

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091420\
 Data File : VL035604.D
 Acq On : 14 Sep 2020 18:30
 Operator : SY/AP
 Sample : L3983-02DL 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-7DL

Quant Time: Sep 15 06:41:43 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1125744	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4716716	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	4746144	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3576657	10.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

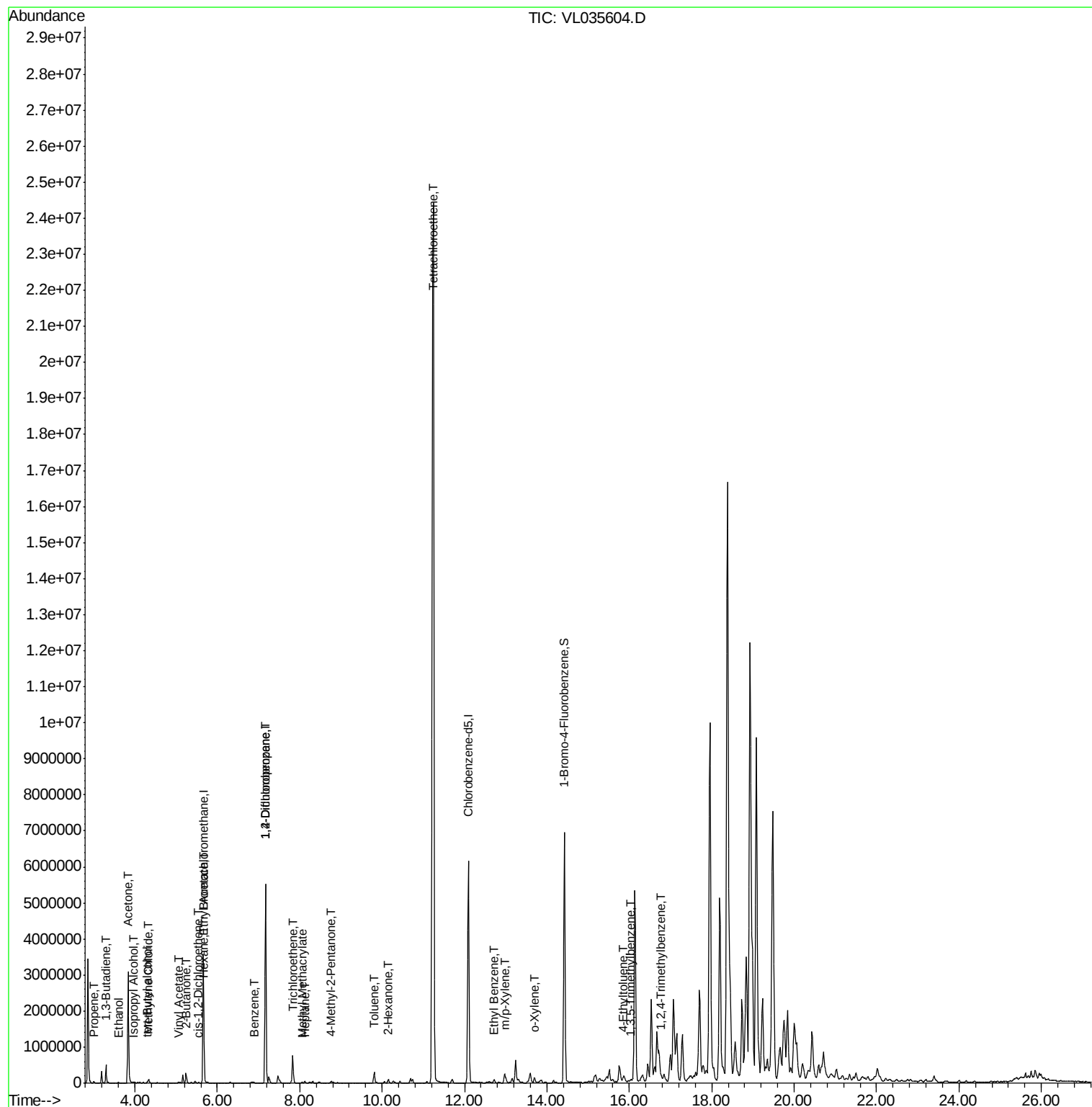
Target Compounds					Ovalue
9) Propene	3.00	41	18706	0.390	ppbv 97
10) Heptane	8.12	43	14195	0.110	ppbv 92
13) Ethanol	3.60	45	9198	0.773	ppbv # 53
15) Acetone	3.83	43	2971790	23.935	ppbv 94
16) 1,3-Butadiene	3.30	39	101024	2.186	ppbv # 3
17) tert-Butyl alcohol	4.30	59	34031	0.225	ppbv 98
19) Isopropyl Alcohol	3.97	45	14444	0.195	ppbv # 93
20) Methylene Chloride	4.33	84	41593	0.450	ppbv 95
23) Vinyl Acetate	5.06	43	16212	0.102	ppbv # 88
25) Ethyl Acetate	5.68	43	16269	0.074	ppbv # 80
26) Hexane	5.68	57	13724	0.110	ppbv # 30
31) cis-1,2-Dichloroethene	5.54	61	11541	0.091	ppbv 90
34) 2-Butanone	5.24	43	271566	1.940	ppbv 100
36) Benzene	6.88	78	28077	0.092	ppbv 99
38) Trichloroethene	7.83	130	273890	1.544	ppbv 98
39) 1,2-Dichloropropane	7.17	63	875335	8.487	ppbv # 32
43) Methyl Methacrylate	8.05	69	5759	0.049	ppbv # 61
50) 4-Methyl-2-Pentanone	8.76	43	37694	0.186	ppbv 95
51) 2-Hexanone	10.15	43	70410	0.423	ppbv # 98
52) Tetrachloroethene	11.23	164	4030841	22.599	ppbv # 79
53) Toluene	9.81	91	269703	0.702	ppbv 95
58) Ethyl Benzene	12.72	91	46716	0.095	ppbv # 85
59) m/p-Xylene	12.98	91	263859	0.645	ppbv 96
60) o-Xylene	13.70	91	94638	0.230	ppbv 97
72) 4-Ethyltoluene	15.84	105	47641	0.091	ppbv # 95
73) 1,3,5-Trimethylbenzene	16.01	105	28990	0.060	ppbv # 79
74) 1,2,4-Trimethylbenzene	16.77	105	115588	0.217	ppbv # 71

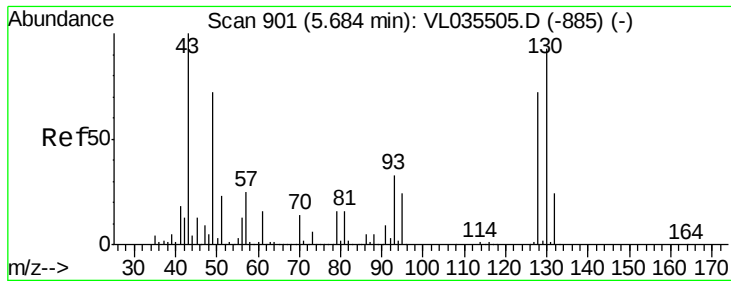
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Sep 14 15:19:50 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

SV-7DL

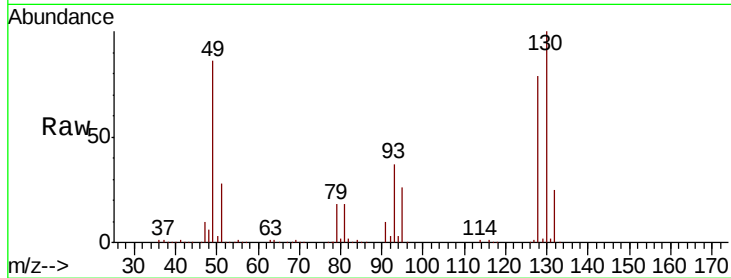
Tot Ion: 49 Resp: 1125744

Ion Ratio Lower Upper

49 100

128 92.4 50.0 150.1

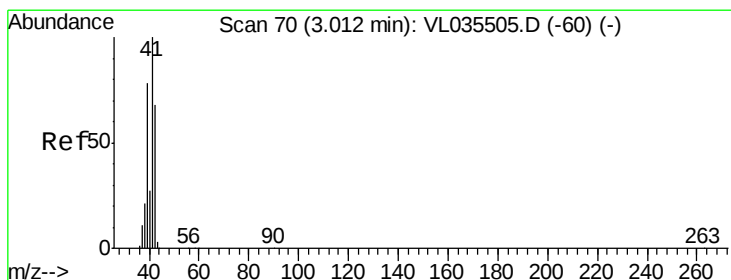
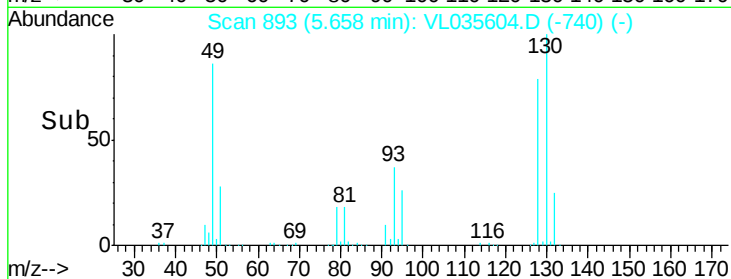
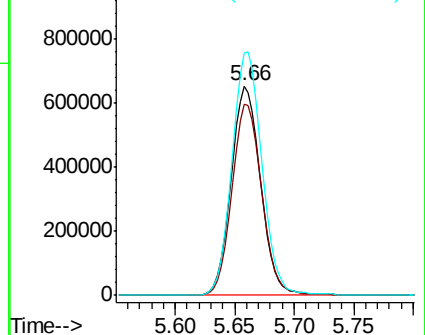
130 118.7 64.4 193.2



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



#9

Propene

Concen: 0.390 ppbv

RT: 3.00 min Scan# 66

Delta R.T. 0.00 min

Lab File: VL035604.D

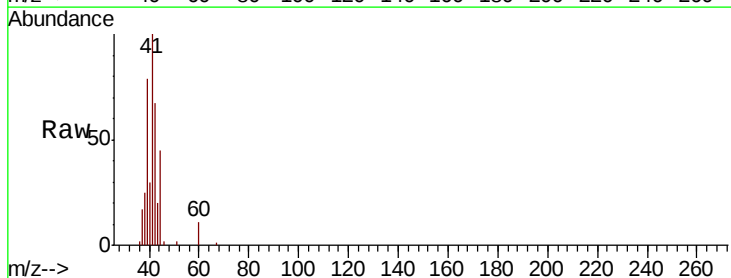
Acq: 14 Sep 2020 18:30

Tgt Ion: 41 Resp: 18706

Ion Ratio Lower Upper

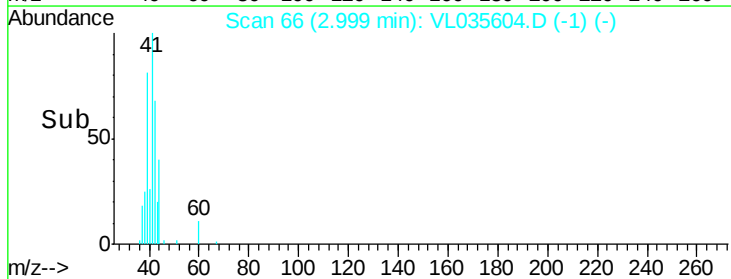
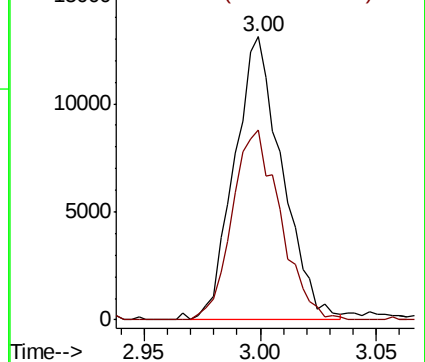
41 100

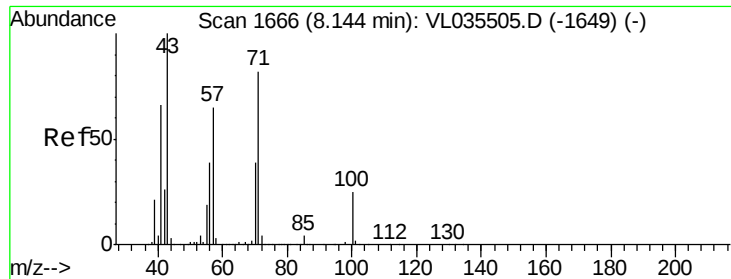
42 67.7 56.3 84.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.110 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampled :

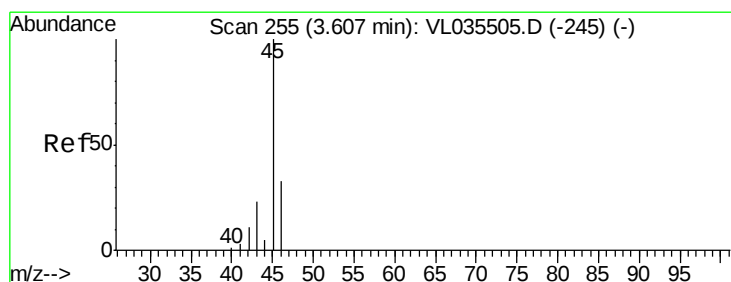
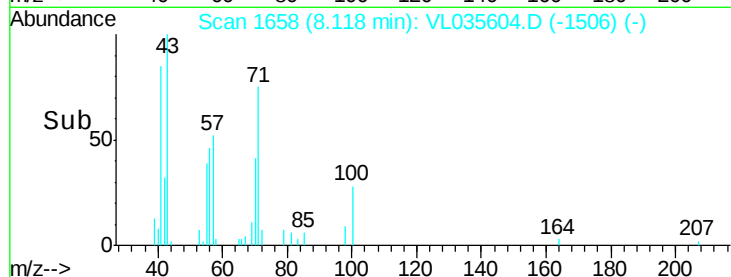
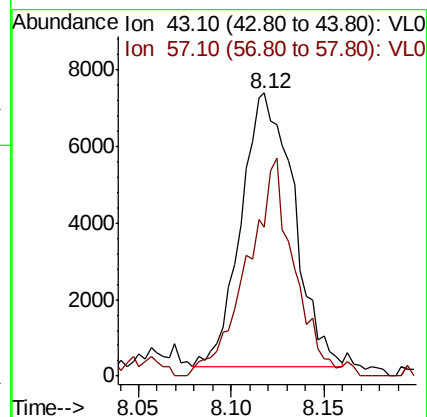
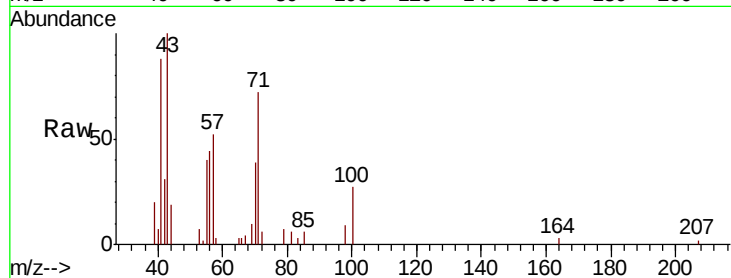
SV-7DL

Tot Ion: 43 Resp: 14195

Ion Ratio Lower Upper

43 100

57 70.6 51.4 77.0



#13

Ethanol

Concen: 0.773 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.00 min

Lab File: VL035604.D

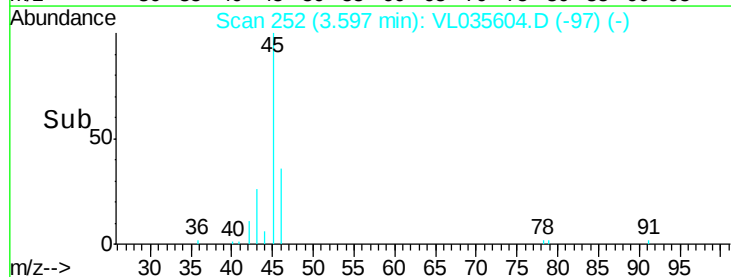
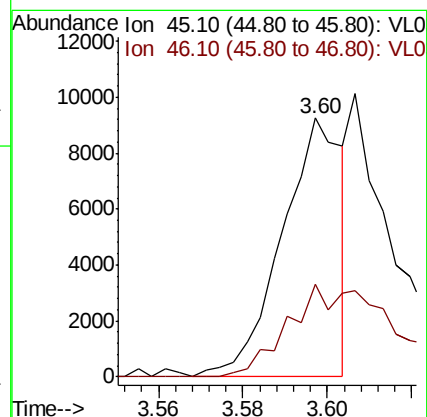
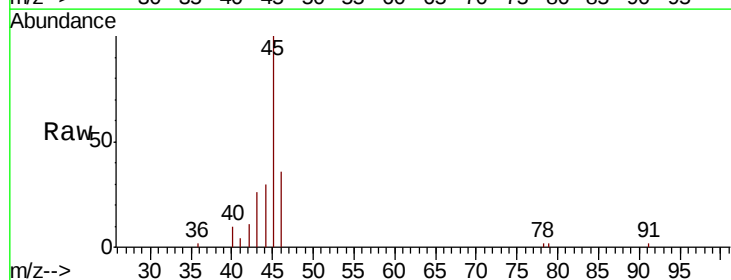
Acq: 14 Sep 2020 18:30

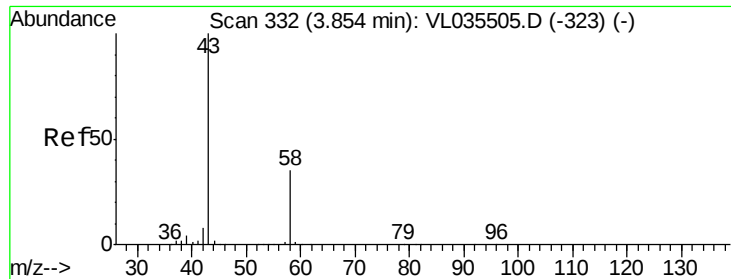
Tgt Ion: 45 Resp: 9198

Ion Ratio Lower Upper

45 100

46 66.0 15.2 60.6#





#15

Acetone

Concen: 23.935 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleID :

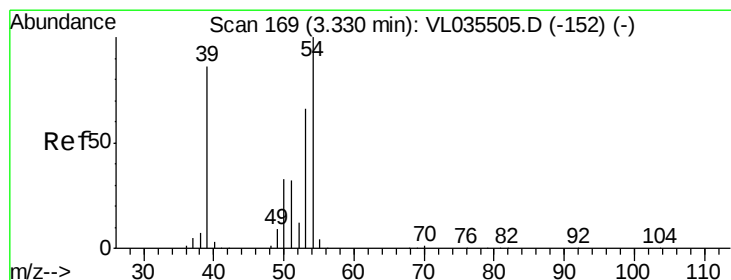
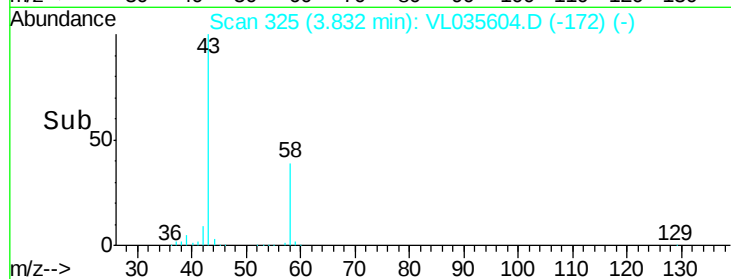
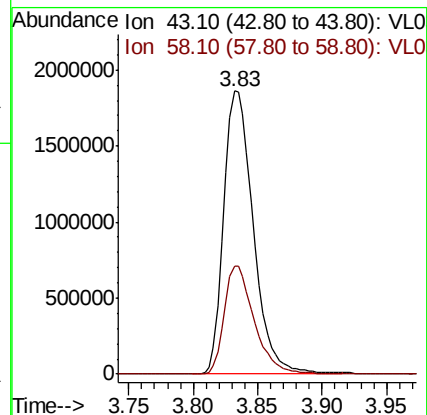
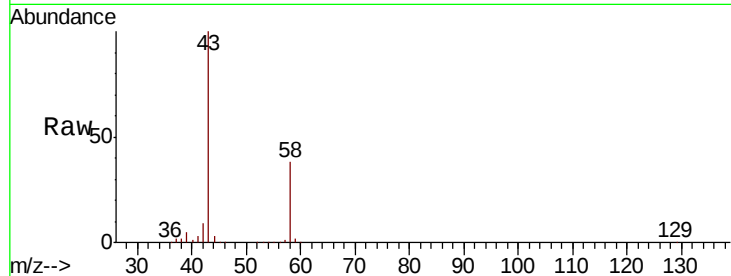
SV-7DL

Tot Ion: 43 Resp: 2971790

Ion Ratio Lower Upper

43 100

58 39.0 28.4 42.6



#16

1,3-Butadiene

Concen: 2.186 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.02 min

Lab File: VL035604.D

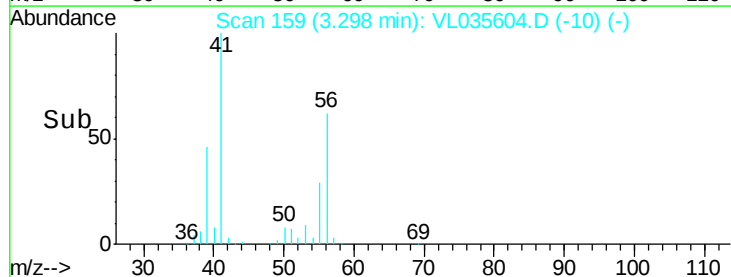
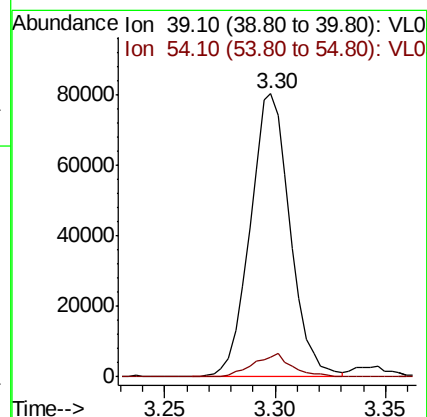
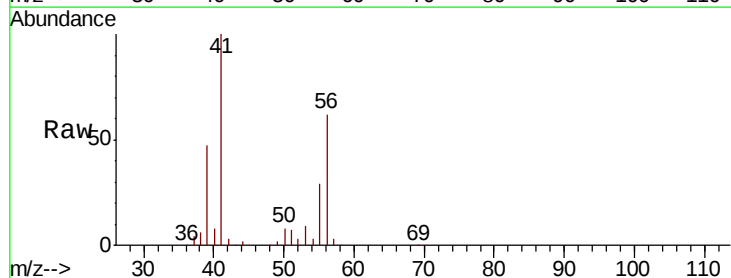
Acq: 14 Sep 2020 18:30

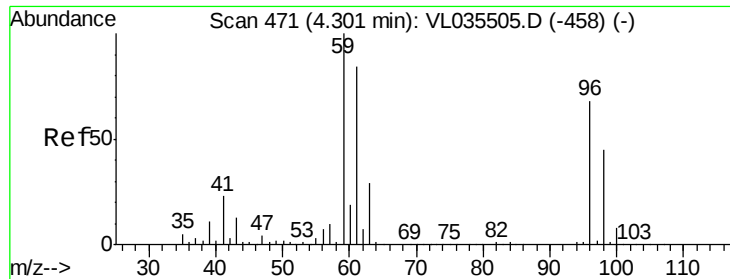
Tgt Ion: 39 Resp: 101024

Ion Ratio Lower Upper

39 100

54 8.2 88.4 132.6#

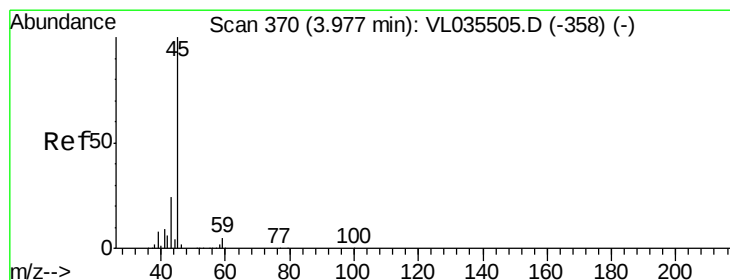
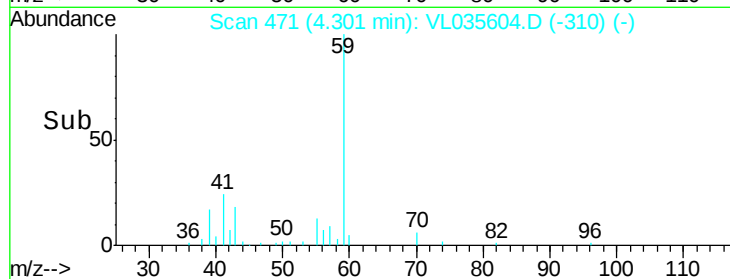
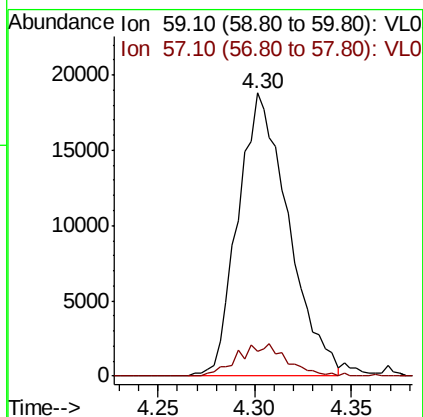
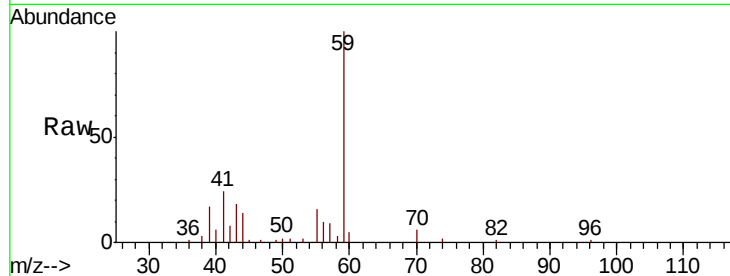




#17
 tert-Butyl alcohol
 Concen: 0.225 ppbv
 RT: 4.30 min Scan# 471
 Delta R.T. 0.02 min
 Lab File: VL035604.D
 Acq: 14 Sep 2020 18:30

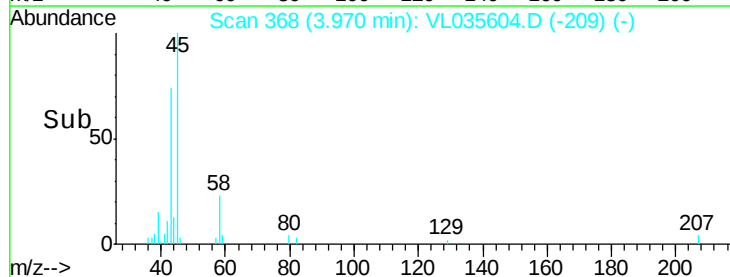
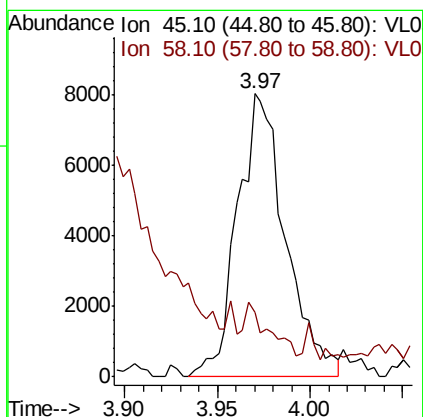
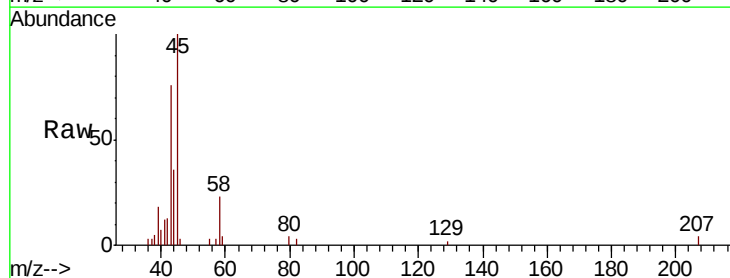
Instrument :
 MSVOA_L
 ClientSampleID :
 SV-7DL

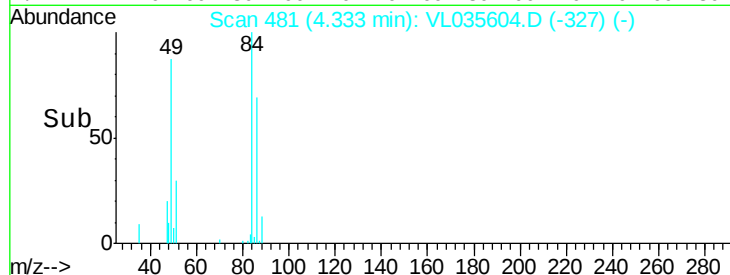
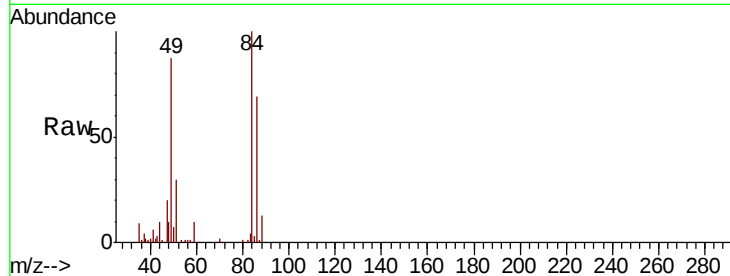
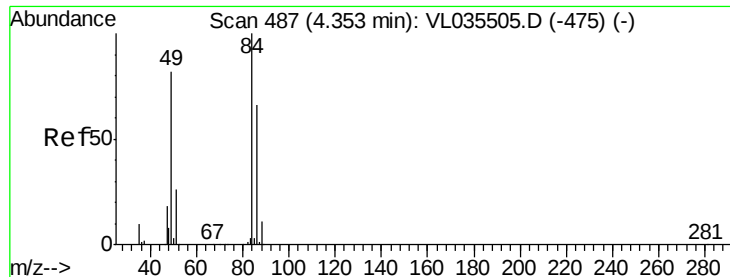
Tot Ion: 59 Resp: 34031
 Ion Ratio Lower Upper
 59 100
 57 11.3 8.4 12.6



#19
 Isopropyl Alcohol
 Concen: 0.195 ppbv
 RT: 3.97 min Scan# 368
 Delta R.T. 0.01 min
 Lab File: VL035604.D
 Acq: 14 Sep 2020 18:30

Tgt Ion: 45 Resp: 14444
 Ion Ratio Lower Upper
 45 100
 58 0.0 2.0 3.0#

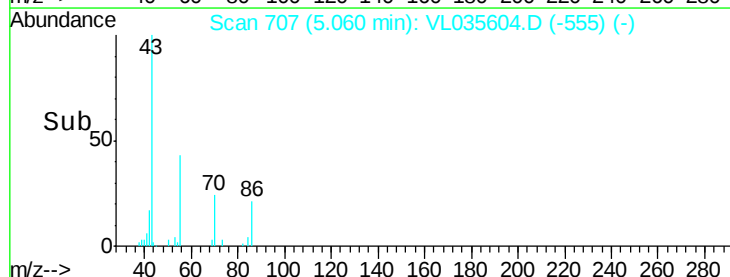
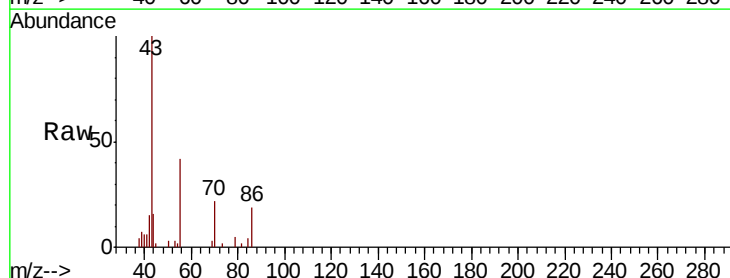
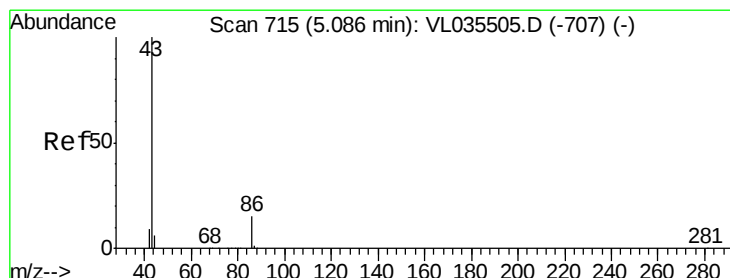
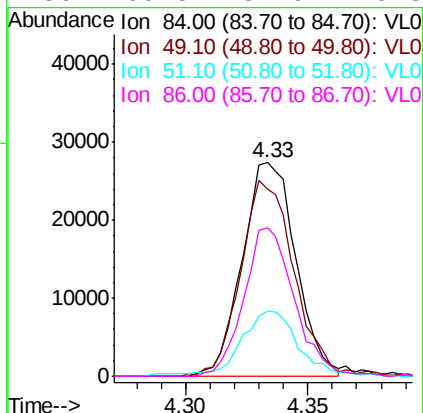




#20
Methylene Chloride
Concen: 0.450 ppbv
RT: 4.33 min Scan# 481
Delta R.T. -0.00 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

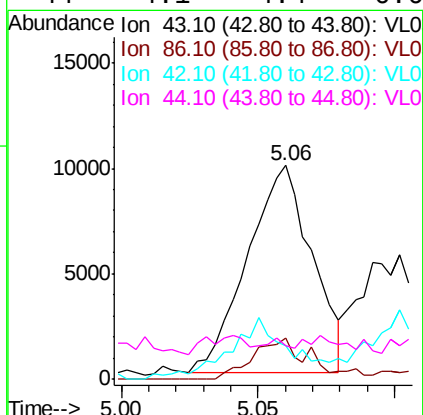
Instrument :
MSVOA_L
ClientSampleId :
SV-7DL

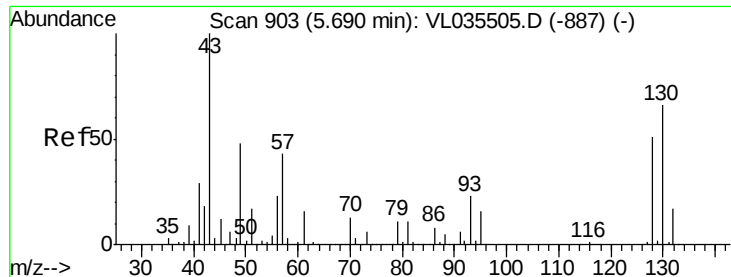
Tot Ion:	84	Resp:	41593
Ion	Ratio	Lower	Upper
84	100		
49	86.5	65.4	98.0
51	29.1	21.5	32.3
86	69.5	52.9	79.3



#23
Vinyl Acetate
Concen: 0.102 ppbv
RT: 5.06 min Scan# 707
Delta R.T. -0.01 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Tgt Ion:	43	Resp:	16212
Ion	Ratio	Lower	Upper
43	100		
86	19.8	10.6	16.0#
42	13.0	7.5	11.3#
44	4.1	4.4	6.6#

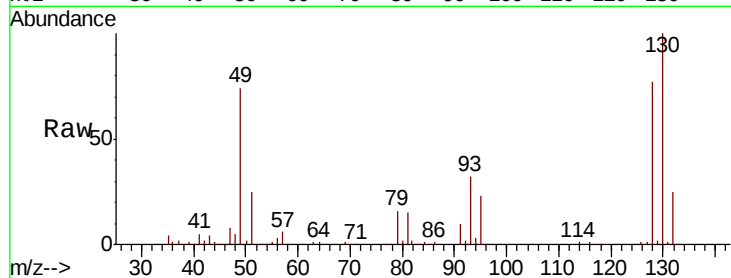




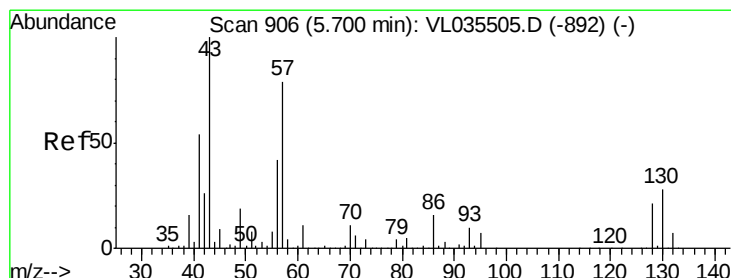
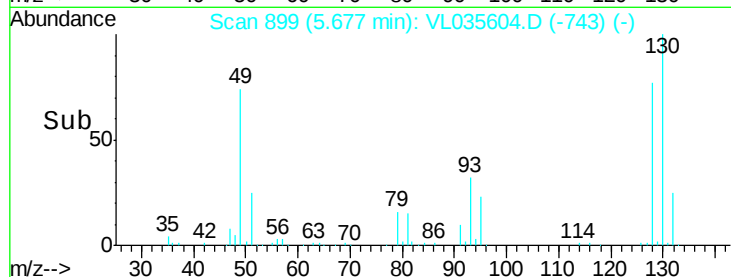
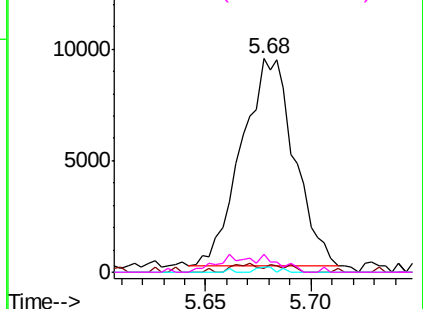
#25
Ethyl Acetate
Concen: 0.074 ppbv
RT: 5.68 min Scan# 899
Delta R.T. 0.00 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Instrument :
MSVOA_L
ClientSampled :
SV-7DL

Tot Ion: 43 Resp: 16269
Ion Ratio Lower Upper
43 100
45 4.0 8.4 12.6#
61 0.0 10.6 16.0#
70 8.7 9.4 14.2#

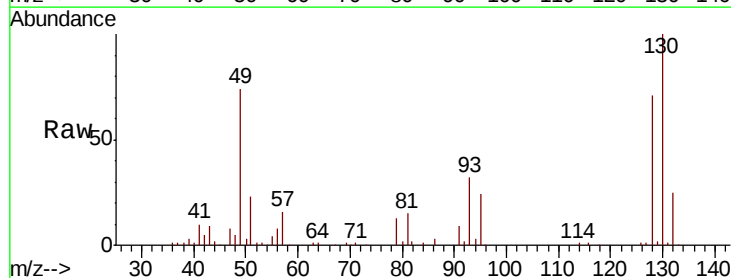


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

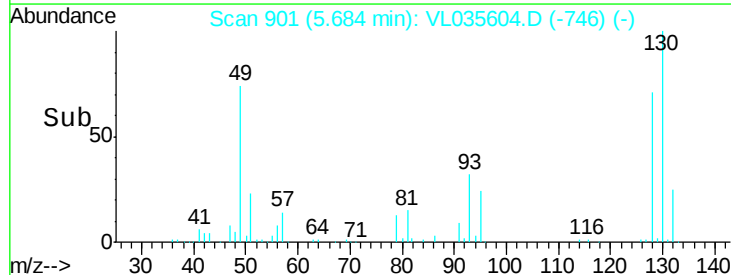
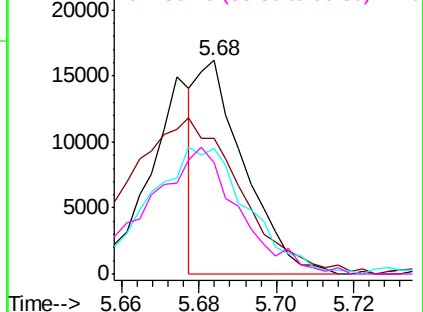


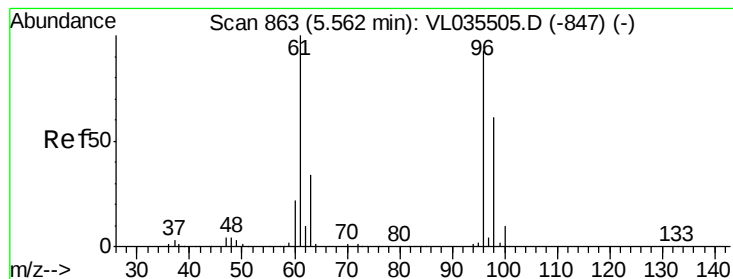
#26
Hexane
Concen: 0.110 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.00 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Tgt Ion: 57 Resp: 13724
Ion Ratio Lower Upper
57 100
41 187.2 55.9 83.9#
43 131.0 141.8 212.8#
56 120.9 41.8 62.8#



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





#31

cis-1,2-Dichloroethene

Concen: 0.091 ppbv

RT: 5.54 min Scan# 856

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

SV-7DL

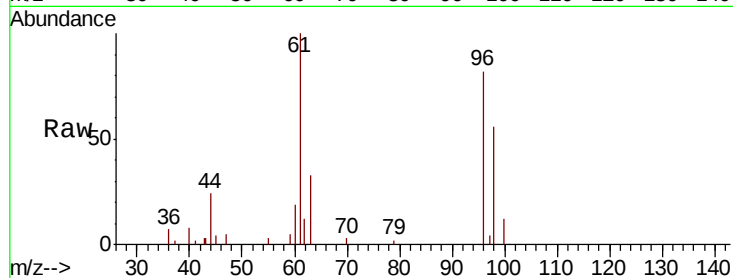
Tot Ion: 61 Resp: 11541

Ion Ratio Lower Upper

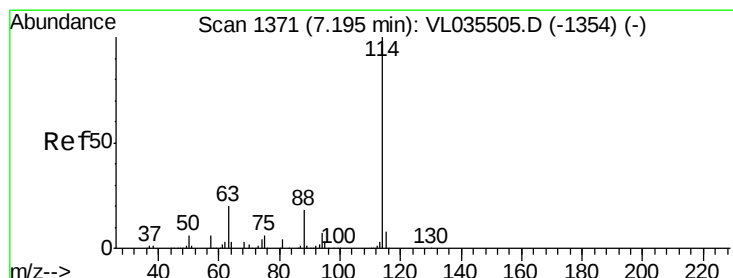
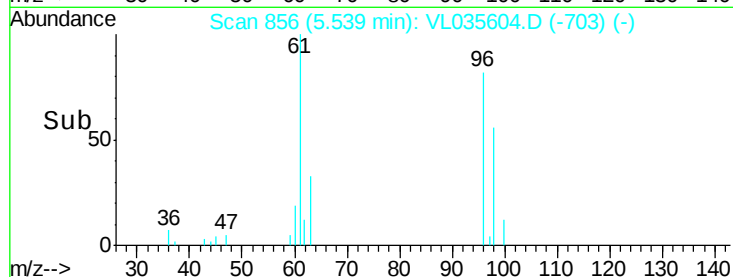
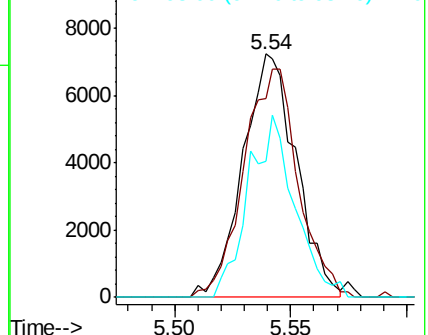
61 100

96 81.7 74.4 111.6

98 56.0 49.2 73.8



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

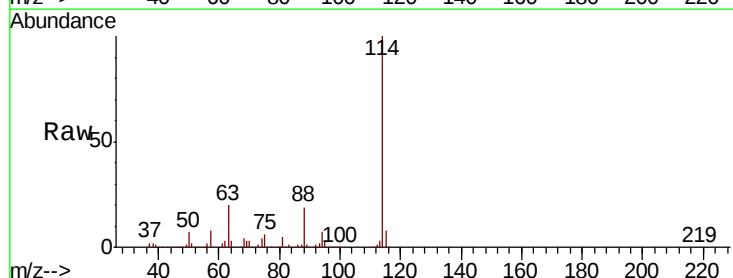
Tgt Ion: 114 Resp: 4716716

Ion Ratio Lower Upper

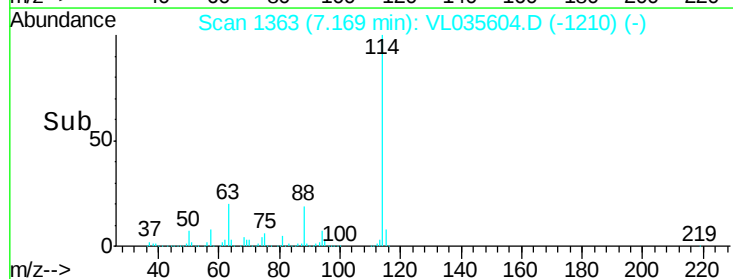
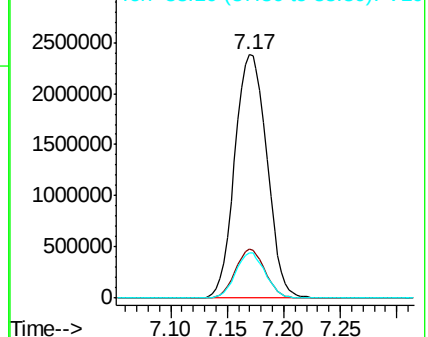
114 100

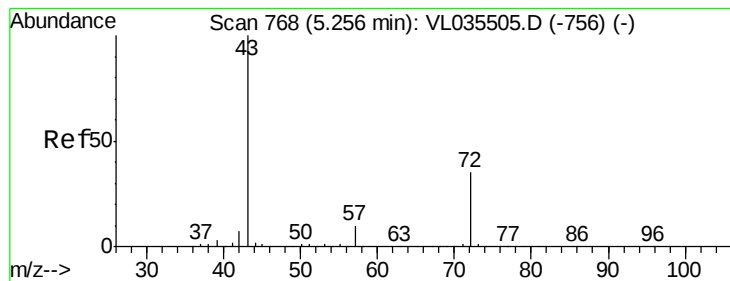
63 18.6 14.7 22.1

88 17.2 13.4 20.2



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





#34

2-Butanone

Concen: 1.940 ppbv

RT: 5.24 min Scan# 763

Delta R.T. -0.00 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampled :

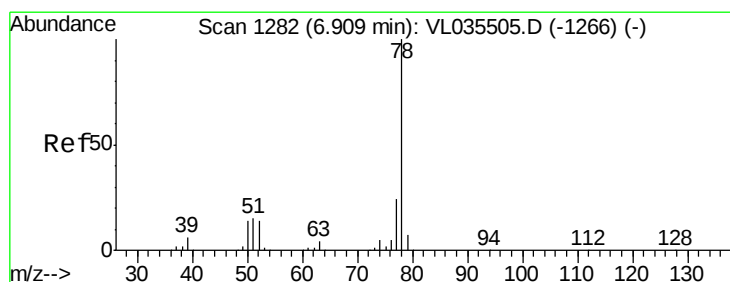
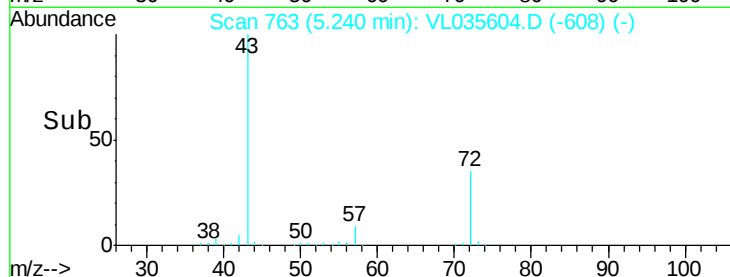
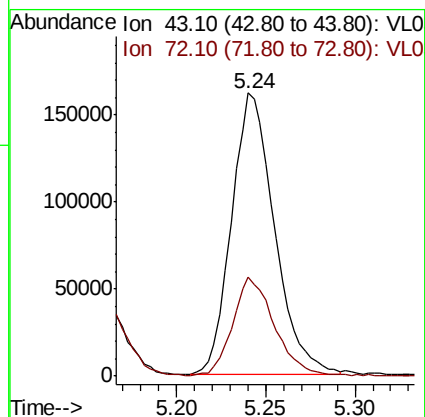
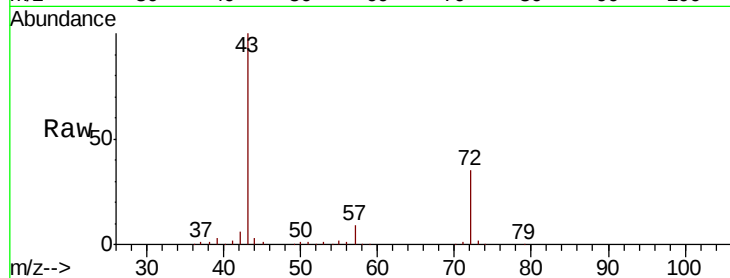
SV-7DL

Tot Ion: 43 Resp: 271566

Ion Ratio Lower Upper

43 100

72 34.8 27.7 41.5



#36

Benzene

Concen: 0.092 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

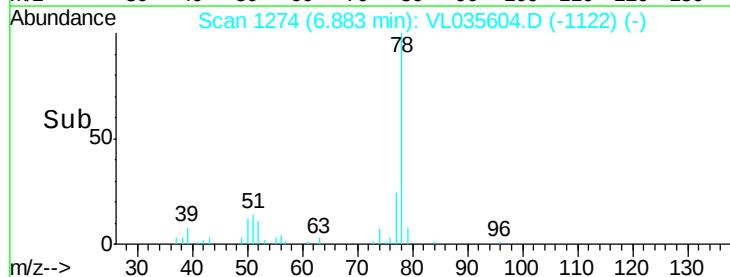
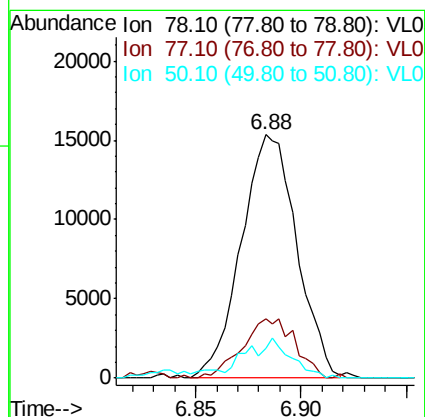
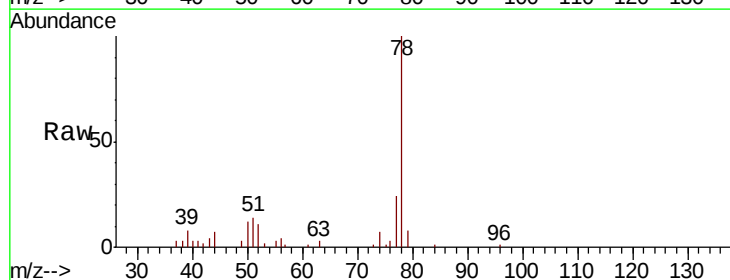
Tgt Ion: 78 Resp: 28077

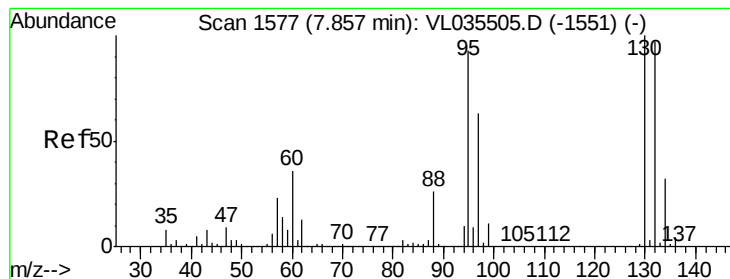
Ion Ratio Lower Upper

78 100

77 24.3 19.3 28.9

50 12.5 11.0 16.6





#38

Trichloroethene

Concen: 1.544 ppbv

RT: 7.83 min Scan# 1569

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

SV-7DL

Tot Ion:130 Resp: 273890

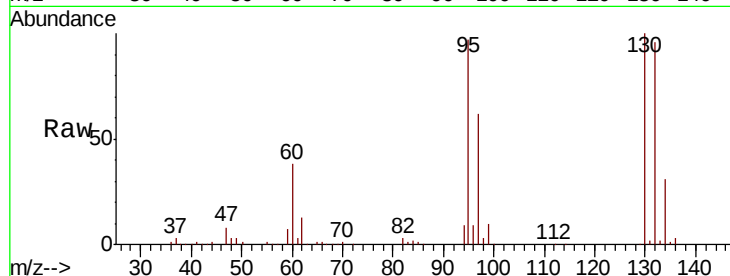
Ion Ratio Lower Upper

130 100

95 97.0 74.6 112.0

132 96.2 77.6 116.4

97 61.7 50.6 76.0

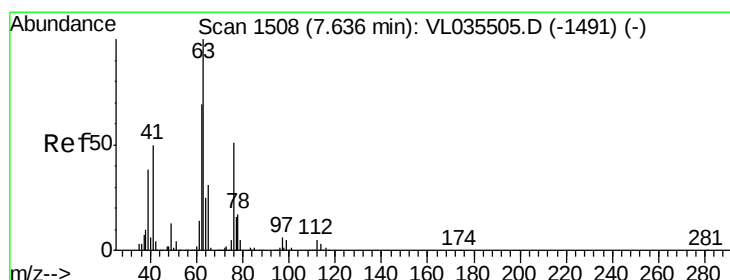
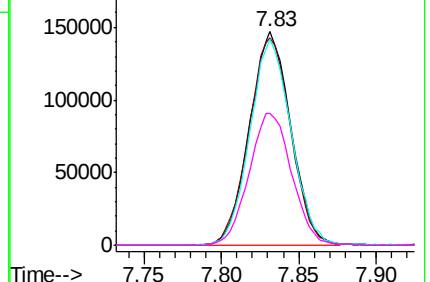
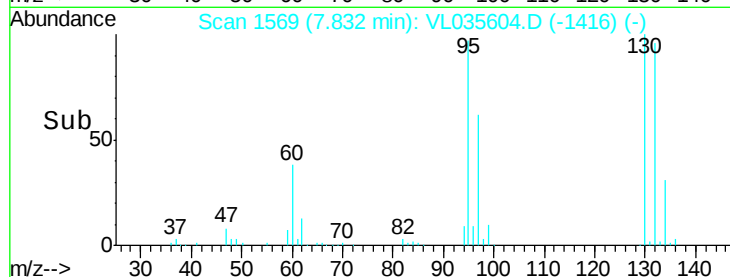


Abundance Ion 130.00 (129.70 to 130.70): V

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: 8.487 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.44 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

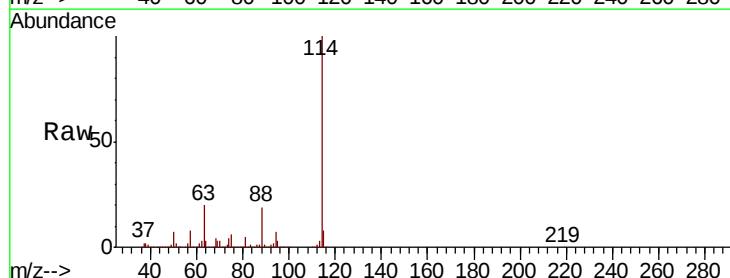
Tgt Ion: 63 Resp: 875335

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

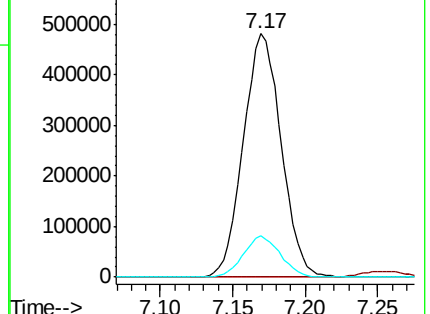
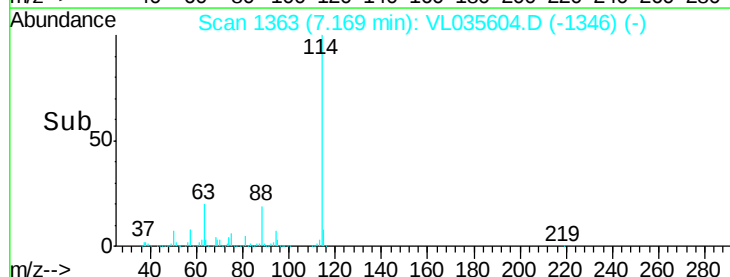
62 16.8 55.4 83.0#

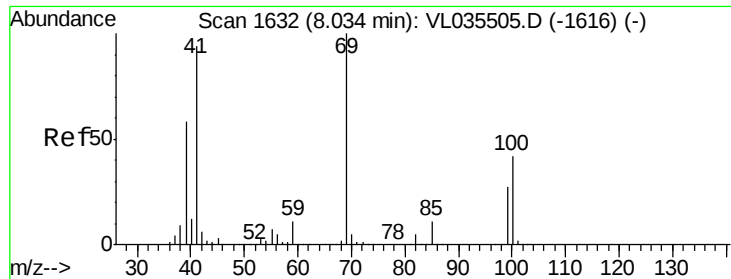


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

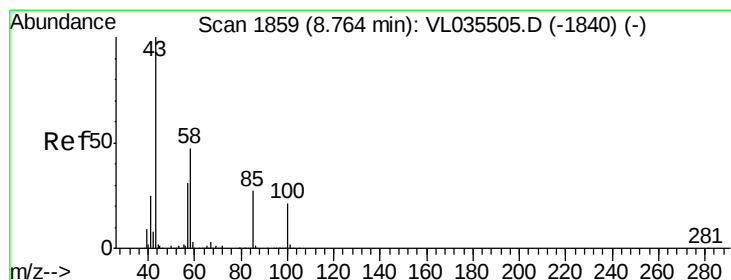
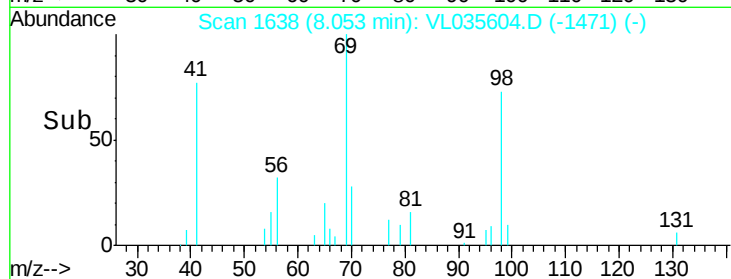
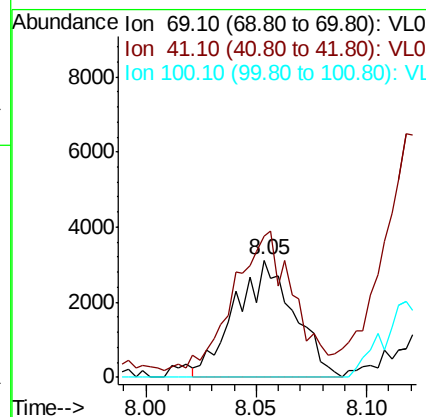
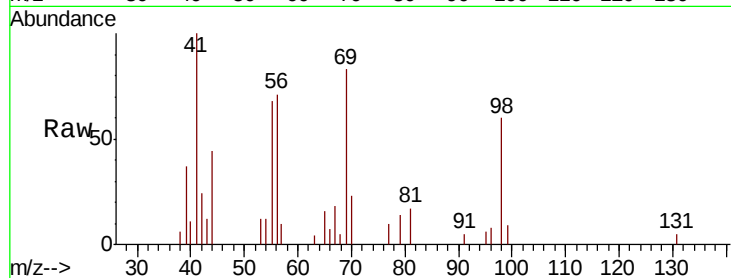




#43
Methyl Methacrylate
Concen: 0.049 ppbv
RT: 8.05 min Scan# 1638
Delta R.T. 0.04 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

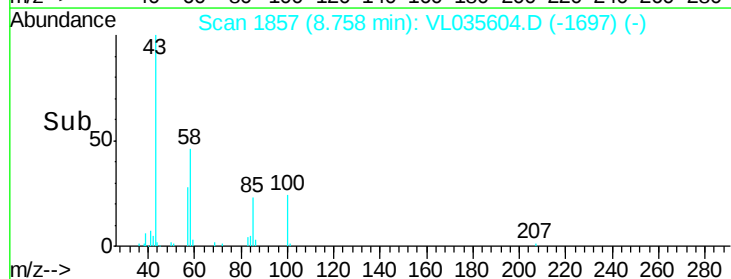
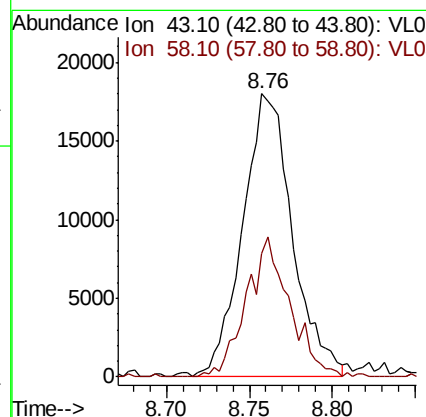
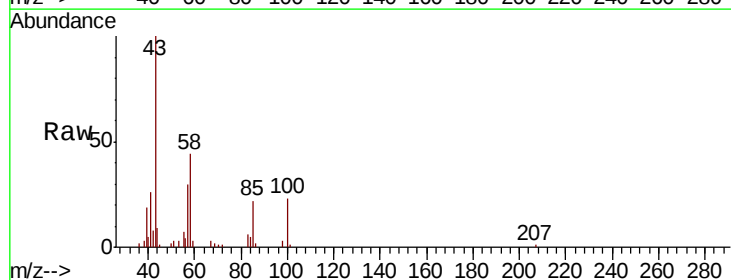
Instrument :
MSVOA_L
ClientSampleId :
SV-7DL

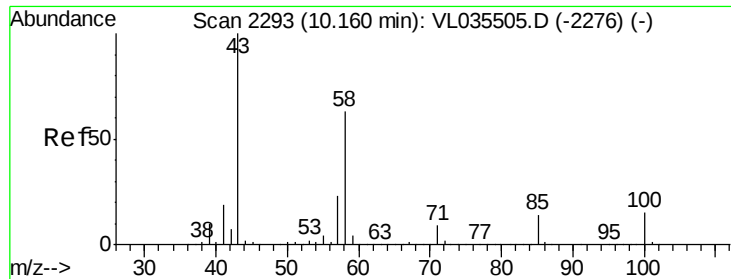
Tot Ion: 69 Resp: 5759
Ion Ratio Lower Upper
69 100
41 121.4 76.6 114.8#
100 0.0 33.8 50.6#



#50
4-Methyl-2-Pentanone
Concen: 0.186 ppbv
RT: 8.76 min Scan# 1857
Delta R.T. 0.02 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Tgt Ion: 43 Resp: 37694
Ion Ratio Lower Upper
43 100
58 43.2 37.4 56.0

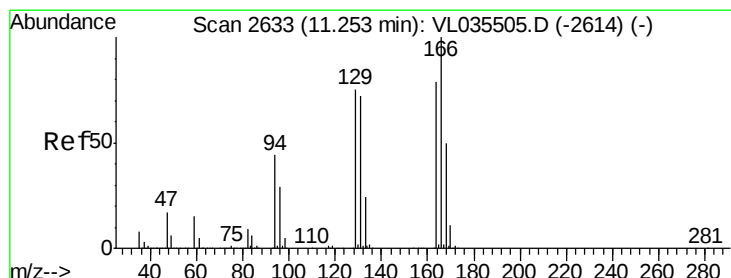
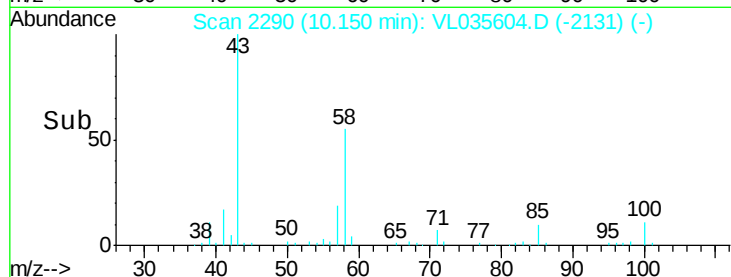
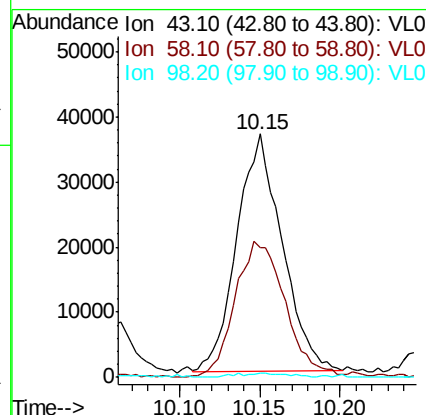
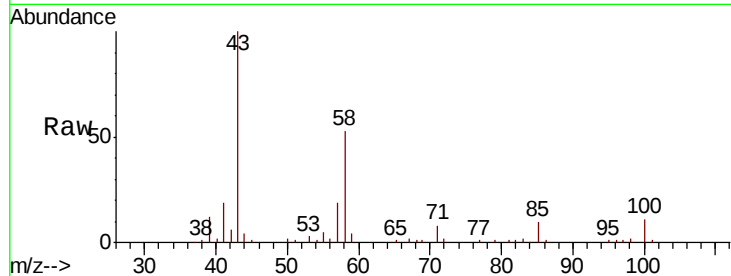




#51
2-Hexanone
Concen: 0.423 ppbv
RT: 10.15 min Scan# 2290
Delta R.T. 0.01 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

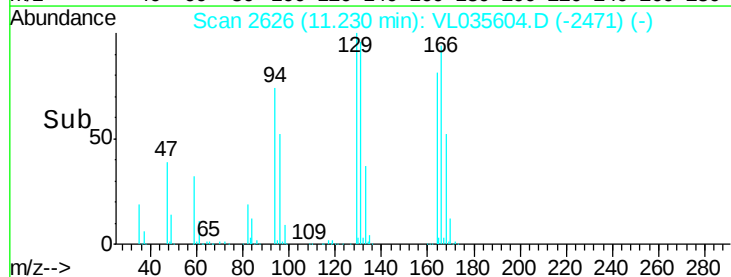
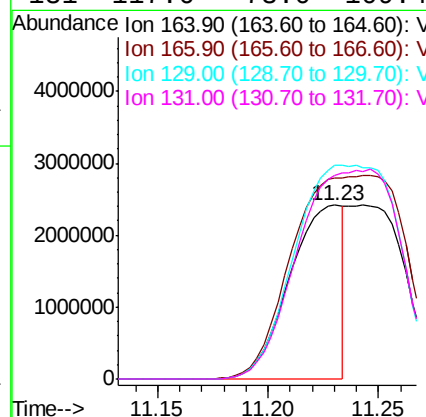
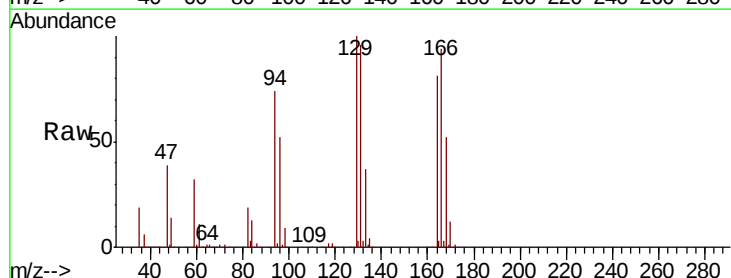
Instrument :
MSVOA_L
ClientSampleId :
SV-7DL

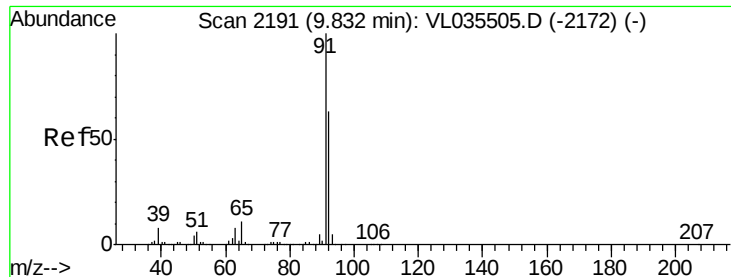
Tot Ion: 43 Resp: 70410
Ion Ratio Lower Upper
43 100
58 64.5 50.2 75.4
98 2.3 0.4 0.6#



#52
Tetrachloroethene
Concen: 22.599 ppbv
RT: 11.23 min Scan# 2626
Delta R.T. -0.00 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Tgt Ion: 164 Resp: 4030841
Ion Ratio Lower Upper
164 100
166 115.7 100.9 151.3
129 123.1 75.3 112.9#
131 117.6 73.0 109.4#





#53

Toluene

Concen: 0.702 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

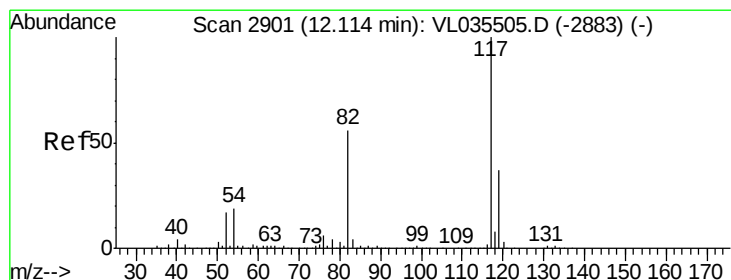
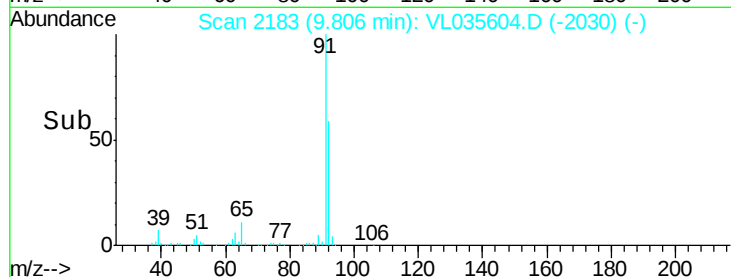
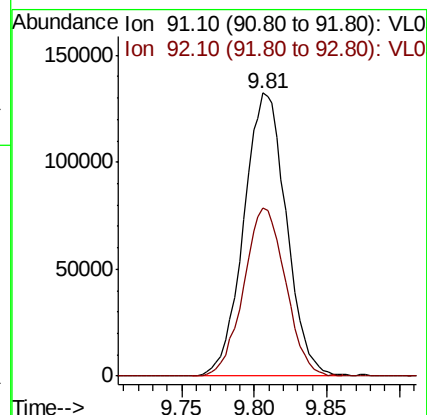
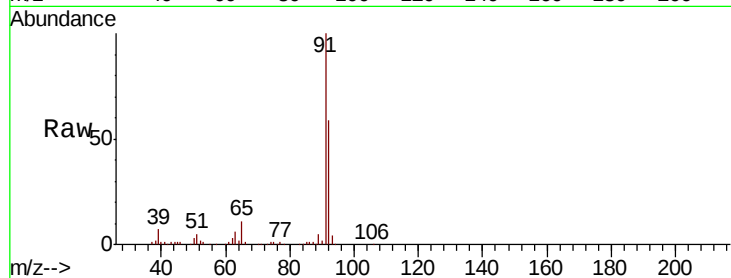
SV-7DL

Tot Ion: 91 Resp: 269703

Ion Ratio Lower Upper

91 100

92 58.7 49.8 74.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

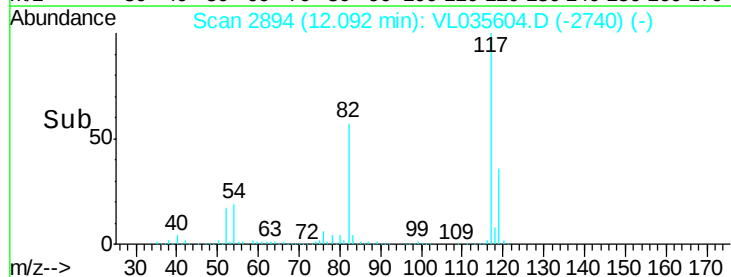
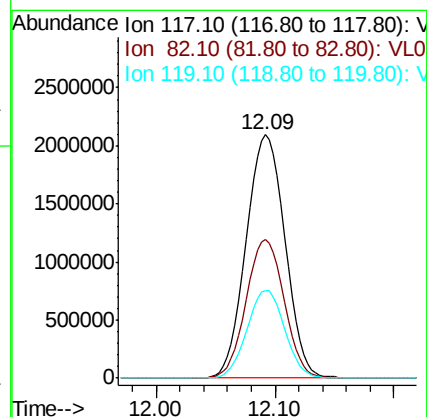
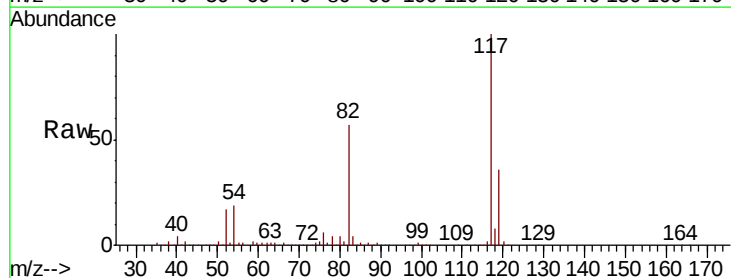
Tgt Ion: 117 Resp: 4746144

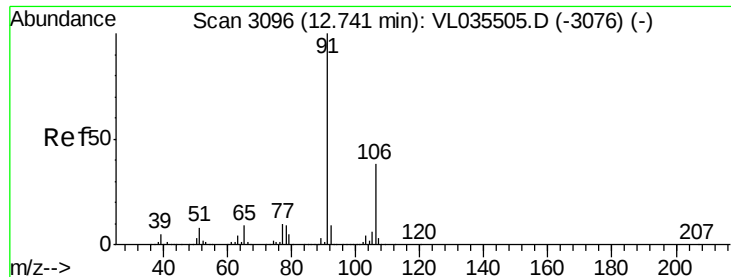
Ion Ratio Lower Upper

117 100

82 56.0 41.6 62.4

119 35.1 29.3 43.9





#58

Ethyl Benzene

Concen: 0.095 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

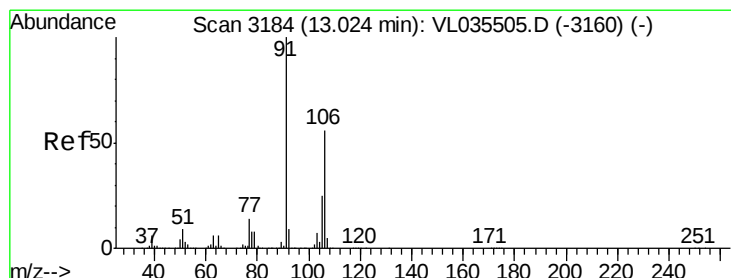
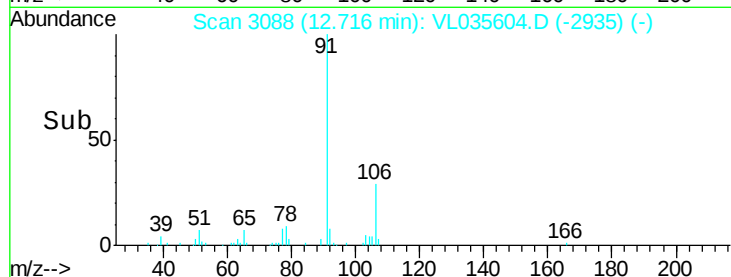
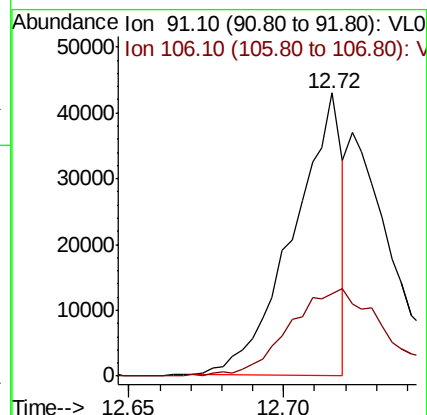
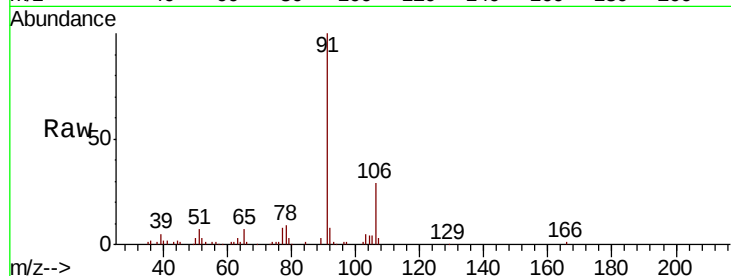
SV-7DL

Tot Ion: 91 Resp: 46716

Ion Ratio Lower Upper

91 100

106 28.9 30.3 45.5#



#59

m/p-Xylene

Concen: 0.645 ppbv

RT: 12.98 min Scan# 3170

Delta R.T. -0.03 min

Lab File: VL035604.D

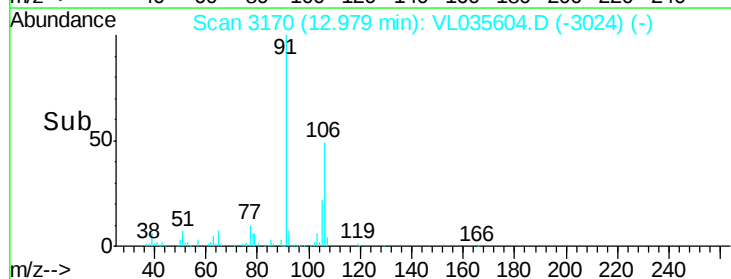
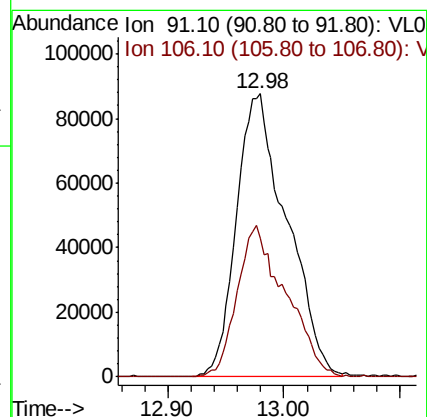
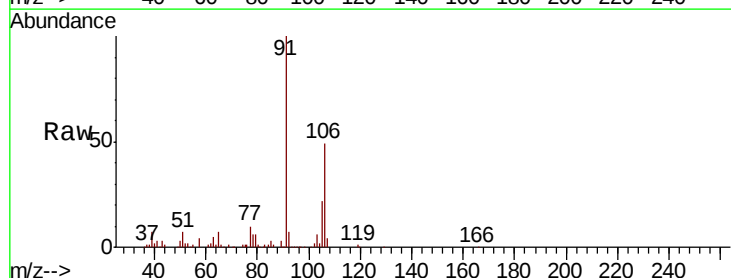
Acq: 14 Sep 2020 18:30

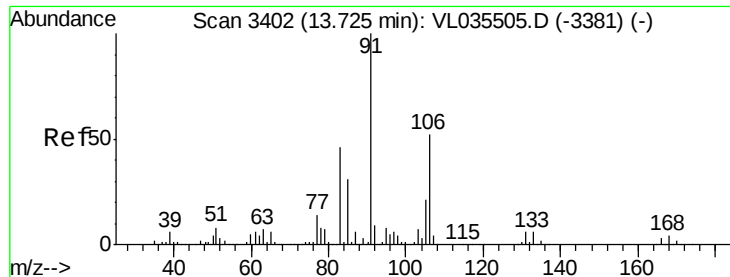
Tgt Ion: 91 Resp: 263859

Ion Ratio Lower Upper

91 100

106 51.4 43.4 65.2

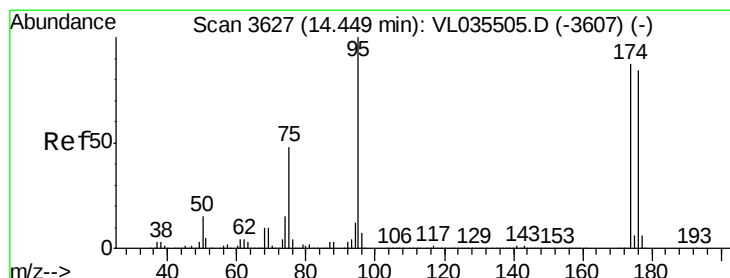
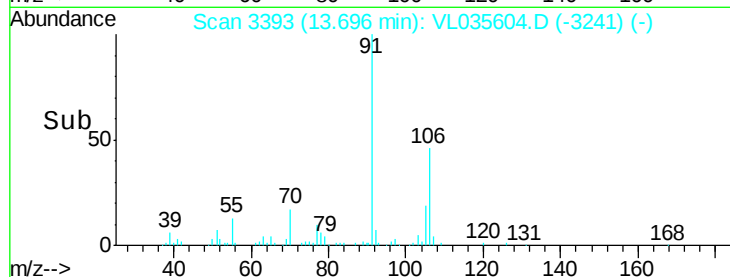
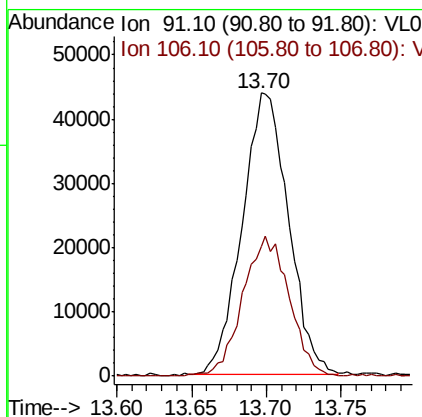
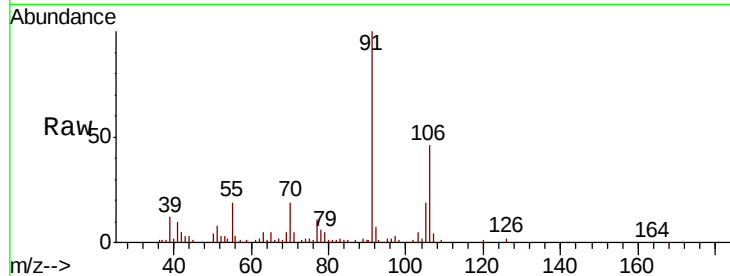




#60
o-Xylene
Concen: 0.230 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

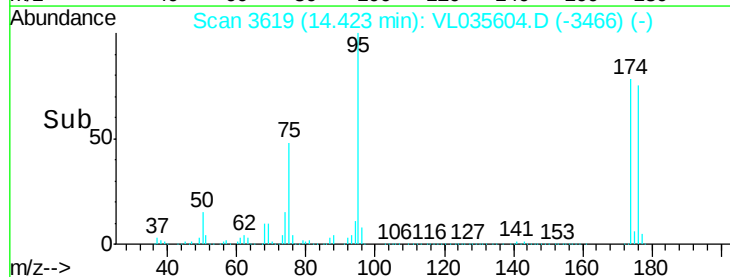
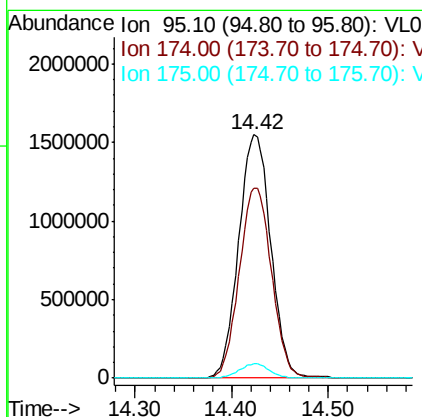
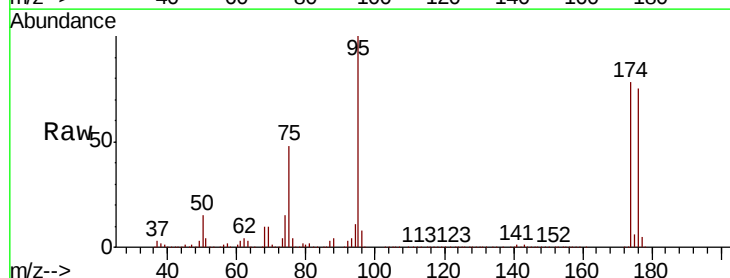
Instrument :
MSVOA_L
ClientSampleID :
SV-7DL

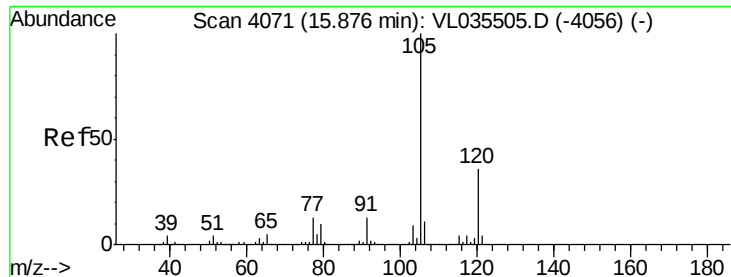
Tot Ion: 91 Resp: 94638
Ion Ratio Lower Upper
91 100
106 49.7 25.8 77.4



#68
1-Bromo-4-Fluorobenzene
Concen: 10.612 ppbv
RT: 14.42 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL035604.D
Acq: 14 Sep 2020 18:30

Tgt Ion: 95 Resp: 3576657
Ion Ratio Lower Upper
95 100
174 79.1 69.6 104.4
175 5.7 5.1 7.7





#72

4-Ethyltoluene

Concen: 0.091 ppbv

RT: 15.84 min Scan# 4061

Delta R.T. -0.01 min

Lab File: VL035604.D

Acq: 14 Sep 2020 18:30

Instrument :

MSVOA_L

ClientSampleId :

SV-7DL

Tot Ion:105 Resp: 47641

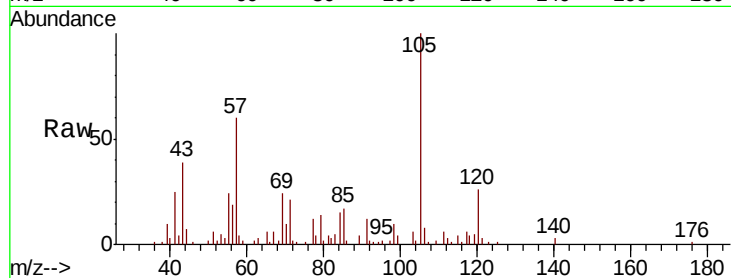
Ion Ratio Lower Upper

105 100

120 32.3 27.4 41.2

91 14.2 9.7 14.5

77 16.4 9.6 14.4#

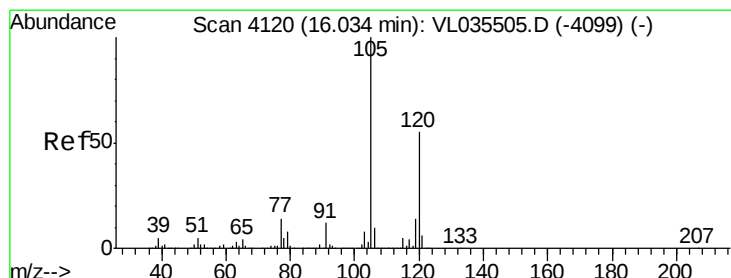
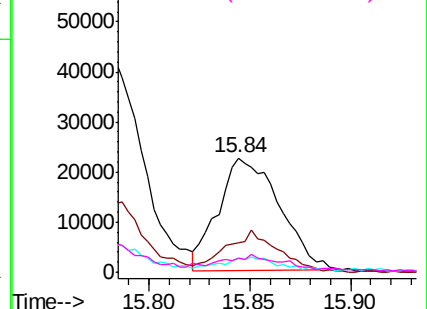
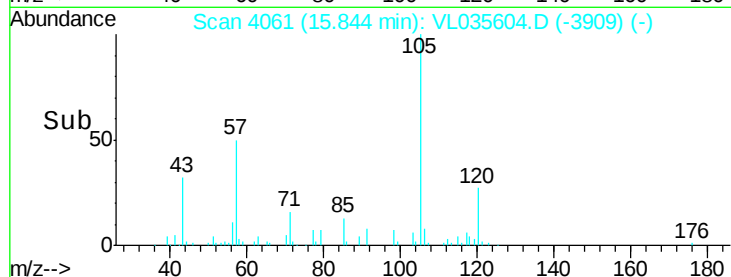


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#73

1,3,5-Trimethylbenzene

Concen: 0.060 ppbv

RT: 16.01 min Scan# 4112

Delta R.T. -0.01 min

Lab File: VL035604.D

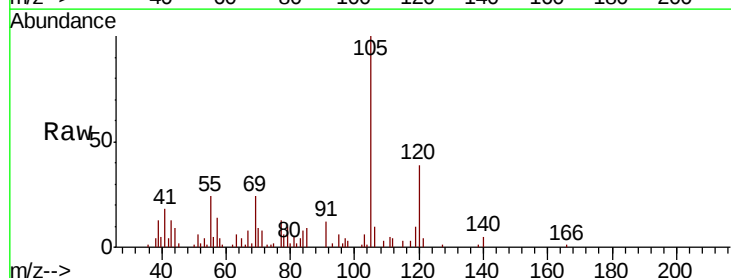
Acq: 14 Sep 2020 18:30

Tgt Ion:105 Resp: 28990

Ion Ratio Lower Upper

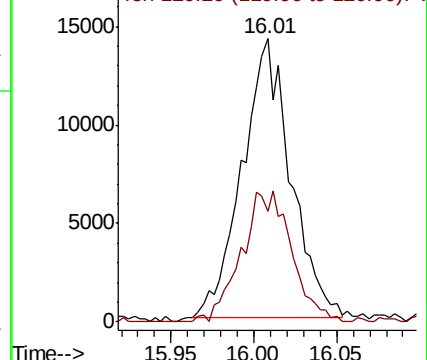
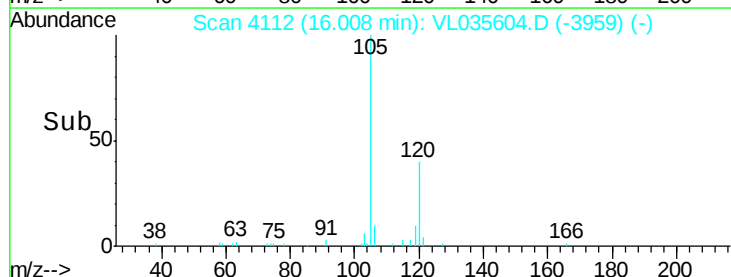
105 100

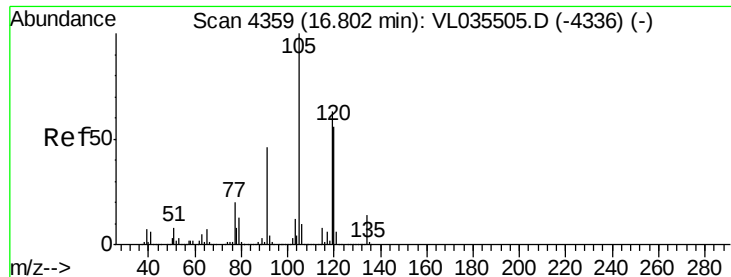
120 39.8 44.2 66.2#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.217 ppbv
 RT: 16.77 min Scan# 4350
 Delta R.T. -0.01 min
 Lab File: VL035604.D
 Acq: 14 Sep 2020 18:30

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-7DL

Tot Ion:	105	Resp:	115588
Ion	Ratio	Lower	Upper
105	100		
120	45.8	44.4	66.6
91	9.9	37.1	55.7#
77	13.8	16.0	24.0#

