

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071918\  
 Data File : VL032290.D  
 Acq On : 19 Jul 2018 15:05  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 7/20/2018 2:06:11 PM

Quant Time: Jul 20 08:58:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jul 18 2018  
 QLast Update : Wed Jul 18 14:38:53 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.84  | 49   | 1565371  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.38  | 114  | 3524545  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.33 | 117  | 4418286m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.67  | 95    | 3210841  | 8.96     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 89.60% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.13 | 85   | 2529470  | 9.50  | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.06 | 51   | 1791316  | 10.20 | ppbv   | 97     |
| 4) Chloromethane               | 3.22 | 50   | 1092442  | 10.56 | ppbv   | 99     |
| 5) Vinyl Chloride              | 3.34 | 62   | 1026391  | 10.47 | ppbv   | 99     |
| 6) Bromomethane                | 3.57 | 94   | 558346   | 10.45 | ppbv   | 95     |
| 7) Chloroethane                | 3.66 | 64   | 359550   | 10.34 | ppbv   | 98     |
| 8) Dichlorotetrafluoroethane   | 3.27 | 85   | 2090384  | 9.62  | ppbv   | 99     |
| 9) Propene                     | 3.08 | 41   | 903926   | 11.77 | ppbv   | 99     |
| 10) Heptane                    | 8.33 | 43   | 2683098  | 11.00 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.06 | 101  | 2026481  | 9.74  | ppbv   | 100    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.62 | 101  | 1345602  | 10.14 | ppbv   | 99     |
| 13) Ethanol                    | 3.70 | 45   | 197223   | 8.99  | ppbv   | 98     |
| 14) Bromoethene                | 3.85 | 108  | 638451   | 10.67 | ppbv   | 100    |
| 15) Acetone                    | 3.96 | 43   | 1597032  | 9.75  | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.41 | 39   | 885917   | 10.62 | ppbv   | 97     |
| 17) tert-Butyl alcohol         | 4.42 | 59   | 537428   | 10.40 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.41 | 96   | 651668   | 10.51 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 4.09 | 45   | 1116452  | 10.08 | ppbv   | 99     |
| 20) Methylene Chloride         | 4.47 | 84   | 574974   | 9.12  | ppbv   | 93     |
| 21) Allyl Chloride             | 4.54 | 41   | 1195065  | 11.07 | ppbv   | 98     |
| 22) trans-1,2-Dichloroethene   | 5.03 | 96   | 690840   | 10.73 | ppbv   | 99     |
| 23) Vinyl Acetate              | 5.22 | 43   | 3292427  | 11.21 | ppbv   | 100    |
| 24) 1,1-Dichloroethane         | 5.16 | 63   | 2163229  | 10.15 | ppbv   | 100    |
| 25) Ethyl Acetate              | 5.84 | 43   | 3731555  | 10.46 | ppbv   | 99     |
| 26) Hexane                     | 5.86 | 57   | 1692866  | 10.33 | ppbv   | 99     |
| 27) Carbon Disulfide           | 4.69 | 76   | 1676465  | 11.55 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.18 | 73   | 2566978  | 10.56 | ppbv   | 100    |
| 29) Chloroform                 | 5.93 | 83   | 2417381  | 10.00 | ppbv   | 99     |
| 30) Cyclohexane                | 7.33 | 84   | 1484776  | 10.80 | ppbv   | 99     |
| 31) cis-1,2-Dichloroethene     | 5.72 | 61   | 1703793  | 10.84 | ppbv   | 97     |
| 32) 1,1,1-Trichloroethane      | 6.70 | 97   | 2417718  | 9.89  | ppbv   | 99     |
| 34) 2-Butanone                 | 5.40 | 43   | 2668705  | 11.03 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.22 | 117  | 2408256  | 9.93  | ppbv   | 98     |
| 36) Benzene                    | 7.09 | 78   | 3721366  | 10.73 | ppbv   | 100    |
| 37) 1,2-Dichloroethane         | 6.49 | 62   | 2006530  | 9.79  | ppbv   | 100    |
| 38) Trichloroethene            | 8.05 | 130  | 1138730  | 9.92  | ppbv   | 97     |
| 39) 1,2-Dichloropropane        | 7.82 | 63   | 1404956  | 10.23 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 8.04 | 88   | 414701   | 10.22 | ppbv # | 12     |
| 41) Tetrahydrofuran            | 6.22 | 42   | 1612303  | 11.43 | ppbv   | 99     |
| 42) Bromodichloromethane       | 8.01 | 83   | 2631108  | 10.20 | ppbv   | 94     |
| 43) Methyl Methacrylate        | 8.22 | 69   | 1557788  | 10.96 | ppbv   | 98     |

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 ALS Vial : 1 Sample Multiplier: 1

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 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
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Quant Time: Jul 20 08:58:10 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jul 18 2018  
 QLast Update : Wed Jul 18 14:38:53 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.08  | 57   | 6087543  | 10.07 | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.50  | 75   | 1894719  | 11.31 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.92  | 75   | 2336979  | 10.94 | ppbv   | 100      |
| 47) 1,1,2-Trichloroethane     | 9.71  | 97   | 1411215  | 9.51  | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.54 | 129  | 2361588  | 10.91 | ppbv   | 99       |
| 49) Bromoform                 | 13.30 | 173  | 2058595  | 10.90 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.96  | 43   | 4130605  | 10.38 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.36 | 43   | 3802857  | 12.53 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.47 | 164  | 1223719  | 10.33 | ppbv   | 98       |
| 53) Toluene                   | 10.04 | 91   | 4007325  | 9.53  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.85 | 107  | 2271915  | 10.38 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.37 | 131  | 1811005  | 9.20  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.39 | 112  | 3337557  | 9.21  | ppbv   | 100      |
| 58) Ethyl Benzene             | 12.96 | 91   | 6221295  | 9.99  | ppbv   | 99       |
| 59) m/p-Xylene                | 13.24 | 91   | 9973276m | 18.78 | ppbv   |          |
| 60) o-Xylene                  | 13.94 | 91   | 4855618  | 9.18  | ppbv   | 100      |
| 61) Styrene                   | 13.78 | 104  | 3939160  | 10.03 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.92 | 105  | 6847489  | 9.03  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.93 | 83   | 3572857  | 7.92  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.82 | 120  | 1799687  | 9.24  | ppbv   | 100      |
| 65) tert-Butylbenzene         | 17.00 | 119  | 5580446  | 8.64  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.25 | 91   | 3684294  | 10.13 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.55 | 105  | 8384277  | 8.70  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.91 | 119  | 6815258  | 9.15  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.81 | 91   | 7429628  | 8.94  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.71 | 91   | 5472690  | 9.00  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.09 | 105  | 5711292  | 9.35  | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.25 | 105  | 5429087  | 9.09  | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 17.02 | 105  | 5302545  | 8.48  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.26 | 146  | 2904300  | 8.36  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.40 | 146  | 2991148  | 8.68  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.08 | 146  | 2941839  | 8.76  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.63 | 225  | 1781905  | 16.36 | ppbv   | 99       |
| 79) Naphthalene               | 22.52 | 128  | 5163968  | 9.83  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.19 | 142  | 2410985  | 10.80 | ppbv   | 100      |
| 81) 1,2,4-Trichlorobenzene    | 22.25 | 180  | 2414447  | 9.43  | ppbv   | 99       |

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

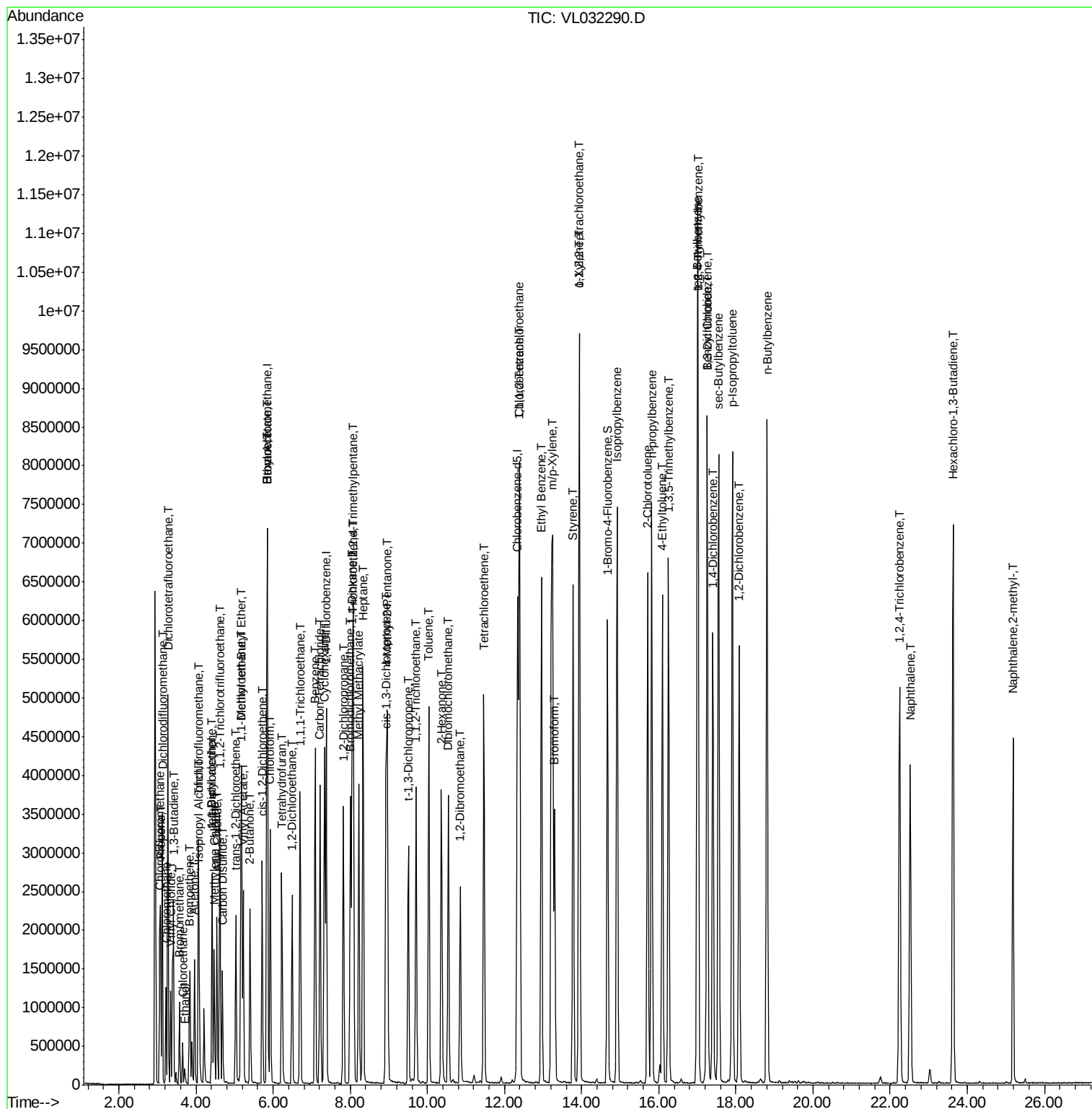
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL071918\  
Data File : VL032290.D  
Acq On : 19 Jul 2018 15:05  
Operator : SY/AP  
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Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

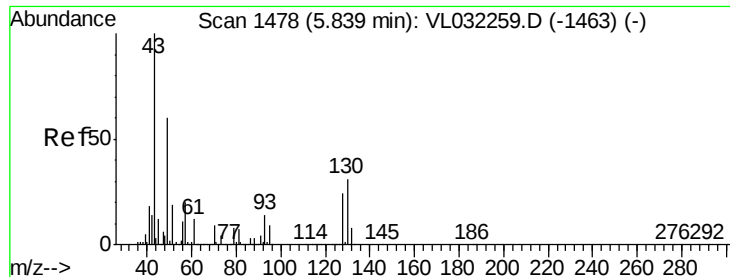
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jul  
QLast Update : Wed Jul 18 14:38:53 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.84 min Scan# 1477

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 49 Resp: 1565371

Ion Ratio Lower Upper

49 100

128 39.8 20.1 60.2

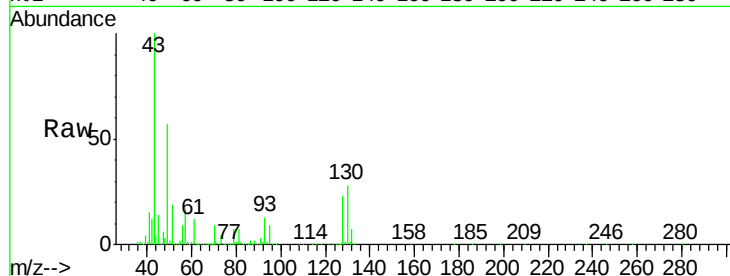
130 51.0 25.9 77.6

Manual Integrations

APPROVED

MMDadoda

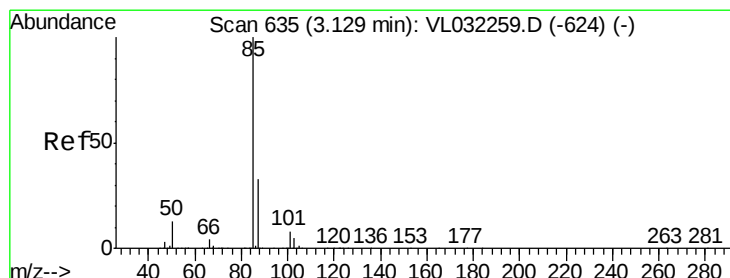
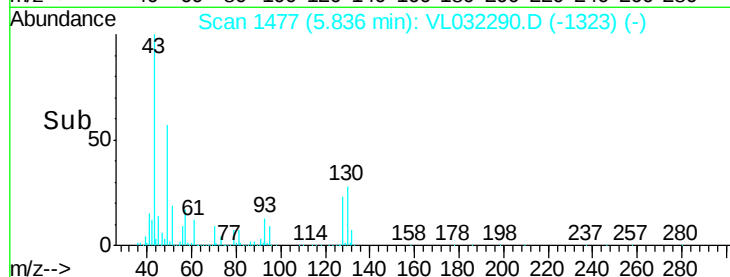
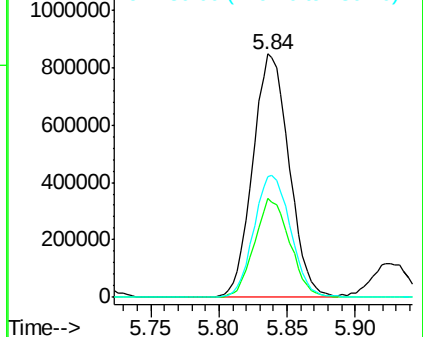
7/20/2018 2:06:11 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 9.50 ppbv

RT: 3.13 min Scan# 634

Delta R.T. -0.00 min

Lab File: VL032290.D

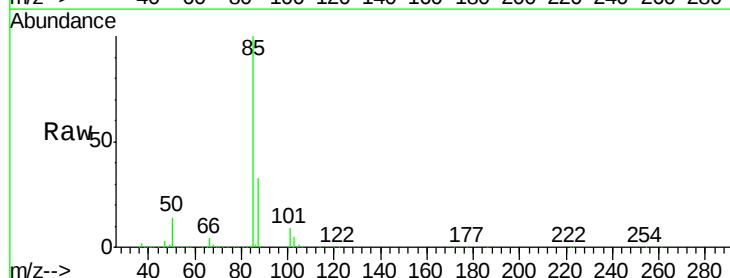
Acq: 19 Jul 2018 15:05

Tgt Ion: 85 Resp: 2529470

Ion Ratio Lower Upper

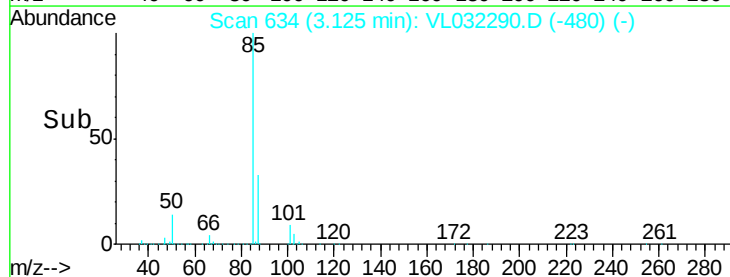
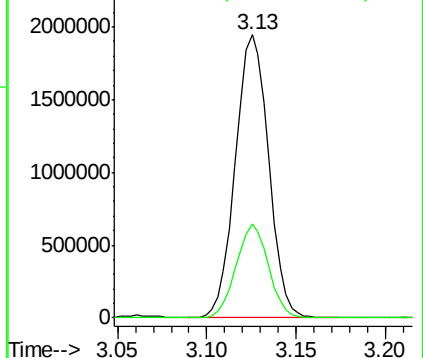
85 100

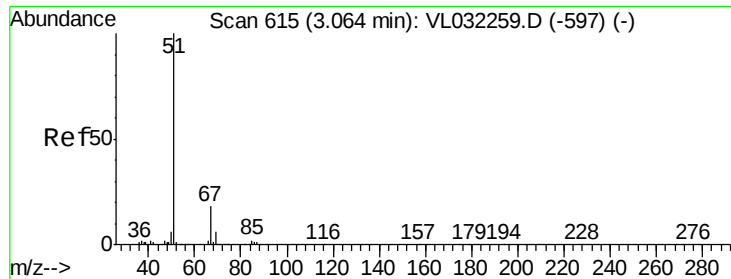
87 33.1 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 10.20 ppbv

RT: 3.06 min Scan# 614

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 51 Resp: 1791316

Ion Ratio Lower Upper

51 100

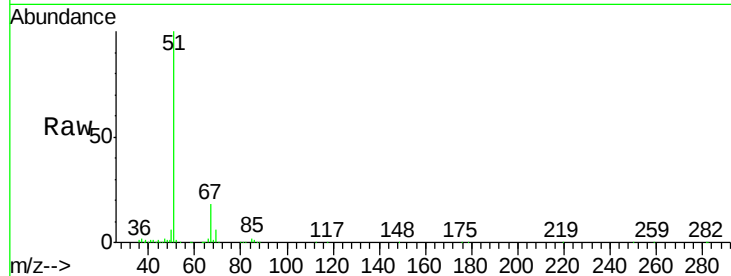
67 16.7 14.2 21.4

Manual Integrations

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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

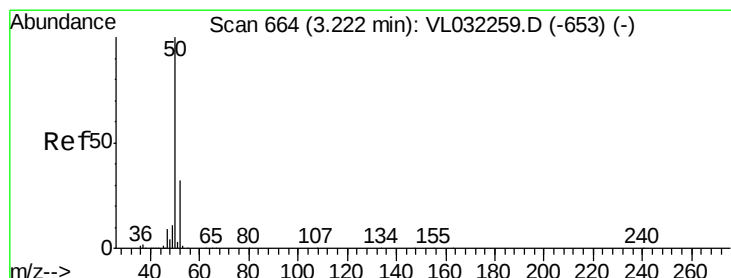
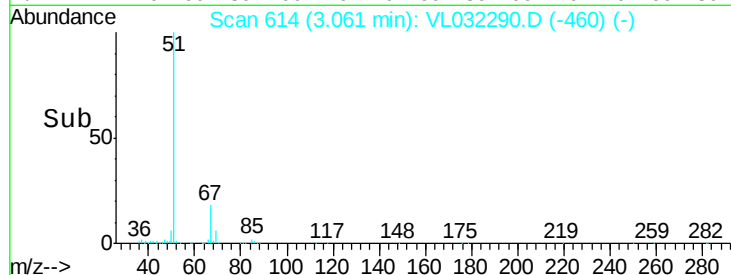
1500000

1000000

500000

0

Time-->



#4

Chloromethane

Concen: 10.56 ppbv

RT: 3.22 min Scan# 664

Delta R.T. -0.00 min

Lab File: VL032290.D

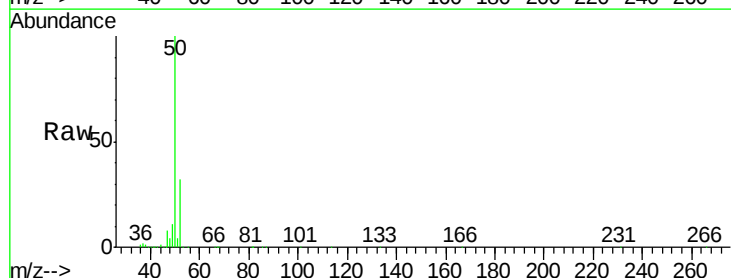
Acq: 19 Jul 2018 15:05

Tgt Ion: 50 Resp: 1092442

Ion Ratio Lower Upper

50 100

52 32.2 25.3 37.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

800000

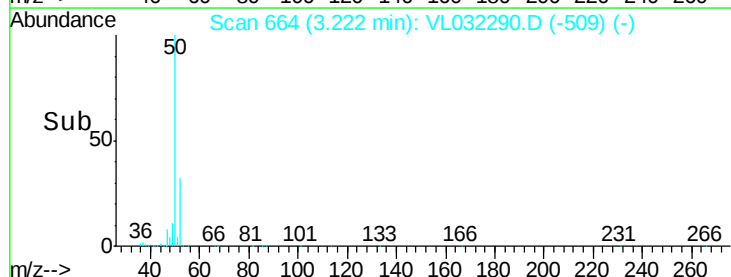
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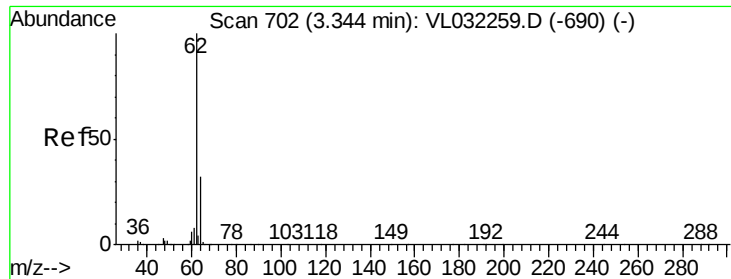
400000

200000

0

Time-->





#5

Vinyl Chloride

Concen: 10.47 ppbv

RT: 3.34 min Scan# 701

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 62 Resp: 1026391

Ion Ratio Lower Upper

62 100

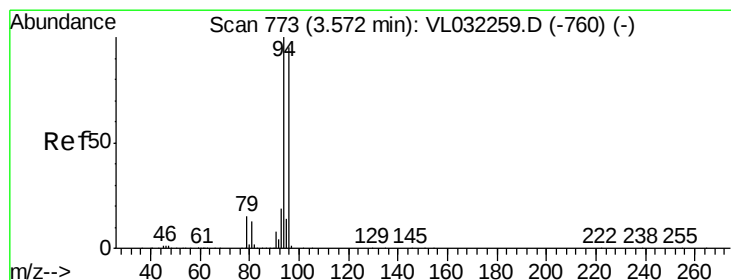
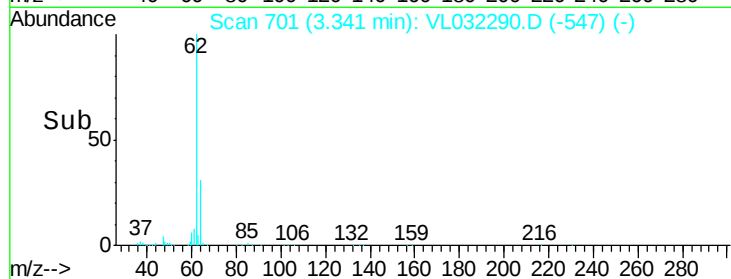
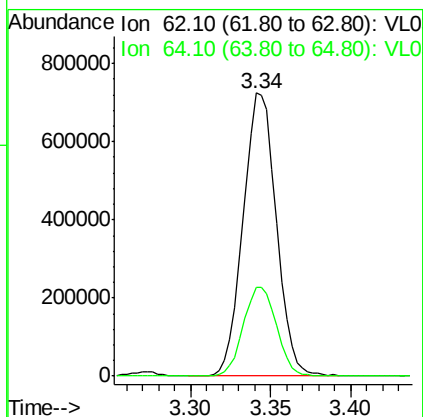
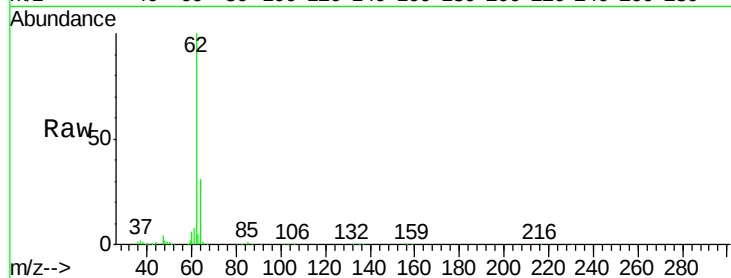
64 31.2 25.3 37.9

Manual Integrations

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7/20/2018 2:06:11 PM



#6

Bromomethane

Concen: 10.45 ppbv

RT: 3.57 min Scan# 772

Delta R.T. -0.00 min

Lab File: VL032290.D

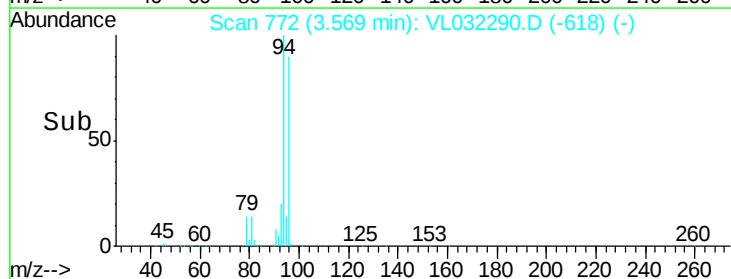
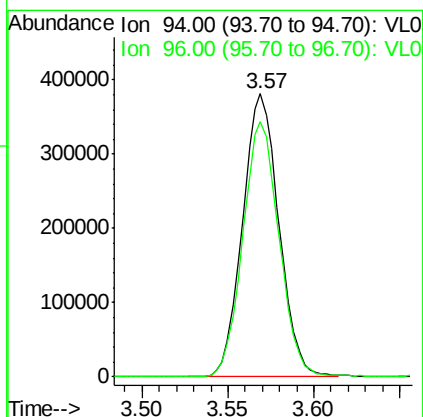
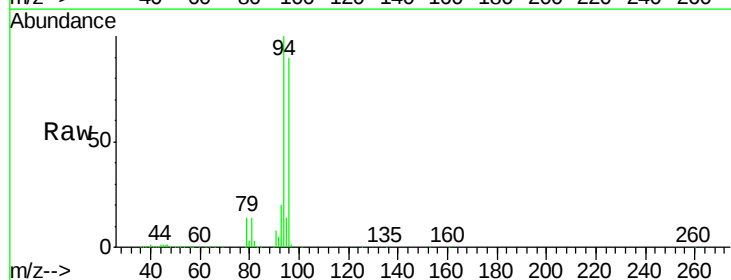
Acq: 19 Jul 2018 15:05

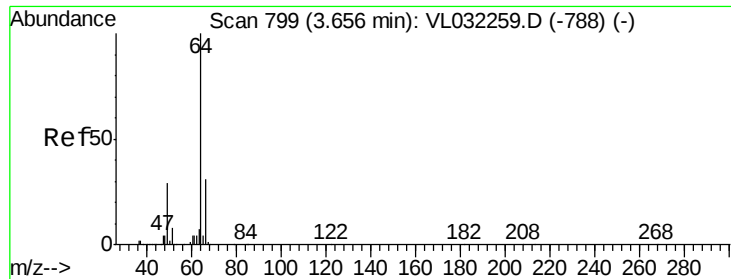
Tgt Ion: 94 Resp: 558346

Ion Ratio Lower Upper

94 100

96 90.3 76.1 114.1





#7

Chloroethane

Concen: 10.34 ppbv

RT: 3.66 min Scan# 799

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 64 Resp: 359550

Ion Ratio Lower Upper

64 100

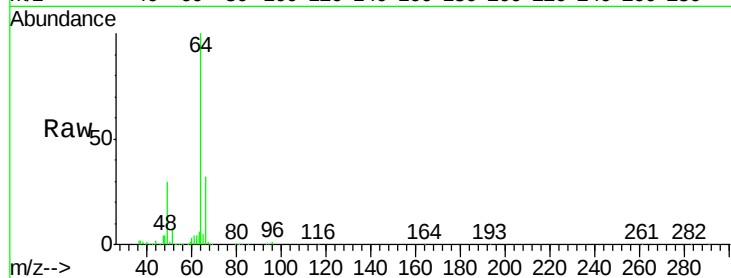
66 32.2 25.0 37.4

Manual Integrations

APPROVED

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7/20/2018 2:06:11 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

300000

250000

200000

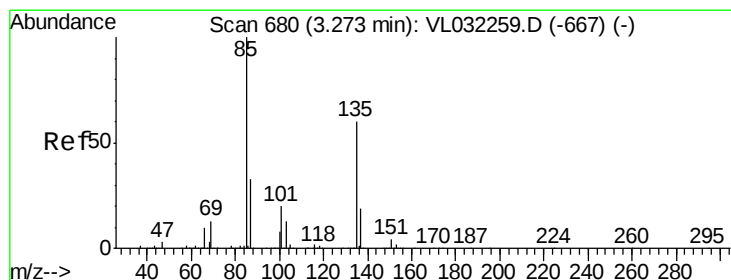
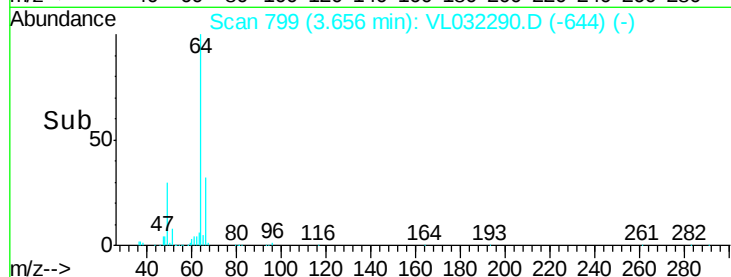
150000

100000

50000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 9.62 ppbv

RT: 3.27 min Scan# 679

Delta R.T. -0.00 min

Lab File: VL032290.D

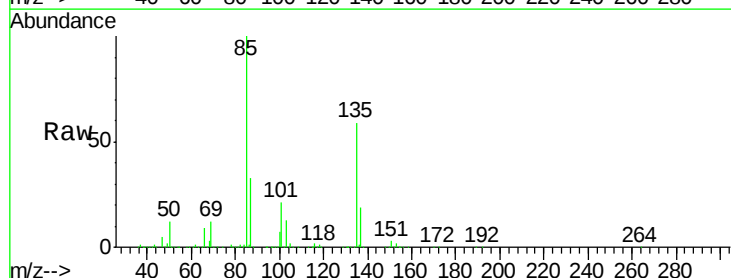
Acq: 19 Jul 2018 15:05

Tgt Ion: 85 Resp: 2090384

Ion Ratio Lower Upper

85 100

135 60.3 47.8 71.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

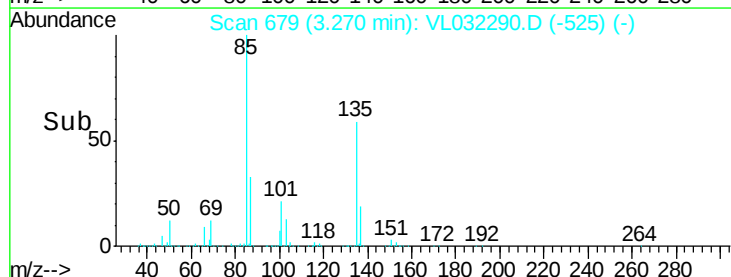
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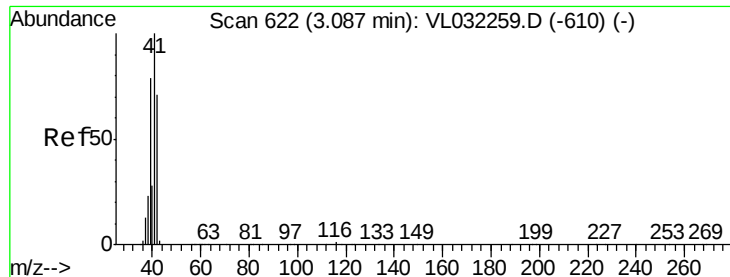
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500000

0

Time-->





#9

Propene

Concen: 11.77 ppbv

RT: 3.08 min Scan# 621

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 41 Resp: 903926

Ion Ratio Lower Upper

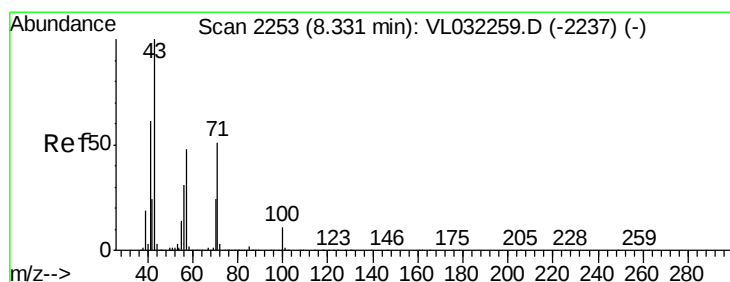
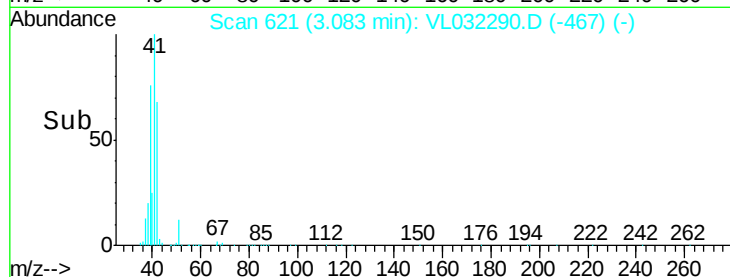
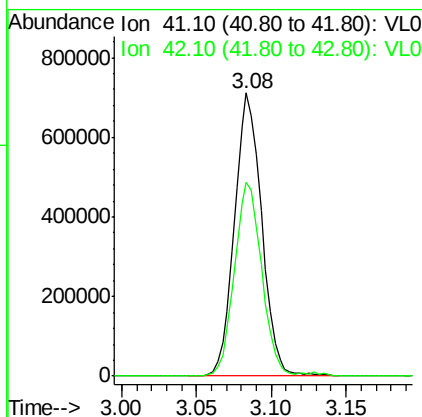
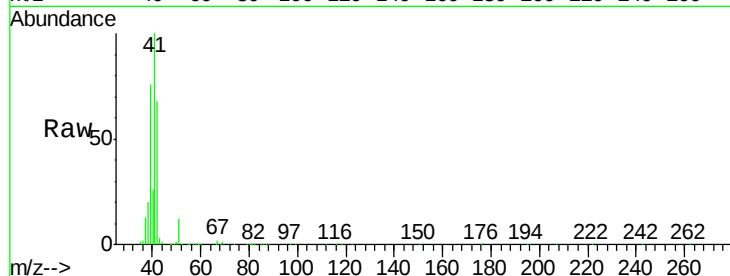
41 100

42 69.2 56.2 84.4

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#10

Heptane

Concen: 11.00 ppbv

RT: 8.33 min Scan# 2253

Delta R.T. -0.00 min

Lab File: VL032290.D

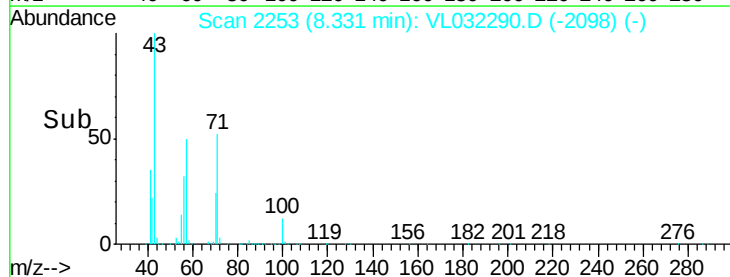
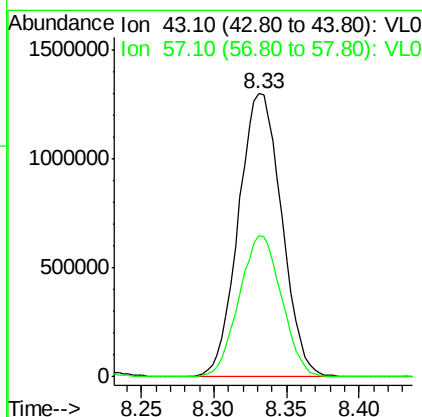
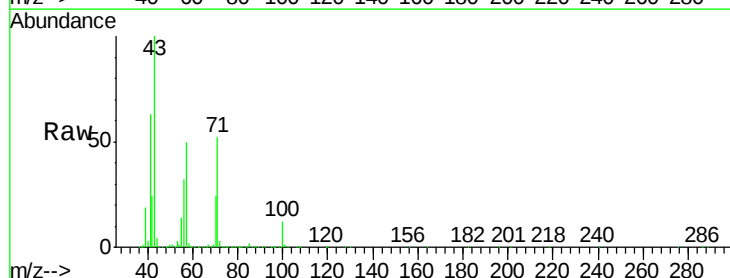
Acq: 19 Jul 2018 15:05

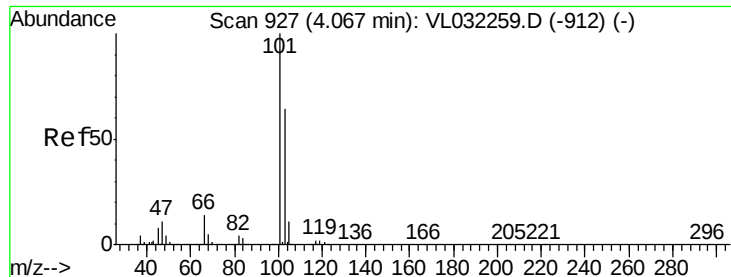
Tgt Ion: 43 Resp: 2683098

Ion Ratio Lower Upper

43 100

57 49.1 39.9 59.9





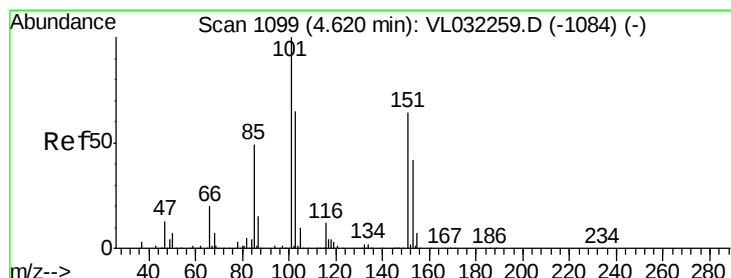
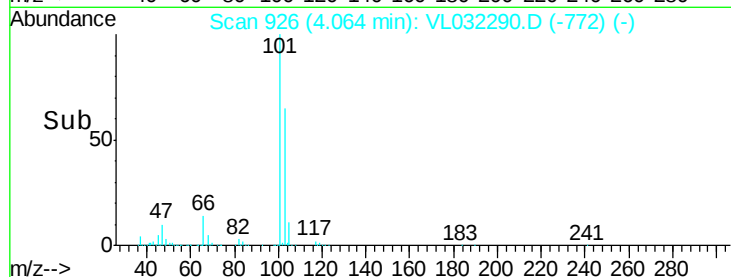
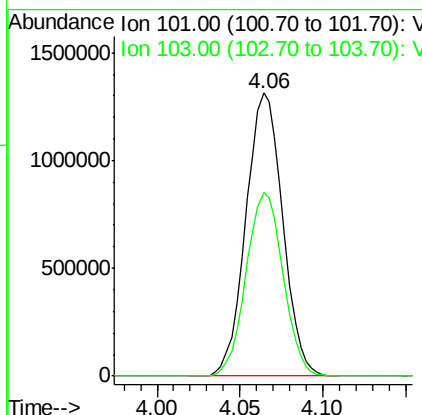
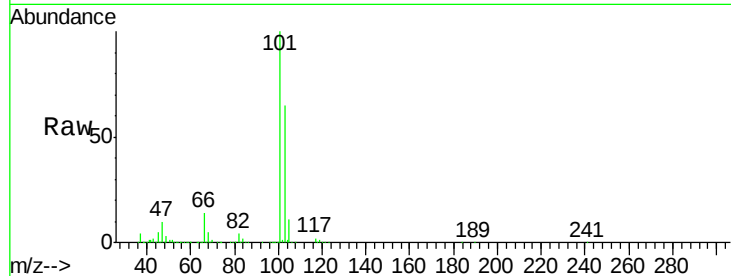
#11  
 Trichlorofluoromethane  
 Concen: 9.74 ppbv  
 RT: 4.06 min Scan# 926  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion:101 Resp: 2026481  
 Ion Ratio Lower Upper  
 101 100  
 103 64.7 51.5 77.3

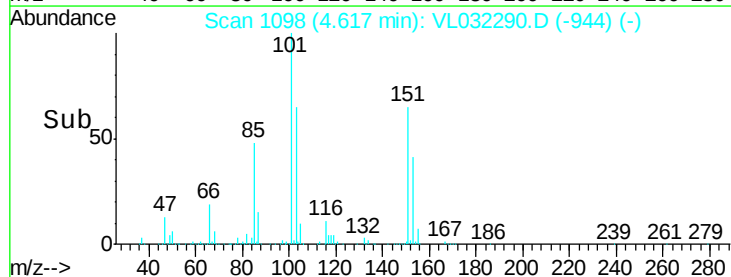
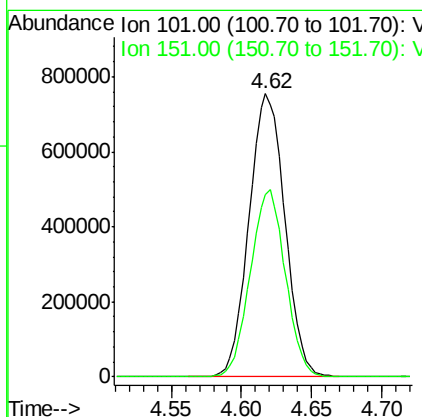
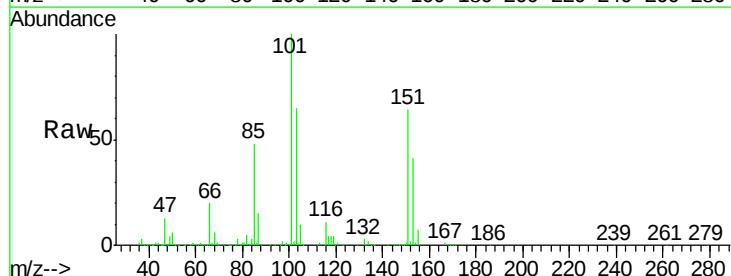
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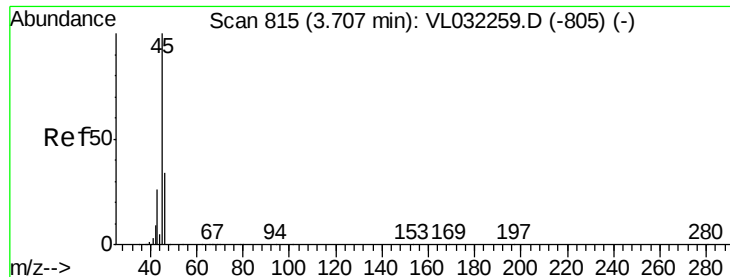
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#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 10.14 ppbv  
 RT: 4.62 min Scan# 1098  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Tgt Ion:101 Resp: 1345602  
 Ion Ratio Lower Upper  
 101 100  
 151 64.7 51.3 76.9





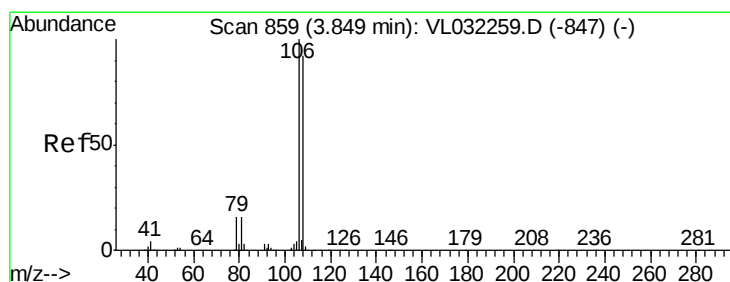
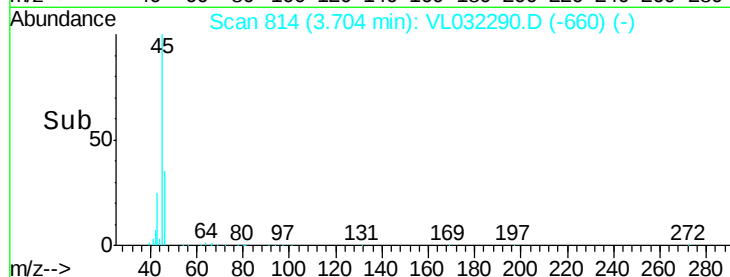
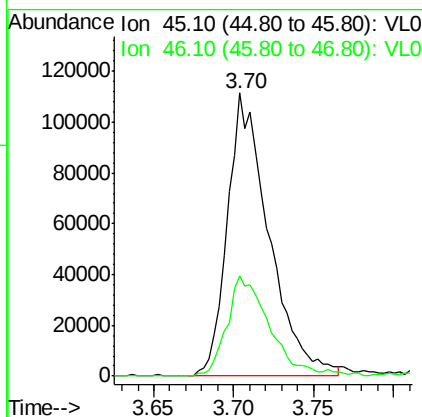
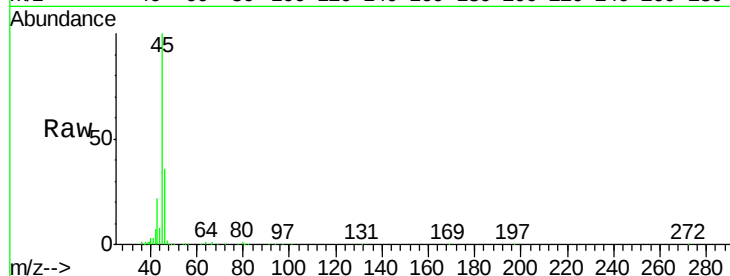
#13  
Ethanol  
Concen: 8.99 ppbv  
RT: 3.70 min Scan# 814  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | 45  | 46   | Ratio | Lower | Upper |
|---------|-----|------|-------|-------|-------|
| 197223  | 100 | 36.5 |       | 15.2  | 60.8  |

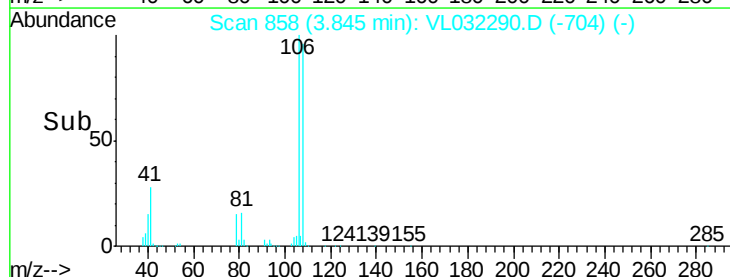
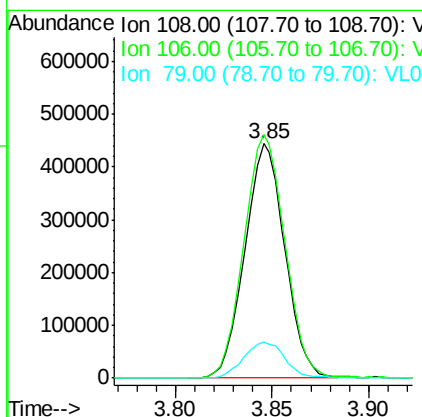
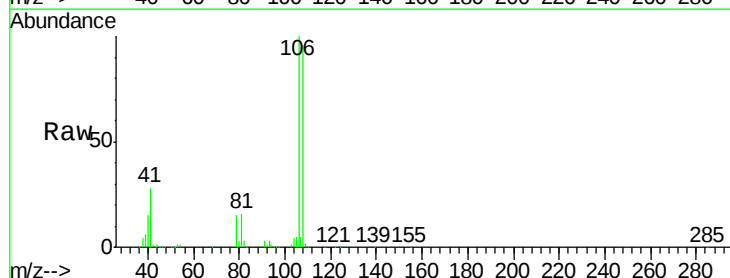
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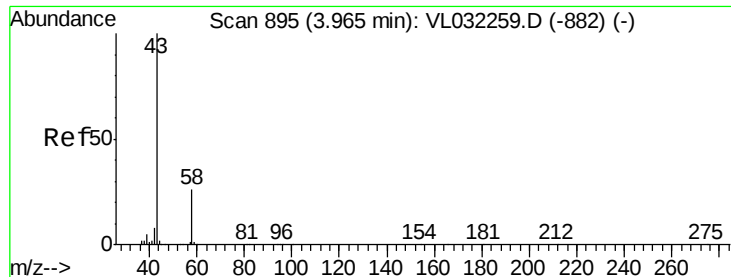
MMDadoda  
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#14  
Bromoethene  
Concen: 10.67 ppbv  
RT: 3.85 min Scan# 858  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

| Tgt Ion | 108 | 106   | 79   | Ratio | Lower | Upper |
|---------|-----|-------|------|-------|-------|-------|
| 638451  | 100 | 107.8 | 16.3 |       | 86.2  | 129.4 |





#15

Acetone

Concen: 9.75 ppbv

RT: 3.96 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 43 Resp: 1597032

Ion Ratio Lower Upper

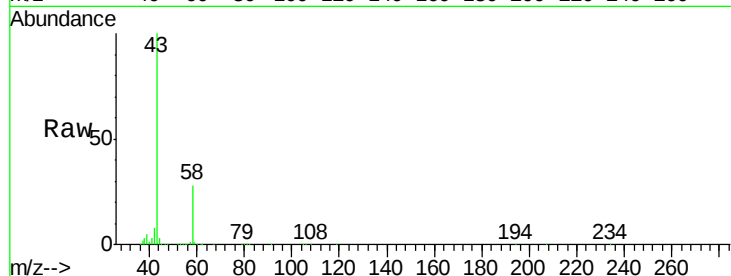
43 100

58 27.6 21.8 32.6

Manual Integrations  
APPROVED

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

1200000

1000000

800000

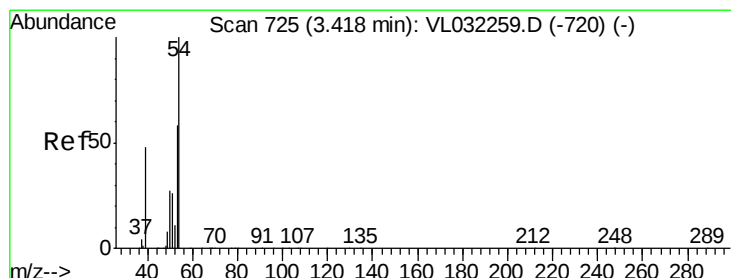
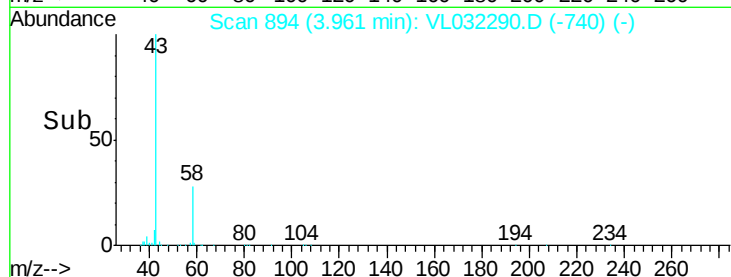
600000

400000

200000

0

Time-->



#16

1,3-Butadiene

Concen: 10.62 ppbv

RT: 3.41 min Scan# 724

Delta R.T. -0.00 min

Lab File: VL032290.D

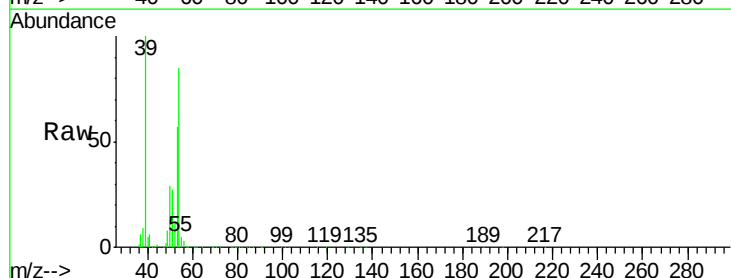
Acq: 19 Jul 2018 15:05

Tgt Ion: 39 Resp: 885917

Ion Ratio Lower Upper

39 100

54 90.8 70.6 105.8



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

800000

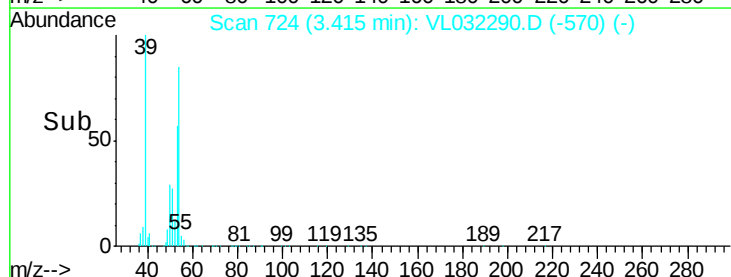
600000

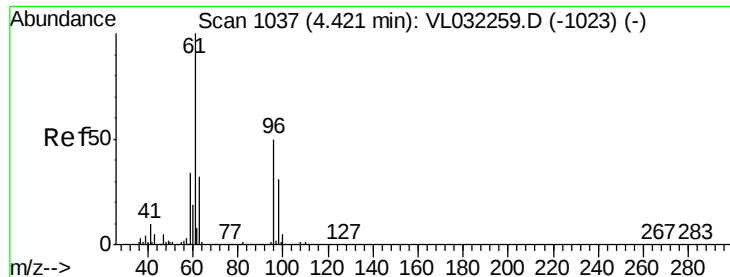
400000

200000

0

Time-->





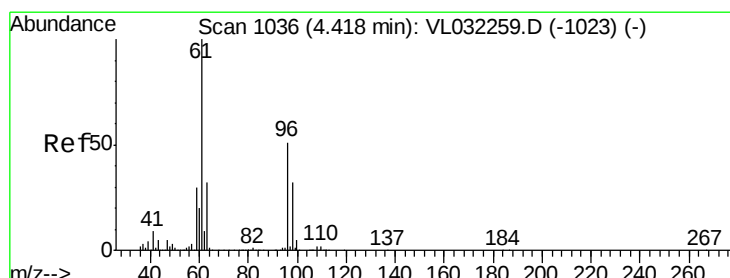
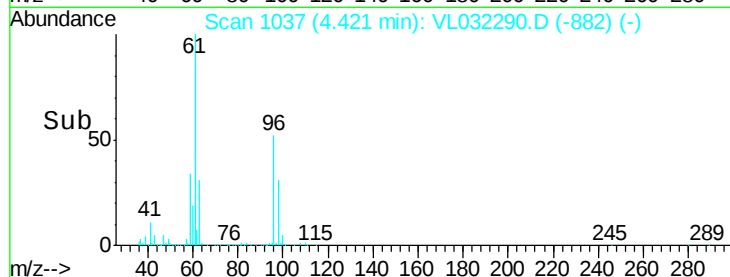
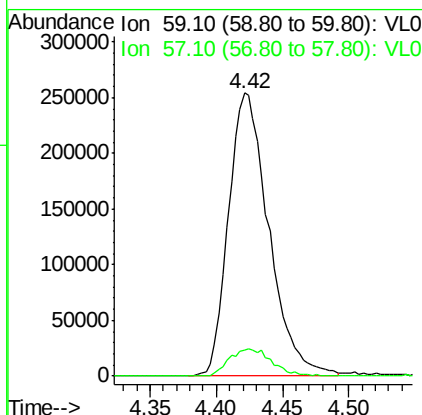
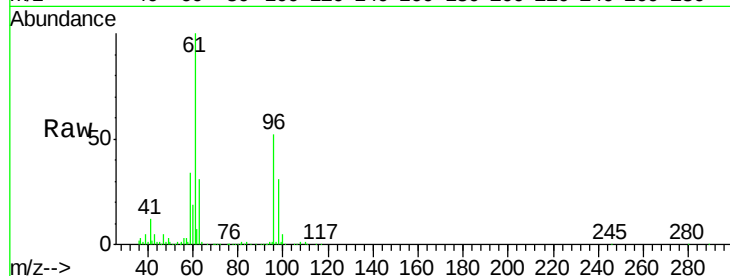
#17  
 tert-Butyl alcohol  
 Concen: 10.40 ppbv  
 RT: 4.42 min Scan# 1037  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion: 59 Resp: 537428  
 Ion Ratio Lower Upper  
 59 100  
 57 10.4 8.2 12.4

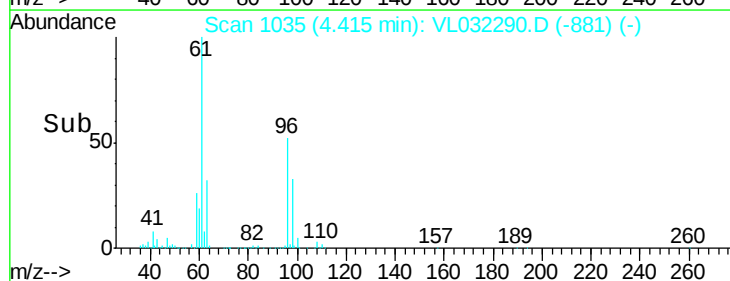
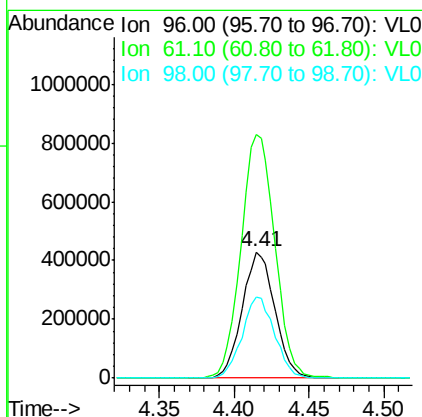
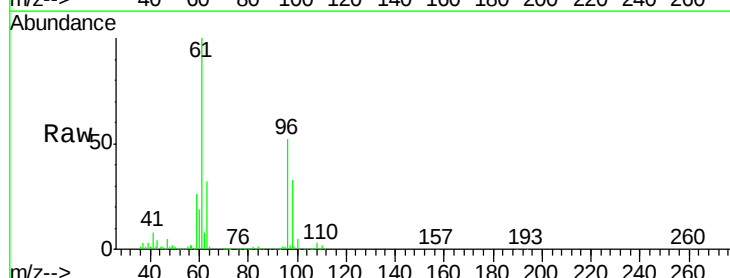
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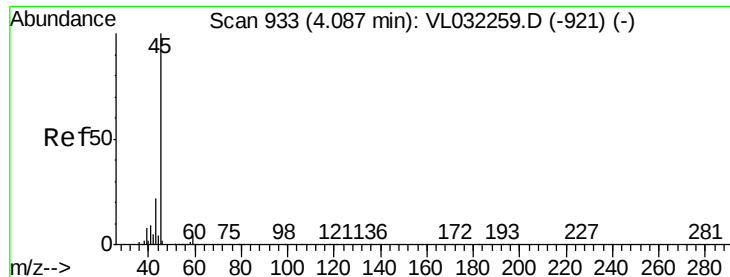
MMDadoda  
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#18  
 1,1-Dichloroethene  
 Concen: 10.51 ppbv  
 RT: 4.41 min Scan# 1035  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Tgt Ion: 96 Resp: 651668  
 Ion Ratio Lower Upper  
 96 100  
 61 192.7 157.2 235.8  
 98 64.1 50.1 75.1





#19

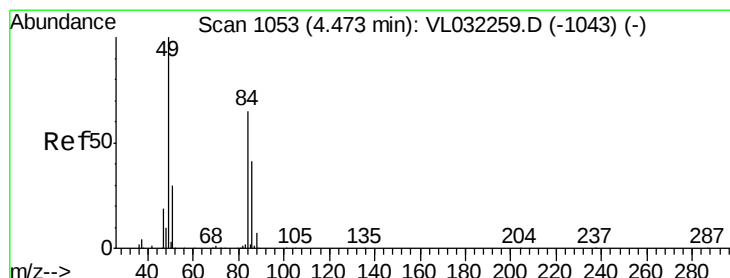
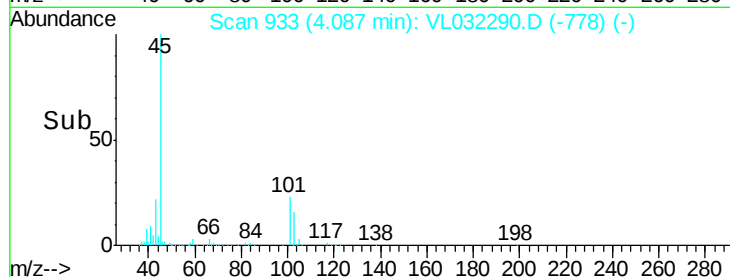
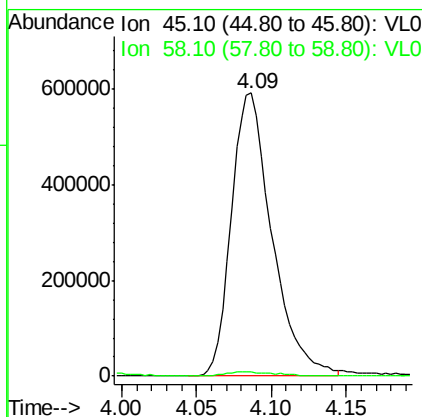
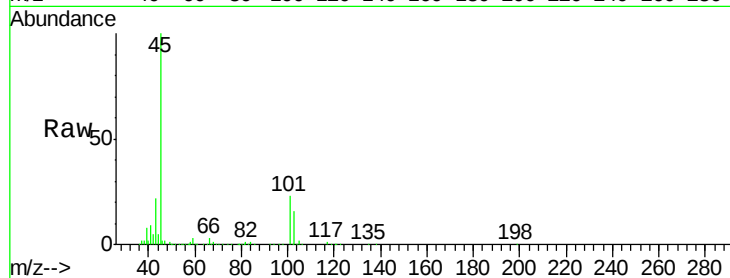
Isopropyl Alcohol  
 Concen: 10.08 ppbv  
 RT: 4.09 min Scan# 933  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion: 45 Resp: 1116452  
 Ion Ratio Lower Upper  
 45 100  
 58 1.6 1.5 2.3

Manual Integrations  
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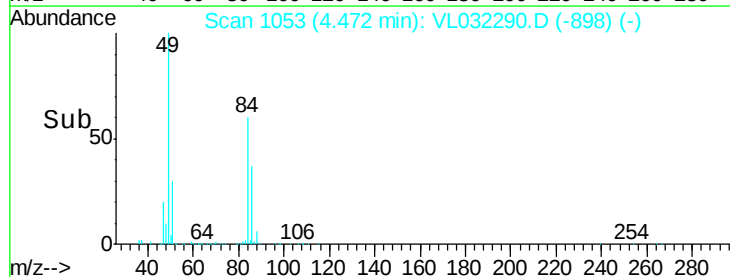
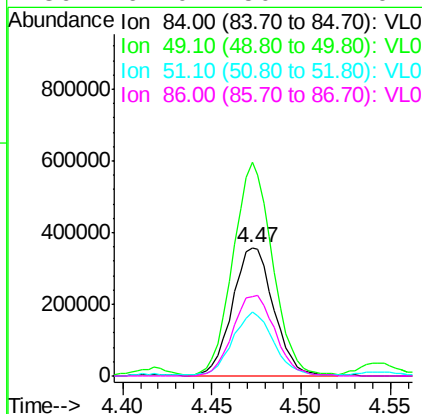
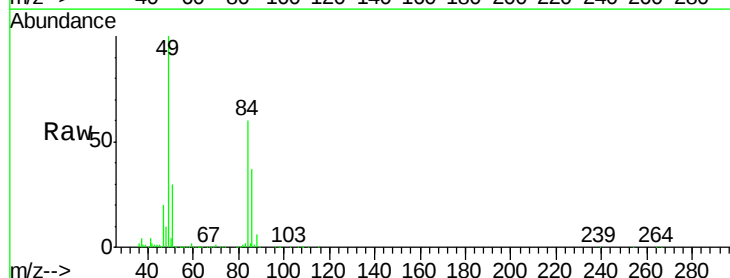
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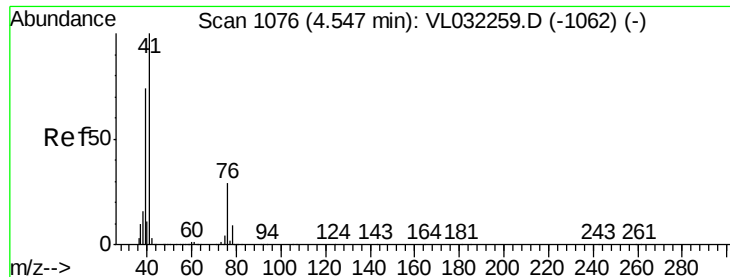


#20

Methylene Chloride  
 Concen: 9.12 ppbv  
 RT: 4.47 min Scan# 1053  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Tgt Ion: 84 Resp: 574974  
 Ion Ratio Lower Upper  
 84 100  
 49 166.0 122.4 183.6  
 51 48.8 36.8 55.2  
 86 62.0 50.7 76.1





#21

Allvl Chloride

Concen: 11.07 ppbv

RT: 4.54 min Scan# 1075

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 41 Resp: 1195065

Ion Ratio Lower Upper

41 100

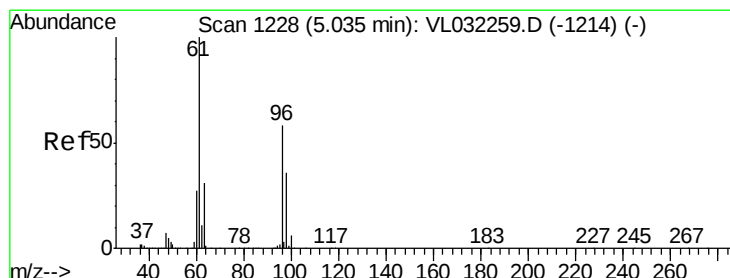
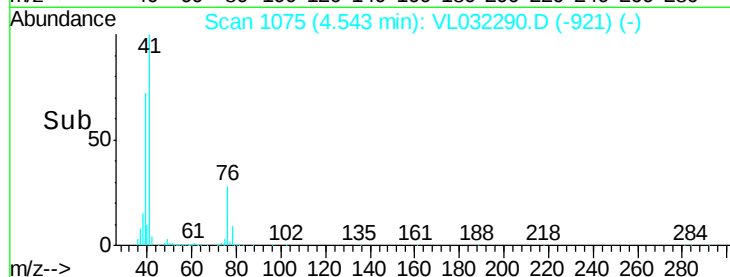
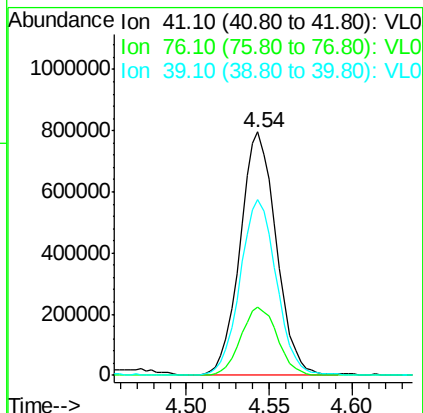
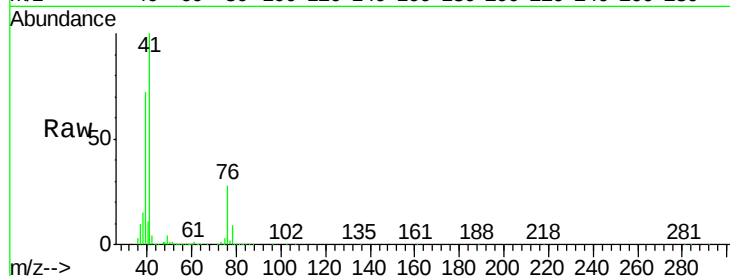
76 28.5 23.0 34.6

39 73.1 60.2 90.4

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#22

trans-1,2-Dichloroethene

Concen: 10.73 ppbv

RT: 5.03 min Scan# 1227

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

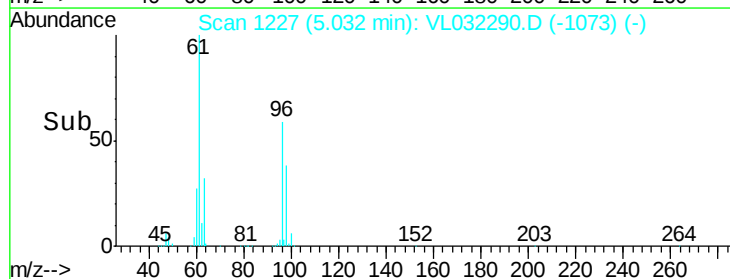
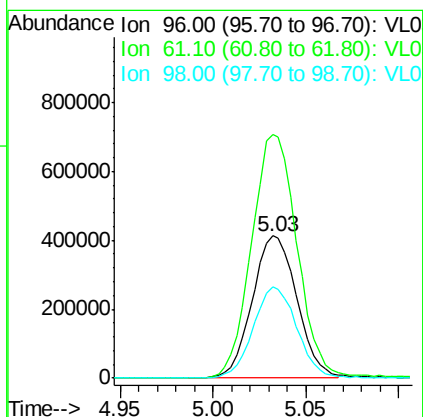
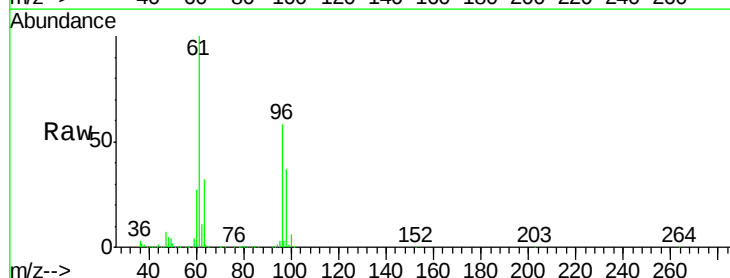
Tgt Ion: 96 Resp: 690840

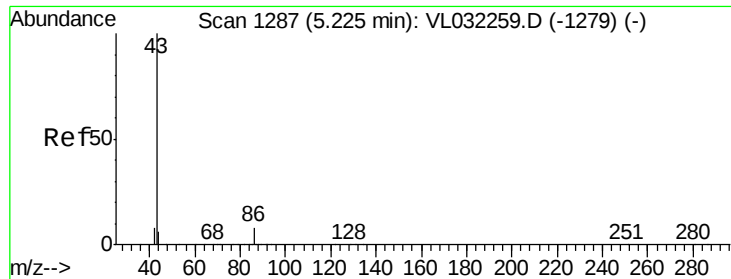
Ion Ratio Lower Upper

96 100

61 171.4 137.4 206.0

98 64.2 49.6 74.4





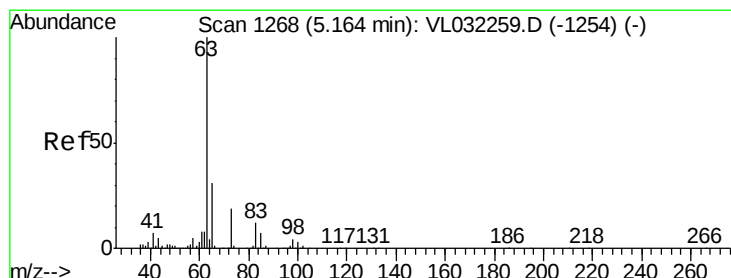
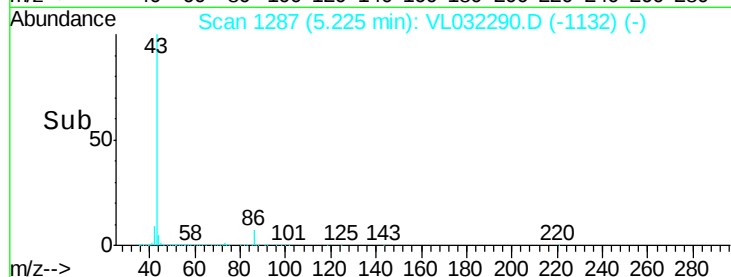
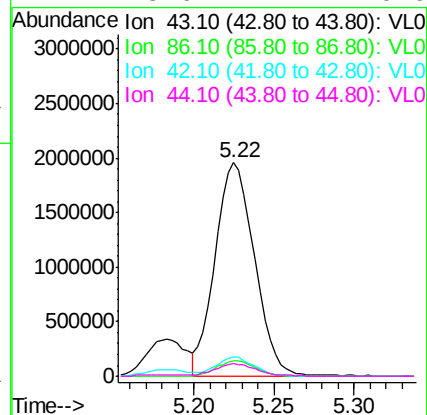
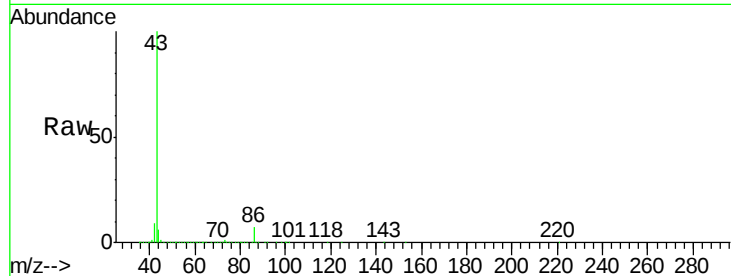
#23  
 Vinyl Acetate  
 Concen: 11.21 ppbv  
 RT: 5.22 min Scan# 1287  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ion | Ratio | Lower | Upper |
|---------|-----|-------|-------|-------|
| 43      | 100 |       |       |       |
| 86      | 7.3 | 5.9   | 8.9   |       |
| 42      | 8.9 | 7.3   | 10.9  |       |
| 44      | 5.6 | 4.4   | 6.6   |       |

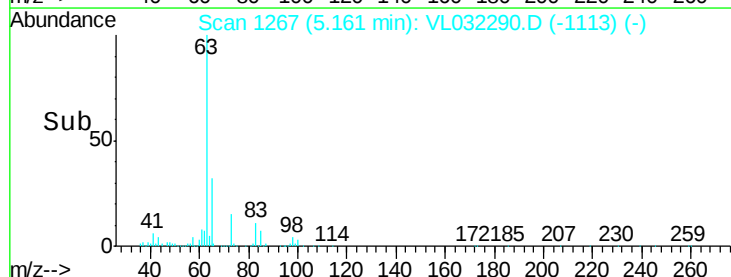
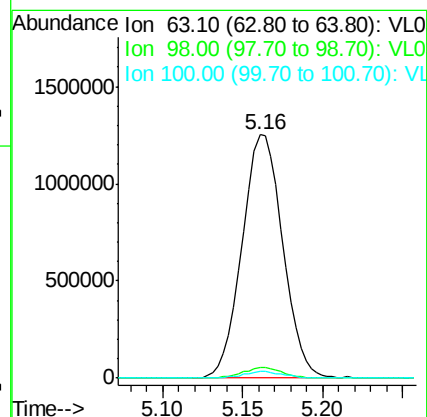
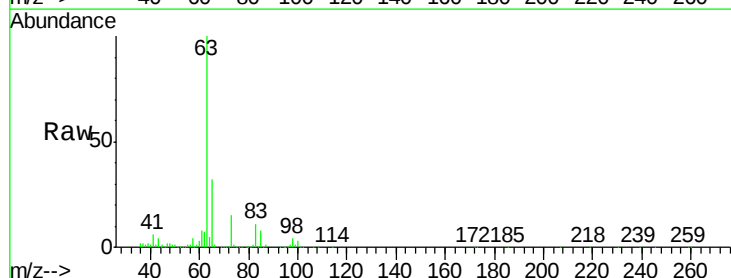
Manual Integrations  
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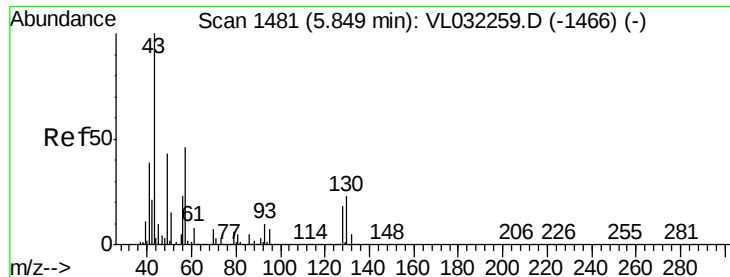
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#24  
 1,1-Dichloroethane  
 Concen: 10.15 ppbv  
 RT: 5.16 min Scan# 1267  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tgt Ion | Ion | Ratio | Lower | Upper |
|---------|-----|-------|-------|-------|
| 63      | 100 |       |       |       |
| 98      | 4.3 | 2.1   | 6.3   |       |
| 100     | 2.6 | 1.3   | 3.9   |       |





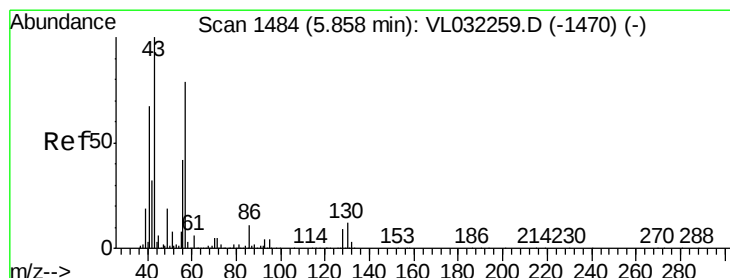
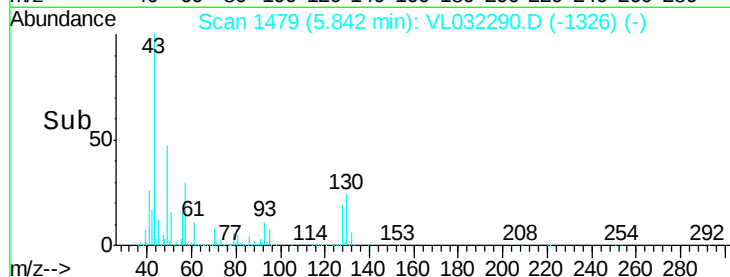
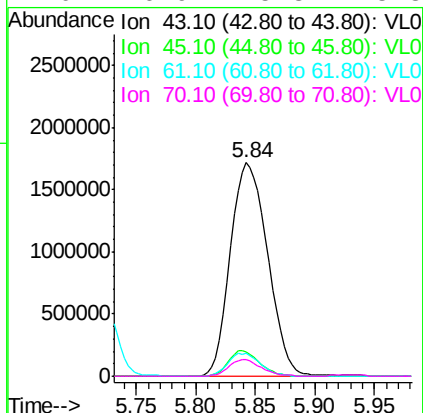
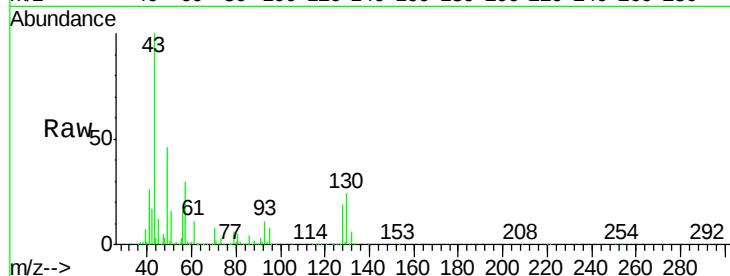
#25  
Ethyl Acetate  
Concen: 10.46 ppbv  
RT: 5.84 min Scan# 1479  
Delta R.T. -0.01 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 43      | 100  |       |       |       |
| 45      | 10.1 | 7.9   | 11.9  |       |
| 61      | 9.4  | 7.6   | 11.4  |       |
| 70      | 6.9  | 5.8   | 8.8   |       |

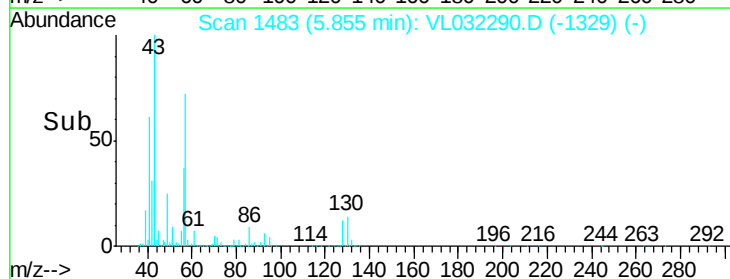
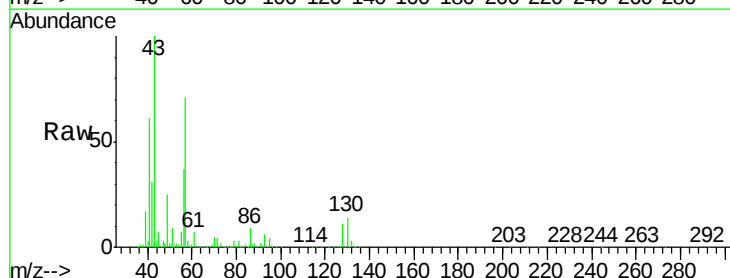
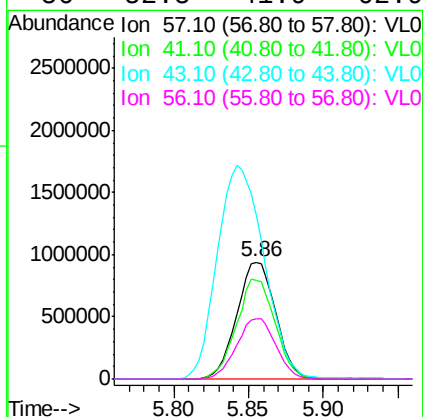
Manual Integrations  
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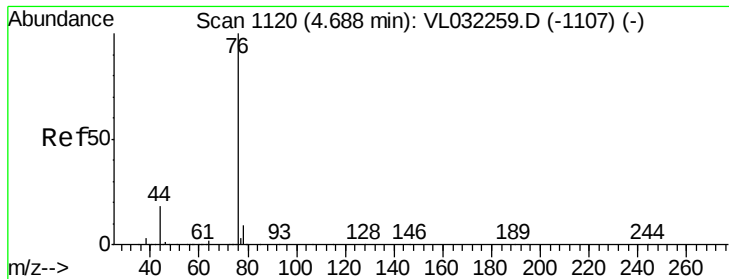
MMDadoda  
7/20/2018 2:06:11 PM



#26  
Hexane  
Concen: 10.33 ppbv  
RT: 5.86 min Scan# 1483  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

| Tgt Ion | Ion   | Ratio | Lower | Upper |
|---------|-------|-------|-------|-------|
| 57      | 100   |       |       |       |
| 41      | 85.4  | 67.9  | 101.9 |       |
| 43      | 221.3 | 175.9 | 263.9 |       |
| 56      | 52.5  | 41.9  | 62.9  |       |





#27

Carbon Disulfide

Concen: 11.55 ppbv

RT: 4.69 min Scan# 1120

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

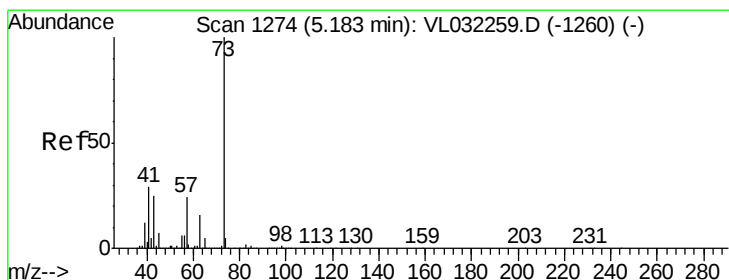
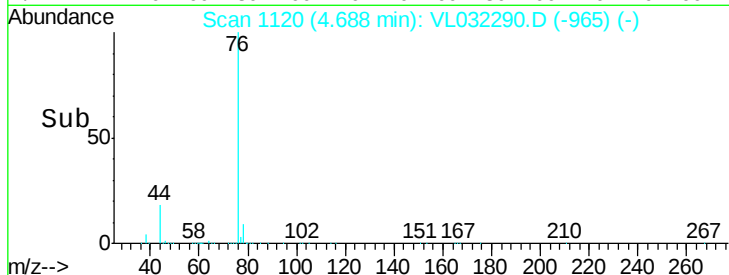
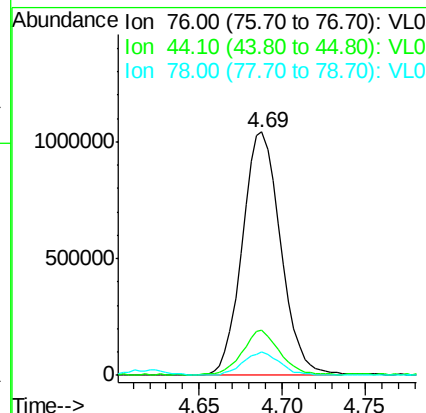
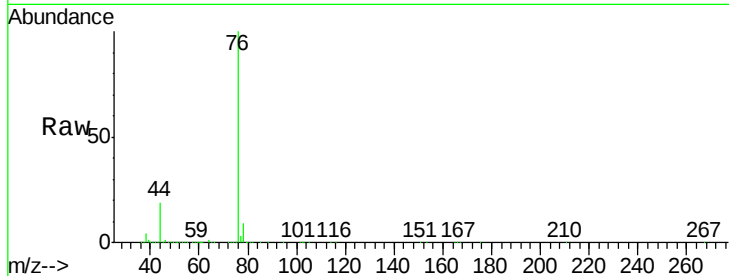
ClientSampleId :

VSTDCCC010

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 76    | Resp: | 1676465 |
| Ion      | Ratio | Lower | Upper   |
| 76       | 100   |       |         |
| 44       | 17.4  | 14.3  | 21.5    |
| 78       | 9.3   | 7.4   | 11.0    |

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#28

Methyl tert-Butyl Ether

Concen: 10.56 ppbv

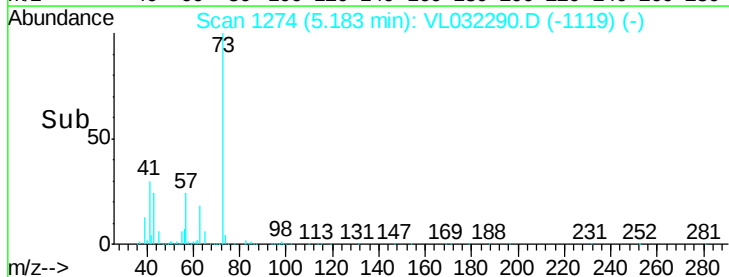
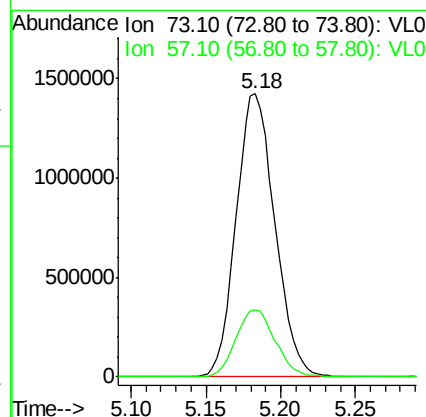
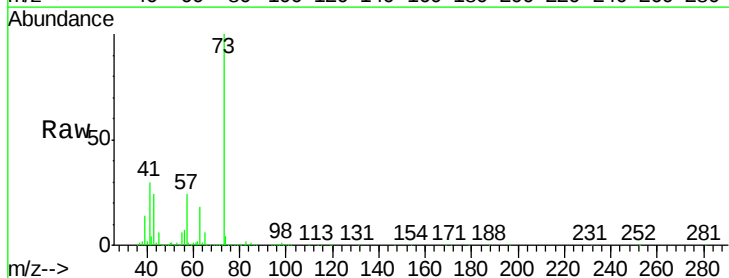
RT: 5.18 min Scan# 1274

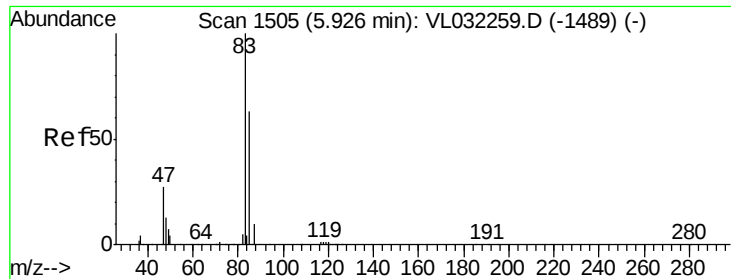
Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 73    | Resp: | 2566978 |
| Ion      | Ratio | Lower | Upper   |
| 73       | 100   |       |         |
| 57       | 24.2  | 19.3  | 28.9    |





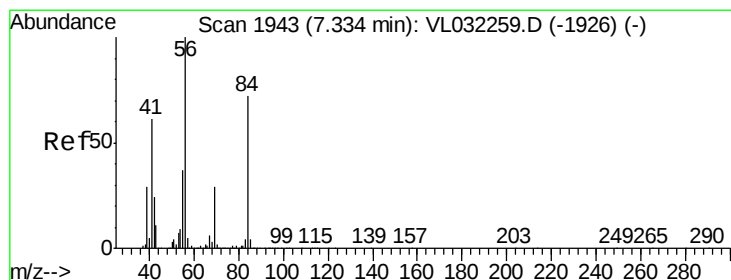
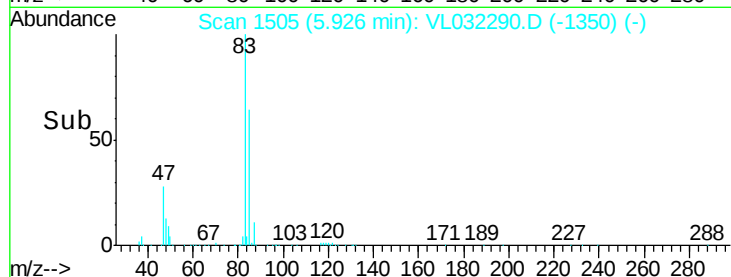
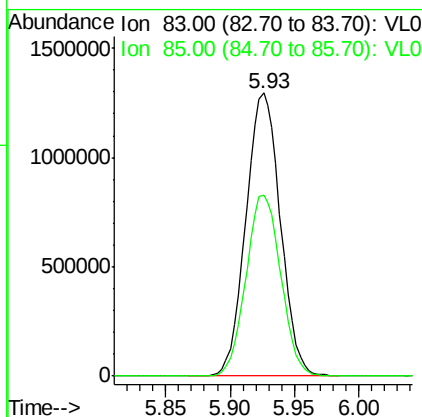
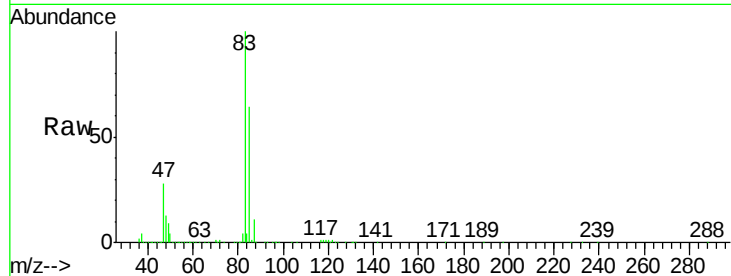
#29  
Chloroform  
Concen: 10.00 ppbv  
RT: 5.93 min Scan# 1505  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 83 Resp: 2417381  
Ion Ratio Lower Upper  
83 100  
85 64.0 50.7 76.1

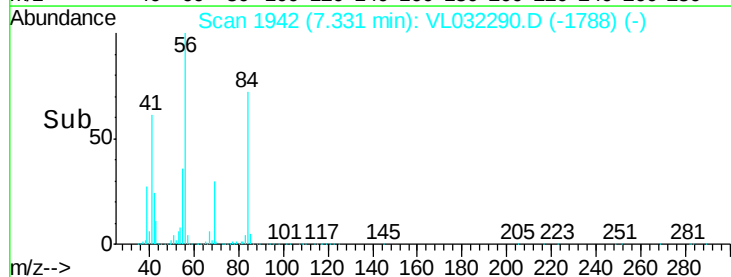
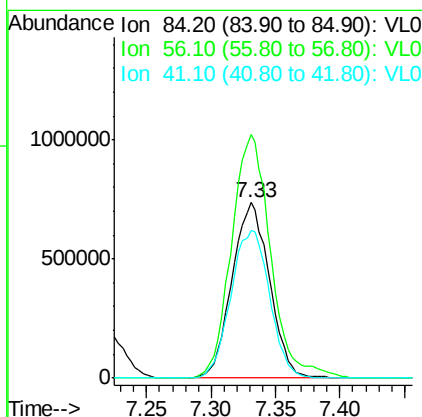
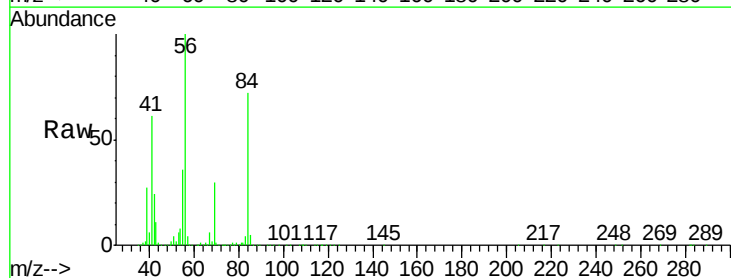
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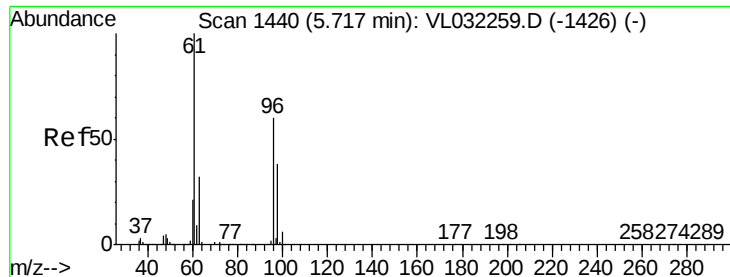
MMDadoda  
7/20/2018 2:06:11 PM



#30  
Cyclohexane  
Concen: 10.80 ppbv  
RT: 7.33 min Scan# 1942  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion: 84 Resp: 1484776  
Ion Ratio Lower Upper  
84 100  
56 145.5 115.6 173.4  
41 87.8 68.7 103.1





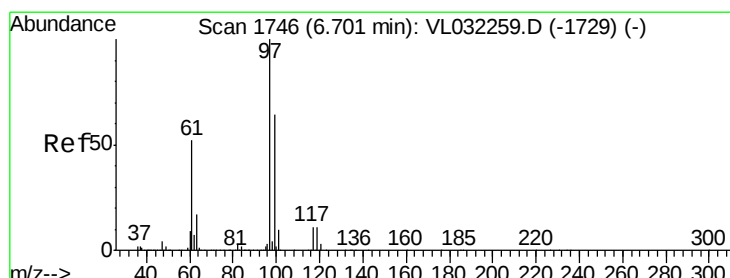
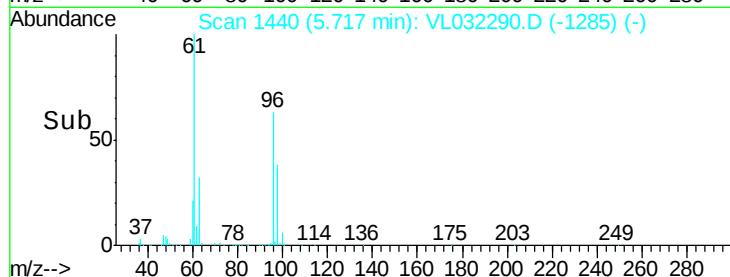
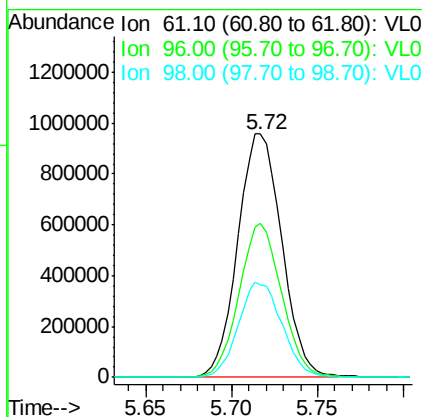
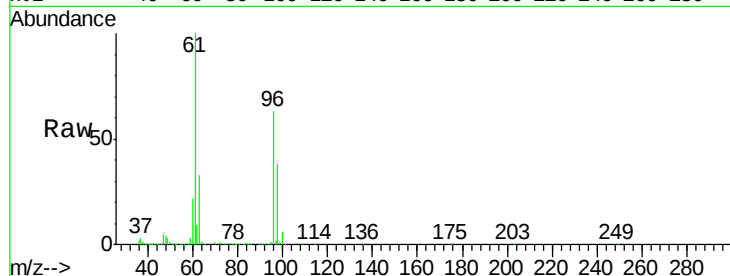
#31  
 cis-1,2-Dichloroethene  
 Concen: 10.84 ppbv  
 RT: 5.72 min Scan# 1440  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion: 61 Resp: 1703793  
 Ion Ratio Lower Upper  
 61 100  
 96 63.1 47.9 71.9  
 98 38.2 30.5 45.7

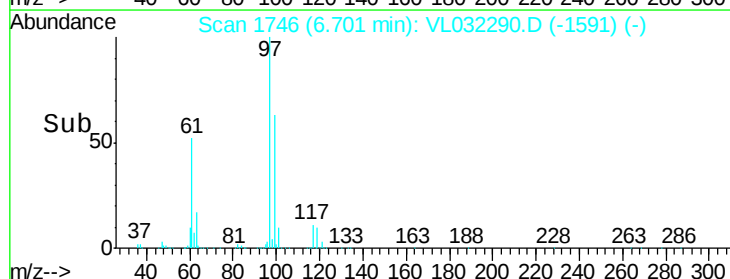
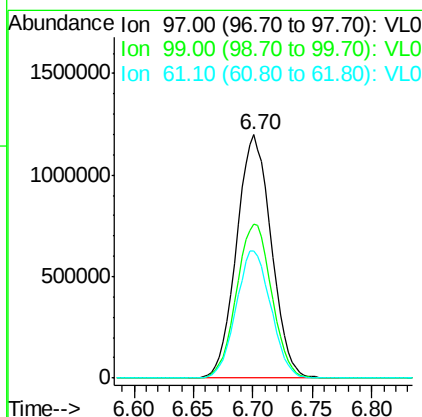
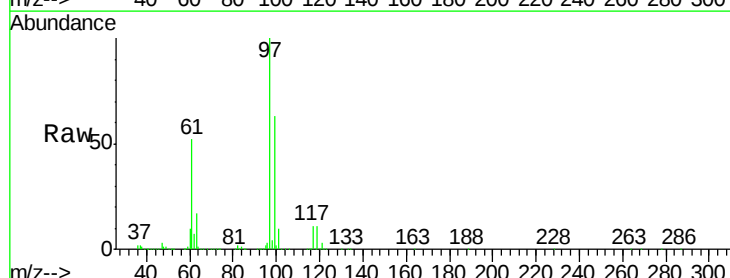
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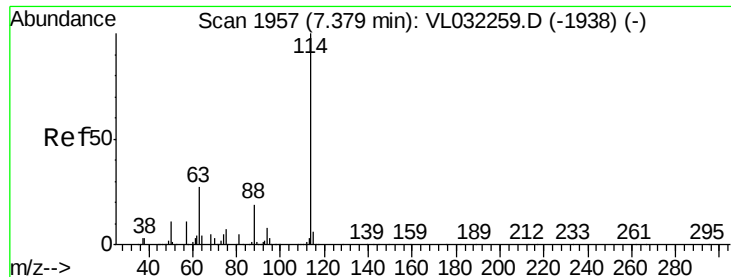
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#32  
 1,1,1-Trichloroethane  
 Concen: 9.89 ppbv  
 RT: 6.70 min Scan# 1746  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Tgt Ion: 97 Resp: 2417718  
 Ion Ratio Lower Upper  
 97 100  
 99 64.5 51.0 76.6  
 61 52.7 41.2 61.8





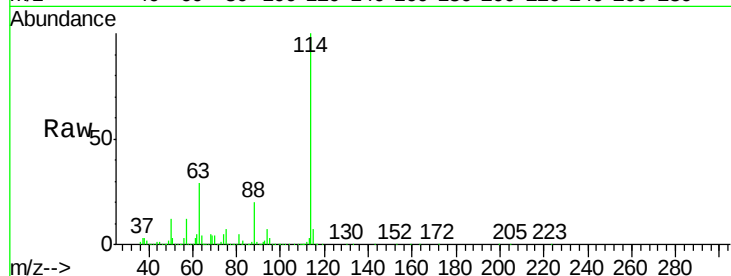
#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 7.38 min Scan# 1956  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

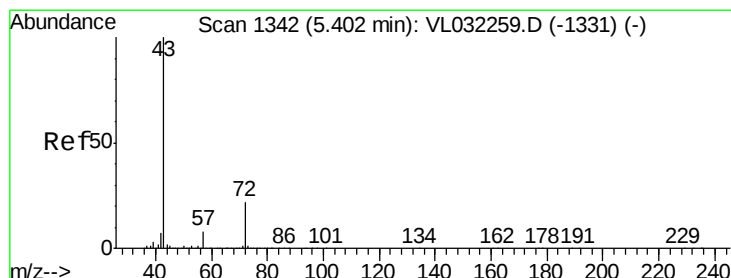
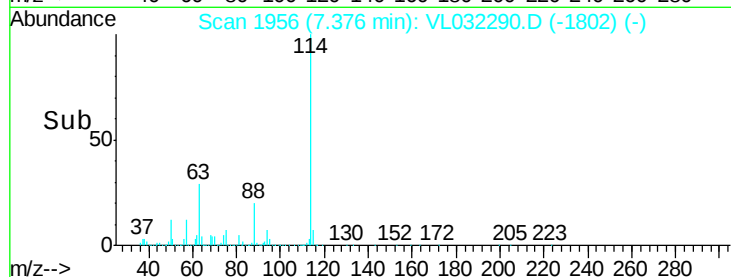
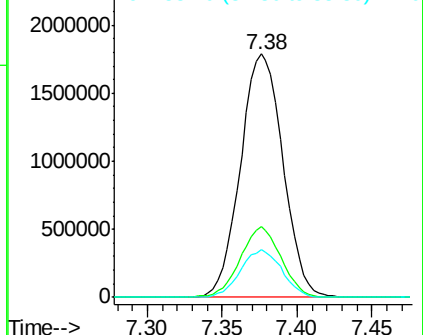
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 28.4  | 22.6  | 33.8  |
| 88      | 19.2  | 15.2  | 22.8  |

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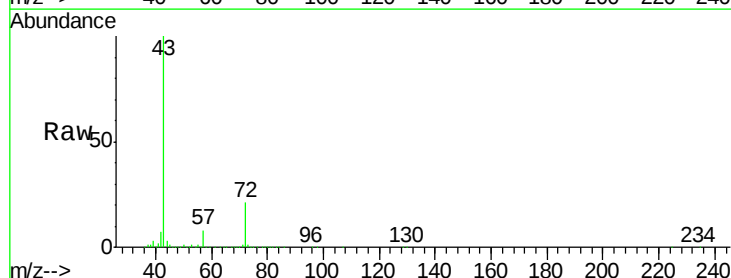


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

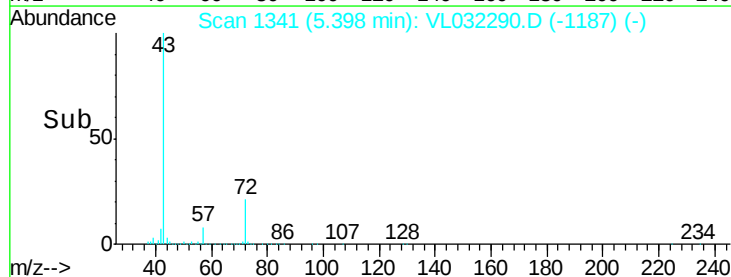
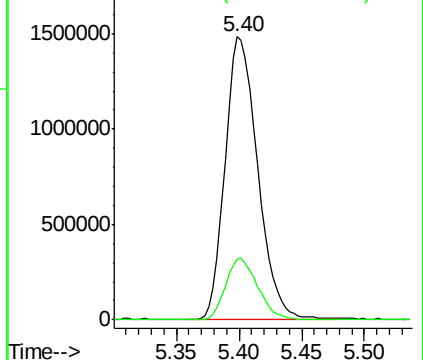


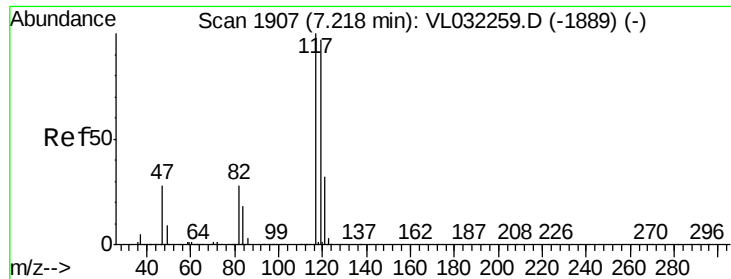
#34  
 2-Butanone  
 Concen: 11.03 ppbv  
 RT: 5.40 min Scan# 1341  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 21.8  | 17.7  | 26.5  |



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 9.93 ppbv

RT: 7.22 min Scan# 1907

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:117 Resp: 2408256

Ion Ratio Lower Upper

117 100

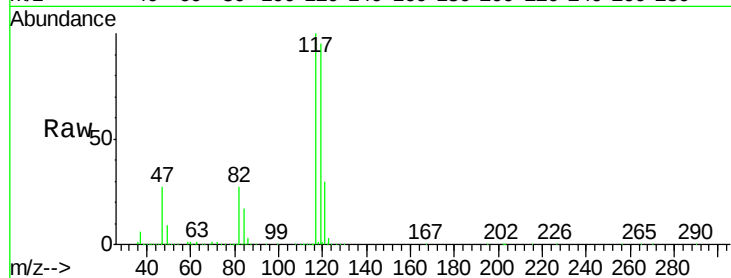
119 95.3 77.4 116.0

121 30.0 25.4 38.2

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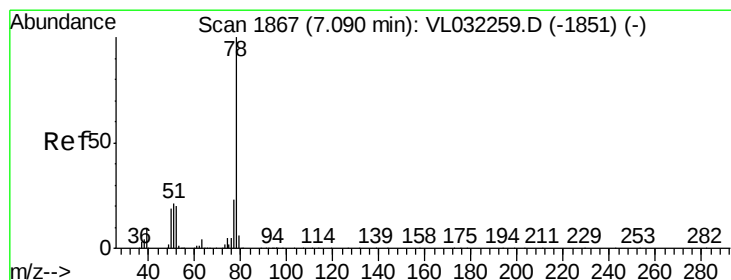
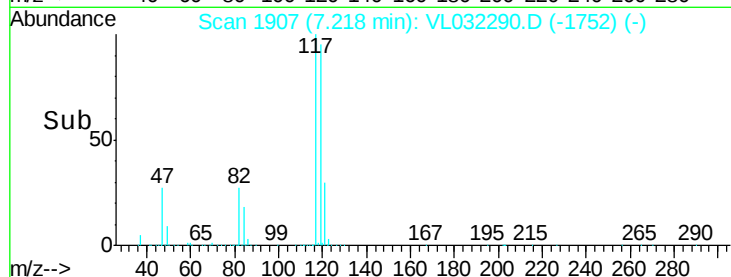
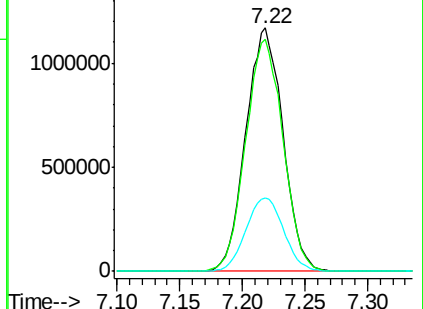
7/20/2018 2:06:11 PM



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 10.73 ppbv

RT: 7.09 min Scan# 1867

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

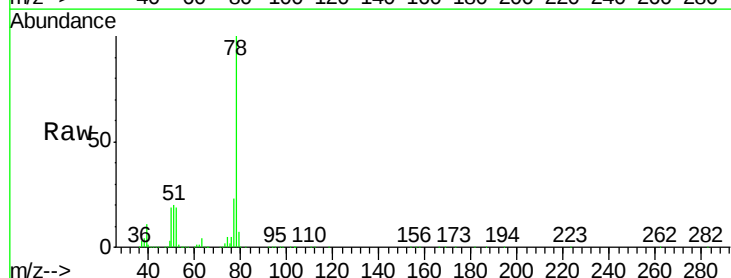
Tgt Ion: 78 Resp: 3721366

Ion Ratio Lower Upper

78 100

77 23.2 18.6 27.8

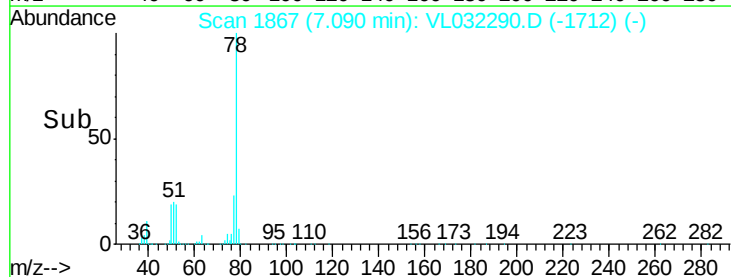
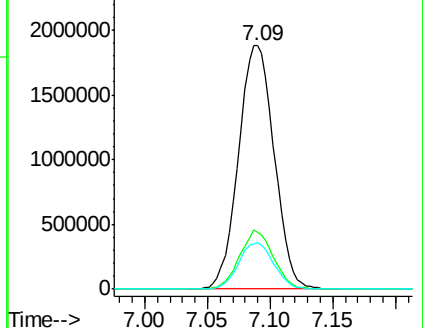
50 19.0 15.0 22.6

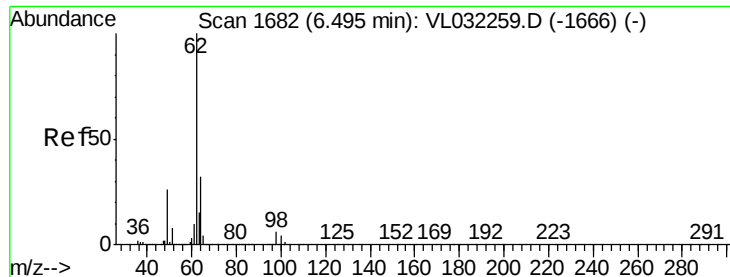


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





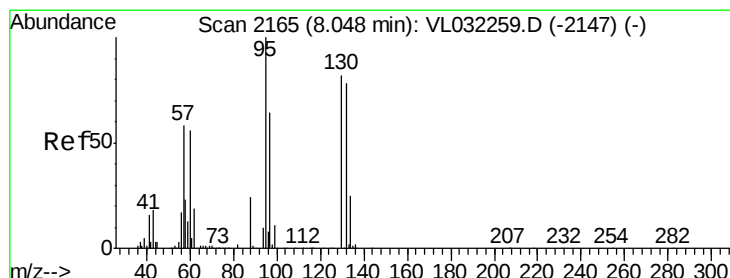
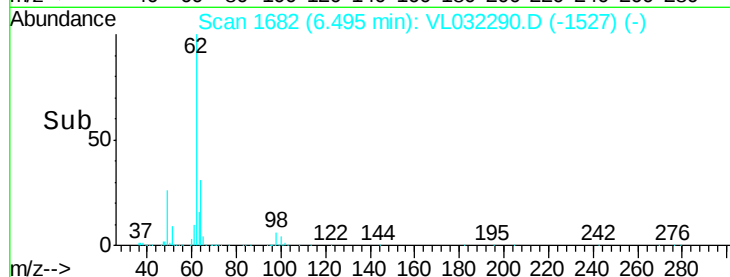
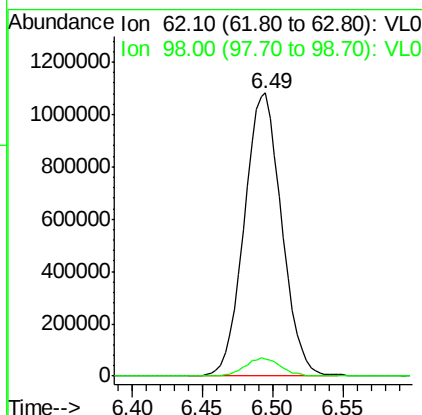
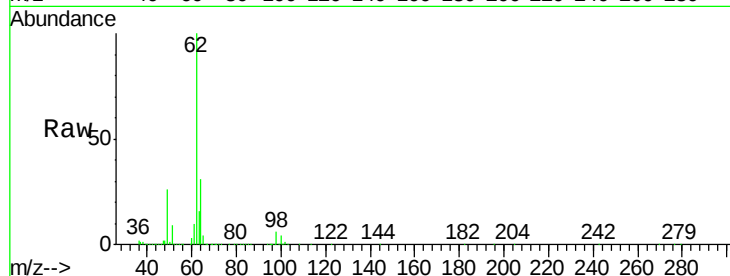
#37  
 1,2-Dichloroethane  
 Concen: 9.79 ppbv  
 RT: 6.49 min Scan# 1682  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 6.2   | 4.9   | 7.3   |

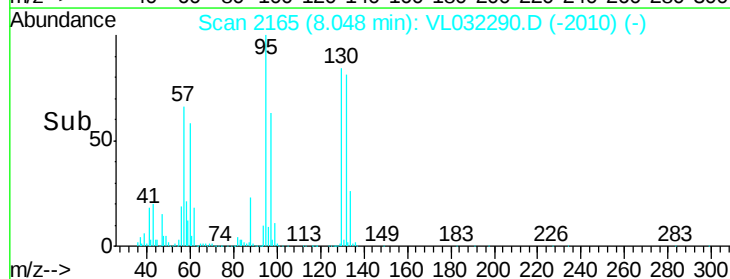
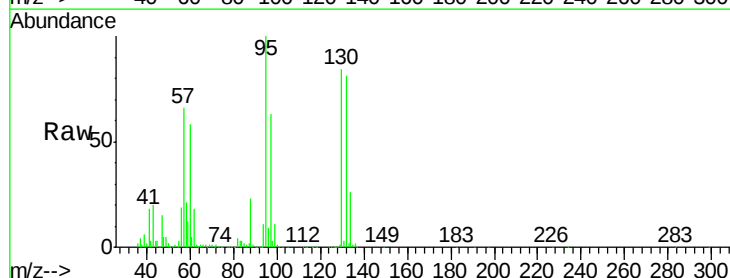
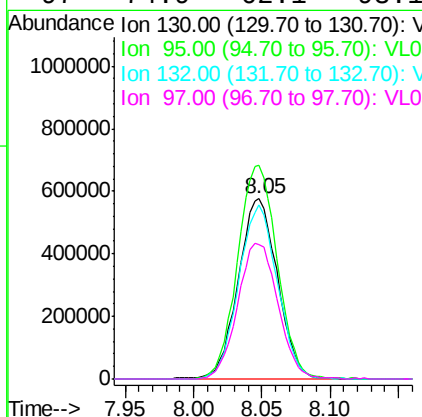
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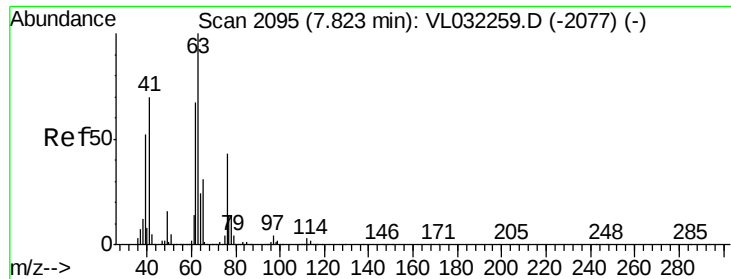
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#38  
 Trichloroethene  
 Concen: 9.92 ppbv  
 RT: 8.05 min Scan# 2165  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 130     | 100   |       |       |
| 95      | 118.9 | 97.1  | 145.7 |
| 132     | 96.8  | 75.6  | 113.4 |
| 97      | 74.9  | 62.1  | 93.1  |





#39

1,2-Dichloropropane

Concen: 10.23 ppbv

RT: 7.82 min Scan# 2095

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 63 Resp: 1404956

Ion Ratio Lower Upper

63 100

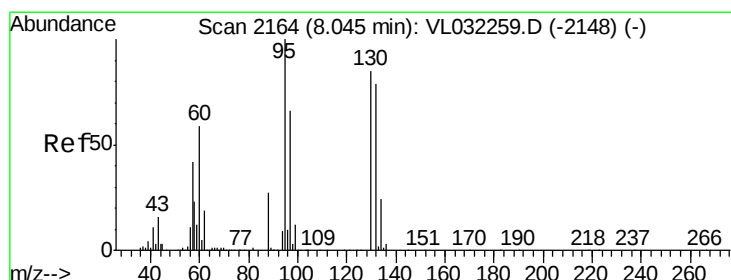
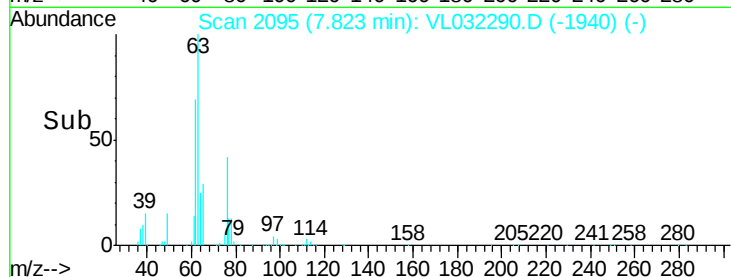
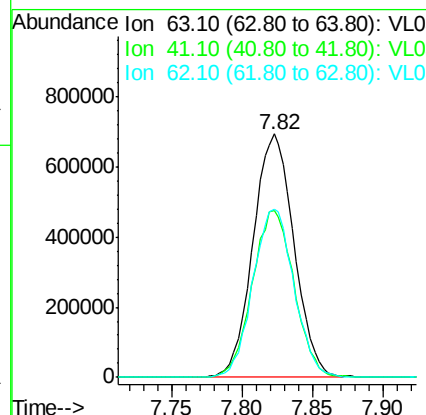
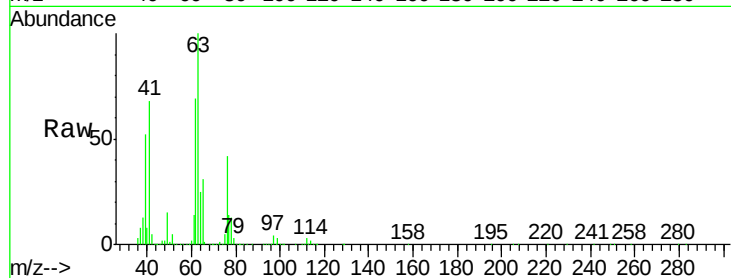
41 68.3 55.8 83.6

62 69.0 53.8 80.8

Manual Integrations  
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7/20/2018 2:06:11 PM



#40

1,4-Dioxane

Concen: 10.22 ppbv

RT: 8.04 min Scan# 2164

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Tgt Ion: 88 Resp: 414701

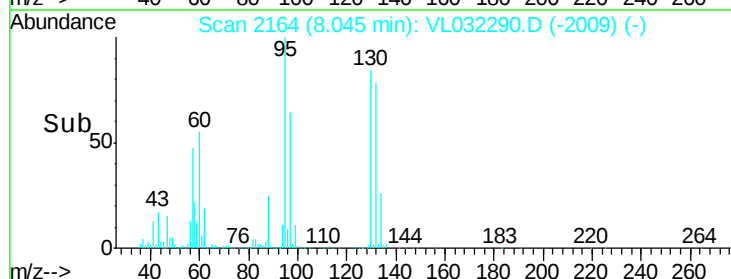
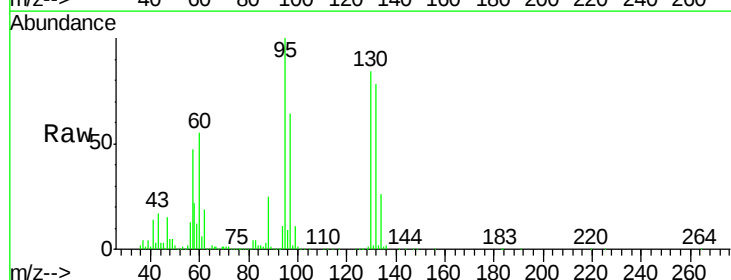
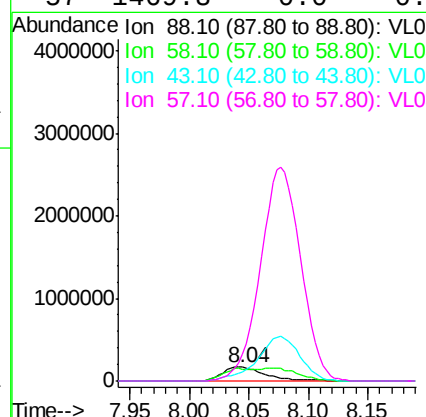
Ion Ratio Lower Upper

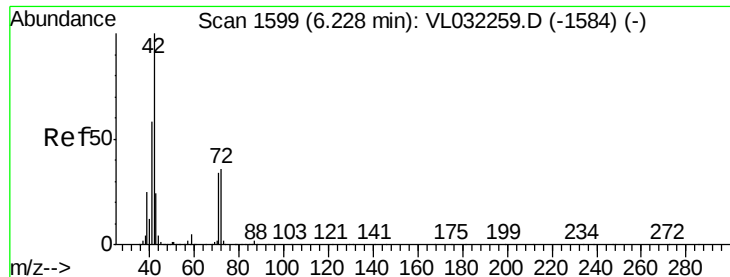
88 100

58 151.6 60.9 91.3#

43 323.8 0.0 0.0#

57 1469.8 0.0 0.0#





#41

Tetrahydrofuran

Concen: 11.43 ppbv

RT: 6.22 min Scan# 1598

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

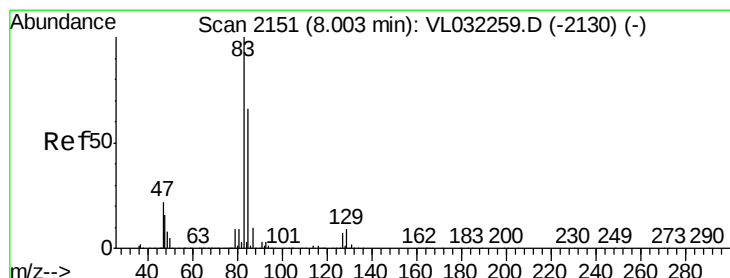
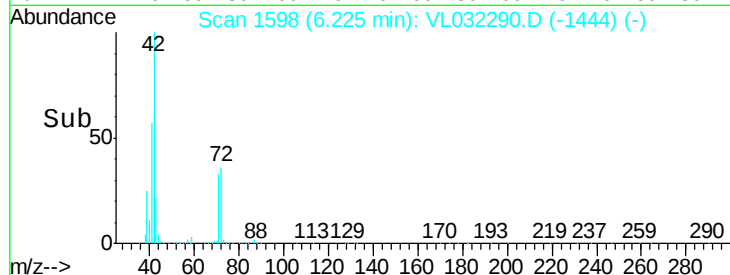
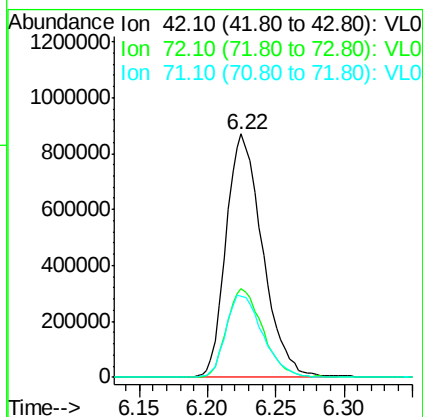
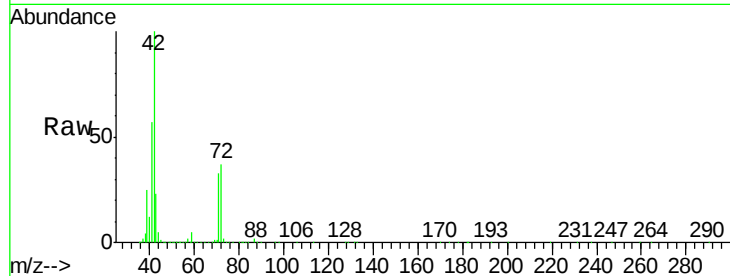
ClientSampleId :

VSTDCCC010

| Tot Ion | 42    | Resp  | 1612303 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 42      | 100   |       |         |
| 72      | 36.6  | 29.4  | 44.0    |
| 71      | 34.6  | 28.2  | 42.4    |

Manual Integrations  
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#42

Bromodichloromethane

Concen: 10.20 ppbv

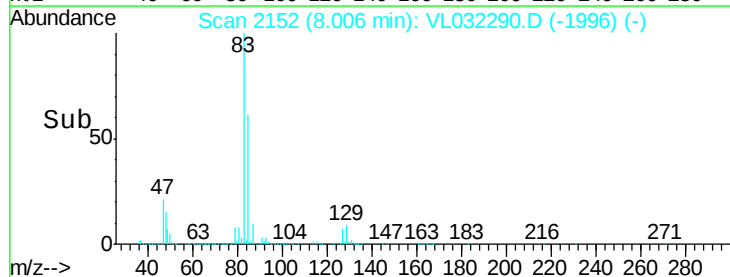
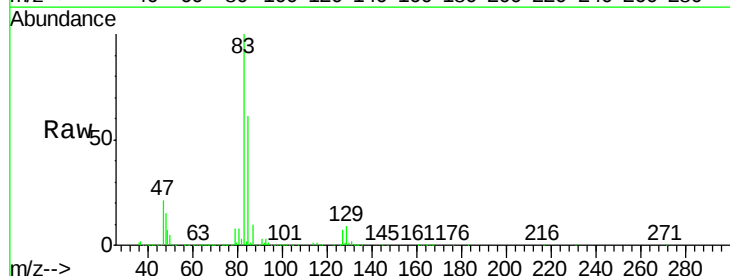
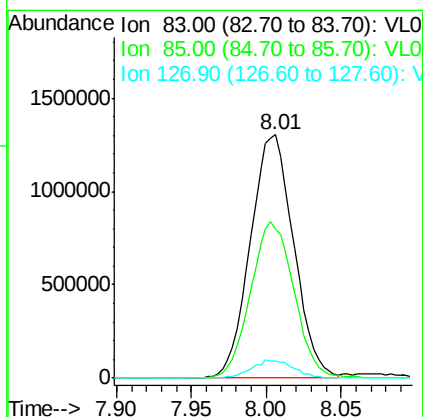
RT: 8.01 min Scan# 2152

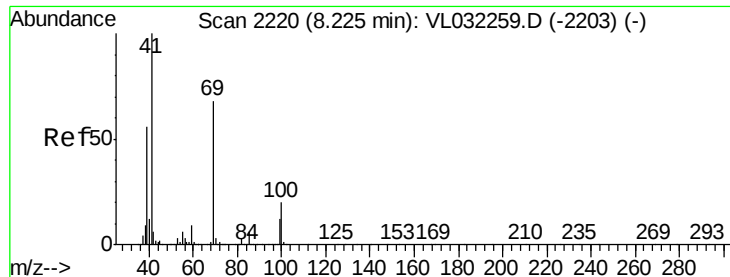
Delta R.T. 0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

| Tgt Ion | 83    | Resp  | 2631108 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 83      | 100   |       |         |
| 85      | 61.3  | 53.0  | 79.4    |
| 127     | 7.1   | 5.7   | 8.5     |





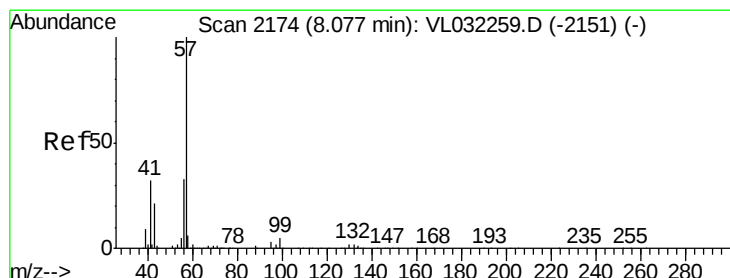
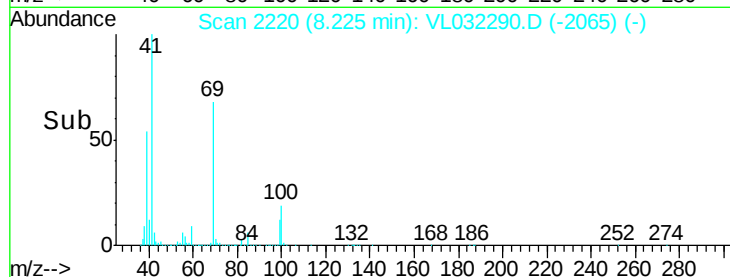
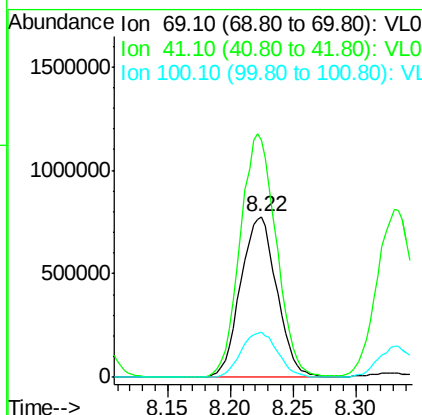
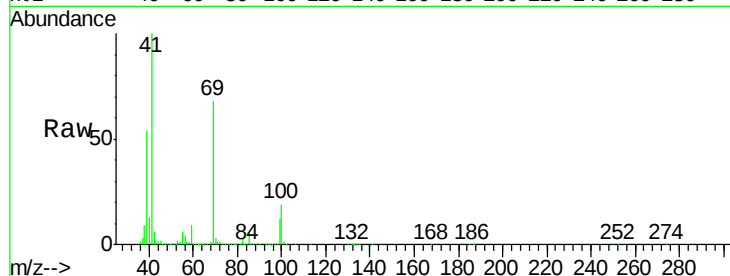
#43  
Methvl Methacrylate  
Concen: 10.96 ppbv  
RT: 8.22 min Scan# 2220  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion: 69 Resp: 1557788  
Ion Ratio Lower Upper  
69 100  
41 151.0 118.6 177.8  
100 28.6 23.3 34.9

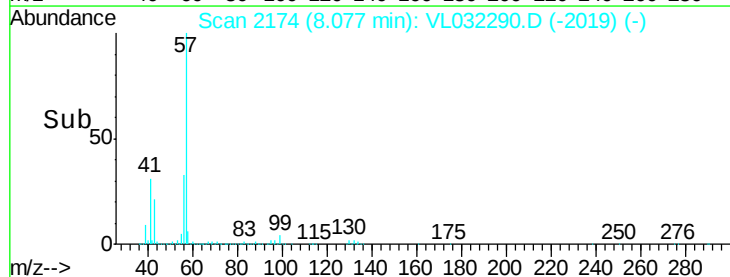
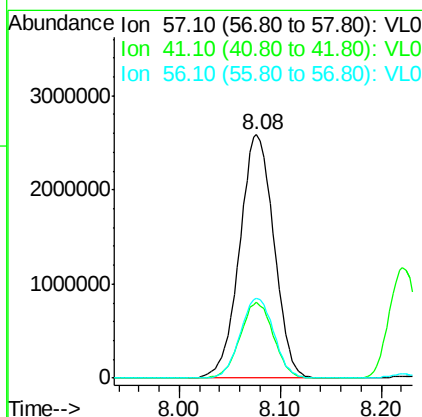
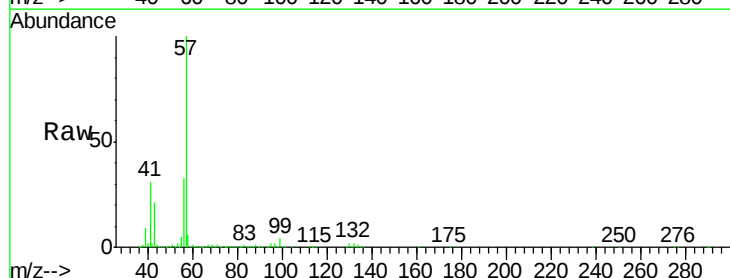
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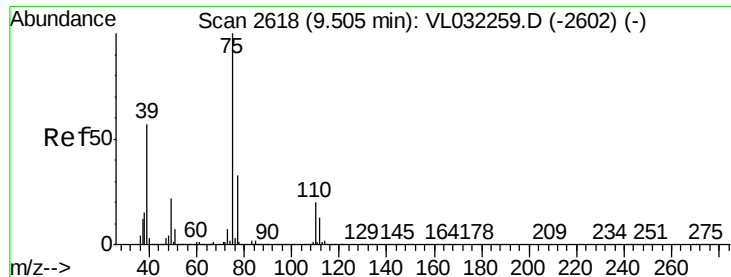
MMDadoda  
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#44  
2,2,4-Trimethylpentane  
Concen: 10.07 ppbv  
RT: 8.08 min Scan# 2174  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion: 57 Resp: 6087543  
Ion Ratio Lower Upper  
57 100  
41 30.2 24.4 36.6  
56 32.2 25.7 38.5





#45

t-1,3-Dichloropropene

Concen: 11.31 ppbv

RT: 9.50 min Scan# 2618

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 75 Resp: 1894719

Ion Ratio Lower Upper

75 100

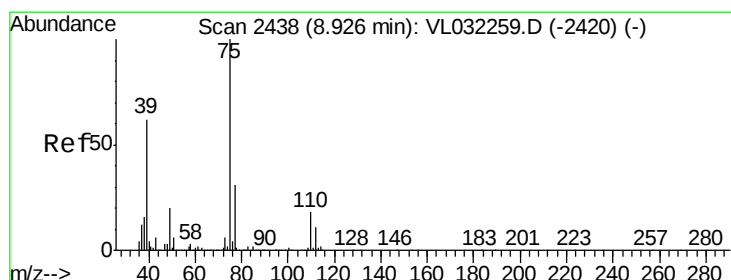
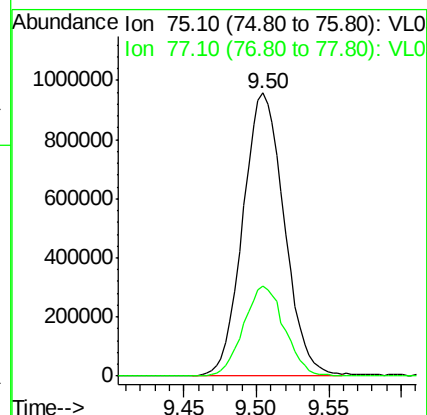
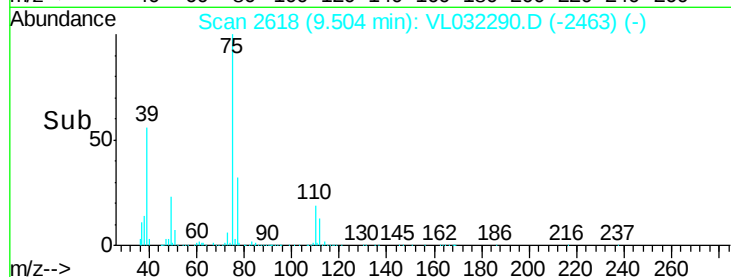
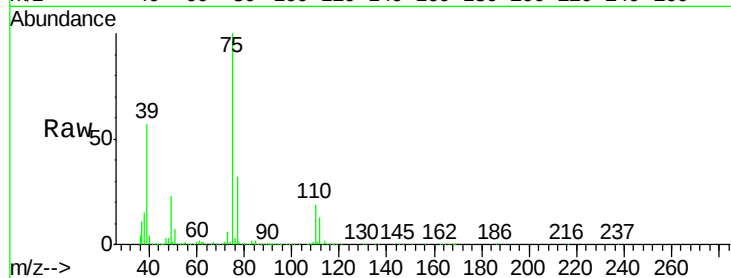
77 31.9 26.2 39.4

Manual Integrations

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7/20/2018 2:06:11 PM



#46

cis-1,3-Dichloropropene

Concen: 10.94 ppbv

RT: 8.92 min Scan# 2437

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

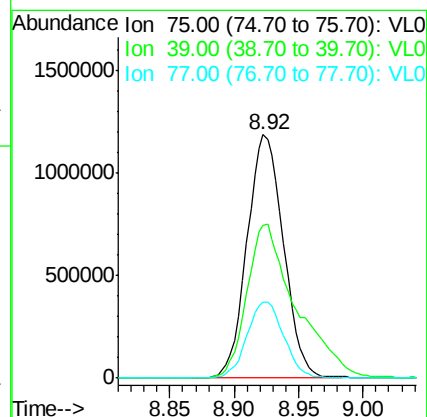
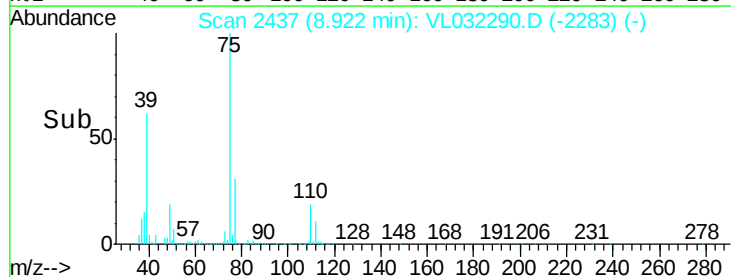
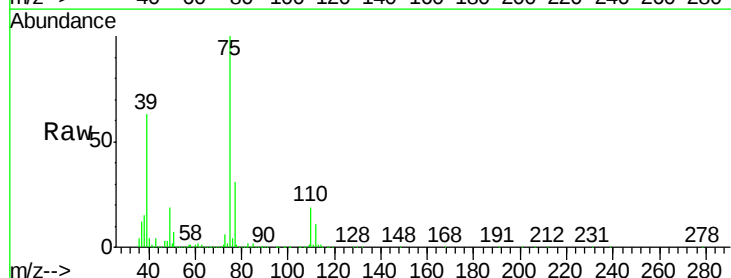
Tgt Ion: 75 Resp: 2336979

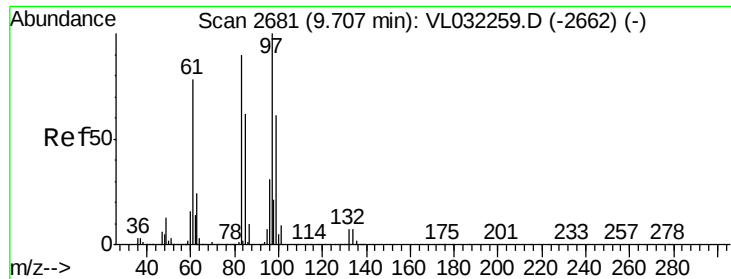
Ion Ratio Lower Upper

75 100

39 62.4 49.9 74.9

77 31.0 25.0 37.4





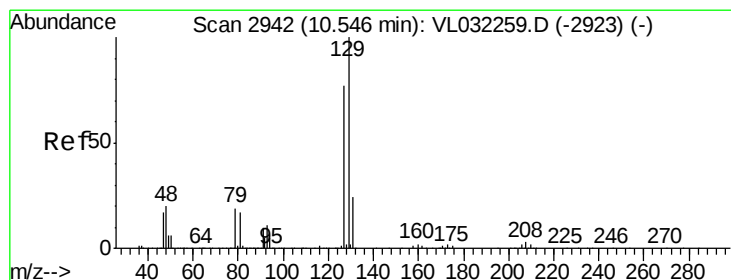
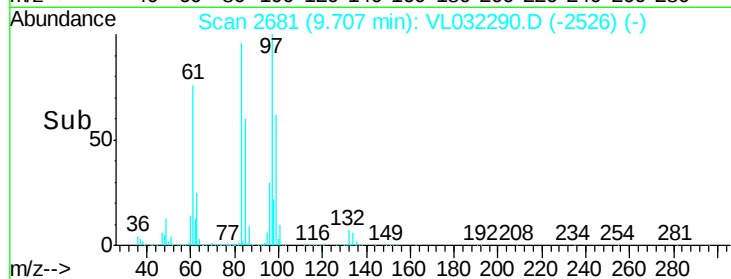
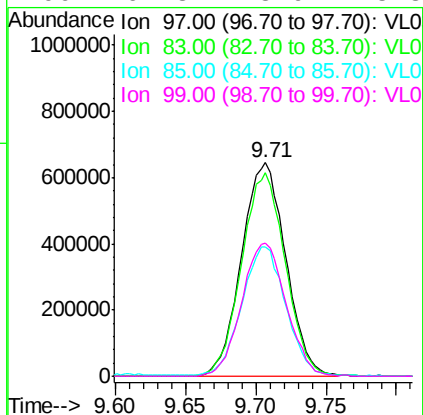
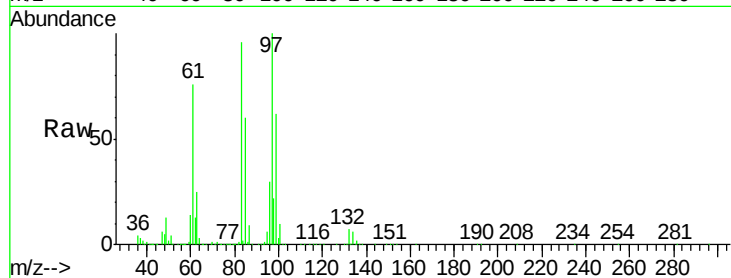
#47  
 1,1,2-Trichloroethane  
 Concen: 9.51 ppbv  
 RT: 9.71 min Scan# 2681  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 95.4 | 72.3  | 108.5 |       |
| 85      | 59.9 | 49.5  | 74.3  |       |
| 99      | 62.3 | 48.9  | 73.3  |       |

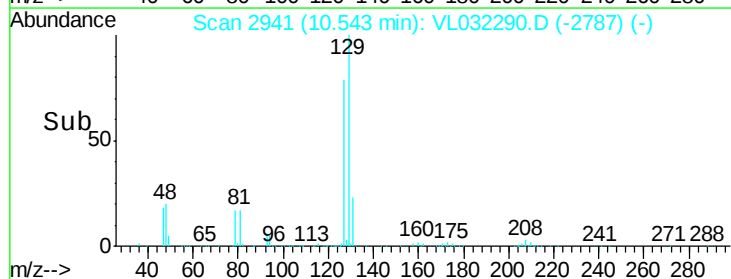
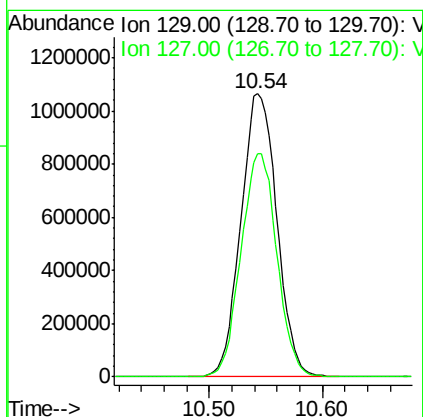
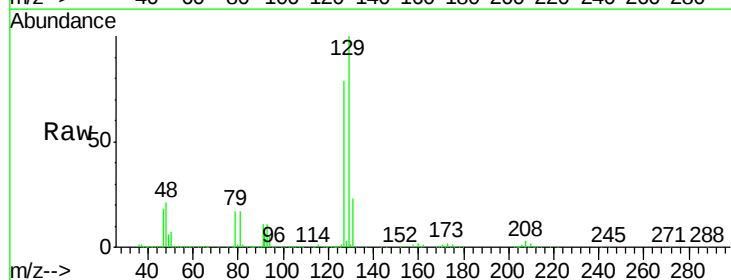
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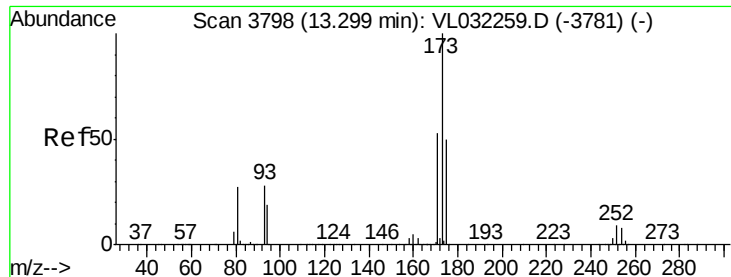
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#48  
 Dibromochloromethane  
 Concen: 10.91 ppbv  
 RT: 10.54 min Scan# 2941  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 78.6 | 39.1  | 117.3 |       |





#49

Bromoform

Concen: 10.90 ppbv

RT: 13.30 min Scan# 3798

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:173 Resp: 2058595

Ion Ratio Lower Upper

173 100

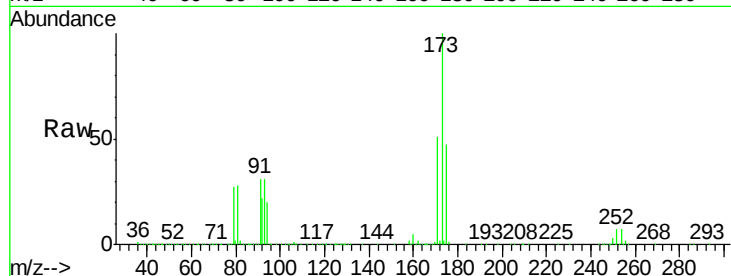
175 48.8 39.0 58.6

171 52.1 41.6 62.4

Manual Integrations  
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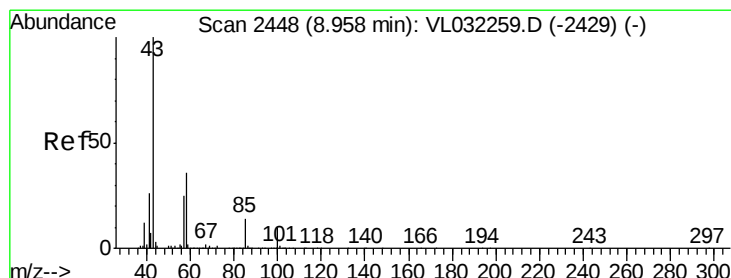
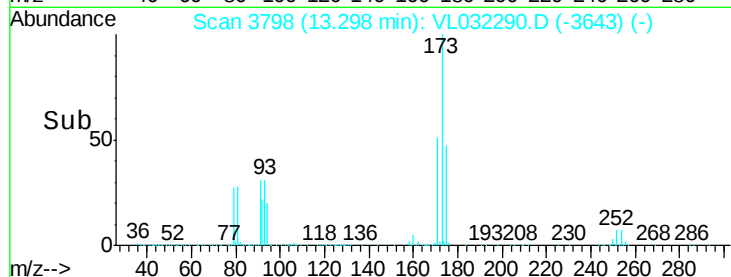
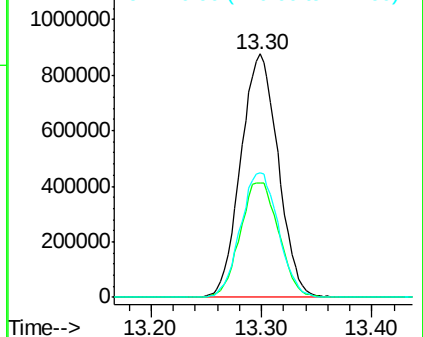
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Abundance Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 10.38 ppbv

RT: 8.96 min Scan# 2448

Delta R.T. -0.00 min

Lab File: VL032290.D

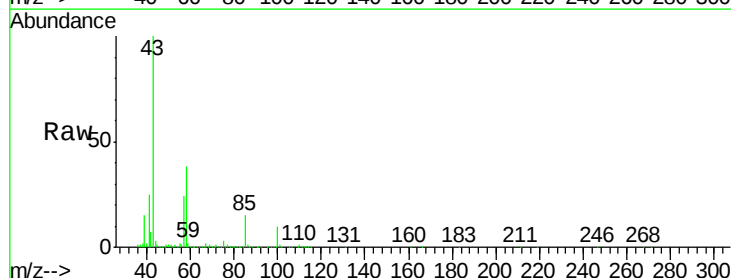
Acq: 19 Jul 2018 15:05

Tgt Ion: 43 Resp: 4130605

Ion Ratio Lower Upper

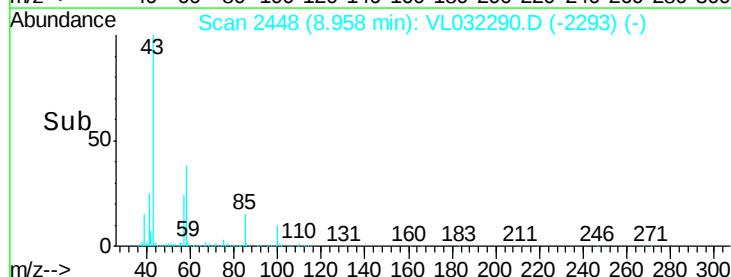
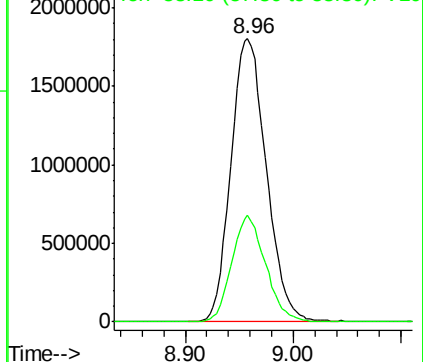
43 100

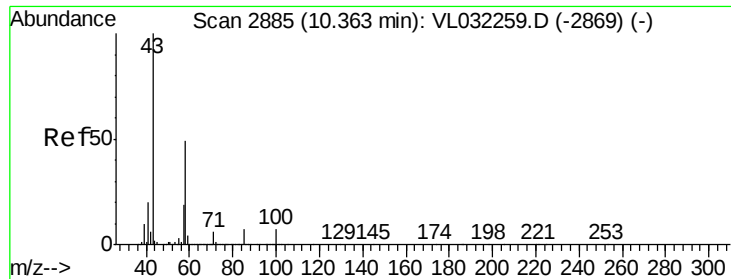
58 35.9 29.2 43.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#51

2-Hexanone

Concen: 12.53 ppbv

RT: 10.36 min Scan# 2884

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 43 Resp: 3802857

Ion Ratio Lower Upper

43 100

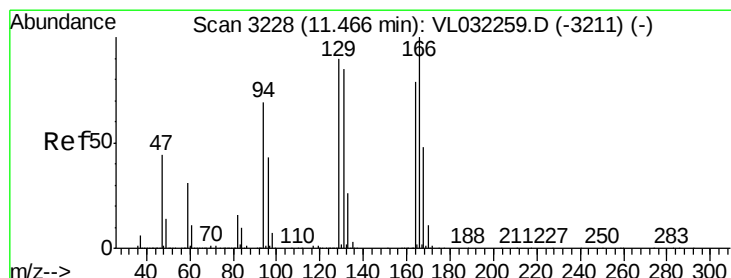
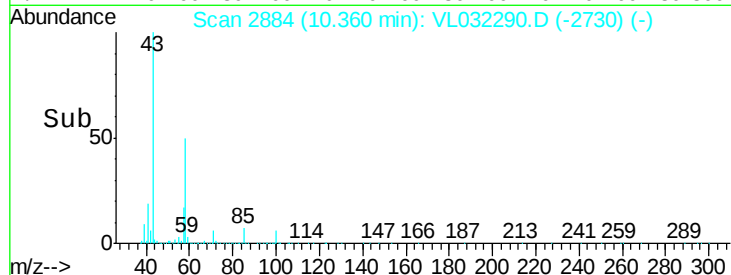
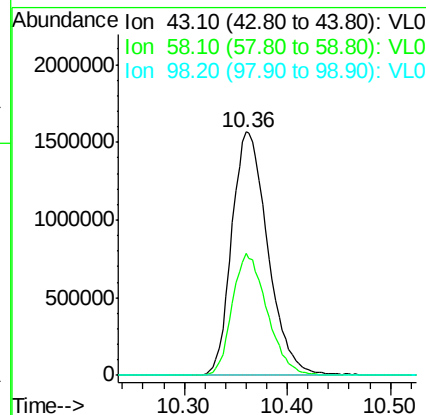
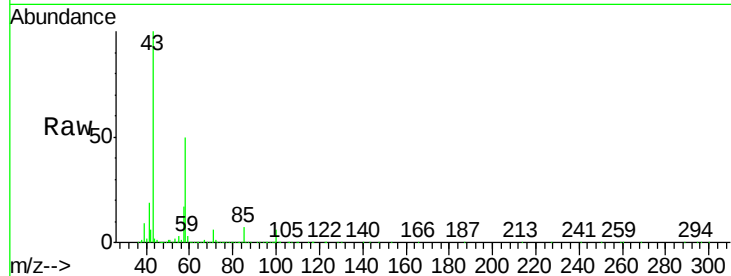
58 48.7 39.4 59.2

98 0.3 0.2 0.2#

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#52

Tetrachloroethene

Concen: 10.33 ppbv

RT: 11.47 min Scan# 3228

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Tgt Ion: 164 Resp: 1223719

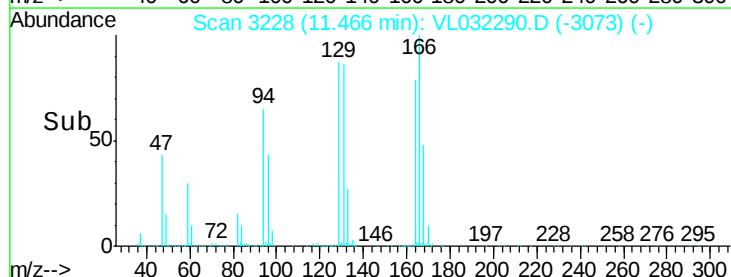
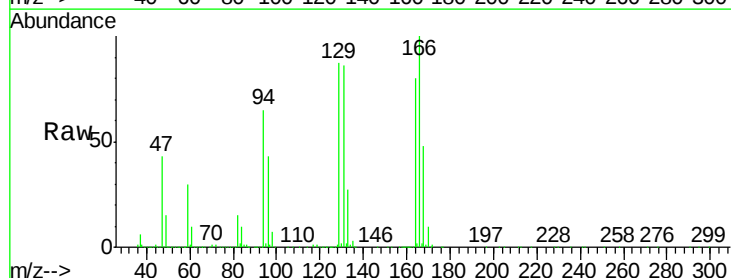
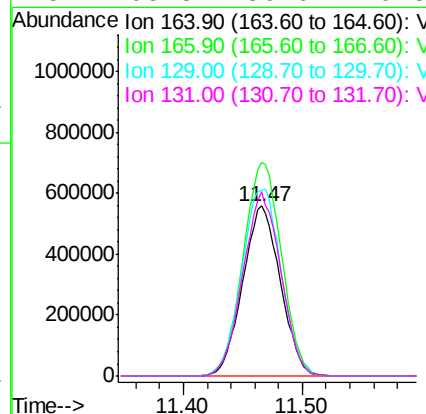
Ion Ratio Lower Upper

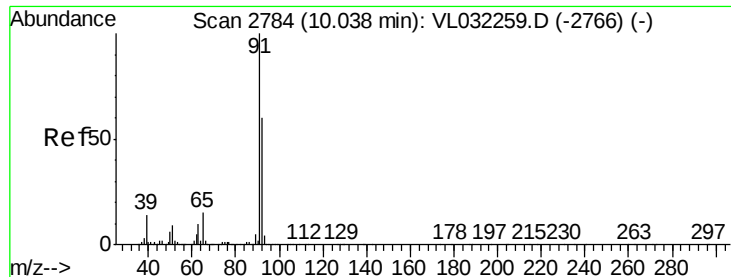
164 100

166 125.7 101.7 152.5

129 109.5 91.5 137.3

131 108.3 86.6 129.8





#53

Toluene

Concen: 9.53 ppbv

RT: 10.04 min Scan# 2784

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 91 Resp: 4007325

Ion Ratio Lower Upper

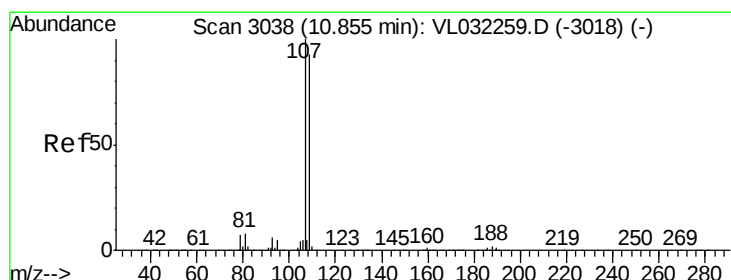
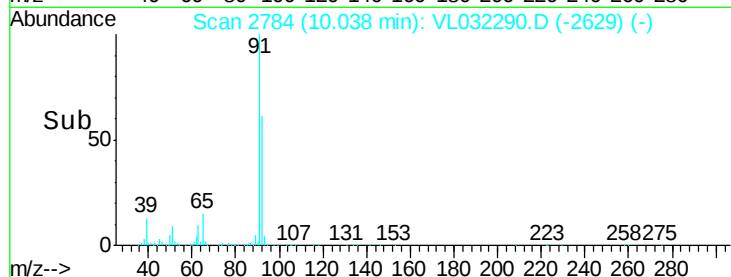
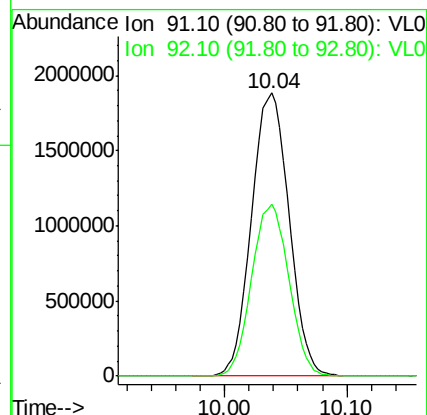
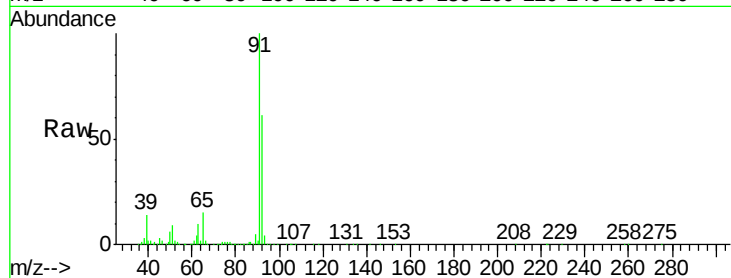
91 100

92 60.3 48.6 72.8

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#54

1,2-Dibromoethane

Concen: 10.38 ppbv

RT: 10.85 min Scan# 3038

Delta R.T. -0.00 min

Lab File: VL032290.D

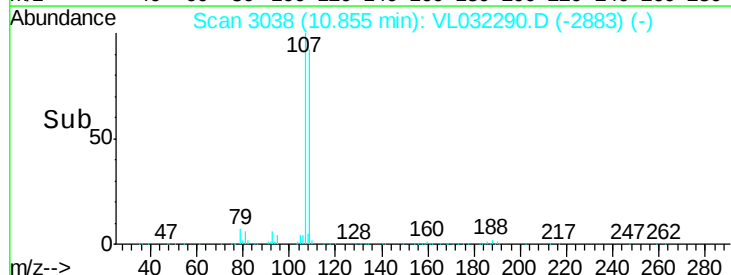
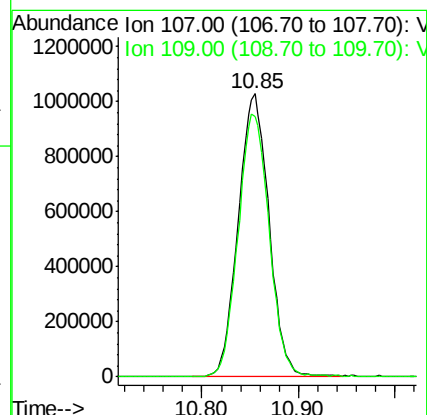
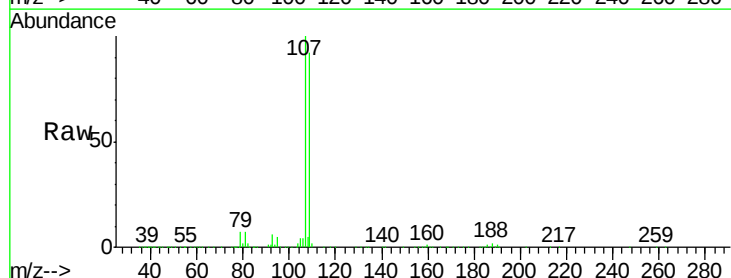
Acq: 19 Jul 2018 15:05

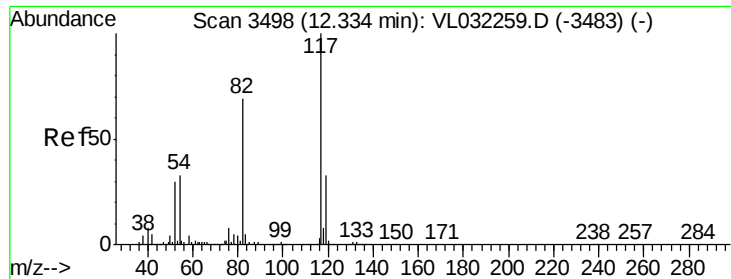
Tgt Ion: 107 Resp: 2271915

Ion Ratio Lower Upper

107 100

109 91.9 74.8 112.2





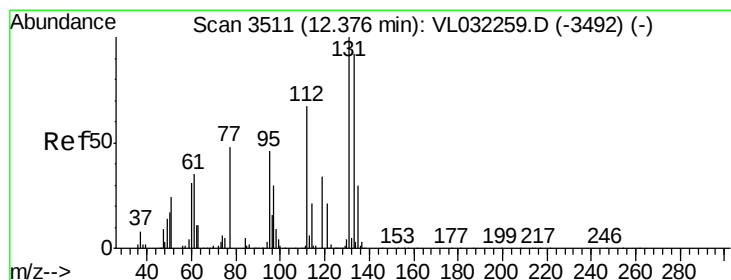
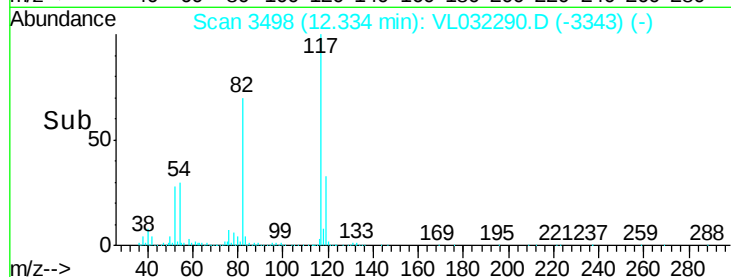
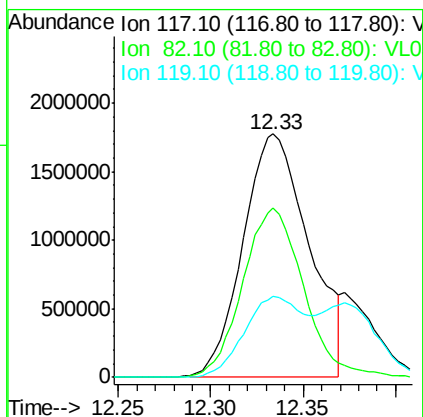
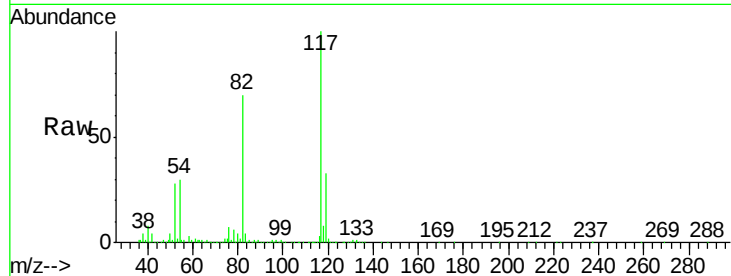
#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv m  
RT: 12.33 min Scan# 3498  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion:117 Resp: 4418286  
Ion Ratio Lower Upper  
117 100  
82 64.4 53.9 80.9  
119 27.3 25.5 38.3

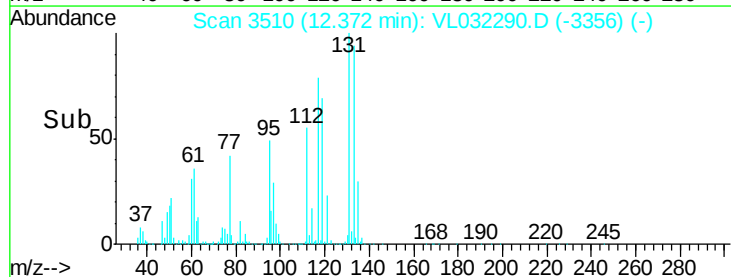
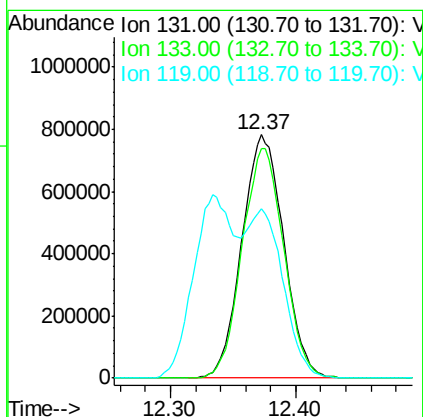
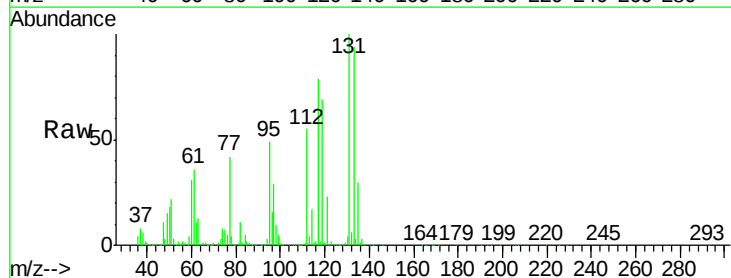
Manual Integrations  
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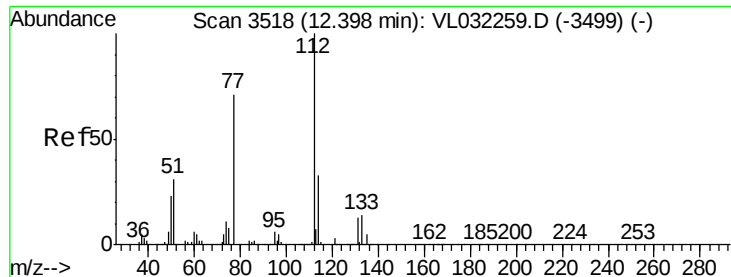
MMDadoda  
7/20/2018 2:06:11 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 9.20 ppbv  
RT: 12.37 min Scan# 3510  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion:131 Resp: 1811005  
Ion Ratio Lower Upper  
131 100  
133 94.3 75.4 113.0  
119 60.7 49.4 74.2





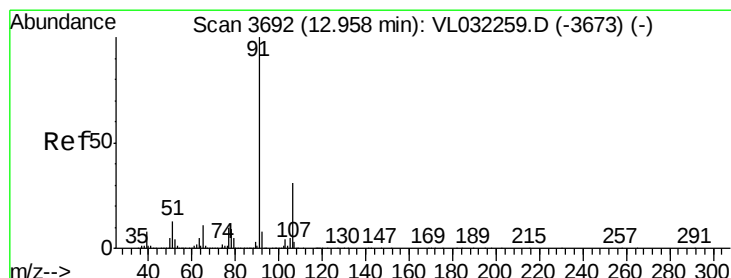
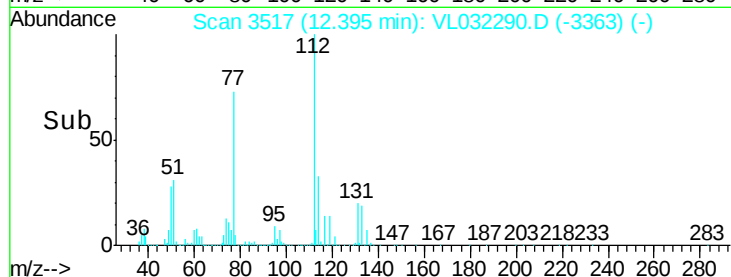
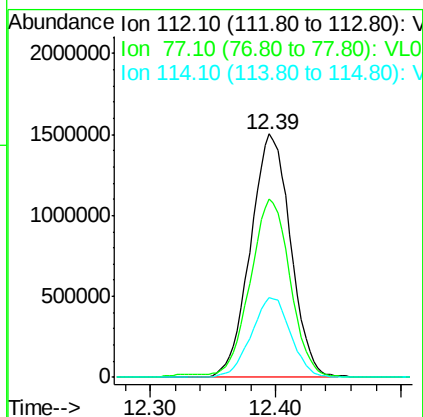
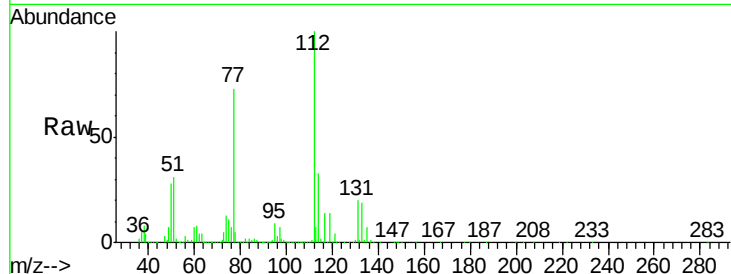
#57  
Chlorobenzene  
Concen: 9.21 ppbv  
RT: 12.39 min Scan# 3517  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 72.7  | 58.2  | 87.4  |
| 114     | 32.5  | 29.5  | 36.1  |

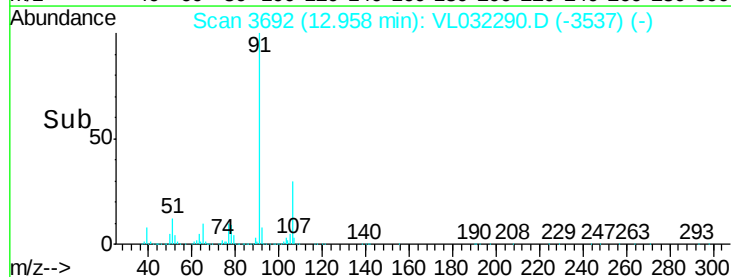
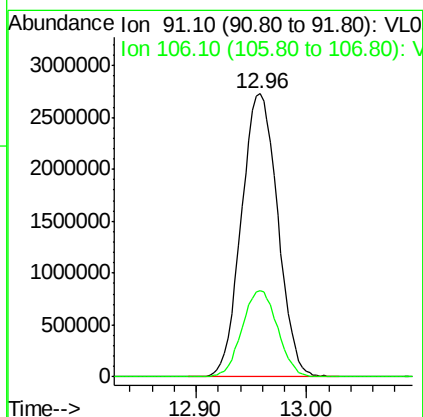
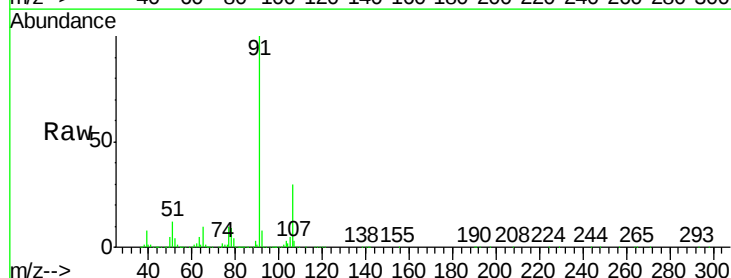
Manual Integrations  
APPROVED

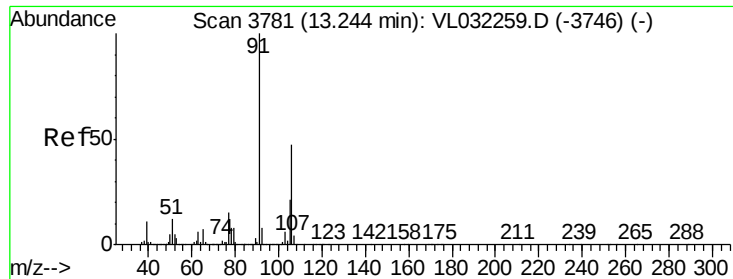
MMDadoda  
7/20/2018 2:06:11 PM



#58  
Ethyl Benzene  
Concen: 9.99 ppbv  
RT: 12.96 min Scan# 3692  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 30.3  | 24.5  | 36.7  |





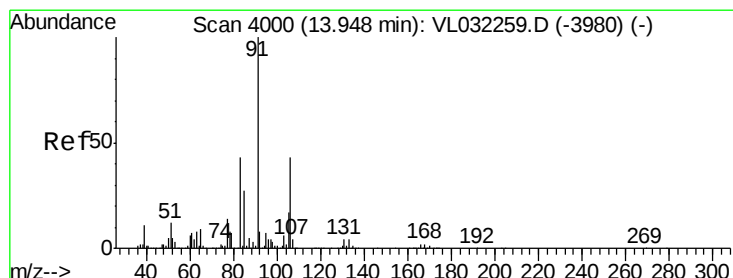
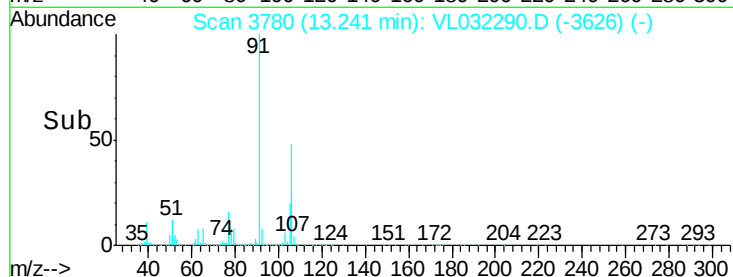
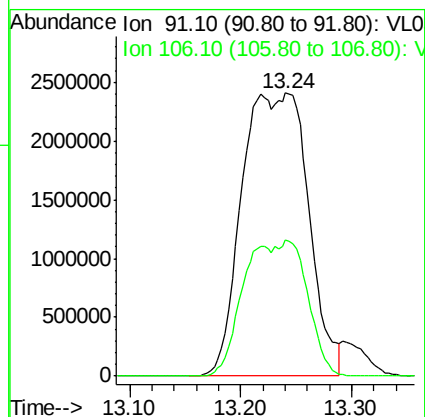
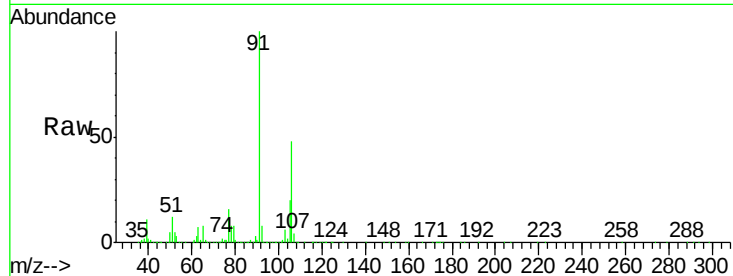
#59  
m/p-Xylene  
Concen: 18.78 ppbv m  
RT: 13.24 min Scan# 3780  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampled :  
VSTDCCC010

Tot Ion: 91 Resp: 9973276  
Ion Ratio Lower Upper  
91 100  
106 45.7 36.2 54.2

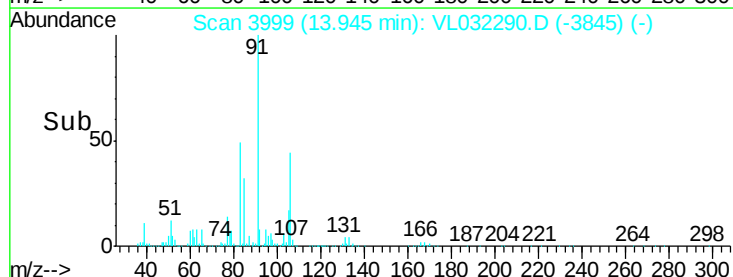
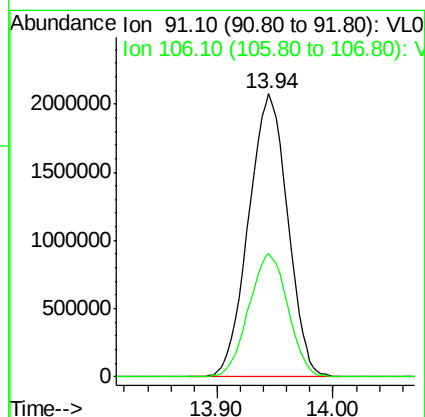
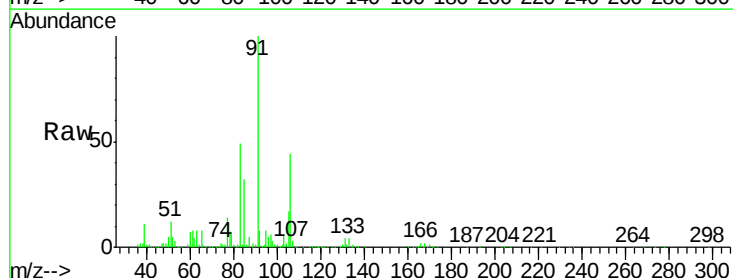
Manual Integrations  
APPROVED

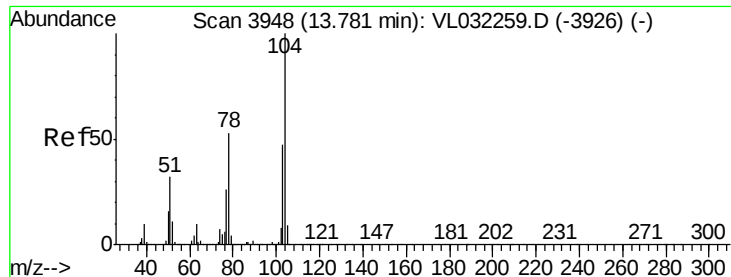
MMDadoda  
7/20/2018 2:06:11 PM



#60  
o-Xylene  
Concen: 9.18 ppbv  
RT: 13.94 min Scan# 3999  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion: 91 Resp: 4855618  
Ion Ratio Lower Upper  
91 100  
106 43.7 21.7 65.1





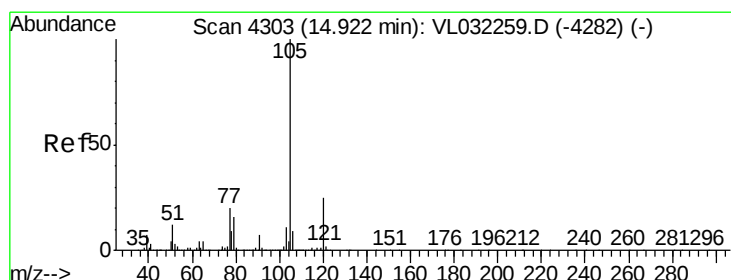
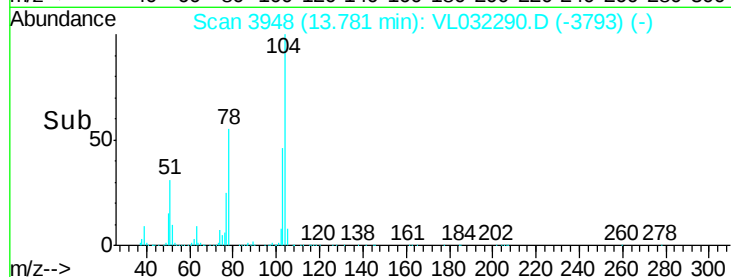
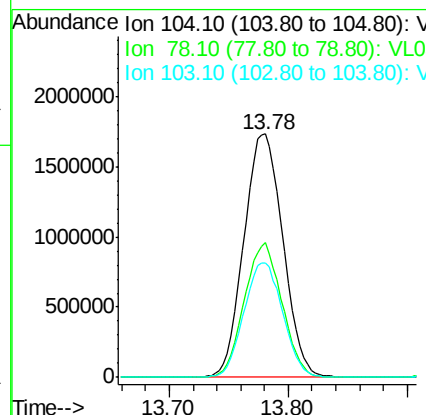
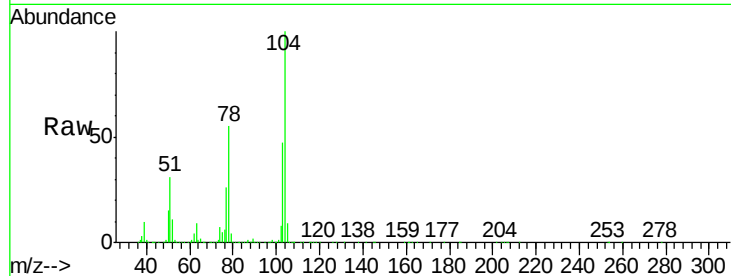
#61  
Stvrene  
Concen: 10.03 ppbv  
RT: 13.78 min Scan# 3948  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion:104 Resp: 3939160  
Ion Ratio Lower Upper  
104 100  
78 53.3 43.2 64.8  
103 46.9 37.8 56.6

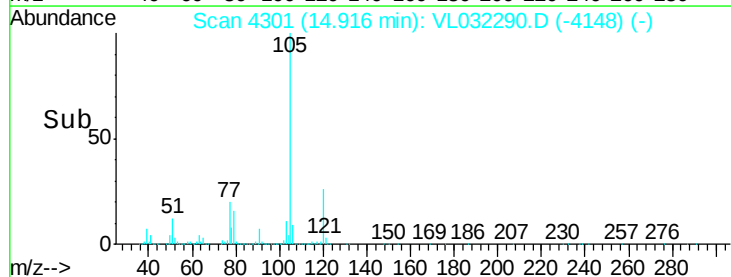
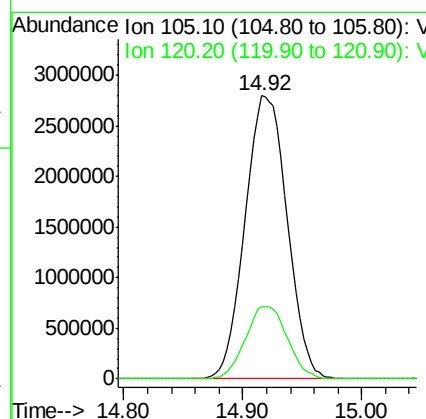
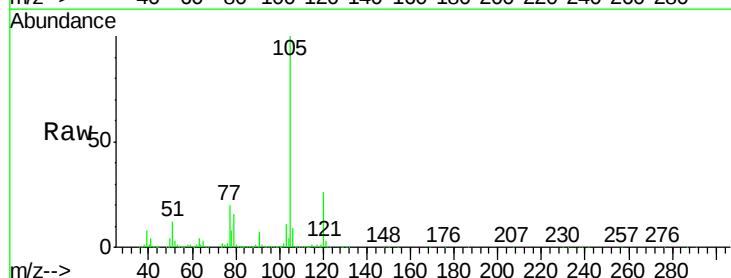
Manual Integrations  
APPROVED

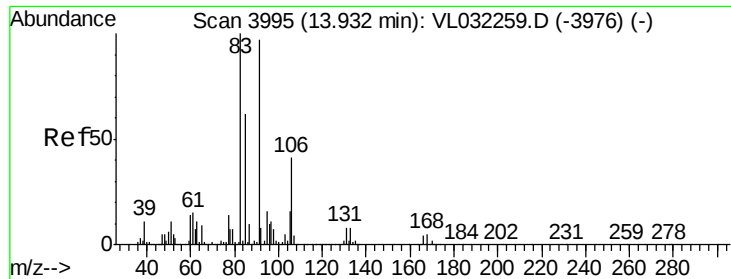
MMDadoda  
7/20/2018 2:06:11 PM



#62  
Isopropylbenzene  
Concen: 9.03 ppbv  
RT: 14.92 min Scan# 4301  
Delta R.T. -0.01 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion:105 Resp: 6847489  
Ion Ratio Lower Upper  
105 100  
120 25.5 20.2 30.4





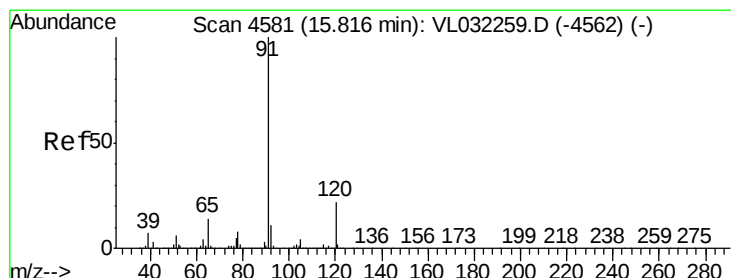
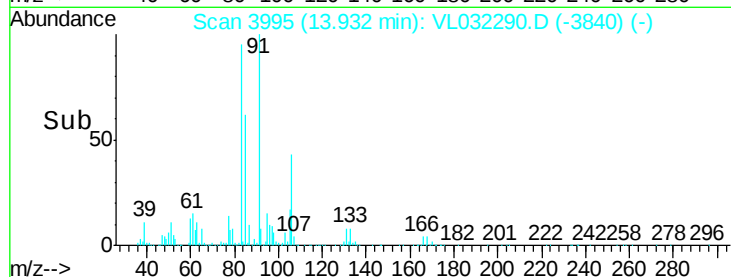
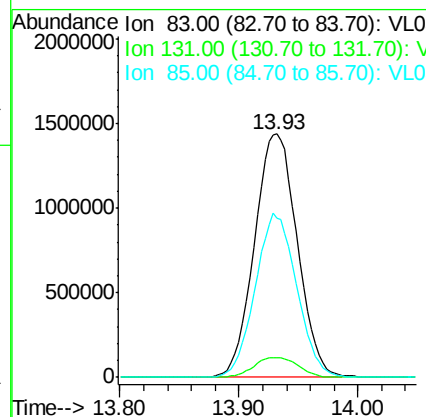
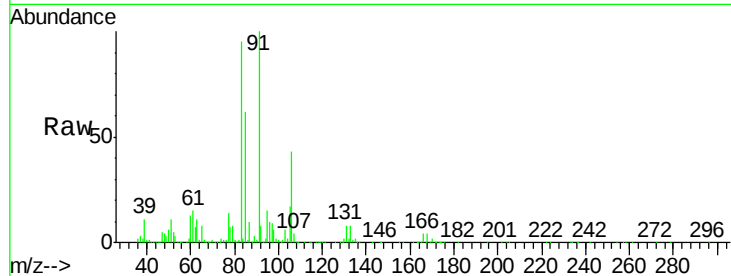
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 7.92 ppbv  
 RT: 13.93 min Scan# 3995  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

| Tot Ion   | 83   | Resp  | 3572857 |
|-----------|------|-------|---------|
| Ion Ratio | 100  | Lower | Upper   |
| 83        | 100  |       |         |
| 131       | 8.5  | 4.2   | 12.6    |
| 85        | 65.3 | 32.2  | 96.6    |

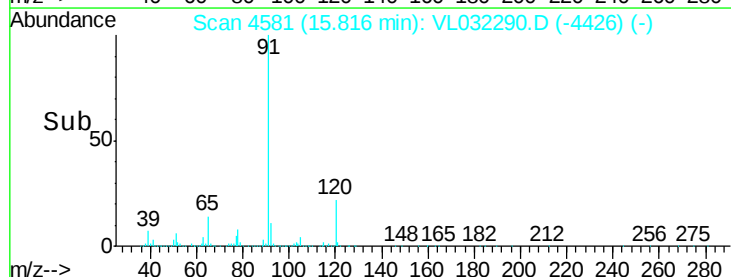
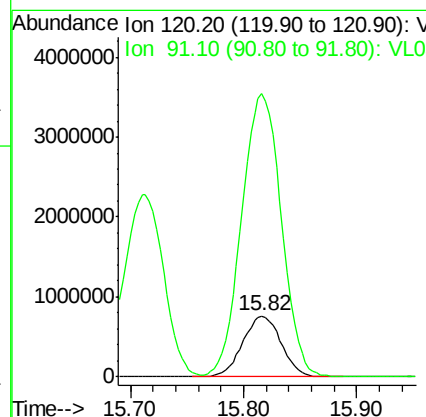
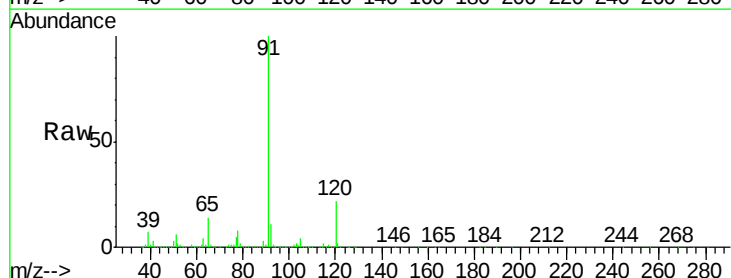
Manual Integrations  
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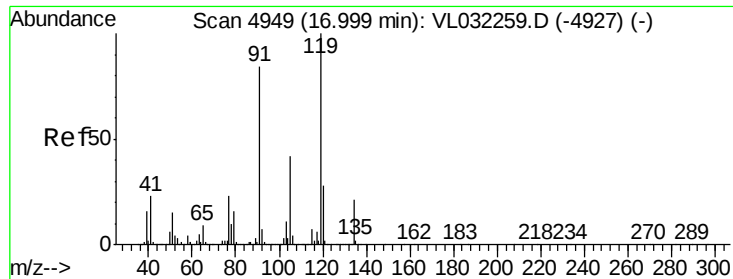
MMDadoda  
 7/20/2018 2:06:11 PM



#64  
 n-propylbenzene  
 Concen: 9.24 ppbv  
 RT: 15.82 min Scan# 4581  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tgt Ion   | 120   | Resp  | 1799687 |
|-----------|-------|-------|---------|
| Ion Ratio | 100   | Lower | Upper   |
| 120       | 100   |       |         |
| 91        | 480.5 | 384.4 | 576.6   |





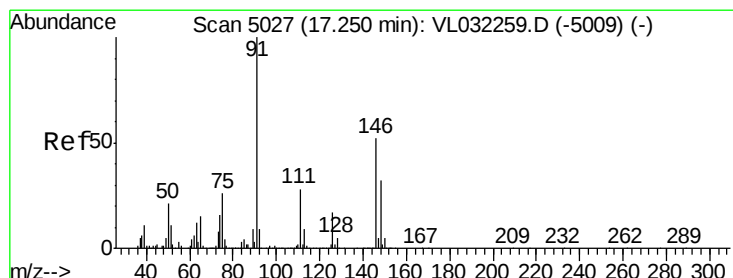
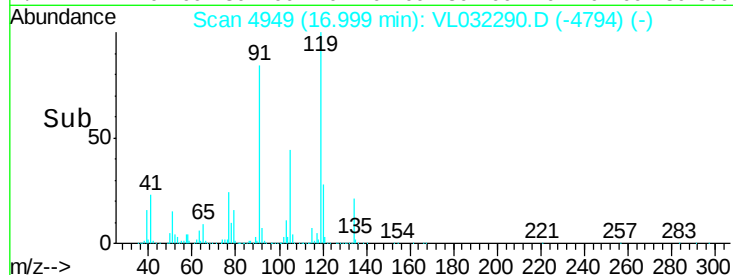
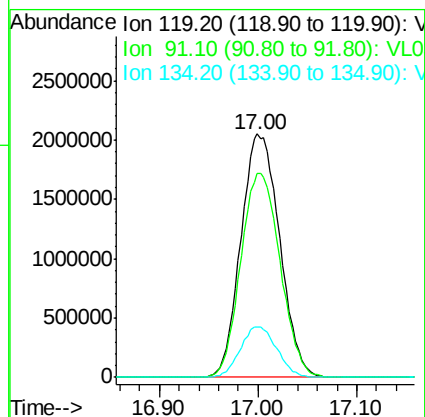
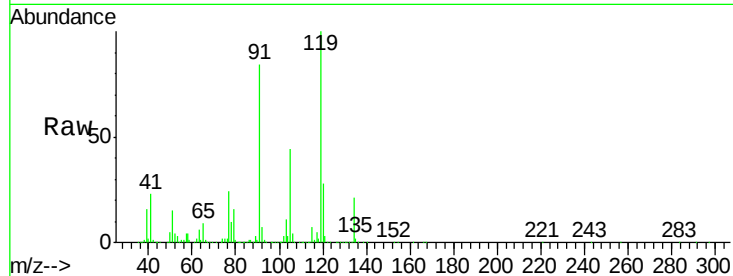
#65  
tert-Butylbenzene  
Concen: 8.64 ppbv  
RT: 17.00 min Scan# 4949  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampled :  
VSTDCCC010

Tot Ion: 119 Resp: 5580446  
Ion Ratio Lower Upper  
119 100  
91 85.0 68.2 102.4  
134 19.5 15.6 23.4

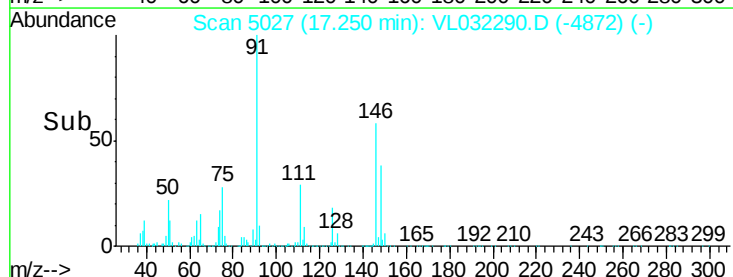
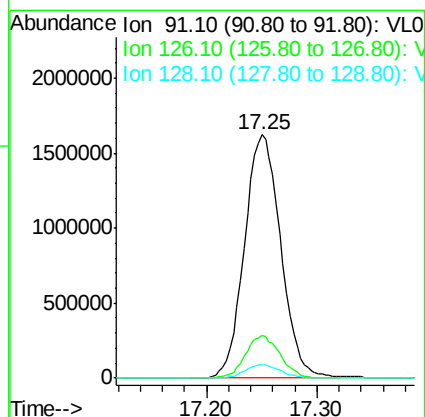
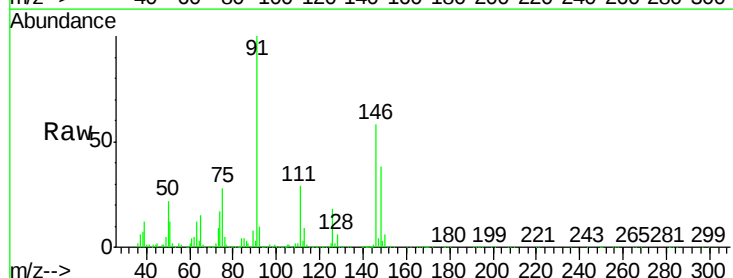
Manual Integrations  
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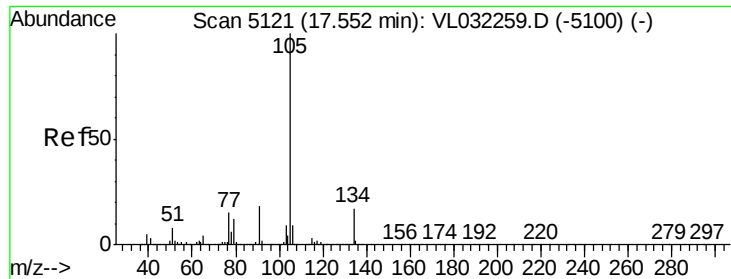
MMDadoda  
7/20/2018 2:06:11 PM



#66  
Benzyl Chloride  
Concen: 10.13 ppbv  
RT: 17.25 min Scan# 5027  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Tgt Ion: 91 Resp: 3684294  
Ion Ratio Lower Upper  
91 100  
126 16.9 13.4 20.2  
128 5.4 4.3 6.5





#67

sec-Butylbenzene

Concen: 8.70 ppbv

RT: 17.55 min Scan# 5121

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 105 Resp: 8384277

Ion Ratio Lower Upper

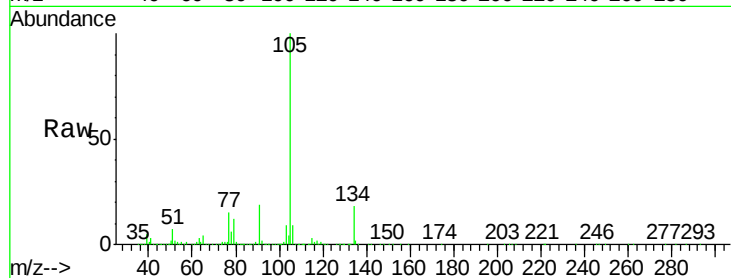
105 100

134 17.6 14.0 21.0

Manual Integrations  
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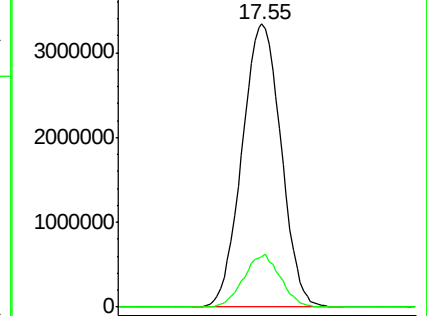
MMDadoda

7/20/2018 2:06:11 PM

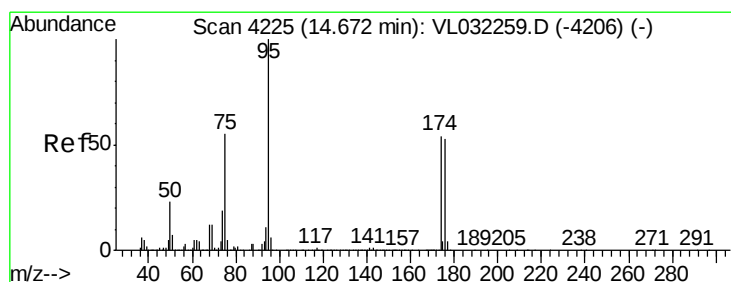
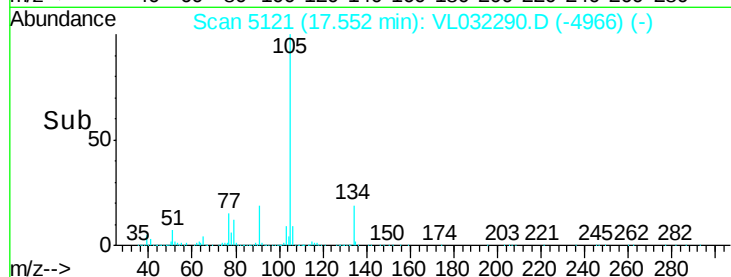


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 8.96 ppbv

RT: 14.67 min Scan# 4225

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

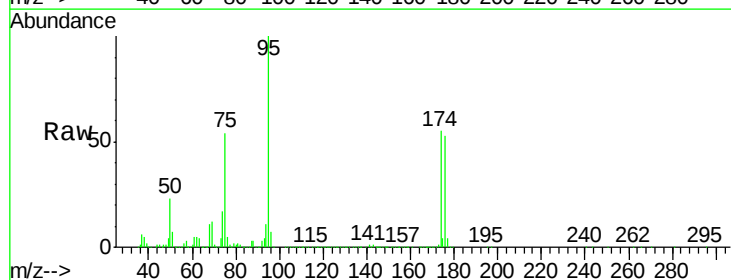
Tgt Ion: 95 Resp: 3210841

Ion Ratio Lower Upper

95 100

174 56.2 44.3 66.5

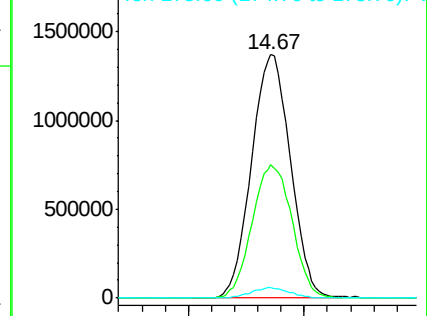
175 4.2 3.3 4.9



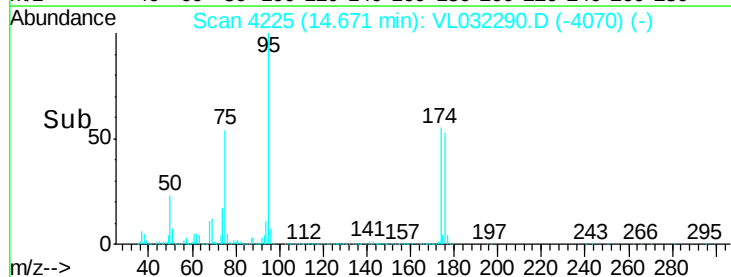
Abundance Ion 95.10 (94.80 to 95.80): VL0

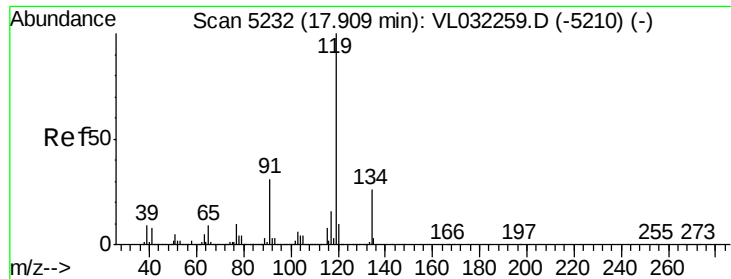
Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



Time-->





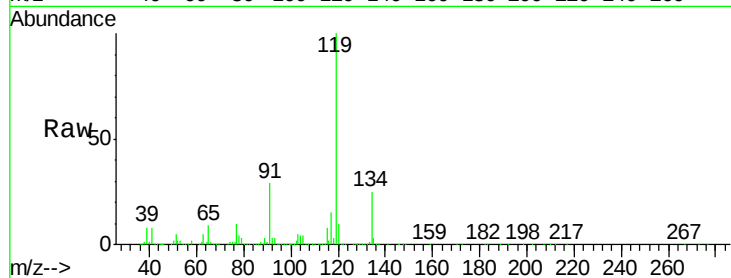
#69  
p-Isopropyltoluene  
Concen: 9.15 ppbv  
RT: 17.91 min Scan# 5232  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

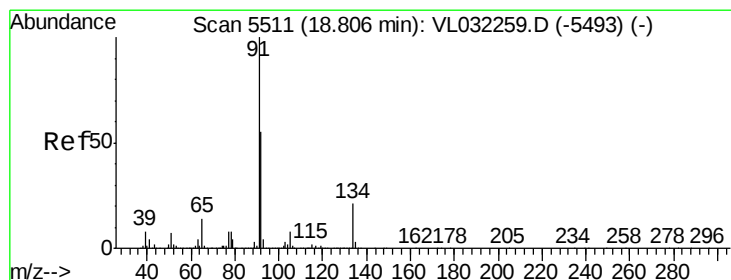
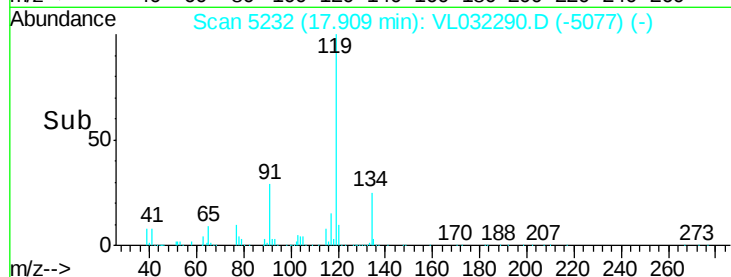
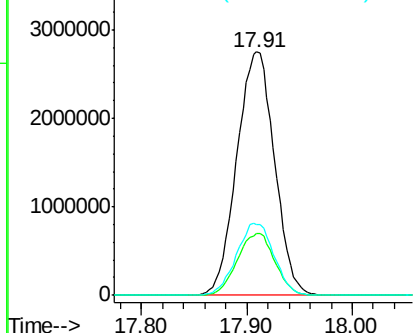
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.4  | 20.3  | 30.5  |
| 91      | 29.7  | 24.1  | 36.1  |

Manual Integrations  
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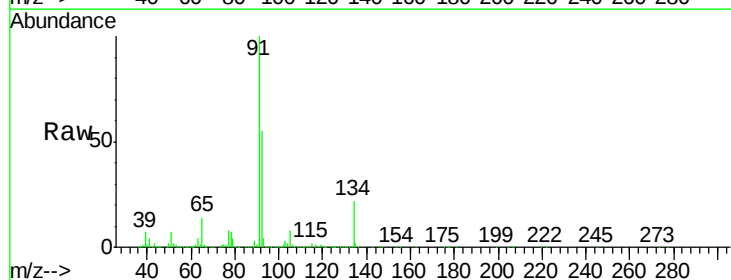


Abundance Ion 119.10 (118.80 to 119.80): V  
Ion 134.20 (133.90 to 134.90): V  
Ion 91.10 (90.80 to 91.80): V

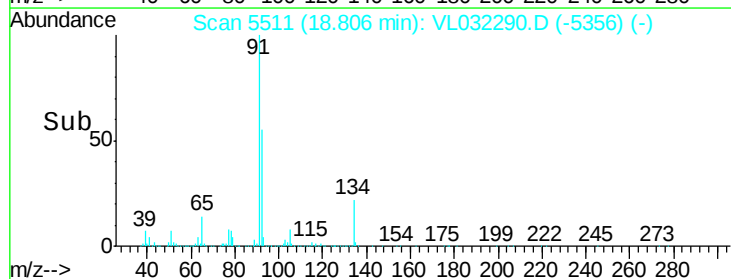
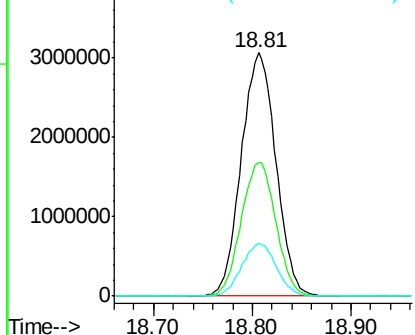


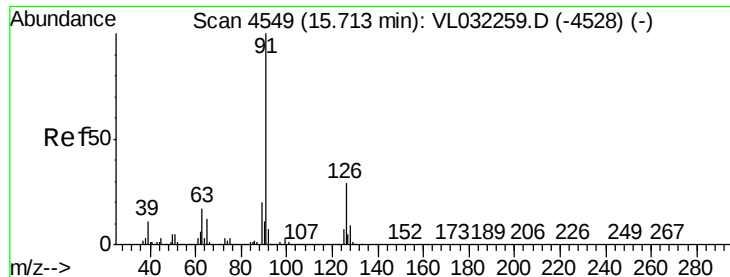
#70  
n-Butylbenzene  
Concen: 8.94 ppbv  
RT: 18.81 min Scan# 5511  
Delta R.T. -0.00 min  
Lab File: VL032290.D  
Acq: 19 Jul 2018 15:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 55.1  | 43.8  | 65.6  |
| 134     | 21.8  | 17.1  | 25.7  |



Abundance Ion 91.10 (90.80 to 91.80): VL0  
Ion 92.10 (91.80 to 92.80): VL0  
Ion 134.20 (133.90 to 134.90): V





#71

2-Chlorotoluene

Concen: 9.00 ppbv

RT: 15.71 min Scan# 4548

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion: 91 Resp: 5472690

Ion Ratio Lower Upper

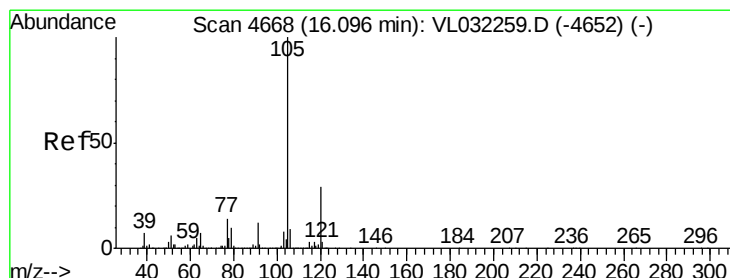
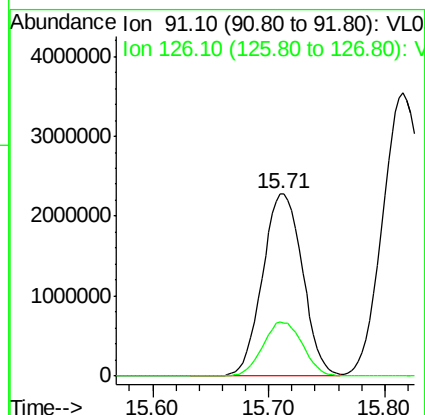
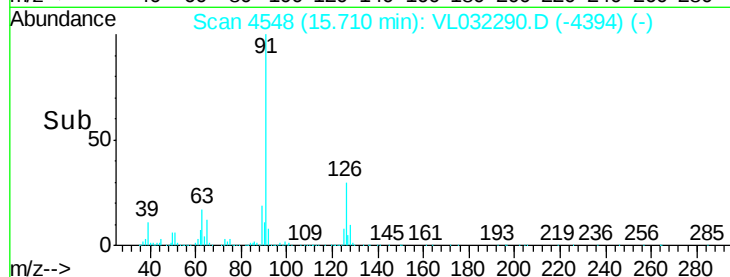
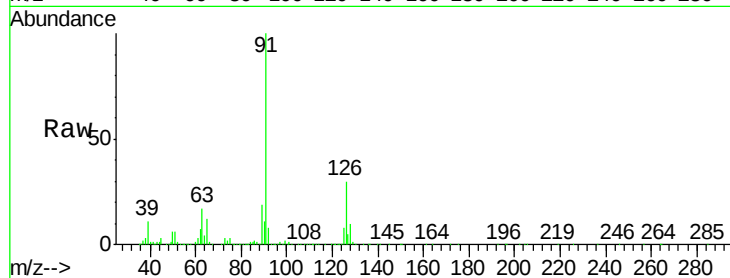
91 100

126 29.5 11.6 46.2

Manual Integrations  
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7/20/2018 2:06:11 PM



#72

4-Ethyltoluene

Concen: 9.35 ppbv

RT: 16.09 min Scan# 4667

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Tgt Ion: 105 Resp: 5711292

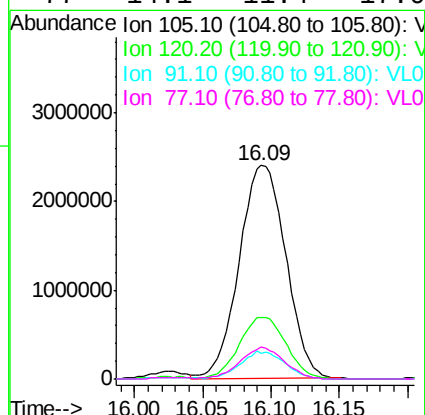
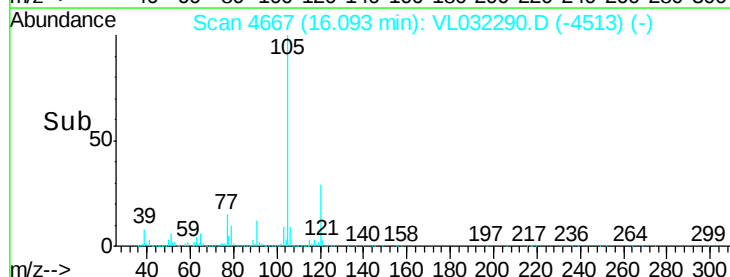
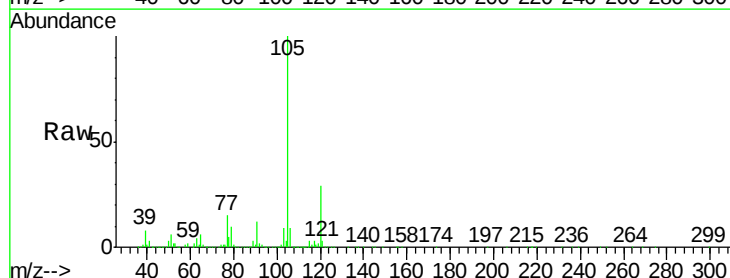
Ion Ratio Lower Upper

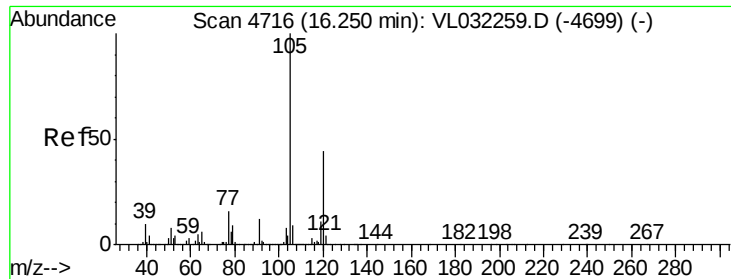
105 100

120 29.1 23.0 34.6

91 12.4 10.1 15.1

77 14.1 11.4 17.0





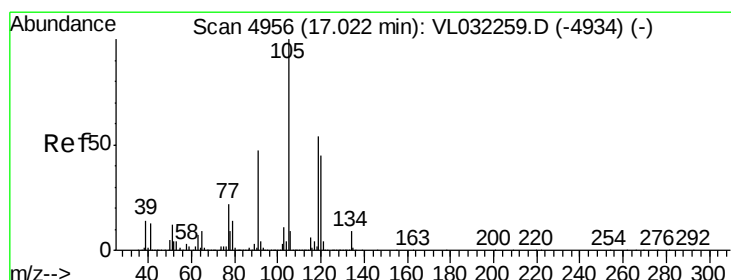
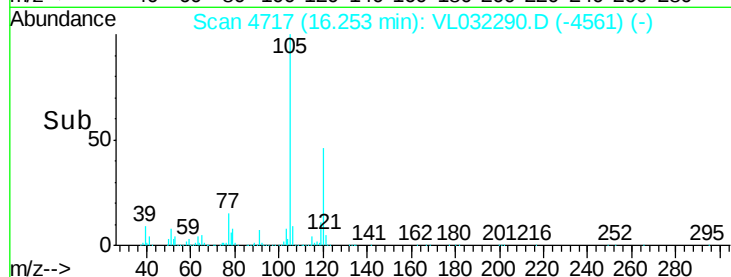
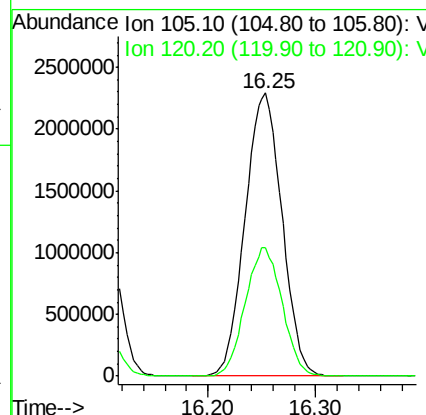
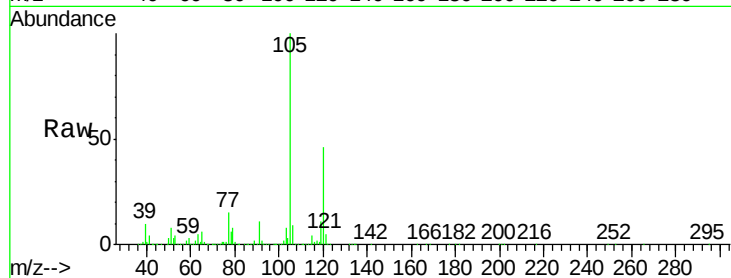
#73  
 1,3,5-Trimethylbenzene  
 Concen: 9.09 ppbv  
 RT: 16.25 min Scan# 4717  
 Delta R.T. 0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Tot Ion:105 Resp: 5429087  
 Ion Ratio Lower Upper  
 105 100  
 120 45.5 35.5 53.3

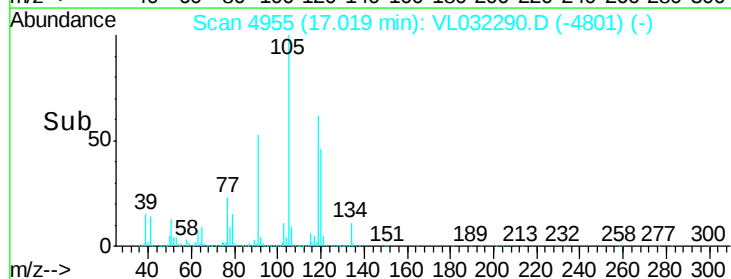
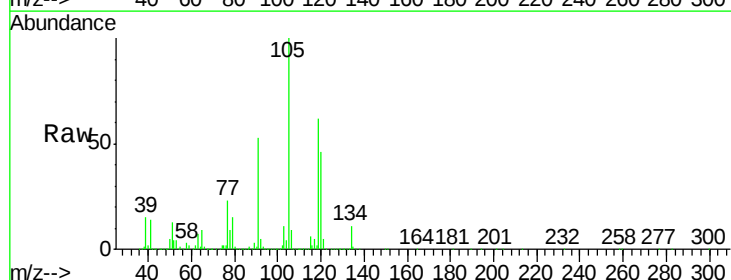
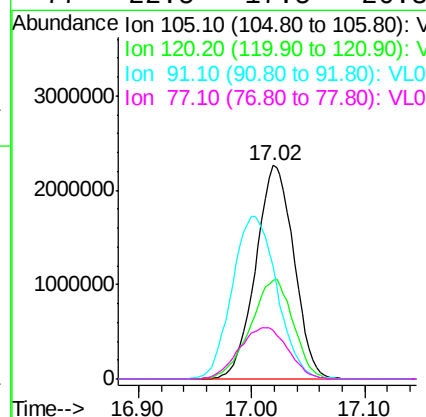
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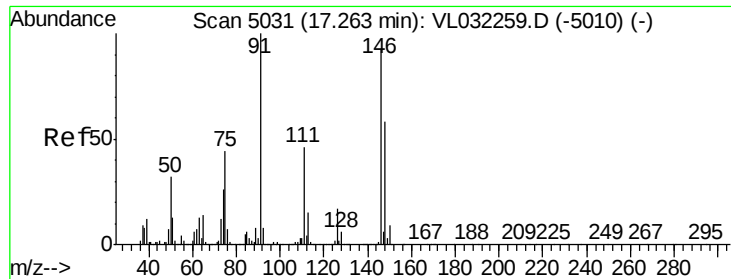
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#74  
 1,2,4-Trimethylbenzene  
 Concen: 8.48 ppbv  
 RT: 17.02 min Scan# 4955  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

Tgt Ion:105 Resp: 5302545  
 Ion Ratio Lower Upper  
 105 100  
 120 46.0 35.8 53.6  
 91 52.6 38.2 57.4  
 77 22.5 17.5 26.3





#75

1,3-Dichlorobenzene

Concen: 8.36 ppbv

RT: 17.26 min Scan# 5031

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:146 Resp: 2904300

Ion Ratio Lower Upper

146 100

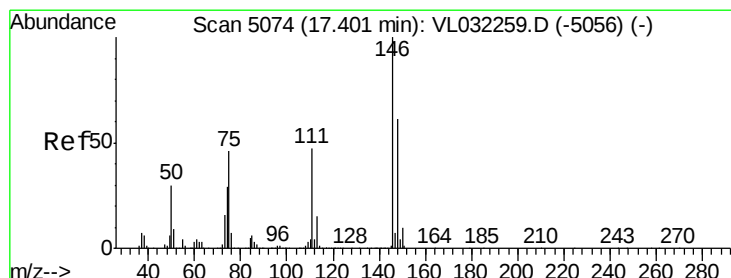
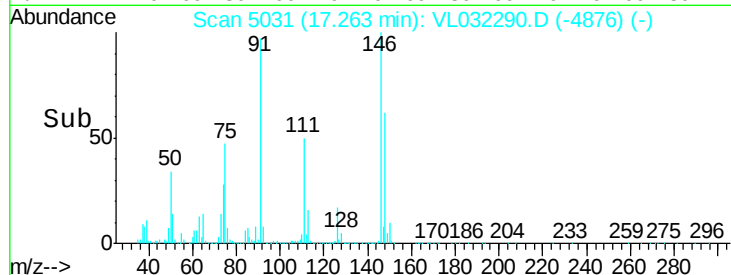
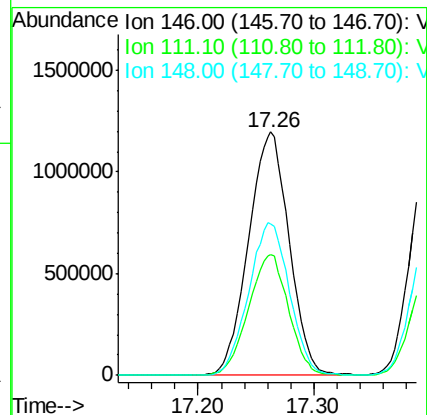
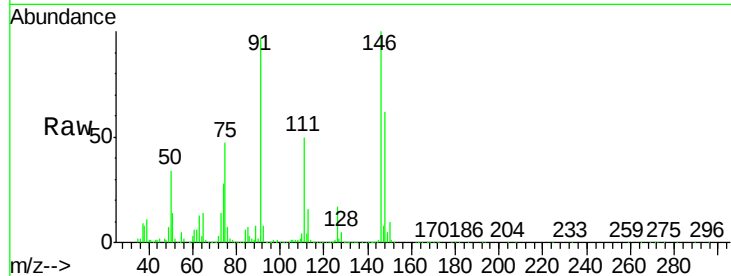
111 49.2 25.1 75.4

148 63.3 31.8 95.3

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#76

1,4-Dichlorobenzene

Concen: 8.68 ppbv

RT: 17.40 min Scan# 5074

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

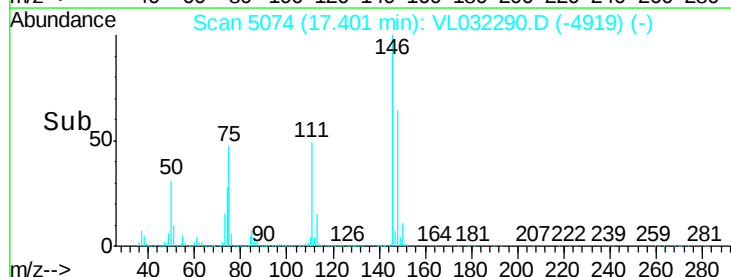
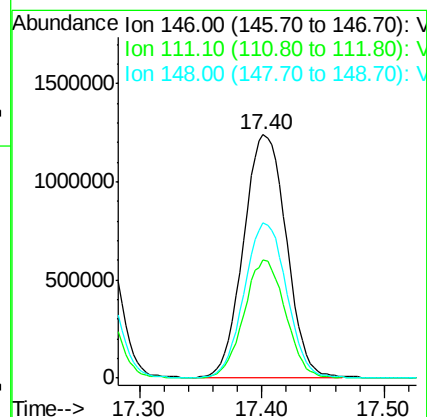
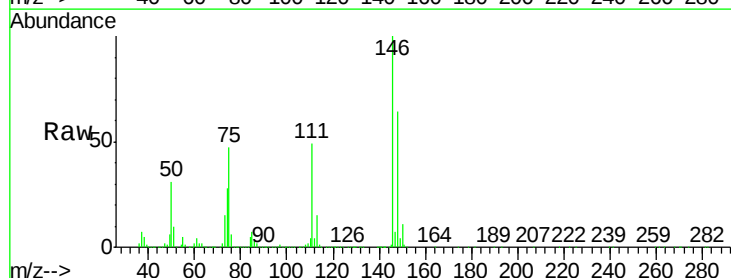
Tgt Ion:146 Resp: 2991148

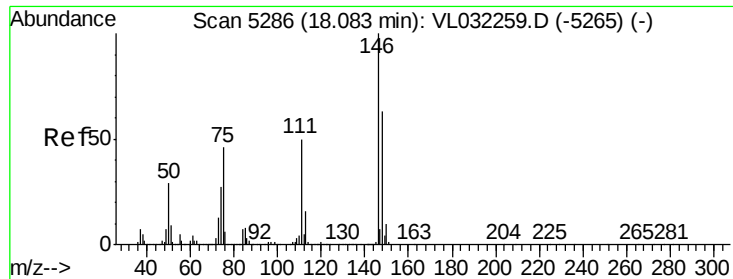
Ion Ratio Lower Upper

146 100

111 47.1 24.1 72.2

148 63.8 31.9 95.9





#77

1,2-Dichlorobenzene

Concen: 8.76 ppbv

RT: 18.08 min Scan# 5286

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

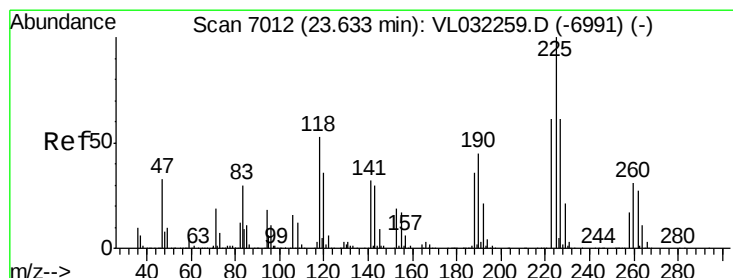
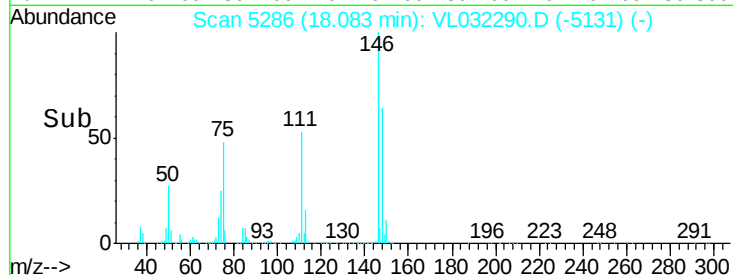
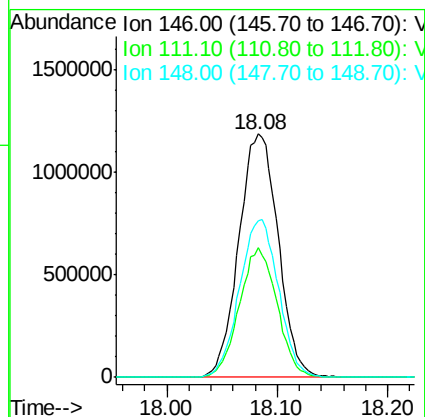
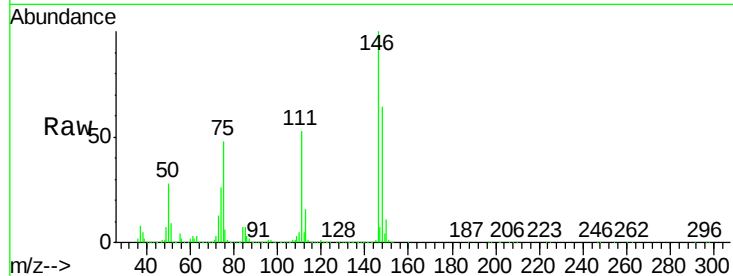
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDCCC010

Tot Ion:146 Resp: 2941839

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 146 | 100   |       |       |
| 111 | 51.0  | 25.6  | 76.8  |
| 148 | 64.5  | 31.9  | 95.5  |

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#78

Hexachloro-1,3-Butadiene

Concen: 16.36 ppbv

RT: 23.63 min Scan# 7011

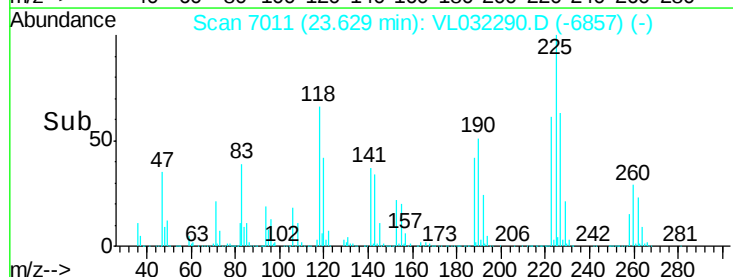
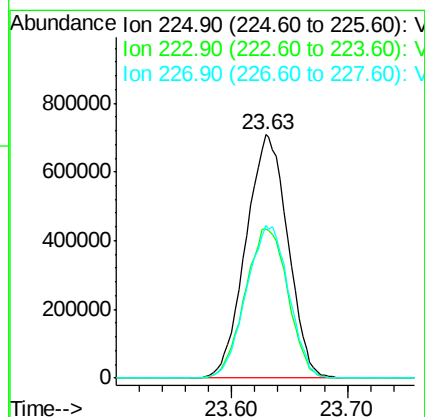
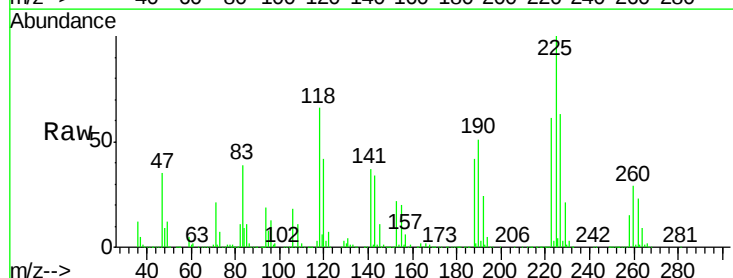
Delta R.T. -0.00 min

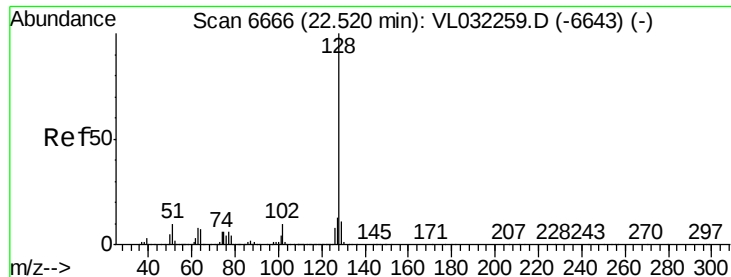
Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Tgt Ion:225 Resp: 1781905

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 225 | 100   |       |       |
| 223 | 62.8  | 50.6  | 75.8  |
| 227 | 63.3  | 51.5  | 77.3  |





#79

Naphthalene

Concen: 9.83 ppbv

RT: 22.52 min Scan# 6665

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

Instrument :

MSVOA\_L

ClientSampleId :

VSTDCCC010

Tot Ion:128 Resp: 5163968

Ion Ratio Lower Upper

128 100

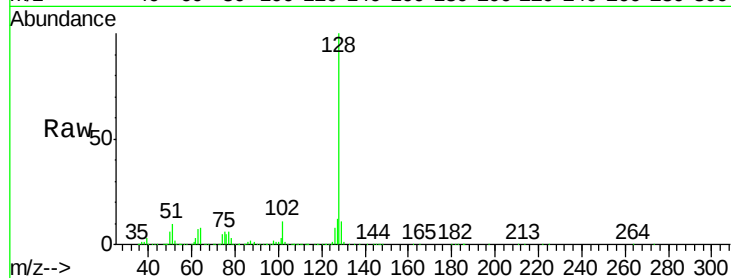
127 12.2 10.5 15.7

129 11.1 8.6 12.8

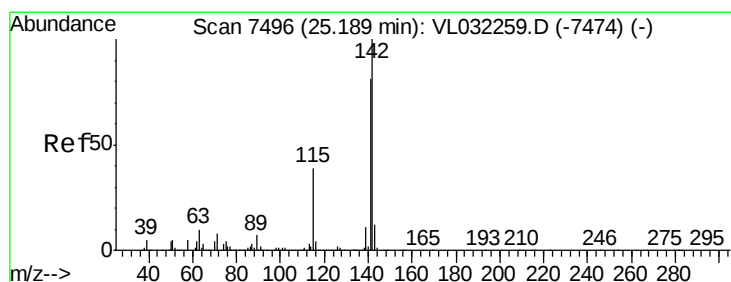
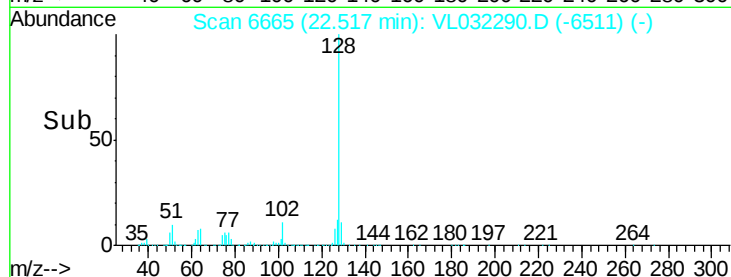
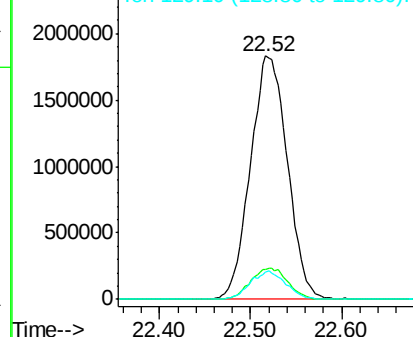
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Abundance Ion 128.10 (127.80 to 128.80): V  
Ion 127.10 (126.80 to 127.80): V  
Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 10.80 ppbv

RT: 25.19 min Scan# 7495

Delta R.T. -0.00 min

Lab File: VL032290.D

Acq: 19 Jul 2018 15:05

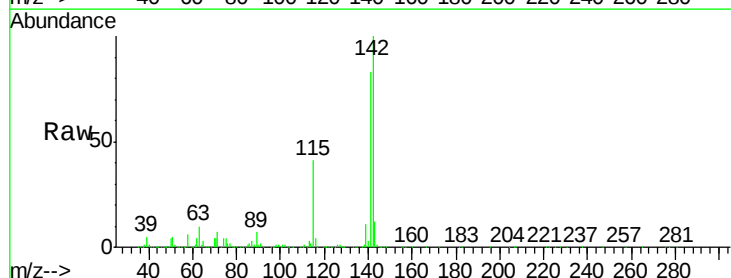
Tgt Ion:142 Resp: 2410985

Ion Ratio Lower Upper

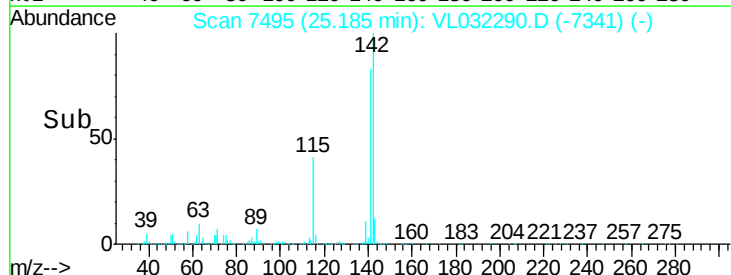
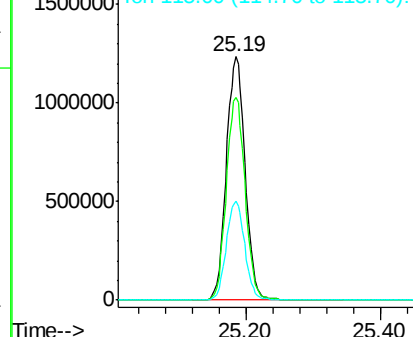
142 100

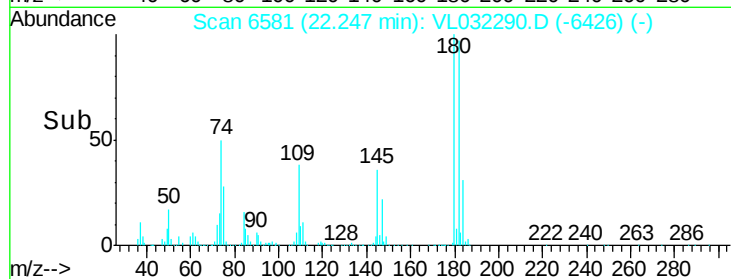
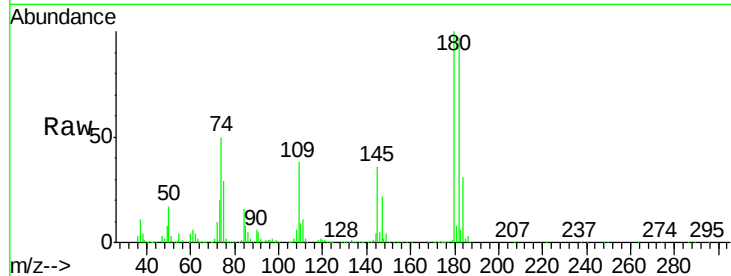
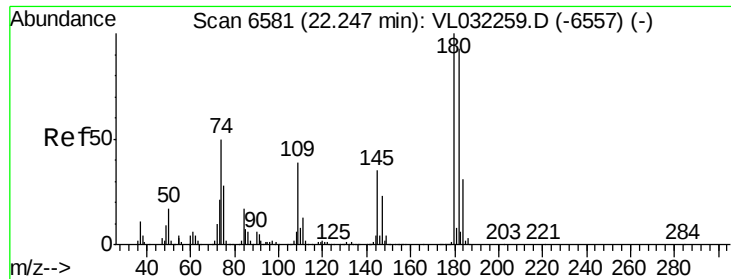
141 83.5 67.1 100.7

115 40.3 32.5 48.7



Abundance Ion 142.00 (141.70 to 142.70): V  
Ion 141.00 (140.70 to 141.70): V  
Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 9.43 ppbv  
 RT: 22.25 min Scan# 6581  
 Delta R.T. -0.00 min  
 Lab File: VL032290.D  
 Acq: 19 Jul 2018 15:05

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.8  | 76.6  | 114.8 |
| 184     | 30.6  | 24.4  | 36.6  |

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
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