

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091420\
 Data File : VL035601.D
 Acq On : 14 Sep 2020 16:36
 Operator : SY/AP
 Sample : L3983-07DL 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-10DL

Quant Time: Sep 15 06:40:59 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	1142844	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4798596	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	4829814	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	3639708	10.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

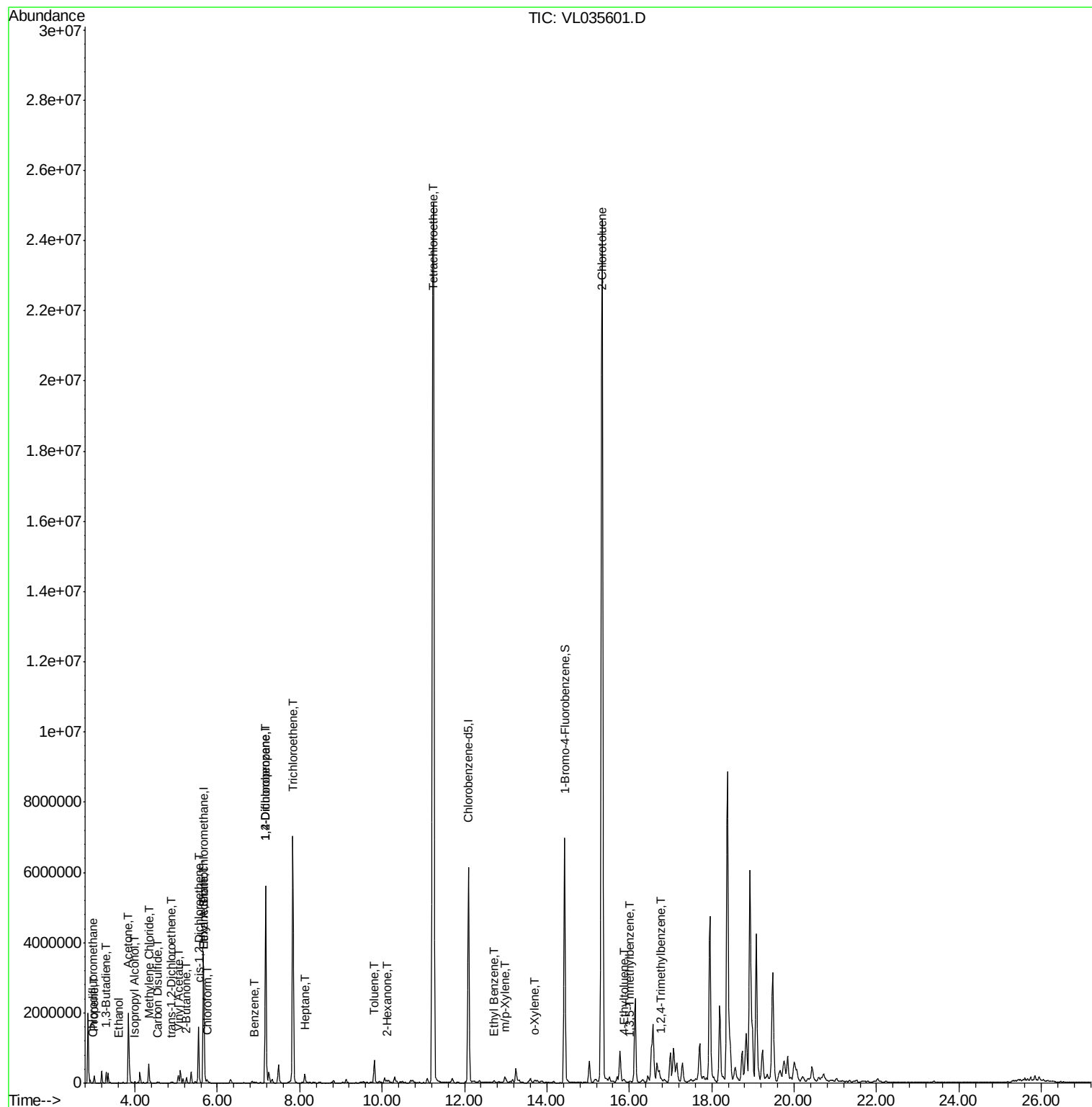
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.98	51	11937	0.094	ppbv	94
9) Propene	3.01	41	58475	1.200	ppbv #	75
10) Heptane	8.13	43	88768	0.678	ppbv	99
13) Ethanol	3.61	45	5997	0.496	ppbv	64
15) Acetone	3.84	43	1980500	15.713	ppbv	99
16) 1,3-Butadiene	3.30	39	64483	1.374	ppbv #	4
19) Isopropyl Alcohol	3.98	45	3192	0.042	ppbv #	93
20) Methylene Chloride	4.34	84	236497	2.519	ppbv	95
22) trans-1,2-Dichloroethene	4.88	96	4774	0.047	ppbv #	82
23) Vinyl Acetate	5.05	43	78860	0.487	ppbv #	1
25) Ethyl Acetate	5.68	43	129061	0.580	ppbv #	72
26) Hexane	5.68	57	240515	1.906	ppbv #	48
27) Carbon Disulfide	4.55	76	23781	0.131	ppbv #	91
29) Chloroform	5.75	83	51434	0.200	ppbv	92
31) cis-1,2-Dichloroethene	5.55	61	730709	5.645	ppbv	99
34) 2-Butanone	5.25	43	150050	1.054	ppbv	99
36) Benzene	6.89	78	25224	0.081	ppbv #	92
38) Trichloroethene	7.83	130	2532759	14.037	ppbv	95
39) 1,2-Dichloropropane	7.17	63	896680	8.545	ppbv #	32
51) 2-Hexanone	10.13	43	6853	0.041	ppbv #	20
52) Tetrachloroethene	11.23	164	5090756	28.054	ppbv #	80
53) Toluene	9.81	91	590360	1.511	ppbv	97
58) Ethyl Benzene	12.72	91	50152	0.101	ppbv	95
59) m/p-Xylene	12.98	91	158762	0.381	ppbv	95
60) o-Xylene	13.70	91	61502	0.147	ppbv	96
71) 2-Chlorotoluene	15.34	91	7819964	15.949	ppbv #	36
72) 4-Ethyltoluene	15.85	105	21956	0.041	ppbv #	52
73) 1,3,5-Trimethylbenzene	16.01	105	19892	0.040	ppbv #	85
74) 1,2,4-Trimethylbenzene	16.78	105	78284	0.145	ppbv #	67

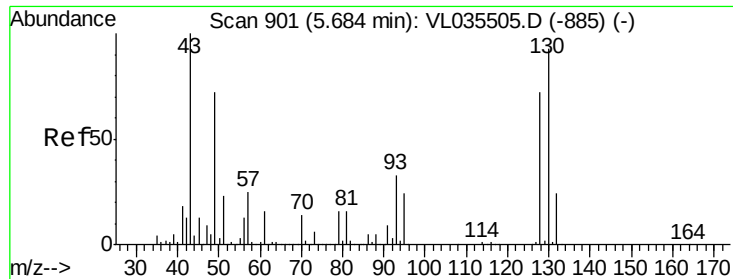
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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

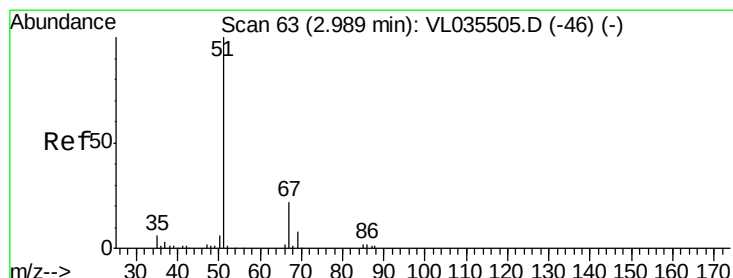
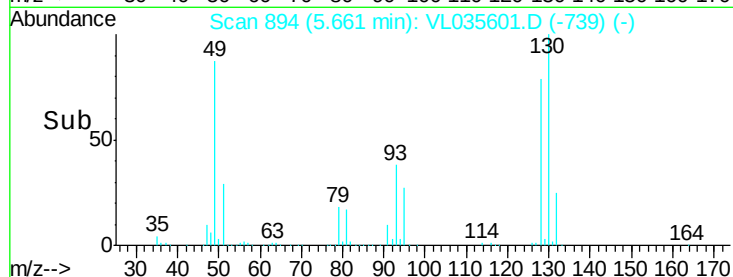
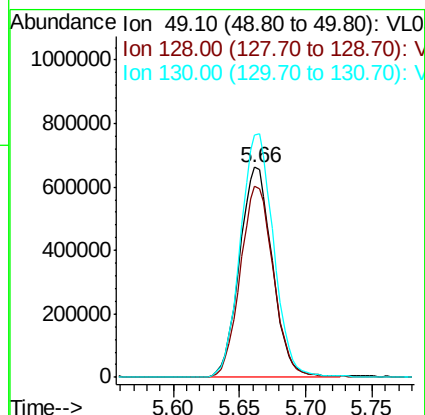
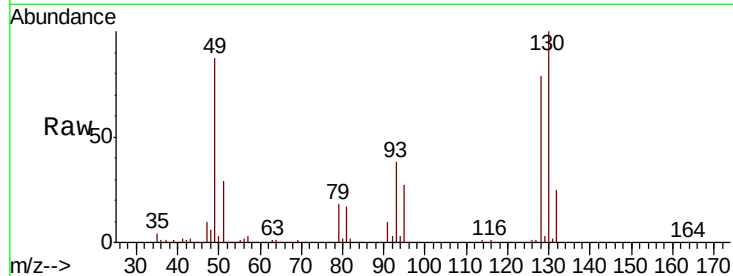




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

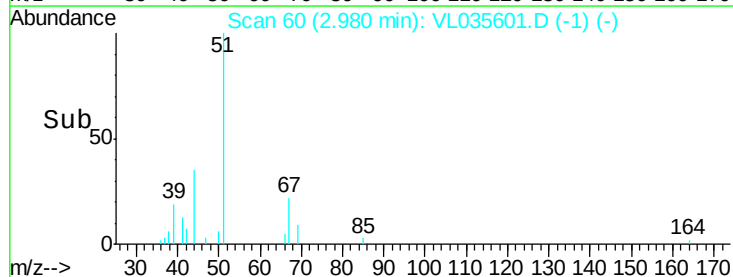
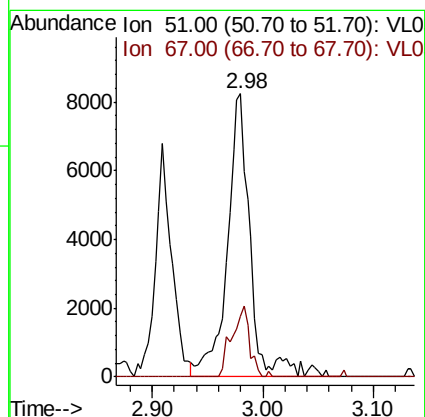
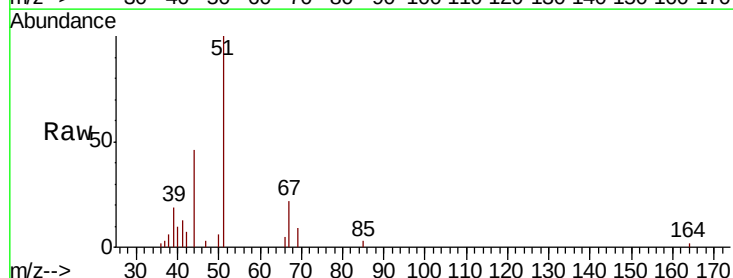
Instrument :
MSVOA_L
ClientSampleId :
SV-10DL

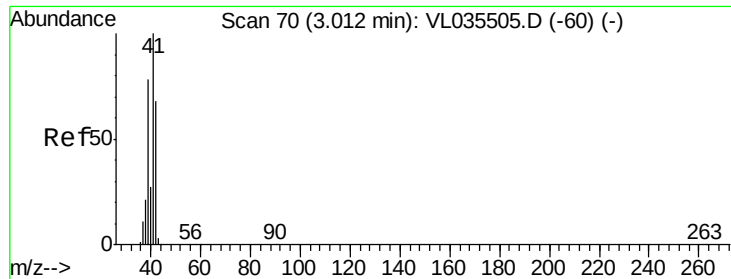
Tot Ion: 49 Resp: 1142844
Ion Ratio Lower Upper
49 100
128 92.3 50.0 150.1
130 118.0 64.4 193.2



#3
Chlorodifluoromethane
Concen: 0.094 ppbv
RT: 2.98 min Scan# 60
Delta R.T. 0.01 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Tgt Ion: 51 Resp: 11937
Ion Ratio Lower Upper
51 100
67 19.3 17.8 26.8





#9

Propene

Concen: 1.200 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.01 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

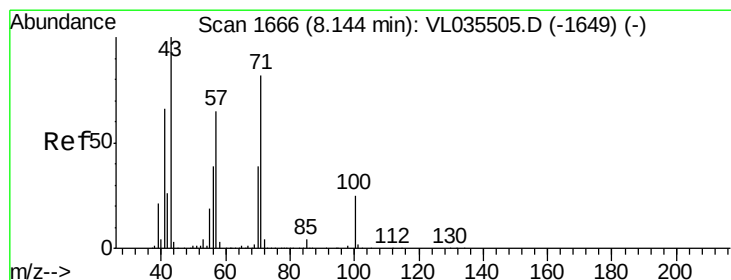
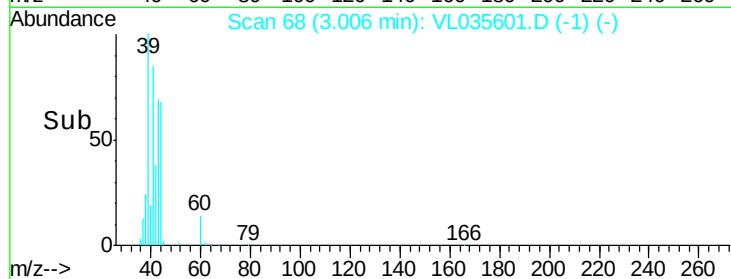
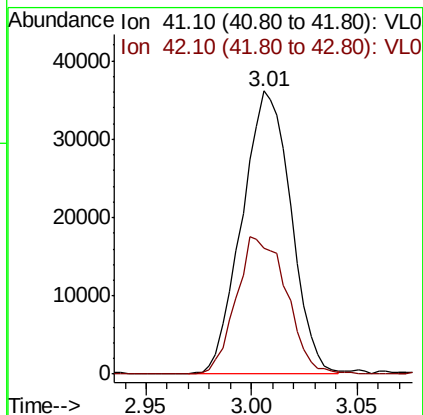
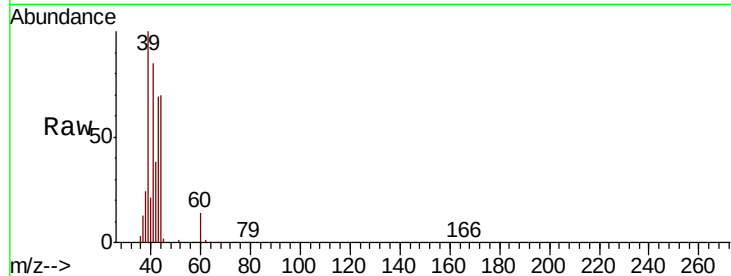
SV-10DL

Tot Ion: 41 Resp: 58475

Ion Ratio Lower Upper

41 100

42 49.7 56.3 84.5#



#10

Heptane

Concen: 0.678 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. 0.00 min

Lab File: VL035601.D

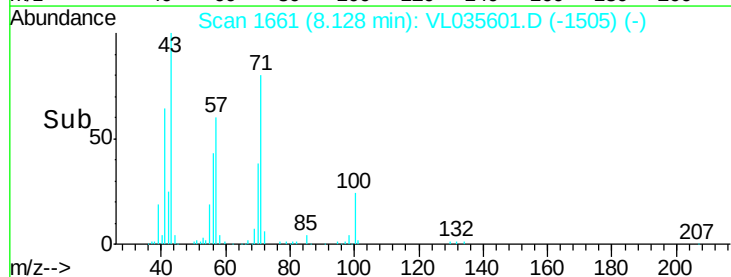
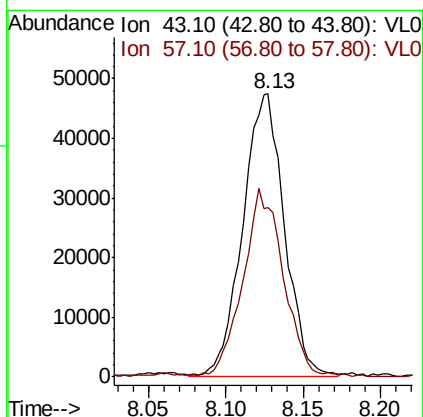
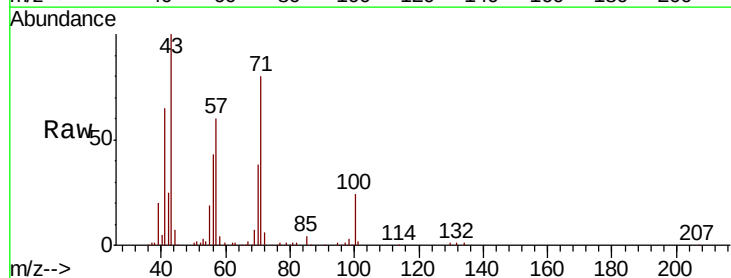
Acq: 14 Sep 2020 16:36

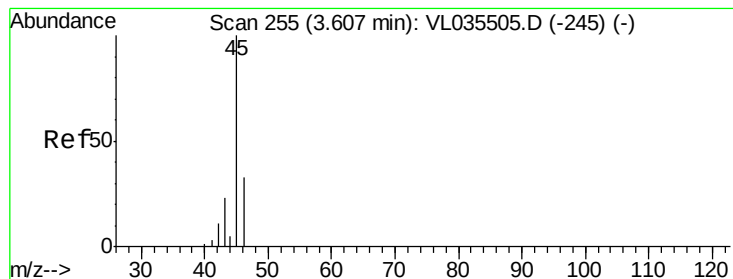
Tgt Ion: 43 Resp: 88768

Ion Ratio Lower Upper

43 100

57 65.2 51.4 77.0





#13

Ethanol

Concen: 0.496 ppbv

RT: 3.61 min Scan# 255

Delta R.T. 0.01 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

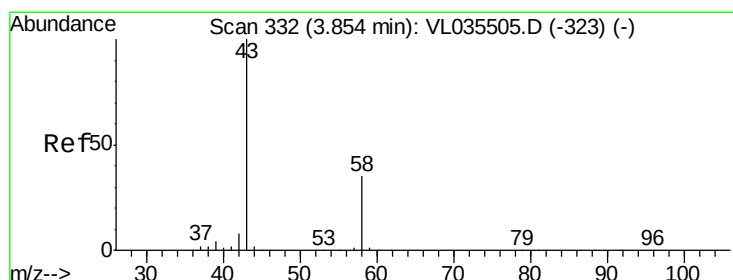
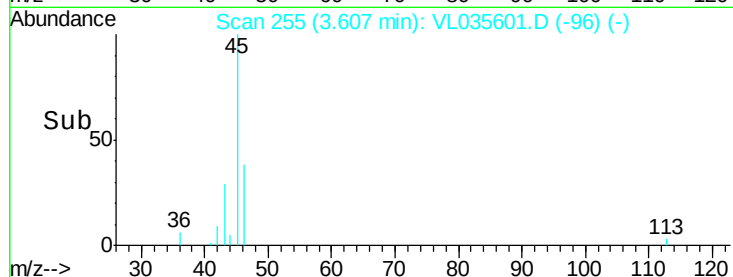
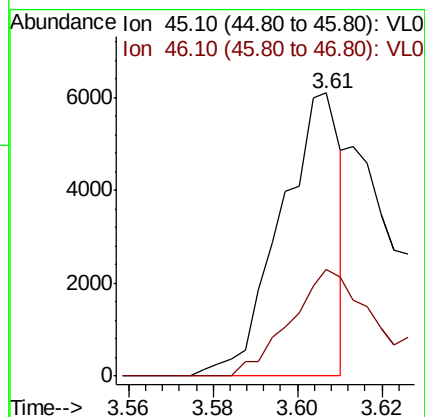
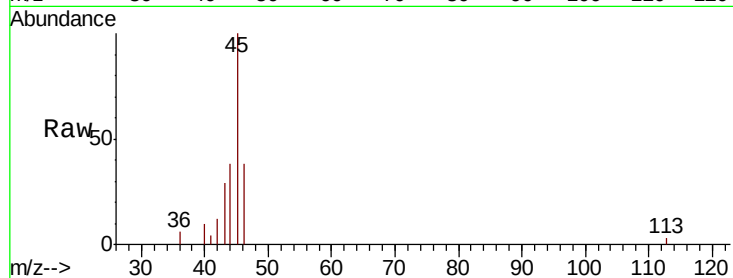
SV-10DL

Tot Ion: 45 Resp: 5997

Ion Ratio Lower Upper

45 100

46 59.7 15.2 60.6



#15

Acetone

Concen: 15.713 ppbv

RT: 3.84 min Scan# 327

Delta R.T. 0.00 min

Lab File: VL035601.D

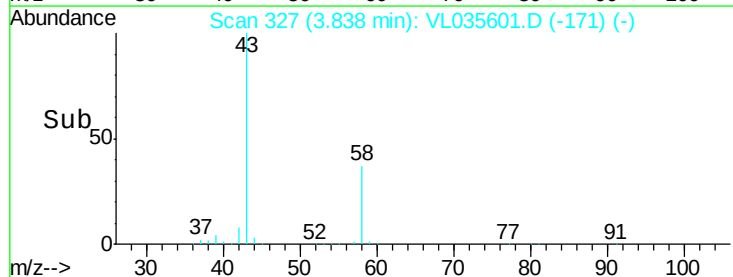
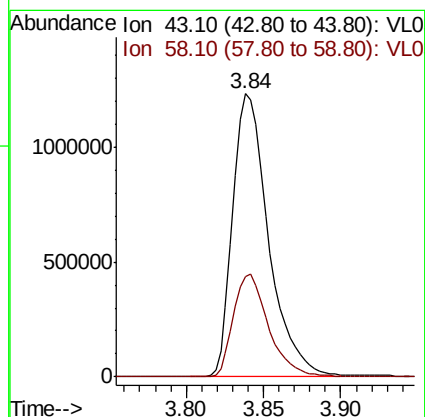
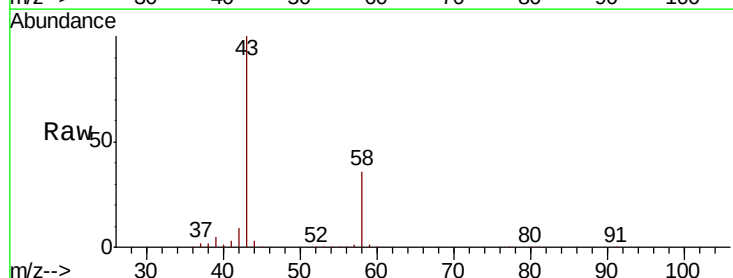
Acq: 14 Sep 2020 16:36

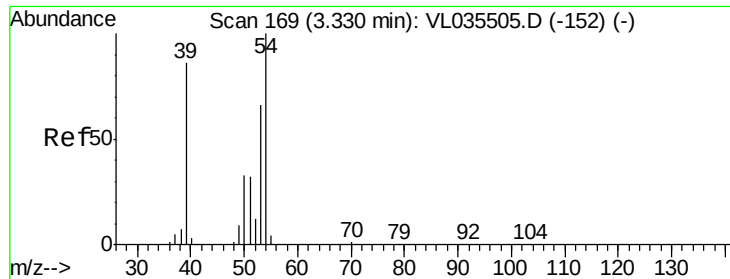
Tgt Ion: 43 Resp: 1980500

Ion Ratio Lower Upper

43 100

58 35.9 28.4 42.6

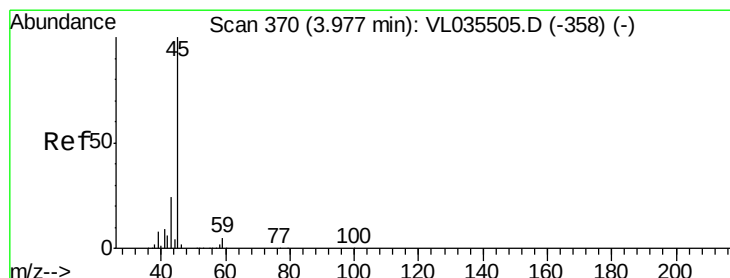
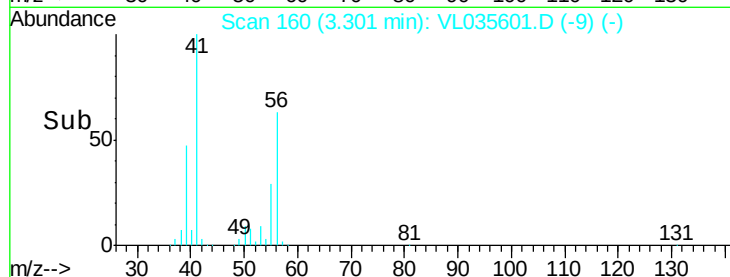
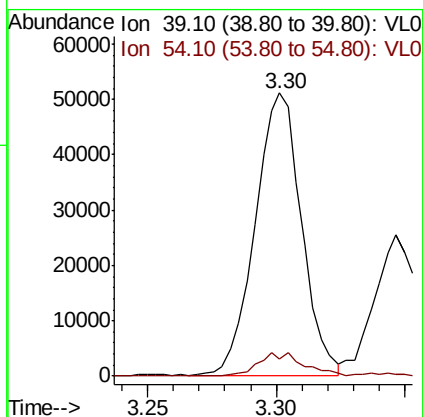
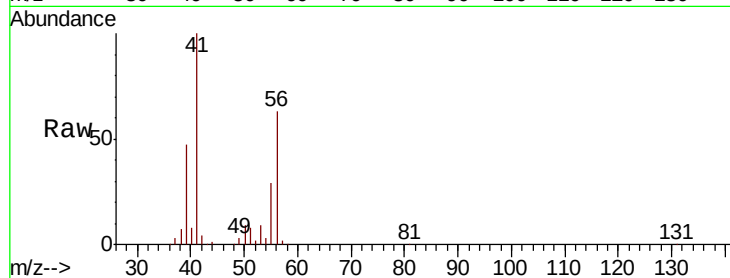




#16
 1,3-Butadiene
 Concen: 1.374 ppbv
 RT: 3.30 min Scan# 160
 Delta R.T. -0.02 min
 Lab File: VL035601.D
 Acq: 14 Sep 2020 16:36

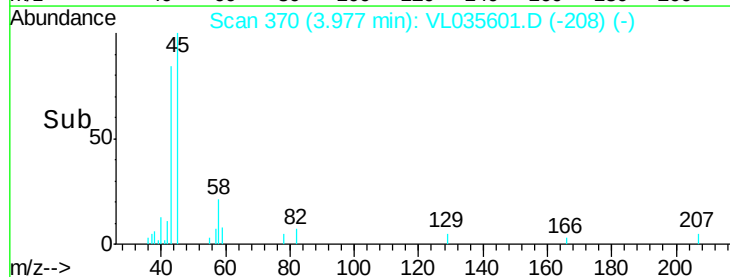
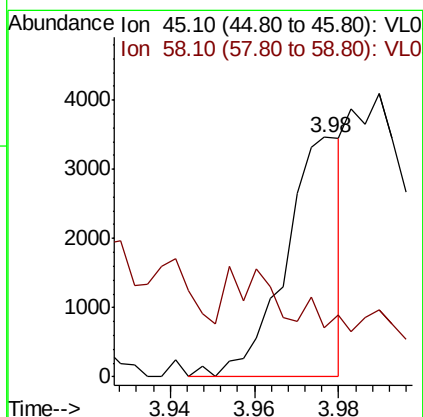
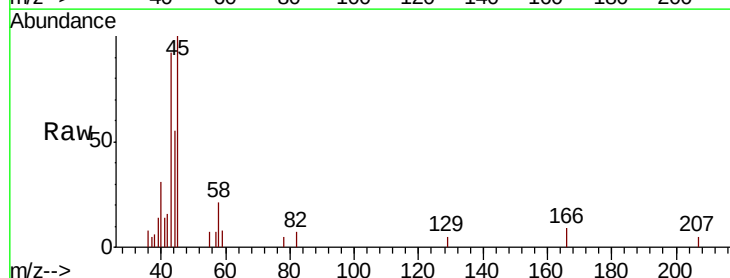
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-10DL

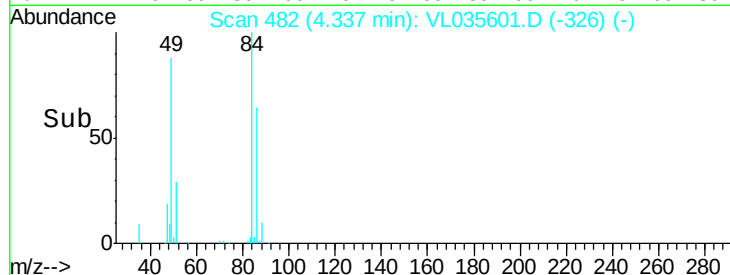
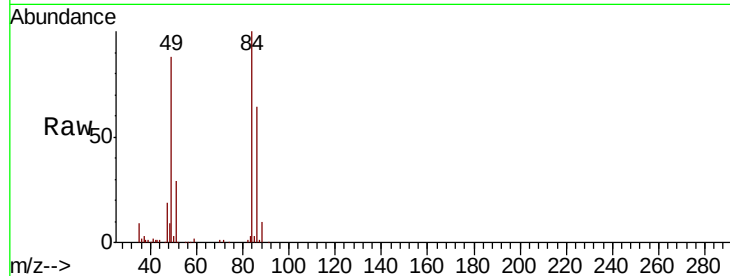
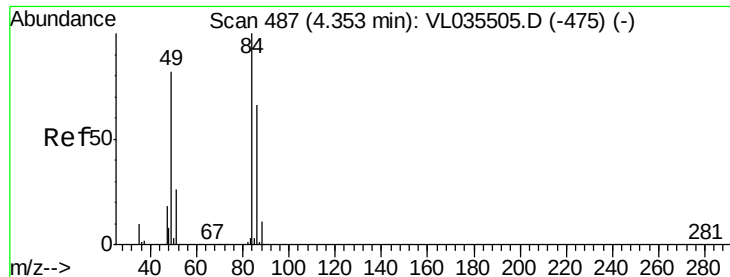
Tot Ion: 39 Resp: 64483
 Ion Ratio Lower Upper
 39 100
 54 9.3 88.4 132.6#



#19
 Isopropyl Alcohol
 Concen: 0.042 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. 0.02 min
 Lab File: VL035601.D
 Acq: 14 Sep 2020 16:36

Tgt Ion: 45 Resp: 3192
 Ion Ratio Lower Upper
 45 100
 58 0.0 2.0 3.0#





#20

Methylene Chloride

Concen: 2.519 ppbv

RT: 4.34 min Scan# 482

Delta R.T. 0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

Tot Ion: 84 Resp: 236497

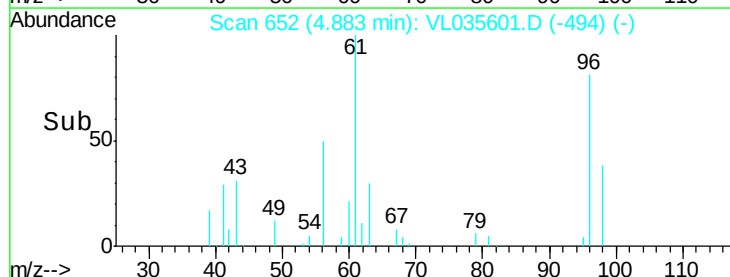
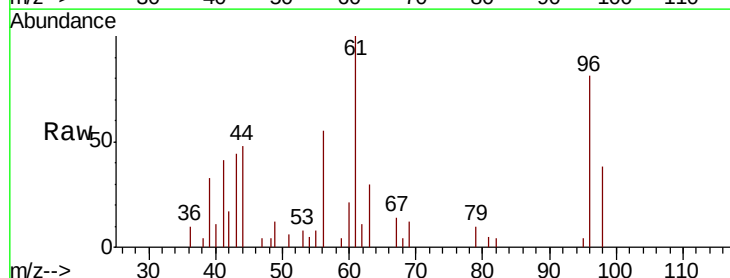
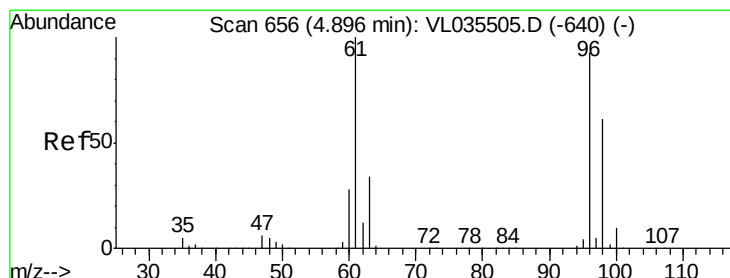
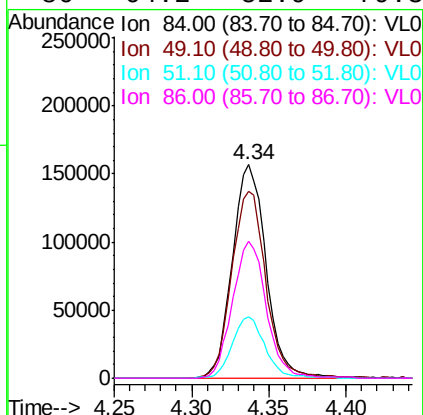
Ion Ratio Lower Upper

84 100

49 87.8 65.4 98.0

51 28.7 21.5 32.3

86 64.2 52.9 79.3



#22

trans-1,2-Dichloroethene

Concen: 0.047 ppbv

RT: 4.88 min Scan# 652

Delta R.T. 0.01 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

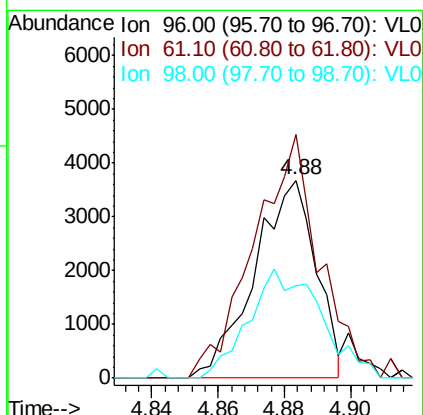
Tgt Ion: 96 Resp: 4774

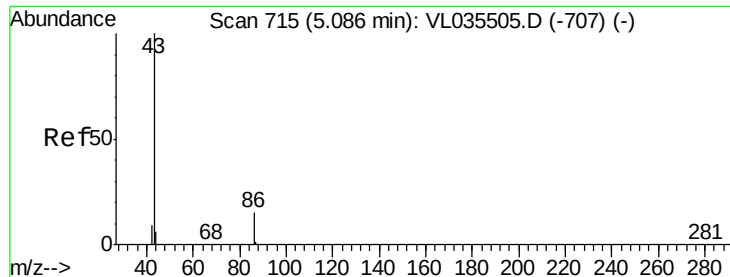
Ion Ratio Lower Upper

96 100

61 123.0 86.0 129.0

98 46.8 52.3 78.5#





#23

Vinyl Acetate

Concen: 0.487 ppbv

RT: 5.05 min Scan# 705

Delta R.T. -0.02 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampled :

SV-10DL

Tot Ion: 43 Resp: 78860

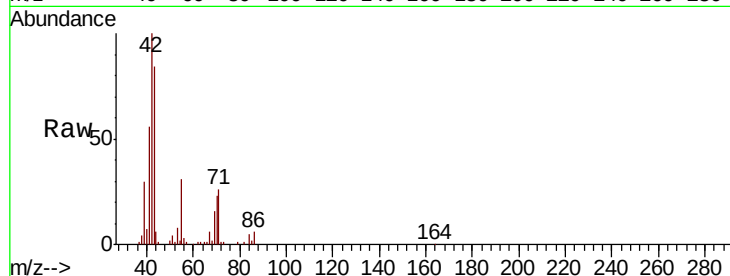
Ion Ratio Lower Upper

43 100

86 7.3 10.6 16.0#

42 119.2 7.5 11.3#

44 4.0 4.4 6.6#

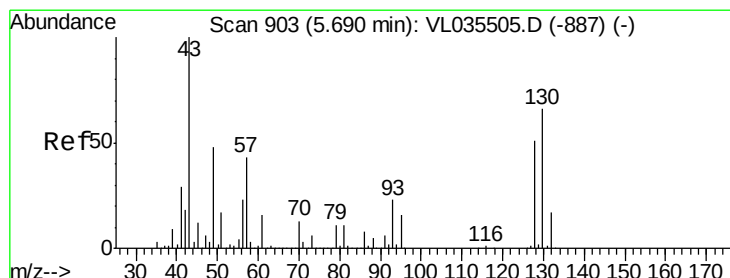
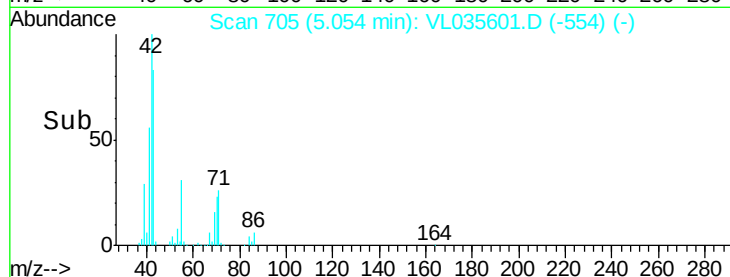
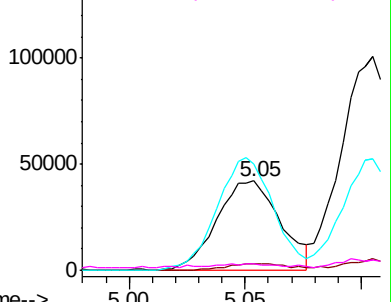


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.580 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.01 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Tgt Ion: 43 Resp: 129061

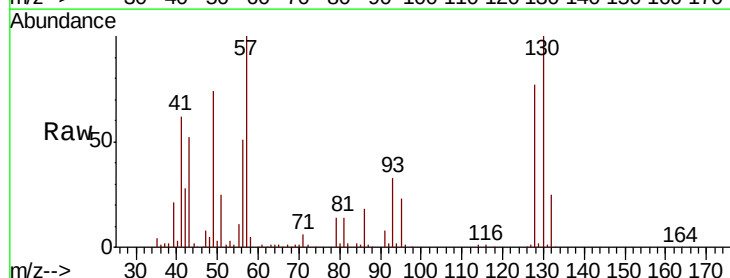
Ion Ratio Lower Upper

43 100

45 0.5 8.4 12.6#

61 0.0 10.6 16.0#

70 2.8 9.4 14.2#

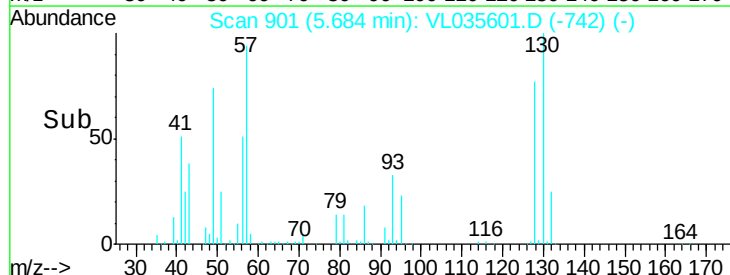
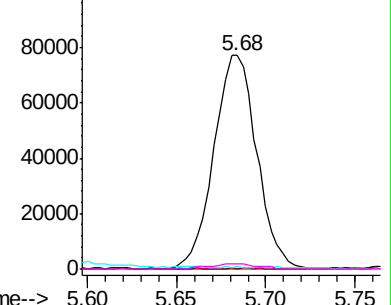


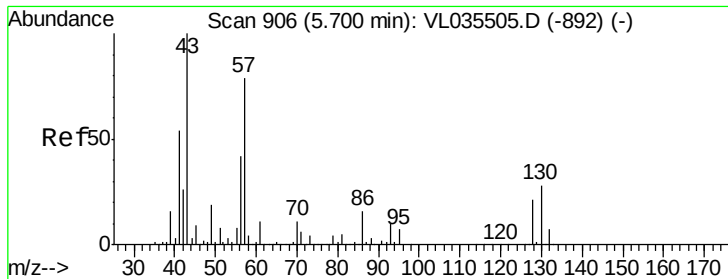
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.906 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

Tot Ion: 57 Resp: 240515

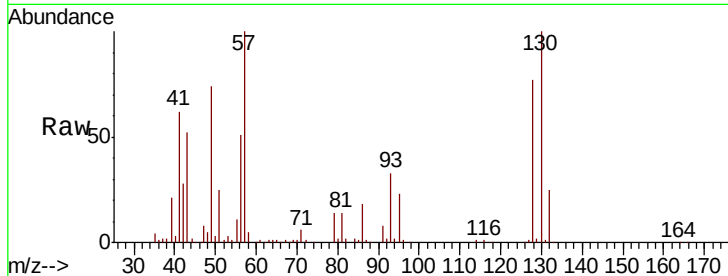
Ion Ratio Lower Upper

57 100

41 68.9 55.9 83.9

43 54.2 141.8 212.8#

56 52.8 41.8 62.8

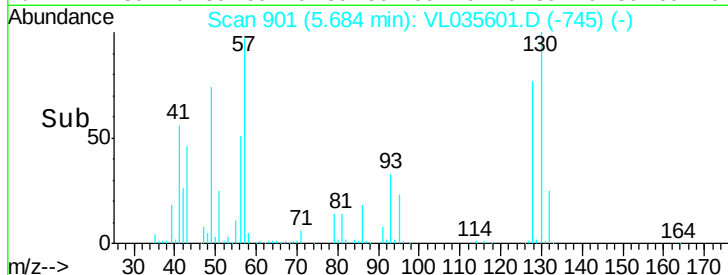


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



Abundance

5.68

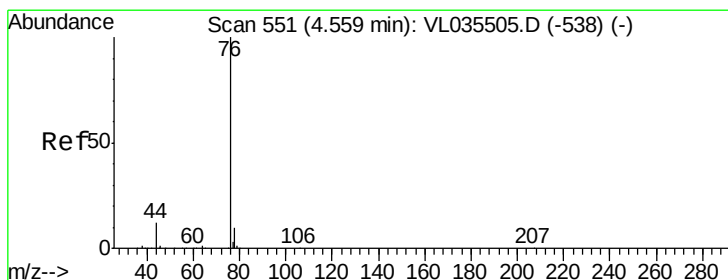
150000

100000

50000

0

Time-->



#27

Carbon Disulfide

Concen: 0.131 ppbv

RT: 4.55 min Scan# 547

Delta R.T. 0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

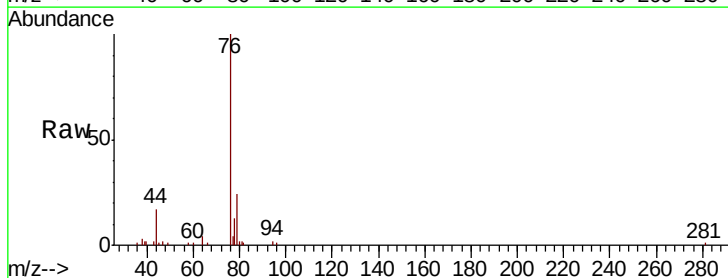
Tgt Ion: 76 Resp: 23781

Ion Ratio Lower Upper

76 100

44 9.1 9.3 13.9#

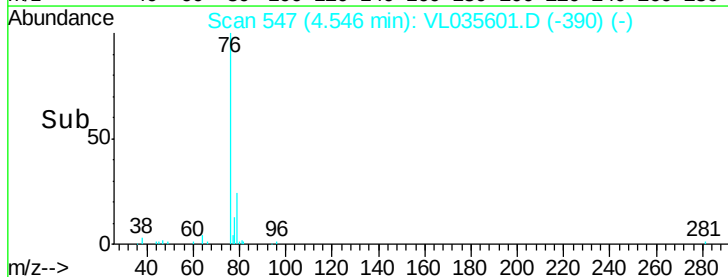
78 13.9 7.8 11.6#



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



Abundance

4.55

20000

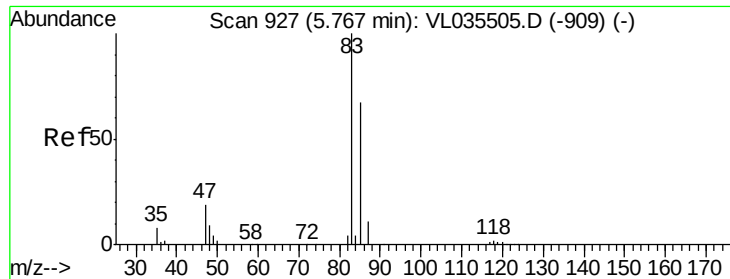
15000

10000

5000

0

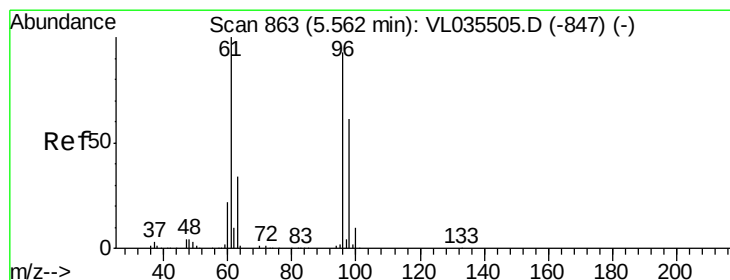
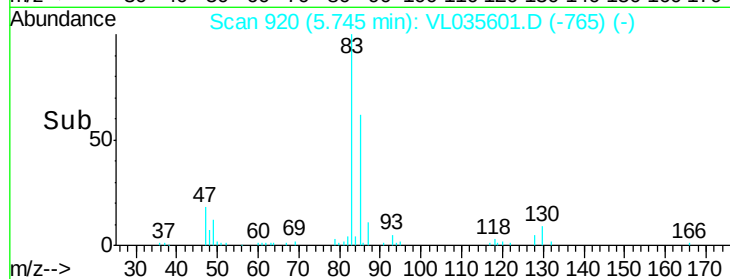
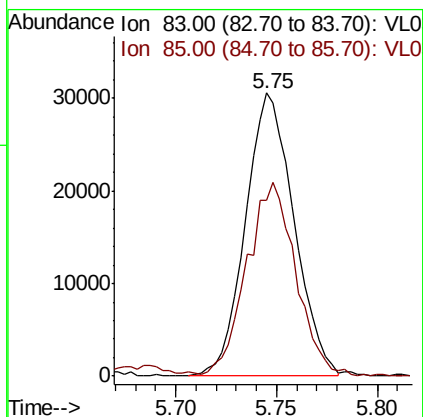
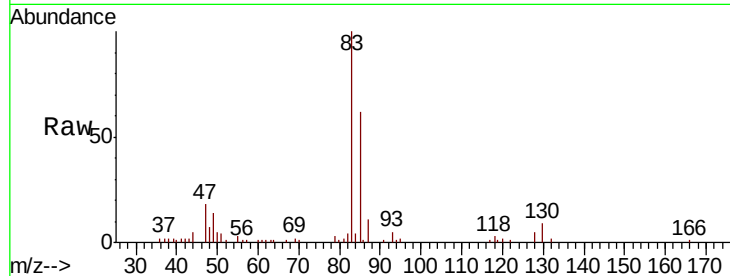
Time-->



#29
Chloroform
Concen: 0.200 ppbv
RT: 5.75 min Scan# 920
Delta R.T. -0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

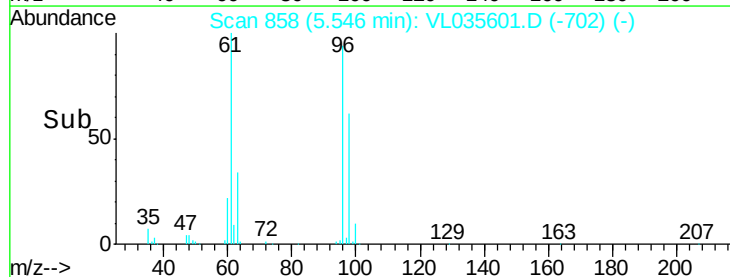
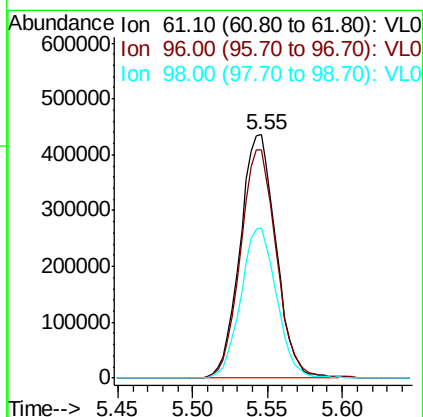
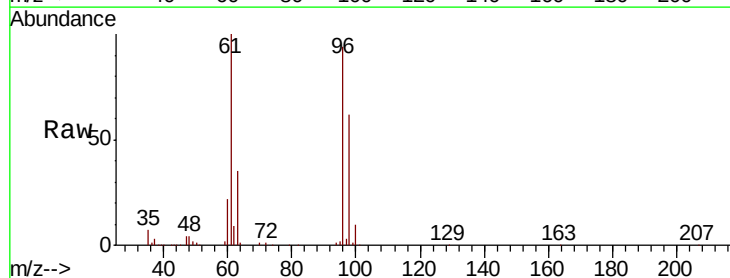
Instrument :
MSVOA_L
ClientSampleId :
SV-10DL

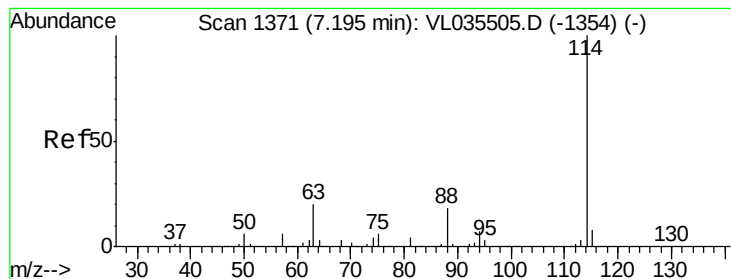
Tot Ion: 83 Resp: 51434
Ion Ratio Lower Upper
83 100
85 60.8 53.9 80.9



#31
cis-1,2-Dichloroethene
Concen: 5.645 ppbv
RT: 5.55 min Scan# 858
Delta R.T. 0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Tgt Ion: 61 Resp: 730709
Ion Ratio Lower Upper
61 100
96 93.7 74.4 111.6
98 61.9 49.2 73.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

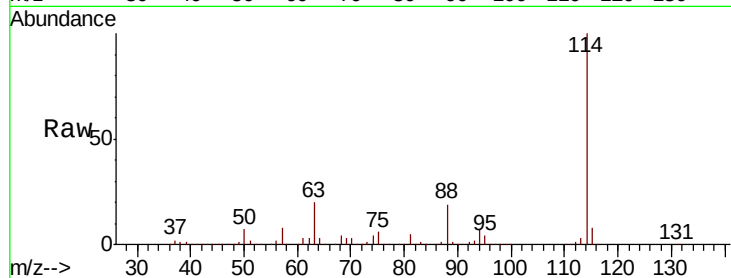
Tot Ion:114 Resp: 4798596

Ion Ratio Lower Upper

114 100

63 18.8 14.7 22.1

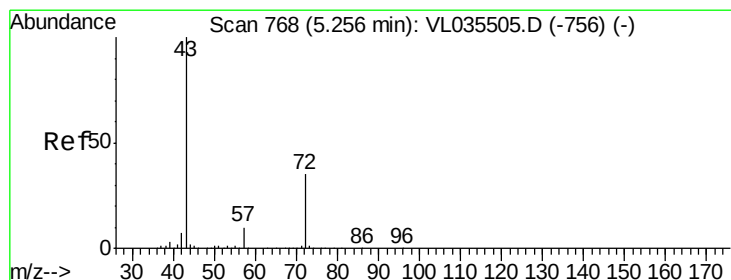
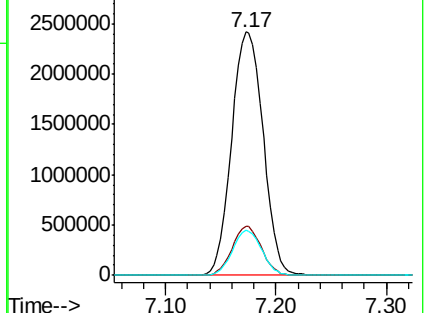
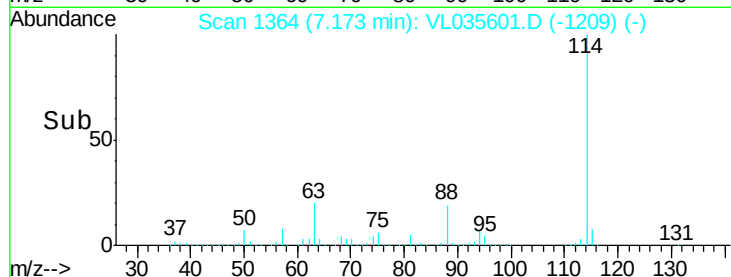
88 17.2 13.4 20.2



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: 1.054 ppbv

RT: 5.25 min Scan# 767

Delta R.T. 0.01 min

Lab File: VL035601.D

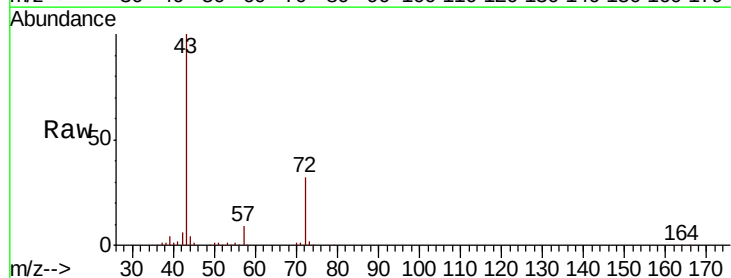
Acq: 14 Sep 2020 16:36

Tgt Ion: 43 Resp: 150050

Ion Ratio Lower Upper

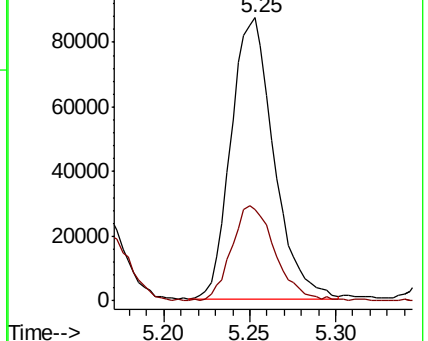
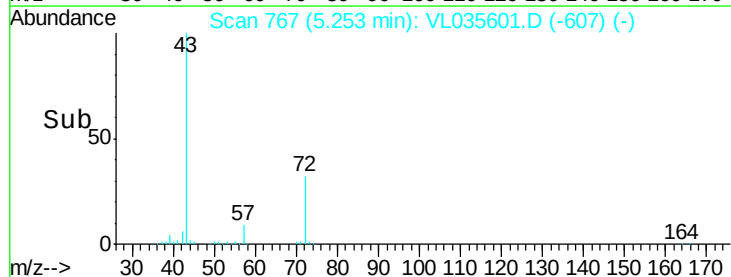
43 100

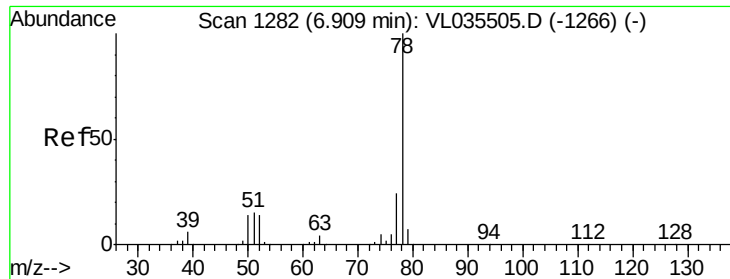
72 34.9 27.7 41.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

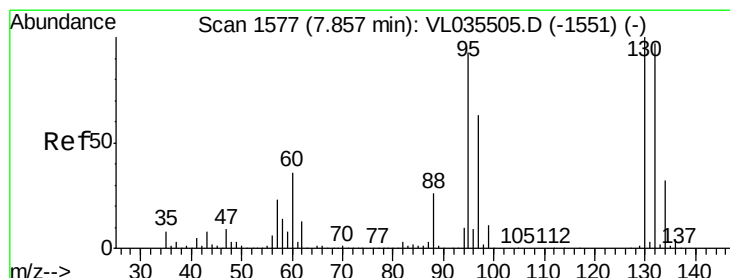
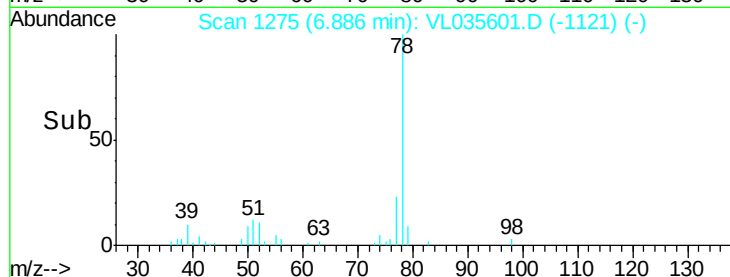
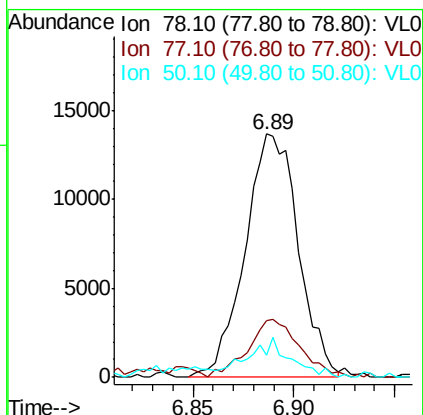
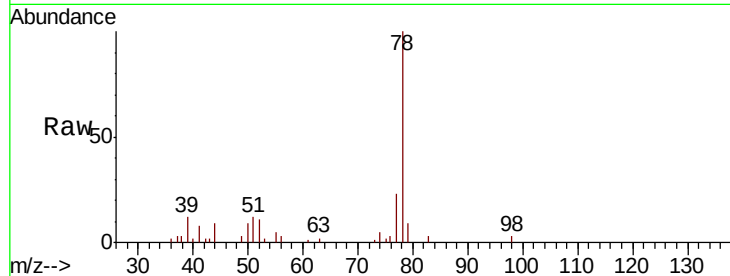




#36
Benzene
Concen: 0.081 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.01 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

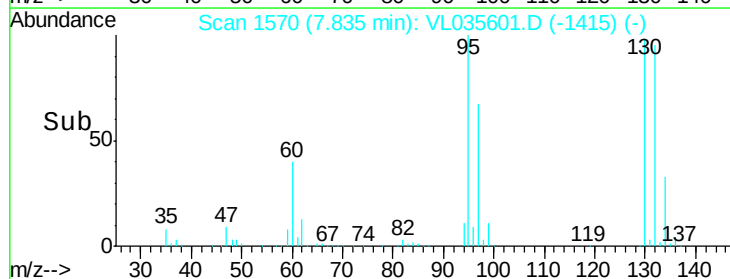
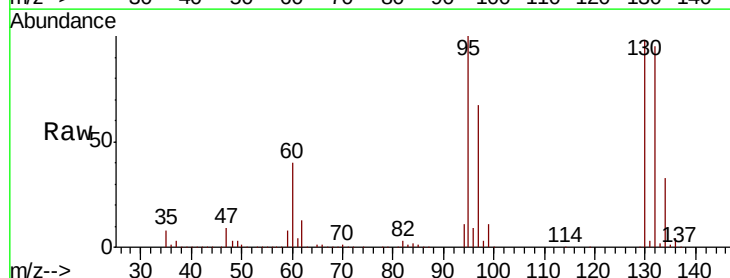
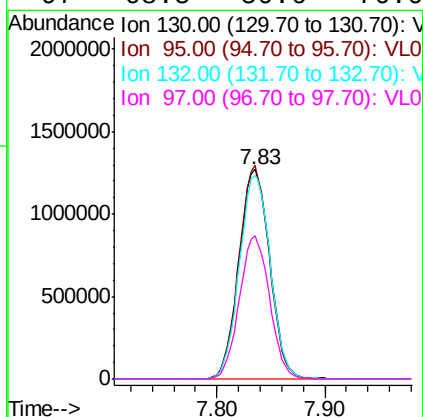
Instrument :
MSVOA_L
ClientSampleId :
SV-10DL

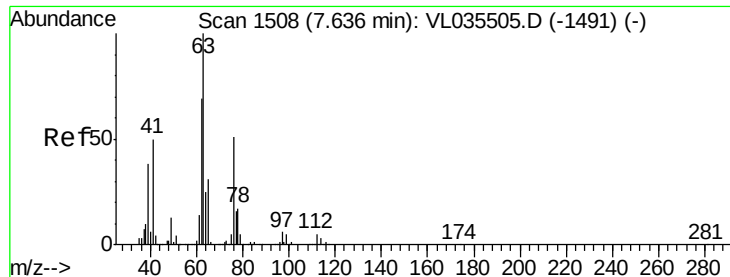
Tot Ion: 78 Resp: 25224
Ion Ratio Lower Upper
78 100
77 21.3 19.3 28.9
50 9.3 11.0 16.6#



#38
Trichloroethene
Concen: 14.037 ppbv
RT: 7.83 min Scan# 1570
Delta R.T. -0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Tgt Ion: 130 Resp: 2532759
Ion Ratio Lower Upper
130 100
95 102.0 74.6 112.0
132 97.0 77.6 116.4
97 68.5 50.6 76.0





#39

1,2-Dichloropropane

Concen: 8.545 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.44 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

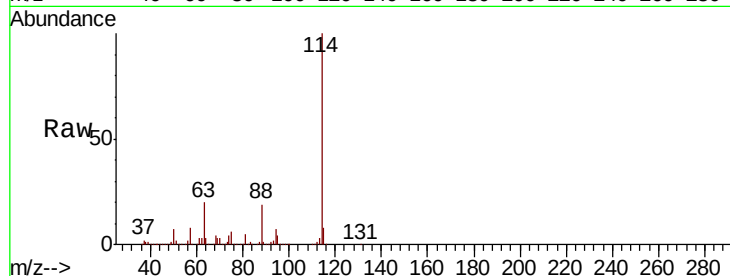
Tot Ion: 63 Resp: 896680

Ion Ratio Lower Upper

63 100

41 0.3 40.0 60.0#

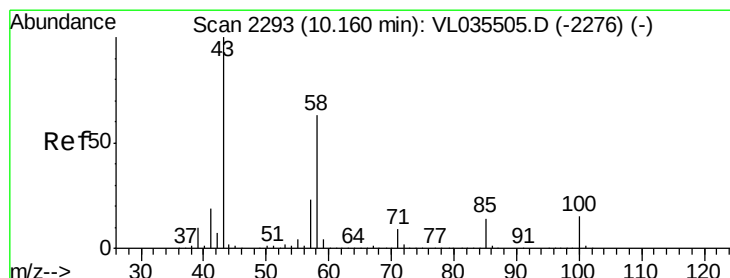
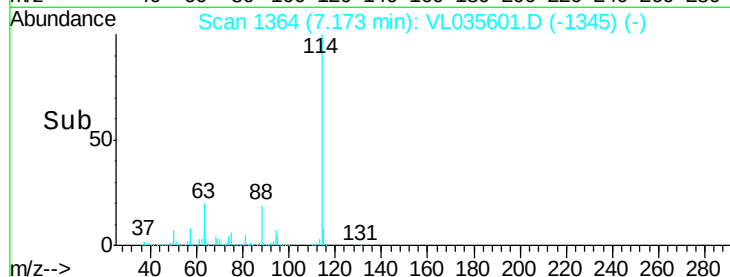
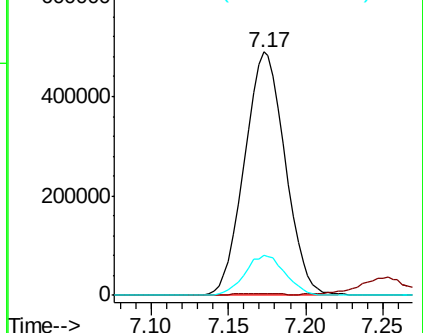
62 16.7 55.4 83.0#



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



#51

2-Hexanone

Concen: 0.041 ppbv

RT: 10.13 min Scan# 2283

Delta R.T. -0.01 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

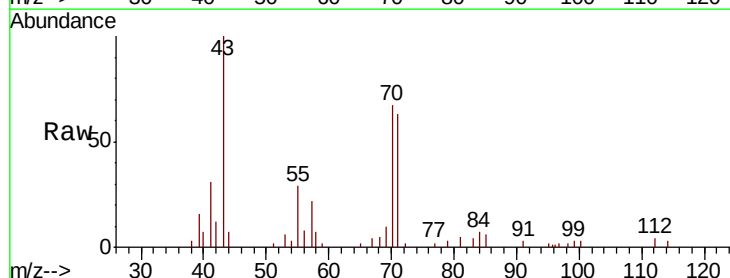
Tgt Ion: 43 Resp: 6853

Ion Ratio Lower Upper

43 100

58 0.0 50.2 75.4#

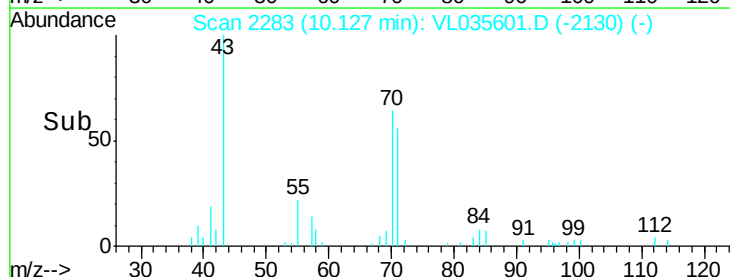
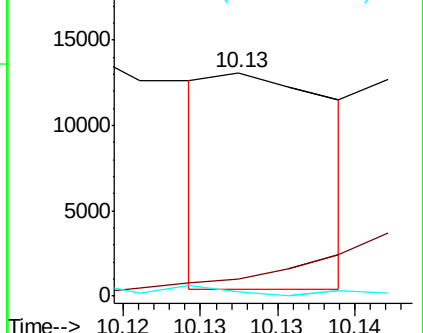
98 0.0 0.4 0.6#

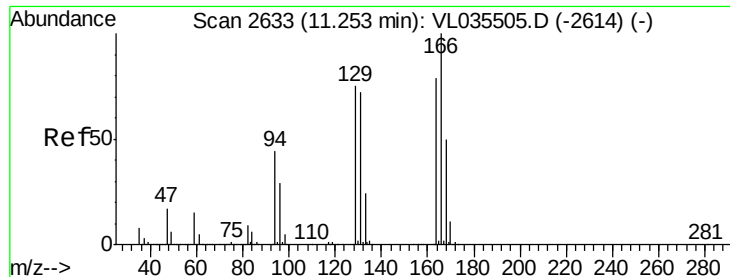


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 28.054 ppbv

RT: 11.23 min Scan# 2626

Delta R.T. 0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

Tot Ion:164 Resp: 5090756

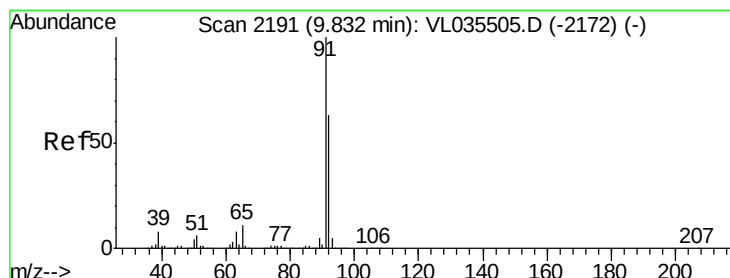
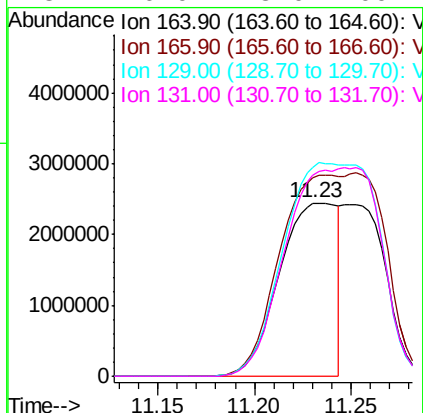
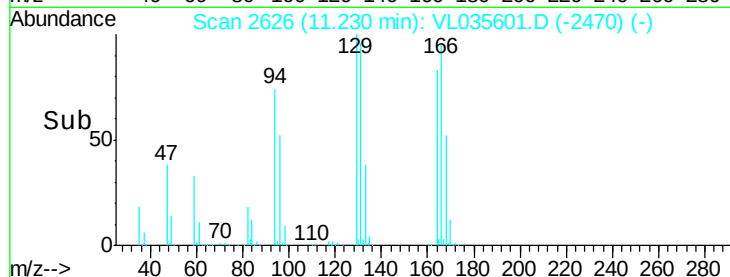
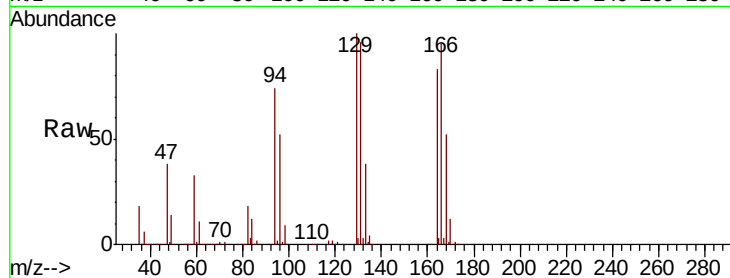
Ion Ratio Lower Upper

164 100

166 114.3 100.9 151.3

129 120.7 75.3 112.9#

131 116.0 73.0 109.4#



#53

Toluene

Concen: 1.511 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL035601.D

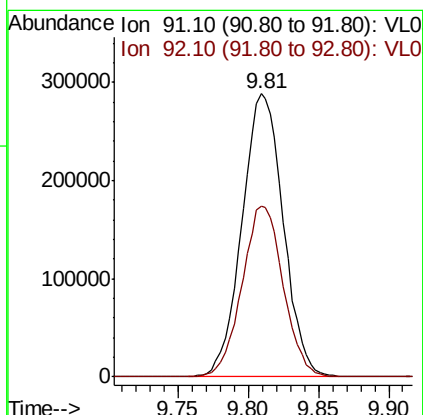
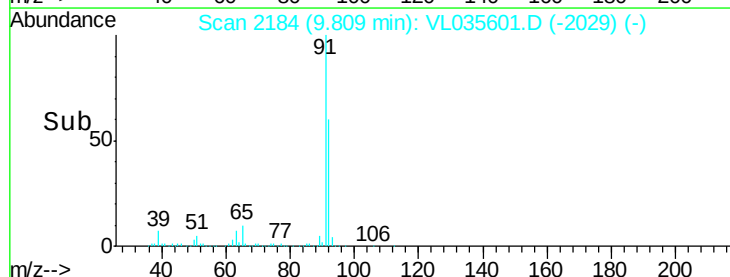
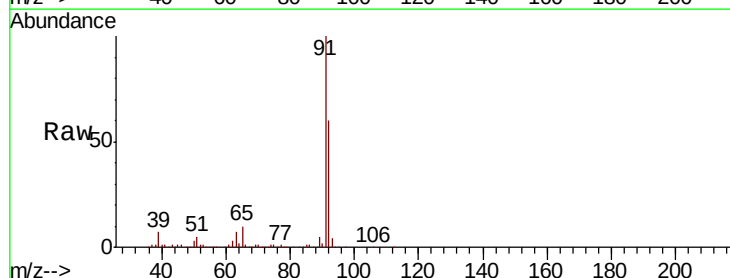
Acq: 14 Sep 2020 16:36

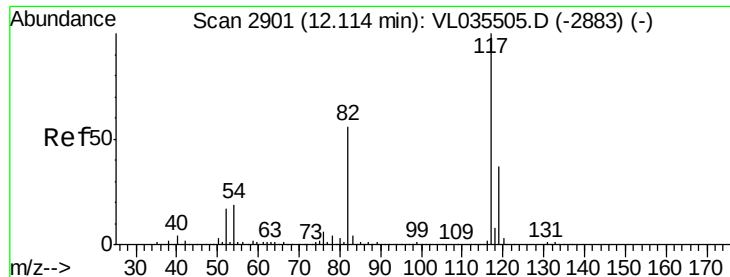
Tgt Ion: 91 Resp: 590360

Ion Ratio Lower Upper

91 100

92 60.4 49.8 74.8

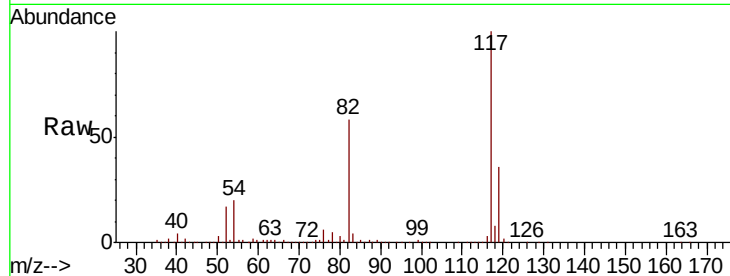




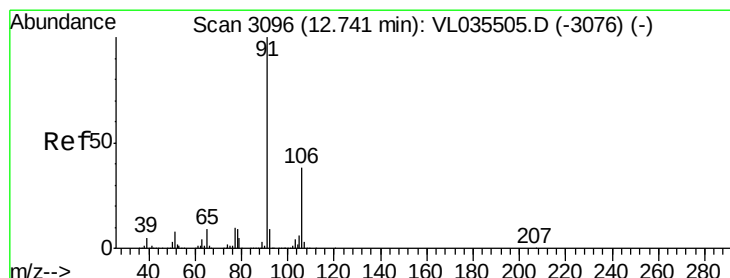
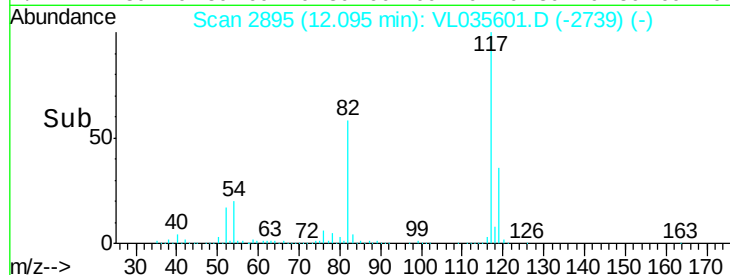
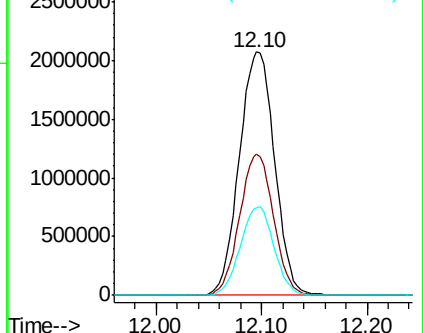
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2895
Delta R.T. 0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Instrument :
MSVOA_L
ClientSampleId :
SV-10DL

Tot Ion:117 Resp: 4829814
Ion Ratio Lower Upper
117 100
82 55.8 41.6 62.4
119 35.0 29.3 43.9

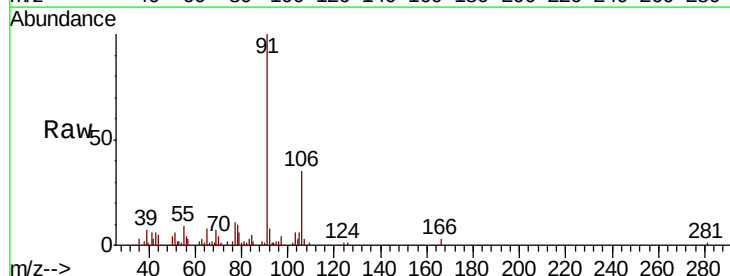


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

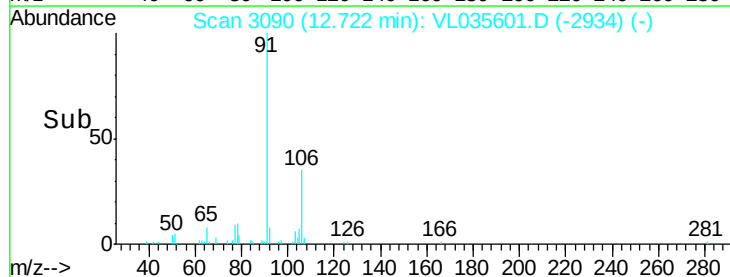
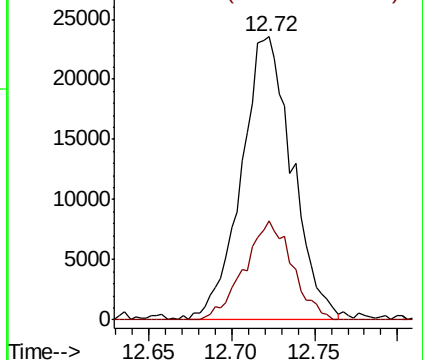


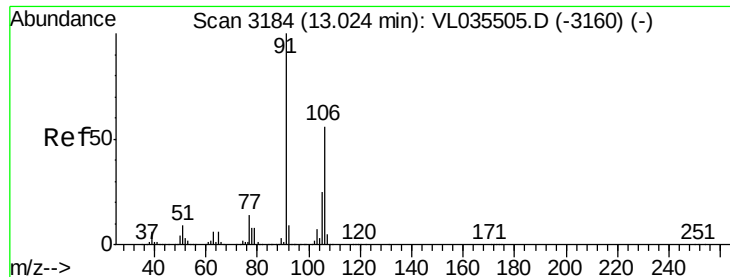
#58
Ethyl Benzene
Concen: 0.101 ppbv
RT: 12.72 min Scan# 3090
Delta R.T. 0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Tgt Ion: 91 Resp: 50152
Ion Ratio Lower Upper
91 100
106 34.8 30.3 45.5



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V

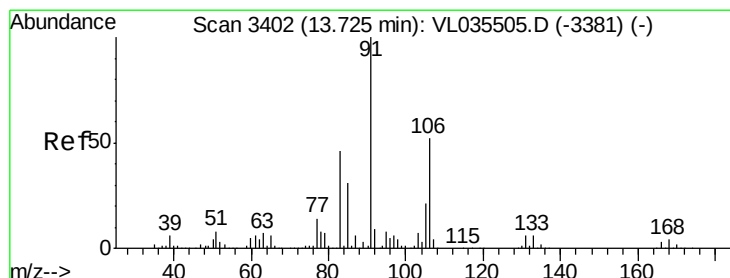
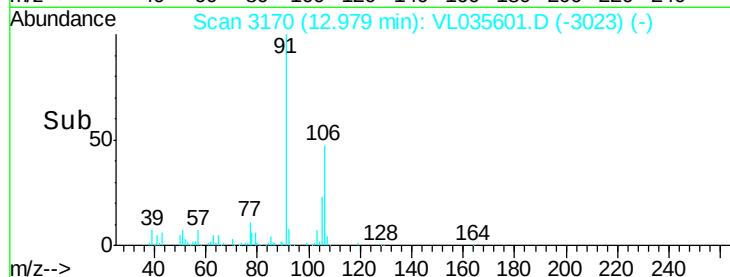
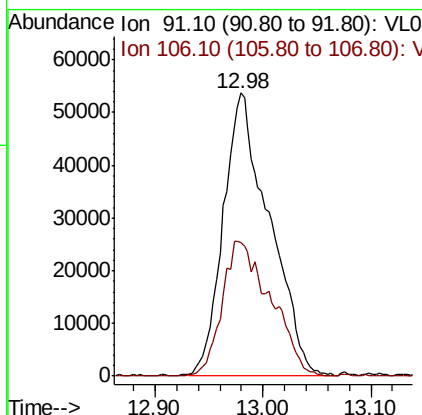
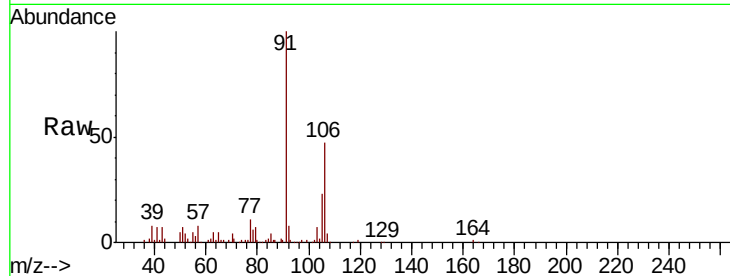




#59
m/p-Xylene
Concen: 0.381 ppbv
RT: 12.98 min Scan# 3170
Delta R.T. -0.03 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

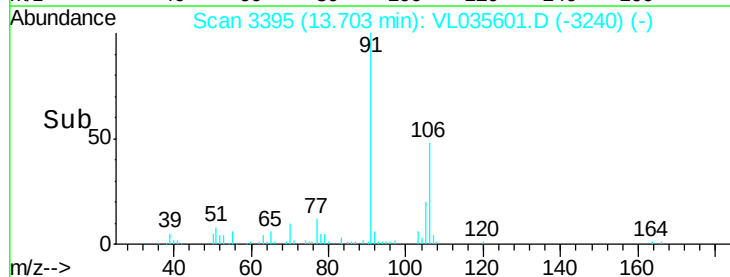
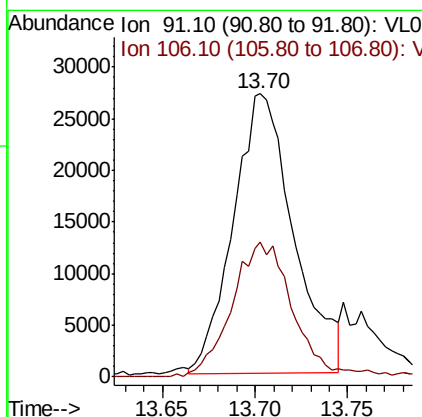
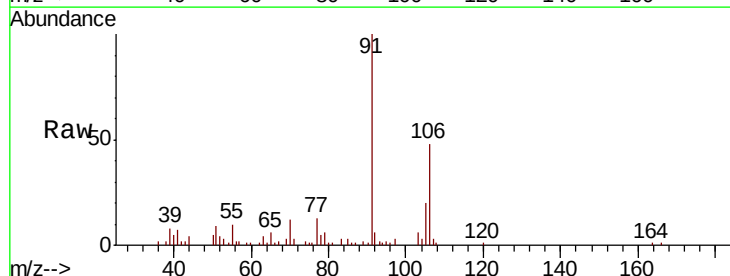
Instrument :
MSVOA_L
ClientSampleId :
SV-10DL

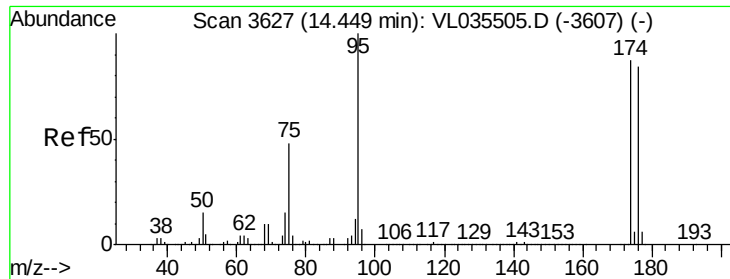
Tot Ion: 91 Resp: 158762
Ion Ratio Lower Upper
91 100
106 50.5 43.4 65.2



#60
o-Xylene
Concen: 0.147 ppbv
RT: 13.70 min Scan# 3395
Delta R.T. -0.00 min
Lab File: VL035601.D
Acq: 14 Sep 2020 16:36

Tgt Ion: 91 Resp: 61502
Ion Ratio Lower Upper
91 100
106 48.9 25.8 77.4

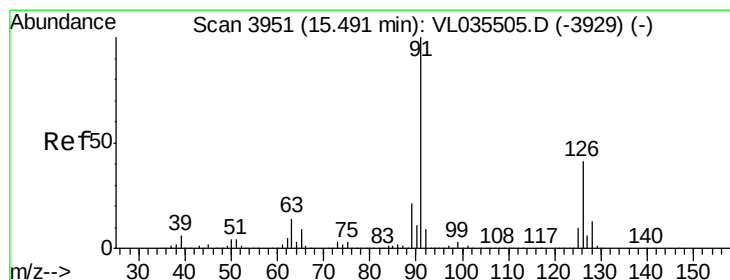
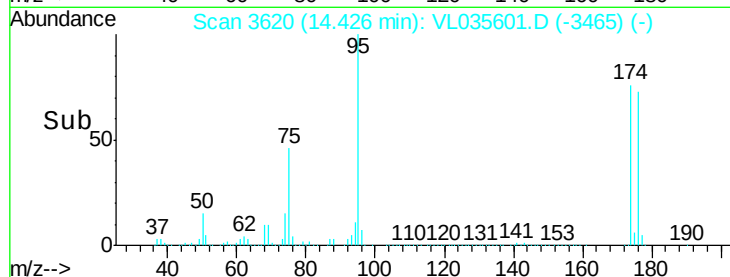
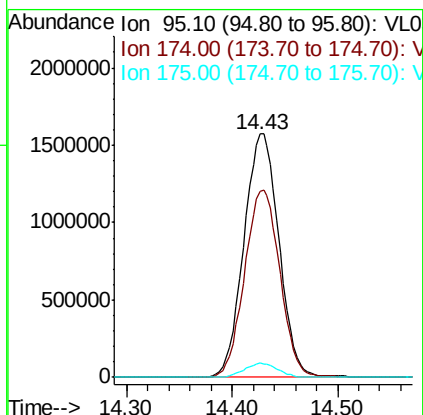
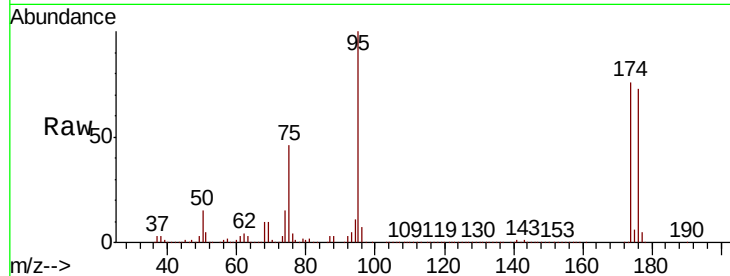




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.612 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. -0.00 min
 Lab File: VL035601.D
 Acq: 14 Sep 2020 16:36

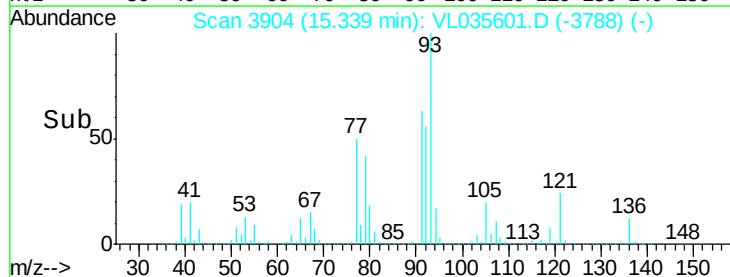
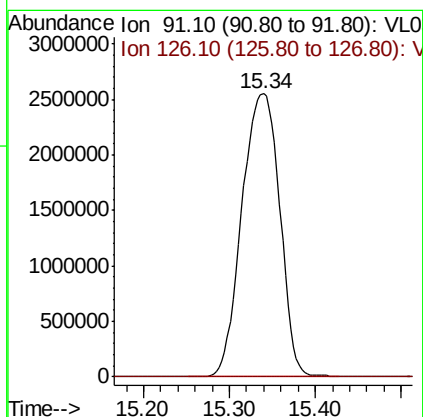
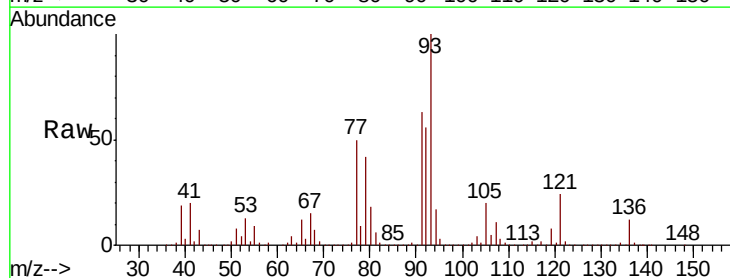
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-10DL

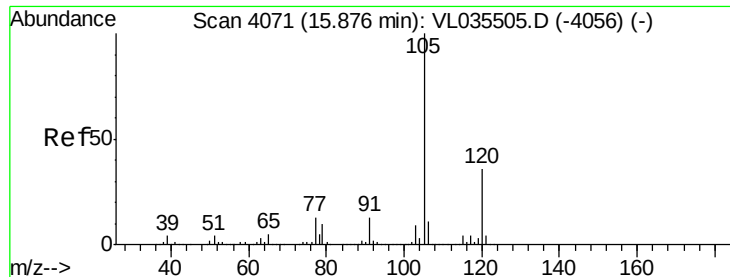
Tot Ion: 95 Resp: 3639708
 Ion Ratio Lower Upper
 95 100
 174 78.2 69.6 104.4
 175 5.7 5.1 7.7



#71
 2-Chlorotoluene
 Concen: 15.949 ppbv
 RT: 15.34 min Scan# 3904
 Delta R.T. -0.13 min
 Lab File: VL035601.D
 Acq: 14 Sep 2020 16:36

Tgt Ion: 91 Resp: 7819964
 Ion Ratio Lower Upper
 91 100
 126 0.0 15.6 62.6#





#72

4-Ethyltoluene

Concen: 0.041 ppbv

RT: 15.85 min Scan# 4064

Delta R.T. 0.00 min

Lab File: VL035601.D

Acq: 14 Sep 2020 16:36

Instrument :

MSVOA_L

ClientSampleId :

SV-10DL

Tot Ion:105 Resp: 21956

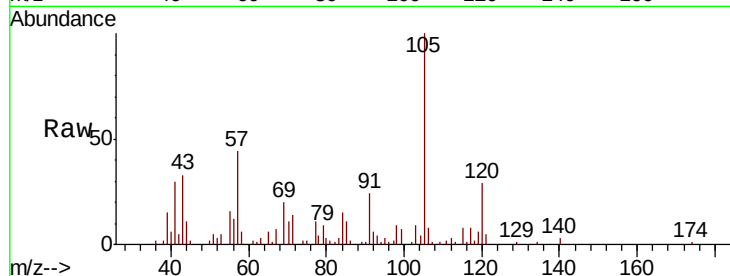
Ion Ratio Lower Upper

105 100

120 0.0 27.4 41.2#

91 0.0 9.7 14.5#

77 0.0 9.6 14.4#



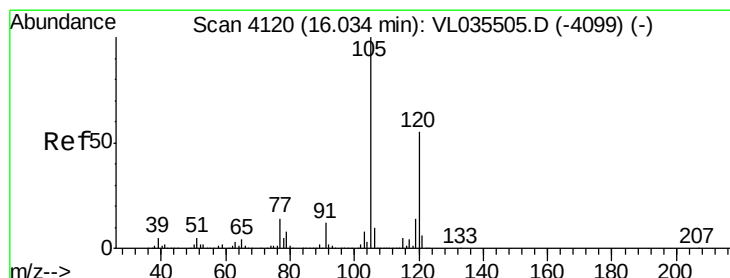
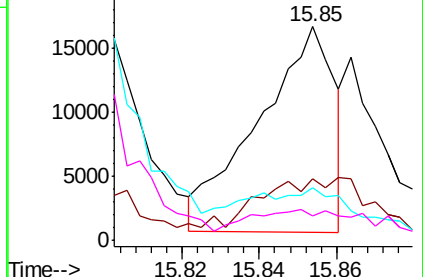
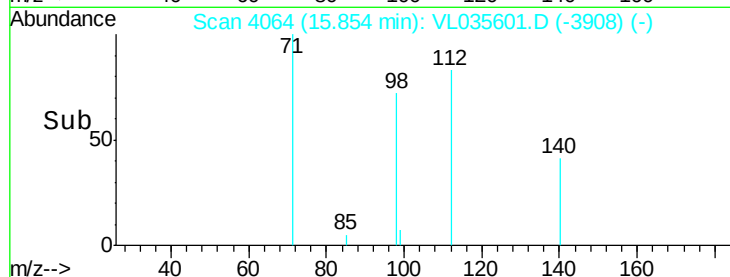
Abundance Ion 105.10 (104.80 to 105.80): V

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

Time-->



#73

1,3,5-Trimethylbenzene

Concen: 0.040 ppbv

RT: 16.01 min Scan# 4113

Delta R.T. -0.00 min

Lab File: VL035601.D

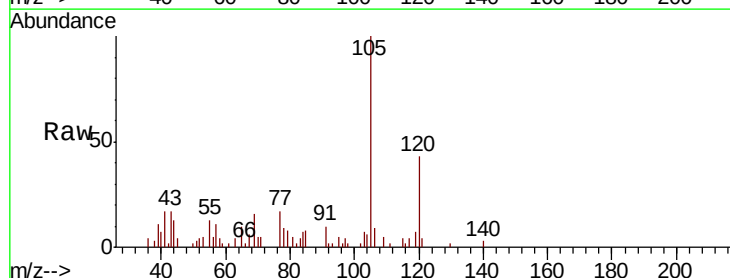
Acq: 14 Sep 2020 16:36

Tgt Ion:105 Resp: 19892

Ion Ratio Lower Upper

105 100

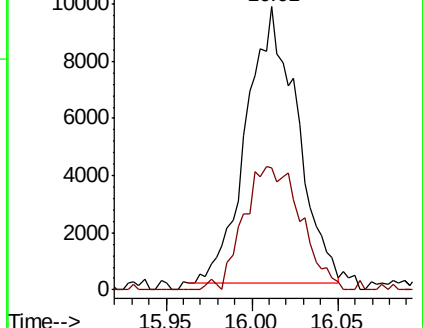
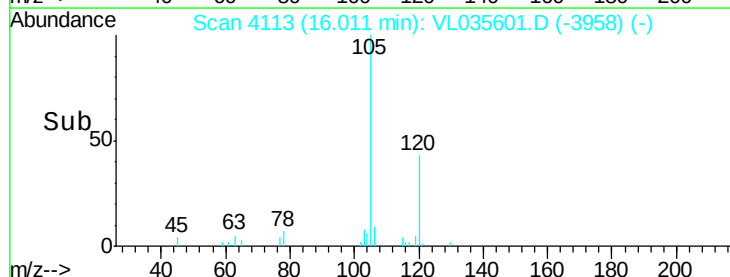
120 44.1 44.2 66.2#

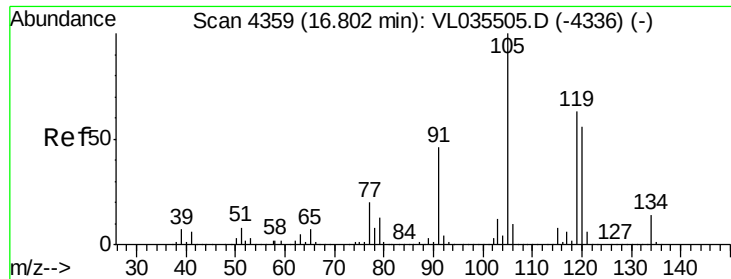


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Time-->





#74
 1,2,4-Trimethylbenzene
 Concen: 0.145 ppbv
 RT: 16.78 min Scan# 4351
 Delta R.T. -0.00 min
 Lab File: VL035601.D
 Acq: 14 Sep 2020 16:36

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-10DL

Tot Ion:	105	Resp:	78284
Ion Ratio	Lower	Upper	
105	100		
120	41.1	44.4	66.6#
91	10.2	37.1	55.7#
77	10.9	16.0	24.0#

