

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX091919\  
 Data File : VX012530.D  
 Acq On : 19 Sep 2019 15:57  
 Operator : JC/SP  
 Sample : K4883-02  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FB-20190911

Quant Time: Sep 20 04:33:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X091719W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 17 15:27:10 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 191918   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 306105   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 251736   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 98311    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.05  | 65   | 130210   | 47.34 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.68%  |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 89926    | 48.54 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.08%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 350095   | 51.05 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.10% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 121991   | 42.84 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 85.68%  |          |

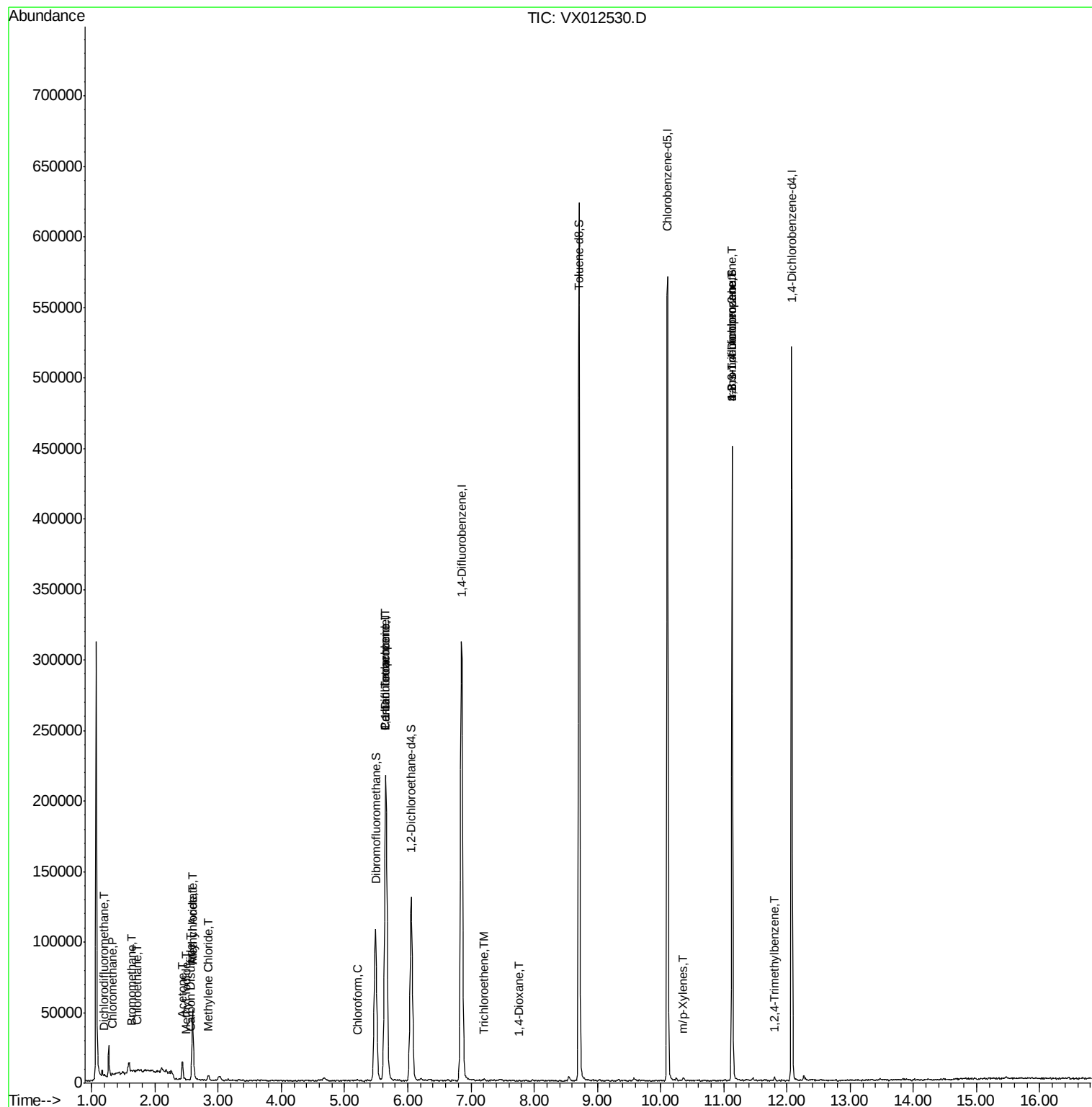
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.19  | 85   | 117      | 0.482     | ug/l # | 43     |
| 3) Chloromethane               | 1.32  | 50   | 699      | 0.662     | ug/l   | 94     |
| 5) Bromomethane                | 1.63  | 94   | 237      | 0.529     | ug/l   | 89     |
| 6) Chloroethane                | 1.73  | 64   | 688      | 0.771     | ug/l # | 53     |
| 10) Methyl Iodide              | 2.50  | 142  | 81       | 4.499     | ug/l # | 1      |
| 11) Tert butyl alcohol         | 3.01  | 59   | 3003     | Below Cal | #      | 92     |
| 13) Acrolein                   | 2.28  | 56   | 199      | Below Cal | #      | 15     |
| 14) Allyl chloride             | 2.59  | 41   | 5040     | 1.794     | ug/l # | 55     |
| 16) Acetone                    | 2.43  | 43   | 14130    | 3.390     | ug/l # | 87     |
| 17) Carbon Disulfide           | 2.56  | 76   | 148      | 1.890     | ug/l # | 75     |
| 18) Methyl Acetate             | 2.59  | 43   | 14187    | 4.950     | ug/l # | 54     |
| 20) Methylene Chloride         | 2.84  | 84   | 1434     | 0.861     | ug/l   | 87     |
| 30) Chloroform                 | 5.20  | 83   | 842      | 0.233     | ug/l # | 64     |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 16302    | 8.763     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 21763    | 9.406     | ug/l # | 17     |
| 44) Trichloroethene            | 7.21  | 130  | 482      | 0.310     | ug/l   | 39     |
| 49) 1,4-Dioxane                | 7.76  | 88   | 22       | 0.374     | ug/l # | 22     |
| 68) m/p-Xylenes                | 10.36 | 106  | 576      | 0.222     | ug/l   | 78     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 63430    | 28.088    | ug/l # | 38     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 63430    | 75.433    | ug/l # | 8      |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 1090     | 0.202     | ug/l   | 91     |

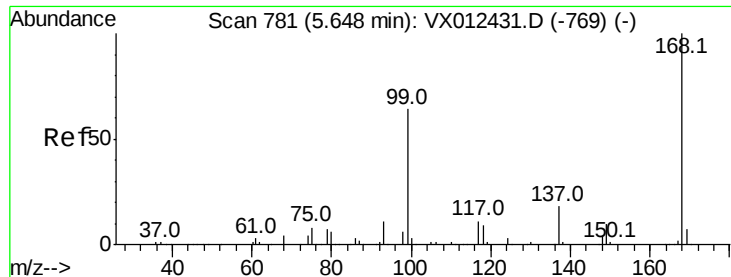
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Sep 17 15:27:10 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. 0.01 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampleId :

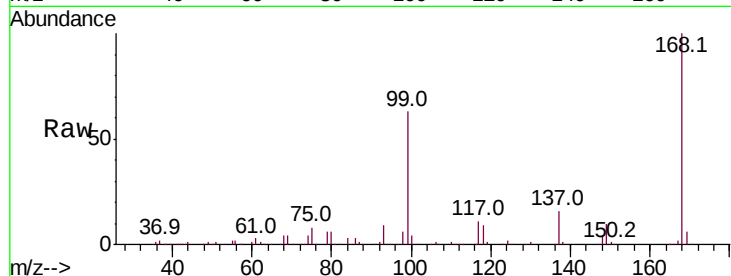
FB-20190911

Tot Ion:168 Resp: 191918

Ion Ratio Lower Upper

168 100

99 63.1 51.4 77.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

80000

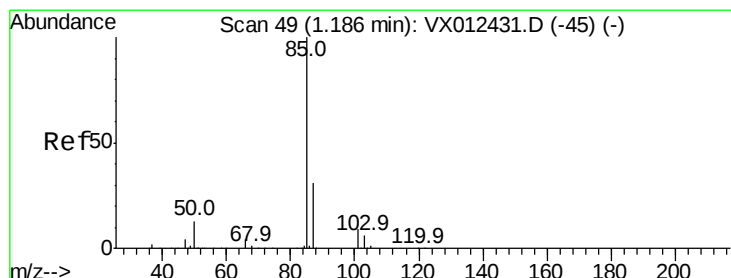
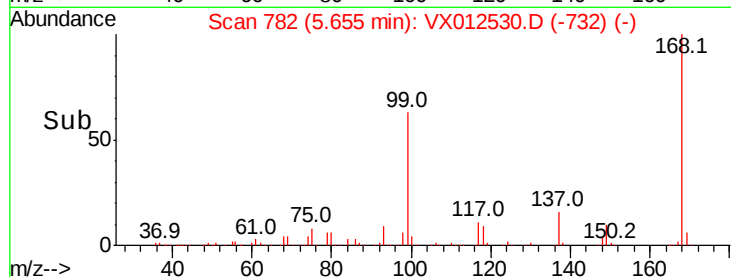
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#2

Dichlorodifluoromethane

Concen: 0.482 ug/l

RT: 1.19 min Scan# 49

Delta R.T. 0.00 min

Lab File: VX012530.D

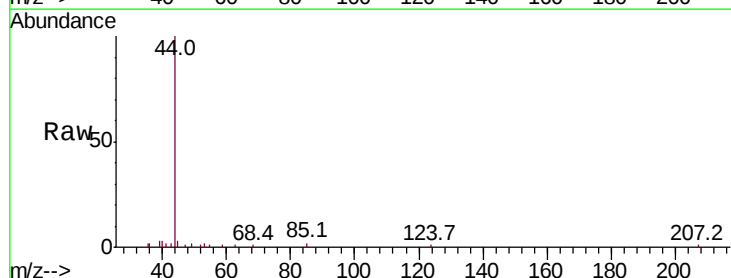
Acq: 19 Sep 2019 15:57

Tgt Ion: 85 Resp: 117

Ion Ratio Lower Upper

85 100

87 0.0 15.6 46.8#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.19

120

100

80

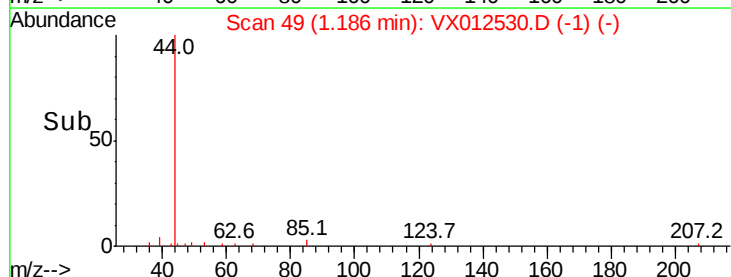
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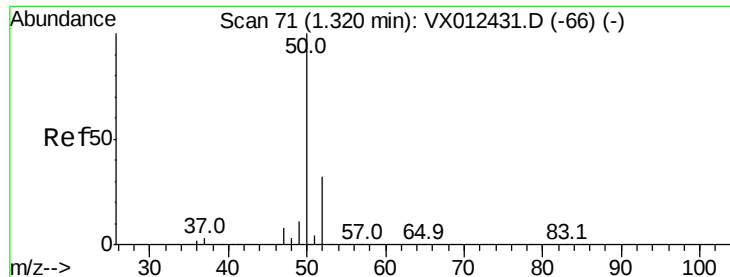
40

20

0

Time--> 1.16 1.18 1.20 1.22





#3

Chloromethane

Concen: 0.662 ug/l

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampleId :

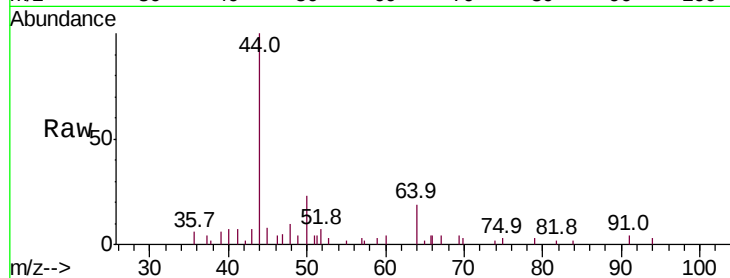
FB-20190911

Tot Ion: 50 Resp: 699

Ion Ratio Lower Upper

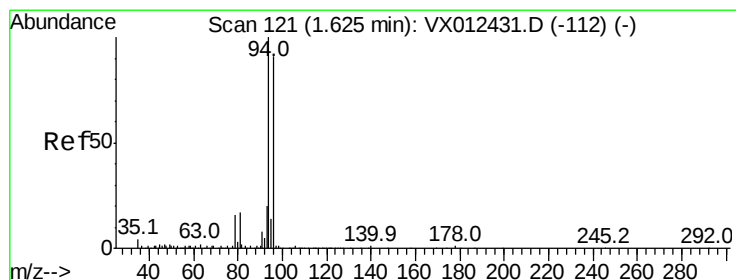
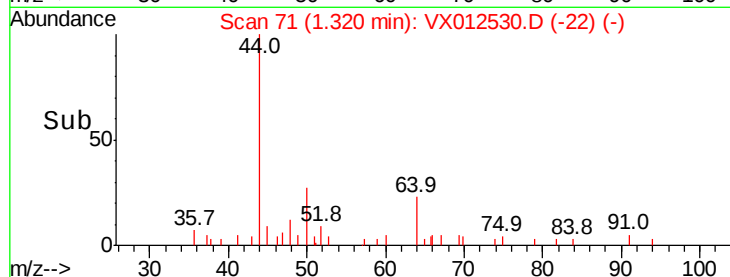
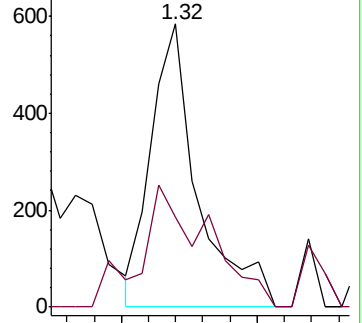
50 100

52 35.6 25.7 38.5



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0



#5

Bromomethane

Concen: 0.529 ug/l

RT: 1.63 min Scan# 122

Delta R.T. 0.01 min

Lab File: VX012530.D

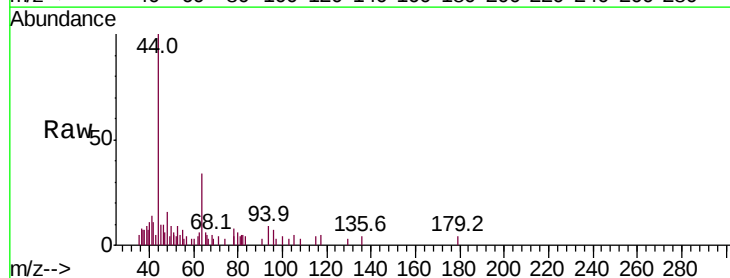
Acq: 19 Sep 2019 15:57

Tgt Ion: 94 Resp: 237

Ion Ratio Lower Upper

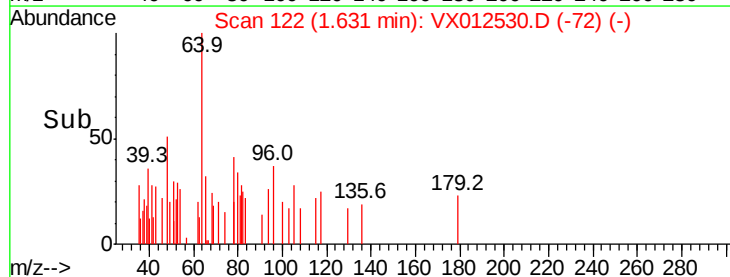
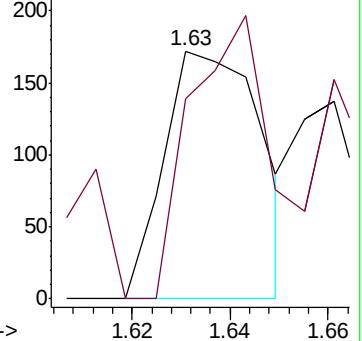
94 100

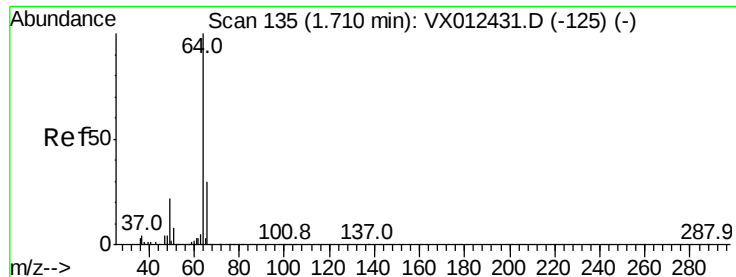
96 80.8 72.8 109.2



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#6

Chloroethane

Concen: 0.771 ug/l

RT: 1.73 min Scan# 138

Delta R.T. 0.02 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampled :

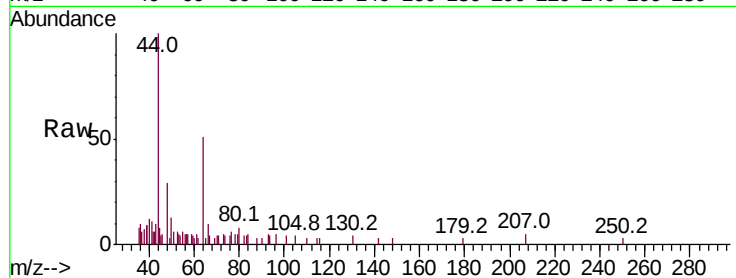
FB-20190911

Tot Ion: 64 Resp: 688

Ion Ratio Lower Upper

64 100

66 4.7 24.0 36.0#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.73

1000

800

600

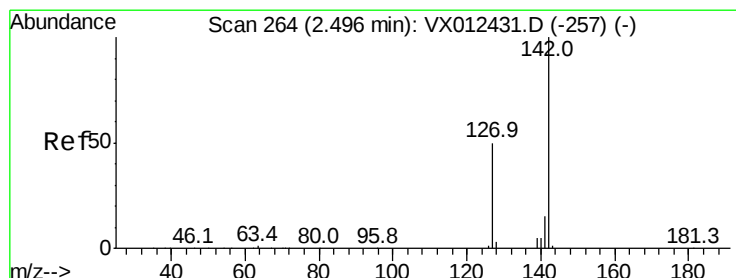
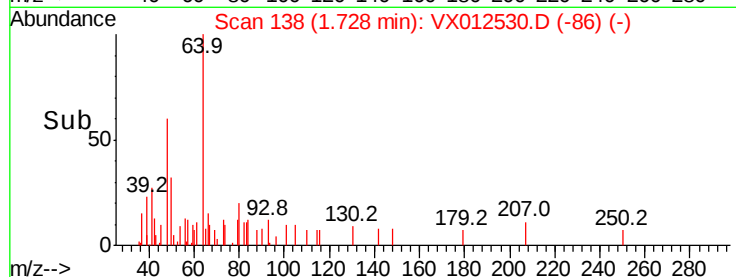
400

200

0

1.70 1.72 1.74 1.76

Time-->



#10

Methyl Iodide

Concen: 4.499 ug/l

RT: 2.50 min Scan# 264

Delta R.T. 0.00 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

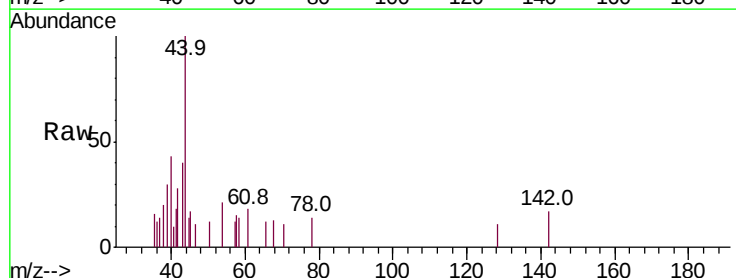
Tgt Ion: 142 Resp: 81

Ion Ratio Lower Upper

142 100

127 149.4 40.8 61.2#

141 50.6 12.1 18.1#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

2.50

120

100

80

60

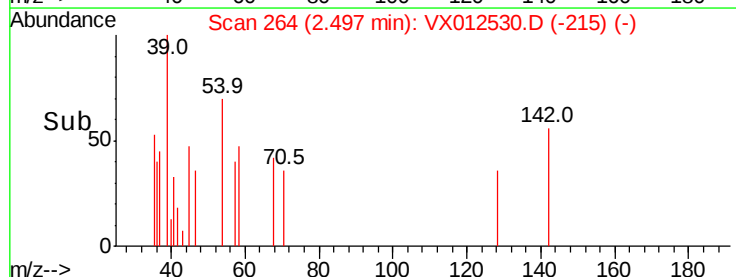
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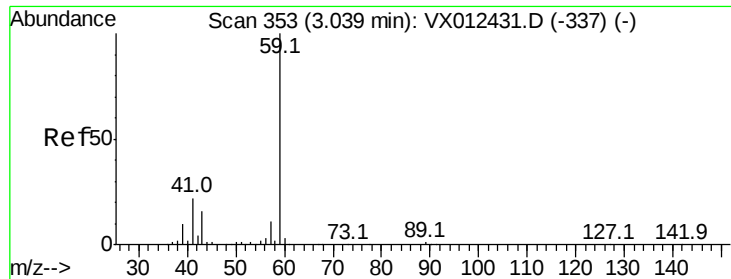
20

0

2.47 2.48 2.49 2.50 2.51

Time-->



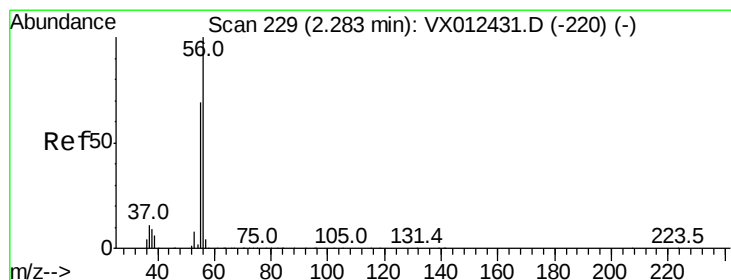
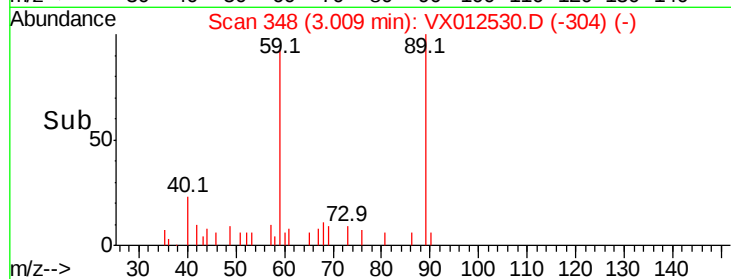
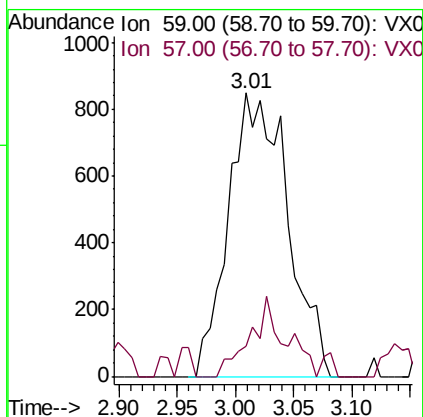
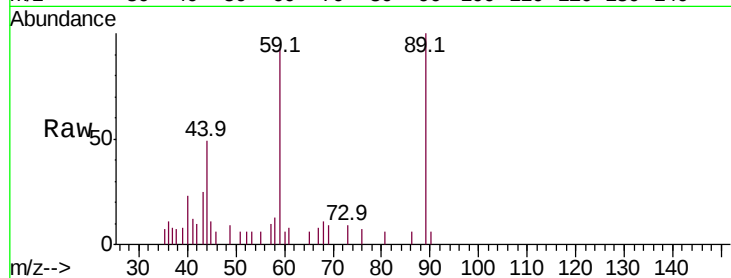


#11

Tert butyl alcohol  
Concen: Below Cal  
RT: 3.01 min Scan# 348  
Delta R.T. -0.03 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Instrument :  
MSVOA\_X  
ClientSampleId :  
FB-20190911

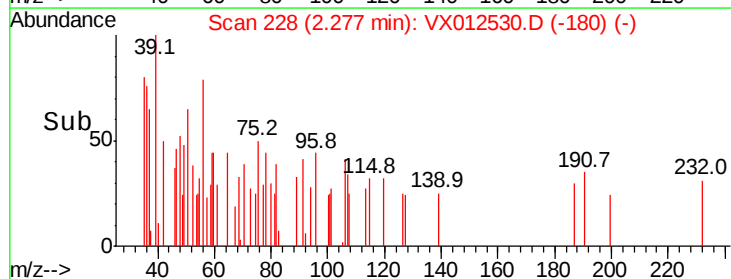
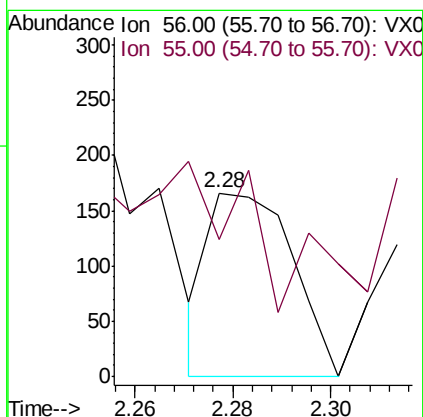
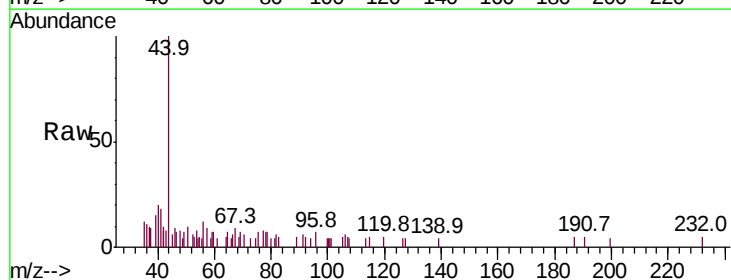
Tot Ion: 59 Resp: 3003  
Ion Ratio Lower Upper  
59 100  
57 13.3 8.3 12.5#

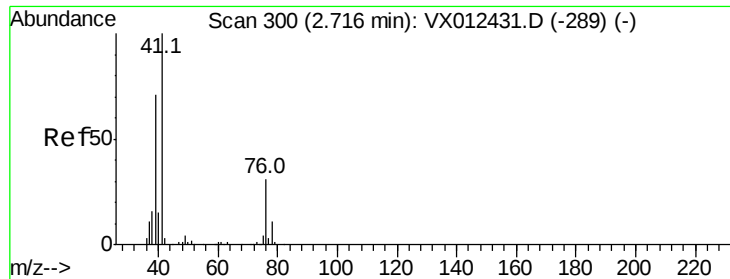


#13

Acrolein  
Concen: Below Cal  
RT: 2.28 min Scan# 228  
Delta R.T. -0.01 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion: 56 Resp: 199  
Ion Ratio Lower Upper  
56 100  
55 0.0 55.8 83.8#

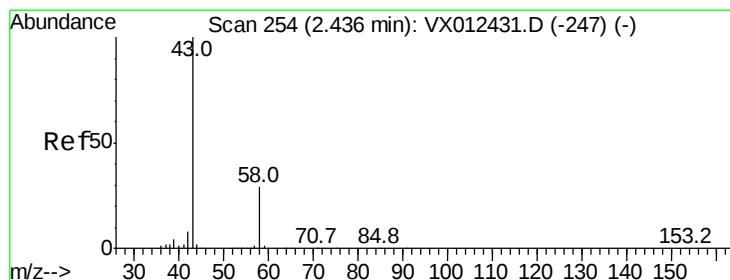
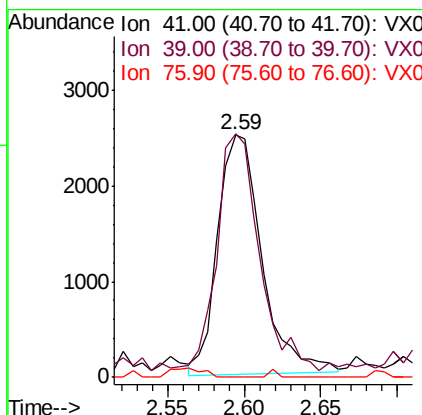
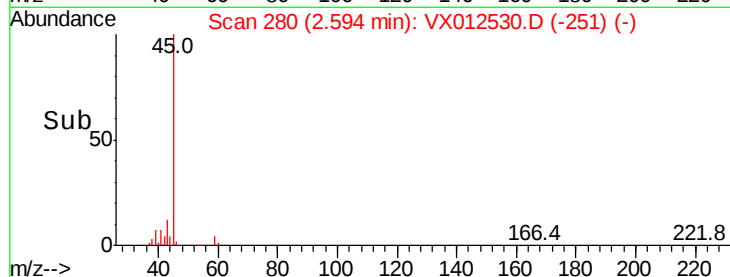
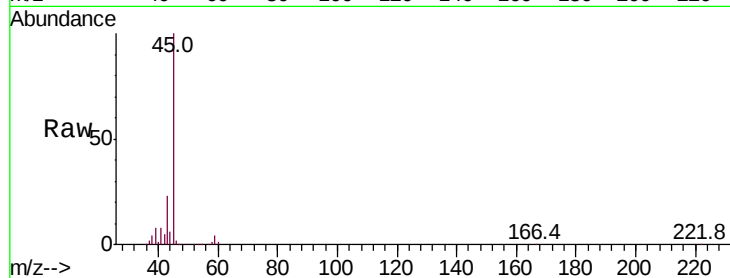




#14  
Allvl chloride  
Concen: 1.794 ug/l  
RT: 2.59 min Scan# 280  
Delta R.T. -0.12 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

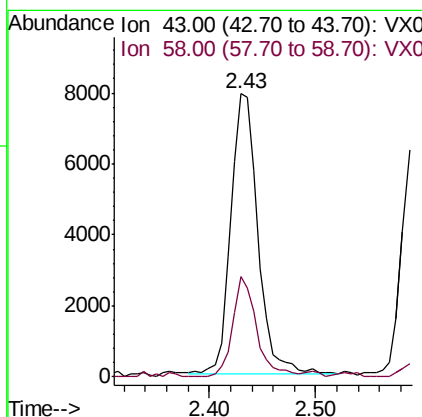
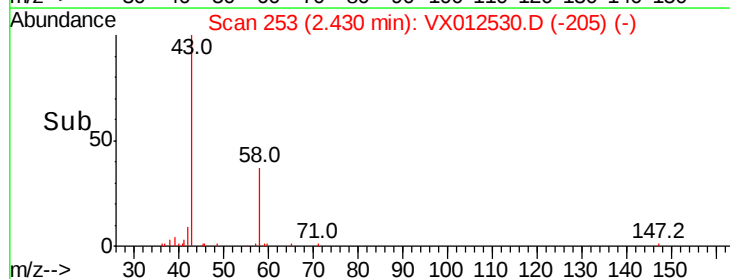
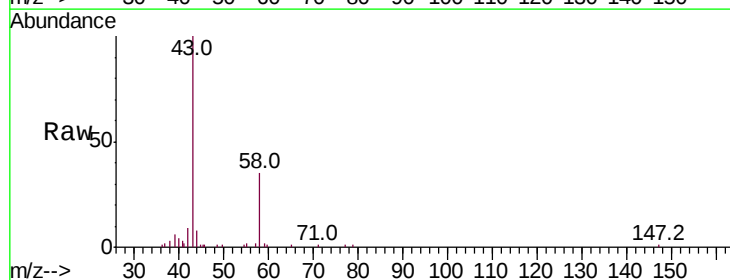
Instrument :  
MSVOA\_X  
ClientSampleId :  
FB-20190911

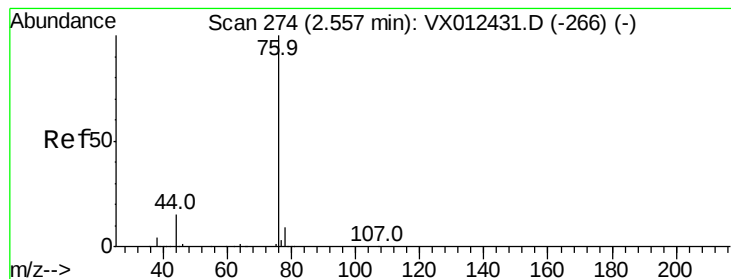
Tot Ion: 41 Resp: 5040  
Ion Ratio Lower Upper  
41 100  
39 96.5 51.3 76.9#  
76 0.0 22.6 33.8#



#16  
Acetone  
Concen: 3.390 ug/l  
RT: 2.43 min Scan# 253  
Delta R.T. -0.01 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion: 43 Resp: 14130  
Ion Ratio Lower Upper  
43 100  
58 35.8 23.3 34.9#





#17

Carbon Disulfide

Concen: 1.890 ug/l

RT: 2.56 min Scan# 275

Delta R.T. 0.01 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampled :

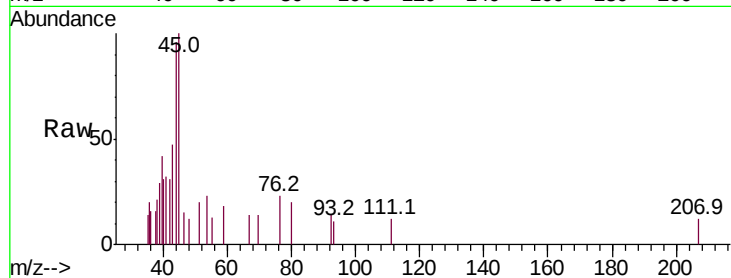
FB-20190911

Tot Ion: 76 Resp: 148

Ion Ratio Lower Upper

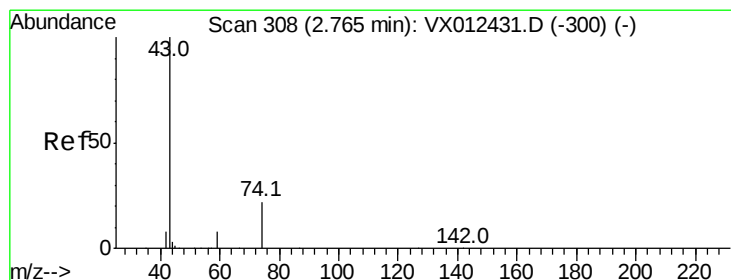
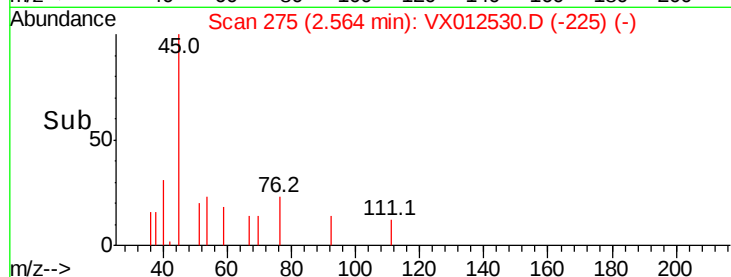
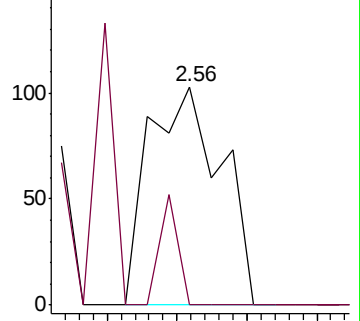
76 100

78 0.0 7.3 10.9#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



#18

Methyl Acetate

Concen: 4.950 ug/l

RT: 2.59 min Scan# 280

Delta R.T. -0.17 min

Lab File: VX012530.D

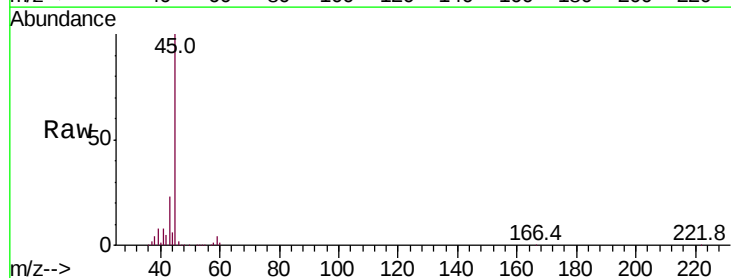
Acq: 19 Sep 2019 15:57

Tgt Ion: 43 Resp: 14187

Ion Ratio Lower Upper

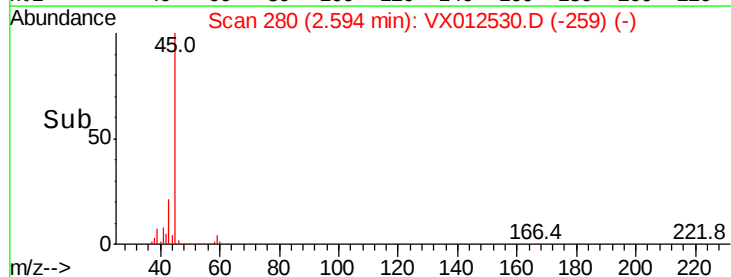
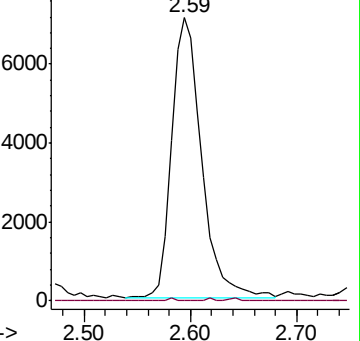
43 100

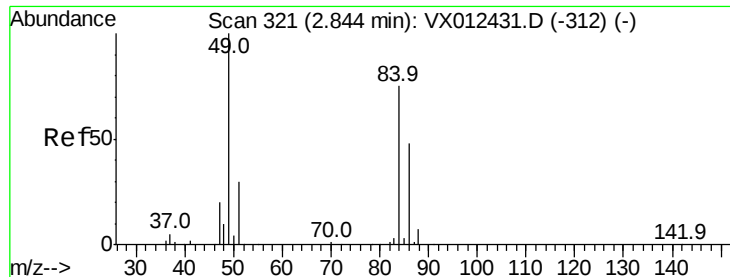
74 0.2 17.7 26.5#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 74.00 (73.70 to 74.70): VX0

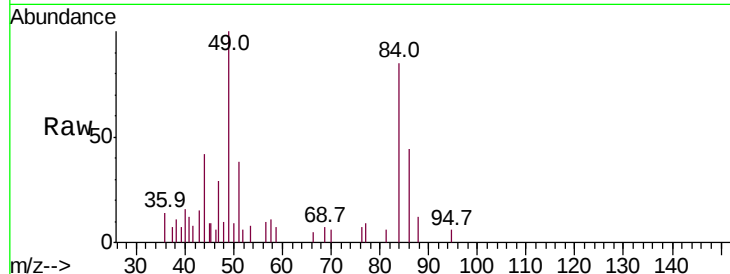




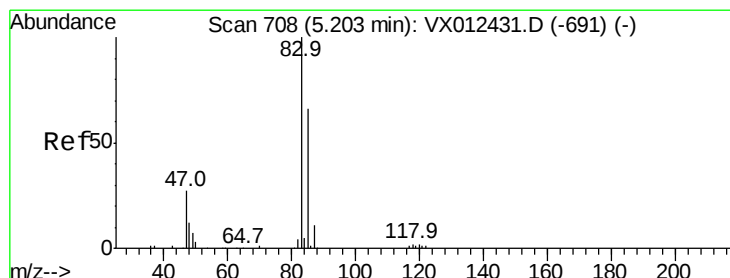
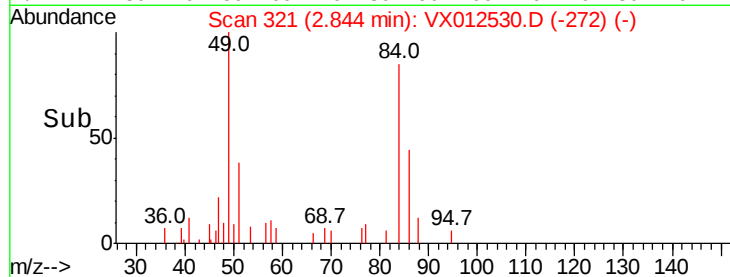
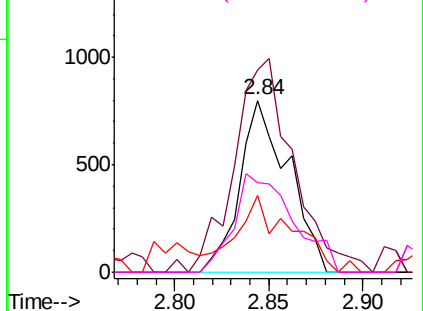
#20  
Methvlene Chloride  
Concen: 0.861 ug/l  
RT: 2.84 min Scan# 321  
Delta R.T. 0.00 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Instrument :  
MSVOA\_X  
ClientSampleId :  
FB-20190911

Tot Ion: 84 Resp: 1434  
Ion Ratio Lower Upper  
84 100  
49 117.6 106.8 160.2  
51 44.6 32.3 48.5  
86 51.9 51.3 76.9

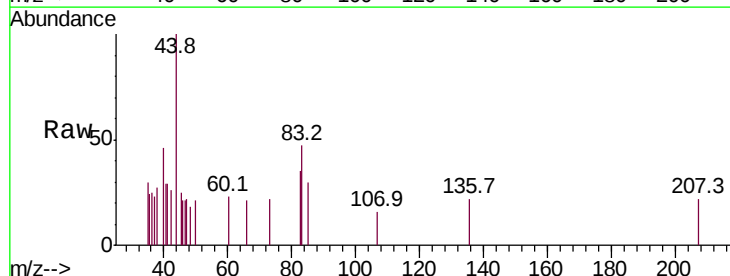


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

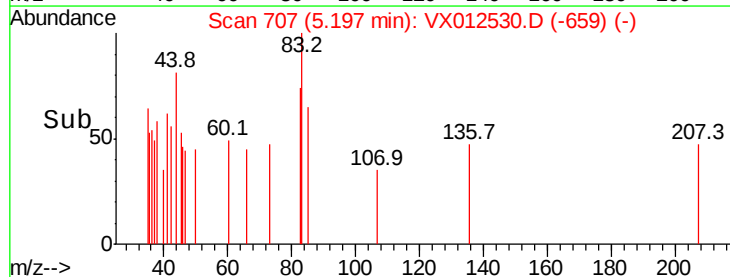
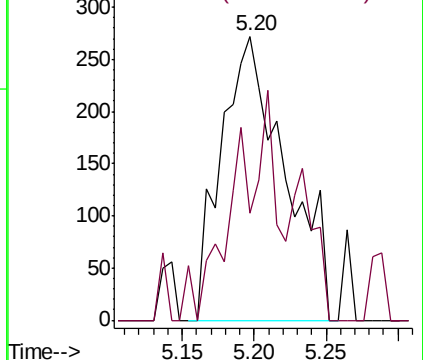


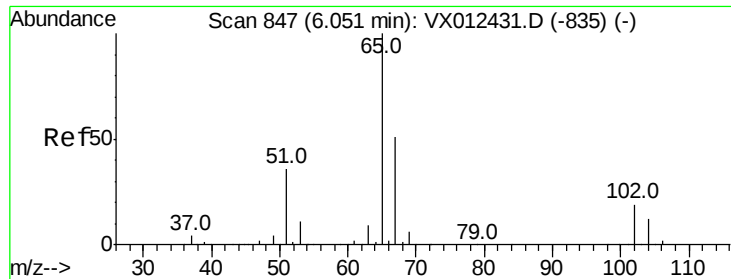
#30  
Chloroform  
Concen: 0.233 ug/l  
RT: 5.20 min Scan# 707  
Delta R.T. -0.01 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion: 83 Resp: 842  
Ion Ratio Lower Upper  
83 100  
85 37.5 53.0 79.4#



Abundance Ion 82.90 (82.60 to 83.60): VX0  
Ion 84.90 (84.60 to 85.60): VX0





#33

1,2-Dichloroethane-d4

Concen: 47.339 ug/l

RT: 6.05 min Scan# 847

Delta R.T. 0.00 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampled :

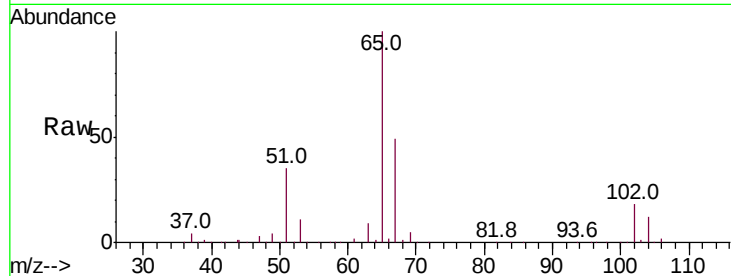
FB-20190911

Tot Ion: 65 Resp: 130210

Ion Ratio Lower Upper

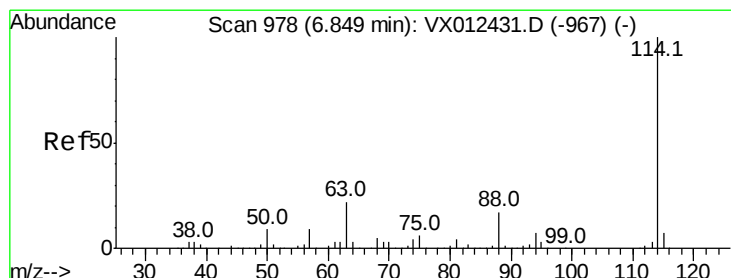
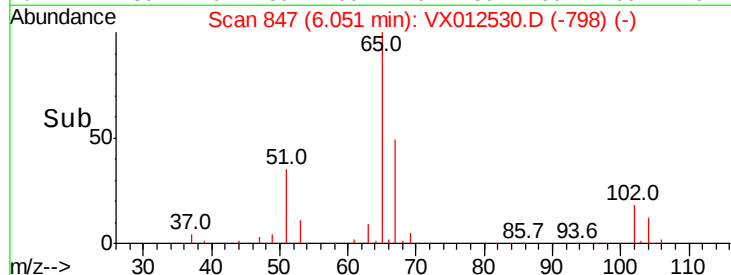
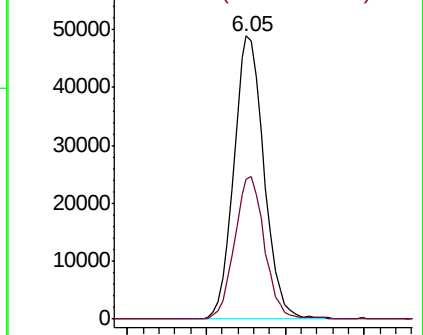
65 100

67 50.0 0.0 101.2



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

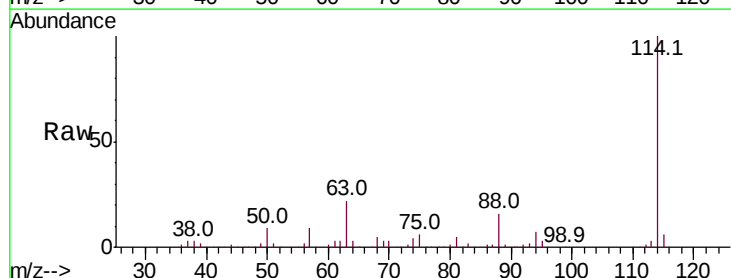
Tgt Ion:114 Resp: 306105

Ion Ratio Lower Upper

114 100

63 22.3 0.0 43.2

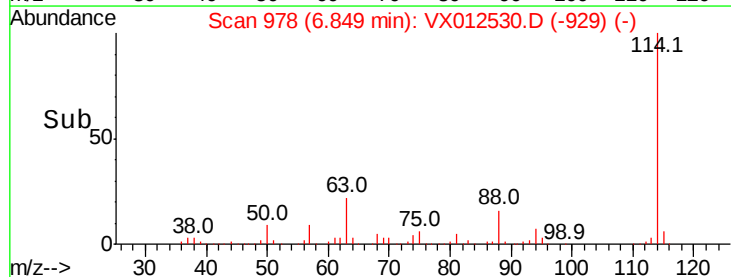
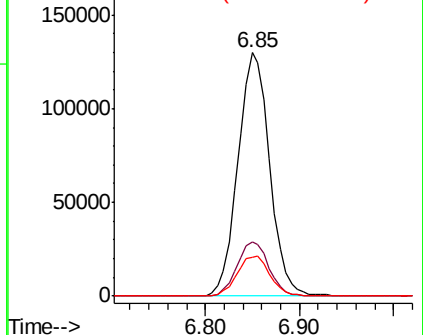
88 16.0 0.0 33.2

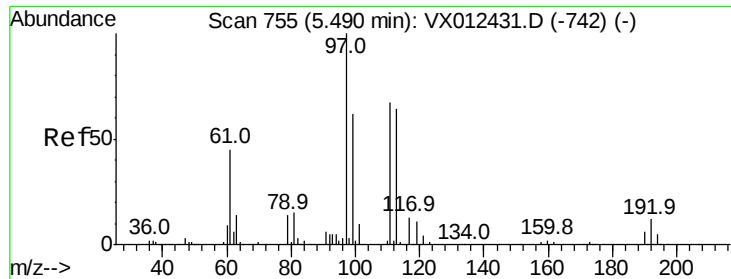


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 48.537 ug/l

RT: 5.49 min Scan# 755

Delta R.T. 0.00 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampleId :

FB-20190911

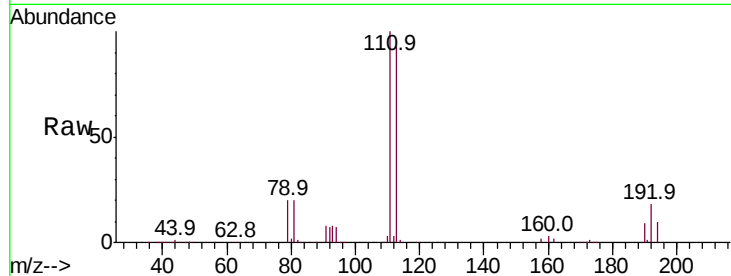
Tot Ion:113 Resp: 89926

Ion Ratio Lower Upper

113 100

111 104.1 83.4 125.2

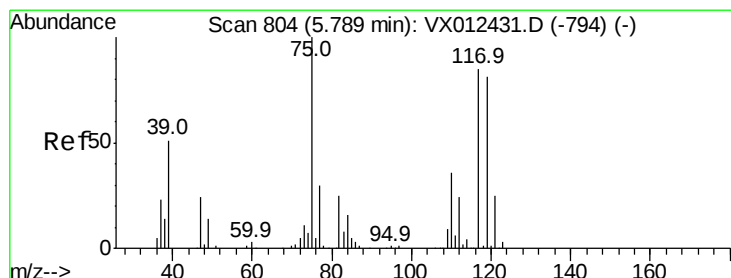
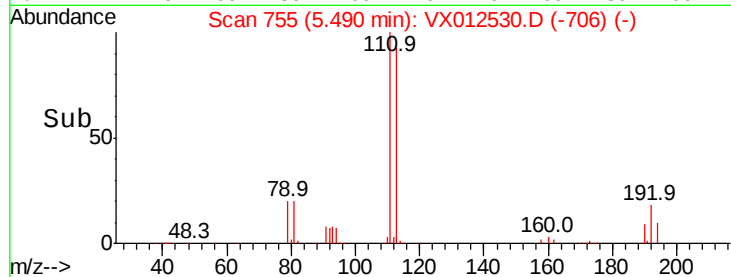
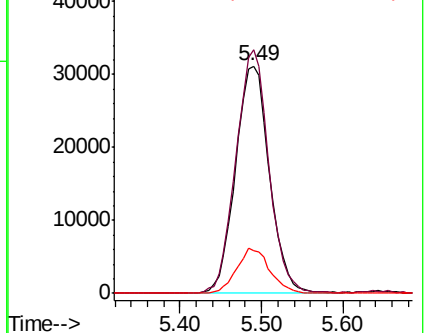
192 19.2 14.4 21.6



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 8.763 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.14 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

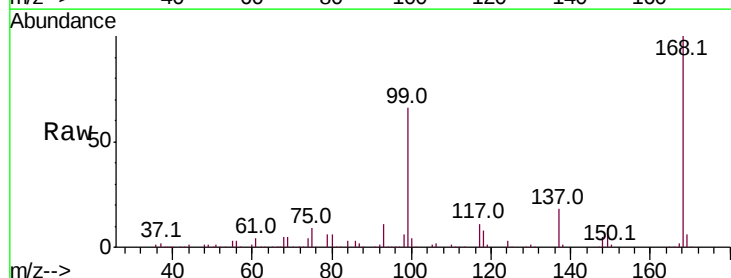
Tgt Ion: 75 Resp: 16302

Ion Ratio Lower Upper

75 100

110 10.0 16.7 50.0#

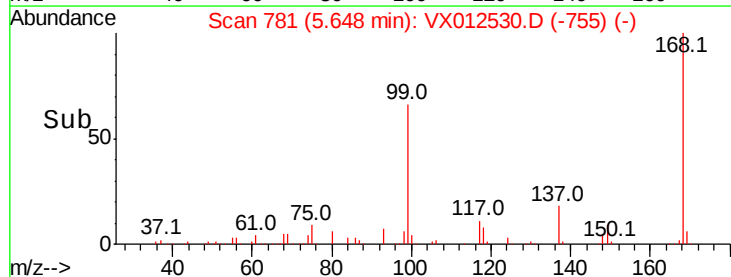
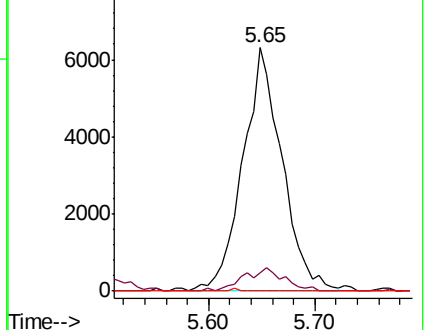
77 0.0 24.2 36.2#

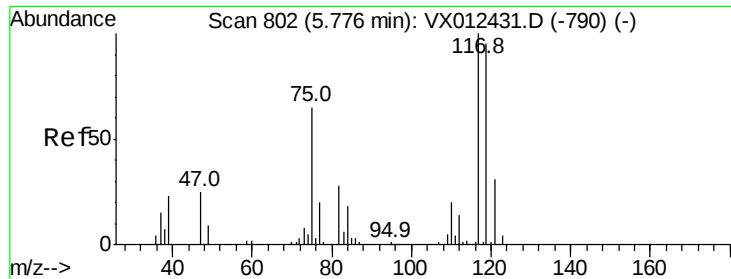


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 9.406 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.13 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampled :

FB-20190911

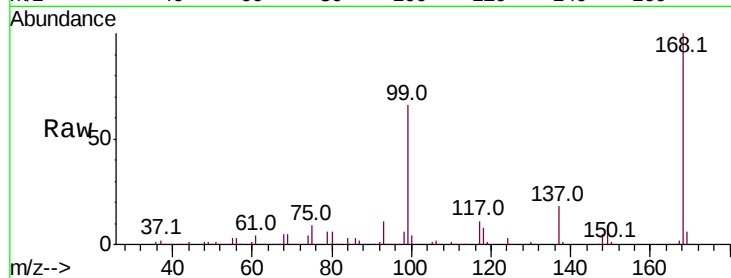
Tot Ion:117 Resp: 21763

Ion Ratio Lower Upper

117 100

119 6.3 75.7 113.5#

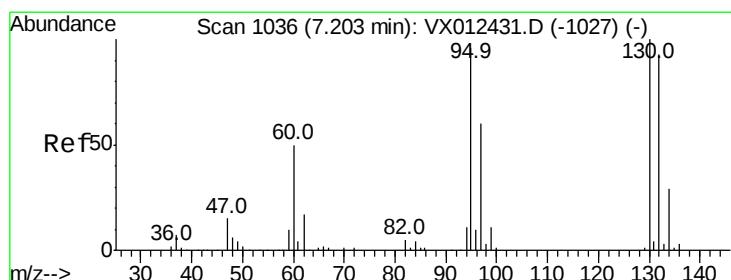
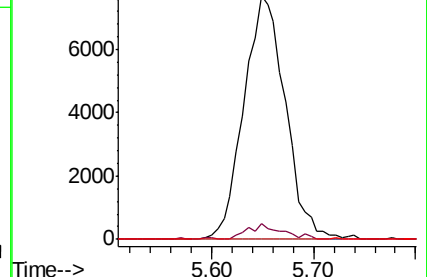
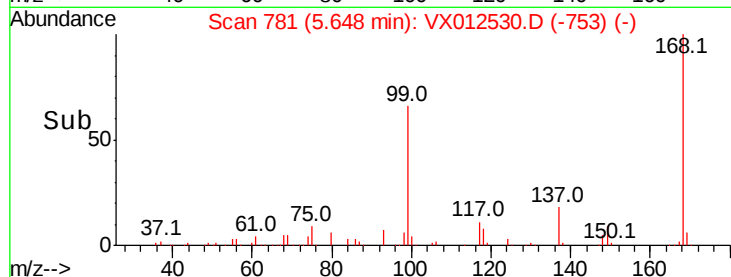
121 0.0 24.2 36.4#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#44

Trichloroethene

Concen: 0.310 ug/l

RT: 7.21 min Scan# 1037

Delta R.T. 0.01 min

Lab File: VX012530.D

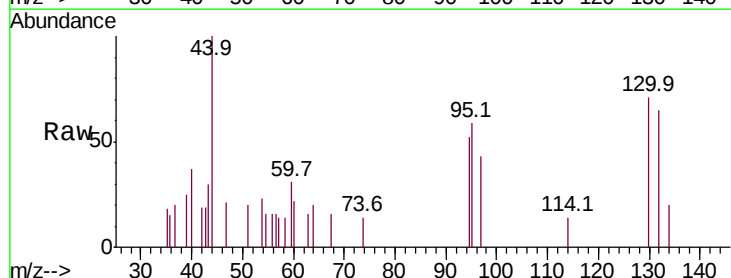
Acq: 19 Sep 2019 15:57

Tgt Ion:130 Resp: 482

Ion Ratio Lower Upper

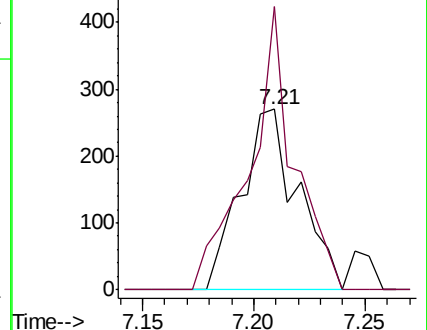
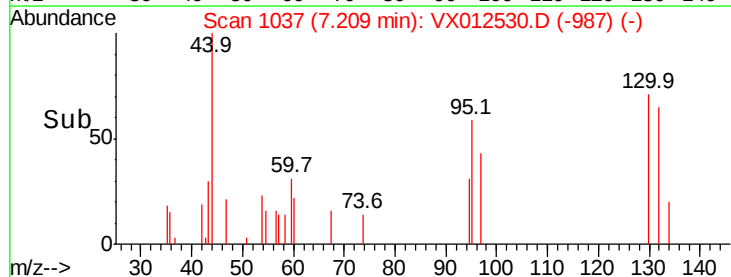
130 100

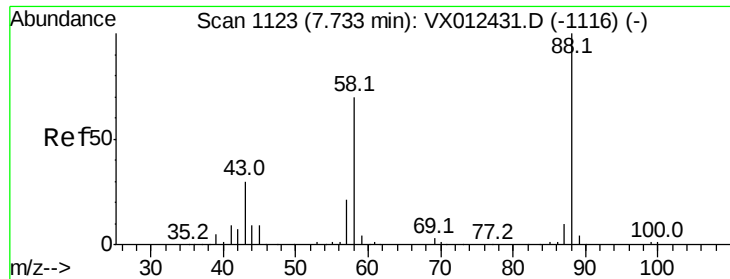
95 156.7 0.0 193.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

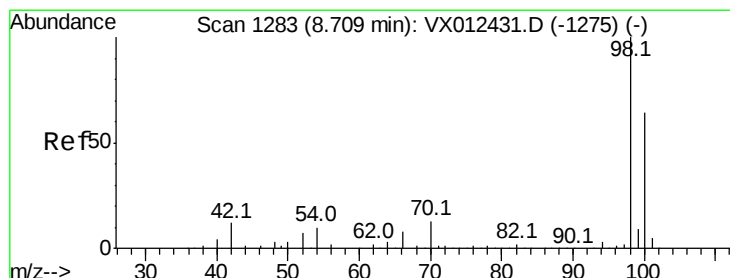
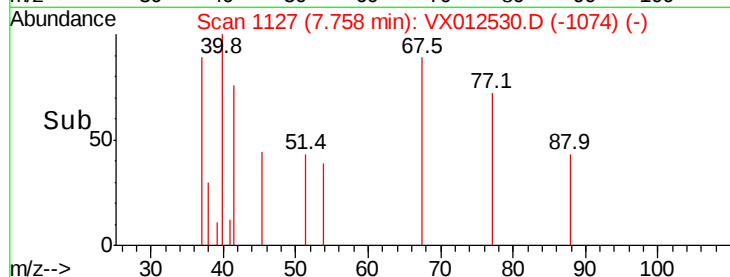
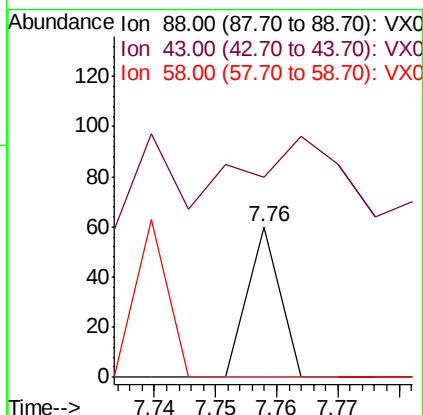
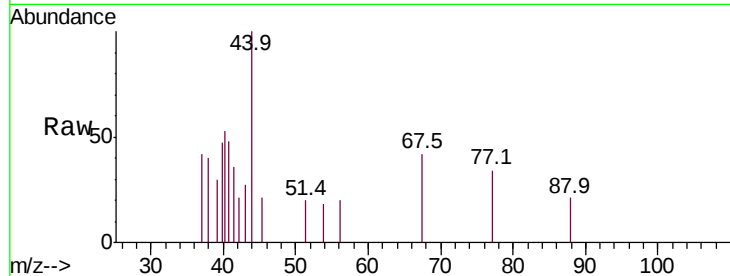




#49  
1,4-Dioxane  
Concen: 0.374 ug/l  
RT: 7.76 min Scan# 1127  
Delta R.T. 0.02 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

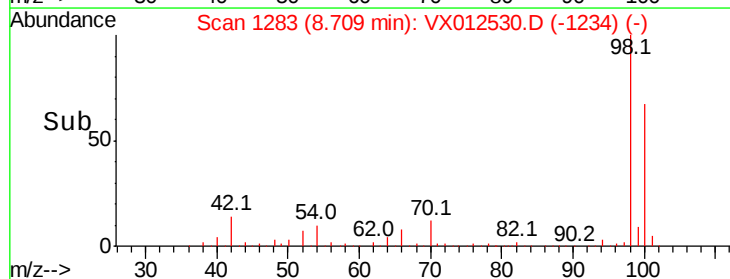
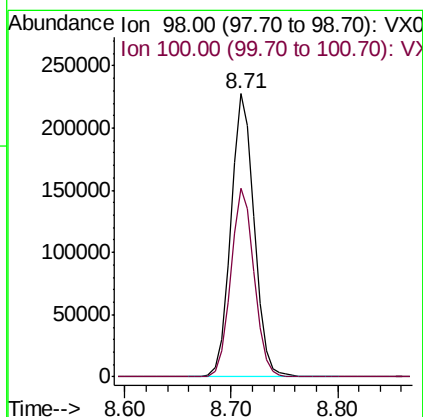
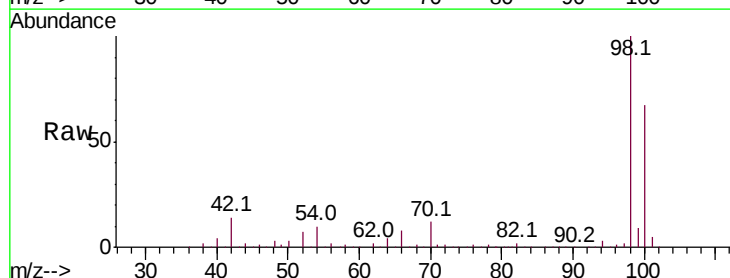
Instrument :  
MSVOA\_X  
ClientSampled :  
FB-20190911

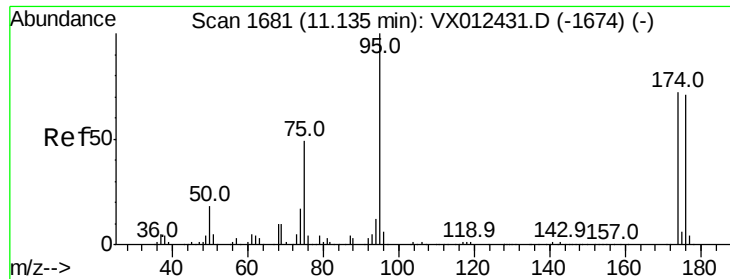
Tot Ion: 88 Resp: 22  
Ion Ratio Lower Upper  
88 100  
43 0.0 29.4 44.0#  
58 0.0 57.5 86.3#



#50  
Toluene-d8  
Concen: 51.051 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion: 98 Resp: 350095  
Ion Ratio Lower Upper  
98 100  
100 66.8 53.4 80.2

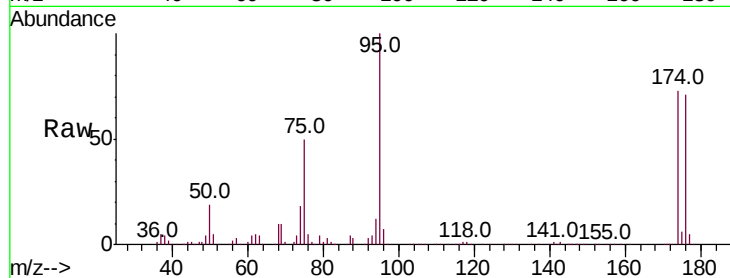




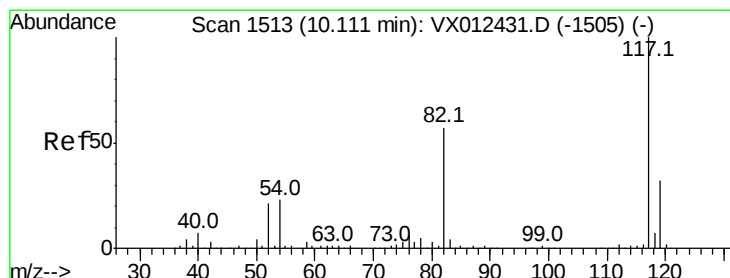
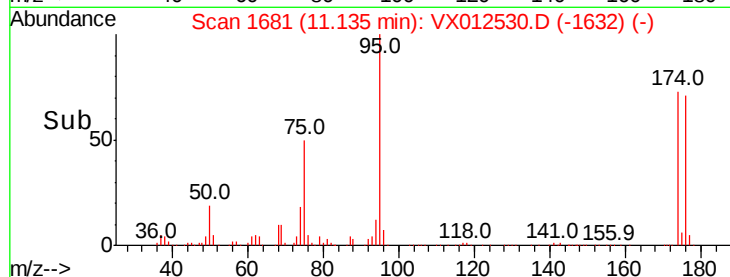
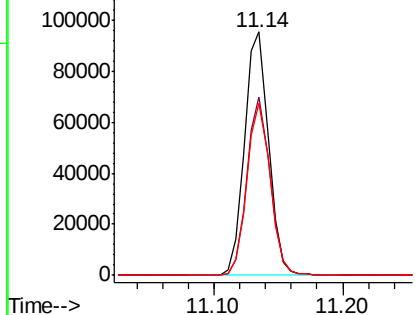
#62  
4-Bromofluorobenzene  
Concen: 42.843 ug/l  
RT: 11.14 min Scan# 1681  
Delta R.T. 0.00 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Instrument :  
MSVOA\_X  
ClientSampleId :  
FB-20190911

Tot Ion: 95 Resp: 121991  
Ion Ratio Lower Upper  
95 100  
174 70.6 0.0 140.0  
176 68.7 0.0 135.4

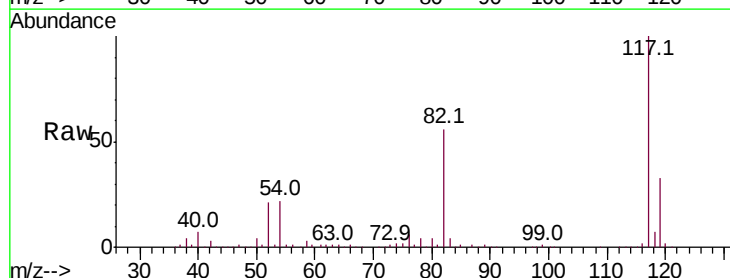


Abundance Ion 94.90 (94.60 to 95.60): VX0  
Ion 173.80 (173.50 to 174.50): V  
Ion 175.80 (175.50 to 176.50): V

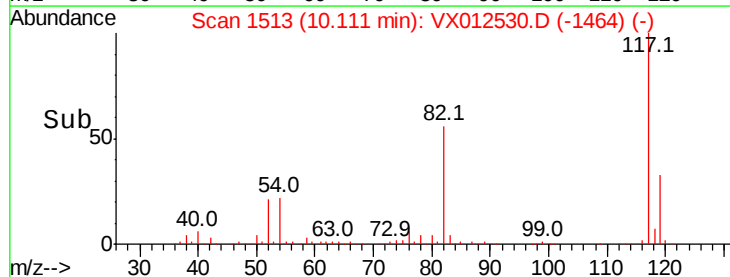
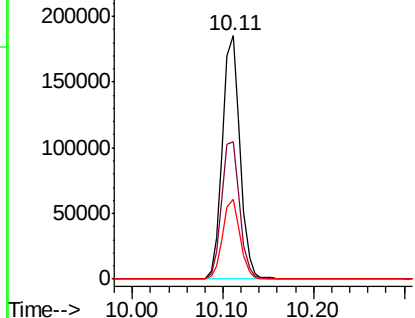


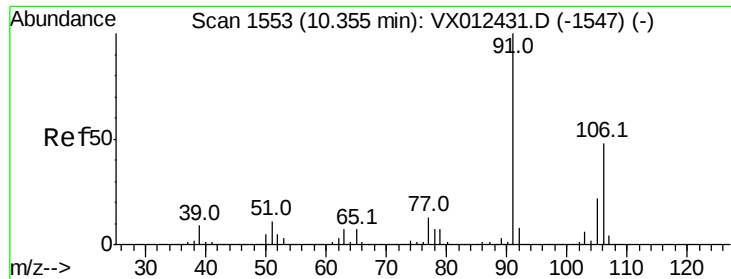
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. 0.00 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion: 117 Resp: 251736  
Ion Ratio Lower Upper  
117 100  
82 56.3 45.9 68.9  
119 32.8 25.3 37.9



Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

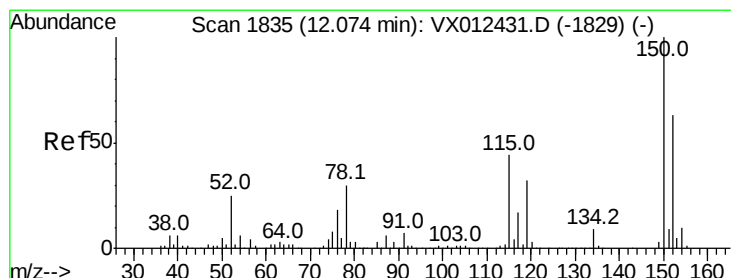
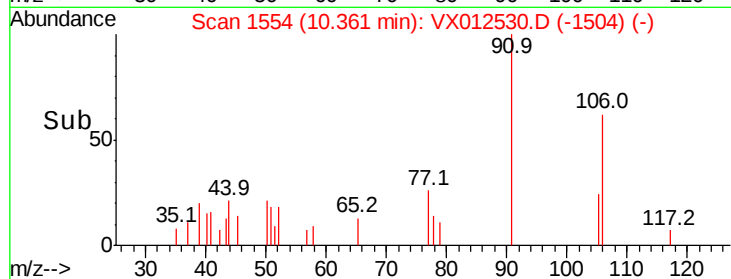
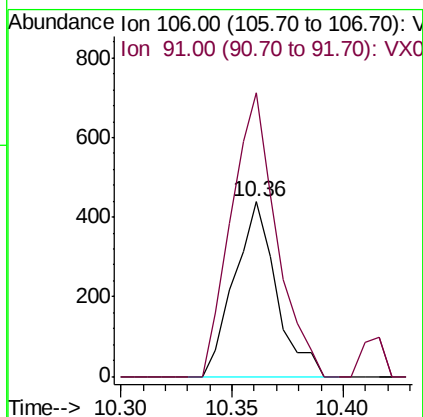
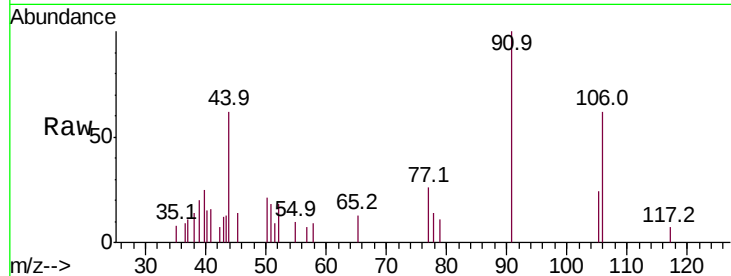




#68  
m/p-Xvlenes  
Concen: 0.222 ug/l  
RT: 10.36 min Scan# 1554  
Delta R.T. 0.01 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

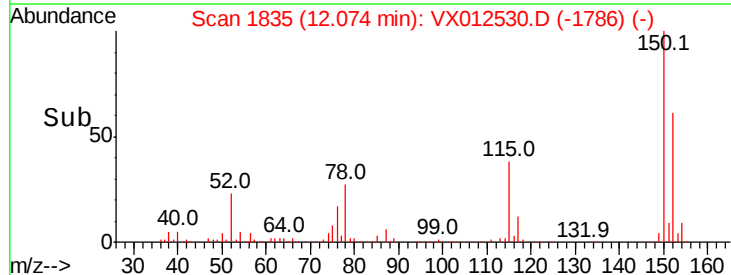
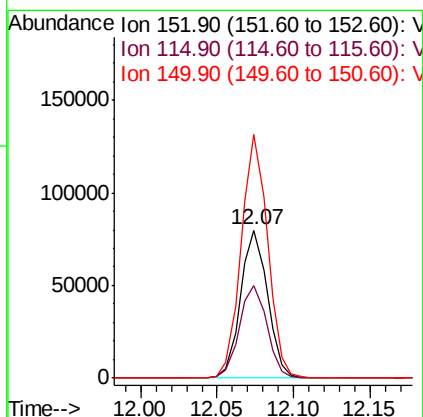
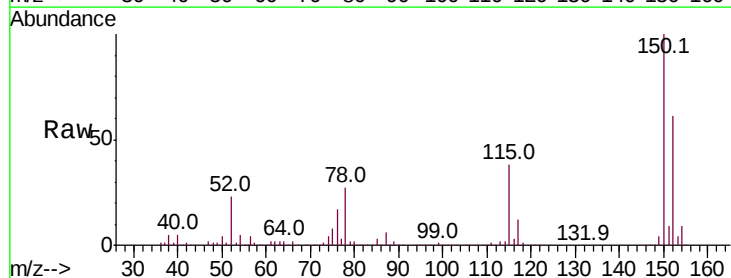
Instrument :  
MSVOA\_X  
ClientSampled :  
FB-20190911

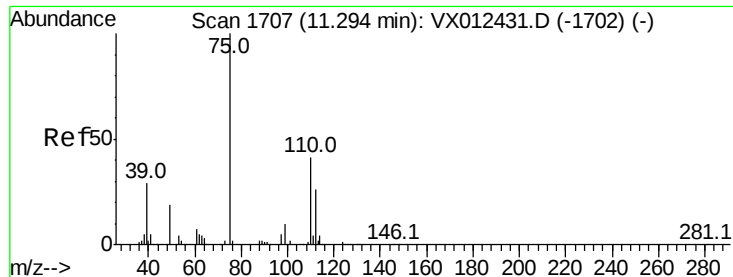
Tot Ion:106 Resp: 576  
Ion Ratio Lower Upper  
106 100  
91 174.3 166.6 250.0



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.07 min Scan# 1835  
Delta R.T. 0.00 min  
Lab File: VX012530.D  
Acq: 19 Sep 2019 15:57

Tgt Ion:152 Resp: 98311  
Ion Ratio Lower Upper  
152 100  
115 63.3 44.1 132.3  
150 160.9 0.0 343.8





#76

1,2,3-Trichloropropane

Concen: 28.088 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

Instrument :

MSVOA\_X

ClientSampled :

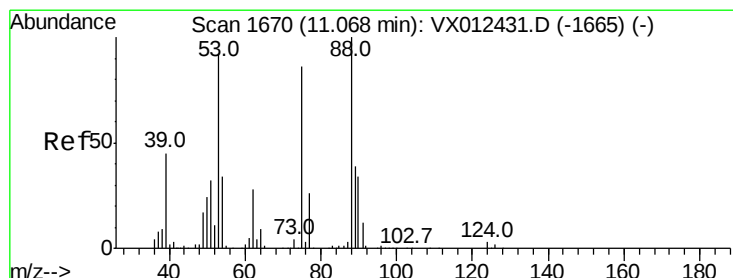
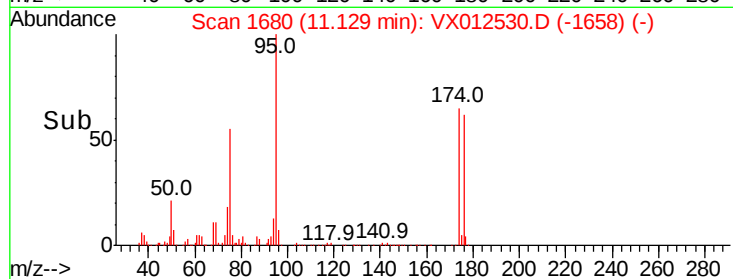
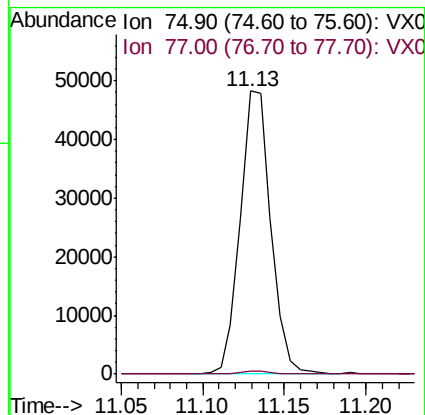
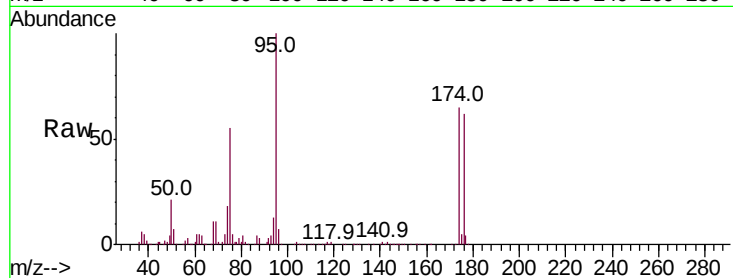
FB-20190911

Tot Ion: 75 Resp: 63430

Ion Ratio Lower Upper

75 100

77 1.2 19.7 59.0#



#81

trans-1,4-Dichloro-2-butene

Concen: 75.433 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX012530.D

Acq: 19 Sep 2019 15:57

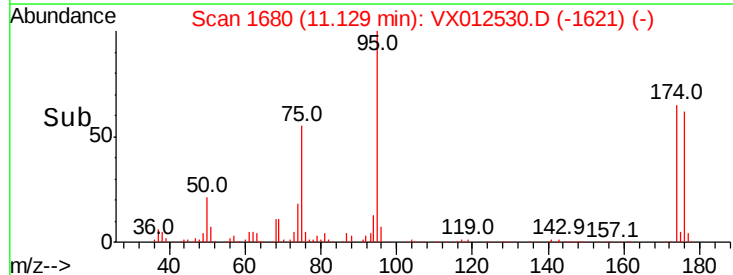
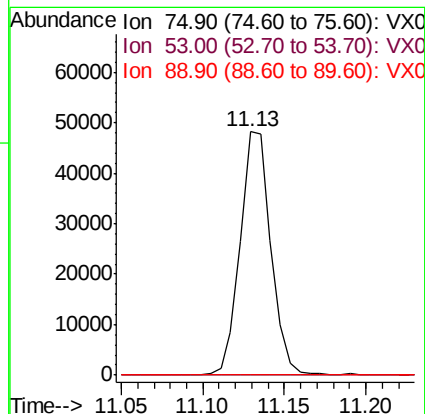
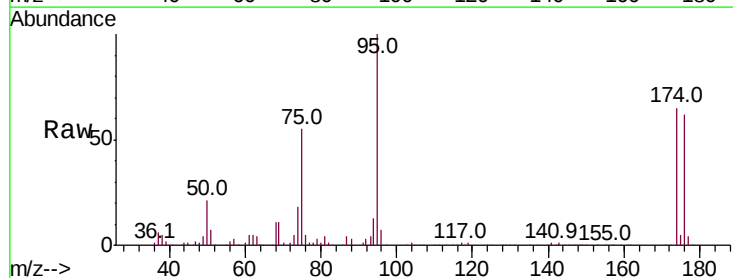
Tgt Ion: 75 Resp: 63430

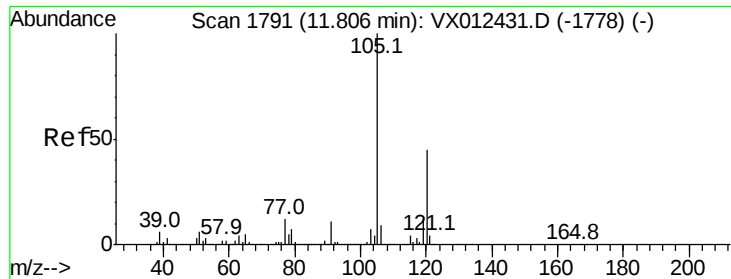
Ion Ratio Lower Upper

75 100

53 0.1 83.6 125.4#

89 0.0 36.3 54.5#





#84  
 1,2,4-Trimethylbenzene  
 Concen: 0.202 ug/l  
 RT: 11.81 min Scan# 1791  
 Delta R.T. 0.00 min  
 Lab File: VX012530.D  
 Acq: 19 Sep 2019 15:57

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FB-20190911

Tot Ion:105 Resp: 1090  
 Ion Ratio Lower Upper  
 105 100  
 120 50.1 22.2 66.6

