

Data File : VL032673.D
Acq On : 19 Oct 2018 7:42
Operator : SY/AP
Sample : J5581-03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-3

Quant Time: Oct 19 08:17:40 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL101818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Oct 19 01:25:37 2018
QLast Update : Fri Oct 19 01:25:37 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1412811	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.31	114	3493238	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3335682	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.59 95 2437547 9.81 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 98.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	73816	0.513	ppbv	95
3) Chlorodifluoromethane	3.02	51	348335	3.153	ppbv	93
4) Chloromethane	3.18	50	30243	0.490	ppbv	95
9) Propene	3.06	41	20928	0.460	ppbv	98
11) Trichlorofluoromethane	4.02	101	42278	0.225	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.56	101	8831	0.056	ppbv #	57
13) Ethanol	3.67	45	1023668	78.769	ppbv	98
15) Acetone	3.91	43	863074	6.616	ppbv	100
16) 1,3-Butadiene	3.36	39	2630	0.055	ppbv #	41
17) tert-Butyl alcohol	4.37	59	1019	0.027	ppbv #	100
19) Isopropyl Alcohol	4.05	45	573516	6.173	ppbv	100
20) Methylene Chloride	4.42	84	167171	2.524	ppbv	92
23) Vinyl Acetate	5.16	43	25593	0.111	ppbv #	79
25) Ethyl Acetate	5.79	43	270277	0.900	ppbv #	83
26) Hexane	5.79	57	340479	2.396	ppbv #	46
29) Chloroform	5.86	83	5652	0.025	ppbv	90
34) 2-Butanone	5.35	43	74872	0.400	ppbv	100
35) Carbon Tetrachloride	7.14	117	19203	0.077	ppbv	85
36) Benzene	7.02	78	38346	0.135	ppbv #	84
37) 1,2-Dichloroethane	6.43	62	4161	0.024	ppbv #	89
39) 1,2-Dichloropropane	7.31	63	876078	7.998	ppbv #	25
41) Tetrahydrofuran	6.14	42	4399	0.042	ppbv #	25
44) 2,2,4-Trimethylpentane	8.01	57	14225	0.029	ppbv #	9
53) Toluene	9.96	91	959902	2.952	ppbv	98
60) o-Xylene	13.86	91	10771	0.032	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.94	105	22721	0.062	ppbv #	73

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

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ALS Vial : 1 Sample Multiplier: 1

Instrument :
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ClientSampleId :
A-3

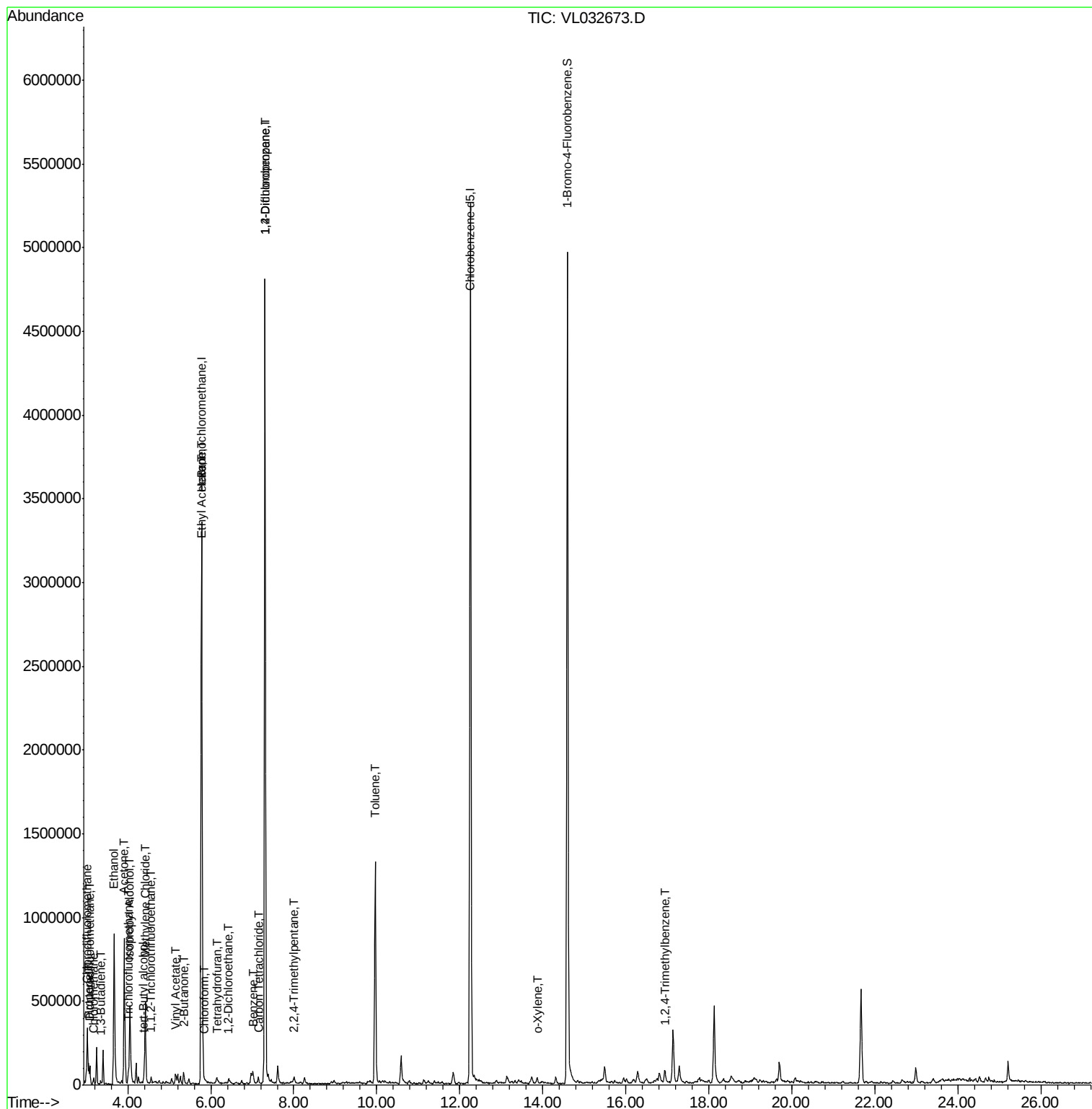
Quant Time: Oct 19 08:17:40 2018

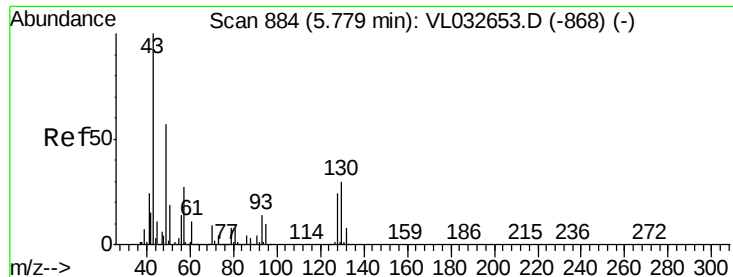
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL101818AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LFri Oct 19 01:25:37 2018

QLast Update : Fri Oct 19 01:25:37 2018

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

A-3

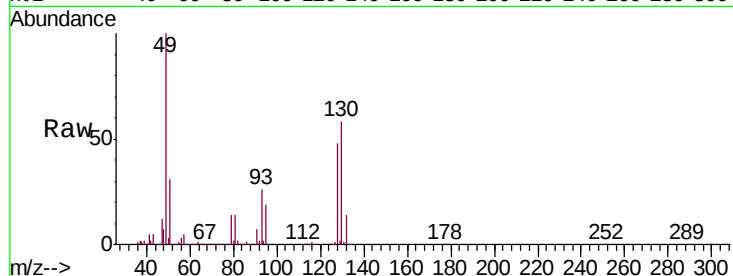
Tgt Ion: 49 Resp: 1412811

Ion Ratio Lower Upper

49 100

128 48.4 22.3 66.8

130 62.5 28.4 85.3

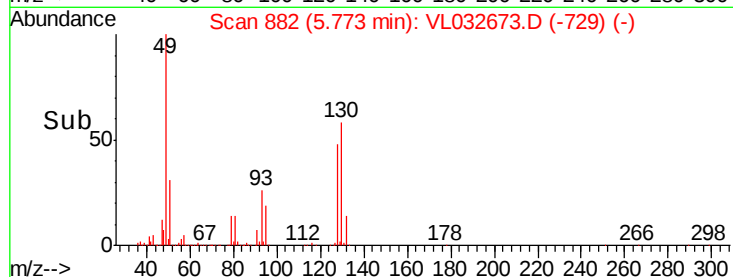


Abundance Ion 49.10 (48.80 to 49.80): VL0

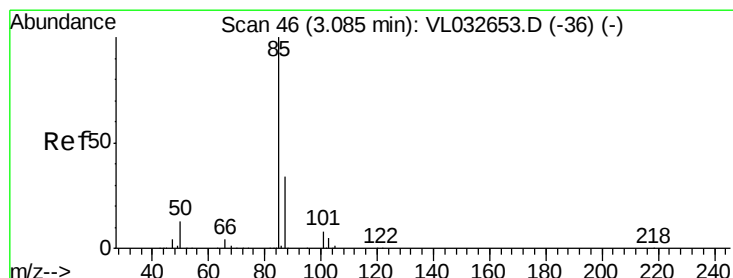
Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

Time-->



Time-->



#2

Dichlorodifluoromethane

Concen: 0.513 ppbv

RT: 3.08 min Scan# 46

Delta R.T. -0.00 min

Lab File: VL032673.D

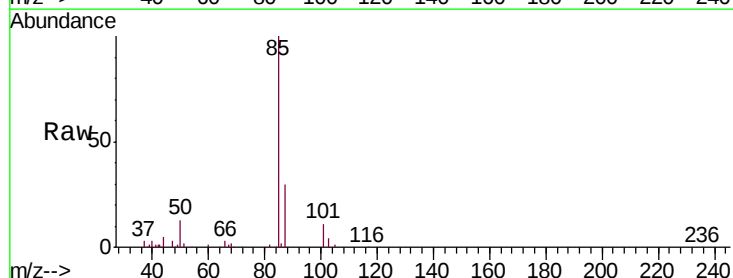
Acq: 19 Oct 2018 7:42

Tgt Ion: 85 Resp: 73816

Ion Ratio Lower Upper

85 100

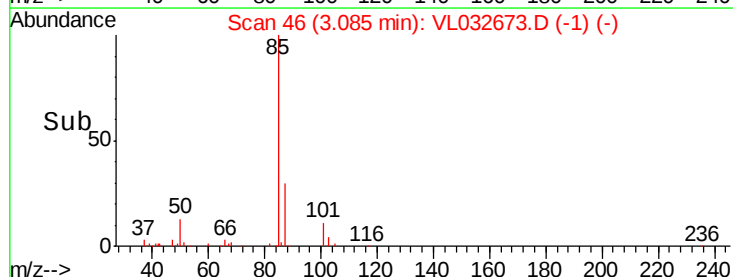
87 29.8 26.2 39.2



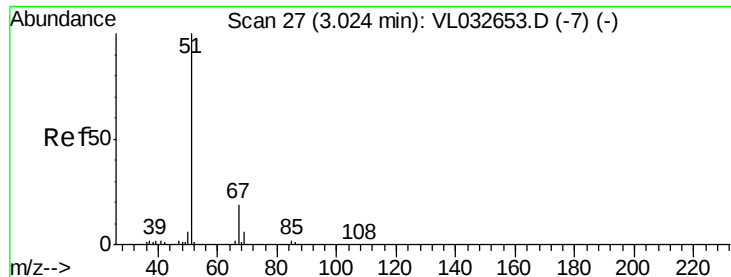
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

Time-->



Time-->



#3

Chlorodifluoromethane

Concen: 3.153 ppbv

RT: 3.02 min Scan# 27

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

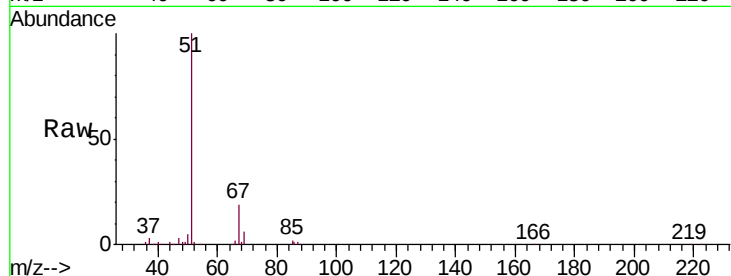
A-3

Tgt Ion: 51 Resp: 348335

Ion Ratio Lower Upper

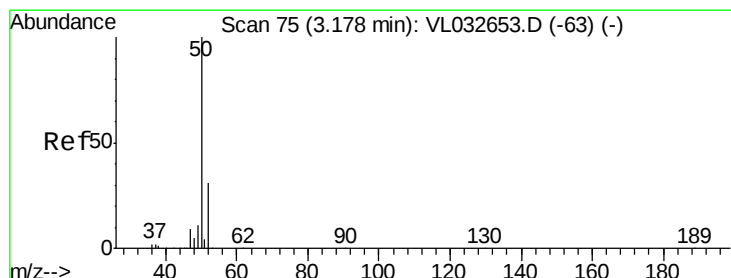
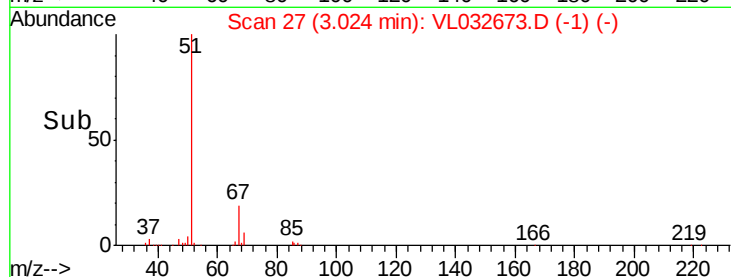
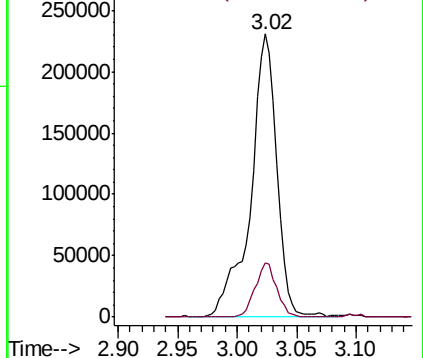
51 100

67 15.8 15.2 22.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.490 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032673.D

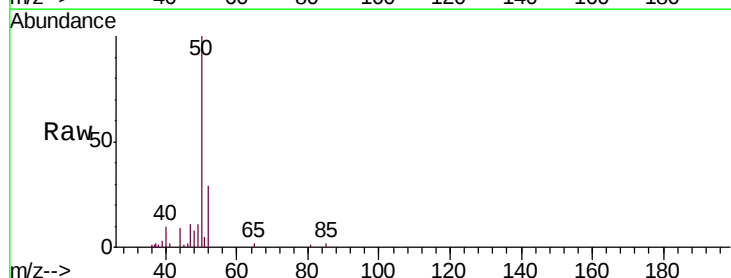
Acq: 19 Oct 2018 7:42

Tgt Ion: 50 Resp: 30243

Ion Ratio Lower Upper

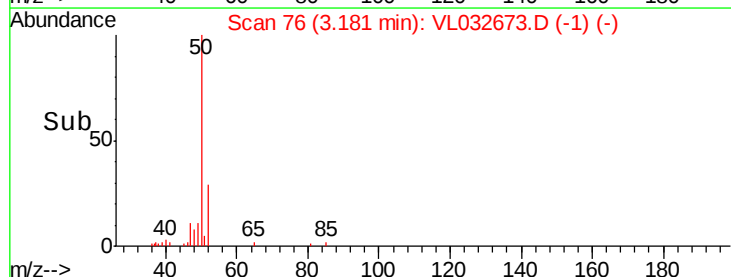
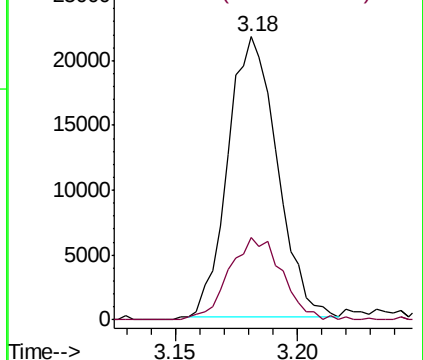
50 100

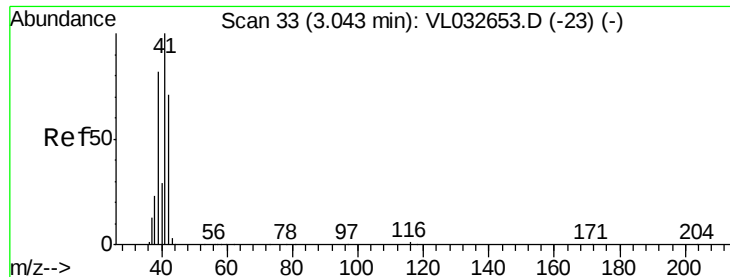
52 29.5 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.460 ppbv

RT: 3.06 min Scan# 37

Delta R.T. 0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

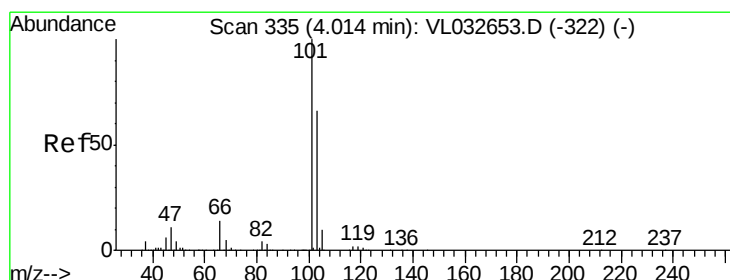
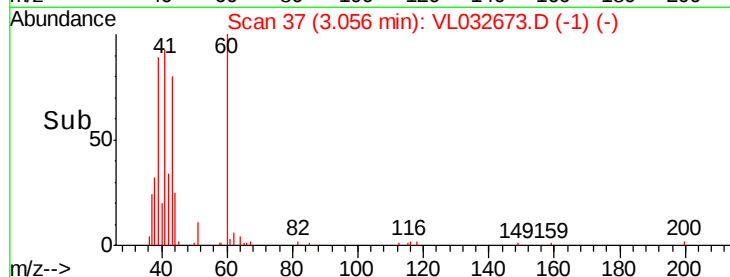
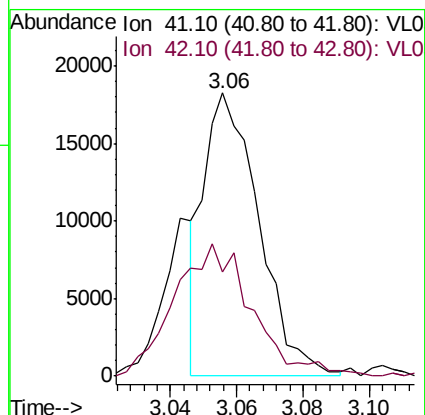
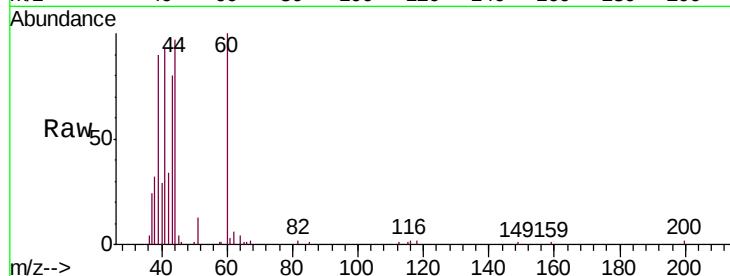
A-3

Tgt Ion: 41 Resp: 20928

Ion Ratio Lower Upper

41 100

42 67.5 55.4 83.0



#11

Trichlorofluoromethane

Concen: 0.225 ppbv

RT: 4.02 min Scan# 336

Delta R.T. 0.00 min

Lab File: VL032673.D

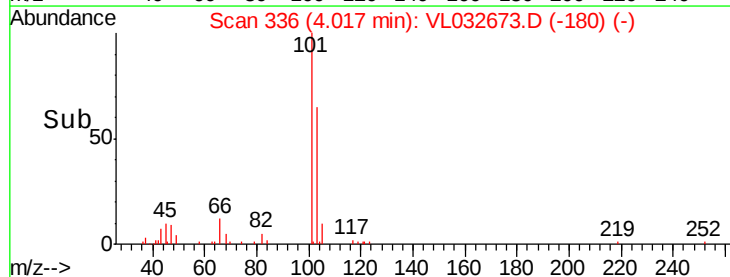
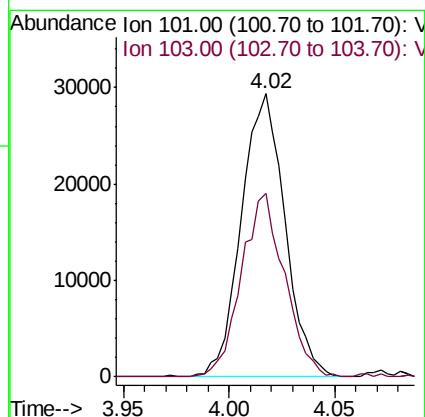
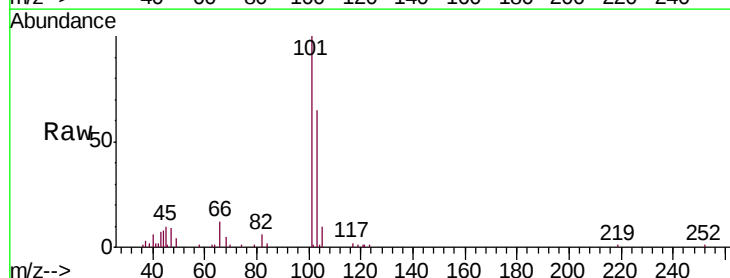
Acq: 19 Oct 2018 7:42

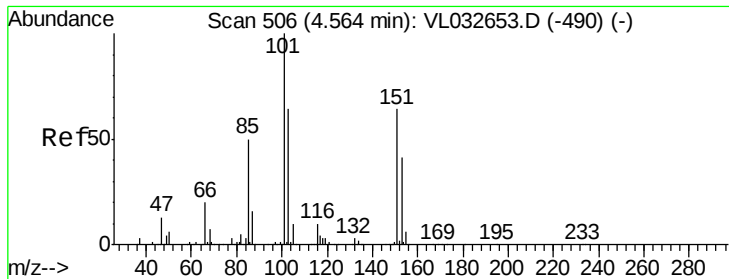
Tgt Ion: 101 Resp: 42278

Ion Ratio Lower Upper

101 100

103 65.1 51.4 77.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.056 ppbv

RT: 4.56 min Scan# 505

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

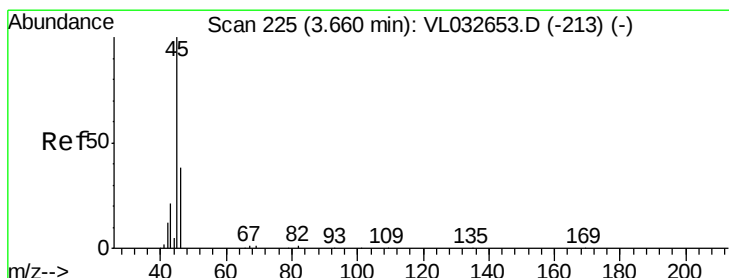
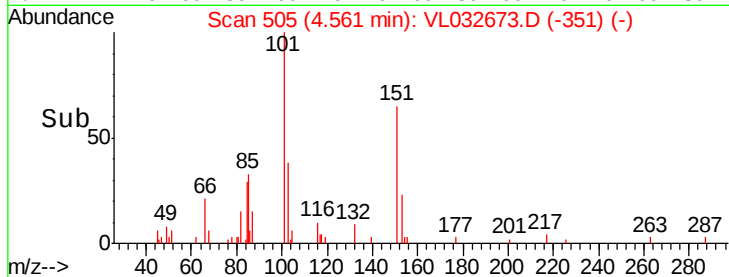
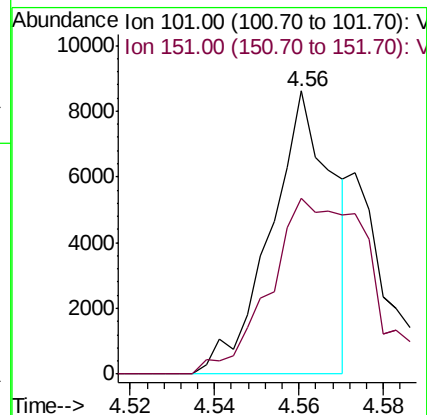
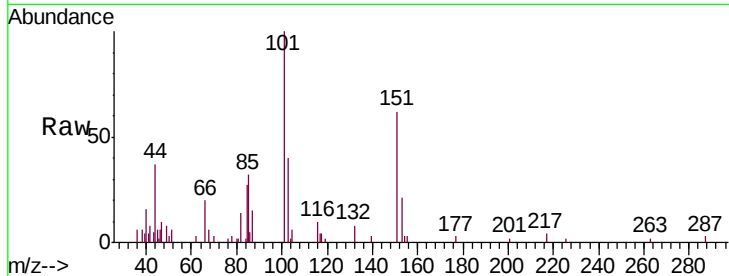
A-3

Tgt Ion: 101 Resp: 8831

Ion Ratio Lower Upper

101 100

151 99.4 52.3 78.5#



#13

Ethanol

Concen: 78.769 ppbv

RT: 3.67 min Scan# 228

Delta R.T. 0.01 min

Lab File: VL032673.D

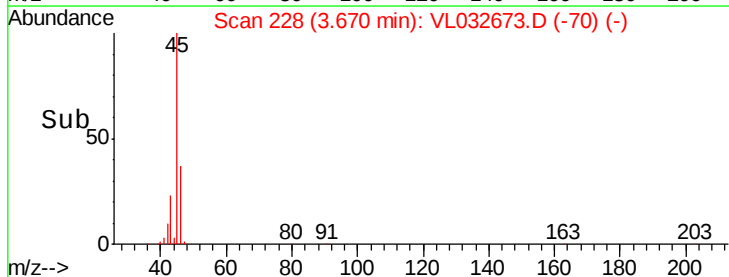
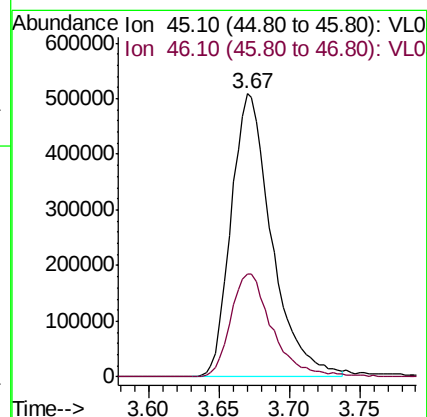
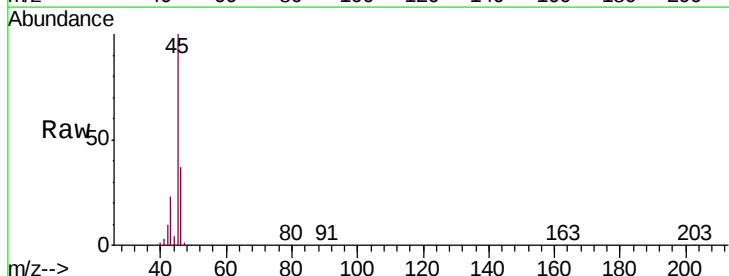
Acq: 19 Oct 2018 7:42

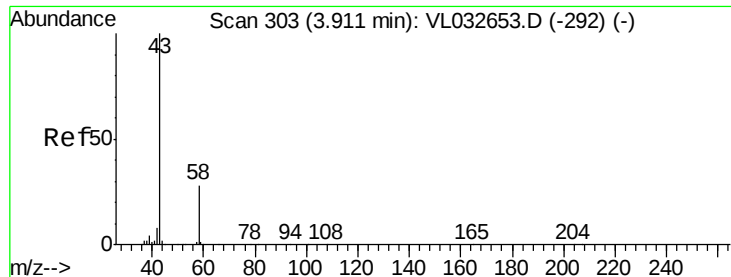
Tgt Ion: 45 Resp: 1023668

Ion Ratio Lower Upper

45 100

46 37.5 15.4 61.8





#15

Acetone

Concen: 6.616 ppbv

RT: 3.91 min Scan# 303

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

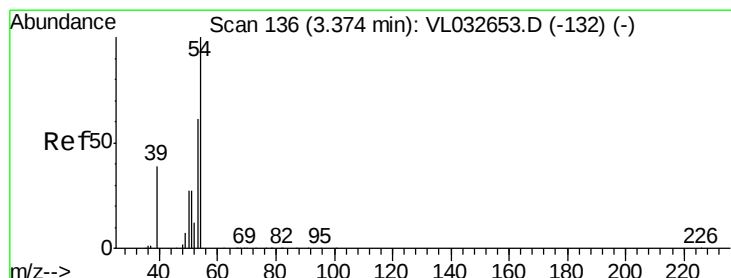
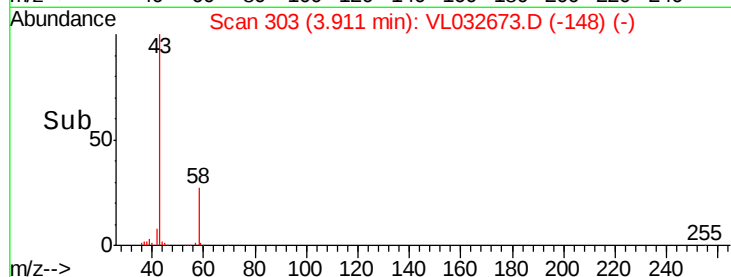
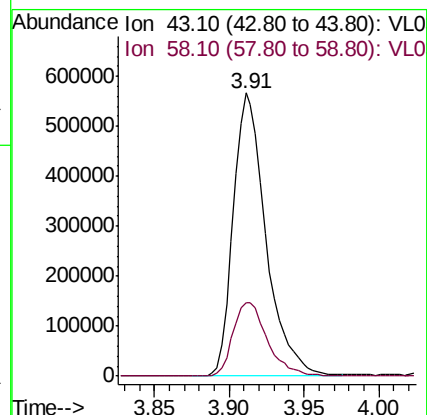
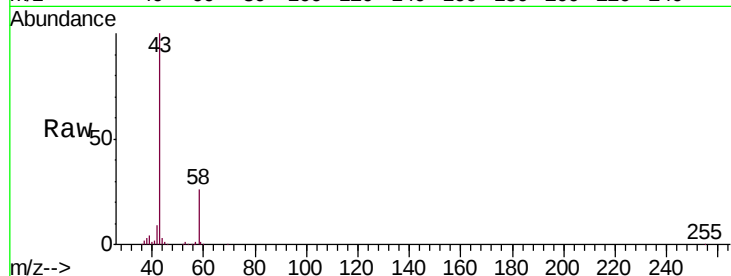
A-3

Tgt Ion: 43 Resp: 863074

Ion Ratio Lower Upper

43 100

58 27.4 22.1 33.1



#16

1,3-Butadiene

Concen: 0.055 ppbv

RT: 3.36 min Scan# 131

Delta R.T. -0.02 min

Lab File: VL032673.D

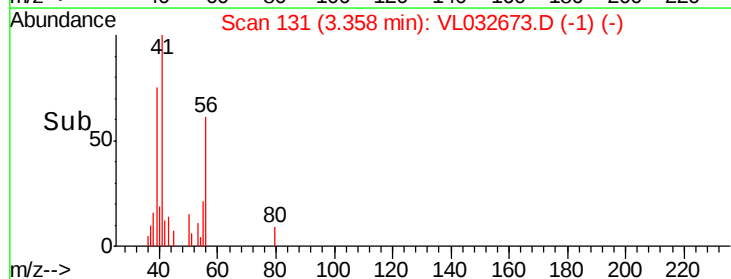
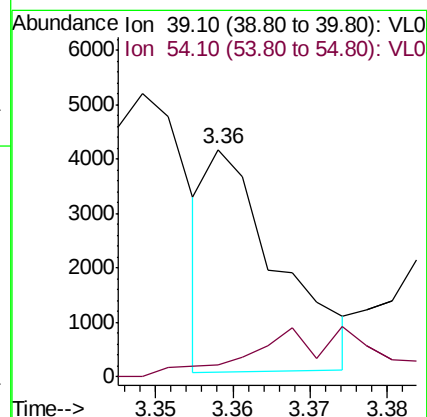
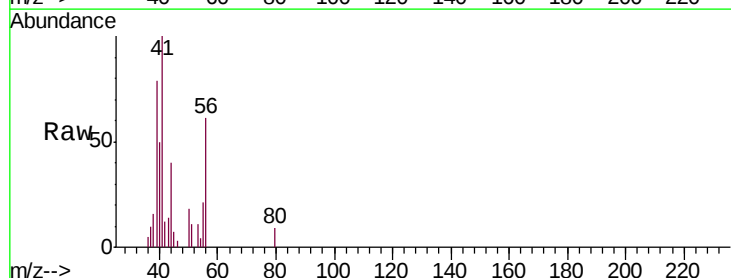
Acq: 19 Oct 2018 7:42

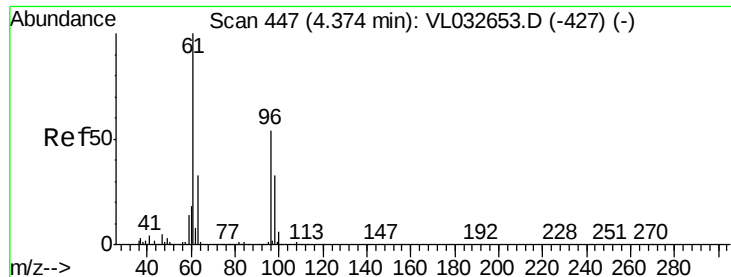
Tgt Ion: 39 Resp: 2630

Ion Ratio Lower Upper

39 100

54 49.8 90.4 135.6#





#17

tert-Butyl alcohol

Concen: 0.027 ppbv

RT: 4.37 min Scan# 446

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

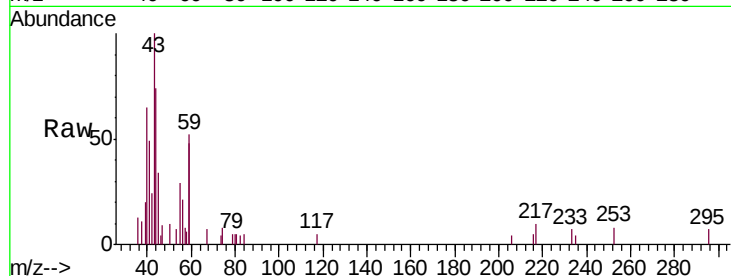
A-3

Tgt Ion: 59 Resp: 1019

Ion Ratio Lower Upper

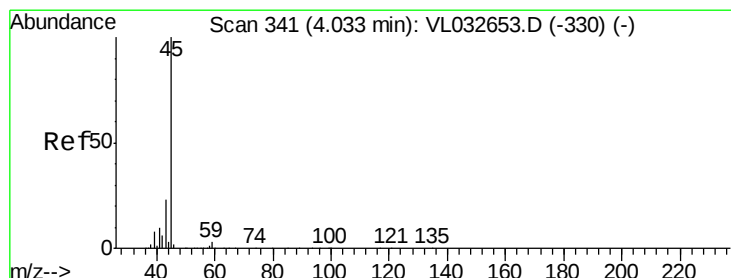
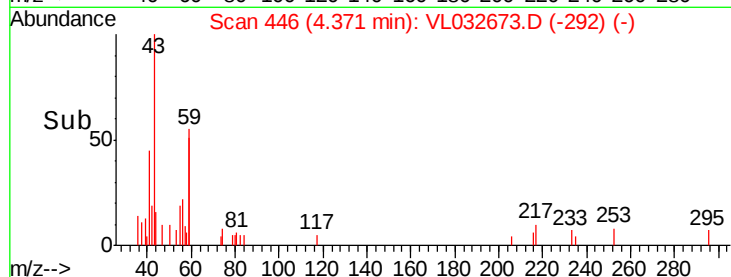
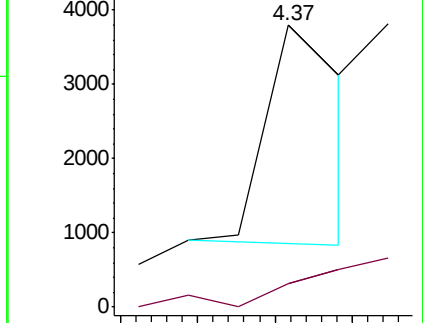
59 100

57 0.0 0.0 0.0



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 6.173 ppbv

RT: 4.05 min Scan# 345

Delta R.T. 0.01 min

Lab File: VL032673.D

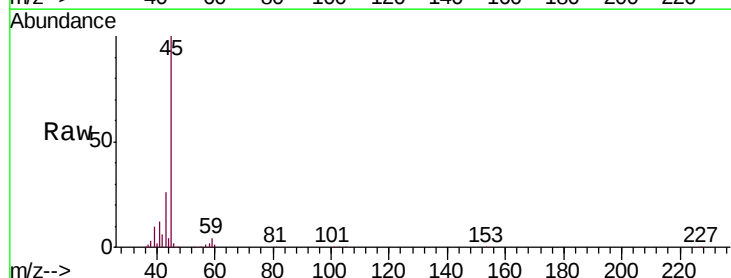
Acq: 19 Oct 2018 7:42

Tgt Ion: 45 Resp: 573516

Ion Ratio Lower Upper

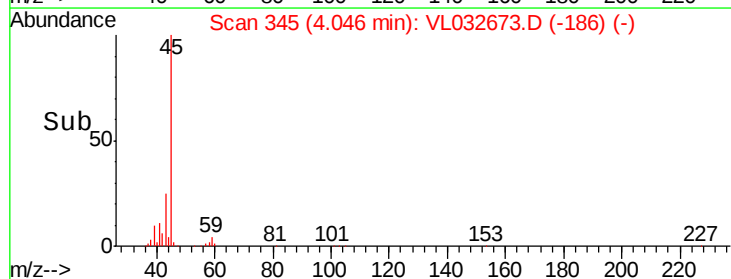
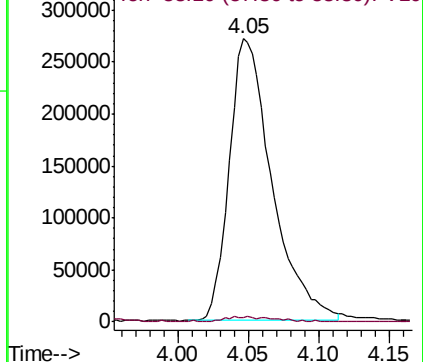
45 100

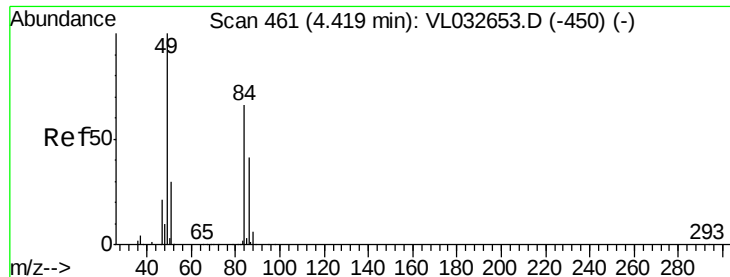
58 2.4 2.0 3.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

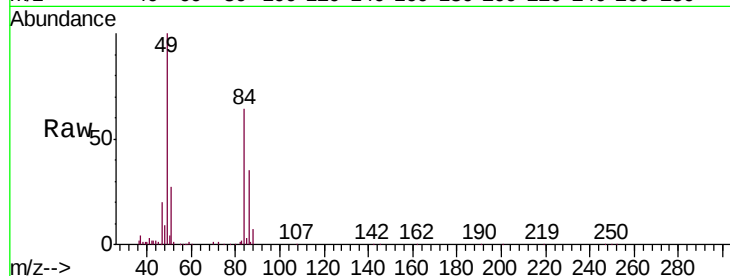




#20
Methylene Chloride
Concen: 2.524 ppbv
RT: 4.42 min Scan# 461
Delta R.T. -0.00 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

Instrument :
MSVOA_L
ClientSampleId :
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Tgt Ion:	84	Resp:	167171
Ion	Ratio	Lower	Upper
84	100		
49	155.2	113.5	170.3
51	41.8	34.8	52.2
86	55.1	47.9	71.9



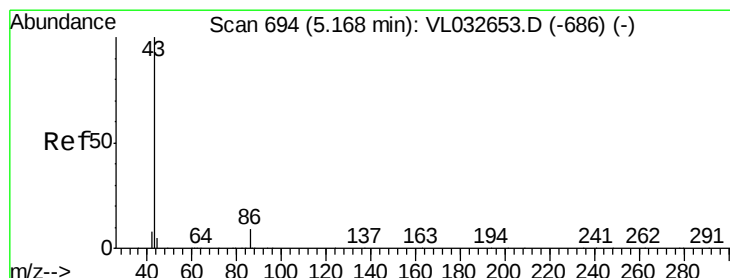
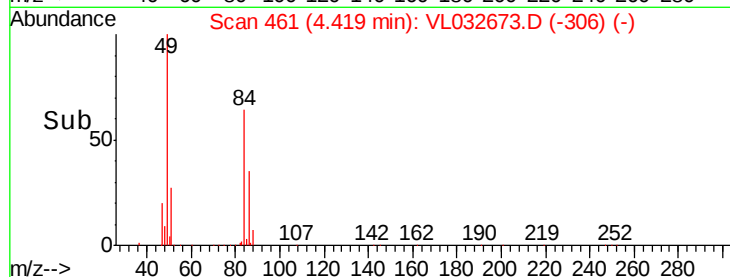
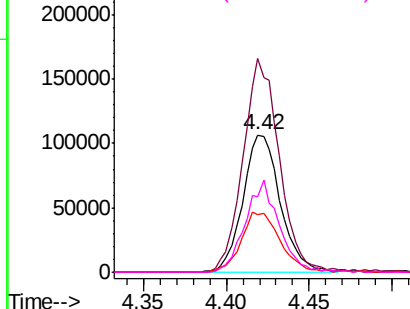
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

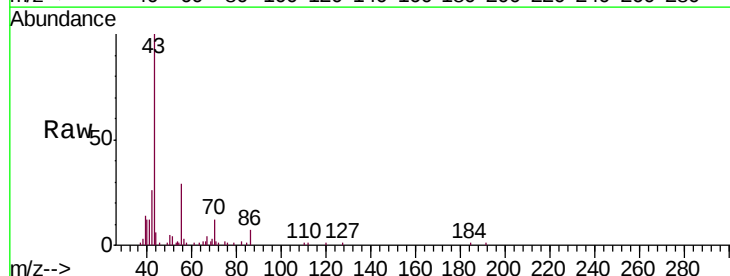
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23
Vinyl Acetate
Concen: 0.111 ppbv
RT: 5.16 min Scan# 691
Delta R.T. -0.01 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

Tgt Ion:	43	Resp:	25593
Ion	Ratio	Lower	Upper
43	100		
86	7.2	6.1	9.1
42	23.6	7.4	11.2#
44	0.0	4.2	6.2#



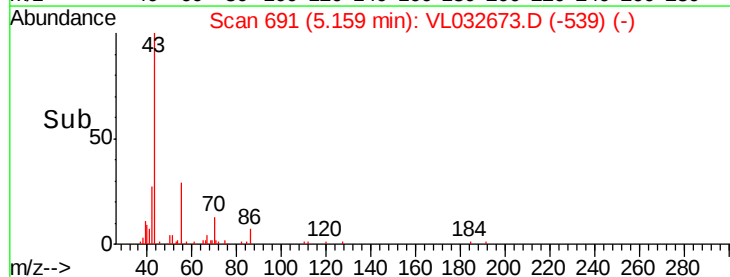
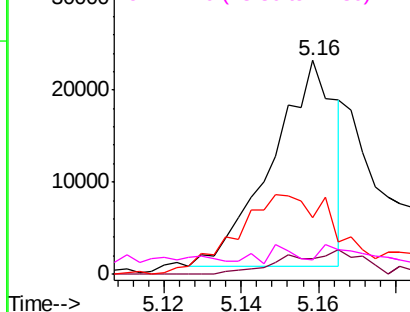
Abundance

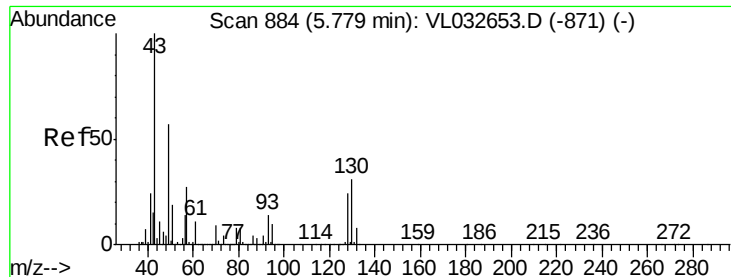
Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0

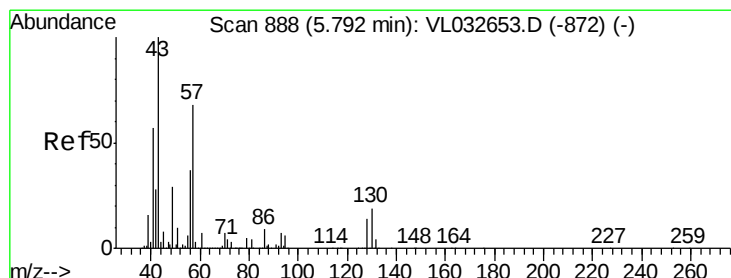
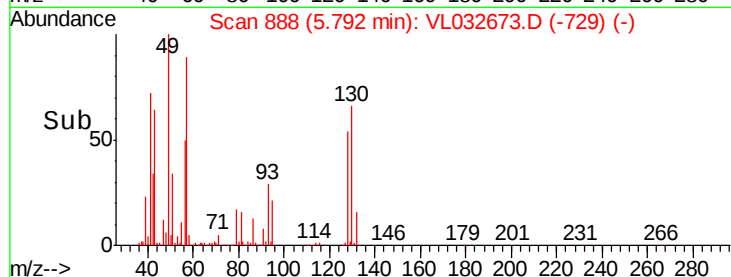
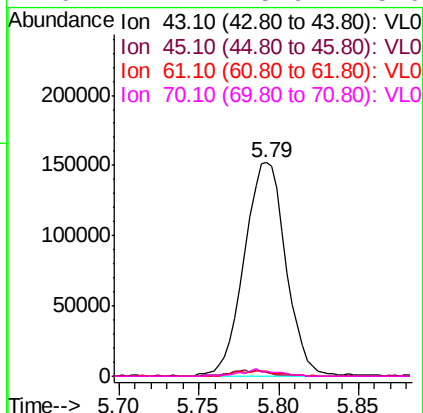
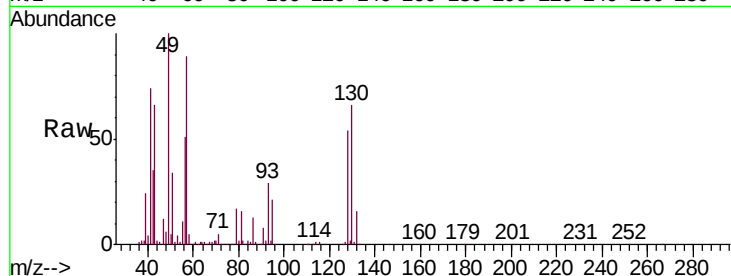




#25
Ethyl Acetate
Concen: 0.900 ppbv
RT: 5.79 min Scan# 888
Delta R.T. 0.01 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

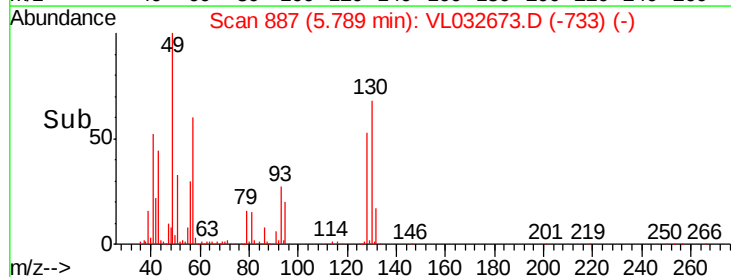
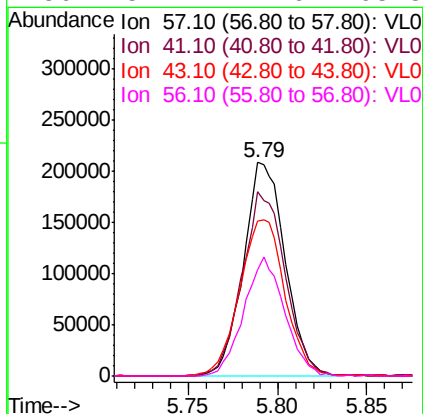
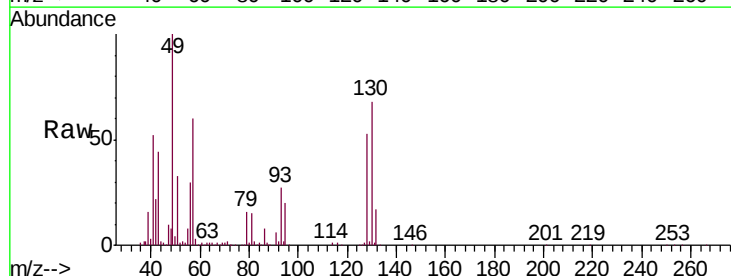
Instrument :
MSVOA_L
ClientSampleId :
A-3

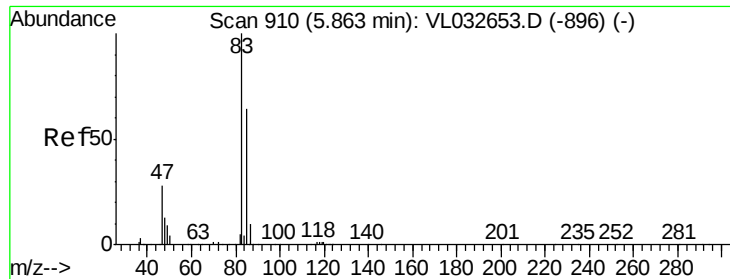
Tgt Ion:	43	Resp:	270277
Ion	Ratio	Lower	Upper
43	100		
45	3.4	8.0	12.0#
61	2.5	8.0	12.0#
70	2.7	5.9	8.9#



#26
Hexane
Concen: 2.396 ppbv
RT: 5.79 min Scan# 887
Delta R.T. -0.00 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

Tgt Ion:	57	Resp:	340479
Ion	Ratio	Lower	Upper
57	100		
41	90.0	67.4	101.0
43	80.1	171.9	257.9#
56	54.7	42.6	63.8





#29

Chloroform

Concen: 0.025 ppbv

RT: 5.86 min Scan# 908

Delta R.T. -0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

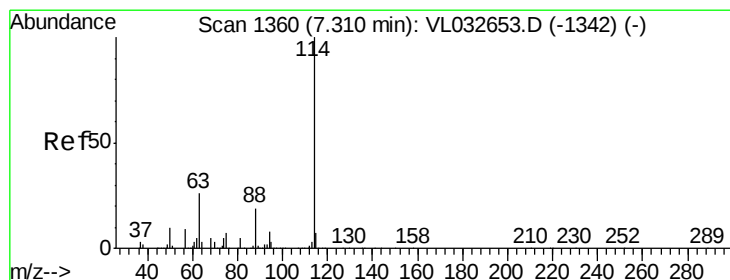
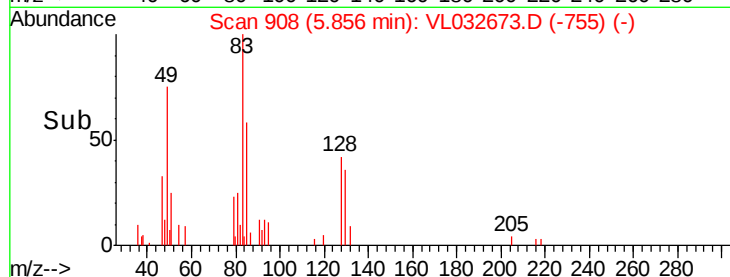
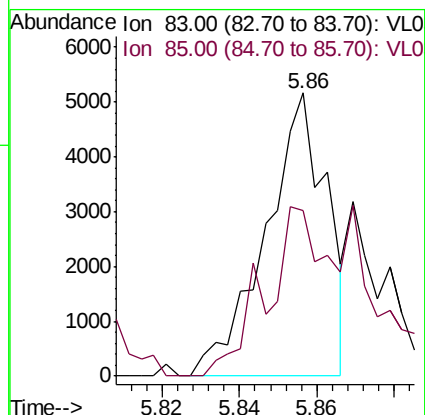
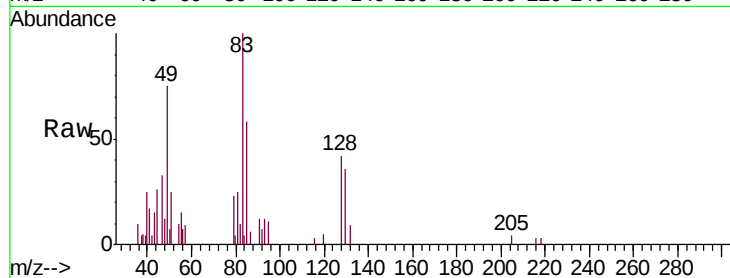
A-3

Tgt Ion: 83 Resp: 5652

Ion Ratio Lower Upper

83 100

85 58.4 53.0 79.6



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.31 min Scan# 1359

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

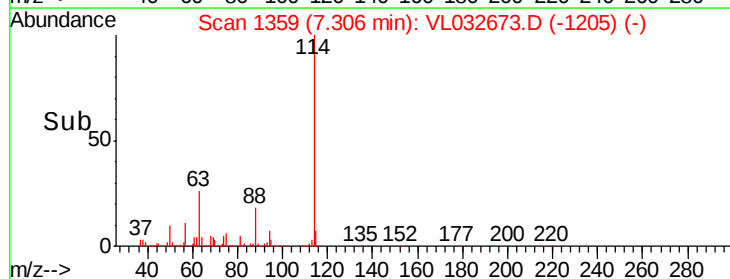
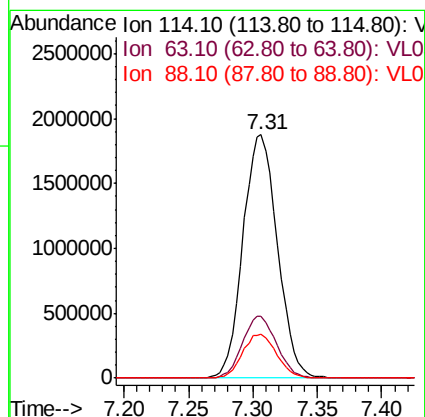
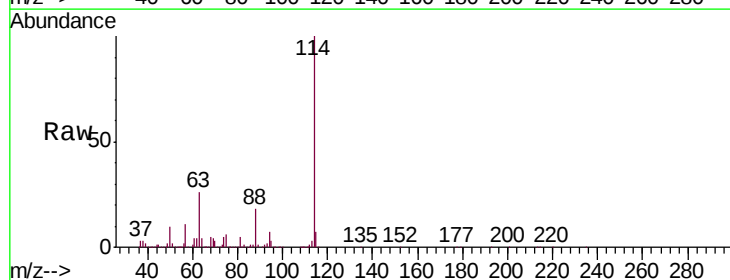
Tgt Ion: 114 Resp: 3493238

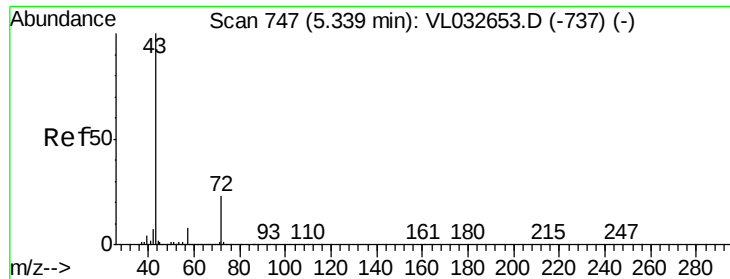
Ion Ratio Lower Upper

114 100

63 25.2 21.7 32.5

88 18.0 14.9 22.3

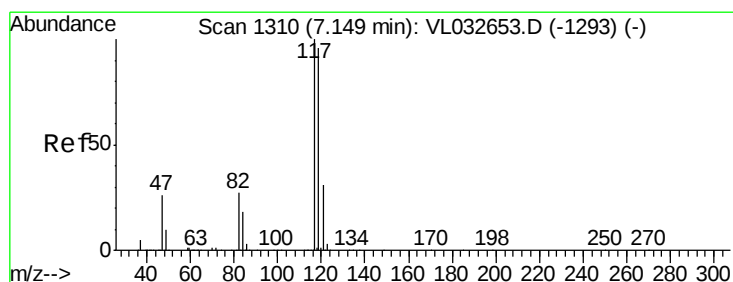
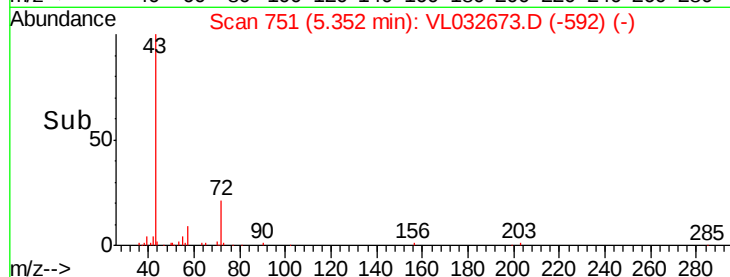
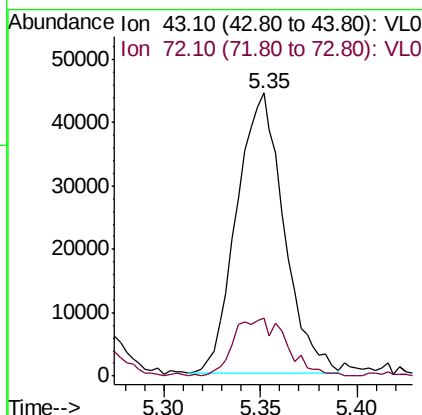
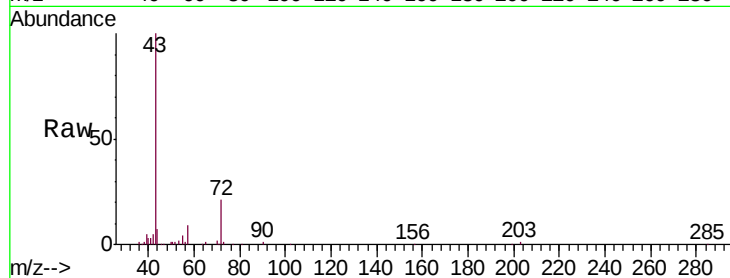




#34
2-Butanone
Concen: 0.400 ppbv
RT: 5.35 min Scan# 751
Delta R.T. 0.01 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

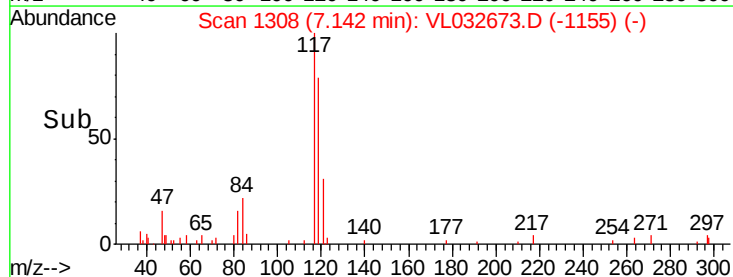
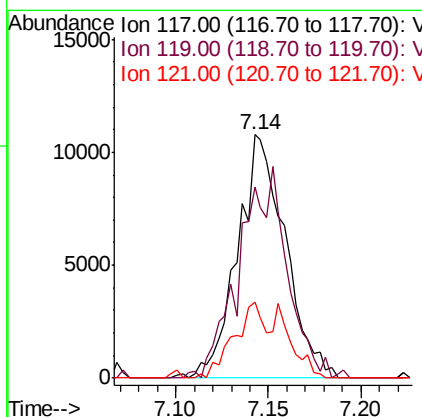
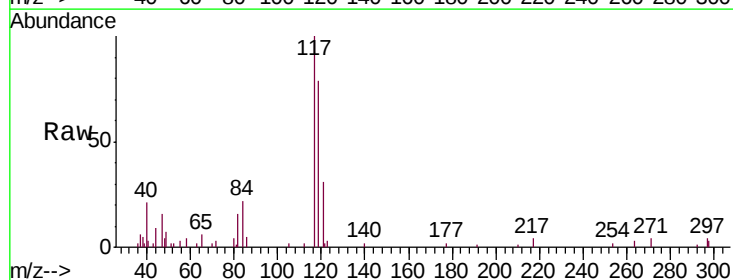
Instrument :
MSVOA_L
ClientSampleId :
A-3

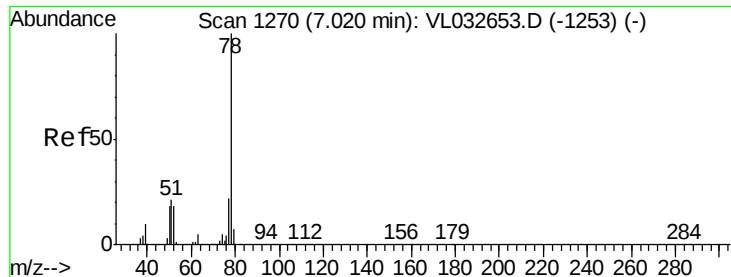
Tgt Ion: 43 Resp: 74872
Ion Ratio Lower Upper
43 100
72 23.4 18.6 27.8



#35
Carbon Tetrachloride
Concen: 0.077 ppbv
RT: 7.14 min Scan# 1308
Delta R.T. -0.01 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

Tgt Ion: 117 Resp: 19203
Ion Ratio Lower Upper
117 100
119 76.9 75.7 113.5
121 33.0 24.7 37.1





#36

Benzene

Concen: 0.135 ppbv

RT: 7.02 min Scan# 1269

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

A-3

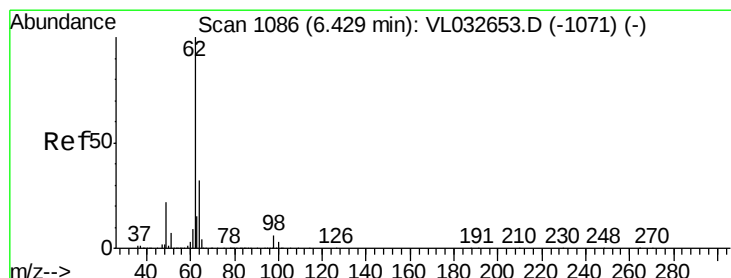
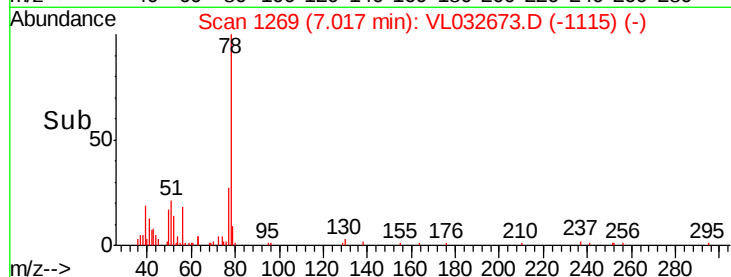
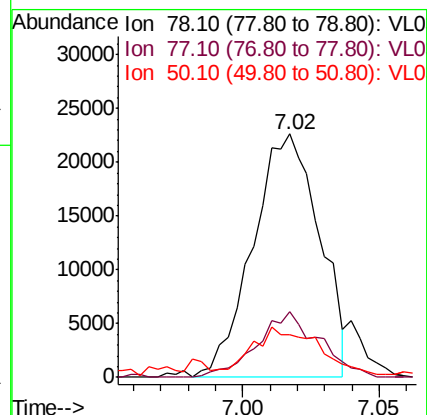
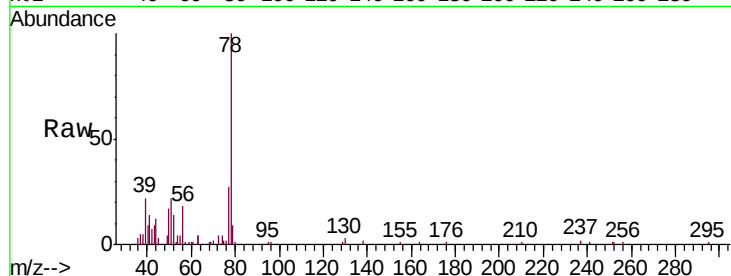
Tgt Ion: 78 Resp: 38346

Ion Ratio Lower Upper

78 100

77 26.8 18.1 27.1

50 8.2 15.1 22.7#



#37

1,2-Dichloroethane

Concen: 0.024 ppbv

RT: 6.43 min Scan# 1085

Delta R.T. -0.00 min

Lab File: VL032673.D

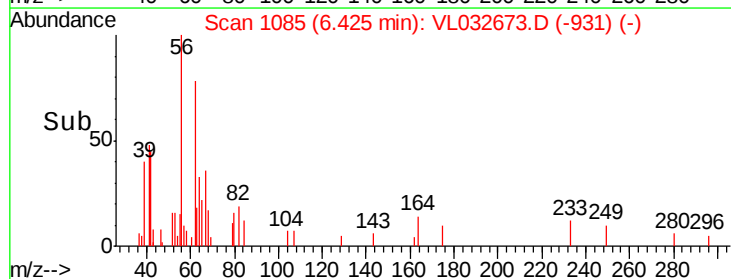
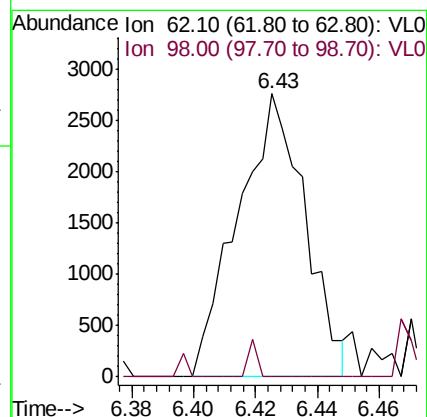
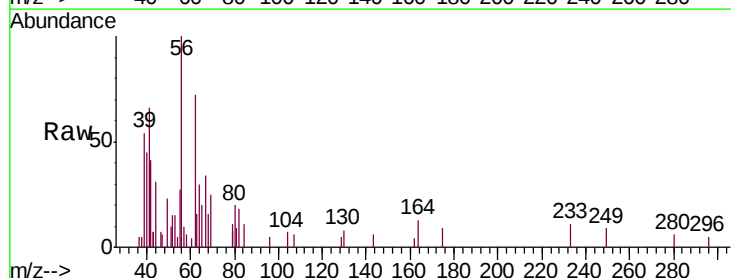
Acq: 19 Oct 2018 7:42

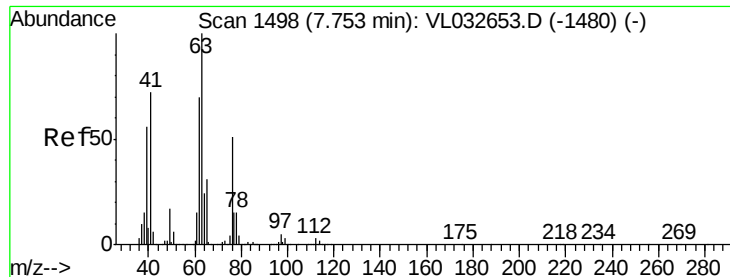
Tgt Ion: 62 Resp: 4161

Ion Ratio Lower Upper

62 100

98 1.7 4.4 6.6#





#39

1,2-Dichloropropane

Concen: 7.998 ppbv

RT: 7.31 min Scan# 1359

Delta R.T. -0.45 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

A-3

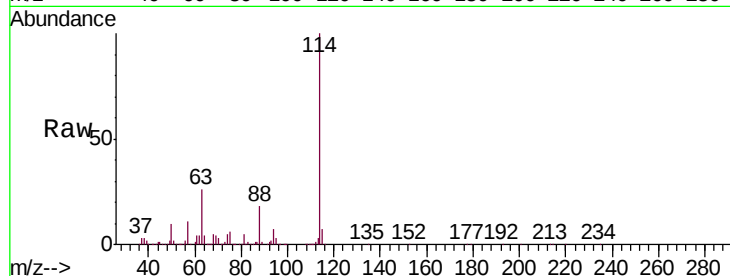
Tgt Ion: 63 Resp: 876078

Ion Ratio Lower Upper

63 100

41 0.0 56.2 84.4#

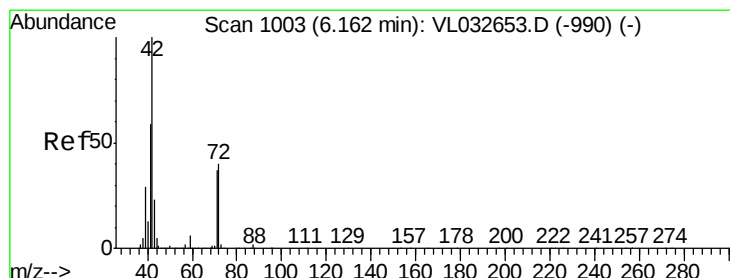
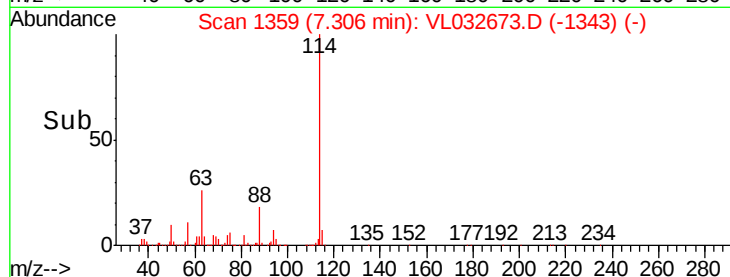
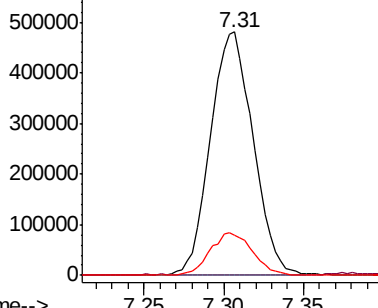
62 16.5 54.4 81.6#



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: 0.042 ppbv

RT: 6.14 min Scan# 997

Delta R.T. -0.02 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

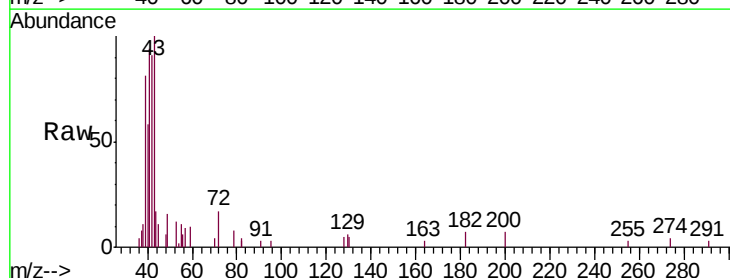
Tgt Ion: 42 Resp: 4399

Ion Ratio Lower Upper

42 100

72 93.3 32.4 48.6#

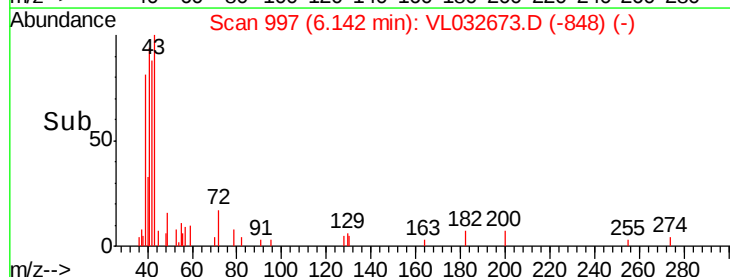
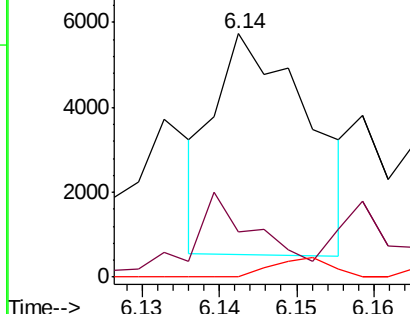
71 0.0 31.3 46.9#

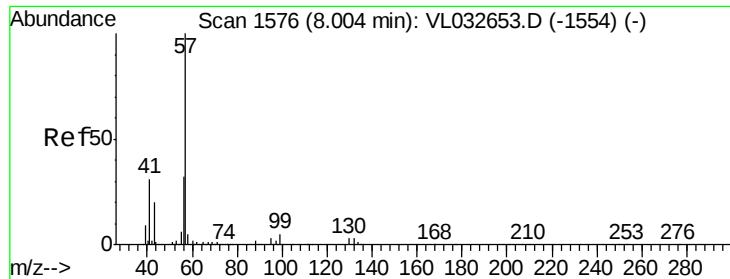


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.029 ppbv

RT: 8.01 min Scan# 1577

Delta R.T. 0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

A-3

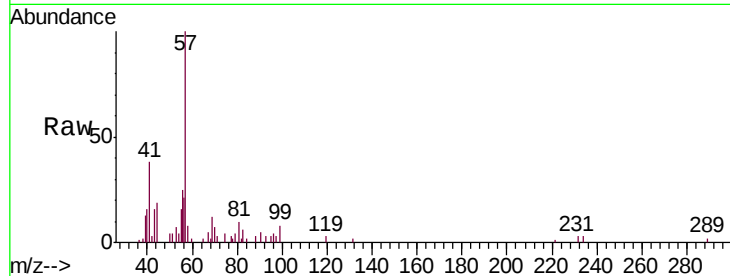
Tgt Ion: 57 Resp: 14225

Ion Ratio Lower Upper

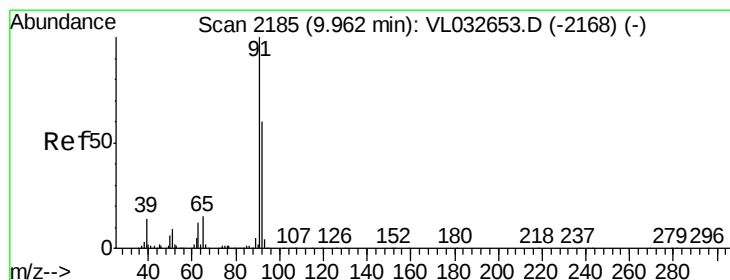
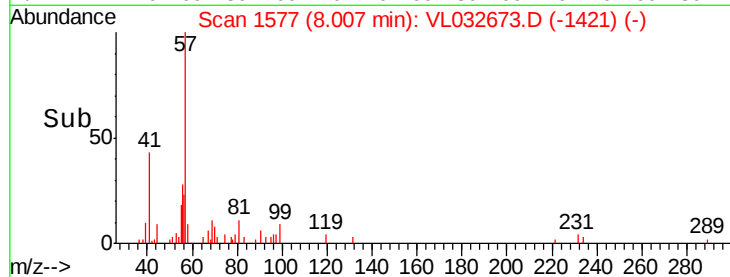
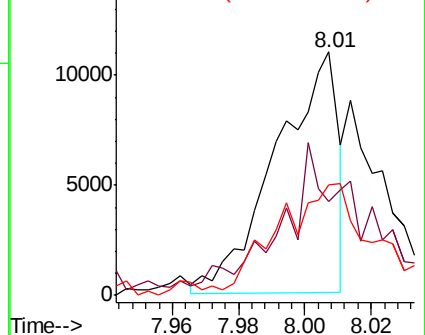
57 100

41 100.4 24.7 37.1#

56 0.0 25.0 37.4#



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



#53

Toluene

Concen: 2.952 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL032673.D

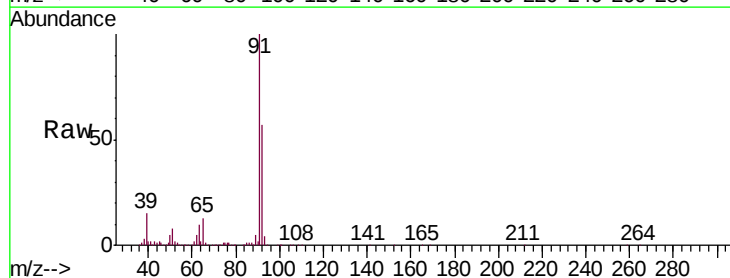
Acq: 19 Oct 2018 7:42

Tgt Ion: 91 Resp: 959902

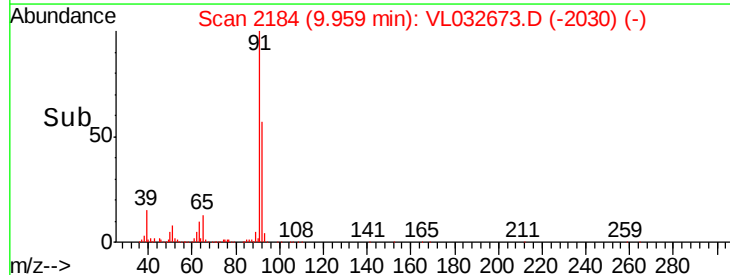
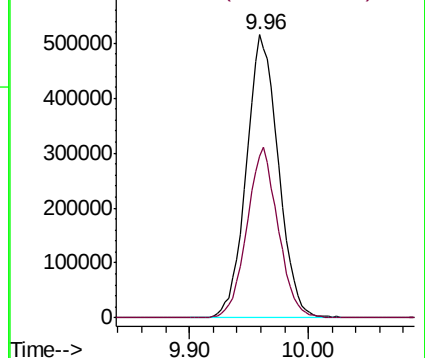
Ion Ratio Lower Upper

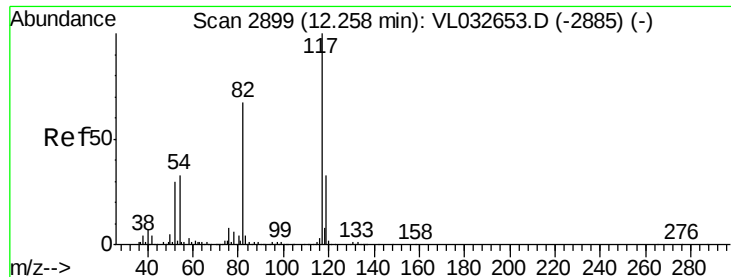
91 100

92 58.8 48.4 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0

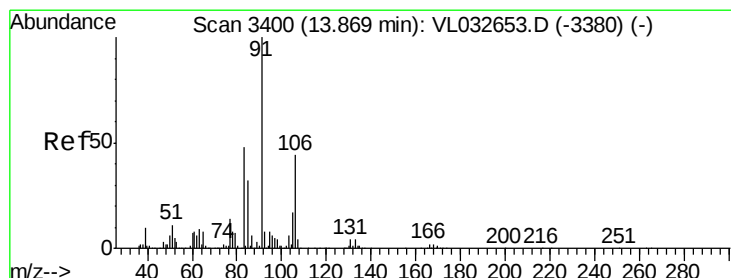
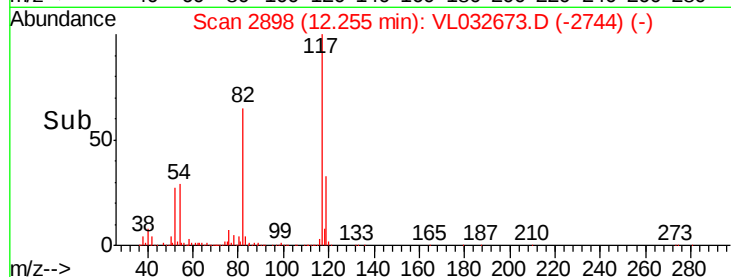
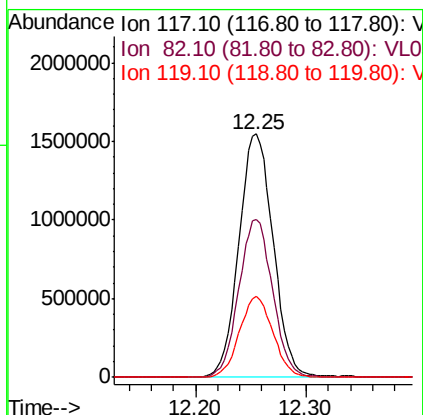
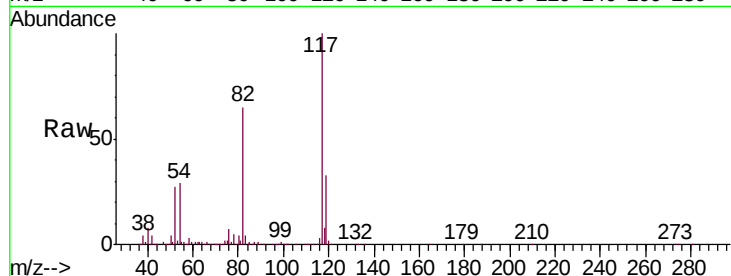




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2898
Delta R.T. -0.00 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

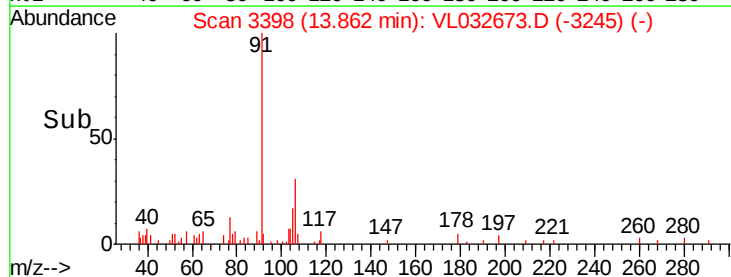
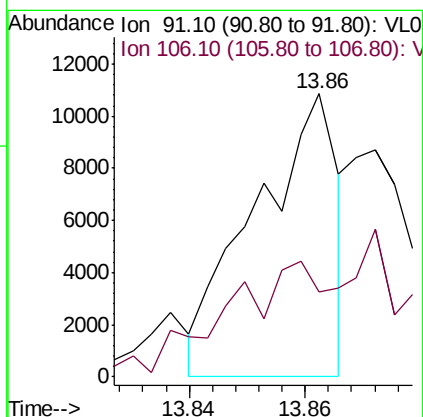
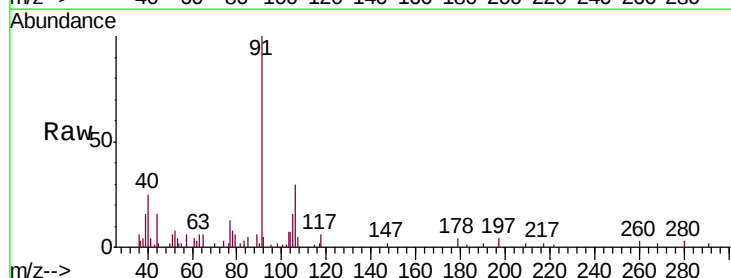
Instrument :
MSVOA_L
ClientSampleId :
A-3

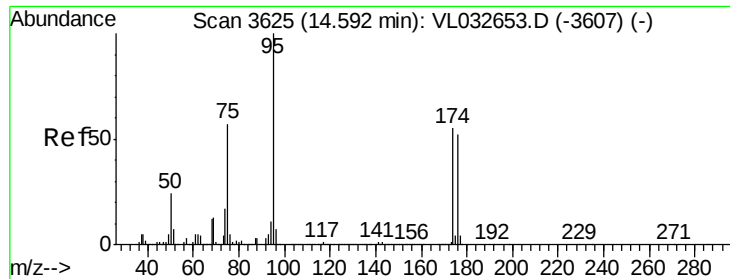
Tgt Ion:117 Resp: 3335682
Ion Ratio Lower Upper
117 100
82 64.4 52.7 79.1
119 32.5 26.7 40.1



#60
o-Xylene
Concen: 0.032 ppbv
RT: 13.86 min Scan# 3398
Delta R.T. -0.01 min
Lab File: VL032673.D
Acq: 19 Oct 2018 7:42

Tgt Ion: 91 Resp: 10771
Ion Ratio Lower Upper
91 100
106 0.0 22.1 66.1#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.814 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Instrument :

MSVOA_L

ClientSampleId :

A-3

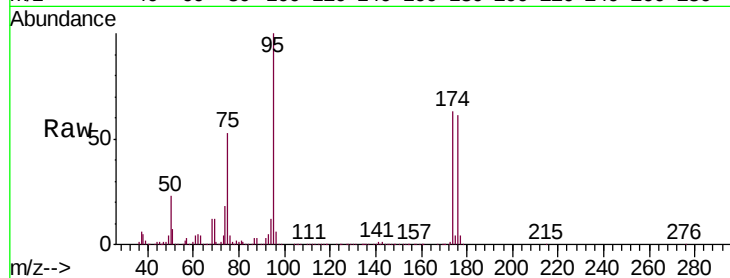
Tgt Ion: 95 Resp: 2437547

Ion Ratio Lower Upper

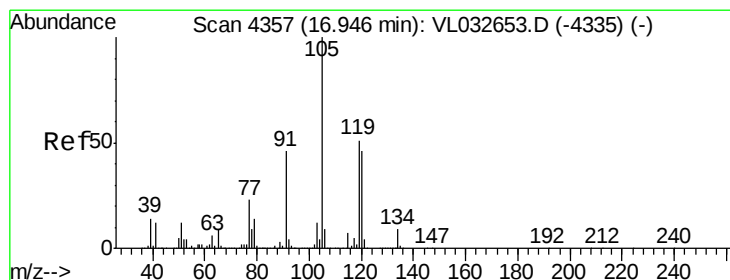
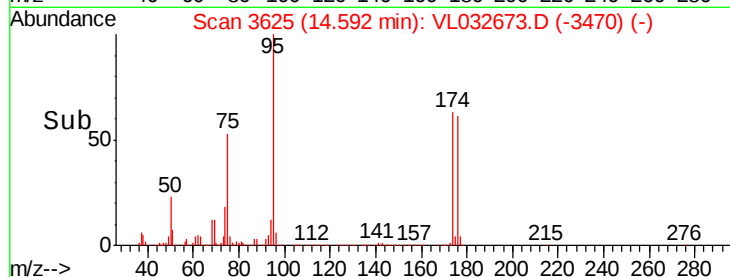
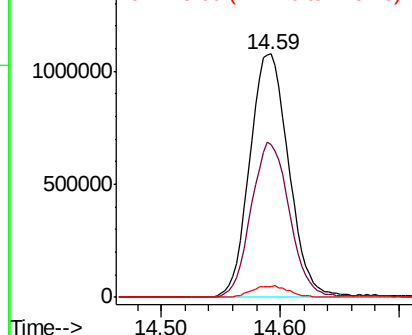
95 100

174 64.0 46.0 69.0

175 4.6 3.4 5.0



Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.062 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. -0.01 min

Lab File: VL032673.D

Acq: 19 Oct 2018 7:42

Tgt Ion: 105 Resp: 22721

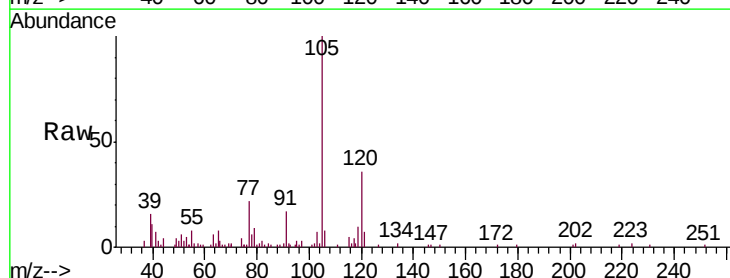
Ion Ratio Lower Upper

105 100

120 32.6 35.8 53.8#

91 15.3 33.2 49.8#

77 12.7 16.2 24.4#



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

