

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN092019\
 Data File : VN058252.D
 Acq On : 20 Sep 2019 15:58
 Operator : JC/SP
 Sample : K4975-06DL 5X
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 RE120D3-20190917DL

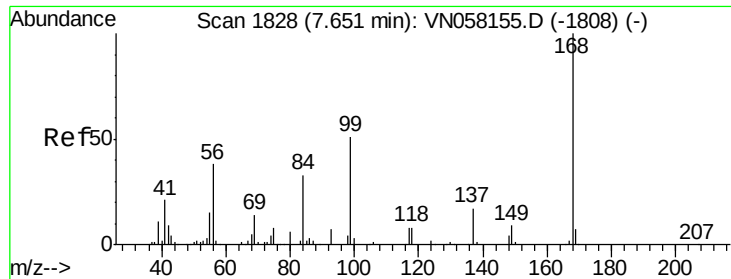
Quant Time: Sep 20 23:50:26 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N091819W.M
 Quant Title : SW846 8260
 QLast Update : Thu Sep 19 09:27:53 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.65	168	477092	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.57	114	769394	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	659967	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.35	152	267158	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	344810	51.89	ug/l	0.00
Spiked Amount			Recovery	=	103.78%	
35) Dibromofluoromethane	7.57	113	235925	50.44	ug/l	0.00
Spiked Amount			Recovery	=	100.88%	
50) Toluene-d8	10.09	98	968185	53.13	ug/l	0.00
Spiked Amount			Recovery	=	106.26%	
62) 4-Bromofluorobenzene	12.41	95	309241	45.68	ug/l	0.00
Spiked Amount			Recovery	=	91.36%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	2.03	50	674	Below Cal		92
4) Vinyl Chloride	2.39	62	30	Below Cal	#	43
5) Bromomethane	2.54	94	339	0.914	ug/l	97
6) Chloroethane	2.66	64	104	Below Cal	#	44
9) 1,1,2-Trichlorotrifluoroet	3.74	101	3820	0.990	ug/l #	78
11) Tert butyl alcohol	4.74	59	565	0.715	ug/l #	71
12) 1,1-Dichloroethene	3.71	96	389	Below Cal	#	65
16) Acetone	3.81	43	3898	1.728	ug/l #	72
17) Carbon Disulfide	4.03	76	715	0.443	ug/l #	74
20) Methylene Chloride	4.53	84	345	Below Cal	#	51
31) Cyclohexane	7.65	56	12697	Below Cal	#	4
36) 1,1-Dichloropropene	7.65	75	42541	7.667	ug/l #	50
38) Carbon Tetrachloride	7.65	117	49574	8.888	ug/l #	15
41) Methacrylonitrile	7.17	41	62	0.932	ug/l #	100
43) Isopropyl Acetate	8.27	43	18303	1.702	ug/l #	57
44) Trichloroethene	8.83	130	149874	36.139	ug/l	99
51) 4-Methyl-2-Pentanone	9.99	43	1418	0.248	ug/l #	37
59) 2-Hexanone	10.76	43	1340	0.316	ug/l	100
64) Tetrachloroethene	10.63	164	836	0.260	ug/l #	80
71) Bromoform	12.39	173	238	3.666	ug/l #	29
76) 1,2,3-Trichloropropane	12.41	75	169397	35.429	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.41	75	169397	99.037	ug/l #	5
93) 1,2,4-Trichlorobenzene	14.92	180	2785	0.566	ug/l	95
94) Hexachlorobutadiene	15.02	225	555	0.233	ug/l	88
95) Naphthalene	15.13	128	15223	1.193	ug/l	99
96) 1,2,3-Trichlorobenzene	15.31	180	4157	0.893	ug/l	92

(#) = 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: VN058252.D

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MSVOA_N

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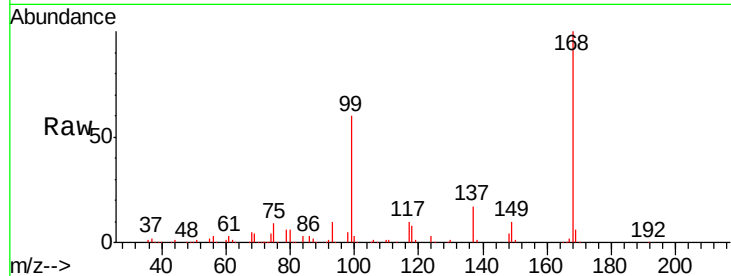
RE120D3-20190917DL

Tgt Ion:168 Resp: 477092

Ion Ratio Lower Upper

168 100

99 60.5 47.4 71.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.65

200000

150000

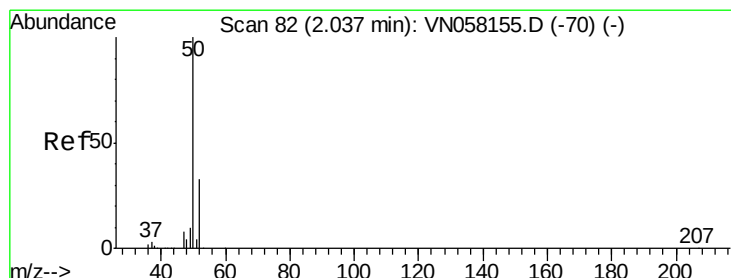
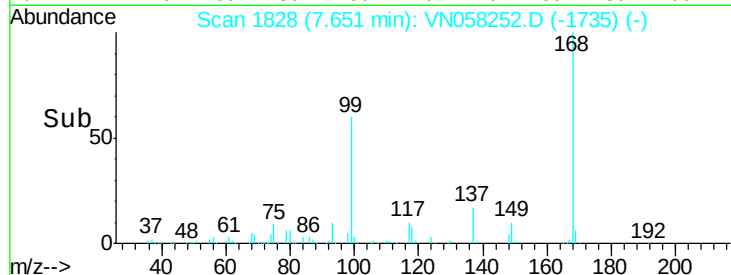
100000

50000

0

7.60 7.70 7.80

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 2.03 min Scan# 80

Delta R.T. -0.01 min

Lab File: VN058252.D

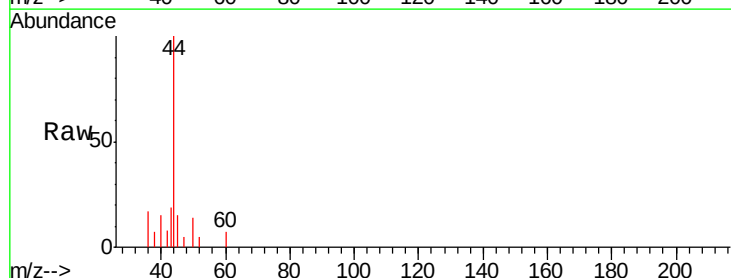
Acq: 20 Sep 2019 15:58

Tgt Ion: 50 Resp: 674

Ion Ratio Lower Upper

50 100

52 37.4 26.3 39.5



Abundance Ion 49.90 (49.60 to 50.60): VN

Ion 51.90 (51.60 to 52.60): VN

2.03

500

400

300

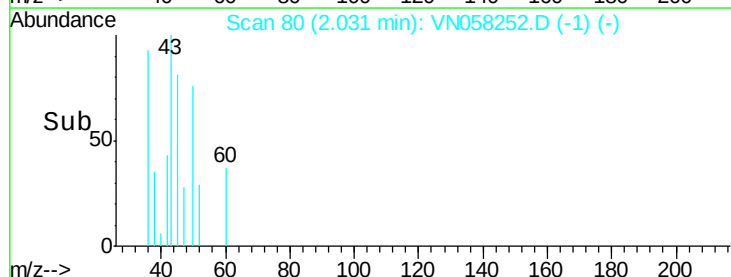
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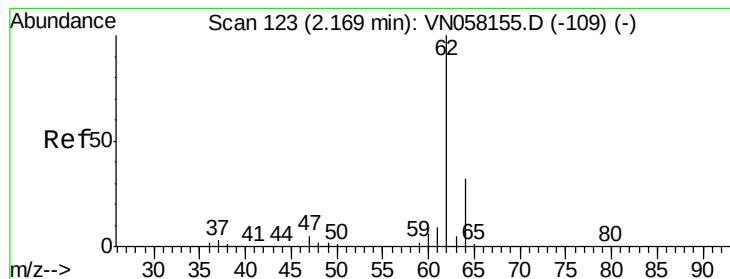
100

0

2.00 2.02 2.04 2.06

Time-->





#4

Vinyl Chloride

Concen: Below Cal

RT: 2.39 min Scan# 192

Delta R.T. 0.22 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

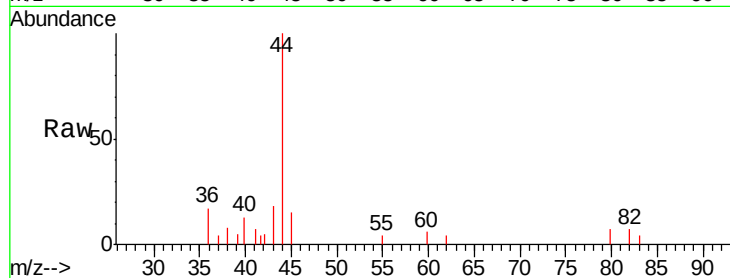
RE120D3-20190917DL

Tgt Ion: 62 Resp: 30

Ion Ratio Lower Upper

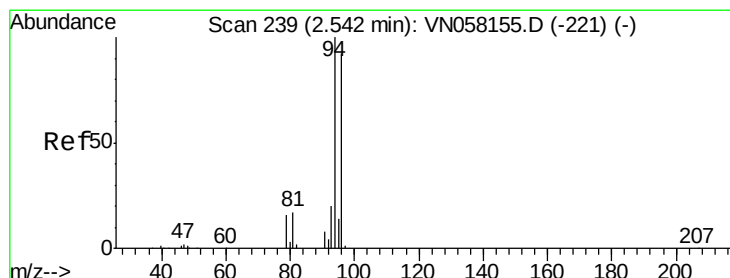
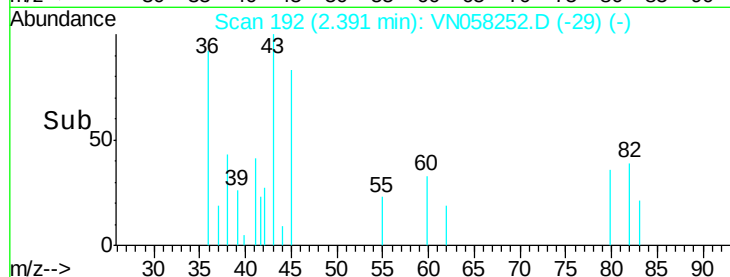
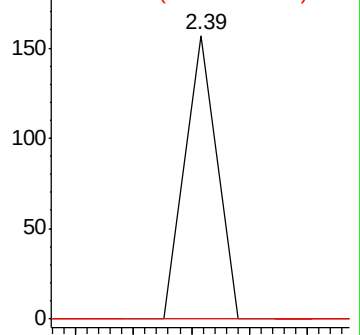
62 100

64 0.0 25.4 38.2#



Abundance Ion 61.90 (61.60 to 62.60): VNO

Ion 63.90 (63.60 to 64.60): VNO



#5

Bromomethane

Concen: 0.914 ug/l

RT: 2.54 min Scan# 238

Delta R.T. -0.00 min

Lab File: VN058252.D

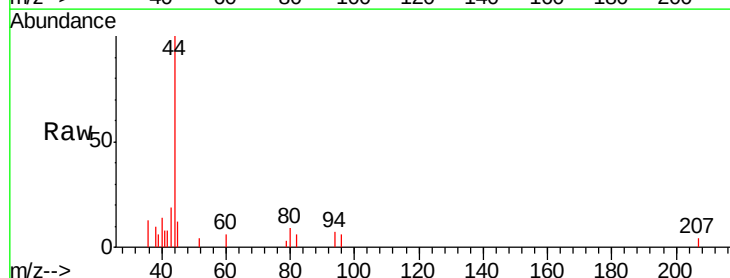
Acq: 20 Sep 2019 15:58

Tgt Ion: 94 Resp: 339

Ion Ratio Lower Upper

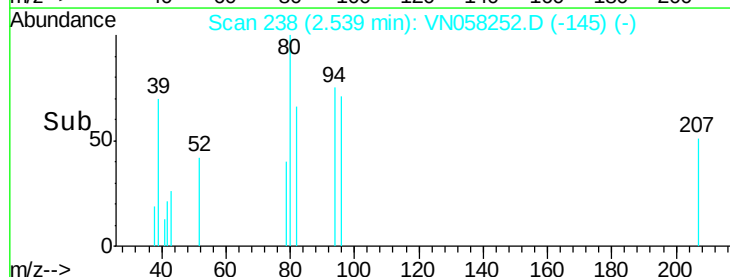
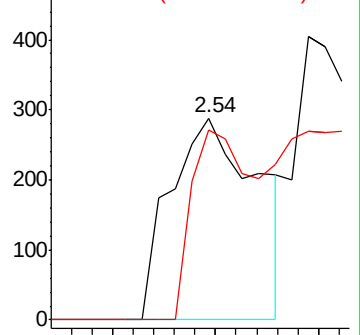
94 100

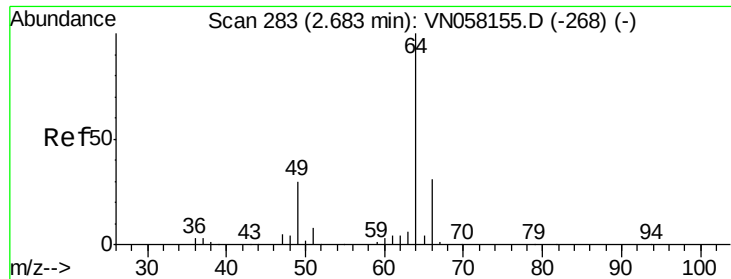
96 94.4 73.3 109.9



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: 2.66 min Scan# 275

Delta R.T. -0.03 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

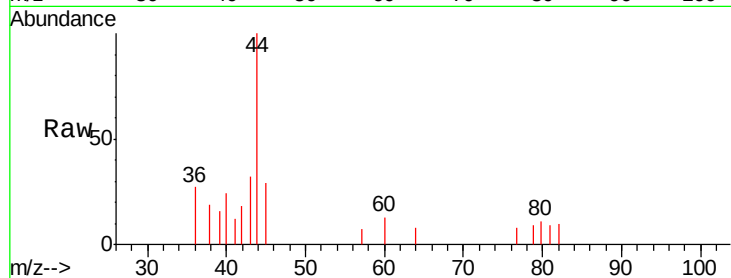
RE120D3-20190917DL

Tgt Ion: 64 Resp: 104

Ion Ratio Lower Upper

64 100

66 0.0 24.6 37.0#



Abundance Ion 63.90 (63.60 to 64.60): VN0

Ion 65.90 (65.60 to 66.60): VN0

2.66

200

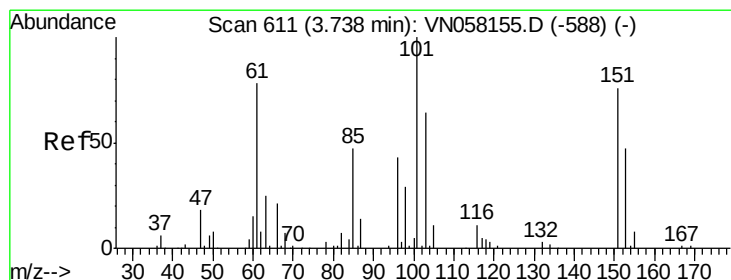
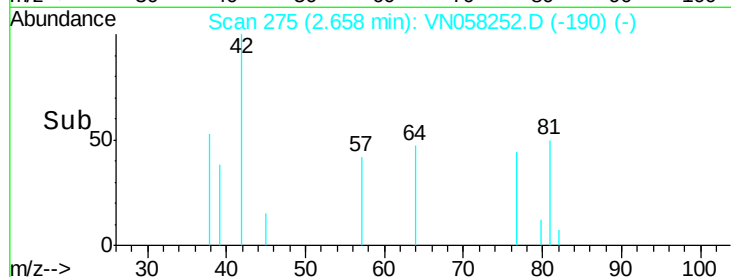
150

100

50

0

Time--> 2.64 2.65 2.66 2.67



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.990 ug/l

RT: 3.74 min Scan# 612

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

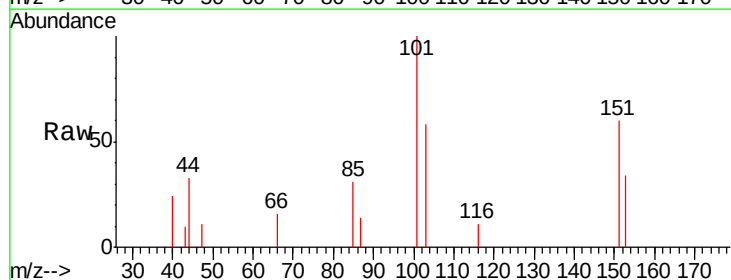
Tgt Ion: 101 Resp: 3820

Ion Ratio Lower Upper

101 100

85 35.4 37.3 55.9#

151 52.7 59.6 89.4#



Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VN0

Ion 150.80 (150.50 to 151.50): V

2000

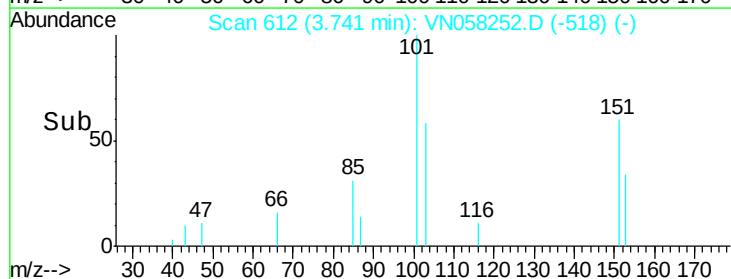
1500

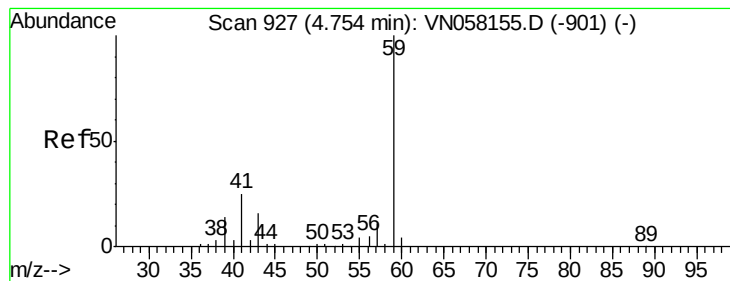
1000

500

0

Time--> 3.70 3.75 3.80



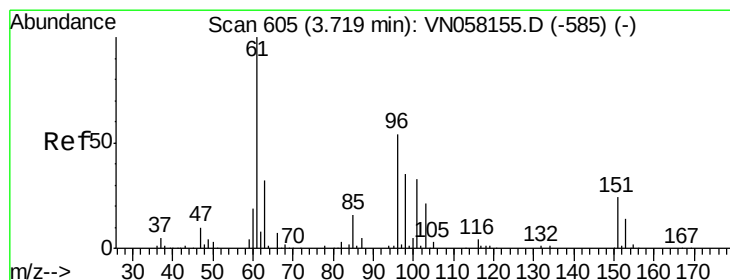
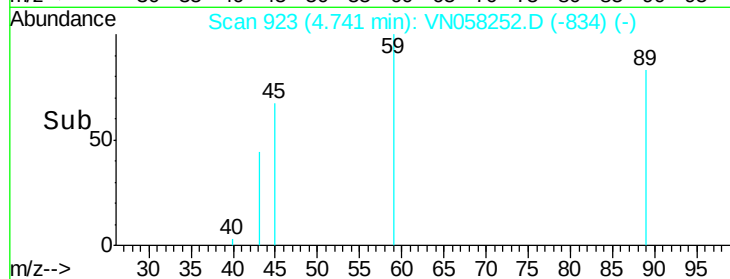
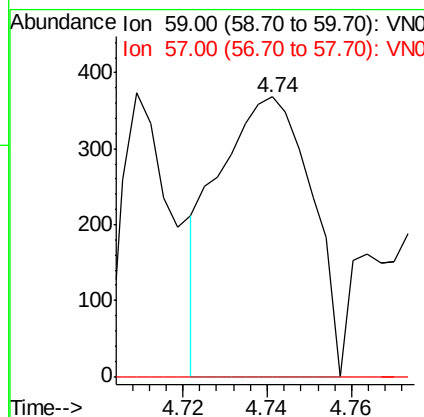
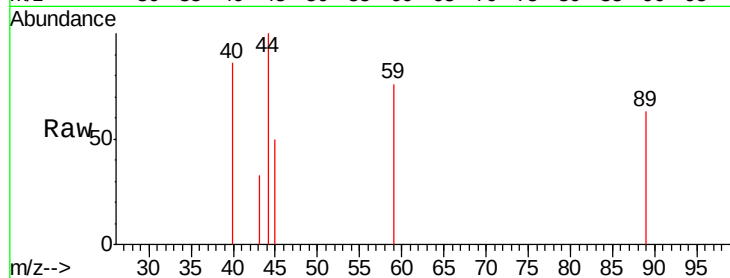


#11

Tert butyl alcohol
 Concen: 0.715 ug/l
 RT: 4.74 min Scan# 923
 Delta R.T. -0.01 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

Instrument :
 MSVOA_N
 ClientSampleId :
 RE120D3-20190917DL

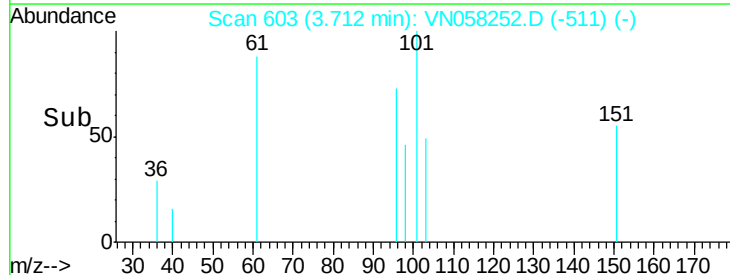
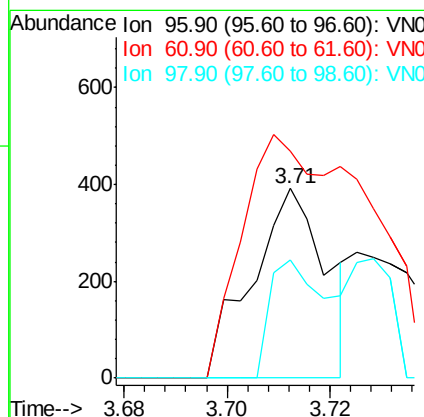
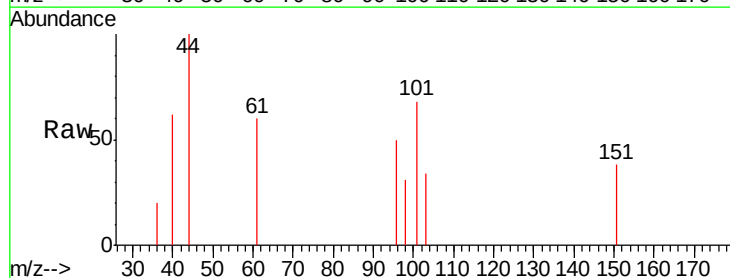
Tgt Ion: 59 Resp: 565
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.6 13.0#

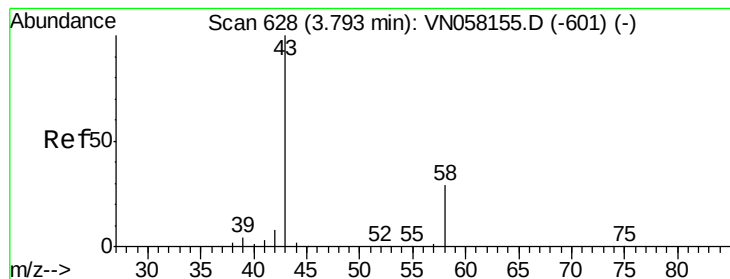


#12

1,1-Dichloroethene
 Concen: Below Cal
 RT: 3.71 min Scan# 603
 Delta R.T. -0.01 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

Tgt Ion: 96 Resp: 389
 Ion Ratio Lower Upper
 96 100
 61 119.9 149.5 224.3#
 98 62.1 52.4 78.6





#16

Acetone

Concen: 1.728 ug/l

RT: 3.81 min Scan# 632

Delta R.T. 0.01 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

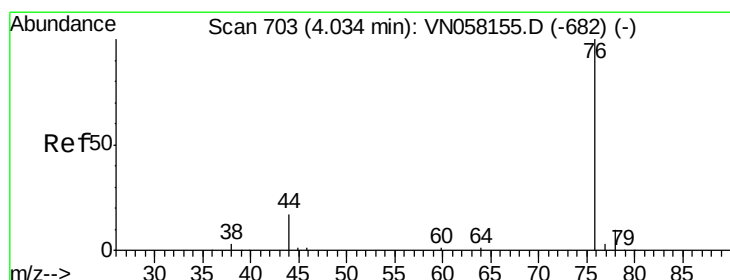
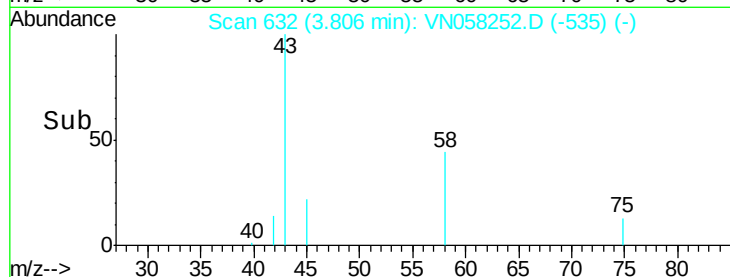
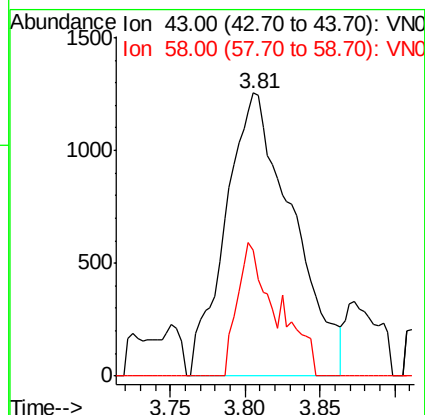
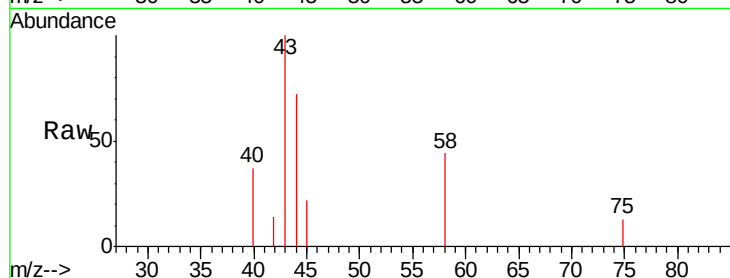
RE120D3-20190917DL

Tgt Ion: 43 Resp: 3898

Ion Ratio Lower Upper

43 100

58 44.3 23.4 35.2#



#17

Carbon Disulfide

Concen: 0.443 ug/l

RT: 4.03 min Scan# 703

Delta R.T. 0.00 min

Lab File: VN058252.D

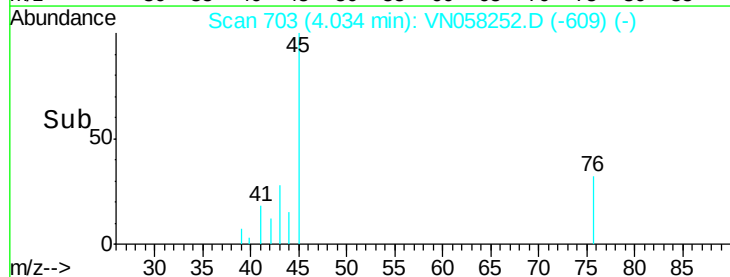
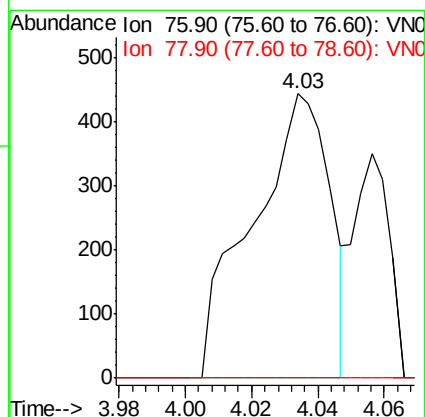
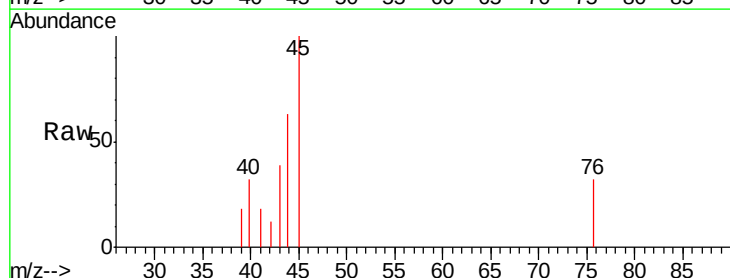
Acq: 20 Sep 2019 15:58

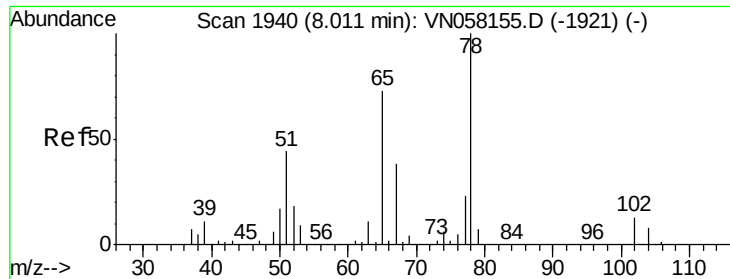
Tgt Ion: 76 Resp: 715

Ion Ratio Lower Upper

76 100

78 0.0 7.7 11.5#

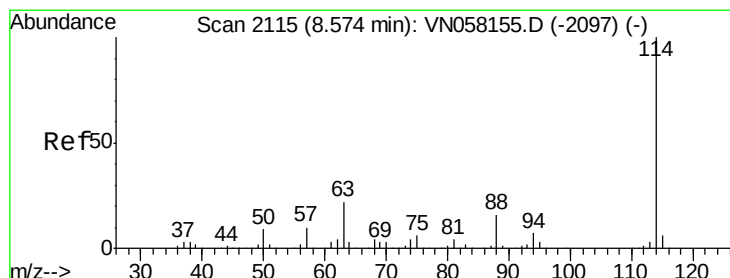
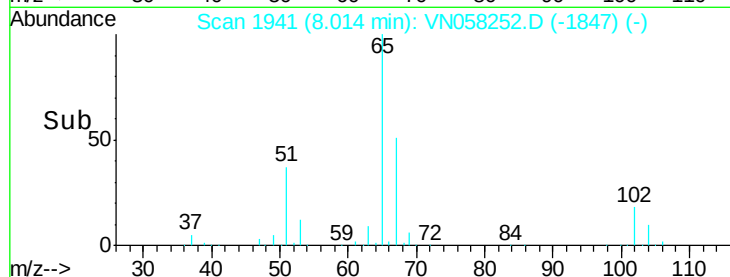
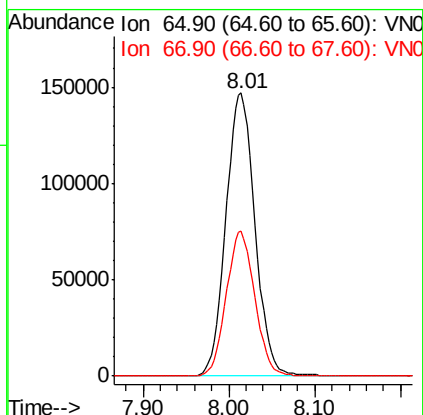
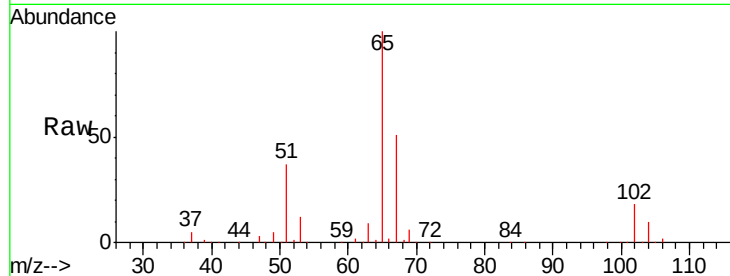




#33
 1,2-Dichloroethane-d4
 Concen: 51.891 ug/l
 RT: 8.01 min Scan# 1941
 Delta R.T. 0.00 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

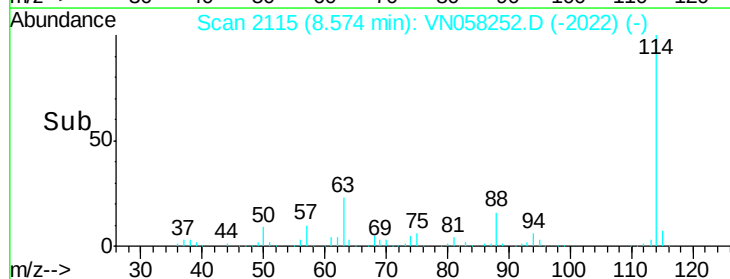
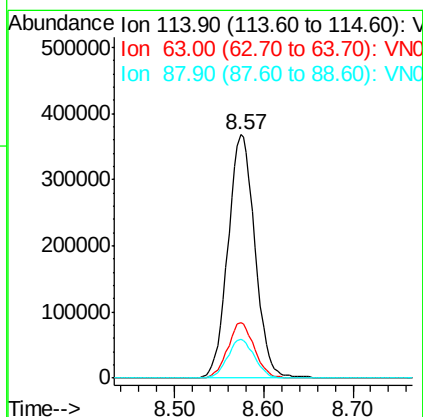
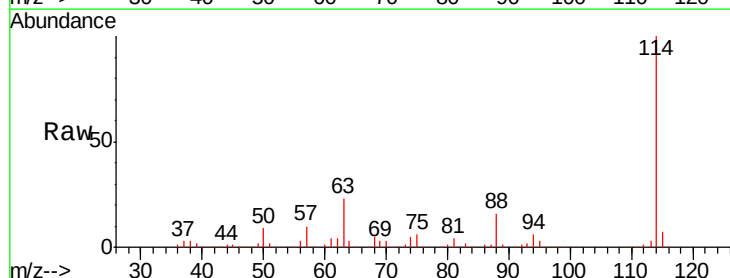
Instrument :
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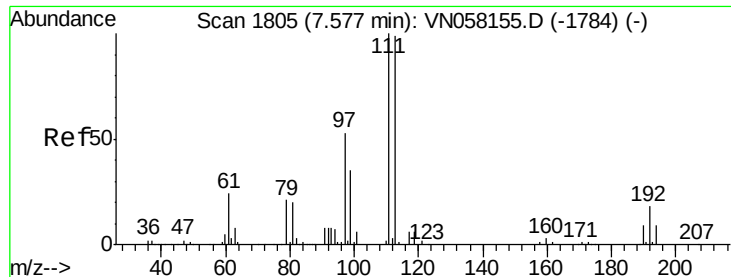
Tgt Ion: 65 Resp: 344810
 Ion Ratio Lower Upper
 65 100
 67 50.3 0.0 103.4



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.57 min Scan# 2115
 Delta R.T. 0.00 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

Tgt Ion: 114 Resp: 769394
 Ion Ratio Lower Upper
 114 100
 63 22.9 0.0 44.2
 88 16.1 0.0 31.6

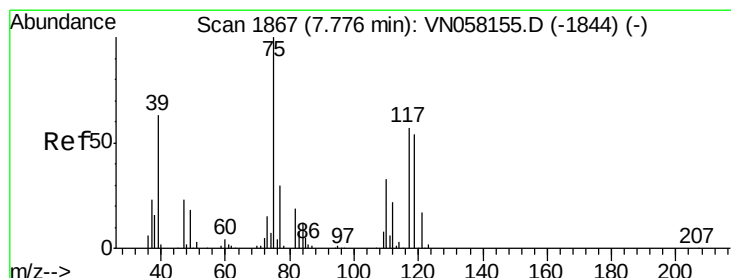
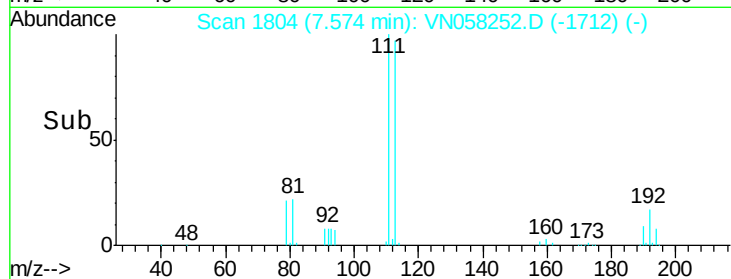
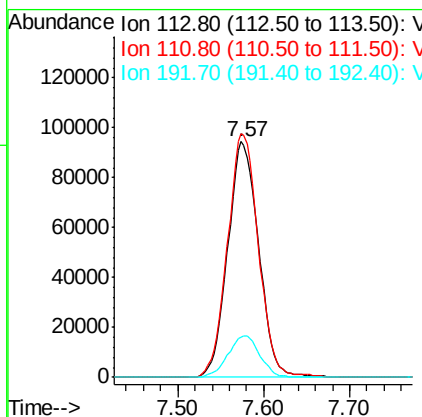
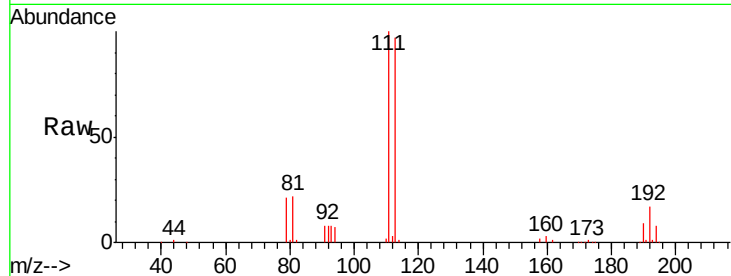




#35
 Dibromofluoromethane
 Concen: 50.441 ug/l
 RT: 7.57 min Scan# 1804
 Delta R.T. -0.00 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

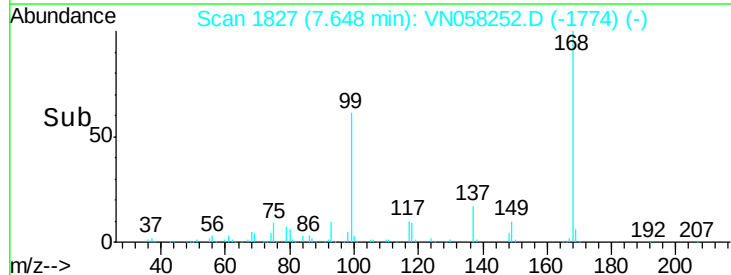
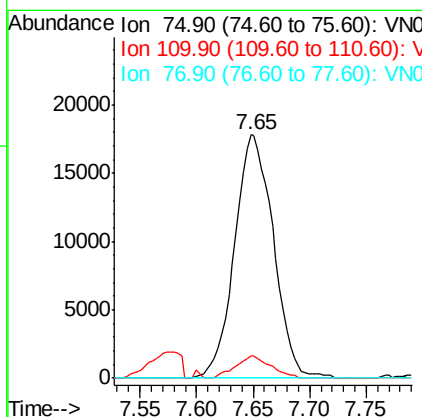
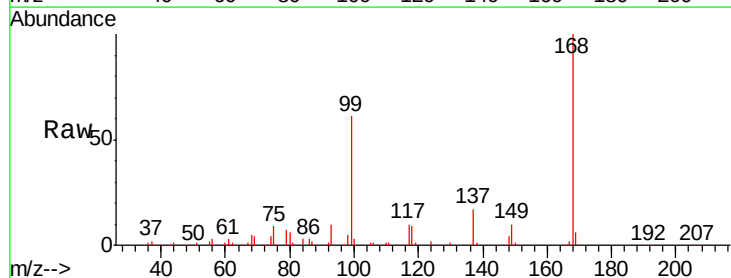
Instrument :
 MSVOA_N
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 RE120D3-20190917DL

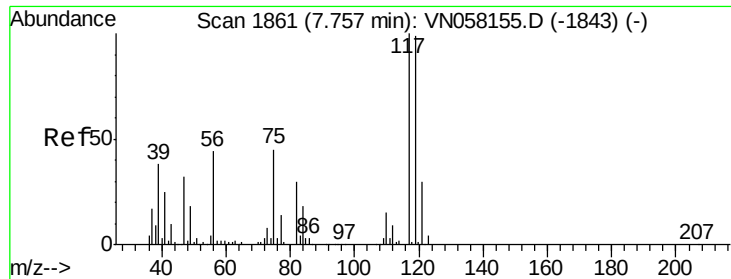
Tgt Ion	Ratio	Lower	Upper
113	100		
111	103.7	81.8	122.6
192	18.1	14.5	21.7



#36
 1,1-Dichloropropene
 Concen: 7.667 ug/l
 RT: 7.65 min Scan# 1827
 Delta R.T. -0.13 min
 Lab File: VN058252.D
 Acq: 20 Sep 2019 15:58

Tgt Ion	Ratio	Lower	Upper
75	100		
110	8.2	16.6	49.7#
77	0.0	24.3	36.5#





#38

Carbon Tetrachloride

Concen: 8.888 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. -0.11 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

RE120D3-20190917DL

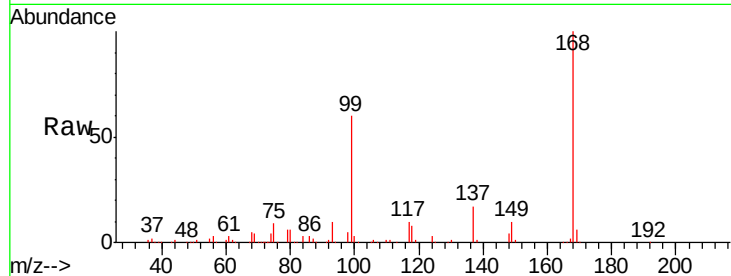
Tgt Ion:117 Resp: 49574

Ion Ratio Lower Upper

117 100

119 5.3 78.6 117.8#

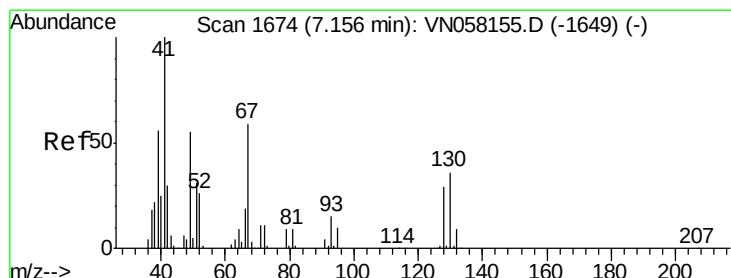
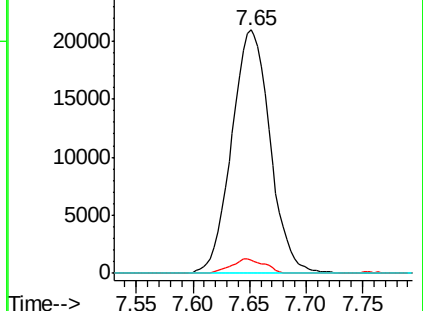
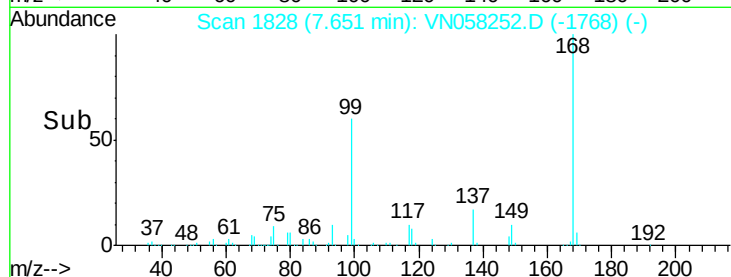
121 0.0 24.1 36.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#41

Methacrylonitrile

Concen: 0.932 ug/l

RT: 7.17 min Scan# 1677

Delta R.T. 0.01 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Tgt Ion: 41 Resp: 62

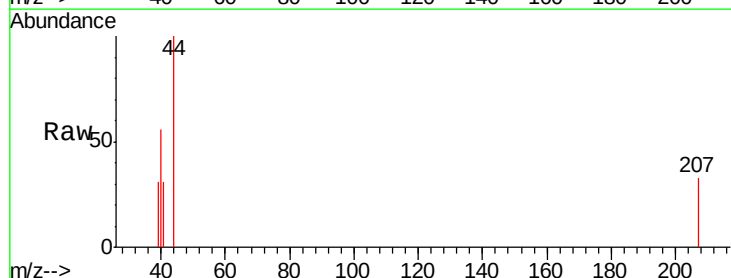
Ion Ratio Lower Upper

41 100

39 145.2 0.0 0.0#

67 0.0 0.0 0.0

52 0.0 0.0 0.0

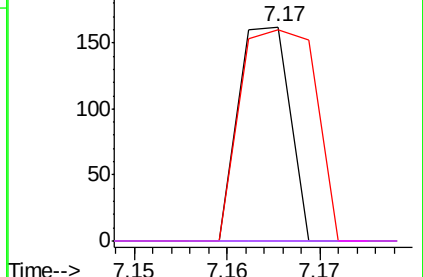
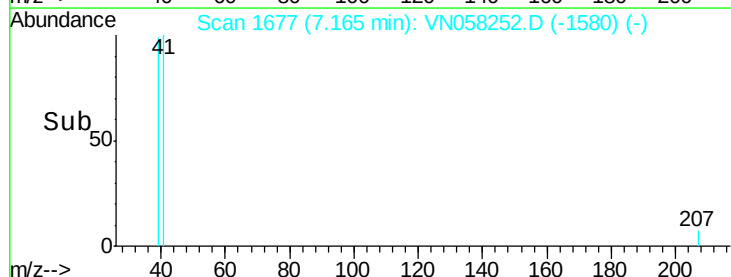


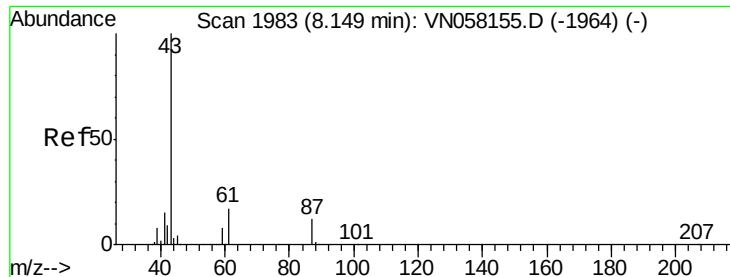
Abundance Ion 41.00 (40.70 to 41.70): VNO

Ion 39.00 (38.70 to 39.70): VNO

Ion 67.00 (66.70 to 67.70): VNO

Ion 52.00 (51.70 to 52.70): VNO





#43

Isopropyl Acetate

Concen: 1.702 ug/l

RT: 8.27 min Scan# 2022

Delta R.T. 0.13 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

RE120D3-20190917DL

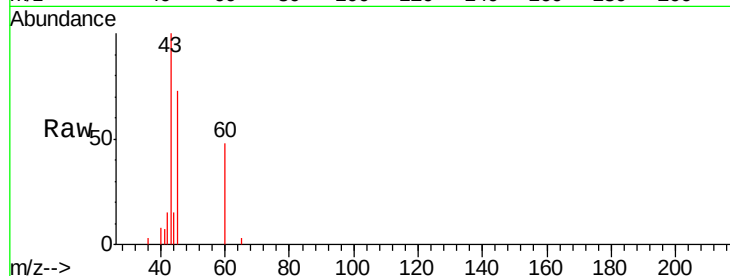
Tgt Ion: 43 Resp: 18303

Ion Ratio Lower Upper

43 100

61 0.0 19.7 29.5#

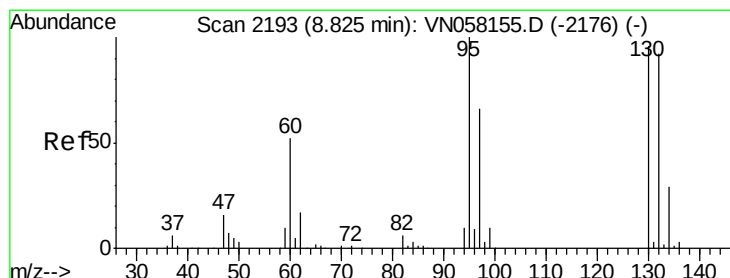
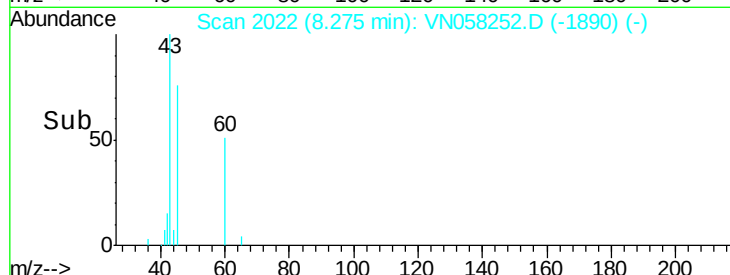
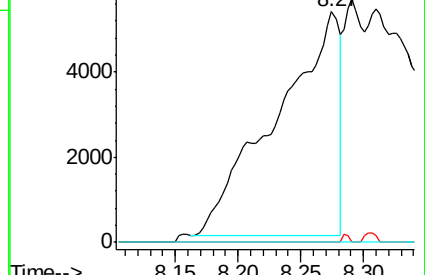
87 0.0 9.4 14.2#



Abundance Ion 43.00 (42.70 to 43.70): VN058252.D (-1890) (-)

Ion 61.00 (60.70 to 61.70): VN058252.D (-1890) (-)

Ion 87.00 (86.70 to 87.70): VN058252.D (-1890) (-)



#44

Trichloroethene

Concen: 36.139 ug/l

RT: 8.83 min Scan# 2194

Delta R.T. 0.00 min

Lab File: VN058252.D

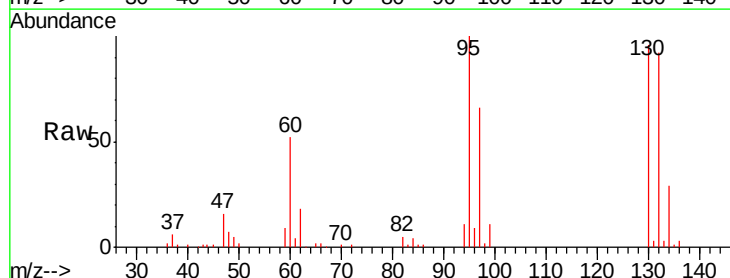
Acq: 20 Sep 2019 15:58

Tgt Ion: 130 Resp: 149874

Ion Ratio Lower Upper

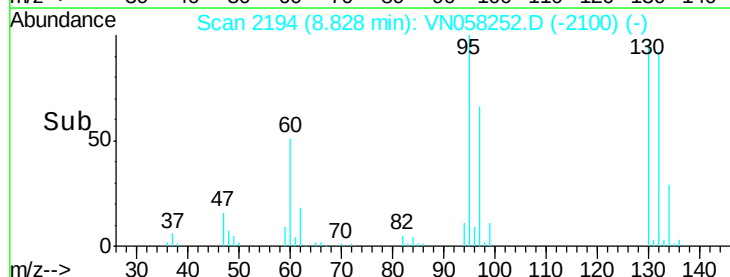
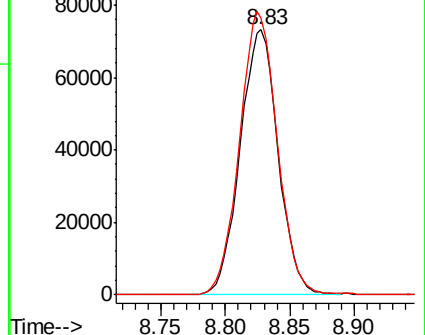
130 100

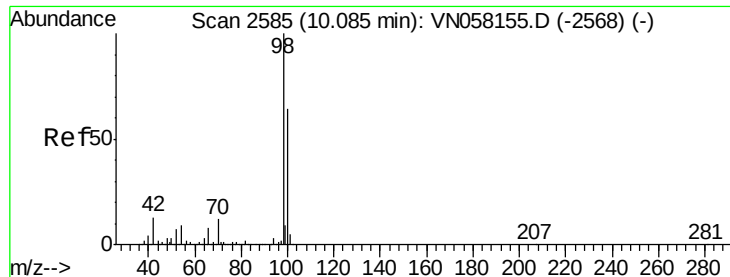
95 104.4 0.0 207.8



Abundance Ion 129.80 (129.50 to 130.50): VN058252.D (-2100) (-)

Ion 94.90 (94.60 to 95.60): VN058252.D (-2100) (-)





#50

Toluene-d8

Concen: 53.128 ug/l

RT: 10.09 min Scan# 2585

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

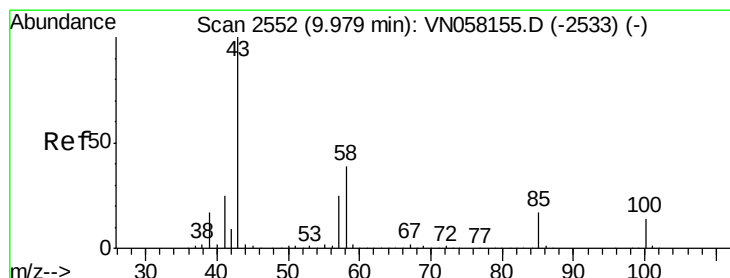
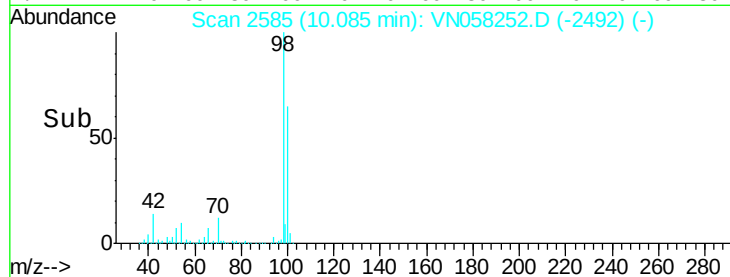
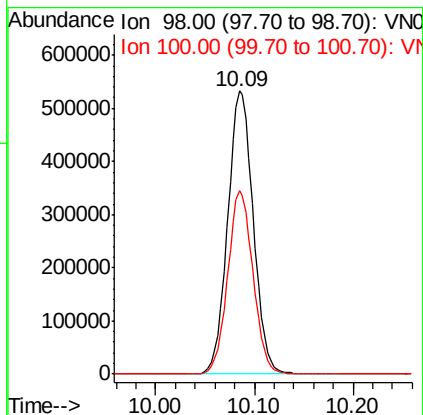
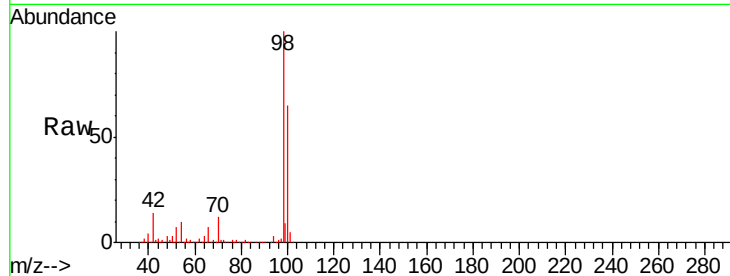
RE120D3-20190917DL

Tgt Ion: 98 Resp: 968185

Ion Ratio Lower Upper

98 100

100 64.1 51.1 76.7



#51

4-Methyl-2-Pentanone

Concen: 0.248 ug/l

RT: 9.99 min Scan# 2554

Delta R.T. 0.01 min

Lab File: VN058252.D

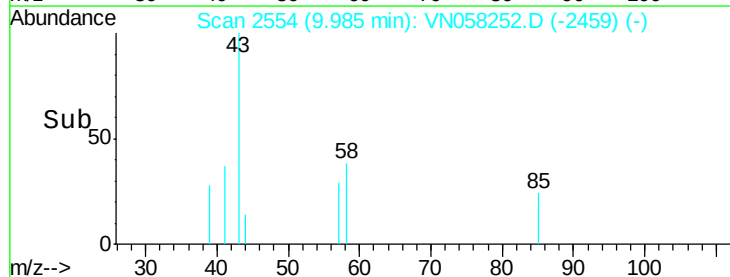
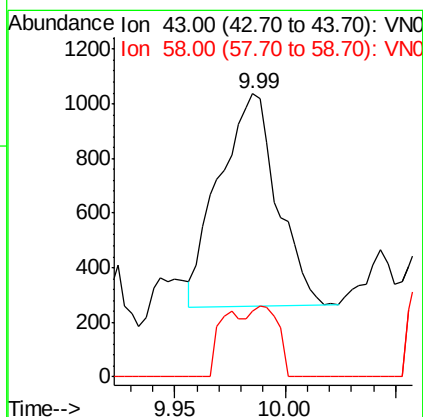
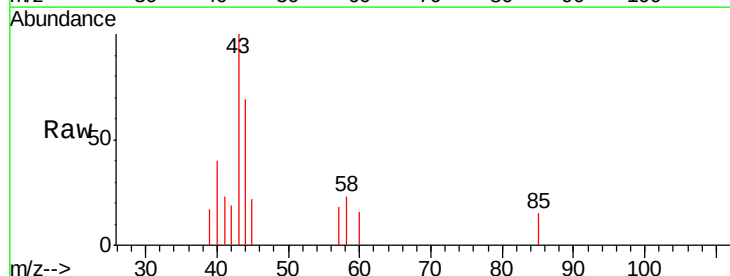
Acq: 20 Sep 2019 15:58

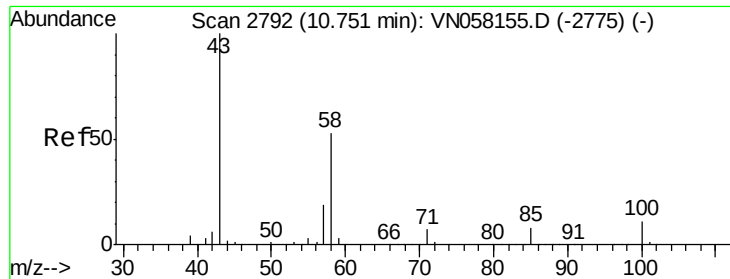
Tgt Ion: 43 Resp: 1418

Ion Ratio Lower Upper

43 100

58 0.0 30.2 45.4#

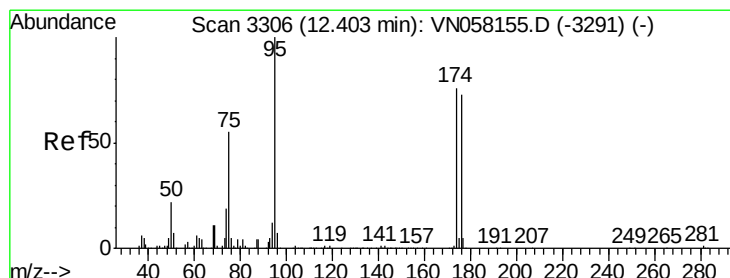
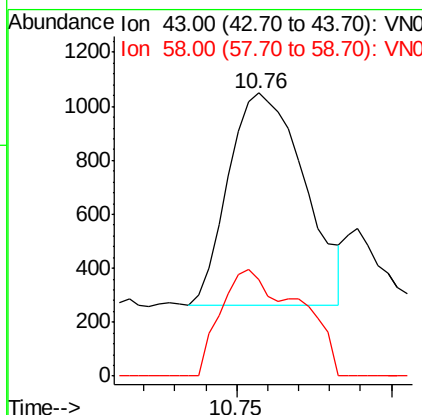
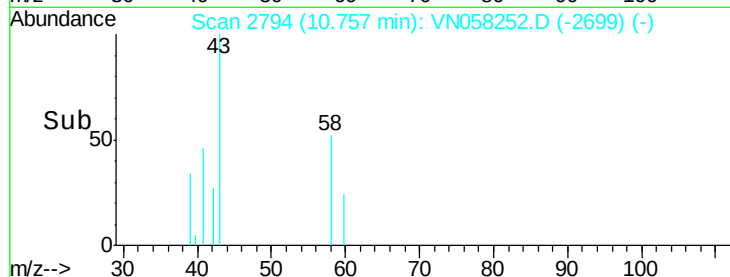
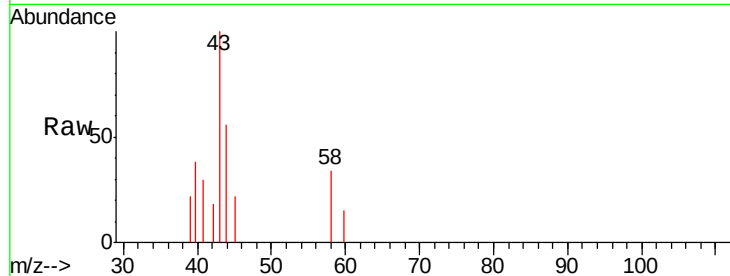




#59
2-Hexanone
Concen: 0.316 ug/l
RT: 10.76 min Scan# 2794
Delta R.T. 0.01 min
Lab File: VN058252.D
Acq: 20 Sep 2019 15:58

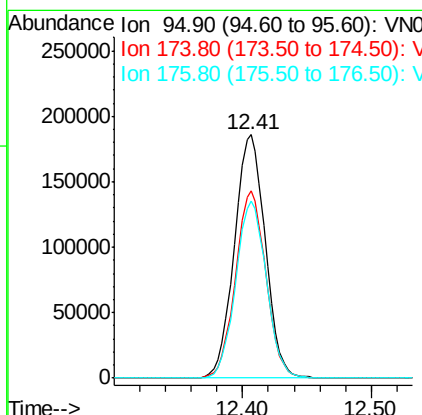
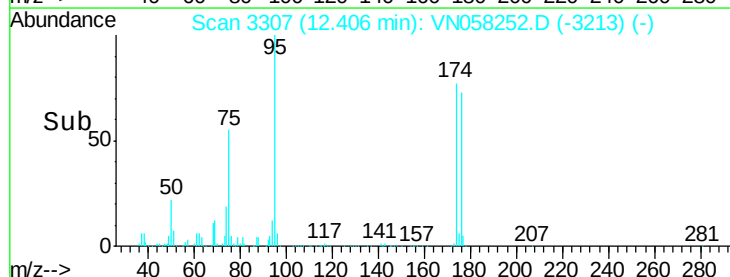
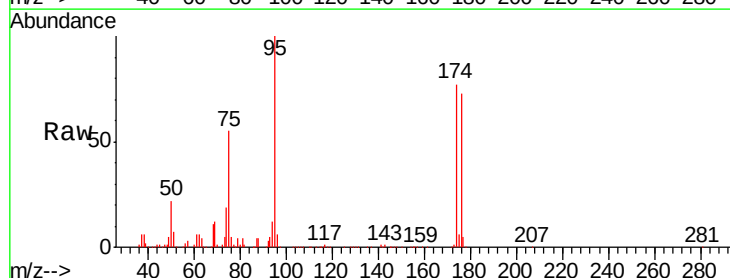
Instrument :
MSVOA_N
ClientSampleId :
RE120D3-20190917DL

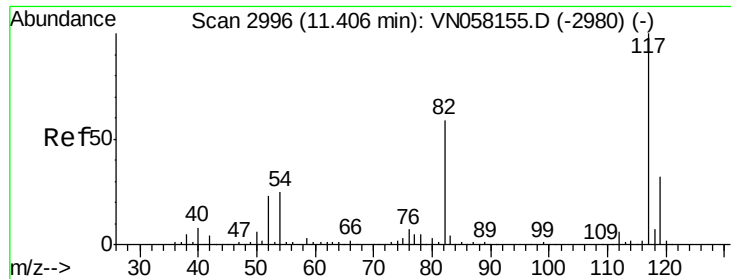
Tgt Ion: 43 Resp: 1340
Ion Ratio Lower Upper
43 100
58 51.8 26.0 78.0



#62
4-Bromofluorobenzene
Concen: 45.682 ug/l
RT: 12.41 min Scan# 3307
Delta R.T. 0.00 min
Lab File: VN058252.D
Acq: 20 Sep 2019 15:58

Tgt Ion: 95 Resp: 309241
Ion Ratio Lower Upper
95 100
174 75.6 0.0 152.2
176 72.3 0.0 148.0

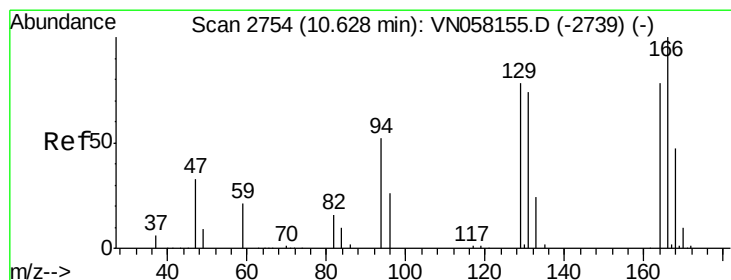
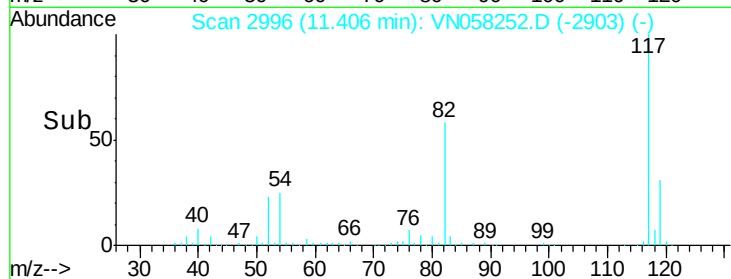
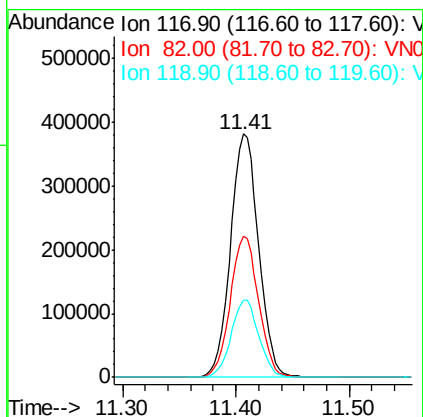
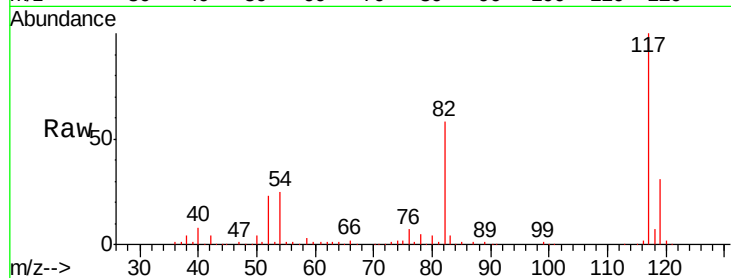




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.41 min Scan# 2996
Delta R.T. 0.00 min
Lab File: VN058252.D
Acq: 20 Sep 2019 15:58

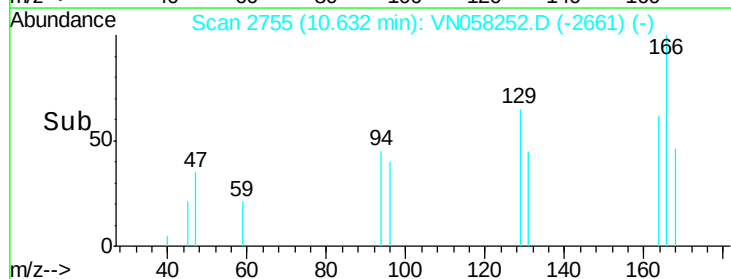
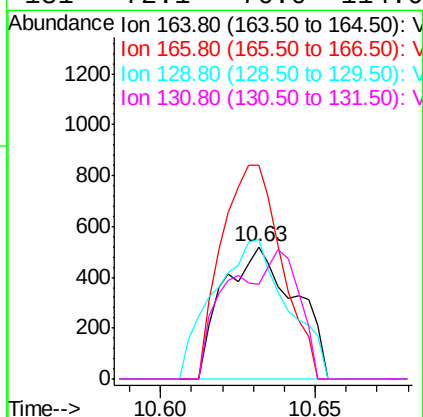
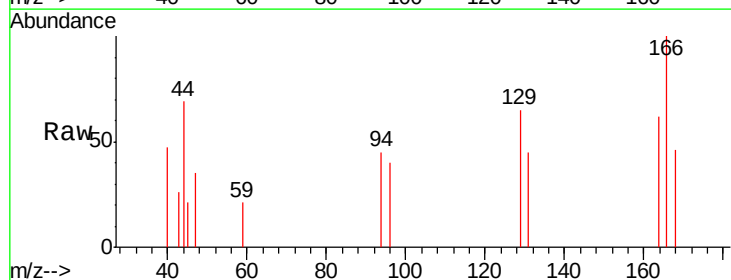
Instrument :
MSVOA_N
ClientSampleId :
RE120D3-20190917DL

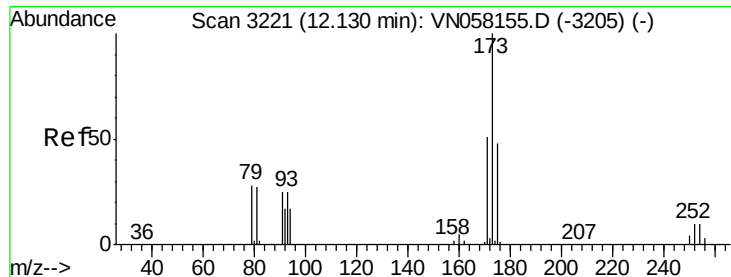
Tgt Ion:117 Resp: 659967
Ion Ratio Lower Upper
117 100
82 57.9 46.9 70.3
119 31.5 25.3 37.9



#64
Tetrachloroethene
Concen: 0.260 ug/l
RT: 10.63 min Scan# 2755
Delta R.T. 0.00 min
Lab File: VN058252.D
Acq: 20 Sep 2019 15:58

Tgt Ion:164 Resp: 836
Ion Ratio Lower Upper
164 100
166 161.8 102.2 153.4#
129 105.4 79.6 119.4
131 72.1 76.0 114.0#





#71

Bromoform

Concen: 3.666 ug/l

RT: 12.39 min Scan# 3302

Delta R.T. 0.26 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

RE120D3-20190917DL

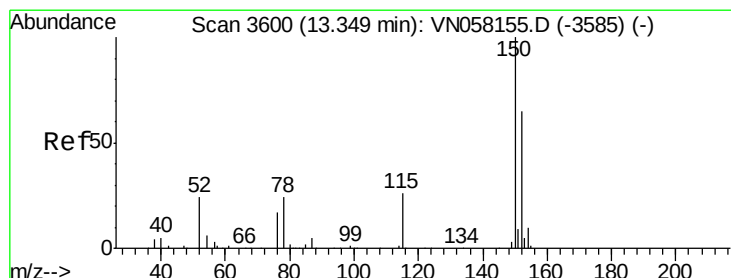
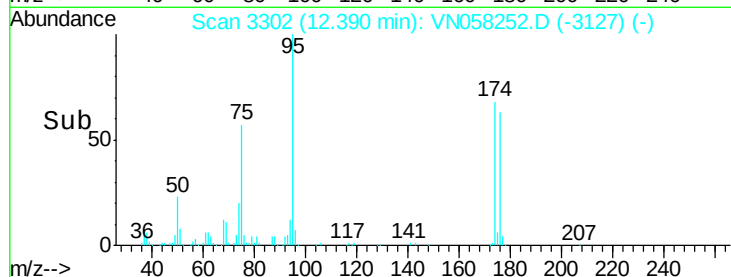
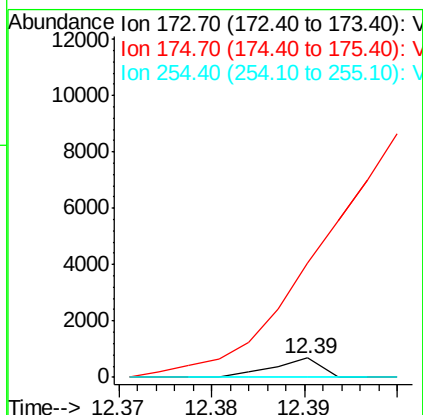
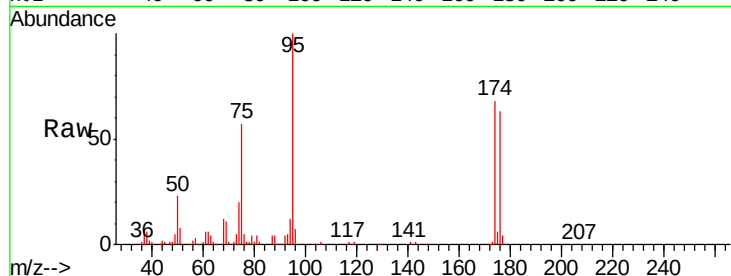
Tgt Ion:173 Resp: 238

Ion Ratio Lower Upper

173 100

175 0.0 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# 3600

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

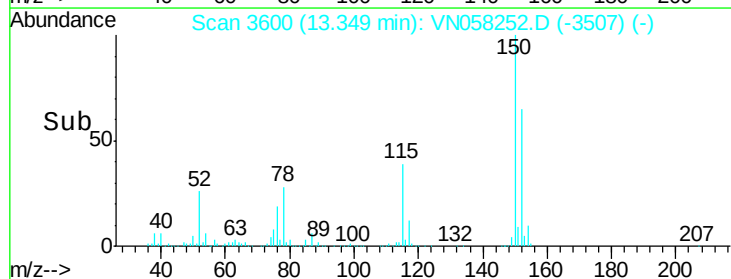
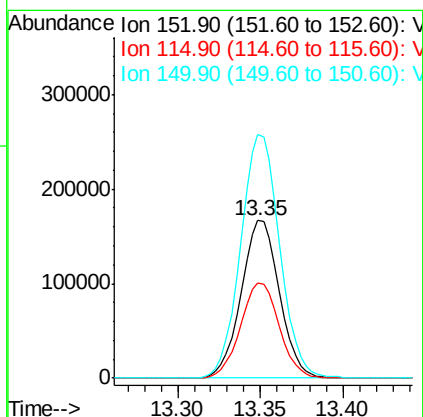
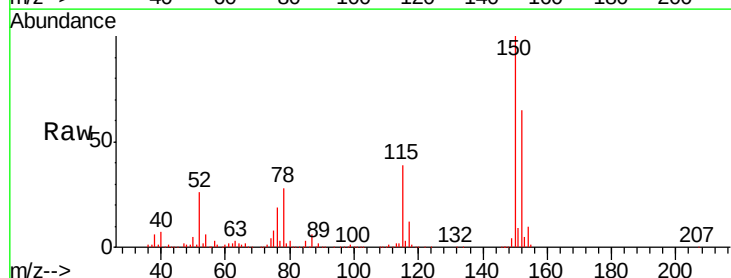
Tgt Ion:152 Resp: 267158

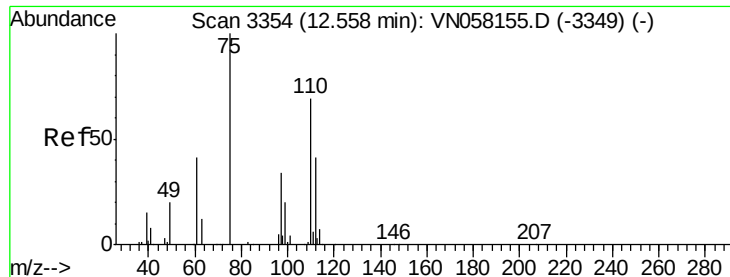
Ion Ratio Lower Upper

152 100

115 61.5 30.1 90.3

150 157.9 0.0 346.4





#76

1,2,3-Trichloropropane

Concen: 35.429 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. -0.15 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

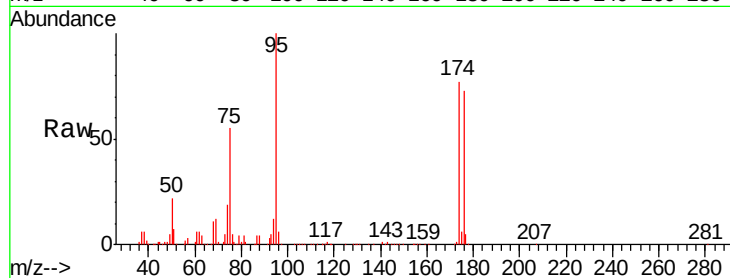
RE120D3-20190917DL

Tgt Ion: 75 Resp: 169397

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

120000

100000

80000

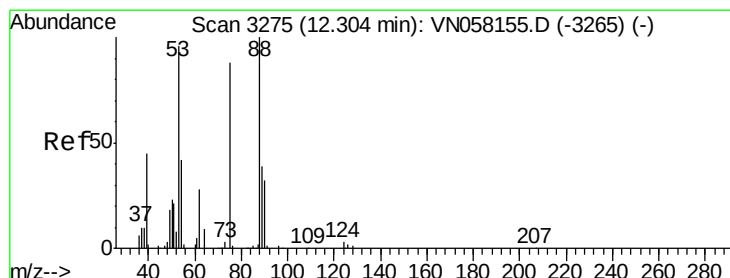
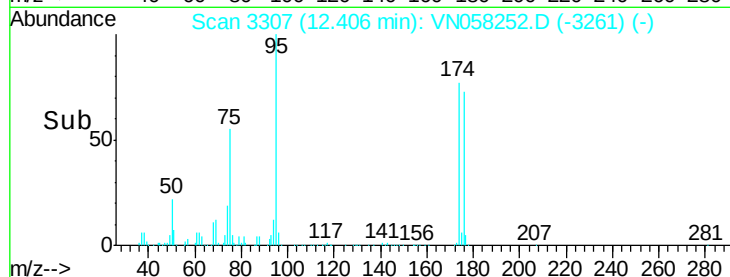
60000

40000

20000

0

Time--> 12.30 12.40 12.50



#81

trans-1,4-Dichloro-2-butene

Concen: 99.037 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.10 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

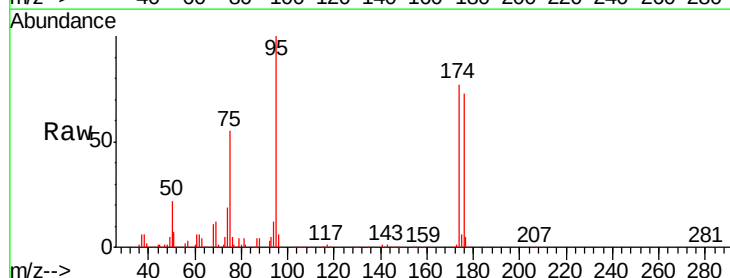
Tgt Ion: 75 Resp: 169397

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

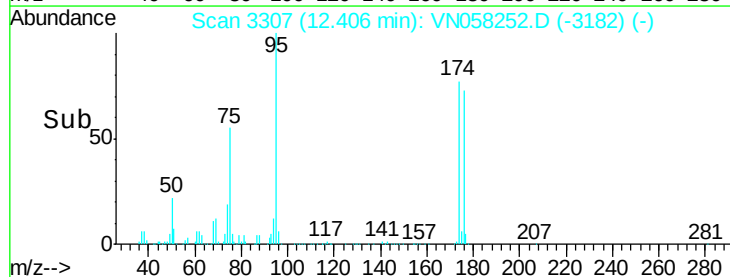
Ion 88.90 (88.60 to 89.60): VN0

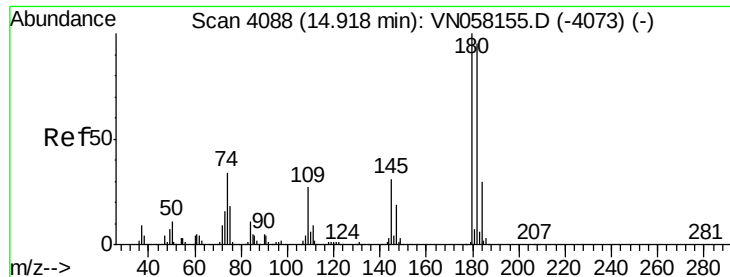
100000

50000

0

Time--> 12.30 12.40 12.50





#93

1,2,4-Trichlorobenzene

Concen: 0.566 ug/l

RT: 14.92 min Scan# 4089

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

RE120D3-20190917DL

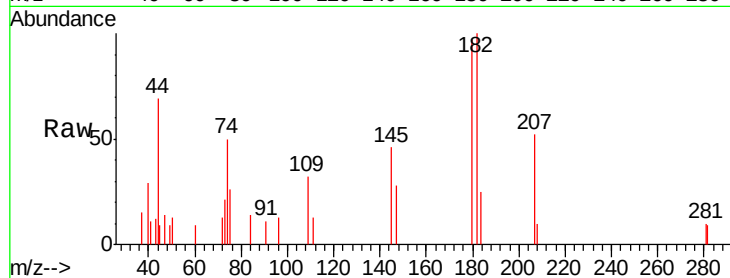
Tgt Ion:180 Resp: 2785

Ion Ratio Lower Upper

180 100

182 95.5 47.8 143.3

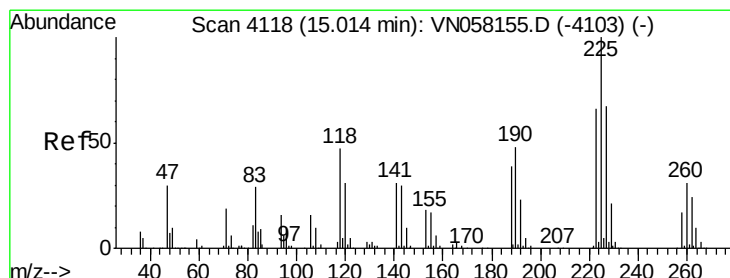
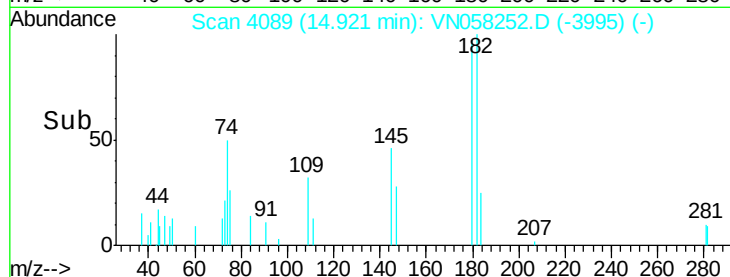
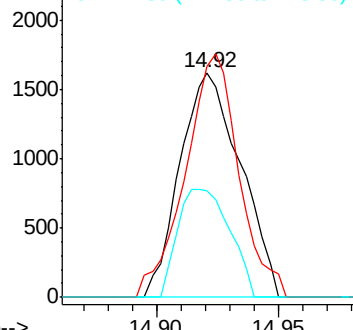
145 41.4 15.4 46.4



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



#94

Hexachlorobutadiene

Concen: 0.233 ug/l

RT: 15.02 min Scan# 4119

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

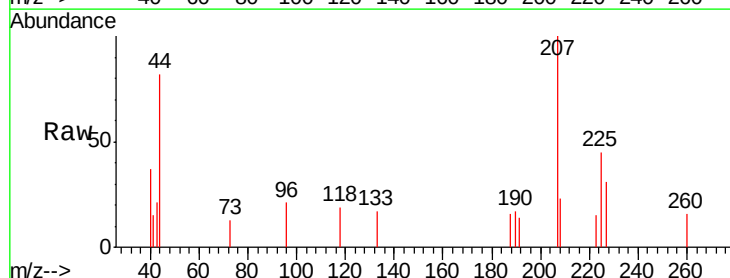
Tgt Ion:225 Resp: 555

Ion Ratio Lower Upper

225 100

223 53.0 32.6 97.7

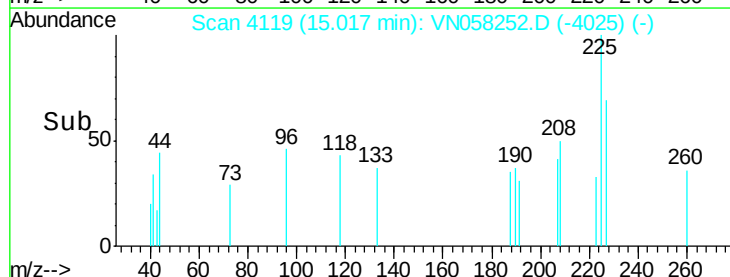
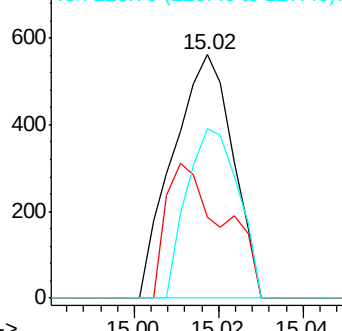
227 59.8 33.0 99.0

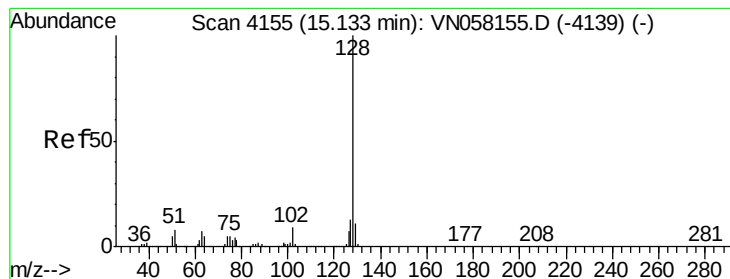


Abundance Ion 224.70 (224.40 to 225.40): V

Ion 222.70 (222.40 to 223.40): V

Ion 226.70 (226.40 to 227.40): V





#95

Naphthalene

Concen: 1.193 ug/l

RT: 15.13 min Scan# 4155

Delta R.T. 0.00 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

Instrument :

MSVOA_N

ClientSampleId :

RE120D3-20190917DL

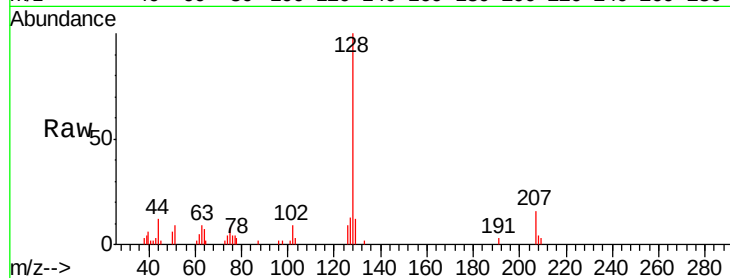
Tgt Ion:128 Resp: 15223

Ion Ratio Lower Upper

128 100

127 12.2 10.2 15.2

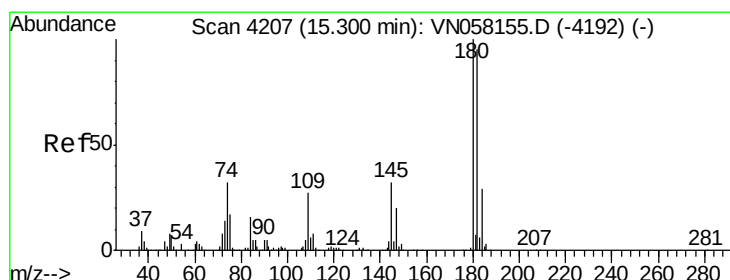
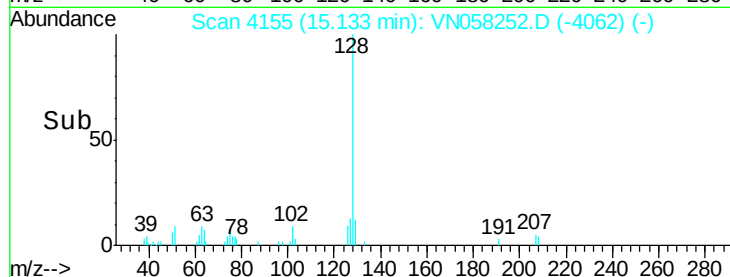
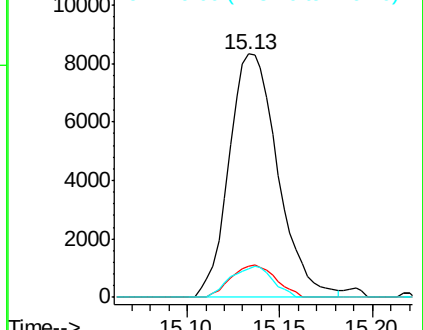
129 11.1 8.6 12.8



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: 0.893 ug/l

RT: 15.31 min Scan# 4209

Delta R.T. 0.01 min

Lab File: VN058252.D

Acq: 20 Sep 2019 15:58

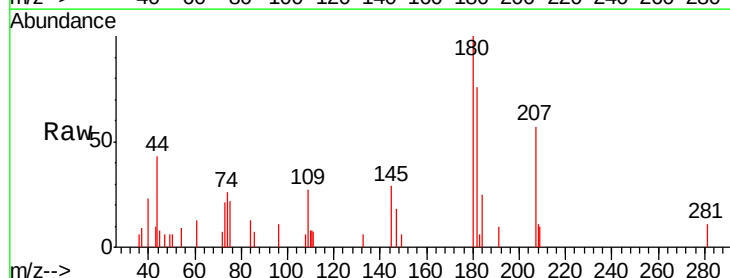
Tgt Ion:180 Resp: 4157

Ion Ratio Lower Upper

180 100

182 84.7 47.4 142.2

145 33.2 16.1 48.2



Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.90 (144.60 to 145.60): V

