

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032521\
 Data File : VL036482.D
 Acq On : 25 Mar 2021 12:16
 Operator :
 Sample : M1801-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

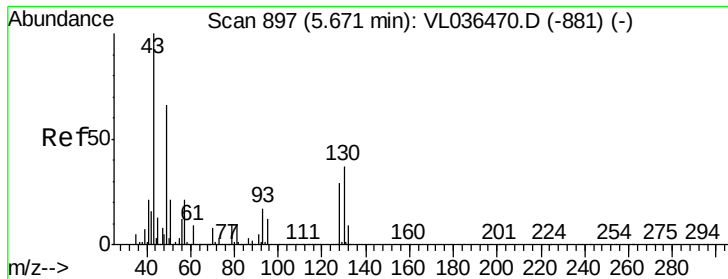
Quant Time: Mar 26 03:49:24 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1412314	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3253273	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2921813	10.00	ppbv	-0.01

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.41	95	2230386	9.58	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.80%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	36487	0.158	ppbv	93
3) Chlorodifluoromethane	2.98	51	393721	1.492	ppbv #	79
4) Chloromethane	3.13	50	49767	0.534	ppbv	93
9) Propene	3.20	41	751394	8.932	ppbv	97
10) Heptane	8.12	43	5868	0.027	ppbv #	1
11) Trichlorofluoromethane	3.94	101	49948	0.213	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.48	101	5902	0.039	ppbv #	46
13) Ethanol	3.61	45	3694676	368.824	ppbv	92
15) Acetone	3.84	43	763105	5.490	ppbv	95
16) 1,3-Butadiene	3.30	39	9214	0.095	ppbv #	13
19) Isopropyl Alcohol	3.97	45	511838	6.694	ppbv	98
20) Methylene Chloride	4.34	84	1348291	20.717	ppbv	96
23) Vinyl Acetate	5.06	43	13683	0.058	ppbv #	18
25) Ethyl Acetate	5.68	43	790582	2.392	ppbv #	88
26) Hexane	5.68	57	989197	6.450	ppbv #	50
29) Chloroform	5.74	83	8683	0.035	ppbv	84
30) Cyclohexane	7.12	84	4254	0.034	ppbv #	1
34) 2-Butanone	5.24	43	58469	0.368	ppbv	93
36) Benzene	6.88	78	67332	0.224	ppbv #	89
39) 1,2-Dichloropropane	7.17	63	893033	7.337	ppbv #	23
41) Tetrahydrofuran	5.68	42	398137	5.437	ppbv #	53
44) 2,2,4-Trimethylpentane	7.87	57	38397	0.073	ppbv #	19
52) Tetrachloroethene	11.22	164	28534	0.258	ppbv	94
53) Toluene	9.80	91	987629	3.091	ppbv	98
59) m/p-Xylene	12.99	91	26233	0.071	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.76	105	19539	0.050	ppbv #	60

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File:

Acq: 25 Mar 2021 12:16

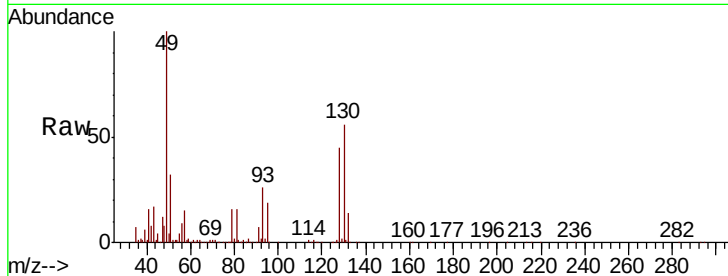
Tot Ion: 49 Resp: 1412314

Ion Ratio Lower Upper

49 100

128 43.8 23.5 70.6

130 57.0 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

800000

600000

400000

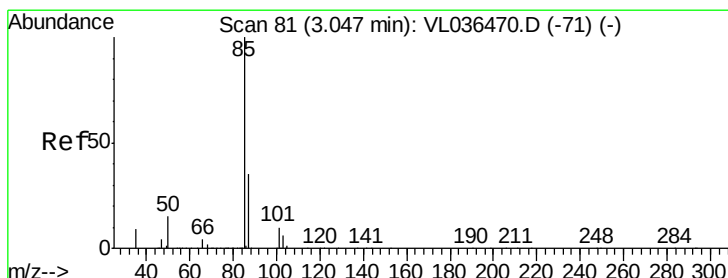
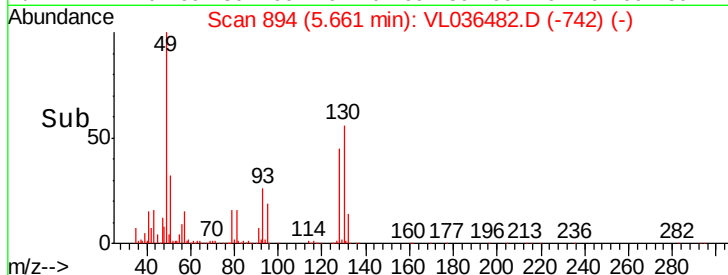
200000

0

5.66

5.60 5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 0.158 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL036482.D

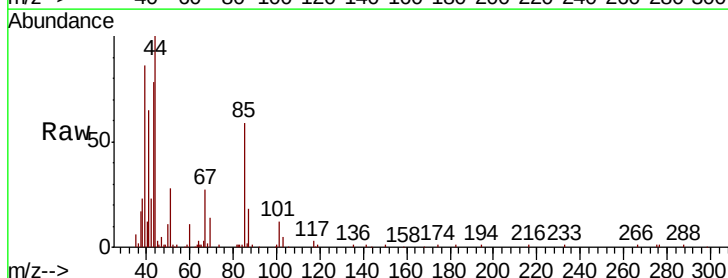
Acq: 25 Mar 2021 12:16

Tgt Ion: 85 Resp: 36487

Ion Ratio Lower Upper

85 100

87 30.5 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

30000

25000

20000

15000

10000

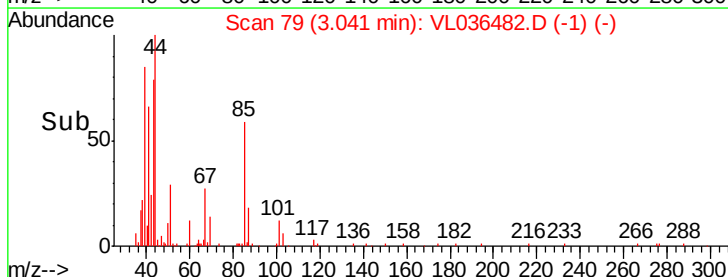
5000

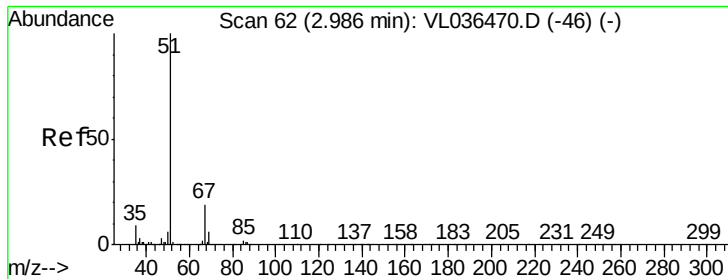
0

3.04

3.00 3.05

Time-->





#3

Chlorodifluoromethane

Concen: 1.492 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

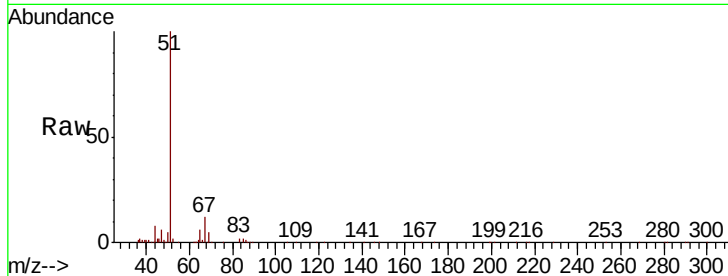
Acq: 25 Mar 2021 12:16

Tot Ion: 51 Resp: 393721

Ion Ratio Lower Upper

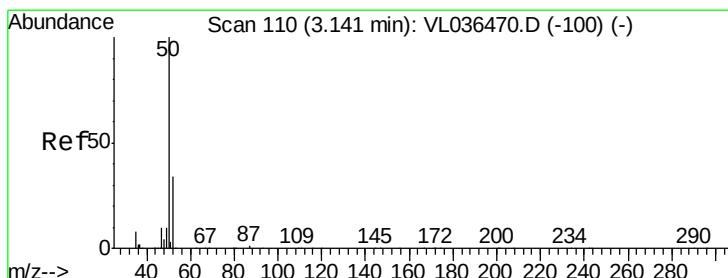
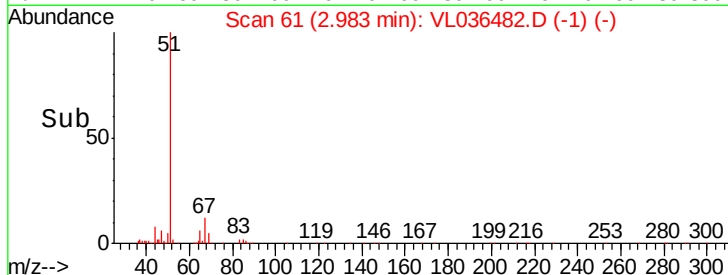
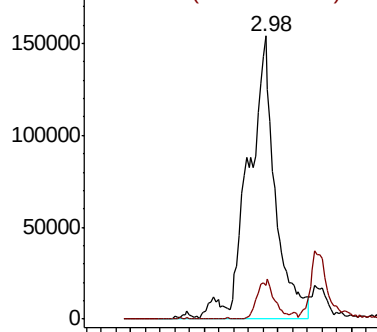
51 100

67 8.9 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.534 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036482.D

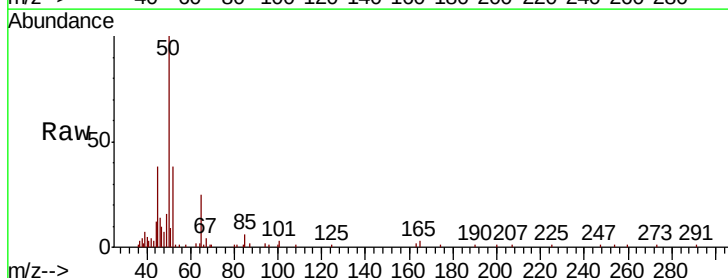
Acq: 25 Mar 2021 12:16

Tgt Ion: 50 Resp: 49767

Ion Ratio Lower Upper

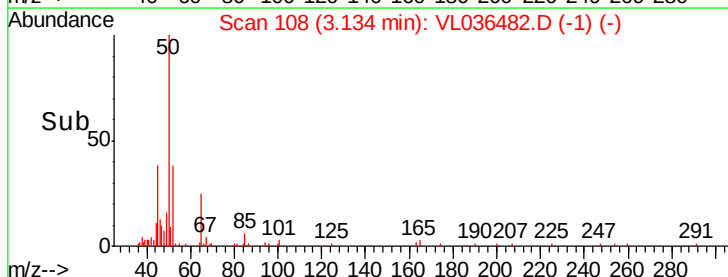
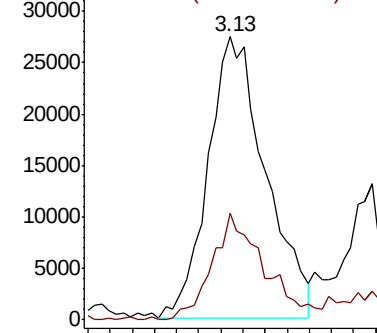
50 100

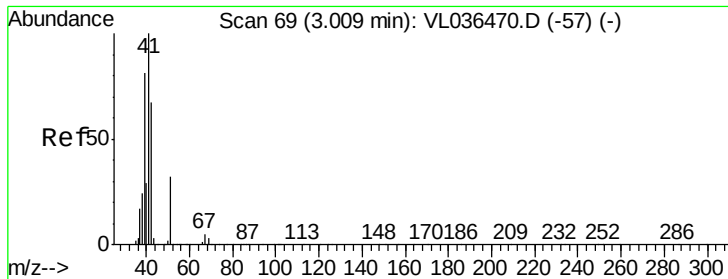
52 38.0 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 8.932 ppbv

RT: 3.20 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

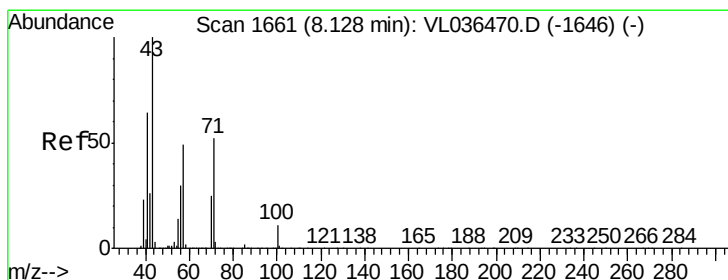
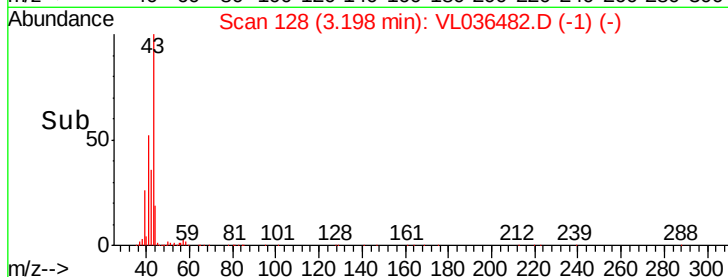
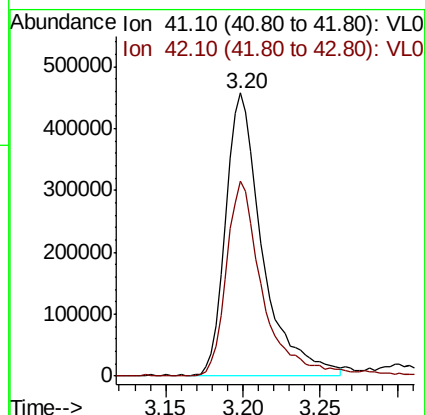
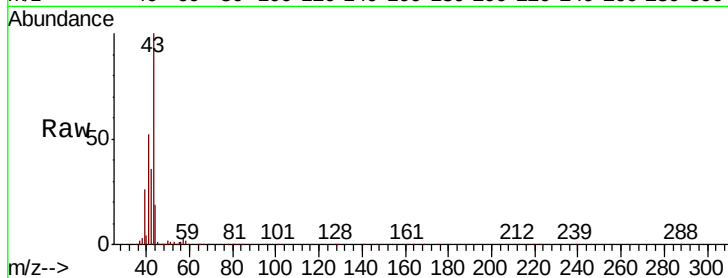
Acq: 25 Mar 2021 12:16

Tot Ion: 41 Resp: 751394

Ion Ratio Lower Upper

41 100

42 68.4 57.0 85.4



#10

Heptane

Concen: 0.027 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL036482.D

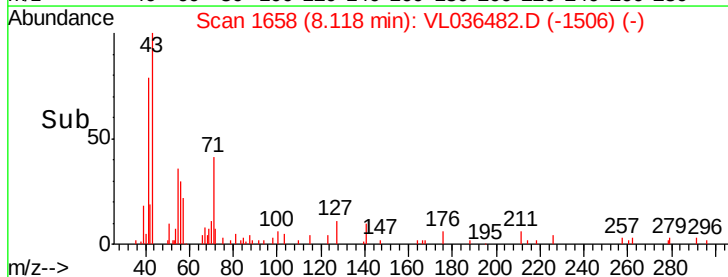
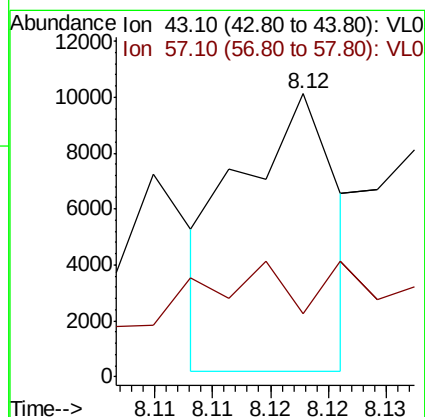
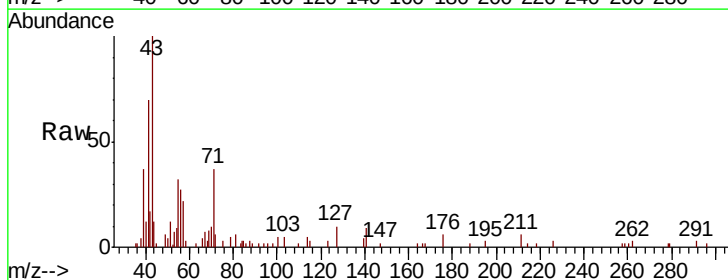
Acq: 25 Mar 2021 12:16

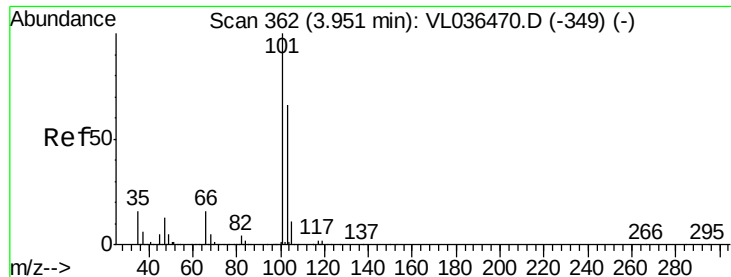
Tgt Ion: 43 Resp: 5868

Ion Ratio Lower Upper

43 100

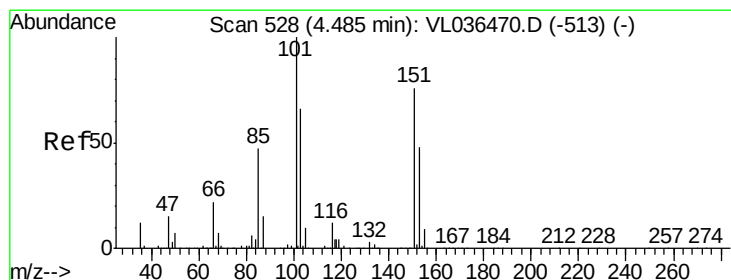
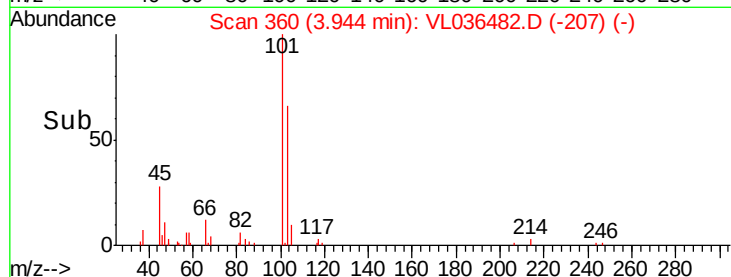
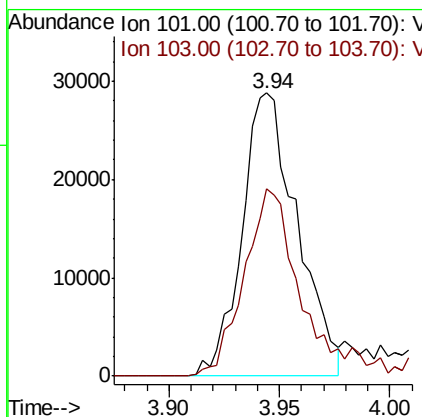
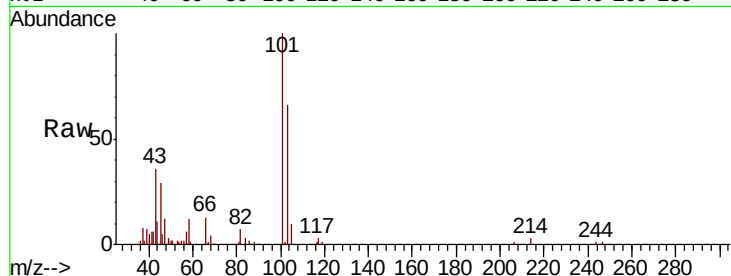
57 163.2 39.0 58.6#





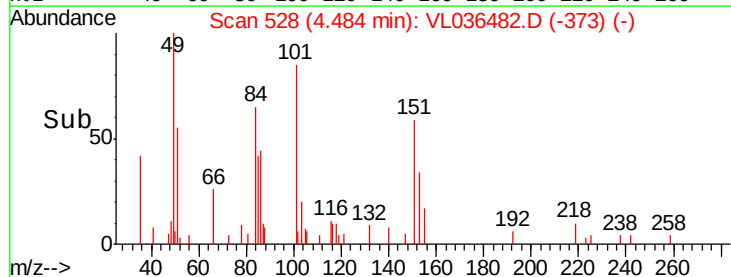
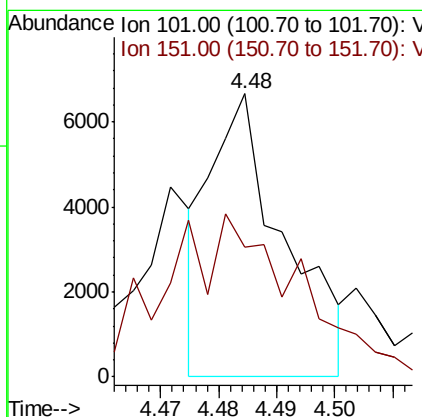
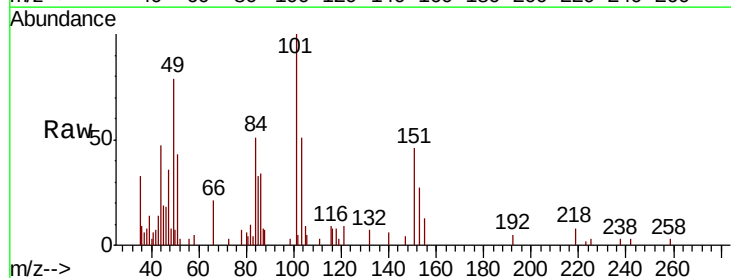
#11
 Trichlorofluoromethane
 Concen: 0.213 ppbv
 RT: 3.94 Instrument :
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Mar 2021 12:16

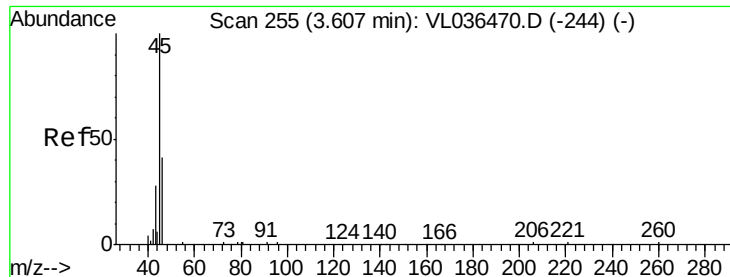
Tot Ion:101 Resp: 49948
 Ion Ratio Lower Upper
 101 100
 103 66.4 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.039 ppbv
 RT: 4.48 min Scan# 528
 Delta R.T. -0.00 min
 Lab File: VL036482.D
 Acq: 25 Mar 2021 12:16

Tgt Ion:101 Resp: 5902
 Ion Ratio Lower Upper
 101 100
 151 122.7 60.9 91.3#





#13

Ethanol

Concen: 368.824 ppbv

RT: 3.61 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

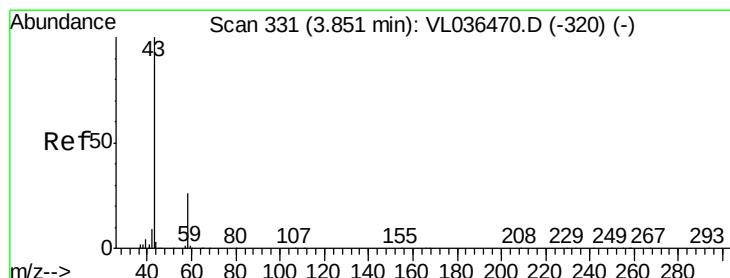
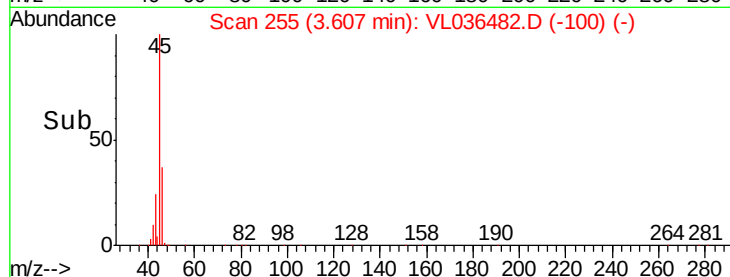
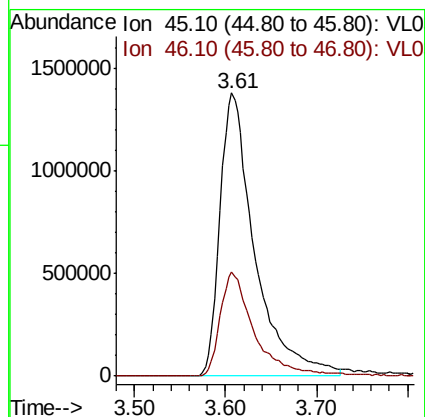
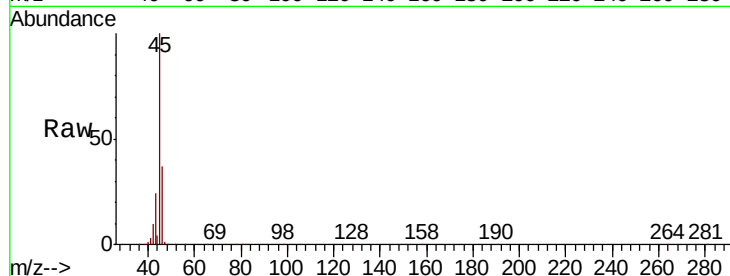
Acq: 25 Mar 2021 12:16

Tot Ion: 45 Resp: 3694676

Ion Ratio Lower Upper

45 100

46 36.6 16.6 66.2



#15

Acetone

Concen: 5.490 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL036482.D

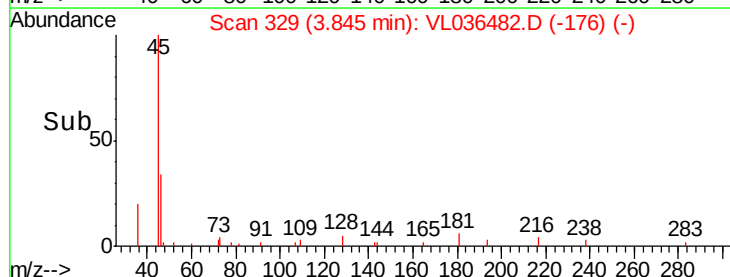
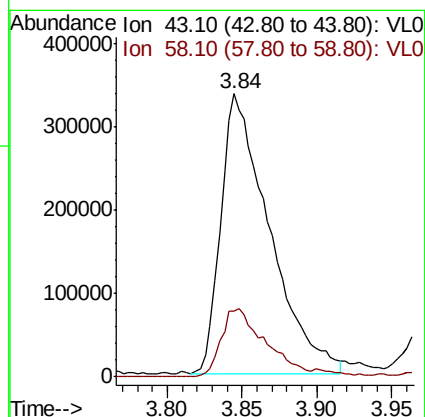
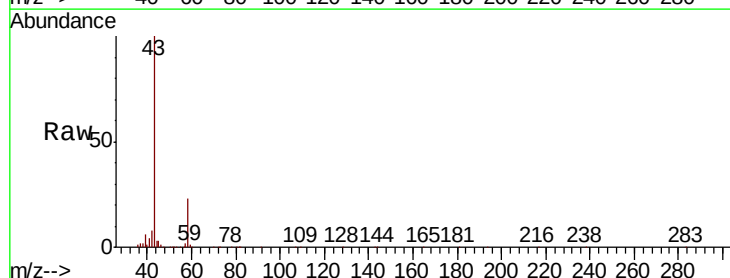
Acq: 25 Mar 2021 12:16

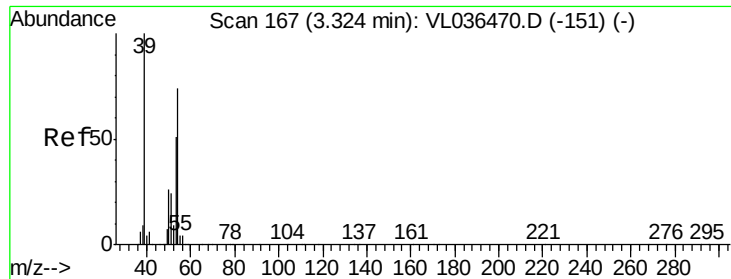
Tgt Ion: 43 Resp: 763105

Ion Ratio Lower Upper

43 100

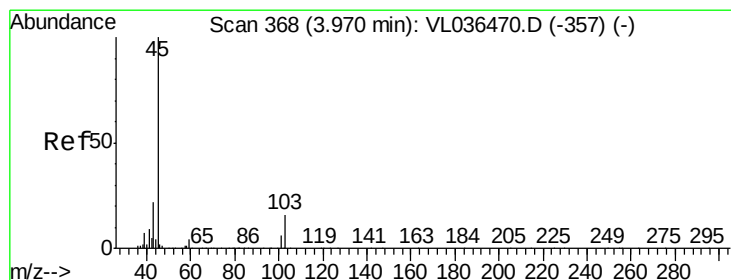
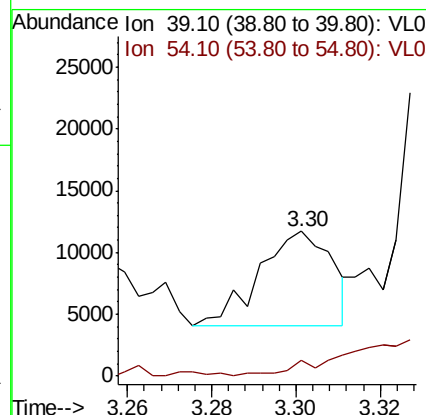
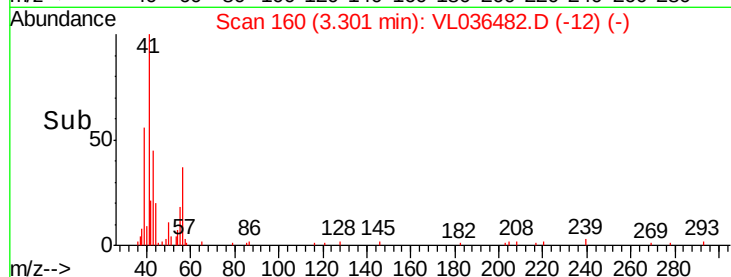
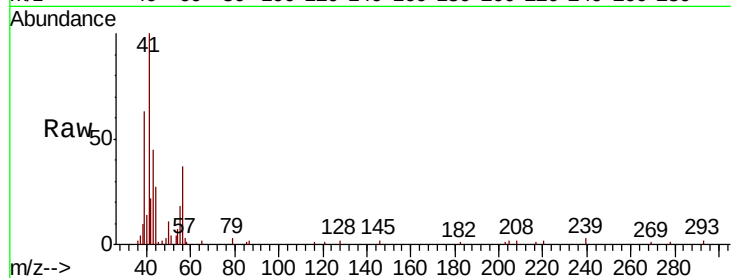
58 23.7 21.2 31.8





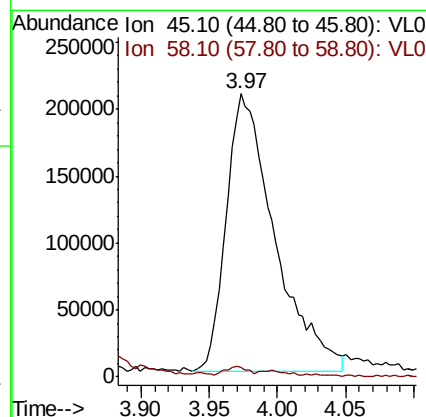
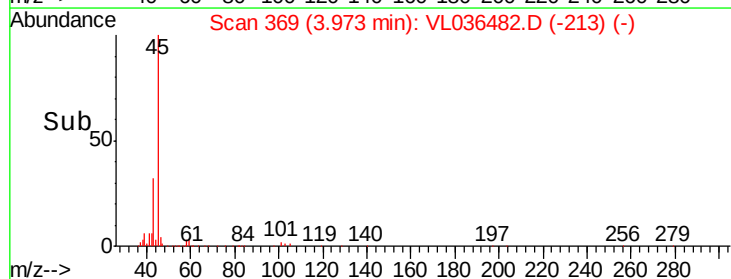
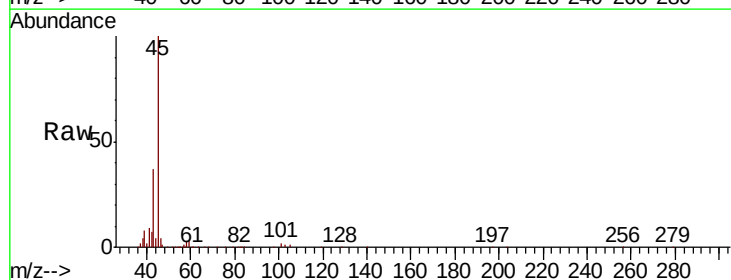
#16
 1,3-Butadiene
 Concen: 0.095 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 Acq: 25 Mar 2021 12:16

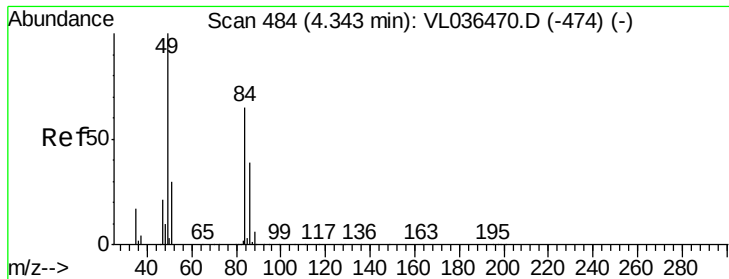
Tot Ion: 39 Resp: 9214
 Ion Ratio Lower Upper
 39 100
 54 0.0 58.8 88.2#



#19
 Isopropyl Alcohol
 Concen: 6.694 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. 0.00 min
 Lab File: VL036482.D
 Acq: 25 Mar 2021 12:16

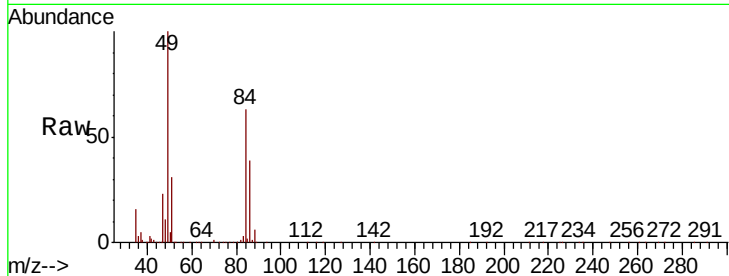
Tgt Ion: 45 Resp: 511838
 Ion Ratio Lower Upper
 45 100
 58 3.0 2.9 4.3





#20
Methvlene Chloride
Concen: 20.717 ppbv
RT: 4.34
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 25 Mar 2021 12:16

Tot Ion:	84	Resp:	1348291
Ion	Ratio	Lower	Upper
84	100		
49	158.9	122.9	184.3
51	49.8	36.9	55.3
86	62.6	48.2	72.4



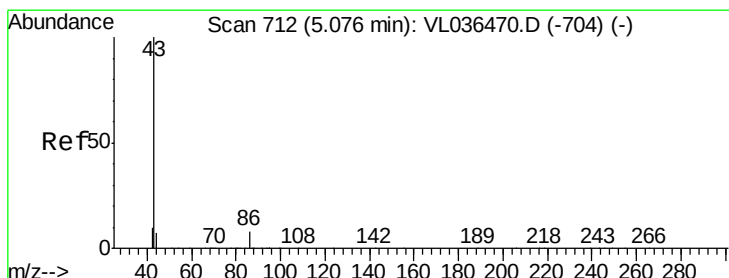
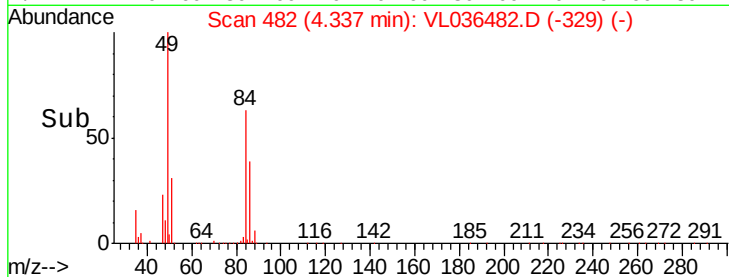
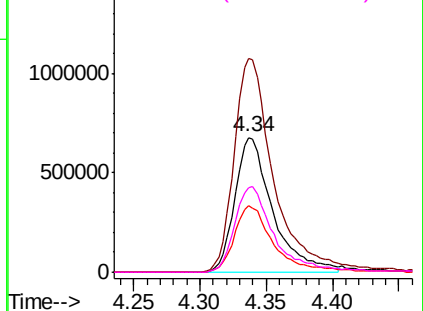
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

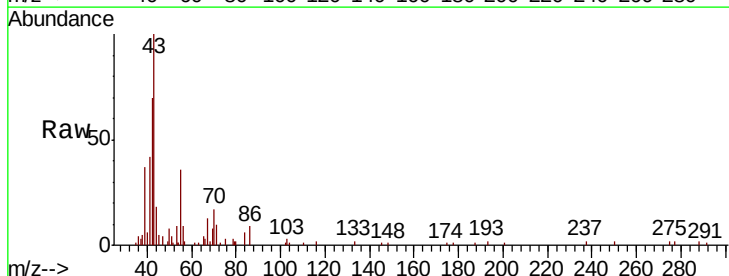
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23
Vinyl Acetate
Concen: 0.058 ppbv
RT: 5.06 min Scan# 707
Delta R.T. -0.02 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

Tgt Ion:	43	Resp:	13683
Ion	Ratio	Lower	Upper
43	100		
86	3.1	5.4	8.0#
42	71.8	8.5	12.7#
44	11.3	4.6	7.0#



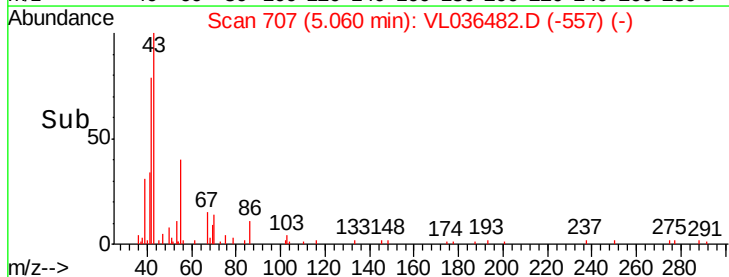
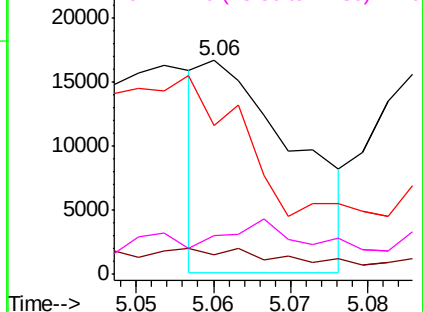
Abundance

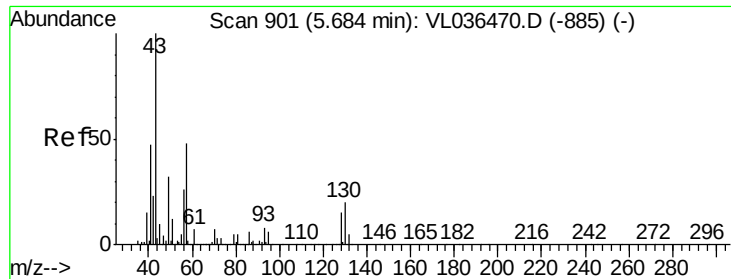
Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

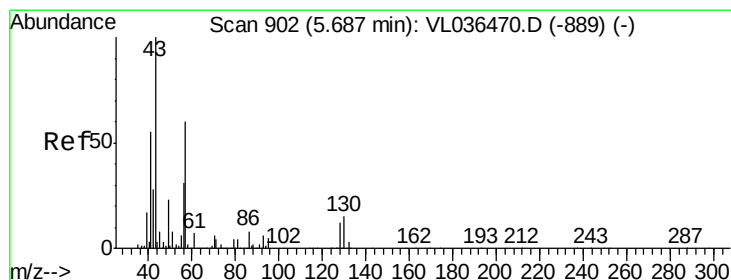
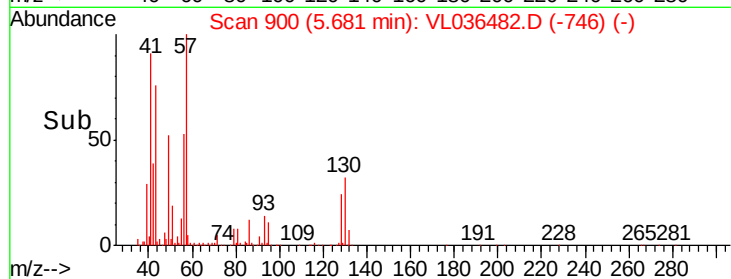
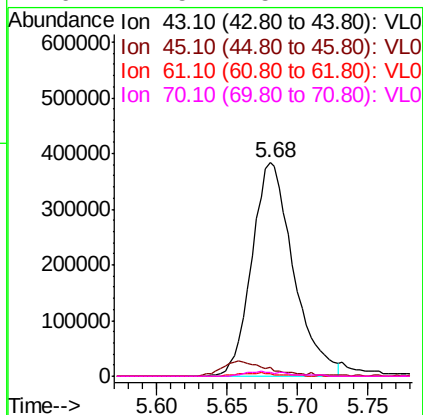
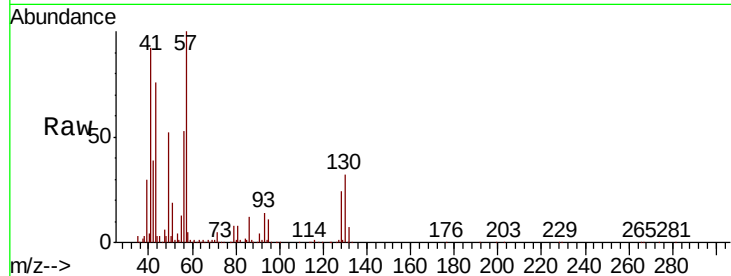
Ion 44.10 (43.80 to 44.80): VL0





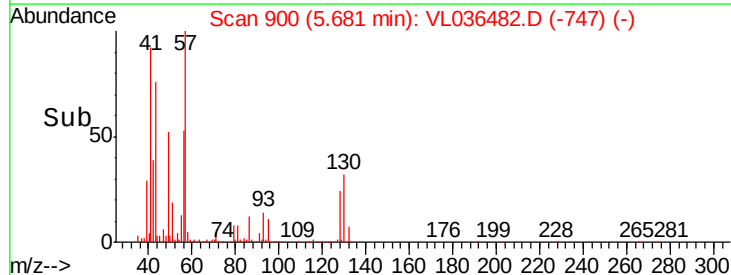
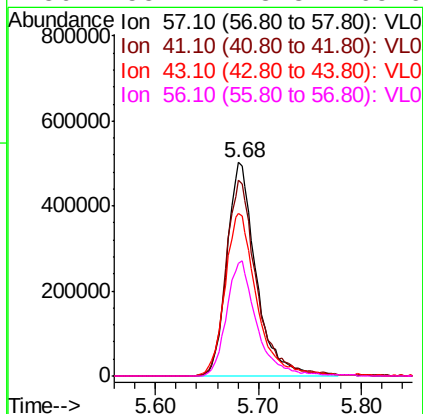
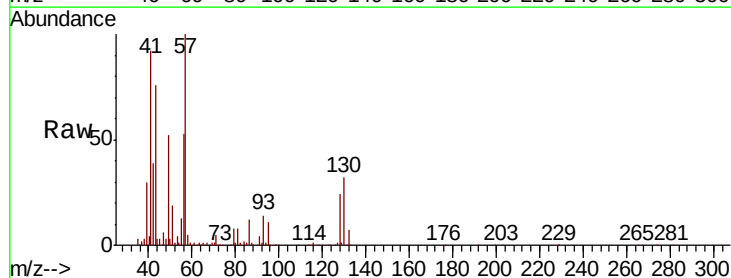
#25
Ethyl Acetate
Concen: 2.392 ppbv
RT: 5.68 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 25 Mar 2021 12:16

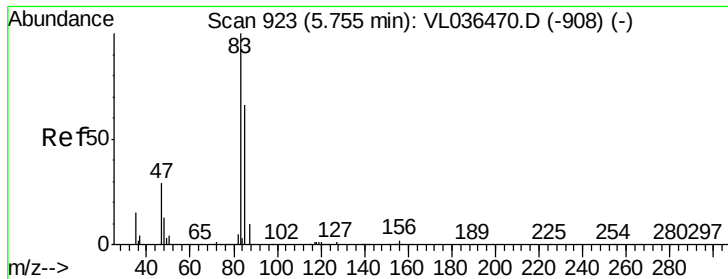
Tot Ion:	43	Resp:	790582
Ion	Ratio	Lower	Upper
43	100		
45	8.1	7.9	11.9
61	1.8	7.4	11.2#
70	2.5	5.1	7.7#



#26
Hexane
Concen: 6.450 ppbv
RT: 5.68 min Scan# 900
Delta R.T.: -0.01 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

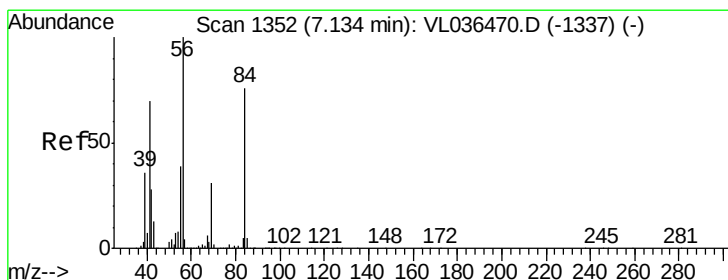
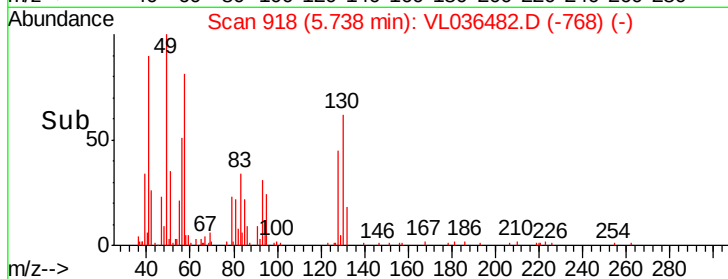
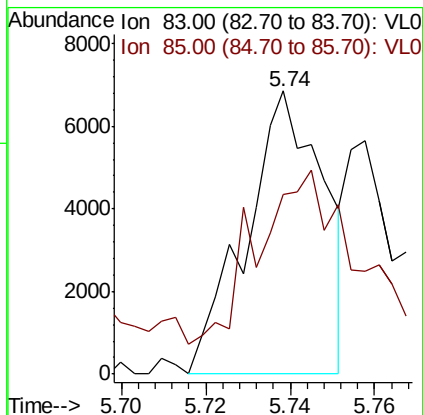
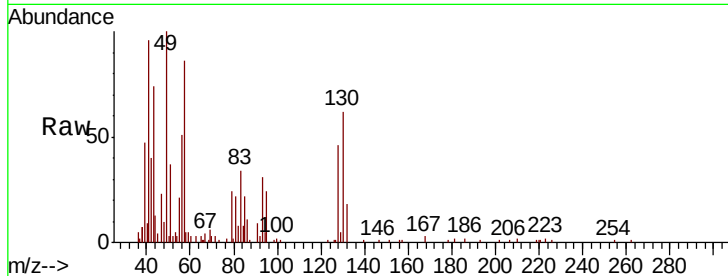
Tgt Ion:	57	Resp:	989197
Ion	Ratio	Lower	Upper
57	100		
41	97.4	77.2	115.8
43	82.7	173.8	260.6#
56	55.7	43.8	65.6





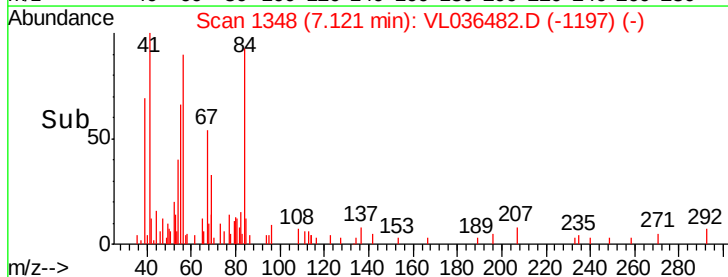
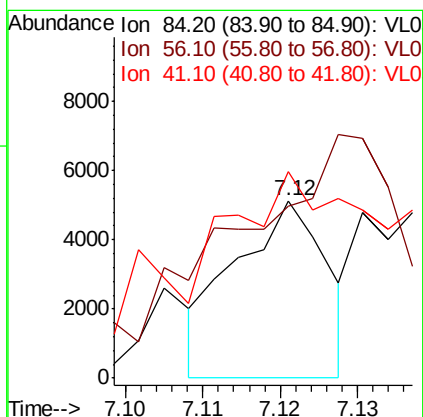
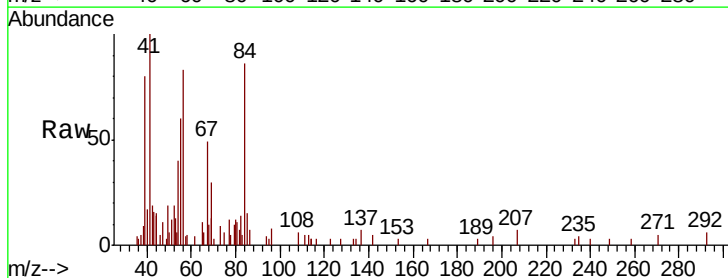
#29
Chloroform
Concen: 0.035 ppbv
RT: 5.74
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 25 Mar 2021 12:16

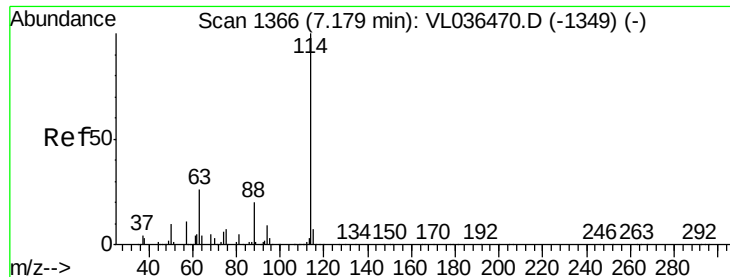
Tot Ion: 83 Resp: 8683
Ion Ratio Lower Upper
83 100
85 53.1 52.6 78.8



#30
Cyclohexane
Concen: 0.034 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.01 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

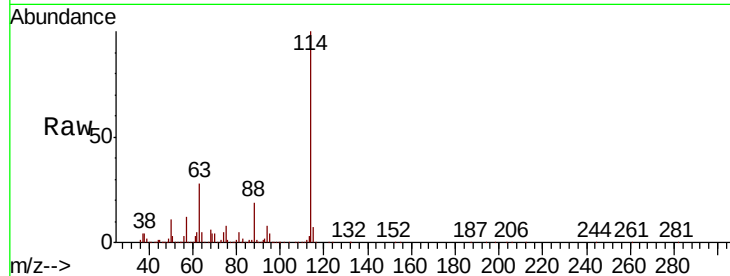
Tgt Ion: 84 Resp: 4254
Ion Ratio Lower Upper
84 100
56 0.0 114.6 171.8#
41 372.2 75.3 112.9#



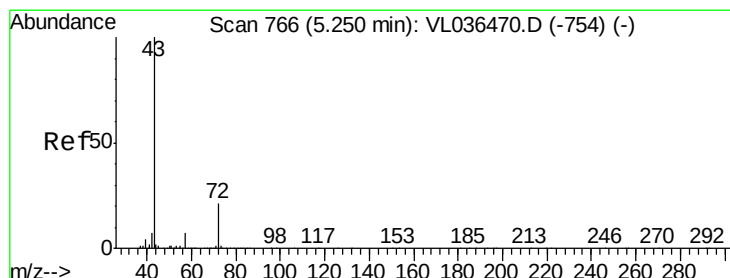
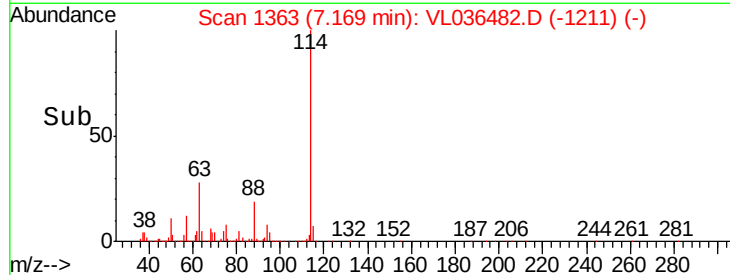
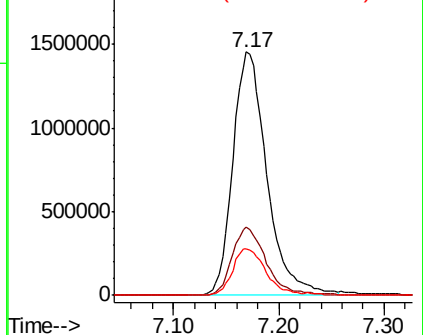


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Mar 2021 12:10

Tot Ion:114 Resp: 3253273
 Ion Ratio Lower Upper
 114 100
 63 28.3 22.4 33.6
 88 19.2 15.4 23.0

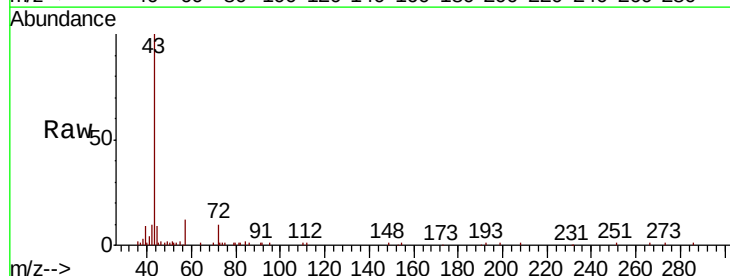


Abundance Ion 114.10 (113.80 to 114.80): VL0
 2000000 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

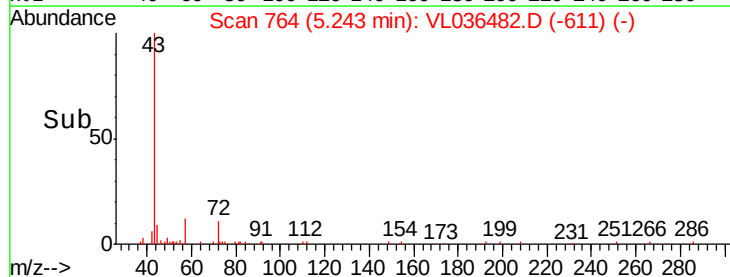
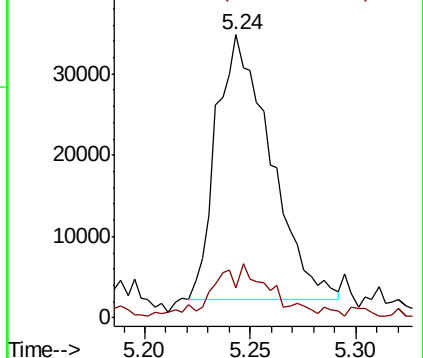


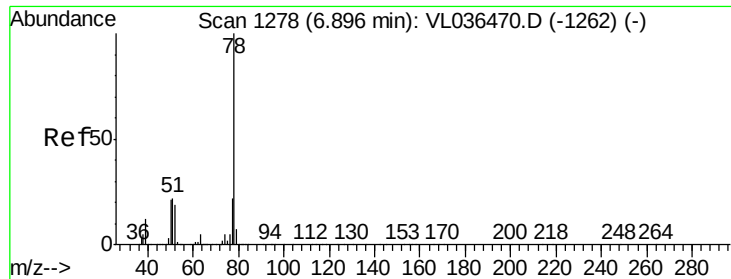
#34
 2-Butanone
 Concen: 0.368 ppbv
 RT: 5.24 min Scan# 764
 Delta R.T. -0.01 min
 Lab File: VL036482.D
 Acq: 25 Mar 2021 12:16

Tgt Ion: 43 Resp: 58469
 Ion Ratio Lower Upper
 43 100
 72 24.4 17.0 25.6



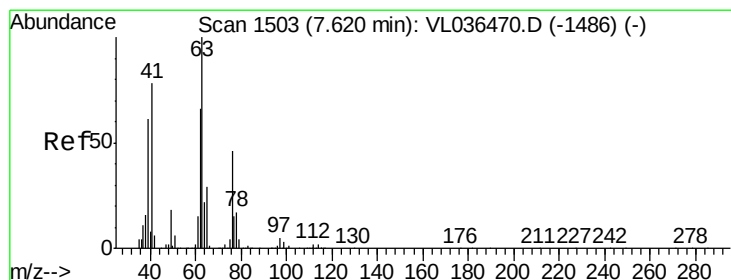
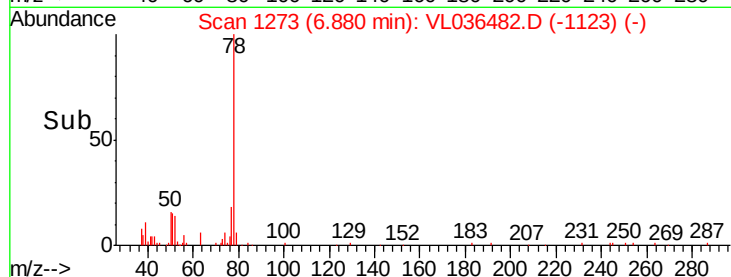
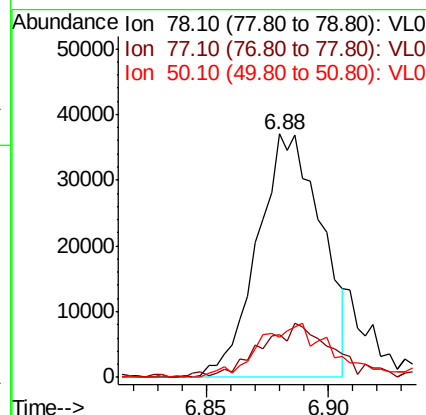
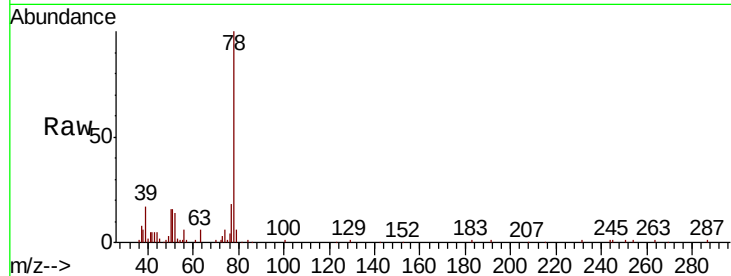
Abundance Ion 43.10 (42.80 to 43.80): VL0
 40000 Ion 72.10 (71.80 to 72.80): VL0





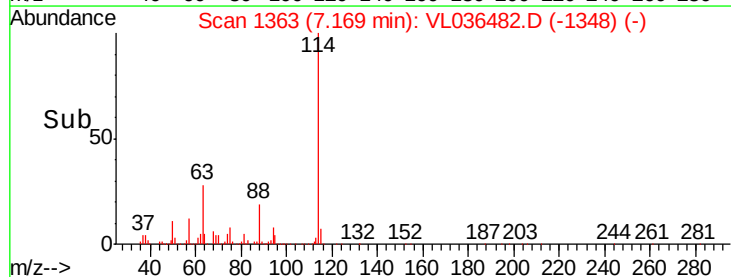
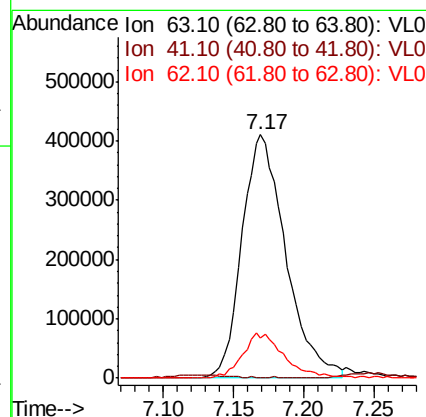
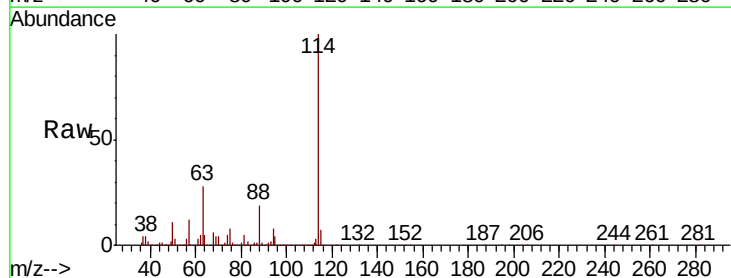
#36
Benzene
Concen: 0.224 ppbv
RT: 6.88
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 25 Mar 2021 12:16

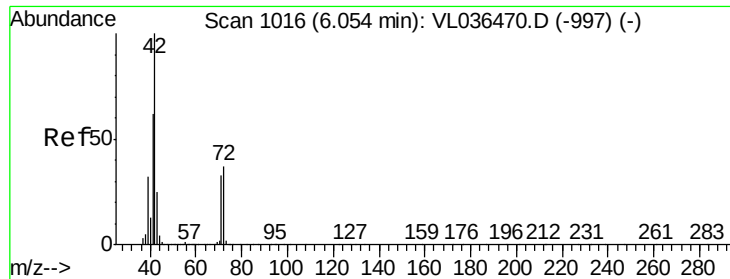
Tot Ion	Ratio	Lower	Upper
78	100		
77	16.0	18.0	27.0#
50	16.5	16.5	24.7#



#39
1,2-Dichloropropane
Concen: 7.337 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.45 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

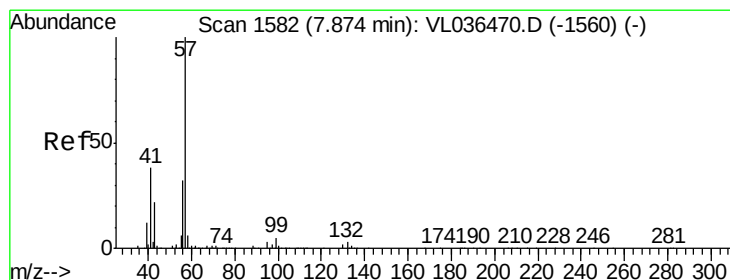
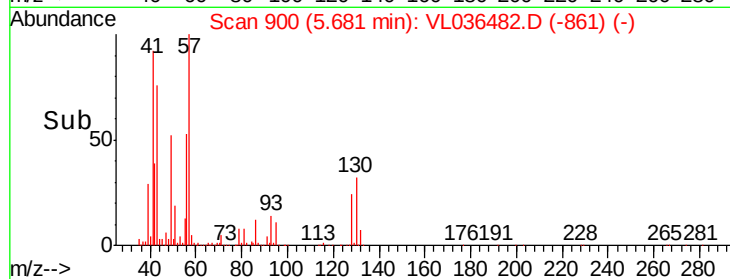
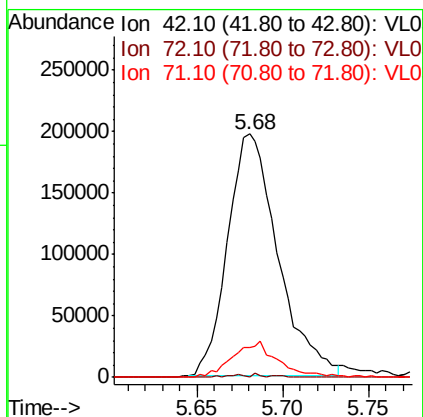
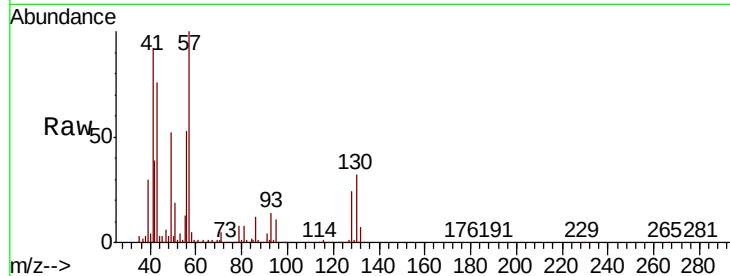
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	62.4	93.6#
62	16.4	52.8	79.2#





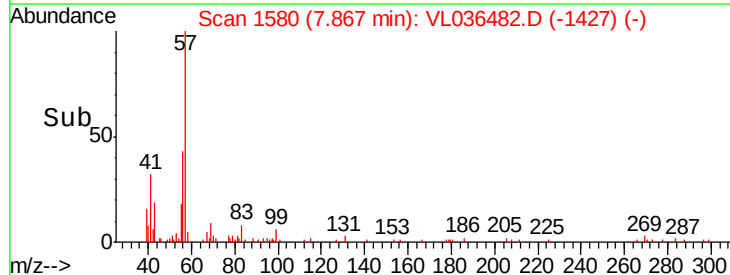
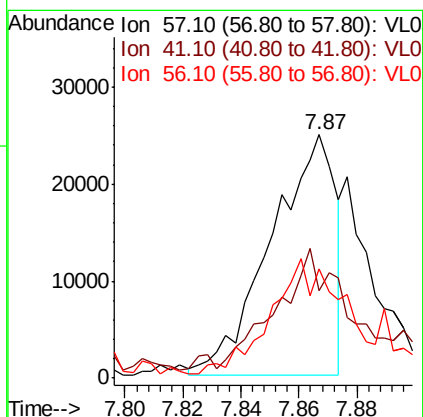
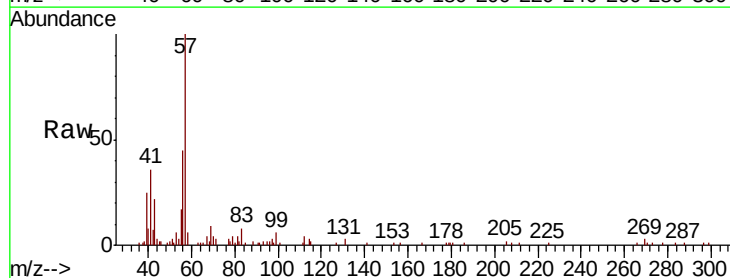
#41
Tetrahydrofuran
Concen: 5.437 ppbv
RT: 5.68
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId:
Acq: 25 Mar 2021 12:16

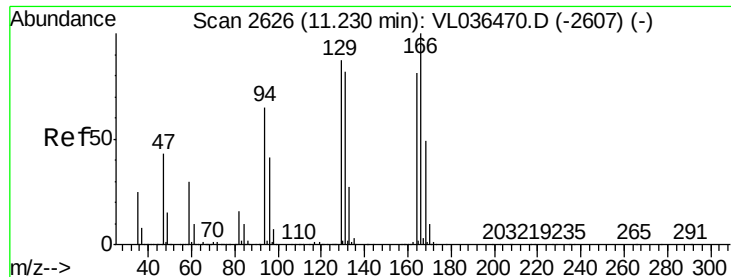
Tot Ion	Ratio	Lower	Upper
42	100		
72	1.0	27.6	41.4#
71	13.8	27.0	40.4#



#44
2,2,4-Trimethylpentane
Concen: 0.073 ppbv
RT: 7.87 min Scan# 1580
Delta R.T. -0.01 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

Tgt Ion	Ratio	Lower	Upper
57	100		
41	86.4	28.8	43.2#
56	75.4	26.1	39.1#





#52

Tetrachloroethene

Concen: 0.258 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 25 Mar 2021 12:16

Tot Ion:164 Resp: 28534

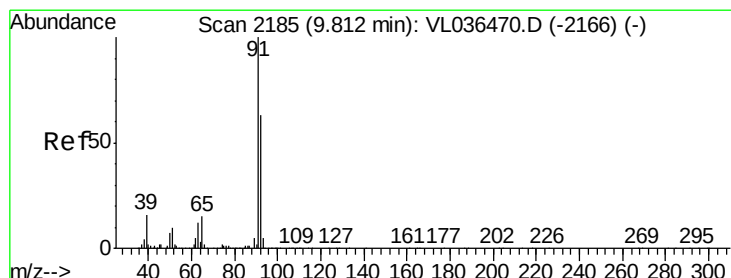
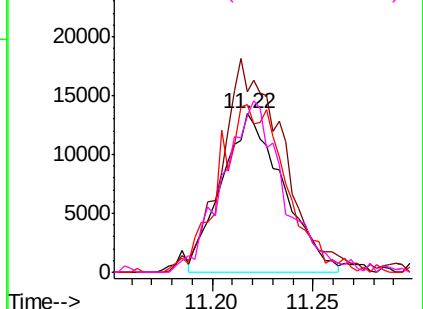
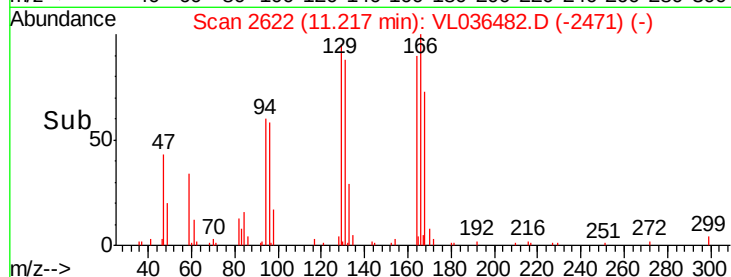
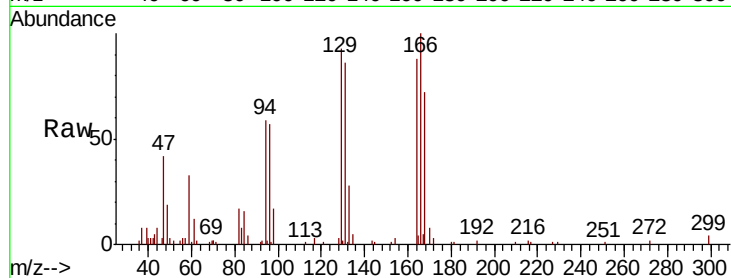
Ion Ratio Lower Upper

164 100

166 111.2 98.3 147.5

129 104.7 85.8 128.8

131 97.2 80.9 121.3



#53

Toluene

Concen: 3.091 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL036482.D

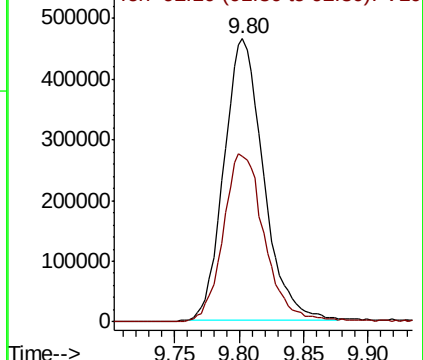
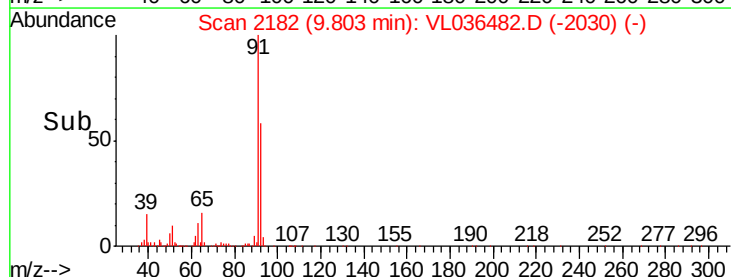
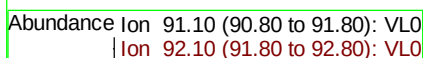
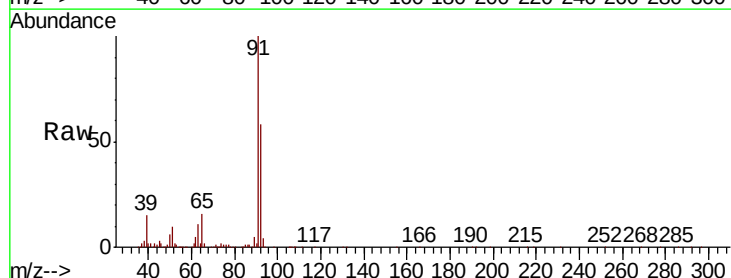
Acq: 25 Mar 2021 12:16

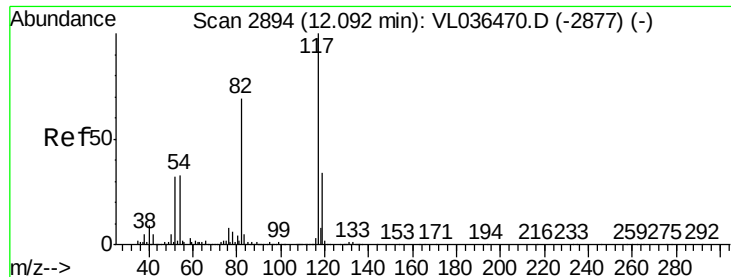
Tgt Ion: 91 Resp: 987629

Ion Ratio Lower Upper

91 100

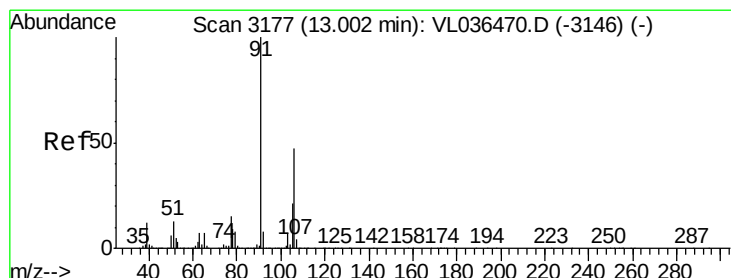
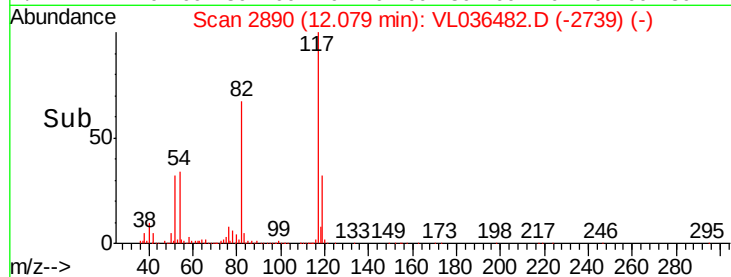
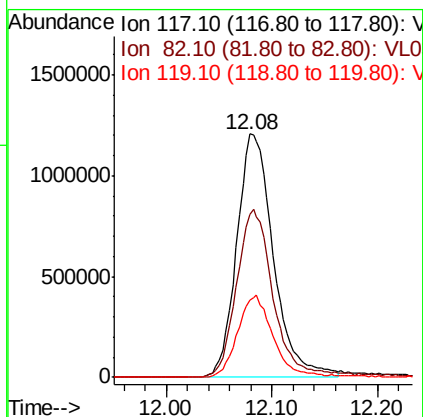
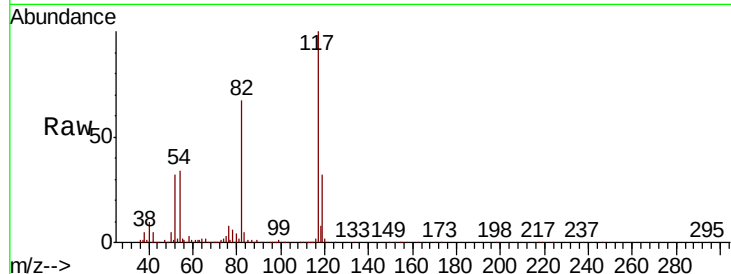
92 62.7 48.8 73.2





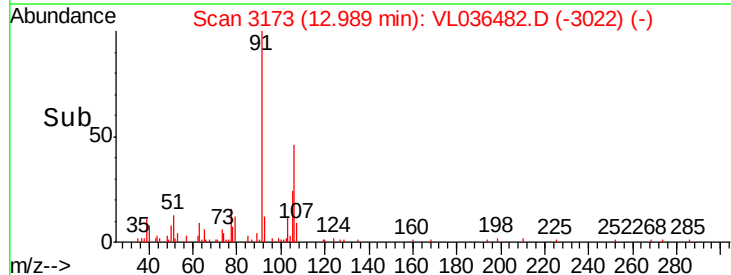
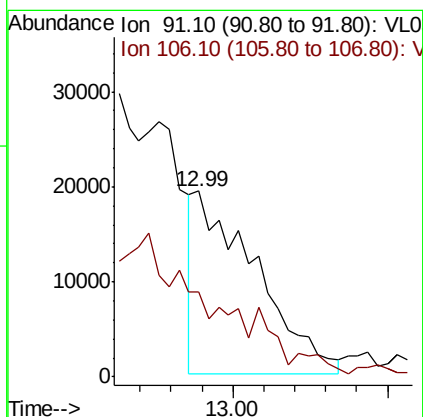
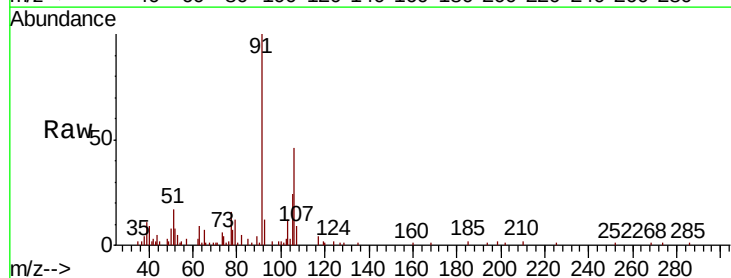
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 25 Mar 2021 12:10

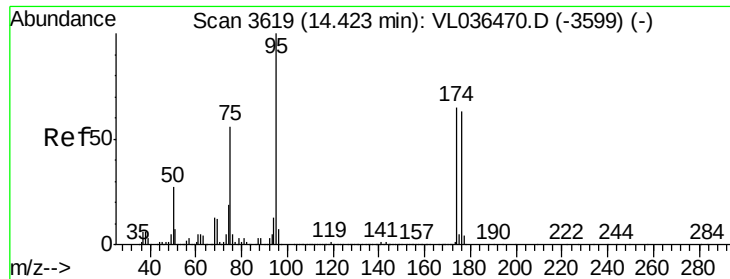
Tot Ion: 117 Resp: 2921813
Ion Ratio Lower Upper
117 100
82 71.2 57.4 86.0
119 33.5 47.4 71.0#



#59
m/p-Xylene
Concen: 0.071 ppbv
RT: 12.99 min Scan# 3173
Delta R.T.: -0.01 min
Lab File: VL036482.D
Acq: 25 Mar 2021 12:16

Tgt Ion: 91 Resp: 26233
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.578 ppbv

RT: 14.41 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 25 Mar 2021 12:10

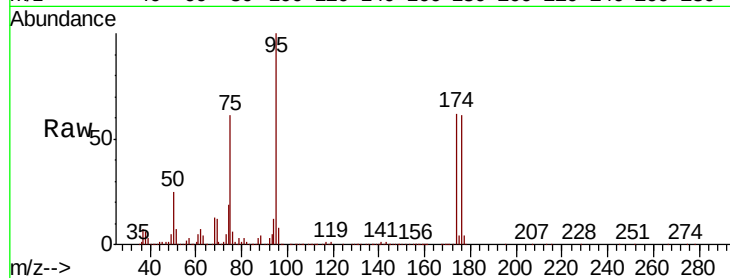
Tot Ion: 95 Resp: 2230386

Ion Ratio Lower Upper

95 100

174 67.9 51.0 76.6

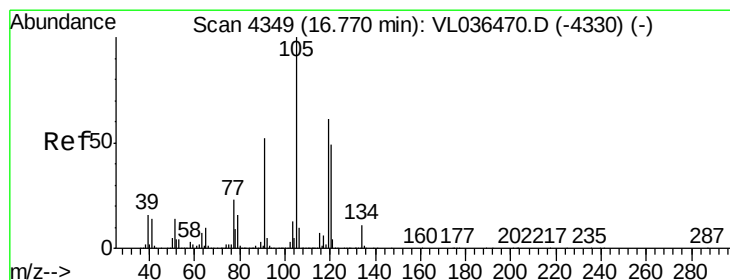
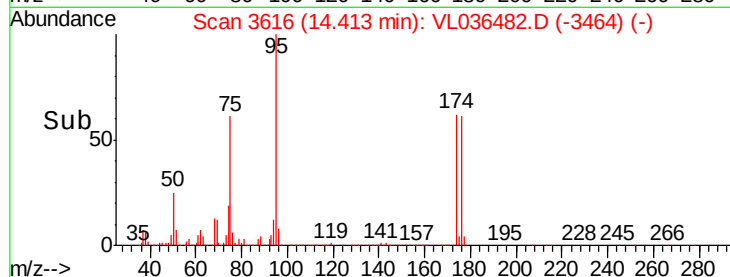
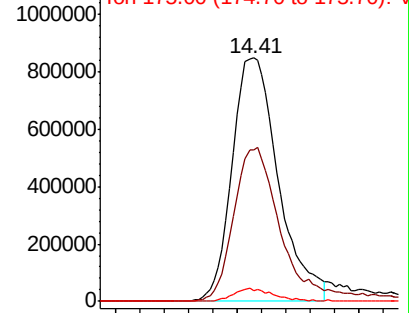
175 4.8 3.9 5.9



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.050 ppbv

RT: 16.76 min Scan# 4345

Delta R.T. -0.01 min

Lab File: VL036482.D

Acq: 25 Mar 2021 12:16

Tgt Ion:105 Resp: 19539

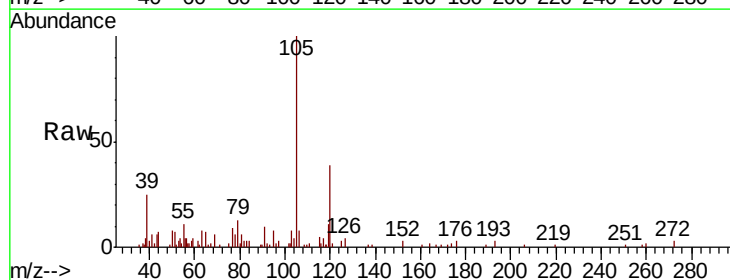
Ion Ratio Lower Upper

105 100

120 36.9 39.2 58.8#

91 11.3 42.6 64.0#

77 2.1 18.6 28.0#



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

