

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL050219\
 Data File : VL033642.D
 Acq On : 3 May 2019 00:24
 Operator : SY/AP
 Sample : K2628-09
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-9

Quant Time: May 03 02:31:13 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050119AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 02 06:29:02 2019
 QLast Update : Thu May 02 06:29:02 2019
 Response via : Initial Calibration

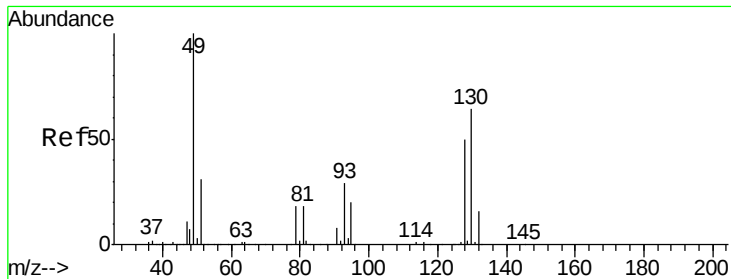
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	865178	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1972219	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1987958	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1625779	10.74	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	2.99	51	206379	1.995	ppbv #	70
4) Chloromethane	3.17	50	27123	0.481	ppbv	92
8) Dichlorotetrafluoroethane	3.22	85	2955	0.021	ppbv #	75
9) Propene	3.24	41	31569	1.066	ppbv	95
10) Heptane	8.25	43	2575	0.024	ppbv #	27
11) Trichlorofluoromethane	4.00	101	44148	0.285	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.55	101	8014	0.075	ppbv	88
13) Ethanol	3.64	45	611223	45.513	ppbv	99
15) Acetone	3.90	43	405126	3.846	ppbv	99
17) tert-Butyl alcohol	4.37	59	2487	0.027	ppbv #	72
19) Isopropyl Alcohol	4.03	45	157588	2.180	ppbv #	91
20) Methylene Chloride	4.41	84	35691	0.869	ppbv	95
23) Vinyl Acetate	5.14	43	7452	0.048	ppbv #	73
25) Ethyl Acetate	5.78	43	45867	0.229	ppbv #	91
26) Hexane	5.77	57	18148	0.216	ppbv #	1
29) Chloroform	5.85	83	1617	0.010	ppbv	95
30) Cyclohexane	7.24	84	765	0.011	ppbv #	1
34) 2-Butanone	5.33	43	21682	0.179	ppbv	94
35) Carbon Tetrachloride	7.12	117	8482	0.054	ppbv #	84
36) Benzene	7.01	78	4227	0.025	ppbv	94
39) 1,2-Dichloropropane	7.29	63	520285	8.210	ppbv #	24
41) Tetrahydrofuran	6.14	42	760	0.012	ppbv #	36
44) 2,2,4-Trimethylpentane	7.98	57	3152	0.011	ppbv #	1
53) Toluene	9.94	91	1121053	5.286	ppbv	100
59) m/p-Xylene	13.14	91	3828	0.019	ppbv #	100
60) o-Xylene	13.84	91	5230	0.026	ppbv #	50
61) Styrene	13.67	104	1567	0.012	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.92	105	4038	0.016	ppbv #	72

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. 0.00 min

Lab File: VL033642.D

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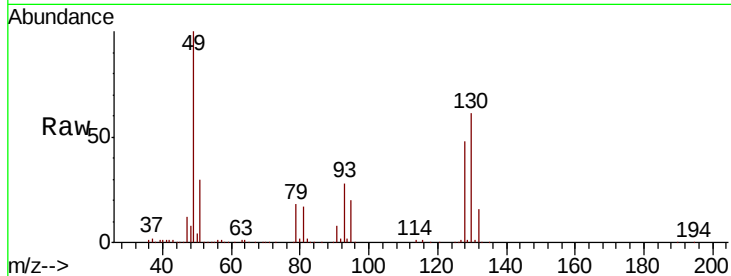
Tgt Ion: 49 Resp: 865178

Ion Ratio Lower Upper

49 100

128 48.4 25.0 75.0

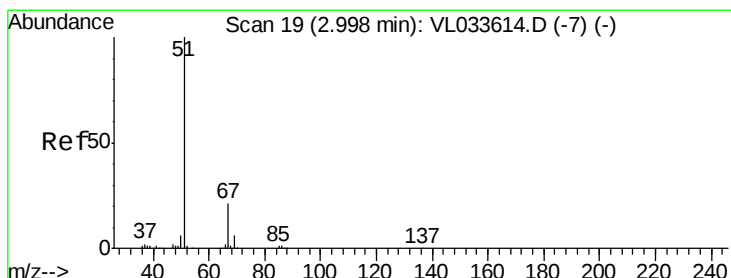
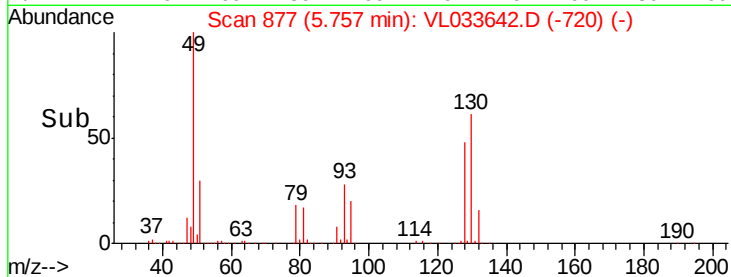
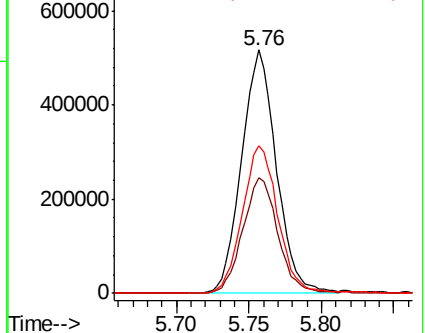
130 62.4 31.9 95.9



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



#3

Chlorodifluoromethane

Concen: 1.995 ppbv

RT: 2.99 min Scan# 16

Delta R.T. -0.01 min

Lab File: VL033642.D

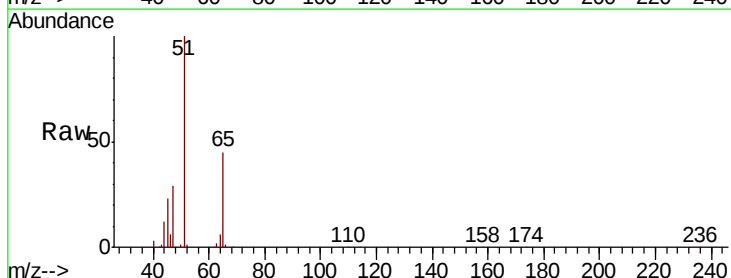
Acq: 3 May 2019 00:24

Tgt Ion: 51 Resp: 206379

Ion Ratio Lower Upper

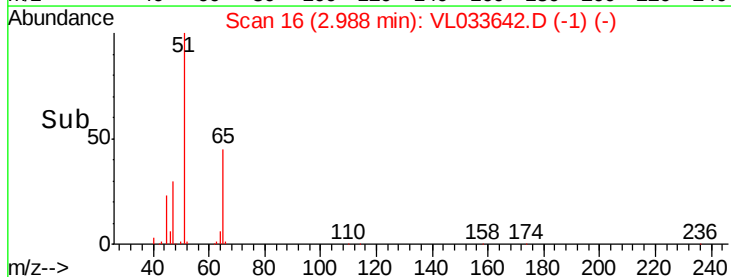
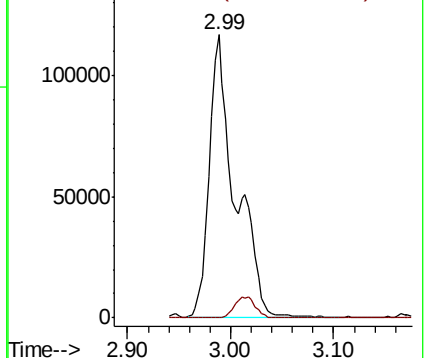
51 100

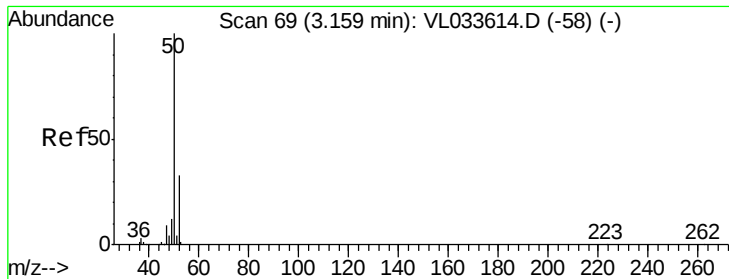
67 6.0 15.6 23.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.481 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.01 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

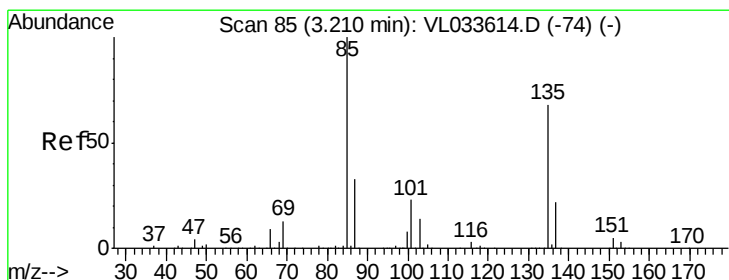
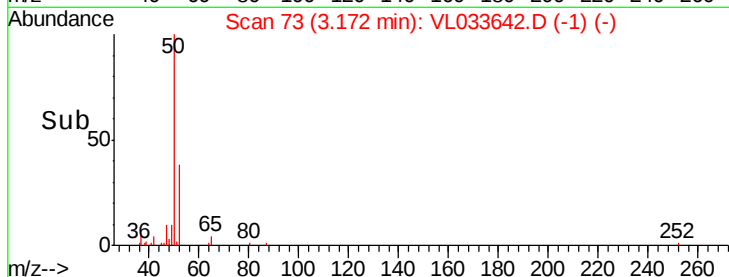
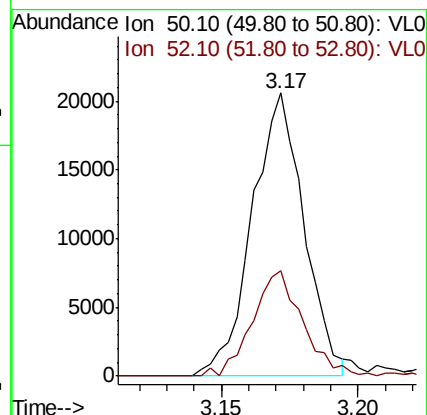
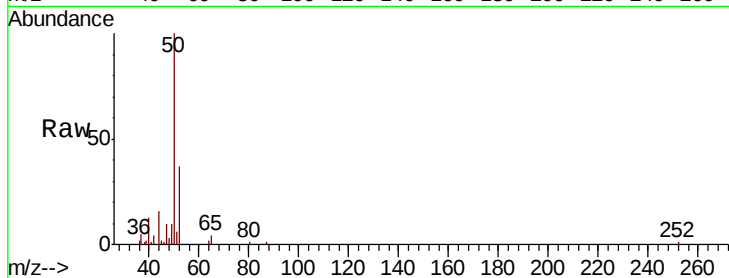
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Tgt Ion: 50 Resp: 27123

Ion Ratio Lower Upper

50 100

52 37.2 26.0 39.0



#8

Dichlorotetrafluoroethane

Concen: 0.021 ppbv

RT: 3.22 min Scan# 88

Delta R.T. 0.01 min

Lab File: VL033642.D

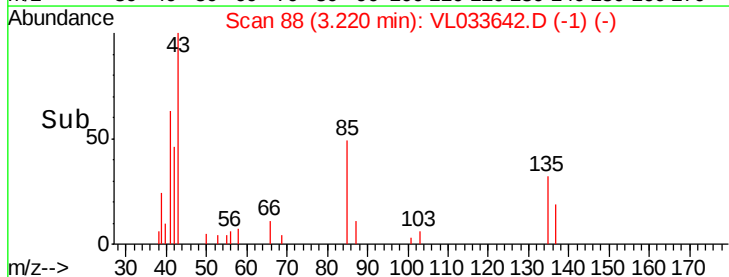
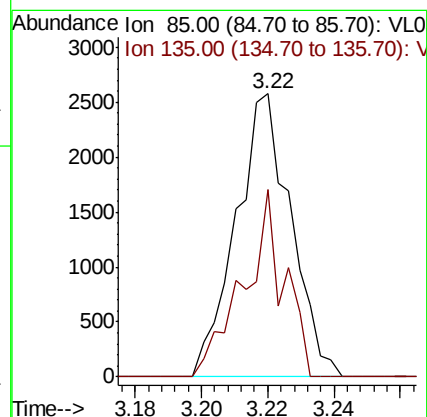
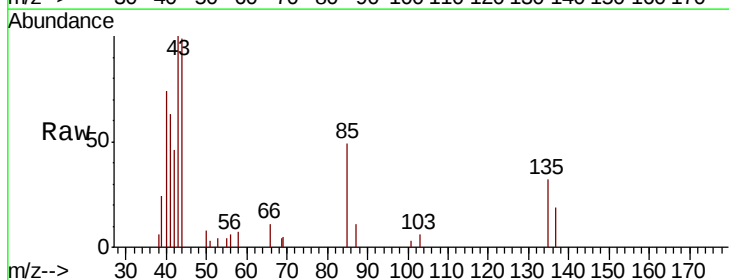
Acq: 3 May 2019 00:24

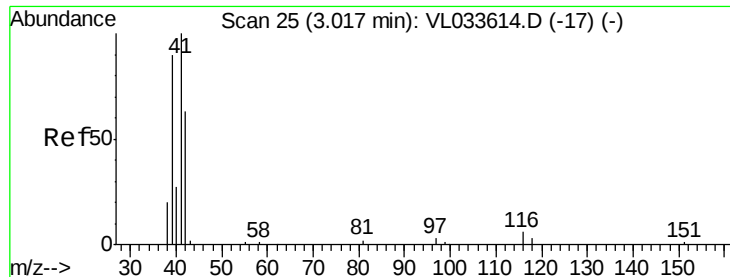
Tgt Ion: 85 Resp: 2955

Ion Ratio Lower Upper

85 100

135 48.6 55.0 82.6#





#9

Propene

Concen: 1.066 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.22 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

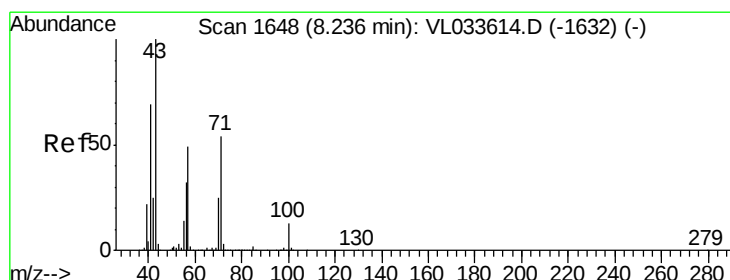
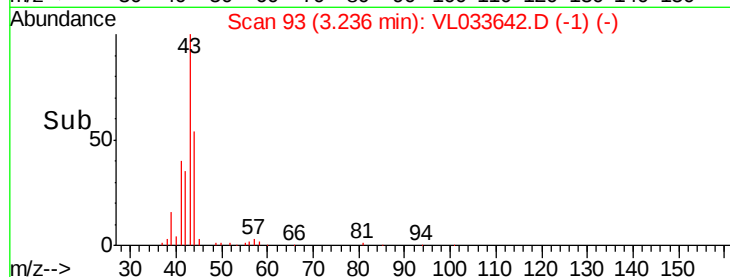
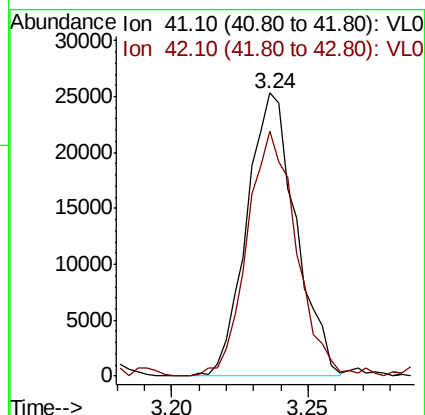
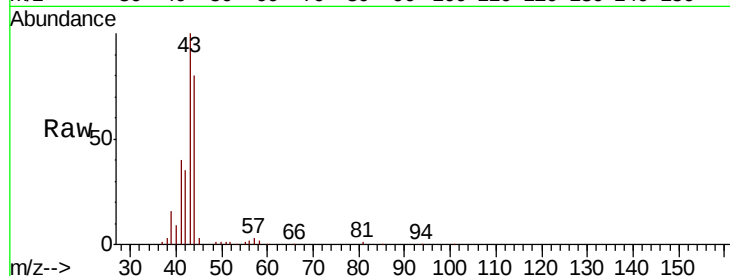
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Tgt Ion: 41 Resp: 31569

Ion Ratio Lower Upper

41 100

42 87.0 66.0 99.0



#10

Heptane

Concen: 0.024 ppbv

RT: 8.25 min Scan# 1652

Delta R.T. 0.01 min

Lab File: VL033642.D

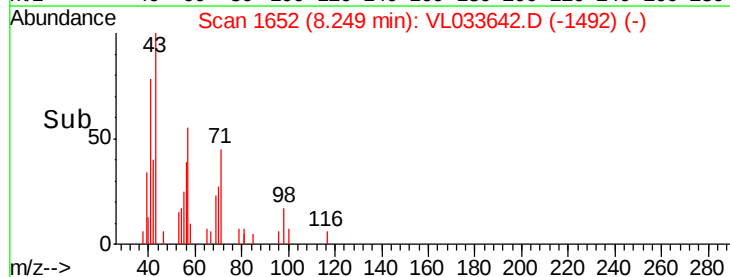
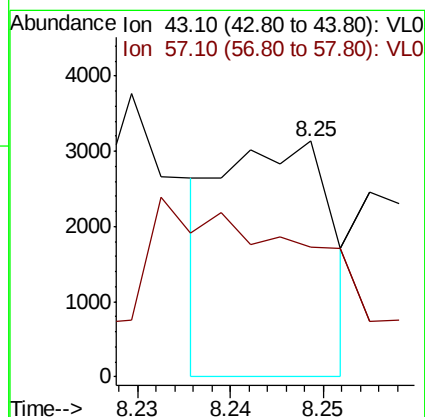
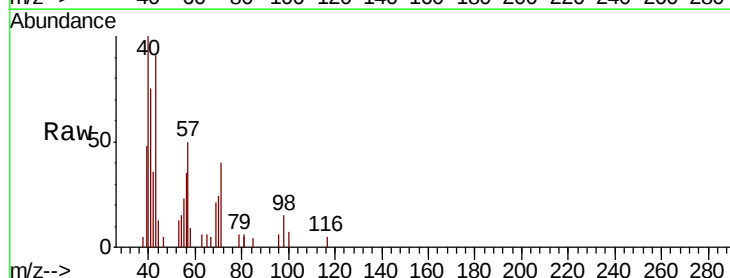
Acq: 3 May 2019 00:24

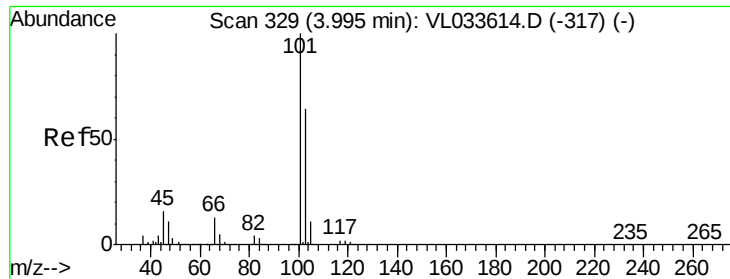
Tgt Ion: 43 Resp: 2575

Ion Ratio Lower Upper

43 100

57 0.0 40.3 60.5#

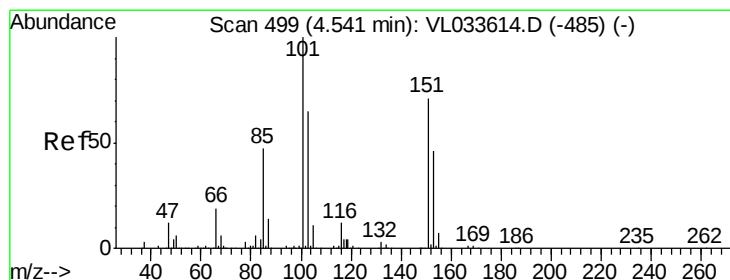
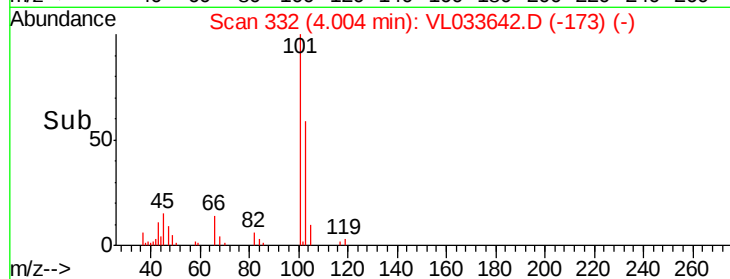
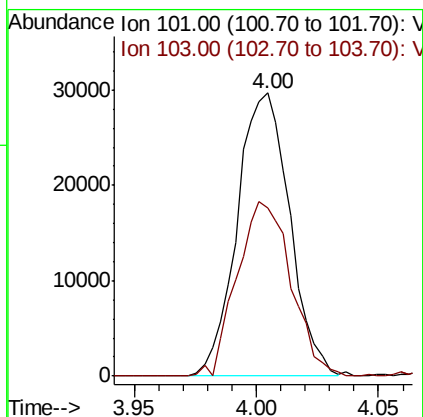
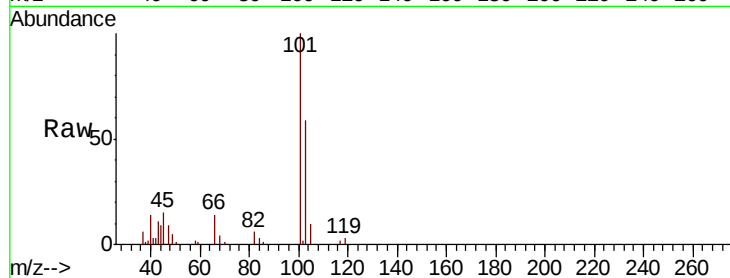




#11
 Trichlorofluoromethane
 Concen: 0.285 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. 0.01 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

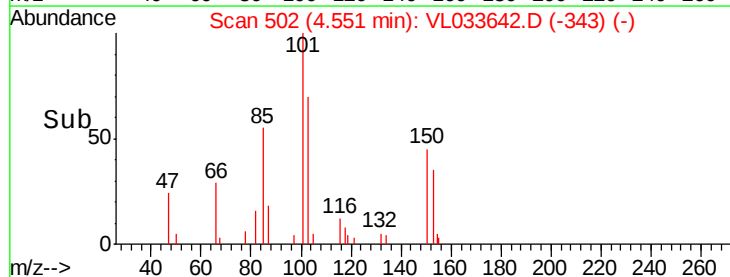
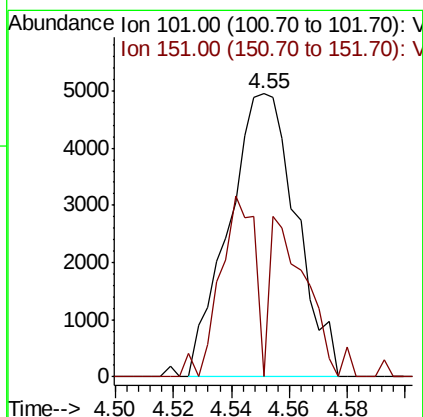
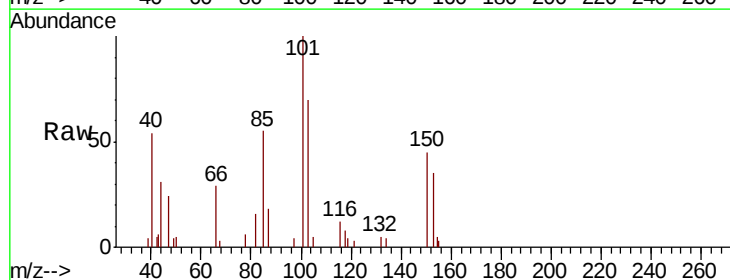
Instrument :
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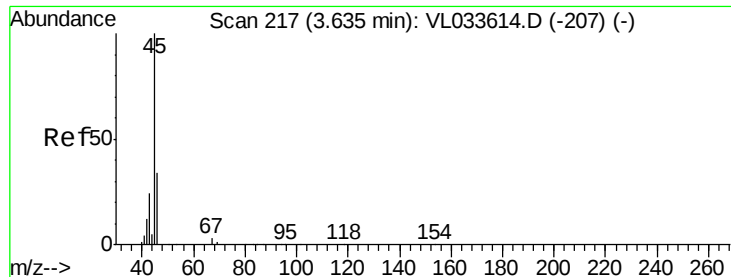
Tgt Ion:101 Resp: 44148
 Ion Ratio Lower Upper
 101 100
 103 59.3 51.2 76.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.075 ppbv
 RT: 4.55 min Scan# 502
 Delta R.T. 0.01 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

Tgt Ion:101 Resp: 8014
 Ion Ratio Lower Upper
 101 100
 151 64.1 59.2 88.8

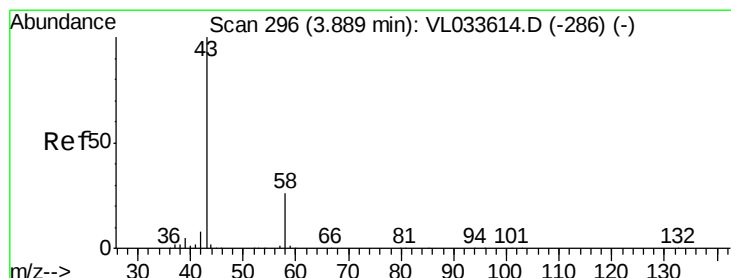
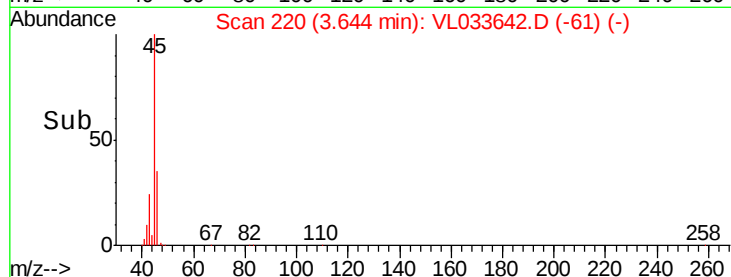
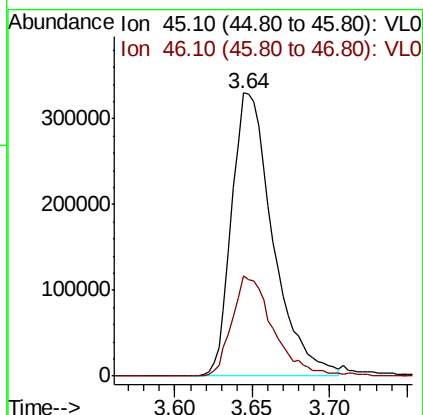
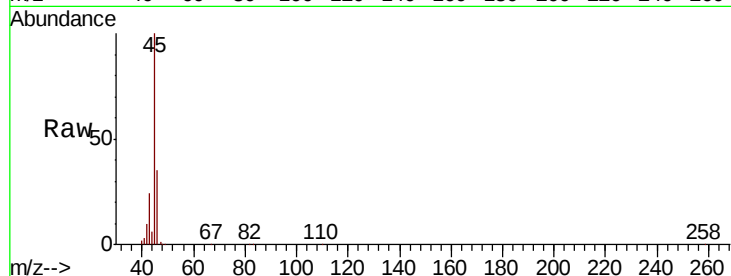




#13
Ethanol
Concen: 45.513 ppbv
RT: 3.64 min Scan# 220
Delta R.T. 0.01 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

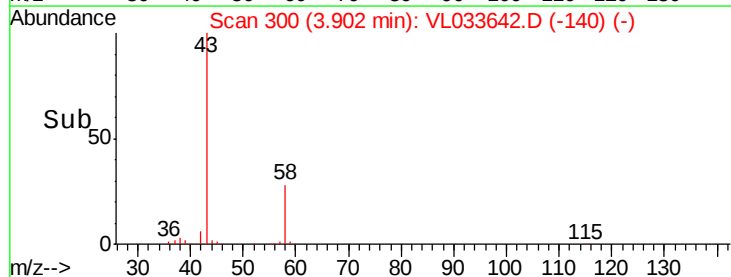
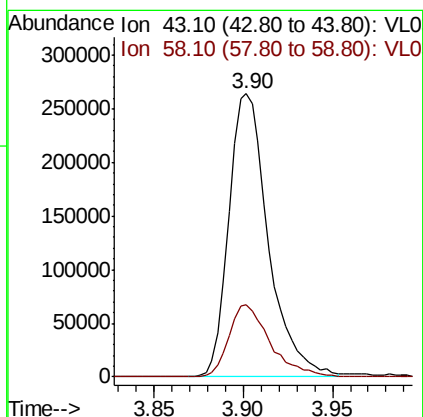
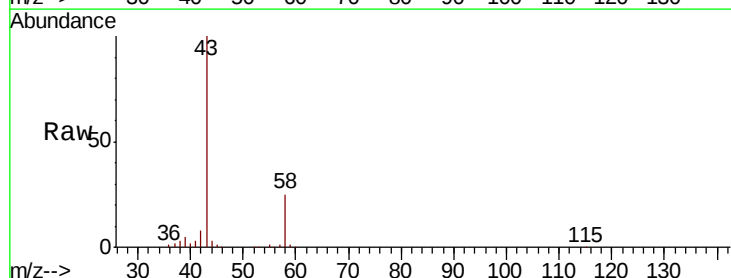
Instrument :
MSVOA_L
ClientSampled :
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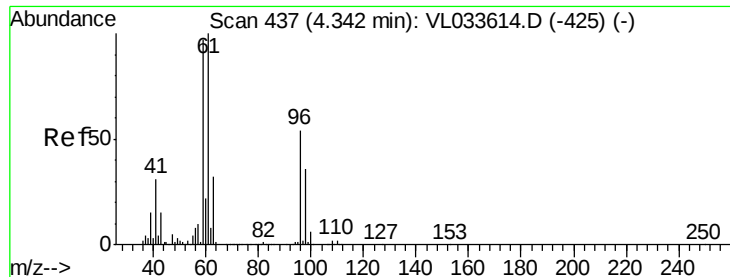
Tgt Ion: 45 Resp: 611223
Ion Ratio Lower Upper
45 100
46 35.9 14.6 58.2



#15
Acetone
Concen: 3.846 ppbv
RT: 3.90 min Scan# 300
Delta R.T. 0.01 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion: 43 Resp: 405126
Ion Ratio Lower Upper
43 100
58 26.8 21.2 31.8





#17

tert-Butyl alcohol

Concen: 0.027 ppbv

RT: 4.37 min Scan# 446

Delta R.T. 0.03 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampled :

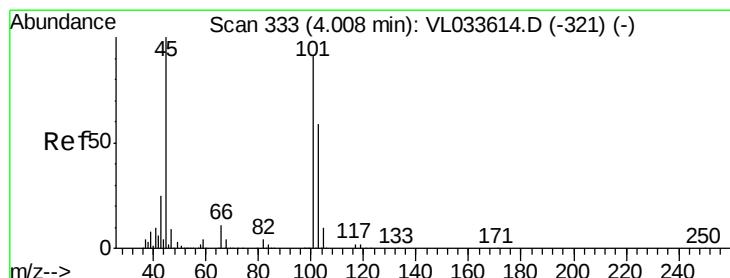
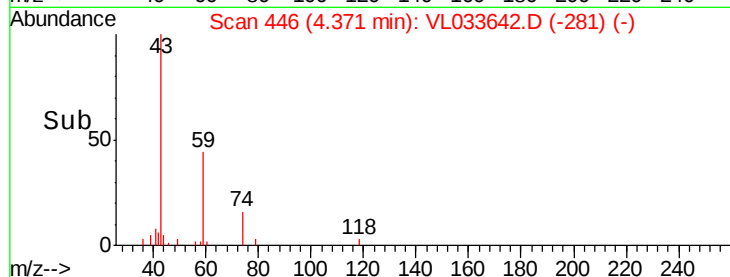
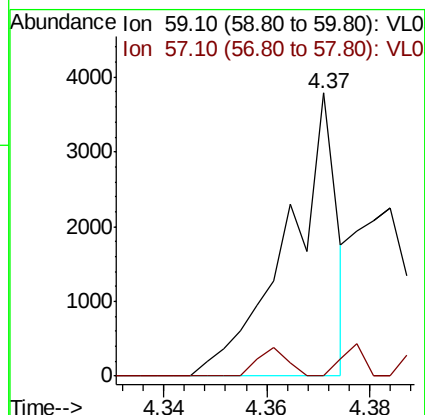
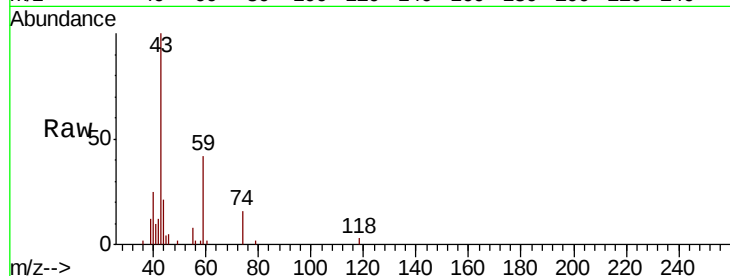
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Tgt Ion: 59 Resp: 2487

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



#19

Isopropyl Alcohol

Concen: 2.180 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.02 min

Lab File: VL033642.D

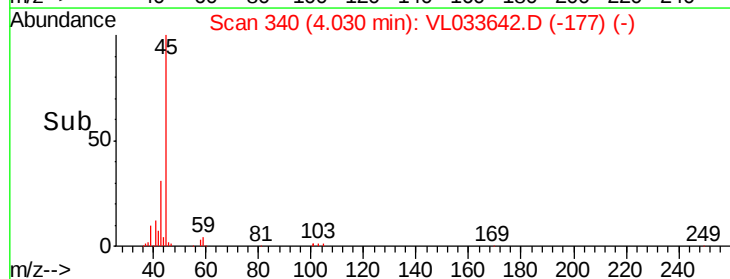
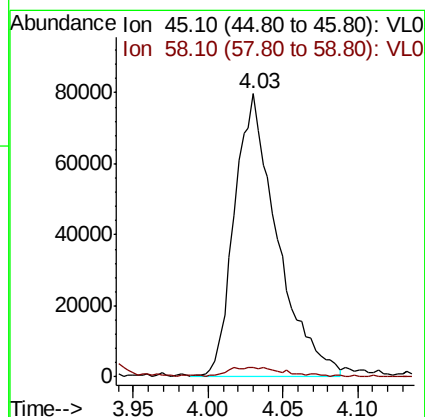
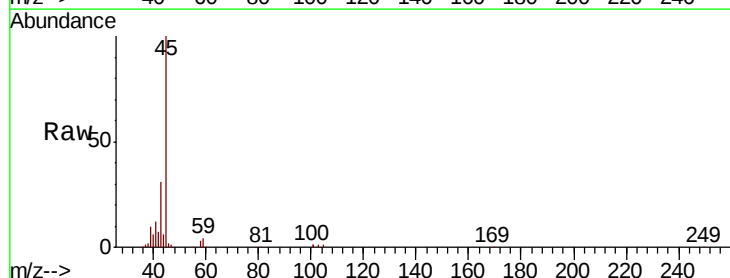
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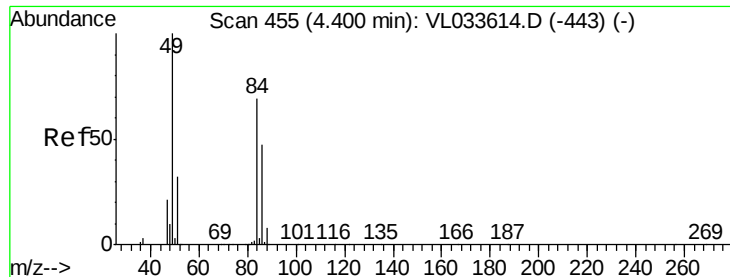
Tgt Ion: 45 Resp: 157588

Ion Ratio Lower Upper

45 100

58 5.4 1.8 2.6#

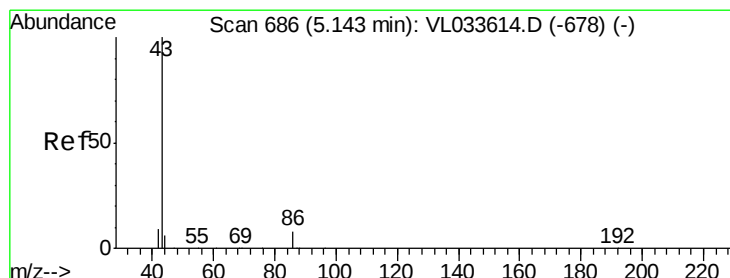
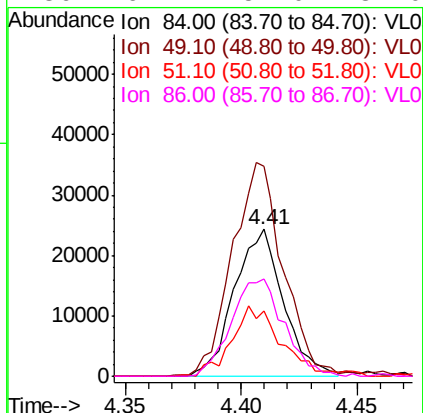
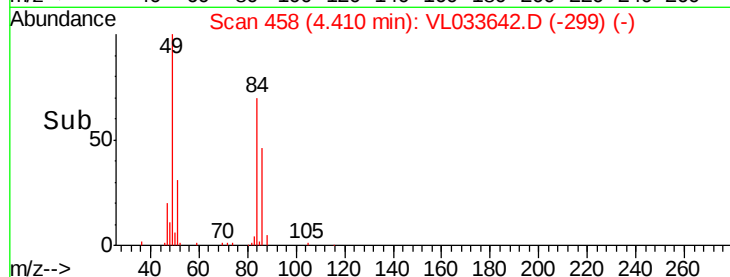
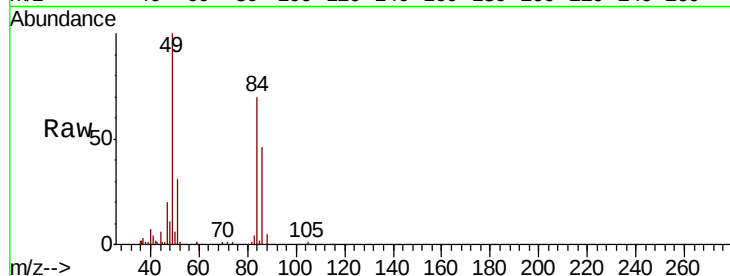




#20
Methylene Chloride
Concen: 0.869 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.01 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

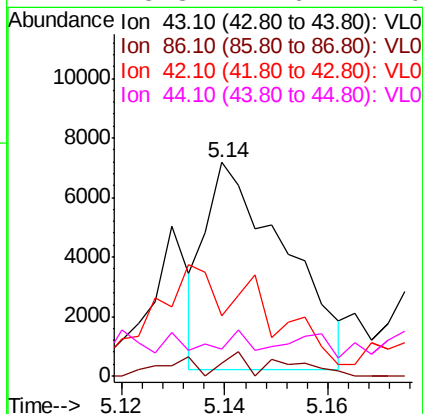
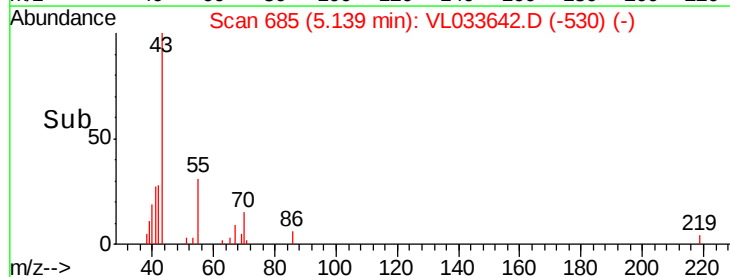
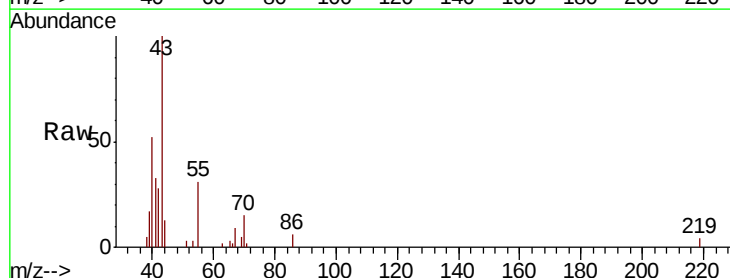
Instrument :
MSVOA_L
ClientSampled :
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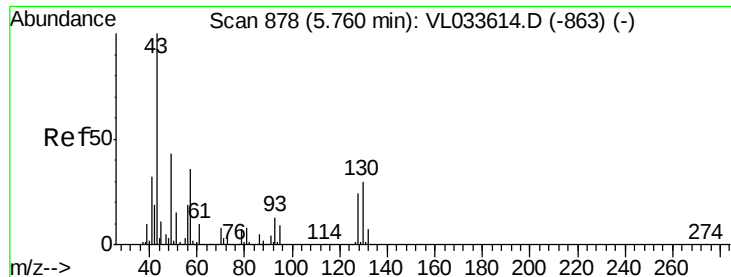
Tgt Ion:	84	Resp:	35691
Ion	Ratio	Lower	Upper
84	100		
49	138.1	116.2	174.2
51	42.9	37.0	55.6
86	64.4	54.0	81.0



#23
Vinyl Acetate
Concen: 0.048 ppbv
RT: 5.14 min Scan# 685
Delta R.T. -0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion:	43	Resp:	7452
Ion	Ratio	Lower	Upper
43	100		
86	5.1	5.8	8.8#
42	31.3	7.8	11.8#
44	5.3	4.6	7.0

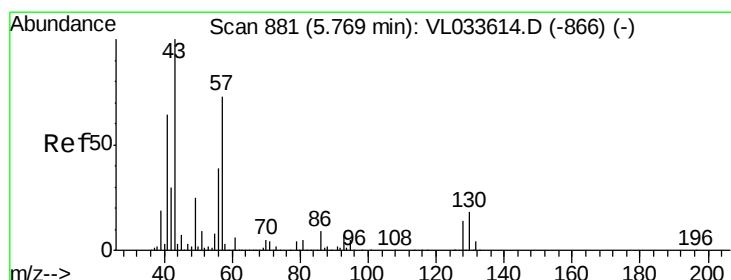
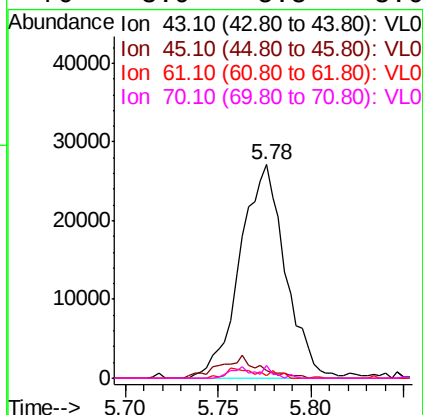
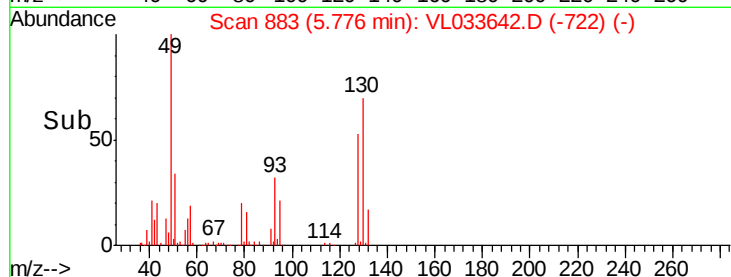
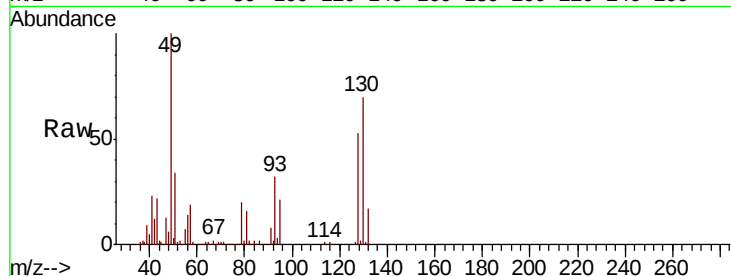




#25
Ethyl Acetate
Concen: 0.229 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.02 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

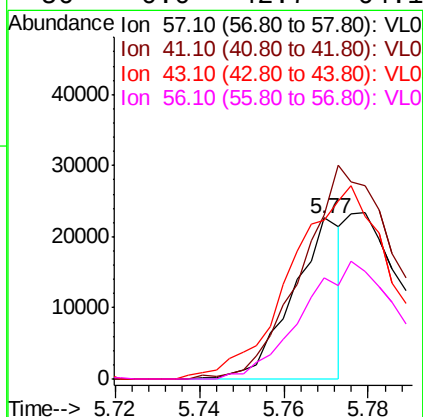
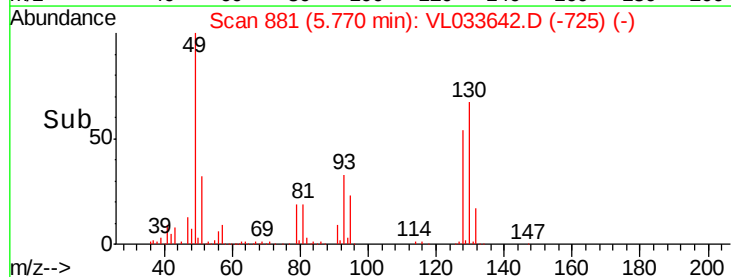
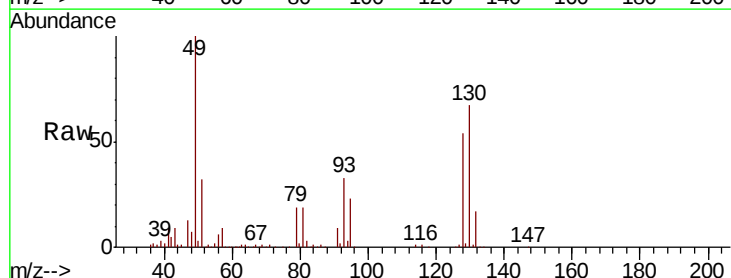
Instrument :
MSVOA_L
ClientSampleId :
A-9

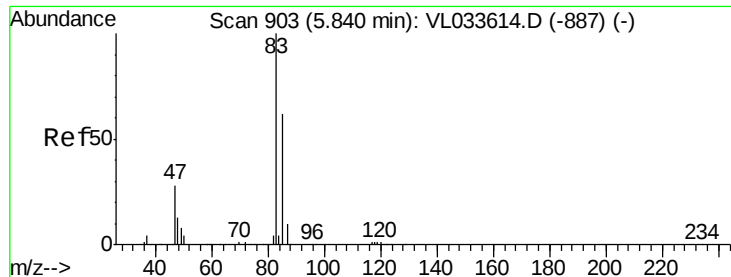
Tgt Ion:	43	Resp:	45867
Ion	Ratio	Lower	Upper
43	100		
45	9.3	8.1	12.1
61	4.0	7.5	11.3#
70	3.9	5.8	8.6#



#26
Hexane
Concen: 0.216 ppbv
RT: 5.77 min Scan# 881
Delta R.T. 0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion:	57	Resp:	18148
Ion	Ratio	Lower	Upper
57	100		
41	260.2	70.6	106.0#
43	0.0	186.0	279.0#
56	0.0	42.7	64.1#

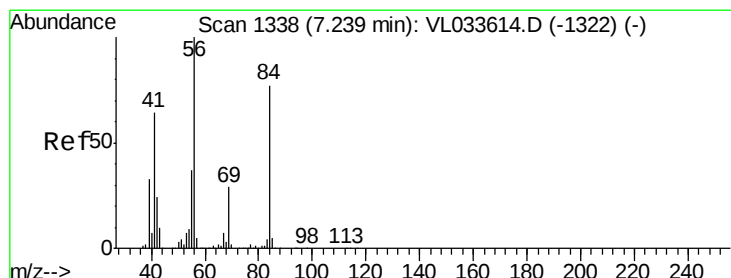
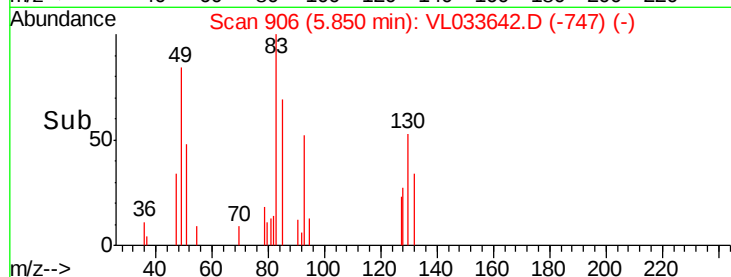
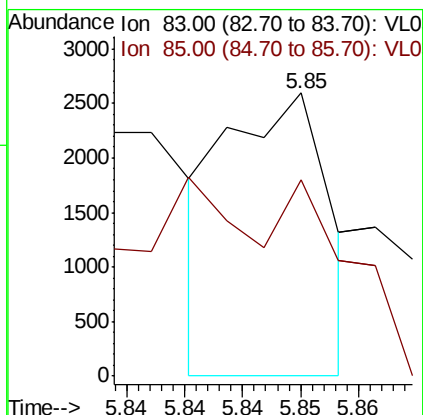
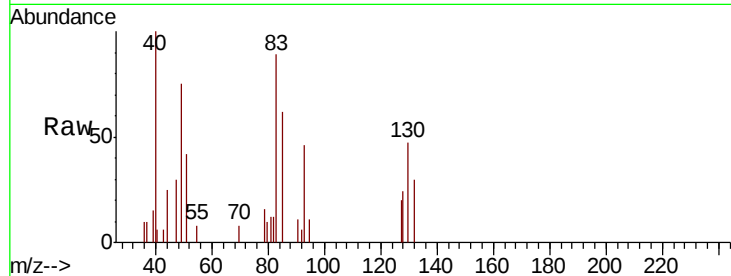




#29
Chloroform
Concen: 0.010 ppbv
RT: 5.85 min Scan# 906
Delta R.T. 0.01 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

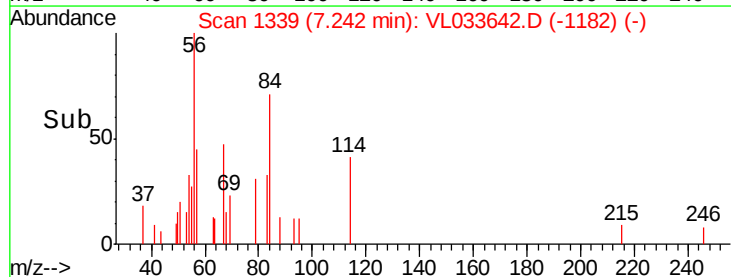
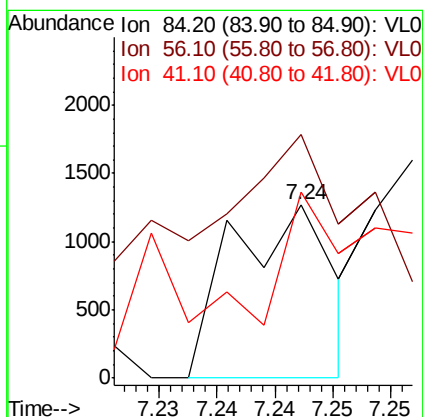
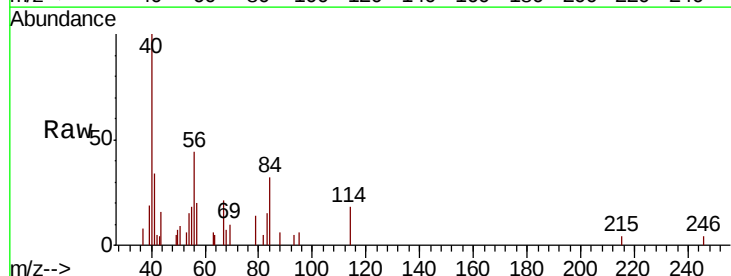
Instrument :
MSVOA_L
ClientSampled :
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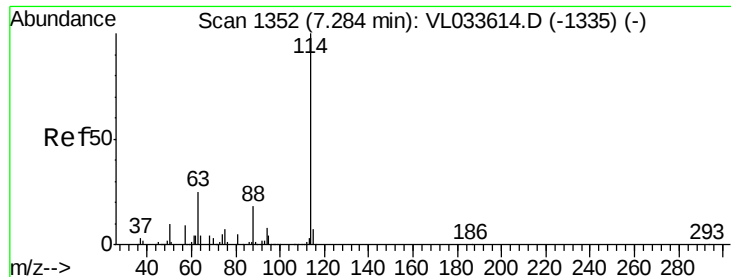
Tgt Ion: 83 Resp: 1617
Ion Ratio Lower Upper
83 100
85 58.3 49.9 74.9



#30
Cyclohexane
Concen: 0.011 ppbv
RT: 7.24 min Scan# 1339
Delta R.T. 0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion: 84 Resp: 765
Ion Ratio Lower Upper
84 100
56 0.0 108.4 162.6#
41 343.8 67.0 100.4#

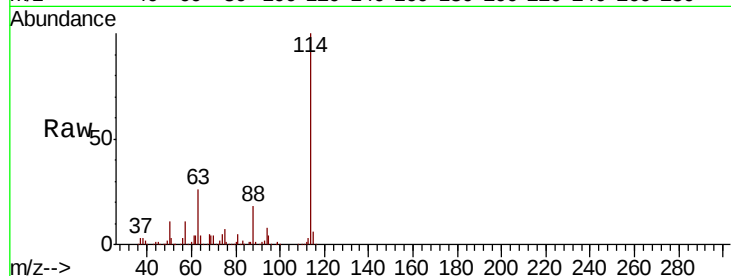




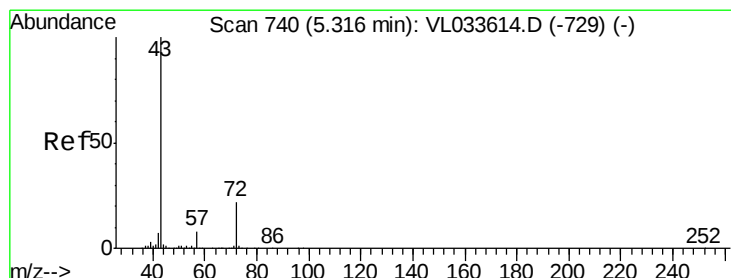
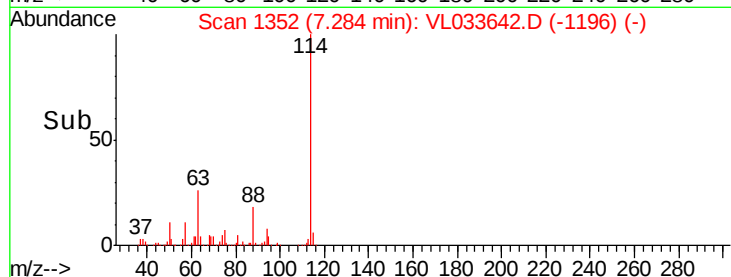
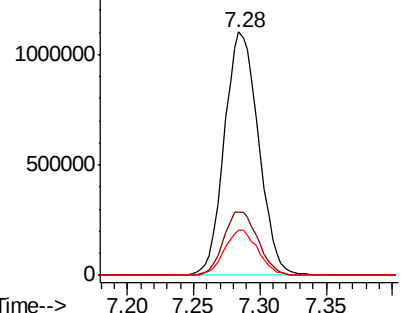
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.28 min Scan# 1352
 Delta R.T. 0.00 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

Instrument :
 MSVOA_L
 ClientSampleID :
 A-9

Tgt Ion: 114 Resp: 1972219
 Ion Ratio Lower Upper
 114 100
 63 26.5 21.1 31.7
 88 18.3 14.2 21.4

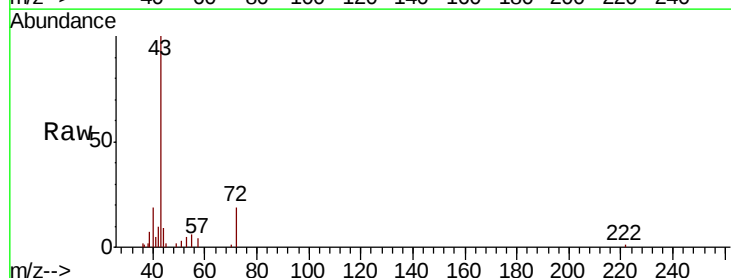


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

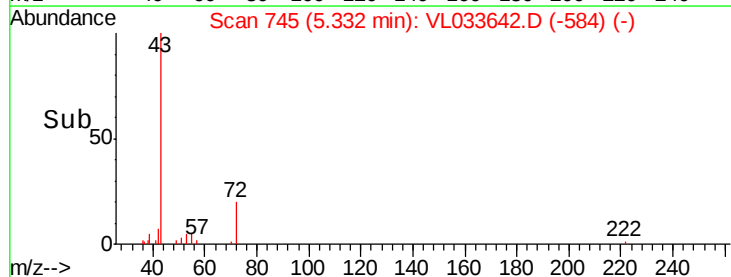
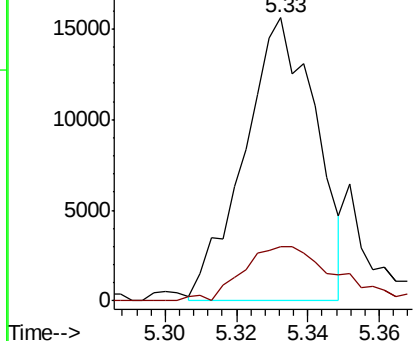


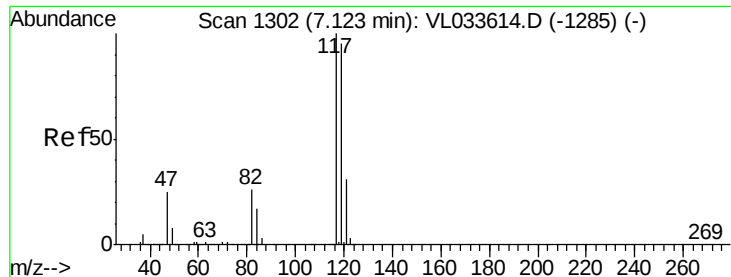
#34
 2-Butanone
 Concen: 0.179 ppbv
 RT: 5.33 min Scan# 745
 Delta R.T. 0.02 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

Tgt Ion: 43 Resp: 21682
 Ion Ratio Lower Upper
 43 100
 72 25.2 17.8 26.8



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





#35

Carbon Tetrachloride

Concen: 0.054 ppbv

RT: 7.12 min Scan# 1302

Delta R.T. 0.00 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

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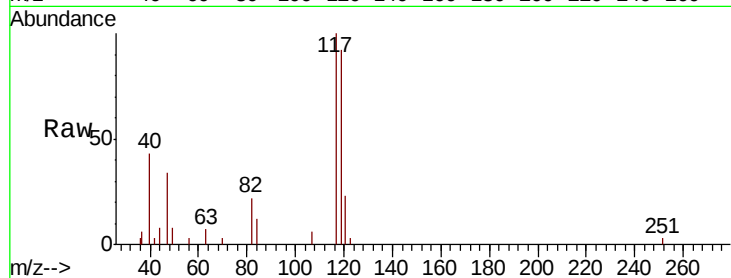
Tgt Ion:117 Resp: 8482

Ion Ratio Lower Upper

117 100

119 92.1 76.2 114.4

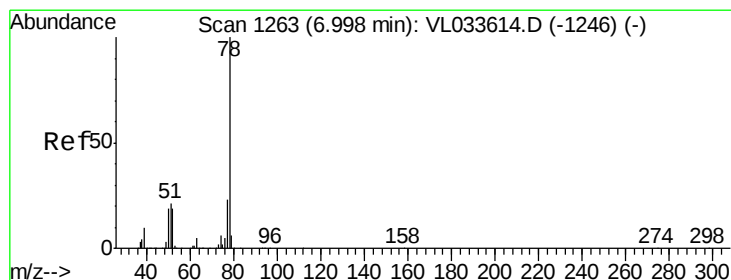
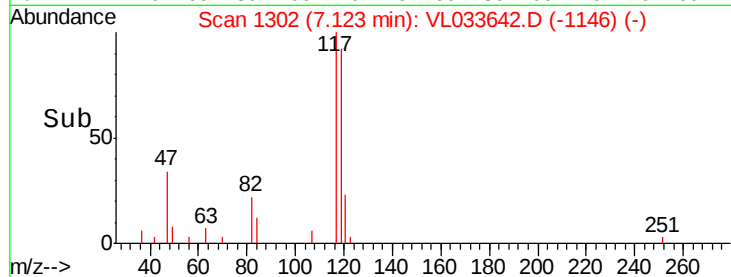
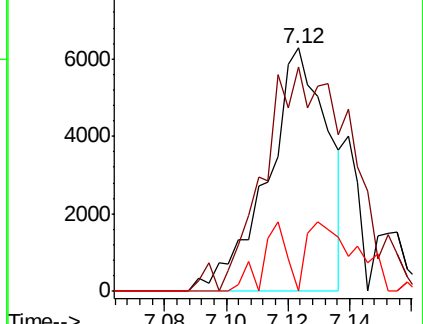
121 0.0 24.9 37.3#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.025 ppbv

RT: 7.01 min Scan# 1266

Delta R.T. 0.01 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

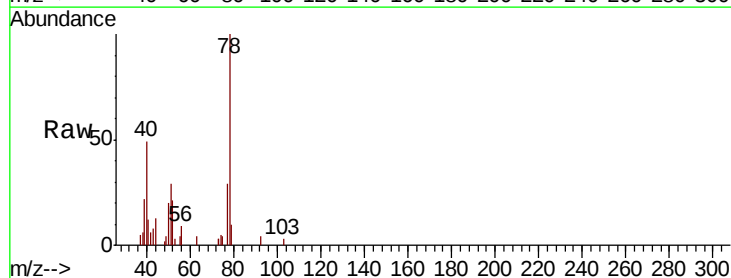
Tgt Ion: 78 Resp: 4227

Ion Ratio Lower Upper

78 100

77 20.5 18.1 27.1

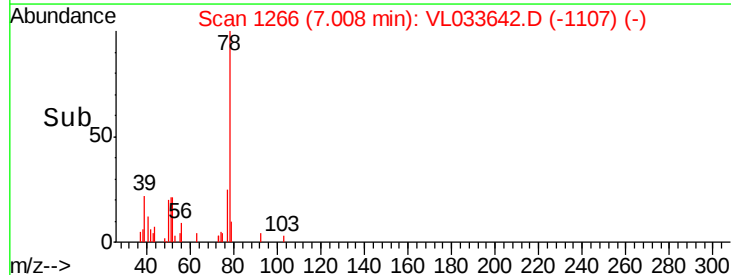
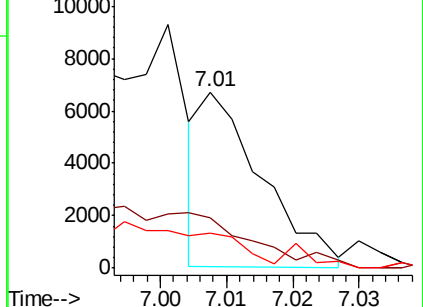
50 15.3 15.1 22.7

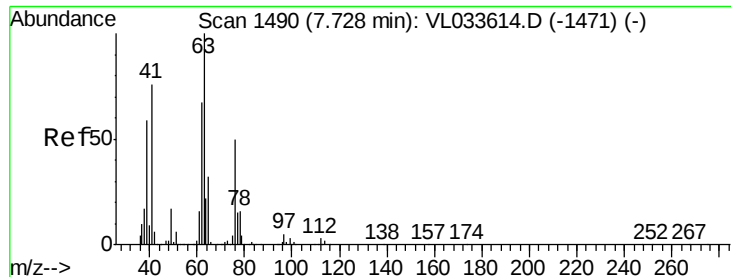


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.210 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.44 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

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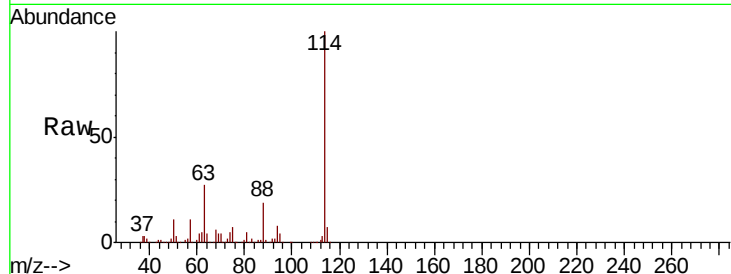
Tgt Ion: 63 Resp: 520285

Ion Ratio Lower Upper

63 100

41 0.0 60.9 91.3#

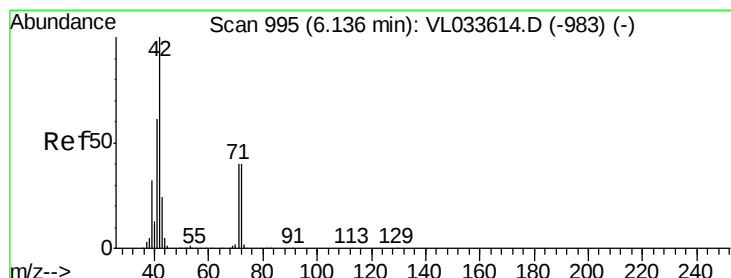
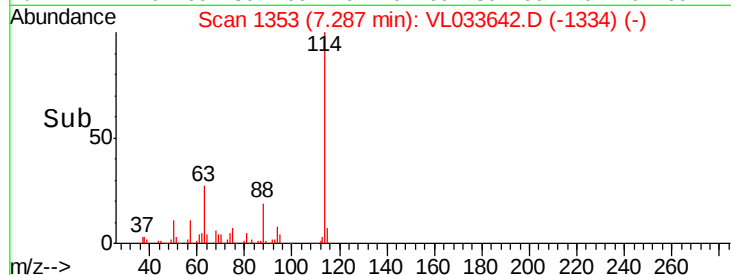
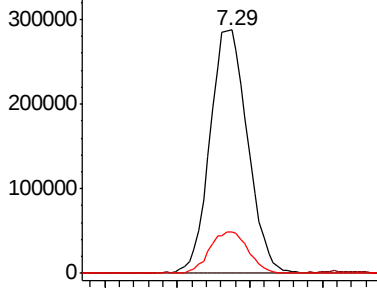
62 17.2 53.3 79.9#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.012 ppbv

RT: 6.14 min Scan# 995

Delta R.T. 0.00 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

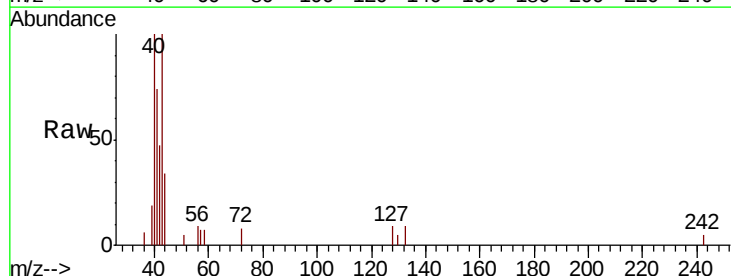
Tgt Ion: 42 Resp: 760

Ion Ratio Lower Upper

42 100

72 0.0 31.8 47.6#

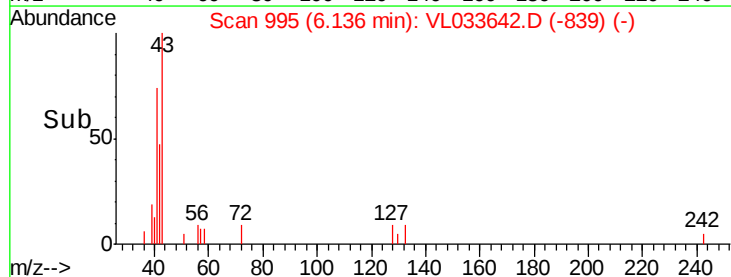
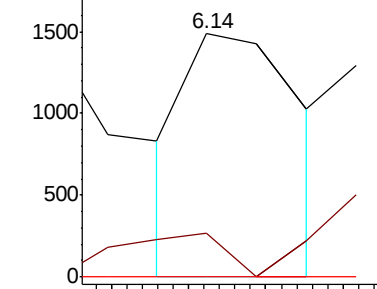
71 0.0 31.0 46.4#

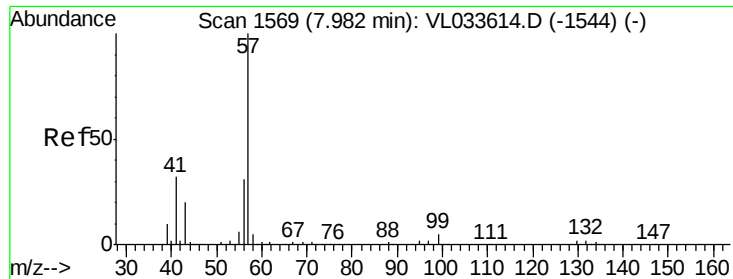


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0

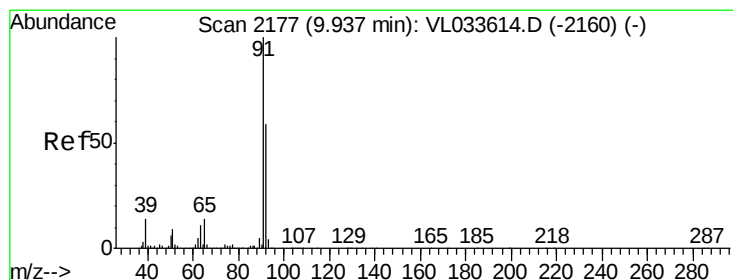
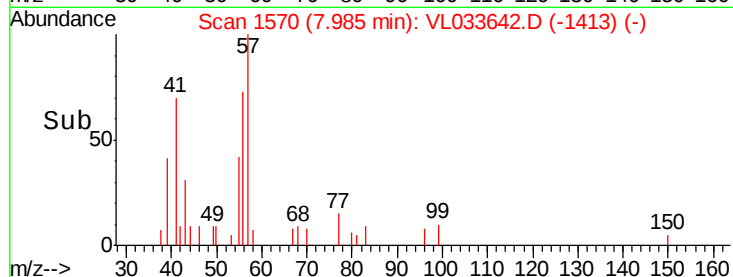
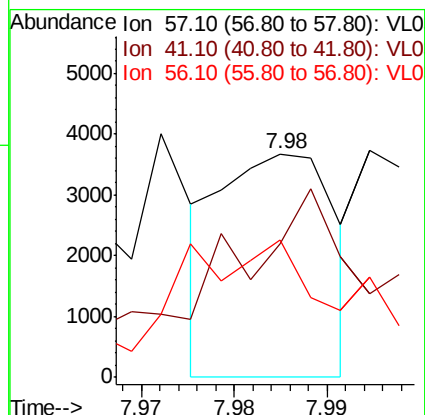
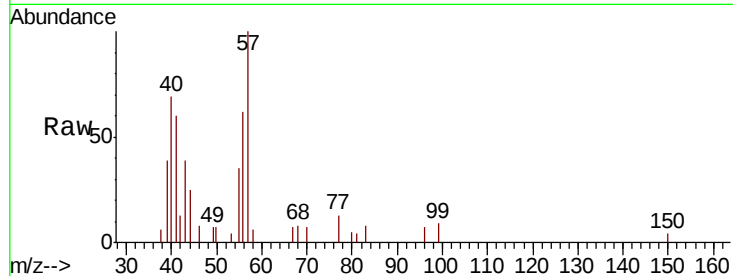




#44
 2,2,4-Trimethylpentane
 Concen: 0.011 ppbv
 RT: 7.98 min Scan# 1570
 Delta R.T. 0.00 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

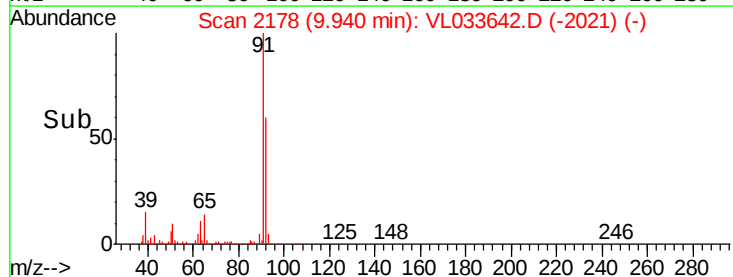
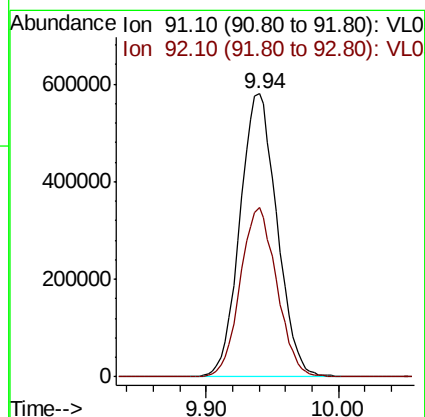
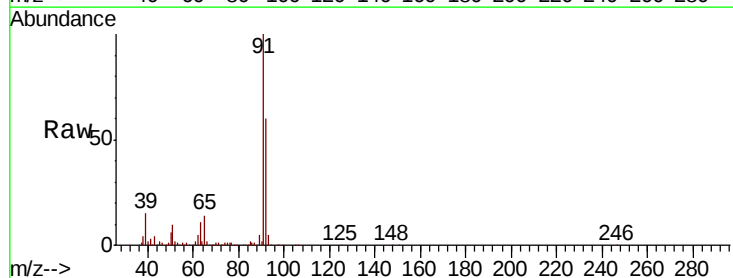
Instrument :
 MSVOA_L
 ClientSampleId :
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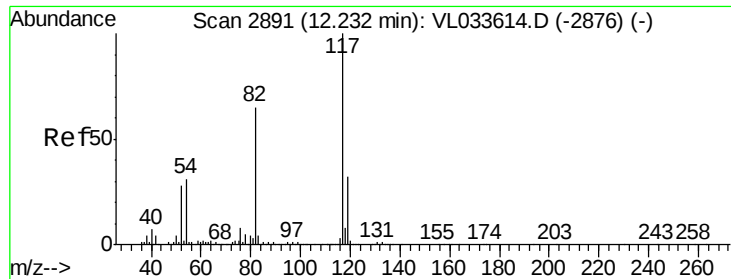
Tgt Ion: 57 Resp: 3152
 Ion Ratio Lower Upper
 57 100
 41 203.3 25.4 38.2#
 56 133.5 24.6 37.0#



#53
 Toluene
 Concen: 5.286 ppbv
 RT: 9.94 min Scan# 2178
 Delta R.T. 0.00 min
 Lab File: VL033642.D
 Acq: 3 May 2019 00:24

Tgt Ion: 91 Resp: 1121053
 Ion Ratio Lower Upper
 91 100
 92 59.4 47.8 71.6

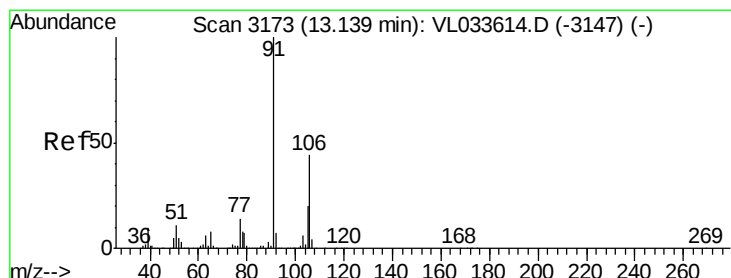
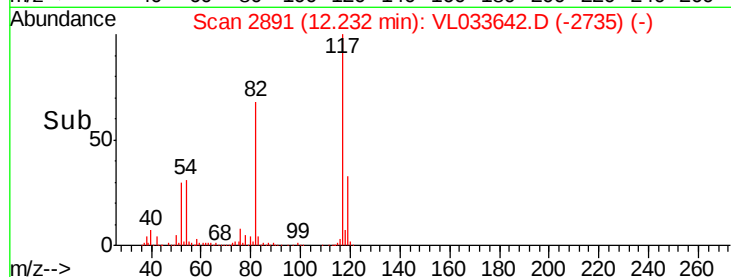
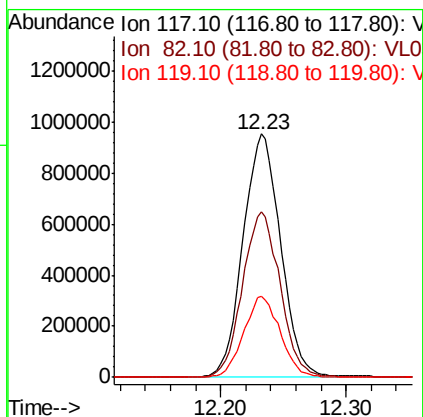
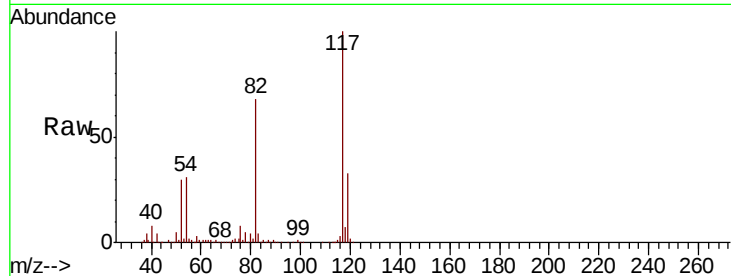




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. 0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

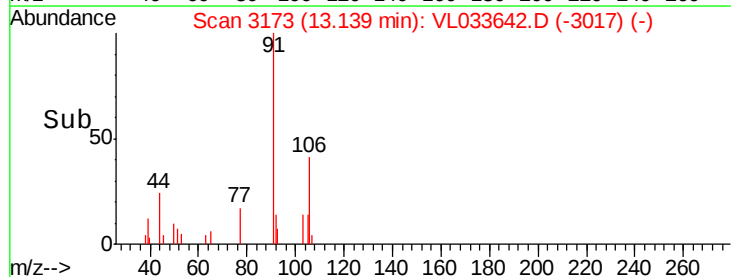
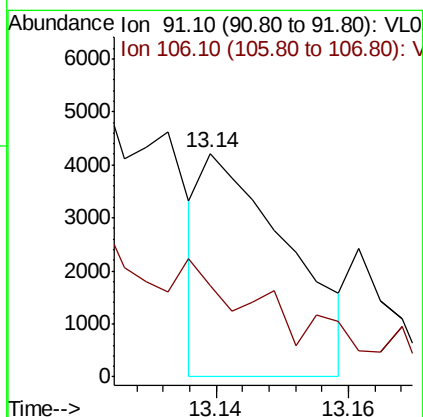
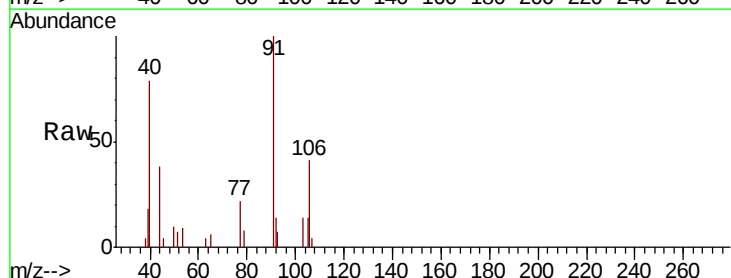
Instrument :
MSVOA_L
ClientSampleId :
A-9

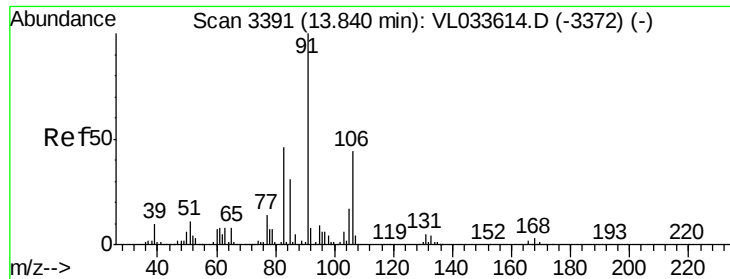
Tgt Ion: 117 Resp: 1987958
Ion Ratio Lower Upper
117 100
82 68.2 52.6 78.8
119 32.6 28.3 42.5



#59
m/p-Xylene
Concen: 0.019 ppbv
RT: 13.14 min Scan# 3173
Delta R.T. 0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion: 91 Resp: 3828
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0

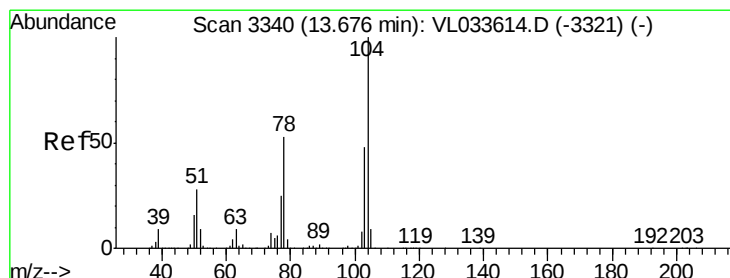
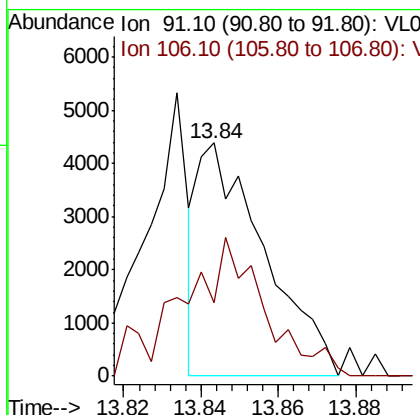
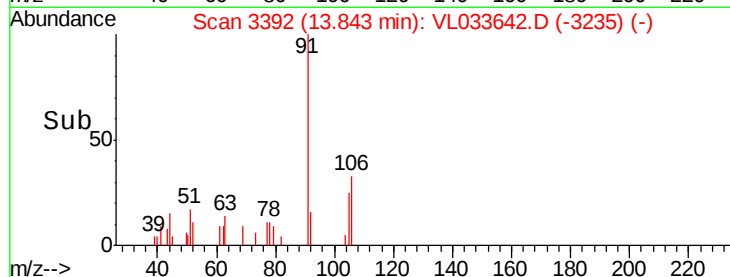
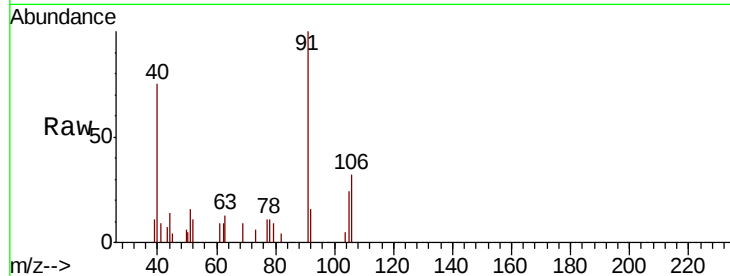




#60
o-Xylene
Concen: 0.026 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. 0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

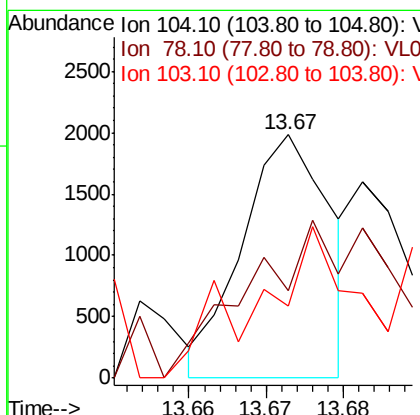
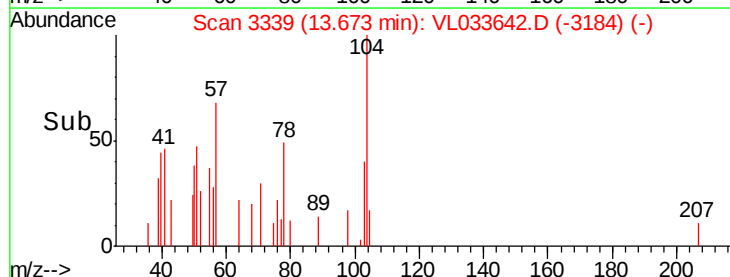
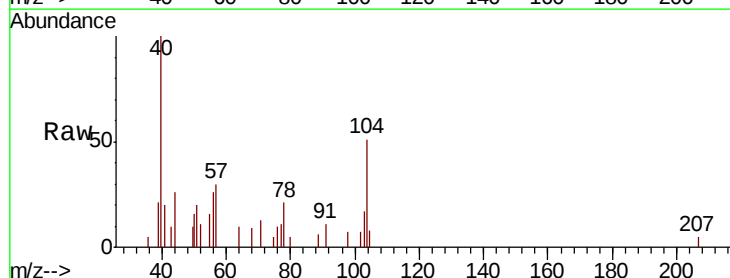
Instrument :
MSVOA_L
ClientSampleId :
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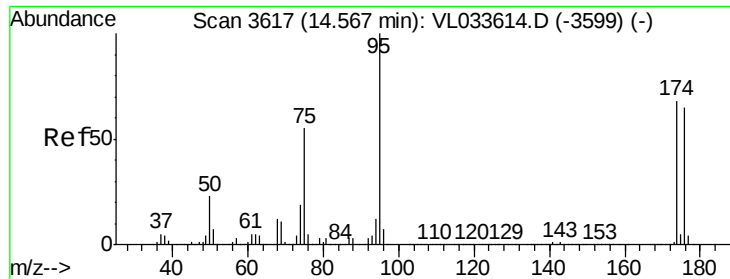
Tgt Ion: 91 Resp: 5230
Ion Ratio Lower Upper
91 100
106 76.1 21.8 65.4#



#61
Styrene
Concen: 0.012 ppbv
RT: 13.67 min Scan# 3339
Delta R.T. -0.00 min
Lab File: VL033642.D
Acq: 3 May 2019 00:24

Tgt Ion: 104 Resp: 1567
Ion Ratio Lower Upper
104 100
78 133.8 42.7 64.1#
103 124.4 37.8 56.6#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.742 ppbv

RT: 14.57 min Scan# 3618

Delta R.T. 0.00 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Instrument :

MSVOA_L

ClientSampled :

A-9

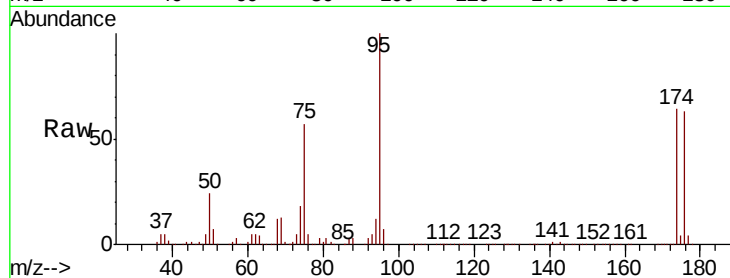
Tgt Ion: 95 Resp: 1625779

Ion Ratio Lower Upper

95 100

174 66.1 53.9 80.9

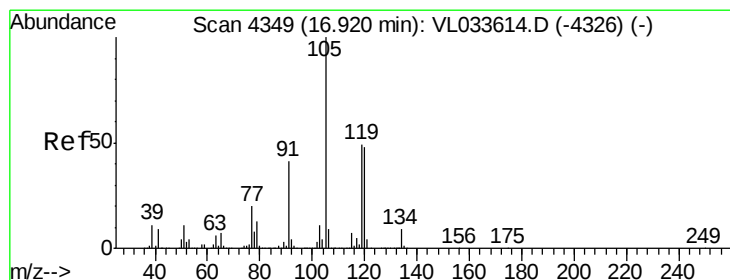
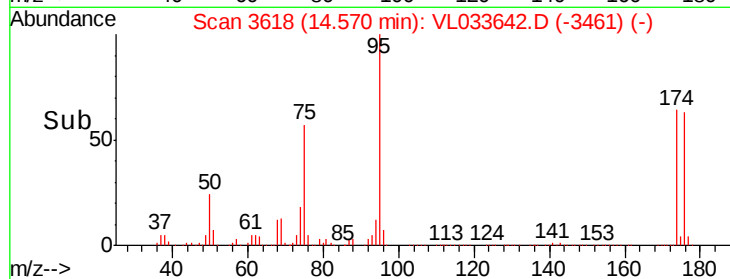
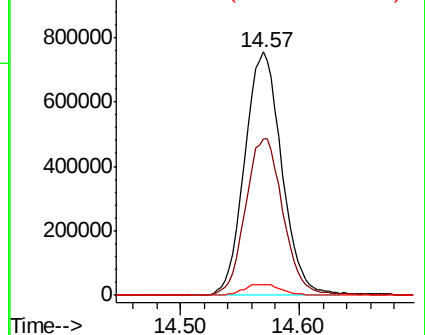
175 4.7 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL033614.D (-3599) (-)

Ion 174.00 (173.70 to 174.70): VL033614.D (-3599) (-)

Ion 175.00 (174.70 to 175.70): VL033614.D (-3599) (-)



#74

1,2,4-Trimethylbenzene

Concen: 0.016 ppbv

RT: 16.92 min Scan# 4349

Delta R.T. 0.00 min

Lab File: VL033642.D

Acq: 3 May 2019 00:24

Tgt Ion: 105 Resp: 4038

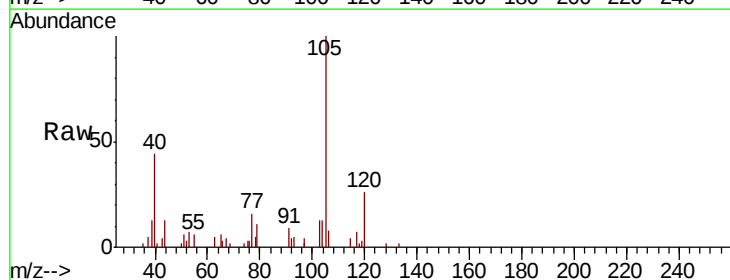
Ion Ratio Lower Upper

105 100

120 43.9 38.4 57.6

91 0.1 33.0 49.4

77 18.8 16.2 24.2



Abundance Ion 105.10 (104.80 to 105.80): VL033614.D (-4326) (-)

Ion 120.20 (119.90 to 120.90): VL033614.D (-4326) (-)

Ion 91.10 (90.80 to 91.80): VL033614.D (-4326) (-)

Ion 77.10 (76.80 to 77.80): VL033614.D (-4326) (-)

