

Data File : VL032863.D

Acq On : 1 Dec 2018 00:15

Operator : SY/AP

Sample : J6132-05

Misc : 400ml/MSVOA\_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
DSV-04

Quant Time: Dec 01 02:27:49 2018

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 07:00:23 2018

QLast Update : Wed Nov 14 07:00:23 2018

Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1478505  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3745098  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3753623  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2889026  | 10.29    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.90% |

## Target Compounds

|                                |       |     |         |        |        | Qvalue |
|--------------------------------|-------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08  | 85  | 59936   | 0.282  | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.02  | 51  | 39821   | 0.340  | ppbv   | 92     |
| 4) Chloromethane               | 3.18  | 50  | 11211   | 0.172  | ppbv   | 97     |
| 5) Vinyl Chloride              | 3.05  | 62  | 2310    | 0.034  | ppbv # | 79     |
| 9) Propene                     | 3.04  | 41  | 147201  | 3.138  | ppbv   | 97     |
| 10) Heptane                    | 8.25  | 43  | 82006   | 0.458  | ppbv   | 96     |
| 11) Trichlorofluoromethane     | 4.01  | 101 | 63321   | 0.316  | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56  | 101 | 6039    | 0.037  | ppbv # | 14     |
| 13) Ethanol                    | 3.67  | 45  | 1038746 | 67.608 | ppbv   | 99     |
| 15) Acetone                    | 3.90  | 43  | 1454389 | 10.772 | ppbv # | 66     |
| 16) 1,3-Butadiene              | 3.35  | 39  | 301183  | 5.760  | ppbv # | 14     |
| 17) tert-Butyl alcohol         | 4.38  | 59  | 84979   | 2.007  | ppbv   | 96     |
| 19) Isopropyl Alcohol          | 4.05  | 45  | 85646   | 0.952  | ppbv # | 1      |
| 20) Methylene Chloride         | 4.42  | 84  | 766177  | 10.961 | ppbv   | 98     |
| 21) Allyl Chloride             | 4.42  | 41  | 23800   | 0.210  | ppbv # | 36     |
| 22) trans-1,2-Dichloroethene   | 4.97  | 96  | 35757   | 0.455  | ppbv   | 90     |
| 23) Vinyl Acetate              | 5.20  | 43  | 51832   | 0.211  | ppbv # | 53     |
| 25) Ethyl Acetate              | 5.79  | 43  | 1572075 | 4.996  | ppbv # | 77     |
| 26) Hexane                     | 5.79  | 57  | 2245181 | 16.027 | ppbv # | 44     |
| 27) Carbon Disulfide           | 4.63  | 76  | 15866   | 0.089  | ppbv # | 83     |
| 29) Chloroform                 | 5.85  | 83  | 11984   | 0.048  | ppbv   | 87     |
| 30) Cyclohexane                | 7.25  | 84  | 6960    | 0.057  | ppbv # | 1      |
| 34) 2-Butanone                 | 5.33  | 43  | 2965539 | 15.267 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.14  | 117 | 14884   | 0.049  | ppbv # | 67     |
| 36) Benzene                    | 7.01  | 78  | 85214   | 0.286  | ppbv   | 99     |
| 38) Trichloroethene            | 7.97  | 130 | 4281    | 0.035  | ppbv # | 75     |
| 39) 1,2-Dichloropropane        | 7.30  | 63  | 881374  | 7.757  | ppbv # | 23     |
| 41) Tetrahydrofuran            | 5.79  | 42  | 817521  | 7.337  | ppbv # | 50     |
| 44) 2,2,4-Trimethylpentane     | 7.99  | 57  | 86566   | 0.174  | ppbv # | 31     |
| 50) 4-Methyl-2-Pentanone       | 8.87  | 43  | 16007   | 0.053  | ppbv # | 1      |
| 51) 2-Hexanone                 | 10.28 | 43  | 347529  | 1.778  | ppbv # | 99     |
| 52) Tetrachloroethene          | 11.38 | 164 | 29682   | 0.286  | ppbv # | 85     |
| 53) Toluene                    | 9.96  | 91  | 1544910 | 4.966  | ppbv   | 100    |
| 58) Ethyl Benzene              | 12.87 | 91  | 138908  | 0.307  | ppbv   | 93     |
| 59) m/p-Xylene                 | 13.13 | 91  | 282150  | 0.702  | ppbv # | 79     |
| 60) o-Xylene                   | 13.86 | 91  | 130807  | 0.323  | ppbv   | 94     |
| 61) Styrene                    | 13.70 | 104 | 60486   | 0.230  | ppbv   | 93     |
| 69) p-Isopropyltoluene         | 17.82 | 119 | 97232   | 0.173  | ppbv # | 85     |
| 72) 4-Ethyltoluene             | 16.01 | 105 | 53277   | 0.120  | ppbv # | 87     |
| 73) 1,3,5-Trimethylbenzene     | 16.17 | 105 | 29856   | 0.069  | ppbv   | 94     |
| 74) 1,2,4-Trimethylbenzene     | 16.94 | 105 | 182042  | 0.393  | ppbv # | 67     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL113018\  
Quantitation Report (Not Reviewed)

Data File : VL032863.D  
Acq On : 1 Dec 2018 00:15  
Operator : SY/AP  
Sample : J6132-05  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
DSV-04

Quant Time: Dec 01 02:27:49 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 07:00:23 2018  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration

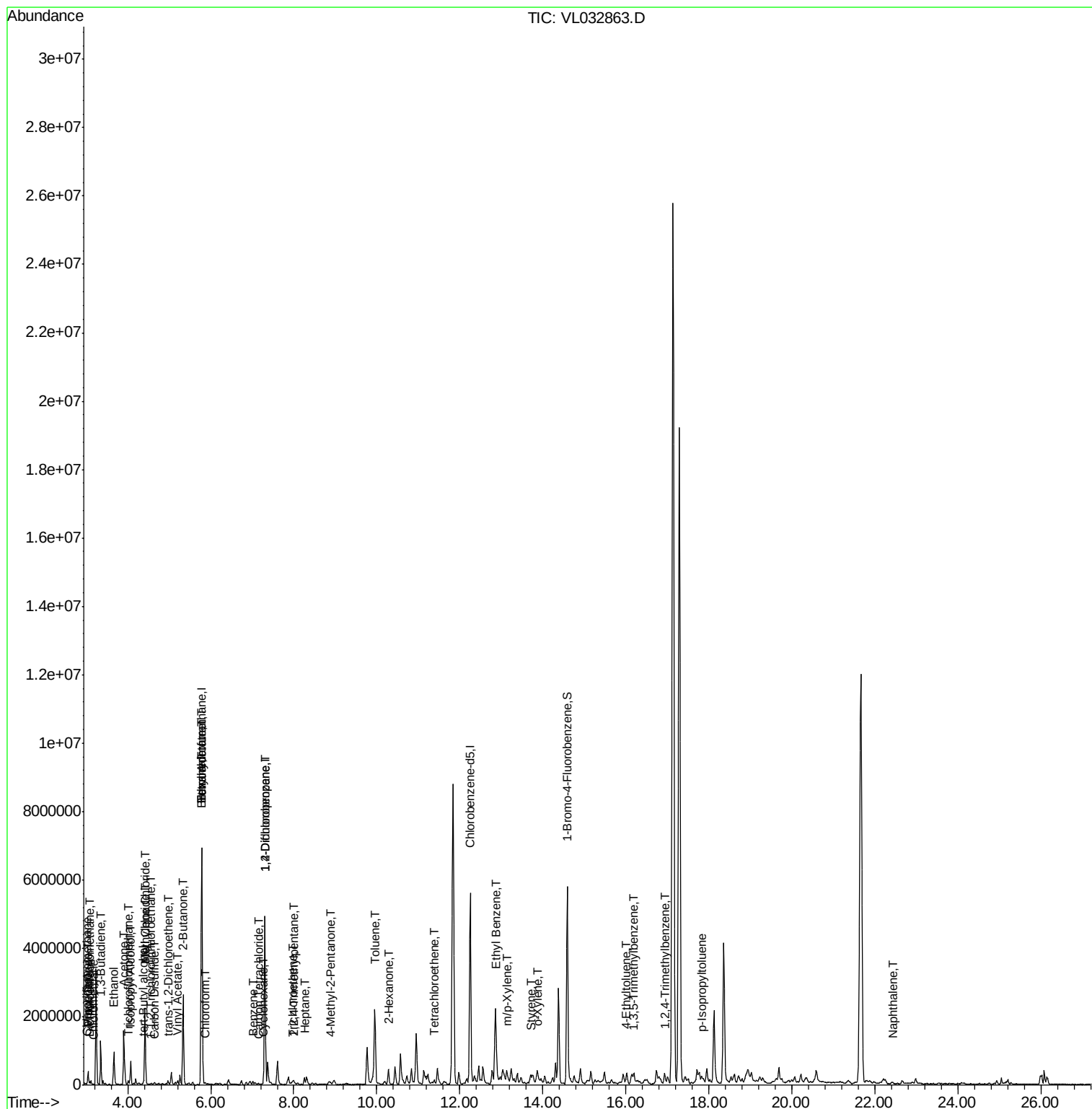
| Internal Standards | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------|-------|------|----------|-------|-------|----------|
| 79) Naphthalene    | 22.42 | 128  | 11566    | 0.038 | ppbv  | # 87     |

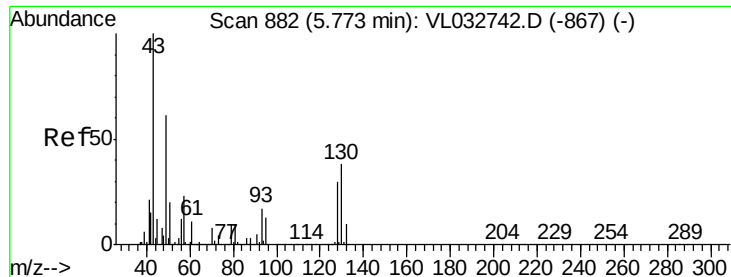
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : VL032863.D  
Acq On : 1 Dec 2018 00:15  
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MSVOA\_L  
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DSV-04

Quant Time: Dec 01 02:27:49 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 07:00:23 2018  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

DSV-04

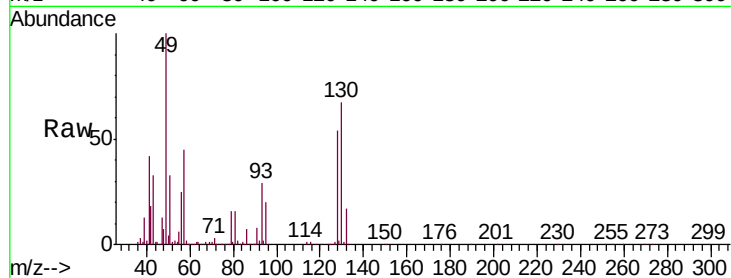
Tgt Ion: 49 Resp: 1478505

Ion Ratio Lower Upper

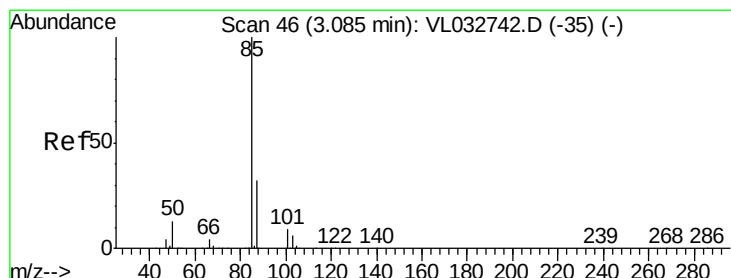
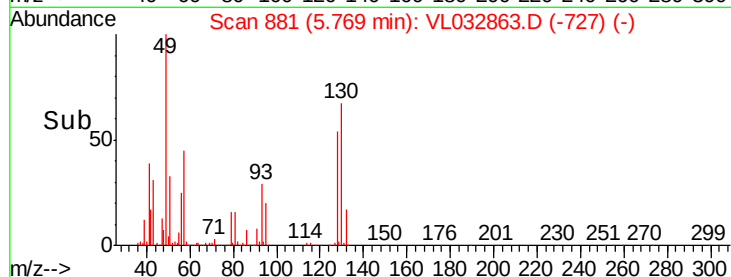
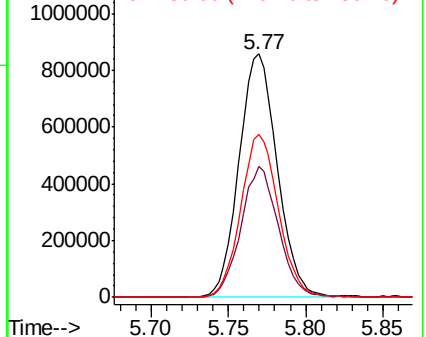
49 100

128 52.8 24.9 74.6

130 66.6 31.4 94.2



Abundance Ion 49.10 (48.80 to 49.80): VL0  
Ion 128.00 (127.70 to 128.70): V  
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.282 ppbv

RT: 3.08 min Scan# 46

Delta R.T. -0.00 min

Lab File: VL032863.D

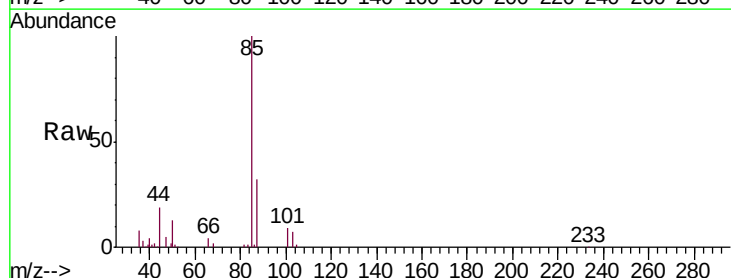
Acq: 1 Dec 2018 00:15

Tgt Ion: 85 Resp: 59936

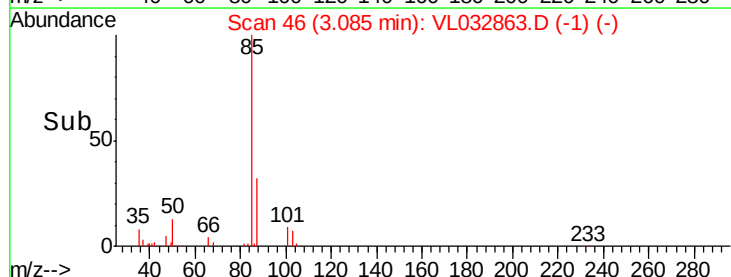
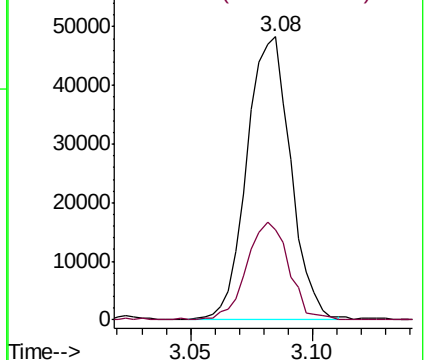
Ion Ratio Lower Upper

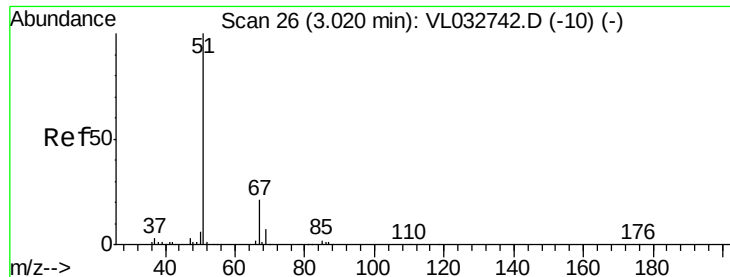
85 100

87 31.9 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.340 ppbv

RT: 3.02 min Scan# 25

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

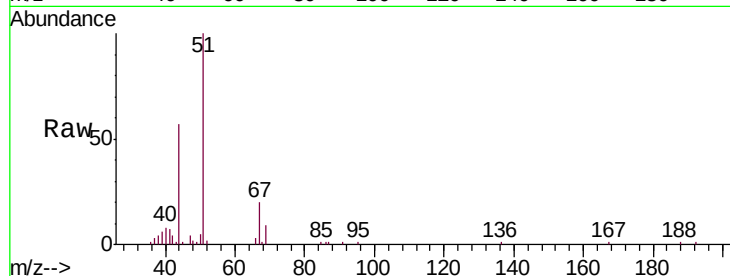
DSV-04

Tgt Ion: 51 Resp: 39821

Ion Ratio Lower Upper

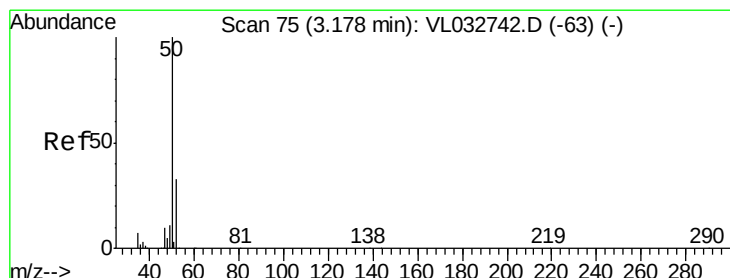
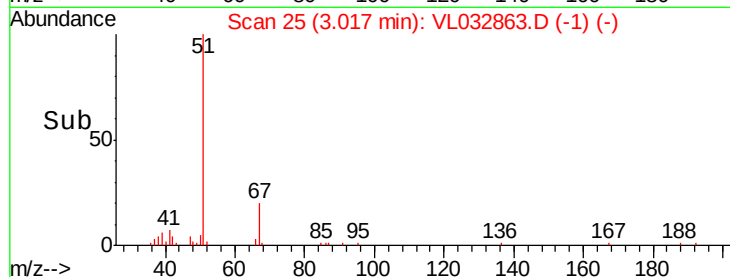
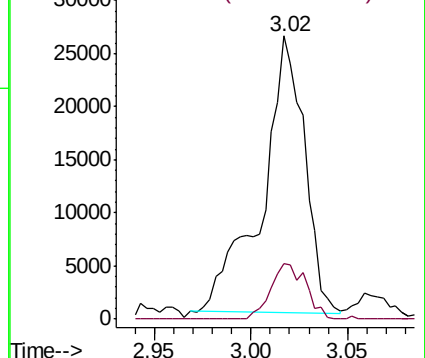
51 100

67 16.5 16.1 24.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.172 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032863.D

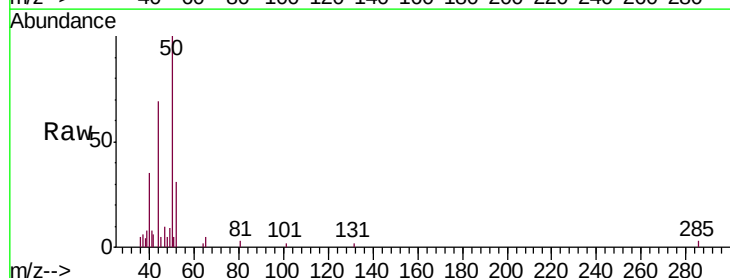
Acq: 1 Dec 2018 00:15

Tgt Ion: 50 Resp: 11211

Ion Ratio Lower Upper

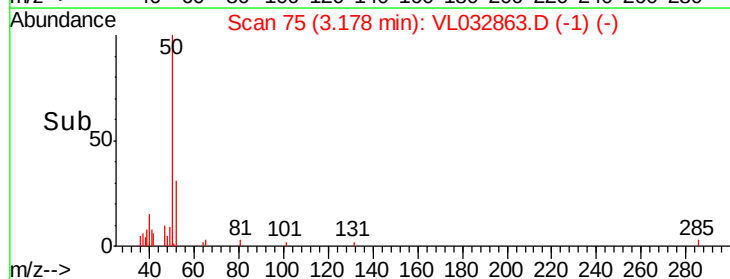
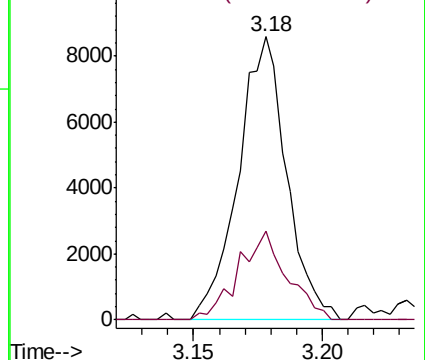
50 100

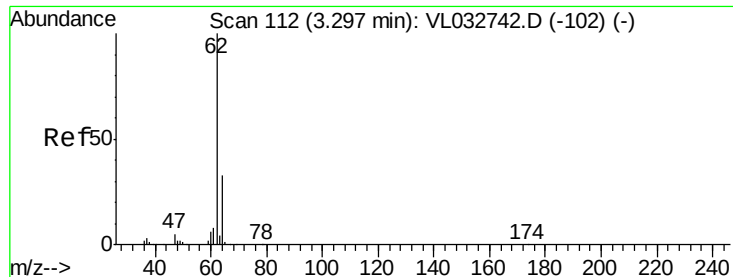
52 31.5 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.034 ppbv

RT: 3.05 min Scan# 34

Delta R.T. -0.25 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

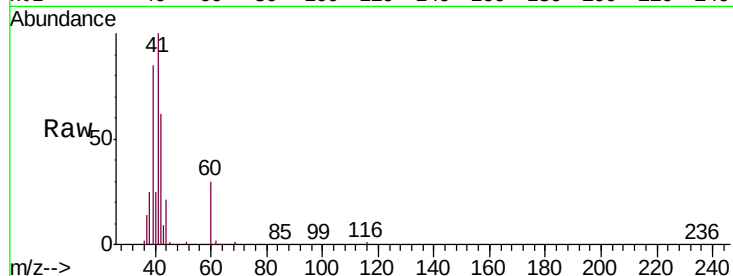
DSV-04

Tgt Ion: 62 Resp: 2310

Ion Ratio Lower Upper

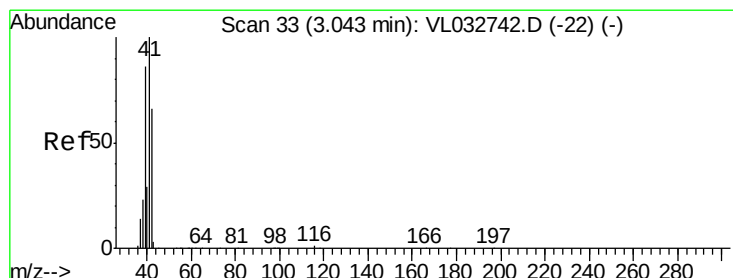
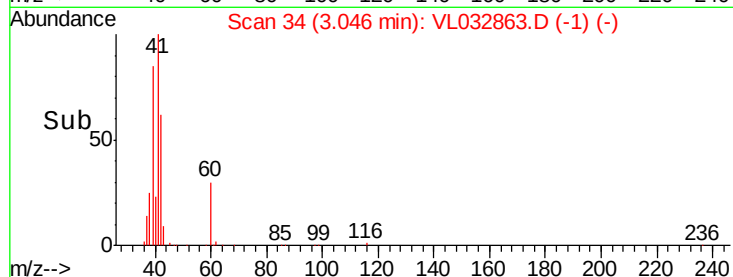
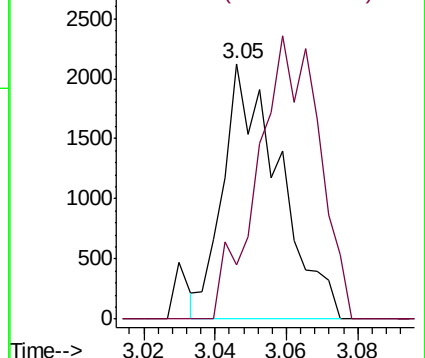
62 100

64 21.0 26.2 39.4#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#9

Propene

Concen: 3.138 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.00 min

Lab File: VL032863.D

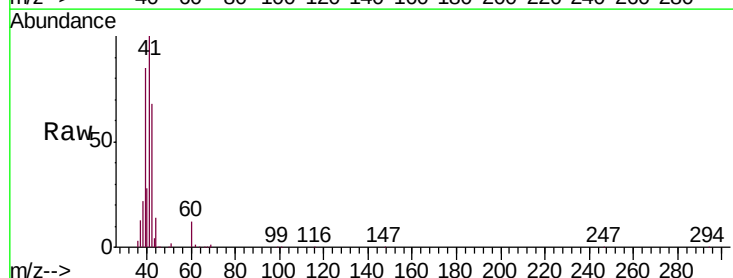
Acq: 1 Dec 2018 00:15

Tgt Ion: 41 Resp: 147201

Ion Ratio Lower Upper

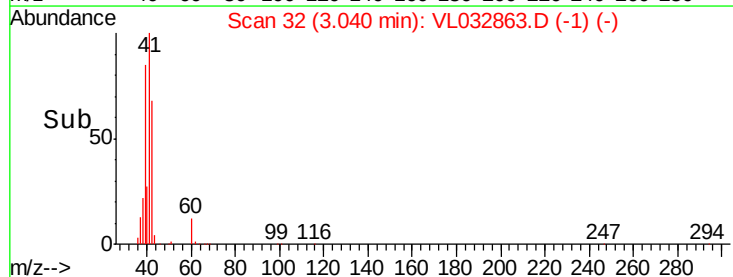
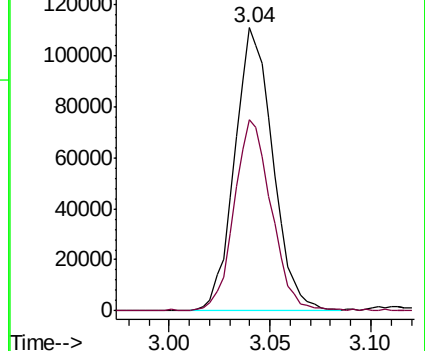
41 100

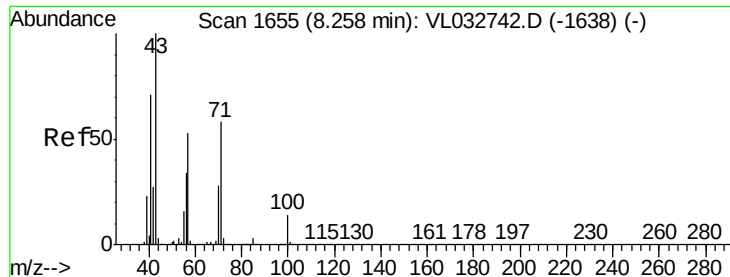
42 66.2 55.0 82.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.458 ppbv

RT: 8.25 min Scan# 1654

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

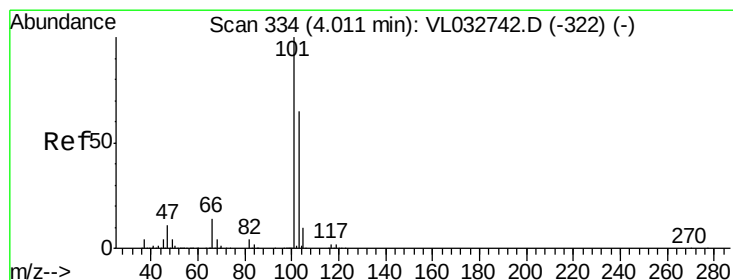
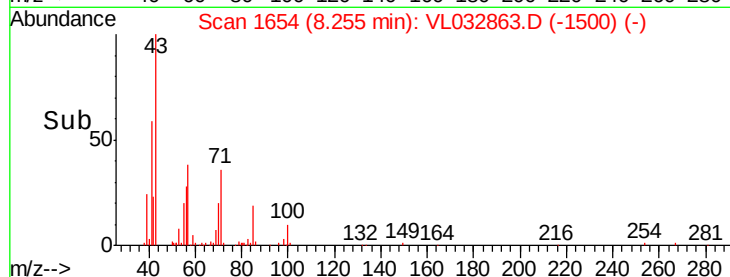
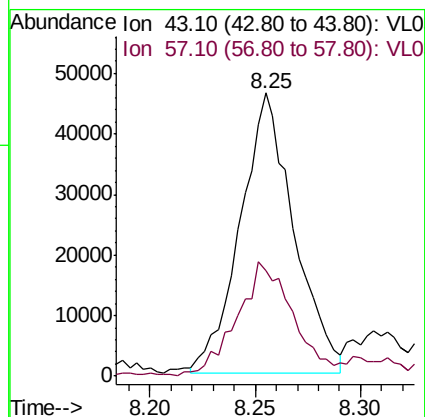
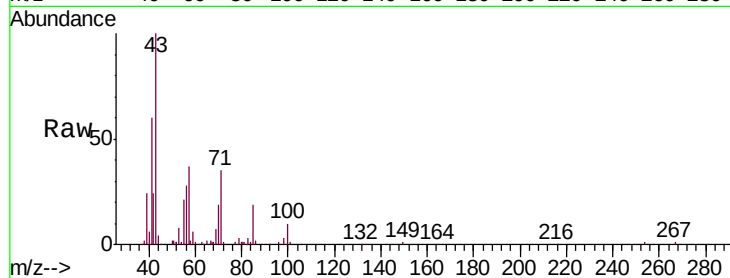
DSV-04

Tgt Ion: 43 Resp: 82006

Ion Ratio Lower Upper

43 100

57 49.7 41.8 62.8



#11

Trichlorofluoromethane

Concen: 0.316 ppbv

RT: 4.01 min Scan# 334

Delta R.T. -0.00 min

Lab File: VL032863.D

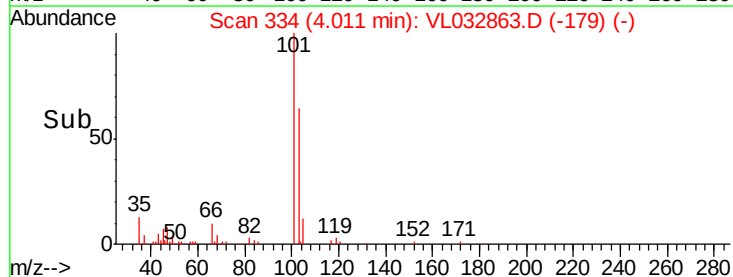
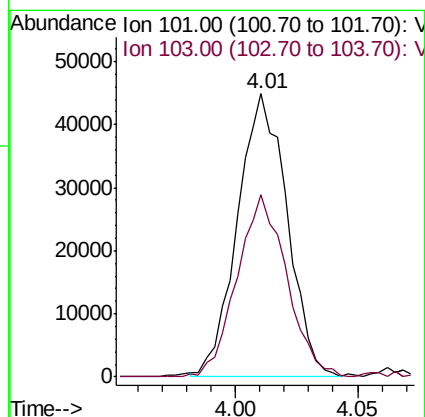
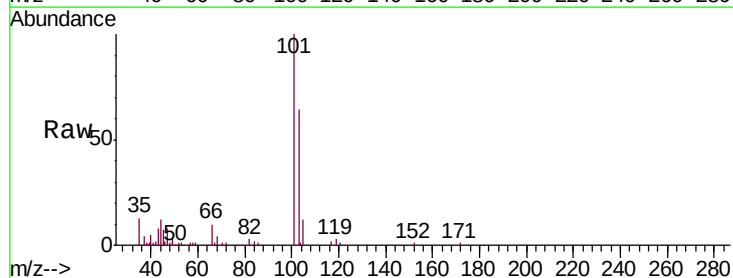
Acq: 1 Dec 2018 00:15

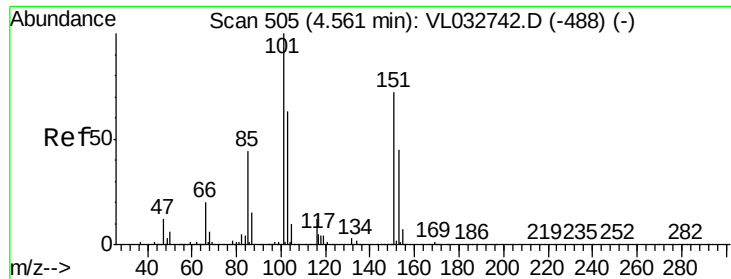
Tgt Ion: 101 Resp: 63321

Ion Ratio Lower Upper

101 100

103 63.7 51.6 77.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.037 ppbv

RT: 4.56 min Scan# 504

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

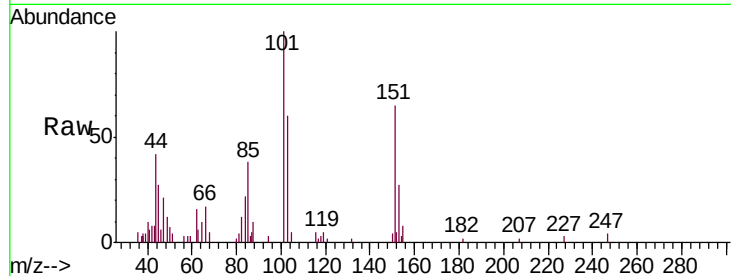
DSV-04

Tgt Ion: 101 Resp: 6039

Ion Ratio Lower Upper

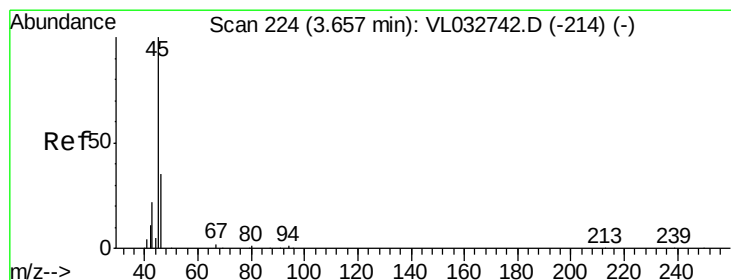
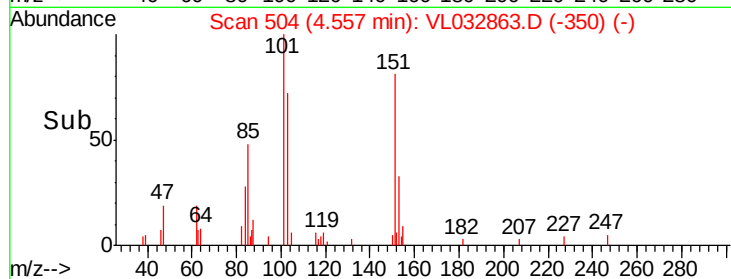
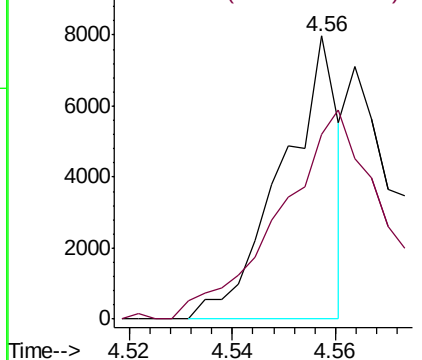
101 100

151 0.0 56.7 85.1#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 67.608 ppbv

RT: 3.67 min Scan# 227

Delta R.T. 0.01 min

Lab File: VL032863.D

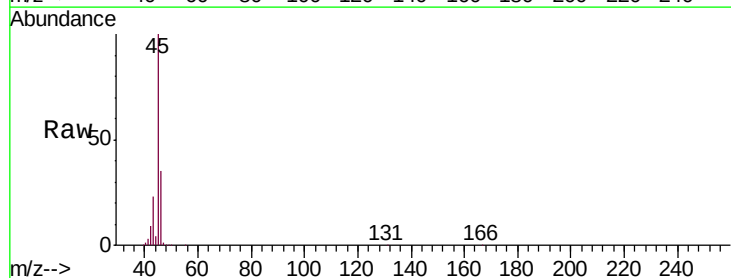
Acq: 1 Dec 2018 00:15

Tgt Ion: 45 Resp: 1038746

Ion Ratio Lower Upper

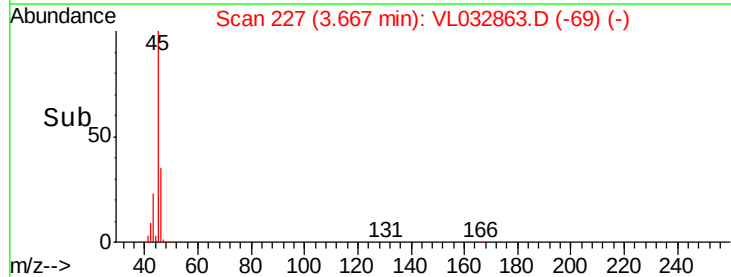
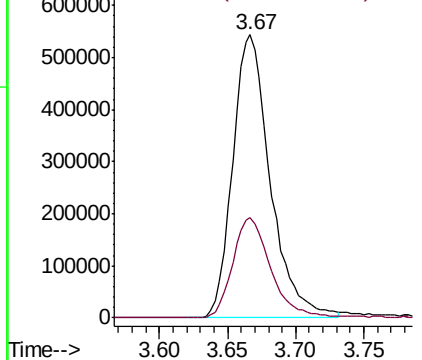
45 100

46 36.6 14.5 57.9

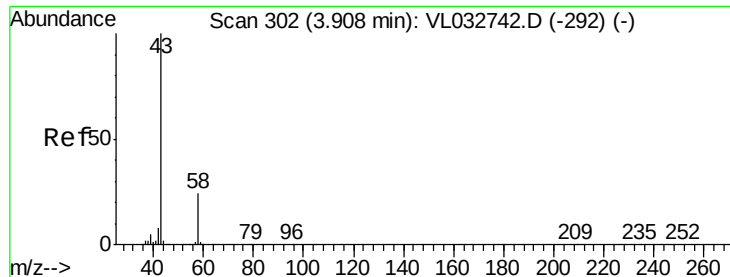


Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0







#15

Acetone

Concen: 10.772 ppbv

RT: 3.90 min Scan# 301

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

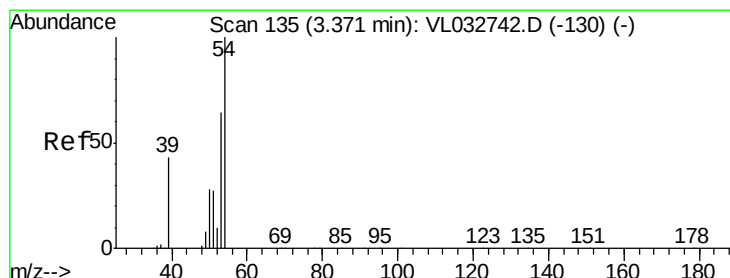
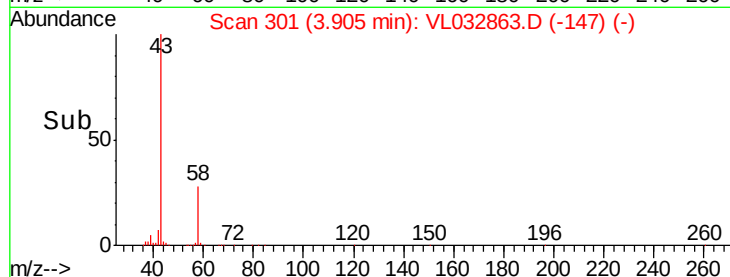
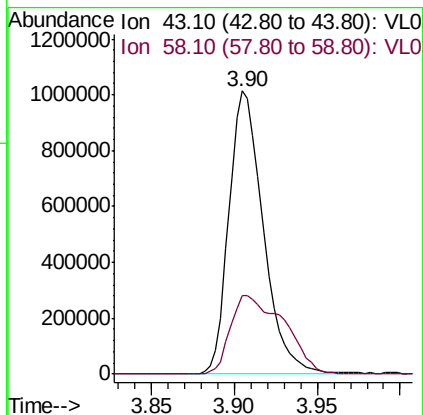
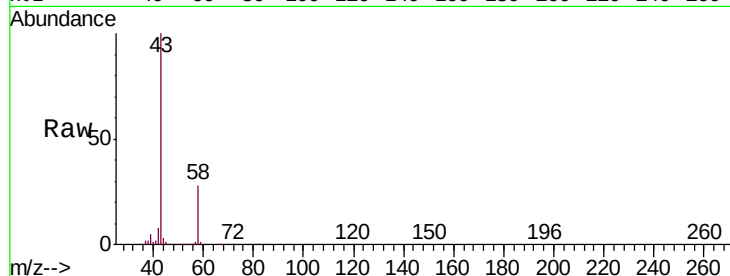
DSV-04

Tgt Ion: 43 Resp: 1454389

Ion Ratio Lower Upper

43 100

58 44.1 21.1 31.7#



#16

1,3-Butadiene

Concen: 5.760 ppbv

RT: 3.35 min Scan# 129

Delta R.T. -0.02 min

Lab File: VL032863.D

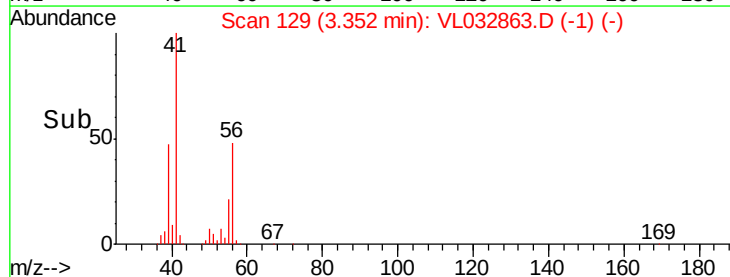
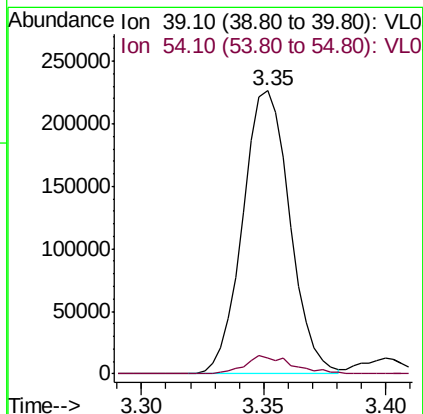
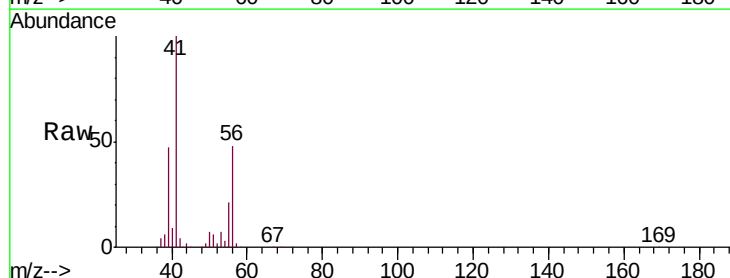
Acq: 1 Dec 2018 00:15

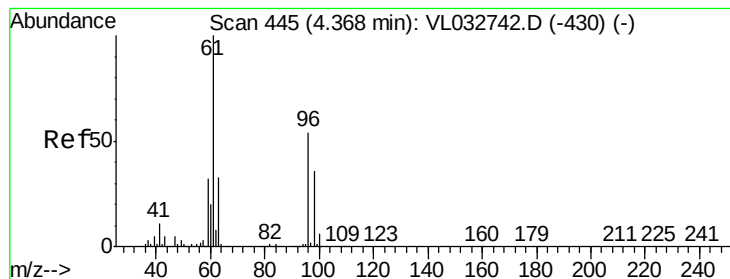
Tgt Ion: 39 Resp: 301183

Ion Ratio Lower Upper

39 100

54 6.7 68.9 103.3#





#17

tert-Butyl alcohol

Concen: 2.007 ppbv

RT: 4.38 min Scan# 448

Delta R.T. 0.01 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

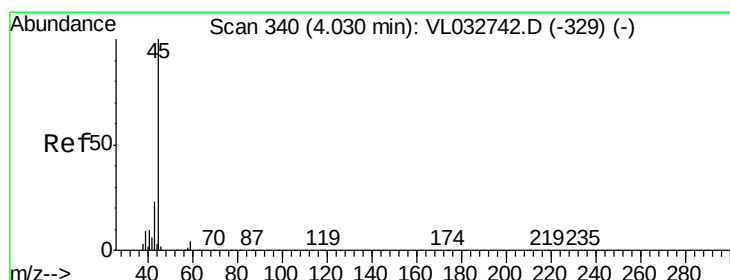
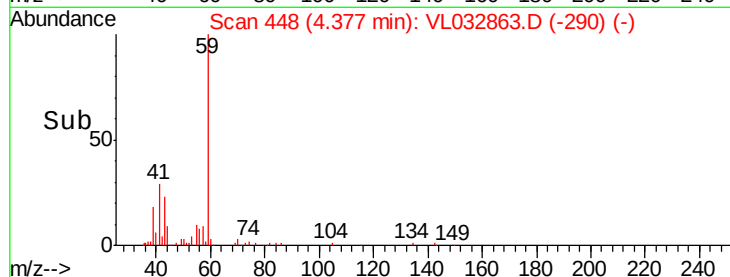
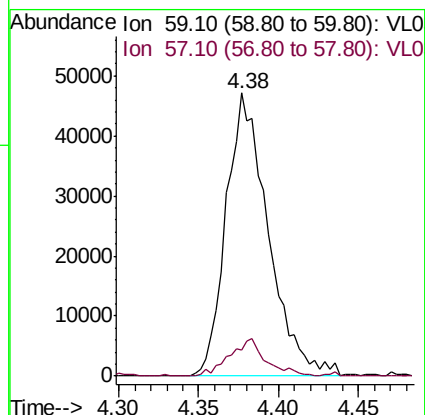
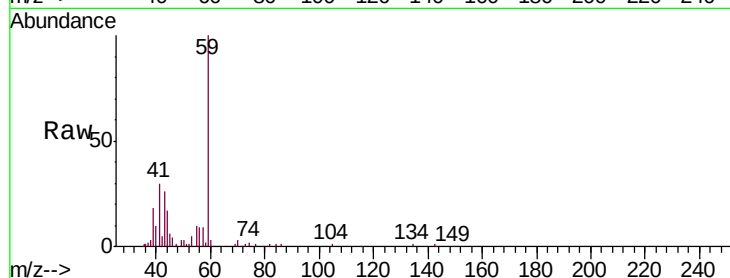
DSV-04

Tgt Ion: 59 Resp: 84979

Ion Ratio Lower Upper

59 100

57 11.3 7.8 11.8



#19

Isopropyl Alcohol

Concen: 0.952 ppbv

RT: 4.05 min Scan# 346

Delta R.T. 0.02 min

Lab File: VL032863.D

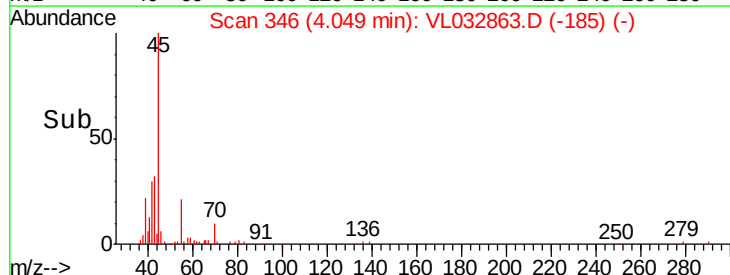
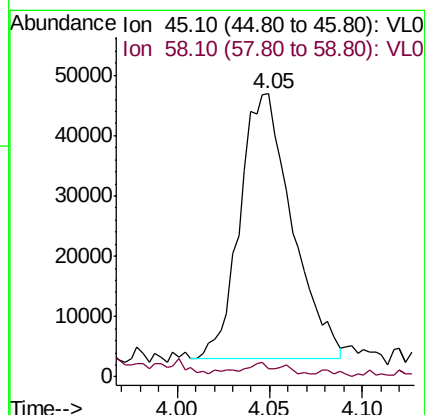
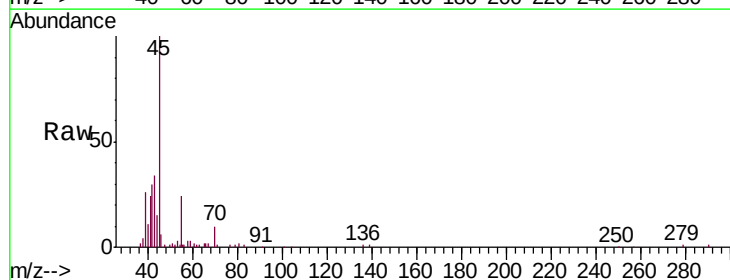
Acq: 1 Dec 2018 00:15

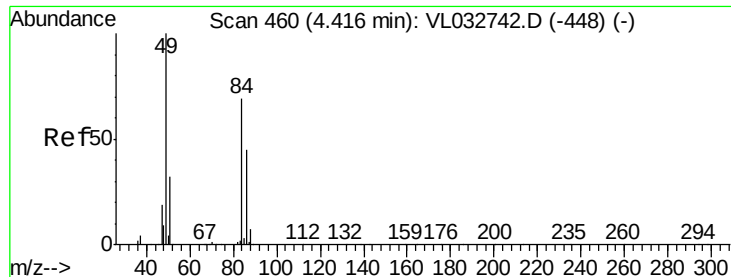
Tgt Ion: 45 Resp: 85646

Ion Ratio Lower Upper

45 100

58 744.5 1.4 2.0#

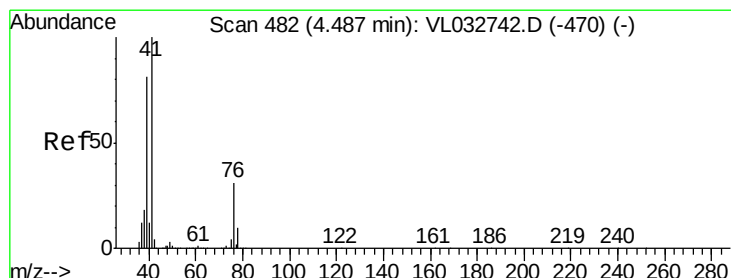
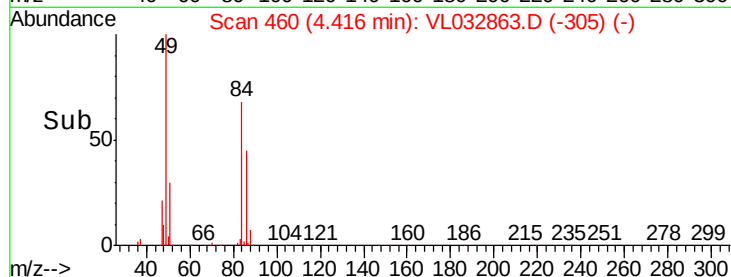
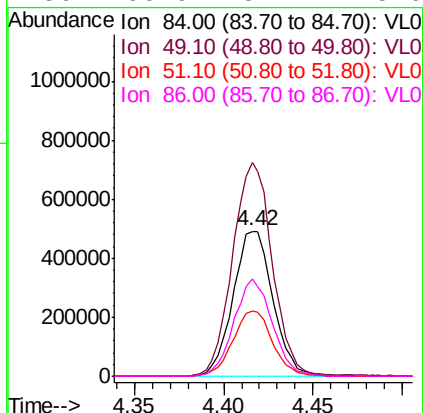
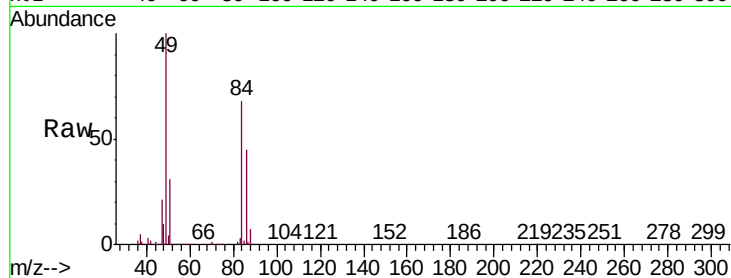




#20  
Methylene Chloride  
Concen: 10.961 ppbv  
RT: 4.42 min Scan# 460  
Delta R.T. -0.00 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

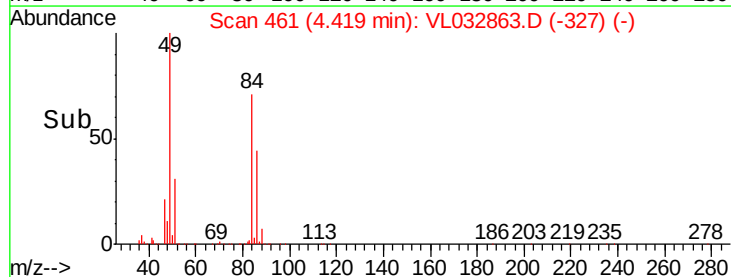
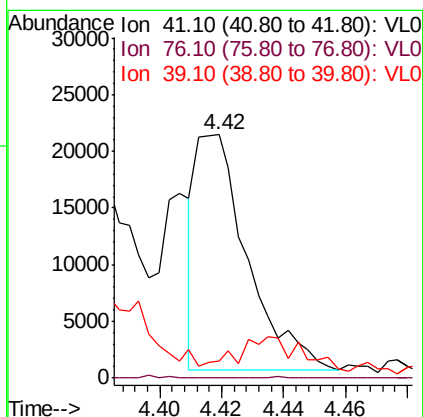
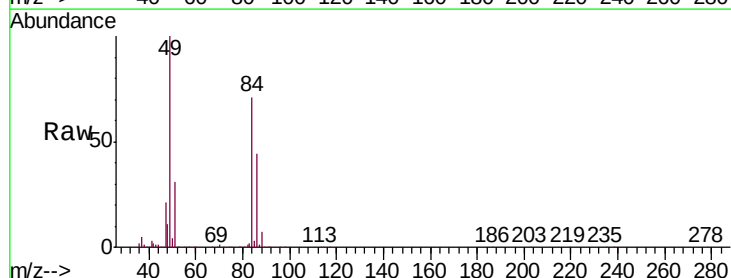
Instrument :  
MSVOA\_L  
ClientSampleId :  
DSV-04

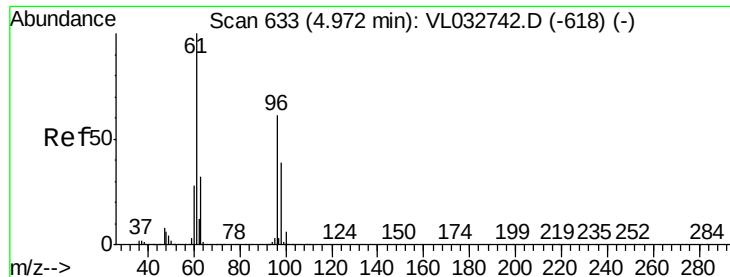
Tgt Ion: 84 Resp: 766177  
Ion Ratio Lower Upper  
84 100  
49 147.4 115.8 173.6  
51 44.9 36.9 55.3  
86 66.9 52.4 78.6



#21  
Allyl Chloride  
Concen: 0.210 ppbv  
RT: 4.42 min Scan# 461  
Delta R.T. -0.07 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

Tgt Ion: 41 Resp: 23800  
Ion Ratio Lower Upper  
41 100  
76 0.0 24.4 36.6#  
39 20.0 63.5 95.3#





#22

trans-1,2-Dichloroethene

Concen: 0.455 ppbv

RT: 4.97 min Scan# 631

Delta R.T. -0.01 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

DSV-04

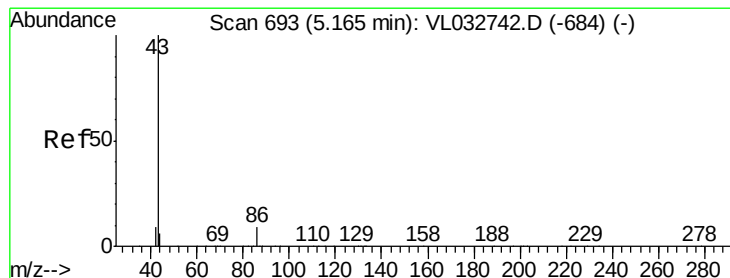
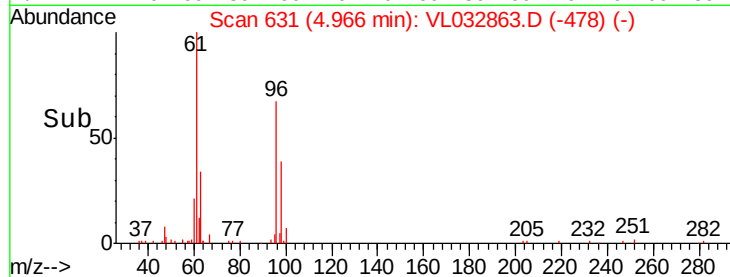
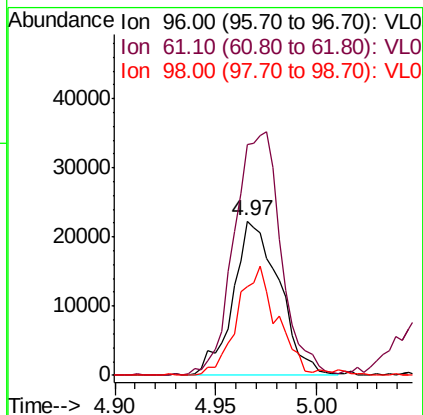
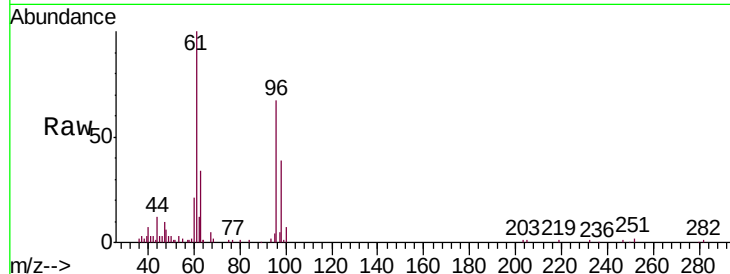
Tgt Ion: 96 Resp: 35757

Ion Ratio Lower Upper

96 100

61 148.0 130.2 195.2

98 57.6 50.2 75.2



#23

Vinyl Acetate

Concen: 0.211 ppbv

RT: 5.20 min Scan# 703

Delta R.T. 0.03 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Tgt Ion: 43 Resp: 51832

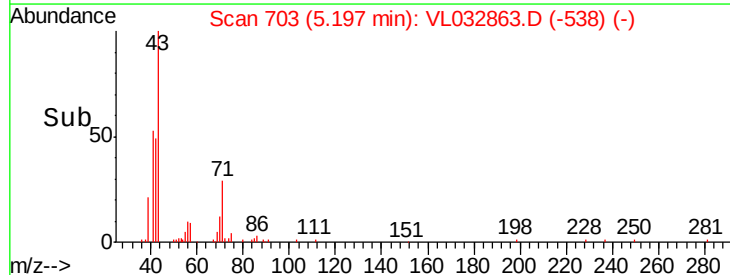
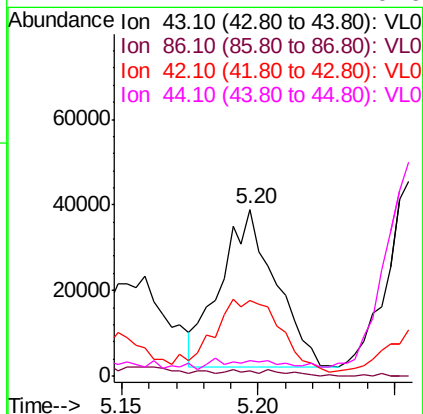
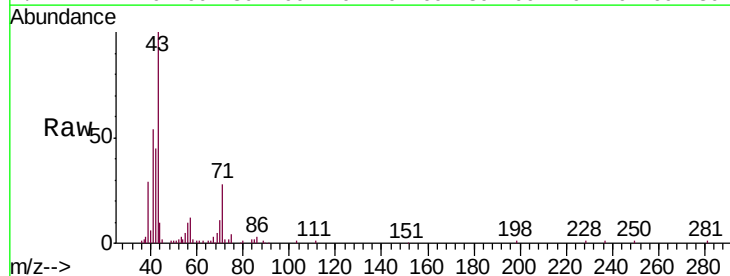
Ion Ratio Lower Upper

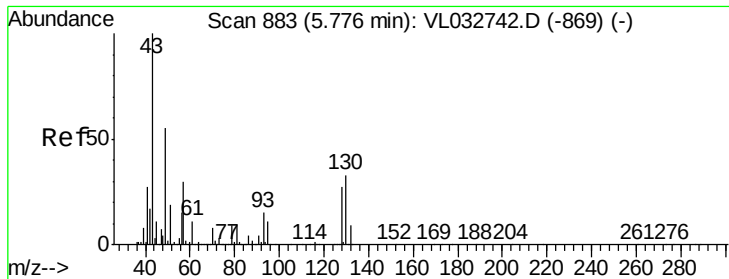
43 100

86 3.3 6.2 9.4#

42 45.1 7.8 11.6#

44 2.1 4.4 6.6#

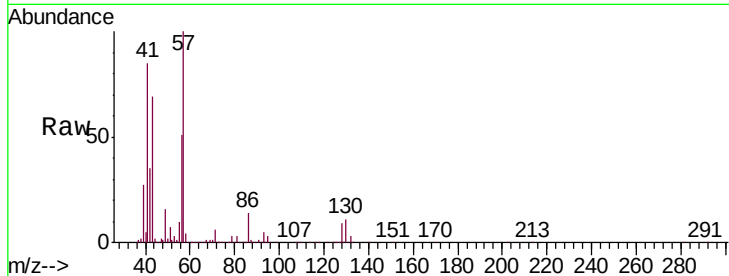




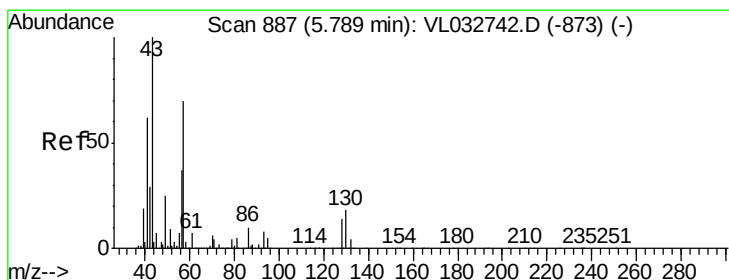
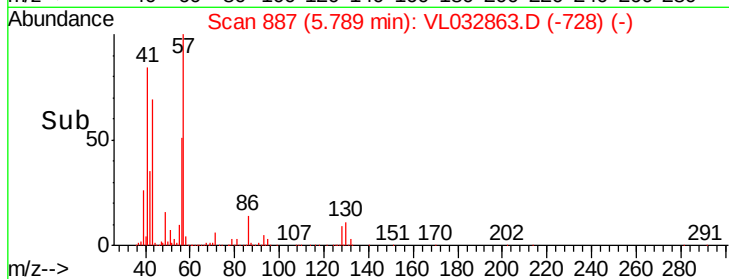
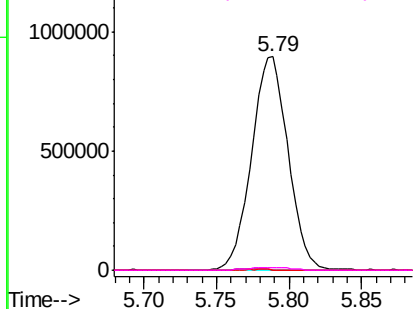
#25  
Ethyl Acetate  
Concen: 4.996 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. 0.01 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

Instrument :  
MSVOA\_L  
ClientSampled :  
DSV-04

Tgt Ion: 43 Resp: 1572075  
Ion Ratio Lower Upper  
43 100  
45 0.7 7.9 11.9#  
61 0.5 7.8 11.6#  
70 1.7 5.8 8.6#

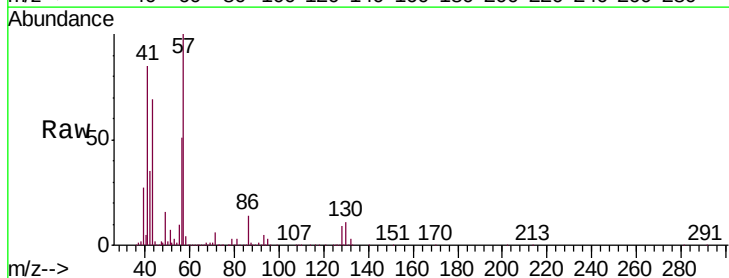


Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 45.10 (44.80 to 45.80): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 70.10 (69.80 to 70.80): VL0

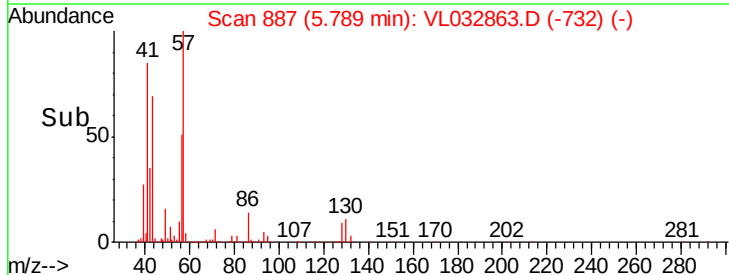
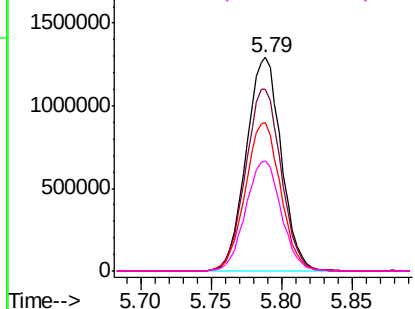


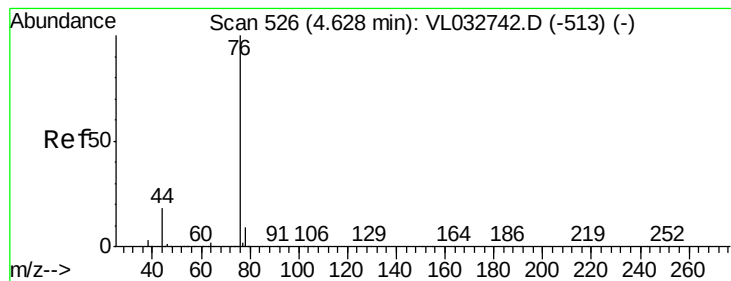
#26  
Hexane  
Concen: 16.027 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. -0.00 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

Tgt Ion: 57 Resp: 2245181  
Ion Ratio Lower Upper  
57 100  
41 87.3 70.3 105.5  
43 70.2 174.0 261.0#  
56 52.3 42.3 63.5



Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.089 ppbv

RT: 4.63 min Scan# 526

Delta R.T. -0.00 min

Lab File: VL032863.D

Acq: 1 Dec 2018 00:15

Instrument :

MSVOA\_L

ClientSampleId :

DSV-04

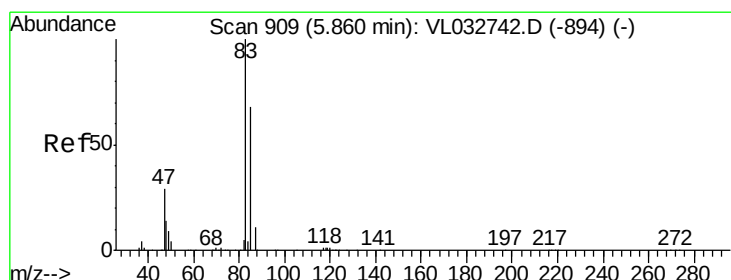
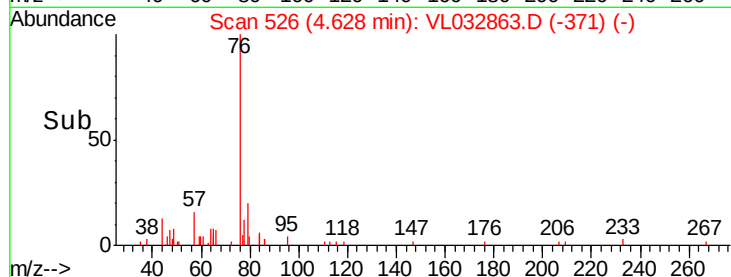
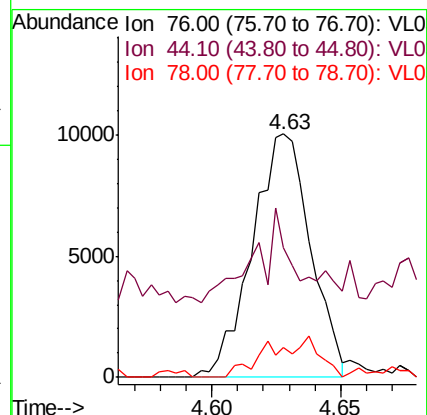
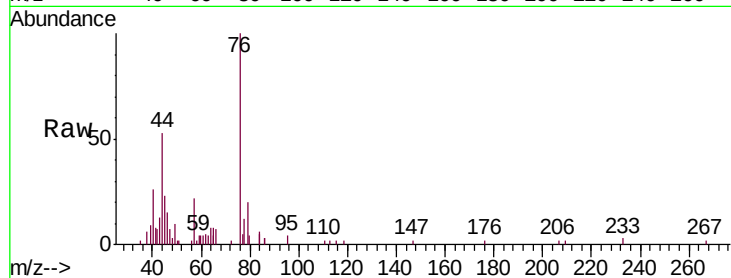
Tgt Ion: 76 Resp: 15866

Ion Ratio Lower Upper

76 100

44 25.2 14.4 21.6#

78 16.9 7.7 11.5#



#29

Chloroform

Concen: 0.048 ppbv

RT: 5.85 min Scan# 907

Delta R.T. -0.01 min

Lab File: VL032863.D

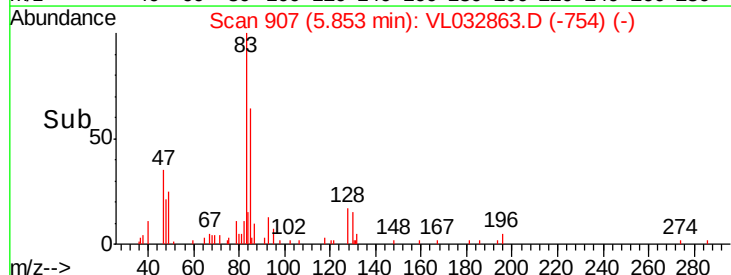
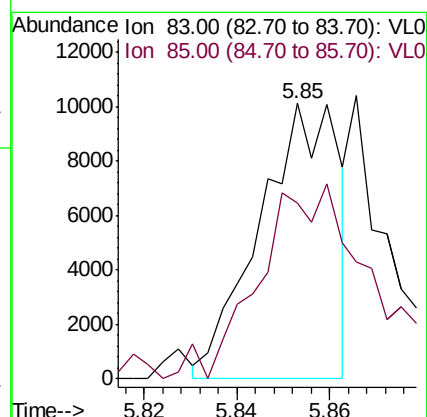
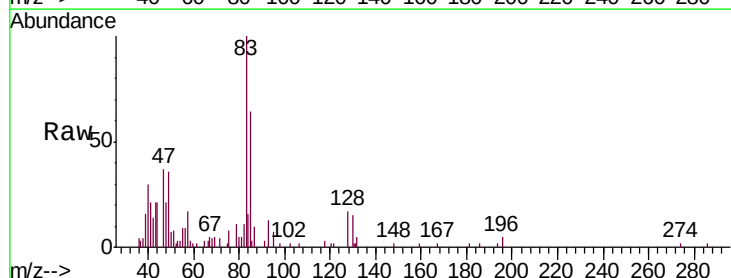
Acq: 1 Dec 2018 00:15

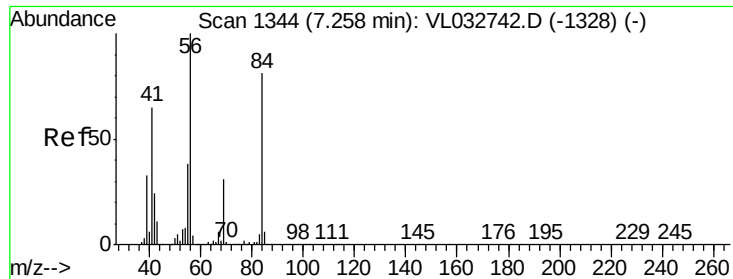
Tgt Ion: 83 Resp: 11984

Ion Ratio Lower Upper

83 100

85 57.1 54.2 81.4

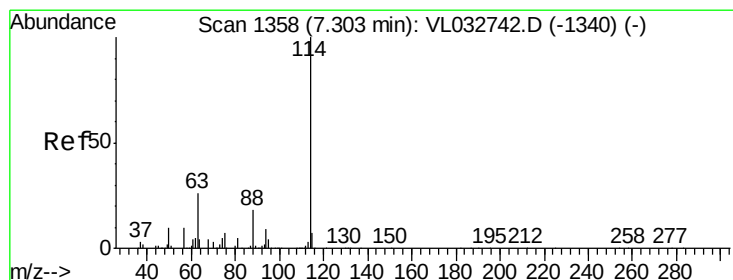
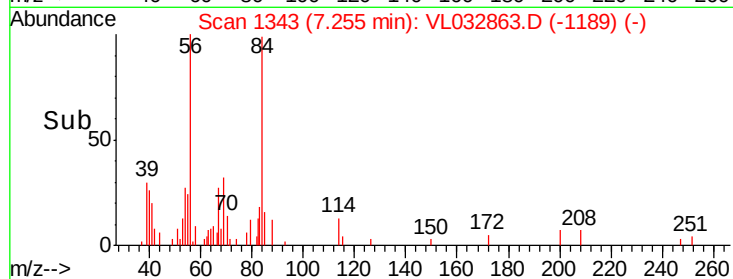
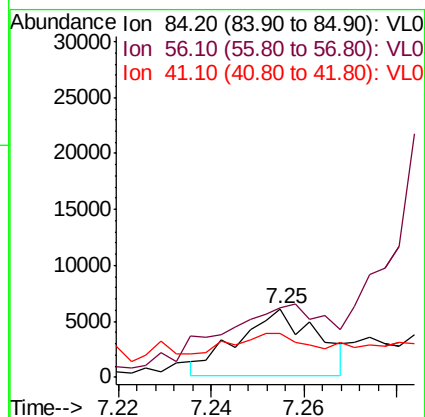
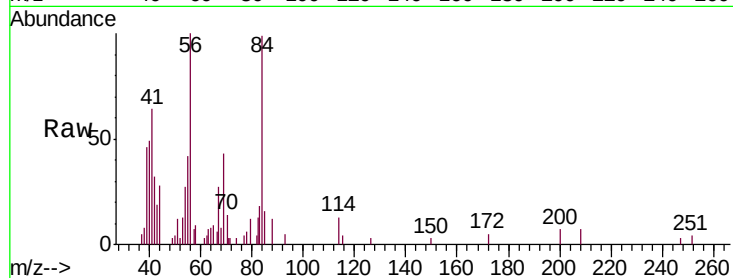




#30  
Cyclohexane  
Concen: 0.057 ppbv  
RT: 7.25 min Scan# 1343  
Delta R.T. -0.00 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

Instrument :  
MSVOA\_L  
ClientSampleId :  
DSV-04

Tgt Ion: 84 Resp: 6960  
Ion Ratio Lower Upper  
84 100  
56 0.0 105.0 157.4#  
41 0.0 65.3 97.9#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.30 min Scan# 1357  
Delta R.T. -0.00 min  
Lab File: VL032863.D  
Acq: 1 Dec 2018 00:15

Tgt Ion: 114 Resp: 3745098  
Ion Ratio Lower Upper  
114 100  
63 23.7 20.9 31.3  
88 17.3 14.4 21.6

