

Data File : VW008547.D  
Acq On : 07 Feb 2019 12:48  
Operator : SY/VA  
Sample : K1385-02MS  
Misc : 9.82G/5ML/MSVOA\_W/SOIL  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
98-SB-01-2-4MS

Quant Time: Feb 08 22:31:36 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W012419S.M  
Quant Title : SW846 8260  
QLast Update : Fri Jan 25 11:07:41 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 514029   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 787002   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 674109   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 281608   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.30   | 65  | 286611   | 56.76 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 113.52% |      |
| 35) Dibromofluoromethane    | 7.88   | 113 | 261217   | 56.76 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 113.52% |      |
| 50) Toluene-d8              | 10.32  | 98  | 961206   | 52.09 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 104.18% |      |
| 62) 4-Bromofluorobenzene    | 12.62  | 95  | 314873   | 44.39 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 88.78%  |      |

| Target Compounds              |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 133651 | 45.318  | ug/l | 92     |
| 3) Chloromethane              | 2.21 | 50  | 202681 | 48.305  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.37 | 62  | 281476 | 52.698  | ug/l | 100    |
| 5) Bromomethane               | 2.78 | 94  | 227766 | 66.112  | ug/l | 93     |
| 6) Chloroethane               | 2.92 | 64  | 218564 | 66.909  | ug/l | 94     |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 249956 | 53.444  | ug/l | 96     |
| 8) Diethyl Ether              | 3.67 | 74  | 155487 | 60.655  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.05 | 101 | 258740 | 55.653  | ug/l | 97     |
| 10) Methyl Iodide             | 4.26 | 142 | 409542 | 55.770  | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.17 | 59  | 131097 | 322.446 | ug/l | 95     |
| 12) 1,1-Dichloroethene        | 4.03 | 96  | 251453 | 53.443  | ug/l | 96     |
| 13) Acrolein                  | 3.89 | 56  | 53165  | 149.915 | ug/l | 98     |
| 14) Allyl chloride            | 4.65 | 41  | 448994 | 50.255  | ug/l | 99     |
| 15) Acrylonitrile             | 5.37 | 53  | 361499 | 326.581 | ug/l | 99     |
| 16) Acetone                   | 4.12 | 43  | 420198 | 370.539 | ug/l | 94     |
| 17) Carbon Disulfide          | 4.37 | 76  | 650589 | 43.295  | ug/l | 99     |
| 18) Methyl Acetate            | 4.67 | 43  | 452402 | 149.571 | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 495499 | 63.651  | ug/l | 98     |
| 20) Methylene Chloride        | 4.90 | 84  | 325576 | 62.290  | ug/l | 95     |
| 21) trans-1,2-Dichloroethene  | 5.41 | 96  | 273182 | 51.645  | ug/l | 93     |
| 22) Diisopropyl ether         | 6.31 | 45  | 899520 | 53.123  | ug/l | 99     |
| 23) Vinyl Acetate             | 6.25 | 43  | 636190 | 63.629  | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 516622 | 53.901  | ug/l | 99     |
| 25) 2-Butanone                | 7.17 | 43  | 515436 | 327.234 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 343349 | 52.997  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 7.16 | 96  | 316563 | 54.913  | ug/l | 98     |
| 28) Bromochloromethane        | 7.51 | 49  | 222247 | 50.485  | ug/l | 95     |
| 29) Tetrahydrofuran           | 7.52 | 42  | 328661 | 329.266 | ug/l | 96     |
| 30) Chloroform                | 7.67 | 83  | 533231 | 56.562  | ug/l | 99     |
| 31) Cyclohexane               | 7.95 | 56  | 427583 | 43.144  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 437777 | 53.763  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.07 | 75  | 393784 | 52.970  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.25 | 43  | 164072 | 49.884  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 8.06 | 117 | 419503 | 56.077  | ug/l | 100    |

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Instrument :  
MSVOA\_W  
ClientSampleId :  
98-SB-01-2-4MS

Quant Time: Feb 08 22:31:36 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W012419S.M  
Quant Title : SW846 8260  
QLast Update : Fri Jan 25 11:07:41 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.33  | 83   | 401857   | 41.149   | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 1139849  | 55.255   | ug/l   | 98       |
| 41) Methacrylonitrile          | 7.48  | 41   | 116673   | 59.909   | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 365574   | 61.152   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.42  | 43   | 378795   | 55.435   | ug/l   | 97       |
| 44) Trichloroethene            | 9.09  | 130  | 346350   | 61.742   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 291839   | 56.739   | ug/l   | 100      |
| 46) Dibromomethane             | 9.46  | 93   | 164744   | 62.273   | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.64  | 83   | 405540   | 57.956   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.43  | 41   | 227724   | 68.158   | ug/l   | 97       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 56761    | 1269.333 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 1151729  | 341.175  | ug/l   | 100      |
| 52) Toluene                    | 10.38 | 92   | 715926   | 52.574   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 407570   | 54.738   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 462058   | 54.683   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 229501   | 62.543   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 269076   | 52.332   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 400355   | 60.901   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 759253   | 303.918  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.97 | 43   | 818761   | 343.561  | ug/l   | 99       |
| 60) Dibromochloromethane       | 11.13 | 129  | 278453   | 59.050   | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.23 | 107  | 220406   | 60.577   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.86 | 164  | 454556   | 99.593   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.66 | 112  | 758295   | 55.105   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 299831   | 60.899   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.73 | 91   | 1350713  | 53.399   | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.84 | 106  | 1031025  | 105.053  | ug/l   | 99       |
| 69) o-Xylene                   | 12.16 | 106  | 502915   | 53.931   | ug/l   | 98       |
| 70) Styrene                    | 12.18 | 104  | 786629   | 51.070   | ug/l   | 98       |
| 71) Bromoform                  | 12.35 | 173  | 171062   | 61.753   | ug/l   | 98       |
| 73) Isopropylbenzene           | 12.46 | 105  | 1312112  | 62.498   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.27 | 43   | 285885   | 52.858   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 233852   | 70.356   | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 357130   | 145.863  | ug/l # | 1        |
| 77) Bromobenzene               | 12.75 | 156  | 302624   | 66.003   | ug/l   | 95       |
| 78) n-propylbenzene            | 12.80 | 91   | 1472118  | 58.381   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 858719   | 60.350   | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 1048699  | 59.762   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 90073    | 72.661   | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 846666   | 55.888   | ug/l   | 97       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 913886   | 58.524   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 1060843  | 59.478   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.38 | 105  | 1198914  | 53.760   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 1081895  | 55.384   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 520721   | 56.235   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 509470   | 55.363   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.83 | 91   | 847851   | 44.205   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 206544   | 54.066   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 473210   | 57.756   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 46366    | 73.520   | ug/l   | 98       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW020719\  
Quantitation Report (Not Reviewed)

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Sample : K1385-02MS  
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ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
98-SB-01-2-4MS

Quant Time: Feb 08 22:31:36 2019  
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Quant Title : SW846 8260  
QLast Update : Fri Jan 25 11:07:41 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 210284   | 35.966 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 94799    | 26.904 | ug/l  | 99       |
| 95) Naphthalene            | 15.37 | 128  | 553278   | 53.894 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.56 | 180  | 177379   | 35.764 | ug/l  | 100      |

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

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Acq On : 07 Feb 2019 12:48

Operator : SY/VA

Sample : K1385-02MS

Misc : 9.82G/5ML/MSVOA\_W/SOIL

```
ALS Vial      : 6      Sample Multiplier: 1
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**Instrument :**  
MSVOA\_W  
**ClientSampleId :**  
98-SB-01-2-4MS

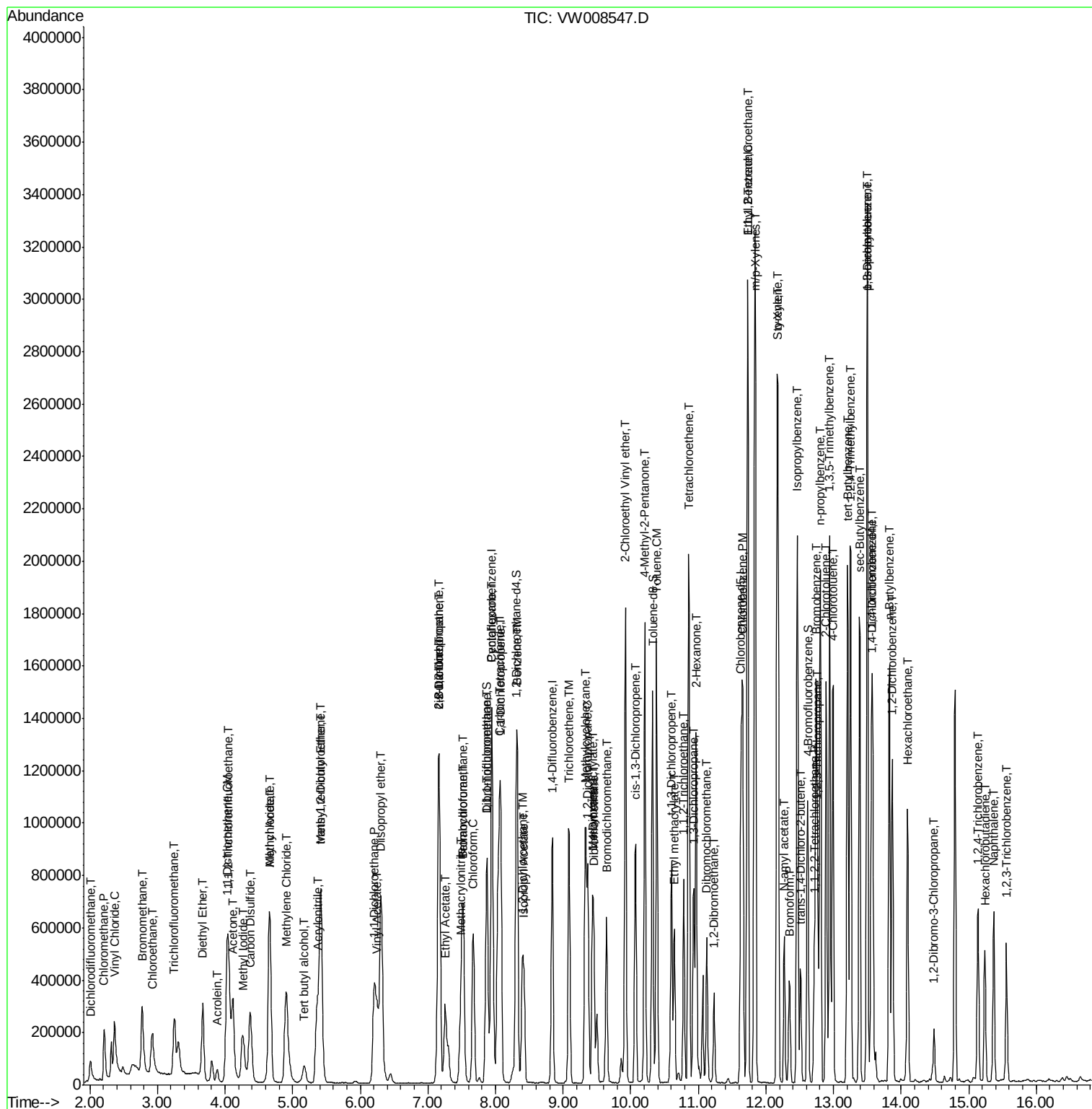
Quant Time: Feb 08 22:31:36 2019

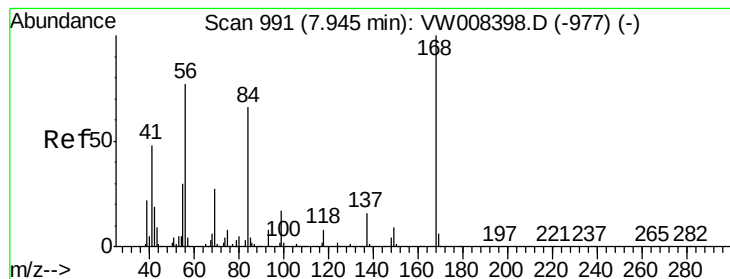
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A\_W\METHOD\82W012419S.M

Quant Title : SW846 8260

QLast Update : Fri Jan 25 11:07:41 2019

Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. 0.00 min

Lab File: VW008547.D

Acq: 07 Feb 2019 12:48

Instrument :

MSVOA\_W

ClientSampleId :

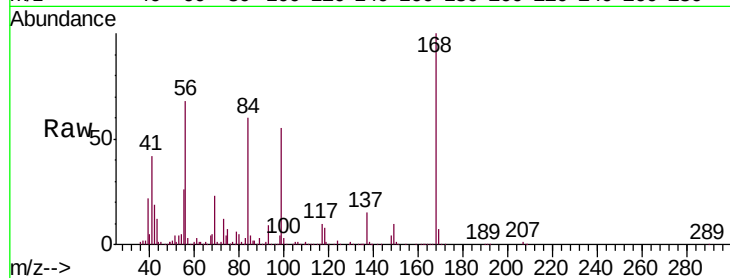
98-SB-01-2-4MS

Tgt Ion:168 Resp: 514029

Ion Ratio Lower Upper

168 100

99 55.1 45.5 68.3



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

250000

200000

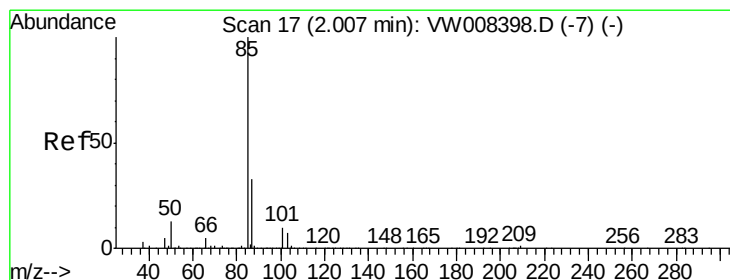
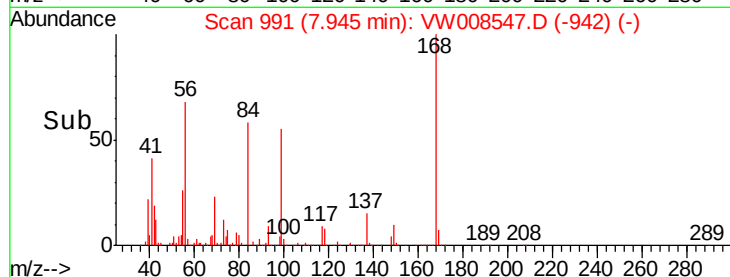
150000

100000

50000

0

Time--> 7.80 7.90 8.00 8.10



#2

Dichlorodifluoromethane

Concen: 45.318 ug/l

RT: 2.01 min Scan# 17

Delta R.T. 0.00 min

Lab File: VW008547.D

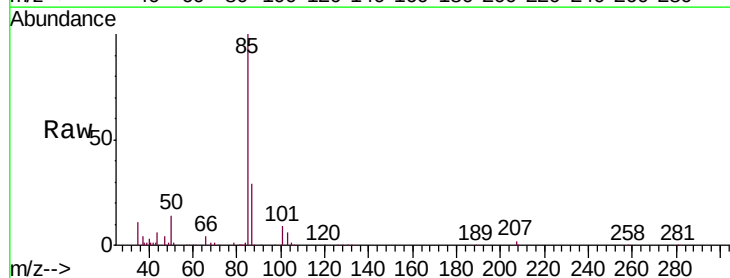
Acq: 07 Feb 2019 12:48

Tgt Ion: 85 Resp: 133651

Ion Ratio Lower Upper

85 100

87 29.1 16.7 50.1



Abundance Ion 84.90 (84.60 to 85.60): VW

Ion 86.90 (86.60 to 87.60): VW

2.01

50000

40000

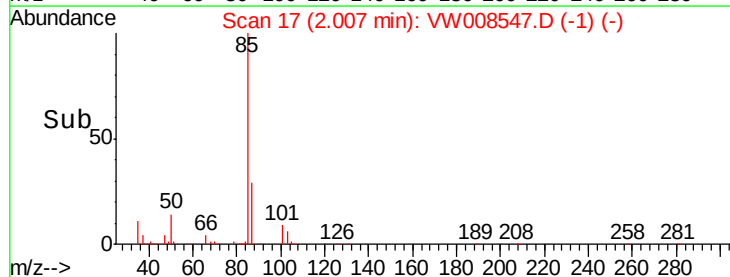
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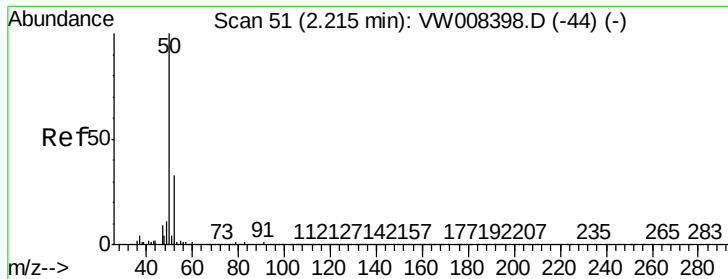
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10000

0

Time--> 1.90 2.00 2.10





#3

Chloromethane

Concen: 48.305 ug/l

RT: 2.21 min Scan# 51

Delta R.T. -0.00 min

Lab File: VW008547.D

Acq: 07 Feb 2019 12:48

Instrument :

MSVOA\_W

ClientSampleId :

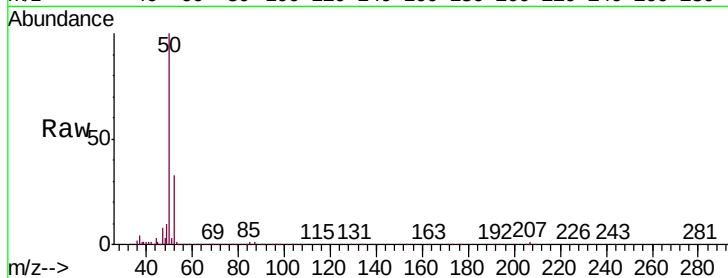
98-SB-01-2-4MS

Tgt Ion: 50 Resp: 202681

Ion Ratio Lower Upper

50 100

52 33.2 26.3 39.5



Abundance Ion 49.90 (49.60 to 50.60): VW

Ion 51.90 (51.60 to 52.60): VW

2.21

120000

100000

80000

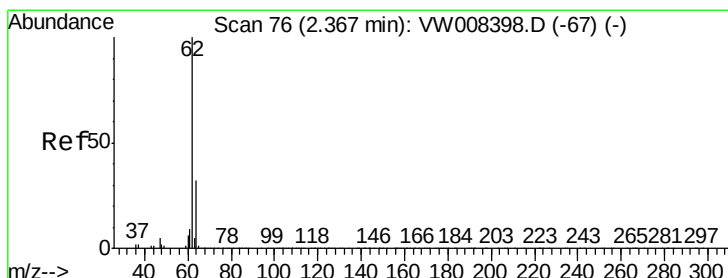
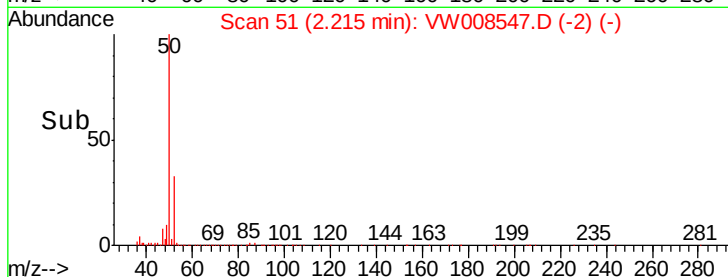
60000

40000

20000

0

Time-->



#4

Vinyl Chloride

Concen: 52.698 ug/l

RT: 2.37 min Scan# 76

Delta R.T. 0.00 min

Lab File: VW008547.D

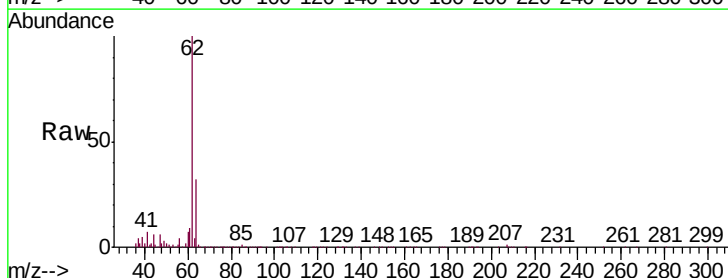
Acq: 07 Feb 2019 12:48

Tgt Ion: 62 Resp: 281476

Ion Ratio Lower Upper

62 100

64 32.0 25.5 38.3



Abundance Ion 61.90 (61.60 to 62.60): VW

Ion 63.90 (63.60 to 64.60): VW

2.37

120000

100000

80000

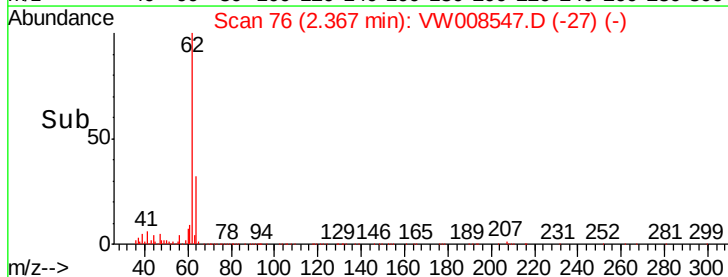
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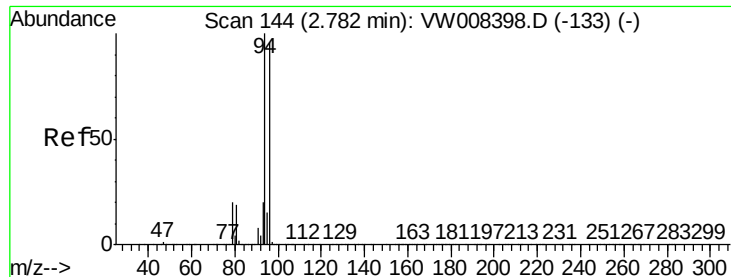
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20000

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Time-->





#5

Bromomethane

Concen: 66.112 ug/l

RT: 2.78 min Scan# 143

Delta R.T. -0.01 min

Lab File: VW008547.D

Acq: 07 Feb 2019 12:48

Instrument :

MSVOA\_W

ClientSampleId :

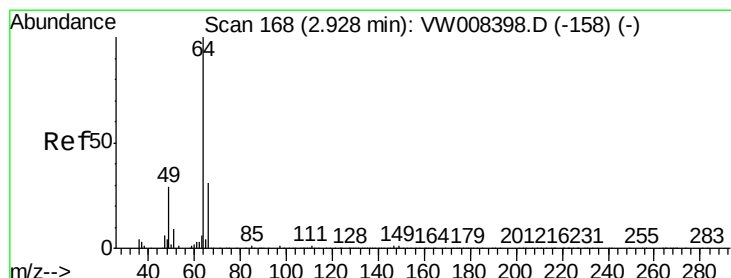
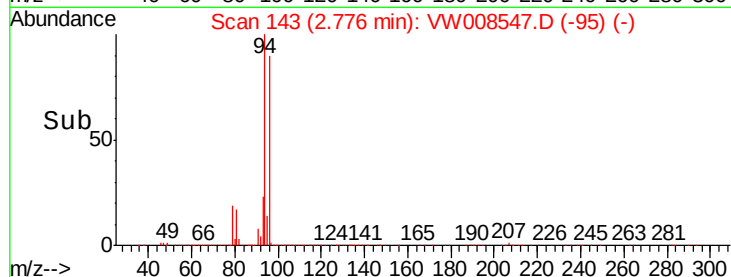
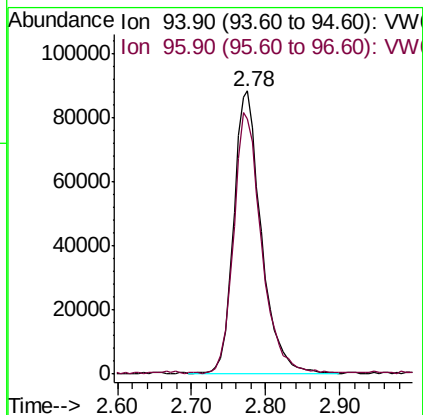
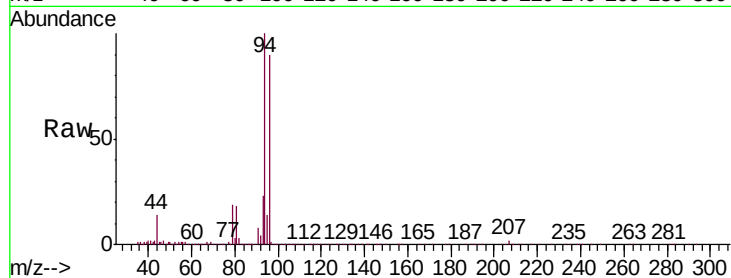
98-SB-01-2-4MS

Tgt Ion: 94 Resp: 227766

Ion Ratio Lower Upper

94 100

96 89.9 77.2 115.8



#6

Chloroethane

Concen: 66.909 ug/l

RT: 2.92 min Scan# 167

Delta R.T. -0.01 min

Lab File: VW008547.D

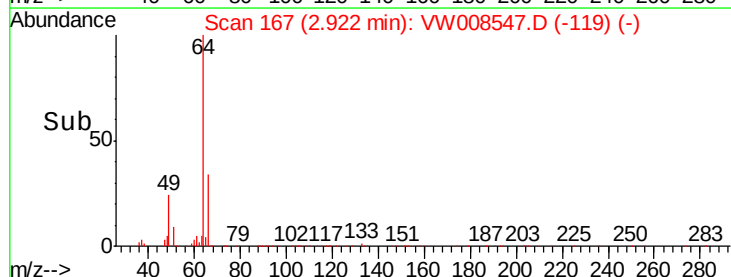
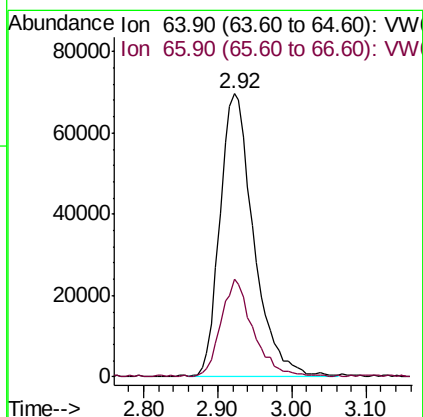
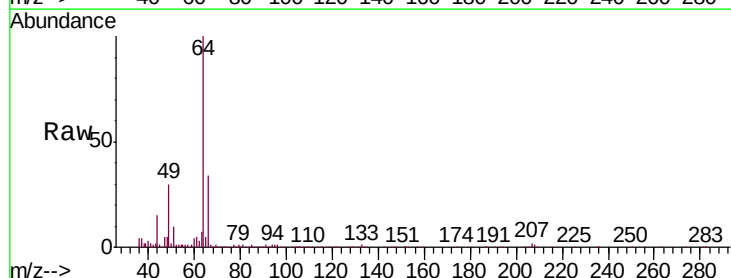
Acq: 07 Feb 2019 12:48

Tgt Ion: 64 Resp: 218564

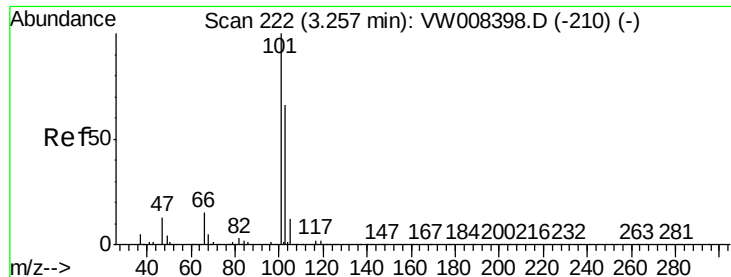
Ion Ratio Lower Upper

64 100

66 34.3 24.9 37.3





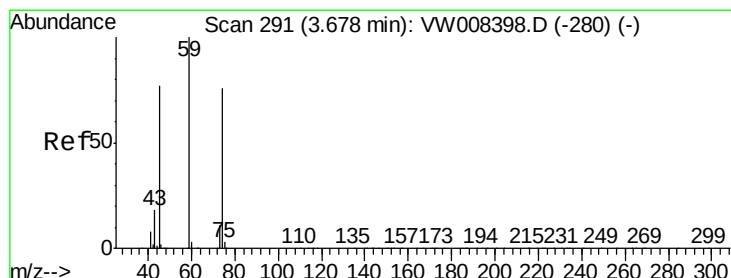
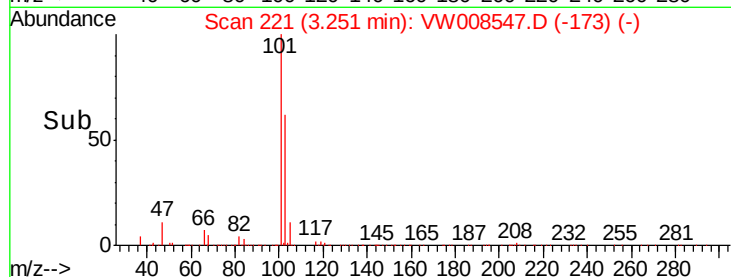
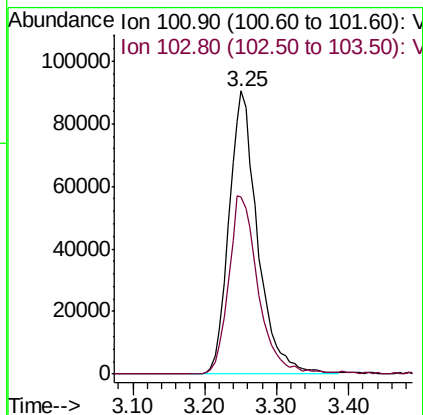
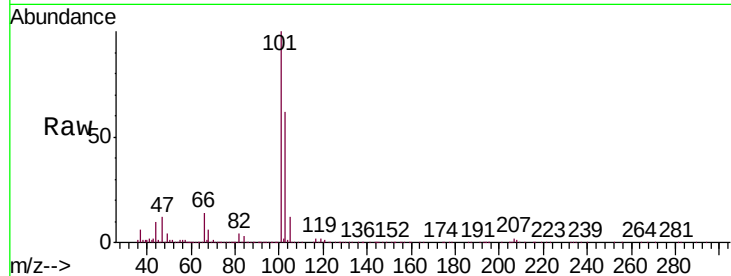


#7

Trichlorofluoromethane  
Concen: 53.444 ug/l  
RT: 3.25 min Scan# 221  
Delta R.T. -0.01 min  
Lab File: VW008547.D  
Acq: 07 Feb 2019 12:48

Instrument :  
MSVOA\_W  
ClientSampleId :  
98-SB-01-2-4MS

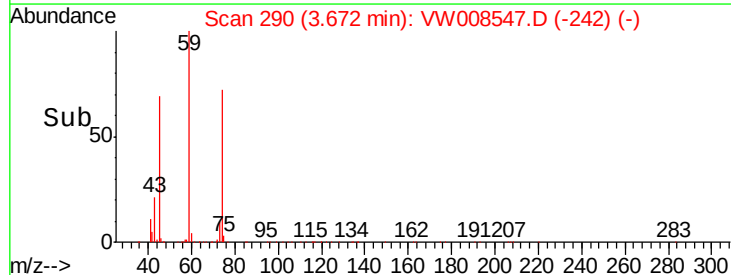
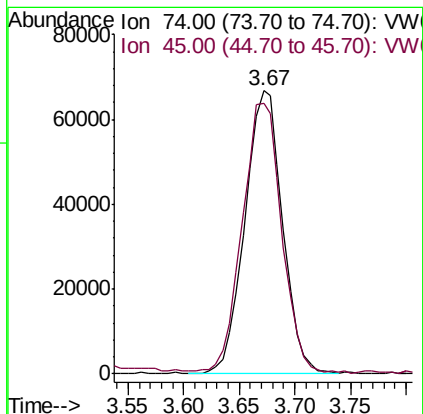
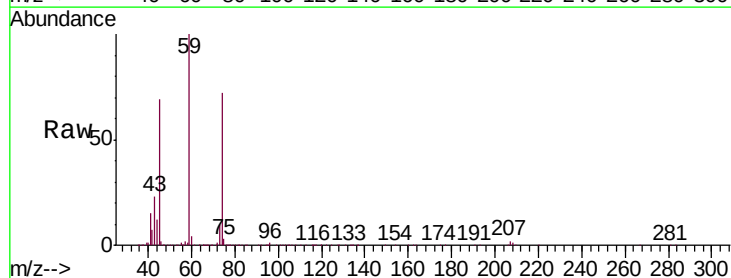
Tgt Ion:101 Resp: 249956  
Ion Ratio Lower Upper  
101 100  
103 62.2 52.5 78.7



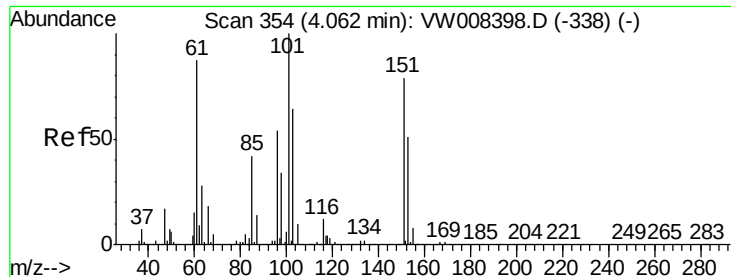
#8

Diethyl Ether  
Concen: 60.655 ug/l  
RT: 3.67 min Scan# 290  
Delta R.T. -0.01 min  
Lab File: VW008547.D  
Acq: 07 Feb 2019 12:48

Tgt Ion: 74 Resp: 155487  
Ion Ratio Lower Upper  
74 100  
45 100.9 51.7 155.2







#9

1,1,2-Trichlorotrifluoroethane

Concen: 55.653 ug/l

RT: 4.05 min Scan# 352

Delta R.T. -0.01 min

Lab File: VW008547.D

Acq: 07 Feb 2019 12:48

Instrument :

MSVOA\_W

ClientSampleId :

98-SB-01-2-4MS

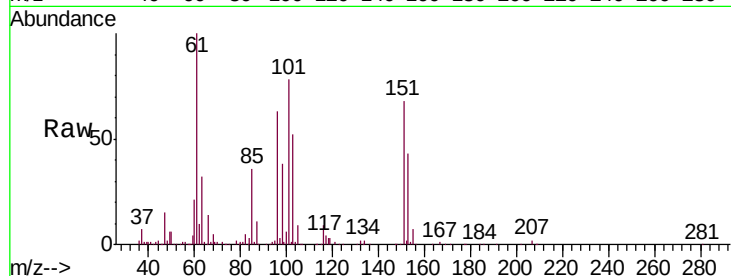
Tgt Ion:101 Resp: 258740

Ion Ratio Lower Upper

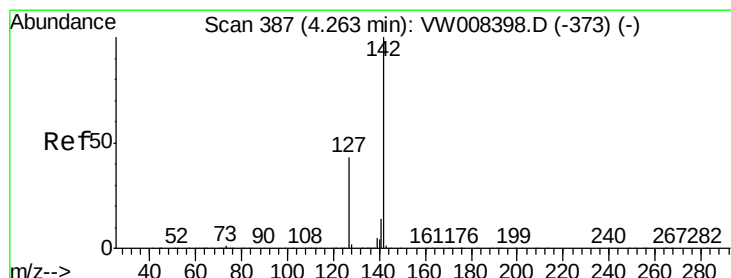
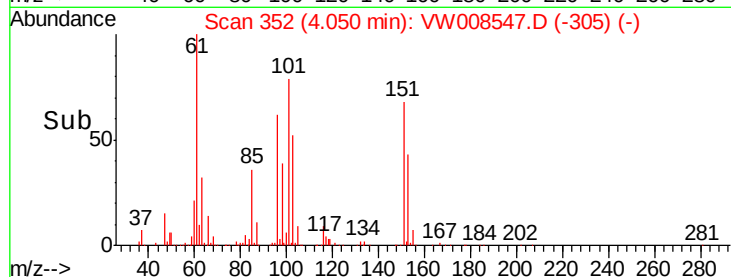
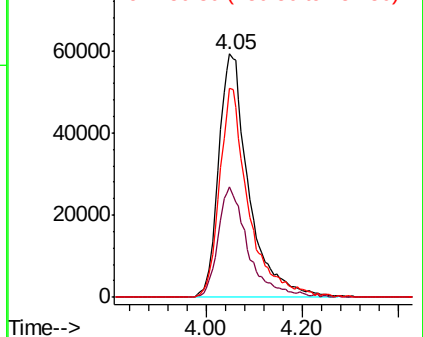
101 100

85 43.9 35.0 52.4

151 82.3 62.6 94.0



Abundance Ion 100.90 (100.60 to 101.60): V  
80000  
Ion 84.90 (84.60 to 85.60): V  
Ion 150.80 (150.50 to 151.50): V



#10

Methyl Iodide

Concen: 55.770 ug/l

RT: 4.26 min Scan# 387

Delta R.T. 0.00 min

Lab File: VW008547.D

Acq: 07 Feb 2019 12:48

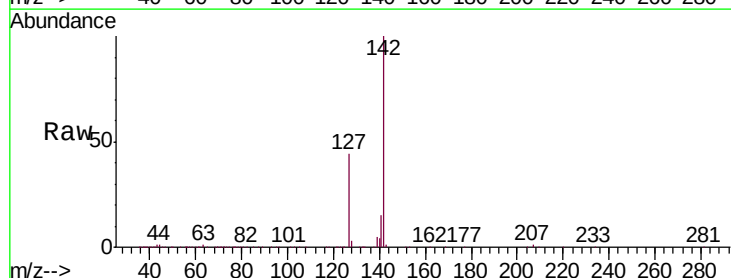
Tgt Ion:142 Resp: 409542

Ion Ratio Lower Upper

142 100

127 42.6 34.6 52.0

141 14.5 11.4 17.2



Abundance Ion 141.80 (141.50 to 142.50): V  
100000  
Ion 126.80 (126.50 to 127.50): V  
Ion 140.80 (140.50 to 141.50): V

