	25.2(A)

QC Flag Legend

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


/chem/gc9.i/30Apr2010.b/9043009.d
ethane (3.677)
Y (x10^8)
Min

3 ethane



Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/30Apr2010.b/9043008.d
Lab Smp Id: 1476-910 Client Smp ID: Level-6:
Inj Date : 30-APR-2010 13:54
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : Pentane
Comment : GC FID
Method : /chem/gc9.i/30Apr2010.b/910n0430.m
Meth Date : 03-May-2010 11:40 gmash Quant Type: ESTD
Cal Date : 30-APR-2010 13:54 Cal File: 9043008.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: Pentane.sub
Target Version: 3.50
Processing Host: eeyore

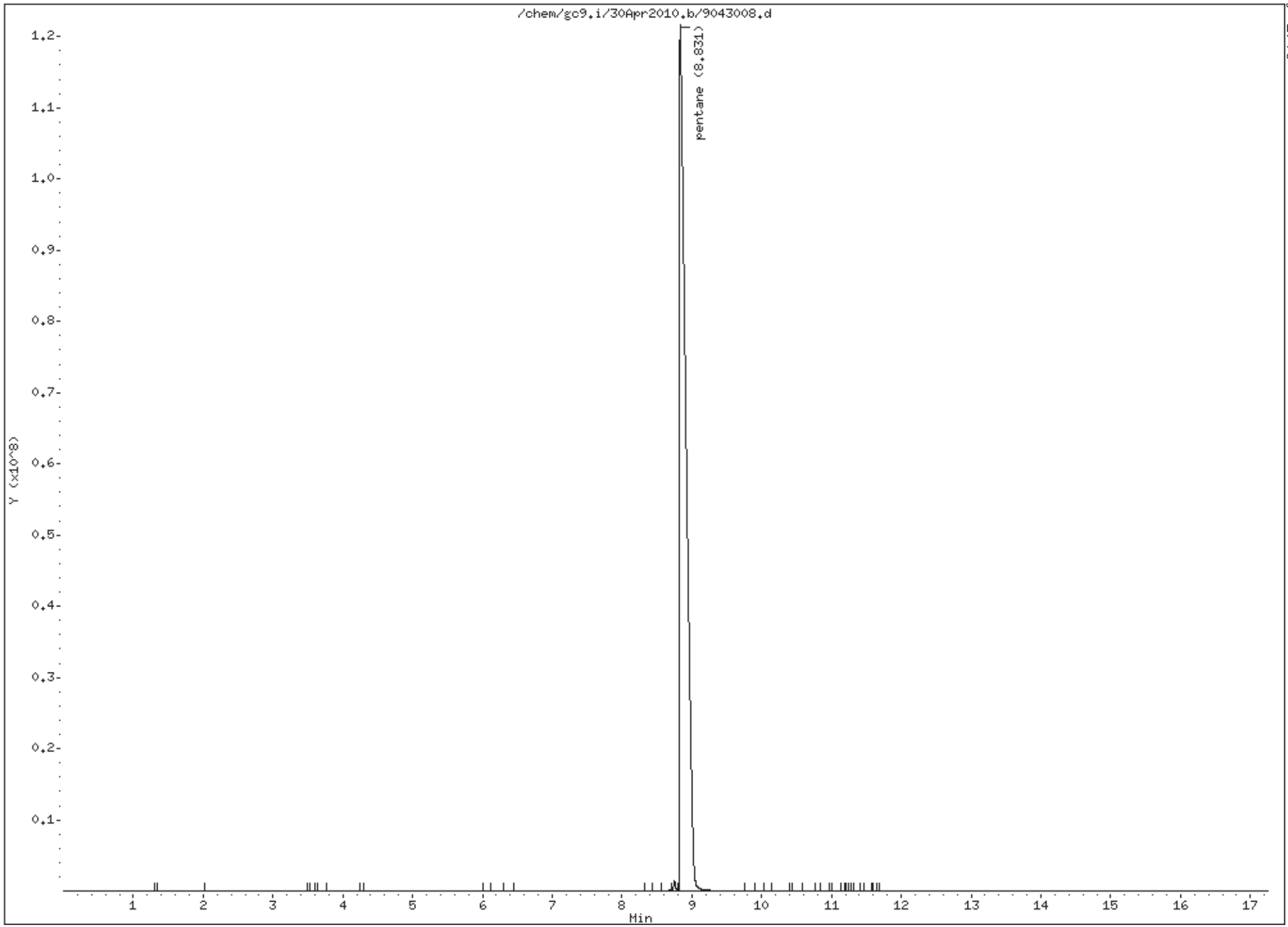
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

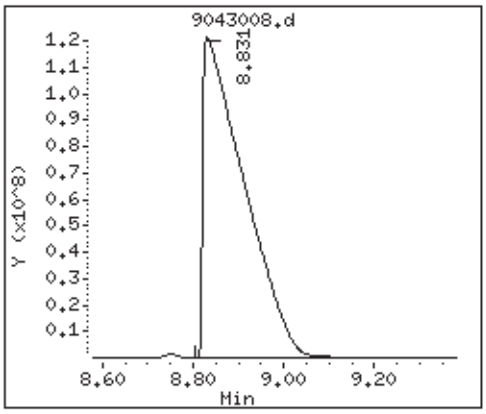
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
17 pentane	8.831	8.981	-0.150	7689887757	9.99000	9.95(A)

QC Flag Legend

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


/chem/gc9.i/30Apr2010.b/9043008.d
pentane (8.831)
Y (x10^8)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

17 pentane


9043008.d
8.831
Y (x10^8)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
8.60
8.80
9.00
9.20
Min

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 17-APR-2010 09:26
End Cal Date : 17-APR-2010 16:10
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gc9.i/17Apr2010.b/910C0417.m
Cal Date : 19-Apr-2010 10:48 gmash
Curve Type : Average

Calibration File Names:
Level 1: /chem/gc9.i/17Apr2010.b/9041714b.d
Level 2: /chem/gc9.i/17Apr2010.b/9041716b.d
Level 3: /chem/gc9.i/17Apr2010.b/9041718b.d
Level 4: /chem/gc9.i/17Apr2010.b/9041720b.d
Level 5: /chem/gc9.i/17Apr2010.b/9041711b.d

	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1 Helium	67829686	67931134	67110407	64573848	+++++	66861269	2.345
2 Hydrogen	98669700	111145755	108640962	101986198	+++++	105110654	5.496
3 Carbon Dioxide	658282085	508739099	525547255	519170311	540430994	550433949	11.150
9 Oxygen	321739168	289586327	386868260	311792564	319509160	325899096	11.162
10 Nitrogen	458006131	337845541	349963286	341039571	337598448	364890596	14.331
12 Carbon Monoxide	249181994	252716240	289952941	307142367	318118751	283422459	11.052

Calibration History

Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Start Cal Date: 17-APR-2010 09:26
End Cal Date : 17-APR-2010 16:10

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00000		
17-APR-2010 13:45	heh2	/chem/gc9.i/17Apr2010.b/9041714b.d
17-APR-2010 09:26	ngas-H2He	/chem/gc9.i/17Apr2010.b/9041704b.d
Cal Level: 2 , Cal Amount: 0.00000		
17-APR-2010 14:30	h2	/chem/gc9.i/17Apr2010.b/9041716b.d
17-APR-2010 14:07	he	/chem/gc9.i/17Apr2010.b/9041715b.d
17-APR-2010 09:48	ngas-H2He	/chem/gc9.i/17Apr2010.b/9041705b.d
Cal Level: 3 , Cal Amount: 0.00000		
17-APR-2010 15:17	he	/chem/gc9.i/17Apr2010.b/9041718b.d
17-APR-2010 14:53	h2	/chem/gc9.i/17Apr2010.b/9041717b.d
17-APR-2010 10:12	ngas-H2He	/chem/gc9.i/17Apr2010.b/9041706b.d
Cal Level: 4 , Cal Amount: 0.00000		
17-APR-2010 16:10	h2	/chem/gc9.i/17Apr2010.b/9041720b.d
17-APR-2010 15:47	he	/chem/gc9.i/17Apr2010.b/9041719b.d
17-APR-2010 10:34	ngas-H2He	/chem/gc9.i/17Apr2010.b/9041707b.d
Cal Level: 5 , Cal Amount: 0.00000		
17-APR-2010 12:33	co	/chem/gc9.i/17Apr2010.b/9041711b.d
17-APR-2010 12:10	co2	/chem/gc9.i/17Apr2010.b/9041710b.d
17-APR-2010 11:24	O2	/chem/gc9.i/17Apr2010.b/9041709b.d
17-APR-2010 10:58	n2	/chem/gc9.i/17Apr2010.b/9041708b.d

TCD - Curve
GC-9

Report Date : 19-Apr-2010 10:48

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 17-APR-2010 09:26
End Cal Date : 17-APR-2010 16:10
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem/gc9.i/17Apr2010.b/910C0417.m
Cal Date : 19-Apr-2010 10:48 gmash
Curve Type : Average

gm 4/19/10
rr 4/19/10

Calibration File Names:
Level 1: /chem/gc9.i/17Apr2010.b/9041714b.d
Level 2: /chem/gc9.i/17Apr2010.b/9041716b.d
Level 3: /chem/gc9.i/17Apr2010.b/9041718b.d
Level 4: /chem/gc9.i/17Apr2010.b/9041720b.d
Level 5: /chem/gc9.i/17Apr2010.b/9041711b.d

Based on a 1.0mL loop load.

	0.000e+00	0.000e+00	0.000e+00	0.000e+00	0.000e+00		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1 Helium	67829686	67931134	67110407	64573848	+++++	66861269	2.345
2 Hydrogen	98669700	111145755	108640962	101986198	+++++	105110654	5.496
3 Carbon Dioxide	658282085	508739099	525547255	519170311	540430994	550433949	11.150
9 Oxygen	321739168	289586327	386868260	311792564	319509160	325899096	11.162
10 Nitrogen	458006131	337845541	349963286	341039571	337598448	364890596	14.331
12 Carbon Monoxide	249181994	252716240	28995294	30714236	31811875	283422459	11.052

GC-9 TCD

gm 4/19/10

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Second Source
Helium	0.04935	0.9870	50.0	100	N/A	9041721b
Hydrogen	0.01000	0.4000	2.00	25.0	N/A	9041722b
Carbon Dioxide	0.00988	0.0988	4.00	10.0	69.790	9041712b
Oxygen	0.09860	0.4931	1.000	2.50	29.910	9041712b
Nitrogen	0.09900	0.4950	28.21	70.524	100	9041712b
Carbon Monoxide	0.00983	0.1024	0.404	1.01	9.93	9041712b

@Air Toxics Ltd. GC-9 **Logbook #:** 1906

Method: ASTM 1945/1946 **Leak Test :** Ly

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9041703	System Blank	14014	NA	1.0 mL ~~NA~~	1.00 ~~NA~~	4/17/10	0901	Ly	
2	✓	04	1830 - 28	94301		4/17/10	1.00		0926		Level -1
3	✓	05	1830 - 25	14867					0948		-2
4	✓	06	1544-365B	34219		(20:50) 1.0 mL			1012		-3
5	✓	07	"	"		1.0 mL			1034		-4 /ccv
6	✓	08	1476-1669 : N_2	Bag		"			1058		-5
7	✓	09	1476-750 O_2	NA		(15:50) 1.0 mL			1124		-5
8	✓	10	1476-971 CO_2	NA		(35:50) 1.0 mL			1210		-5
9	✓	11	1476-599 CO	NA		(5:50) 1.0 mL			1233		-5
10	✓	12	1476-1477 NGAS	NA		1.0 mL			1256		LCS
11	✓	13	N_2 Lab Blank	33868					1324		
12	✓	14	1830-29 He/H_2	Bag	He : 0.04935% H_2 : 0.01%				1345		Level -1
13	✓	15	1544-365B He	34219	He: 0.987%				1407		-2
14	✓	16	1476-977 H_2	NA	H_2: 0.40%	(10:50) 1.0 mL			1430		-2
15	✓	17	↓	↓	H_2 : 2.0%	~~(10:50)~~ 4/17/10 1.0 mL		↓	1453	↓	-3

Calculation Check: File ID: 9041712 Compound: CO_2 Initials: Ly

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(\ 5205049331\ )}{(\ 519170311\ )} \times (\ 1.00\ ) =$ **10.0**

Reported Result: **10.0**

Lydia Yohas
Signed

4/17/10
Date

@Air Toxics Ltd. **GC-9** **Logbook #: 1906**

Method: ASTM 1945/1946 **Leak Test :** Ly

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9041718	1476-1670 He	NA	He : 50 %.	(25:50) 1.0 ml	1.00	4/17/10	1517	Ly	Level-3
2	✓	19	He		He 100 %.	1.0 ml			1547		Level-4
3	✓	20	1476-1671 H_2		H_2 25 %.	(10:40) 1.0 ml			1610		Level-4
4	✓	21	1476-1477 He N_2 gas		NA	1.0 ml			1632		LCS exp 7/5/11
5	✓	22	1476-1450 H_2						1656		LCS exp 12/4/11
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Ly 4/17/10

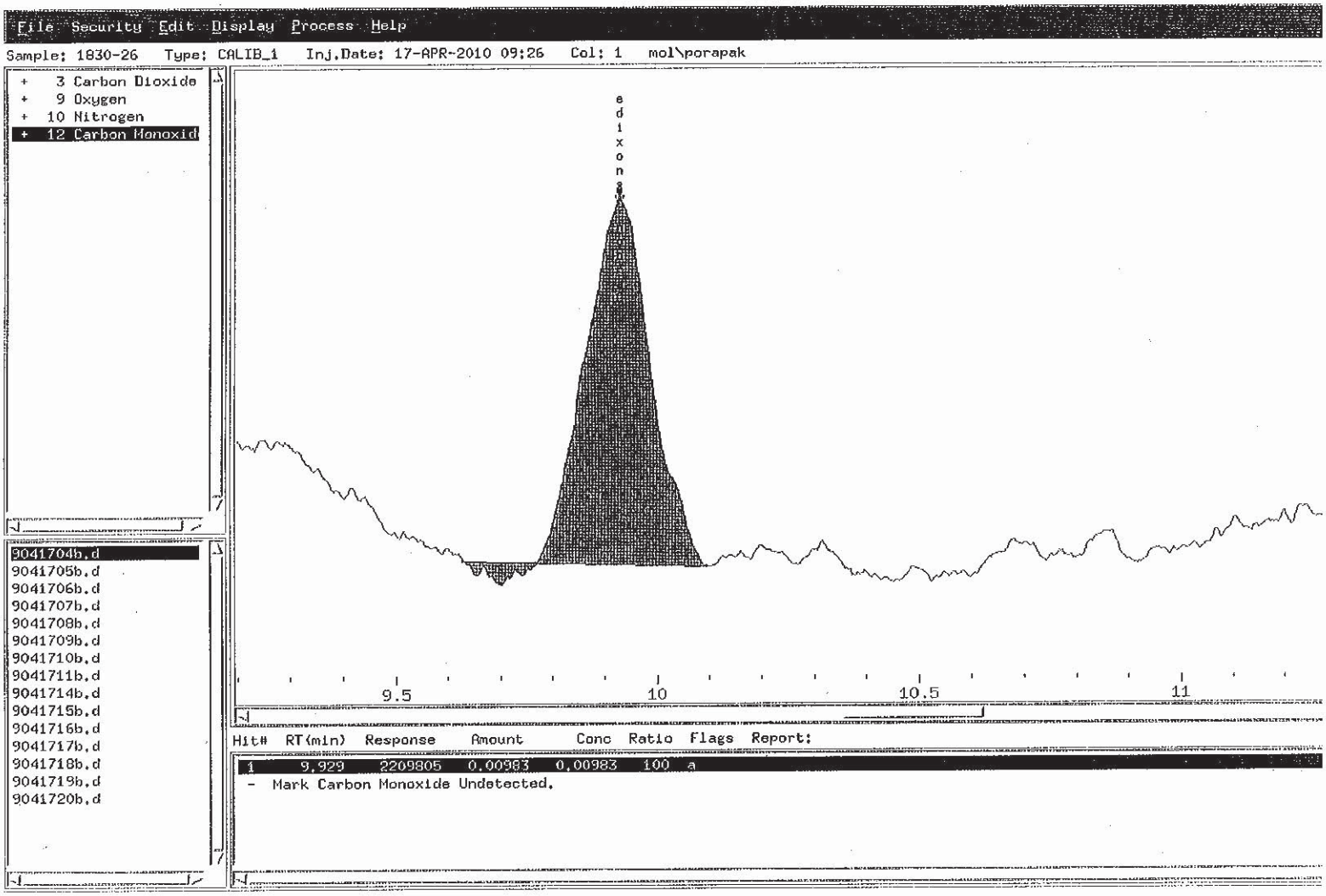
Calculation Check: File ID: ~~9041719~~ 9041721 Ly 4/17/10 Compound: He Initials: Ly

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}} \times \text{Dilution Factor} = \frac{(\ 6697646\ )}{(\ 6895606\ )} \times (\quad) =$ **0.971**

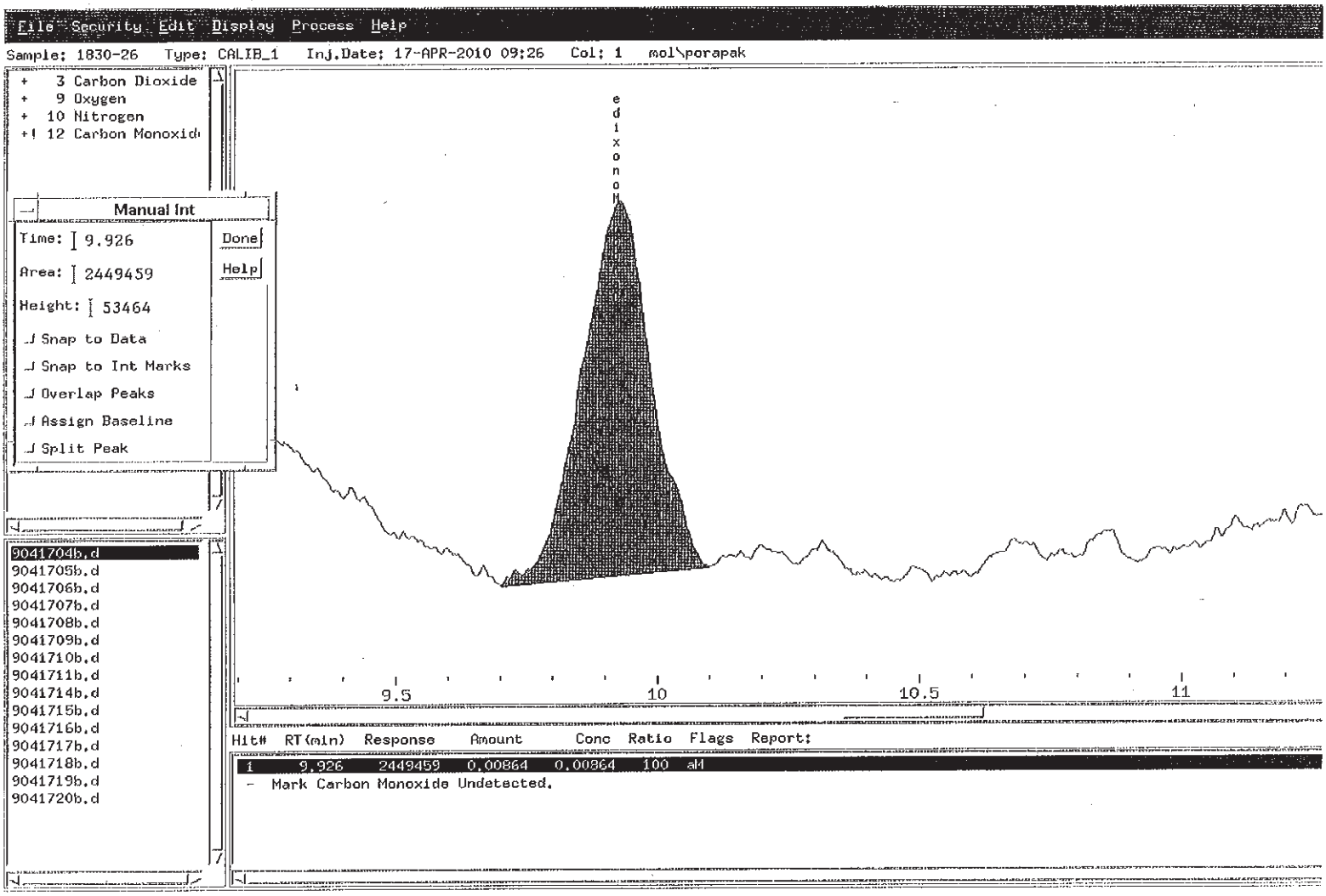
Reported Result: **0.971**

Lyd Thao
Signed

4/17/10
Date



Before
gm
4/19/10



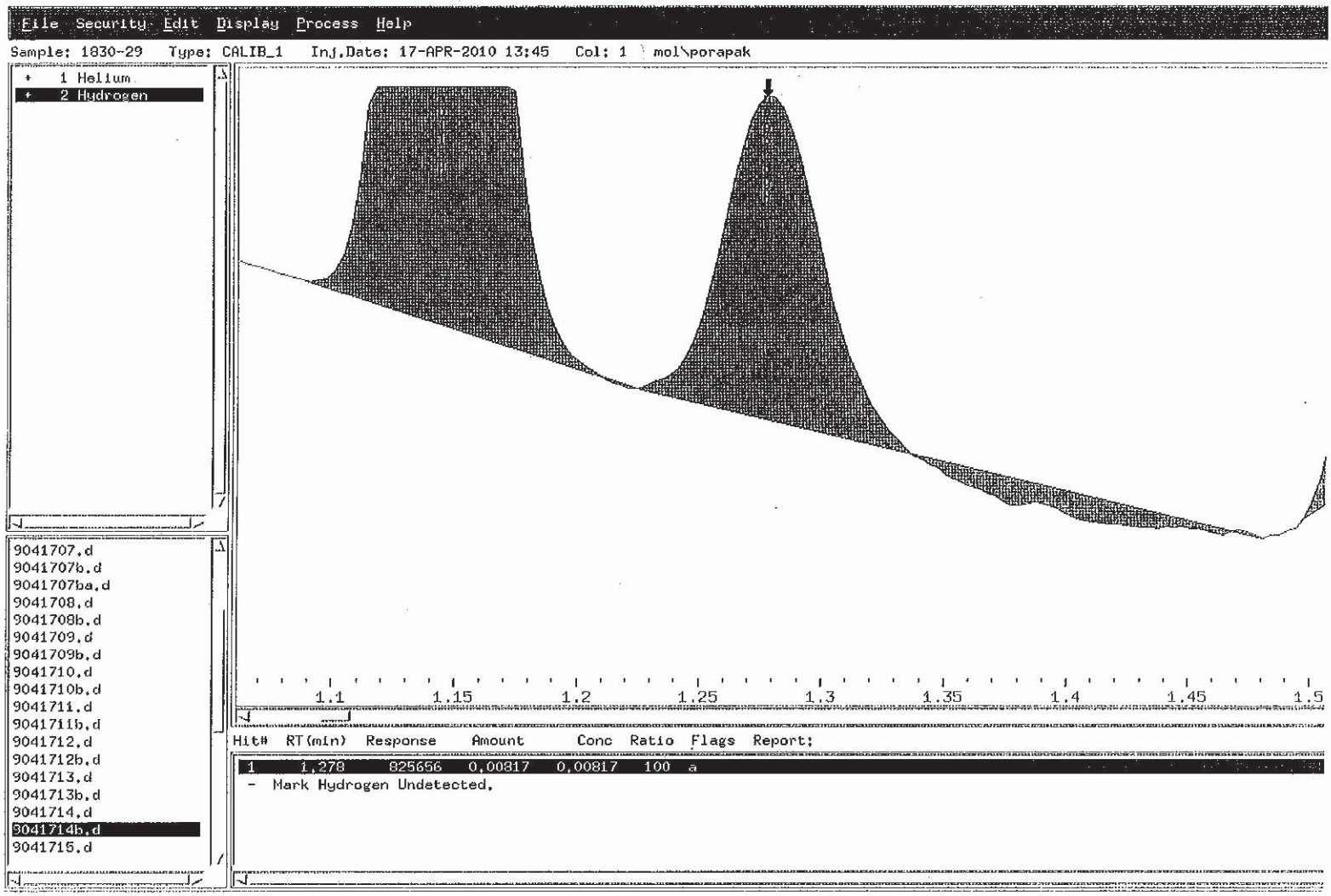
After

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

NA

nr 4/19/10

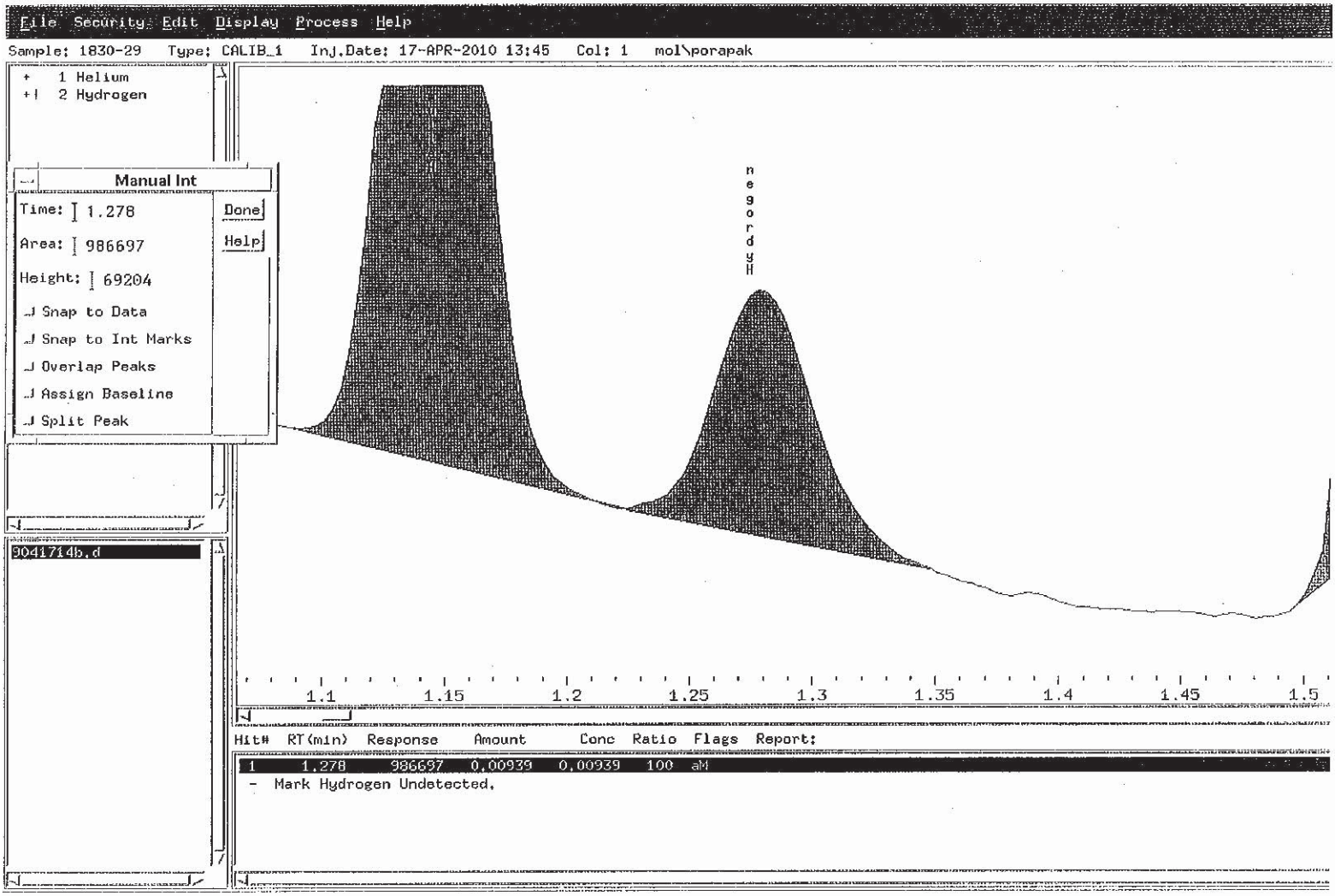
gm 4/19/10



Before

gm

4/19/10



After

Correct Baseline	✓
Split Peak	N/A
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	✓

MM 4/19/10

gm 4/19/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041712b.d
Lab Smp Id: 1476-1477 Ngas Client Smp ID: LCS
Inj Date : 17-APR-2010 12:56
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,;1476-1477 Ngas;LCS;
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	3.365	3.376	-0.011	5205049331	9.45627	9.46
9 Oxygen	8.339	8.340	-0.001	766371728	2.35156	2.35
10 Nitrogen	8.550	8.555	-0.005	24090602022	66.0214	66.0
12 Carbon Monoxide	9.892	9.902	-0.010	310059257	1.09398	1.09

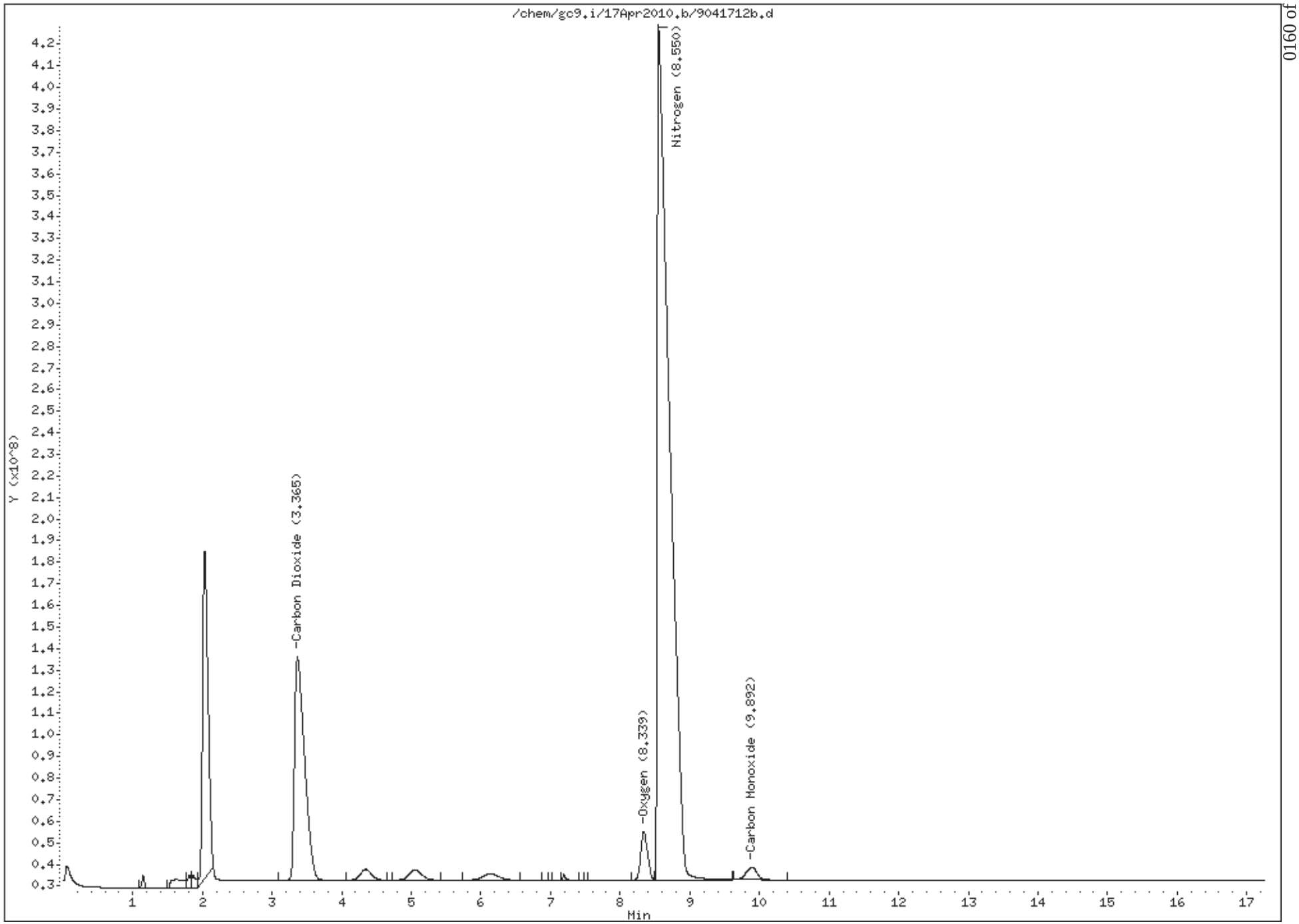
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

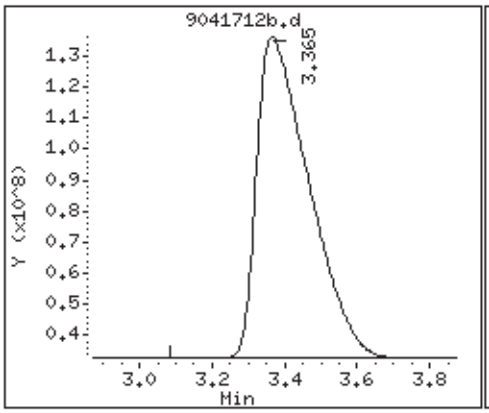
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Ngas Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477-He.spk Quant Type: ESTD
Sublist File: ngas-H2He.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: LCS

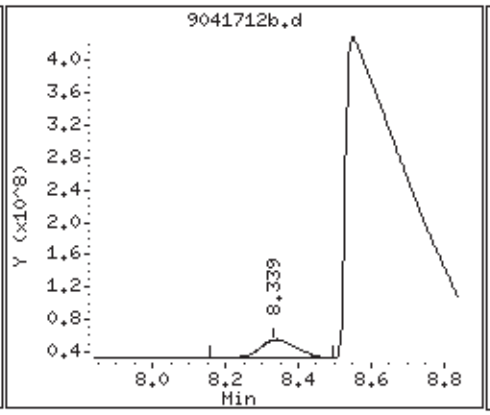
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	9.46	94.75	85-115
9 Oxygen	2.49	2.35	94.44	85-115
10 Nitrogen	70.5	66.0	93.65	85-115
12 Carbon Monoxide	1.00	1.09	109.40	85-115


/chem/gc9.i/17Apr2010.b/9041712b.d
Y (x10^8)
Min
Carbon Dioxide (3.365)
Oxygen (8.339)
Nitrogen (8.550)
Carbon Monoxide (9.892)

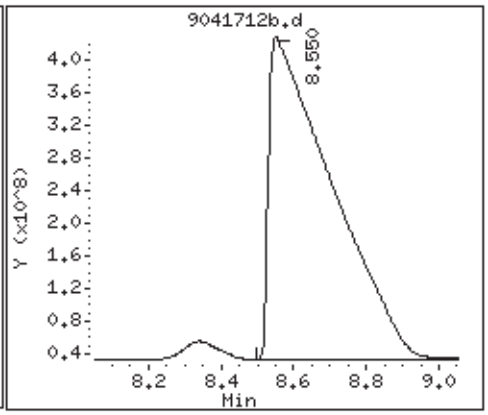
3 Carbon Dioxide



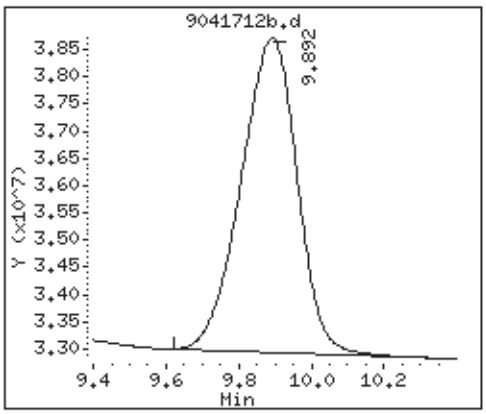
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041721b.d
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Inj Date : 17-APR-2010 16:32
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1477;LCS;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.149	1.149	0.000	65754918	0.98345	0.983

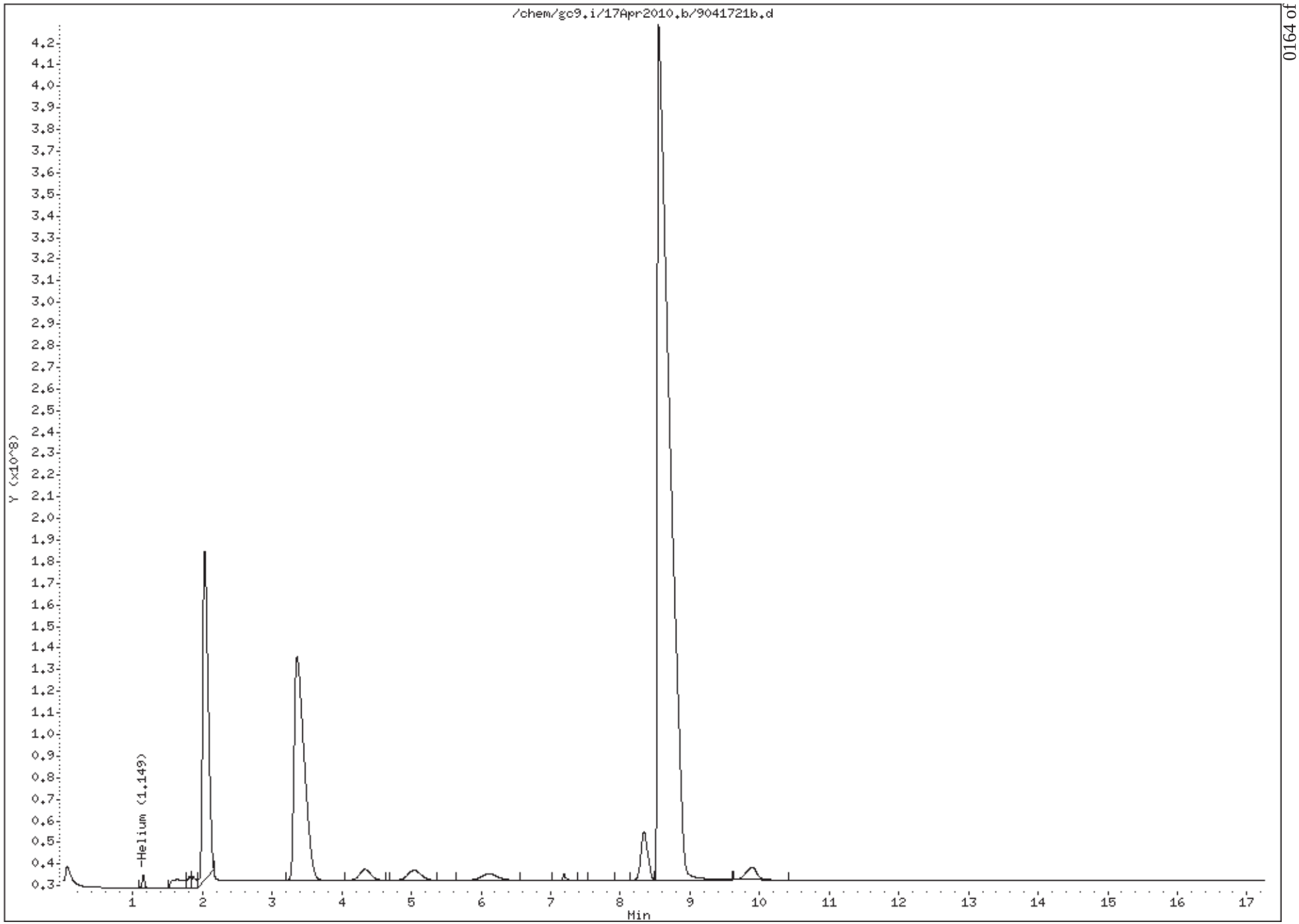
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

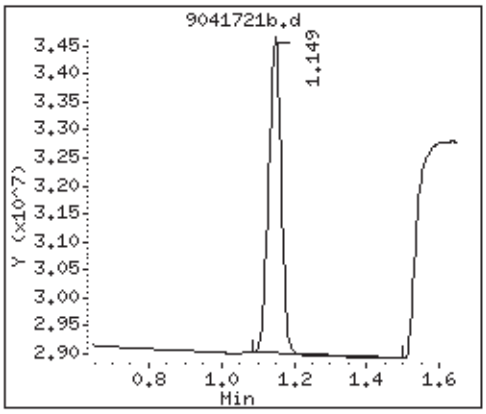
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 0.998%He.spk Quant Type: ESTD
Sublist File: he.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: He

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
1 Helium	0.998	0.983	98.54	85-115


/chem/gc9.i/17Apr2010.b/9041721b.d
Y (x10^8)
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Helium (1.149)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

1 Helium


9041721b.d
1.149
3.45
3.40
3.35
3.30
3.25
3.20
3.15
3.10
3.05
3.00
2.95
2.90
Y (x10^7)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041722b.d
Lab Smp Id: 1476-1450 Client Smp ID: LCS
Inj Date : 17-APR-2010 16:56
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1450;LCS;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:55 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	1.289	1.288	0.001	217194805	2.06634	2.07

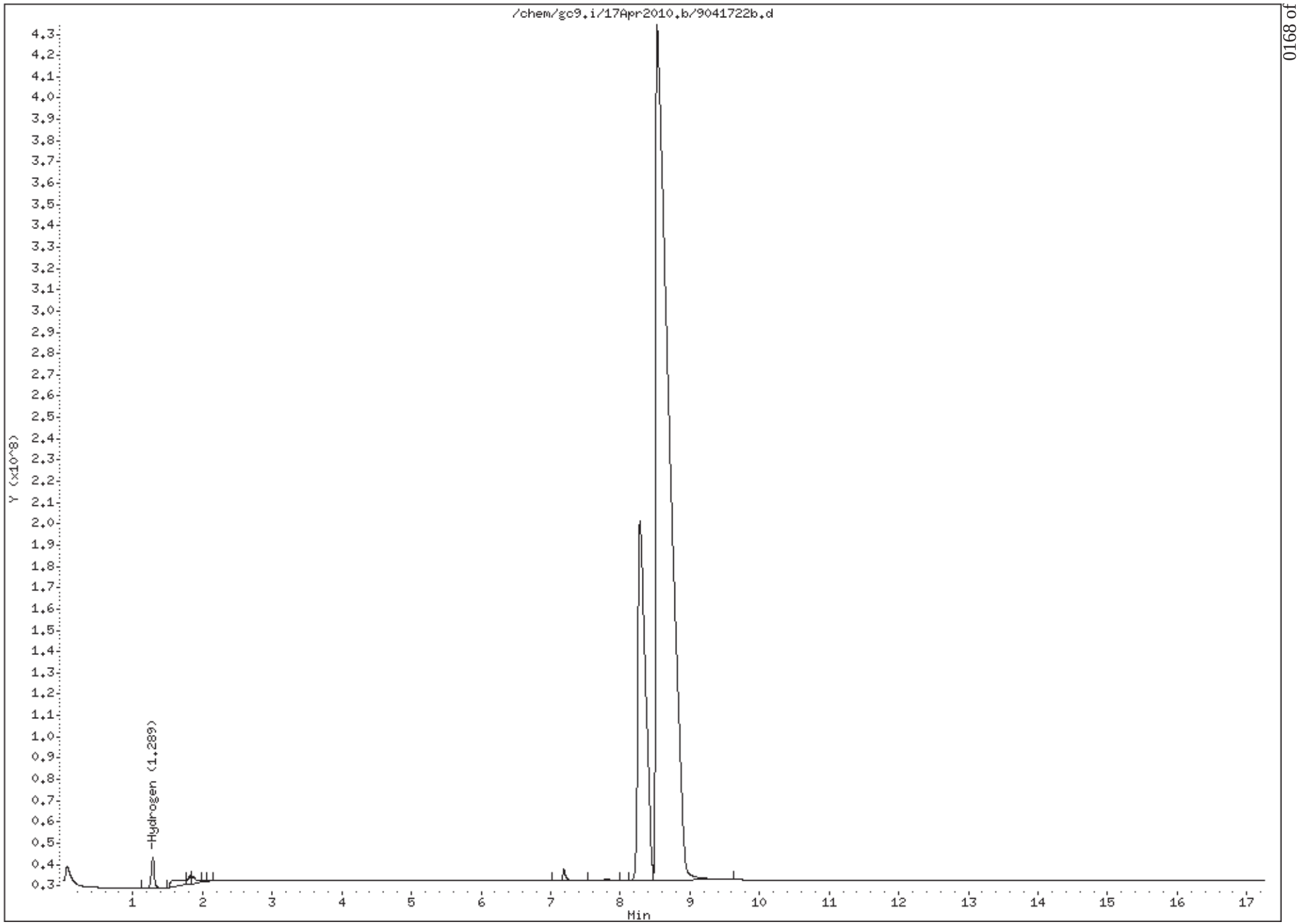
Report Date: 19-Apr-2010 10:55

Air Toxics Ltd.

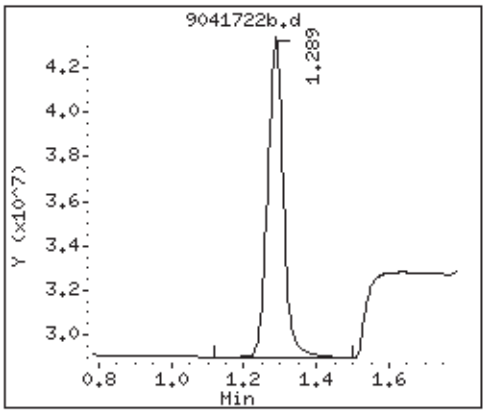
RECOVERY REPORT

Client Name: Client SDG: 17Apr2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 Client Smp ID: LCS
Level: LOW Operator: ly
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.0%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/17Apr2010.b/910C0417.m
Misc Info: H2

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.00	2.07	103.52	85-115


/chem/gc9.i/17Apr2010.b/9041722b.d
Y (x10^8)
Hydrogen (1.289)
Min

2 Hydrogen



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041714b.d
Lab Smp Id: 1830-29 Client Smp ID: Level-1
Inj Date : 17-APR-2010 13:45
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,Bag;1830-29;Level-1;
Misc Info : H2He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:48 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: heh2.sub
Target Version: 3.50
Processing Host: eeyore

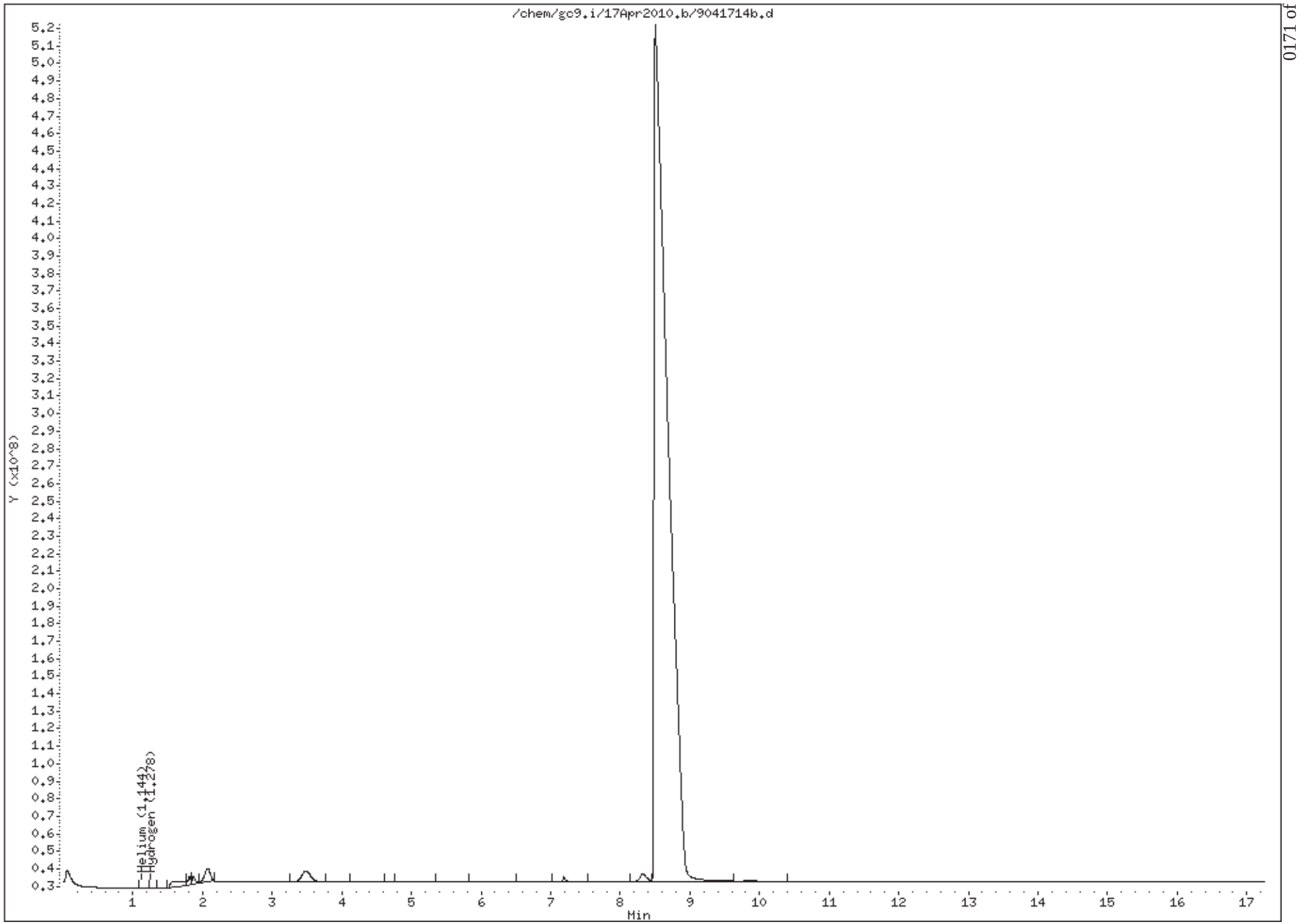
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

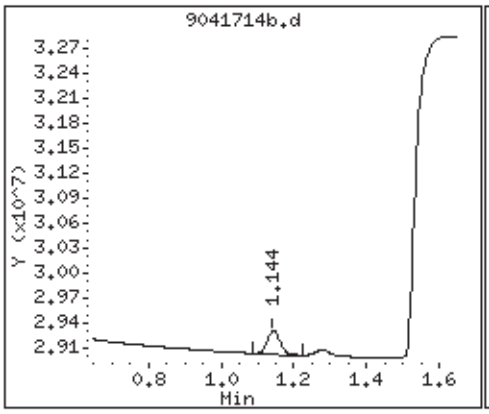
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.144	1.149	-0.005	3347395	0.04935	0.0501
2 Hydrogen	1.278	1.288	-0.010	986697	0.01000	0.00939(aM)

QC Flag Legend

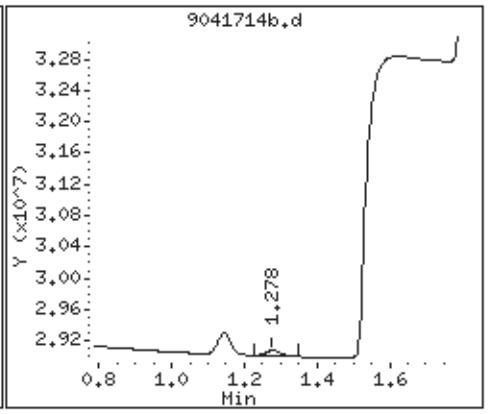
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


/chem/gc9.i/17Apr2010.b/9041714b.d
Y (x10^8)
Min
Helium (1.144)
Hydrogen (1.278)

1 Helium



2 Hydrogen



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041704b.d
Lab Smp Id: 1830-26 Client Smp ID: Level-1
Inj Date : 17-APR-2010 09:26
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,94301;1830-26;Level-1;
Misc Info : Level-1
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 13:45 Cal File: 9041714b.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

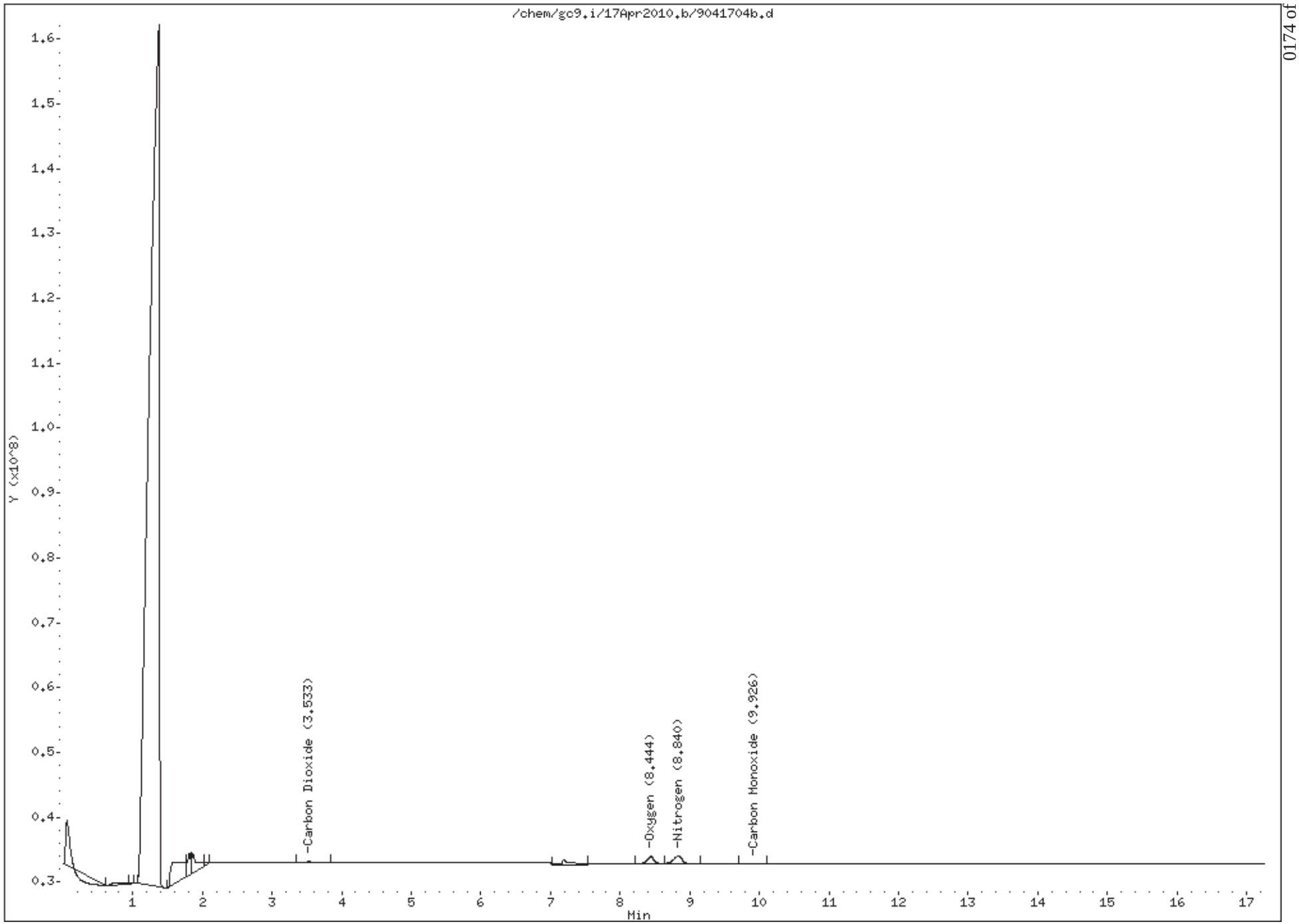
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

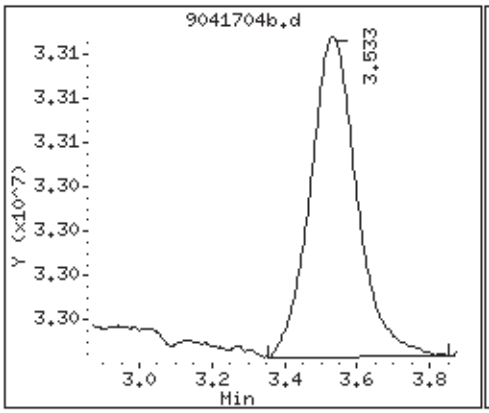
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.533	3.376	0.157	6503827	0.00988	0.0118
9 Oxygen	8.444	8.340	0.104	31723482	0.09860	0.0973(a)
10 Nitrogen	8.840	8.555	0.285	45342607	0.09900	0.124
12 Carbon Monoxide	9.926	9.902	0.024	2449459	0.00983	0.00864(aM)

QC Flag Legend

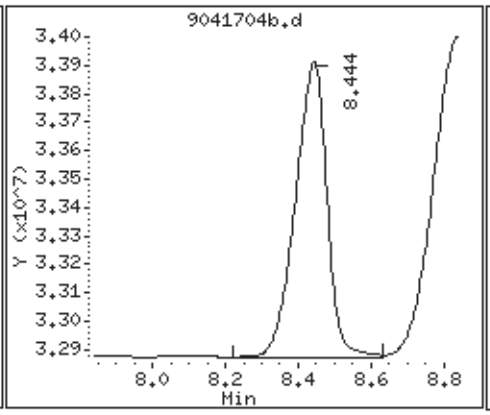
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.


/chem/gc9.i/17Apr2010.b/9041704b.d
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Dioxide (3.533)
-Oxygen (8.444)
-Nitrogen (8.840)
-Carbon Monoxide (9.926)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

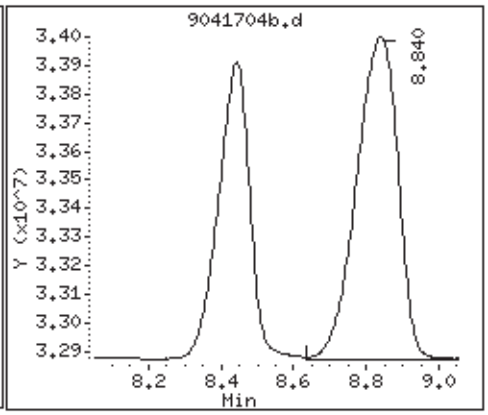
3 Carbon Dioxide



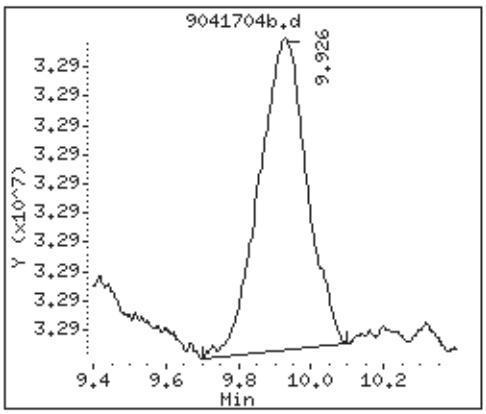
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

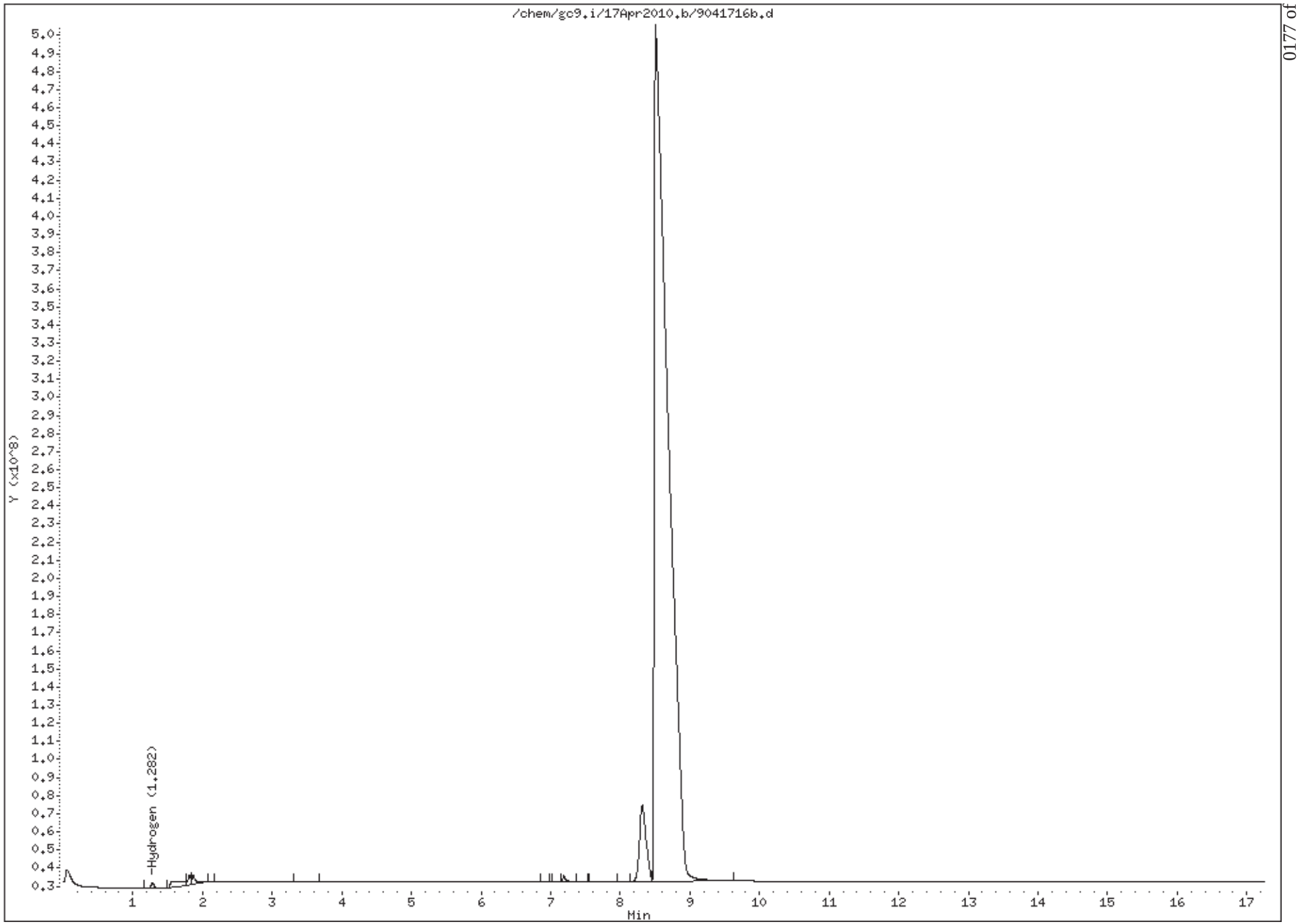
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041716b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: Level-2
Inj Date : 17-APR-2010 14:30
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(10:50);1476-977 H2;Level-2;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

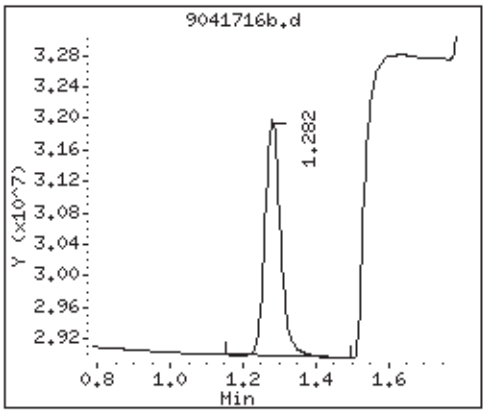
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.282	1.288	-0.006	44458302	0.40000	0.440


/chem/gc9.i/17Apr2010.b/9041716b.d
Y (x10^8)
5.0
4.9
4.8
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
Hydrogen (1.282)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

2 Hydrogen


9041716b.d
3.28
3.24
3.20
3.16
3.12
3.08
3.04
3.00
2.96
2.92
Y (x10^7)
1.282
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

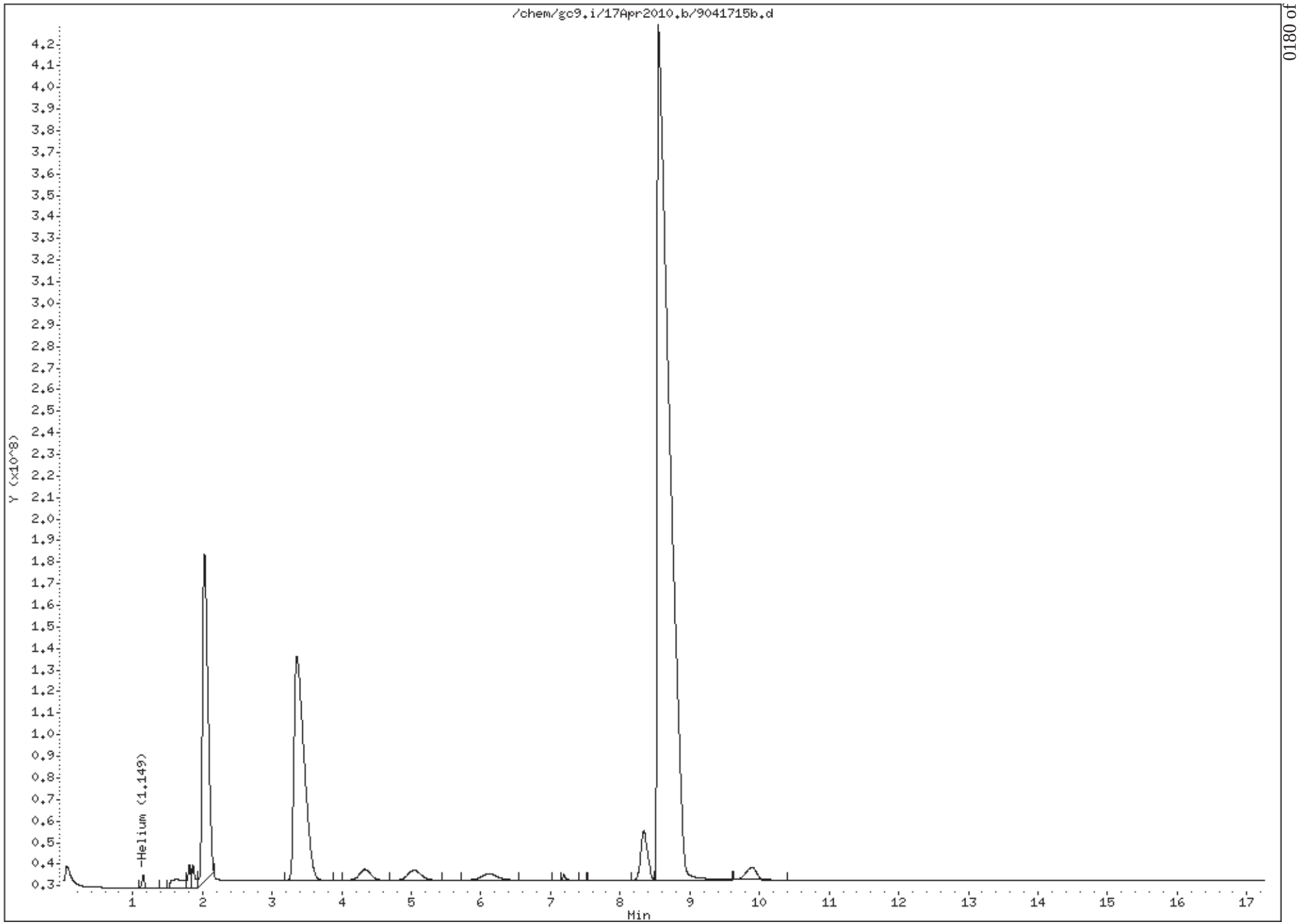
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041715b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-2
Inj Date : 17-APR-2010 14:07
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-2;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

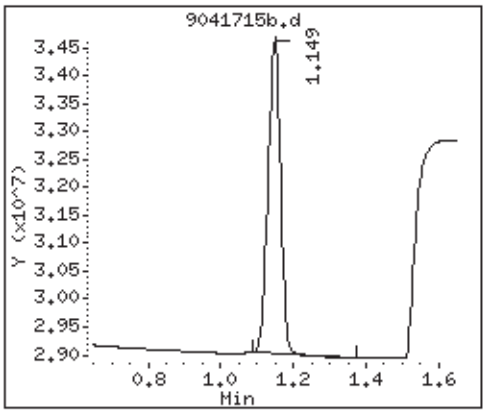
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.149	1.149	0.000	67048029	0.98700	1.00


/chem/gc9.i/17Apr2010.b/9041715b.d
Y (x10^8)
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Helium (1.149)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

1 Helium


9041715b.d
1.149
3.45
3.40
3.35
3.30
3.25
3.20
3.15
3.10
3.05
3.00
2.95
2.90
Y (x10^7)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

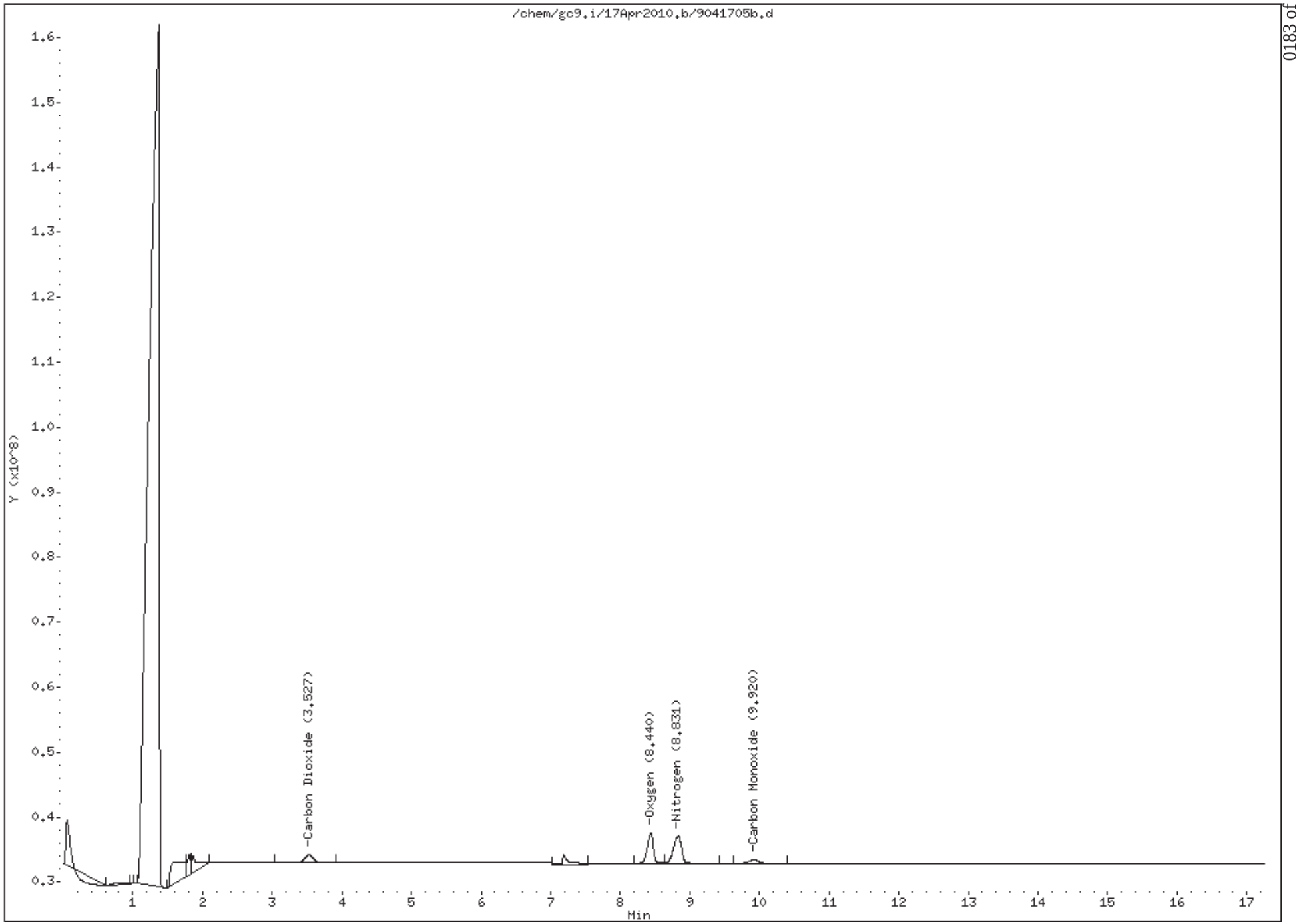
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041705b.d
Lab Smp Id: 1830-25 Client Smp ID: Level-2
Inj Date : 17-APR-2010 09:48
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,14867;1830-25;Level-2;
Misc Info : Level-2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 14:30 Cal File: 9041716b.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

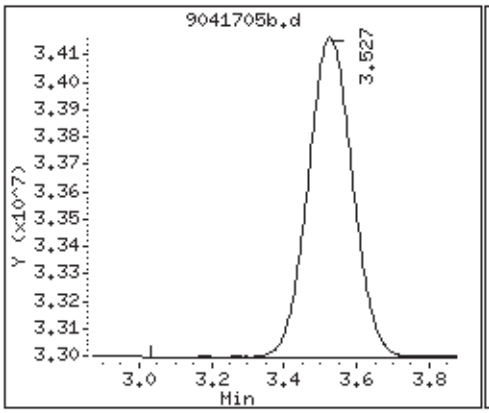
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

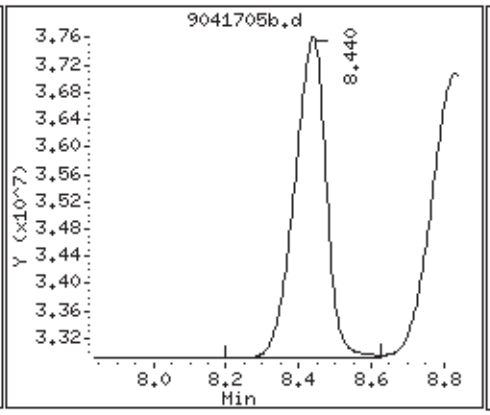
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.527	3.376	0.151	50263423	0.09880	0.0913
9 Oxygen	8.440	8.340	0.100	142795018	0.49310	0.438
10 Nitrogen	8.831	8.555	0.276	167233543	0.49500	0.458
12 Carbon Monoxide	9.920	9.902	0.018	25878143	0.10240	0.0913


/chem/gc9.i/17Apr2010.b/9041705b.d
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Dioxide (3.527)
-Oxygen (8.440)
-Nitrogen (8.831)
-Carbon Monoxide (9.920)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

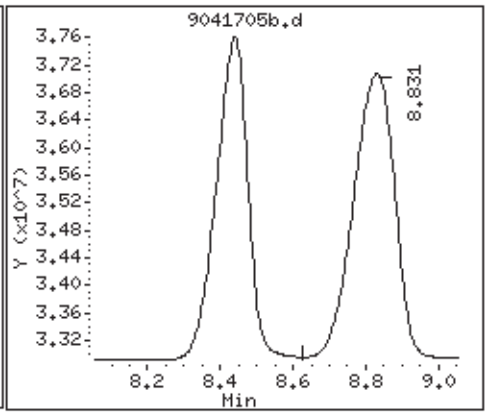
3 Carbon Dioxide



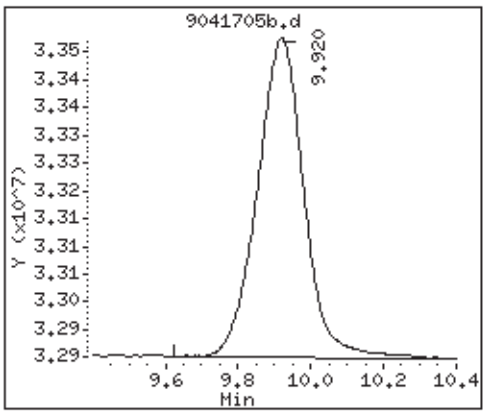
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

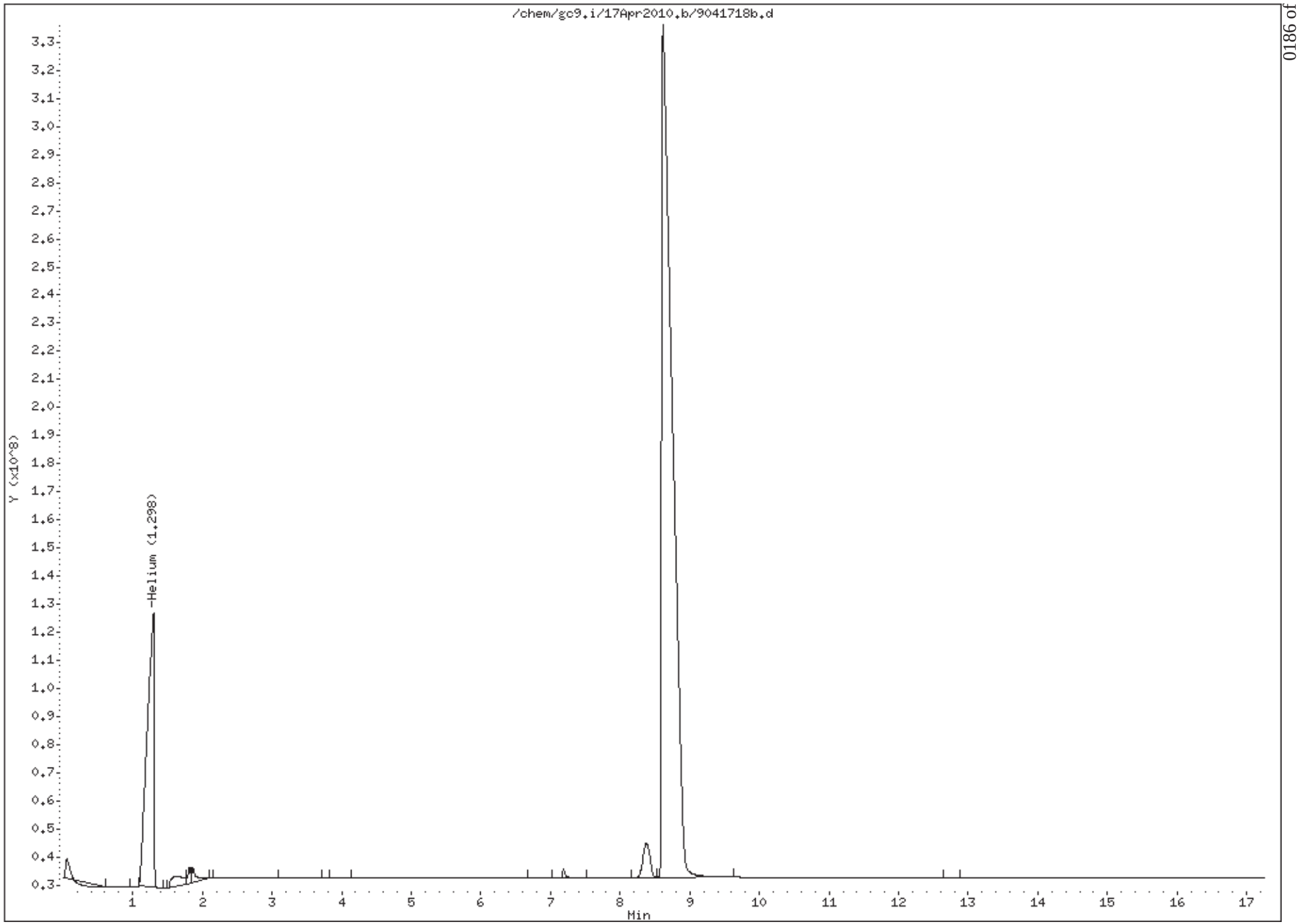
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041718b.d
Lab Smp Id: 1476-1670 Client Smp ID: Level-4
Inj Date : 17-APR-2010 15:17
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(25:50);1476-1670;Level-4;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

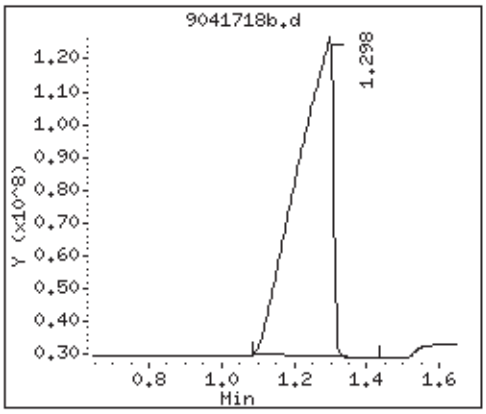
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
1 Helium	1.298	1.149	0.149	3355520328	50.0000	50.2


/chem/gc9.i/17Apr2010.b/9041718b.d
Y (x10^8)
Helium (1.298)
Min

1 Helium


9041718b.d
1.298
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
Y (x10^8)
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

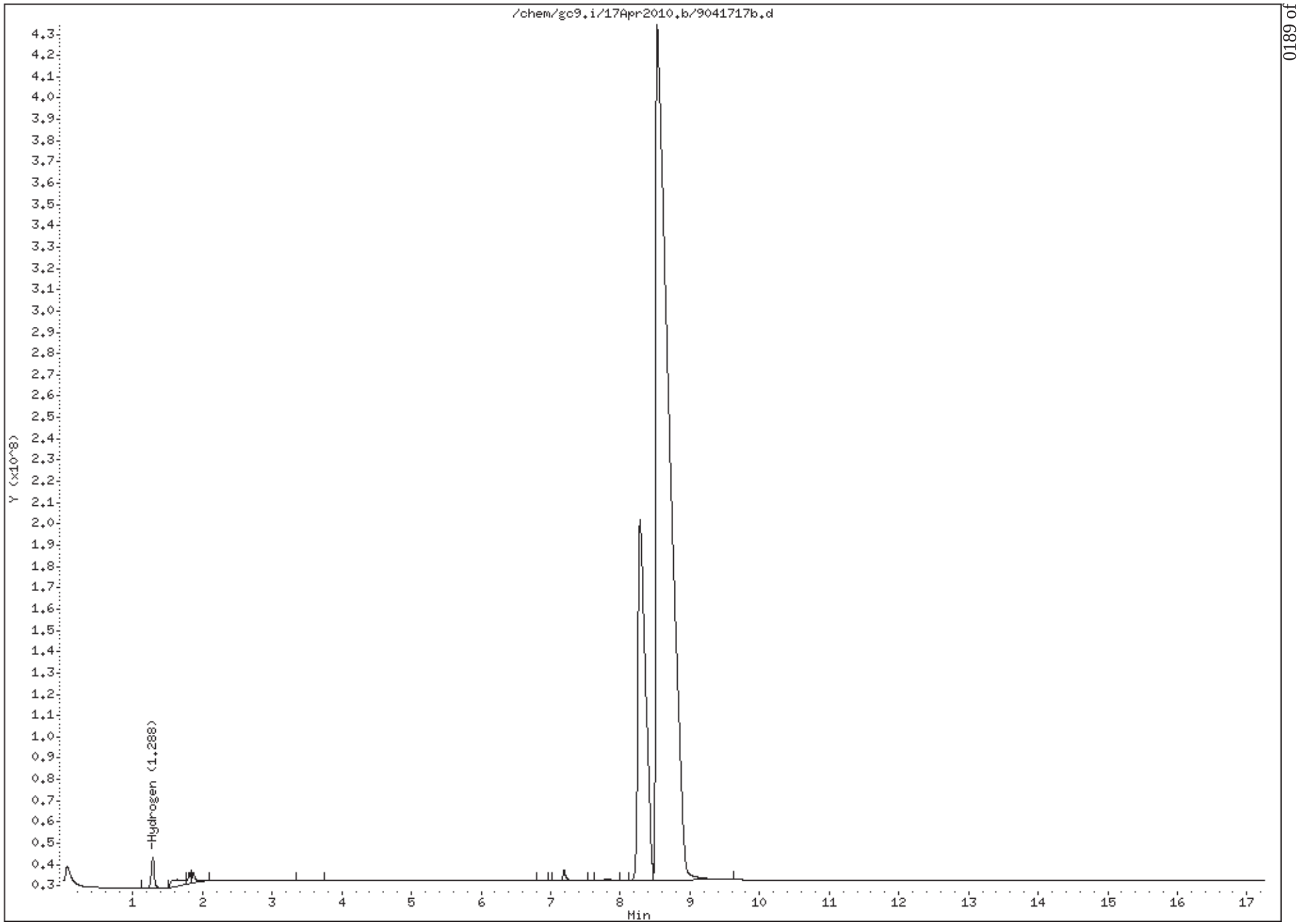
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041717b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: Level-3
Inj Date : 17-APR-2010 14:53
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-977 H2;Level-3;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

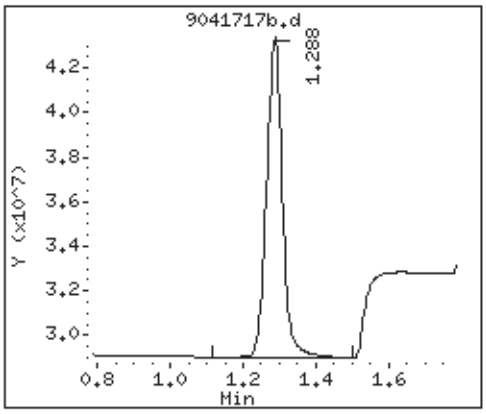
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.288	1.288	0.000	217281925	2.00000	2.15


/chem/gc9.i/17Apr2010.b/9041717b.d
Y (x10^8)
Hydrogen (1.288)
Min

2 Hydrogen



Air Toxics Ltd.

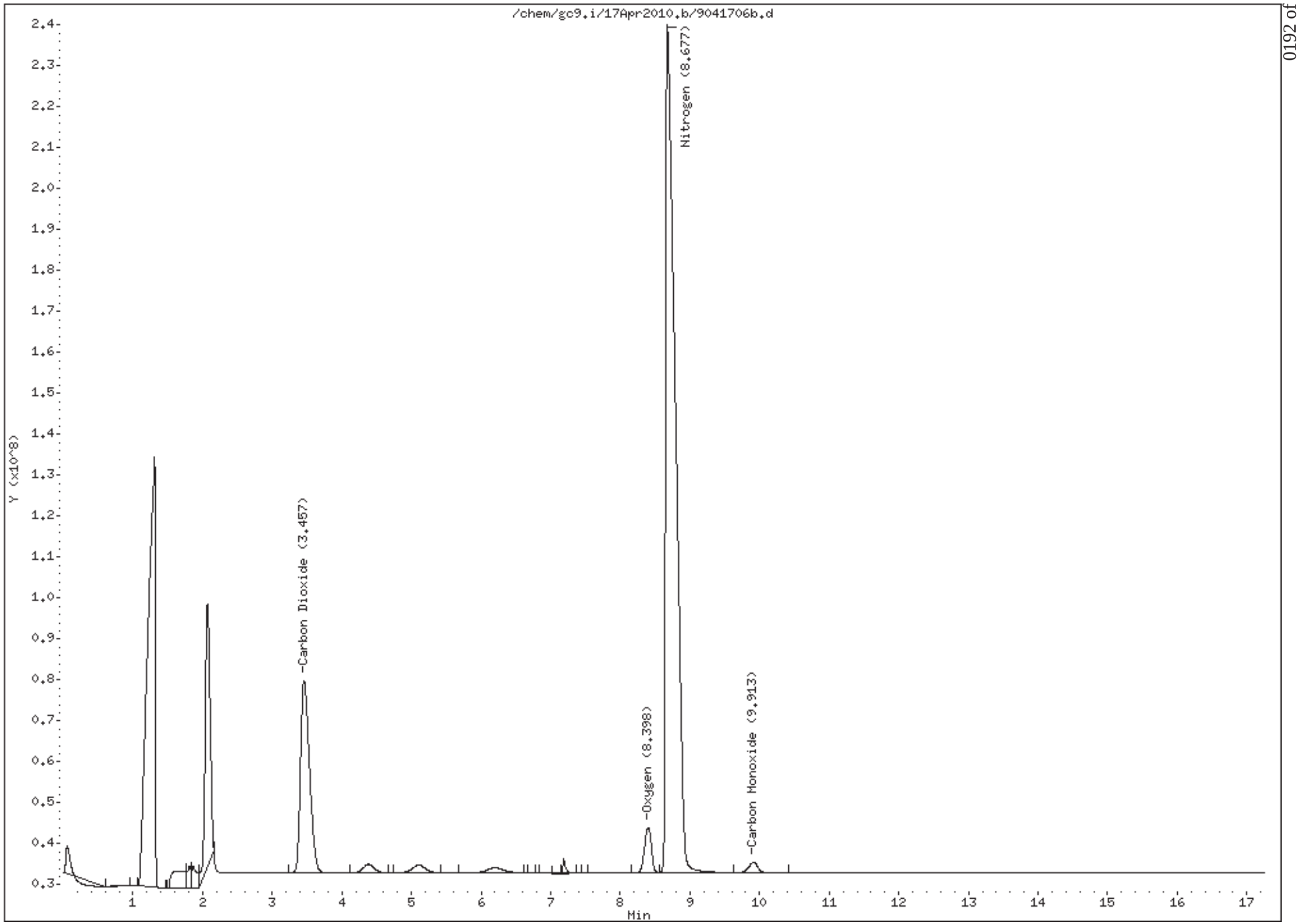
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041706b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-3
Inj Date : 17-APR-2010 10:12
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-3;
Misc Info : Level-3
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 15:17 Cal File: 9041718b.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

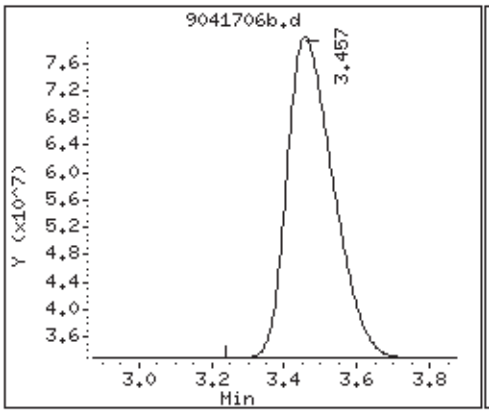
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

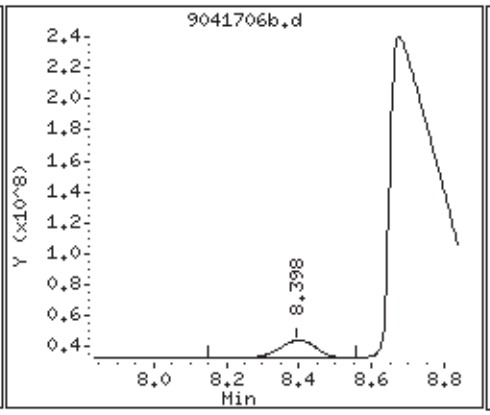
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.457	3.376	0.081	2102189021	4.00000	3.82
9 Oxygen	8.398	8.340	0.058	386868260	1.00000	1.19
10 Nitrogen	8.677	8.555	0.122	9872464302	28.2100	27.0
12 Carbon Monoxide	9.913	9.902	0.011	117140988	0.40400	0.413


/chem/gc9.i/17Apr2010.b/9041706b.d
Y (x10^8)
Min
Nitrogen (8.677)
Carbon Dioxide (3.457)
Oxygen (8.398)
Carbon Monoxide (9.913)

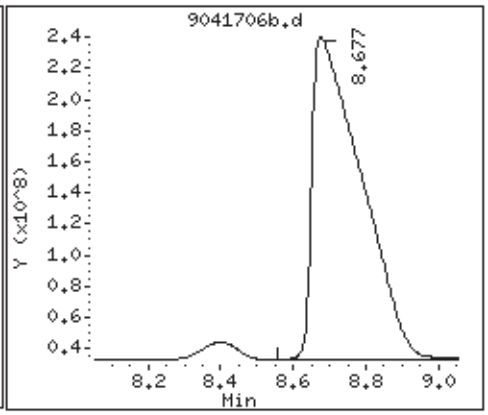
3 Carbon Dioxide



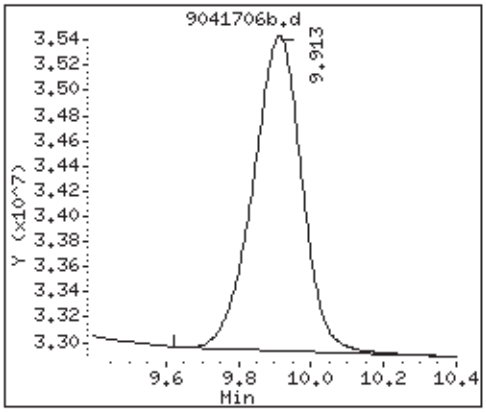
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041720b.d
Lab Smp Id: 1476-1671 Client Smp ID: Level-4
Inj Date : 17-APR-2010 16:10
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1671;Level-4;
Misc Info : H2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

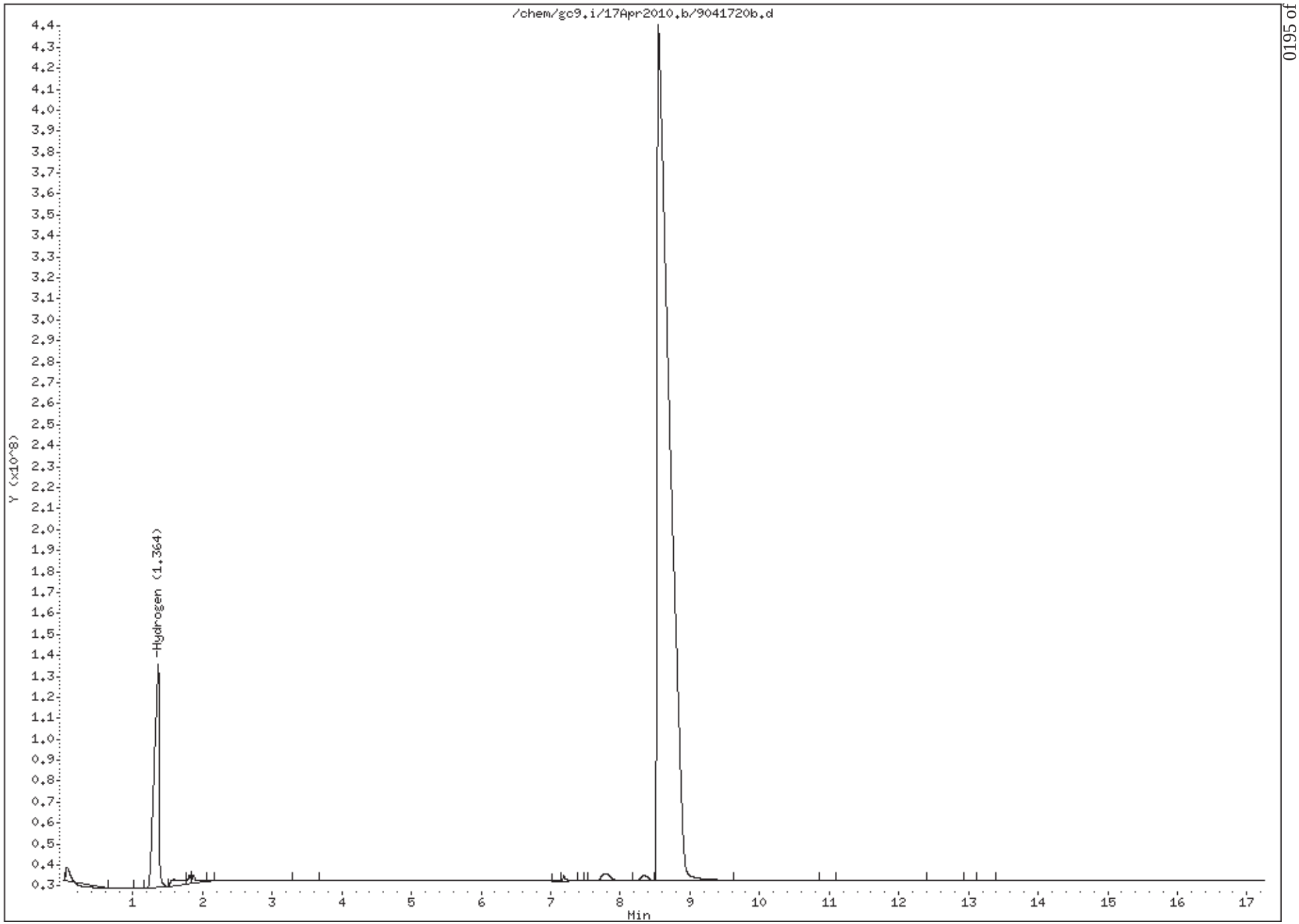
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

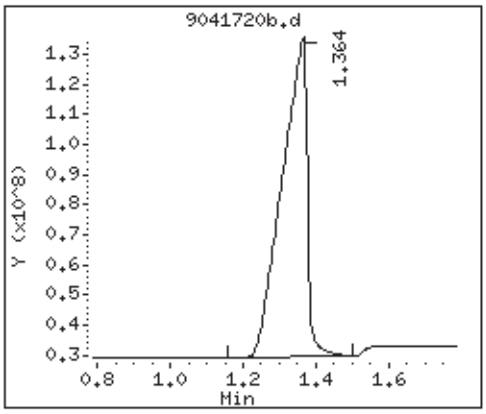
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.364	1.288	0.076	2549654950	25.0000	25.2(A)

QC Flag Legend

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


/chem/gc9.i/17Apr2010.b/9041720b.d
Y (x10^8)
Hydrogen (1.364)
Min

2 Hydrogen


9041720b.d
1.364
Y (x10^8)
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics Ltd.

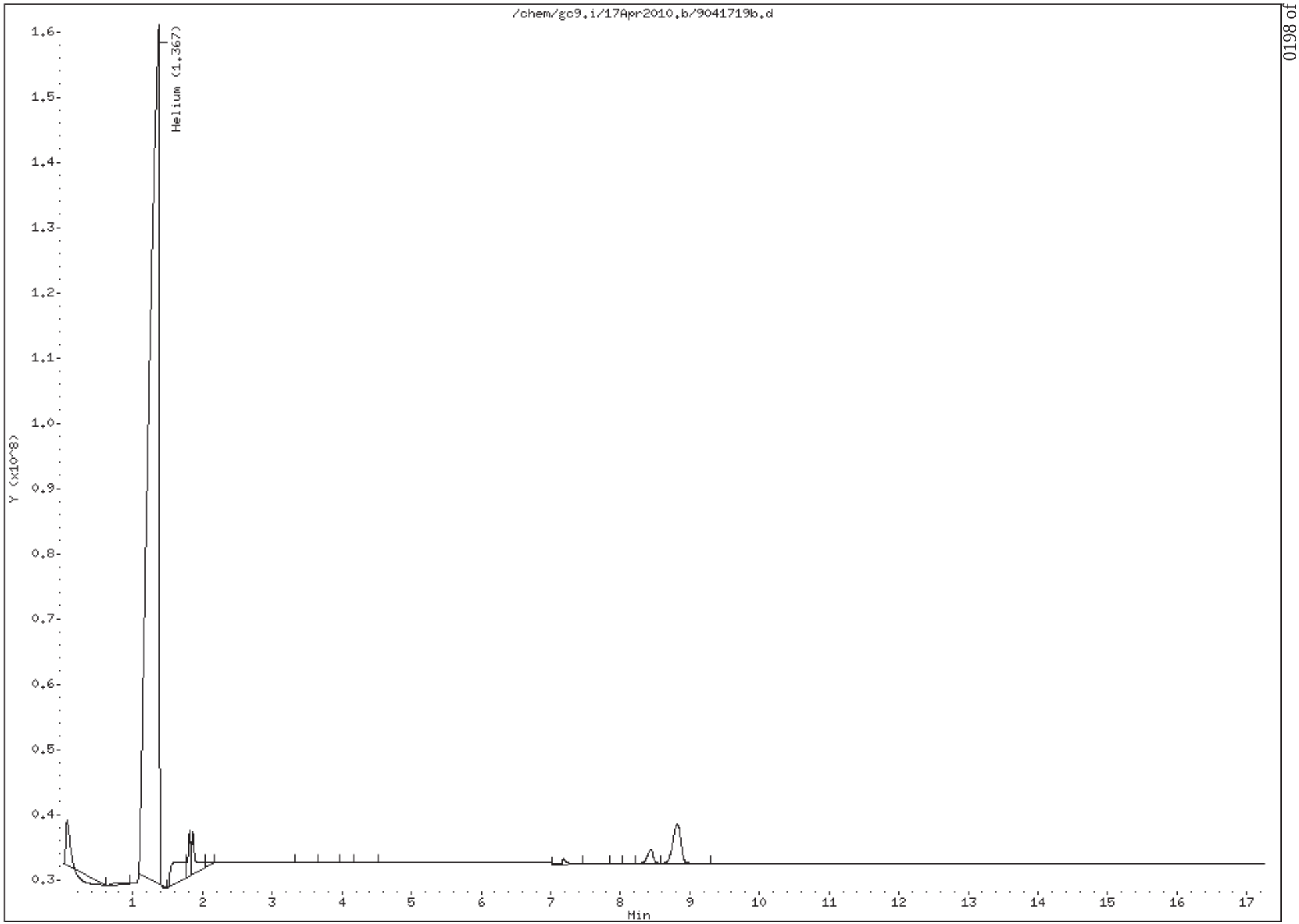
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041719b.d
Lab Smp Id: 1476-1670 Client Smp ID: Level-4
Inj Date : 17-APR-2010 15:47
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml;1476-1670;Level-4;
Misc Info : He
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:44 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: he.sub
Target Version: 3.50
Processing Host: eeyore

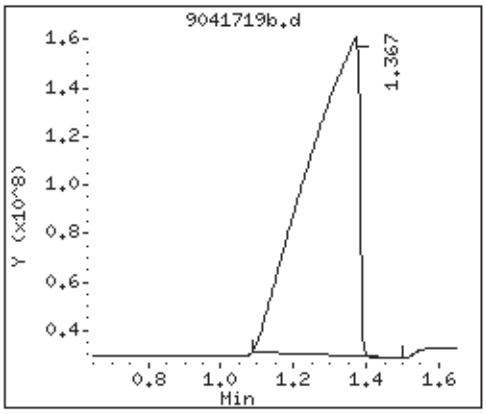
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
==========	==	======	======	========	=======	=======
1 Helium	1.367	1.149	0.218	6457384801	100.000	96.6


/chem/gc9.i/17Apr2010.b/9041719b.d
Helium (1.367)
Y (x10^8)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

1 Helium



Air Toxics Ltd.

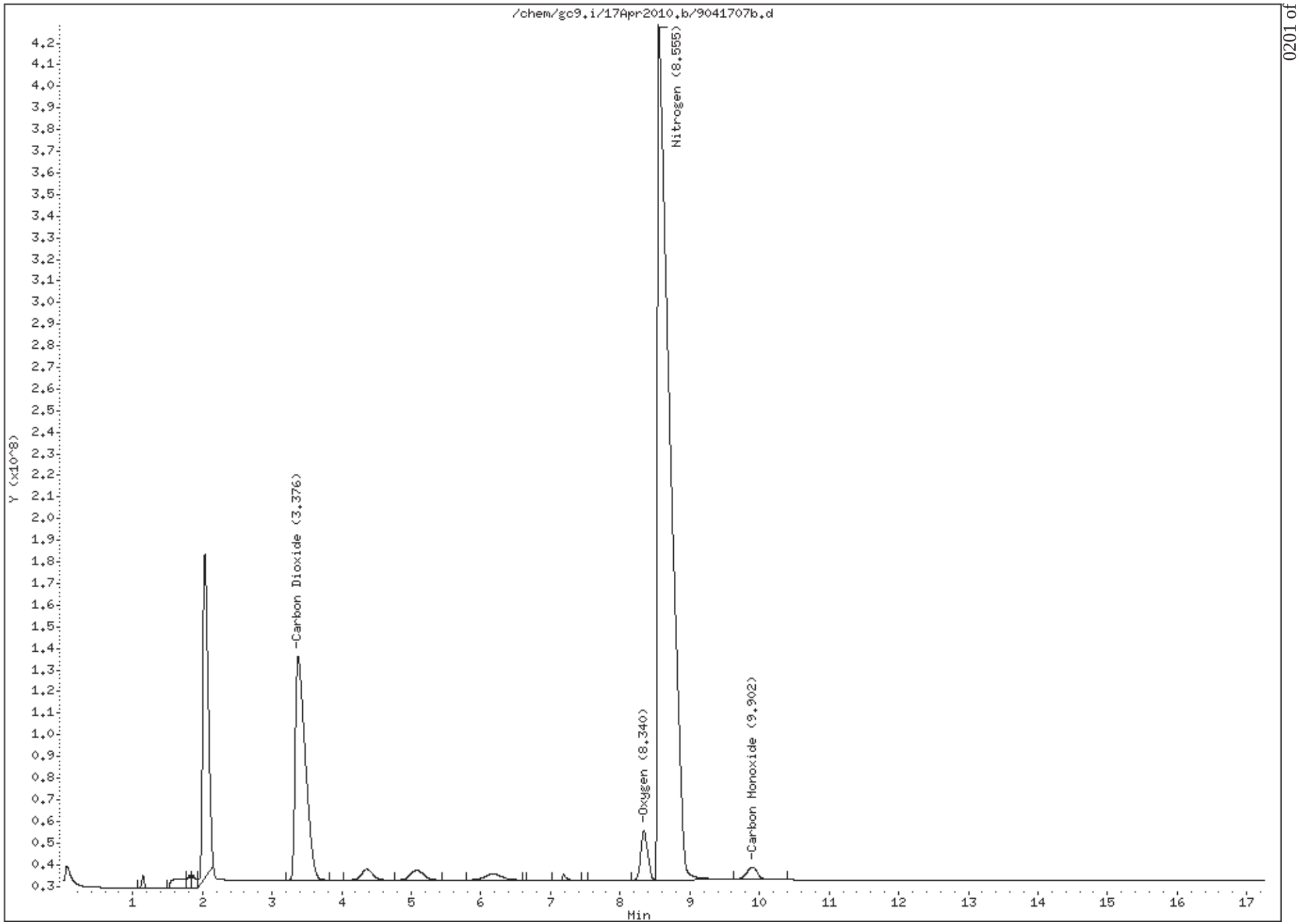
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041707b.d
Lab Smp Id: 1544-365B Client Smp ID: Level-4
Inj Date : 17-APR-2010 10:34
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,34219;1544-365B;Level-4;
Misc Info : Level-4
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 16:10 Cal File: 9041720b.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2He.sub
Target Version: 3.50
Processing Host: eeyore

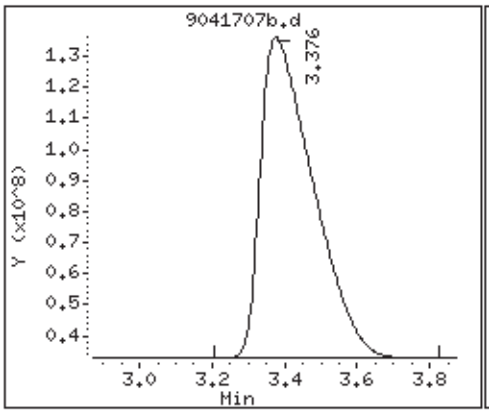
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

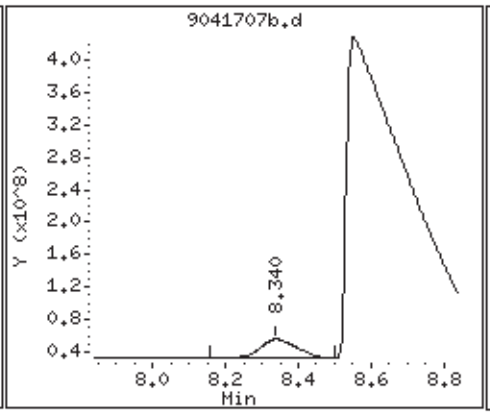
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.376	3.376	0.000	5191703107	10.0000	9.43
9 Oxygen	8.340	8.340	0.000	779481410	2.50000	2.39
10 Nitrogen	8.555	8.555	0.000	24051474674	70.5240	65.9
12 Carbon Monoxide	9.902	9.902	0.000	310213791	1.01000	1.09


/chem/gc9.i/17Apr2010.b/9041707b.d
Y (x10^8)
Min
Carbon Dioxide (3.376)
Oxygen (8.340)
Nitrogen (8.555)
Carbon Monoxide (9.902)

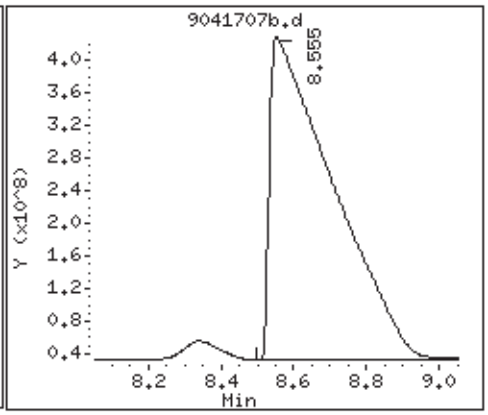
3 Carbon Dioxide



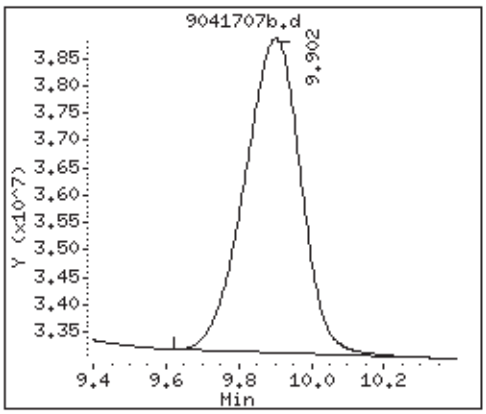
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

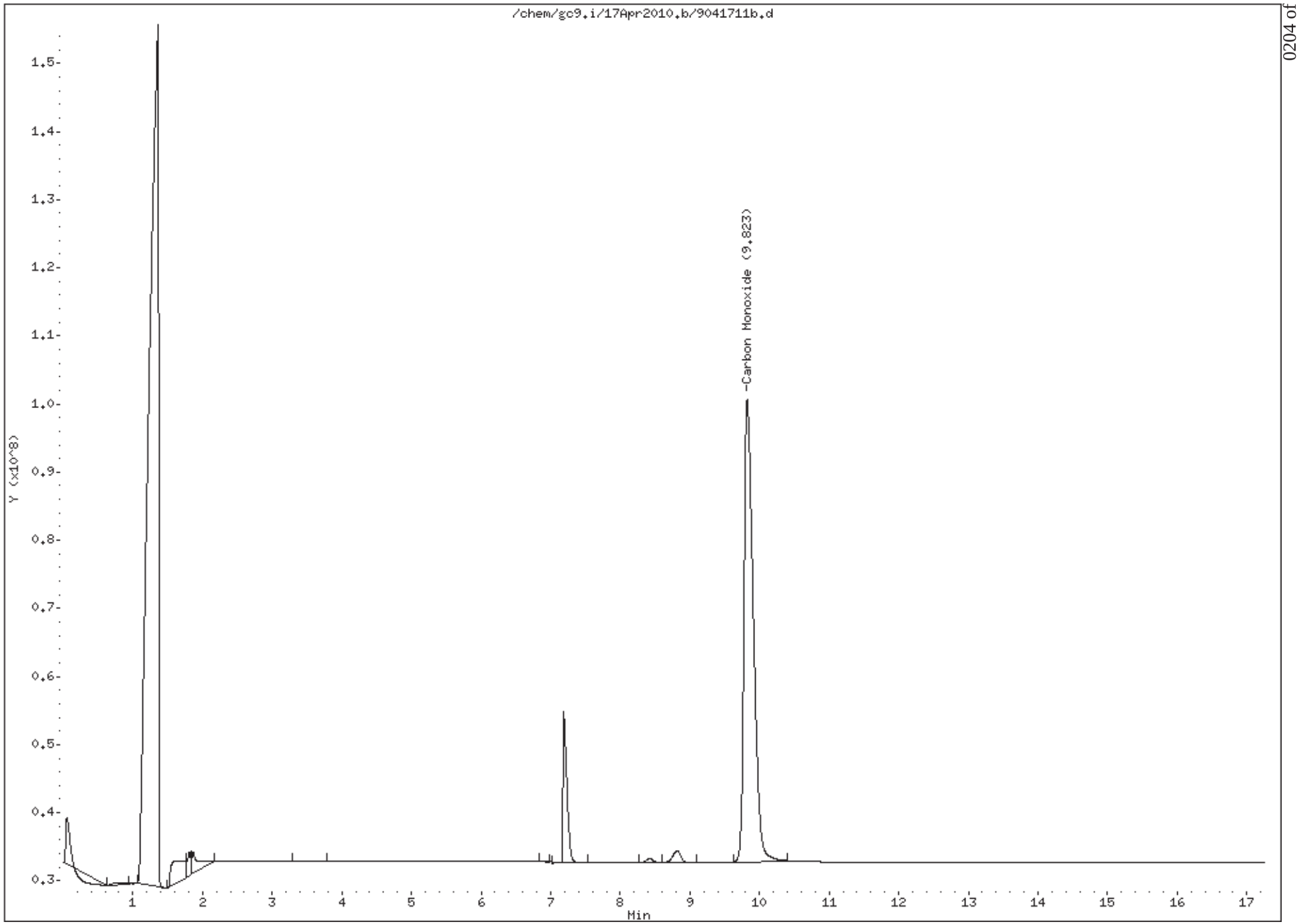
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041711b.d
Lab Smp Id: 1476-599 Client Smp ID: Level-5
Inj Date : 17-APR-2010 12:33
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(5:50),;1476-599;Level-5;
Misc Info : CO
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: co.sub
Target Version: 3.50
Processing Host: eeyore

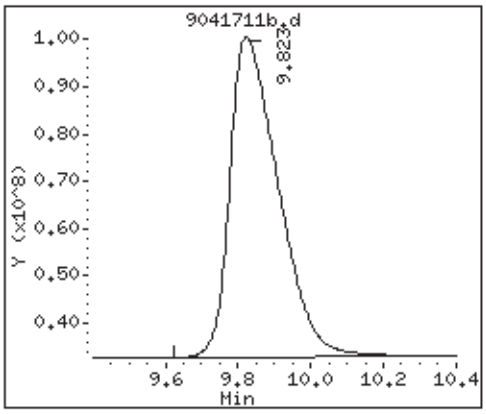
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
12 Carbon Monoxide	9.823	9.902	-0.079	3158919196	9.93000	11.1


/chem/gc9.i/17Apr2010.b/9041711b.d
Y (x10^8)
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
-Carbon Monoxide (9.823)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

12 Carbon Monoxide



Air Toxics Ltd.

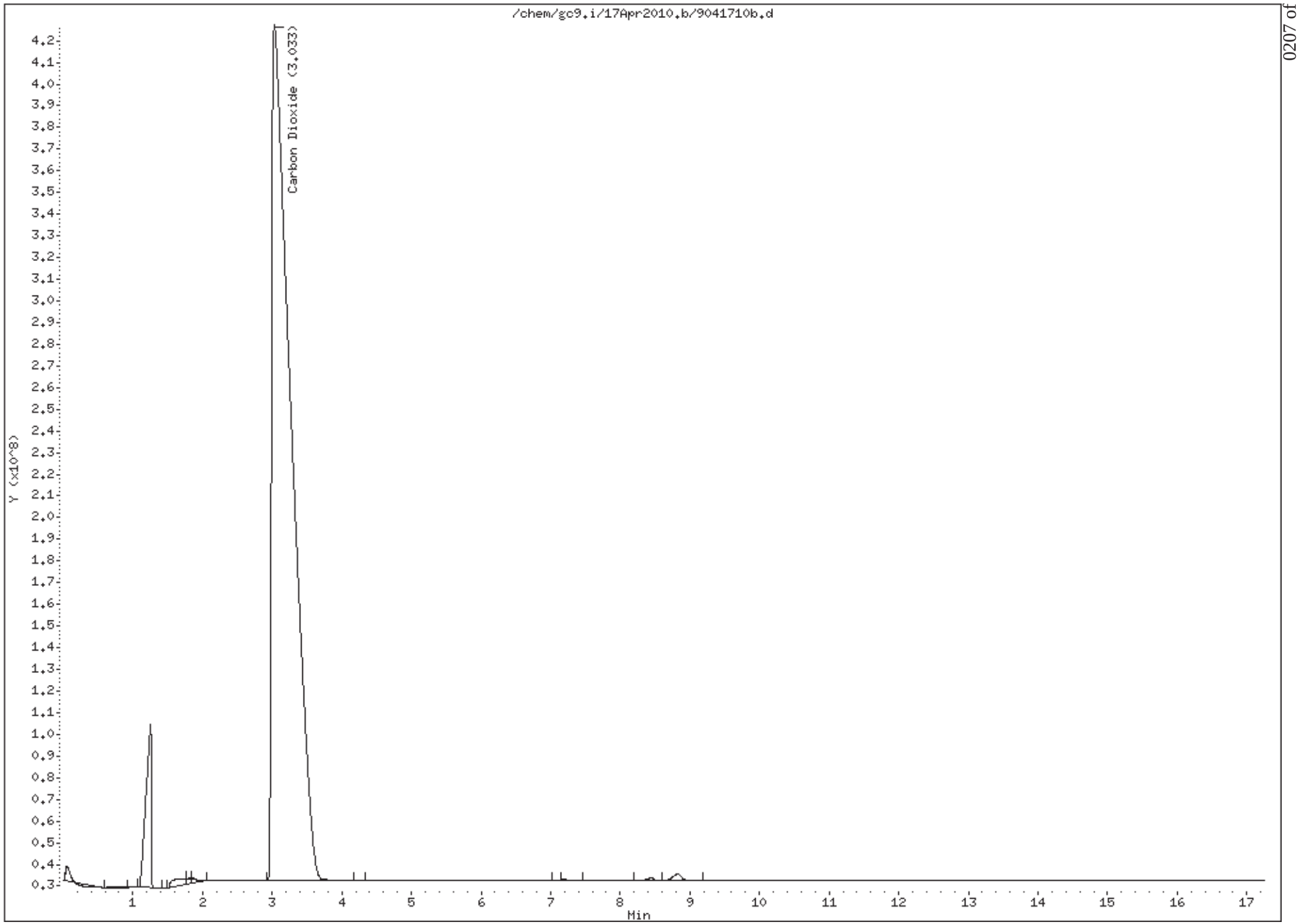
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041710b.d
Lab Smp Id: 1476-971 Client Smp ID: Level-5
Inj Date : 17-APR-2010 12:10
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(35:50),;1476-971;Level-5;
Misc Info : CO2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: co2.sub
Target Version: 3.50
Processing Host: eeyore

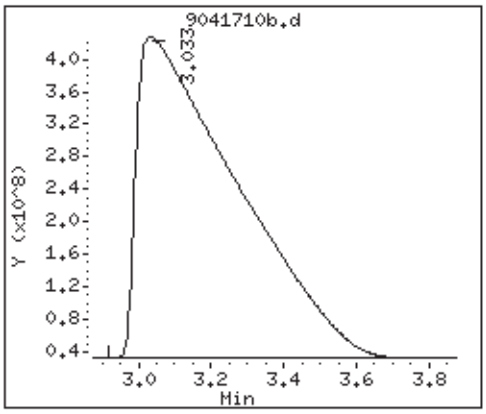
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
3 Carbon Dioxide	3.033	3.376	-0.343	37716679096	69.7900	68.5


/chem/gc9.i/17Apr2010.b/9041710b.d
Carbon Dioxide (3.033)
Y (x10^8)
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

3 Carbon Dioxide



Air Toxics Ltd.

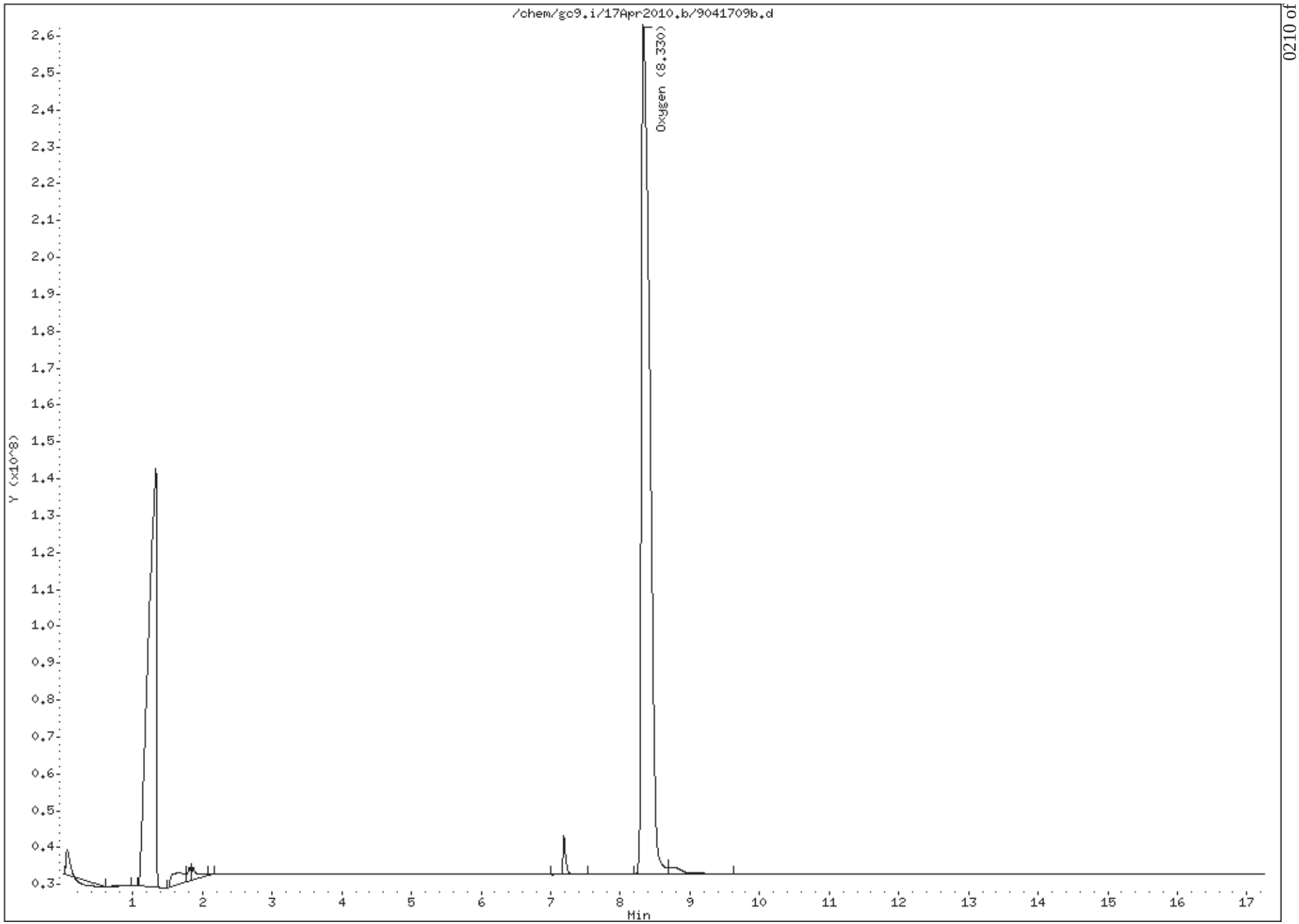
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041709b.d
Lab Smp Id: 1476-750 Client Smp ID: Level-5
Inj Date : 17-APR-2010 11:24
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml(15:50),;1476-750;Level-5;
Misc Info : O2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: O2.sub
Target Version: 3.50
Processing Host: eeyore

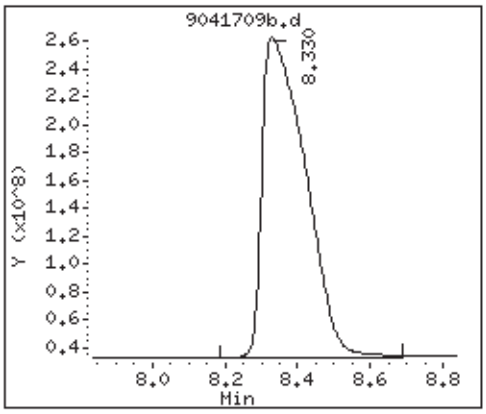
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
9 Oxygen	8.330	8.340	-0.010	9556518978	29.9100	29.3


/chem/gc9.i/17Apr2010.b/9041709b.d
Oxygen (8.330)
Y (x10^8)
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

9 Oxygen


9041709b.d
8.330
Y (x10^8)
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
8.0
8.2
8.4
8.6
8.8
Min

Air Toxics Ltd.

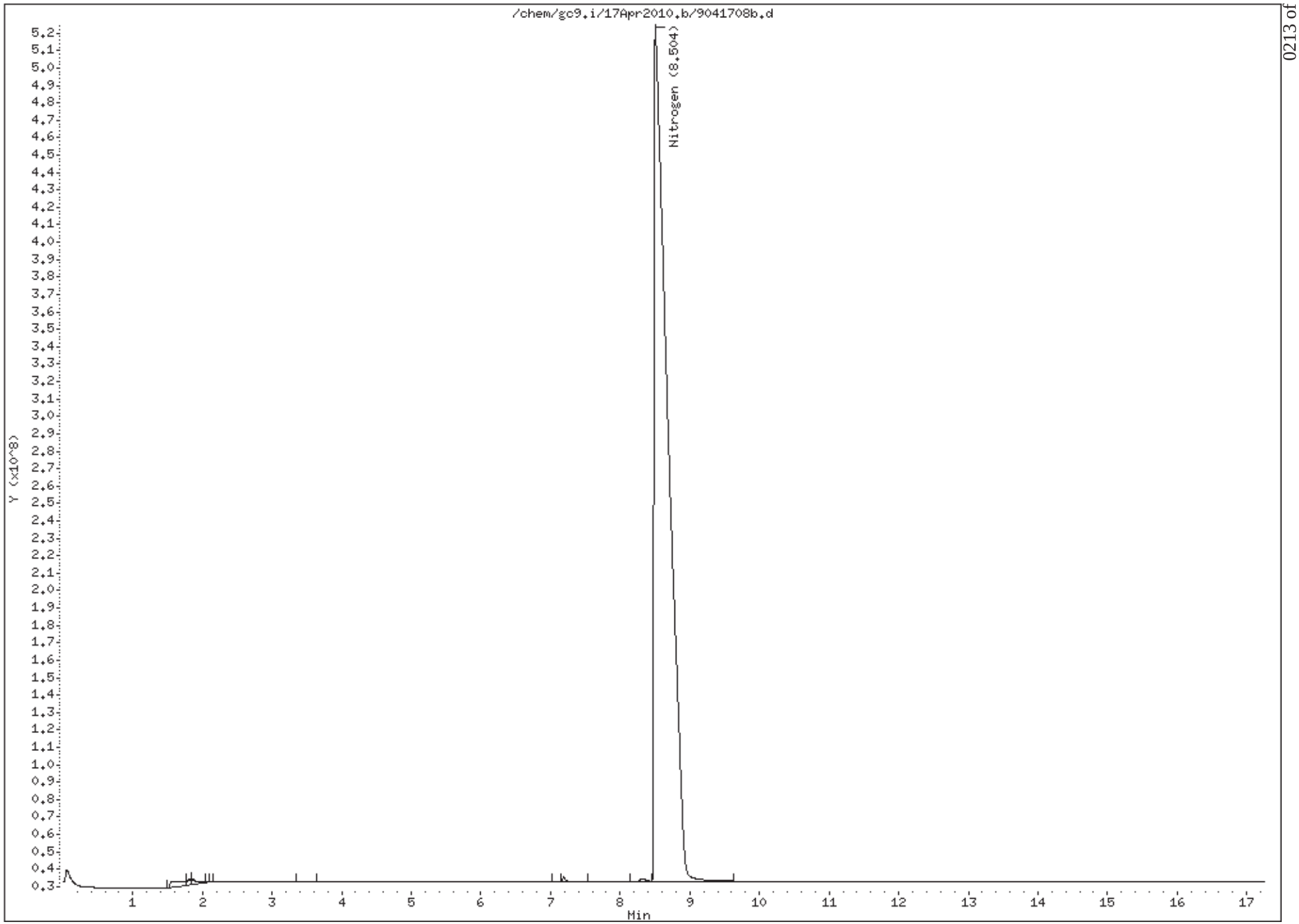
Modified ASTM D-1945

Data file : /chem/gc9.i/17Apr2010.b/9041708b.d
Lab Smp Id: 1830-N2 Client Smp ID: Level-5
Inj Date : 17-APR-2010 10:58
Operator : ly Inst ID: gc9.i
Smp Info : 1.0ml,Bag;1830-N2;Level-5;
Misc Info : N2
Comment : GC/TCD
Method : /chem/gc9.i/17Apr2010.b/910C0417.m
Meth Date : 19-Apr-2010 10:43 gmash Quant Type: ESTD
Cal Date : 17-APR-2010 12:33 Cal File: 9041711b.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: n2.sub
Target Version: 3.50
Processing Host: eeyore

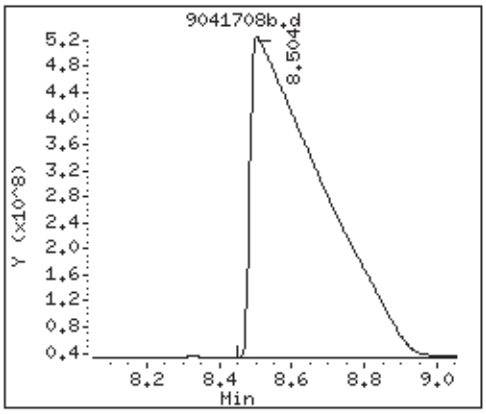
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
10 Nitrogen	8.504	8.555	-0.051	33759844822	100.000	92.5


/chem/gc9.i/17Apr2010.b/9041708b.d
Nitrogen (8.504)
Y (x10^8)
Min

10 Nitrogen


9041708b.d
8.504
Y (x10^8)
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4
8.2
8.4
8.6
8.8
9.0
Min

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 08-JUN-2010 08:36
Lab File ID: 9060802.d Init. Cal. Date(s): 30-APR-2010 30-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:54 17:55
Lab Sample ID: 1544-365B ngas Quant Type: ESTD
Method: /chem/gc9.i/08Jun2010.b/910n0430.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
2 Methane	165565421	150352292	0.010	9.18859	15.00000	Averaged
3 ethane	304581453	294224392	0.010	3.40042	15.00000	Averaged
4 ethene	298927340	290382057	0.010	2.85865	15.00000	Averaged
5 propane	462210877	444738765	0.010	3.78012	15.00000	Averaged
7 acetylene	373659611	366285129	0.010	1.97358	15.00000	Averaged
8 iso-butane	608569261	592770178	0.010	2.59610	15.00000	Averaged
10 n-butane	627463688	594815168	0.010	5.20325	15.00000	Averaged
15 neo-pentane	809133482	786138874	0.010	2.84188	15.00000	Averaged
16 isopentane	746501171	743840666	0.010	0.35640	15.00000	Averaged
17 pentane	773098274	753202994	0.010	2.57345	15.00000	Averaged
M 37 C6+ Hydrocarbons	1.021e+09	989998008	0.010	3.04665	15.00000	Averaged
S 22 c6-c7	1.021e+09	987214586	0.010	3.31924	15.00000	Averaged
S 36 c8+	1.021e+09	++++	0.010	++++	15.00000	Averaged <-

Air Toxics Ltd.

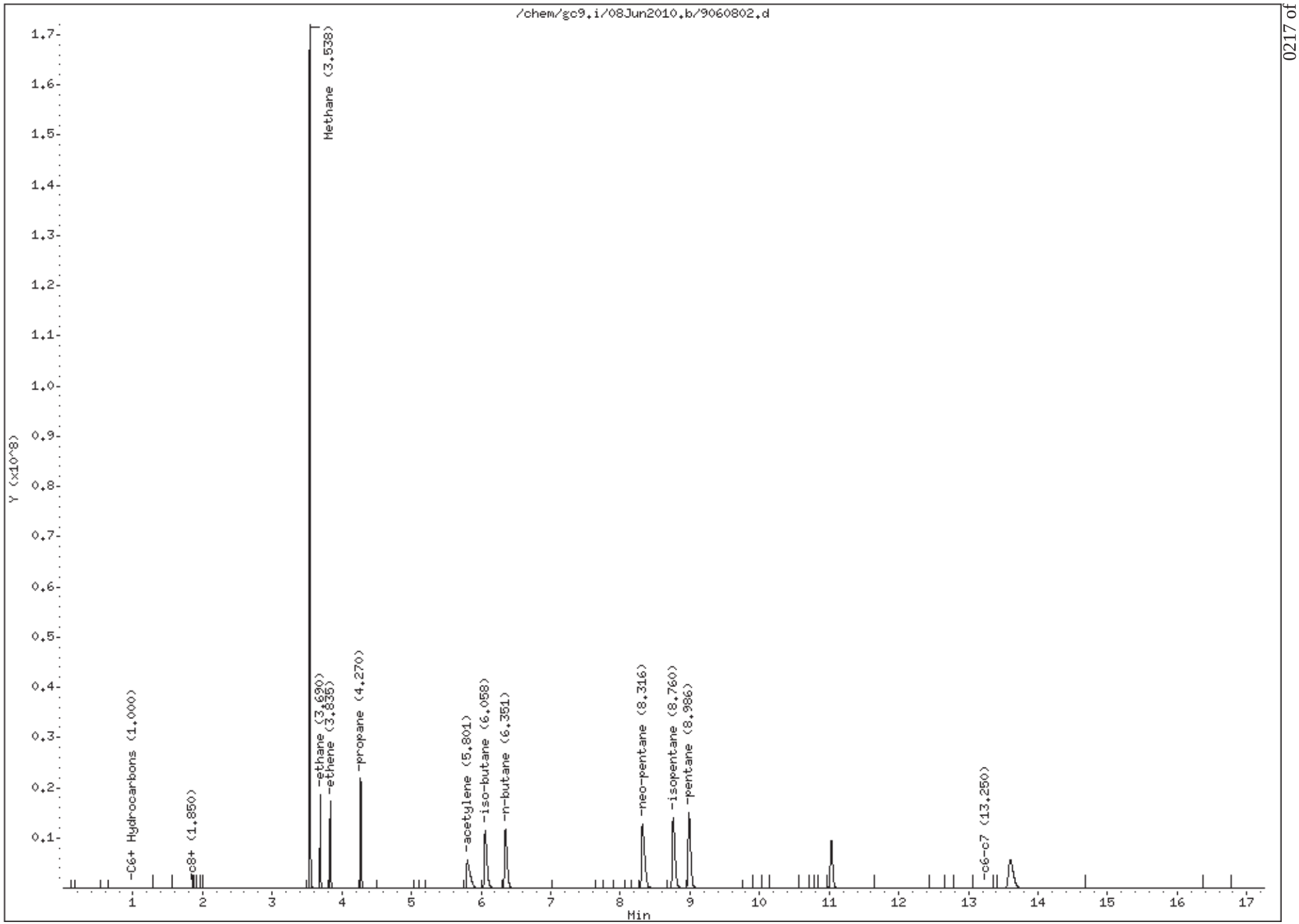
Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060802.d
Lab Smp Id: 1544-365B ngas Client Smp ID: CCV
Inj Date : 08-JUN-2010 08:36
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219
Misc Info : CCV
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

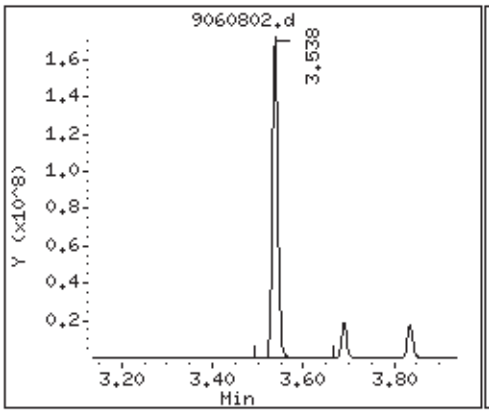
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

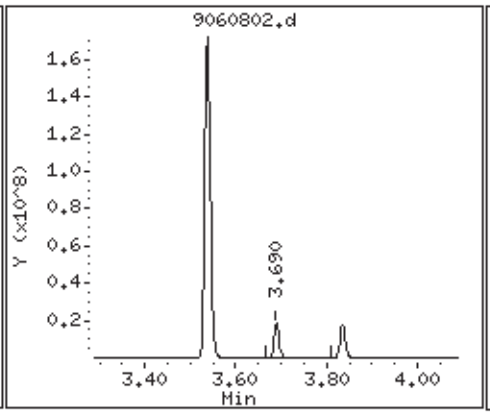
						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
	2 Methane	3.538	3.538	0.000	1496005302	9.95000	9.04
	3 ethane	3.690	3.690	0.000	146229522	0.49700	0.480
	4 ethene	3.835	3.835	0.000	145191028	0.50000	0.486
	5 propane	4.270	4.270	0.000	224148337	0.50400	0.485
	7 acetylene	5.801	5.801	0.000	183508849	0.50100	0.491
	8 iso-butane	6.058	6.058	0.000	296385089	0.50000	0.487
	10 n-butane	6.351	6.351	0.000	297407583	0.50000	0.474
	15 neo-pentane	8.316	8.316	0.000	397000131	0.50500	0.491
	16 isopentane	8.760	8.760	0.000	375639536	0.50500	0.503
	17 pentane	8.986	8.986	0.000	380367511	0.50500	0.492
M	37 C6+ Hydrocarbons				506878980	0.51200	0.496
S	22 c6-c7	9.250-17.250			505453868	0.51200	0.495
S	36 c8+	0.700-3.000			1425112	0.00000	0.00140


/chem/gc9.i/08Jun2010.b/9060802.d
Y (x10^8)
Min
Methane (3.538)
-ethane (3.690)
-ethene (3.835)
-propane (4.270)
-C6+ Hydrocarbons (1.000)
c8+ (1.850)
-acetylene (5.801)
-iso-butane (6.058)
-n-butane (6.351)
-neo-pentane (8.316)
-isopentane (8.760)
-pentane (8.986)
-c6-c7 (13.250)

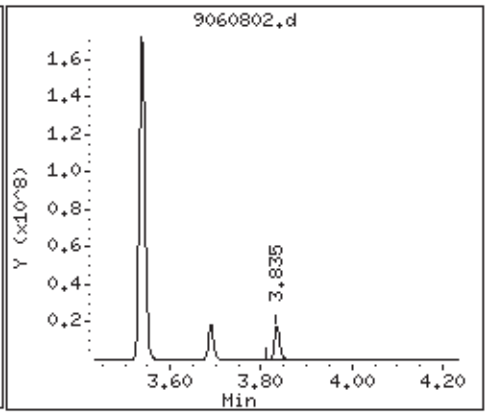
2 Methane



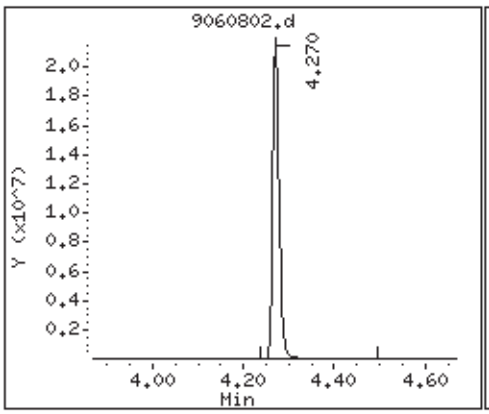
3 ethane



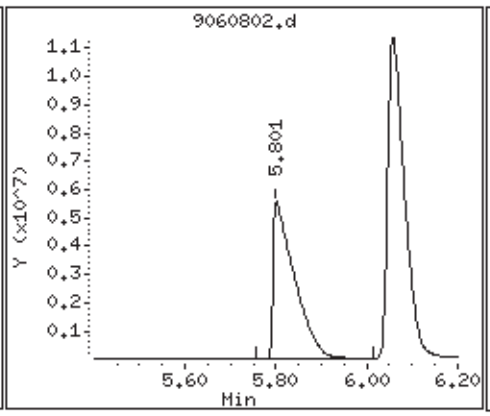
4 ethene



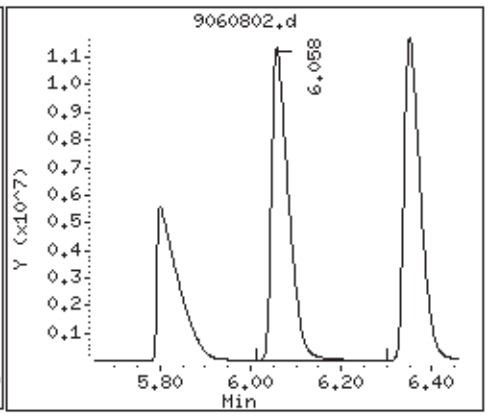
5 propane



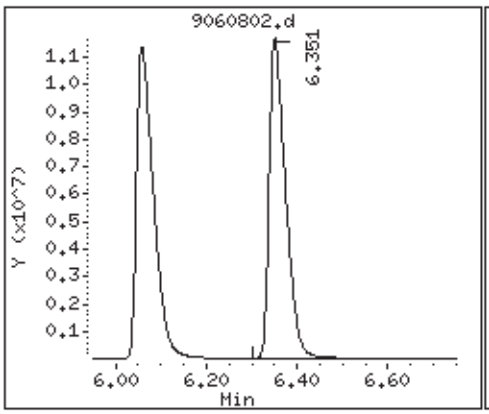
7 acetylene



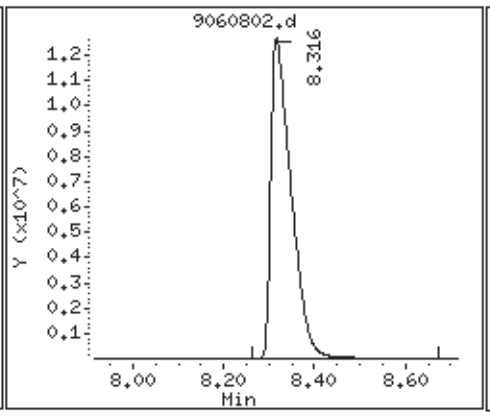
8 iso-butane



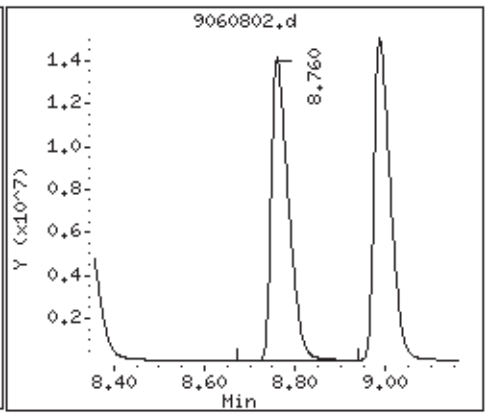
10 n-butane



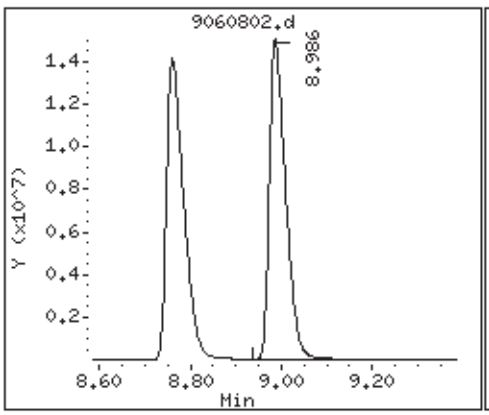
15 neo-pentane



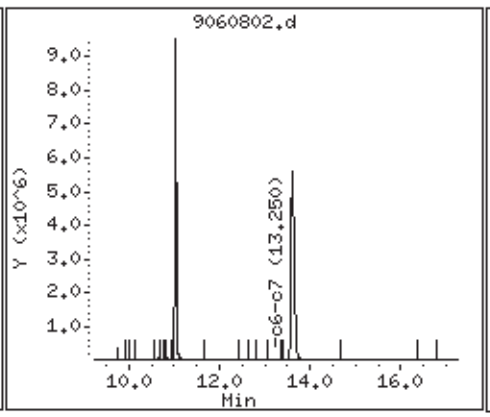
16 isopentane



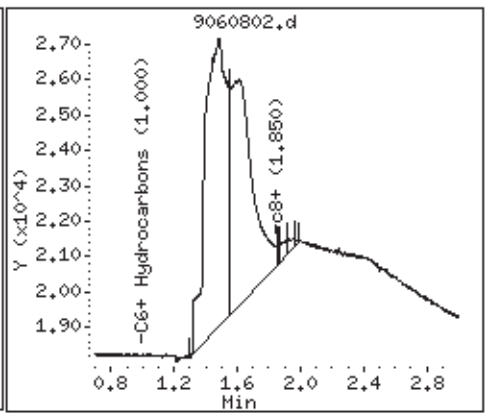
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 08-JUN-2010 08:36
Lab File ID: 9060802b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1544-365B ngas Quant Type: ESTD
Method: /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 Carbon Dioxide	550433949	505888791	0.010	8.09273	15.00000	Averaged
1 Helium	66861269	66752628	0.010	0.16249	15.00000	Averaged
9 Oxygen	325899096	320624725	0.010	1.61841	15.00000	Averaged
10 Nitrogen	364890596	341150075	0.010	6.50620	15.00000	Averaged
12 Carbon Monoxide	283422459	305851871	0.010	-7.91377	15.00000	Averaged

Air Toxics Ltd.

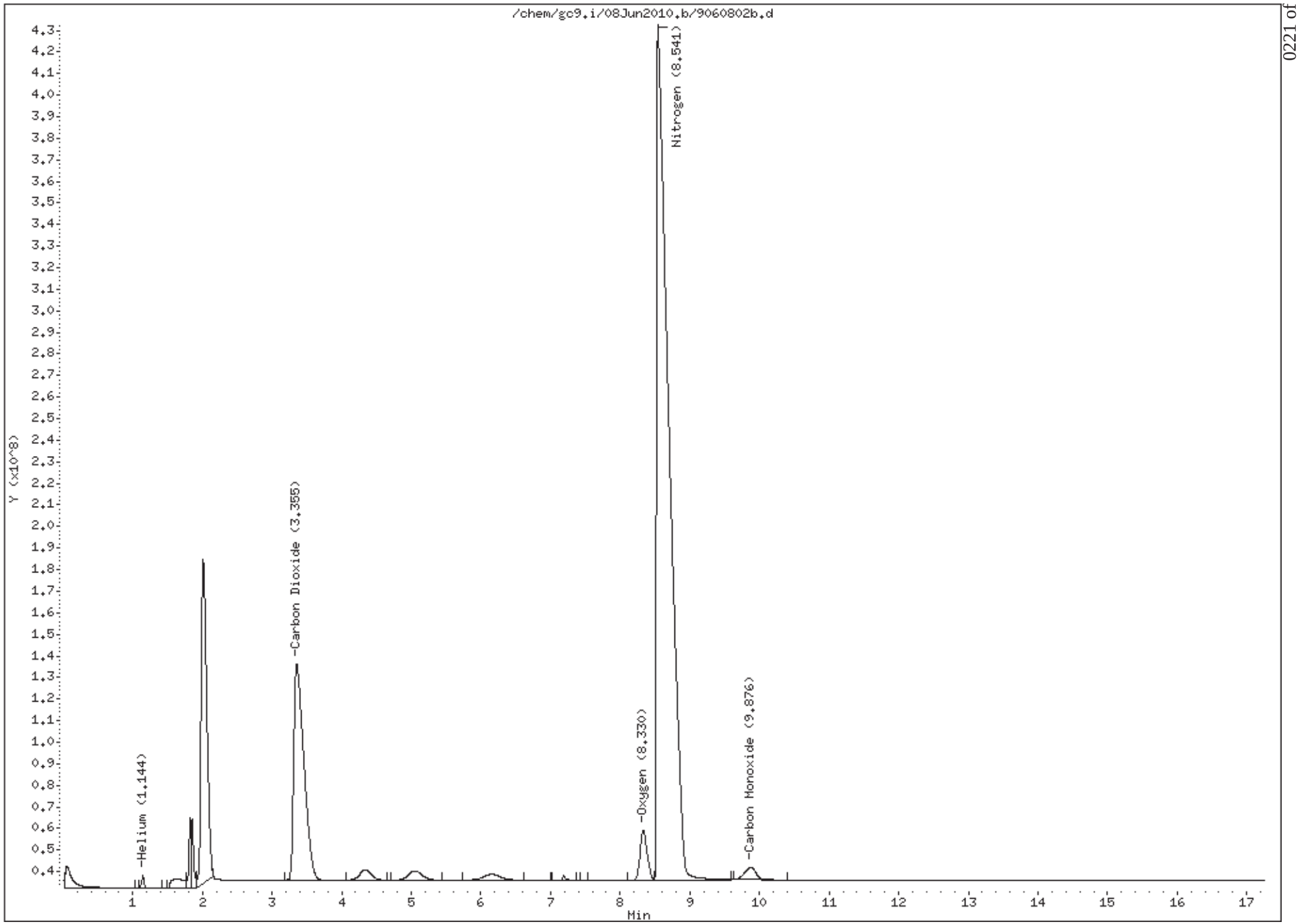
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060802b.d
Lab Smp Id: 1544-365B ngas Client Smp ID: CCV
Inj Date : 08-JUN-2010 08:36
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,34219;1544-365B ngas;CCV;
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 08:53 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ng+He-H2.sub
Target Version: 3.50
Processing Host: eeyore

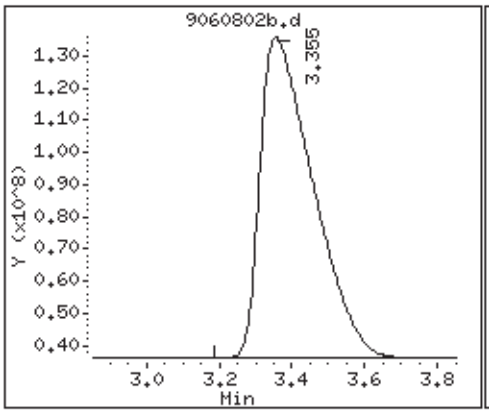
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

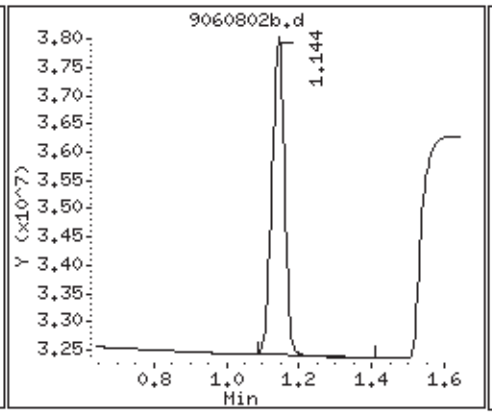
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (%)	AMOUNTS ON-COL (%)
3 Carbon Dioxide	3.355	3.355	0.000	5058887913	10.0000	9.19
1 Helium	1.144	1.144	0.000	65884844	0.98700	0.985
9 Oxygen	8.330	8.330	0.000	801561812	2.50000	2.46
10 Nitrogen	8.541	8.541	0.000	24059267869	70.5240	65.9
12 Carbon Monoxide	9.876	9.876	0.000	308910389	1.01000	1.09


/chem/gc9.i/08Jun2010.b/9060802b.d
Y (x10^8)
Min
-Helium (1.144)
-Carbon Dioxide (3.355)
-Oxygen (8.330)
Nitrogen (8.541)
-Carbon Monoxide (9.876)

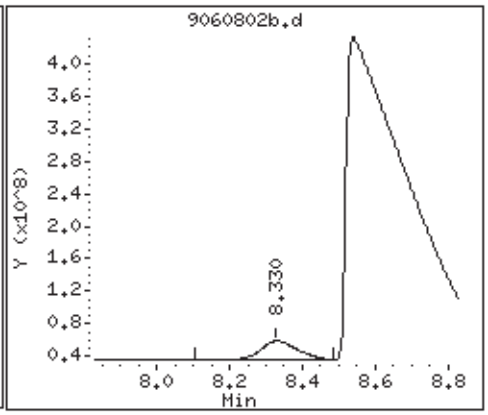
3 Carbon Dioxide



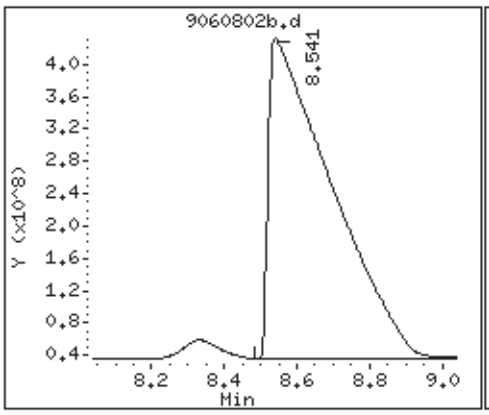
1 Helium



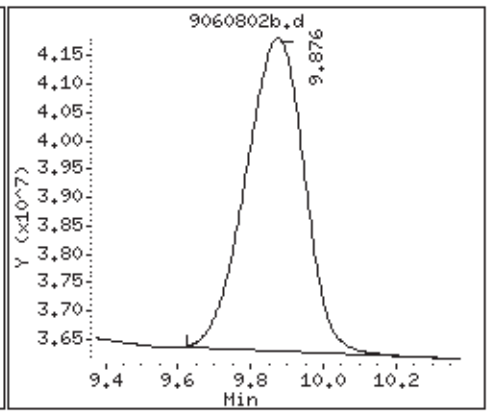
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc9.i Injection Date: 08-JUN-2010 09:08
Lab File ID: 9060803b.d Init. Cal. Date(s): 17-APR-2010 17-APR-2010
Analysis Type: AIR Init. Cal. Times: 09:26 16:10
Lab Sample ID: 1476-977 H2 Quant Type: ESTD
Method: /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m

			MIN		MAX	
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	CURVE TYPE
2 Hydrogen	105110654	97424727	0.010	7.31222	15.00000	Averaged

Air Toxics Ltd.

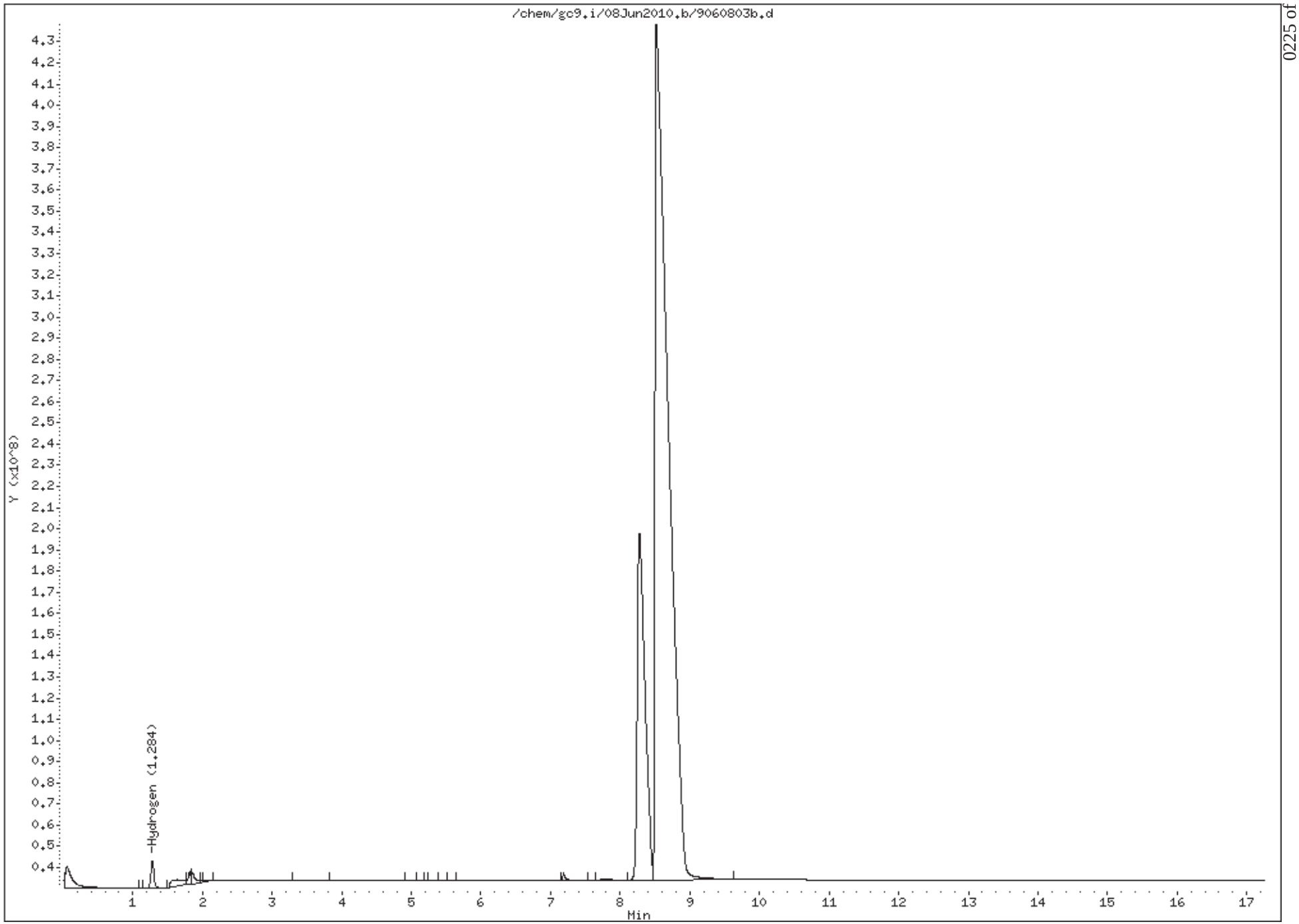
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060803b.d
Lab Smp Id: 1476-977 H2 Client Smp ID: CCV
Inj Date : 08-JUN-2010 09:08
Operator : ly Inst ID: gc9.i
Smp Info : 1.0mL,;1476-977 H2;CCV;
Misc Info : CCV
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

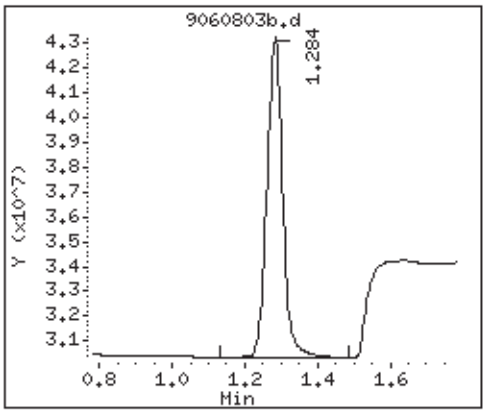
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.284	1.284	0.000	194849453	2.00000	1.85


/chem/gc9.i/08Jun2010.b/9060803b.d
Y (x10^8)
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
Hydrogen (1.284)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Min

2 Hydrogen


9060803b.d
1.284
Y (x10^7)
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
0.8
1.0
1.2
1.4
1.6
Min

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060824**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/10 09:13 PM**	

Compound	%Recovery
Oxygen	102
Nitrogen	100
Carbon Monoxide	101
Methane	101
Carbon Dioxide	101
Ethane	102
Ethene	101
Acetylene	104
Propane	100
Isobutane	100
Butane	99
Neopentane	100
Isopentane	100
Pentane	100
C6+	100
Helium	97

Container Type: NA - Not Applicable

Report Date: 08-Jun-2010 21:33

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 08Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas.sub
Method File: /chem/gc9.i/08Jun2010.b/910n0430.m
Misc Info: LCS

	SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
	2 Methane	9.99	10.1	100.74	85-115
	3 ethane	0.498	0.506	101.52	85-115
	4 ethene	0.500	0.507	101.37	85-115
	5 propane	0.499	0.500	100.22	85-115
	7 acetylene	0.500	0.522	104.38	85-115
	8 iso-butane	0.500	0.503	100.55	85-115
	10 n-butane	0.498	0.492	98.75	85-115
	15 neo-pentane	0.510	0.510	99.94	85-115
	16 isopentane	0.505	0.508	100.58	85-115
	17 pentane	0.503	0.504	100.12	85-115
M	37 C6+ Hydrocarbons	0.516	0.514	99.71	85-115

Air Toxics Ltd.

Modified ASTM-1945 Analysis

Data file : /chem/gc9.i/08Jun2010.b/9060824.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 08-JUN-2010 21:13
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,
Misc Info : LCS
Comment : GC FID
Method : /chem/gc9.i/08Jun2010.b/910n0430.m
Meth Date : 08-Jun-2010 08:52 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 08:36 Cal File: 9060802.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

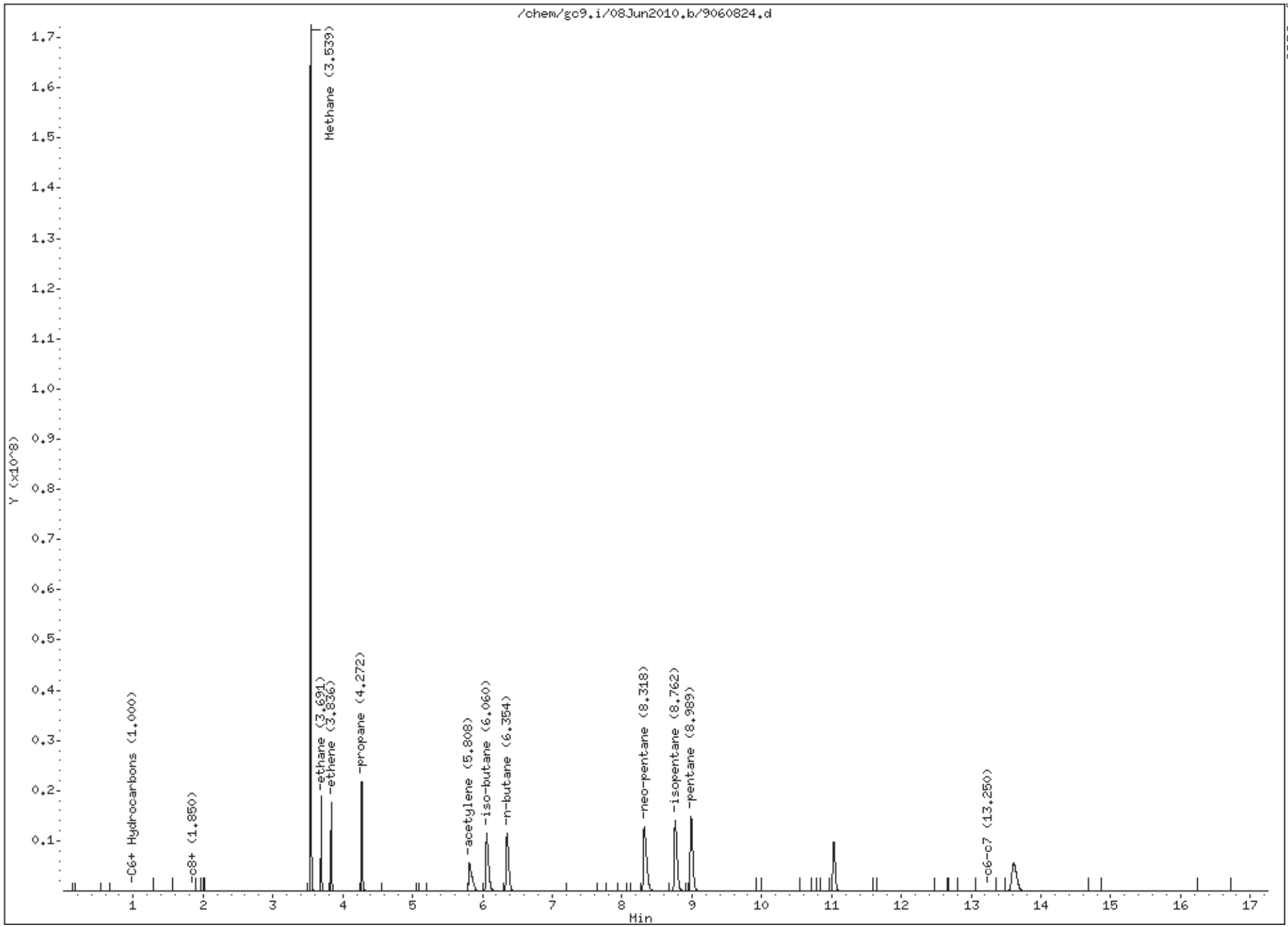
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

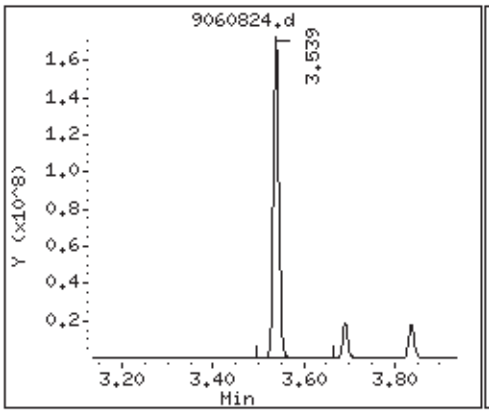
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	FINAL (%)
	2 Methane	3.539	3.538	0.001	1513101008	10.0637	10.1
	3 ethane	3.691	3.690	0.001	148757101	0.50559	0.506
	4 ethene	3.836	3.835	0.001	147186812	0.50687	0.507
	5 propane	4.272	4.270	0.002	222415517	0.50010	0.500
	7 acetylene	5.808	5.801	0.007	191163830	0.52190	0.522(A)
	8 iso-butane	6.060	6.058	0.002	298029011	0.50277	0.503(A)
	10 n-butane	6.354	6.351	0.003	292503195	0.49175	0.492
	15 neo-pentane	8.318	8.316	0.002	400681942	0.50968	0.510(A)
	16 isopentane	8.762	8.760	0.002	377825748	0.50794	0.508
	17 pentane	8.989	8.986	0.003	379301993	0.50359	0.504
M	37 C6+ Hydrocarbons				509487360	0.51452	0.514
S	22 c6-c7	9.250-17.250			507938185	0.51452	0.514
S	36 c8+	0.700-3.000			1549174		(a)

QC Flag Legend

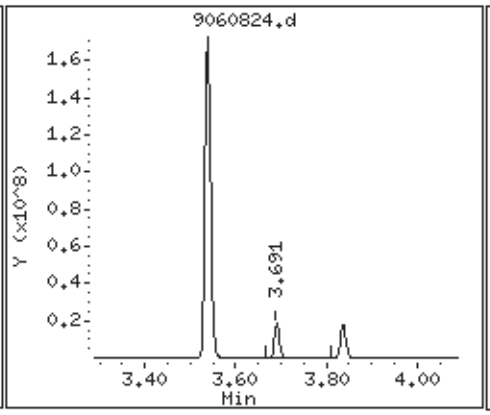
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.


/chem/gc9.i/08Jun2010.b/9060824.d
Y (x10^8)
Min
-C6+ Hydrocarbons (1.000)
-c8+ (1.850)
-ethane (3.691)
-ethene (3.836)
Methane (3.539)
-propane (4.272)
-acetylene (5.808)
-iso-butane (6.060)
-n-butane (6.354)
-neo-pentane (8.318)
-isopentane (8.762)
-pentane (8.989)
-c6-c7 (13.250)

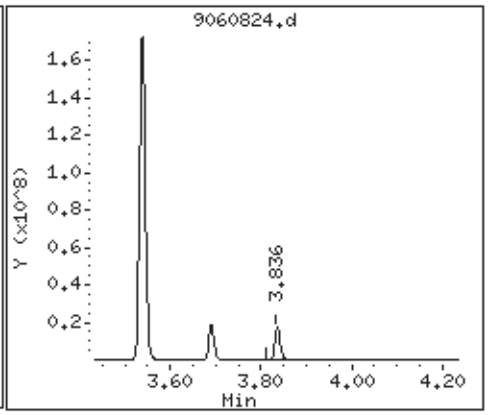
2 Methane



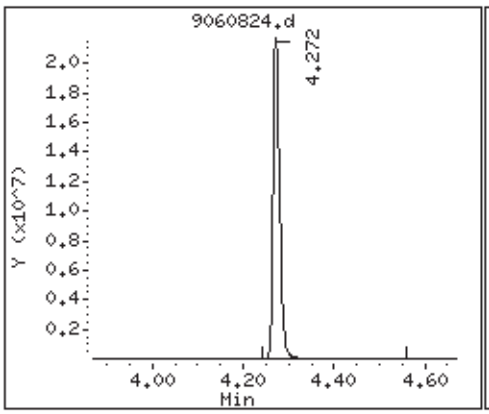
3 ethane



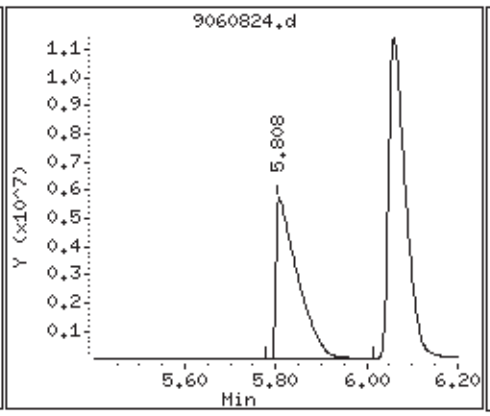
4 ethene



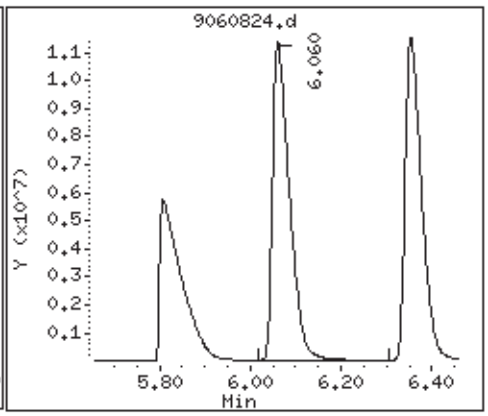
5 propane



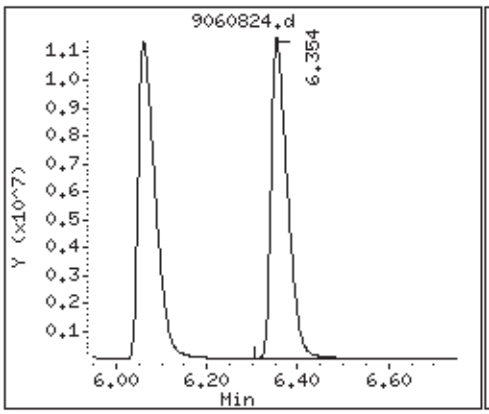
7 acetylene



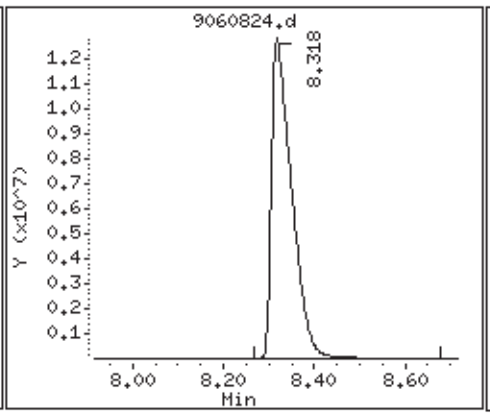
8 iso-butane



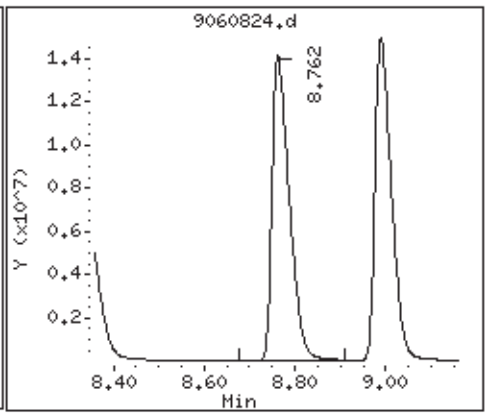
10 n-butane



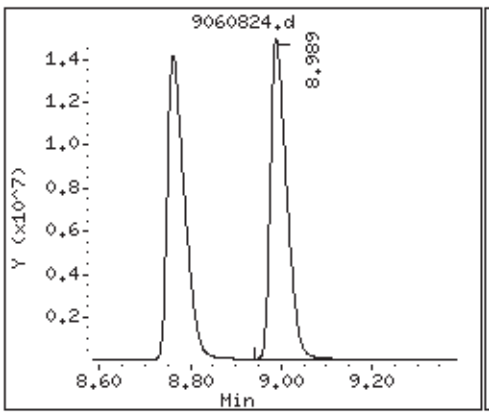
15 neo-pentane



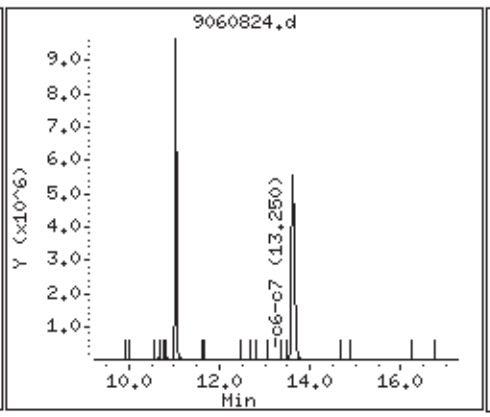
16 isopentane



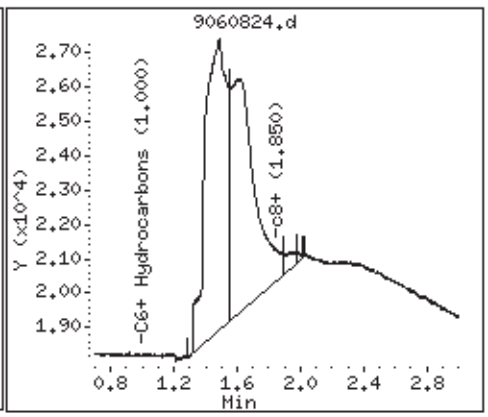
17 pentane



S 22 c6-c7



S 36 c8+



Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060824b.d
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Inj Date : 08-JUN-2010 21:13
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1477 ngas; LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: ngas-H2.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
3 Carbon Dioxide	3.368	3.355	0.013	5078946846	10.0397	10.0
1 Helium	1.146	1.144	0.002	64921065	0.97256	0.972
9 Oxygen	8.332	8.330	0.002	816624607	2.54698	2.55
10 Nitrogen	8.542	8.541	0.001	24042623376	70.4752	70.5
12 Carbon Monoxide	9.875	9.876	-0.001	307751823	1.00621	1.01

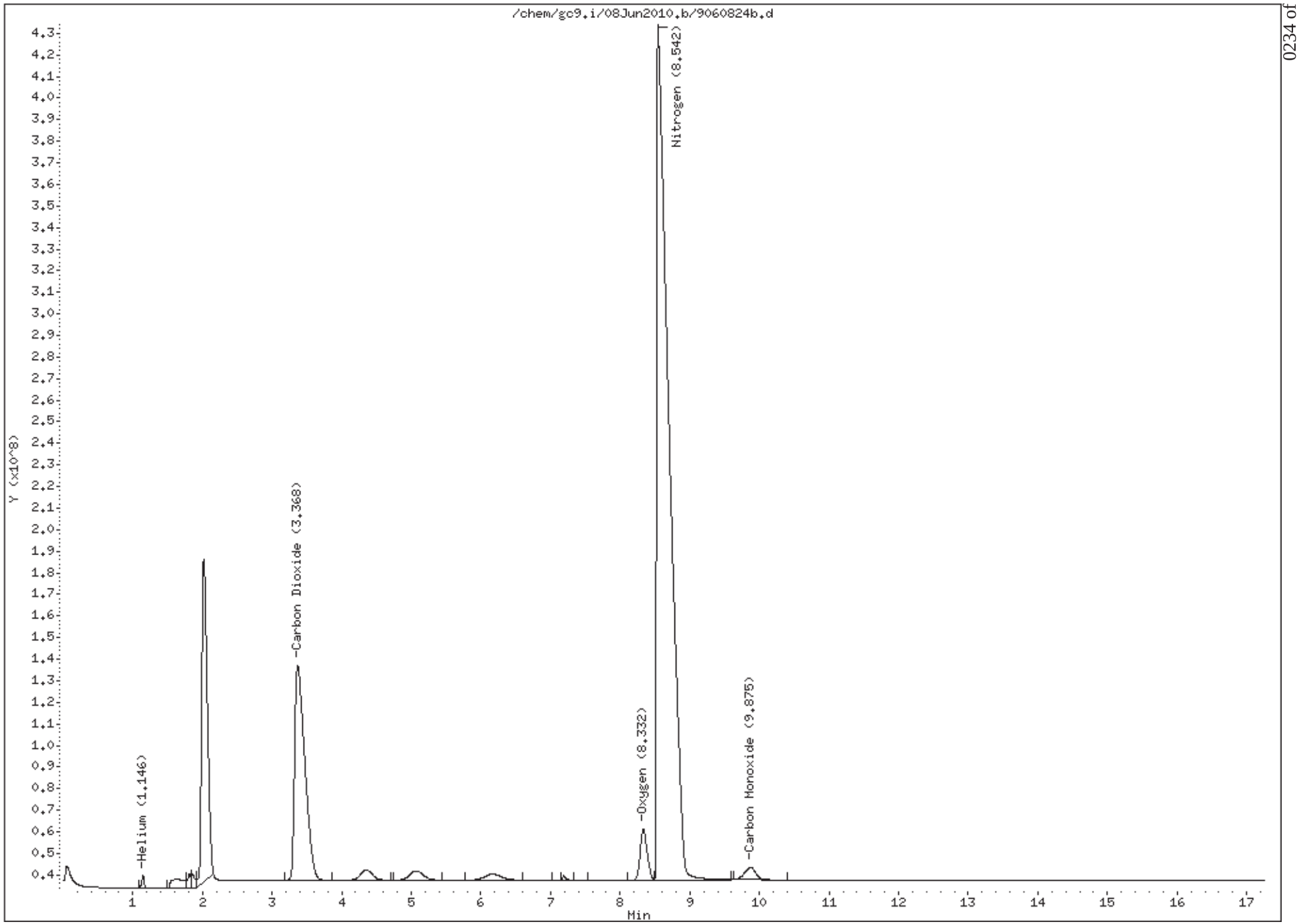
Report Date: 08-Jun-2010 21:33

Air Toxics Ltd.

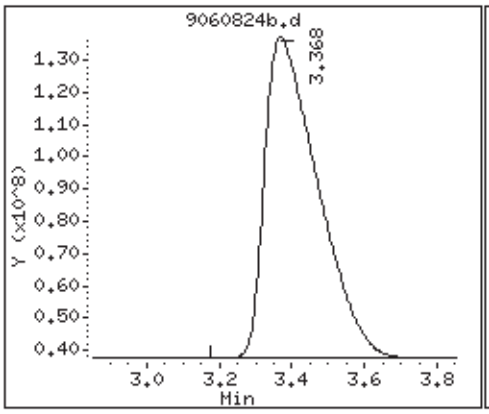
RECOVERY REPORT

Client Name: Client SDG: 08Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1477 ngas Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 1476-1477.spk Quant Type: ESTD
Sublist File: ngas-H2.sub
Method File: /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

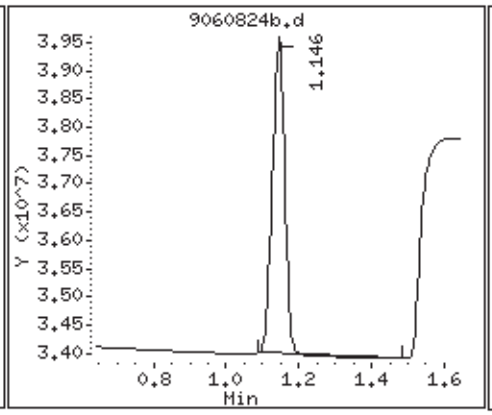
SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
3 Carbon Dioxide	9.98	10.0	100.60	85-115
9 Oxygen	2.49	2.55	102.29	85-115
10 Nitrogen	70.5	70.5	99.96	85-115
12 Carbon Monoxide	1.00	1.01	100.62	85-115
1 Helium	0.998	0.972	97.45	85-115


/chem/gc9.i/08Jun2010.b/9060824b.d
Y (x10^8)
Min
-Helium (1.146)
-Carbon Dioxide (3.368)
-Oxygen (8.332)
Nitrogen (8.542)
-Carbon Monoxide (9.875)

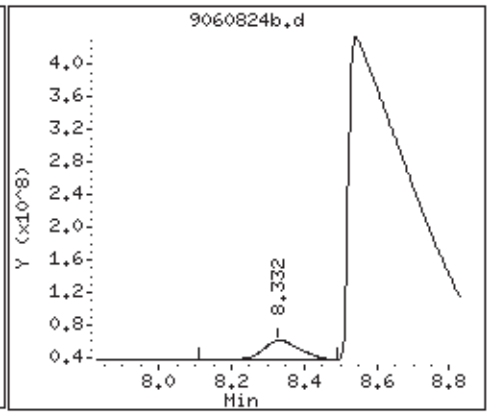
3 Carbon Dioxide



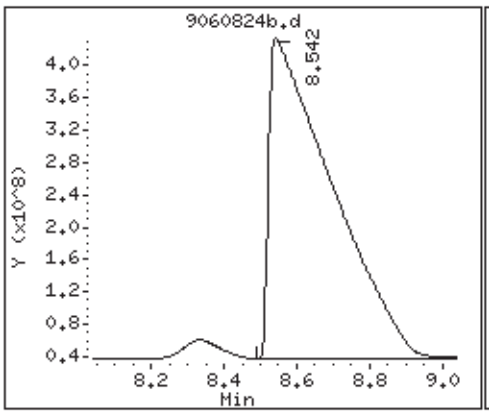
1 Helium



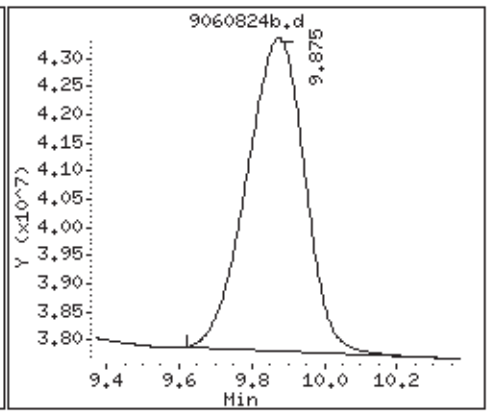
9 Oxygen



10 Nitrogen



12 Carbon Monoxide



Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1005647B-10B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	**9060825b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/10 09:39 PM**	

Compound	%Recovery
Hydrogen	108

Container Type: NA - Not Applicable

Report Date: 08-Jun-2010 21:57

Air Toxics Ltd.

RECOVERY REPORT

Client Name: Client SDG: 08Jun2010
Sample Matrix: GAS Fraction: Atm Gas
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Level: LOW Operator: gd
Data Type: GC DATA SampleType: LCS
SpikeList File: 2.01%H2.spk Quant Type: ESTD
Sublist File: h2.sub
Method File: /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Misc Info: LCS

SPIKE COMPOUND	CONC ADDED %	CONC RECOVERED %	% RECOVERED	LIMITS
2 Hydrogen	2.01	2.16	107.51	85-115

Air Toxics Ltd.

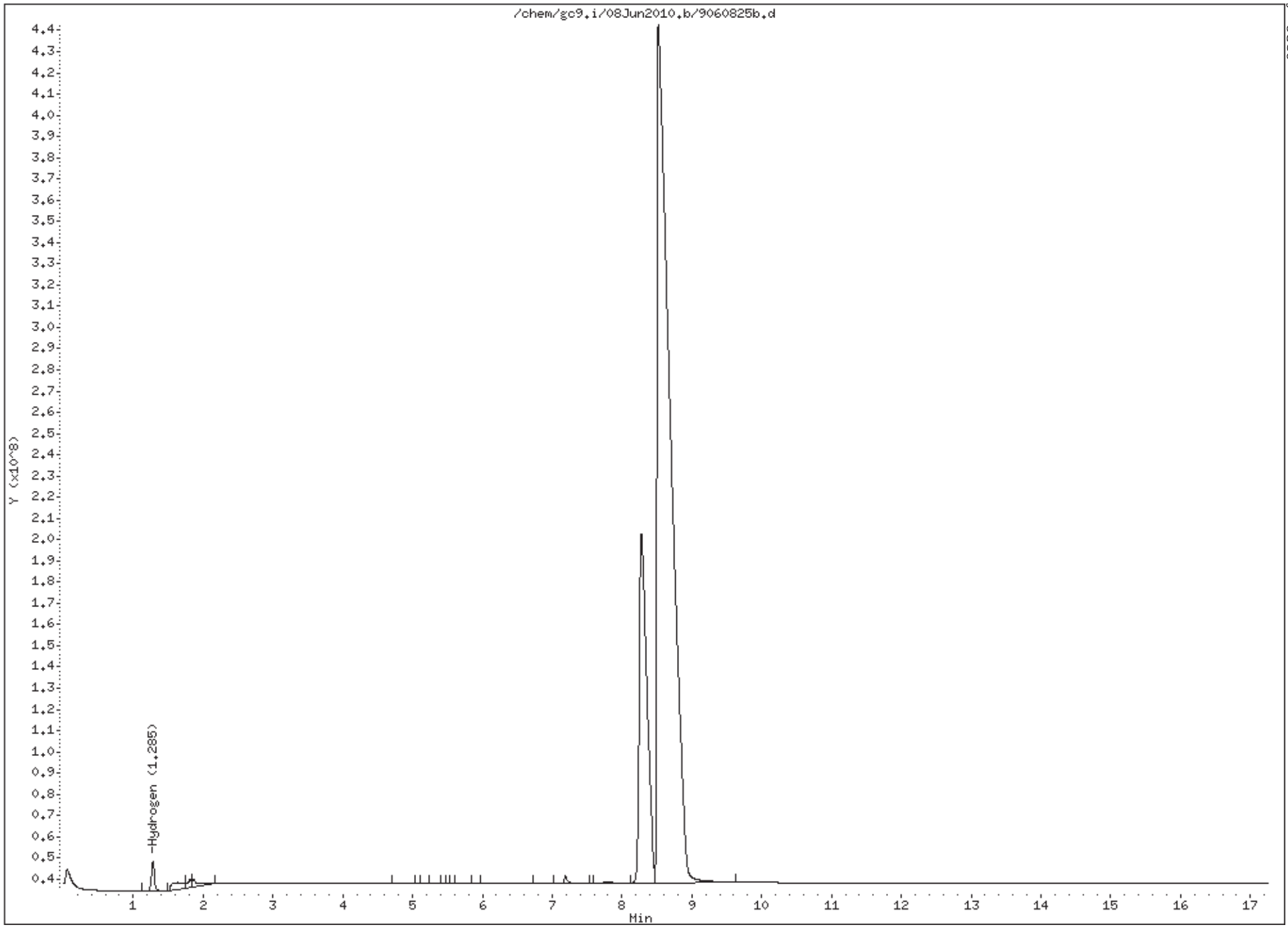
Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060825b.d
Lab Smp Id: 1476-1450 H2 Client Smp ID: LCS
Inj Date : 08-JUN-2010 21:39
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,;1476-1450 H2; LCS
Misc Info : LCS
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: h2.sub
Target Version: 3.50
Processing Host: eeyore

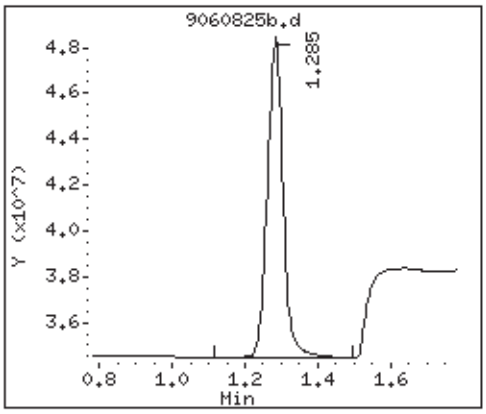
Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(%)	(%)
2 Hydrogen	1.285	1.284	0.001	210525060	2.16090	2.16


/chem/gc9.i/08Jun2010.b/9060825b.d
Y (x10^8)
Hydrogen (1.285)
Min

2 Hydrogen



@Air Toxics Ltd. GC-9 **Logbook #: 1969**

Method: ASTM 1945/1946 **Leak Test :** cy

0221 of 0261

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	9060802	1514-365B Ngas	34219	NA	1.0mL	1.00	6/8/18	0836	cy	CCV
2	✓	03	1476-977 H_2	NA					0908		CCV
3	✓	04	N_2 Lab Blank	33868					0934		
4	✓	05	He Lab Blank	14014					0957		
5	✓	06	1006142C -01A	35601	4.0"Hg → 15psi		2.33		1024		
6	✓	07	-02A	35638	3.0"Hg → 15psi		2.24		1053		
7	✓	08	-03A	35661	3.5"Hg → 15psi		2.29		1131		
8	✓	09	1005649B -01A	37321	9.0"Hg → 15psi		2.89		1204		
9	✓	10	-02A	37327	6.0"Hg → 15psi		2.52		1229		
10	✓	11	-03A	31795	6.2"Hg → 15psi		2.55		1330		
11	✓	12	1005673B -01A	94950	6.0"Hg → 5.0psi		1.68		1400		
12	✓	13	-02A	70-1579	3.5"Hg → 5.0psi		1.52		1423 gr 6/8/18	gr	
13	✓	14	-03A	4187	2.0"Hg → 5psi		1.44		1526		
14	✓	15	1005~~647~~ 673B -01A	34401	5"Hg → 5psi		1.61		1552		WO# 1005647B
15	✓	16	-01AA						1641		Dup

Calculation Check: File ID: 9060809 Compound: CH4 Initials: cy

Sample Amt = Area Counts Sample / RF × Dilution Factor = (308507) / (150352292) × (1.00) = 0.00205

Reported Result: 0.00205

gr 6/8/18

Signed Date

@Air Toxics Ltd. GC-9 **Logbook #:** 1969

Method: Astm 1945|1946 **Leak Test :** gd

0242 of 0261

	USE	File #	Sample Name/Client ID	Can #	Pressure	Amt	DF	Date	Time	Review Init.	Comments
1	✓	906081 7	1505647B-02A	14121	8 "Hg→ 5psi	1.0mL	1.83	6/8/10	1720	gd	
2	✓	18	-03A	9414	6.5 "Hg→ 5psi		1.71		1742		
3	✓	19	-04A	4384	9 "Hg→ 5psi		1.91		1810		
4	✓	20	-05A	20938	8.5 "Hg→ 5psi		1.87		1917		
5	✓	21	-06A	5553	8.0 "Hg→ 5psi		1.83		1944		
6	✓	22	-07A	11892	8.5 "Hg→ 5psi		1.87		2012		
7	✓	23	-08A	22508	6.5 "Hg→ 5psi		1.71		2043		
8	✓	24	1476-1477 Ngas	NA	NA		1.60		2113		LCS
9	✓	25	1476-1450 Hz			1.0mL		6/8/10	2139	gd	LCS
10											
11											
12											
13											
14											
15									gd 6/8/10		

Calculation Check: File ID: 90608 23 Compound: Oxygen Initials: gd

Sample Amt = $\frac{\text{Area Counts Sample}}{\text{RF}}$ × Dilution Factor = $\frac{(39459168 24)}{(32062472 5)}$ × (1.71) = **21.0%**

Reported Result: **21.0%**

gd
Signed

6/8/10
Date

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

Air Toxics Ltd. Sample Receipt Confirmation Cover Page

Thank you for choosing Air Toxics Ltd. 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

For corrections ca **Karen Lopez at 916-985-1000**

ATL will proceed with the analysis as specified on the Chain of Custody 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 Chain of Custody (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

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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

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

Page 1 of 1

Project Manager: Melissa Kleven
Collected by: (Print and Sign) Keri Whetter
Company: Exponent Email:
Address: 15375 SE 30th Pl, #250 City: Bellevue State: WA Zip: 98007
Phone: (425) 519-8774 Fax: (425) 519-8799

Project Info:
P.O. #: —
Project #: 0907194.000.0601
Project Name: Heglar - Kronquist

Turn Around Time:
[X] Normal
[ ] Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	AOS-1	1956	5/20/10	11:07	ASTM D-1945 and TO-15 w/ gas range petroleum hydrocarbons	28.5	6.0		
02A	AOS-2	14121		10:23		28.5	7.5		
03A	AOS-3	9414		10:07		29.0	7.0		
04A	ALF-1	1046		9:40		29.0	8.5		
05A	ALF-2	20938		9:35		29.0	8.0		
06A	ALF-3	1124		9:21		28.5	7.5		
07A	ALF-4	11892		9:18		29.5	9.0		
08A	ALF-5	22508		9:05		27.0	5.0		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/26/10 1730	Monica Gregson, ATL	5/27/10 850

Notes:

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
FedEx		NA	Good	Yes / No / None	1005647

MG 5/27/10

Form 1293 rev.11

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 1005647B

Client

Ms. Keri Whetter
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Sales Rep: JJM

Phone

425-519-8750

Fax

425-643-9827

Date Promised: 06/11/10
Date Completed: 6/10/10
Date Received: 5/27/10
PO#:
Project#: 0907194.000.0601 Heglar Kronquist

Total $: $ 1,200.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	AOS-1	Modified ASTM D-1945	5/20/2010	5.0 "Hg	$150.00
01AA	AOS-1 Lab Duplicate	Modified ASTM D-1945	5/20/2010	5.0 "Hg	$0.00
02A	AOS-2	Modified ASTM D-1945	5/20/2010	8.0 "Hg	$150.00
03A	AOS-3	Modified ASTM D-1945	5/20/2010	6.5 "Hg	$150.00
04A	ALF-1	Modified ASTM D-1945	5/20/2010	9.0 "Hg	$150.00
05A	ALF-2	Modified ASTM D-1945	5/20/2010	8.5 "Hg	$150.00
06A	ALF-3	Modified ASTM D-1945	5/20/2010	8.0 "Hg	$150.00
07A	ALF-4	Modified ASTM D-1945	5/20/2010	8.5 "Hg	$150.00
08A	ALF-5	Modified ASTM D-1945	5/20/2010	6.5 "Hg	$150.00
09A	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
09B	Lab Blank	Modified ASTM D-1945	NA	NA	$0.00
10A	LCS	Modified ASTM D-1945	NA	NA	$0.00
10B	LCS	Modified ASTM D-1945	NA	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Heglar Kronquist/14301

BILL TO: Ms. Keri Whetter
Exponent
15375 SE 30th Place
Suite 250
Bellevue, WA 98007

Analysis Code: ASTM

TERMS: NET 30

Reporting Method: Modified ASTM D-1945 + He

Other Records

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060815b.d
Lab Smp Id: 1005647B-01A
Inj Date : 08-JUN-2010 15:52
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01A;
Misc Info : 5.0"Hg>5psi; Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.489	3.355	0.134	13060144	0.02582	0.0416
9 Oxygen	8.293	8.330	-0.037	4150079312	12.9437	20.8
10 Nitrogen	8.510	8.541	-0.031	29369650793	86.0901	~~139~~ 79 % N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

LY 6/10/10

Data File: /chem/gc9.i/08Jun2010.b/9060816b.d
Report Date: 10-Jun-2010 14:09

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060816b.d
Lab Smp Id: 1005647B-01AA
Inj Date : 08-JUN-2010 16:41
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,34401;1005647B-01AA;
Misc Info : 5.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.495	3.355	0.140	12277191	0.02427	0.0391
9 Oxygen	8.294	8.330	-0.036	4142896937	12.9213	20.8
10 Nitrogen	8.513	8.541	-0.028	29330357521	85.9749	~~138~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

MJ 6/10/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060817b.d
Lab Smp Id: 1005647B-02A
Inj Date : 08-JUN-2010 17:20
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,14121;1005647B-02A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.501	3.355	0.146	12273251	0.02426	0.0444
9 Oxygen	8.297	8.330	-0.033	3693323121	11.5191	21.1
10 Nitrogen	8.511	8.541	-0.030	29787101933	87.3138	~~.160~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

lg 6/10/10

Data File: /chem/gc9.i/08Jun2010.b/9060818b.d
Report Date: 10-Jun-2010 14:09

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060818b.d
Lab Smp Id: 1005647B-03A
Inj Date : 08-JUN-2010 17:42
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,9414;1005647B-03A;
Misc Info : 6.5"Hg>5psi; Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.504	3.355	0.149	12632611	0.02497	0.0427
9 Oxygen	8.295	8.330	-0.035	3988166126	12.4387	21.3
10 Nitrogen	8.514	8.541	-0.027	29590185837	86.7366	~~148~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

lg 6/10/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060819b.d
Lab Smp Id: 1005647B-04A
Inj Date : 08-JUN-2010 18:10
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,4384;1005647B-04A;
Misc Info : 9"Hg>5psi; Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.91000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.502	3.355	0.147	10690897	0.02113	0.0404
9 Oxygen	8.296	8.330	-0.034	3522112648	10.9852	21.0
10 Nitrogen	8.507	8.541	-0.034	30007389899	87.9595	~~168~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

lg 6/10/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060820b.d
Lab Smp Id: 1005647B-05A
Inj Date : 08-JUN-2010 19:17
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,20938;1005647B-05A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.498	3.355	0.143	10796543	0.02134	0.0399
9 Oxygen	8.297	8.330	-0.033	3610422381	11.2606	21.0
10 Nitrogen	8.512	8.541	-0.029	29884391402	87.5990	~~164~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

lg 6/10/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060821b.d
Lab Smp Id: 1005647B-06A
Inj Date : 08-JUN-2010 19:44
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,5553;1005647B-06A;
Misc Info : 8.0"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.83000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.502	3.355	0.147	11087697	0.02192	0.0401
9 Oxygen	8.295	8.330	-0.035	3656430463	11.4041	20.9
10 Nitrogen	8.510	8.541	-0.031	29854313392	87.5108	~~160~~ 79% N2 by difference
12 Carbon Monoxide	Compound Not Detected.					

lg 6/10/10

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060822b.d
Lab Smp Id: 1005647B-07A
Inj Date : 08-JUN-2010 20:12
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,11892;1005647B-07A;
Misc Info : 8.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.508	3.355	0.153	10270887	0.02030	0.0380
9 Oxygen	8.298	8.330	-0.032	3606577921	11.2486	21.0
10 Nitrogen	8.514	8.541	-0.027	29892691660	87.6233	~~.164~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

6/10/10

Data File: /chem/gc9.i/08Jun2010.b/9060823b.d
Report Date: 10-Jun-2010 14:09

Air Toxics Ltd.

Modified ASTM D-1945

Data file : /chem/gc9.i/08Jun2010.b/9060823b.d
Lab Smp Id: 1005647B-08A
Inj Date : 08-JUN-2010 20:43
Operator : gd Inst ID: gc9.i
Smp Info : 1.0mL,22508;1005647B-08A;
Misc Info : 6.5"Hg>5psi, Exponent
Comment : GC/TCD
Method : /chem/gc9.i/08Jun2010.b/910n0430.m/910C0417.m
Meth Date : 08-Jun-2010 09:29 lyohanne Quant Type: ESTD
Cal Date : 08-JUN-2010 09:08 Cal File: 9060803b.d
Als bottle: 1
Dil Factor: 1.71000
Integrator: HP Genie Compound Sublist: ngas.sub
Target Version: 3.50
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (%)	CONCENTRATIONS FINAL (%)
2 Hydrogen	Compound Not Detected.					
1 Helium	Compound Not Detected.					
3 Carbon Dioxide	3.506	3.355	0.151	13312440	0.02631	0.0450
9 Oxygen	8.295	8.330	-0.035	3945916824	12.3070	21.0
10 Nitrogen	8.512	8.541	-0.029	29509601985	86.5004	~~148~~ 79% N_2 by difference
12 Carbon Monoxide	Compound Not Detected.					

my 6/10/10

DILUTION FACTORS

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

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

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

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

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

DILUTION FACTORS

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

Initial Pressure (psi)	**5 psi** Final Press. Dil. Factor	**10 psi** Final Press. Dil. Factor	**15 psi** Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound List

Modified ASTM D-1945 + He

CAS Number	Compound	Detection Limit %	Type
7782-44-7	Oxygen	0.10	
7727-37-9	Nitrogen	0.10	
630-08-0	Carbon Monoxide	0.010	
74-82-8	Methane	0.00010	
124-38-9	Carbon Dioxide	0.010	
74-84-0	Ethane	0.0010	
74-85-1	Ethene	0.0010	
74-86-2	Acetylene	0.0010	
74-98-6	Propane	0.0010	
75-28-5	Isobutane	0.0010	
106-97-8	Butane	0.0010	
463-82-1	Neopentane	0.0010	
78-78-4	Isopentane	0.0010	
109-66-0	Pentane	0.0010	
C6+	C6+	0.010	
1333-74-0	Hydrogen	0.010	
7440-59-7	Helium	0.050	

@ Air Toxics Ltd	Title: Data Review Checklist			Release Date: 03/01/10
	Form #: F1.2	Revision #: 2	Revision Date:03/01/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1005647B

A_1	A_2	R	T	M	Q	
☑	☐	☑	☐	☑	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☑	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
NA	☐			NA		Non-Standard sublist printed/verified, LOQ and LOD verified
	☐	☑	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		NA	☐	NA	☐	Sample Discrepancy Report (SDR) is completed
NA	☐	☐	☐	☐	☐	Corrective Action issued - #
☐	☐	☐	☐	☐	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* ***CIRCLE (YES / NO)***

☑	☐	☑	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☐	☑	☐	☑	☐	Hold time is met for all samples
		NA	☐	NA	☐	Appropriate data qualifier flags are applied
		☐	☐	NA	☐	Manual integrations for samples and QC are properly documented
☑	☐	☑	☐		☐	Samples analyzed within the project or method specific clock
		☑	☐			Retention times have been verified
☑	☐	☐	☐		☐	Appropriate ICAL(s) included
		☑	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☑	☐	☑	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☐	☑	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		NA	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
☑	☐	☑	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☑	☐	NA	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☑		NA		Special units for all samples in the final report are correctly calculated
		☑	☐	☑		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☑				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☑				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
☑		☑				Date MDL(s) performed per instrument(s) 10/14/09, 1/4/10, 1/22/10
☑	☐	☑				Samples pressurized w/ appropriate gas (N_2 or He) ☐ Other (i.e. Tedlar bag, cartridge, sorbent)
☑	☐	☑				Final pressure consistent with canister size (6L vs. 1L)
☑	☐	☑				Verify receipt pressures
☑	☐	☐				Verify canister ID #'s
		☑		☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
	NA	☐		NA	☐	Client LUMEN report reviewed for accuracy and completeness
				☑		Final PDF report reviewed for correctness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R: Dup - OIA

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: 6/8/10	R: 6/10/10	6/10/10	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Management reviewer and reporting reviewer must be separate individuals.

Not Applicable

Columbia Analytical Services
2655 Park Center Drive, Suite A | Simi Valley, CA 93065 | 805.526.7161 | 805.526.7270 fax | www.caslab.com

LABORATORY REPORT

June 14, 2010

Melissa Kleven
Exponent
15375 Southeast 30th Place, Suite 250
Bellevue, WA 98007

RE: Heglar Kronquist / 0907194.000.0601

Dear Melissa:

Enclosed are the results of the samples submitted to our laboratory on May 19, 2010. For your reference, these analyses have been assigned our service request number P1001735.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 24 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L10-3; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-09-TX; Minnesota Department of Health, Certificate No. 11495AA; Washington State Department of Ecology, ELAP Lab ID: C946. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kelly M Horiuchi

Kelly Horiuchi
Project Manager

Client: Exponent CAS Project No: P1001735
Project: Heglar Kronquist / 0907194.000.0601

CASE NARRATIVE

The samples were received intact under chain of custody on May 19, 2010 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

At the client's request the following changes were made:

- The date of collection for GV-12 should be 5-15-10.
- The sample labeled GV-09 should be GV-9.
- The sampling time for GV-10 should be 18:50, as opposed to 20:07.
- The sample volume for GV-12 is 12.91L, as opposed to 12.9L which is listed on the chain of custody.
- The sample volume for GV-9 is 12.49L, as opposed to 12.5L which is listed on the chain of custody.
- The sample volume for GV-10 is 14.13L, as opposed to 13.5L which is listed on the chain of custody.
- The sample volume for ALF-1 is 27.12L , as opposed to 29.98L which is listed on the chain of custody.
- The sample volume for AOS-1 is 65.05L, as opposed to 60.56L which is listed on the chain of custody.

Ammonia Analysis

The samples were prepared in accordance with OSHA ID-188 and analyzed for ammonia in air by Ion Selective Electrode per OSHA ID-164.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Exponent
Project: Heglar Kronquist/0907194.000.0601

Service Request: P1001735

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
P1001735-001	GV-6	5/16/10	12:18
P1001735-002	GV-11	5/16/10	13:39
P1001735-003	GV-12	5/15/10	20:40
P1001735-004	GV-7	5/16/10	12:54
P1001735-005	GV-1	5/16/10	11:36
P1001735-006	GV-9	5/15/10	19:06
P1001735-007	GV-10	5/15/10	18:50
P1001735-008	GV-13	5/16/10	14:27
P1001735-009	ALF-1	5/17/10	20:06
P1001735-010	ALF-2	5/17/10	22:55
P1001735-011	ALF-3	5/17/10	22:50
P1001735-012	ALF-4	5/17/10	22:14
P1001735-013	ALF-5	5/18/10	01:04
P1001735-014	AOS-1	5/18/10	00:20
P1001735-015	AOS-2	5/18/10	01:10
P1001735-016	AOS-3	5/17/10	20:18

Columbia Analytical Services

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 2

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No: P1001735

CAS Contact:

Company Name & Address (Reporting Information)
Exponent
15375 SE 30th Pl #250
Bellevue WA 98007

Project Name: Heglar Kronquist

Project Number: 0907194.000.0601

Project Manager: Melissa Kleven

P.O. # / Billing Information: Same

Phone: 425-519-8774 Fax: 425-519-8799

Email Address for Result Reporting: mkleven@exponent.com

Sampler (Print & Sign): Keri Whetter

Analysis Method: Ammonia by OSHA 1 88

Comments e.g. Actual Preservative or specific instructions

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Ammonia by OSHA 1 88		Comments
GV-6	1	5-16-10	12:18					13.46L	✓		
GV-11	2	5-16-10	13:39			6/1/10		12.89L	✓		
GV-12	3	5-16-10	20:40			KW	12.91	~~12.9~~L	✓		
GV-7	4	5-16-10	12:54					12.91L	✓		
GV-1 6/1/10 KW	5	5-16-10	11:36			6/1/10		13.67L	✓		
GV-~~09~~ 9 KW	6	5-15-10	19:06	6/1/10		KW	12.49	~~12.5~~L	✓		
GV-10	7	5-15-10	~~20:07~~	18:50 KW		KW	14.13	~~13.5~~ ~~13.5~~L	✓		
GV-13	8	5-16-10	14:27			6/1/10		12.49L	✓		

Report Tier Levels - please select
Tier I - (Results/Default if not specified) _____
Tier II (Results + QC) _____
Tier III (Data Validation Package) 10% Surcharge X
Tier V (client specified) _____

EDD required (Yes) / No
Type: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Time:
	5/18/10	1730		0935
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Time:

Cooler / Blank Temperature ____ °C

Columbia Analytical Services

2655 Park Center Drive, Suite A
Simi Valley, California 93065
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Fax (805) 526-7270

Air - Chain of Custody Record & Analytical Service Request

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. P1001735

Company Name & Address (Reporting Information)
Exponent
15375 SE 30th #250
Bellevue WA 98007

Project Name: Heglar Kronquist

Project Number: 0907194.000.0601

Project Manager: Melissa Kleven

P.O. # / Billing Information: Samp

Phone: 425-519-8774 Fax: 425-519-8799

Email Address for Result Reporting: MKleven@Exponent.com

Sampler (Print & Sign): Eric M. Cherry

CAS Contact:

Analysis Method: Ammonia OSHA 188

Comments e.g. Actual Preservative or specific instructions

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code #- FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Liters Sample Volume	Ammonia OSHA 188		
ALF-1	9	5-17-10	20:06			(KW)	27.12	~~29.98~~	X		
ALF-2	10	5-17-10	22:55			6/1/10		29.34	X		
ALF-3	11	5-17-10	22:50					25.82	X		
ALF-4	12	5-17-10	22:14					26.92	X		
ALF-5	13	5-18-10	1:04			6/1/10		53.15	X		
AOS-1	14	5-18-10	0:20			(KW)	25.05	~~60.56~~	X		
AOS-2	15	5-18-10	1:10					54.67	X		
AOS-3	16	5-17-10	20:18					29.34	X		

Report Tier Levels - please select
Tier I - (Results/Default if not specified) _____
Tier II (Results + QC) _____
Tier III (Data Validation Package) 10% Surcharge _____
Tier V (client specified) _____

EDD required (Yes) / No
Type: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Time:
	5-18-10	17:15		0935
Relinquished by: (Signature)	Date	Time:	Received by: (Signature)	Time:

Cooler / Blank Temperature ____°C

CT

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Exponent Work order: P1001735

Project: Heglar Kronquist / 0907194.000.0601

Sample(s) received on: 5/19/10 Date opened: 5/19/10 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Was a **chain-of-custody** provided?	☒	☐	☐
5	Was the **chain-of-custody** properly completed?	☒	☐	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
7	Was **sample volume** received adequate for analysis?	☒	☐	☐
8	Are samples within specified holding times?	☒	☐	☐
9	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
10	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: _____			
11	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
12	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
13	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
14	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1001735-001.01	Anasorb 747 Tube					
P1001735-002.01	Anasorb 747 Tube					
P1001735-003.01	Anasorb 747 Tube					
P1001735-004.01	Anasorb 747 Tube					
P1001735-005.01	Anasorb 747 Tube					

Explain any discrepancies: (include lab sample ID numbers): _____

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Exponent Work order: P1001735

Project: Heglar Kronquist / 0907194.000.0601

Sample(s) received on: 5/19/10 Date opened: 5/19/10 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1001735-006.01	Anasorb 747 Tube					
P1001735-007.01	Anasorb 747 Tube					
P1001735-008.01	Anasorb 747 Tube					
P1001735-009.01	Anasorb 747 Tube					
P1001735-010.01	Anasorb 747 Tube					
P1001735-011.01	Anasorb 747 Tube					
P1001735-012.01	Anasorb 747 Tube					
P1001735-013.01	Anasorb 747 Tube					
P1001735-014.01	Anasorb 747 Tube					
P1001735-015.01	Anasorb 747 Tube					
P1001735-016.01	Anasorb 747 Tube					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

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Client: **Exponent**
Client Project ID: **Heglar Kronquist / 0907194.000.0601**

CAS Project ID: P1001735

Ammonia

Test Code: OSHA ID-188/ID-164
Instrument ID: PH02/Orion 720A/Ammonia ISE
Analyst: Sue Anderson
Sampling Media: Anasorb 747 Tube(s) (Sulfuric Treated)
Test Notes: **BC, DE**

Date(s) Collected: 5/15 - 5/18/10
Date Received: 5/19/10
Date Analyzed: 5/20 - 5/26/10
Desorption Volume: 0.10 Liter(s)

Client Sample ID	CAS Sample ID	Sample Volume Liter(s)	Dilution Factor	Result mg/Tube	Result mg/m³	MRL mg/m³	**Result ppmV**	MRL ppmV	Data Qualifier
GV-6	P1001735-001	13.46	1.0	< 0.010	ND	0.77	ND	1.1	
GV-11	P1001735-002	12.89	1.0	**2.2**	**170**	0.81	**250**	1.2	
GV-12	P1001735-003	12.91	1.0	**0.17**	**13**	0.81	**19**	1.2	
GV-7	P1001735-004	12.91	1.0	< 0.010	ND	0.81	ND	1.2	
GV-1	P1001735-005	13.67	1.0	< 0.010	ND	0.76	ND	1.1	
GV-9	P1001735-006	12.49	1.0	**0.56**	**45**	0.83	**65**	1.2	
GV-10	P1001735-007	14.13	1.0	**0.12**	**8.8**	0.74	**13**	1.1	
GV-13	P1001735-008	12.49	1.0	< 0.010	ND	0.83	ND	1.2	
ALF-1	P1001735-009	27.12	1.0	< 0.010	ND	0.38	ND	0.55	
ALF-2	P1001735-010	27.34	1.0	< 0.010	ND	0.38	ND	0.55	
ALF-3	P1001735-011	25.82	1.0	< 0.010	ND	0.40	ND	0.58	
ALF-4	P1001735-012	26.92	1.0	< 0.010	ND	0.39	ND	0.56	
ALF-5	P1001735-013	53.15	1.0	< 0.010	ND	0.20	ND	0.28	
AOS-1	P1001735-014	65.05	1.0	< 0.010	ND	0.16	ND	0.23	
AOS-2	P1001735-015	54.67	1.0	< 0.010	ND	0.19	ND	0.27	
AOS-3	P1001735-016	27.34	1.0	< 0.010	ND	0.38	ND	0.55	
Method Blank	P100520-MB	NA	1.0	< 0.010	NA	NA	NA	NA	
Method Blank	P100526-MB	NA	1.0	< 0.010	NA	NA	NA	NA	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
NA = Not applicable.
BC = Results reported are not blank corrected.
DE = Results reported are corrected for desorption efficiency.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Exponent**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **Heglar Kronquist / 0907194.000.0601**

CAS Project ID: P1001735
CAS Sample ID: P100520-LCS, P100520-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: OSHA ID-188/ID-164
Instrument ID: PH02/Orion 720A/Ammonia ISE
Analyst: Sue Anderson
Sampling Media: Anasorb 747 Tube(s) (Sulfuric Treated)
Test Notes:

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 5/20/10
Volume(s) Analyzed: N/A

Compound	Spike Amount LCS / DLCS mg/L	Result LCS mg/L	Result DLCS mg/L	% Recovery LCS	% Recovery DLCS	CAS Acceptance Limits	Relative Percent Difference	RPD Limit	Data Qualifier
Ammonia	1.00	0.968	0.956	97	96	84-110	1	20	

Verified By: _____ Date: 6/2/10

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Exponent**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **Heglar Kronquist / 0907194.000.0601**

CAS Project ID: P1001735
CAS Sample ID: P100526-LCS, P100526-DLCS

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary

Test Code: OSHA ID-188/ID-164
Instrument ID: PH02/Orion 720A/Ammonia ISE
Analyst: Sue Anderson
Sampling Media: Anasorb 747 Tube(s) (Sulfuric Treated)
Test Notes:

Date Sampled: N/A
Date Received: N/A
Date Analyzed: 5/26/10
Volume(s) Analyzed: N/A

Compound	Spike Amount LCS / DLCS mg/L	Result LCS mg/L	Result DLCS mg/L	% Recovery LCS	% Recovery DLCS	CAS Acceptance Limits	Relative Percent Difference	RPD Limit	Data Qualifier
Ammonia	1.00	0.932	0.935	93	94	84-110	1	20	

Verified By: _____ Date: 6/2/10

COLUMBIA ANALYTICAL SERVICES

Method : ISE Method for Ammonia in Air

Printed : 5/21/2010
Client : Exponent
Analyst : SMA
CAS Job : P1001735
Method: OSHA ID-188/ ID-164

Instrument: pH02
Date Analyzed: 5/21/2010
Detector: NA
Sample Amt: 0.100 L
Solvent: 0.1 N H2SO4
Matrix: Anasorb 747 (sulfuric treated)

SAMPLE RESULT

Sample		Ammonia (mg/L)	Desorption Vol (L)	Dilution	Sample Vol (L)	Ammonia (mg/tube)*	mg/m3
MW		17.03					
MRL		0.100	0.1	1.0	NA	0.01	
RB		0.0067	NA	NA	NA		
MB		0.0139	0.100	1.0	NA	ND	ND
1735-001	back	0.0131	0.050	1.0	13.46	ND	ND
1735-002	back	0.0186	0.050	1.0	12.89	ND	ND
1735-003	back	0.0200	0.050	1.0	12.91	ND	ND
1735-004	back	0.0078	0.050	1.0	12.91	ND	ND
1735-005	back	0.0078	0.050	1.0	13.67	ND	ND
1735-006	back	0.0062	0.050	1.0	12.49	ND	ND
1735-007	back	0.0067	0.050	1.0	13.46	ND	ND
1735-008	back	0.000	0.050	1.0	12.49	ND	ND
1735-009	back	0.0137	0.050	1.0	27.98	ND	ND
1735-010	back	0.0038	0.050	1.0	27.34	ND	ND
1735-001	front	0.0237	0.100	1.0	13.46	ND	ND
1735-002	front	21.3	0.100	1.0	12.89	2.216	172.0
1735-003	front	1.60	0.100	1.0	12.91	0.166	12.9
1735-004	front	0.0255	0.100	1.0	12.91	ND	ND
1735-005	front	0.0144	0.100	1.0	13.67	ND	ND
1735-006	front	5.41	0.100	1.0	12.49	0.563	45.1
1735-007	front	1.20	0.100	1.0	13.46	0.125	9.28
1735-008	front	0.0115	0.100	1.0	12.49	ND	ND
1735-009	front	0.0126	0.100	1.0	27.98	ND	ND
1735-010	front	0.0091	0.100	1.0	27.34	ND	ND

		Ammonia (ppm)
1735-001	back	ND
1735-002	back	ND
1735-003	back	ND
1735-004	back	ND
1735-005	back	ND
1735-006	back	ND
1735-007	back	ND
1735-008	back	ND
1735-009	back	ND
1735-010	back	ND
1735-001	front	ND
1735-002	front	246.971
1735-003	front	18.523
1735-004	front	ND
1735-005	front	ND
1735-006	front	64.737
1735-007	front	13.32
1735-008	front	ND
1735-009	front	ND
1735-010	front	ND

*samples are DE corrected

Desorption Efficiency (DE): 0.961

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QC

0.121 mg/L NH3 ICV S19-04060904 (6/2010)	0.121
ACTUAL	0.115
% RECOVERY	95.0%
24.3 mg/L NH3 CCV1 S19-04060904 (6/2010)	24.3
ACTUAL	22.8
% RECOVERY	93.8%
1.21 mg/L NH3 CCV2 S19-04060904 (6/2010)	1.21
ACTUAL	1.20
% RECOVERY	99.2%
0.121 mg/L NH3 CCV3 S19-04060904 (6/2010)	0.121
ACTUAL	0.113
% RECOVERY	93.4%
LCS	1.00
SPIKE STD	0.968
% RECOVERY	96.8%
LCSD	1.00
SPIKE STD	0.956
% RECOVERY	95.6%
%RPD;	1.2%

COLUMBIA ANALYTICAL SERVICES

Method : ISE Method for Ammonia in Air

Printed : 5/27/2010
Client : Exponent
Analyst : SMA
CAS Job : P1001735
Method: OSHA ID-188/ ID-164

Instrument: pH02
Date Analyzed: 5/27/2010
Detector: NA
Sample Amt: 0.100 L
Solvent: 0.1 N H2SO4
Matrix: Anasorb 747 (sulfuric treated)

SAMPLE RESULT

Sample		Ammonia (mg/L)	Desorption Vol (L)	Dilution	Sample Vol (L)	Ammonia (mg/tube)*	mg/m3
MW		17.03					
MRL		0.100	0.1	1.0	NA	0.01	
RB		0.0059	NA	NA	NA		
MB		0.0291	0.100	1.0	NA	ND	ND
1735-011	back	0.0061	0.050	1.0	25.82	ND	ND
1735-012	back	0.0053	0.050	1.0	26.92	ND	ND
1735-013	back	0.0153	0.050	1.0	53.15	ND	ND
1735-014	back	0.0099	0.050	1.0	60.56	ND	ND
1735-015	back	0.0074	0.050	1.0	54.67	ND	ND
1735-016	back	0.0013	0.050	1.0	27.34	ND	ND
1735-011	front	0.0119	0.100	1.0	25.82	ND	ND
1735-012	front	0.0059	0.100	1.0	26.92	ND	ND
1735-013	front	0.0134	0.100	1.0	53.15	ND	ND
1735-014	front	0.0067	0.100	1.0	60.56	ND	ND
1735-015	front	0.0066	0.100	1.0	54.67	ND	ND
1735-016	front	0.0969	0.100	1.0	27.34	ND	ND

		Ammonia (ppm)
1735-011	back	ND
1735-012	back	ND
1735-013	back	ND
1735-014	back	ND
1735-015	back	ND
1735-016	back	ND
1735-011	front	ND
1735-012	front	ND
1735-013	front	ND
1735-014	front	ND
1735-015	front	ND
1735-016	front	ND

*samples are DE corrected
Desorption Efficiency (DE): 0.961

QC

0.121 mg/L NH3 ICV S19-04060904 (6/2010)		0.121
ACTUAL		0.122
% RECOVERY		100.8%
0.121 mg/L NH3 CCV1 S19-04060904 (6/2010)		0.121
ACTUAL		0.121
% RECOVERY		100.0%
0.121 mg/L NH3 CCV2 S19-04060904 (6/2010)		0.121
ACTUAL		0.116
% RECOVERY		95.9%
LCS		1.00
SPIKE STD		0.932
% RECOVERY		93.2%
LCSD		1.00
SPIKE STD		0.935
% RECOVERY		93.5%
	%RPD;	0.3%

Columbia Analytical Services inc.

Ammonia in Air
OSHA ID-188/ID-164

page 1 of 2

Filling solution changed prior to analysis: Yes / No

Prep. Run#	111886	**Run #**	201839

Stds.	Conc.	millivolts	Slope:
	mg/L	mV	Range [-54--60]
Std 1:	0.10	163.2	
Std 2:	1.00	111.8	-59.9
Std 3:	5.00	70.9	
Std 4:	10.00	52.3	
Std 5:	100.00	-6.7	

	Ref#	Exp.Date	Prep'n
Stock 1000 ppm	S24-05201001	9/13/10	—
ICV/CCV	5/20/10		1/10 · 0.05/50 => 0.121 APM
1214 ppm	S24-040609041	6/2010	1/50 => 24.3 PPM
pH Buffer ; ISA	S24-122809018	12/28/10	--
Filling Soln	S24-03011004	3/1/11	--

DE = 0.961 → DE CORRECTED

Sample I.D.	Volume mL	millivolts mV	Concentration mg/L		Final Value mg	Final Value mg/m³	ppm ✓
ICB	50 ml	194.9	0.0067	<0.1			
ICV 0.121 PPM		160.5	0.115	95%			
MB		189.5	0.039	<0.1	<0.011		
LCS 1.00 PPM (mg/L)		111.9	0.968	97%			1%
DLCS ↓		112.2	0.956	96%			RPD
1735-1.01 BACK		190.0	0.0131		<0.011	<0.78	<1.12
-1.01 FRONT		184.7	0.0237		↓	↓	↓
-2.01 BACK		187.2	0.0186		<0.011	<0.81	<1.16
-2.01 FRONT		32.8	21.3		2.22	172	247
-3.01 BACK		186.5	0.0200		<0.011	<0.81	<1.16
-3.01 FRONT		99.4	1.60		0.166	12.90	18.52
-4.01 BACK		193.3	0.0078		<0.011	<0.81	<1.16
CCV 24.3 PPM		31.2	22.8	94%			
CCB		196.1	0.0034	<0.1			
1735-4.01 FRONT		183.9	0.0255		<0.011	<0.81	<1.16
-5.01 BACK		193.3	0.0078		<0.011	<0.77	<1.10
-5.01 FRONT		189.3	0.0144		↓	↓	↓
-6.01 BACK		194.1	0.0062		<0.011	<0.84	<1.20
-6.01 FRONT		68.7	5.41		~~0.764~~ 0.563	45.07	64.74
-7.01 BACK		194.9	~~0.0067~~ 0.0056		<0.011	* ~~<0.79~~ <0.77	<1.06 <1.12
-7.01 FRONT		106.5	1.20		0.125	* ~~8.85~~ 7.28	12.69 ~~18.32~~
-8.01 BACK		199.2	0.000		<0.011	<0.84	<1.20
-8.01 FRONT		191.0	0.0115		↓	↓	↓

Comments:

* changed volume per client 5/18/10

ANALYST: _____ Date/Time: 5/21/10 @ 0800

Reviewer: MN Date: 5/24/10

Columbia Analytical Services inc.

Ammonia in Air
OSHA ID-188/ID-164

page 2 of 2

Filling solution changed prior to analysis: (Yes) / No

Prep. Run#	111886	Run #	201839

Stds.	Conc.	millivolts	Slope:
	mg/L	mV	Range [-54~-60]
Std 1:	0.10	163.2	-59.9
Std 2:	1.00	111.1	
Std 3:	5.00	70.9	
Std 4:	10.00	52.3	
Std 5:	100.00	-6.7	

	Ref#	Exp.Date	Prep'n
Stock 1000 ppm	524-0520100/	9/13/10	—
ICV/CCV 1214 ppm	SIG-040603041	6/2010	0.05/50 => 1.21 PPM 1/10 · 0.05/50 => 0.121 PPM
pH Buffer ; ISA	524-122809016	12/28/10	--
Filling Soln	524-0301100A	3/1/11	--

DE = 0.961 DE CORRECTED →

Sample I.D.	Volume mL	millivolts mV	Concentration mg/L		Final Value mg	mg/m³	
ICB 1735-9.01 BACK	50ml	189.7	0.0137		<0.011	* ~~<0.38~~	ppm V <0.56 ~~<0.54~~
ICV CCV2 1.21 PPM		106.5	1.20	99%			
MB CCB2		195.1	0.0064	<0.1			<0.39 <0.56
LCS 1735-9.01 FRONT		190.3	0.0126		<0.011	* ~~<0.38~~	<0.54
-10.01 BACK		195.6	0.0038		<0.011	<0.39	<0.55
-10.01 FRONT		192.3	0.0091	<0.1	<0.011	<0.39	<0.55
CCV3 0.121 PPM		160.8	0.113	93%			
CCB3		194.2	0.0061	<0.1			

space not used

* changed volume per client 5/28/10

Comments:

ANALYST: [signature] Reviewer: MW
Date/Time: 5/21/10 @0800 Date: 5/24/10

Columbia Analytical Services inc.

Ammonia in Air
OSHA ID-188/ID-164

Filling solution changed prior to analysis: **Yes** / No

Prep. Run# 112333 | **Run #** 202533

Stds.	Conc.	millivolts	Slope:
	mg/L	mV	Range [-54~-60]
Std 1:	0.10	161.7	-59.7
Std 2:	1.00	108.0	
Std 3:	5.00	65.9	
Std 4:	10.00	47.9	
Std 5:	100.00	-9.7	

	Ref#	Exp.Date	Prep'n
Stock 1000 ppm	524-052010G1	9/18/10	—
ICV/CCV 1214 ppm	519-040609CV	6/2010	$\frac{1}{10} \cdot \frac{0.05}{50} \Rightarrow 0.121$ PPM
pH Buffer ; ISA	524-122809CB	12/28/10	--
Filling Soln	524-030110G4	3/1/11	--

DE 0.961 DE CORRECTED →

Sample I.D.	Volume mL	millivolts mV	Concentration mg/L		Final Value mg	mg/m³	PPM V
ICB	50 ml	192.5	0.0059	<0.1			
ICV 0.121PPM		157.6	0.122	101%			
MB		181.0	0.0291	<0.1	<0.011		
LCS 1.00 PPM mg/L		109.7	0.932	93%	0.0970		93% 20%
DLCS J		109.5	0.935	94%			
1735-11.01 BACK		192.4	0.0061		<0.011	<0.70	<1.0
-11.01 FRONT		189.0	0.0119		<0.011	<0.70	<1.0
-12.01 BACK		192.9	0.0053		<0.011	<0.67	<0.96
-12.01 FRONT		192.5	0.0059		<0.011	<0.67	<0.96
-13.01 BACK		187.2	0.0153		<0.011	<0.34	<0.49
-13.01 FRONT		188.3	0.0134		<0.011	<0.34	<0.49
-14.01 BACK		190.2	0.0074		<0.011 (*)	<0.30	<0.43
CCV 0.121PPM mg/L		157.8	0.121	100%		5/27/10	
CCB1		193.0	0.0051	<0.1	~~<0.011~~	~~<0.30~~	~~<0.43~~
1735-14.01 FRONT		192.0	0.0067		<0.011 (*)	<0.30	<0.43
-15.01 BACK		191.6	0.0074		<0.011	<0.33	<0.47
-15.01 FRONT		191.9	0.0066		<0.011	<0.33	<0.47
-16.01 BACK		195.4	0.0013		<0.011	<0.66	<0.94
-16.01 FRONT		162.1	0.0969		<0.011	<0.66	<0.94
1776-2.01 BACK		179.7	0.0324		<0.011	<1.38	<1.98
-2.01 FRONT		180.8	0.0295		<0.011	<1.38	<1.98
-5.01 BACK		188.1	0.0136		<0.011	<1.24	<1.78
-5.01 FRONT		188.9	0.0123		<0.011	<1.24	<1.78
CCV2		193.6	0.116	96%			
CCB2		193.2	0.0048	<0.1			

Comments:

(*) 1735-014 - client changed volume 5/28/10

ANALYST: _____ Reviewer: _____
Date/Time: 5/27/10 @0515 Date: 5/27/10

For back quarter front - <0.011 mg <0.16 mg/m³

Ammonia in Air Extraction
ID-188/ID-164

page 1 of 2

	Date	Time	Sample Name	Tube ID SKC Lot # 6304 Exp: 11/2011	Date Collected	Volume 0.1N H_2SO_4 for extraction	Final Volume w/ 0.1 N H2SO4	Comments
1	5/20/10	1230 - 1400	MB	3226401570 (BACK) + 3226401572 (BACK)	NA	10 ml	100 ml	
2			LCS FRONT	3226401570	NA	10	100	
3			DLCS FRONT	3226401572	NA	10	100	
4			1735-1.01 BACK	3226401788	5/16/10	5	50	13.46L
5			FRONT -1.01	↓	↓	10	100	↓
6			BACK -2.01	3226401796		5	50	12.89L
7			FRONT -2.01	↓	↓	10	100	↓
8			BACK -3.01	3226401801	5/15/10	5	50	12.91L
9			FRONT -3.01	↓	↓	10	100	↓
10			BACK -4.01	3226401790	5/16/10	5	50	12.91L
11			FRONT -4.01	↓	↓	10	100	↓
12			BACK -5.01	3226401789		5	50	13.67L
13			FRONT -5.01	↓	↓	10	100	↓
14			BACK -6.01	3226401805	5/15/10	5	50	12.49L
15			FRONT -6.01	↓	↓	10	100	↓
16			BACK -7.01	3226401804		5	50	13.46L 14.13L change per client 5/25/10
17			FRONT -7.01	↓	↓	10	100	↓ ↓
18			BACK -8.01	3226401791	5/16/10	5	50	12.49L

Reagents: 0.1 N H2SO4 Ref# S24-0513001 + S24-0520002 Exp: 9/13/10

LCS - spiked with 0.1 mL Ref# S24-0520001 Exp: 9/13/10

Prep Run # 111880

Analyst: [signature] Date 5/20/10

Reviewer: [signature] Date: 5/24/10

Ammonia in Air Extraction
ID-188/ID-164

	Date	Time	Sample Name	Tube ID SKC Lot # 6304 Exp: 11/2011	Date Collected	Volume 0.1N H_2SO_4 for extraction	Final Volume w/ 0.1 N H2SO4	Comments
1	5/20/10	1230-1400	FRONT 1735 ~~MB~~ -8.01	~~3226401791~~	5/16/10	10 ml	100 ml	12.49L
2			BACK ~~LCS~~ -9.01	3226401867	5/17/10	5	50	~~27.98L~~
3			FRONT -9.01	↓	↓	10	100	↓
4			BACK -10.01	3226401868	↓	5	50	27.34L
5	↓	↓	FRONT -10.01	↓	↓	10	100	↓
6								
7								
8								
9								
10								
11								
12					Space not used			
13								
14								
15								
16								
17								
18								

Chemical per client 5/2: 27.12L ↓

Reagents: 0.1 N H2SO4 Ref# S24-05131001 + S24-05201002 Exp: 9/13/10

LCS - spiked with 0.1 mL Ref# S24-05201001 Exp: 9/13/10

Prep Run # 111886

Analyst: [signature] Date 5/20/10

Reviewer: [signature] Date: 5/24/10

Ammonia in Air Extraction
ID-188/ID-164

	Date	Time	Sample Name	Tube ID SKC Lot # 6304 Exp: 11/2011	Date Collected	Volume 0.1N H_2SO_4 for extraction	Final Volume w/ 0.1 N H2SO4	Comments
1	5/26/10	12:30 – 1420	MB	3226401575 (BACK) 3226401779 (BACK) / NA		10 ml	100 ml	
2			LCS FRONT	3226401575		10	100	
3			DUP FRONT	3226401779		10	100	
4			BACK 1735-11.01	3226401870	5/17/10	5	50	25.82 L
5			FRONT -11.01			10	100	
6			BACK -12.01	3226401875		5	50	26.92 L
7			FRONT -12.01			10	100	
8			BACK -13.01	3226401874	5/18/10	5	50	53.15 L
9			FRONT -13.01			10	100	
10			BACK -14.01	3226401876		5	50	65.05 L changed per Greg 5/28/10 60.56 L
11			FRONT -14.01			10	100	
12			BACK -15.01	3226401869		5	50	54.67 L
13			FRONT -15.01			10	100	
14			BACK -16.01	3226401873	5/17/10	5	50	27.34 L
15			FRONT -16.01			10	100	
16			1776-2.01 BACK	3605101650 *	5/20/10	5	50	12.96 L * TUBE LOT 6101 exp 6/2011
			-2.01 FRONT	*		10	100	
17			BACK -5.01	3605101643 *		5	50	14.40 L
18			FRONT -5.01	*		10	100	

Reagents: 0.1 N H2SO4 Ref# 524-05261001 Exp: 9/13/10

LCS - spiked with 0.1 mL Ref# 524-05201001 Exp: 9/13/10

Prep Run # 112333

Analyst: _____ Date 5/26/10

Reviewer: _____ Date: 5/27/10

4/6/09 SG — 519-04060902 — ICO2 ELUENT
100 mL 519-04060901 ↑ 1L W/ DI H2O. DEGASSED
EXP: 4/20/09

4/6/09 SG — 519-04060903 — ICO2 PCR

Dissolve 0.5g 1,5-Diphenylcarbohydrazide (EMD 47103731 exp: 1/30/13) in 100 mL Methanol (B&J CW045 exp: 5/07/13). Add to 1 L volumetric flask containing 500 mL DI water + 5.6 mL conc. H2SO4 (EMD 47050 exp: 9/13/10). Bring up to volume w/ DI H2O; mix and degas.

EXP: 4/11/09

4/6/09 SG — 519-04060904 — 1000PPM AS N AMMONIA (1214PPM AS NH3
PURCHASED
ORION 951007 : LOT MU1 P/N 703548-A07
EXP 6/2010

4/6/09 SG — 519-04060905 — NH3 ISA BUFFER
PURCHASED
ORION 951211 : LOT: NZ1 P/N 207475-A01
EXP: 4/6/10

4/7/09 SG — 519-04070901 — 12.5 N NaOH
8.2g NaOH (EMD 4517653B; EXP: 10/28/10) + 91.8g NaOH (EMD 470227
EXP 10/11/12) PLUS 100 mL DF/DI
EXP: 4/7/10

4/7/09 SG — 519-04070902 — ICO2 1000ppb Cr6+
0.1 mL 519-01210401 (1000PPM Cr6+; EXP: 2/1/10) ↑ 100 mL
W/ PH ADJUSTED (pH = 9.478) H2O.
EXP: 2/1/10

4/7/09 SG — 519-04070903 — ICO2 Cr6+ std ICV/CCV T.V = 2.09
0.5 mL 519-04010401 (0.418 PPM; EXP 5/11/09) ↑ 100mL W/ pH ADJUSTED (PH 9.478)
EXP: 4/21/09