

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN092319\
 Data File : VN058323.D
 Acq On : 24 Sep 2019 3:21
 Operator : JC/SP
 Sample : K4997-18
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 52 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Sep 24 07:09:59 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N091819W.M
 Quant Title : SW846 8260
 QLast Update : Thu Sep 19 09:27:53 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.65	168	470755	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.58	114	795909	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	701159	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.35	152	288652	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	364317	55.56	ug/l	0.00
Spiked Amount			Recovery	=	111.12%	
35) Dibromofluoromethane	7.58	113	247493	51.15	ug/l	0.00
Spiked Amount			Recovery	=	102.30%	
50) Toluene-d8	10.09	98	1019322	54.07	ug/l	0.00
Spiked Amount			Recovery	=	108.14%	
62) 4-Bromofluorobenzene	12.41	95	333938	47.69	ug/l	0.00
Spiked Amount			Recovery	=	95.38%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	2.04	50	462	Below Cal	#	42
5) Bromomethane	2.54	94	161	0.814	ug/l #	4
6) Chloroethane	2.68	64	127	Below Cal	#	44
11) Tert butyl alcohol	4.74	59	539	0.691	ug/l #	71
16) Acetone	3.80	43	12118	5.445	ug/l	92
17) Carbon Disulfide	4.03	76	158	0.309	ug/l #	74
18) Methyl Acetate	4.32	43	3802	0.649	ug/l #	67
20) Methylene Chloride	4.53	84	56960	14.460	ug/l	98
31) Cyclohexane	7.65	56	11837	Below Cal	#	5
36) 1,1-Dichloropropene	7.65	75	41183	7.175	ug/l #	50
38) Carbon Tetrachloride	7.65	117	47720	8.271	ug/l #	14
41) Methacrylonitrile	7.15	41	145	0.958	ug/l #	100
43) Isopropyl Acetate	8.16	43	130019	11.688	ug/l #	81
45) 1,2-Dichloropropane	9.26	63	1868	0.357	ug/l #	45
48) Methyl methacrylate	9.17	41	4926	0.975	ug/l #	14
51) 4-Methyl-2-Pentanone	9.98	43	6244	1.057	ug/l	90
54) cis-1,3-Dichloropropene	9.90	75	38093	5.051	ug/l #	69
56) Ethyl methacrylate	10.54	69	1798	0.256	ug/l #	1
57) 1,3-Dichloropropane	10.76	76	5975	0.713	ug/l #	43
59) 2-Hexanone	10.76	43	93669	21.345	ug/l #	53
71) Bromoform	12.39	173	186	3.647	ug/l #	1
74) N-amyl acetate	12.04	43	3992	0.528	ug/l #	51
76) 1,2,3-Trichloropropane	12.41	75	180106	34.864	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.41	75	180106	97.549	ug/l #	5

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. 0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

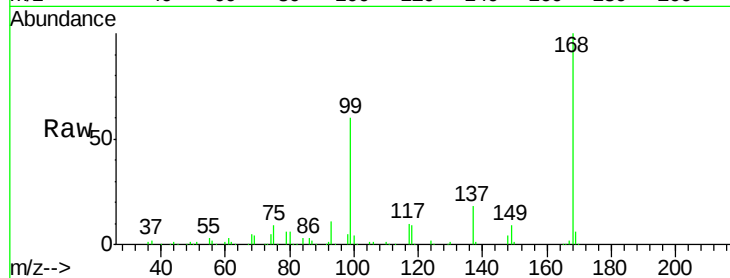
ClientSampleId :

Tot Ion:168 Resp: 470755

Ion Ratio Lower Upper

168 100

99 60.0 47.4 71.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.65

200000

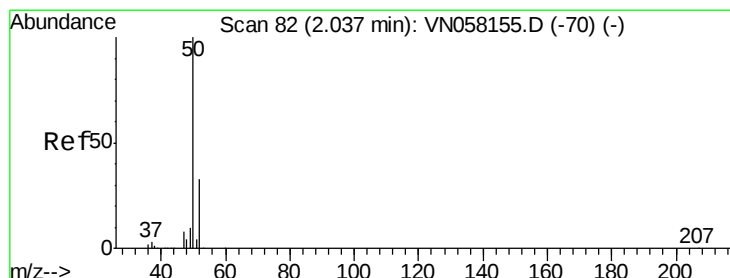
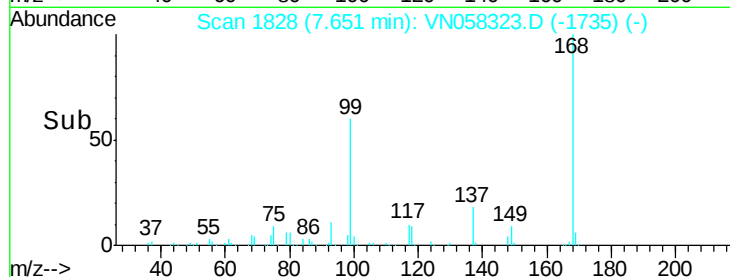
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 2.04 min Scan# 84

Delta R.T. 0.01 min

Lab File: VN058323.D

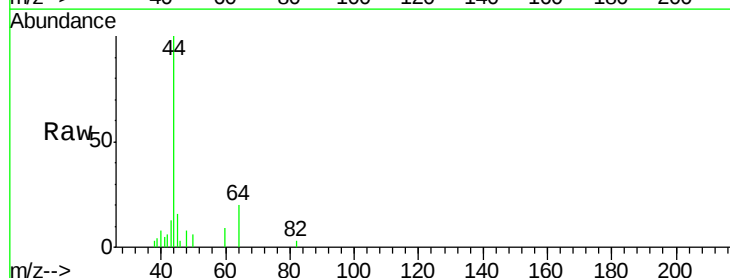
Acq: 24 Sep 2019 3:21

Tgt Ion: 50 Resp: 462

Ion Ratio Lower Upper

50 100

52 0.0 26.3 39.5#



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO

2.04

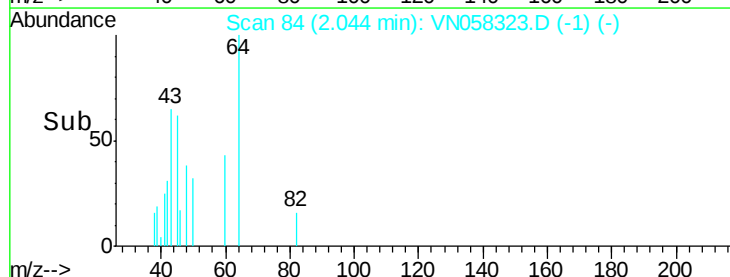
300

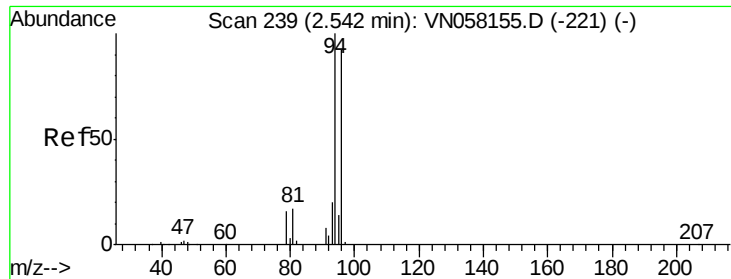
200

100

0

Time-->





#5

Bromomethane

Concen: 0.814 ug/l

RT: 2.54 min Scan# 238

Delta R.T. -0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

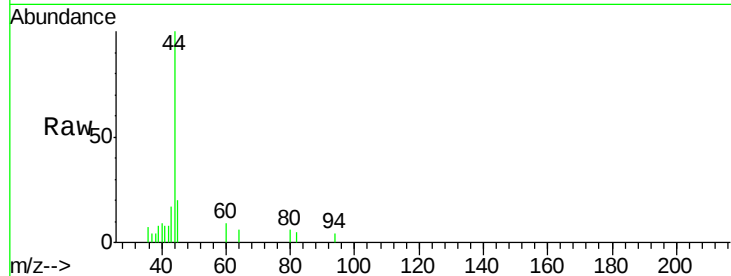
ClientSampled :

Tot Ion: 94 Resp: 161

Ion Ratio Lower Upper

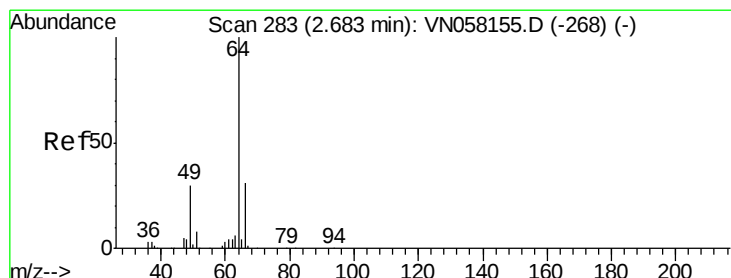
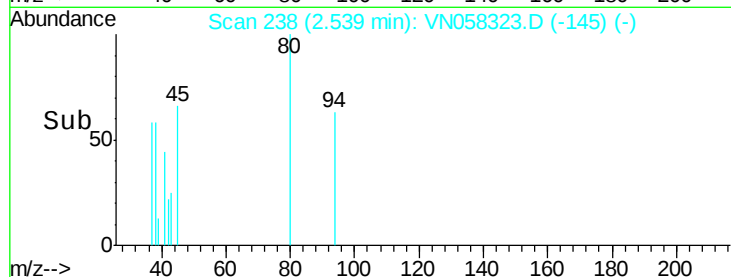
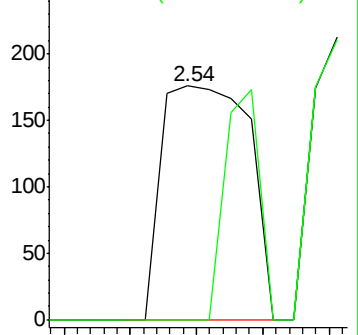
94 100

96 0.0 73.3 109.9#



Abundance Ion 93.90 (93.60 to 94.60): VNO

Ion 95.90 (95.60 to 96.60): VNO



#6

Chloroethane

Concen: Below Cal

RT: 2.68 min Scan# 281

Delta R.T. -0.01 min

Lab File: VN058323.D

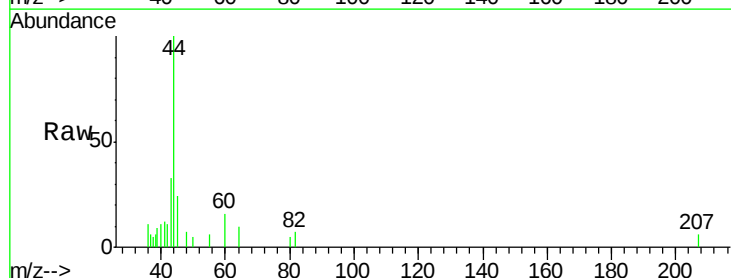
Acq: 24 Sep 2019 3:21

Tgt Ion: 64 Resp: 127

Ion Ratio Lower Upper

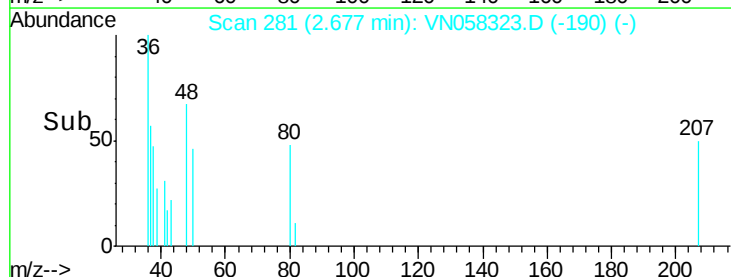
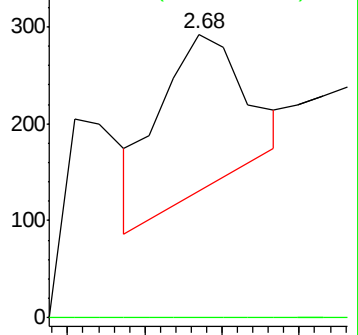
64 100

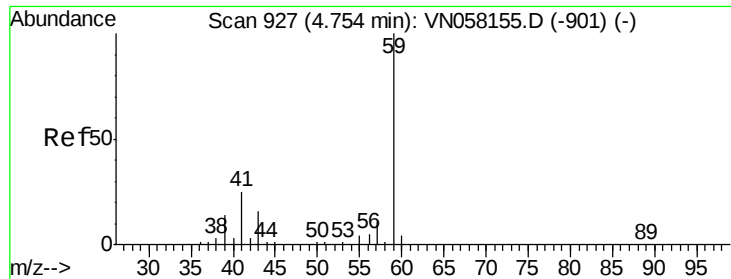
66 0.0 24.6 37.0#



Abundance Ion 63.90 (63.60 to 64.60): VNO

Ion 65.90 (65.60 to 66.60): VNO

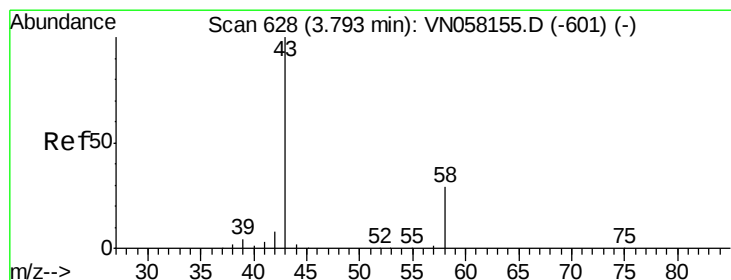
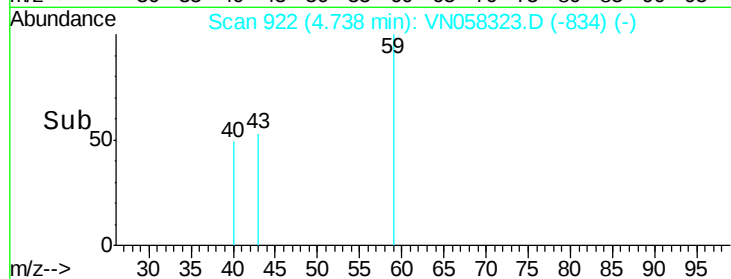
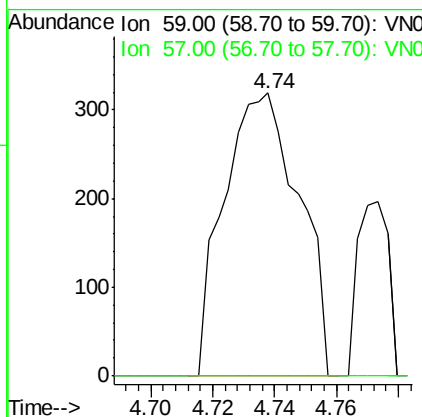
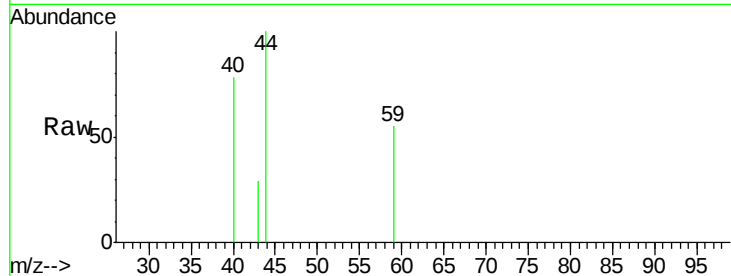




#11
Tert butyl alcohol
Concen: 0.691 ug/l
RT: 4.74 min Scan# 922
Delta R.T. -0.02 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

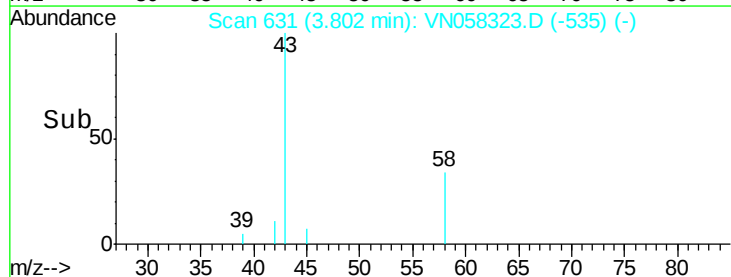
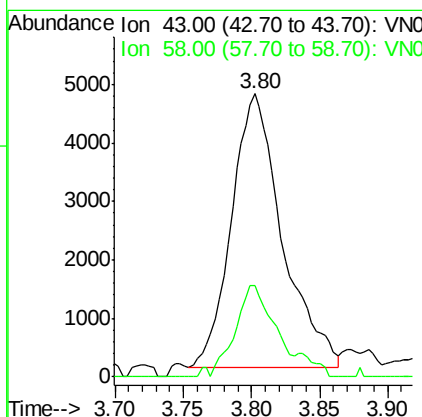
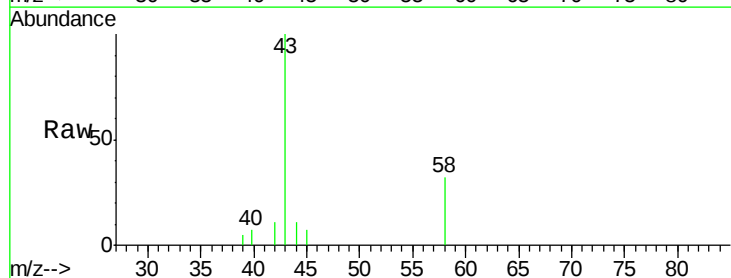
Instrument :
MSVOA_N
ClientSampled :

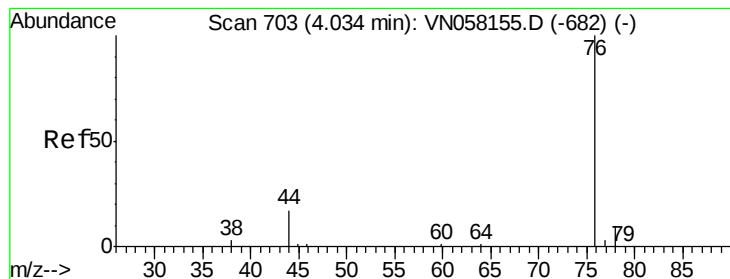
Tot Ion: 59 Resp: 539
Ion Ratio Lower Upper
59 100
57 0.0 8.6 13.0#



#16
Acetone
Concen: 5.445 ug/l
RT: 3.80 min Scan# 631
Delta R.T. 0.01 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion: 43 Resp: 12118
Ion Ratio Lower Upper
43 100
58 33.4 23.4 35.2





#17

Carbon Disulfide

Concen: 0.309 ug/l

RT: 4.03 min Scan# 702

Delta R.T. -0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

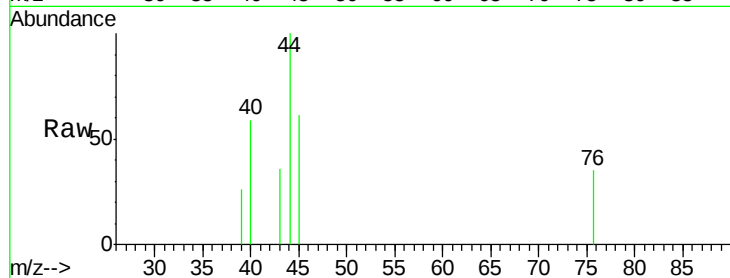
ClientSampled :

Tot Ion: 76 Resp: 158

Ion Ratio Lower Upper

76 100

78 0.0 7.7 11.5#



Abundance Ion 75.90 (75.60 to 76.60): VN0

Ion 77.90 (77.60 to 78.60): VN0

4.03

250

200

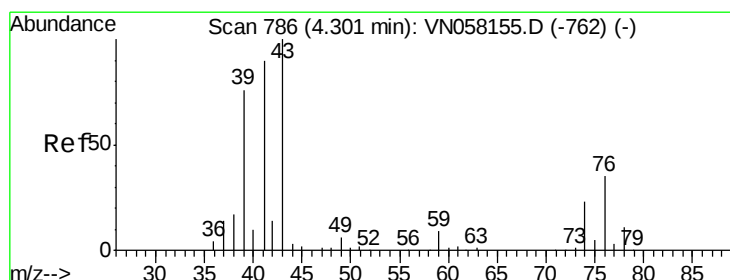
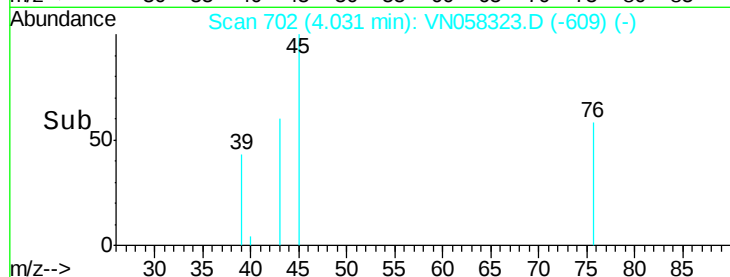
150

100

50

0

Time--> 4.01 4.02 4.03 4.04



#18

Methyl Acetate

Concen: 0.649 ug/l

RT: 4.32 min Scan# 792

Delta R.T. 0.02 min

Lab File: VN058323.D

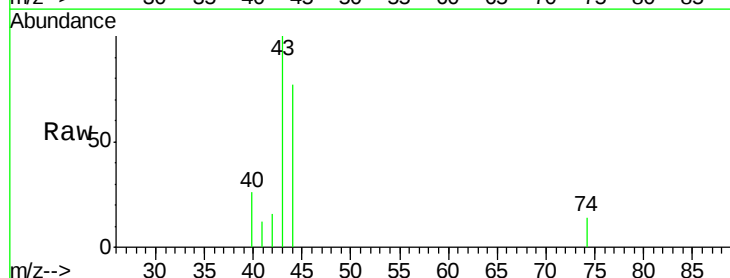
Acq: 24 Sep 2019 3:21

Tgt Ion: 43 Resp: 3802

Ion Ratio Lower Upper

43 100

74 6.4 18.0 27.0#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 74.00 (73.70 to 74.70): VN0

4.32

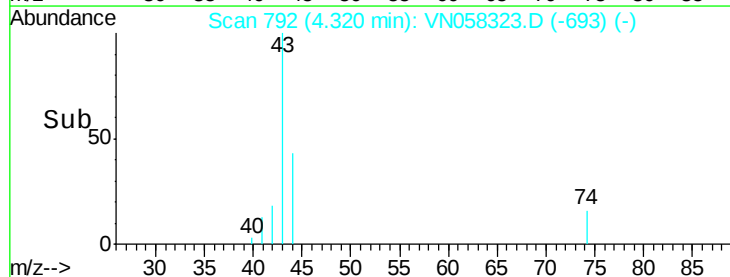
1500

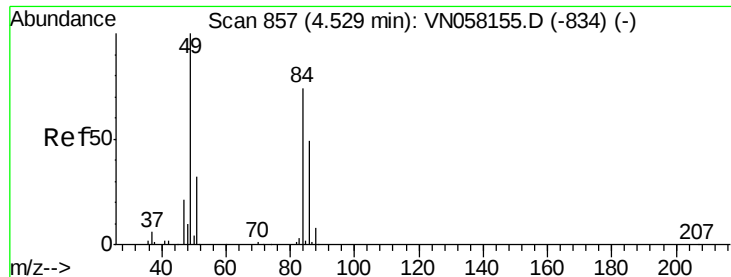
1000

500

0

Time--> 4.25 4.30 4.35

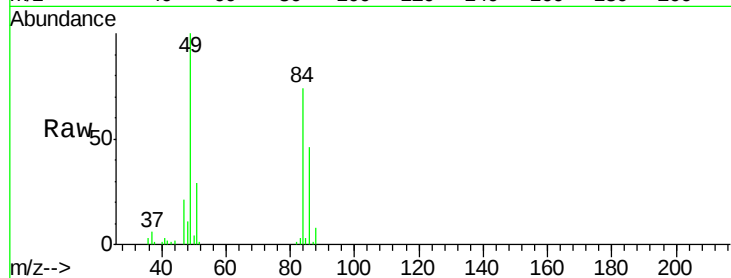




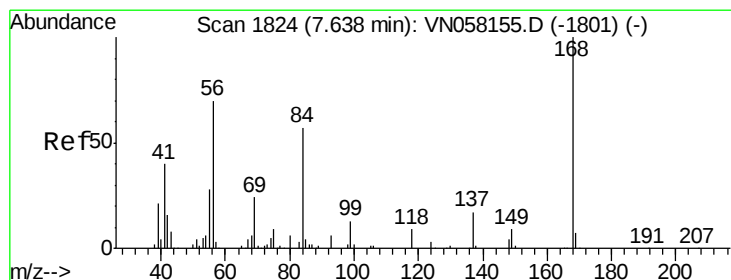
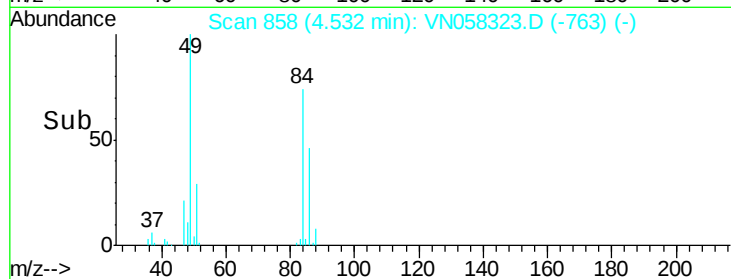
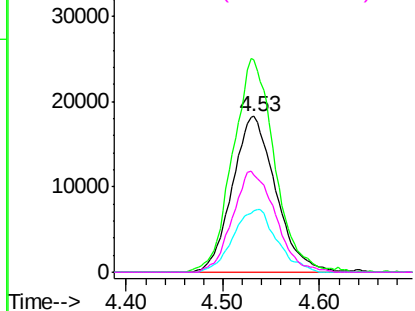
#20
Methvlene Chloride
Concen: 14.460 ug/l
RT: 4.53 min Scan# 858
Delta R.T. 0.00 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Instrument :
MSVOA_N
ClientSampleId :

Tot Ion: 84 Resp: 56960
Ion Ratio Lower Upper
84 100
49 134.9 107.5 161.3
51 39.6 33.9 50.9
86 62.5 52.4 78.6

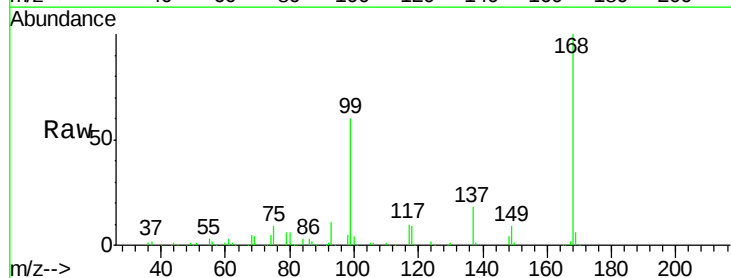


Abundance Ion 83.90 (83.60 to 84.60): VNO
Ion 48.90 (48.60 to 49.60): VNO
Ion 50.90 (50.60 to 51.60): VNO
Ion 85.90 (85.60 to 86.60): VNO

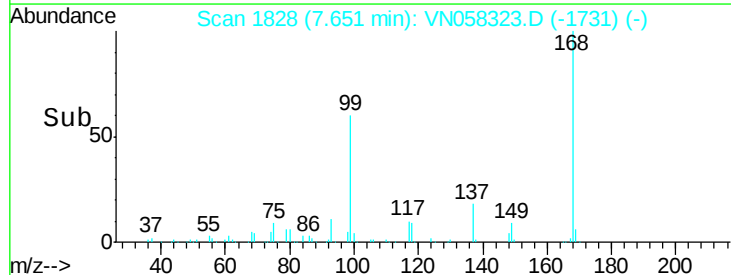
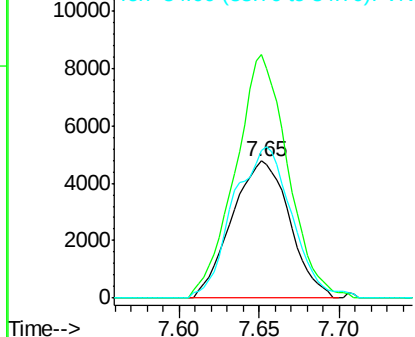


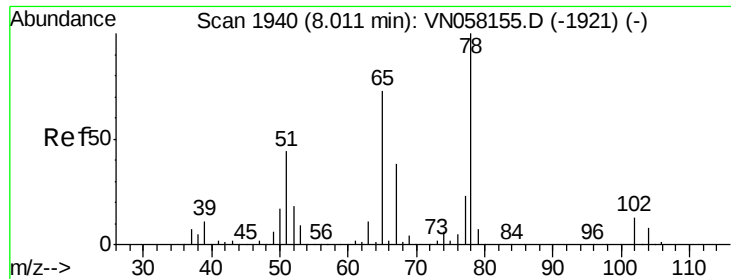
#31
Cyclohexane
Concen: Below Cal
RT: 7.65 min Scan# 1828
Delta R.T. 0.01 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion: 56 Resp: 11837
Ion Ratio Lower Upper
56 100
69 177.6 27.3 40.9#
84 107.6 65.0 97.4#



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

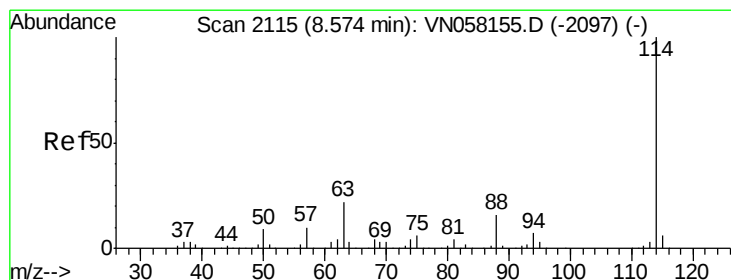
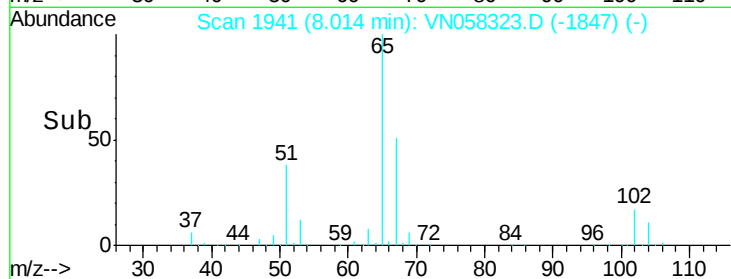
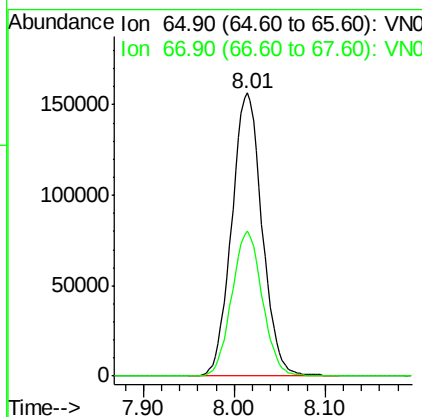
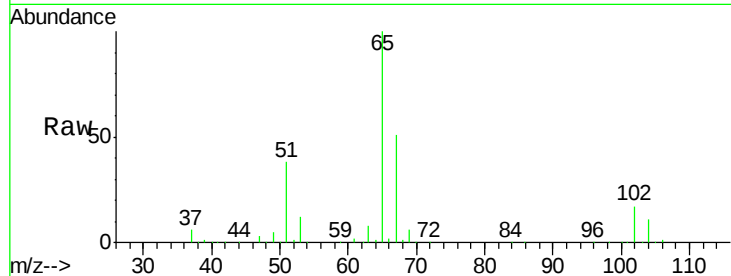




#33
 1,2-Dichloroethane-d4
 Concen: 55.564 ug/l
 RT: 8.01 min Scan# 1941
 Delta R.T. 0.00 min
 Lab File: VN058323.D
 Acq: 24 Sep 2019 3:21

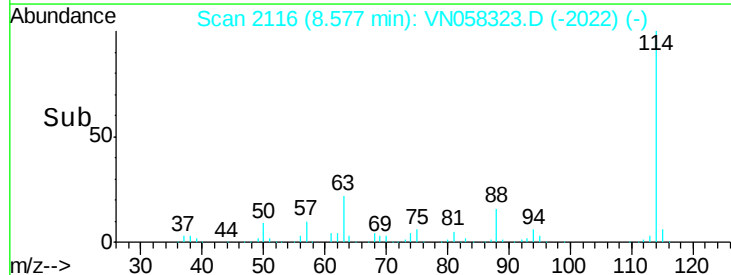
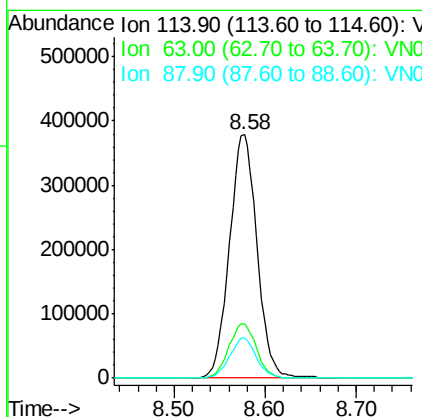
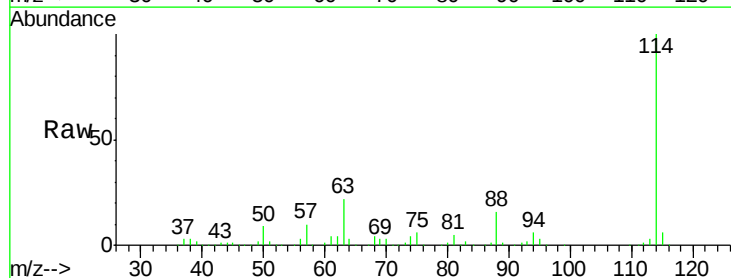
Instrument :
 MSVOA_N
 ClientSampleId :

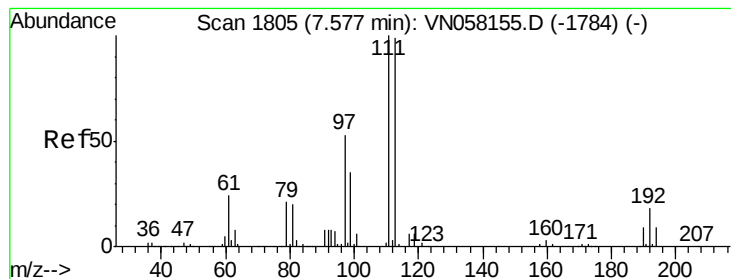
Tot Ion: 65 Resp: 364317
 Ion Ratio Lower Upper
 65 100
 67 51.2 0.0 103.4



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.58 min Scan# 2116
 Delta R.T. 0.00 min
 Lab File: VN058323.D
 Acq: 24 Sep 2019 3:21

Tgt Ion: 114 Resp: 795909
 Ion Ratio Lower Upper
 114 100
 63 22.1 0.0 44.2
 88 16.4 0.0 31.6





#35

Dibromofluoromethane

Concen: 51.151 ug/l

RT: 7.58 min Scan# 1805

Delta R.T. 0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :
MSVOA_N
ClientSampled :

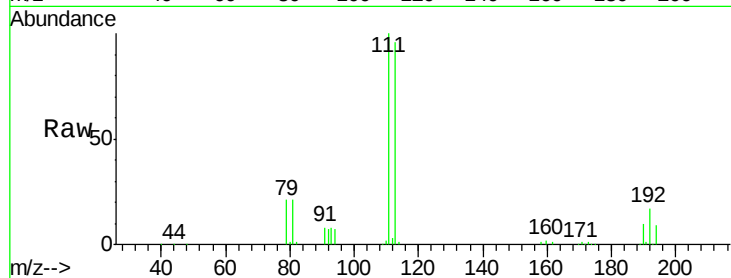
Tot Ion:113 Resp: 247493

Ion Ratio Lower Upper

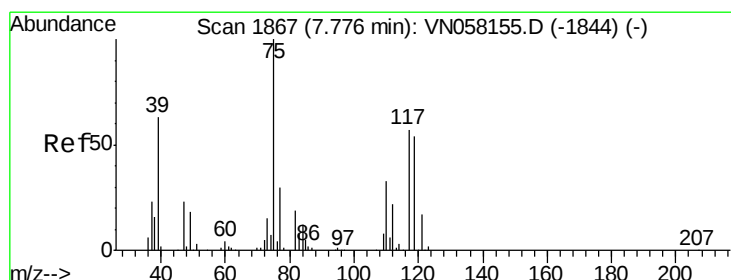
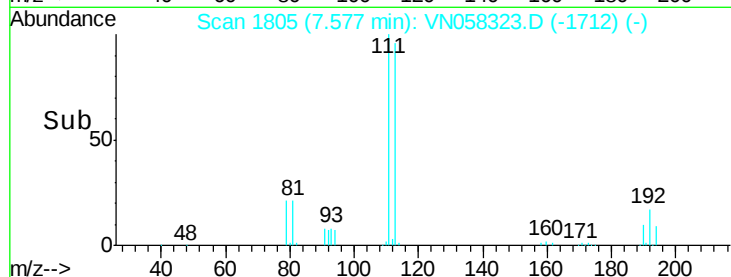
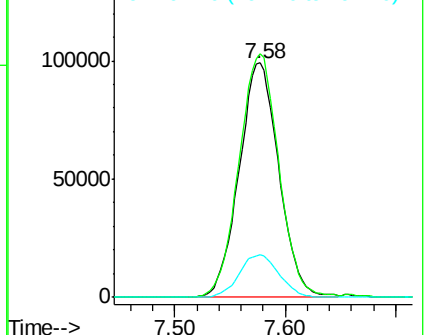
113 100

111 104.4 81.8 122.6

192 18.3 14.5 21.7



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: 7.175 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. -0.13 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

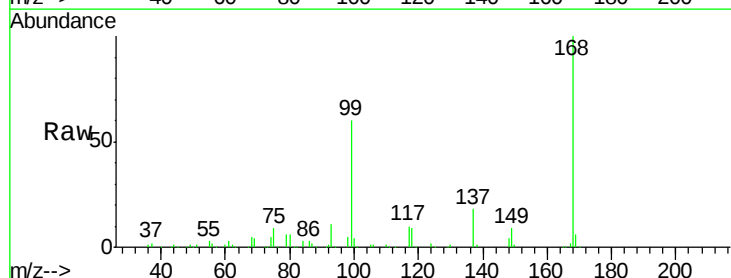
Tgt Ion: 75 Resp: 41183

Ion Ratio Lower Upper

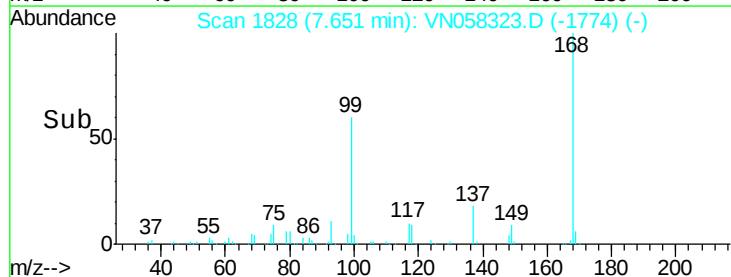
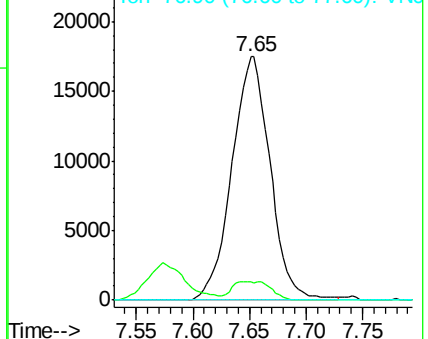
75 100

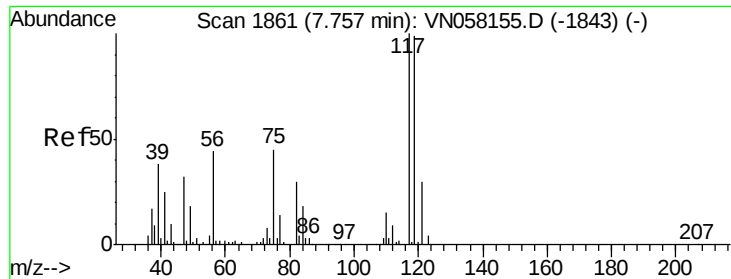
110 7.8 16.6 49.7#

77 0.0 24.3 36.5#



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

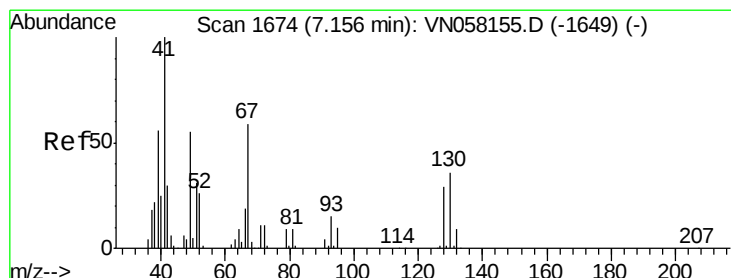
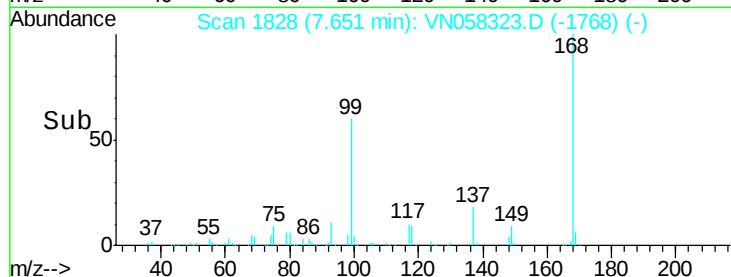
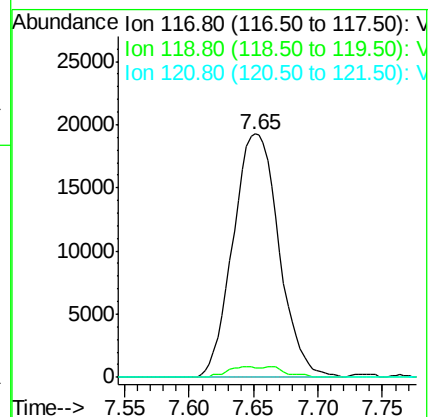
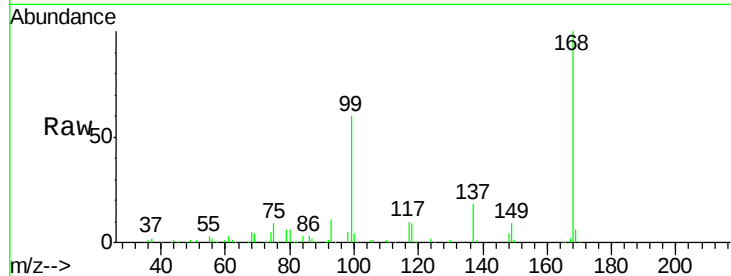




#38
Carbon Tetrachloride
Concen: 8.271 ug/l
RT: 7.65 min Scan# 1828
Delta R.T. -0.11 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

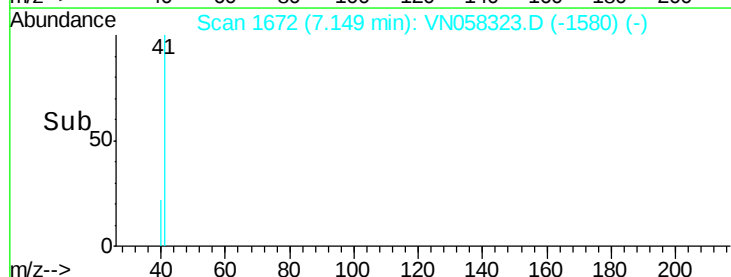
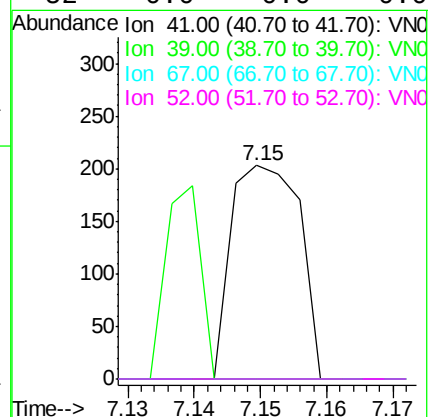
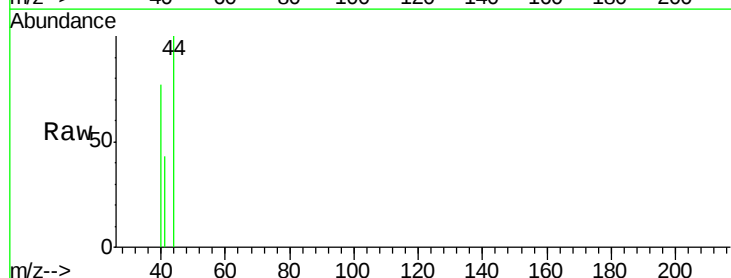
Instrument :
MSVOA_N
ClientSampled :

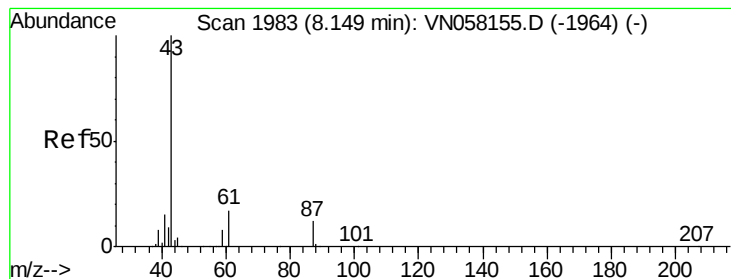
Tot Ion:117 Resp: 47720
Ion Ratio Lower Upper
117 100
119 4.0 78.6 117.8#
121 0.0 24.1 36.1#



#41
Methacrylonitrile
Concen: 0.958 ug/l
RT: 7.15 min Scan# 1672
Delta R.T. -0.01 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion: 41 Resp: 145
Ion Ratio Lower Upper
41 100
39 46.9 0.0 0.0#
67 0.0 0.0 0.0
52 0.0 0.0 0.0





#43

Isopropyl Acetate

Concen: 11.688 ug/l

RT: 8.16 min Scan# 1985

Delta R.T. 0.01 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

ClientSampled :

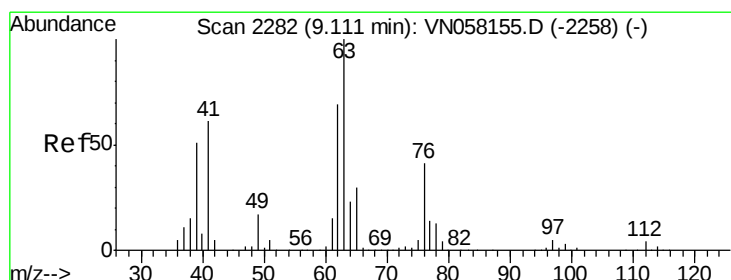
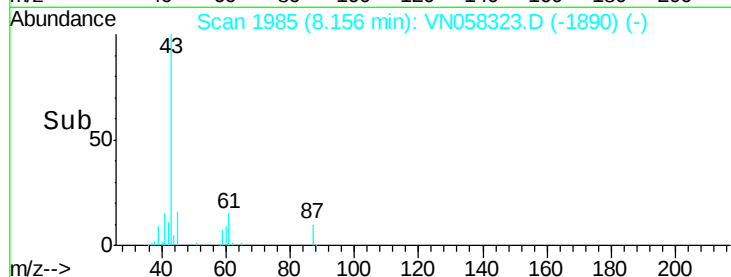
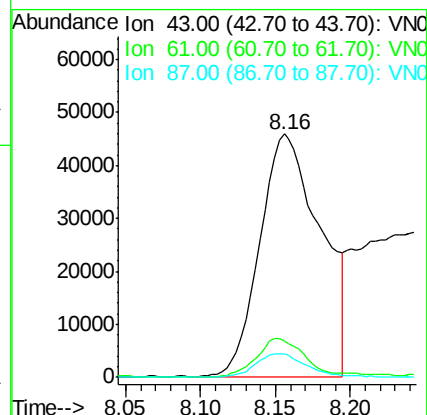
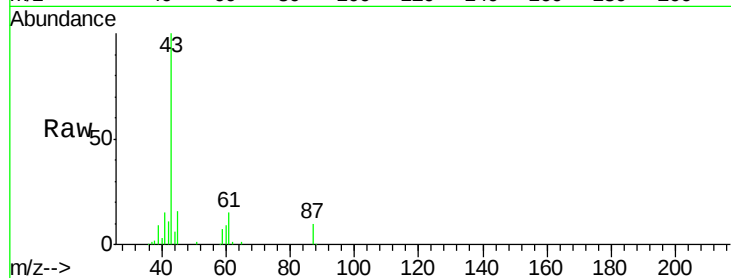
Tot Ion: 43 Resp: 130019

Ion Ratio Lower Upper

43 100

61 12.6 19.7 29.5#

87 8.1 9.4 14.2#



#45

1,2-Dichloropropane

Concen: 0.357 ug/l

RT: 9.26 min Scan# 2328

Delta R.T. 0.15 min

Lab File: VN058323.D

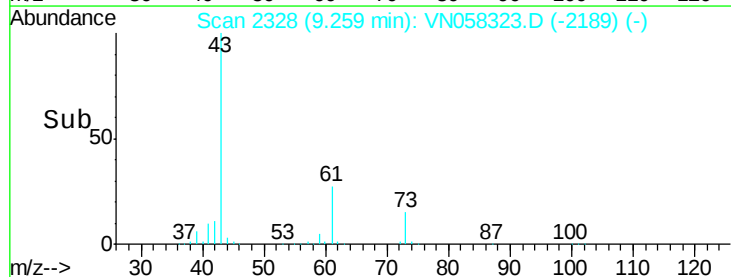
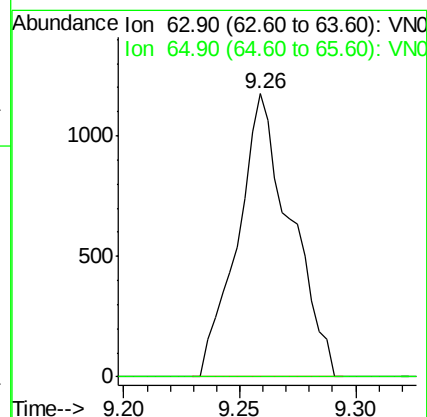
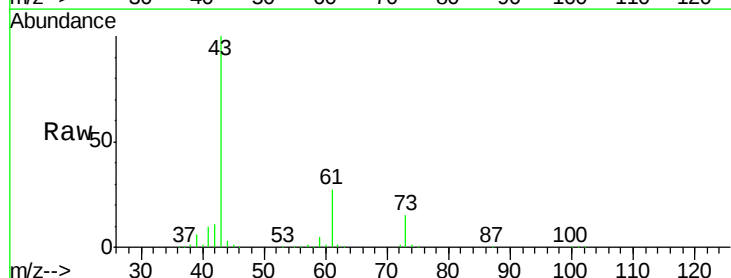
Acq: 24 Sep 2019 3:21

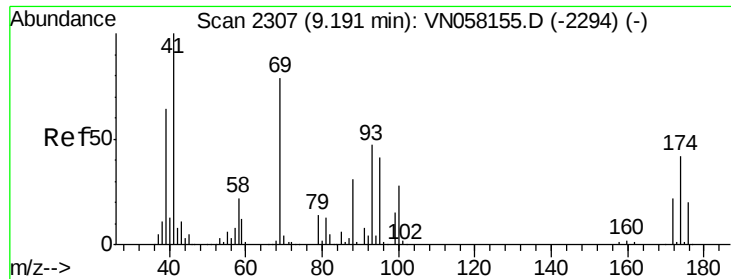
Tgt Ion: 63 Resp: 1868

Ion Ratio Lower Upper

63 100

65 0.0 23.8 35.6#

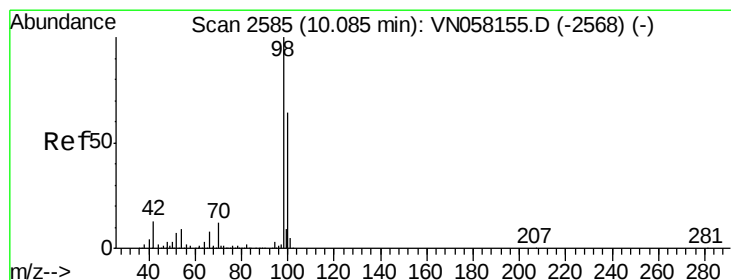
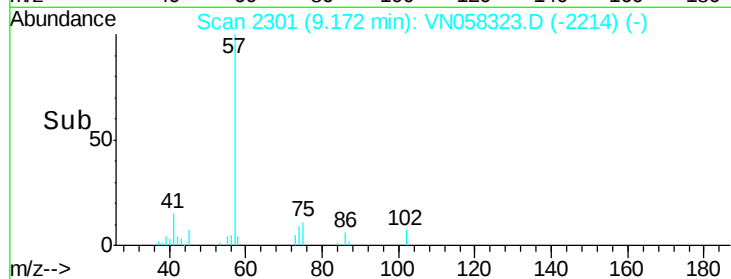
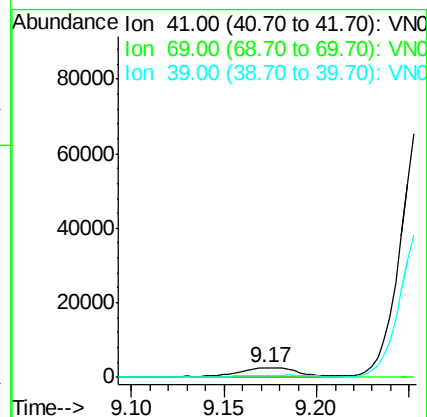
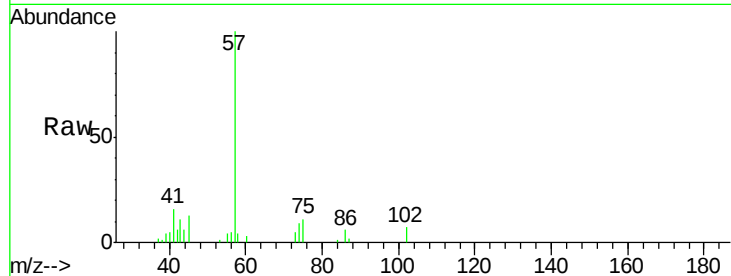




#48
Methvl methacrylate
Concen: 0.975 ug/l
RT: 9.17 min Scan# 2301
Delta R.T. -0.02 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

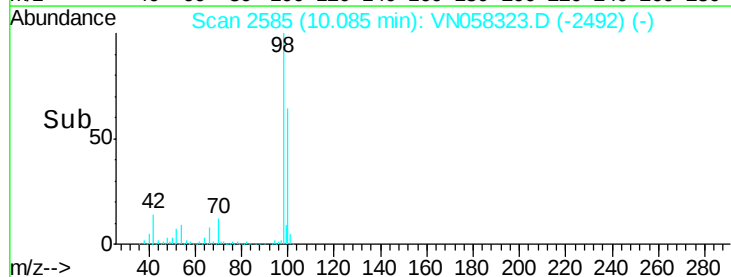
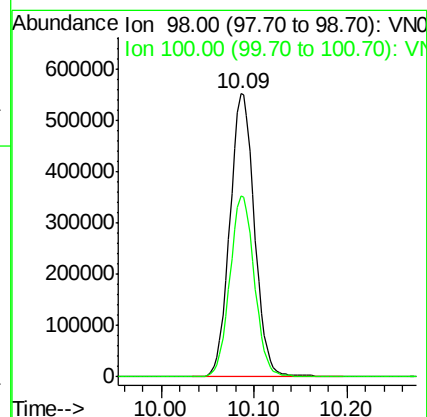
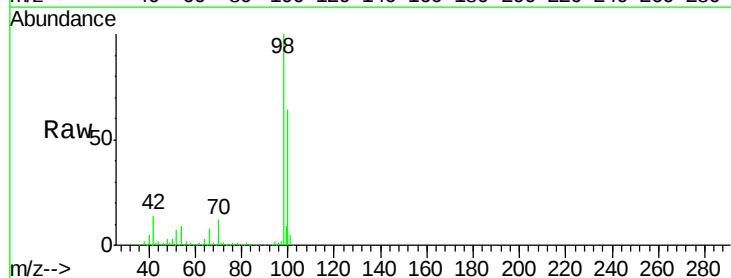
Instrument :
MSVOA_N
ClientSampled :

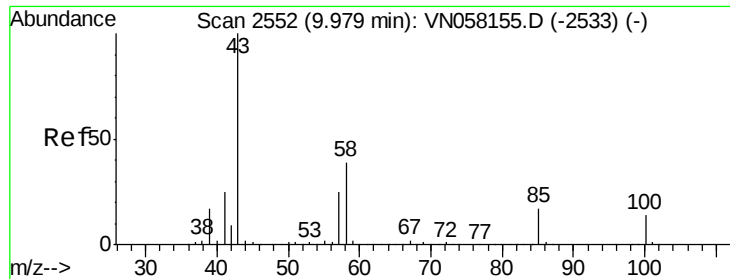
Tot Ion: 41 Resp: 4926
Ion Ratio Lower Upper
41 100
69 0.0 62.5 93.7#
39 0.0 52.3 78.5#



#50
Toluene-d8
Concen: 54.071 ug/l
RT: 10.09 min Scan# 2585
Delta R.T. 0.00 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion: 98 Resp: 1019322
Ion Ratio Lower Upper
98 100
100 63.7 51.1 76.7





#51

4-Methyl-2-Pentanone

Concen: 1.057 ug/l

RT: 9.98 min Scan# 2553

Delta R.T. 0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

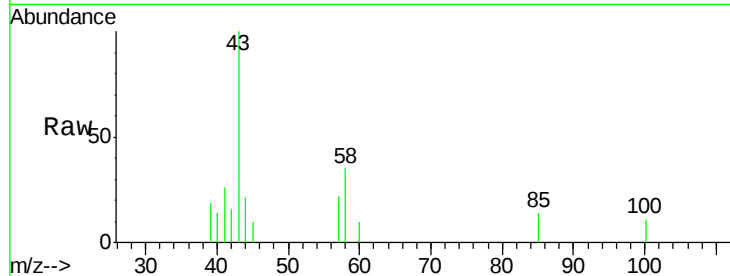
ClientSampled :

Tot Ion: 43 Resp: 6244

Ion Ratio Lower Upper

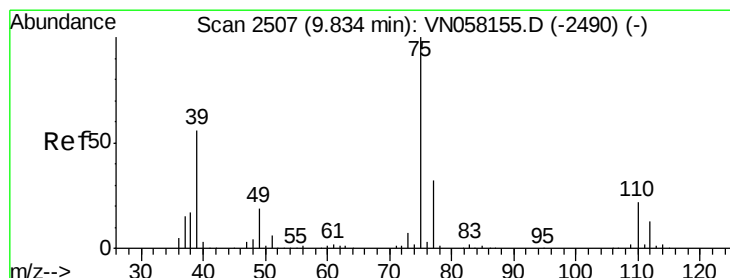
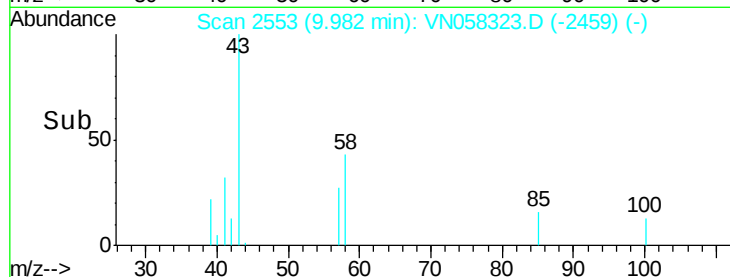
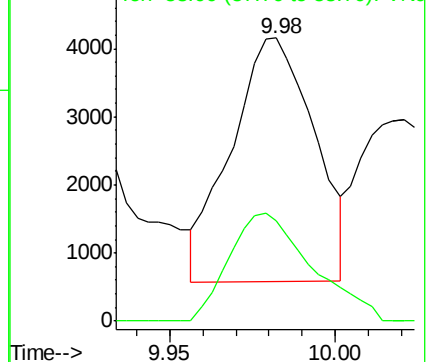
43 100

58 44.1 30.2 45.4



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: 5.051 ug/l

RT: 9.90 min Scan# 2528

Delta R.T. 0.07 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

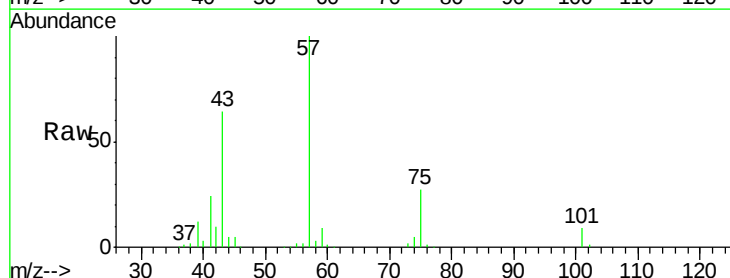
Tgt Ion: 75 Resp: 38093

Ion Ratio Lower Upper

75 100

77 1.1 25.4 38.0#

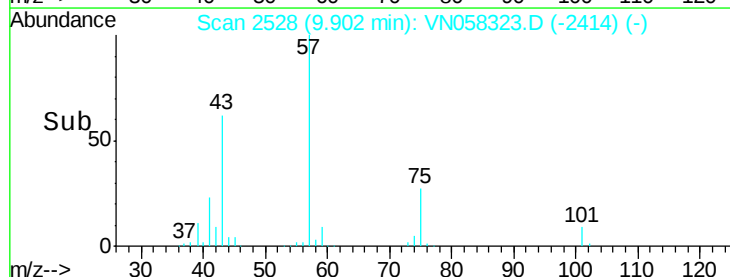
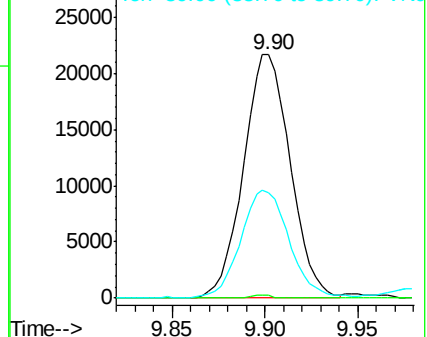
39 43.3 45.0 67.6#

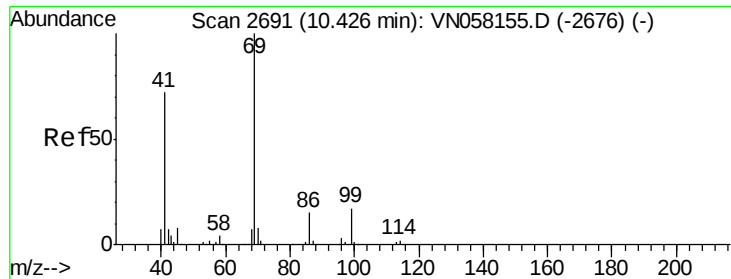


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 76.90 (76.60 to 77.60): VN0

Ion 39.00 (38.70 to 39.70): VN0





#56

Ethyl methacrylate

Concen: 0.256 ug/l

RT: 10.54 min Scan# 2728

Delta R.T. 0.12 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

ClientSampleId :

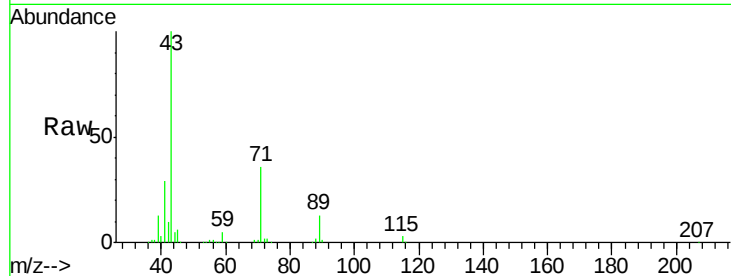
Tot Ion: 69 Resp: 1798

Ion Ratio Lower Upper

69 100

41 5437.5 57.5 86.3#

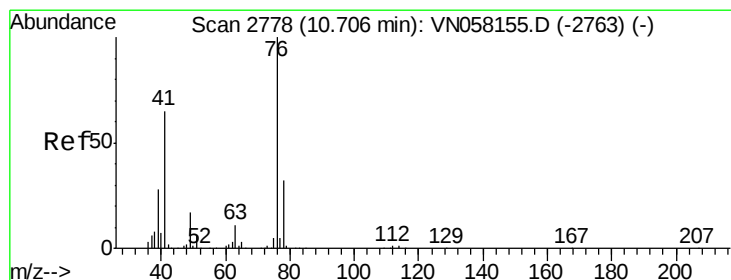
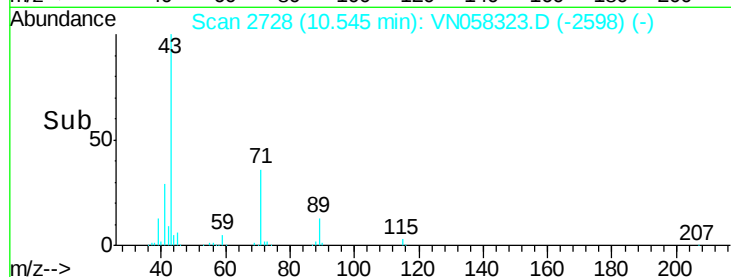
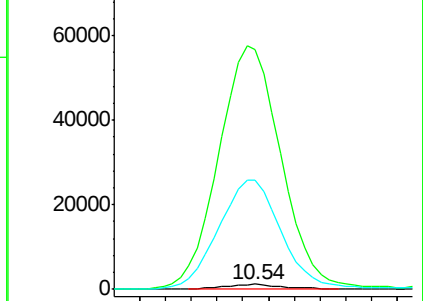
39 2453.1 36.1 54.1#



Abundance Ion 69.00 (68.70 to 69.70): VN058155.D (-2676) (-)

Ion 41.00 (40.70 to 41.70): VN058155.D (-2676) (-)

Ion 39.00 (38.70 to 39.70): VN058155.D (-2676) (-)



#57

1,3-Dichloropropane

Concen: 0.713 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.06 min

Lab File: VN058323.D

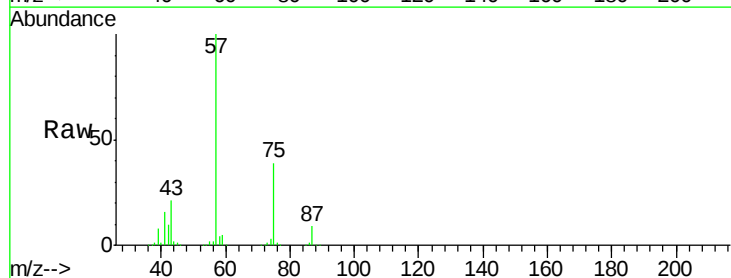
Acq: 24 Sep 2019 3:21

Tgt Ion: 76 Resp: 5975

Ion Ratio Lower Upper

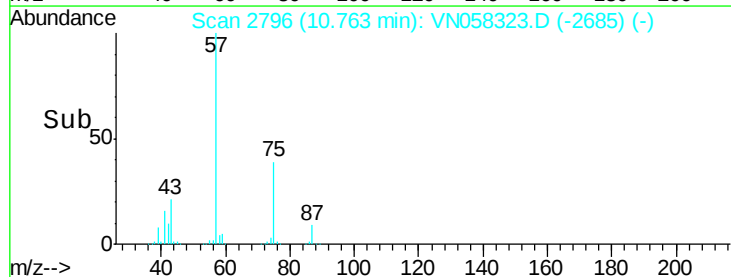
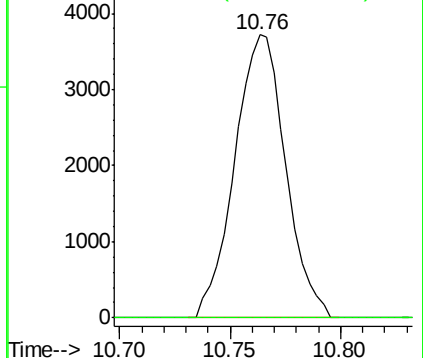
76 100

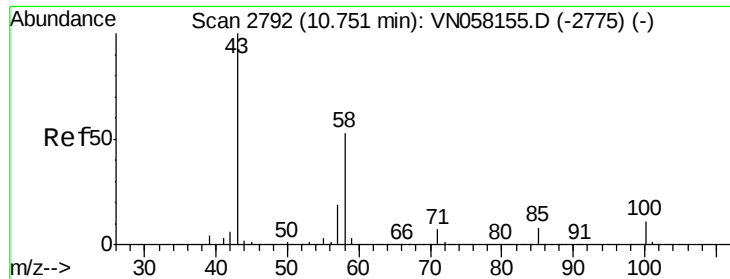
78 0.0 25.4 38.0#



Abundance Ion 75.90 (75.60 to 76.60): VN058155.D (-2763) (-)

Ion 77.90 (77.60 to 78.60): VN058155.D (-2763) (-)

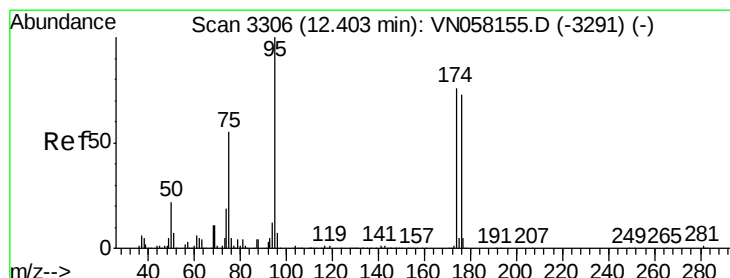
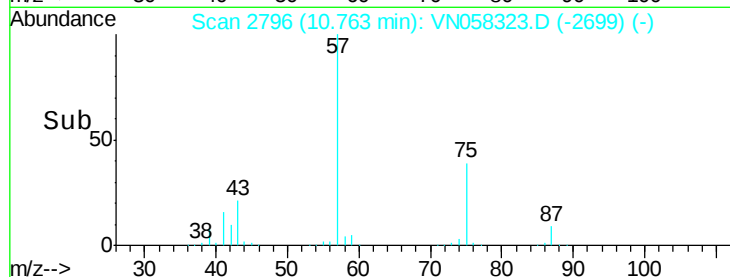
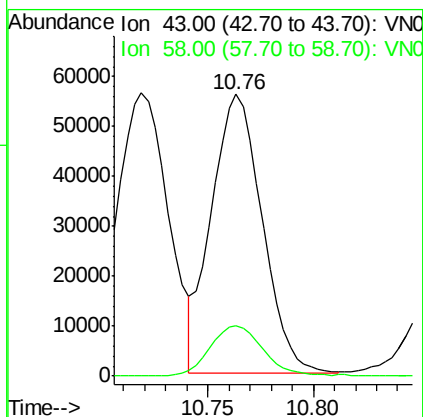
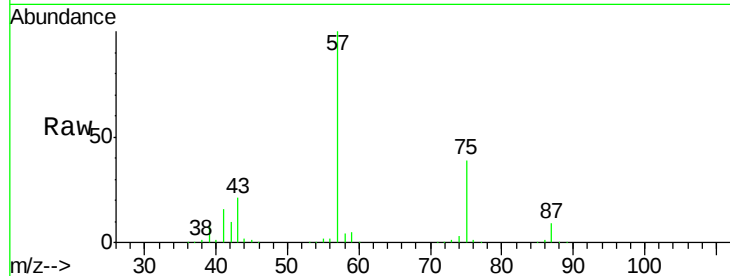




#59
2-Hexanone
Concen: 21.345 ug/l
RT: 10.76 min Scan# 2796
Delta R.T. 0.01 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

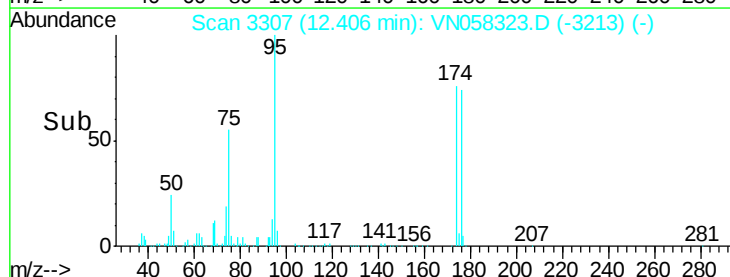
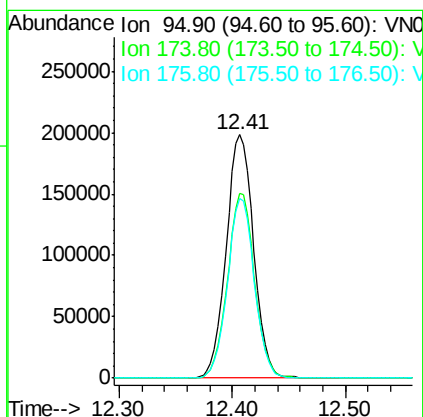
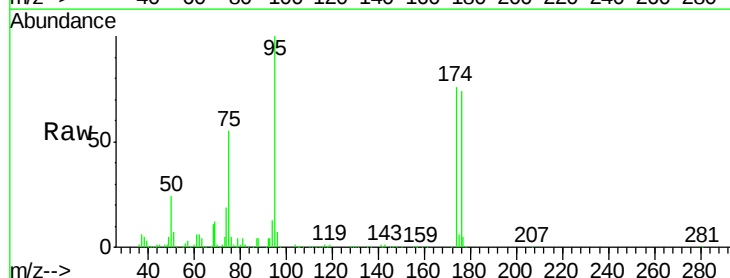
Instrument :
MSVOA_N
ClientSampleId :

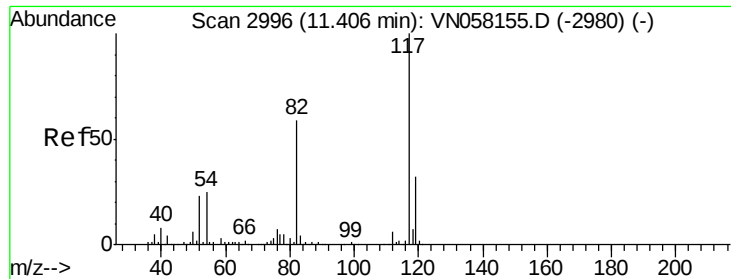
Tot Ion: 43 Resp: 93669
Ion Ratio Lower Upper
43 100
58 18.9 26.0 78.0#



#62
4-Bromofluorobenzene
Concen: 47.687 ug/l
RT: 12.41 min Scan# 3307
Delta R.T. 0.00 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion: 95 Resp: 333938
Ion Ratio Lower Upper
95 100
174 74.9 0.0 152.2
176 72.3 0.0 148.0

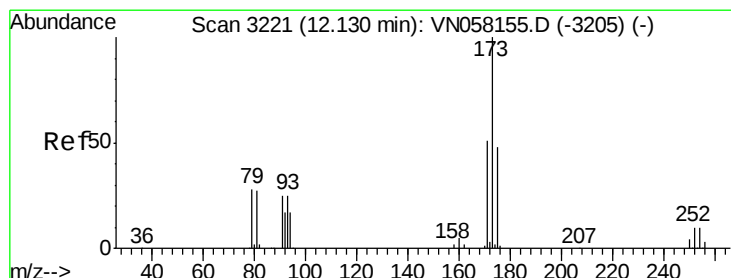
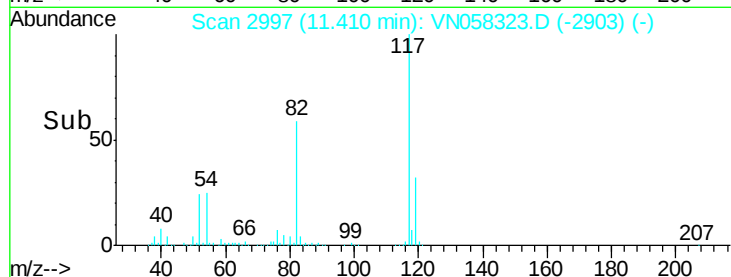
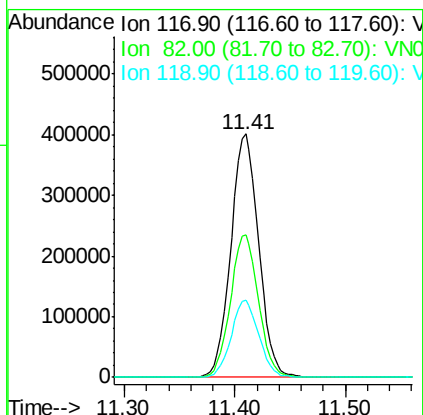
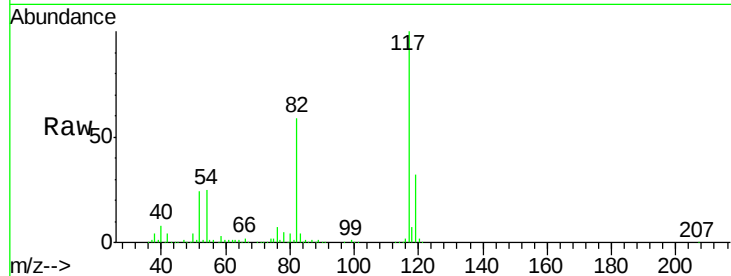




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.41 min Scan# 2997
Delta R.T. 0.00 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

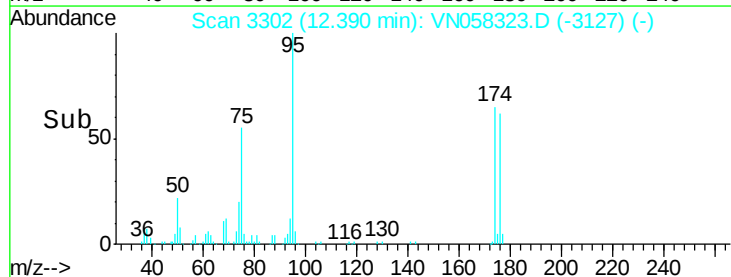
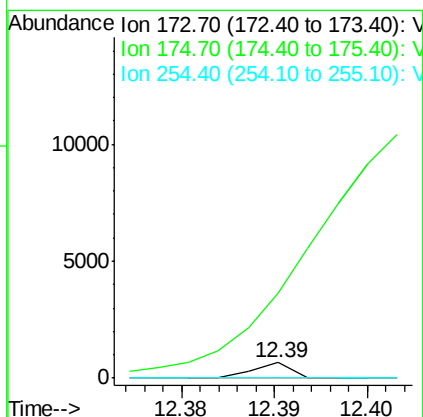
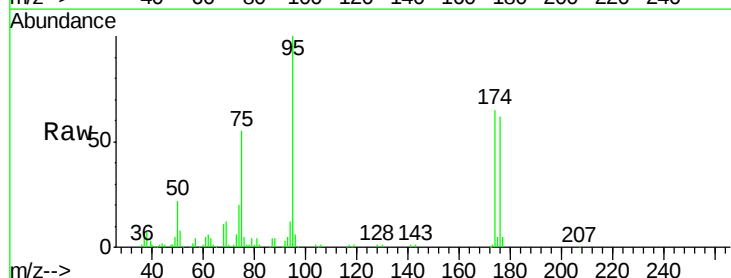
Instrument :
MSVOA_N
ClientSampleId :

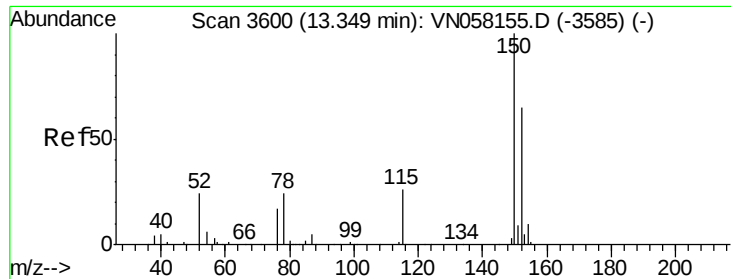
Tot Ion:117 Resp: 701159
Ion Ratio Lower Upper
117 100
82 58.8 46.9 70.3
119 31.8 25.3 37.9



#71
Bromoform
Concen: 3.647 ug/l
RT: 12.39 min Scan# 3302
Delta R.T. 0.26 min
Lab File: VN058323.D
Acq: 24 Sep 2019 3:21

Tgt Ion:173 Resp: 186
Ion Ratio Lower Upper
173 100
175 8265.6 24.2 72.6#
254 0.0 0.1 0.1#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3601

Delta R.T. 0.00 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

ClientSampleId :

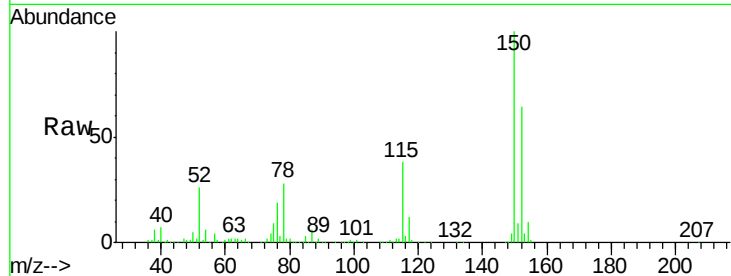
Tot Ion:152 Resp: 288652

Ion Ratio Lower Upper

152 100

115 60.6 30.1 90.3

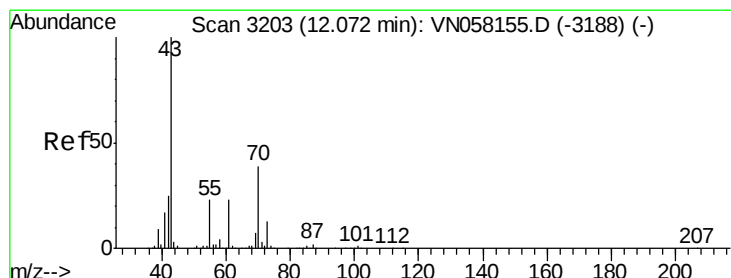
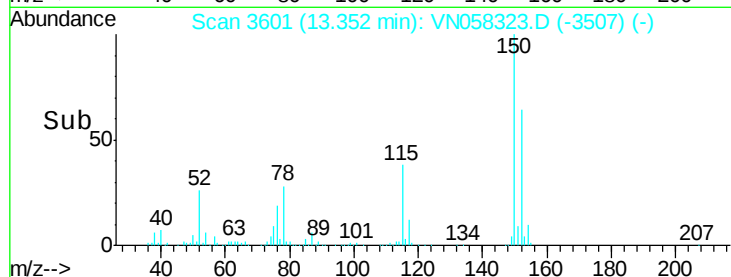
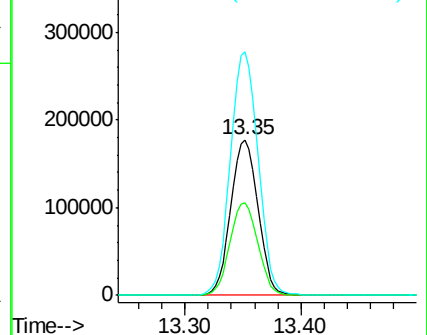
150 159.2 0.0 346.4



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: 0.528 ug/l

RT: 12.04 min Scan# 3193

Delta R.T. -0.03 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Tgt Ion: 43 Resp: 3992

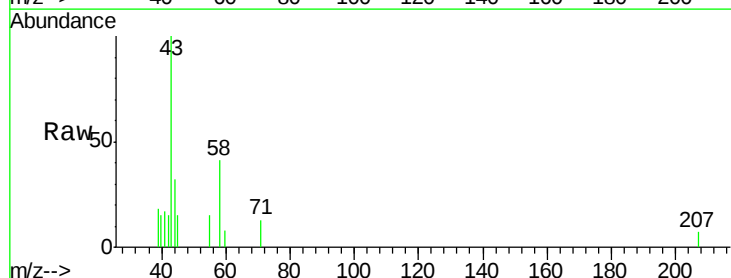
Ion Ratio Lower Upper

43 100

70 0.0 31.0 46.6#

55 10.6 18.5 27.7#

61 0.0 18.2 27.2#

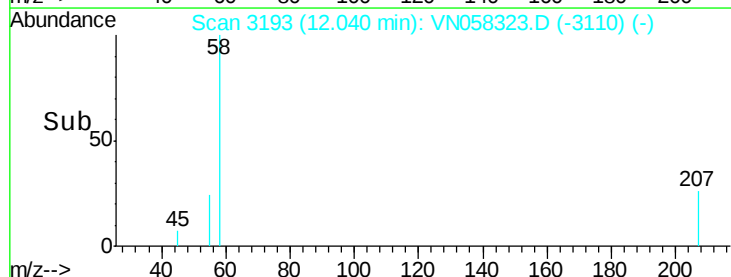
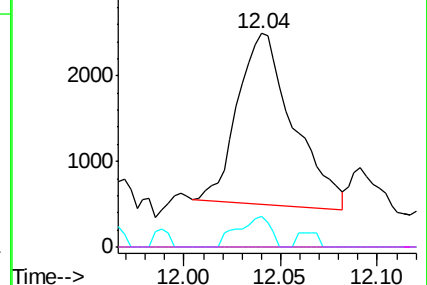


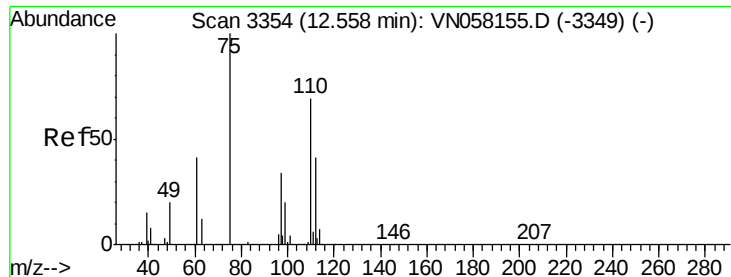
Abundance Ion 43.00 (42.70 to 43.70): V

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: 34.864 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. -0.15 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

Instrument :

MSVOA_N

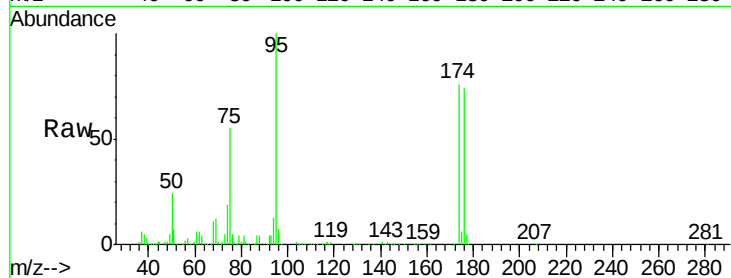
ClientSampled :

Tot Ion: 75 Resp: 180106

Ion Ratio Lower Upper

75 100

77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

12.41

120000

100000

80000

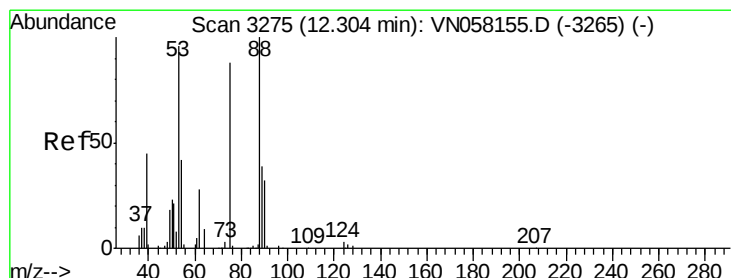
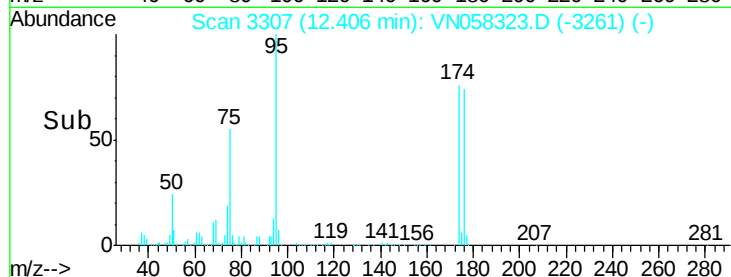
60000

40000

20000

0

Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 97.549 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.10 min

Lab File: VN058323.D

Acq: 24 Sep 2019 3:21

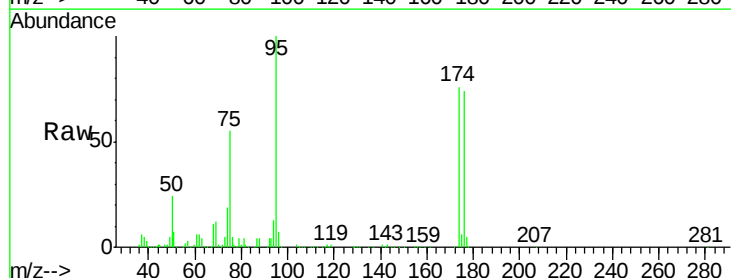
Tgt Ion: 75 Resp: 180106

Ion Ratio Lower Upper

75 100

53 0.0 90.1 135.1#

89 0.0 36.2 54.2#



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

150000

100000

50000

0

Time-->

