

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX112219\
 Data File : VX013559.D
 Acq On : 23 Nov 2019 02:03
 Operator : JC/SP
 Sample : K5962-09DL 50X
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 43 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 45BR-20191120DL

Quant Time: Nov 23 02:28:20 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X111119W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Tue Nov 12 01:16:13 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.00	128	335	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.85	114	1065102	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	941872	30.00	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	6.05	65	388112	15689.50	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	52298.33%#
60) 4-Bromofluorobenzene	11.14	95	424635	28.05	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	93.50%
63) Toluene-d8	8.71	98	1271486	29.85	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	99.50%

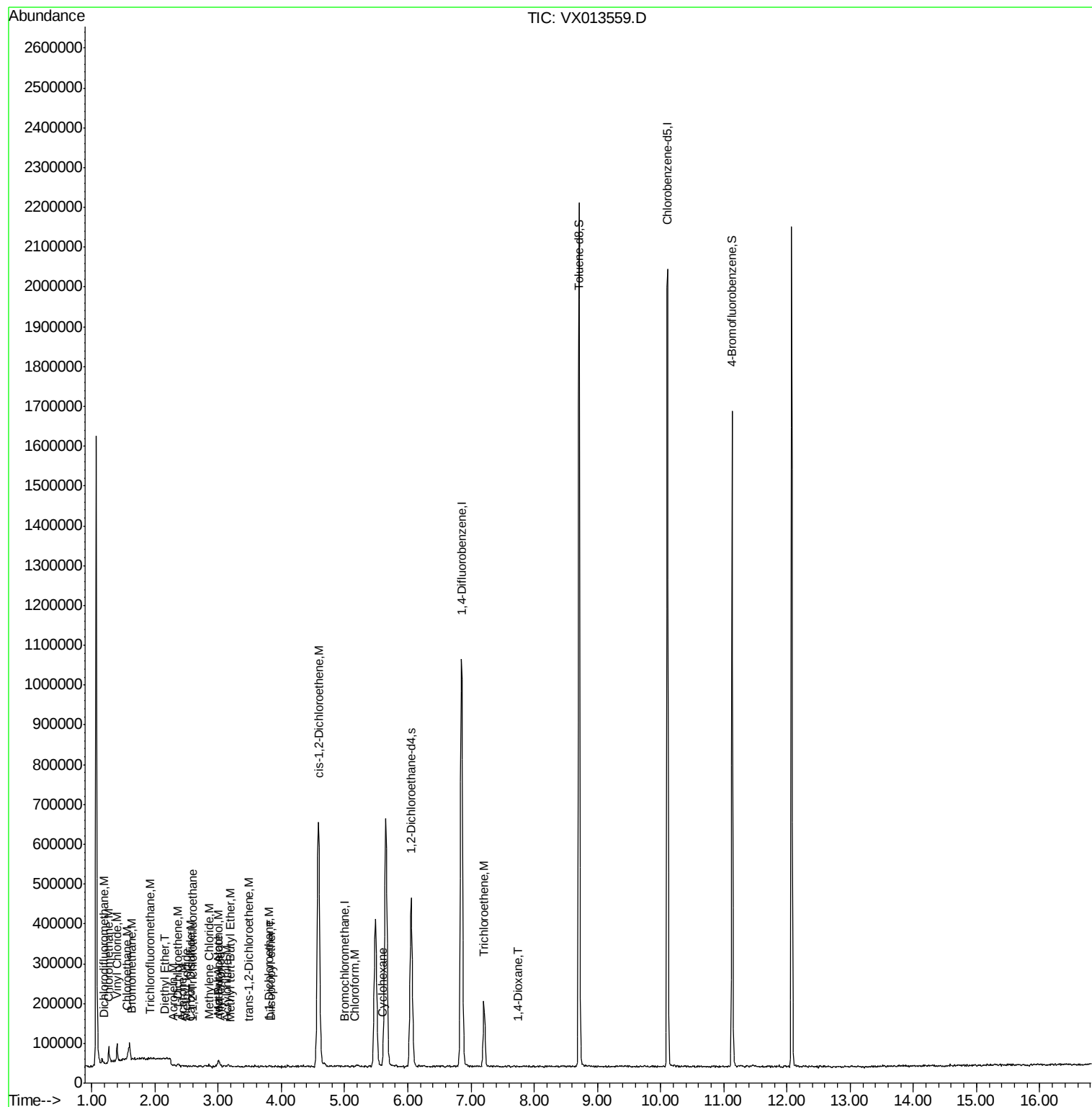
Target Compounds					Ovalue
2) Dichlorodifluoromethane	1.19	85	1064	42.390	ug/l 97
3) Chloromethane	1.27	50	789	28.842	ug/l 96
4) Vinyl Chloride	1.40	62	24308	782.027	ug/l 99
5) Bromomethane	1.64	94	1080	57.795	ug/l 93
6) Chloroethane	1.56	64	546	31.955	ug/l 100
7) Trichlorofluoromethane	1.92	101	368	10.997	ug/l # 18
8) Diethyl Ether	2.16	74	186	12.173	ug/l 96
9) 1,1,2-Trichlorotrifluoroet	2.58	101	534	26.524	ug/l 41
10) 1,1-Dichloroethene	2.36	96	1144	55.294	ug/l # 41
11) Methyl Iodide	2.48	142	323	12.644	ug/l # 44
12) Methyl Acetate	3.01	43	1219	33.624	ug/l 91
13) Acrolein	2.28	56	505	131.135	ug/l 88
14) Acrylonitrile	3.13	53	404	30.304	ug/l # 18
15) Acetone	2.42	58	149	36.902	ug/l 93
16) Carbon Disulfide	2.56	76	228	3.951	ug/l # 81
17) Allyl chloride	3.04	41	254	6.667	ug/l 79
18) Methylene Chloride	2.84	84	1289	54.911	ug/l # 79
19) trans-1,2-Dichloroethene	3.49	96	179	8.095	ug/l 88
20) Diisopropyl ether	3.84	45	92	1.255	ug/l # 25
21) 1,1-Dichloroethane	3.80	63	172	4.308	ug/l 96
22) cis-1,2-Dichloroethene	4.59	96	405553	16087.213	ug/l 86
23) tert-Butyl Alcohol	3.01	59	9434	1470.439	ug/l # 98
24) Methyl tert-Butyl Ether	3.19	73	166	2.424	ug/l # 1
25) Chloroform	5.15	83	135	3.454	ug/l 83
26) Cyclohexane	5.59	56	263	7.254	ug/l # 19
37) Trichloroethene	7.21	130	69926	5.290	ug/l 99
45) 1,4-Dioxane	7.74	88	76	0.219	ug/l # 1

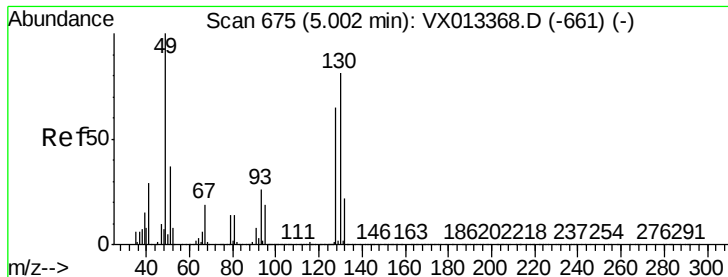
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Nov 23 02:28:20 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X111119W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Tue Nov 12 01:16:13 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.00 min Scan# 675

Delta R.T. 0.00 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

45BR-20191120DL

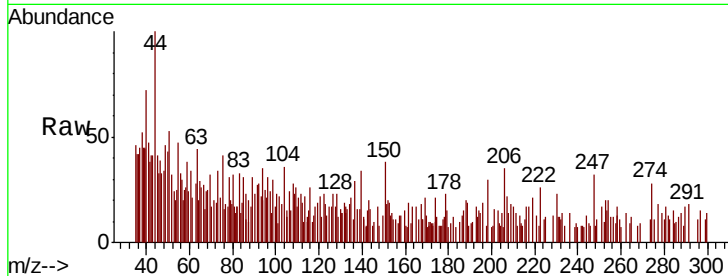
Tot Ion:128 Resp: 335

Ion Ratio Lower Upper

128 100

49 206.0 0.0 388.3

130 148.7 0.0 318.5

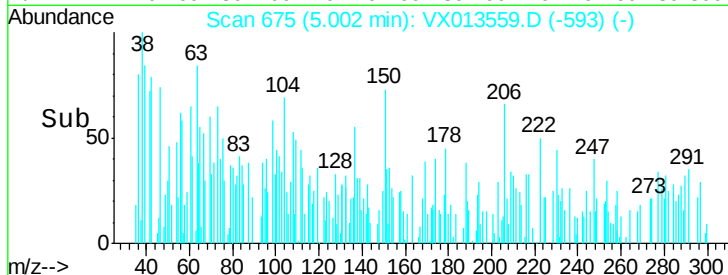


Abundance Ion 128.00 (127.70 to 128.70): V

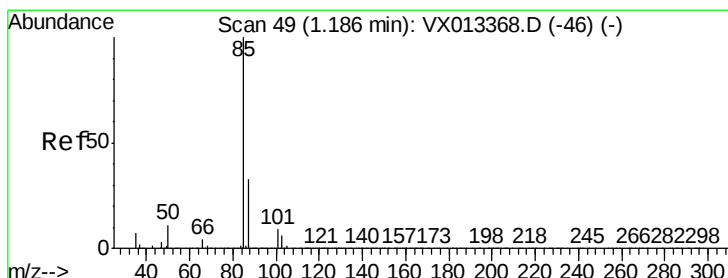
Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V

Time-->



Time-->



#2

Dichlorodifluoromethane

Concen: 42.390 ug/l

RT: 1.19 min Scan# 50

Delta R.T. 0.01 min

Lab File: VX013559.D

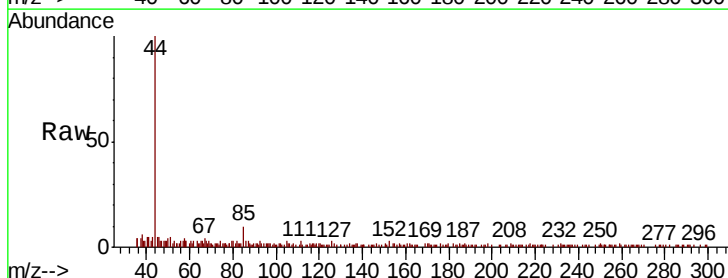
Acq: 23 Nov 2019 02:03

Tgt Ion: 85 Resp: 1064

Ion Ratio Lower Upper

85 100

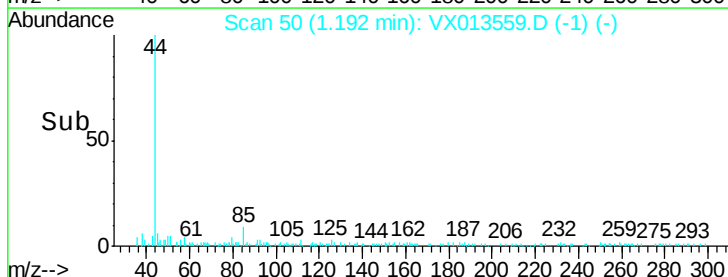
87 35.0 16.6 49.7



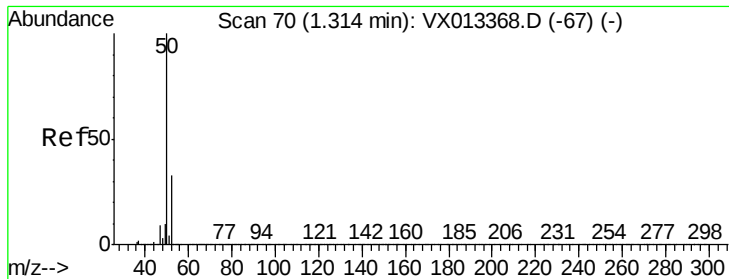
Abundance Ion 85.00 (84.70 to 85.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

Time-->



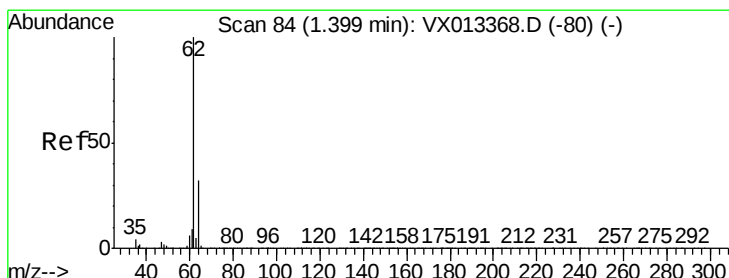
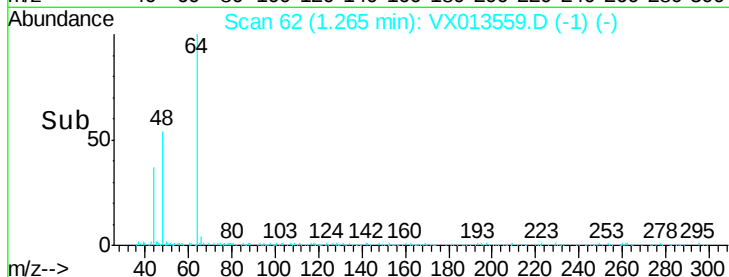
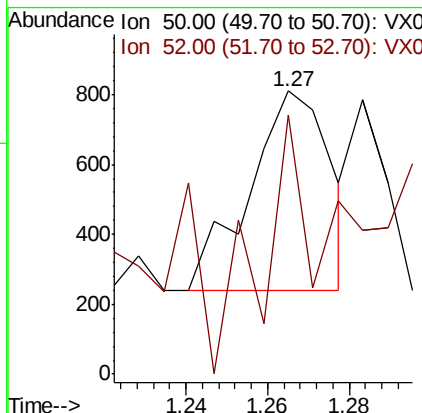
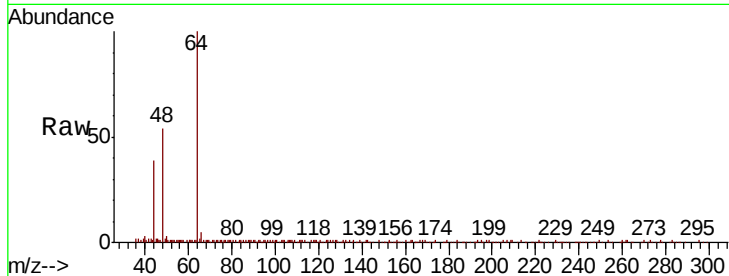
Time-->



#3
Chloromethane
Concen: 28.842 ug/l
RT: 1.27 min Scan# 62
Delta R.T. -0.05 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

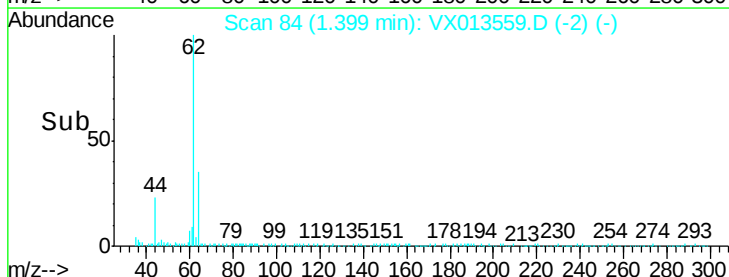
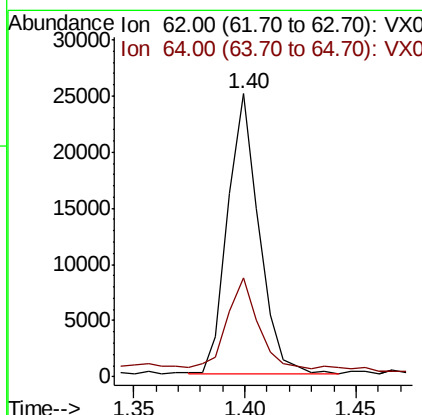
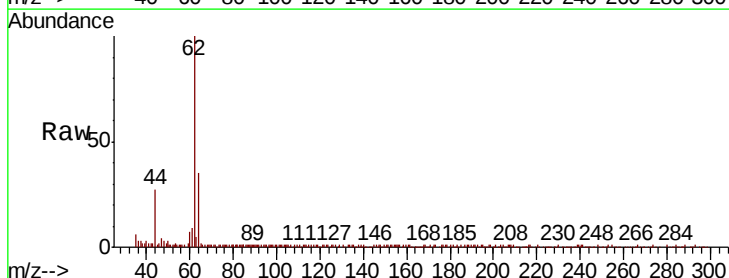
Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

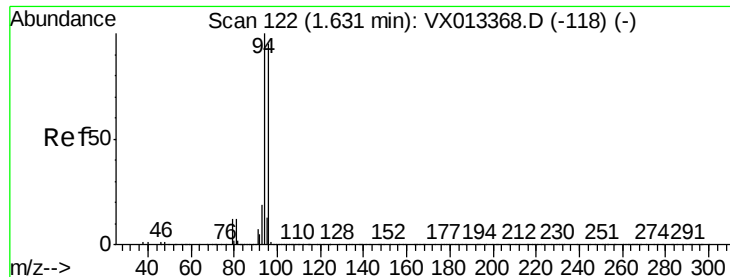
Tot Ion: 50 Resp: 789
Ion Ratio Lower Upper
50 100
52 31.0 26.6 40.0



#4
Vinyl Chloride
Concen: 782.027 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Tgt Ion: 62 Resp: 24308
Ion Ratio Lower Upper
62 100
64 32.1 25.4 38.2





#5

Bromomethane

Concen: 57.795 ug/l

RT: 1.64 min Scan# 123

Delta R.T. 0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

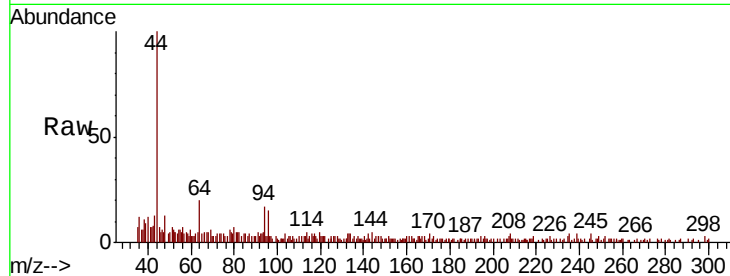
45BR-20191120DL

Tot Ion: 94 Resp: 1080

Ion Ratio Lower Upper

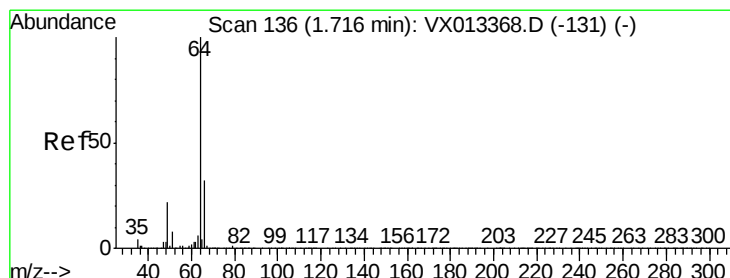
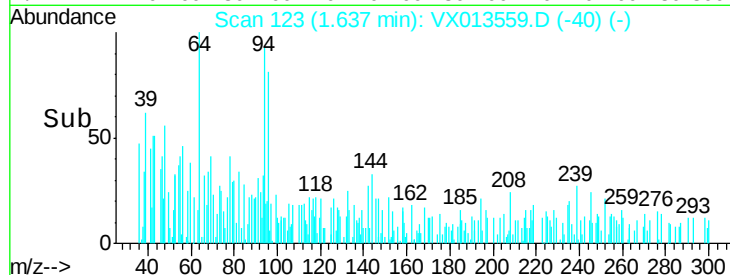
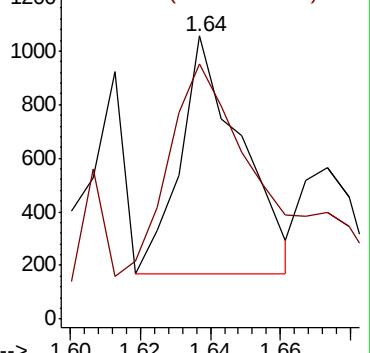
94 100

96 101.1 75.7 113.5



Abundance Ion 94.00 (93.70 to 94.70): VX0

Ion 96.00 (95.70 to 96.70): VX0



#6

Chloroethane

Concen: 31.955 ug/l

RT: 1.56 min Scan# 110

Delta R.T. -0.16 min

Lab File: VX013559.D

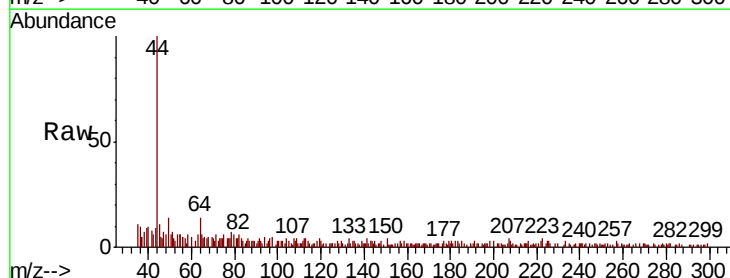
Acq: 23 Nov 2019 02:03

Tgt Ion: 64 Resp: 546

Ion Ratio Lower Upper

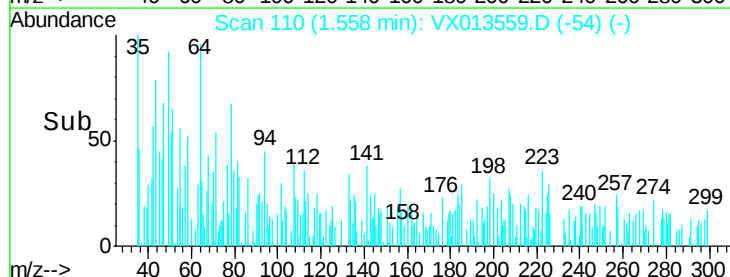
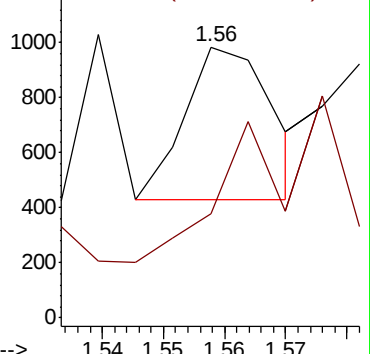
64 100

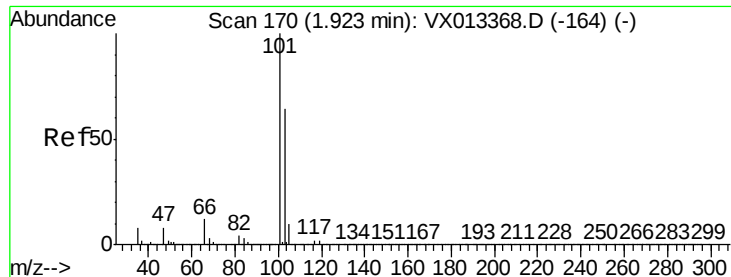
66 31.7 25.5 38.3



Abundance Ion 64.00 (63.70 to 64.70): VX0

Ion 66.00 (65.70 to 66.70): VX0



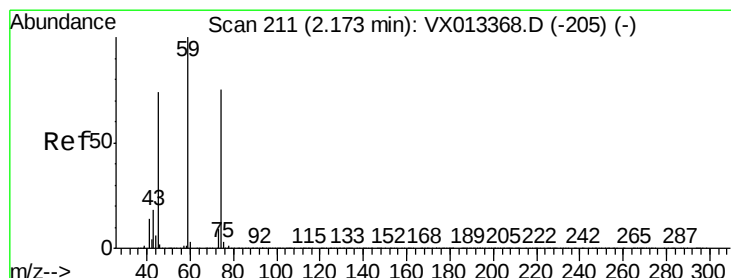
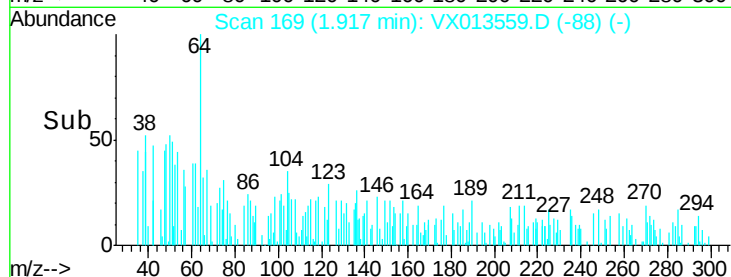
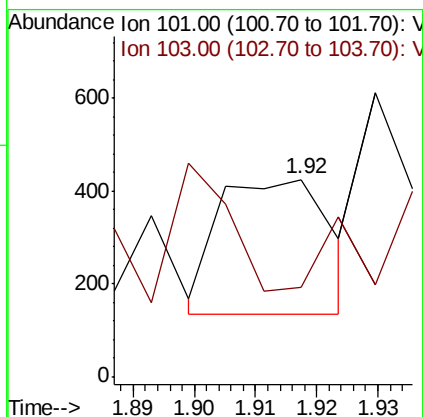
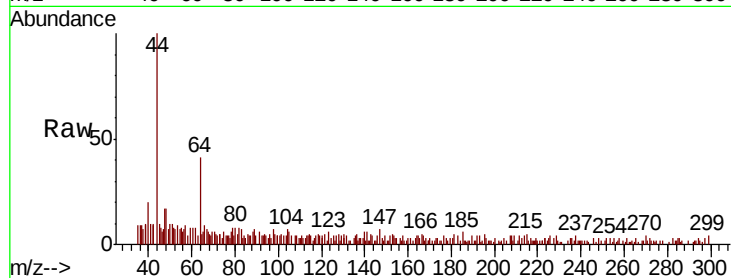


#7

Trichlorofluoromethane
Concen: 10.997 ug/l
RT: 1.92 min Scan# 169
Delta R.T. -0.01 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

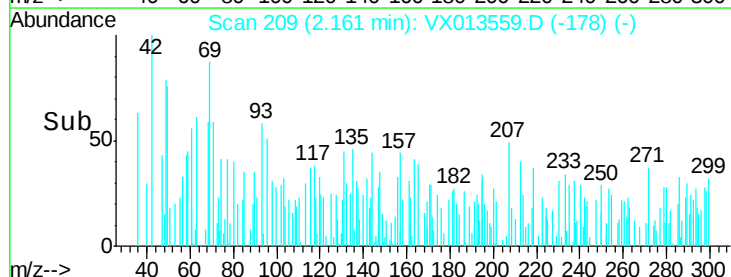
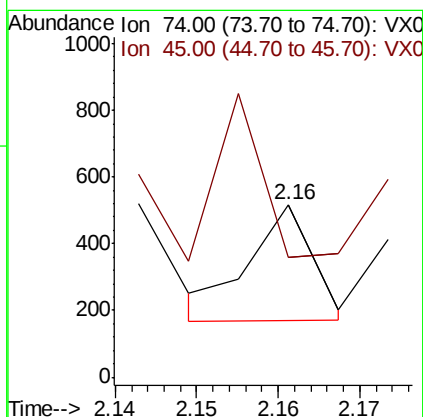
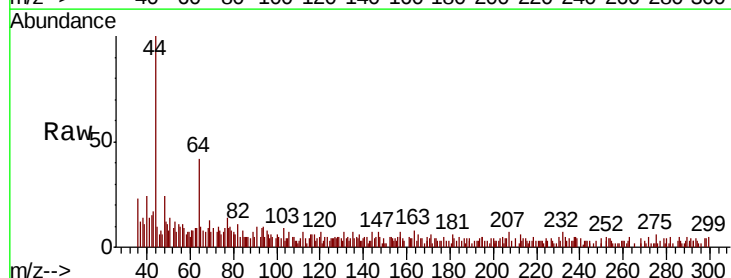
Tot Ion:101 Resp: 368
Ion Ratio Lower Upper
101 100
103 0.0 51.2 76.8#

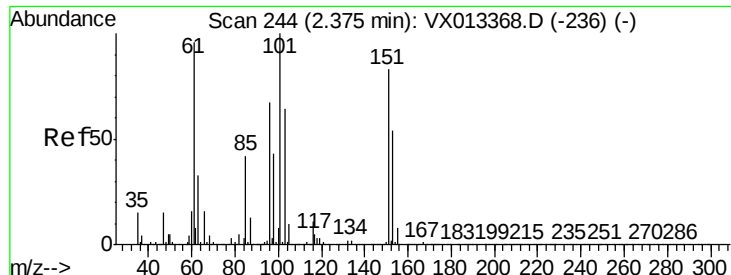


#8

Diethyl Ether
Concen: 12.173 ug/l
RT: 2.16 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Tgt Ion: 74 Resp: 186
Ion Ratio Lower Upper
74 100
45 101.1 19.5 175.5





#9

1,1,2-Trichlorotrifluoroethane

Concen: 26.524 ug/l

RT: 2.58 min Scan# 278

Delta R.T. 0.21 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleID :

45BR-20191120DL

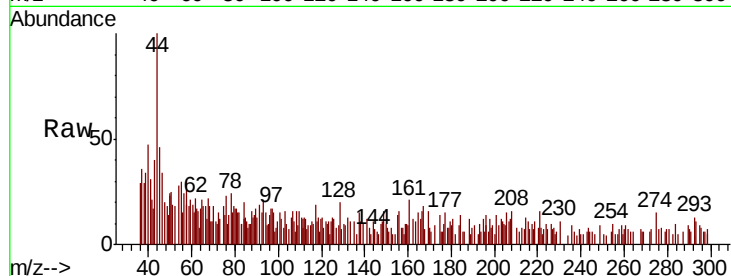
Tot Ion:101 Resp: 534

Ion Ratio Lower Upper

101 100

85 70.2 0.0 83.2

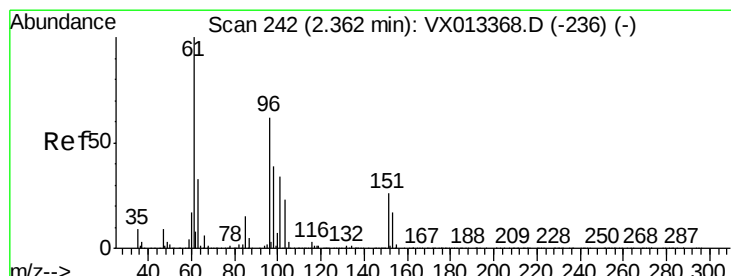
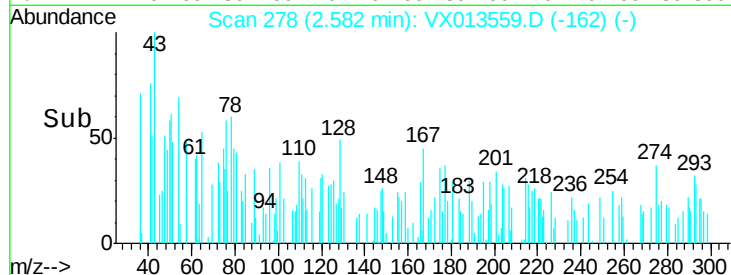
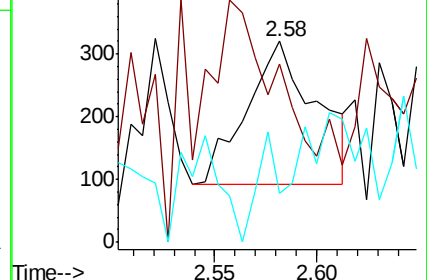
151 22.8 0.0 163.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VX0

Ion 151.00 (150.70 to 151.70): V



#10

1,1-Dichloroethene

Concen: 55.294 ug/l

RT: 2.36 min Scan# 242

Delta R.T. 0.00 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

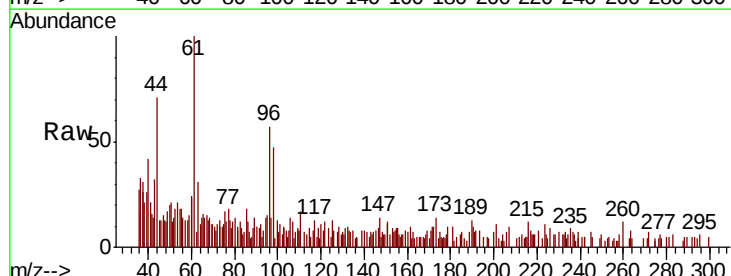
Tgt Ion: 96 Resp: 1144

Ion Ratio Lower Upper

96 100

61 242.0 128.9 193.3#

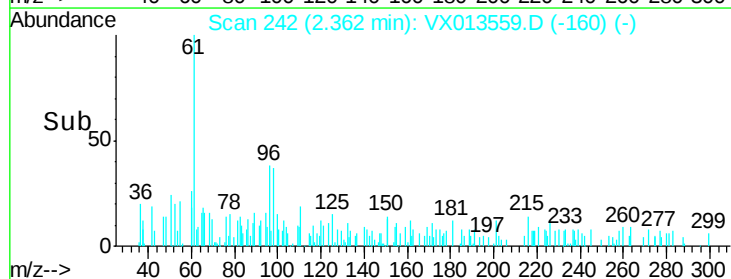
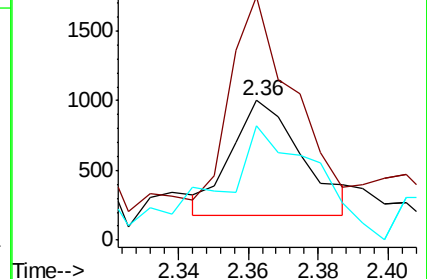
98 103.6 49.7 74.5#

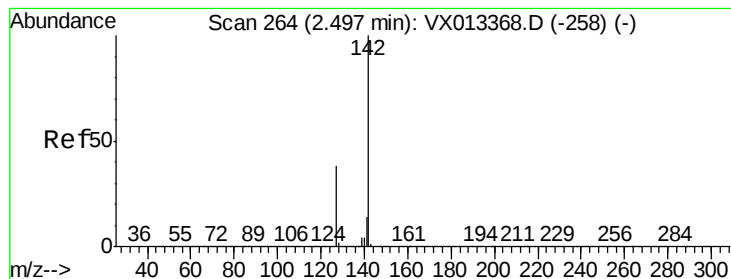


Abundance Ion 96.00 (95.70 to 96.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 98.00 (97.70 to 98.70): VX0





#11

Methyl Iodide

Concen: 12.644 ug/l

RT: 2.48 min Scan# 262

Delta R.T. -0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

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ClientSampleId :

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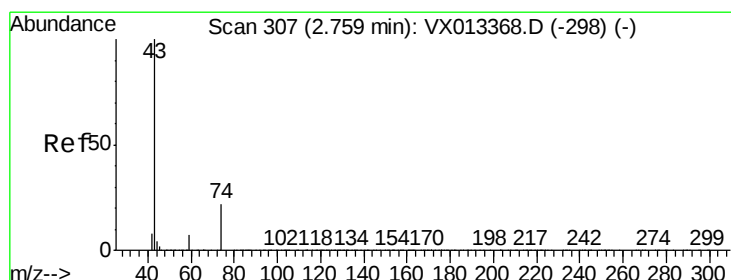
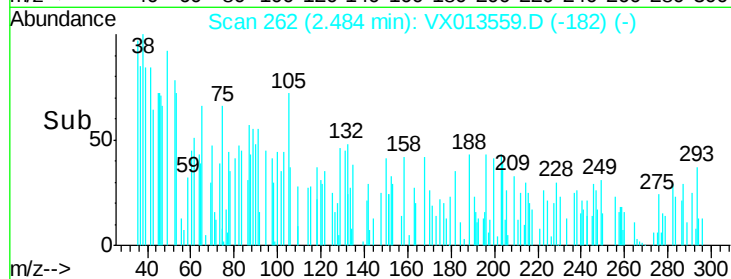
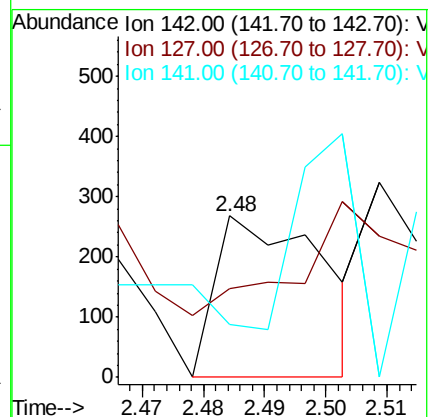
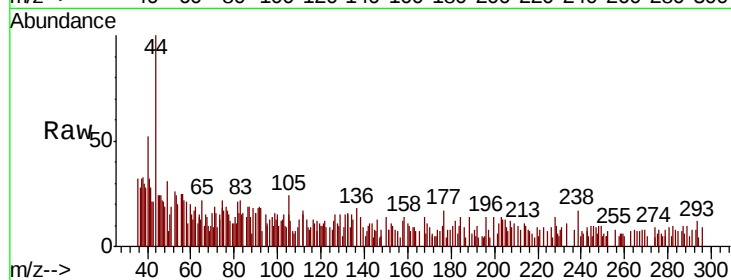
Tot Ion:142 Resp: 323

Ion Ratio Lower Upper

142 100

127 0.0 19.1 57.5#

141 0.0 7.0 21.0#



#12

Methyl Acetate

Concen: 33.624 ug/l

RT: 3.01 min Scan# 348

Delta R.T. 0.25 min

Lab File: VX013559.D

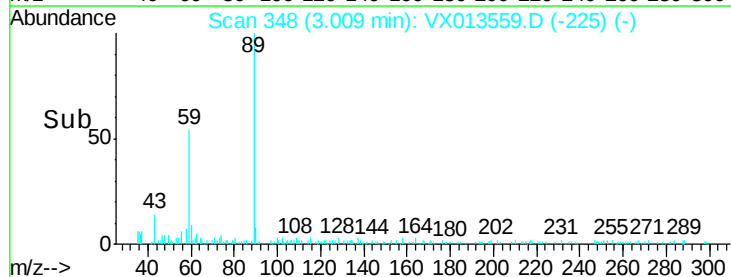
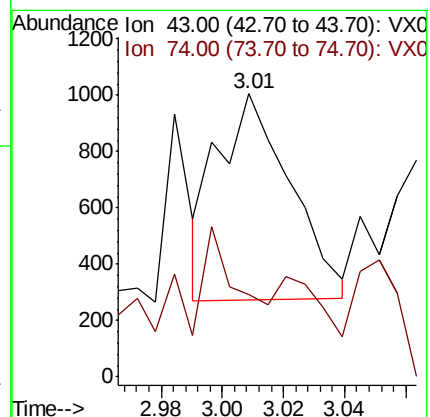
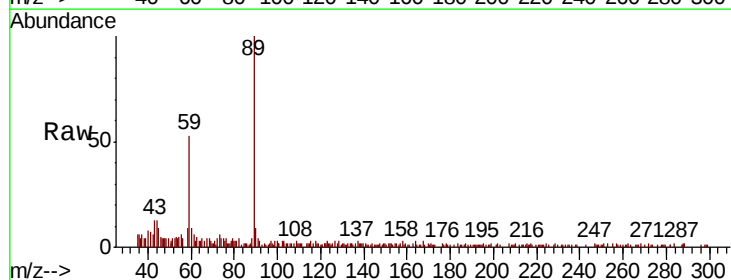
Acq: 23 Nov 2019 02:03

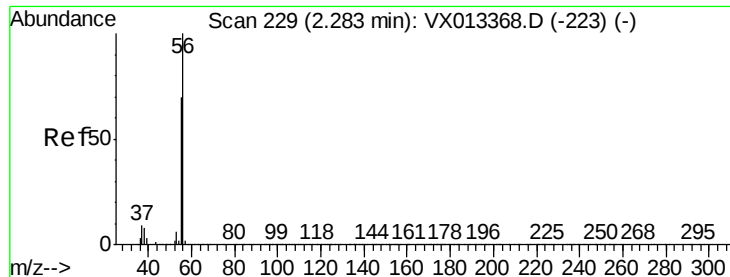
Tgt Ion: 43 Resp: 1219

Ion Ratio Lower Upper

43 100

74 26.7 18.0 27.0





#13

Acrolein

Concen: 131.135 ug/l

RT: 2.28 min Scan# 229

Delta R.T. 0.00 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

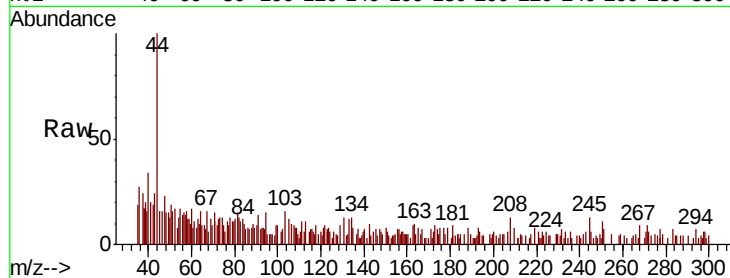
45BR-20191120DL

Tot Ion: 56 Resp: 505

Ion Ratio Lower Upper

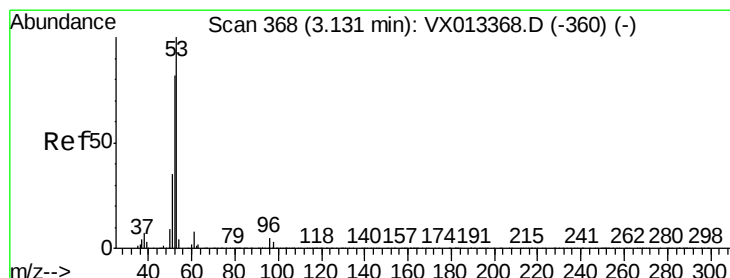
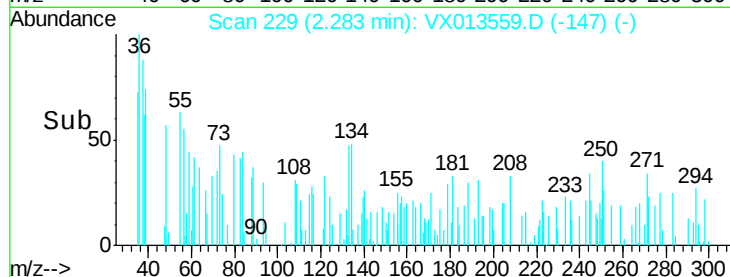
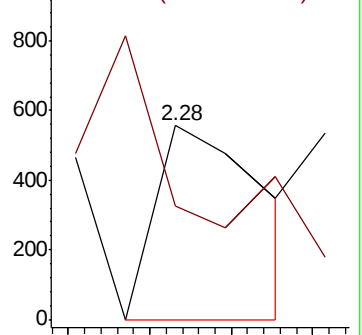
56 100

55 59.6 55.8 83.8



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#14

Acrylonitrile

Concen: 30.304 ug/l

RT: 3.13 min Scan# 368

Delta R.T. 0.00 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

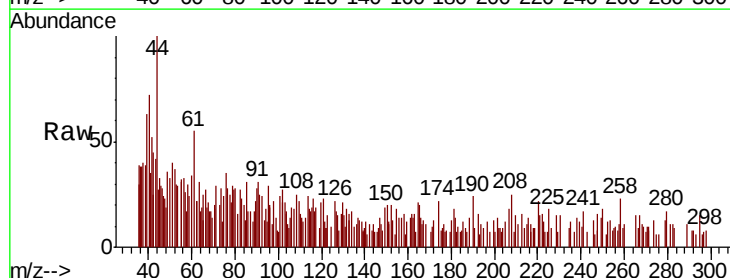
Tgt Ion: 53 Resp: 404

Ion Ratio Lower Upper

53 100

52 0.0 41.0 123.0#

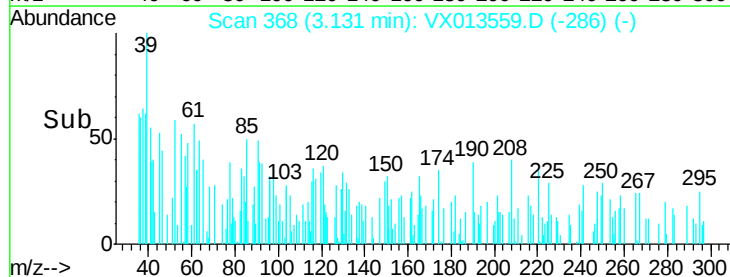
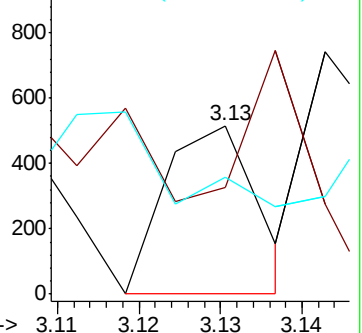
51 0.0 17.3 51.9#

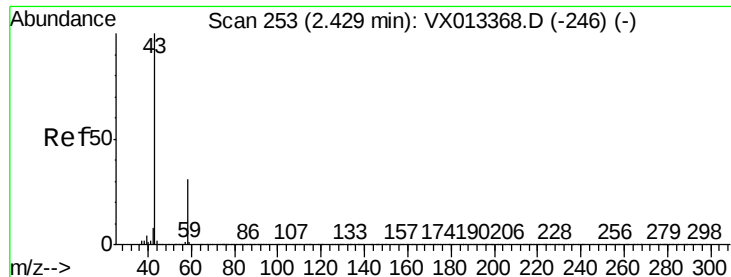


Abundance Ion 53.00 (52.70 to 53.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

Ion 51.00 (50.70 to 51.70): VX0





#15

Acetone

Concen: 36.902 ug/l

RT: 2.42 min Scan# 252

Delta R.T. -0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

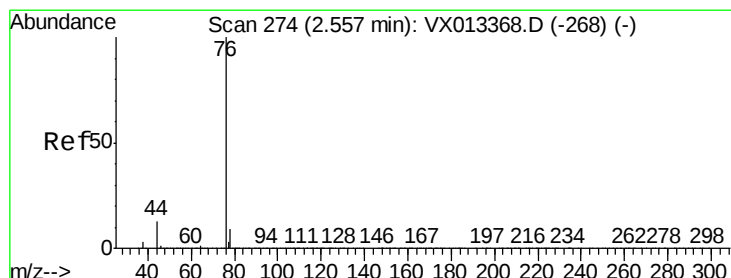
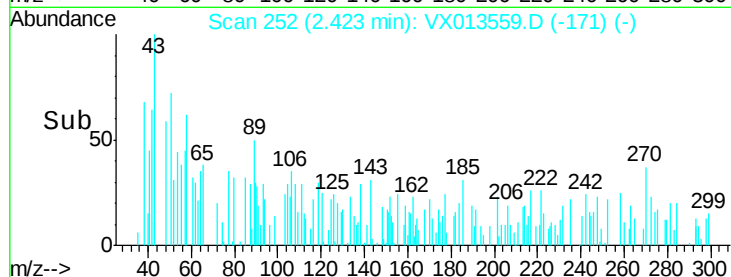
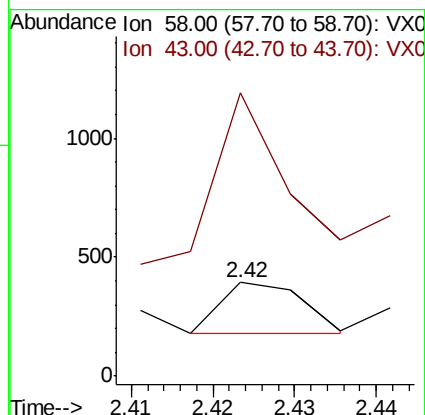
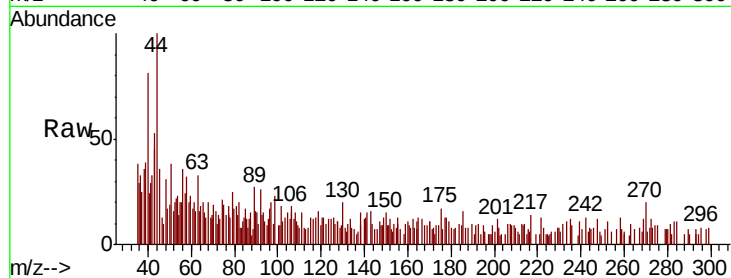
45BR-20191120DL

Tot Ion: 58 Resp: 149

Ion Ratio Lower Upper

58 100

43 311.7 261.4 392.2



#16

Carbon Disulfide

Concen: 3.951 ug/l

RT: 2.56 min Scan# 274

Delta R.T. 0.00 min

Lab File: VX013559.D

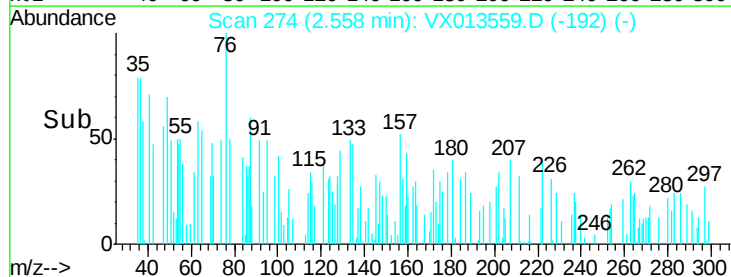
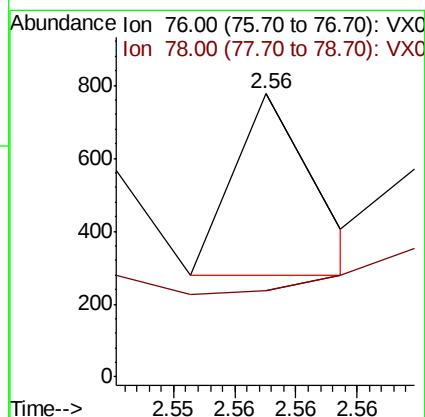
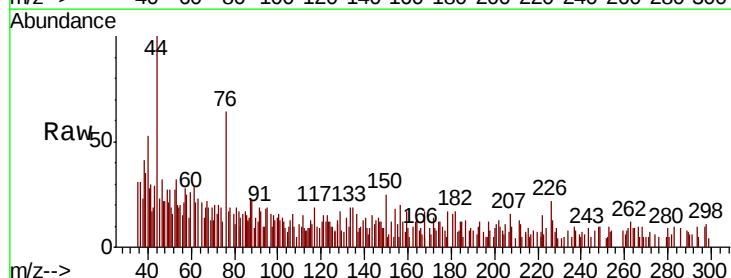
Acq: 23 Nov 2019 02:03

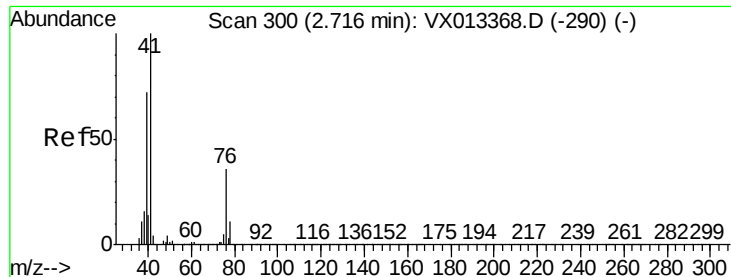
Tgt Ion: 76 Resp: 228

Ion Ratio Lower Upper

76 100

78 2.2 7.4 11.0#

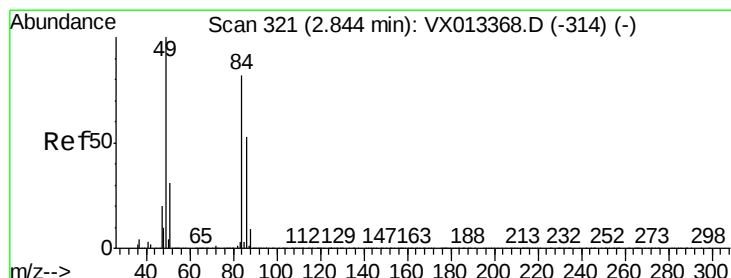
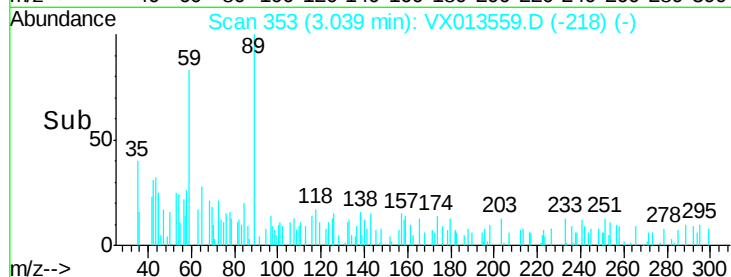
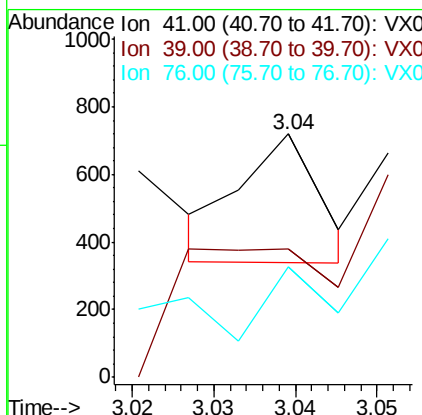
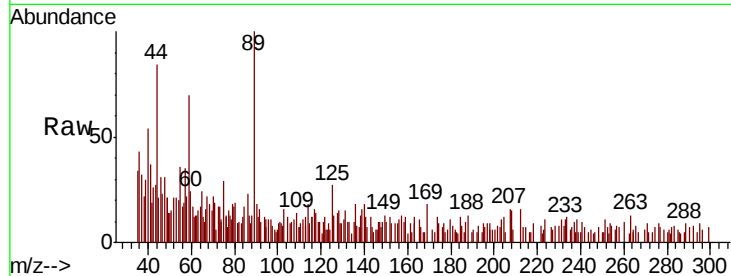




#17
Allvl chloride
Concen: 6.667 ug/l
RT: 3.04 min Scan# 353
Delta R.T. 0.32 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

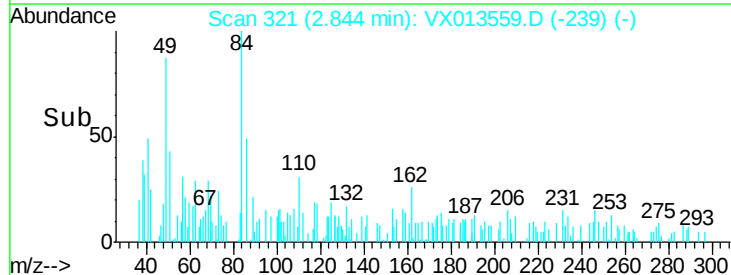
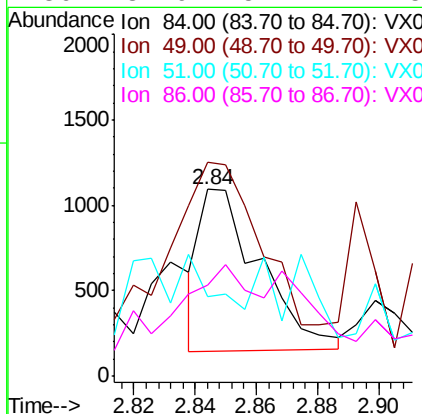
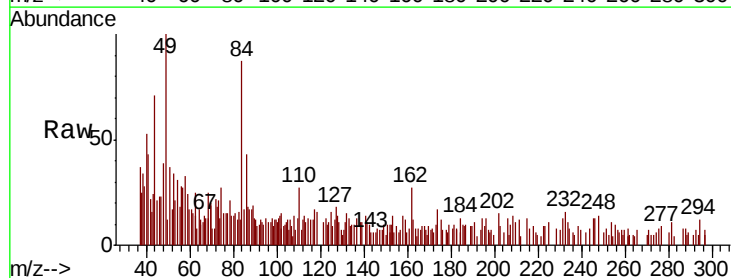
Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

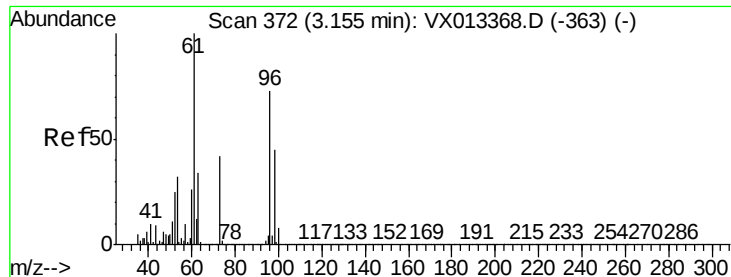
Tot Ion: 41 Resp: 254
Ion Ratio Lower Upper
41 100
39 46.3 36.1 108.3
76 37.1 18.1 54.4



#18
Methylene Chloride
Concen: 54.911 ug/l
RT: 2.84 min Scan# 321
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Tgt Ion: 84 Resp: 1289
Ion Ratio Lower Upper
84 100
49 107.5 96.8 145.2
51 27.8 30.0 45.0#
86 32.9 51.7 77.5#





#19

trans-1,2-Dichloroethene

Concen: 8.095 ug/l

RT: 3.49 min Scan# 427

Delta R.T. 0.34 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

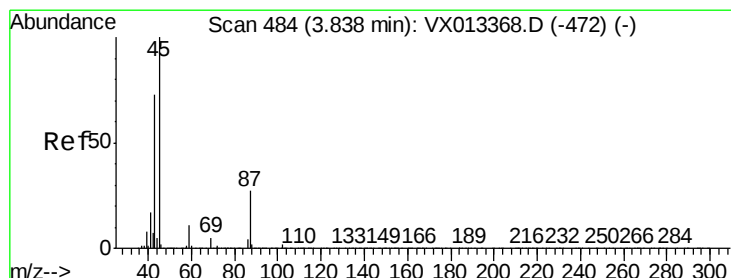
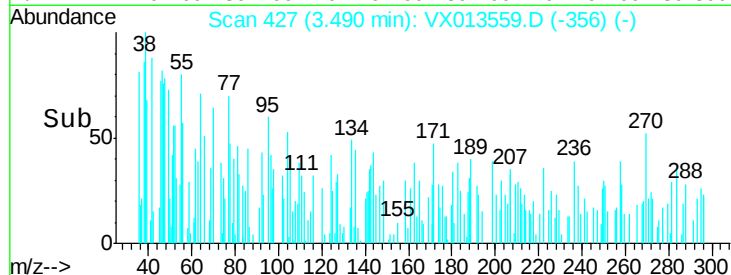
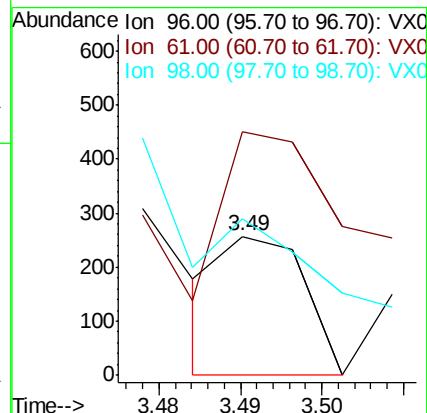
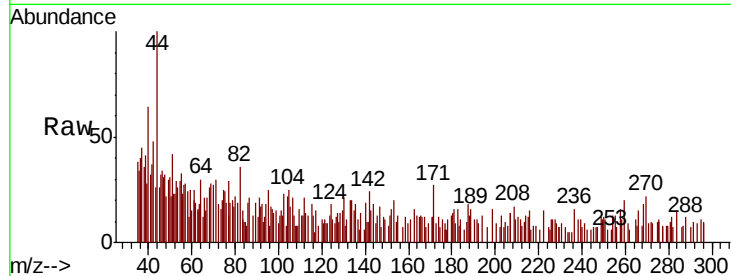
Tot Ion: 96 Resp: 179

Ion Ratio Lower Upper

96 100

61 122.2 109.9 164.9

98 54.1 49.7 74.5



#20

Diisopropyl ether

Concen: 1.255 ug/l

RT: 3.84 min Scan# 485

Delta R.T. 0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Tgt Ion: 45 Resp: 92

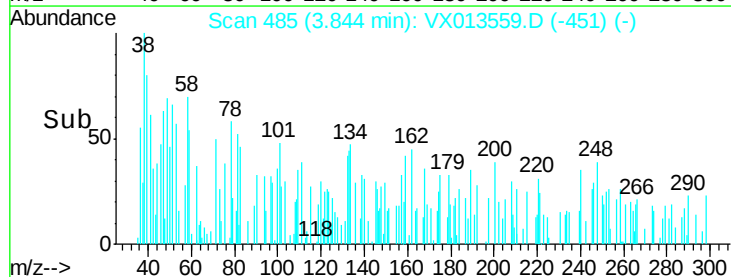
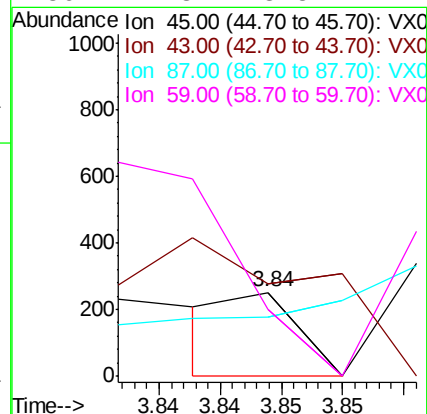
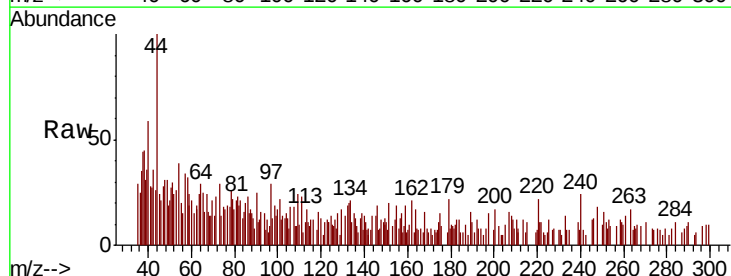
Ion Ratio Lower Upper

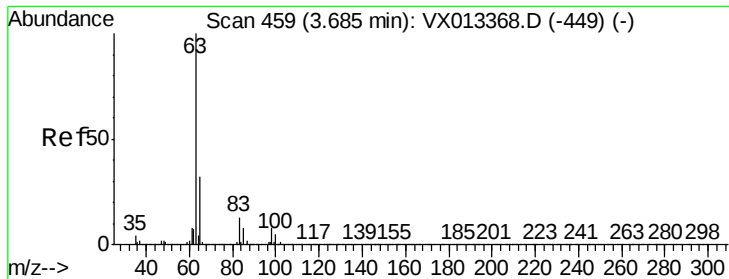
45 100

43 0.0 67.7 101.5#

87 33.5 21.5 32.3#

59 42.3 8.5 12.7#

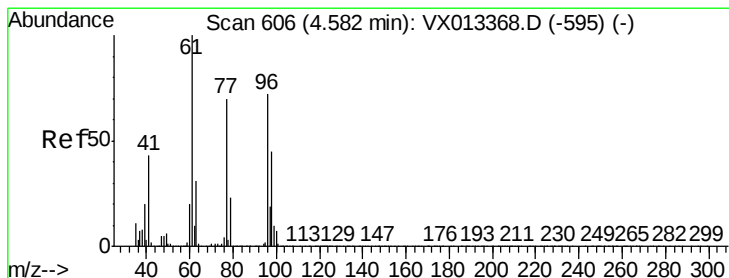
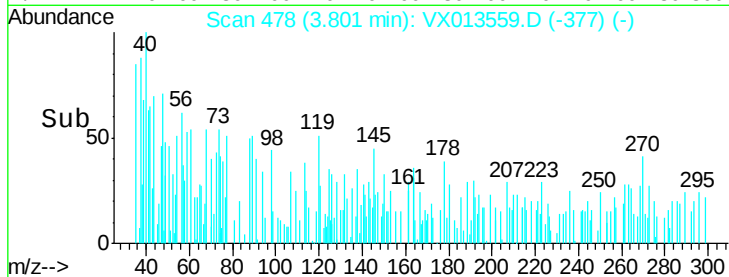
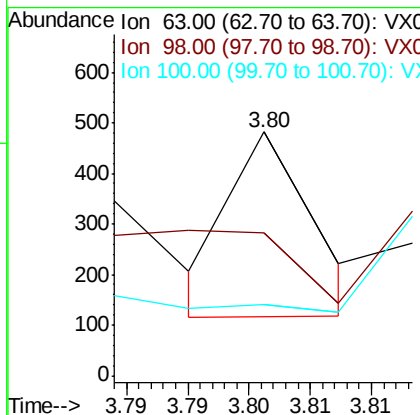
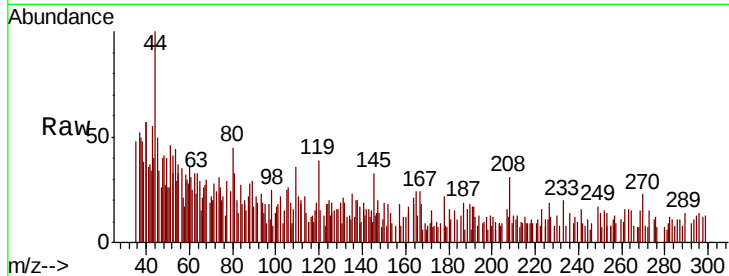




#21
 1,1-Dichloroethane
 Concen: 4.308 ug/l
 RT: 3.80 min Scan# 478
 Delta R.T. 0.12 min
 Lab File: VX013559.D
 Acq: 23 Nov 2019 02:03

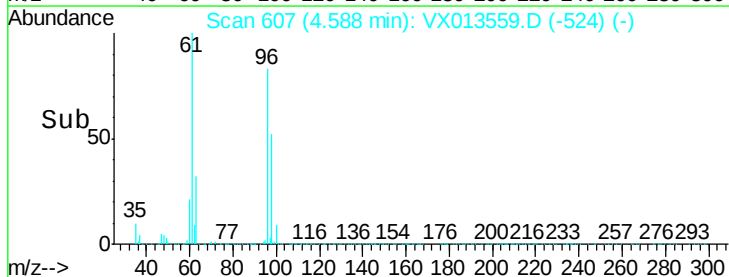
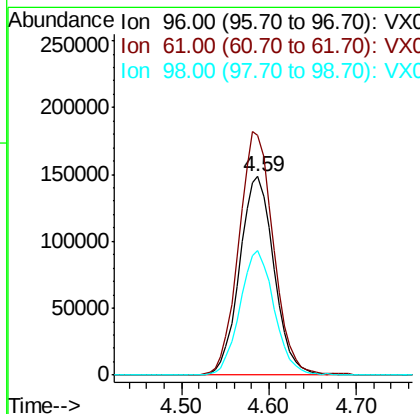
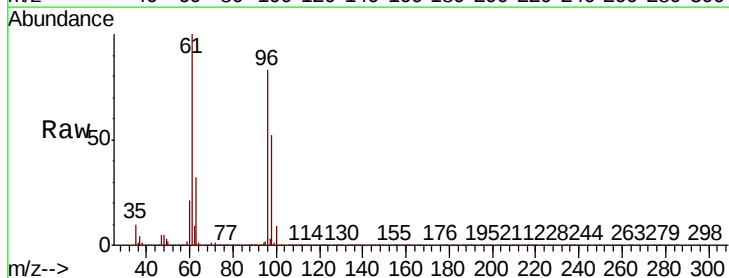
Instrument :
 MSVOA_X
 ClientSampleId :
 45BR-20191120DL

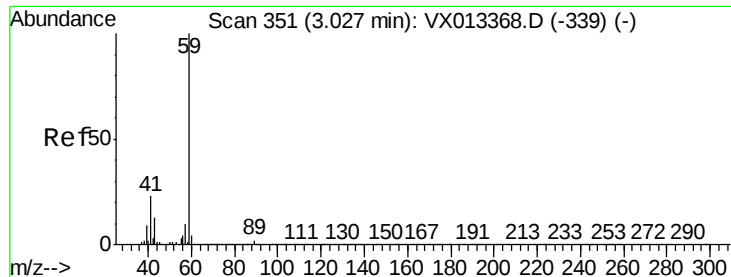
Tot Ion: 63 Resp: 172
 Ion Ratio Lower Upper
 63 100
 98 9.8 4.0 11.9
 100 5.8 2.5 7.5



#22
 cis-1,2-Dichloroethene
 Concen: 16087.213 ug/l
 RT: 4.59 min Scan# 607
 Delta R.T. 0.01 min
 Lab File: VX013559.D
 Acq: 23 Nov 2019 02:03

Tgt Ion: 96 Resp: 405553
 Ion Ratio Lower Upper
 96 100
 61 122.8 117.0 175.6
 98 62.5 51.1 76.7





#23

tert-Butyl Alcohol

Concen: 1470.439 ug/l

RT: 3.01 min Scan# 348

Delta R.T. -0.02 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

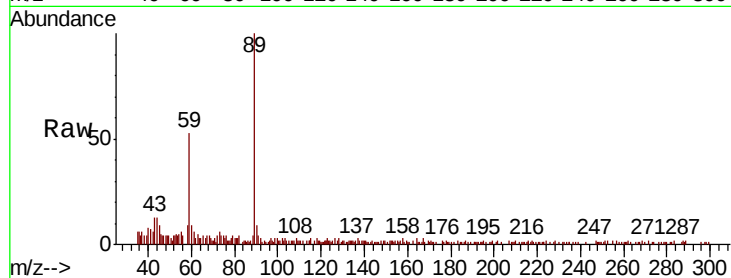
45BR-20191120DL

Tot Ion: 59 Resp: 9434

Ion Ratio Lower Upper

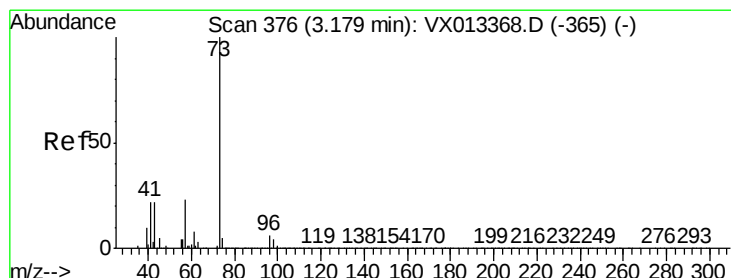
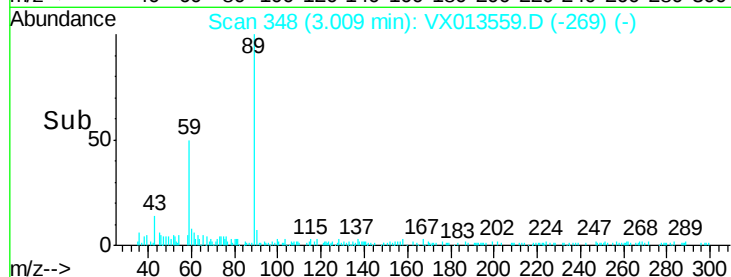
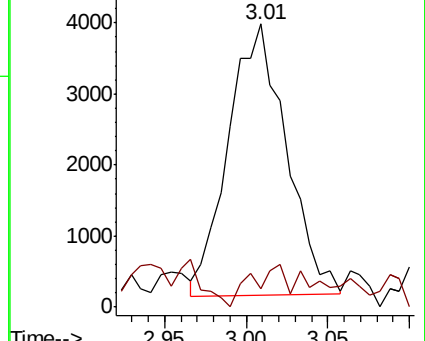
59 100

52 4.2 0.1 0.1#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 52.00 (51.70 to 52.70): VX0



#24

Methyl tert-Butyl Ether

Concen: 2.424 ug/l

RT: 3.19 min Scan# 377

Delta R.T. 0.01 min

Lab File: VX013559.D

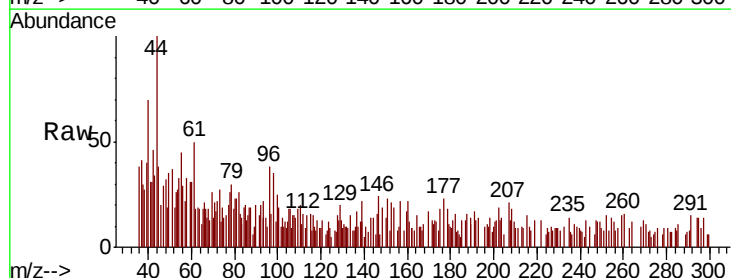
Acq: 23 Nov 2019 02:03

Tgt Ion: 73 Resp: 166

Ion Ratio Lower Upper

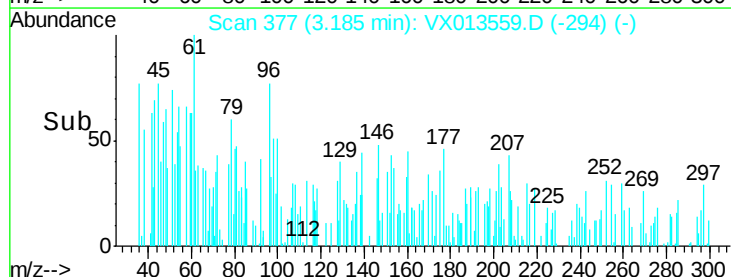
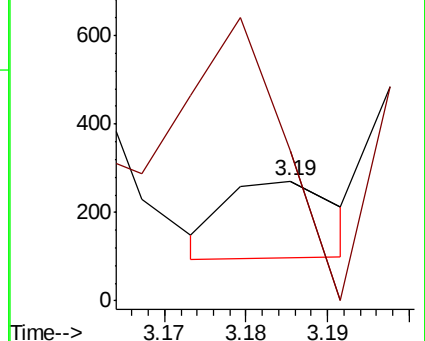
73 100

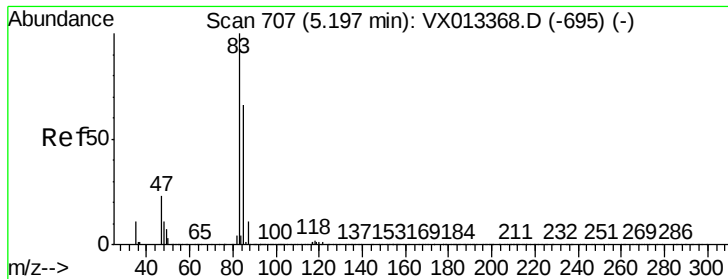
43 318.7 17.0 25.6#



Abundance Ion 73.00 (72.70 to 73.70): VX0

Ion 43.00 (42.70 to 43.70): VX0





#25

Chloroform

Concen: 3.454 ug/l

RT: 5.15 min Scan# 700

Delta R.T. -0.04 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

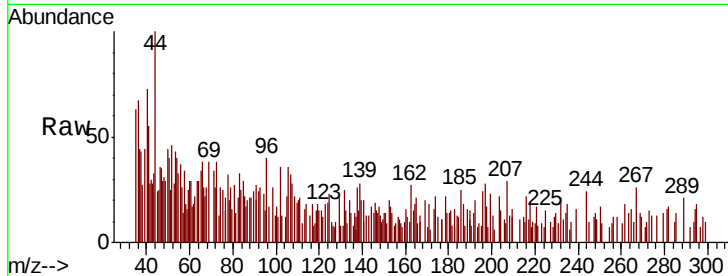
45BR-20191120DL

Tot Ion: 83 Resp: 135

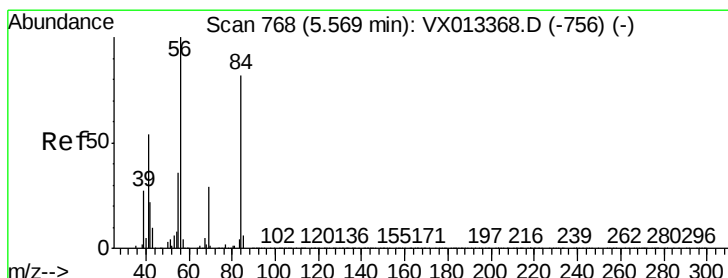
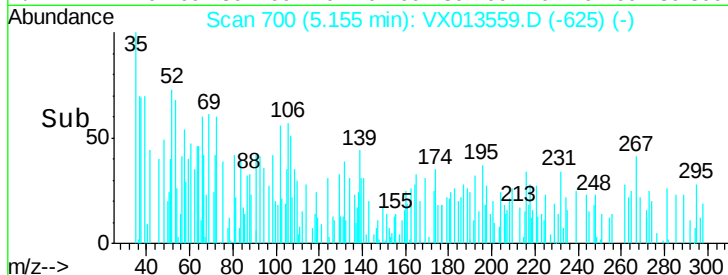
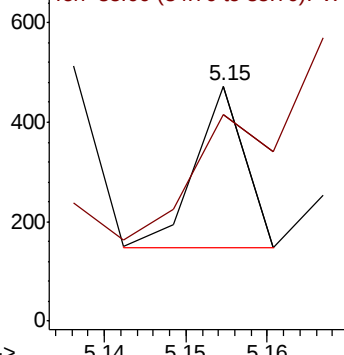
Ion Ratio Lower Upper

83 100

85 78.6 52.4 78.6



Abundance Ion 83.00 (82.70 to 83.70): VX0



#26

Cyclohexane

Concen: 7.254 ug/l

RT: 5.59 min Scan# 772

Delta R.T. 0.02 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

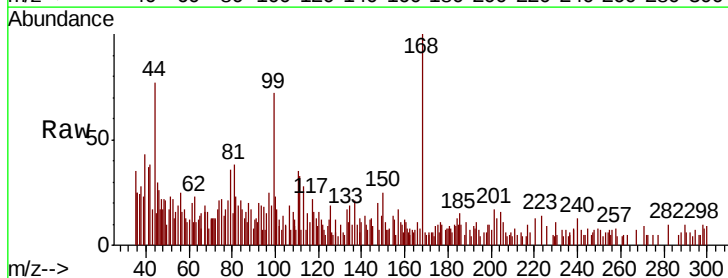
Tgt Ion: 56 Resp: 263

Ion Ratio Lower Upper

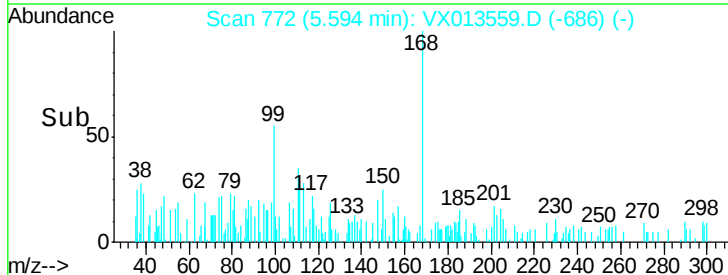
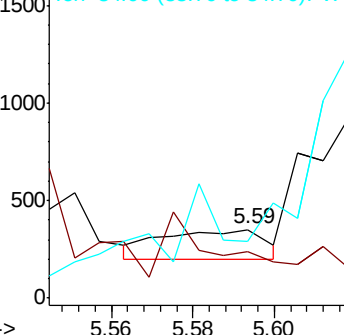
56 100

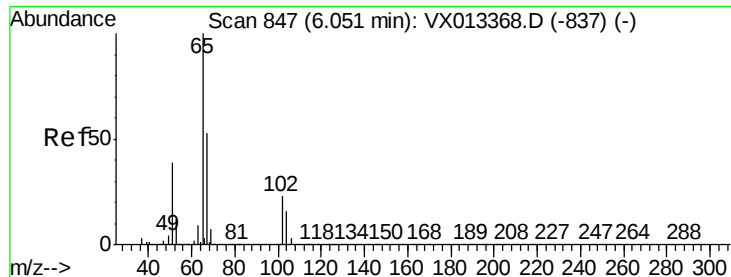
89 80.2 0.0 0.0#

84 163.1 70.5 105.7#



Abundance Ion 56.00 (55.70 to 56.70): VX0



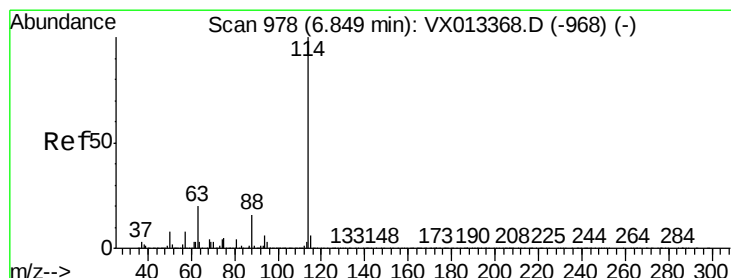
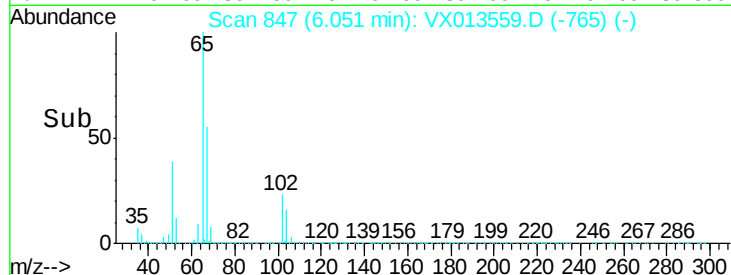
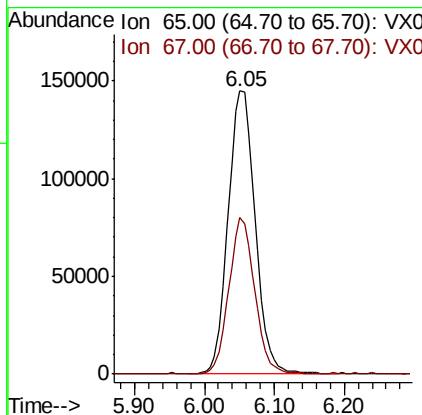
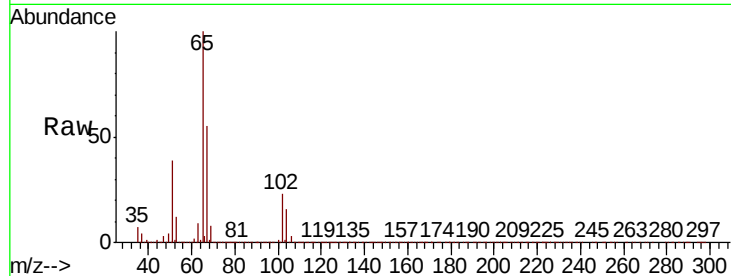


#27

1,2-Dichloroethane-d4
Concen: 15689.496 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

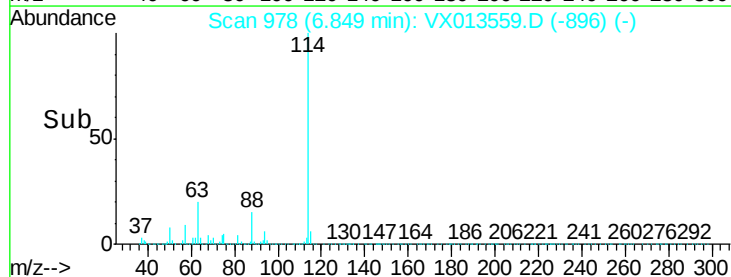
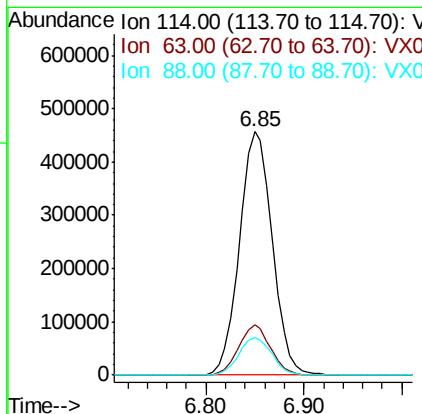
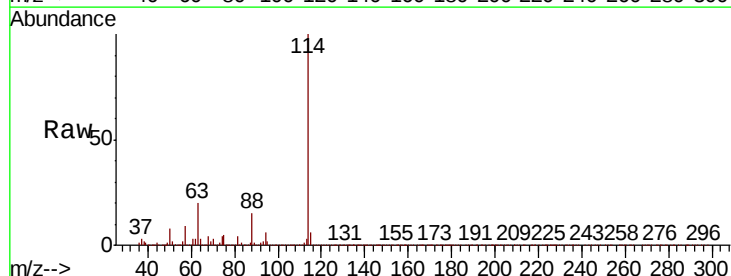
Tot Ion: 65 Resp: 388112
Ion Ratio Lower Upper
65 100
67 52.3 41.0 61.6

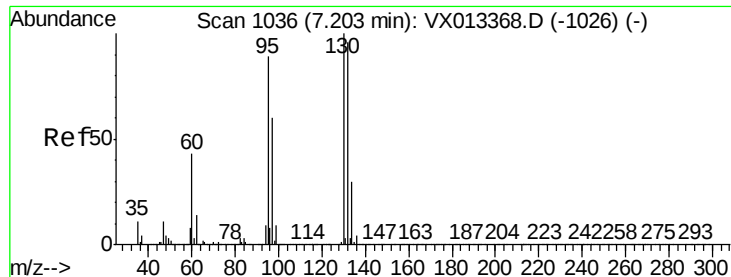


#28

1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Tgt Ion: 114 Resp: 1065102
Ion Ratio Lower Upper
114 100
63 20.0 16.1 24.1
88 15.5 12.3 18.5





#37

Trichloroethene

Concen: 5.290 ug/l

RT: 7.21 min Scan# 1037

Delta R.T. 0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

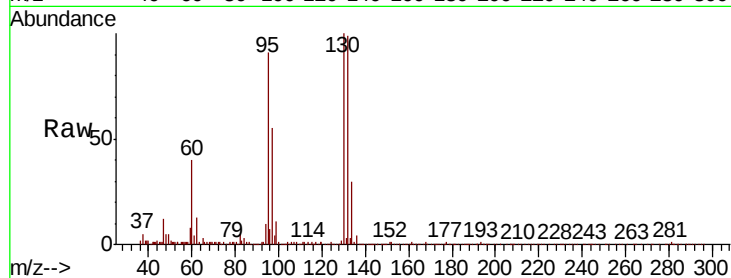
45BR-20191120DL

Tot Ion:130 Resp: 69926

Ion Ratio Lower Upper

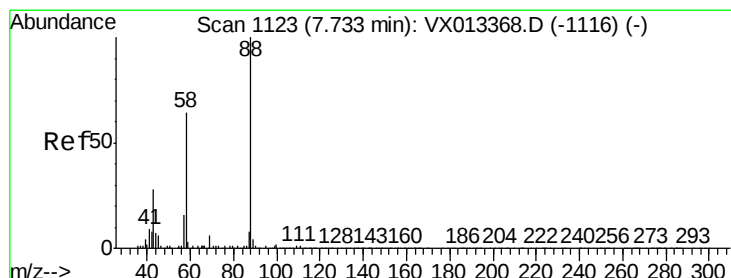
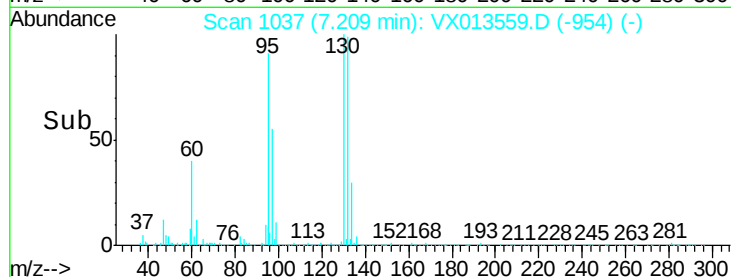
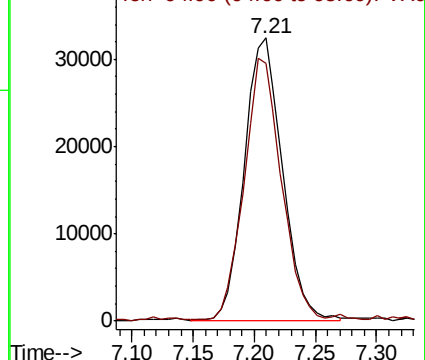
130 100

95 90.4 71.3 106.9



Abundance Ion 129.90 (129.60 to 130.60): V

Ion 94.90 (94.60 to 95.60): VX0



#45

1,4-Dioxane

Concen: 0.219 ug/l

RT: 7.74 min Scan# 1124

Delta R.T. 0.01 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

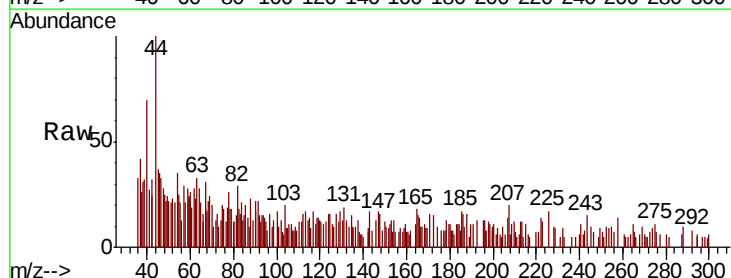
Tgt Ion: 88 Resp: 76

Ion Ratio Lower Upper

88 100

43 669.7 26.1 39.1#

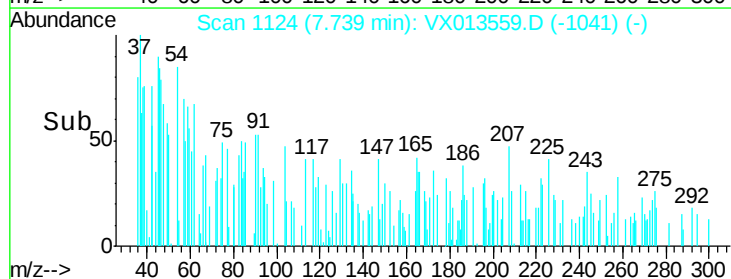
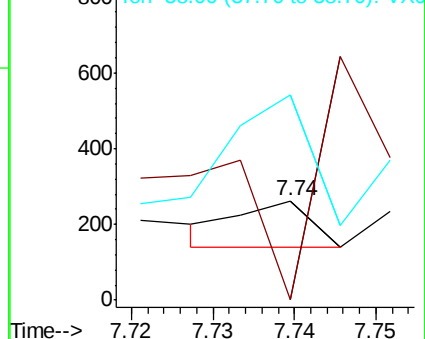
58 707.9 55.8 83.8#

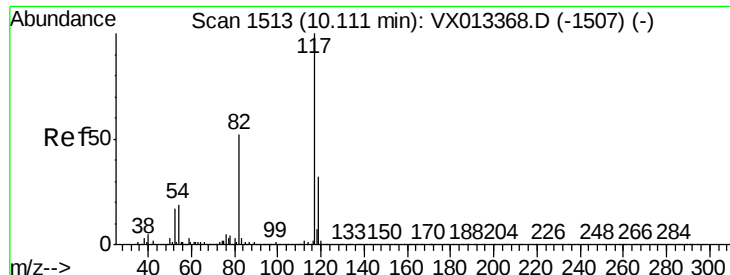


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

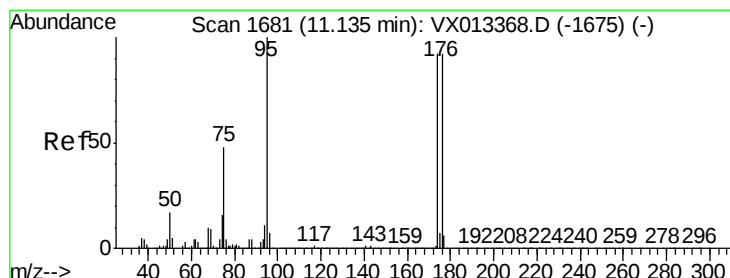
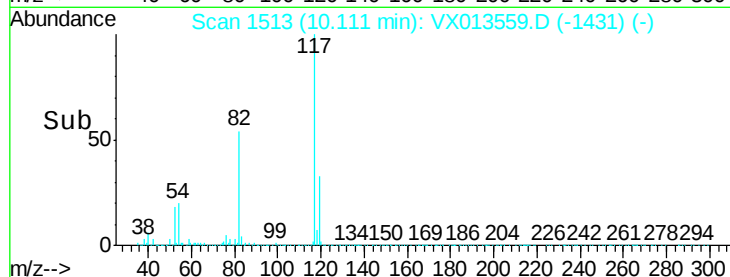
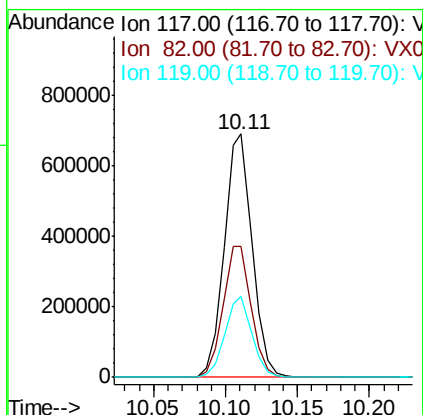
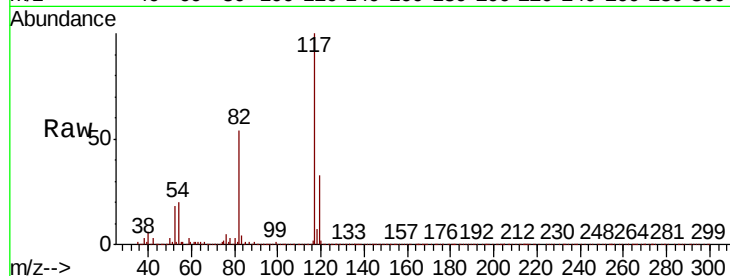




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

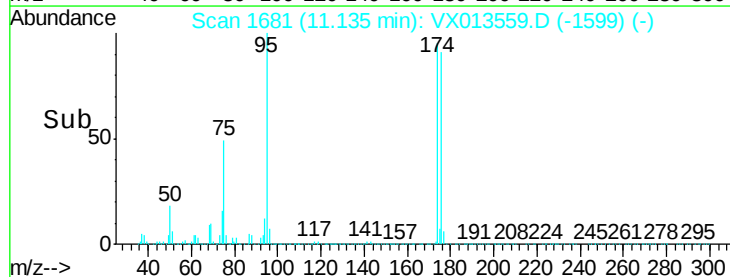
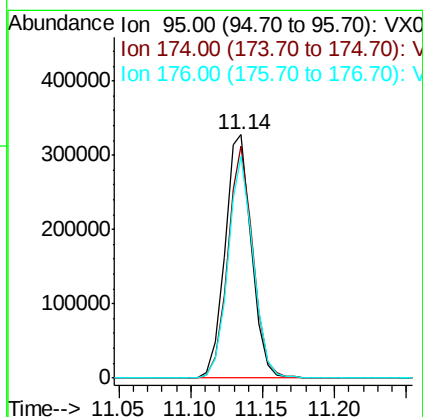
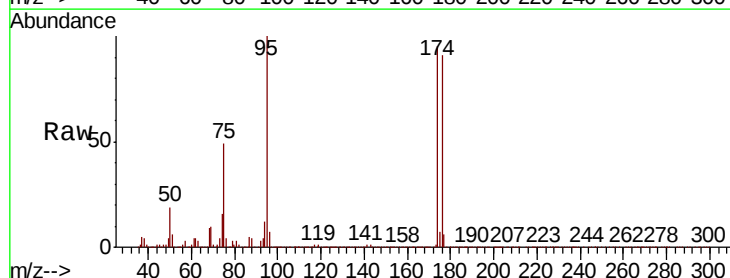
Instrument :
MSVOA_X
ClientSampleId :
45BR-20191120DL

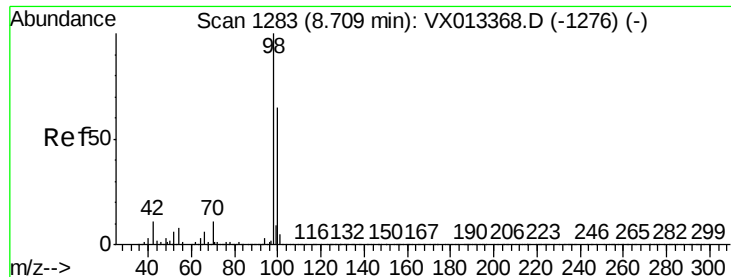
Tot Ion	Ratio	Lower	Upper
117	100		
82	54.6	43.7	65.5
119	32.1	25.5	38.3



#60
4-Bromofluorobenzene
Concen: 28.050 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX013559.D
Acq: 23 Nov 2019 02:03

Tgt Ion	Ratio	Lower	Upper
95	100		
174	90.2	70.2	105.2
176	86.5	68.3	102.5





#63

Toluene-d8

Concen: 29.853 ug/l

RT: 8.71 min Scan# 1283

Delta R.T. 0.00 min

Lab File: VX013559.D

Acq: 23 Nov 2019 02:03

Instrument :

MSVOA_X

ClientSampleId :

45BR-20191120DL

Tot Ion: 98 Resp: 1271486

Ion Ratio Lower Upper

98 100

100 65.5 52.5 78.7

