

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071218\  
 Data File : VL032234.D  
 Acq On : 12 Jul 2018 22:10  
 Operator : SY/AP  
 Sample : VSTDIC015  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Manual Integrations  
 APPROVED

MMDadoda  
 7/13/2018 5:22:16 PM

Quant Time: Jul 13 04:21:52 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jul 13 2018  
 QLast Update : Fri Jul 13 03:36:40 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.85  | 49   | 1760962  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.38  | 114  | 4140207  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.34 | 117  | 5240156  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.68  | 95    | 3887764  | 9.66     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.60% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.13 | 85   | 2293015  | 9.61  | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.06 | 51   | 2768277  | 12.52 | ppbv   | 100    |
| 4) Chloromethane               | 3.23 | 50   | 1548419  | 12.95 | ppbv   | 99     |
| 5) Vinyl Chloride              | 3.34 | 62   | 1462255  | 12.28 | ppbv   | 98     |
| 6) Bromomethane                | 3.57 | 94   | 835894   | 12.30 | ppbv   | 99     |
| 7) Chloroethane                | 3.66 | 64   | 537746   | 12.70 | ppbv   | 95     |
| 8) Dichlorotetrafluoroethane   | 3.27 | 85   | 2983848  | 11.22 | ppbv   | 98     |
| 9) Propene                     | 3.09 | 41   | 1261122  | 12.45 | ppbv   | 100    |
| 10) Heptane                    | 8.34 | 43   | 3760726  | 12.90 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.07 | 101  | 3098740  | 12.44 | ppbv   | 100    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.62 | 101  | 1967163  | 11.92 | ppbv   | 100    |
| 13) Ethanol                    | 3.71 | 45   | 270995   | 8.98  | ppbv   | 96     |
| 14) Bromoethene                | 3.85 | 108  | 946889   | 12.10 | ppbv   | 98     |
| 15) Acetone                    | 3.96 | 43   | 2536802  | 12.39 | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.42 | 39   | 1298012  | 12.74 | ppbv   | 99     |
| 17) tert-Butyl alcohol         | 4.42 | 59   | 1317788  | 10.53 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.42 | 96   | 979897   | 12.51 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 4.09 | 45   | 1794674  | 10.85 | ppbv   | 100    |
| 20) Methylene Chloride         | 4.48 | 84   | 895619   | 12.04 | ppbv   | 98     |
| 21) Allyl Chloride             | 4.55 | 41   | 1756994  | 12.77 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 5.04 | 96   | 1037794  | 12.56 | ppbv   | 99     |
| 23) Vinyl Acetate              | 5.23 | 43   | 5156899  | 13.84 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.17 | 63   | 3311091  | 13.74 | ppbv   | 98     |
| 25) Ethyl Acetate              | 5.85 | 43   | 5625087  | 13.23 | ppbv   | 100    |
| 26) Hexane                     | 5.86 | 57   | 2523338  | 12.85 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.69 | 76   | 2518933  | 13.18 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.19 | 73   | 4228266  | 12.37 | ppbv   | 99     |
| 29) Chloroform                 | 5.93 | 83   | 3820931  | 13.36 | ppbv   | 100    |
| 30) Cyclohexane                | 7.34 | 84   | 2325067  | 12.39 | ppbv   | 99     |
| 31) cis-1,2-Dichloroethene     | 5.72 | 61   | 2758219  | 13.99 | ppbv   | 100    |
| 32) 1,1,1-Trichloroethane      | 6.71 | 97   | 3894167  | 12.80 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.41 | 43   | 4141363  | 15.78 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.22 | 117  | 3833838  | 13.38 | ppbv   | 99     |
| 36) Benzene                    | 7.10 | 78   | 5529878  | 13.58 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.50 | 62   | 3063925  | 15.03 | ppbv   | 99     |
| 38) Trichloroethene            | 8.05 | 130  | 1806270  | 11.73 | ppbv   | 99     |
| 39) 1,2-Dichloropropane        | 7.83 | 63   | 2299571  | 14.46 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 8.05 | 88   | 664041   | 11.15 | ppbv # | 26     |
| 41) Tetrahydrofuran            | 6.23 | 42   | 2412617  | 15.23 | ppbv   | 99     |
| 42) Bromodichloromethane       | 8.01 | 83   | 4386151  | 14.13 | ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.23 | 69   | 2410861  | 14.62 | ppbv   | 98     |

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Instrument :  
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 VSTDIC015

Manual Integrations  
 APPROVED

MMDadoda  
 7/13/2018 5:22:16 PM

Quant Time: Jul 13 04:21:52 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071218AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jul 13 2018  
 QLast Update : Fri Jul 13 03:36:40 2018  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response  | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|-----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.08  | 57   | 9342249   | 13.41 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.51  | 75   | 3108939   | 15.08 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.93  | 75   | 4246781   | 17.10 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.71  | 97   | 2565068   | 15.61 | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.55 | 129  | 4195034   | 16.58 | ppbv   | 100      |
| 49) Bromoform                 | 13.31 | 173  | 3317159   | 15.74 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.96  | 43   | 7331947   | 16.77 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.36 | 43   | 6328722   | 17.46 | ppbv # | 100      |
| 52) Tetrachloroethene         | 11.48 | 164  | 1942169   | 13.40 | ppbv   | 97       |
| 53) Toluene                   | 10.04 | 91   | 7386820   | 15.38 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.86 | 107  | 3984387   | 16.18 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.38 | 131  | 2759623   | 11.82 | ppbv   | 89       |
| 57) Chlorobenzene             | 12.40 | 112  | 5234871   | 11.59 | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.96 | 91   | 9932694   | 11.79 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.25 | 91   | 15702920m | 23.22 | ppbv   |          |
| 60) o-Xylene                  | 13.95 | 91   | 7549169   | 11.22 | ppbv   | 99       |
| 61) Styrene                   | 13.79 | 104  | 6431414   | 11.80 | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.93 | 105  | 10622673  | 10.35 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.94 | 83   | 5569045   | 10.61 | ppbv   | 100      |
| 64) n-propylbenzene           | 15.83 | 120  | 2828970   | 10.63 | ppbv   | 96       |
| 65) tert-Butylbenzene         | 17.01 | 119  | 8529142   | 9.47  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.26 | 91   | 5915752   | 10.85 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.56 | 105  | 12830291  | 9.71  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.92 | 119  | 10333905  | 9.79  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.81 | 91   | 11491146  | 10.33 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.72 | 91   | 8714066   | 10.92 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 16.10 | 105  | 9169641   | 10.61 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.26 | 105  | 8676872   | 10.66 | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 17.03 | 105  | 8221332   | 10.00 | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.27 | 146  | 4618848   | 9.93  | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 17.41 | 146  | 4855775   | 10.33 | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.09 | 146  | 4738888   | 10.23 | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.64 | 225  | 1458416   | 9.22  | ppbv   | 99       |
| 79) Naphthalene               | 22.53 | 128  | 8983298   | 12.23 | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.19 | 142  | 4679788   | 18.02 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.25 | 180  | 3943714   | 11.94 | ppbv   | 100      |

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

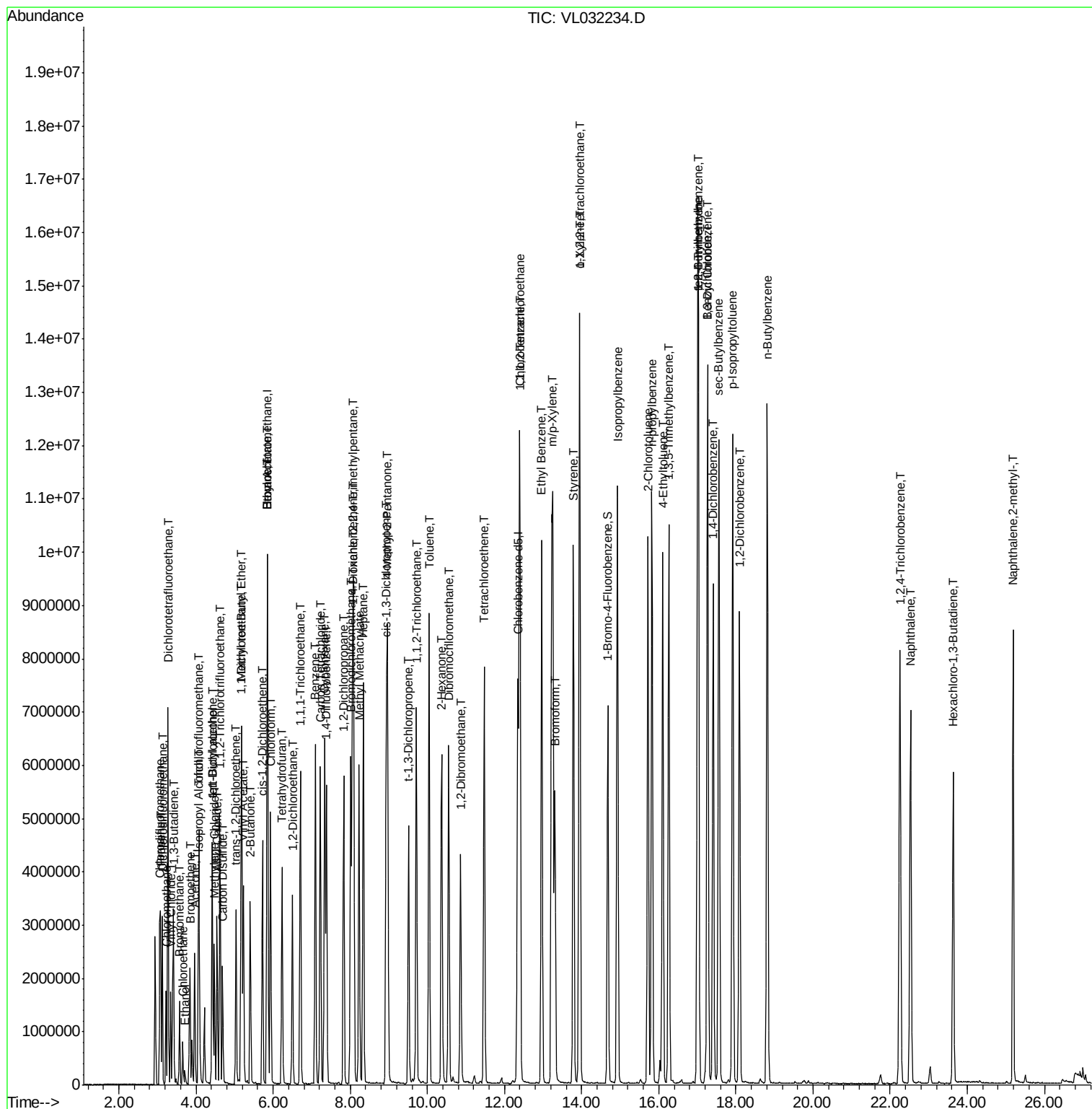
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL071218\  
Data File : VL032234.D  
Acq On : 12 Jul 2018 22:10  
Operator : SY/AP  
Sample : VSTDICC015  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

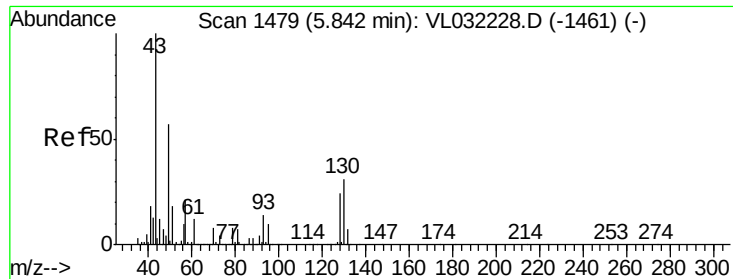
**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
VSTDICC015

## Manual Integrations APPROVED

MMDadoda  
7/13/2018 5:22:16 PM

Quant Time: Jul 13 04:21:52 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVQA L\METHODS\VL071218AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVQA\_LFri Jul  
QLast Update : Fri Jul 13 03:36:40 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.85 min Scan# 1480

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 49 Resp: 1760962

Ion Ratio Lower Upper

49 100

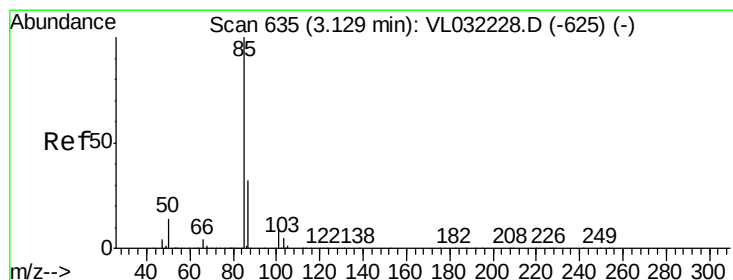
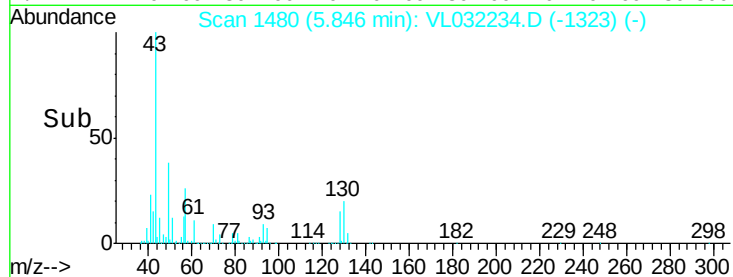
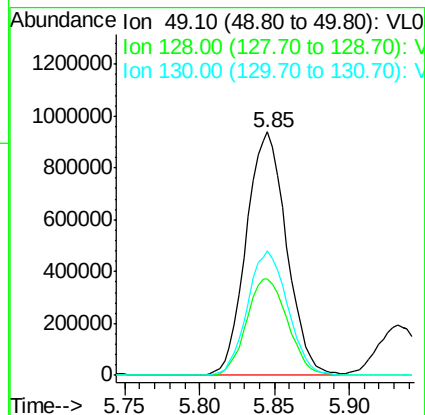
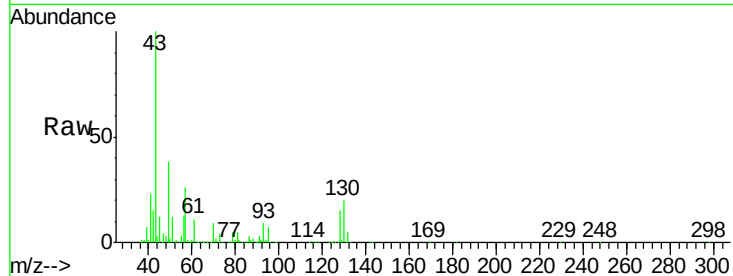
128 40.5 20.9 62.8

130 51.3 27.0 81.0

Manual Integrations  
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7/13/2018 5:22:16 PM



#2

Dichlorodifluoromethane

Concen: 9.61 ppbv

RT: 3.13 min Scan# 635

Delta R.T. 0.00 min

Lab File: VL032234.D

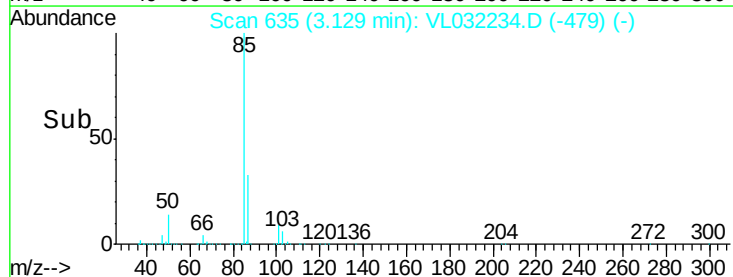
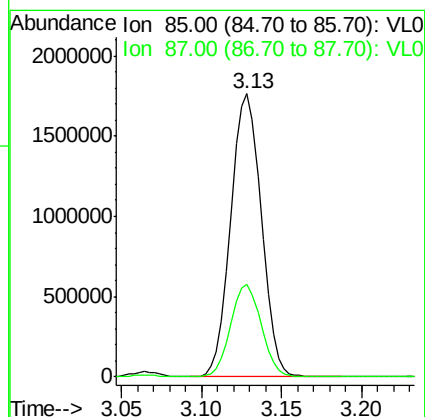
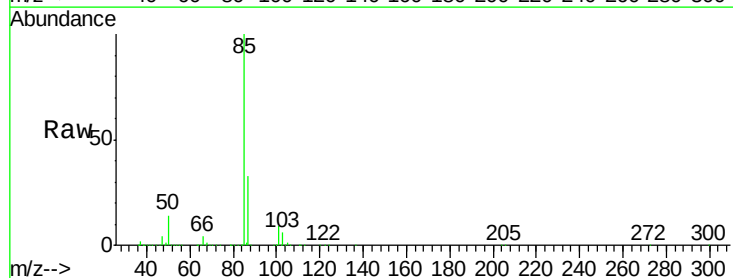
Acq: 12 Jul 2018 22:10

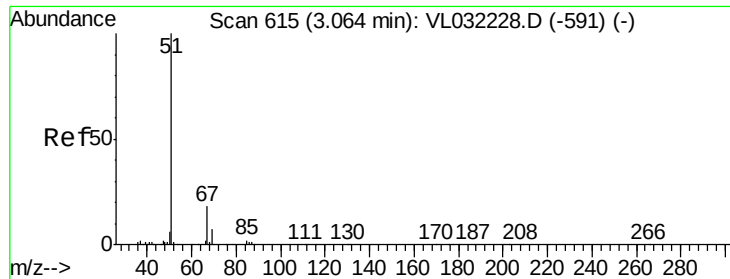
Tgt Ion: 85 Resp: 2293015

Ion Ratio Lower Upper

85 100

87 32.7 25.8 38.6





#3

Chlorodifluoromethane

Concen: 12.52 ppbv

RT: 3.06 min Scan# 615

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Tot Ion: 51 Resp: 2768277

Ion Ratio Lower Upper

51 100

67 18.5 14.6 22.0

Instrument :

MSVOA\_L

ClientSampleId :

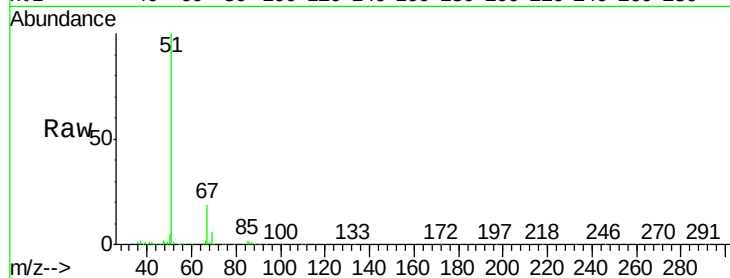
VSTDIC015

Manual Integrations

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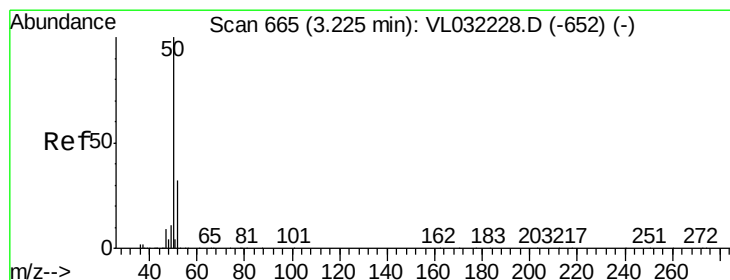
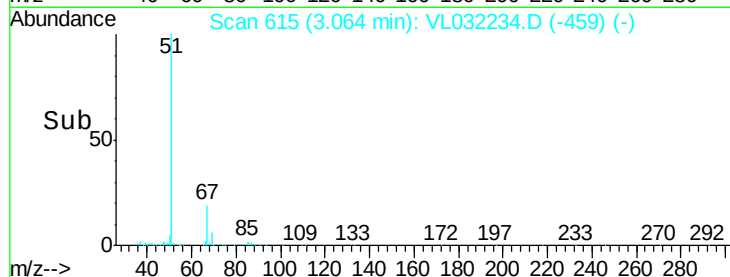
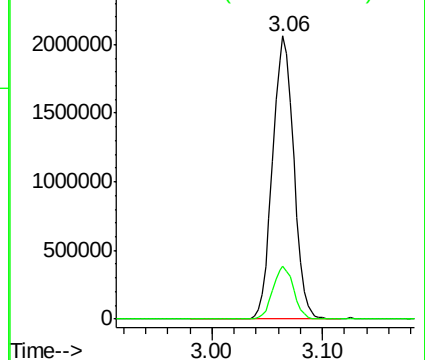
MMDadoda

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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 12.95 ppbv

RT: 3.23 min Scan# 665

Delta R.T. 0.00 min

Lab File: VL032234.D

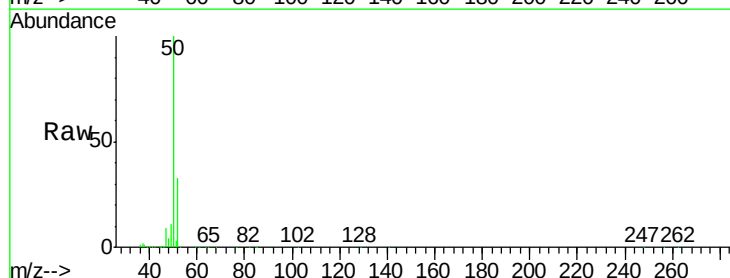
Acq: 12 Jul 2018 22:10

Tgt Ion: 50 Resp: 1548419

Ion Ratio Lower Upper

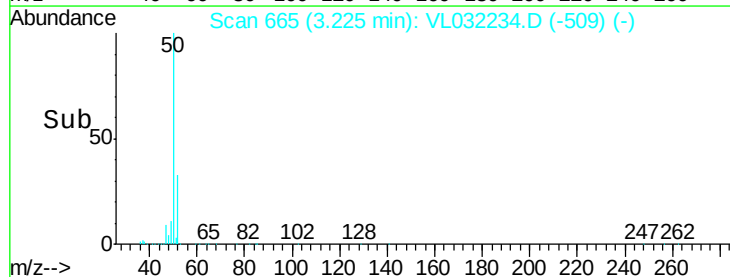
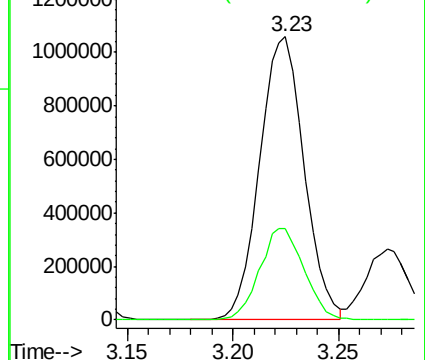
50 100

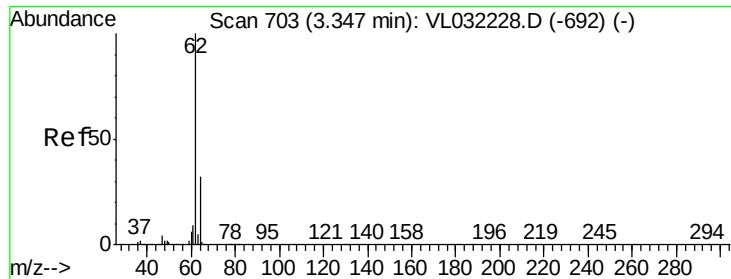
52 32.6 25.7 38.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 12.28 ppbv

RT: 3.34 min Scan# 702

Delta R.T. -0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 62 Resp: 1462255

Ion Ratio Lower Upper

62 100

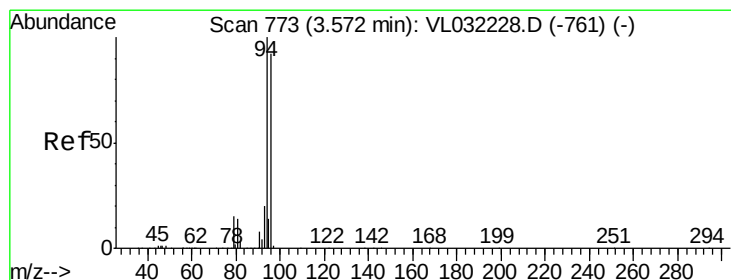
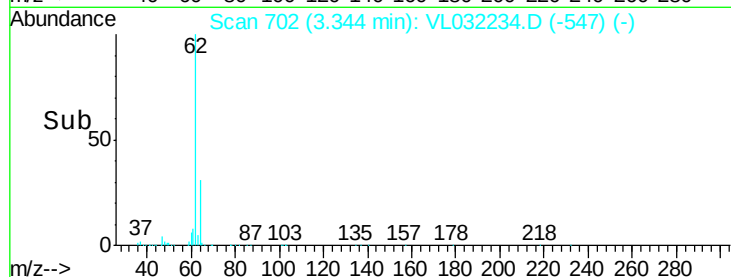
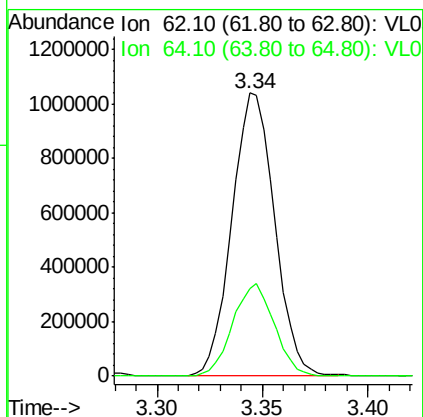
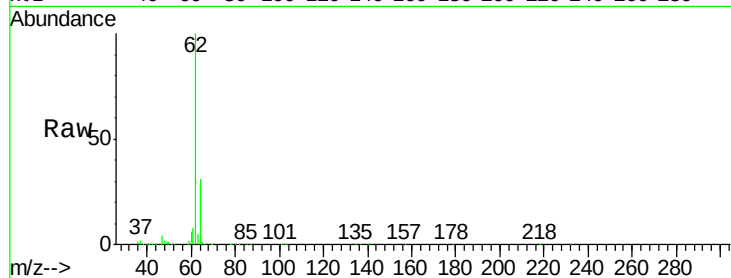
64 30.8 25.8 38.6

Manual Integrations

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#6

Bromomethane

Concen: 12.30 ppbv

RT: 3.57 min Scan# 773

Delta R.T. 0.00 min

Lab File: VL032234.D

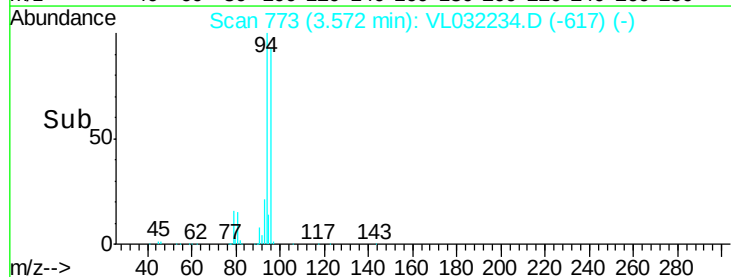
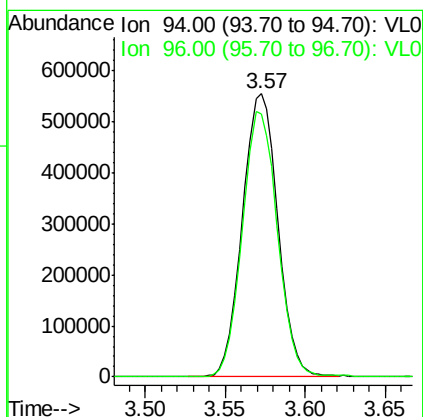
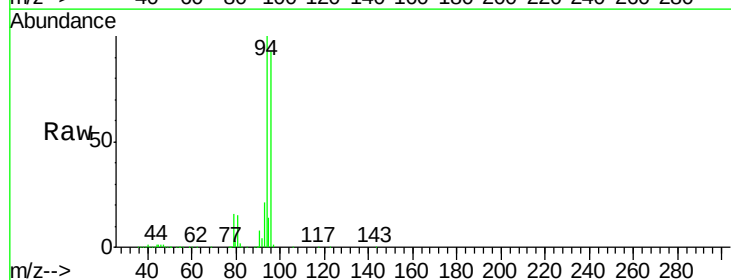
Acq: 12 Jul 2018 22:10

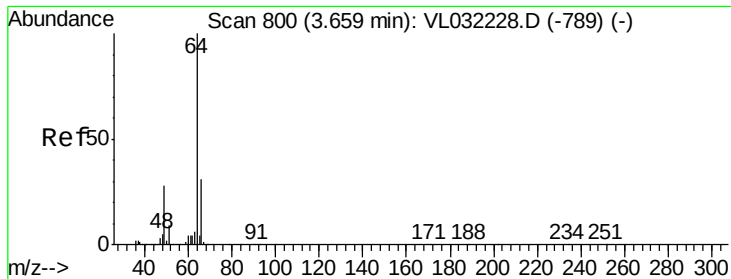
Tgt Ion: 94 Resp: 835894

Ion Ratio Lower Upper

94 100

96 92.7 73.5 110.3





#7

Chloroethane

Concen: 12.70 ppbv

RT: 3.66 min Scan# 800

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 64 Resp: 537746

Ion Ratio Lower Upper

64 100

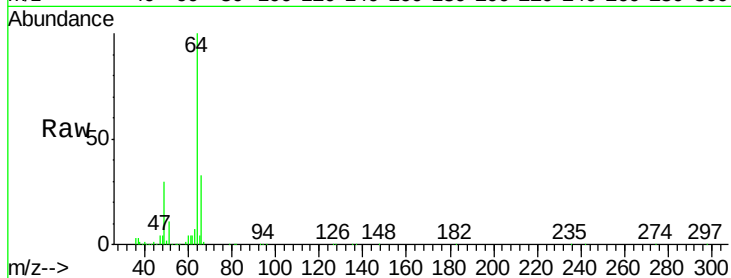
66 33.0 24.4 36.6

Manual Integrations

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Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

3.66

400000

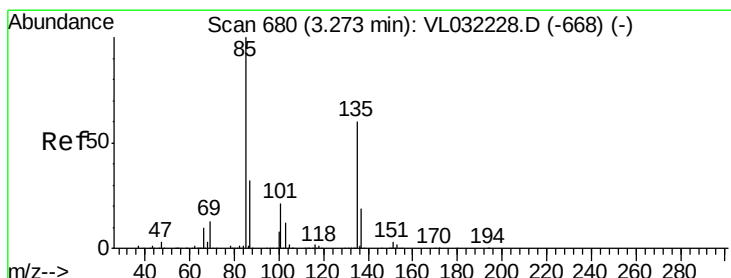
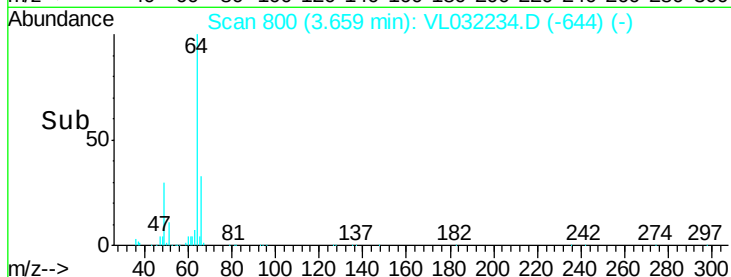
300000

200000

100000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 11.22 ppbv

RT: 3.27 min Scan# 680

Delta R.T. 0.00 min

Lab File: VL032234.D

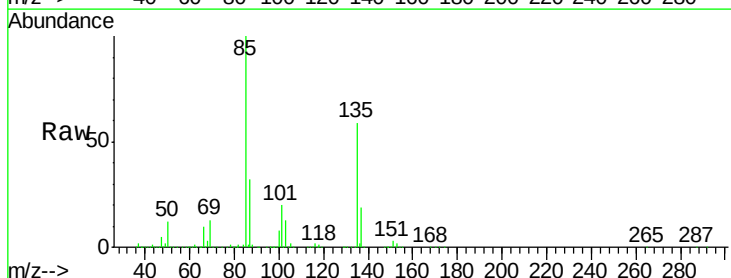
Acq: 12 Jul 2018 22:10

Tgt Ion: 85 Resp: 2983848

Ion Ratio Lower Upper

85 100

135 59.4 48.6 72.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

3.27

2500000

2000000

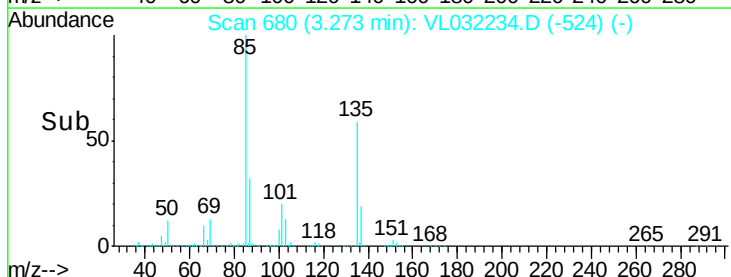
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1000000

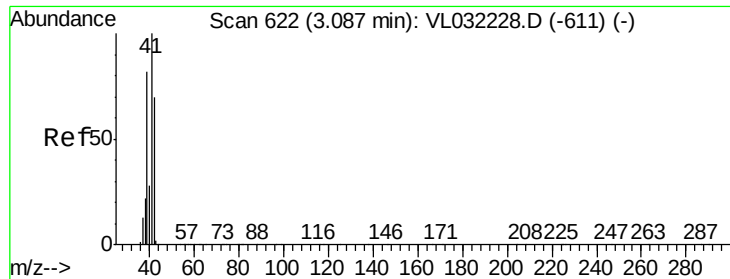
500000

0

Time-->







#9

Propene

Concen: 12.45 ppbv

RT: 3.09 min Scan# 622

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 41 Resp: 1261122

Ion Ratio Lower Upper

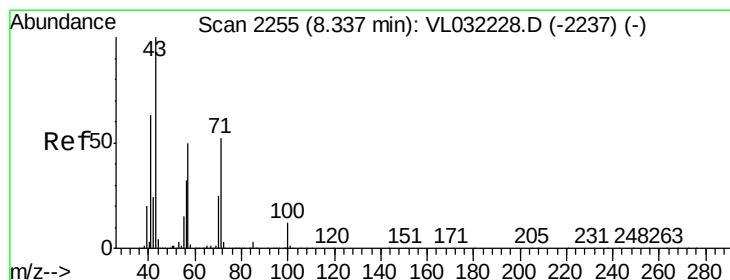
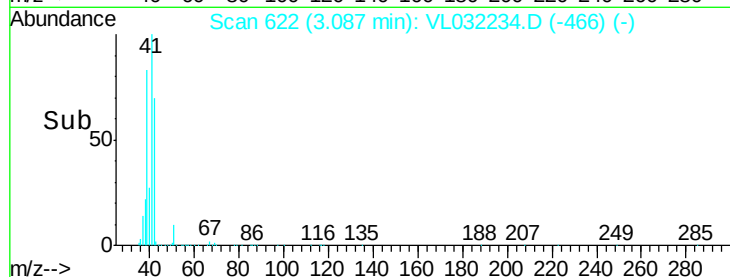
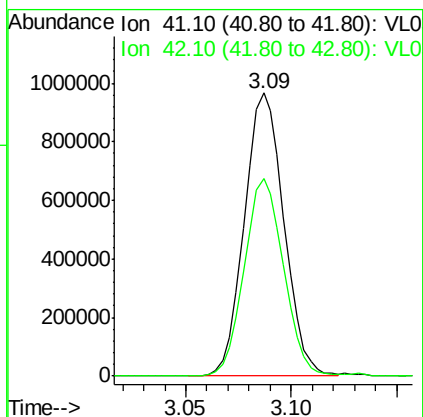
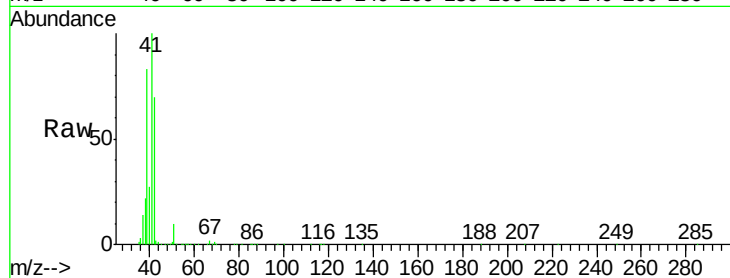
41 100

42 70.0 56.2 84.4

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#10

Heptane

Concen: 12.90 ppbv

RT: 8.34 min Scan# 2256

Delta R.T. 0.00 min

Lab File: VL032234.D

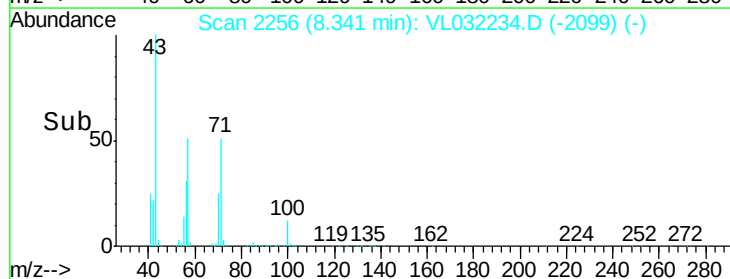
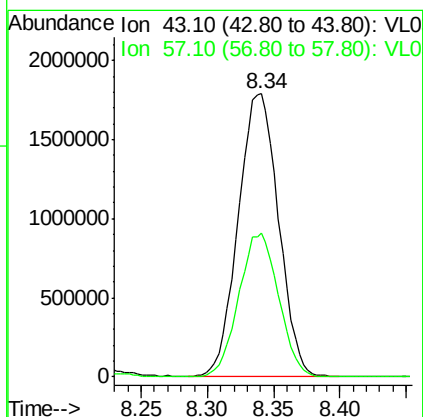
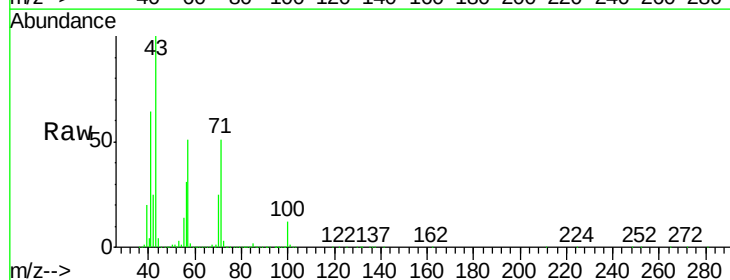
Acq: 12 Jul 2018 22:10

Tgt Ion: 43 Resp: 3760726

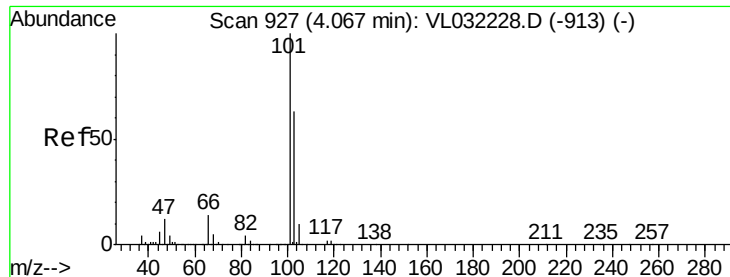
Ion Ratio Lower Upper

43 100

57 50.3 40.7 61.1







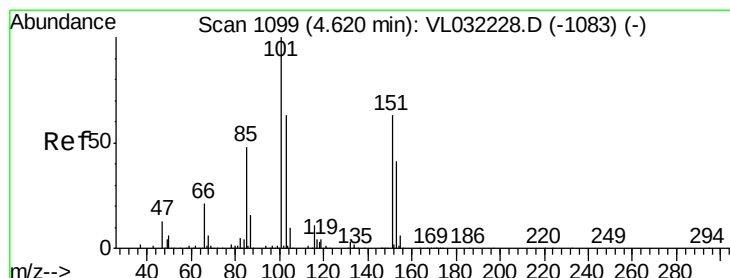
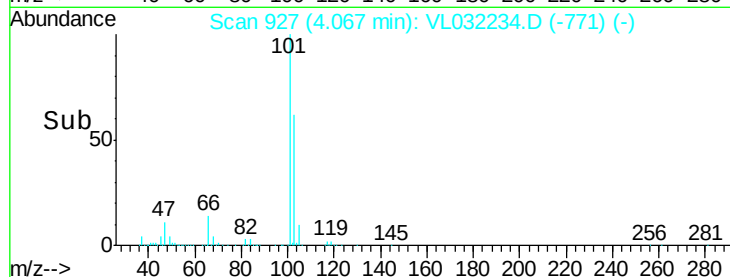
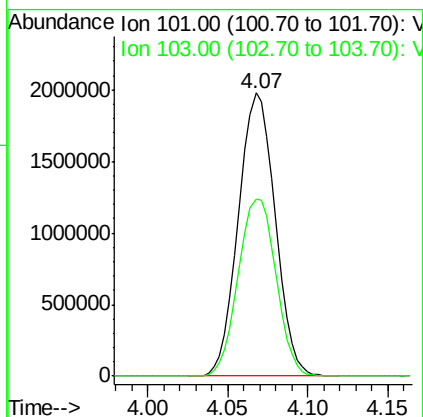
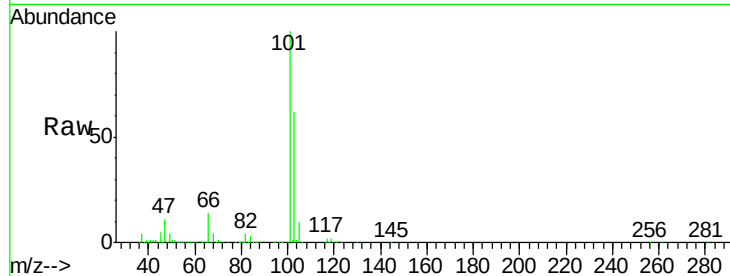
#11  
 Trichlorofluoromethane  
 Concen: 12.44 ppbv  
 RT: 4.07 min Scan# 927  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion:101 Resp: 3098740  
 Ion Ratio Lower Upper  
 101 100  
 103 62.4 50.2 75.2

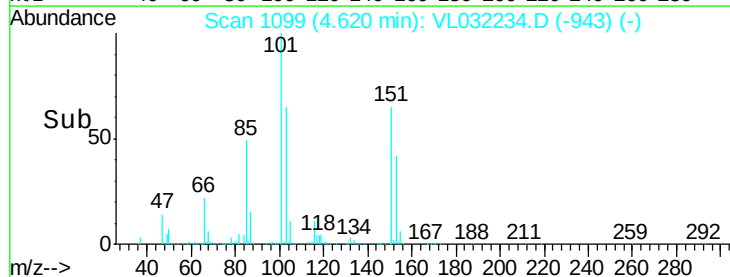
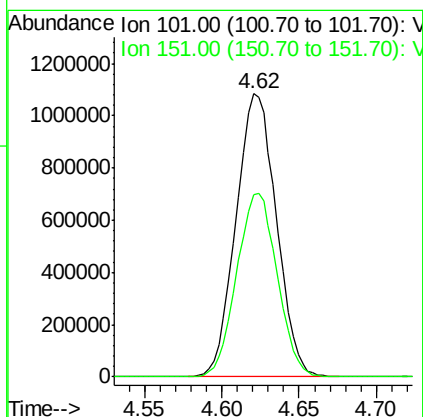
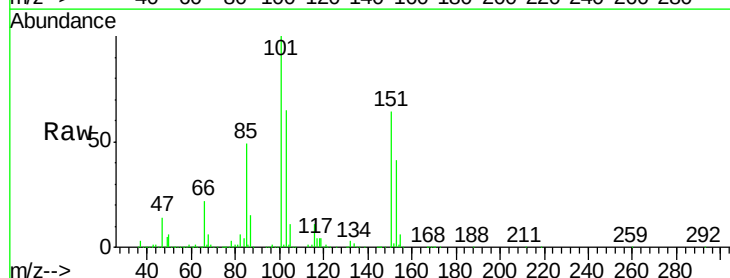
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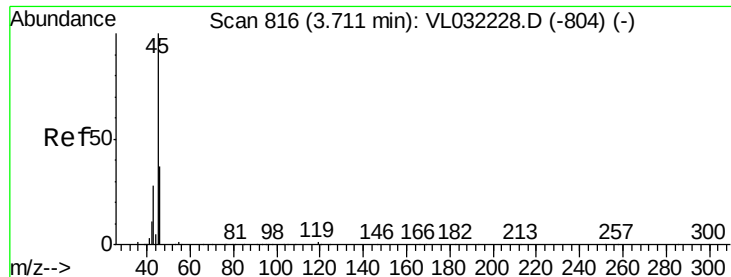
MMDadoda  
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#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 11.92 ppbv  
 RT: 4.62 min Scan# 1099  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion:101 Resp: 1967163  
 Ion Ratio Lower Upper  
 101 100  
 151 65.1 52.2 78.2





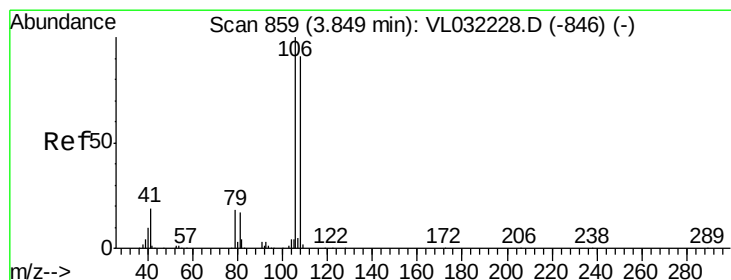
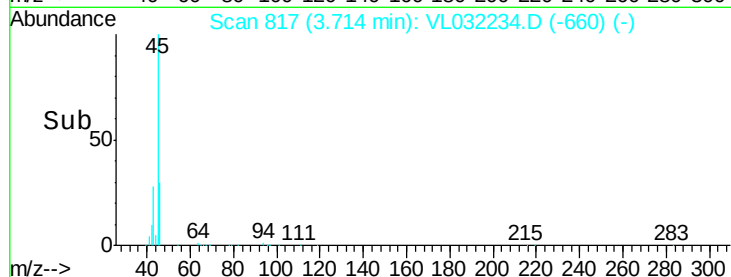
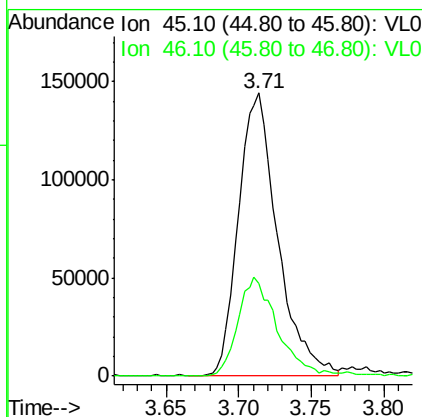
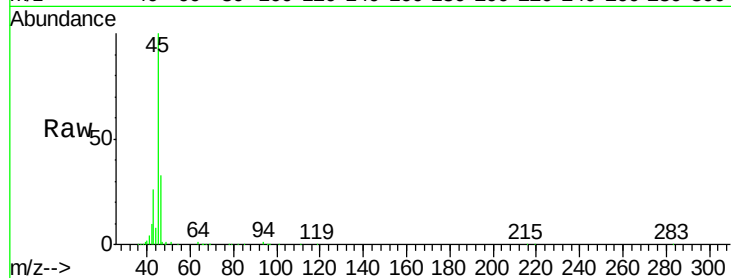
#13  
Ethanol  
Concen: 8.98 ppbv  
RT: 3.71 min Scan# 817  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | 45 | 46 | Ratio | 100 | 36.2 | Resp | 270995 | Lower | 15.5 | Upper | 61.9 |
|---------|----|----|-------|-----|------|------|--------|-------|------|-------|------|
| Ion     | 45 | 46 | Ratio | 100 | 36.2 | Resp | 270995 | Lower | 15.5 | Upper | 61.9 |

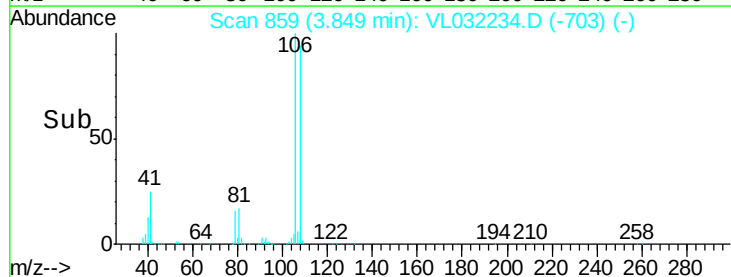
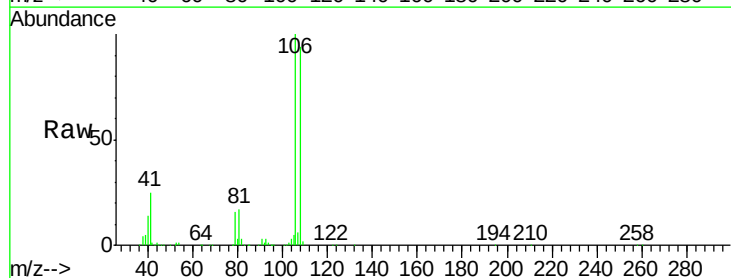
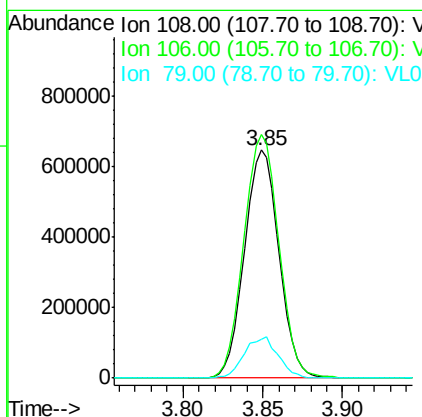
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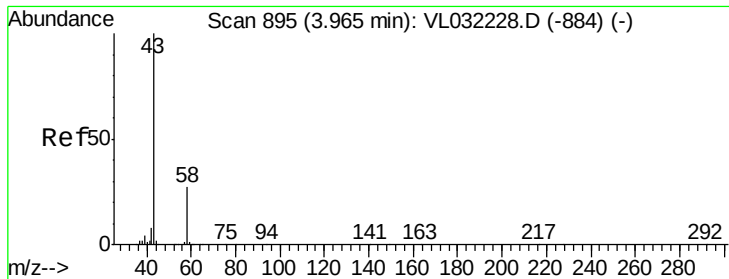
MMDadoda  
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#14  
Bromoethene  
Concen: 12.10 ppbv  
RT: 3.85 min Scan# 859  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | 108 | 106 | 79 | Ratio | 100 | 109.0 | 17.9 | Resp | 946889 | Lower | 85.5 | Upper | 128.3 | 21.4 |
|---------|-----|-----|----|-------|-----|-------|------|------|--------|-------|------|-------|-------|------|
| Ion     | 108 | 106 | 79 | Ratio | 100 | 109.0 | 17.9 | Resp | 946889 | Lower | 85.5 | Upper | 128.3 | 21.4 |





#15

Acetone

Concen: 12.39 ppbv

RT: 3.96 min Scan# 895

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 43 Resp: 2536802

Ion Ratio Lower Upper

43 100

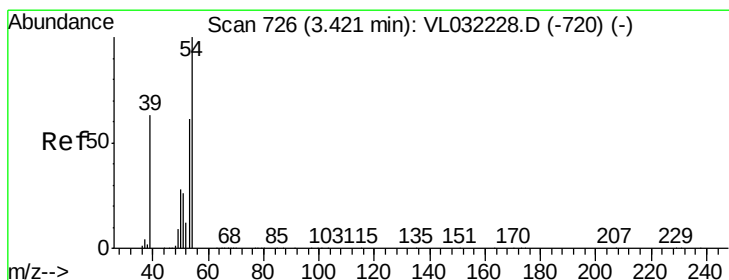
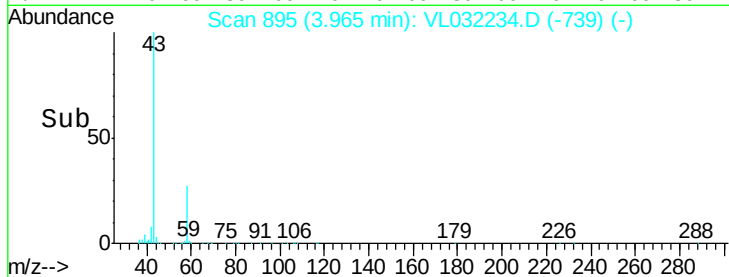
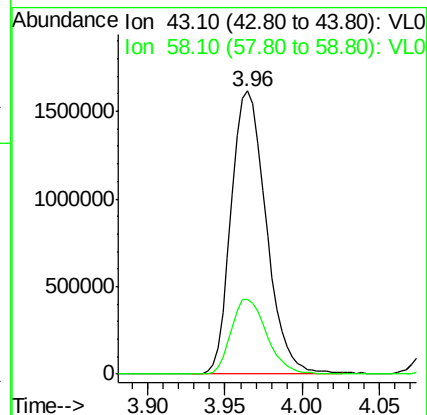
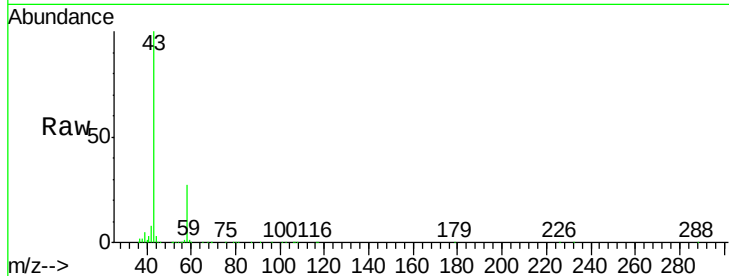
58 27.0 21.5 32.3

Manual Integrations

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#16

1,3-Butadiene

Concen: 12.74 ppbv

RT: 3.42 min Scan# 725

Delta R.T. -0.00 min

Lab File: VL032234.D

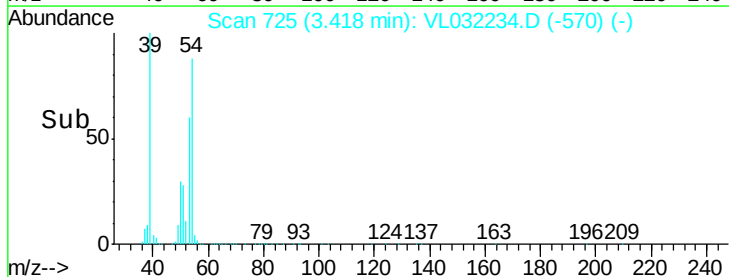
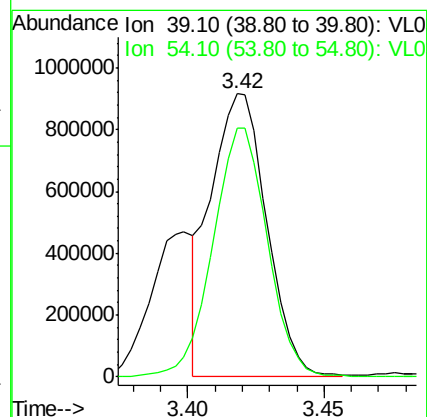
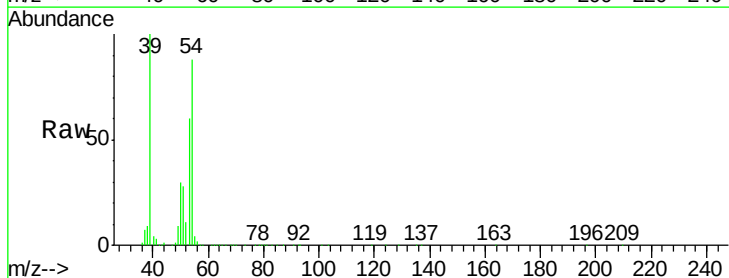
Acq: 12 Jul 2018 22:10

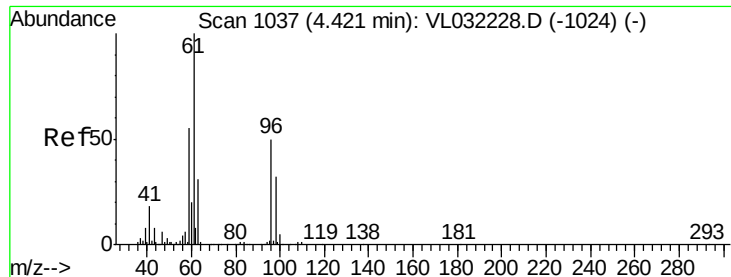
Tgt Ion: 39 Resp: 1298012

Ion Ratio Lower Upper

39 100

54 86.7 70.0 105.0





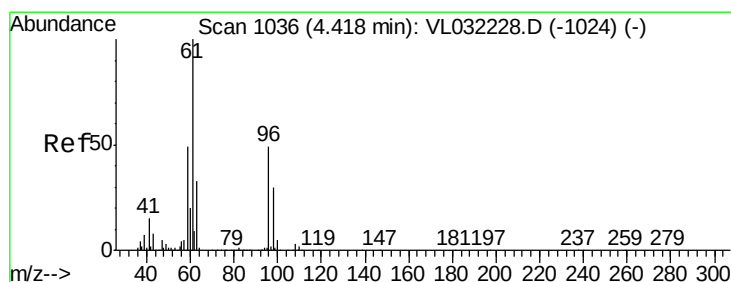
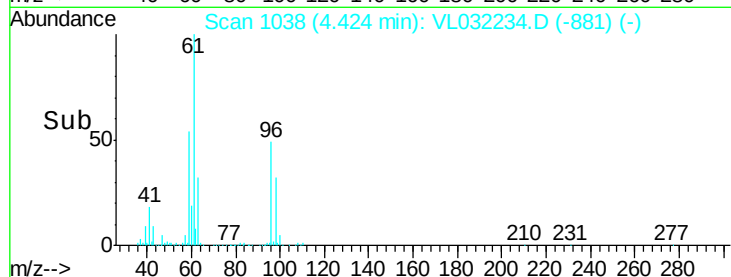
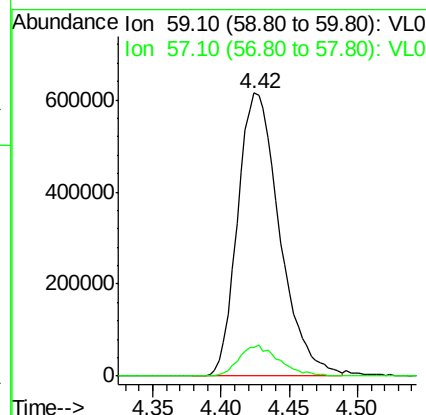
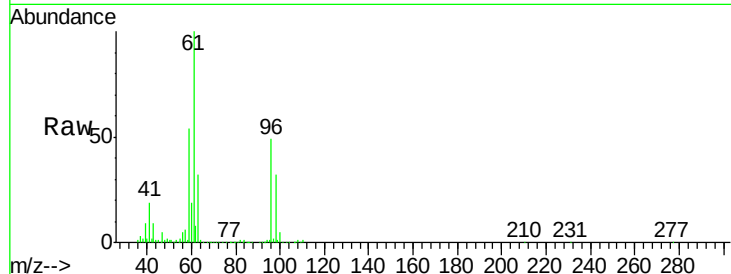
#17  
 tert-Butyl alcohol  
 Concen: 10.53 ppbv  
 RT: 4.42 min Scan# 1038  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion: 59 Resp: 1317788  
 Ion Ratio Lower Upper  
 59 100  
 57 10.5 8.4 12.6

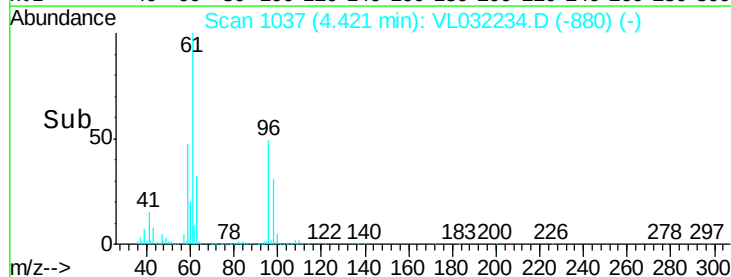
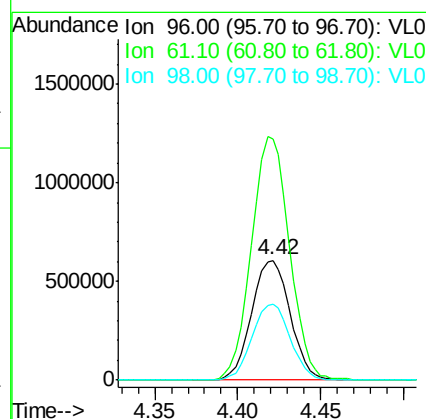
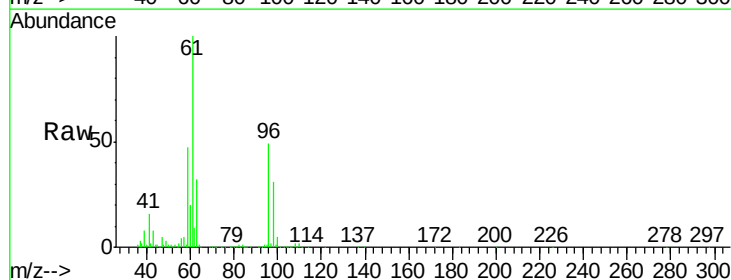
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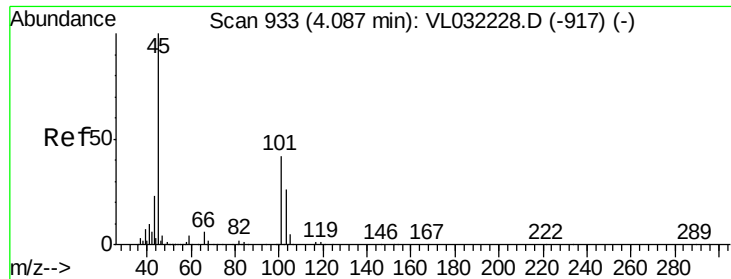
MMDadoda  
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#18  
 1,1-Dichloroethene  
 Concen: 12.51 ppbv  
 RT: 4.42 min Scan# 1037  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion: 96 Resp: 979897  
 Ion Ratio Lower Upper  
 96 100  
 61 202.2 163.0 244.4  
 98 63.2 48.5 72.7





#19

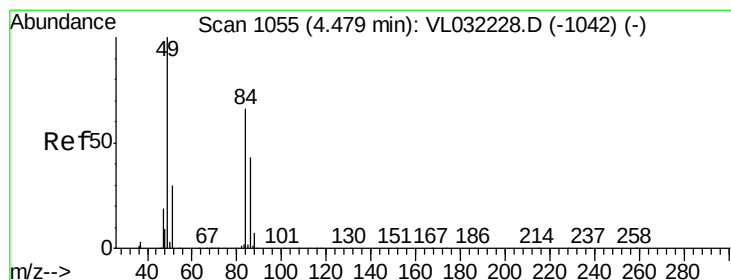
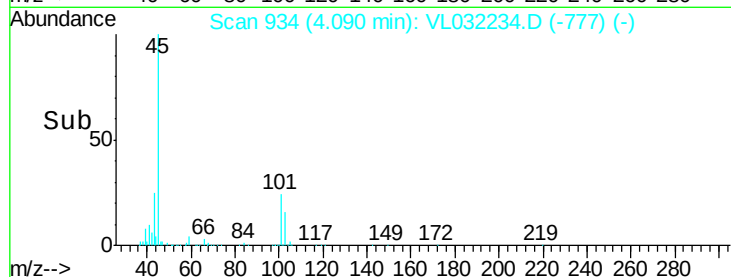
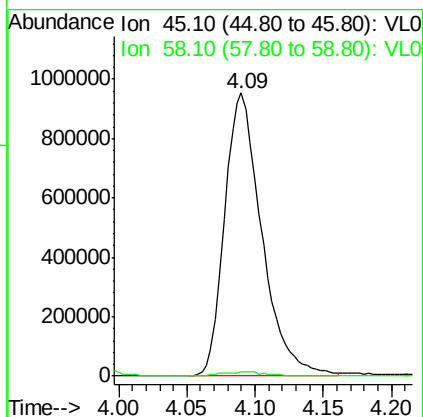
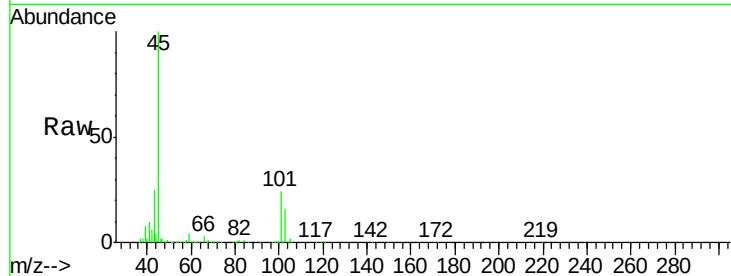
Isopropyl Alcohol  
 Concen: 10.85 ppbv  
 RT: 4.09 min Scan# 934  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDIC015

Tot Ion: 45 Resp: 1794674  
 Ion Ratio Lower Upper  
 45 100  
 58 1.7 1.3 1.9

Manual Integrations  
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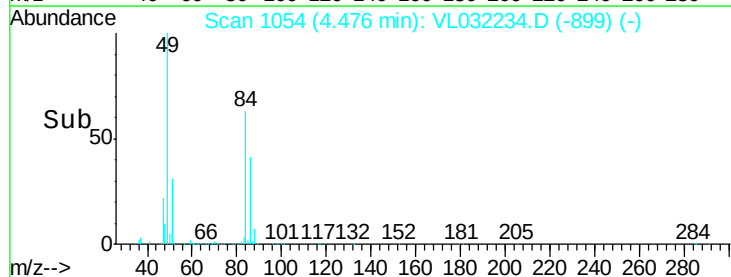
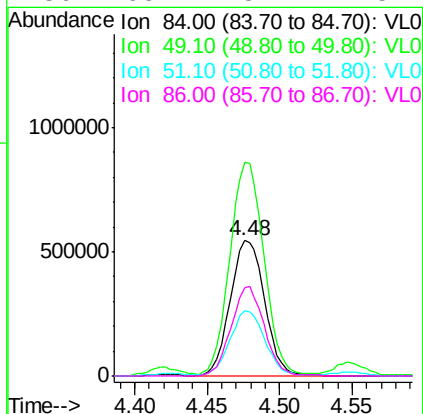
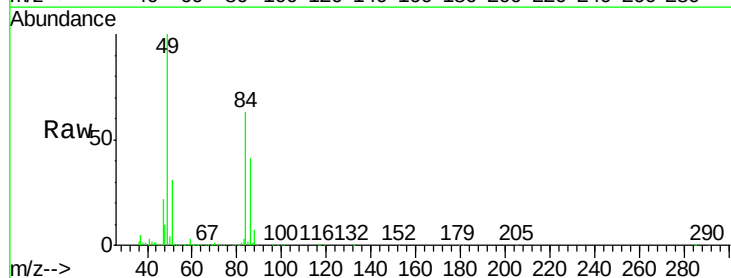
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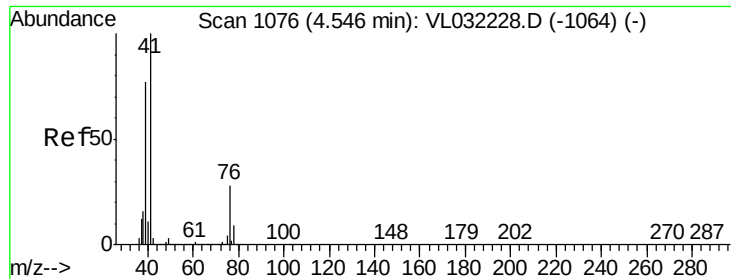


#20

Methylene Chloride  
 Concen: 12.04 ppbv  
 RT: 4.48 min Scan# 1054  
 Delta R.T. -0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion: 84 Resp: 895619  
 Ion Ratio Lower Upper  
 84 100  
 49 156.3 121.8 182.6  
 51 47.3 36.3 54.5  
 86 65.2 52.1 78.1





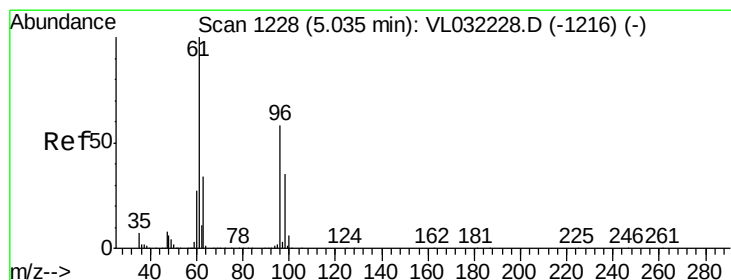
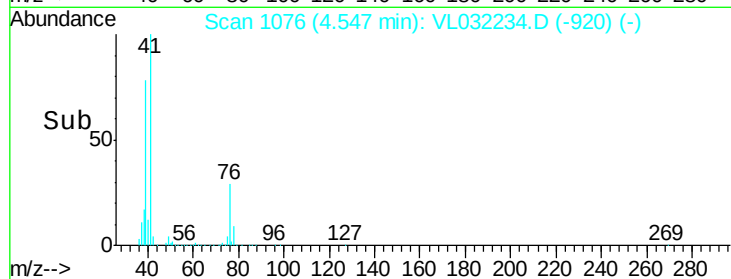
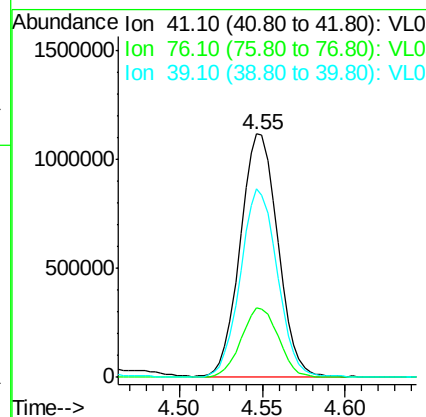
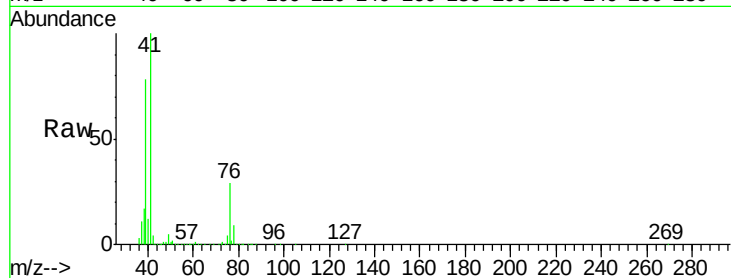
#21  
Allvl Chloride  
Concen: 12.77 ppbv  
RT: 4.55 min Scan# 1076  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 76      | 28.6  | 22.9  | 34.3  |
| 39      | 76.5  | 62.3  | 93.5  |

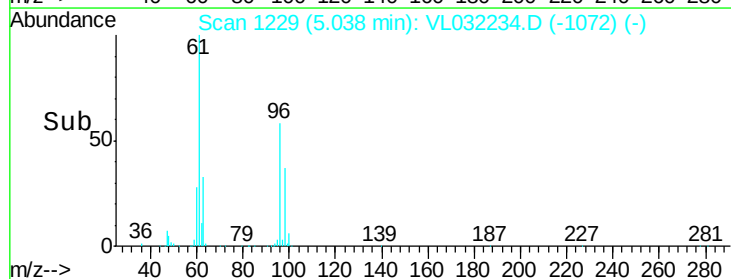
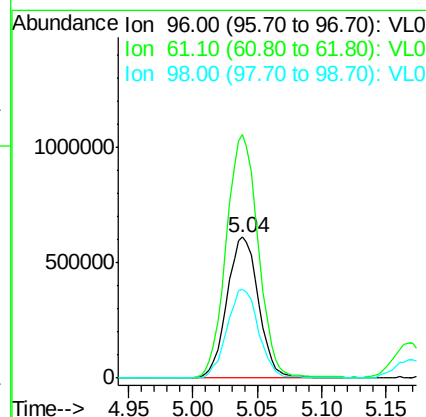
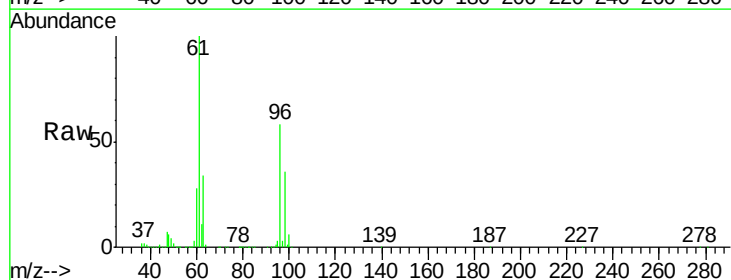
Manual Integrations  
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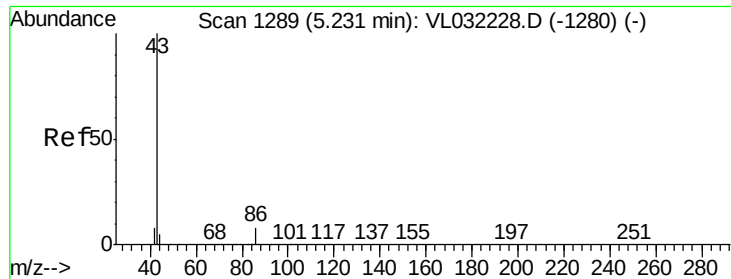
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#22  
trans-1,2-Dichloroethene  
Concen: 12.56 ppbv  
RT: 5.04 min Scan# 1229  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 173.1 | 139.1 | 208.7 |
| 98      | 63.1  | 48.4  | 72.6  |





#23

Vinyl Acetate

Concen: 13.84 ppbv

RT: 5.23 min Scan# 1289

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 43 Resp: 5156899

Ion Ratio Lower Upper

43 100

86 7.6 5.9 8.9

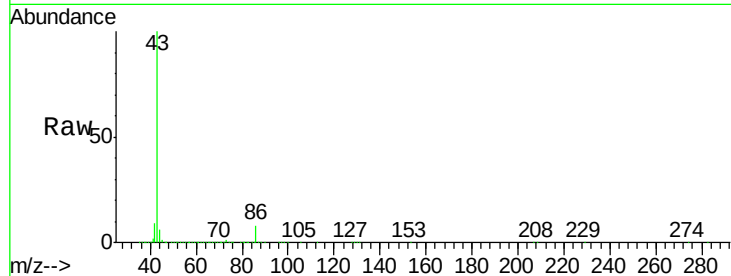
42 9.3 7.0 10.6

44 5.7 4.2 6.2

Manual Integrations  
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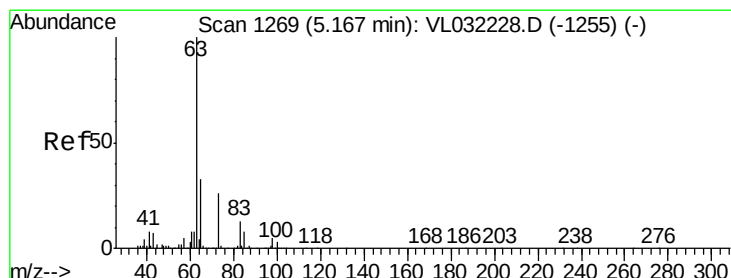
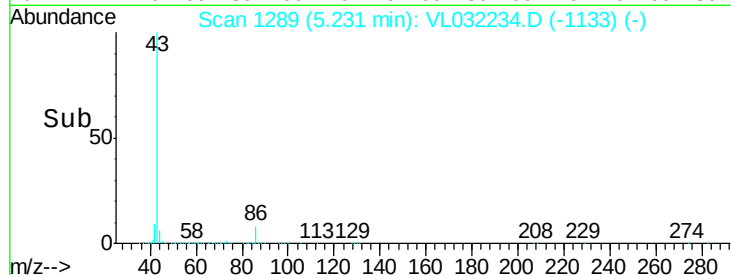
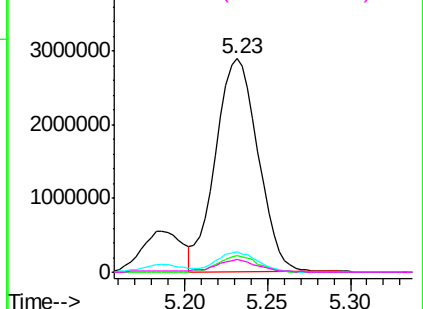


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 13.74 ppbv

RT: 5.17 min Scan# 1269

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

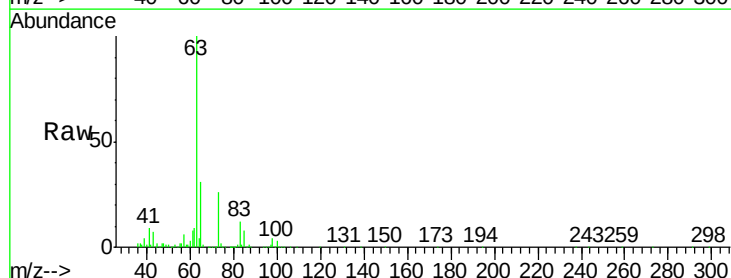
Tgt Ion: 63 Resp: 3311091

Ion Ratio Lower Upper

63 100

98 4.1 2.4 7.1

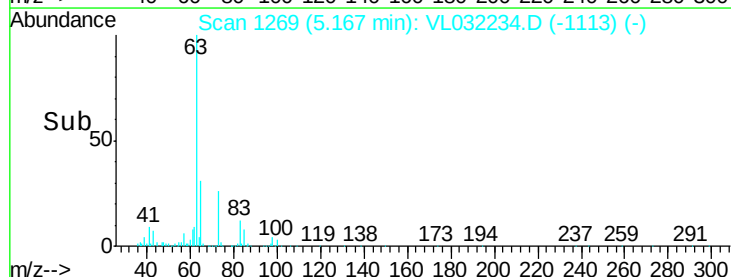
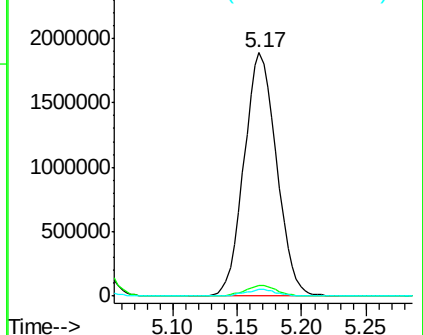
100 2.6 1.5 4.4



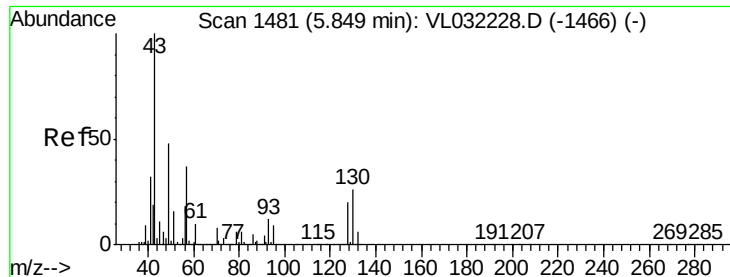
Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0







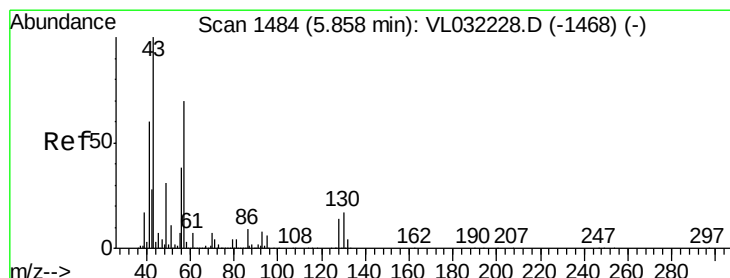
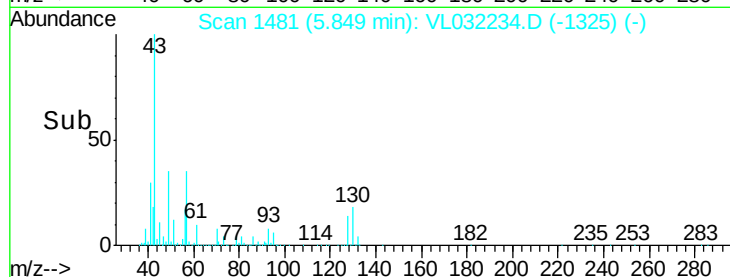
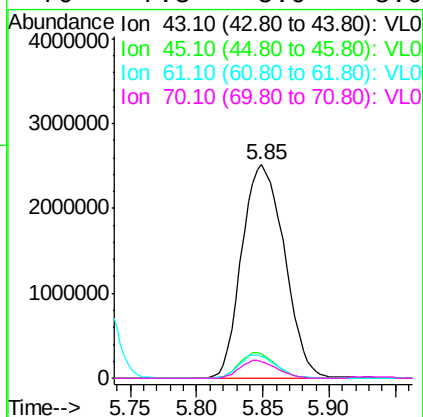
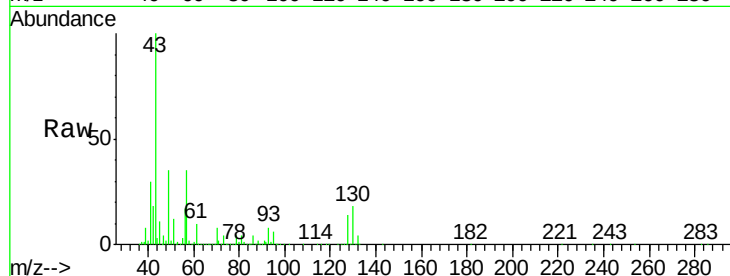
#25  
Ethyl Acetate  
Concen: 13.23 ppbv  
RT: 5.85 min Scan# 1481  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | 43    | Resp  | 5625087 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 43      | 100   |       |         |
| 45      | 10.1  | 8.0   | 12.0    |
| 61      | 9.5   | 7.7   | 11.5    |
| 70      | 7.3   | 5.9   | 8.9     |

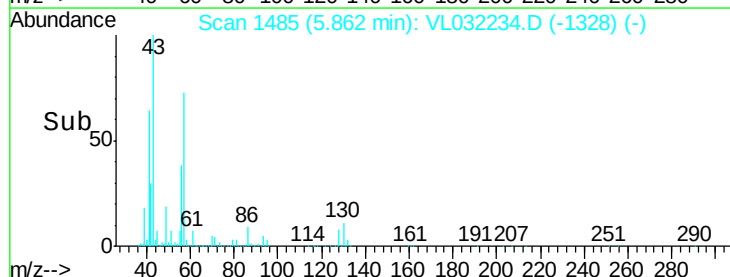
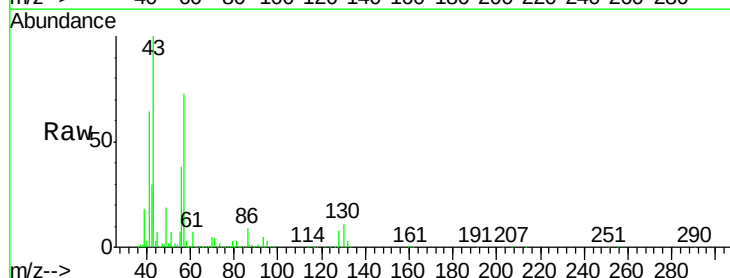
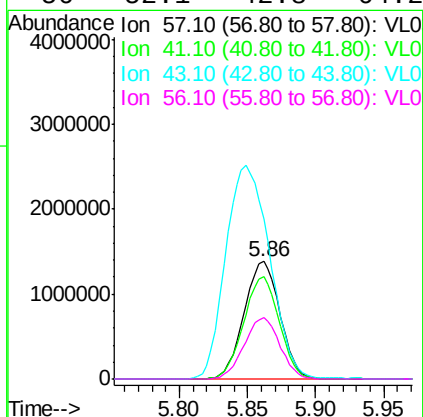
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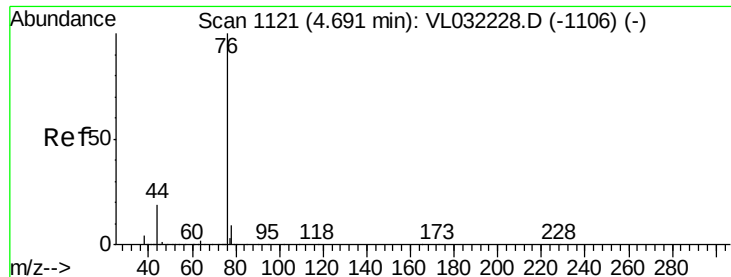
MMDadoda  
7/13/2018 5:22:16 PM



#26  
Hexane  
Concen: 12.85 ppbv  
RT: 5.86 min Scan# 1485  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | 57    | Resp  | 2523338 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 57      | 100   |       |         |
| 41      | 86.9  | 68.7  | 103.1   |
| 43      | 224.2 | 176.2 | 264.2   |
| 56      | 52.1  | 42.8  | 64.2    |





#27

Carbon Disulfide

Concen: 13.18 ppbv

RT: 4.69 min Scan# 1121

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 76 Resp: 2518933

Ion Ratio Lower Upper

76 100

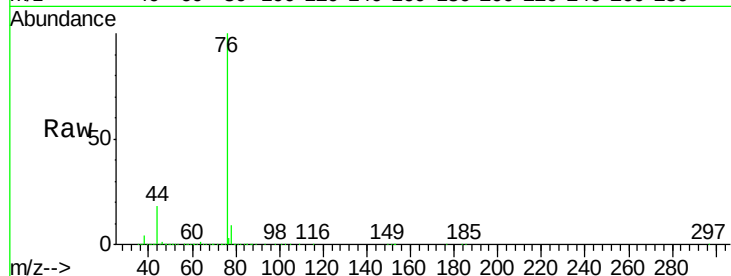
44 18.5 15.1 22.7

78 9.1 7.4 11.0

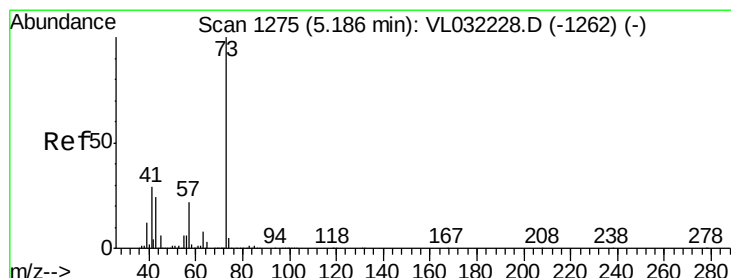
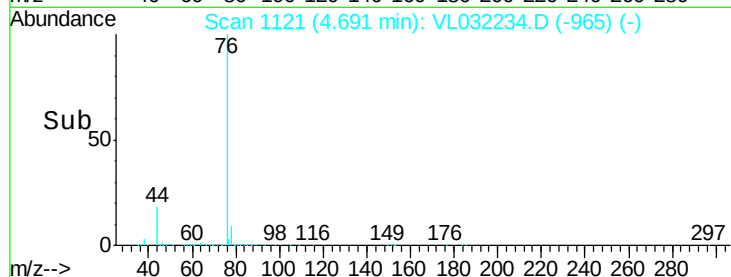
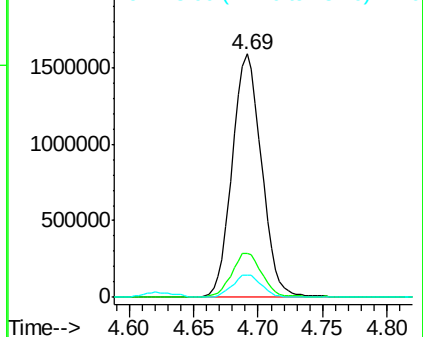
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Abundance Ion 76.00 (75.70 to 76.70): VL0  
Ion 44.10 (43.80 to 44.80): VL0  
Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 12.37 ppbv

RT: 5.19 min Scan# 1275

Delta R.T. 0.00 min

Lab File: VL032234.D

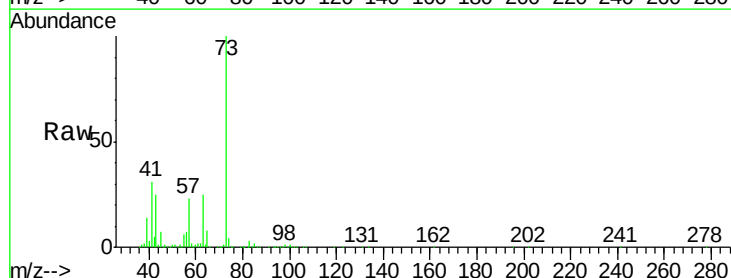
Acq: 12 Jul 2018 22:10

Tgt Ion: 73 Resp: 4228266

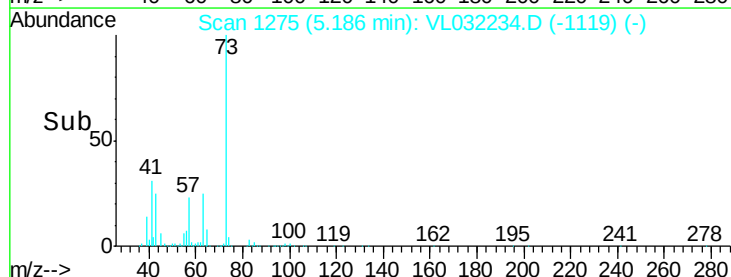
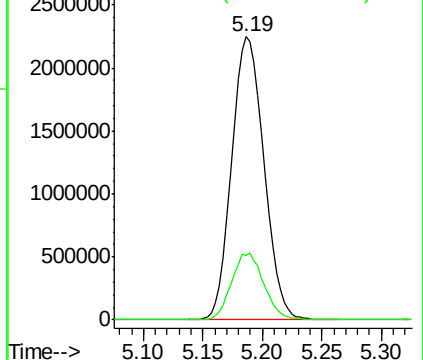
Ion Ratio Lower Upper

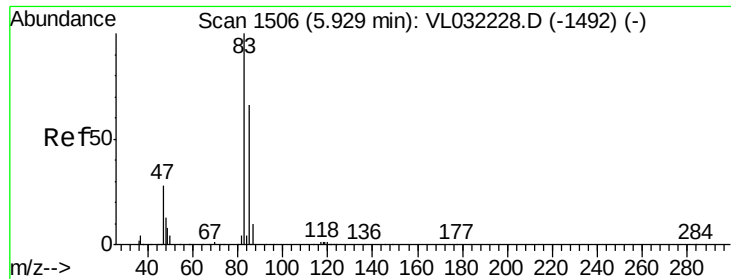
73 100

57 23.8 18.6 27.8



Abundance Ion 73.10 (72.80 to 73.80): VL0  
Ion 57.10 (56.80 to 57.80): VL0





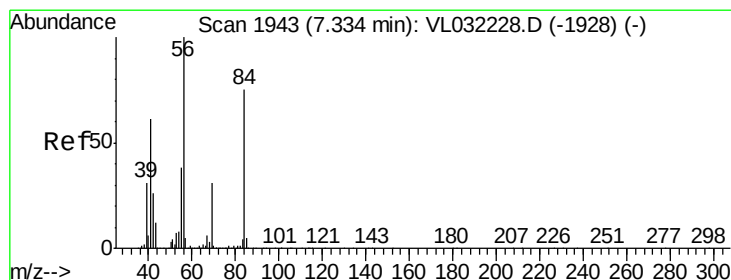
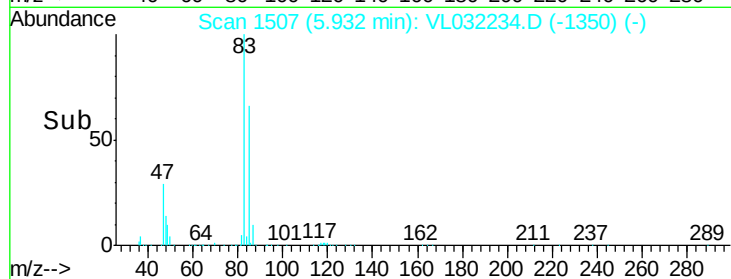
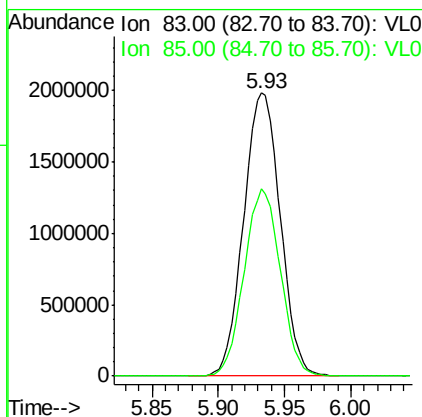
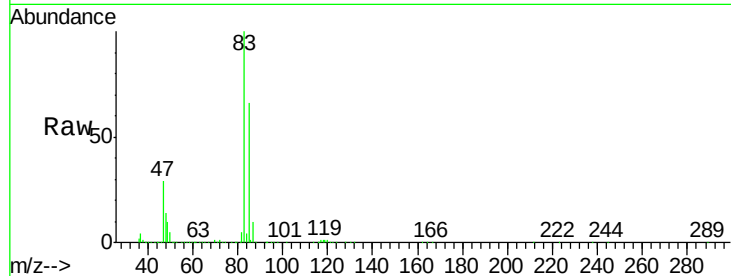
#29  
Chloroform  
Concen: 13.36 ppbv  
RT: 5.93 min Scan# 1507  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion: 83 Resp: 3820931  
Ion Ratio Lower Upper  
83 100  
85 66.3 52.7 79.1

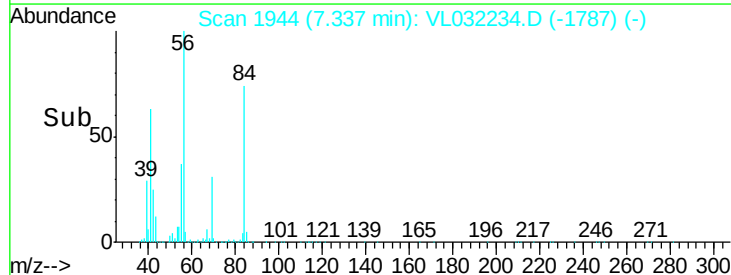
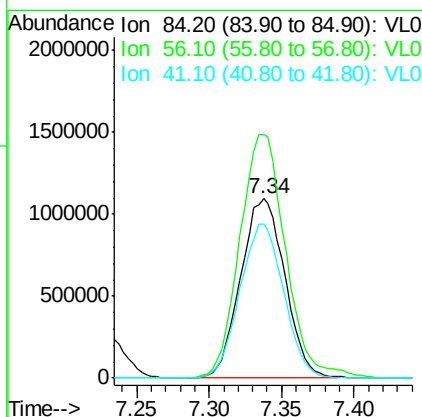
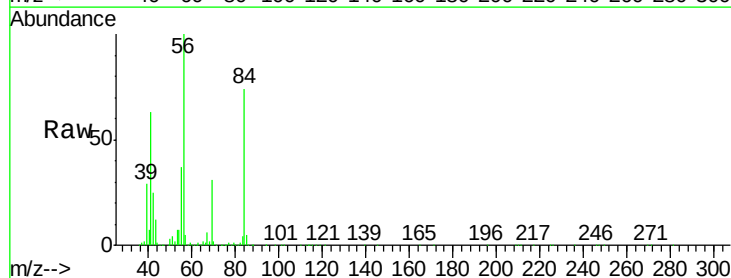
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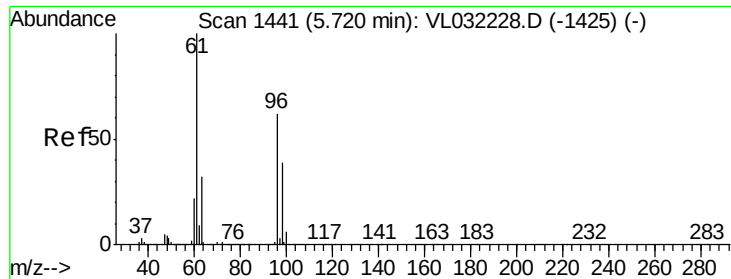
MMDadoda  
7/13/2018 5:22:16 PM



#30  
Cyclohexane  
Concen: 12.39 ppbv  
RT: 7.34 min Scan# 1944  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion: 84 Resp: 2325067  
Ion Ratio Lower Upper  
84 100  
56 141.1 112.6 168.8  
41 85.4 67.0 100.6





#31

cis-1,2-Dichloroethene

Concen: 13.99 ppbv

RT: 5.72 min Scan# 1442

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

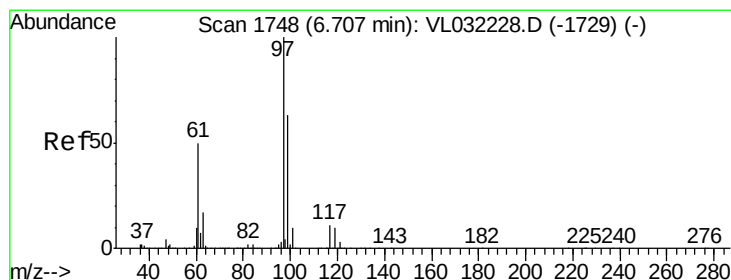
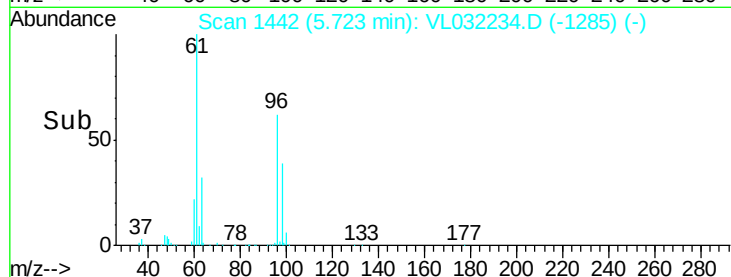
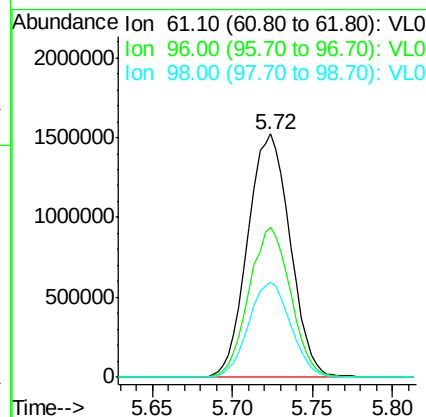
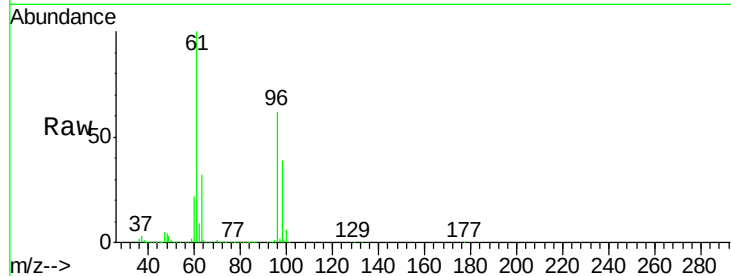
ClientSampleId :

VSTDIC015

| Tot Ion | 61    | Resp  | 2758219 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 61      | 100   |       |         |
| 96      | 61.8  | 49.8  | 74.8    |
| 98      | 39.3  | 31.4  | 47.2    |

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#32

1,1,1-Trichloroethane

Concen: 12.80 ppbv

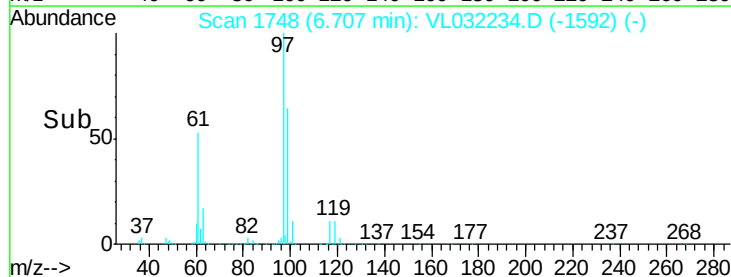
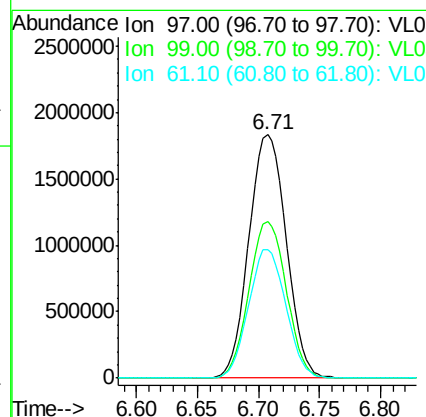
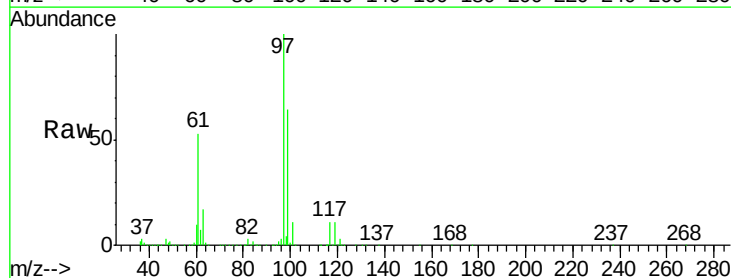
RT: 6.71 min Scan# 1748

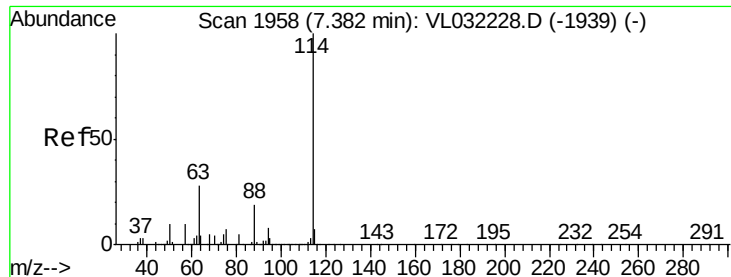
Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

| Tgt Ion | 97    | Resp  | 3894167 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 97      | 100   |       |         |
| 99      | 64.1  | 51.2  | 76.8    |
| 61      | 52.5  | 41.3  | 61.9    |





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.38 min Scan# 1958

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion:114 Resp: 4140207

Ion Ratio Lower Upper

114 100

63 28.8 22.5 33.7

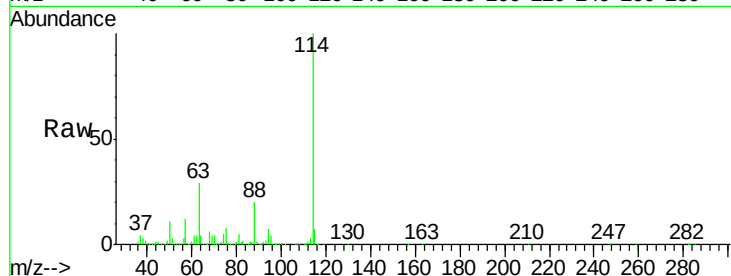
88 19.3 15.4 23.0

Manual Integrations

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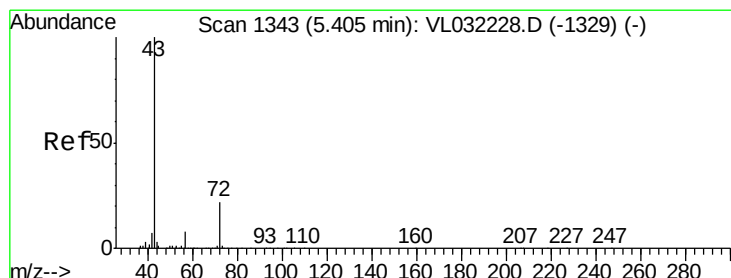
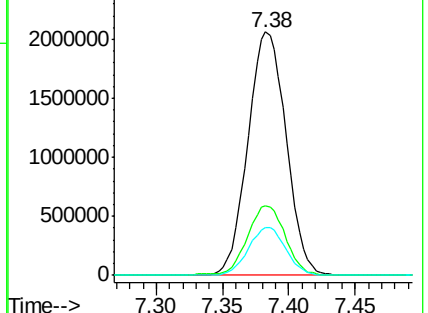
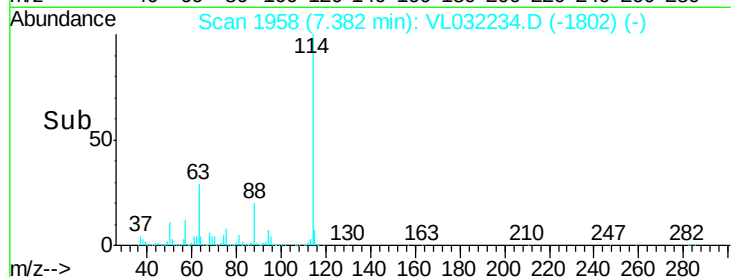
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Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 15.78 ppbv

RT: 5.41 min Scan# 1344

Delta R.T. 0.00 min

Lab File: VL032234.D

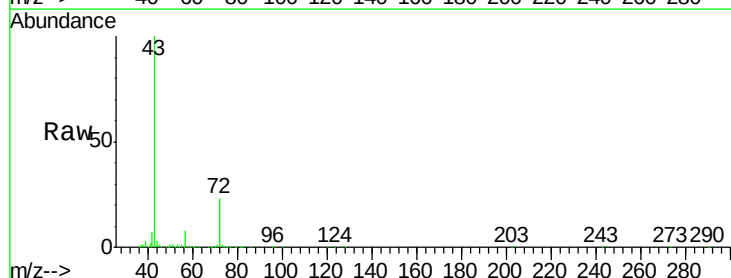
Acq: 12 Jul 2018 22:10

Tgt Ion: 43 Resp: 4141363

Ion Ratio Lower Upper

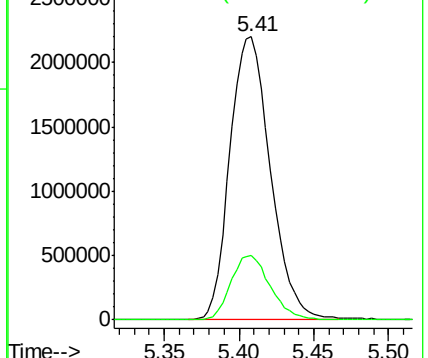
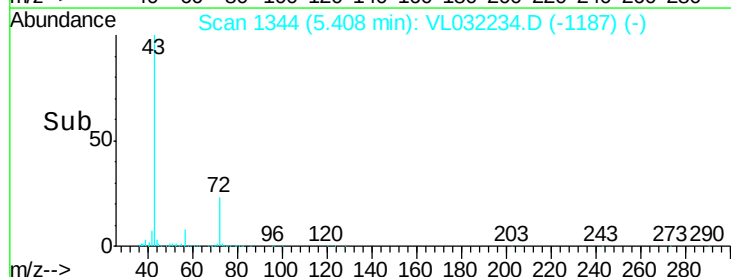
43 100

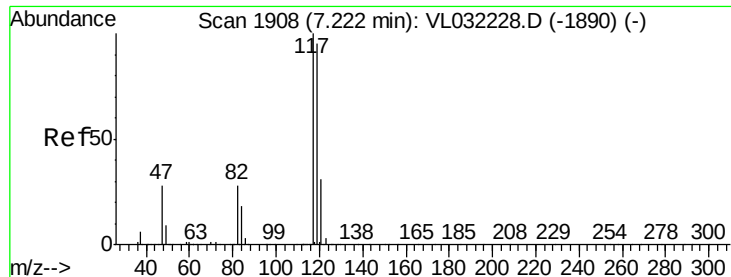
72 22.3 18.1 27.1



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





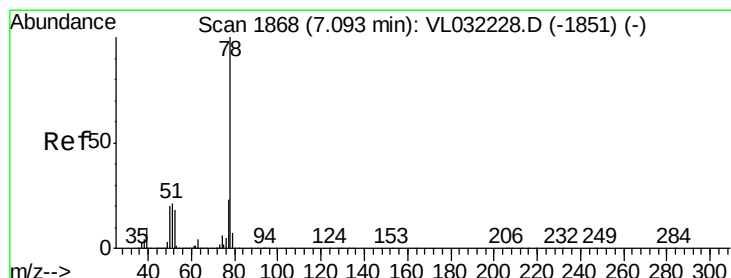
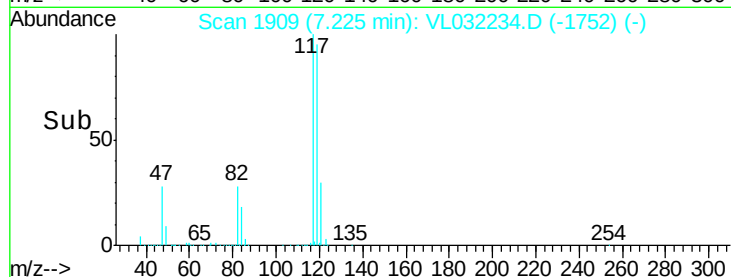
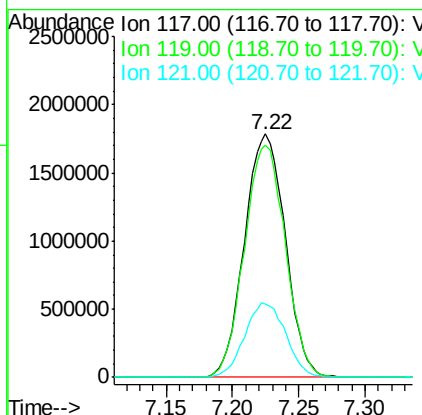
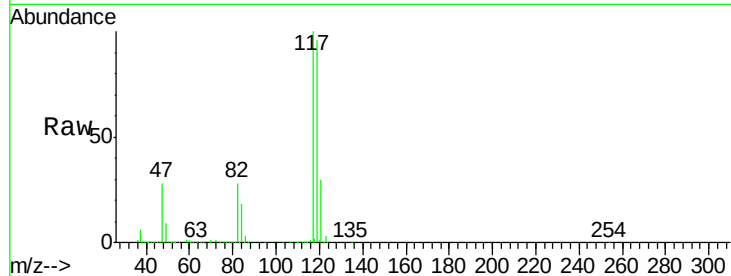
#35  
Carbon Tetrachloride  
Concen: 13.38 ppbv  
RT: 7.22 min Scan# 1909  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 95.5  | 75.7  | 113.5 |
| 121     | 30.3  | 24.6  | 37.0  |

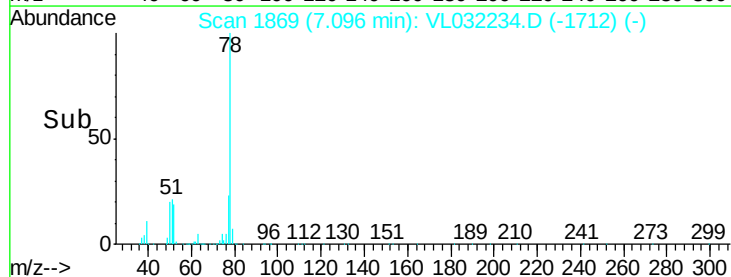
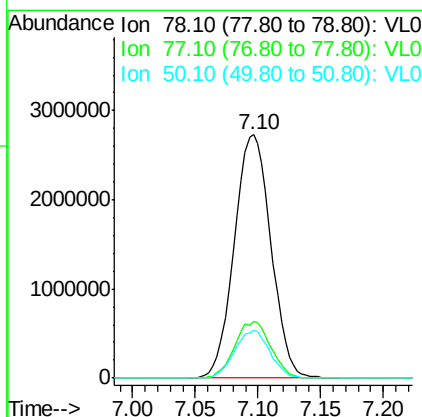
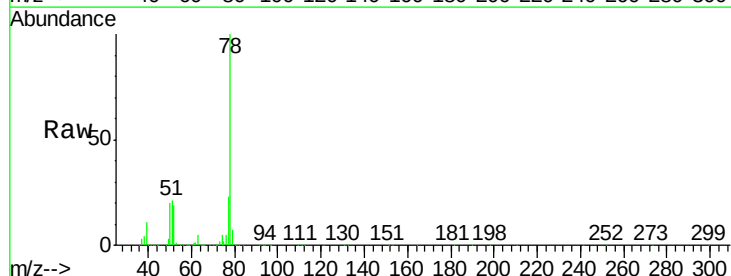
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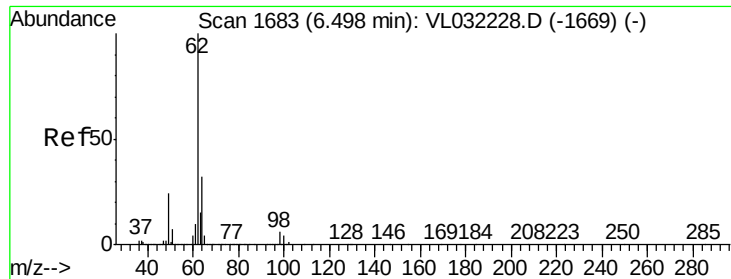
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#36  
Benzene  
Concen: 13.58 ppbv  
RT: 7.10 min Scan# 1869  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 23.2  | 18.0  | 27.0  |
| 50      | 19.6  | 15.8  | 23.8  |





#37

1,2-Dichloroethane

Concen: 15.03 ppbv

RT: 6.50 min Scan# 1684

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 62 Resp: 3063925

Ion Ratio Lower Upper

62 100

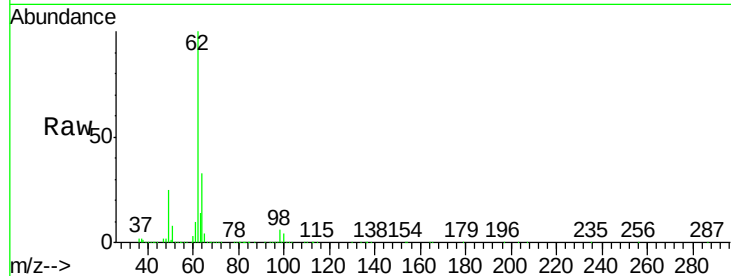
98 6.0 4.6 7.0

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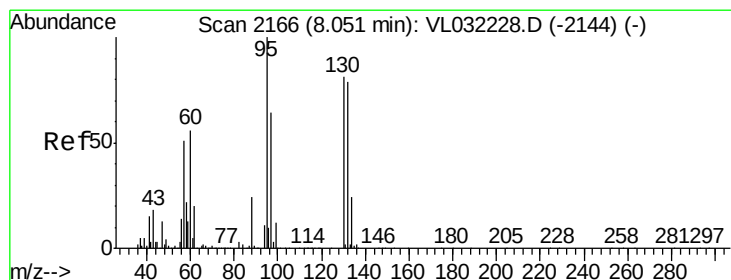
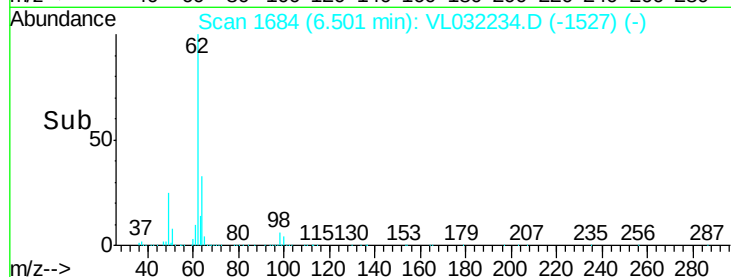
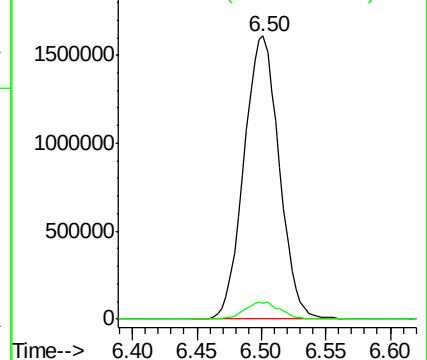
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Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#38

Trichloroethene

Concen: 11.73 ppbv

RT: 8.05 min Scan# 2167

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Tgt Ion:130 Resp: 1806270

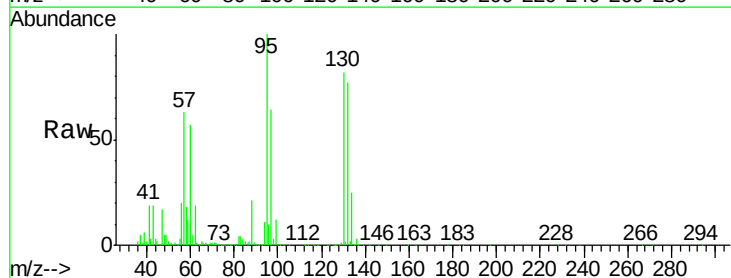
Ion Ratio Lower Upper

130 100

95 123.2 98.3 147.5

132 94.6 78.1 117.1

97 78.4 62.6 94.0

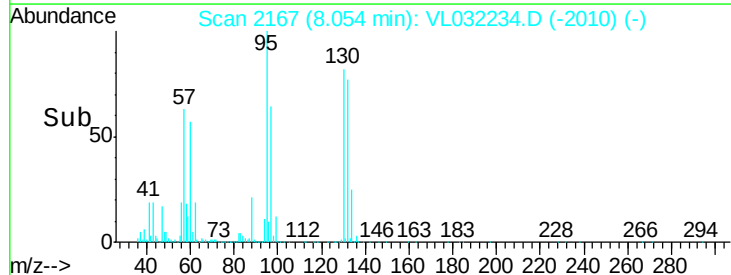
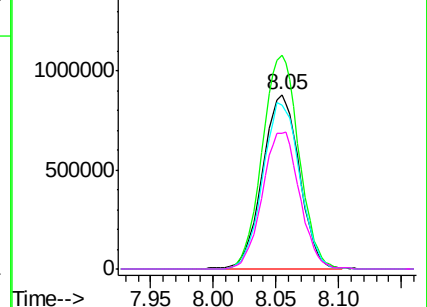


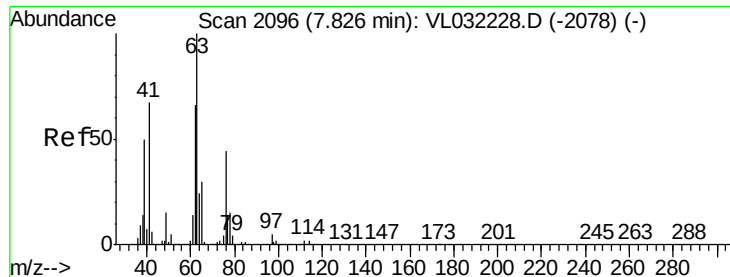
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





#39

1,2-Dichloropropane

Concen: 14.46 ppbv

RT: 7.83 min Scan# 2097

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

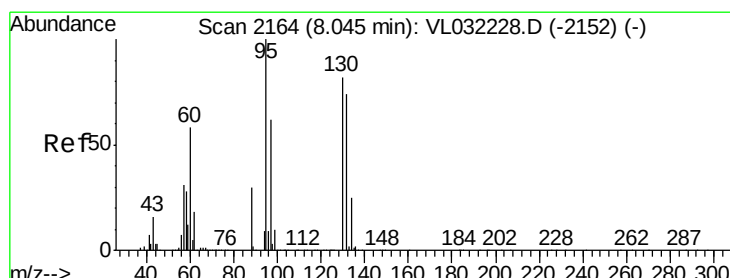
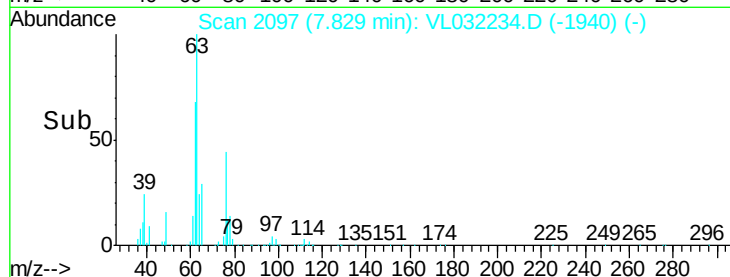
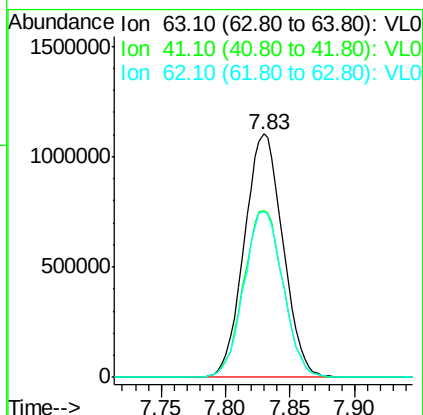
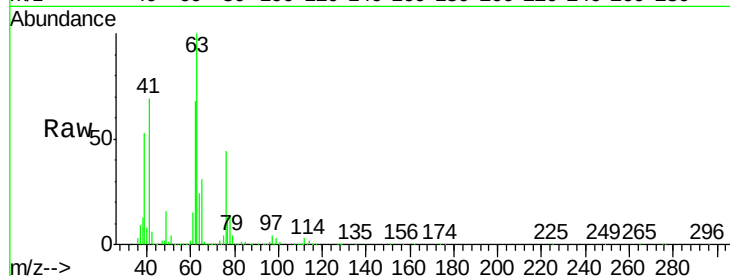
ClientSampleId :

VSTDIC015

|          |       |       |         |
|----------|-------|-------|---------|
| Tot Ion: | 63    | Resp: | 2299571 |
| Ion      | Ratio | Lower | Upper   |
| 63       | 100   |       |         |
| 41       | 68.7  | 53.8  | 80.6    |
| 62       | 68.2  | 53.1  | 79.7    |

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#40

1,4-Dioxane

Concen: 11.15 ppbv

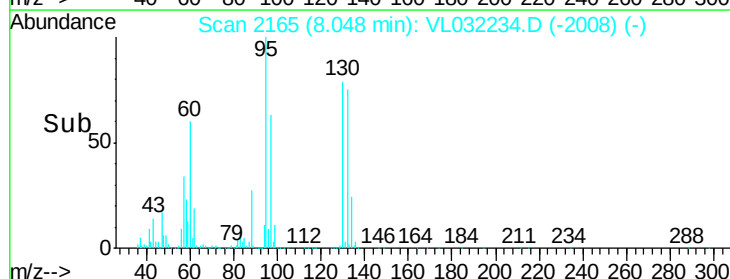
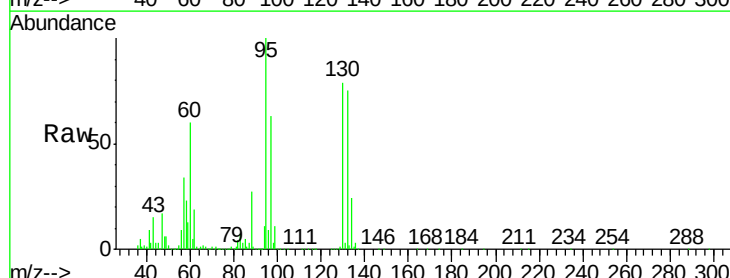
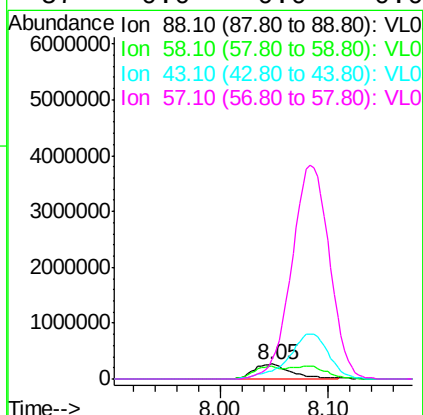
RT: 8.05 min Scan# 2165

Delta R.T. 0.00 min

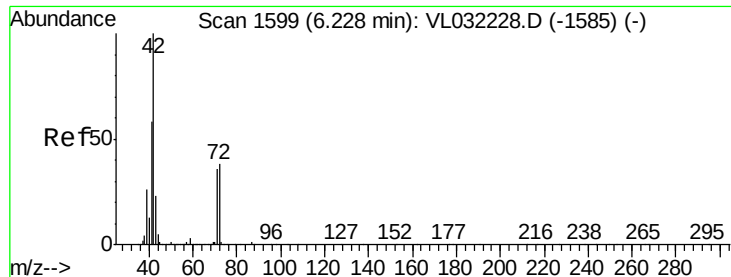
Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 88    | Resp: | 664041 |
| Ion      | Ratio | Lower | Upper  |
| 88       | 100   |       |        |
| 58       | 54.5  | 117.4 | 176.2# |
| 43       | 0.0   | 0.0   | 0.0    |
| 57       | 0.0   | 0.0   | 0.0    |







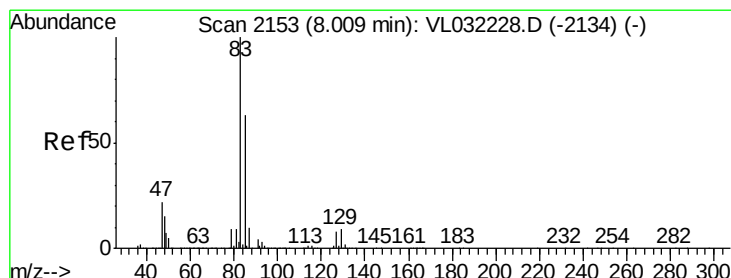
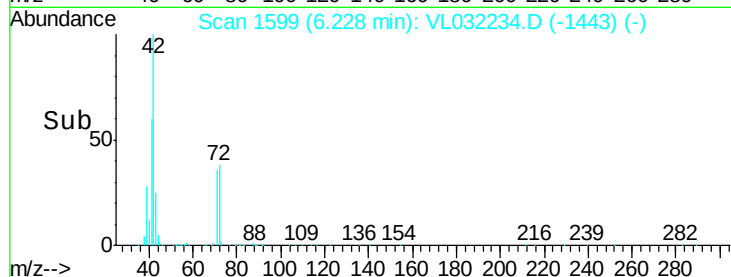
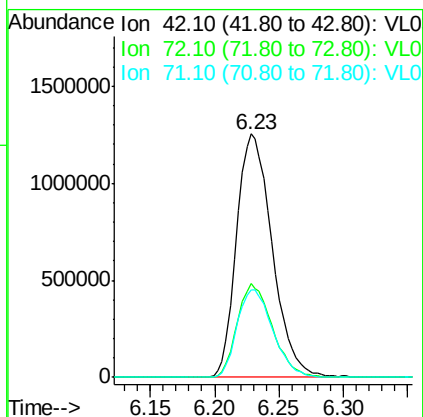
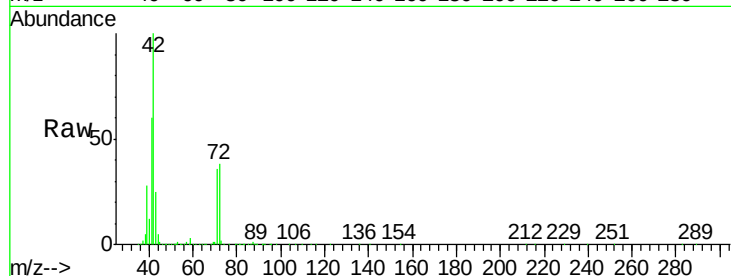
#41  
Tetrahydrofuran  
Concen: 15.23 ppbv  
RT: 6.23 min Scan# 1599  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 38.0  | 30.6  | 45.8  |
| 71      | 36.3  | 29.7  | 44.5  |

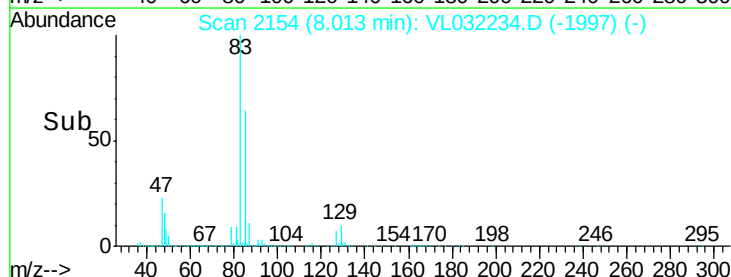
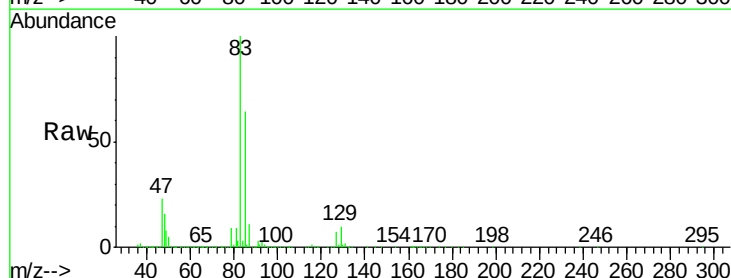
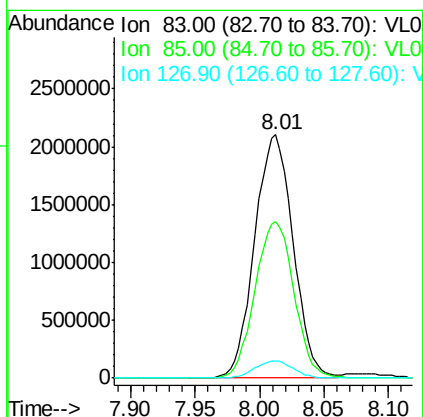
Manual Integrations  
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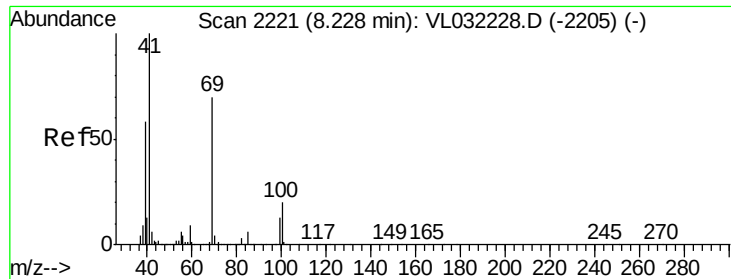
MMDadoda  
7/13/2018 5:22:16 PM



#42  
Bromodichloromethane  
Concen: 14.13 ppbv  
RT: 8.01 min Scan# 2154  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 64.1  | 50.6  | 76.0  |
| 127     | 6.9   | 6.1   | 9.1   |





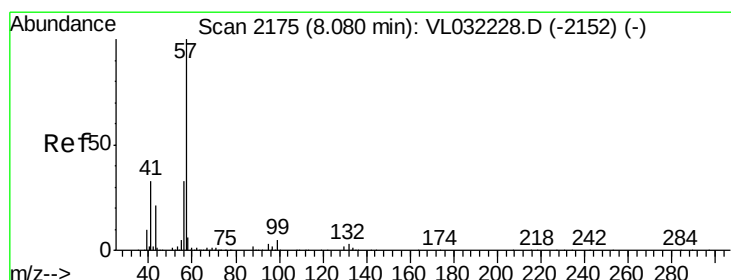
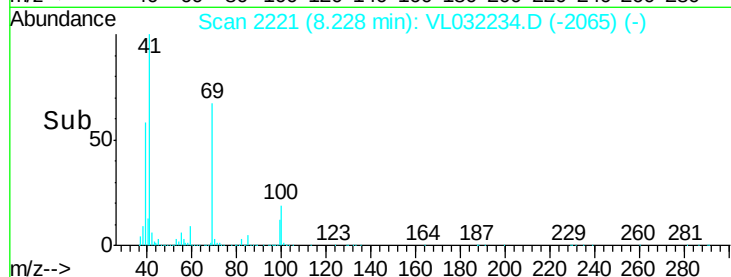
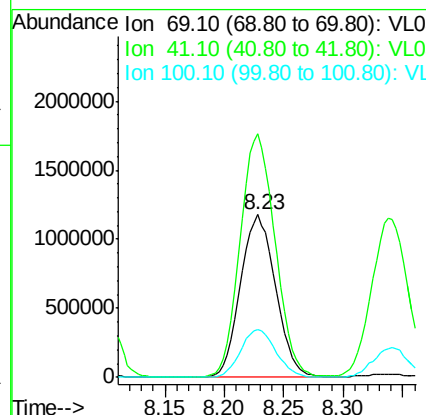
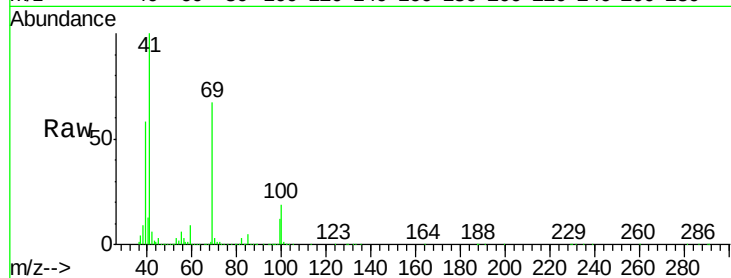
#43  
Methyl Methacrylate  
Concen: 14.62 ppbv  
RT: 8.23 min Scan# 2221  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion: 69 Resp: 2410861  
Ion Ratio Lower Upper  
69 100  
41 148.9 116.3 174.5  
100 29.4 23.8 35.8

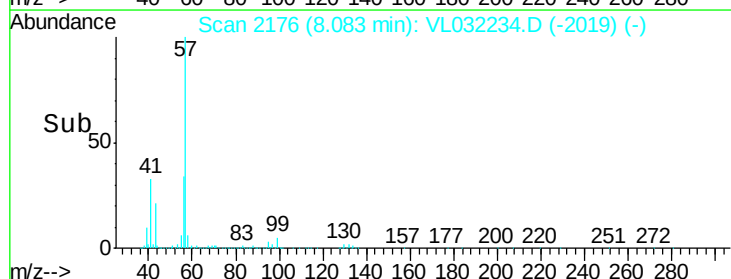
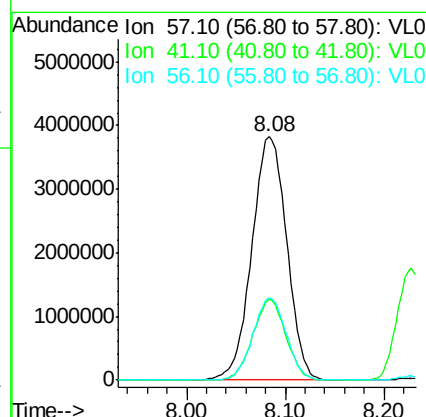
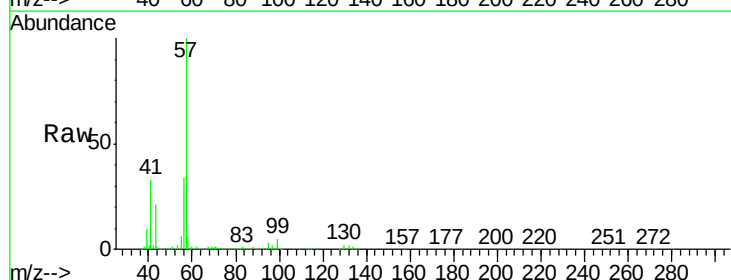
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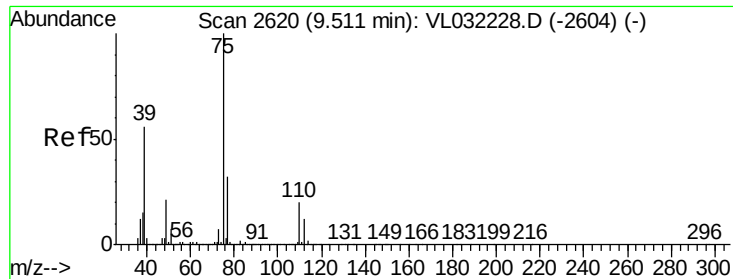
MMDadoda  
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#44  
2,2,4-Trimethylpentane  
Concen: 13.41 ppbv  
RT: 8.08 min Scan# 2176  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion: 57 Resp: 9342249  
Ion Ratio Lower Upper  
57 100  
41 31.4 24.7 37.1  
56 32.2 25.4 38.0





#45

t-1,3-Dichloropropene

Concen: 15.08 ppbv

RT: 9.51 min Scan# 2621

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 75 Resp: 3108939

Ion Ratio Lower Upper

75 100

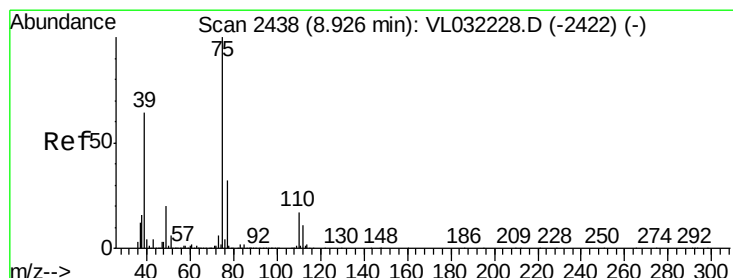
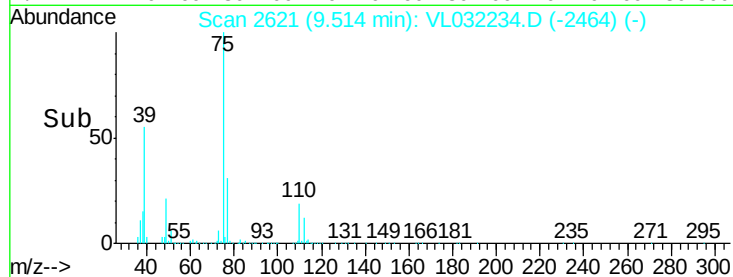
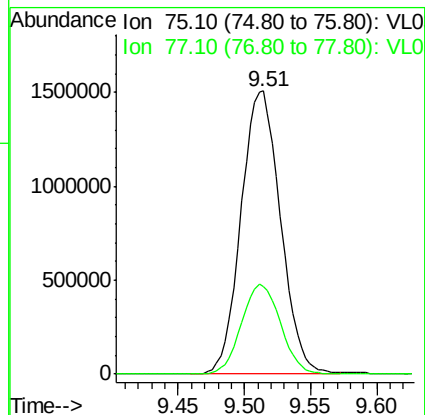
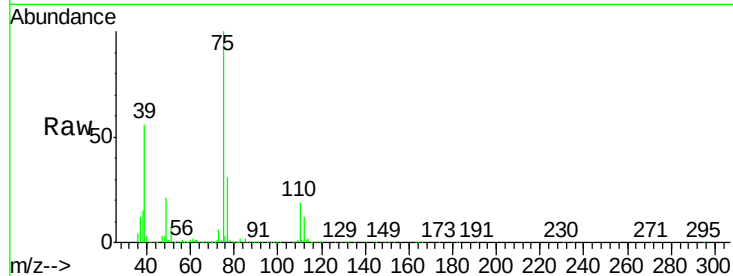
77 31.1 25.5 38.3

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#46

cis-1,3-Dichloropropene

Concen: 17.10 ppbv

RT: 8.93 min Scan# 2439

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

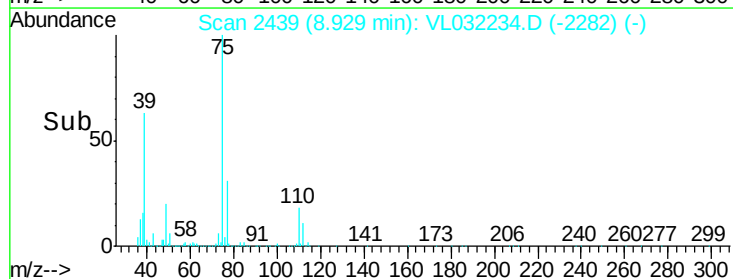
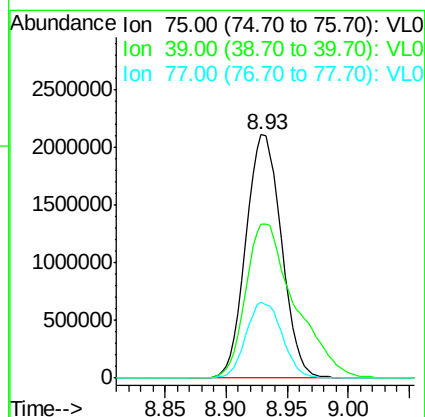
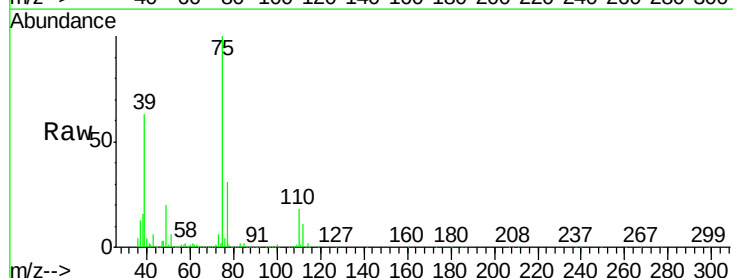
Tgt Ion: 75 Resp: 4246781

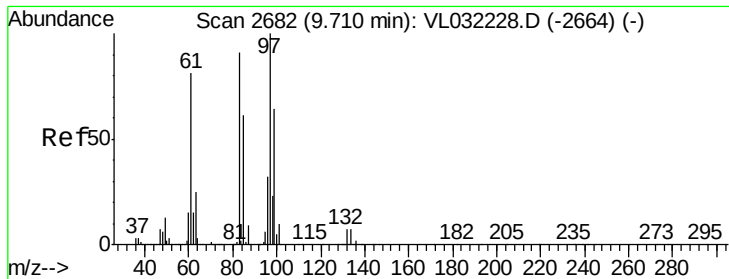
Ion Ratio Lower Upper

75 100

39 62.9 50.9 76.3

77 31.1 25.3 37.9





#47

1,1,2-Trichloroethane

Concen: 15.61 ppbv

RT: 9.71 min Scan# 2683

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 97 Resp: 2565068

Ion Ratio Lower Upper

97 100

83 92.7 72.9 109.3

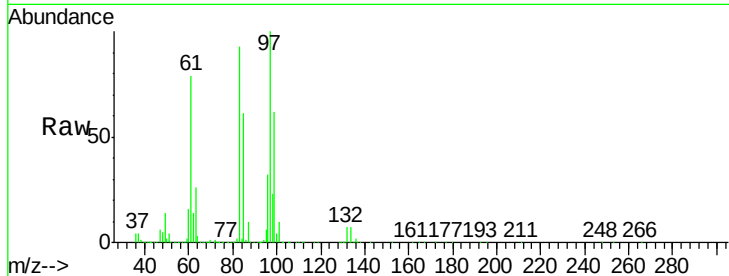
85 60.6 49.3 73.9

99 62.1 51.3 76.9

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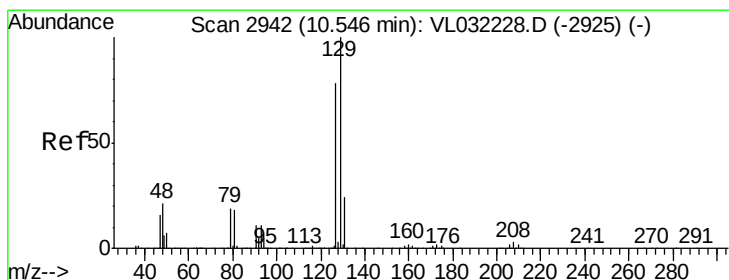
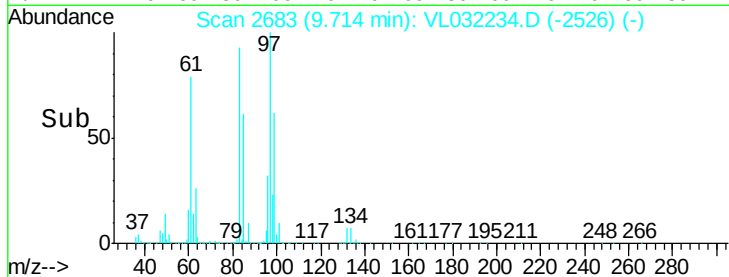
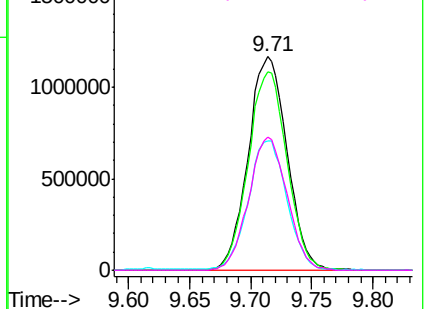


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 99.00 (98.70 to 99.70): VL0



#48

Dibromochloromethane

Concen: 16.58 ppbv

RT: 10.55 min Scan# 2944

Delta R.T. 0.01 min

Lab File: VL032234.D

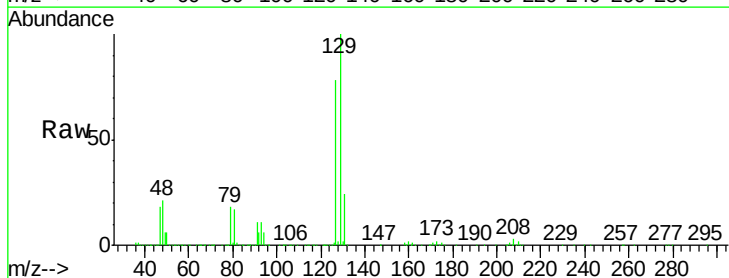
Acq: 12 Jul 2018 22:10

Tgt Ion: 129 Resp: 4195034

Ion Ratio Lower Upper

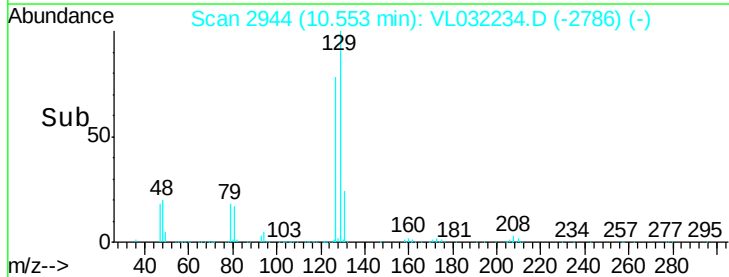
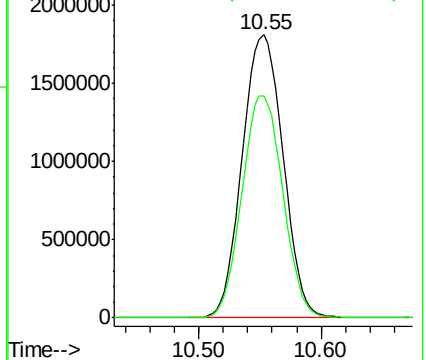
129 100

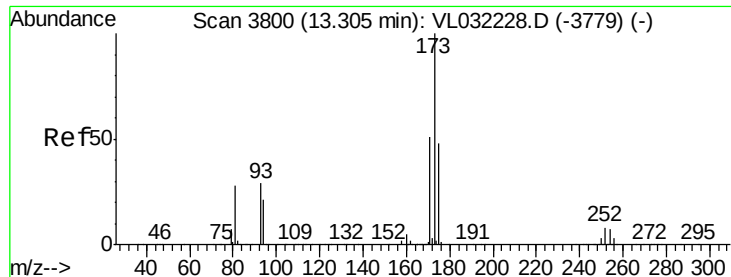
127 78.7 39.3 117.9



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





#49

Bromoform

Concen: 15.74 ppbv

RT: 13.31 min Scan# 3801

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion:173 Resp: 3317159

Ion Ratio Lower Upper

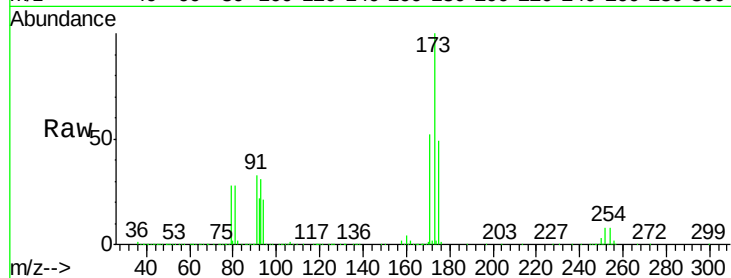
173 100

175 49.2 39.4 59.2

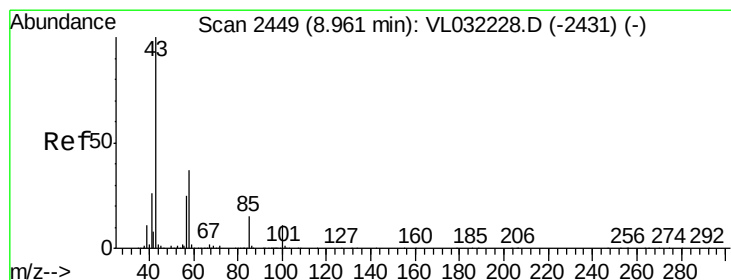
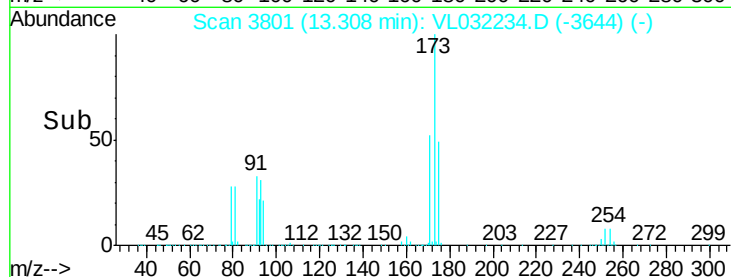
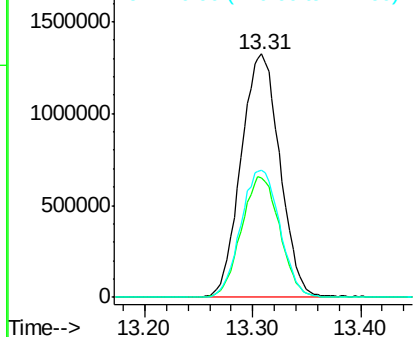
171 52.8 41.8 62.6

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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: 16.77 ppbv

RT: 8.96 min Scan# 2450

Delta R.T. 0.00 min

Lab File: VL032234.D

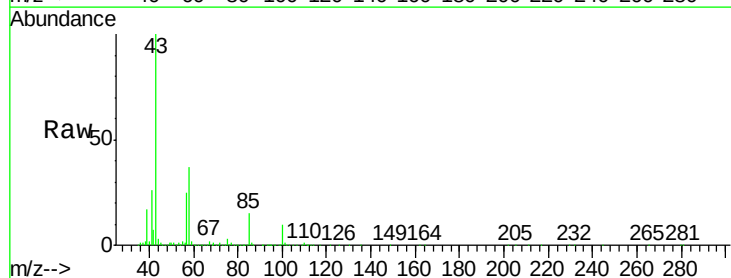
Acq: 12 Jul 2018 22:10

Tgt Ion: 43 Resp: 7331947

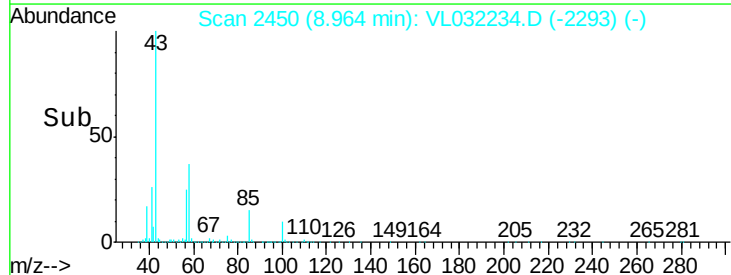
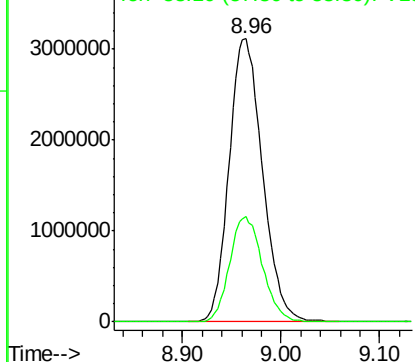
Ion Ratio Lower Upper

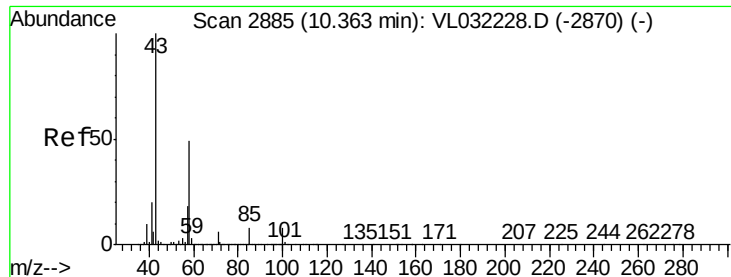
43 100

58 36.8 29.5 44.3



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0





#51

2-Hexanone

Concen: 17.46 ppbv

RT: 10.36 min Scan# 2885

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 43 Resp: 6328722

Ion Ratio Lower Upper

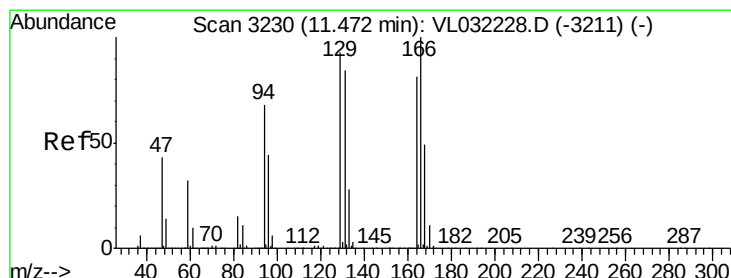
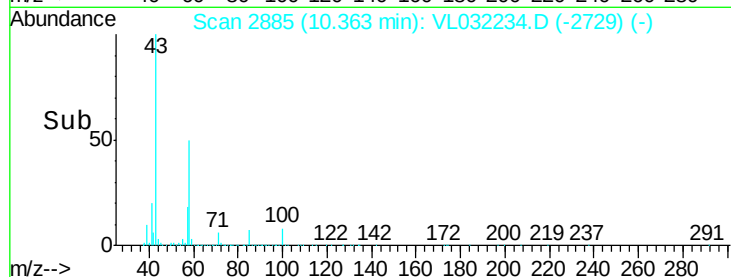
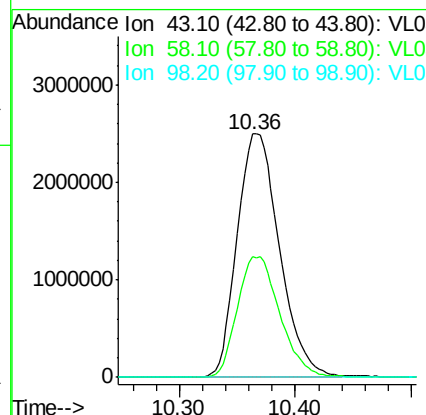
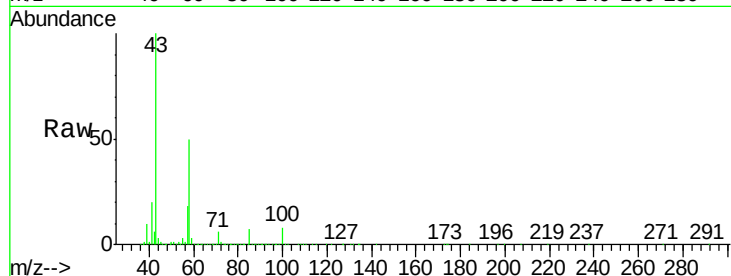
43 100

58 50.0 39.9 59.9

98 0.2 0.2 0.4#

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#52

Tetrachloroethene

Concen: 13.40 ppbv

RT: 11.48 min Scan# 3231

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Tgt Ion: 164 Resp: 1942169

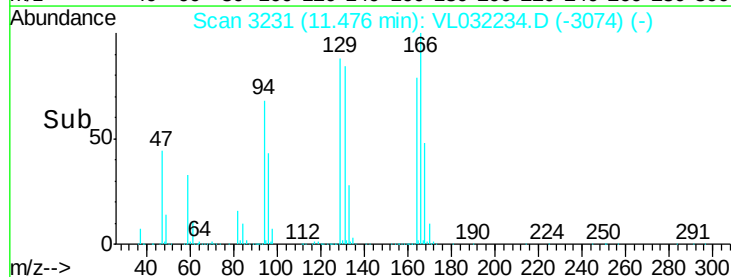
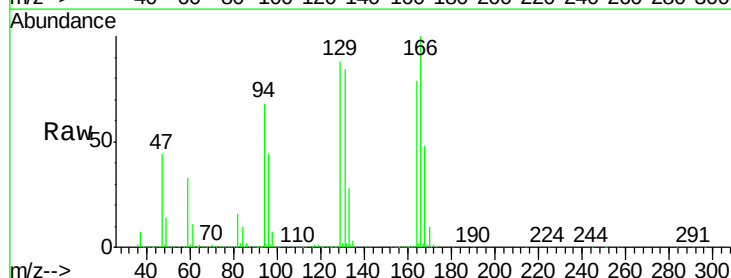
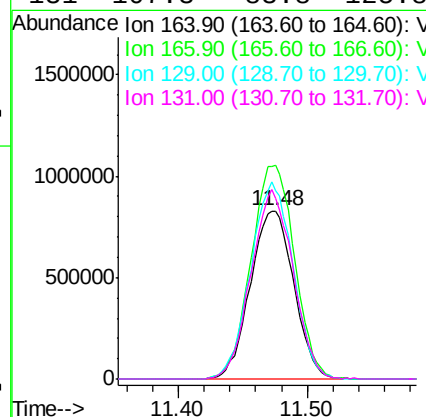
Ion Ratio Lower Upper

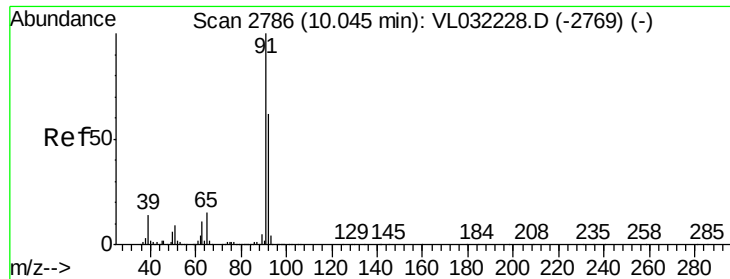
164 100

166 127.2 99.3 148.9

129 112.2 92.0 138.0

131 107.3 83.8 125.8





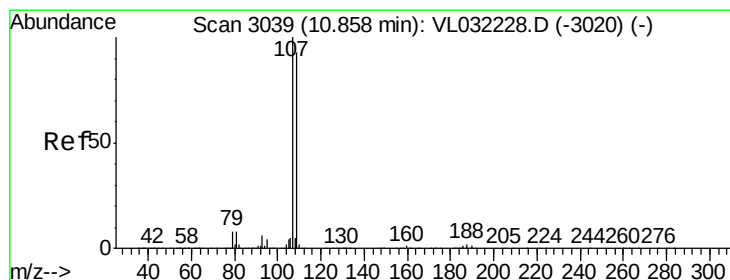
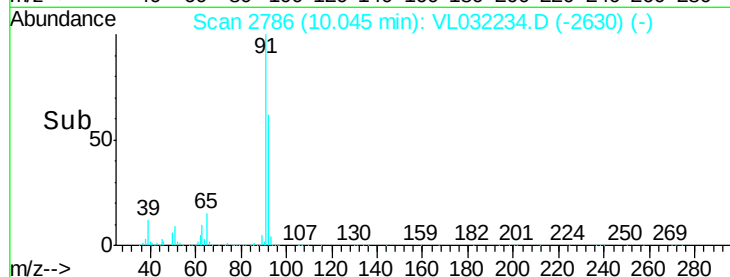
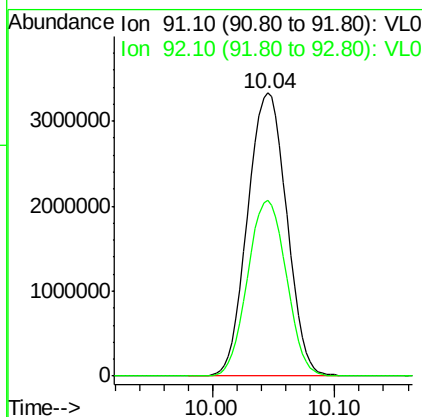
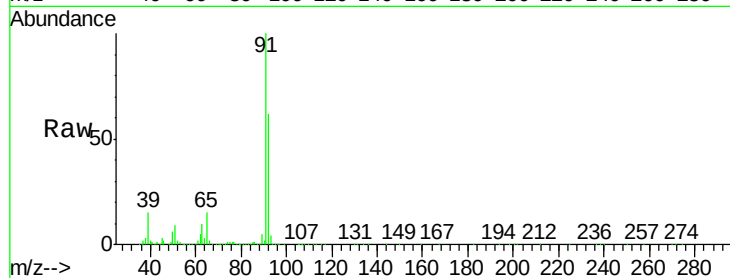
#53  
Toluene  
Concen: 15.38 ppbv  
RT: 10.04 min Scan# 2786  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion: 91 Resp: 7386820  
Ion Ratio Lower Upper  
91 100  
92 61.5 49.0 73.4

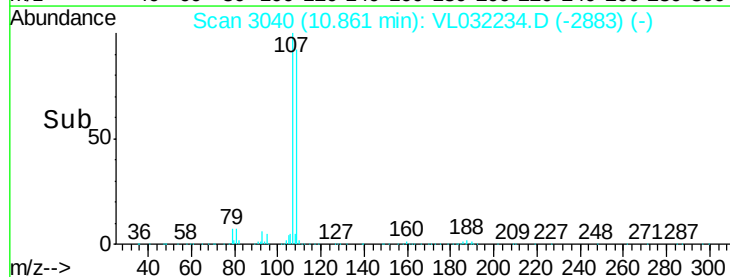
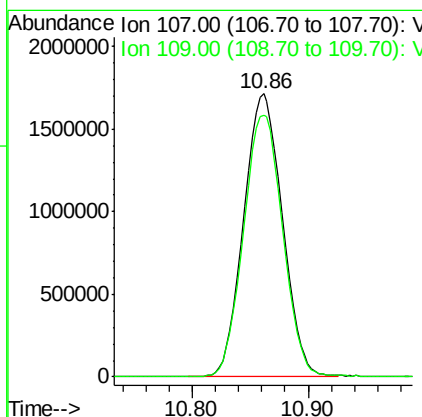
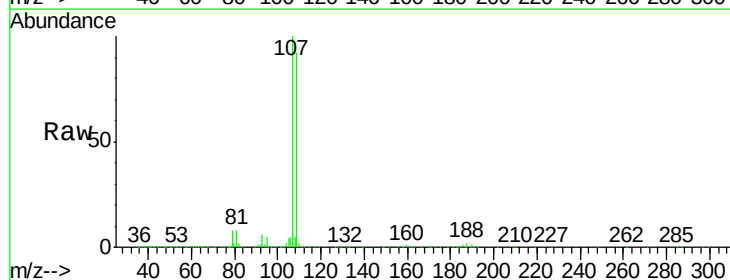
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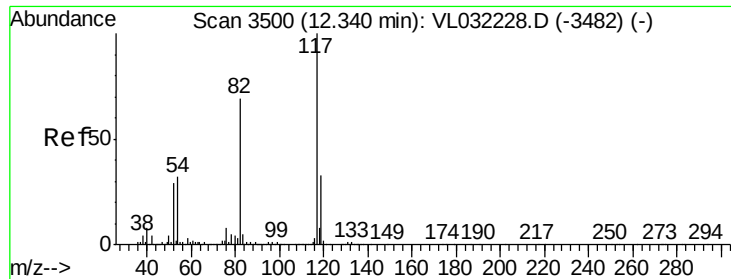
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#54  
1,2-Dibromoethane  
Concen: 16.18 ppbv  
RT: 10.86 min Scan# 3040  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion: 107 Resp: 3984387  
Ion Ratio Lower Upper  
107 100  
109 92.3 74.3 111.5





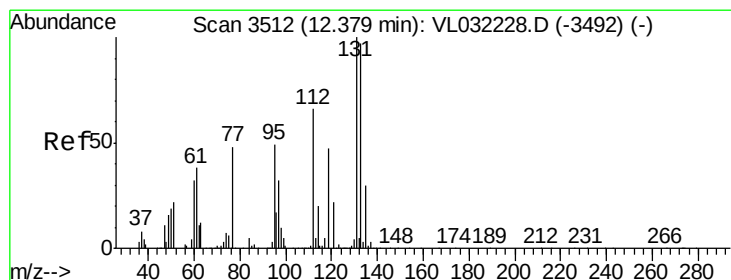
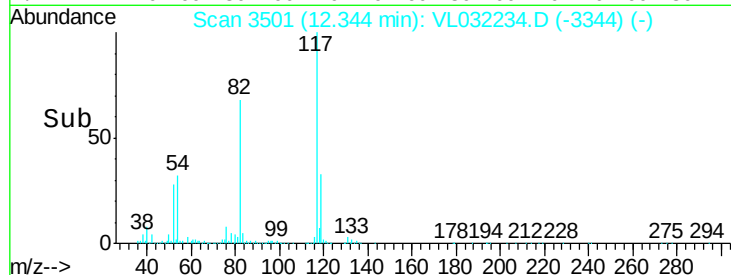
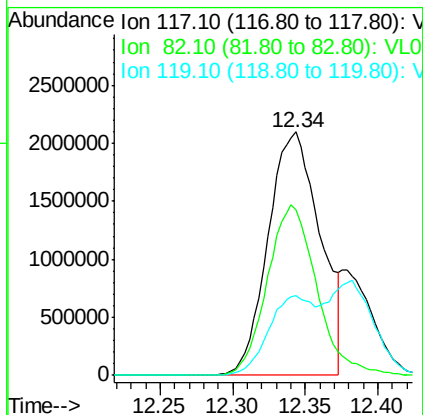
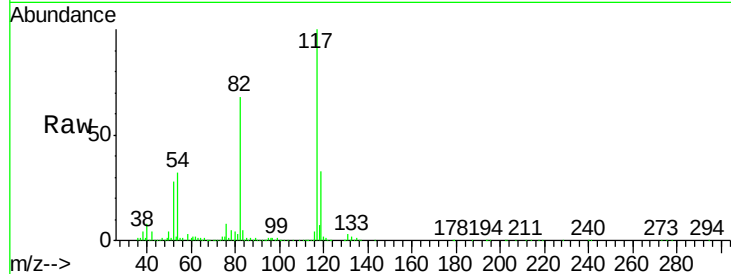
#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv  
RT: 12.34 min Scan# 3501  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion:117 Resp: 5240156  
Ion Ratio Lower Upper  
117 100  
82 66.5 53.2 79.8  
119 0.0 43.9 65.9#

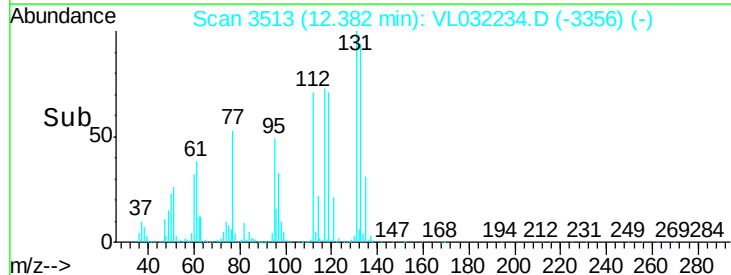
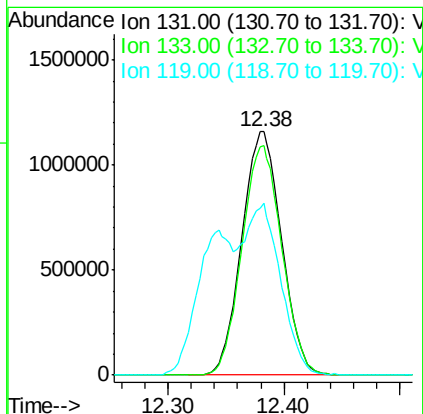
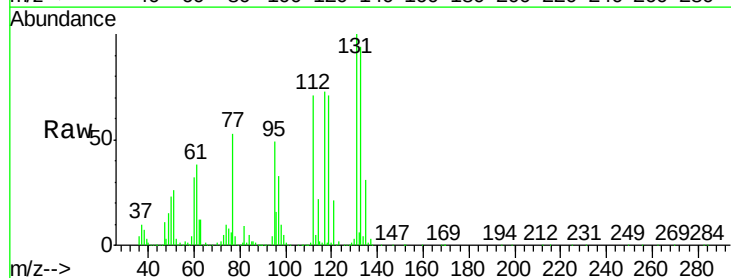
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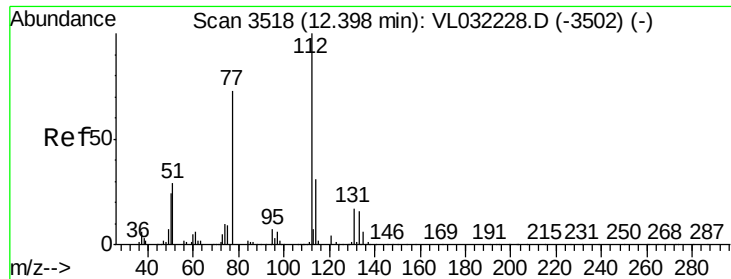


#56  
1,1,1,2-Tetrachloroethane  
Concen: 11.82 ppbv  
RT: 12.38 min Scan# 3513  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion:131 Resp: 2759623  
Ion Ratio Lower Upper  
131 100  
133 94.8 75.2 112.8  
119 121.4 113.9 170.9







#57

Chlorobenzene

Concen: 11.59 ppbv

RT: 12.40 min Scan# 3519

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 112 Resp: 5234871

Ion Ratio Lower Upper

112 100

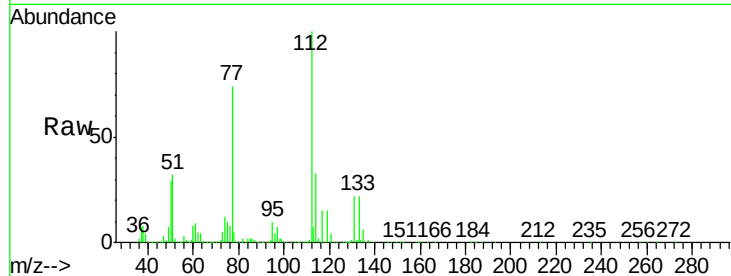
77 74.1 58.8 88.2

114 32.9 27.9 34.1

Manual Integrations  
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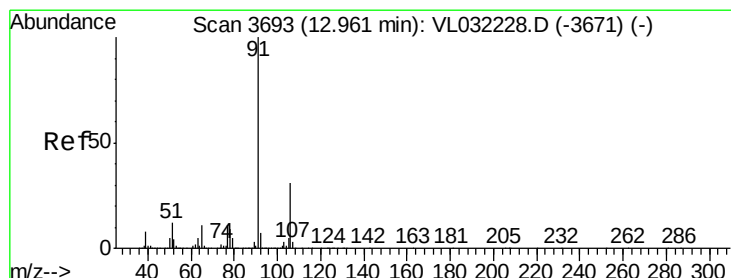
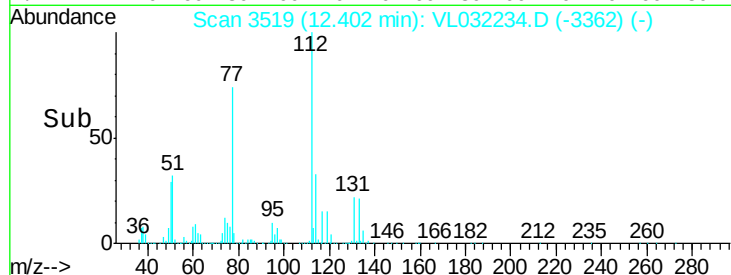
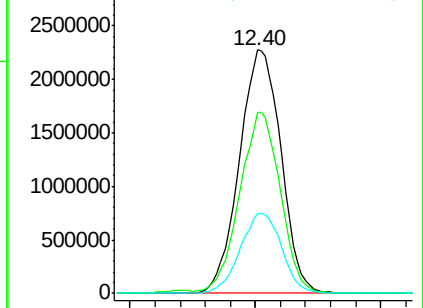
7/13/2018 5:22:16 PM



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 11.79 ppbv

RT: 12.96 min Scan# 3694

Delta R.T. 0.00 min

Lab File: VL032234.D

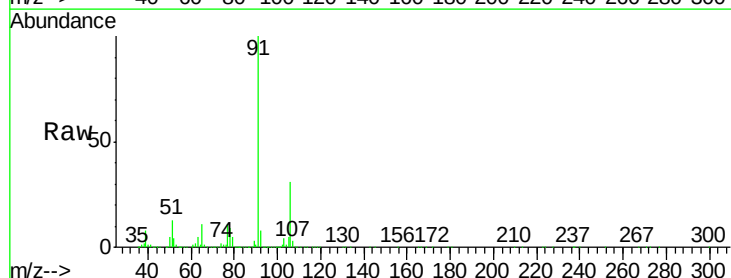
Acq: 12 Jul 2018 22:10

Tgt Ion: 91 Resp: 9932694

Ion Ratio Lower Upper

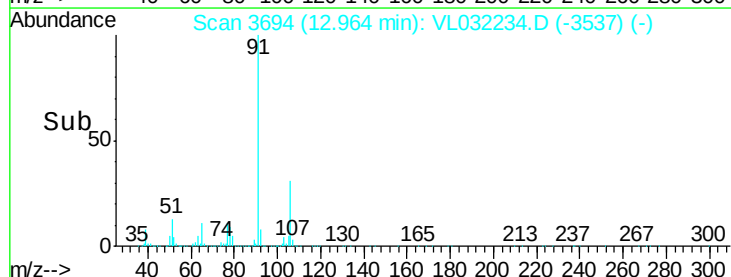
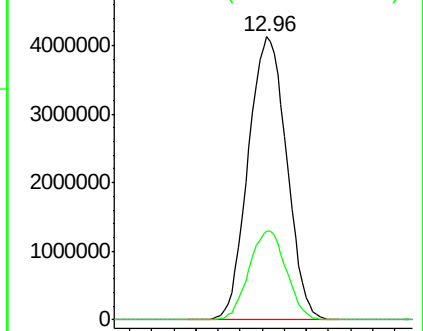
91 100

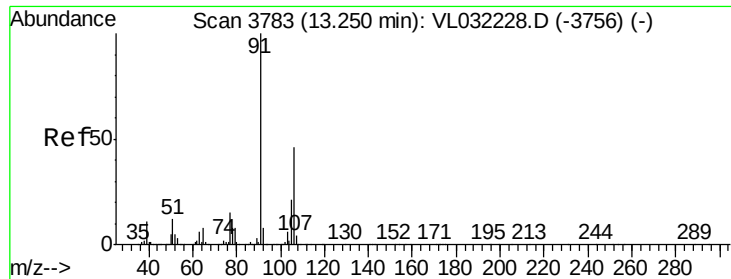
106 31.3 24.5 36.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





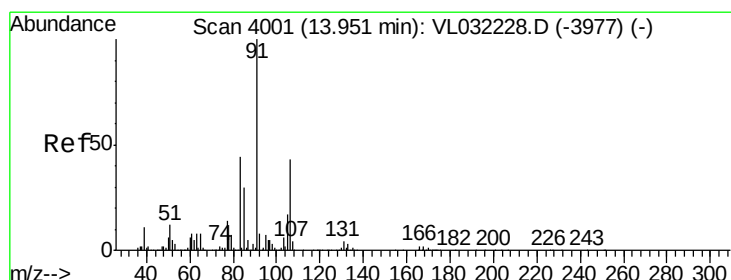
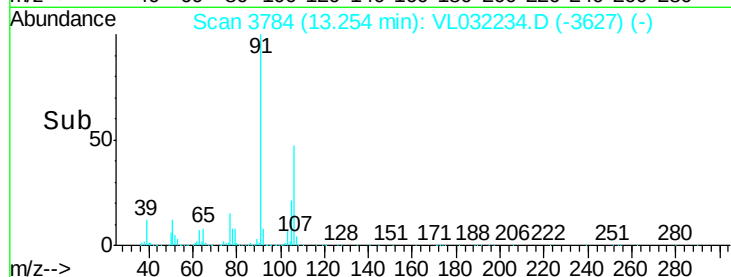
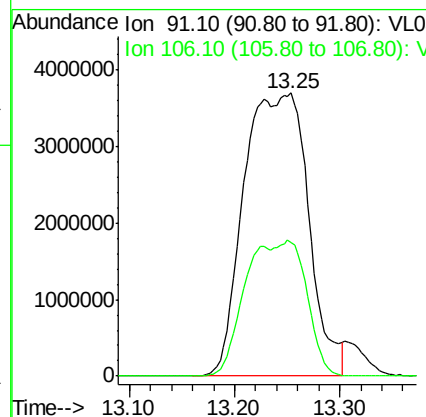
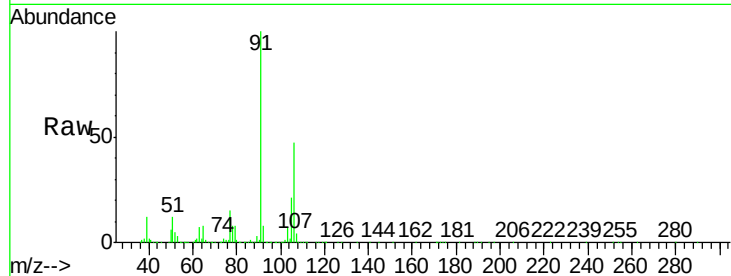
#59  
m/p-Xylene  
Concen: 23.22 ppbv m  
RT: 13.25 min Scan# 3784  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion: 91 Resp:15702920  
Ion Ratio Lower Upper  
91 100  
106 45.5 36.4 54.6

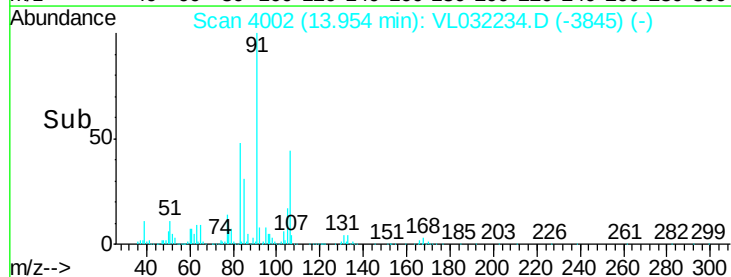
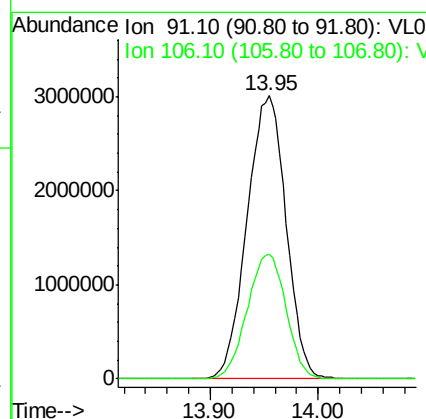
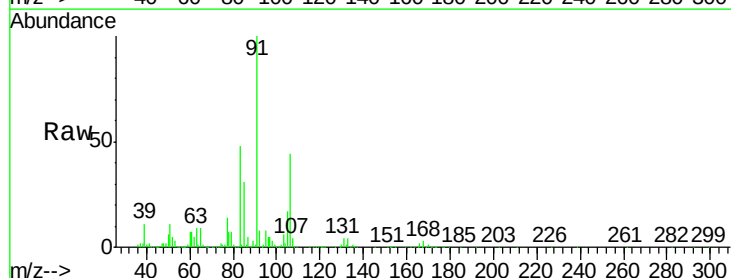
Manual Integrations  
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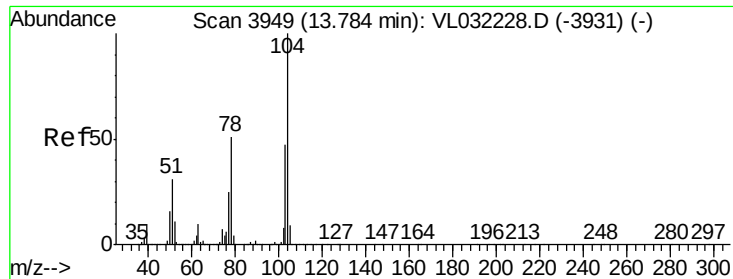
MMDadoda  
7/13/2018 5:22:16 PM



#60  
o-Xylene  
Concen: 11.22 ppbv  
RT: 13.95 min Scan# 4002  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion: 91 Resp: 7549169  
Ion Ratio Lower Upper  
91 100  
106 44.0 21.9 65.5





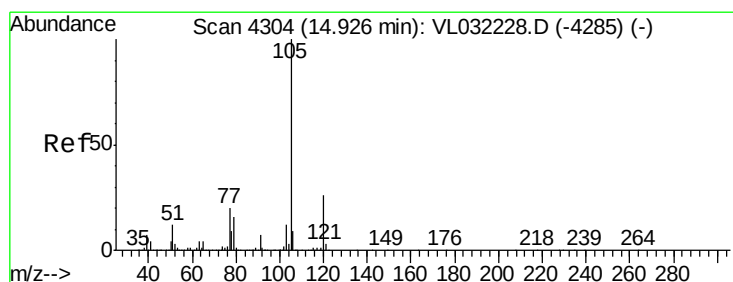
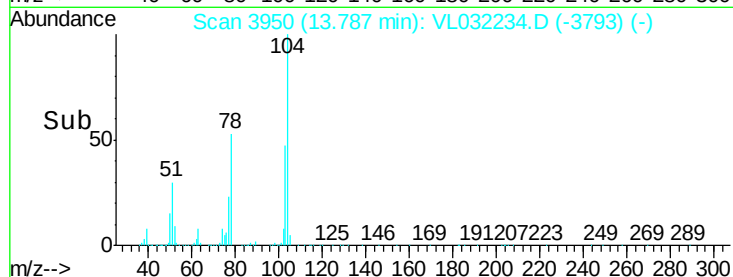
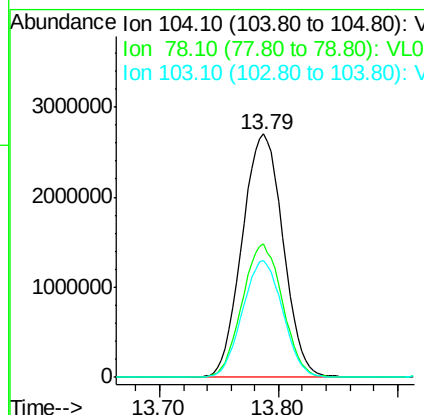
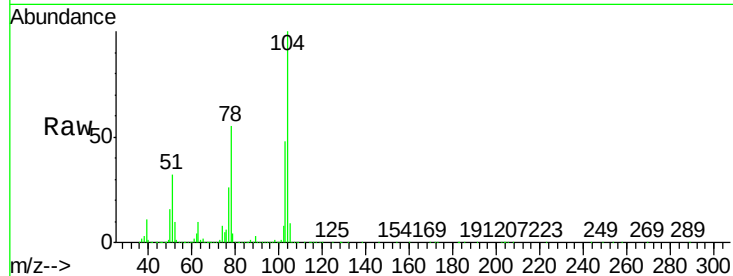
#61  
Stvrene  
Concen: 11.80 ppbv  
RT: 13.79 min Scan# 3950  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

Tot Ion:104 Resp: 6431414  
Ion Ratio Lower Upper  
104 100  
78 54.1 43.4 65.0  
103 47.3 38.0 57.0

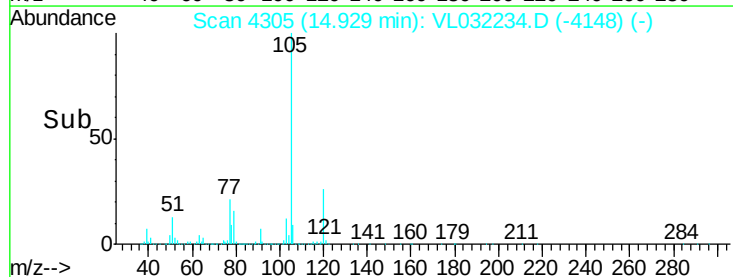
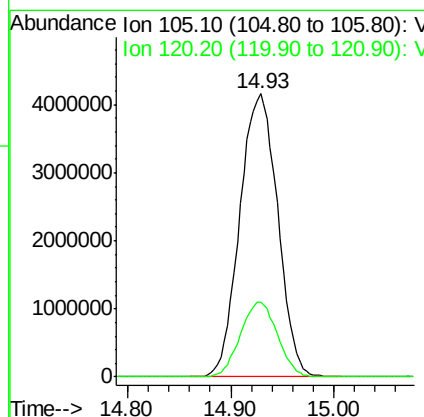
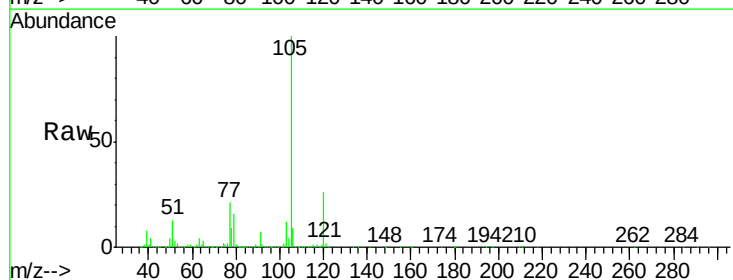
Manual Integrations  
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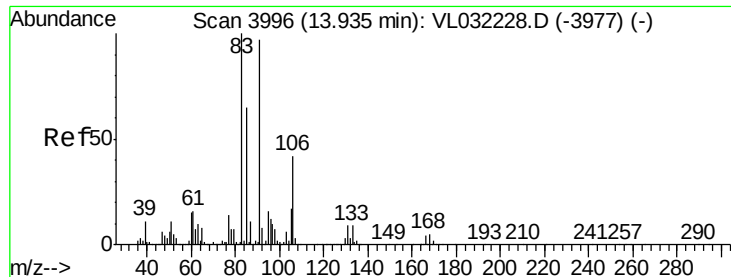
MMDadoda  
7/13/2018 5:22:16 PM



#62  
Isopropylbenzene  
Concen: 10.35 ppbv  
RT: 14.93 min Scan# 4305  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Tgt Ion:105 Resp:10622673  
Ion Ratio Lower Upper  
105 100  
120 25.9 20.2 30.2





#63

1,1,2,2-Tetrachloroethane

Concen: 10.61 ppbv

RT: 13.94 min Scan# 3997

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 83 Resp: 5569045

Ion Ratio Lower Upper

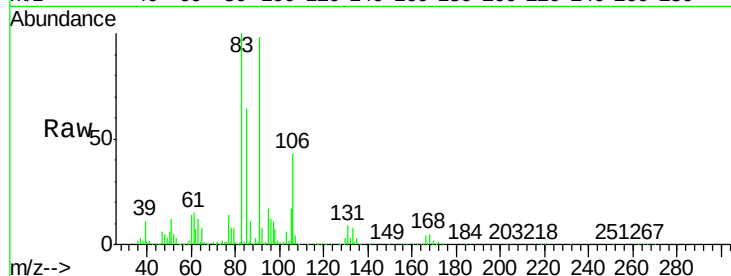
83 100

131 8.6 4.3 12.8

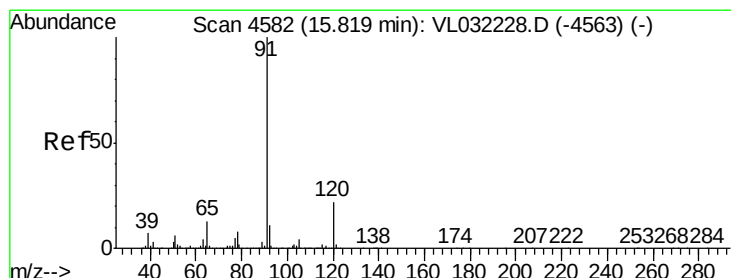
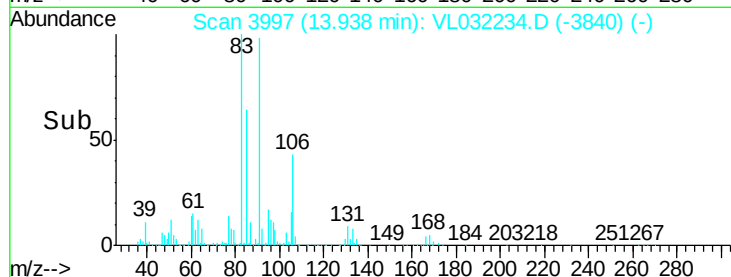
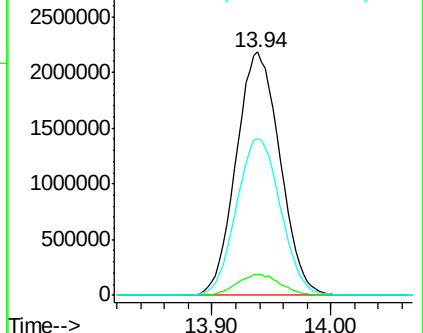
85 65.0 32.5 97.5

Manual Integrations  
APPROVED

MMDadoda  
7/13/2018 5:22:16 PM



Abundance Ion 83.00 (82.70 to 83.70): VL0  
Ion 131.00 (130.70 to 131.70): V  
Ion 85.00 (84.70 to 85.70): VL0



#64

n-propylbenzene

Concen: 10.63 ppbv

RT: 15.83 min Scan# 4584

Delta R.T. 0.01 min

Lab File: VL032234.D

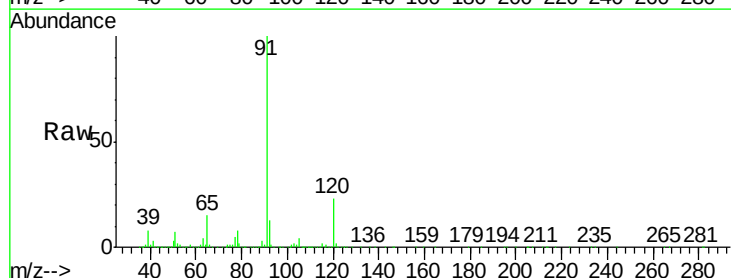
Acq: 12 Jul 2018 22:10

Tgt Ion:120 Resp: 2828970

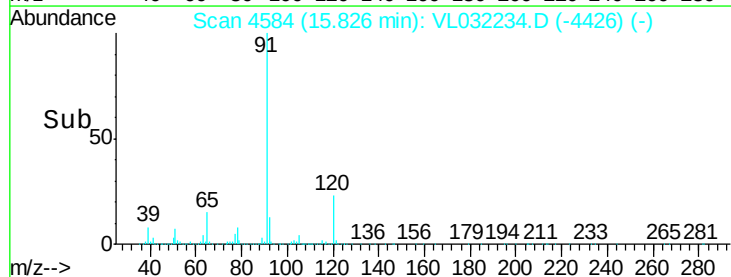
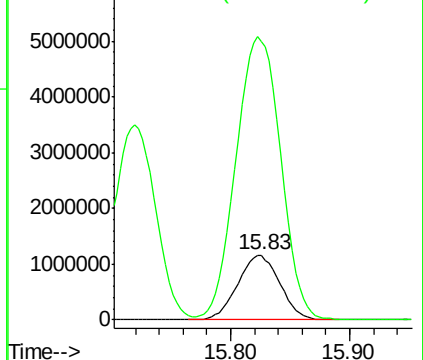
Ion Ratio Lower Upper

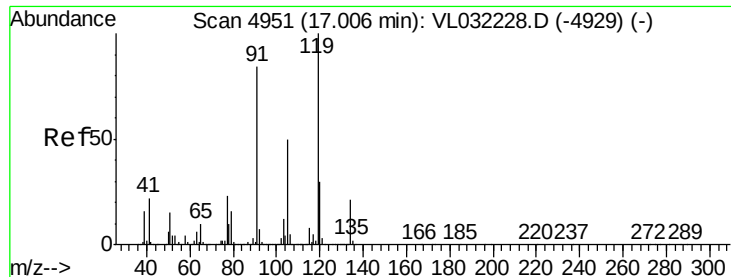
120 100

91 469.2 385.0 577.4



Abundance Ion 120.20 (119.90 to 120.90): V  
Ion 91.10 (90.80 to 91.80): VL0





#65

tert-Butylbenzene

Concen: 9.47 ppbv

RT: 17.01 min Scan# 4952

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion:119 Resp: 8529142

Ion Ratio Lower Upper

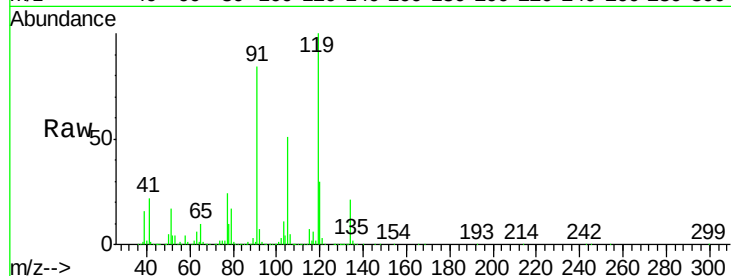
119 100

91 85.7 68.6 102.8

134 19.4 15.4 23.2

Manual Integrations  
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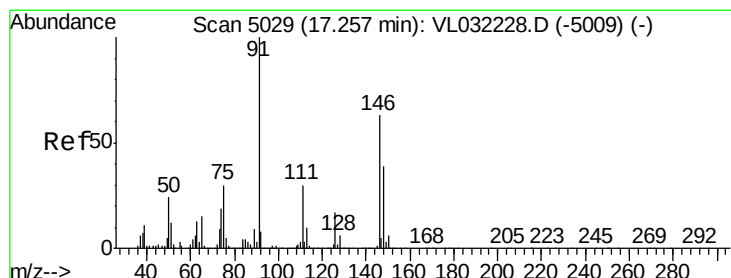
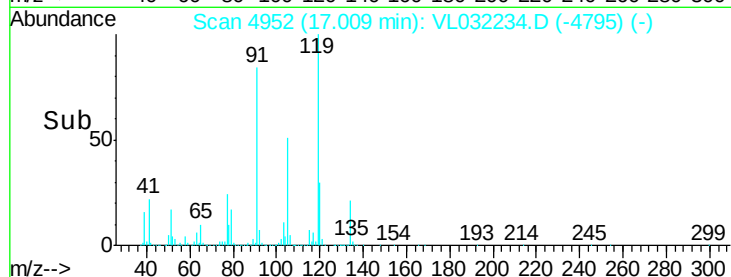
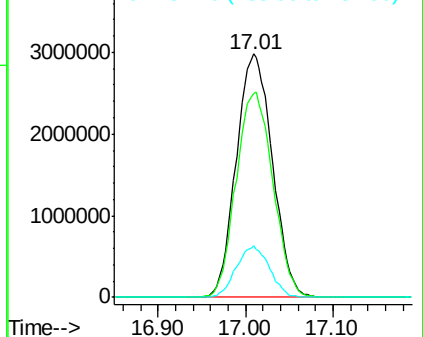
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Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V



#66

Benzyl Chloride

Concen: 10.85 ppbv

RT: 17.26 min Scan# 5030

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

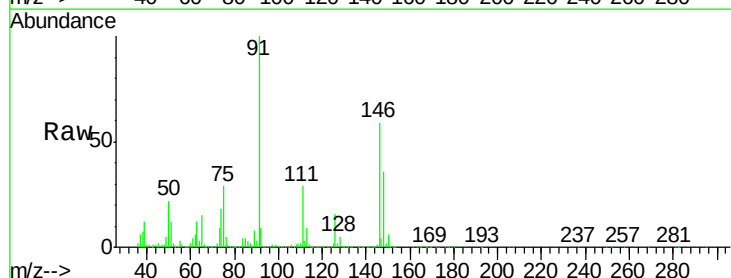
Tgt Ion: 91 Resp: 5915752

Ion Ratio Lower Upper

91 100

126 16.7 13.4 20.0

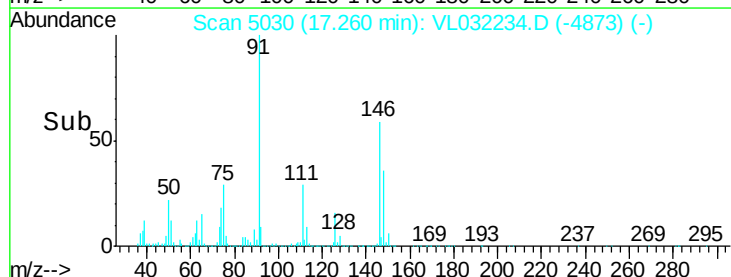
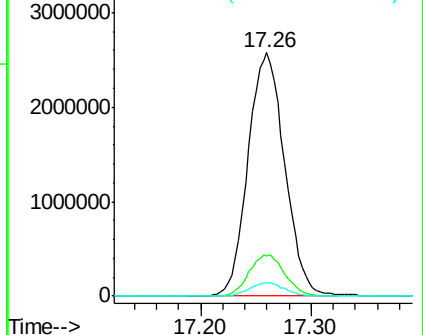
128 5.3 4.5 6.7

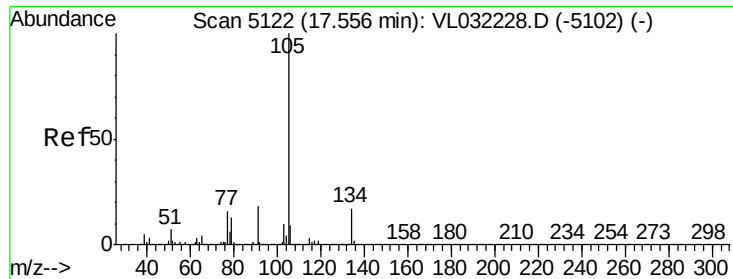


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





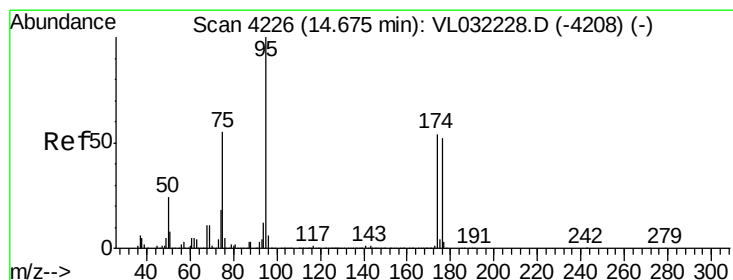
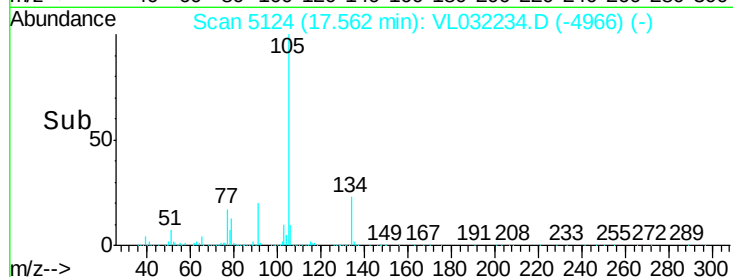
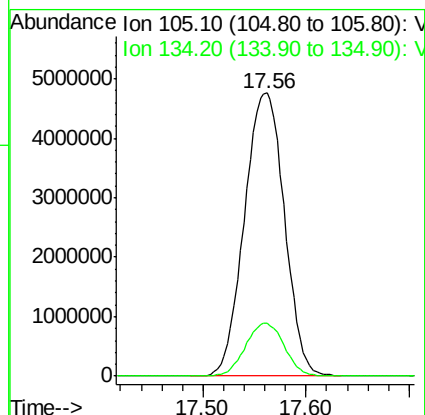
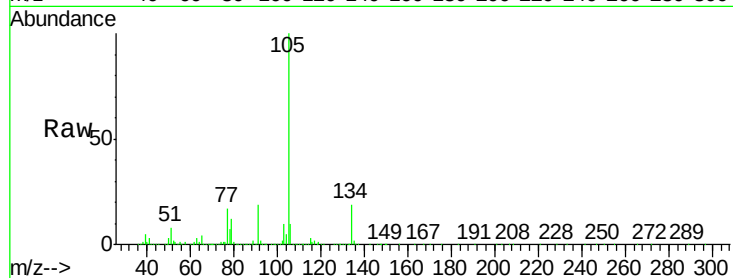
#67  
 sec-Butylbenzene  
 Concen: 9.71 ppbv  
 RT: 17.56 min Scan# 5124  
 Delta R.T. 0.01 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion:105 Resp:12830291  
 Ion Ratio Lower Upper  
 105 100  
 134 18.1 14.2 21.2

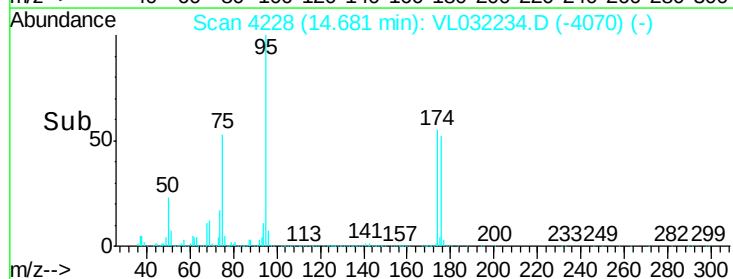
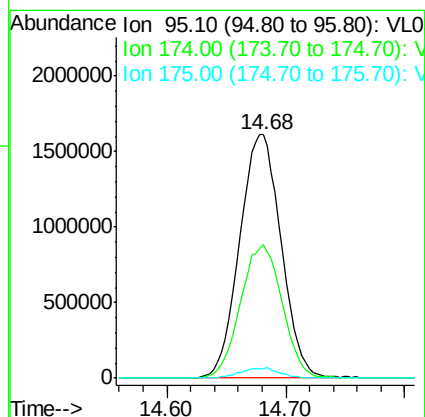
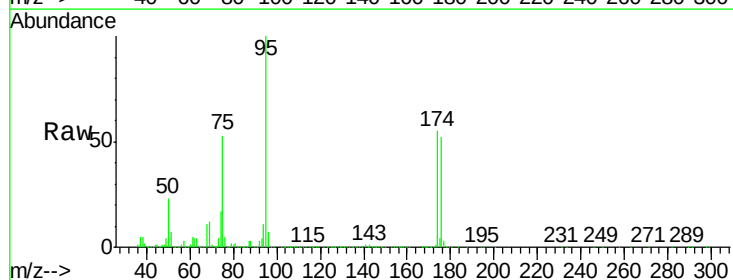
Manual Integrations  
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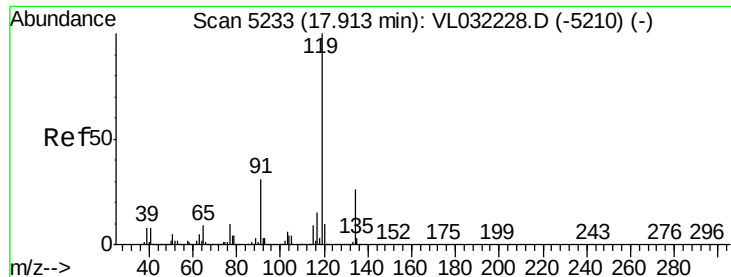
MMDadoda  
 7/13/2018 5:22:16 PM



#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 9.66 ppbv  
 RT: 14.68 min Scan# 4228  
 Delta R.T. 0.01 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion: 95 Resp: 3887764  
 Ion Ratio Lower Upper  
 95 100  
 174 55.3 44.6 67.0  
 175 4.0 3.3 4.9





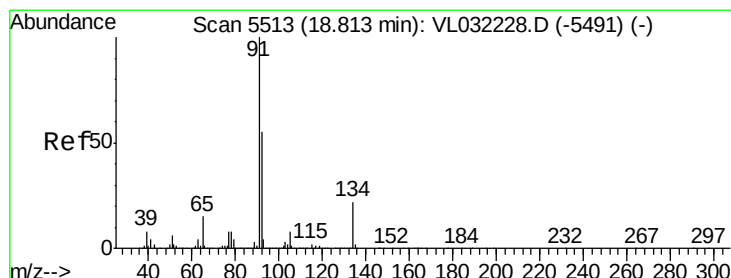
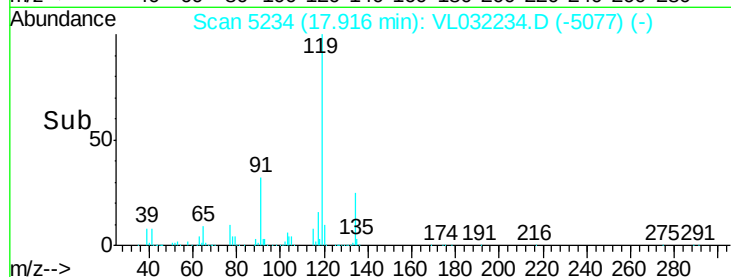
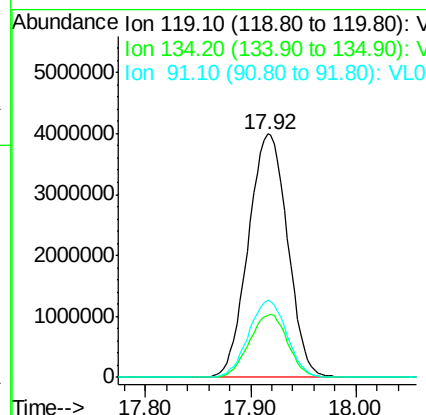
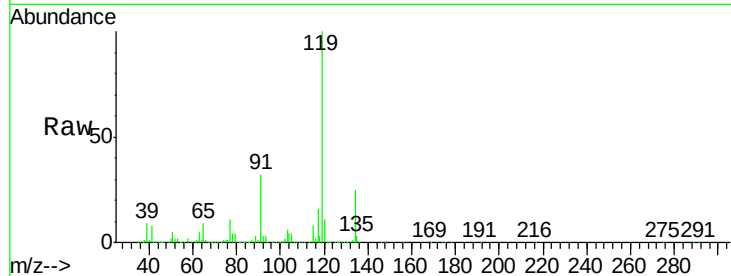
#69  
 p-Isopropyltoluene  
 Concen: 9.79 ppbv  
 RT: 17.92 min Scan# 5234  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion:119 Resp:10333905  
 Ion Ratio Lower Upper  
 119 100  
 134 25.4 20.1 30.1  
 91 30.9 24.2 36.2

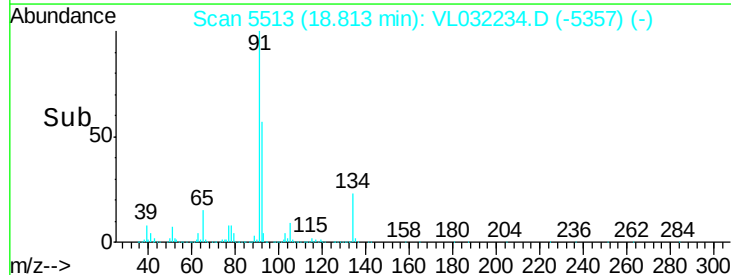
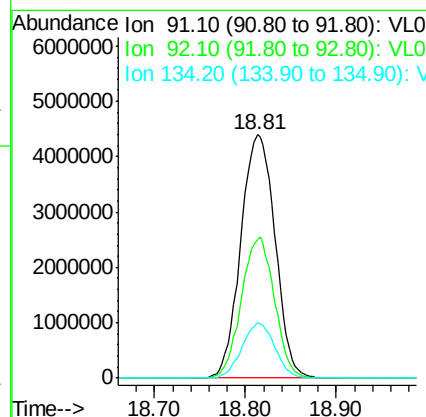
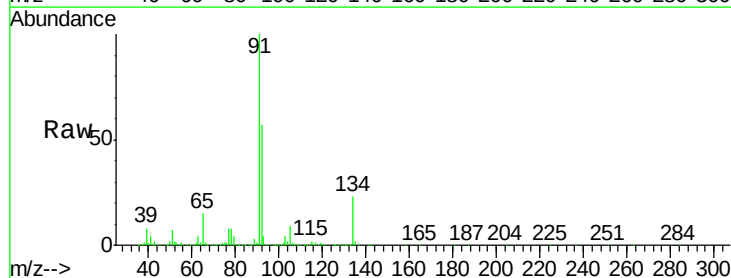
Manual Integrations  
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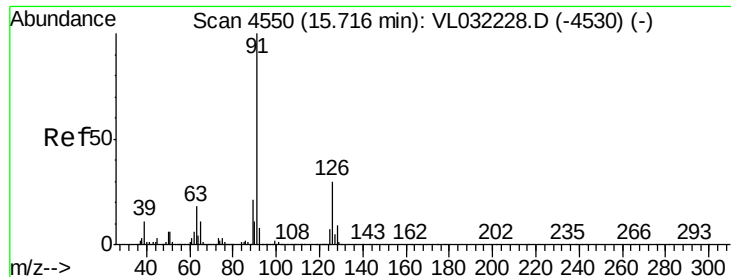
MMDadoda  
 7/13/2018 5:22:16 PM



#70  
 n-Butylbenzene  
 Concen: 10.33 ppbv  
 RT: 18.81 min Scan# 5513  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion: 91 Resp:11491146  
 Ion Ratio Lower Upper  
 91 100  
 92 55.8 43.6 65.4  
 134 21.7 17.1 25.7





#71

2-Chlorotoluene

Concen: 10.92 ppbv

RT: 15.72 min Scan# 4551

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion: 91 Resp: 8714066

Ion Ratio Lower Upper

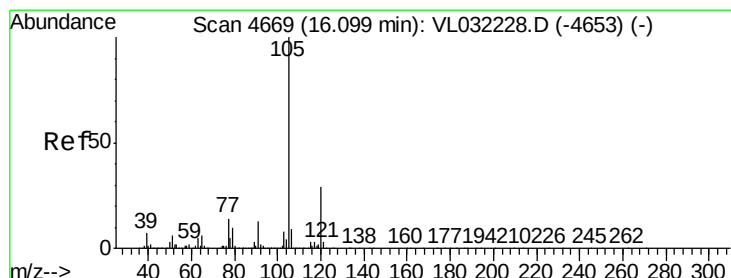
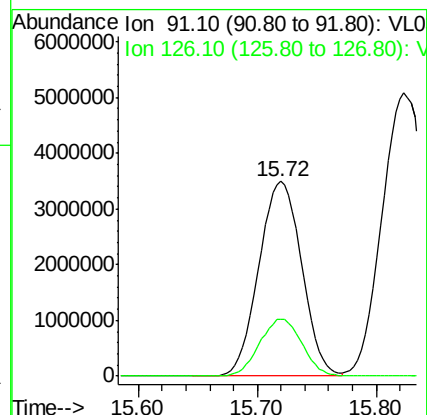
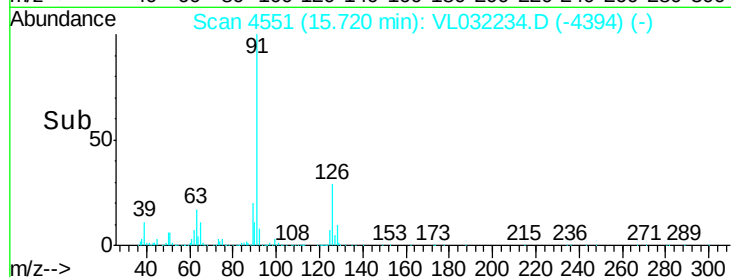
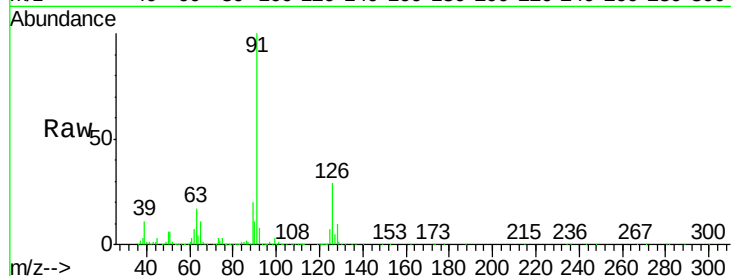
91 100

126 29.0 11.7 46.7

Manual Integrations  
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#72

4-Ethyltoluene

Concen: 10.61 ppbv

RT: 16.10 min Scan# 4669

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Tgt Ion: 105 Resp: 9169641

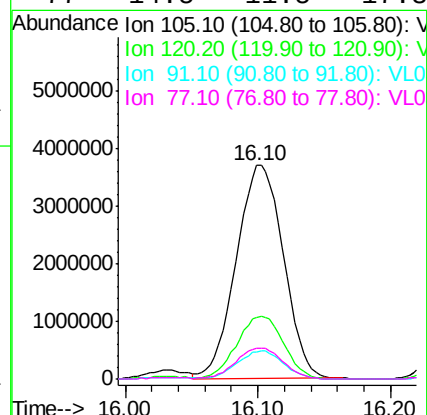
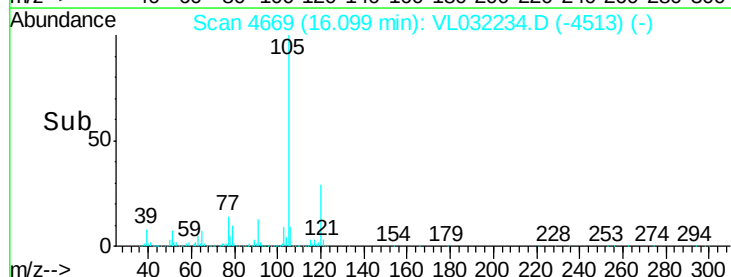
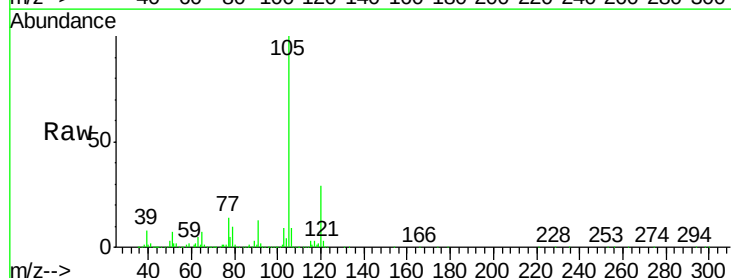
Ion Ratio Lower Upper

105 100

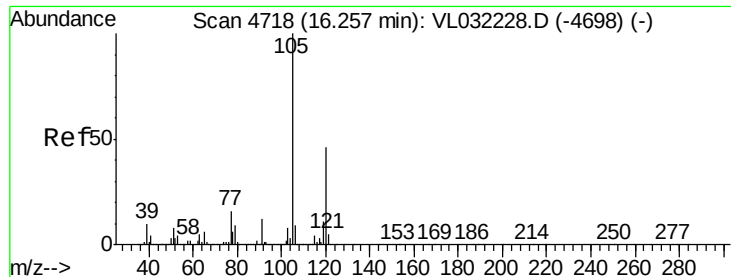
120 29.4 23.3 34.9

91 12.8 10.3 15.5

77 14.5 11.5 17.3







#73

1,3,5-Trimethylbenzene

Concen: 10.66 ppbv

RT: 16.26 min Scan# 4719

Delta R.T. 0.00 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC015

Tot Ion:105 Resp: 8676872

Ion Ratio Lower Upper

105 100

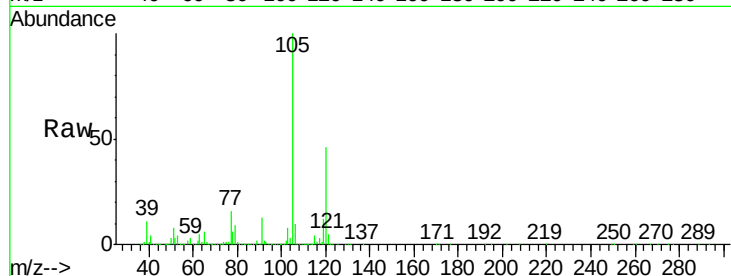
120 46.1 36.6 54.8

Manual Integrations

APPROVED

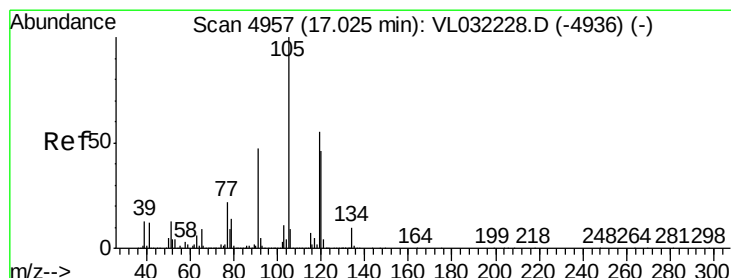
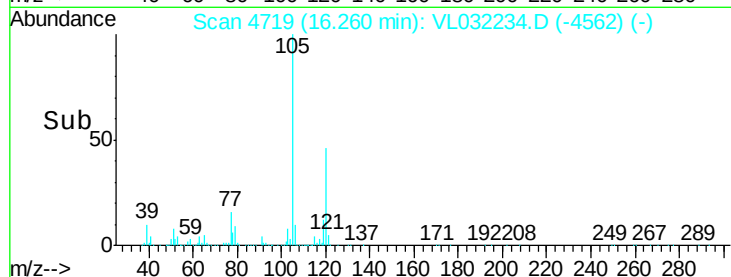
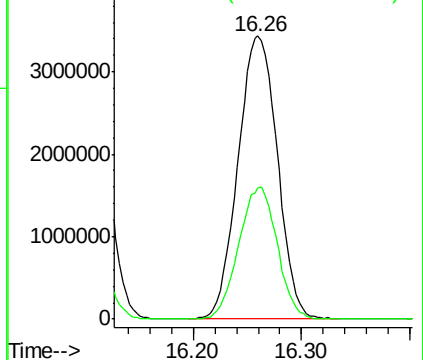
MMDadoda

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 10.00 ppbv

RT: 17.03 min Scan# 4959

Delta R.T. 0.01 min

Lab File: VL032234.D

Acq: 12 Jul 2018 22:10

Tgt Ion:105 Resp: 8221332

Ion Ratio Lower Upper

105 100

120 47.1 37.0 55.4

91 42.3 38.2 57.2

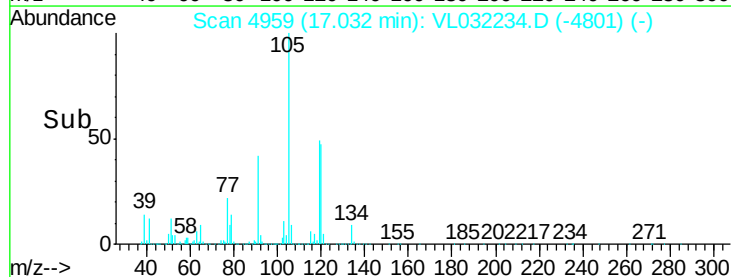
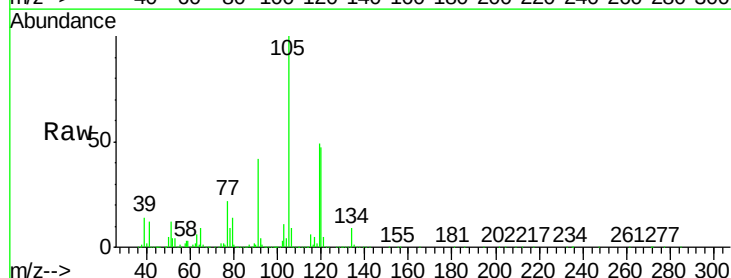
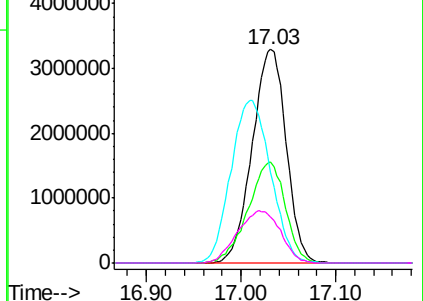
77 21.8 17.7 26.5

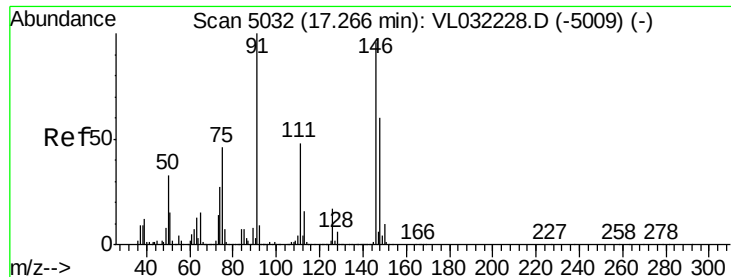
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





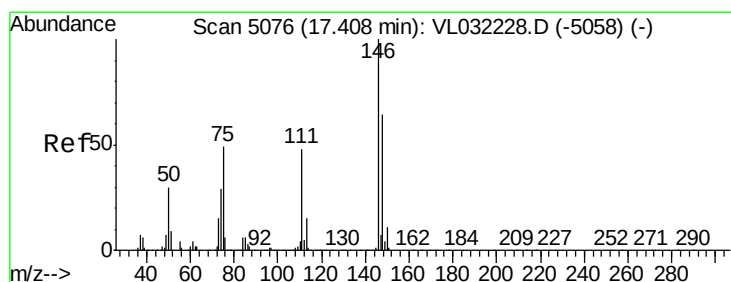
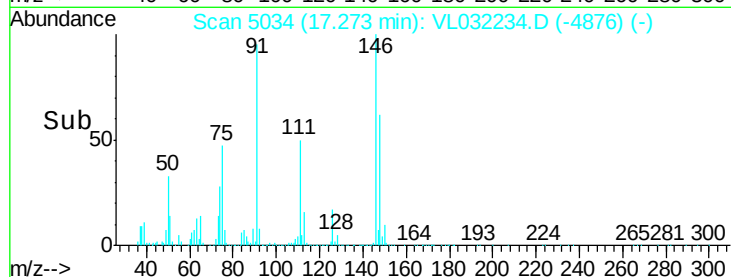
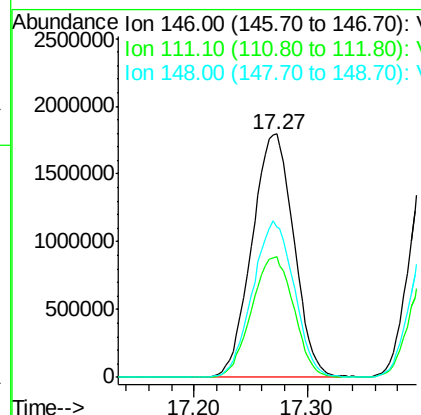
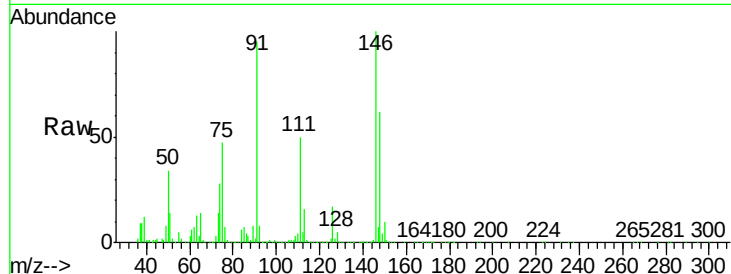
#75  
 1,3-Dichlorobenzene  
 Concen: 9.93 ppbv  
 RT: 17.27 min Scan# 5034  
 Delta R.T. 0.01 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion:146 Resp: 4618848  
 Ion Ratio Lower Upper  
 146 100  
 111 50.0 24.9 74.7  
 148 63.7 31.9 95.5

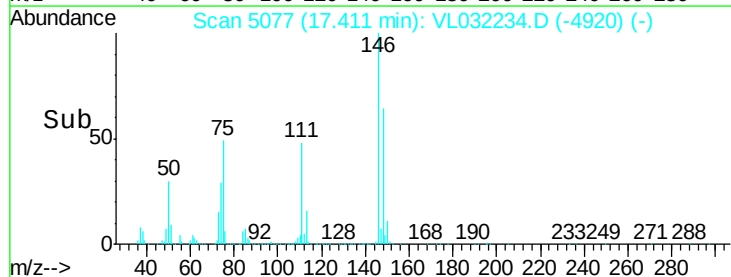
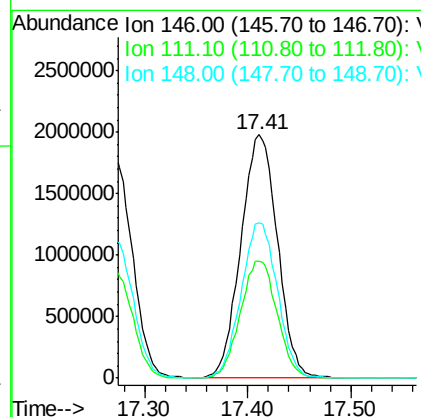
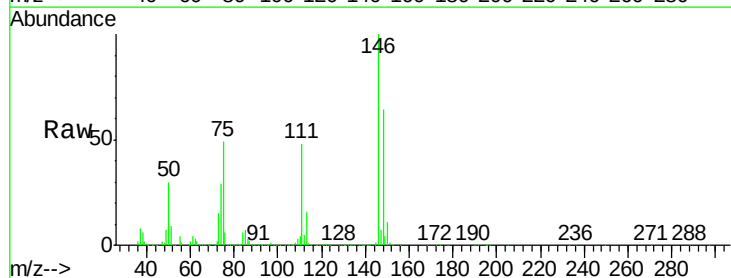
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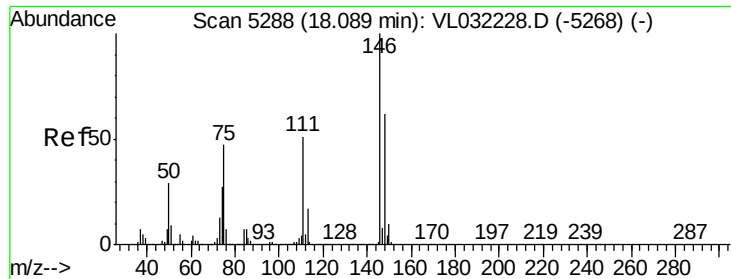
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#76  
 1,4-Dichlorobenzene  
 Concen: 10.33 ppbv  
 RT: 17.41 min Scan# 5077  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion:146 Resp: 4855775  
 Ion Ratio Lower Upper  
 146 100  
 111 48.6 24.6 73.6  
 148 63.5 32.3 96.9





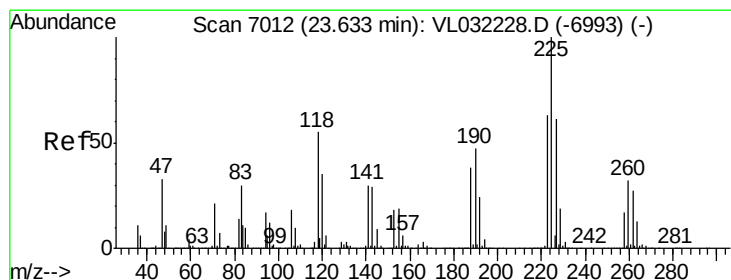
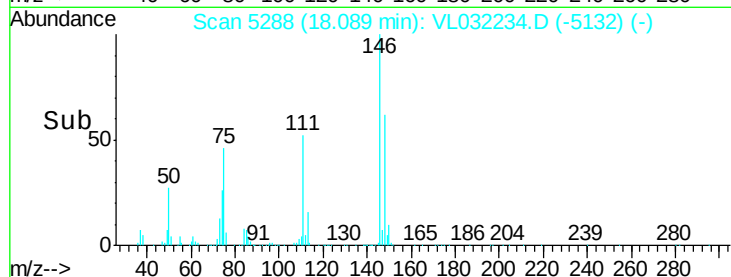
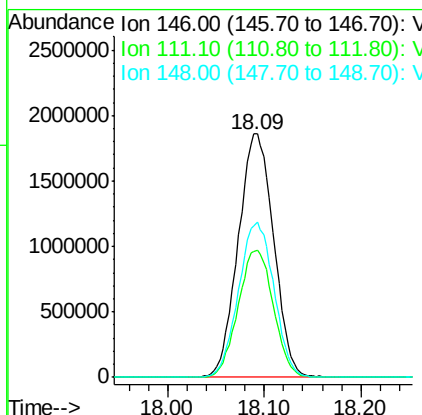
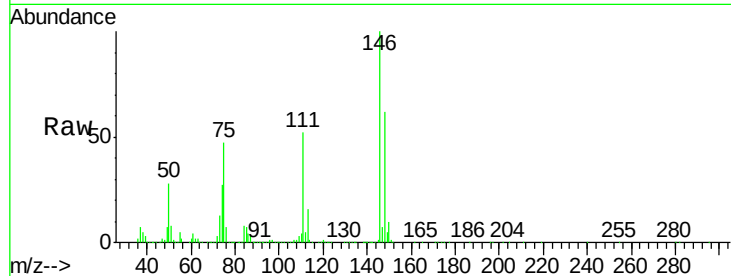
#77  
 1,2-Dichlorobenzene  
 Concen: 10.23 ppbv  
 RT: 18.09 min Scan# 5288  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Tot Ion:146 Resp: 4738888  
 Ion Ratio Lower Upper  
 146 100  
 111 52.1 26.1 78.3  
 148 63.7 32.0 96.0

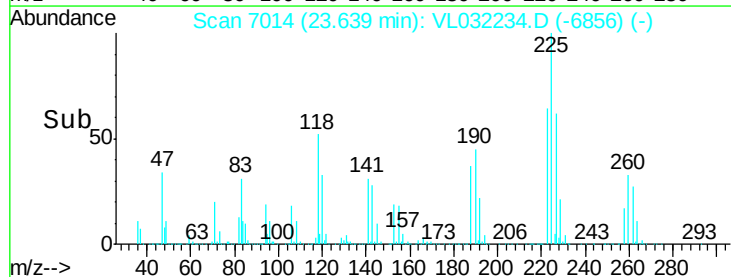
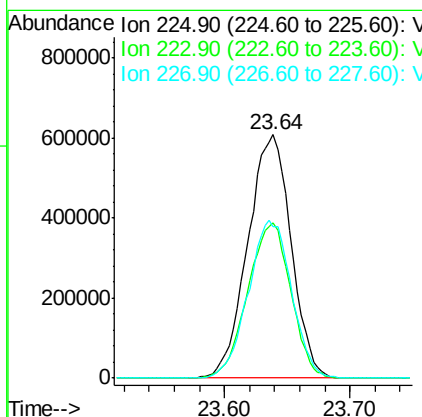
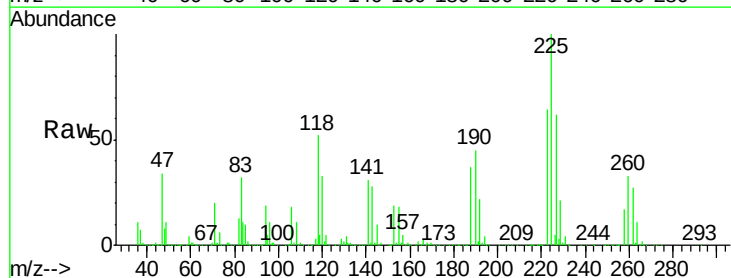
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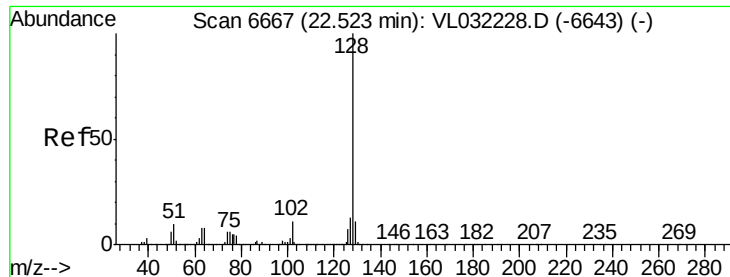
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 9.22 ppbv  
 RT: 23.64 min Scan# 7014  
 Delta R.T. 0.01 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Tgt Ion:225 Resp: 1458416  
 Ion Ratio Lower Upper  
 225 100  
 223 63.7 50.3 75.5  
 227 64.9 50.9 76.3





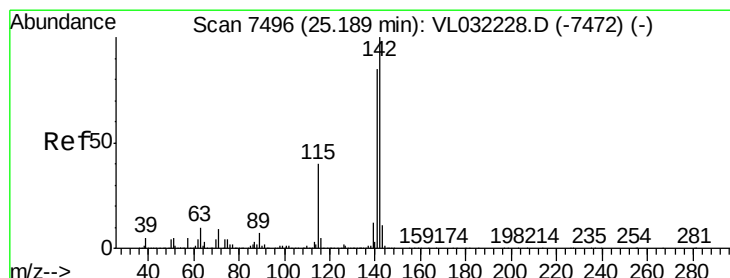
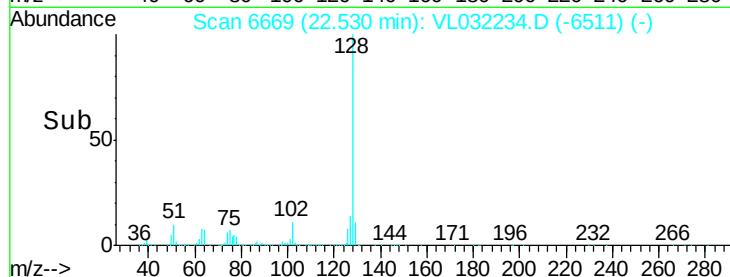
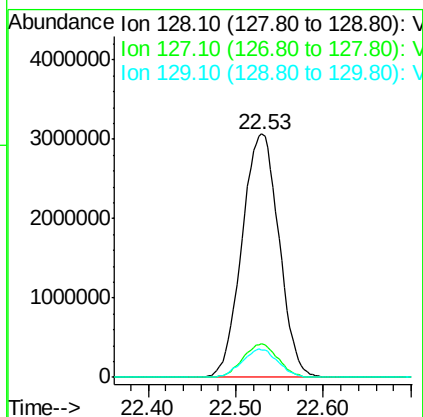
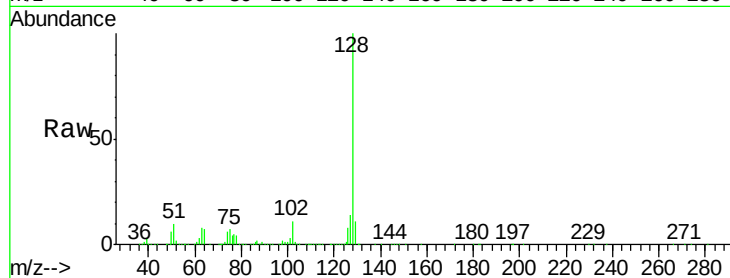
#79  
Naphthalene  
Concen: 12.23 ppbv  
RT: 22.53 min Scan# 6669  
Delta R.T. 0.01 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC015

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 13.8  | 10.0  | 15.0  |
| 129     | 11.5  | 9.0   | 13.4  |

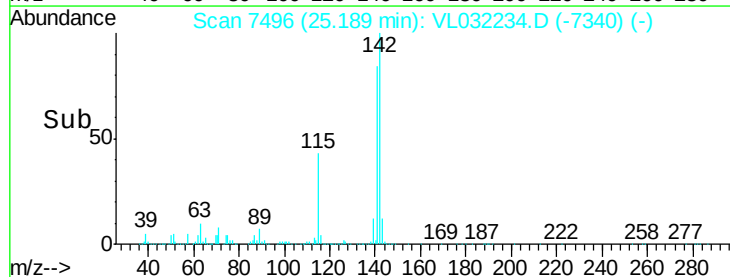
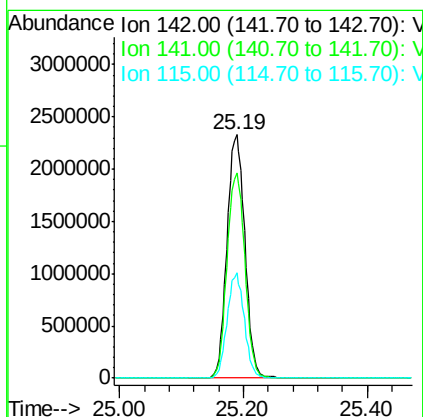
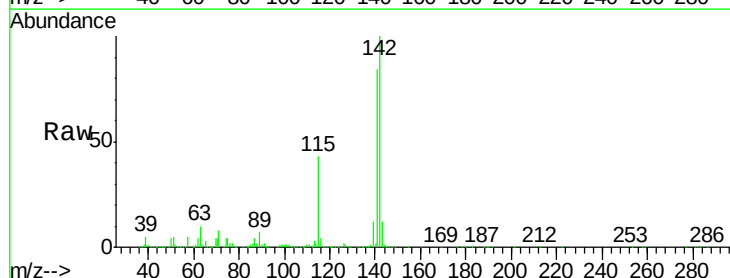
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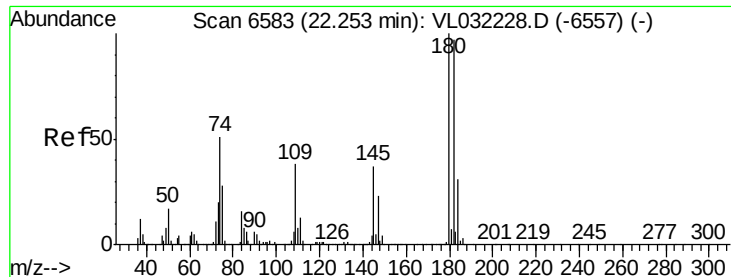
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#80  
Naphthalene, 2-methyl-  
Concen: 18.02 ppbv  
RT: 25.19 min Scan# 7496  
Delta R.T. 0.00 min  
Lab File: VL032234.D  
Acq: 12 Jul 2018 22:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 84.4  | 67.0  | 100.6 |
| 115     | 41.3  | 32.6  | 49.0  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 11.94 ppbv  
 RT: 22.25 min Scan# 6583  
 Delta R.T. 0.00 min  
 Lab File: VL032234.D  
 Acq: 12 Jul 2018 22:10

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.8  | 76.1  | 114.1 |
| 184     | 30.4  | 24.2  | 36.4  |

Manual Integrations  
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