

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102720\
 Data File : VN064326.D
 Acq On : 27 Oct 2020 15:17
 Operator : JC/MD
 Sample : L4214-09 .5PPB MDL
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 MDL-WATER-03-QT4-2020

Quant Time: Oct 28 05:10:57 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N102720W.M
 Quant Title : SW846 8260
 QLast Update : Wed Oct 28 05:08:53 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.62	168	260950	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.55	114	440920	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.38	117	387266	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.32	152	161517	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	7.99	65	178232	42.50	ug/l	0.00
Spiked Amount			Recovery	=	85.00%	
35) Dibromofluoromethane	7.55	113	117137	39.84	ug/l	0.00
Spiked Amount			Recovery	=	79.68%	
50) Toluene-d8	10.06	98	424745	39.05	ug/l	0.00
Spiked Amount			Recovery	=	78.10%	
62) 4-Bromofluorobenzene	12.38	95	156833	36.98	ug/l	0.00
Spiked Amount			Recovery	=	73.96%	

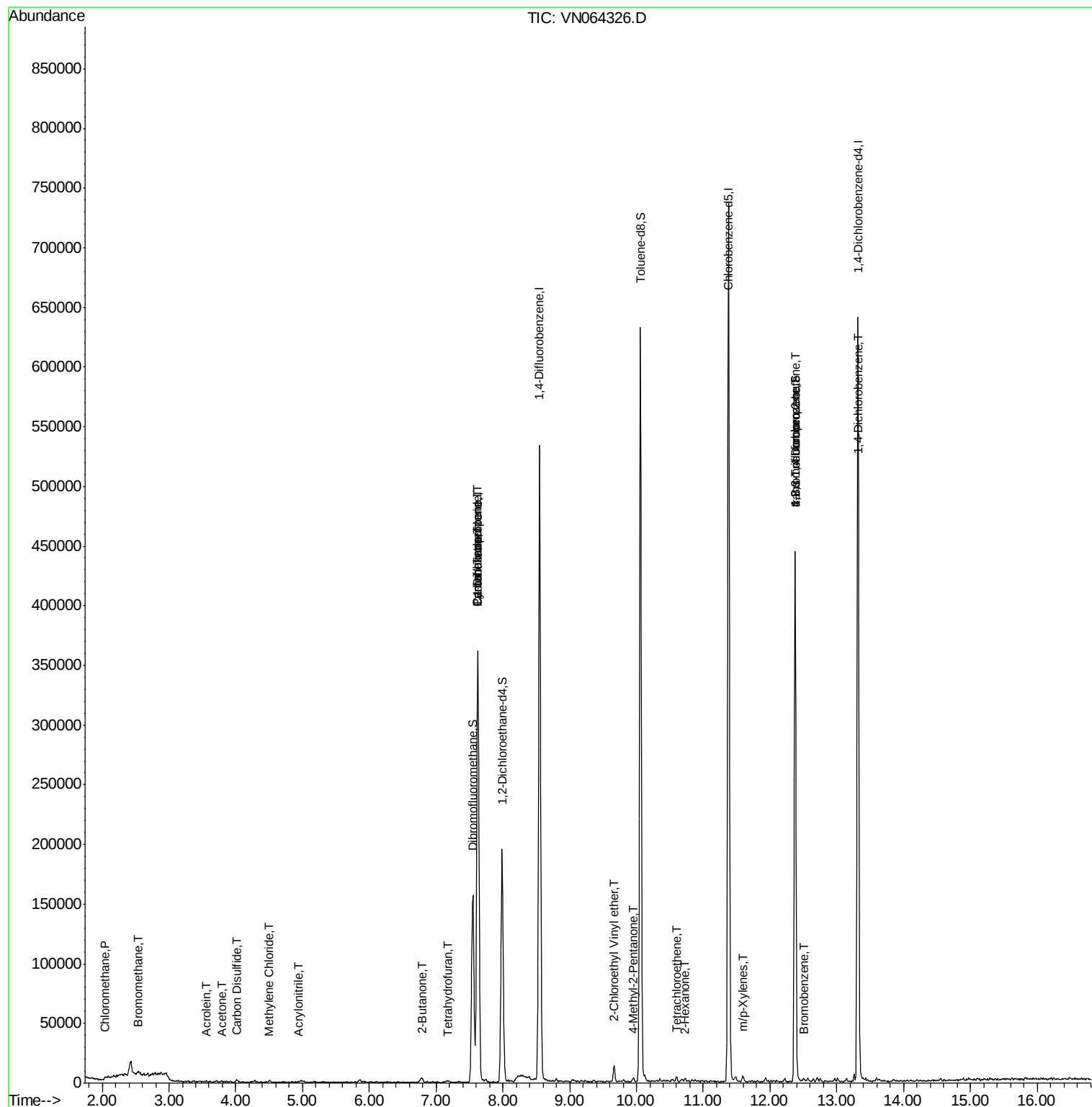
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	2.04	50	722	0.223	ug/l #	37
5) Bromomethane	2.54	94	765	0.377	ug/l	92
13) Acrolein	3.57	56	238	1.689	ug/l #	10
15) Acrylonitrile	4.93	53	345	0.264	ug/l #	65
16) Acetone	3.79	43	2273	1.487	ug/l #	80
17) Carbon Disulfide	4.01	76	2520	0.342	ug/l #	75
20) Methylene Chloride	4.51	84	960	0.323	ug/l #	77
25) 2-Butanone	6.79	43	456	0.217	ug/l #	52
29) Tetrahydrofuran	7.17	42	823	0.602	ug/l #	55
31) Cyclohexane	7.63	56	7726	1.587	ug/l #	19
36) 1,1-Dichloropropene	7.63	75	23858	5.361	ug/l #	53
38) Carbon Tetrachloride	7.62	117	30681	5.947	ug/l #	18
51) 4-Methyl-2-Pentanone	9.96	43	2785	0.624	ug/l #	83
58) 2-Chloroethyl Vinyl ether	9.67	63	6088	2.389	ug/l	99
59) 2-Hexanone	10.72	43	2006	0.610	ug/l	96
64) Tetrachloroethene	10.60	164	1028	0.323	ug/l #	44
68) m/p-Xylenes	11.59	106	1133	0.209	ug/l #	5
76) 1,2,3-Trichloropropane	12.37	75	85532	22.113	ug/l #	100
77) Bromobenzene	12.50	156	629	0.212	ug/l	74
81) trans-1,4-Dichloro-2-buten	12.37	75	85532	63.698	ug/l #	8
88) 1,4-Dichlorobenzene	13.33	146	1429	0.271	ug/l #	71

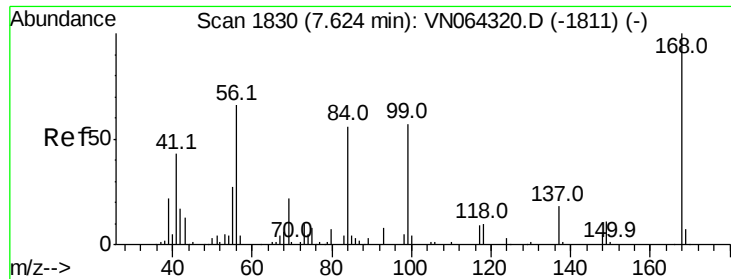
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260
QLast Update : Wed Oct 28 05:08:53 2020
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.62 min Scan# 1830

Delta R.T. -0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

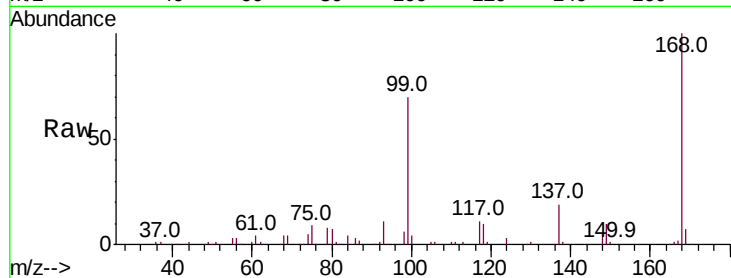
MDL-WATER-03-QT4-2020

Tot Ion:168 Resp: 260950

Ion Ratio Lower Upper

168 100

99 70.1 52.7 79.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN0

7.62

120000

100000

80000

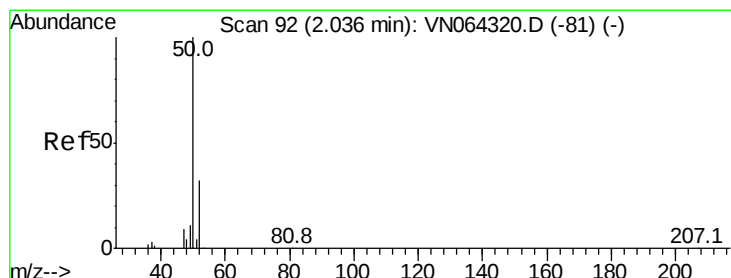
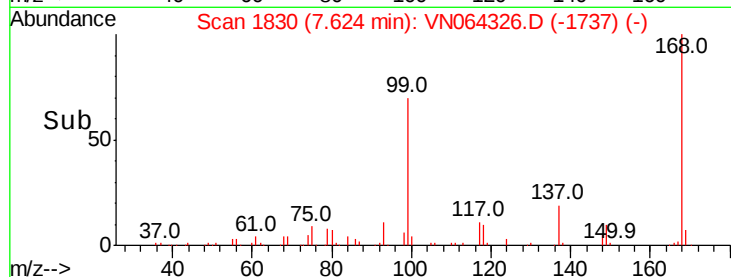
60000

40000

20000

0

Time--> 7.50 7.60 7.70



#3

Chloromethane

Concen: 0.223 ug/l

RT: 2.04 min Scan# 94

Delta R.T. 0.01 min

Lab File: VN064326.D

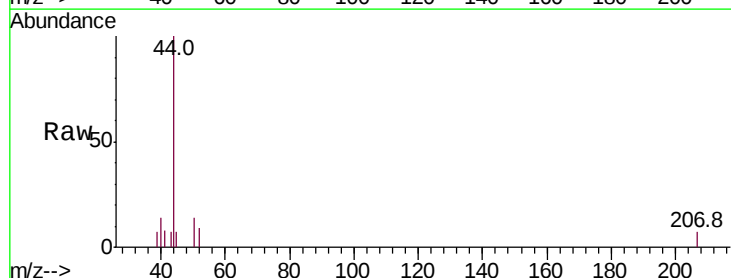
Acq: 27 Oct 2020 15:17

Tgt Ion: 50 Resp: 722

Ion Ratio Lower Upper

50 100

52 67.2 25.6 38.4#



Abundance Ion 49.90 (49.60 to 50.60): VN0

Ion 51.90 (51.60 to 52.60): VN0

2.04

500

400

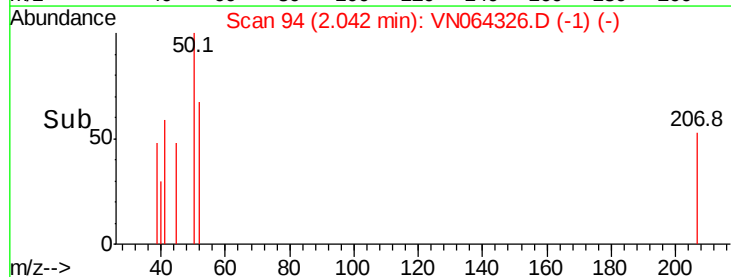
300

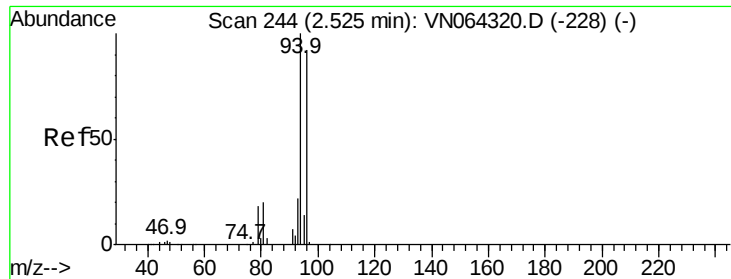
200

100

0

Time--> 2.00 2.02 2.04 2.06 2.08





#5

Bromomethane

Concen: 0.377 ug/l

RT: 2.54 min Scan# 249

Delta R.T. 0.02 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

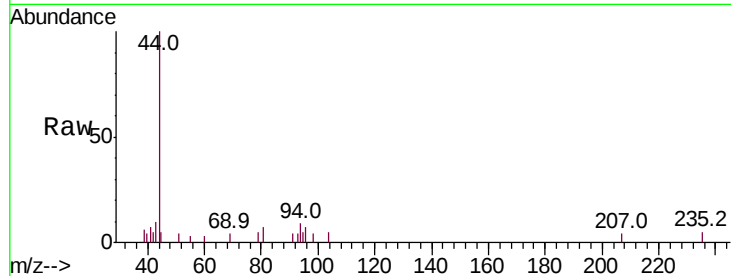
MDL-WATER-03-QT4-2020

Tot Ion: 94 Resp: 765

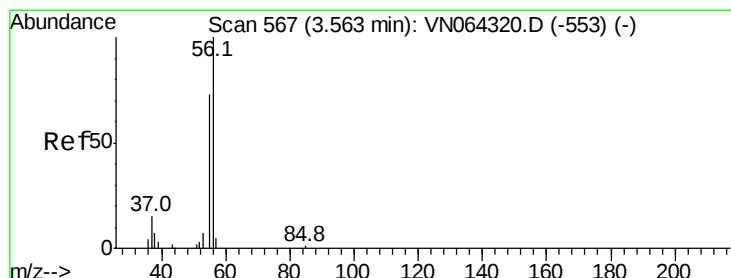
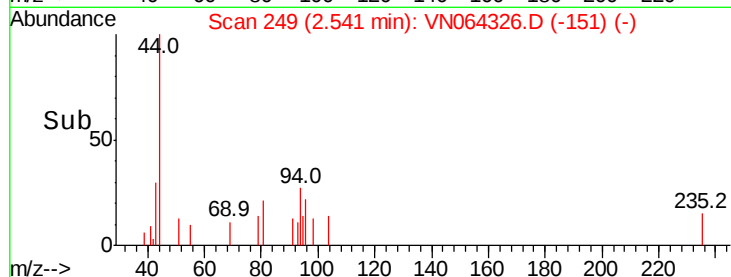
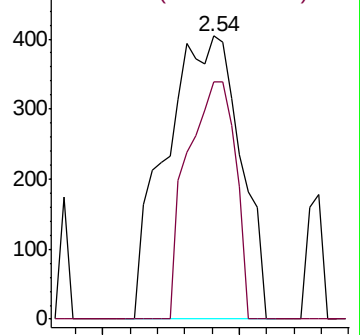
Ion Ratio Lower Upper

94 100

96 83.9 73.6 110.4



Abundance Ion 93.90 (93.60 to 94.60): VN0



#13

Acrolein

Concen: 1.689 ug/l

RT: 3.57 min Scan# 568

Delta R.T. 0.00 min

Lab File: VN064326.D

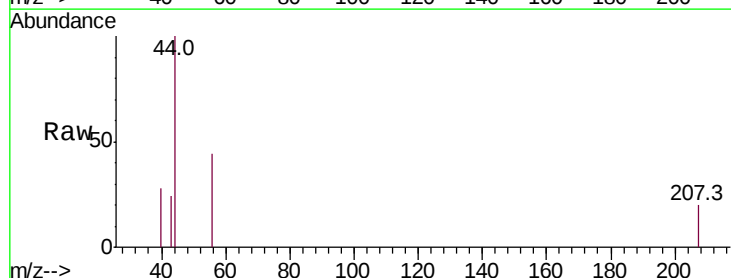
Acq: 27 Oct 2020 15:17

Tgt Ion: 56 Resp: 238

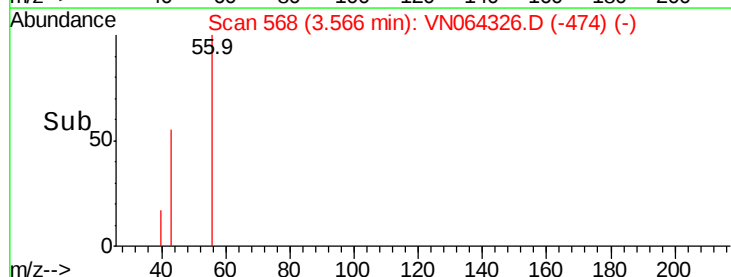
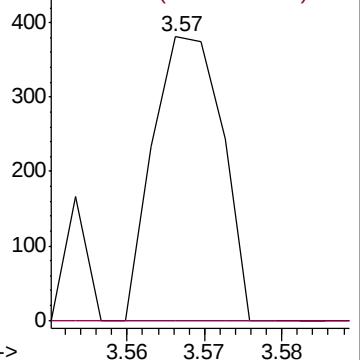
Ion Ratio Lower Upper

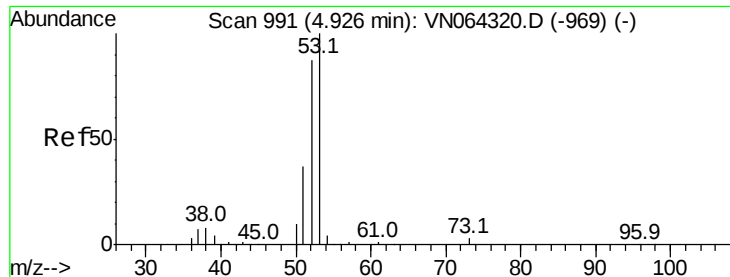
56 100

55 0.0 62.6 94.0#



Abundance Ion 56.00 (55.70 to 56.70): VN0





#15

Acrylonitrile

Concen: 0.264 ug/l

RT: 4.93 min Scan# 993

Delta R.T. 0.01 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

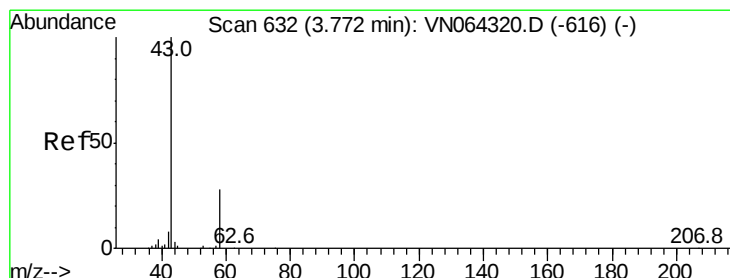
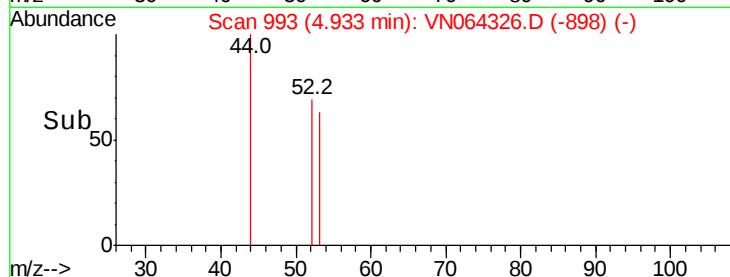
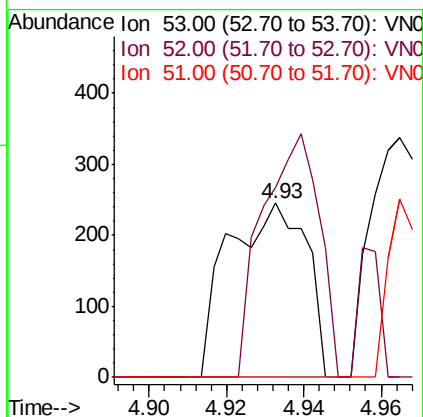
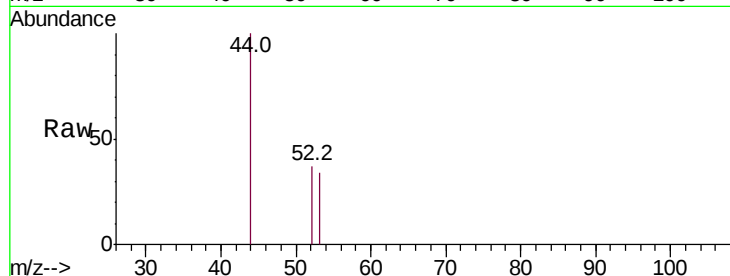
Tot Ion: 53 Resp: 345

Ion Ratio Lower Upper

53 100

52 101.7 65.9 98.9#

51 0.0 30.4 45.6#



#16

Acetone

Concen: 1.487 ug/l

RT: 3.79 min Scan# 638

Delta R.T. 0.02 min

Lab File: VN064326.D

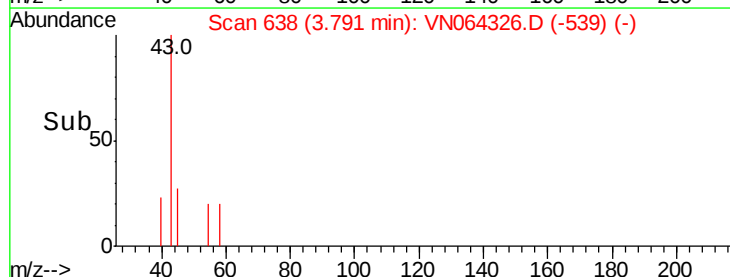
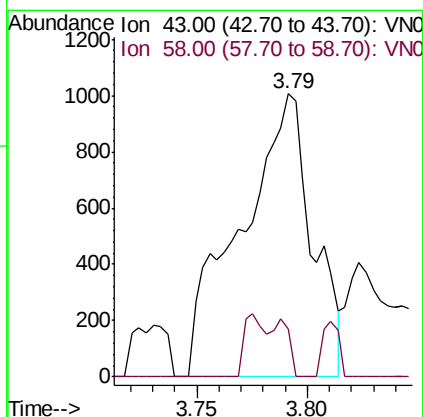
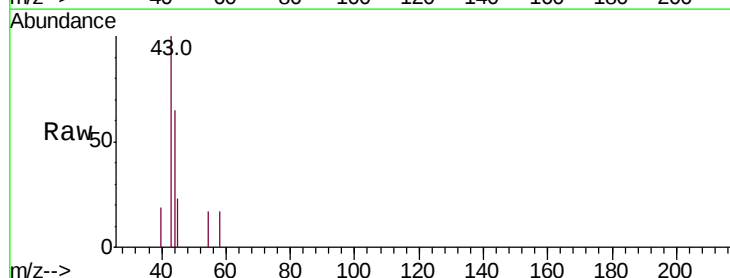
Acq: 27 Oct 2020 15:17

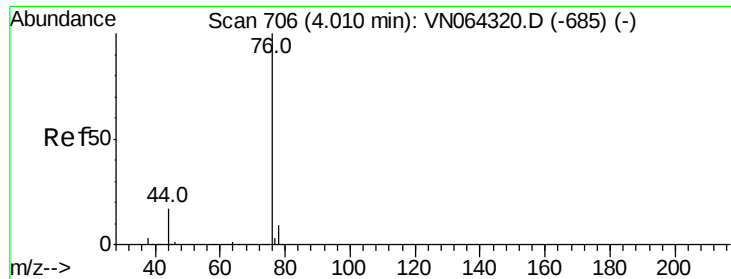
Tgt Ion: 43 Resp: 2273

Ion Ratio Lower Upper

43 100

58 16.9 22.1 33.1#

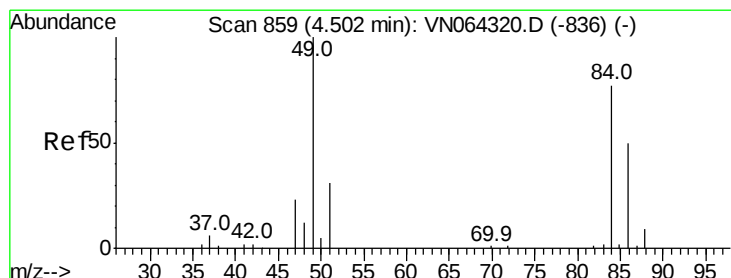
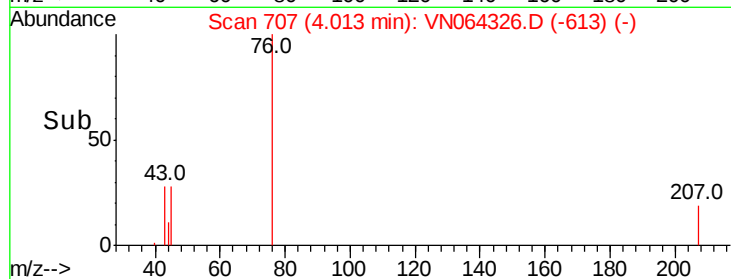
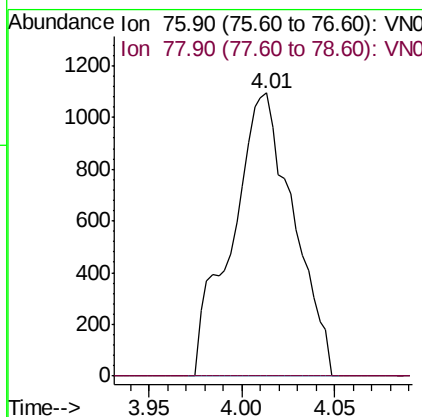
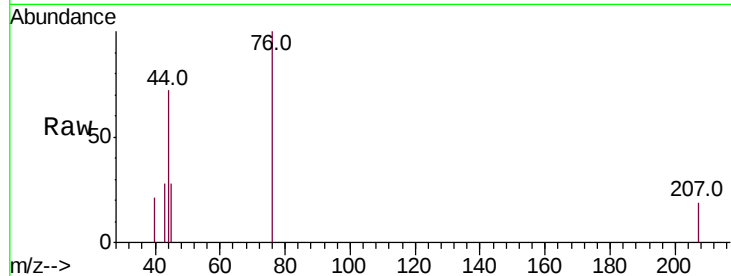




#17
Carbon Disulfide
Concen: 0.342 ug/l
RT: 4.01 min Scan# 707
Delta R.T. 0.00 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

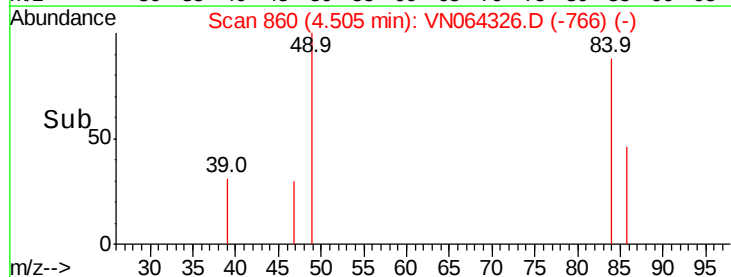
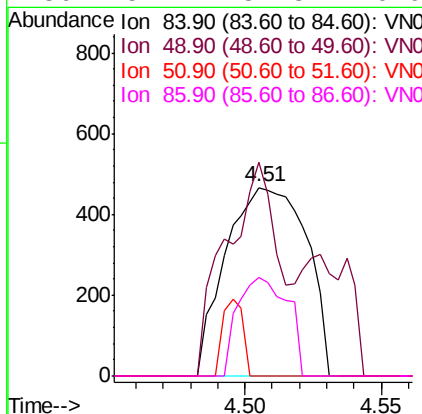
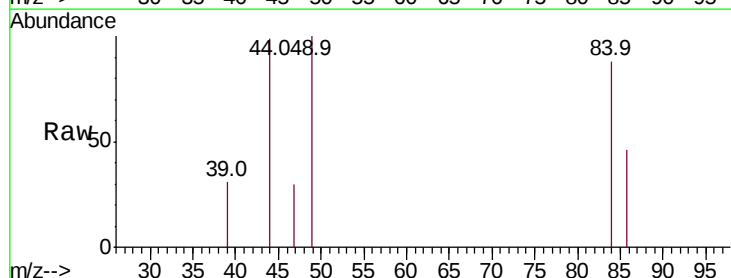
Instrument :
MSVOA_N
ClientSampleId :
MDL-WATER-03-QT4-2020

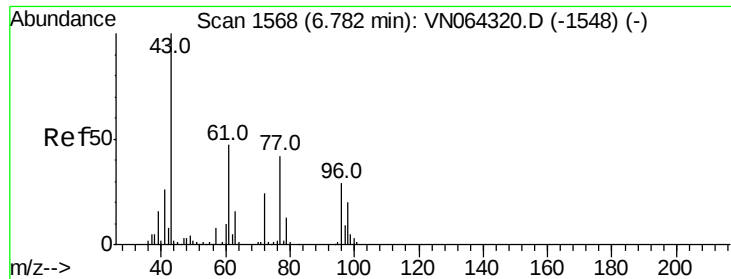
Tot Ion: 76 Resp: 2520
Ion Ratio Lower Upper
76 100
78 0.0 7.3 10.9#



#20
Methylene Chloride
Concen: 0.323 ug/l
RT: 4.51 min Scan# 860
Delta R.T. 0.00 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

Tgt Ion: 84 Resp: 960
Ion Ratio Lower Upper
84 100
49 113.5 103.6 155.4
51 0.0 31.8 47.8#
86 52.1 51.3 76.9

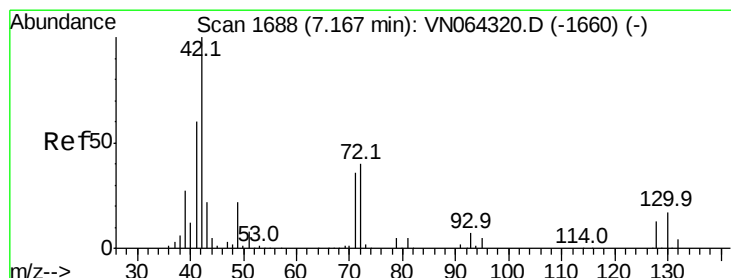
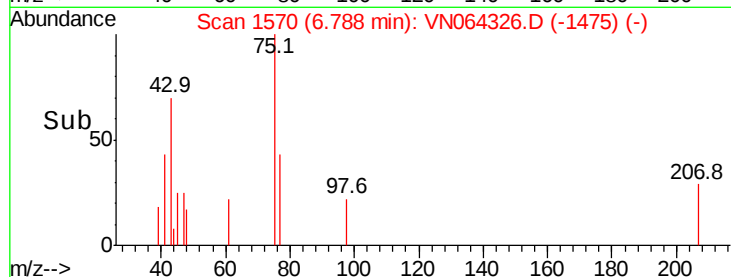
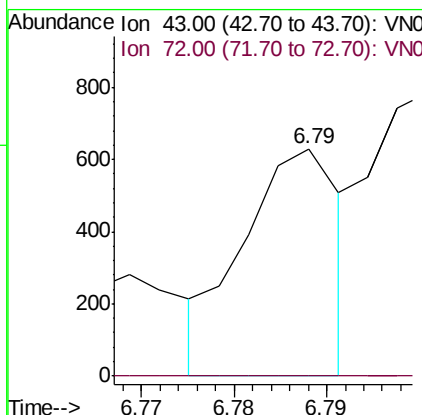
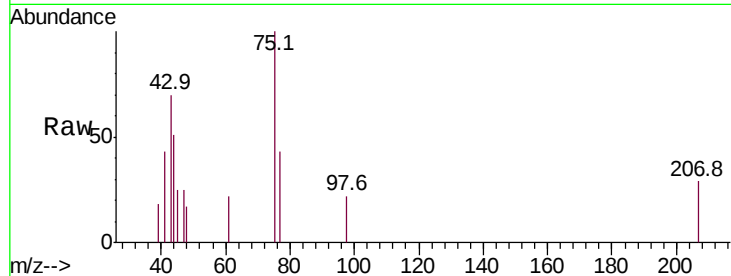




#25
2-Butanone
Concen: 0.217 ug/l
RT: 6.79 min Scan# 1570
Delta R.T. 0.01 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

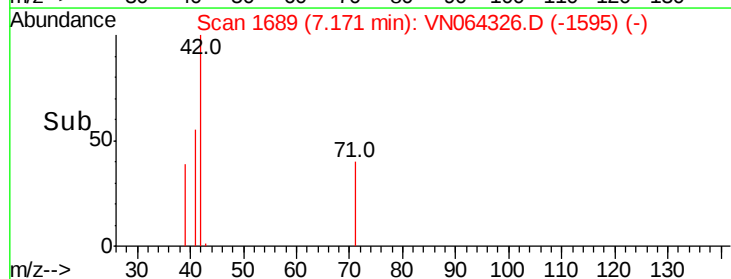
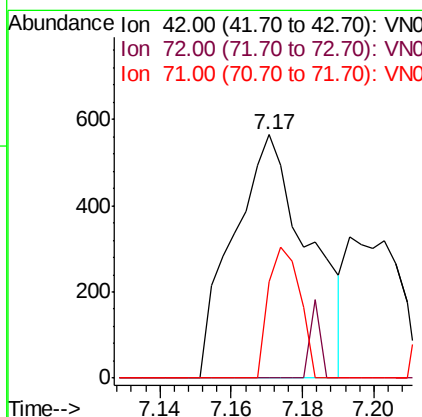
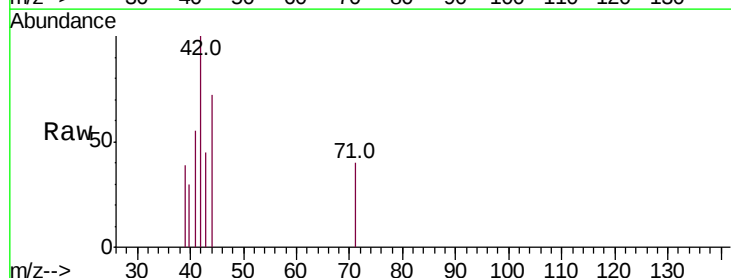
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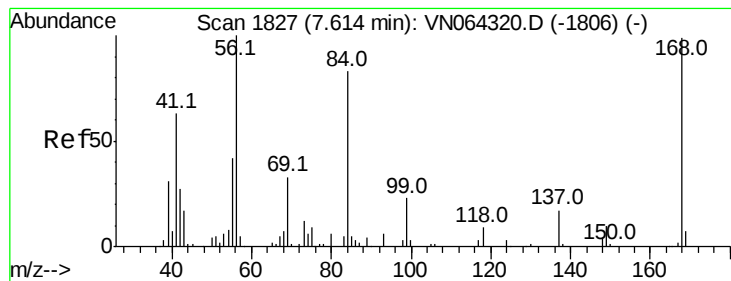
Tot Ion: 43 Resp: 456
Ion Ratio Lower Upper
43 100
72 0.0 18.8 28.2#



#29
Tetrahydrofuran
Concen: 0.602 ug/l
RT: 7.17 min Scan# 1689
Delta R.T. 0.00 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

Tgt Ion: 42 Resp: 823
Ion Ratio Lower Upper
42 100
72 0.0 31.6 47.4#
71 22.6 29.4 44.0#





#31

Cyclohexane

Concen: 1.587 ug/l

RT: 7.63 min Scan# 1831

Delta R.T. 0.01 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

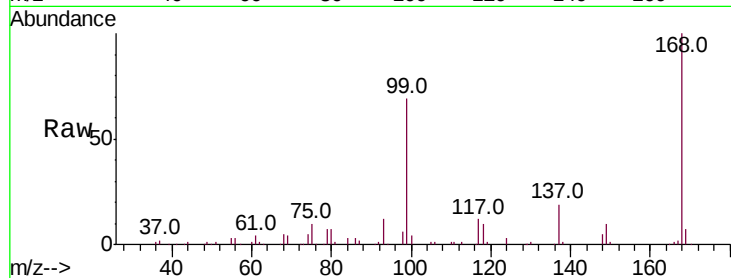
Tot Ion: 56 Resp: 7726

Ion Ratio Lower Upper

56 100

69 141.8 25.8 38.8#

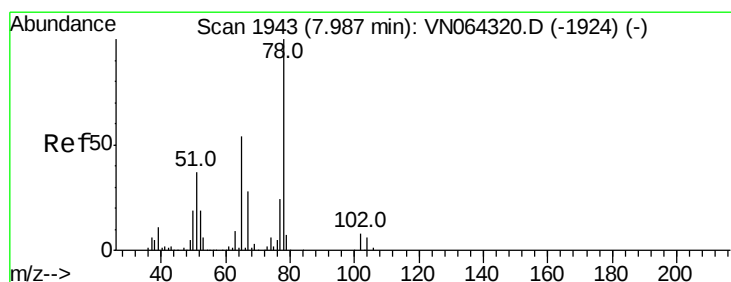
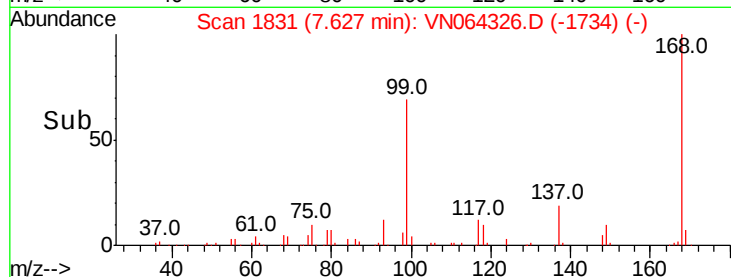
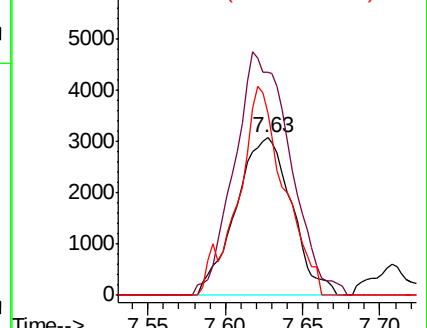
84 115.8 66.3 99.5#



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: 42.503 ug/l

RT: 7.99 min Scan# 1943

Delta R.T. -0.00 min

Lab File: VN064326.D

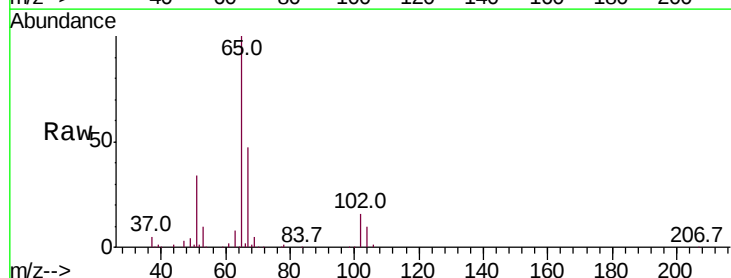
Acq: 27 Oct 2020 15:17

Tgt Ion: 65 Resp: 178232

Ion Ratio Lower Upper

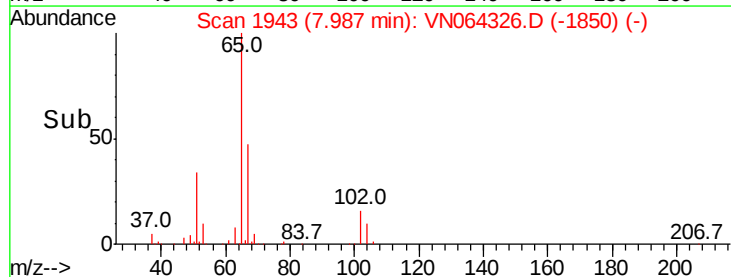
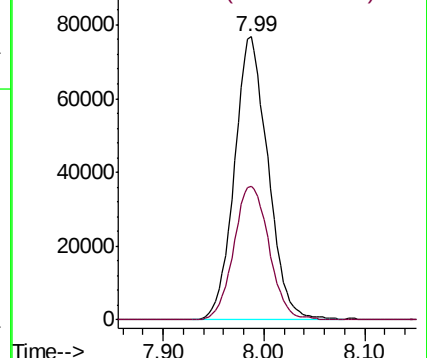
65 100

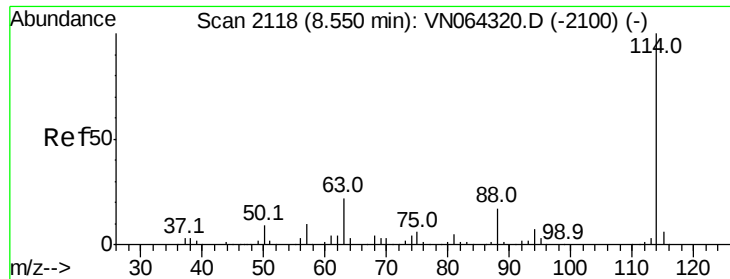
67 49.4 0.0 99.2



Abundance Ion 64.90 (64.60 to 65.60): VNC

Ion 66.90 (66.60 to 67.60): VNC

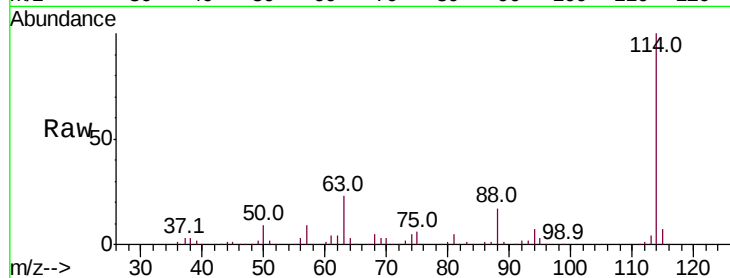




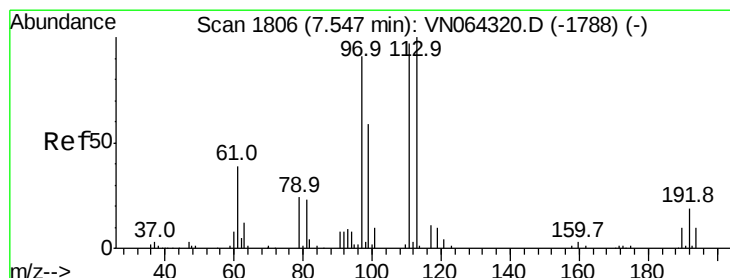
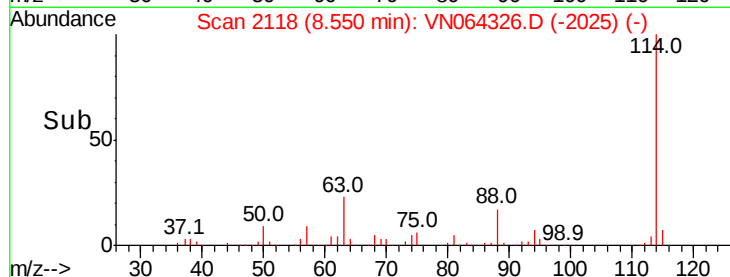
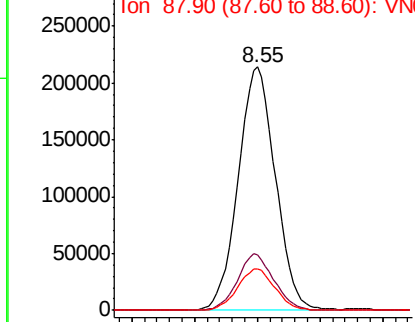
#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.55 min Scan# 2118
 Delta R.T. -0.00 min
 Lab File: VN064326.D
 Acq: 27 Oct 2020 15:17

Instrument :
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 ClientSampleId :
 MDL-WATER-03-QT4-2020

Tot Ion:114 Resp: 440920
 Ion Ratio Lower Upper
 114 100
 63 22.7 0.0 44.6
 88 17.1 0.0 33.4

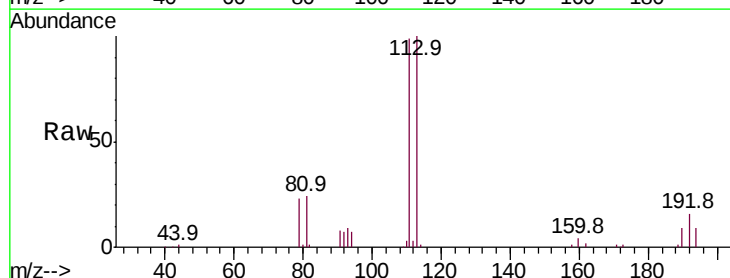


Abundance Ion 113.90 (113.60 to 114.60): V
 Ion 63.00 (62.70 to 63.70): VN
 Ion 87.90 (87.60 to 88.60): VN

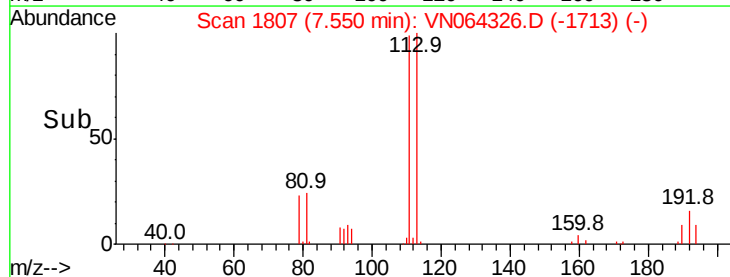
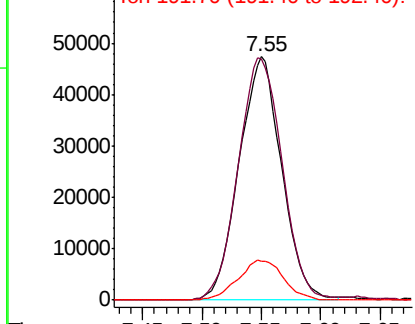


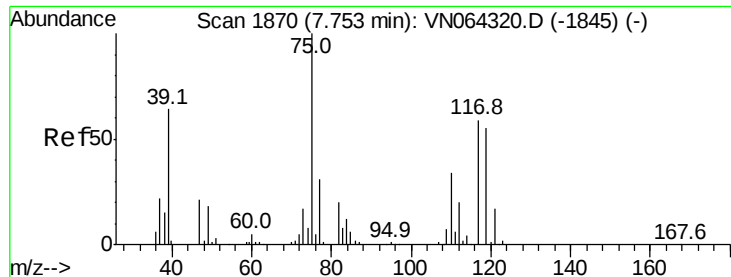
#35
 Dibromofluoromethane
 Concen: 39.837 ug/l
 RT: 7.55 min Scan# 1807
 Delta R.T. 0.00 min
 Lab File: VN064326.D
 Acq: 27 Oct 2020 15:17

Tgt Ion:113 Resp: 117137
 Ion Ratio Lower Upper
 113 100
 111 103.0 81.5 122.3
 192 17.4 15.0 22.4



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: 5.361 ug/l

RT: 7.63 min Scan# 1831

Delta R.T. -0.13 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

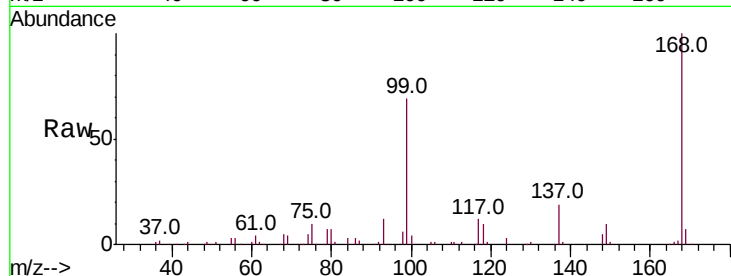
Tot Ion: 75 Resp: 23858

Ion Ratio Lower Upper

75 100

110 11.3 16.8 50.3#

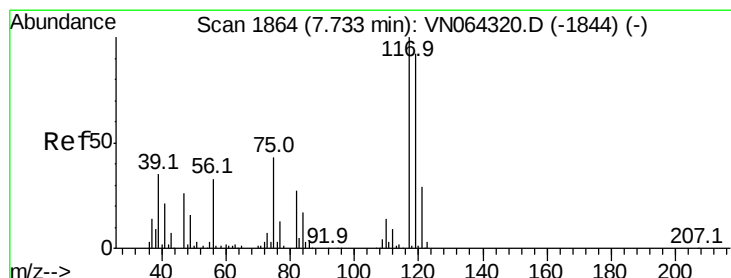
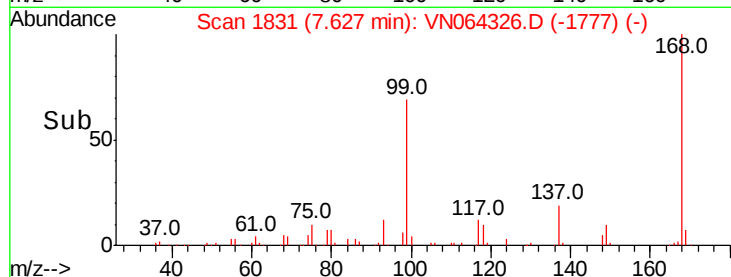
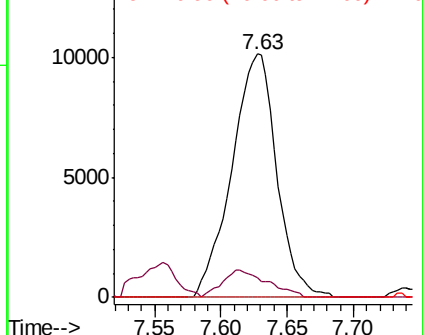
77 0.0 24.2 36.4#



Abundance Ion 74.90 (74.60 to 75.60): VN064326.D (-1777) (-)

Ion 109.90 (109.60 to 110.60): VN064326.D (-1777) (-)

Ion 76.90 (76.60 to 77.60): VN064326.D (-1777) (-)



#38

Carbon Tetrachloride

Concen: 5.947 ug/l

RT: 7.62 min Scan# 1830

Delta R.T. -0.11 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

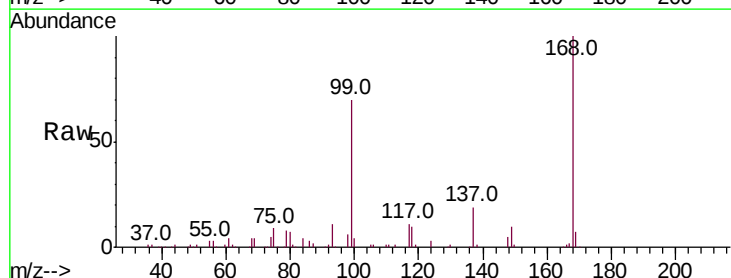
Tgt Ion: 117 Resp: 30681

Ion Ratio Lower Upper

117 100

119 6.0 73.7 110.5#

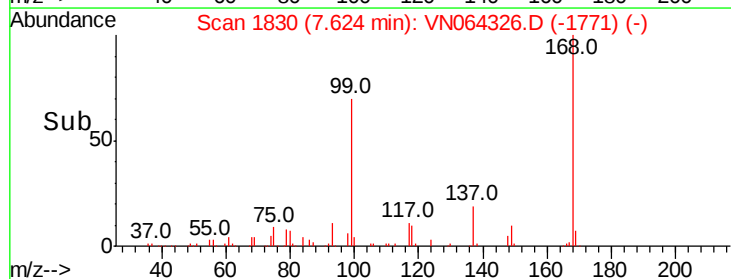
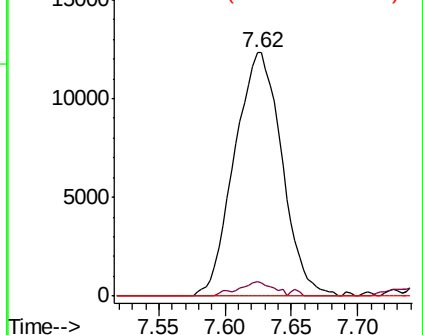
121 0.0 22.8 34.2#

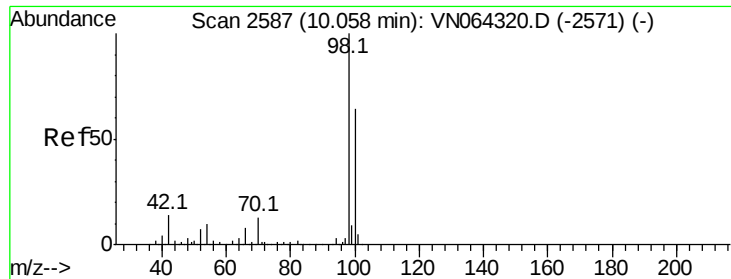


Abundance Ion 116.80 (116.50 to 117.50): VN064326.D (-1771) (-)

Ion 118.80 (118.50 to 119.50): VN064326.D (-1771) (-)

Ion 120.80 (120.50 to 121.50): VN064326.D (-1771) (-)





#50

Toluene-d8

Concen: 39.053 ug/l

RT: 10.06 min Scan# 2587

Delta R.T. -0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

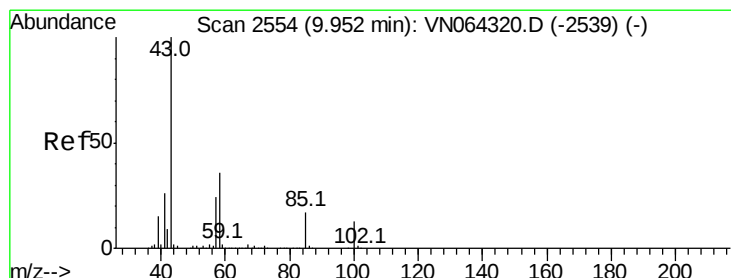
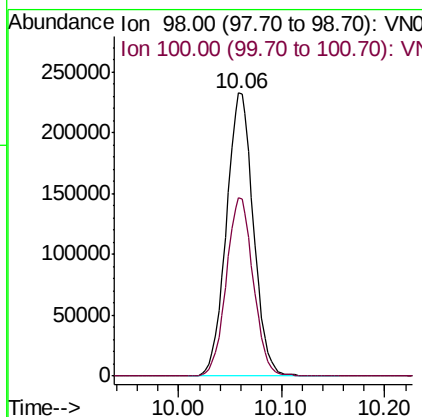
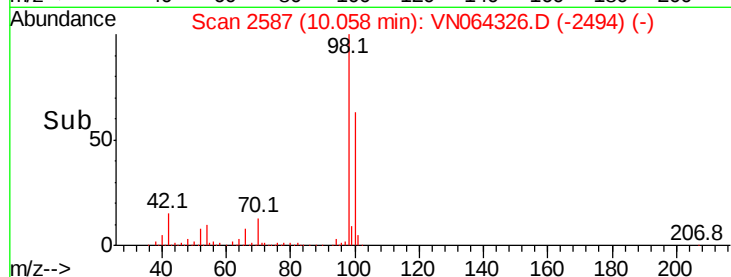
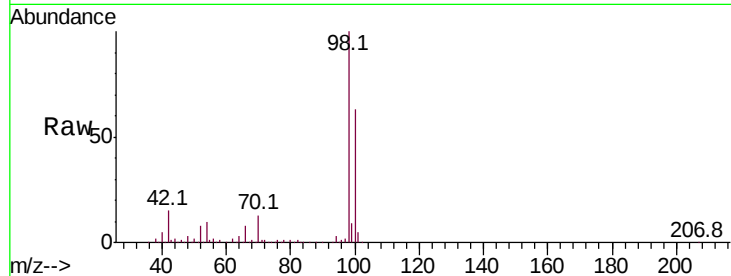
MDL-WATER-03-QT4-2020

Tot Ion: 98 Resp: 424745

Ion Ratio Lower Upper

98 100

100 63.1 50.9 76.3



#51

4-Methyl-2-Pentanone

Concen: 0.624 ug/l

RT: 9.96 min Scan# 2555

Delta R.T. 0.00 min

Lab File: VN064326.D

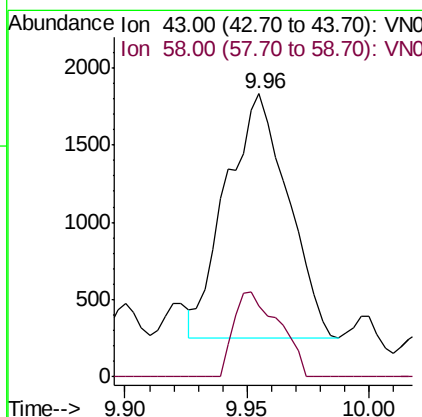
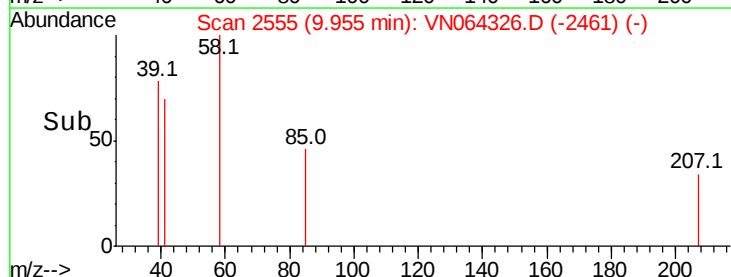
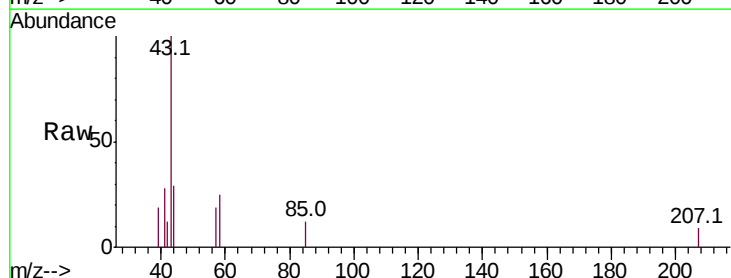
Acq: 27 Oct 2020 15:17

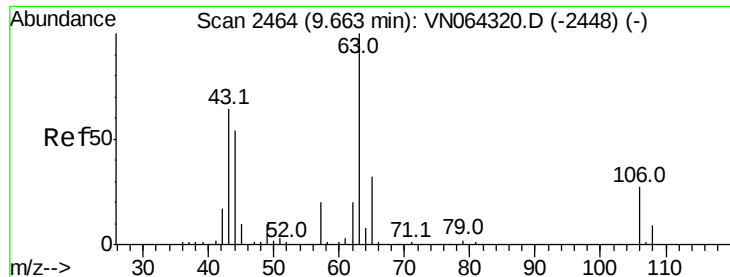
Tgt Ion: 43 Resp: 2785

Ion Ratio Lower Upper

43 100

58 25.6 28.6 42.8#





#58

2-Chloroethyl Vinyl ether

Concen: 2.389 ug/l

RT: 9.67 min Scan# 2465

Delta R.T. 0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

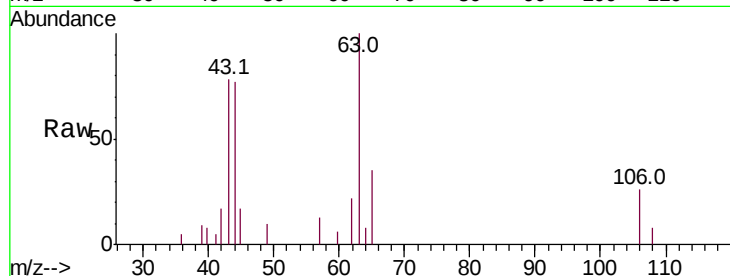
MDL-WATER-03-QT4-2020

Tot Ion: 63 Resp: 6088

Ion Ratio Lower Upper

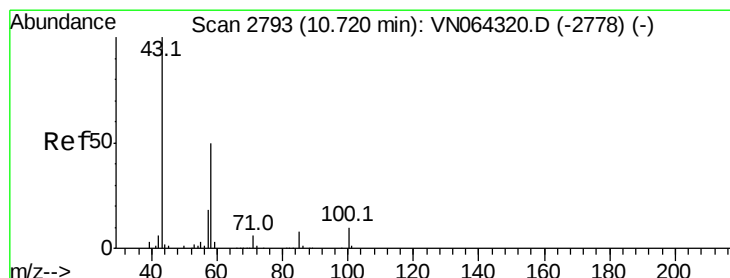
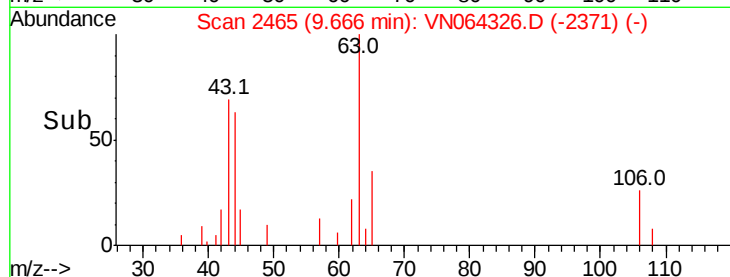
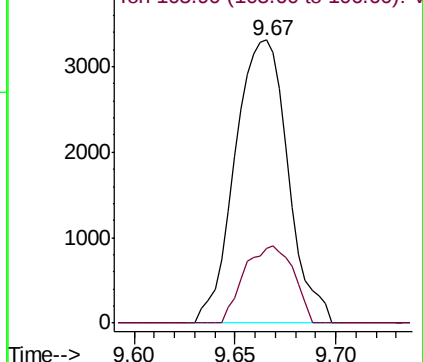
63 100

106 25.4 21.0 31.4



Abundance Ion 62.90 (62.60 to 63.60): VN0

Ion 105.90 (105.60 to 106.60): VN0



#59

2-Hexanone

Concen: 0.610 ug/l

RT: 10.72 min Scan# 2794

Delta R.T. 0.00 min

Lab File: VN064326.D

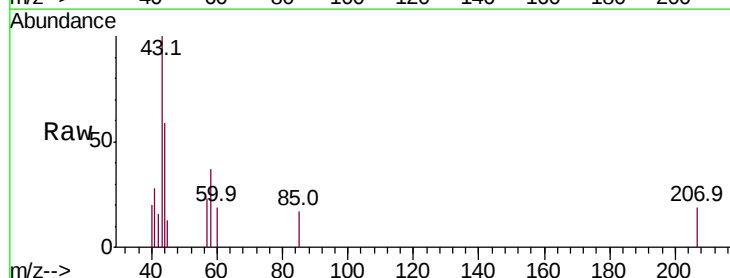
Acq: 27 Oct 2020 15:17

Tgt Ion: 43 Resp: 2006

Ion Ratio Lower Upper

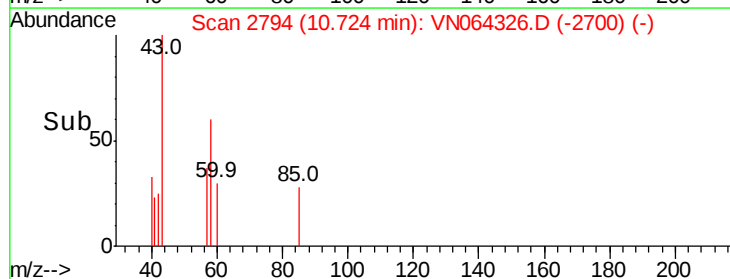
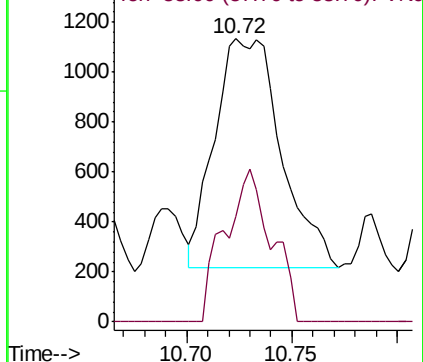
43 100

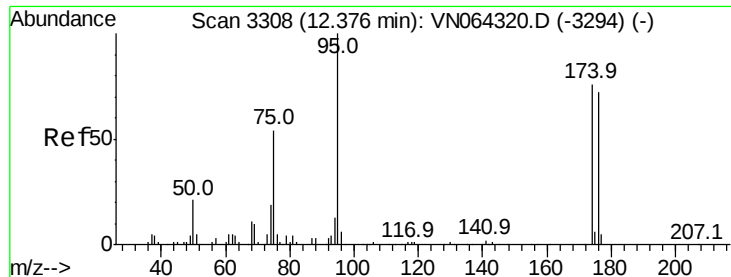
58 47.0 25.0 75.0



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

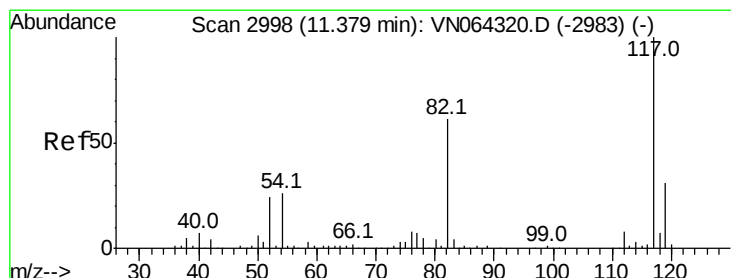
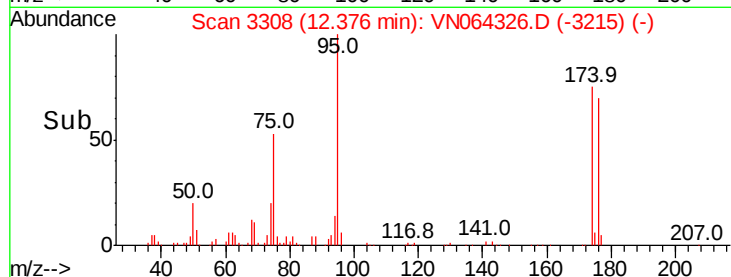
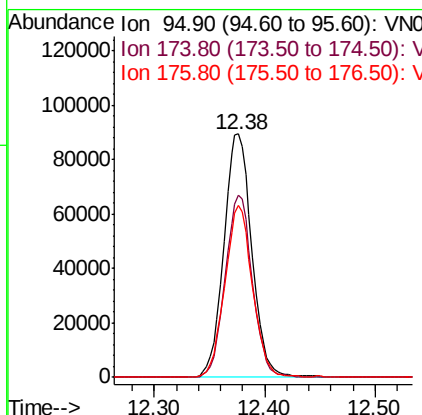
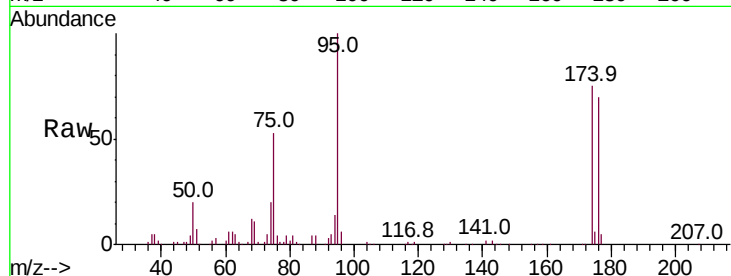




#62
4-Bromofluorobenzene
Concen: 36.984 ug/l
RT: 12.38 min Scan# 3308
Delta R.T. -0.00 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

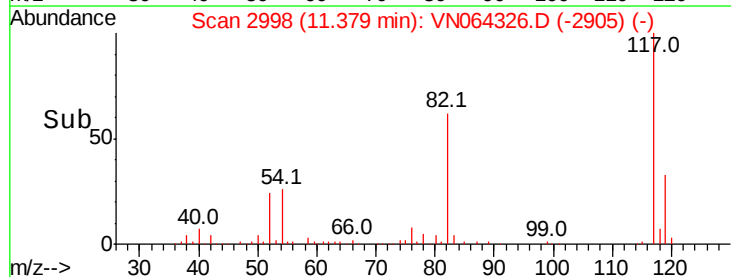
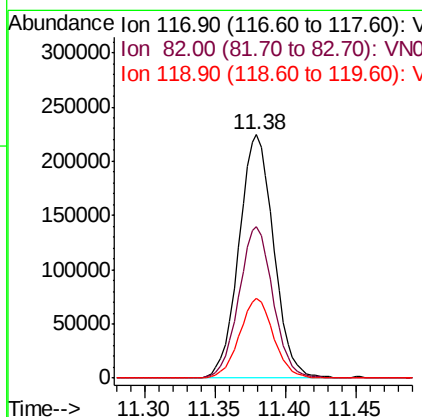
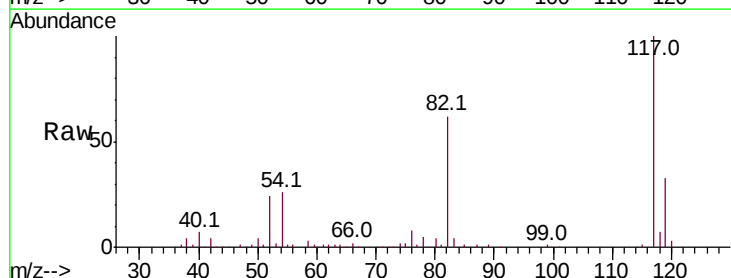
Instrument :
MSVOA_N
ClientSampleId :
MDL-WATER-03-QT4-2020

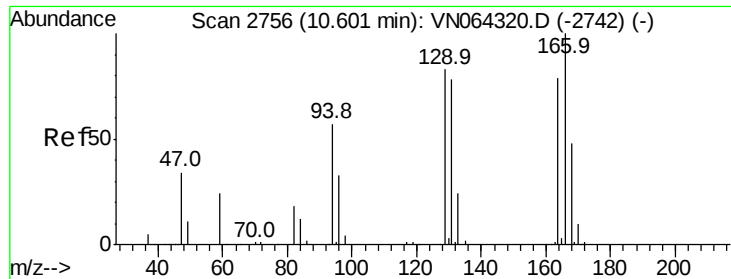
Tot Ion: 95 Resp: 156833
Ion Ratio Lower Upper
95 100
174 72.7 0.0 147.4
176 69.8 0.0 143.6



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.38 min Scan# 2998
Delta R.T. -0.00 min
Lab File: VN064326.D
Acq: 27 Oct 2020 15:17

Tgt Ion: 117 Resp: 387266
Ion Ratio Lower Upper
117 100
82 62.4 48.8 73.2
119 32.7 25.1 37.7





#64

Tetrachloroethene

Concen: 0.323 ug/l

RT: 10.60 min Scan# 2757

Delta R.T. 0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

Tot Ion:164 Resp: 1028

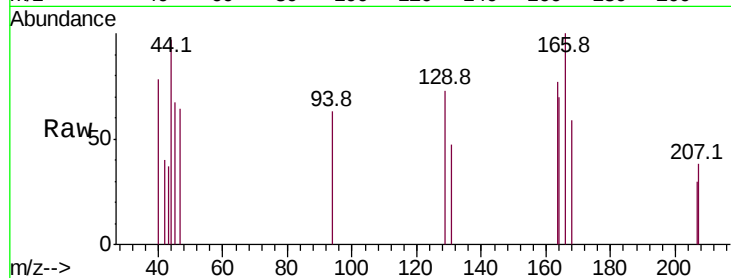
Ion Ratio Lower Upper

164 100

166 67.8 100.7 151.1#

129 49.6 83.7 125.5#

131 31.9 78.2 117.2#

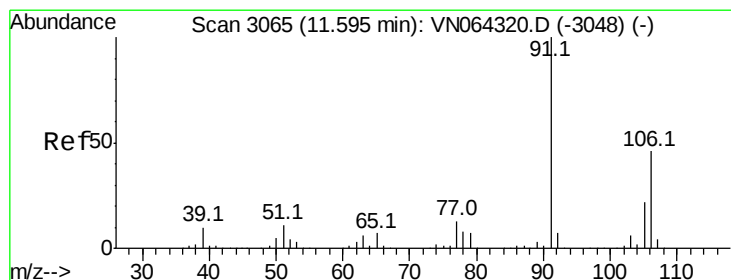
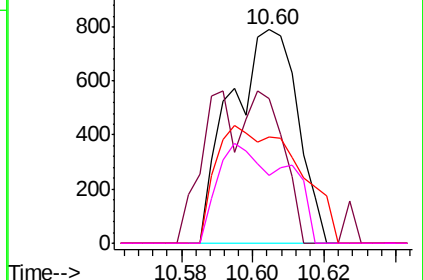
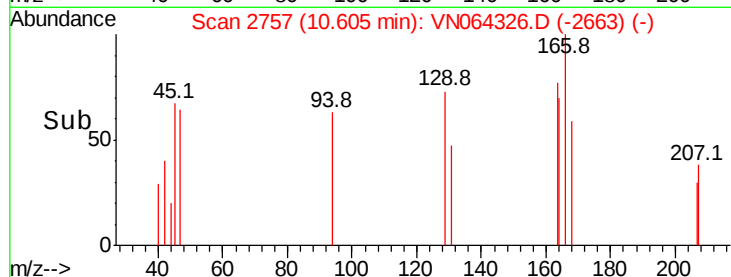


Abundance Ion 163.80 (163.50 to 164.50): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.80 (128.50 to 129.50): V

Ion 130.80 (130.50 to 131.50): V



#68

m/p-Xylenes

Concen: 0.209 ug/l

RT: 11.59 min Scan# 3065

Delta R.T. -0.00 min

Lab File: VN064326.D

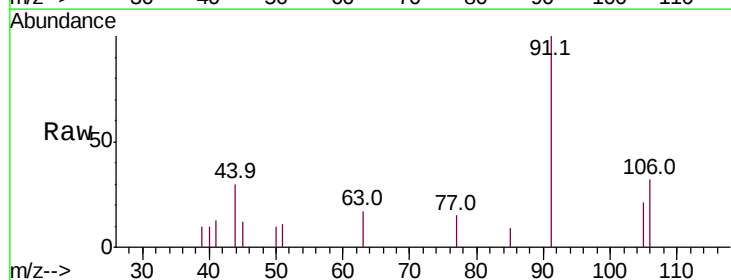
Acq: 27 Oct 2020 15:17

Tgt Ion:106 Resp: 1133

Ion Ratio Lower Upper

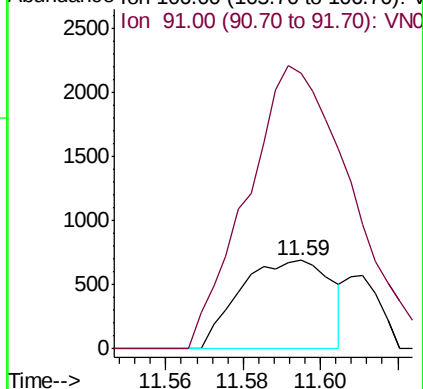
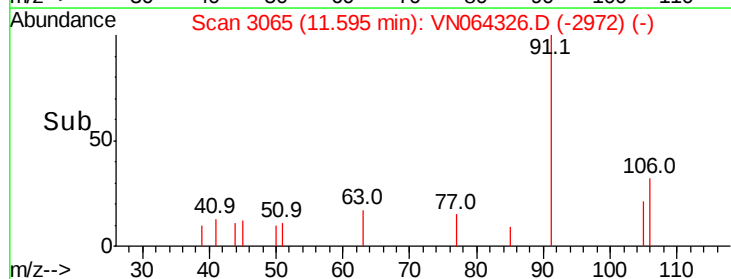
106 100

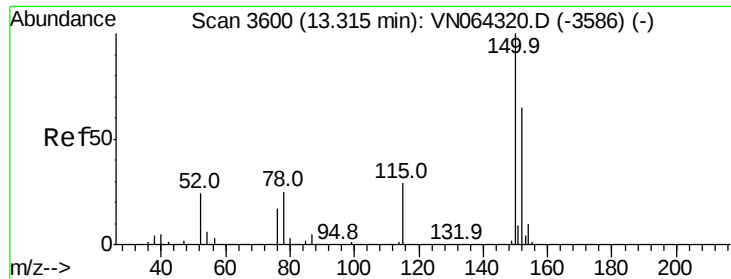
91 362.0 170.2 255.4#



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3601

Delta R.T. 0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

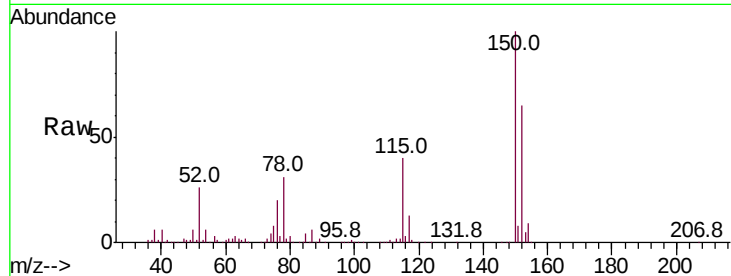
Tot Ion:152 Resp: 161517

Ion Ratio Lower Upper

152 100

115 66.2 31.5 94.5

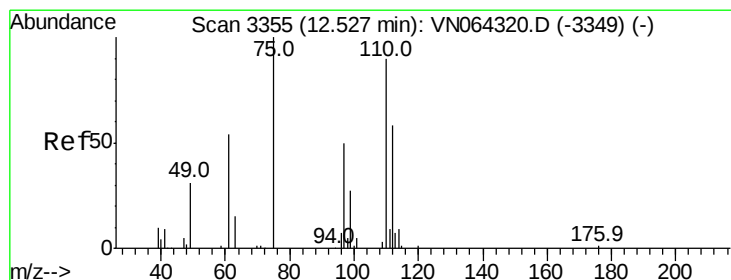
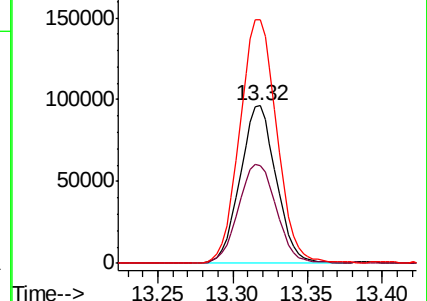
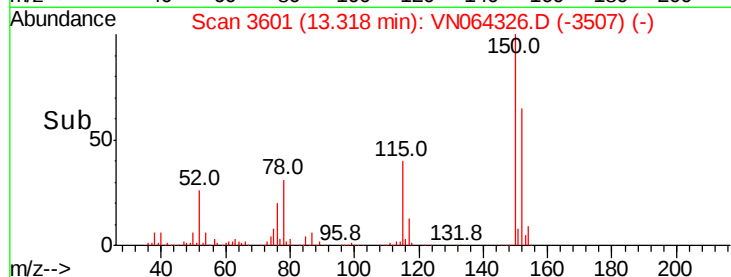
150 159.2 0.0 346.2



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



#76

1,2,3-Trichloropropane

Concen: 22.113 ug/l

RT: 12.37 min Scan# 3307

Delta R.T. -0.15 min

Lab File: VN064326.D

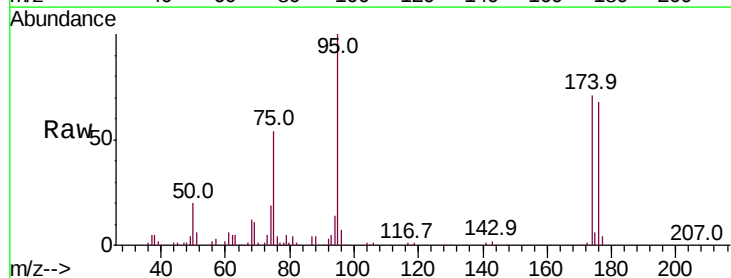
Acq: 27 Oct 2020 15:17

Tgt Ion: 75 Resp: 85532

Ion Ratio Lower Upper

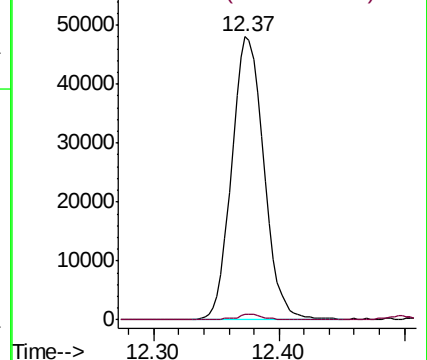
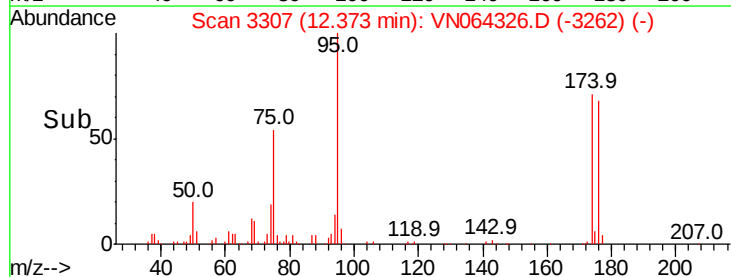
75 100

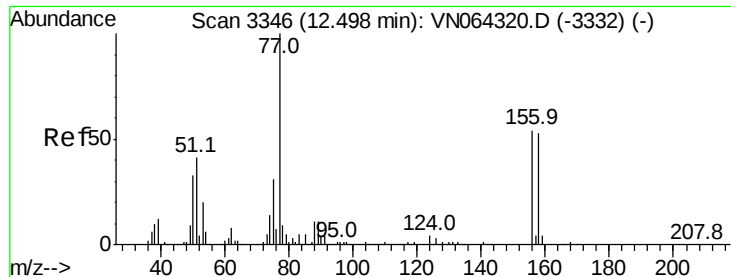
77 1.5 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): V

Ion 77.00 (76.70 to 77.70): V





#77

Bromobenzene

Concen: 0.212 ug/l

RT: 12.50 min Scan# 3348

Delta R.T. 0.01 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

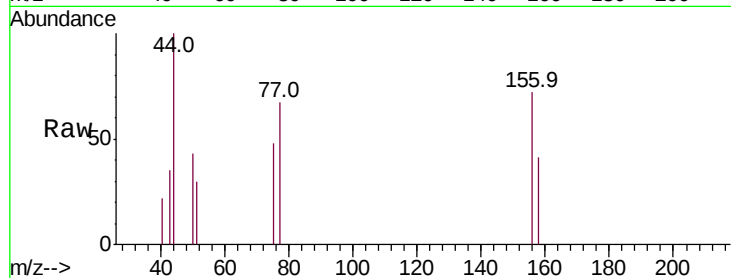
Tot Ion:156 Resp: 629

Ion Ratio Lower Upper

156 100

77 181.2 111.9 335.7

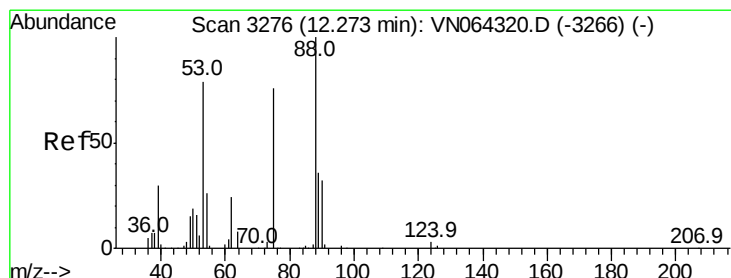
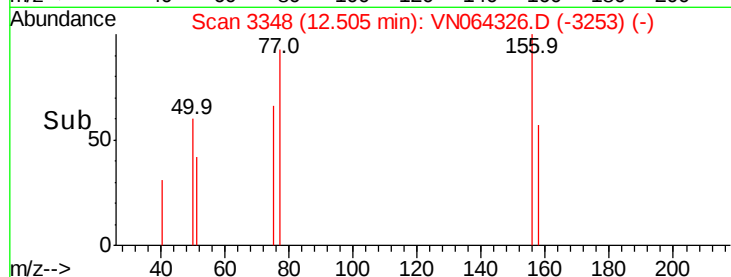
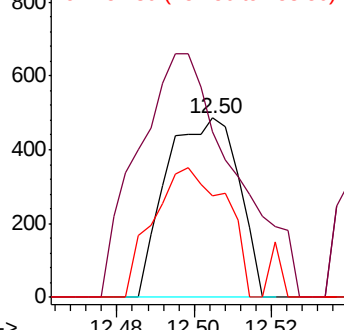
158 72.7 49.0 147.0



Abundance Ion 155.80 (155.50 to 156.50): V

Ion 77.00 (76.70 to 77.70): VNO

Ion 157.80 (157.50 to 158.50): V



#81

trans-1,4-Dichloro-2-butene

Concen: 63.698 ug/l

RT: 12.37 min Scan# 3307

Delta R.T. 0.10 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

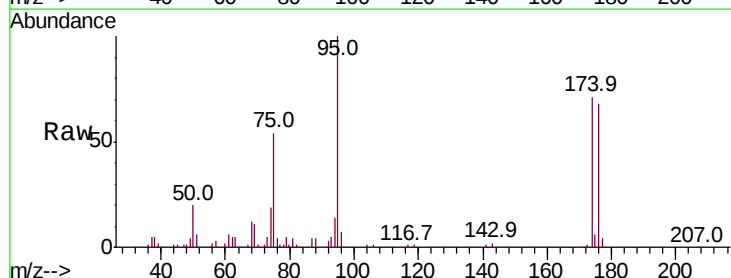
Tgt Ion: 75 Resp: 85532

Ion Ratio Lower Upper

75 100

53 0.0 81.8 122.8#

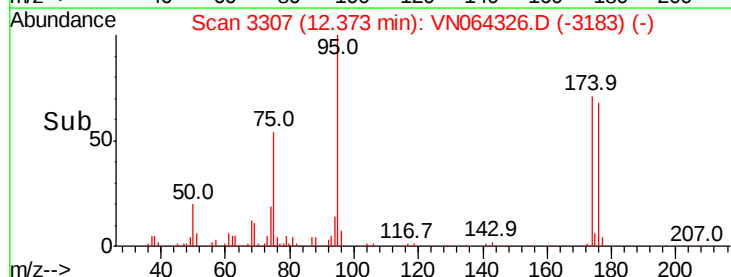
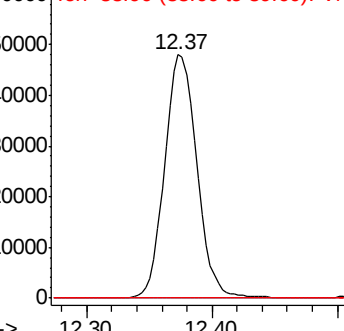
89 0.0 39.9 59.9#

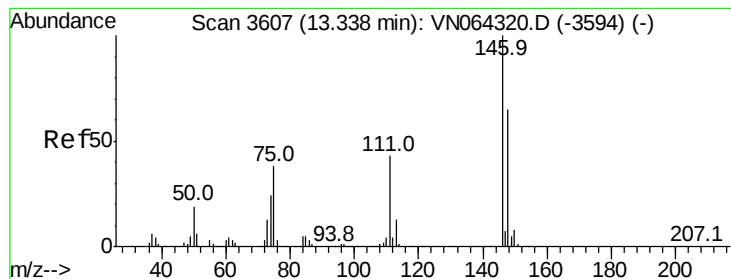


Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 53.00 (52.70 to 53.70): VNO

Ion 88.90 (88.60 to 89.60): VNO





#88

1,4-Dichlorobenzene

Concen: 0.271 ug/l

RT: 13.33 min Scan# 3606

Delta R.T. -0.00 min

Lab File: VN064326.D

Acq: 27 Oct 2020 15:17

Instrument :

MSVOA_N

ClientSampleId :

MDL-WATER-03-QT4-2020

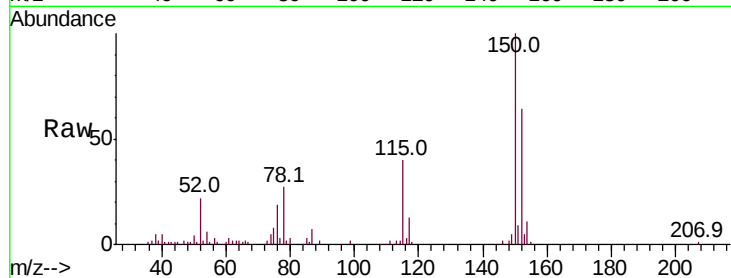
Tot Ion:146 Resp: 1429

Ion Ratio Lower Upper

146 100

111 0.0 21.8 65.4#

148 65.6 31.8 95.3



Abundance Ion 145.90 (145.60 to 146.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V

