

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD042419\  
 Data File : VD061996.D  
 Acq On : 24 Apr 2019 14:25  
 Operator : VA/AP  
 Sample : K2518-02  
 Misc : 5.01µl/5ml/MSVOA D/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 MUDDY-BAGS

Quant Time: Apr 25 09:09:56 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D042319S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Apr 23 14:52:55 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.06  | 168  | 1216     | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.22  | 114  | 2535     | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.38 | 117  | 2628     | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 2194     | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|--------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.46  | 65   | 744      | 78.17  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 156.34% |          |
| 35) Dibromofluoromethane    | 0.00  | 113  | 0        | 0.00   | ug/l    |          |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 0.00%   |          |
| 50) Toluene-d8              | 10.42 | 98   | 1083     | 25.96  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 51.92%  |          |
| 62) 4-Bromofluorobenzene    | 13.56 | 95   | 1629     | 97.36  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 194.72% |          |

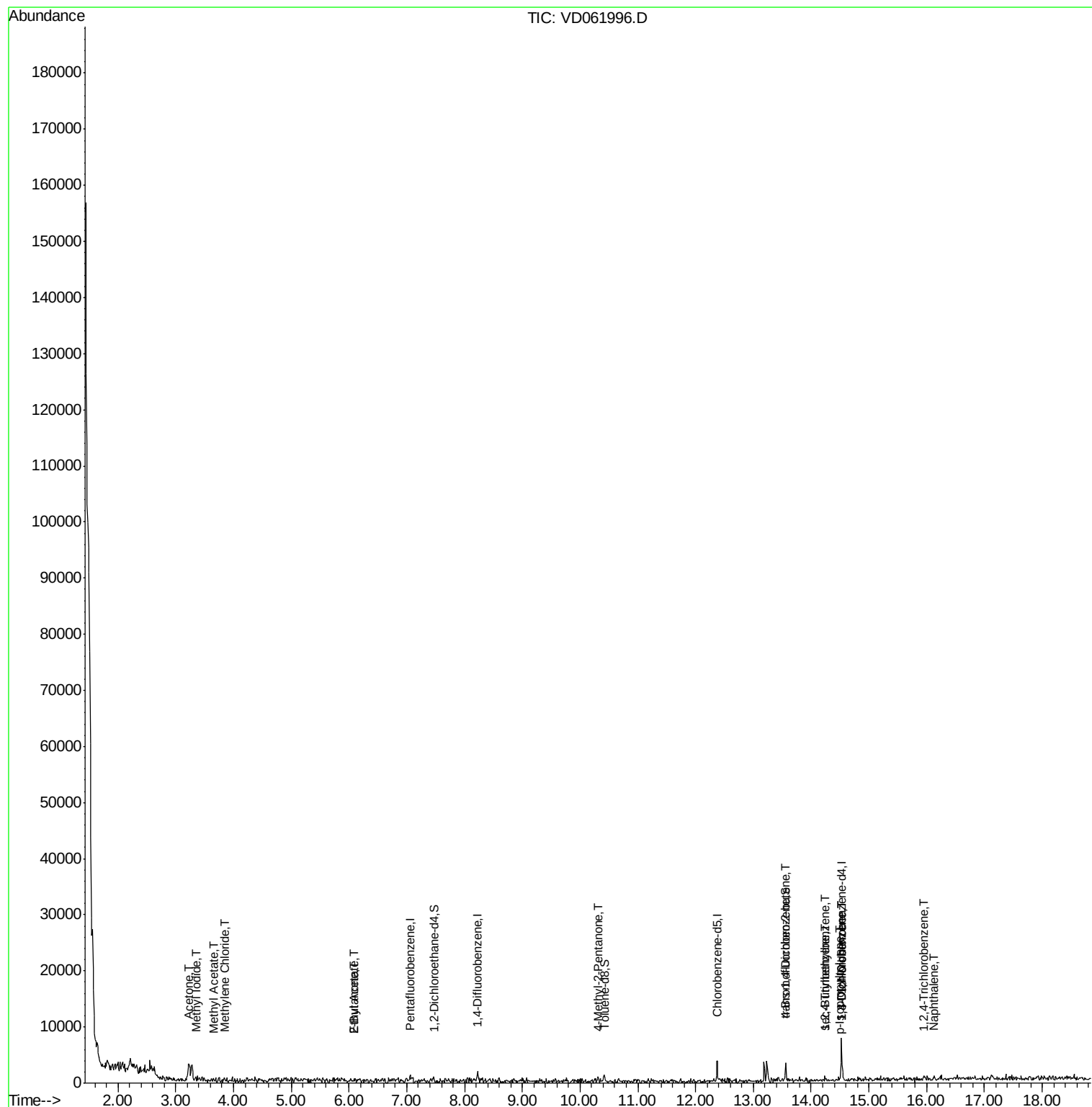
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 2.14  | 94   | 398      | Below Cal | #      | 12     |
| 10) Methyl Iodide              | 3.35  | 142  | 474      | 29.235    | ug/l # | 37     |
| 16) Acetone                    | 3.22  | 43   | 5920     | 2605.174  | ug/l # | 89     |
| 18) Methyl Acetate             | 3.66  | 43   | 217      | 52.775    | ug/l # | 53     |
| 20) Methylene Chloride         | 3.84  | 84   | 442      | 39.270    | ug/l # | 8      |
| 25) 2-Butanone                 | 6.09  | 43   | 250      | 90.740    | ug/l # | 56     |
| 37) Ethyl Acetate              | 6.09  | 43   | 250      | 29.704    | ug/l # | 64     |
| 51) 4-Methyl-2-Pentanone       | 10.30 | 43   | 787      | 104.646   | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 13.57 | 75   | 622      | 73.672    | ug/l # | 16     |
| 84) 1,2,4-Trimethylbenzene     | 14.24 | 105  | 447      | 4.012     | ug/l # | 30     |
| 85) sec-Butylbenzene           | 14.24 | 105  | 447      | 3.060     | ug/l # | 60     |
| 86) p-Isopropyltoluene         | 14.49 | 119  | 186      | 1.423     | ug/l # | 52     |
| 87) 1,3-Dichlorobenzene        | 14.54 | 146  | 305      | 4.148     | ug/l # | 25     |
| 88) 1,4-Dichlorobenzene        | 14.54 | 146  | 305      | 4.436     | ug/l # | 25     |
| 93) 1,2,4-Trichlorobenzene     | 15.95 | 180  | 223      | 6.815     | ug/l # | 11     |
| 95) Naphthalene                | 16.13 | 128  | 431      | 8.157     | ug/l # | 70     |

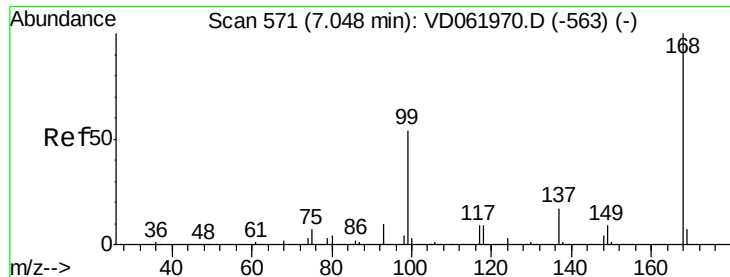
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD042419\  
Data File : VD061996.D  
Acq On : 24 Apr 2019 14:25  
Operator : VA/AP  
Sample : K2518-02  
Misc : 5.01a/5ml/MSVOA D/SOIL  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
MUDDY-BAGS

Quant Time: Apr 25 09:09:56 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D042319S.M  
Quant Title : SW846 8260  
QLast Update : Tue Apr 23 14:52:55 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.06 min Scan# 573

Delta R.T. 0.01 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

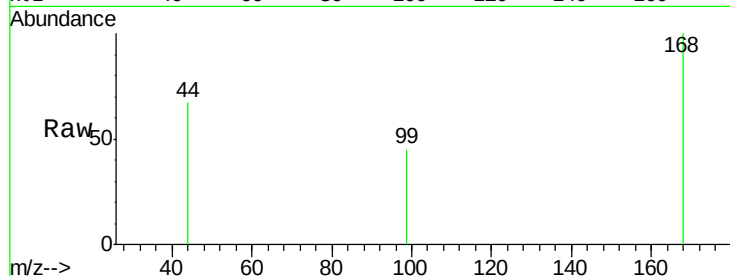
MUDDY-BAGS

Tot Ion:168 Resp: 1216

Ion Ratio Lower Upper

168 100

99 44.9 46.5 69.7#



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.06

600

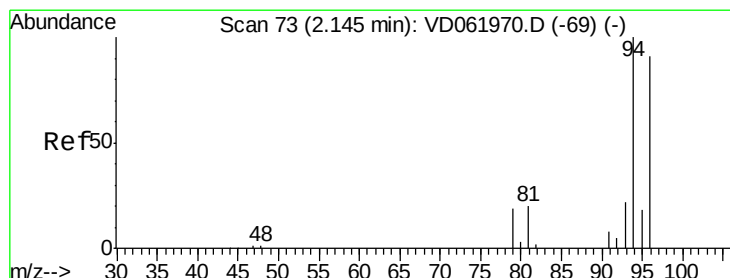
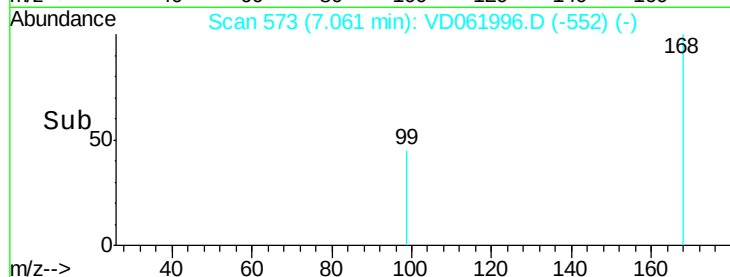
400

200

0

7.00 7.05 7.10

Time-->



#5

Bromomethane

Concen: Below Cal

RT: 2.14 min Scan# 73

Delta R.T. -0.02 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

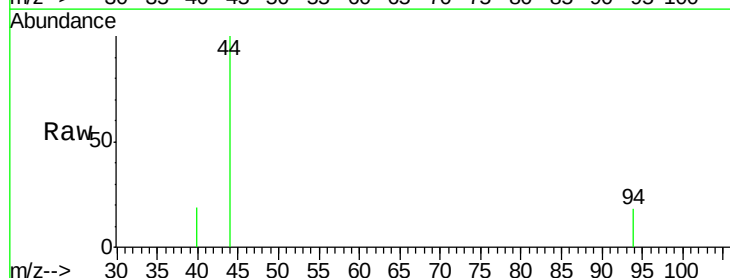
Tgt Ion: 94 Resp: 398

Ion Ratio Lower Upper

94 100

96 0.0 76.6 115.0#

93 0.0 18.5 27.7#



Abundance Ion 94.00 (93.70 to 94.70): VDC

Ion 96.00 (95.70 to 96.70): VDC

Ion 93.00 (92.70 to 93.70): VDC

2.14

400

300

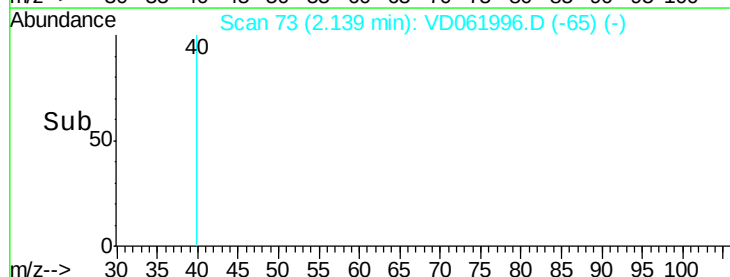
200

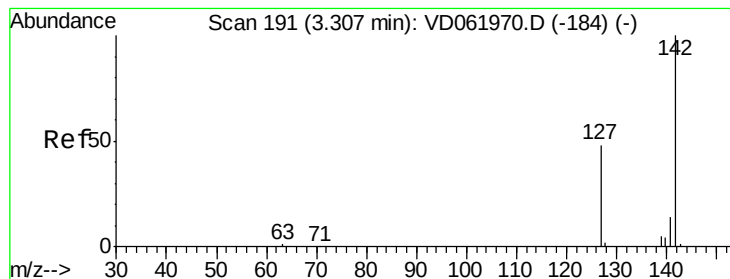
100

0

2.12 2.14 2.16

Time-->





#10

Methvl Iodide

Concen: 29.235 ug/l

RT: 3.35 min Scan# 196

Delta R.T. 0.03 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

MUDDY-BAGS

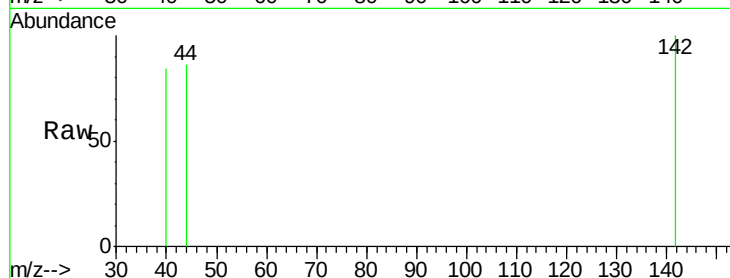
Tot Ion:142 Resp: 474

Ion Ratio Lower Upper

142 100

127 0.0 38.8 58.2#

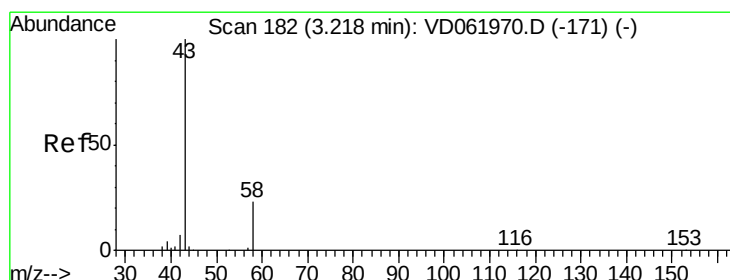
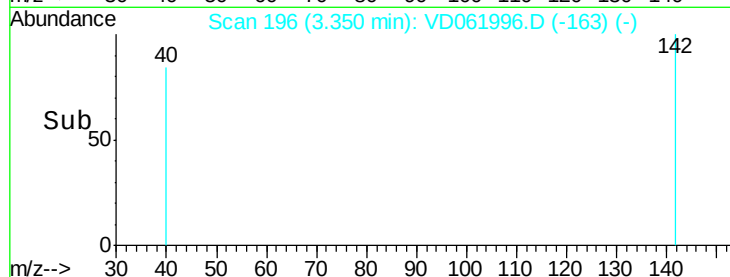
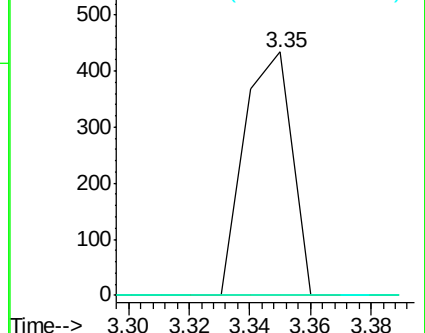
141 0.0 11.4 17.0#



Abundance Ion 141.85 (141.55 to 142.55): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.85 (140.55 to 141.55): V



#16

Acetone

Concen: 2605.174 ug/l

RT: 3.22 min Scan# 183

Delta R.T. -0.00 min

Lab File: VD061996.D

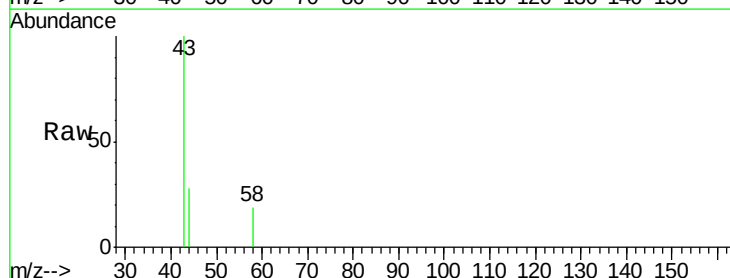
Acq: 24 Apr 2019 14:25

Tgt Ion: 43 Resp: 5920

Ion Ratio Lower Upper

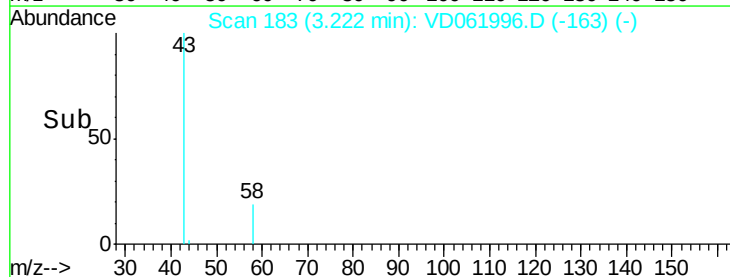
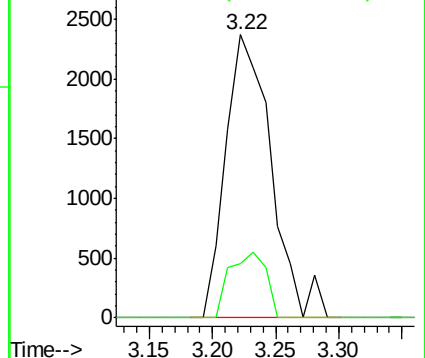
43 100

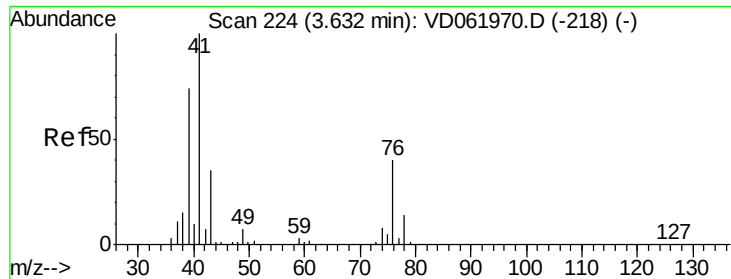
58 19.2 19.9 29.9#



Abundance Ion 42.95 (42.65 to 43.65): V

Ion 57.95 (57.65 to 58.65): V

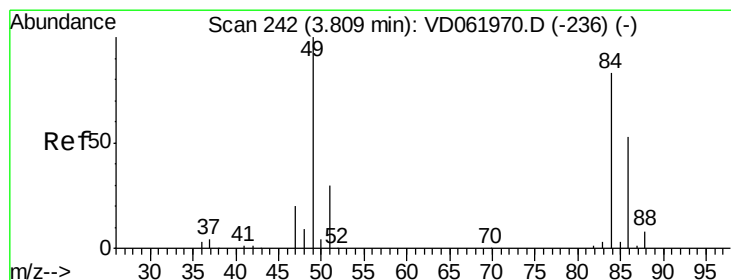
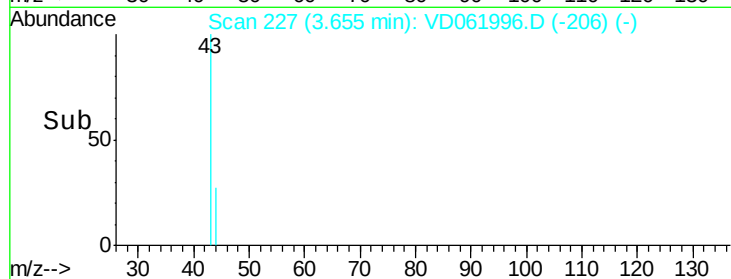
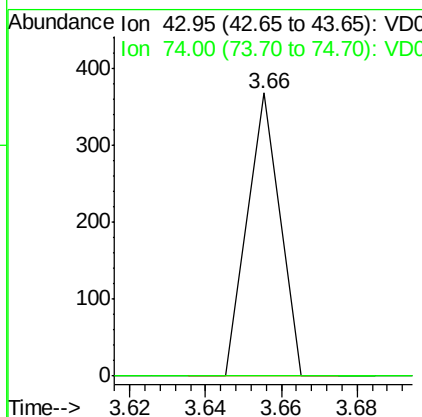
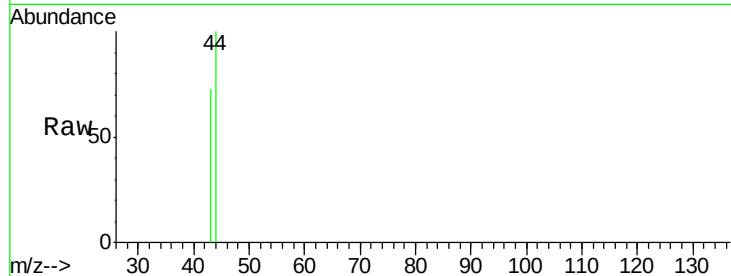




#18  
Methvl Acetate  
Concen: 52.775 ug/l  
RT: 3.66 min Scan# 227  
Delta R.T. 0.01 min  
Lab File: VD061996.D  
Acq: 24 Apr 2019 14:25

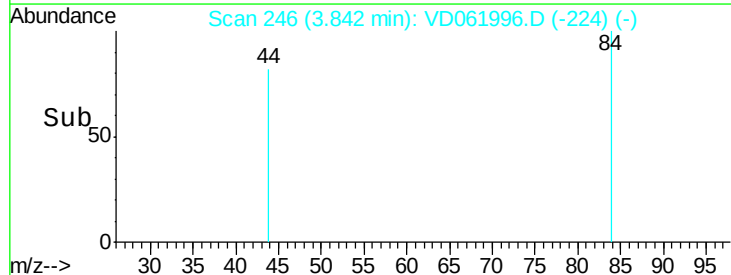
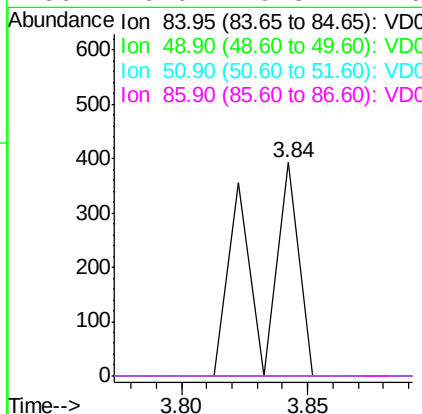
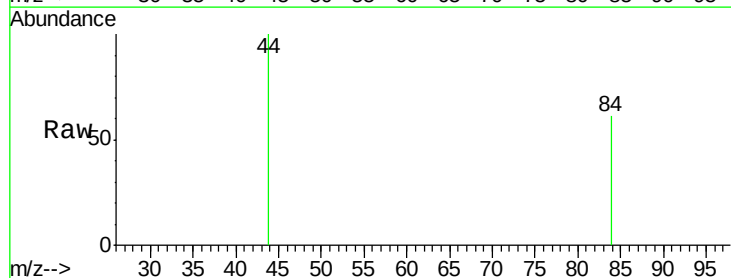
Instrument :  
MSVOA\_D  
ClientSampleId :  
MUDDY-BAGS

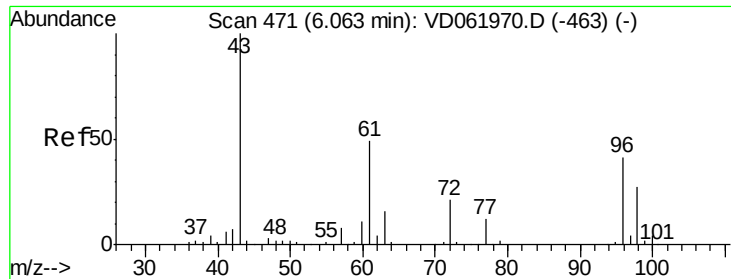
Tot Ion: 43 Resp: 217  
Ion Ratio Lower Upper  
43 100  
74 0.0 18.0 27.0#



#20  
Methylene Chloride  
Concen: 39.270 ug/l  
RT: 3.84 min Scan# 246  
Delta R.T. 0.02 min  
Lab File: VD061996.D  
Acq: 24 Apr 2019 14:25

Tgt Ion: 84 Resp: 442  
Ion Ratio Lower Upper  
84 100  
49 0.0 94.0 141.0#  
51 0.0 29.0 43.4#  
86 0.0 49.8 74.6#





#25

2-Butanone

Concen: 90.740 ug/l

RT: 6.09 min Scan# 474

Delta R.T. 0.01 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

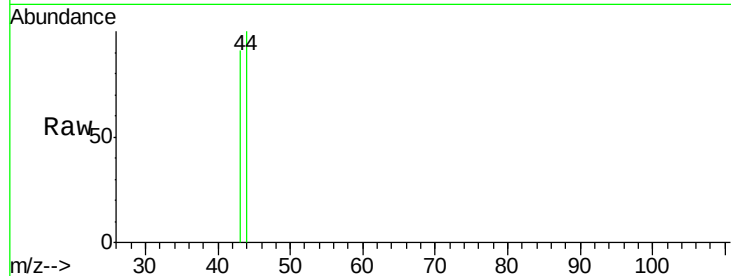
MUDDY-BAGS

Tot Ion: 43 Resp: 250

Ion Ratio Lower Upper

43 100

72 0.0 16.2 24.4#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC

6.09

400

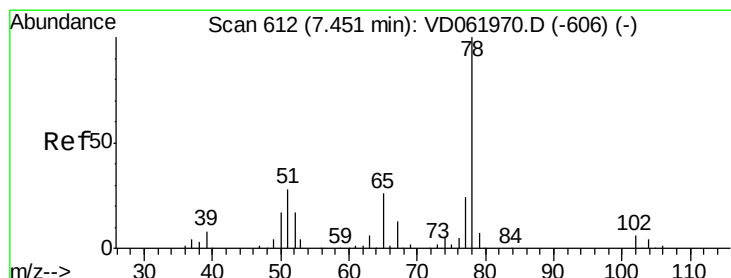
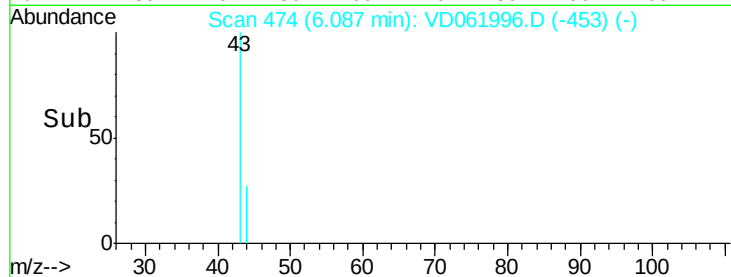
300

200

100

0

Time-->



#33

1,2-Dichloroethane-d4

Concen: 78.175 ug/l

RT: 7.46 min Scan# 614

Delta R.T. 0.01 min

Lab File: VD061996.D

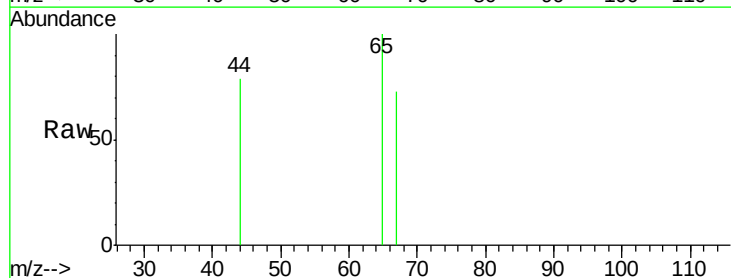
Acq: 24 Apr 2019 14:25

Tgt Ion: 65 Resp: 744

Ion Ratio Lower Upper

65 100

67 72.6 0.0 98.0



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC

7.46

500

400

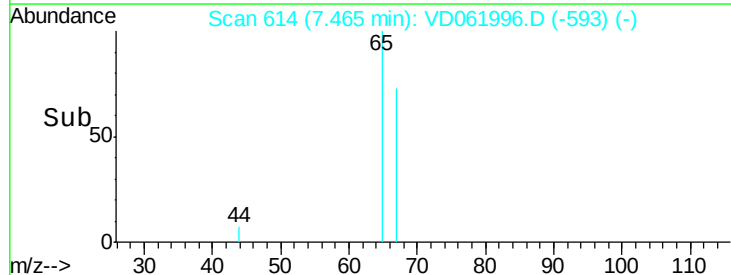
300

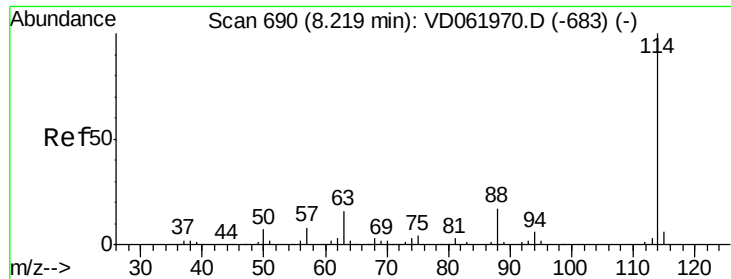
200

100

0

Time-->

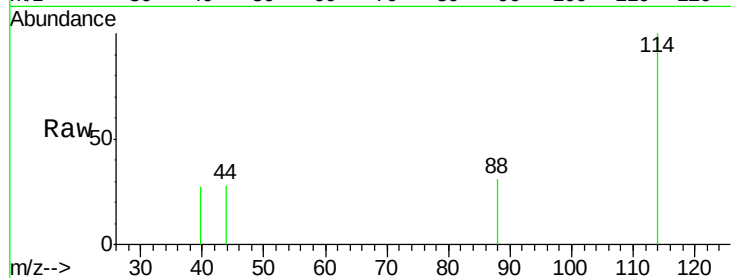




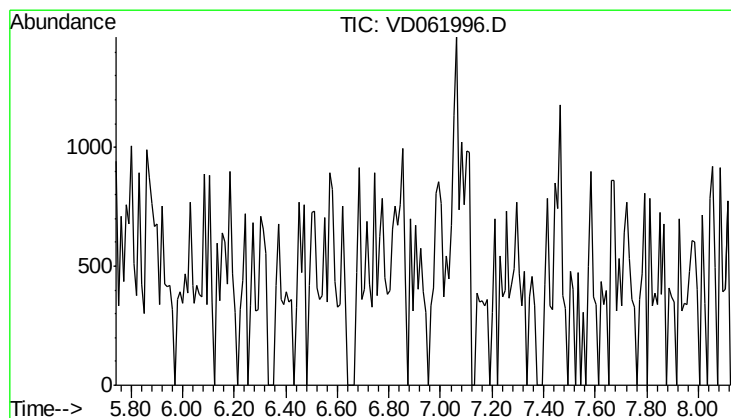
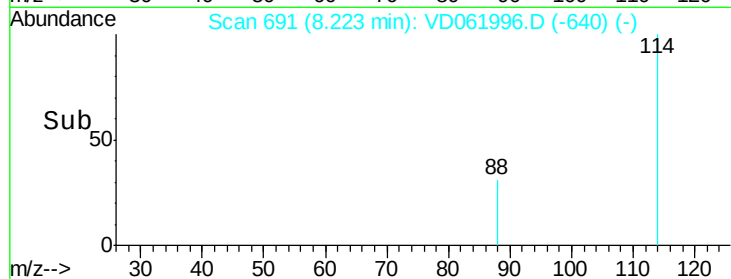
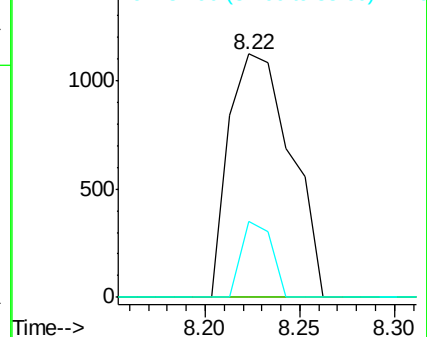
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.22 min Scan# 691  
 Delta R.T. -0.00 min  
 Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 MUDDY-BAGS

Tot Ion:114 Resp: 2535  
 Ion Ratio Lower Upper  
 114 100  
 63 0.0 0.0 32.4  
 88 31.0 0.0 33.6



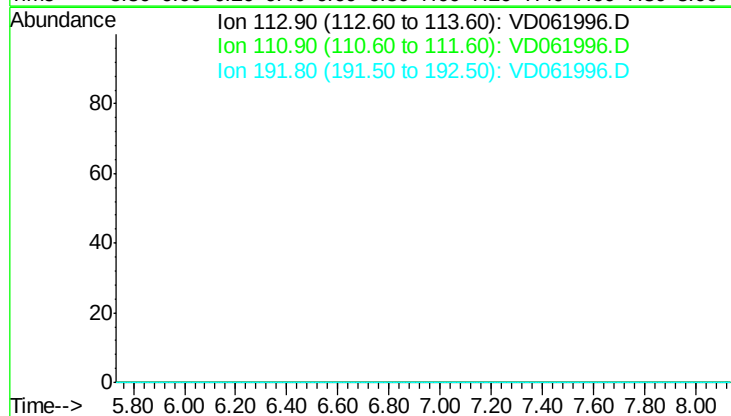
Abundance Ion 114.00 (113.70 to 114.70): V  
 Ion 62.95 (62.65 to 63.65): VD  
 Ion 87.90 (87.60 to 88.60): VD

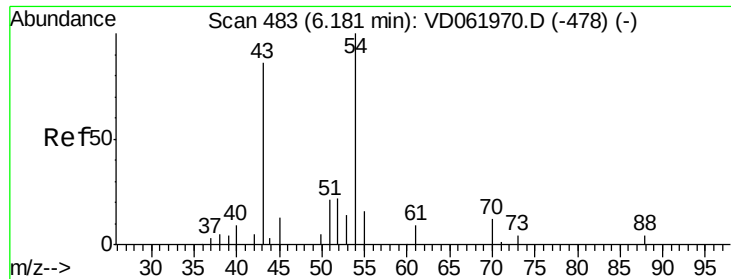


#35  
 Dibromofluoromethane  
 Concen: 0.000 ug/l  
 Expected RT: 6.93 min

Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

Tgt Ion: 113  
 Sig Exp Ratio  
 113 100  
 111 98.1  
 192 16.2

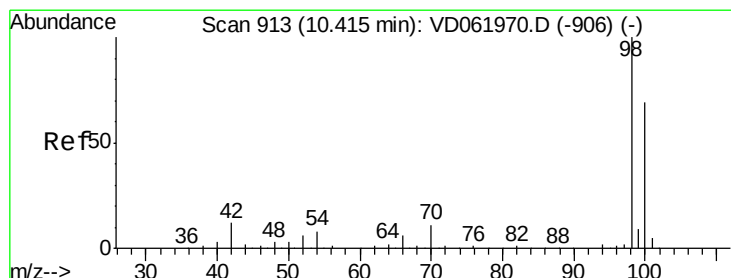
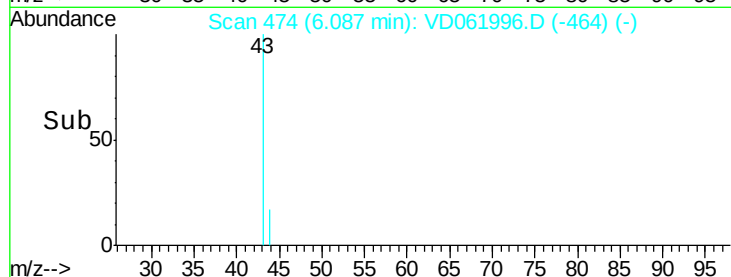
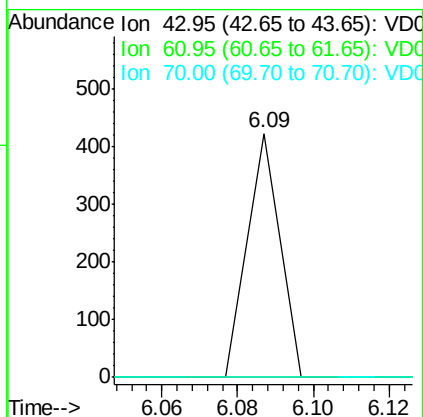
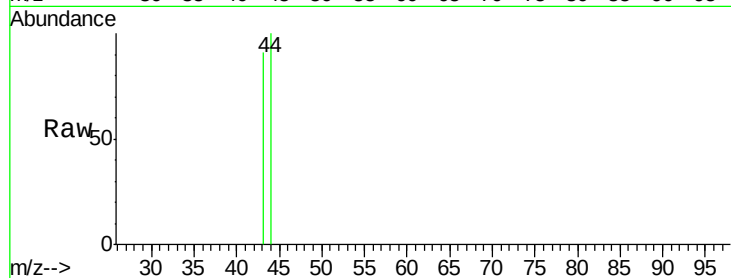




#37  
Ethyl Acetate  
Concen: 29.704 ug/l  
RT: 6.09 min Scan# 474  
Delta R.T. -0.10 min  
Lab File: VD061996.D  
Acq: 24 Apr 2019 14:25

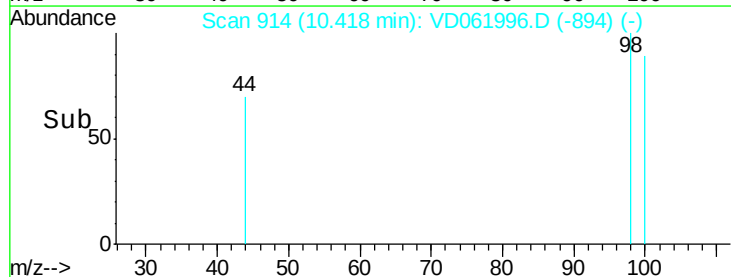
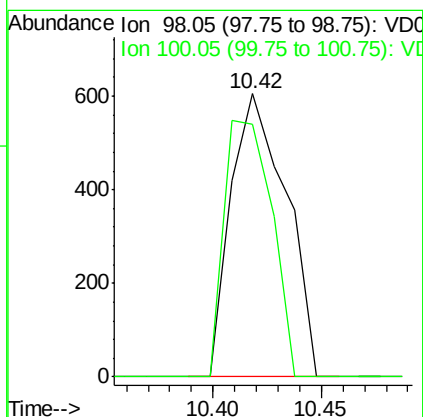
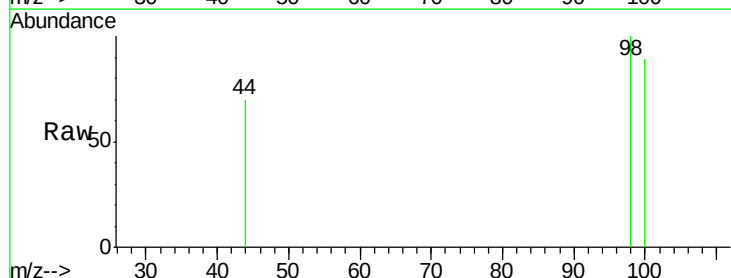
Instrument :  
MSVOA\_D  
ClientSampleId :  
MUDDY-BAGS

Tot Ion: 43 Resp: 250  
Ion Ratio Lower Upper  
43 100  
61 0.0 14.7 22.1#  
70 0.0 7.8 11.6#

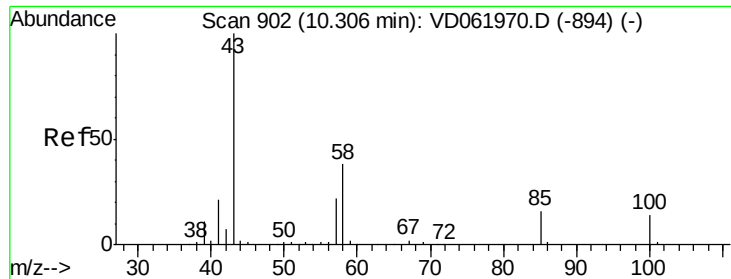


#50  
Toluene-d8  
Concen: 25.960 ug/l  
RT: 10.42 min Scan# 914  
Delta R.T. -0.00 min  
Lab File: VD061996.D  
Acq: 24 Apr 2019 14:25

Tgt Ion: 98 Resp: 1083  
Ion Ratio Lower Upper  
98 100  
100 89.1 53.8 80.8#







#51

4-Methyl-2-Pentanone

Concen: 104.646 ug/l

RT: 10.30 min Scan# 902

Delta R.T. -0.00 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

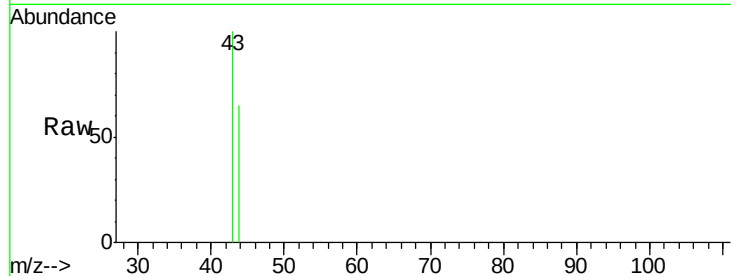
MUDDY-BAGS

Tot Ion: 43 Resp: 787

Ion Ratio Lower Upper

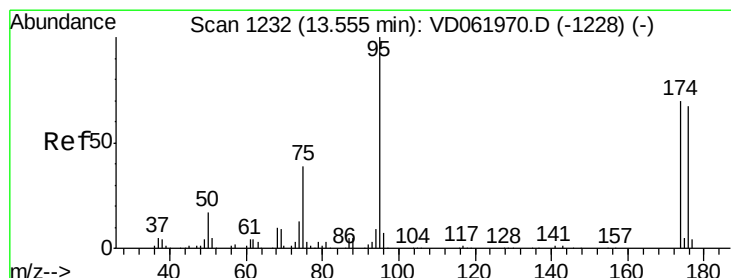
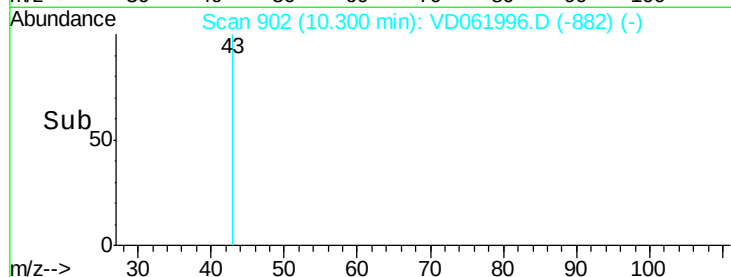
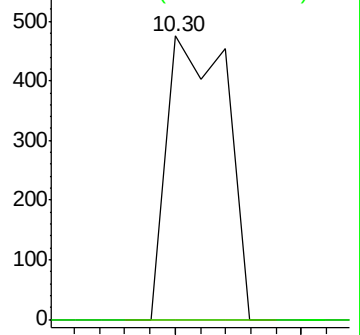
43 100

58 0.0 30.4 45.6#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#62

4-Bromofluorobenzene

Concen: 97.355 ug/l

RT: 13.56 min Scan# 1233

Delta R.T. -0.00 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

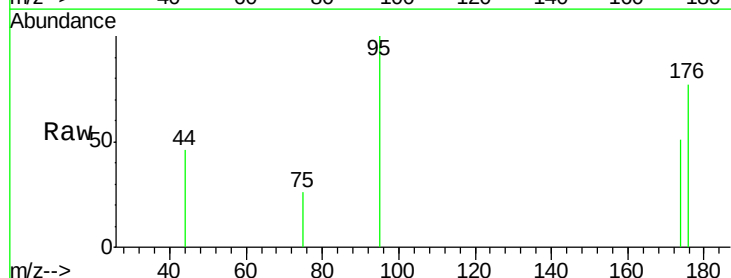
Tgt Ion: 95 Resp: 1629

Ion Ratio Lower Upper

95 100

174 51.3 0.0 181.8

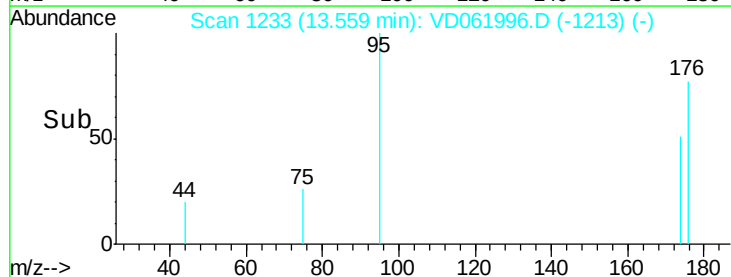
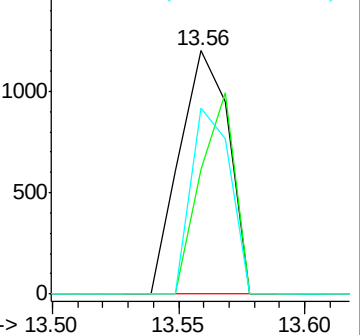
176 76.5 0.0 174.4

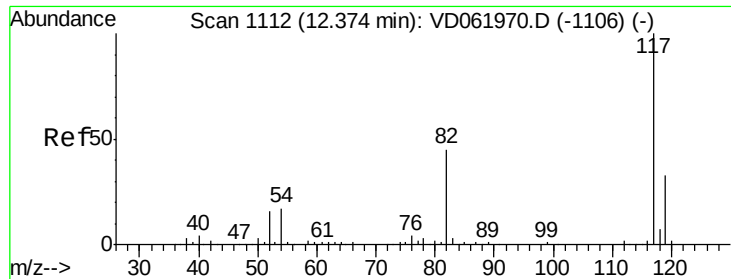


Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 12.38 min Scan# 1113

Delta R.T. 0.01 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

MUDDY-BAGS

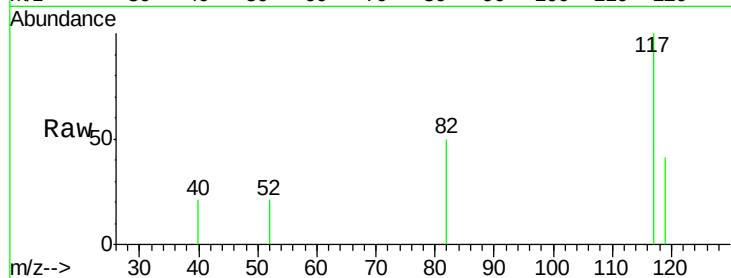
Tot Ion:117 Resp: 2628

Ion Ratio Lower Upper

117 100

82 50.2 36.2 54.2

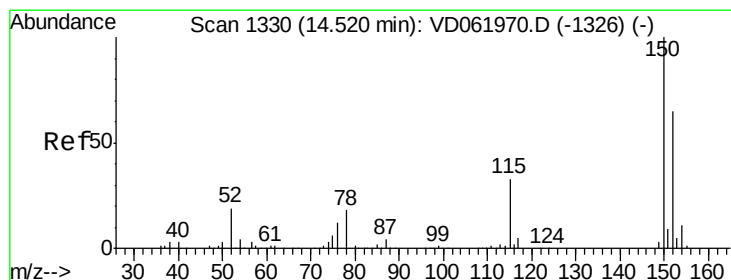
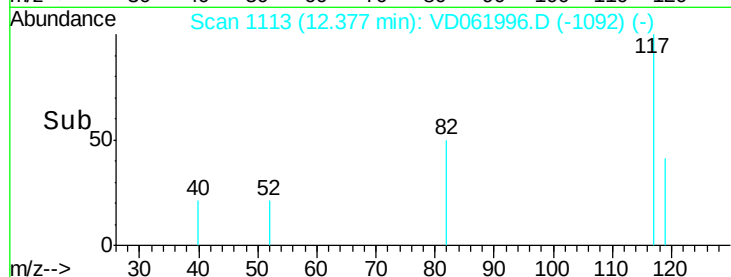
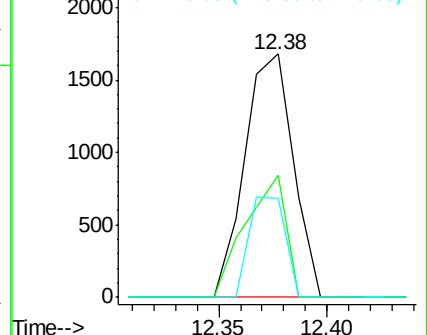
119 40.7 26.2 39.4#



Abundance Ion 116.95 (116.65 to 117.65): V

Ion 82.05 (81.75 to 82.75): V

Ion 118.95 (118.65 to 119.65): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.52 min Scan# 1331

Delta R.T. -0.00 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

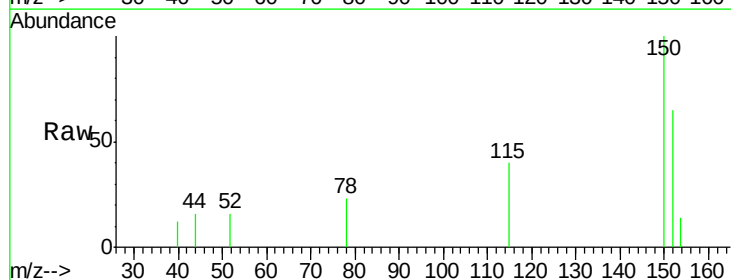
Tgt Ion:152 Resp: 2194

Ion Ratio Lower Upper

152 100

115 61.6 30.9 92.7

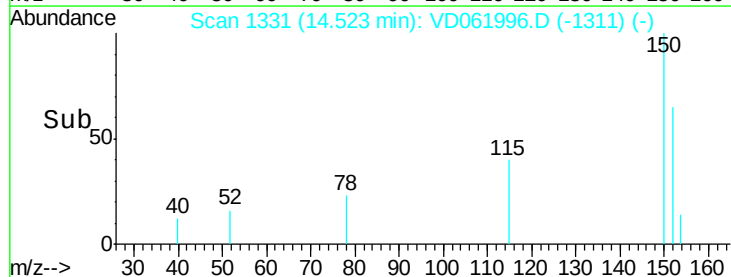
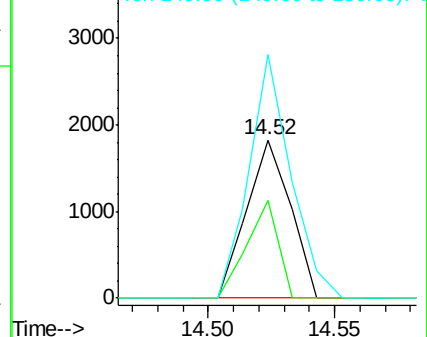
150 153.8 0.0 314.8

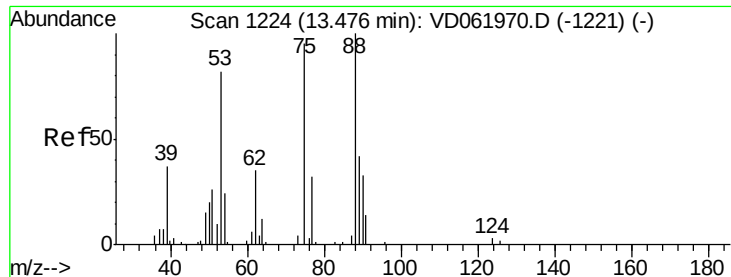


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 115.00 (114.70 to 115.70): V

Ion 149.90 (149.60 to 150.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 73.672 ug/l

RT: 13.57 min Scan# 1234

Delta R.T. 0.09 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

MUDDY-BAGS

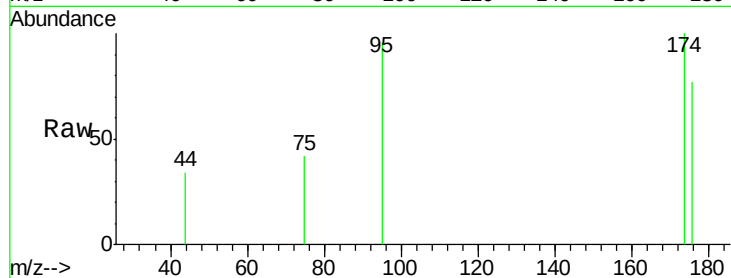
Tot Ion: 75 Resp: 622

Ion Ratio Lower Upper

75 100

53 0.0 65.8 98.8#

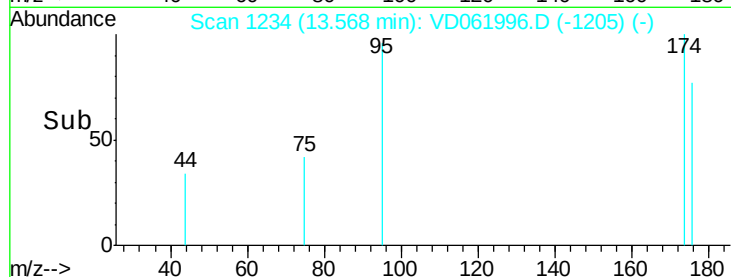
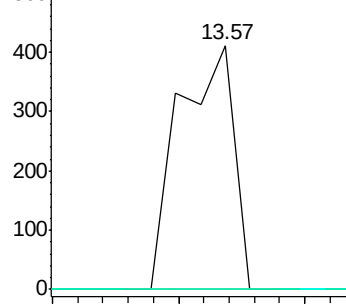
89 0.0 35.0 52.6#



Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC



#84

1,2,4-Trimethylbenzene

Concen: 4.012 ug/l

RT: 14.24 min Scan# 1302

Delta R.T. -0.00 min

Lab File: VD061996.D

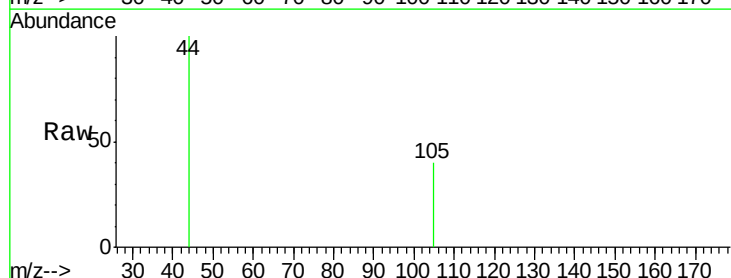
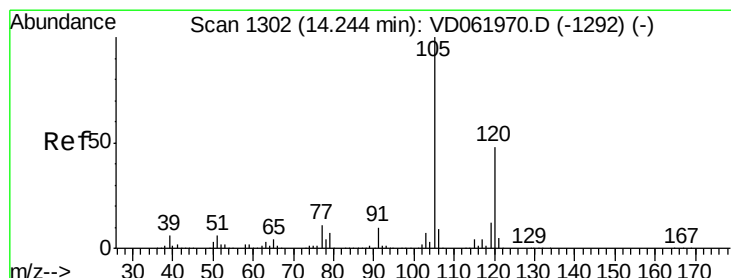
Acq: 24 Apr 2019 14:25

Tgt Ion:105 Resp: 447

Ion Ratio Lower Upper

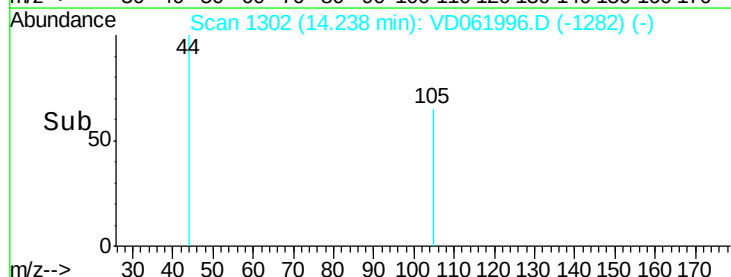
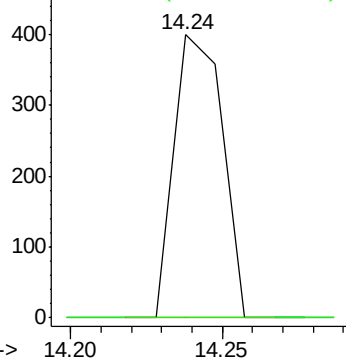
105 100

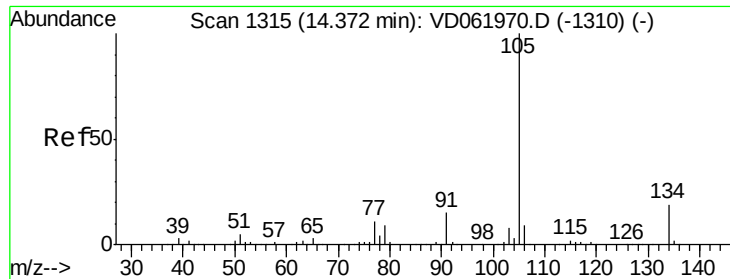
120 0.0 23.1 69.2#



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V

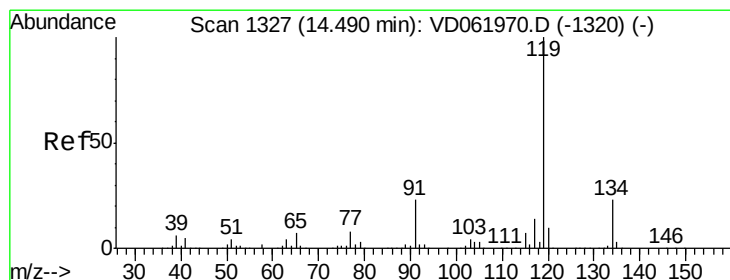
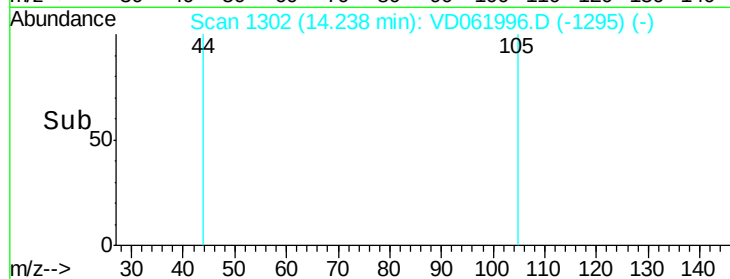
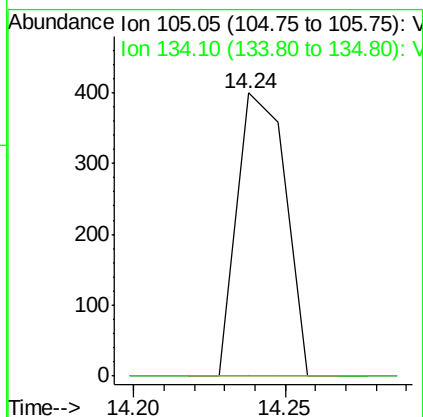
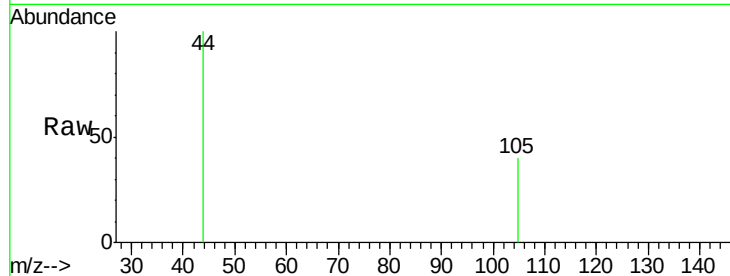




#85  
 sec-Butylbenzene  
 Concen: 3.060 ug/l  
 RT: 14.24 min Scan# 1302  
 Delta R.T. -0.13 min  
 Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

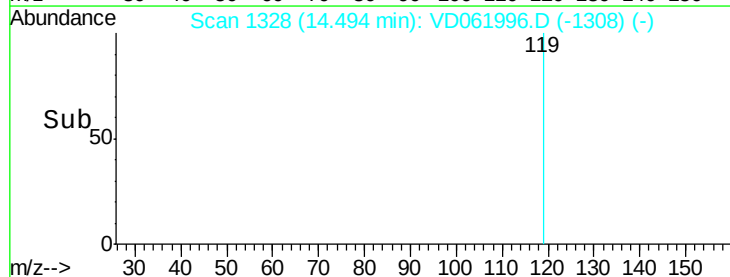
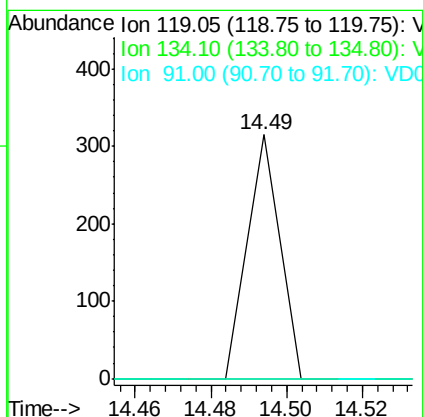
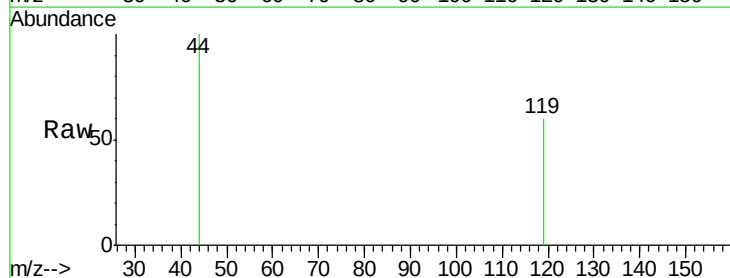
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 MUDDY-BAGS

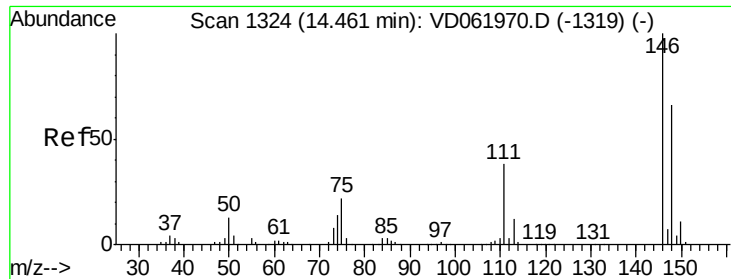
Tot Ion:105 Resp: 447  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 8.9 26.7#



#86  
 p-Isopropyltoluene  
 Concen: 1.423 ug/l  
 RT: 14.49 min Scan# 1328  
 Delta R.T. -0.00 min  
 Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

Tgt Ion:119 Resp: 186  
 Ion Ratio Lower Upper  
 119 100  
 134 0.0 12.8 38.3#  
 91 0.0 10.7 32.1#





#87

1,3-Dichlorobenzene

Concen: 4.148 ug/l

RT: 14.54 min Scan# 1333

Delta R.T. 0.09 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

Instrument :

MSVOA\_D

ClientSampleId :

MUDDY-BAGS

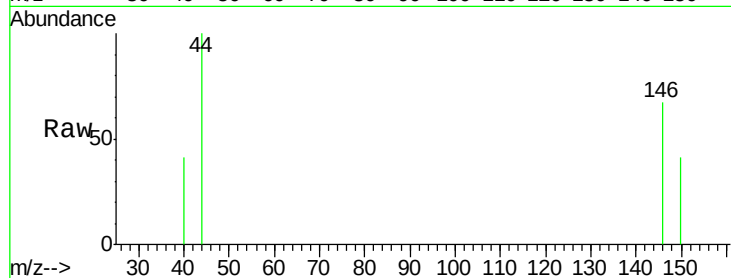
Tot Ion:146 Resp: 305

Ion Ratio Lower Upper

146 100

111 0.0 20.0 60.0#

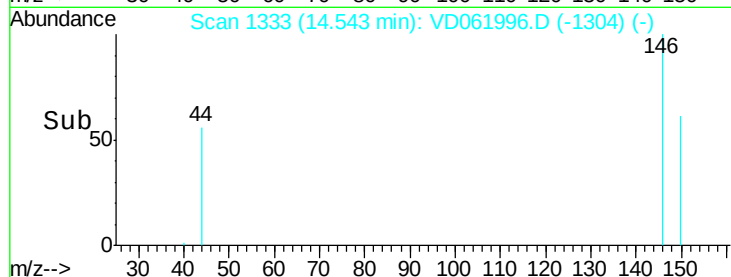
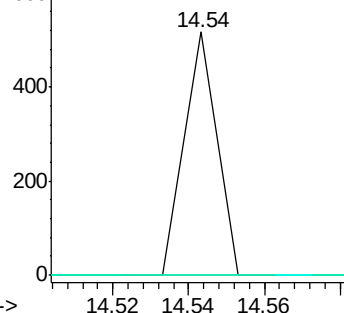
148 0.0 31.8 95.4#



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V



#88

1,4-Dichlorobenzene

Concen: 4.436 ug/l

RT: 14.54 min Scan# 1333

Delta R.T. -0.00 min

Lab File: VD061996.D

Acq: 24 Apr 2019 14:25

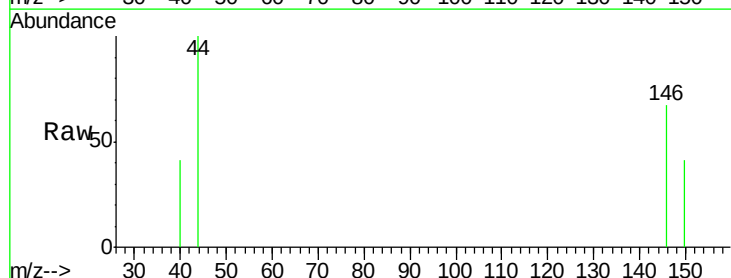
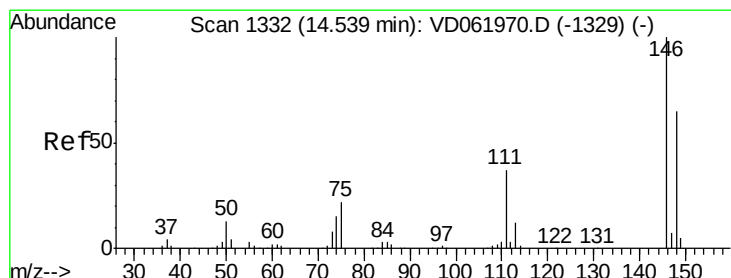
Tgt Ion:146 Resp: 305

Ion Ratio Lower Upper

146 100

111 0.0 20.2 60.5#

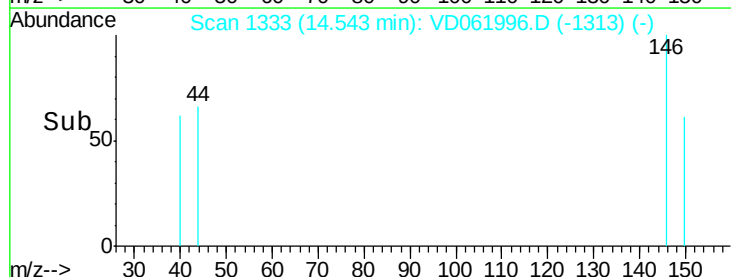
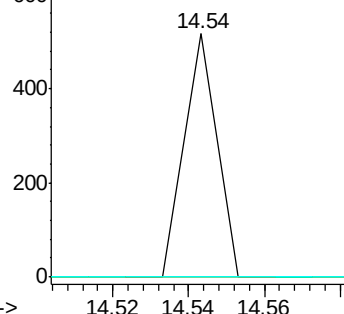
148 0.0 32.0 96.2#

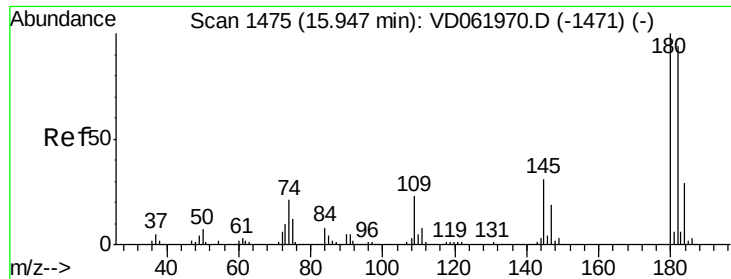


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V

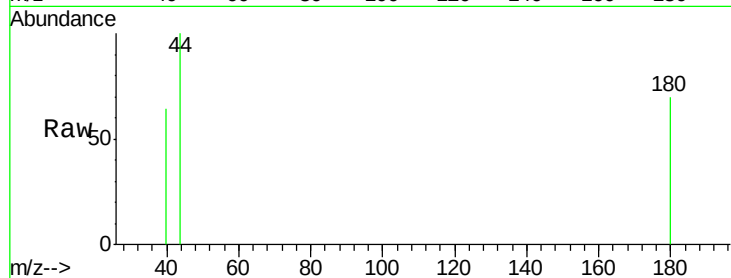




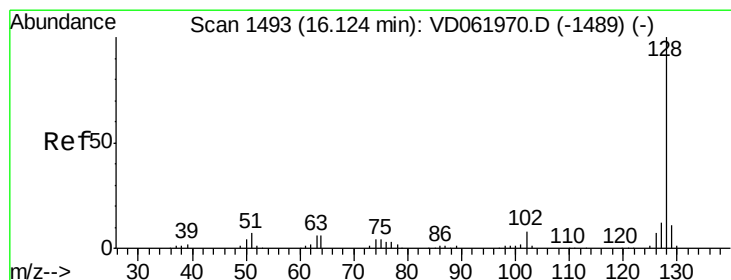
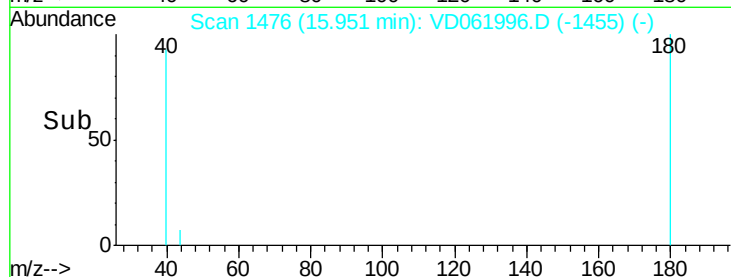
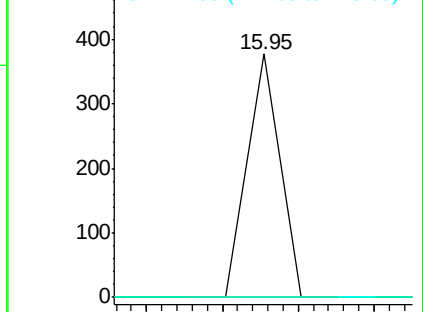
#93  
 1,2,4-Trichlorobenzene  
 Concen: 6.815 ug/l  
 RT: 15.95 min Scan# 1476  
 Delta R.T. 0.01 min  
 Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 MUDDY-BAGS

Tot Ion:180 Resp: 223  
 Ion Ratio Lower Upper  
 180 100  
 182 0.0 49.3 147.8#  
 145 0.0 16.2 48.6#

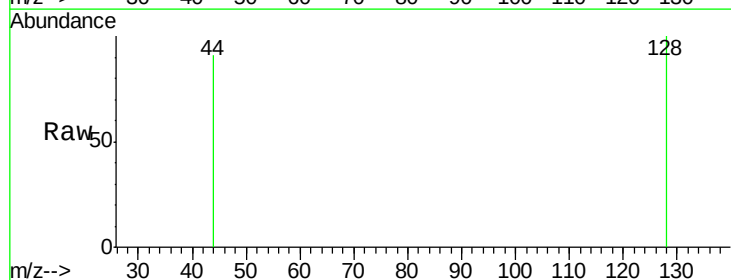


Abundance Ion 179.85 (179.55 to 180.55): V  
 Ion 181.85 (181.55 to 182.55): V  
 Ion 144.95 (144.65 to 145.65): V



#95  
 Naphthalene  
 Concen: 8.157 ug/l  
 RT: 16.13 min Scan# 1494  
 Delta R.T. -0.00 min  
 Lab File: VD061996.D  
 Acq: 24 Apr 2019 14:25

Tgt Ion:128 Resp: 431  
 Ion Ratio Lower Upper  
 128 100  
 127 0.0 9.8 14.8#  
 129 0.0 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

