

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX091020\  
 Data File : VX018343.D  
 Acq On : 10 Sep 2020 16:48  
 Operator : JC/SP  
 Sample : L3952-02 20X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 40614

Quant Time: Sep 11 06:54:18 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 21 03:03:56 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 419362   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 664574   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 649048   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 338640   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.03   | 65  | 294710   | 50.62 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.24% |      |
| 35) Dibromofluoromethane  | 5.46   | 113 | 226980   | 50.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.30% |      |
| 50) Toluene-d8            | 8.70   | 98  | 795799   | 47.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.42%  |      |
| 62) 4-Bromofluorobenzene  | 11.12  | 95  | 324204   | 48.88 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.76%  |      |

## Target Compounds

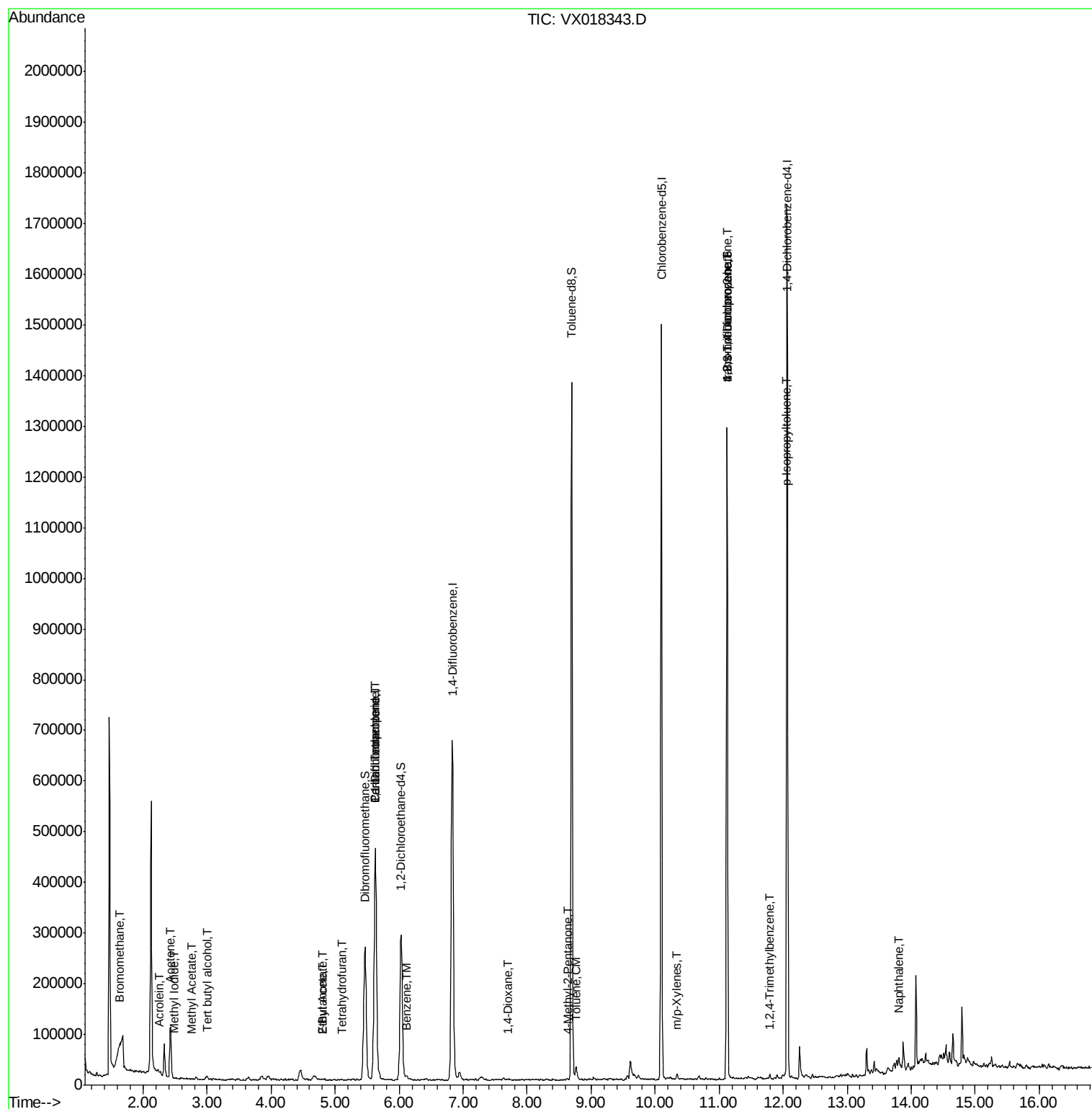
|                                |       |     |        |           | Qvalue |    |
|--------------------------------|-------|-----|--------|-----------|--------|----|
| 5) Bromomethane                | 1.62  | 94  | 1096   | 0.424     | ug/l # | 31 |
| 10) Methyl Iodide              | 2.48  | 142 | 1168   | 5.534     | ug/l # | 86 |
| 11) Tert butyl alcohol         | 3.01  | 59  | 5037   | 4.450     | ug/l # | 82 |
| 13) Acrolein                   | 2.26  | 56  | 365    | 0.778     | ug/l # | 33 |
| 16) Acetone                    | 2.42  | 43  | 112083 | 49.408    | ug/l   | 99 |
| 18) Methyl Acetate             | 2.75  | 43  | 1141   | 0.208     | ug/l # | 47 |
| 20) Methylene Chloride         | 2.82  | 84  | 2807   | Below Cal | #      | 78 |
| 25) 2-Butanone                 | 4.80  | 43  | 2090   | 0.561     | ug/l # | 51 |
| 29) Tetrahydrofuran            | 5.10  | 42  | 1051   | 0.443     | ug/l # | 83 |
| 36) 1,1-Dichloropropene        | 5.63  | 75  | 31214  | 5.092     | ug/l # | 52 |
| 37) Ethyl Acetate              | 4.80  | 43  | 2092   | 0.294     | ug/l # | 92 |
| 38) Carbon Tetrachloride       | 5.63  | 117 | 42353  | 6.131     | ug/l # | 18 |
| 40) Benzene                    | 6.11  | 78  | 8202   | 0.455     | ug/l   | 92 |
| 49) 1,4-Dioxane                | 7.70  | 88  | 138    | 1.331     | ug/l # | 49 |
| 51) 4-Methyl-2-Pentanone       | 8.63  | 43  | 2069   | 0.291     | ug/l   | 89 |
| 52) Toluene                    | 8.76  | 92  | 8889   | 0.778     | ug/l   | 98 |
| 68) m/p-Xylenes                | 10.35 | 106 | 2755   | 0.335     | ug/l   | 92 |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75  | 164072 | 21.780    | ug/l # | 36 |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75  | 164072 | 58.824    | ug/l # | 12 |
| 84) 1,2,4-Trimethylbenzene     | 11.79 | 105 | 3849   | 0.205     | ug/l   | 83 |
| 86) p-Isopropyltoluene         | 12.05 | 119 | 5872   | 0.310     | ug/l # | 68 |
| 95) Naphthalene                | 13.82 | 128 | 6839   | 0.305     | ug/l # | 71 |

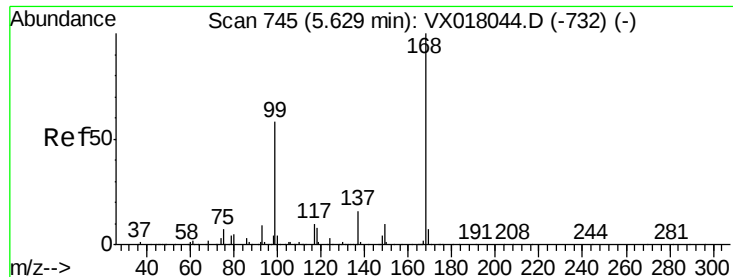
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX091020\  
Data File : VX018343.D  
Acq On : 10 Sep 2020 16:48  
Operator : JC/SP  
Sample : L3952-02 20X  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
40614

Quant Time: Sep 11 06:54:18 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X082120W.M  
Quant Title : SW846 8260  
QLast Update : Fri Aug 21 03:03:56 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.00 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampleId :

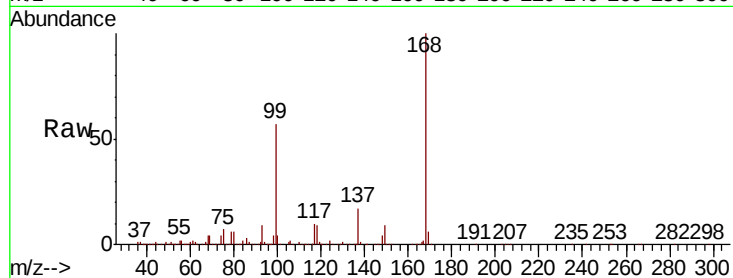
40614

Tot Ion:168 Resp: 419362

Ion Ratio Lower Upper

168 100

99 57.1 46.3 69.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

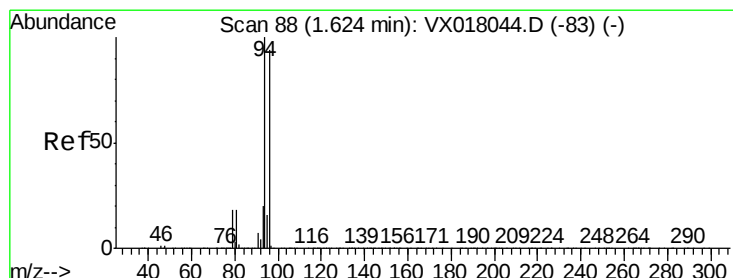
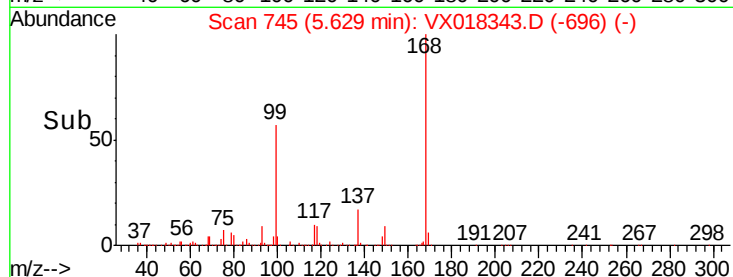
150000

100000

50000

0

Time-->



#5

Bromomethane

Concen: 0.424 ug/l

RT: 1.62 min Scan# 88

Delta R.T. -0.00 min

Lab File: VX018343.D

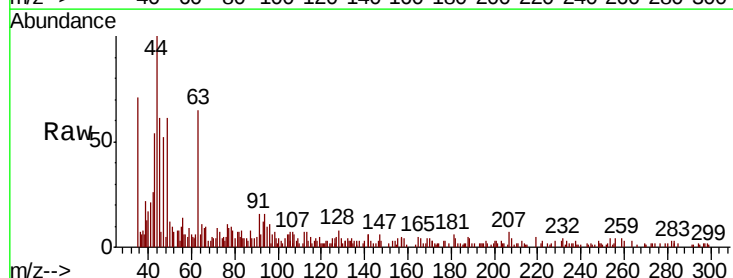
Acq: 10 Sep 2020 16:48

Tgt Ion: 94 Resp: 1096

Ion Ratio Lower Upper

94 100

96 26.6 74.8 112.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1000

800

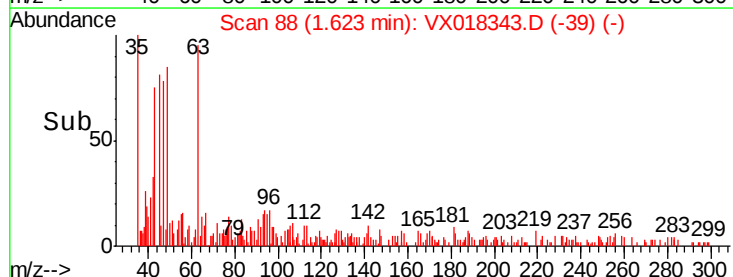
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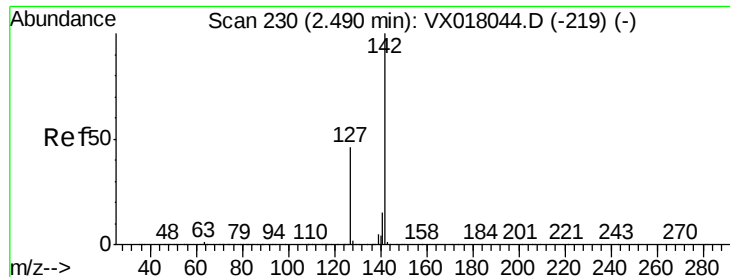
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200

0

Time-->

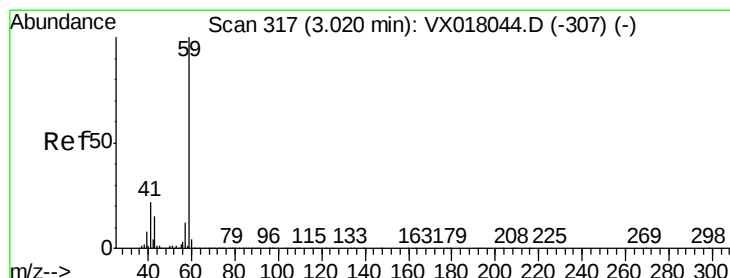
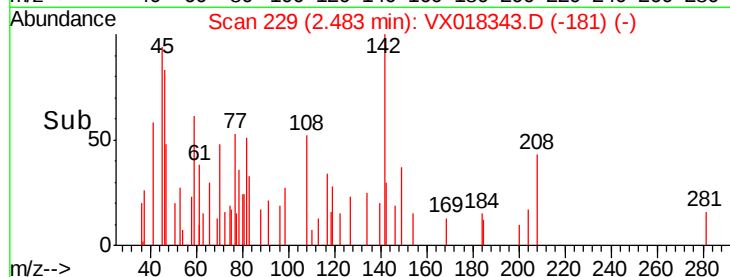
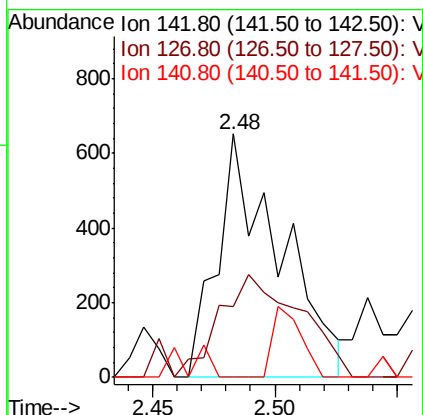
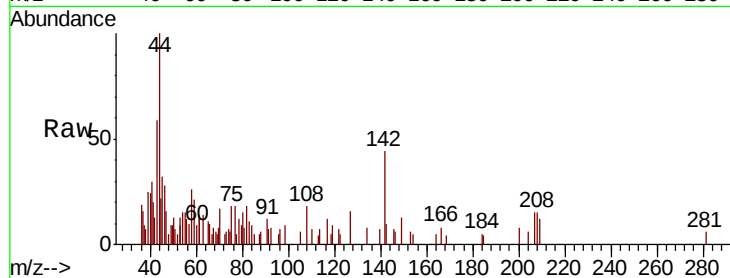




#10  
Methvl Iodide  
Concen: 5.534 ug/l  
RT: 2.48 min Scan# 229  
Delta R.T. -0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

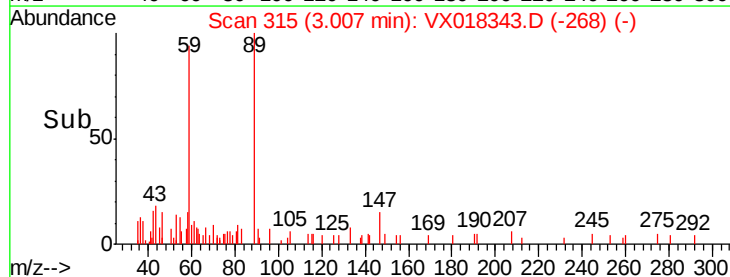
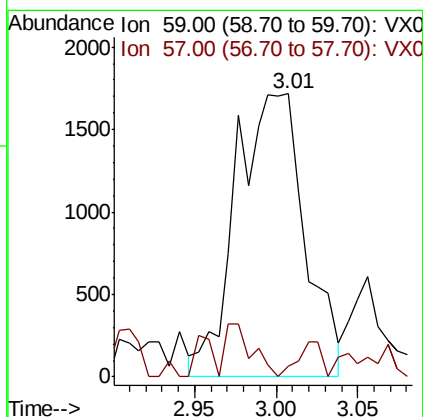
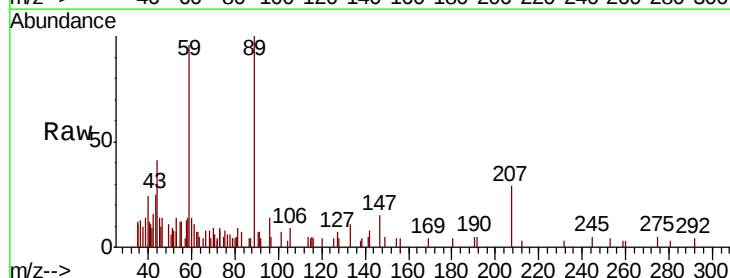
Instrument :  
MSVOA\_X  
ClientSampled :  
40614

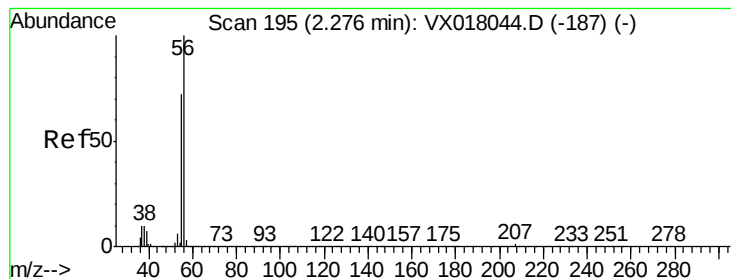
Tot Ion:142 Resp: 1168  
Ion Ratio Lower Upper  
142 100  
127 54.0 37.0 55.6  
141 5.1 11.5 17.3#



#11  
Tert butyl alcohol  
Concen: 4.450 ug/l  
RT: 3.01 min Scan# 315  
Delta R.T. -0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion: 59 Resp: 5037  
Ion Ratio Lower Upper  
59 100  
57 4.2 8.9 13.3#





#13

Acrolein

Concen: 0.778 ug/l

RT: 2.26 min Scan# 192

Delta R.T. -0.02 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampled :

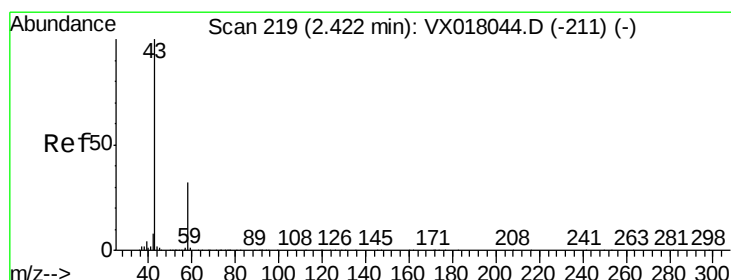
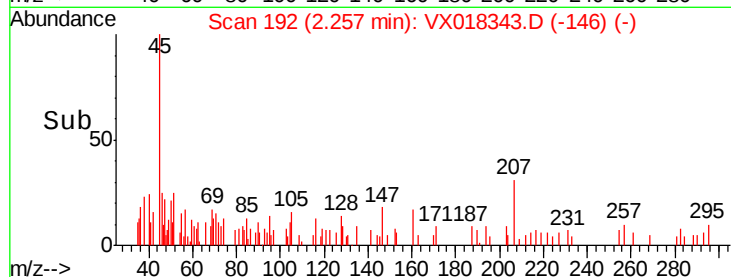
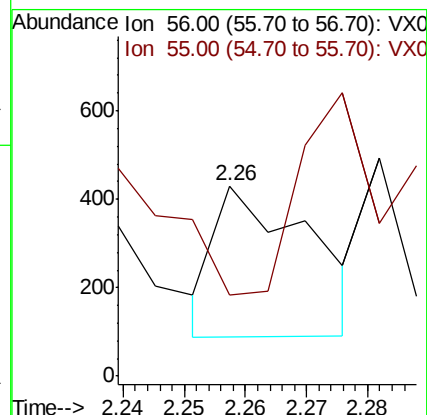
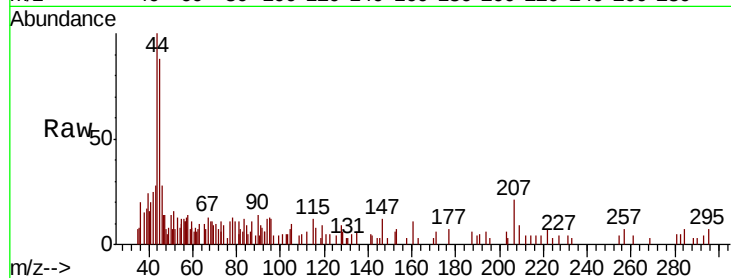
40614

Tot Ion: 56 Resp: 365

Ion Ratio Lower Upper

56 100

55 126.6 57.0 85.6#



#16

Acetone

Concen: 49.408 ug/l

RT: 2.42 min Scan# 219

Delta R.T. -0.00 min

Lab File: VX018343.D

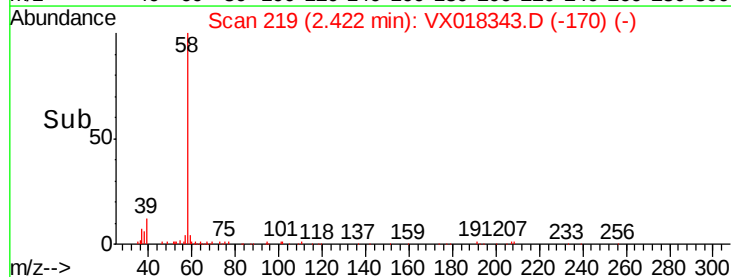
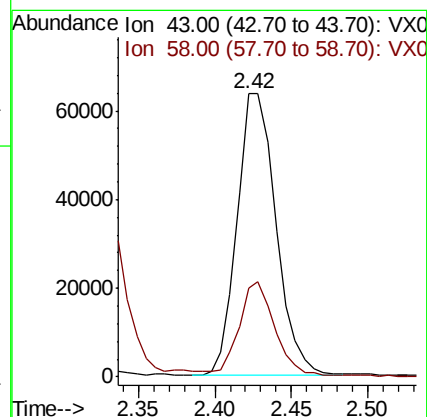
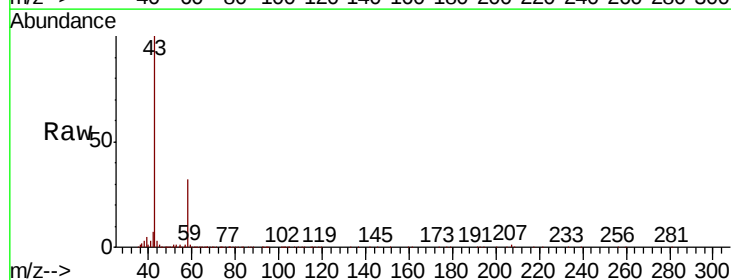
Acq: 10 Sep 2020 16:48

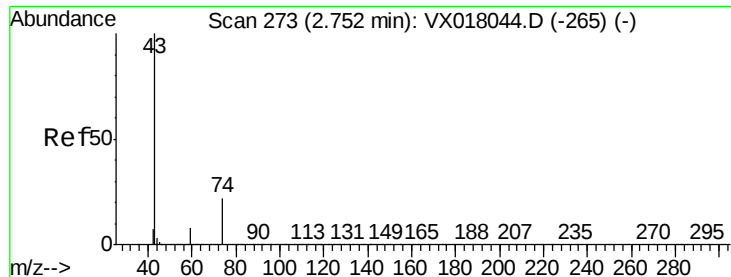
Tgt Ion: 43 Resp: 112083

Ion Ratio Lower Upper

43 100

58 31.3 25.5 38.3

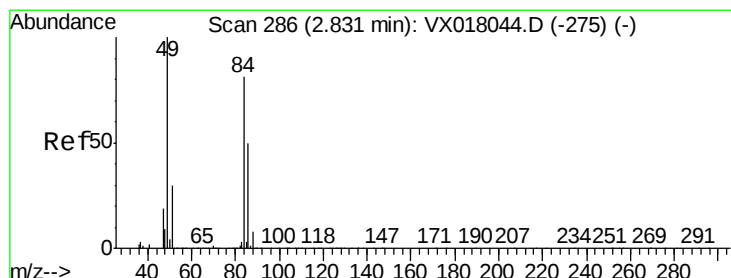
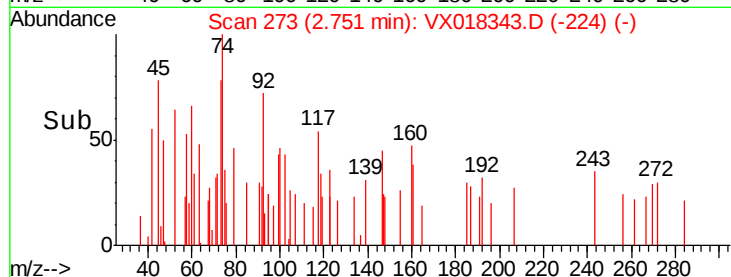
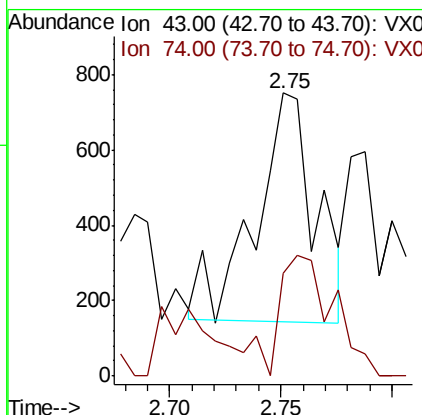
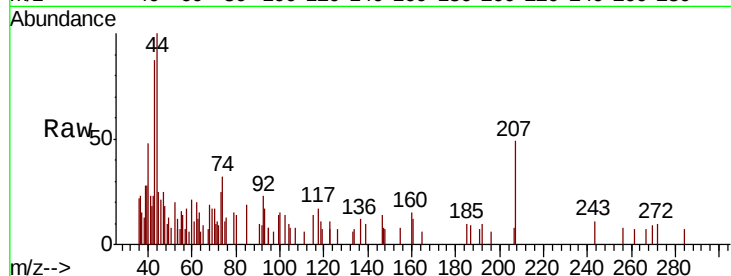




#18  
Methyl Acetate  
Concen: 0.208 ug/l  
RT: 2.75 min Scan# 273  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

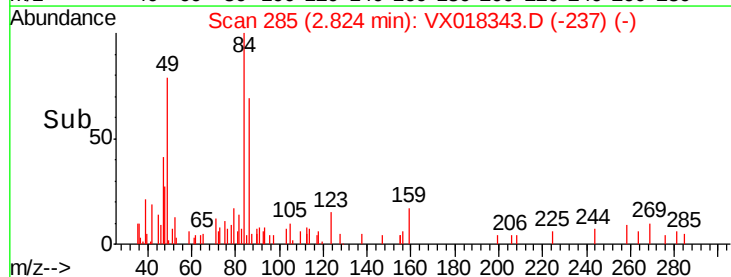
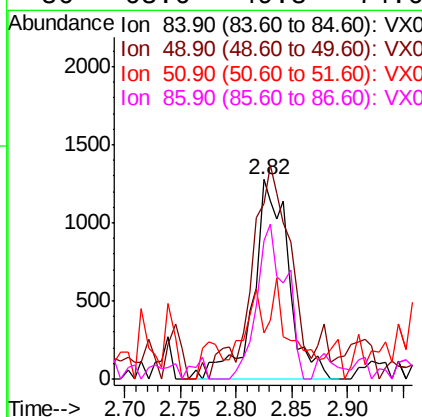
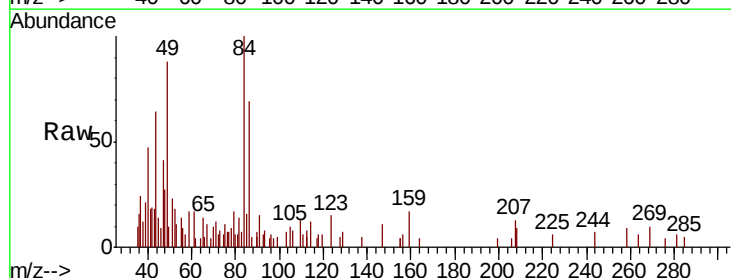
Instrument :  
MSVOA\_X  
ClientSampled :  
40614

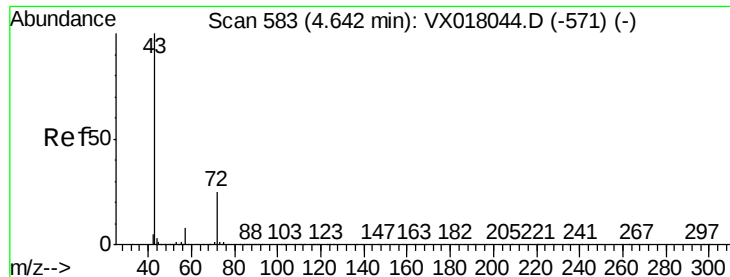
Tot Ion: 43 Resp: 1141  
Ion Ratio Lower Upper  
43 100  
74 48.5 18.2 27.4#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.82 min Scan# 285  
Delta R.T. -0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion: 84 Resp: 2807  
Ion Ratio Lower Upper  
84 100  
49 87.8 98.6 148.0#  
51 23.1 29.6 44.4#  
86 63.6 49.8 74.6

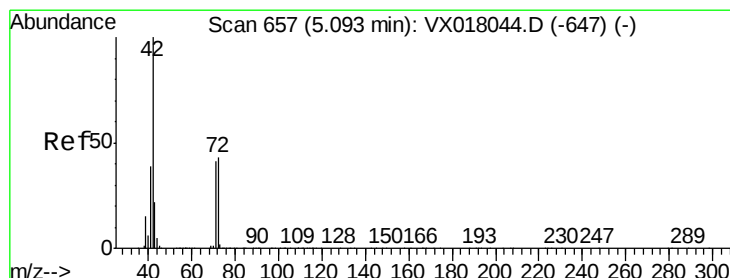
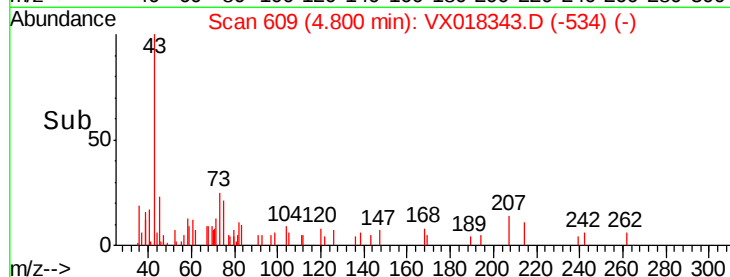
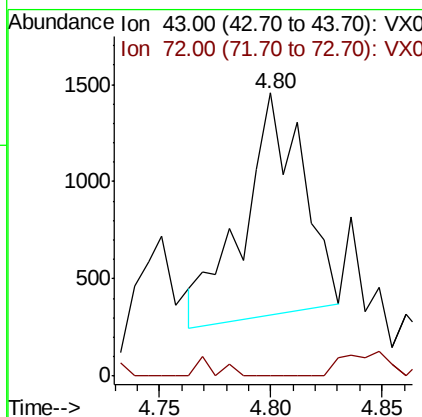
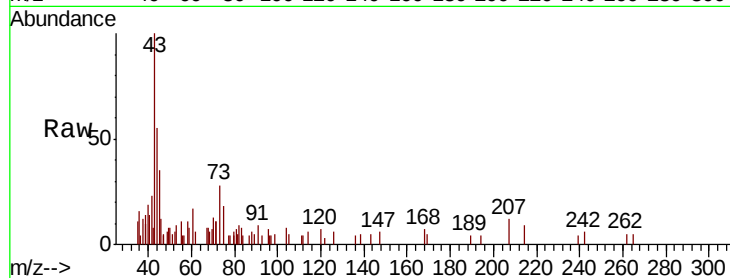




#25  
2-Butanone  
Concen: 0.561 ug/l  
RT: 4.80 min Scan# 609  
Delta R.T. 0.16 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

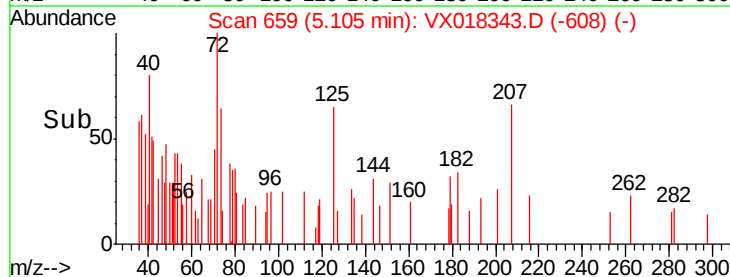
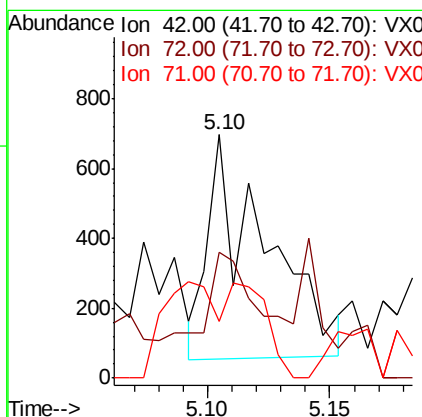
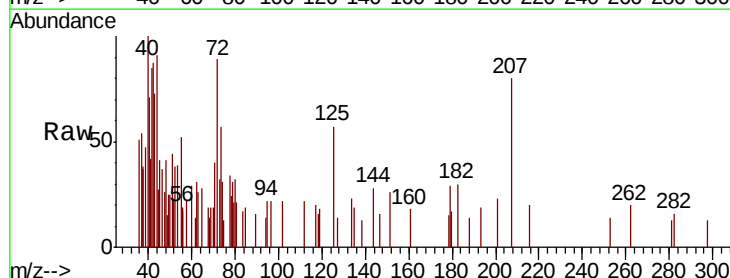
Instrument :  
MSVOA\_X  
ClientSampleId :  
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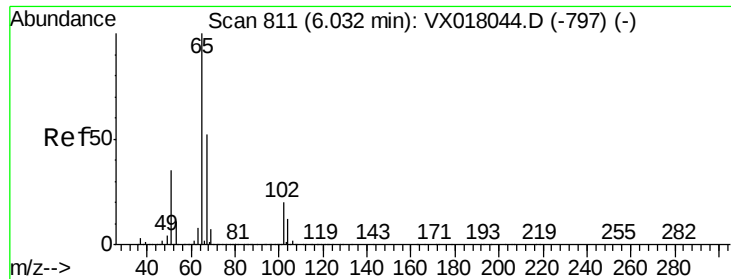
Tot Ion: 43 Resp: 2090  
Ion Ratio Lower Upper  
43 100  
72 0.0 19.8 29.6#



#29  
Tetrahydrofuran  
Concen: 0.443 ug/l  
RT: 5.10 min Scan# 659  
Delta R.T. 0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion: 42 Resp: 1051  
Ion Ratio Lower Upper  
42 100  
72 53.5 34.2 51.4#  
71 28.9 32.1 48.1#

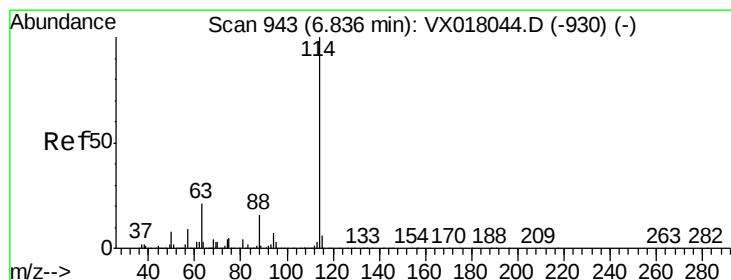
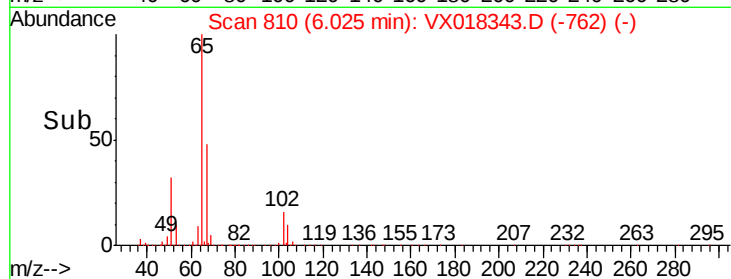
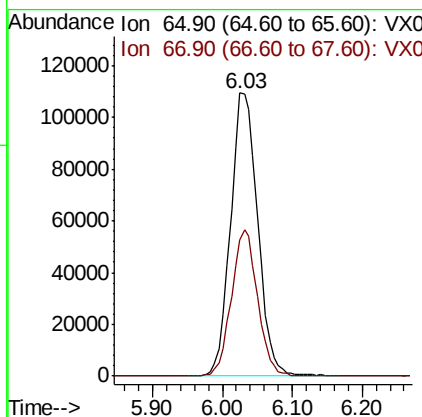
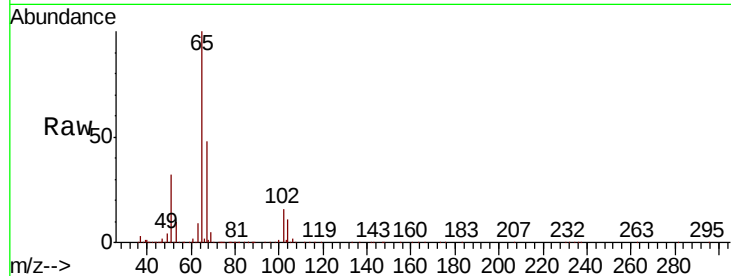




#33  
 1,2-Dichloroethane-d4  
 Concen: 50.622 ug/l  
 RT: 6.03 min Scan# 810  
 Delta R.T. -0.01 min  
 Lab File: VX018343.D  
 Acq: 10 Sep 2020 16:48

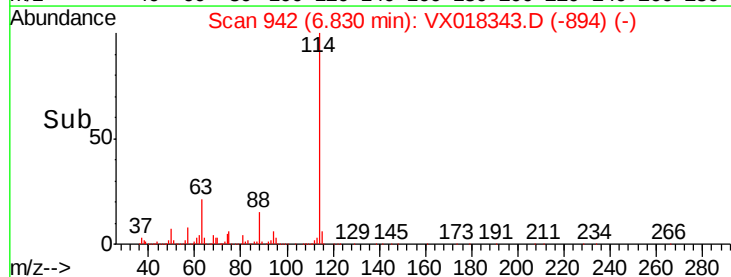
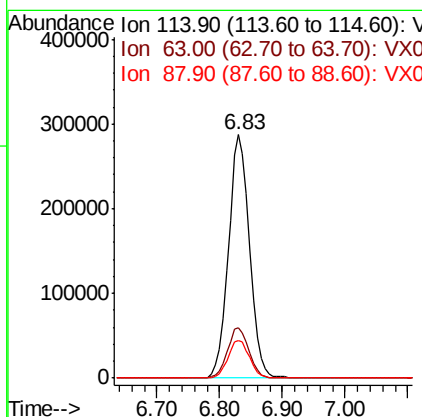
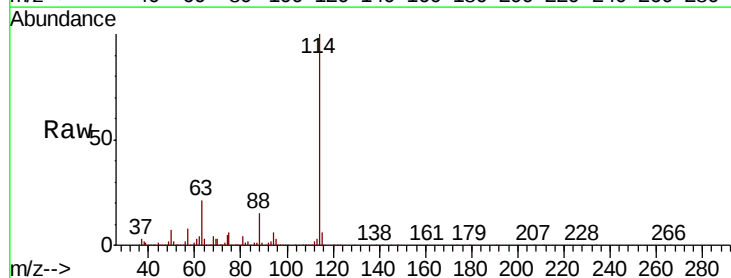
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 40614

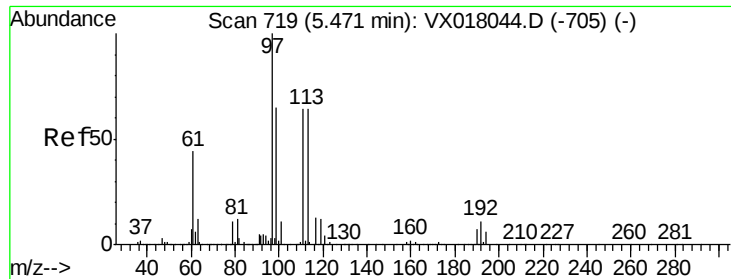
Tot Ion: 65 Resp: 294710  
 Ion Ratio Lower Upper  
 65 100  
 67 49.5 0.0 105.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.83 min Scan# 942  
 Delta R.T. -0.01 min  
 Lab File: VX018343.D  
 Acq: 10 Sep 2020 16:48

Tgt Ion: 114 Resp: 664574  
 Ion Ratio Lower Upper  
 114 100  
 63 20.5 0.0 42.6  
 88 15.3 0.0 31.8

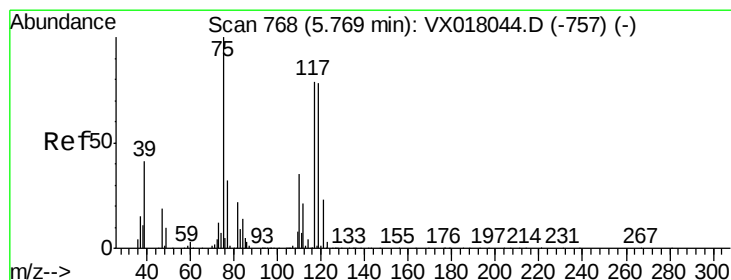
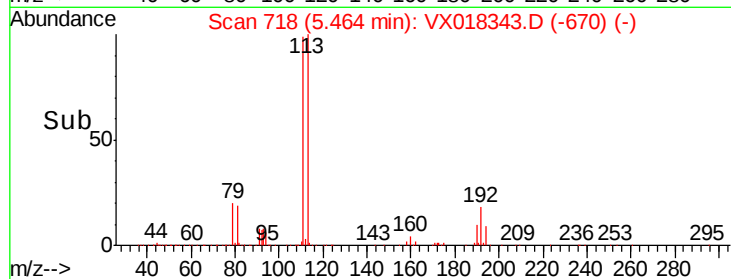
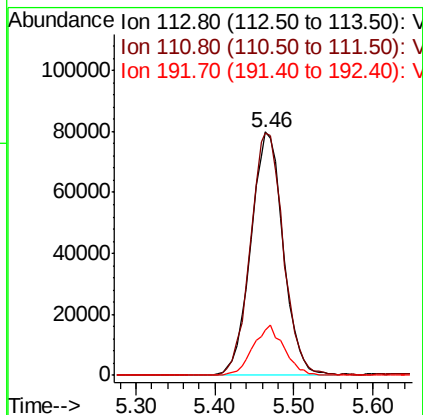
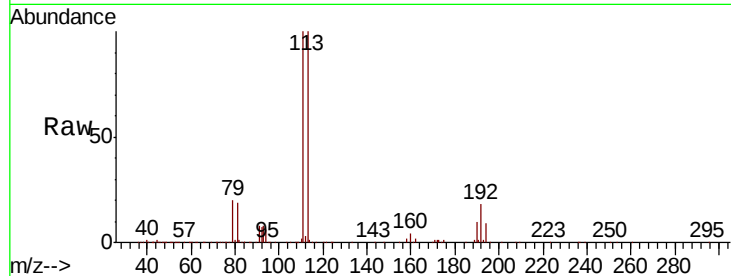




#35  
 Dibromofluoromethane  
 Concen: 50.149 ug/l  
 RT: 5.46 min Scan# 718  
 Delta R.T. -0.01 min  
 Lab File: VX018343.D  
 Acq: 10 Sep 2020 16:48

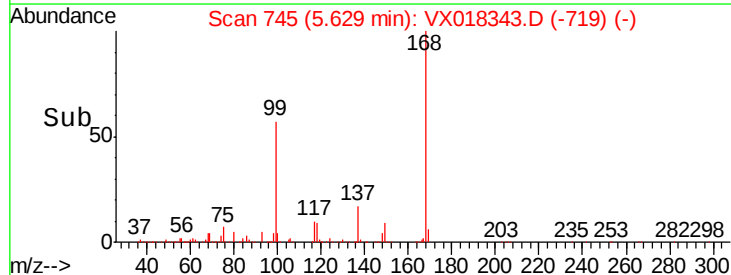
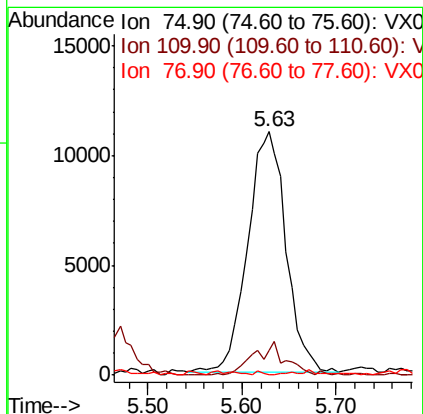
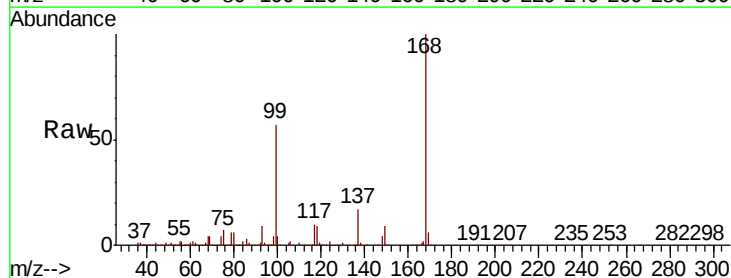
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 40614

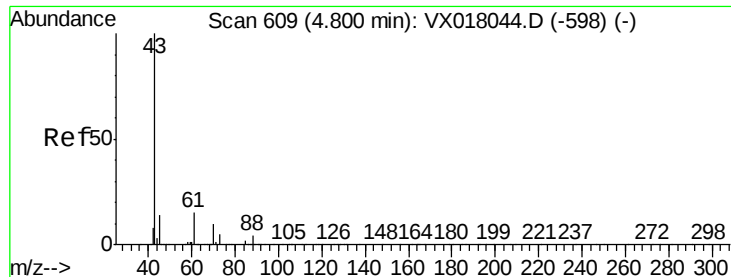
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.2 | 81.6  | 122.4 |
| 192     | 19.7  | 15.8  | 23.8  |



#36  
 1,1-Dichloropropene  
 Concen: 5.092 ug/l  
 RT: 5.63 min Scan# 745  
 Delta R.T. -0.14 min  
 Lab File: VX018343.D  
 Acq: 10 Sep 2020 16:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.3  | 18.0  | 54.0# |
| 77      | 0.3   | 24.4  | 36.6# |

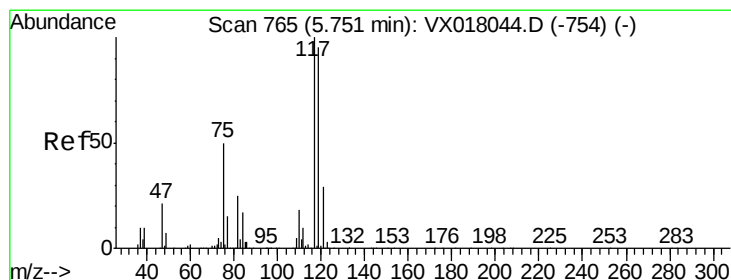
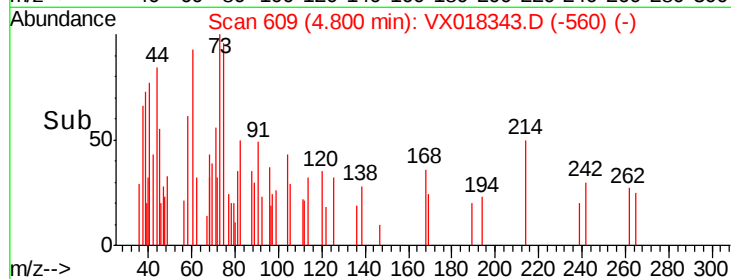
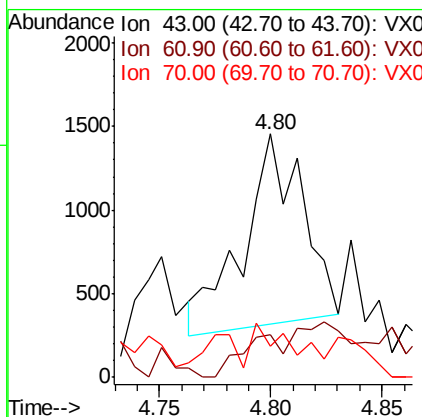
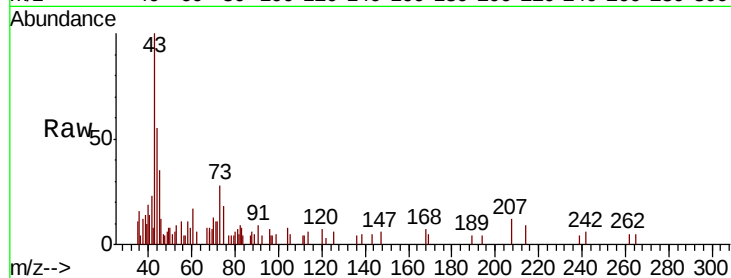




#37  
Ethyl Acetate  
Concen: 0.294 ug/l  
RT: 4.80 min Scan# 609  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

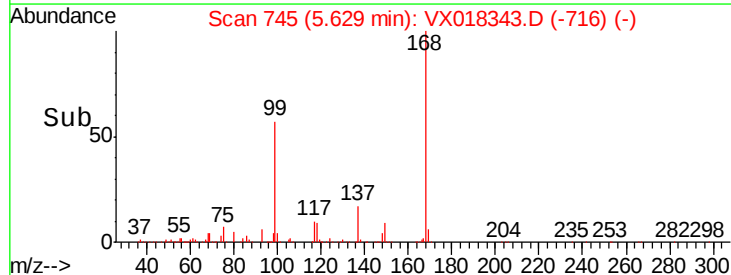
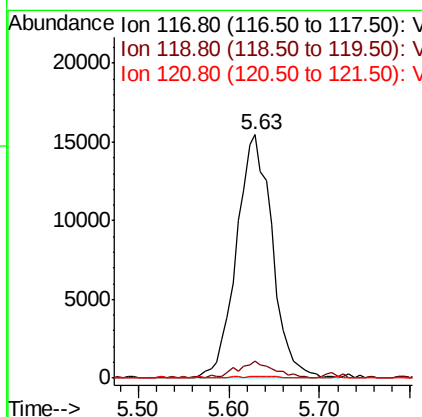
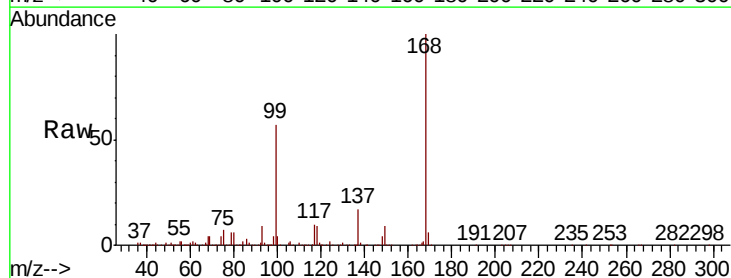
Instrument :  
MSVOA\_X  
ClientSampleId :  
40614

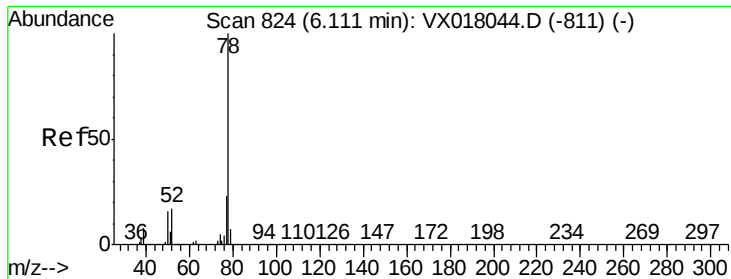
Tot Ion: 43 Resp: 2092  
Ion Ratio Lower Upper  
43 100  
61 15.7 11.3 16.9  
70 15.7 8.2 12.4#



#38  
Carbon Tetrachloride  
Concen: 6.131 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. -0.12 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion: 117 Resp: 42353  
Ion Ratio Lower Upper  
117 100  
119 6.6 75.8 113.6#  
121 0.8 23.4 35.0#





#40

Benzene

Concen: 0.455 ug/l

RT: 6.11 min Scan# 824

Delta R.T. -0.00 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampleId :

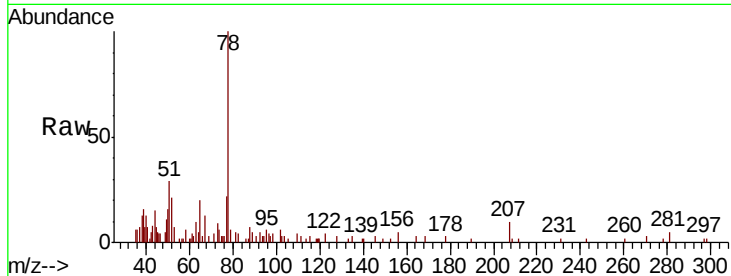
40614

Tot Ion: 78 Resp: 8202

Ion Ratio Lower Upper

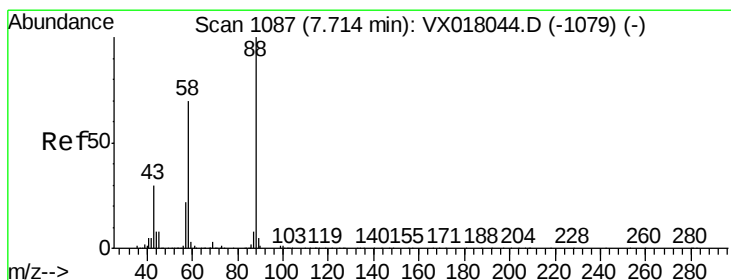
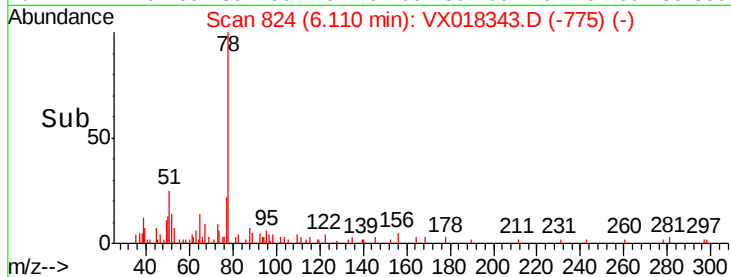
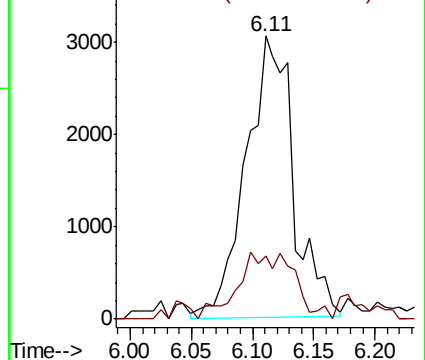
78 100

77 18.8 18.2 27.2



Abundance Ion 78.00 (77.70 to 78.70): VX0

Ion 77.00 (76.70 to 77.70): VX0



#49

1,4-Dioxane

Concen: 1.331 ug/l

RT: 7.70 min Scan# 1084

Delta R.T. -0.02 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

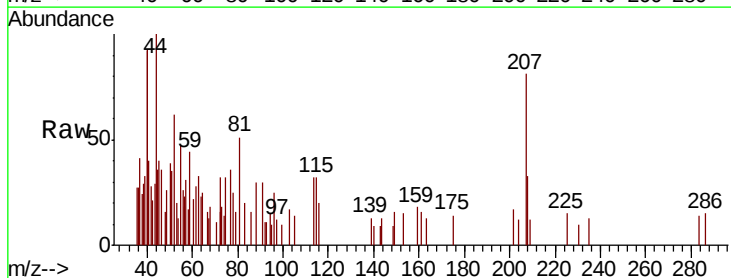
Tgt Ion: 88 Resp: 138

Ion Ratio Lower Upper

88 100

43 0.0 27.4 41.0#

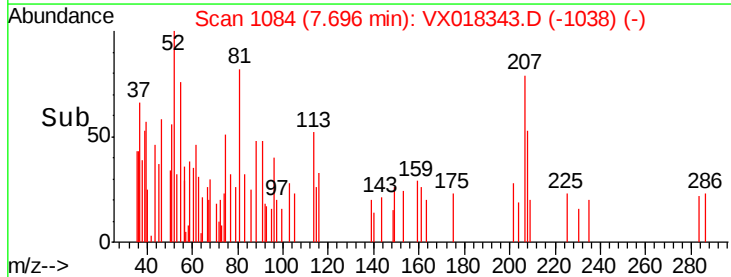
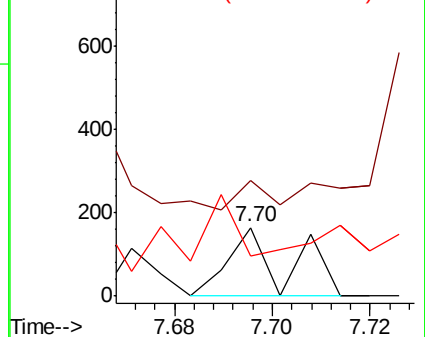
58 108.7 56.4 84.6#

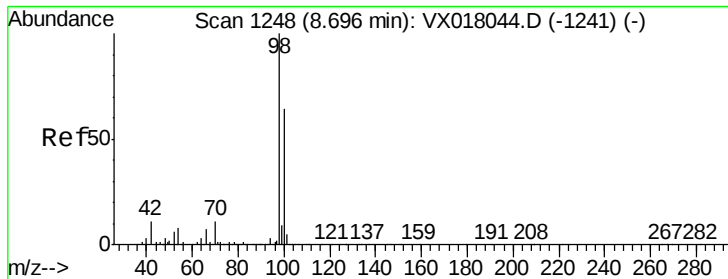


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

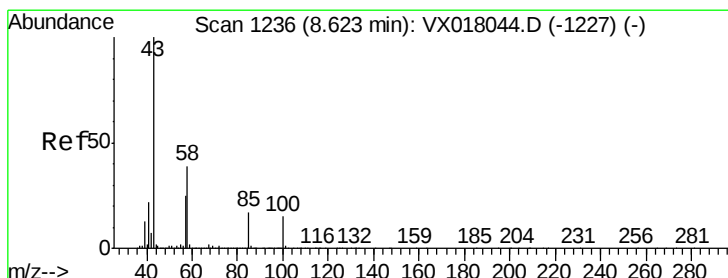
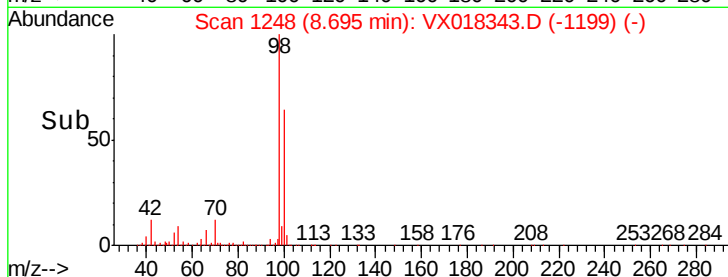
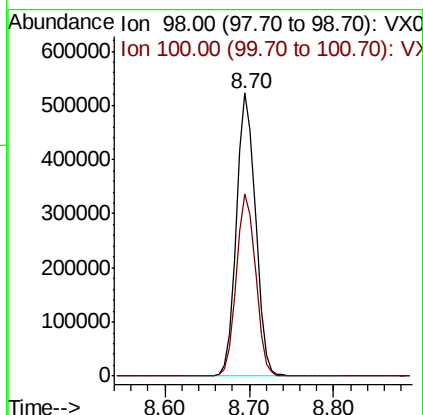
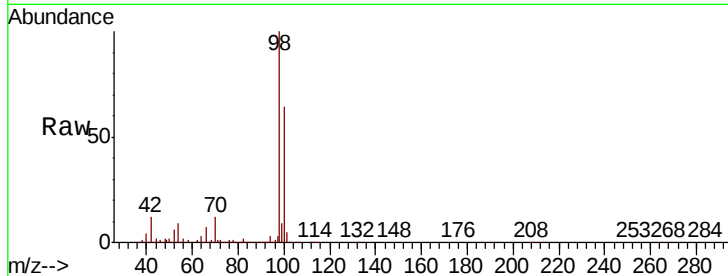




#50  
Toluene-d8  
Concen: 47.207 ug/l  
RT: 8.70 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

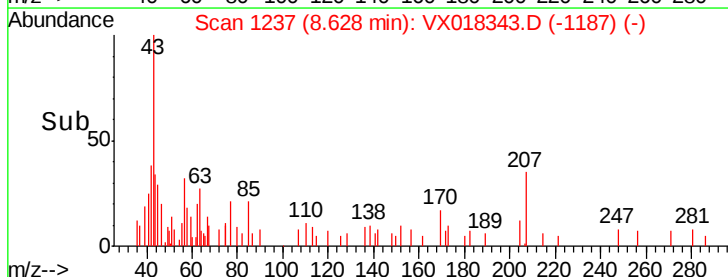
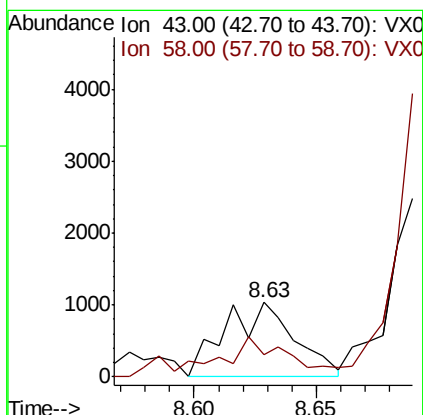
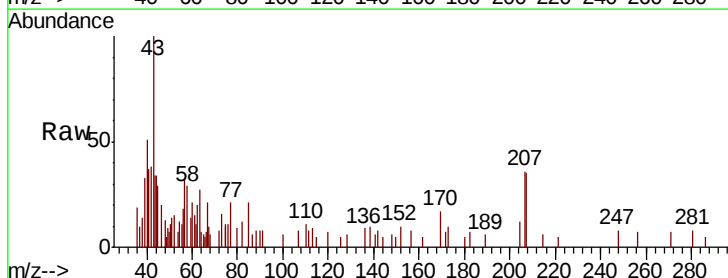
Instrument :  
MSVOA\_X  
ClientSampled :  
40614

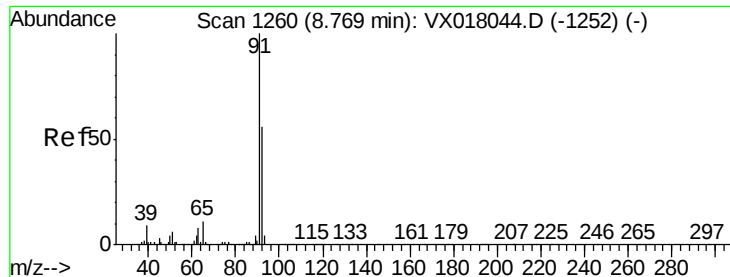
Tot Ion: 98 Resp: 795799  
Ion Ratio Lower Upper  
98 100  
100 64.8 52.2 78.4



#51  
4-Methyl-2-Pentanone  
Concen: 0.291 ug/l  
RT: 8.63 min Scan# 1237  
Delta R.T. 0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion: 43 Resp: 2069  
Ion Ratio Lower Upper  
43 100  
58 44.8 30.7 46.1





#52

Toluene

Concen: 0.778 ug/l

RT: 8.76 min Scan# 1259

Delta R.T. -0.01 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampled :

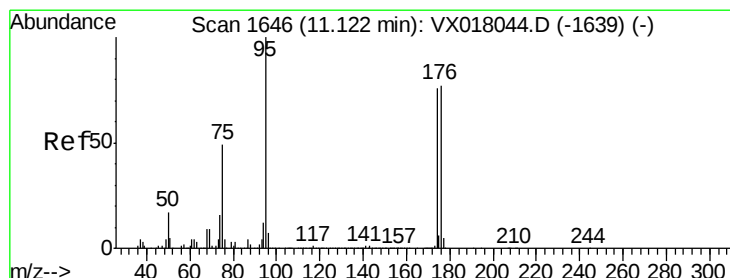
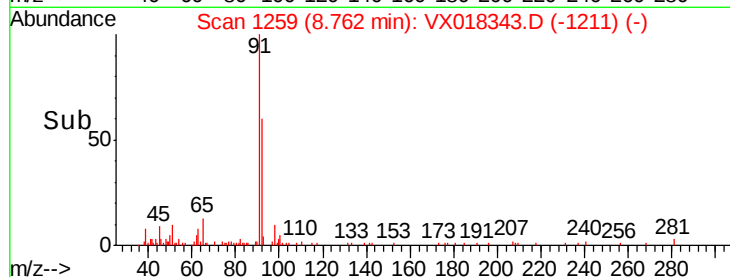
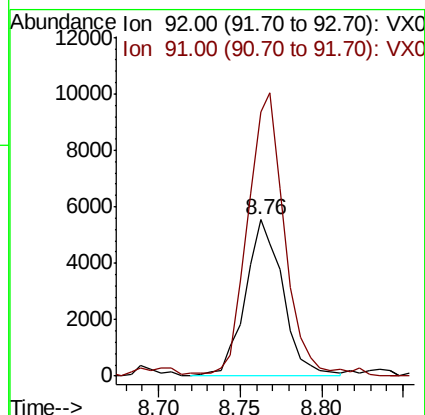
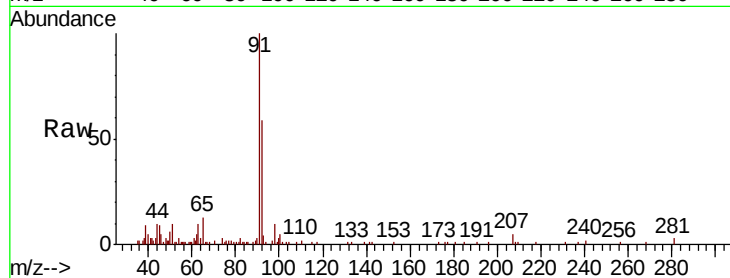
40614

Tot Ion: 92 Resp: 8889

Ion Ratio Lower Upper

92 100

91 178.4 140.3 210.5



#62

4-Bromofluorobenzene

Concen: 48.881 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

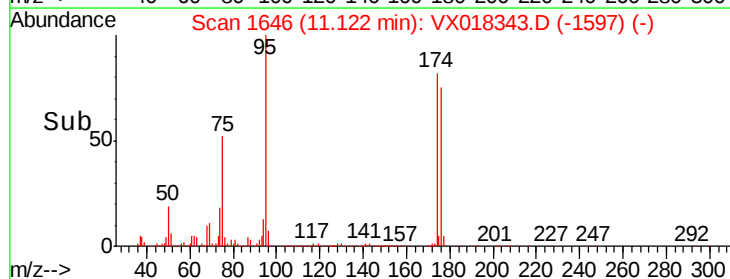
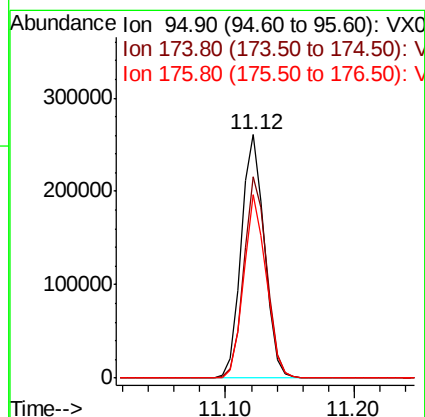
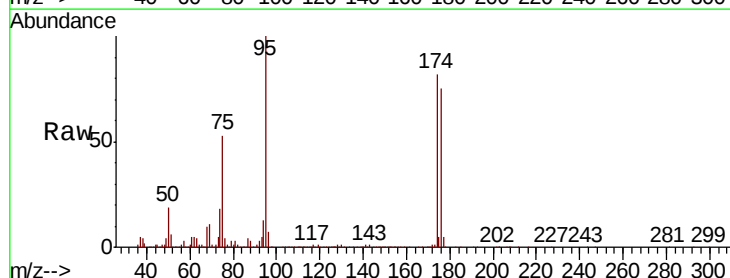
Tgt Ion: 95 Resp: 324204

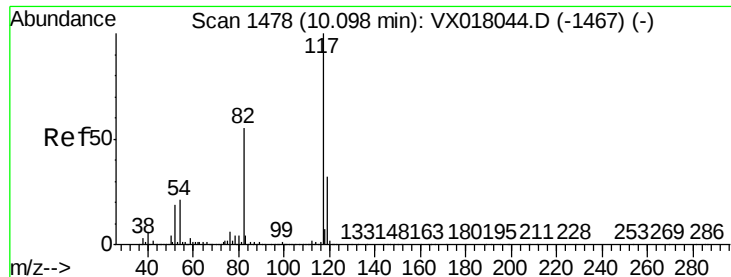
Ion Ratio Lower Upper

95 100

174 81.7 0.0 160.2

176 73.6 0.0 155.8

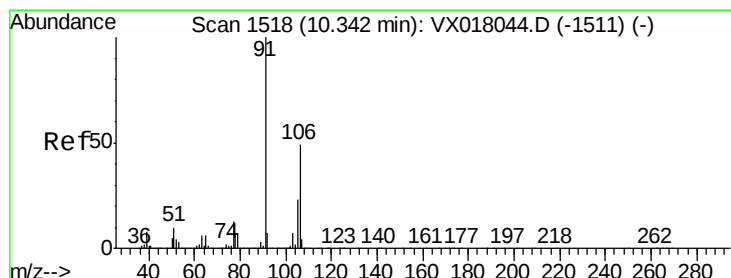
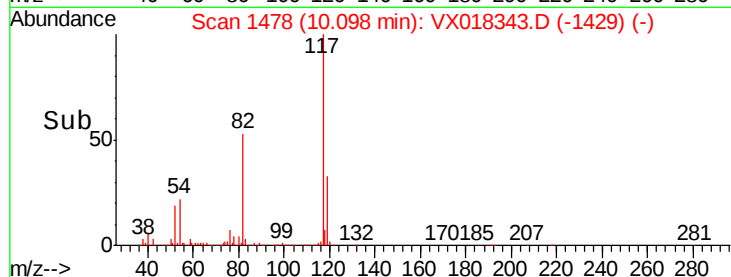
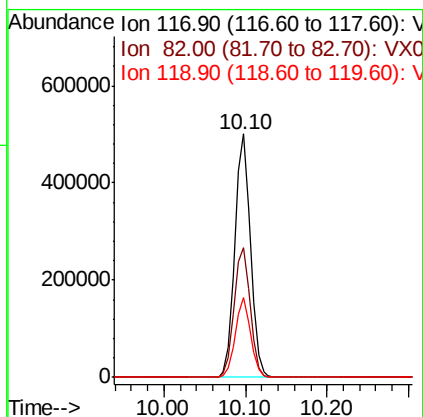
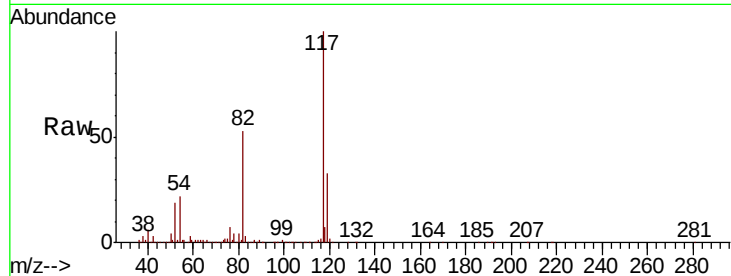




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

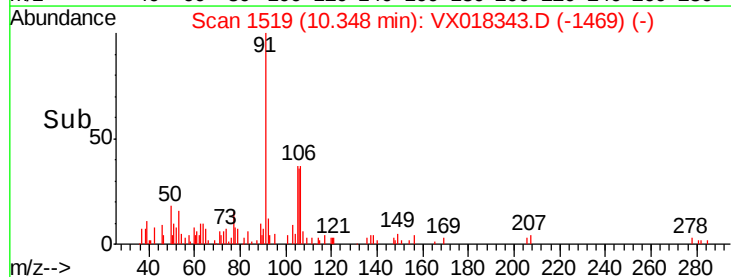
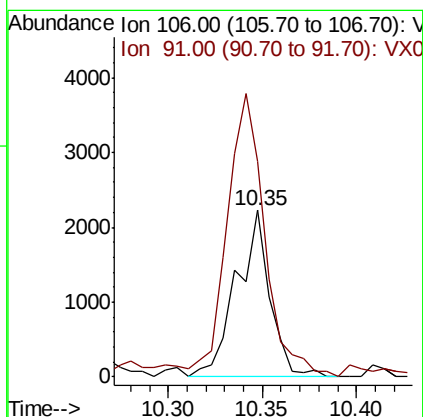
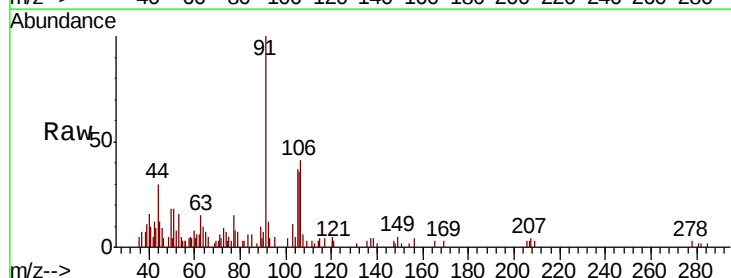
Instrument :  
MSVOA\_X  
ClientSampleId :  
40614

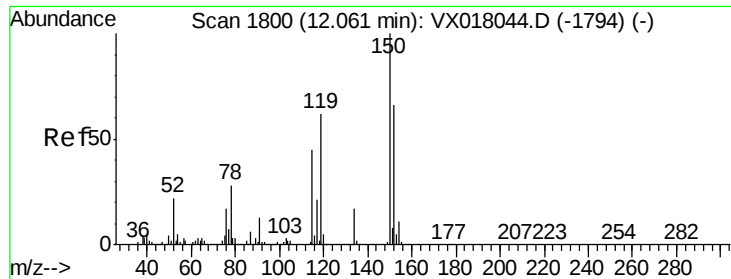
Tot Ion:117 Resp: 649048  
Ion Ratio Lower Upper  
117 100  
82 53.3 44.2 66.2  
119 32.9 25.7 38.5



#68  
m/p-Xylenes  
Concen: 0.335 ug/l  
RT: 10.35 min Scan# 1519  
Delta R.T. 0.01 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Tgt Ion:106 Resp: 2755  
Ion Ratio Lower Upper  
106 100  
91 189.9 162.2 243.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. -0.00 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampleId :

40614

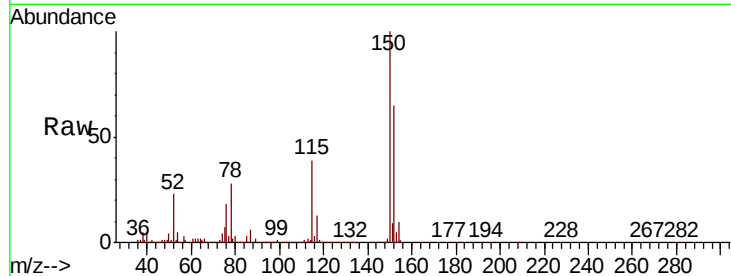
Tot Ion:152 Resp: 338640

Ion Ratio Lower Upper

152 100

115 59.9 41.5 124.5

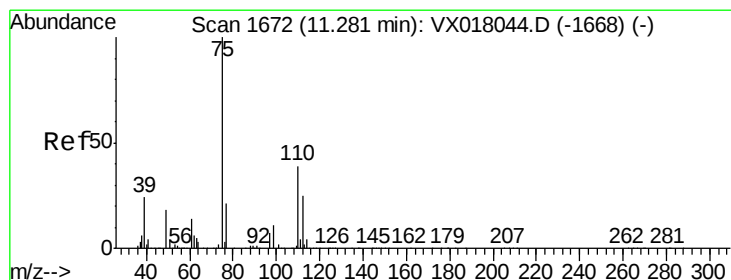
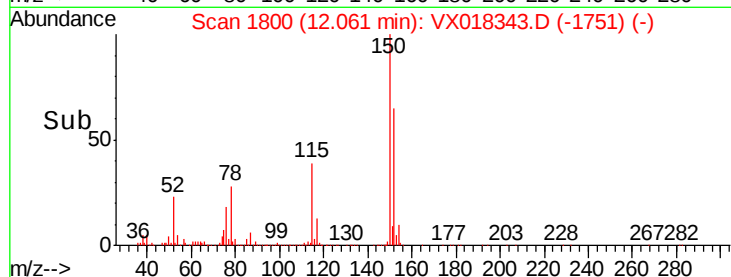
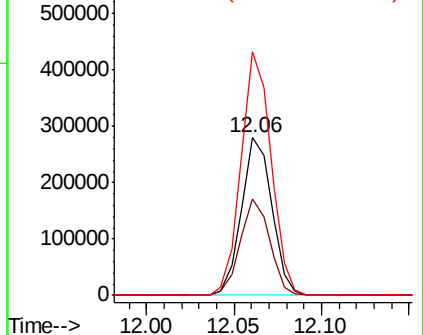
150 153.5 0.0 343.8



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 21.780 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX018343.D

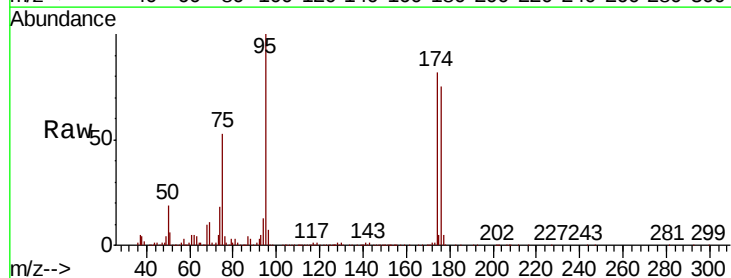
Acq: 10 Sep 2020 16:48

Tgt Ion: 75 Resp: 164072

Ion Ratio Lower Upper

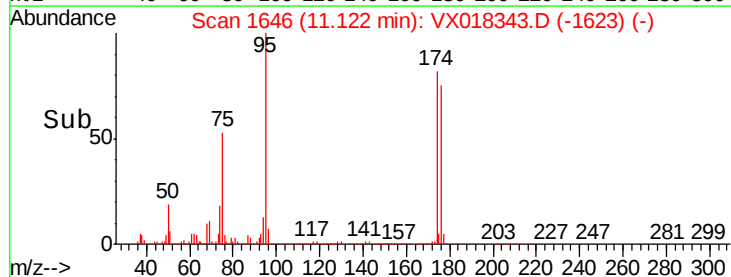
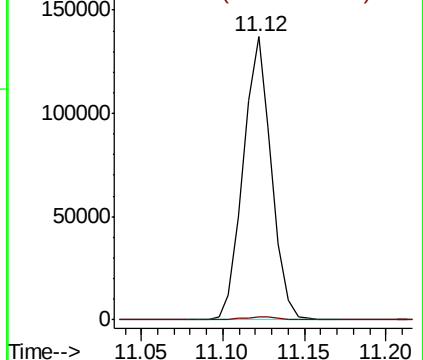
75 100

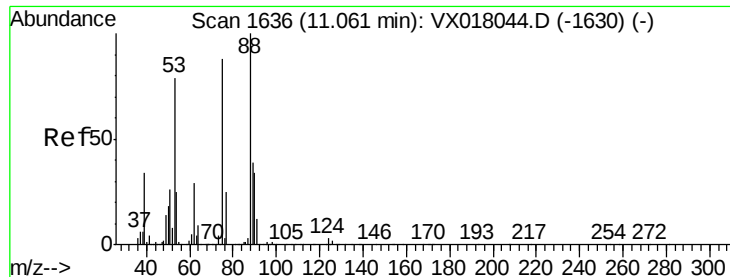
77 1.4 20.8 62.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 58.824 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.06 min

Lab File: VX018343.D

Acq: 10 Sep 2020 16:48

Instrument :

MSVOA\_X

ClientSampleId :

40614

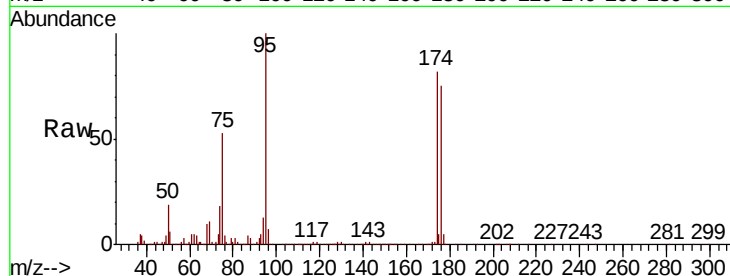
Tot Ion: 75 Resp: 164072

Ion Ratio Lower Upper

75 100

53 0.2 74.7 112.1#

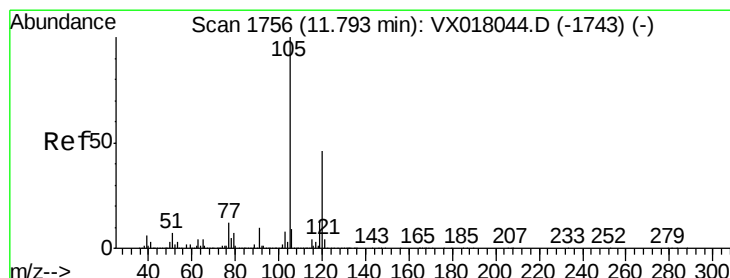
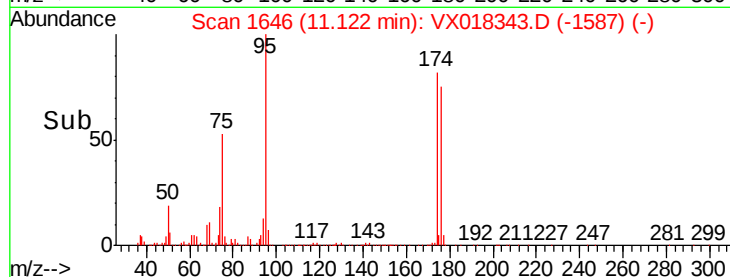
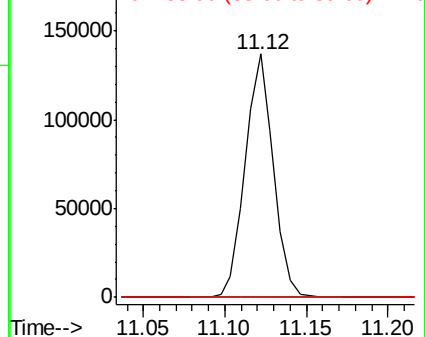
89 0.1 36.6 54.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#84

1,2,4-Trimethylbenzene

Concen: 0.205 ug/l

RT: 11.79 min Scan# 1755

Delta R.T. -0.01 min

Lab File: VX018343.D

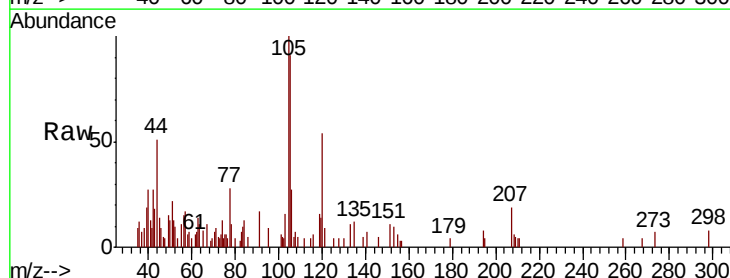
Acq: 10 Sep 2020 16:48

Tgt Ion:105 Resp: 3849

Ion Ratio Lower Upper

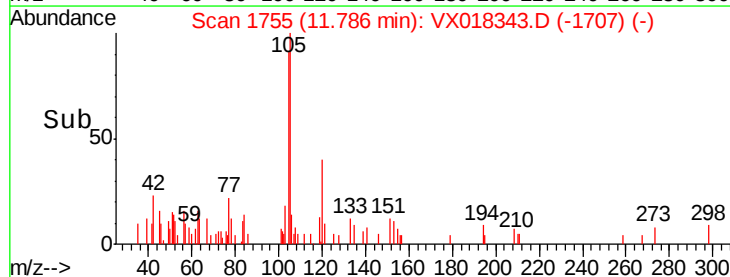
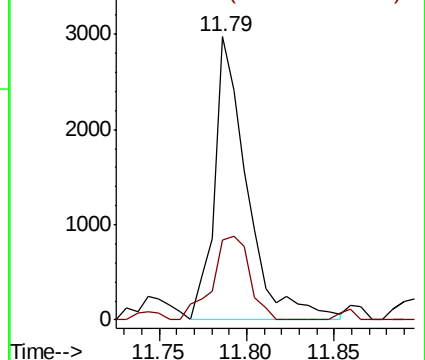
105 100

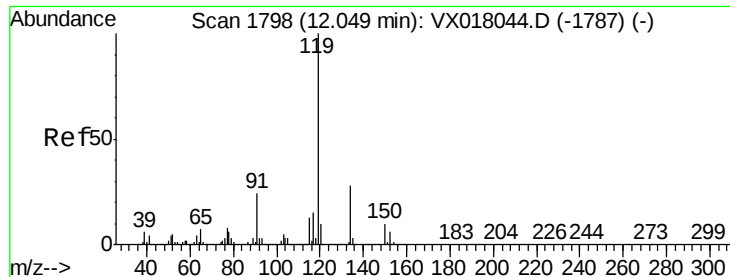
120 33.5 22.3 66.9



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

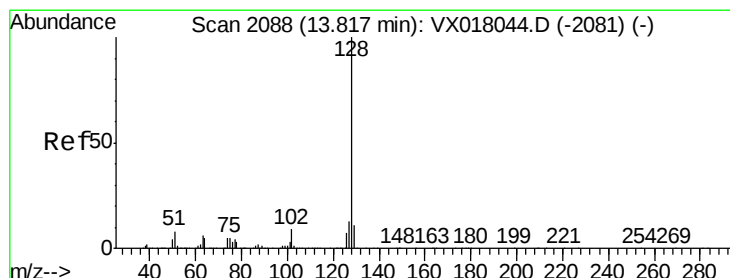
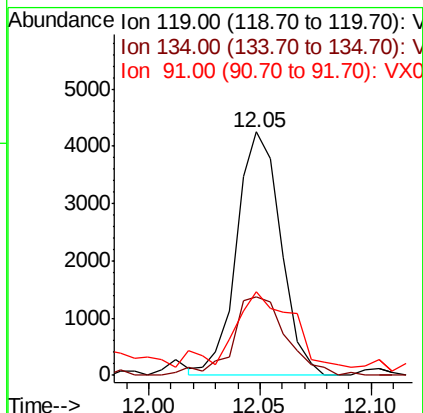
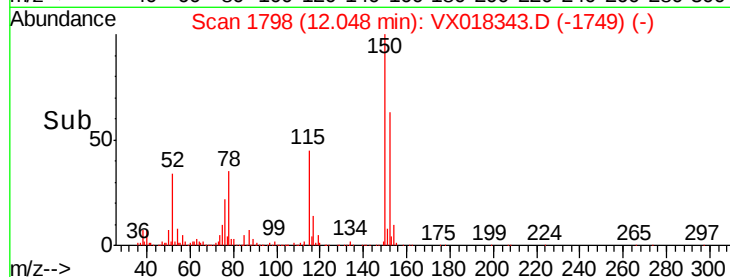
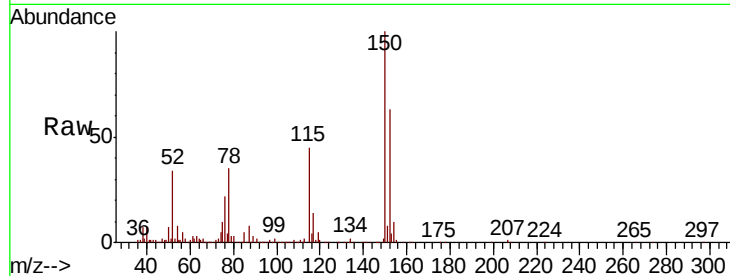




#86  
p-Isopropyltoluene  
Concen: 0.310 ug/l  
RT: 12.05 min Scan# 1798  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

Instrument :  
MSVOA\_X  
ClientSampled :  
40614

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 39.5  | 13.2  | 39.5# |
| 91      | 42.9  | 11.8  | 35.4# |



#95  
Naphthalene  
Concen: 0.305 ug/l  
RT: 13.82 min Scan# 2088  
Delta R.T. -0.00 min  
Lab File: VX018343.D  
Acq: 10 Sep 2020 16:48

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 24.0  | 10.2  | 15.2# |
| 129     | 22.0  | 8.7   | 13.1# |

