

Data File : VD064499.D  
Acq On : 11 Dec 2019 14:19  
Operator : VA/SY  
Sample : K6247-04  
Misc : 7.84G/5.00ml/MSVOA\_D/SOIL  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
RT3465

Quant Time: Dec 12 03:05:54 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D112719S.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 29 07:18:03 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 17795    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 25082    | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 24967    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 12943    | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.33   | 65  | 9100     | 56.50 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 113.00% |      |
| 35) Dibromofluoromethane    | 7.92   | 113 | 8293     | 52.48 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 104.96% |      |
| 50) Toluene-d8              | 10.34  | 98  | 30351    | 50.99 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 101.98% |      |
| 62) 4-Bromofluorobenzene    | 12.64  | 95  | 10645    | 55.64 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 111.28% |      |

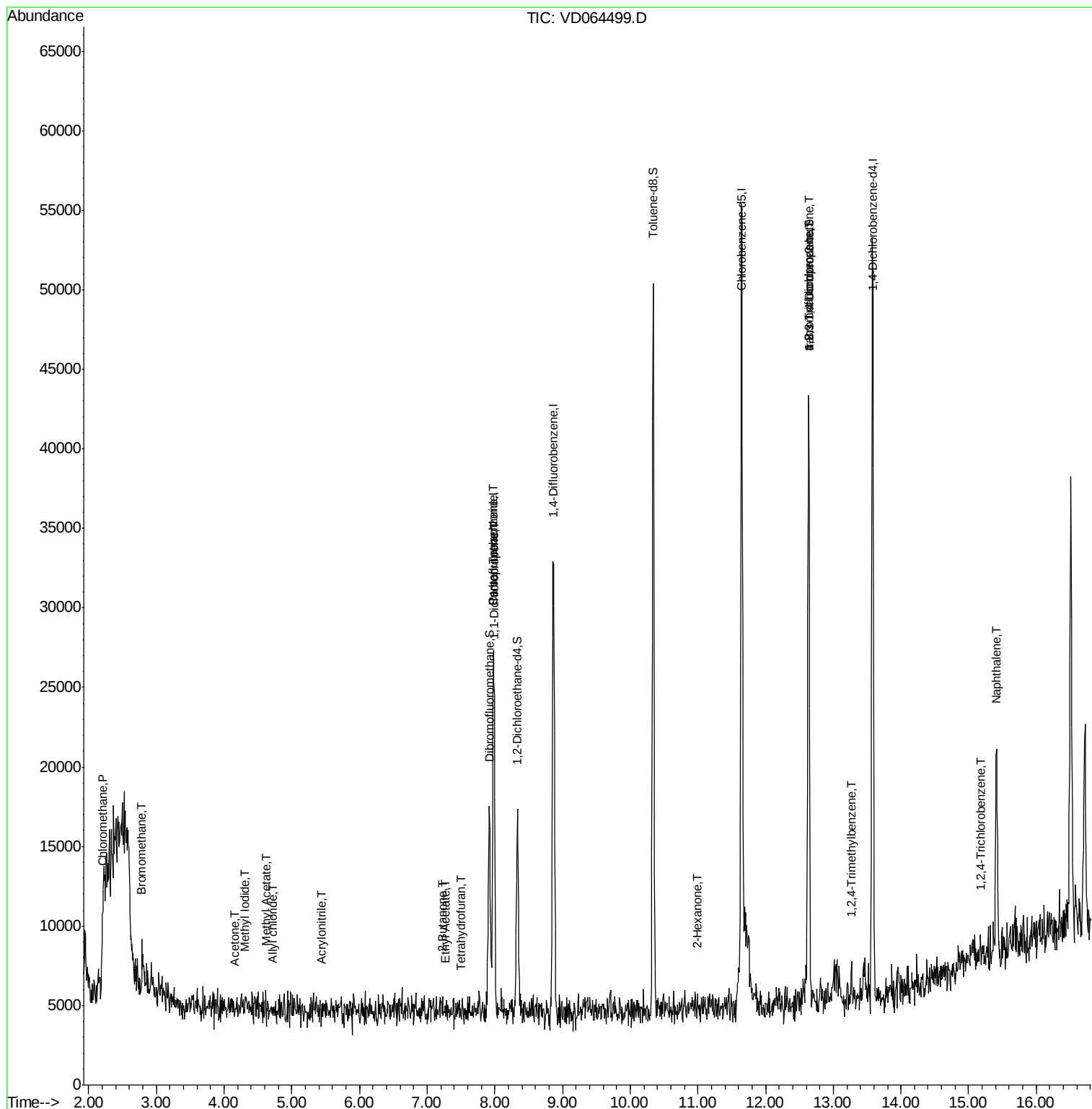
| Target Compounds               |       |     |       |           | Qvalue |     |
|--------------------------------|-------|-----|-------|-----------|--------|-----|
| 3) Chloromethane               | 2.20  | 50  | 1017  | 5.001     | ug/l   | 89  |
| 5) Bromomethane                | 2.79  | 94  | 1182  | 6.807     | ug/l # | 73  |
| 10) Methyl Iodide              | 4.31  | 142 | 859   | 4.860     | ug/l # | 79  |
| 14) Allyl chloride             | 4.71  | 41  | 267   | 1.067     | ug/l # | 49  |
| 15) Acrylonitrile              | 5.43  | 53  | 69    | 1.945     | ug/l # | 16  |
| 16) Acetone                    | 4.16  | 43  | 422   | 12.965    | ug/l # | 47  |
| 18) Methyl Acetate             | 4.61  | 43  | 269   | 2.833     | ug/l # | 51  |
| 25) 2-Butanone                 | 7.22  | 43  | 85    | 1.847     | ug/l # | 49  |
| 29) Tetrahydrofuran            | 7.50  | 42  | 89    | 3.039     | ug/l # | 33  |
| 31) Cyclohexane                | 7.98  | 56  | 517   | Below Cal | #      | 85  |
| 36) 1,1-Dichloropropene        | 7.99  | 75  | 1088  | 4.586     | ug/l # | 45  |
| 37) Ethyl Acetate              | 7.27  | 43  | 112   | 1.113     | ug/l # | 69  |
| 38) Carbon Tetrachloride       | 7.98  | 117 | 1792  | 7.157     | ug/l # | 11  |
| 59) 2-Hexanone                 | 10.99 | 43  | 148   | 2.178     | ug/l # | 26  |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75  | 5646  | 53.044    | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75  | 5646  | 115.665   | ug/l # | 9   |
| 84) 1,2,4-Trimethylbenzene     | 13.27 | 105 | 791   | 1.034     | ug/l # | 56  |
| 93) 1,2,4-Trichlorobenzene     | 15.17 | 180 | 372   | 1.303     | ug/l # | 73  |
| 95) Naphthalene                | 15.41 | 128 | 11047 | 23.180    | ug/l # | 94  |

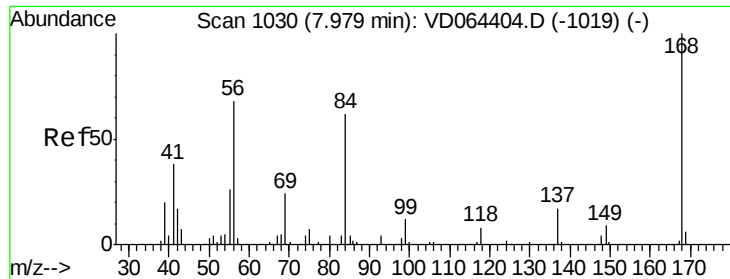
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

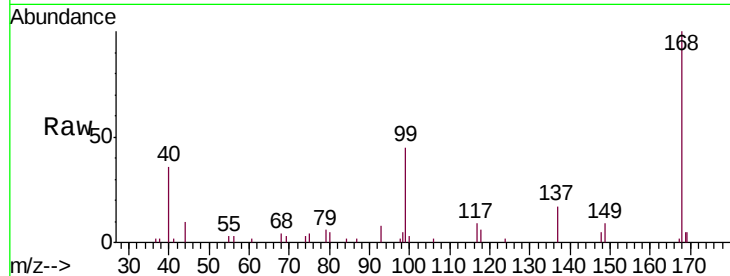
RT3465

Tgt Ion:168 Resp: 17795

Ion Ratio Lower Upper

168 100

99 45.4 40.7 61.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC

7.98

8000

6000

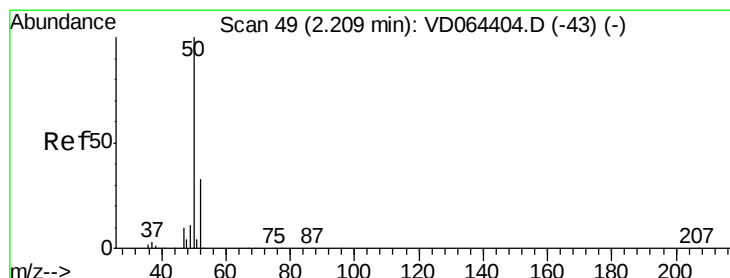
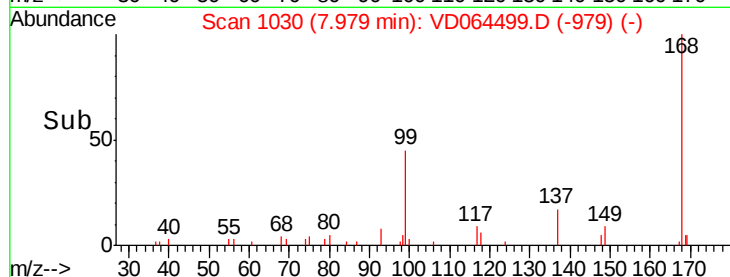
4000

2000

0

Time-->

7.90 7.95 8.00 8.05



#3

Chloromethane

Concen: 5.001 ug/l

RT: 2.20 min Scan# 48

Delta R.T. -0.01 min

Lab File: VD064499.D

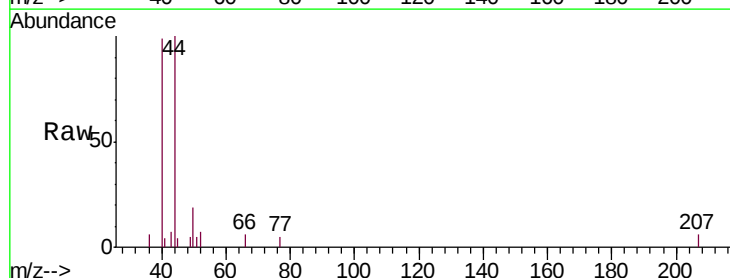
Acq: 11 Dec 2019 14:19

Tgt Ion: 50 Resp: 1017

Ion Ratio Lower Upper

50 100

52 39.8 26.7 40.1



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC

2.20

800

600

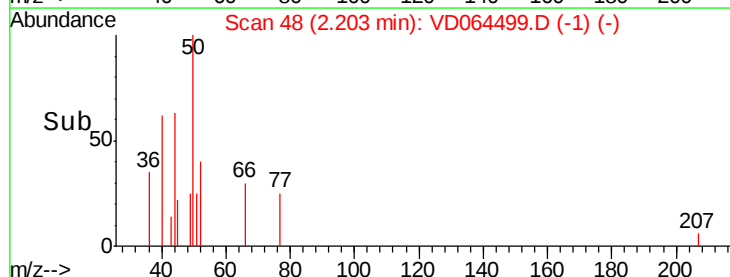
400

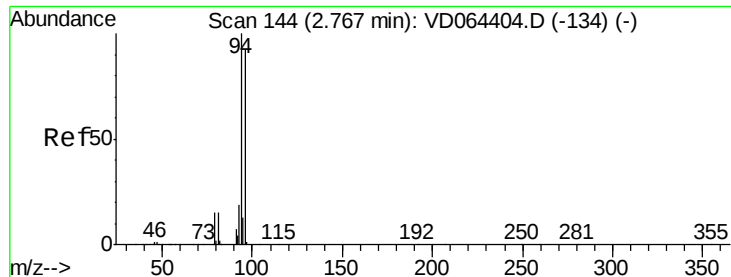
200

0

Time-->

2.16 2.18 2.20 2.22 2.24





#5

Bromomethane

Concen: 6.807 ug/l

RT: 2.79 min Scan# 147

Delta R.T. 0.02 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

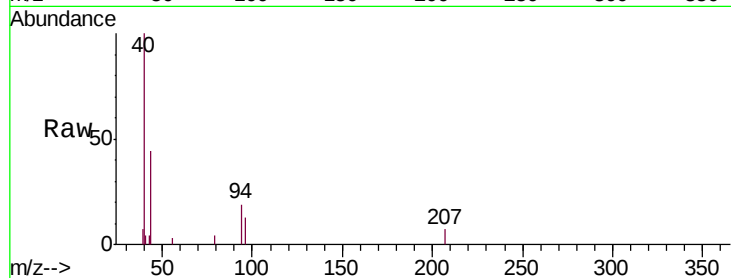
RT3465

Tgt Ion: 94 Resp: 1182

Ion Ratio Lower Upper

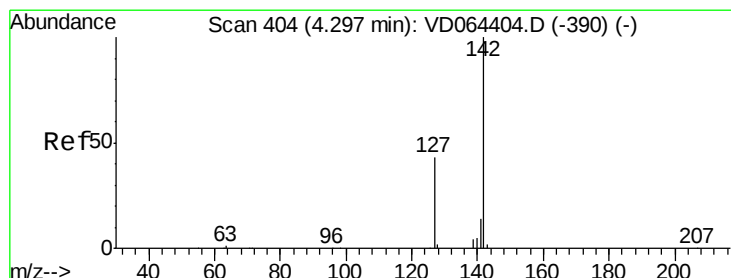
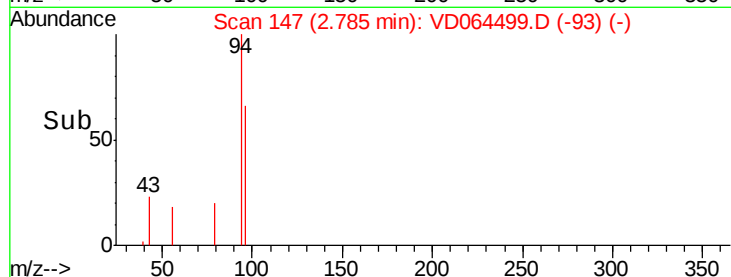
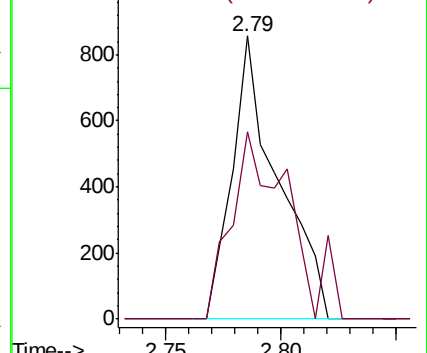
94 100

96 66.0 73.6 110.4#



Abundance Ion 93.90 (93.60 to 94.60): VDC

Ion 95.90 (95.60 to 96.60): VDC



#10

Methyl Iodide

Concen: 4.860 ug/l

RT: 4.31 min Scan# 407

Delta R.T. 0.02 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

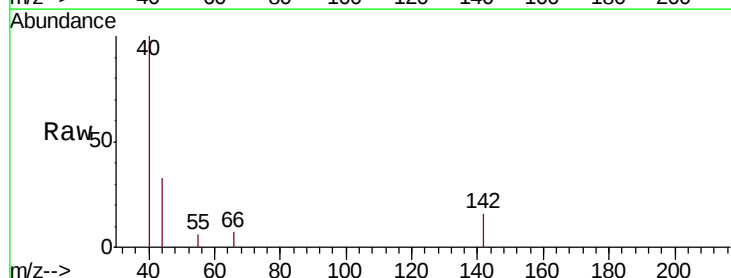
Tgt Ion: 142 Resp: 859

Ion Ratio Lower Upper

142 100

127 33.2 35.3 52.9#

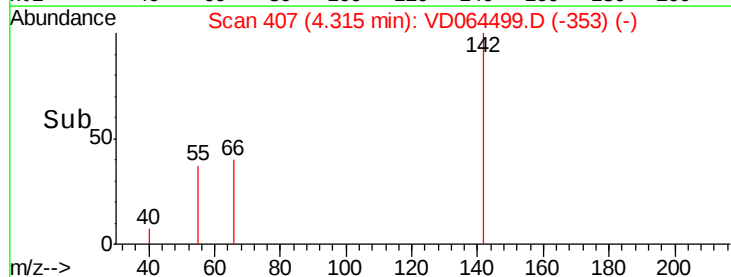
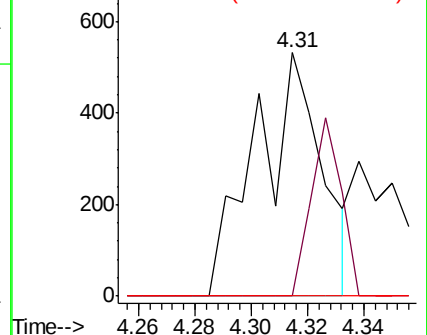
141 0.0 11.6 17.4#

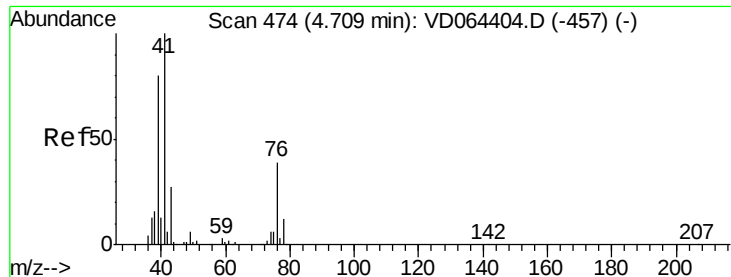


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V





#14

Allyl chloride

Concen: 1.067 ug/l

RT: 4.71 min Scan# 474

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

RT3465

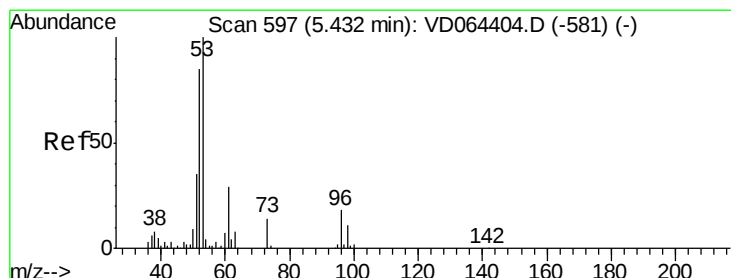
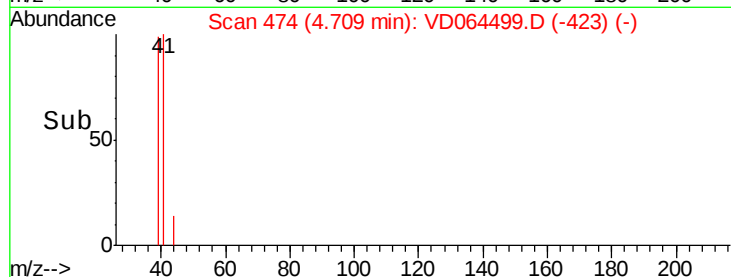
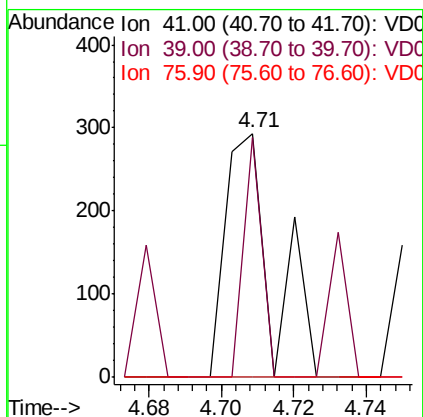
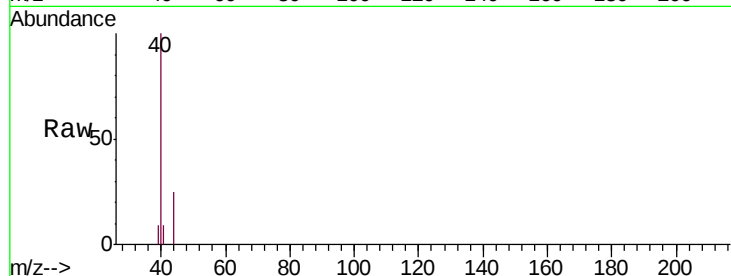
Tgt Ion: 41 Resp: 267

Ion Ratio Lower Upper

41 100

39 38.2 62.1 93.1#

76 0.0 29.8 44.8#



#15

Acrylonitrile

Concen: 1.945 ug/l

RT: 5.43 min Scan# 597

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

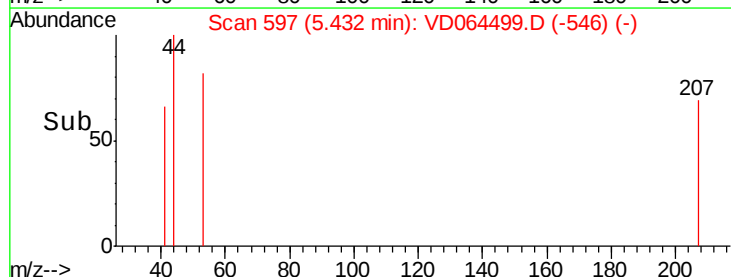
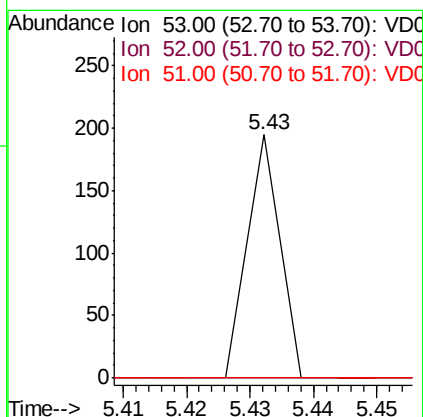
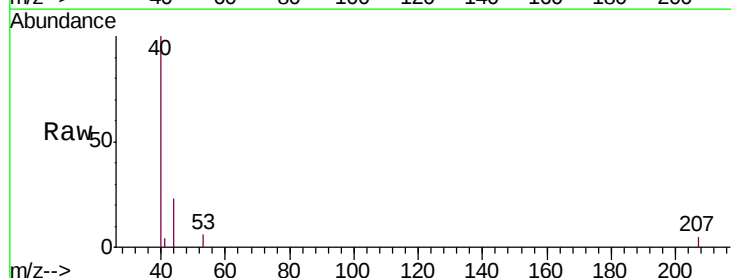
Tgt Ion: 53 Resp: 69

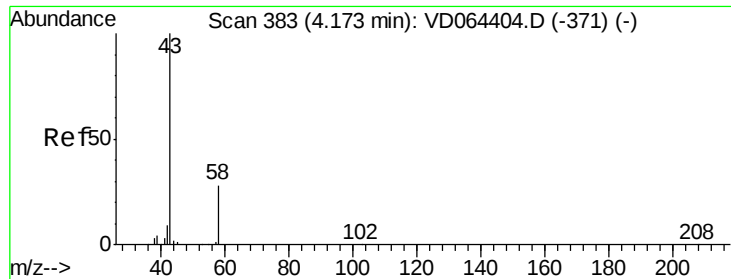
Ion Ratio Lower Upper

53 100

52 0.0 67.9 101.9#

51 0.0 30.6 45.8#





#16

Acetone

Concen: 12.965 ug/l

RT: 4.16 min Scan# 380

Delta R.T. -0.02 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

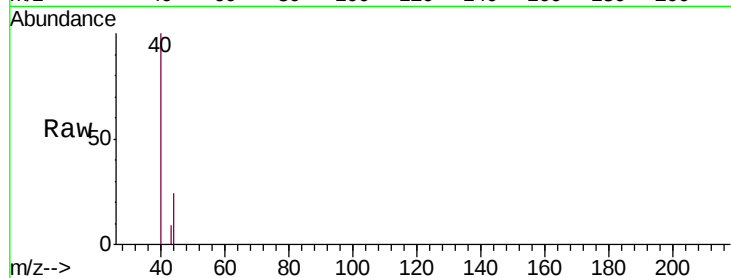
RT3465

Tgt Ion: 43 Resp: 422

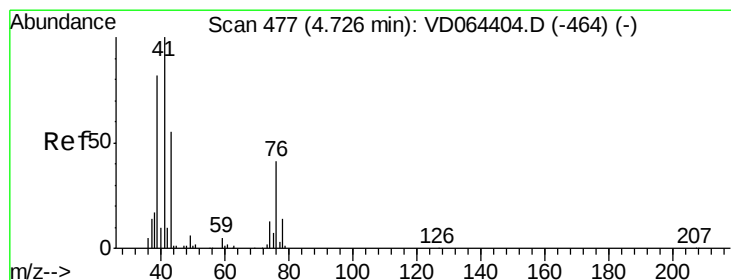
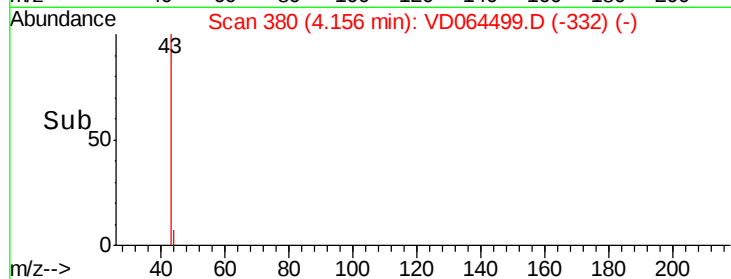
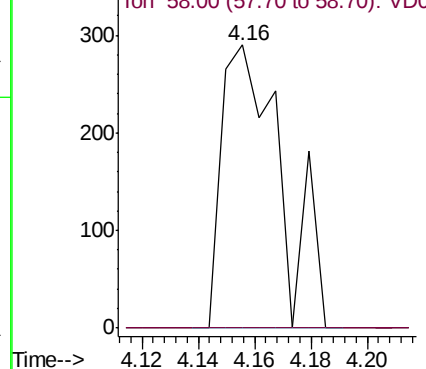
Ion Ratio Lower Upper

43 100

58 0.0 22.6 33.8#



Abundance Ion 43.00 (42.70 to 43.70): VDC



#18

Methyl Acetate

Concen: 2.833 ug/l

RT: 4.61 min Scan# 458

Delta R.T. -0.11 min

Lab File: VD064499.D

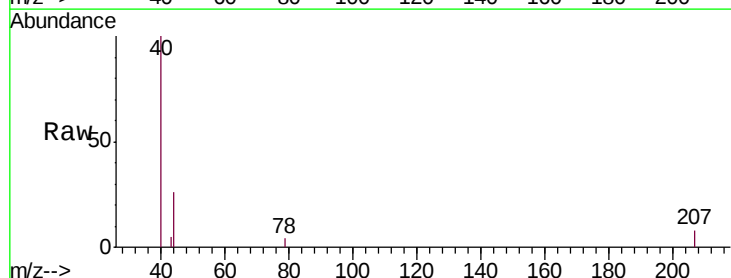
Acq: 11 Dec 2019 14:19

Tgt Ion: 43 Resp: 269

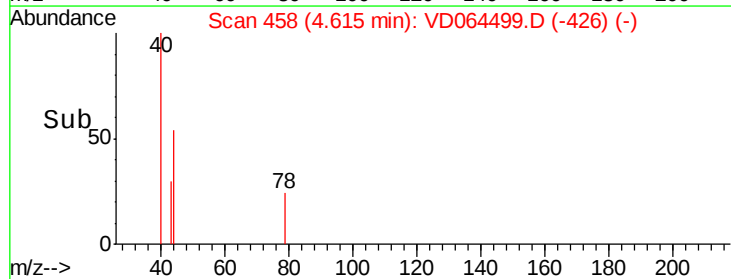
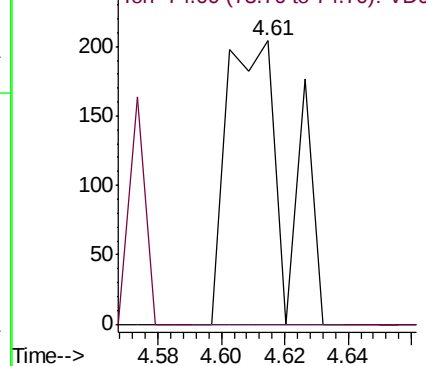
Ion Ratio Lower Upper

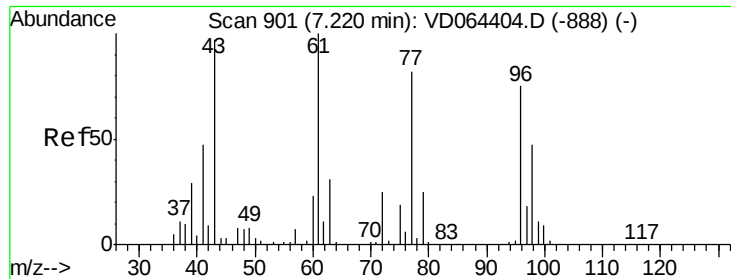
43 100

74 0.0 19.7 29.5#



Abundance Ion 43.00 (42.70 to 43.70): VDC

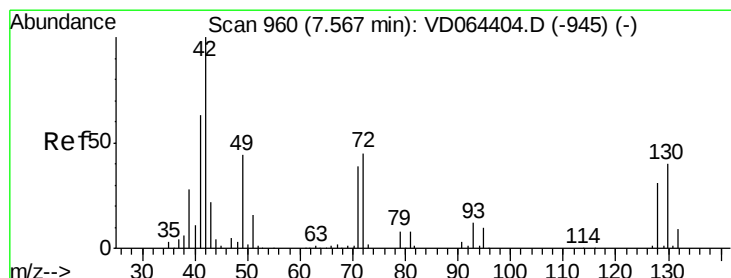
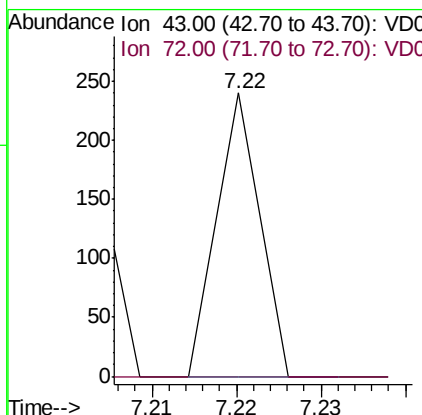
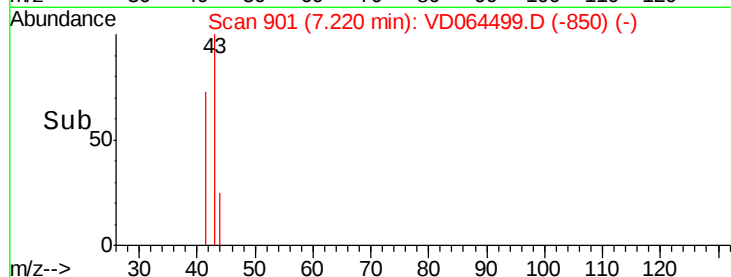
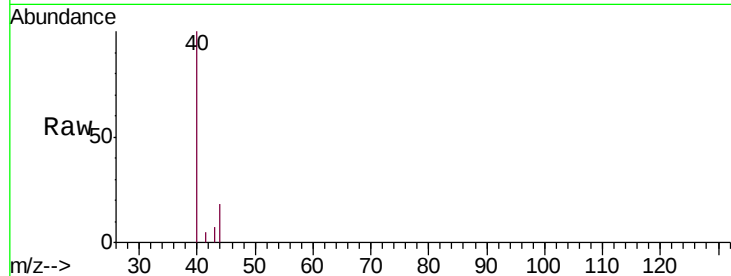




#25  
2-Butanone  
Concen: 1.847 ug/l  
RT: 7.22 min Scan# 901  
Delta R.T. 0.00 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

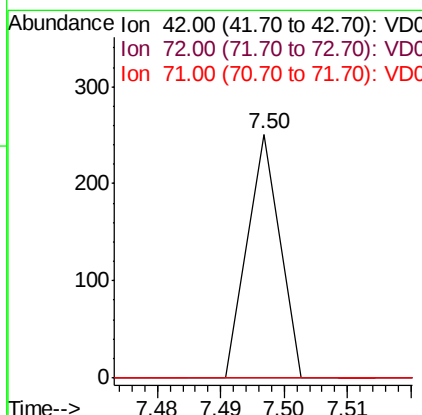
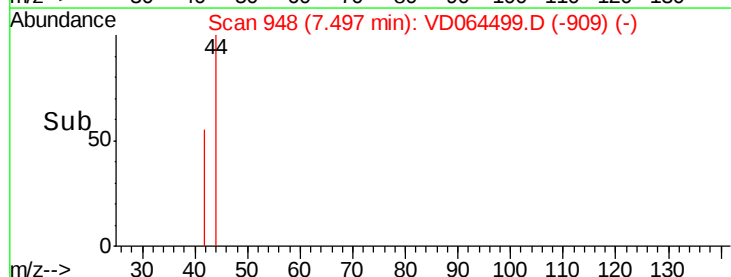
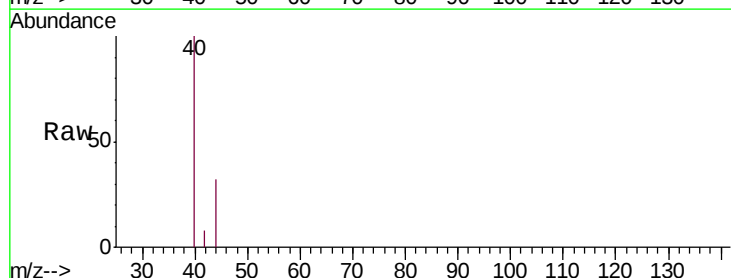
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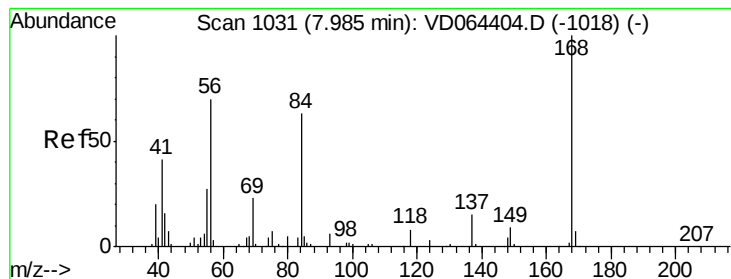
Tgt Ion: 43 Resp: 85  
Ion Ratio Lower Upper  
43 100  
72 0.0 21.0 31.4#



#29  
Tetrahydrofuran  
Concen: 3.039 ug/l  
RT: 7.50 min Scan# 948  
Delta R.T. -0.07 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

Tgt Ion: 42 Resp: 89  
Ion Ratio Lower Upper  
42 100  
72 0.0 35.8 53.8#  
71 0.0 32.7 49.1#





#31

Cyclohexane

Concen: Below Cal

RT: 7.98 min Scan# 1031

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

RT3465

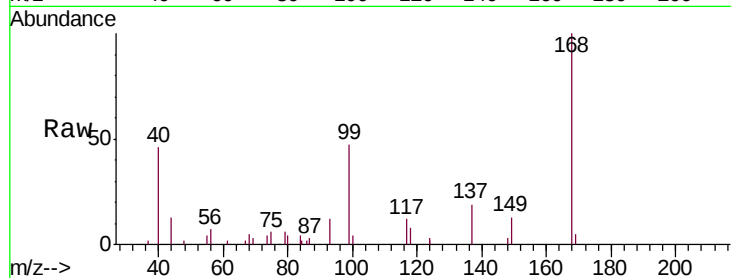
Tgt Ion: 56 Resp: 517

Ion Ratio Lower Upper

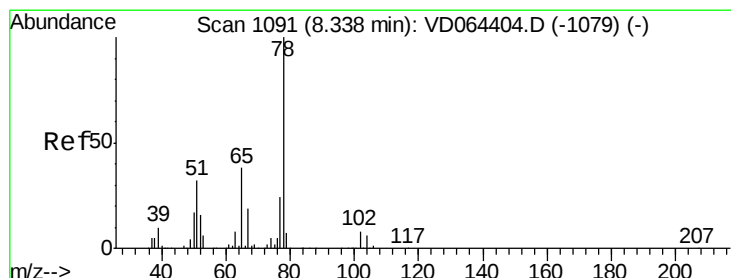
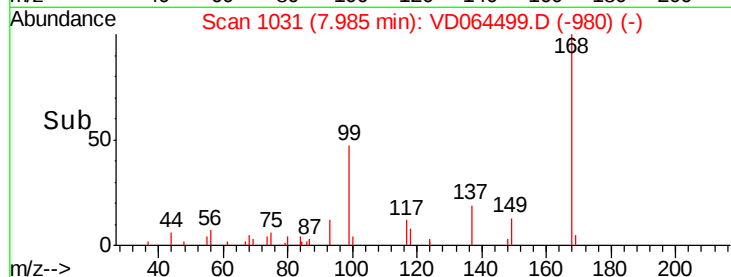
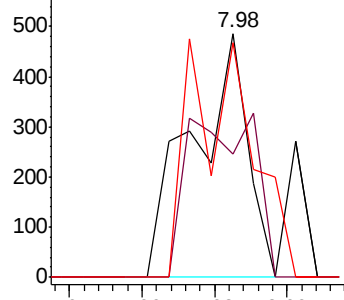
56 100

69 50.6 26.2 39.4#

84 96.1 70.3 105.5



Abundance Ion 56.00 (55.70 to 56.70): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.00 (83.70 to 84.70): VDC



#33

1,2-Dichloroethane-d4

Concen: 56.497 ug/l

RT: 8.33 min Scan# 1090

Delta R.T. -0.01 min

Lab File: VD064499.D

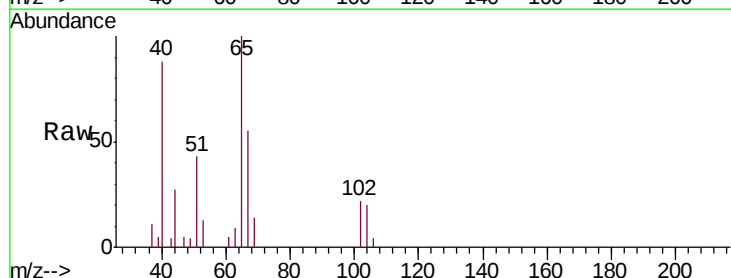
Acq: 11 Dec 2019 14:19

Tgt Ion: 65 Resp: 9100

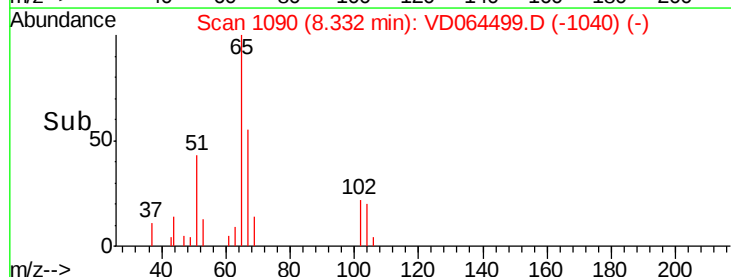
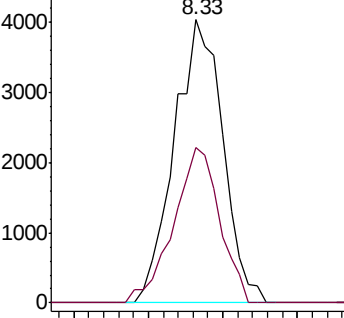
Ion Ratio Lower Upper

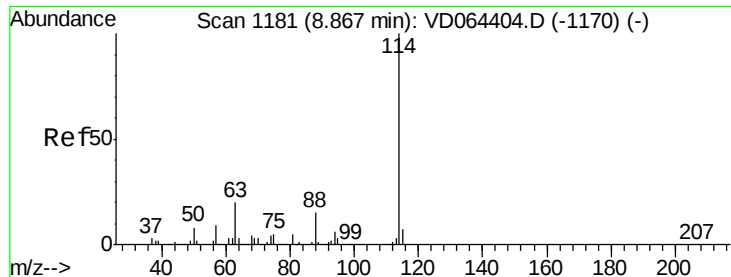
65 100

67 52.0 0.0 102.0



Abundance Ion 64.90 (64.60 to 65.60): VDC  
Ion 66.90 (66.60 to 67.60): VDC





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.87 min Scan# 1181

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

RT3465

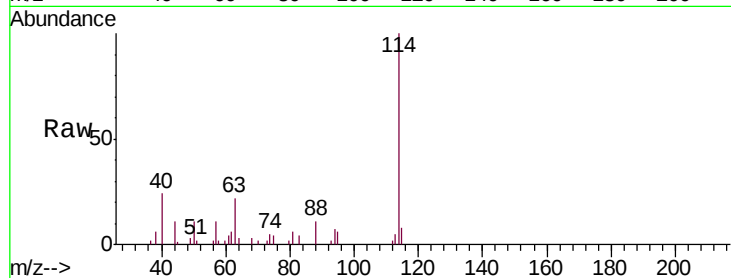
Tgt Ion:114 Resp: 25082

Ion Ratio Lower Upper

114 100

63 21.9 0.0 40.0

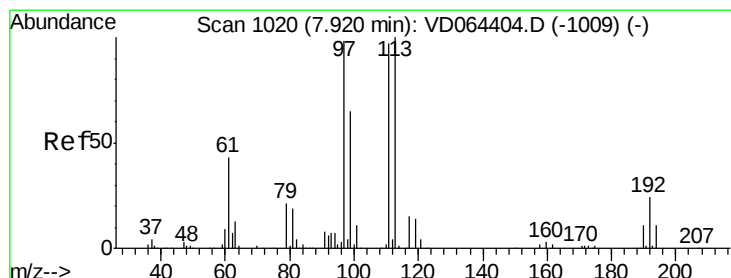
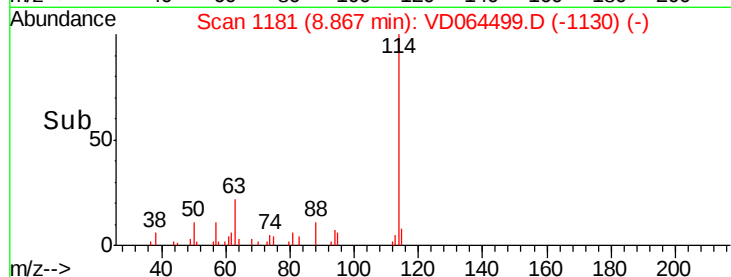
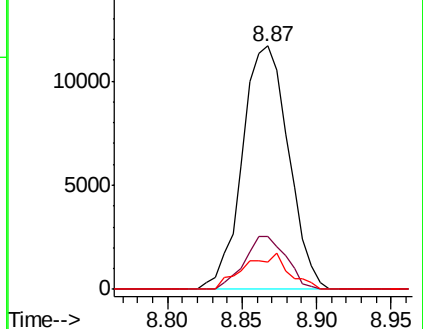
88 11.1 0.0 29.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): V

Ion 87.90 (87.60 to 88.60): V



#35

Dibromofluoromethane

Concen: 52.478 ug/l

RT: 7.92 min Scan# 1020

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

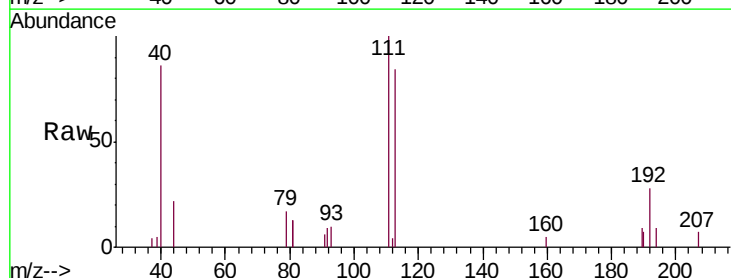
Tgt Ion:113 Resp: 8293

Ion Ratio Lower Upper

113 100

111 106.6 79.4 119.2

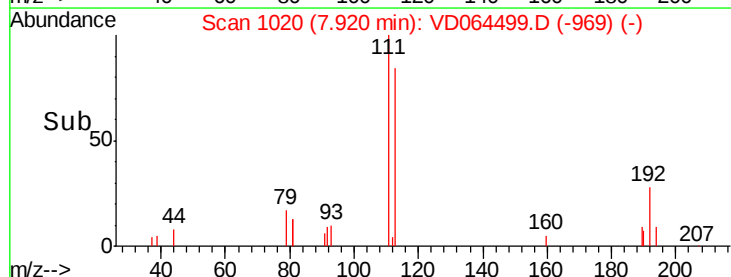
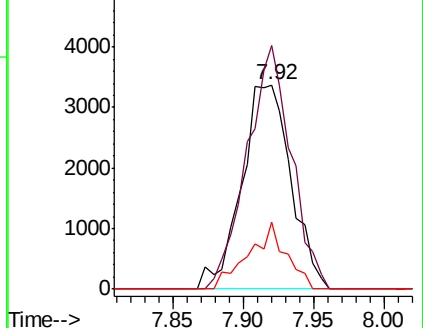
192 24.7 18.6 28.0

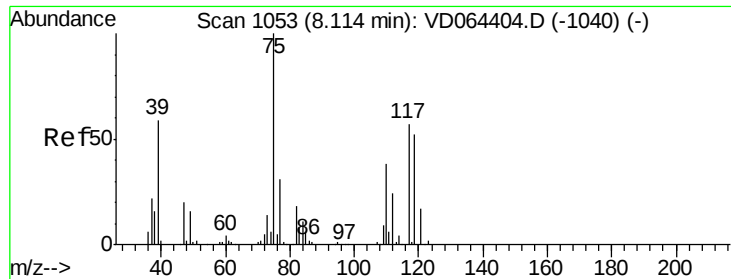


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

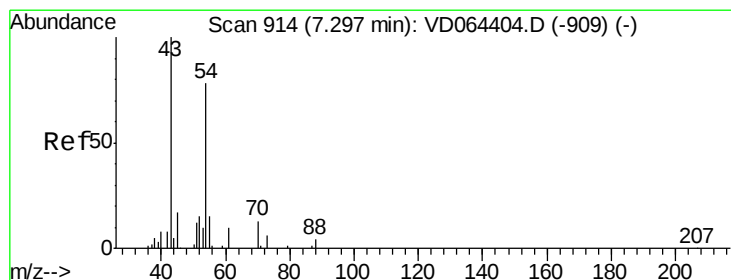
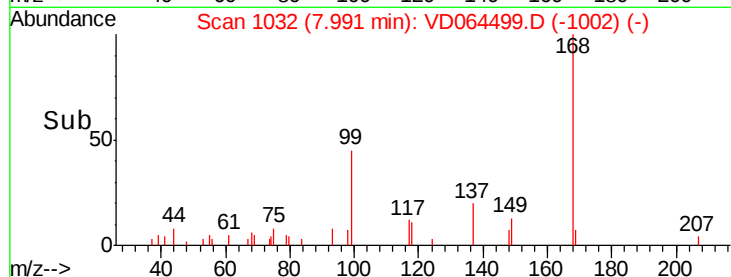
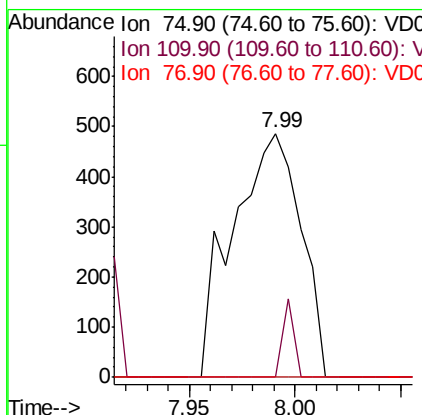
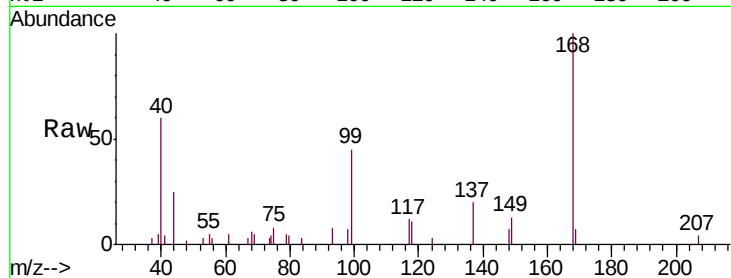




#36  
 1,1-Dichloropropene  
 Concen: 4.586 ug/l  
 RT: 7.99 min Scan# 1032  
 Delta R.T. -0.12 min  
 Lab File: VD064499.D  
 Acq: 11 Dec 2019 14:19

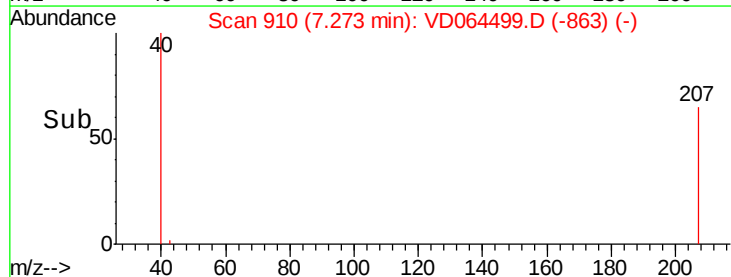
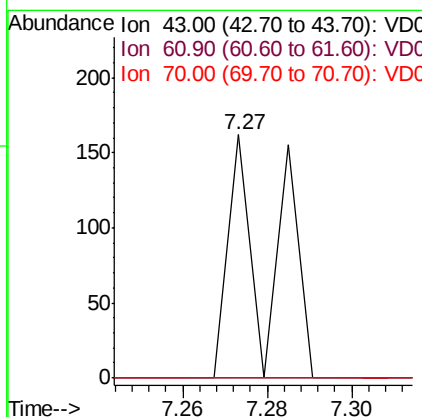
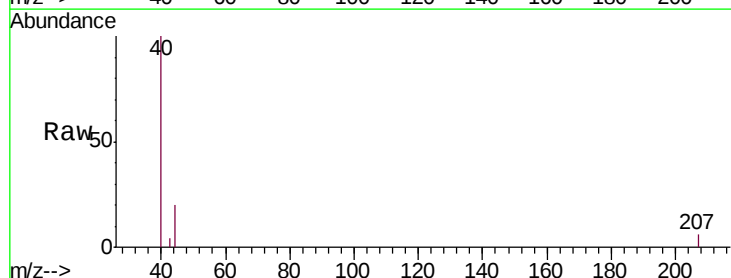
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 RT3465

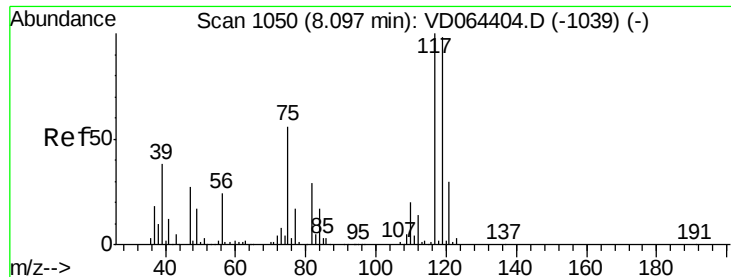
Tgt Ion: 75 Resp: 1088  
 Ion Ratio Lower Upper  
 75 100  
 110 5.1 18.6 55.8#  
 77 0.0 25.0 37.4#



#37  
 Ethyl Acetate  
 Concen: 1.113 ug/l  
 RT: 7.27 min Scan# 910  
 Delta R.T. -0.02 min  
 Lab File: VD064499.D  
 Acq: 11 Dec 2019 14:19

Tgt Ion: 43 Resp: 112  
 Ion Ratio Lower Upper  
 43 100  
 61 0.0 10.9 16.3#  
 70 0.0 8.3 12.5#





#38

Carbon Tetrachloride

Concen: 7.157 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. -0.11 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

RT3465

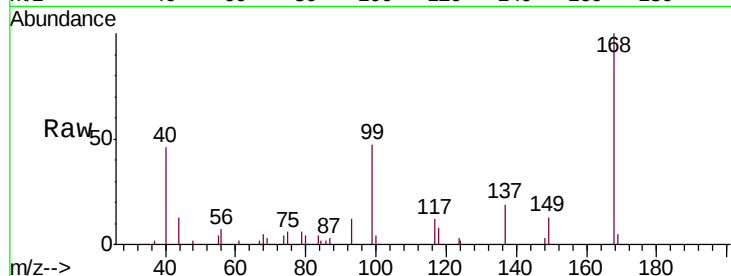
Tgt Ion:117 Resp: 1792

Ion Ratio Lower Upper

117 100

119 0.0 78.8 118.2#

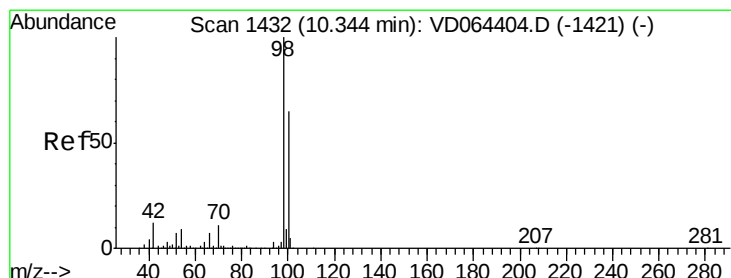
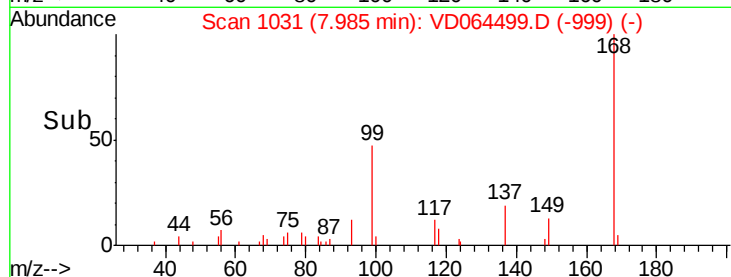
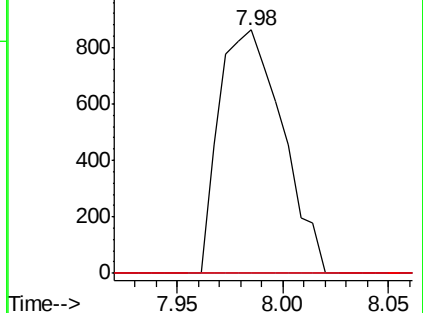
121 0.0 24.2 36.2#



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



#50

Toluene-d8

Concen: 50.986 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. -0.01 min

Lab File: VD064499.D

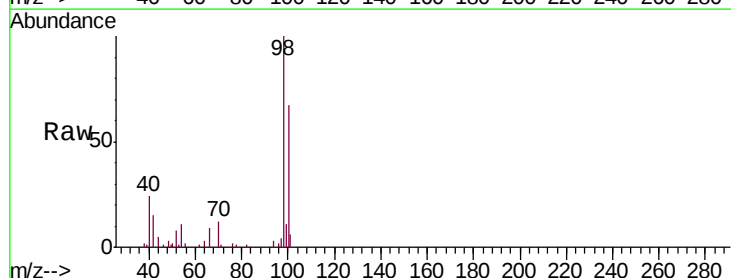
Acq: 11 Dec 2019 14:19

Tgt Ion: 98 Resp: 30351

Ion Ratio Lower Upper

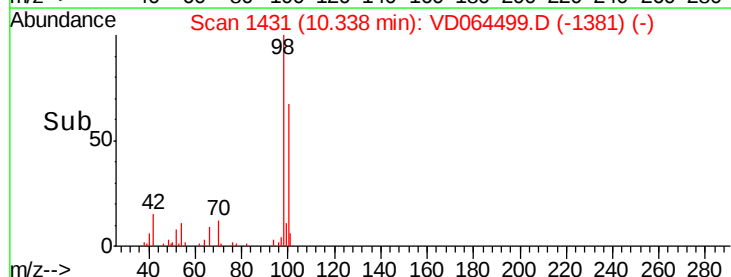
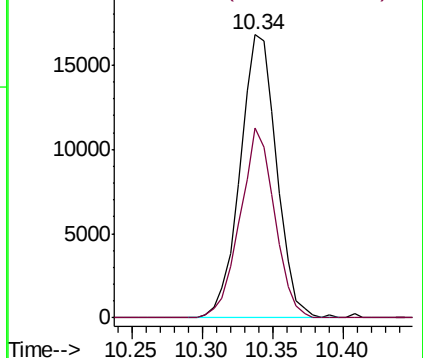
98 100

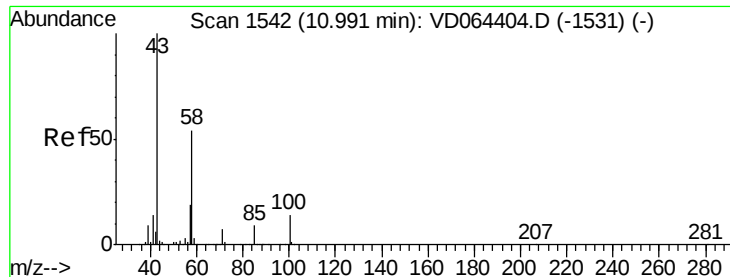
100 63.7 52.6 79.0



Abundance Ion 98.00 (97.70 to 98.70): V

Ion 100.00 (99.70 to 100.70): V

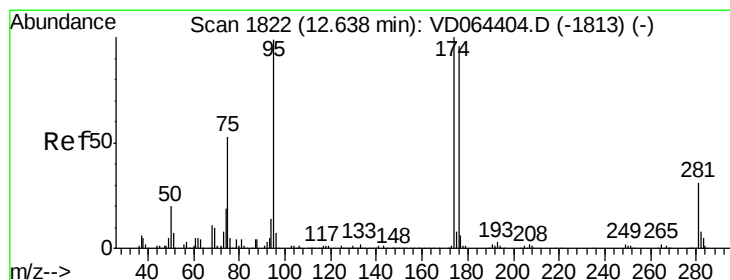
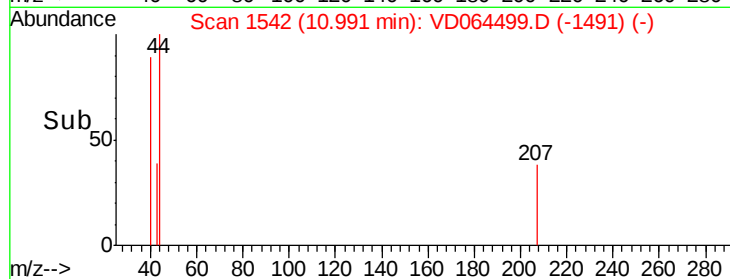
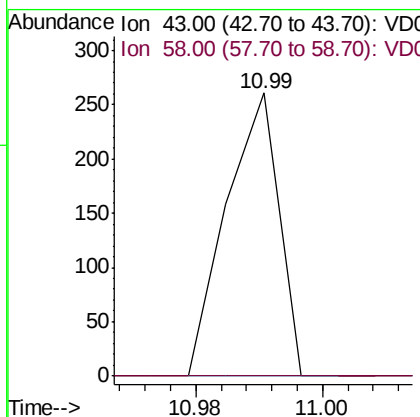
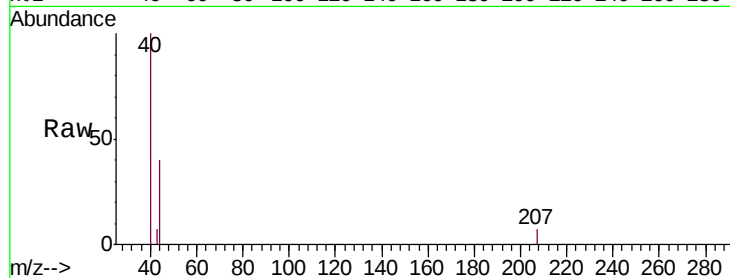




#59  
2-Hexanone  
Concen: 2.178 ug/l  
RT: 10.99 min Scan# 1542  
Delta R.T. 0.00 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

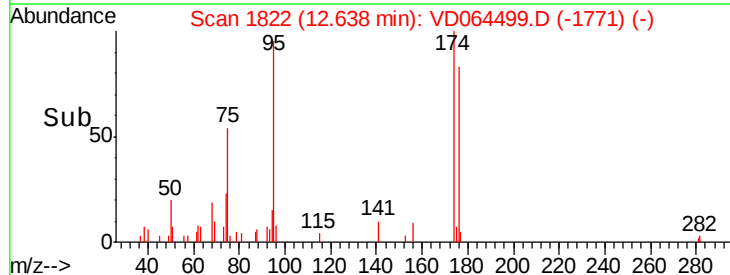
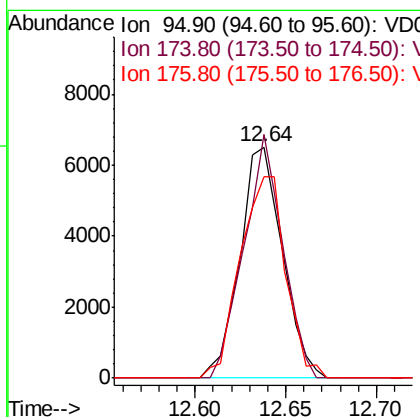
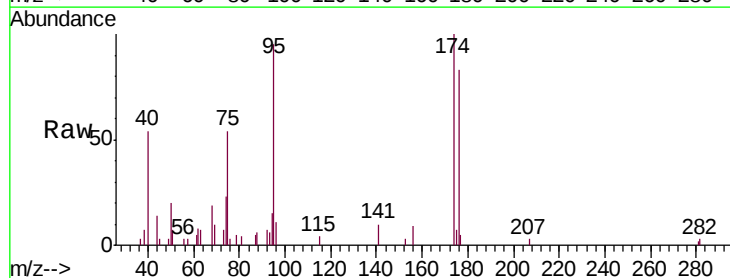
Instrument :  
MSVOA\_D  
ClientSampleId :  
RT3465

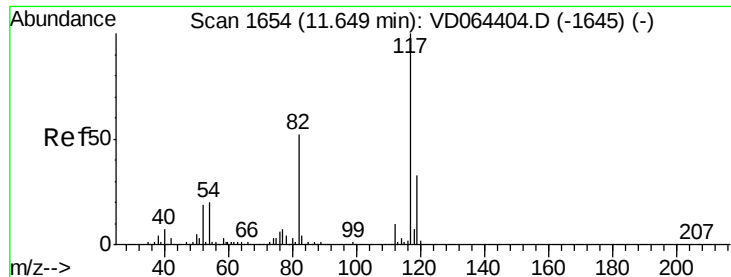
Tgt Ion: 43 Resp: 148  
Ion Ratio Lower Upper  
43 100  
58 0.0 26.3 78.8#



#62  
4-Bromofluorobenzene  
Concen: 55.644 ug/l  
RT: 12.64 min Scan# 1822  
Delta R.T. 0.00 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

Tgt Ion: 95 Resp: 10645  
Ion Ratio Lower Upper  
95 100  
174 95.7 0.0 197.2  
176 93.9 0.0 189.6

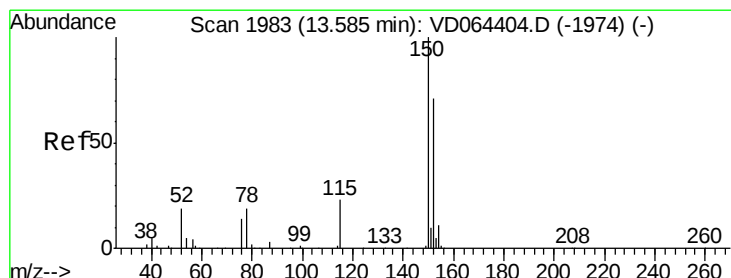
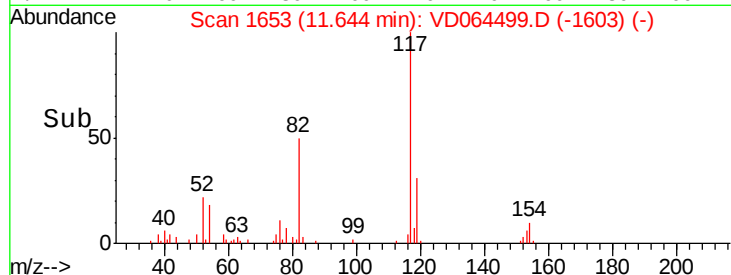
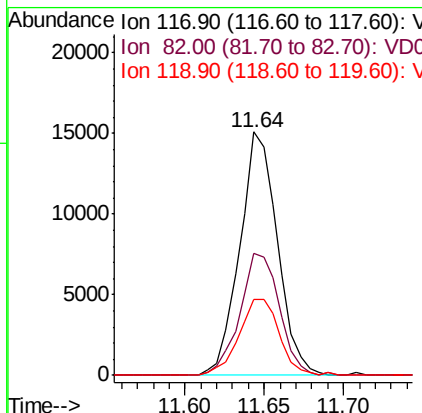
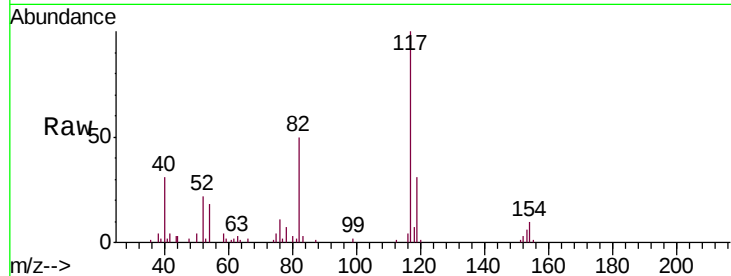




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.64 min Scan# 1653  
Delta R.T. -0.01 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

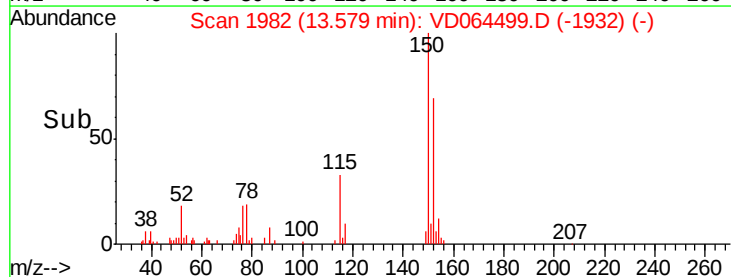
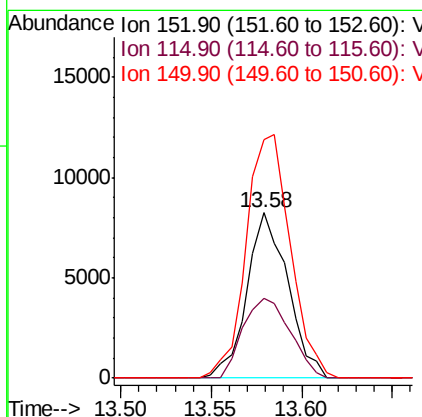
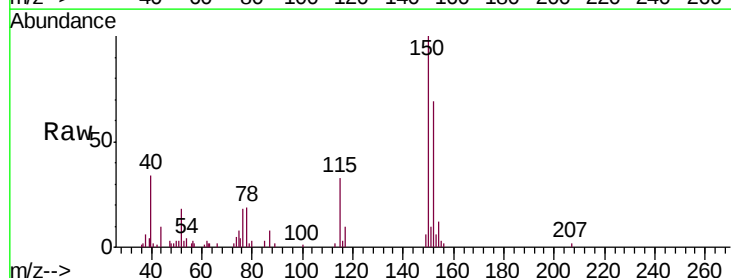
Instrument :  
MSVOA\_D  
ClientSampleId :  
RT3465

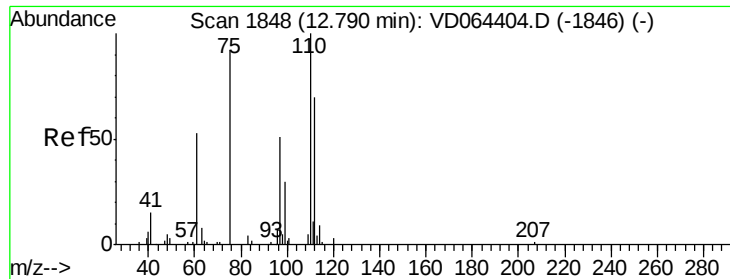
Tgt Ion:117 Resp: 24967  
Ion Ratio Lower Upper  
117 100  
82 50.0 41.4 62.2  
119 30.9 26.2 39.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1982  
Delta R.T. -0.01 min  
Lab File: VD064499.D  
Acq: 11 Dec 2019 14:19

Tgt Ion:152 Resp: 12943  
Ion Ratio Lower Upper  
152 100  
115 55.7 26.7 80.1  
150 159.1 0.0 347.2





#76

1,2,3-Trichloropropane

Concen: 53.044 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. -0.15 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

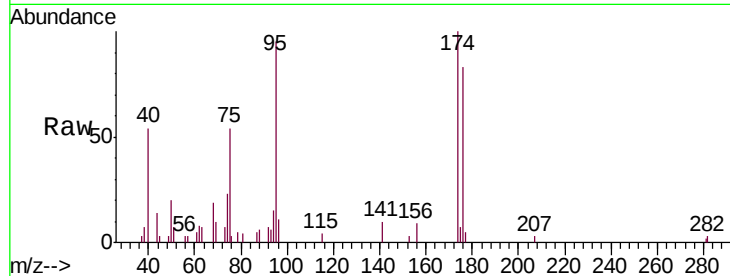
RT3465

Tgt Ion: 75 Resp: 5646

Ion Ratio Lower Upper

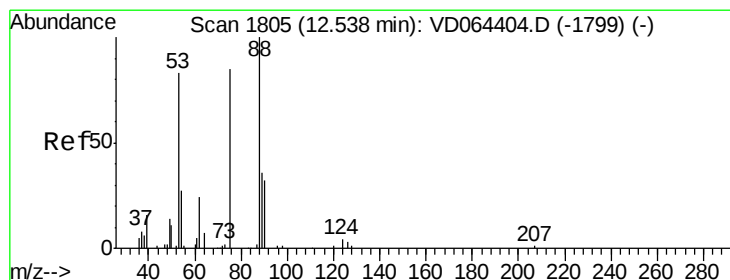
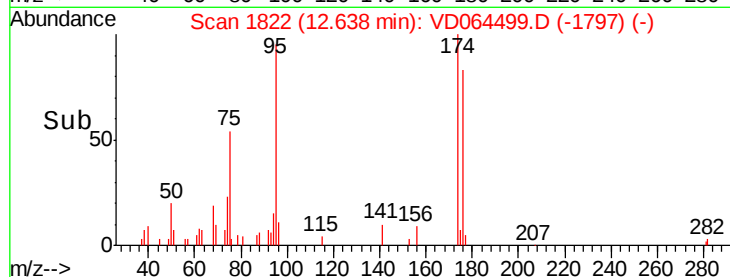
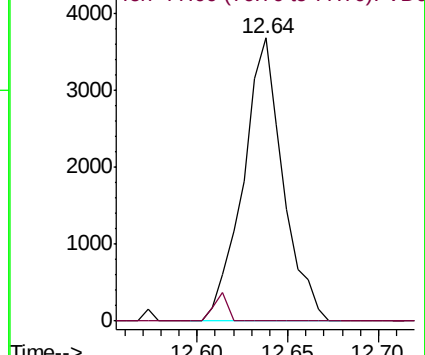
75 100

77 0.0 0.0 0.0



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 77.00 (76.70 to 77.70): VDC



#81

trans-1,4-Dichloro-2-butene

Concen: 115.665 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.10 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

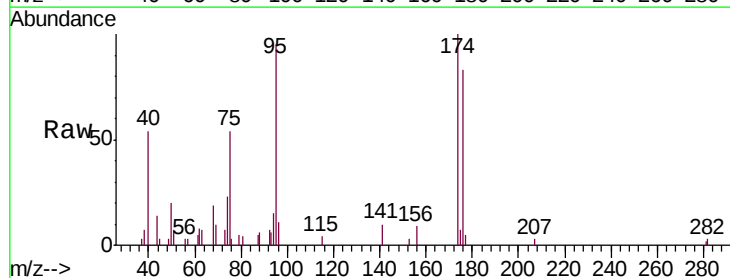
Tgt Ion: 75 Resp: 5646

Ion Ratio Lower Upper

75 100

53 0.0 81.0 121.6#

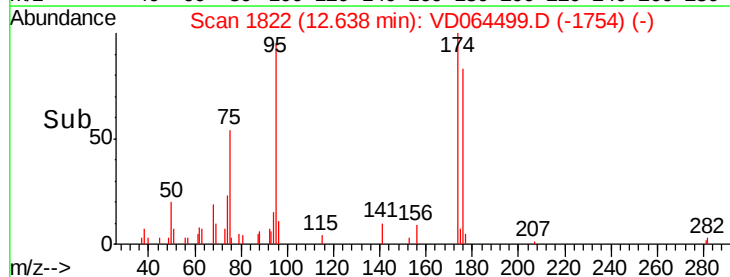
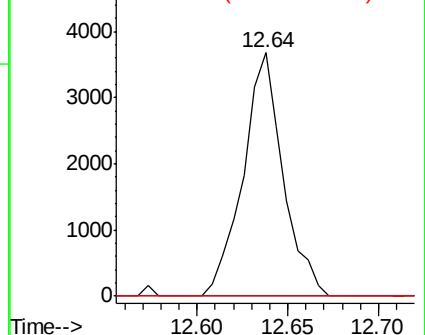
89 0.0 38.5 57.7#

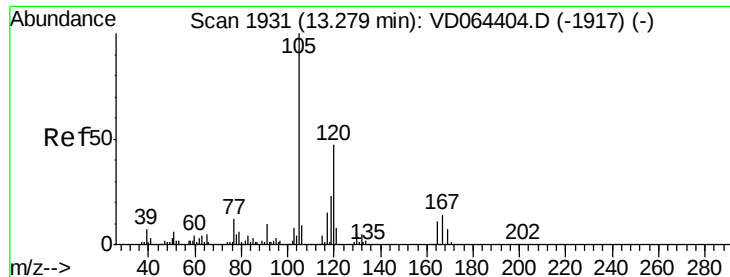


Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 88.90 (88.60 to 89.60): VDC





#84

1,2,4-Trimethylbenzene

Concen: 1.034 ug/l

RT: 13.27 min Scan# 1930

Delta R.T. -0.01 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

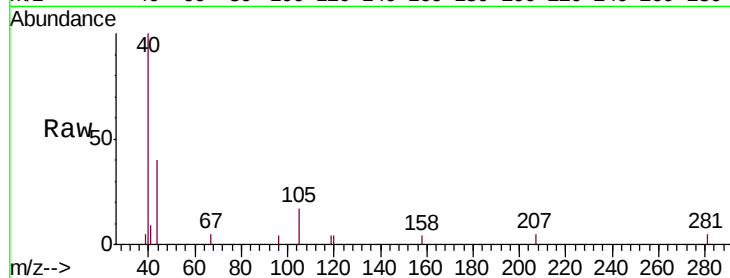
RT3465

Tgt Ion:105 Resp: 791

Ion Ratio Lower Upper

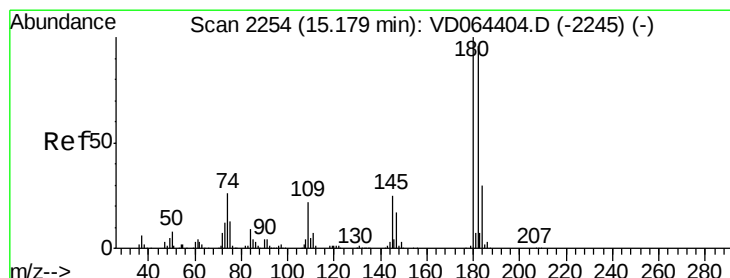
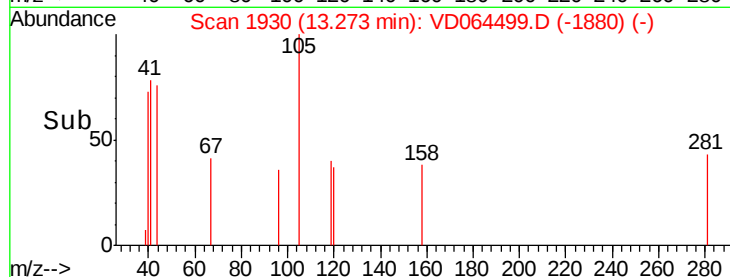
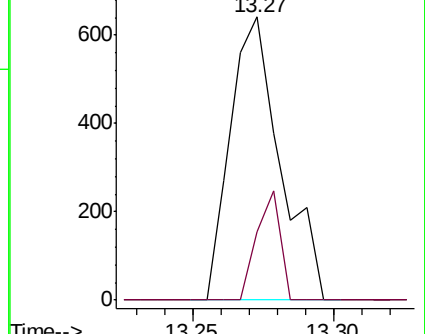
105 100

120 18.1 23.6 70.8#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#93

1,2,4-Trichlorobenzene

Concen: 1.303 ug/l

RT: 15.17 min Scan# 2253

Delta R.T. -0.01 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

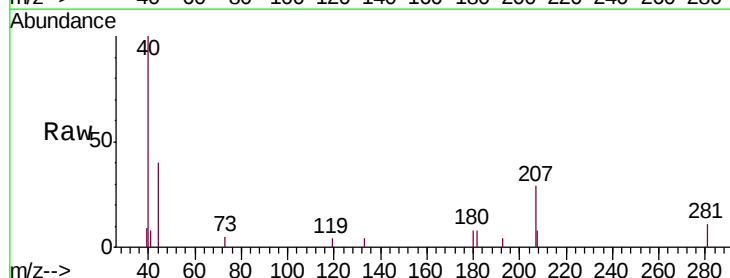
Tgt Ion:180 Resp: 372

Ion Ratio Lower Upper

180 100

182 114.0 47.4 142.3

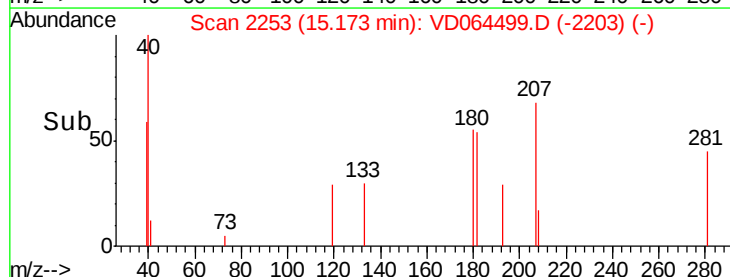
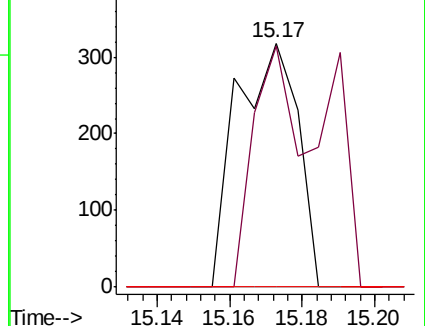
145 0.0 14.0 41.9#

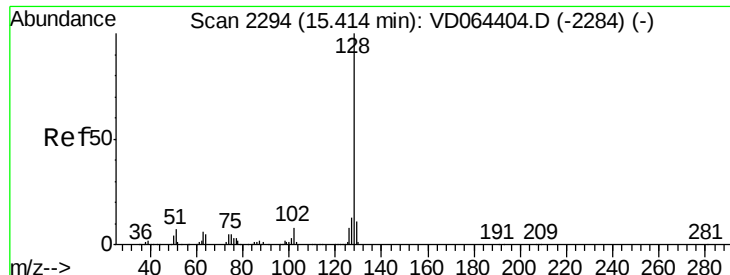


Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.80 (144.50 to 145.50): V





#95

Naphthalene

Concen: 23.180 ug/l

RT: 15.41 min Scan# 2294

Delta R.T. 0.00 min

Lab File: VD064499.D

Acq: 11 Dec 2019 14:19

Instrument :

MSVOA\_D

ClientSampleId :

RT3465

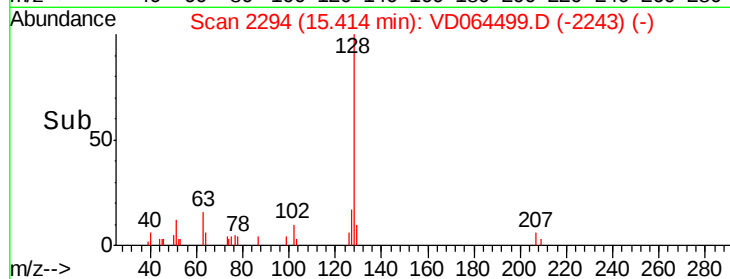
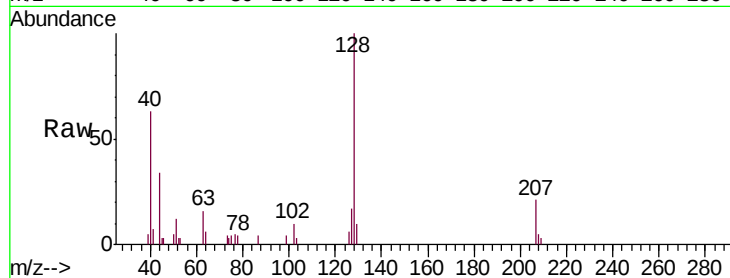
Tgt Ion:128 Resp: 11047

Ion Ratio Lower Upper

128 100

127 15.4 10.5 15.7

129 13.5 8.8 13.2#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

