

Data File : VL033975.D
Acq On : 26 Jun 2019 20:00
Operator : SY/AP
Sample : K3481-01DL2 40X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-A-1DL2

Quant Time: Jun 27 01:24:33 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL060719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 07 08:53:27 2019
QLast Update : Fri Jun 07 08:53:27 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.74	49	836246	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.26	114	2022863	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.21	117	2043343	10.00	ppbv	-0.02

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.54 95 1816134 10.82 ppbv -0.02
Spiked Amount 10.000 Range 65 - 135 Recovery = 108.20%

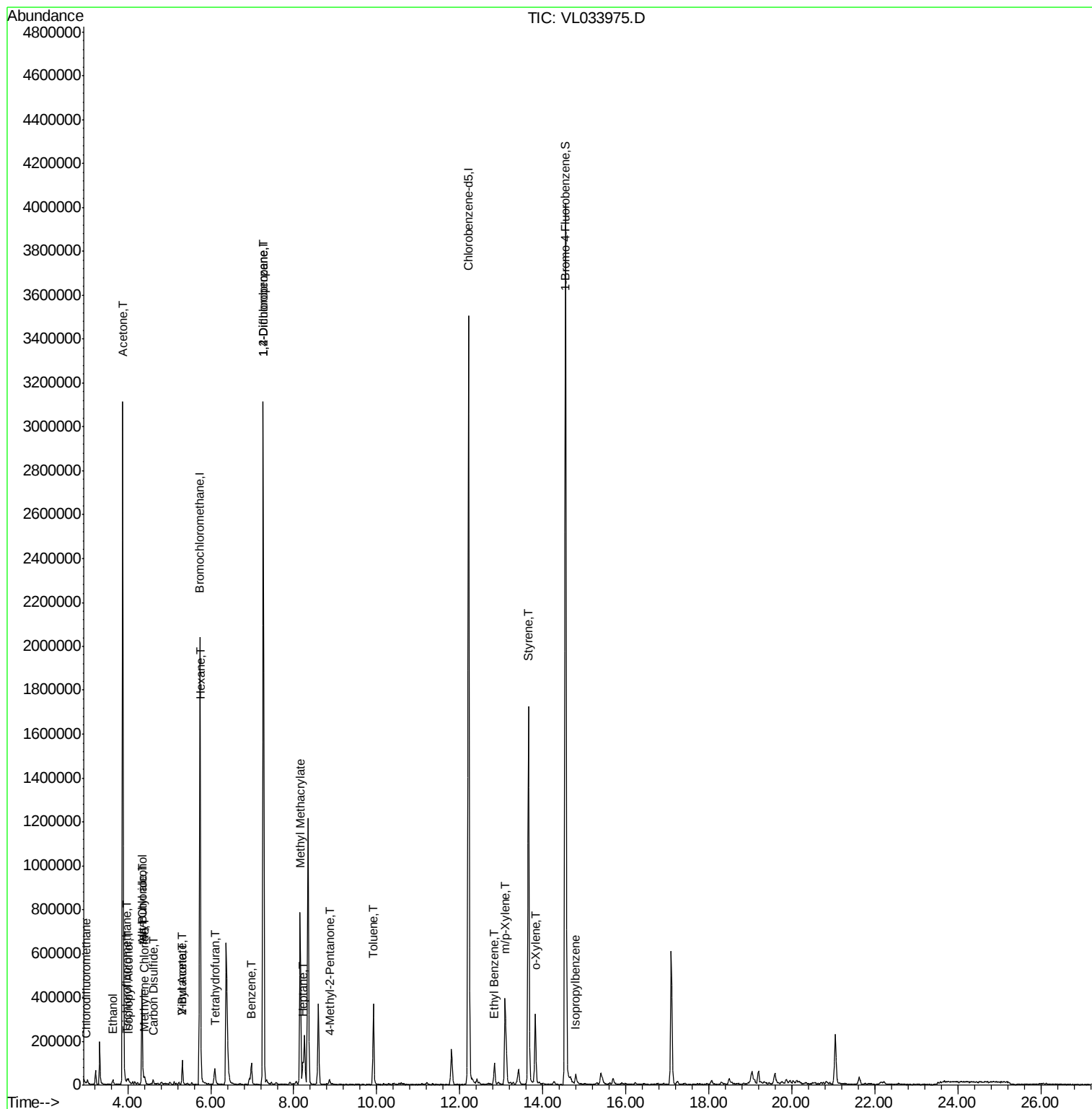
Target Compounds					Qvalue
3) Chlorodifluoromethane	3.00	51	5010	0.051 ppbv	97
10) Heptane	8.22	43	30803	0.331 ppbv #	64
11) Trichlorofluoromethane	3.98	101	8583	0.049 ppbv	94
13) Ethanol	3.64	45	16047	1.339 ppbv	91
15) Acetone	3.88	43	3107553	25.479 ppbv	100
17) tert-Butyl alcohol	4.34	59	310518	3.257 ppbv	97
19) Isopropyl Alcohol	4.01	45	7043	0.101 ppbv #	94
20) Methylene Chloride	4.39	84	7956	0.167 ppbv	90
21) Allyl Chloride	4.34	41	115098	1.661 ppbv #	61
23) Vinyl Acetate	5.31	43	116722	0.823 ppbv #	89
26) Hexane	5.76	57	6500	0.077 ppbv #	42
27) Carbon Disulfide	4.60	76	4108	0.035 ppbv #	1
34) 2-Butanone	5.31	43	116722	1.023 ppbv	94
36) Benzene	6.98	78	66822	0.432 ppbv	96
39) 1,2-Dichloropropane	7.26	63	537596	9.014 ppbv #	27
41) Tetrahydrofuran	6.11	42	5032	0.087 ppbv #	35
43) Methyl Methacrylate	8.16	69	150274	2.600 ppbv #	60
50) 4-Methyl-2-Pentanone	8.86	43	13713	0.081 ppbv	92
53) Toluene	9.92	91	257659	1.507 ppbv	96
58) Ethyl Benzene	12.84	91	74032	0.321 ppbv	95
59) m/p-Xylene	13.09	91	364505	1.740 ppbv	96
60) o-Xylene	13.81	91	231521	1.070 ppbv	97
61) Styrene	13.66	104	926969	6.622 ppbv	98
62) Isopropylbenzene	14.78	105	10012	0.034 ppbv #	11

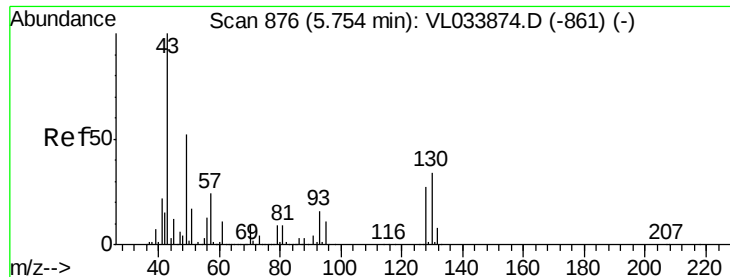
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.74 min Scan# 871

Delta R.T. -0.02 min

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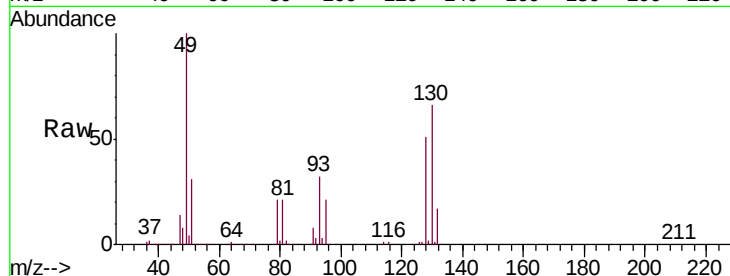
Tgt Ion: 49 Resp: 836246

Ion Ratio Lower Upper

49 100

128 50.5 25.5 76.5

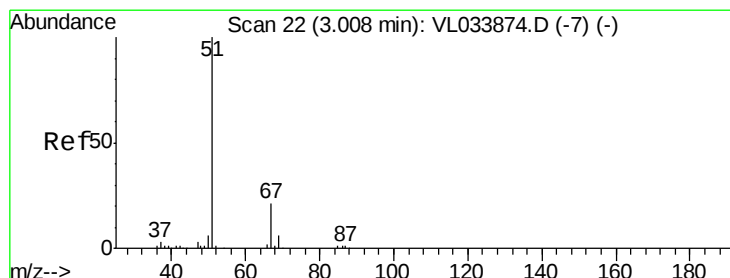
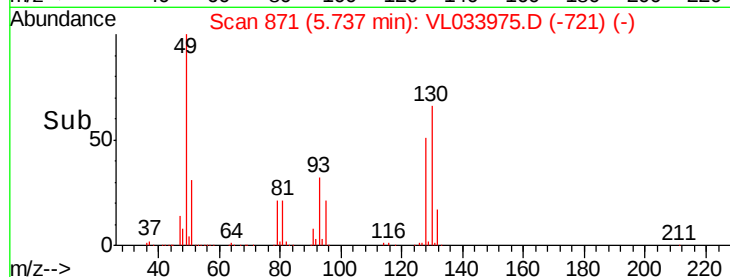
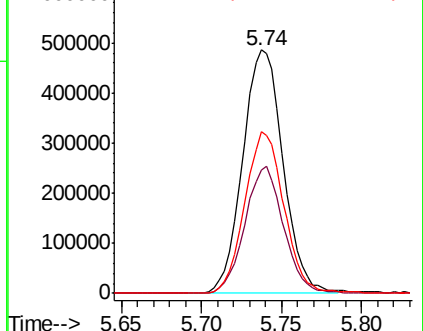
130 64.8 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.051 ppbv

RT: 3.00 min Scan# 19

Delta R.T. -0.01 min

Lab File: VL033975.D

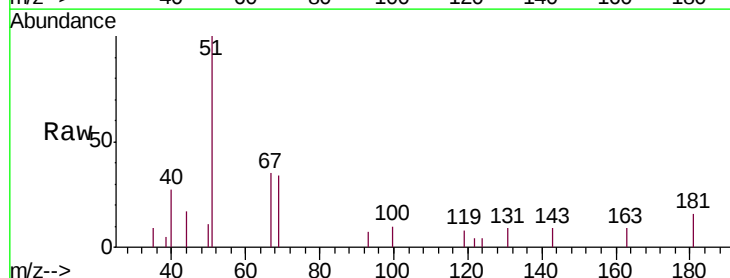
Acq: 26 Jun 2019 20:00

Tgt Ion: 51 Resp: 5010

Ion Ratio Lower Upper

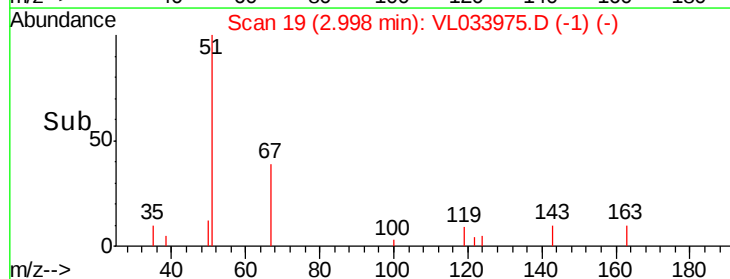
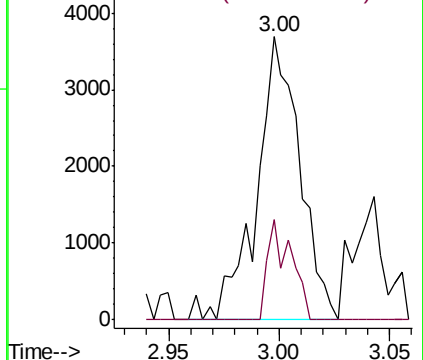
51 100

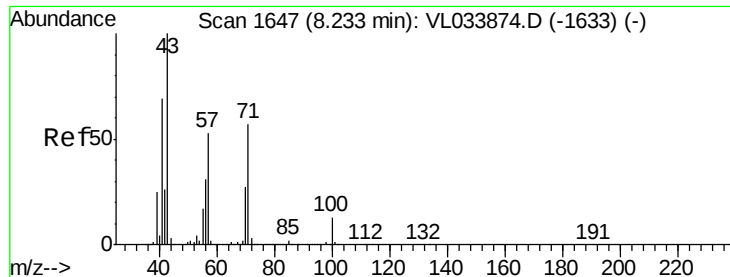
67 19.0 16.4 24.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#10

Heptane

Concen: 0.331 ppbv

RT: 8.22 min Scan# 1643

Delta R.T. -0.01 min

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Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

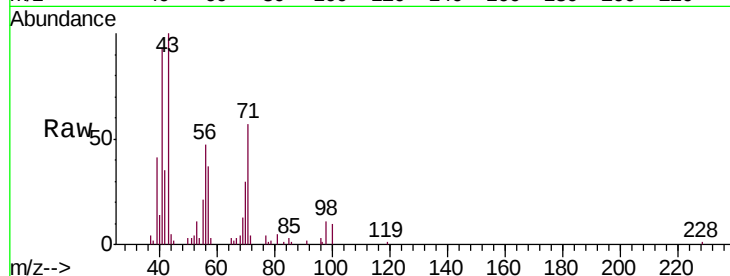
TZC-SSDS-AREA-A-1DL2

Tgt Ion: 43 Resp: 30803

Ion Ratio Lower Upper

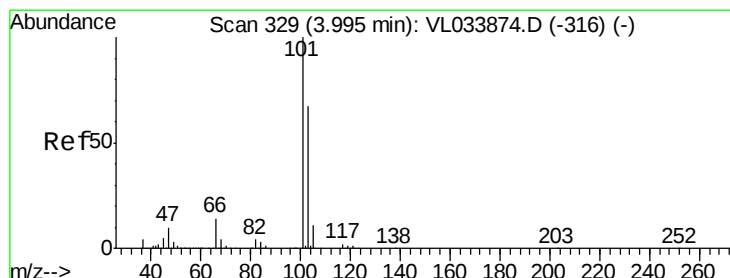
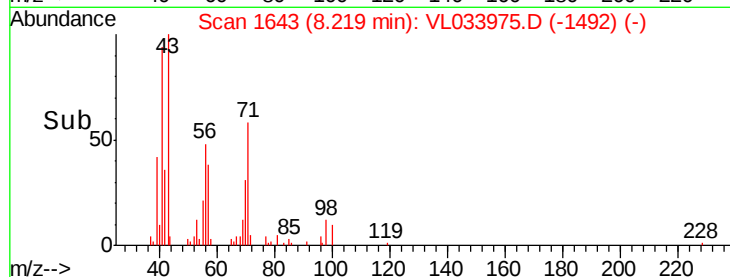
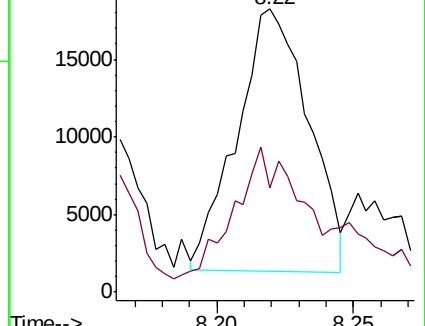
43 100

57 77.7 41.7 62.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.049 ppbv

RT: 3.98 min Scan# 326

Delta R.T. -0.01 min

Lab File: VL033975.D

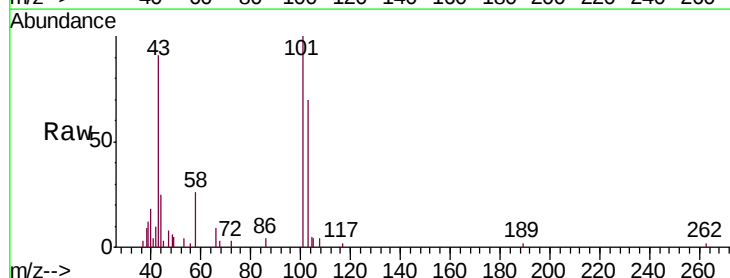
Acq: 26 Jun 2019 20:00

Tgt Ion: 101 Resp: 8583

Ion Ratio Lower Upper

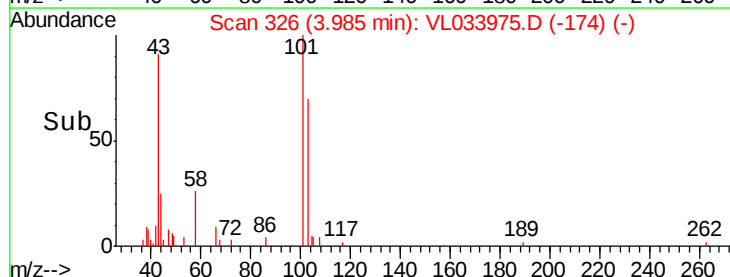
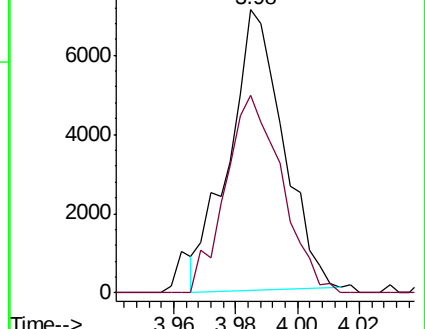
101 100

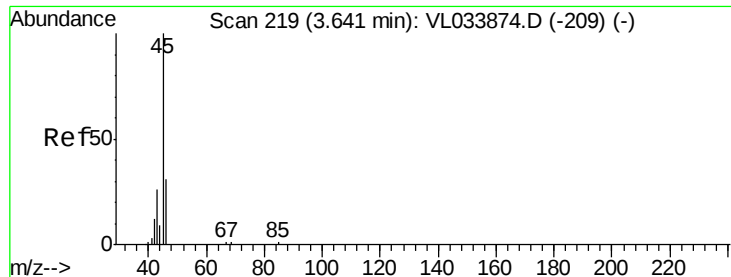
103 71.5 53.6 80.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 1.339 ppbv

RT: 3.64 min Scan# 219

Delta R.T. -0.00 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

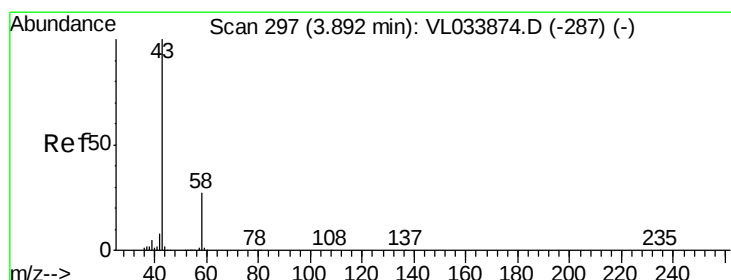
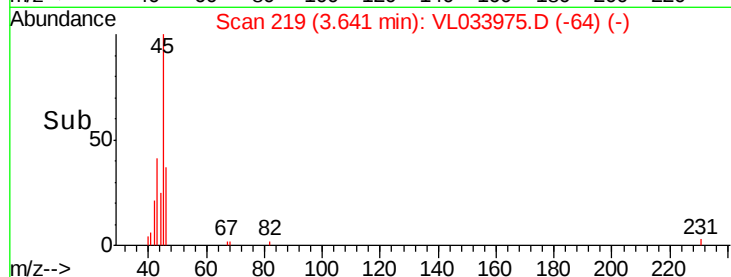
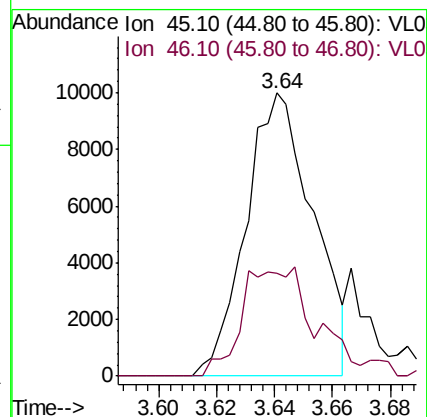
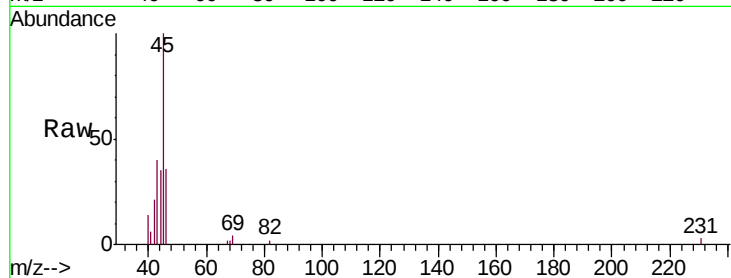
TZC-SSDS-AREA-A-1DL2

Tgt Ion: 45 Resp: 16047

Ion Ratio Lower Upper

45 100

46 43.4 15.3 61.1



#15

Acetone

Concen: 25.479 ppbv

RT: 3.88 min Scan# 293

Delta R.T. -0.01 min

Lab File: VL033975.D

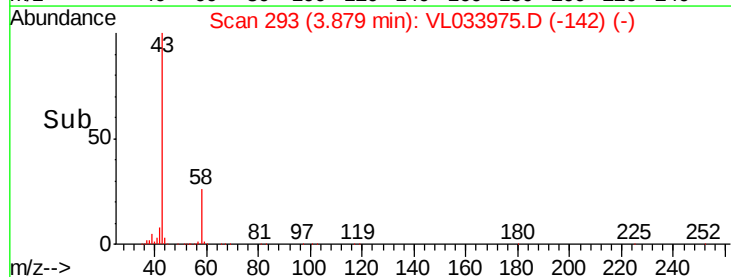
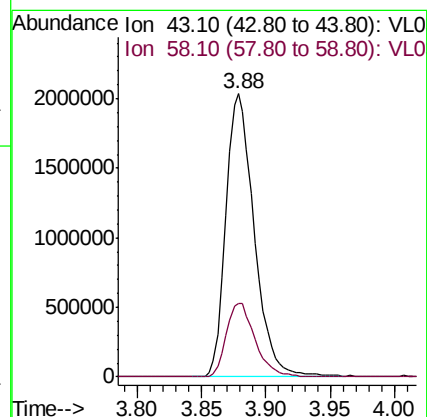
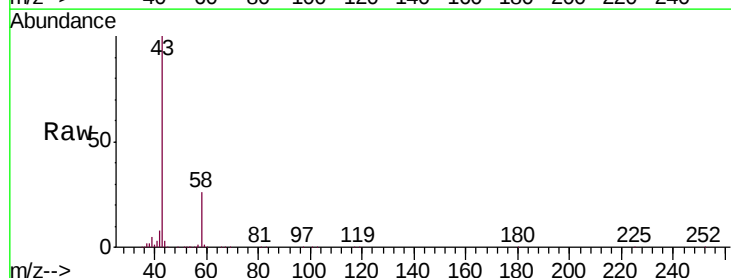
Acq: 26 Jun 2019 20:00

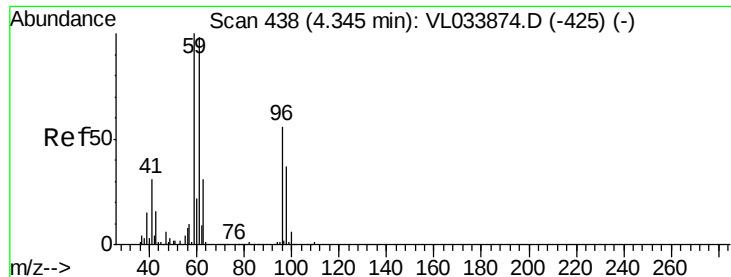
Tgt Ion: 43 Resp: 3107553

Ion Ratio Lower Upper

43 100

58 26.8 21.3 31.9

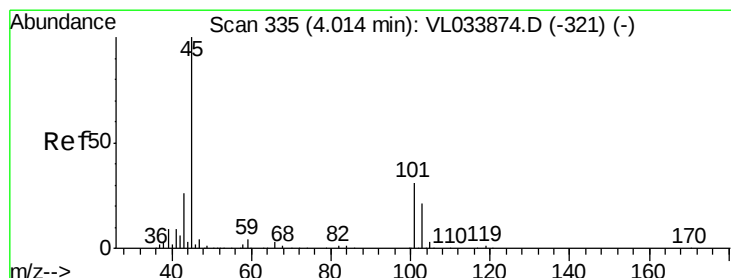
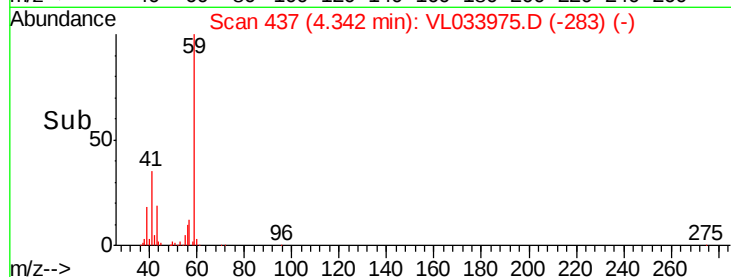
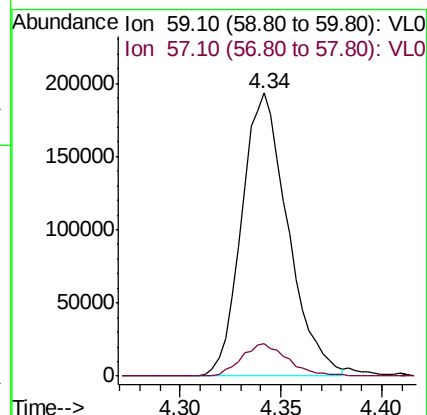
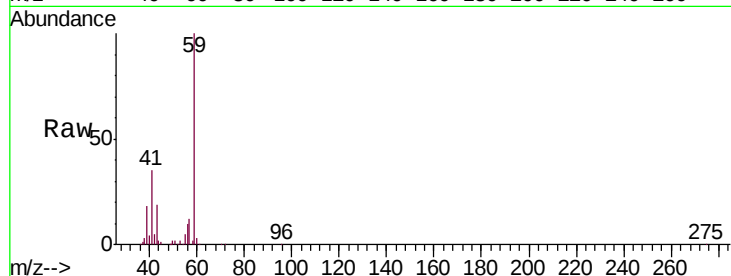




#17
 tert-Butyl alcohol
 Concen: 3.257 ppbv
 RT: 4.34 min Scan# 437
 Delta R.T. -0.00 min
 Lab File: VL033975.D
 Acq: 26 Jun 2019 20:00

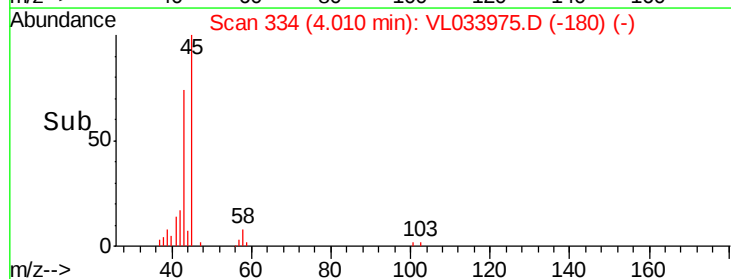
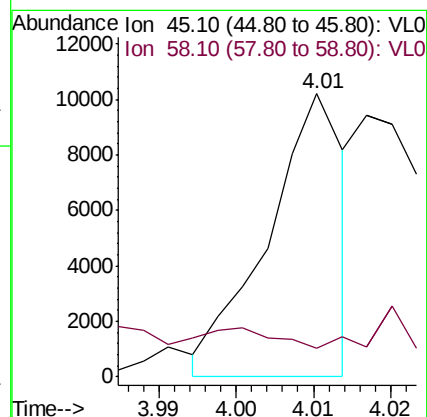
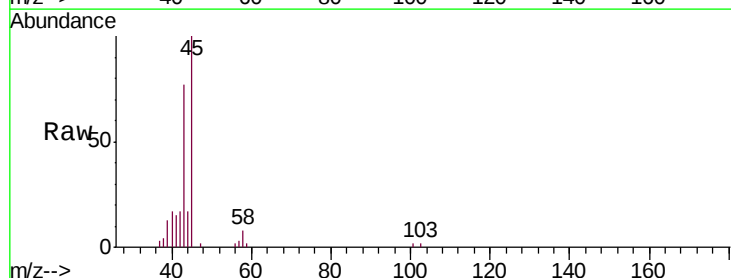
Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-A-1DL2

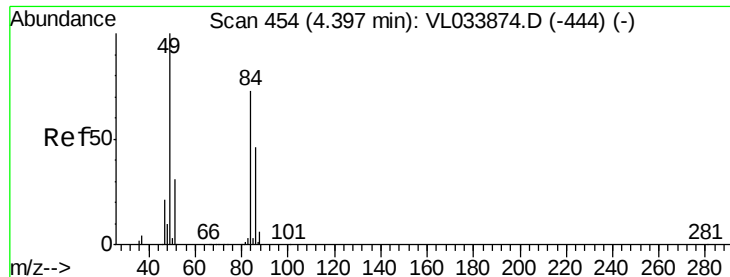
Tgt Ion: 59 Resp: 310518
 Ion Ratio Lower Upper
 59 100
 57 11.5 8.4 12.6



#19
 Isopropyl Alcohol
 Concen: 0.101 ppbv
 RT: 4.01 min Scan# 334
 Delta R.T. -0.00 min
 Lab File: VL033975.D
 Acq: 26 Jun 2019 20:00

Tgt Ion: 45 Resp: 7043
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.8 2.6#

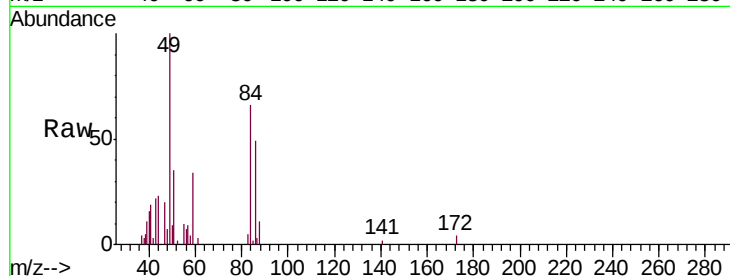




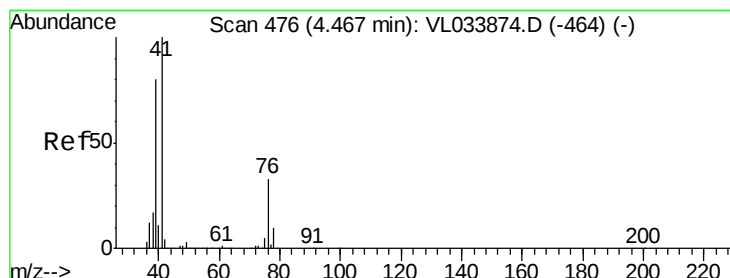
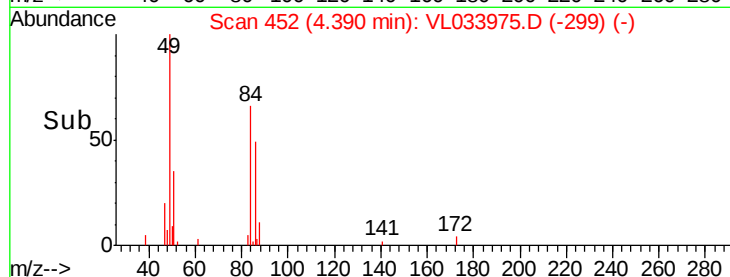
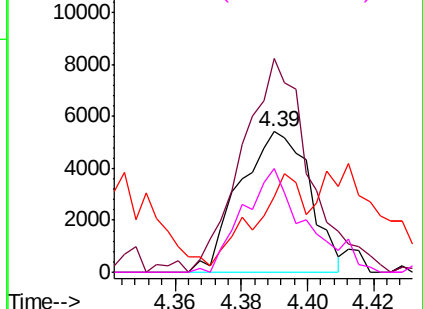
#20
Methylene Chloride
Concen: 0.167 ppbv
RT: 4.39 min Scan# 452
Delta R.T. -0.01 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-A-1DL2

Tgt Ion:	84	Resp:	7956
Ion	Ratio	Lower	Upper
84	100		
49	152.1	110.0	165.0
51	42.7	34.6	51.8
86	73.8	50.6	75.8

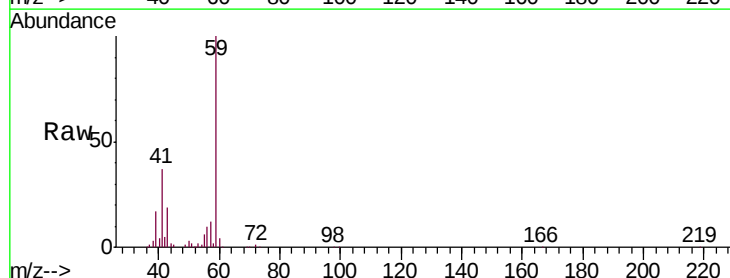


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

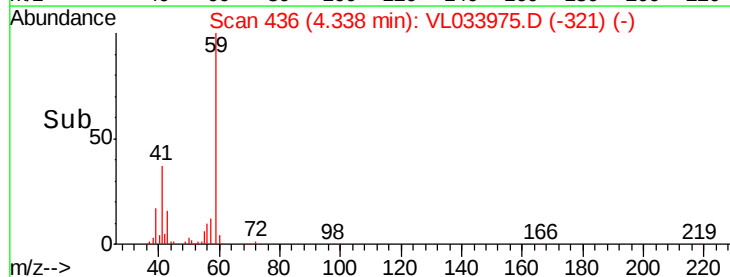
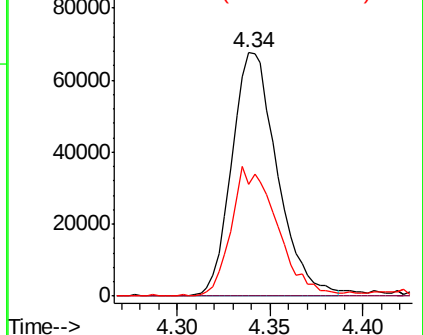


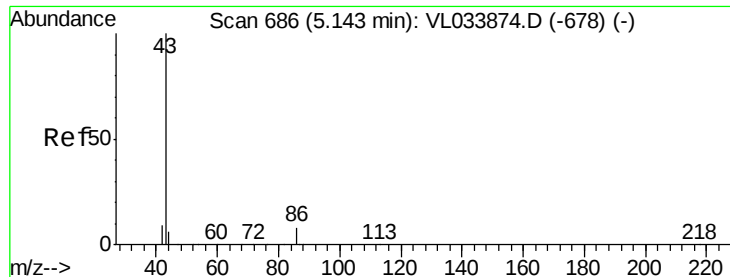
#21
Allyl Chloride
Concen: 1.661 ppbv
RT: 4.34 min Scan# 436
Delta R.T. -0.13 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

Tgt Ion:	41	Resp:	115098
Ion	Ratio	Lower	Upper
41	100		
76	0.0	26.6	39.8#
39	54.1	65.2	97.8#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.823 ppbv

RT: 5.31 min Scan# 739

Delta R.T. 0.17 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-A-1DL2

Tgt Ion: 43 Resp: 116722

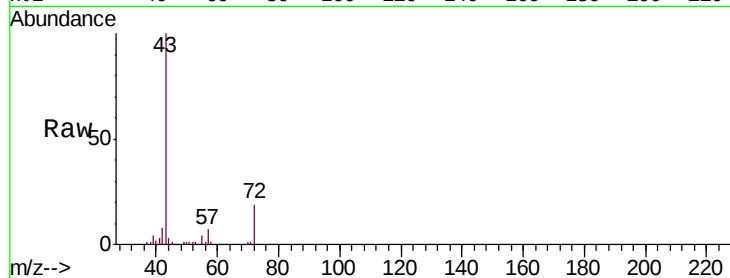
Ion Ratio Lower Upper

43 100

86 0.0 5.8 8.8#

42 8.4 7.8 11.8

44 2.4 4.2 6.4#

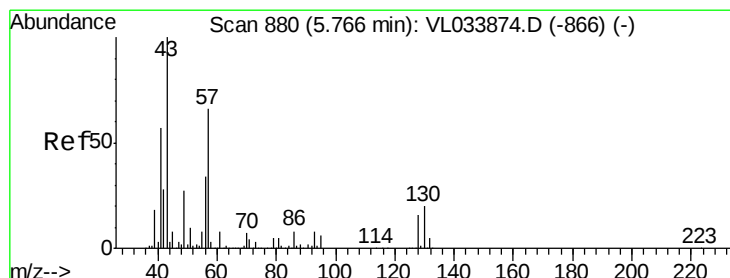
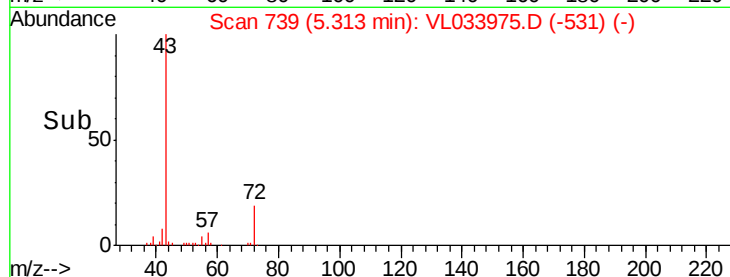
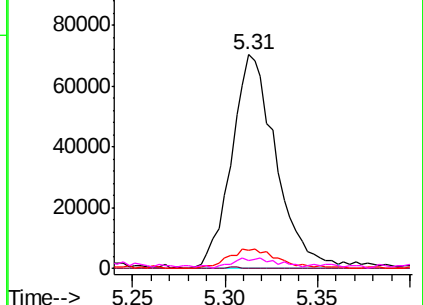


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#26

Hexane

Concen: 0.077 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Tgt Ion: 57 Resp: 6500

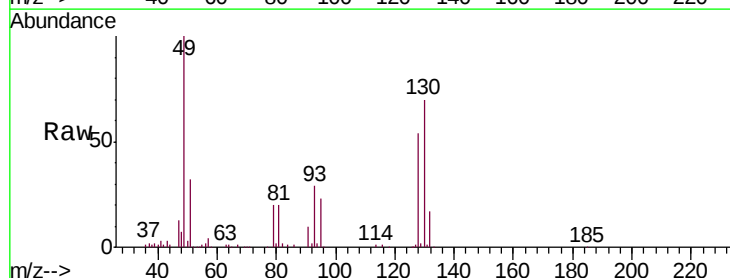
Ion Ratio Lower Upper

57 100

41 150.7 71.4 107.2#

43 131.0 183.7 275.5#

56 78.1 42.7 64.1#

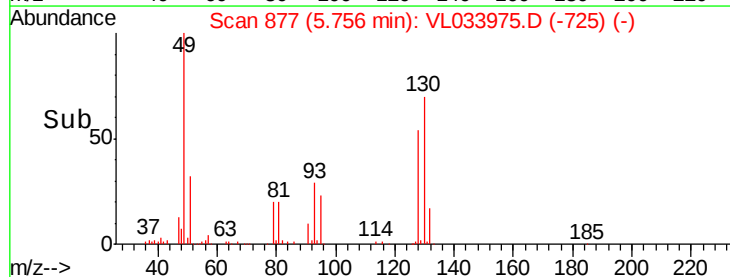
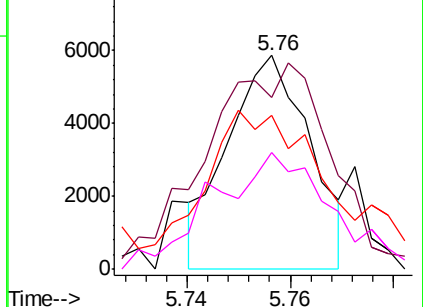


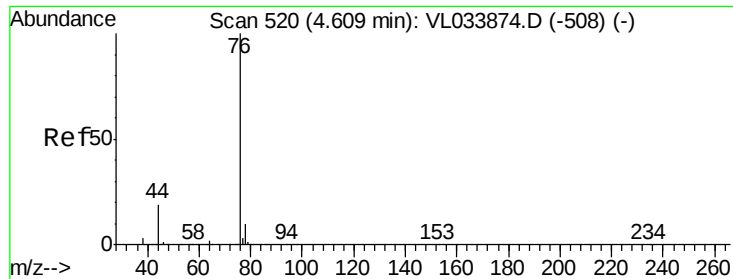
Abundance Ion 57.10 (56.80 to 57.80): VL0

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

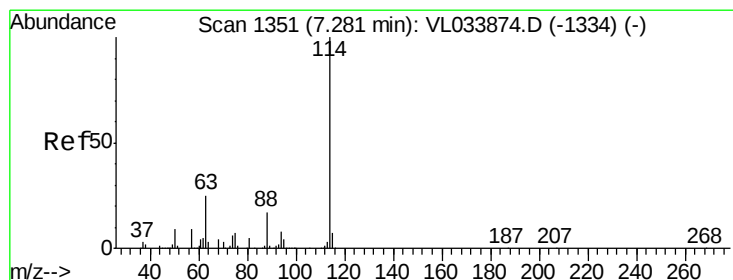
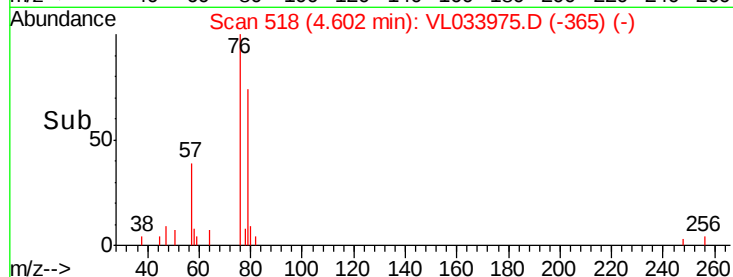
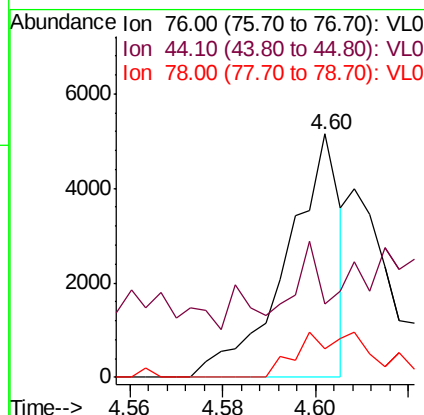
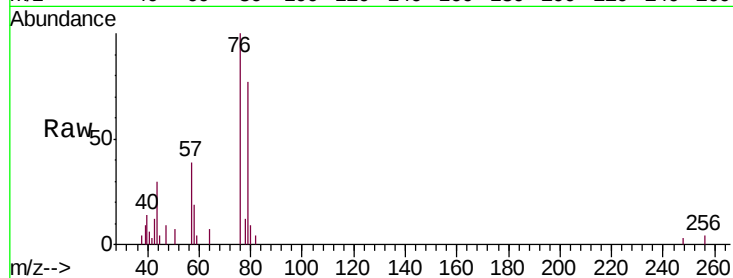




#27
Carbon Disulfide
Concen: 0.035 ppbv
RT: 4.60 min Scan# 518
Delta R.T. -0.01 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

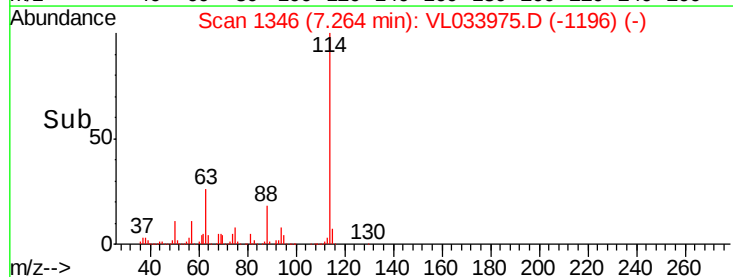
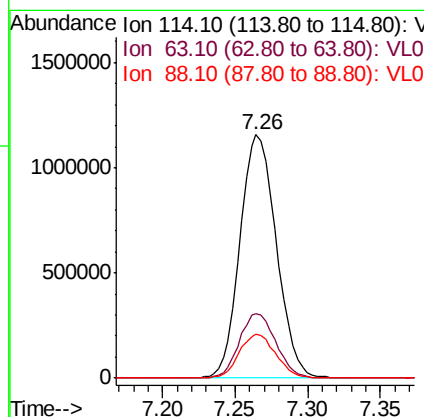
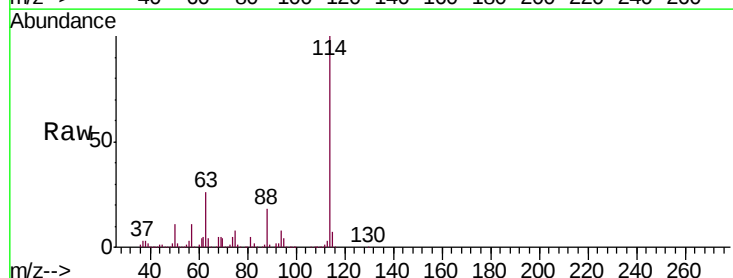
Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-A-1DL2

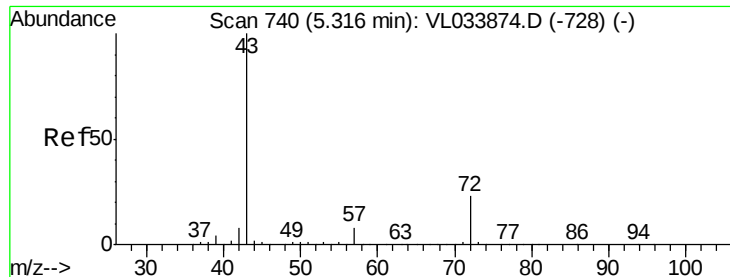
Tgt Ion: 76 Resp: 4108
Ion Ratio Lower Upper
76 100
44 132.0 14.4 21.6#
78 27.8 7.5 11.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.26 min Scan# 1346
Delta R.T. -0.02 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

Tgt Ion: 114 Resp: 2022863
Ion Ratio Lower Upper
114 100
63 26.6 21.1 31.7
88 18.0 14.2 21.4





#34

2-Butanone

Concen: 1.023 ppbv

RT: 5.31 min Scan# 739

Delta R.T. -0.00 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

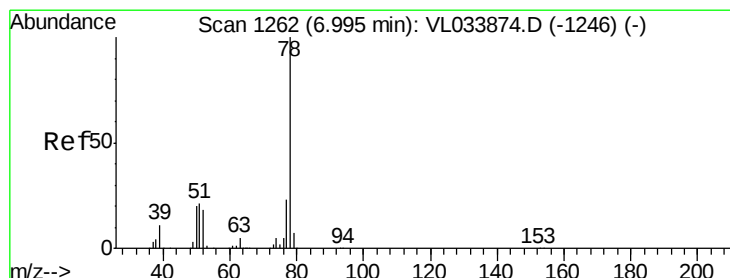
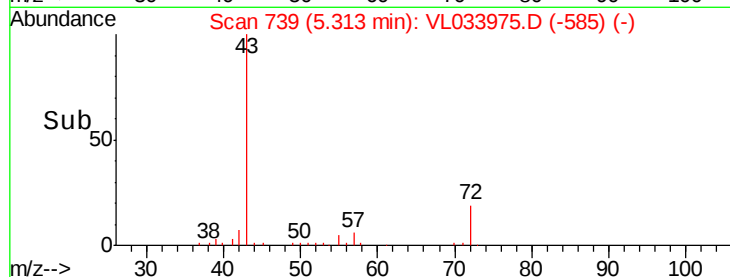
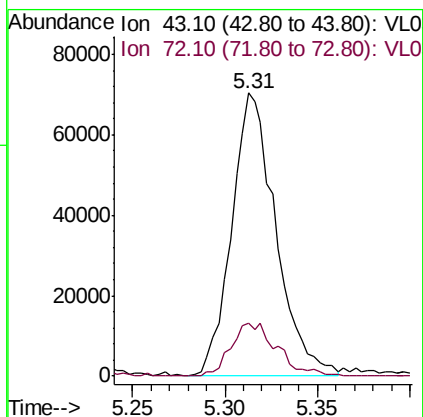
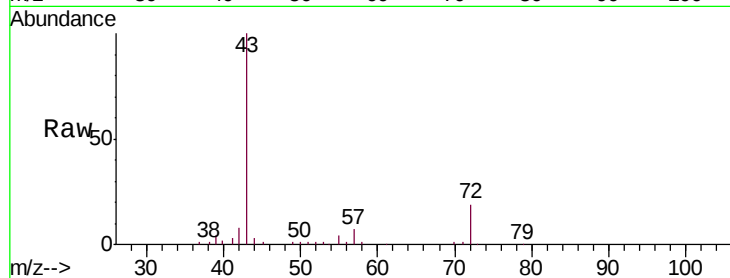
TZC-SSDS-AREA-A-1DL2

Tgt Ion: 43 Resp: 116722

Ion Ratio Lower Upper

43 100

72 19.6 17.9 26.9



#36

Benzene

Concen: 0.432 ppbv

RT: 6.98 min Scan# 1257

Delta R.T. -0.02 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

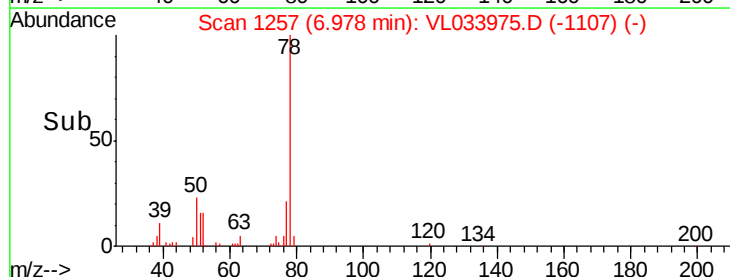
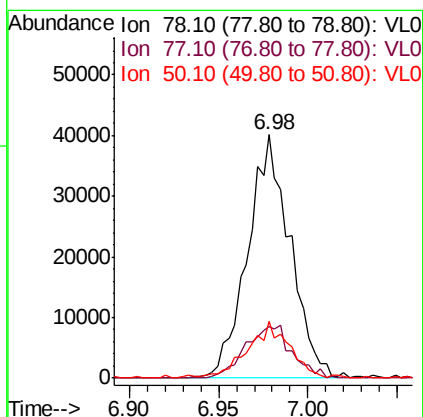
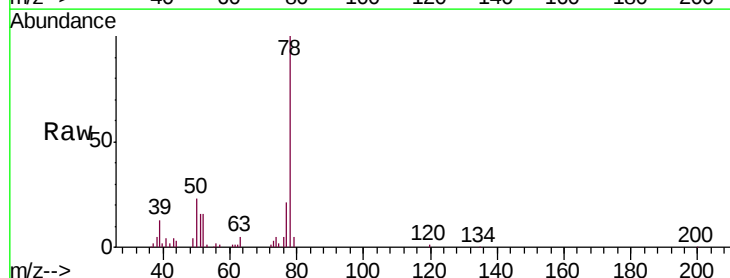
Tgt Ion: 78 Resp: 66822

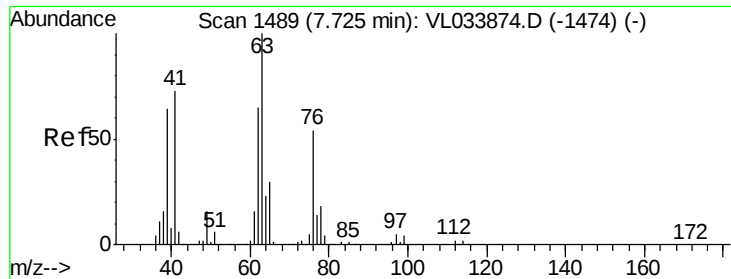
Ion Ratio Lower Upper

78 100

77 21.1 18.2 27.2

50 22.4 15.9 23.9

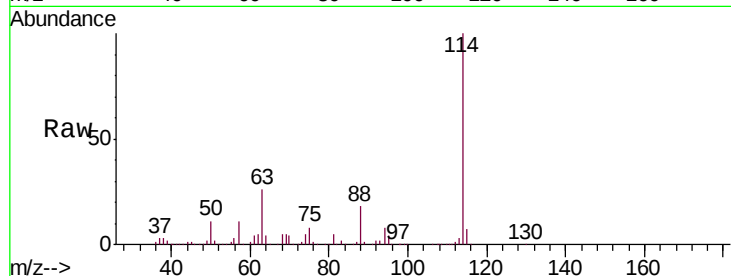




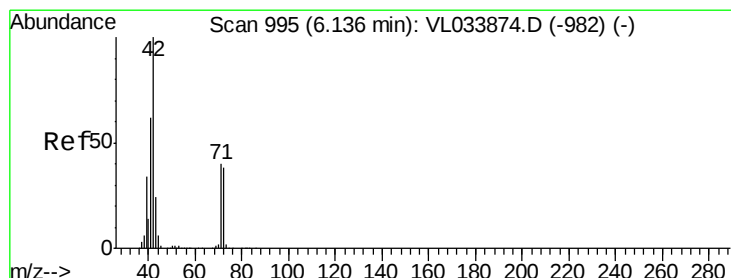
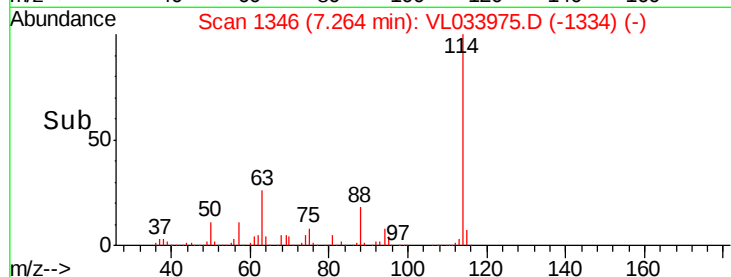
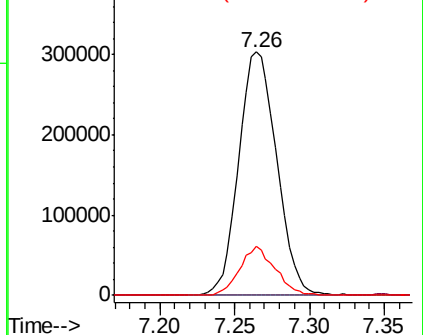
#39
 1,2-Dichloropropane
 Concen: 9.014 ppbv
 RT: 7.26 min Scan# 1346
 Delta R.T. -0.46 min
 Lab File: VL033975.D
 Acq: 26 Jun 2019 20:00

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-A-1DL2

Tgt Ion: 63 Resp: 537596
 Ion Ratio Lower Upper
 63 100
 41 0.2 58.7 88.1#
 62 20.0 51.9 77.9#

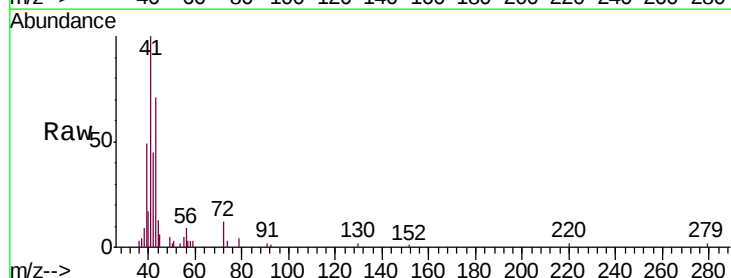


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

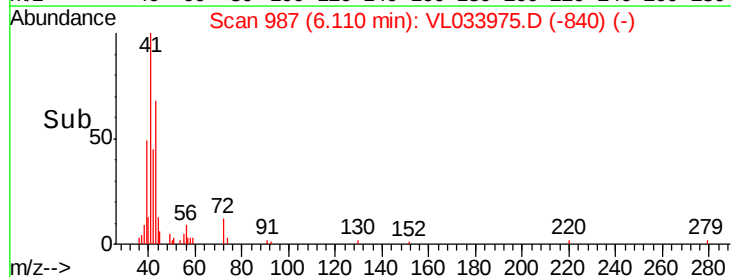
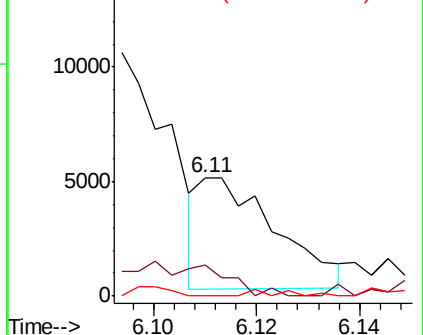


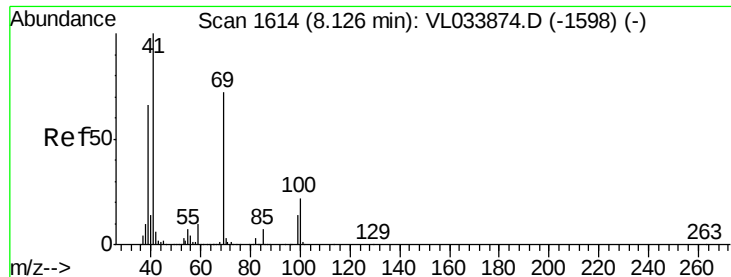
#41
 Tetrahydrofuran
 Concen: 0.087 ppbv
 RT: 6.11 min Scan# 987
 Delta R.T. -0.03 min
 Lab File: VL033975.D
 Acq: 26 Jun 2019 20:00

Tgt Ion: 42 Resp: 5032
 Ion Ratio Lower Upper
 42 100
 72 0.0 32.2 48.4#
 71 0.0 31.7 47.5#



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

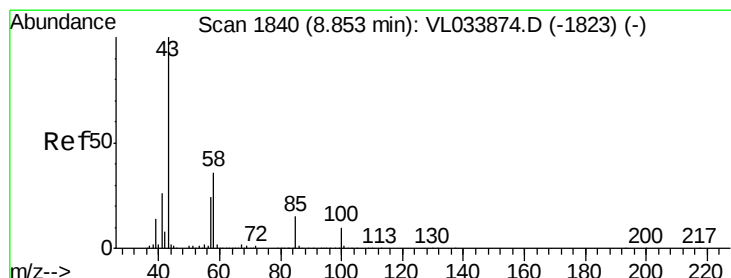
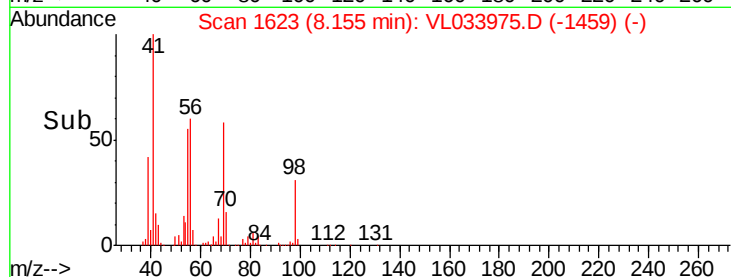
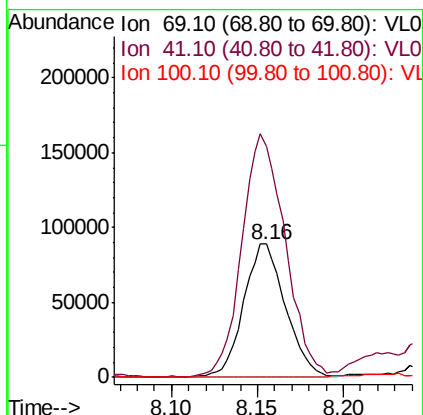
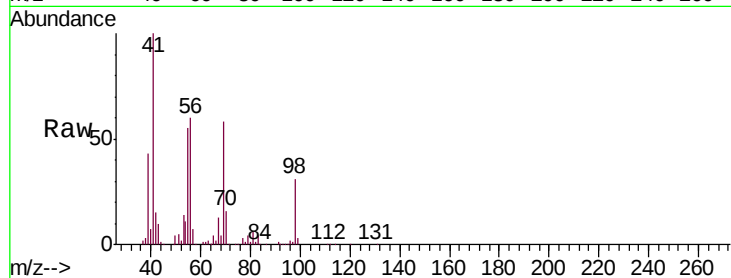




#43
Methyl Methacrylate
Concen: 2.600 ppbv
RT: 8.16 min Scan# 1623
Delta R.T. 0.03 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

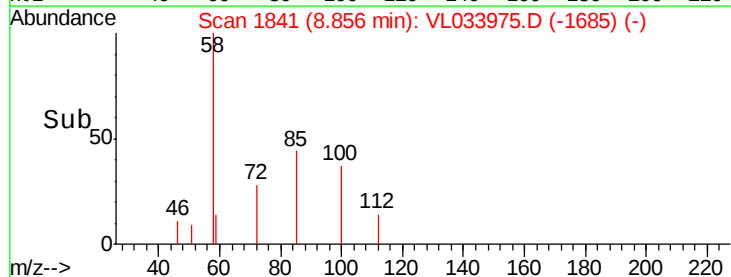
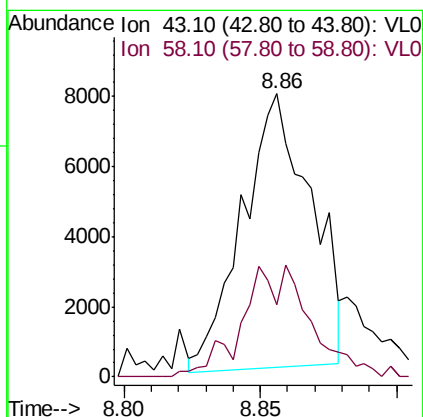
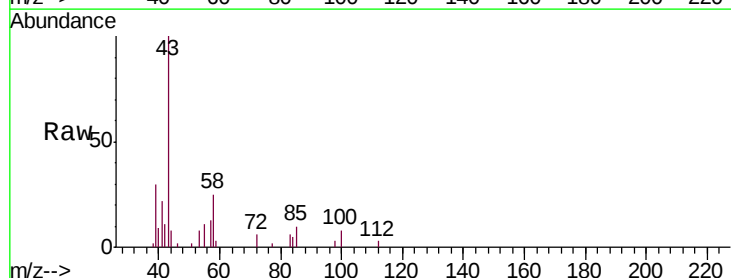
Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-A-1DL2

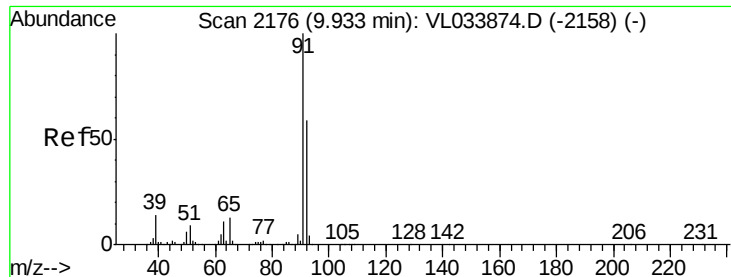
Tgt Ion: 69 Resp: 150274
Ion Ratio Lower Upper
69 100
41 188.5 114.3 171.5#
100 0.2 24.8 37.2#



#50
4-Methyl-2-Pentanone
Concen: 0.081 ppbv
RT: 8.86 min Scan# 1841
Delta R.T. 0.00 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

Tgt Ion: 43 Resp: 13713
Ion Ratio Lower Upper
43 100
58 40.2 28.6 42.8





#53

Toluene

Concen: 1.507 ppbv

RT: 9.92 min Scan# 2172

Delta R.T. -0.01 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

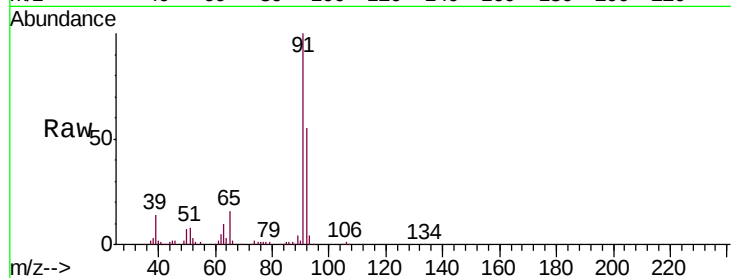
TZC-SSDS-AREA-A-1DL2

Tgt Ion: 91 Resp: 257659

Ion Ratio Lower Upper

91 100

92 55.9 47.0 70.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

150000

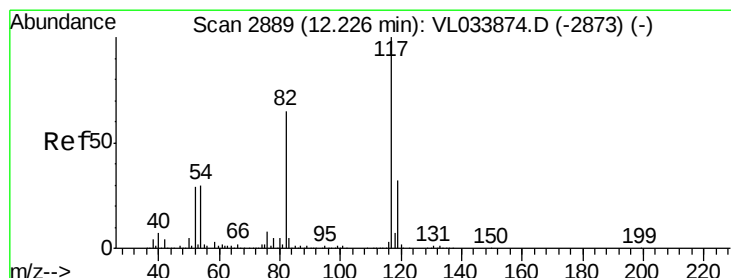
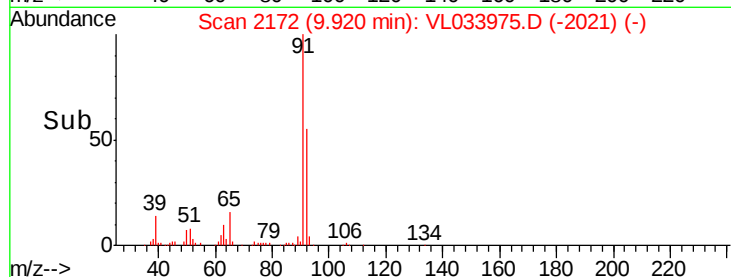
100000

50000

0

9.85 9.90 9.95 10.00

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.21 min Scan# 2883

Delta R.T. -0.02 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

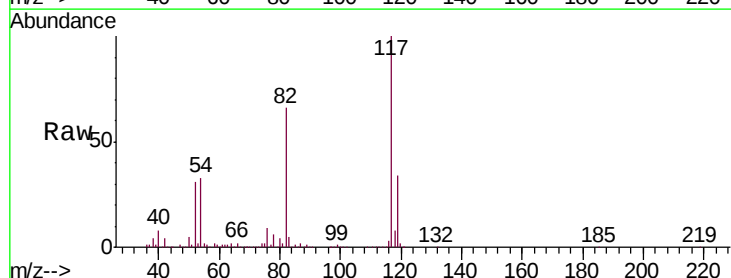
Tgt Ion: 117 Resp: 2043343

Ion Ratio Lower Upper

117 100

82 68.4 50.2 75.2

119 32.6 24.8 37.2



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

1200000

1000000

800000

600000

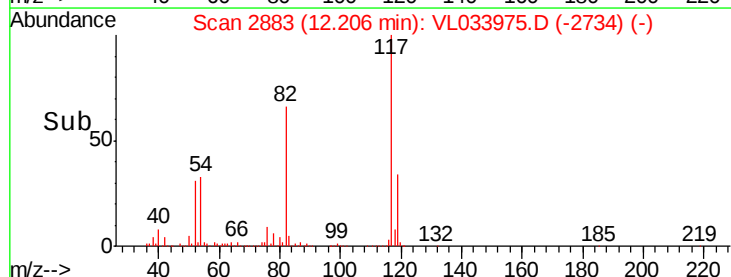
400000

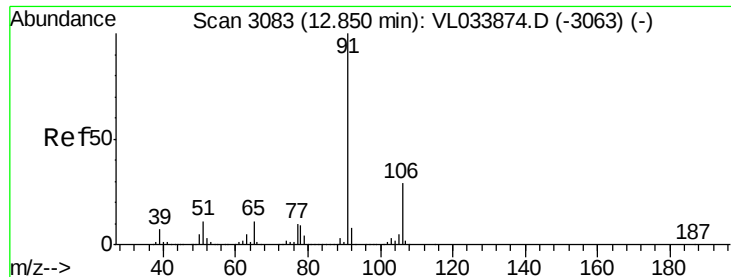
200000

0

12.10 12.20 12.30

Time-->





#58

Ethyl Benzene

Concen: 0.321 ppbv

RT: 12.84 min Scan# 3079

Delta R.T. -0.01 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

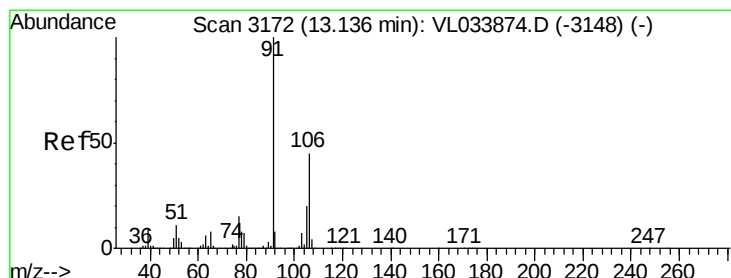
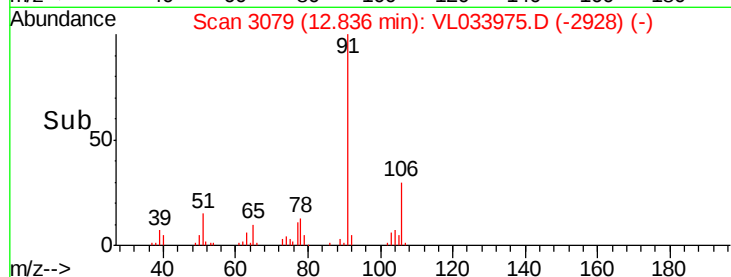
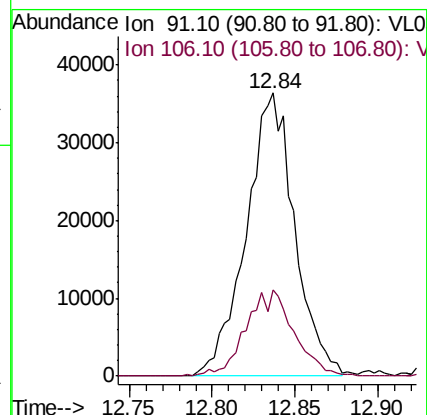
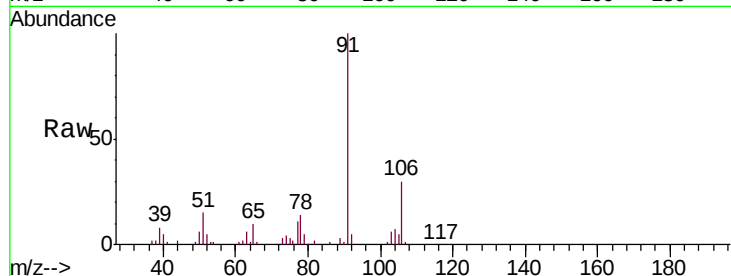
TZC-SSDS-AREA-A-1DL2

Tgt Ion: 91 Resp: 74032

Ion Ratio Lower Upper

91 100

106 31.4 23.0 34.6



#59

m/p-Xylene

Concen: 1.740 ppbv

RT: 13.09 min Scan# 3158

Delta R.T. -0.05 min

Lab File: VL033975.D

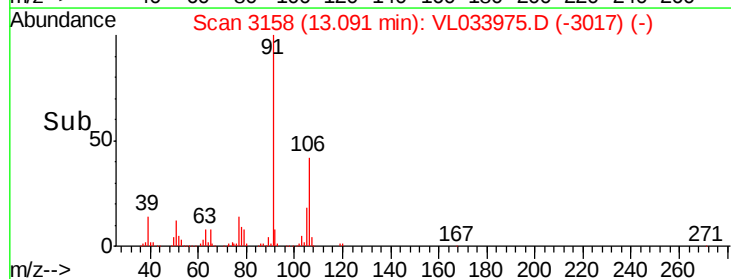
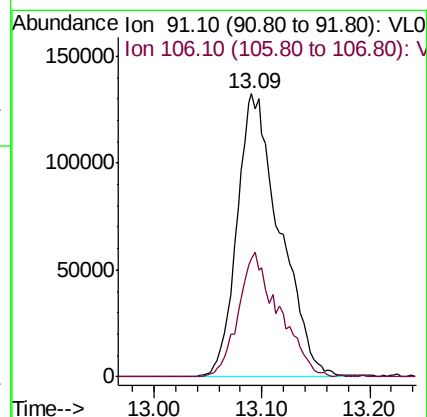
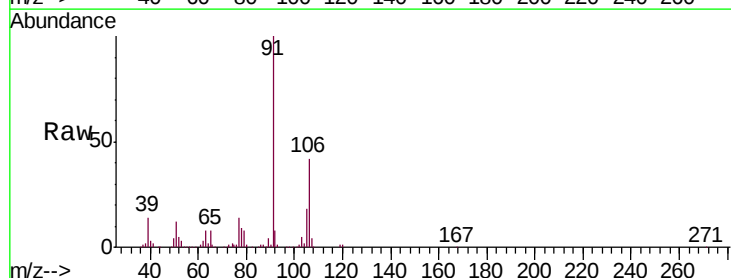
Acq: 26 Jun 2019 20:00

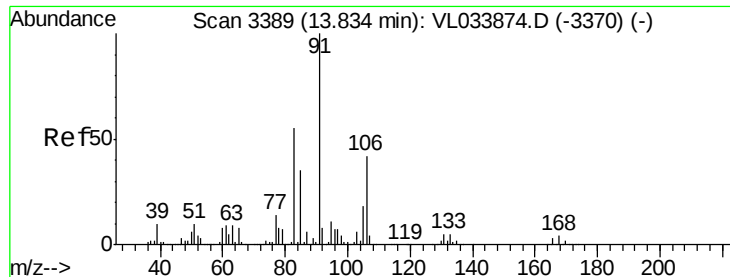
Tgt Ion: 91 Resp: 364505

Ion Ratio Lower Upper

91 100

106 42.4 35.8 53.8

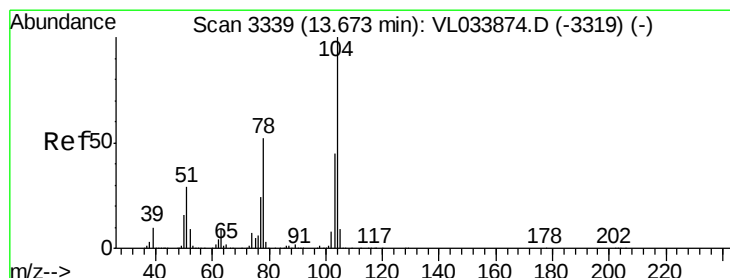
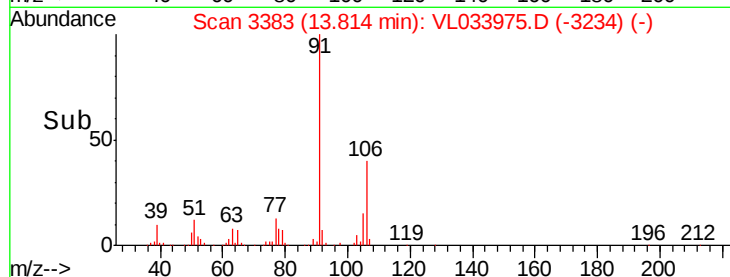
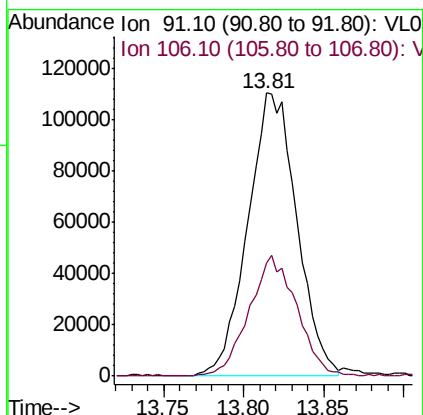
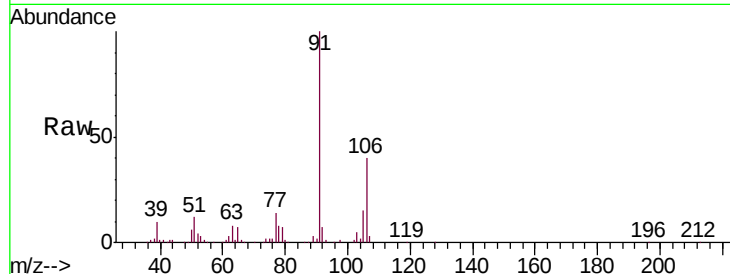




#60
o-Xylene
Concen: 1.070 ppbv
RT: 13.81 min Scan# 3383
Delta R.T. -0.02 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

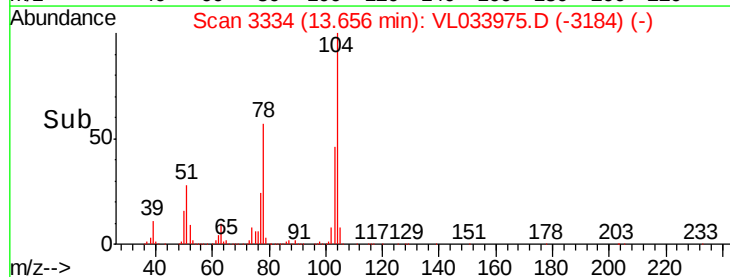
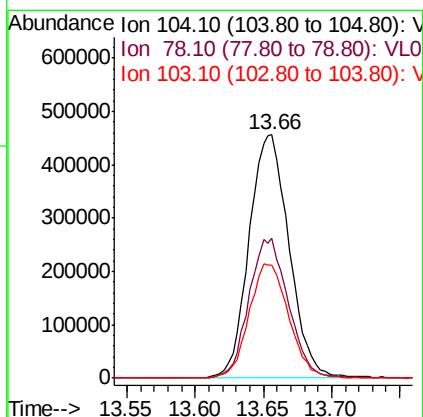
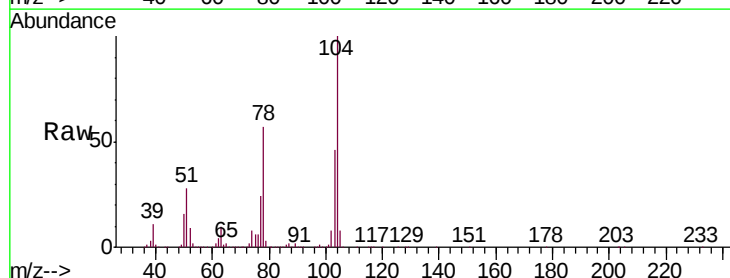
Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-A-1DL2

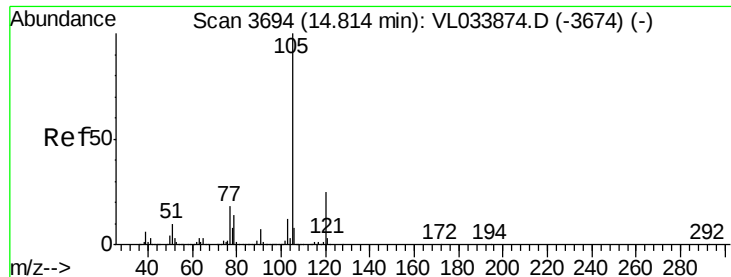
Tgt Ion: 91 Resp: 231521
Ion Ratio Lower Upper
91 100
106 41.7 21.7 65.1



#61
Styrene
Concen: 6.622 ppbv
RT: 13.66 min Scan# 3334
Delta R.T. -0.02 min
Lab File: VL033975.D
Acq: 26 Jun 2019 20:00

Tgt Ion: 104 Resp: 926969
Ion Ratio Lower Upper
104 100
78 56.8 43.4 65.0
103 46.8 37.6 56.4





#62

Isopropylbenzene

Concen: 0.034 ppbv

RT: 14.78 min Scan# 3685

Delta R.T. -0.03 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

Instrument :

MSVOA_L

ClientSampleId :

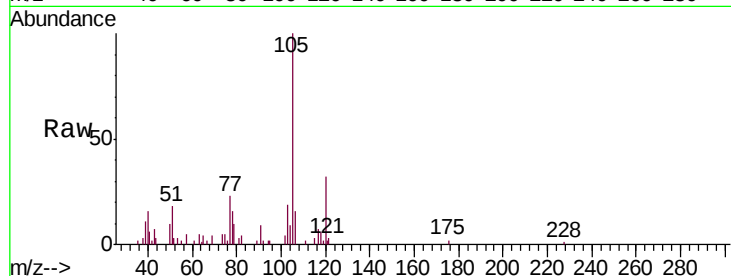
TZC-SSDS-AREA-A-1DL2

Tgt Ion:105 Resp: 10012

Ion Ratio Lower Upper

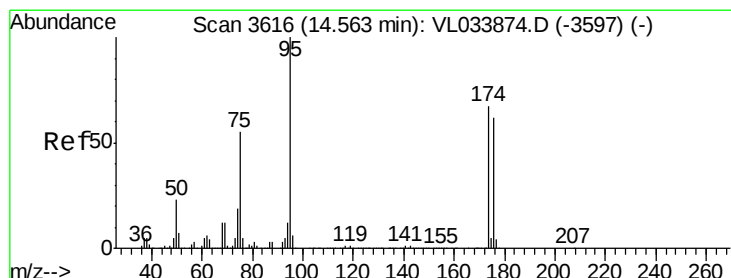
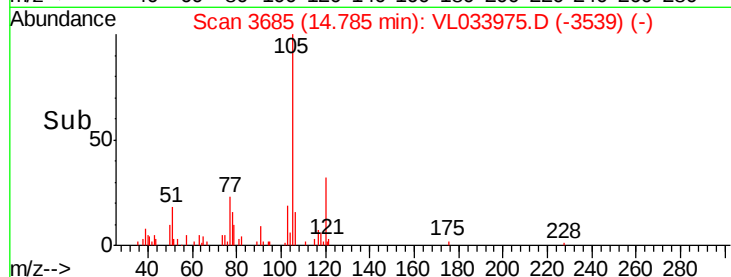
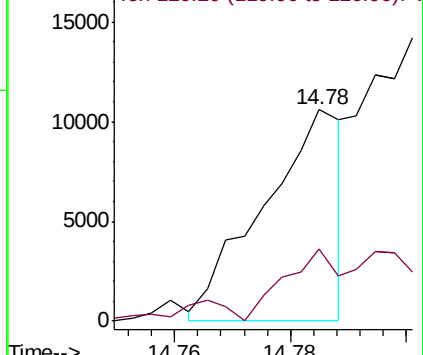
105 100

120 70.6 20.3 30.5#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.821 ppbv

RT: 14.54 min Scan# 3610

Delta R.T. -0.02 min

Lab File: VL033975.D

Acq: 26 Jun 2019 20:00

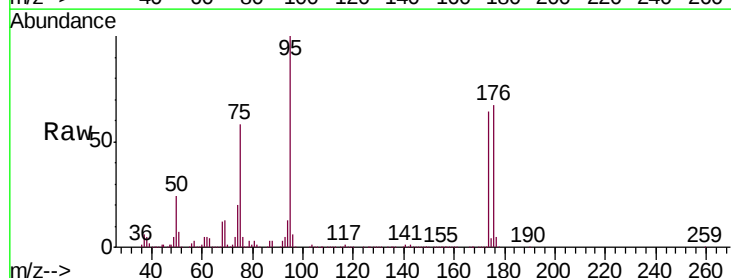
Tgt Ion: 95 Resp: 1816134

Ion Ratio Lower Upper

95 100

174 65.8 54.0 81.0

175 4.6 3.8 5.8



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

