

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN041619\
 Data File : VN055076.D
 Acq On : 16 Apr 2019 14:14
 Operator : JC/SP
 Sample : K2256-09
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 CLEARWELLRE

Quant Time: Apr 17 01:34:25 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N041119W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Apr 12 07:55:25 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	7.19	128	64174	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	8.58	114	353676	30.00	ug/l	0.00
57) Chlorobenzene-d5	11.41	117	304663	30.00	ug/l	0.00

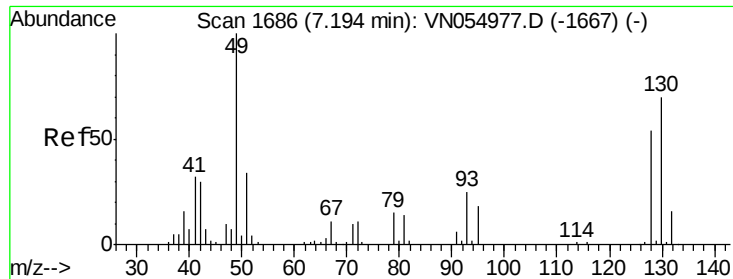
System Monitoring Compounds

27) 1,2-Dichloroethane-d4	8.03	65	153301	31.34	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	104.47%
60) 4-Bromofluorobenzene	12.40	95	126150	26.60	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	88.67%
63) Toluene-d8	10.09	98	433421	29.92	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	99.73%

Target Compounds

					Ovalue
12) Methyl Acetate	4.32	43	792	0.226 ug/l	# 83
13) Acrolein	3.61	56	215	0.700 ug/l	# 16
15) Acetone	3.83	58	4134	11.643 ug/l	97
16) Carbon Disulfide	4.03	76	2284	0.239 ug/l	# 82
23) tert-Butyl Alcohol	4.73	59	805	3.518 ug/l	# 100
25) Chloroform	7.37	83	13114	1.804 ug/l	91
41) Bromodichloromethane	9.40	83	4573	0.870 ug/l	92
45) 1,4-Dioxane	9.19	88	74	2.116 ug/l	# 28
53) Dibromochloromethane	10.90	129	2780	0.780 ug/l	98
55) 2-Chloroethyl vinyl ether	10.10	63	436	0.253 ug/l	# 1
58) 4-Methyl-2-Pentanone	9.99	43	1314	0.374 ug/l	# 72
59) 2-Hexanone	10.76	43	2596	1.163 ug/l	# 90
77) t-1,4-Dichloro-2-butene	12.40	75	63193	75.100 ug/l	# 1
78) 4-Chlorotoluene	12.77	91	2388	0.210 ug/l	56
82) p-Isopropyltoluene	13.26	119	39442	2.829 ug/l	# 1
83) 1,3-Dichlorobenzene	13.36	146	1611	0.231 ug/l	96
84) 1,4-Dichlorobenzene	13.36	146	1611	0.243 ug/l	98
85) n-Butylbenzene	13.62	91	3587	0.323 ug/l	90
87) 1,2-Dichlorobenzene	13.65	146	1679	0.245 ug/l	93
89) 1,2,4-Trichlorobenzene	14.91	180	2551	0.834 ug/l	# 76
90) Hexachlorobutadiene	15.01	225	1197	0.537 ug/l	69
91) Naphthalene	15.13	128	5245	0.819 ug/l	96
92) 1,2,3-Trichlorobenzene	15.31	180	2479	0.810 ug/l	85

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



#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.19 min Scan# 1685

Delta R.T. -0.00 min

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CLEARWELLRE

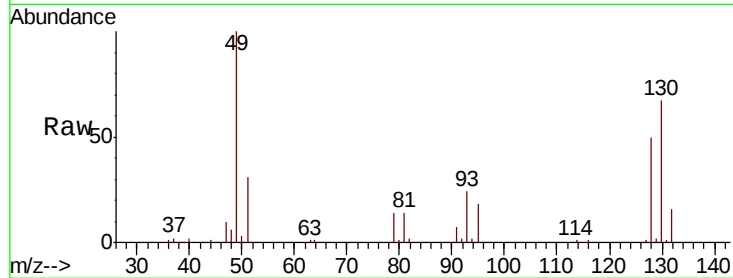
Tot Ion:128 Resp: 64174

Ion Ratio Lower Upper

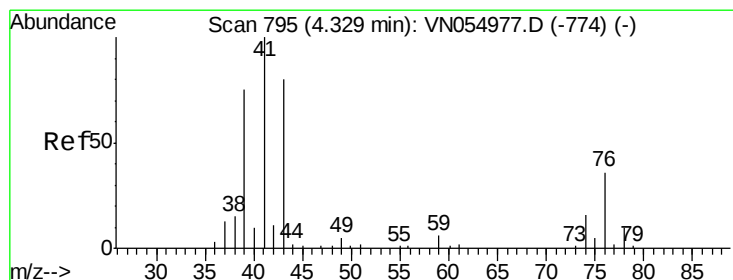
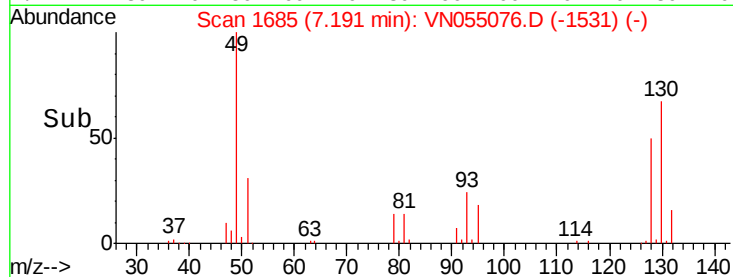
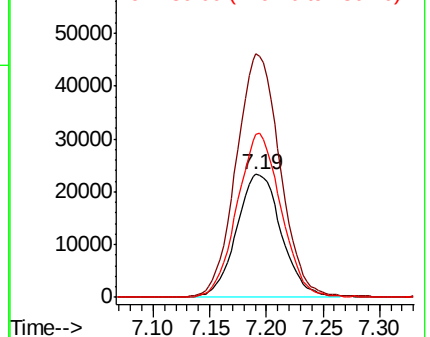
128 100

49 194.1 0.0 480.3

130 130.4 0.0 322.2



Abundance Ion 128.00 (127.70 to 128.70): V
Ion 49.00 (48.70 to 49.70): VN
Ion 130.00 (129.70 to 130.70): V



#12

Methyl Acetate

Concen: 0.226 ug/l

RT: 4.32 min Scan# 793

Delta R.T. -0.01 min

Lab File: VN055076.D

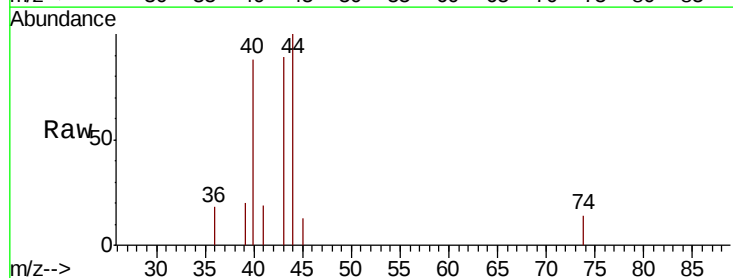
Acq: 16 Apr 2019 14:14

Tgt Ion: 43 Resp: 792

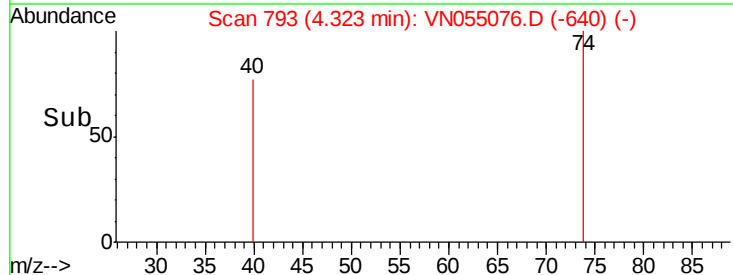
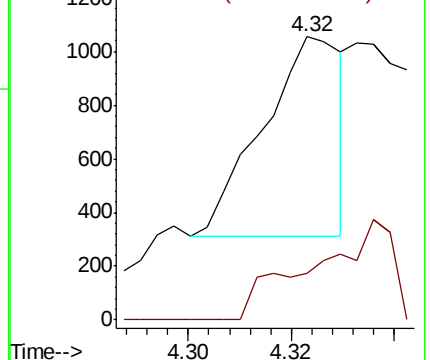
Ion Ratio Lower Upper

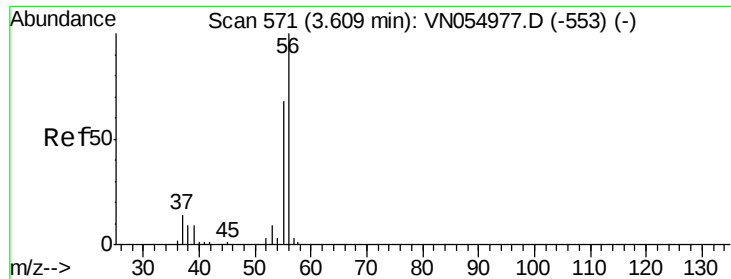
43 100

74 12.4 16.2 24.4#



Abundance Ion 43.00 (42.70 to 43.70): VN
Ion 74.00 (73.70 to 74.70): VN





#13

Acrolein

Concen: 0.700 ug/l

RT: 3.61 min Scan# 570

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

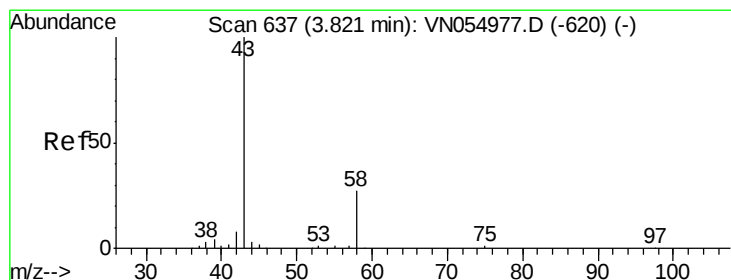
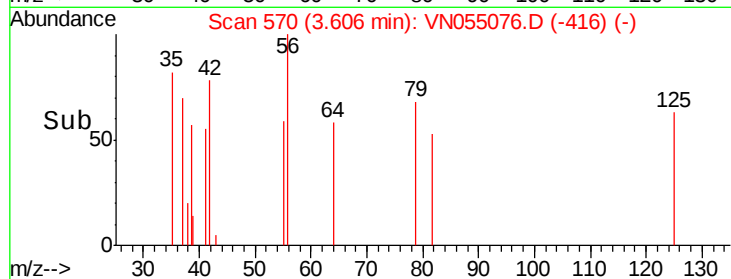
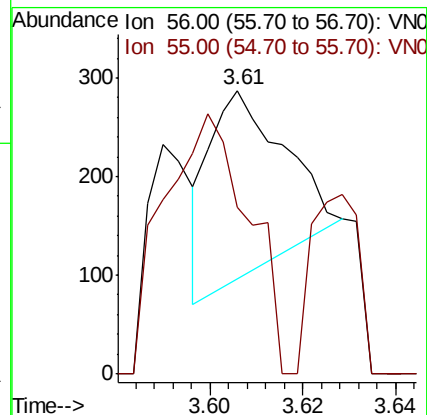
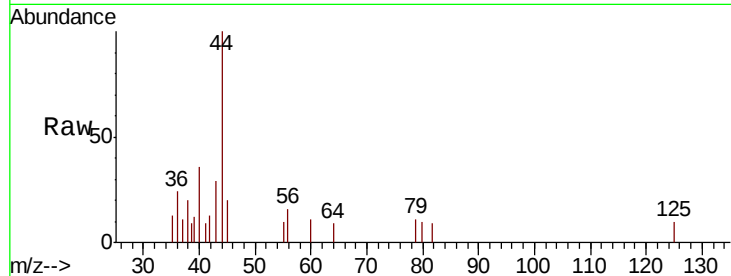
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Tot Ion: 56 Resp: 215

Ion Ratio Lower Upper

56 100

55 140.5 57.0 85.4#



#15

Acetone

Concen: 11.643 ug/l

RT: 3.83 min Scan# 639

Delta R.T. 0.01 min

Lab File: VN055076.D

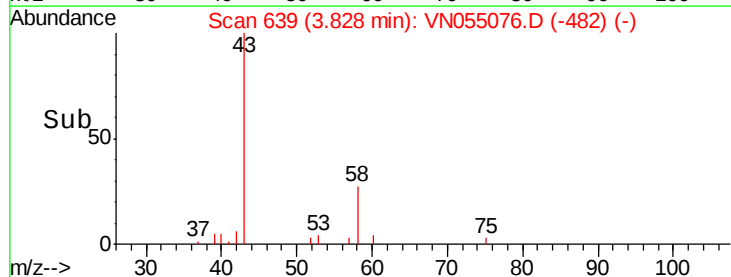
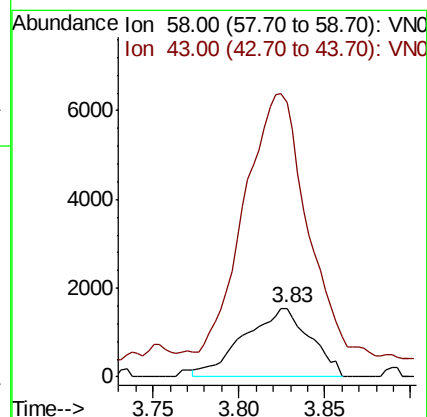
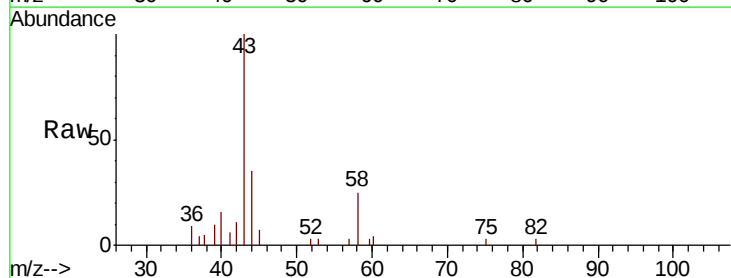
Acq: 16 Apr 2019 14:14

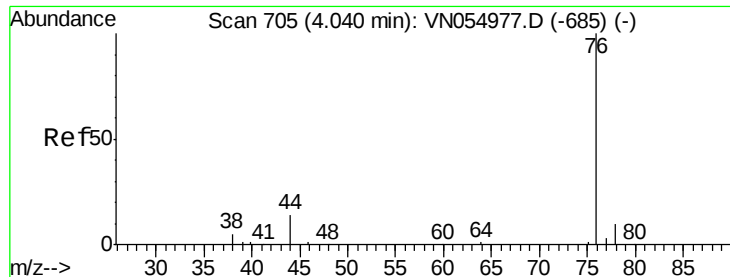
Tgt Ion: 58 Resp: 4134

Ion Ratio Lower Upper

58 100

43 364.9 297.2 445.8

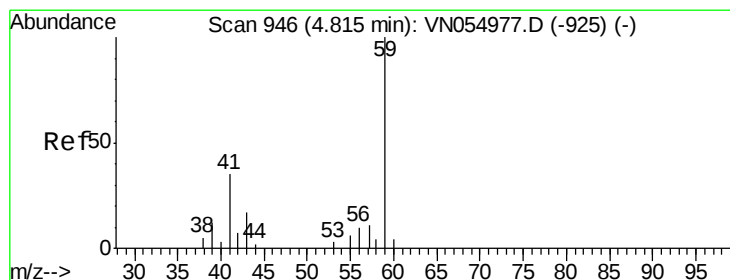
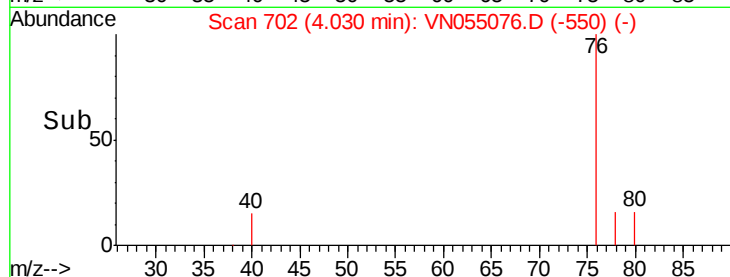
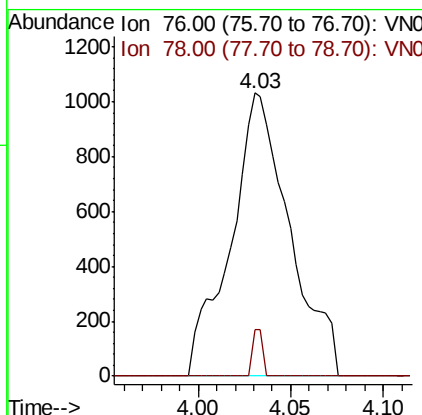
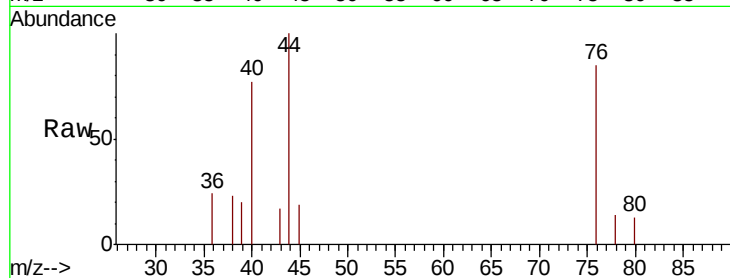




#16
Carbon Disulfide
Concen: 0.239 ug/l
RT: 4.03 min Scan# 702
Delta R.T. -0.01 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

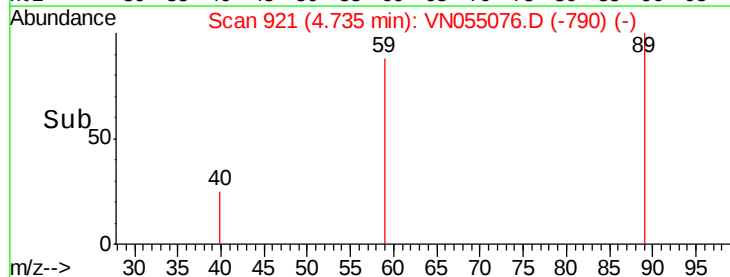
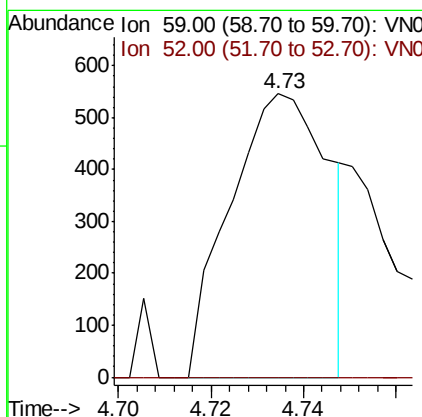
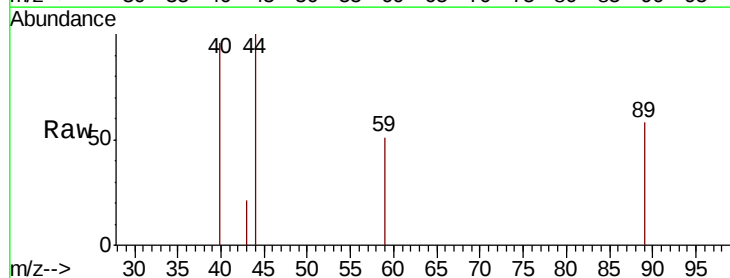
Instrument :
MSVOA_N
ClientSampleId :
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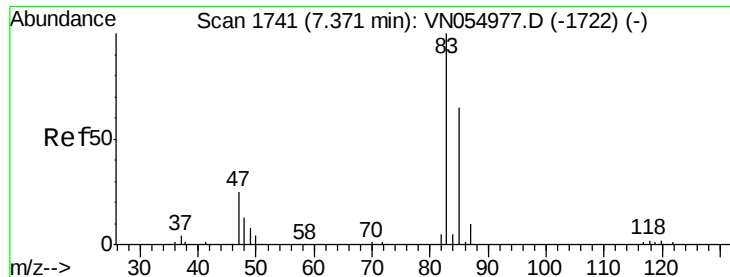
Tot Ion: 76 Resp: 2284
Ion Ratio Lower Upper
76 100
78 16.3 7.8 11.6#



#23
tert-Butyl Alcohol
Concen: 3.518 ug/l
RT: 4.73 min Scan# 921
Delta R.T. -0.08 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

Tgt Ion: 59 Resp: 805
Ion Ratio Lower Upper
59 100
52 0.0 0.0 0.0

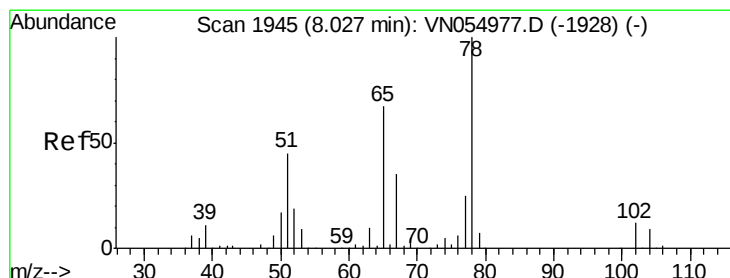
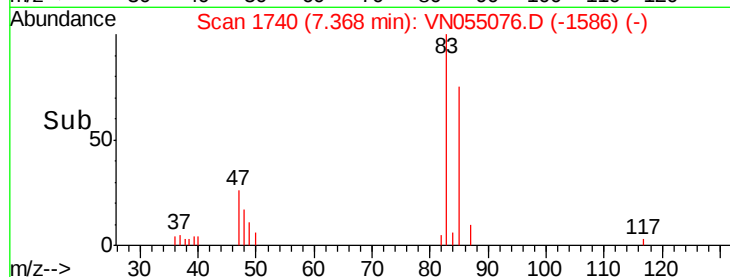
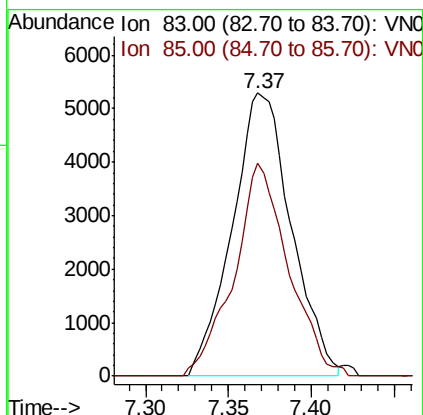
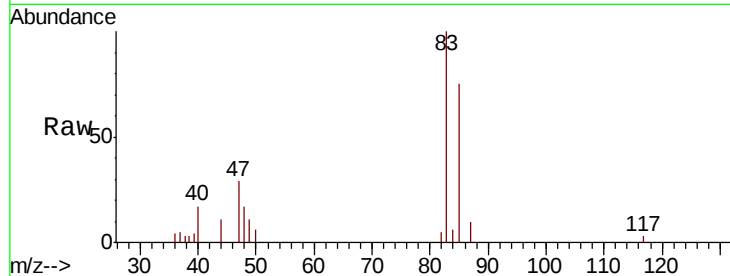




#25
Chloroform
Concen: 1.804 ug/l
RT: 7.37 min Scan# 1740
Delta R.T. -0.00 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

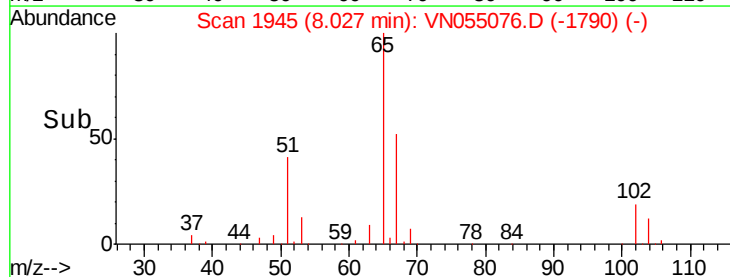
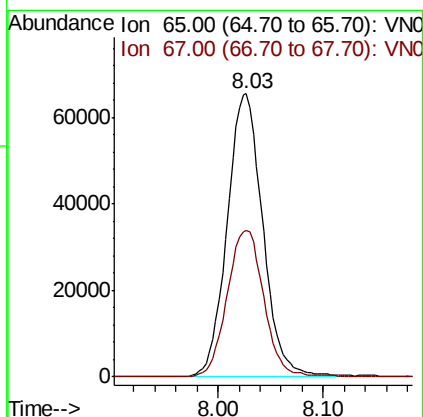
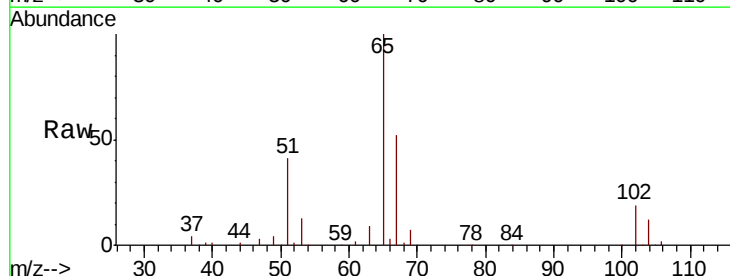
Instrument :
MSVOA_N
ClientSampleId :
CLEARWELLRE

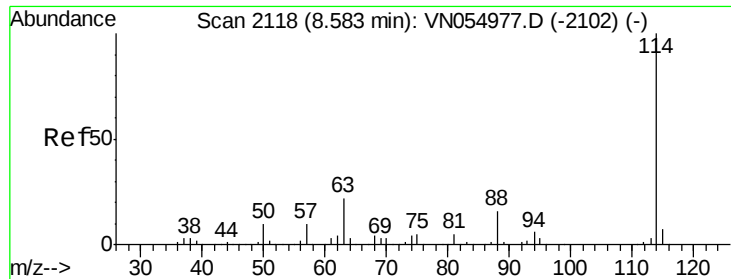
Tot Ion: 83 Resp: 13114
Ion Ratio Lower Upper
83 100
85 72.2 51.8 77.8



#27
1,2-Dichloroethane-d4
Concen: Below ug/l
RT: 8.03 min Scan# 1945
Delta R.T. -0.00 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

Tgt Ion: 65 Resp: 153301
Ion Ratio Lower Upper
65 100
67 53.1 41.8 62.8

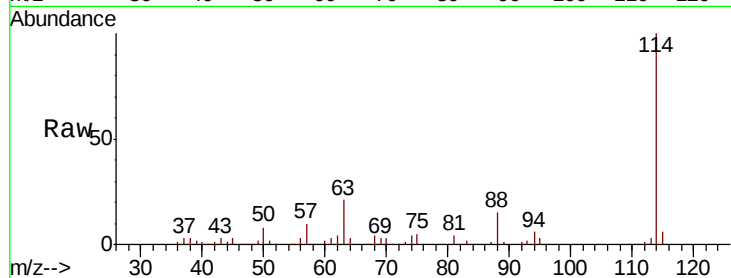




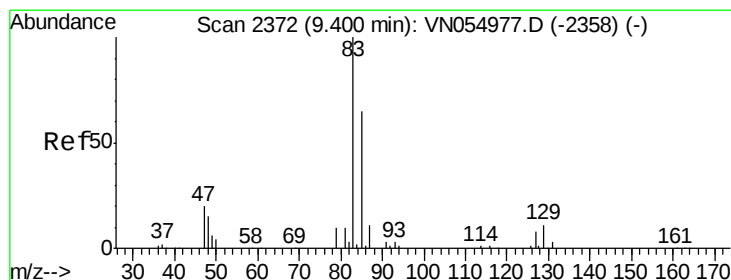
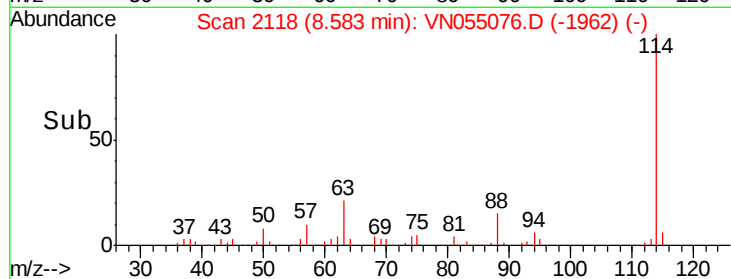
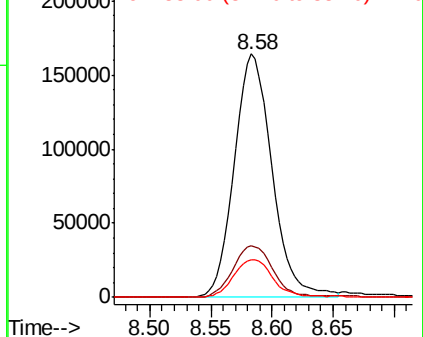
#28
 1,4-Difluorobenzene
 Concen: 30.000 ug/l
 RT: 8.58 min Scan# 2118
 Delta R.T. -0.00 min
 Lab File: VN055076.D
 Acq: 16 Apr 2019 14:14

Instrument :
 MSVOA_N
 ClientSampleId :
 CLEARWELLRE

Tot Ion:114 Resp: 353676
 Ion Ratio Lower Upper
 114 100
 63 22.5 17.0 25.4
 88 15.9 12.3 18.5

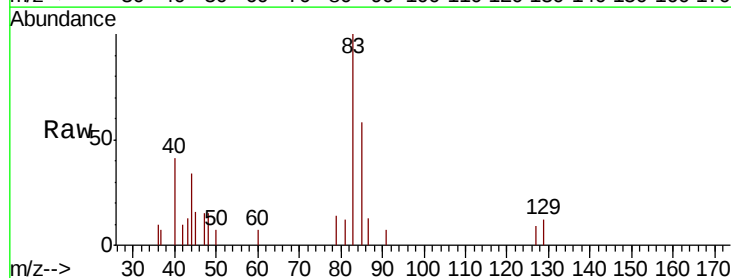


Abundance Ion 114.00 (113.70 to 114.70): VN054977.D (-2102) (-)
 Ion 63.00 (62.70 to 63.70): VN054977.D (-2102) (-)
 Ion 88.00 (87.70 to 88.70): VN054977.D (-2102) (-)

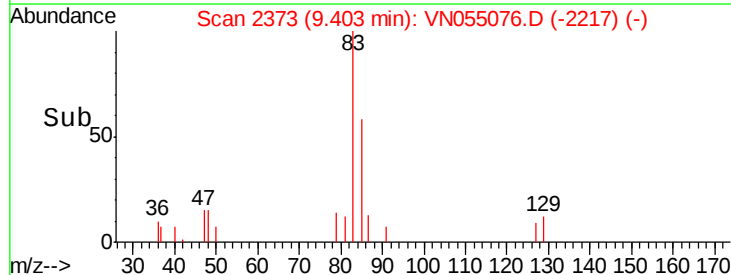
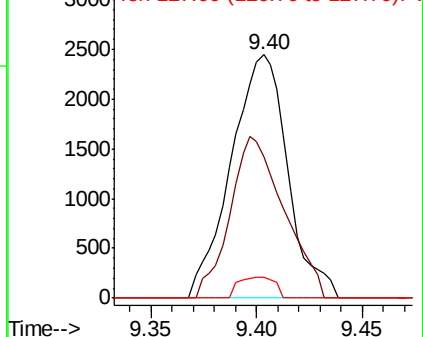


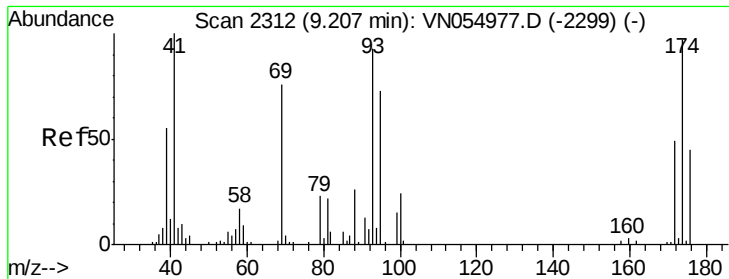
#41
 Bromodichloromethane
 Concen: 0.870 ug/l
 RT: 9.40 min Scan# 2373
 Delta R.T. 0.00 min
 Lab File: VN055076.D
 Acq: 16 Apr 2019 14:14

Tgt Ion: 83 Resp: 4573
 Ion Ratio Lower Upper
 83 100
 85 57.8 52.0 78.0
 127 8.7 7.2 10.8



Abundance Ion 83.00 (82.70 to 83.70): VN054977.D (-2358) (-)
 Ion 85.00 (84.70 to 85.70): VN054977.D (-2358) (-)
 Ion 127.00 (126.70 to 127.70): VN054977.D (-2358) (-)





#45

1,4-Dioxane

Concen: 2.116 ug/l

RT: 9.19 min Scan# 2307

Delta R.T. -0.02 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

CLEARWELLRE

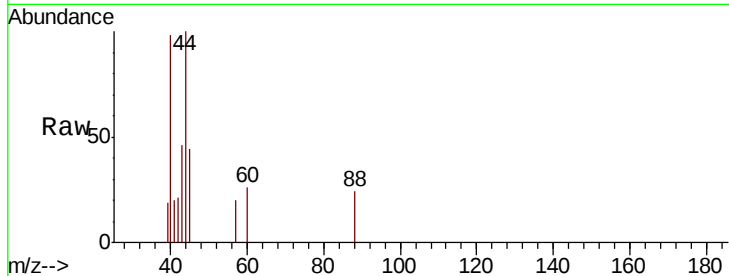
Tot Ion: 88 Resp: 74

Ion Ratio Lower Upper

88 100

43 124.3 34.5 51.7#

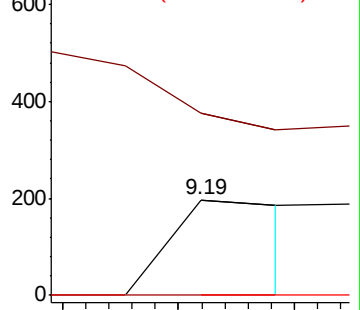
58 40.5 60.3 90.5#



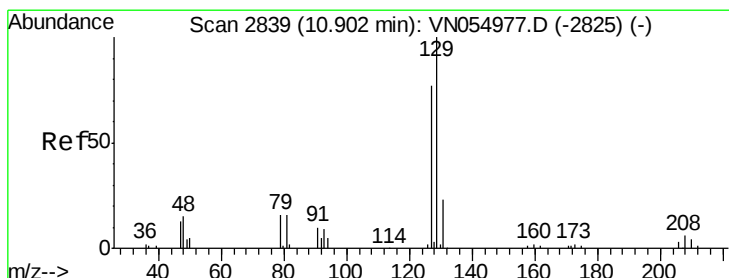
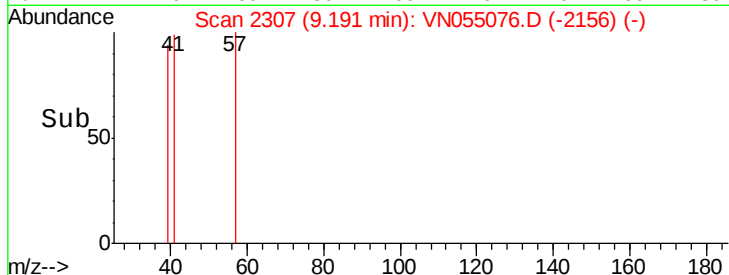
Abundance Ion 88.00 (87.70 to 88.70): VN0

Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



Time--> 9.19 9.19 9.20



#53

Dibromochloromethane

Concen: 0.780 ug/l

RT: 10.90 min Scan# 2840

Delta R.T. 0.00 min

Lab File: VN055076.D

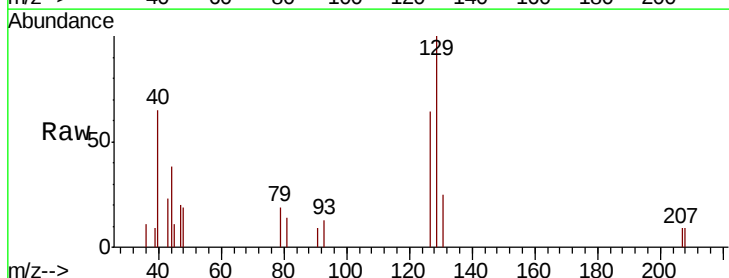
Acq: 16 Apr 2019 14:14

Tgt Ion: 129 Resp: 2780

Ion Ratio Lower Upper

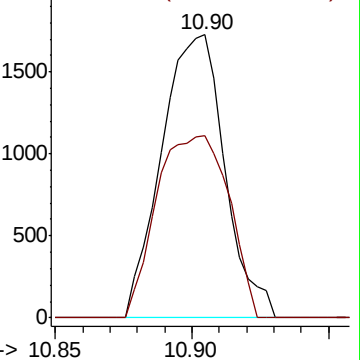
129 100

127 73.6 37.8 113.3

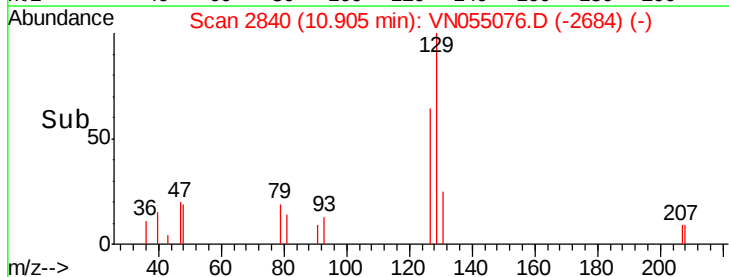


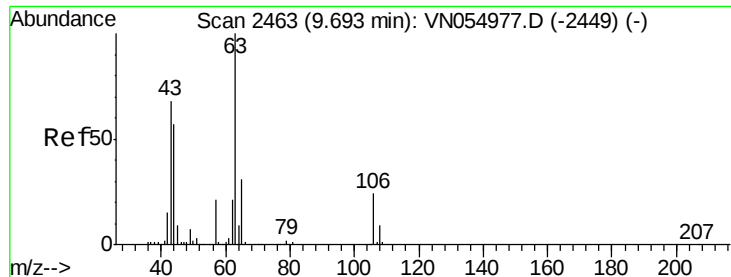
Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



Time--> 10.85 10.90

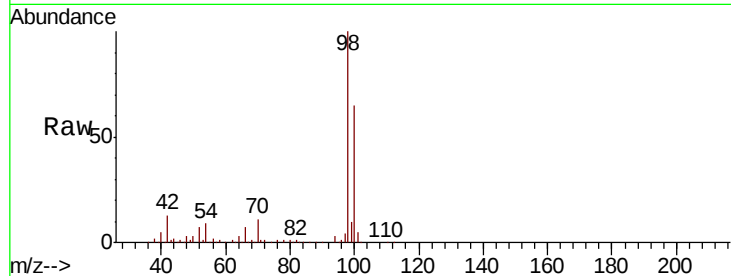




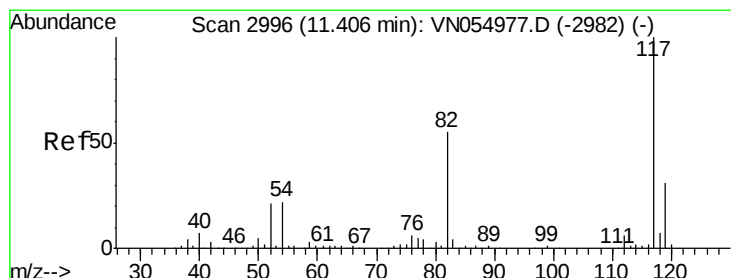
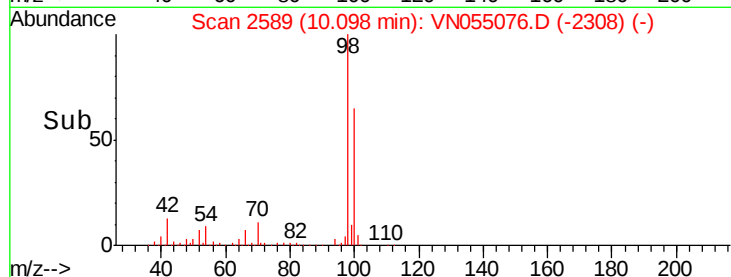
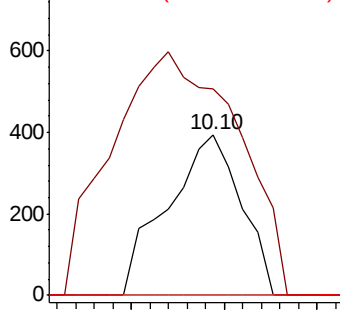
#55
2-Chloroethyl vinyl ether
Concen: 0.253 ug/l
RT: 10.10 min Scan# 2589
Delta R.T. 0.41 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

Instrument :
MSVOA_N
ClientSampleId :
CLEARWELLRE

Tot Ion: 63 Resp: 436
Ion Ratio Lower Upper
63 100
65 260.3 25.4 38.0#
106 0.0 19.8 29.6#

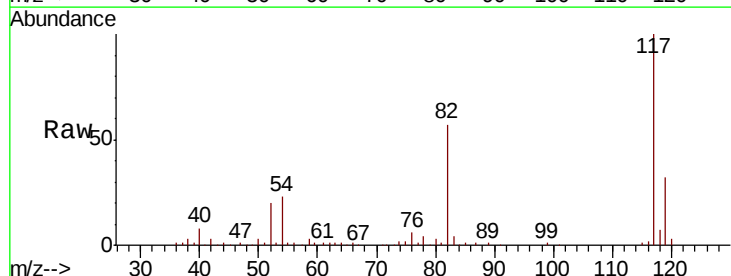


Abundance Ion 63.00 (62.70 to 63.70): VN0
Ion 65.00 (64.70 to 65.70): VN0
Ion 106.00 (105.70 to 106.70): V

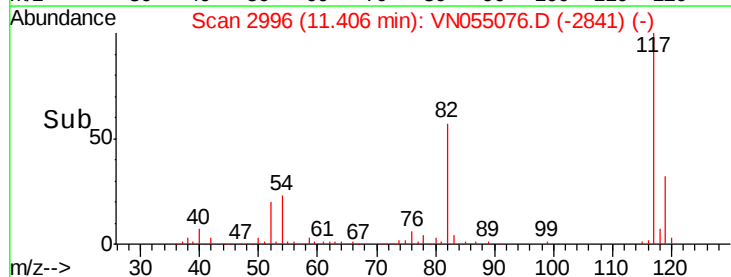
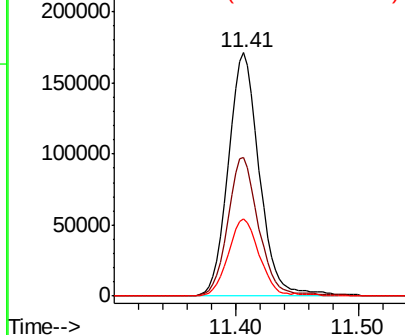


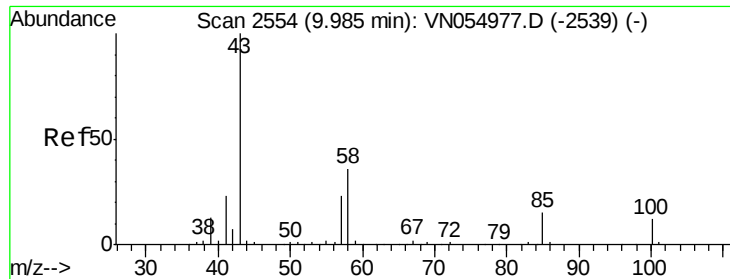
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.41 min Scan# 2996
Delta R.T. -0.00 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

Tgt Ion: 117 Resp: 304663
Ion Ratio Lower Upper
117 100
82 55.8 45.2 67.8
119 31.5 25.4 38.2



Abundance Ion 117.00 (116.70 to 117.70): V
Ion 82.00 (81.70 to 82.70): VN0
Ion 119.00 (118.70 to 119.70): V





#58

4-Methyl-2-Pentanone

Concen: 0.374 ug/l

RT: 9.99 min Scan# 2554

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

CLEARWELLRE

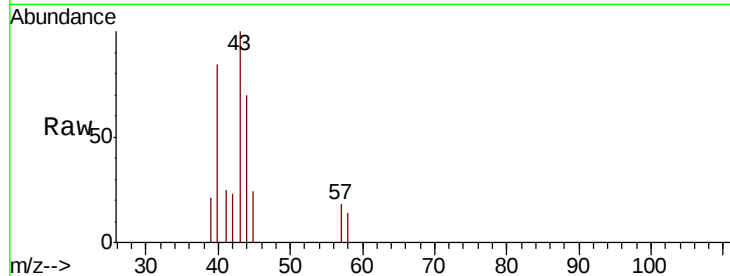
Tot Ion: 43 Resp: 1314

Ion Ratio Lower Upper

43 100

58 21.0 28.7 43.1#

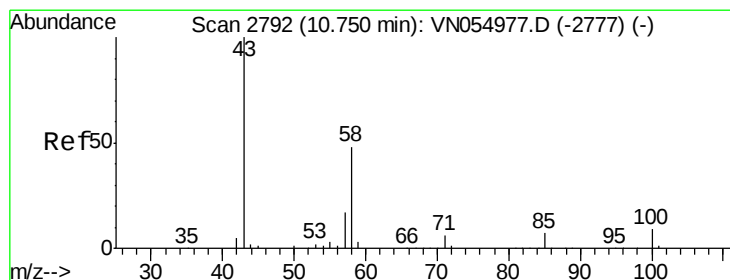
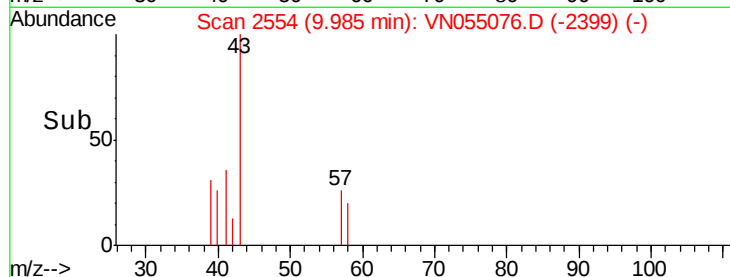
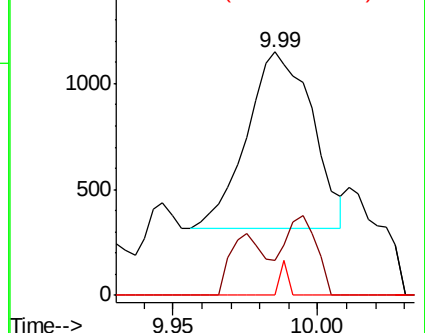
85 0.0 11.8 17.6#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

Ion 85.00 (84.70 to 85.70): VN0



#59

2-Hexanone

Concen: 1.163 ug/l

RT: 10.76 min Scan# 2794

Delta R.T. 0.01 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

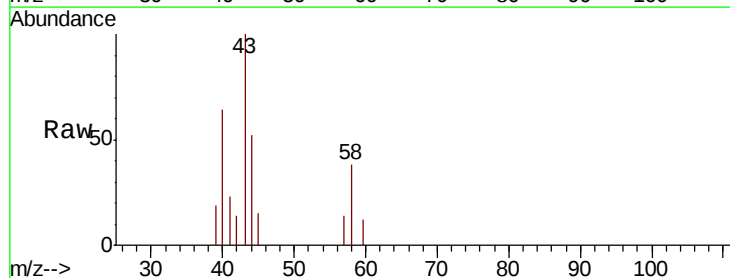
Tgt Ion: 43 Resp: 2596

Ion Ratio Lower Upper

43 100

58 43.5 38.8 58.2

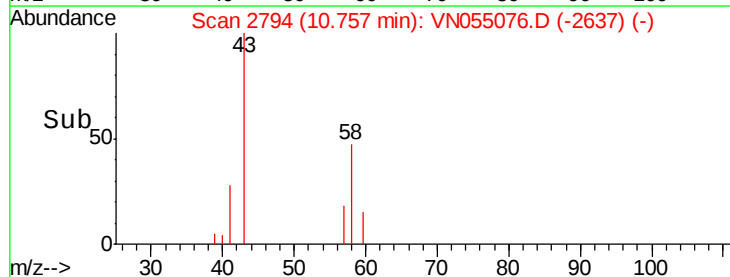
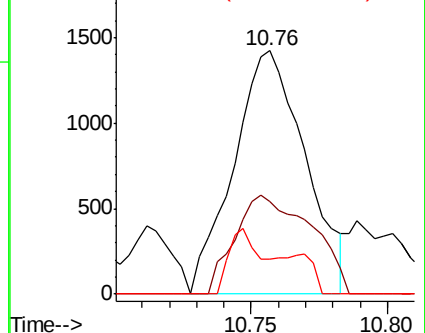
57 10.4 13.8 20.6#

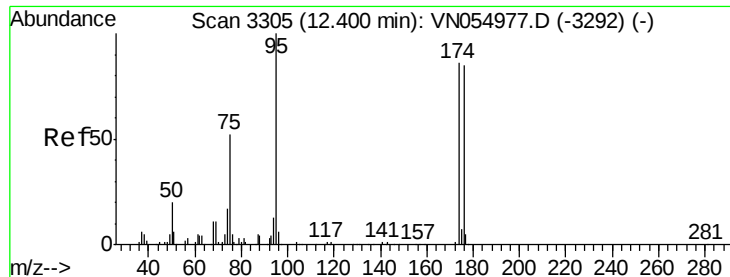


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

Ion 57.00 (56.70 to 57.70): VN0





#60

4-Bromofluorobenzene

Concen: 1.163 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

CLEARWELLRE

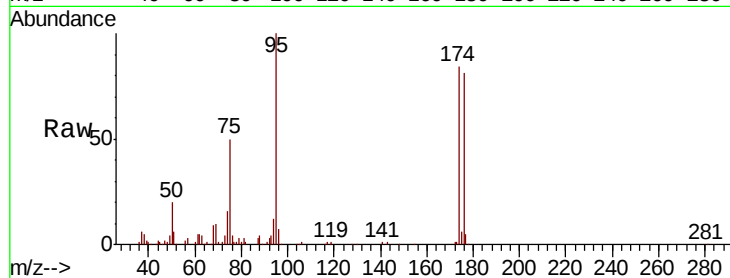
Tot Ion: 95 Resp: 126150

Ion Ratio Lower Upper

95 100

174 83.6 69.4 104.2

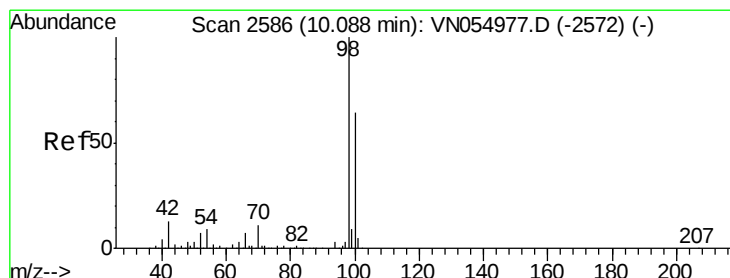
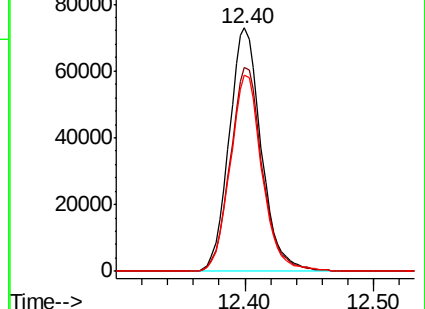
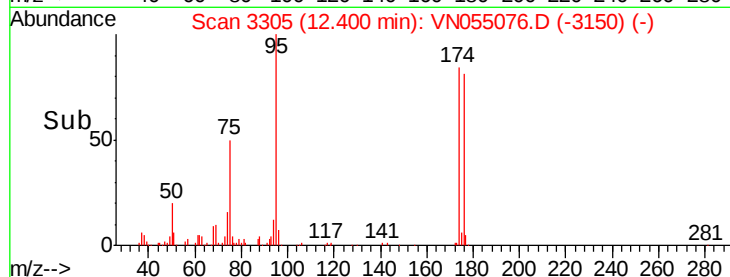
176 79.9 67.4 101.2



Abundance Ion 95.00 (94.70 to 95.70): VN054977.D (-3292) (-)

Ion 174.00 (173.70 to 174.70): VN054977.D (-3292) (-)

Ion 176.00 (175.70 to 176.70): VN054977.D (-3292) (-)



#63

Toluene-d8

Concen: Below ug/l

RT: 10.09 min Scan# 2586

Delta R.T. -0.00 min

Lab File: VN055076.D

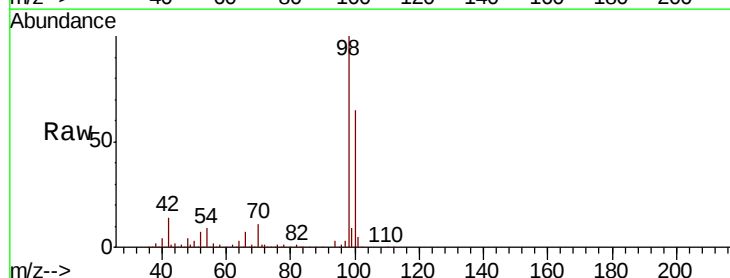
Acq: 16 Apr 2019 14:14

Tgt Ion: 98 Resp: 433421

Ion Ratio Lower Upper

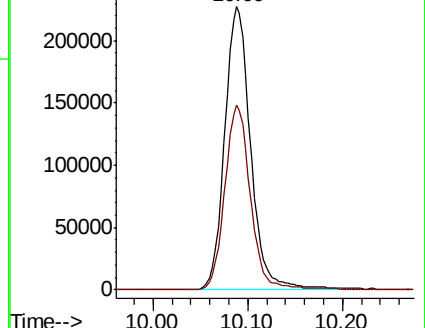
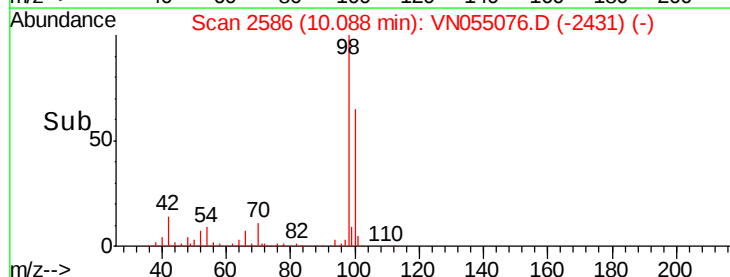
98 100

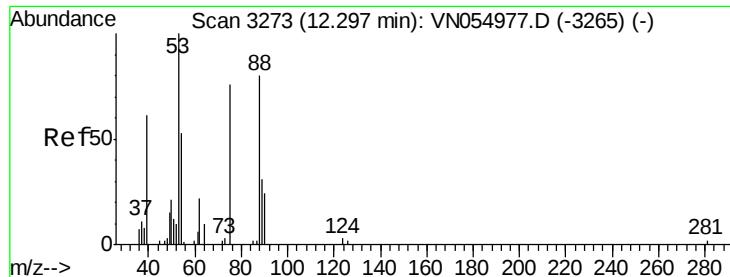
100 63.9 51.1 76.7



Abundance Ion 98.00 (97.70 to 98.70): VN054977.D (-2572) (-)

Ion 100.00 (99.70 to 100.70): VN054977.D (-2572) (-)

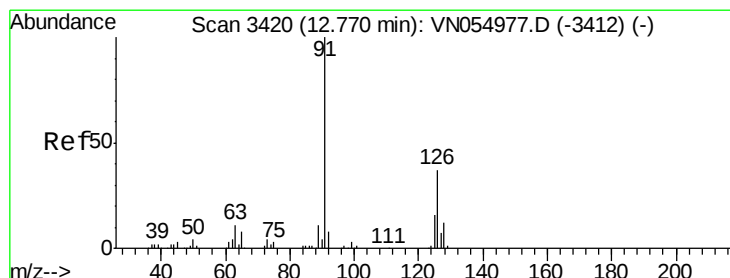
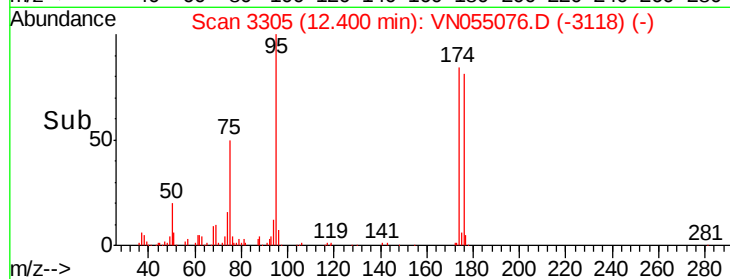
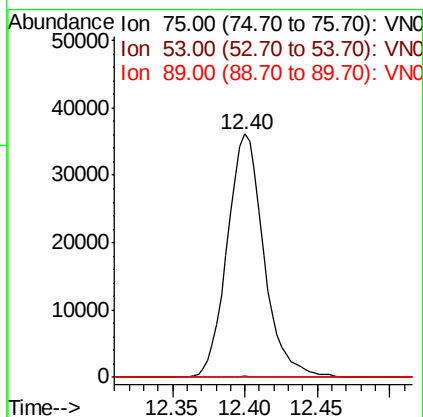
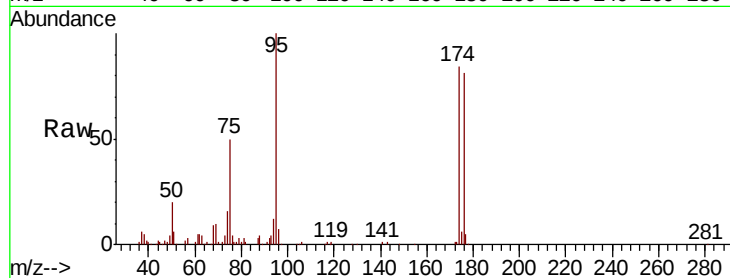




#77
t-1,4-Dichloro-2-butene
Concen: 75.100 ug/l
RT: 12.40 min Scan# 3305
Delta R.T. 0.10 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

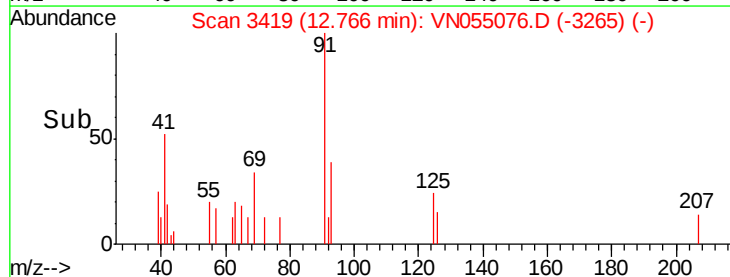
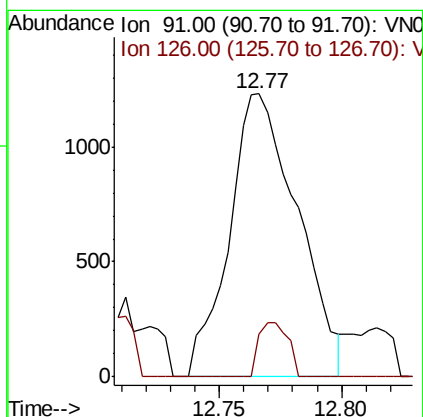
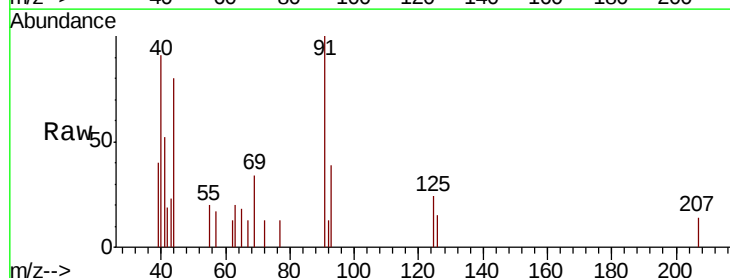
Instrument :
MSVOA_N
ClientSampleId :
CLEARWELLRE

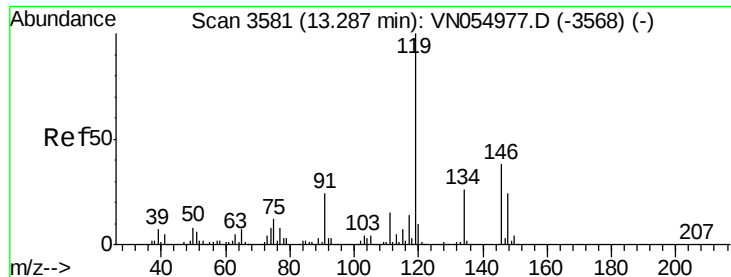
Tot Ion: 75 Resp: 63193
Ion Ratio Lower Upper
75 100
53 0.0 64.3 192.7#
89 0.5 21.6 65.0#



#78
4-Chlorotoluene
Concen: 0.210 ug/l
RT: 12.77 min Scan# 3419
Delta R.T. -0.00 min
Lab File: VN055076.D
Acq: 16 Apr 2019 14:14

Tgt Ion: 91 Resp: 2388
Ion Ratio Lower Upper
91 100
126 8.2 0.0 66.6

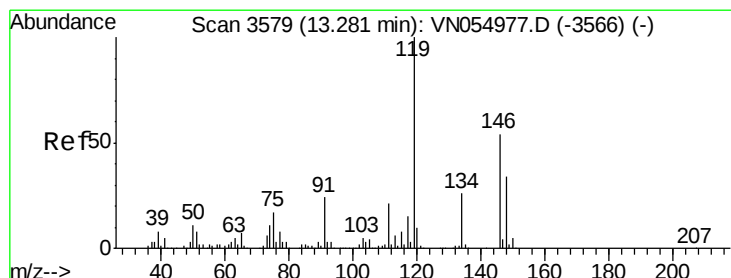
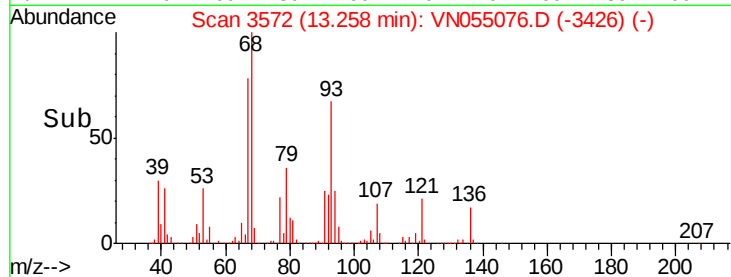
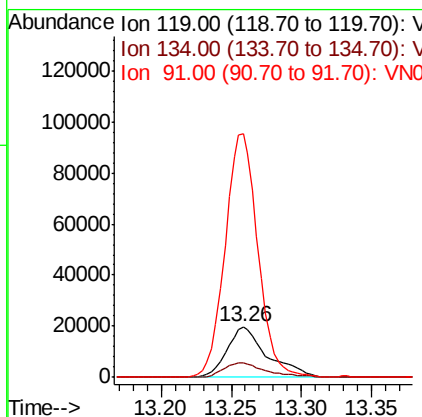
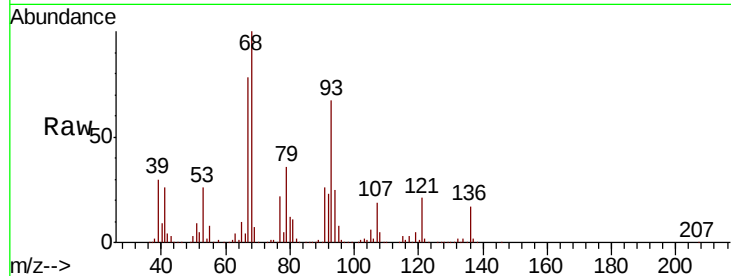




#82
 p-Isopropyltoluene
 Concen: 2.829 ug/l
 RT: 13.26 min Scan# 3572
 Delta R.T. -0.03 min
 Lab File: VN055076.D
 Acq: 16 Apr 2019 14:14

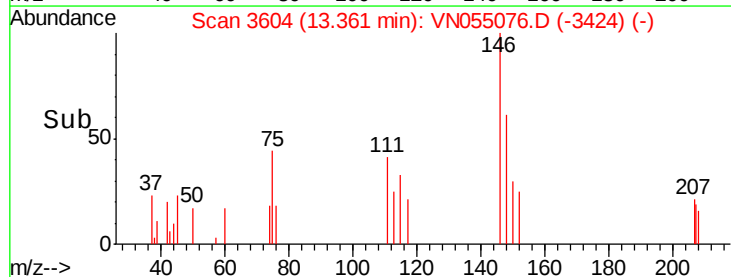
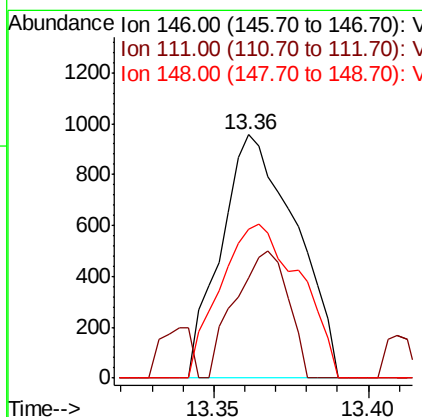
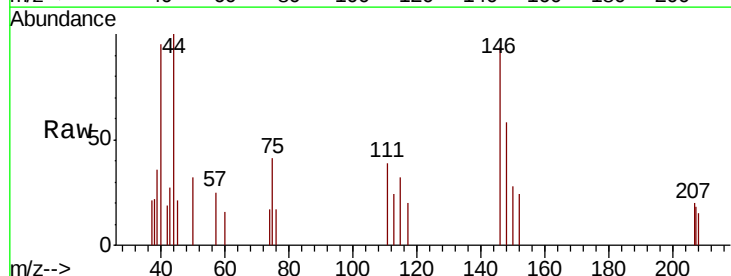
Instrument :
 MSVOA_N
 ClientSampleId :
 CLEARWELLRE

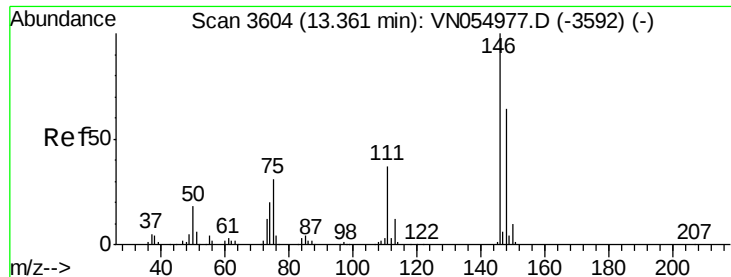
Tot Ion:119 Resp: 39442
 Ion Ratio Lower Upper
 119 100
 134 30.3 0.0 53.2
 91 392.4 0.0 47.8#



#83
 1,3-Dichlorobenzene
 Concen: 0.231 ug/l
 RT: 13.36 min Scan# 3604
 Delta R.T. 0.08 min
 Lab File: VN055076.D
 Acq: 16 Apr 2019 14:14

Tgt Ion:146 Resp: 1611
 Ion Ratio Lower Upper
 146 100
 111 37.2 19.1 57.5
 148 67.5 31.9 95.5





#84

1,4-Dichlorobenzene

Concen: 0.243 ug/l

RT: 13.36 min Scan# 3604

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

CLEARWELLRE

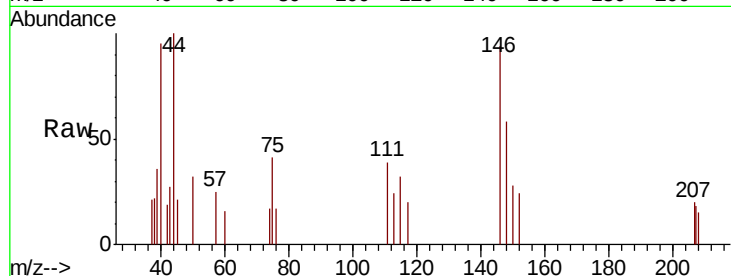
Tot Ion:146 Resp: 1611

Ion Ratio Lower Upper

146 100

111 37.2 18.4 55.2

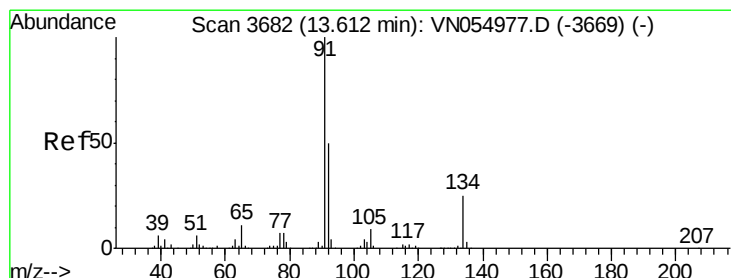
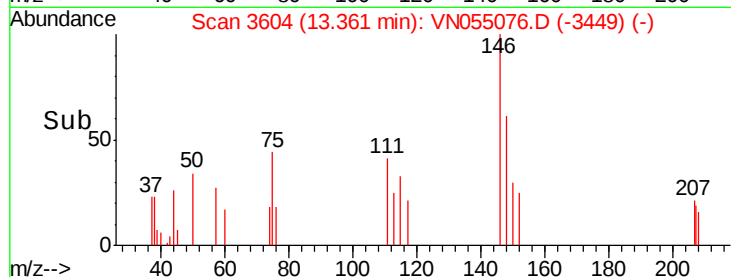
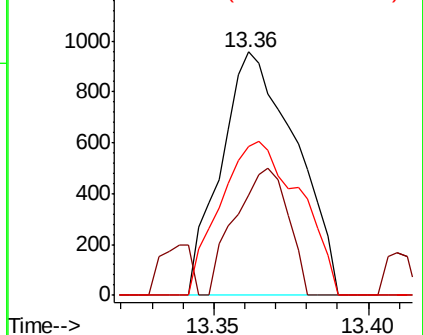
148 67.5 32.5 97.4



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#85

n-Butylbenzene

Concen: 0.323 ug/l

RT: 13.62 min Scan# 3683

Delta R.T. 0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

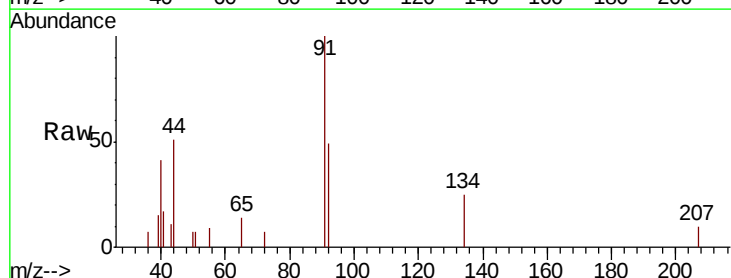
Tgt Ion: 91 Resp: 3587

Ion Ratio Lower Upper

91 100

92 60.6 0.0 101.4

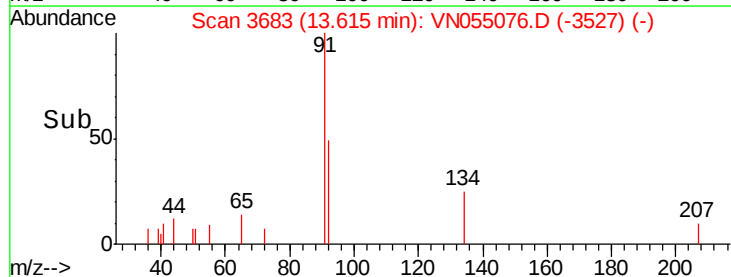
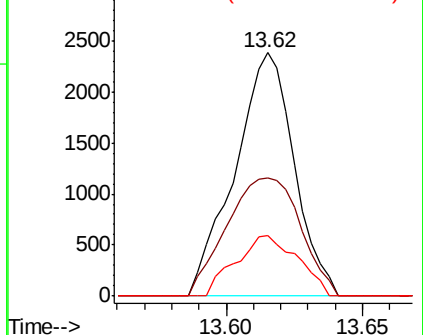
134 26.2 0.0 49.8

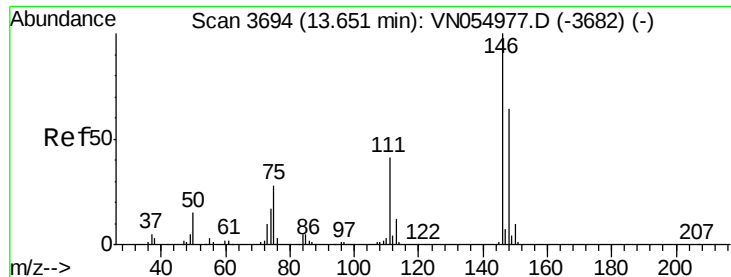


Abundance Ion 91.00 (90.70 to 91.70): V

Ion 92.00 (91.70 to 92.70): V

Ion 134.00 (133.70 to 134.70): V





#87

1,2-Dichlorobenzene

Concen: 0.245 ug/l

RT: 13.65 min Scan# 3695

Delta R.T. 0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampled :

CLEARWELLRE

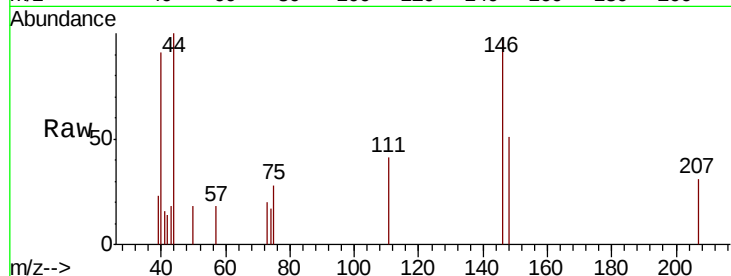
Tot Ion:146 Resp: 1679

Ion Ratio Lower Upper

146 100

111 32.5 20.3 60.8

148 62.8 32.5 97.5

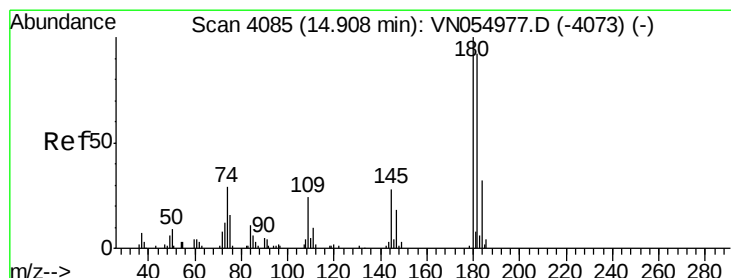
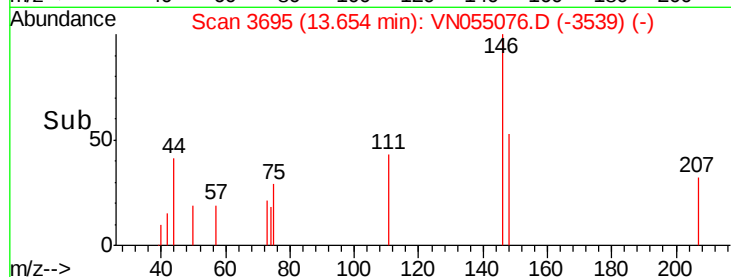
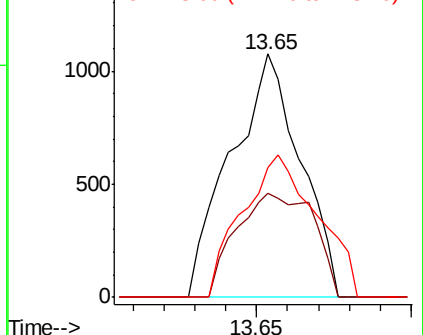


Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#89

1,2,4-Trichlorobenzene

Concen: 0.834 ug/l

RT: 14.91 min Scan# 4085

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

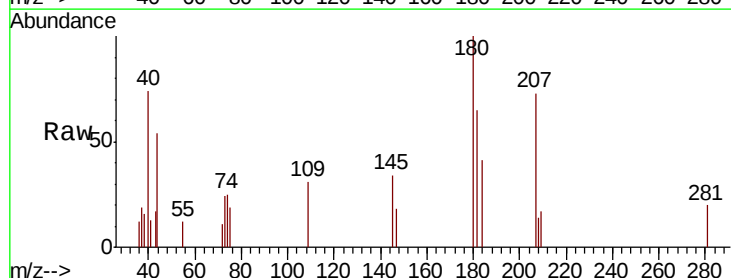
Tgt Ion:180 Resp: 2551

Ion Ratio Lower Upper

180 100

182 63.6 73.2 109.8#

145 25.8 23.2 34.8

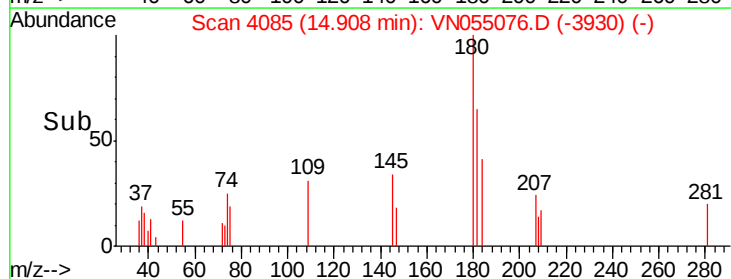
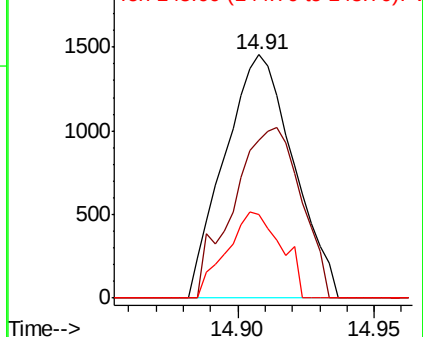


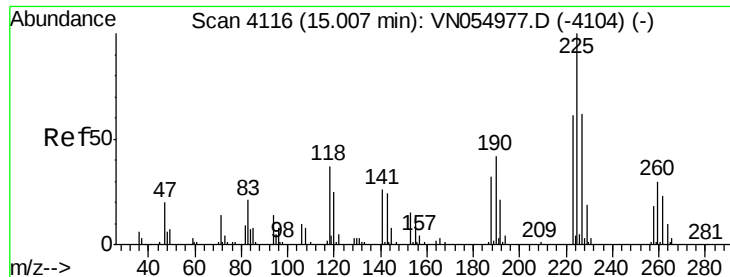
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#90

Hexachlorobutadiene

Concen: 0.537 ug/l

RT: 15.01 min Scan# 4116

Delta R.T. -0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

Instrument :

MSVOA_N

ClientSampleId :

CLEARWELLRE

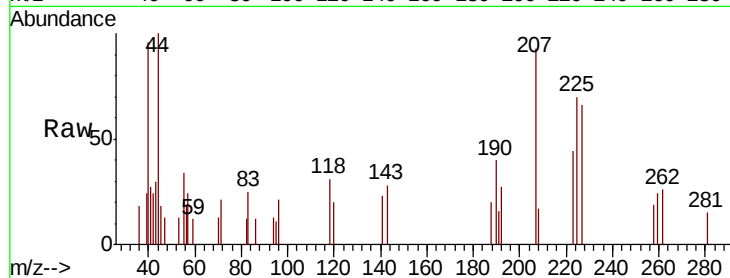
Tot Ion:225 Resp: 1197

Ion Ratio Lower Upper

225 100

223 70.3 0.0 126.0

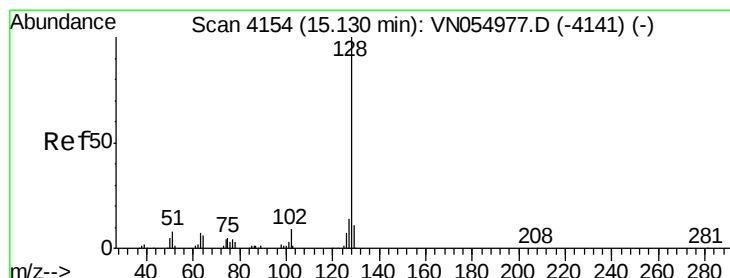
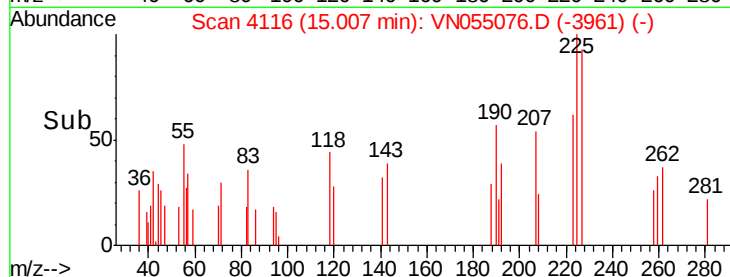
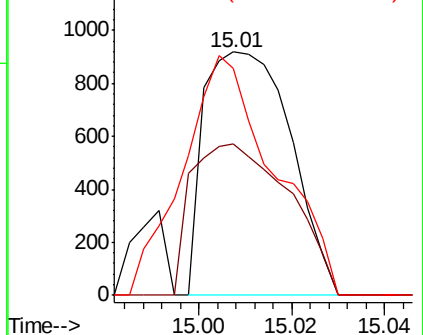
227 103.4 0.0 125.4



Abundance Ion 225.00 (224.70 to 225.70): V

Ion 223.00 (222.70 to 223.70): V

Ion 227.00 (226.70 to 227.70): V



#91

Naphthalene

Concen: 0.819 ug/l

RT: 15.13 min Scan# 4155

Delta R.T. 0.00 min

Lab File: VN055076.D

Acq: 16 Apr 2019 14:14

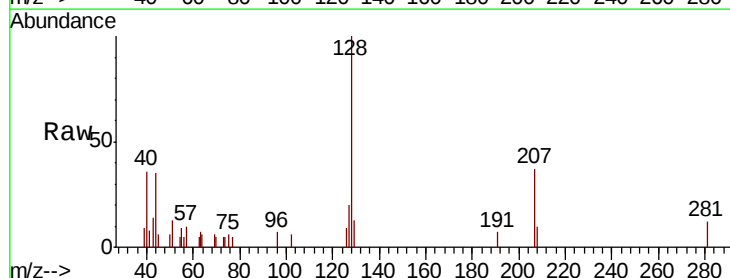
Tgt Ion:128 Resp: 5245

Ion Ratio Lower Upper

128 100

127 15.1 10.6 15.8

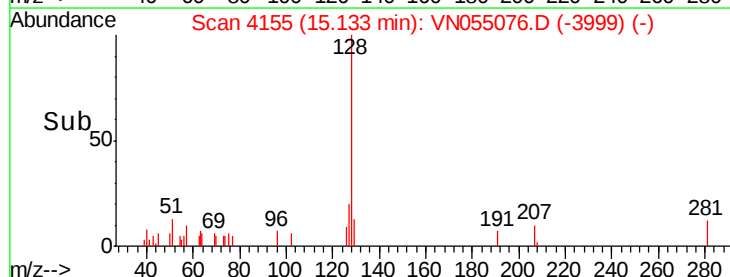
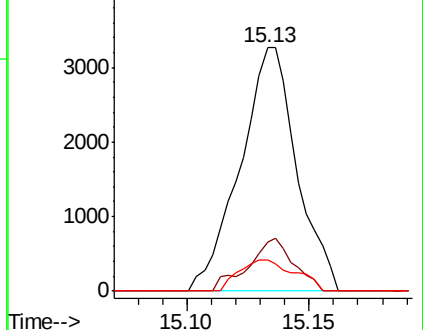
129 12.7 9.0 13.6

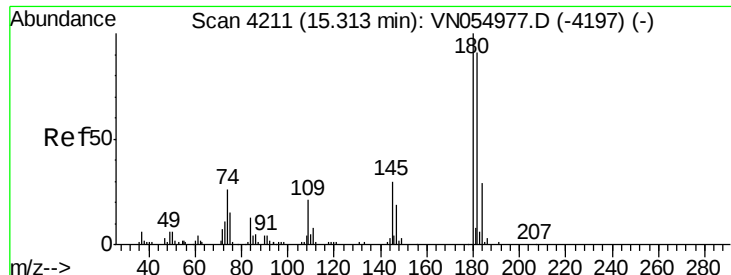


Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V





#92
 1,2,3-Trichlorobenzene
 Concen: 0.810 ug/l
 RT: 15.31 min Scan# 4210
 Delta R.T. -0.00 min
 Lab File: VN055076.D
 Acq: 16 Apr 2019 14:14

Instrument :
 MSVOA_N
 ClientSampleId :
 CLEARWELLRE

Tot Ion:180 Resp: 2479
 Ion Ratio Lower Upper
 180 100
 182 108.5 0.0 188.2
 145 22.3 0.0 61.2

