

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX102519\  
 Data File : VX013213.D  
 Acq On : 24 Oct 2019 15:52  
 Operator : JC/SP  
 Sample : K5532-06DL 5X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0673DL

Quant Time: Oct 25 01:21:04 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102419W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 24 03:56:38 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 78334    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 115022   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 110025   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 69810    | 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   | 90468    | 55.22 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 110.44% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 68560    | 53.45 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.90% |          |
| 50) Toluene-d8              | 8.71  | 98   | 251094   | 52.82 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.64% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 89794    | 47.73 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.46%  |          |

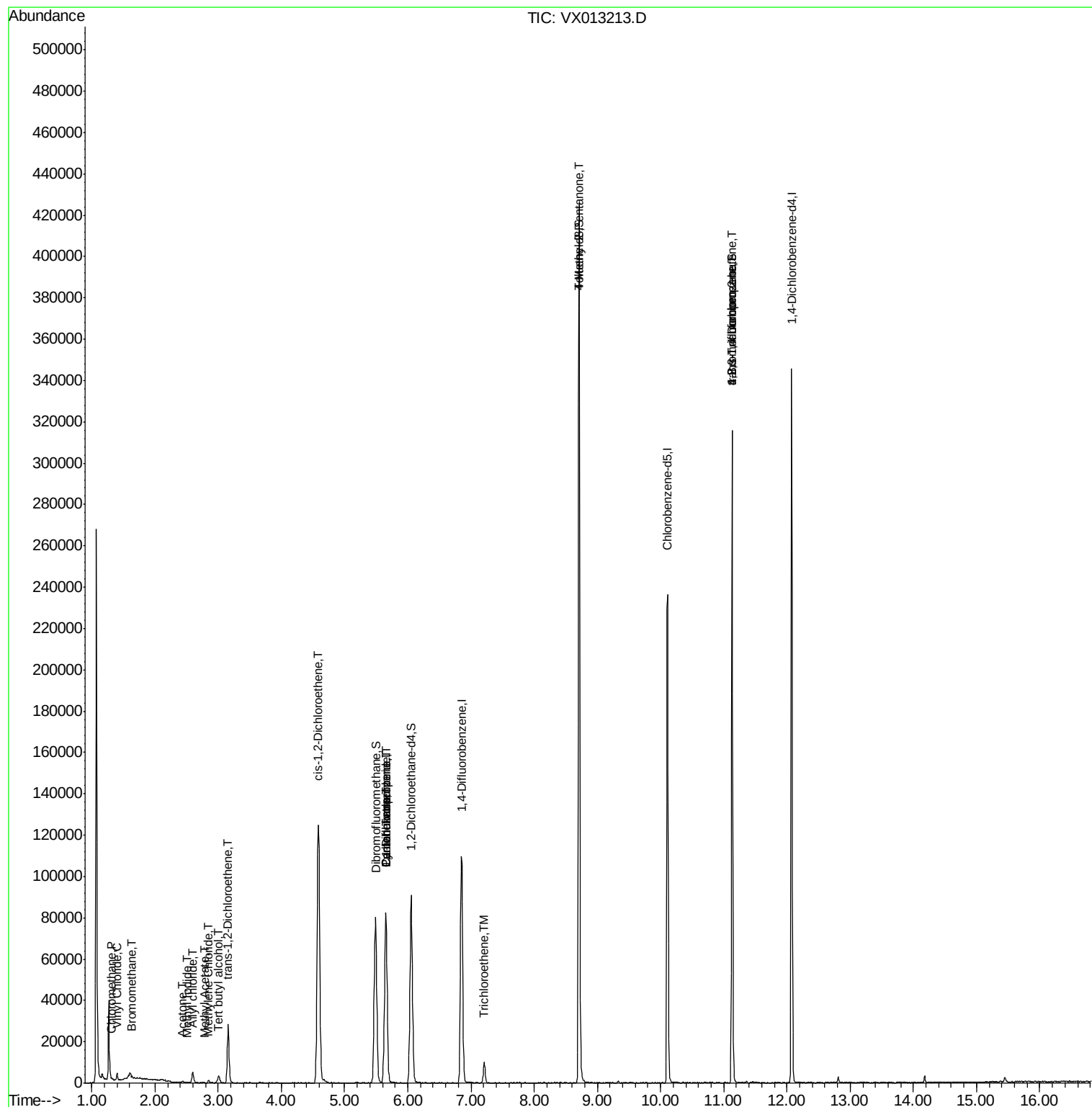
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.32  | 50   | 139      | 1.082     | ug/l # | 40     |
| 4) Vinyl Chloride              | 1.40  | 62   | 1877     | 1.320     | ug/l # | 76     |
| 5) Bromomethane                | 1.63  | 94   | 250      | 0.332     | ug/l   | 87     |
| 6) Chloroethane                | 1.72  | 64   | 345      | Below Cal | #      | 72     |
| 10) Methyl Iodide              | 2.51  | 142  | 129      | 3.609     | ug/l # | 61     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 2468     | 5.906     | ug/l # | 72     |
| 14) Allyl chloride             | 2.60  | 41   | 609      | 0.290     | ug/l # | 69     |
| 16) Acetone                    | 2.44  | 43   | 684      | 0.886     | ug/l # | 83     |
| 18) Methyl Acetate             | 2.78  | 43   | 62       | 1.005     | ug/l # | 49     |
| 20) Methylene Chloride         | 2.84  | 84   | 606      | 0.706     | ug/l # | 87     |
| 21) trans-1,2-Dichloroethene   | 3.16  | 96   | 12096    | 9.105     | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene     | 4.59  | 96   | 83680    | 51.204    | ug/l   | 88     |
| 31) Cyclohexane                | 5.65  | 56   | 1511     | 0.713     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 5483     | 2.775     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 7928     | 3.729     | ug/l # | 14     |
| 44) Trichloroethene            | 7.21  | 130  | 3812     | 2.325     | ug/l   | 84     |
| 51) 4-Methyl-2-Pentanone       | 8.71  | 43   | 1029     | 0.530     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 45542    | 27.067    | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 45542    | 74.380    | ug/l # | 10     |

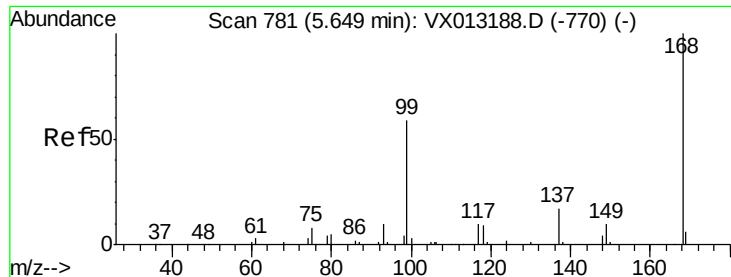
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ALS Vial : 15 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
S32-0673DL

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X102419W.M  
Quant Title : SW846 8260  
QLast Update : Thu Oct 24 03:56:38 2019  
Response via : Initial Calibration

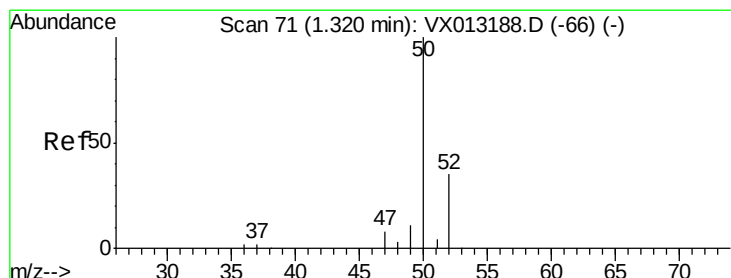
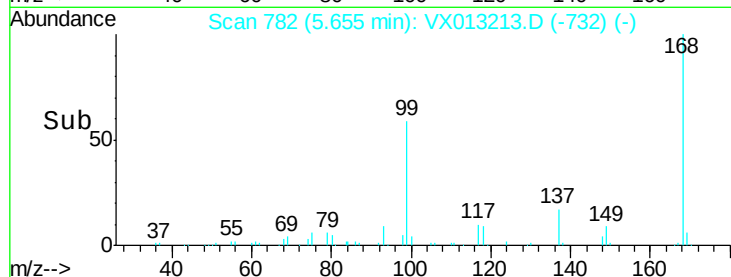
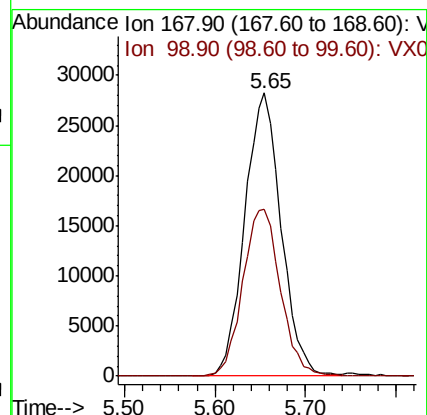
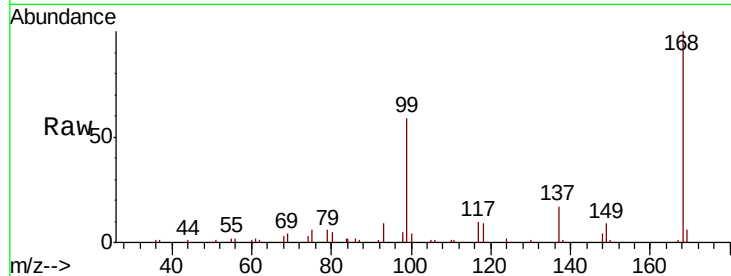




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.65 min Scan# 782  
Delta R.T. 0.01 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

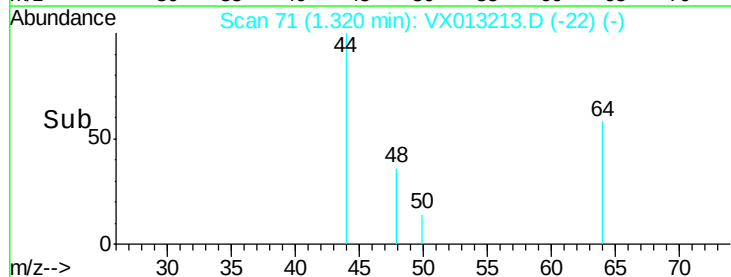
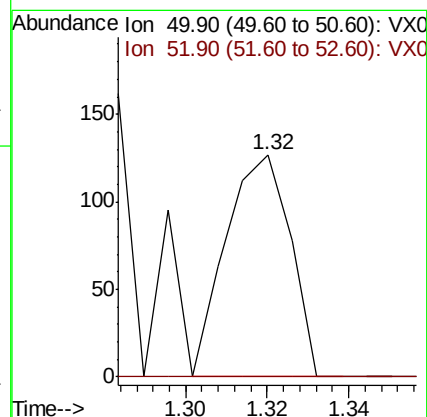
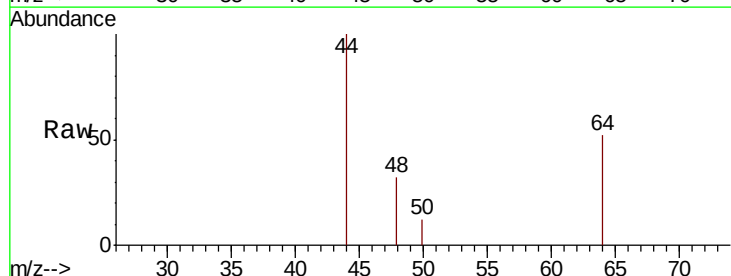
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0673DL

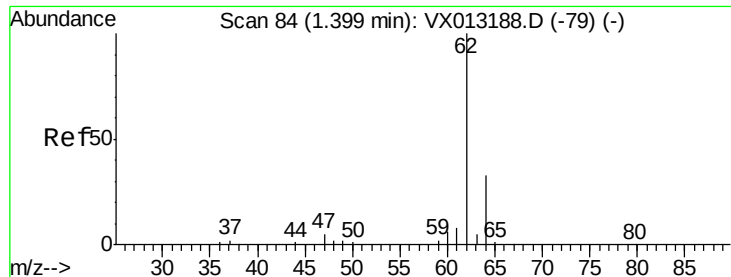
Tot Ion:168 Resp: 78334  
Ion Ratio Lower Upper  
168 100  
99 58.8 47.0 70.4



#3  
Chloromethane  
Concen: 1.082 ug/l  
RT: 1.32 min Scan# 71  
Delta R.T. 0.00 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Tgt Ion: 50 Resp: 139  
Ion Ratio Lower Upper  
50 100  
52 0.0 27.8 41.6#





#4

Vinyl Chloride

Concen: 1.320 ug/l

RT: 1.40 min Scan# 84

Delta R.T. -0.00 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampleId :

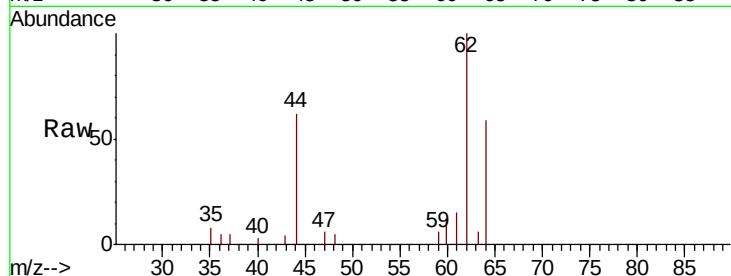
S32-0673DL

Tot Ion: 62 Resp: 1877

Ion Ratio Lower Upper

62 100

64 46.6 26.4 39.6#



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0

1.40

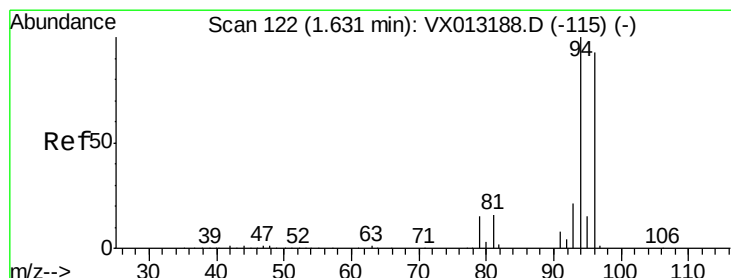
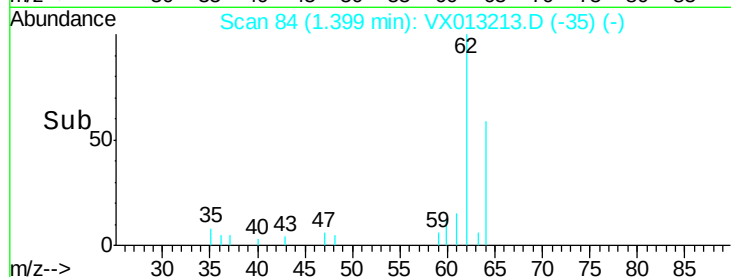
1500

1000

500

0

Time--> 1.35 1.40 1.45



#5

Bromomethane

Concen: 0.332 ug/l

RT: 1.63 min Scan# 122

Delta R.T. -0.00 min

Lab File: VX013213.D

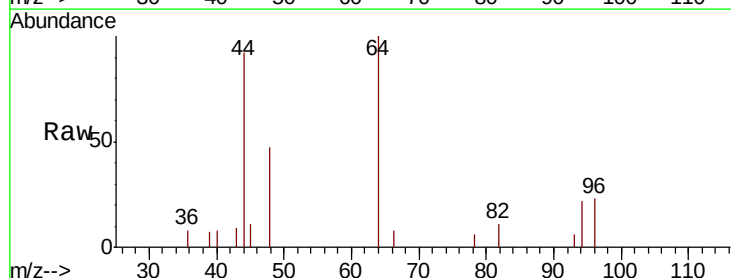
Acq: 24 Oct 2019 15:52

Tgt Ion: 94 Resp: 250

Ion Ratio Lower Upper

94 100

96 104.9 74.2 111.2



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

250

200

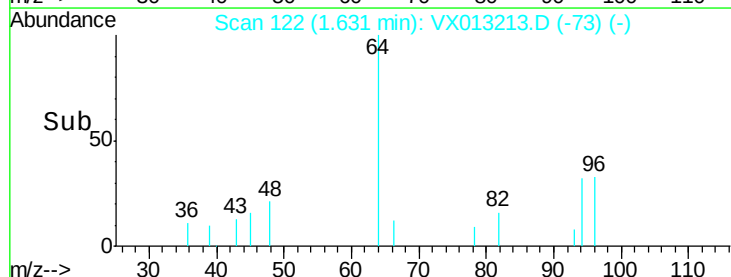
150

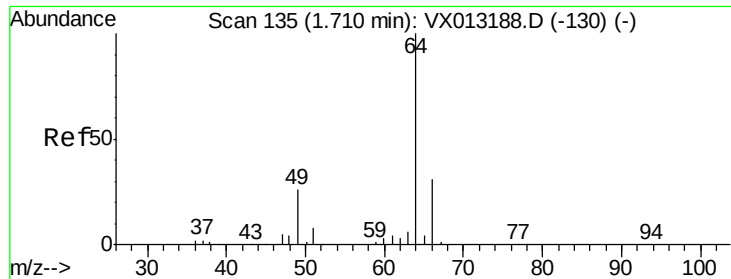
100

50

0

Time--> 1.60 1.62 1.64 1.66





#6

Chloroethane

Concen: Below Cal

RT: 1.72 min Scan# 137

Delta R.T. 0.01 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampled :

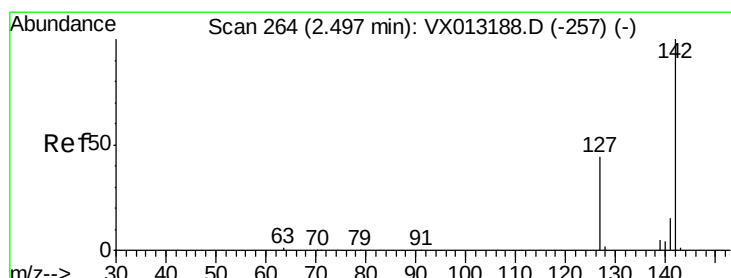
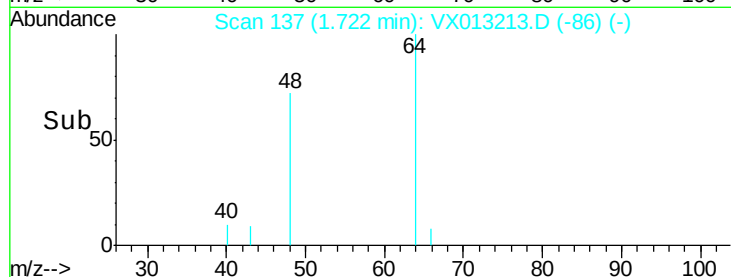
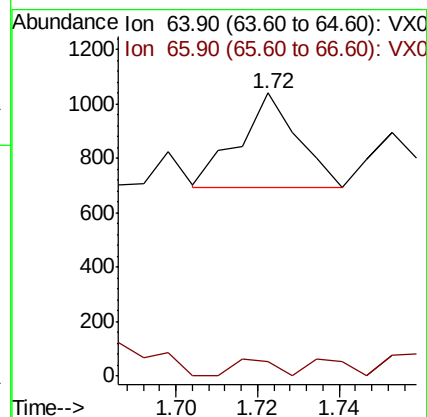
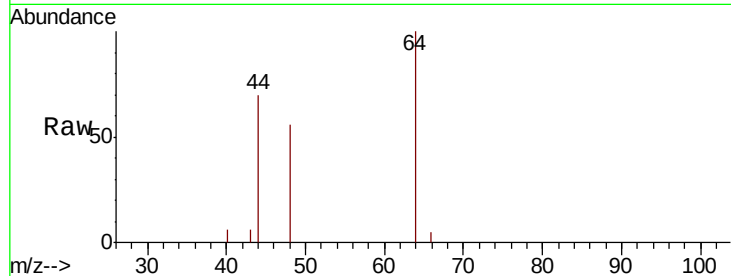
S32-0673DL

Tot Ion: 64 Resp: 345

Ion Ratio Lower Upper

64 100

66 15.9 25.0 37.6#



#10

Methyl Iodide

Concen: 3.609 ug/l

RT: 2.51 min Scan# 266

Delta R.T. 0.01 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

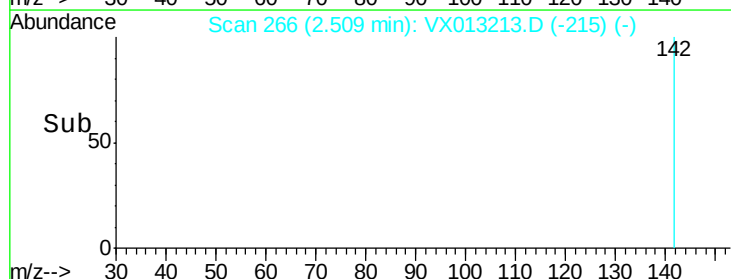
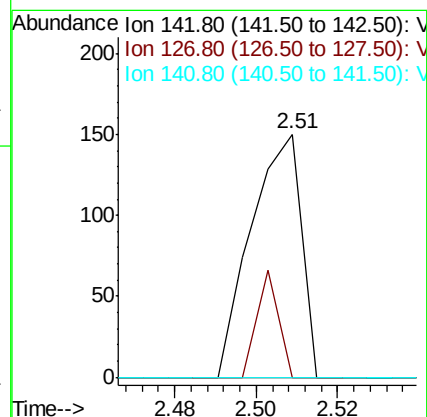
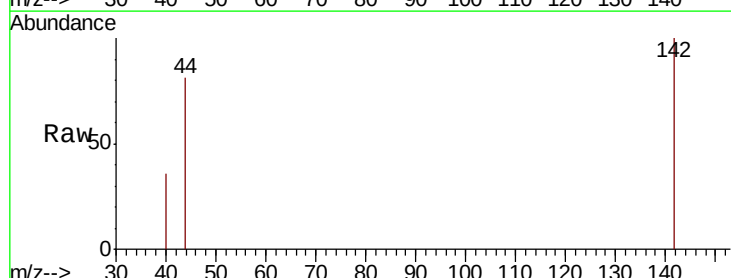
Tgt Ion: 142 Resp: 129

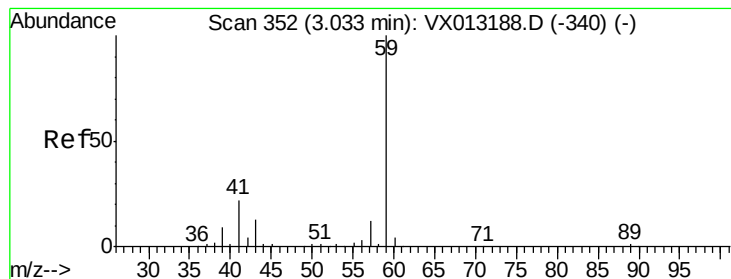
Ion Ratio Lower Upper

142 100

127 18.6 35.6 53.4#

141 0.0 11.6 17.4#



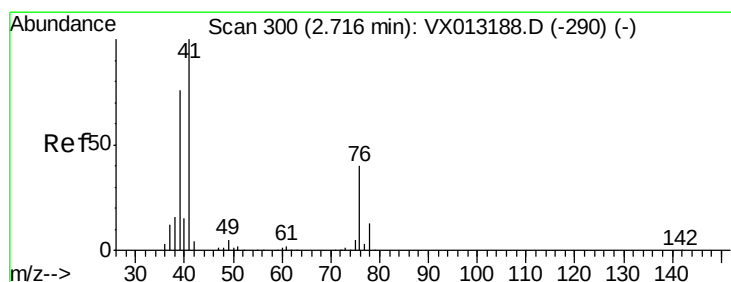
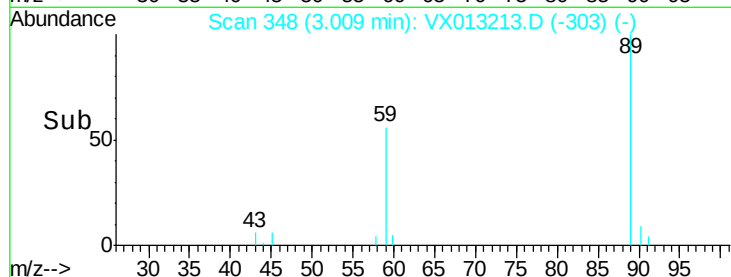
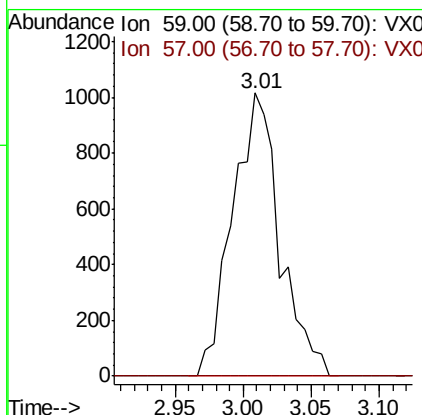
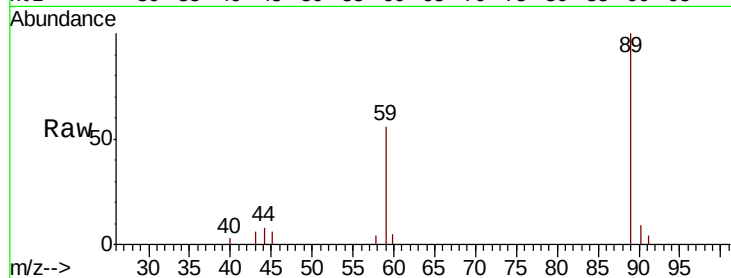


#11

Tert butyl alcohol  
 Concen: 5.906 ug/l  
 RT: 3.01 min Scan# 348  
 Delta R.T. -0.02 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

Instrument :  
 MSVOA\_X  
 ClientSampled :  
 S32-0673DL

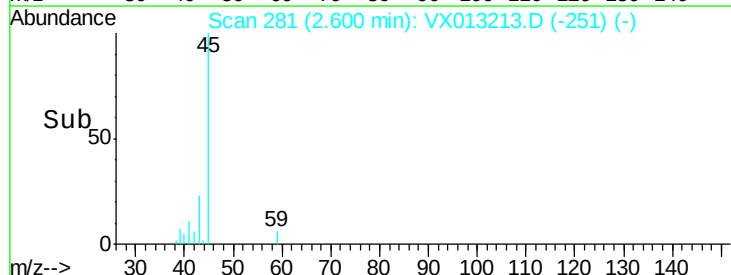
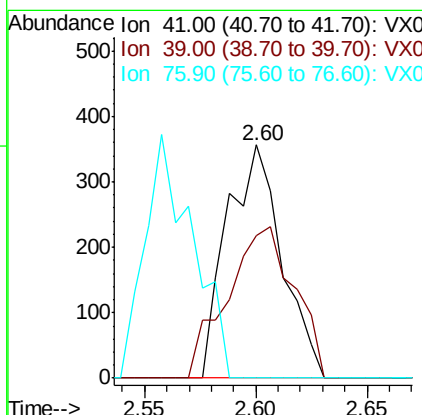
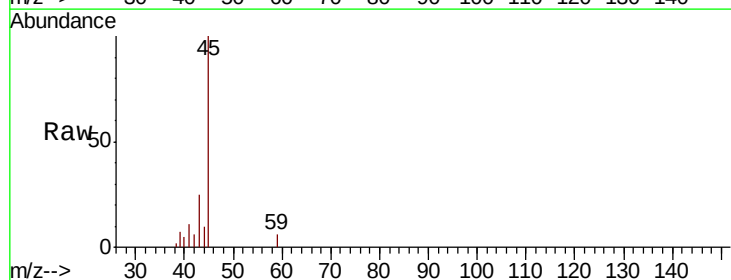
Tot Ion: 59 Resp: 2468  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.2 12.4#

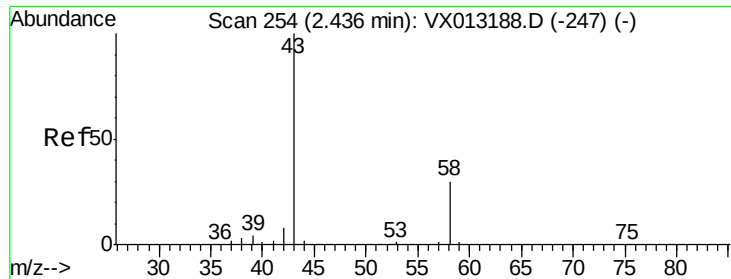


#14

Allyl chloride  
 Concen: 0.290 ug/l  
 RT: 2.60 min Scan# 281  
 Delta R.T. -0.12 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

Tgt Ion: 41 Resp: 609  
 Ion Ratio Lower Upper  
 41 100  
 39 79.1 54.6 81.8  
 76 0.0 29.8 44.6#





#16

Acetone

Concen: 0.886 ug/l

RT: 2.44 min Scan# 254

Delta R.T. -0.00 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampled :

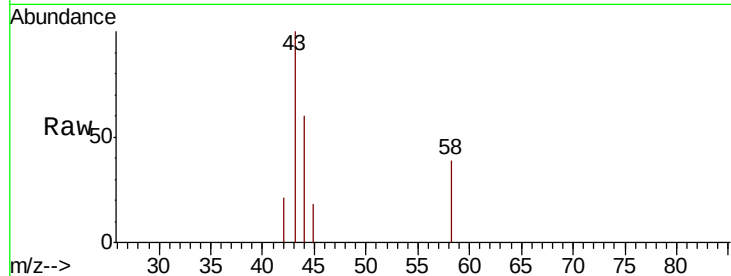
S32-0673DL

Tot Ion: 43 Resp: 684

Ion Ratio Lower Upper

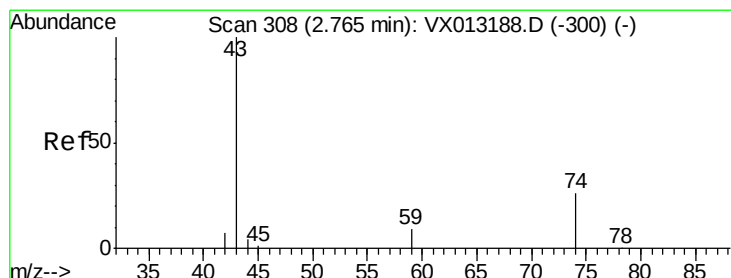
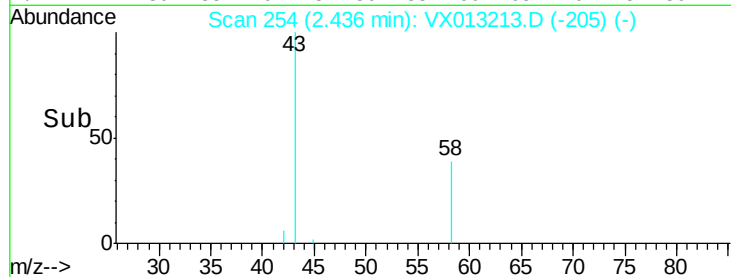
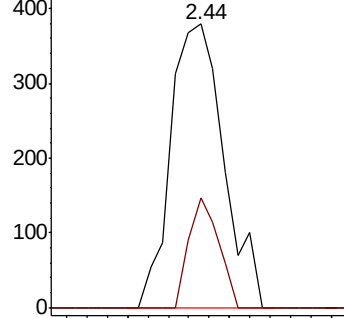
43 100

58 38.8 23.8 35.6#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#18

Methyl Acetate

Concen: 1.005 ug/l

RT: 2.78 min Scan# 310

Delta R.T. 0.01 min

Lab File: VX013213.D

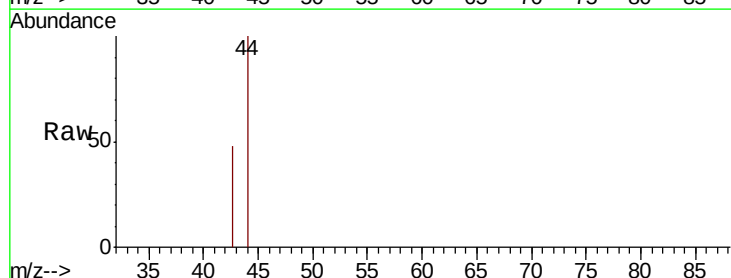
Acq: 24 Oct 2019 15:52

Tgt Ion: 43 Resp: 62

Ion Ratio Lower Upper

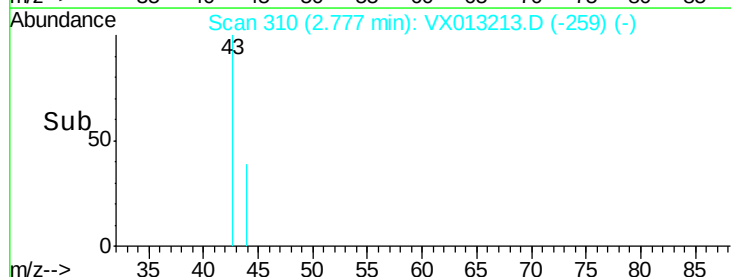
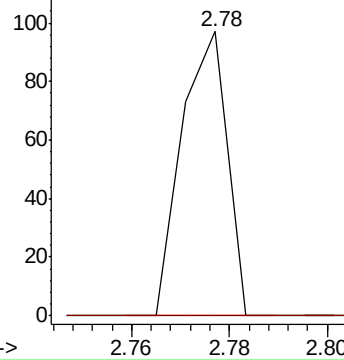
43 100

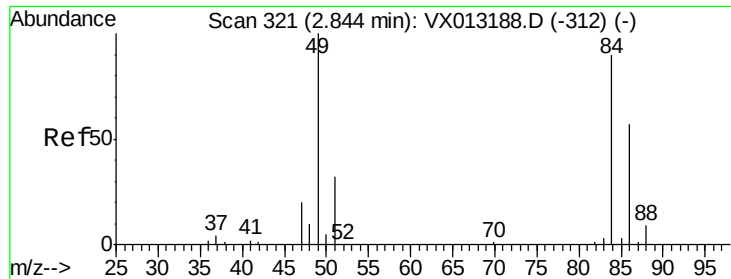
74 0.0 20.9 31.3#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 74.00 (73.70 to 74.70): VX0

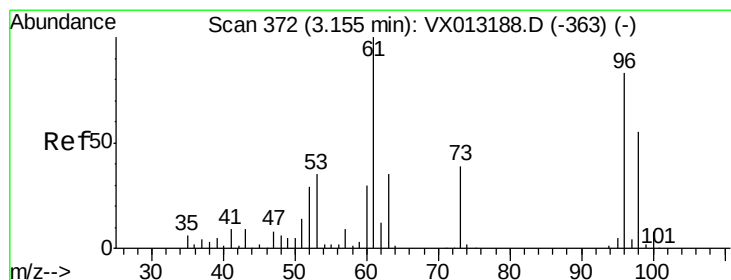
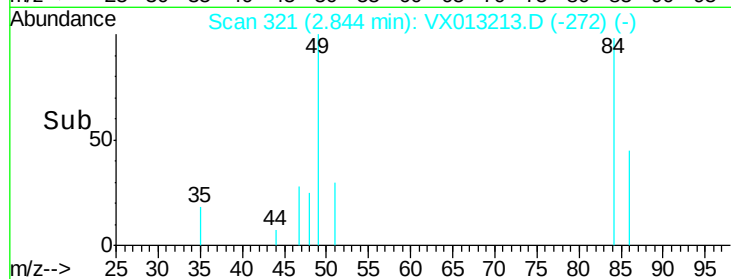
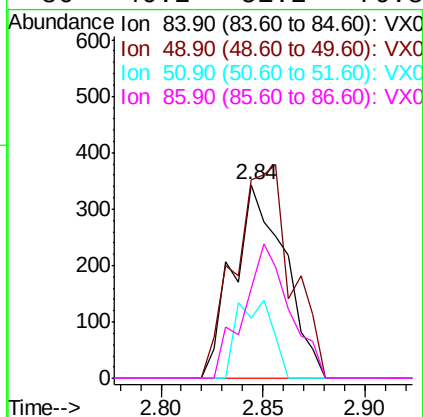
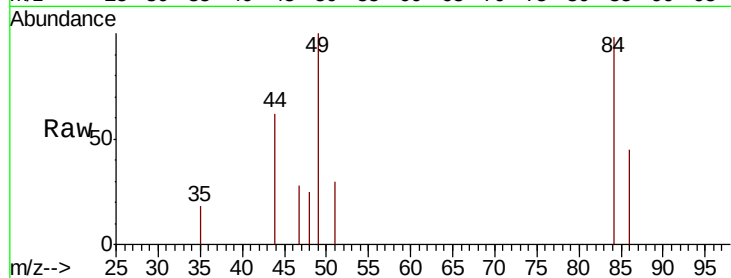




#20  
Methylene Chloride  
Concen: 0.706 ug/l  
RT: 2.84 min Scan# 321  
Delta R.T. 0.00 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

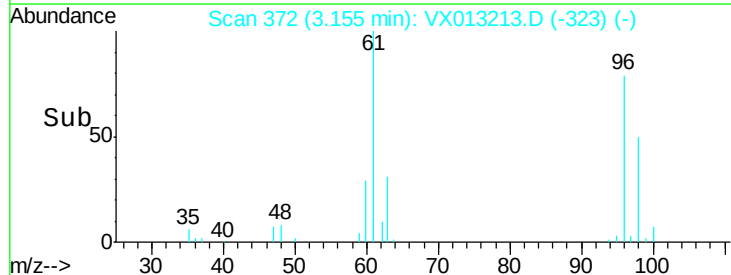
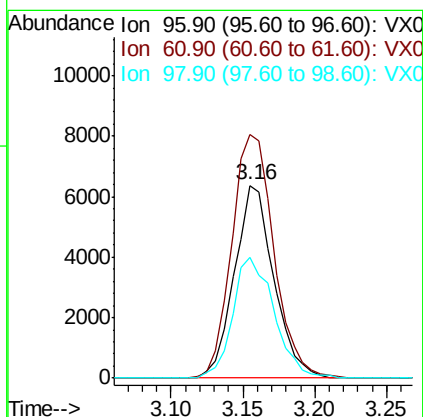
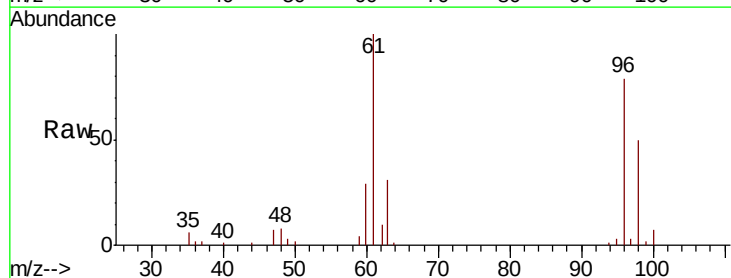
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0673DL

Tot Ion: 84 Resp: 606  
Ion Ratio Lower Upper  
84 100  
49 102.0 89.2 133.8  
51 30.8 28.8 43.2  
86 46.2 51.2 76.8#

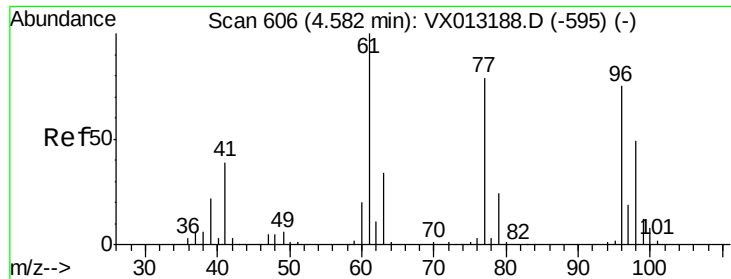


#21  
trans-1,2-Dichloroethene  
Concen: 9.105 ug/l  
RT: 3.16 min Scan# 372  
Delta R.T. 0.00 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Tgt Ion: 96 Resp: 12096  
Ion Ratio Lower Upper  
96 100  
61 126.4 96.9 145.3  
98 62.9 53.0 79.4





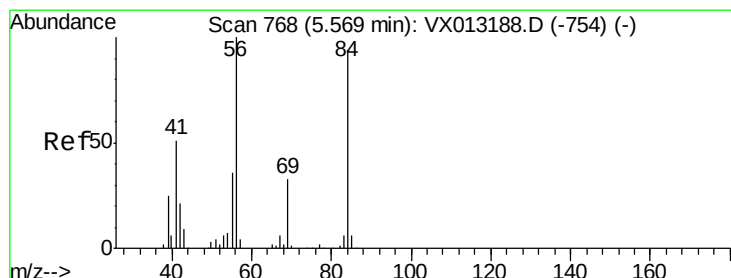
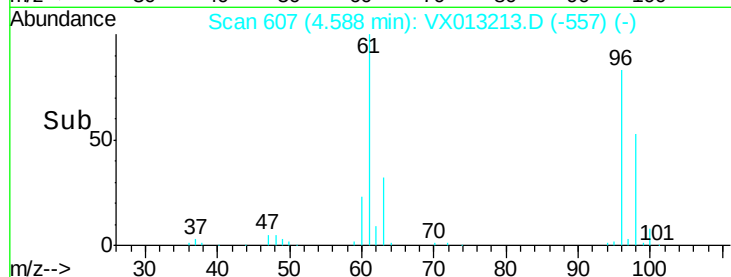
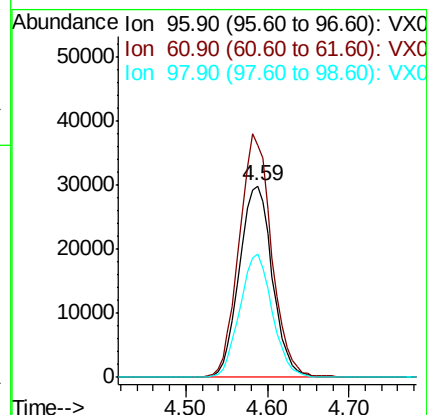
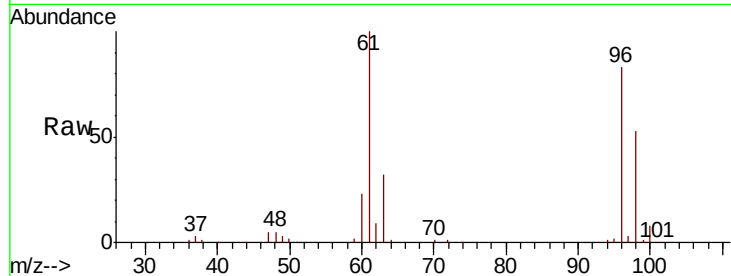


#27

cis-1,2-Dichloroethene  
Concen: 51.204 ug/l  
RT: 4.59 min Scan# 607  
Delta R.T. 0.01 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0673DL

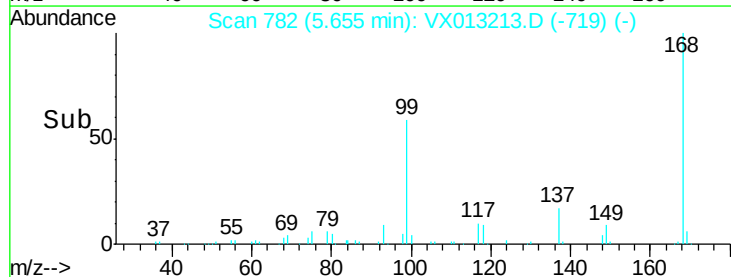
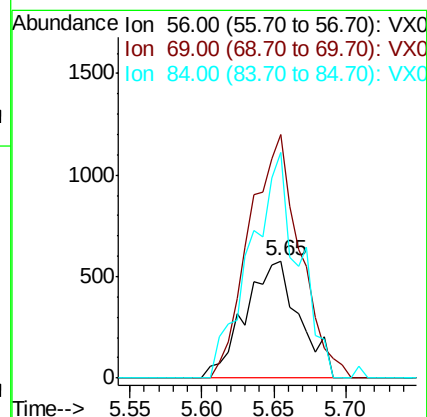
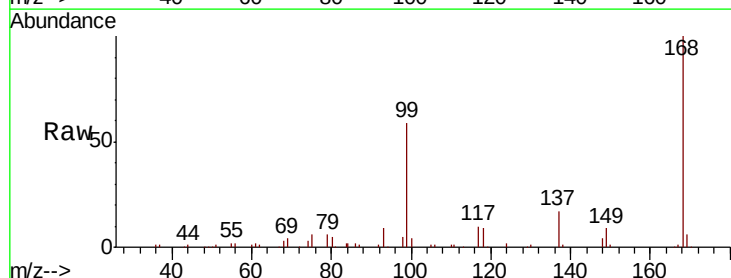
Tot Ion: 96 Resp: 83680  
Ion Ratio Lower Upper  
96 100  
61 124.8 0.0 290.4  
98 63.4 0.0 130.4

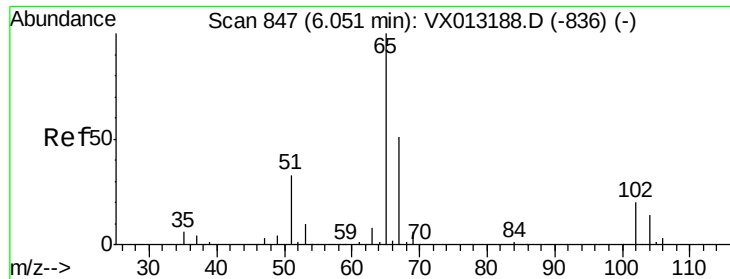


#31

Cyclohexane  
Concen: 0.713 ug/l  
RT: 5.65 min Scan# 782  
Delta R.T. 0.09 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Tgt Ion: 56 Resp: 1511  
Ion Ratio Lower Upper  
56 100  
69 207.8 26.3 39.5#  
84 192.9 73.8 110.6#

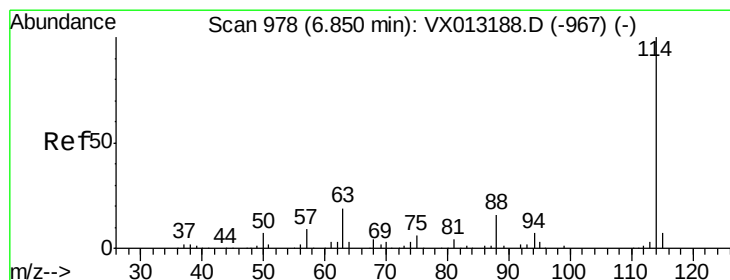
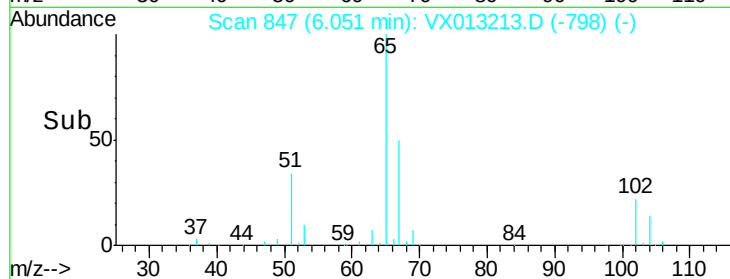
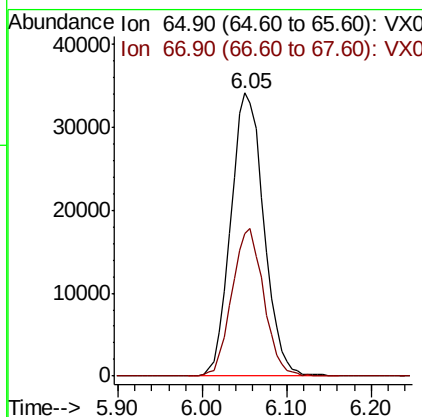
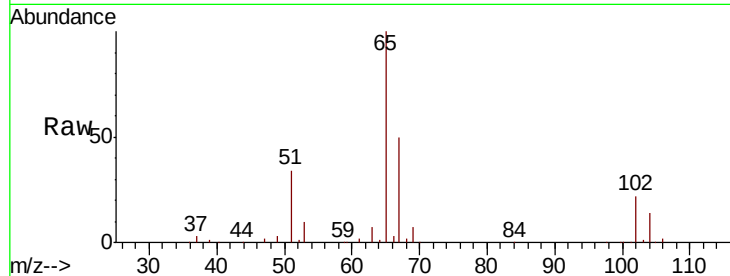




#33  
 1,2-Dichloroethane-d4  
 Concen: 55.217 ug/l  
 RT: 6.05 min Scan# 847  
 Delta R.T. -0.00 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

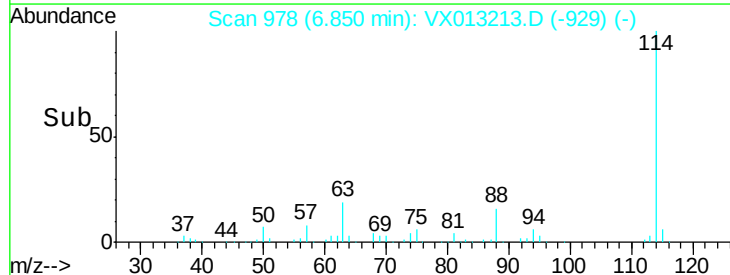
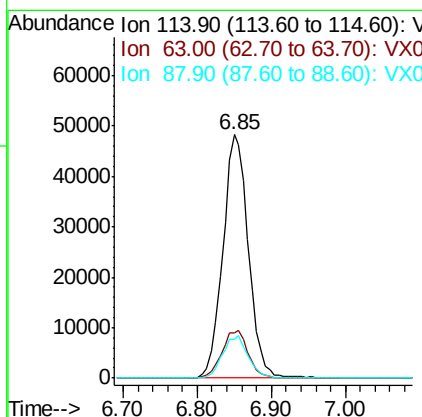
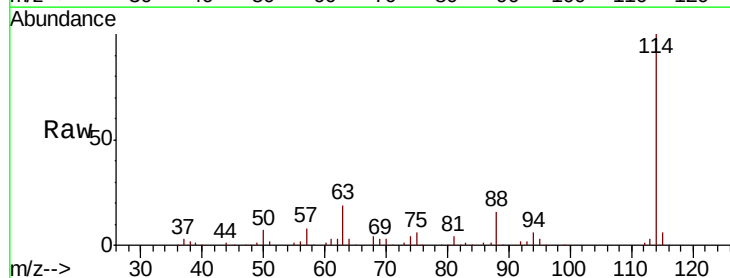
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0673DL

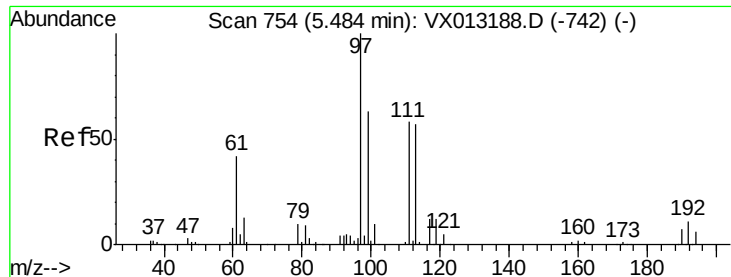
Tot Ion: 65 Resp: 90468  
 Ion Ratio Lower Upper  
 65 100  
 67 50.0 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.85 min Scan# 978  
 Delta R.T. -0.00 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

Tgt Ion: 114 Resp: 115022  
 Ion Ratio Lower Upper  
 114 100  
 63 18.8 0.0 39.0  
 88 16.0 0.0 32.0

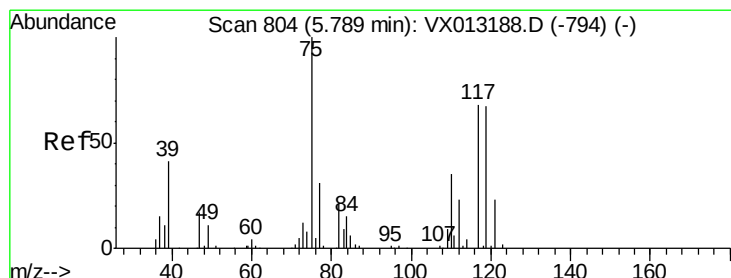
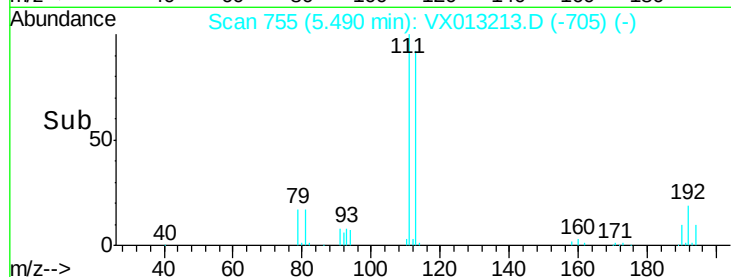
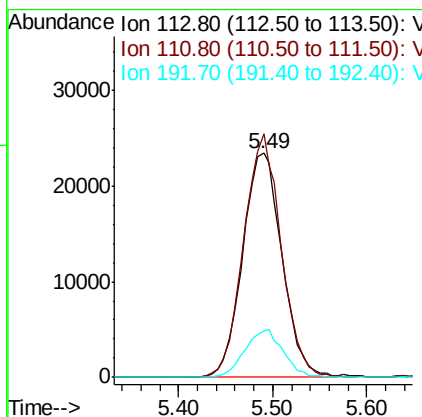
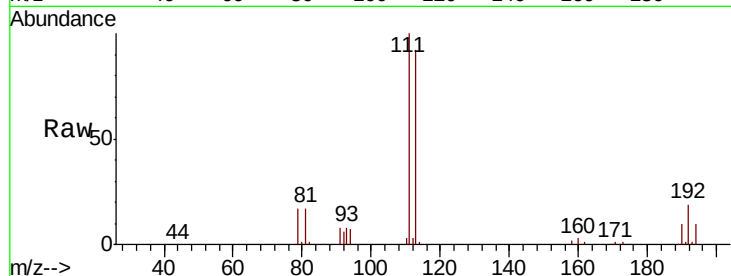




#35  
 Dibromofluoromethane  
 Concen: 53.451 ug/l  
 RT: 5.49 min Scan# 755  
 Delta R.T. 0.01 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

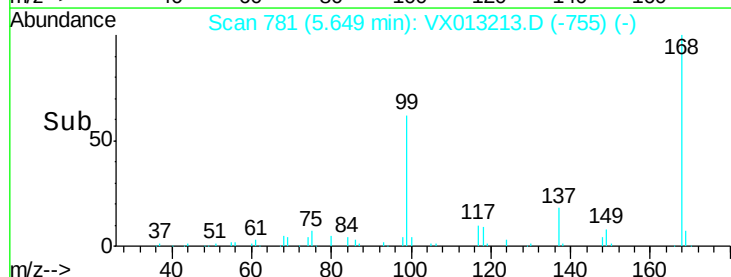
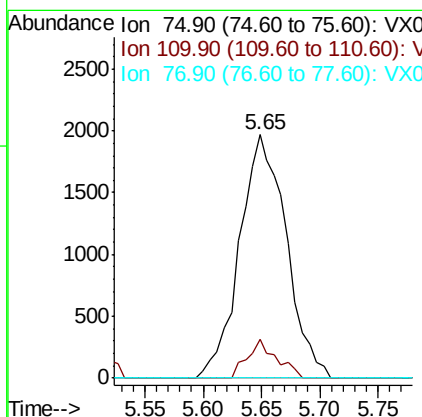
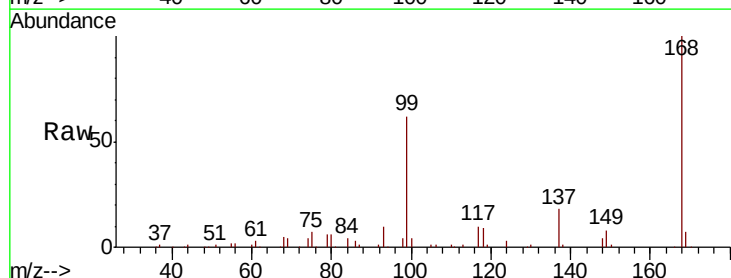
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S32-0673DL

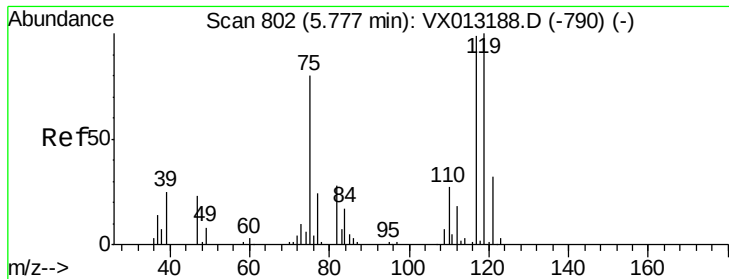
Tot Ion:113 Resp: 68560  
 Ion Ratio Lower Upper  
 113 100  
 111 103.5 80.3 120.5  
 192 20.7 15.9 23.9



#36  
 1,1-Dichloropropene  
 Concen: 2.775 ug/l  
 RT: 5.65 min Scan# 781  
 Delta R.T. -0.14 min  
 Lab File: VX013213.D  
 Acq: 24 Oct 2019 15:52

Tgt Ion: 75 Resp: 5483  
 Ion Ratio Lower Upper  
 75 100  
 110 10.0 17.6 52.9#  
 77 0.0 24.7 37.1#

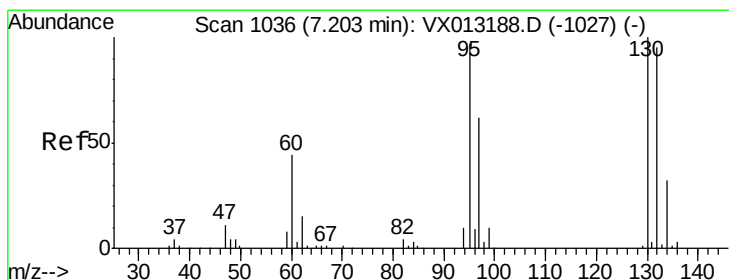
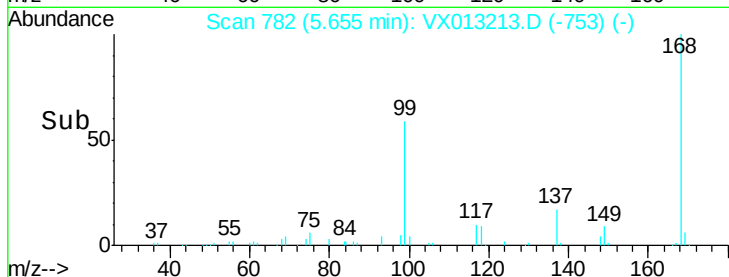
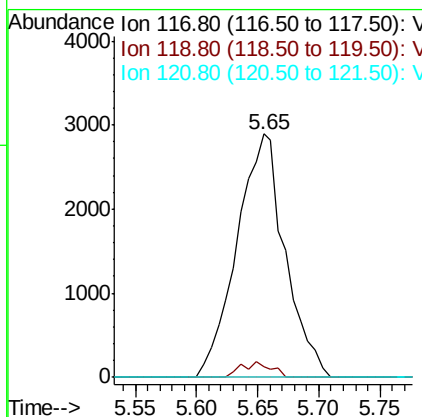
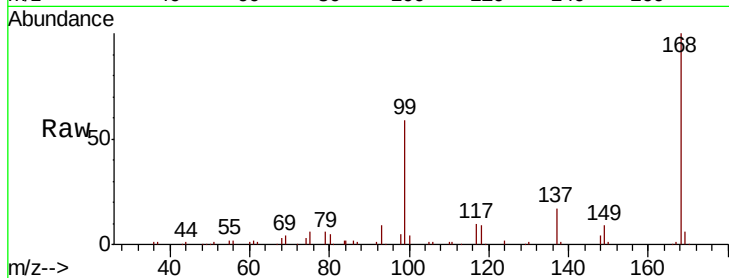




#38  
Carbon Tetrachloride  
Concen: 3.729 ug/l  
RT: 5.65 min Scan# 782  
Delta R.T. -0.12 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

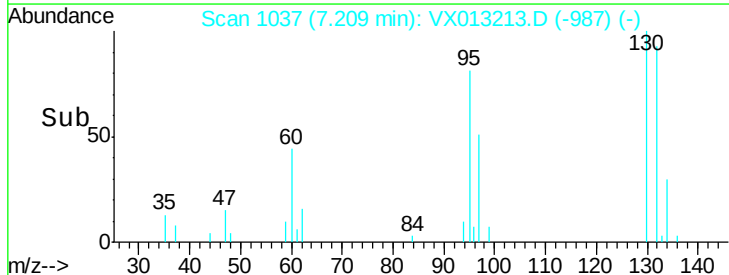
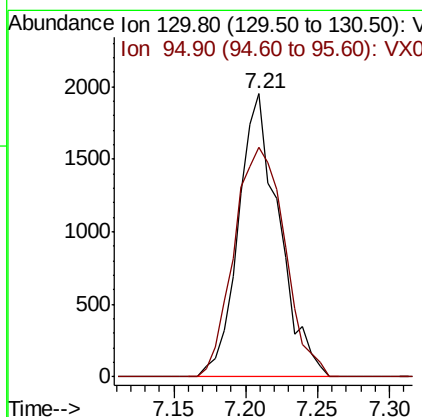
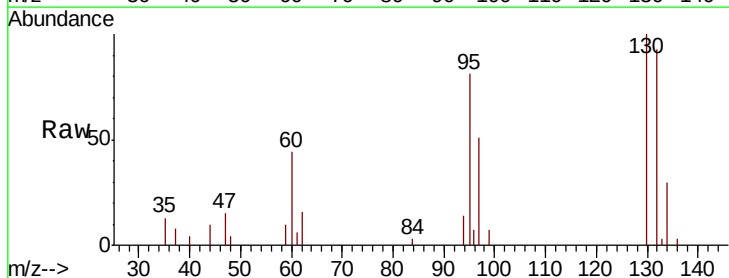
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0673DL

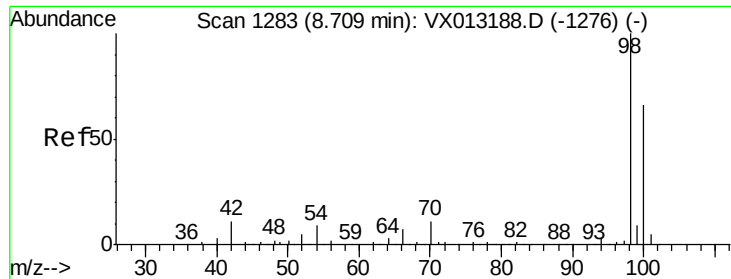
Tot Ion:117 Resp: 7928  
Ion Ratio Lower Upper  
117 100  
119 4.4 80.1 120.1#  
121 0.0 25.5 38.3#



#44  
Trichloroethene  
Concen: 2.325 ug/l  
RT: 7.21 min Scan# 1037  
Delta R.T. 0.01 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Tgt Ion:130 Resp: 3812  
Ion Ratio Lower Upper  
130 100  
95 81.3 0.0 193.6

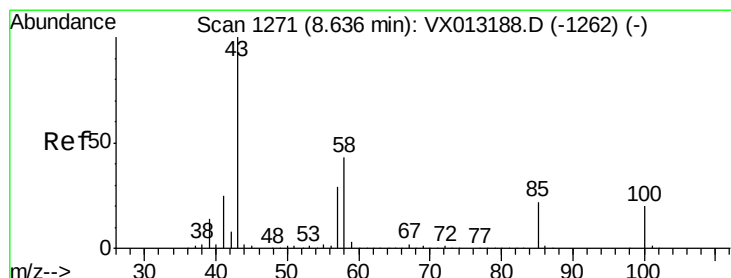
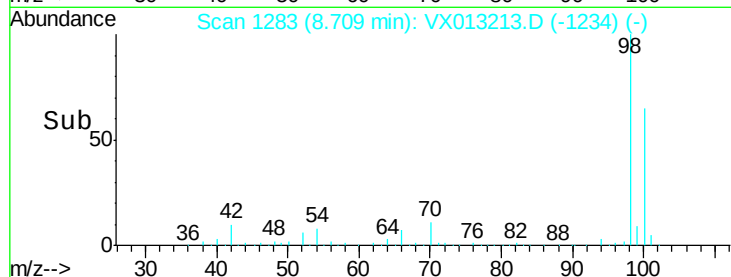
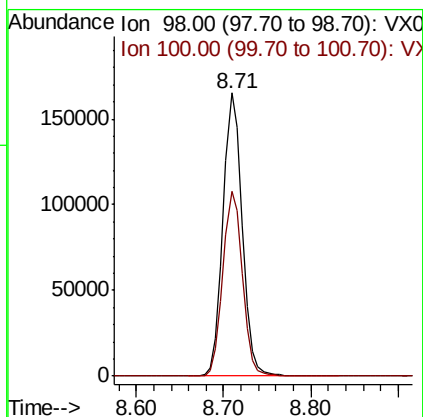
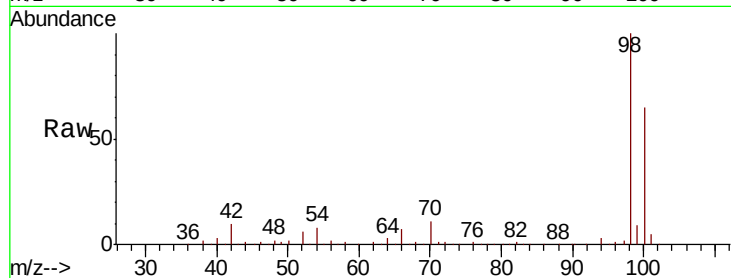




#50  
Toluene-d8  
Concen: 52.824 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. -0.00 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

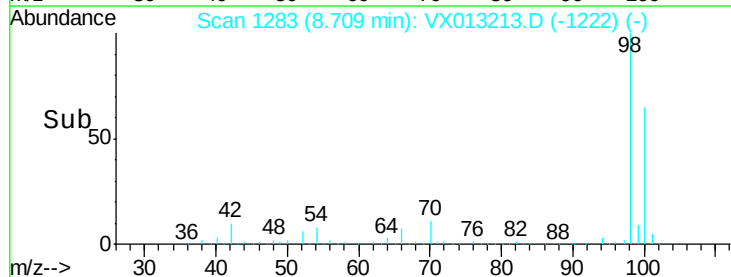
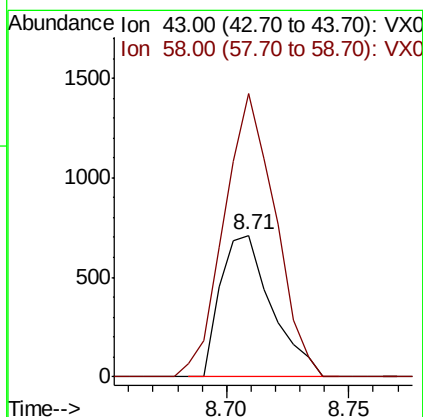
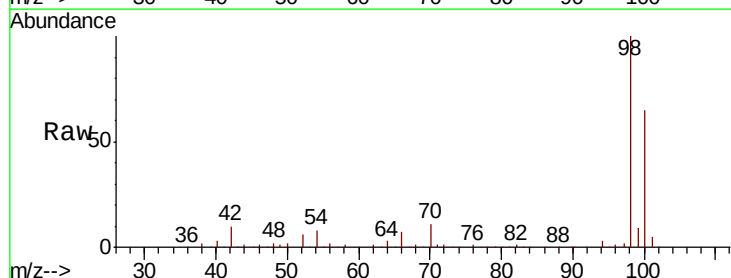
Instrument :  
MSVOA\_X  
ClientSampled :  
S32-0673DL

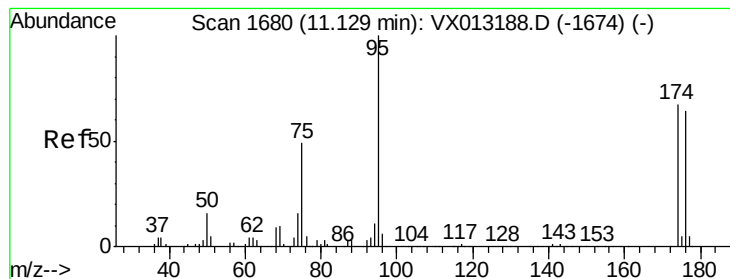
Tot Ion: 98 Resp: 251094  
Ion Ratio Lower Upper  
98 100  
100 66.5 53.3 79.9



#51  
4-Methyl-2-Pentanone  
Concen: 0.530 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.07 min  
Lab File: VX013213.D  
Acq: 24 Oct 2019 15:52

Tgt Ion: 43 Resp: 1029  
Ion Ratio Lower Upper  
43 100  
58 200.8 33.9 50.9#





#62

4-Bromofluorobenzene

Concen: 47.727 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.00 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampled :

S32-0673DL

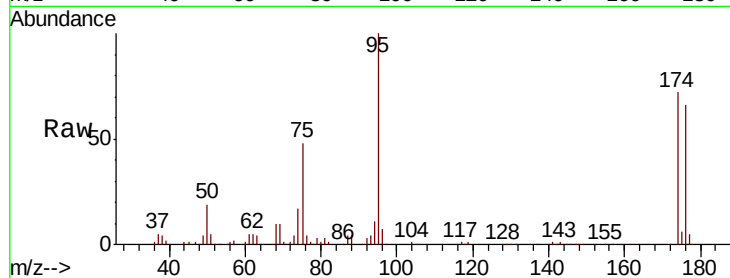
Tot Ion: 95 Resp: 89794

Ion Ratio Lower Upper

95 100

174 79.6 0.0 152.4

176 71.9 0.0 146.0

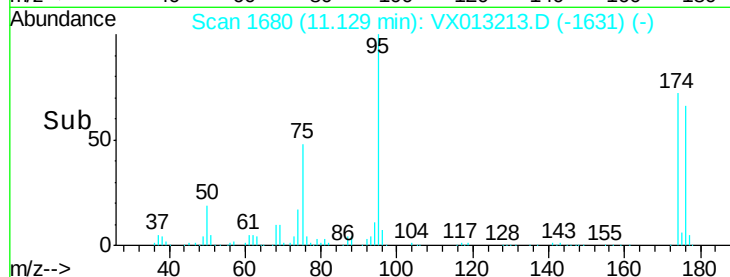


Abundance Ion 94.90 (94.60 to 95.60): VX013213.D (-1631) (-)

Ion 173.80 (173.50 to 174.50): VX013213.D (-1631) (-)

Ion 175.80 (175.50 to 176.50): VX013213.D (-1631) (-)

Time-->

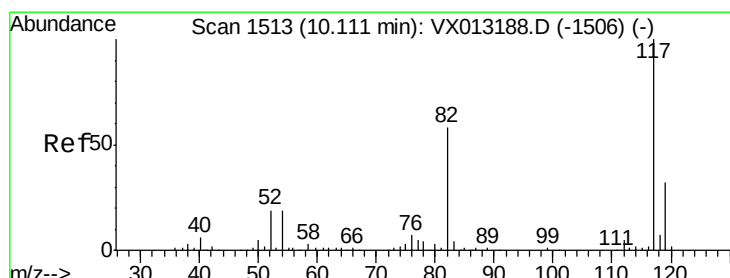


Abundance Ion 94.90 (94.60 to 95.60): VX013213.D (-1631) (-)

Ion 173.80 (173.50 to 174.50): VX013213.D (-1631) (-)

Ion 175.80 (175.50 to 176.50): VX013213.D (-1631) (-)

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. -0.00 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

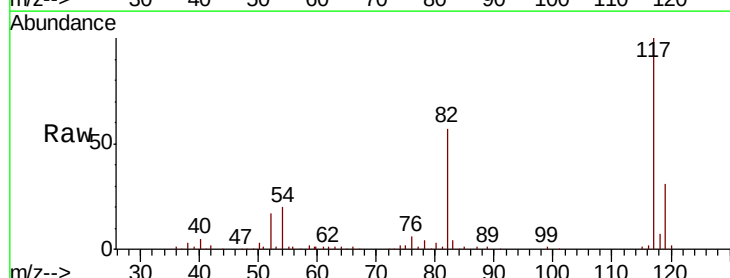
Tgt Ion: 117 Resp: 110025

Ion Ratio Lower Upper

117 100

82 56.5 46.5 69.7

119 31.1 25.2 37.8

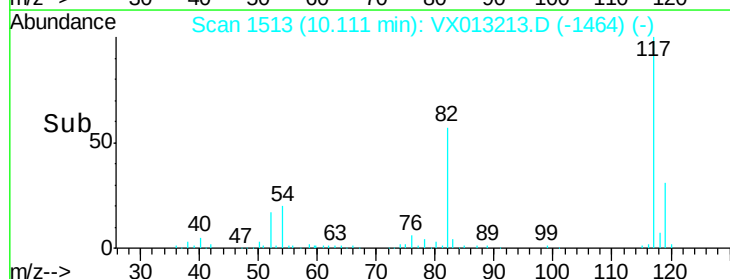


Abundance Ion 116.90 (116.60 to 117.60): VX013213.D (-1464) (-)

Ion 82.00 (81.70 to 82.70): VX013213.D (-1464) (-)

Ion 118.90 (118.60 to 119.60): VX013213.D (-1464) (-)

Time-->

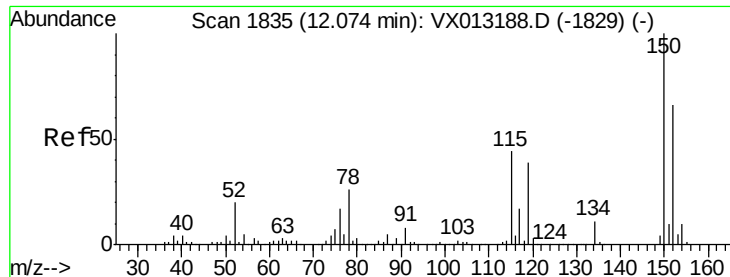


Abundance Ion 116.90 (116.60 to 117.60): VX013213.D (-1464) (-)

Ion 82.00 (81.70 to 82.70): VX013213.D (-1464) (-)

Ion 118.90 (118.60 to 119.60): VX013213.D (-1464) (-)

Time-->



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. -0.00 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampleId :

S32-0673DL

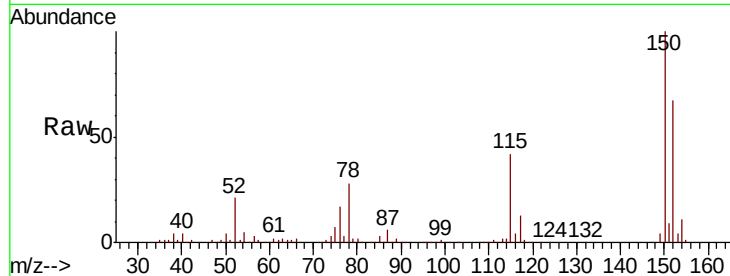
Tot Ion:152 Resp: 69810

Ion Ratio Lower Upper

152 100

115 62.5 46.6 139.8

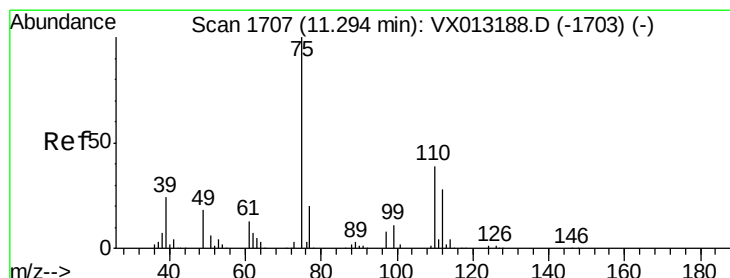
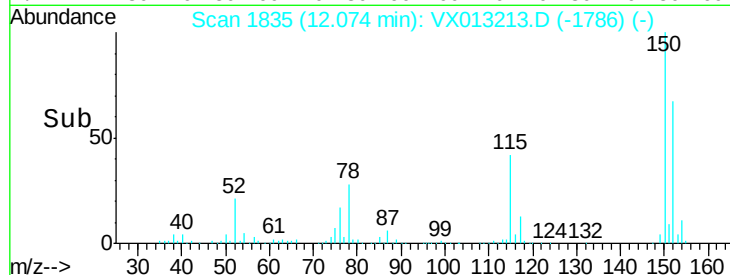
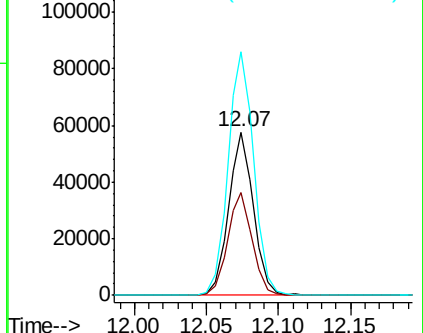
150 154.5 0.0 354.0



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: 27.067 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. -0.16 min

Lab File: VX013213.D

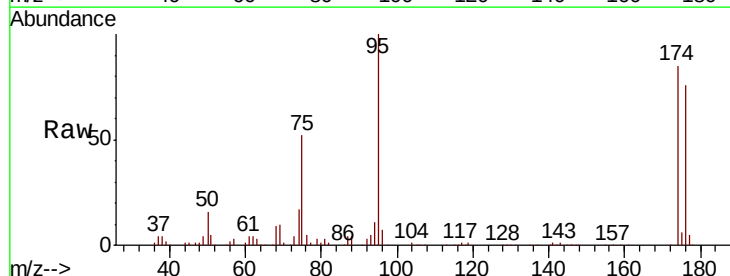
Acq: 24 Oct 2019 15:52

Tgt Ion: 75 Resp: 45542

Ion Ratio Lower Upper

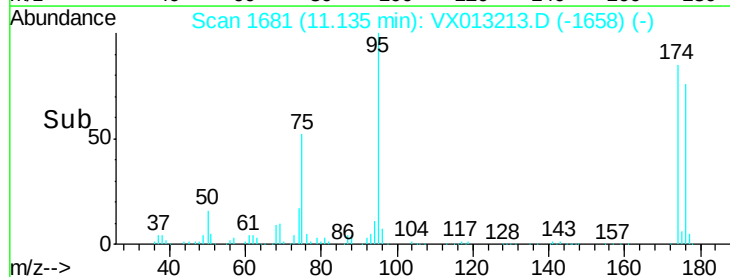
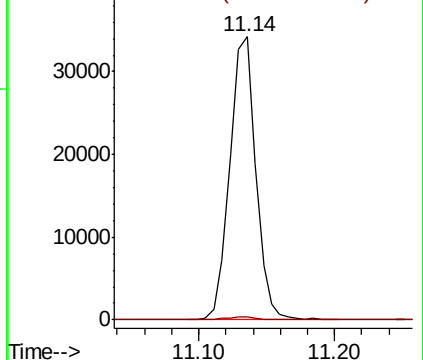
75 100

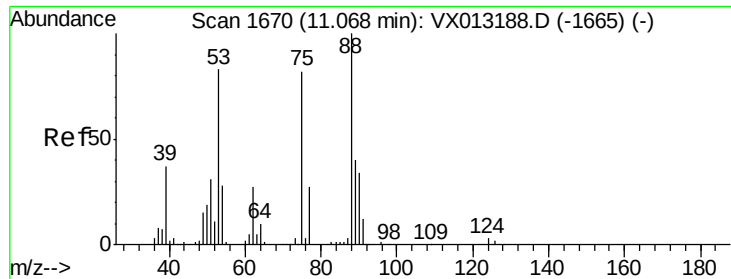
77 1.2 19.1 57.5#



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: 74.380 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. 0.07 min

Lab File: VX013213.D

Acq: 24 Oct 2019 15:52

Instrument :

MSVOA\_X

ClientSampleId :

S32-0673DL

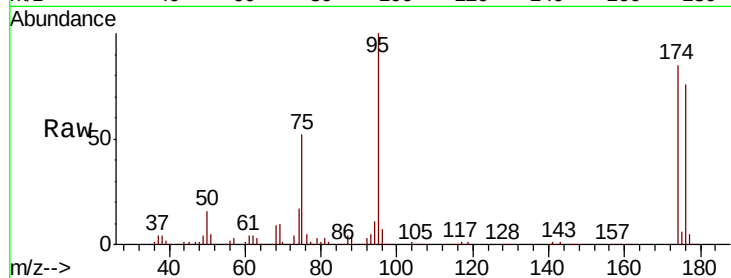
Tot Ion: 75 Resp: 45542

Ion Ratio Lower Upper

75 100

53 0.0 77.9 116.9#

89 0.0 37.3 55.9#



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

