

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX110420\  
 Data File : VX019251.D  
 Acq On : 03 Nov 2020 22:16  
 Operator : JC/MD  
 Sample : PB132784ZHE#01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB132784ZHE#01

Quant Time: Nov 04 02:25:56 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102720W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Oct 27 13:55:07 2020  
 Response via : Initial Calibration

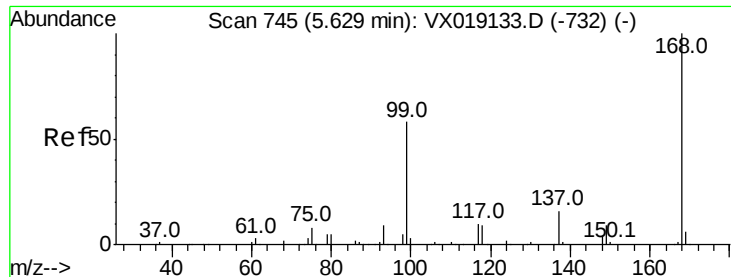
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 326587   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 577838   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 565583   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 293978   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 222195   | 52.76 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.52% |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 175309   | 48.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.60%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 733485   | 53.61 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.22% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 282967   | 54.61 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 109.22% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 11) Tert butyl alcohol         | 3.00  | 59   | 930      | 1.118  | ug/l # | 72     |
| 13) Acrolein                   | 2.26  | 56   | 33       | 5.735  | ug/l # | 16     |
| 16) Acetone                    | 2.42  | 43   | 12231    | 8.418  | ug/l   | 98     |
| 17) Carbon Disulfide           | 2.55  | 76   | 316      | 0.794  | ug/l # | 75     |
| 18) Methyl Acetate             | 2.75  | 43   | 3044     | 0.862  | ug/l   | 93     |
| 20) Methylene Chloride         | 2.84  | 84   | 6373     | 1.747  | ug/l   | 95     |
| 25) 2-Butanone                 | 4.65  | 43   | 2687     | 1.173  | ug/l   | 91     |
| 29) Tetrahydrofuran            | 5.09  | 42   | 1660     | 1.150  | ug/l # | 26     |
| 31) Cyclohexane                | 5.63  | 56   | 7099     | 1.333  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 26724    | 5.008  | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.62  | 117  | 33697    | 6.196  | ug/l # | 17     |
| 43) Isopropyl Acetate          | 6.41  | 43   | 75455    | 9.096  | ug/l   | 98     |
| 48) Methyl methacrylate        | 7.65  | 41   | 3753     | 0.940  | ug/l # | 9      |
| 49) 1,4-Dioxane                | 7.85  | 88   | 191      | 2.151  | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 74876    | 15.704 | ug/l # | 47     |
| 54) cis-1,3-Dichloropropene    | 8.59  | 75   | 36167    | 5.575  | ug/l # | 61     |
| 57) 1,3-Dichloropropane        | 9.52  | 76   | 6307     | 0.972  | ug/l # | 43     |
| 59) 2-Hexanone                 | 9.42  | 43   | 71114    | 19.594 | ug/l # | 20     |
| 74) N-amyl acetate             | 10.80 | 43   | 3179     | 0.418  | ug/l # | 43     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 145703   | 24.004 | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 145703   | 63.202 | ug/l # | 12     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

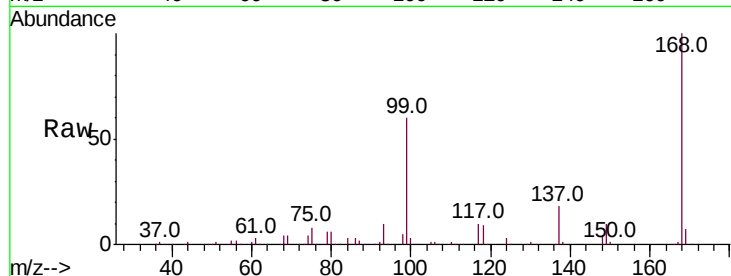
PB132784ZHE#01

Tot Ion:168 Resp: 326587

Ion Ratio Lower Upper

168 100

99 60.2 46.6 69.8



Abundance Ion 167.90 (167.60 to 168.60): VX0

Ion 98.90 (98.60 to 99.60): VX0

5.63

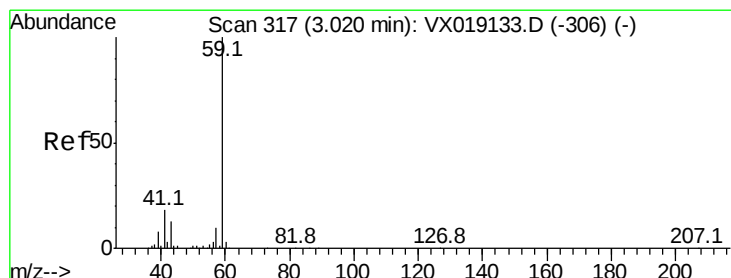
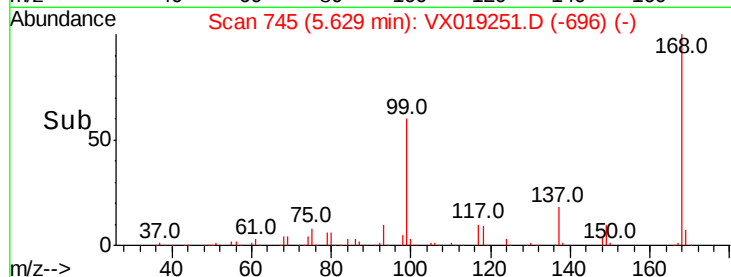
100000

50000

0

Time-->

5.50 5.60 5.70 5.80



#11

Tert butyl alcohol

Concen: 1.118 ug/l

RT: 3.00 min Scan# 314

Delta R.T. -0.02 min

Lab File: VX019251.D

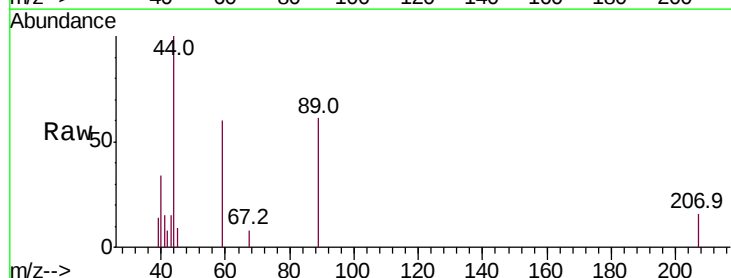
Acq: 03 Nov 2020 22:16

Tgt Ion: 59 Resp: 930

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

3.00

400

300

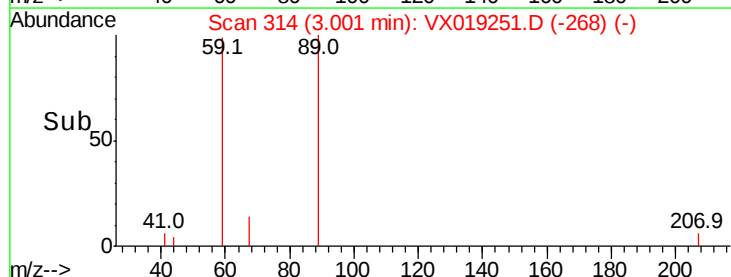
200

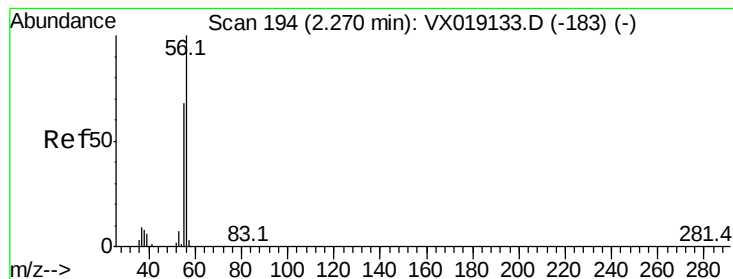
100

0

Time-->

2.95 3.00 3.05





#13

Acrolein

Concen: 5.735 ug/l

RT: 2.26 min Scan# 192

Delta R.T. -0.01 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

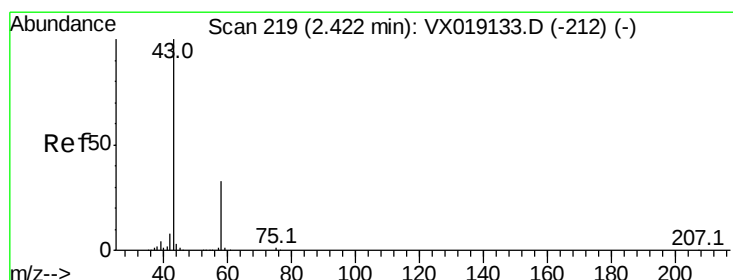
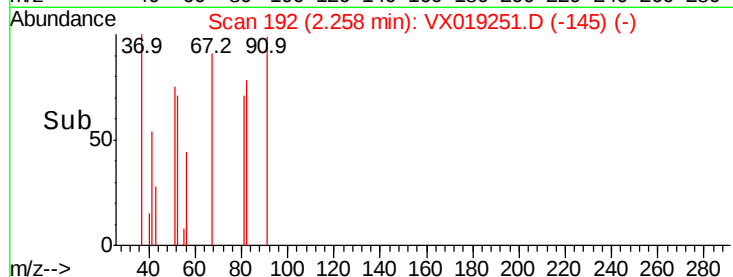
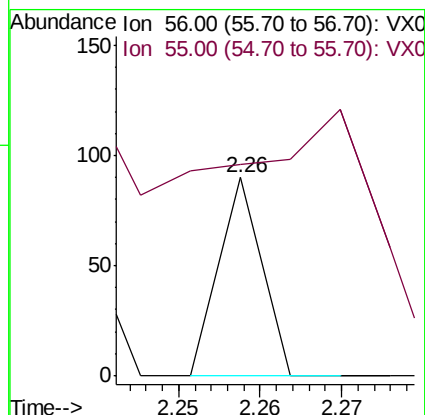
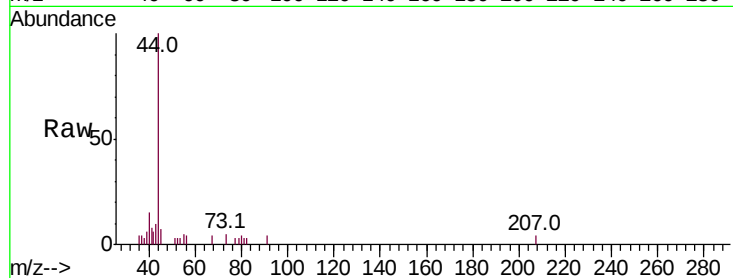
PB132784ZHE#01

Tot Ion: 56 Resp: 33

Ion Ratio Lower Upper

56 100

55 0.0 54.7 82.1#



#16

Acetone

Concen: 8.418 ug/l

RT: 2.42 min Scan# 218

Delta R.T. -0.01 min

Lab File: VX019251.D

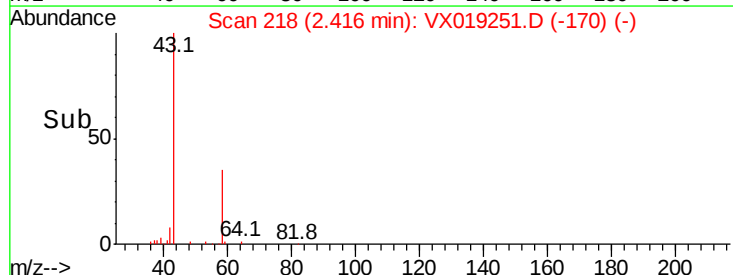
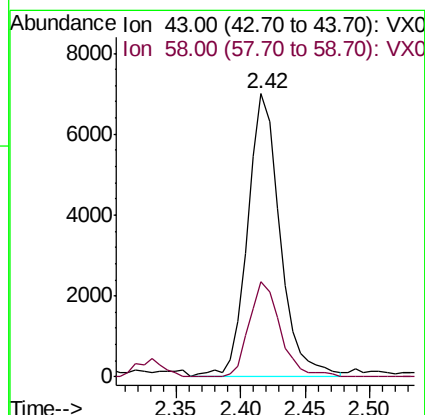
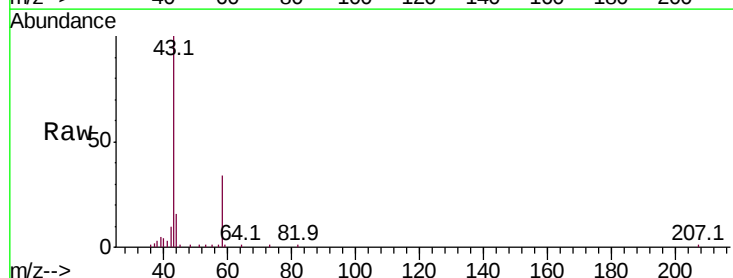
Acq: 03 Nov 2020 22:16

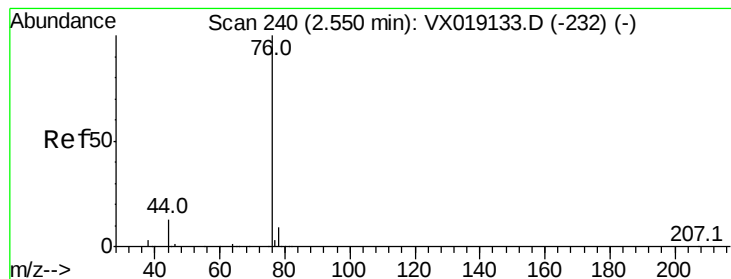
Tgt Ion: 43 Resp: 12231

Ion Ratio Lower Upper

43 100

58 33.8 26.3 39.5





#17

Carbon Disulfide

Concen: 0.794 ug/l

RT: 2.55 min Scan# 240

Delta R.T. 0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

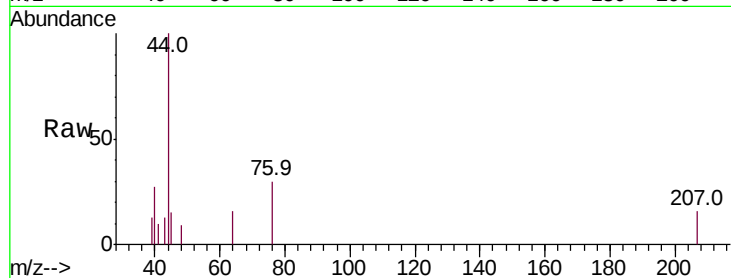
PB132784ZHE#01

Tot Ion: 76 Resp: 316

Ion Ratio Lower Upper

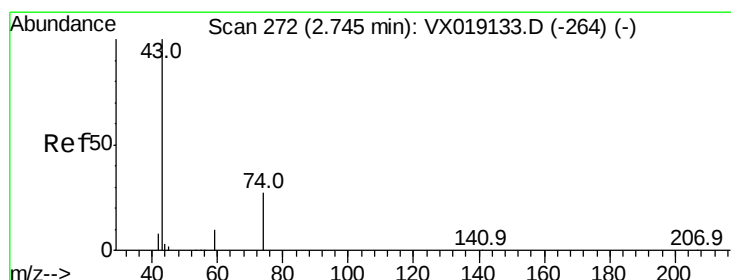
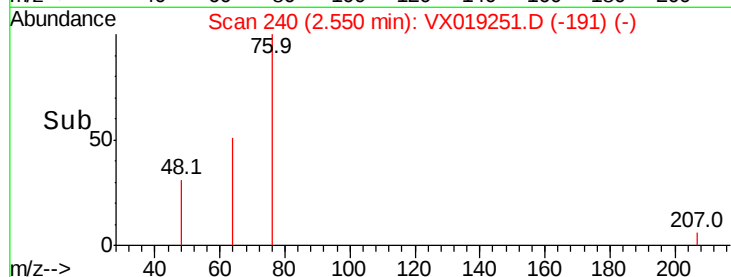
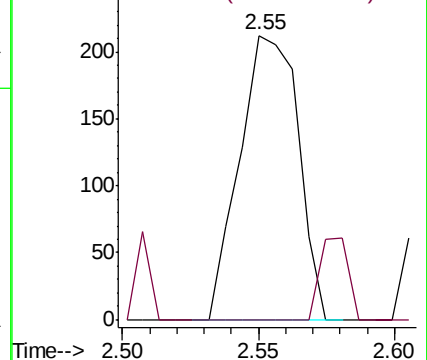
76 100

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: 0.862 ug/l

RT: 2.75 min Scan# 273

Delta R.T. 0.01 min

Lab File: VX019251.D

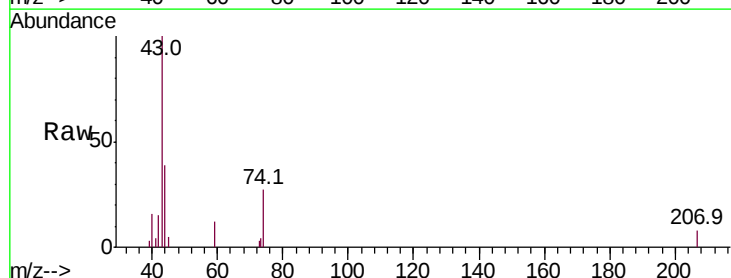
Acq: 03 Nov 2020 22:16

Tgt Ion: 43 Resp: 3044

Ion Ratio Lower Upper

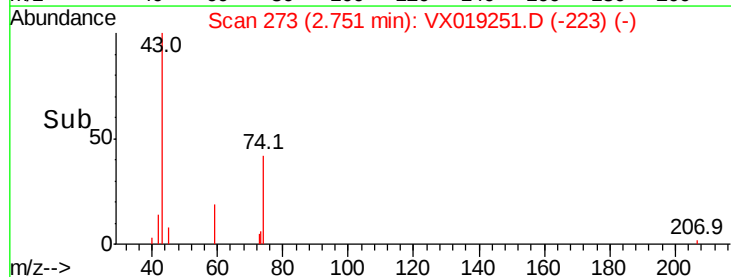
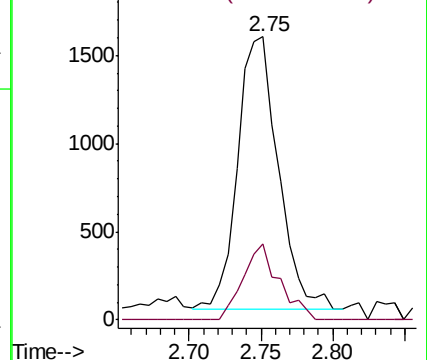
43 100

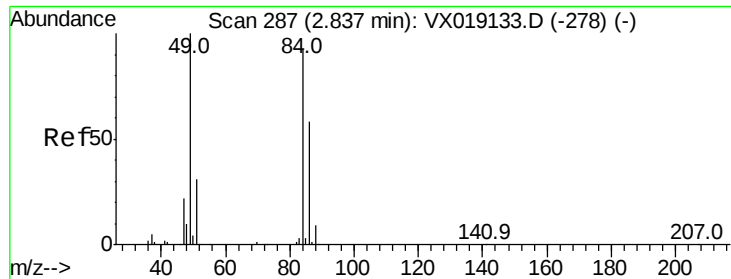
74 24.7 22.6 33.8



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 74.00 (73.70 to 74.70): VX0

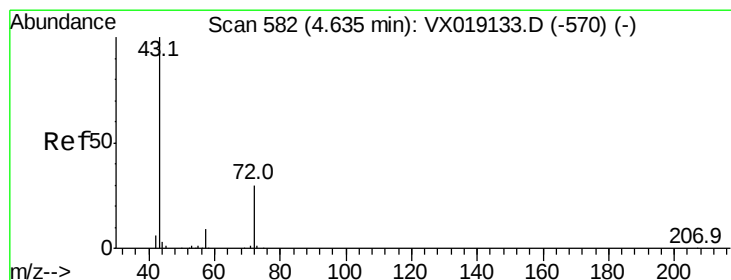
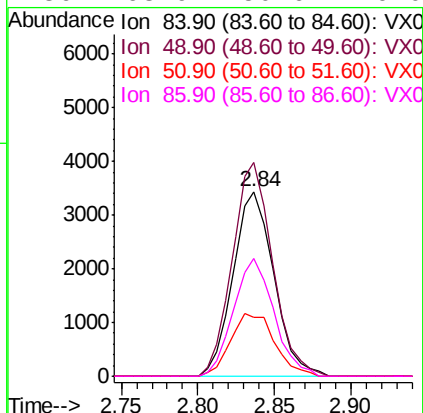
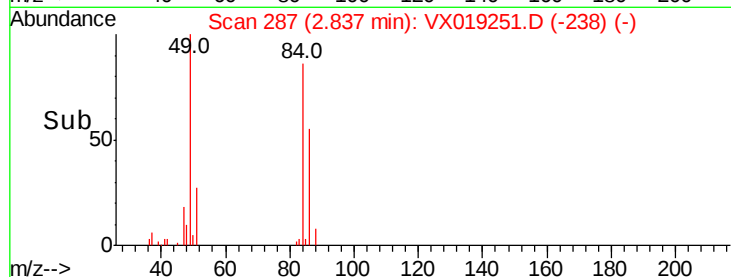
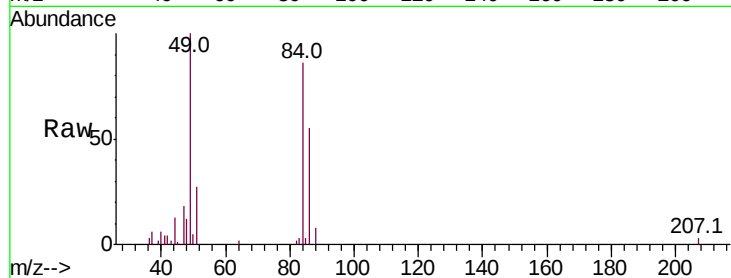




#20  
Methvlene Chloride  
Concen: 1.747 ug/l  
RT: 2.84 min Scan# 287  
Delta R.T. -0.00 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

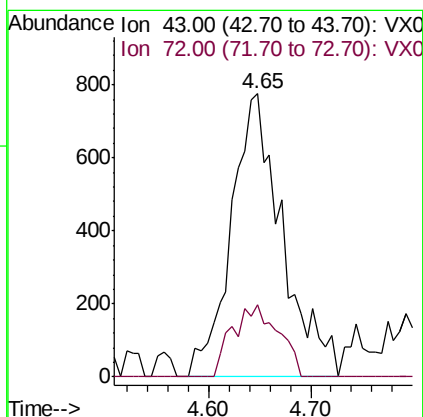
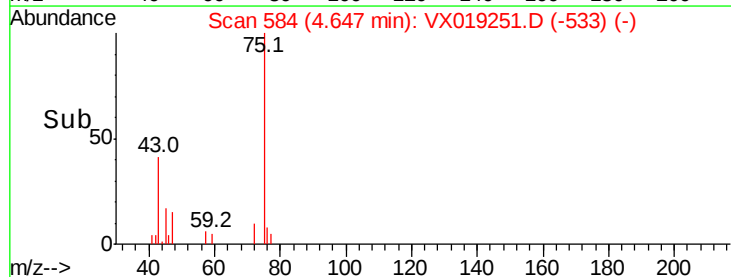
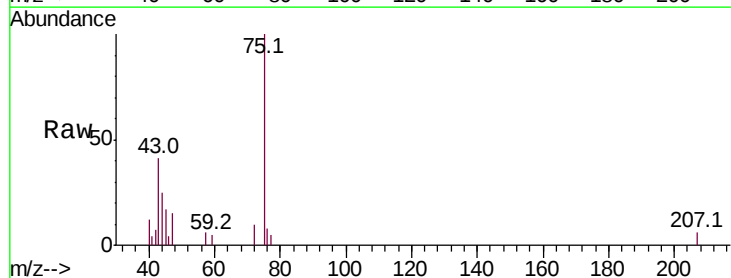
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB132784ZHE#01

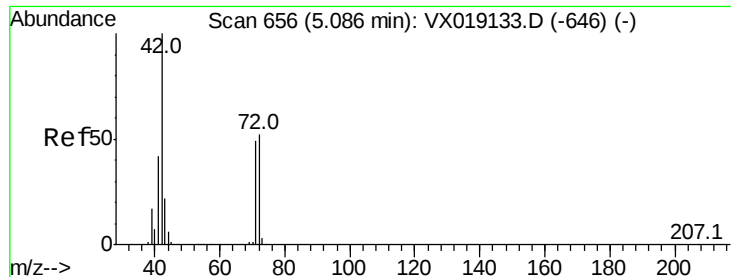
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 6373  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 115.6 | 86.8  | 130.2 |
| 51       | 31.6  | 27.3  | 40.9  |
| 86       | 63.9  | 50.6  | 76.0  |



#25  
2-Butanone  
Concen: 1.173 ug/l  
RT: 4.65 min Scan# 584  
Delta R.T. 0.01 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 2687  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 25.7  | 24.6  | 36.8  |





#29

Tetrahydrofuran

Concen: 1.150 ug/l

RT: 5.09 min Scan# 656

Delta R.T. -0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

PB132784ZHE#01

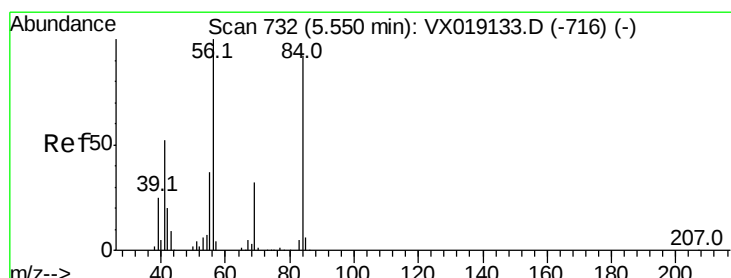
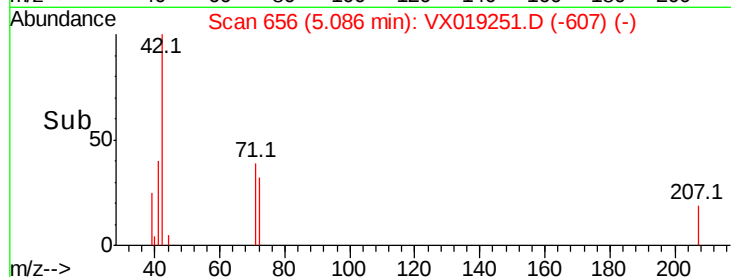
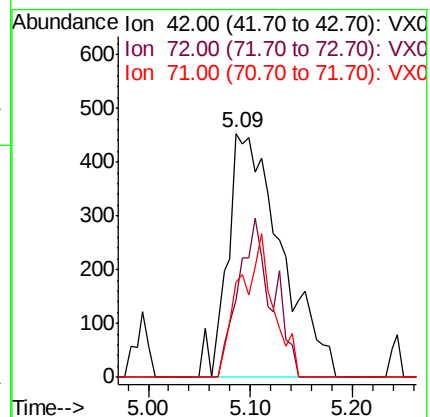
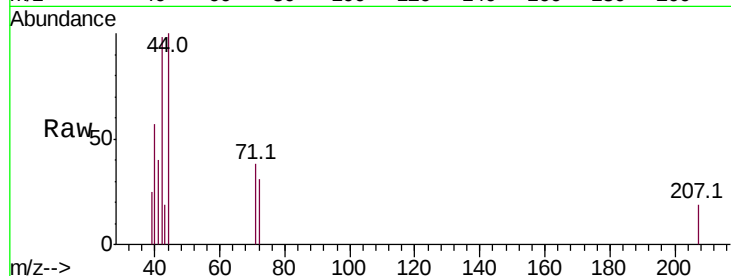
Tot Ion: 42 Resp: 1660

Ion Ratio Lower Upper

42 100

72 0.0 42.6 63.8#

71 0.0 39.7 59.5#



#31

Cyclohexane

Concen: 1.333 ug/l

RT: 5.63 min Scan# 745

Delta R.T. 0.08 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

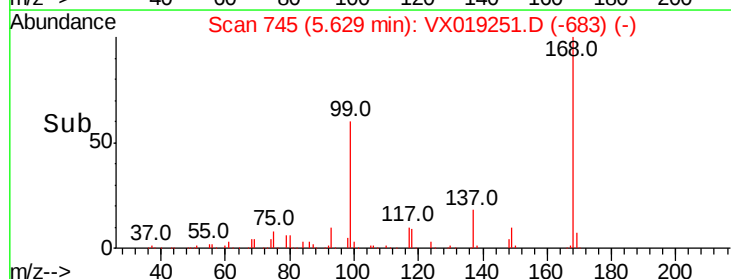
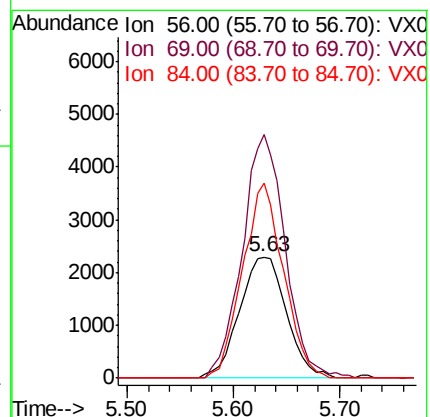
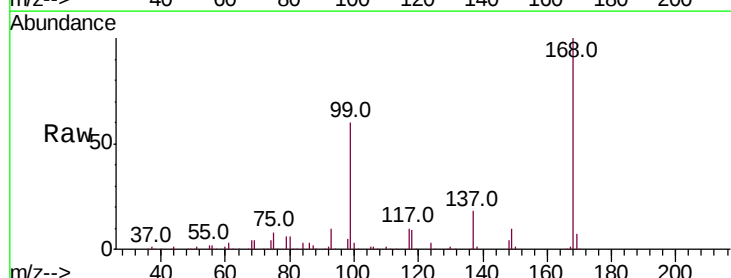
Tgt Ion: 56 Resp: 7099

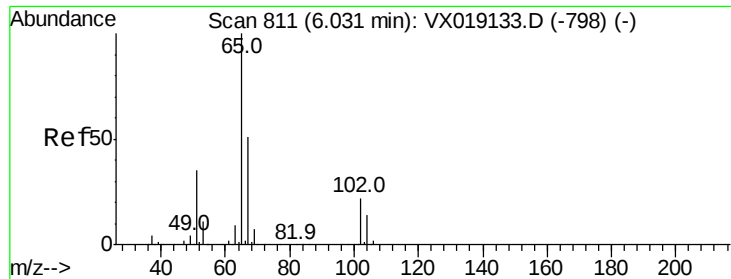
Ion Ratio Lower Upper

56 100

69 200.7 25.9 38.9#

84 160.3 73.4 110.2#





#33

1,2-Dichloroethane-d4

Concen: 52.756 ug/l

RT: 6.03 min Scan# 811

Delta R.T. -0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

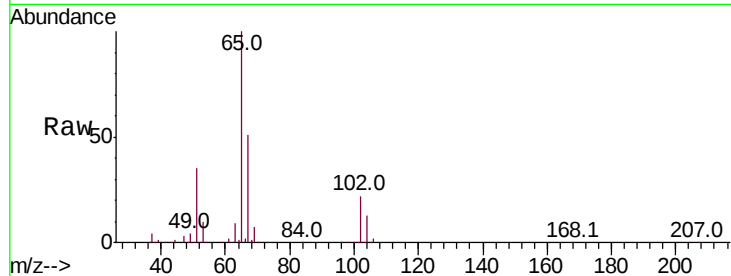
PB132784ZHE#01

Tot Ion: 65 Resp: 222195

Ion Ratio Lower Upper

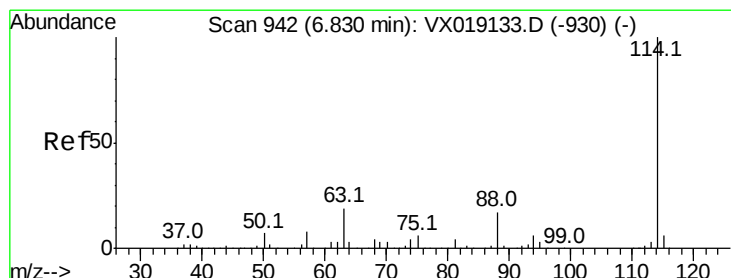
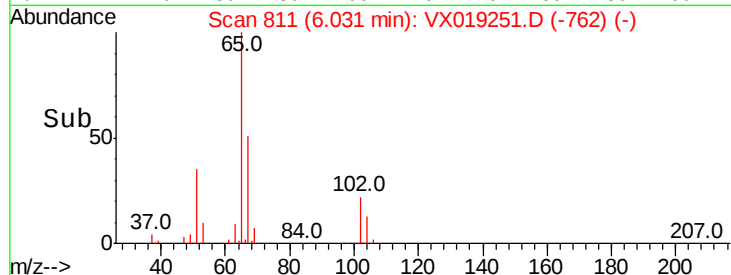
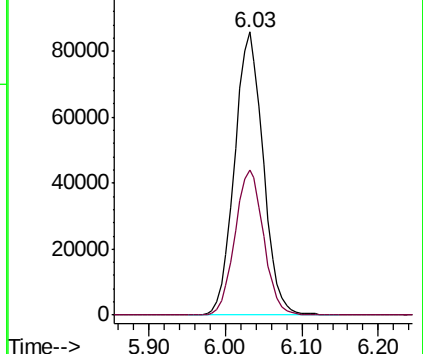
65 100

67 51.2 0.0 103.0



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: 6.83 min Scan# 942

Delta R.T. -0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

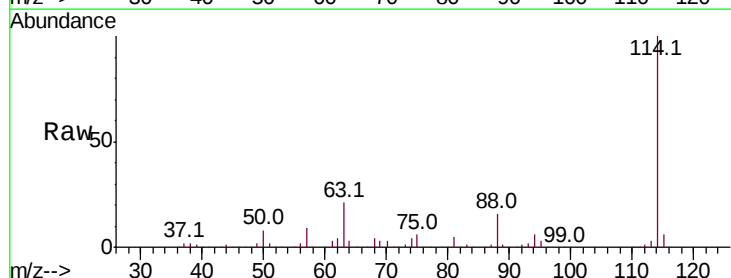
Tgt Ion: 114 Resp: 577838

Ion Ratio Lower Upper

114 100

63 20.9 0.0 38.8

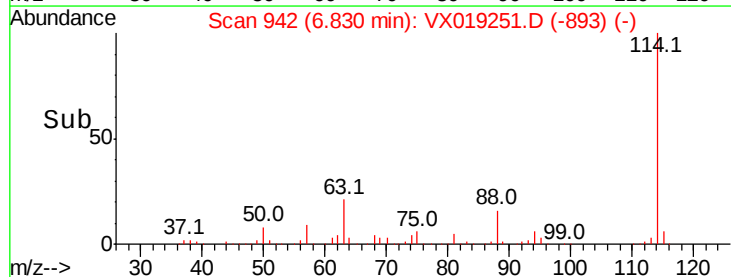
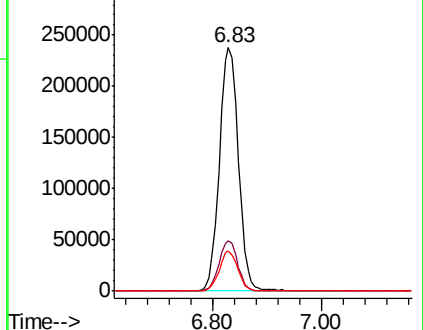
88 16.4 0.0 34.2

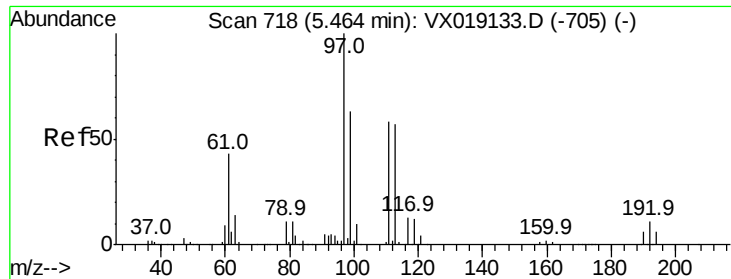


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0

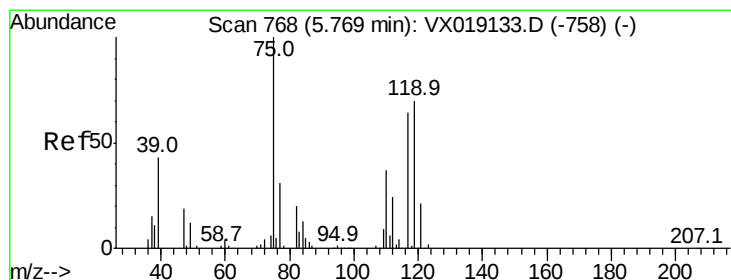
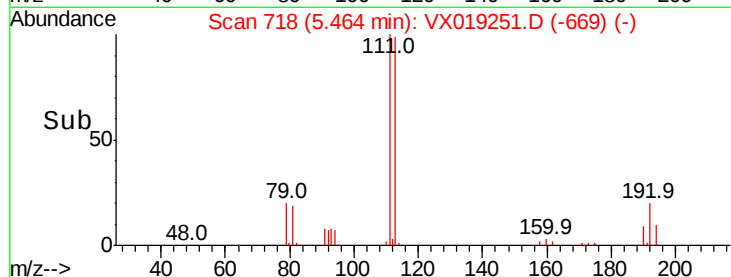
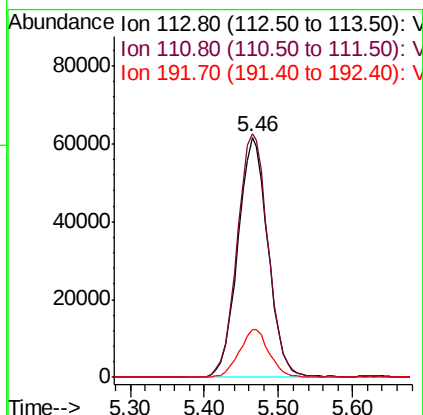
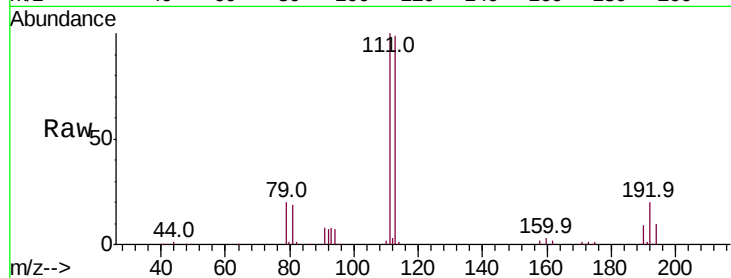




#35  
 Dibromofluoromethane  
 Concen: 48.300 ug/l  
 RT: 5.46 min Scan# 718  
 Delta R.T. -0.00 min  
 Lab File: VX019251.D  
 Acq: 03 Nov 2020 22:16

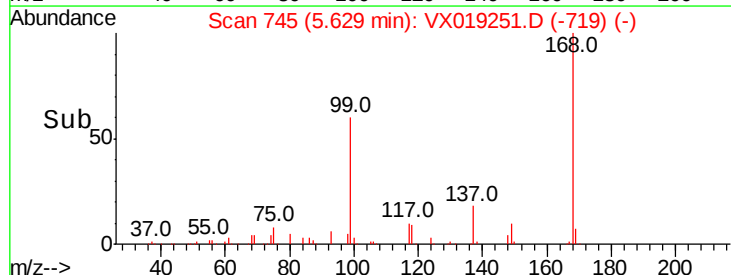
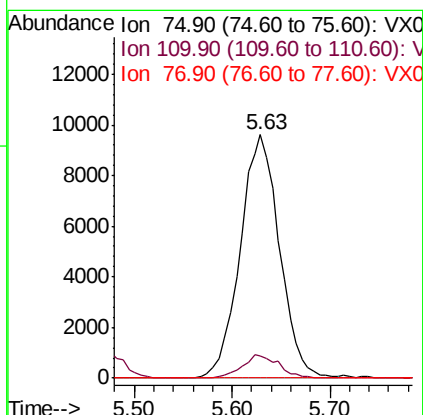
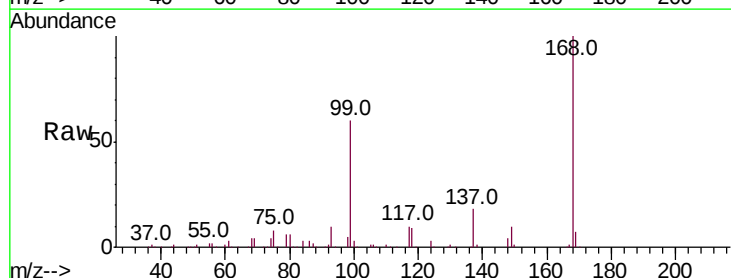
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB132784ZHE#01

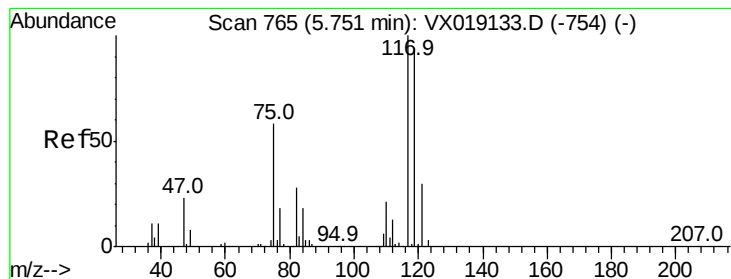
Tot Ion:113 Resp: 175309  
 Ion Ratio Lower Upper  
 113 100  
 111 103.7 82.3 123.5  
 192 19.7 16.2 24.2



#36  
 1,1-Dichloropropene  
 Concen: 5.008 ug/l  
 RT: 5.63 min Scan# 745  
 Delta R.T. -0.14 min  
 Lab File: VX019251.D  
 Acq: 03 Nov 2020 22:16

Tgt Ion: 75 Resp: 26724  
 Ion Ratio Lower Upper  
 75 100  
 110 9.0 18.3 54.9#  
 77 0.0 24.9 37.3#





#38

Carbon Tetrachloride

Concen: 6.196 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.13 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

PB132784ZHE#01

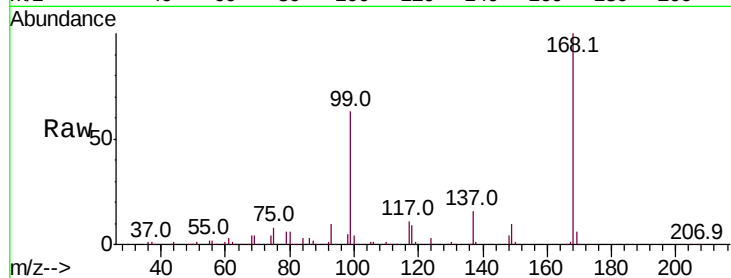
Tot Ion:117 Resp: 33697

Ion Ratio Lower Upper

117 100

119 4.6 75.0 112.6#

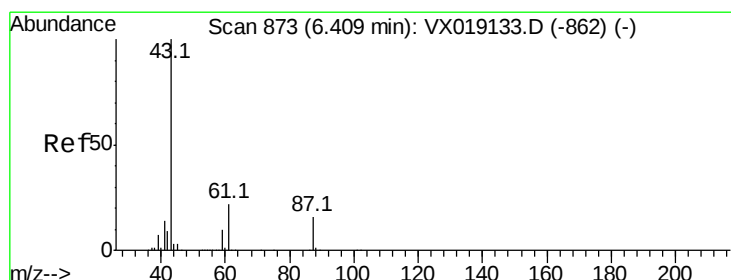
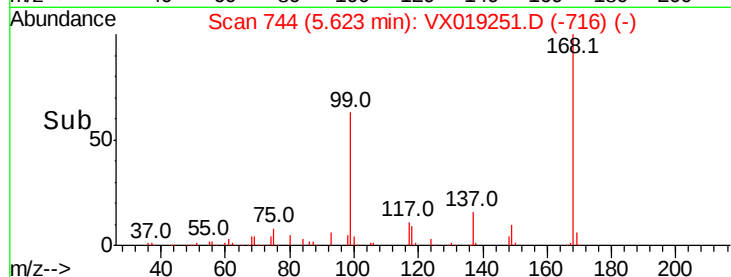
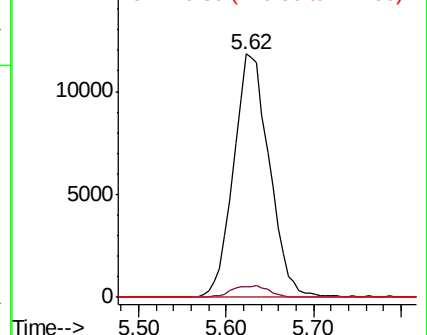
121 0.0 23.9 35.9#



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



#43

Isopropyl Acetate

Concen: 9.096 ug/l

RT: 6.41 min Scan# 873

Delta R.T. -0.00 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

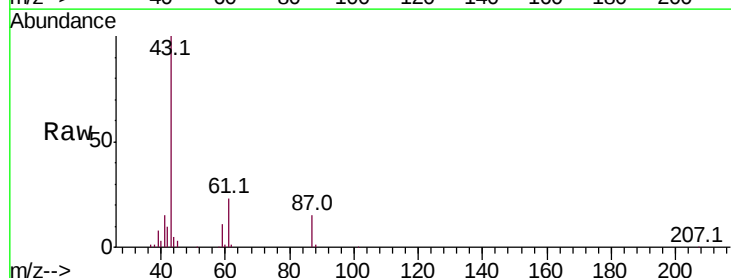
Tgt Ion: 43 Resp: 75455

Ion Ratio Lower Upper

43 100

61 21.1 17.8 26.6

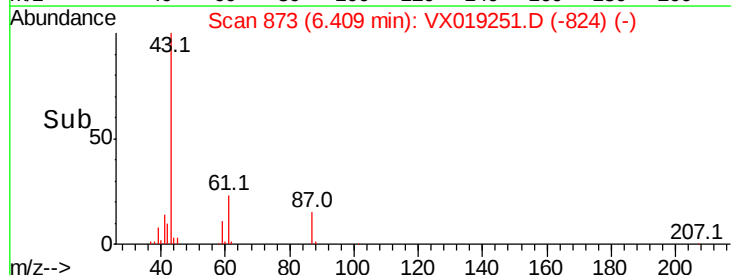
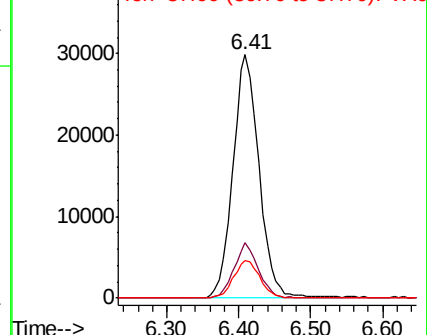
87 15.3 12.6 19.0

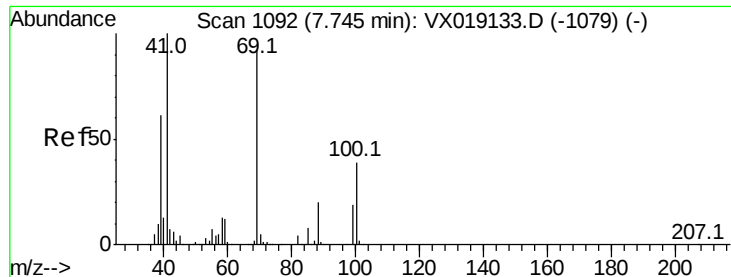


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

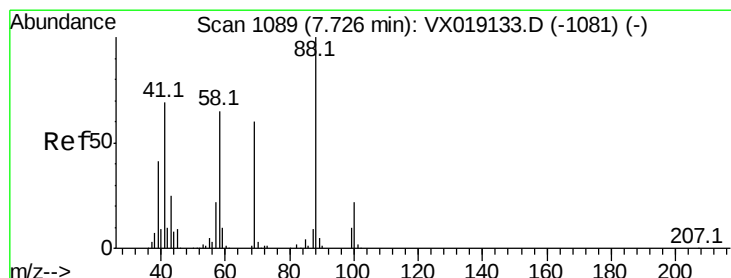
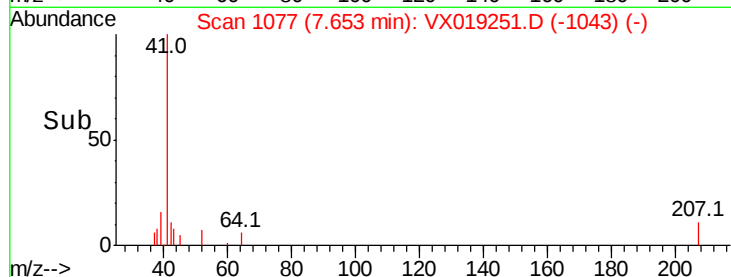
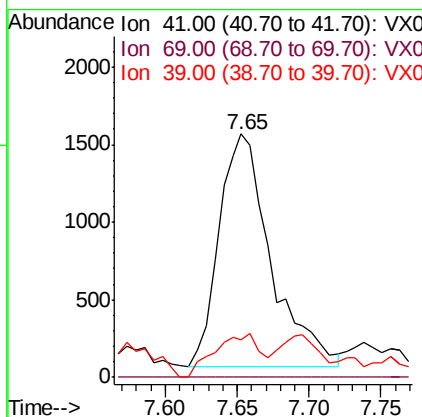
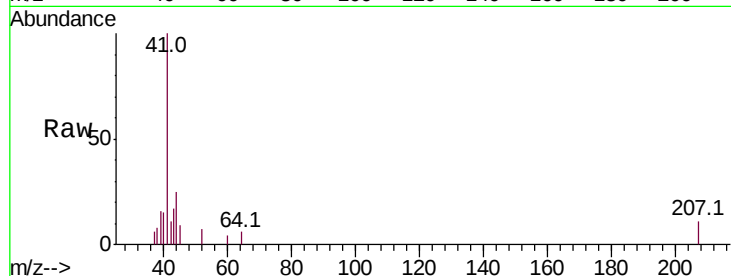




#48  
Methvl methacrylate  
Concen: 0.940 ug/l  
RT: 7.65 min Scan# 1077  
Delta R.T. -0.09 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

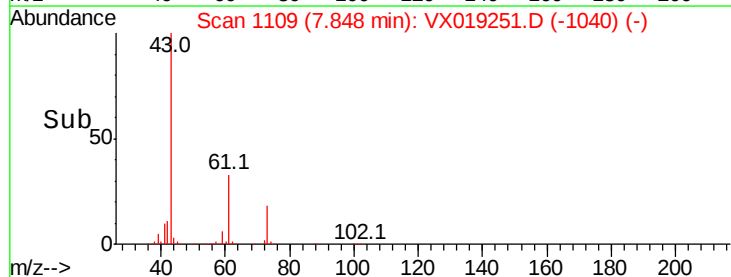
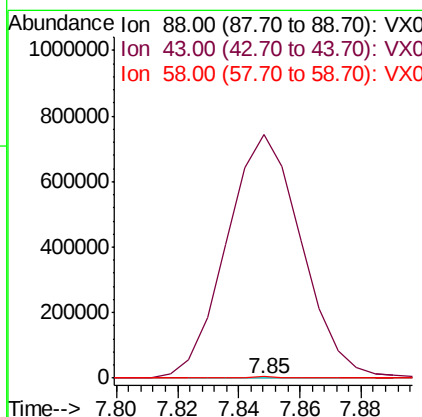
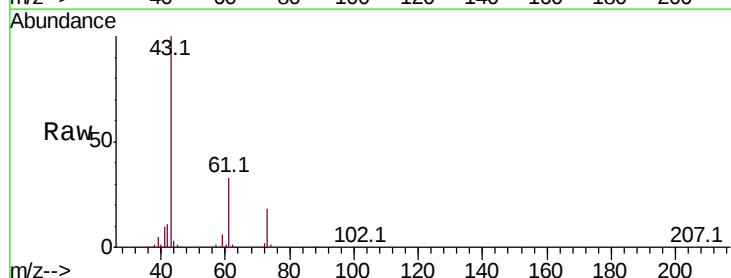
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB132784ZHE#01

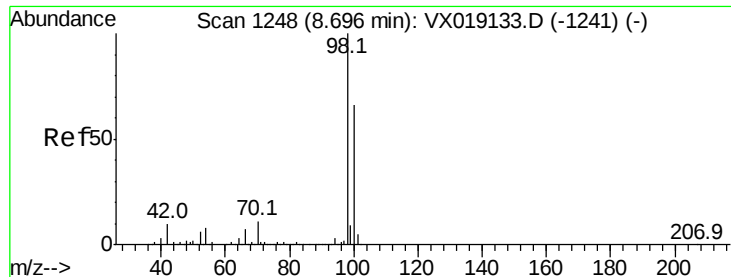
Tot Ion: 41 Resp: 3753  
Ion Ratio Lower Upper  
41 100  
69 0.0 75.5 113.3#  
39 0.0 48.9 73.3#



#49  
1,4-Dioxane  
Concen: 2.151 ug/l  
RT: 7.85 min Scan# 1109  
Delta R.T. 0.12 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

Tgt Ion: 88 Resp: 191  
Ion Ratio Lower Upper  
88 100  
43 669170.2 23.0 34.6#  
58 3239.8 52.2 78.2#

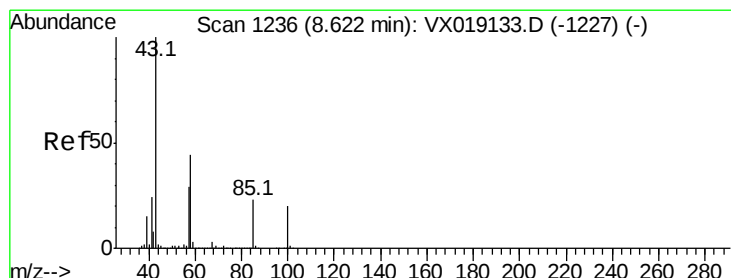
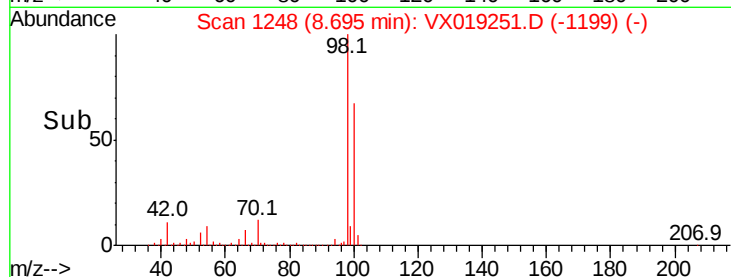
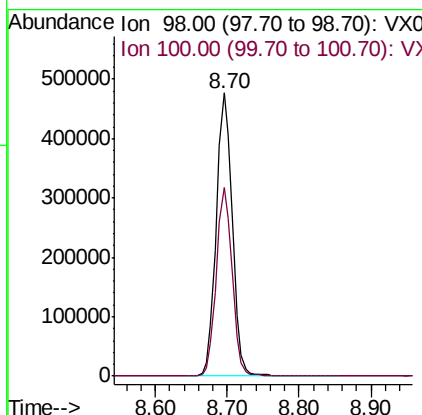
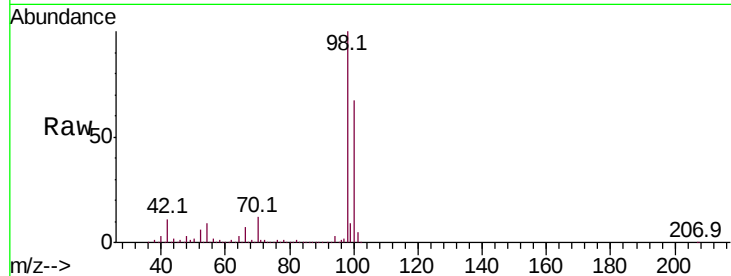




#50  
Toluene-d8  
Concen: 53.608 ug/l  
RT: 8.70 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

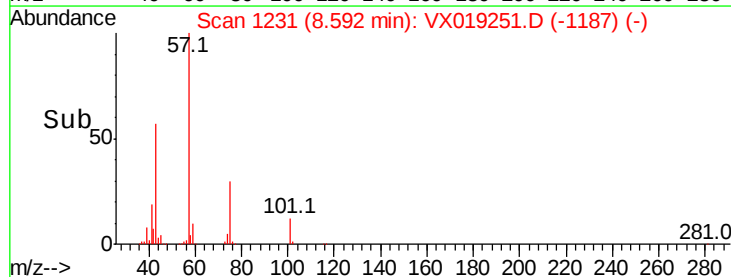
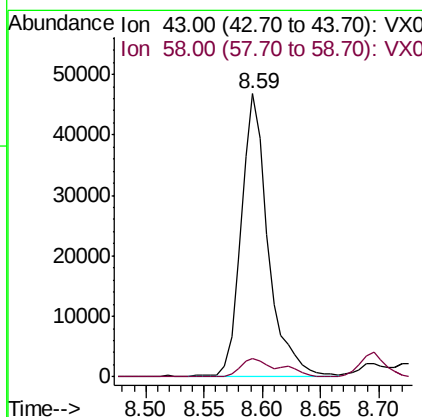
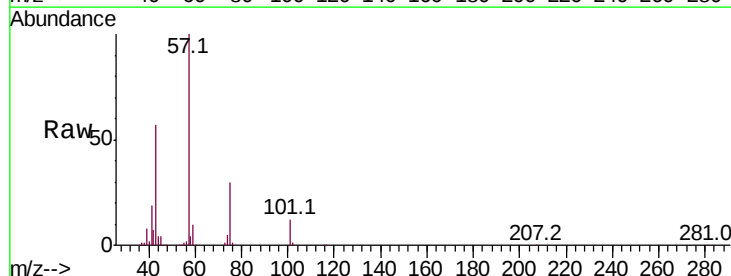
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB132784ZHE#01

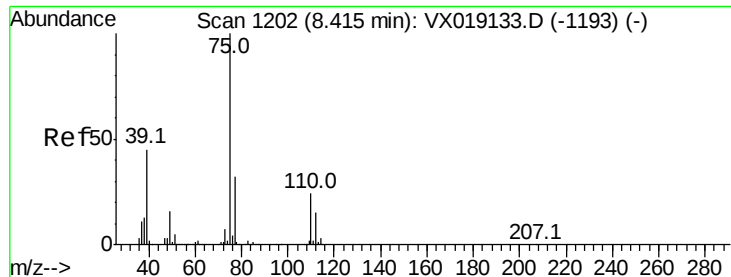
Tot Ion: 98 Resp: 733485  
Ion Ratio Lower Upper  
98 100  
100 65.9 53.0 79.6



#51  
4-Methyl-2-Pentanone  
Concen: 15.704 ug/l  
RT: 8.59 min Scan# 1231  
Delta R.T. -0.03 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

Tgt Ion: 43 Resp: 74876  
Ion Ratio Lower Upper  
43 100  
58 9.7 35.0 52.4#





#54

cis-1,3-Dichloropropene

Concen: 5.575 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. 0.18 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

PB132784ZHE#01

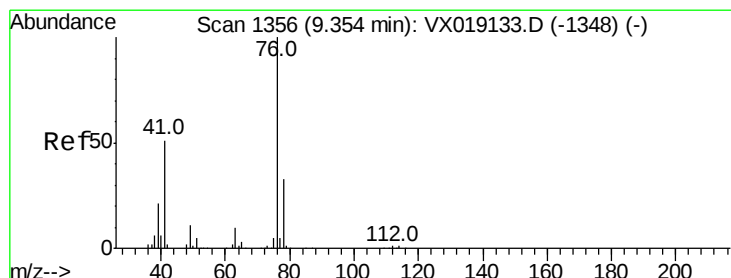
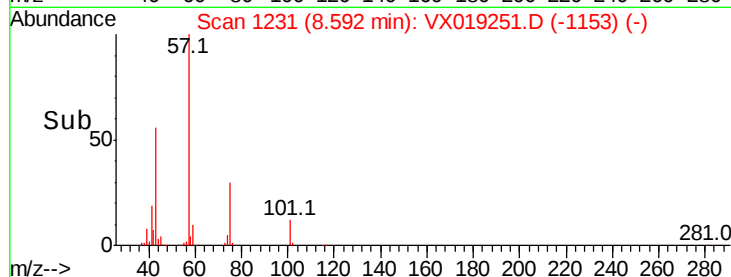
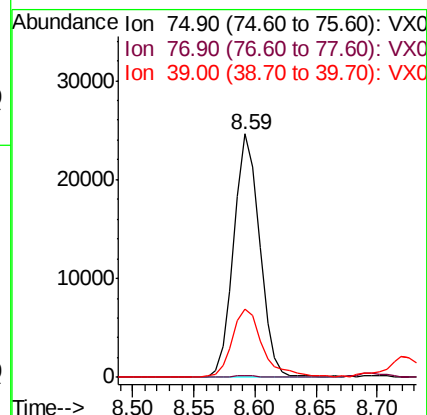
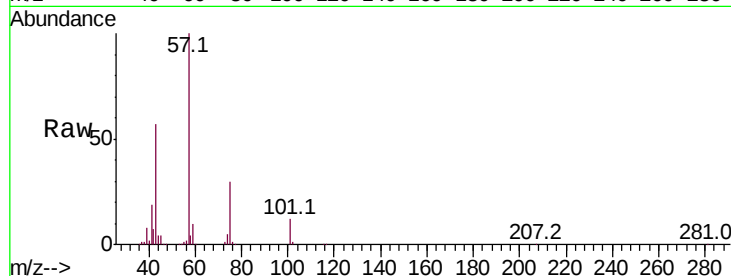
Tot Ion: 75 Resp: 36167

Ion Ratio Lower Upper

75 100

77 0.6 25.5 38.3#

39 27.9 36.2 54.2#



#57

1,3-Dichloropropane

Concen: 0.972 ug/l

RT: 9.52 min Scan# 1384

Delta R.T. 0.17 min

Lab File: VX019251.D

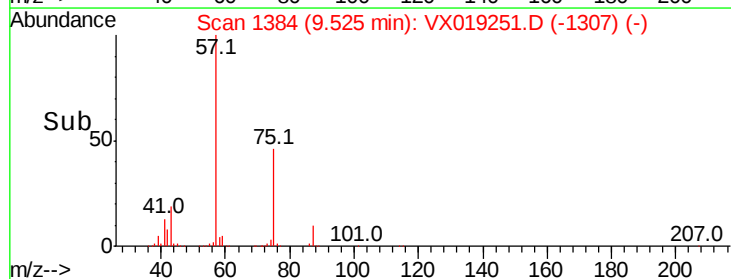
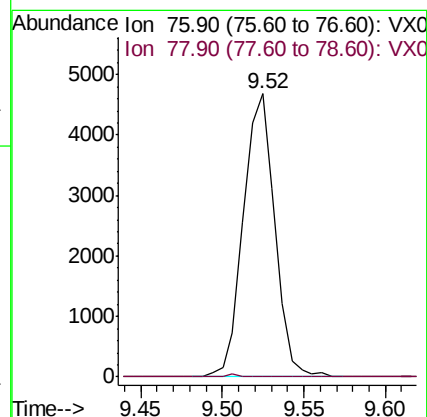
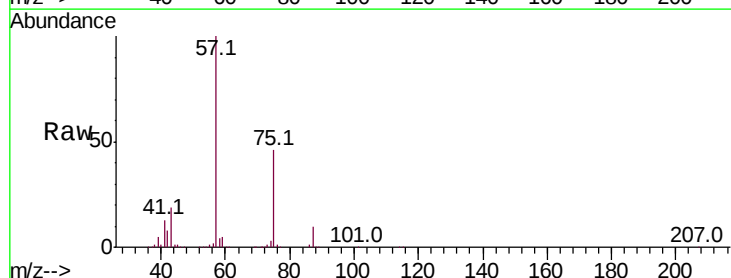
Acq: 03 Nov 2020 22:16

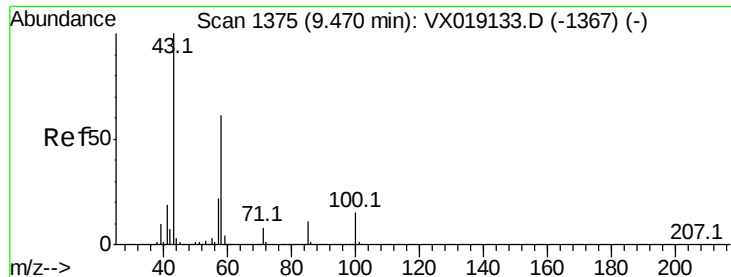
Tgt Ion: 76 Resp: 6307

Ion Ratio Lower Upper

76 100

78 0.3 25.9 38.9#

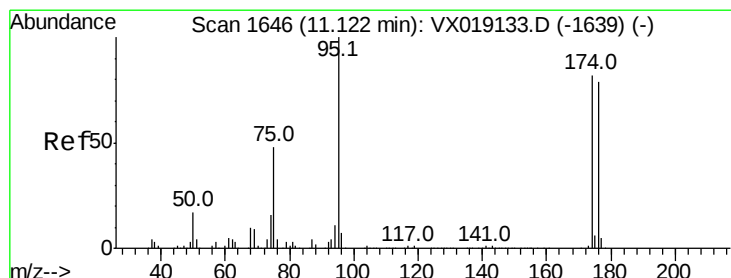
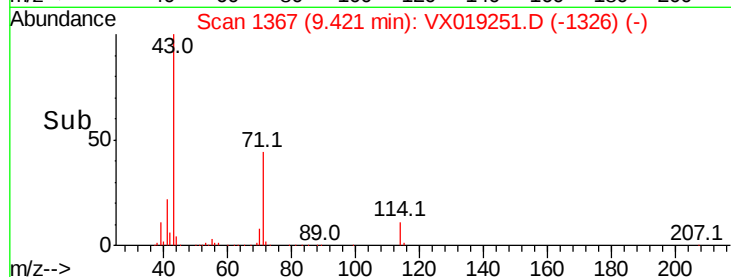
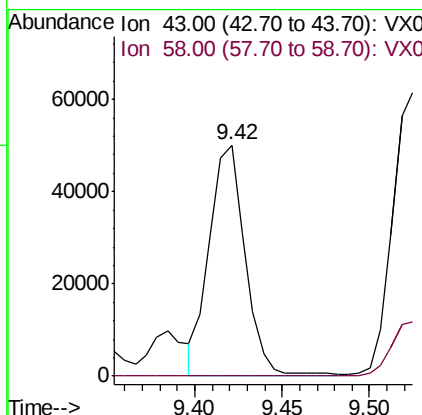
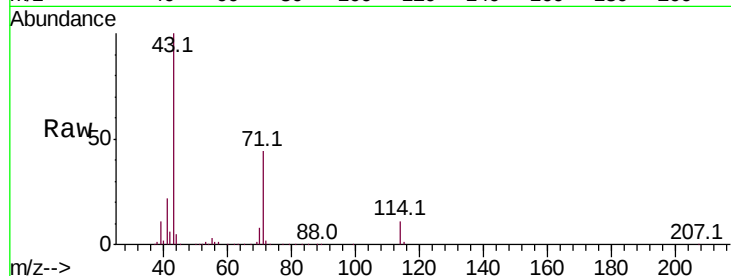




#59  
2-Hexanone  
Concen: 19.594 ug/l  
RT: 9.42 min Scan# 1367  
Delta R.T. -0.05 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

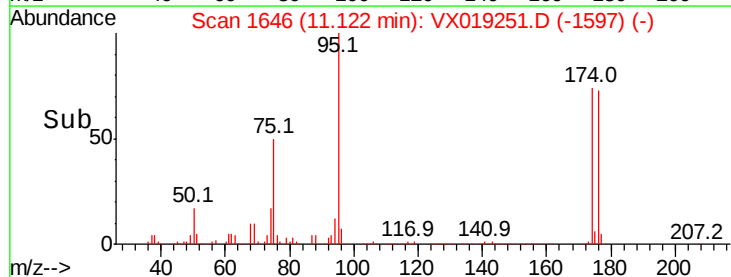
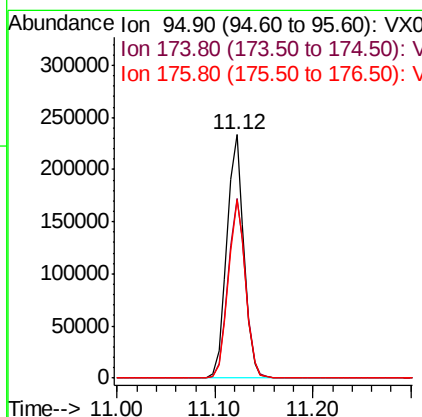
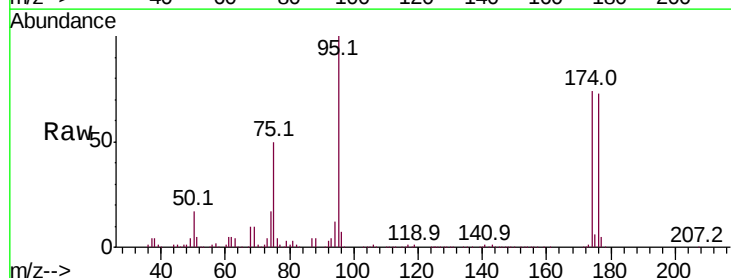
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB132784ZHE#01

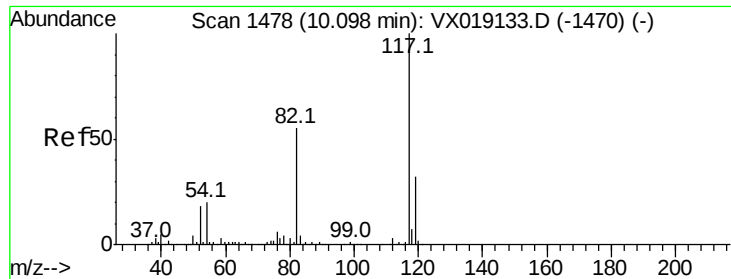
Tot Ion: 43 Resp: 71114  
Ion Ratio Lower Upper  
43 100  
58 0.0 30.5 91.5#



#62  
4-Bromofluorobenzene  
Concen: 54.610 ug/l  
RT: 11.12 min Scan# 1646  
Delta R.T. -0.00 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

Tgt Ion: 95 Resp: 282967  
Ion Ratio Lower Upper  
95 100  
174 75.5 0.0 156.0  
176 73.6 0.0 149.8

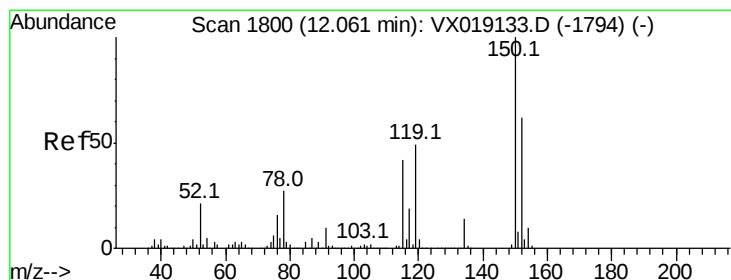
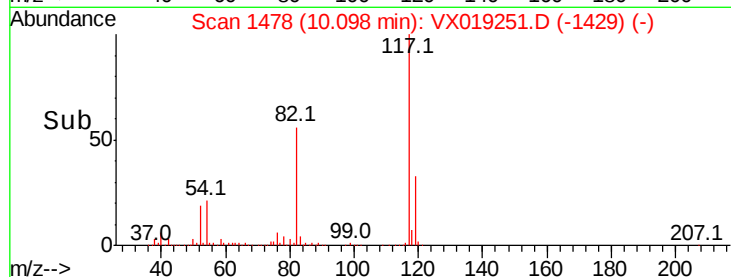
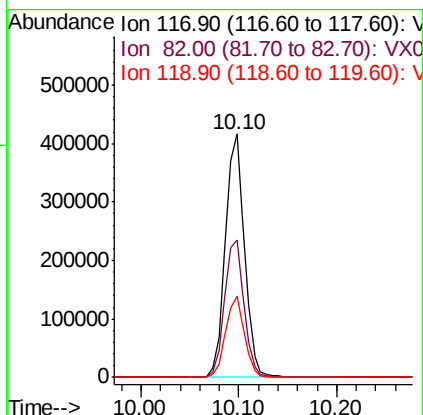
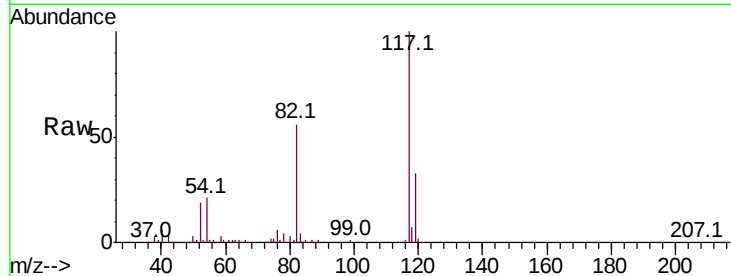




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

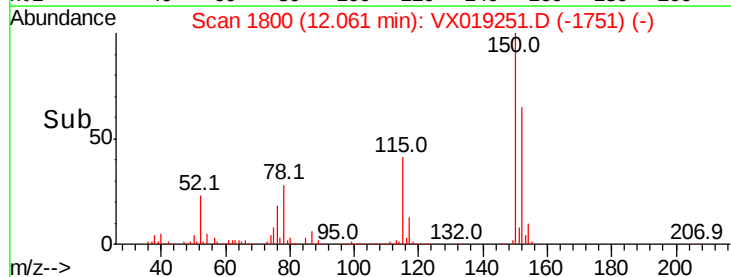
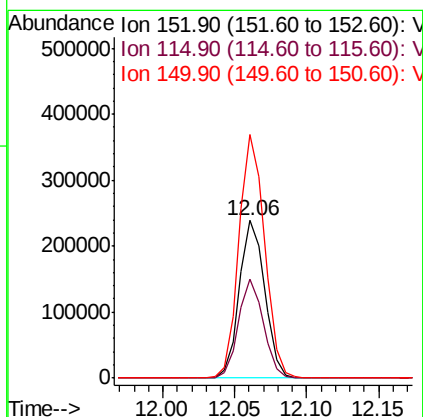
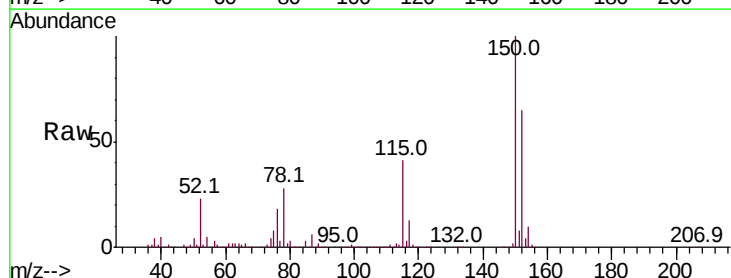
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB132784ZHE#01

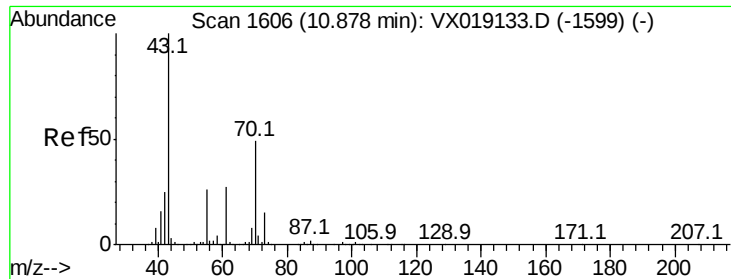
Tot Ion:117 Resp: 565583  
Ion Ratio Lower Upper  
117 100  
82 56.2 43.6 65.4  
119 33.4 25.5 38.3



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. -0.00 min  
Lab File: VX019251.D  
Acq: 03 Nov 2020 22:16

Tgt Ion:152 Resp: 293978  
Ion Ratio Lower Upper  
152 100  
115 61.6 41.9 125.7  
150 155.9 0.0 347.8





#74

N-amvl acetate

Concen: 0.418 ug/l

RT: 10.80 min Scan# 1594

Delta R.T. -0.07 min

Lab File: VX019251.D

Acq: 03 Nov 2020 22:16

Instrument :

MSVOA\_X

ClientSampleId :

PB132784ZHE#01

Tot Ion: 43 Resp: 3179

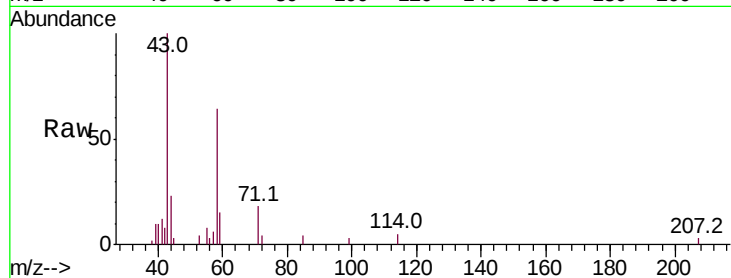
Ion Ratio Lower Upper

43 100

70 0.0 39.6 59.4#

55 10.1 20.7 31.1#

61 0.0 21.9 32.9#

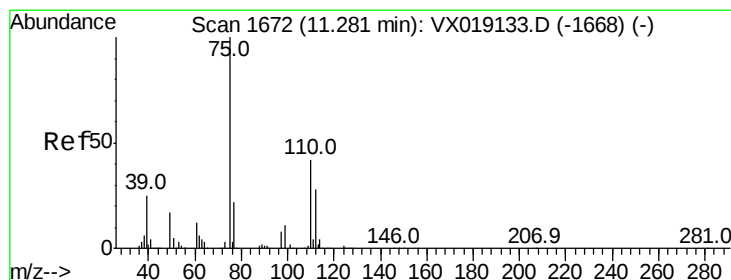
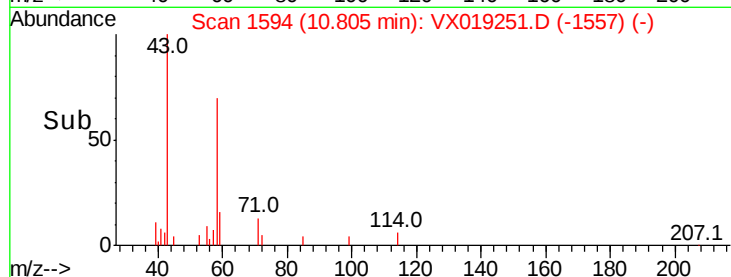
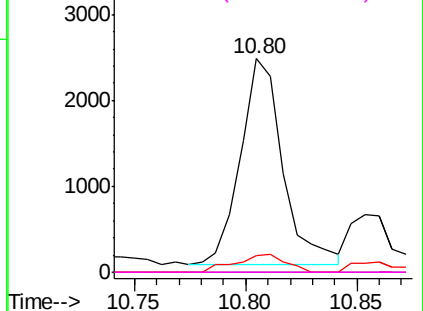


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 70.00 (69.70 to 70.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 61.00 (60.70 to 61.70): VX0



#76

1,2,3-Trichloropropane

Concen: 24.004 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX019251.D

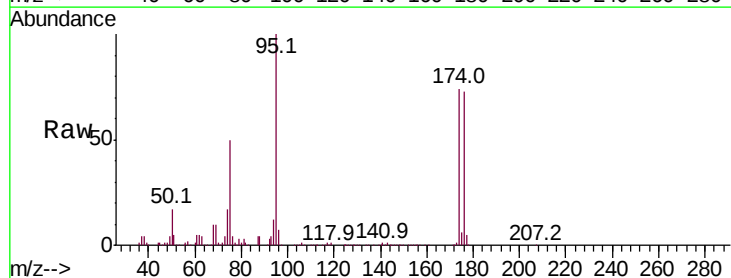
Acq: 03 Nov 2020 22:16

Tgt Ion: 75 Resp: 145703

Ion Ratio Lower Upper

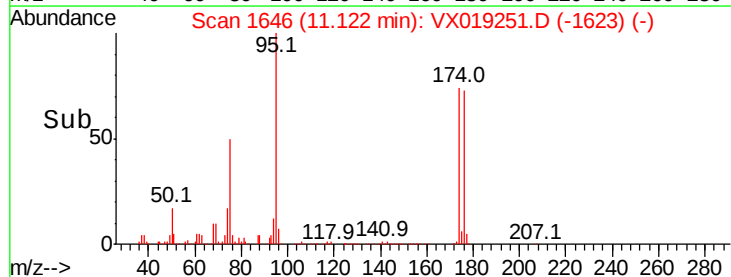
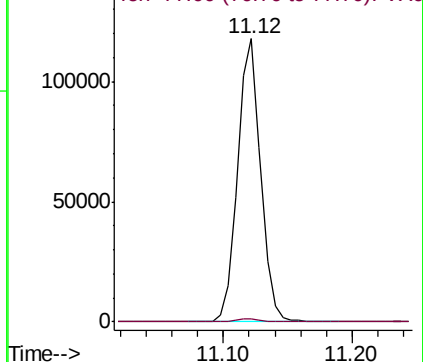
75 100

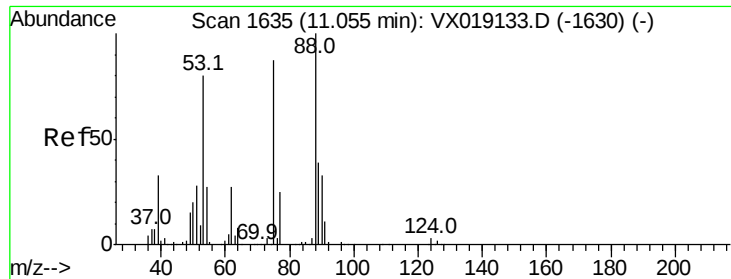
77 1.1 20.3 60.9#



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: 63.202 ug/l  
 RT: 11.12 min Scan# 1646  
 Delta R.T. 0.07 min  
 Lab File: VX019251.D  
 Acq: 03 Nov 2020 22:16

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB132784ZHE#01

Tot Ion: 75 Resp: 145703  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 73.3 109.9#  
 89 0.0 38.2 57.2#

