

Data File : VL032500.D
Acq On : 11 Sep 2018 9:47
Operator : SY/AP
Sample : 4820-04DL2 40X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

Quant Time: Sep 12 05:36:48 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL083118AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 31 21:33:46 2018
QLast Update : Fri Aug 31 21:33:46 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1384434	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.33	114	3228130	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.28	117	3403809	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.62	95	2632731	10.42	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

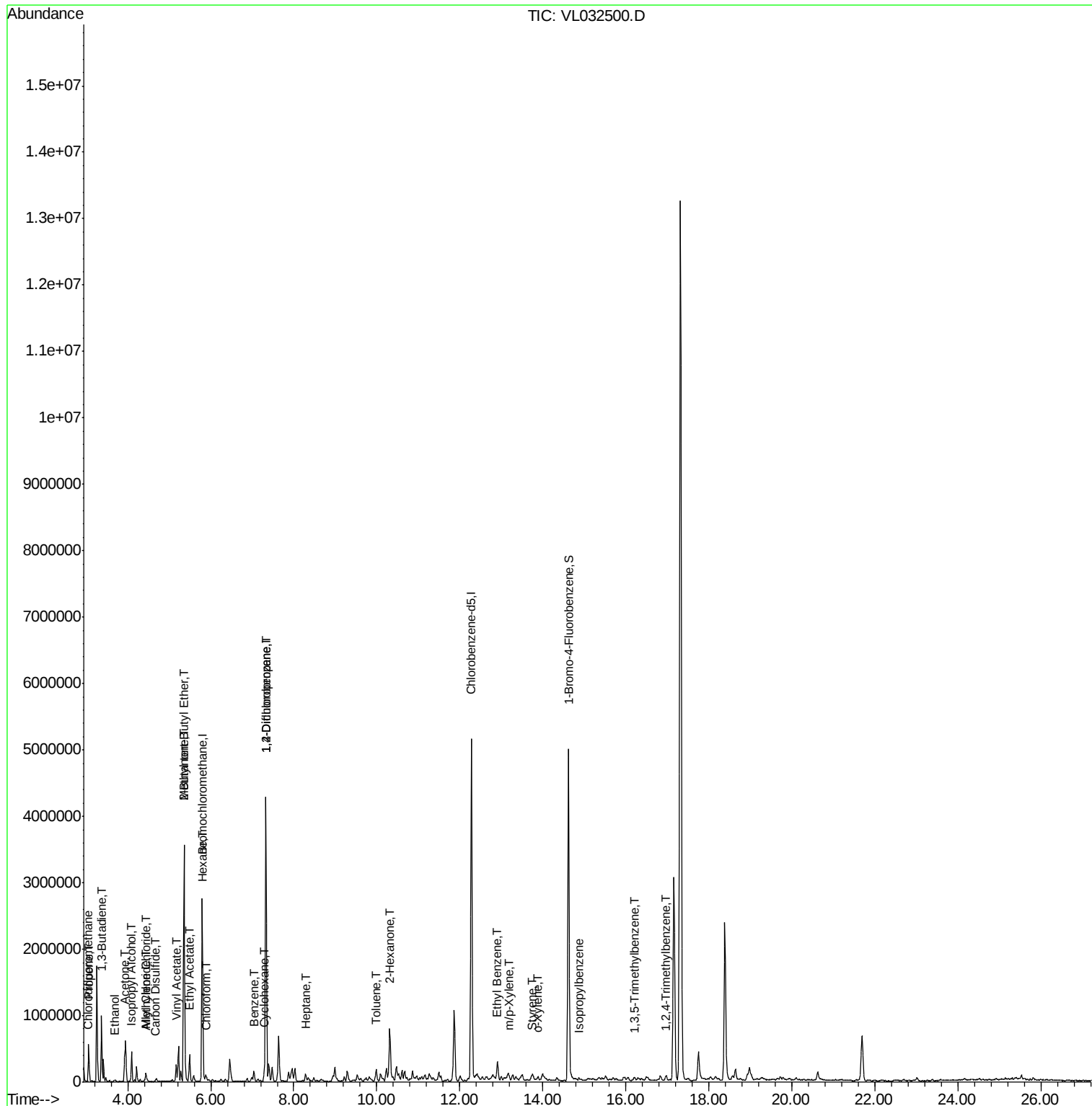
Target Compounds					Qvalue
3) Chlorodifluoromethane	3.03	51	4534	0.036	ppbv 98
9) Propene	3.06	41	232418	4.598	ppbv 93
10) Heptane	8.28	43	49998	0.276	ppbv 99
13) Ethanol	3.69	45	32016	2.032	ppbv 92
15) Acetone	3.93	43	599335	4.807	ppbv # 88
16) 1,3-Butadiene	3.37	39	235893	4.021	ppbv # 8
19) Isopropyl Alcohol	4.07	45	5617	0.069	ppbv # 93
20) Methylene Chloride	4.44	84	39110	0.823	ppbv 98
21) Allyl Chloride	4.46	41	4971	0.060	ppbv # 1
23) Vinyl Acetate	5.17	43	120821	0.585	ppbv # 1
25) Ethyl Acetate	5.49	43	51849	0.176	ppbv # 79
26) Hexane	5.81	57	77461	0.588	ppbv # 12
27) Carbon Disulfide	4.65	76	4682	0.038	ppbv # 1
28) Methyl tert-Butyl Ether	5.35	73	43929	0.271	ppbv # 1
29) Chloroform	5.88	83	56577	0.281	ppbv 92
30) Cyclohexane	7.28	84	33914	0.351	ppbv # 79
34) 2-Butanone	5.35	43	4292865	20.021	ppbv 99
36) Benzene	7.04	78	121632	0.443	ppbv 95
39) 1,2-Dichloropropane	7.33	63	829877	7.060	ppbv # 25
51) 2-Hexanone	10.32	43	755853	3.633	ppbv # 96
53) Toluene	9.98	91	55545	0.193	ppbv # 37
58) Ethyl Benzene	12.91	91	43348	0.106	ppbv 99
59) m/p-Xylene	13.19	91	15045	0.041	ppbv # 31
60) o-Xylene	13.89	91	20496	0.057	ppbv 76
61) Styrene	13.73	104	24100	0.104	ppbv 97
62) Isopropylbenzene	14.86	105	31994	0.064	ppbv 99
73) 1,3,5-Trimethylbenzene	16.20	105	19607	0.050	ppbv 88
74) 1,2,4-Trimethylbenzene	16.97	105	33998	0.080	ppbv # 61

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 888

Delta R.T. -0.02 min

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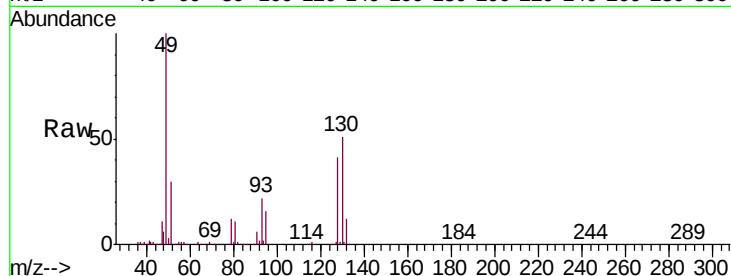
Tgt Ion: 49 Resp: 1384434

Ion Ratio Lower Upper

49 100

128 42.8 20.7 62.1

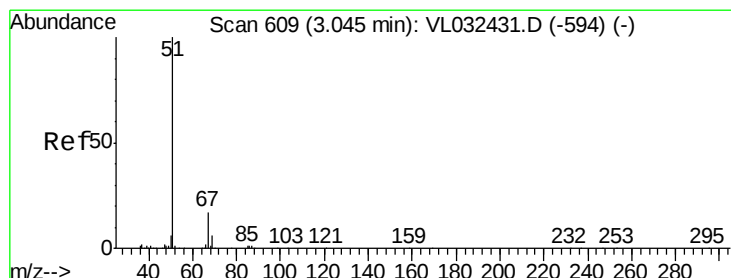
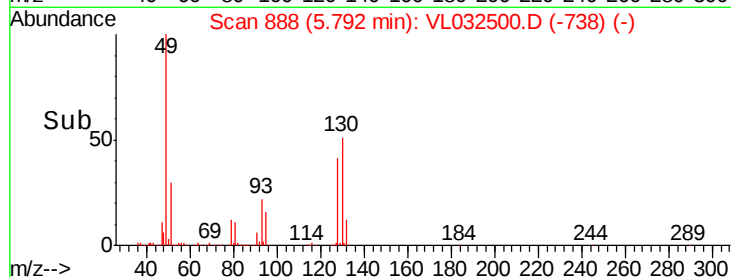
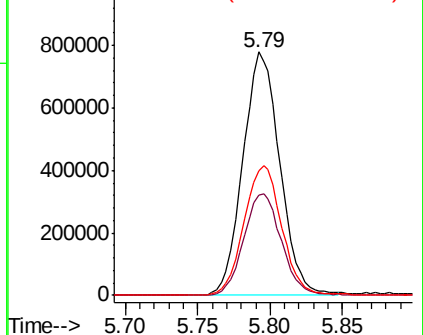
130 54.9 26.6 79.7



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



#3

Chlorodifluoromethane

Concen: 0.036 ppbv

RT: 3.03 min Scan# 30

Delta R.T. -0.01 min

Lab File: VL032500.D

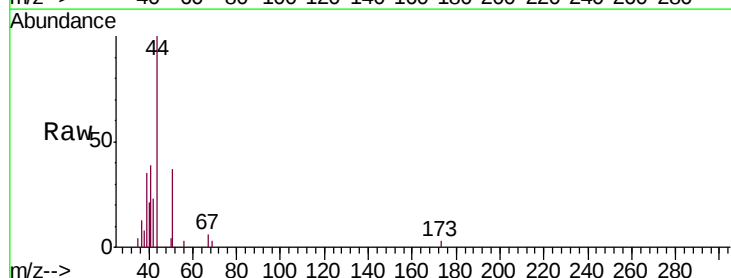
Acq: 11 Sep 2018 9:47

Tgt Ion: 51 Resp: 4534

Ion Ratio Lower Upper

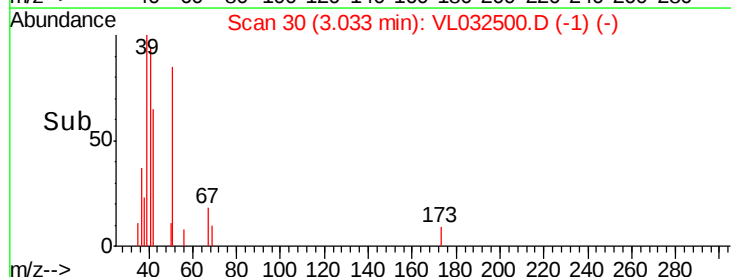
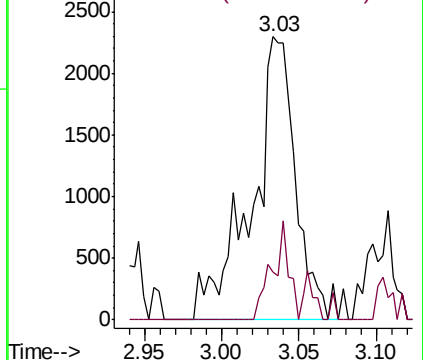
51 100

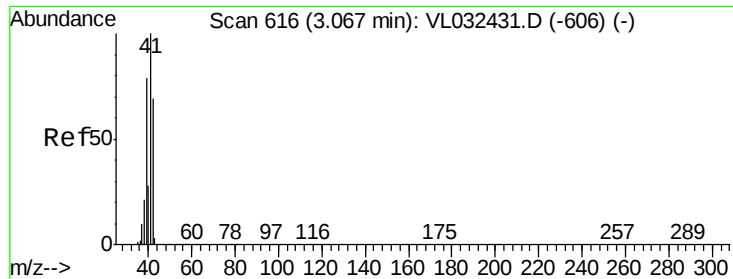
67 18.3 13.8 20.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 4.598 ppbv

RT: 3.06 min Scan# 38

Delta R.T. -0.01 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

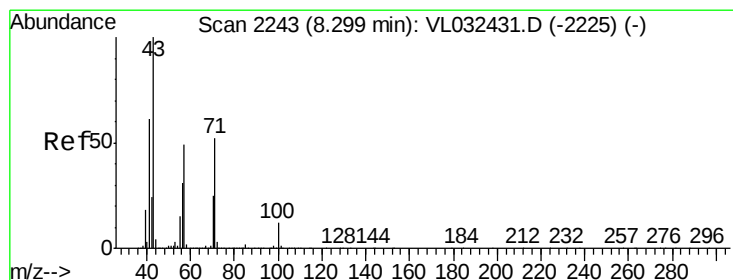
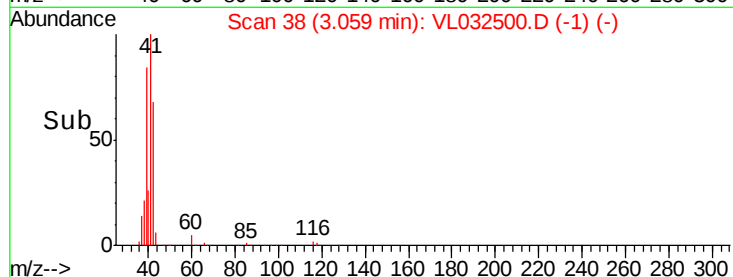
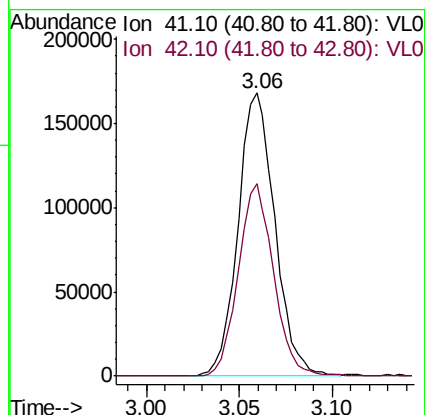
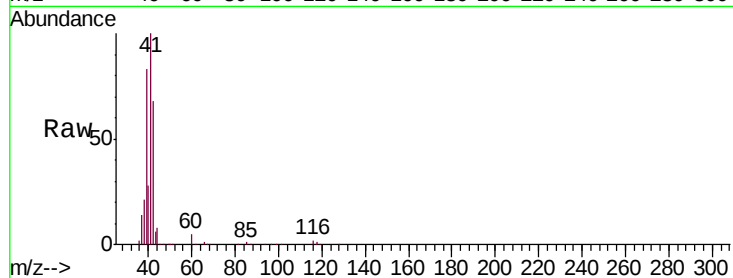
245-BERRYDL2

Tgt Ion: 41 Resp: 232418

Ion Ratio Lower Upper

41 100

42 65.3 56.6 84.8



#10

Heptane

Concen: 0.276 ppbv

RT: 8.28 min Scan# 1662

Delta R.T. -0.02 min

Lab File: VL032500.D

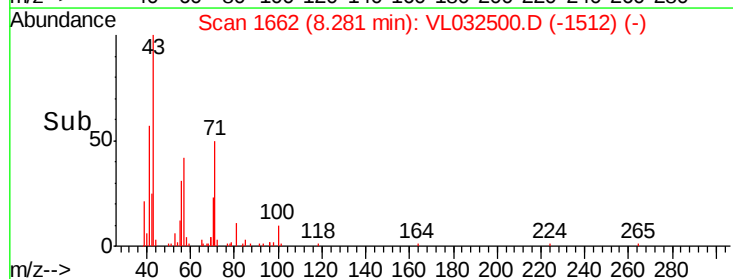
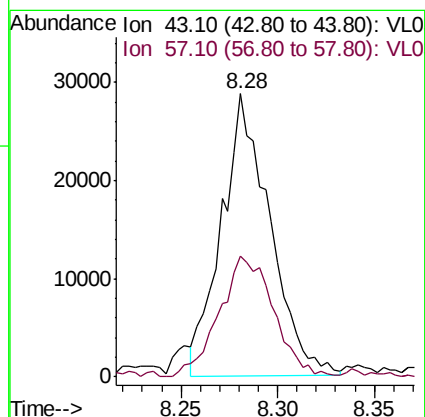
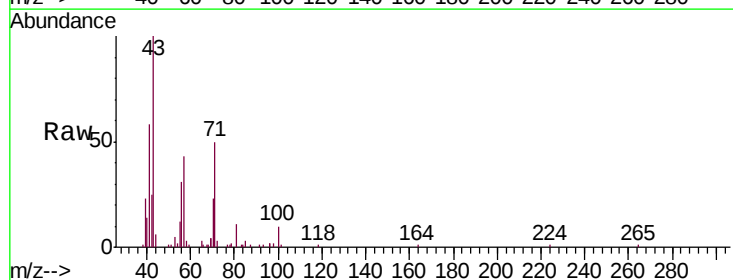
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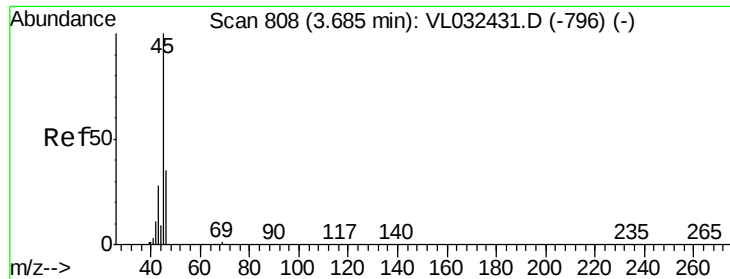
Tgt Ion: 43 Resp: 49998

Ion Ratio Lower Upper

43 100

57 49.9 39.6 59.4





#13

Ethanol

Concen: 2.032 ppbv

RT: 3.69 min Scan# 234

Delta R.T. 0.00 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

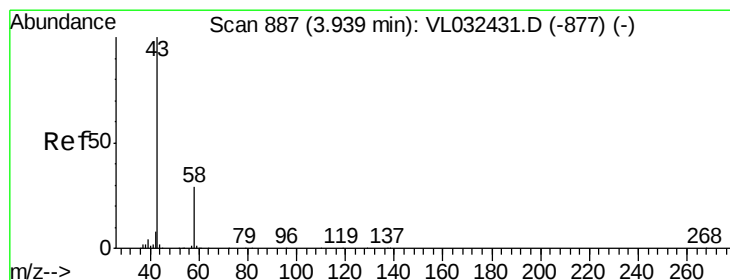
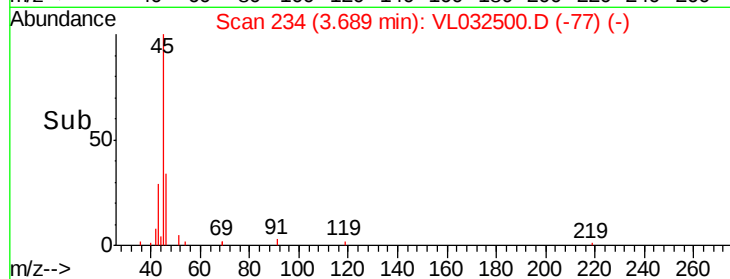
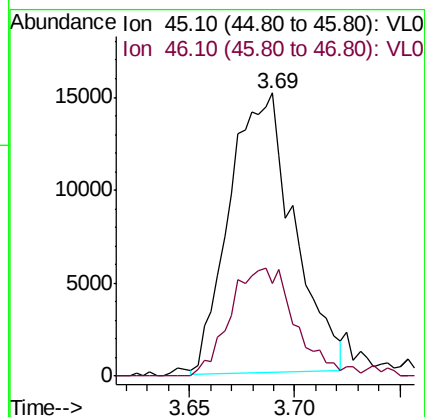
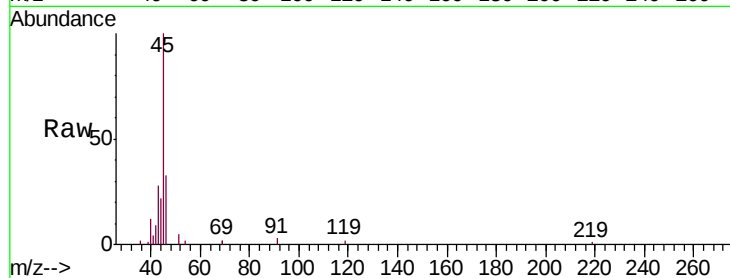
245-BERRYDL2

Tgt Ion: 45 Resp: 32016

Ion Ratio Lower Upper

45 100

46 40.1 14.2 56.8



#15

Acetone

Concen: 4.807 ppbv

RT: 3.93 min Scan# 308

Delta R.T. -0.01 min

Lab File: VL032500.D

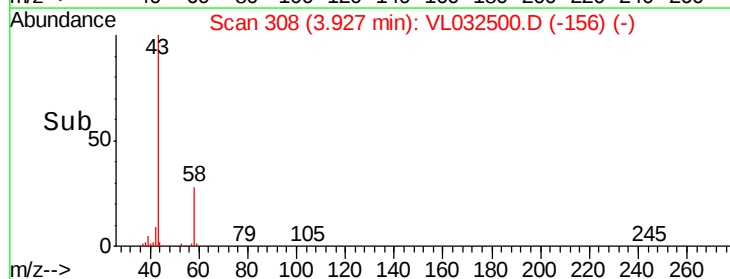
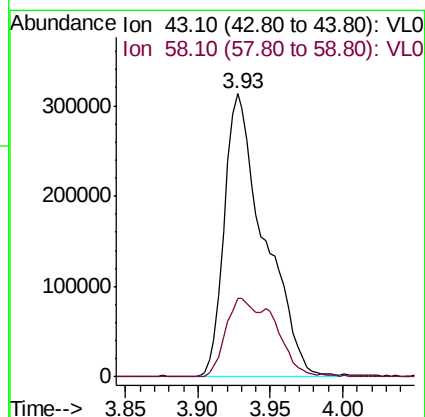
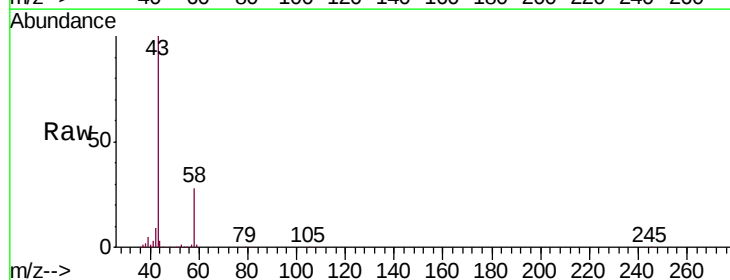
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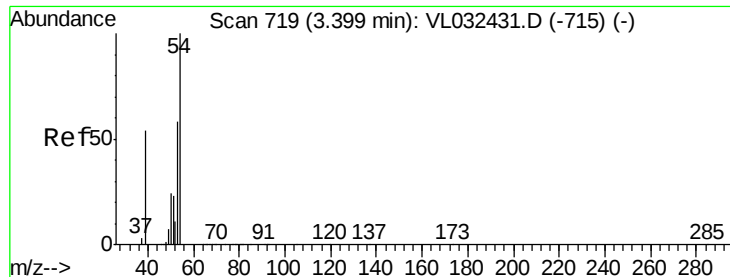
Tgt Ion: 43 Resp: 599335

Ion Ratio Lower Upper

43 100

58 34.4 22.6 33.8#

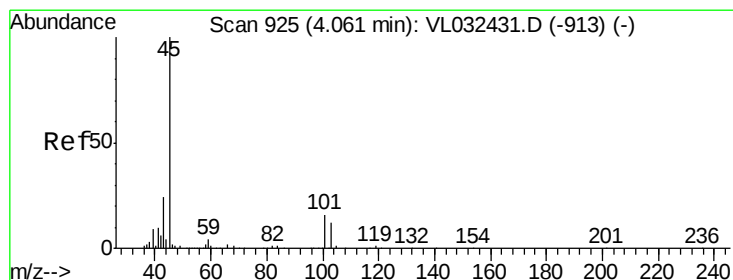
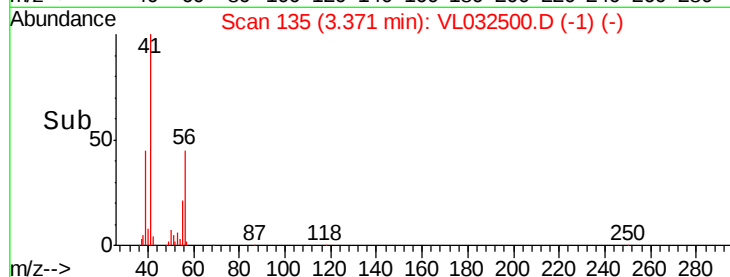
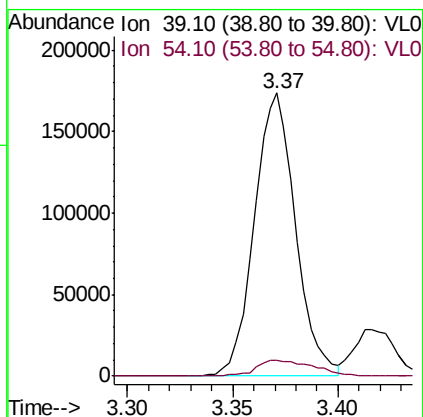
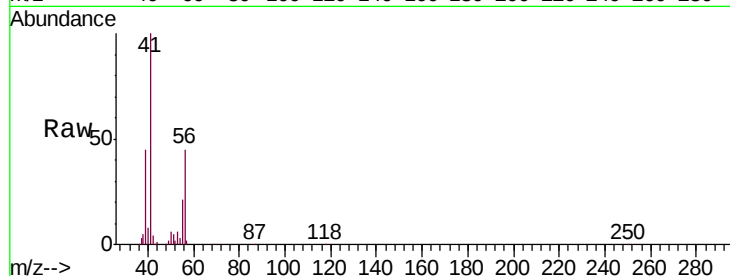




#16
 1,3-Butadiene
 Concen: 4.021 ppbv
 RT: 3.37 min Scan# 135
 Delta R.T. -0.03 min
 Lab File: VL032500.D
 Acq: 11 Sep 2018 9:47

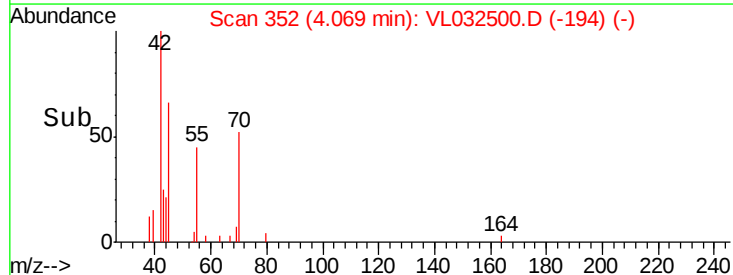
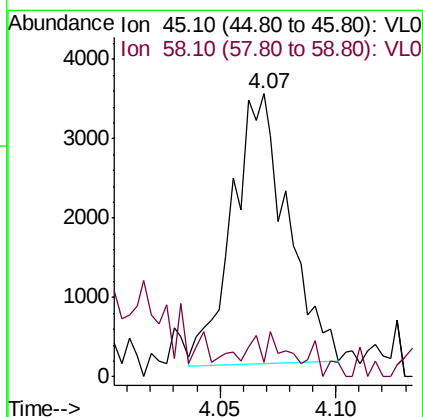
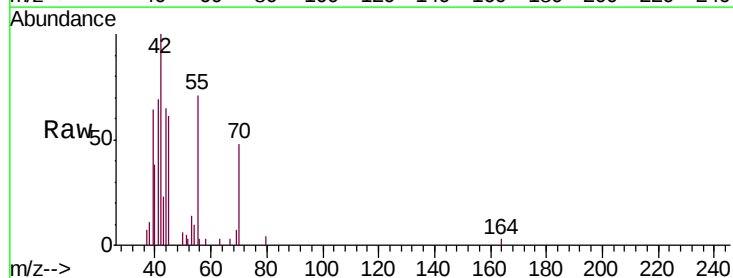
Instrument :
 MSVOA_L
 ClientSampleId :
 245-BERRYDL2

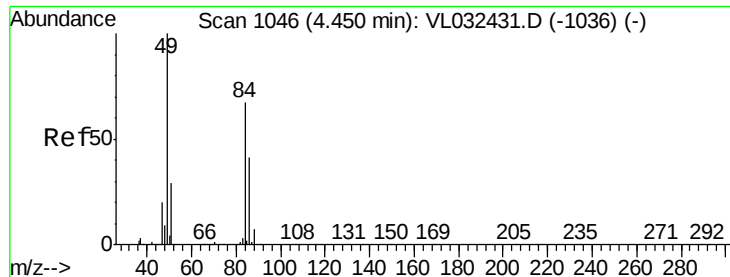
Tgt Ion: 39 Resp: 235893
 Ion Ratio Lower Upper
 39 100
 54 8.3 80.8 121.2#



#19
 Isopropyl Alcohol
 Concen: 0.069 ppbv
 RT: 4.07 min Scan# 352
 Delta R.T. 0.01 min
 Lab File: VL032500.D
 Acq: 11 Sep 2018 9:47

Tgt Ion: 45 Resp: 5617
 Ion Ratio Lower Upper
 45 100
 58 0.0 2.0 3.0#

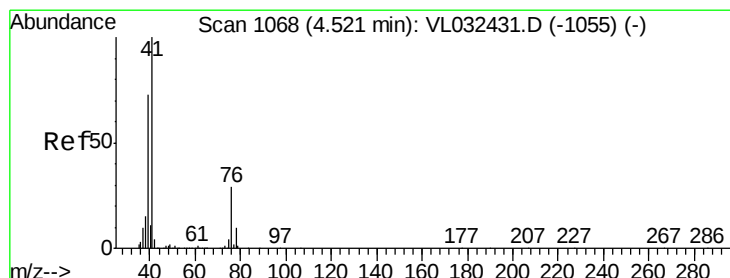
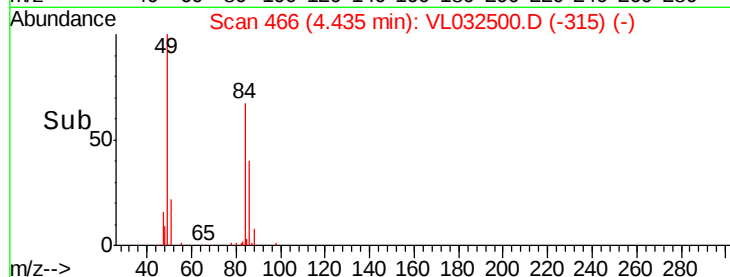
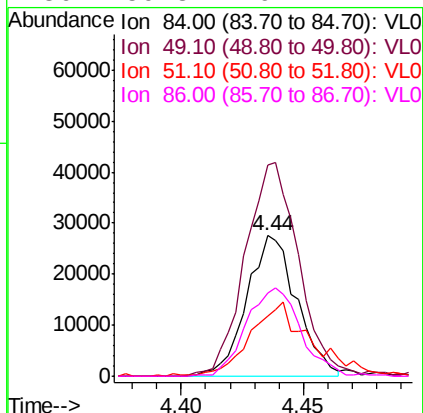
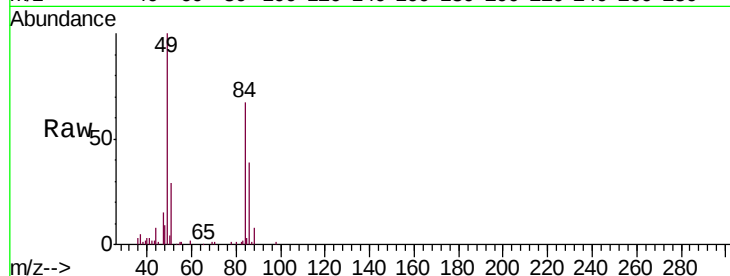




#20
Methylene Chloride
Concen: 0.823 ppbv
RT: 4.44 min Scan# 466
Delta R.T. -0.01 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

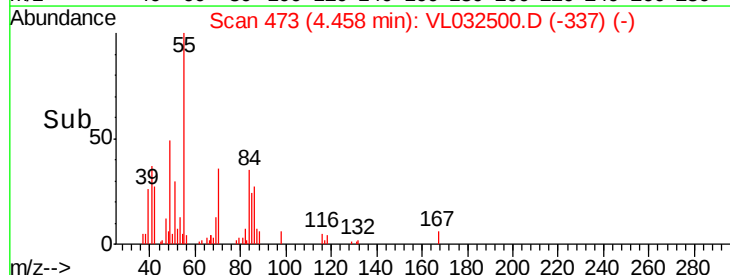
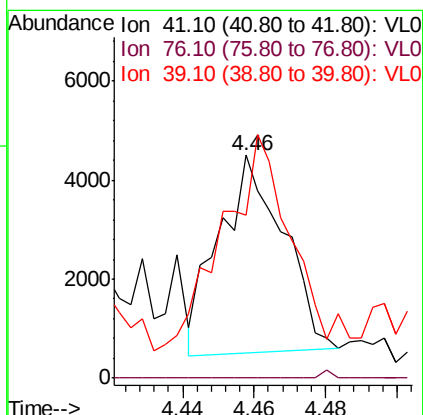
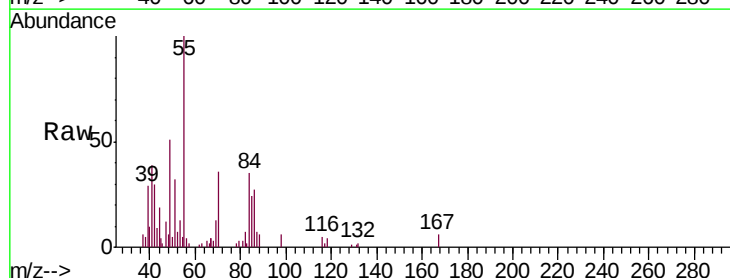
Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

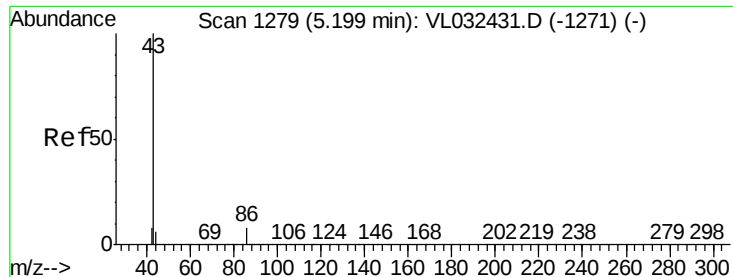
Tgt Ion:	84	Resp:	39110
Ion	Ratio	Lower	Upper
84	100		
49	149.4	119.1	178.7
51	42.0	35.2	52.8
86	59.3	49.4	74.2



#21
Allyl Chloride
Concen: 0.060 ppbv
RT: 4.46 min Scan# 473
Delta R.T. -0.06 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion:	41	Resp:	4971
Ion	Ratio	Lower	Upper
41	100		
76	0.0	23.6	35.4#
39	196.0	57.7	86.5#

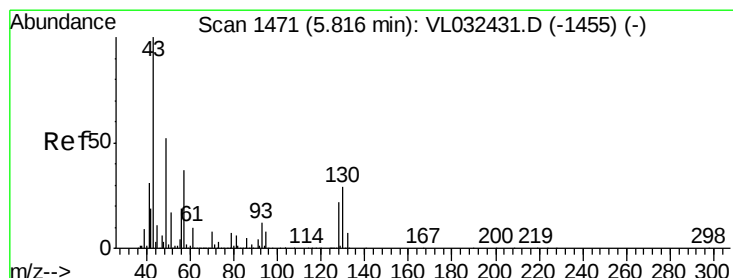
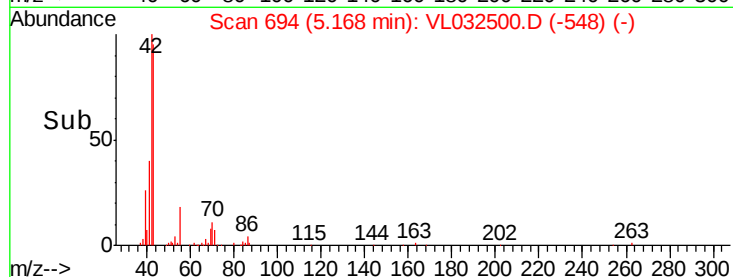
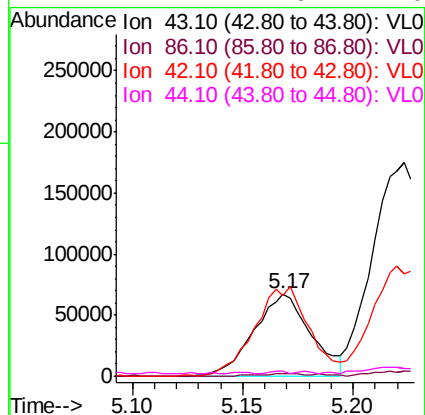
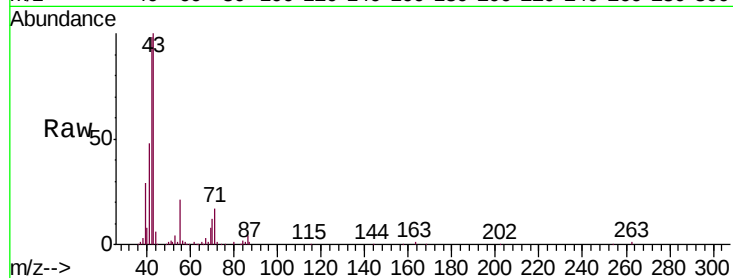




#23
 Vinyl Acetate
 Concen: 0.585 ppbv
 RT: 5.17 min Scan# 694
 Delta R.T. -0.03 min
 Lab File: VL032500.D
 Acq: 11 Sep 2018 9:47

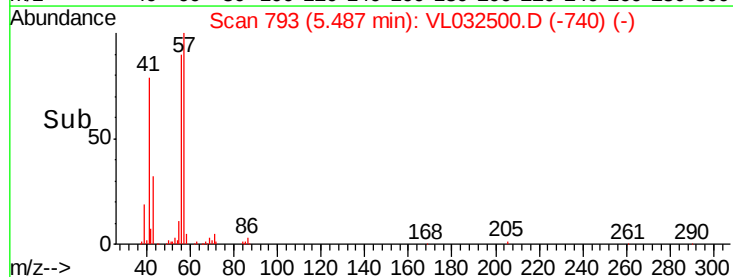
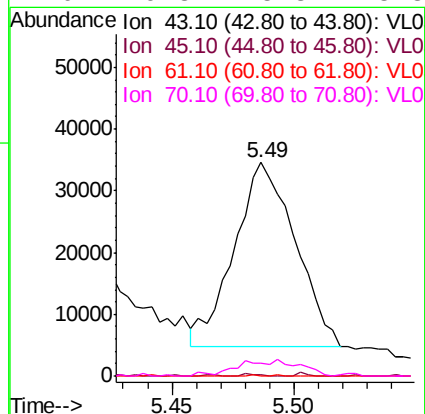
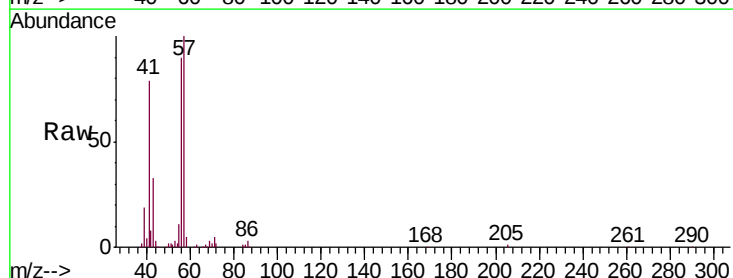
Instrument :
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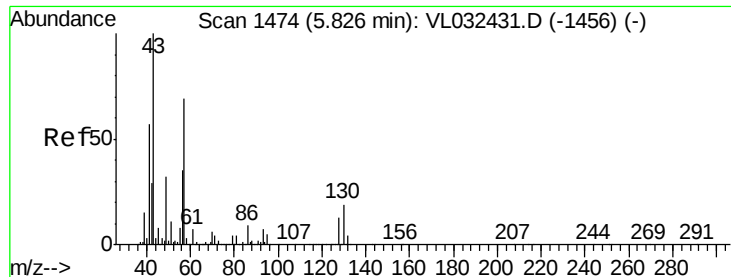
Tgt Ion:	43	Resp:	120821
Ion	Ratio	Lower	Upper
43	100		
86	3.8	5.9	8.9#
42	96.1	6.9	10.3#
44	2.4	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 0.176 ppbv
 RT: 5.49 min Scan# 793
 Delta R.T. -0.33 min
 Lab File: VL032500.D
 Acq: 11 Sep 2018 9:47

Tgt Ion:	43	Resp:	51849
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.0	12.0#
61	0.1	7.6	11.4#
70	9.3	5.8	8.8#

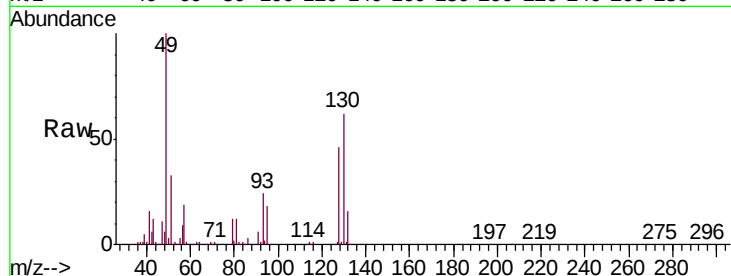




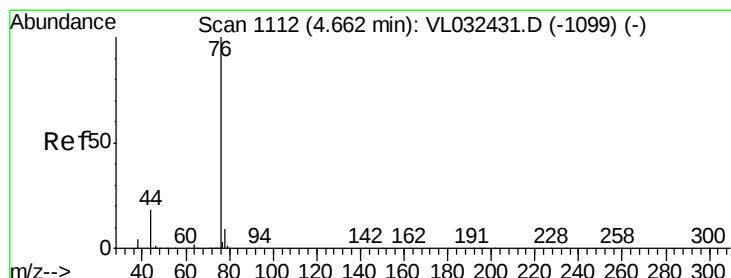
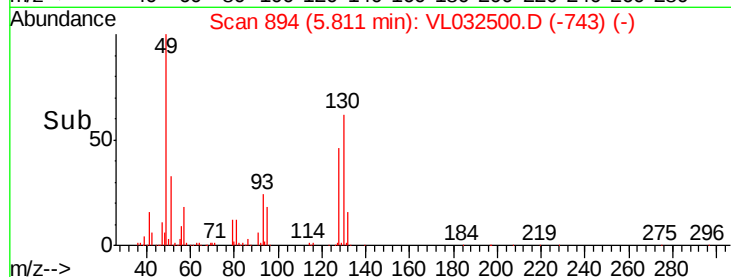
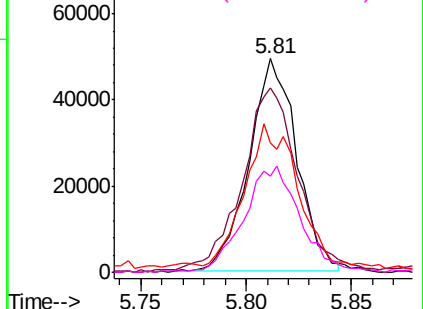
#26
Hexane
Concen: 0.588 ppbv
RT: 5.81 min Scan# 894
Delta R.T. -0.01 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

Tgt Ion: 57 Resp: 77461
Ion Ratio Lower Upper
57 100
41 102.8 69.0 103.4
43 0.0 172.1 258.1#
56 59.5 42.2 63.2

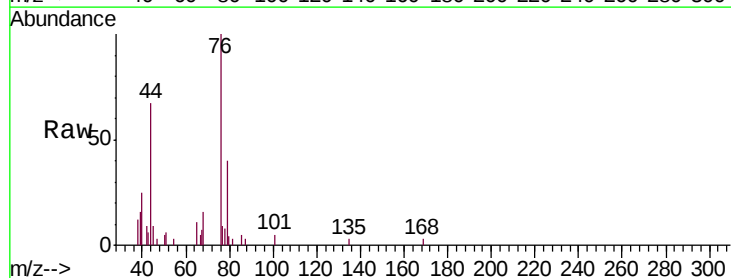


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

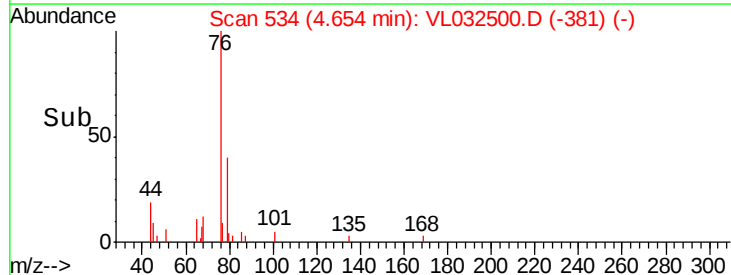
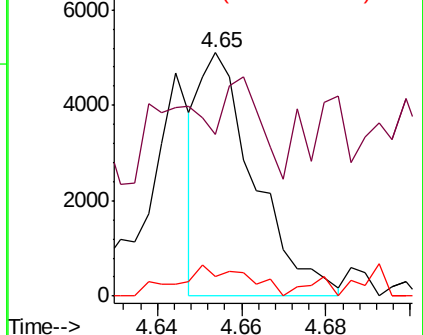


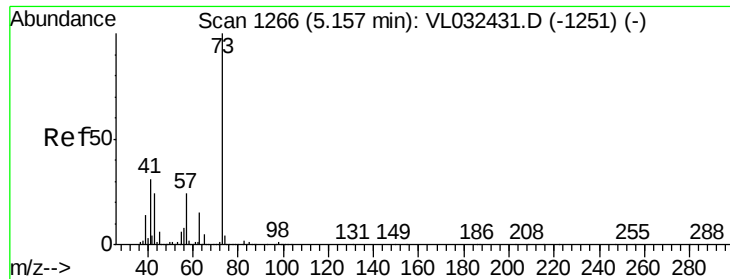
#27
Carbon Disulfide
Concen: 0.038 ppbv
RT: 4.65 min Scan# 534
Delta R.T. -0.01 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion: 76 Resp: 4682
Ion Ratio Lower Upper
76 100
44 99.0 14.0 21.0#
78 15.5 7.5 11.3#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0

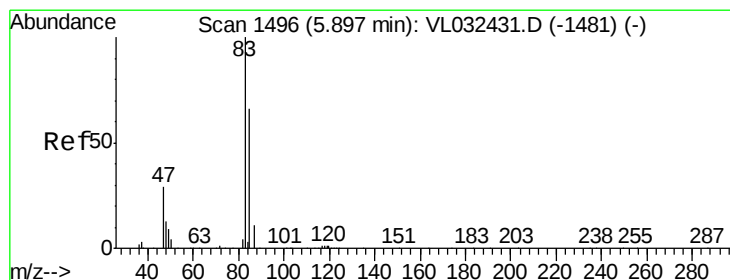
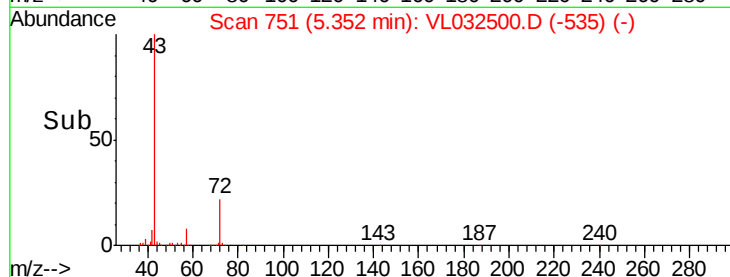
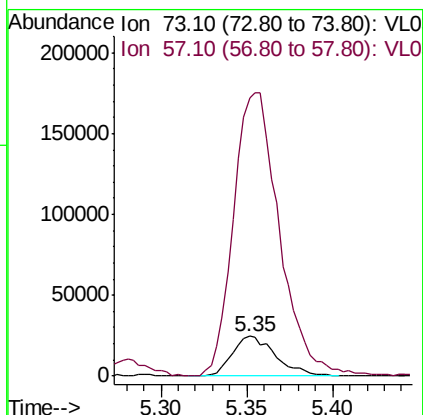
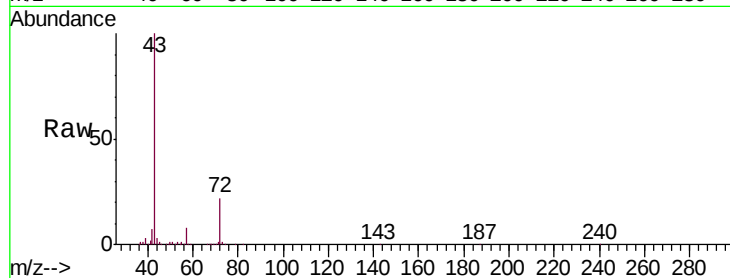




#28
Methyl tert-Butyl Ether
Concen: 0.271 ppbv
RT: 5.35 min Scan# 751
Delta R.T. 0.19 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

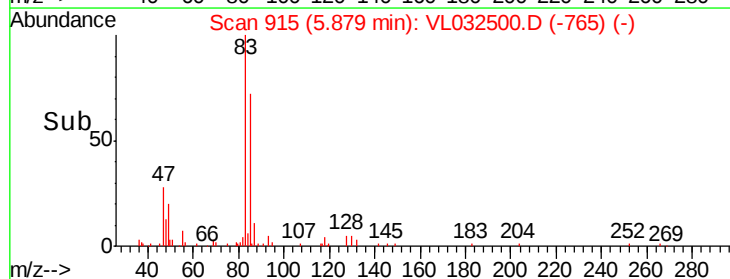
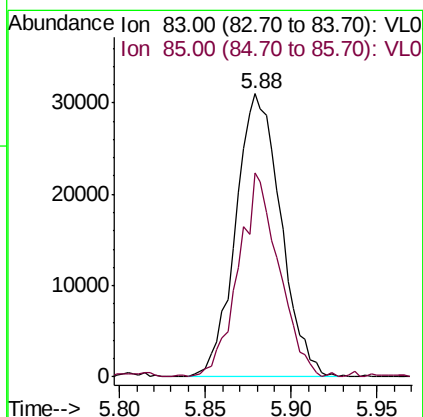
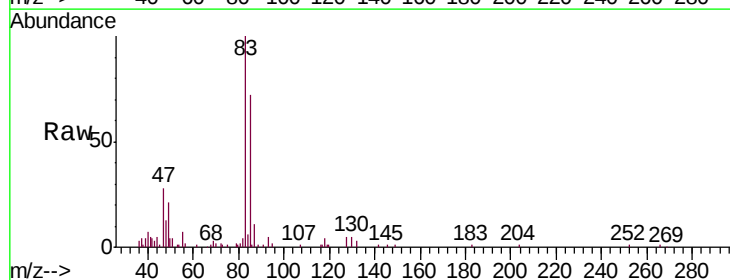
Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

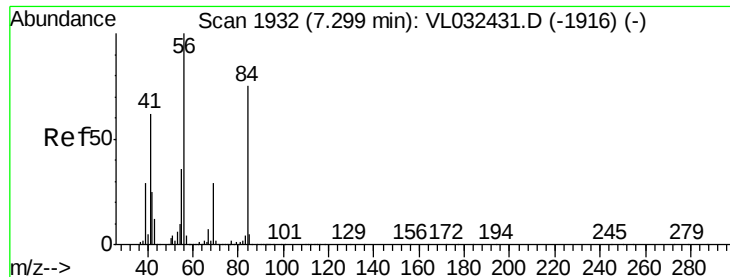
Tgt Ion: 73 Resp: 43929
Ion Ratio Lower Upper
73 100
57 743.6 19.3 28.9#



#29
Chloroform
Concen: 0.281 ppbv
RT: 5.88 min Scan# 915
Delta R.T. -0.02 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion: 83 Resp: 56577
Ion Ratio Lower Upper
83 100
85 72.0 52.5 78.7

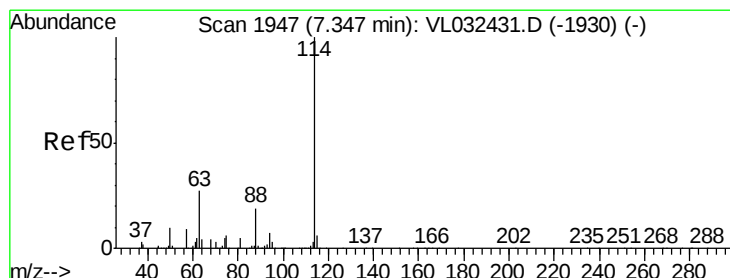
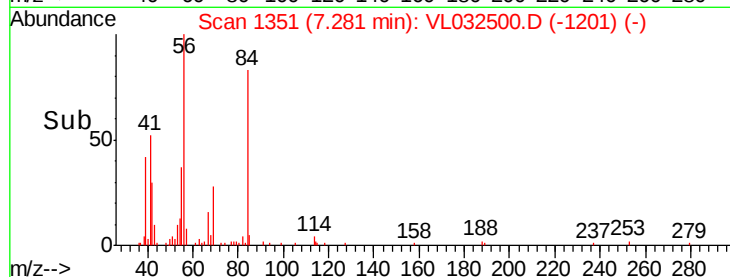
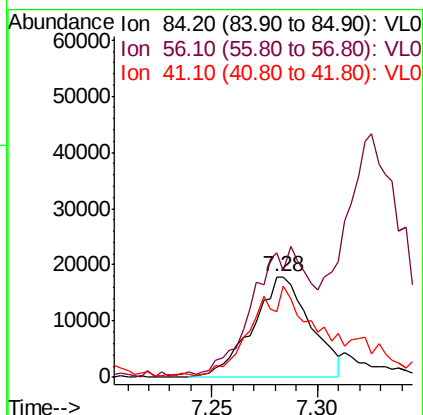
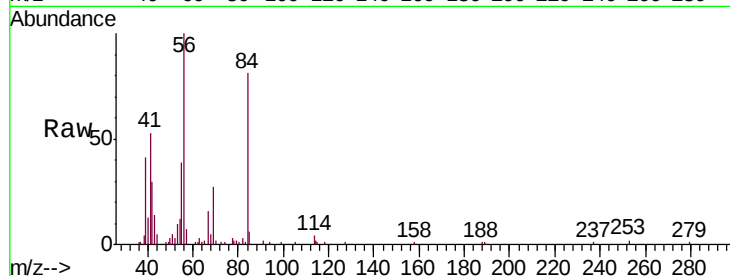




#30
Cyclohexane
Concen: 0.351 ppbv
RT: 7.28 min Scan# 1351
Delta R.T. -0.02 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

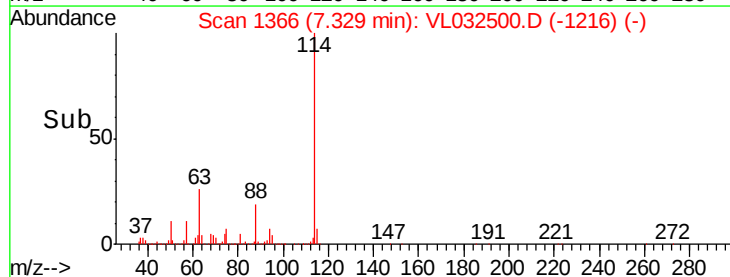
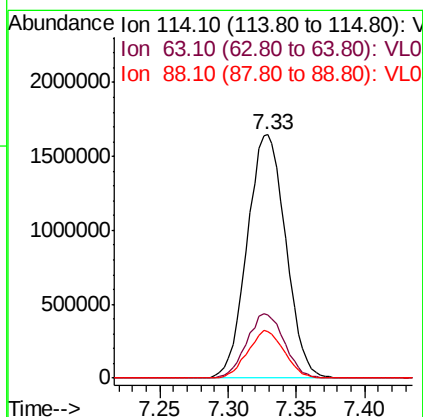
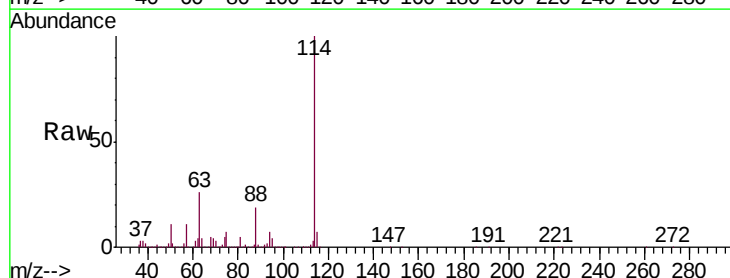
Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

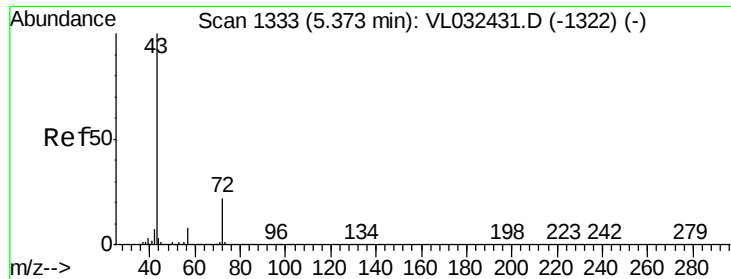
Tgt Ion: 84 Resp: 33914
Ion Ratio Lower Upper
84 100
56 130.6 113.5 170.3
41 122.7 68.1 102.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.33 min Scan# 1366
Delta R.T. -0.02 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion: 114 Resp: 3228130
Ion Ratio Lower Upper
114 100
63 26.0 22.2 33.4
88 18.7 15.0 22.4

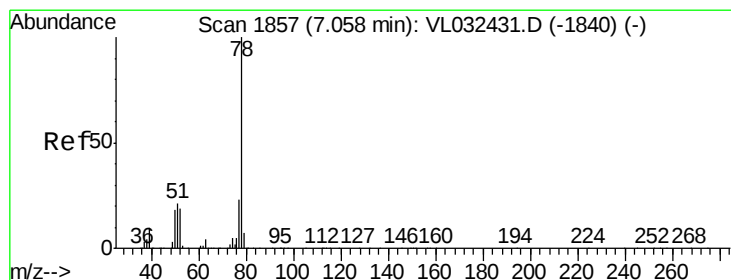
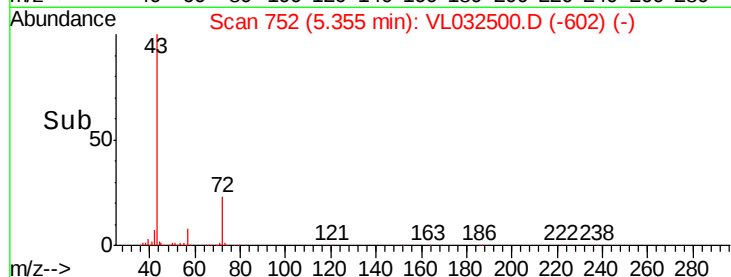
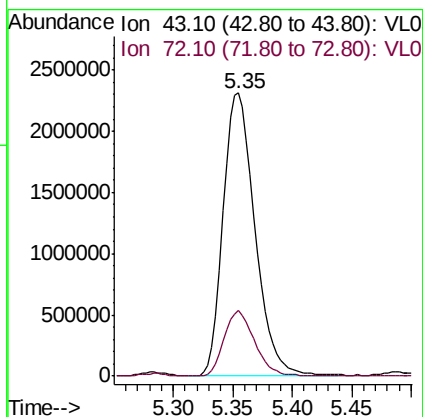
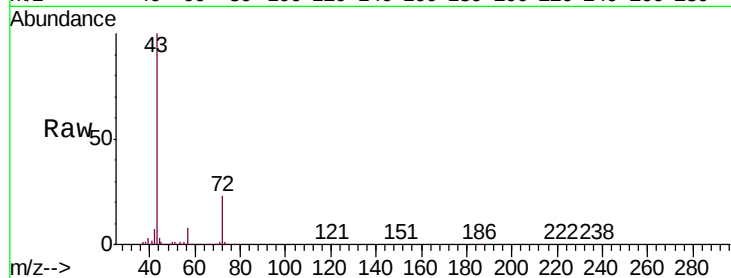




#34
2-Butanone
Concen: 20.021 ppbv
RT: 5.35 min Scan# 752
Delta R.T. -0.02 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

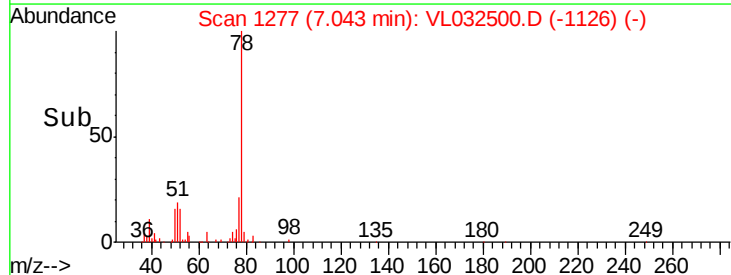
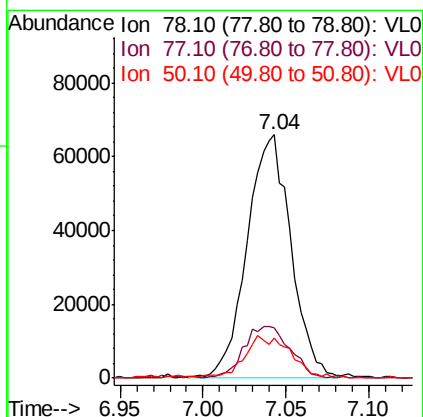
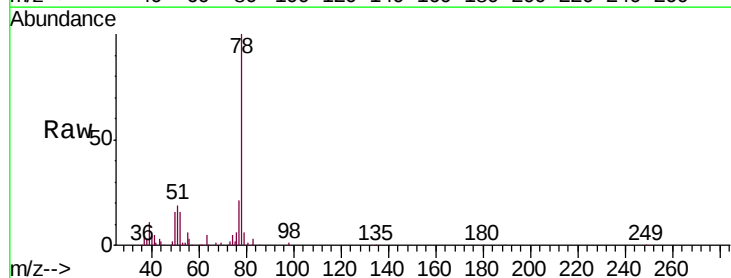
Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

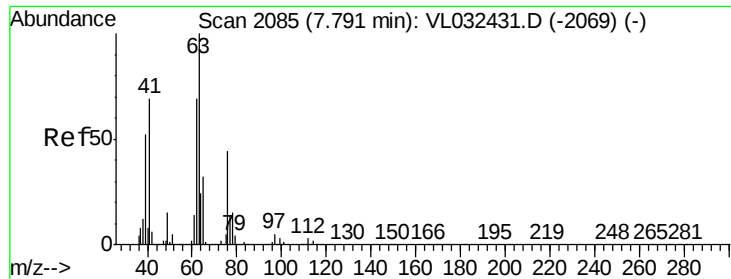
Tgt Ion: 43 Resp: 4292865
Ion Ratio Lower Upper
43 100
72 22.4 17.8 26.6



#36
Benzene
Concen: 0.443 ppbv
RT: 7.04 min Scan# 1277
Delta R.T. -0.01 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion: 78 Resp: 121632
Ion Ratio Lower Upper
78 100
77 20.3 18.4 27.6
50 15.9 14.4 21.6





#39

1,2-Dichloropropane

Concen: 7.060 ppbv

RT: 7.33 min Scan# 1365

Delta R.T. -0.46 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

245-BERRYDL2

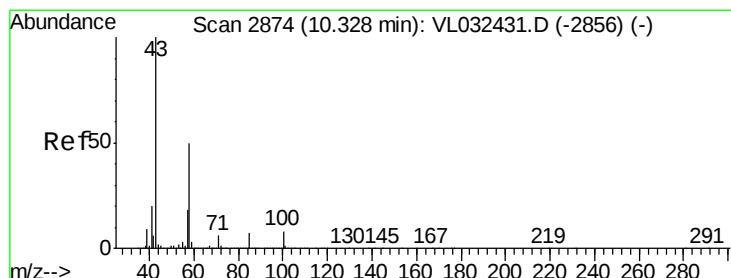
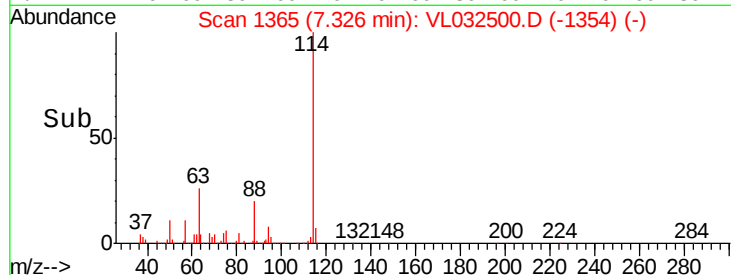
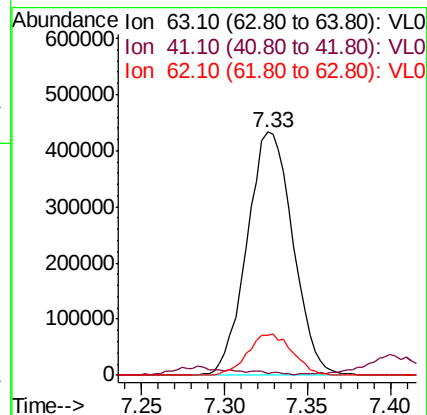
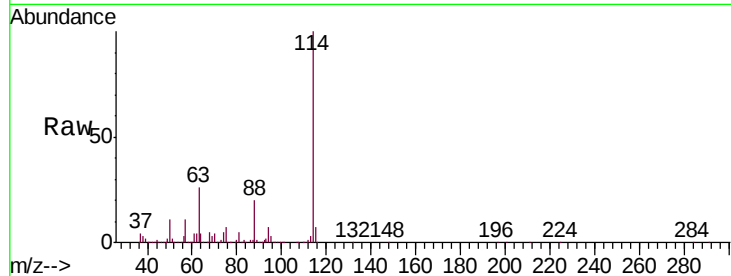
Tgt Ion: 63 Resp: 829877

Ion Ratio Lower Upper

63 100

41 0.0 55.4 83.0#

62 16.4 55.4 83.0#



#51

2-Hexanone

Concen: 3.633 ppbv

RT: 10.32 min Scan# 2295

Delta R.T. -0.01 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

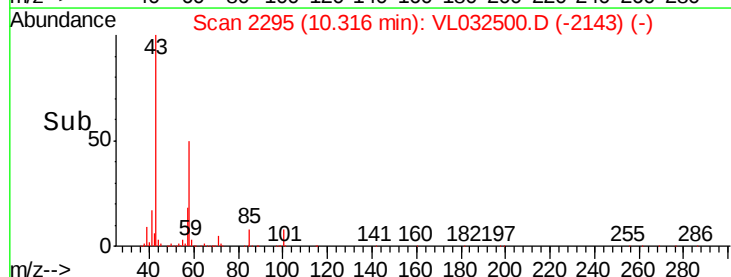
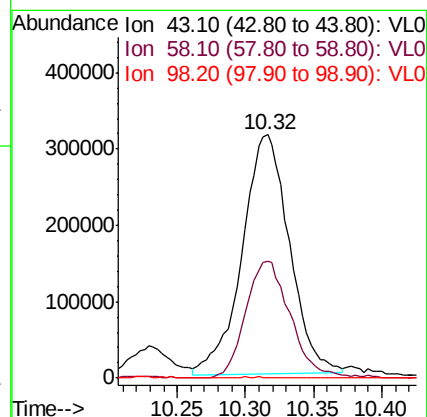
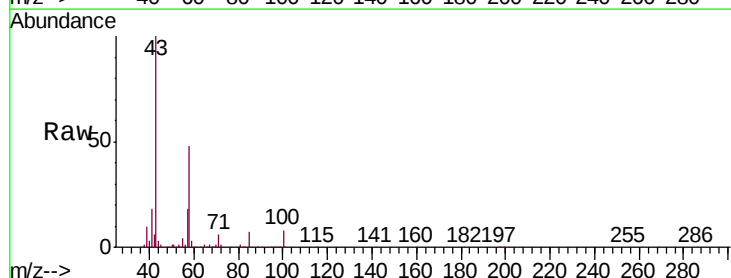
Tgt Ion: 43 Resp: 755853

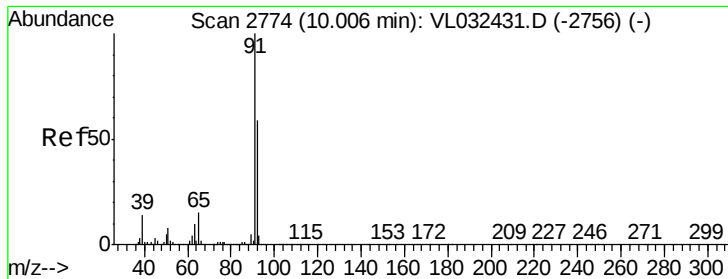
Ion Ratio Lower Upper

43 100

58 46.2 39.2 58.8

98 0.3 0.4 0.6#





#53

Toluene

Concen: 0.193 ppbv

RT: 9.98 min Scan# 2192

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

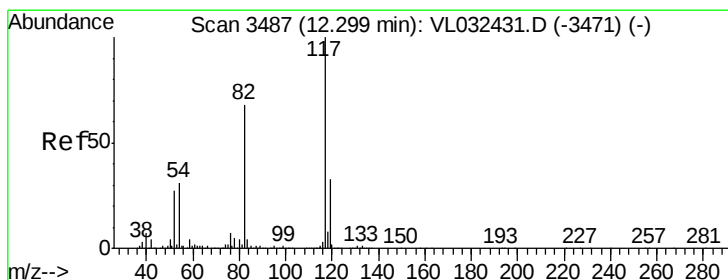
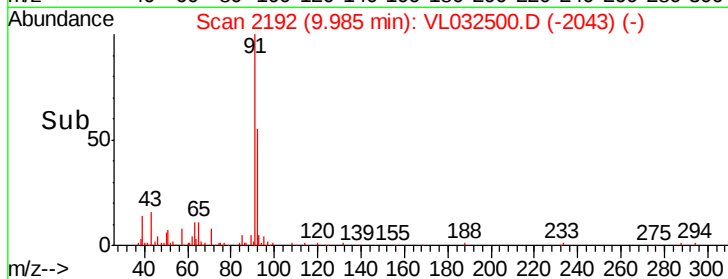
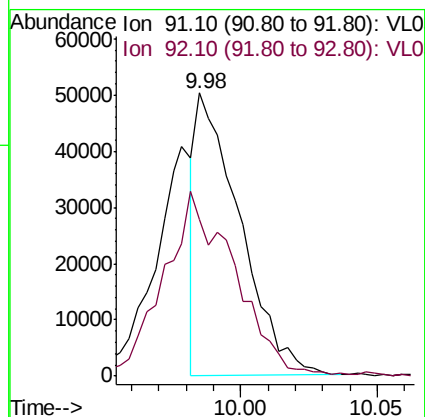
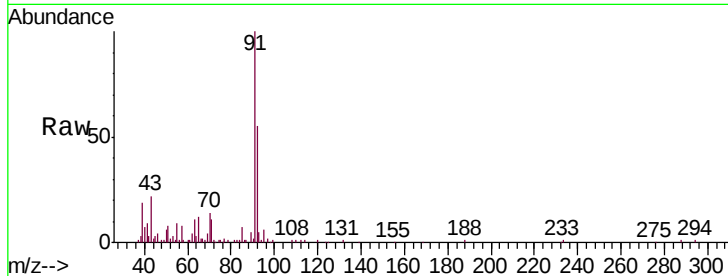
245-BERRYDL2

Tgt Ion: 91 Resp: 55545

Ion Ratio Lower Upper

91 100

92 107.7 48.1 72.1#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.28 min Scan# 2906

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

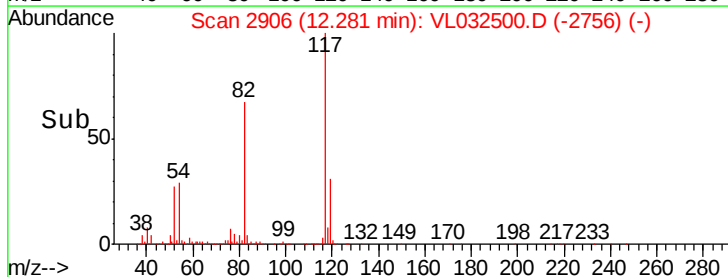
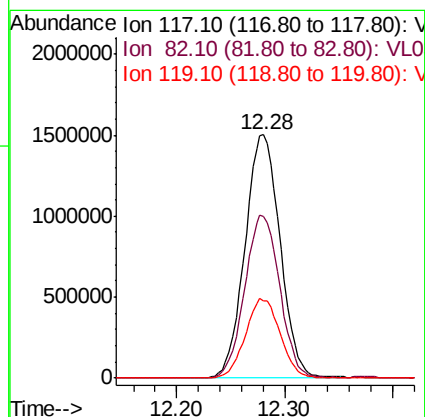
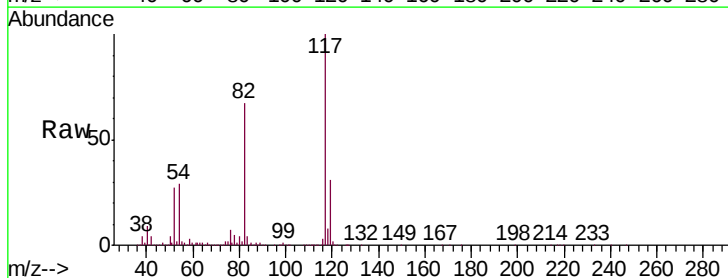
Tgt Ion: 117 Resp: 3403809

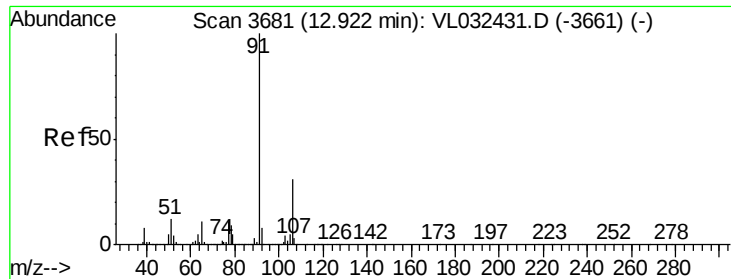
Ion Ratio Lower Upper

117 100

82 66.9 53.0 79.6

119 32.6 45.9 68.9#





#58

Ethyl Benzene

Concen: 0.106 ppbv

RT: 12.91 min Scan# 3101

Delta R.T. -0.01 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

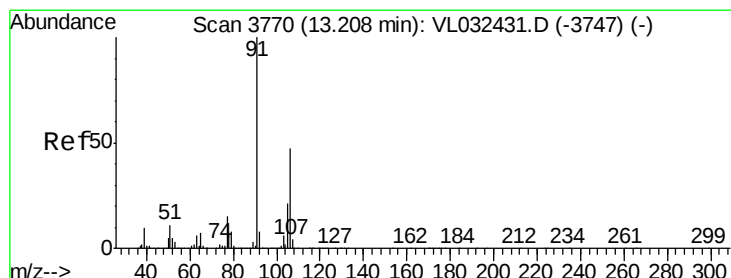
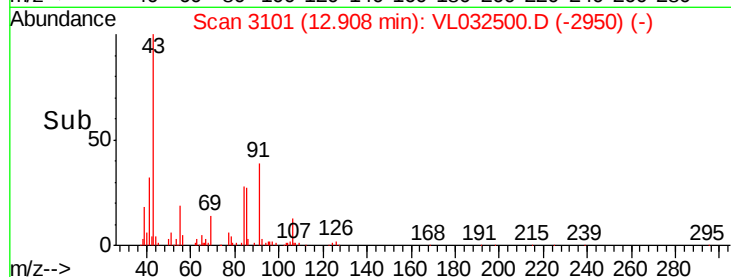
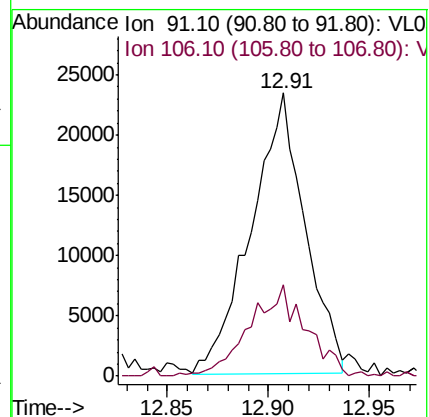
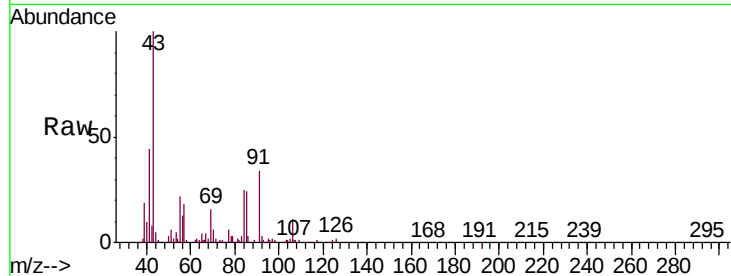
245-BERRYDL2

Tgt Ion: 91 Resp: 43348

Ion Ratio Lower Upper

91 100

106 31.3 24.8 37.2



#59

m/p-Xylene

Concen: 0.041 ppbv

RT: 13.19 min Scan# 3189

Delta R.T. -0.02 min

Lab File: VL032500.D

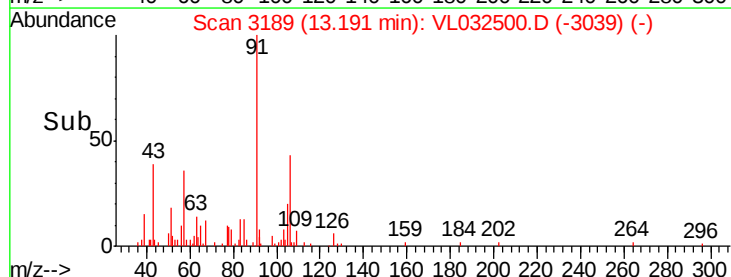
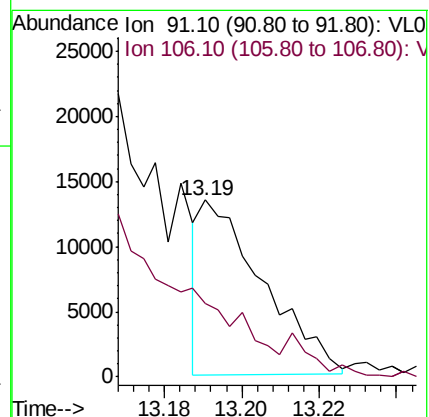
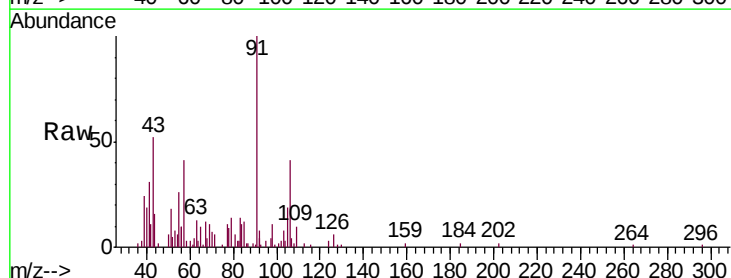
Acq: 11 Sep 2018 9:47

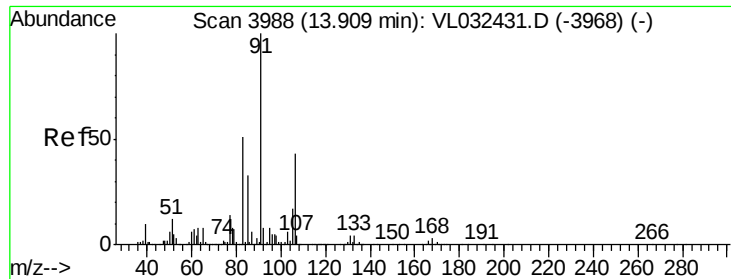
Tgt Ion: 91 Resp: 15045

Ion Ratio Lower Upper

91 100

106 0.0 36.6 55.0#

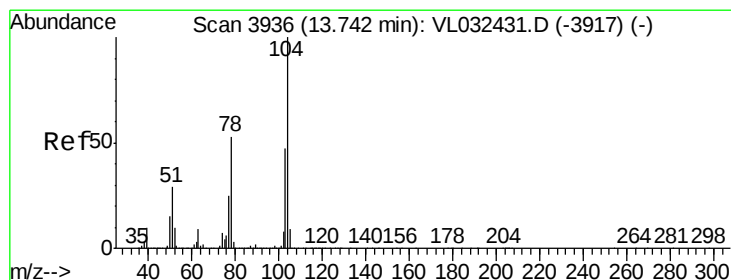
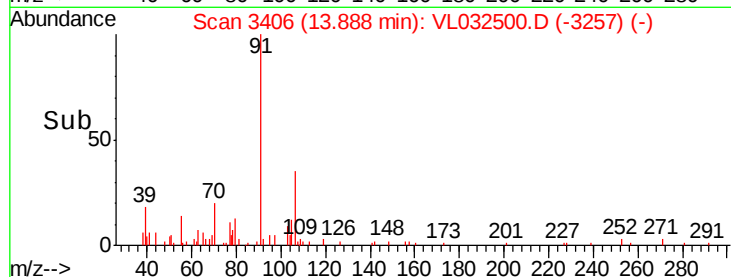
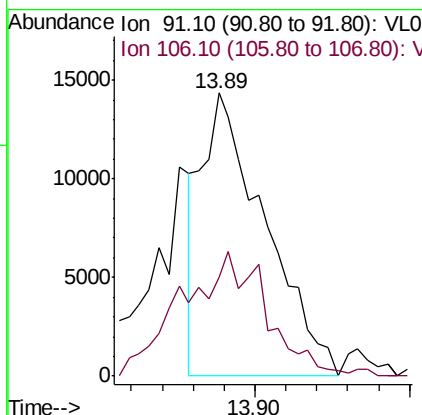
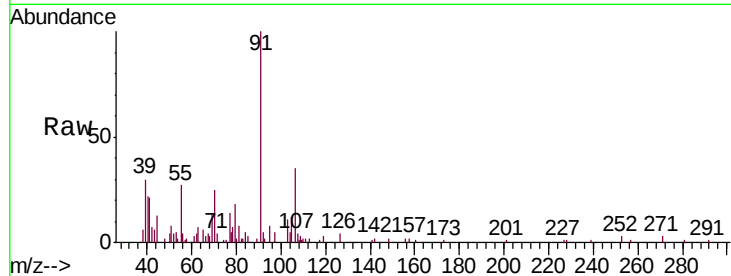




#60
o-Xylene
Concen: 0.057 ppbv
RT: 13.89 min Scan# 3406
Delta R.T. -0.02 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

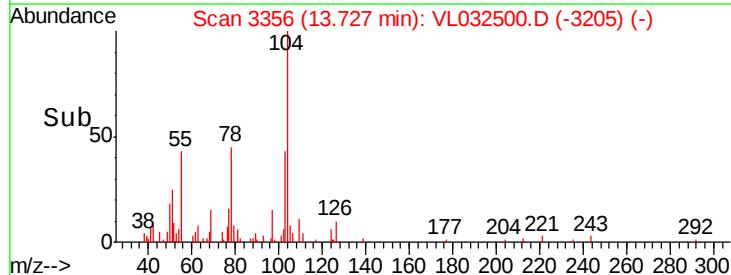
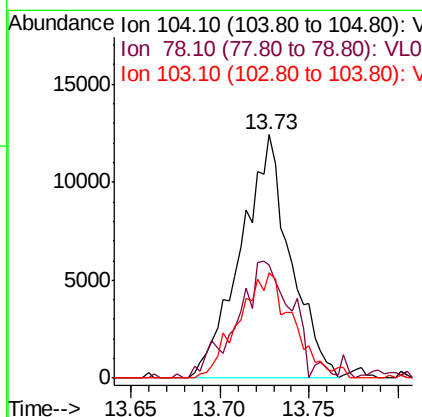
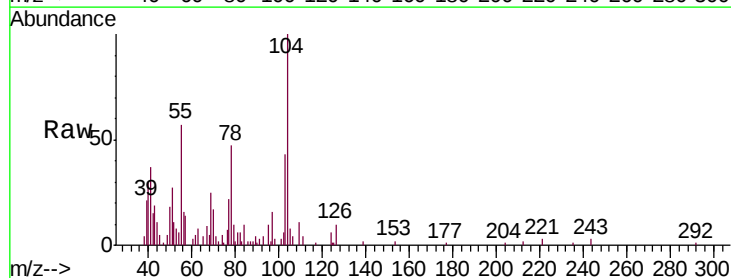
Instrument :
MSVOA_L
ClientSampleId :
245-BERRYDL2

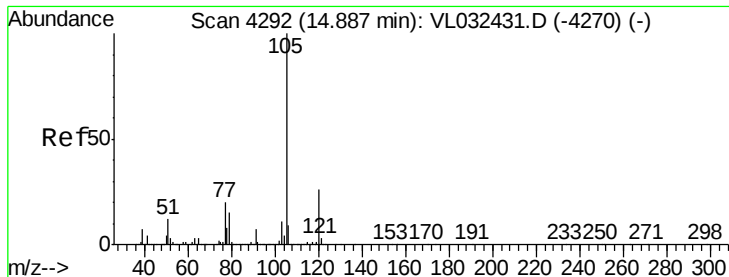
Tgt Ion: 91 Resp: 20496
Ion Ratio Lower Upper
91 100
106 59.4 21.9 65.7



#61
Styrene
Concen: 0.104 ppbv
RT: 13.73 min Scan# 3356
Delta R.T. -0.01 min
Lab File: VL032500.D
Acq: 11 Sep 2018 9:47

Tgt Ion: 104 Resp: 24100
Ion Ratio Lower Upper
104 100
78 56.8 41.8 62.8
103 47.4 38.0 57.0





#62

Isopropylbenzene

Concen: 0.064 ppbv

RT: 14.86 min Scan# 3709

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

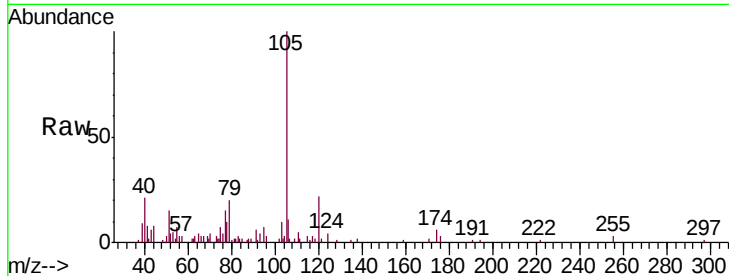
245-BERRYDL2

Tgt Ion: 105 Resp: 31994

Ion Ratio Lower Upper

105 100

120 25.5 20.6 31.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

14.86

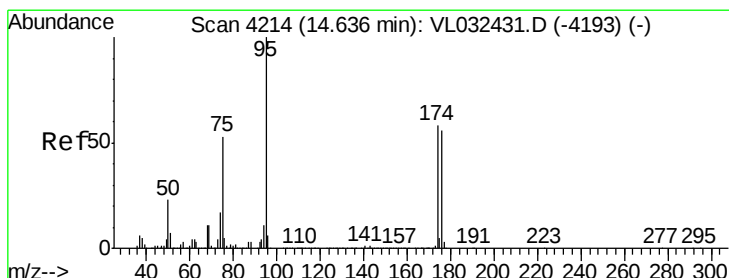
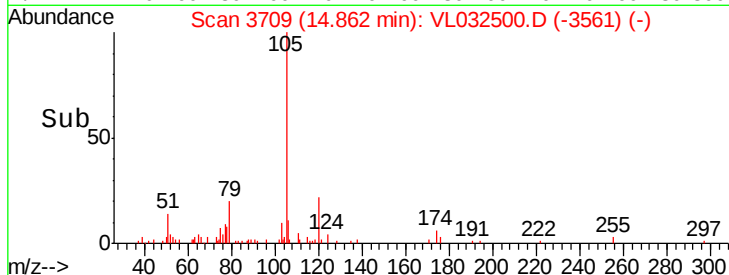
15000

10000

5000

0

Time--> 14.80 14.85 14.90



#68

1-Bromo-4-Fluorobenzene

Concen: 10.418 ppbv

RT: 14.62 min Scan# 3633

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

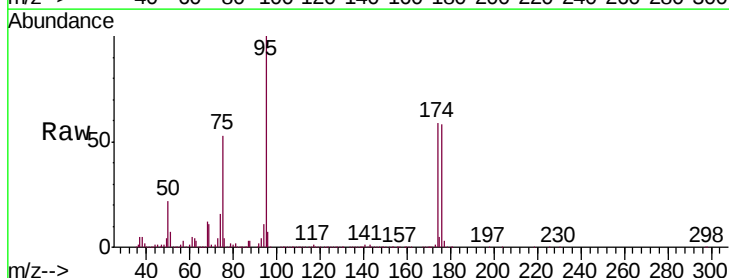
Tgt Ion: 95 Resp: 2632731

Ion Ratio Lower Upper

95 100

174 59.4 46.3 69.5

175 4.5 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

14.62

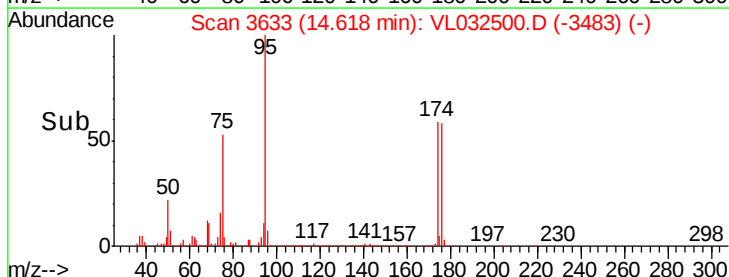
1500000

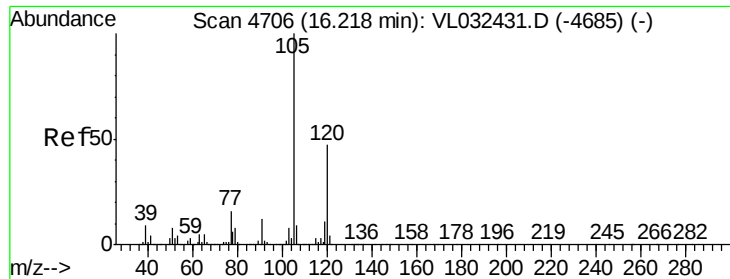
1000000

500000

0

Time--> 14.50 14.60 14.70





#73

1,3,5-Trimethylbenzene

Concen: 0.050 ppbv

RT: 16.20 min Scan# 4124

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Instrument :

MSVOA_L

ClientSampleId :

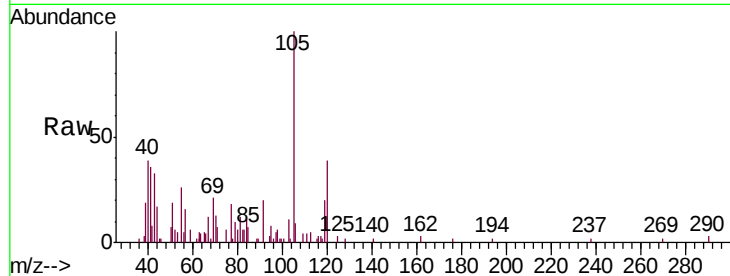
245-BERRYDL2

Tgt Ion:105 Resp: 19607

Ion Ratio Lower Upper

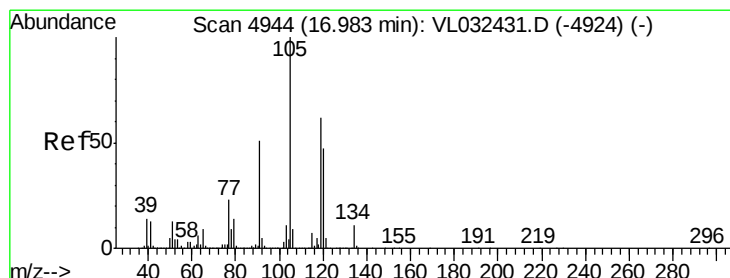
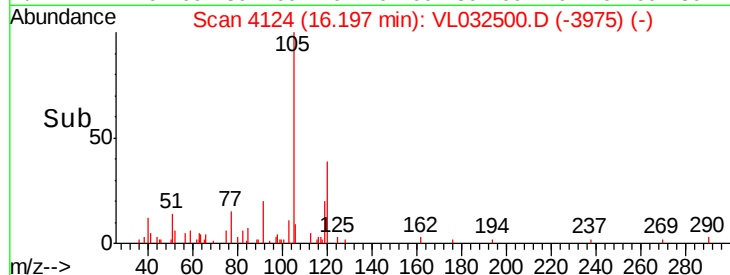
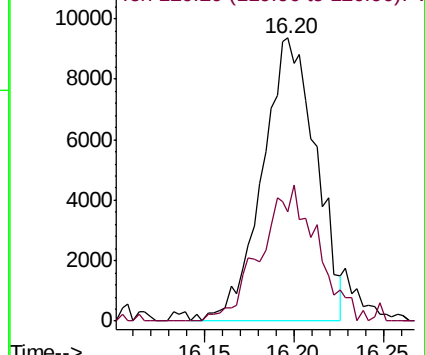
105 100

120 39.6 37.9 56.9



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: 0.080 ppbv

RT: 16.97 min Scan# 4363

Delta R.T. -0.02 min

Lab File: VL032500.D

Acq: 11 Sep 2018 9:47

Tgt Ion:105 Resp: 33998

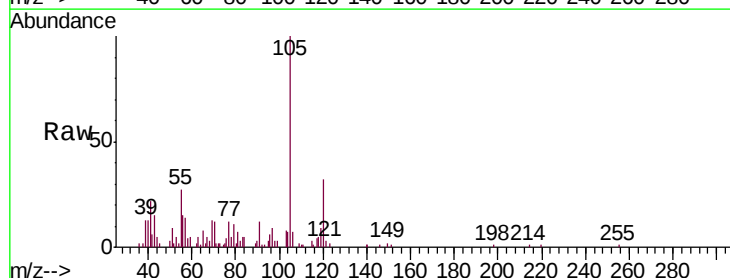
Ion Ratio Lower Upper

105 100

120 31.5 37.8 56.8#

91 9.6 41.4 62.0#

77 10.8 18.6 28.0#



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

