

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN091019\
 Data File : VN057832.D
 Acq On : 10 Sep 2019 3:55
 Operator : JC/SP
 Sample : K4603-35
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 38 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

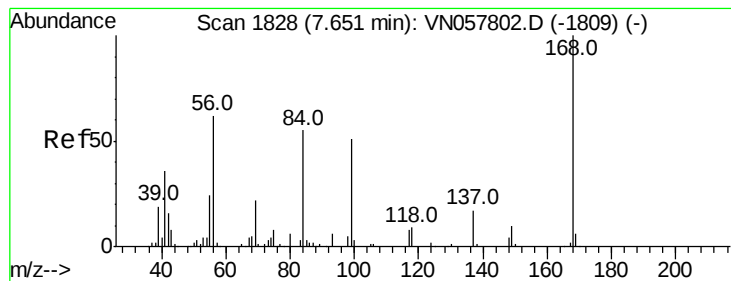
Quant Time: Sep 10 07:14:51 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N091019W.M
 Quant Title : SW846 8260
 QLast Update : Tue Sep 10 03:02:13 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.65	168	308400	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.58	114	526517	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	486522	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.35	152	244898	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	343257	54.95	ug/l	0.00
Spiked Amount			Recovery	=	109.90%	
35) Dibromofluoromethane	7.58	113	232072	47.76	ug/l	0.00
Spiked Amount			Recovery	=	95.52%	
50) Toluene-d8	10.09	98	946056	50.14	ug/l	0.00
Spiked Amount			Recovery	=	100.28%	
62) 4-Bromofluorobenzene	12.40	95	309364	43.03	ug/l	0.00
Spiked Amount			Recovery	=	86.06%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	2.55	94	542	Below Cal	#	46
11) Tert butyl alcohol	4.75	59	328	0.434	ug/l #	72
16) Acetone	3.81	43	8129	3.970	ug/l	90
17) Carbon Disulfide	4.03	76	1152	0.383	ug/l #	75
18) Methyl Acetate	4.32	43	6526	1.195	ug/l #	72
20) Methylene Chloride	4.54	84	12563	2.042	ug/l	96
29) Tetrahydrofuran	7.20	42	795	0.435	ug/l #	78
31) Cyclohexane	7.65	56	8570	Below Cal	#	54
36) 1,1-Dichloropropene	7.65	75	27428	4.492	ug/l #	49
38) Carbon Tetrachloride	7.65	117	32116	5.761	ug/l #	16
43) Isopropyl Acetate	8.15	43	86198	8.125	ug/l #	91
45) 1,2-Dichloropropane	9.26	63	1704	0.319	ug/l #	44
48) Methyl methacrylate	9.17	41	5305	0.986	ug/l #	14
51) 4-Methyl-2-Pentanone	9.99	43	6515	1.038	ug/l	96
54) cis-1,3-Dichloropropene	9.90	75	38365	5.112	ug/l #	65
56) Ethyl methacrylate	10.54	69	1691	0.229	ug/l #	1
59) 2-Hexanone	10.76	43	100279	21.309	ug/l #	54
74) N-amyl acetate	12.03	43	5189	0.627	ug/l #	49
76) 1,2,3-Trichloropropane	12.40	75	170232	30.728	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.40	75	170232	108.131	ug/l #	6
93) 1,2,4-Trichlorobenzene	14.92	180	2680	0.472	ug/l	95
95) Naphthalene	15.13	128	11075	Below Cal		97
96) 1,2,3-Trichlorobenzene	15.30	180	2892	1.570	ug/l	83

(#) = 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: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

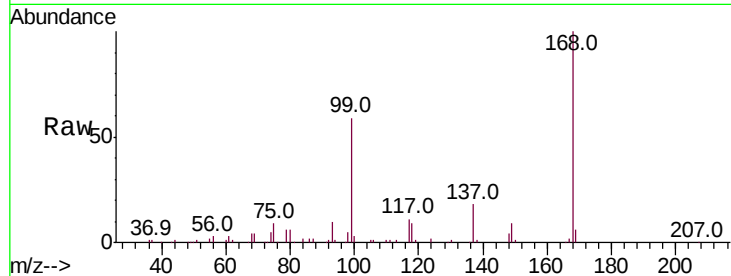
ClientSampled :

Tot Ion:168 Resp: 308400

Ion Ratio Lower Upper

168 100

99 58.9 48.0 72.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.65

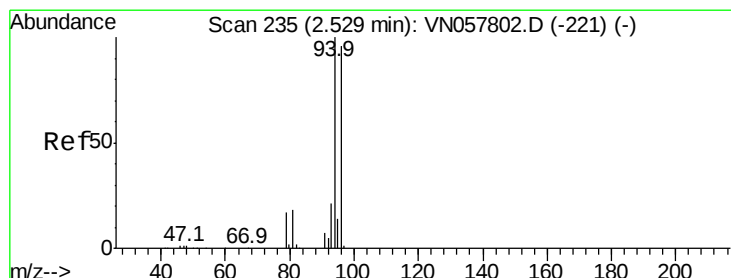
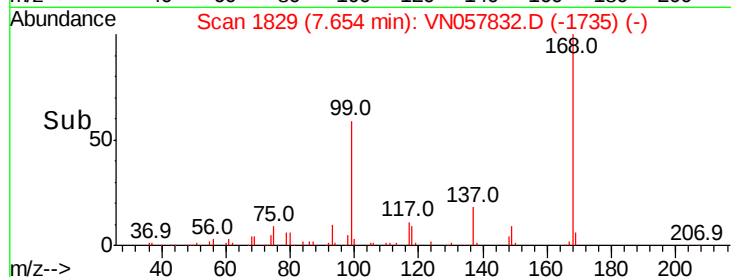
150000

100000

50000

0

Time--> 7.50 7.60 7.70 7.80



#5

Bromomethane

Concen: Below Cal

RT: 2.55 min Scan# 241

Delta R.T. 0.02 min

Lab File: VN057832.D

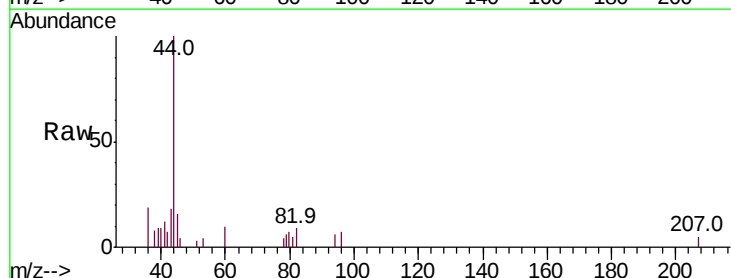
Acq: 10 Sep 2019 3:55

Tgt Ion: 94 Resp: 542

Ion Ratio Lower Upper

94 100

96 43.1 77.0 115.4#



Abundance Ion 93.90 (93.60 to 94.60): VNO

Ion 95.90 (95.60 to 96.60): VNO

2.55

400

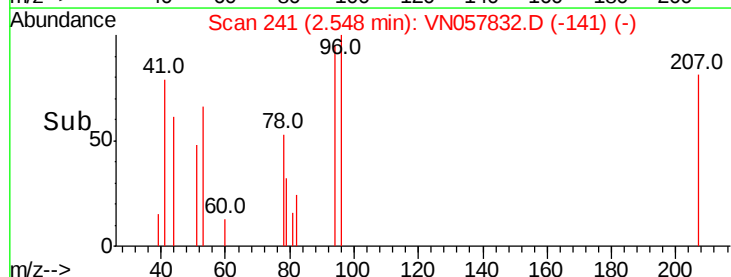
300

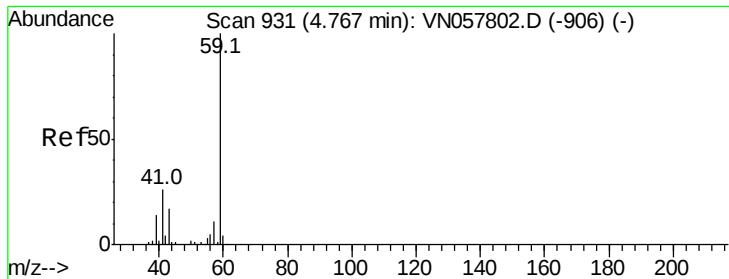
200

100

0

Time--> 2.52 2.54 2.56 2.58



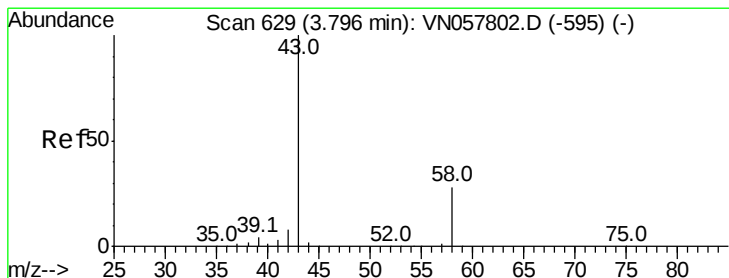
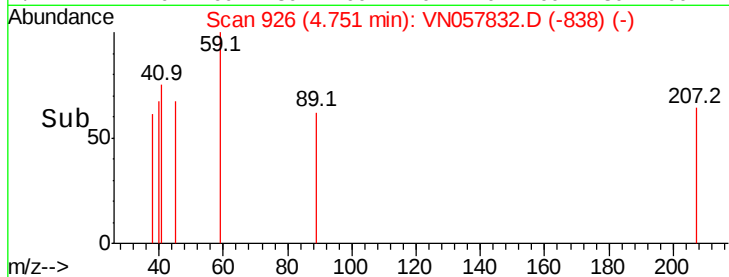
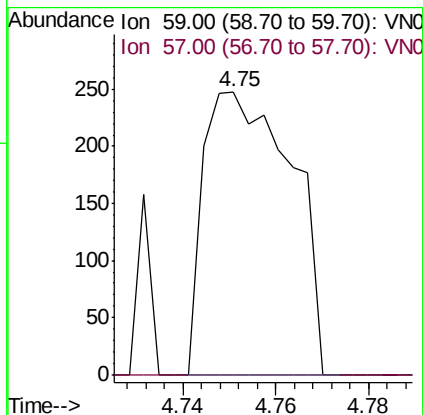
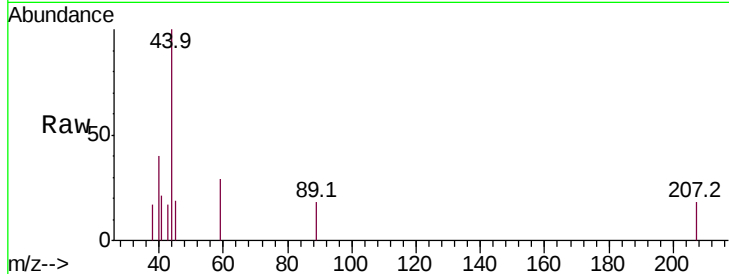


#11

Tert butyl alcohol
 Concen: 0.434 ug/l
 RT: 4.75 min Scan# 926
 Delta R.T. -0.02 min
 Lab File: VN057832.D
 Acq: 10 Sep 2019 3:55

Instrument :
 MSVOA_N
 ClientSampled :

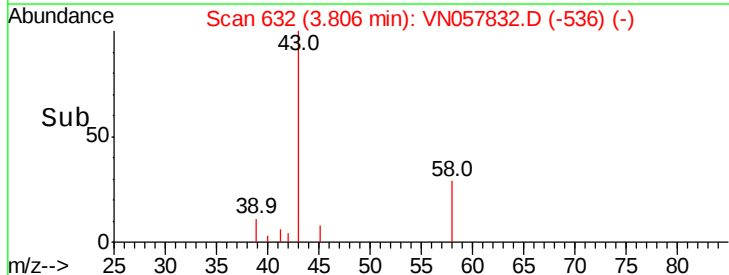
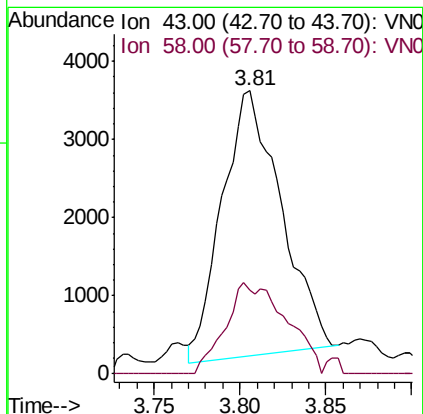
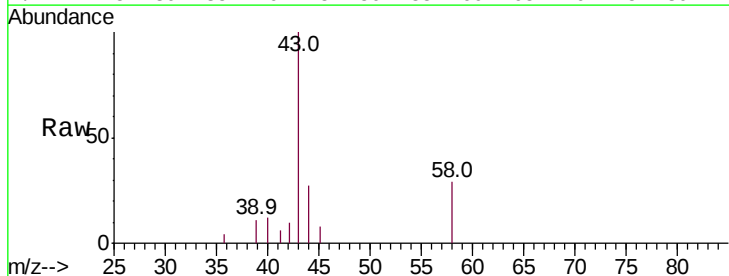
Tot Ion: 59 Resp: 328
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#

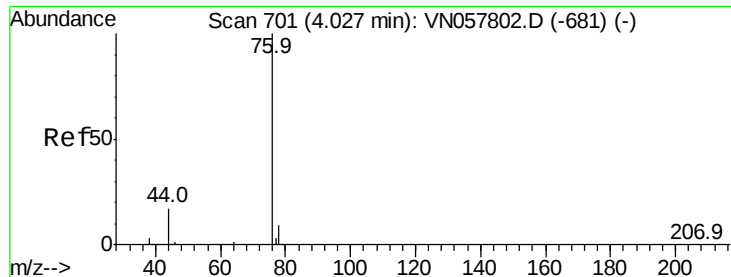


#16

Acetone
 Concen: 3.970 ug/l
 RT: 3.81 min Scan# 632
 Delta R.T. 0.01 min
 Lab File: VN057832.D
 Acq: 10 Sep 2019 3:55

Tgt Ion: 43 Resp: 8129
 Ion Ratio Lower Upper
 43 100
 58 32.8 22.2 33.2





#17

Carbon Disulfide

Concen: 0.383 ug/l

RT: 4.03 min Scan# 702

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

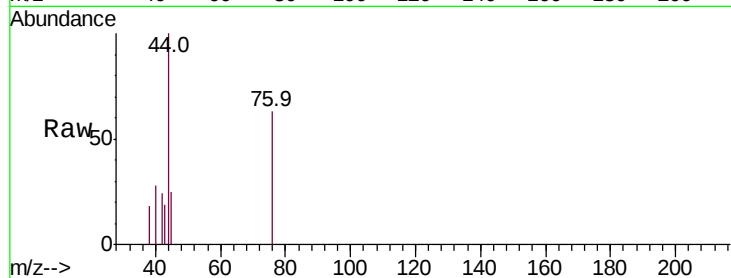
ClientSampleId :

Tot Ion: 76 Resp: 1152

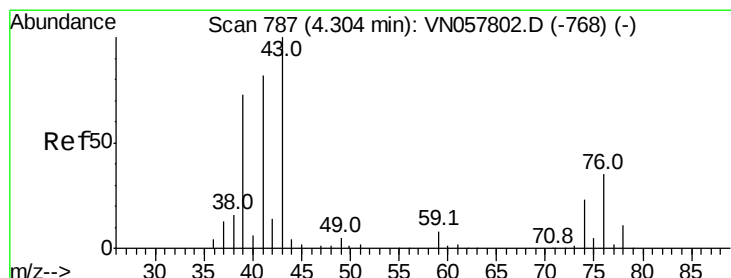
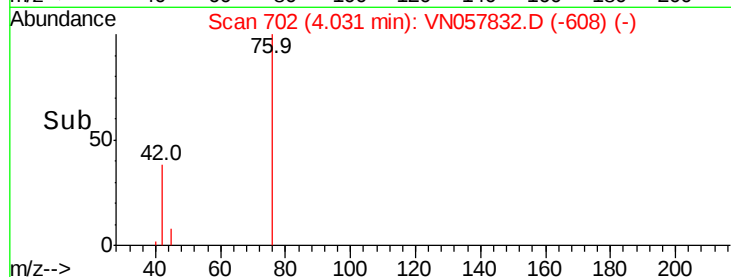
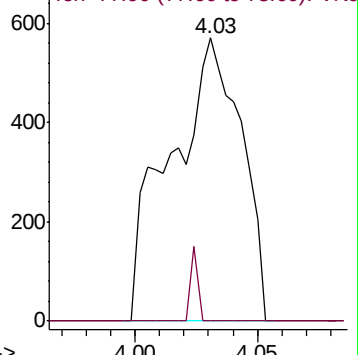
Ion Ratio Lower Upper

76 100

78 0.0 7.1 10.7#



Abundance Ion 75.90 (75.60 to 76.60): VN0



#18

Methyl Acetate

Concen: 1.195 ug/l

RT: 4.32 min Scan# 792

Delta R.T. 0.02 min

Lab File: VN057832.D

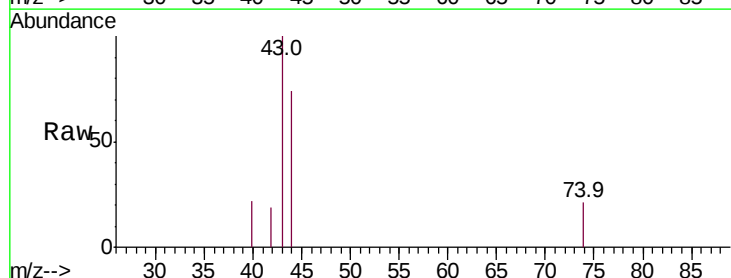
Acq: 10 Sep 2019 3:55

Tgt Ion: 43 Resp: 6526

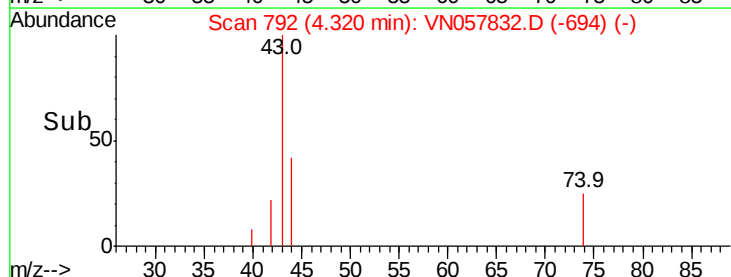
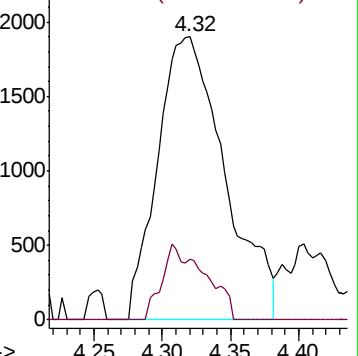
Ion Ratio Lower Upper

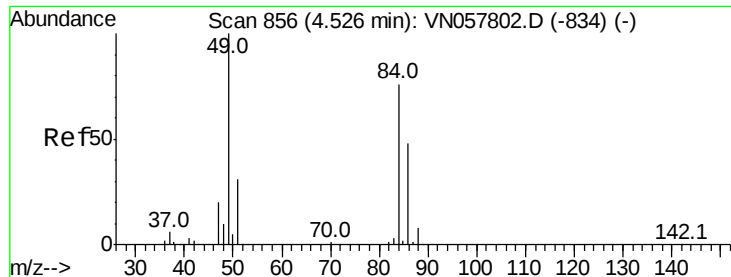
43 100

74 8.7 17.9 26.9#



Abundance Ion 43.00 (42.70 to 43.70): VN0

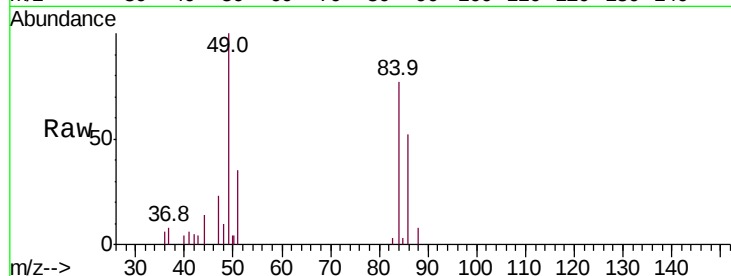




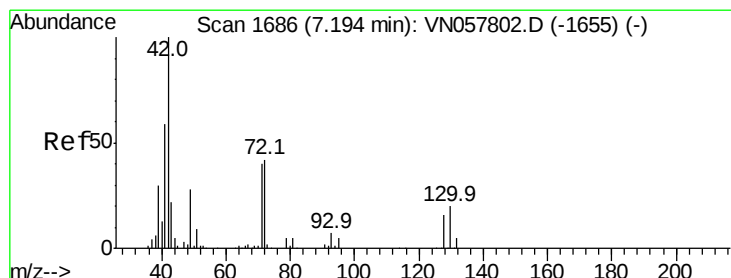
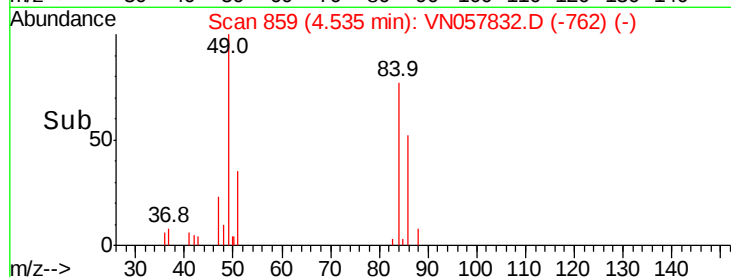
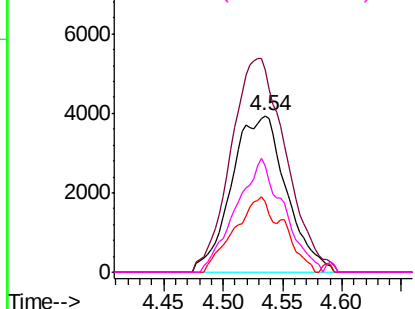
#20
Methvlene Chloride
Concen: 2.042 ug/l
RT: 4.54 min Scan# 859
Delta R.T. 0.01 min
Lab File: VN057832.D
Acq: 10 Sep 2019 3:55

Instrument :
MSVOA_N
ClientSampleId :

Tot Ion: 84 Resp: 12563
Ion Ratio Lower Upper
84 100
49 129.4 104.8 157.2
51 45.2 33.0 49.4
86 67.9 50.5 75.7

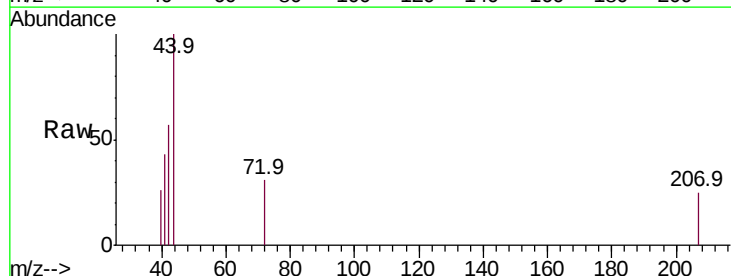


Abundance Ion 83.90 (83.60 to 84.60): VN0
Ion 48.90 (48.60 to 49.60): VN0
Ion 50.90 (50.60 to 51.60): VN0
Ion 85.90 (85.60 to 86.60): VN0

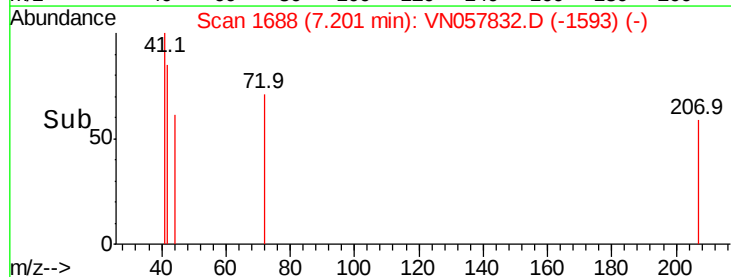
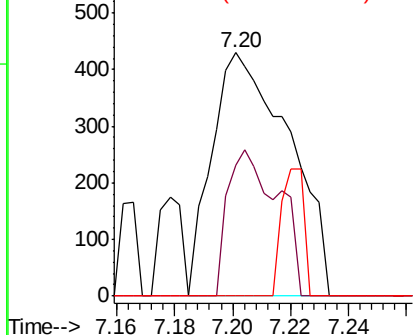


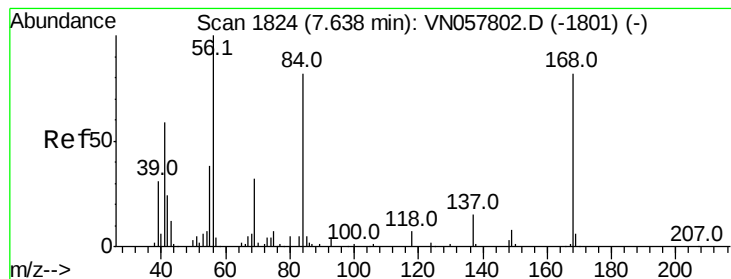
#29
Tetrahydrofuran
Concen: 0.435 ug/l
RT: 7.20 min Scan# 1688
Delta R.T. 0.01 min
Lab File: VN057832.D
Acq: 10 Sep 2019 3:55

Tgt Ion: 42 Resp: 795
Ion Ratio Lower Upper
42 100
72 39.0 33.7 50.5
71 15.0 31.9 47.9#



Abundance Ion 42.00 (41.70 to 42.70): VN0
Ion 72.00 (71.70 to 72.70): VN0
Ion 71.00 (70.70 to 71.70): VN0





#31

Cyclohexane

Concen: Below Cal

RT: 7.65 min Scan# 1829

Delta R.T. 0.02 min

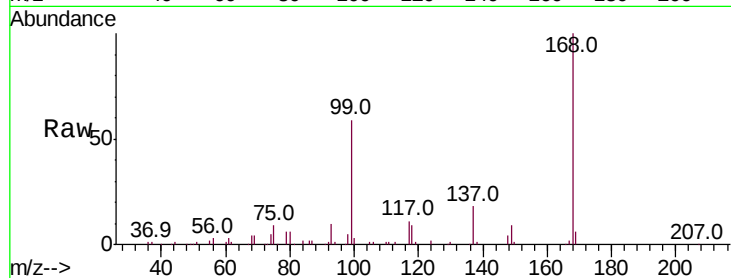
Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

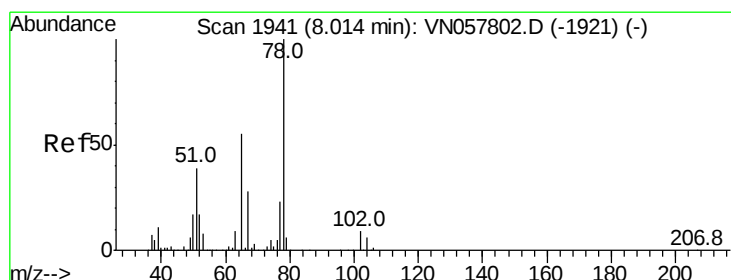
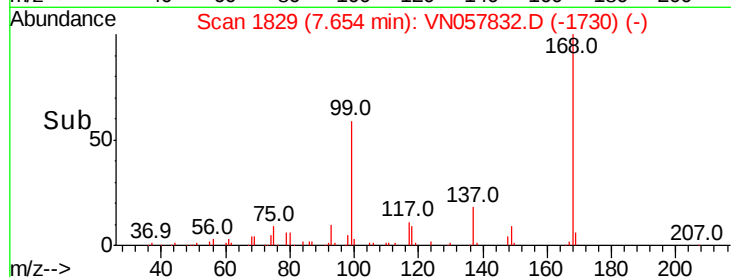
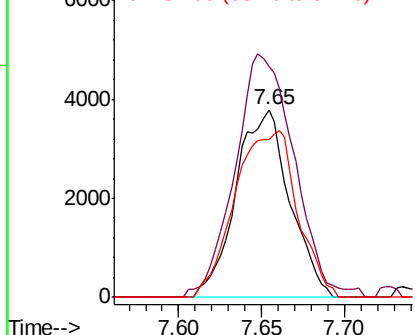
Instrument :
MSVOA_N
ClientSampleId :

Tot Ion: 56 Resp: 8570

Ion	Ratio	Lower	Upper
56	100		
69	118.8	25.9	38.9#
84	84.4	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: 54.953 ug/l

RT: 8.01 min Scan# 1941

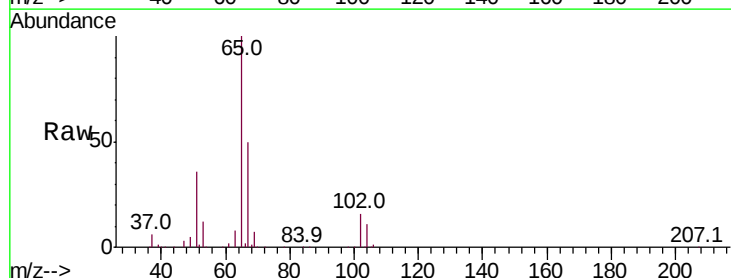
Delta R.T. 0.00 min

Lab File: VN057832.D

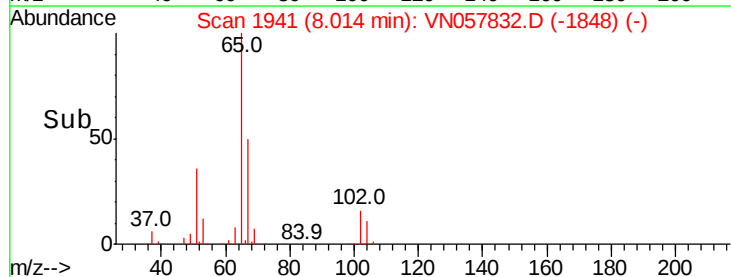
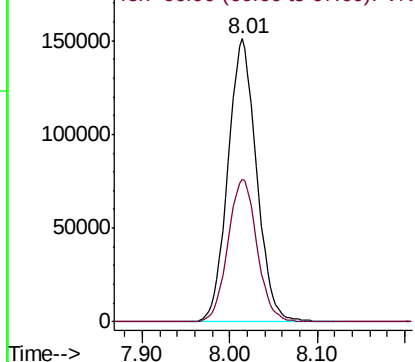
Acq: 10 Sep 2019 3:55

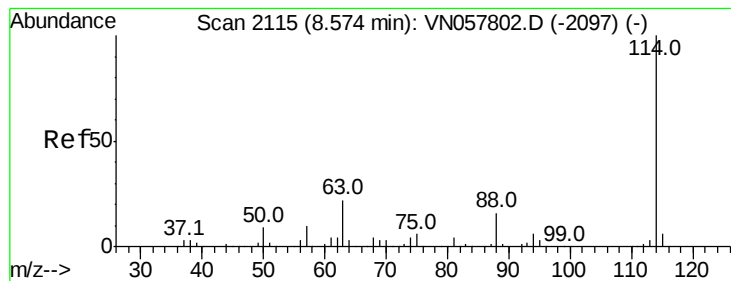
Tgt Ion: 65 Resp: 343257

Ion	Ratio	Lower	Upper
65	100		
67	51.1	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: 8.58 min Scan# 2116

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampleId :

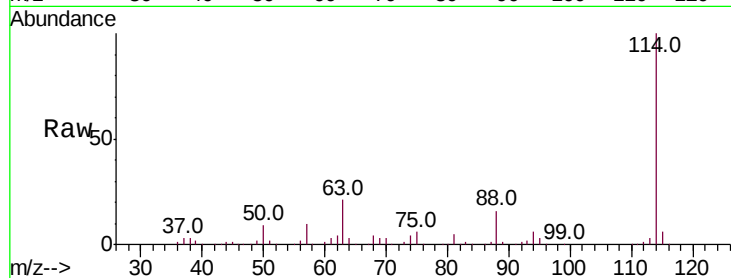
Tot Ion:114 Resp: 526517

Ion Ratio Lower Upper

114 100

63 21.5 0.0 44.0

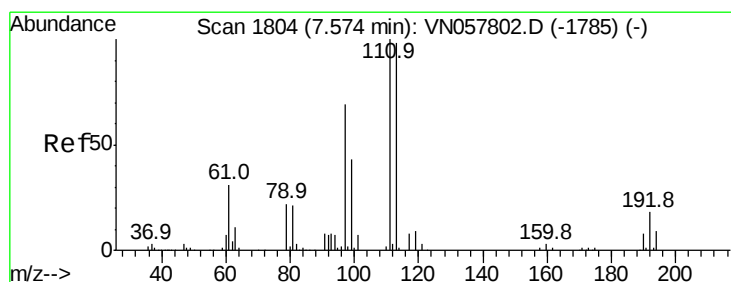
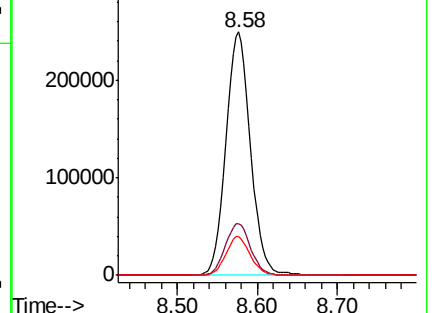
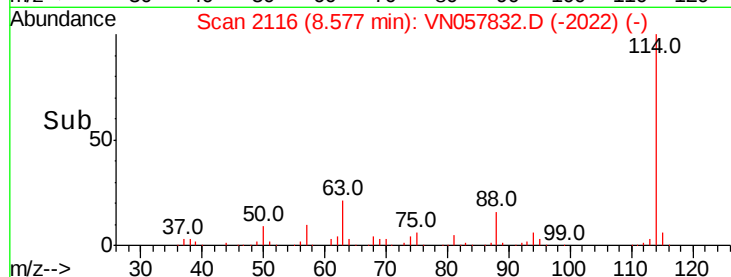
88 16.0 0.0 31.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VN0

Ion 87.90 (87.60 to 88.60): VN0



#35

Dibromofluoromethane

Concen: 47.756 ug/l

RT: 7.58 min Scan# 1805

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

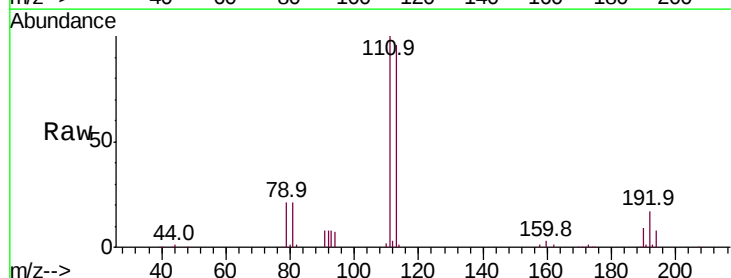
Tgt Ion:113 Resp: 232072

Ion Ratio Lower Upper

113 100

111 102.1 81.3 121.9

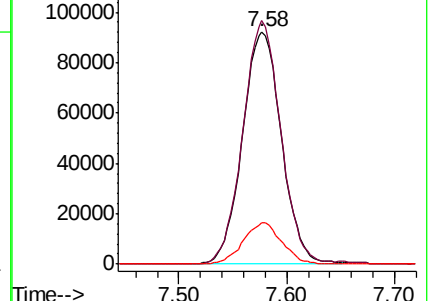
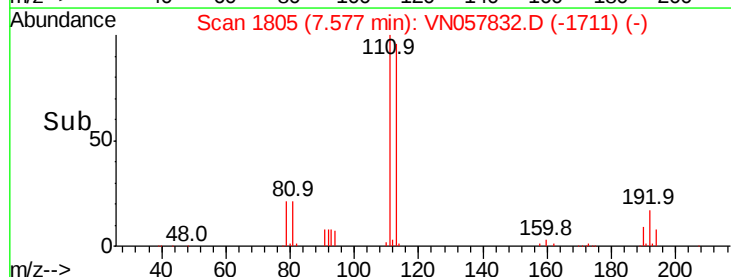
192 17.7 14.6 22.0

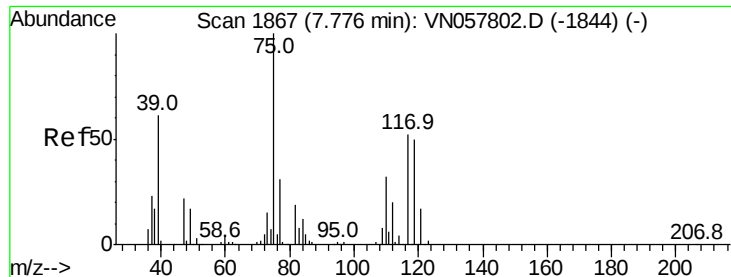


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

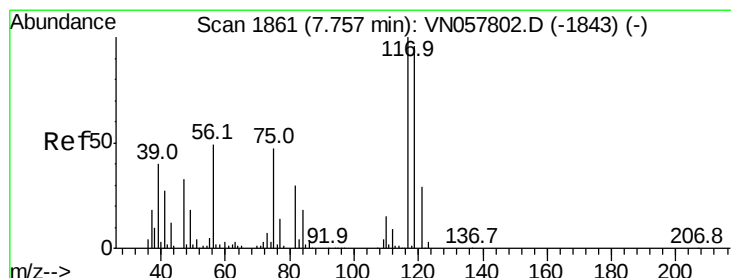
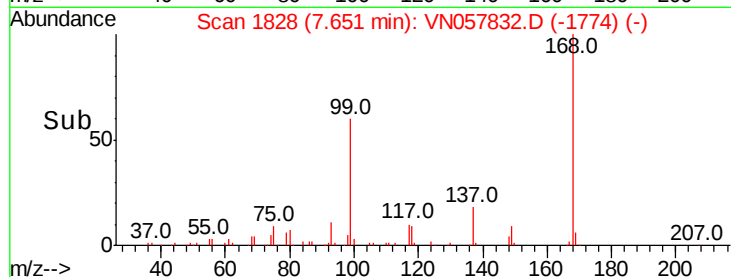
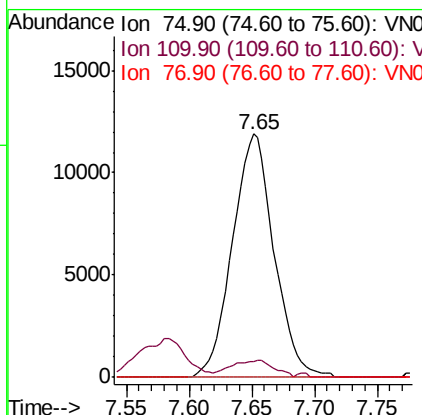
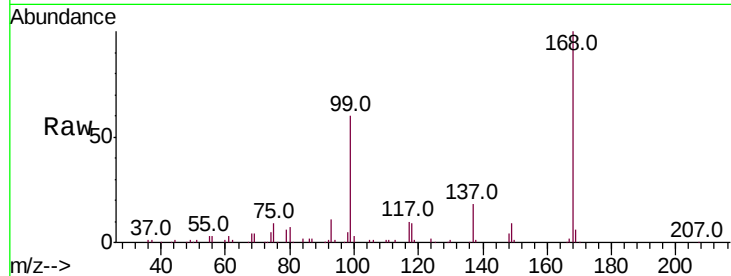




#36
 1,1-Dichloropropene
 Concen: 4.492 ug/l
 RT: 7.65 min Scan# 1828
 Delta R.T. -0.13 min
 Lab File: VN057832.D
 Acq: 10 Sep 2019 3:55

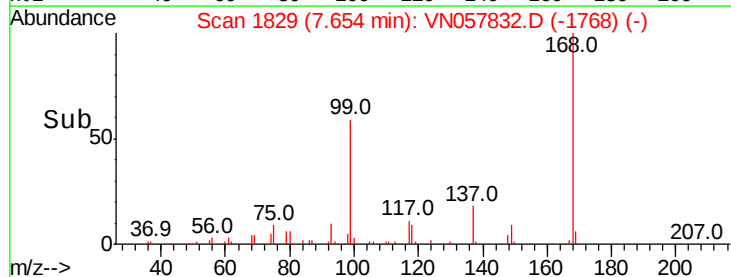
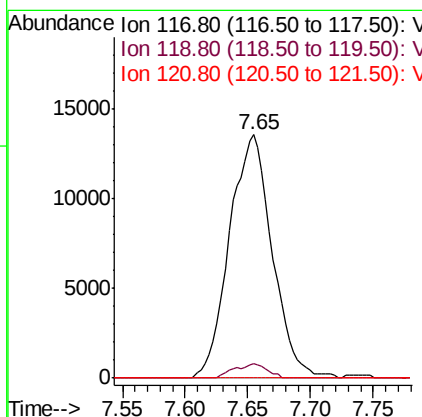
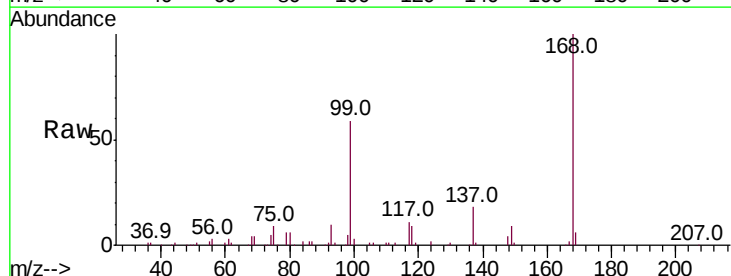
Instrument :
 MSVOA_N
 ClientSampled :

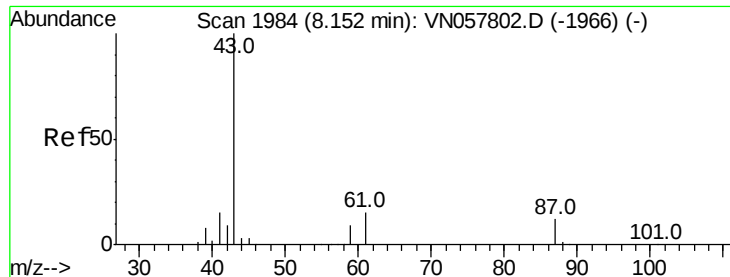
Tot Ion	Ratio	Lower	Upper
75	100		
110	7.3	16.3	48.9#
77	0.0	25.0	37.4#



#38
 Carbon Tetrachloride
 Concen: 5.761 ug/l
 RT: 7.65 min Scan# 1829
 Delta R.T. -0.10 min
 Lab File: VN057832.D
 Acq: 10 Sep 2019 3:55

Tgt Ion	Ratio	Lower	Upper
117	100		
119	5.7	76.9	115.3#
121	0.0	23.4	35.2#





#43

Isopropyl Acetate

Concen: 8.125 ug/l

RT: 8.15 min Scan# 1984

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampled :

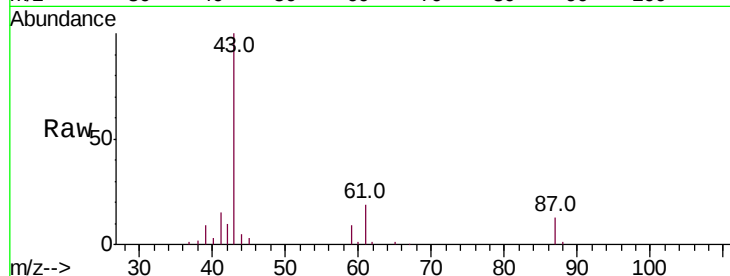
Tot Ion: 43 Resp: 86198

Ion Ratio Lower Upper

43 100

61 18.7 20.1 30.1#

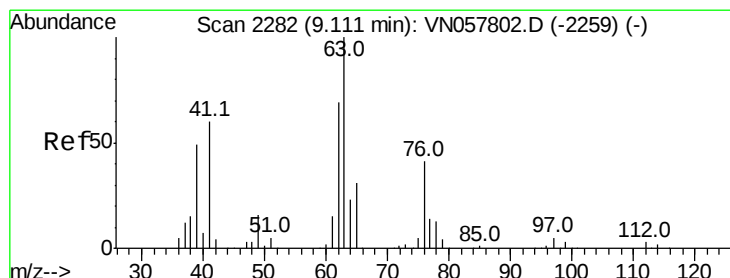
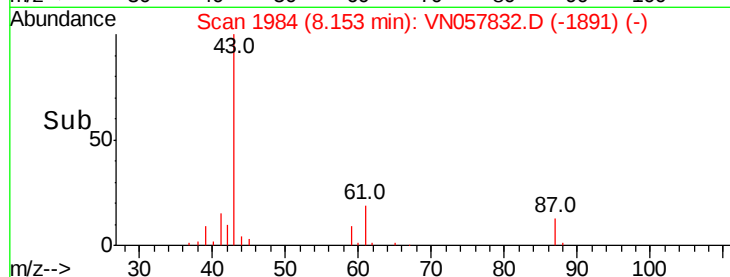
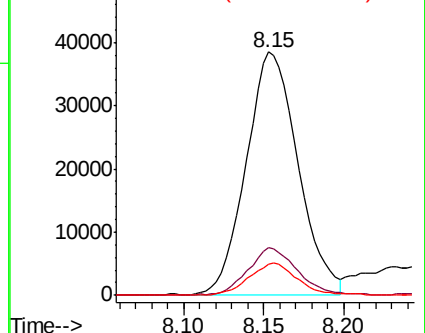
87 12.4 9.5 14.3



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 61.00 (60.70 to 61.70): VN0

Ion 87.00 (86.70 to 87.70): VN0



#45

1,2-Dichloropropane

Concen: 0.319 ug/l

RT: 9.26 min Scan# 2329

Delta R.T. 0.15 min

Lab File: VN057832.D

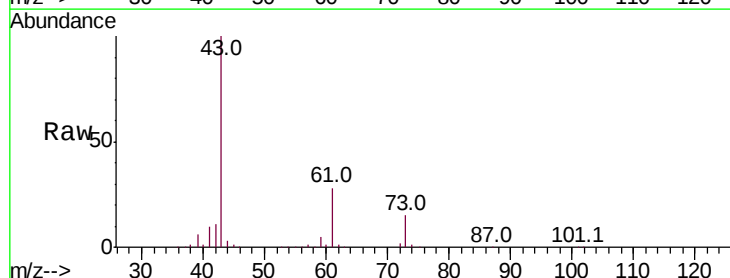
Acq: 10 Sep 2019 3:55

Tgt Ion: 63 Resp: 1704

Ion Ratio Lower Upper

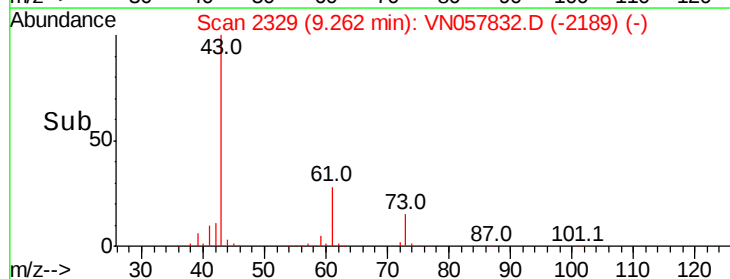
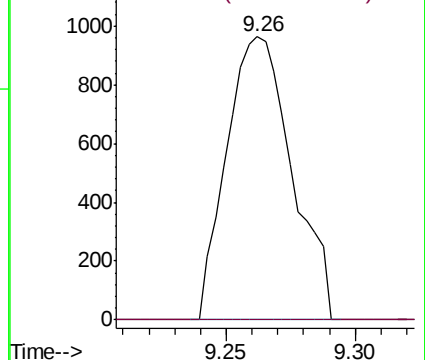
63 100

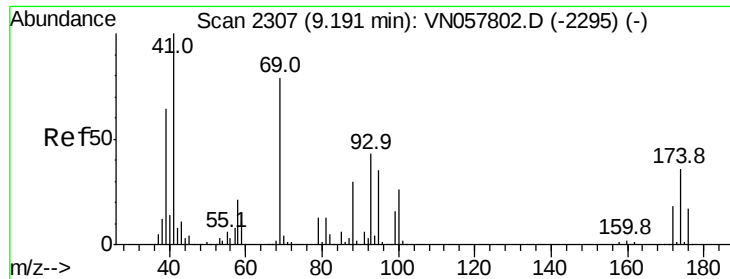
65 0.0 24.8 37.2#



Abundance Ion 62.90 (62.60 to 63.60): VN0

Ion 64.90 (64.60 to 65.60): VN0





#48

Methvl methacrylate

Concen: 0.986 ug/l

RT: 9.17 min Scan# 2301

Delta R.T. -0.02 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :
MSVOA_N
ClientSampled :

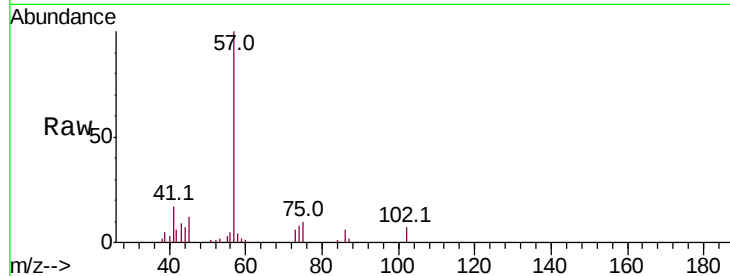
Tot Ion: 41 Resp: 5305

Ion Ratio Lower Upper

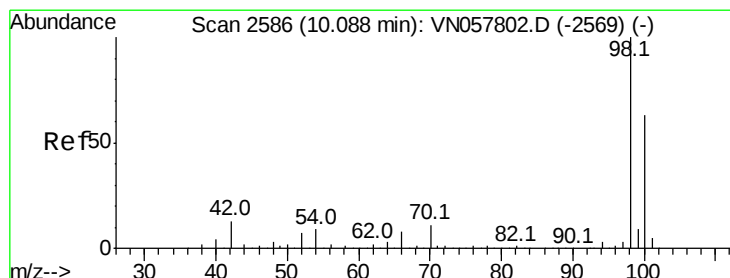
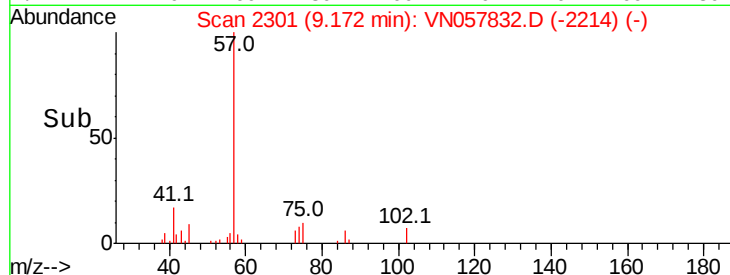
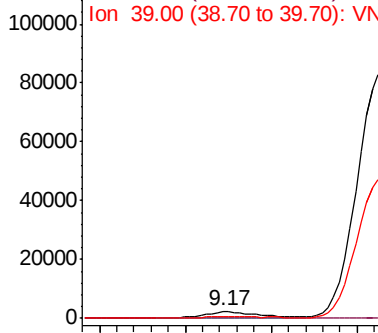
41 100

69 1.3 62.7 94.1#

39 0.0 52.7 79.1#



Abundance Ion 41.00 (40.70 to 41.70): VNC
Ion 69.00 (68.70 to 69.70): VNC
Ion 39.00 (38.70 to 39.70): VNC



#50

Toluene-d8

Concen: 50.142 ug/l

RT: 10.09 min Scan# 2585

Delta R.T. -0.00 min

Lab File: VN057832.D

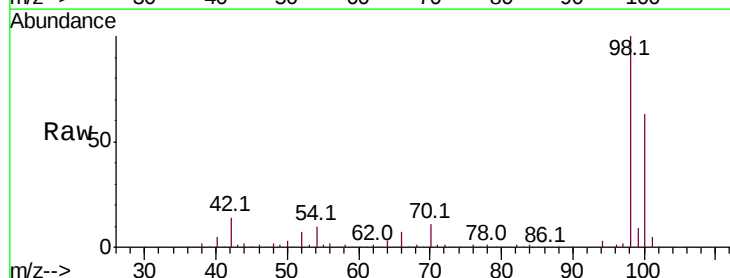
Acq: 10 Sep 2019 3:55

Tgt Ion: 98 Resp: 946056

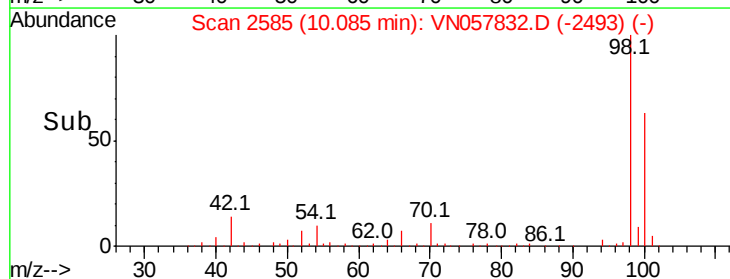
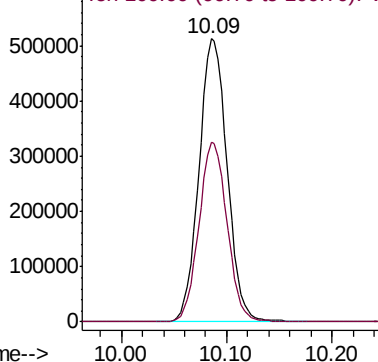
Ion Ratio Lower Upper

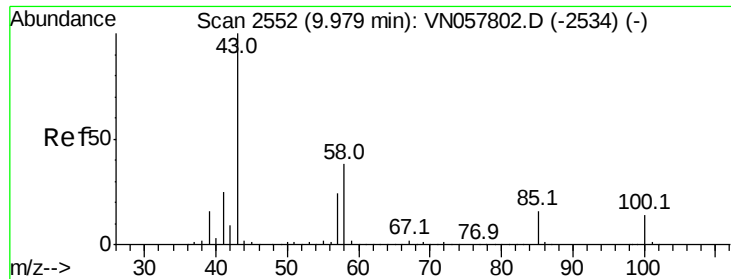
98 100

100 63.7 50.3 75.5



Abundance Ion 98.00 (97.70 to 98.70): VNC
Ion 100.00 (99.70 to 100.70): VNC





#51

4-Methyl-2-Pentanone

Concen: 1.038 ug/l

RT: 9.99 min Scan# 2554

Delta R.T. 0.01 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

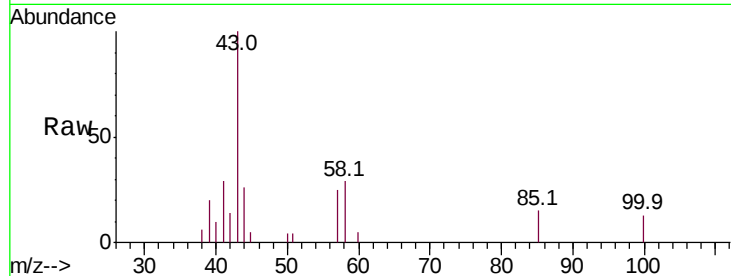
ClientSampled :

Tot Ion: 43 Resp: 6515

Ion Ratio Lower Upper

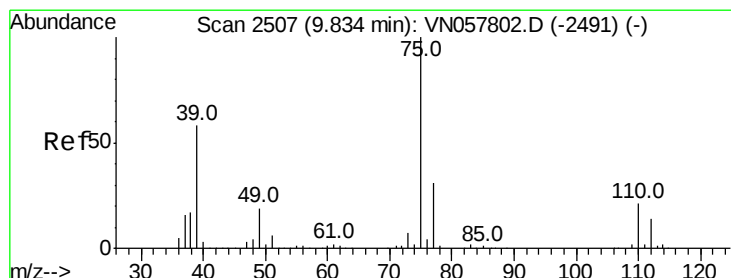
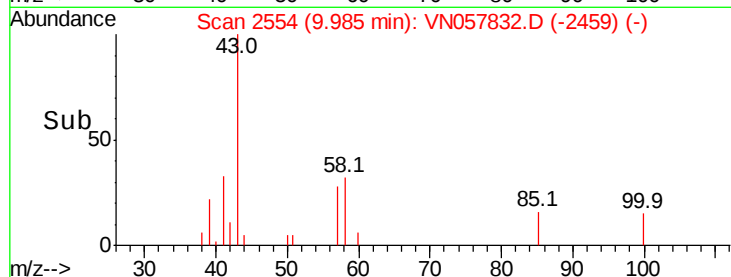
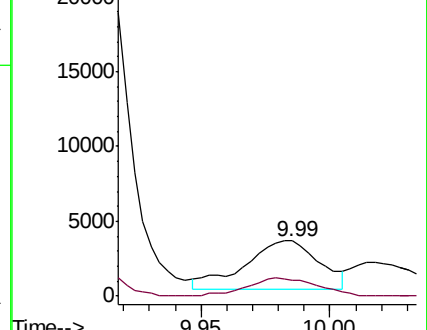
43 100

58 34.8 29.8 44.6



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#54

cis-1,3-Dichloropropene

Concen: 5.112 ug/l

RT: 9.90 min Scan# 2528

Delta R.T. 0.07 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

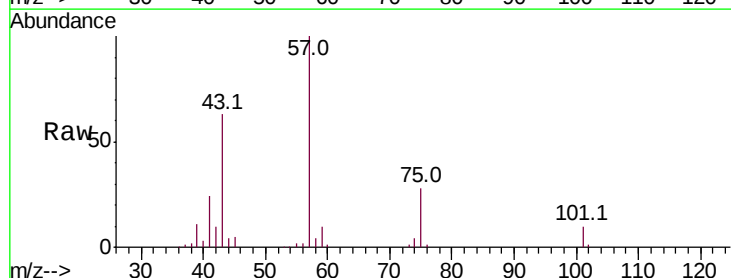
Tgt Ion: 75 Resp: 38365

Ion Ratio Lower Upper

75 100

77 0.0 24.8 37.2#

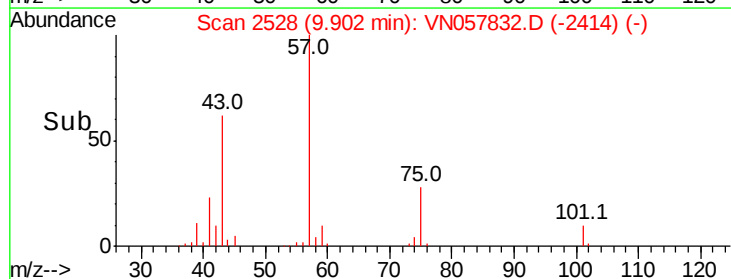
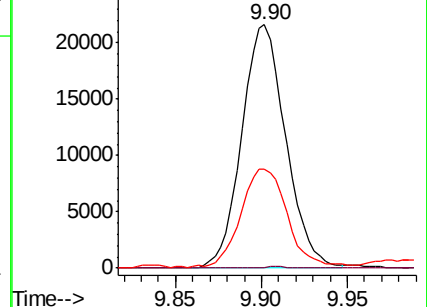
39 39.9 46.2 69.4#

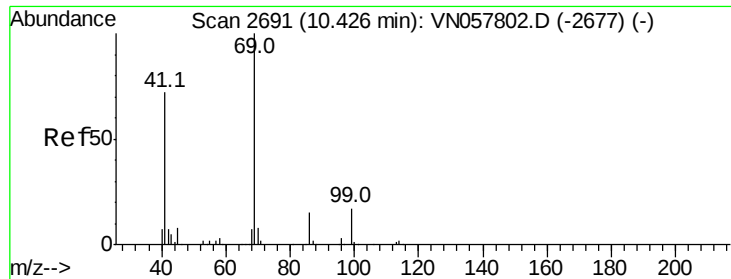


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 76.90 (76.60 to 77.60): VN0

Ion 39.00 (38.70 to 39.70): VN0





#56

Ethyl methacrylate

Concen: 0.229 ug/l

RT: 10.54 min Scan# 2728

Delta R.T. 0.12 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampleId :

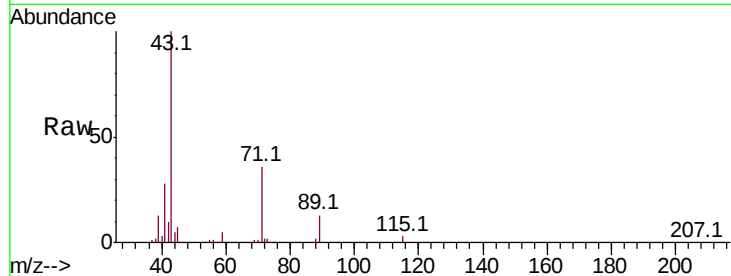
Tot Ion: 69 Resp: 1691

Ion Ratio Lower Upper

69 100

41 5682.0 56.7 85.1#

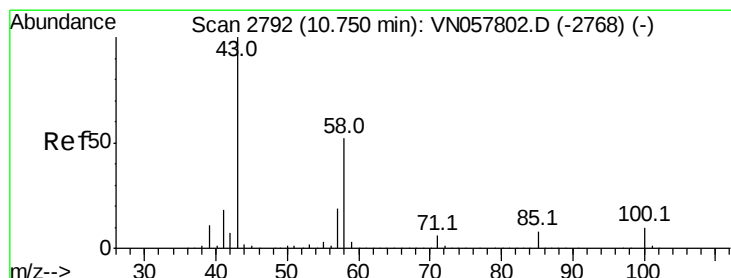
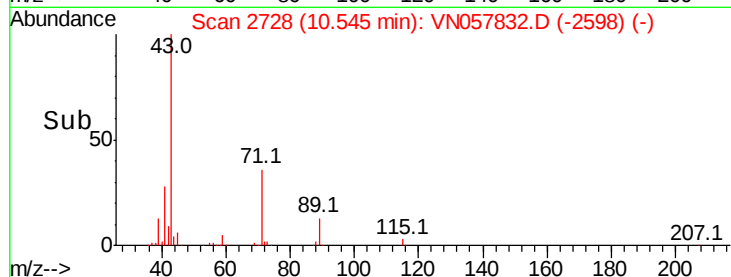
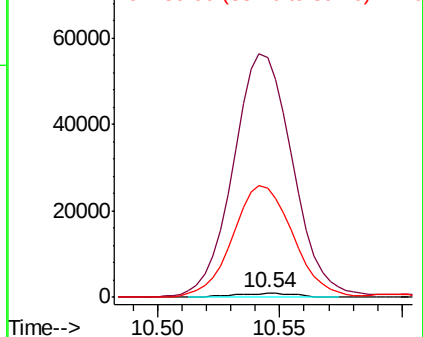
39 2642.6 36.3 54.5#



Abundance Ion 69.00 (68.70 to 69.70): VNC

Ion 41.00 (40.70 to 41.70): VNC

Ion 39.00 (38.70 to 39.70): VNC



#59

2-Hexanone

Concen: 21.309 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.01 min

Lab File: VN057832.D

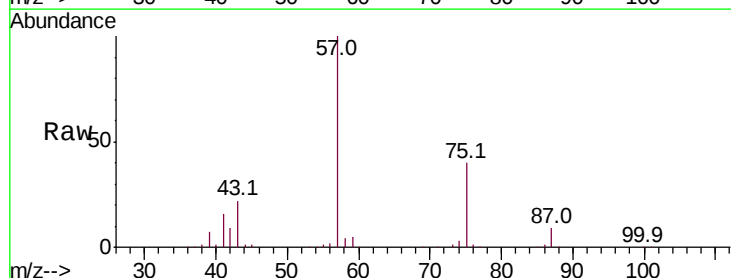
Acq: 10 Sep 2019 3:55

Tgt Ion: 43 Resp: 100279

Ion Ratio Lower Upper

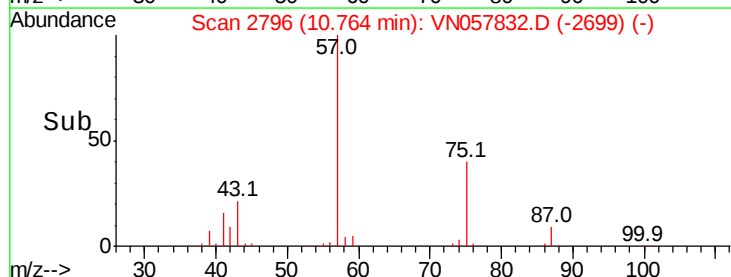
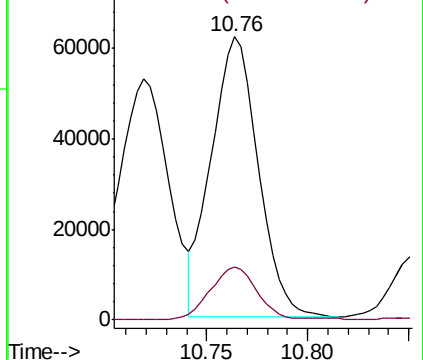
43 100

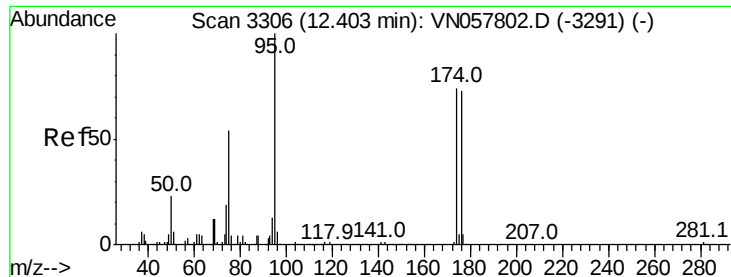
58 19.3 25.6 76.8#



Abundance Ion 43.00 (42.70 to 43.70): VNC

Ion 58.00 (57.70 to 58.70): VNC





#62

4-Bromofluorobenzene

Concen: 43.026 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampled :

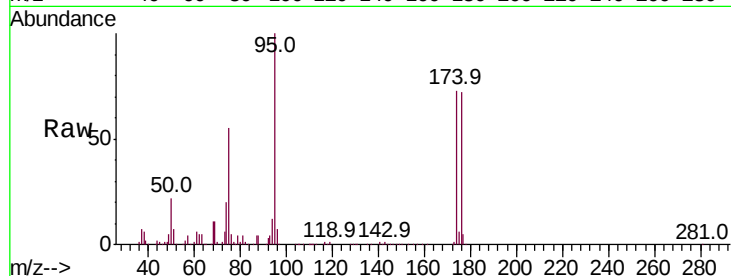
Tot Ion: 95 Resp: 309364

Ion Ratio Lower Upper

95 100

174 74.4 0.0 150.2

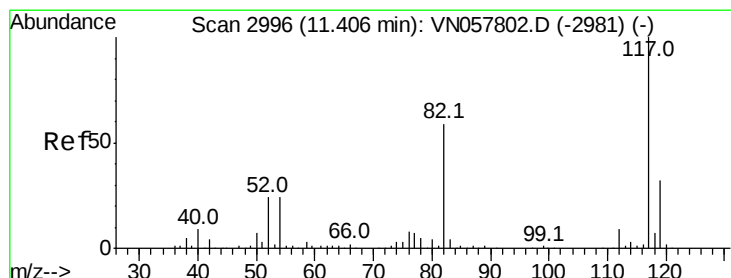
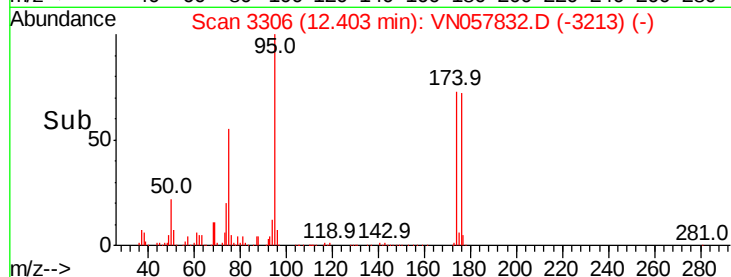
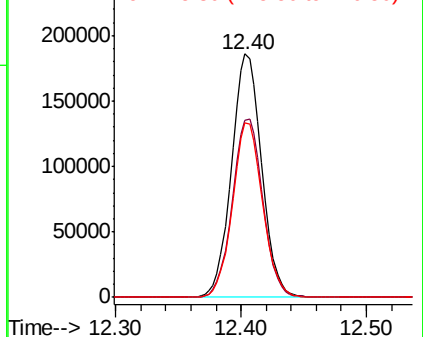
176 71.8 0.0 146.0



Abundance Ion 94.90 (94.60 to 95.60): VN0

Ion 173.80 (173.50 to 174.50): VN0

Ion 175.80 (175.50 to 176.50): VN0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

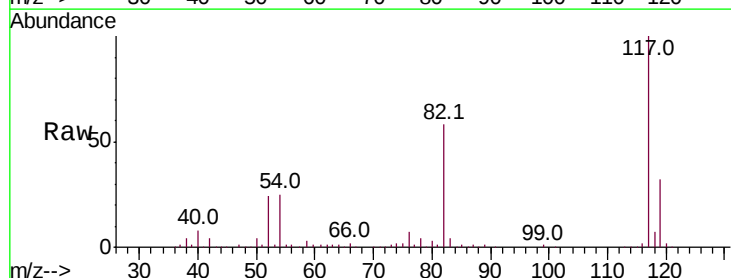
Tgt Ion: 117 Resp: 486522

Ion Ratio Lower Upper

117 100

82 58.3 47.2 70.8

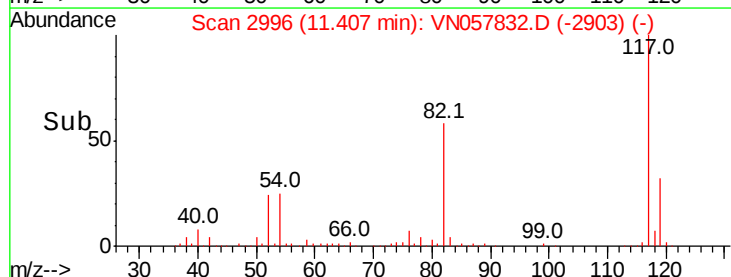
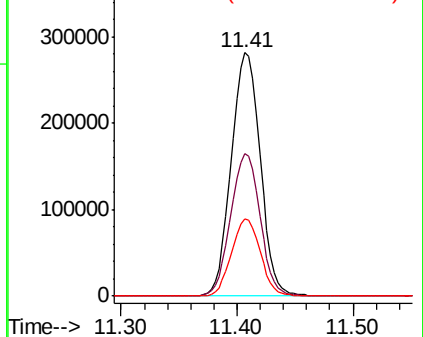
119 31.8 25.3 37.9

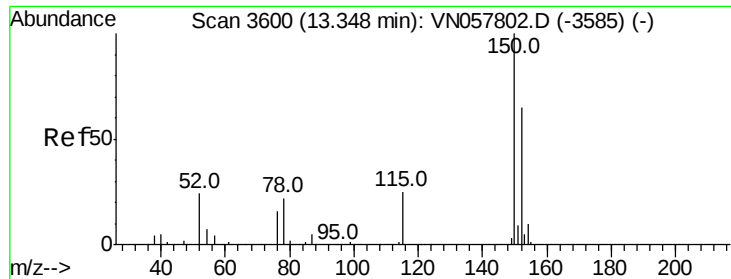


Abundance Ion 116.90 (116.60 to 117.60): VN0

Ion 82.00 (81.70 to 82.70): VN0

Ion 118.90 (118.60 to 119.60): VN0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3600

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampleId :

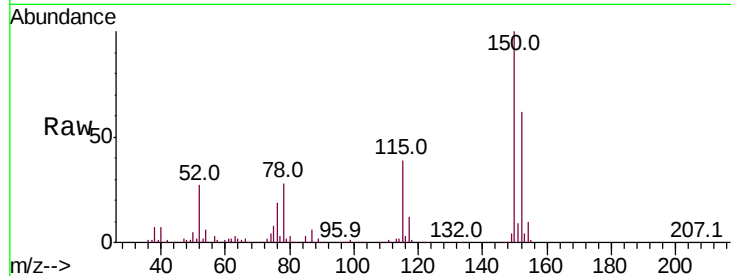
Tot Ion:152 Resp: 244898

Ion Ratio Lower Upper

152 100

115 61.9 30.3 91.0

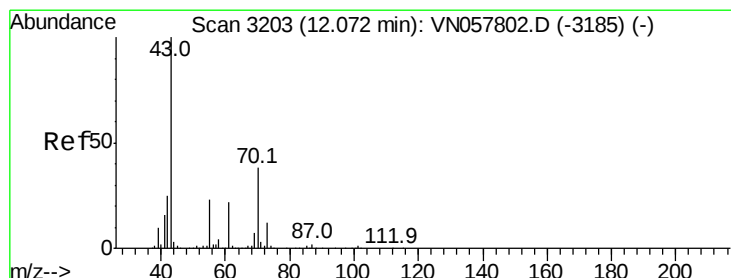
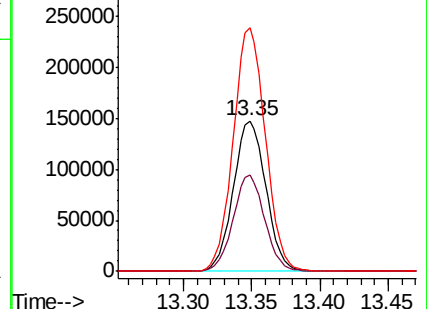
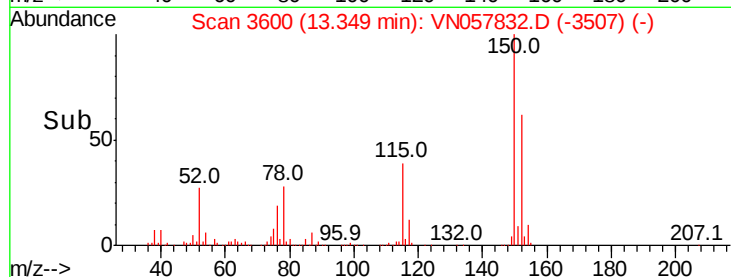
150 159.8 0.0 352.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#74

N-ethyl acetate

Concen: 0.627 ug/l

RT: 12.03 min Scan# 3190

Delta R.T. -0.04 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Tgt Ion: 43 Resp: 5189

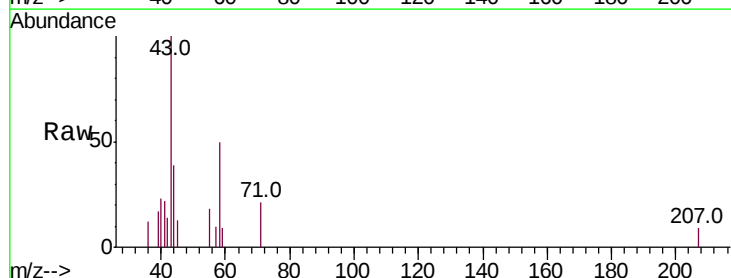
Ion Ratio Lower Upper

43 100

70 0.0 30.6 45.8#

55 6.3 18.6 27.8#

61 0.0 17.4 26.2#

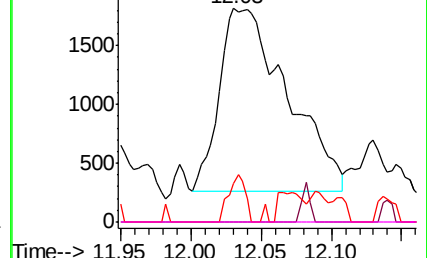
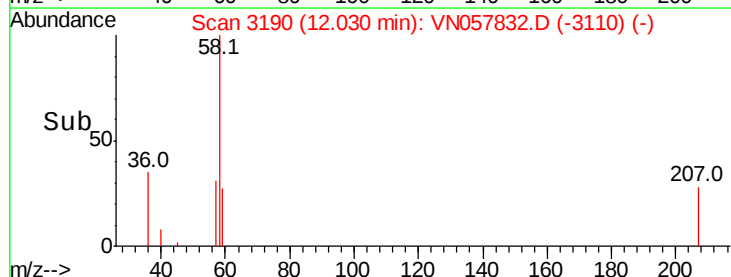


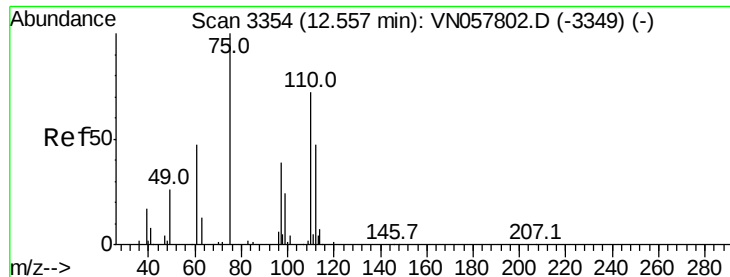
Abundance Ion 43.00 (42.70 to 43.70): V

Ion 70.00 (69.70 to 70.70): V

Ion 55.00 (54.70 to 55.70): V

Ion 61.00 (60.70 to 61.70): V





#76

1,2,3-Trichloropropane

Concen: 30.728 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

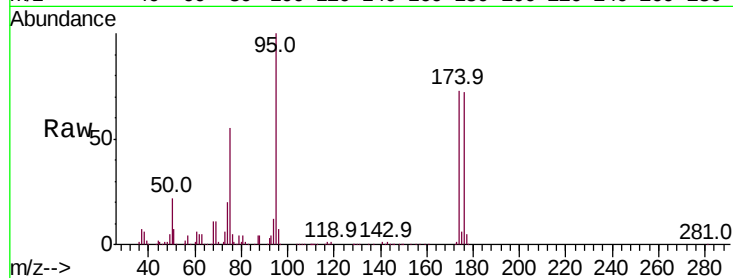
ClientSampled :

Tot Ion: 75 Resp: 170232

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

120000

100000

80000

60000

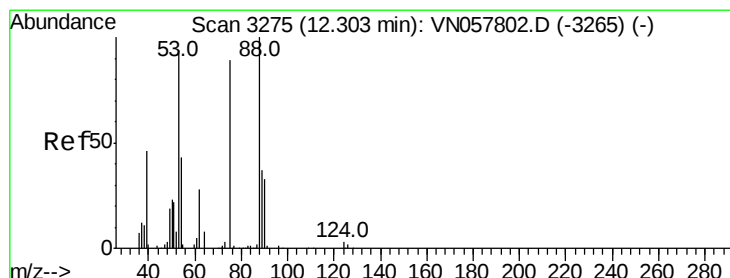
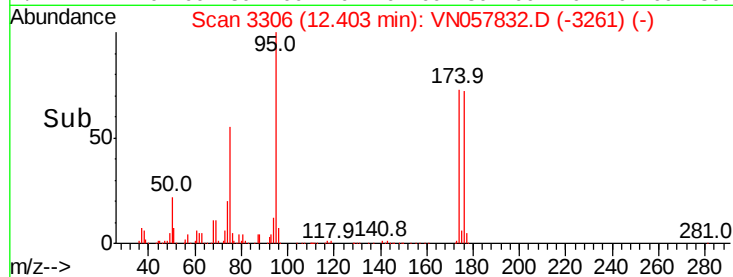
40000

20000

0

12.35 12.40 12.45 12.50

Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 108.131 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

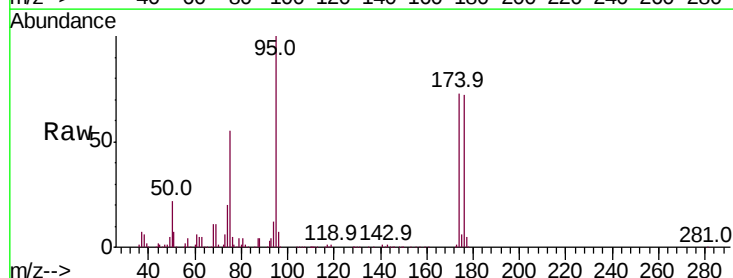
Tgt Ion: 75 Resp: 170232

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): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0

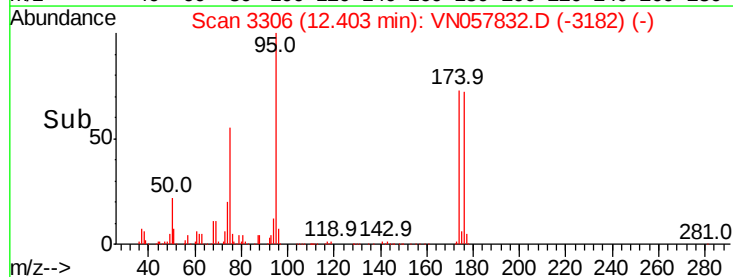
100000

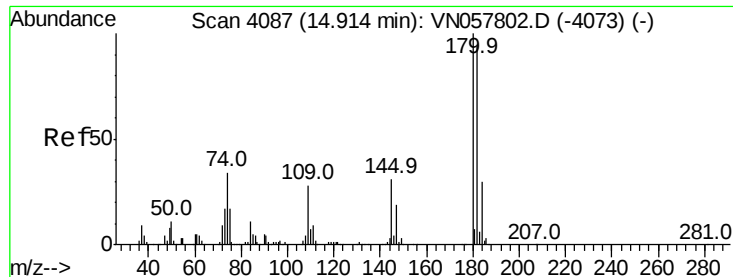
50000

0

12.35 12.40 12.45 12.50

Time-->





#93

1,2,4-Trichlorobenzene

Concen: 0.472 ug/l

RT: 14.92 min Scan# 4088

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampleId :

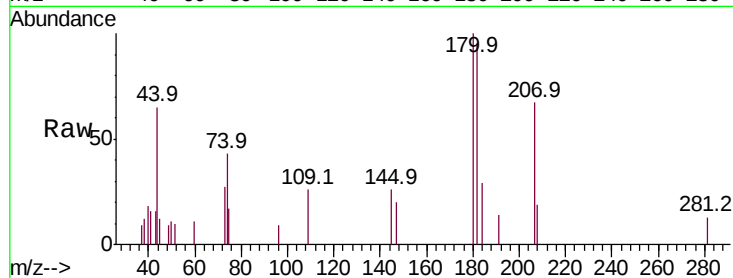
Tot Ion:180 Resp: 2680

Ion Ratio Lower Upper

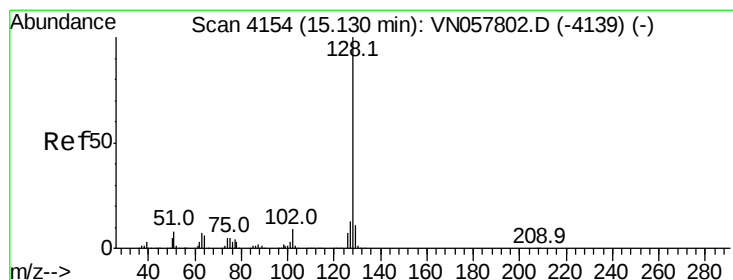
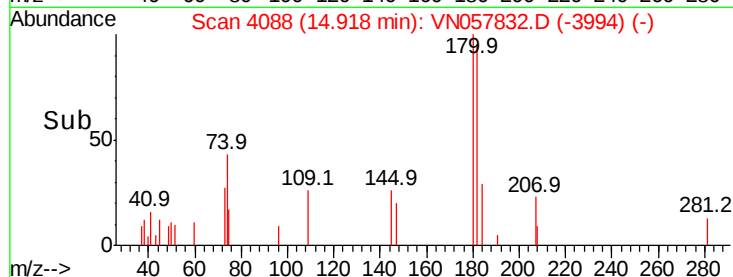
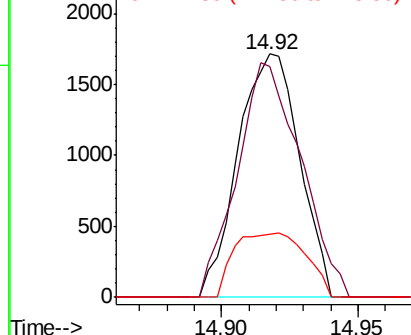
180 100

182 100.0 46.9 140.8

145 30.9 14.9 44.7



Abundance Ion 179.80 (179.50 to 180.50): V
Ion 181.80 (181.50 to 182.50): V
Ion 144.80 (144.50 to 145.50): V



#95

Naphthalene

Concen: Below Cal

RT: 15.13 min Scan# 4154

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

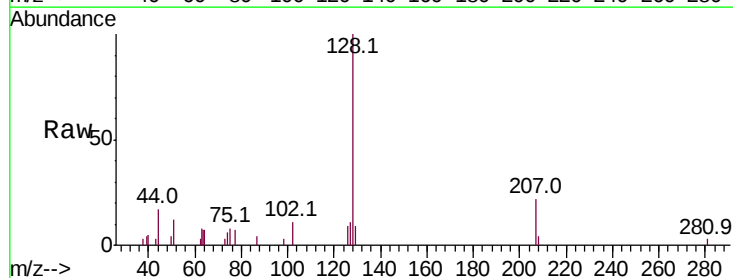
Tgt Ion:128 Resp: 11075

Ion Ratio Lower Upper

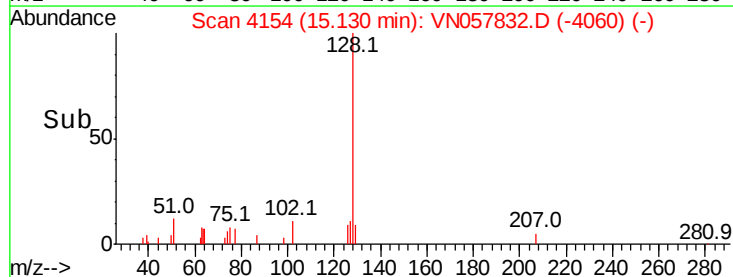
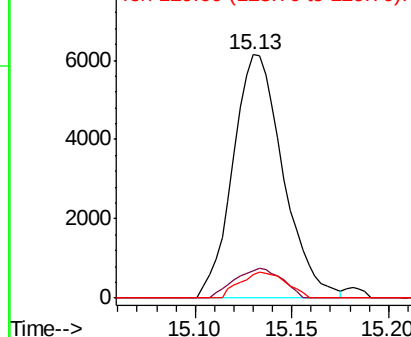
128 100

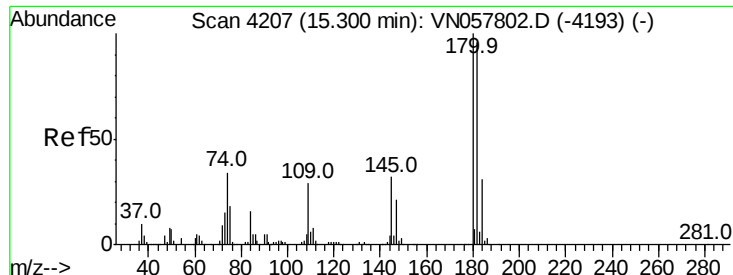
127 11.6 10.3 15.5

129 9.6 8.6 12.8



Abundance Ion 128.00 (127.70 to 128.70): V
Ion 127.00 (126.70 to 127.70): V
Ion 129.00 (128.70 to 129.70): V





#96

1,2,3-Trichlorobenzene

Concen: 1.570 ug/l

RT: 15.30 min Scan# 4207

Delta R.T. 0.00 min

Lab File: VN057832.D

Acq: 10 Sep 2019 3:55

Instrument :

MSVOA_N

ClientSampleId :

Tot Ion:180 Resp: 2892

Ion Ratio Lower Upper

180 100

182 115.4 48.3 144.8

145 37.9 16.3 48.8

