

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102115\
 Data File : VL026246.D
 Acq On : 21 Oct 2015 20:26
 Operator : SY/MD
 Sample : G4128-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 INF

Manual Integrations
 APPROVED

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 10/22/2015 4:36:05 PM

Quant Time: Oct 22 14:45:08 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Oct 22 2015
 QLast Update : Wed Oct 21 01:20:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.63	49	484572	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	8.31	114	1383556	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.89	117	1601133	10.00	ppbv	0.16

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	16.35	95	1262969	10.23	ppbv	0.07
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.62	85	33958	0.34	ppbv	96
3) Chlorodifluoromethane	3.55	51	72547m	1.18	ppbv	
4) Chloromethane	3.73	50	5878	0.18	ppbv	96
9) Propene	3.58	41	13918	0.48	ppbv	86
11) Trichlorofluoromethane	4.67	101	31265	0.32	ppbv	95
13) Ethanol	4.34	45	3878	0.90	ppbv	82
15) Acetone	4.61	43	73228	1.03	ppbv	96
18) 1,1-Dichloroethene	5.06	96	3609	0.12	ppbv	96
20) Methylene Chloride	5.12	84	14155	0.50	ppbv	98
22) trans-1,2-Dichloroethene	5.74	96	89138	2.28	ppbv	96
26) Hexane	6.63	57	10852	0.16	ppbv #	55
29) Chloroform	6.73	83	14018	0.14	ppbv	96
31) cis-1,2-Dichloroethene	6.49	61	7722681	127.29	ppbv	93
32) 1,1,1-Trichloroethane	7.57	97	161701	1.50	ppbv	99
34) 2-Butanone	6.21	43	22740	0.29	ppbv	95
35) Carbon Tetrachloride	8.13	117	6648m	0.06	ppbv	
36) Benzene	8.01	78	11177	0.08	ppbv #	93
38) Trichloroethene	9.06	130	10607029	155.15	ppbv	95
41) Tetrahydrofuran	7.17	42	8003	0.18	ppbv #	90
52) Tetrachloroethene	13.13	164	94246914m	1166.25	ppbv	
53) Toluene	11.22	91	30793	0.16	ppbv	92
57) Chlorobenzene	13.96	112	100901	0.66	ppbv	98
59) m/p-Xylene	14.80	91	19045	0.09	ppbv	97
60) o-Xylene	15.58	91	10946	0.05	ppbv	94
74) 1,2,4-Trimethylbenzene	18.85	105	59678	0.25	ppbv #	75
75) 1,3-Dichlorobenzene	19.13	146	23280m	0.15	ppbv	
76) 1,4-Dichlorobenzene	19.28	146	27466	0.17	ppbv	99
77) 1,2-Dichlorobenzene	20.03	146	11328	0.07	ppbv	98
81) 1,2,4-Trichlorobenzene	23.71	180	5690	0.06	ppbv	94

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

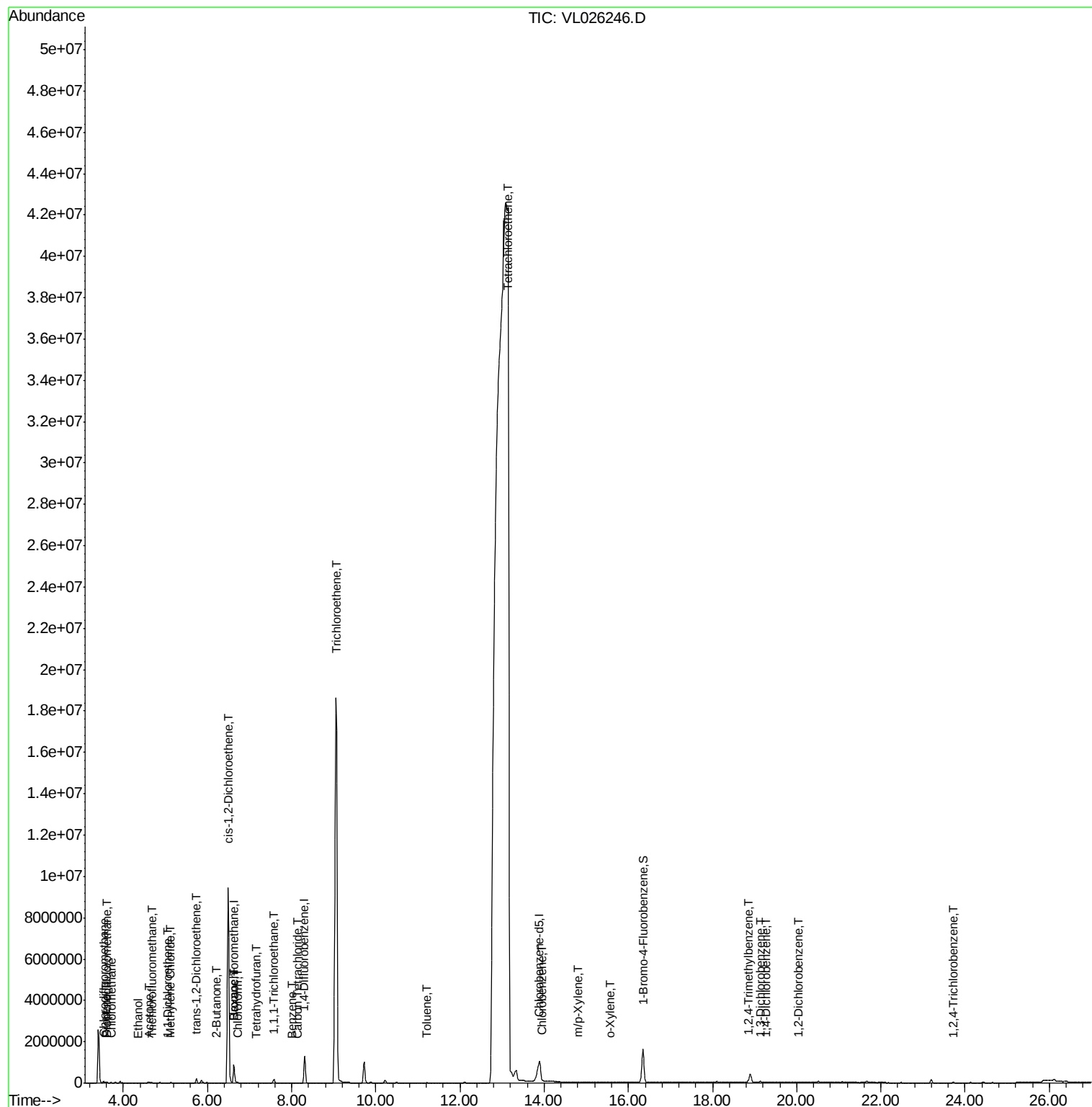
Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102115\
Data File : VL026246.D
Acq On : 21 Oct 2015 20:26
Operator : SY/MD
Sample : G4128-01
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

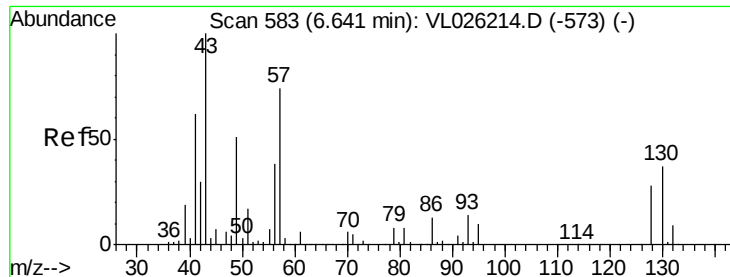
Instrument :
MSVOA_L
ClientSampleId :
INF

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Quant Time: Oct 22 14:45:08 2015
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Oct
QLast Update : Wed Oct 21 01:20:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.63 min Scan# 581

Delta R.T. -0.01 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

ClientSampleId :

INF

Tot Ion: 49 Resp: 484572

Ion Ratio Lower Upper

49 100

128 56.7 28.2 84.7

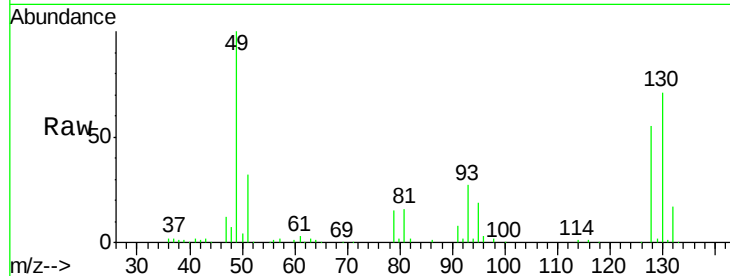
130 72.8 36.0 108.1

Manual Integrations

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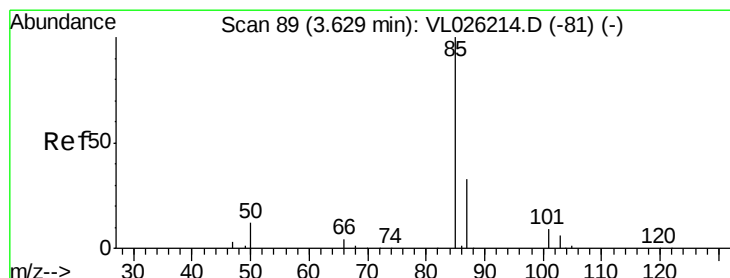
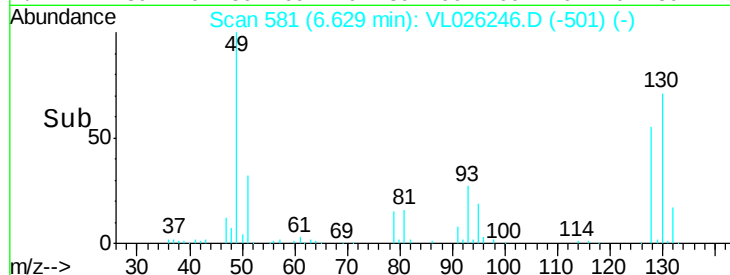
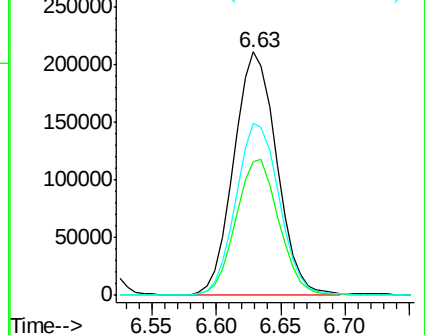
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.34 ppbv

RT: 3.62 min Scan# 88

Delta R.T. -0.01 min

Lab File: VL026246.D

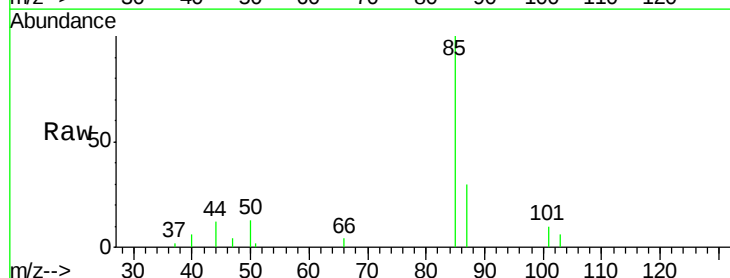
Acq: 21 Oct 2015 20:26

Tgt Ion: 85 Resp: 33958

Ion Ratio Lower Upper

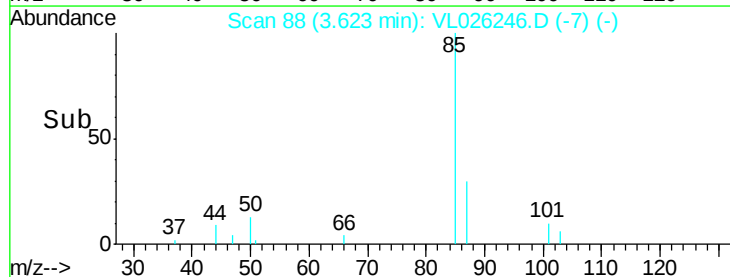
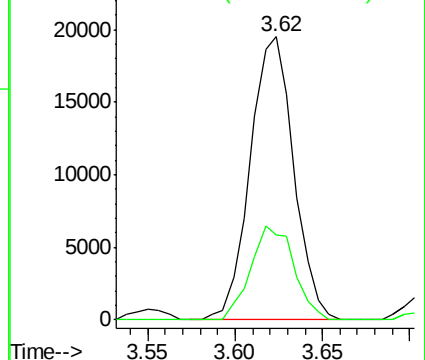
85 100

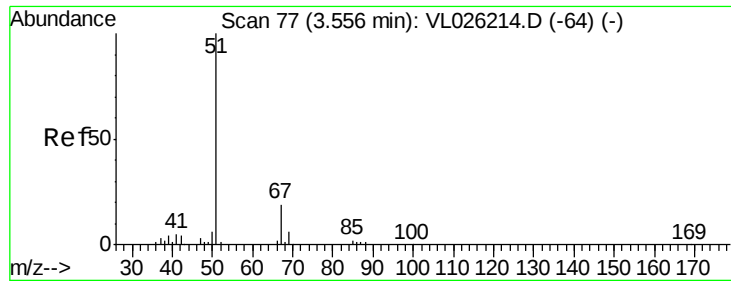
87 30.1 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.18 ppbv m

RT: 3.55 min Scan# 76

Delta R.T. -0.01 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

ClientSampled :

INF

Tot Ion: 51 Resp: 72547

Ion Ratio Lower Upper

51 100

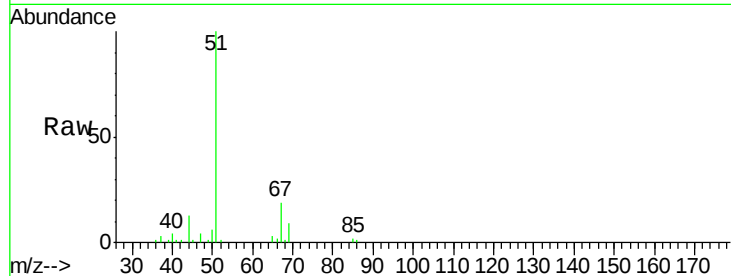
67 19.0 15.3 22.9

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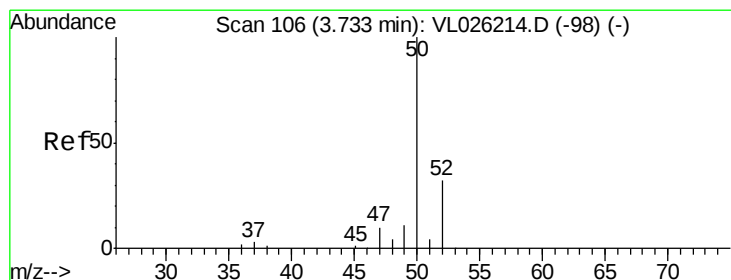
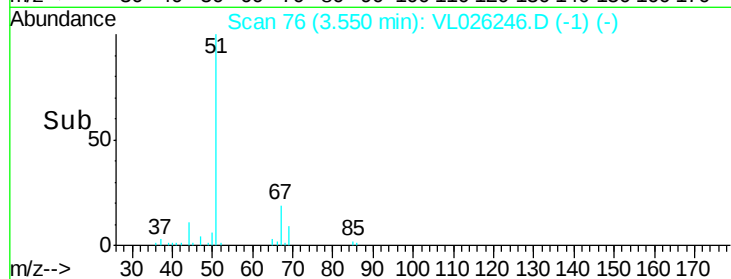
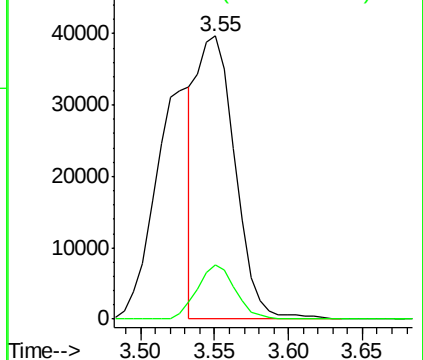
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.18 ppbv

RT: 3.73 min Scan# 106

Delta R.T. 0.00 min

Lab File: VL026246.D

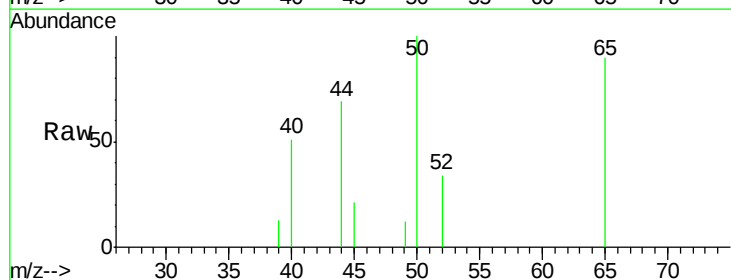
Acq: 21 Oct 2015 20:26

Tgt Ion: 50 Resp: 5878

Ion Ratio Lower Upper

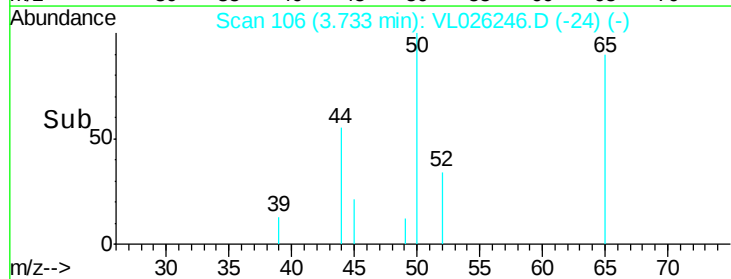
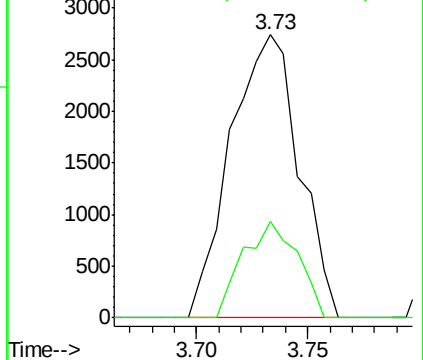
50 100

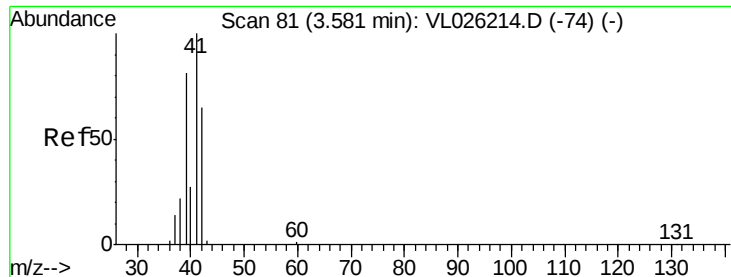
52 34.2 25.8 38.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.48 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :
MSVOA_L
ClientSampleId :
INF

Tot Ion: 41 Resp: 13918

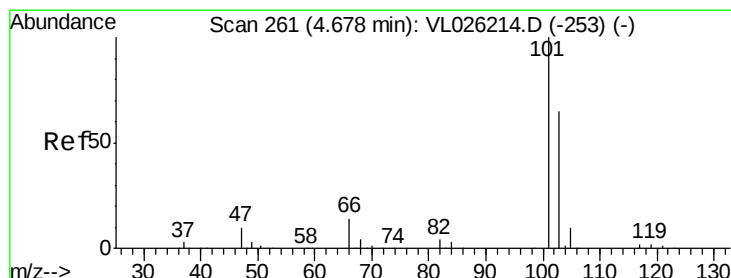
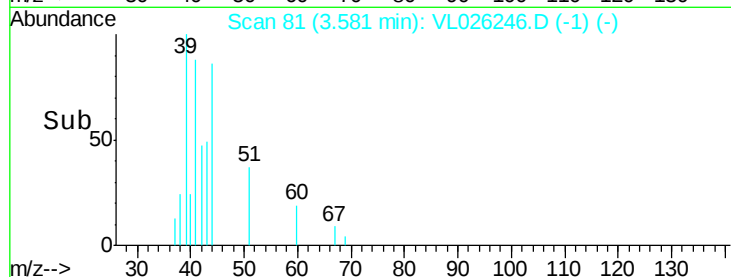
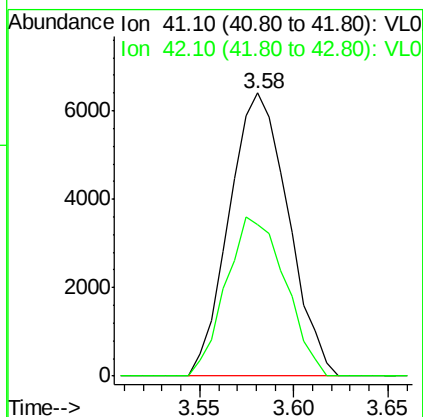
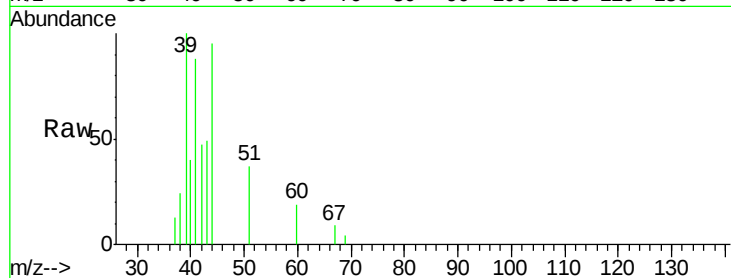
Ion Ratio Lower Upper

41 100

42 56.3 53.8 80.8

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#11

Trichlorofluoromethane

Concen: 0.32 ppbv

RT: 4.67 min Scan# 260

Delta R.T. -0.01 min

Lab File: VL026246.D

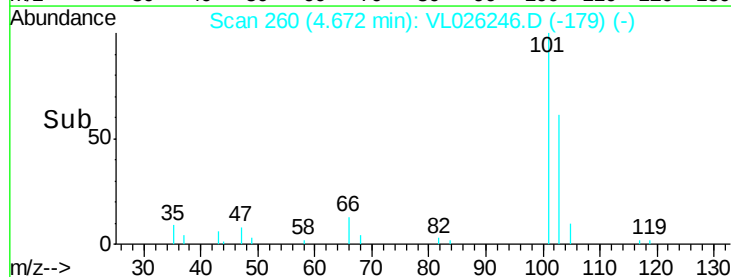
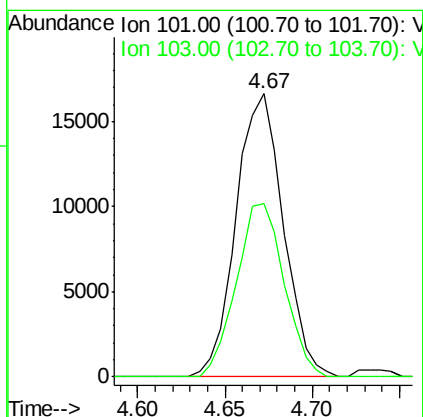
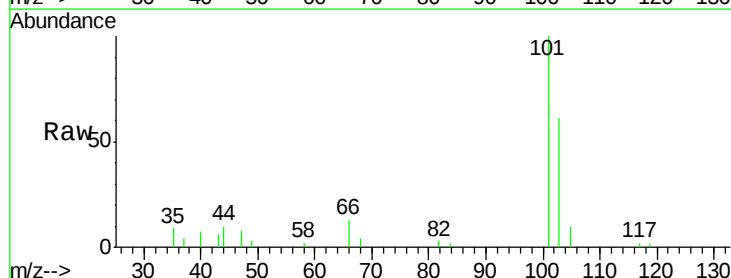
Acq: 21 Oct 2015 20:26

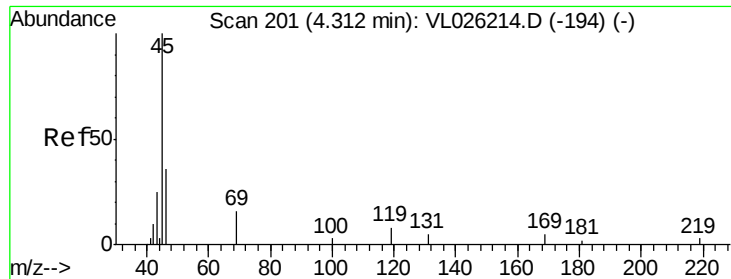
Tgt Ion: 101 Resp: 31265

Ion Ratio Lower Upper

101 100

103 61.3 52.2 78.2





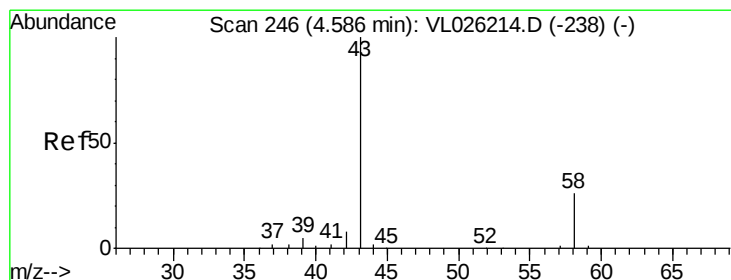
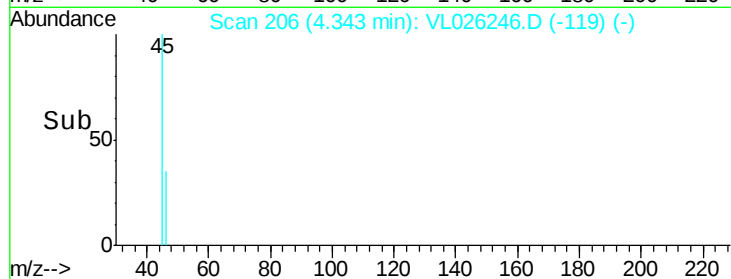
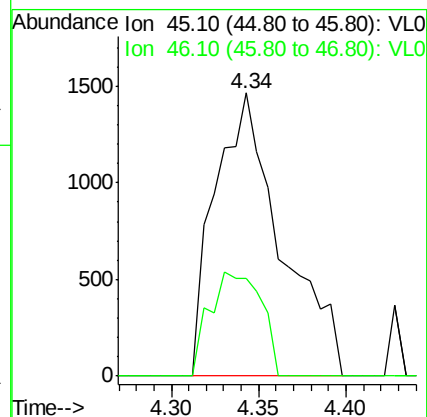
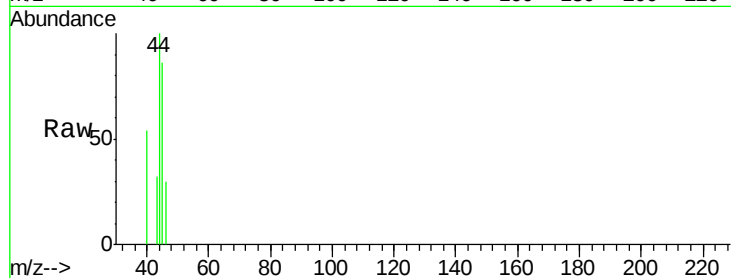
#13
Ethanol
Concen: 0.90 ppbv
RT: 4.34 min Scan# 206
Delta R.T. 0.03 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Instrument :
MSVOA_L
ClientSampleId :
INF

Tot Ion: 45 Resp: 3878
Ion Ratio Lower Upper
45 100
46 28.3 15.8 63.0

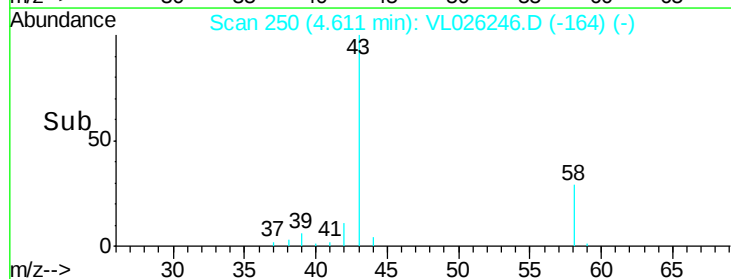
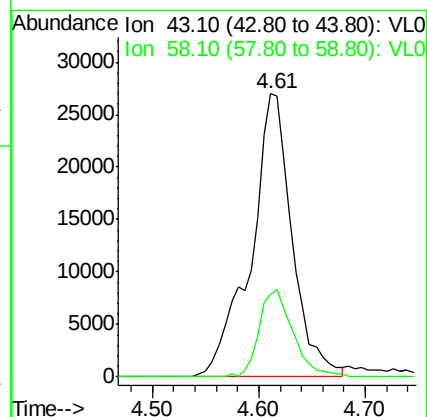
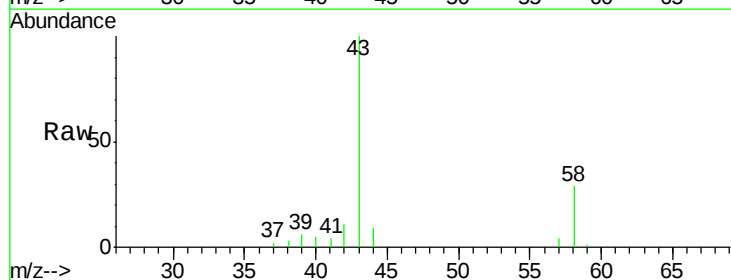
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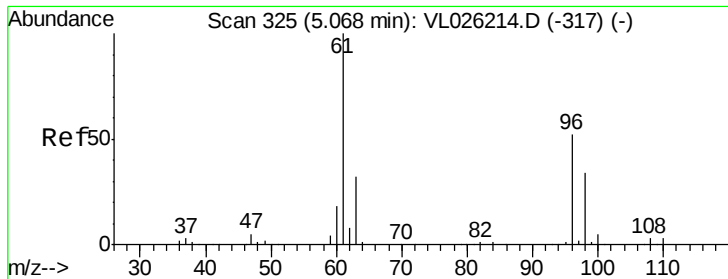
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#15
Acetone
Concen: 1.03 ppbv
RT: 4.61 min Scan# 250
Delta R.T. 0.02 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Tgt Ion: 43 Resp: 73228
Ion Ratio Lower Upper
43 100
58 25.3 21.8 32.6





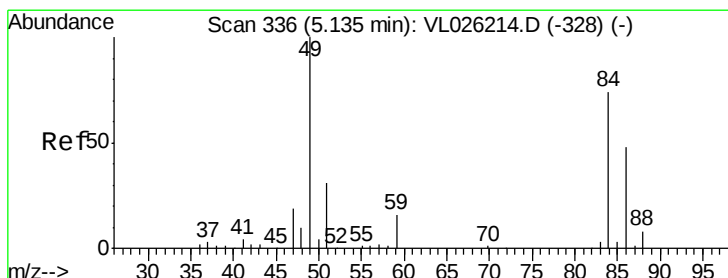
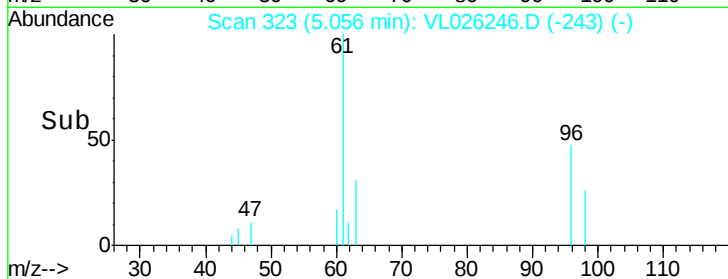
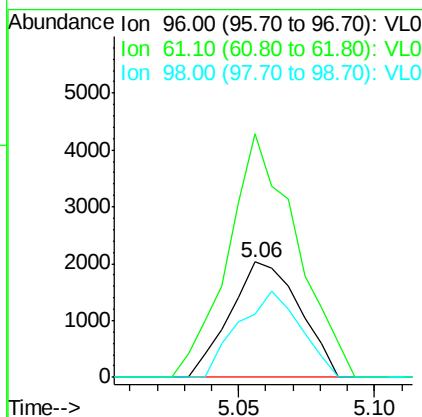
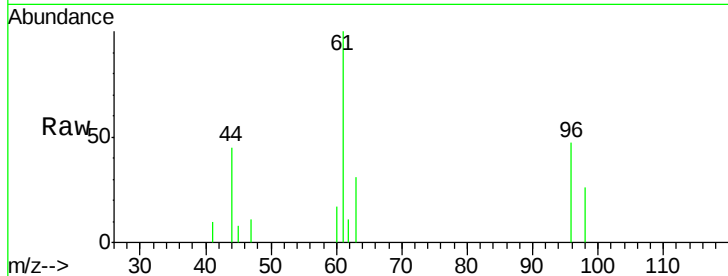
#18
 1,1-Dichloroethene
 Concen: 0.12 ppbv
 RT: 5.06 min Scan# 323
 Delta R.T. -0.01 min
 Lab File: VL026246.D
 Acq: 21 Oct 2015 20:26

Instrument :
 MSVOA_L
 ClientSampleId :
 INF

Tot Ion	Ratio	Lower	Upper
96	100		
61	191.1	153.7	230.5
98	54.4	51.6	77.4

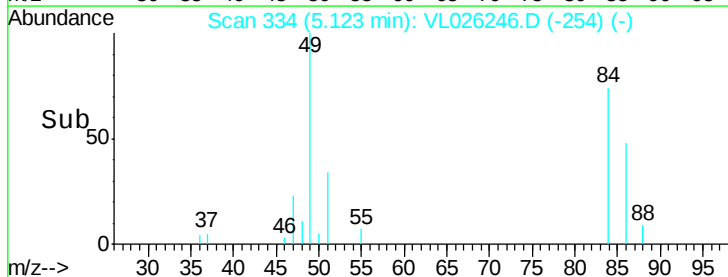
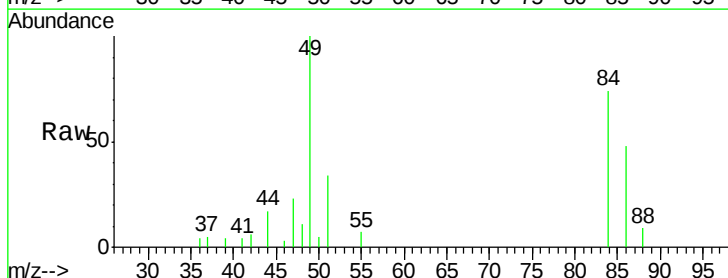
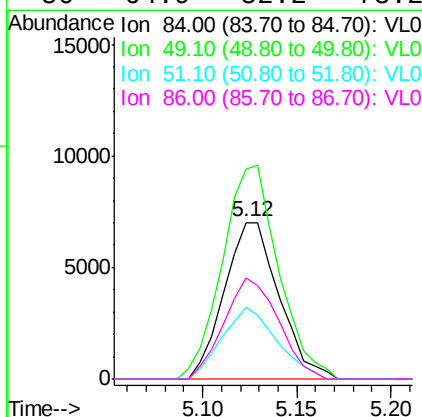
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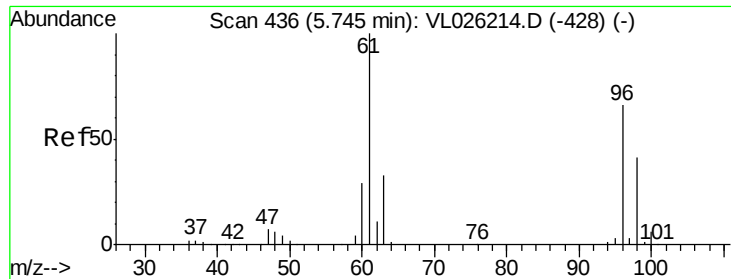
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#20
 Methylene Chloride
 Concen: 0.50 ppbv
 RT: 5.12 min Scan# 334
 Delta R.T. -0.01 min
 Lab File: VL026246.D
 Acq: 21 Oct 2015 20:26

Tgt Ion	Ratio	Lower	Upper
84	100		
49	134.6	108.7	163.1
51	46.3	33.7	50.5
86	64.9	52.2	78.2





#22

trans-1,2-Dichloroethene

Concen: 2.28 ppbv

RT: 5.74 min Scan# 435

Delta R.T. -0.01 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

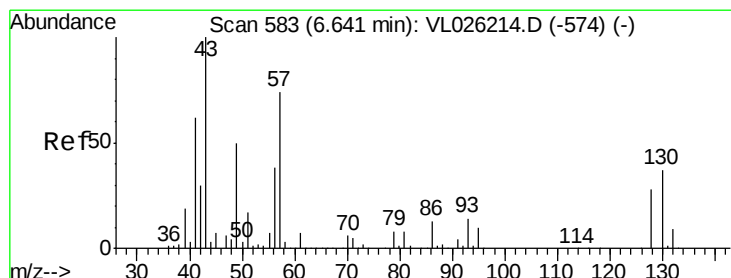
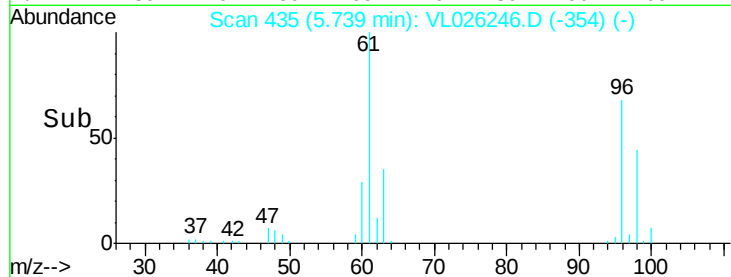
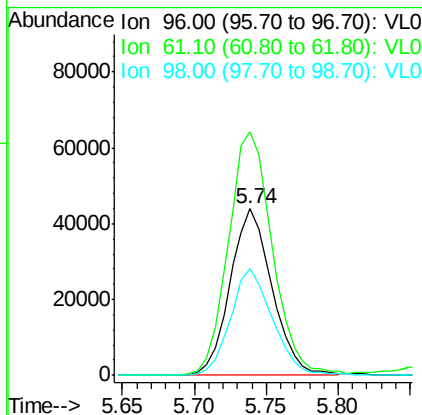
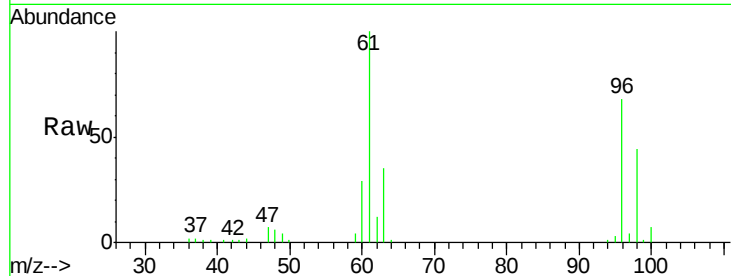
ClientSampleId :

INF

Tot Ion:	96	Resp:	89138
Ion	Ratio	Lower	Upper
96	100		
61	145.5	121.5	182.3
98	63.9	49.7	74.5

Manual Integrations
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#26

Hexane

Concen: 0.16 ppbv

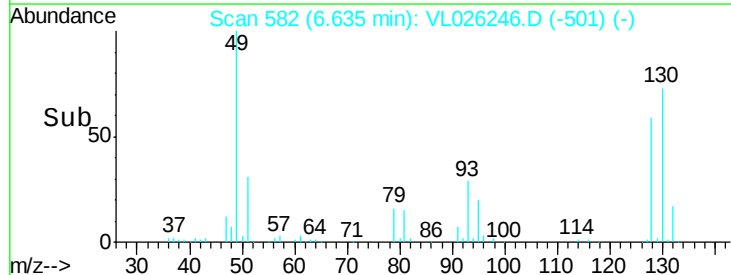
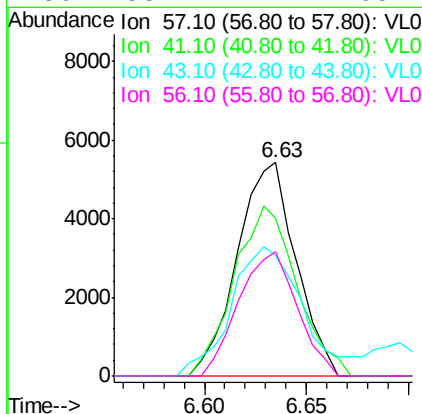
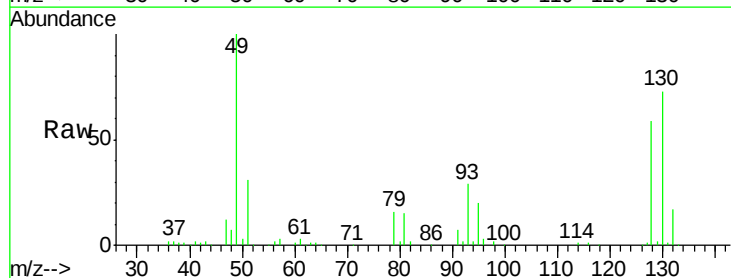
RT: 6.63 min Scan# 582

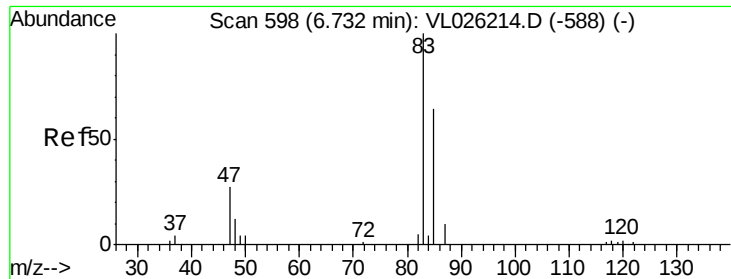
Delta R.T. -0.01 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Tgt Ion:	57	Resp:	10852
Ion	Ratio	Lower	Upper
57	100		
41	85.4	68.1	102.1
43	90.8	163.4	245.2
56	58.1	42.2	63.4





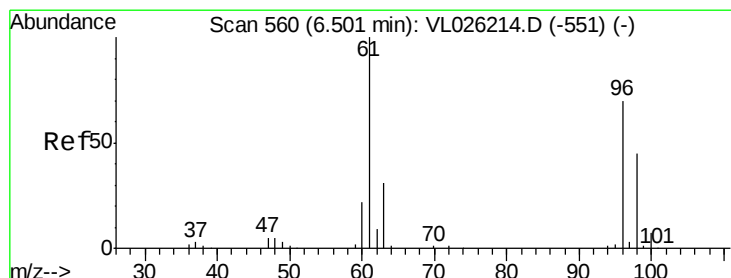
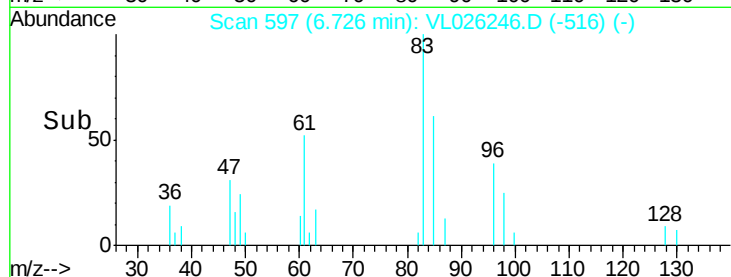
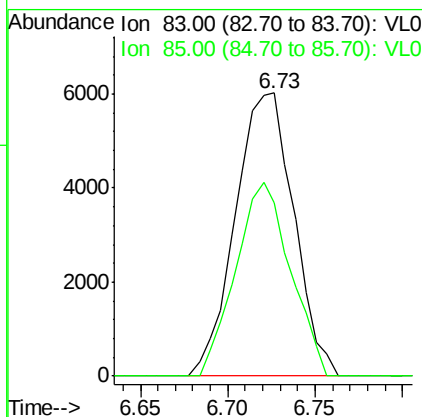
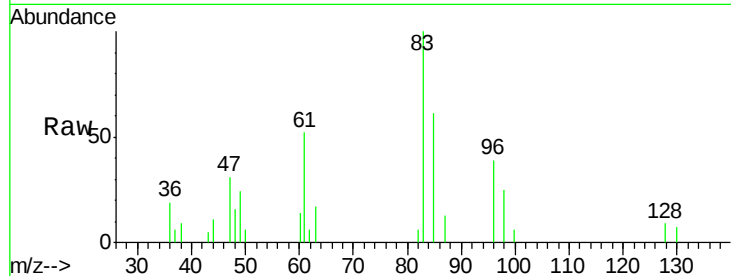
#29
Chloroform
Concen: 0.14 ppbv
RT: 6.73 min Scan# 597
Delta R.T. -0.01 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Instrument :
MSVOA_L
ClientSampled :
INF

Tot Ion: 83 Resp: 14018
Ion Ratio Lower Upper
83 100
85 61.3 51.5 77.3

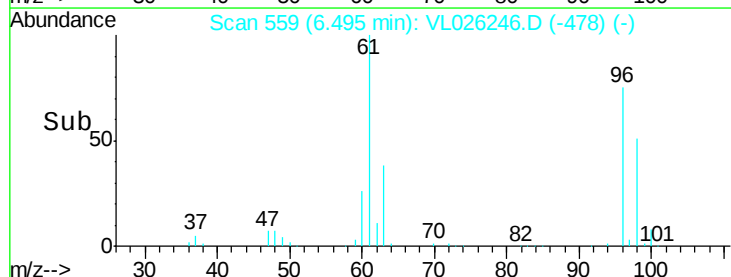
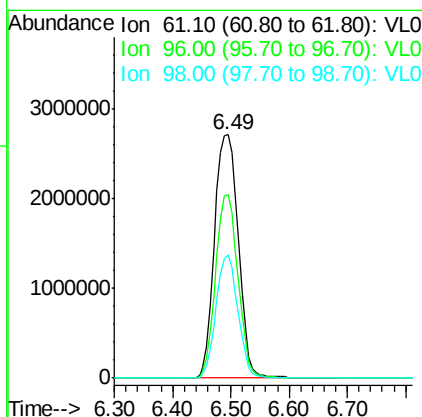
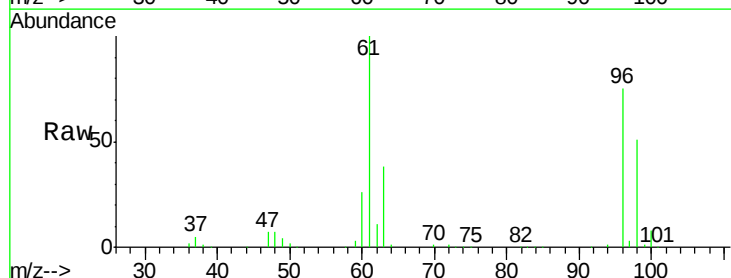
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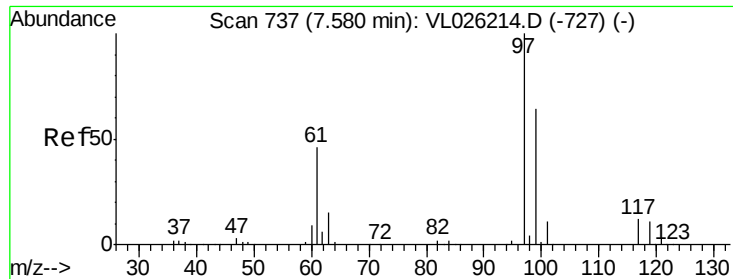
MMDadoda
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#31
cis-1,2-Dichloroethene
Concen: 127.29 ppbv
RT: 6.49 min Scan# 559
Delta R.T. -0.01 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Tgt Ion: 61 Resp: 7722681
Ion Ratio Lower Upper
61 100
96 75.4 56.0 84.0
98 50.6 36.1 54.1





#32

1,1,1-Trichloroethane

Concen: 1.50 ppbv

RT: 7.57 min Scan# 736

Delta R.T. -0.01 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

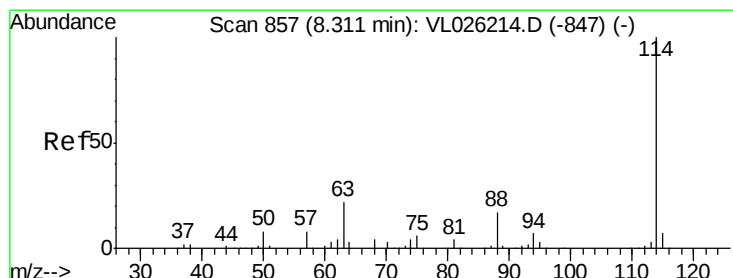
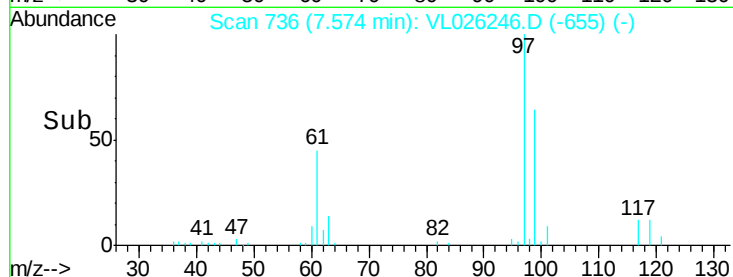
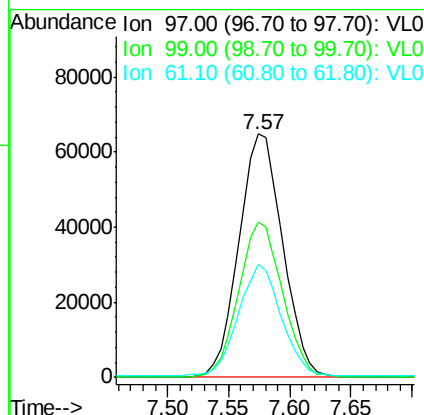
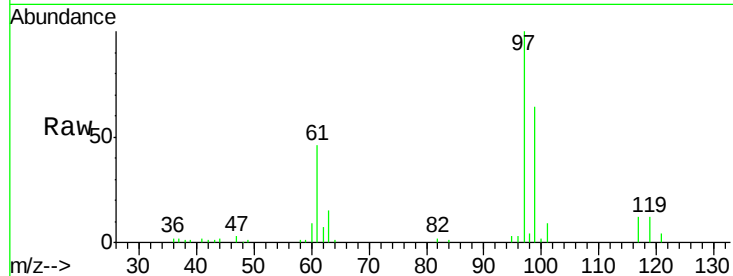
ClientSampleId :

INF

Tot Ion:	97	Resp:	161701
Ion	Ratio	Lower	Upper
97	100		
99	63.7	51.4	77.0
61	46.3	36.2	54.4

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#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

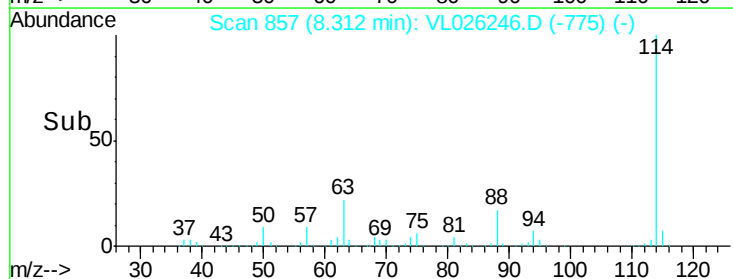
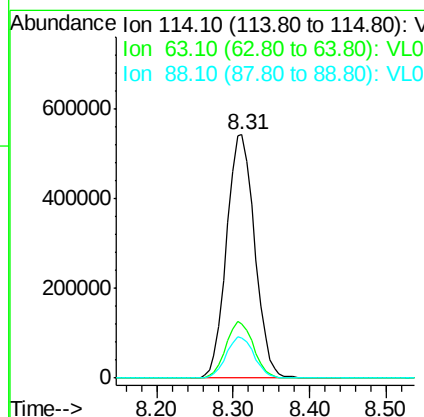
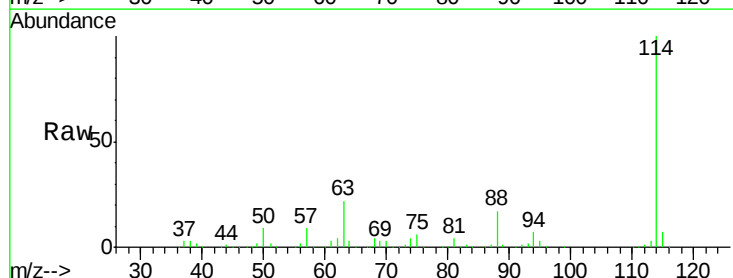
RT: 8.31 min Scan# 857

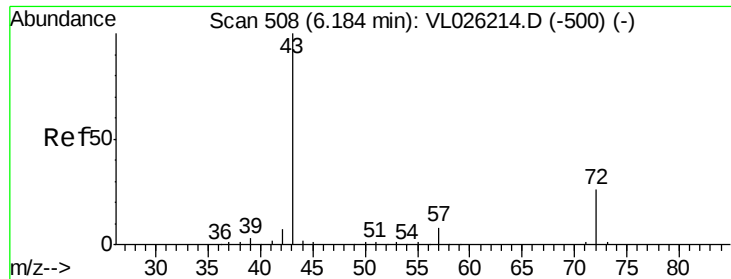
Delta R.T. 0.00 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Tgt Ion:	114	Resp:	1383556
Ion	Ratio	Lower	Upper
114	100		
63	22.7	18.2	27.4
88	16.7	13.5	20.3





#34

2-Butanone

Concen: 0.29 ppbv

RT: 6.21 min Scan# 513

Delta R.T. 0.03 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

ClientSampleId :

INF

Tot Ion: 43 Resp: 22740

Ion Ratio Lower Upper

43 100

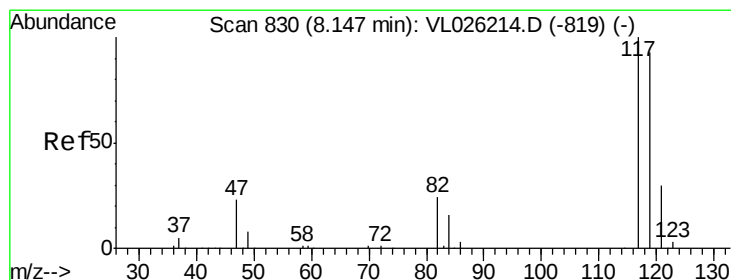
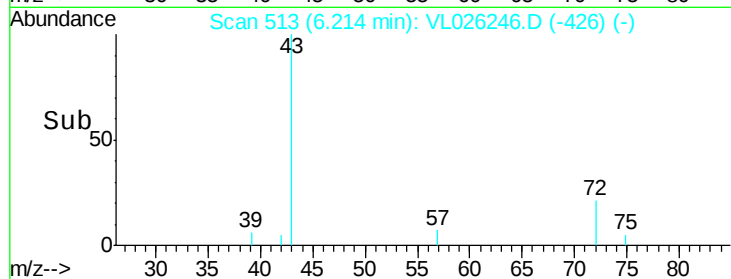
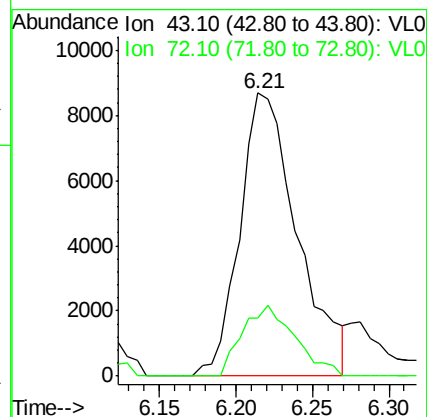
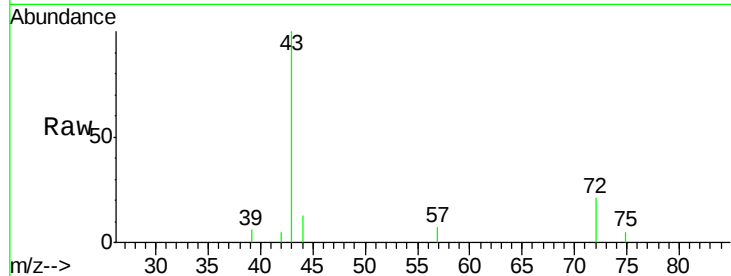
72 22.8 20.1 30.1

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#35

Carbon Tetrachloride

Concen: 0.06 ppbv m

RT: 8.13 min Scan# 827

Delta R.T. -0.02 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

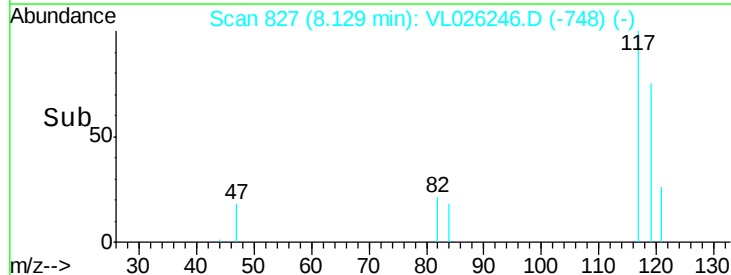
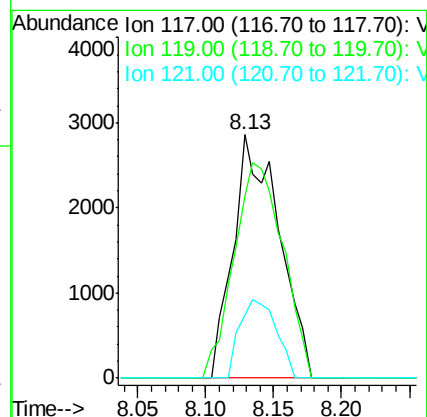
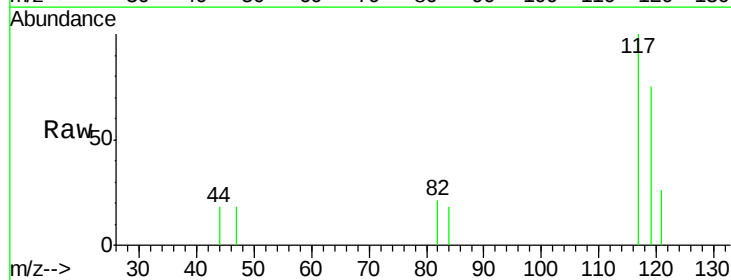
Tgt Ion: 117 Resp: 6648

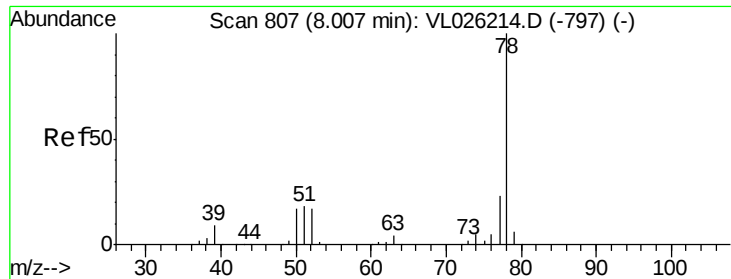
Ion Ratio Lower Upper

117 100

119 74.8 74.6 111.8

121 26.0 24.2 36.2





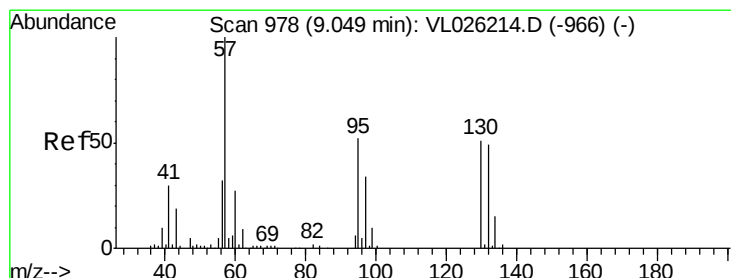
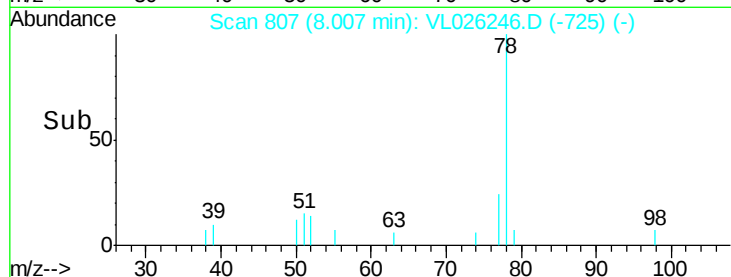
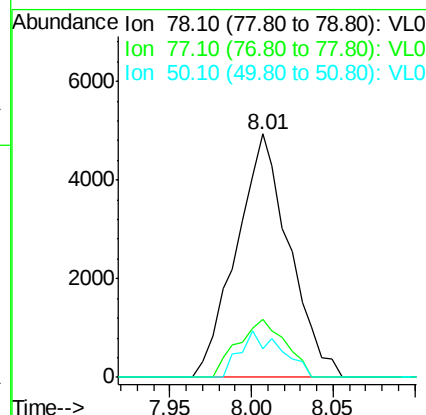
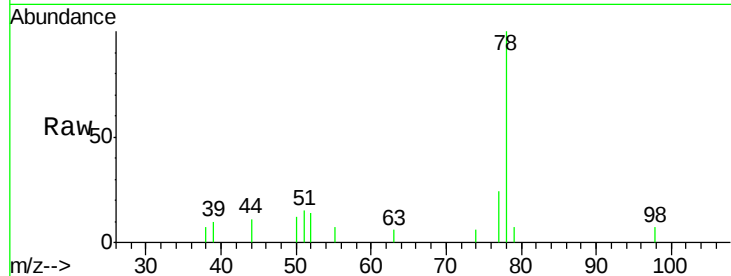
#36
Benzene
Concen: 0.08 ppbv
RT: 8.01 min Scan# 807
Delta R.T. 0.00 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Instrument :
MSVOA_L
ClientSampleId :
INF

Tot Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.1	27.1
50	11.8	13.8	20.8

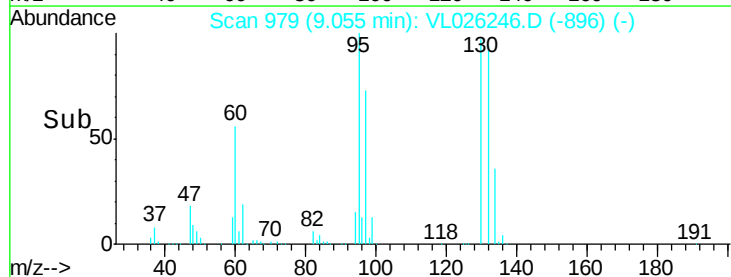
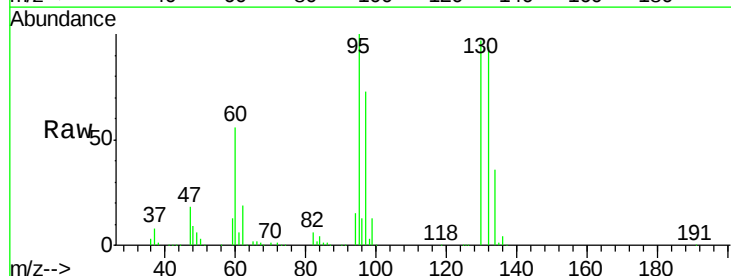
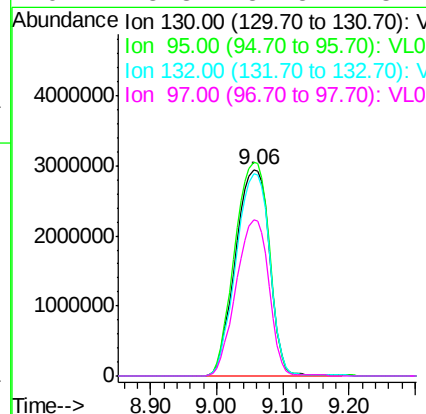
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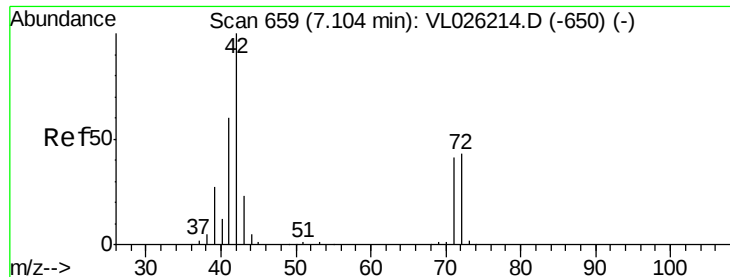
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#38
Trichloroethene
Concen: 155.15 ppbv
RT: 9.06 min Scan# 979
Delta R.T. 0.01 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Tgt Ion	Ratio	Lower	Upper
130	100		
95	103.5	81.0	121.4
132	97.7	76.5	114.7
97	75.3	52.5	78.7





#41

Tetrahydrofuran

Concen: 0.18 ppbv

RT: 7.17 min Scan# 669

Delta R.T. 0.06 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

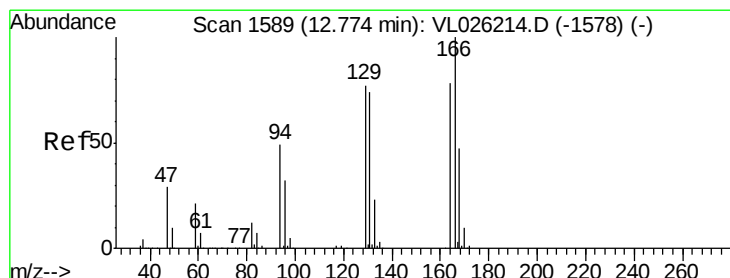
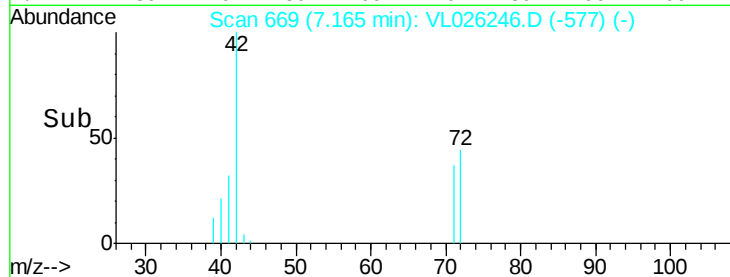
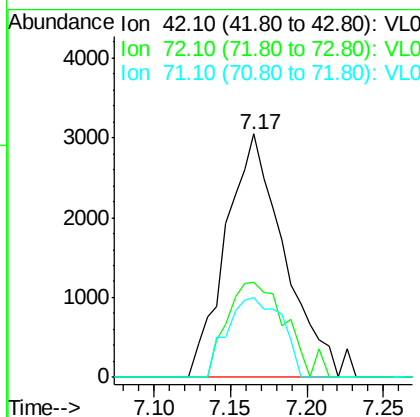
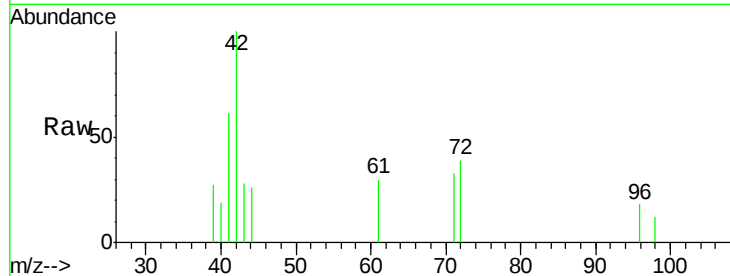
ClientSampleId :

INF

Tot Ion:	42	Resp:	8003
Ion	Ratio	Lower	Upper
42	100		
72	39.7	34.3	51.5
71	30.9	32.1	48.1#

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#52

Tetrachloroethene

Concen: 1166.25 ppbv m

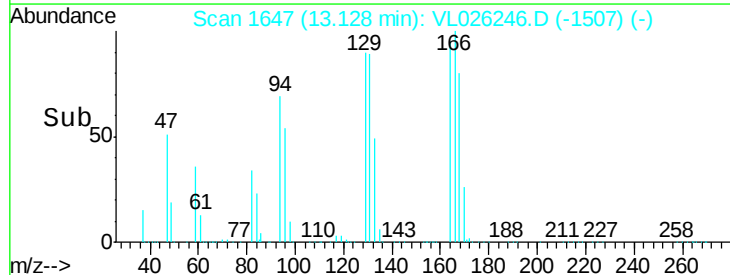
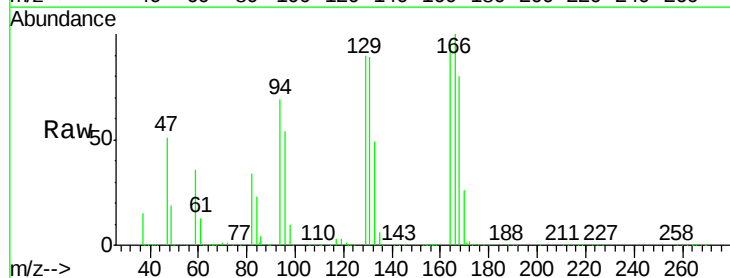
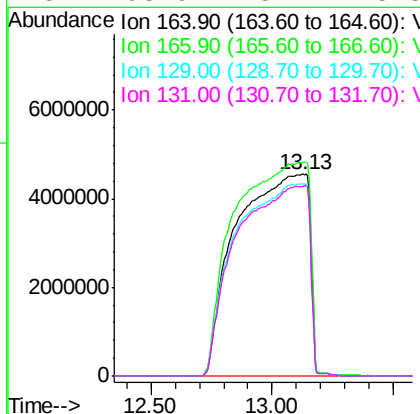
RT: 13.13 min Scan# 1647

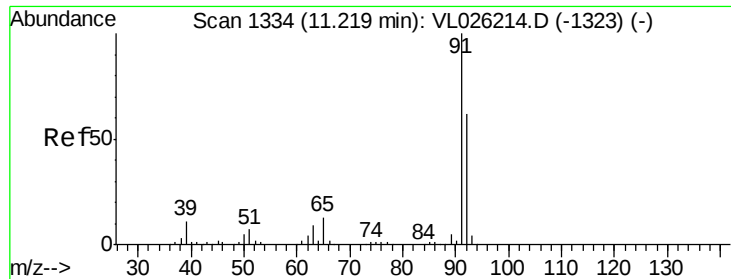
Delta R.T. 0.35 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Tgt Ion:	164	Resp:	94246914
Ion	Ratio	Lower	Upper
164	100		
166	105.7	102.3	153.5
129	95.0	78.2	117.4
131	93.9	75.7	113.5





#53

Toluene

Concen: 0.16 ppbv

RT: 11.22 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

ClientSampled :

INF

Tot Ion: 91 Resp: 30793

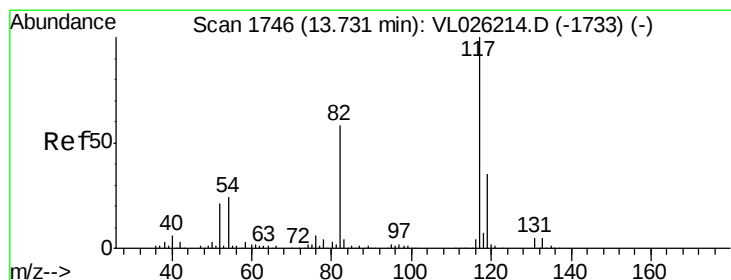
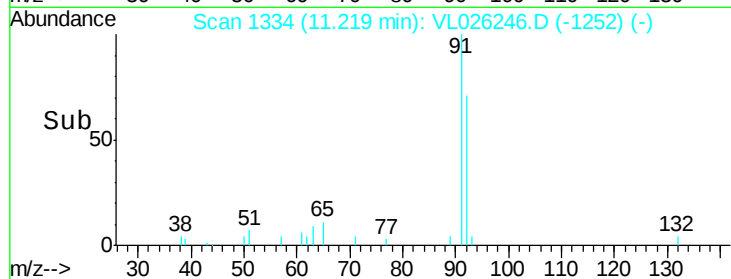
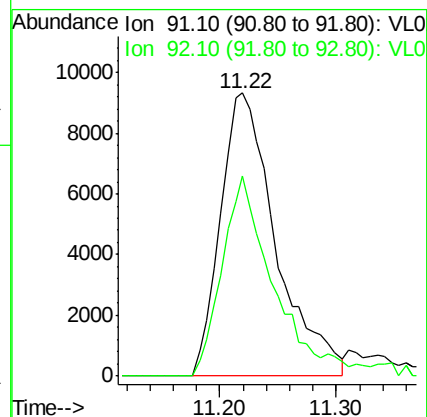
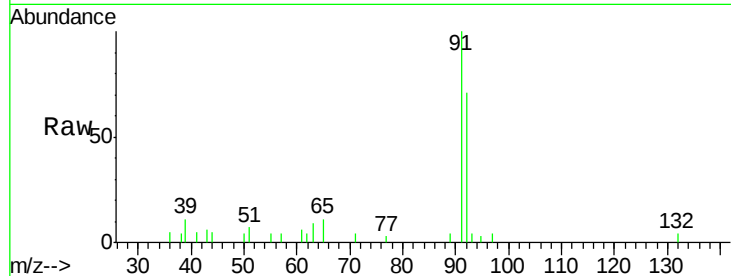
Ion Ratio Lower Upper

91 100

92 67.9 49.2 73.8

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#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.89 min Scan# 1772

Delta R.T. 0.16 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

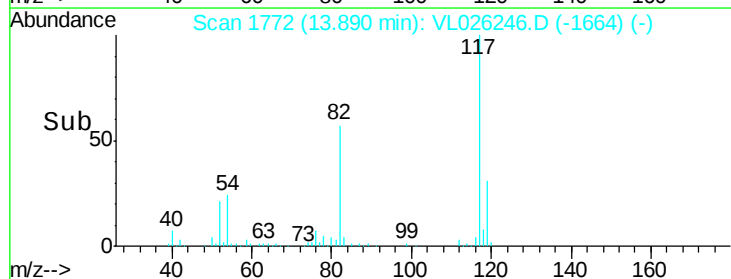
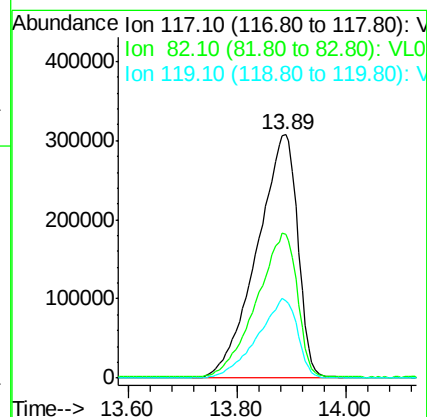
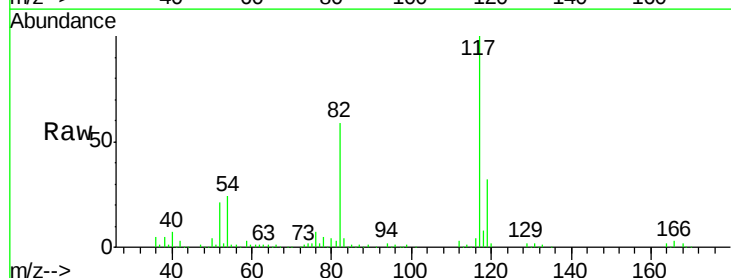
Tgt Ion: 117 Resp: 1601133

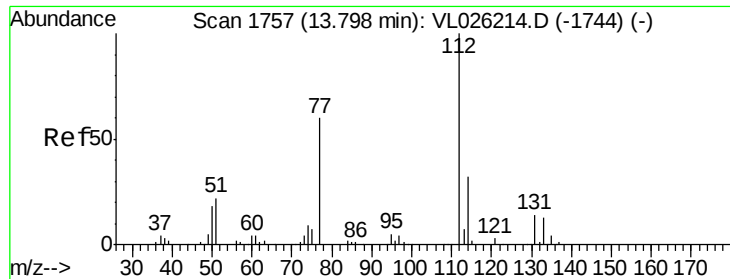
Ion Ratio Lower Upper

117 100

82 59.1 45.8 68.8

119 32.4 45.0 67.4#





#57

Chlorobenzene

Concen: 0.66 ppbv

RT: 13.96 min Scan# 1783

Delta R.T. 0.16 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

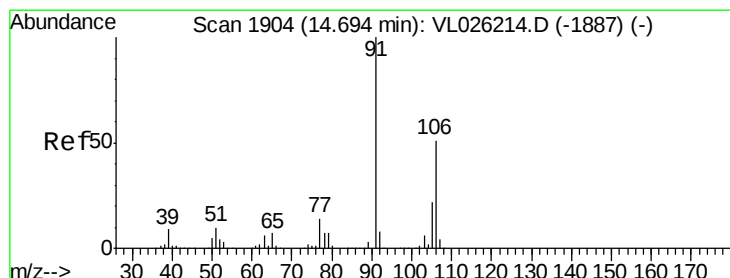
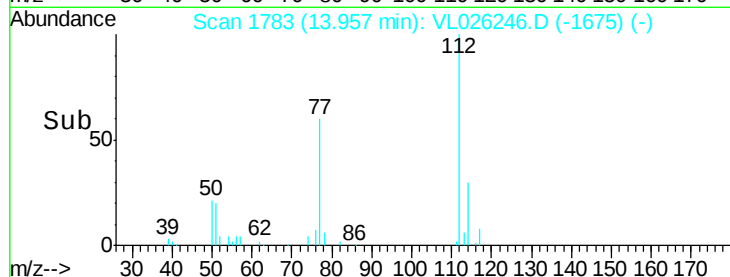
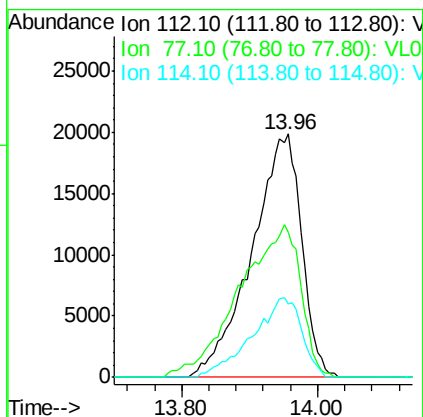
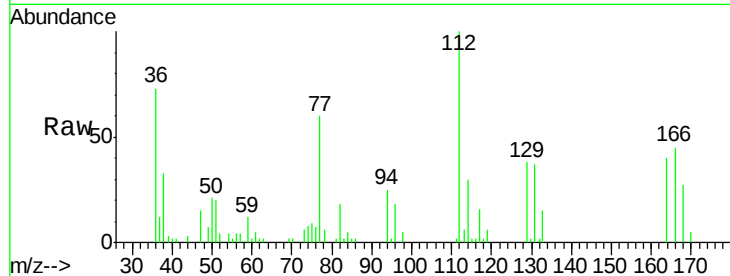
ClientSampled :

INF

Tot Ion:	112	Resp:	100901
Ion Ratio	Lower	Upper	
112	100		
77	59.5	48.4	72.6
114	30.2	29.0	35.4

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#59

m/p-Xylene

Concen: 0.09 ppbv

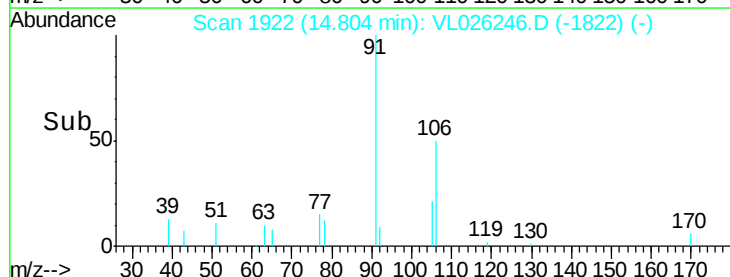
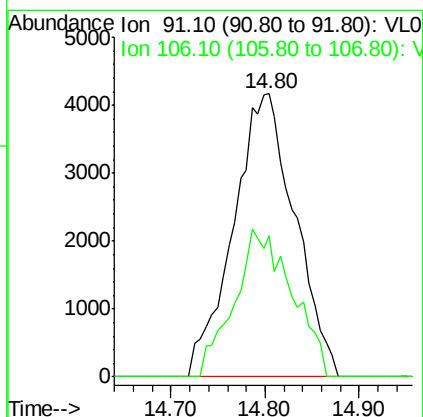
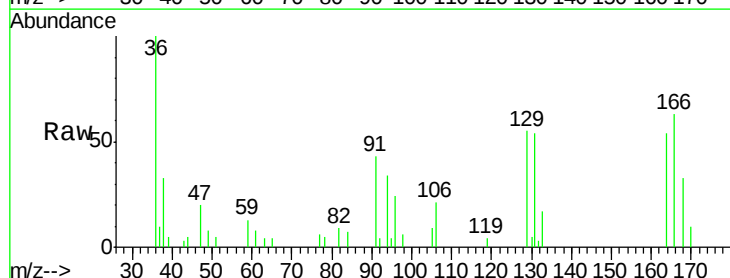
RT: 14.80 min Scan# 1922

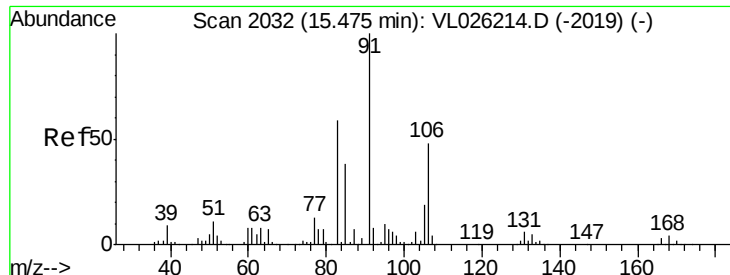
Delta R.T. 0.11 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Tgt Ion:	91	Resp:	19045
Ion Ratio	Lower	Upper	
91	100		
106	48.8	40.6	61.0





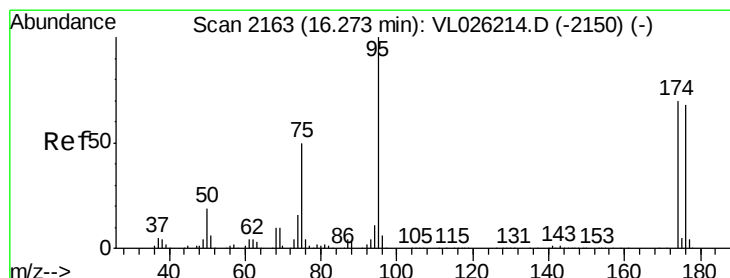
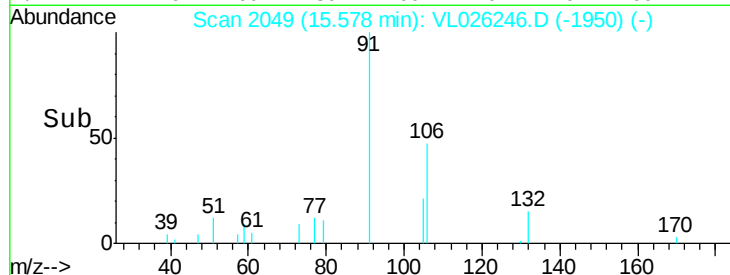
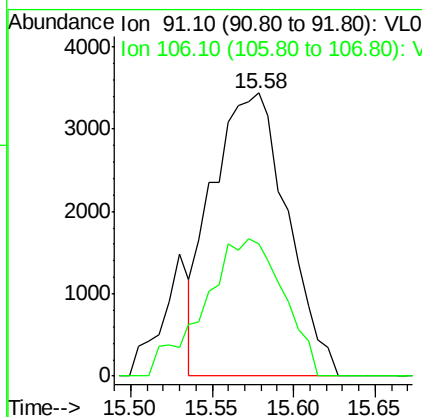
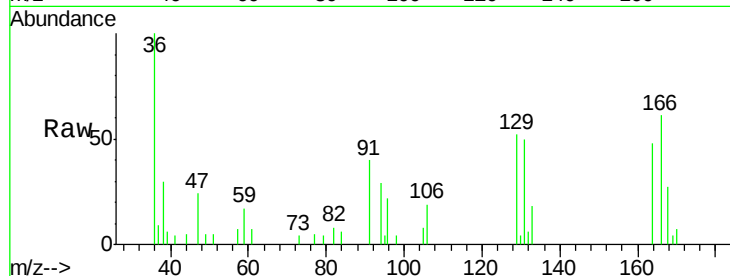
#60
o-Xylene
Concen: 0.05 ppbv
RT: 15.58 min Scan# 2049
Delta R.T. 0.10 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Instrument :
MSVOA_L
ClientSampleId :
INF

Tot Ion: 91 Resp: 10946
Ion Ratio Lower Upper
91 100
106 51.4 23.8 71.5

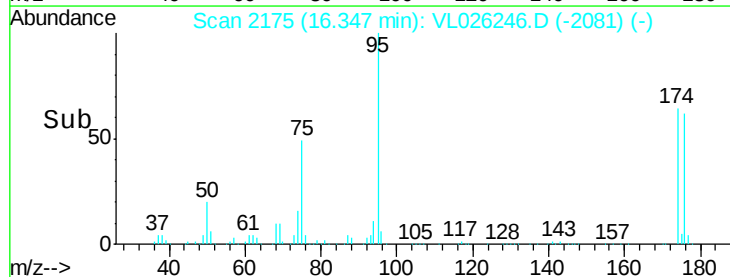
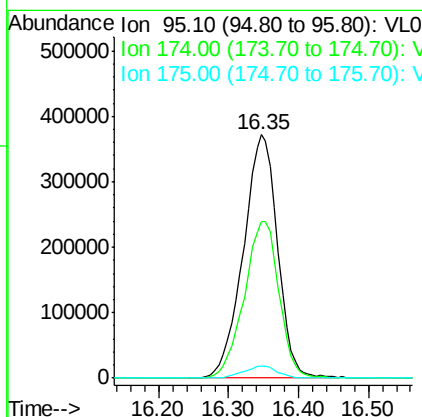
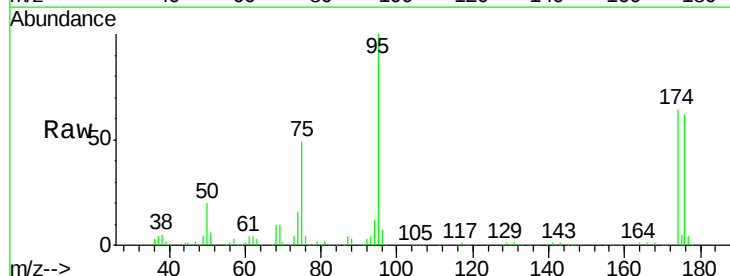
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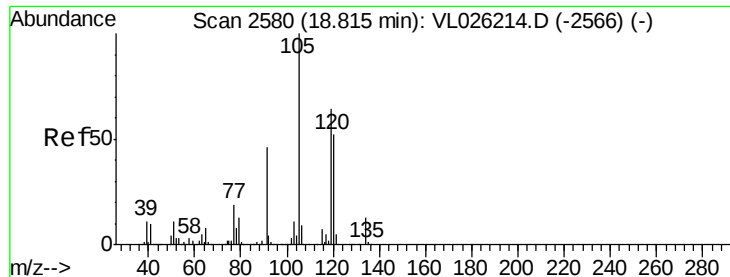
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.23 ppbv
RT: 16.35 min Scan# 2175
Delta R.T. 0.07 min
Lab File: VL026246.D
Acq: 21 Oct 2015 20:26

Tgt Ion: 95 Resp: 1262969
Ion Ratio Lower Upper
95 100
174 65.5 55.8 83.8
175 4.9 4.3 6.5





#74

1,2,4-Trimethylbenzene

Concen: 0.25 ppbv

RT: 18.85 min Scan# 2585

Delta R.T. 0.03 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Instrument :

MSVOA_L

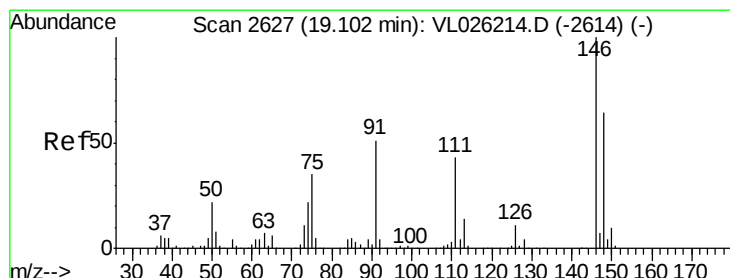
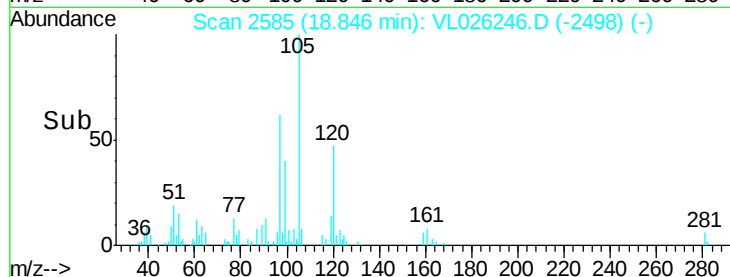
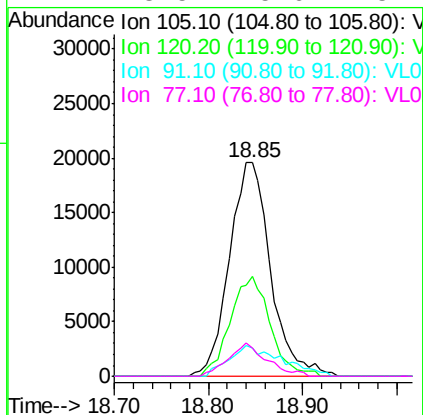
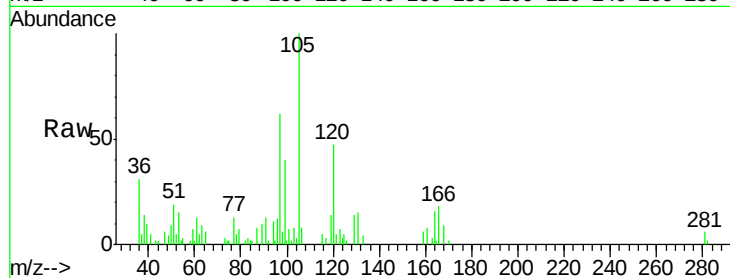
ClientSampleId :

INF

Tot Ion:	105	Resp:	59678
Ion Ratio	Lower	Upper	
105	100		
120	46.6	41.2	61.8
91	13.2	37.2	55.8#
77	13.5	15.6	23.4#

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#75

1,3-Dichlorobenzene

Concen: 0.15 ppbv m

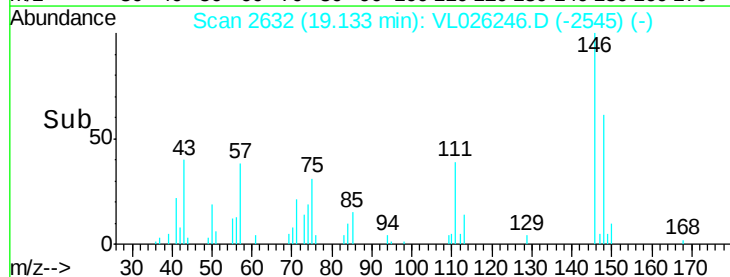
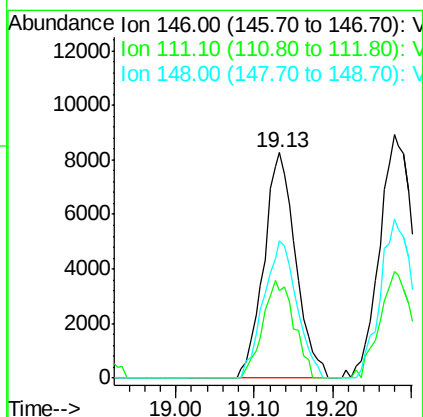
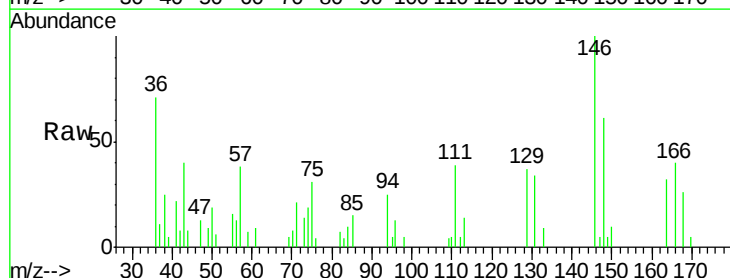
RT: 19.13 min Scan# 2632

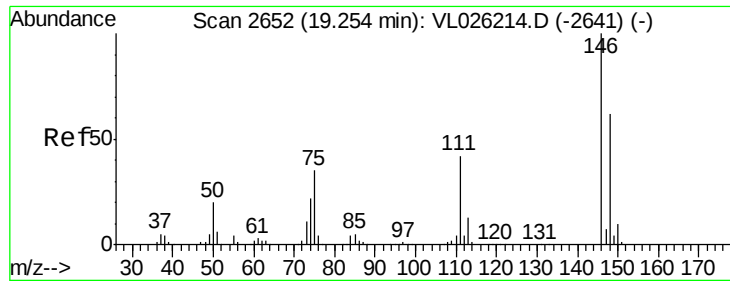
Delta R.T. 0.03 min

Lab File: VL026246.D

Acq: 21 Oct 2015 20:26

Tgt Ion:	146	Resp:	23280
Ion Ratio	Lower	Upper	
146	100		
111	49.4	21.6	64.8
148	73.8	31.8	95.4





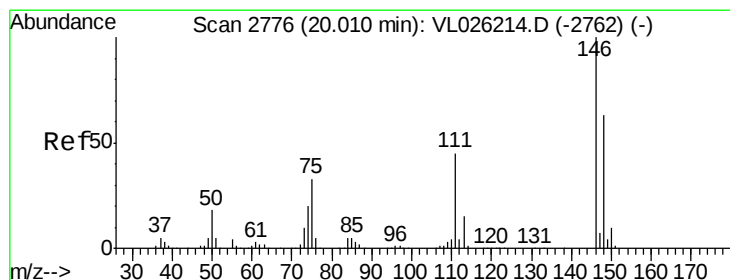
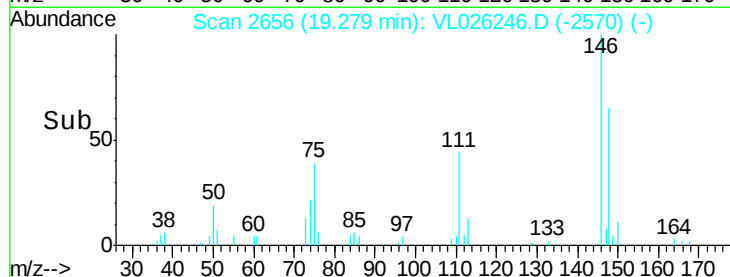
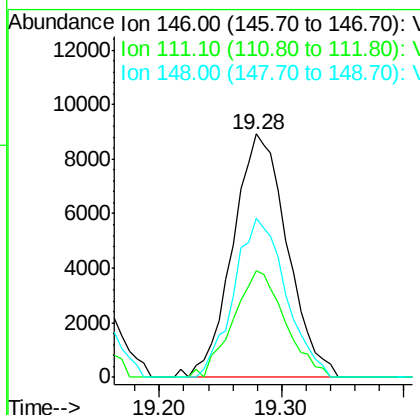
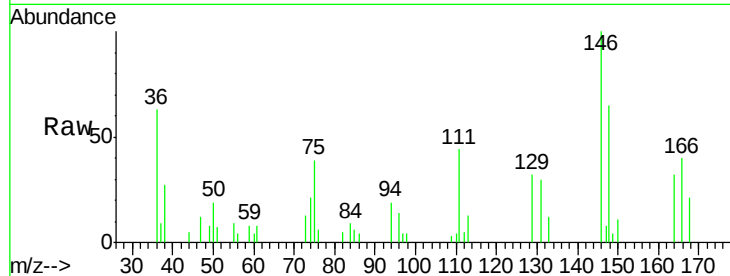
#76
 1,4-Dichlorobenzene
 Concen: 0.17 ppbv
 RT: 19.28 min Scan# 2656
 Delta R.T. 0.02 min
 Lab File: VL026246.D
 Acq: 21 Oct 2015 20:26

Instrument :
 MSVOA_L
 ClientSampled :
 INF

Tot Ion	Ratio	Lower	Upper
146	100		
111	41.8	20.8	62.2
148	62.6	31.9	95.9

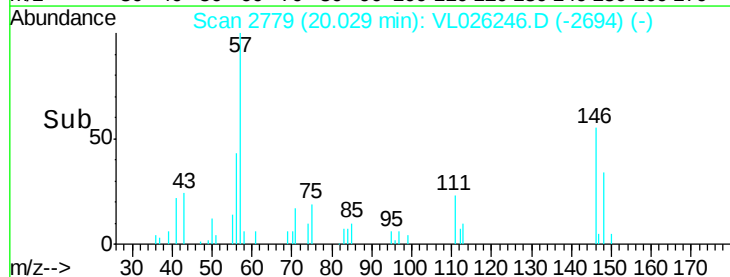
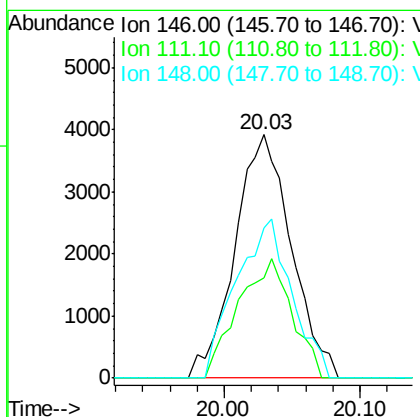
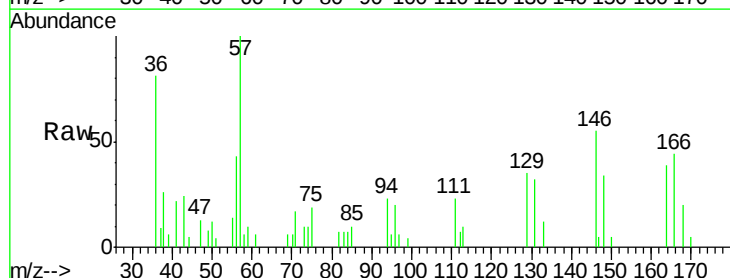
Manual Integrations
 APPROVED

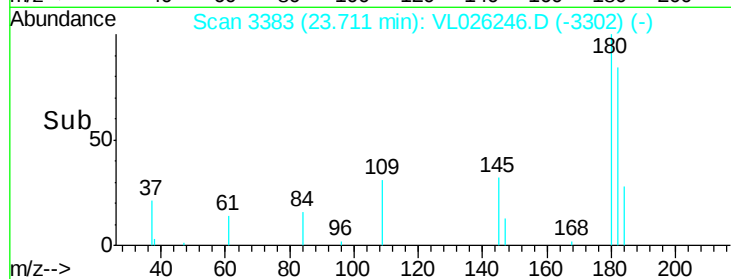
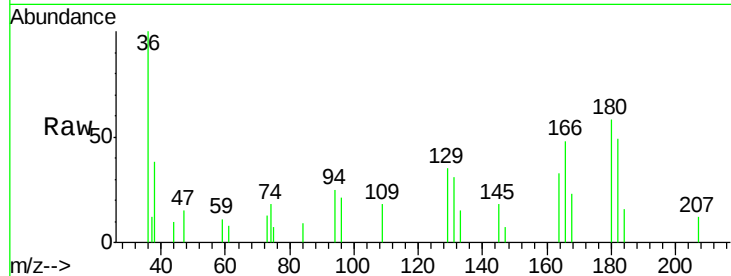
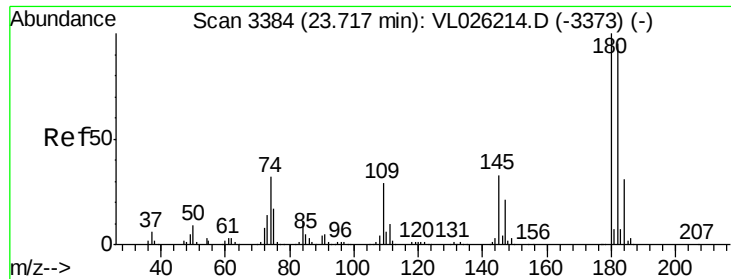
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#77
 1,2-Dichlorobenzene
 Concen: 0.07 ppbv
 RT: 20.03 min Scan# 2779
 Delta R.T. 0.02 min
 Lab File: VL026246.D
 Acq: 21 Oct 2015 20:26

Tgt Ion	Ratio	Lower	Upper
146	100		
111	46.6	22.6	67.7
148	64.5	31.6	95.0





#81
 1,2,4-Trichlorobenzene
 Concen: 0.06 ppbv
 RT: 23.71 min Scan# 3383
 Delta R.T. -0.01 min
 Lab File: VL026246.D
 Acq: 21 Oct 2015 20:26

Tot Ion	Ratio	Lower	Upper
180	100		
182	89.1	76.7	115.1
184	28.5	24.2	36.2

Instrument :
 MSVOA_L
 ClientSampleId :
 INF

Manual Integrations
 APPROVED

MMDadoda
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