

Data Path : Z:\voasrv\HPCHEM1\MSVOA_U\Data\VU102622\
 Data File : VU051517.D
 Acq On : 26 Oct 2022 21:53
 Operator : JC/MD
 Sample : N5300-02
 Misc : 25.0mL/MSVOA_U/WATER
 ALS Vial : 25 Sample Multiplier: 1

Instrument :
 MSVOA_U
 ClientSampleId :
 BHA73

Quant Time: Oct 27 08:24:03 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_U\Method\SFAMUTR100722WMA.M
 Quant Title : TRACE VOA SFAM1.0
 QLast Update : Thu Oct 27 08:11:03 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 1,4-Difluorobenzene	6.250	114	244034	5.000	ug/L	0.00
28) Chlorobenzene-d5	9.417	117	247277	5.000	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	11.809	152	132180	5.000	ug/L	# 0.00
System Monitoring Compounds						
4) Vinyl Chloride-d3	1.597	65	89405	4.542	ug/L	0.00
Spiked Amount	5.000	Range	40 - 130	Recovery	=	90.800%
7) Chloroethane-d5	1.909	69	75631	4.472	ug/L	0.00
Spiked Amount	5.000	Range	65 - 130	Recovery	=	89.400%
11) 1,1-Dichloroethene-d2	2.562	65	30826	3.961	ug/L	0.00
Spiked Amount	5.000	Range	60 - 125	Recovery	=	79.200%
20) 2-Butanone-d5	4.620	46	223106	51.479	ug/L	0.00
Spiked Amount	50.000	Range	40 - 130	Recovery	=	102.960%
24) Chloroform-d	5.060	84	143588	3.913	ug/L	0.00
Spiked Amount	5.000	Range	70 - 125	Recovery	=	78.200%
26) 1,2-Dichloroethane-d4	5.710	65	81872	4.326	ug/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	86.600%
32) Benzene-d6	5.735	84	312973	4.601	ug/L	0.00
Spiked Amount	5.000	Range	70 - 125	Recovery	=	92.000%
36) 1,2-Dichloropropane-d6	6.690	67	99159	4.292	ug/L	0.00
Spiked Amount	5.000	Range	60 - 140	Recovery	=	85.800%
41) Toluene-d8	7.896	98	270241	4.440	ug/L	0.00
Spiked Amount	5.000	Range	70 - 130	Recovery	=	88.800%
43) trans-1,3-Dichloroprop...	8.179	79	31725	4.180	ug/L	0.00
Spiked Amount	5.000	Range	55 - 130	Recovery	=	83.600%
46) 2-Hexanone-d5	8.629	63	204305	79.866	ug/L	0.00
Spiked Amount	50.000	Range	45 - 130	Recovery	=	159.740%#
56) 1,1,2,2-Tetrachloroeth...	10.754	84	105630	5.724	ug/L	0.00
Spiked Amount	5.000	Range	65 - 120	Recovery	=	114.400%
66) 1,2-Dichlorobenzene-d4	12.192	152	107185	4.665	ug/L	0.00
Spiked Amount	5.000	Range	80 - 120	Recovery	=	93.400%
Target Compounds						
					Qvalue	
5) Vinyl chloride	1.604	62	2417	0.088	ug/L #	1
8) Chloroethane	1.928	64	35274	2.017	ug/L #	60
10) 1,1,2-Trichloro-1,2,2-...	2.559	101	929	0.049	ug/L #	25
13) Acetone	2.623	43	40856	12.569	ug/L	100
14) Carbon disulfide	2.790	76	14971	0.275	ug/L	96
15) Methyl Acetate	3.080	43	2386	0.302	ug/L #	56
17) Methyl tert-butyl Ether	3.362	73	7262	0.178	ug/L #	1
18) trans-1,2-Dichloroethene	3.356	96	1746	0.093	ug/L	87
19) 1,1-Dichloroethane	3.864	63	12499	0.324	ug/L	95
22) cis-1,2-Dichloroethene	4.665	96	6032	0.291	ug/L	94
27) 1,2-Dichloroethane	5.803	62	1791133	74.096	ug/L #	74
30) Cyclohexane	5.388	56	105172	4.185	ug/L	96
35) Methylcyclohexane	6.761	83	184306	7.093	ug/L	98
38) Bromodichloromethane	7.157	83	19202	0.711	ug/L #	29
42) Toluene	7.967	91	292739	3.341	ug/L	99
48) 2-Hexanone	8.681	43	41676	4.715	ug/L #	57
51) Chlorobenzene	9.446	112	6182183	118.079	ug/L	99
52) Ethylbenzene	9.571	91	12372136	157.118	ug/L	97
53) m,p-Xylene	9.690	106	1520078	49.774	ug/L	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_U\Data\VU102622\
 Data File : VU051517.D
 Acq On : 26 Oct 2022 21:53
 Operator : JC/MD
 Sample : N5300-02
 Misc : 25.0mL/MSVOA_U/WATER
 ALS Vial : 25 Sample Multiplier: 1

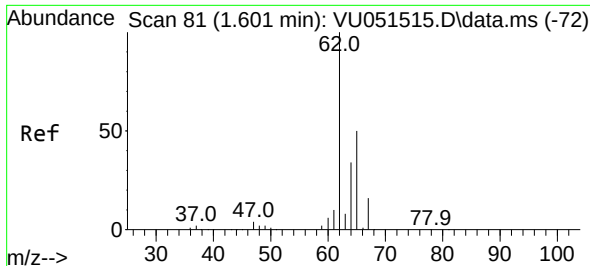
Instrument :
 MSVOA_U
 ClientSampleId :
 BHA73

Quant Time: Oct 27 08:24:03 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_U\Method\SFAMUTR100722WMA.M
 Quant Title : TRACE VOA SFAM1.0
 QLast Update : Thu Oct 27 08:11:03 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

54) o-Xylene	10.099	106	337888	11.693	ug/L	98
55) Styrene	10.102	104	21953	0.441	ug/L #	1
57) 1,1,2,2-Tetrachloroethane	10.767	83	19775	1.006	ug/L #	37
60) Isopropylbenzene	10.481	105	5411943	64.643	ug/L	98
61) 1,2,3-Trichloropropane	10.902	75	19463	1.166	ug/L #	1
62) 1,3,5-Trimethylbenzene	11.896	105	6948987	312.890	ug/L	92
63) 1,2,4-Trimethylbenzene	11.896	105	6948987	110.638	ug/L	96
64) 1,3-Dichlorobenzene	11.745	146	153873	3.716	ug/L	99
65) 1,4-Dichlorobenzene	11.835	146	786641	19.272	ug/L	98
67) 1,2-Dichlorobenzene	12.211	146	480841	11.944	ug/L	99
68) 1,2-Dibromo-3-chloropr...	12.970	75	5654	1.771	ug/L #	5
70) 1,2,4-trichlorobenzene	13.841	180	4786	0.236	ug/L #	47
71) Naphthalene	13.626	128	688082	18.247	ug/L #	1

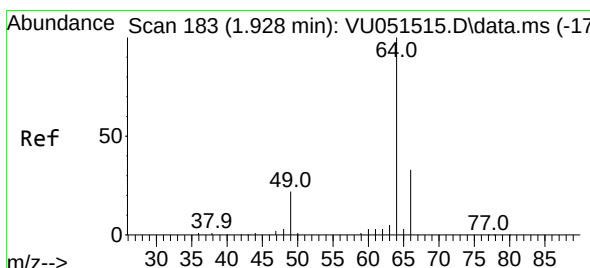
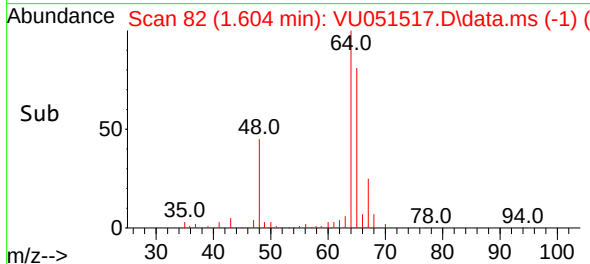
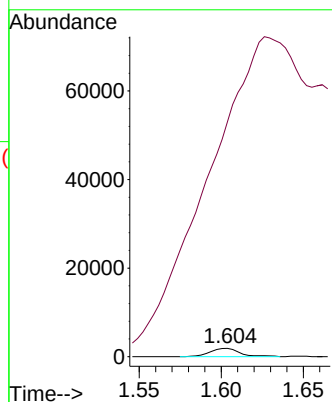
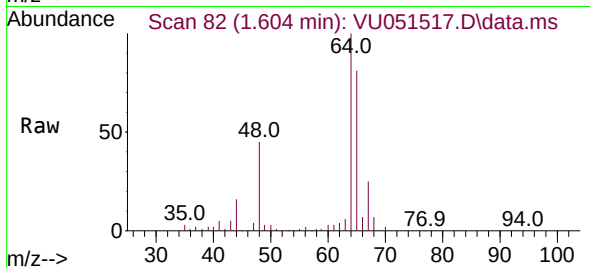
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#5
 Vinyl chloride
 Concen: 0.088 ug/L
 RT: 1.604 min Scan# 81
 Delta R.T. 0.003 min
 Lab File: VU051517.D
 Acq: 26 Oct 2022 21:53

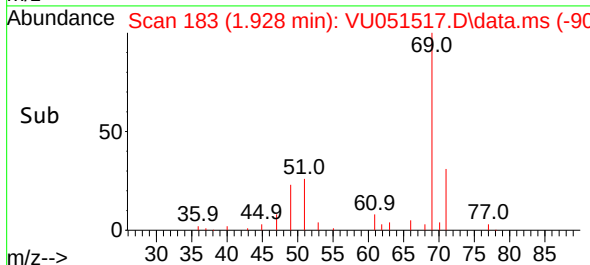
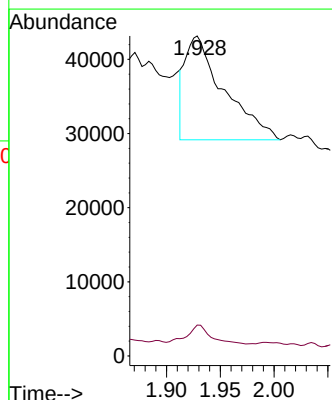
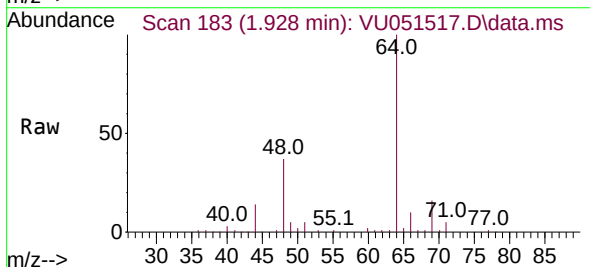
Instrument :
 MSVOA_U
 ClientSampleId :
 BHA73

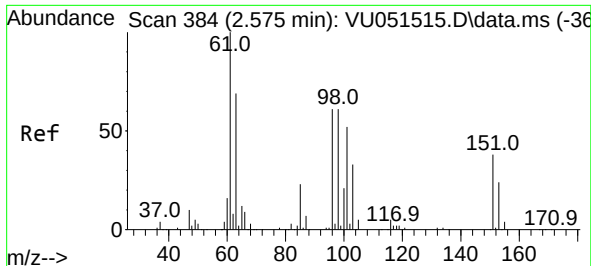
Tgt Ion: 62 Resp: 2417
 Ion Ratio Lower Upper
 62 100
 64 2812.9 24.0 44.6#



#8
 Chloroethane
 Concen: 2.017 ug/L
 RT: 1.928 min Scan# 183
 Delta R.T. 0.000 min
 Lab File: VU051517.D
 Acq: 26 Oct 2022 21:53

Tgt Ion: 64 Resp: 35274
 Ion Ratio Lower Upper
 64 100
 66 9.6 22.3 41.3#





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 0.049 ug/L

RT: 2.559 min Scan# 31

Delta R.T. -0.016 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

BHA73

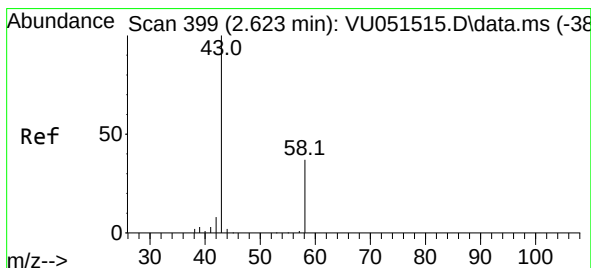
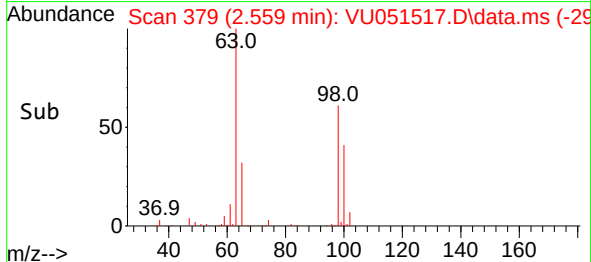
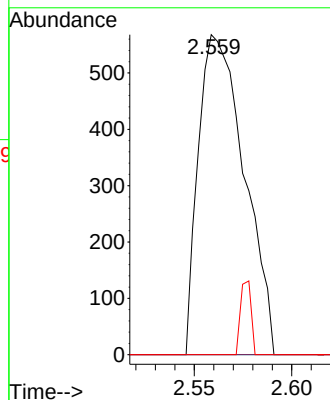
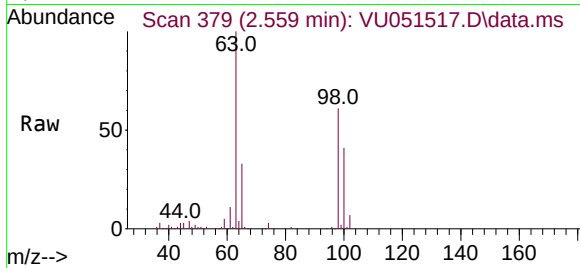
Tgt Ion:101 Resp: 929

Ion Ratio Lower Upper

101 100

85 0.0 34.6 51.8#

151 5.3 56.5 84.7#



#13

Acetone

Concen: 12.569 ug/L

RT: 2.623 min Scan# 399

Delta R.T. 0.000 min

Lab File: VU051517.D

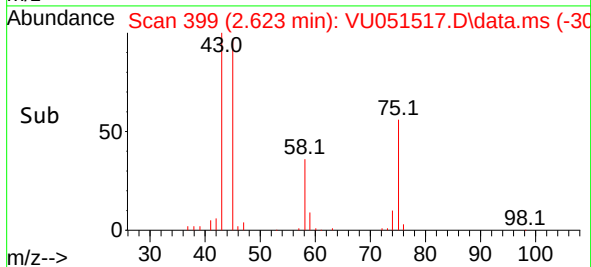
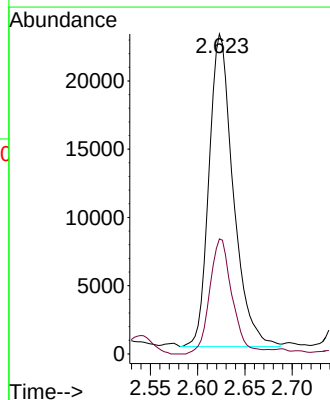
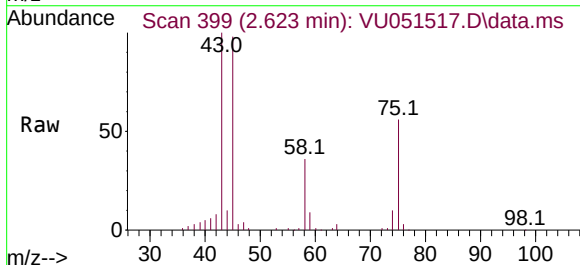
Acq: 26 Oct 2022 21:53

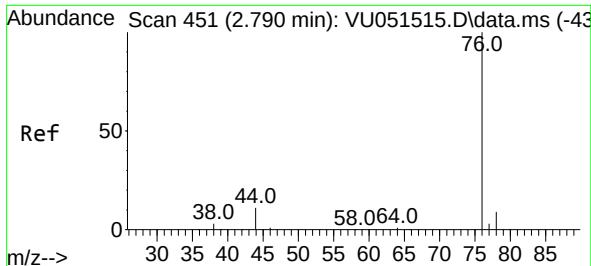
Tgt Ion: 43 Resp: 40856

Ion Ratio Lower Upper

43 100

58 34.2 0.0 68.8

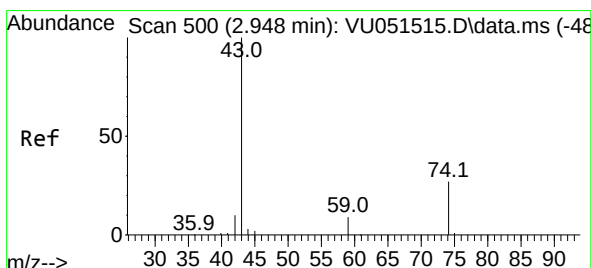
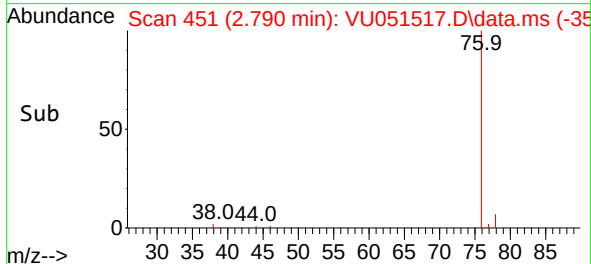
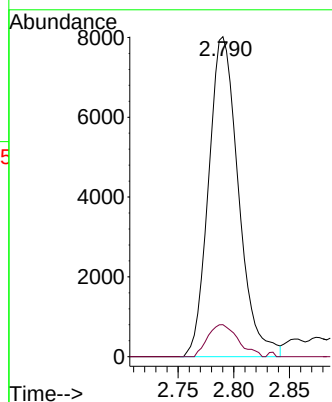
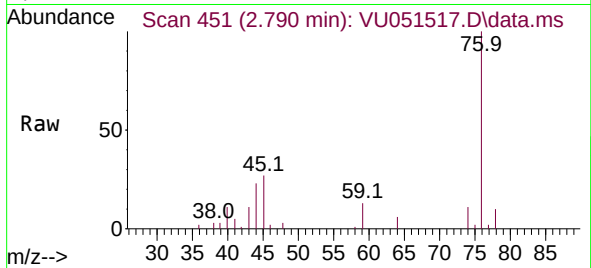




#14
Carbon disulfide
Concen: 0.275 ug/L
RT: 2.790 min Scan# 41
Delta R.T. 0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

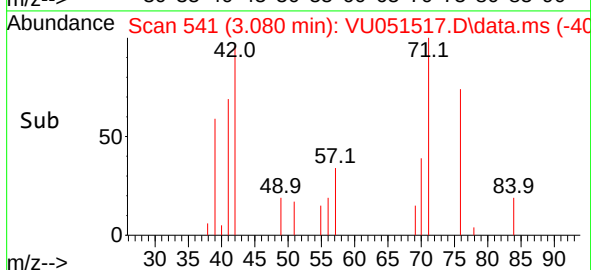
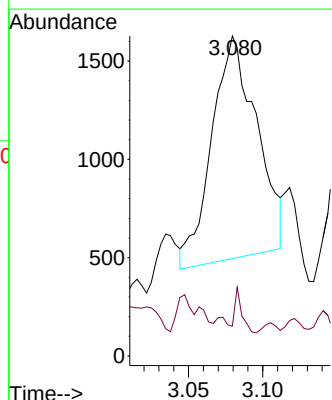
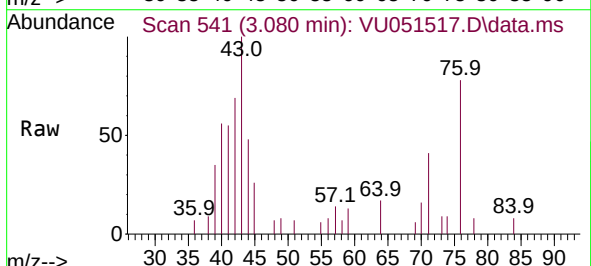
Instrument :
MSVOA_U
ClientSampleId :
BHA73

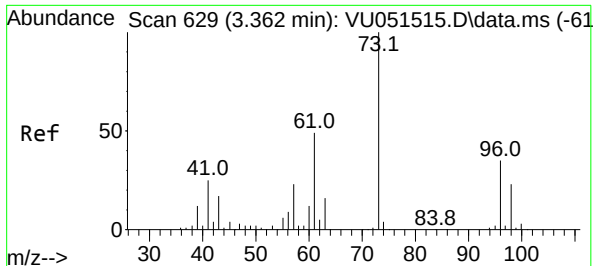
Tgt Ion: 76 Resp: 14971
Ion Ratio Lower Upper
76 100
78 10.0 7.0 10.4



#15
Methyl Acetate
Concen: 0.302 ug/L
RT: 3.080 min Scan# 541
Delta R.T. 0.132 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion: 43 Resp: 2386
Ion Ratio Lower Upper
43 100
74 3.0 20.0 30.0#





#17

Methyl tert-butyl Ether

Concen: 0.178 ug/L

RT: 3.362 min Scan# 61

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

BHA73

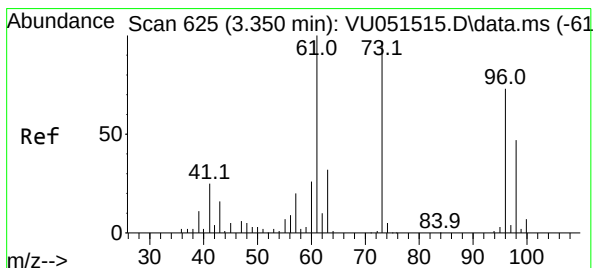
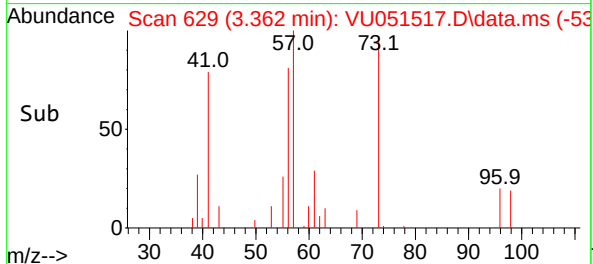
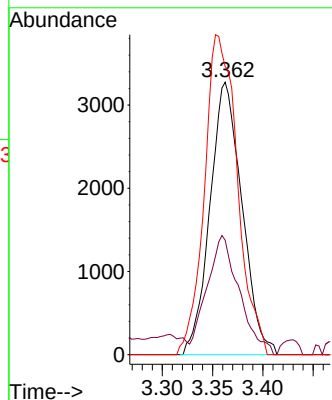
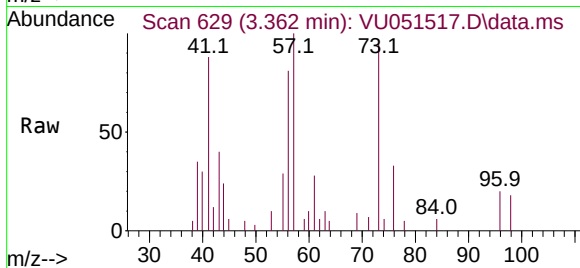
Tgt Ion: 73 Resp: 7262

Ion Ratio Lower Upper

73 100

43 44.3 15.4 23.0#

57 120.6 18.9 28.3#



#18

trans-1,2-Dichloroethene

Concen: 0.093 ug/L

RT: 3.356 min Scan# 627

Delta R.T. 0.006 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

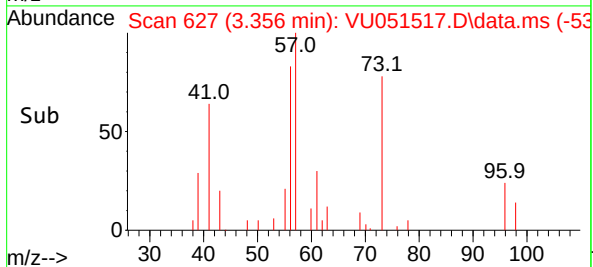
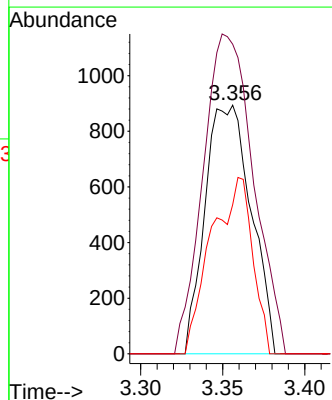
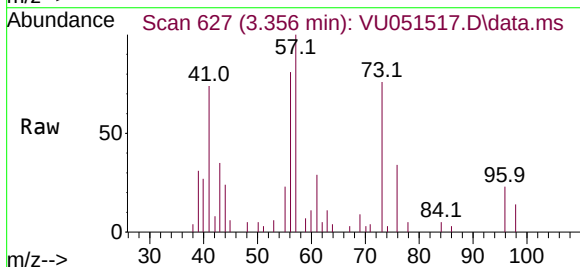
Tgt Ion: 96 Resp: 1746

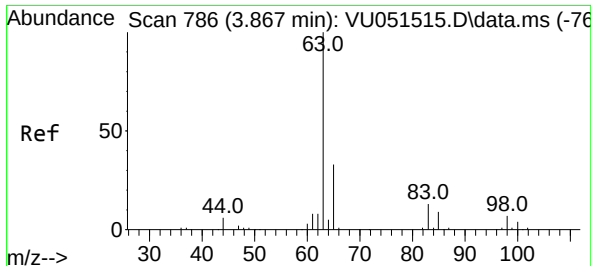
Ion Ratio Lower Upper

96 100

61 124.5 101.4 188.2

98 60.0 44.9 83.5





#19

1,1-Dichloroethane

Concen: 0.324 ug/L

RT: 3.864 min Scan# 71

Delta R.T. -0.003 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

BHA73

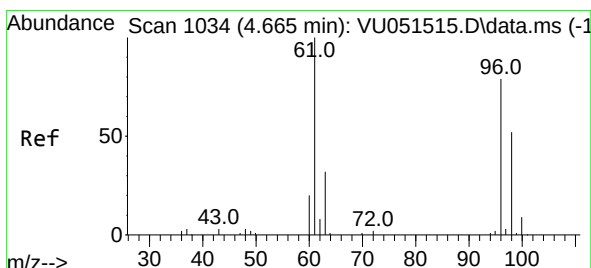
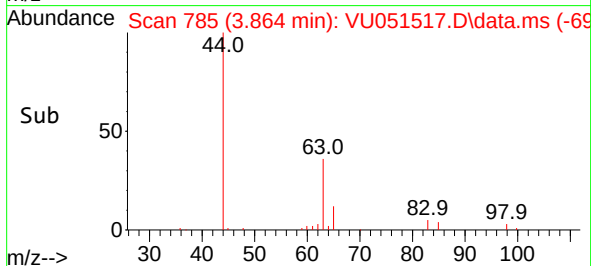
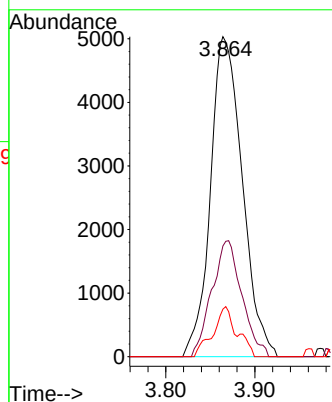
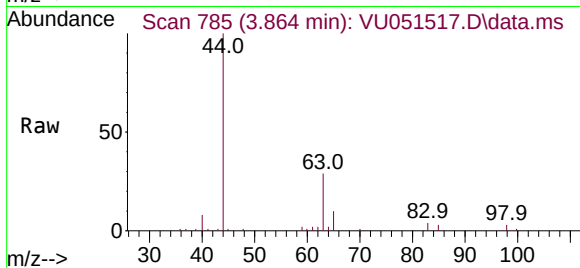
Tgt Ion: 63 Resp: 12499

Ion Ratio Lower Upper

63 100

65 34.6 22.0 41.0

83 14.9 9.0 16.6



#22

cis-1,2-Dichloroethene

Concen: 0.291 ug/L

RT: 4.665 min Scan# 1034

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

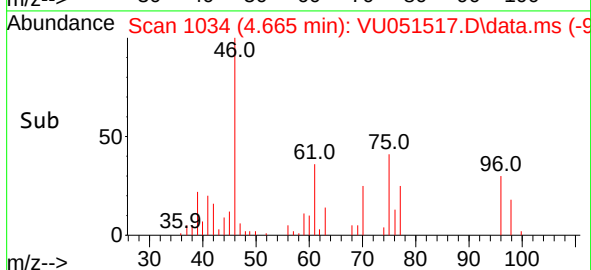
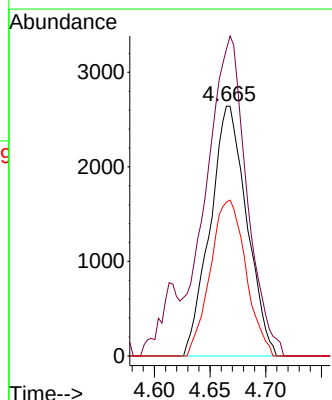
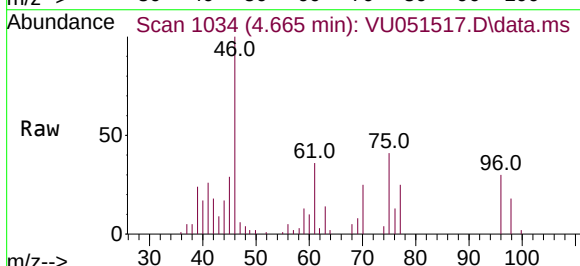
Tgt Ion: 96 Resp: 6032

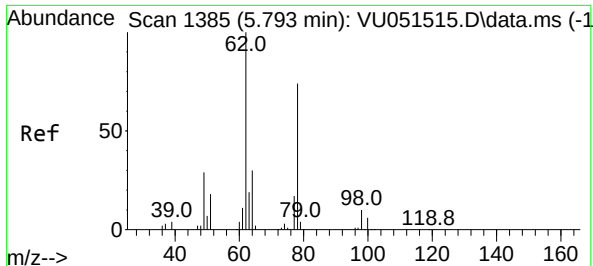
Ion Ratio Lower Upper

96 100

61 122.8 90.6 168.2

98 61.6 47.5 88.3





#27

1,2-Dichloroethane

Concen: 74.096 ug/L

RT: 5.803 min Scan# 11

Delta R.T. 0.010 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

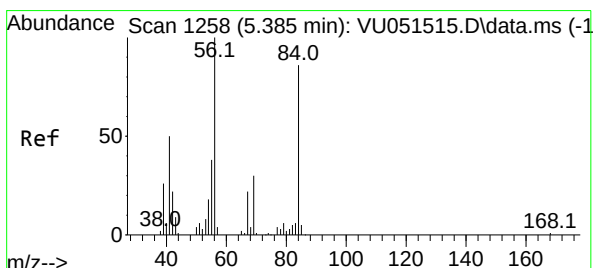
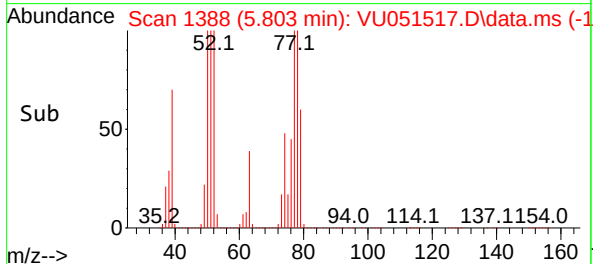
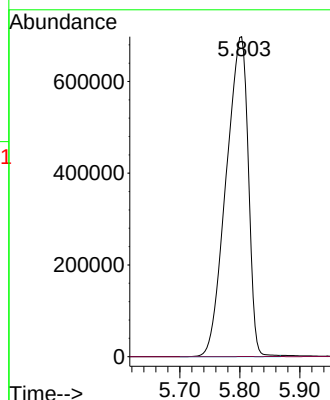
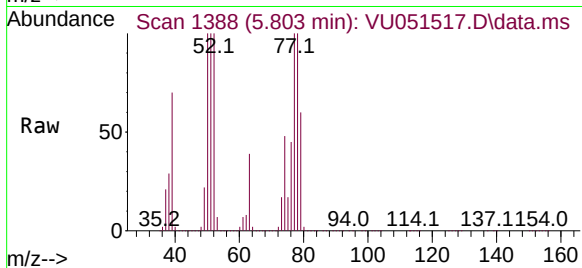
BHA73

Tgt Ion: 62 Resp: 1791133

Ion Ratio Lower Upper

62 100

98 0.0 7.7 11.5#



#30

Cyclohexane

Concen: 4.185 ug/L

RT: 5.388 min Scan# 1259

Delta R.T. 0.003 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

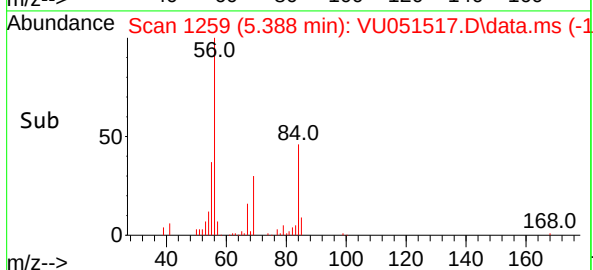
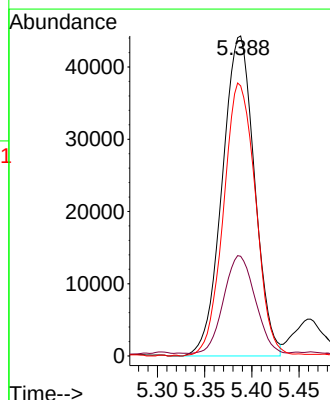
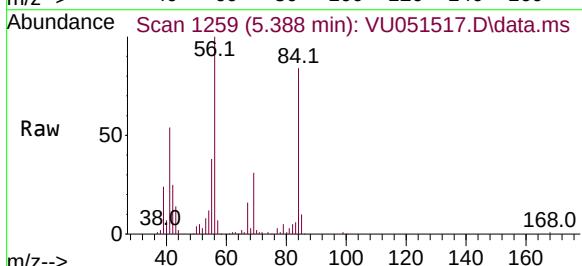
Tgt Ion: 56 Resp: 105172

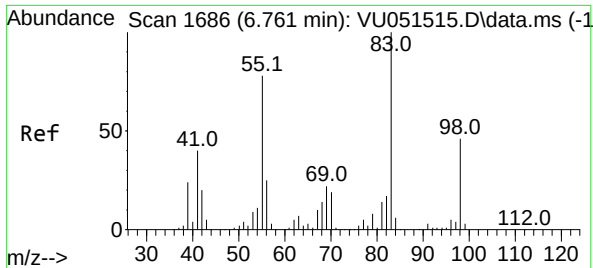
Ion Ratio Lower Upper

56 100

69 29.8 25.1 37.7

84 84.9 70.9 106.3

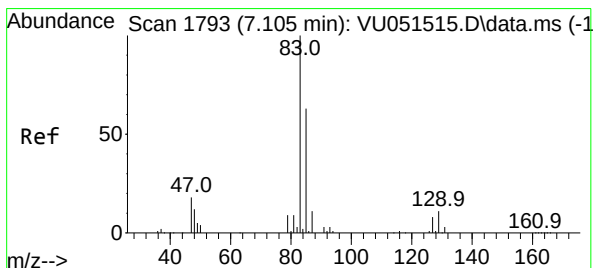
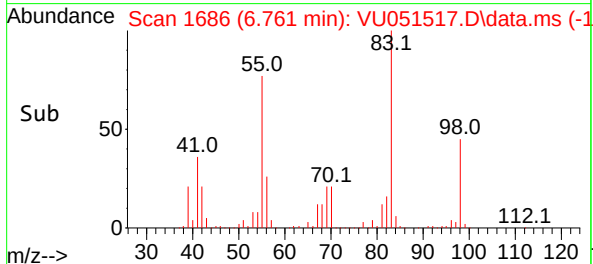
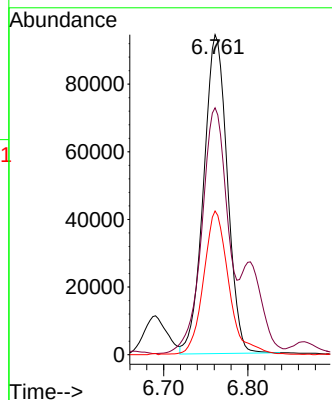
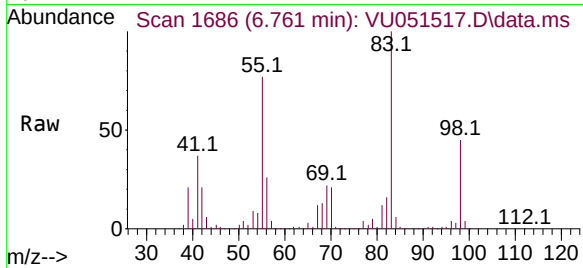




#35
Methylcyclohexane
Concen: 7.093 ug/L
RT: 6.761 min Scan# 1
Delta R.T. 0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

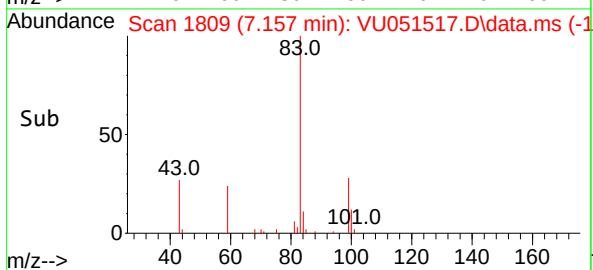
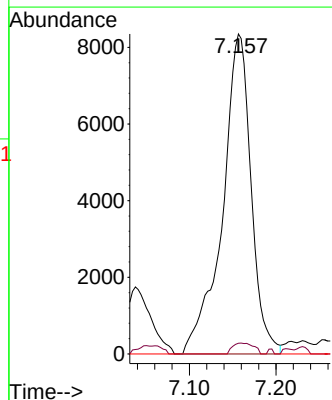
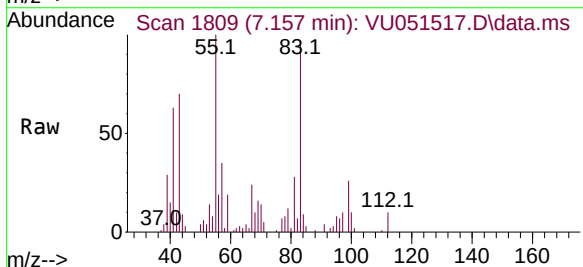
Instrument :
MSVOA_U
ClientSampleId :
BHA73

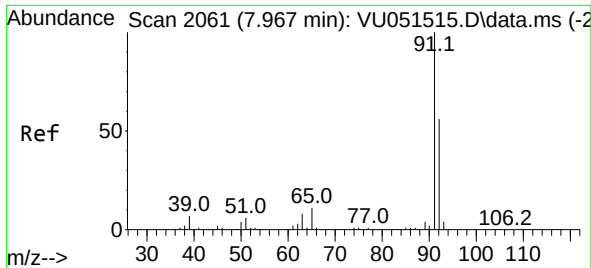
Tgt Ion: 83 Resp: 184306
Ion Ratio Lower Upper
83 100
55 83.2 65.8 98.6
98 47.6 35.9 53.9



#38
Bromodichloromethane
Concen: 0.711 ug/L
RT: 7.157 min Scan# 1809
Delta R.T. 0.051 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion: 83 Resp: 19202
Ion Ratio Lower Upper
83 100
85 3.4 44.8 83.2#
127 0.0 7.0 10.6#





#42

Toluene

Concen: 3.341 ug/L

RT: 7.967 min Scan# 2061

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

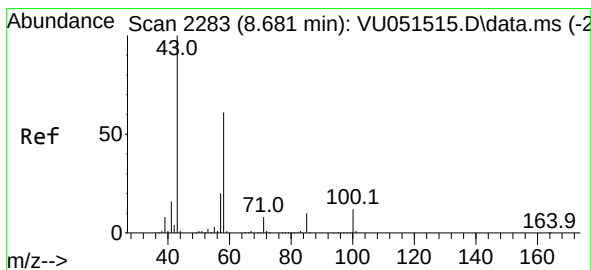
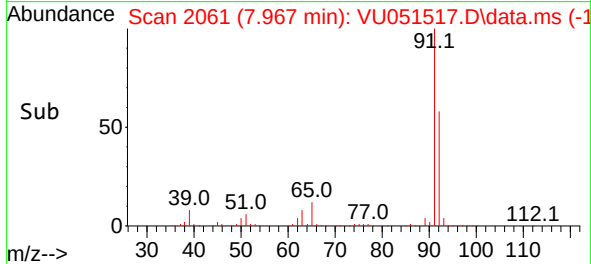
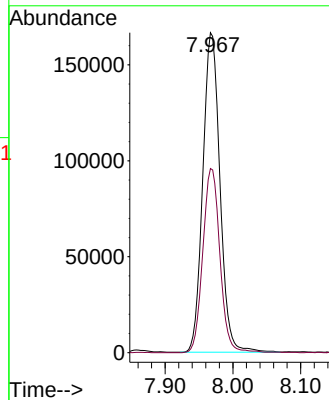
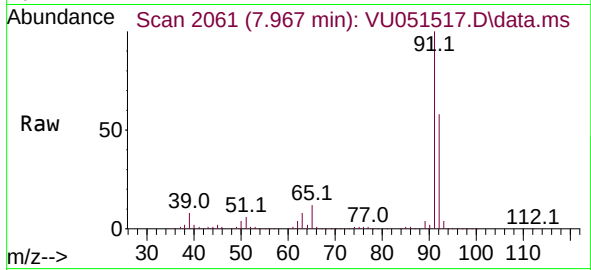
BHA73

Tgt Ion: 91 Resp: 292739

Ion Ratio Lower Upper

91 100

92 57.6 39.9 74.1



#48

2-Hexanone

Concen: 4.715 ug/L

RT: 8.681 min Scan# 2283

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Tgt Ion: 43 Resp: 41676

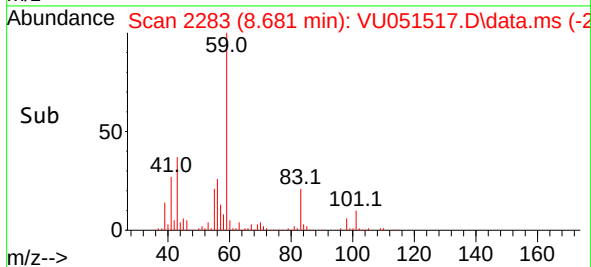
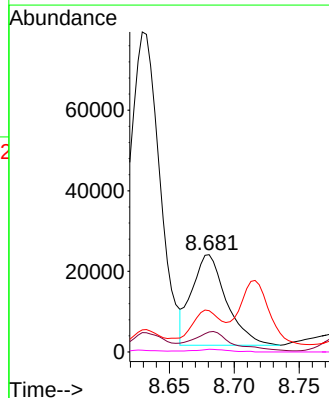
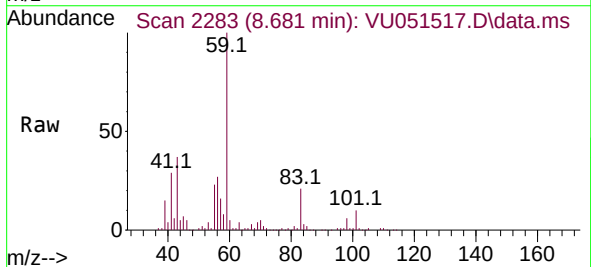
Ion Ratio Lower Upper

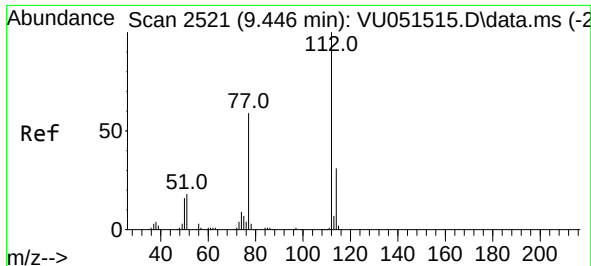
43 100

58 25.9 48.2 72.2#

57 40.4 15.5 23.3#

100 2.9 9.0 13.4#

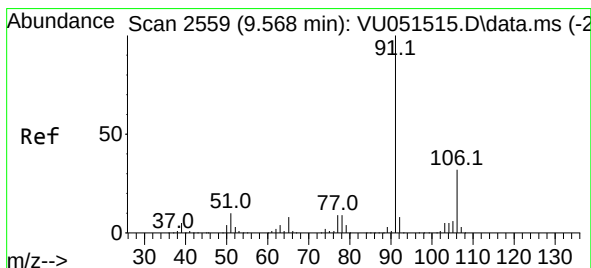
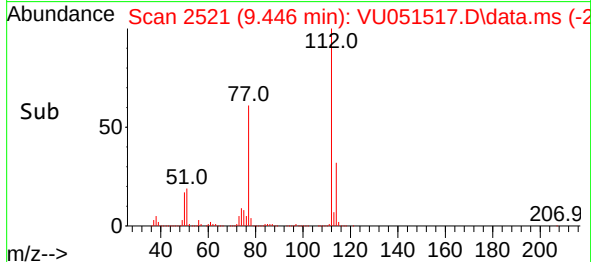
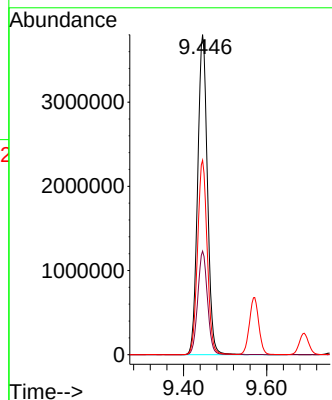
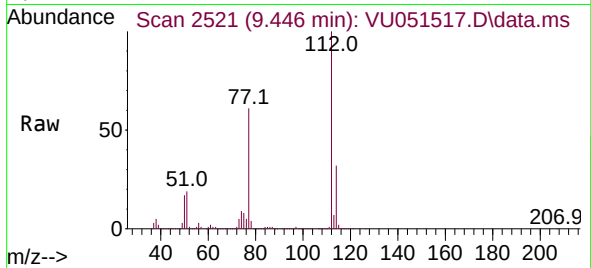




#51
Chlorobenzene
Concen: 118.079 ug/L
RT: 9.446 min Scan# 21
Delta R.T. 0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

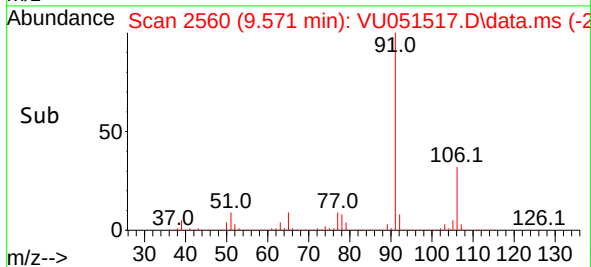
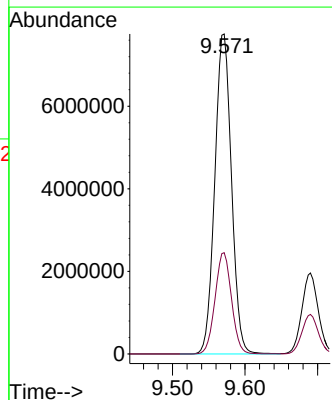
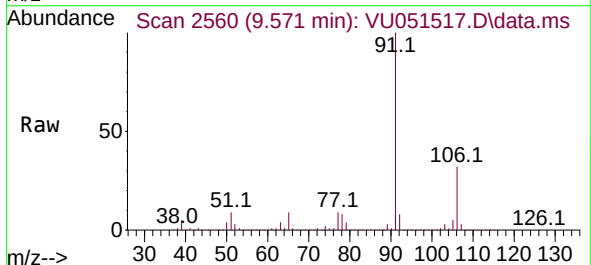
Instrument :
MSVOA_U
ClientSampleId :
BHA73

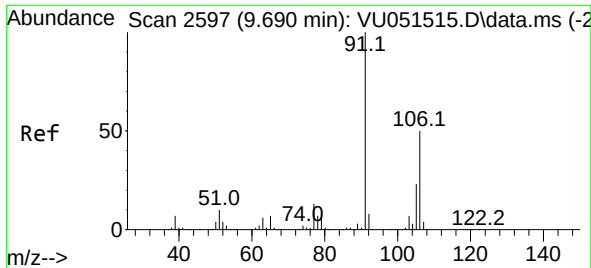
Tgt Ion:112 Resp: 6182183
Ion Ratio Lower Upper
112 100
114 32.3 22.3 41.5
77 60.7 48.1 72.1



#52
Ethylbenzene
Concen: 157.118 ug/L
RT: 9.571 min Scan# 2560
Delta R.T. 0.003 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion: 91 Resp:12372136
Ion Ratio Lower Upper
91 100
106 31.6 20.9 38.7

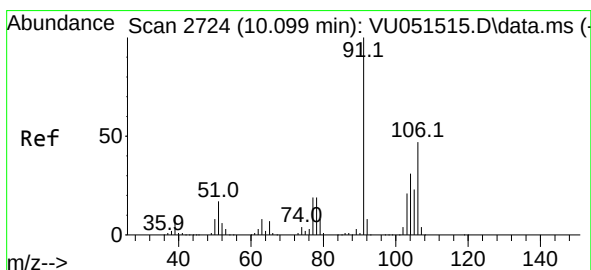
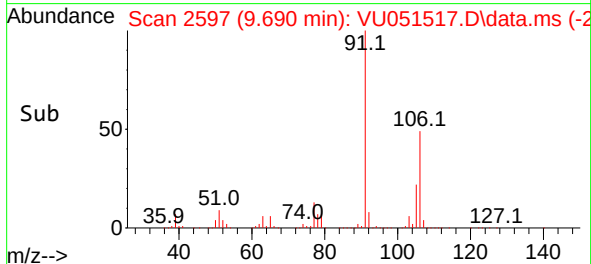
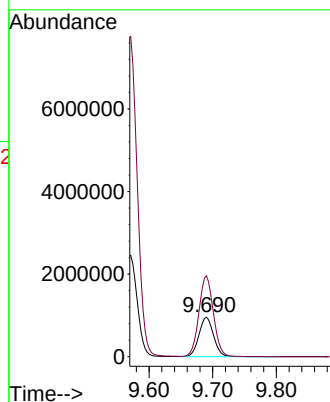
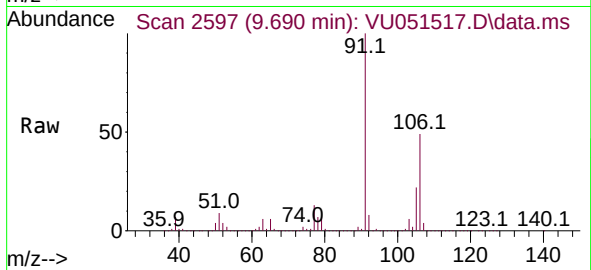




#53
m,p-Xylene
Concen: 49.774 ug/L
RT: 9.690 min Scan# 2597
Delta R.T. -0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

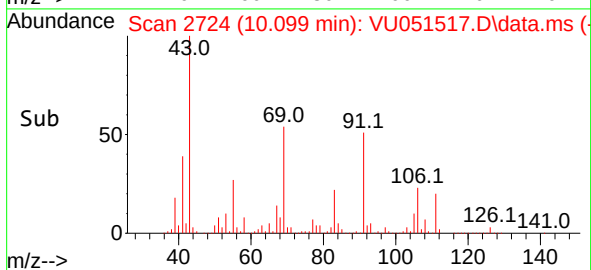
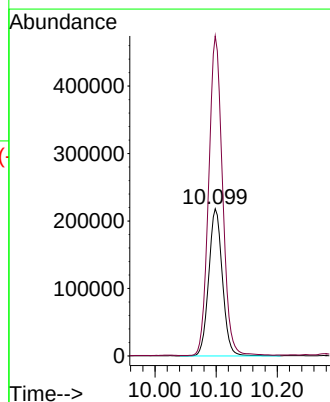
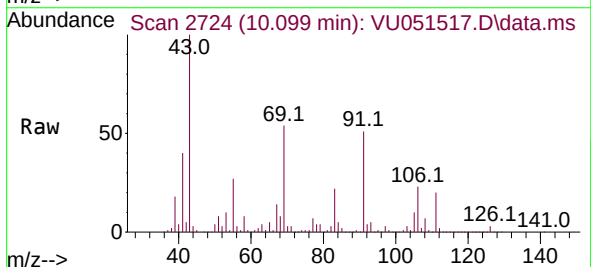
Instrument :
MSVOA_U
ClientSampleId :
BHA73

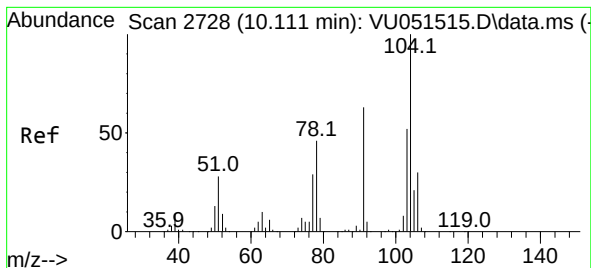
Tgt Ion:106 Resp: 1520078
Ion Ratio Lower Upper
106 100
91 205.1 143.9 267.3



#54
o-Xylene
Concen: 11.693 ug/L
RT: 10.099 min Scan# 2724
Delta R.T. 0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion:106 Resp: 337888
Ion Ratio Lower Upper
106 100
91 217.3 154.4 286.8





#55

Styrene

Concen: 0.441 ug/L

RT: 10.102 min Scan# 21

Delta R.T. -0.010 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

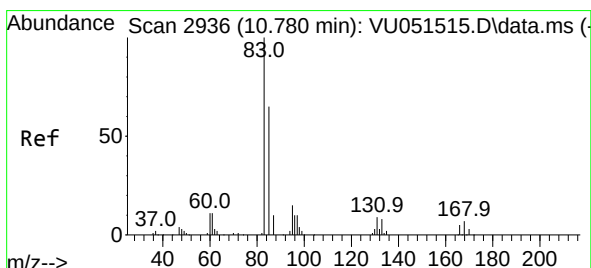
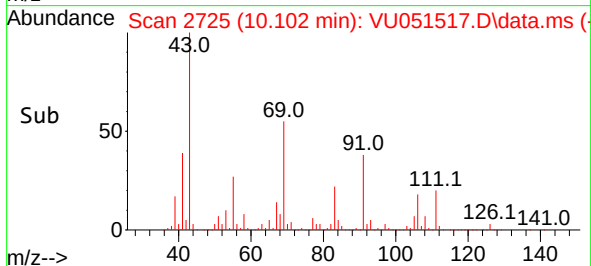
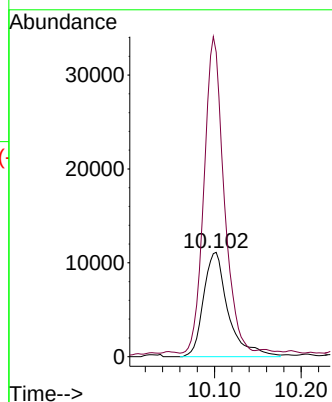
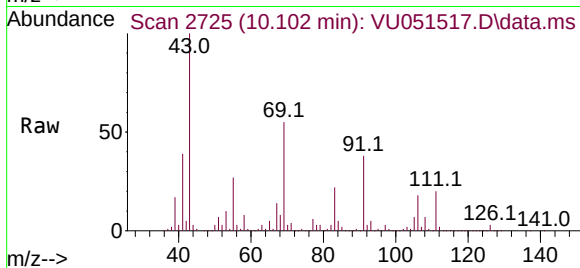
BHA73

Tgt Ion:104 Resp: 21953

Ion Ratio Lower Upper

104 100

78 292.0 32.1 59.7#



#57

1,1,2,2-Tetrachloroethane

Concen: 1.006 ug/L

RT: 10.767 min Scan# 2932

Delta R.T. -0.013 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

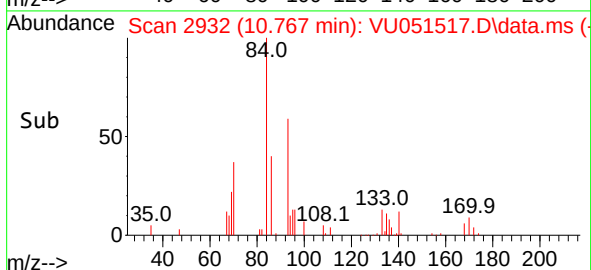
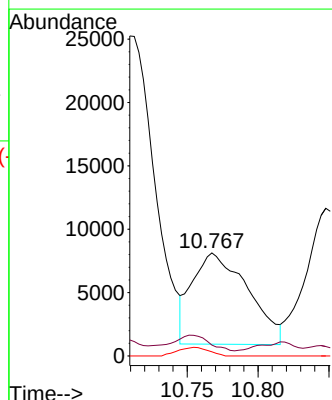
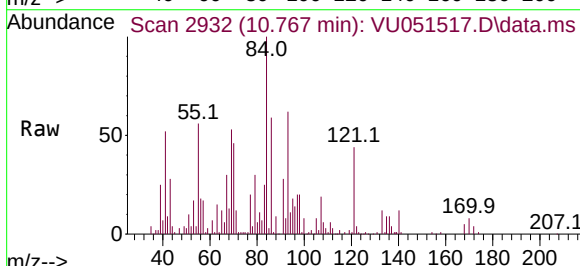
Tgt Ion: 83 Resp: 19775

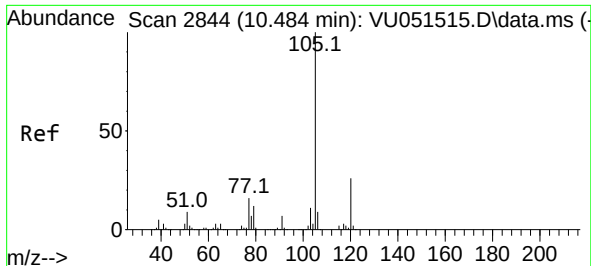
Ion Ratio Lower Upper

83 100

85 10.6 45.9 85.3#

131 4.0 7.4 11.2#

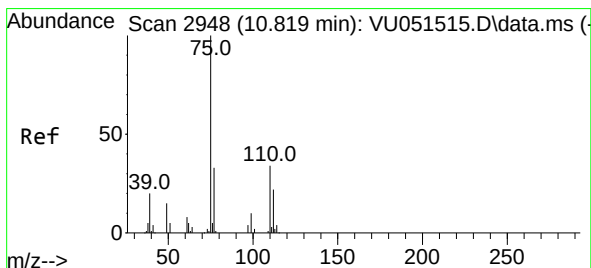
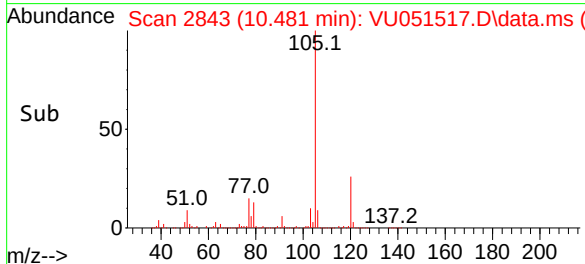
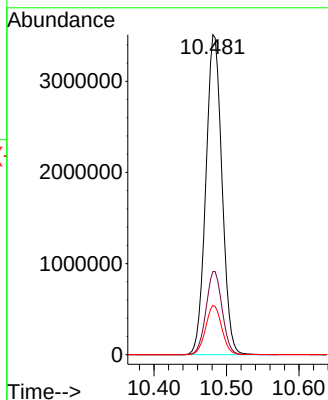
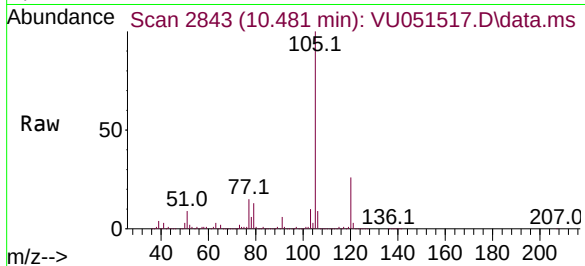




#60
Isopropylbenzene
Concen: 64.643 ug/L
RT: 10.481 min Scan# 2844
Delta R.T. -0.003 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

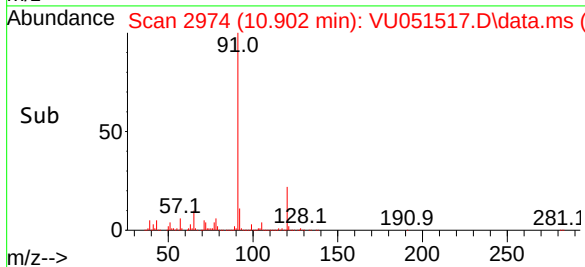
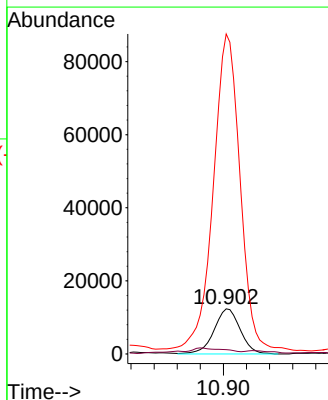
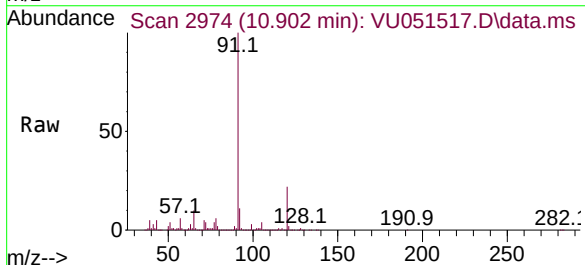
Instrument :
MSVOA_U
ClientSampleId :
BHA73

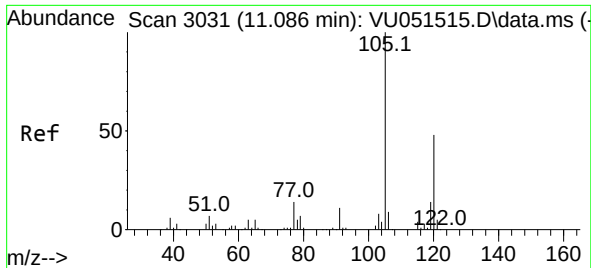
Tgt Ion:105 Resp: 5411943
Ion Ratio Lower Upper
105 100
120 26.1 20.6 30.8
77 15.5 13.5 20.3



#61
1,2,3-Trichloropropane
Concen: 1.166 ug/L
RT: 10.902 min Scan# 2974
Delta R.T. 0.084 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion: 75 Resp: 19463
Ion Ratio Lower Upper
75 100
110 14.6 27.0 40.6#
77 721.8 26.4 39.6#

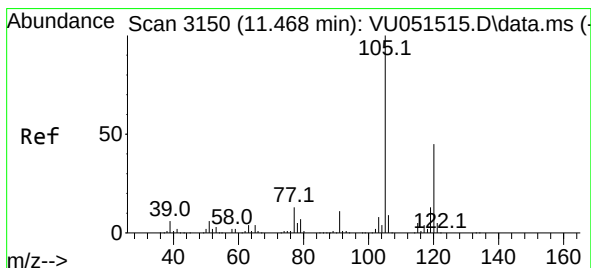
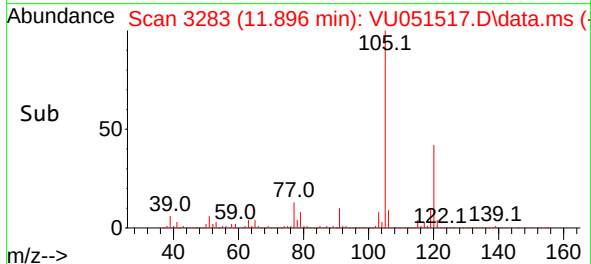
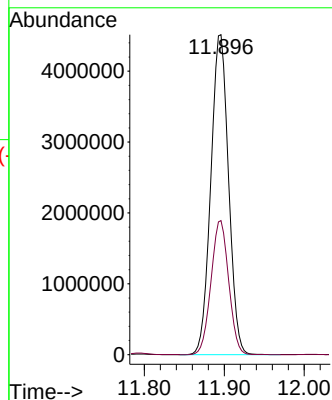
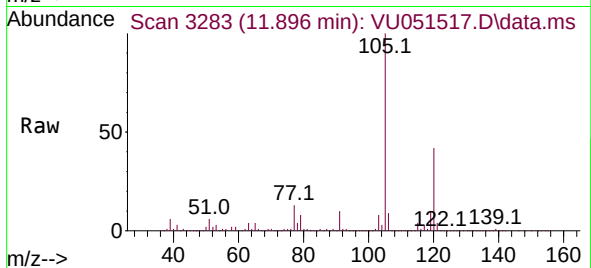




#62
1,3,5-Trimethylbenzene
Concen: 312.890 ug/L
RT: 11.896 min Scan# 31
Delta R.T. 0.810 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

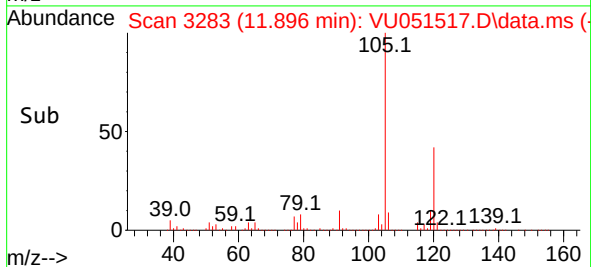
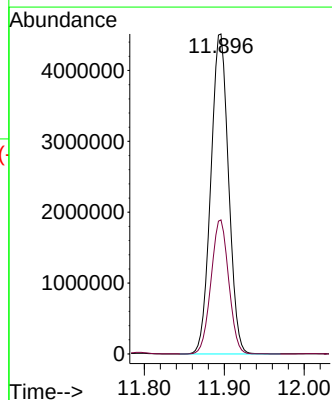
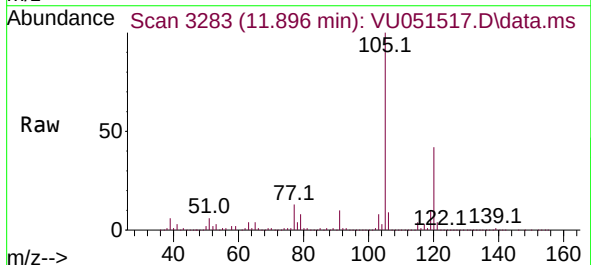
Instrument :
MSVOA_U
ClientSampleId :
BHA73

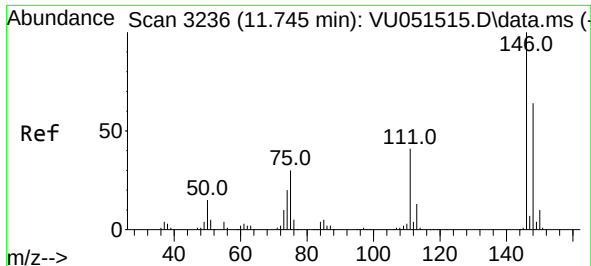
Tgt Ion:105 Resp: 6948987
Ion Ratio Lower Upper
105 100
120 41.8 37.7 56.5



#63
1,2,4-Trimethylbenzene
Concen: 110.638 ug/L
RT: 11.896 min Scan# 3283
Delta R.T. 0.428 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion:105 Resp: 6948987
Ion Ratio Lower Upper
105 100
120 41.8 35.6 53.4





#64

1,3-Dichlorobenzene

Concen: 3.716 ug/L

RT: 11.745 min Scan# 31

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

BHA73

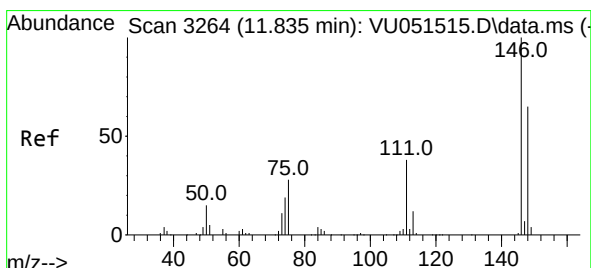
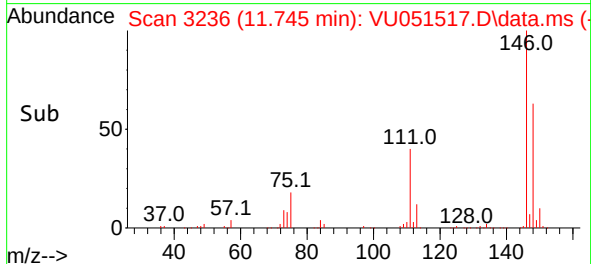
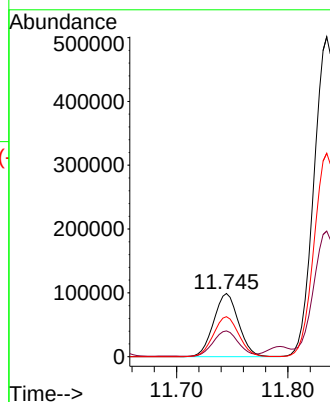
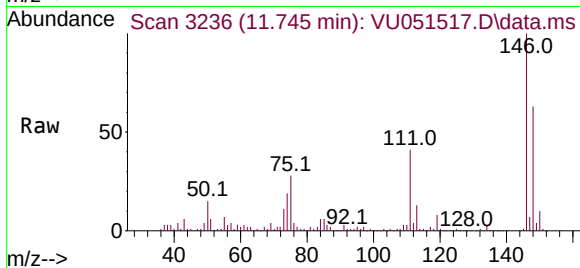
Tgt Ion:146 Resp: 153873

Ion Ratio Lower Upper

146 100

111 40.7 28.3 52.7

148 63.3 43.8 81.4



#65

1,4-Dichlorobenzene

Concen: 19.272 ug/L

RT: 11.835 min Scan# 3264

Delta R.T. 0.000 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

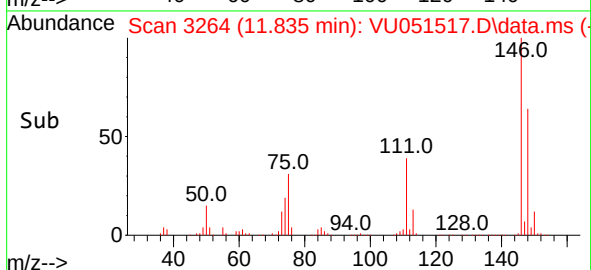
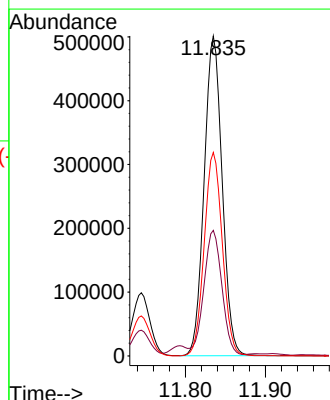
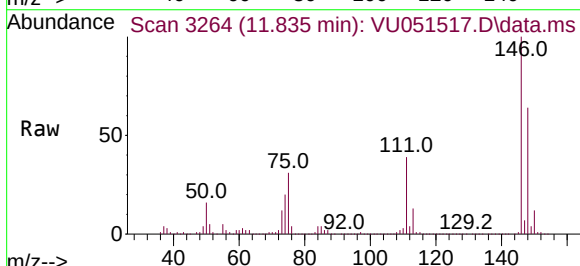
Tgt Ion:146 Resp: 786641

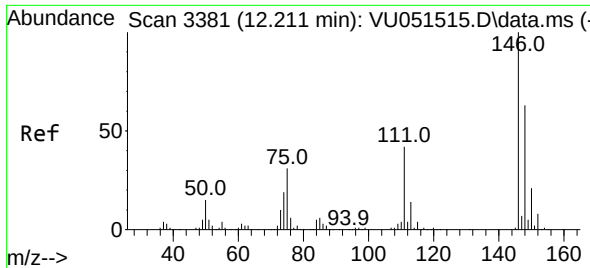
Ion Ratio Lower Upper

146 100

111 39.2 29.1 54.1

148 63.6 44.2 82.0

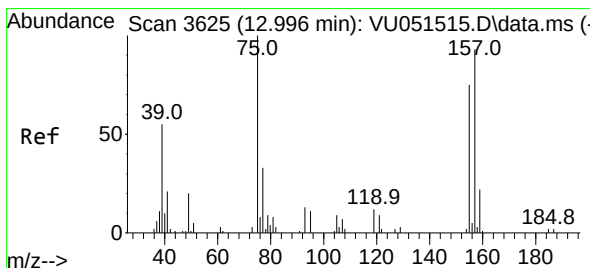
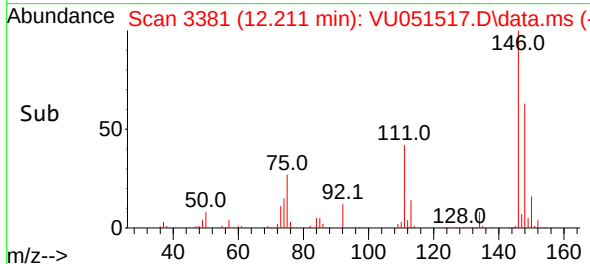
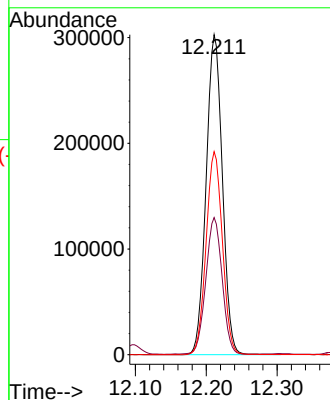
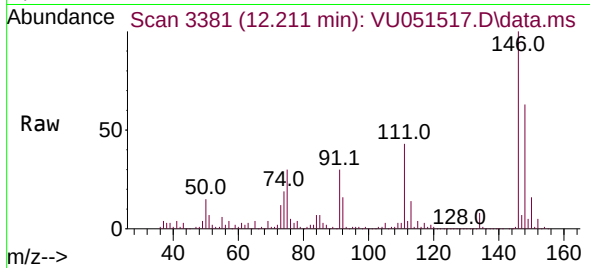




#67
1,2-Dichlorobenzene
Concen: 11.944 ug/L
RT: 12.211 min Scan# 311
Delta R.T. -0.000 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

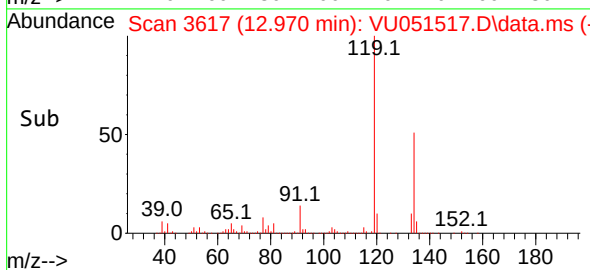
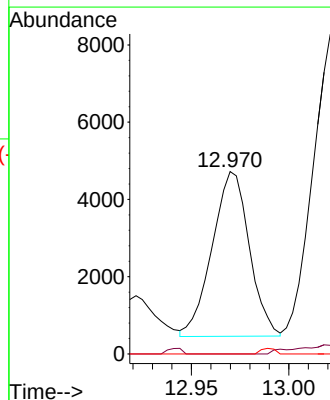
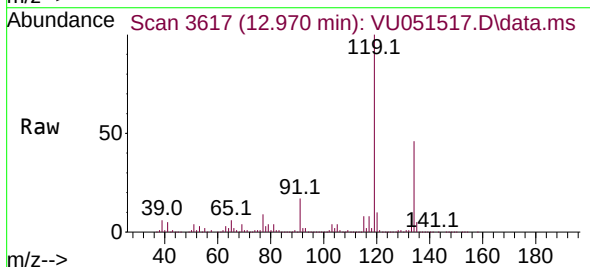
Instrument :
MSVOA_U
ClientSampleId :
BHA73

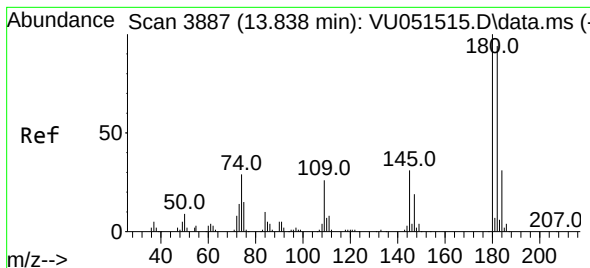
Tgt Ion:146 Resp: 480841
Ion Ratio Lower Upper
146 100
111 42.8 35.5 53.3
148 63.5 50.9 76.3



#68
1,2-Dibromo-3-chloropropane
Concen: 1.771 ug/L
RT: 12.970 min Scan# 3617
Delta R.T. -0.026 min
Lab File: VU051517.D
Acq: 26 Oct 2022 21:53

Tgt Ion: 75 Resp: 5654
Ion Ratio Lower Upper
75 100
155 0.0 62.7 94.1#
157 0.0 78.3 117.5#





#70

1,2,4-trichlorobenzene

Concen: 0.236 ug/L

RT: 13.841 min Scan# 3888

Delta R.T. 0.003 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Instrument :

MSVOA_U

ClientSampleId :

BHA73

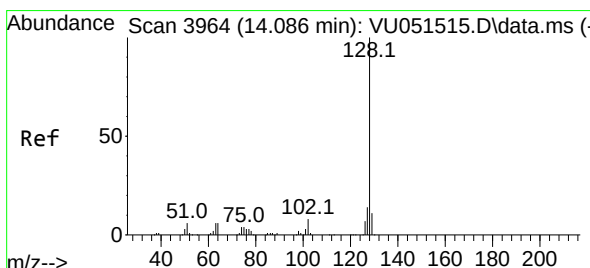
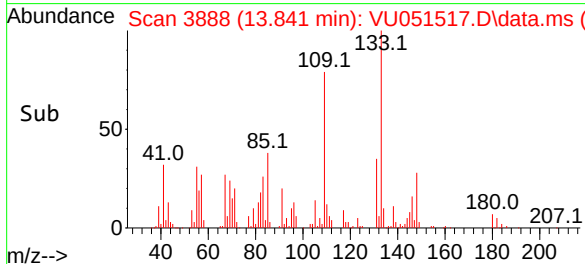
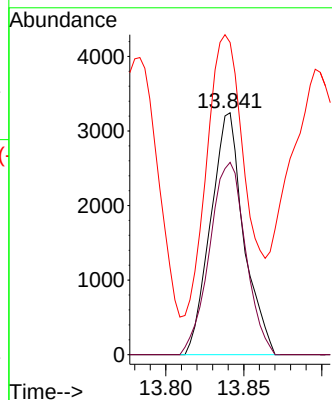
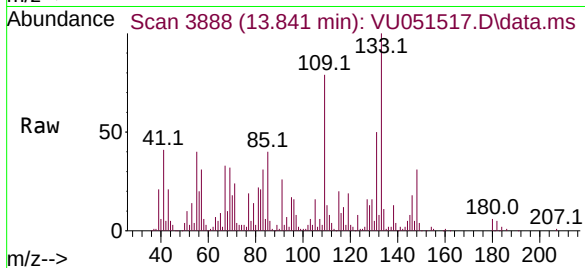
Tgt Ion:180 Resp: 4786

Ion Ratio Lower Upper

180 100

182 86.4 78.7 118.1

145 131.9 25.0 37.4#



#71

Naphthalene

Concen: 18.247 ug/L

RT: 13.626 min Scan# 3821

Delta R.T. -0.460 min

Lab File: VU051517.D

Acq: 26 Oct 2022 21:53

Tgt Ion:128 Resp: 688082

Ion Ratio Lower Upper

128 100

129 198.9 8.5 12.7#

127 46.8 11.1 16.7#

