

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071922\
 Data File : VL039485.D
 Acq On : 19 Jul 2022 16:45
 Operator : SY/AP
 Sample : N3750-01 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1

Quant Time: Jul 20 05:38:52 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1231762	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3515403	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3213846	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2414778	10.13	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.30%

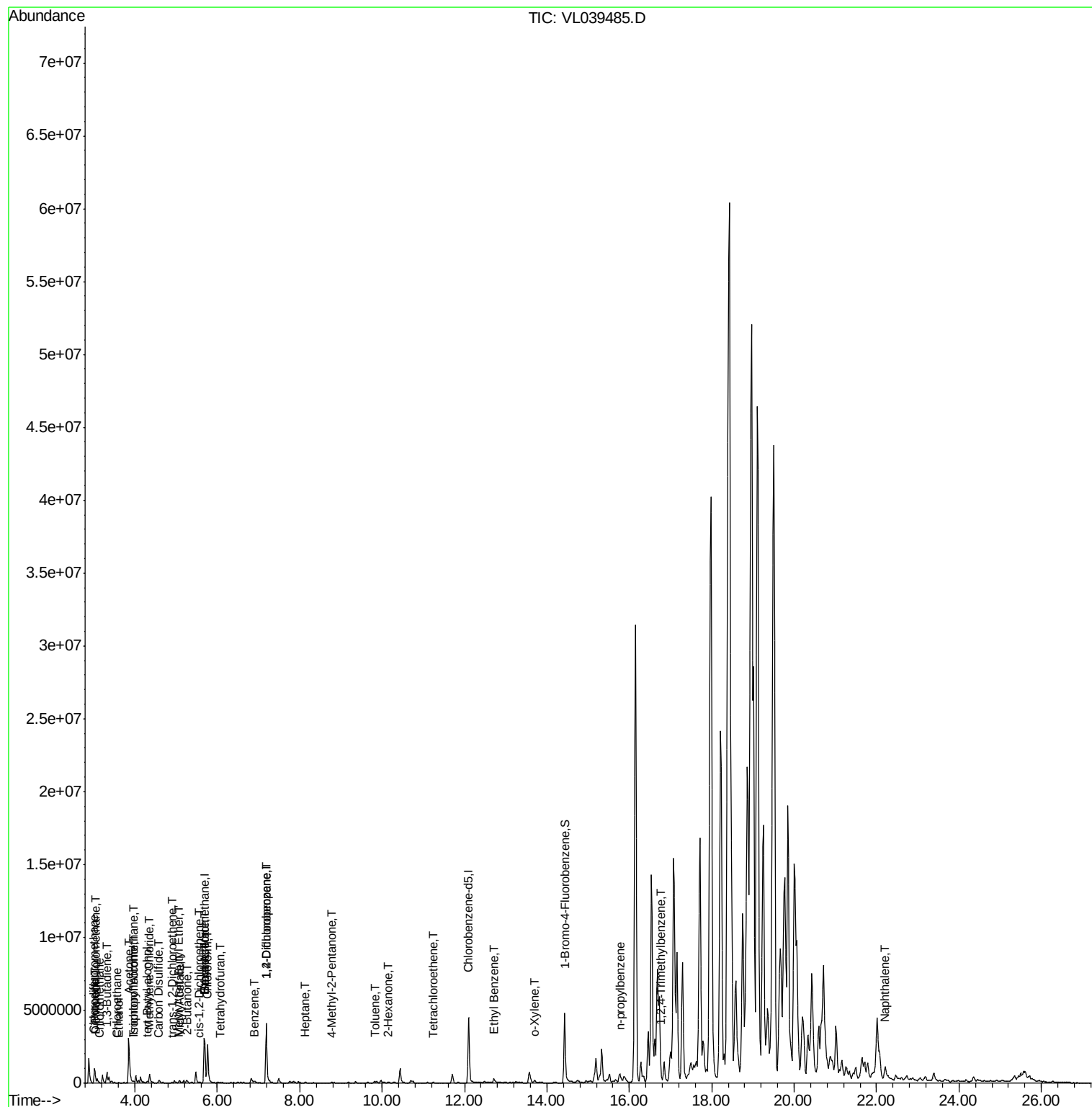
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	11285	0.064 ppbv #	84
3) Chlorodifluoromethane	3.00	51	18961	0.121 ppbv	93
4) Chloromethane	3.15	50	6760	0.079 ppbv #	78
7) Chloroethane	3.56	64	2489	0.083 ppbv #	44
9) Propene	3.02	41	540072	7.652 ppbv	89
10) Heptane	8.14	43	15469	0.094 ppbv #	1
11) Trichlorofluoromethane	3.96	101	6583	0.033 ppbv	92
13) Ethanol	3.61	45	20132	4.917 ppbv	75
15) Acetone	3.85	43	4174583	28.647 ppbv	95
16) 1,3-Butadiene	3.32	39	272416	3.603 ppbv #	27
17) tert-Butyl alcohol	4.30	59	52417	0.424 ppbv #	71
19) Isopropyl Alcohol	3.97	45	20539	0.264 ppbv #	88
20) Methylene Chloride	4.35	84	243399	4.190 ppbv	96
22) trans-1,2-Dichloroethene	4.90	96	2033	0.031 ppbv #	33
23) Vinyl Acetate	5.08	43	173685	1.783 ppbv #	91
25) Ethyl Acetate	5.70	43	544354	1.822 ppbv #	77
26) Hexane	5.70	57	802045	6.659 ppbv #	38
27) Carbon Disulfide	4.55	76	8986	0.062 ppbv #	1
28) Methyl tert-Butyl Ether	5.05	73	7824	0.061 ppbv #	50
29) Chloroform	5.76	83	2062846	9.849 ppbv	99
31) cis-1,2-Dichloroethene	5.56	61	13766	0.108 ppbv	97
34) 2-Butanone	5.26	43	259631	1.467 ppbv	93
36) Benzene	6.91	78	34046	0.125 ppbv #	94
39) 1,2-Dichloropropane	7.19	63	856994	8.432 ppbv #	25
41) Tetrahydrofuran	6.07	42	3549	0.035 ppbv #	1
50) 4-Methyl-2-Pentanone	8.76	43	19534	0.073 ppbv #	39
51) 2-Hexanone	10.16	43	23664	0.117 ppbv #	6
52) Tetrachloroethene	11.25	164	3717	0.034 ppbv #	48
53) Toluene	9.83	91	27060	0.086 ppbv #	21
58) Ethyl Benzene	12.72	91	15536	0.037 ppbv	97
60) o-Xylene	13.70	91	31814	0.092 ppbv	94
64) n-propylbenzene	15.78	120	5164	0.039 ppbv	69
74) 1,2,4-Trimethylbenzene	16.78	105	61944	0.150 ppbv #	59
79) Naphthalene	22.21	128	13289	0.047 ppbv #	61

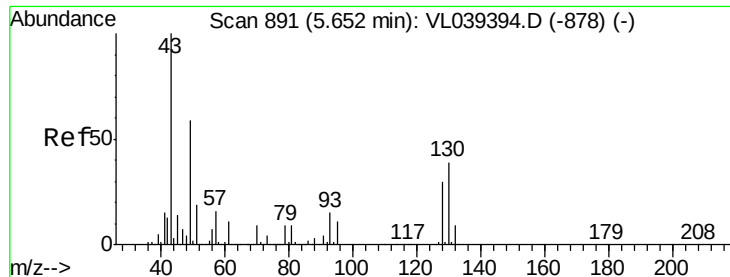
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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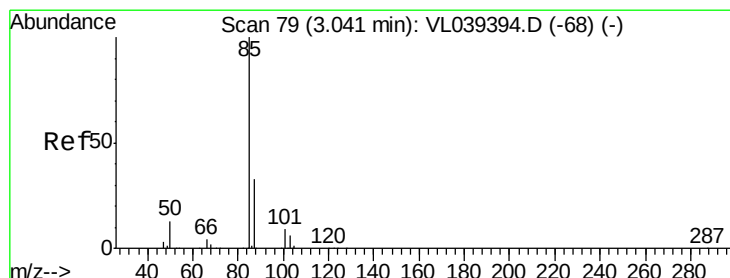
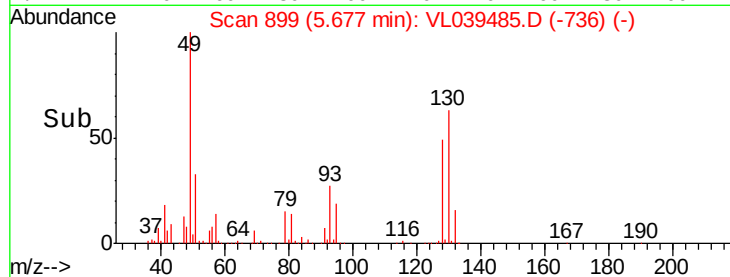
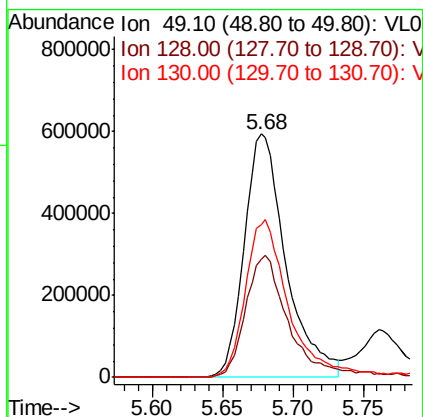
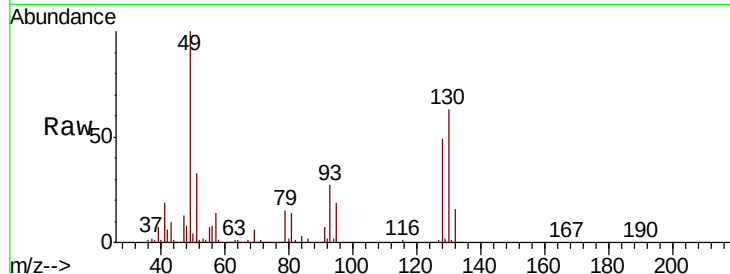
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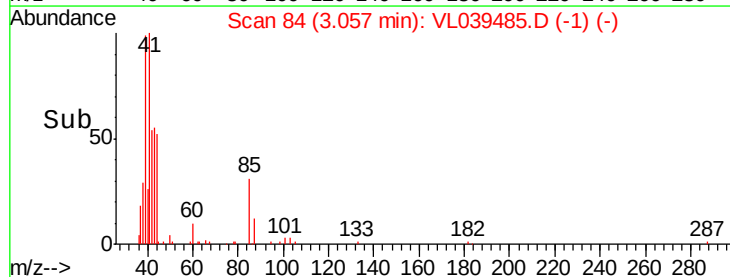
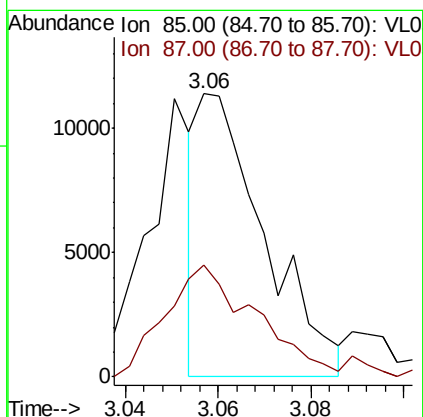
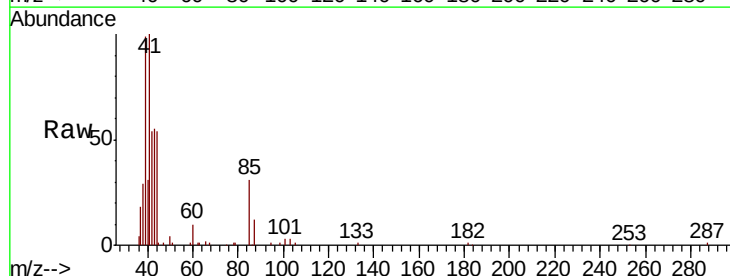
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 SV-1
 Acq: 19 Jul 2022 16:45

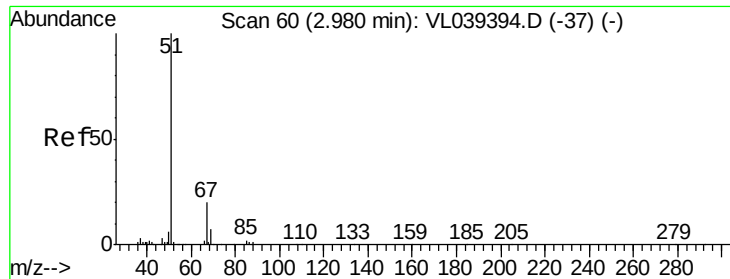
Tot Ion: 49 Resp: 1231762
 Ion Ratio Lower Upper
 49 100
 128 53.4 26.7 80.0
 130 70.0 34.3 102.8



#2
 Dichlorodifluoromethane
 Concen: 0.064 ppbv
 RT: 3.06 min Scan# 84
 Delta R.T. 0.02 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

Tgt Ion: 85 Resp: 11285
 Ion Ratio Lower Upper
 85 100
 87 42.3 26.7 40.1#





#3

Chlorodifluoromethane

Concen: 0.121 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

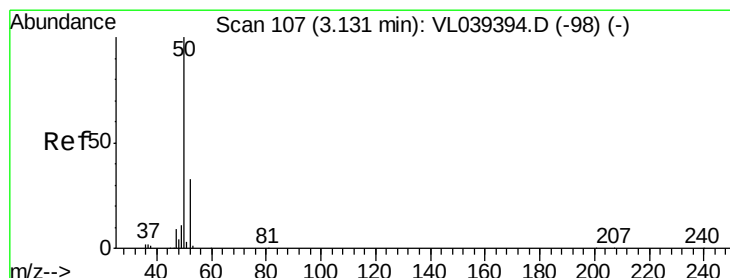
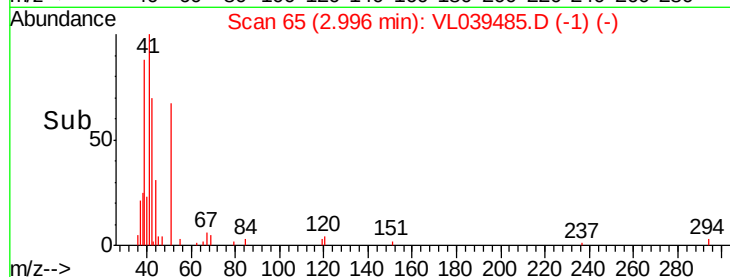
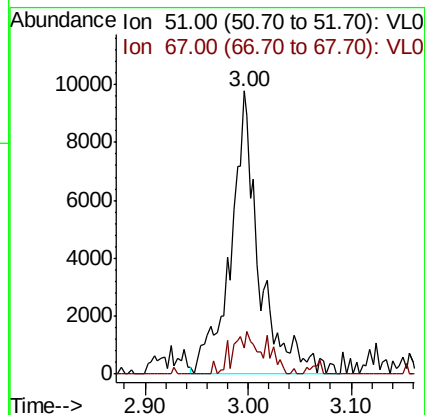
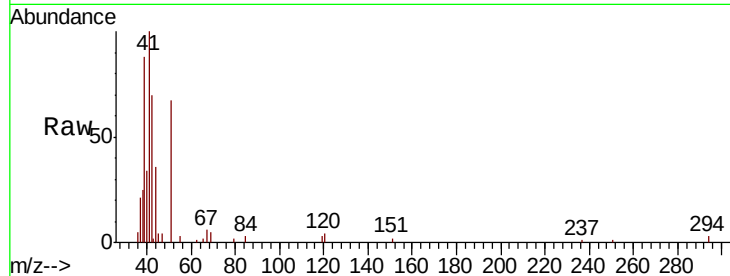
Acq: 19 Jul 2022 16:45 SV-1

Tot Ion: 51 Resp: 18961

Ion Ratio Lower Upper

51 100

67 16.6 15.7 23.5



#4

Chloromethane

Concen: 0.079 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.02 min

Lab File: VL039485.D

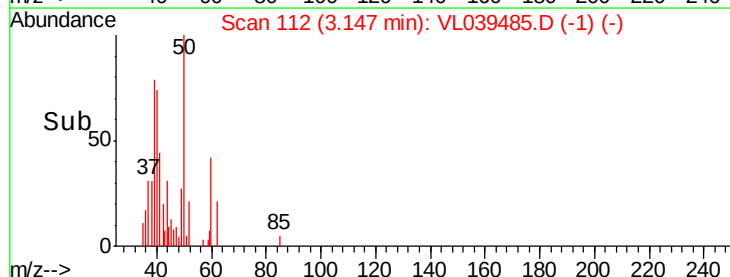
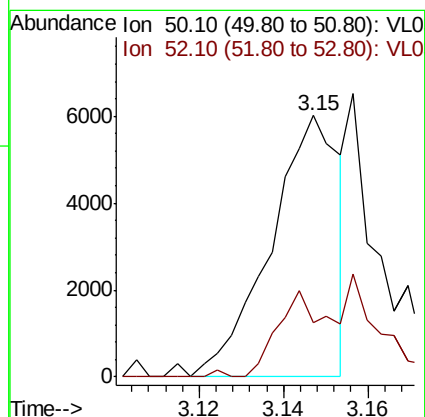
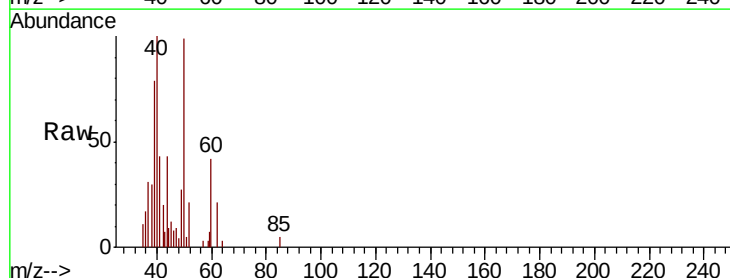
Acq: 19 Jul 2022 16:45

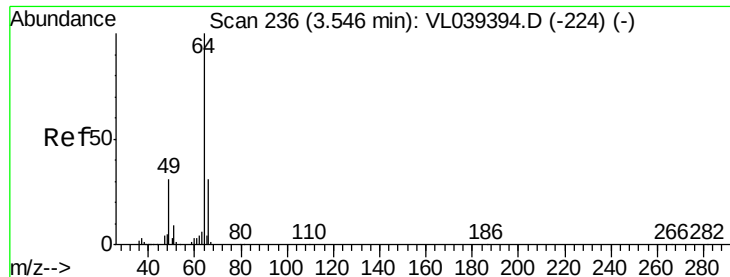
Tgt Ion: 50 Resp: 6760

Ion Ratio Lower Upper

50 100

52 20.8 26.5 39.7#





#7

Chloroethane

Concen: 0.083 ppbv

RT: 3.56 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: SV-1

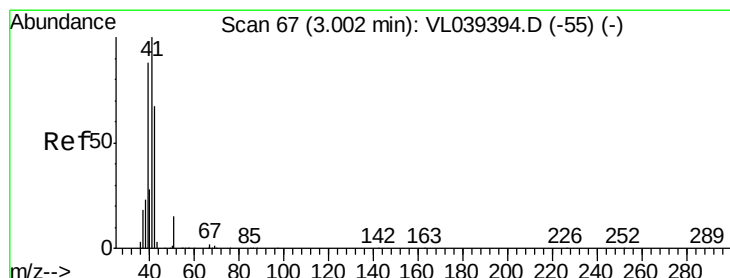
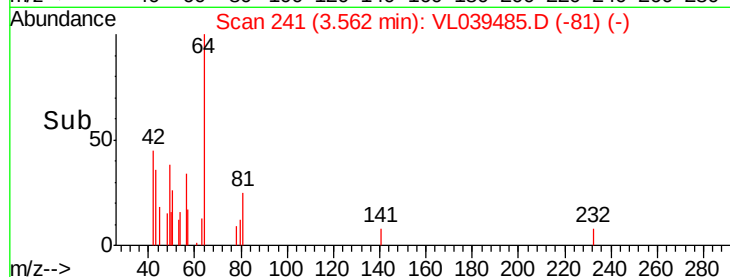
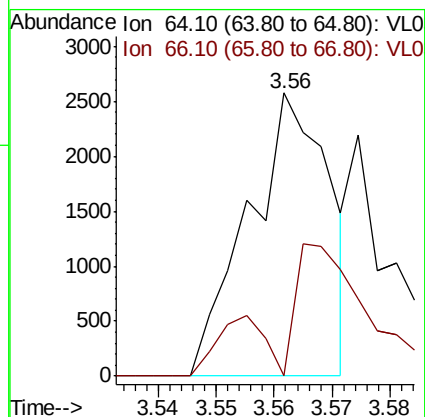
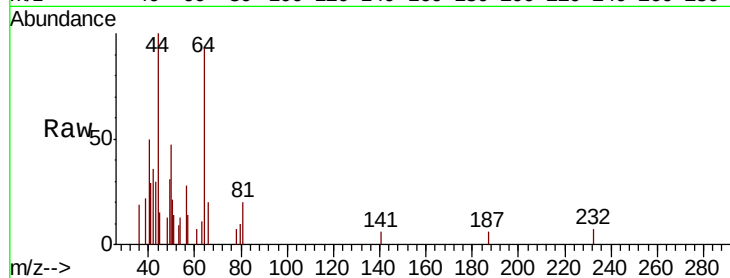
Acq: 19 Jul 2022 16:45

Tot Ion: 64 Resp: 2489

Ion Ratio Lower Upper

64 100

66 0.0 24.7 37.1#



#9

Propene

Concen: 7.652 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.02 min

Lab File: VL039485.D

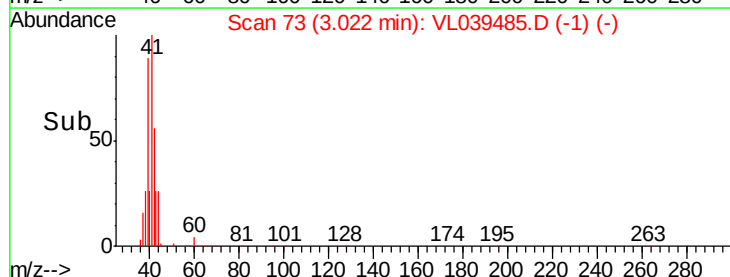
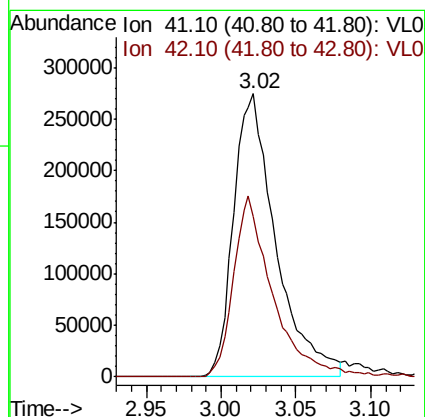
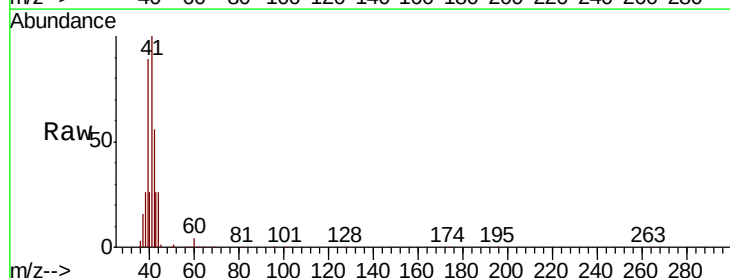
Acq: 19 Jul 2022 16:45

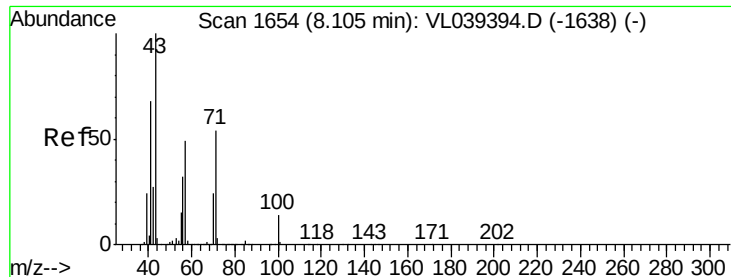
Tgt Ion: 41 Resp: 540072

Ion Ratio Lower Upper

41 100

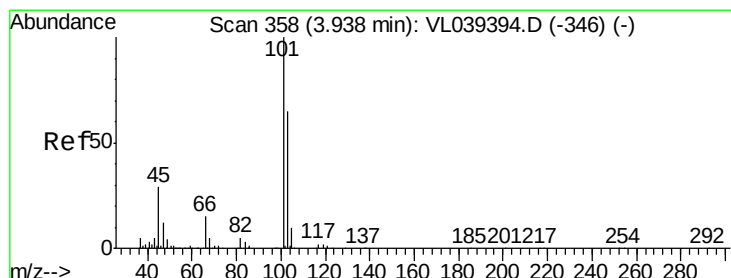
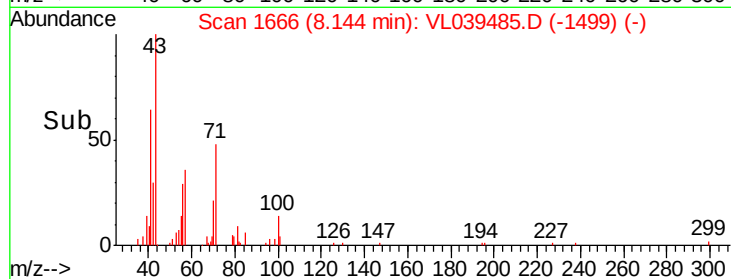
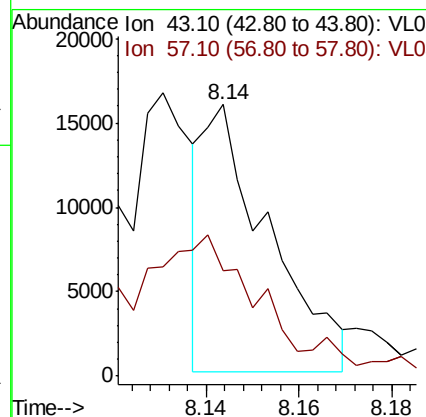
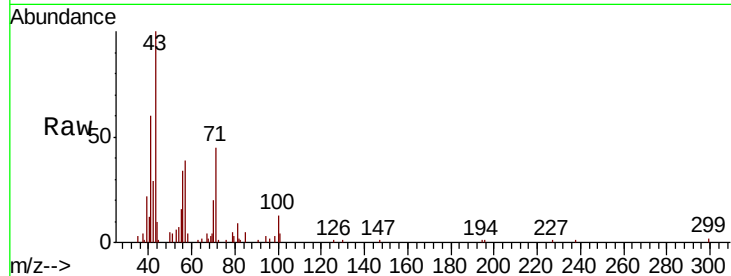
42 60.0 55.2 82.8





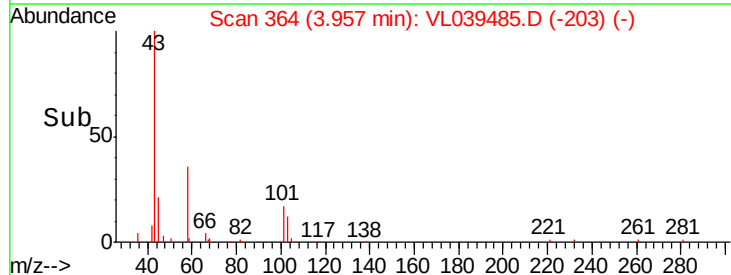
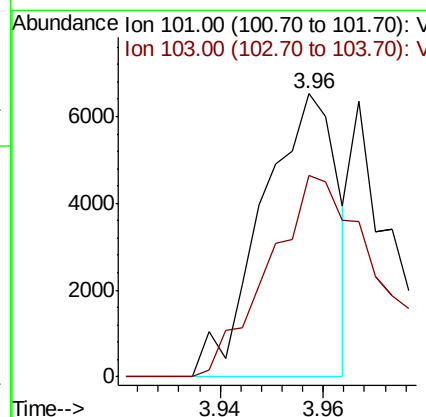
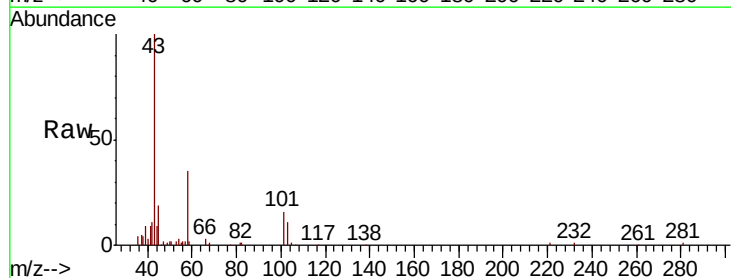
#10
 Heptane
 Concen: 0.094 ppbv
 RT: 8.14
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 16:45

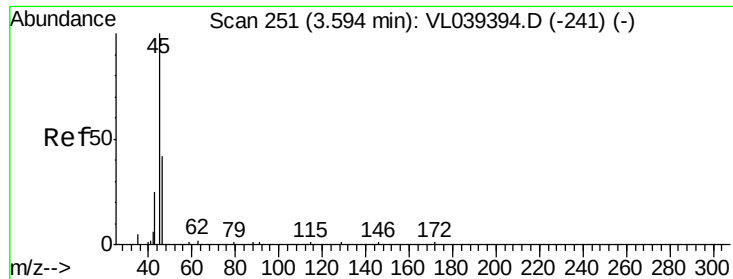
Tot Ion: 43 Resp: 15469
 Ion Ratio Lower Upper
 43 100
 57 119.8 40.5 60.7#



#11
 Trichlorofluoromethane
 Concen: 0.033 ppbv
 RT: 3.96 min Scan# 364
 Delta R.T. 0.02 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

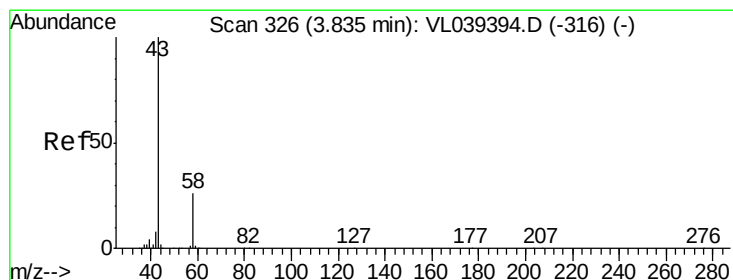
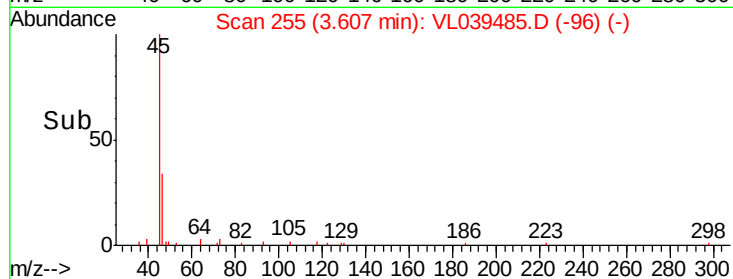
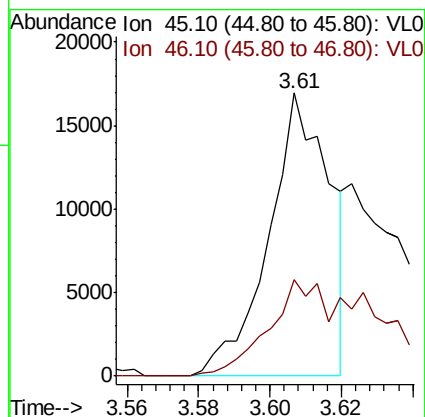
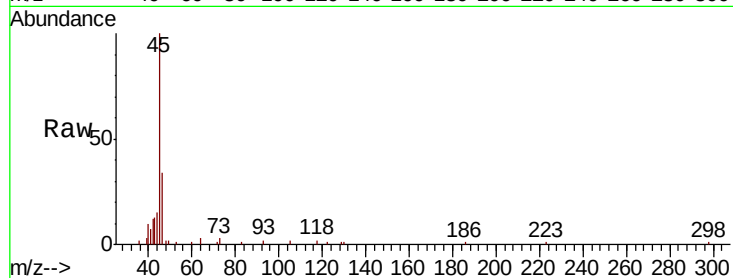
Tgt Ion: 101 Resp: 6583
 Ion Ratio Lower Upper
 101 100
 103 71.4 51.8 77.8





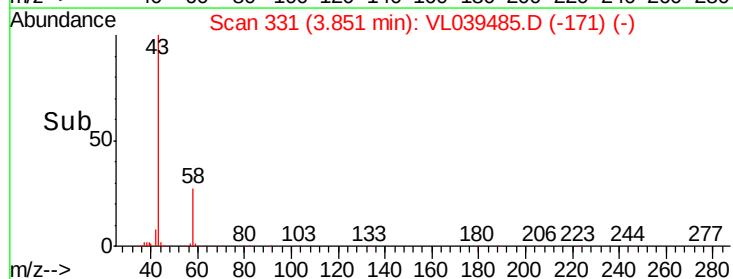
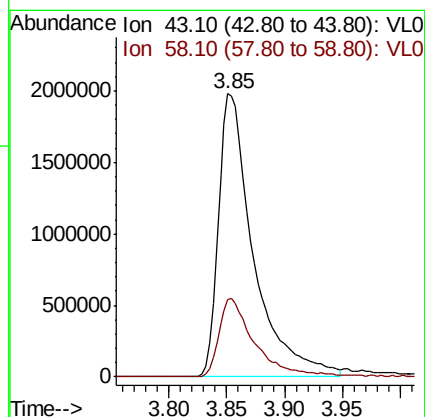
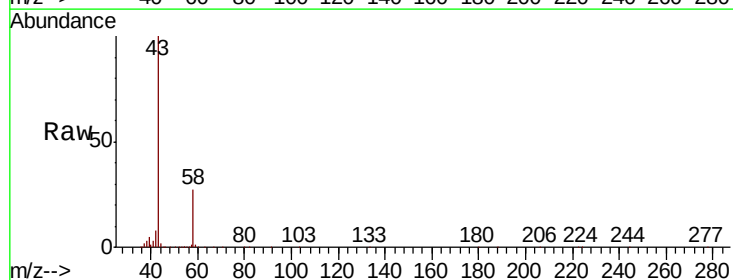
#13
Ethanol
Concen: 4.917 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-1
Acq: 19 Jul 2022 16:45

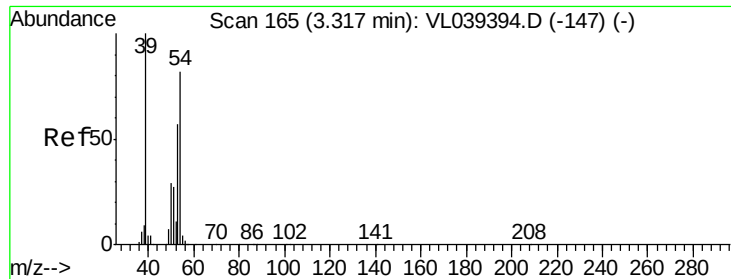
Tot Ion: 45 Resp: 20132
Ion Ratio Lower Upper
45 100
46 75.5 22.8 91.2



#15
Acetone
Concen: 28.647 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.02 min
Lab File: VL039485.D
Acq: 19 Jul 2022 16:45

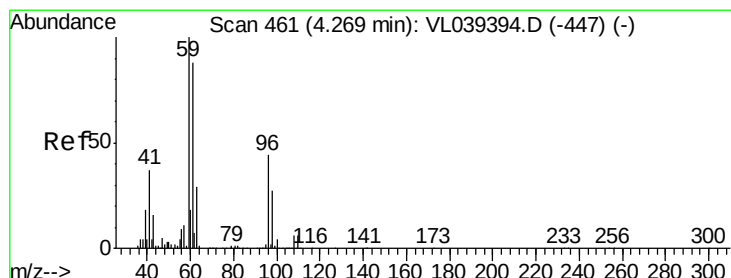
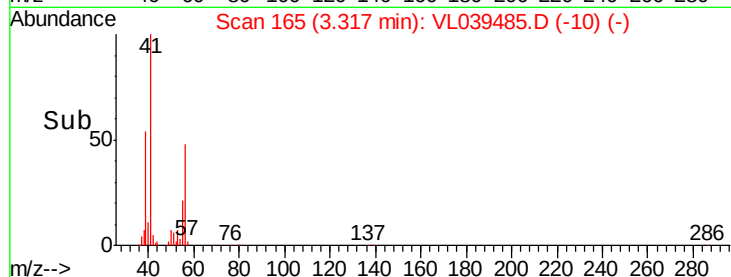
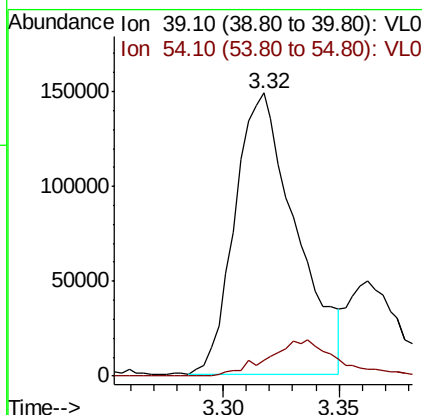
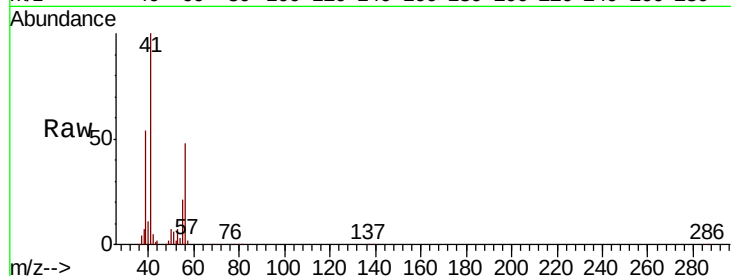
Tgt Ion: 43 Resp: 4174583
Ion Ratio Lower Upper
43 100
58 29.1 21.0 31.6





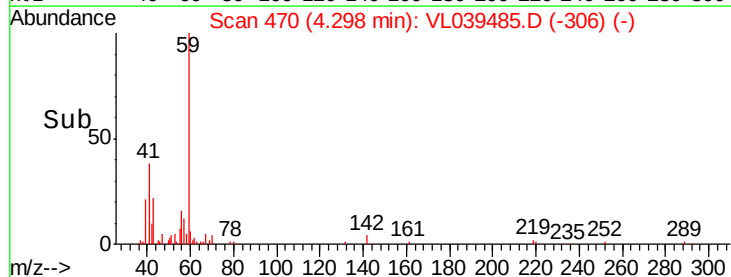
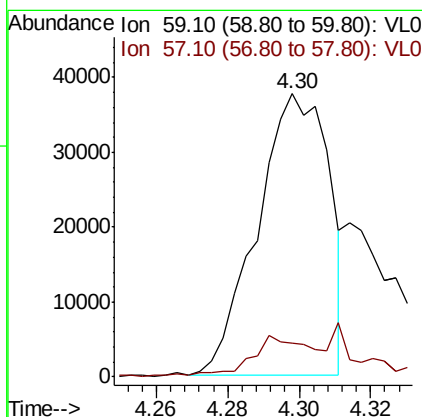
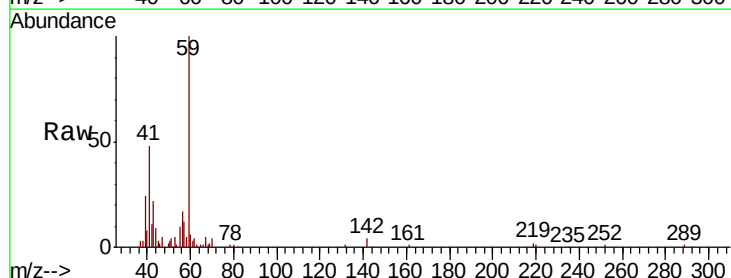
#16
 1,3-Butadiene
 Concen: 3.603 ppbv
 RT: 3.32
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-1
 Acq: 19 Jul 2022 16:45

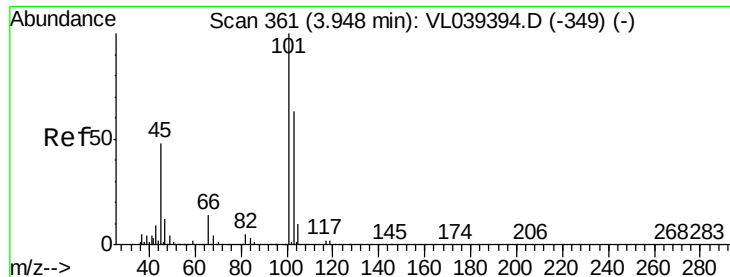
Tot Ion: 39 Resp: 272416
 Ion Ratio Lower Upper
 39 100
 54 15.1 63.7 95.5#



#17
 tert-Butyl alcohol
 Concen: 0.424 ppbv
 RT: 4.30 min Scan# 470
 Delta R.T. 0.03 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

Tgt Ion: 59 Resp: 52417
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 0.264 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

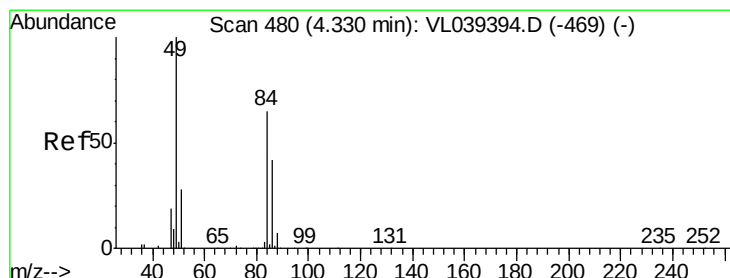
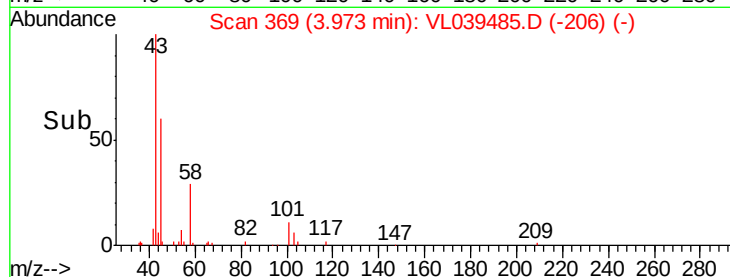
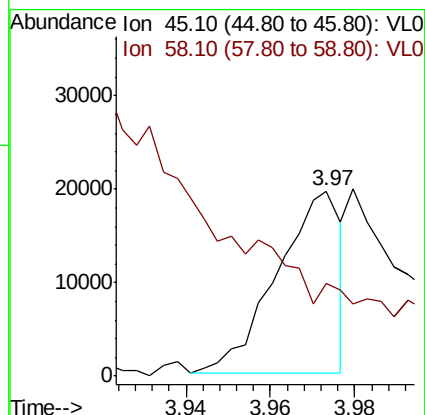
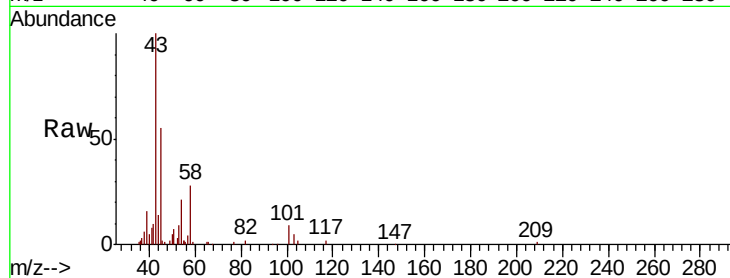
Acq: 19 Jul 2022 16:45 SV-1

Tot Ion: 45 Resp: 20539

Ion Ratio Lower Upper

45 100

58 0.0 3.2 4.8#



#20

Methylene Chloride

Concen: 4.190 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.02 min

Lab File: VL039485.D

Acq: 19 Jul 2022 16:45

Tgt Ion: 84 Resp: 243399

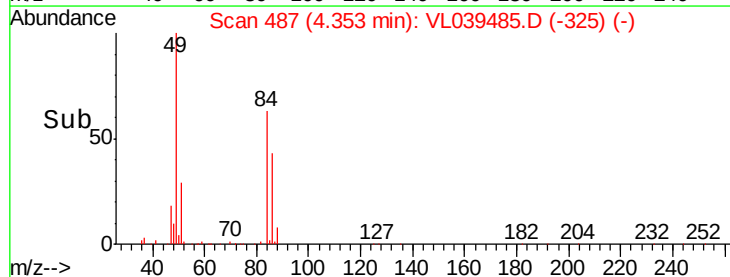
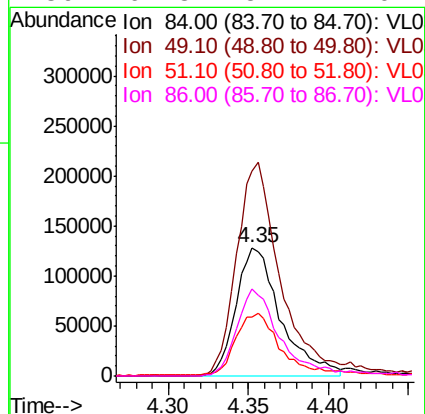
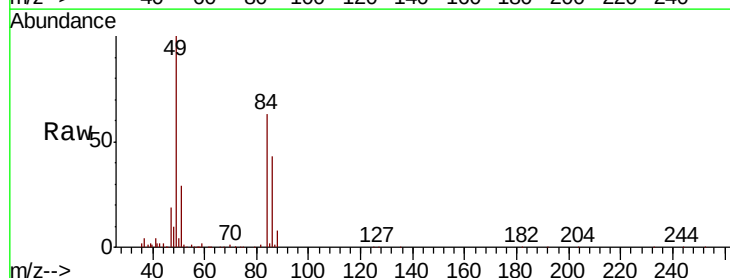
Ion Ratio Lower Upper

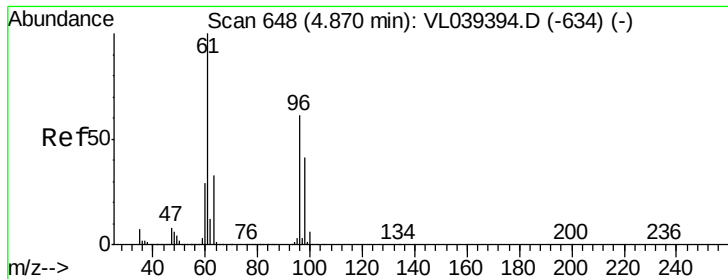
84 100

49 158.8 123.1 184.7

51 45.1 34.4 51.6

86 67.8 51.1 76.7





#22

trans-1,2-Dichloroethene

Concen: 0.031 ppbv

RT: 4.90 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 19 Jul 2022 16:45 SV-1

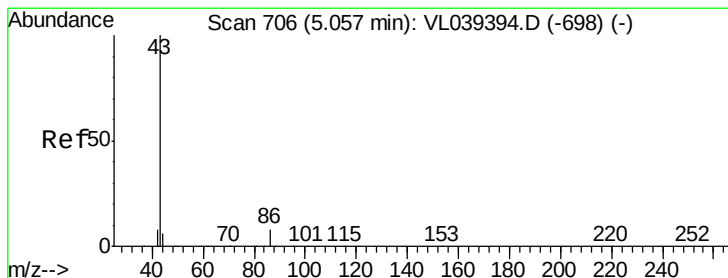
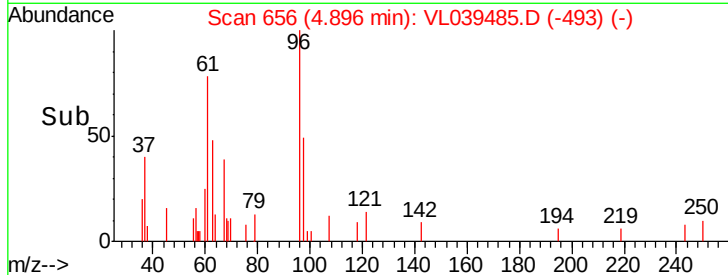
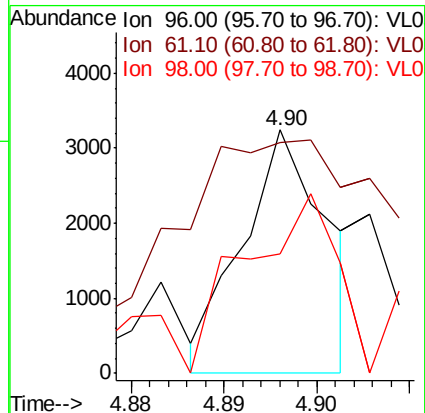
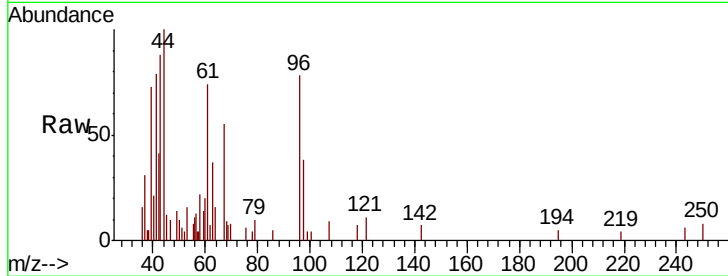
Tot Ion: 96 Resp: 2033

Ion Ratio Lower Upper

96 100

61 41.1 130.6 195.8#

98 61.1 53.4 80.0



#23

Vinyl Acetate

Concen: 1.783 ppbv

RT: 5.08 min Scan# 713

Delta R.T. 0.02 min

Lab File: VL039485.D

Acq: 19 Jul 2022 16:45

Tgt Ion: 43 Resp: 173685

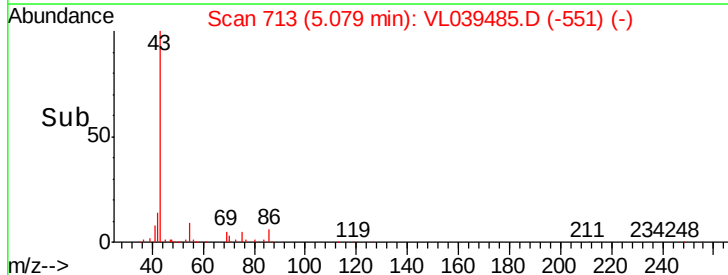
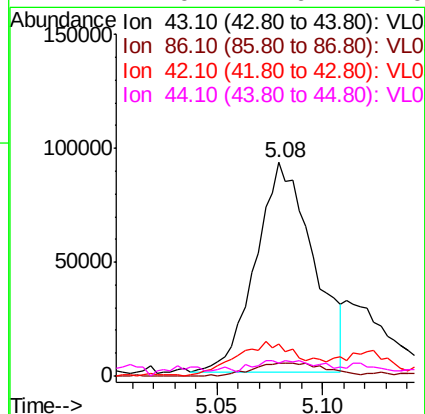
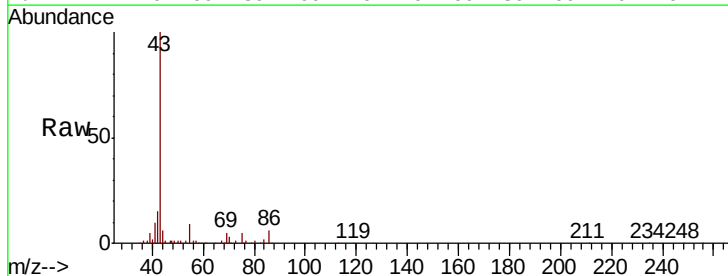
Ion Ratio Lower Upper

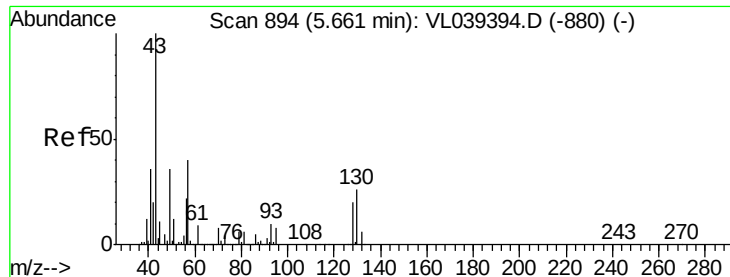
43 100

86 5.7 5.0 7.6

42 14.5 7.7 11.5#

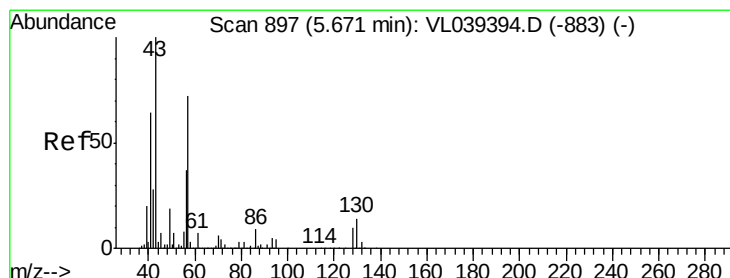
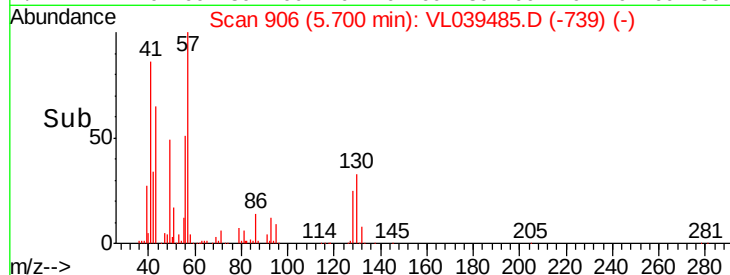
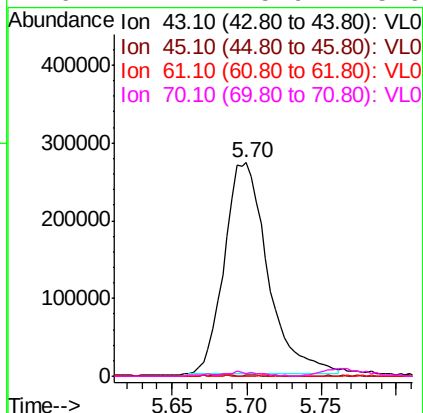
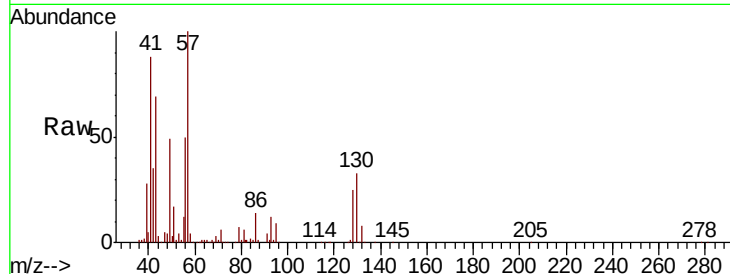
44 2.0 4.6 7.0#





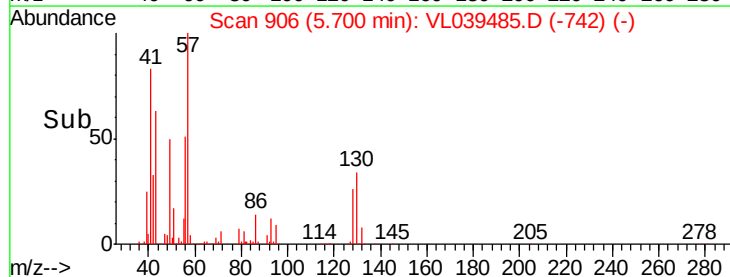
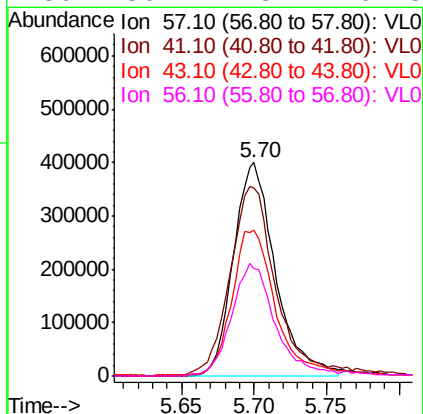
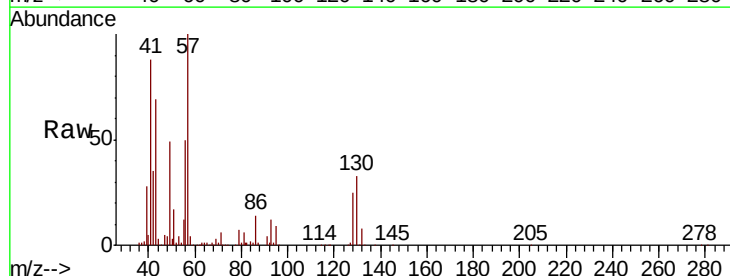
#25
Ethyl Acetate
Concen: 1.822 ppbv
RT: 5.70 min
Delta R.T.: 0.03 min
Lab File: VL039485.D
Acq: 19 Jul 2022 16:45

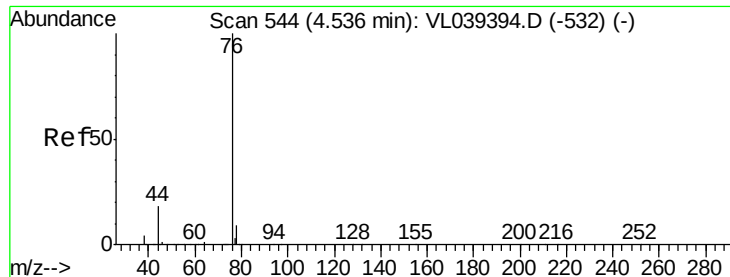
Tot Ion:	43	Resp:	544354
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.2	12.4#
61	0.4	8.3	12.5#
70	2.1	5.9	8.9#



#26
Hexane
Concen: 6.659 ppbv
RT: 5.70 min Scan# 906
Delta R.T.: 0.03 min
Lab File: VL039485.D
Acq: 19 Jul 2022 16:45

Tgt Ion:	57	Resp:	802045
Ion	Ratio	Lower	Upper
57	100		
41	100.2	76.9	115.3
43	72.7	191.0	286.6#
56	56.1	43.2	64.8





#27

Carbon Disulfide

Concen: 0.062 ppbv

RT: 4.55 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 19 Jul 2022 16:45 SV-1

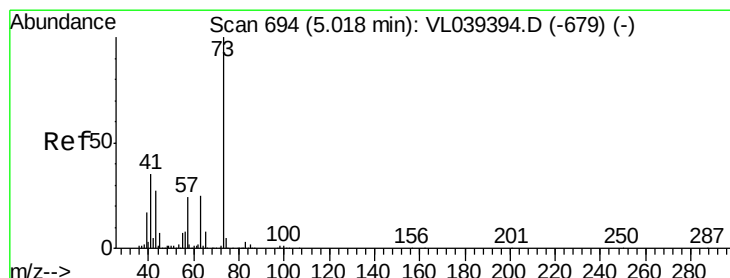
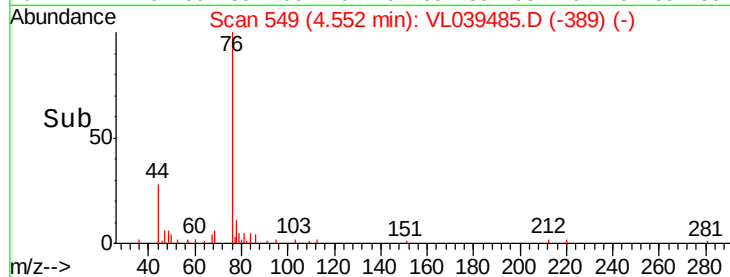
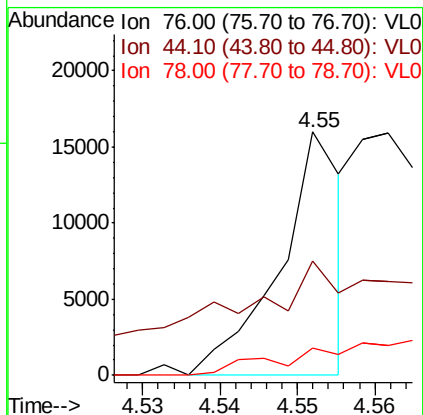
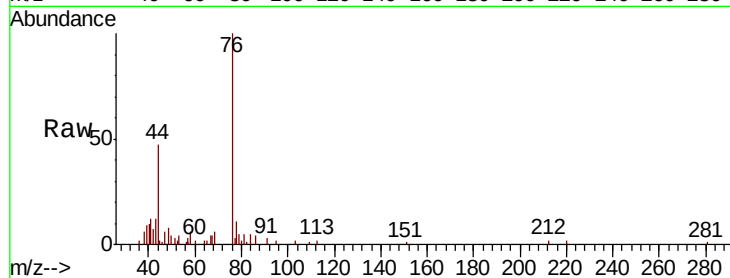
Tot Ion: 76 Resp: 8986

Ion Ratio Lower Upper

76 100

44 121.9 14.6 21.8#

78 0.0 7.8 11.6#



#28

Methyl tert-Butyl Ether

Concen: 0.061 ppbv

RT: 5.05 min Scan# 704

Delta R.T. 0.03 min

Lab File: VL039485.D

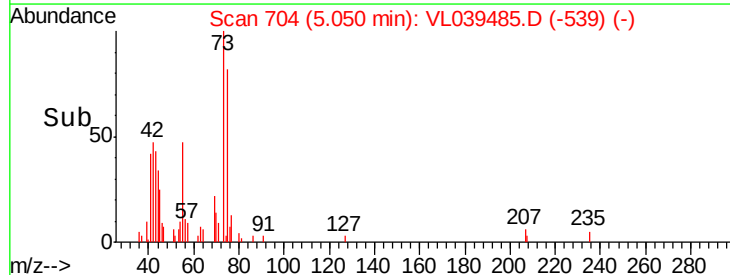
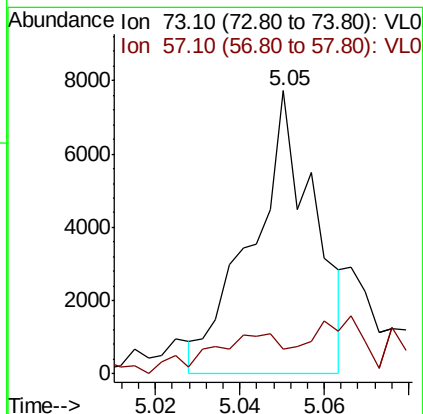
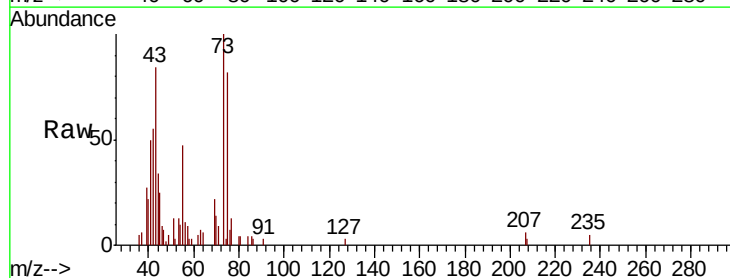
Acq: 19 Jul 2022 16:45

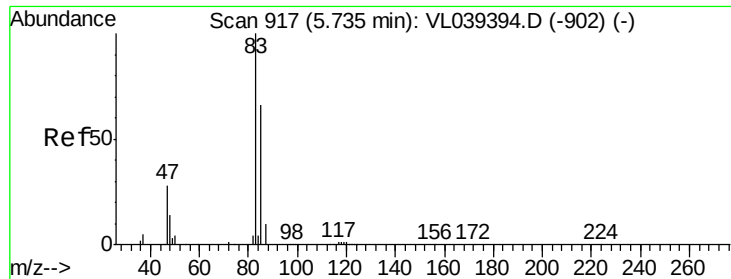
Tgt Ion: 73 Resp: 7824

Ion Ratio Lower Upper

73 100

57 0.0 19.8 29.8#





#29

Chloroform

Concen: 9.849 ppbv

RT: 5.76 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

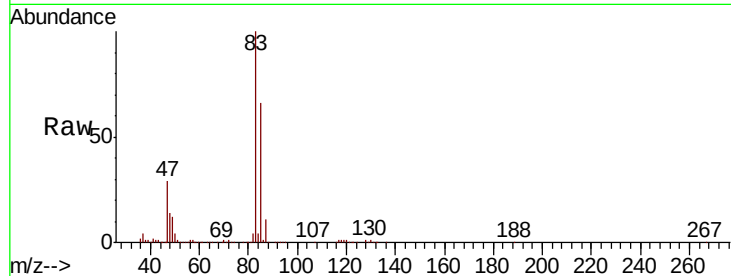
Acq: 19 Jul 2022 16:45 SV-1

Tot Ion: 83 Resp: 2062846

Ion Ratio Lower Upper

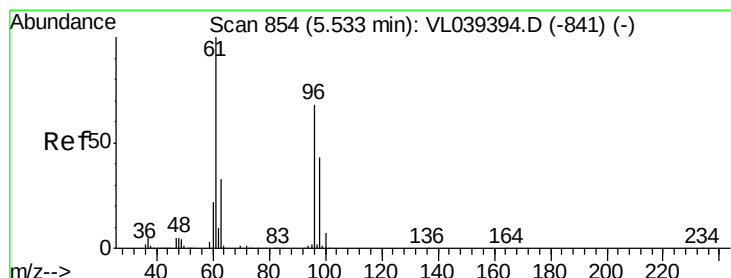
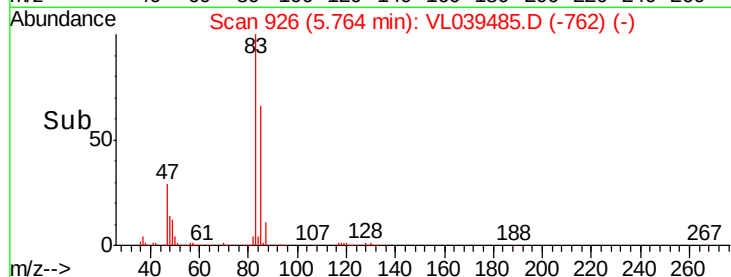
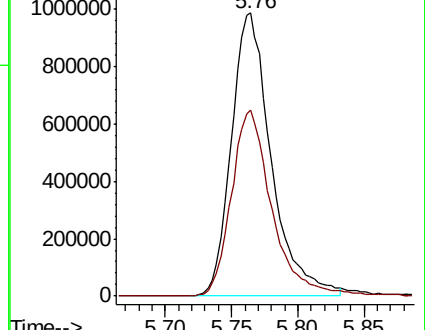
83 100

85 65.4 52.8 79.2



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#31

cis-1,2-Dichloroethene

Concen: 0.108 ppbv

RT: 5.56 min Scan# 862

Delta R.T. 0.03 min

Lab File: VL039485.D

Acq: 19 Jul 2022 16:45

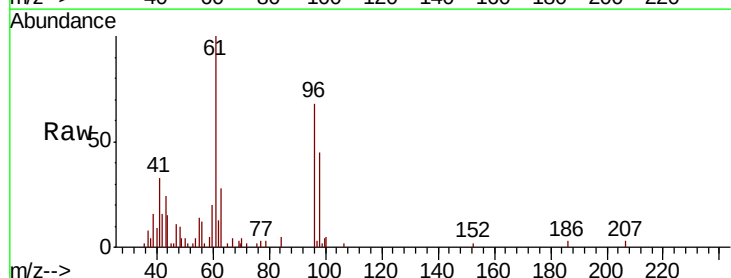
Tgt Ion: 61 Resp: 13766

Ion Ratio Lower Upper

61 100

96 64.1 54.1 81.1

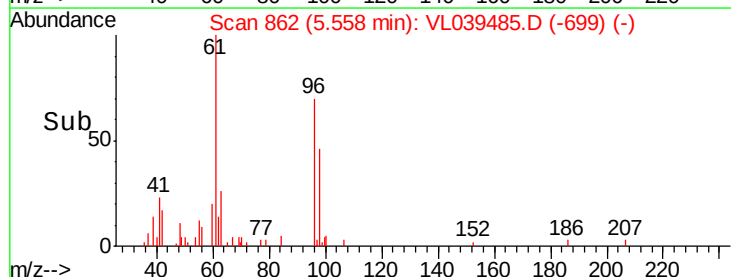
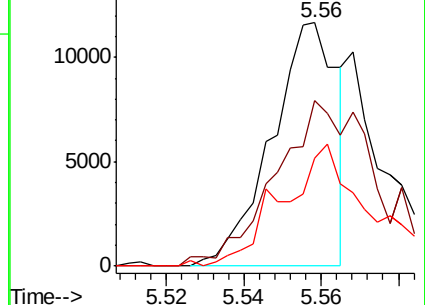
98 42.4 34.6 52.0

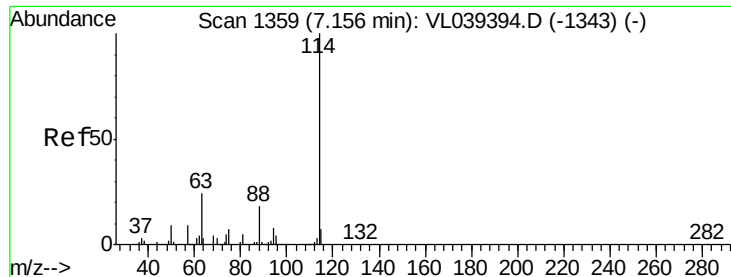


Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

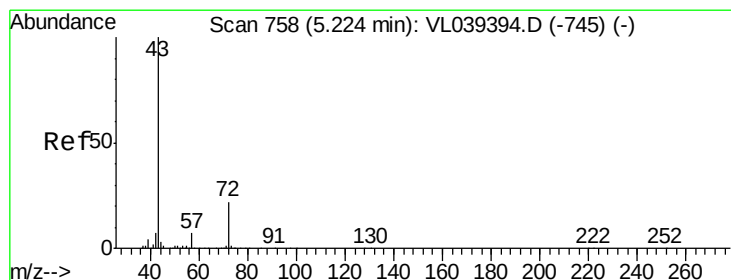
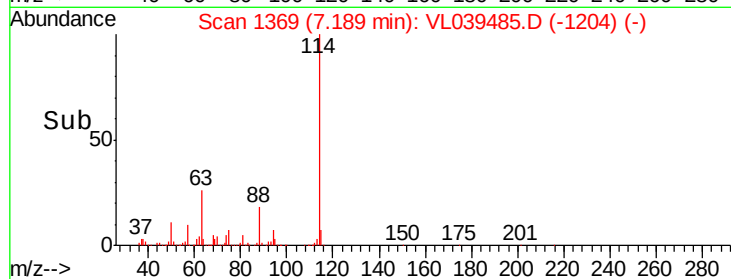
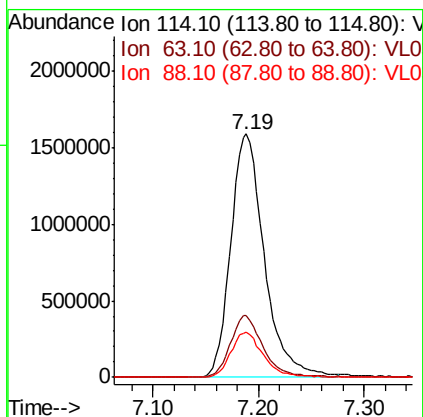
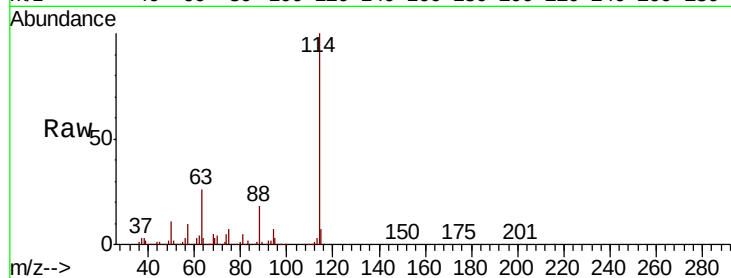
Ion 98.00 (97.70 to 98.70): VL0





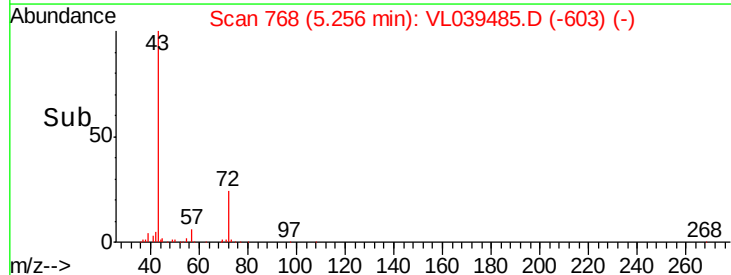
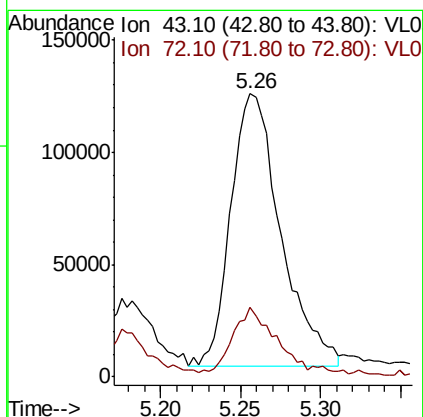
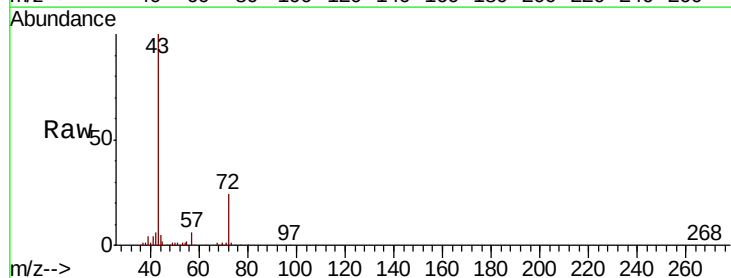
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-1
 Acq: 19 Jul 2022 16:45

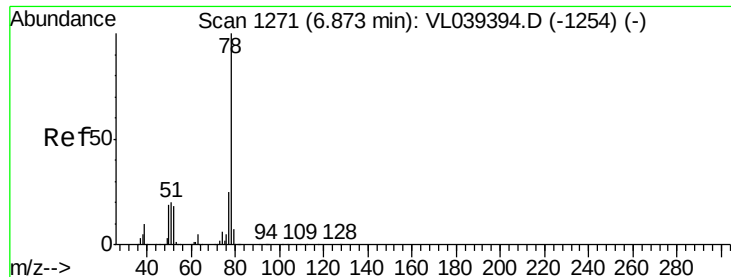
Tot Ion:114 Resp: 3515403
 Ion Ratio Lower Upper
 114 100
 63 25.1 20.2 30.4
 88 18.3 14.5 21.7



#34
 2-Butanone
 Concen: 1.467 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. 0.03 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

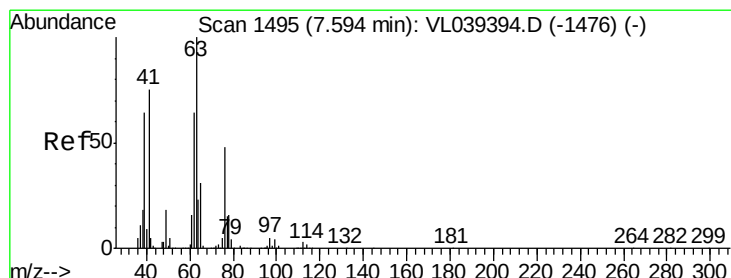
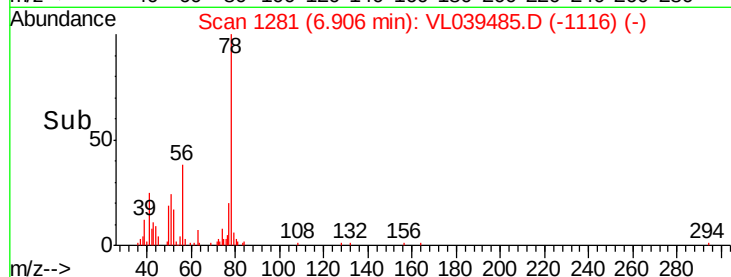
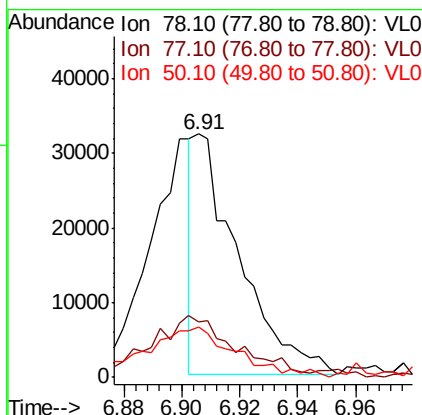
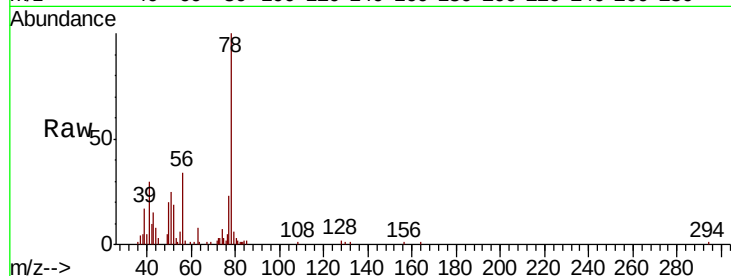
Tgt Ion: 43 Resp: 259631
 Ion Ratio Lower Upper
 43 100
 72 25.6 17.9 26.9





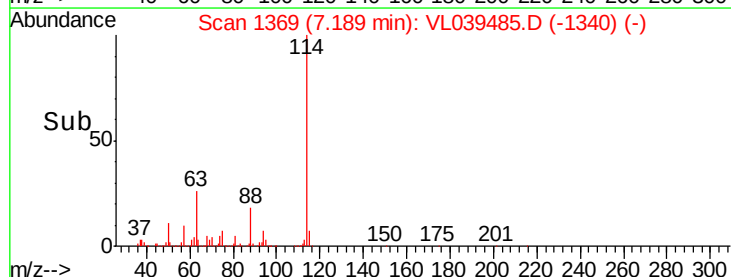
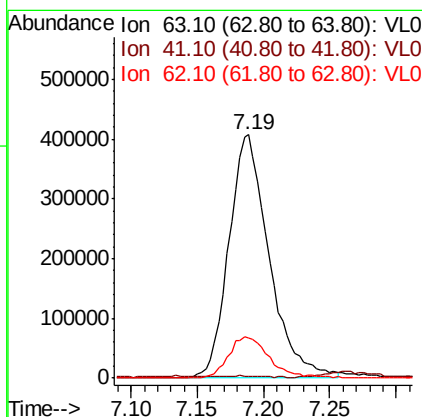
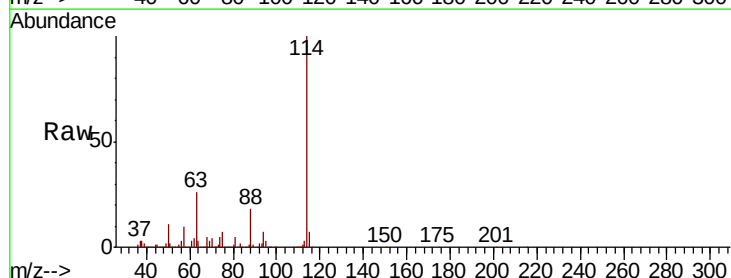
#36
Benzene
Concen: 0.125 ppbv
RT: 6.91
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 16:45

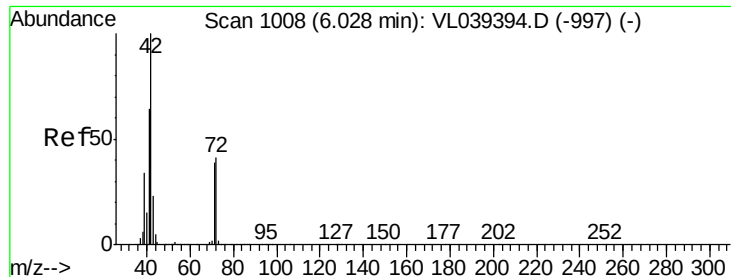
Tot Ion: 78 Resp: 34046
Ion Ratio Lower Upper
78 100
77 20.0 20.3 30.5#
50 19.1 15.5 23.3



#39
1,2-Dichloropropane
Concen: 8.432 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. -0.41 min
Lab File: VL039485.D
Acq: 19 Jul 2022 16:45

Tgt Ion: 63 Resp: 856994
Ion Ratio Lower Upper
63 100
41 0.0 59.6 89.4#
62 16.3 51.4 77.0#





#41

Tetrahydrofuran

Concen: 0.035 ppbv

RT: 6.07

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 19 Jul 2022 16:45

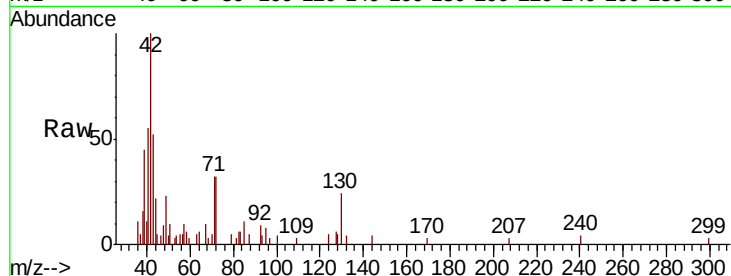
Tot Ion: 42 Resp: 3549

Ion Ratio Lower Upper

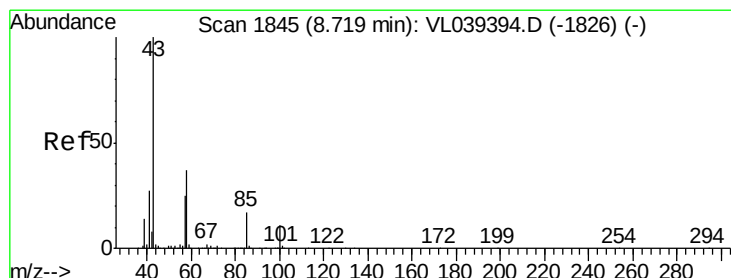
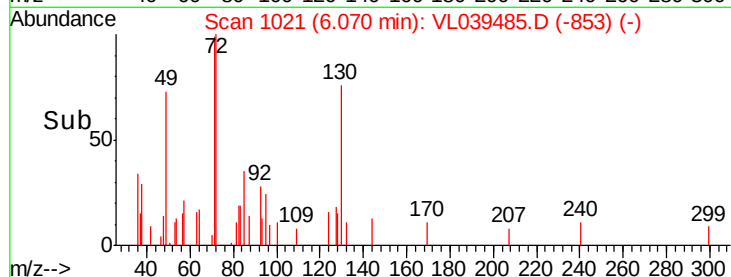
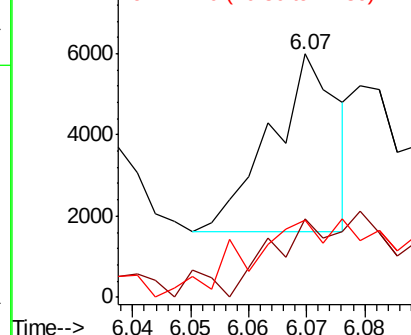
42 100

72 155.3 31.8 47.8#

71 130.8 31.8 47.8#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#50

4-Methyl-2-Pentanone

Concen: 0.073 ppbv

RT: 8.76 min Scan# 1858

Delta R.T. 0.04 min

Lab File: VL039485.D

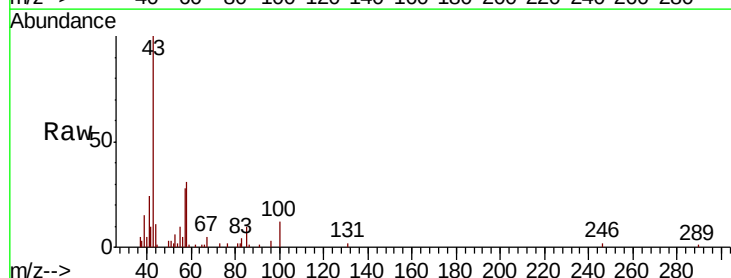
Acq: 19 Jul 2022 16:45

Tgt Ion: 43 Resp: 19534

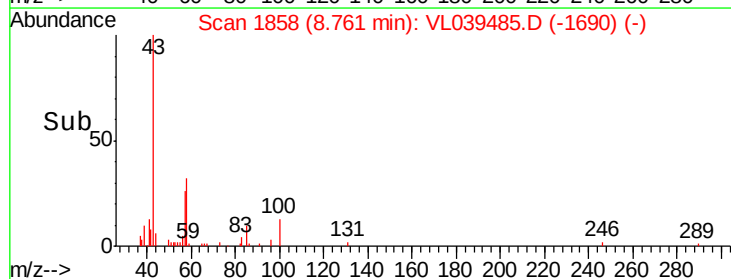
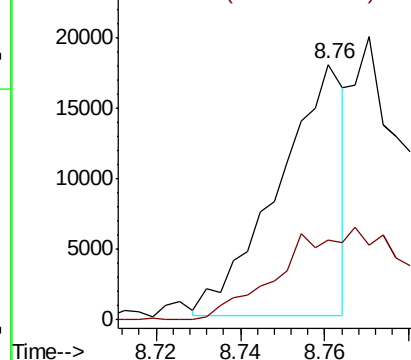
Ion Ratio Lower Upper

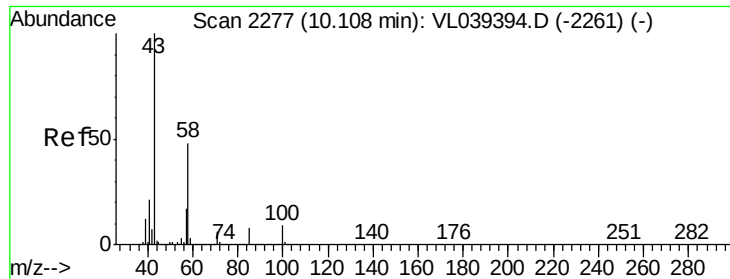
43 100

58 0.0 28.8 43.2#



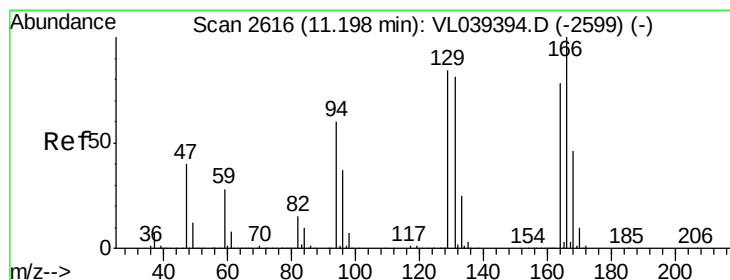
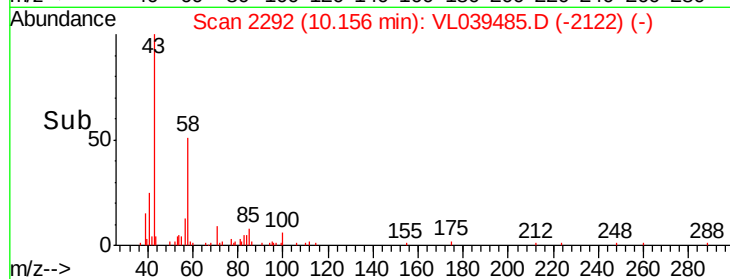
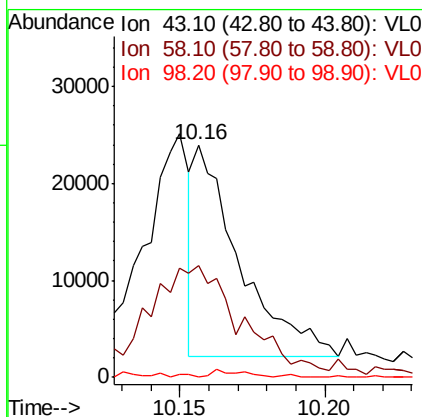
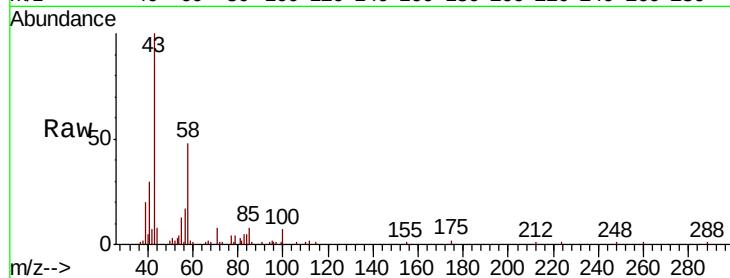
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0





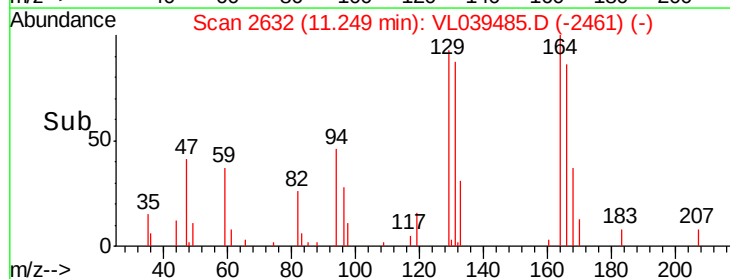
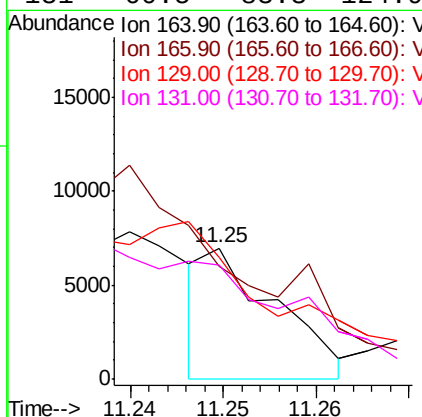
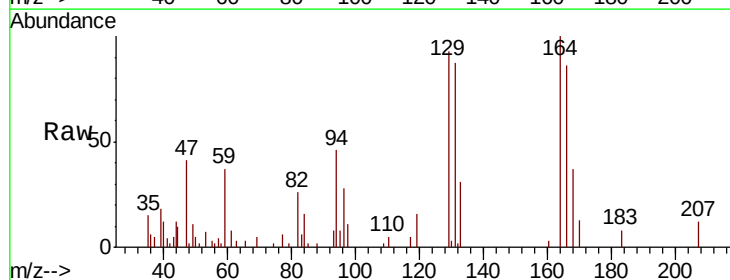
#51
2-Hexanone
Concen: 0.117 ppbv
RT: 10.16
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 16:45

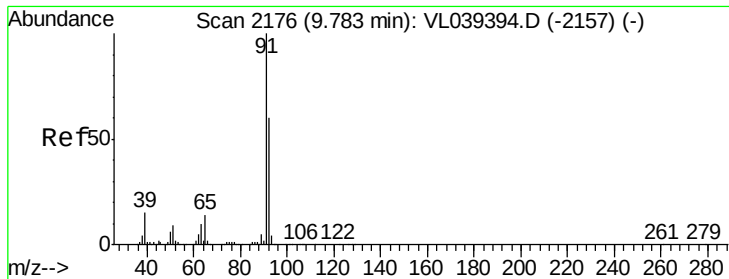
Tot Ion	Ratio	Lower	Upper
43	100		
58	112.3	38.4	57.6#
98	5.5	0.3	0.5#



#52
Tetrachloroethene
Concen: 0.034 ppbv
RT: 11.25 min Scan# 2632
Delta R.T. 0.05 min
Lab File: VL039485.D
Acq: 19 Jul 2022 16:45

Tgt Ion	Ratio	Lower	Upper
164	100		
166	55.2	102.2	153.2#
129	56.5	85.8	128.8#
131	60.5	83.3	124.9#





#53

Toluene

Concen: 0.086 ppbv

RT: 9.83 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-1

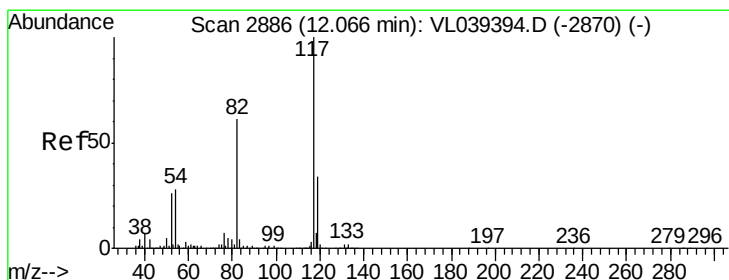
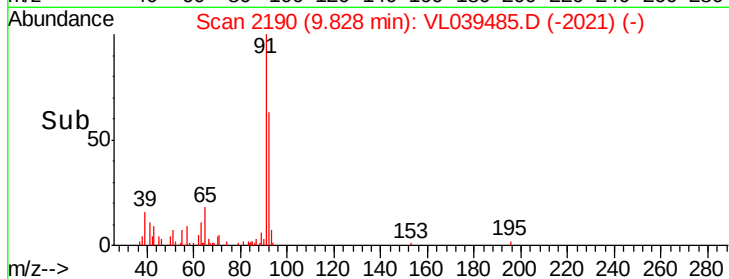
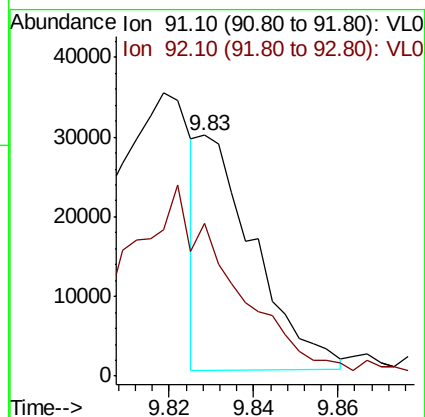
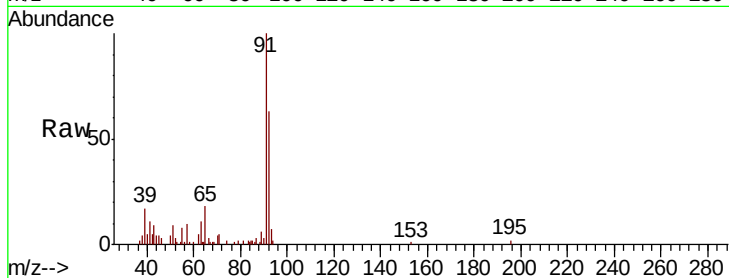
Acq: 19 Jul 2022 16:45

Tot Ion: 91 Resp: 27060

Ion Ratio Lower Upper

91 100

92 0.0 48.2 72.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. 0.03 min

Lab File: VL039485.D

Acq: 19 Jul 2022 16:45

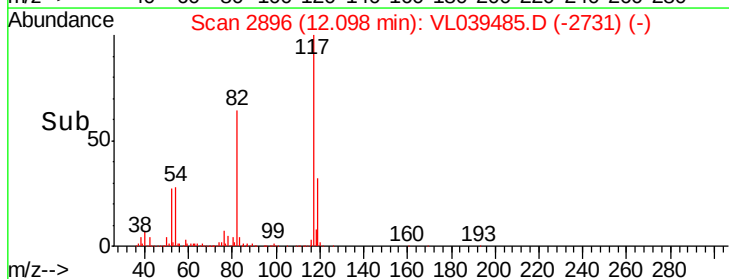
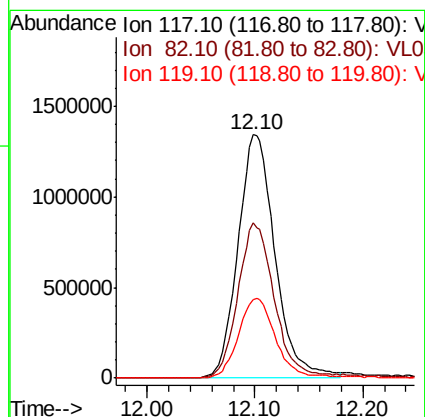
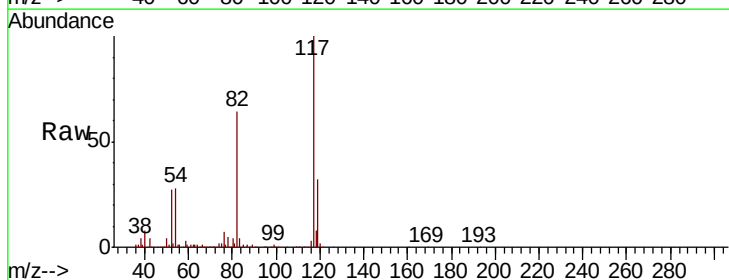
Tgt Ion: 117 Resp: 3213846

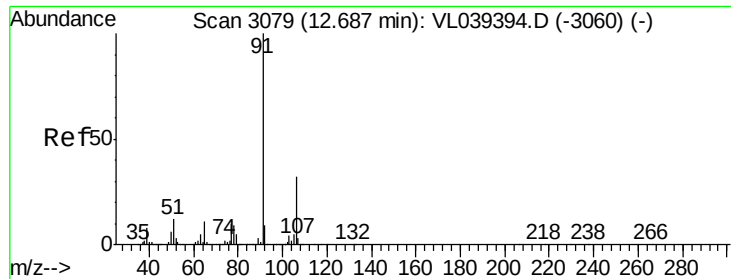
Ion Ratio Lower Upper

117 100

82 65.0 50.8 76.2

119 33.8 24.1 36.1





#58

Ethyl Benzene

Concen: 0.037 ppbv

RT: 12.72

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

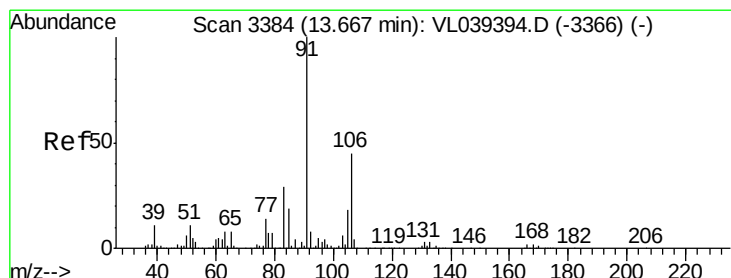
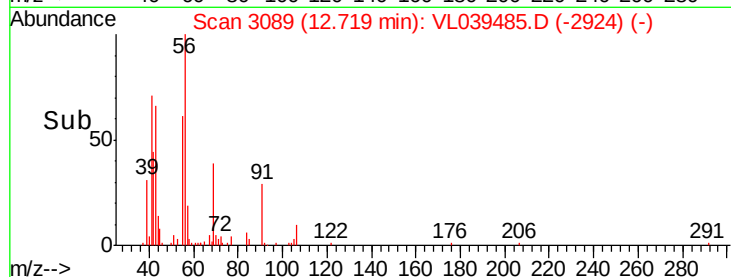
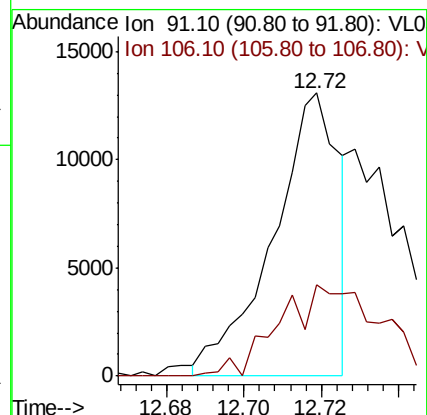
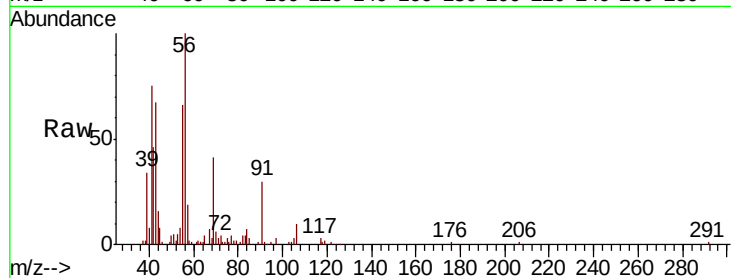
Acq: 19 Jul 2022 16:45

Tot Ion: 91 Resp: 15536

Ion Ratio Lower Upper

91 100

106 33.6 25.4 38.0



#60

o-Xylene

Concen: 0.092 ppbv

RT: 13.70 min Scan# 3395

Delta R.T. 0.04 min

Lab File: VL039485.D

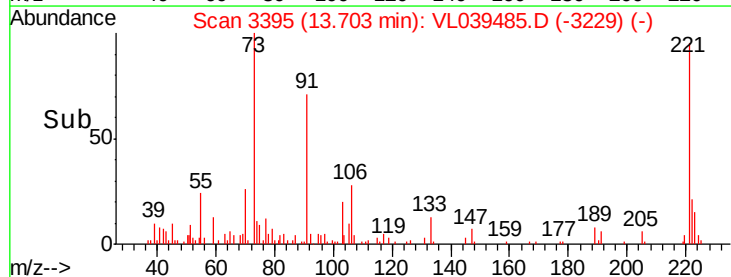
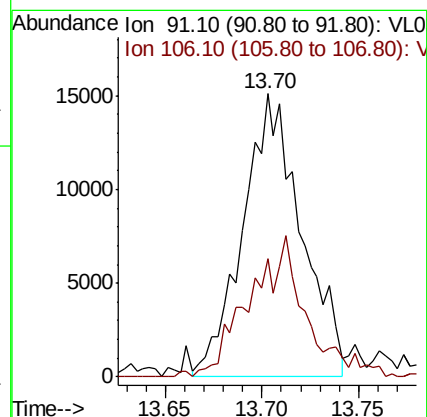
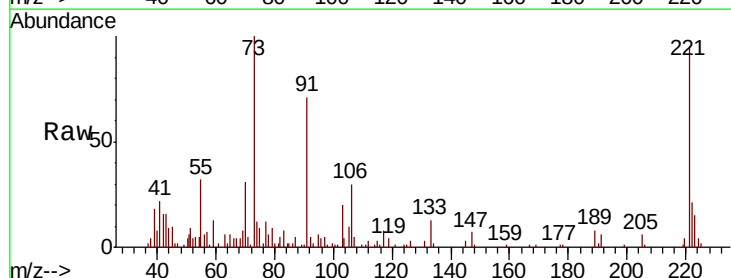
Acq: 19 Jul 2022 16:45

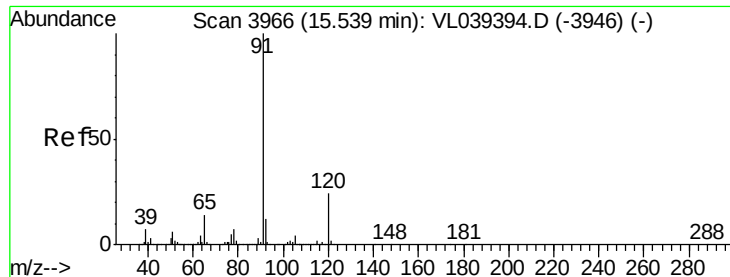
Tgt Ion: 91 Resp: 31814

Ion Ratio Lower Upper

91 100

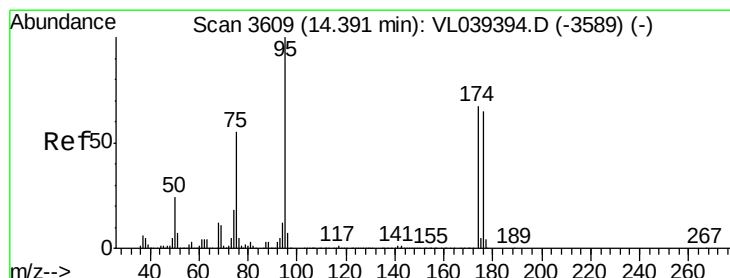
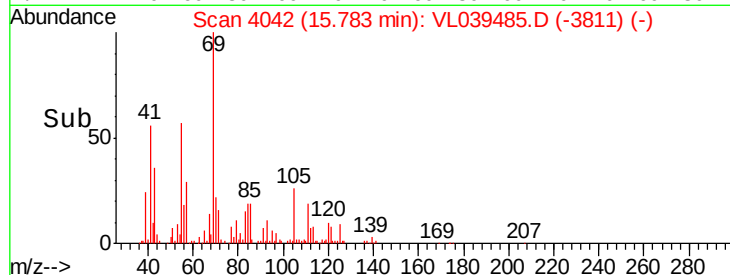
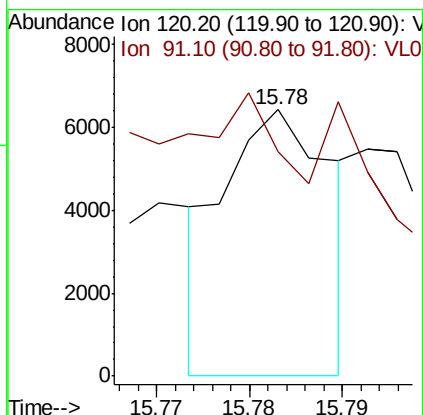
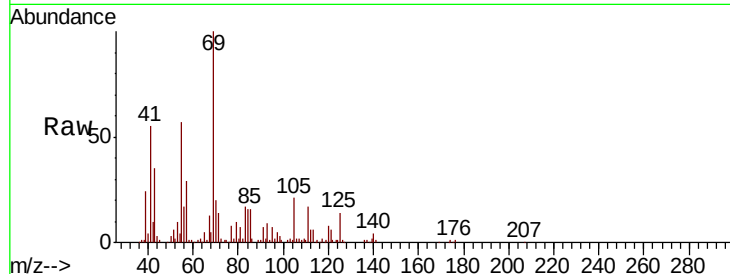
106 48.9 22.4 67.3





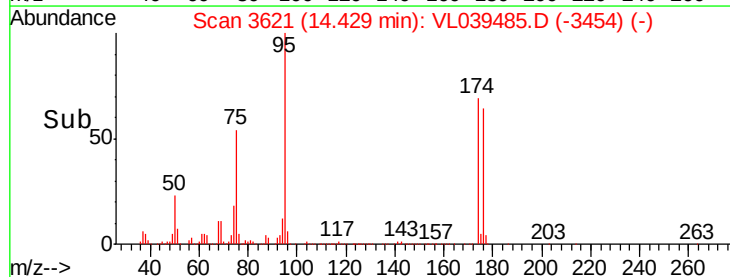
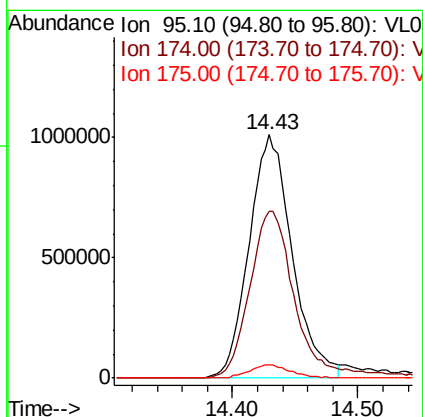
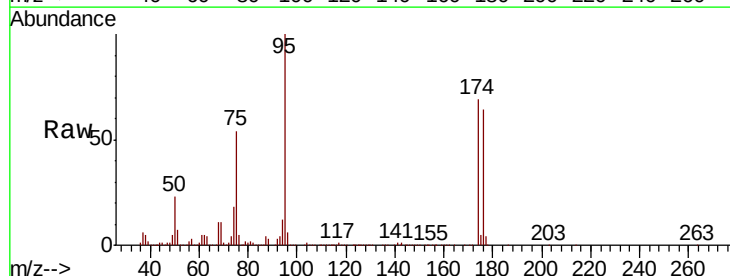
#64
 n-propylbenzene
 Concen: 0.039 ppbv
 RT: 15.78
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 16:45

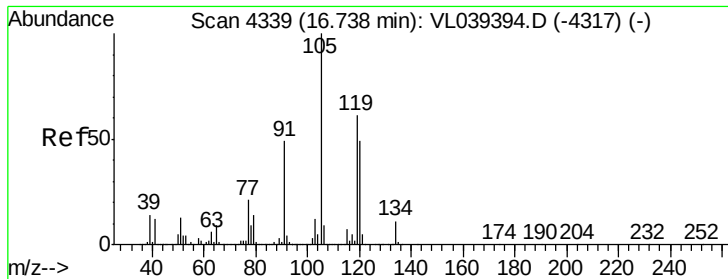
Tot Ion: 120 Resp: 5164
 Ion Ratio Lower Upper
 120 100
 91 379.3 367.2 550.8



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.128 ppbv
 RT: 14.43 min Scan# 3621
 Delta R.T. 0.04 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

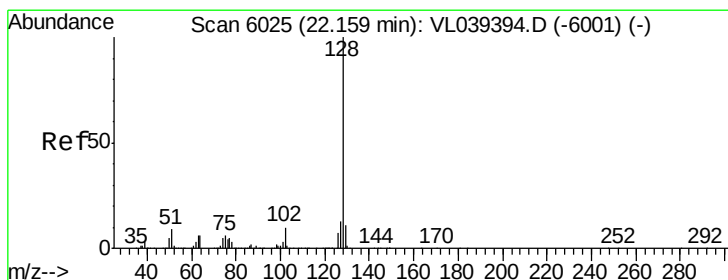
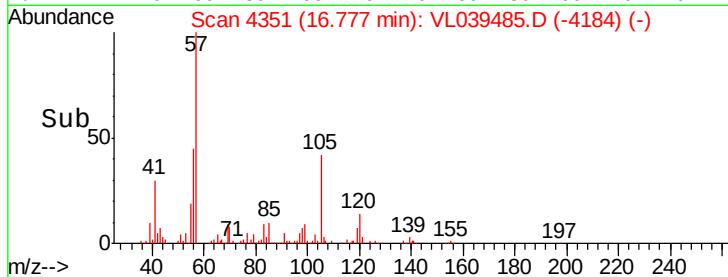
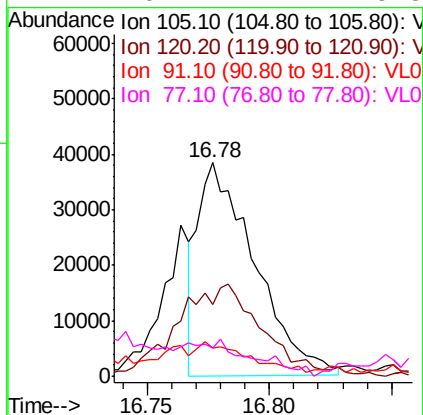
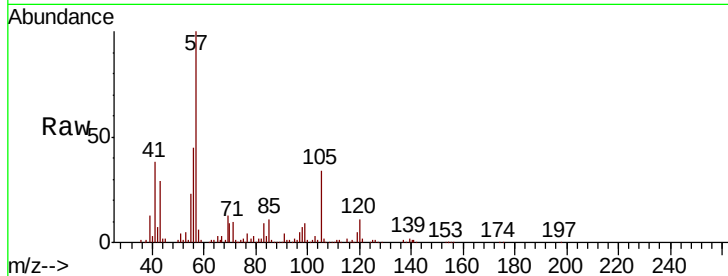
Tgt Ion: 95 Resp: 2414778
 Ion Ratio Lower Upper
 95 100
 174 75.0 55.9 83.9
 175 5.7 4.2 6.4





#74
 1,2,4-Trimethylbenzene
 Concen: 0.150 ppbv
 RT: 16.78 min
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId : SV-1
 Acq: 19 Jul 2022 16:45

Tot Ion:	105	Resp:	61944
Ion	Ratio	Lower	Upper
105	100		
120	30.7	39.5	59.3#
91	9.6	39.2	58.8#
77	6.7	17.2	25.8#



#79
 Naphthalene
 Concen: 0.047 ppbv
 RT: 22.21 min Scan# 6042
 Delta R.T. 0.05 min
 Lab File: VL039485.D
 Acq: 19 Jul 2022 16:45

Tgt Ion:	128	Resp:	13289
Ion	Ratio	Lower	Upper
128	100		
127	36.2	10.6	15.8#
129	4.3	8.8	13.2#

