

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040621\
 Data File : VL036716.D
 Acq On : 7 Apr 2021 3:02
 Operator : SY/AP
 Sample : M1929-05
 Misc : 400mL/MSVOA L
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 FS-OA-04

Quant Time: Apr 07 04:30:51 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1227774	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2961577	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2620899	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2024946	9.69	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.90%

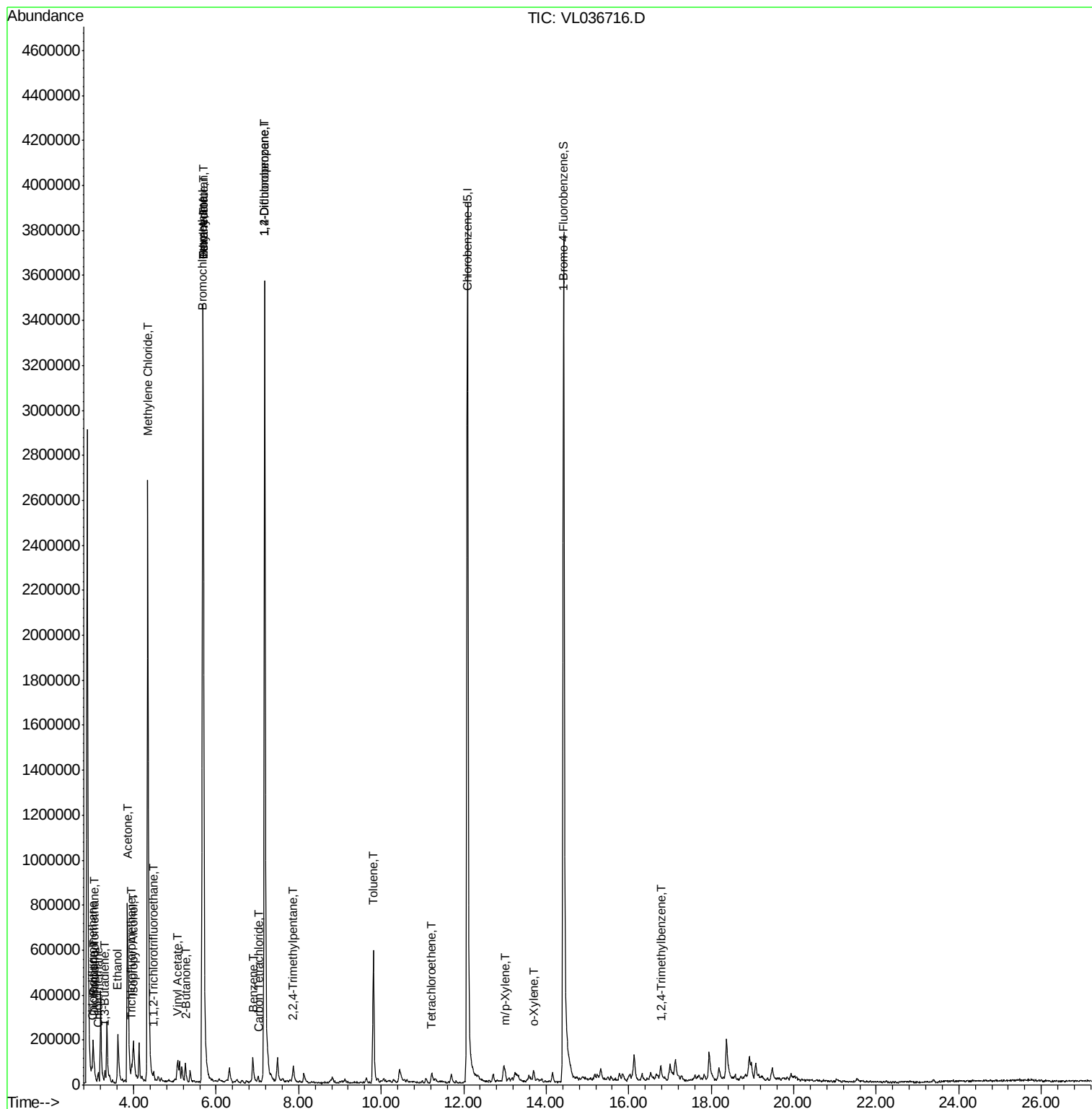
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	46791	0.234	ppbv 98
3) Chlorodifluoromethane	2.99	51	83237	0.363	ppbv # 86
4) Chloromethane	3.14	50	41149	0.508	ppbv 98
9) Propene	3.02	41	29171	0.399	ppbv # 41
11) Trichlorofluoromethane	3.95	101	39720	0.195	ppbv 84
12) 1,1,2-Trichlorotrifluoroet	4.48	101	6568	0.050	ppbv # 11
13) Ethanol	3.62	45	294887	33.862	ppbv 93
15) Acetone	3.85	43	1030701	8.529	ppbv 97
16) 1,3-Butadiene	3.31	39	6831	0.081	ppbv # 13
19) Isopropyl Alcohol	4.00	45	129262	1.945	ppbv # 89
20) Methylene Chloride	4.34	84	1047285	18.510	ppbv 96
23) Vinyl Acetate	5.07	43	88362	0.427	ppbv # 95
25) Ethyl Acetate	5.68	43	791365	2.755	ppbv # 78
26) Hexane	5.69	57	1087983	8.161	ppbv # 47
34) 2-Butanone	5.25	43	47865	0.331	ppbv # 40
35) Carbon Tetrachloride	7.02	117	7806	0.034	ppbv # 77
36) Benzene	6.89	78	80352	0.294	ppbv 95
39) 1,2-Dichloropropane	7.18	63	774923	6.994	ppbv # 23
41) Tetrahydrofuran	5.69	42	446954	6.705	ppbv # 54
44) 2,2,4-Trimethylpentane	7.87	57	32672	0.068	ppbv # 13
52) Tetrachloroethene	11.22	164	4370	0.043	ppbv # 62
53) Toluene	9.81	91	457847	1.574	ppbv 96
59) m/p-Xylene	13.01	91	14299	0.043	ppbv # 32
60) o-Xylene	13.70	91	36007	0.112	ppbv 98
74) 1,2,4-Trimethylbenzene	16.77	105	26844	0.076	ppbv # 60

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040621\  
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Acq On    : 7 Apr 2021 3:02  
Operator  : SY/AP  
Sample    : M1929-05  
Misc      : 400mL/MSVOA L  
ALS Vial  : 6 Sample Multiplier: 1
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Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

Quant Time: Apr 07 04:30:51 2021
Quant Method : Z:\VQASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

FS-OA-04

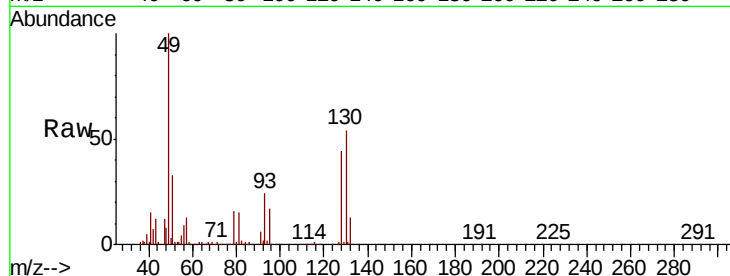
Tot Ion: 49 Resp: 1227774

Ion Ratio Lower Upper

49 100

128 46.3 23.5 70.6

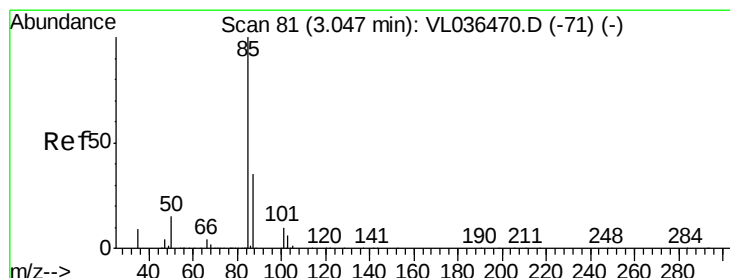
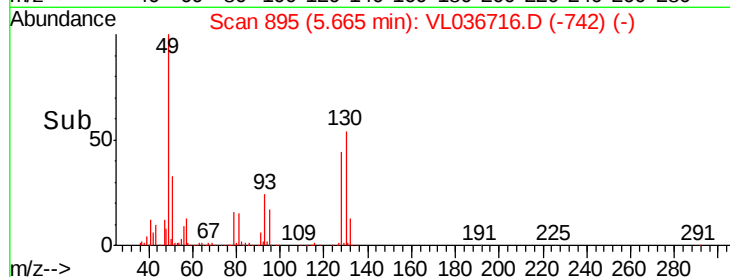
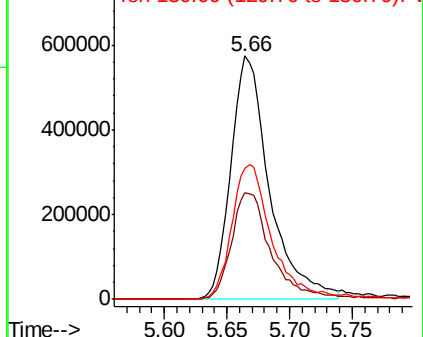
130 59.5 29.1 87.4



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: 0.234 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL036716.D

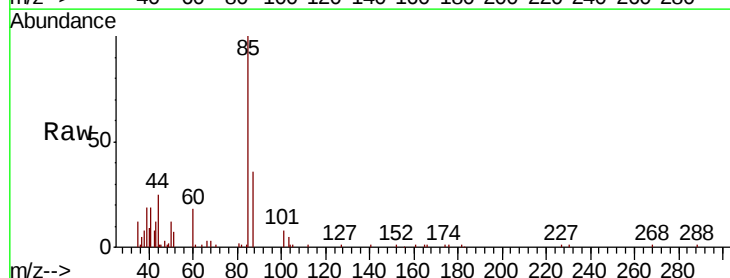
Acq: 7 Apr 2021 3:02

Tgt Ion: 85 Resp: 46791

Ion Ratio Lower Upper

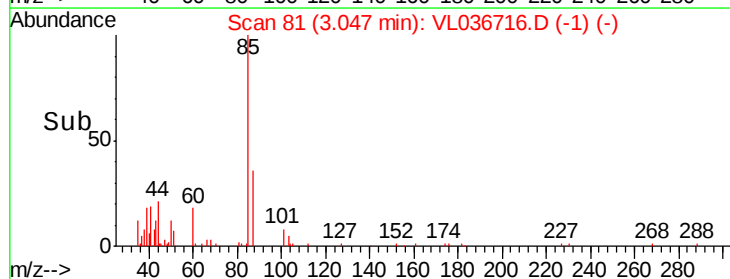
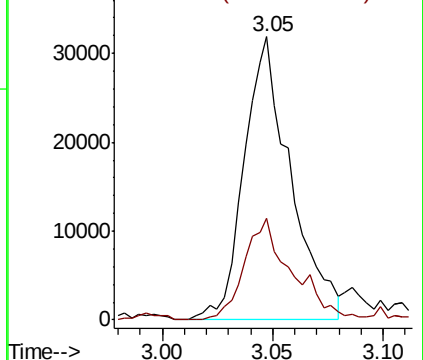
85 100

87 35.8 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

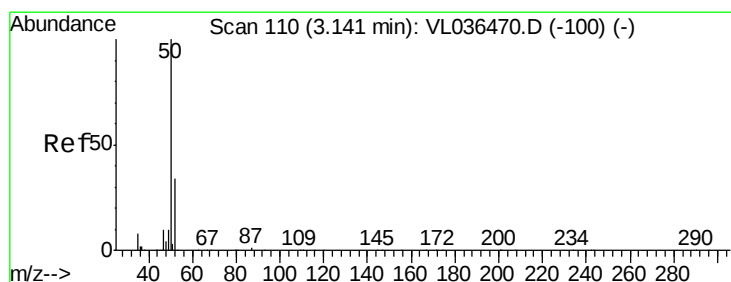
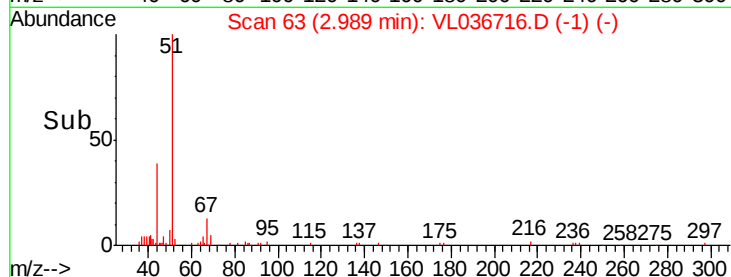
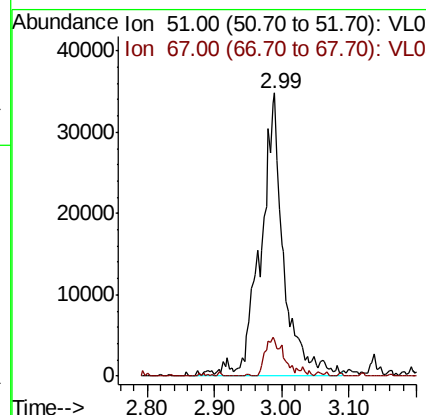
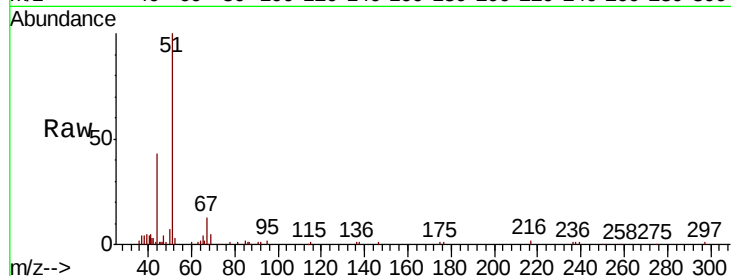




#3
Chlorodifluoromethane
Concen: 0.363 ppbv
RT: 2.99 min Scan# 63
Delta R.T. 0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

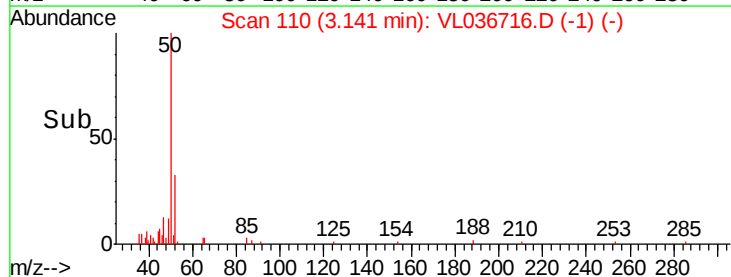
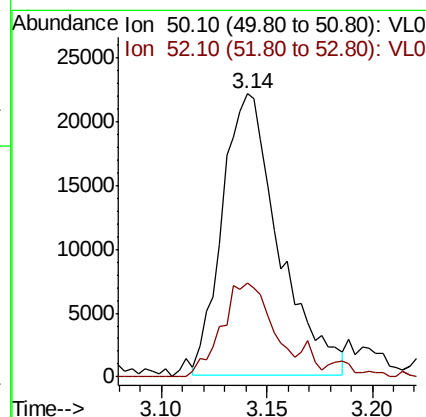
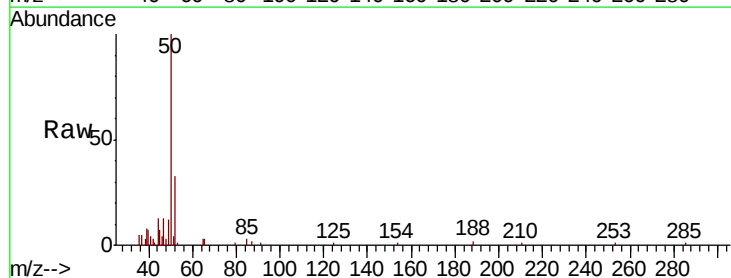
Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

Tot Ion: 51 Resp: 83237
Ion Ratio Lower Upper
51 100
67 12.1 14.7 22.1#



#4
Chloromethane
Concen: 0.508 ppbv
RT: 3.14 min Scan# 110
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion: 50 Resp: 41149
Ion Ratio Lower Upper
50 100
52 32.8 27.0 40.6





#9

Propene

Concen: 0.399 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.01 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

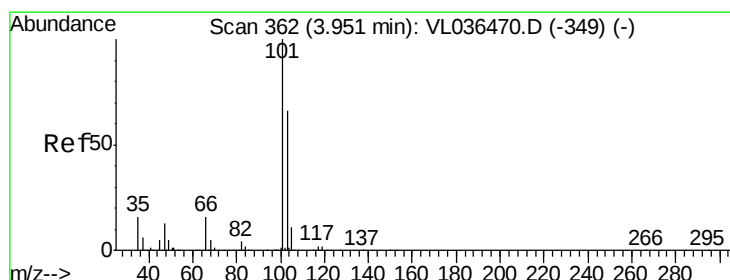
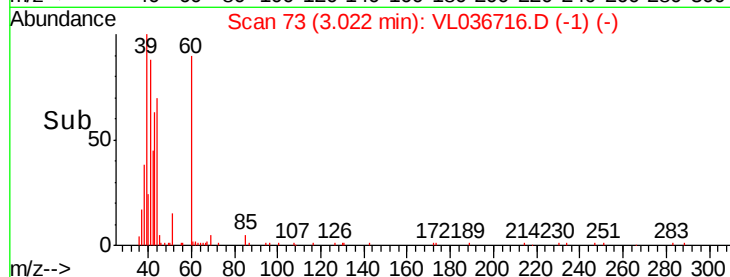
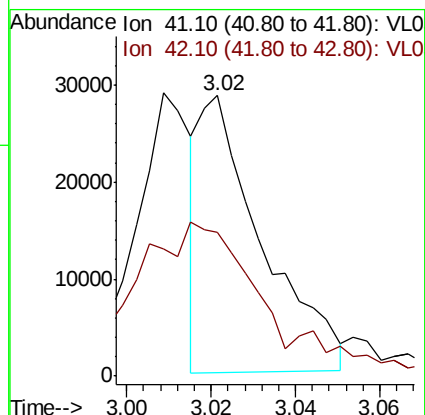
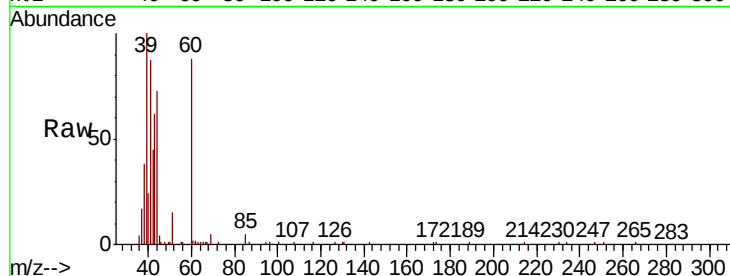
FS-OA-04

Tot Ion: 41 Resp: 29171

Ion Ratio Lower Upper

41 100

42 119.9 57.0 85.4#



#11

Trichlorofluoromethane

Concen: 0.195 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.00 min

Lab File: VL036716.D

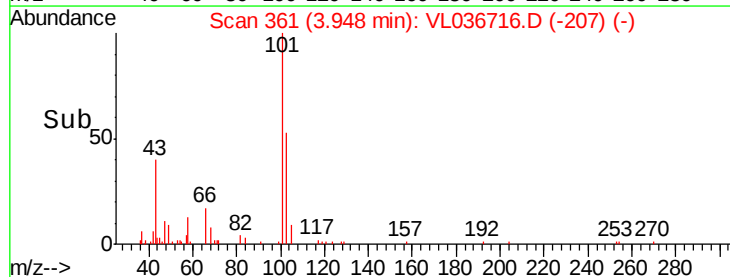
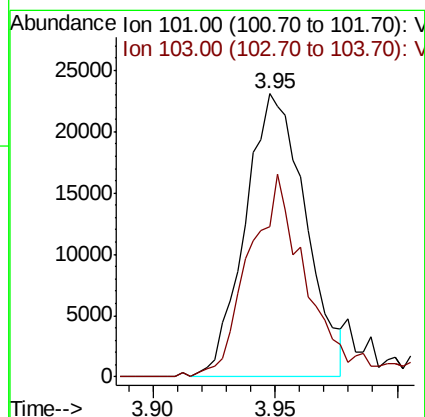
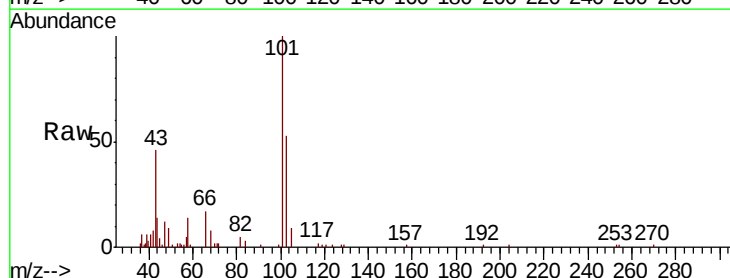
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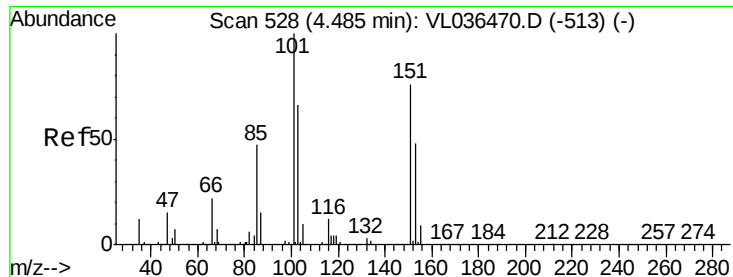
Tgt Ion: 101 Resp: 39720

Ion Ratio Lower Upper

101 100

103 52.9 52.5 78.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.050 ppbv

RT: 4.48 min Scan# 527

Delta R.T. -0.00 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

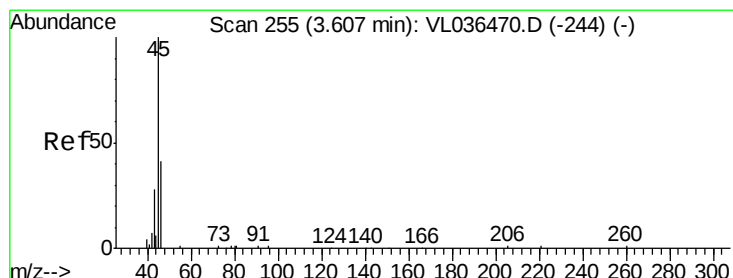
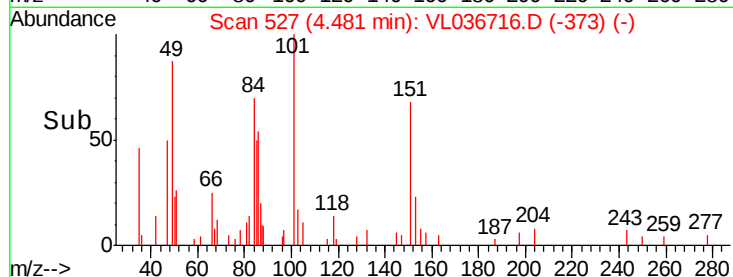
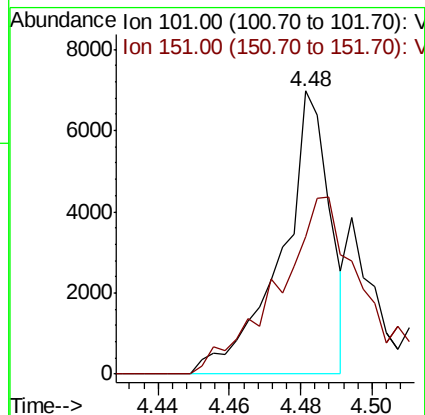
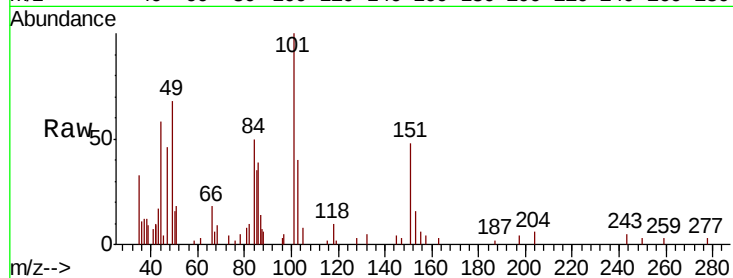
FS-OA-04

Tot Ion:101 Resp: 6568

Ion Ratio Lower Upper

101 100

151 0.0 60.9 91.3#



#13

Ethanol

Concen: 33.862 ppbv

RT: 3.62 min Scan# 259

Delta R.T. 0.01 min

Lab File: VL036716.D

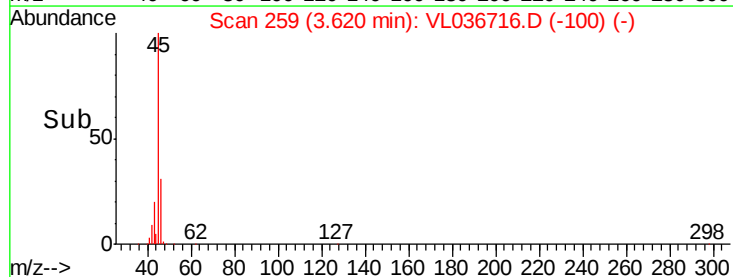
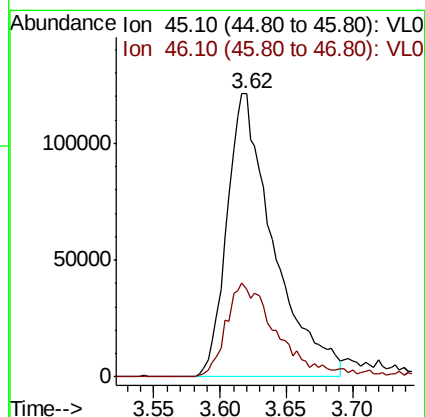
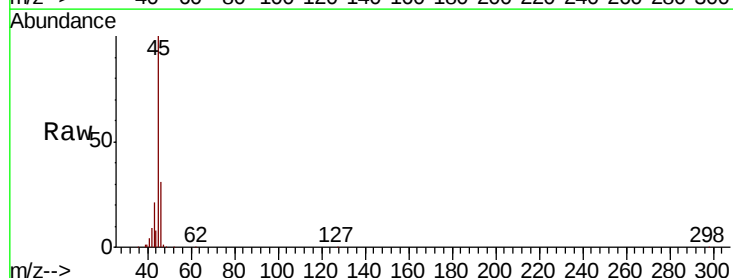
Acq: 7 Apr 2021 3:02

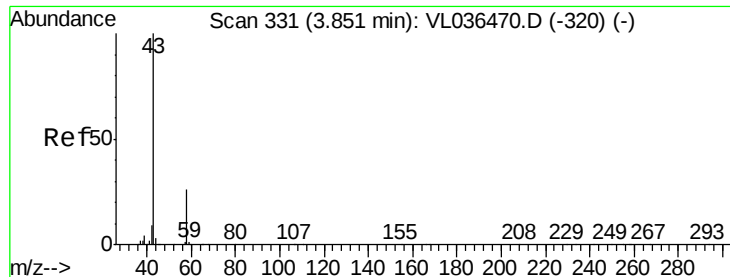
Tgt Ion: 45 Resp: 294887

Ion Ratio Lower Upper

45 100

46 37.2 16.6 66.2





#15

Acetone

Concen: 8.529 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

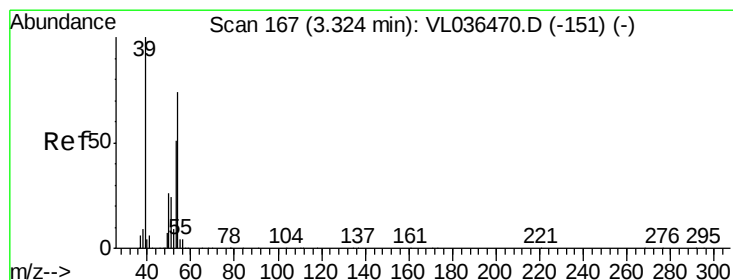
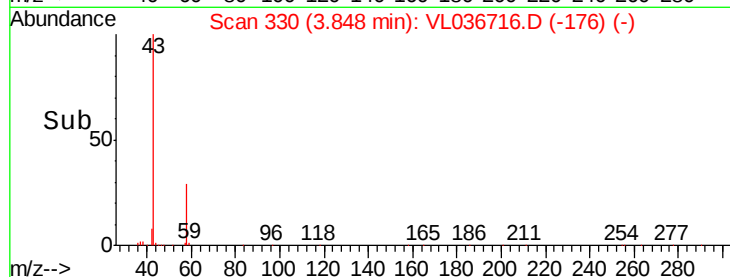
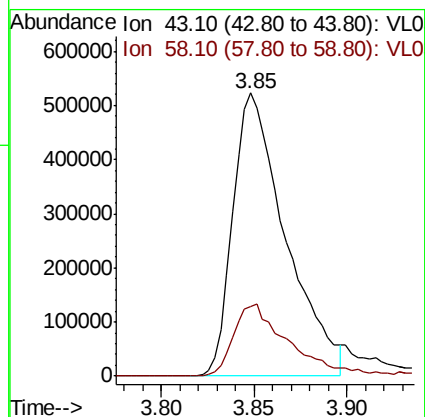
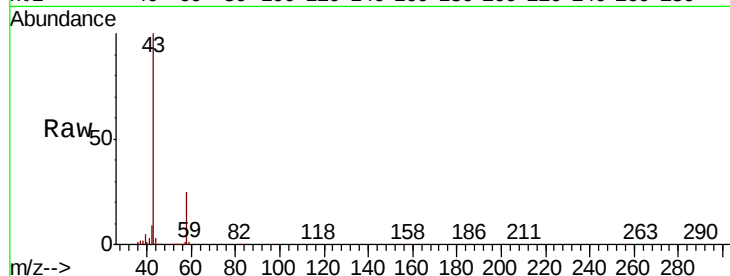
FS-OA-04

Tot Ion: 43 Resp: 1030701

Ion Ratio Lower Upper

43 100

58 28.1 21.2 31.8



#16

1,3-Butadiene

Concen: 0.081 ppbv

RT: 3.31 min Scan# 163

Delta R.T. -0.01 min

Lab File: VL036716.D

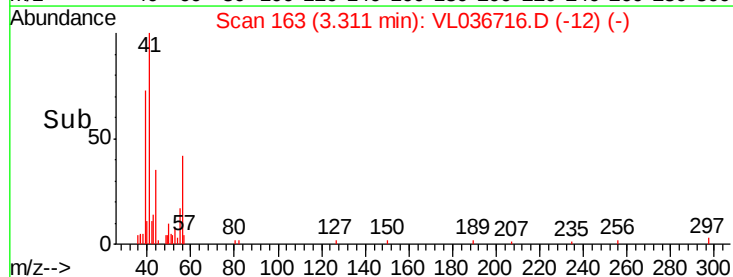
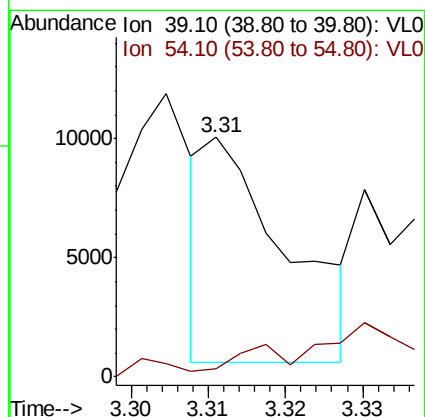
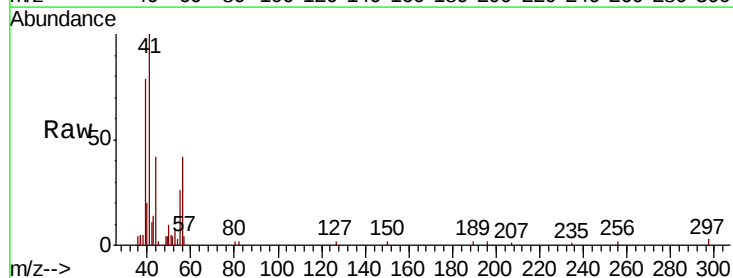
Acq: 7 Apr 2021 3:02

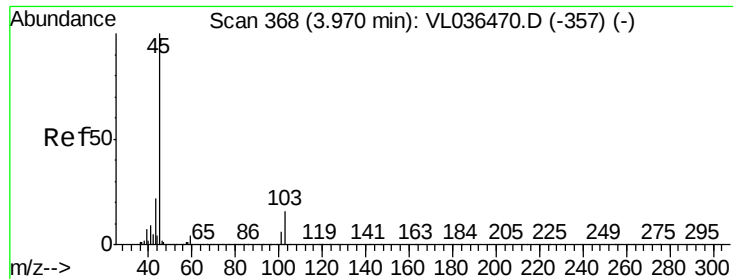
Tgt Ion: 39 Resp: 6831

Ion Ratio Lower Upper

39 100

54 0.0 58.8 88.2#





#19

Isopropyl Alcohol

Concen: 1.945 ppbv

RT: 4.00 min Scan# 376

Delta R.T. 0.03 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

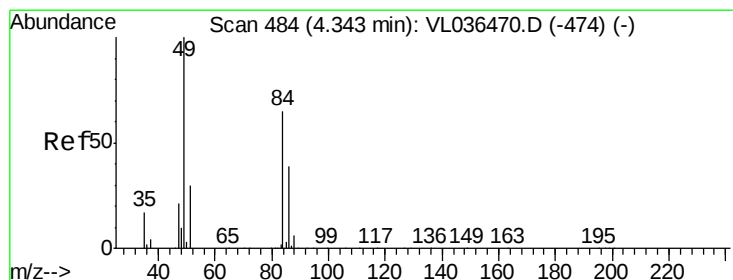
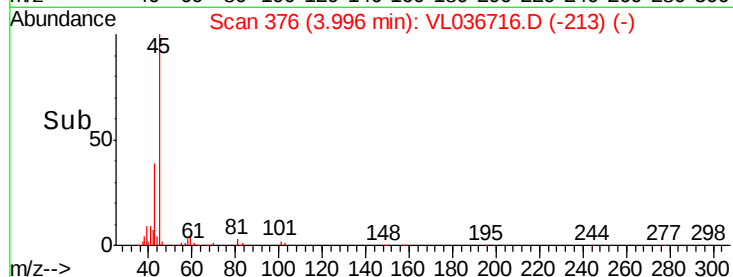
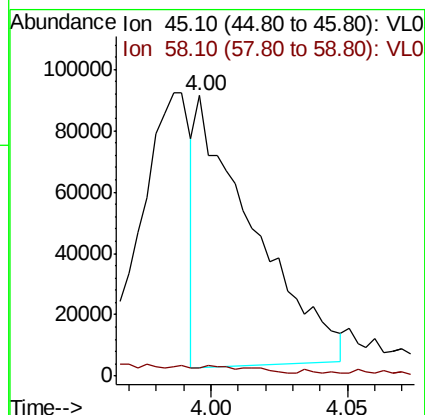
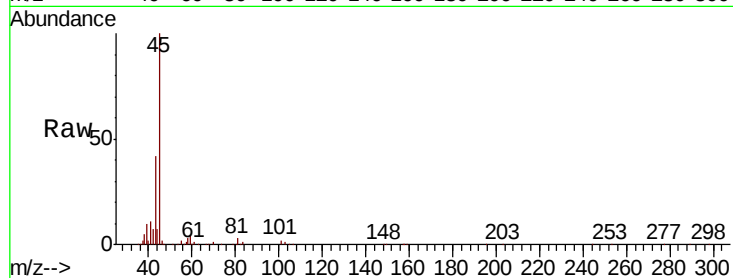
FS-OA-04

Tot Ion: 45 Resp: 129262

Ion Ratio Lower Upper

45 100

58 0.0 2.9 4.3#



#20

Methylene Chloride

Concen: 18.510 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Tgt Ion: 84 Resp: 1047285

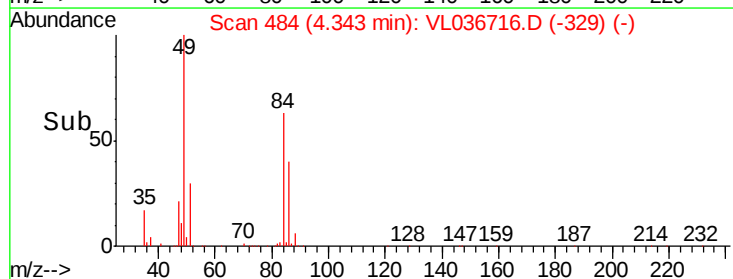
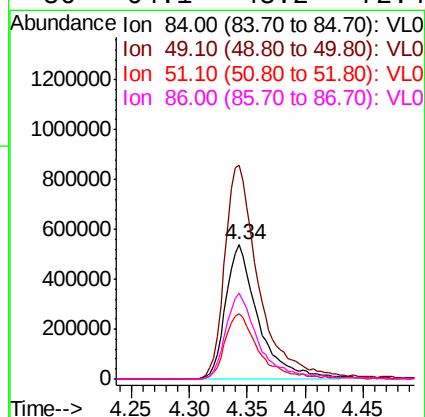
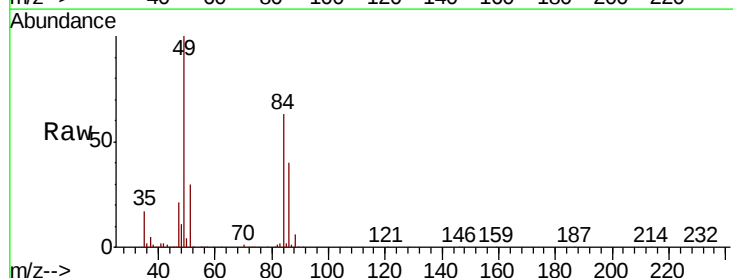
Ion Ratio Lower Upper

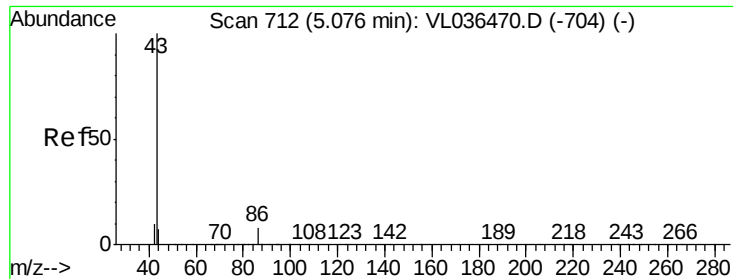
84 100

49 159.1 122.9 184.3

51 48.1 36.9 55.3

86 64.1 48.2 72.4

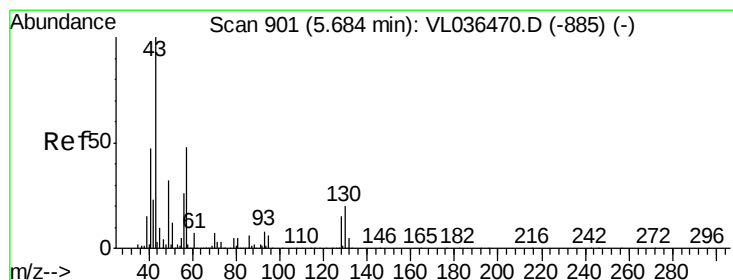
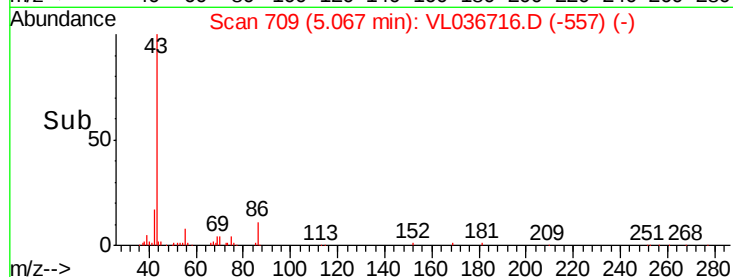
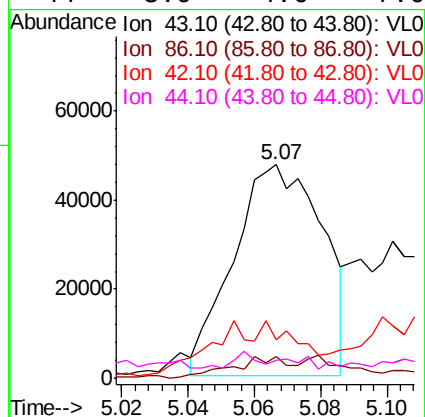
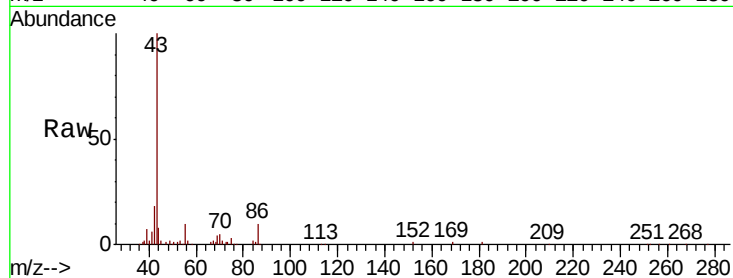




#23
 Vinyl Acetate
 Concen: 0.427 ppbv
 RT: 5.07 min Scan# 709
 Delta R.T. -0.01 min
 Lab File: VL036716.D
 Acq: 7 Apr 2021 3:02

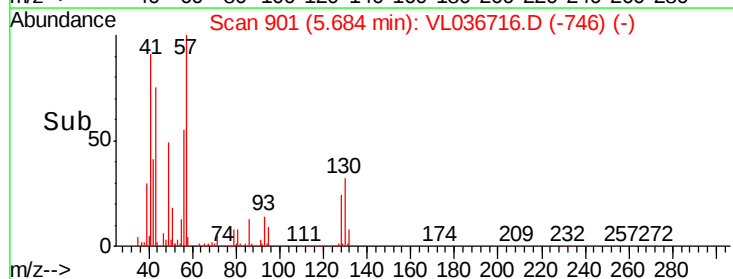
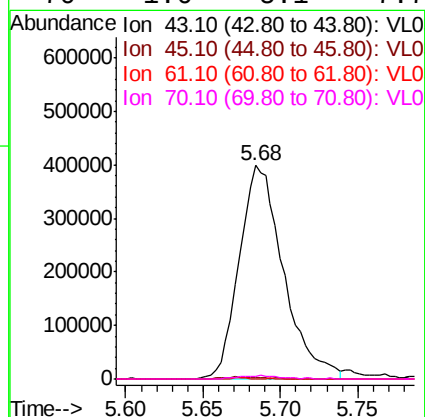
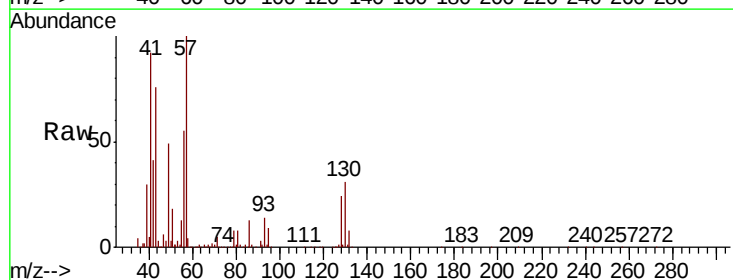
Instrument :
 MSVOA_L
 ClientSampleId :
 FS-OA-04

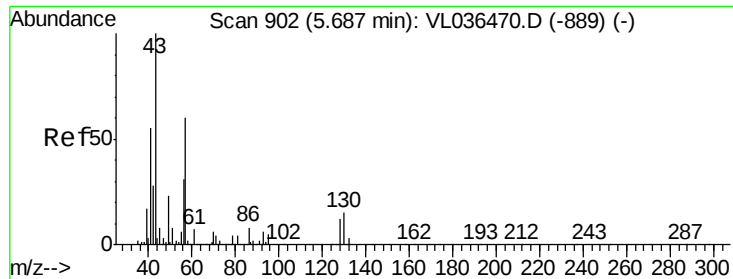
Tot Ion:	43	Resp:	88362
Ion	Ratio	Lower	Upper
43	100		
86	9.2	5.4	8.0#
42	9.0	8.5	12.7
44	3.9	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 2.755 ppbv
 RT: 5.68 min Scan# 901
 Delta R.T. -0.00 min
 Lab File: VL036716.D
 Acq: 7 Apr 2021 3:02

Tgt Ion:	43	Resp:	791365
Ion	Ratio	Lower	Upper
43	100		
45	1.1	7.9	11.9#
61	0.5	7.4	11.2#
70	1.6	5.1	7.7#



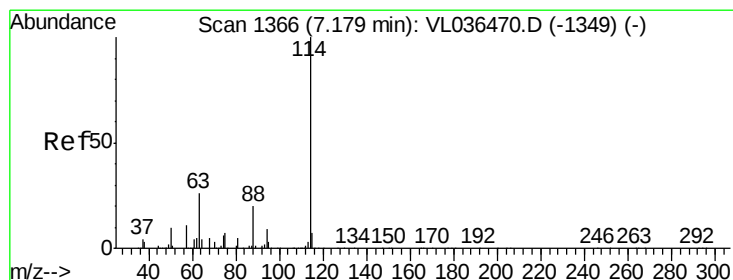
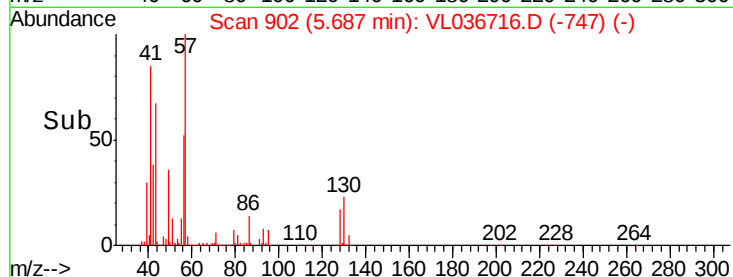
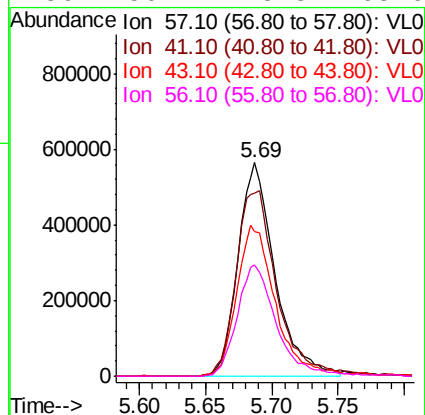
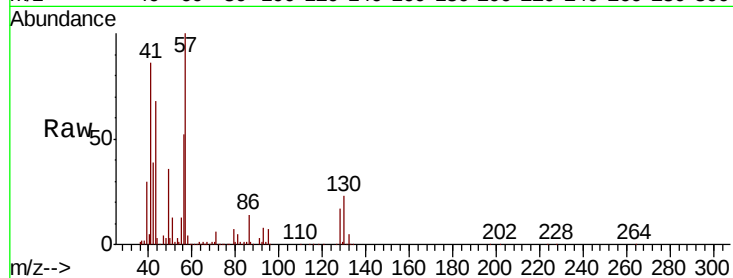


#26
Hexane
Concen: 8.161 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

Tot Ion: 57 Resp: 1087983

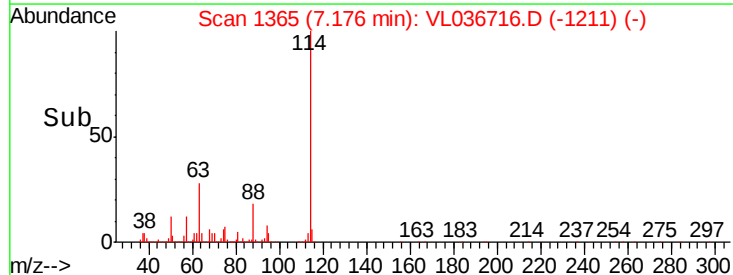
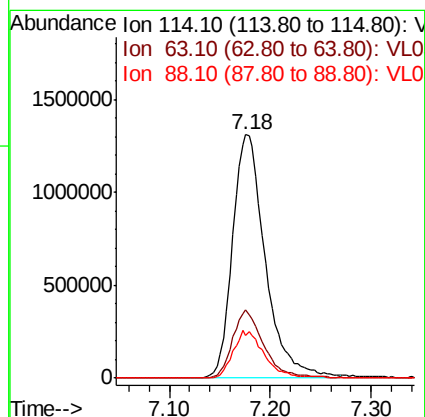
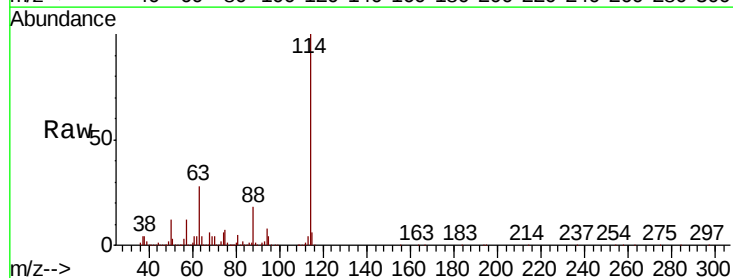
Ion	Ratio	Lower	Upper
57	100		
41	97.8	77.2	115.8
43	74.6	173.8	260.6#
56	56.2	43.8	65.6

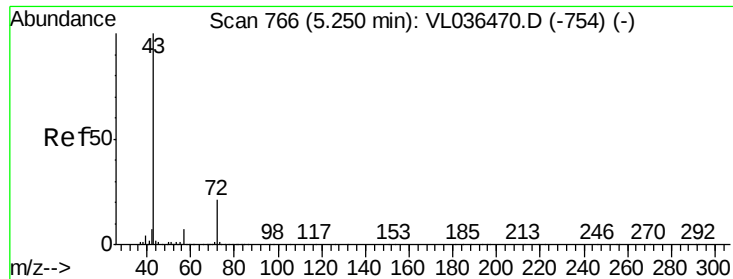


#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion: 114 Resp: 2961577

Ion	Ratio	Lower	Upper
114	100		
63	26.7	22.4	33.6
88	18.7	15.4	23.0

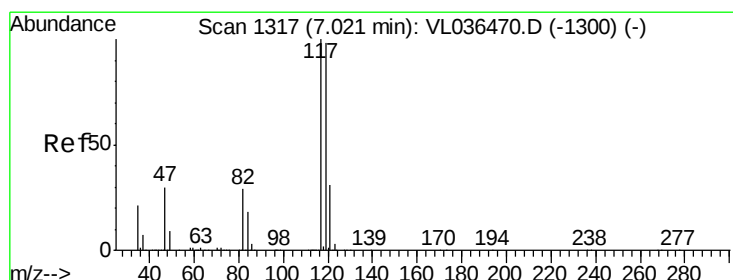
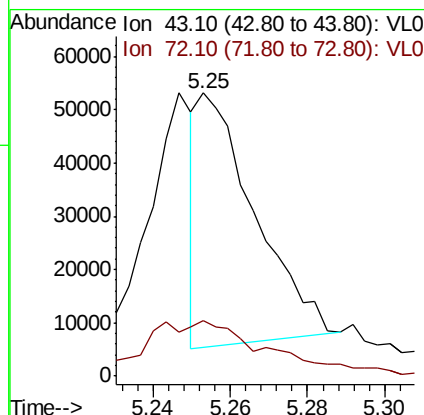
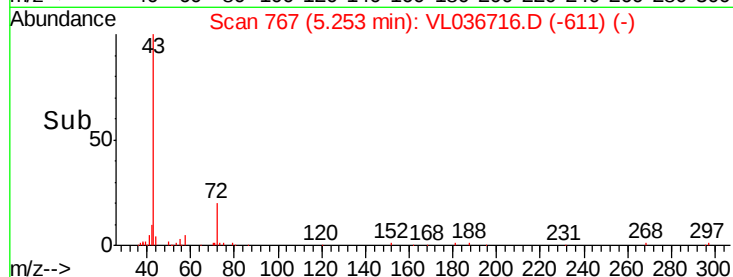
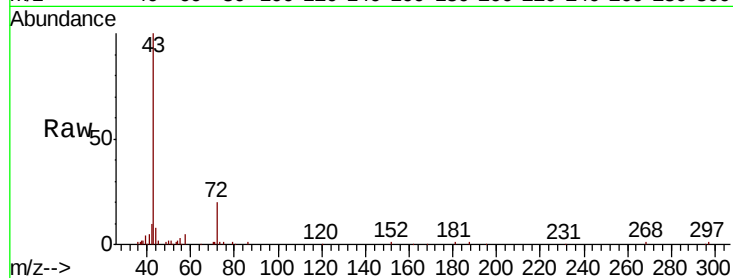




#34
2-Butanone
Concen: 0.331 ppbv
RT: 5.25 min Scan# 767
Delta R.T. 0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

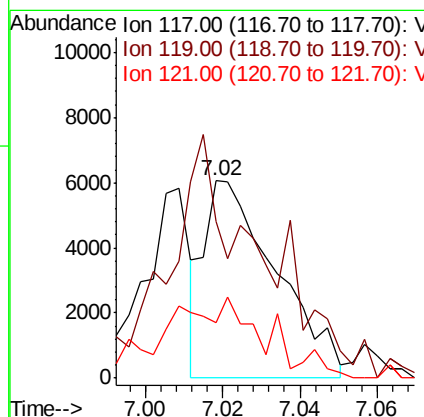
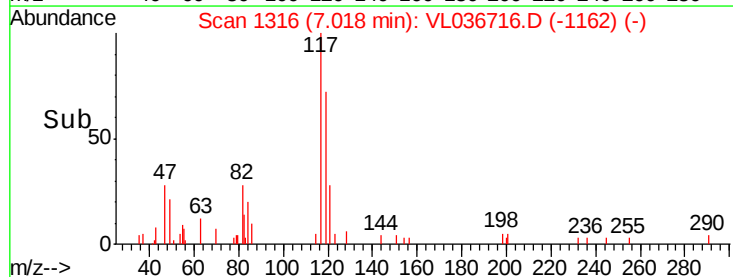
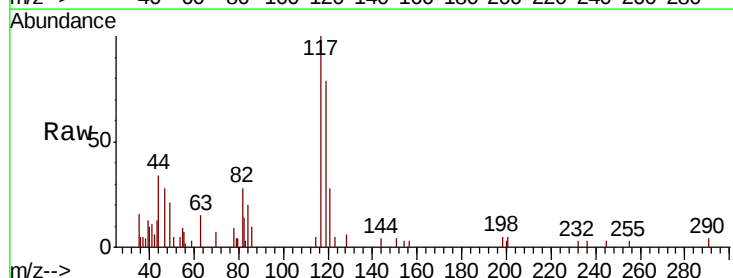
Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

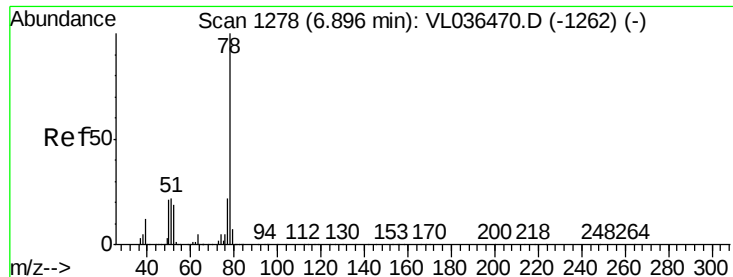
Tot Ion: 43 Resp: 47865
Ion Ratio Lower Upper
43 100
72 49.7 17.0 25.6#



#35
Carbon Tetrachloride
Concen: 0.034 ppbv
RT: 7.02 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion: 117 Resp: 7806
Ion Ratio Lower Upper
117 100
119 69.8 78.2 117.2#
121 26.5 24.5 36.7





#36

Benzene

Concen: 0.294 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampled :

FS-OA-04

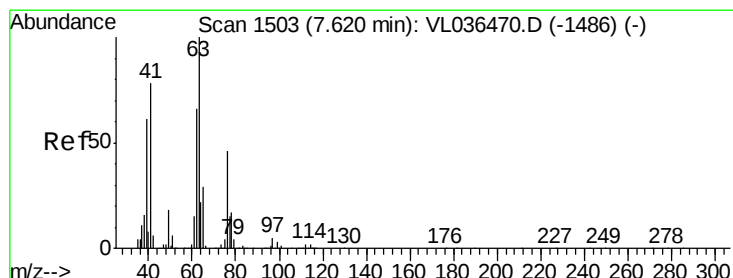
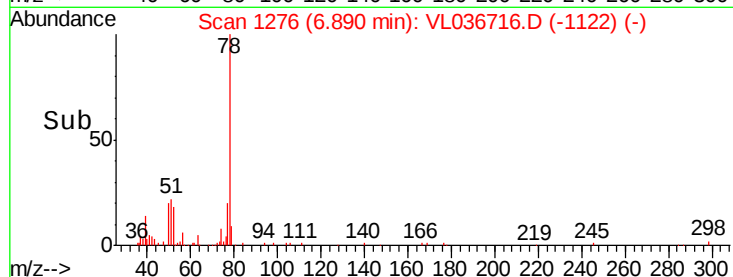
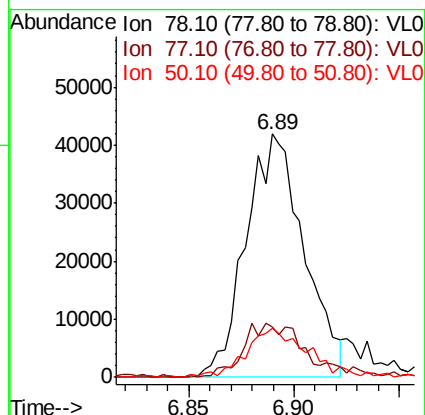
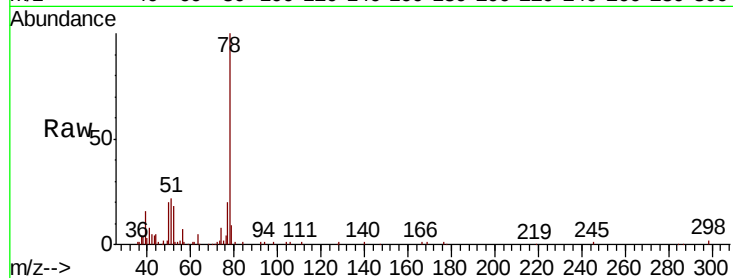
Tot Ion: 78 Resp: 80352

Ion Ratio Lower Upper

78 100

77 19.9 18.0 27.0

50 18.1 16.5 24.7



#39

1,2-Dichloropropane

Concen: 6.994 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.44 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

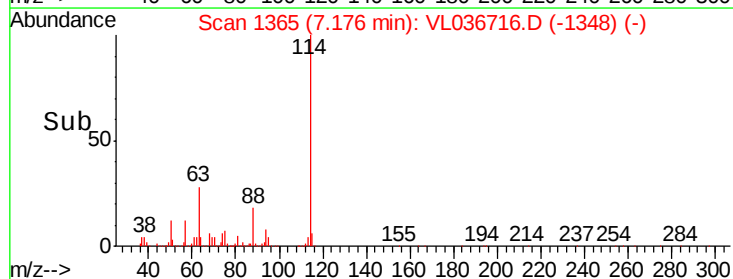
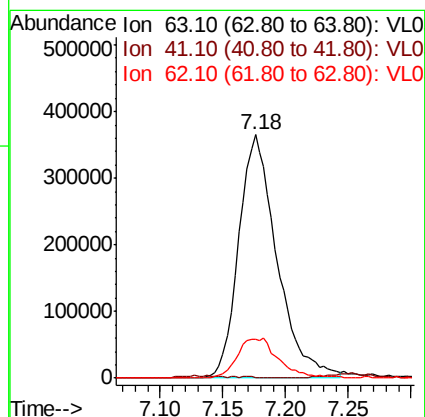
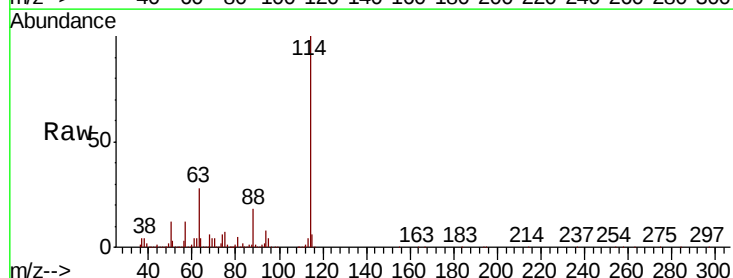
Tgt Ion: 63 Resp: 774923

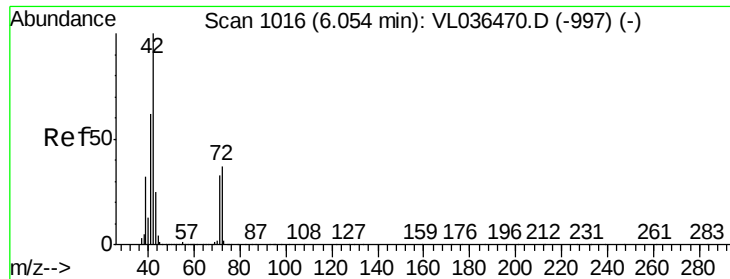
Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

62 15.9 52.8 79.2#

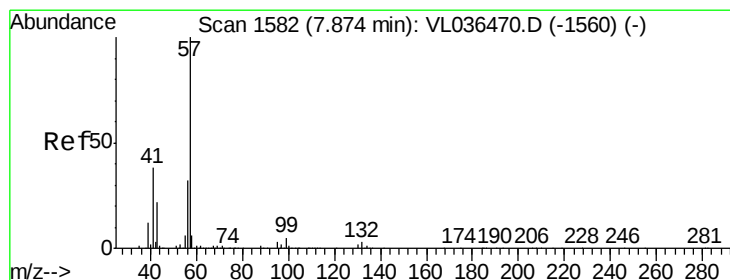
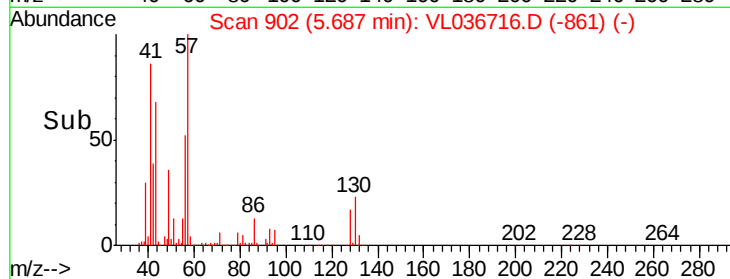
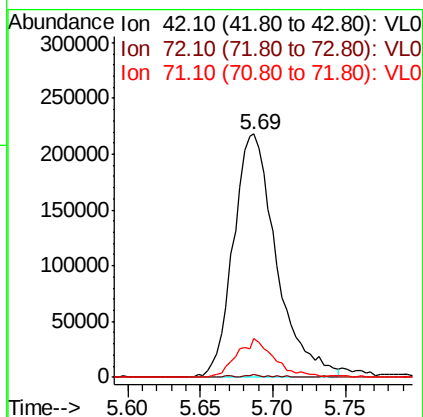
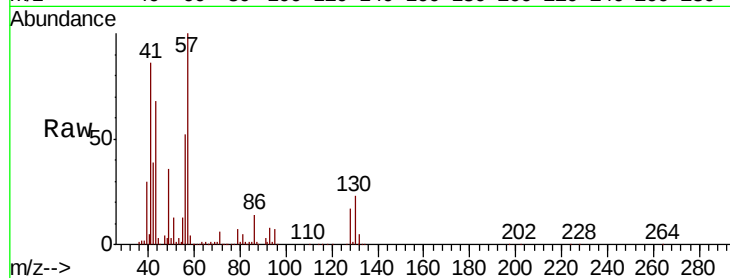




#41
Tetrahydrofuran
Concen: 6.705 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.37 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

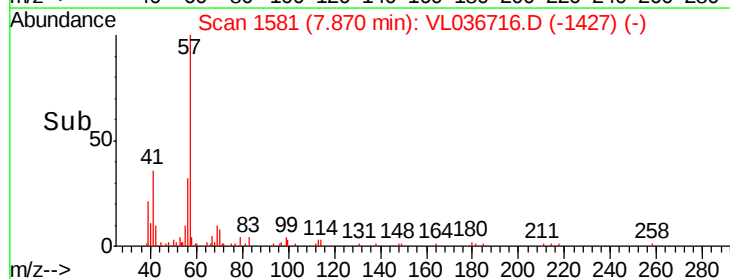
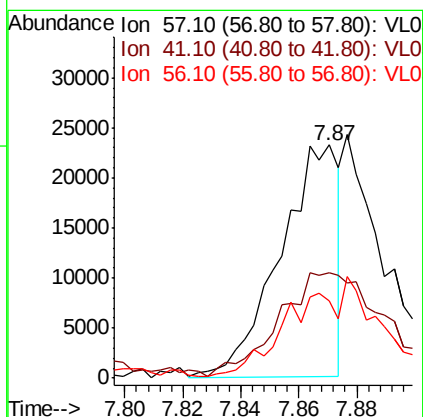
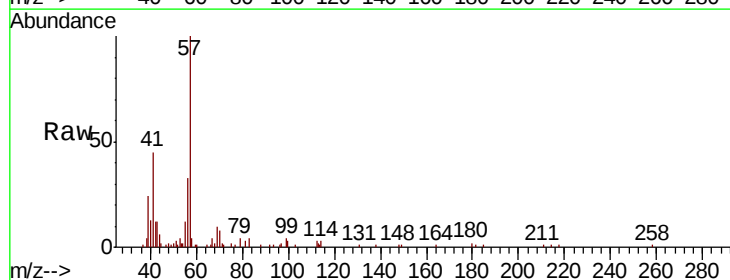
Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

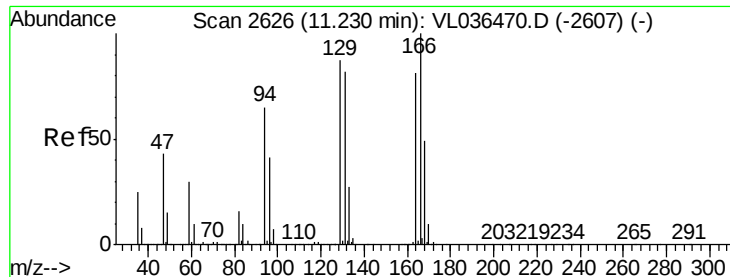
Tot Ion	Ratio	Lower	Upper
42	100		
72	0.7	27.6	41.4#
71	14.5	27.0	40.4#



#44
2,2,4-Trimethylpentane
Concen: 0.068 ppbv
RT: 7.87 min Scan# 1581
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion	Ratio	Lower	Upper
57	100		
41	102.8	28.8	43.2#
56	0.0	26.1	39.1#





#52

Tetrachloroethene

Concen: 0.043 ppbv

RT: 11.22 min Scan# 2624

Delta R.T. -0.01 min

Lab File: VL036716.D

Acq: 7 Apr 2021 3:02

Instrument :

MSVOA_L

ClientSampleId :

FS-OA-04

Tot Ion:164 Resp: 4370

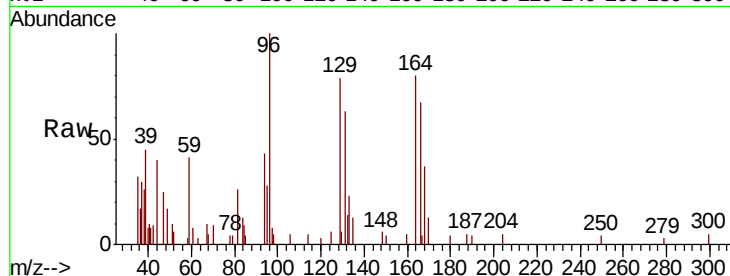
Ion Ratio Lower Upper

164 100

166 72.0 98.3 147.5#

129 78.3 85.8 128.8#

131 61.6 80.9 121.3#

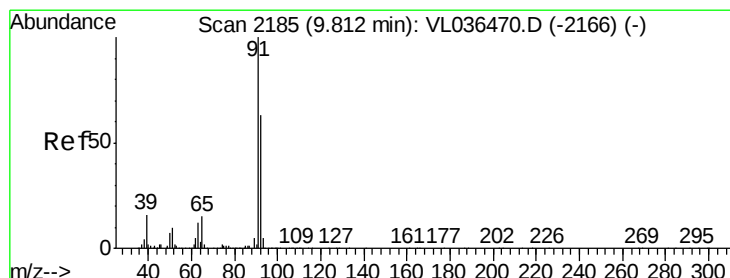
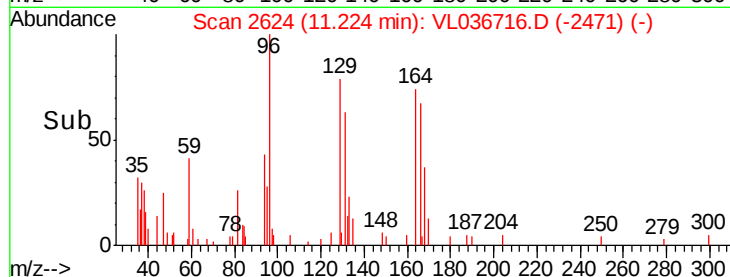
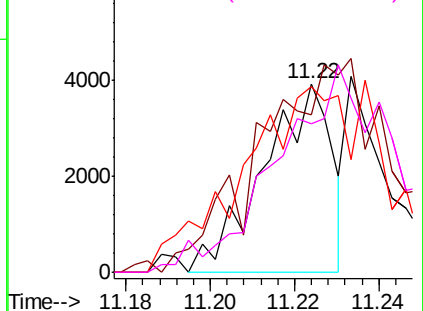


Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.574 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL036716.D

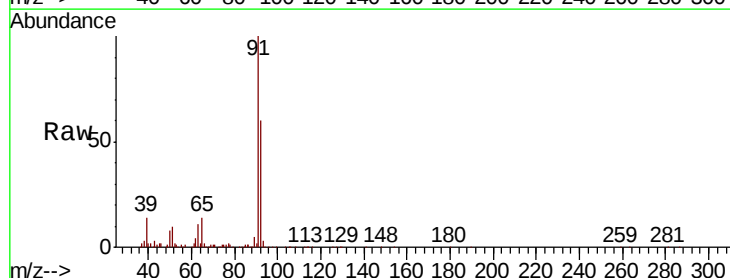
Acq: 7 Apr 2021 3:02

Tgt Ion: 91 Resp: 457847

Ion Ratio Lower Upper

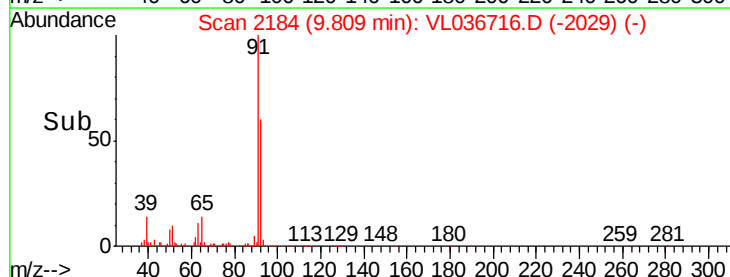
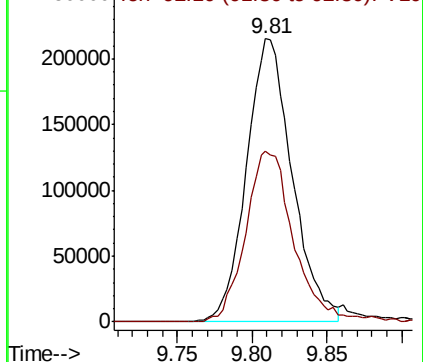
91 100

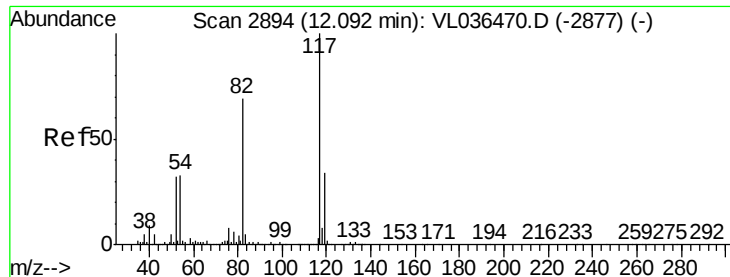
92 64.1 48.8 73.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

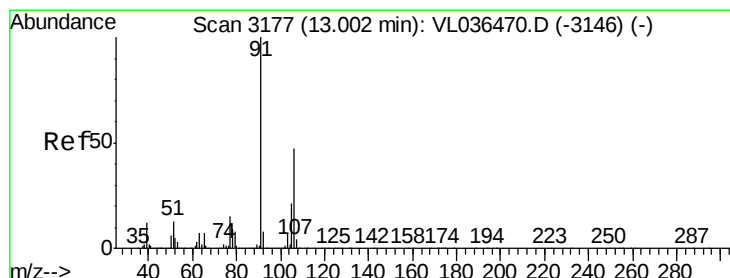
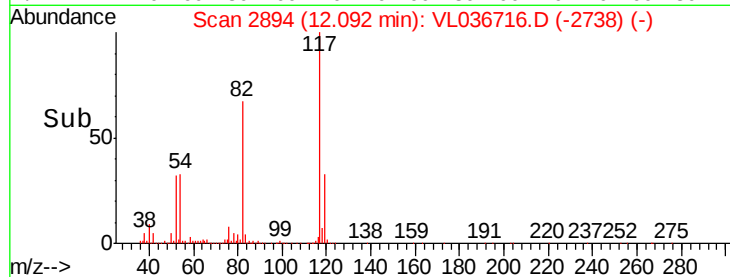
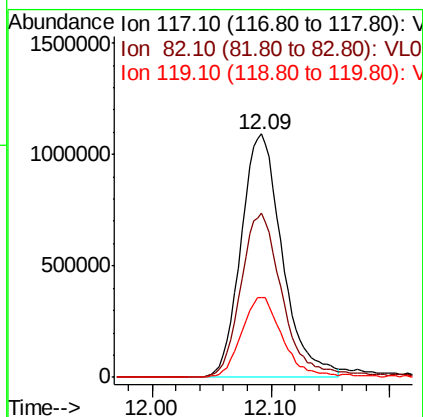
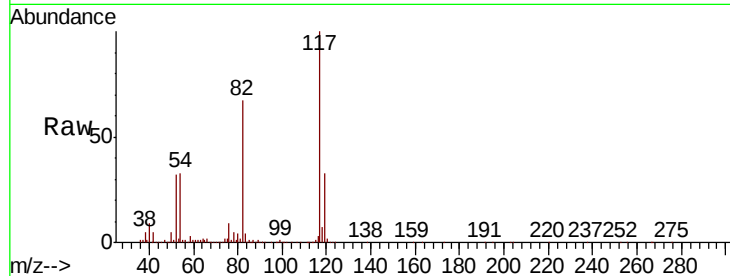




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2894
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

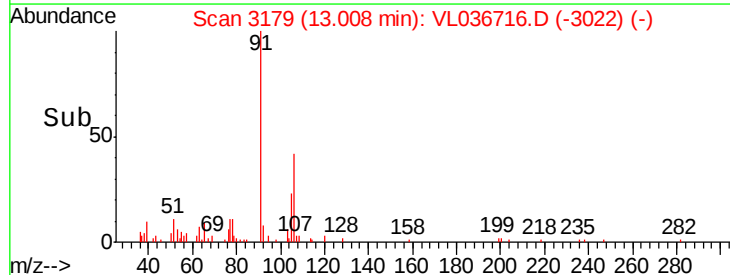
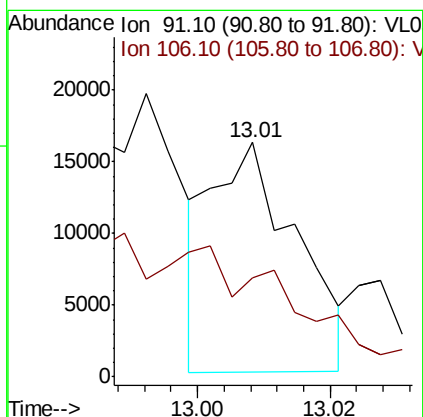
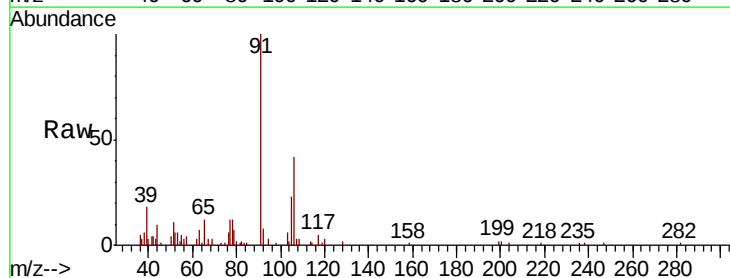
Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

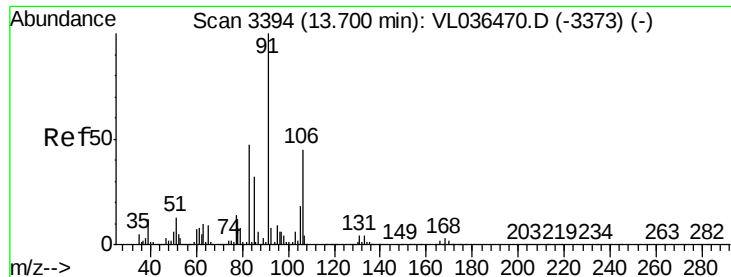
Tot Ion:117 Resp: 2620899
Ion Ratio Lower Upper
117 100
82 69.6 57.4 86.0
119 33.8 47.4 71.0#



#59
m/p-Xylene
Concen: 0.043 ppbv
RT: 13.01 min Scan# 3179
Delta R.T. 0.01 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion: 91 Resp: 14299
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#

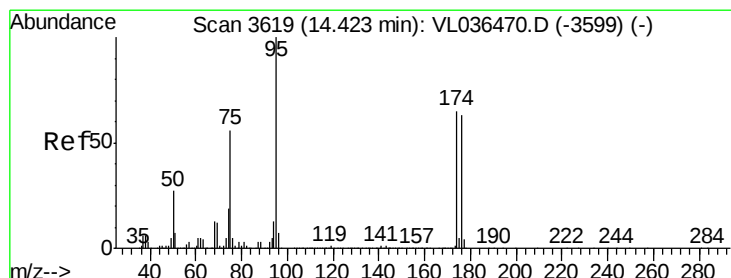
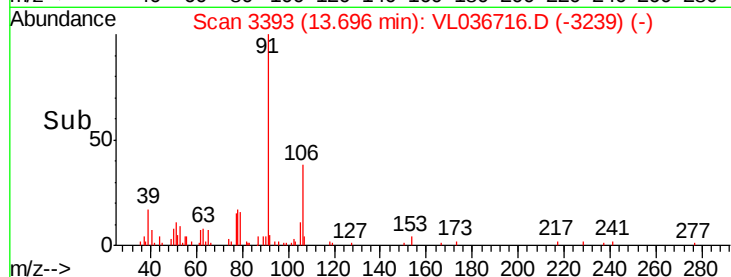
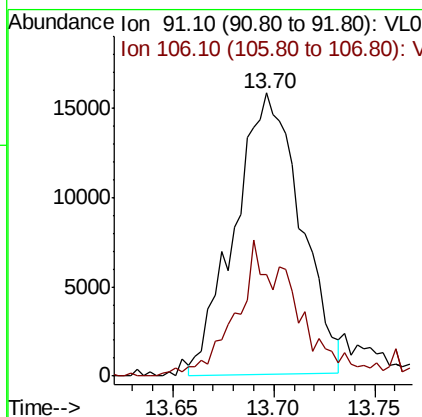
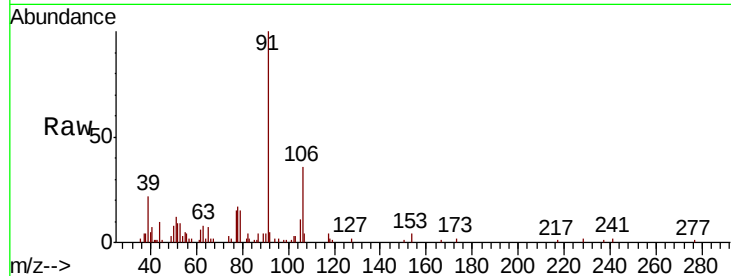




#60
o-Xylene
Concen: 0.112 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

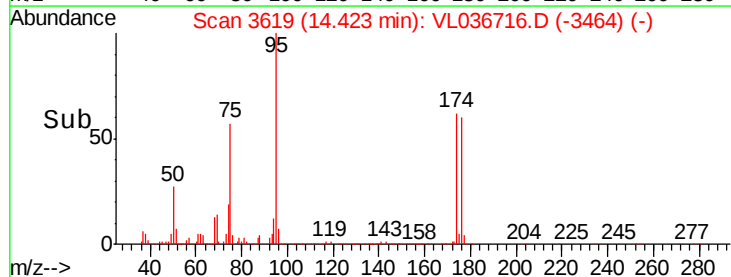
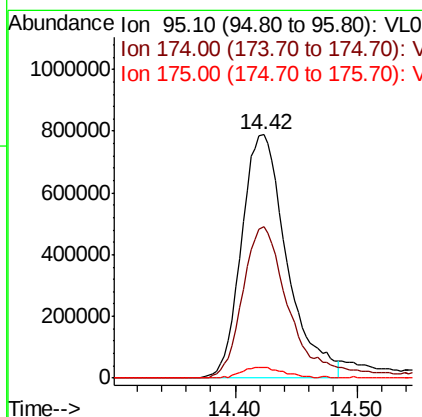
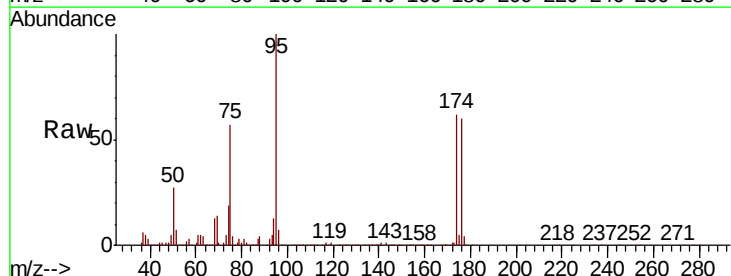
Instrument :
MSVOA_L
ClientSampleId :
FS-OA-04

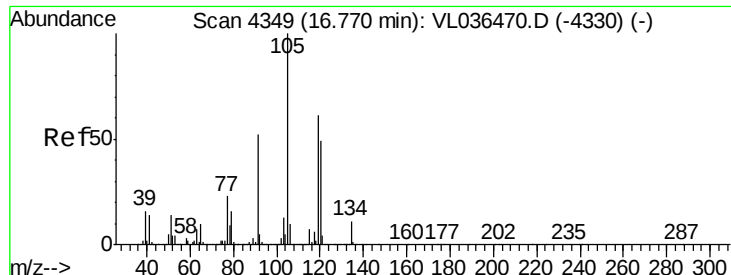
Tot Ion: 91 Resp: 36007
Ion Ratio Lower Upper
91 100
106 45.9 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 9.694 ppbv
RT: 14.42 min Scan# 3619
Delta R.T. -0.00 min
Lab File: VL036716.D
Acq: 7 Apr 2021 3:02

Tgt Ion: 95 Resp: 2024946
Ion Ratio Lower Upper
95 100
174 67.2 51.0 76.6
175 4.6 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.076 ppbv
 RT: 16.77 min Scan# 4350
 Delta R.T. 0.00 min
 Lab File: VL036716.D
 Acq: 7 Apr 2021 3:02

Instrument :
 MSVOA_L
 ClientSampleId :
 FS-OA-04

Tot Ion:	105	Resp:	26844
Ion	Ratio	Lower	Upper
105	100		
120	23.6	39.2	58.8#
91	16.8	42.6	64.0#
77	13.9	18.6	28.0#

