

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX032224\
 Data File : VX040778.D
 Acq On : 22 Mar 2024 14:20
 Operator : JC/MD
 Sample : P1836-02
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 240308028-06

Quant Time: Mar 23 05:05:21 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X030524W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Tue Mar 05 13:21:29 2024
 Response via : Initial Calibration

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

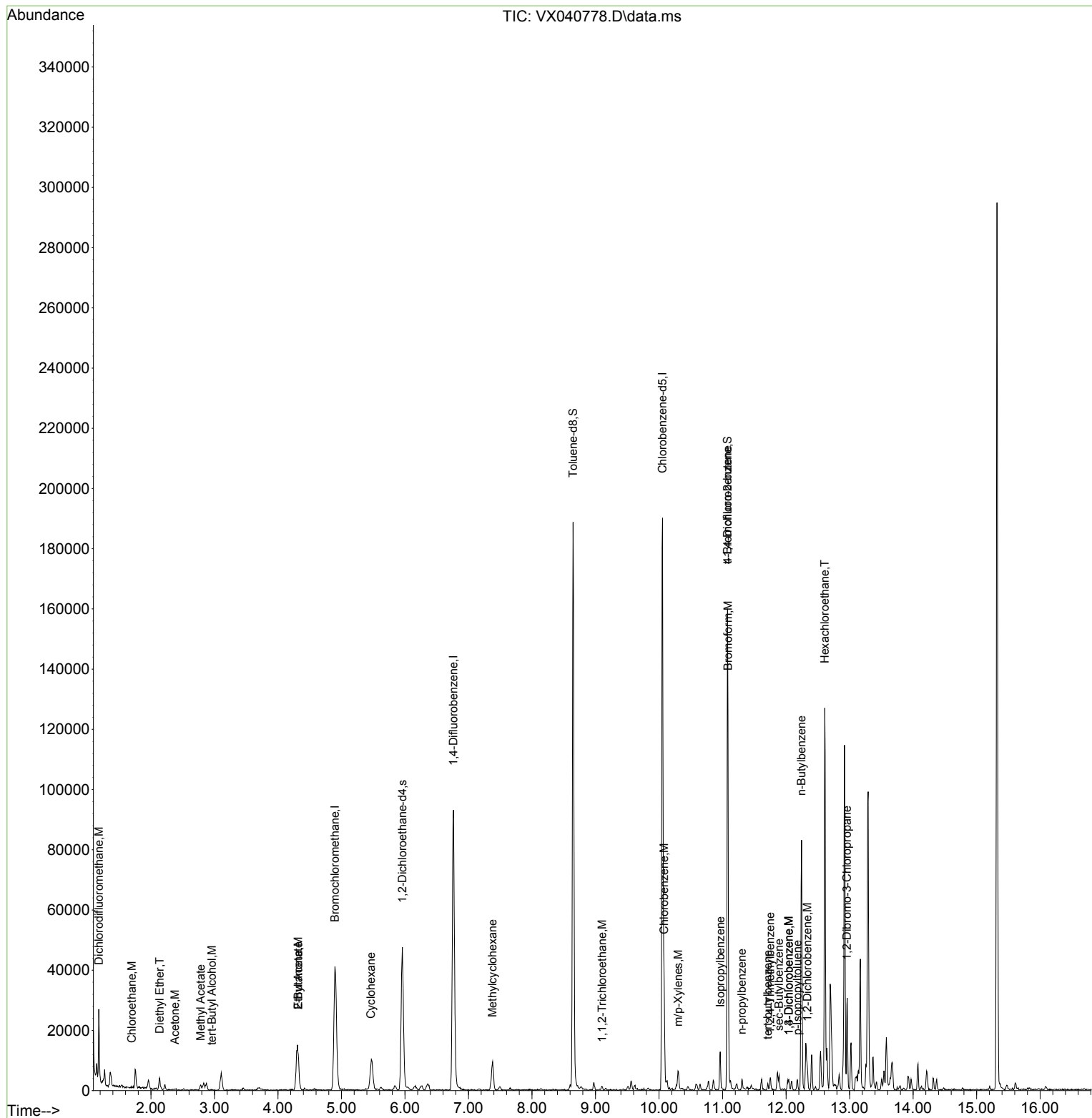
Internal Standards						
1) Bromochloromethane	4.897	128	15895	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.763	114	88080	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.055	117	78520	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.958	65	44654	28.128	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	93.767%
60) 4-Bromofluorobenzene	11.079	95	39747	29.511	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	98.367%
63) Toluene-d8	8.647	98	107006	30.837	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	102.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.179	85	293	0.272	ug/l	83
6) Chloroethane	1.697	64	142	0.202	ug/l #	43
8) Diethyl Ether	2.136	74	1326	2.149	ug/l	90
12) Methyl Acetate	2.782	43	963	0.617	ug/l #	54
15) Acetone	2.380	58	101	0.575	ug/l #	1
23) tert-Butyl Alcohol	2.959	59	84	0.289	ug/l #	100
26) Cyclohexane	5.464	56	3961	2.438	ug/l #	7
30) 2-Butanone	4.318	43	409	0.440	ug/l #	41
38) Methylcyclohexane	7.379	83	3583	2.183	ug/l	77
43) Ethyl Acetate	4.318	43	409	0.233	ug/l #	64
50) 1,1,2-Trichloroethane	9.104	97	448	0.410	ug/l #	14
56) Bromoform	11.085	173	258	0.292	ug/l #	1
64) Chlorobenzene	10.079	112	12928	4.891	ug/l	97
67) m/p-Xylenes	10.299	106	1153	0.626	ug/l #	66
70) Isopropylbenzene	10.963	105	6208	1.296	ug/l	95
74) n-propylbenzene	11.305	91	2626	0.444	ug/l	95
77) t-1,4-Dichloro-2-butene	11.079	75	22831	48.627	ug/l #	12
79) tert-butylbenzene	11.713	119	911	0.231	ug/l	81
80) 1,2,4-Trimethylbenzene	11.750	105	1941	0.467	ug/l	93
81) sec-Butylbenzene	11.890	105	2358	0.454	ug/l	99
82) p-Isopropyltoluene	12.177	119	1562	0.367	ug/l	90
83) 1,3-Dichlorobenzene	12.042	146	1192	0.540	ug/l	92
84) 1,4-Dichlorobenzene	12.042	146	1192	0.528	ug/l	95
85) n-Butylbenzene	12.244	91	5845	1.412	ug/l	46
86) Hexachloroethane	12.609	117	5499	7.410	ug/l #	18
87) 1,2-Dichlorobenzene	12.335	146	1496	0.698	ug/l	92
88) 1,2-Dibromo-3-Chloropr...	12.957	75	100	0.223	ug/l #	7

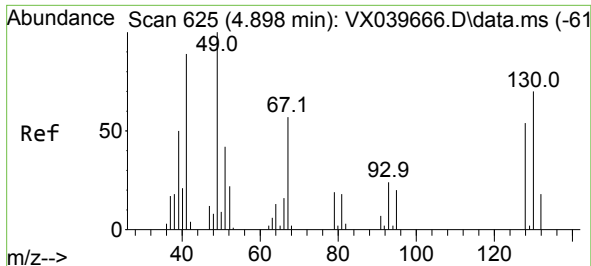
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX032224\
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Instrument :
MSVOA_X
ClientSampleId :
240308028-06

Quant Time: Mar 23 05:05:21 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X030524W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Tue Mar 05 13:21:29 2024
Response via : Initial Calibration

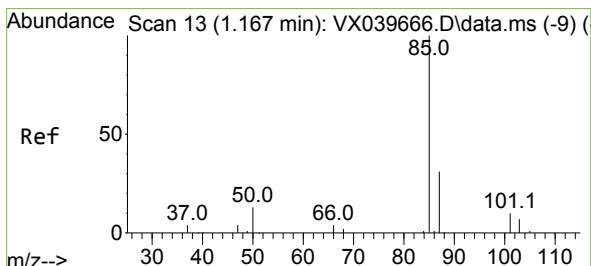
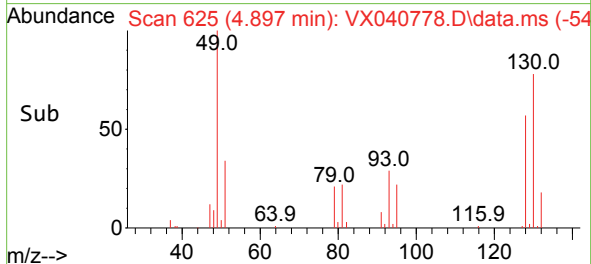
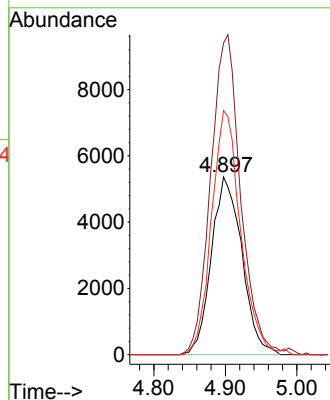
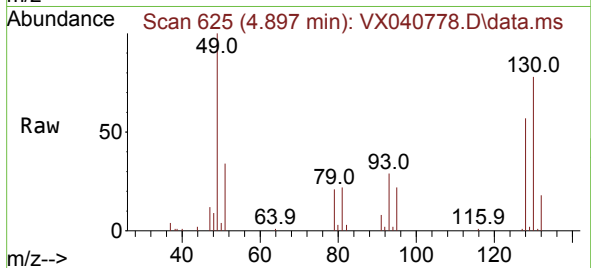




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 4.897 min Scan# 61
Delta R.T. -0.001 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

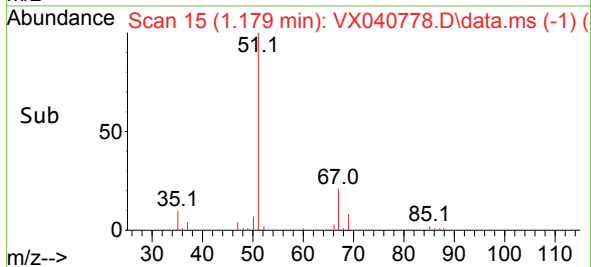
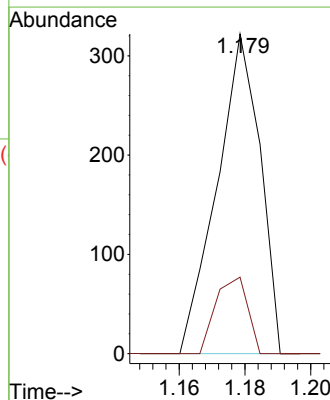
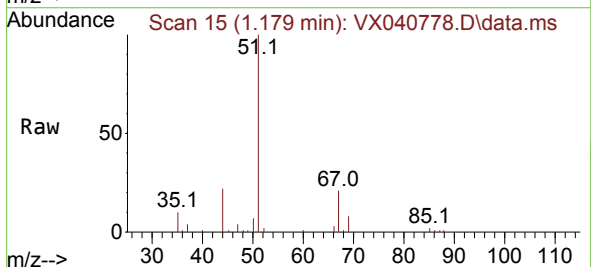
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

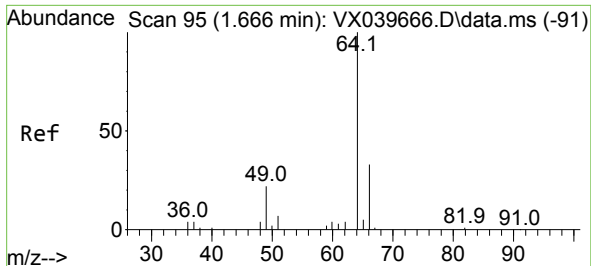
Tgt Ion:128 Resp: 15895
Ion Ratio Lower Upper
128 100
49 176.2 0.0 444.0
130 130.8 0.0 297.8



#2
Dichlorodifluoromethane
Concen: 0.272 ug/l
RT: 1.179 min Scan# 15
Delta R.T. 0.012 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 85 Resp: 293
Ion Ratio Lower Upper
85 100
87 23.9 16.7 50.1

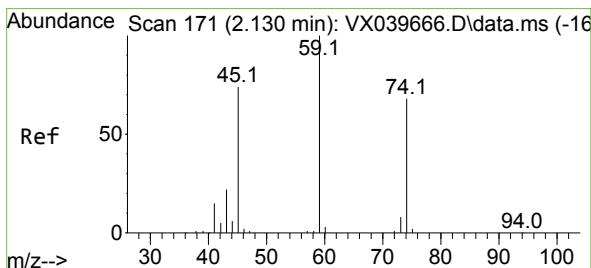
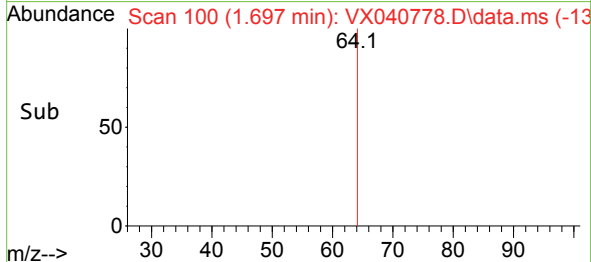
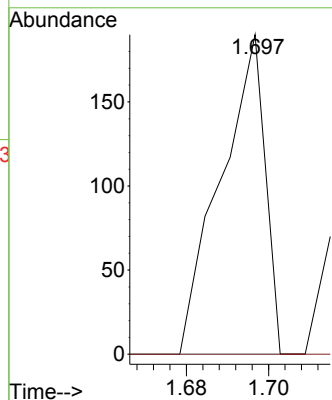
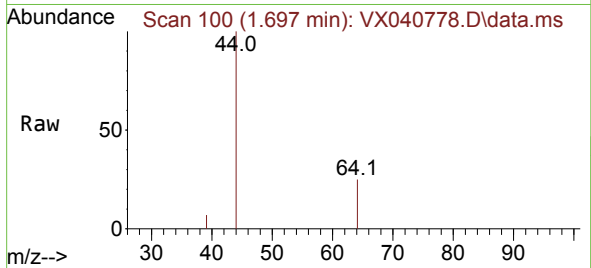




#6
Chloroethane
Concen: 0.202 ug/l
RT: 1.697 min Scan# 100
Delta R.T. 0.031 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

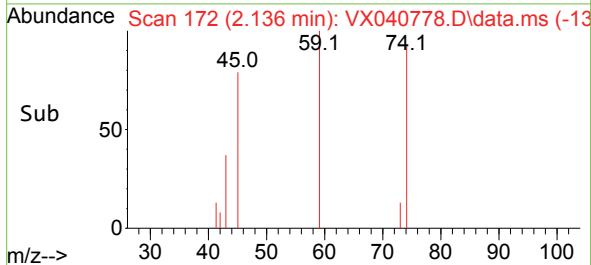
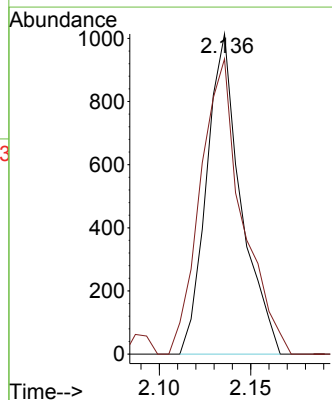
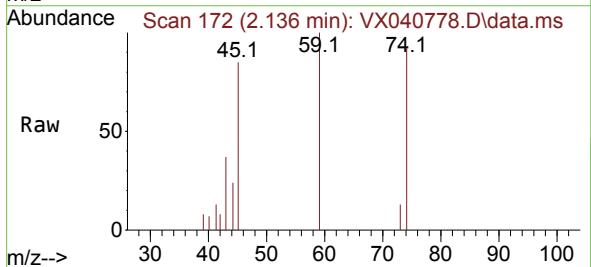
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

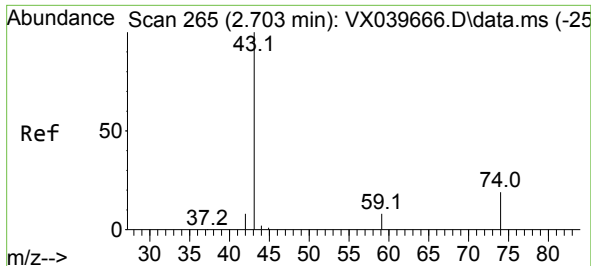
Tgt Ion: 64 Resp: 142
Ion Ratio Lower Upper
64 100
66 0.0 25.0 37.6#



#8
Diethyl Ether
Concen: 2.149 ug/l
RT: 2.136 min Scan# 172
Delta R.T. 0.006 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 74 Resp: 1326
Ion Ratio Lower Upper
74 100
45 112.6 20.5 184.5

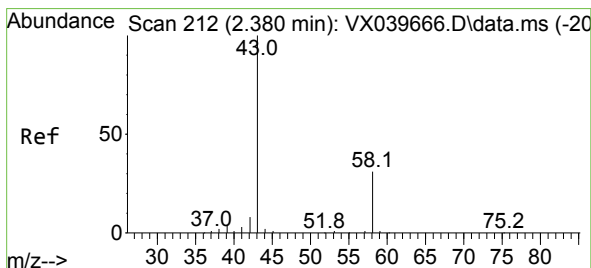
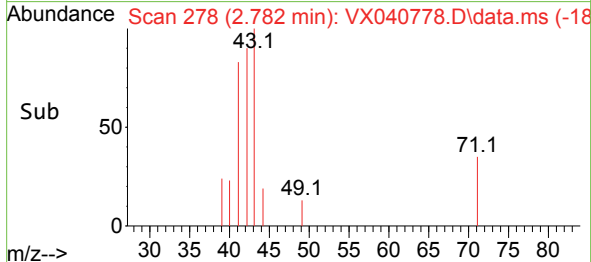
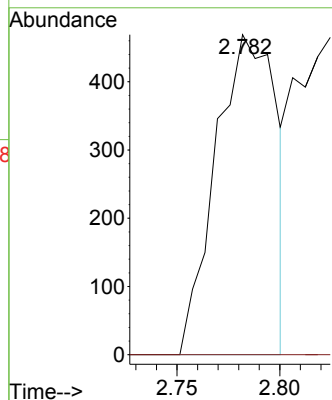
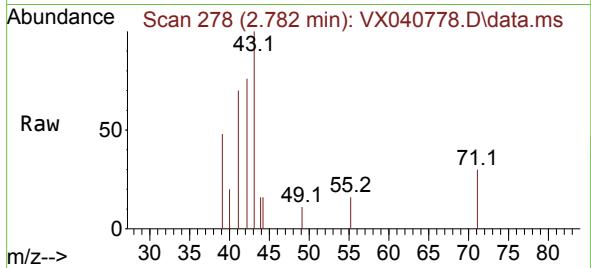




#12
Methyl Acetate
Concen: 0.617 ug/l
RT: 2.782 min Scan# 212
Delta R.T. 0.079 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

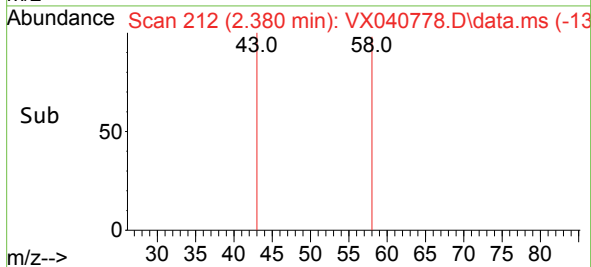
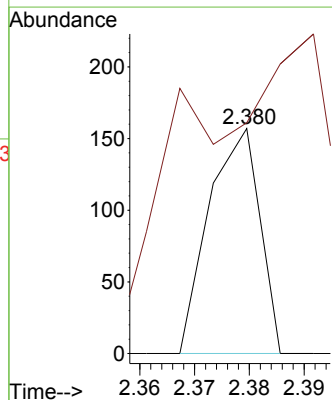
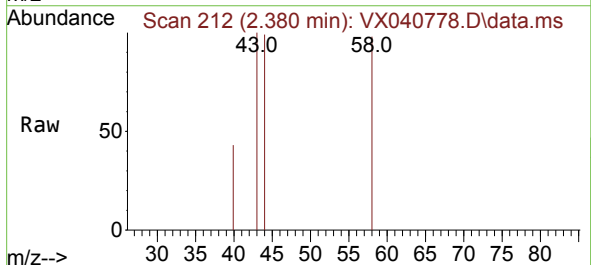
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

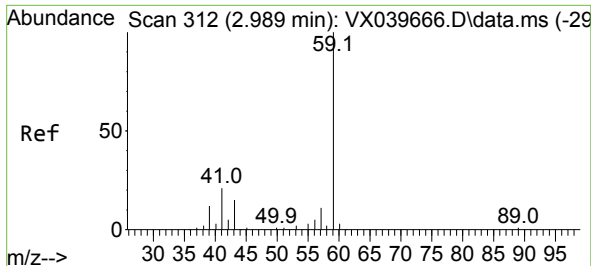
Tgt Ion: 43 Resp: 963
Ion Ratio Lower Upper
43 100
74 0.0 17.8 26.6#



#15
Acetone
Concen: 0.575 ug/l
RT: 2.380 min Scan# 212
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 58 Resp: 101
Ion Ratio Lower Upper
58 100
43 0.0 249.9 374.9#

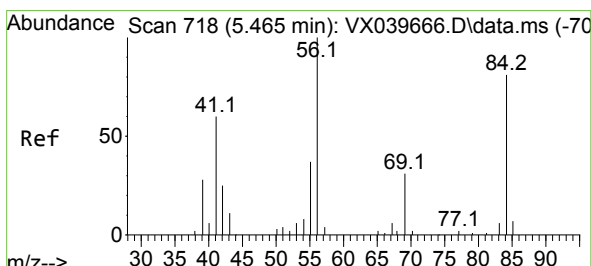
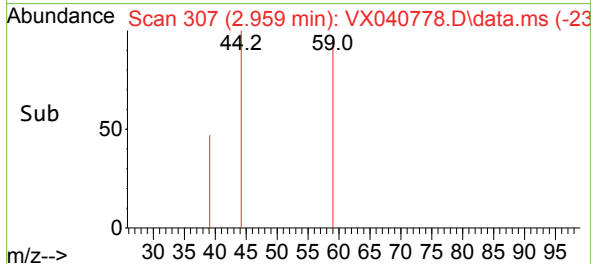
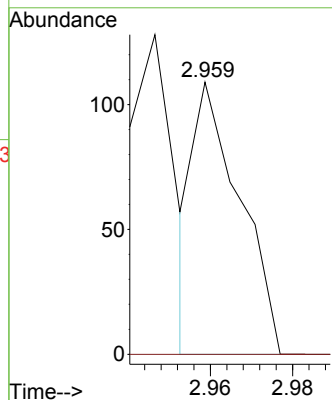
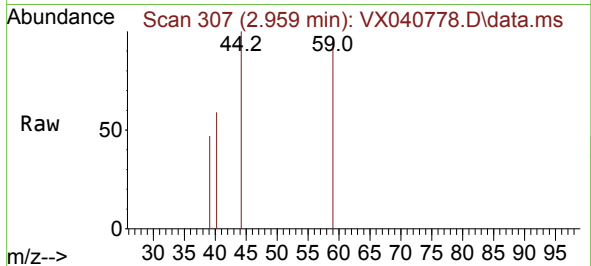




#23
tert-Butyl Alcohol
Concen: 0.289 ug/l
RT: 2.959 min Scan# 307
Delta R.T. -0.030 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

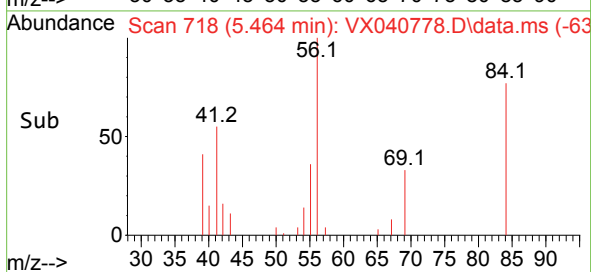
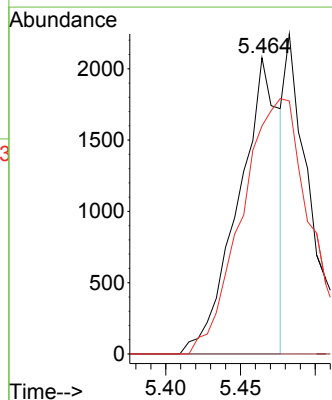
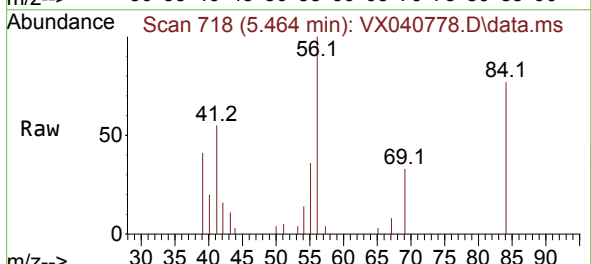
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

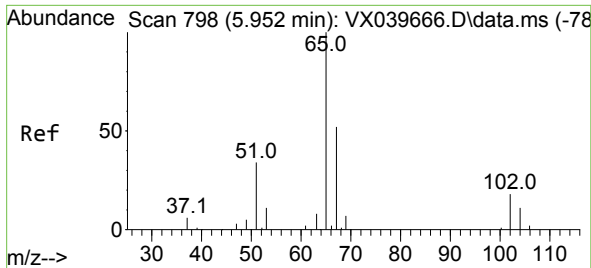
Tgt Ion: 59 Resp: 84
Ion Ratio Lower Upper
59 100
52 0.0 0.0 0.0



#26
Cyclohexane
Concen: 2.438 ug/l
RT: 5.464 min Scan# 718
Delta R.T. -0.001 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 56 Resp: 3961
Ion Ratio Lower Upper
56 100
89 0.0 0.0 0.0
84 0.0 67.2 100.8#





#27

1,2-Dichloroethane-d4

Concen: 28.128 ug/l

RT: 5.958 min Scan# 798

Delta R.T. 0.006 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

Instrument :

MSVOA_X

ClientSampleId :

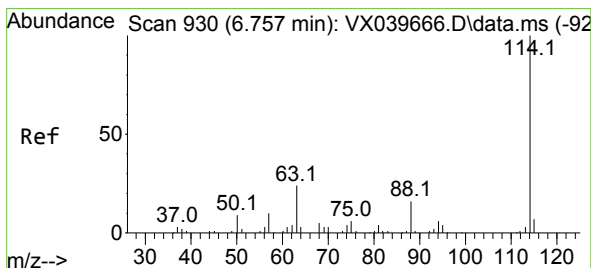
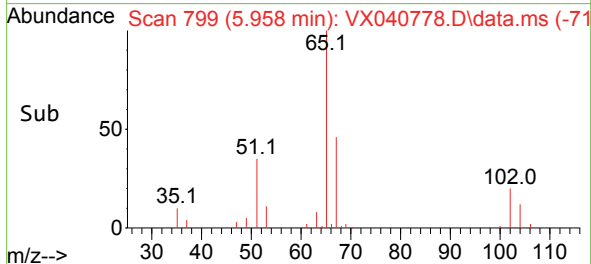
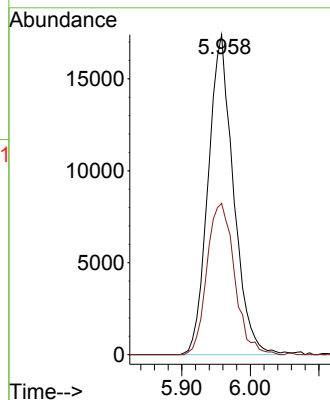
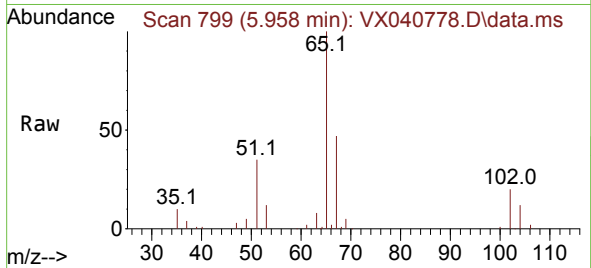
240308028-06

Tgt Ion: 65 Resp: 44654

Ion Ratio Lower Upper

65 100

67 50.2 42.5 63.7



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. 0.006 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

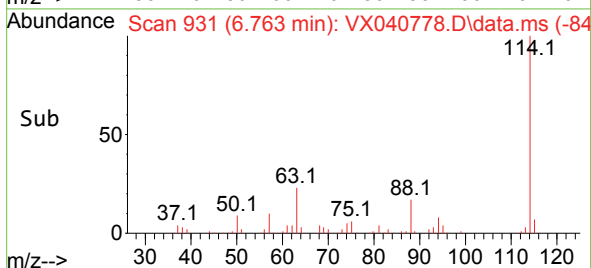
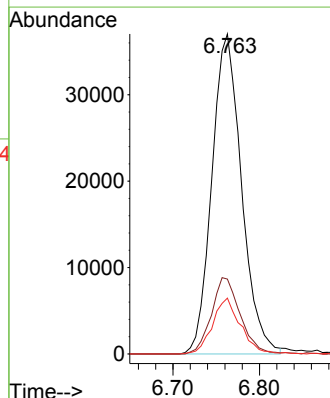
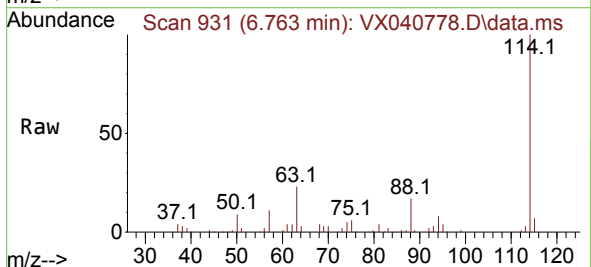
Tgt Ion: 114 Resp: 88080

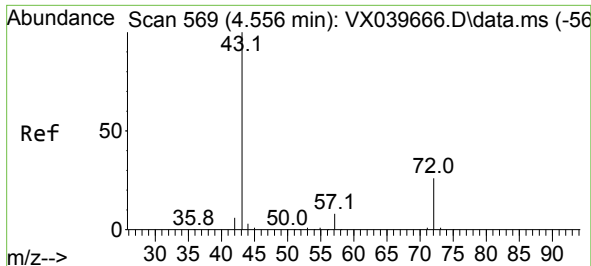
Ion Ratio Lower Upper

114 100

63 23.2 17.0 25.4

88 16.4 12.7 19.1

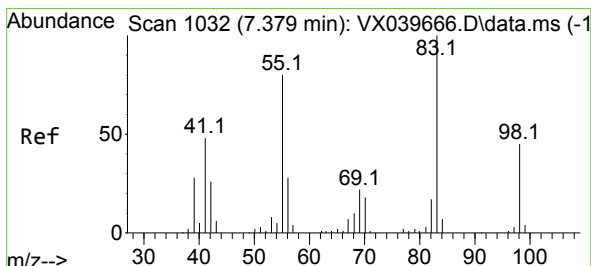
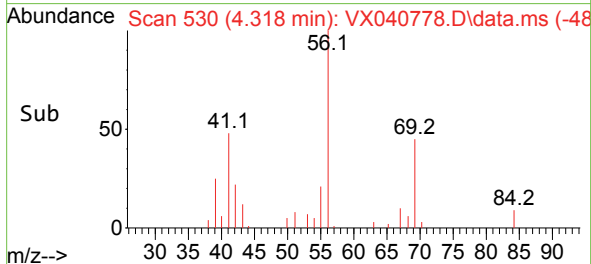
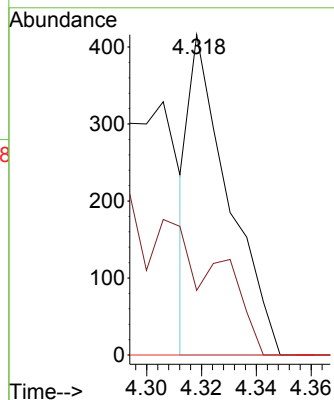
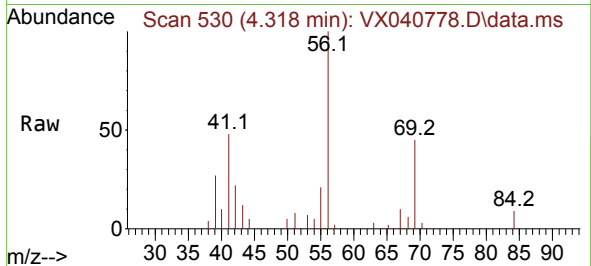




#30
2-Butanone
Concen: 0.440 ug/l
RT: 4.318 min Scan# 51
Delta R.T. -0.238 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

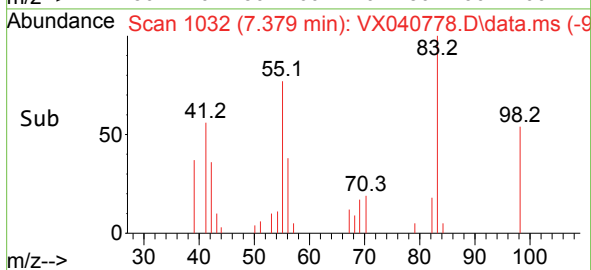
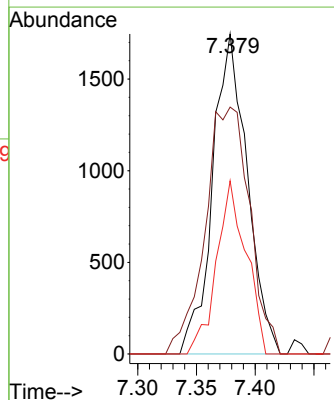
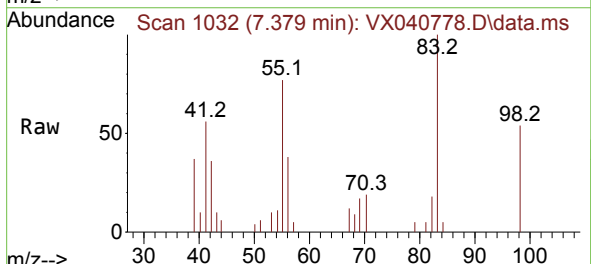
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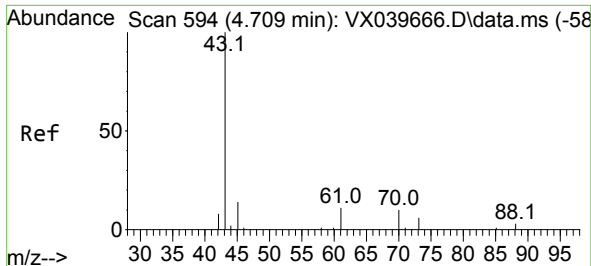
Tgt Ion: 43 Resp: 409
Ion Ratio Lower Upper
43 100
57 38.1 6.6 10.0#
72 0.0 20.6 31.0#



#38
Methylcyclohexane
Concen: 2.183 ug/l
RT: 7.379 min Scan# 1032
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 83 Resp: 3583
Ion Ratio Lower Upper
83 100
55 47.5 38.6 116.0
98 46.2 22.3 66.8





#43

Ethyl Acetate

Concen: 0.233 ug/l

RT: 4.318 min Scan# 51

Delta R.T. -0.391 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

Instrument :

MSVOA_X

ClientSampleId :

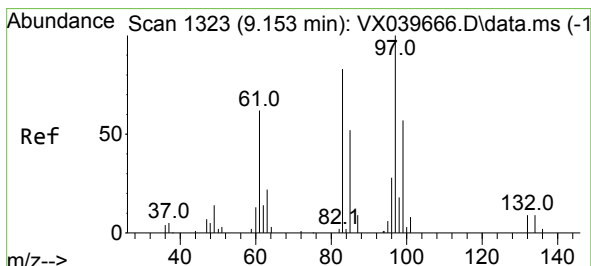
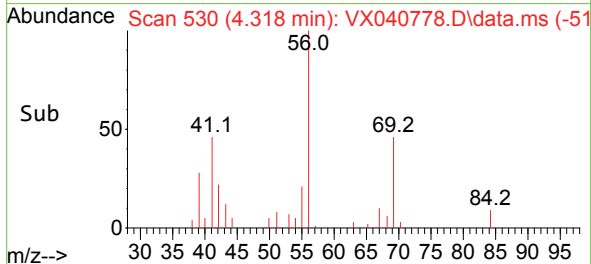
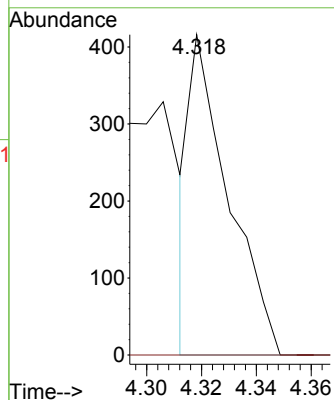
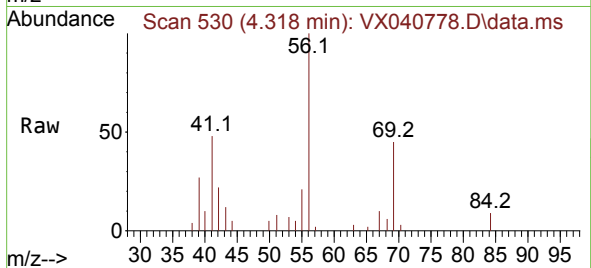
240308028-06

Tgt Ion: 43 Resp: 409

Ion Ratio Lower Upper

43 100

45 0.0 11.8 17.8#



#50

1,1,2-Trichloroethane

Concen: 0.410 ug/l

RT: 9.104 min Scan# 1315

Delta R.T. -0.049 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

Tgt Ion: 97 Resp: 448

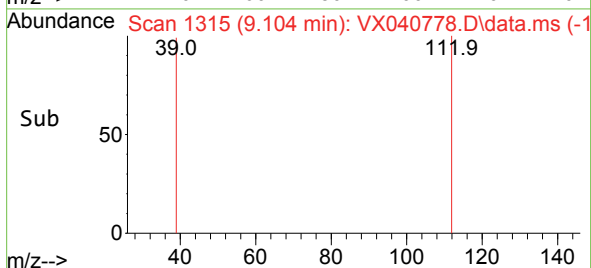
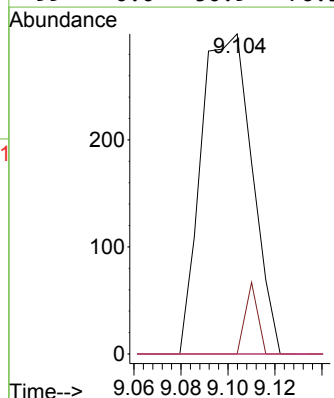
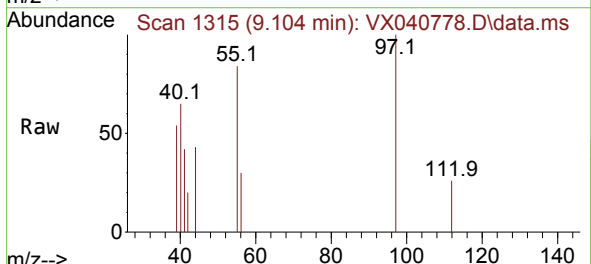
Ion Ratio Lower Upper

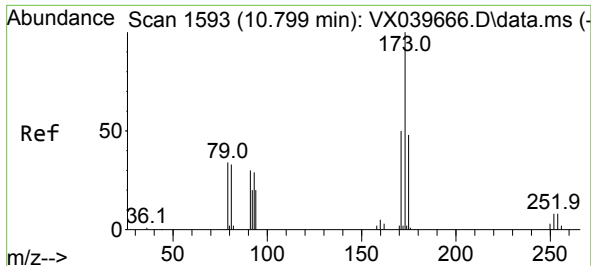
97 100

83 0.0 69.0 103.6#

85 0.0 46.3 69.5#

99 0.0 50.9 76.3#

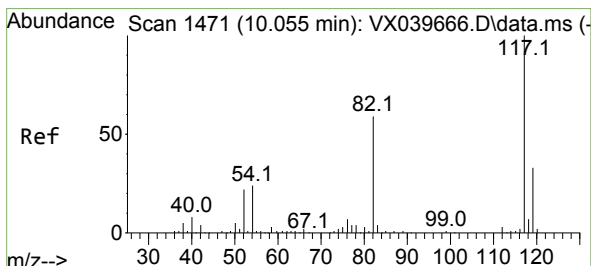
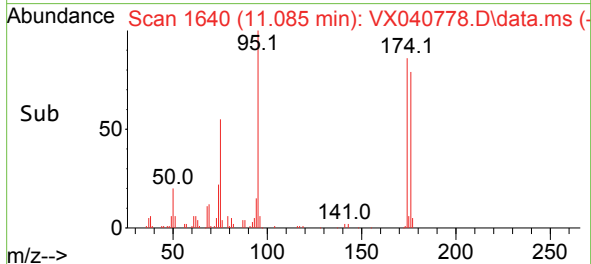
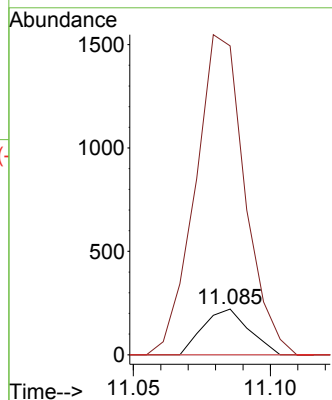
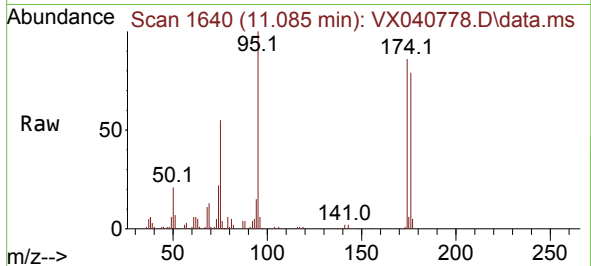




#56
Bromoform
Concen: 0.292 ug/l
RT: 11.085 min Scan# 11
Delta R.T. 0.286 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

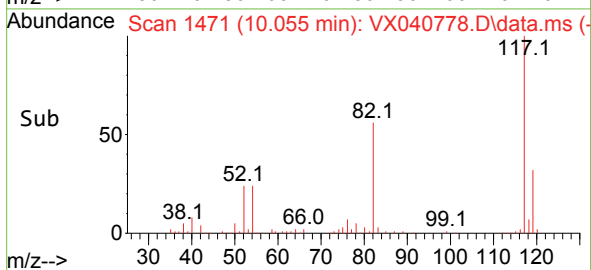
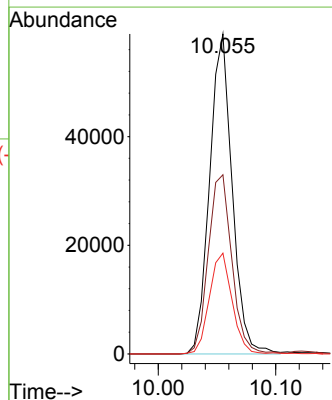
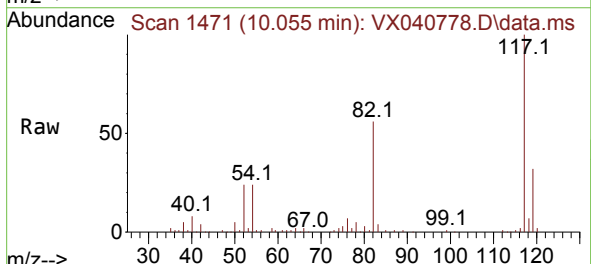
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

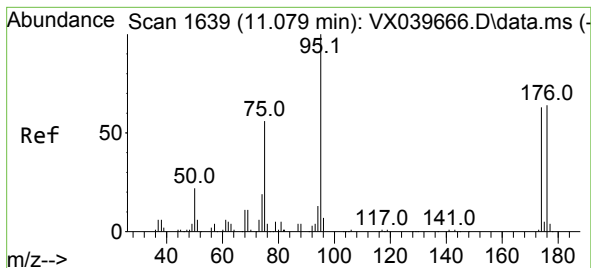
Tgt Ion:173 Resp: 258
Ion Ratio Lower Upper
173 100
175 755.8 37.6 56.4#
254 0.0 5.8 8.8#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion:117 Resp: 78520
Ion Ratio Lower Upper
117 100
82 58.7 47.0 70.6
119 31.6 25.2 37.8

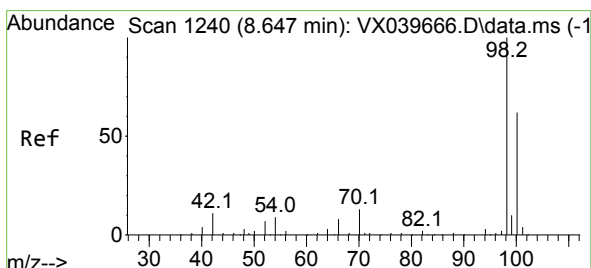
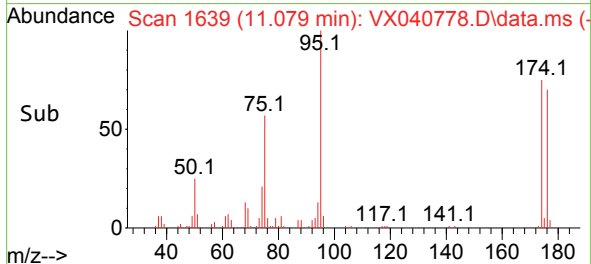
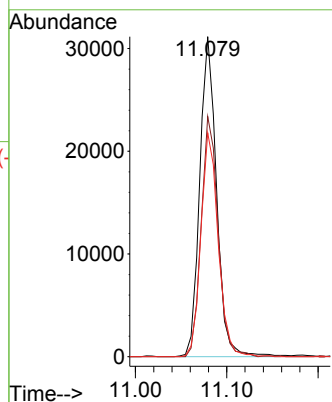
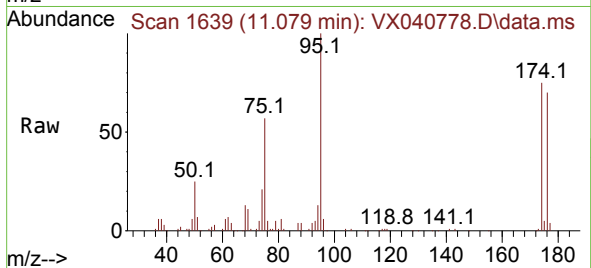




#60
4-Bromofluorobenzene
Concen: 29.511 ug/l
RT: 11.079 min Scan# 11
Delta R.T. 0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

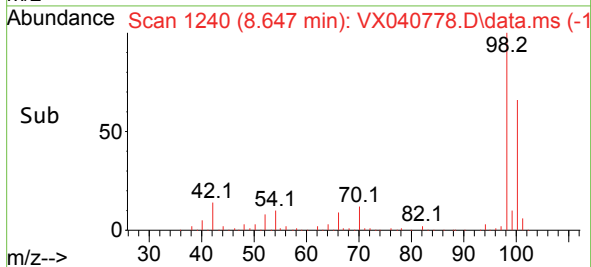
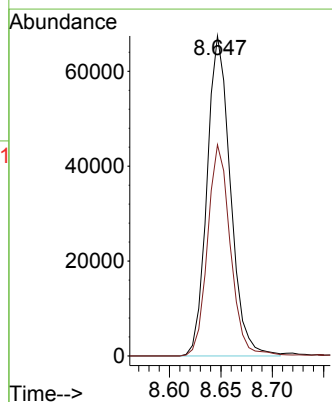
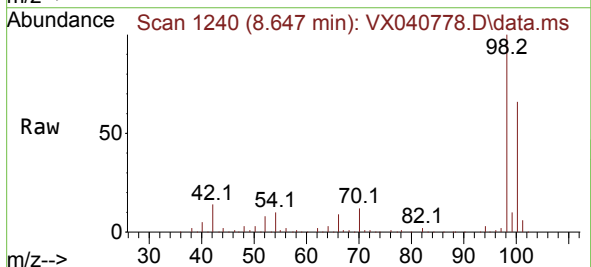
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

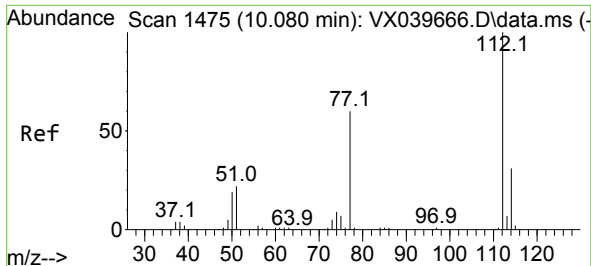
Tgt Ion: 95 Resp: 39747
Ion Ratio Lower Upper
95 100
174 74.9 55.4 83.2
176 71.7 52.6 78.8



#63
Toluene-d8
Concen: 30.837 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 98 Resp: 107006
Ion Ratio Lower Upper
98 100
100 64.3 51.0 76.4

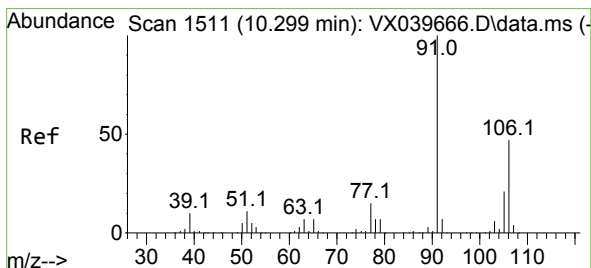
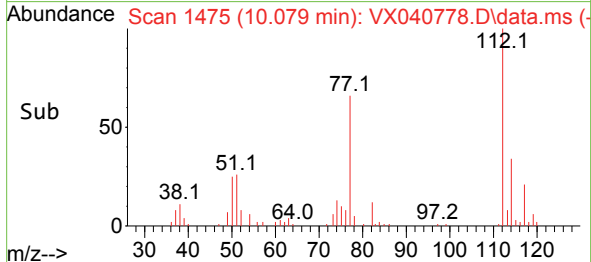
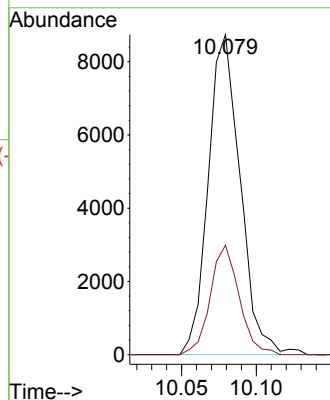
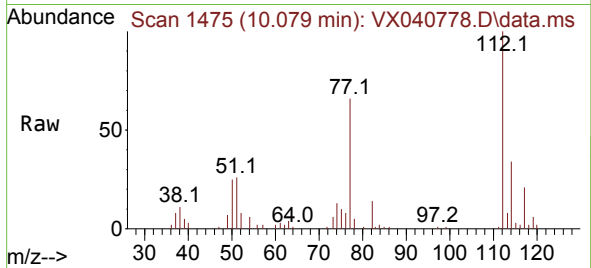




#64
Chlorobenzene
Concen: 4.891 ug/l
RT: 10.079 min Scan# 1475
Delta R.T. -0.001 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

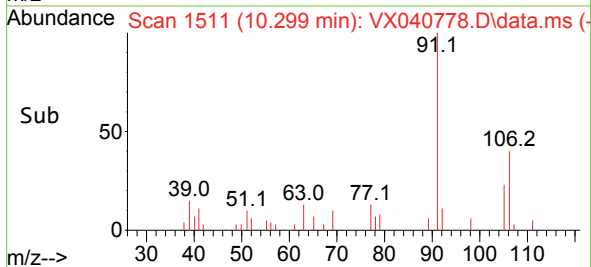
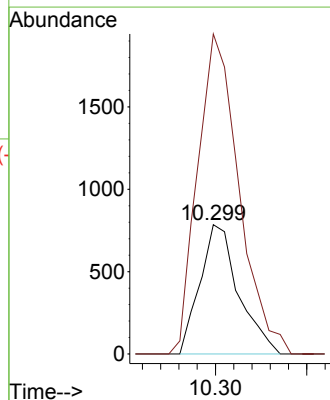
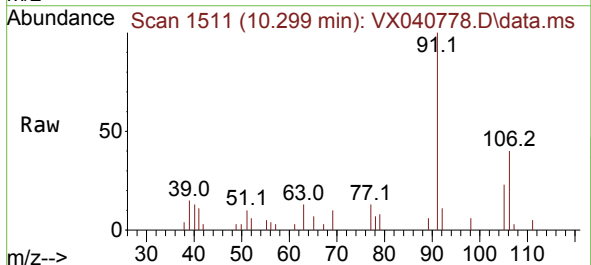
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

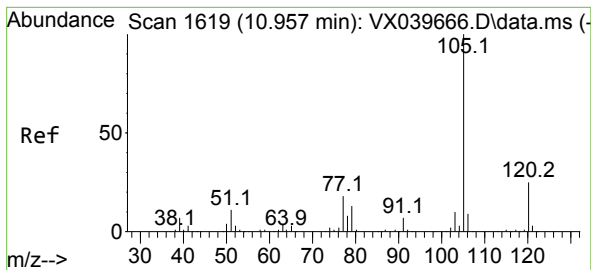
Tgt Ion:112 Resp: 12928
Ion Ratio Lower Upper
112 100
114 34.2 25.9 38.9



#67
m/p-Xylenes
Concen: 0.626 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion:106 Resp: 1153
Ion Ratio Lower Upper
106 100
91 265.6 169.4 254.0#





#70

Isopropylbenzene

Concen: 1.296 ug/l

RT: 10.963 min Scan# 1620

Delta R.T. 0.006 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

Instrument :

MSVOA_X

ClientSampleId :

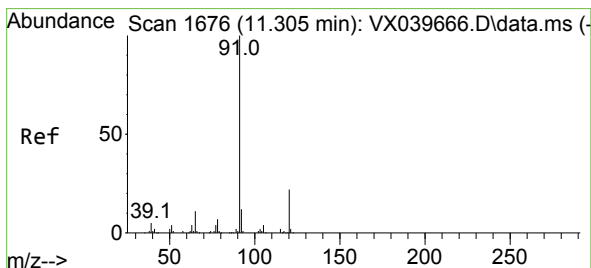
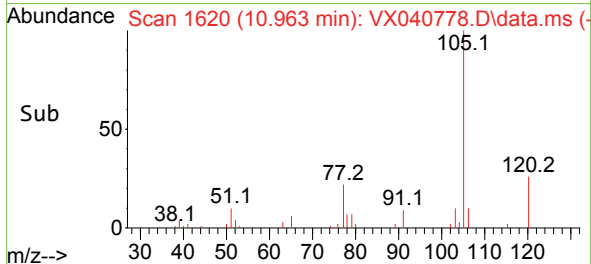
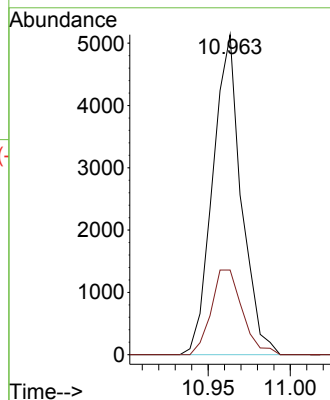
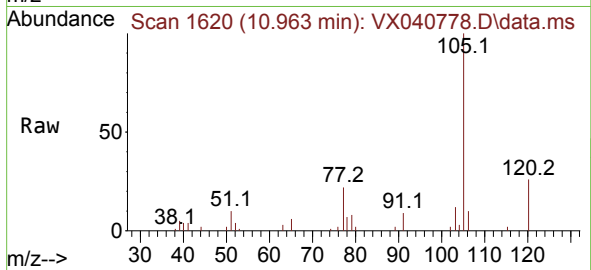
240308028-06

Tgt Ion:105 Resp: 6208

Ion Ratio Lower Upper

105 100

120 28.9 18.5 34.3



#74

n-propylbenzene

Concen: 0.444 ug/l

RT: 11.305 min Scan# 1676

Delta R.T. -0.000 min

Lab File: VX040778.D

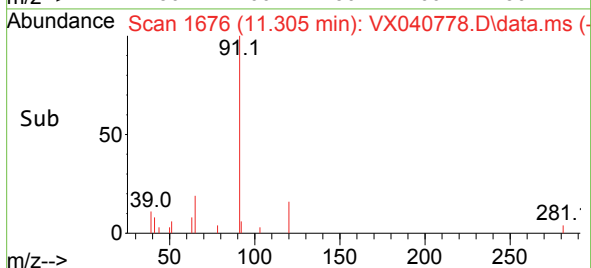
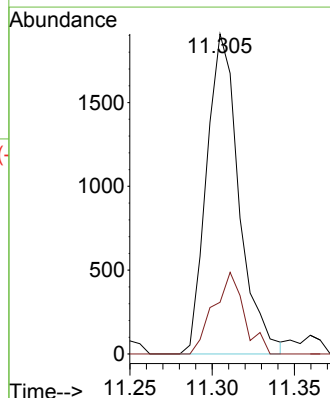
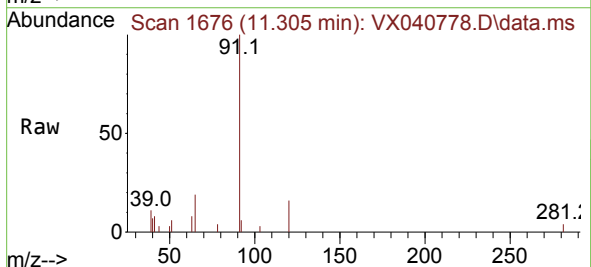
Acq: 22 Mar 2024 14:20

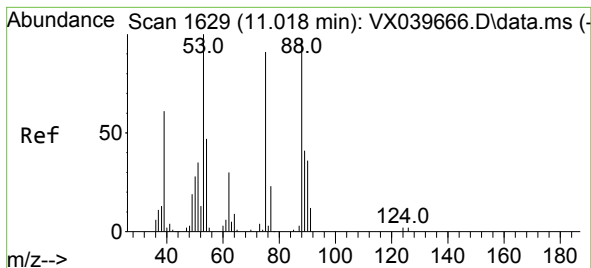
Tgt Ion: 91 Resp: 2626

Ion Ratio Lower Upper

91 100

120 23.9 0.0 43.4

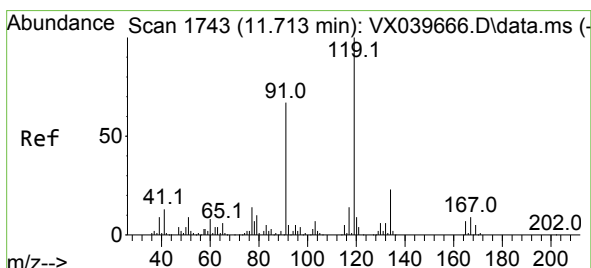
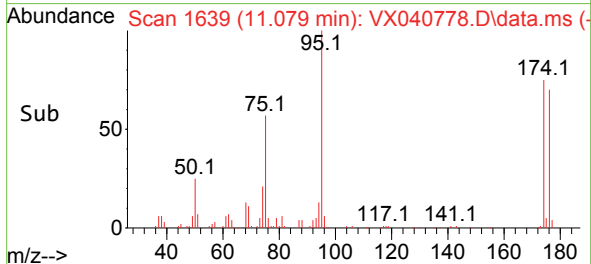
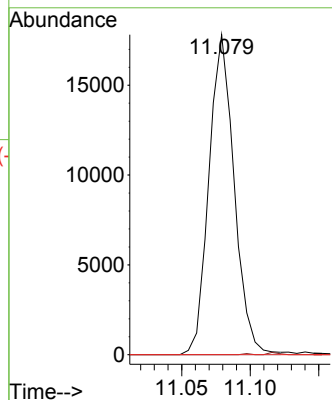
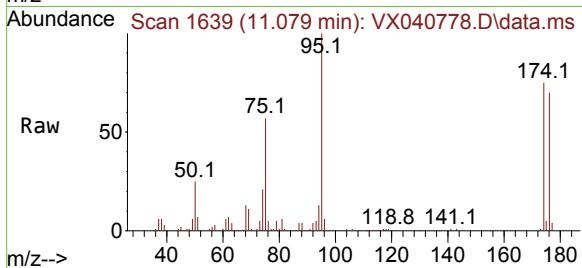




#77
t-1,4-Dichloro-2-butene
Concen: 48.627 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.061 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

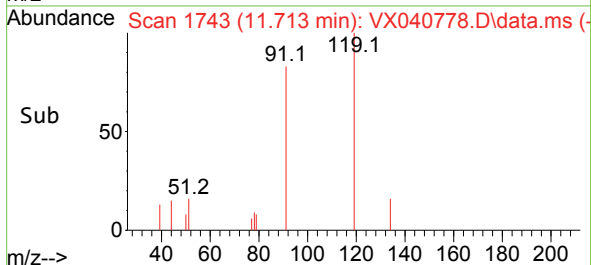
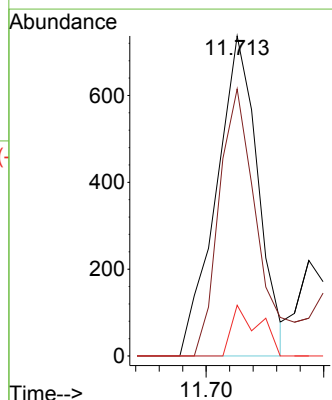
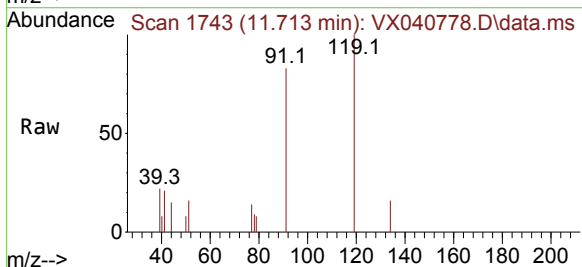
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

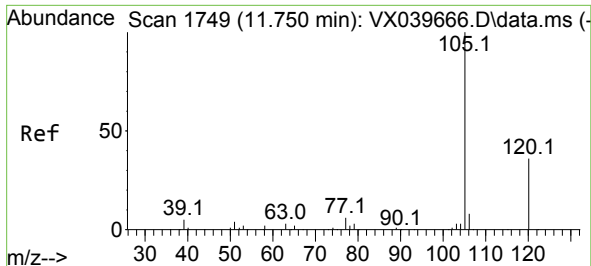
Tgt Ion: 75 Resp: 22831
Ion Ratio Lower Upper
75 100
53 0.0 46.9 140.8#
89 0.0 21.3 63.7#



#79
tert-butylbenzene
Concen: 0.231 ug/l
RT: 11.713 min Scan# 1743
Delta R.T. 0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 119 Resp: 911
Ion Ratio Lower Upper
119 100
91 76.5 0.0 125.6
134 10.5 0.0 43.8

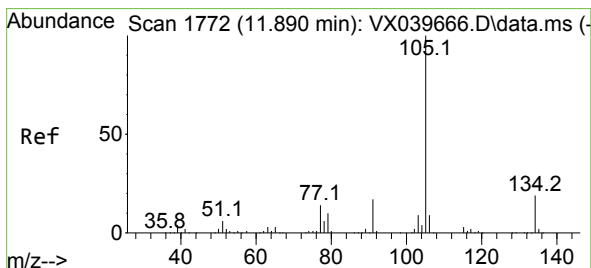
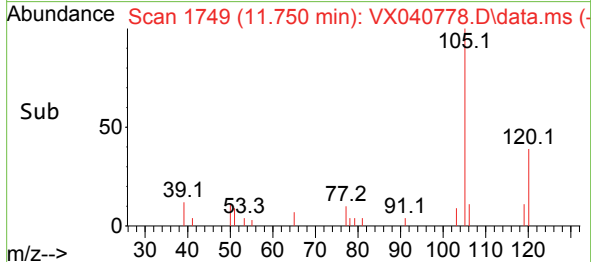
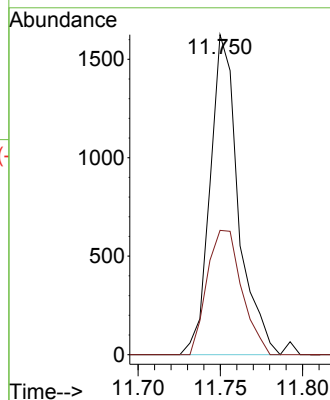
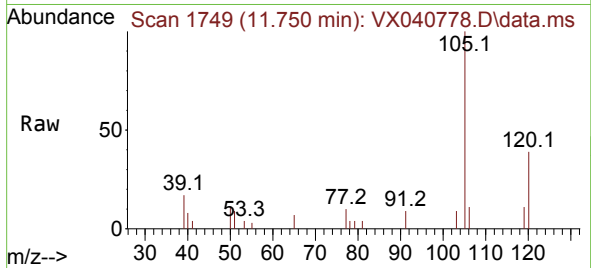




#80
1,2,4-Trimethylbenzene
Concen: 0.467 ug/l
RT: 11.750 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

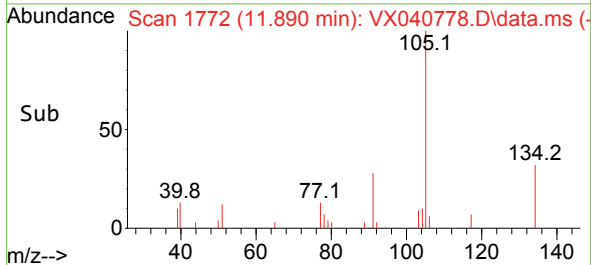
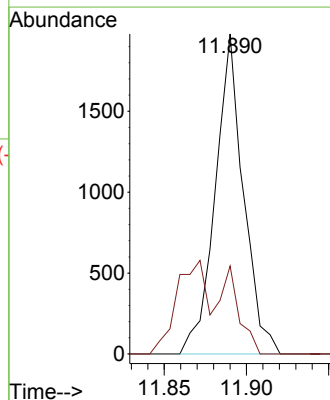
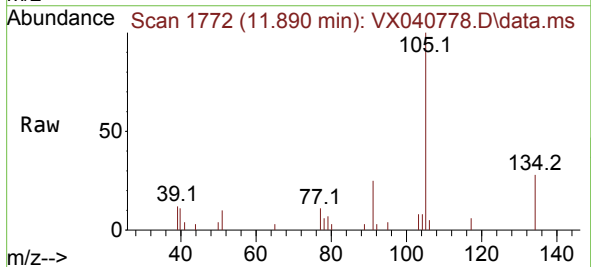
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

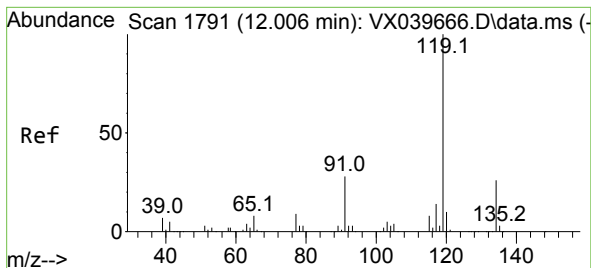
Tgt Ion:105 Resp: 1941
Ion Ratio Lower Upper
105 100
120 47.8 0.0 86.4



#81
sec-Butylbenzene
Concen: 0.454 ug/l
RT: 11.890 min Scan# 1772
Delta R.T. 0.000 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion:105 Resp: 2358
Ion Ratio Lower Upper
105 100
134 18.7 0.0 38.4

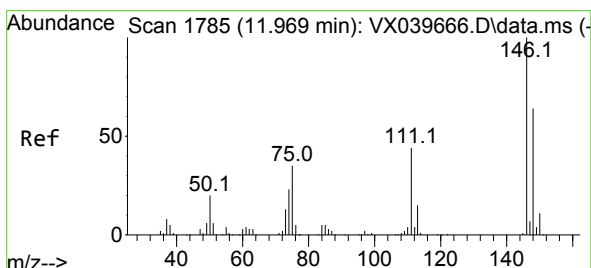
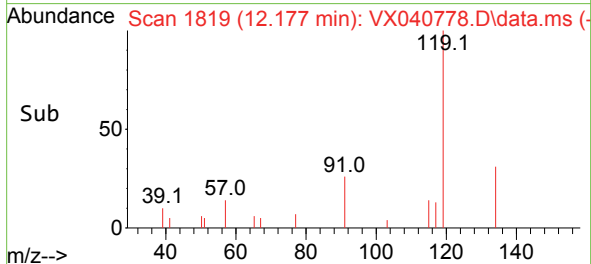
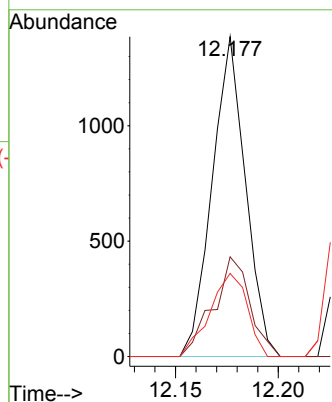
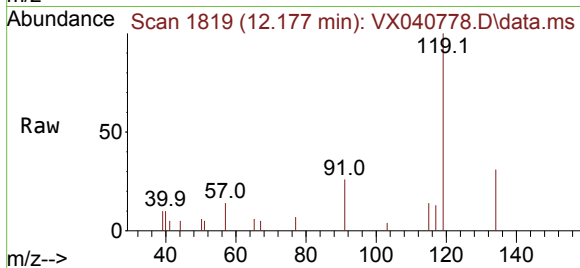




#82
 p-Isopropyltoluene
 Concen: 0.367 ug/l
 RT: 12.177 min Scan# 1791
 Delta R.T. 0.171 min
 Lab File: VX040778.D
 Acq: 22 Mar 2024 14:20

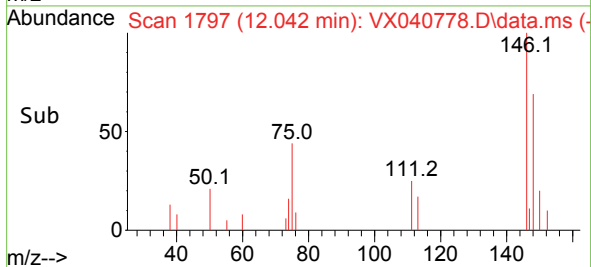
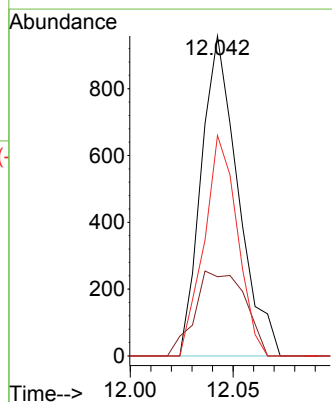
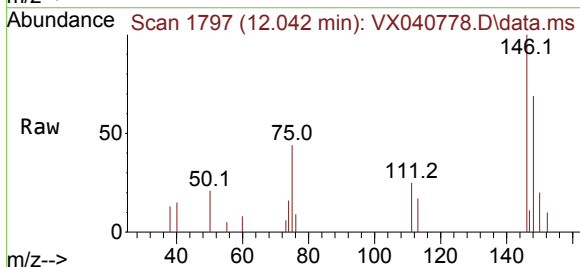
Instrument :
 MSVOA_X
 ClientSampleId :
 240308028-06

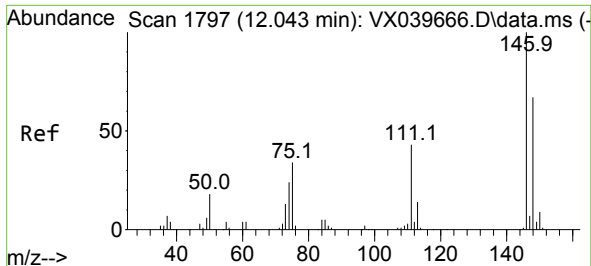
Tgt Ion:	119	Resp:	1562
Ion	Ratio	Lower	Upper
119	100		
134	34.3	0.0	52.6
91	29.2	0.0	54.2



#83
 1,3-Dichlorobenzene
 Concen: 0.540 ug/l
 RT: 12.042 min Scan# 1797
 Delta R.T. 0.073 min
 Lab File: VX040778.D
 Acq: 22 Mar 2024 14:20

Tgt Ion:	146	Resp:	1192
Ion	Ratio	Lower	Upper
146	100		
111	35.9	22.3	66.9
148	62.6	32.8	98.3

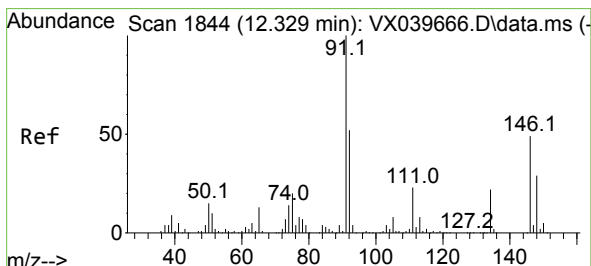
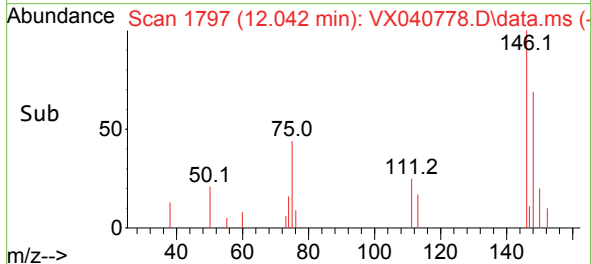
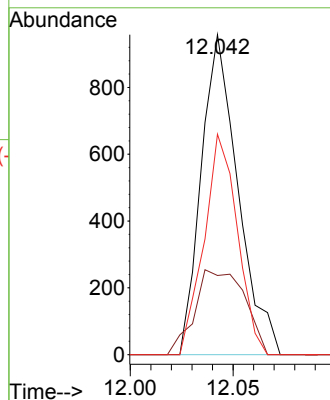
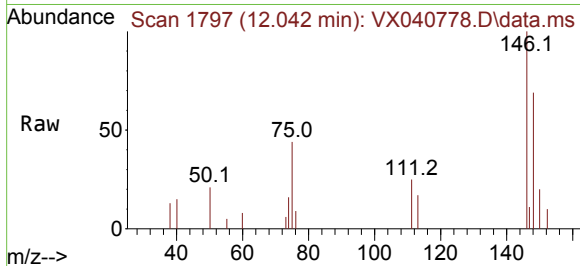




#84
1,4-Dichlorobenzene
Concen: 0.528 ug/l
RT: 12.042 min Scan# 11
Delta R.T. -0.001 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

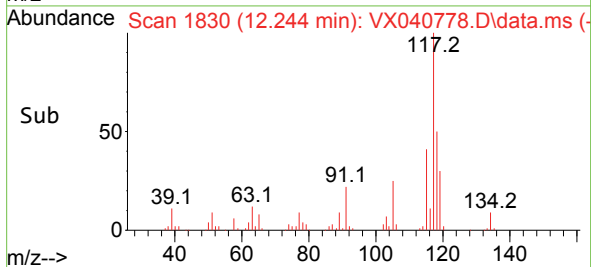
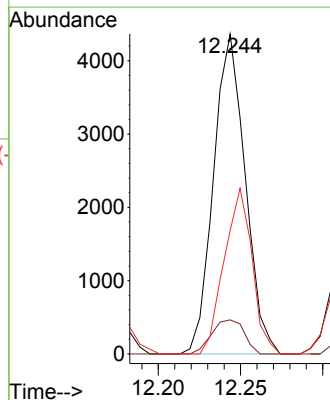
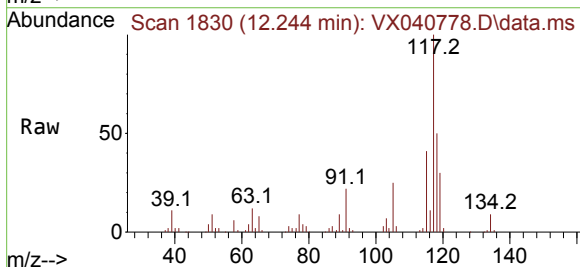
Instrument :
MSVOA_X
ClientSampleId :
240308028-06

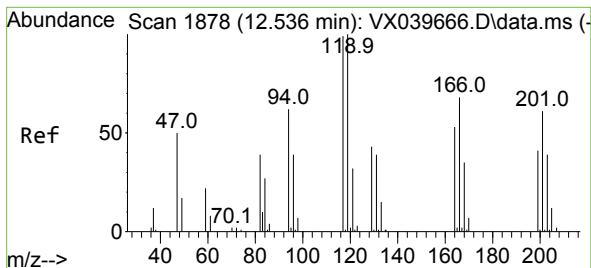
Tgt Ion:146	Resp:	1192
Ion	Ratio	Lower Upper
146	100	
111	35.9	21.4 64.2
148	62.6	31.8 95.4



#85
n-Butylbenzene
Concen: 1.412 ug/l
RT: 12.244 min Scan# 1830
Delta R.T. -0.085 min
Lab File: VX040778.D
Acq: 22 Mar 2024 14:20

Tgt Ion: 91	Resp:	5845
Ion	Ratio	Lower Upper
91	100	
92	10.9	0.0 106.2
134	45.7	0.0 48.8





#86

Hexachloroethane

Concen: 7.410 ug/l

RT: 12.609 min Scan# 1878

Delta R.T. 0.073 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

Instrument :

MSVOA_X

ClientSampleId :

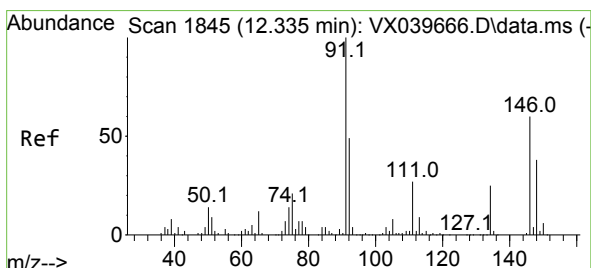
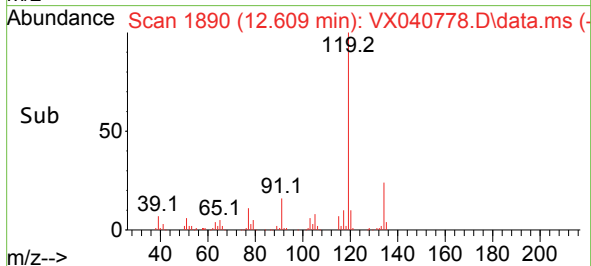
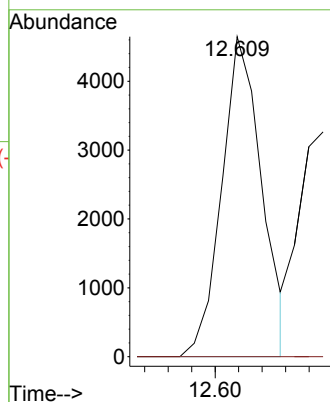
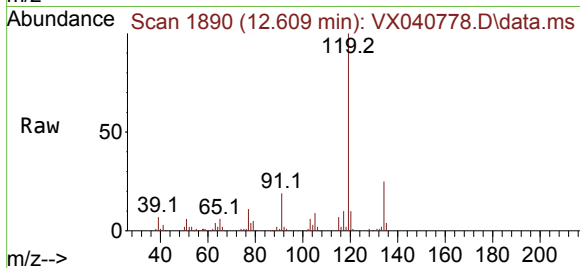
240308028-06

Tgt Ion:117 Resp: 5499

Ion Ratio Lower Upper

117 100

201 0.0 31.8 95.3#



#87

1,2-Dichlorobenzene

Concen: 0.698 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX040778.D

Acq: 22 Mar 2024 14:20

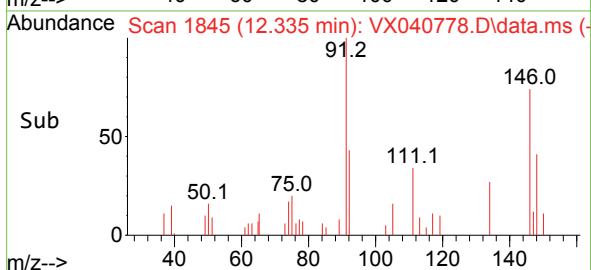
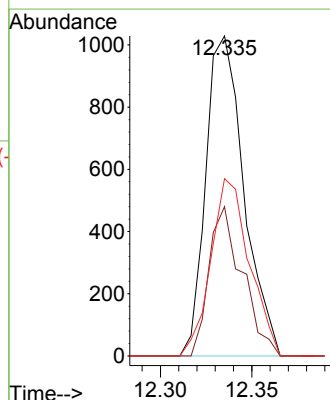
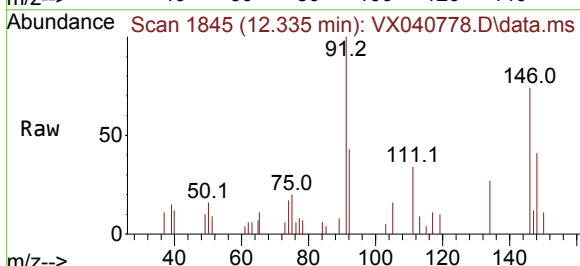
Tgt Ion:146 Resp: 1496

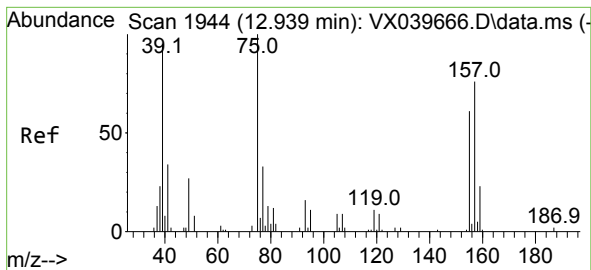
Ion Ratio Lower Upper

146 100

111 40.8 22.4 67.2

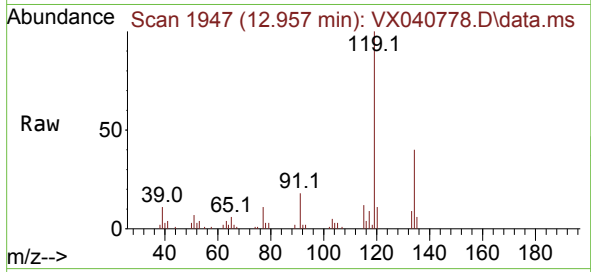
148 56.0 31.9 95.7





#88
 1,2-Dibromo-3-Chloropropane
 Concen: 0.223 ug/l
 RT: 12.957 min Scan# 1947
 Delta R.T. 0.018 min
 Lab File: VX040778.D
 Acq: 22 Mar 2024 14:20

Instrument :
 MSVOA_X
 ClientSampleId :
 240308028-06



Tgt Ion: 75 Resp: 100
 Ion Ratio Lower Upper
 75 100
 155 0.0 58.2 87.4#
 157 0.0 76.5 114.7#

