

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071922\
 Data File : VL039487.D
 Acq On : 19 Jul 2022 18:15
 Operator : SY/AP
 Sample : N3750-02 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 SV-2

Quant Time: Jul 20 05:39:15 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

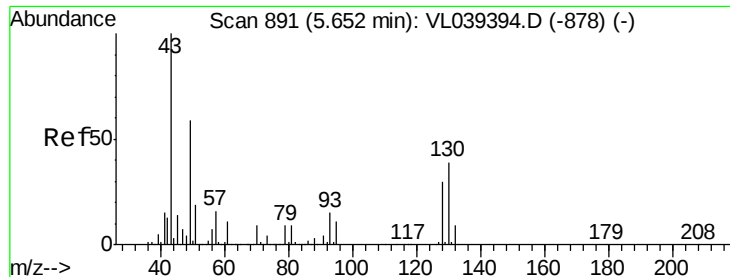
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1265096	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3599580	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3291048	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2485716	10.18	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.80%

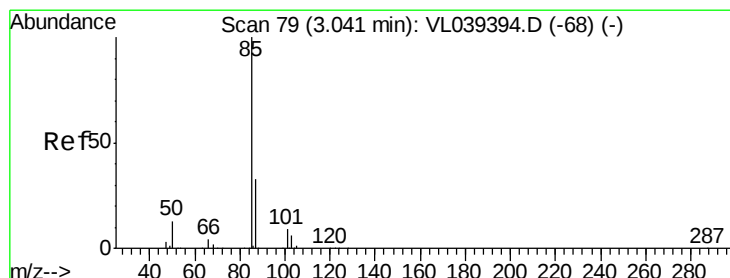
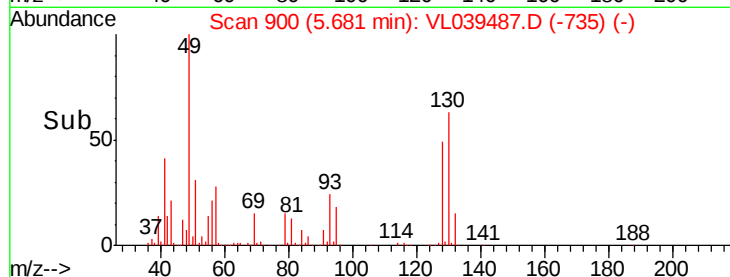
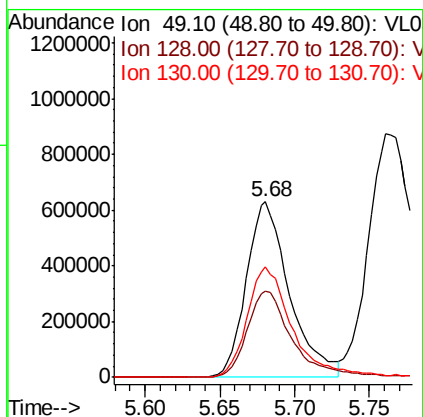
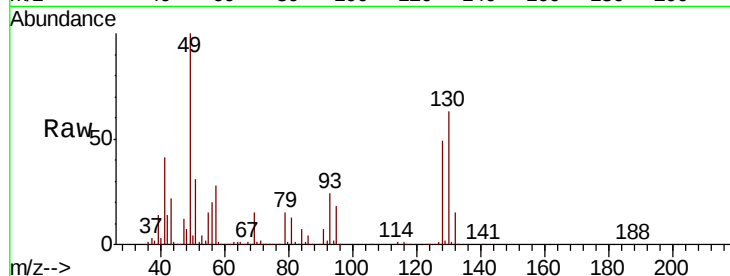
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	17077	0.094	ppbv 90
3) Chlorodifluoromethane	3.00	51	15042	0.094	ppbv # 87
4) Chloromethane	3.15	50	7889	0.090	ppbv 90
7) Chloroethane	3.57	64	2049	0.067	ppbv # 71
9) Propene	3.02	41	279503	3.856	ppbv 85
10) Heptane	8.14	43	49220	0.290	ppbv # 85
11) Trichlorofluoromethane	3.96	101	8941	0.044	ppbv 89
13) Ethanol	3.62	45	23770	5.652	ppbv 100
15) Acetone	3.86	43	1277034	8.532	ppbv 95
16) 1,3-Butadiene	3.32	39	151742	1.954	ppbv # 28
17) tert-Butyl alcohol	4.30	59	299379	2.357	ppbv # 84
19) Isopropyl Alcohol	3.98	45	12951	0.162	ppbv # 88
20) Methylene Chloride	4.36	84	525949	8.816	ppbv 92
21) Allyl Chloride	4.36	41	27445	0.265	ppbv # 44
23) Vinyl Acetate	5.09	43	276697	2.766	ppbv # 90
24) 1,1-Dichloroethane	5.02	63	4369	0.031	ppbv # 90
25) Ethyl Acetate	5.70	43	1067452	3.478	ppbv # 76
26) Hexane	5.70	57	1506682	12.179	ppbv # 36
27) Carbon Disulfide	4.56	76	20862	0.140	ppbv # 69
28) Methyl tert-Butyl Ether	5.05	73	120036	0.908	ppbv 98
29) Chloroform	5.76	83	16280913	75.686	ppbv 84
34) 2-Butanone	5.26	43	59913	0.331	ppbv # 34
36) Benzene	6.91	78	31611	0.113	ppbv # 93
39) 1,2-Dichloropropane	7.19	63	867710	8.337	ppbv # 25
41) Tetrahydrofuran	5.76	42	31287	0.298	ppbv # 1
51) 2-Hexanone	10.16	43	17574	0.085	ppbv # 13
53) Toluene	9.82	91	128917	0.401	ppbv 99
60) o-Xylene	13.72	91	10933	0.031	ppbv # 31
71) 2-Chlorotoluene	15.33	91	451911	1.169	ppbv # 45
73) 1,3,5-Trimethylbenzene	16.01	105	14649	0.038	ppbv 97
74) 1,2,4-Trimethylbenzene	16.78	105	99090	0.234	ppbv # 64

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



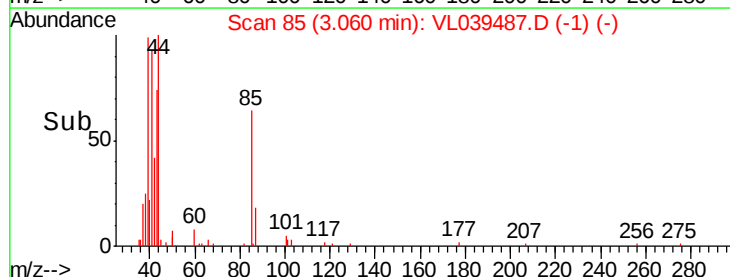
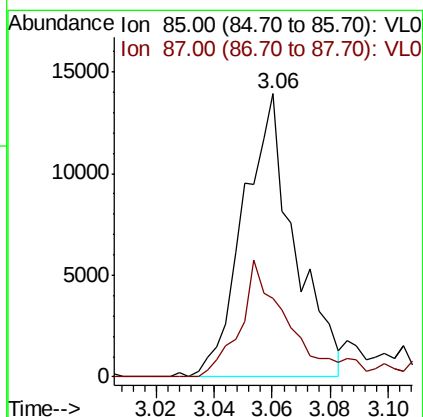
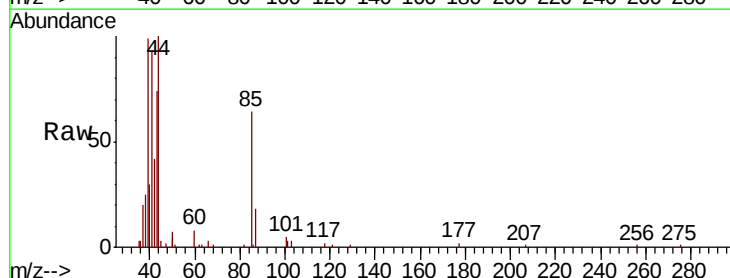
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 SV-2
 Acq: 19 Jul 2022 18:15

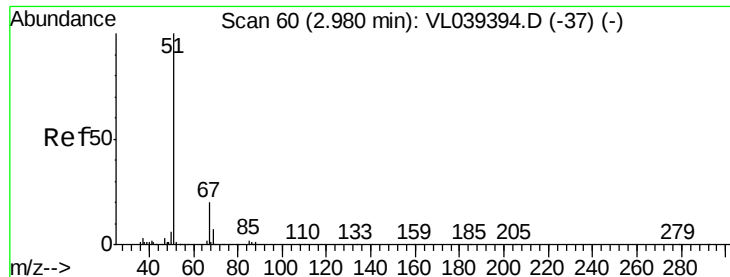
Tot Ion: 49 Resp: 1265096
 Ion Ratio Lower Upper
 49 100
 128 52.2 26.7 80.0
 130 67.6 34.3 102.8



#2
 Dichlorodifluoromethane
 Concen: 0.094 ppbv
 RT: 3.06 min Scan# 85
 Delta R.T. 0.02 min
 Lab File: VL039487.D
 Acq: 19 Jul 2022 18:15

Tgt Ion: 85 Resp: 17077
 Ion Ratio Lower Upper
 85 100
 87 27.8 26.7 40.1





#3

Chlorodifluoromethane

Concen: 0.094 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

SV-2

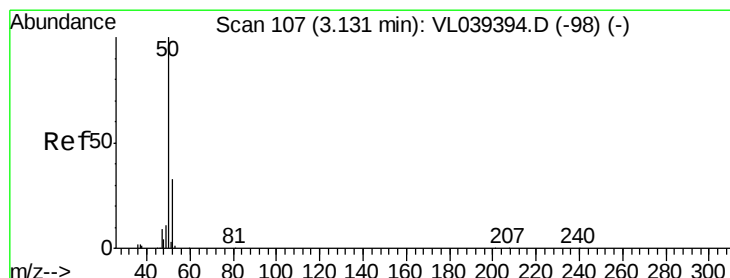
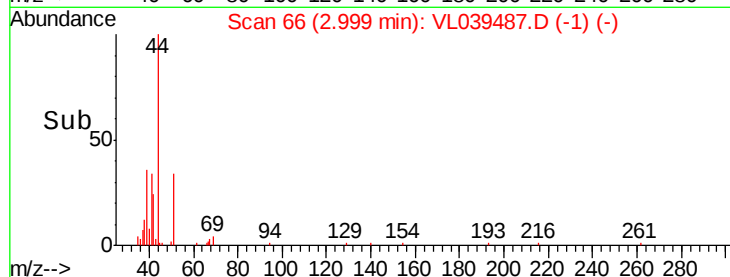
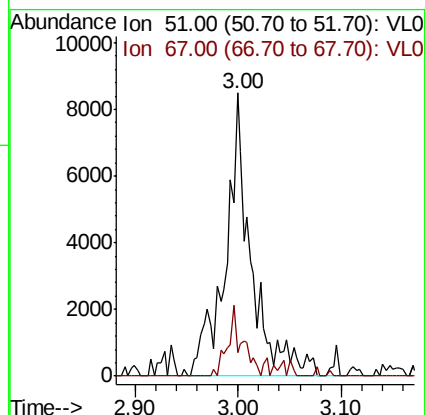
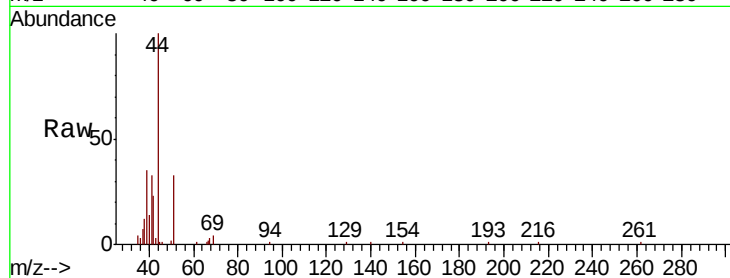
Acq: 19 Jul 2022 18:15

Tot Ion: 51 Resp: 15042

Ion Ratio Lower Upper

51 100

67 13.6 15.7 23.5#



#4

Chloromethane

Concen: 0.090 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.02 min

Lab File: VL039487.D

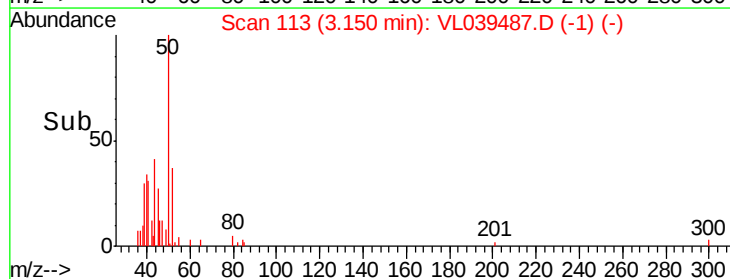
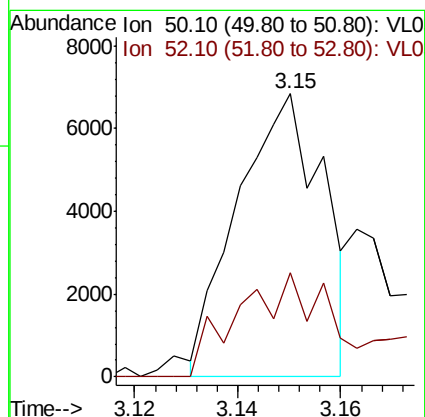
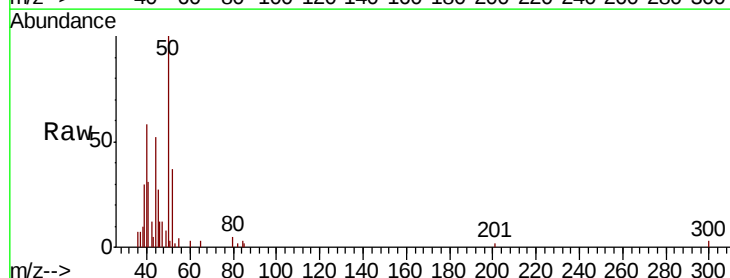
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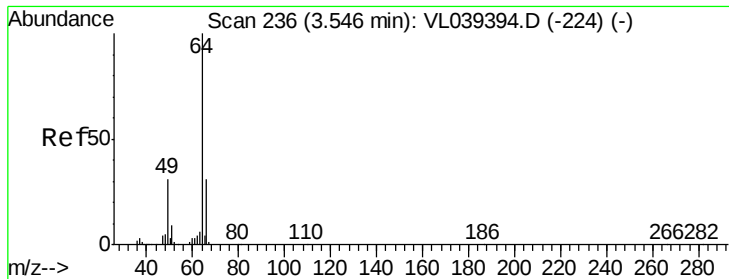
Tgt Ion: 50 Resp: 7889

Ion Ratio Lower Upper

50 100

52 38.8 26.5 39.7





#7

Chloroethane

Concen: 0.067 ppbv

RT: 3.57 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

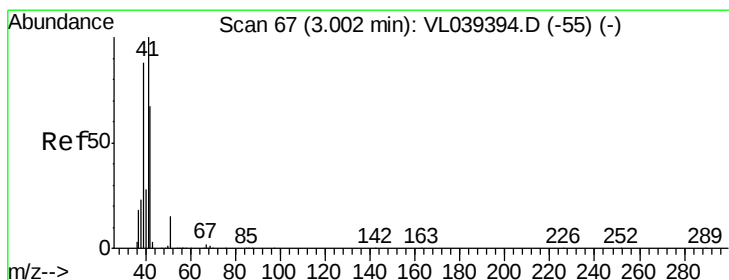
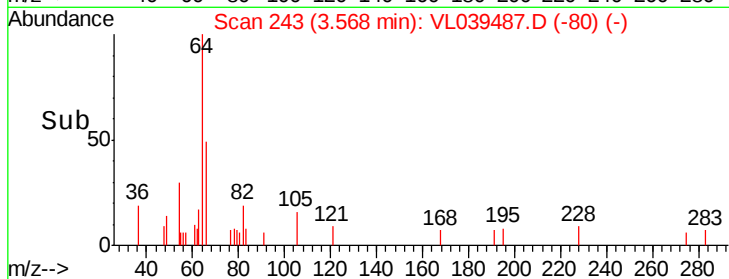
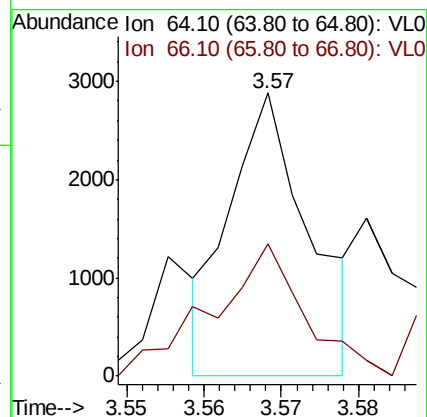
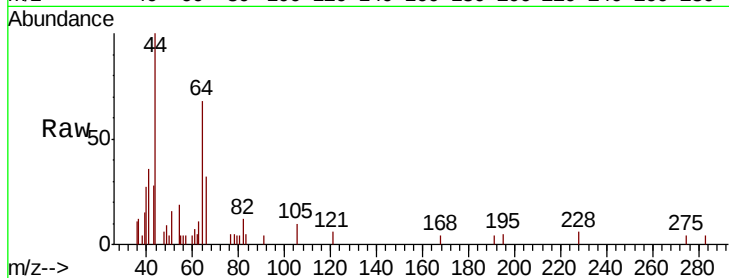
Acq: 19 Jul 2022 18:15 SV-2

Tot Ion: 64 Resp: 2049

Ion Ratio Lower Upper

64 100

66 46.7 24.7 37.1#



#9

Propene

Concen: 3.856 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL039487.D

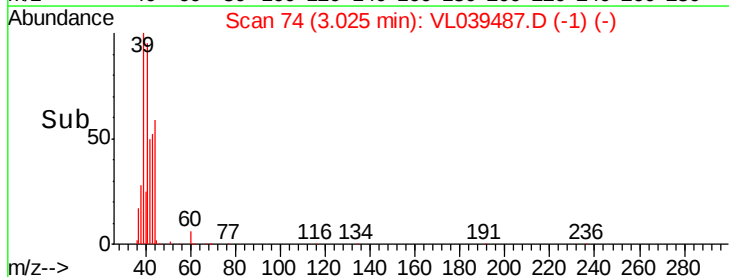
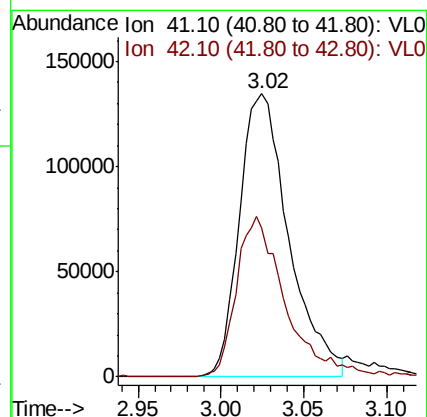
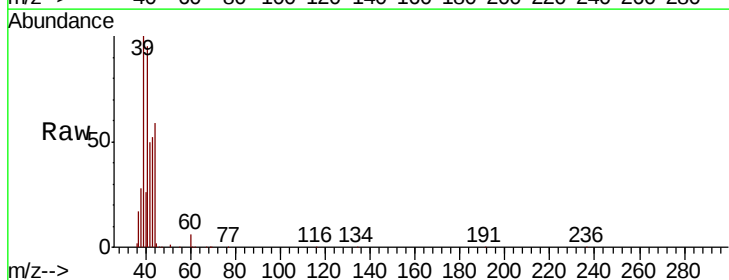
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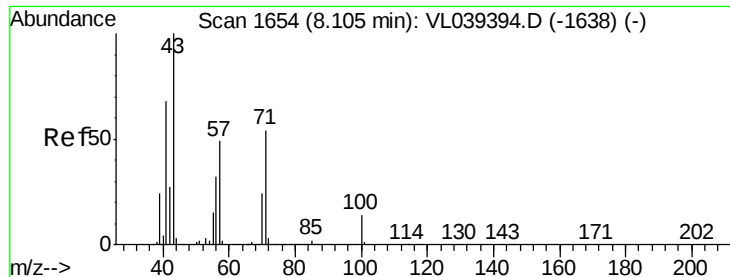
Tgt Ion: 41 Resp: 279503

Ion Ratio Lower Upper

41 100

42 57.0 55.2 82.8





#10

Heptane

Concen: 0.290 ppbv

RT: 8.14 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

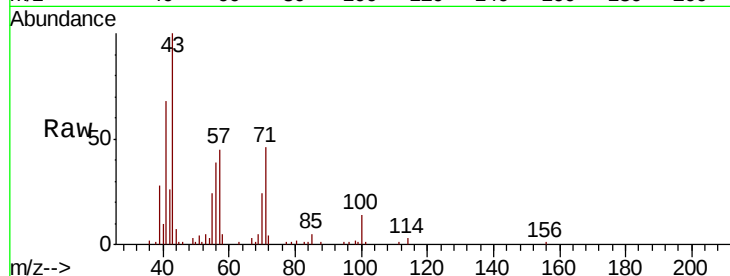
Acq: 19 Jul 2022 18:15 SV-2

Tot Ion: 43 Resp: 49220

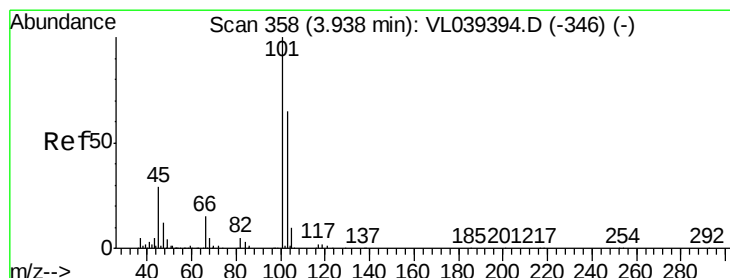
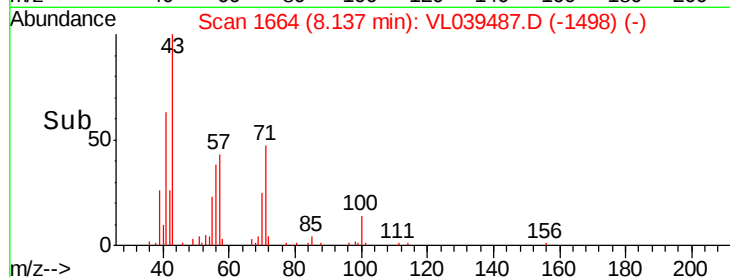
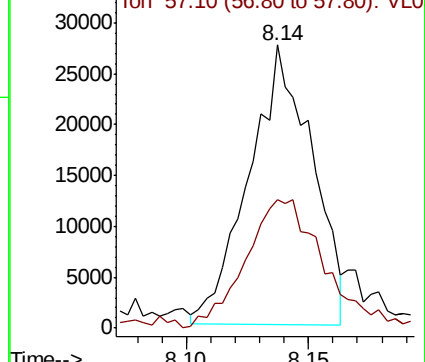
Ion Ratio Lower Upper

43 100

57 61.1 40.5 60.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0



#11

Trichlorofluoromethane

Concen: 0.044 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.02 min

Lab File: VL039487.D

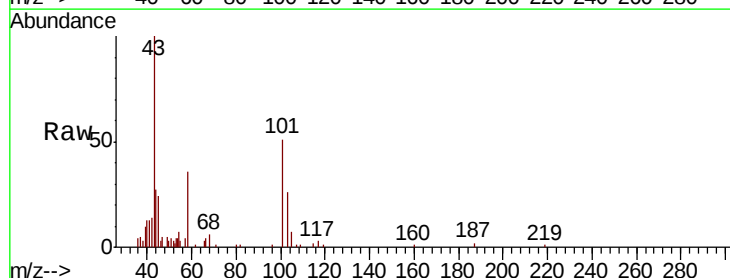
Acq: 19 Jul 2022 18:15

Tgt Ion: 101 Resp: 8941

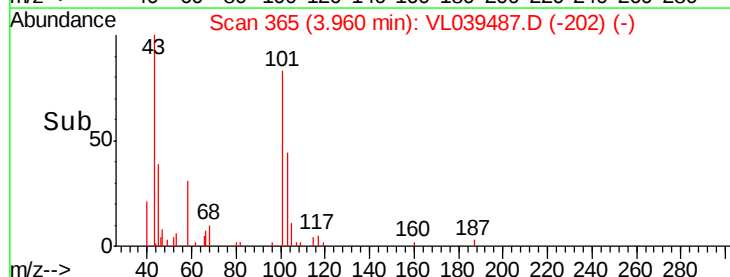
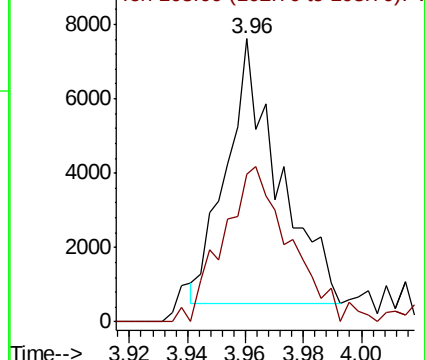
Ion Ratio Lower Upper

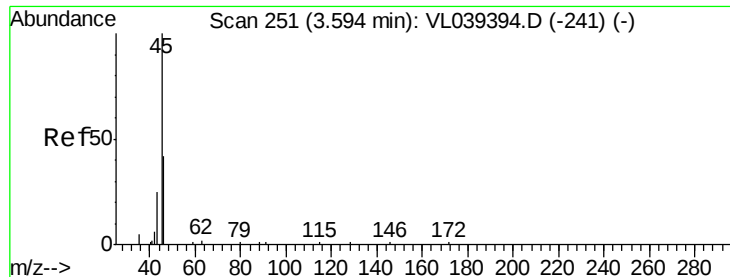
101 100

103 55.8 51.8 77.8



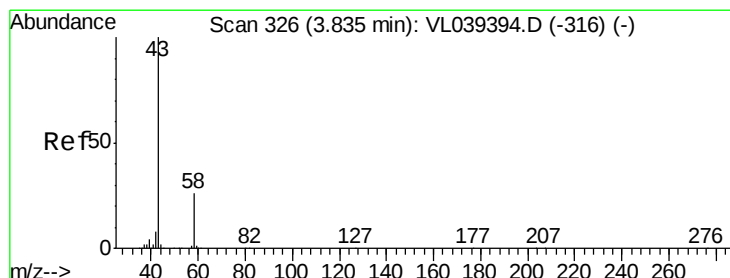
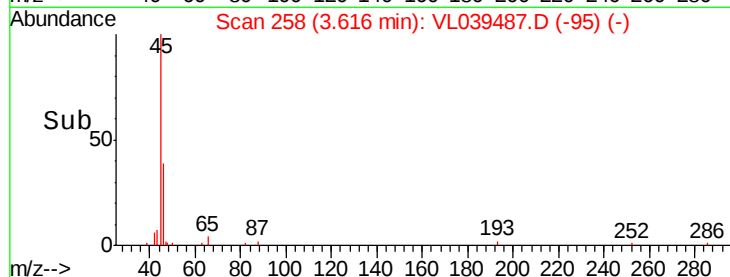
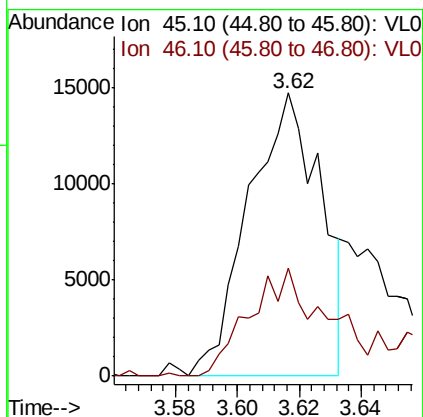
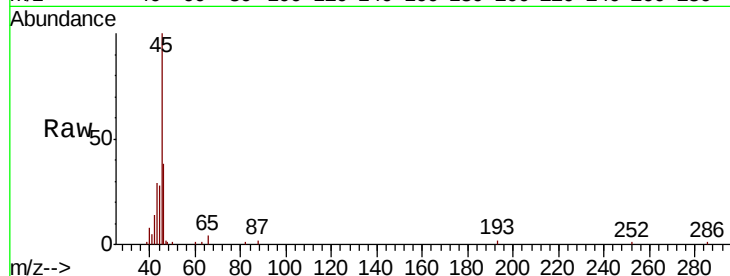
Abundance Ion 101.00 (100.70 to 101.70): V





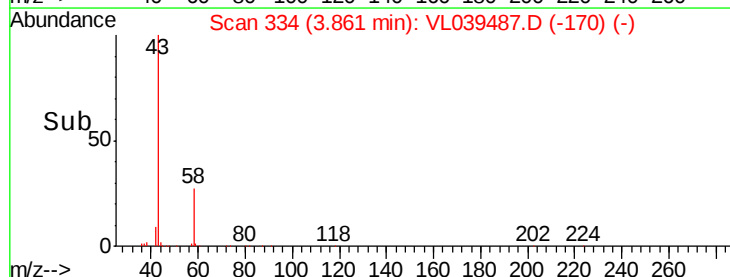
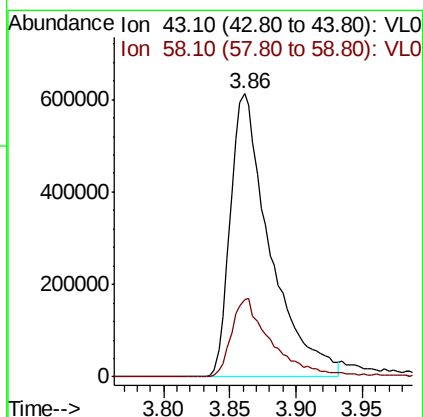
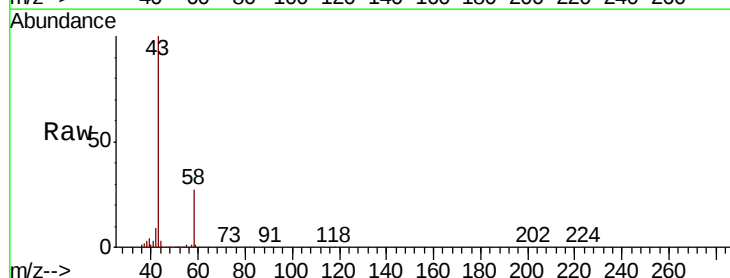
#13
Ethanol
Concen: 5.652 ppbv
RT: 3.62
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 18:15

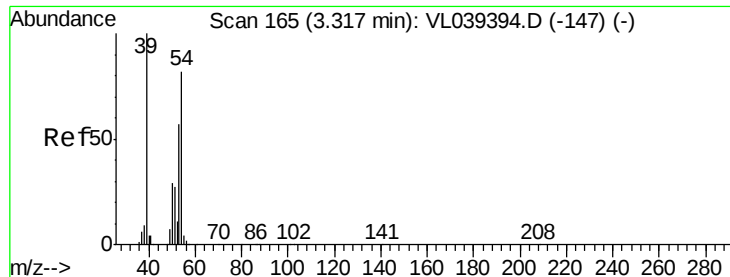
Tot Ion: 45 Resp: 23770
Ion Ratio Lower Upper
45 100
46 57.2 22.8 91.2



#15
Acetone
Concen: 8.532 ppbv
RT: 3.86 min Scan# 334
Delta R.T. 0.03 min
Lab File: VL039487.D
Acq: 19 Jul 2022 18:15

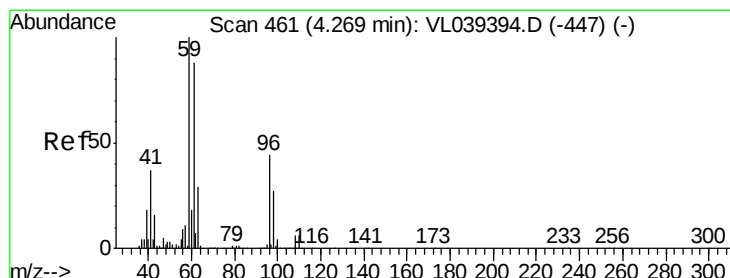
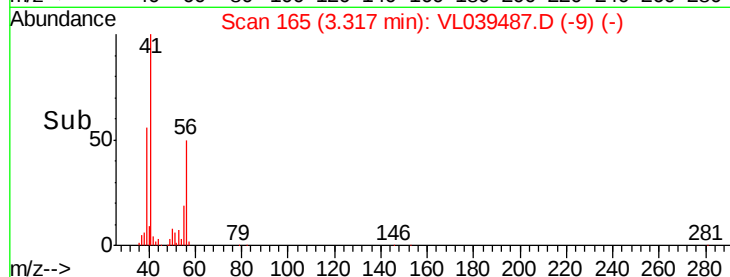
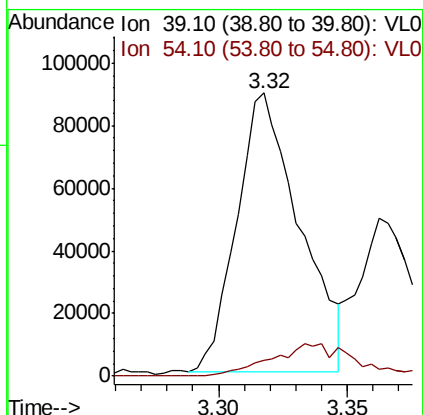
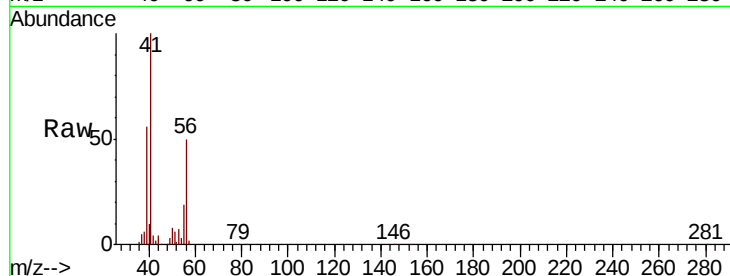
Tgt Ion: 43 Resp: 1277034
Ion Ratio Lower Upper
43 100
58 28.9 21.0 31.6





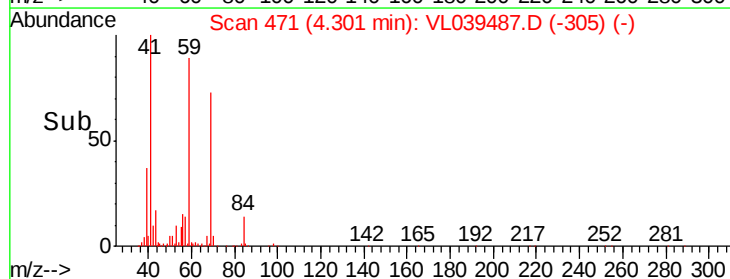
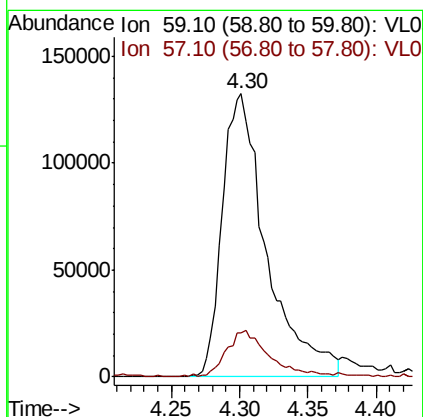
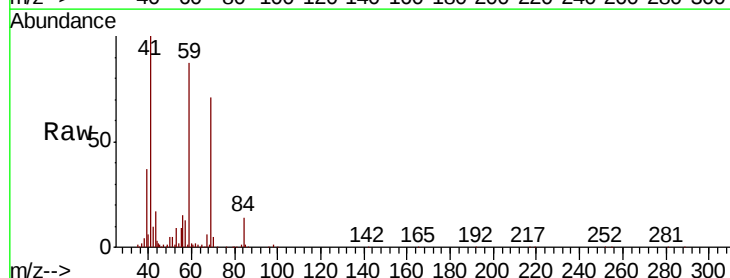
#16
 1,3-Butadiene
 Concen: 1.954 ppbv
 RT: 3.32
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-2
 Acq: 19 Jul 2022 18:15

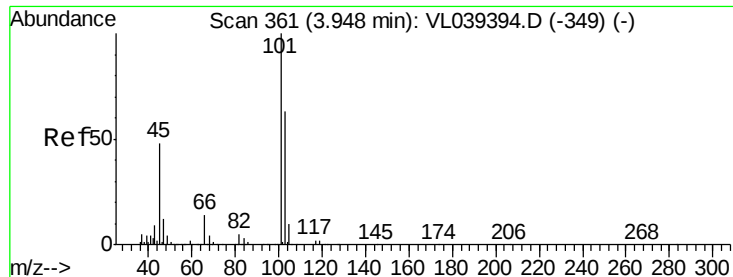
Tot Ion: 39 Resp: 151742
 Ion Ratio Lower Upper
 39 100
 54 16.1 63.7 95.5#



#17
 tert-Butyl alcohol
 Concen: 2.357 ppbv
 RT: 4.30 min Scan# 471
 Delta R.T. 0.03 min
 Lab File: VL039487.D
 Acq: 19 Jul 2022 18:15

Tgt Ion: 59 Resp: 299379
 Ion Ratio Lower Upper
 59 100
 57 16.9 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 0.162 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

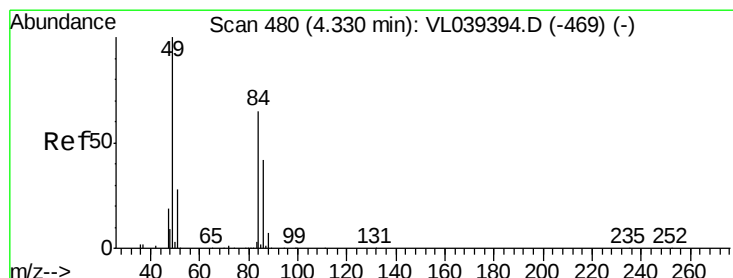
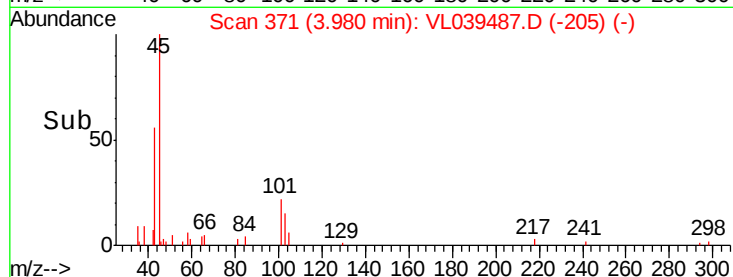
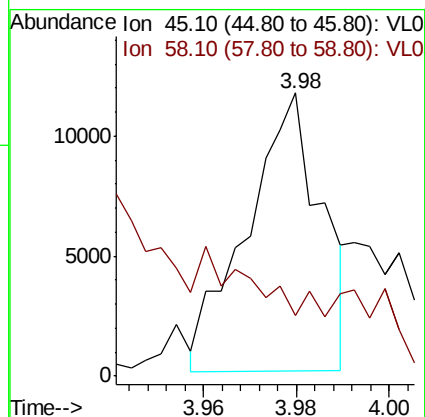
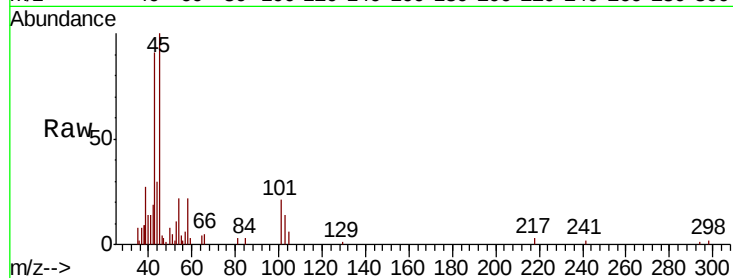
Acq: 19 Jul 2022 18:15 SV-2

Tot Ion: 45 Resp: 12951

Ion Ratio Lower Upper

45 100

58 0.0 3.2 4.8#



#20

Methylene Chloride

Concen: 8.816 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.03 min

Lab File: VL039487.D

Acq: 19 Jul 2022 18:15

Tgt Ion: 84 Resp: 525949

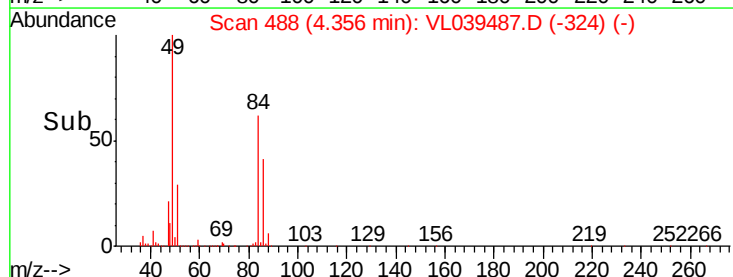
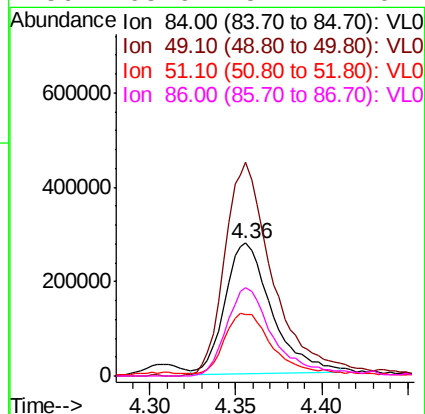
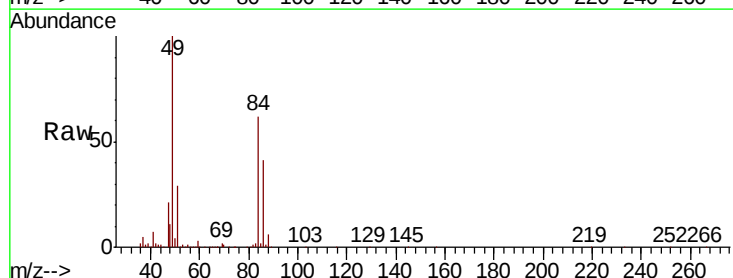
Ion Ratio Lower Upper

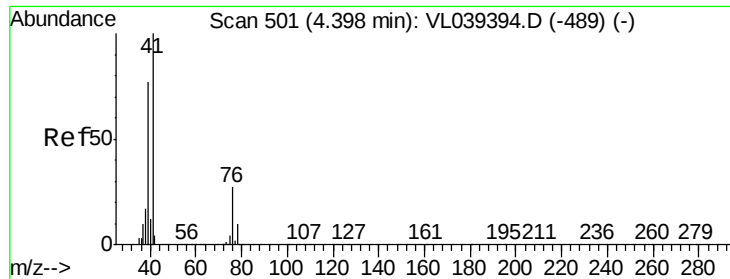
84 100

49 166.4 123.1 184.7

51 46.8 34.4 51.6

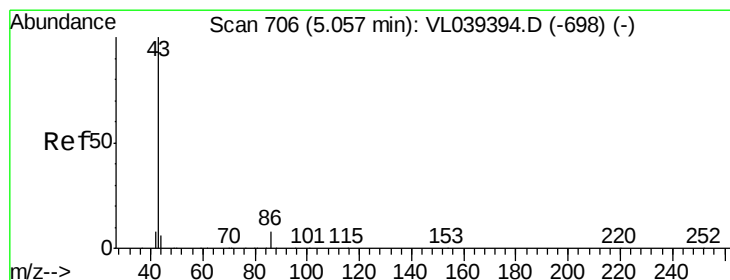
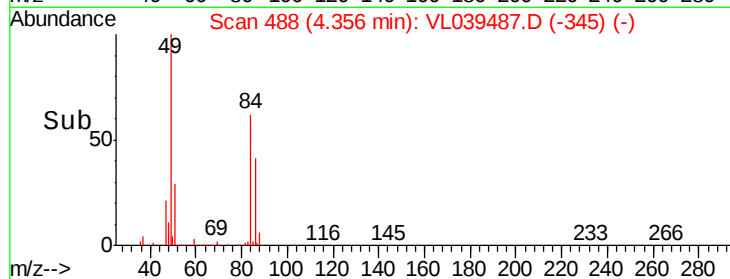
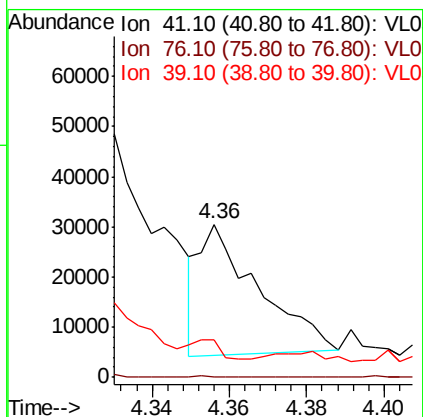
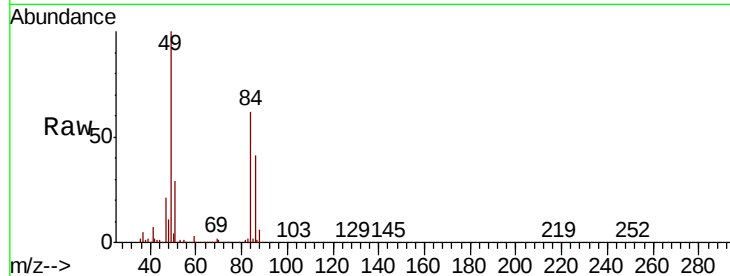
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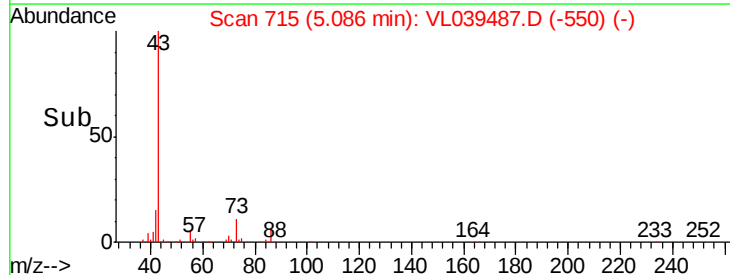
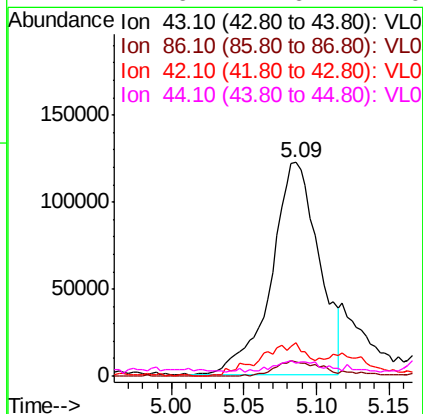
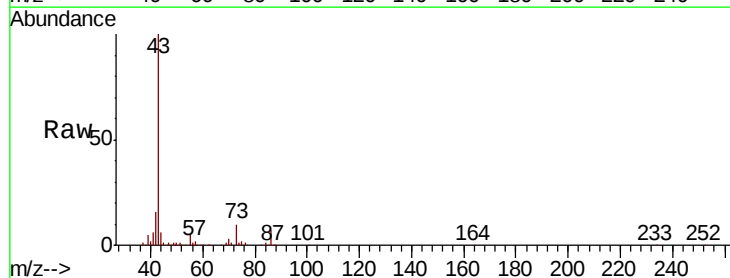
#21
 Allvl Chloride
 Concen: 0.265 ppbv
 RT: 4.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-2
 Acq: 19 Jul 2022 18:15

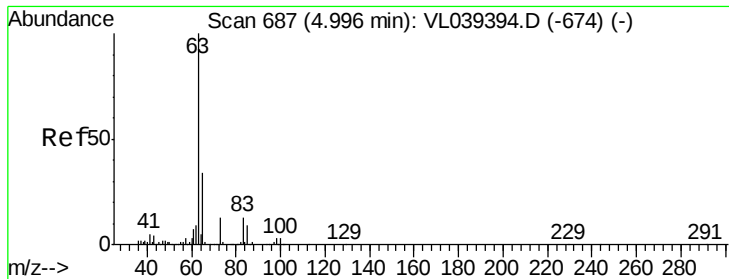
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.4	36.6#
39	30.7	63.5	95.3#



#23
 Vinyl Acetate
 Concen: 2.766 ppbv
 RT: 5.09 min Scan# 715
 Delta R.T. 0.03 min
 Lab File: VL039487.D
 Acq: 19 Jul 2022 18:15

Tgt Ion	Ratio	Lower	Upper
43	100		
86	6.6	5.0	7.6
42	15.4	7.7	11.5#
44	2.6	4.6	7.0#





#24

1,1-Dichloroethane

Concen: 0.031 ppbv

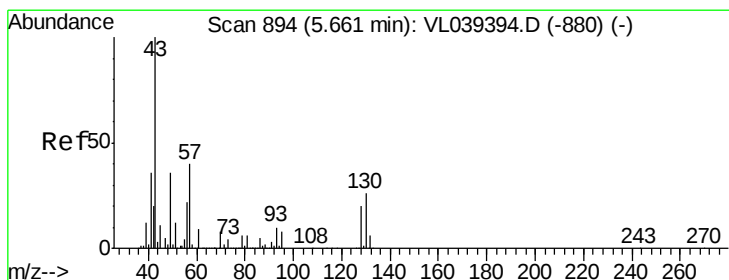
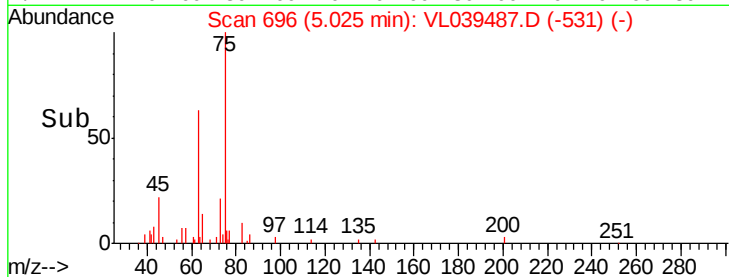
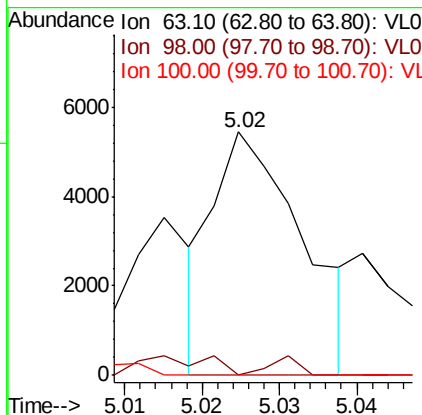
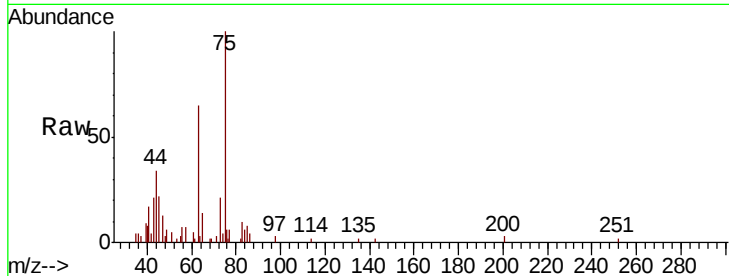
RT: 5.02 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 19 Jul 2022 18:15 SV-2

Tot Ion:	63	Resp:	4369
Ion	Ratio	Lower	Upper
63	100		
98	0.0	1.8	5.3#
100	0.0	1.5	4.4#



#25

Ethyl Acetate

Concen: 3.478 ppbv

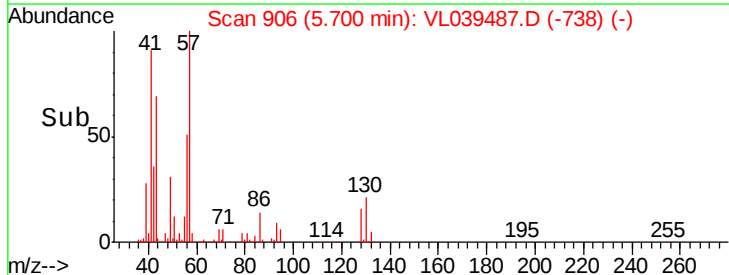
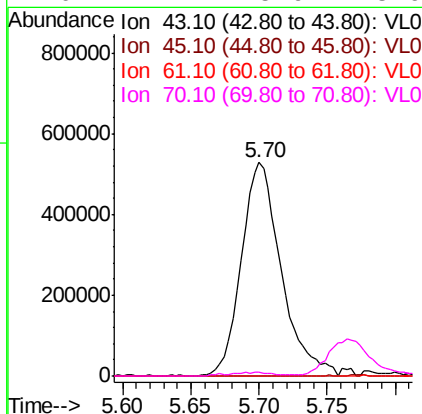
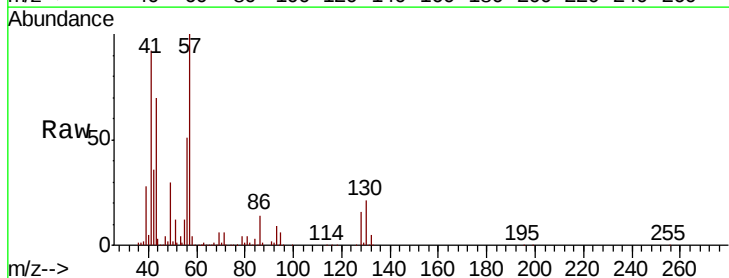
RT: 5.70 min Scan# 906

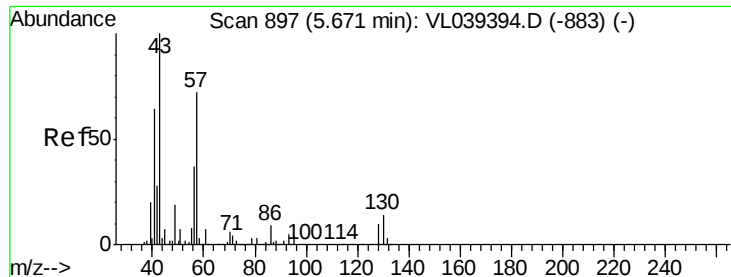
Delta R.T. 0.04 min

Lab File: VL039487.D

Acq: 19 Jul 2022 18:15

Tgt Ion:	43	Resp:	1067452
Ion	Ratio	Lower	Upper
43	100		
45	0.2	8.2	12.4#
61	0.2	8.3	12.5#
70	2.2	5.9	8.9#

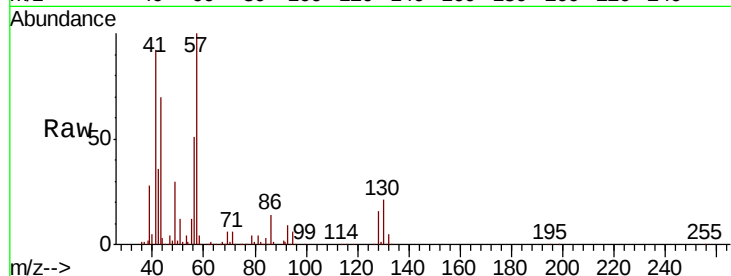




#26
Hexane
Concen: 12.179 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 18:15

Tot Ion: 57 Resp: 1506682

Ion	Ratio	Lower	Upper
57	100		
41	106.7	76.9	115.3
43	70.9	191.0	286.6#
56	56.9	43.2	64.8



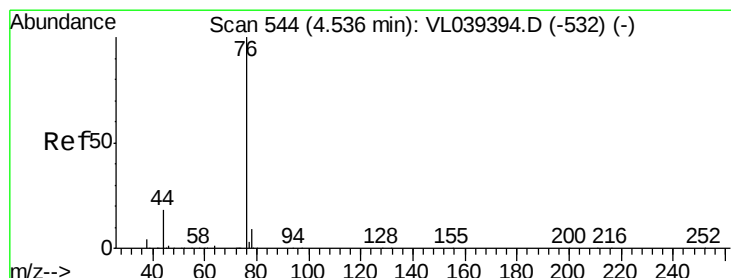
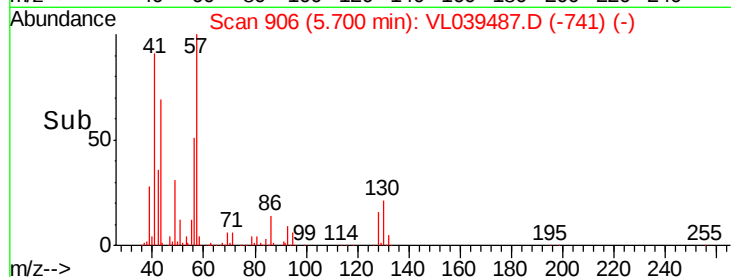
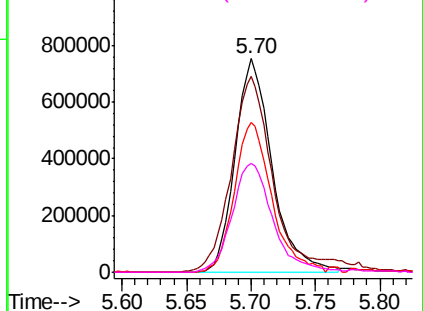
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

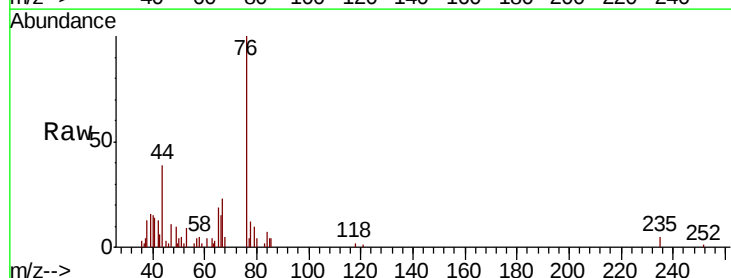
Ion 56.10 (55.80 to 56.80): VL0



#27
Carbon Disulfide
Concen: 0.140 ppbv
RT: 4.56 min Scan# 552
Delta R.T. 0.03 min
Lab File: VL039487.D
Acq: 19 Jul 2022 18:15

Tgt Ion: 76 Resp: 20862

Ion	Ratio	Lower	Upper
76	100		
44	37.0	14.6	21.8#
78	13.1	7.8	11.6#

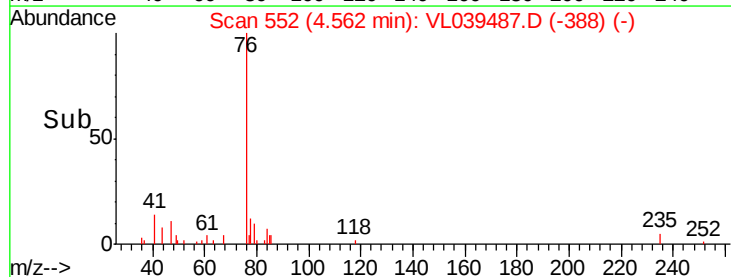
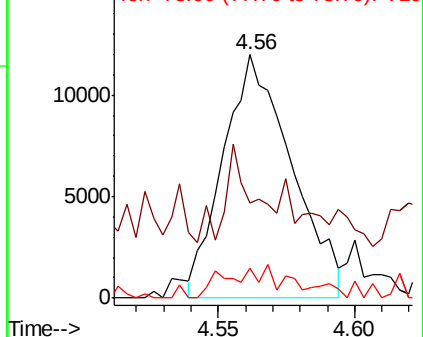


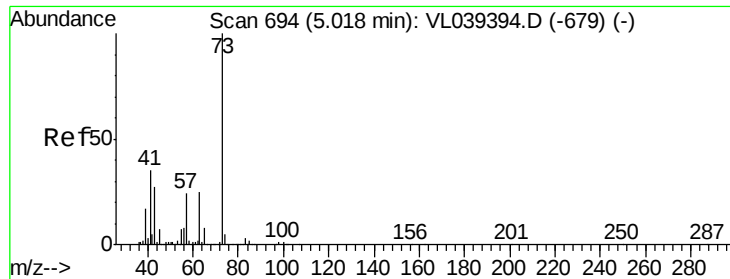
Abundance

Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

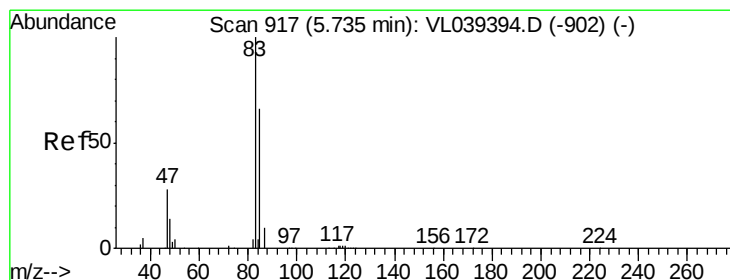
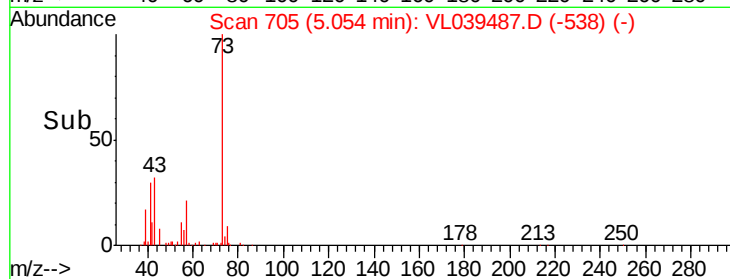
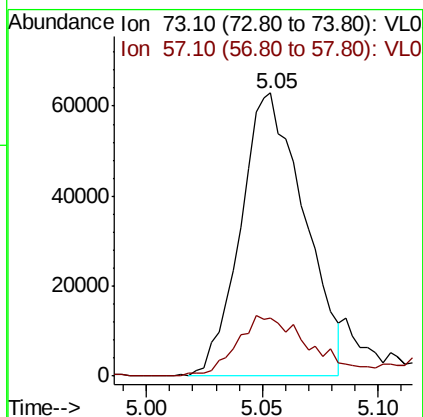
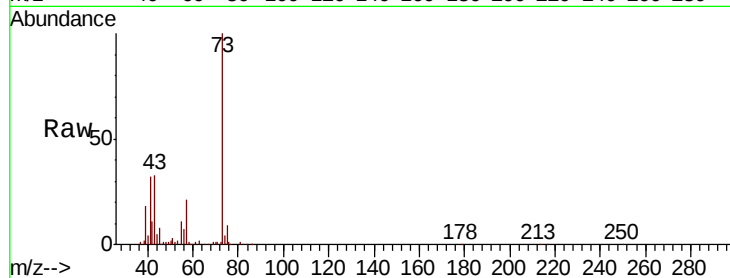
Ion 78.00 (77.70 to 78.70): VL0





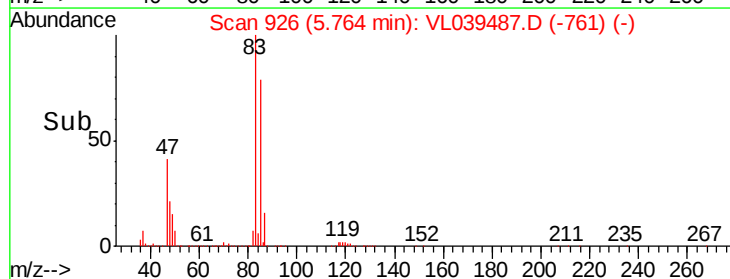
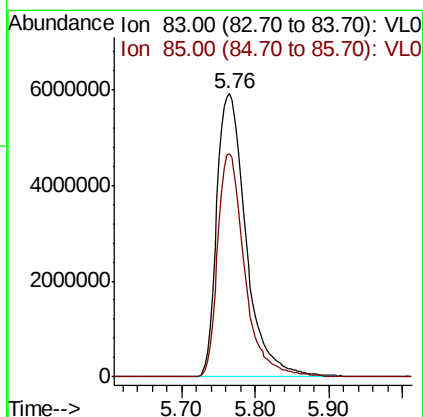
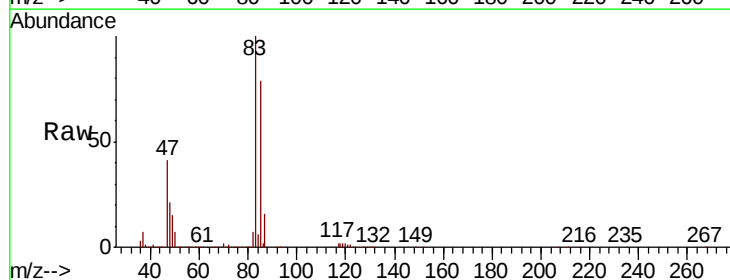
#28
Methvl tert-Butvl Ether
Concen: 0.908 ppbv
RT: 5.05
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-2
Acq: 19 Jul 2022 18:15

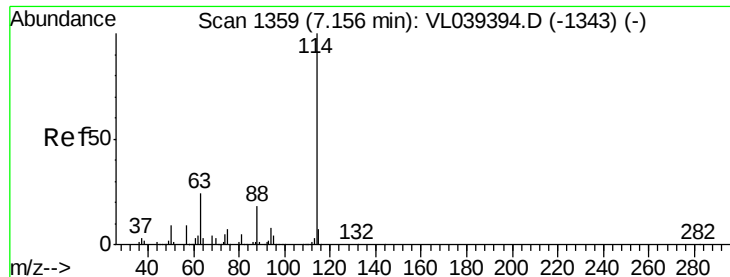
Tot Ion: 73 Resp: 120036
Ion Ratio Lower Upper
73 100
57 23.8 19.8 29.8



#29
Chloroform
Concen: 75.686 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.03 min
Lab File: VL039487.D
Acq: 19 Jul 2022 18:15

Tgt Ion: 83 Resp:16280913
Ion Ratio Lower Upper
83 100
85 78.9 52.8 79.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: SV-2

Acq: 19 Jul 2022 18:15

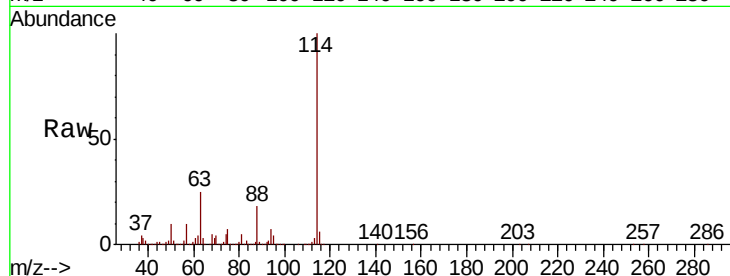
Tot Ion:114 Resp: 3599580

Ion Ratio Lower Upper

114 100

63 24.8 20.2 30.4

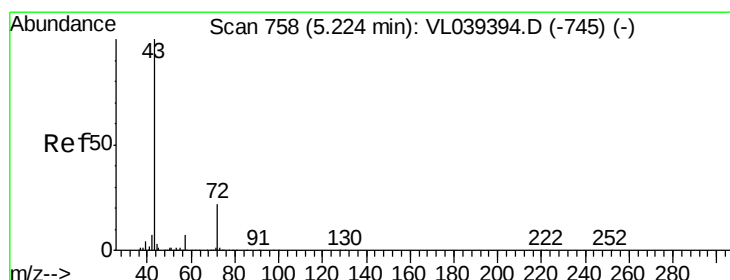
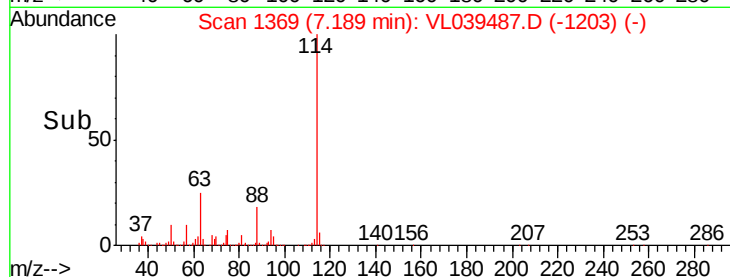
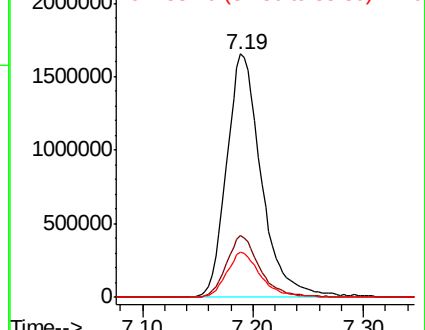
88 18.2 14.5 21.7



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.331 ppbv

RT: 5.26 min Scan# 769

Delta R.T. 0.04 min

Lab File: VL039487.D

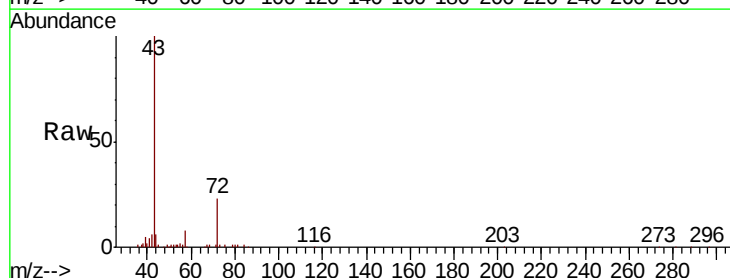
Acq: 19 Jul 2022 18:15

Tgt Ion: 43 Resp: 59913

Ion Ratio Lower Upper

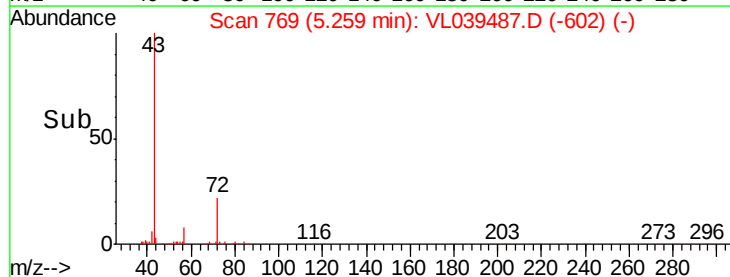
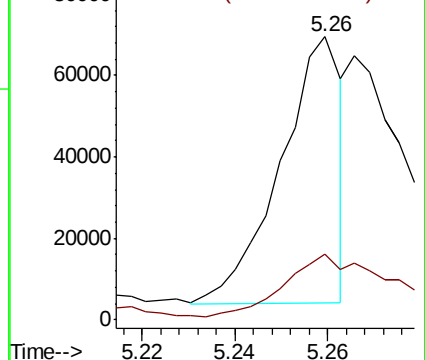
43 100

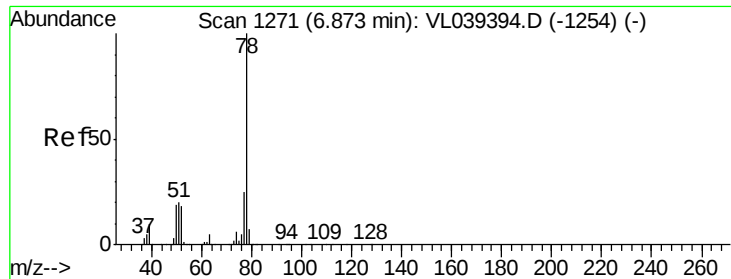
72 54.0 17.9 26.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

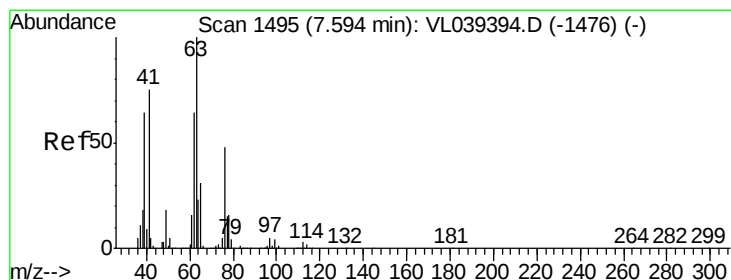
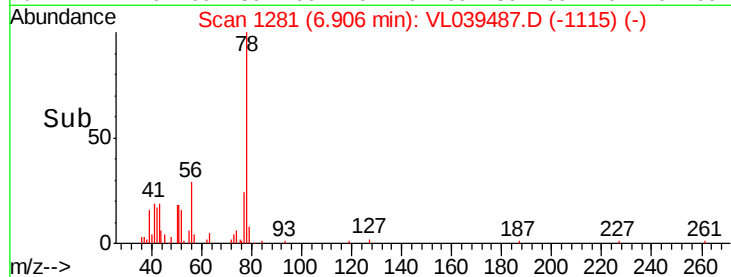
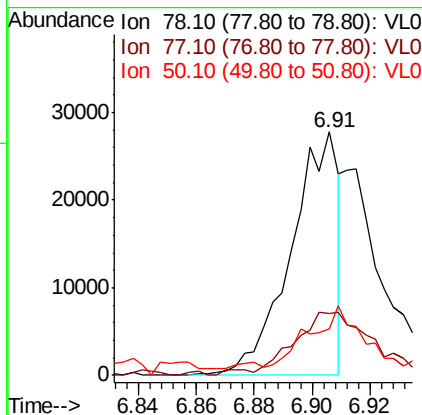
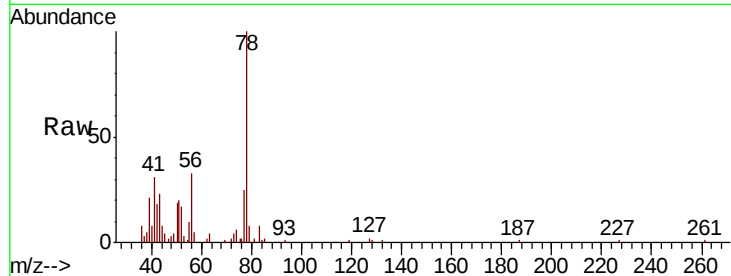
Ion 72.10 (71.80 to 72.80): VL0





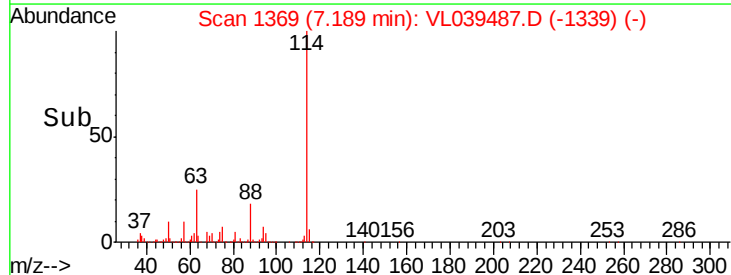
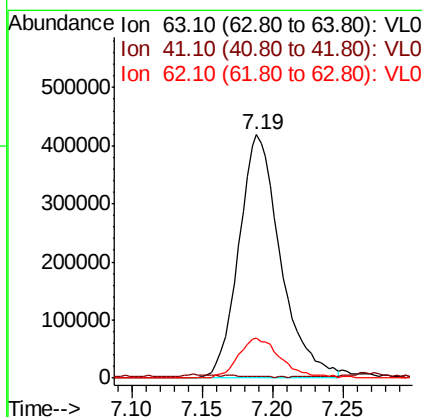
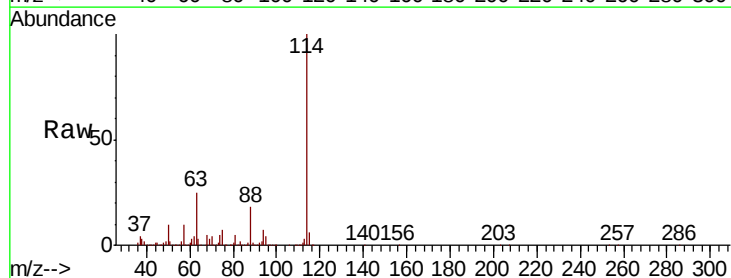
#36
Benzene
Concen: 0.113 ppbv
RT: 6.91
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 18:15

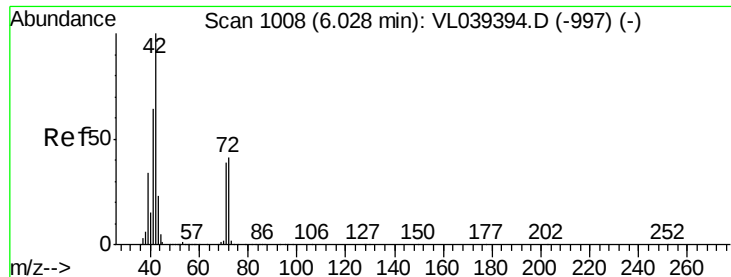
Tot Ion	78	Resp	31611
Ion Ratio	Lower	Upper	
78	100		
77	24.3	20.3	30.5
50	13.7	15.5	23.3#



#39
1,2-Dichloropropane
Concen: 8.337 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. -0.41 min
Lab File: VL039487.D
Acq: 19 Jul 2022 18:15

Tgt Ion	63	Resp	867710
Ion Ratio	Lower	Upper	
63	100		
41	0.0	59.6	89.4#
62	16.6	51.4	77.0#





#41

Tetrahydrofuran

Concen: 0.298 ppbv

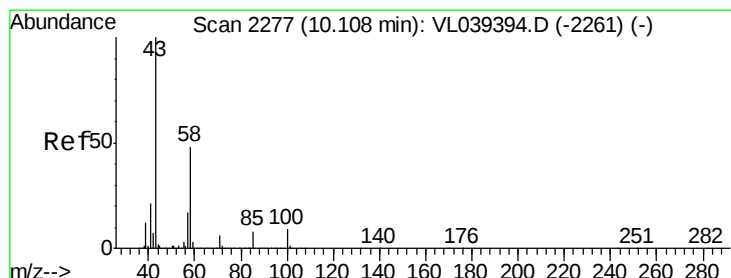
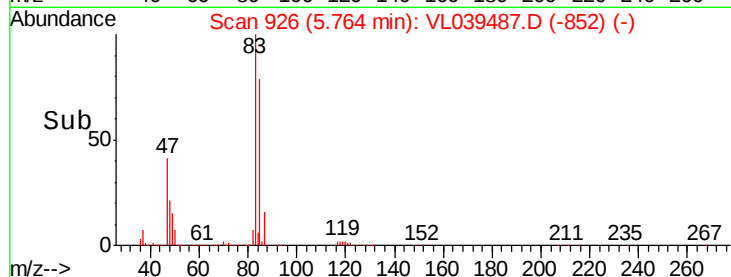
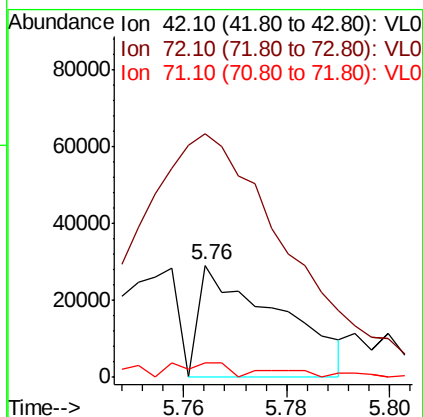
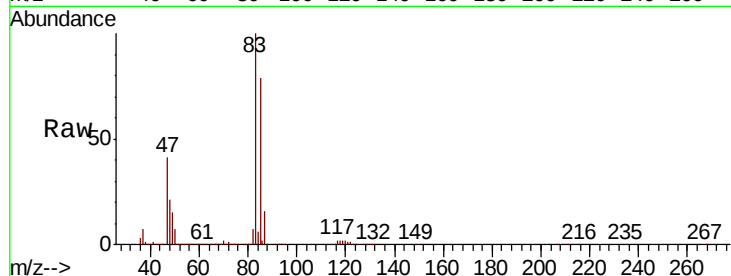
RT: 5.76 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-2

Acq: 19 Jul 2022 18:15

Tot Ion:	42	Resp:	31287
Ion	Ratio	Lower	Upper
42	100		
72	441.9	31.8	47.8#
71	15.1	31.8	47.8#



#51

2-Hexanone

Concen: 0.085 ppbv

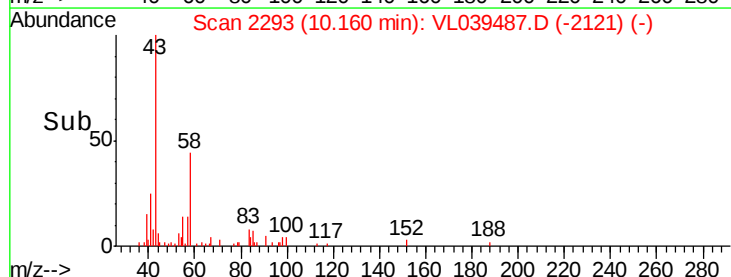
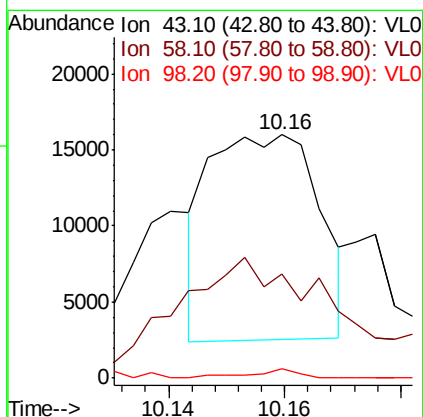
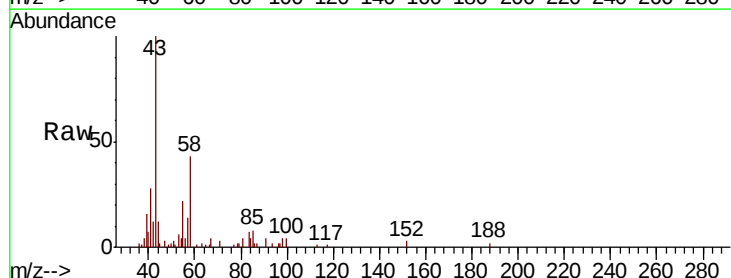
RT: 10.16 min Scan# 2293

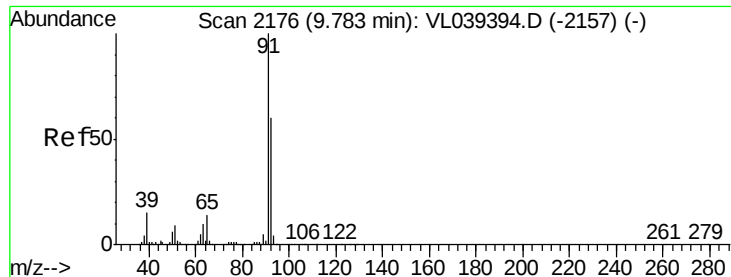
Delta R.T. 0.05 min

Lab File: VL039487.D

Acq: 19 Jul 2022 18:15

Tgt Ion:	43	Resp:	17574
Ion	Ratio	Lower	Upper
43	100		
58	107.4	38.4	57.6#
98	1.8	0.3	0.5#





#53

Toluene

Concen: 0.401 ppbv

RT: 9.82 Instrument: MSVOA_1

Delta R.T. 0.04 min

Lab File: VL039487.D ClientSampleId: SV-2

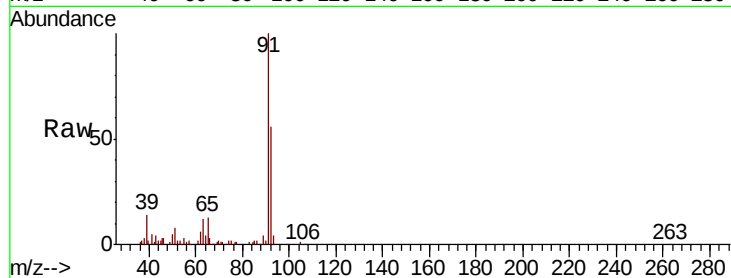
Acq: 19 Jul 2022 18:15

Tot Ion: 91 Resp: 128917

Ion Ratio Lower Upper

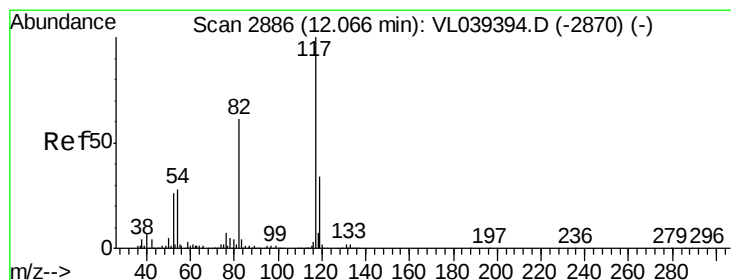
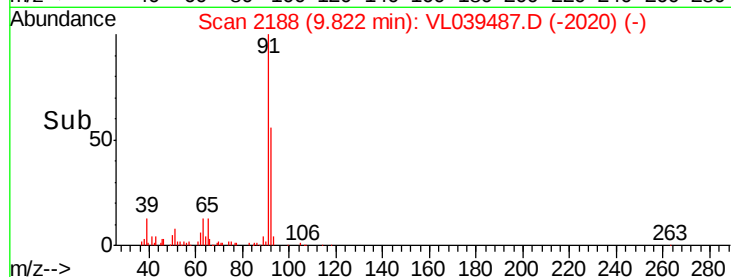
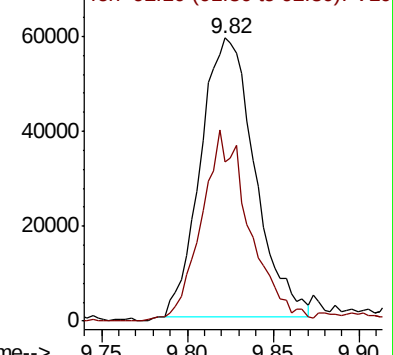
91 100

92 61.3 48.2 72.2



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: 12.10 min Scan# 2897

Delta R.T. 0.04 min

Lab File: VL039487.D

Acq: 19 Jul 2022 18:15

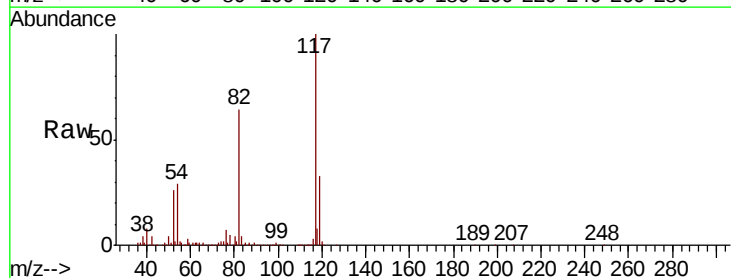
Tgt Ion: 117 Resp: 3291048

Ion Ratio Lower Upper

117 100

82 64.9 50.8 76.2

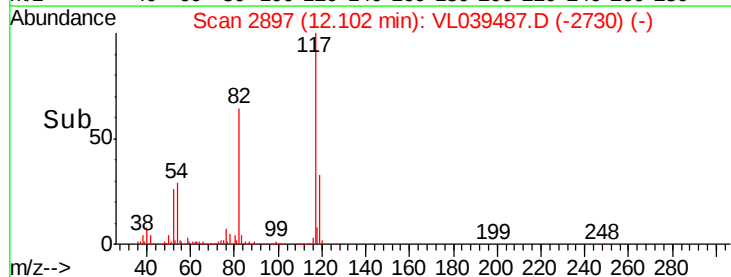
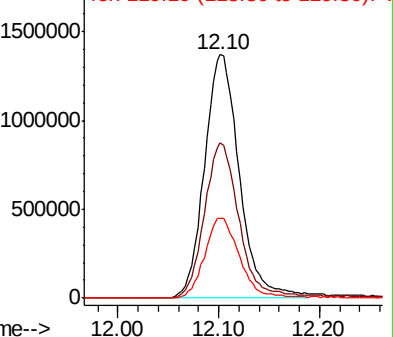
119 33.5 24.1 36.1

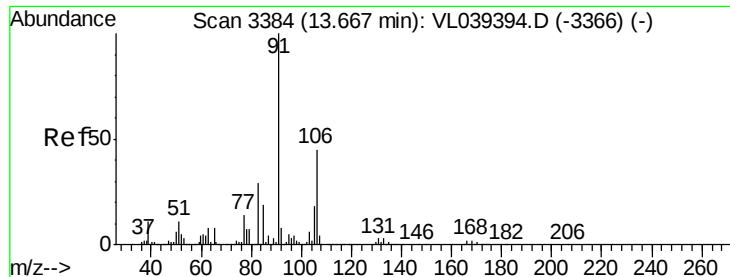


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

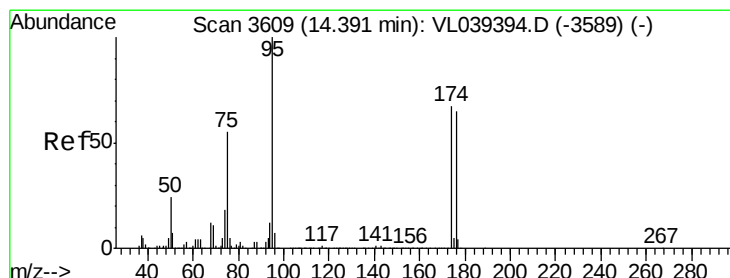
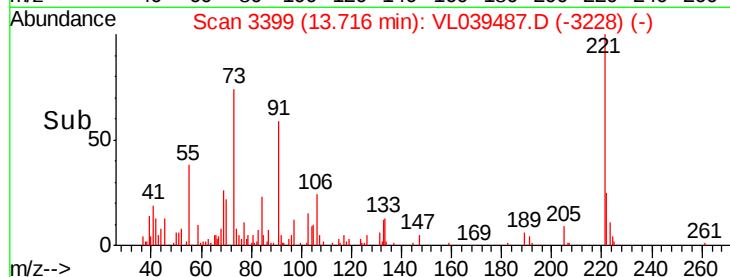
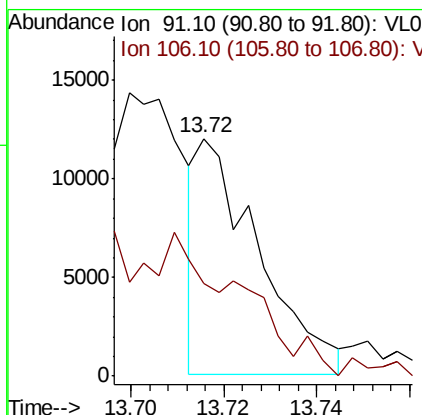
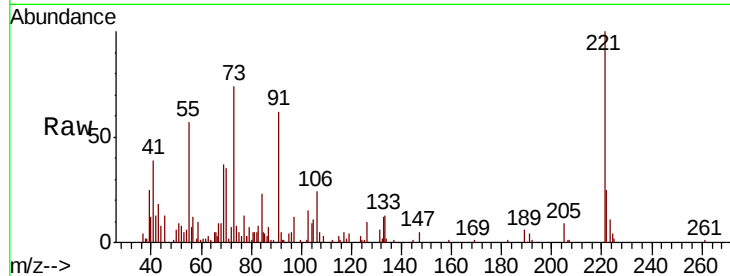
Ion 119.10 (118.80 to 119.80): V





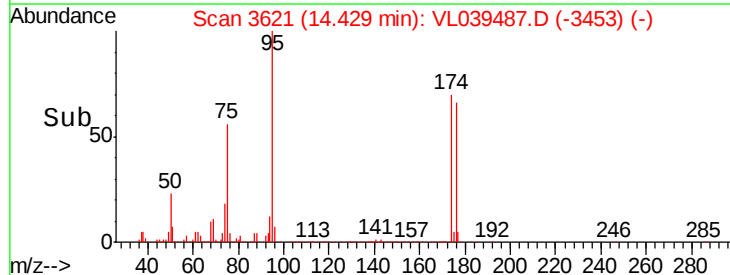
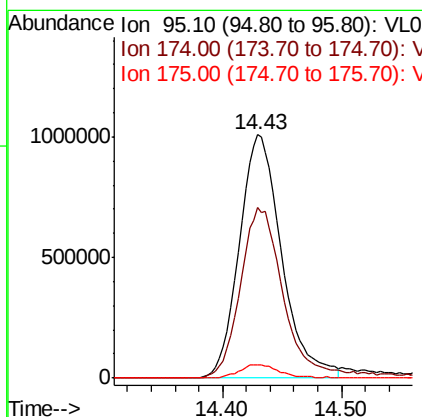
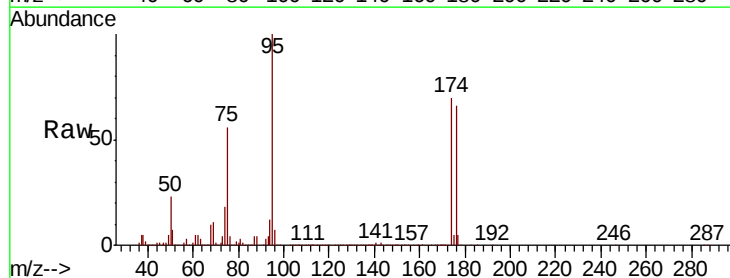
#60
o-Xylene
Concen: 0.031 ppbv
RT: 13.72
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 18:15

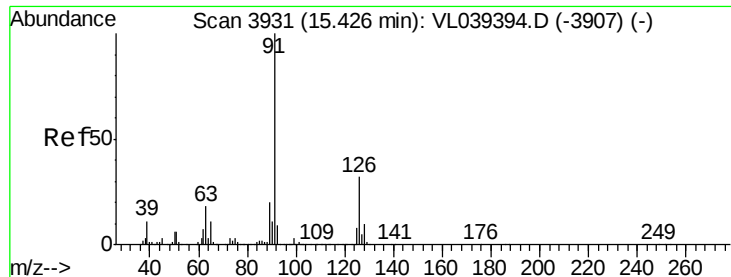
Tot Ion: 91 Resp: 10933
Ion Ratio Lower Upper
91 100
106 0.0 22.4 67.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.181 ppbv
RT: 14.43 min Scan# 3621
Delta R.T. 0.04 min
Lab File: VL039487.D
Acq: 19 Jul 2022 18:15

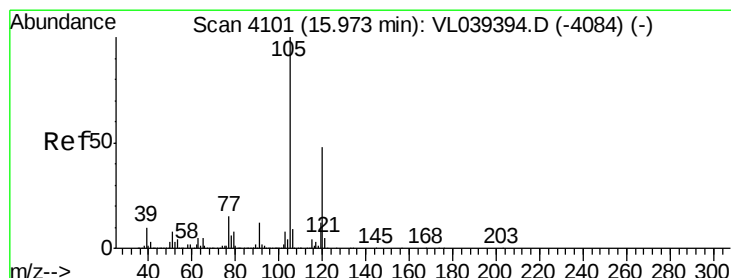
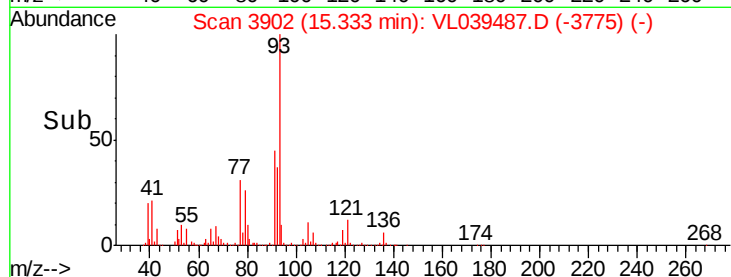
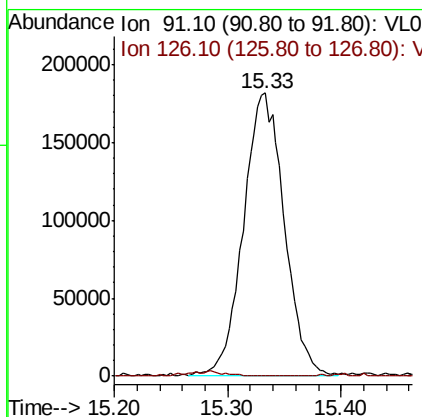
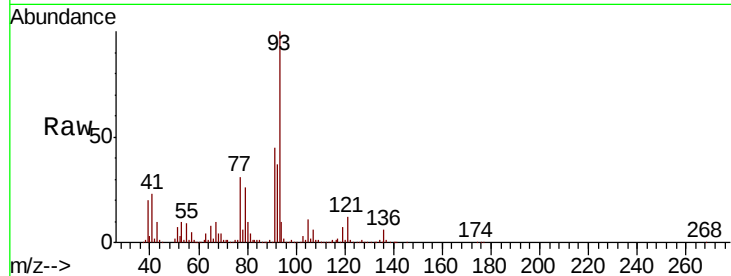
Tgt Ion: 95 Resp: 2485716
Ion Ratio Lower Upper
95 100
174 74.4 55.9 83.9
175 5.6 4.2 6.4





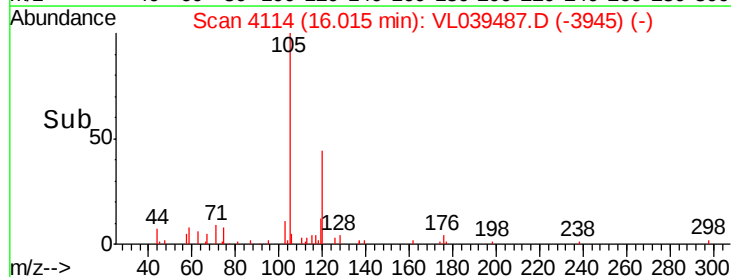
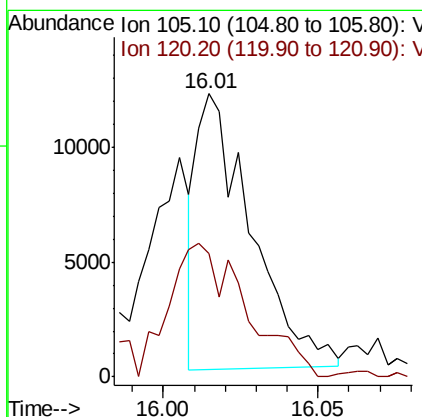
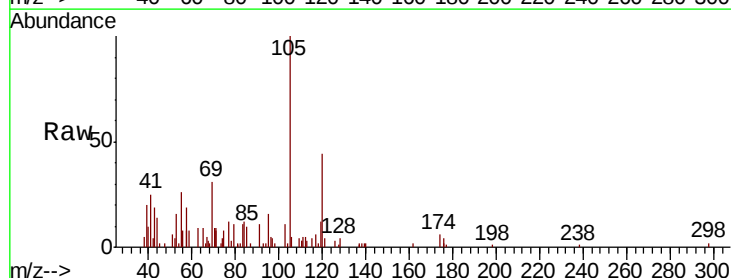
#71
 2-Chlorotoluene
 Concen: 1.169 ppbv
 RT: 15.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : SV-2
 Acq: 19 Jul 2022 18:15

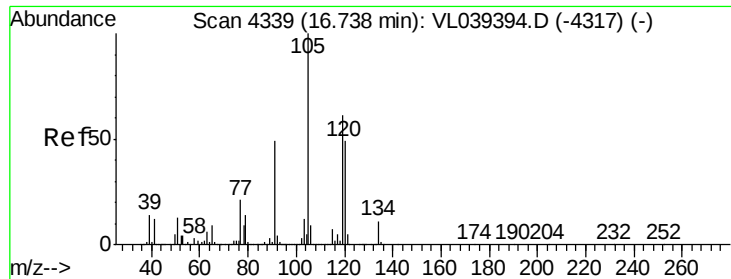
Tot Ion: 91 Resp: 451911
 Ion Ratio Lower Upper
 91 100
 126 1.7 13.0 51.8#



#73
 1,3,5-Trimethylbenzene
 Concen: 0.038 ppbv
 RT: 16.01 min Scan# 4114
 Delta R.T. 0.04 min
 Lab File: VL039487.D
 Acq: 19 Jul 2022 18:15

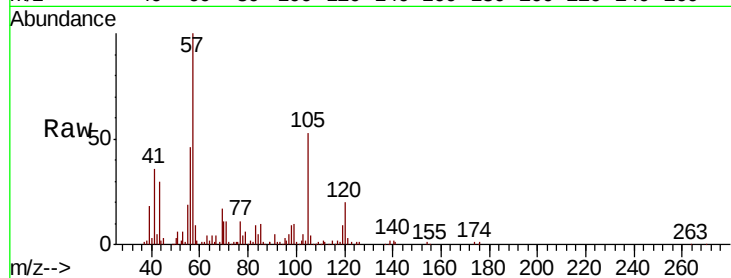
Tgt Ion: 105 Resp: 14649
 Ion Ratio Lower Upper
 105 100
 120 45.4 38.2 57.4





#74
 1,2,4-Trimethylbenzene
 Concen: 0.234 ppbv
 RT: 16.78
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 18:15

Tot Ion:	105	Resp:	99090
Ion Ratio	Lower	Upper	
105	100		
120	33.9	39.5	59.3#
91	6.8	39.2	58.8#
77	17.3	17.2	25.8



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

