

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN091519\
 Data File : VN058087.D
 Acq On : 15 Sep 2019 13:32
 Operator : JC/SP
 Sample : K4695-21
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

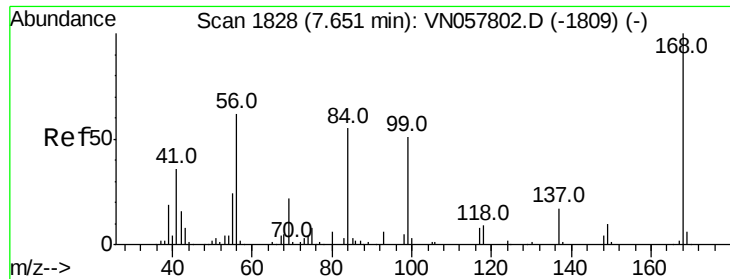
Quant Time: Sep 16 03:40:32 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N091019W.M
 Quant Title : SW846 8260
 QLast Update : Tue Sep 10 03:02:13 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.65	168	312540	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.57	114	523583	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	476745	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.35	152	253069	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	8.01	65	356477	56.31	ug/l	0.00
Spiked Amount			Recovery	=	112.62%	
35) Dibromofluoromethane	7.58	113	245188	50.74	ug/l	0.00
Spiked Amount			Recovery	=	101.48%	
50) Toluene-d8	10.08	98	971387	51.77	ug/l	0.00
Spiked Amount			Recovery	=	103.54%	
62) 4-Bromofluorobenzene	12.40	95	325135	45.47	ug/l	0.00
Spiked Amount			Recovery	=	90.94%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	2.57	94	317	Below Cal	#	2
16) Acetone	3.80	43	17999	8.673	ug/l	100
18) Methyl Acetate	4.31	43	6835	1.235	ug/l #	70
20) Methylene Chloride	4.54	84	9830	1.289	ug/l #	79
25) 2-Butanone	6.83	43	1508	0.502	ug/l #	49
31) Cyclohexane	7.65	56	7924	Below Cal	#	11
36) 1,1-Dichloropropene	7.65	75	27051	4.455	ug/l #	49
38) Carbon Tetrachloride	7.65	117	33254	5.998	ug/l #	15
43) Isopropyl Acetate	8.16	43	130607	12.379	ug/l #	86
45) 1,2-Dichloropropane	9.26	63	2105	0.396	ug/l #	44
48) Methyl methacrylate	9.17	41	5504	1.028	ug/l #	13
49) 1,4-Dioxane	9.26	88	139	1.536	ug/l #	1
51) 4-Methyl-2-Pentanone	9.98	43	10216	1.636	ug/l	100
54) cis-1,3-Dichloropropene	9.90	75	49866	6.682	ug/l #	66
56) Ethyl methacrylate	10.54	69	2277	0.310	ug/l #	1
57) 1,3-Dichloropropane	10.76	76	6521	0.776	ug/l #	43
59) 2-Hexanone	10.76	43	105594	22.565	ug/l #	54
71) Bromoform	12.41	173	2271	0.841	ug/l #	1
74) N-amyl acetate	12.03	43	2245	0.263	ug/l #	51
76) 1,2,3-Trichloropropane	12.40	75	180016	31.445	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.40	75	180016	110.654	ug/l #	6
95) Naphthalene	15.14	128	1379	Below Cal	#	69
96) 1,2,3-Trichlorobenzene	15.30	180	225	1.041	ug/l #	12

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1829

Delta R.T. 0.00 min

Lab File: VN058087.D

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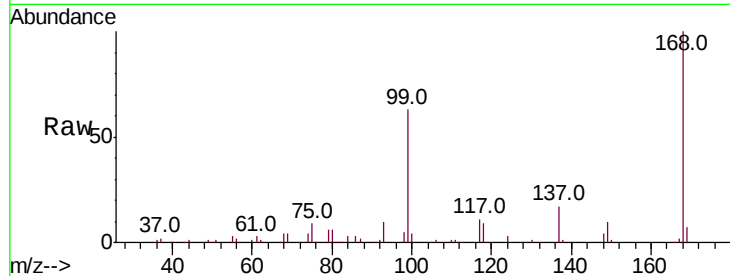
Instrument :
MSVOA_N
ClientSampled :

Tot Ion:168 Resp: 312540

Ion Ratio Lower Upper

168 100

99 62.6 48.0 72.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.65

150000

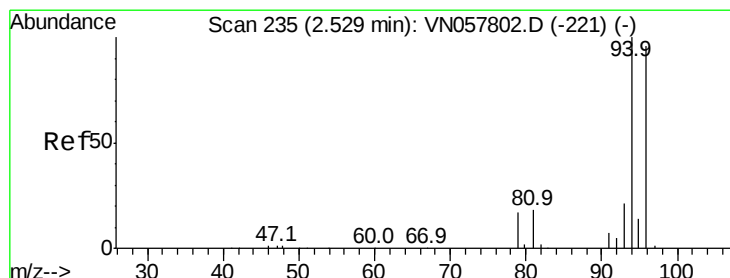
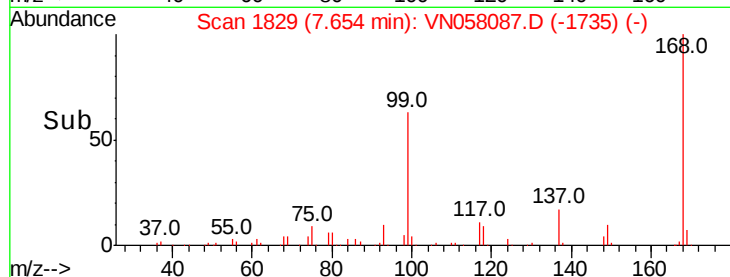
100000

50000

0

Time-->

7.55 7.60 7.65 7.70 7.75



#5

Bromomethane

Concen: Below Cal

RT: 2.57 min Scan# 248

Delta R.T. 0.04 min

Lab File: VN058087.D

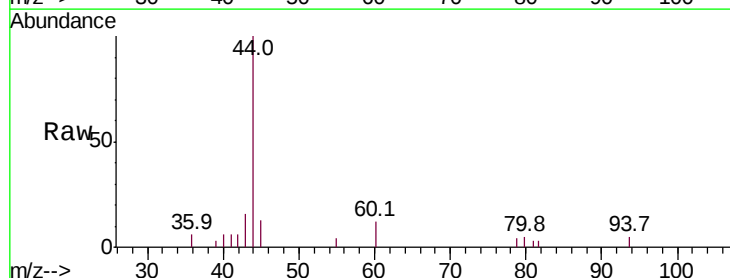
Acq: 15 Sep 2019 13:32

Tgt Ion: 94 Resp: 317

Ion Ratio Lower Upper

94 100

96 0.0 77.0 115.4#



Abundance Ion 93.90 (93.60 to 94.60): VN

Ion 95.90 (95.60 to 96.60): VN

2.57

400

300

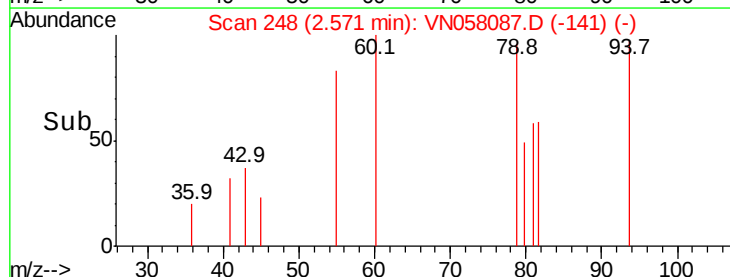
200

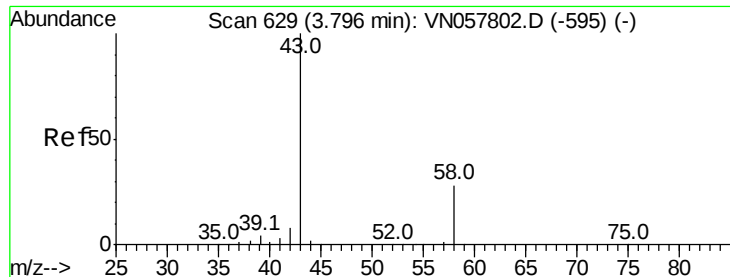
100

0

Time-->

2.54 2.56 2.58





#16

Acetone

Concen: 8.673 ug/l

RT: 3.80 min Scan# 630

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

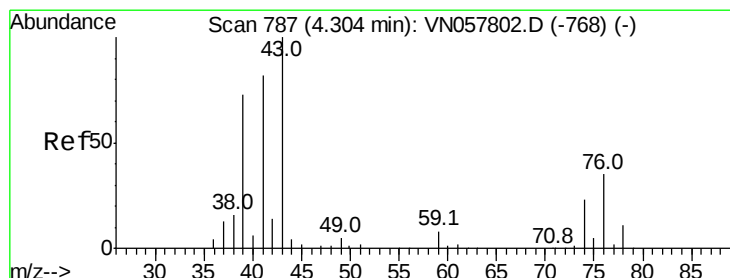
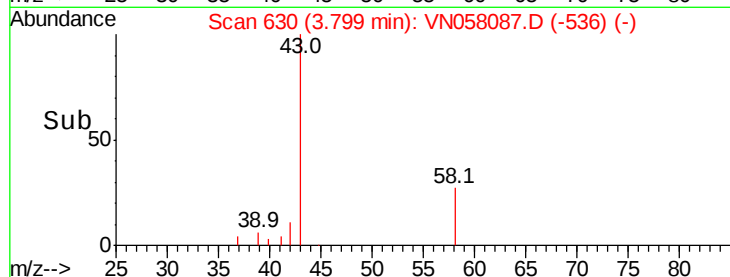
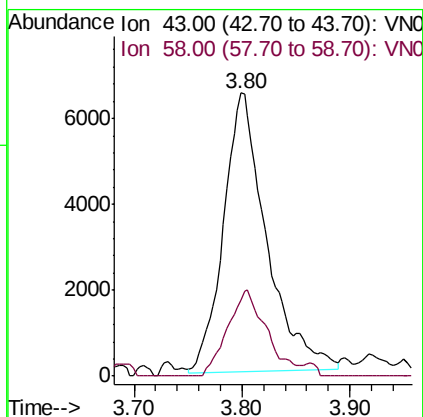
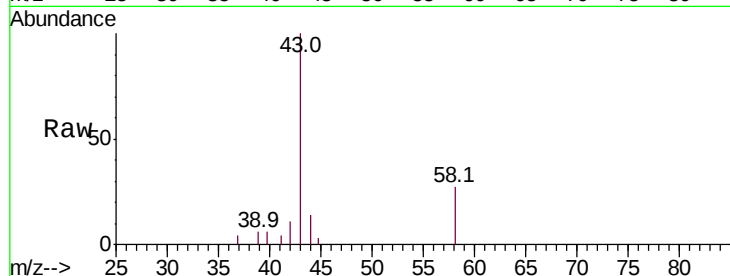
ClientSampleId :

Tot Ion: 43 Resp: 17999

Ion Ratio Lower Upper

43 100

58 27.5 22.2 33.2



#18

Methyl Acetate

Concen: 1.235 ug/l

RT: 4.31 min Scan# 789

Delta R.T. 0.01 min

Lab File: VN058087.D

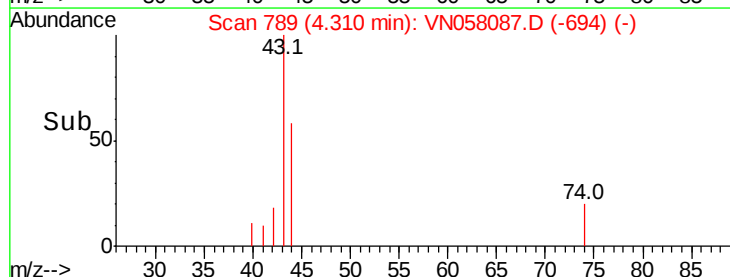
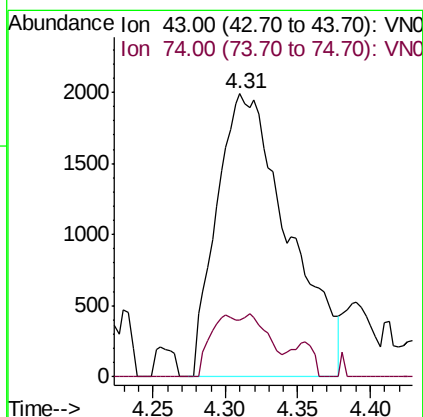
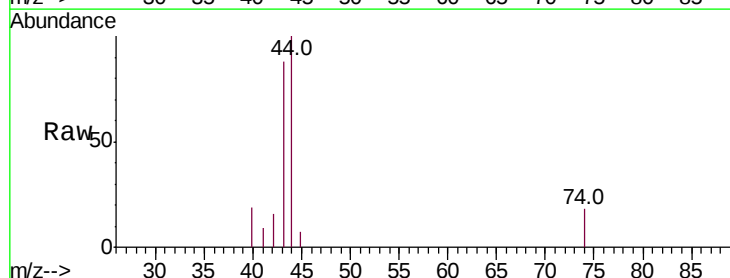
Acq: 15 Sep 2019 13:32

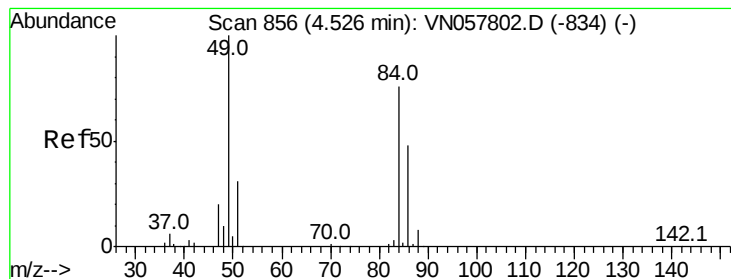
Tgt Ion: 43 Resp: 6835

Ion Ratio Lower Upper

43 100

74 7.9 17.9 26.9#





#20

Methylene Chloride

Concen: 1.289 ug/l

RT: 4.54 min Scan# 859

Delta R.T. 0.01 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :
MSVOA_N
ClientSampled :

Tot Ion: 84 Resp: 9830

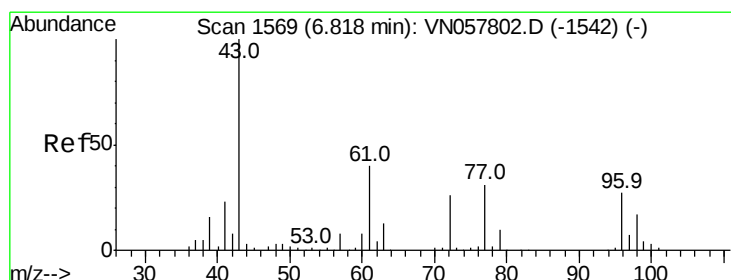
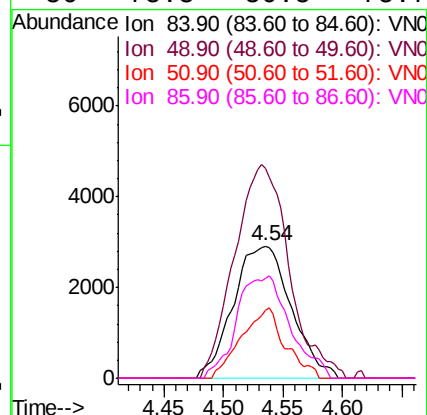
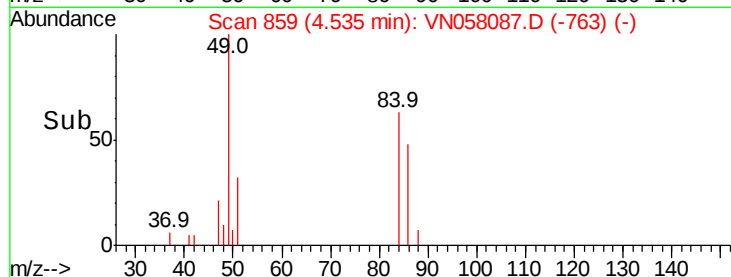
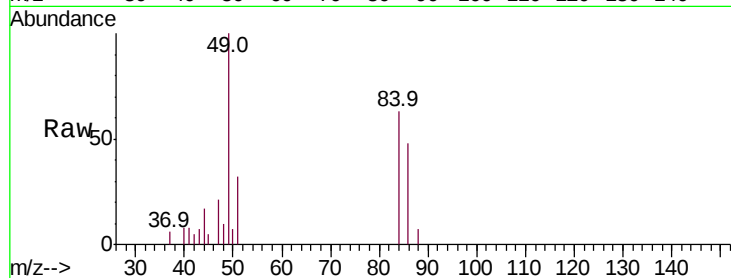
Ion Ratio Lower Upper

84 100

49 159.4 104.8 157.2#

51 51.3 33.0 49.4#

86 75.8 50.5 75.7#



#25

2-Butanone

Concen: 0.502 ug/l

RT: 6.83 min Scan# 1572

Delta R.T. 0.01 min

Lab File: VN058087.D

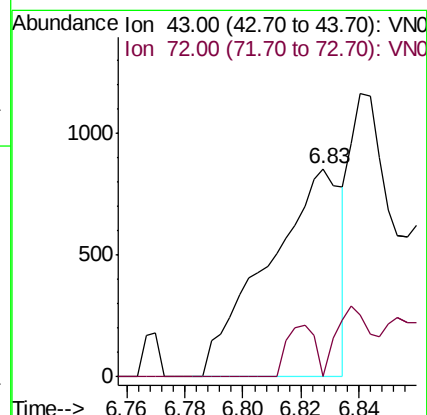
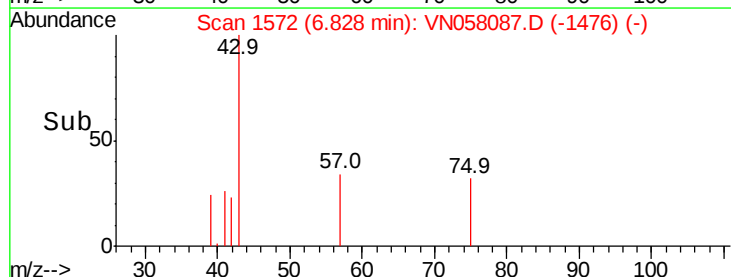
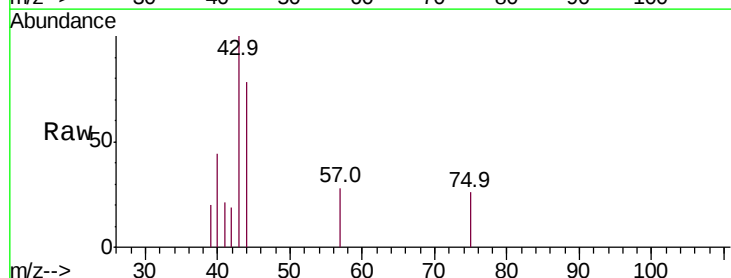
Acq: 15 Sep 2019 13:32

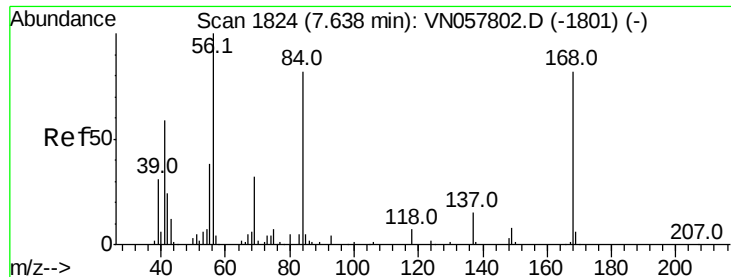
Tgt Ion: 43 Resp: 1508

Ion Ratio Lower Upper

43 100

72 0.0 20.6 30.8#





#31

Cyclohexane

Concen: Below Cal

RT: 7.65 min Scan# 1827

Delta R.T. 0.01 min

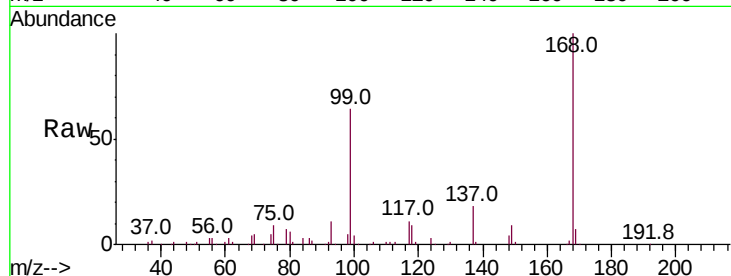
Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

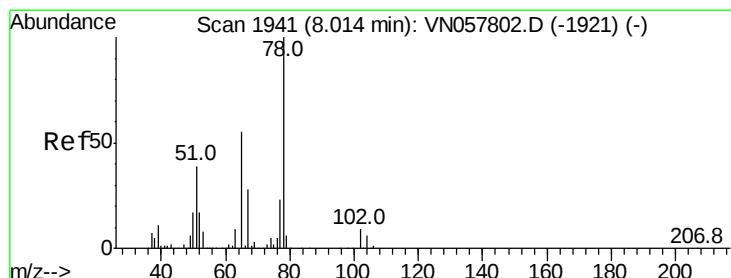
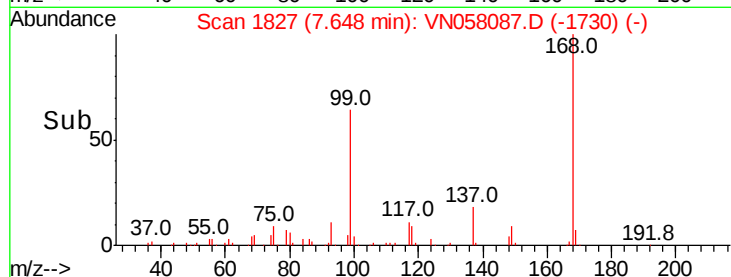
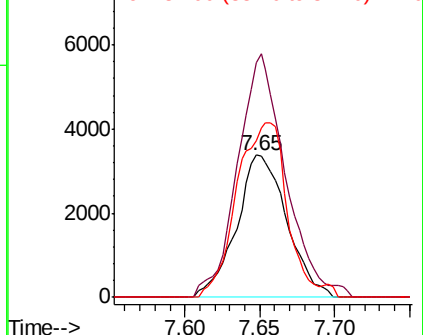
Instrument :
MSVOA_N
ClientSampled :

Tot Ion: 56 Resp: 7924

Ion	Ratio	Lower	Upper
56	100		
69	164.9	25.9	38.9#
84	110.0	65.6	98.4#



Abundance Ion 56.00 (55.70 to 56.70): VNC
Ion 69.00 (68.70 to 69.70): VNC
Ion 84.00 (83.70 to 84.70): VNC



#33

1,2-Dichloroethane-d4

Concen: 56.313 ug/l

RT: 8.01 min Scan# 1941

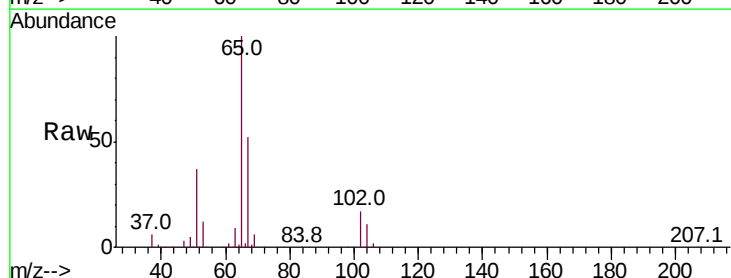
Delta R.T. 0.00 min

Lab File: VN058087.D

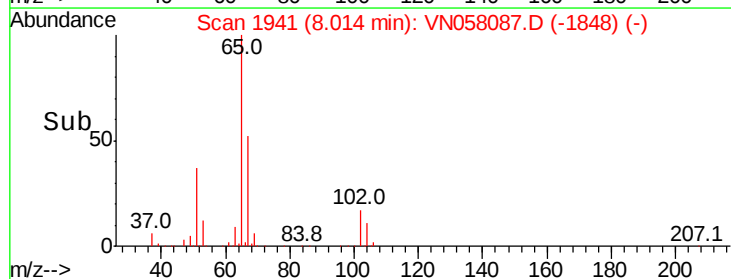
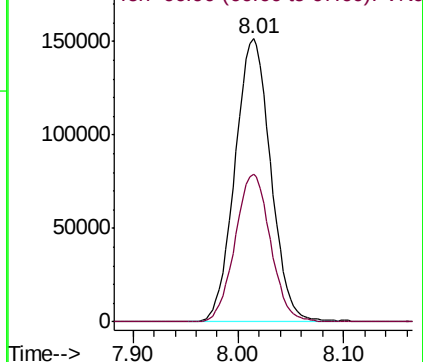
Acq: 15 Sep 2019 13:32

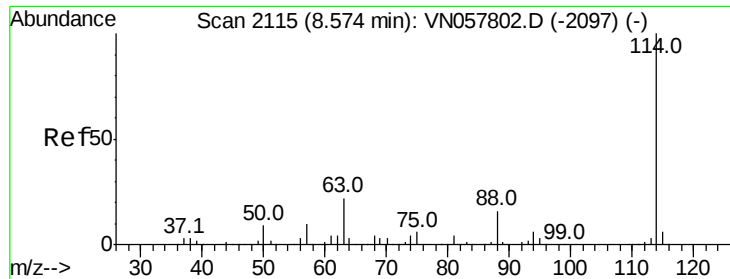
Tgt Ion: 65 Resp: 356477

Ion	Ratio	Lower	Upper
65	100		
67	51.8	0.0	104.0



Abundance Ion 64.90 (64.60 to 65.60): VNC
Ion 66.90 (66.60 to 67.60): VNC

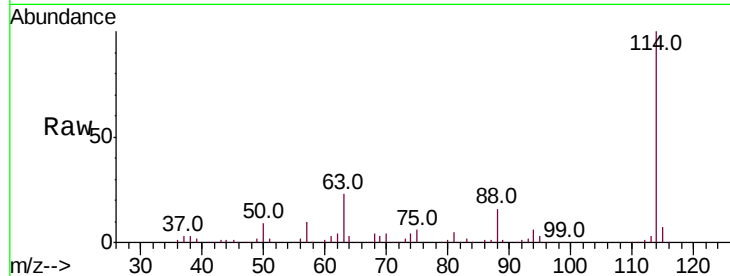




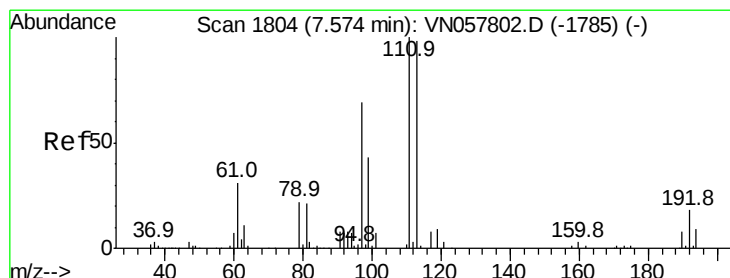
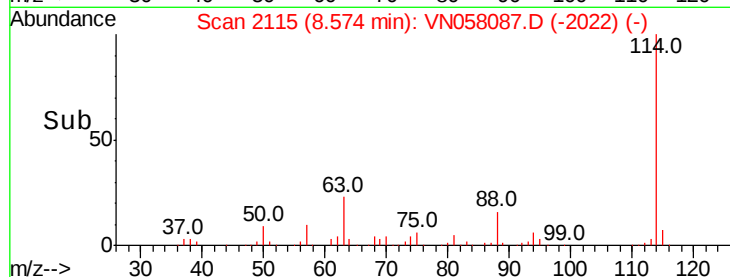
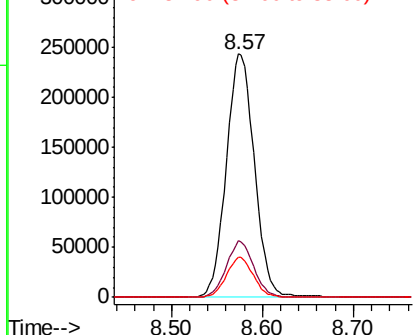
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 8.57 min Scan# 2115
Delta R.T. 0.00 min
Lab File: VN058087.D
Acq: 15 Sep 2019 13:32

Instrument :
MSVOA_N
ClientSampleId :

Tot Ion	Ratio	Lower	Upper
114	100		
63	23.1	0.0	44.0
88	16.4	0.0	31.4

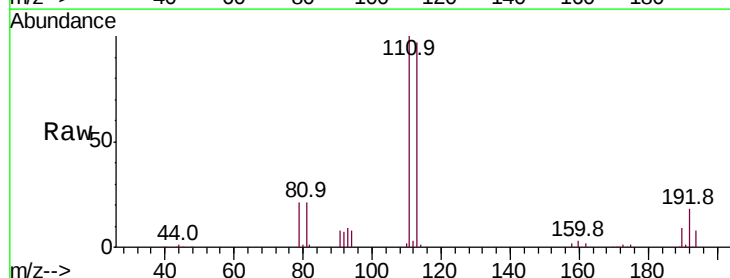


Abundance Ion 113.90 (113.60 to 114.60): V
Ion 63.00 (62.70 to 63.70): VN
Ion 87.90 (87.60 to 88.60): VN

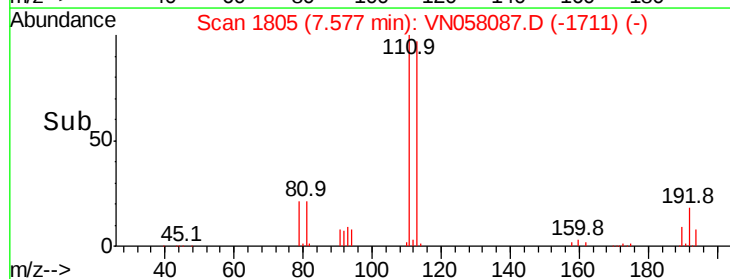
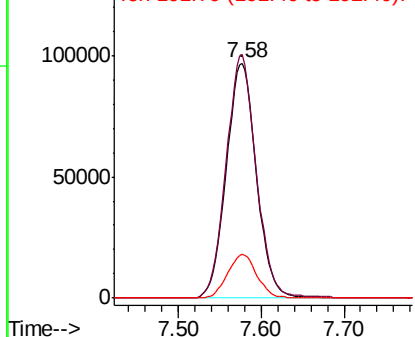


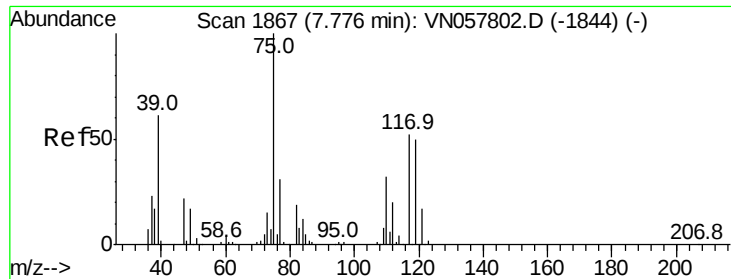
#35
Dibromofluoromethane
Concen: 50.738 ug/l
RT: 7.58 min Scan# 1805
Delta R.T. 0.00 min
Lab File: VN058087.D
Acq: 15 Sep 2019 13:32

Tgt Ion	Ratio	Lower	Upper
113	100		
111	103.1	81.3	121.9
192	18.1	14.6	22.0



Abundance Ion 112.80 (112.50 to 113.50): V
Ion 110.80 (110.50 to 111.50): V
Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.455 ug/l

RT: 7.65 min Scan# 1828

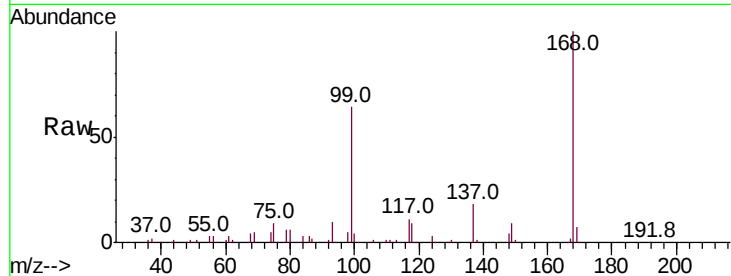
Delta R.T. -0.13 min

Lab File: VN058087.D

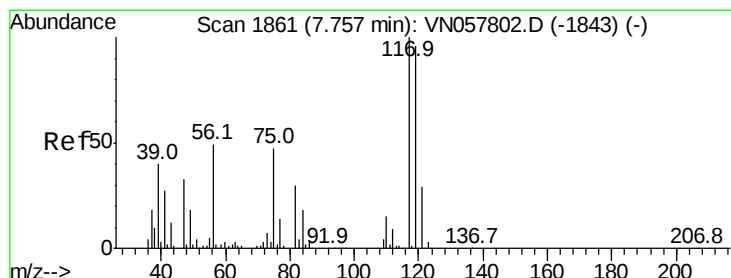
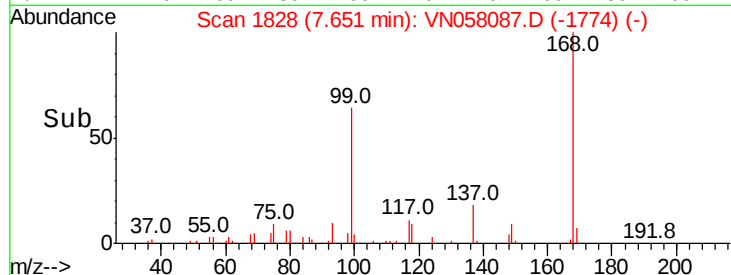
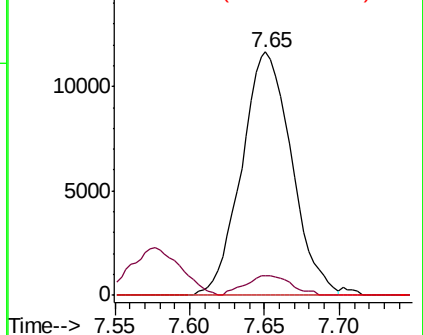
Acq: 15 Sep 2019 13:32

Instrument :
MSVOA_N
ClientSampleId :

Tot Ion: 75 Resp: 27051
Ion Ratio Lower Upper
75 100
110 7.4 16.3 48.9#
77 0.0 25.0 37.4#



Abundance Ion 74.90 (74.60 to 75.60): VN0
Ion 109.90 (109.60 to 110.60): V
Ion 76.90 (76.60 to 77.60): VN0



#38

Carbon Tetrachloride

Concen: 5.998 ug/l

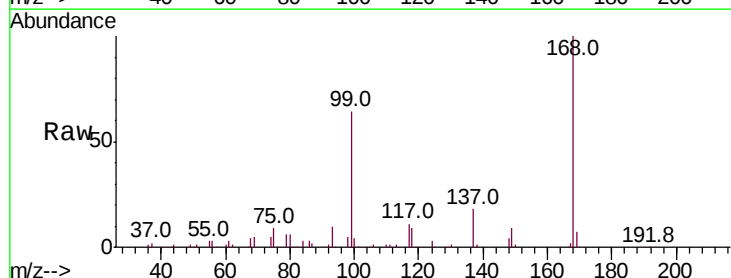
RT: 7.65 min Scan# 1828

Delta R.T. -0.11 min

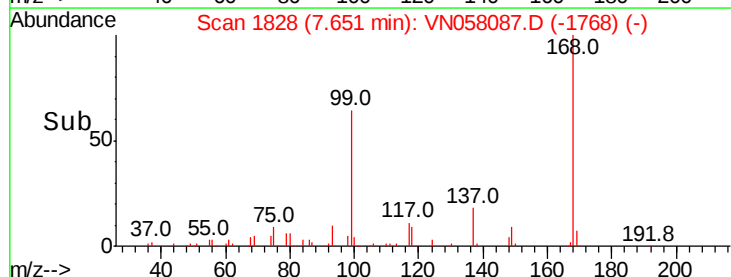
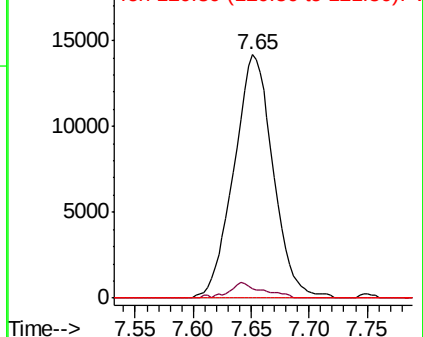
Lab File: VN058087.D

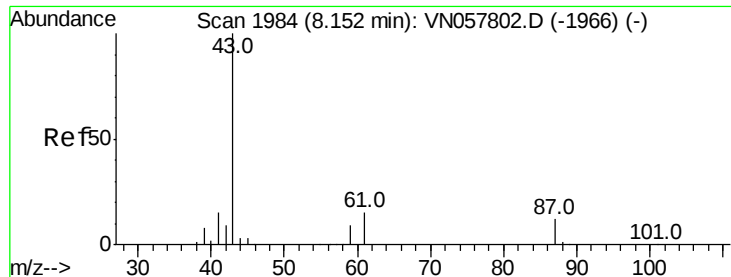
Acq: 15 Sep 2019 13:32

Tgt Ion: 117 Resp: 33254
Ion Ratio Lower Upper
117 100
119 4.1 76.9 115.3#
121 0.0 23.4 35.2#



Abundance Ion 116.80 (116.50 to 117.50): V
Ion 118.80 (118.50 to 119.50): V
Ion 120.80 (120.50 to 121.50): V





#43

Isopropyl Acetate

Concen: 12.379 ug/l

RT: 8.16 min Scan# 1985

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampleId :

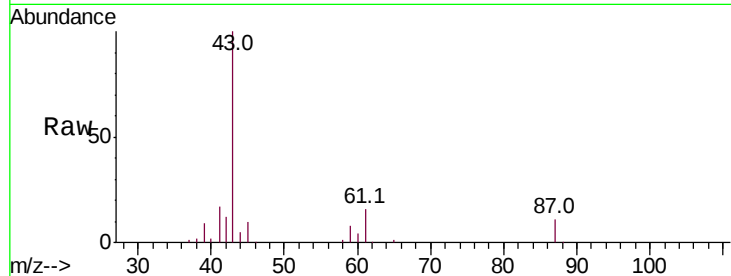
Tot Ion: 43 Resp: 130607

Ion Ratio Lower Upper

43 100

61 16.1 20.1 30.1#

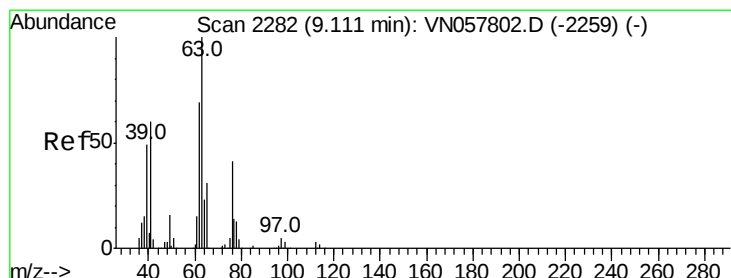
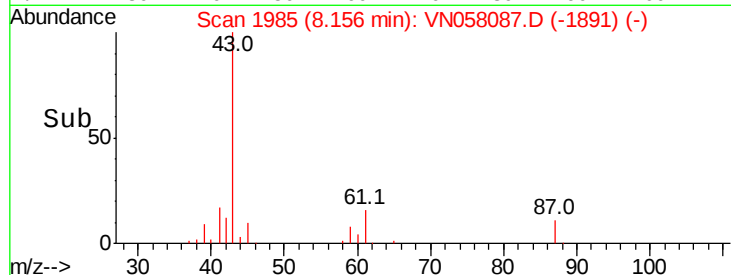
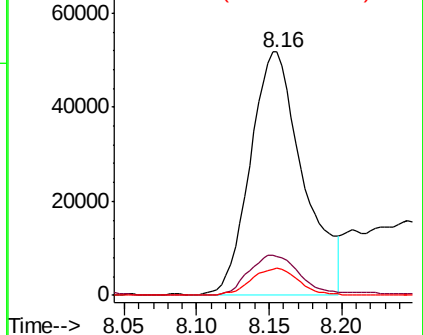
87 10.0 9.5 14.3



Abundance Ion 43.00 (42.70 to 43.70): VNO

Ion 61.00 (60.70 to 61.70): VNO

Ion 87.00 (86.70 to 87.70): VNO



#45

1,2-Dichloropropane

Concen: 0.396 ug/l

RT: 9.26 min Scan# 2330

Delta R.T. 0.15 min

Lab File: VN058087.D

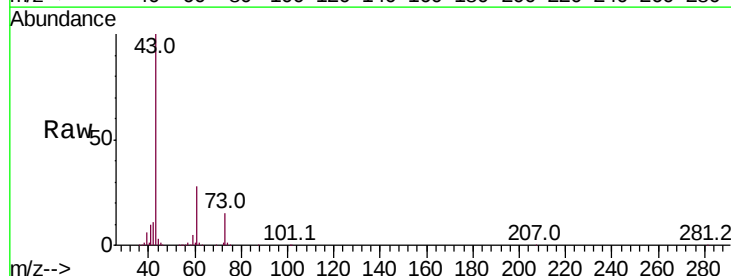
Acq: 15 Sep 2019 13:32

Tgt Ion: 63 Resp: 2105

Ion Ratio Lower Upper

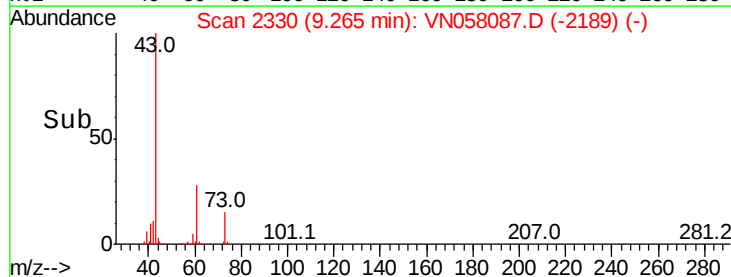
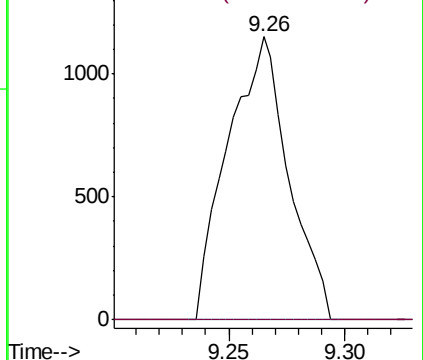
63 100

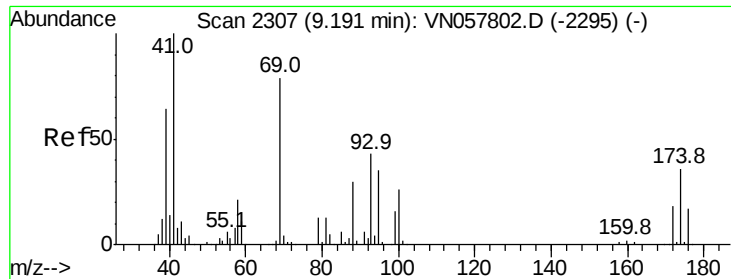
65 0.0 24.8 37.2#



Abundance Ion 62.90 (62.60 to 63.60): VNO

Ion 64.90 (64.60 to 65.60): VNO

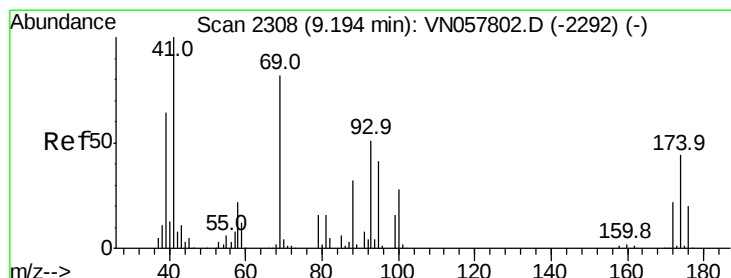
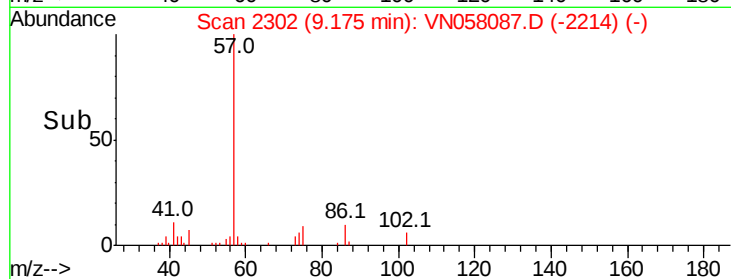
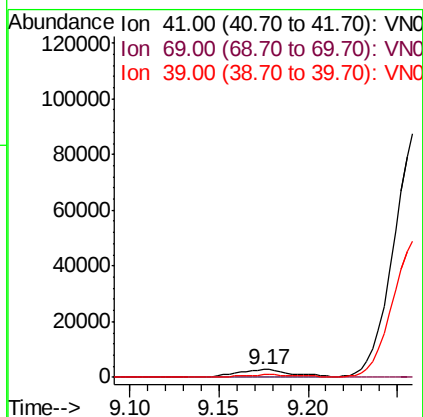
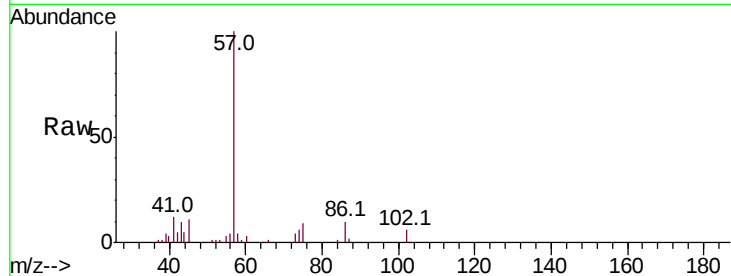




#48
Methvl methacrylate
Concen: 1.028 ug/l
RT: 9.17 min Scan# 2302
Delta R.T. -0.02 min
Lab File: VN058087.D
Acq: 15 Sep 2019 13:32

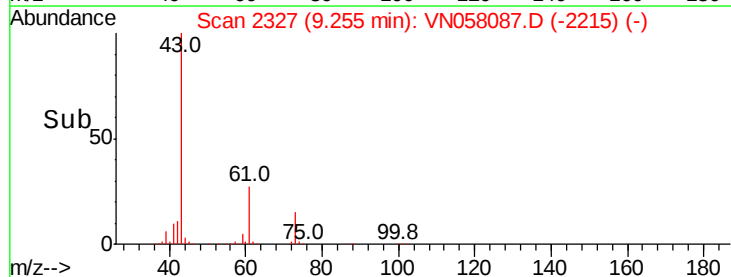
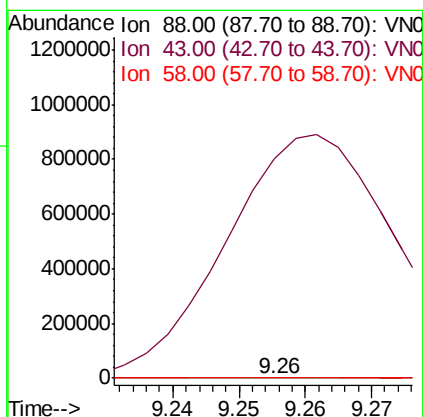
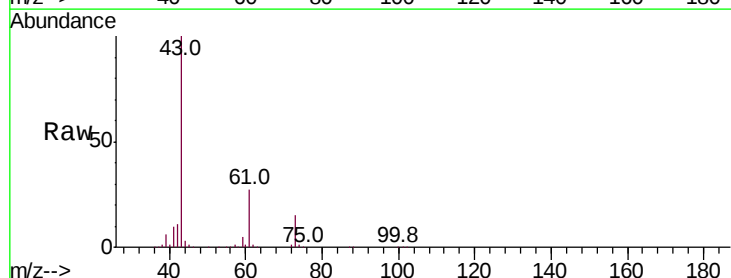
Instrument :
MSVOA_N
ClientSampled :

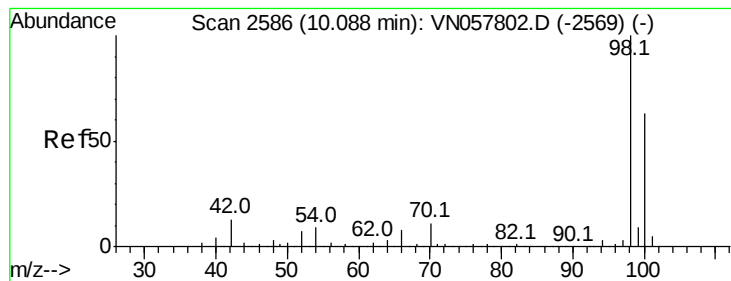
Tot Ion: 41 Resp: 5504
Ion Ratio Lower Upper
41 100
69 0.0 62.7 94.1#
39 0.0 52.7 79.1#



#49
1,4-Dioxane
Concen: 1.536 ug/l
RT: 9.26 min Scan# 2327
Delta R.T. 0.06 min
Lab File: VN058087.D
Acq: 15 Sep 2019 13:32

Tgt Ion: 88 Resp: 139
Ion Ratio Lower Upper
88 100
43 1173726.6 28.5 42.7#
58 5370.5 55.8 83.6#





#50

Toluene-d8

Concen: 51.774 ug/l

RT: 10.08 min Scan# 2586

Delta R.T. -0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

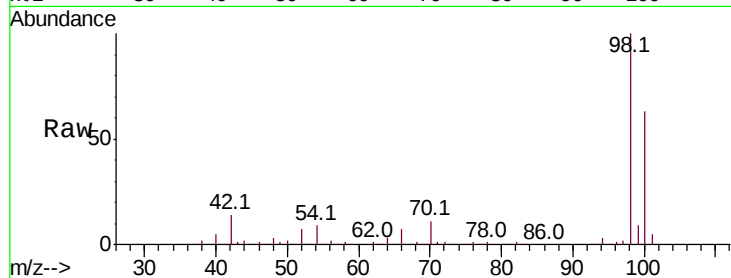
ClientSampled :

Tot Ion: 98 Resp: 971387

Ion Ratio Lower Upper

98 100

100 64.2 50.3 75.5



Abundance Ion 98.00 (97.70 to 98.70): VN057802.D (-2569) (-)

Ion 100.00 (99.70 to 100.70): VN057802.D (-2569) (-)

10.08

600000

500000

400000

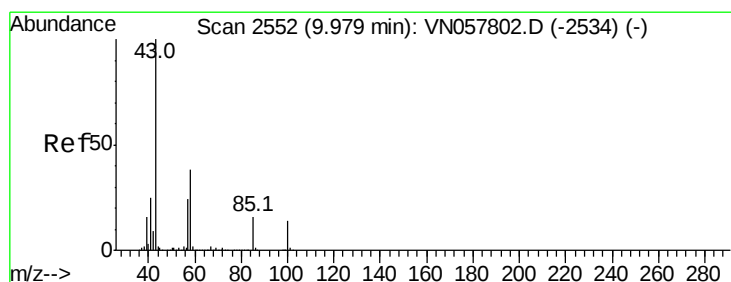
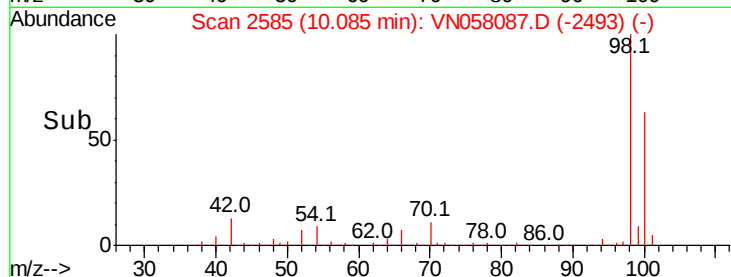
300000

200000

100000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 1.636 ug/l

RT: 9.98 min Scan# 2552

Delta R.T. 0.00 min

Lab File: VN058087.D

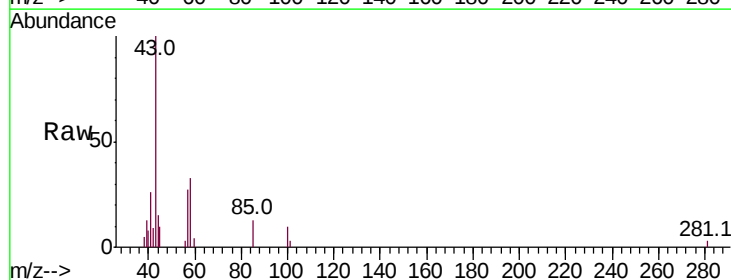
Acq: 15 Sep 2019 13:32

Tgt Ion: 43 Resp: 10216

Ion Ratio Lower Upper

43 100

58 37.3 29.8 44.6



Abundance Ion 43.00 (42.70 to 43.70): VN057802.D (-2534) (-)

Ion 58.00 (57.70 to 58.70): VN057802.D (-2534) (-)

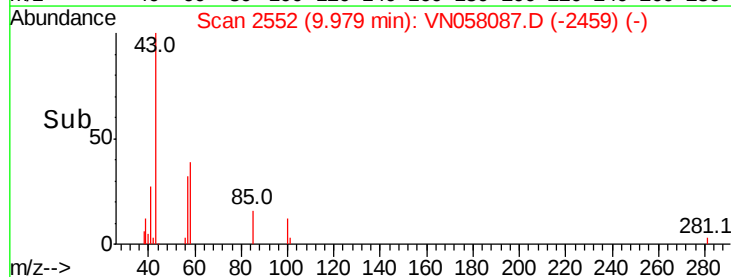
15000

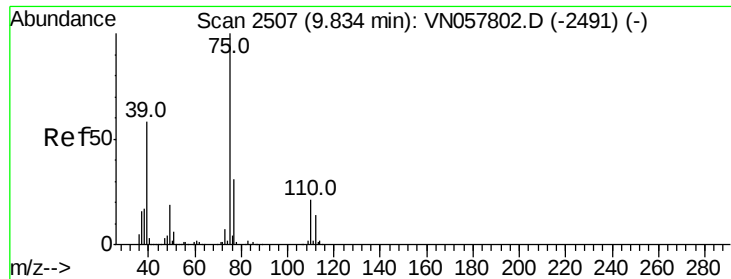
10000

5000

0

Time-->





#54

cis-1,3-Dichloropropene

Concen: 6.682 ug/l

RT: 9.90 min Scan# 2528

Delta R.T. 0.07 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampleId :

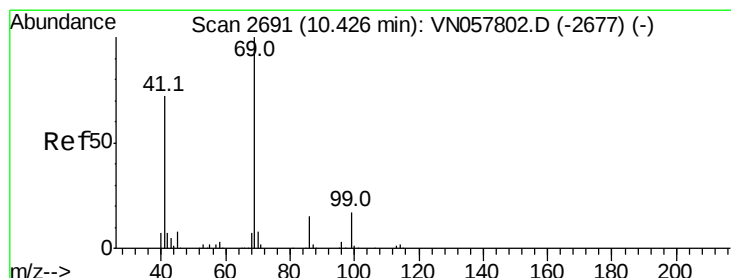
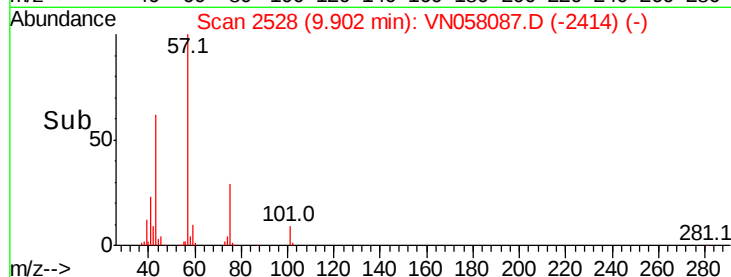
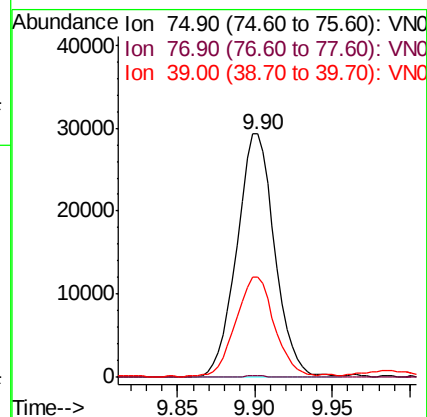
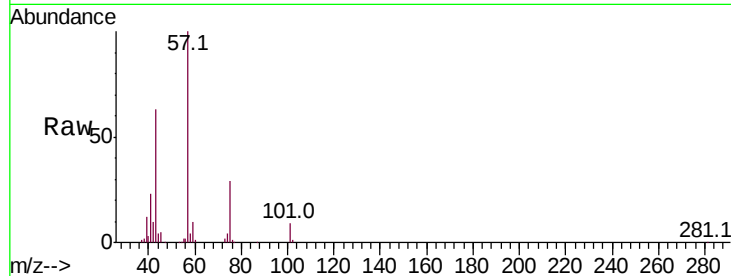
Tot Ion: 75 Resp: 49866

Ion Ratio Lower Upper

75 100

77 0.7 24.8 37.2#

39 40.5 46.2 69.4#



#56

Ethyl methacrylate

Concen: 0.310 ug/l

RT: 10.54 min Scan# 2726

Delta R.T. 0.11 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

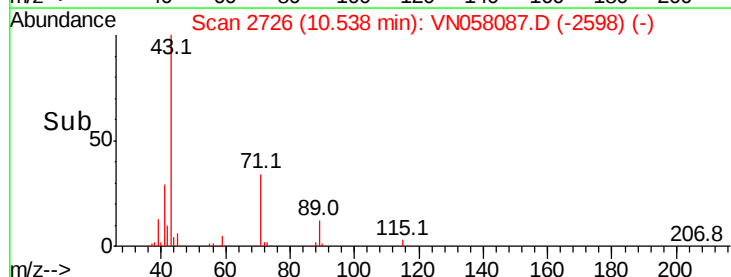
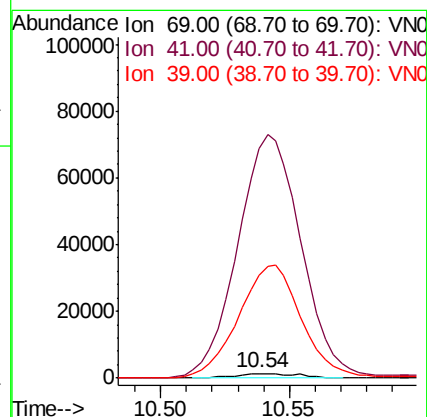
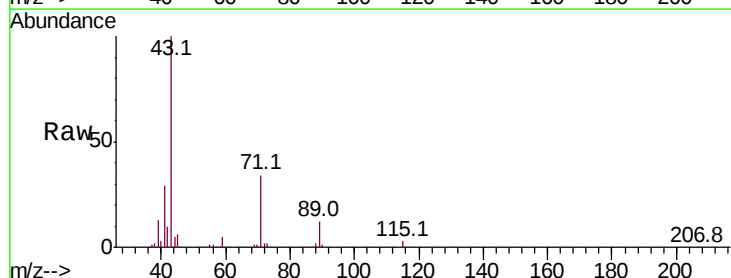
Tgt Ion: 69 Resp: 2277

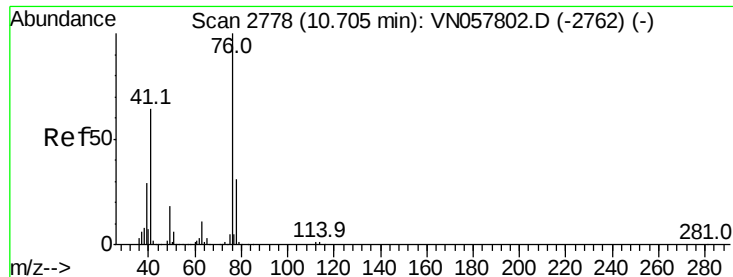
Ion Ratio Lower Upper

69 100

41 5514.3 56.7 85.1#

39 2547.7 36.3 54.5#





#57

1,3-Dichloropropane

Concen: 0.776 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.06 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

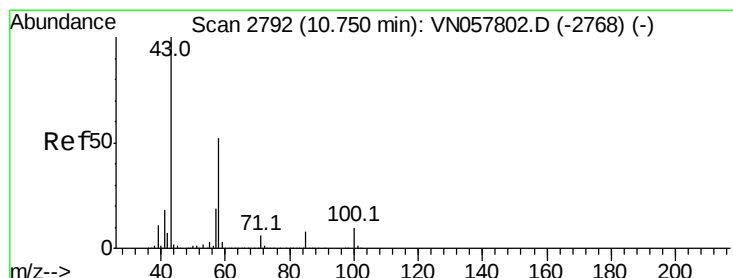
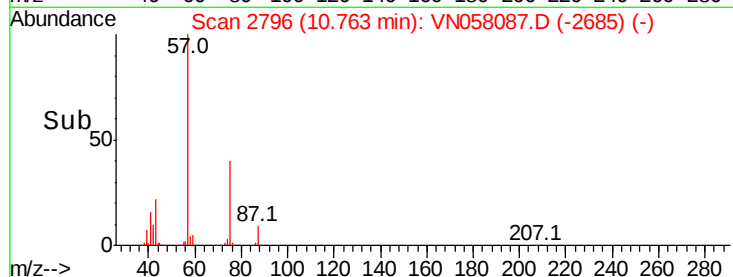
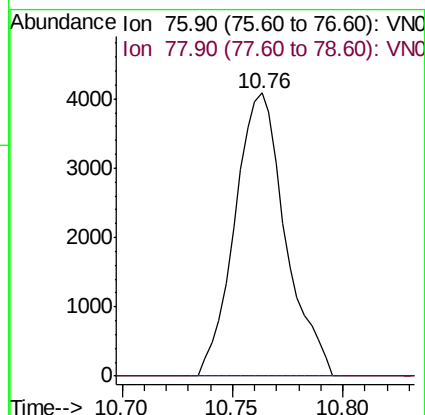
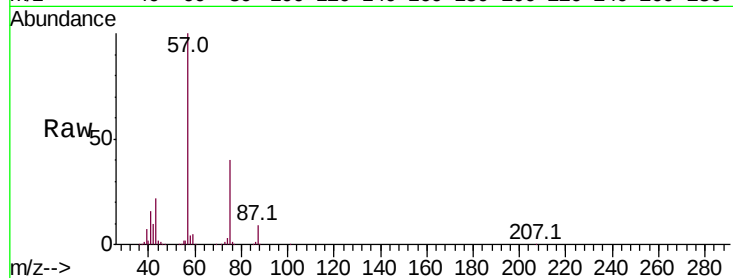
ClientSampleId :

Tot Ion: 76 Resp: 6521

Ion Ratio Lower Upper

76 100

78 0.0 25.4 38.2#



#59

2-Hexanone

Concen: 22.565 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.01 min

Lab File: VN058087.D

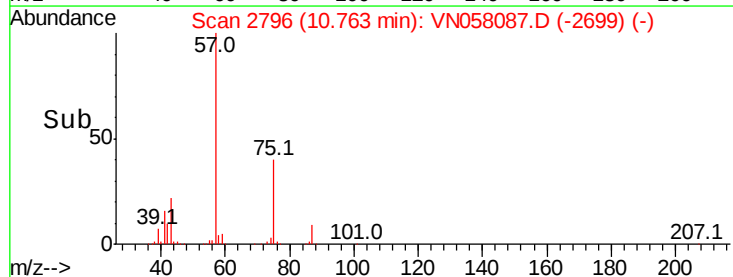
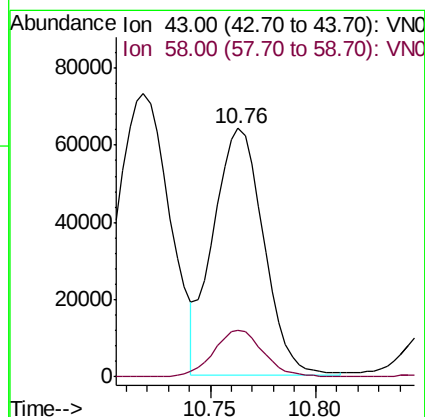
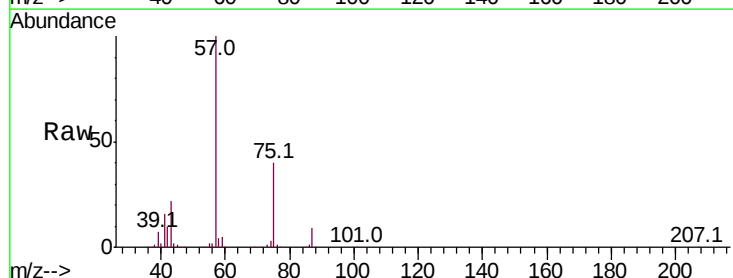
Acq: 15 Sep 2019 13:32

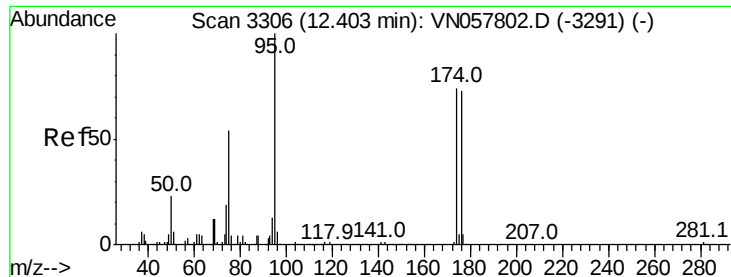
Tgt Ion: 43 Resp: 105594

Ion Ratio Lower Upper

43 100

58 18.8 25.6 76.8#





#62

4-Bromofluorobenzene

Concen: 45.473 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampled :

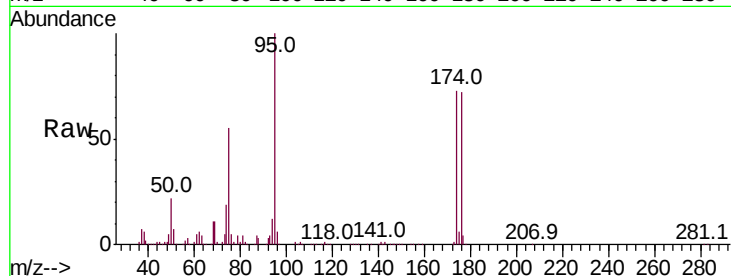
Tot Ion: 95 Resp: 325135

Ion Ratio Lower Upper

95 100

174 75.9 0.0 150.2

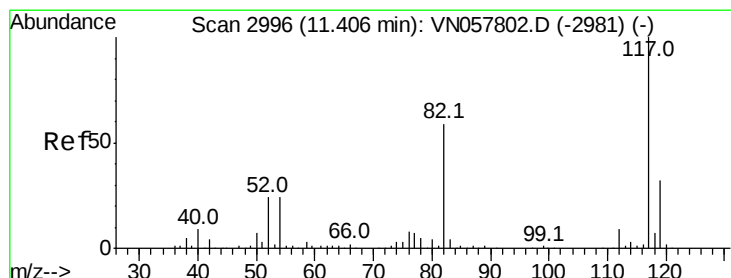
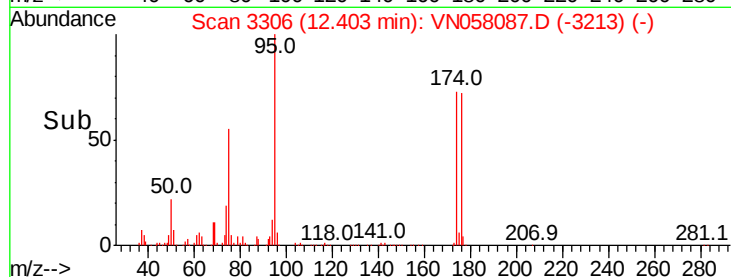
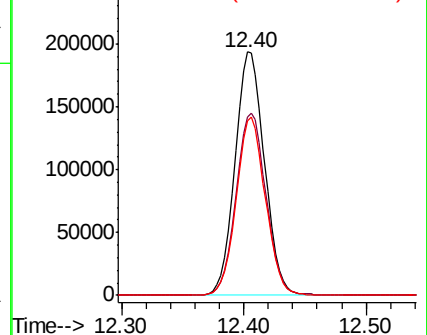
176 72.4 0.0 146.0



Abundance Ion 94.90 (94.60 to 95.60): VN058087.D (-3291) (-)

Ion 173.80 (173.50 to 174.50): VN058087.D (-3291) (-)

Ion 175.80 (175.50 to 176.50): VN058087.D (-3291) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

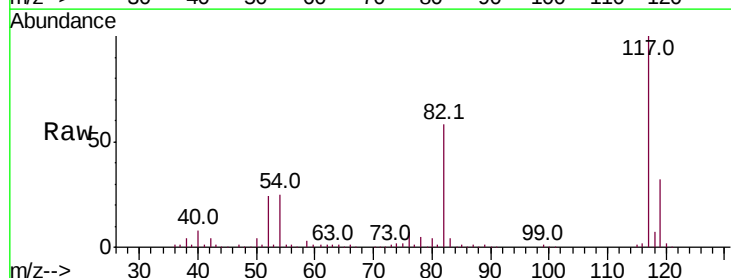
Tgt Ion: 117 Resp: 476745

Ion Ratio Lower Upper

117 100

82 58.3 47.2 70.8

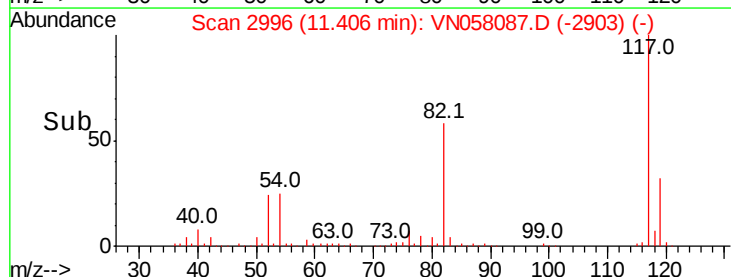
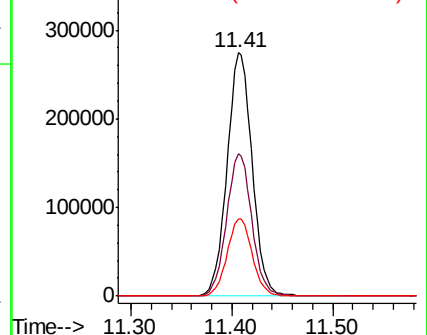
119 31.6 25.3 37.9

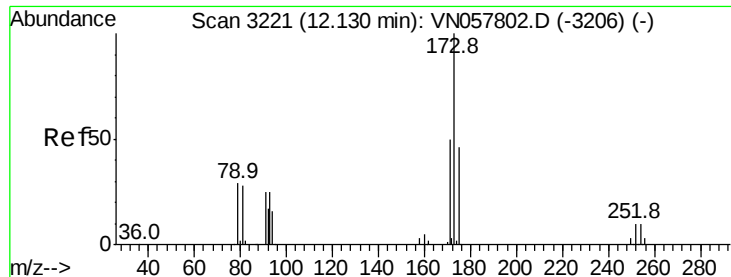


Abundance Ion 116.90 (116.60 to 117.60): VN058087.D (-2981) (-)

Ion 82.00 (81.70 to 82.70): VN058087.D (-2981) (-)

Ion 118.90 (118.60 to 119.60): VN058087.D (-2981) (-)





#71

Bromoform

Concen: 0.841 ug/l

RT: 12.41 min Scan# 3308

Delta R.T. 0.28 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampled :

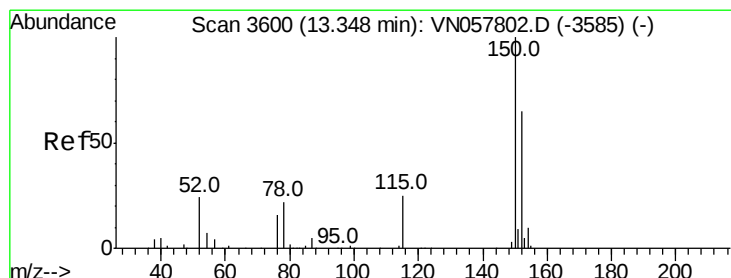
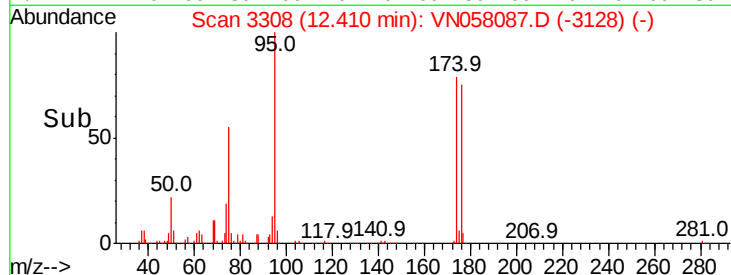
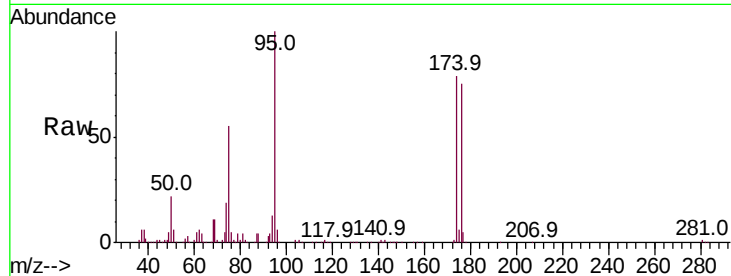
Tot Ion:173 Resp: 2271

Ion Ratio Lower Upper

173 100

175 714.0 23.5 70.6#

254 0.0 0.1 0.1#



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3600

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

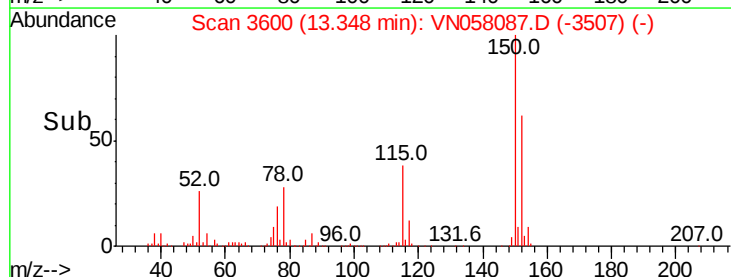
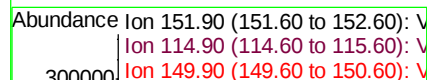
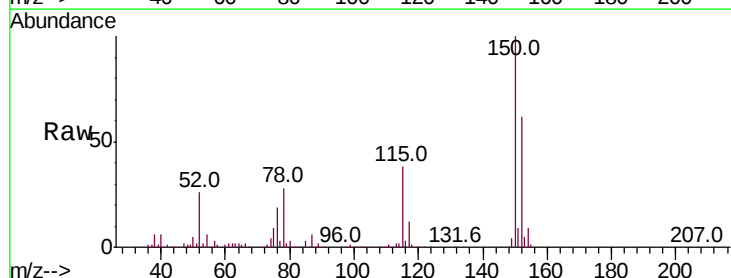
Tgt Ion:152 Resp: 253069

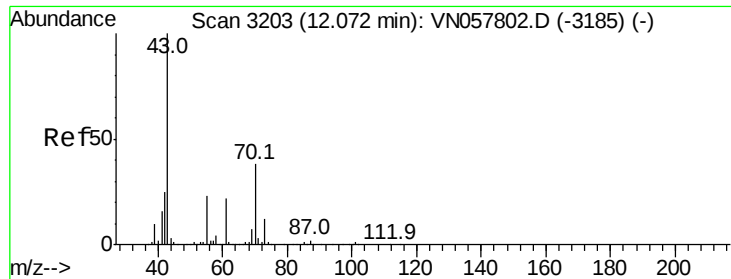
Ion Ratio Lower Upper

152 100

115 62.0 30.3 91.0

150 159.1 0.0 352.4





#74

N-amyl acetate

Concen: 0.263 ug/l

RT: 12.03 min Scan# 3191

Delta R.T. -0.04 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampleId :

Tot Ion: 43 Resp: 2245

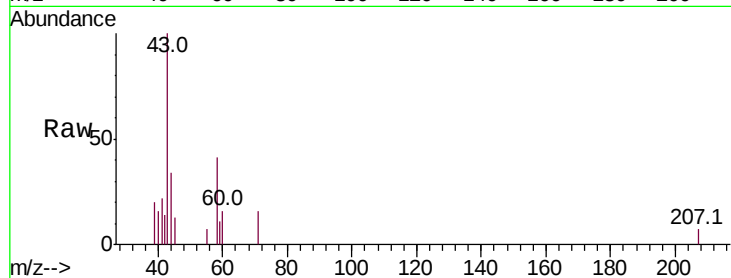
Ion Ratio Lower Upper

43 100

70 0.0 30.6 45.8#

55 9.5 18.6 27.8#

61 0.0 17.4 26.2#

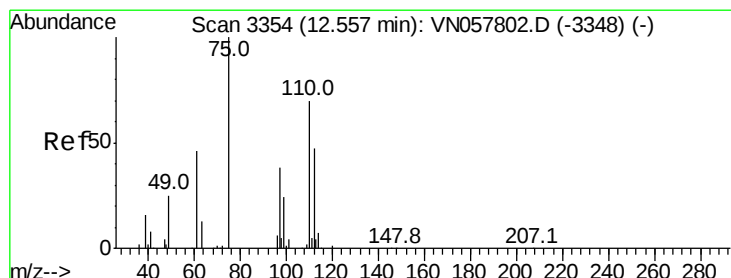
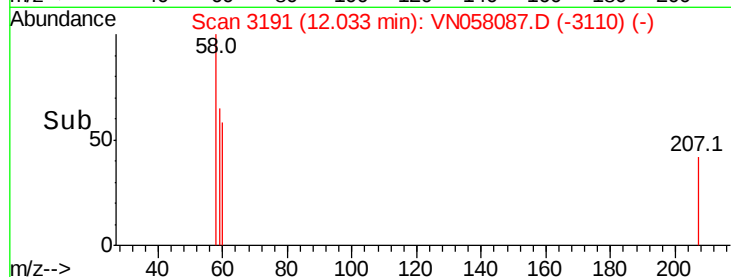
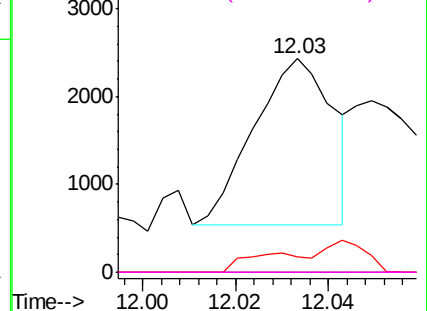


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 70.00 (69.70 to 70.70): VN0

Ion 55.00 (54.70 to 55.70): VN0

Ion 61.00 (60.70 to 61.70): VN0



#76

1,2,3-Trichloropropane

Concen: 31.445 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN058087.D

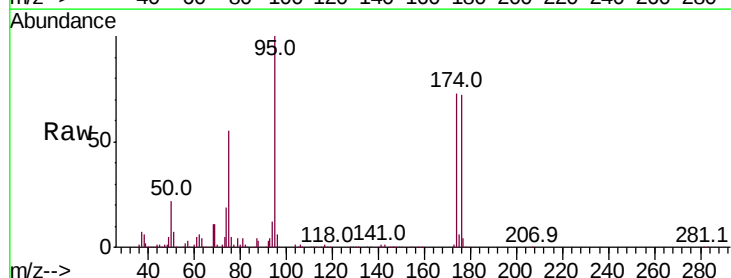
Acq: 15 Sep 2019 13:32

Tgt Ion: 75 Resp: 180016

Ion Ratio Lower Upper

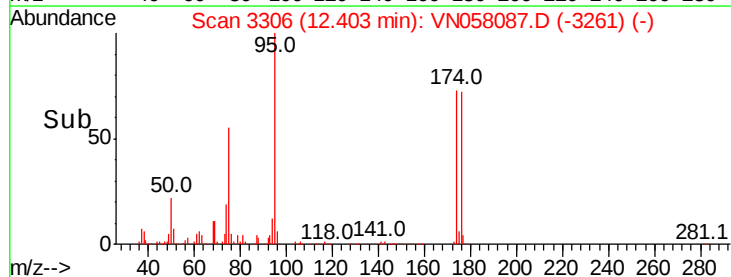
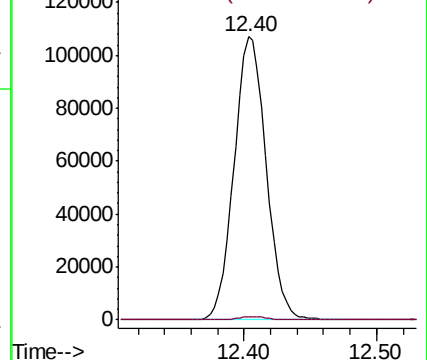
75 100

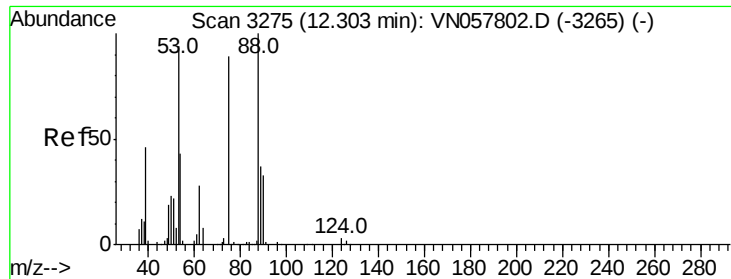
77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0





#81

trans-1,4-Dichloro-2-butene

Concen: 110.654 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampleId :

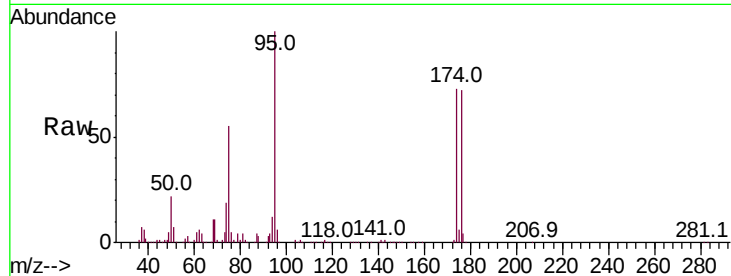
Tot Ion: 75 Resp: 180016

Ion Ratio Lower Upper

75 100

53 0.0 88.4 132.6#

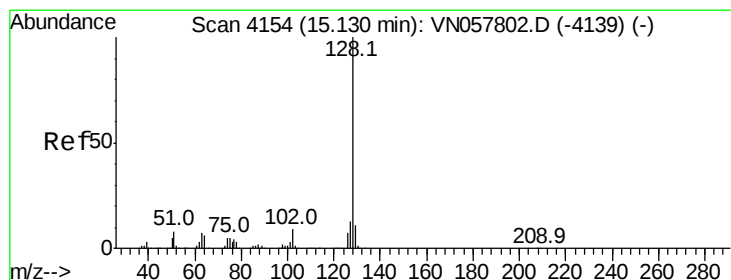
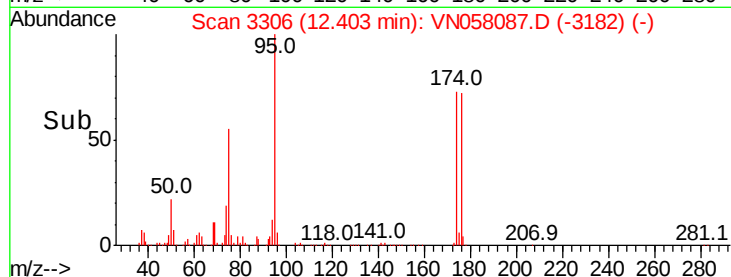
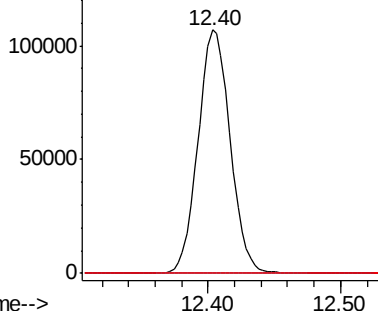
89 0.0 35.3 52.9#



Abundance Ion 74.90 (74.60 to 75.60): VN057802.D (-3265) (-)

Ion 53.00 (52.70 to 53.70): VN057802.D (-3265) (-)

Ion 88.90 (88.60 to 89.60): VN057802.D (-3265) (-)



#95

Naphthalene

Concen: Below Cal

RT: 15.14 min Scan# 4157

Delta R.T. 0.01 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

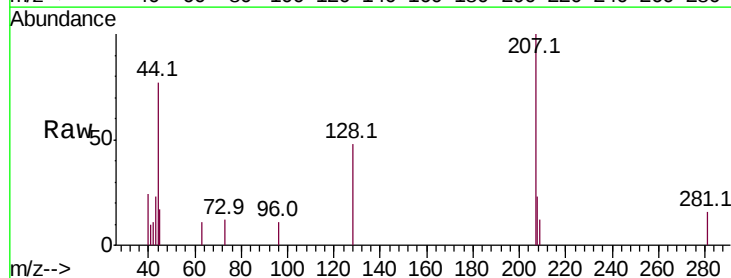
Tgt Ion: 128 Resp: 1379

Ion Ratio Lower Upper

128 100

127 0.0 10.3 15.5#

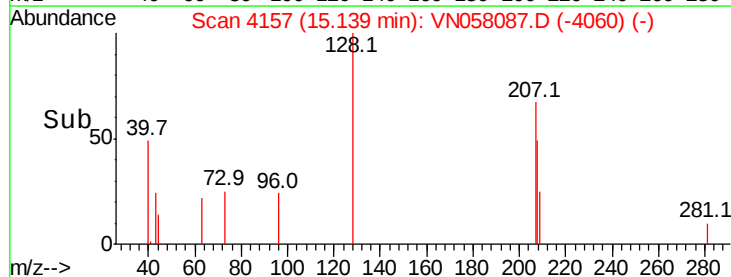
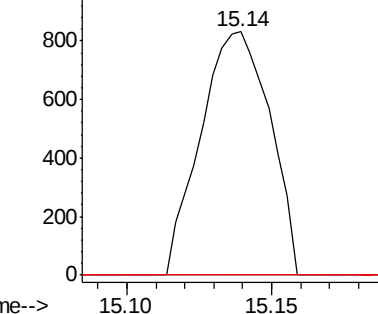
129 0.0 8.6 12.8#

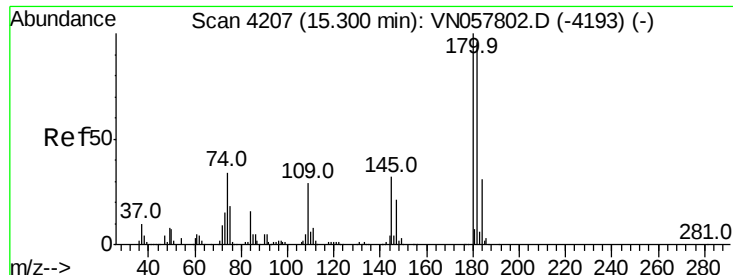


Abundance Ion 128.00 (127.70 to 128.70): VN057802.D (-4139) (-)

Ion 127.00 (126.70 to 127.70): VN057802.D (-4139) (-)

Ion 129.00 (128.70 to 129.70): VN057802.D (-4139) (-)





#96

1,2,3-Trichlorobenzene

Concen: 1.041 ug/l

RT: 15.30 min Scan# 4208

Delta R.T. 0.00 min

Lab File: VN058087.D

Acq: 15 Sep 2019 13:32

Instrument :

MSVOA_N

ClientSampleId :

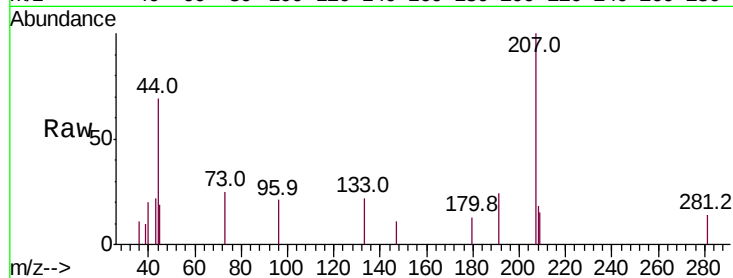
Tot Ion:180 Resp: 225

Ion Ratio Lower Upper

180 100

182 0.0 48.3 144.8#

145 0.0 16.3 48.8#



Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.90 (144.60 to 145.60): V

