

Data File : VL032392.D
Acq On : 17 Aug 2018 1:03
Operator : SY/AP
Sample : J4457-10DL 5X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG10-MIVIDL

Quant Time: Aug 17 03:21:42 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081518AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug 15 14:58:02 2018
QLast Update : Wed Aug 15 14:58:02 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.81	49	1801269	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.35	114	3471718	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.30	117	3479061	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.64 95 2703960 10.19 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	235	Below Cal		95
3) Chlorodifluoromethane	3.05	51	26110	0.156	ppbv #	91
4) Chloromethane	3.21	50	6493	0.065	ppbv	93
9) Propene	3.07	41	33284	0.466	ppbv #	15
10) Heptane	8.30	43	7475	0.035	ppbv #	31
11) Trichlorofluoromethane	4.05	101	9200	0.046	ppbv	98
13) Ethanol	3.69	45	46506	2.536	ppbv #	36
15) Acetone	3.95	43	1187334	6.938	ppbv	98
17) tert-Butyl alcohol	4.41	59	63304	2.204	ppbv #	92
19) Isopropyl Alcohol	4.07	45	169558	1.471	ppbv #	95
20) Methylene Chloride	4.46	84	90201	1.396	ppbv	96
23) Vinyl Acetate	5.20	43	44131	0.149	ppbv #	65
25) Ethyl Acetate	5.82	43	104954	0.286	ppbv #	85
26) Hexane	5.83	57	40236	0.246	ppbv #	70
27) Carbon Disulfide	4.67	76	18943	0.124	ppbv #	75
30) Cyclohexane	7.30	84	8120	0.065	ppbv #	1
34) 2-Butanone	5.39	43	146443	0.620	ppbv	100
36) Benzene	7.06	78	59495	0.202	ppbv	100
39) 1,2-Dichloropropane	7.35	63	968033	7.873	ppbv #	25
53) Toluene	10.01	91	449458	1.393	ppbv	99
58) Ethyl Benzene	12.93	91	51441	0.123	ppbv #	79
59) m/p-Xylene	13.22	91	30782	0.087	ppbv #	30
60) o-Xylene	13.91	91	36918	0.106	ppbv #	66
61) Styrene	13.75	104	11573	0.047	ppbv #	3
65) tert-Butylbenzene	17.17	119	112832	0.266	ppbv #	25
73) 1,3,5-Trimethylbenzene	16.22	105	17931	0.048	ppbv	94
74) 1,2,4-Trimethylbenzene	17.00	105	66853	0.168	ppbv #	69
79) Naphthalene	22.48	128	4460	0.339	ppbv #	50

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

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ALS Vial : 1 Sample Multiplier: 1

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ClientSampleId :

SG10-MIVIDL

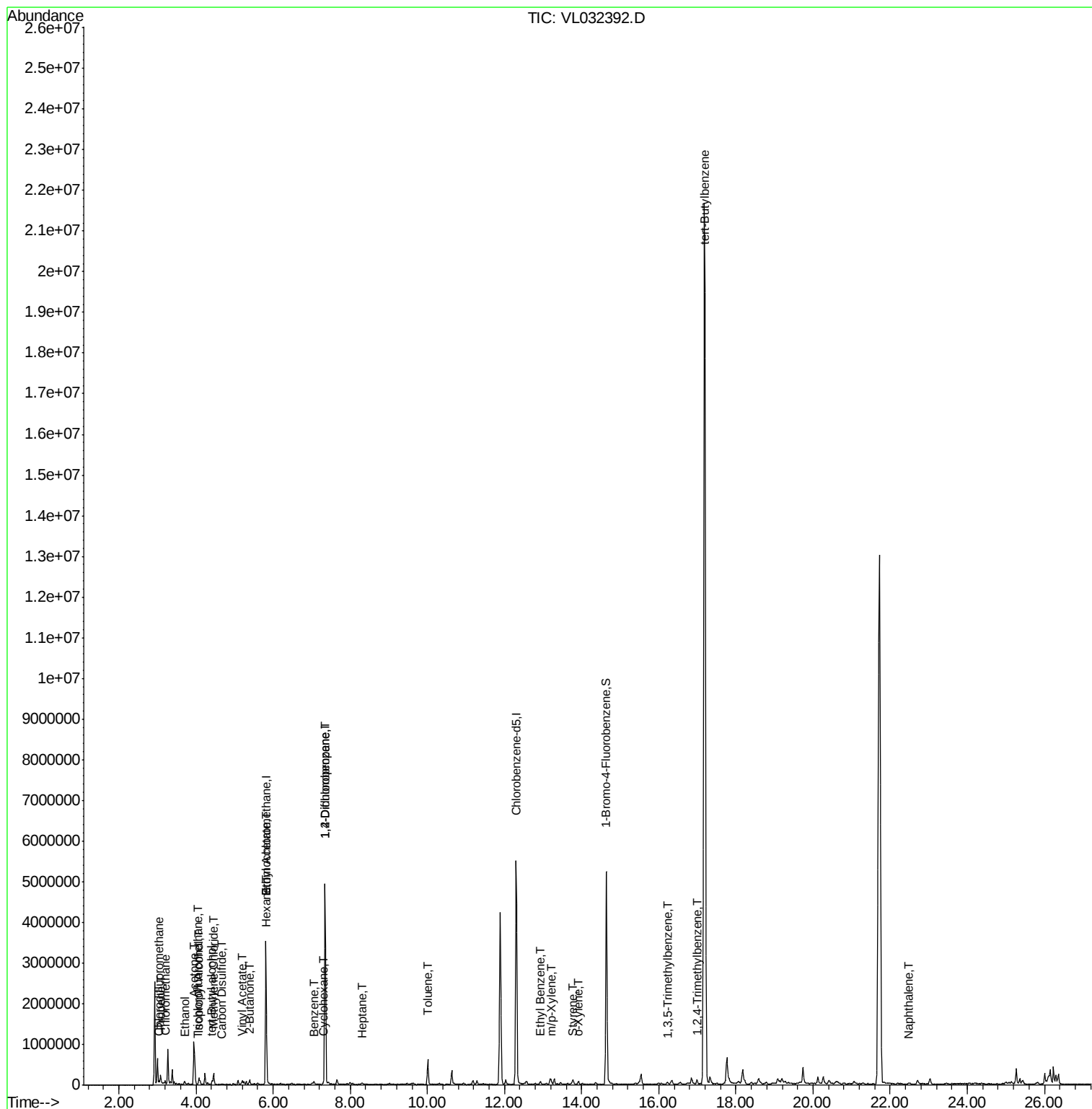
Quant Time: Aug 17 03:21:42 2018

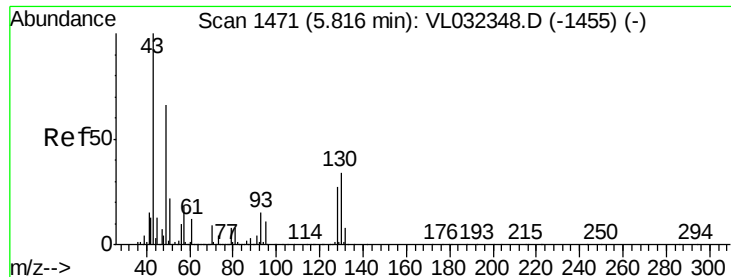
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081518AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug 15 14:58:02 2018

QLast Update : Wed Aug 15 14:58:02 2018

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.81 min Scan# 1470

Delta R.T. -0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

SG10-MIVIDL

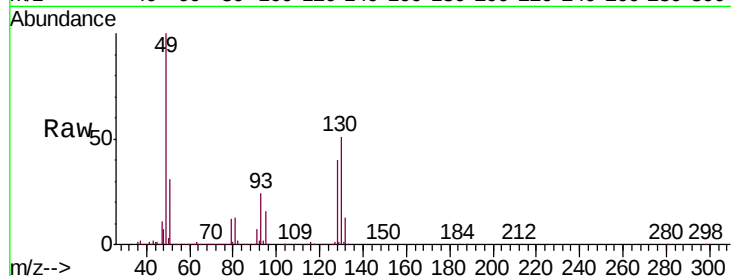
Tgt Ion: 49 Resp: 1801269

Ion Ratio Lower Upper

49 100

128 40.4 20.5 61.6

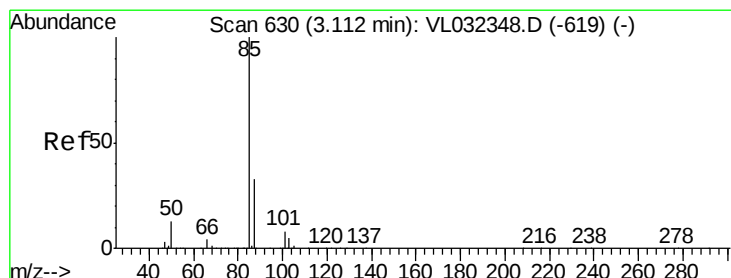
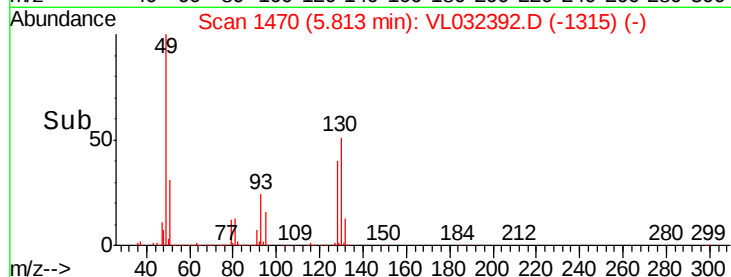
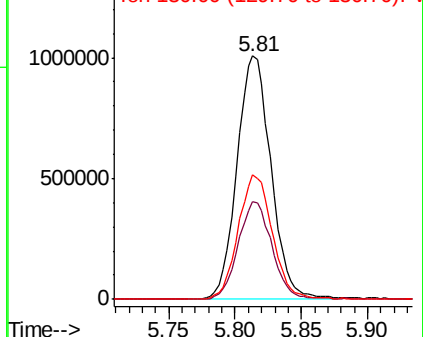
130 51.7 26.2 78.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 3.05 min Scan# 610

Delta R.T. -0.06 min

Lab File: VL032392.D

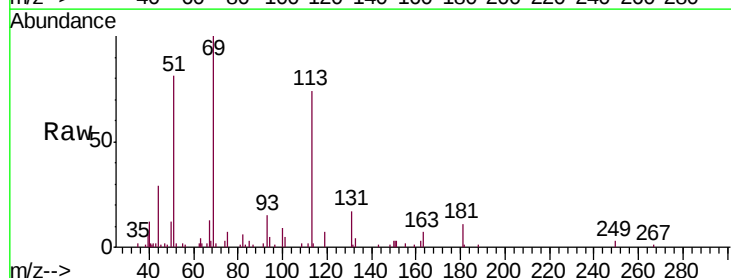
Acq: 17 Aug 2018 1:03

Tgt Ion: 85 Resp: 235

Ion Ratio Lower Upper

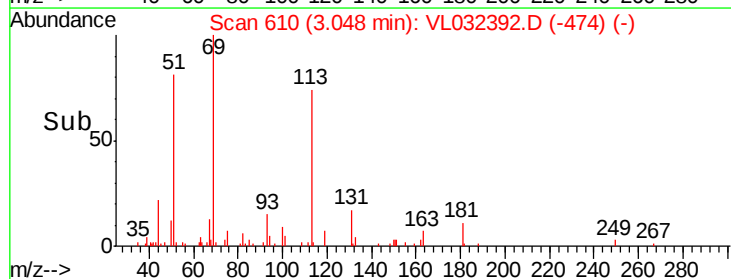
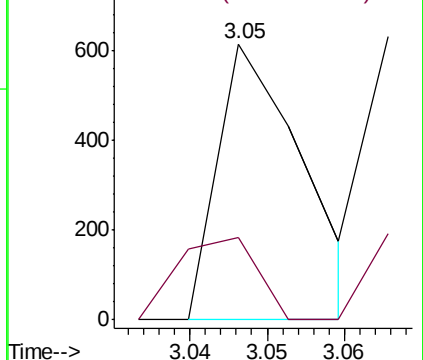
85 100

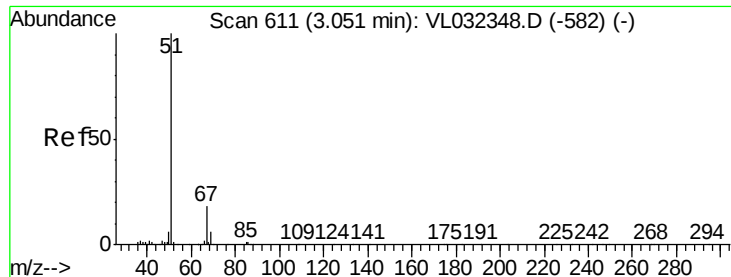
87 30.1 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.156 ppbv

RT: 3.05 min Scan# 611

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

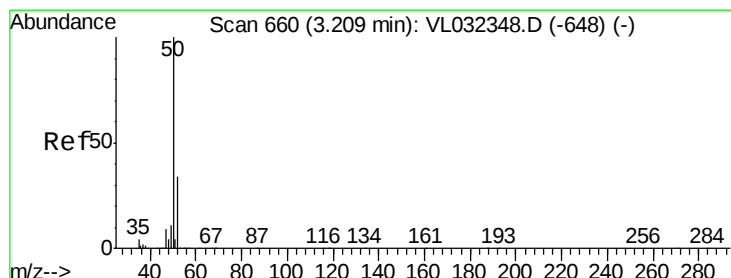
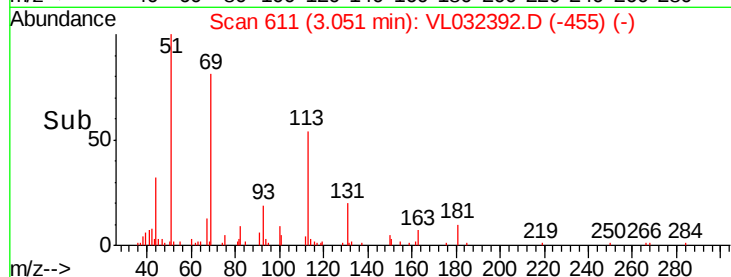
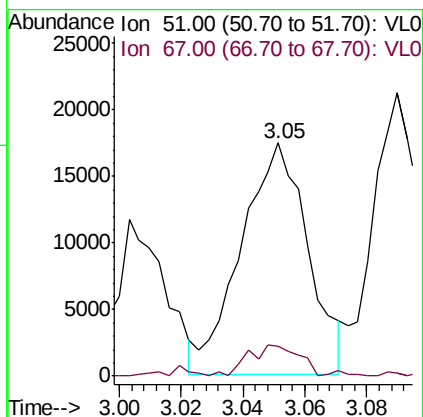
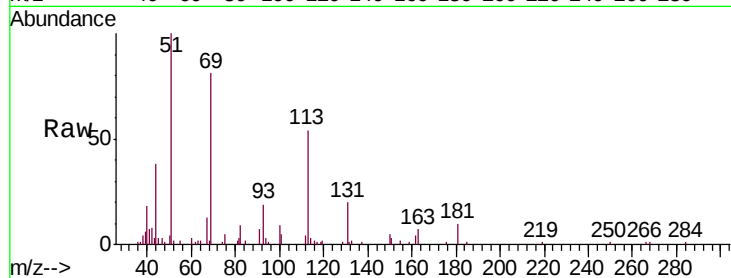
SG10-MIVIDL

Tgt Ion: 51 Resp: 26110

Ion Ratio Lower Upper

51 100

67 13.2 13.7 20.5#



#4

Chloromethane

Concen: 0.065 ppbv

RT: 3.21 min Scan# 660

Delta R.T. 0.00 min

Lab File: VL032392.D

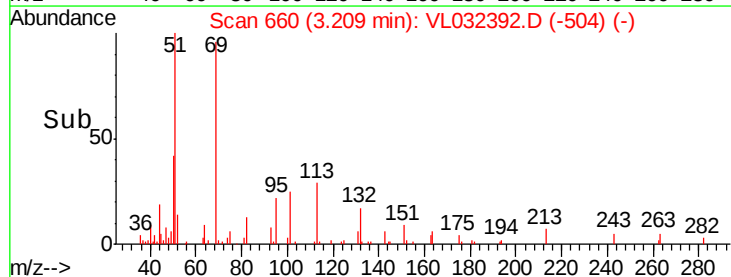
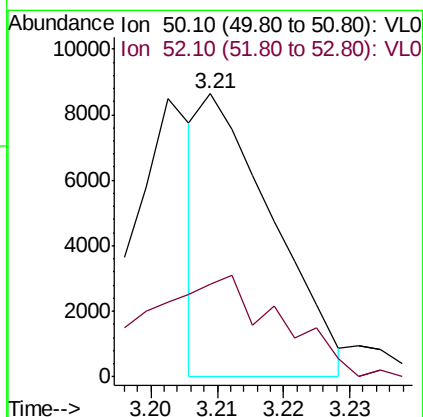
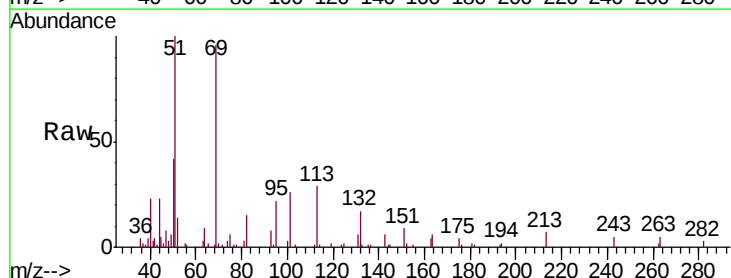
Acq: 17 Aug 2018 1:03

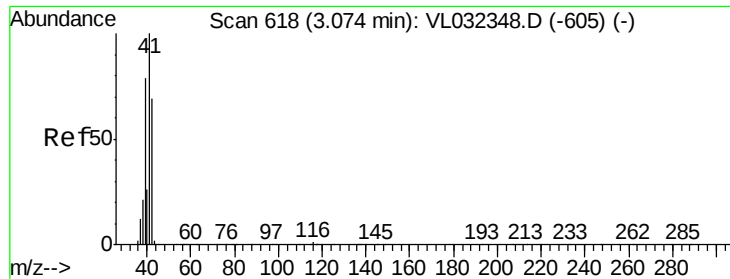
Tgt Ion: 50 Resp: 6493

Ion Ratio Lower Upper

50 100

52 29.5 26.8 40.2





#9

Propene

Concen: 0.466 ppbv

RT: 3.07 min Scan# 618

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

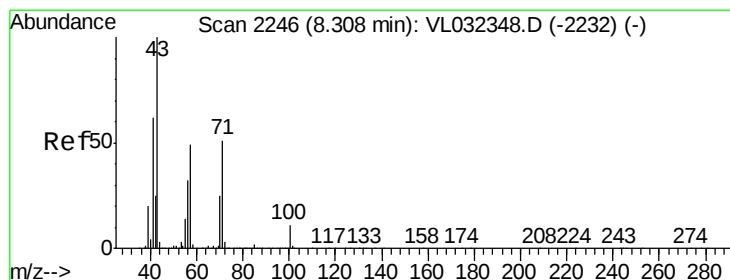
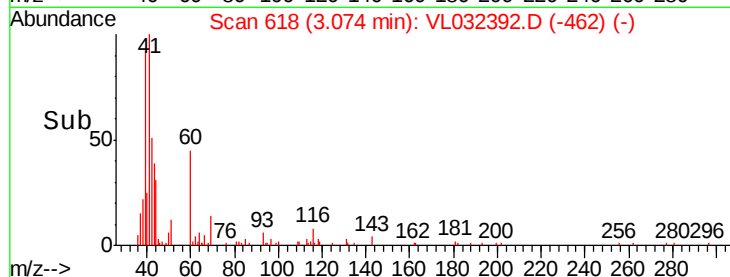
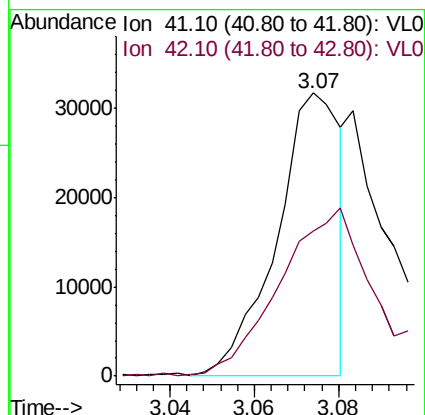
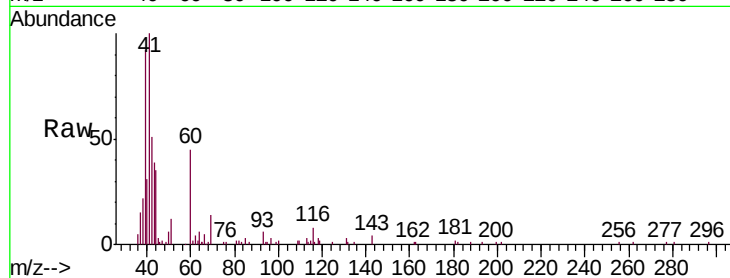
SG10-MIVIDL

Tgt Ion: 41 Resp: 33284

Ion Ratio Lower Upper

41 100

42 0.0 55.9 83.9#



#10

Heptane

Concen: 0.035 ppbv

RT: 8.30 min Scan# 2244

Delta R.T. -0.01 min

Lab File: VL032392.D

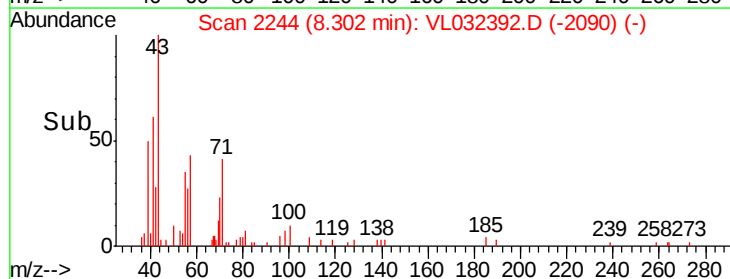
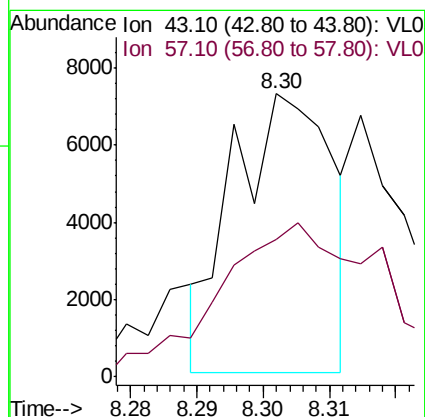
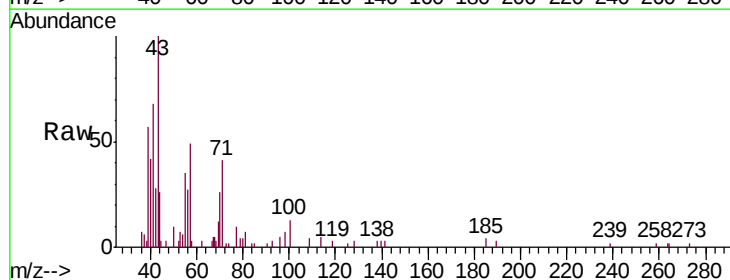
Acq: 17 Aug 2018 1:03

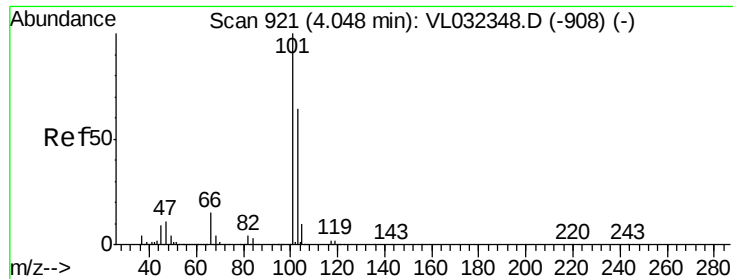
Tgt Ion: 43 Resp: 7475

Ion Ratio Lower Upper

43 100

57 96.9 39.5 59.3#

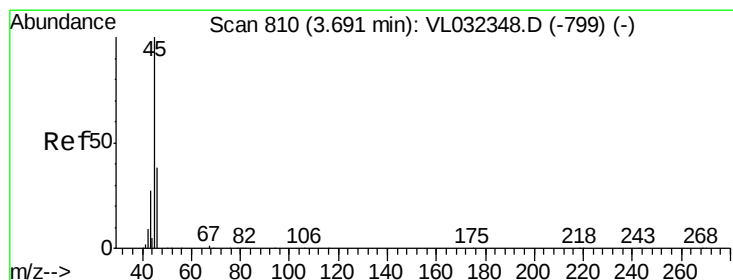
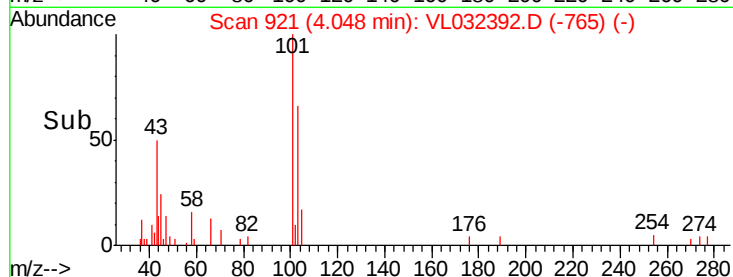
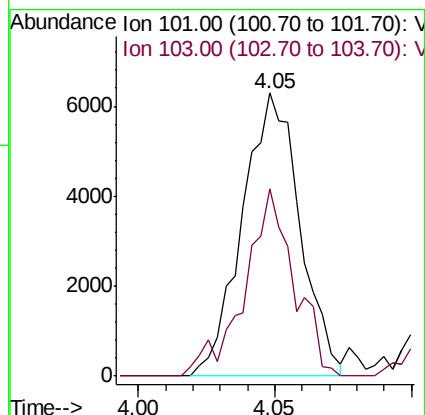
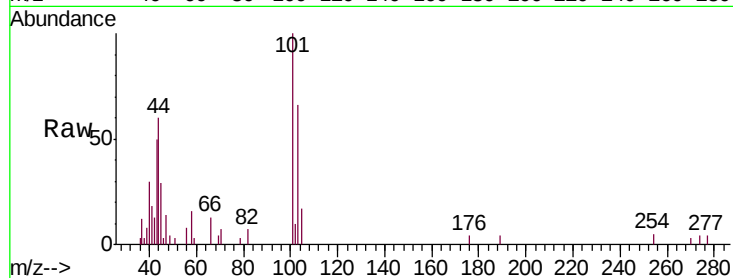




#11
 Trichlorofluoromethane
 Concen: 0.046 ppbv
 RT: 4.05 min Scan# 921
 Delta R.T. 0.00 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

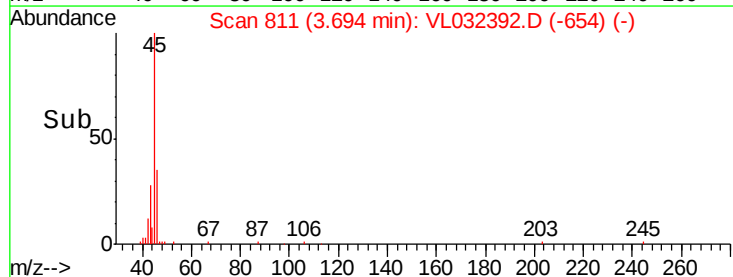
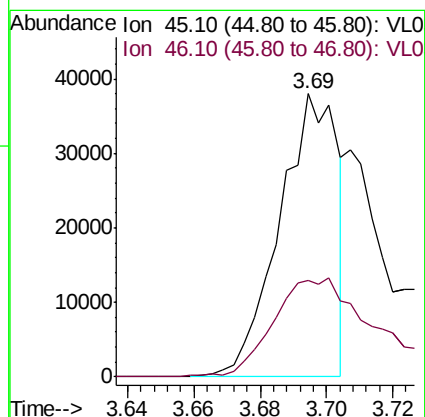
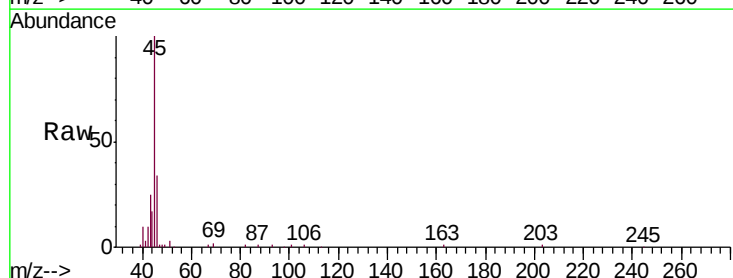
Instrument :
 MSVOA_L
 ClientSampleId :
 SG10-MIVIDL

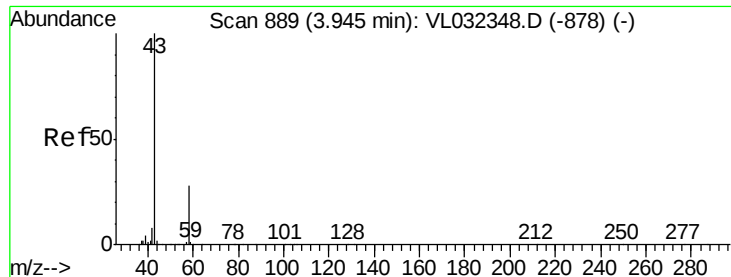
Tgt Ion:101 Resp: 9200
 Ion Ratio Lower Upper
 101 100
 103 66.1 51.4 77.0



#13
 Ethanol
 Concen: 2.536 ppbv
 RT: 3.69 min Scan# 811
 Delta R.T. 0.00 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

Tgt Ion: 45 Resp: 46506
 Ion Ratio Lower Upper
 45 100
 46 0.0 15.6 62.4#





#15

Acetone

Concen: 6.938 ppbv

RT: 3.95 min Scan# 889

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

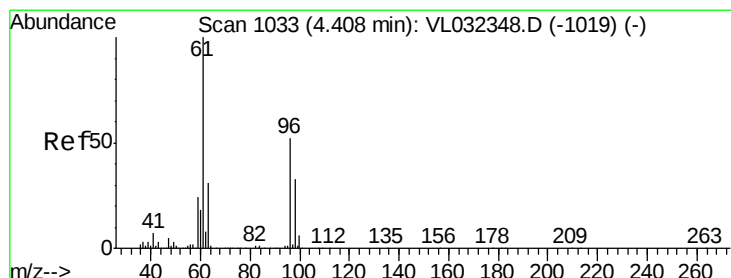
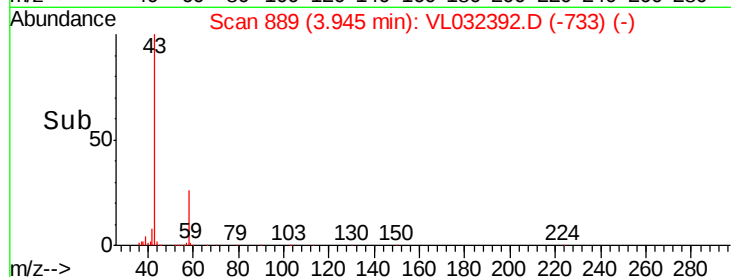
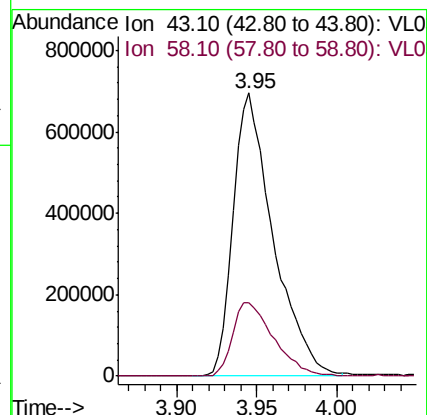
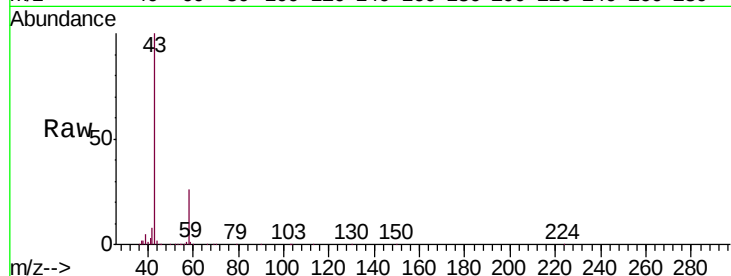
SG10-MIVIDL

Tgt Ion: 43 Resp: 1187334

Ion Ratio Lower Upper

43 100

58 27.1 22.4 33.6



#17

tert-Butyl alcohol

Concen: 2.204 ppbv

RT: 4.41 min Scan# 1035

Delta R.T. 0.01 min

Lab File: VL032392.D

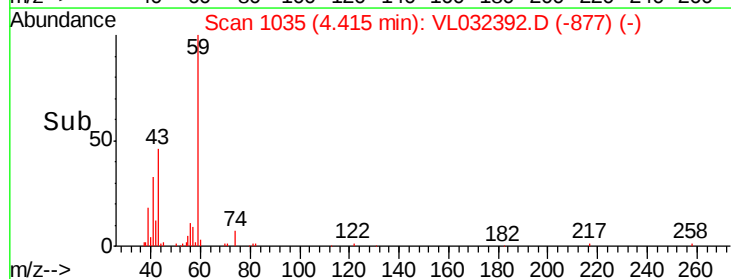
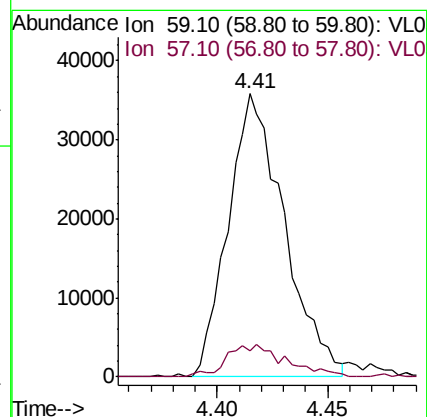
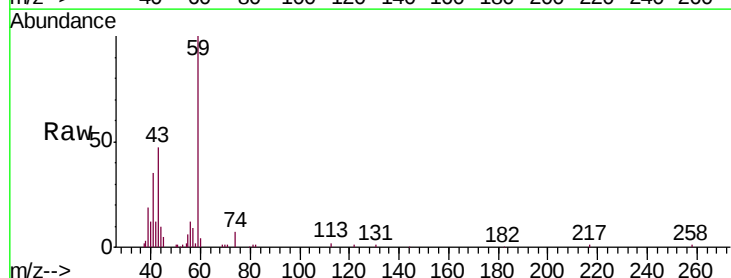
Acq: 17 Aug 2018 1:03

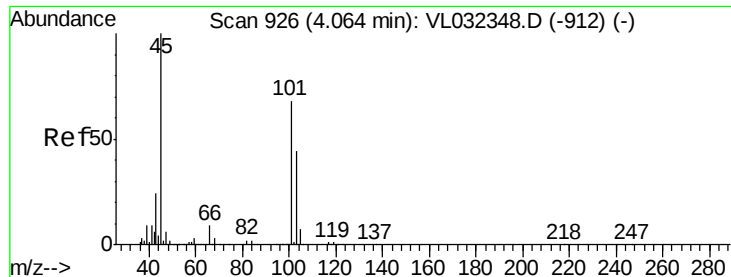
Tgt Ion: 59 Resp: 63304

Ion Ratio Lower Upper

59 100

57 12.3 7.6 11.4#





#19

Isopropyl Alcohol

Concen: 1.471 ppbv

RT: 4.07 min Scan# 929

Delta R.T. 0.01 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

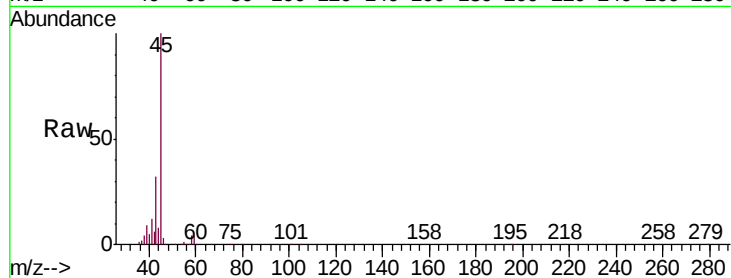
SG10-MIVIDL

Tgt Ion: 45 Resp: 169558

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.07

100000

80000

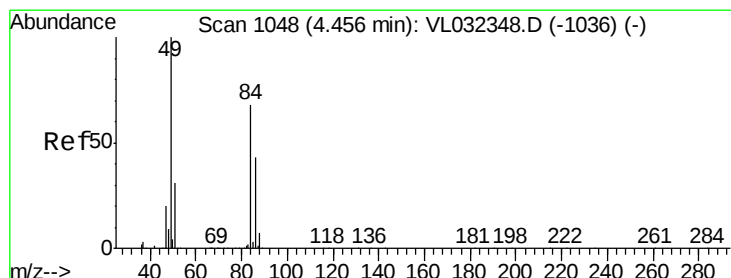
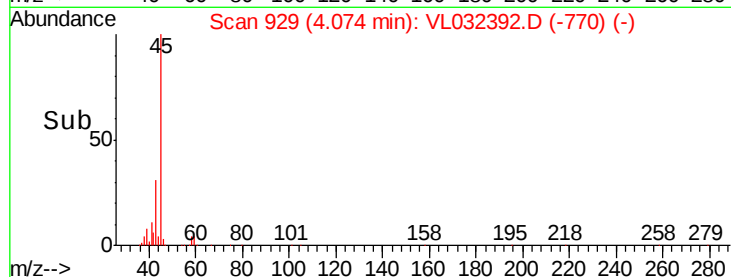
60000

40000

20000

0

Time-->



#20

Methylene Chloride

Concen: 1.396 ppbv

RT: 4.46 min Scan# 1048

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Tgt Ion: 84 Resp: 90201

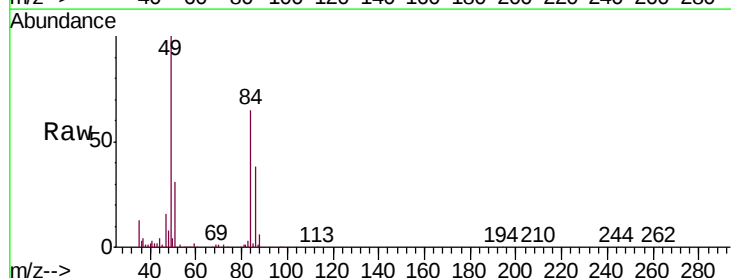
Ion Ratio Lower Upper

84 100

49 153.4 117.3 175.9

51 46.4 36.6 55.0

86 58.7 49.8 74.8



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

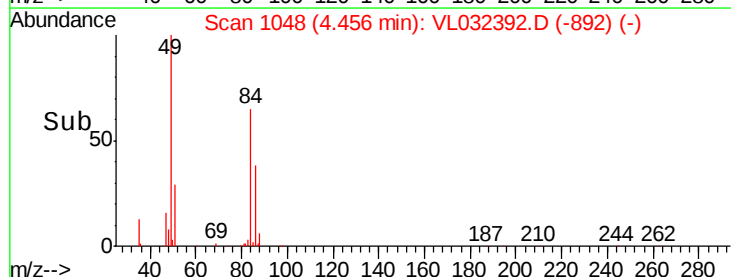
Ion 86.00 (85.70 to 86.70): VL0

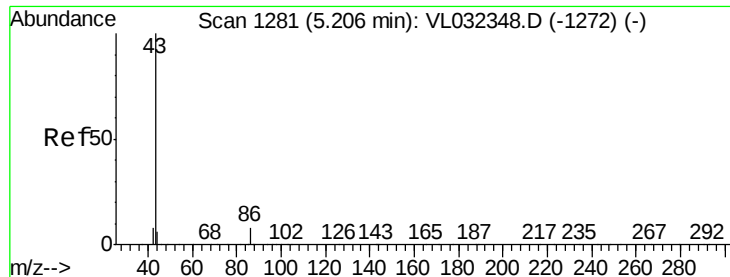
100000

50000

0

Time-->





#23

Vinyl Acetate

Concen: 0.149 ppbv

RT: 5.20 min Scan# 1279

Delta R.T. -0.01 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

SG10-MIVIDL

Tgt Ion: 43 Resp: 44131

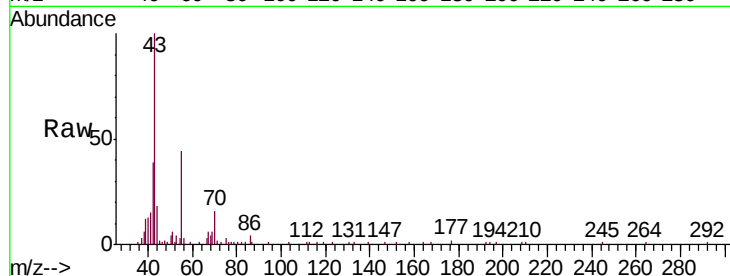
Ion Ratio Lower Upper

43 100

86 4.6 5.5 8.3#

42 34.7 7.0 10.6#

44 10.1 4.6 6.8#

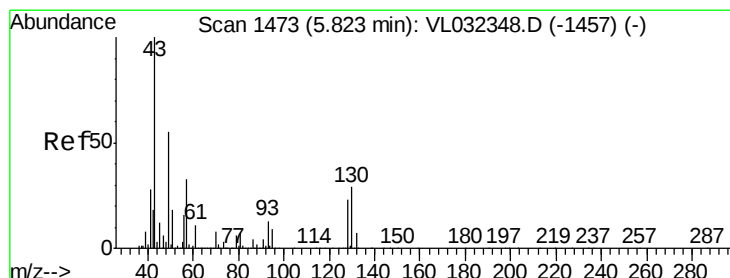
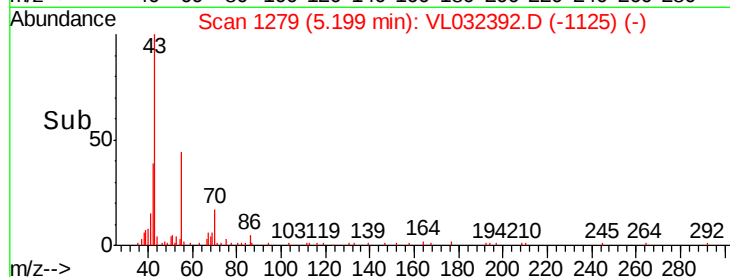
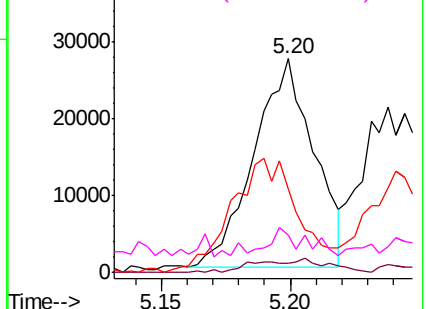


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.286 ppbv

RT: 5.82 min Scan# 1473

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Tgt Ion: 43 Resp: 104954

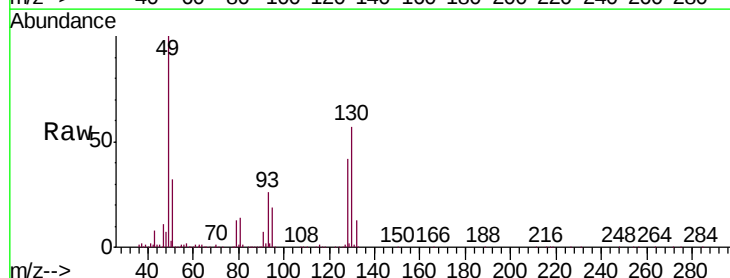
Ion Ratio Lower Upper

43 100

45 22.8 7.9 11.9#

61 10.2 7.4 11.2

70 8.2 5.8 8.6

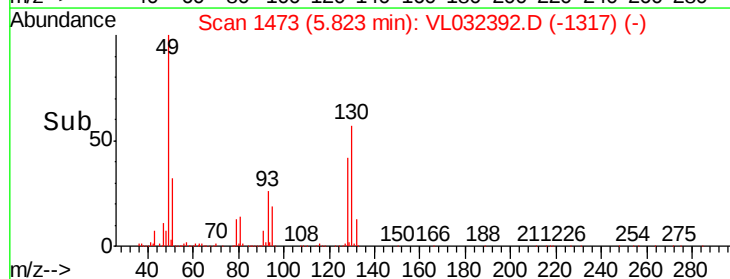
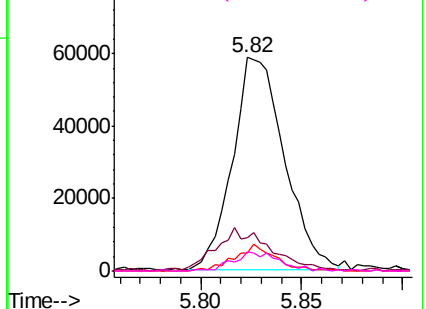


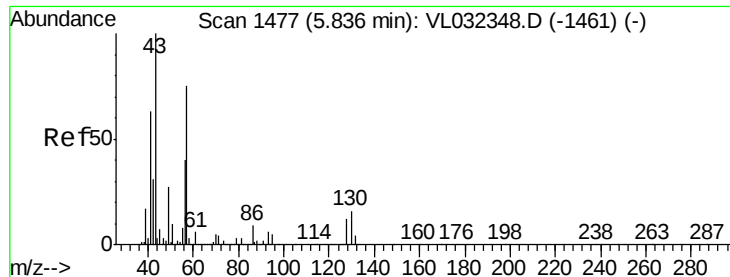
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 0.246 ppbv

RT: 5.83 min Scan# 1476

Delta R.T. -0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

SG10-MIVIDL

Tgt Ion: 57 Resp: 40236

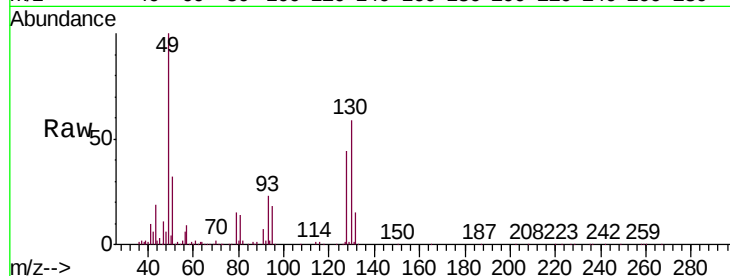
Ion Ratio Lower Upper

57 100

41 106.3 68.0 102.0#

43 276.3 175.3 262.9#

56 64.0 42.0 63.0#

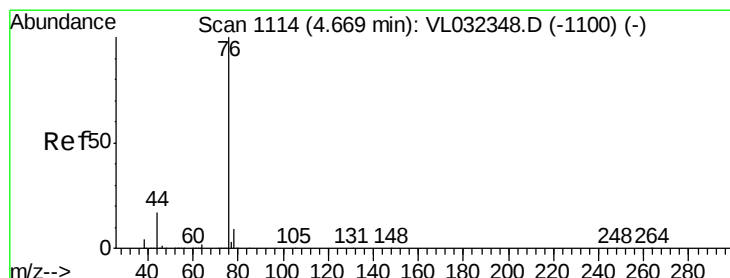
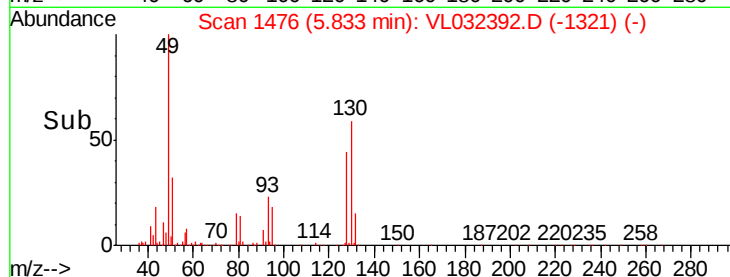
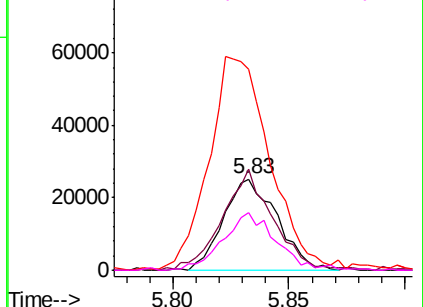


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.124 ppbv

RT: 4.67 min Scan# 1115

Delta R.T. 0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

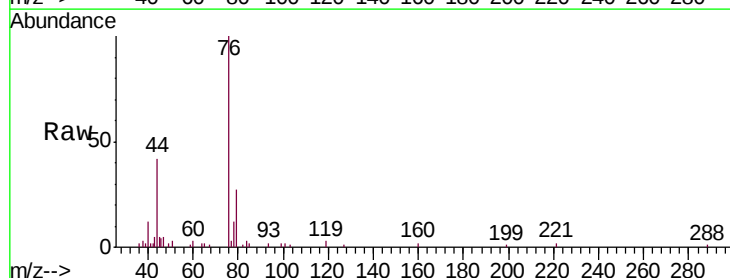
Tgt Ion: 76 Resp: 18943

Ion Ratio Lower Upper

76 100

44 30.2 14.4 21.6#

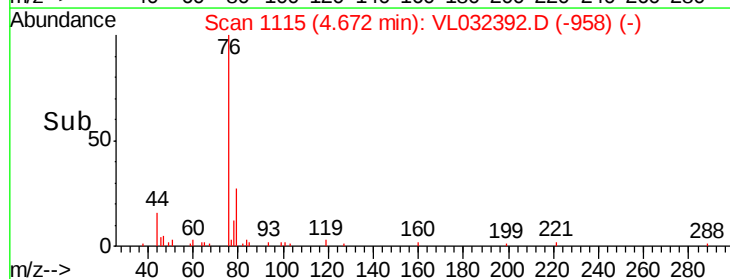
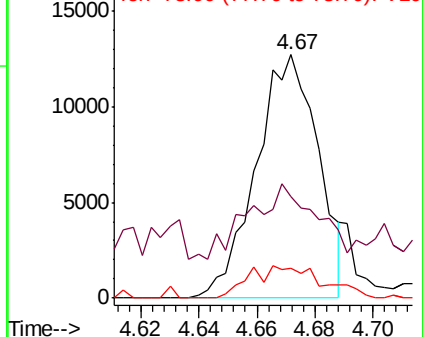
78 16.7 7.4 11.0#

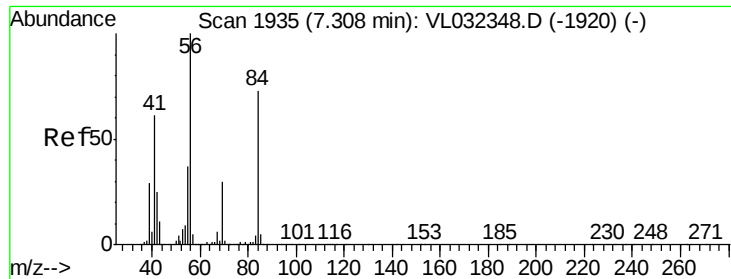


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

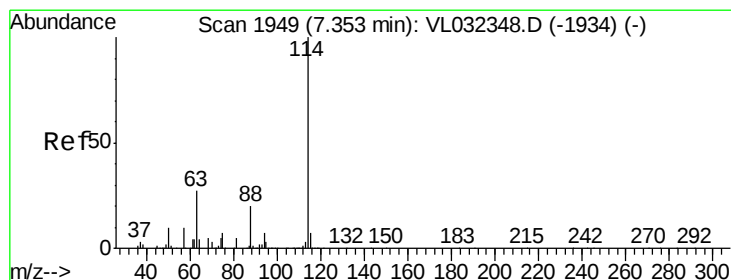
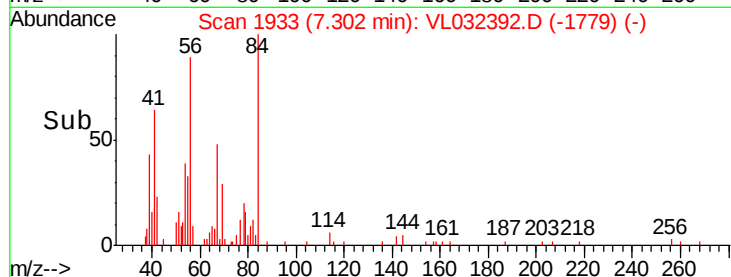
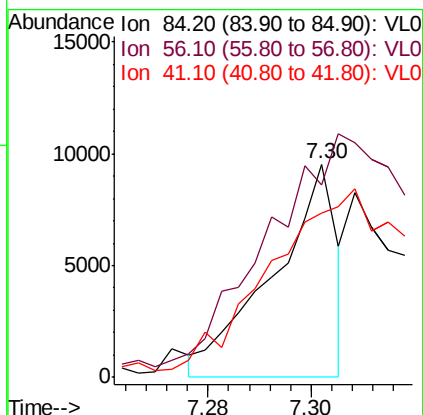
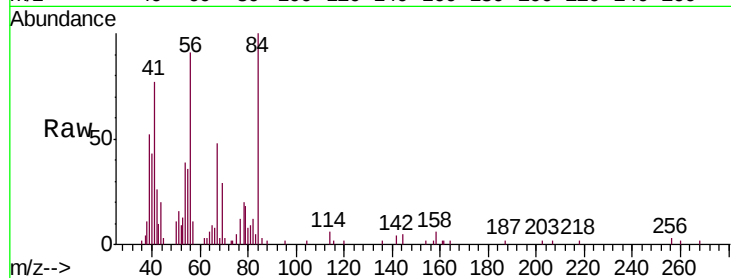




#30
Cyclohexane
Concen: 0.065 ppbv
RT: 7.30 min Scan# 1933
Delta R.T. -0.01 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

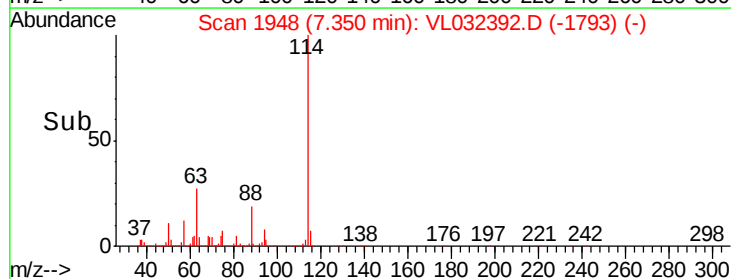
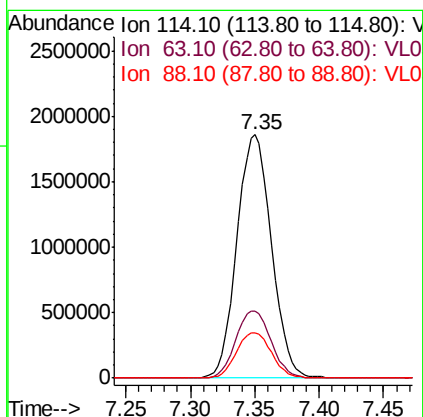
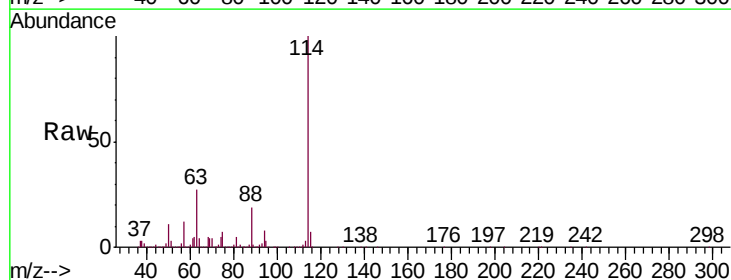
Instrument :
MSVOA_L
ClientSampleId :
SG10-MIVIDL

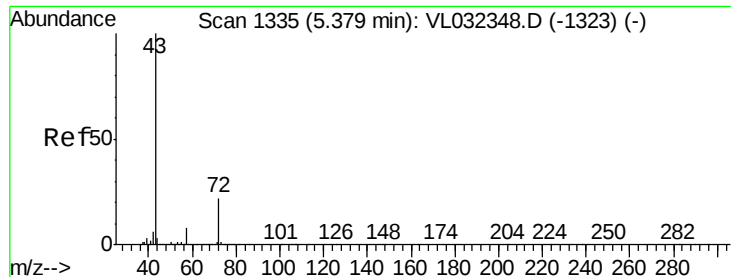
Tgt Ion: 84 Resp: 8120
Ion Ratio Lower Upper
84 100
56 0.0 115.7 173.5#
41 0.0 67.9 101.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.35 min Scan# 1948
Delta R.T. -0.00 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

Tgt Ion: 114 Resp: 3471718
Ion Ratio Lower Upper
114 100
63 28.1 22.0 33.0
88 19.0 15.3 22.9

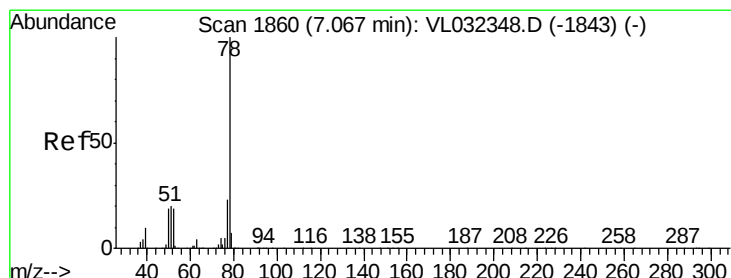
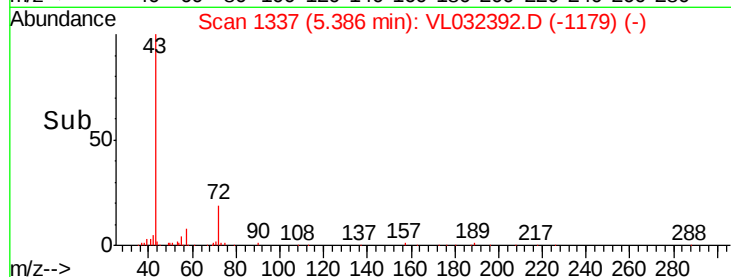
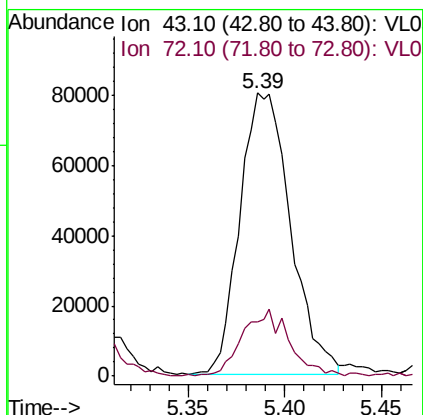
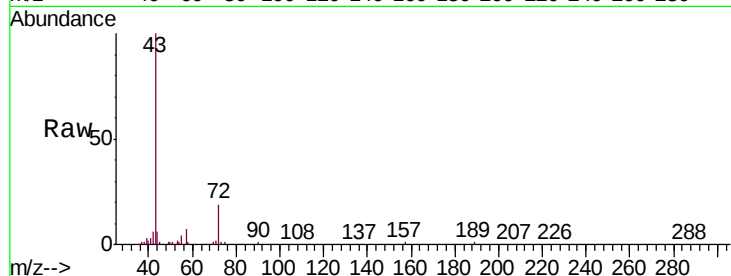




#34
2-Butanone
Concen: 0.620 ppbv
RT: 5.39 min Scan# 1337
Delta R.T. 0.01 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

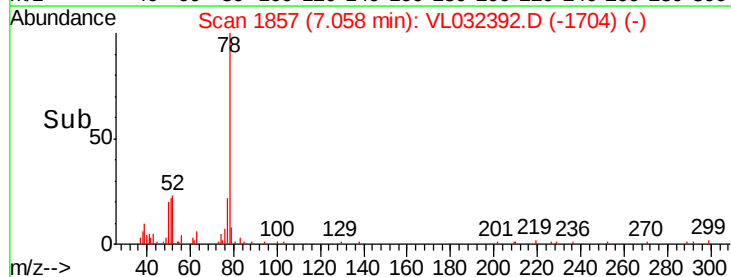
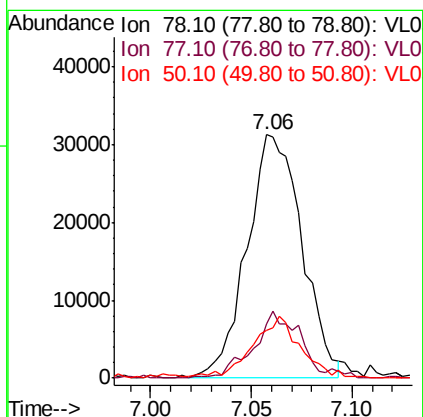
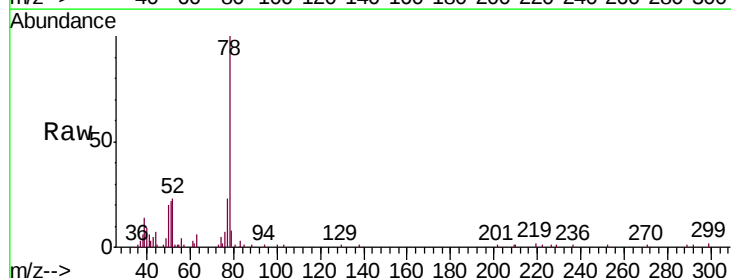
Instrument :
MSVOA_L
ClientSampleId :
SG10-MIVIDL

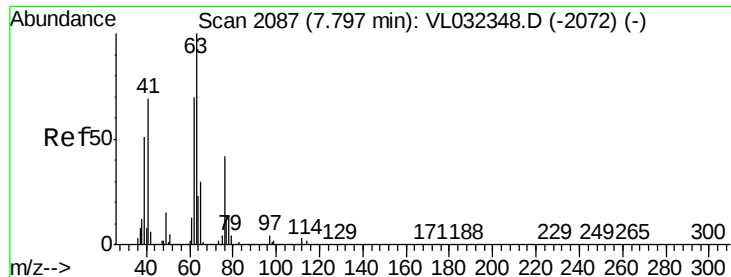
Tgt Ion: 43 Resp: 146443
Ion Ratio Lower Upper
43 100
72 22.4 17.9 26.9



#36
Benzene
Concen: 0.202 ppbv
RT: 7.06 min Scan# 1857
Delta R.T. -0.01 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

Tgt Ion: 78 Resp: 59495
Ion Ratio Lower Upper
78 100
77 22.5 18.0 27.0
50 18.6 15.1 22.7

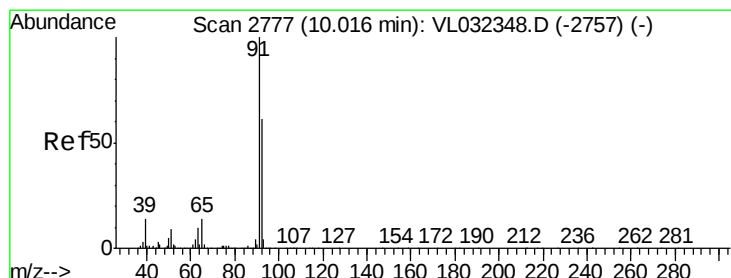
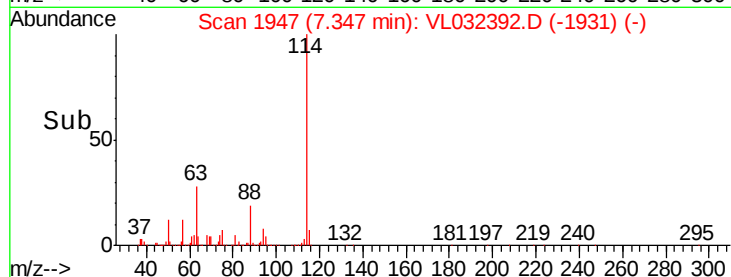
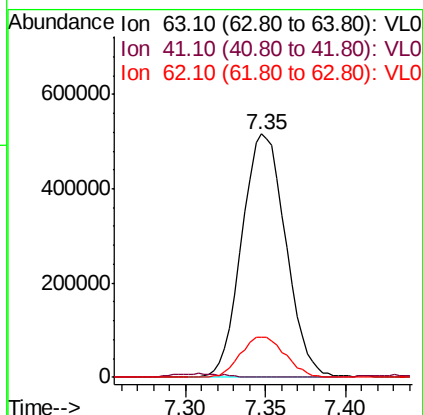
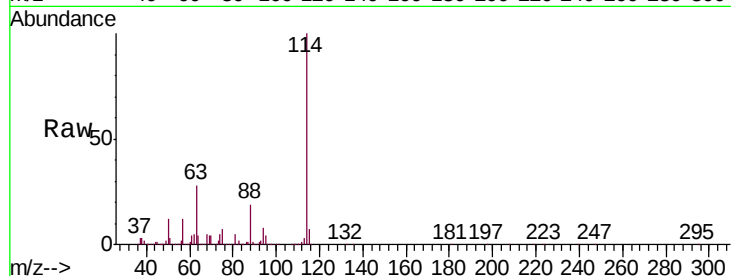




#39
 1,2-Dichloropropane
 Concen: 7.873 ppbv
 RT: 7.35 min Scan# 1947
 Delta R.T. -0.45 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

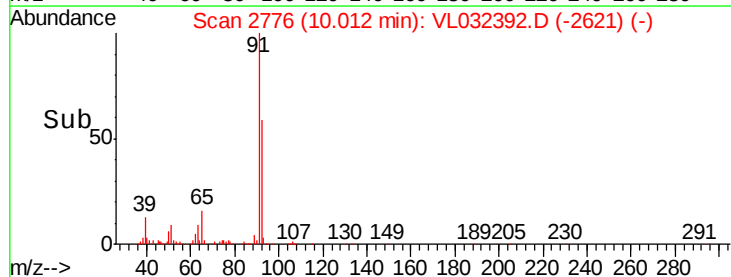
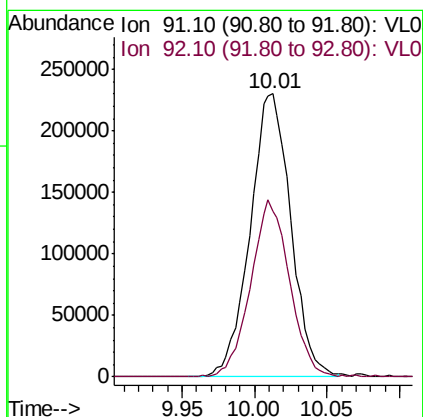
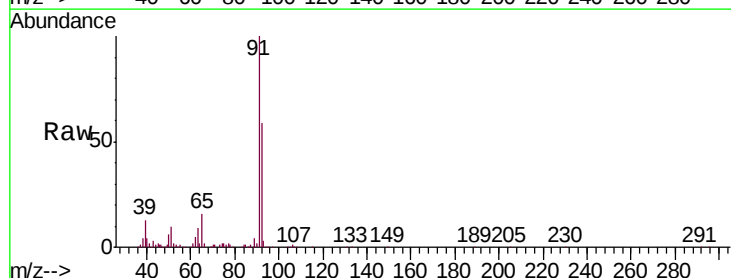
Instrument :
 MSVOA_L
 ClientSampleId :
 SG10-MIVIDL

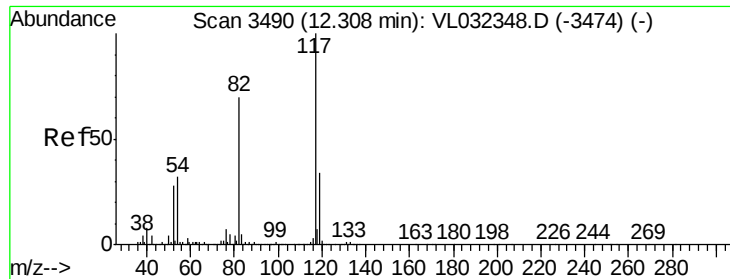
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.5	83.3#
62	16.6	56.3	84.5#



#53
 Toluene
 Concen: 1.393 ppbv
 RT: 10.01 min Scan# 2776
 Delta R.T. -0.00 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.7	73.1

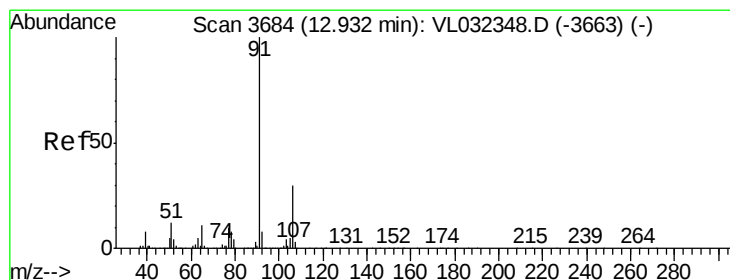
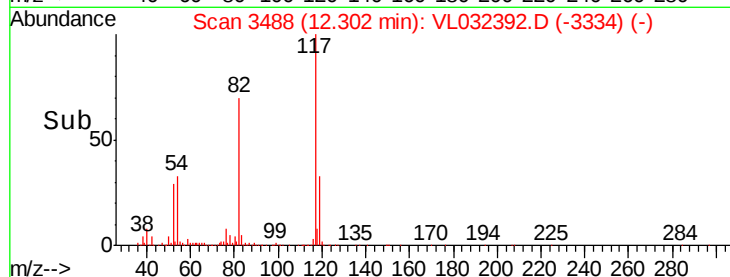
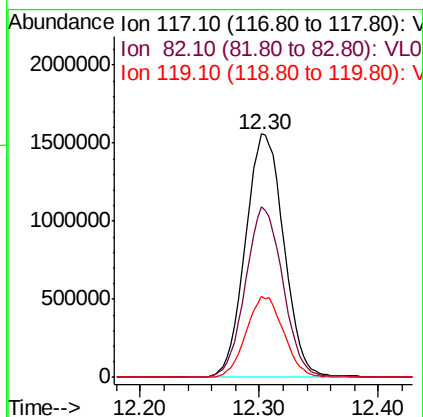
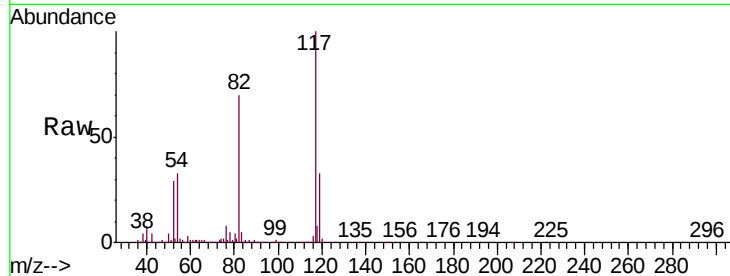




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.30 min Scan# 3488
Delta R.T. -0.01 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

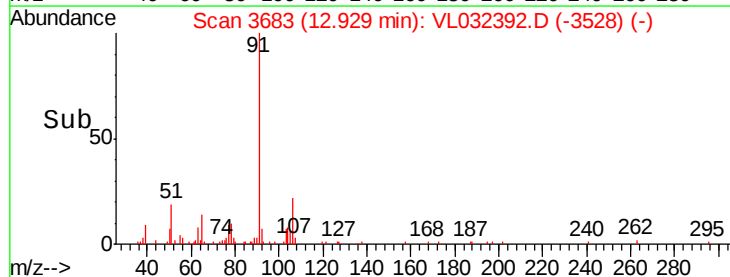
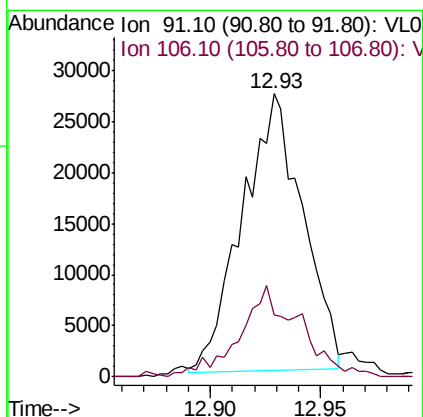
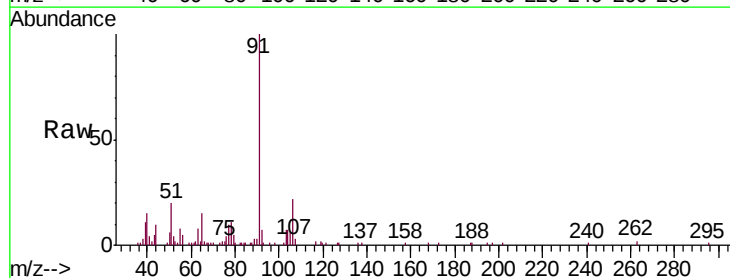
Instrument :
MSVOA_L
ClientSampleId :
SG10-MIVIDL

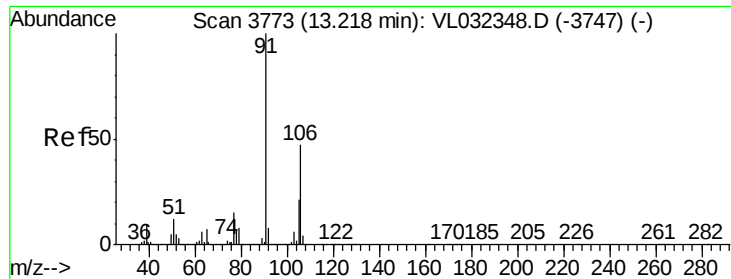
Tgt Ion:117 Resp: 3479061
Ion Ratio Lower Upper
117 100
82 68.5 55.1 82.7
119 32.6 46.0 69.0#



#58
Ethyl Benzene
Concen: 0.123 ppbv
RT: 12.93 min Scan# 3683
Delta R.T. -0.00 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

Tgt Ion: 91 Resp: 51441
Ion Ratio Lower Upper
91 100
106 19.2 24.3 36.5#

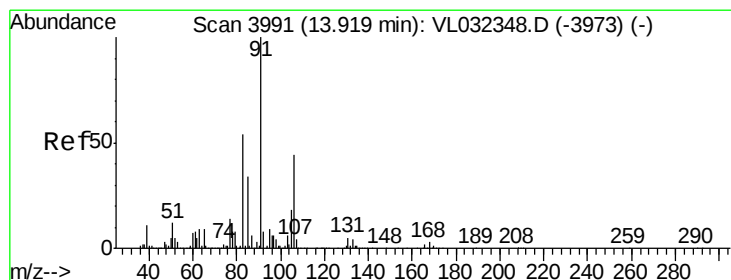
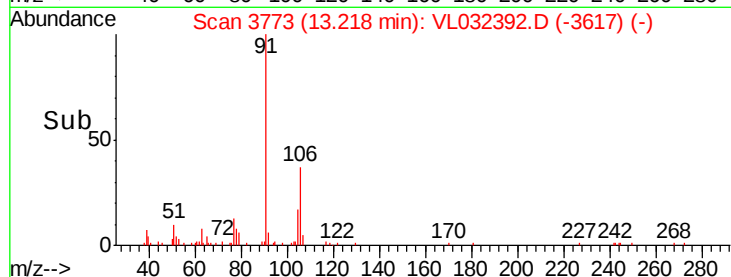
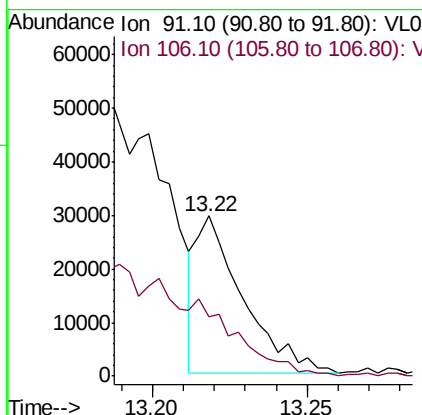
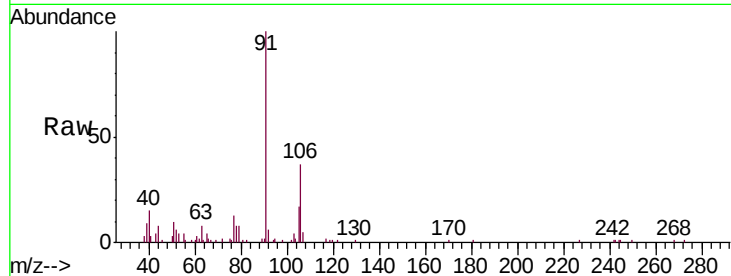




#59
m/p-Xylene
Concen: 0.087 ppbv
RT: 13.22 min Scan# 3773
Delta R.T. 0.00 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

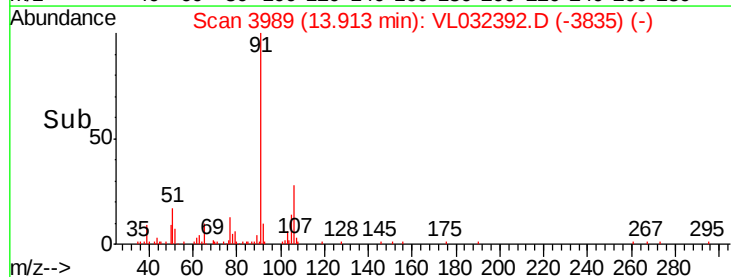
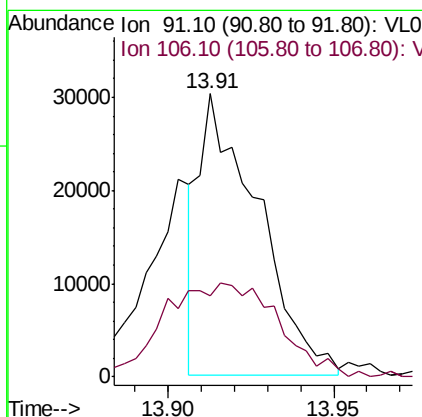
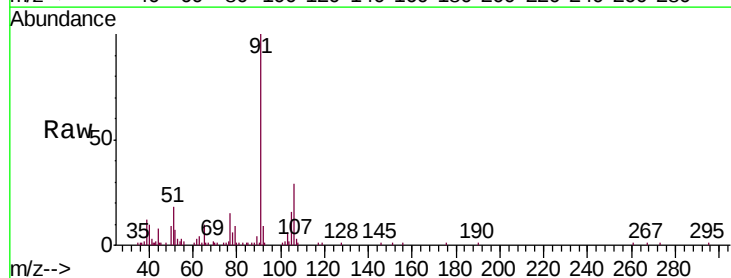
Instrument :
MSVOA_L
ClientSampleId :
SG10-MIVIDL

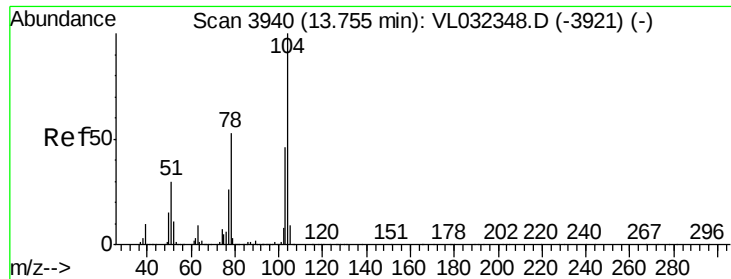
Tgt Ion: 91 Resp: 30782
Ion Ratio Lower Upper
91 100
106 0.0 37.0 55.4#



#60
o-Xylene
Concen: 0.106 ppbv
RT: 13.91 min Scan# 3989
Delta R.T. -0.01 min
Lab File: VL032392.D
Acq: 17 Aug 2018 1:03

Tgt Ion: 91 Resp: 36918
Ion Ratio Lower Upper
91 100
106 66.8 22.3 66.8#





#61

Styrene

Concen: 0.047 ppbv

RT: 13.75 min Scan# 3938

Delta R.T. -0.01 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

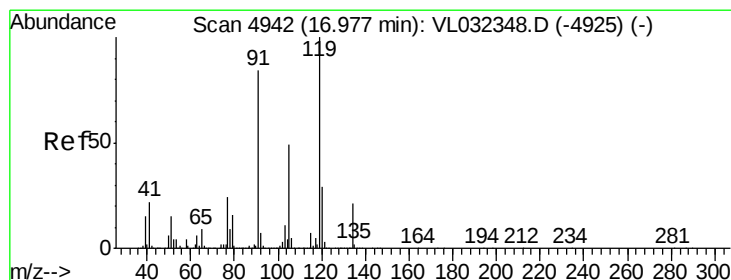
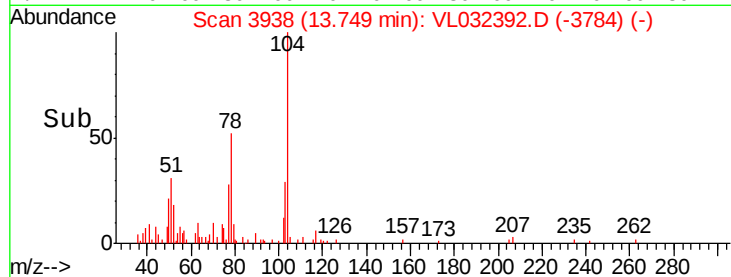
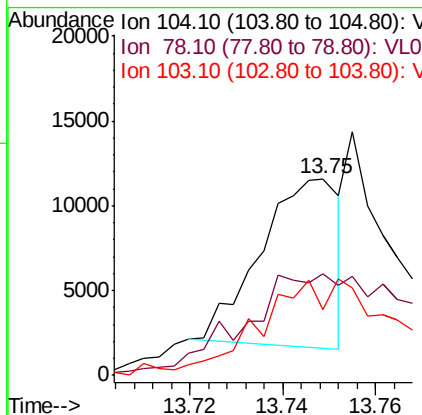
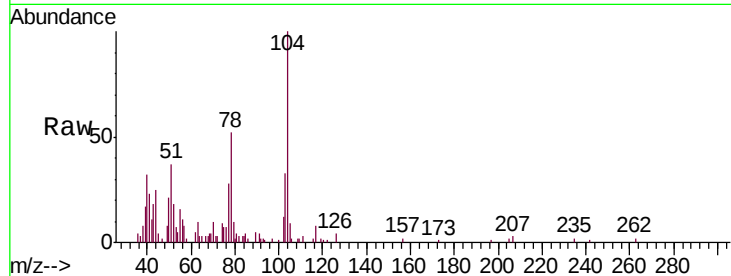
MSVOA_L

ClientSampleId :

SG10-MIVIDL

Tgt Ion:104 Resp: 11573

Ion	Ratio	Lower	Upper
104	100		
78	138.4	42.6	64.0#
103	0.0	38.0	57.0#



#65

tert-Butylbenzene

Concen: 0.266 ppbv

RT: 17.17 min Scan# 5002

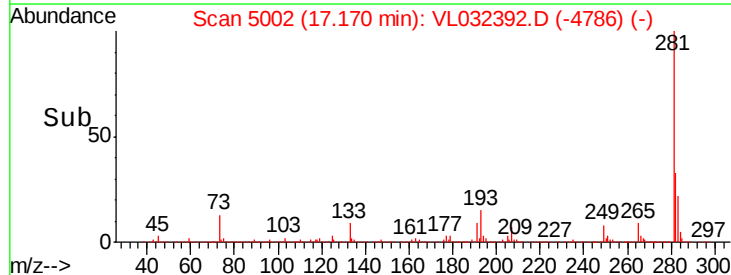
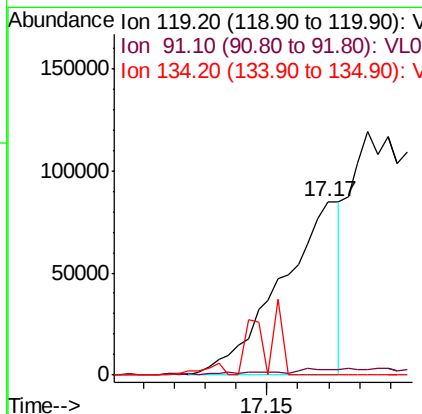
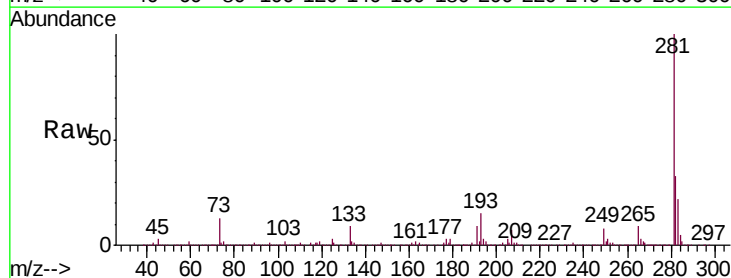
Delta R.T. 0.19 min

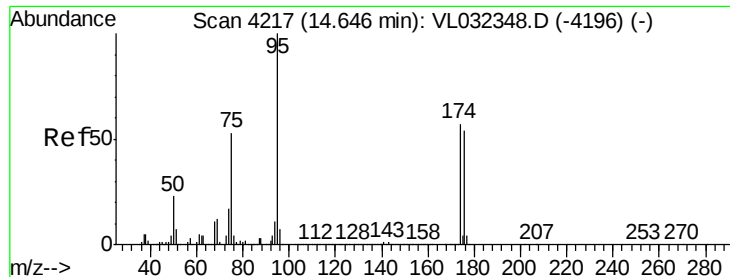
Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Tgt Ion:119 Resp: 112832

Ion	Ratio	Lower	Upper
119	100		
91	0.5	67.4	101.0#
134	18.1	15.8	23.6





#68

1-Bromo-4-Fluorobenzene

Concen: 10.187 ppbv

RT: 14.64 min Scan# 4216

Delta R.T. -0.00 min

Lab File: VL032392.D

Acq: 17 Aug 2018 1:03

Instrument :

MSVOA_L

ClientSampleId :

SG10-MIVIDL

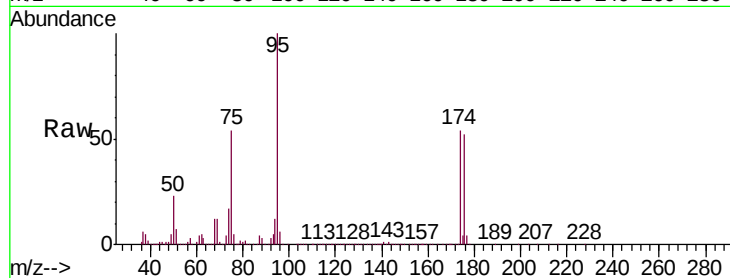
Tgt Ion: 95 Resp: 2703960

Ion Ratio Lower Upper

95 100

174 56.7 46.2 69.4

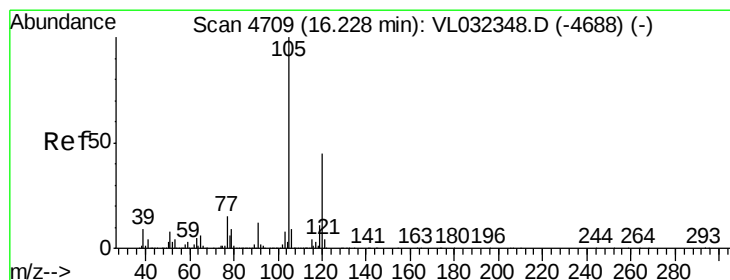
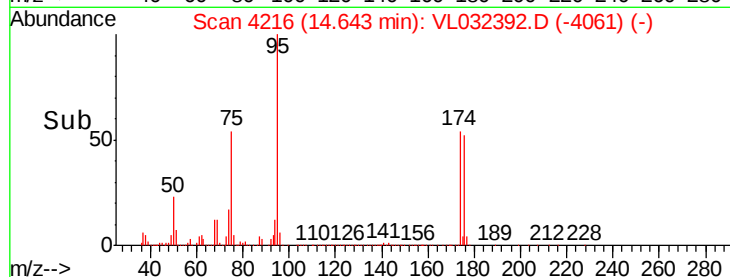
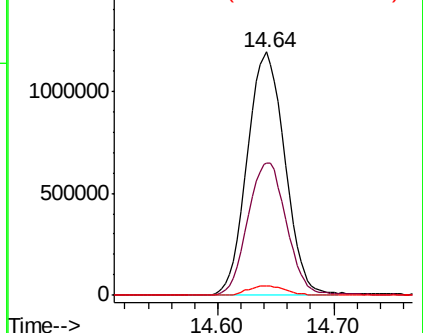
175 3.9 3.4 5.0



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



#73

1,3,5-Trimethylbenzene

Concen: 0.048 ppbv

RT: 16.22 min Scan# 4707

Delta R.T. -0.01 min

Lab File: VL032392.D

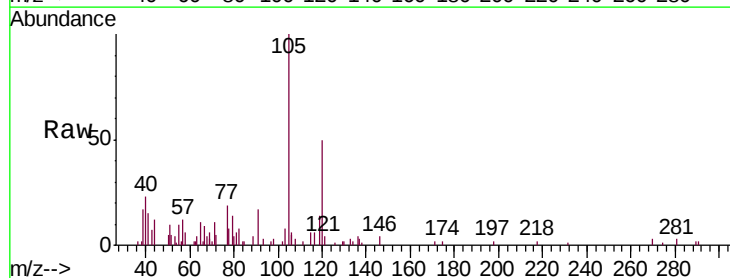
Acq: 17 Aug 2018 1:03

Tgt Ion: 105 Resp: 17931

Ion Ratio Lower Upper

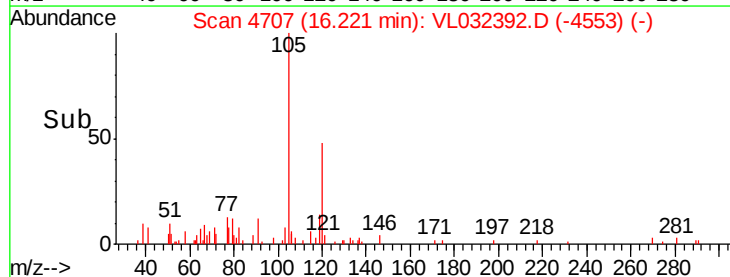
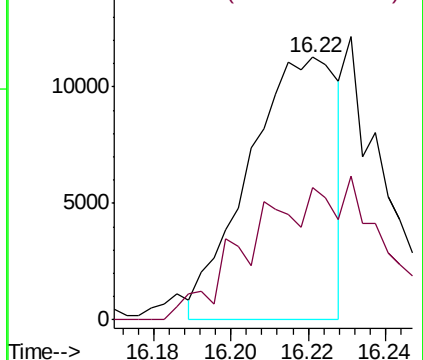
105 100

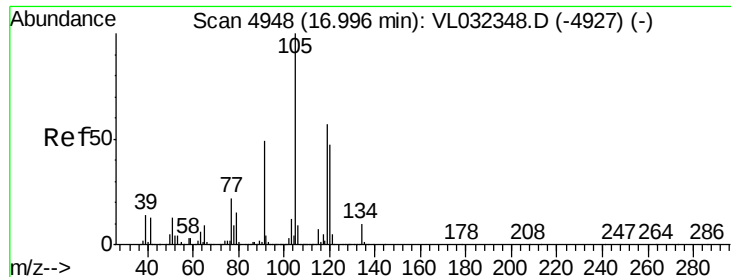
120 41.7 36.3 54.5



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

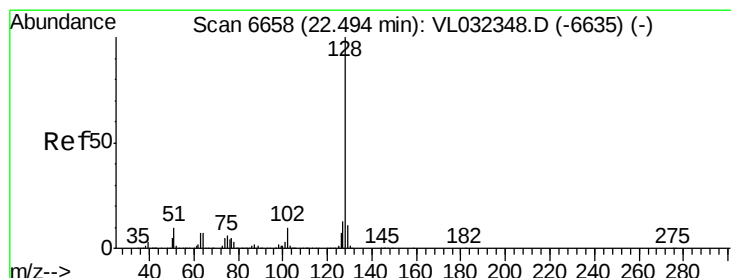
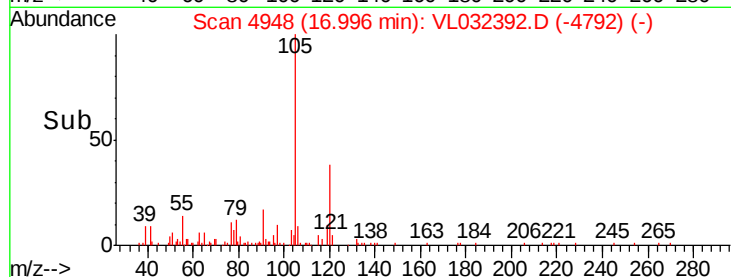
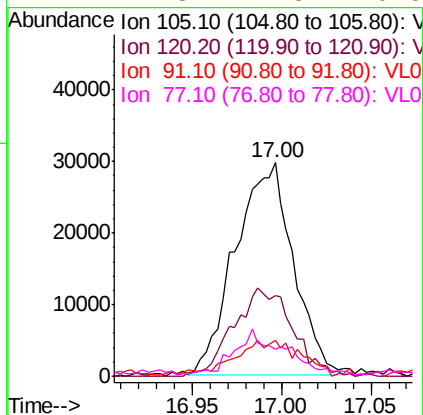
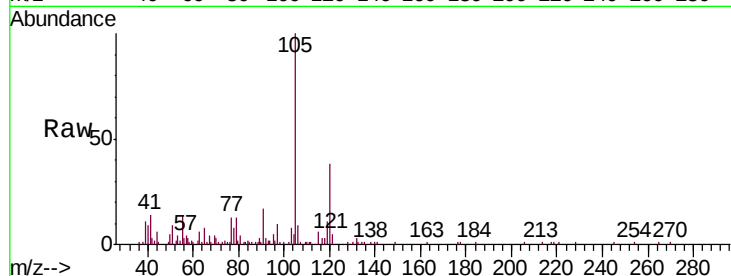




#74
 1,2,4-Trimethylbenzene
 Concen: 0.168 ppbv
 RT: 17.00 min Scan# 4948
 Delta R.T. 0.00 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

Instrument :
 MSVOA_L
 ClientSampleId :
 SG10-MIVIDL

Tgt Ion:	105	Resp:	66853
Ion	Ratio	Lower	Upper
105	100		
120	36.3	37.6	56.4#
91	15.8	39.9	59.9#
77	11.3	17.8	26.8#



#79
 Naphthalene
 Concen: 0.339 ppbv
 RT: 22.48 min Scan# 6654
 Delta R.T. -0.01 min
 Lab File: VL032392.D
 Acq: 17 Aug 2018 1:03

Tgt Ion:	128	Resp:	4460
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.3	15.5#
129	37.4	8.6	13.0#

