

Data File : VL033287.D
Acq On : 12 Mar 2019 17:41
Operator : SY/AP
Sample : K1805-02DUP
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1DUP

Quant Time: Mar 13 07:54:27 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031219AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Mar 13 07:17:55 2019
QLast Update : Wed Mar 13 07:17:55 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	776651	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1787591	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1740847	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.58 95 1406594 10.46 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 104.60%

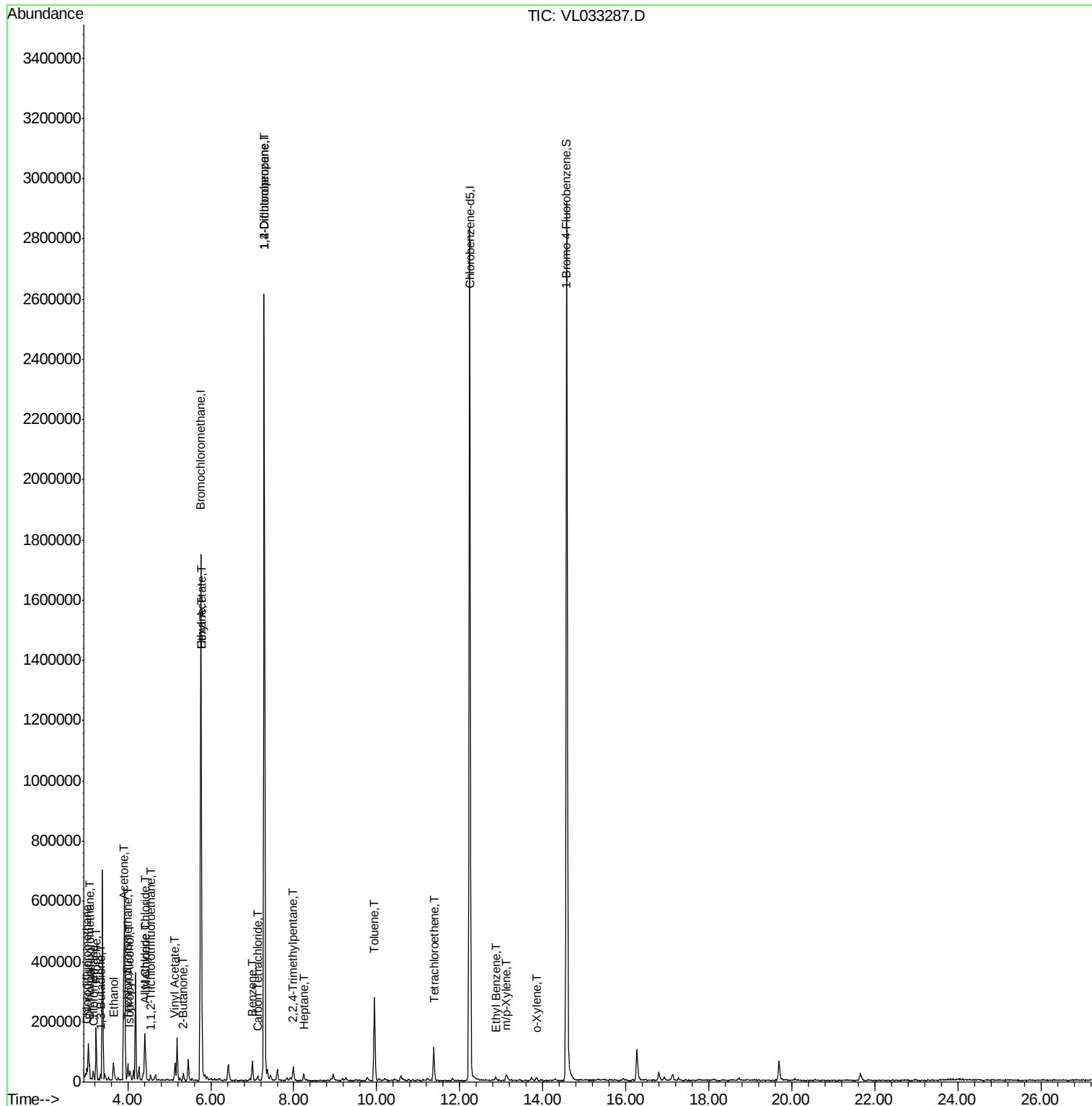
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	34423	0.219	ppbv #	85
3) Chlorodifluoromethane	3.01	51	40549	0.394	ppbv #	89
4) Chloromethane	3.17	50	25877	0.470	ppbv	97
9) Propene	3.24	41	44839	0.955	ppbv	95
10) Heptane	8.24	43	3694	0.035	ppbv #	28
11) Trichlorofluoromethane	4.00	101	31932	0.206	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.55	101	4008	0.045	ppbv #	14
13) Ethanol	3.65	45	62915	4.391	ppbv	97
15) Acetone	3.90	43	516317	4.334	ppbv #	85
16) 1,3-Butadiene	3.35	39	5409	0.126	ppbv #	2
19) Isopropyl Alcohol	4.04	45	10782	0.150	ppbv #	95
20) Methylene Chloride	4.41	84	27915	0.705	ppbv	96
21) Allyl Chloride	4.43	41	9187	0.155	ppbv #	32
23) Vinyl Acetate	5.14	43	21143	0.142	ppbv #	1
25) Ethyl Acetate	5.78	43	63595	0.346	ppbv #	80
26) Hexane	5.78	57	85730	0.995	ppbv #	41
34) 2-Butanone	5.34	43	26195	0.222	ppbv	95
35) Carbon Tetrachloride	7.14	117	3429	0.026	ppbv	95
36) Benzene	7.00	78	48274	0.293	ppbv	95
39) 1,2-Dichloropropane	7.29	63	483459	7.793	ppbv #	24
44) 2,2,4-Trimethylpentane	7.98	57	7758	0.028	ppbv #	43
52) Tetrachloroethene	11.36	164	10216	0.169	ppbv #	85
53) Toluene	9.94	91	198214	1.043	ppbv	99
58) Ethyl Benzene	12.86	91	6465	0.027	ppbv	92
59) m/p-Xylene	13.12	91	7940	0.040	ppbv #	32
60) o-Xylene	13.85	91	5575	0.029	ppbv	85

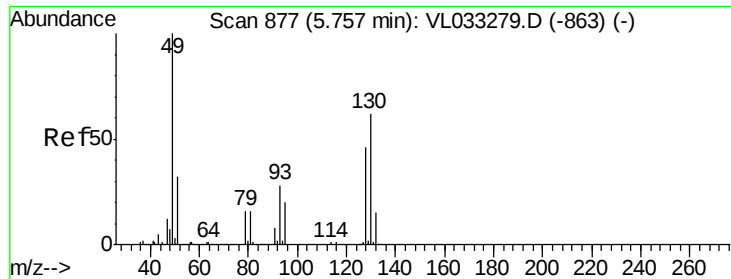
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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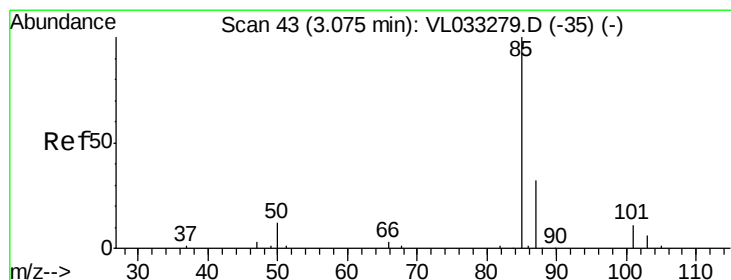
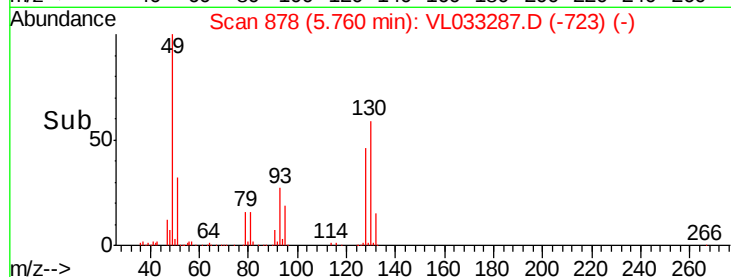
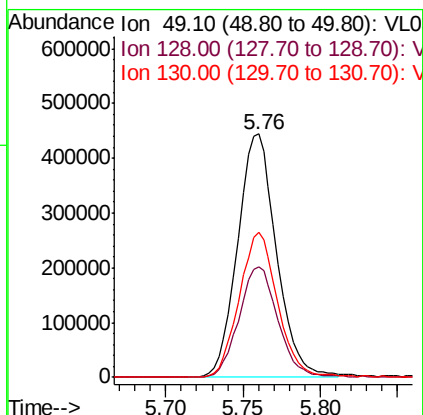
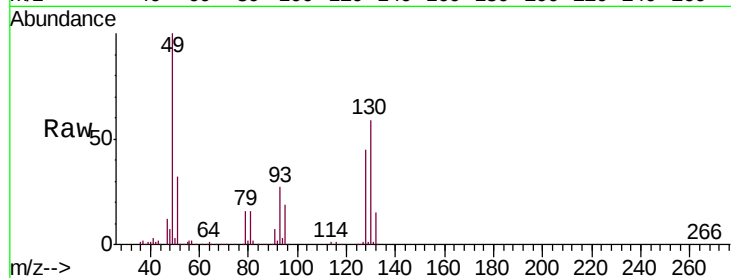




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 878
Delta R.T. -0.00 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

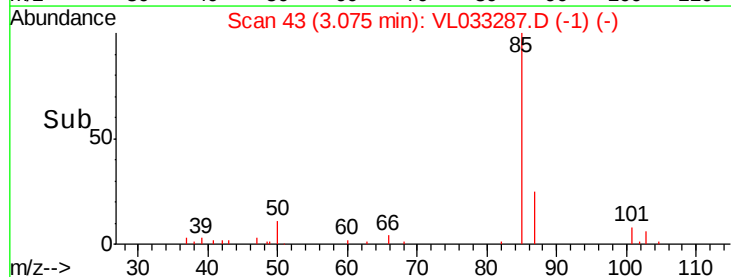
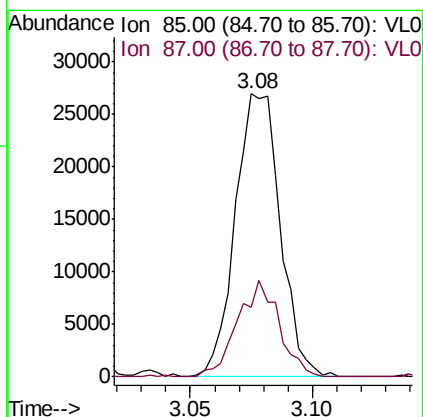
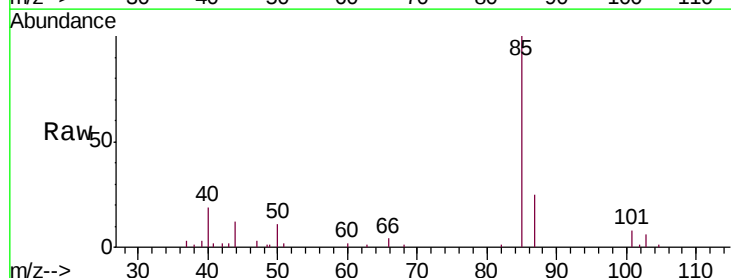
Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1DUP

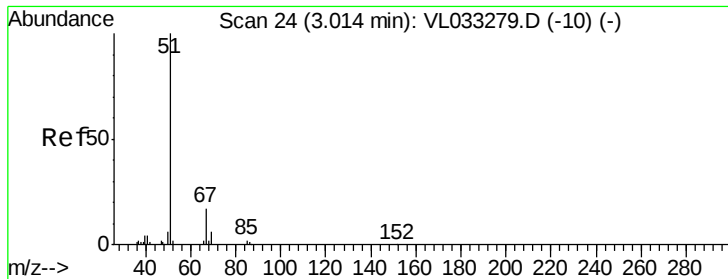
Tgt Ion: 49 Resp: 776651
Ion Ratio Lower Upper
49 100
128 46.2 23.3 69.9
130 59.4 30.0 90.1



#2
Dichlorodifluoromethane
Concen: 0.219 ppbv
RT: 3.08 min Scan# 43
Delta R.T. -0.00 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Tgt Ion: 85 Resp: 34423
Ion Ratio Lower Upper
85 100
87 24.6 26.4 39.6#





#3

Chlorodifluoromethane

Concen: 0.394 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

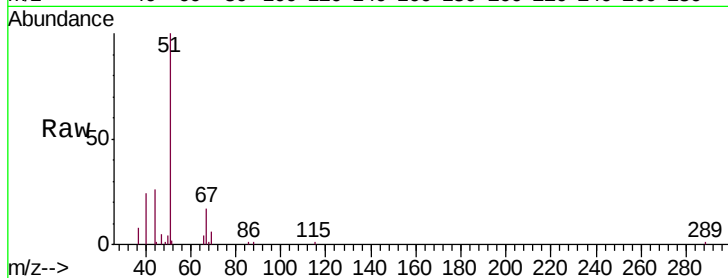
ST-IA-1DUP

Tgt Ion: 51 Resp: 40549

Ion Ratio Lower Upper

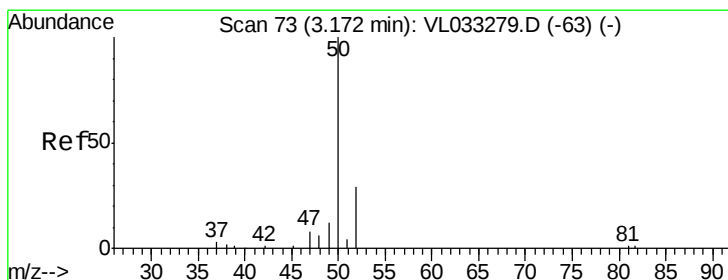
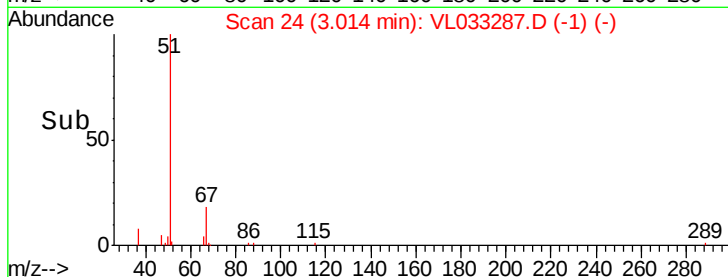
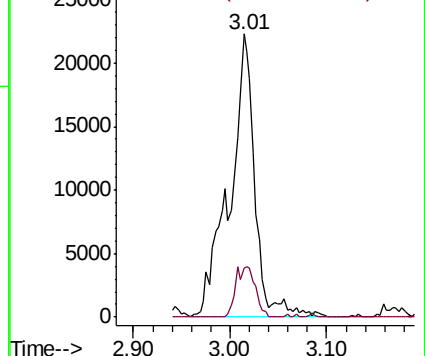
51 100

67 13.7 15.0 22.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.470 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033287.D

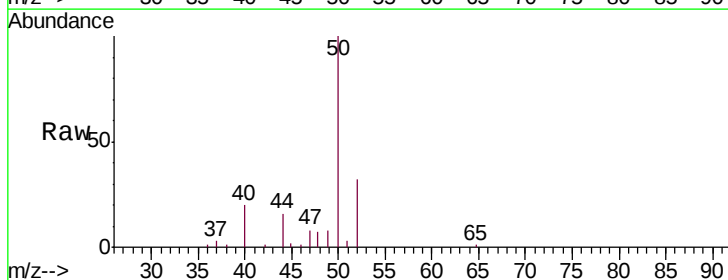
Acq: 12 Mar 2019 17:41

Tgt Ion: 50 Resp: 25877

Ion Ratio Lower Upper

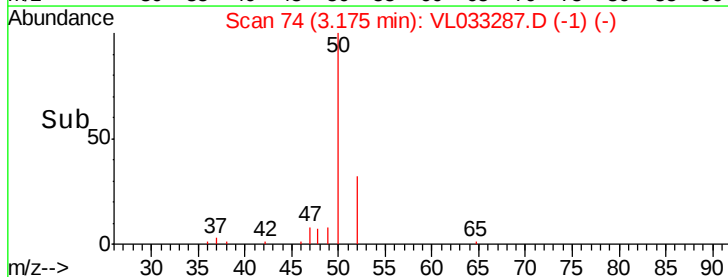
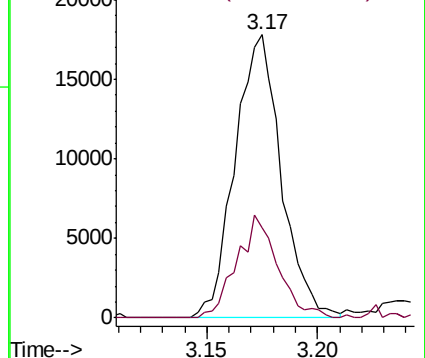
50 100

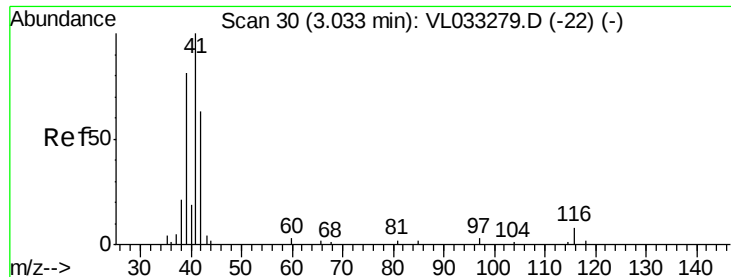
52 31.7 26.6 39.8



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.955 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.20 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

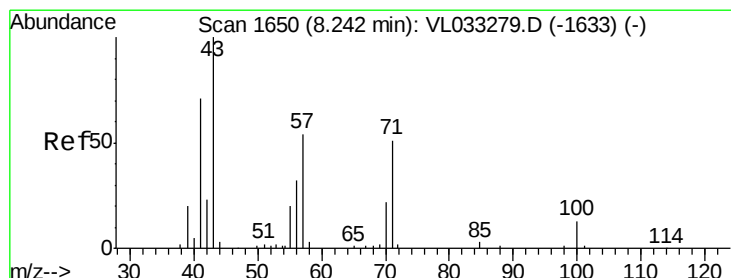
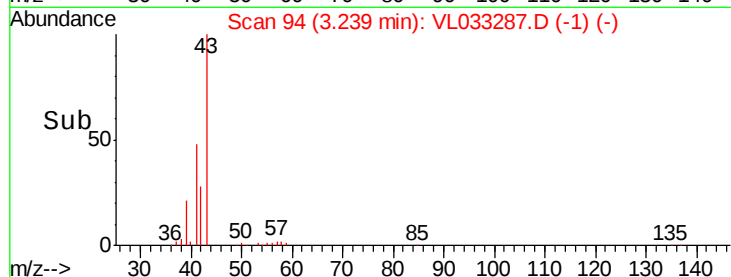
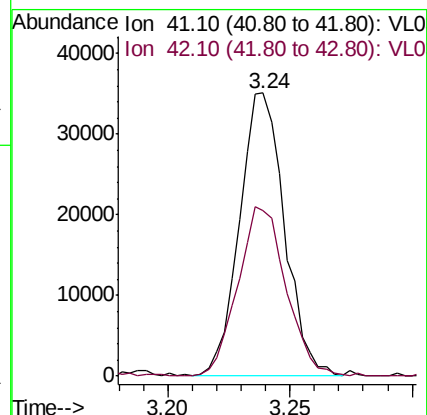
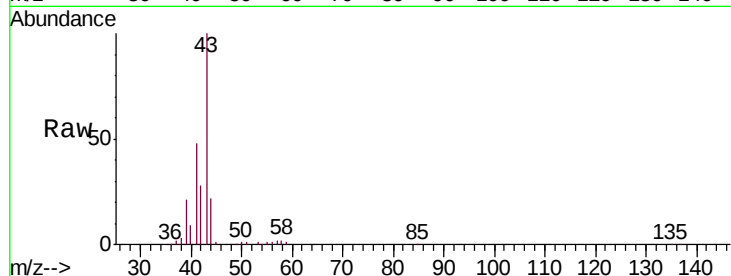
ST-IA-1DUP

Tgt Ion: 41 Resp: 44839

Ion Ratio Lower Upper

41 100

42 64.2 54.6 82.0



#10

Heptane

Concen: 0.035 ppbv

RT: 8.24 min Scan# 1649

Delta R.T. -0.01 min

Lab File: VL033287.D

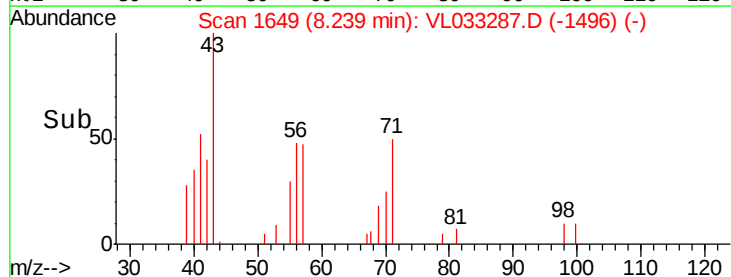
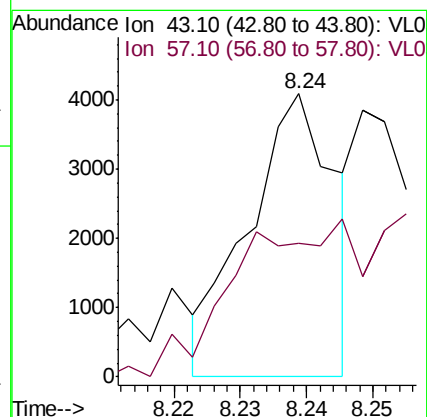
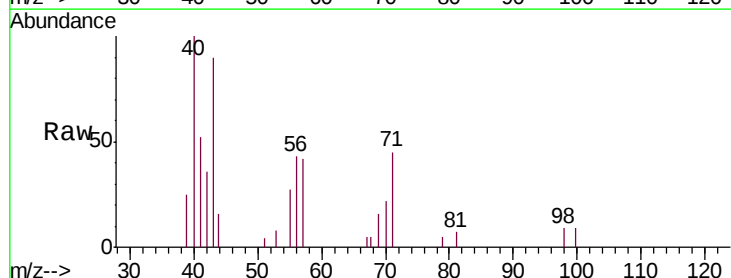
Acq: 12 Mar 2019 17:41

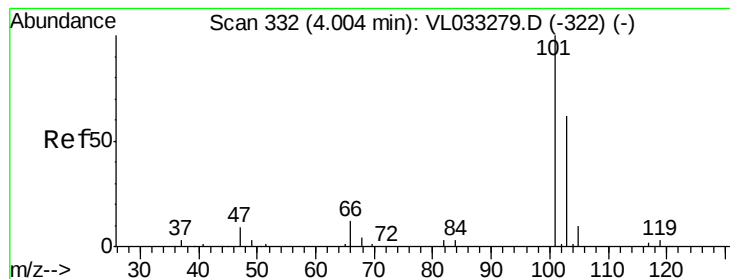
Tgt Ion: 43 Resp: 3694

Ion Ratio Lower Upper

43 100

57 0.0 39.8 59.8#





#11

Trichlorofluoromethane

Concen: 0.206 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

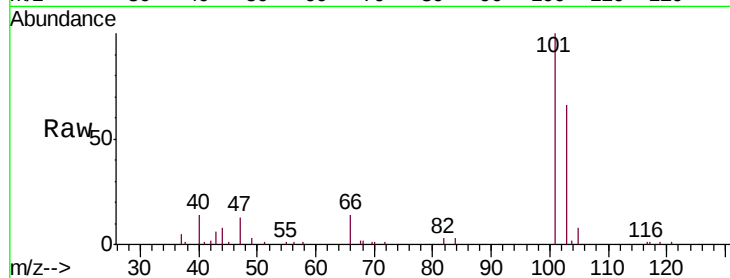
ST-IA-1DUP

Tgt Ion:101 Resp: 31932

Ion Ratio Lower Upper

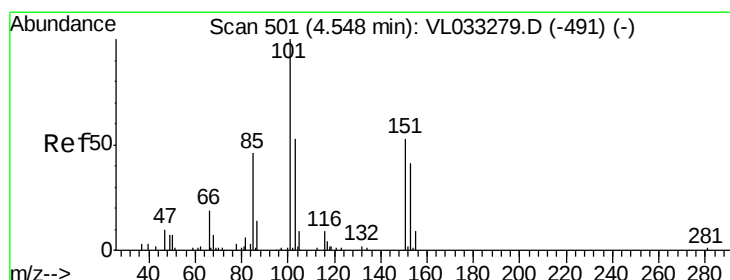
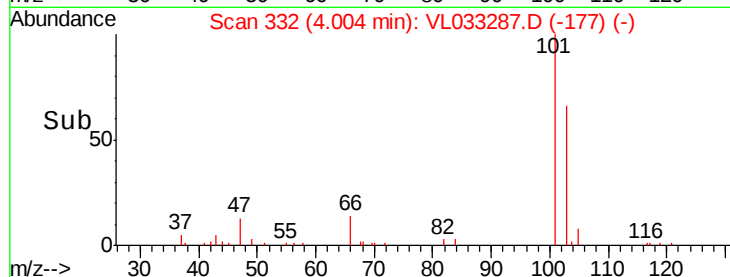
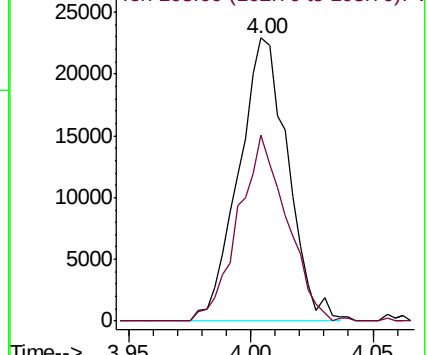
101 100

103 65.9 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.045 ppbv

RT: 4.55 min Scan# 501

Delta R.T. -0.01 min

Lab File: VL033287.D

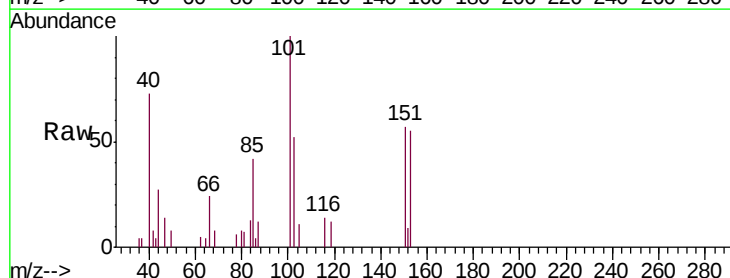
Acq: 12 Mar 2019 17:41

Tgt Ion:101 Resp: 4008

Ion Ratio Lower Upper

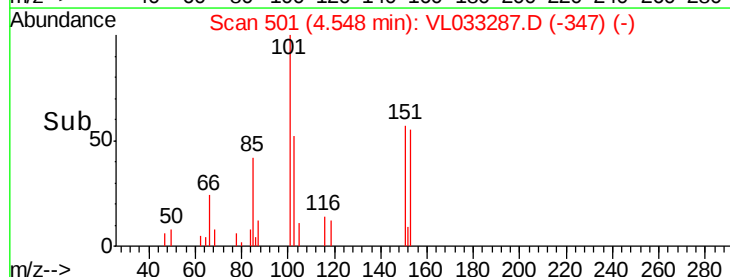
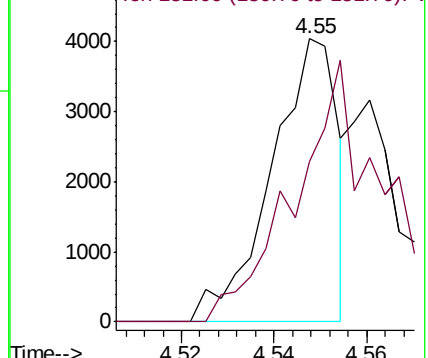
101 100

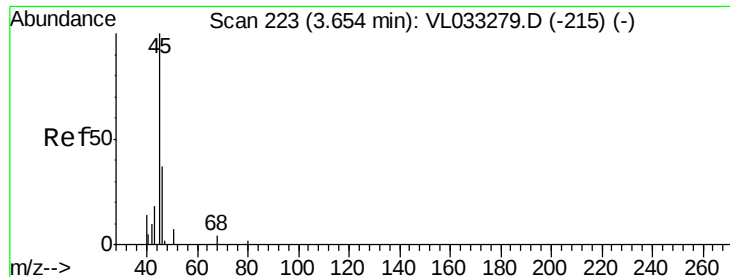
151 0.0 56.9 85.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 4.391 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

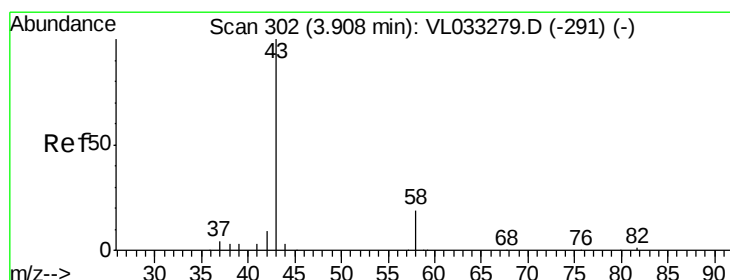
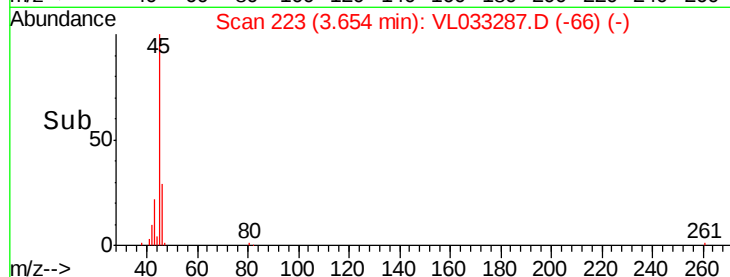
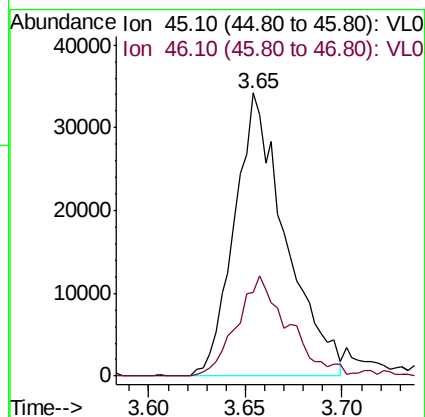
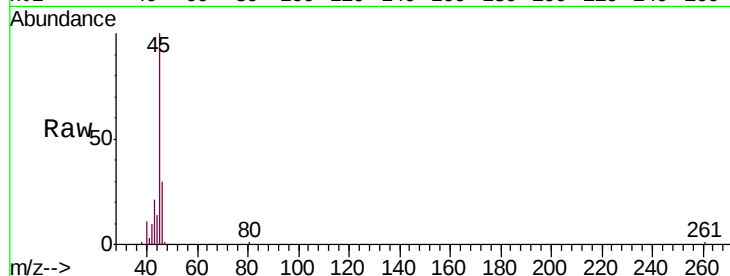
ST-IA-1DUP

Tgt Ion: 45 Resp: 62915

Ion Ratio Lower Upper

45 100

46 36.7 13.9 55.7



#15

Acetone

Concen: 4.334 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.00 min

Lab File: VL033287.D

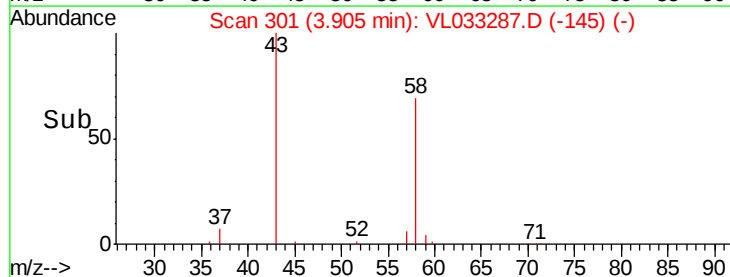
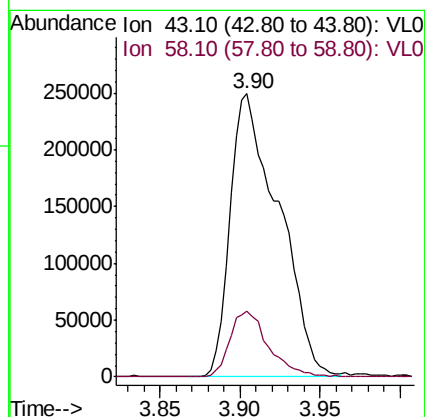
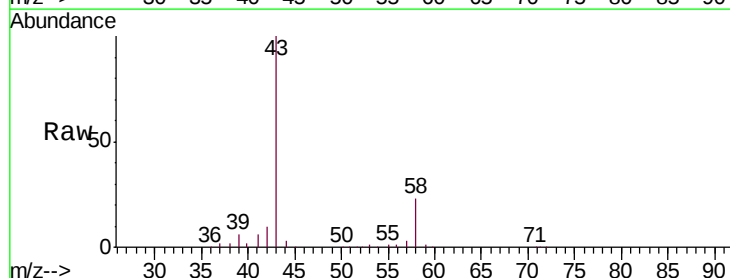
Acq: 12 Mar 2019 17:41

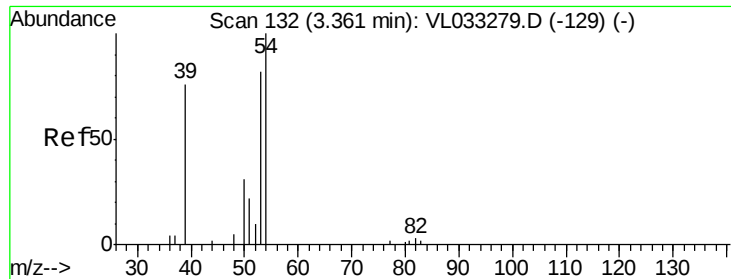
Tgt Ion: 43 Resp: 516317

Ion Ratio Lower Upper

43 100

58 18.7 21.1 31.7#





#16

1,3-Butadiene

Concen: 0.126 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

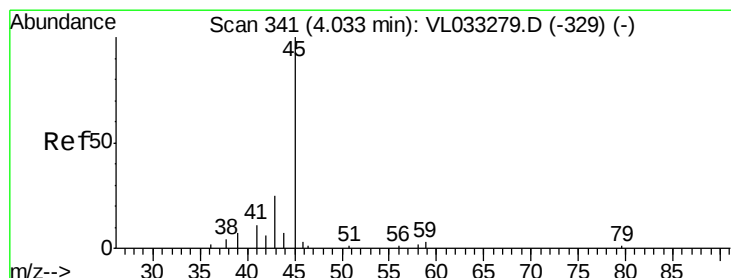
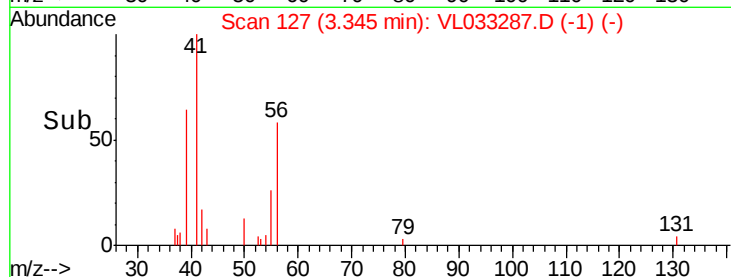
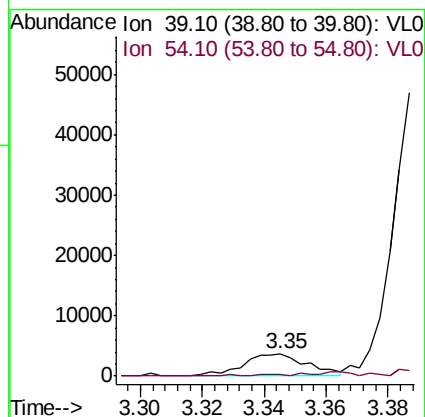
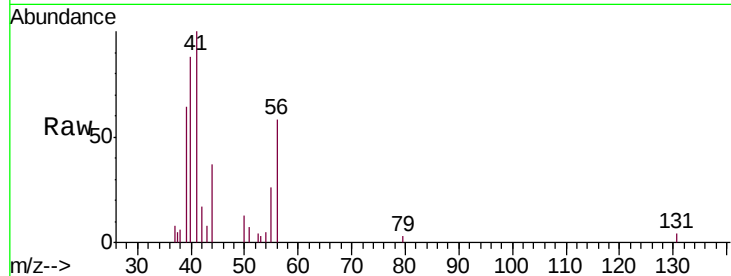
ST-IA-1DUP

Tgt Ion: 39 Resp: 5409

Ion Ratio Lower Upper

39 100

54 0.0 76.6 114.8#



#19

Isopropyl Alcohol

Concen: 0.150 ppbv

RT: 4.04 min Scan# 344

Delta R.T. 0.02 min

Lab File: VL033287.D

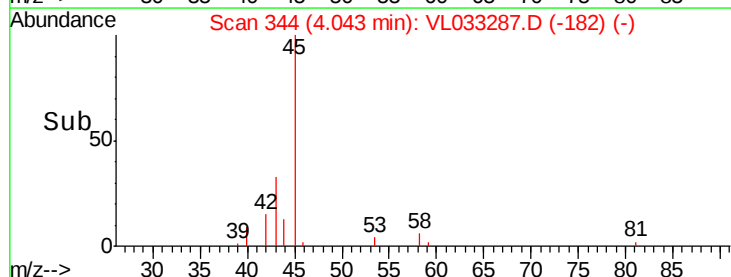
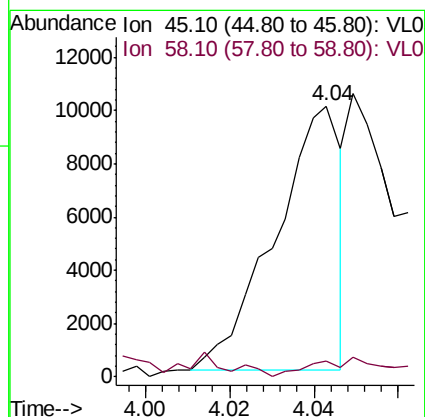
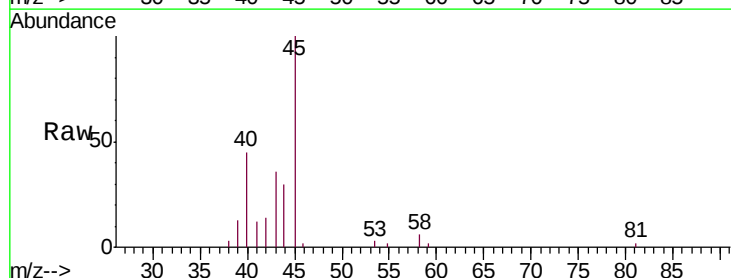
Acq: 12 Mar 2019 17:41

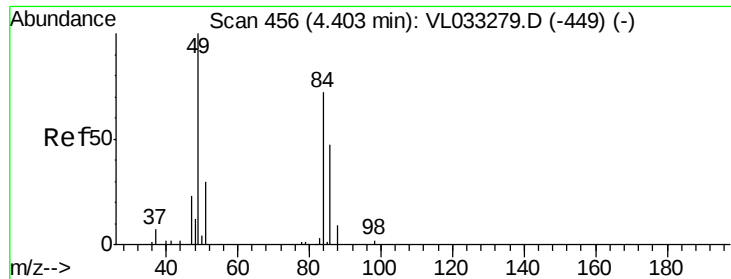
Tgt Ion: 45 Resp: 10782

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.2#





#20

Methylene Chloride

Concen: 0.705 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1DUP

Tgt Ion: 84 Resp: 27915

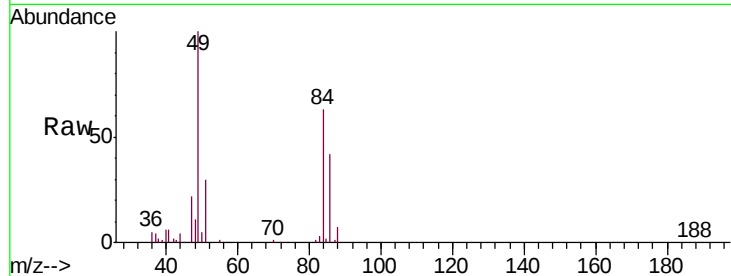
Ion Ratio Lower Upper

84 100

49 157.9 120.3 180.5

51 46.4 36.2 54.4

86 65.4 52.5 78.7

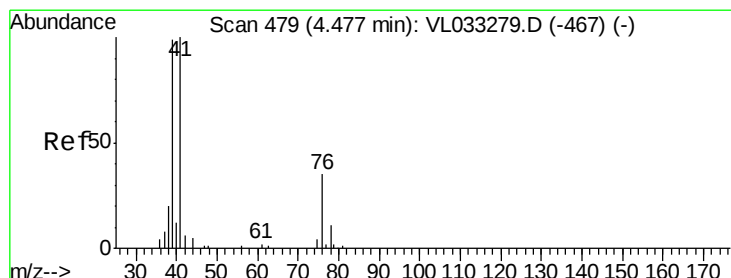
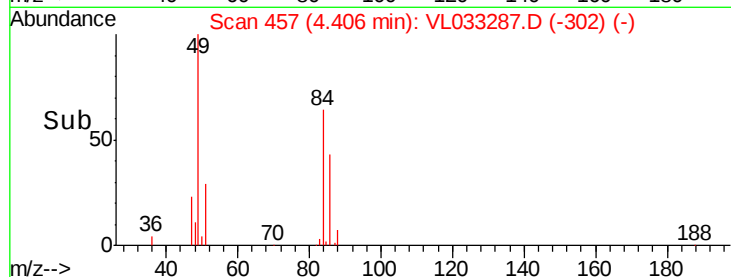
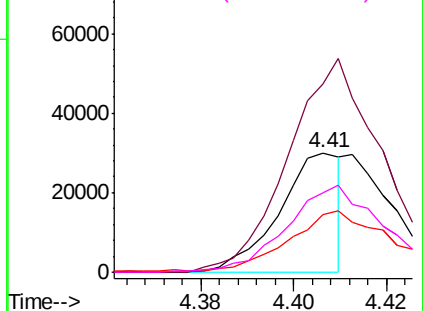


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21

Allyl Chloride

Concen: 0.155 ppbv

RT: 4.43 min Scan# 465

Delta R.T. -0.05 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

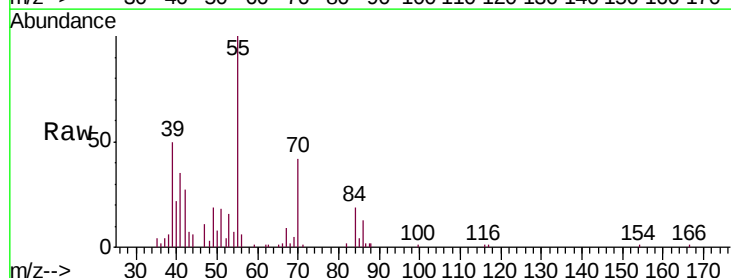
Tgt Ion: 41 Resp: 9187

Ion Ratio Lower Upper

41 100

76 0.0 25.0 37.4#

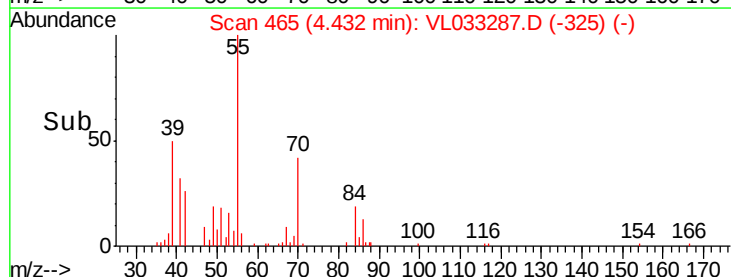
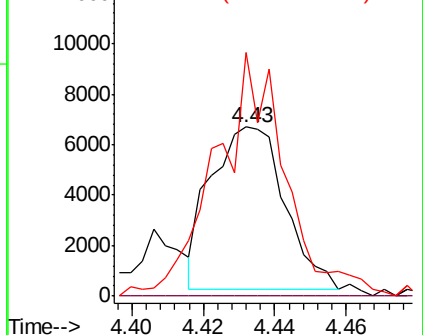
39 144.1 64.2 96.4#

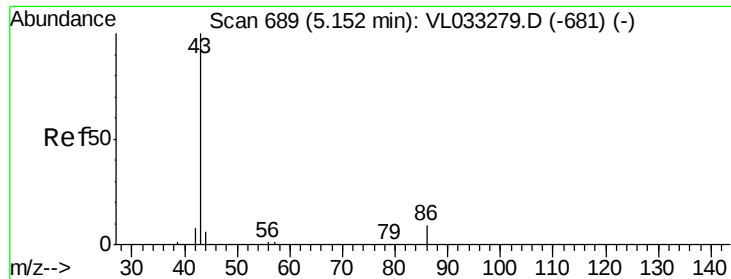


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.142 ppbv

RT: 5.14 min Scan# 684

Delta R.T. -0.02 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1DUP

Tgt Ion: 43 Resp: 21143

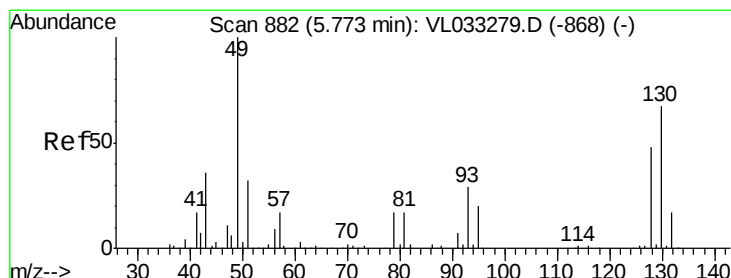
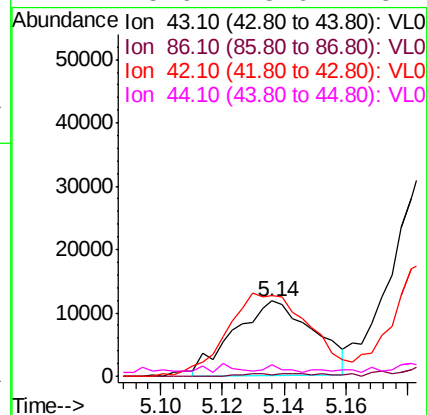
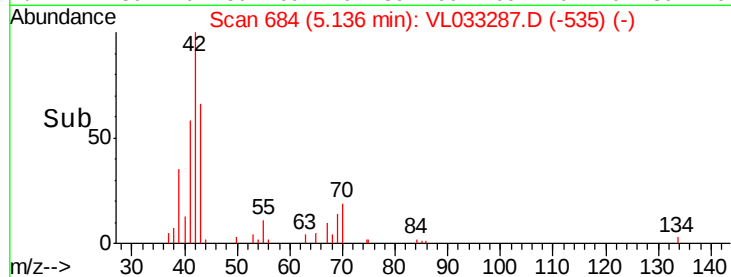
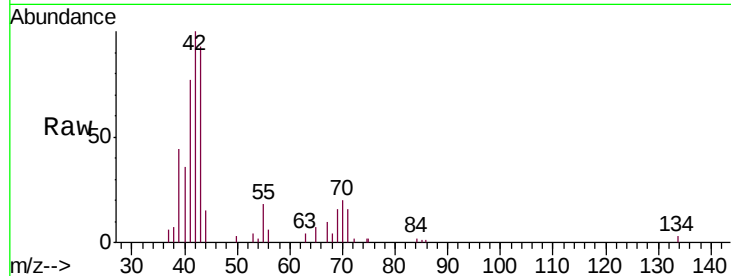
Ion Ratio Lower Upper

43 100

86 1.6 5.5 8.3#

42 99.6 7.8 11.6#

44 8.6 3.6 5.4#



#25

Ethyl Acetate

Concen: 0.346 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Tgt Ion: 43 Resp: 63595

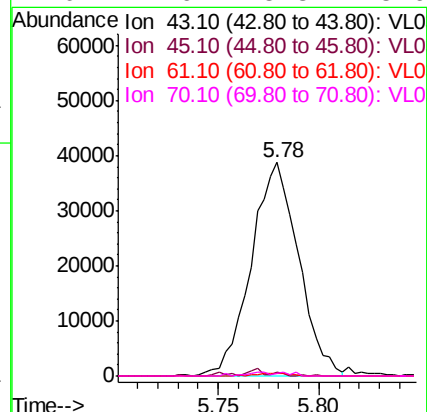
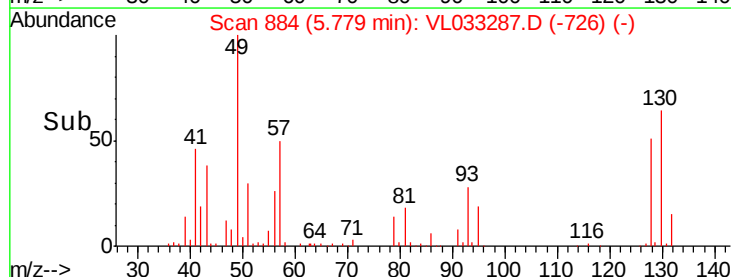
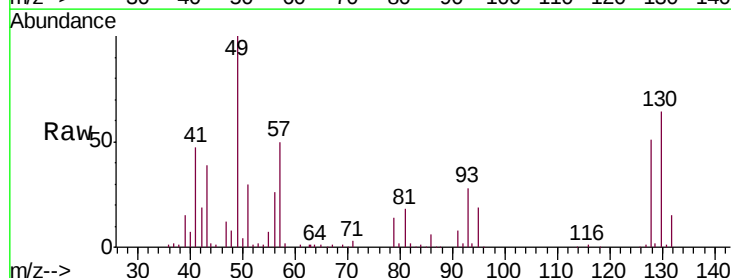
Ion Ratio Lower Upper

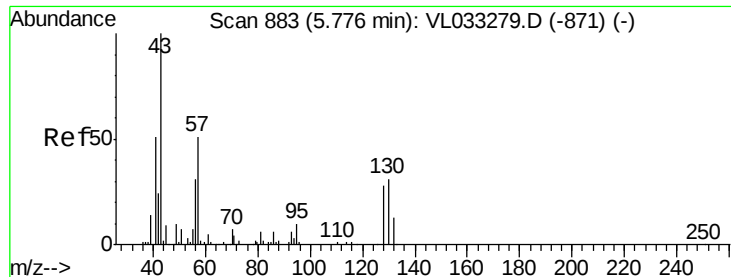
43 100

45 1.9 7.8 11.6#

61 1.1 7.3 10.9#

70 1.6 5.8 8.6#

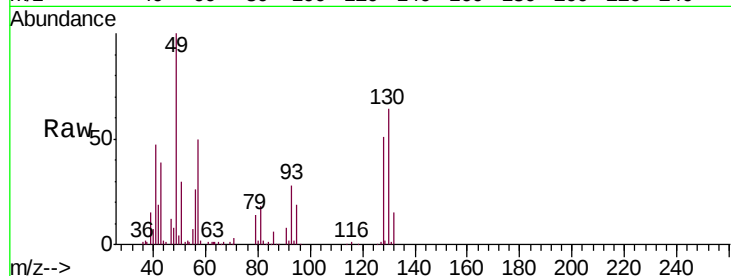




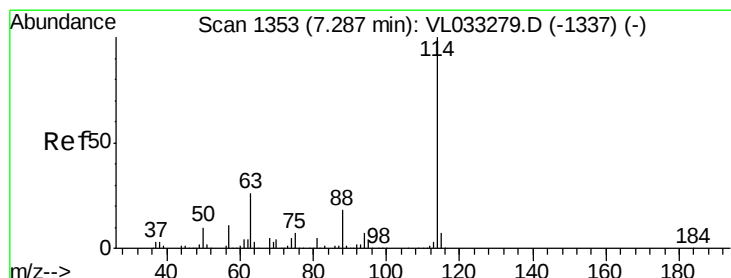
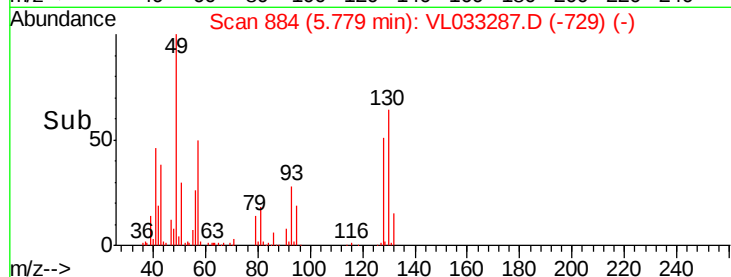
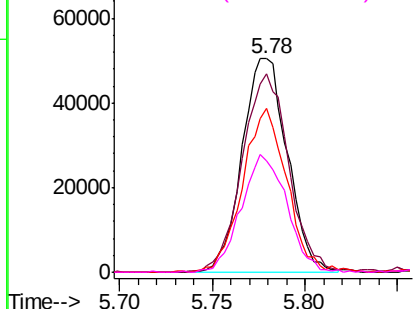
#26
Hexane
Concen: 0.995 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1DUP

Tgt Ion: 57 Resp: 85730
Ion Ratio Lower Upper
57 100
41 95.9 70.7 106.1
43 75.4 178.6 267.8#
56 55.5 41.3 61.9

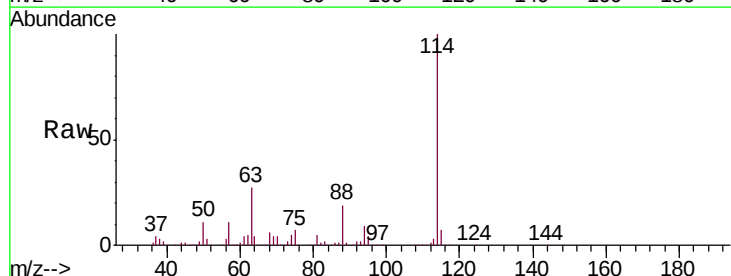


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

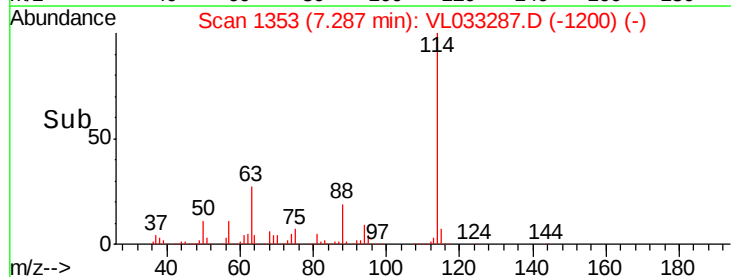
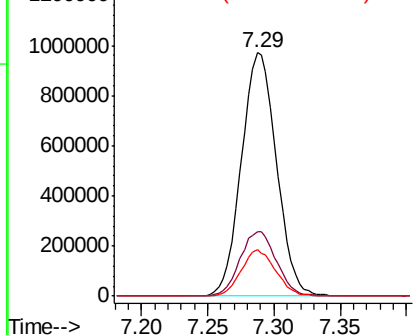


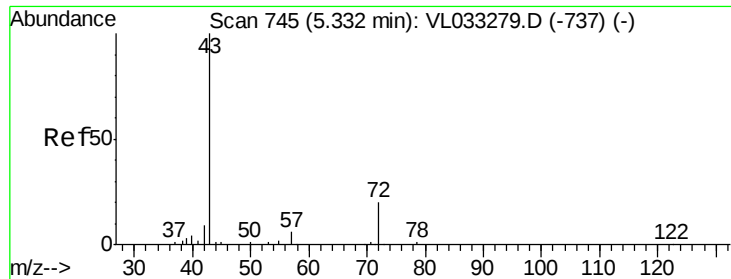
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Tgt Ion: 114 Resp: 1787591
Ion Ratio Lower Upper
114 100
63 27.3 21.5 32.3
88 18.8 14.6 22.0



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

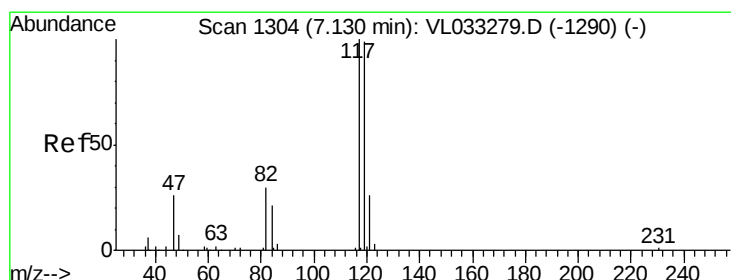
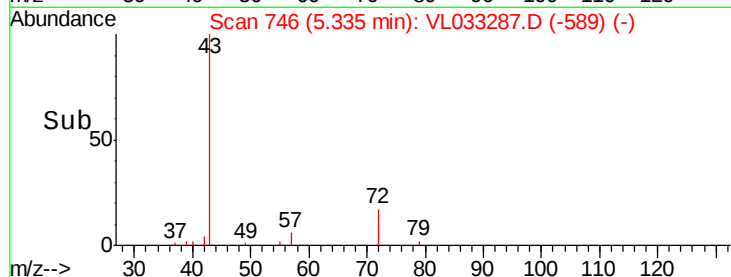
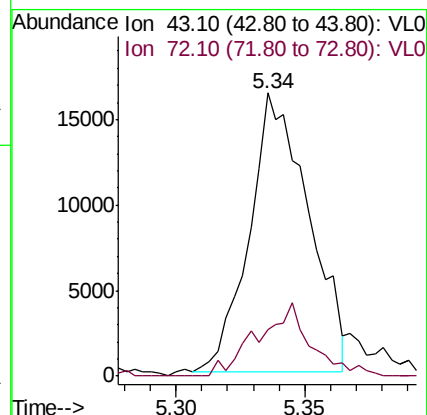
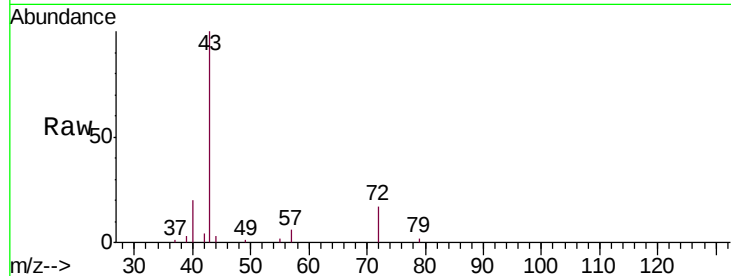




#34
2-Butanone
Concen: 0.222 ppbv
RT: 5.34 min Scan# 746
Delta R.T. 0.00 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

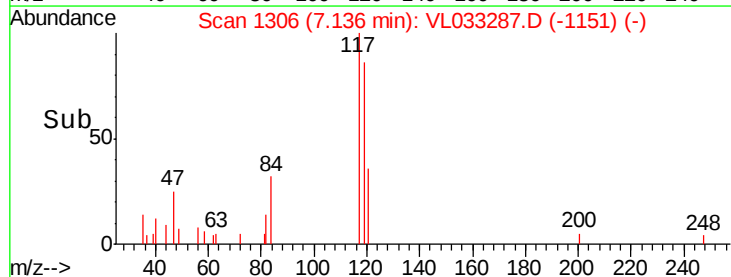
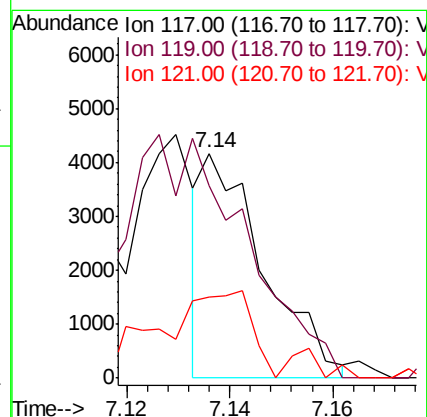
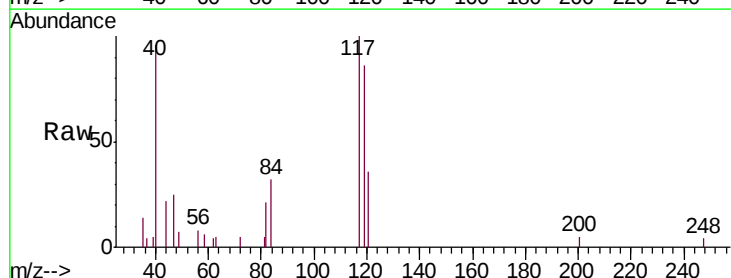
Instrument :
MSVOA_L
ClientSampled :
ST-IA-1DUP

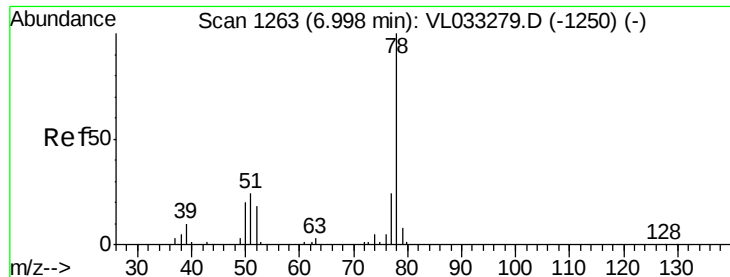
Tgt Ion: 43 Resp: 26195
Ion Ratio Lower Upper
43 100
72 23.7 17.0 25.6



#35
Carbon Tetrachloride
Concen: 0.026 ppbv
RT: 7.14 min Scan# 1306
Delta R.T. -0.00 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Tgt Ion: 117 Resp: 3429
Ion Ratio Lower Upper
117 100
119 91.2 77.4 116.0
121 32.3 24.9 37.3





#36

Benzene

Concen: 0.293 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1DUP

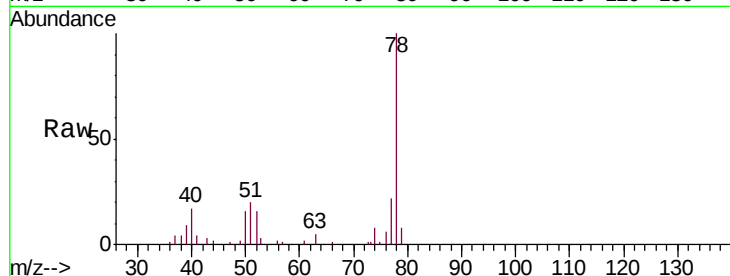
Tgt Ion: 78 Resp: 48274

Ion Ratio Lower Upper

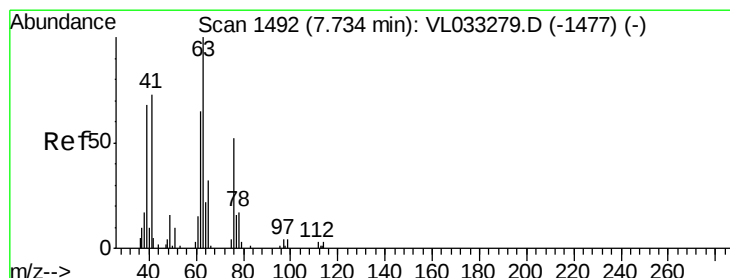
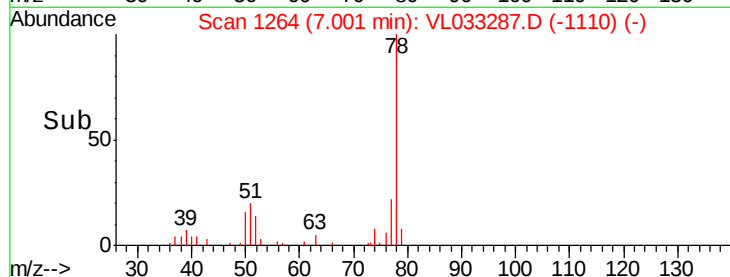
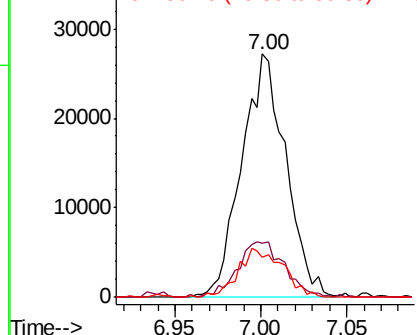
78 100

77 21.0 17.7 26.5

50 16.4 15.7 23.5



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: 7.793 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.45 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

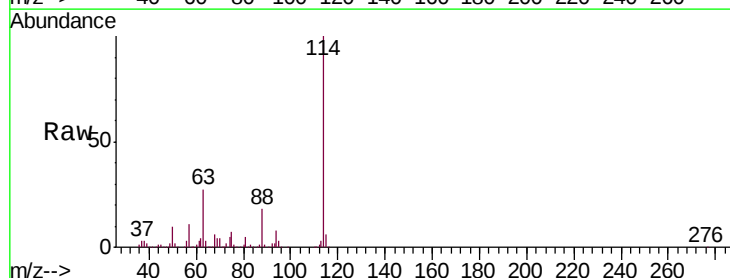
Tgt Ion: 63 Resp: 483459

Ion Ratio Lower Upper

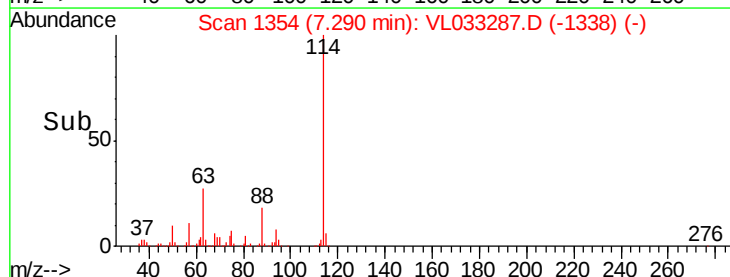
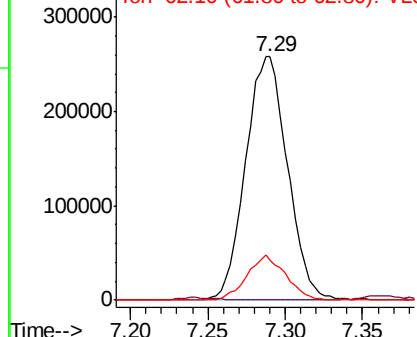
63 100

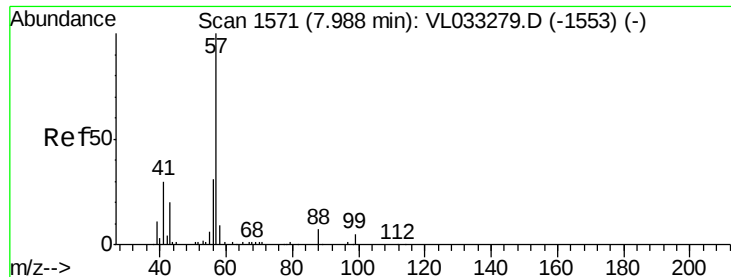
41 0.0 58.3 87.5#

62 16.7 55.3 82.9#



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





#44

2,2,4-Trimethylpentane

Concen: 0.028 ppbv

RT: 7.98 min Scan# 1570

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1DUP

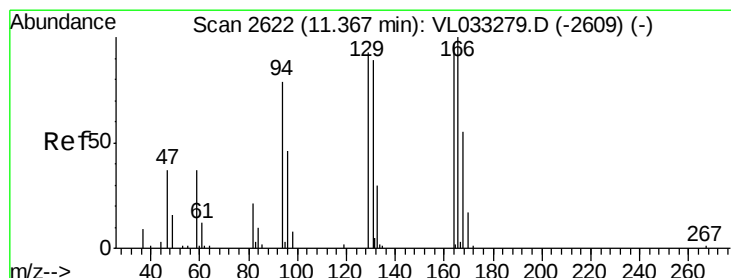
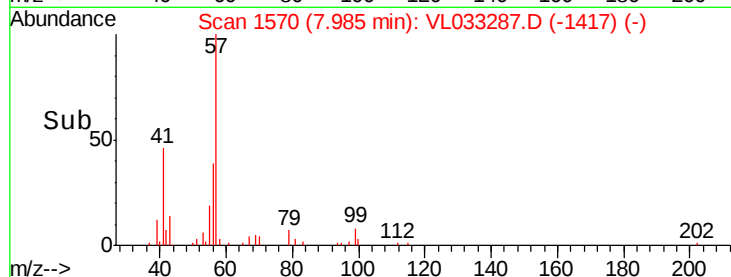
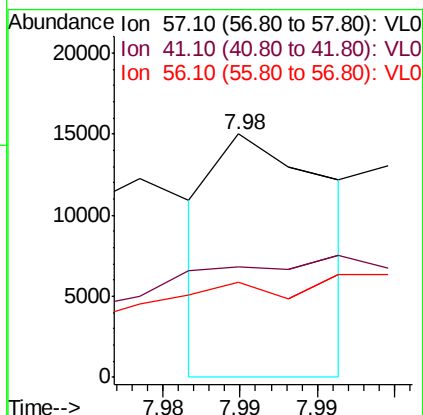
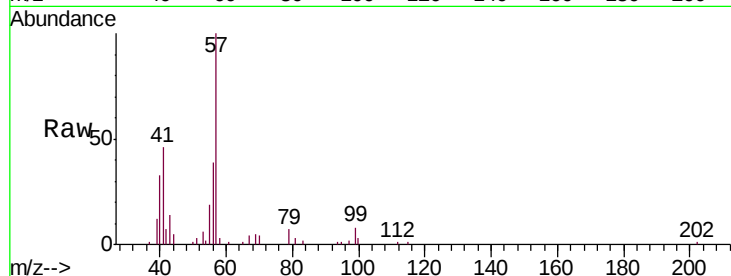
Tgt Ion: 57 Resp: 7758

Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.2#

56 0.0 24.8 37.2#



#52

Tetrachloroethene

Concen: 0.169 ppbv

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Tgt Ion: 164 Resp: 10216

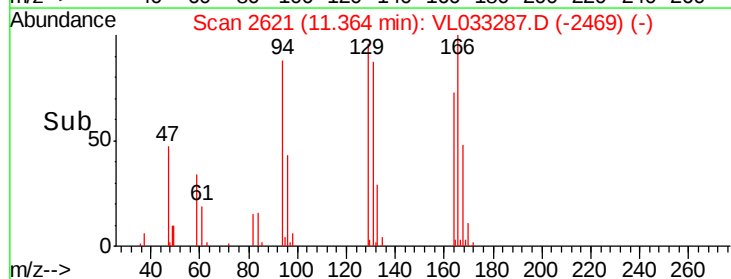
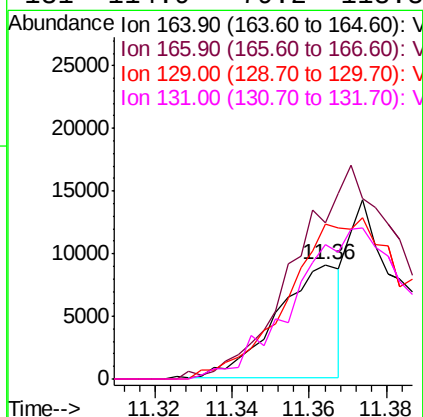
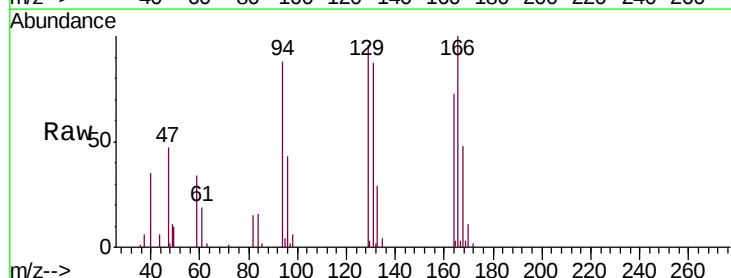
Ion Ratio Lower Upper

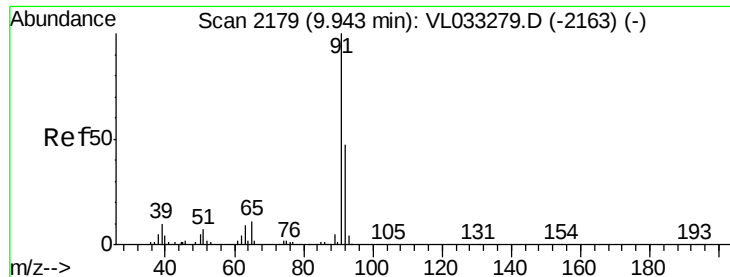
164 100

166 126.3 100.8 151.2

129 131.8 80.6 121.0#

131 114.9 79.2 118.8





#53

Toluene

Concen: 1.043 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

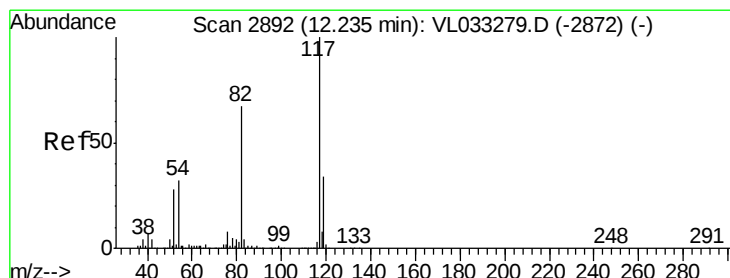
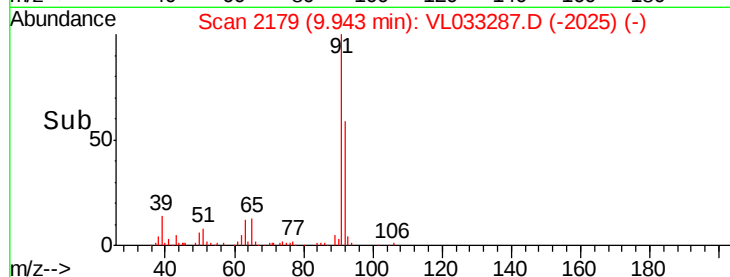
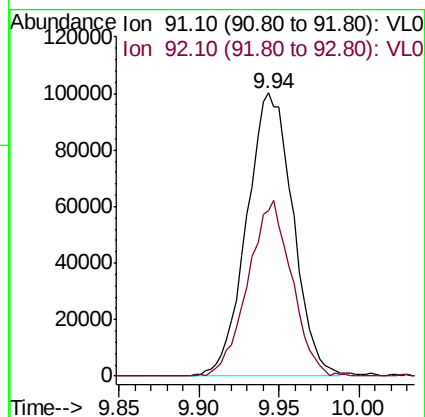
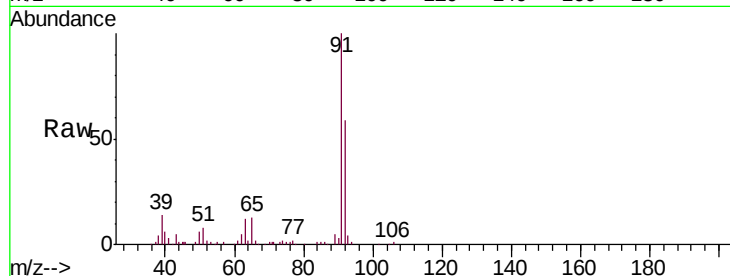
ST-IA-1DUP

Tgt Ion: 91 Resp: 198214

Ion Ratio Lower Upper

91 100

92 58.8 47.8 71.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

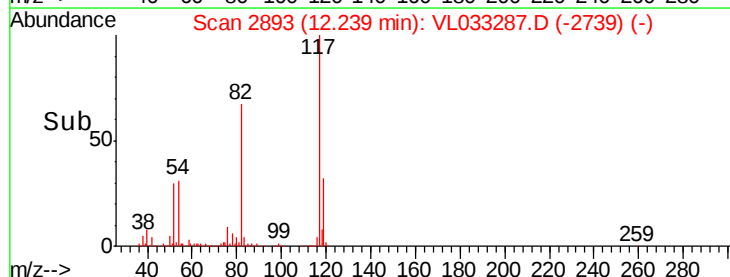
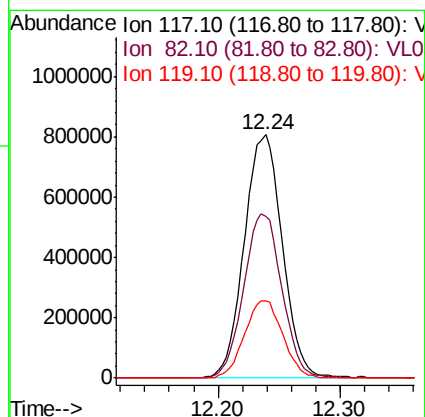
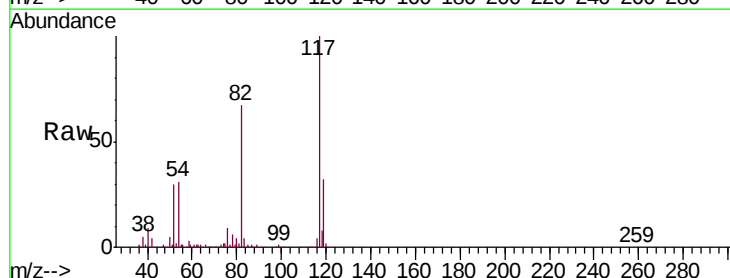
Tgt Ion: 117 Resp: 1740847

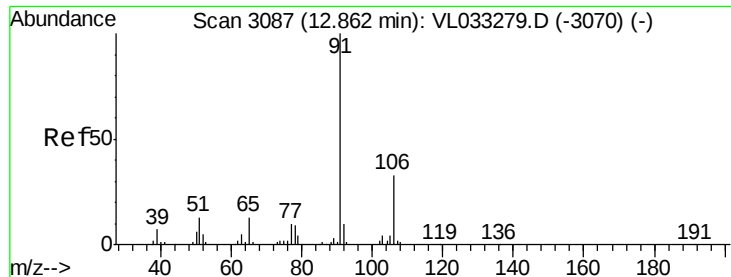
Ion Ratio Lower Upper

117 100

82 67.8 51.1 76.7

119 32.2 43.6 65.4#





#58

Ethyl Benzene

Concen: 0.027 ppbv

RT: 12.86 min Scan# 3086

Delta R.T. -0.01 min

Lab File: VL033287.D

Acq: 12 Mar 2019 17:41

Instrument :

MSVOA_L

ClientSampleId :

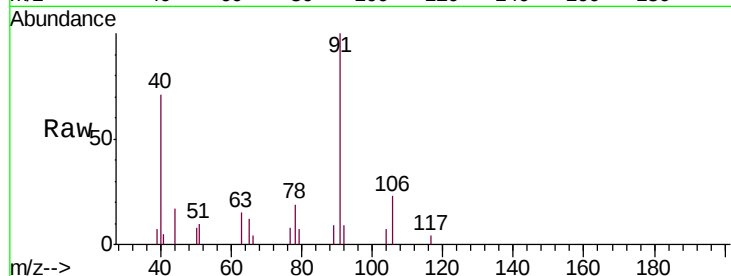
ST-IA-1DUP

Tgt Ion: 91 Resp: 6465

Ion Ratio Lower Upper

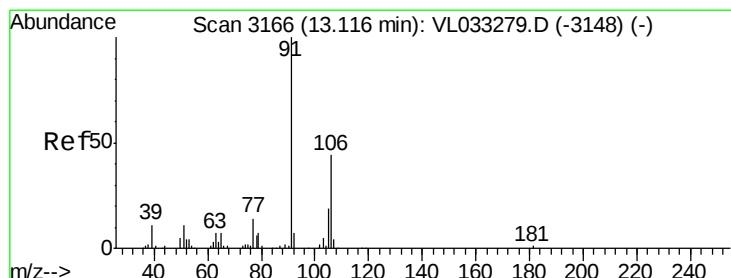
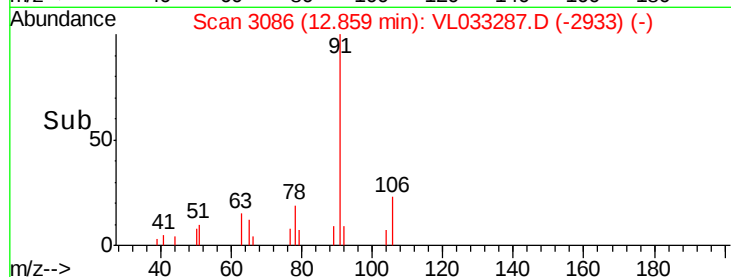
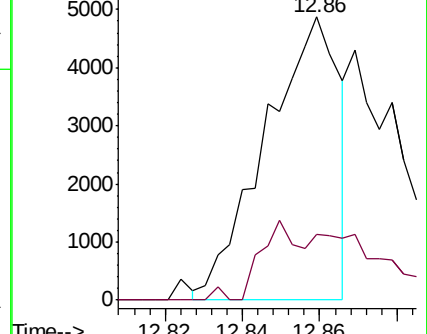
91 100

106 24.0 22.5 33.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.040 ppbv

RT: 13.12 min Scan# 3166

Delta R.T. -0.01 min

Lab File: VL033287.D

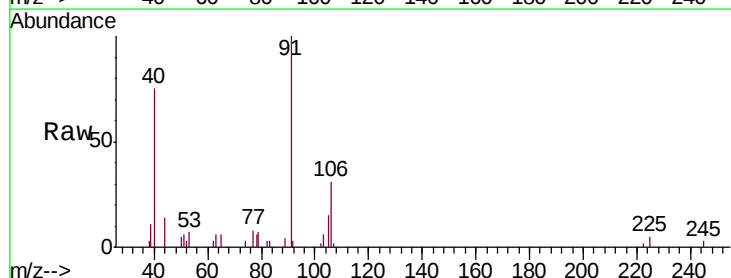
Acq: 12 Mar 2019 17:41

Tgt Ion: 91 Resp: 7940

Ion Ratio Lower Upper

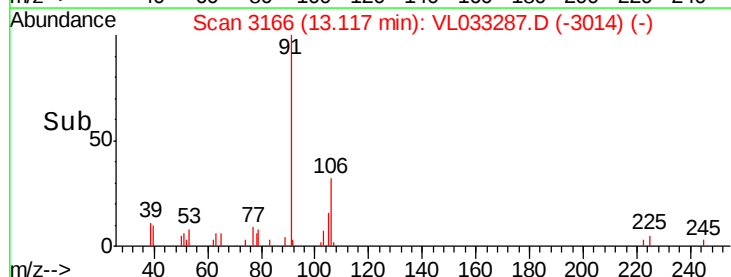
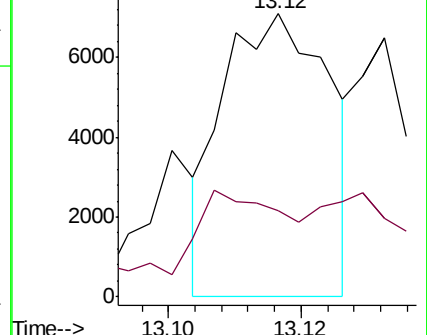
91 100

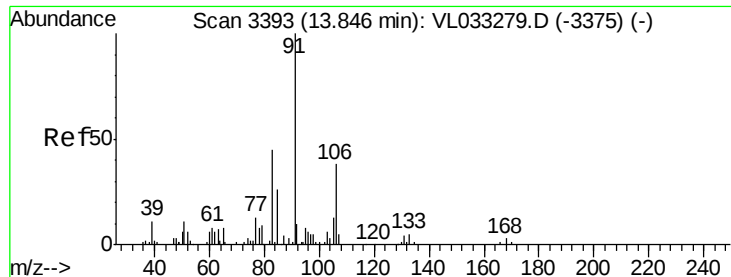
106 0.0 35.5 53.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

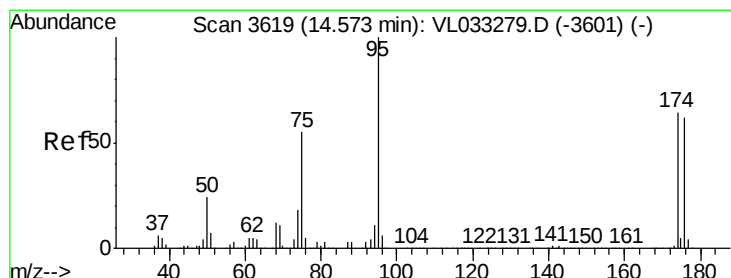
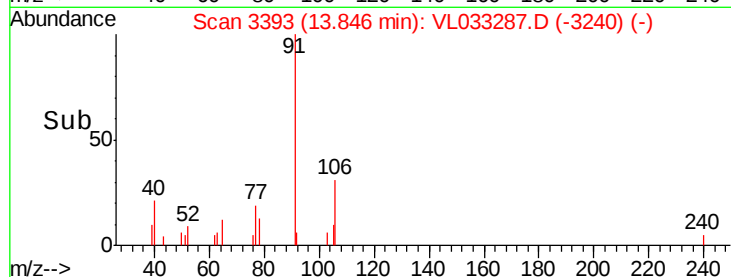
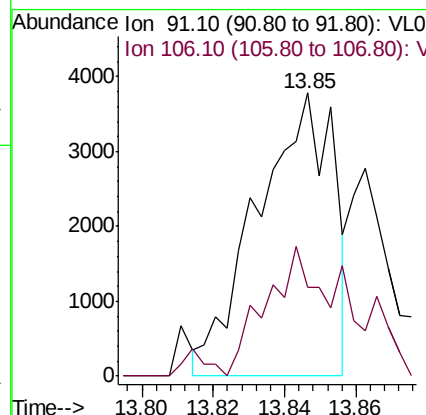
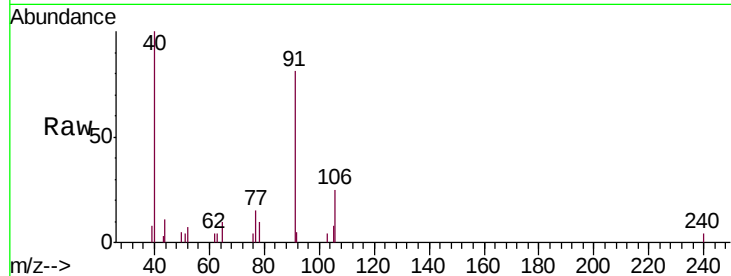




#60
o-Xylene
Concen: 0.029 ppbv
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1DUP

Tgt Ion: 91 Resp: 5575
Ion Ratio Lower Upper
91 100
106 52.2 21.3 63.7



#68
1-Bromo-4-Fluorobenzene
Concen: 10.463 ppbv
RT: 14.58 min Scan# 3620
Delta R.T. -0.01 min
Lab File: VL033287.D
Acq: 12 Mar 2019 17:41

Tgt Ion: 95 Resp: 1406594
Ion Ratio Lower Upper
95 100
174 63.5 51.7 77.5
175 4.6 3.7 5.5

