

Data File : VL033868.D
Acq On : 30 May 2019 13:09
Operator : SY/AP
Sample : K3067-08DL 4X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG-22-20190523-ODL

Quant Time: May 31 07:07:29 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 17 08:15:41 2019
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	704133	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1608378	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.23	117	1655377	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.56	95	1336667	9.96	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.60%

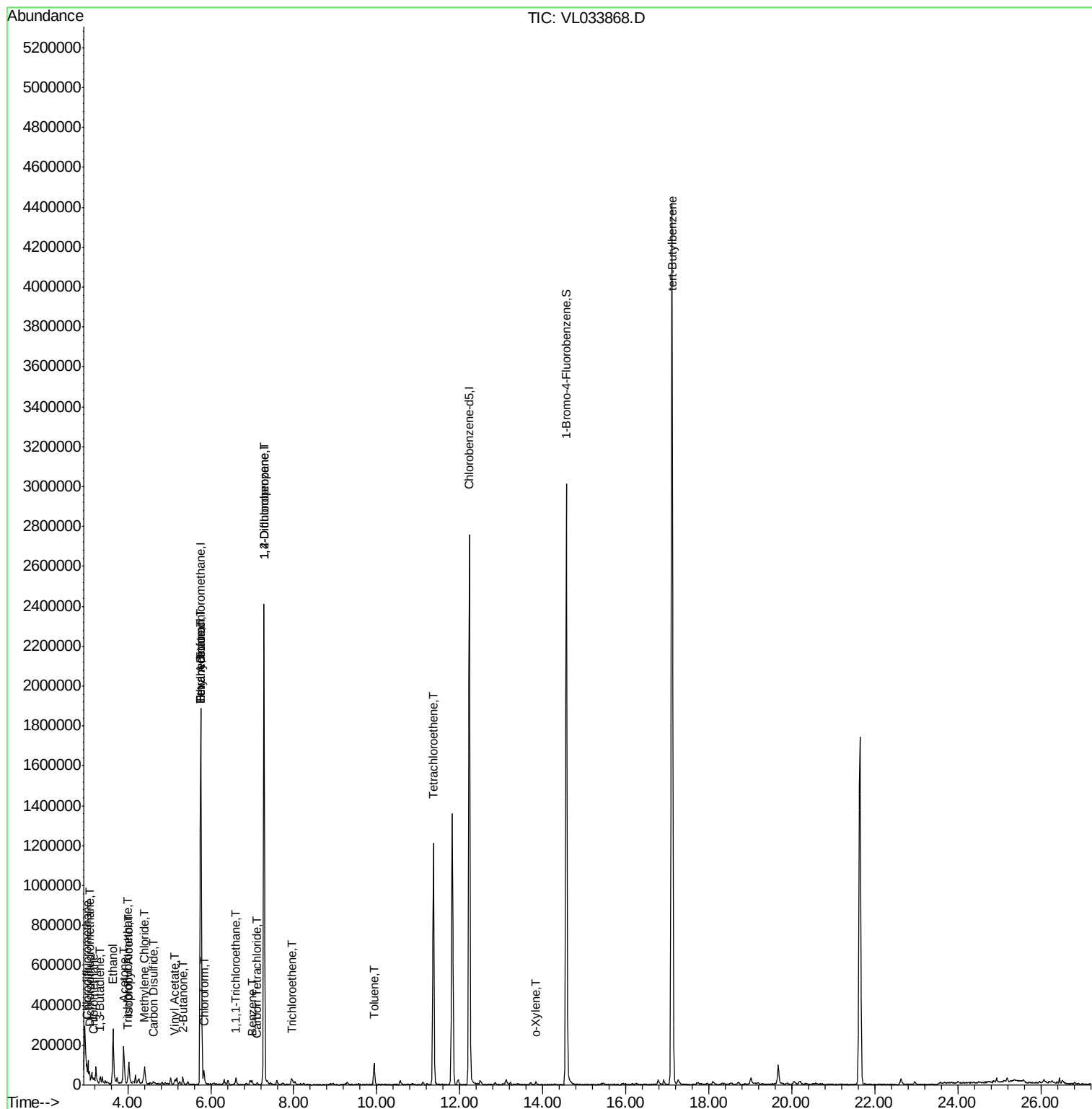
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	20306	0.137	ppbv	90
3) Chlorodifluoromethane	3.01	51	18274	0.227	ppbv	95
4) Chloromethane	3.17	50	3620	0.078	ppbv #	84
11) Trichlorofluoromethane	4.00	101	10732	0.076	ppbv	98
13) Ethanol	3.64	45	280085	25.260	ppbv	98
15) Acetone	3.90	43	187274	1.917	ppbv	100
16) 1,3-Butadiene	3.34	39	4287	0.110	ppbv #	6
19) Isopropyl Alcohol	4.03	45	58612	0.930	ppbv #	81
20) Methylene Chloride	4.40	84	17126	0.455	ppbv	88
23) Vinyl Acetate	5.14	43	5961	0.046	ppbv #	51
25) Ethyl Acetate	5.77	43	230482	1.343	ppbv #	81
26) Hexane	5.77	57	296702	4.022	ppbv #	42
27) Carbon Disulfide	4.61	76	4182	0.041	ppbv #	4
29) Chloroform	5.84	83	40430	0.297	ppbv	92
32) 1,1,1-Trichloroethane	6.61	97	19971	0.147	ppbv	97
34) 2-Butanone	5.33	43	37771	0.379	ppbv	97
35) Carbon Tetrachloride	7.13	117	4636	0.036	ppbv #	51
36) Benzene	7.00	78	5420	0.037	ppbv	96
38) Trichloroethene	7.95	130	2258	0.042	ppbv #	31
39) 1,2-Dichloropropane	7.28	63	424141	7.776	ppbv #	23
41) Tetrahydrofuran	5.77	42	116575	2.087	ppbv #	49
52) Tetrachloroethene	11.36	164	274601	5.339	ppbv	97
53) Toluene	9.94	91	76533	0.485	ppbv	97
60) o-Xylene	13.83	91	6243	0.032	ppbv #	33
65) tert-Butylbenzene	17.11	119	75148	0.316	ppbv #	23

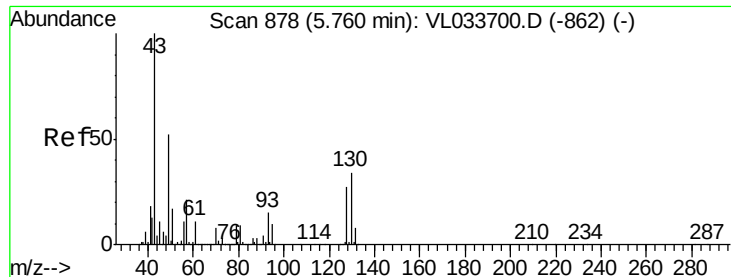
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ALS Vial : 1 Sample Multiplier: 1

SG-22-20190523-0DL

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 875

Delta R.T. -0.01 min

Lab File: VL033868.D

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MSVOA_L

ClientSampleId :

SG-22-20190523-ODL

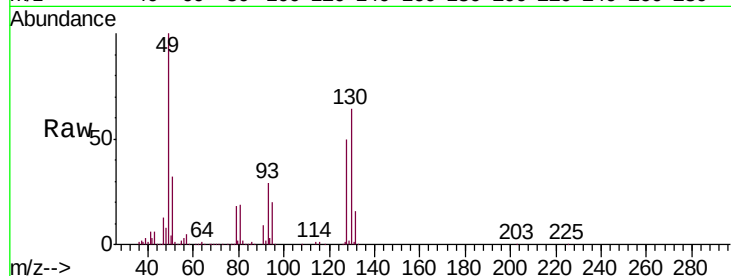
Tgt Ion: 49 Resp: 704133

Ion Ratio Lower Upper

49 100

128 50.6 25.2 75.6

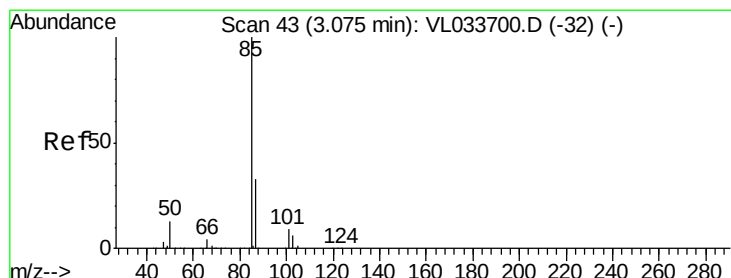
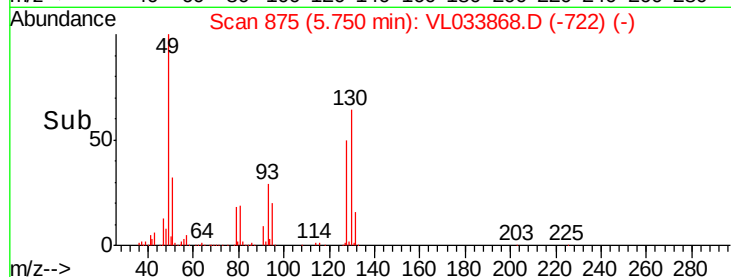
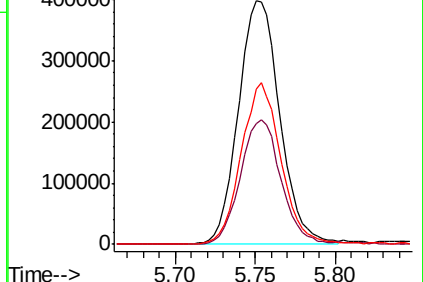
130 63.7 32.5 97.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.137 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033868.D

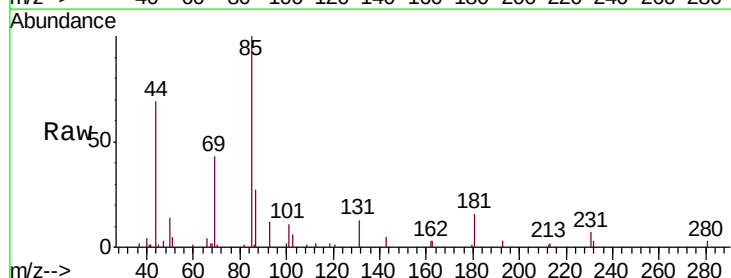
Acq: 30 May 2019 13:09

Tgt Ion: 85 Resp: 20306

Ion Ratio Lower Upper

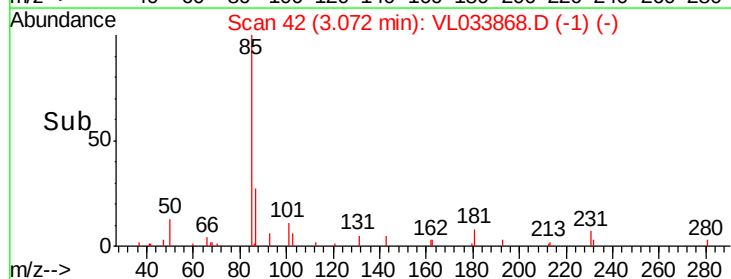
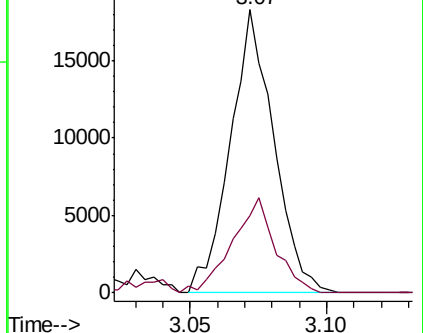
85 100

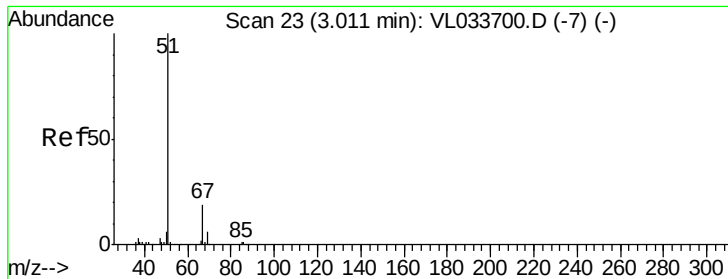
87 27.1 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.227 ppbv

RT: 3.01 min Scan# 23

Delta R.T. 0.00 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

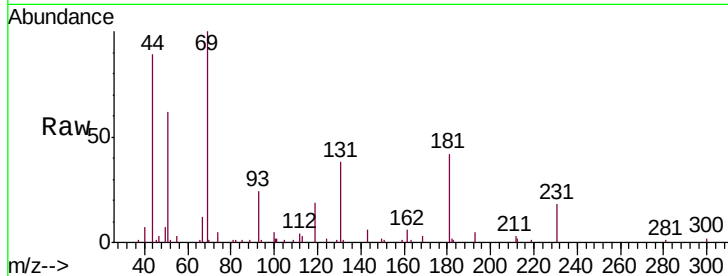
SG-22-20190523-ODL

Tgt Ion: 51 Resp: 18274

Ion Ratio Lower Upper

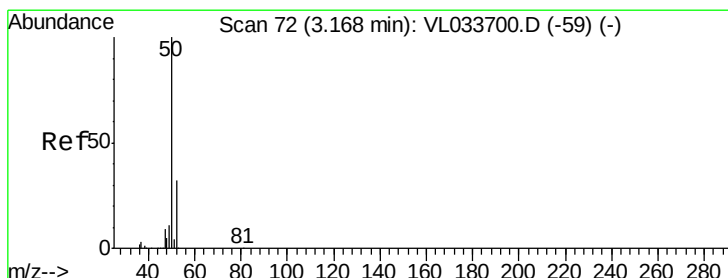
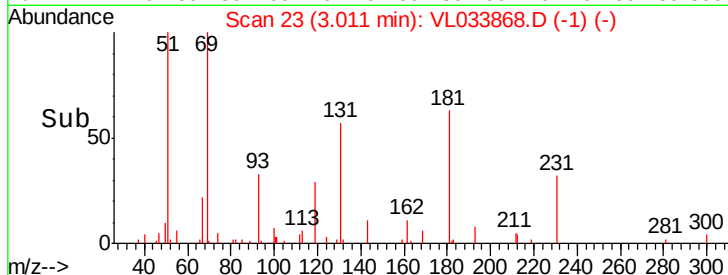
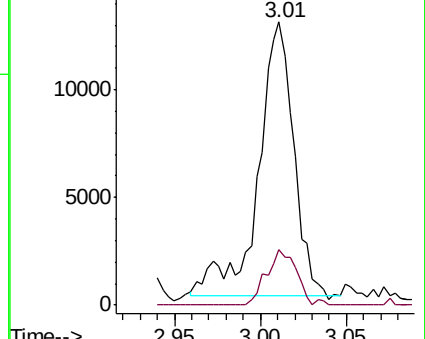
51 100

67 17.1 15.6 23.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.078 ppbv

RT: 3.17 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL033868.D

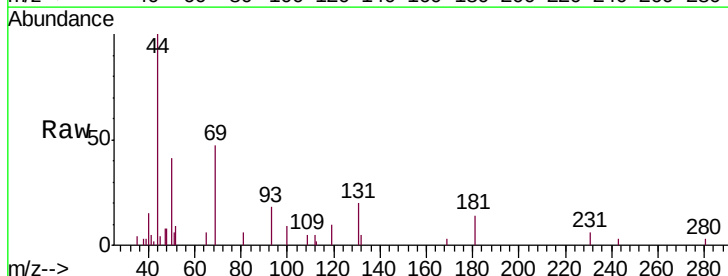
Acq: 30 May 2019 13:09

Tgt Ion: 50 Resp: 3620

Ion Ratio Lower Upper

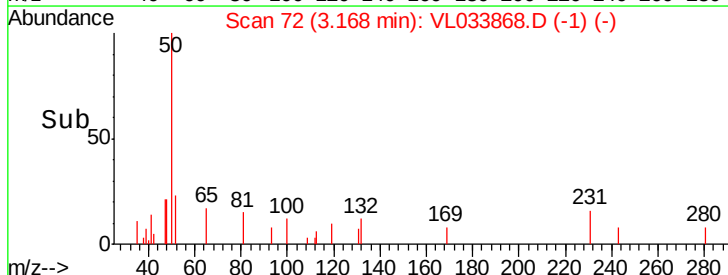
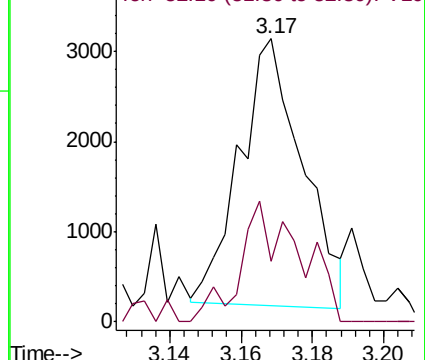
50 100

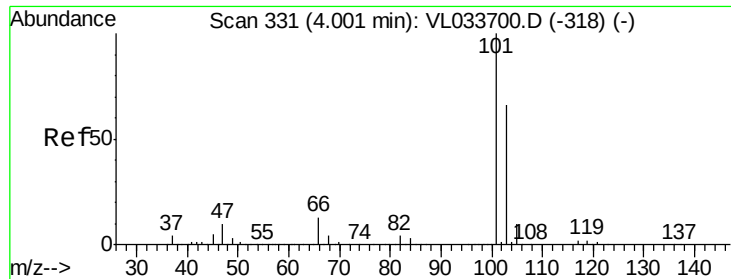
52 23.3 25.7 38.5#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

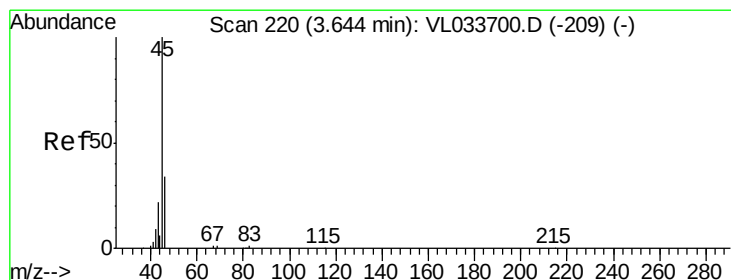
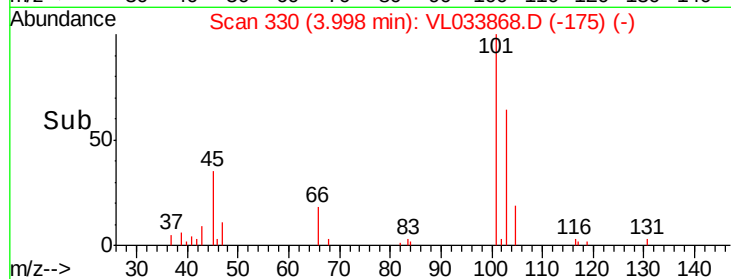
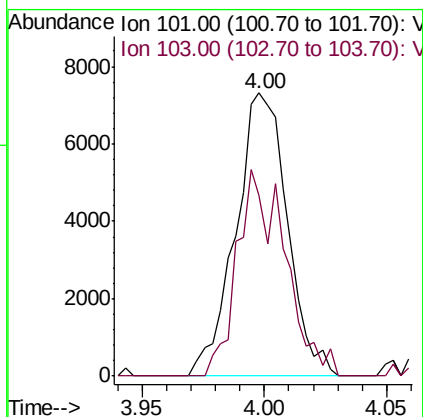
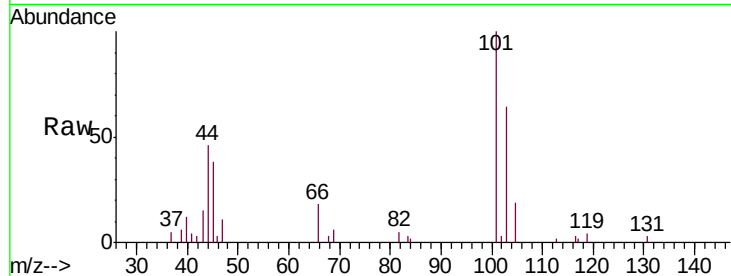




#11
 Trichlorofluoromethane
 Concen: 0.076 ppbv
 RT: 4.00 min Scan# 330
 Delta R.T. -0.00 min
 Lab File: VL033868.D
 Acq: 30 May 2019 13:09

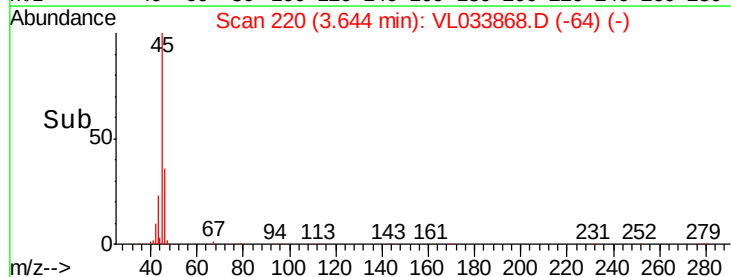
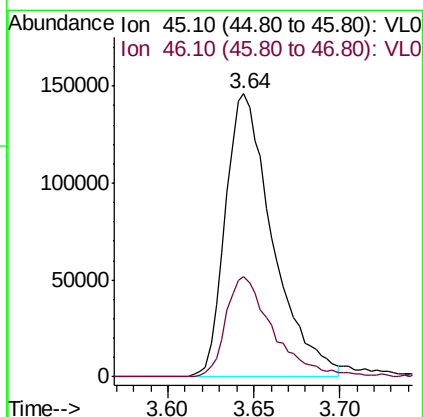
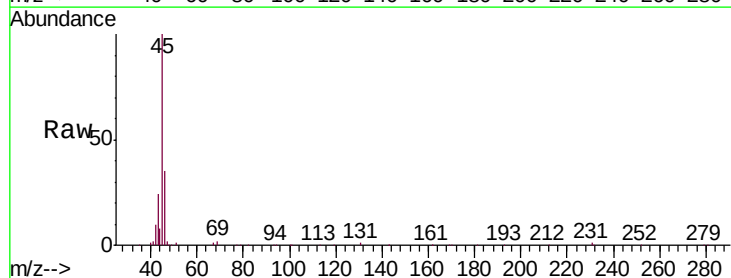
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-22-20190523-ODL

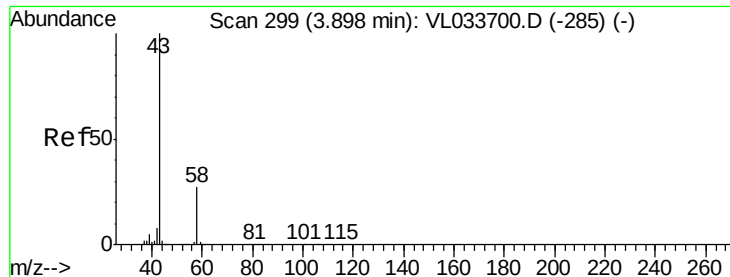
Tgt Ion: 101 Resp: 10732
 Ion Ratio Lower Upper
 101 100
 103 63.8 52.6 78.8



#13
 Ethanol
 Concen: 25.260 ppbv
 RT: 3.64 min Scan# 220
 Delta R.T. 0.00 min
 Lab File: VL033868.D
 Acq: 30 May 2019 13:09

Tgt Ion: 45 Resp: 280085
 Ion Ratio Lower Upper
 45 100
 46 35.9 14.8 59.0





#15

Acetone

Concen: 1.917 ppbv

RT: 3.90 min Scan# 299

Delta R.T. 0.00 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

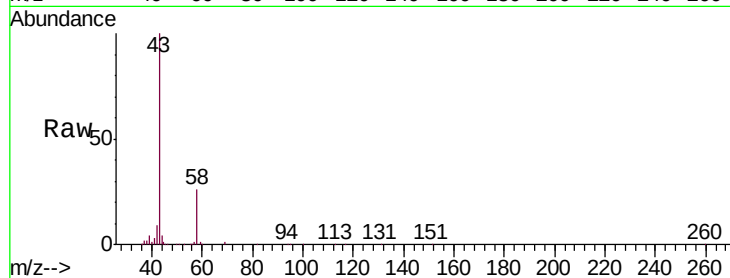
SG-22-20190523-ODL

Tgt Ion: 43 Resp: 187274

Ion Ratio Lower Upper

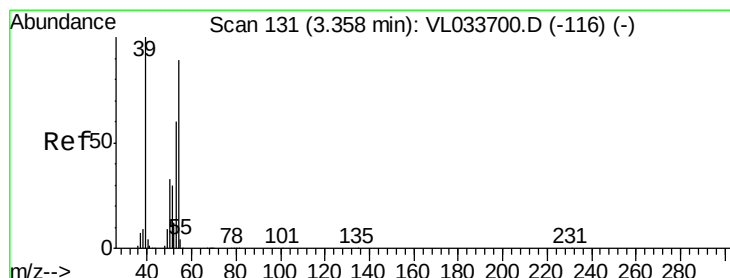
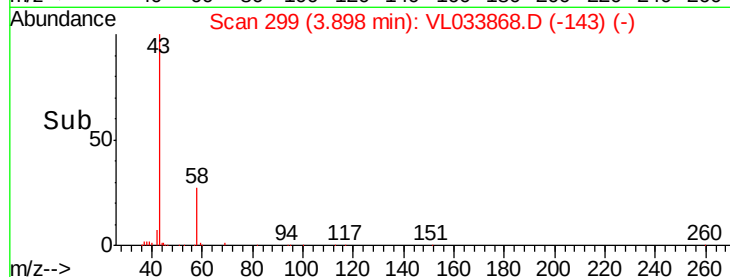
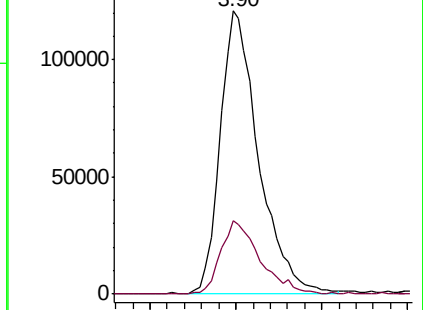
43 100

58 26.8 21.3 31.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.110 ppbv

RT: 3.34 min Scan# 126

Delta R.T. -0.02 min

Lab File: VL033868.D

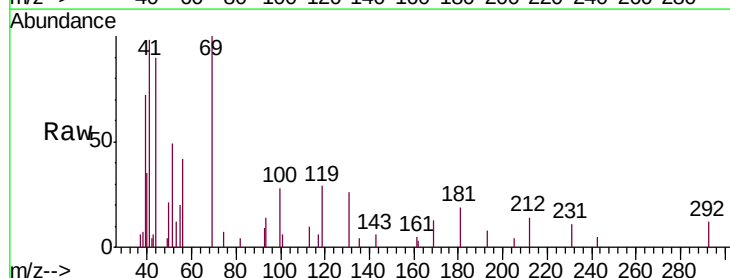
Acq: 30 May 2019 13:09

Tgt Ion: 39 Resp: 4287

Ion Ratio Lower Upper

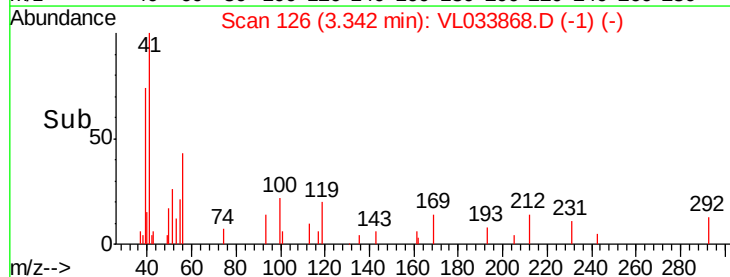
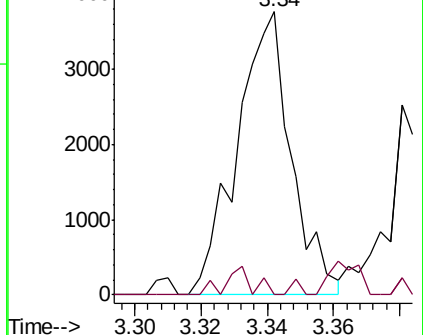
39 100

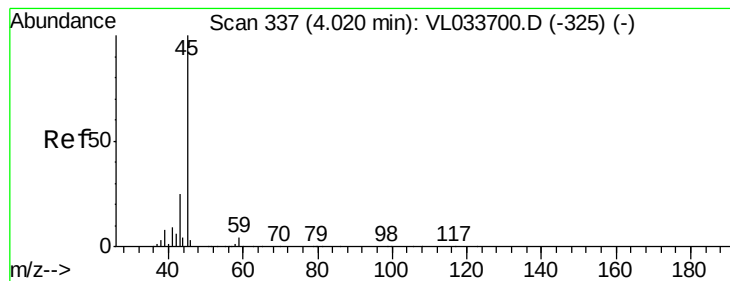
54 0.0 69.0 103.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 0.930 ppbv

RT: 4.03 min Scan# 339

Delta R.T. 0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

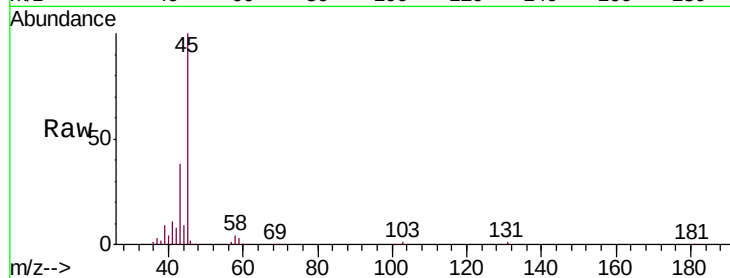
SG-22-20190523-ODL

Tgt Ion: 45 Resp: 58612

Ion Ratio Lower Upper

45 100

58 8.8 1.6 2.4#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

60000

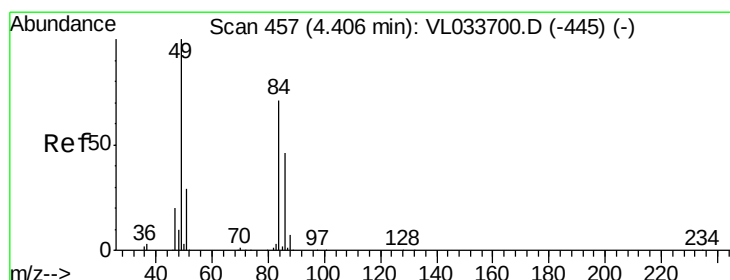
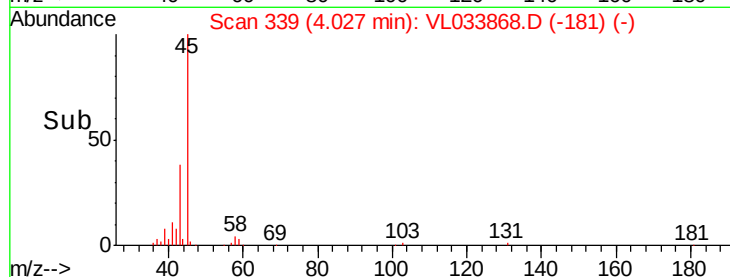
40000

20000

0

Time-->

4.00 4.05 4.10



#20

Methylene Chloride

Concen: 0.455 ppbv

RT: 4.40 min Scan# 455

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Tgt Ion: 84 Resp: 17126

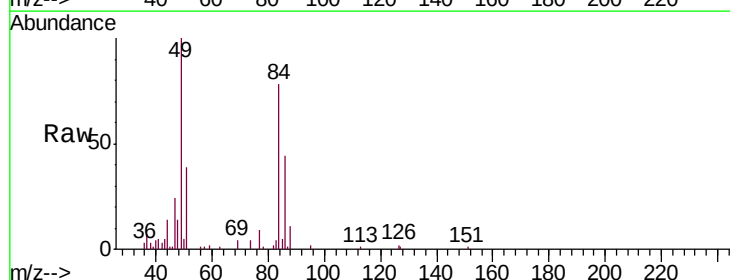
Ion Ratio Lower Upper

84 100

49 125.3 112.8 169.2

51 48.4 33.4 50.0

86 56.9 51.7 77.5



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

40000

30000

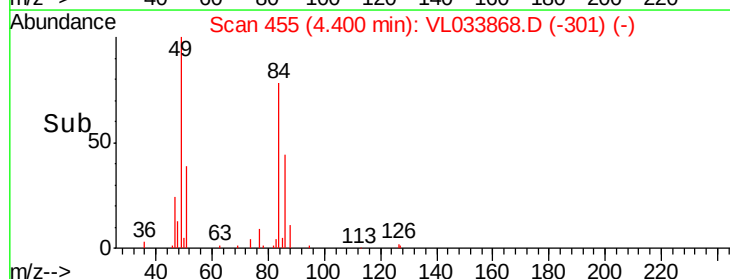
20000

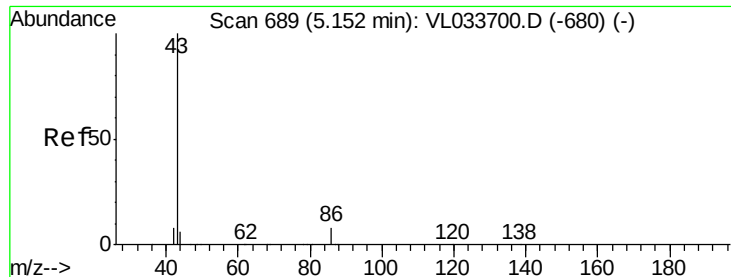
10000

0

Time-->

4.36 4.38 4.40





#23

Vinyl Acetate

Concen: 0.046 ppbv

RT: 5.14 min Scan# 686

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

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Tgt Ion: 43 Resp: 5961

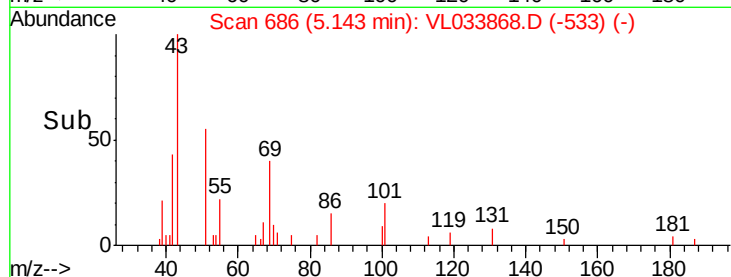
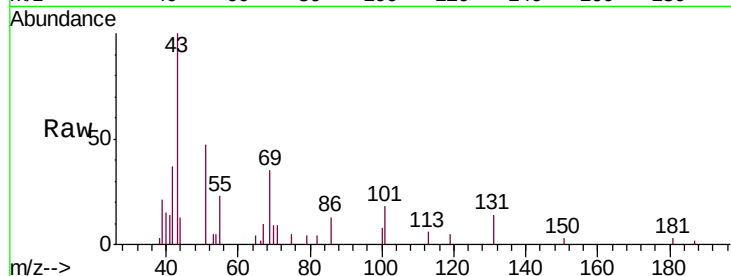
Ion Ratio Lower Upper

43 100

86 17.9 6.0 9.0#

42 39.8 7.5 11.3#

44 0.0 4.4 6.6#

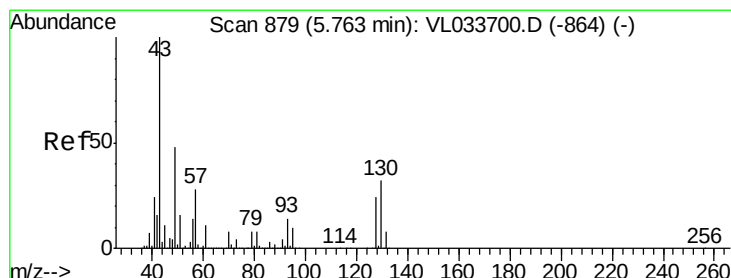
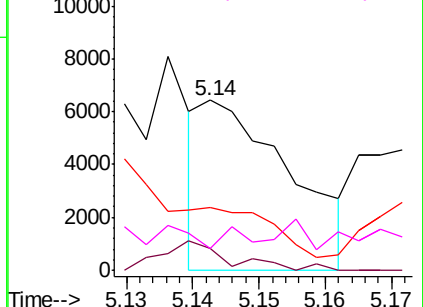


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 1.343 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Tgt Ion: 43 Resp: 230482

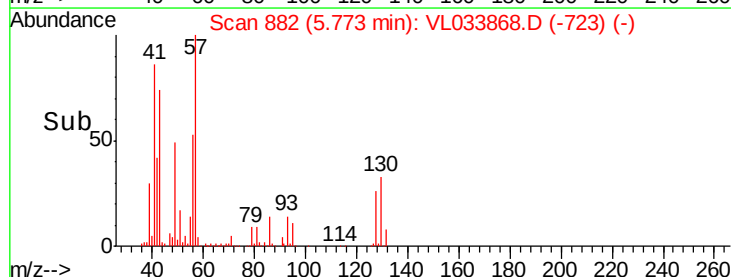
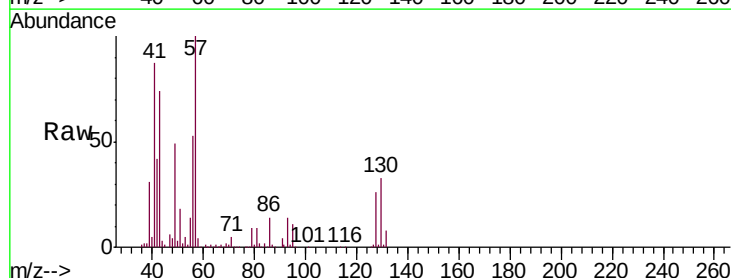
Ion Ratio Lower Upper

43 100

45 2.0 7.9 11.9#

61 1.8 7.7 11.5#

70 2.4 5.8 8.6#

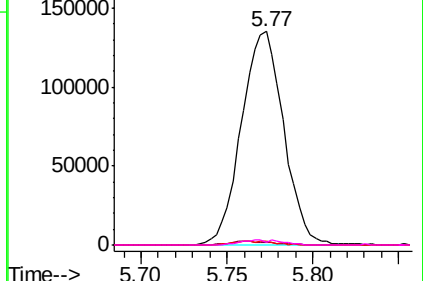


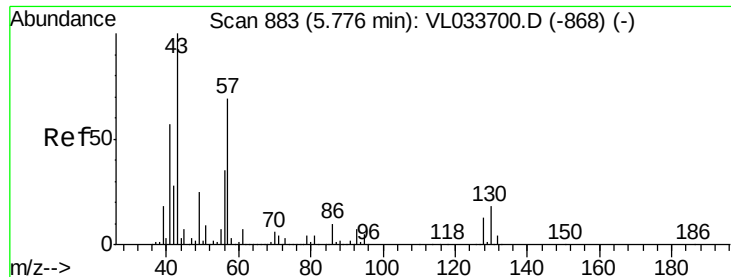
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 4.022 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.00 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

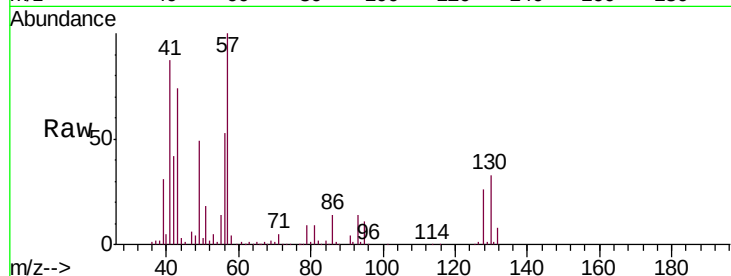
ClientSampleId :

SG-22-20190523-ODL

Tgt Ion: 57 Resp: 296702

Ion Ratio Lower Upper

57	100		
41	92.8	69.8	104.6
43	78.1	181.8	272.6#
56	55.6	42.1	63.1

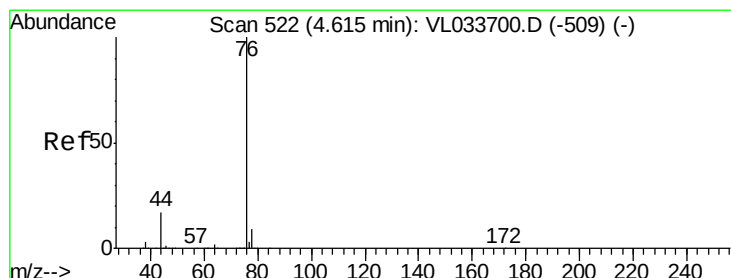
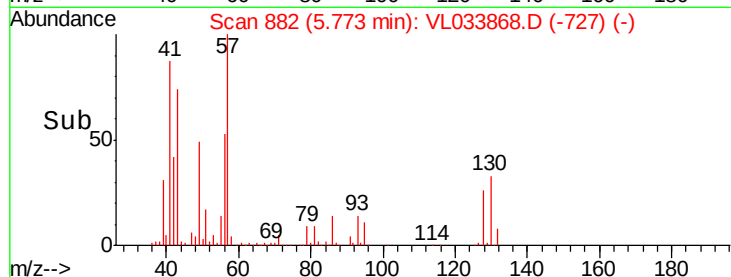
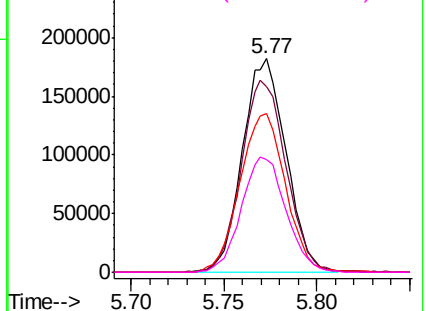


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.041 ppbv

RT: 4.61 min Scan# 521

Delta R.T. -0.00 min

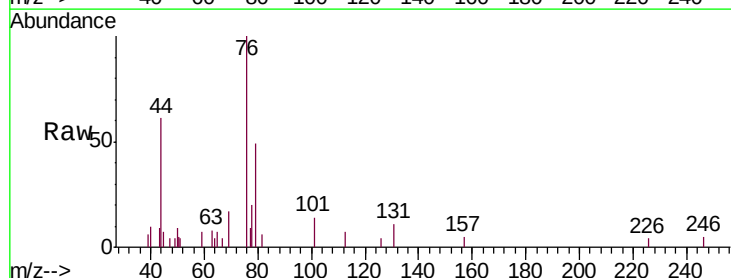
Lab File: VL033868.D

Acq: 30 May 2019 13:09

Tgt Ion: 76 Resp: 4182

Ion Ratio Lower Upper

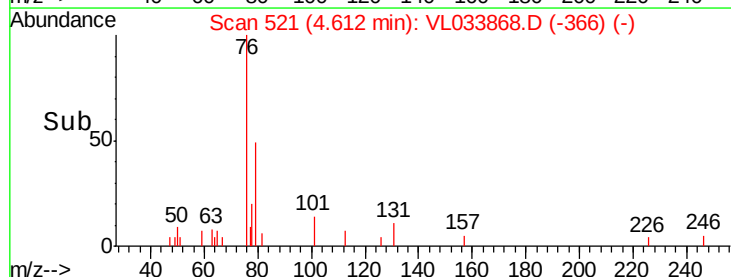
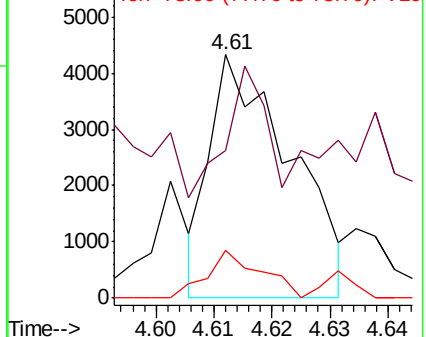
76	100		
44	76.3	13.8	20.8#
78	17.2	7.4	11.0#

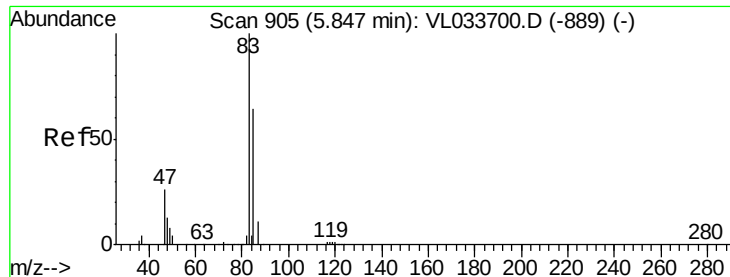


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

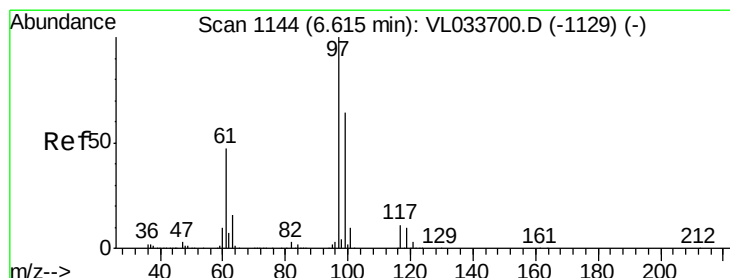
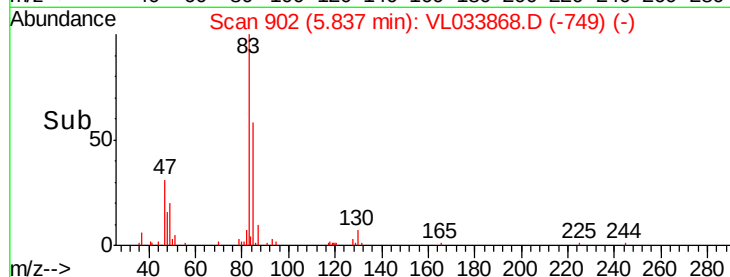
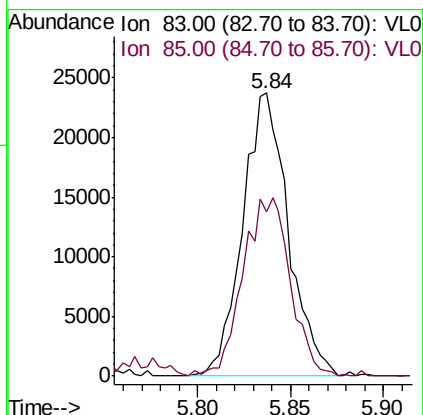
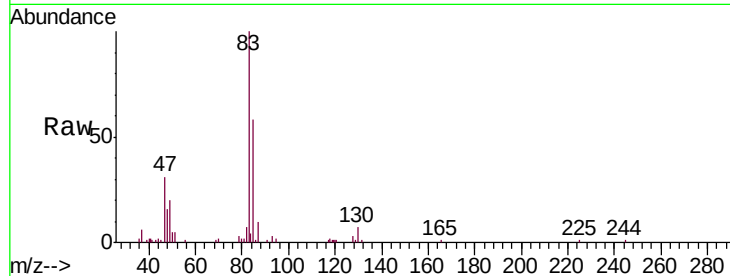




#29
Chloroform
Concen: 0.297 ppbv
RT: 5.84 min Scan# 902
Delta R.T. -0.01 min
Lab File: VL033868.D
Acq: 30 May 2019 13:09

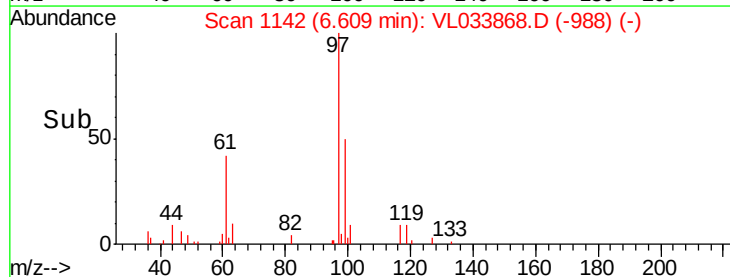
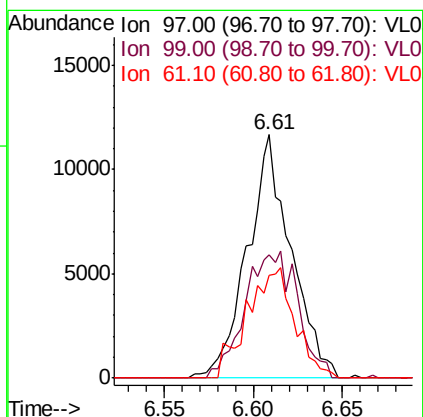
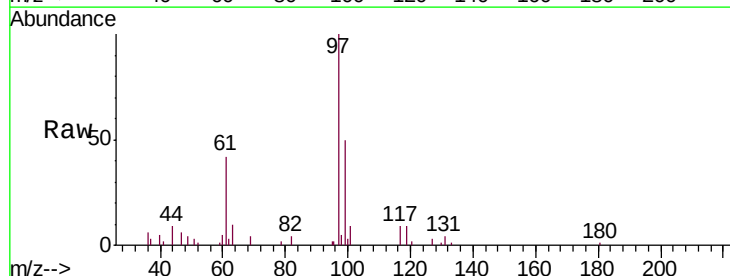
Instrument :
MSVOA_L
ClientSampleId :
SG-22-20190523-ODL

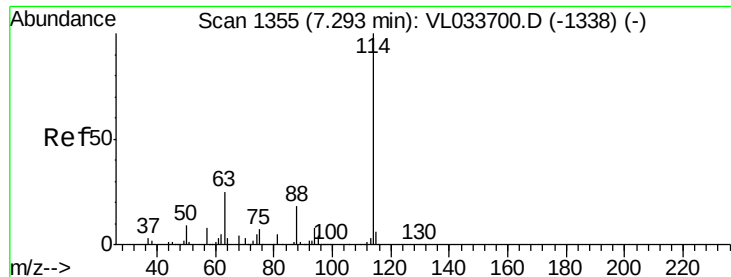
Tgt Ion: 83 Resp: 40430
Ion Ratio Lower Upper
83 100
85 58.3 51.5 77.3



#32
1,1,1-Trichloroethane
Concen: 0.147 ppbv
RT: 6.61 min Scan# 1142
Delta R.T. -0.01 min
Lab File: VL033868.D
Acq: 30 May 2019 13:09

Tgt Ion: 97 Resp: 19971
Ion Ratio Lower Upper
97 100
99 62.3 51.5 77.3
61 49.2 37.8 56.8

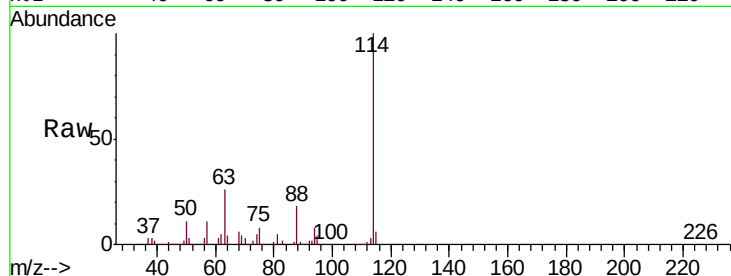




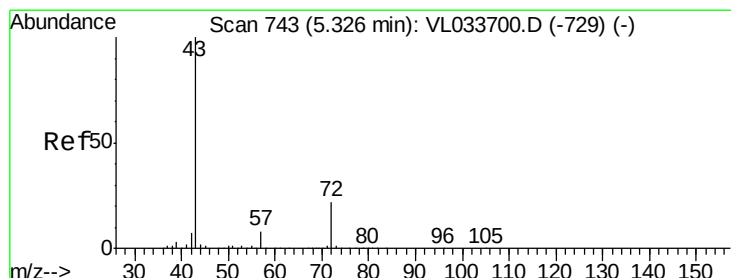
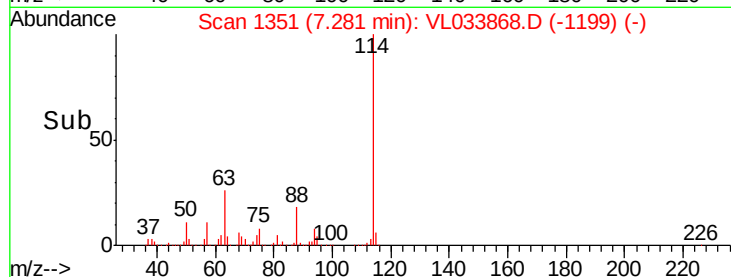
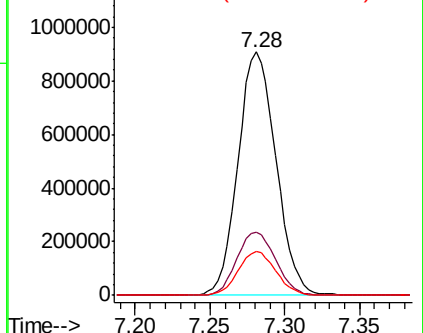
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.28 min Scan# 1351
 Delta R.T. -0.01 min
 Lab File: VL033868.D
 Acq: 30 May 2019 13:09

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-22-20190523-ODL

Tgt Ion:114 Resp: 1608378
 Ion Ratio Lower Upper
 114 100
 63 26.5 20.9 31.3
 88 18.0 14.3 21.5

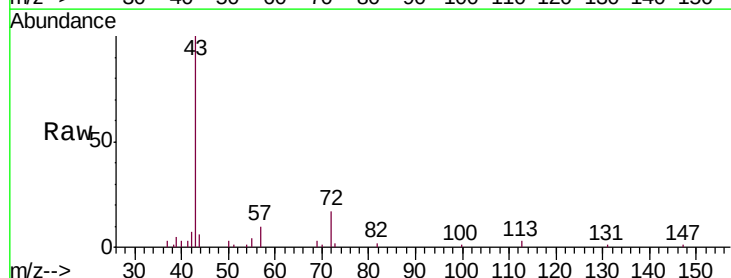


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

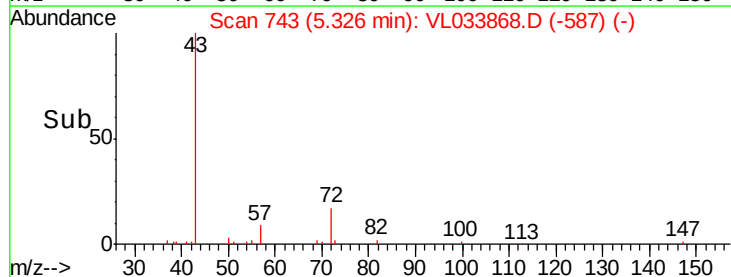
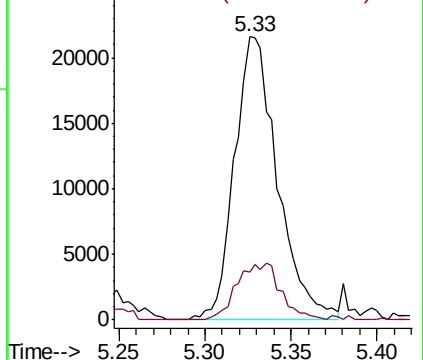


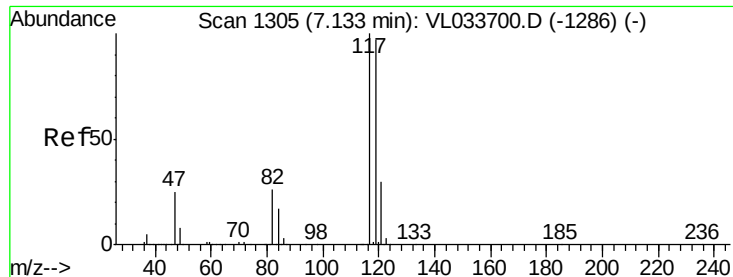
#34
 2-Butanone
 Concen: 0.379 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033868.D
 Acq: 30 May 2019 13:09

Tgt Ion: 43 Resp: 37771
 Ion Ratio Lower Upper
 43 100
 72 20.8 17.8 26.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.036 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

SG-22-20190523-ODL

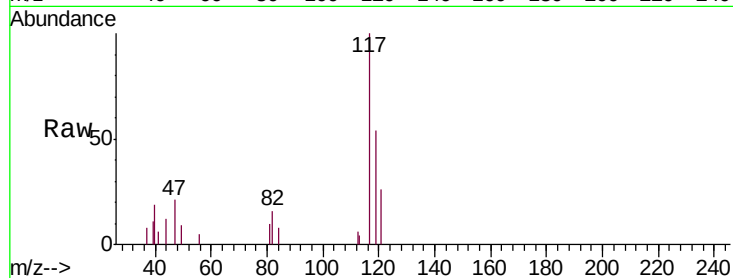
Tgt Ion: 117 Resp: 4636

Ion Ratio Lower Upper

117 100

119 38.1 77.2 115.8#

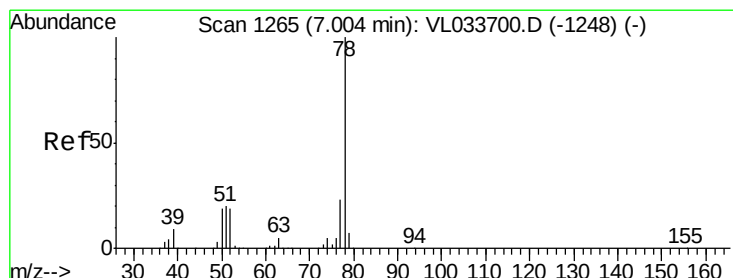
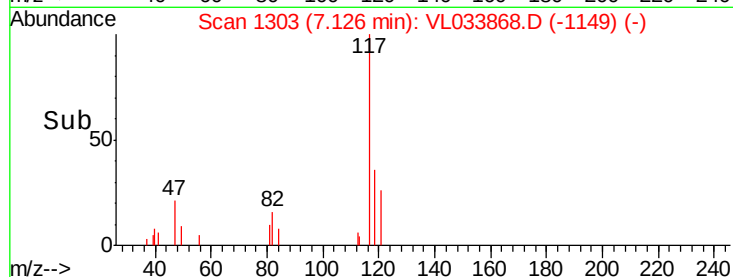
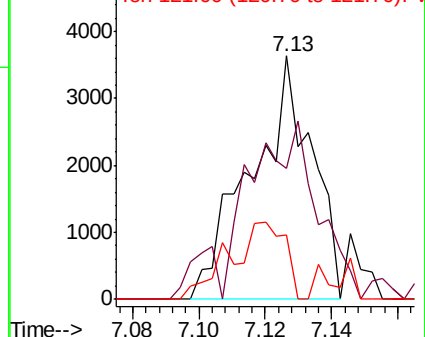
121 21.3 24.1 36.1#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.037 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

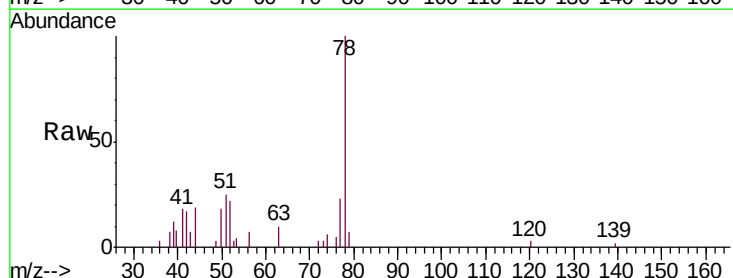
Tgt Ion: 78 Resp: 5420

Ion Ratio Lower Upper

78 100

77 20.6 18.4 27.6

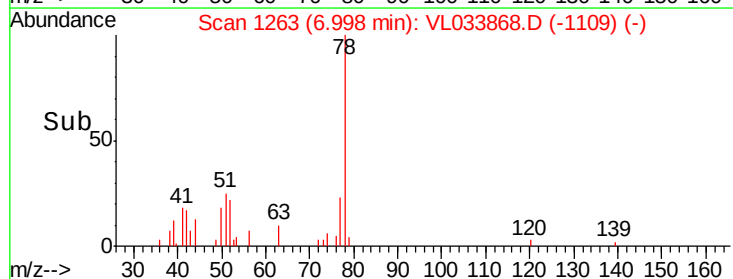
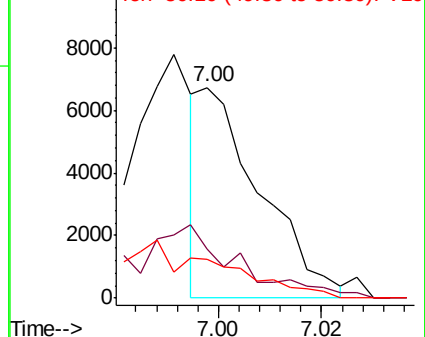
50 18.2 15.5 23.3

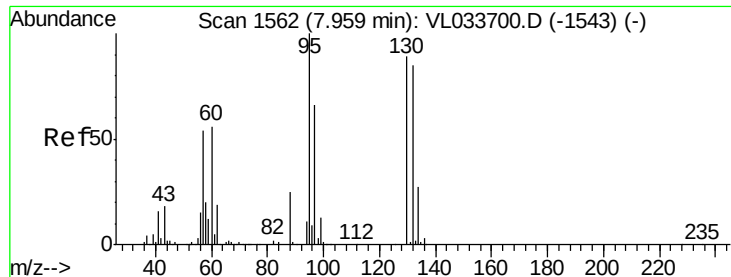


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#38

Trichloroethene

Concen: 0.042 ppbv

RT: 7.95 min Scan# 1558

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

SG-22-20190523-ODL

Tgt Ion: 130 Resp: 2258

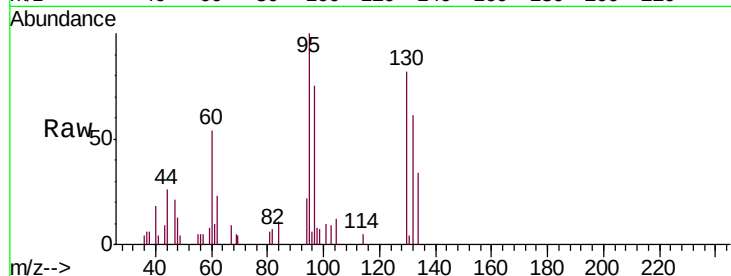
Ion Ratio Lower Upper

130 100

95 28.3 90.2 135.4#

132 0.0 76.4 114.6#

97 89.3 59.8 89.6

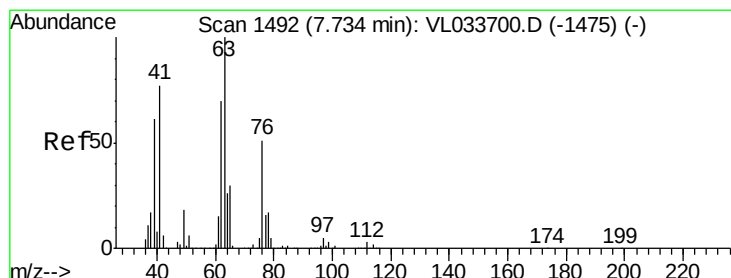
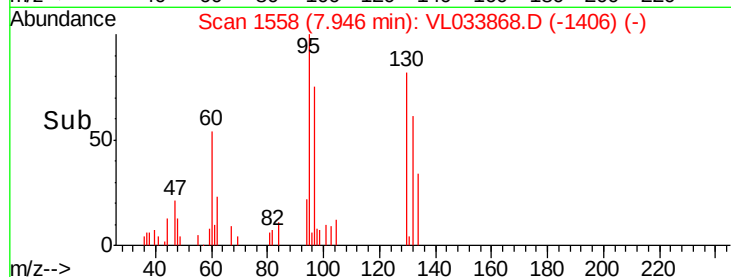
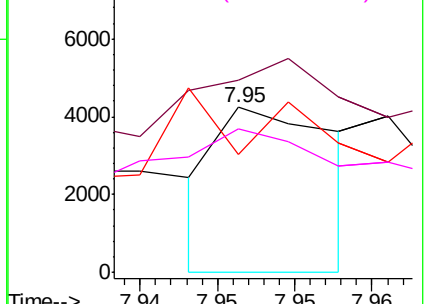


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.776 ppbv

RT: 7.28 min Scan# 1351

Delta R.T. -0.45 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

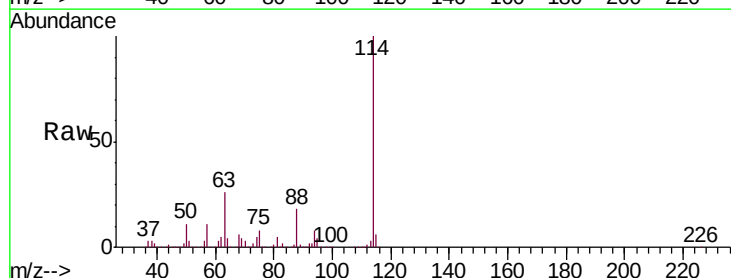
Tgt Ion: 63 Resp: 424141

Ion Ratio Lower Upper

63 100

41 0.0 61.5 92.3#

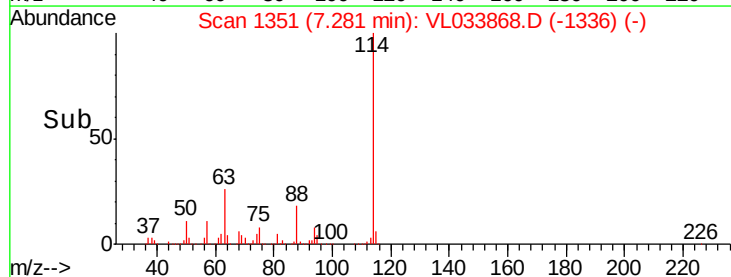
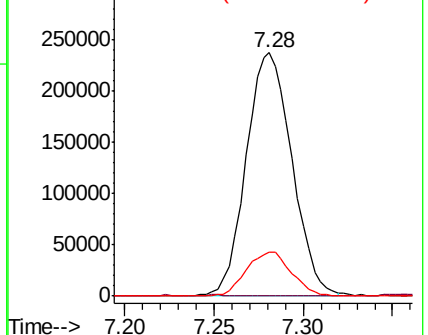
62 18.0 56.2 84.4#

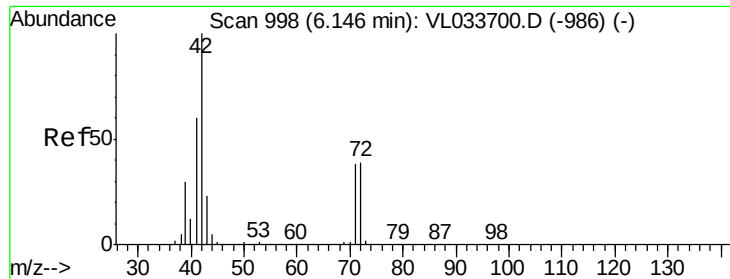


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 2.087 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.37 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

SG-22-20190523-ODL

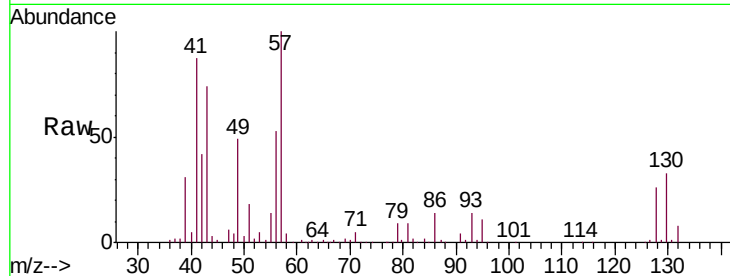
Tgt Ion: 42 Resp: 116575

Ion Ratio Lower Upper

42 100

72 1.1 32.0 48.0#

71 14.6 30.4 45.6#

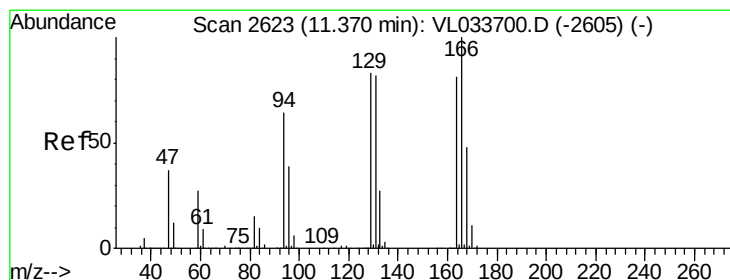
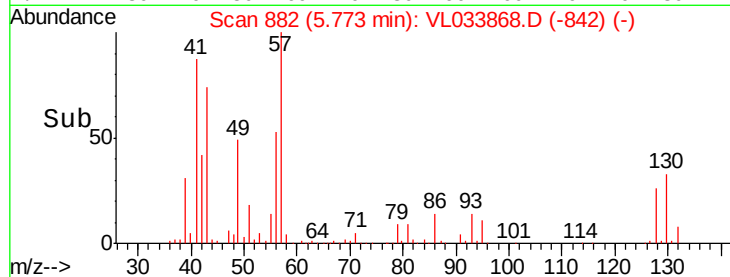
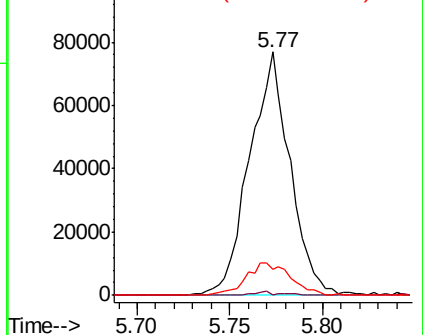


Abundance

Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#52

Tetrachloroethene

Concen: 5.339 ppbv

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Tgt Ion: 164 Resp: 274601

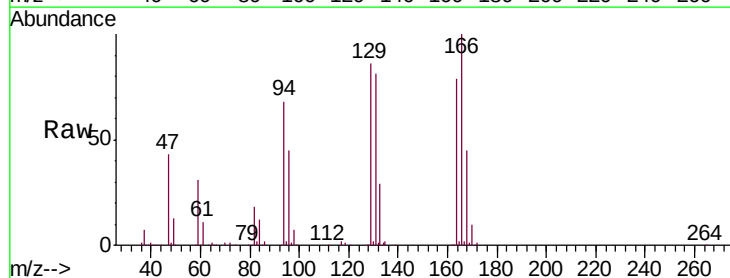
Ion Ratio Lower Upper

164 100

166 125.7 98.9 148.3

129 108.7 81.8 122.6

131 102.6 81.1 121.7



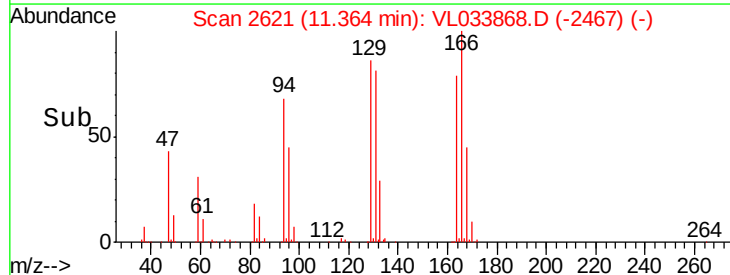
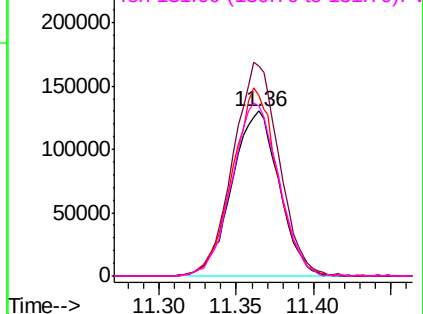
Abundance

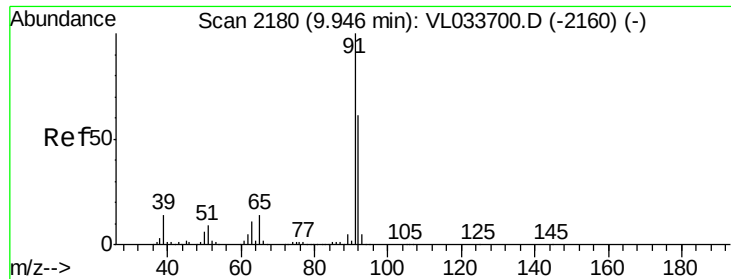
Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.485 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

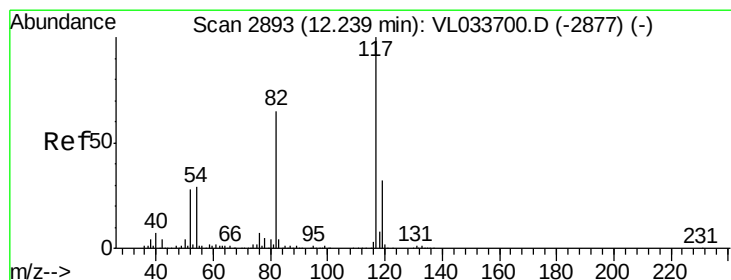
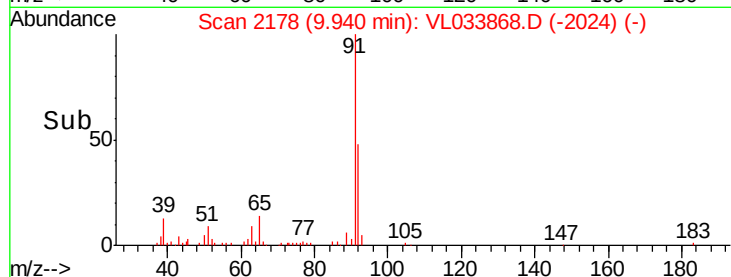
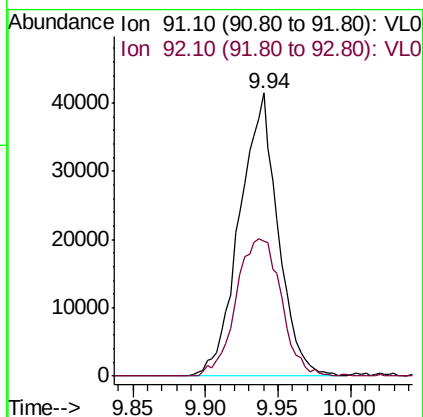
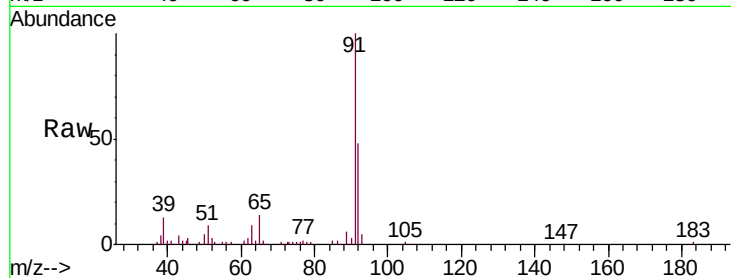
SG-22-20190523-ODL

Tgt Ion: 91 Resp: 76533

Ion Ratio Lower Upper

91 100

92 56.9 47.6 71.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2890

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

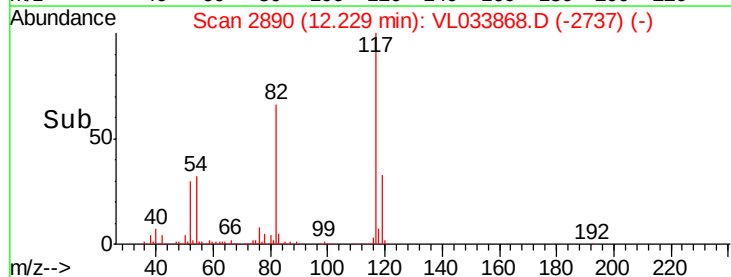
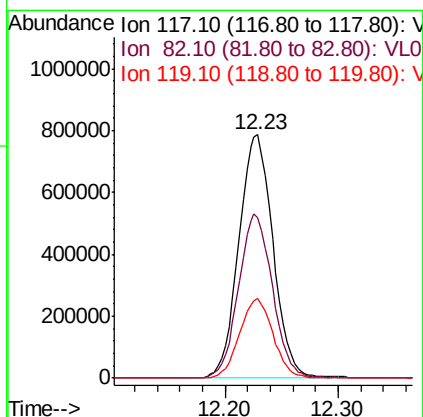
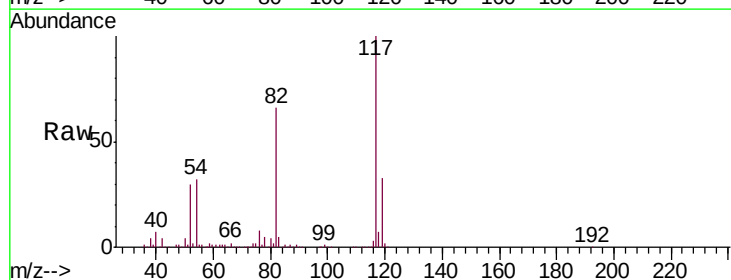
Tgt Ion: 117 Resp: 1655377

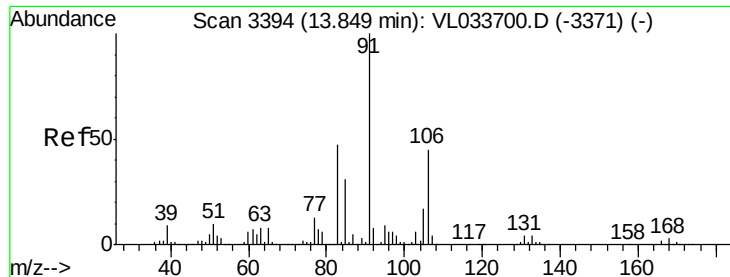
Ion Ratio Lower Upper

117 100

82 67.5 49.4 74.0

119 32.2 24.9 37.3

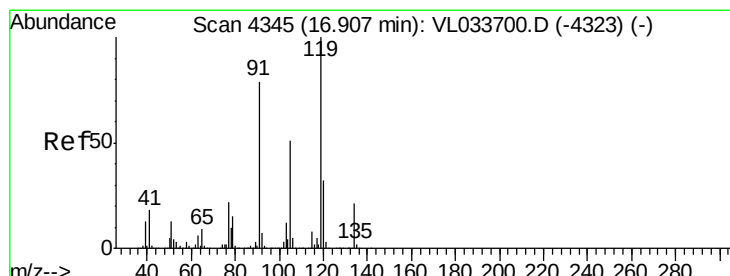
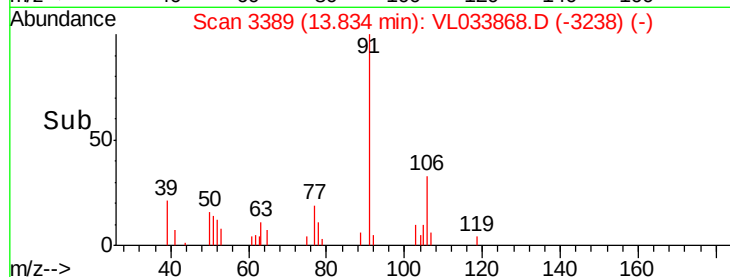
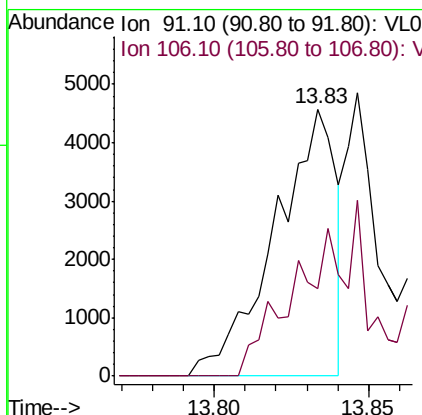
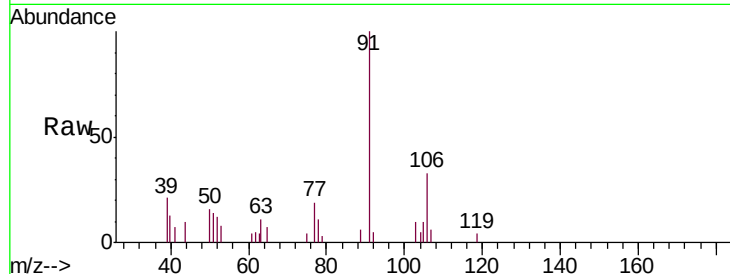




#60
o-Xylene
Concen: 0.032 ppbv
RT: 13.83 min Scan# 3389
Delta R.T. -0.02 min
Lab File: VL033868.D
Acq: 30 May 2019 13:09

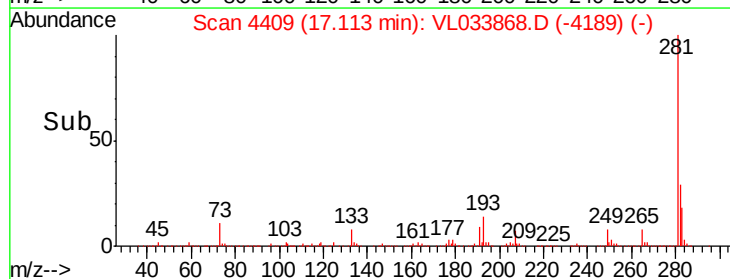
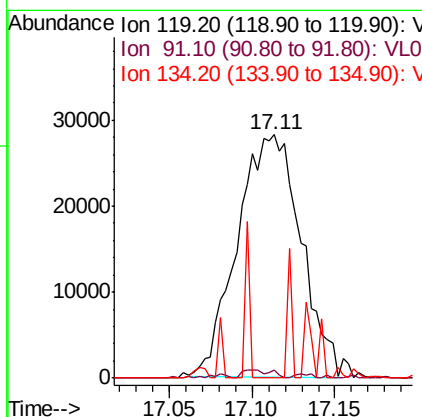
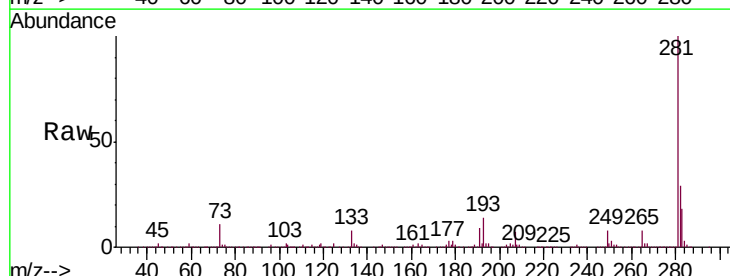
Instrument :
MSVOA_L
ClientSampleId :
SG-22-20190523-ODL

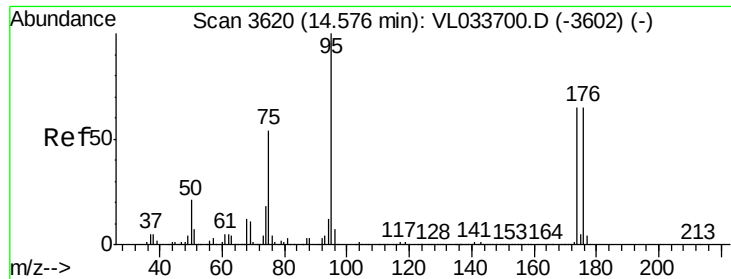
Tgt Ion: 91 Resp: 6243
Ion Ratio Lower Upper
91 100
106 0.0 21.6 64.8#



#65
tert-Butylbenzene
Concen: 0.316 ppbv
RT: 17.11 min Scan# 4409
Delta R.T. 0.21 min
Lab File: VL033868.D
Acq: 30 May 2019 13:09

Tgt Ion: 119 Resp: 75148
Ion Ratio Lower Upper
119 100
91 2.4 65.3 97.9#
134 7.3 15.7 23.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.960 ppbv

RT: 14.56 min Scan# 3616

Delta R.T. -0.01 min

Lab File: VL033868.D

Acq: 30 May 2019 13:09

Instrument :

MSVOA_L

ClientSampleId :

SG-22-20190523-ODL

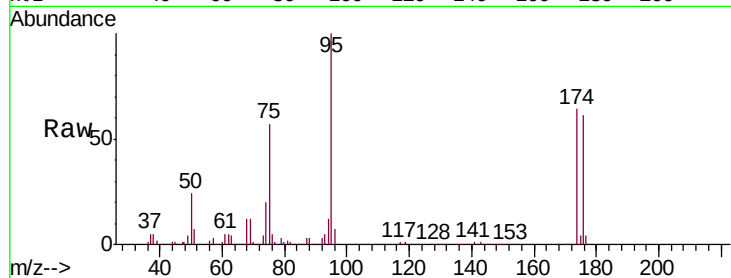
Tgt Ion: 95 Resp: 1336667

Ion Ratio Lower Upper

95 100

174 66.3 53.9 80.9

175 4.6 3.8 5.8



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

