

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102015\  
 Data File : VL026209.D  
 Acq On : 20 Oct 2015 12:32  
 Operator : SY/MD  
 Sample : VSTDIC0.5  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

Manual Integrations  
 APPROVED

MMDadoda  
 10/22/2015 4:31:00 PM

Quant Time: Oct 20 14:12:25 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Oct 20 14:12:25 2015  
 QLast Update : Tue Oct 20 12:43:06 2015  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 6.63  | 49   | 565624   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 8.30  | 114  | 1674743  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 13.71 | 117  | 2025026  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 16.26  | 95    | 1606849  | 10.33    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 103.30% |

| Target Compounds               | R.T. | QIon | Response | Conc | Units  | Ovalue |
|--------------------------------|------|------|----------|------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.63 | 85   | 62019    | 0.55 | ppbv   | 93     |
| 3) Chlorodifluoromethane       | 3.56 | 51   | 37552    | 0.56 | ppbv   | 99     |
| 4) Chloromethane               | 3.73 | 50   | 19551    | 0.52 | ppbv   | 97     |
| 5) Vinyl Chloride              | 3.87 | 62   | 19669    | 0.52 | ppbv   | 97     |
| 6) Bromomethane                | 4.13 | 94   | 14837    | 0.53 | ppbv   | 88     |
| 7) Chloroethane                | 4.22 | 64   | 8292     | 0.50 | ppbv   | 100    |
| 8) Dichlorotetrafluoroethane   | 3.79 | 85   | 51367    | 0.54 | ppbv   | 99     |
| 9) Propene                     | 3.58 | 41   | 17269    | 0.56 | ppbv   | 100    |
| 10) Heptane                    | 9.33 | 43   | 59418    | 0.56 | ppbv   | 96     |
| 11) Trichlorofluoromethane     | 4.68 | 101  | 59559    | 0.56 | ppbv   | 95     |
| 12) 1,1,2-Trichlorotrifluoroet | 5.29 | 101  | 40933    | 0.56 | ppbv   | 99     |
| 13) Ethanol                    | 4.35 | 45   | 2886     | 0.59 | ppbv   | 83     |
| 14) Bromoethene                | 4.44 | 108  | 16794    | 0.56 | ppbv   | 99     |
| 15) Acetone                    | 4.61 | 43   | 51685    | 0.68 | ppbv # | 83     |
| 16) 1,3-Butadiene              | 3.96 | 39   | 19341    | 0.56 | ppbv   | 92     |
| 17) tert-Butyl alcohol         | 5.16 | 59   | 23856    | 0.52 | ppbv   | 98     |
| 18) 1,1-Dichloroethene         | 5.06 | 96   | 18379    | 0.55 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 4.78 | 45   | 14807    | 0.49 | ppbv # | 2      |
| 20) Methylene Chloride         | 5.13 | 84   | 17552    | 0.55 | ppbv   | 96     |
| 21) Allyl Chloride             | 5.21 | 41   | 28352    | 0.57 | ppbv   | 91     |
| 22) trans-1,2-Dichloroethene   | 5.74 | 96   | 23046    | 0.55 | ppbv   | 92     |
| 23) Vinyl Acetate              | 5.97 | 43   | 78228    | 0.58 | ppbv   | 98     |
| 24) 1,1-Dichloroethane         | 5.89 | 63   | 49169    | 0.55 | ppbv   | 98     |
| 25) Ethyl Acetate              | 6.67 | 43   | 78266m   | 0.54 | ppbv   |        |
| 26) Hexane                     | 6.63 | 57   | 40011    | 0.57 | ppbv   | 96     |
| 27) Carbon Disulfide           | 5.37 | 76   | 49328    | 0.57 | ppbv # | 92     |
| 28) Methyl tert-Butyl Ether    | 5.96 | 73   | 72128    | 0.62 | ppbv   | 99     |
| 29) Chloroform                 | 6.72 | 83   | 56978    | 0.55 | ppbv   | 94     |
| 30) Cyclohexane                | 8.26 | 84   | 40686    | 0.60 | ppbv # | 59     |
| 31) cis-1,2-Dichloroethene     | 6.49 | 61   | 35621    | 0.56 | ppbv   | 92     |
| 32) 1,1,1-Trichloroethane      | 7.57 | 97   | 61829    | 0.62 | ppbv   | 99     |
| 34) 2-Butanone                 | 6.21 | 43   | 48896    | 0.53 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 8.13 | 117  | 64122    | 0.60 | ppbv   | 95     |
| 36) Benzene                    | 7.99 | 78   | 89515    | 0.56 | ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 7.35 | 62   | 46061    | 0.54 | ppbv   | 98     |
| 38) Trichloroethene            | 9.03 | 130  | 41154    | 0.56 | ppbv   | 94     |
| 39) 1,2-Dichloropropane        | 8.80 | 63   | 31728    | 0.54 | ppbv   | 100    |
| 40) 1,4-Dioxane                | 9.19 | 88   | 4540m    | 0.41 | ppbv   |        |
| 41) Tetrahydrofuran            | 7.14 | 42   | 27305    | 0.53 | ppbv   | 99     |
| 42) Bromodichloromethane       | 8.99 | 83   | 64805    | 0.57 | ppbv   | 99     |
| 43) Methyl Methacrylate        | 9.25 | 69   | 30519    | 0.54 | ppbv   | 98     |

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 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

Manual Integrations  
 APPROVED

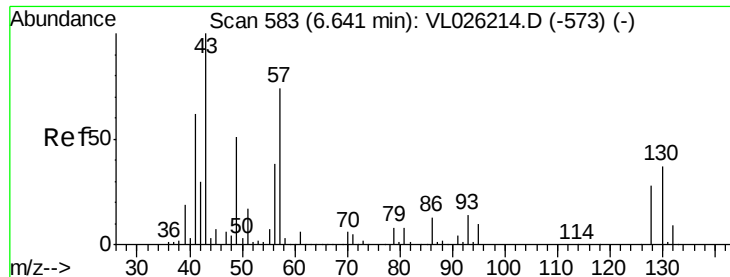
MMDadoda  
 10/22/2015 4:31:00 PM

Quant Time: Oct 20 14:12:25 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Oct 20 2015  
 QLast Update : Tue Oct 20 12:43:06 2015  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 9.06  | 57   | 150917   | 0.57 | ppbv   | 97       |
| 45) t-1,3-Dichloropropene     | 10.62 | 75   | 46963    | 0.59 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 9.99  | 75   | 57220    | 0.59 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 10.85 | 97   | 38812    | 0.54 | ppbv   | 98       |
| 48) Dibromochloromethane      | 11.77 | 129  | 62157    | 0.60 | ppbv   | 99       |
| 49) Bromoform                 | 14.77 | 173  | 51679    | 0.65 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 10.09 | 43   | 64161    | 0.52 | ppbv   | 100      |
| 51) 2-Hexanone                | 11.62 | 43   | 58572    | 0.54 | ppbv # | 99       |
| 52) Tetrachloroethene         | 12.76 | 164  | 45762    | 0.57 | ppbv   | 99       |
| 53) Toluene                   | 11.21 | 91   | 122547   | 0.59 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 12.11 | 107  | 60276    | 0.56 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 13.76 | 131  | 50740    | 0.62 | ppbv # | 1        |
| 57) Chlorobenzene             | 13.78 | 112  | 109850   | 0.60 | ppbv   | 97       |
| 58) Ethyl Benzene             | 14.38 | 91   | 182435   | 0.62 | ppbv   | 99       |
| 59) m/p-Xylene                | 14.69 | 91   | 286957   | 1.20 | ppbv   | 100      |
| 60) o-Xylene                  | 15.46 | 91   | 154012   | 0.62 | ppbv   | 100      |
| 61) Styrene                   | 15.28 | 104  | 60524    | 0.59 | ppbv   | 99       |
| 62) Isopropylbenzene          | 16.51 | 105  | 210073   | 0.63 | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 15.46 | 83   | 96009    | 0.52 | ppbv   | 99       |
| 64) n-propylbenzene           | 17.49 | 120  | 56876    | 0.64 | ppbv   | 94       |
| 65) tert-Butylbenzene         | 18.78 | 119  | 199488   | 0.68 | ppbv   | 97       |
| 66) Benzyl Chloride           | 19.08 | 91   | 70656    | 0.77 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 19.38 | 105  | 269072   | 0.66 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 19.75 | 119  | 223639   | 0.68 | ppbv   | 98       |
| 70) n-Butylbenzene            | 20.73 | 91   | 200691   | 0.65 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 17.39 | 91   | 151469   | 0.63 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 17.79 | 105  | 170432   | 0.64 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 17.96 | 105  | 158072   | 0.63 | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 18.80 | 105  | 175570   | 0.66 | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 19.08 | 146  | 110108   | 0.65 | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 19.24 | 146  | 116178   | 0.67 | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 19.99 | 146  | 111100   | 0.67 | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 24.65 | 225  | 63522    | 1.06 | ppbv   | 99       |
| 79) Naphthalene               | 23.91 | 128  | 138397   | 0.93 | ppbv   | 97       |
| 80) Naphthalene, 2-methyl-    | 26.03 | 142  | 19624    | 0.44 | ppbv   | 97       |
| 81) 1,2,4-Trichlorobenzene    | 23.71 | 180  | 71691    | 0.96 | ppbv   | 99       |

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





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.63 min Scan# 581

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 49 Resp: 565624

Ion Ratio Lower Upper

49 100

128 57.4 28.1 84.3

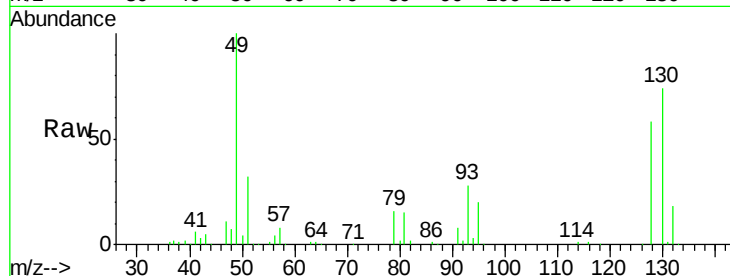
130 72.8 36.2 108.6

Manual Integrations

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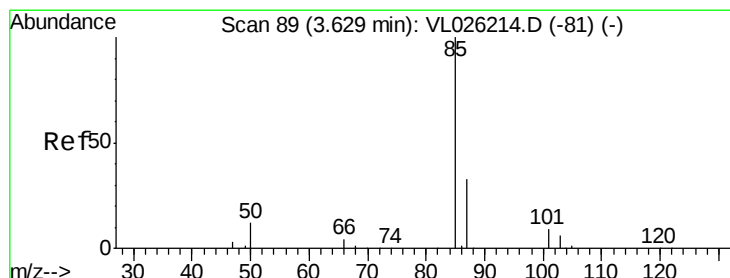
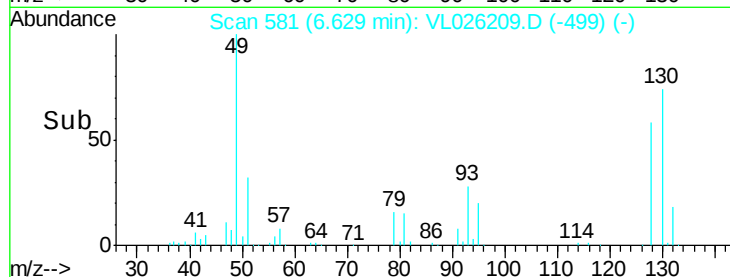
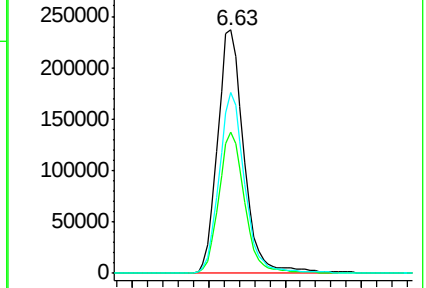
10/22/2015 4:31:00 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.55 ppbv

RT: 3.63 min Scan# 89

Delta R.T. 0.01 min

Lab File: VL026209.D

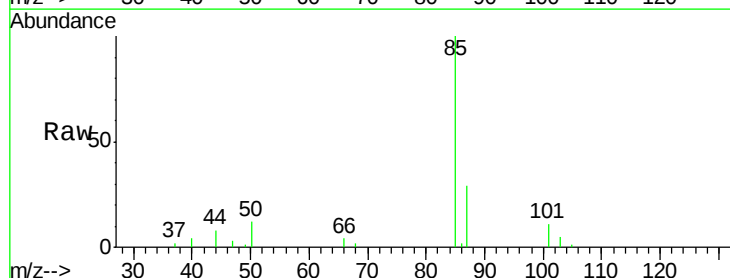
Acq: 20 Oct 2015 12:32

Tgt Ion: 85 Resp: 62019

Ion Ratio Lower Upper

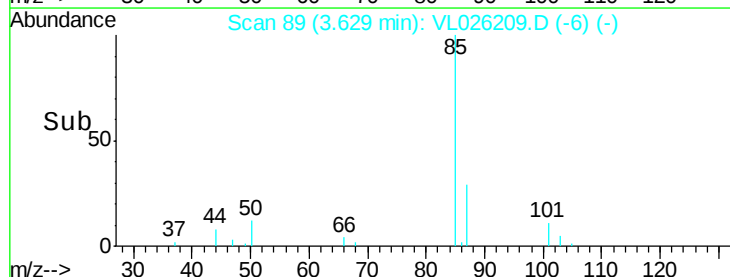
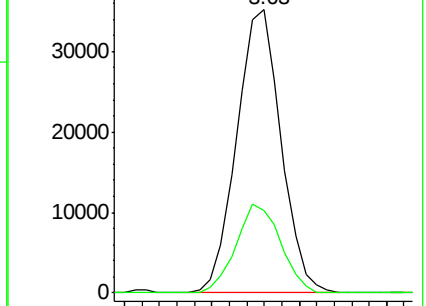
85 100

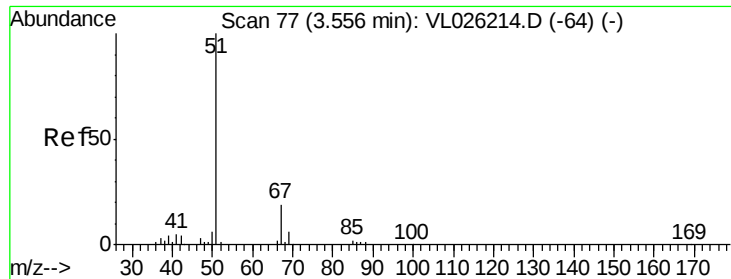
87 29.2 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





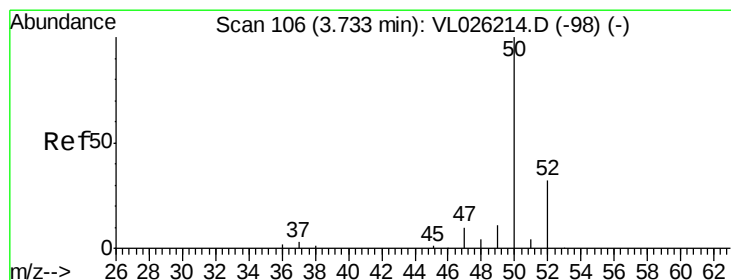
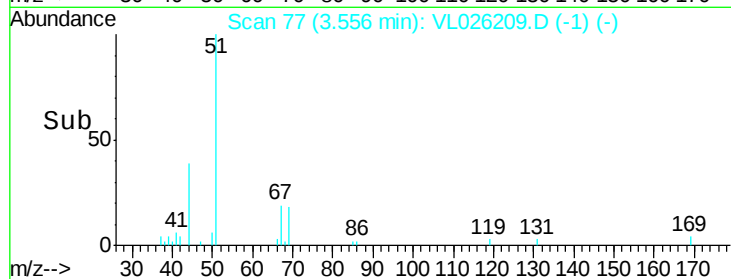
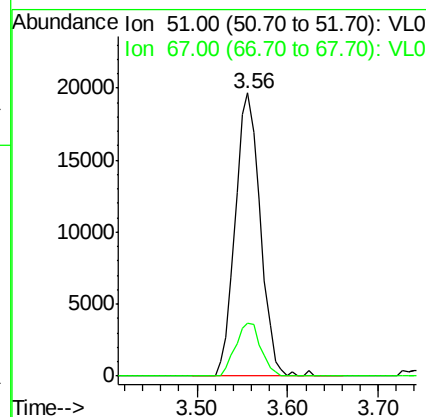
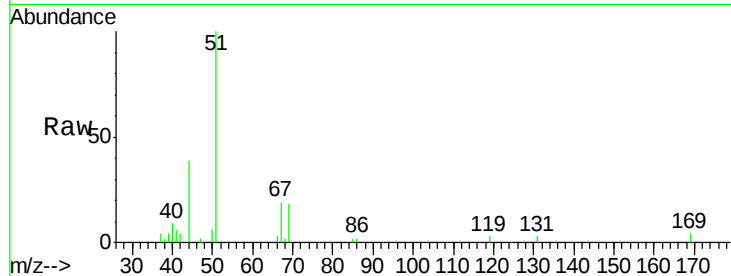
#3  
Chlorodifluoromethane  
Concen: 0.56 ppbv  
RT: 3.56 min Scan# 77  
Delta R.T. 0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion   | 51   | Resp  | 37552 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 51        | 100  |       |       |
| 67        | 18.9 | 15.6  | 23.4  |

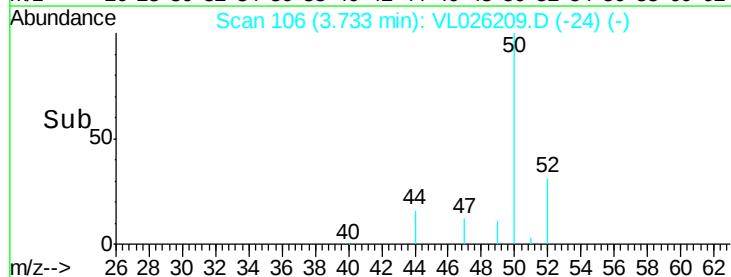
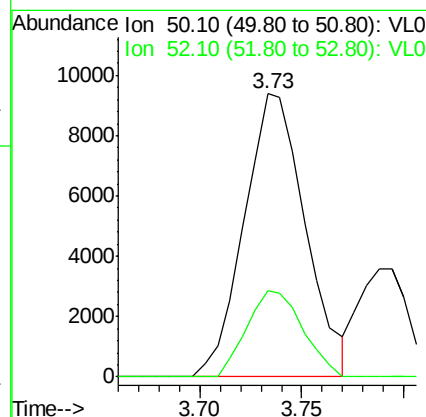
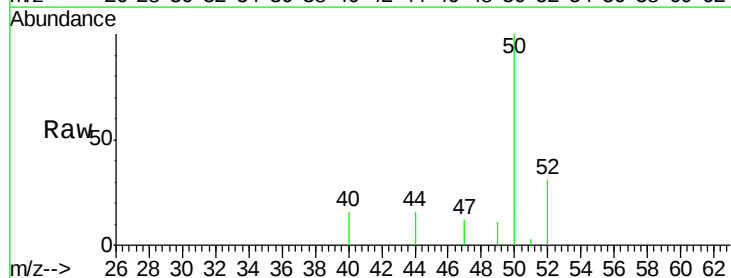
Manual Integrations  
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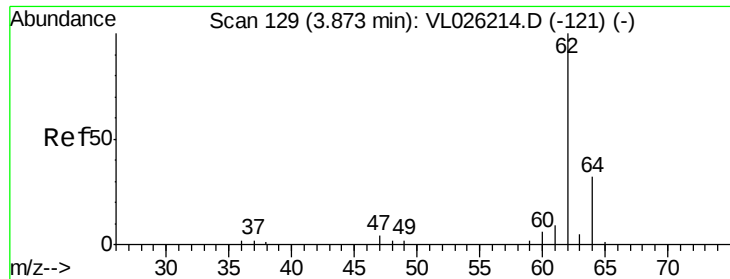
MMDadoda  
10/22/2015 4:31:00 PM



#4  
Chloromethane  
Concen: 0.52 ppbv  
RT: 3.73 min Scan# 106  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion   | 50   | Resp  | 19551 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 50        | 100  |       |       |
| 52        | 30.6 | 25.8  | 38.6  |





#5

Vinyl Chloride

Concen: 0.52 ppbv

RT: 3.87 min Scan# 129

Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 62 Resp: 19669

Ion Ratio Lower Upper

62 100

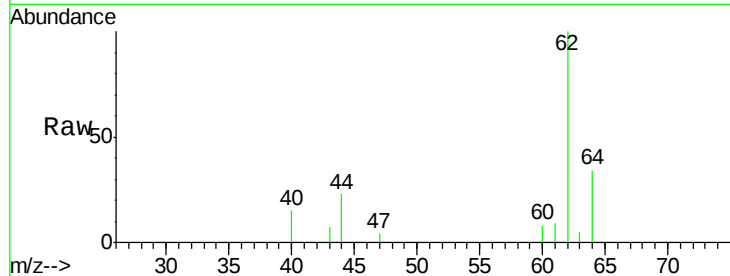
64 34.5 26.3 39.5

Manual Integrations

APPROVED

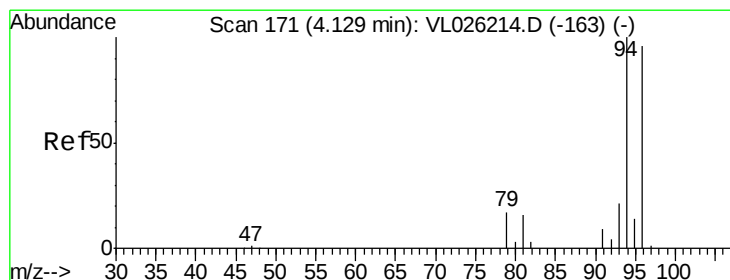
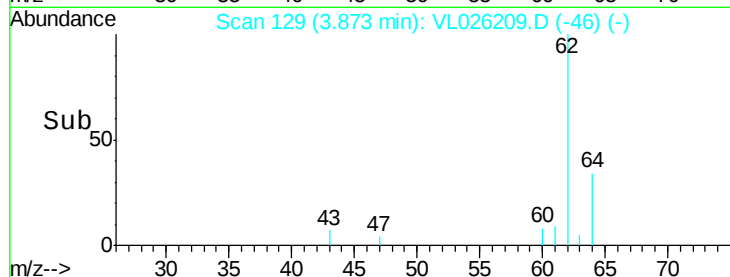
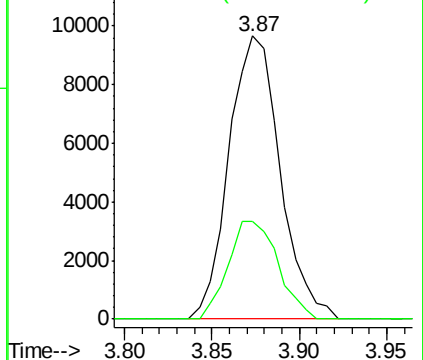
MMDadoda

10/22/2015 4:31:00 PM



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 0.53 ppbv

RT: 4.13 min Scan# 171

Delta R.T. 0.01 min

Lab File: VL026209.D

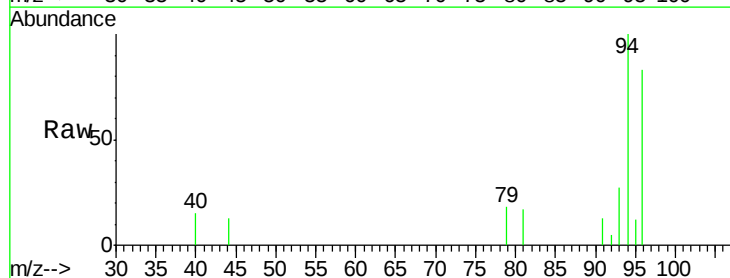
Acq: 20 Oct 2015 12:32

Tgt Ion: 94 Resp: 14837

Ion Ratio Lower Upper

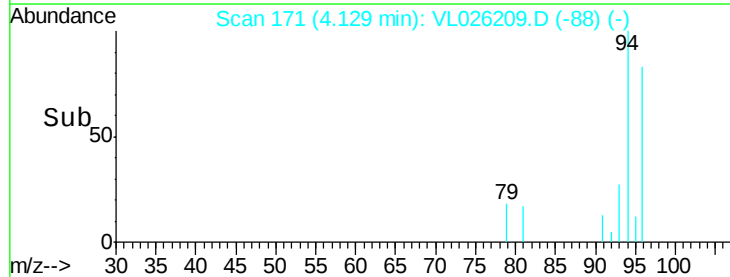
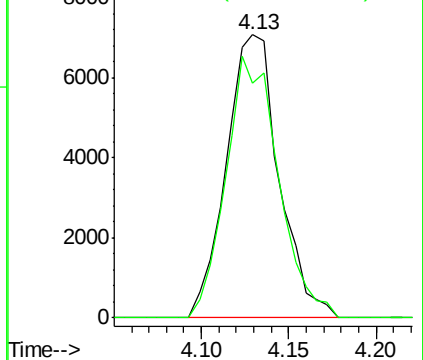
94 100

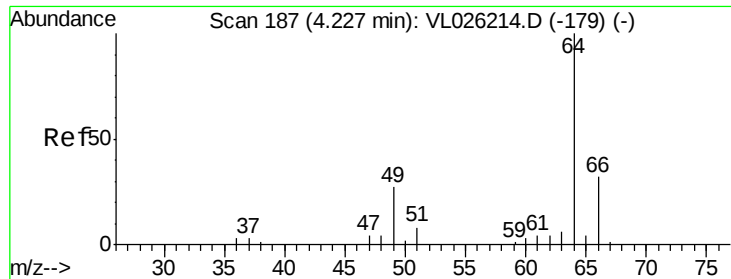
96 82.8 75.5 113.3



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 0.50 ppbv

RT: 4.22 min Scan# 186

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 64 Resp: 8292

Ion Ratio Lower Upper

64 100

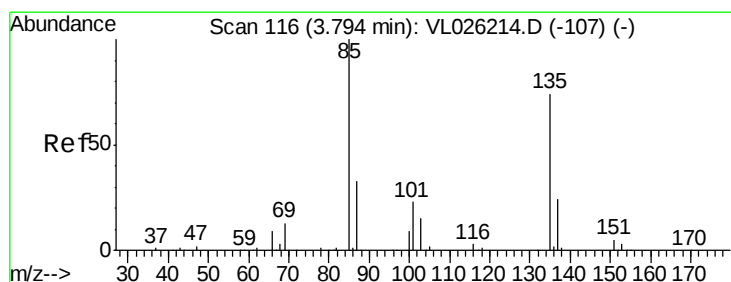
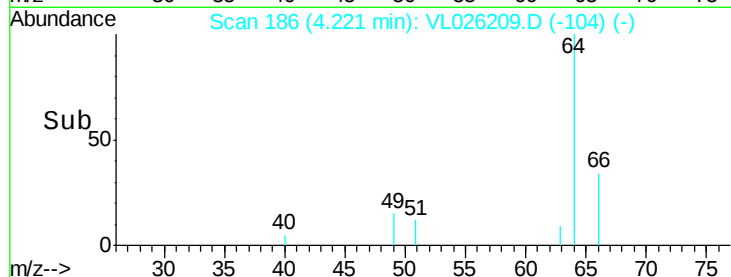
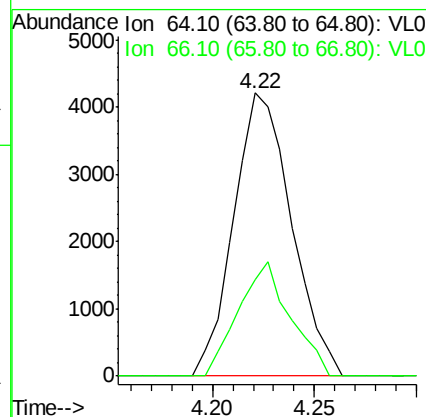
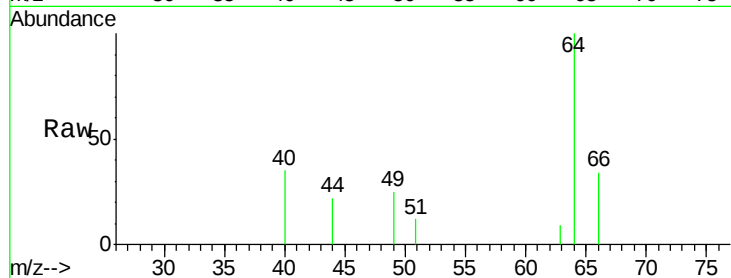
66 34.0 27.0 40.6

Manual Integrations

APPROVED

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10/22/2015 4:31:00 PM



#8

Dichlorotetrafluoroethane

Concen: 0.54 ppbv

RT: 3.79 min Scan# 115

Delta R.T. 0.00 min

Lab File: VL026209.D

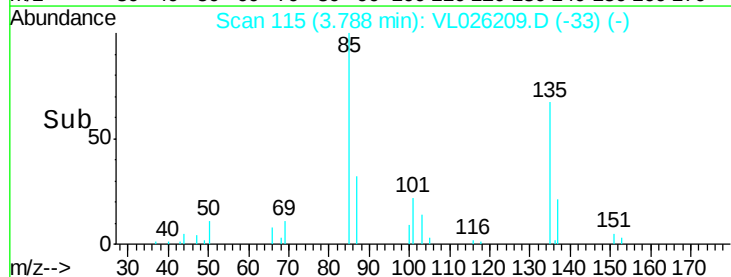
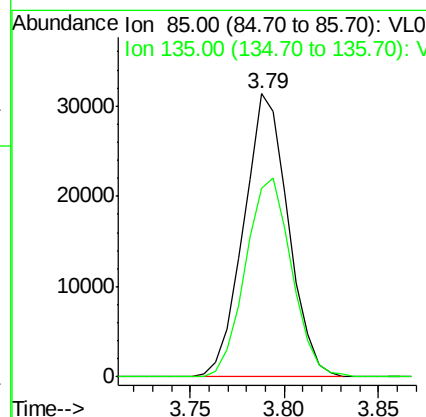
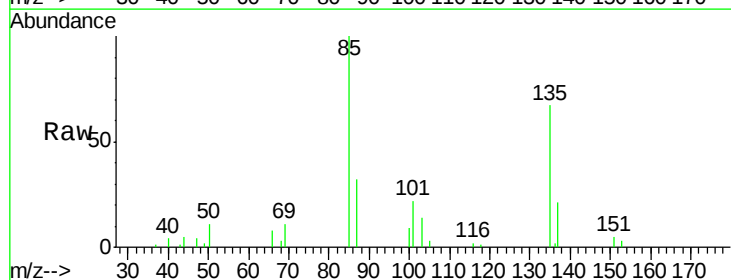
Acq: 20 Oct 2015 12:32

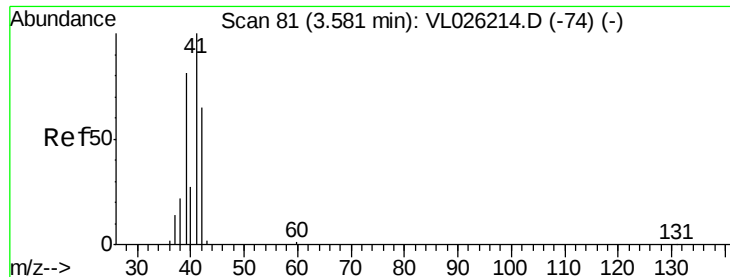
Tgt Ion: 85 Resp: 51367

Ion Ratio Lower Upper

85 100

135 72.5 57.5 86.3





#9

Propene

Concen: 0.56 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 41 Resp: 17269

Ion Ratio Lower Upper

41 100

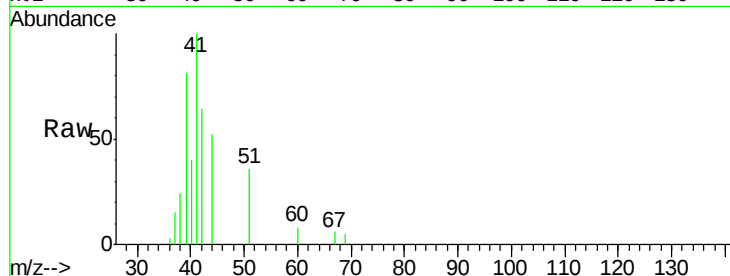
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Manual Integrations

APPROVED

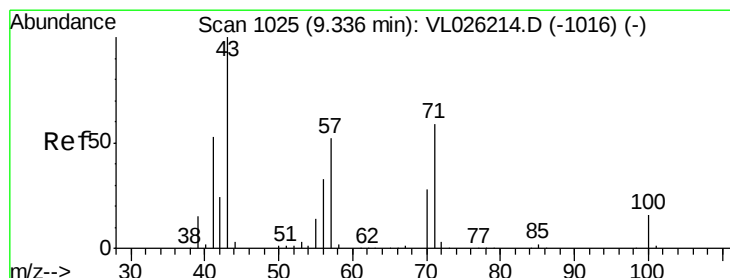
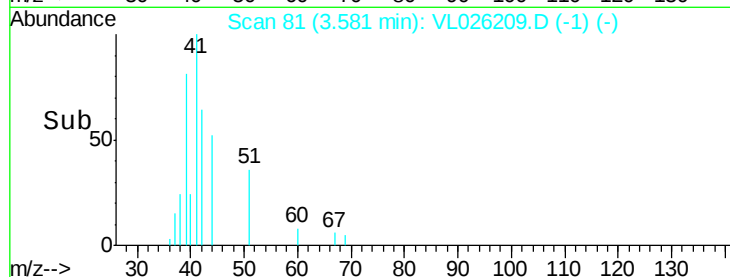
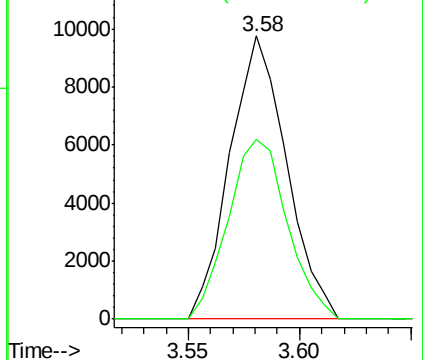
MMDadoda

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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.56 ppbv

RT: 9.33 min Scan# 1024

Delta R.T. 0.00 min

Lab File: VL026209.D

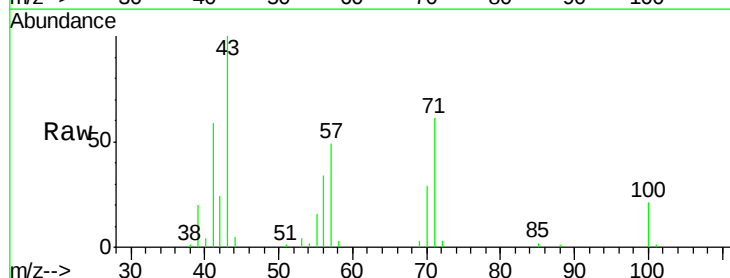
Acq: 20 Oct 2015 12:32

Tgt Ion: 43 Resp: 59418

Ion Ratio Lower Upper

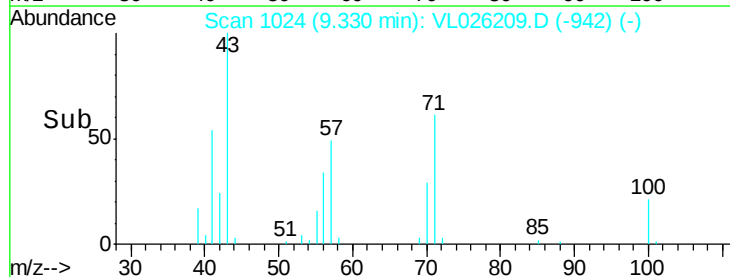
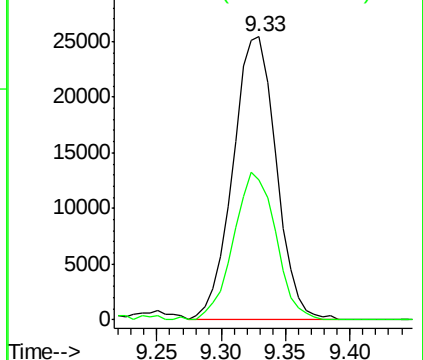
43 100

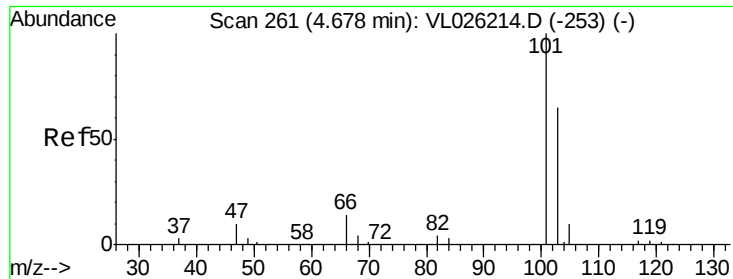
57 51.6 43.5 65.3



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





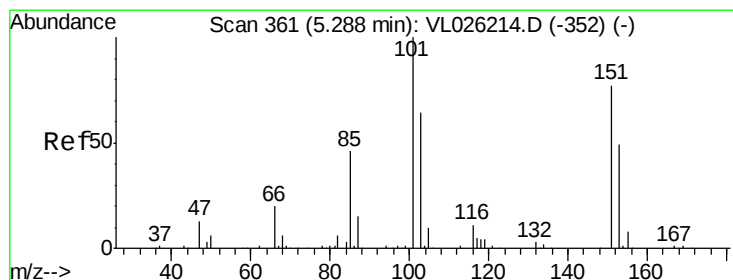
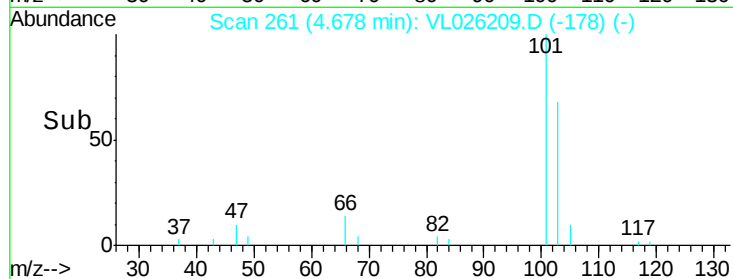
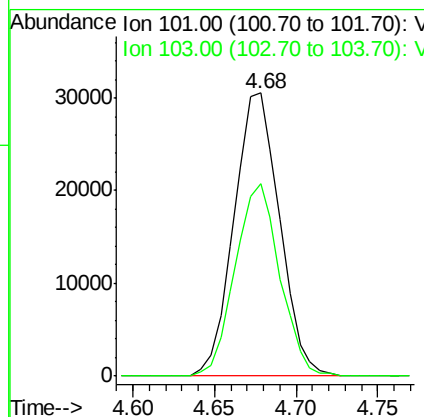
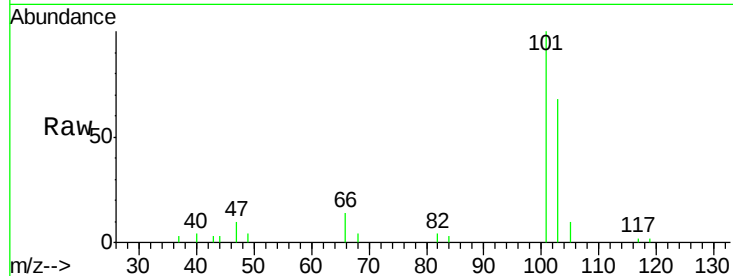
#11  
 Trichlorofluoromethane  
 Concen: 0.56 ppbv  
 RT: 4.68 min Scan# 261  
 Delta R.T. 0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

Tot Ion:101 Resp: 59559  
 Ion Ratio Lower Upper  
 101 100  
 103 68.2 51.2 76.8

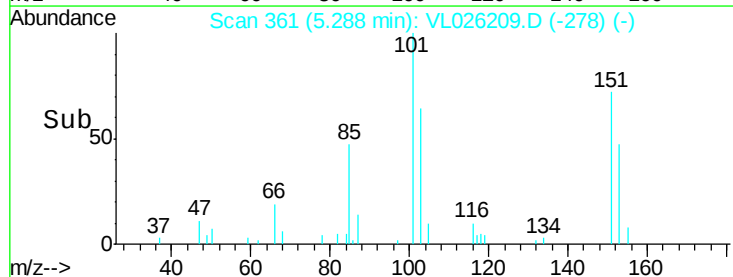
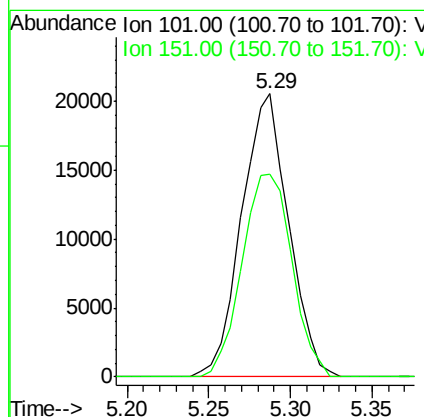
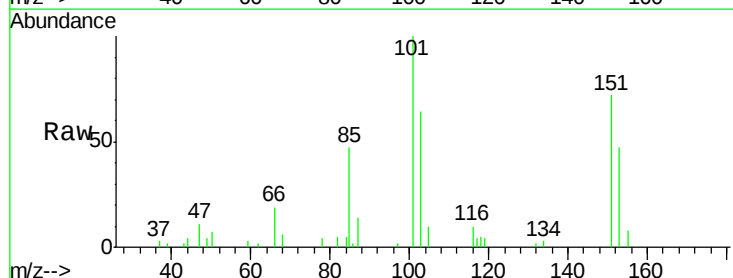
Manual Integrations  
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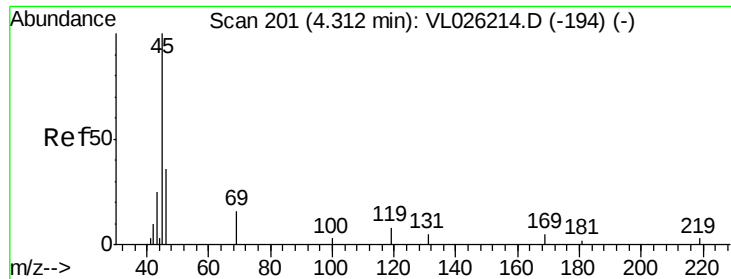
MMDadoda  
 10/22/2015 4:31:00 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.56 ppbv  
 RT: 5.29 min Scan# 361  
 Delta R.T. 0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Tgt Ion:101 Resp: 40933  
 Ion Ratio Lower Upper  
 101 100  
 151 76.2 61.4 92.0





#13

Ethanol

Concen: 0.59 ppbv

RT: 4.35 min Scan# 207

Delta R.T. 0.04 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Tot Ion: 45 Resp: 2886

Ion Ratio Lower Upper

45 100

46 29.5 16.1 64.3

Instrument :

MSVOA\_L

ClientSampleId :

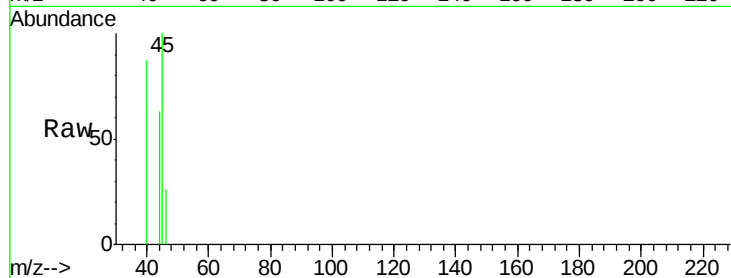
VSTDIC0.5

Manual Integrations

APPROVED

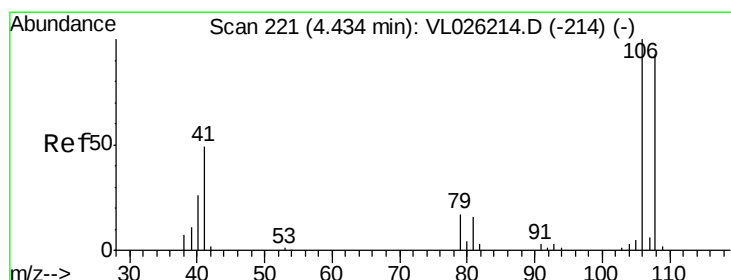
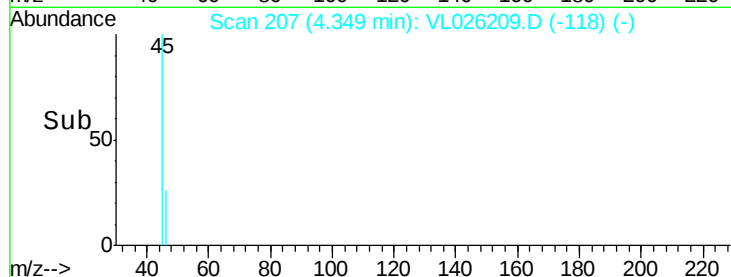
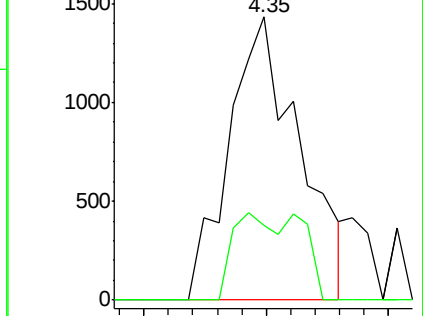
MMDadoda

10/22/2015 4:31:00 PM



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#14

Bromoethene

Concen: 0.56 ppbv

RT: 4.44 min Scan# 222

Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

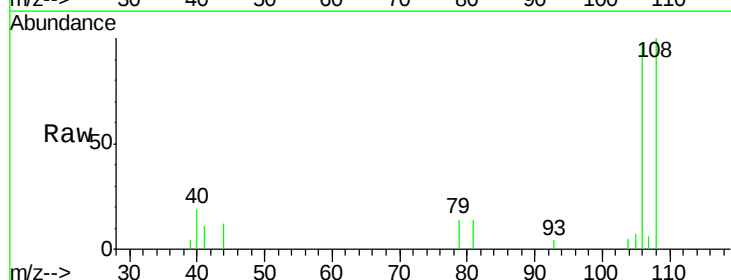
Tgt Ion: 108 Resp: 16794

Ion Ratio Lower Upper

108 100

106 105.0 85.3 127.9

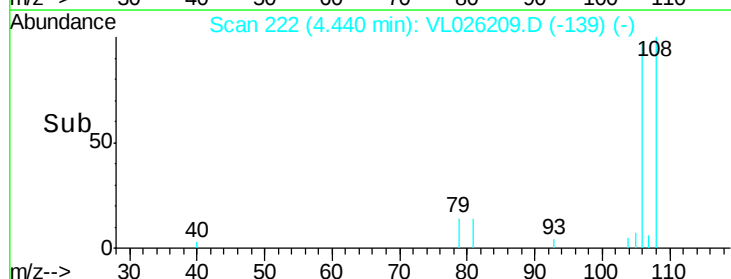
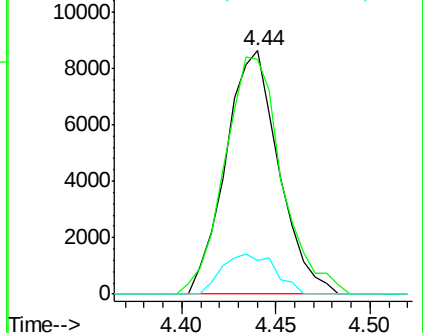
79 16.5 13.4 20.0

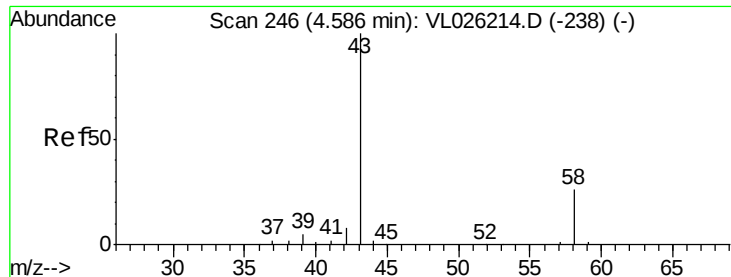


Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0





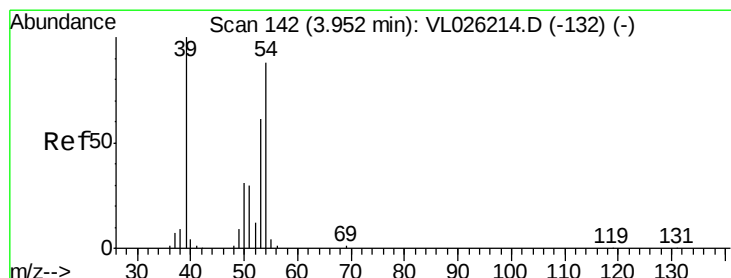
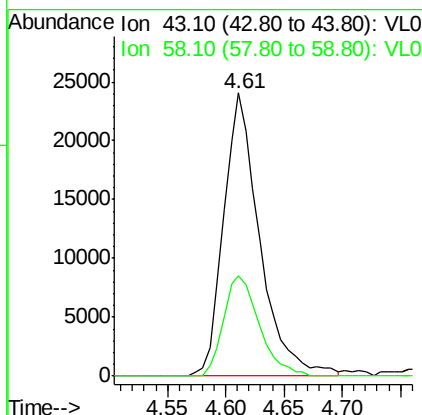
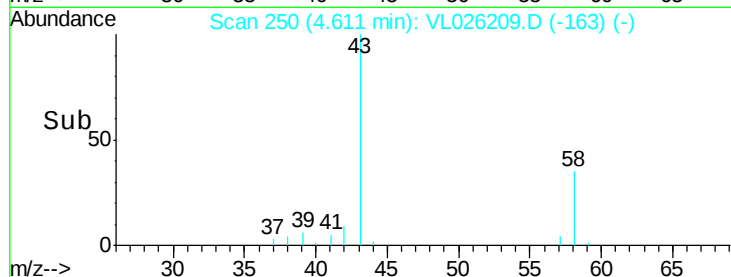
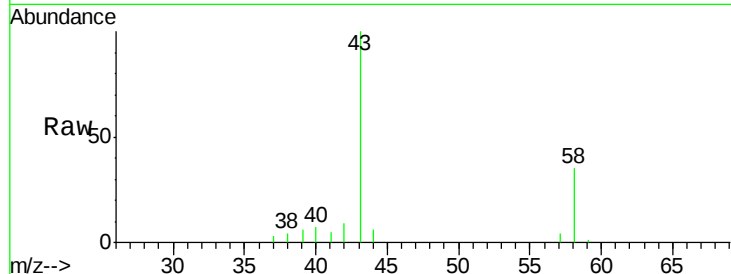
#15  
Acetone  
Concen: 0.68 ppbv  
RT: 4.61 min Scan# 250  
Delta R.T. 0.03 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Tot Ion: 43 Resp: 51685  
Ion Ratio Lower Upper  
43 100  
58 35.1 21.0 31.4#

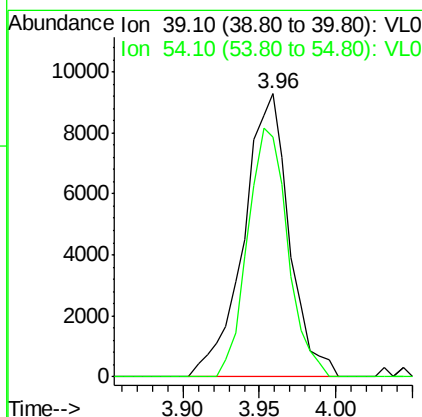
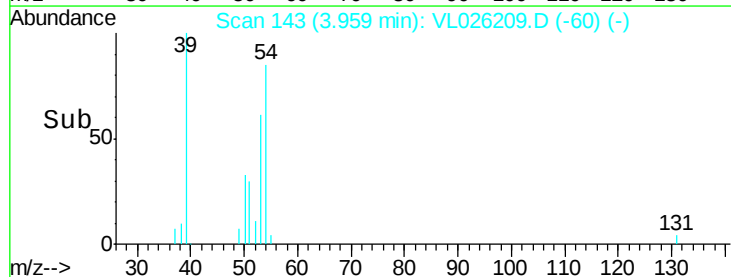
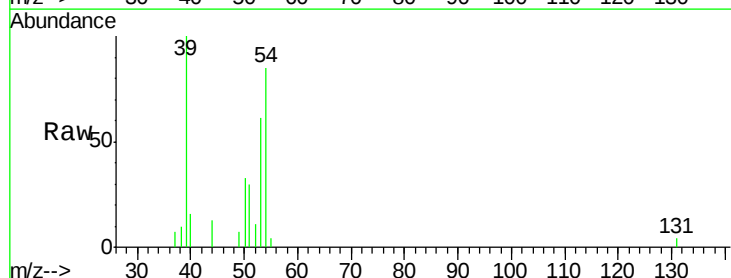
Manual Integrations  
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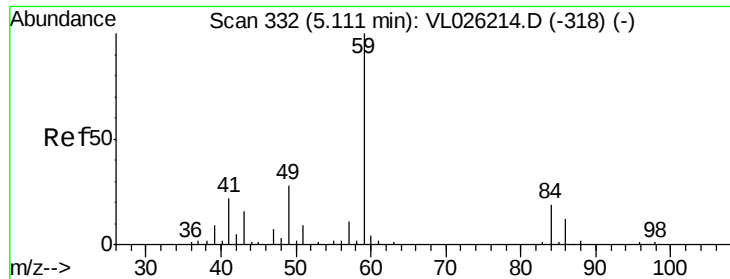
MMDadoda  
10/22/2015 4:31:00 PM



#16  
1,3-Butadiene  
Concen: 0.56 ppbv  
RT: 3.96 min Scan# 143  
Delta R.T. 0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Tgt Ion: 39 Resp: 19341  
Ion Ratio Lower Upper  
39 100  
54 77.0 67.3 100.9





#17

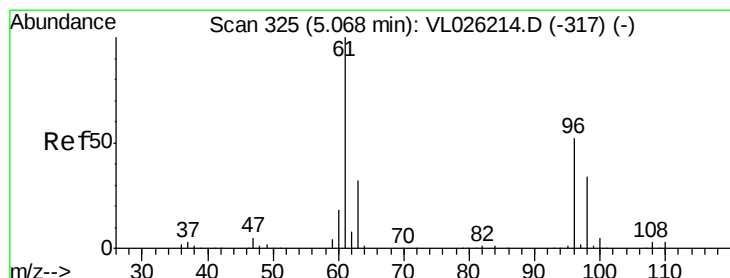
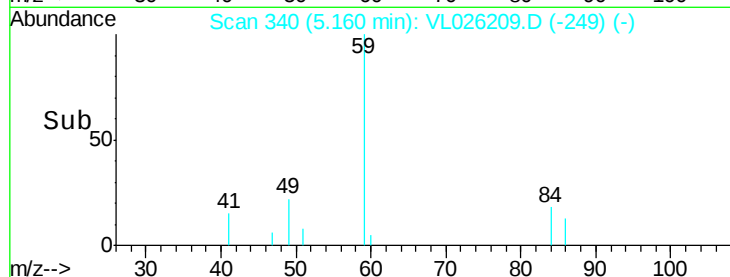
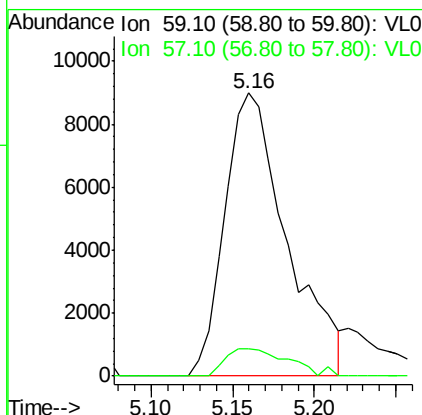
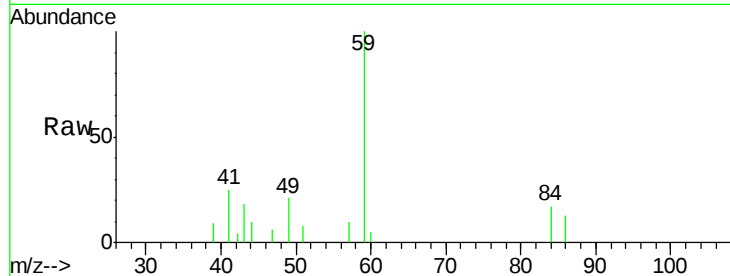
tert-Butyl alcohol  
Concen: 0.52 ppbv  
RT: 5.16 min Scan# 340  
Delta R.T. 0.05 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion   | 59  | Resp  | 23856 |
|-----------|-----|-------|-------|
| Ion Ratio | 100 | Lower | Upper |
| 57        | 9.9 | 8.6   | 12.8  |

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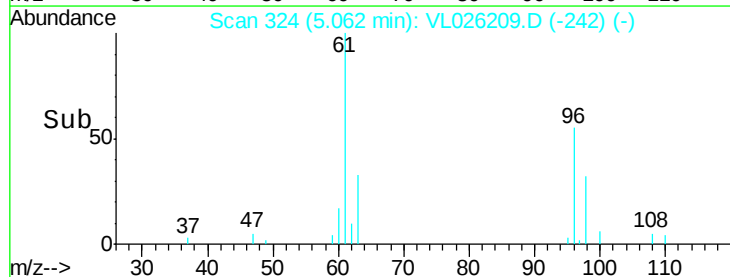
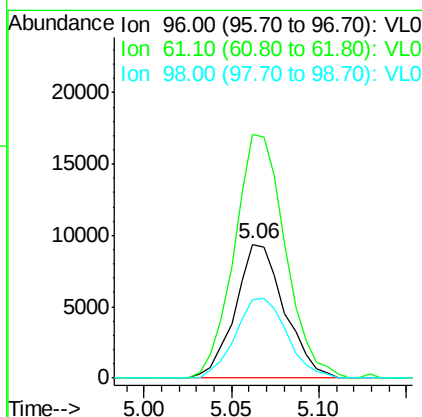
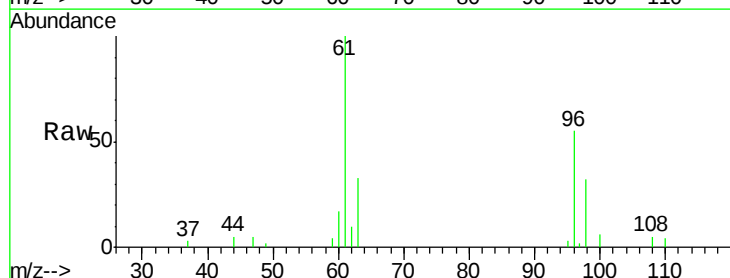
MMDadoda  
10/22/2015 4:31:00 PM

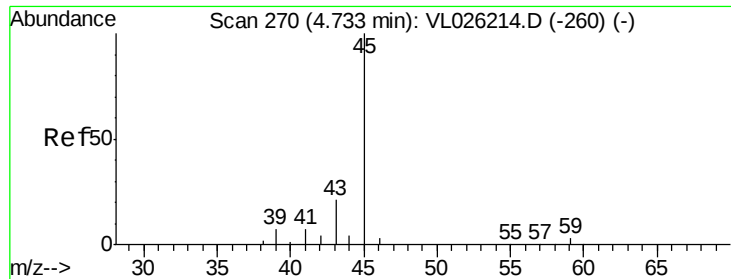


#18

1,1-Dichloroethene  
Concen: 0.55 ppbv  
RT: 5.06 min Scan# 324  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion   | 96    | Resp  | 18379 |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 61        | 181.7 | 146.6 | 219.8 |
| 98        | 58.5  | 50.5  | 75.7  |





#19

Isopropyl Alcohol

Concen: 0.49 ppbv

RT: 4.78 min Scan# 278

Delta R.T. 0.05 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 45 Resp: 14807

Ion Ratio Lower Upper

45 100

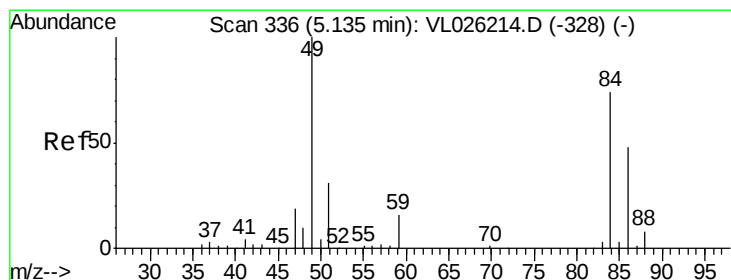
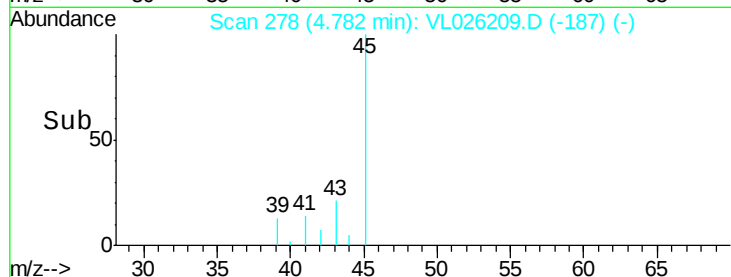
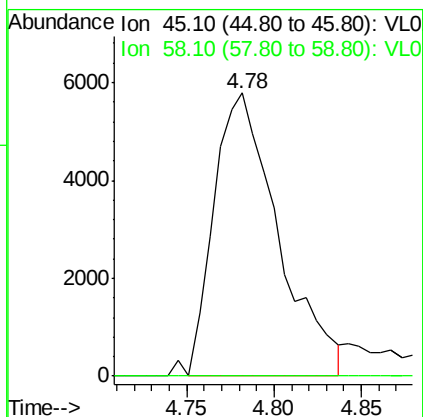
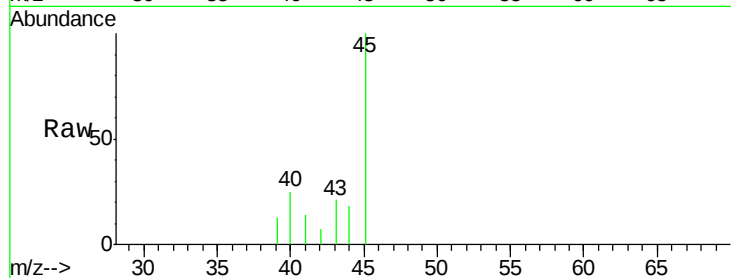
58 122.5 42.4 63.6#

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#20

Methylene Chloride

Concen: 0.55 ppbv

RT: 5.13 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Tgt Ion: 84 Resp: 17552

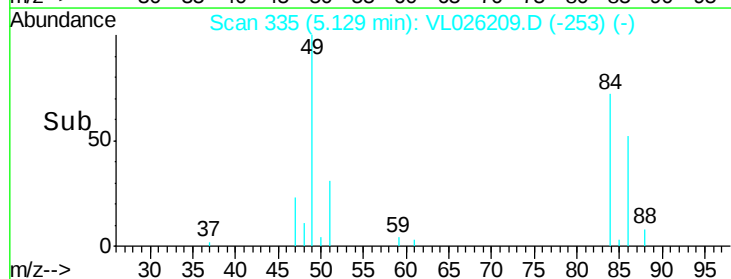
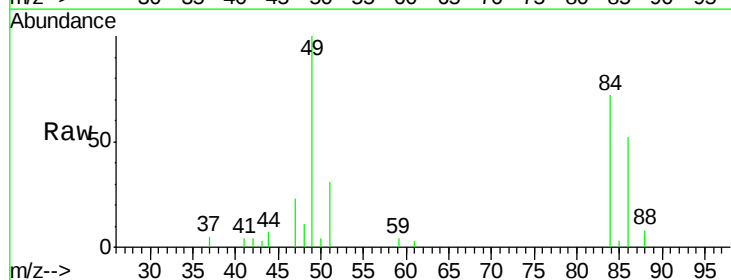
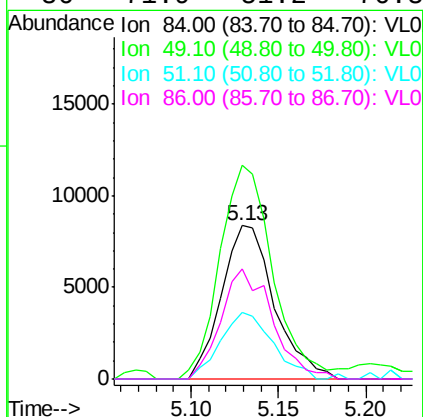
Ion Ratio Lower Upper

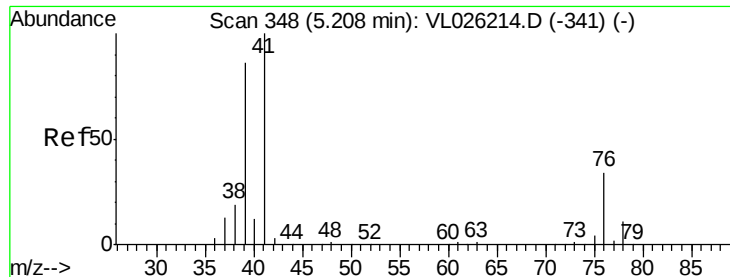
84 100

49 133.3 107.9 161.9

51 43.7 32.4 48.6

86 71.9 51.2 76.8





#21

Allvl Chloride

Concen: 0.57 ppbv

RT: 5.21 min Scan# 348

Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

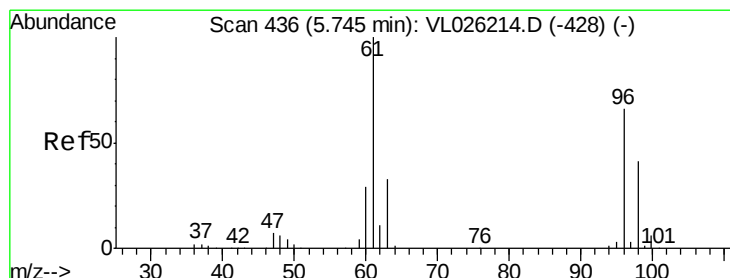
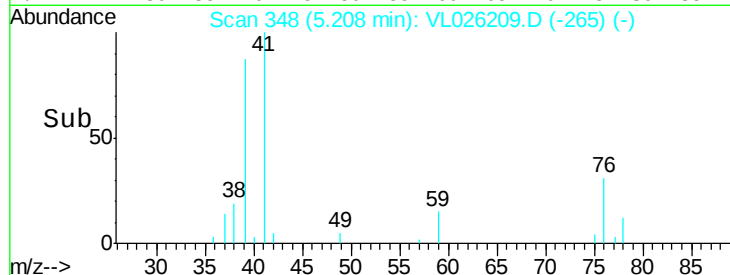
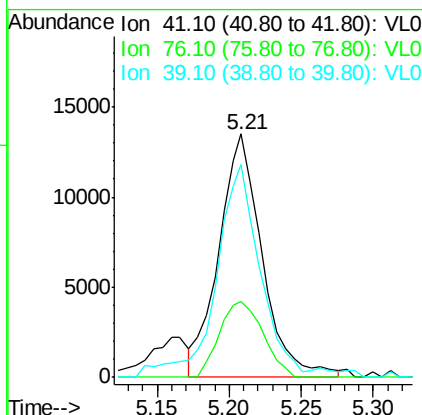
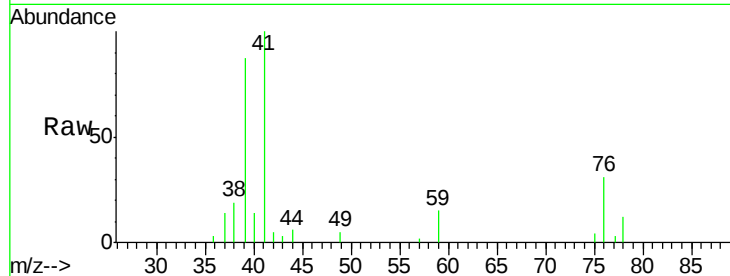
ClientSampleId :

VSTDIC0.5

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 41    | Resp: | 28352 |
| Ion Ratio | Lower | Upper |       |
| 41        | 100   |       |       |
| 76        | 31.2  | 26.2  | 39.4  |
| 39        | 92.0  | 65.6  | 98.4  |

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#22

trans-1,2-Dichloroethene

Concen: 0.55 ppbv

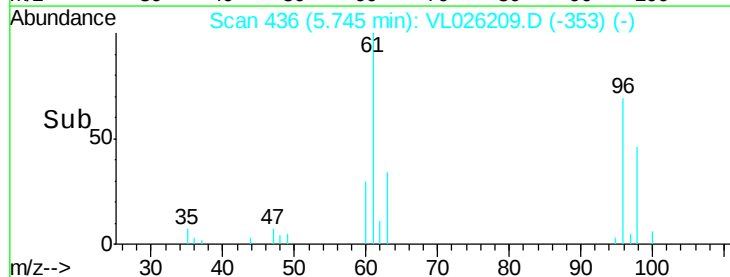
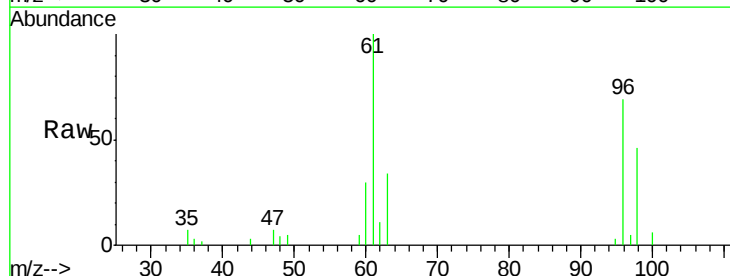
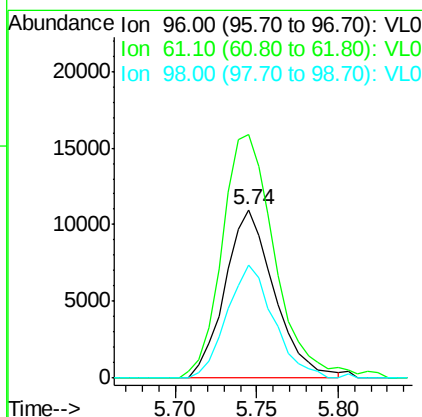
RT: 5.74 min Scan# 436

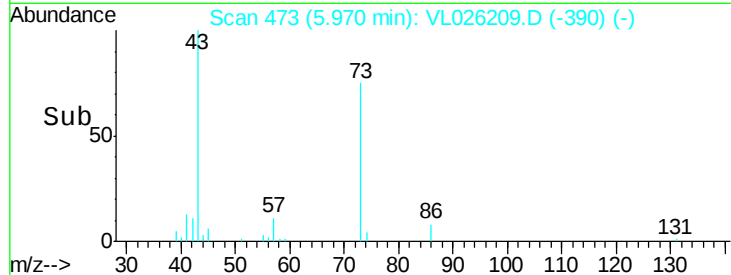
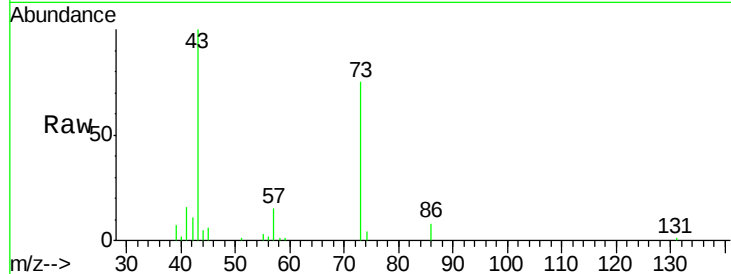
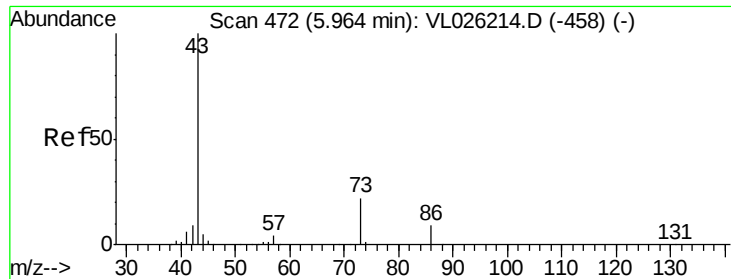
Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 96    | Resp: | 23046 |
| Ion Ratio | Lower | Upper |       |
| 96        | 100   |       |       |
| 61        | 140.9 | 121.3 | 181.9 |
| 98        | 67.0  | 49.8  | 74.8  |





#23

Vinyl Acetate

Concen: 0.58 ppbv

RT: 5.97 min Scan# 473

Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 43    | Resp: | 78228 |
| Ion Ratio | Lower | Upper |       |
| 43        | 100   |       |       |
| 86        | 8.3   | 7.8   | 11.6  |
| 42        | 10.9  | 8.4   | 12.6  |
| 44        | 3.9   | 3.7   | 5.5   |

Instrument :

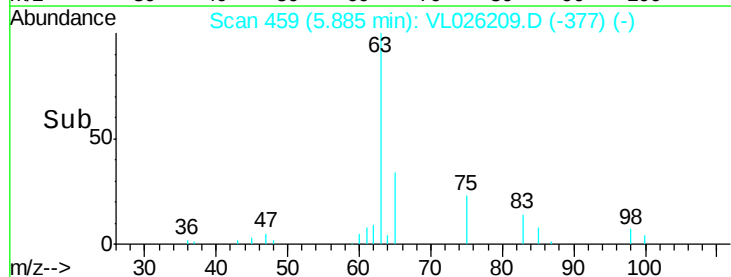
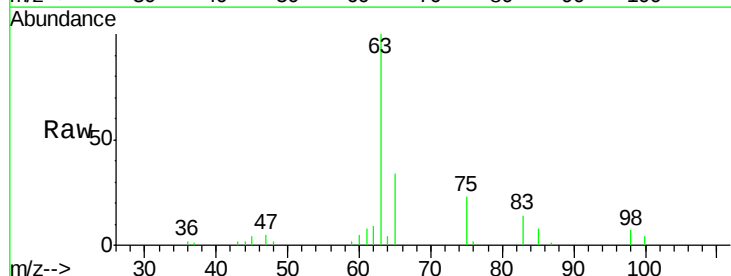
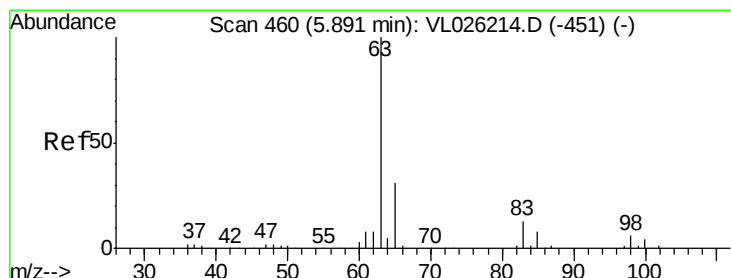
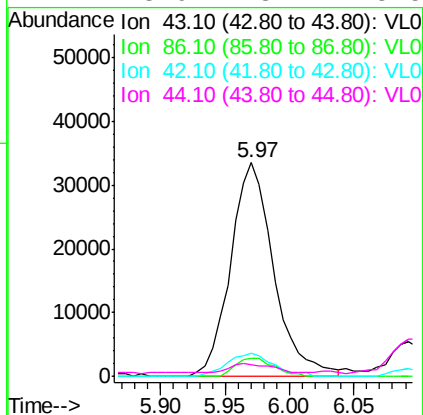
MSVOA\_L

ClientSampled :

VSTDIC0.5

Manual Integrations  
APPROVED

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#24

1,1-Dichloroethane

Concen: 0.55 ppbv

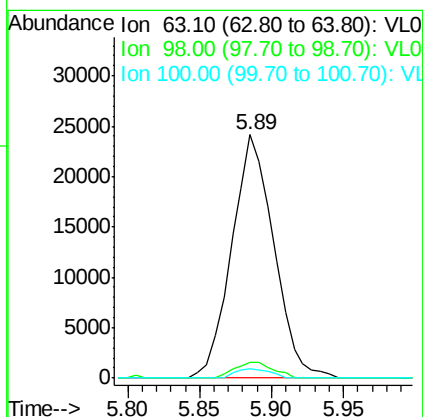
RT: 5.89 min Scan# 459

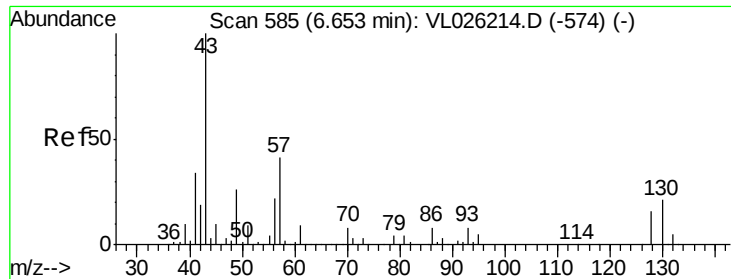
Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 63    | Resp: | 49169 |
| Ion Ratio | Lower | Upper |       |
| 63        | 100   |       |       |
| 98        | 6.6   | 2.9   | 8.7   |
| 100       | 3.7   | 1.8   | 5.5   |





#25

Ethyl Acetate

Concen: 0.54 ppbv m

RT: 6.67 min Scan# 588

Delta R.T. 0.02 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

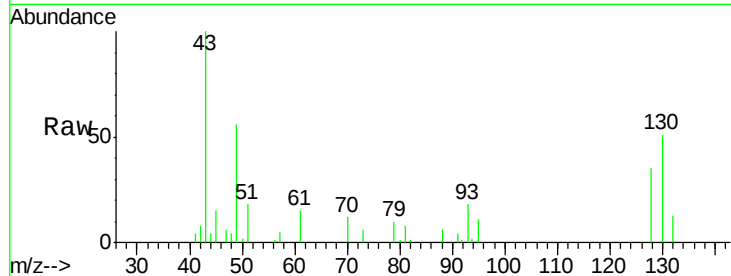
ClientSampleId :

VSTDIC0.5

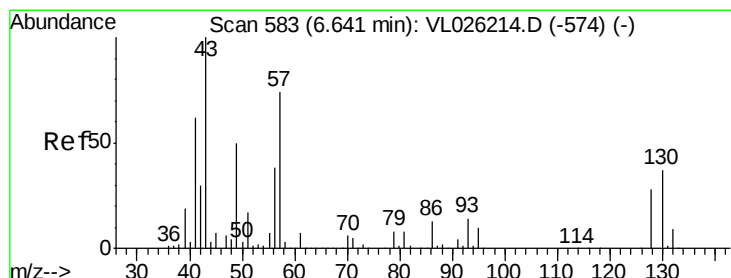
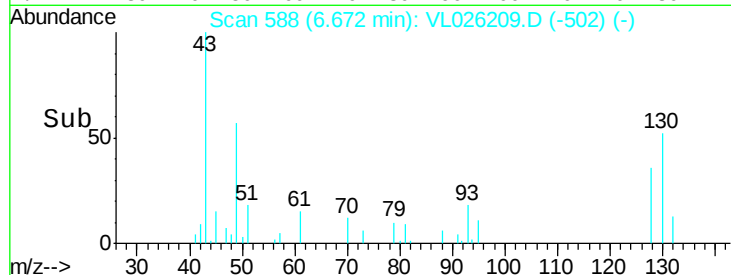
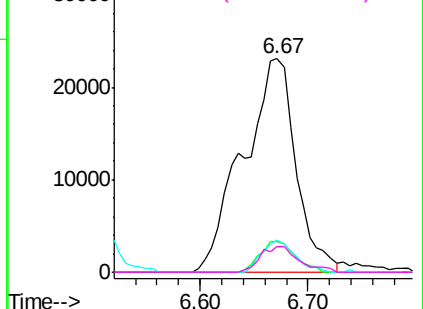
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 78266 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 45       | 9.8   | 7.5   | 11.3  |
| 61       | 9.6   | 7.5   | 11.3  |
| 70       | 8.8   | 6.9   | 10.3  |

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



#26

Hexane

Concen: 0.57 ppbv

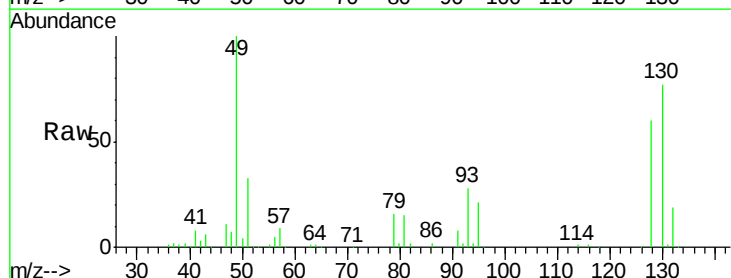
RT: 6.63 min Scan# 582

Delta R.T. 0.00 min

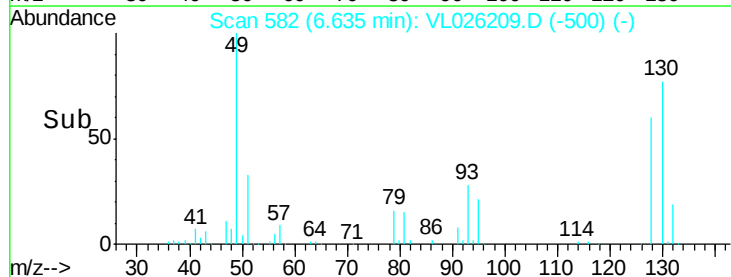
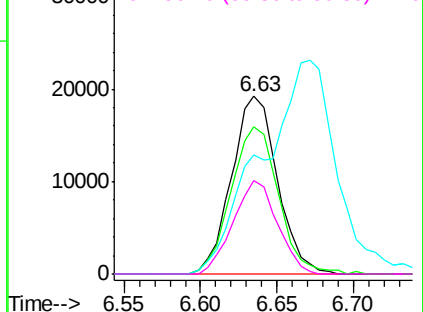
Lab File: VL026209.D

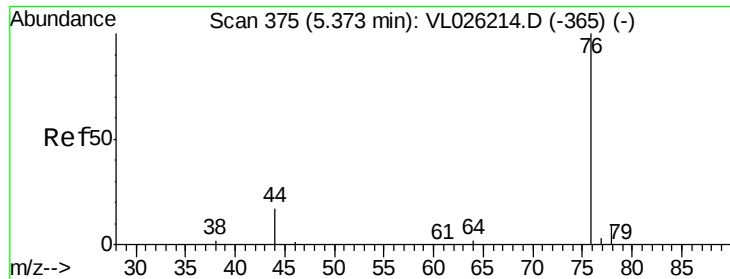
Acq: 20 Oct 2015 12:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 57    | Resp: | 40011 |
| Ion      | Ratio | Lower | Upper |
| 57       | 100   |       |       |
| 41       | 85.9  | 67.0  | 100.6 |
| 43       | 202.4 | 156.0 | 234.0 |
| 56       | 50.7  | 42.1  | 63.1  |



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





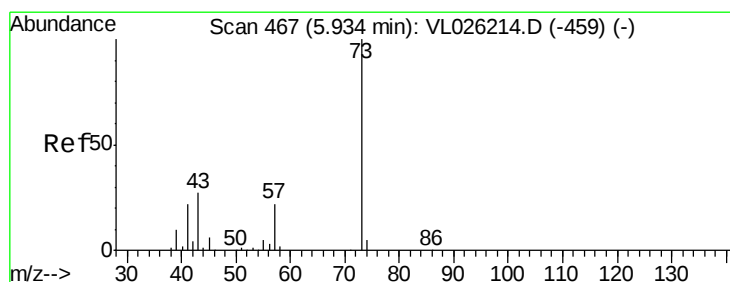
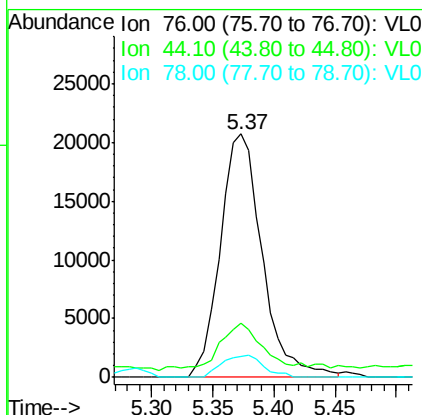
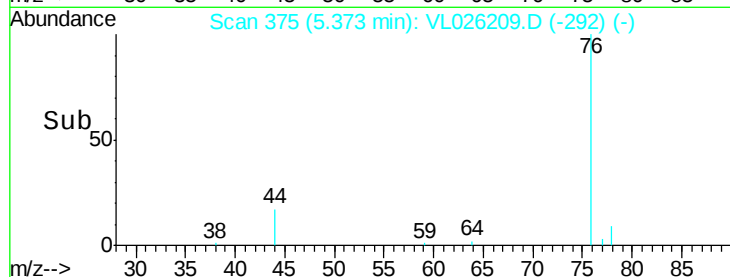
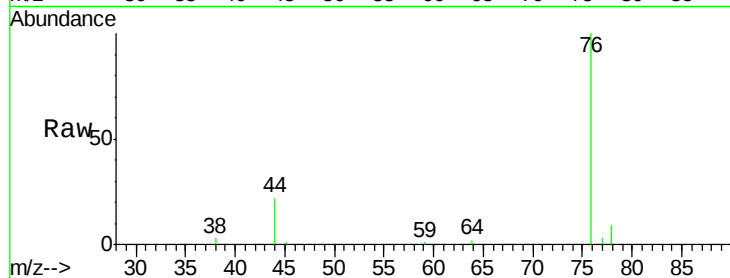
#27  
Carbon Disulfide  
Concen: 0.57 ppbv  
RT: 5.37 min Scan# 375  
Delta R.T. 0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 44      | 22.7  | 13.8  | 20.6# |
| 78      | 9.1   | 7.4   | 11.2  |

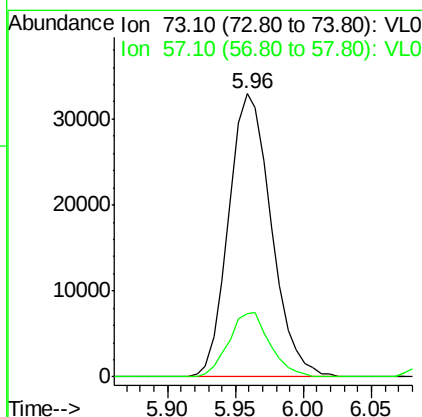
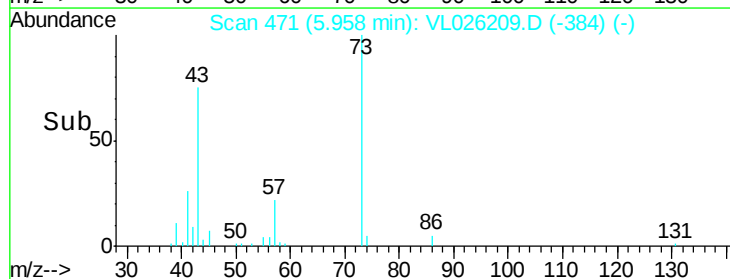
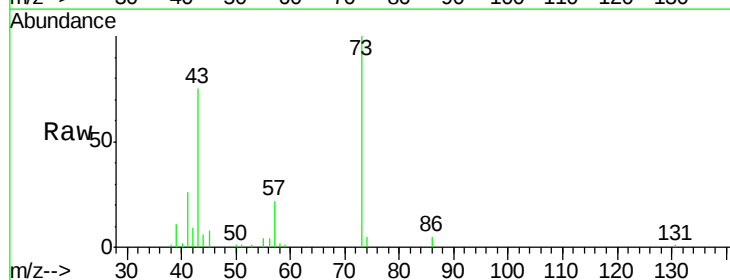
Manual Integrations  
APPROVED

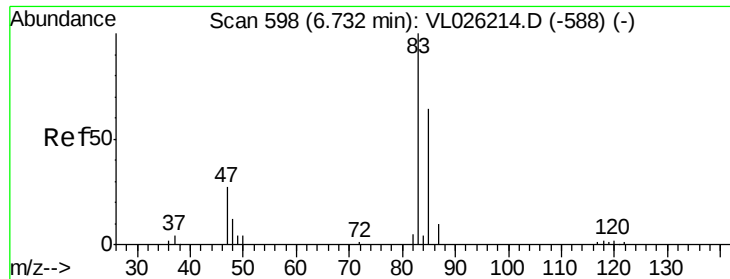
MMDadoda  
10/22/2015 4:31:00 PM



#28  
Methyl tert-Butyl Ether  
Concen: 0.62 ppbv  
RT: 5.96 min Scan# 471  
Delta R.T. 0.03 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 73      | 100   |       |       |
| 57      | 22.0  | 17.9  | 26.9  |





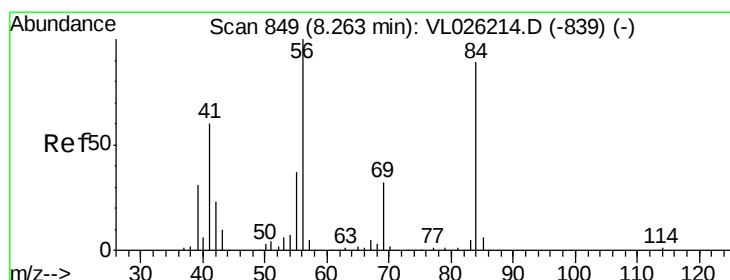
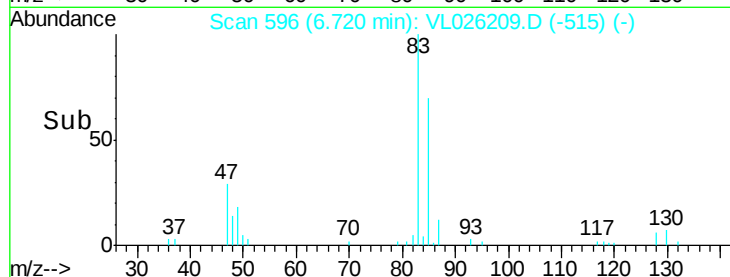
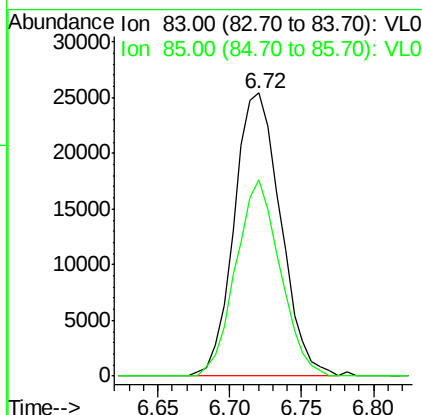
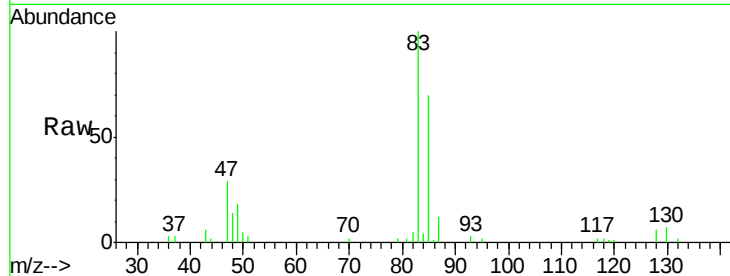
#29  
Chloroform  
Concen: 0.55 ppbv  
RT: 6.72 min Scan# 596  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion   | 83   | Resp  | 56978 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 85        | 69.6 | 51.8  | 77.6  |

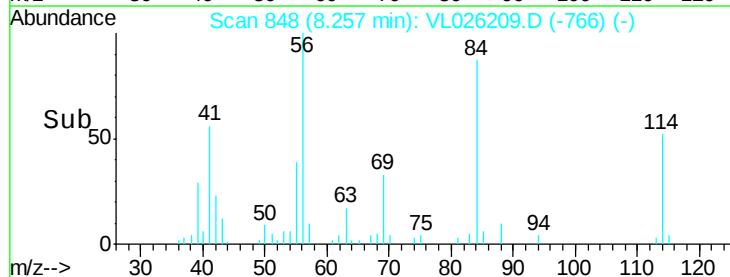
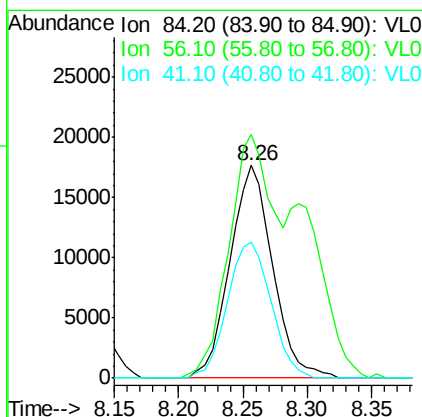
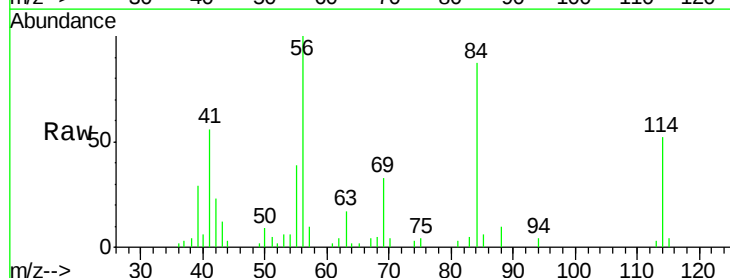
Manual Integrations  
APPROVED

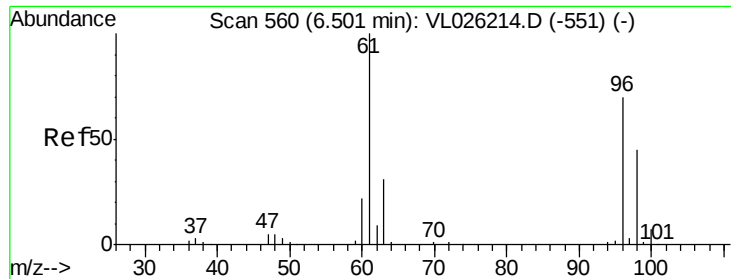
MMDadoda  
10/22/2015 4:31:00 PM



#30  
Cyclohexane  
Concen: 0.60 ppbv  
RT: 8.26 min Scan# 848  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion   | 84    | Resp  | 40686  |
|-----------|-------|-------|--------|
| Ion Ratio | 100   | Lower | Upper  |
| 56        | 192.1 | 97.5  | 146.3# |
| 41        | 65.3  | 54.6  | 81.8   |





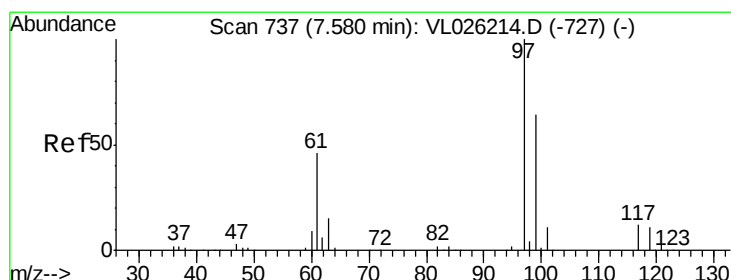
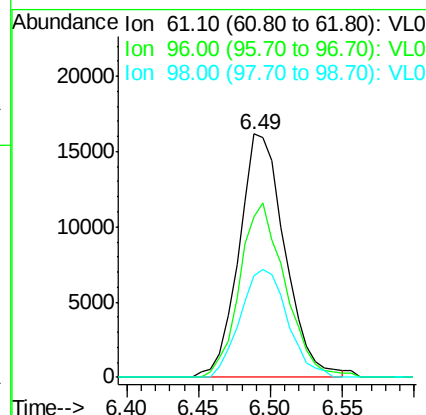
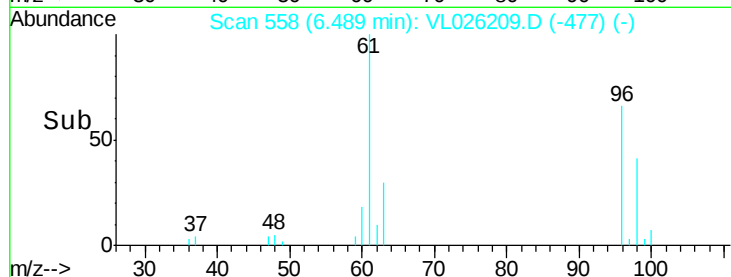
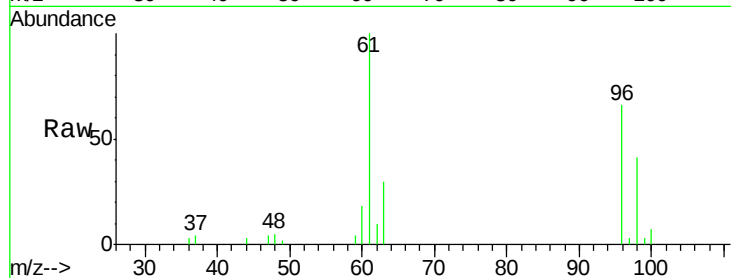
#31  
 cis-1,2-Dichloroethene  
 Concen: 0.56 ppbv  
 RT: 6.49 min Scan# 558  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 65.7  | 57.9  | 86.9  |
| 98      | 41.5  | 37.2  | 55.8  |

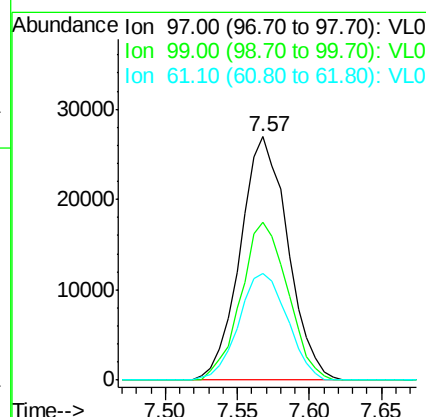
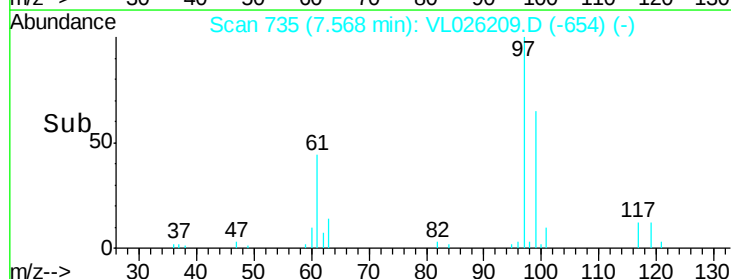
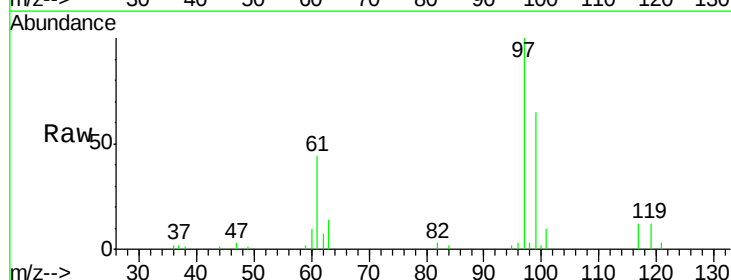
Manual Integrations  
 APPROVED

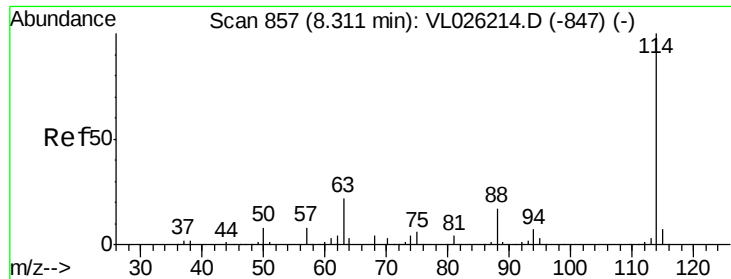
MMDadoda  
 10/22/2015 4:31:00 PM



#32  
 1,1,1-Trichloroethane  
 Concen: 0.62 ppbv  
 RT: 7.57 min Scan# 735  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 63.8  | 51.4  | 77.2  |
| 61      | 44.6  | 36.0  | 54.0  |





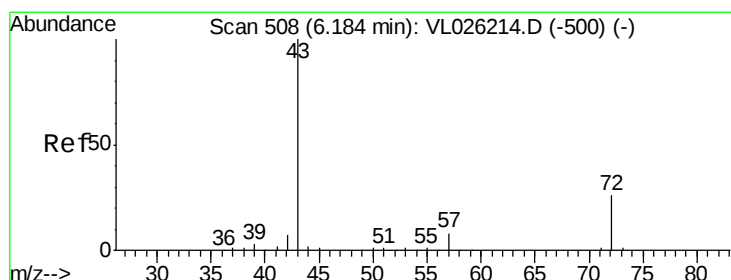
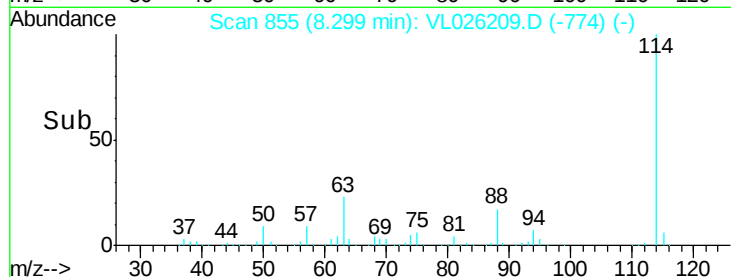
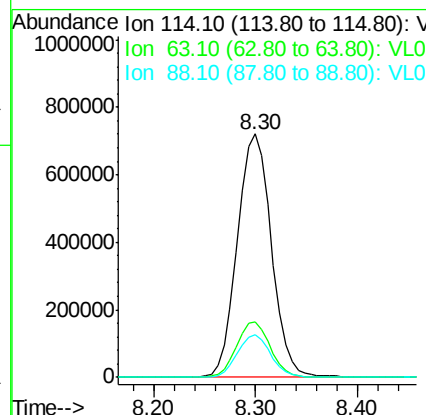
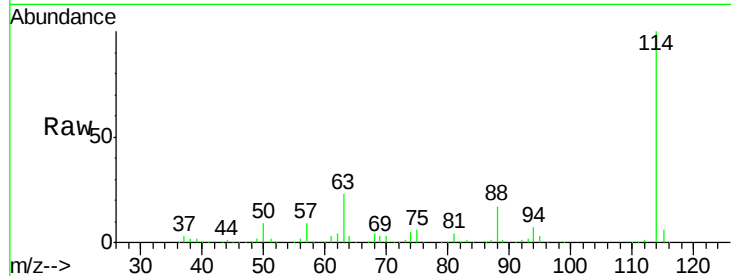
#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 8.30 min Scan# 855  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDIC0.5

Tot Ion:114 Resp: 1674743  
 Ion Ratio Lower Upper  
 114 100  
 63 22.5 17.9 26.9  
 88 17.1 13.6 20.4

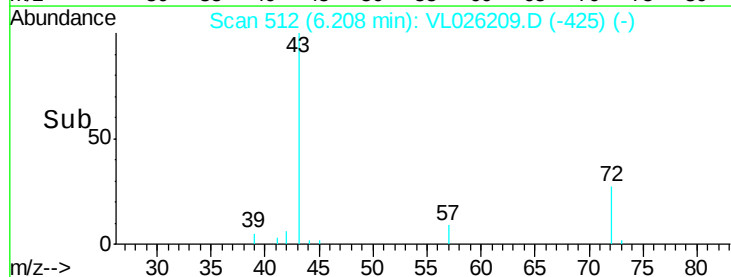
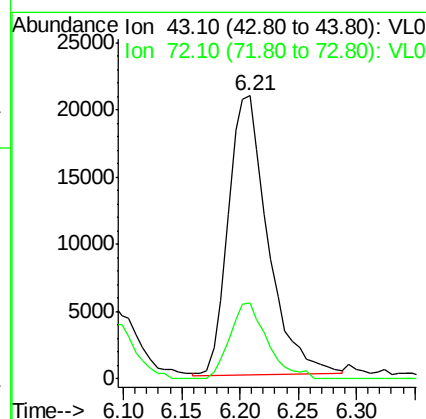
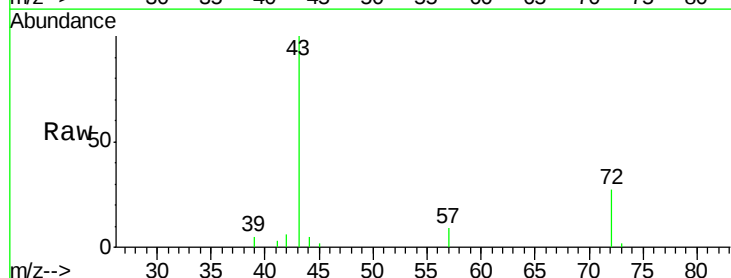
Manual Integrations  
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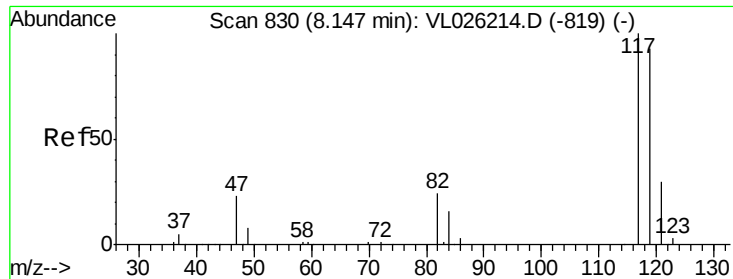
MMDadoda  
 10/22/2015 4:31:00 PM



#34  
 2-Butanone  
 Concen: 0.53 ppbv  
 RT: 6.21 min Scan# 512  
 Delta R.T. 0.03 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Tgt Ion: 43 Resp: 48896  
 Ion Ratio Lower Upper  
 43 100  
 72 25.8 20.2 30.4





#35

Carbon Tetrachloride

Concen: 0.60 ppbv

RT: 8.13 min Scan# 828

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

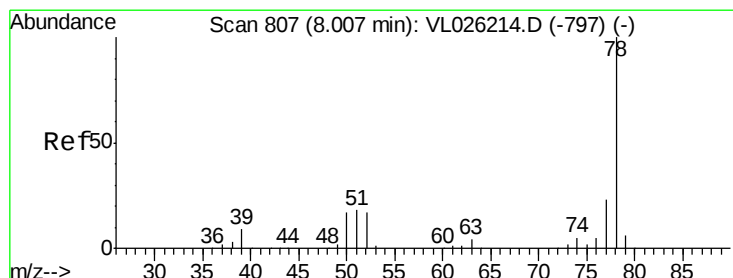
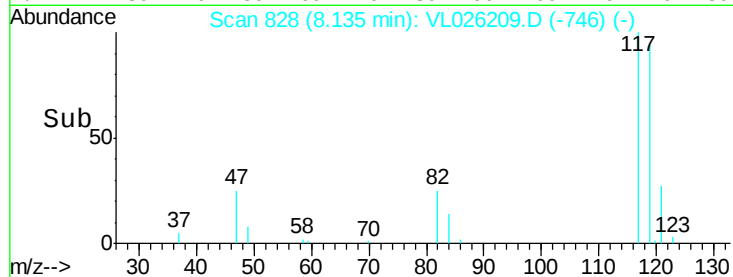
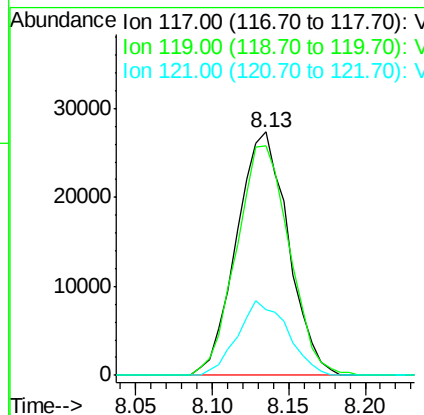
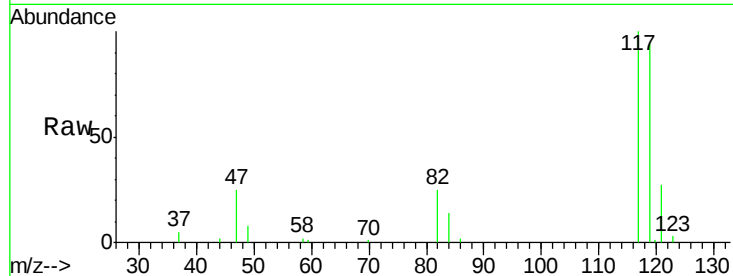
ClientSampleId :

VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 119     | 94.3  | 78.3  | 117.5 |
| 121     | 27.2  | 25.0  | 37.6  |

Manual Integrations  
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MMDadoda  
10/22/2015 4:31:00 PM



#36

Benzene

Concen: 0.56 ppbv

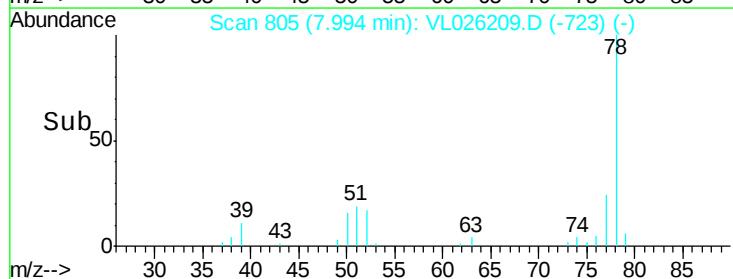
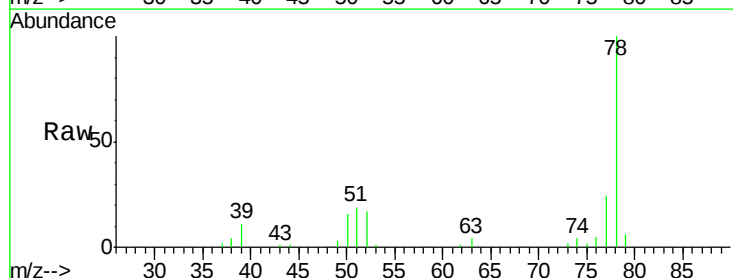
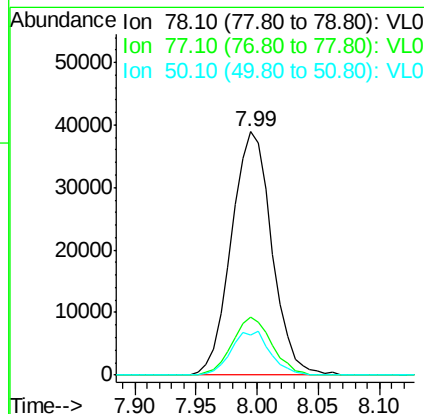
RT: 7.99 min Scan# 805

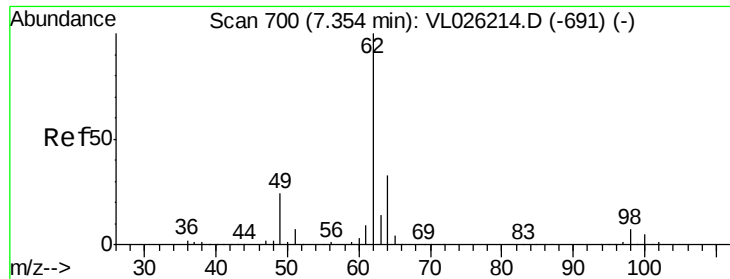
Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 24.1  | 18.1  | 27.1  |
| 50      | 16.3  | 13.4  | 20.0  |





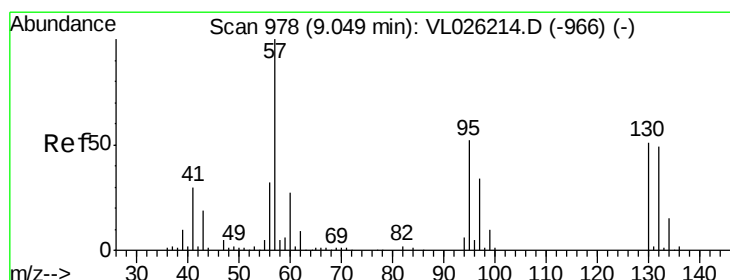
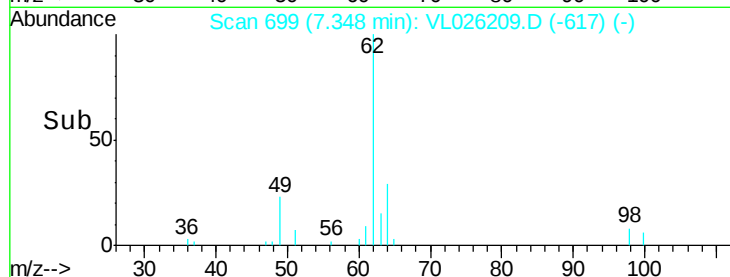
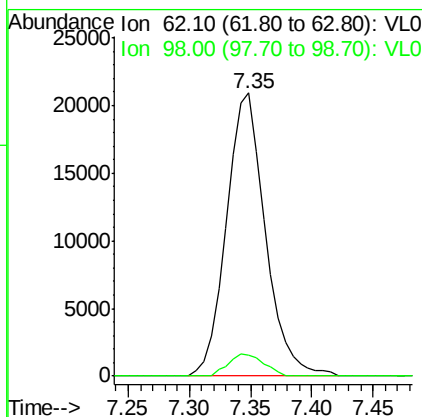
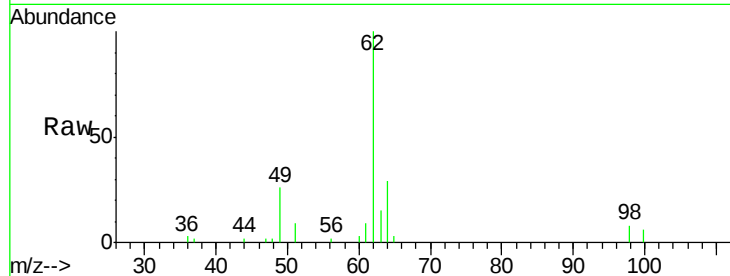
#37  
 1,2-Dichloroethane  
 Concen: 0.54 ppbv  
 RT: 7.35 min Scan# 699  
 Delta R.T. 0.00 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 62      | 100   | 46061 |       |       |
| 98      | 7.1   |       | 6.2   | 9.4   |

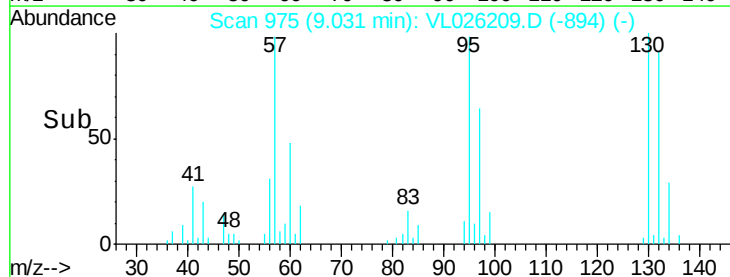
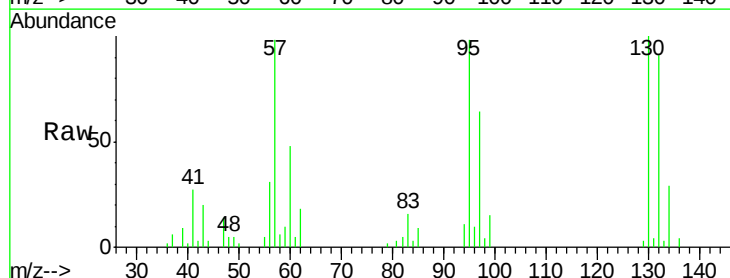
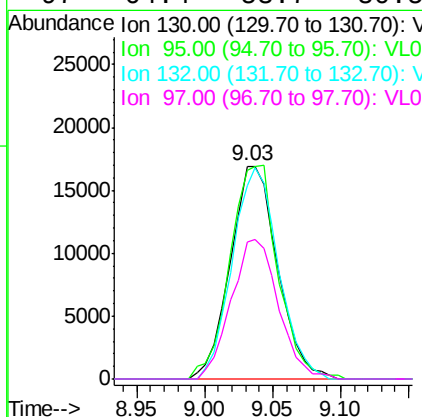
Manual Integrations  
 APPROVED

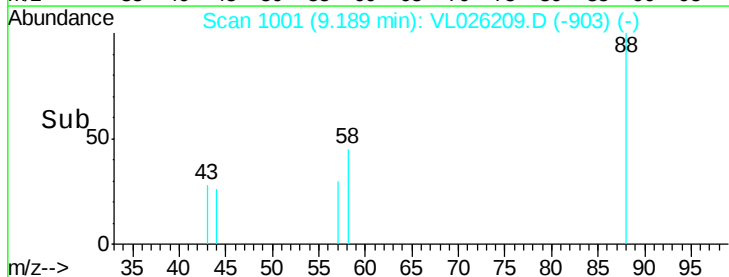
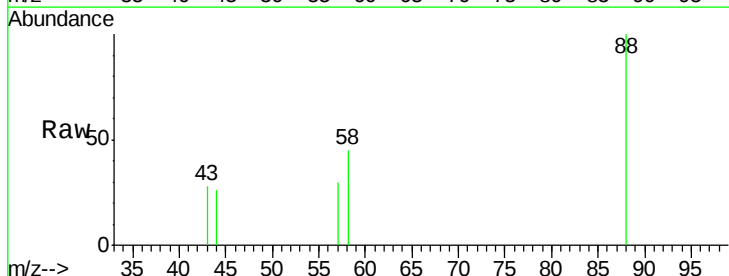
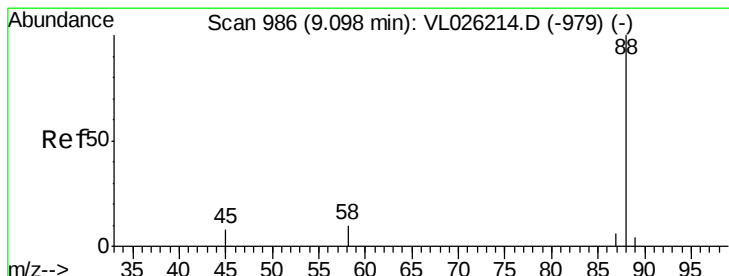
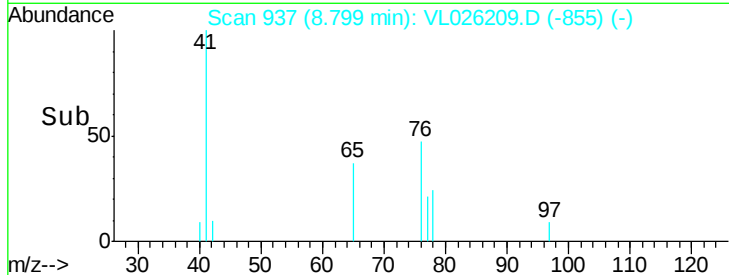
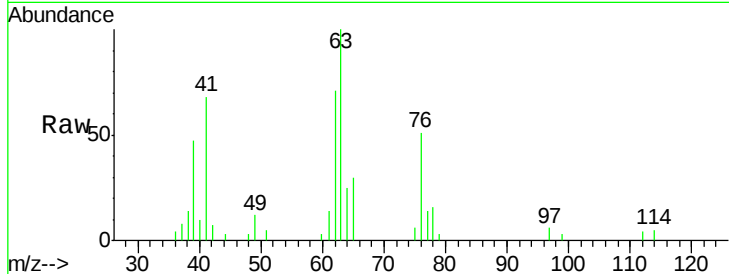
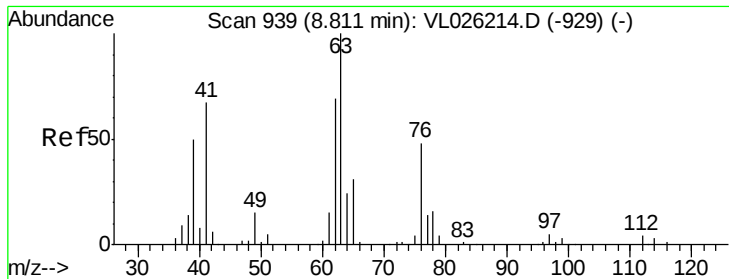
MMDadoda  
 10/22/2015 4:31:00 PM



#38  
 Trichloroethene  
 Concen: 0.56 ppbv  
 RT: 9.03 min Scan# 975  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 130     | 100   | 41154 |       |       |
| 95      | 97.8  |       | 84.2  | 126.2 |
| 132     | 90.6  |       | 78.5  | 117.7 |
| 97      | 64.4  |       | 53.7  | 80.5  |





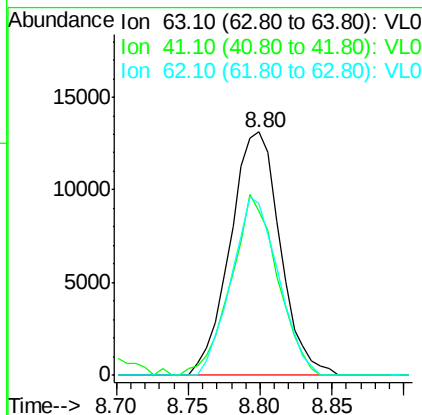
#39  
1,2-Dichloropropane  
Concen: 0.54 ppbv  
RT: 8.80 min Scan# 937  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 67.5  | 54.0  | 81.0  |
| 62      | 70.8  | 56.7  | 85.1  |

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

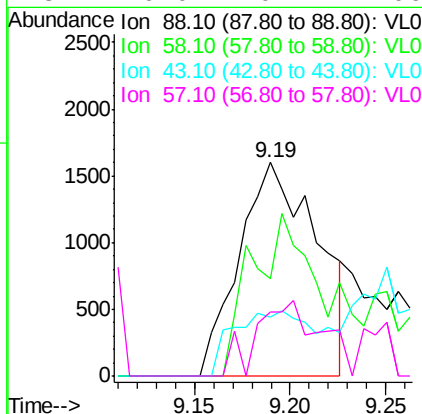
Manual Integrations  
APPROVED

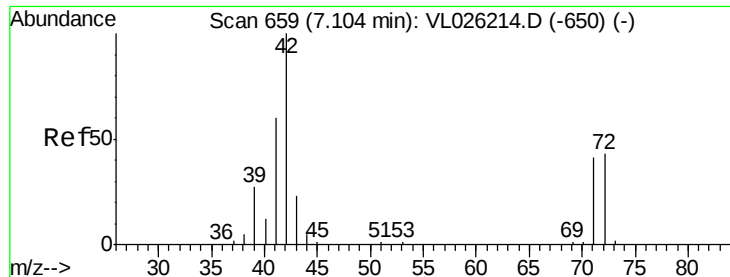
MMDadoda  
10/22/2015 4:31:00 PM



#40  
1,4-Dioxane  
Concen: 0.41 ppbv m  
RT: 9.19 min Scan# 1001  
Delta R.T. 0.10 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower  | Upper   |
|---------|-------|--------|---------|
| 88      | 100   |        |         |
| 58      | 92.0  | 115.9  | 173.9#  |
| 43      | 0.0   | 279.4  | 419.0#  |
| 57      | 0.0   | 1404.1 | 2106.1# |





#41

Tetrahydrofuran

Concen: 0.53 ppbv

RT: 7.14 min Scan# 665

Delta R.T. 0.05 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

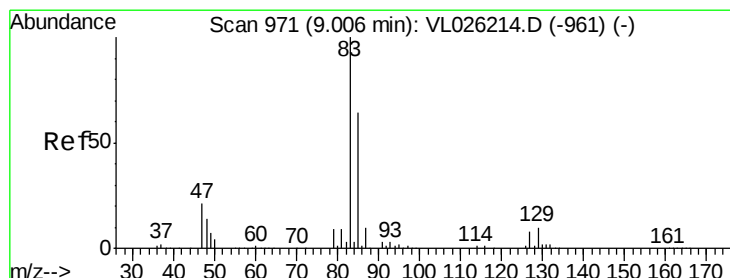
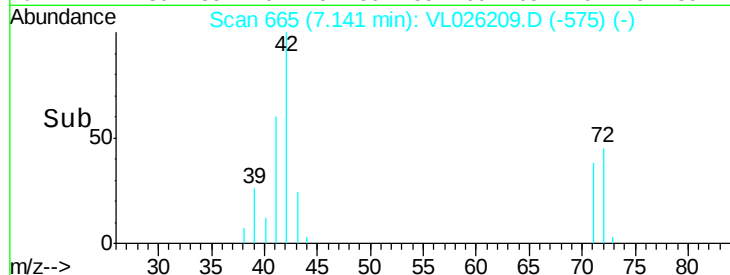
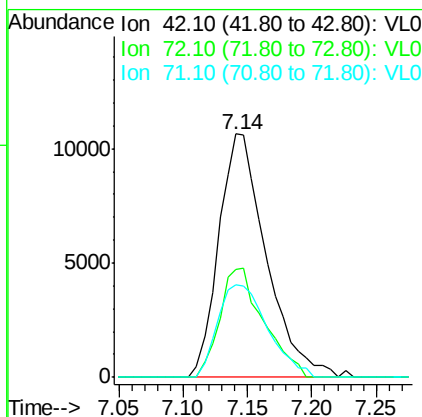
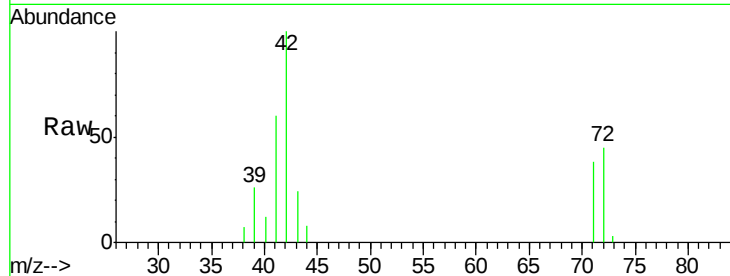
ClientSampleId :

VSTDIC0.5

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 42    | Resp: | 27305 |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 41.6  | 33.8  | 50.6  |
| 71       | 40.1  | 32.3  | 48.5  |

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#42

Bromodichloromethane

Concen: 0.57 ppbv

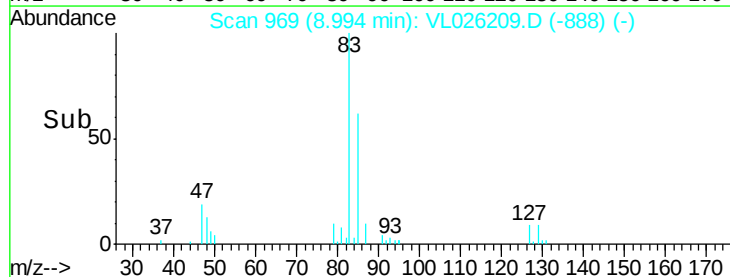
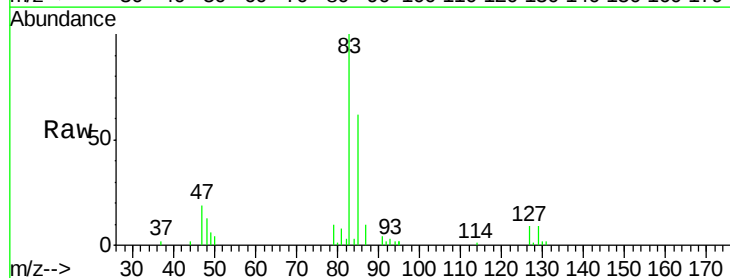
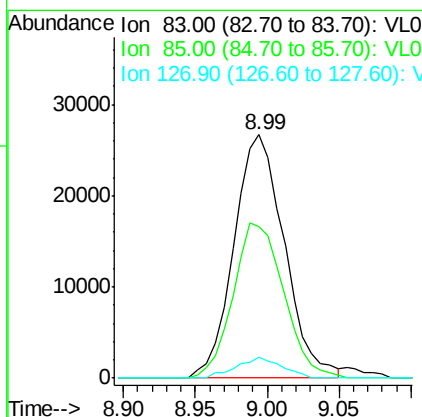
RT: 8.99 min Scan# 969

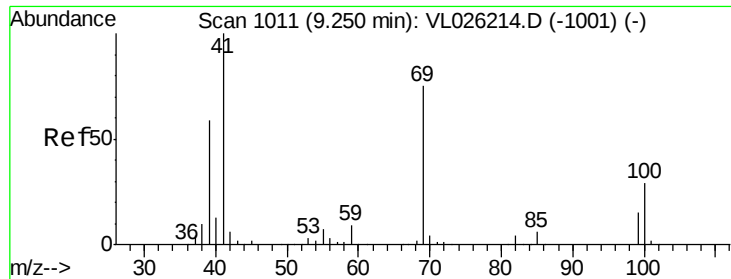
Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 64805 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 62.1  | 50.6  | 75.8  |
| 127      | 8.6   | 6.5   | 9.7   |





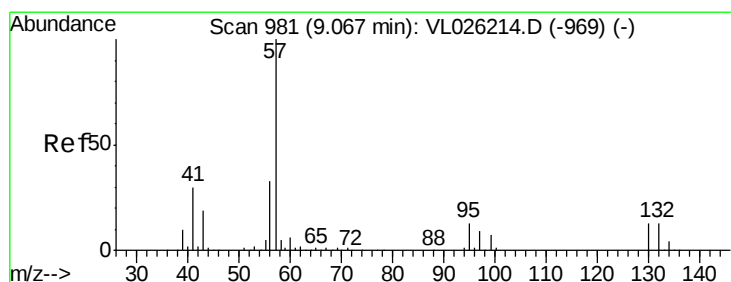
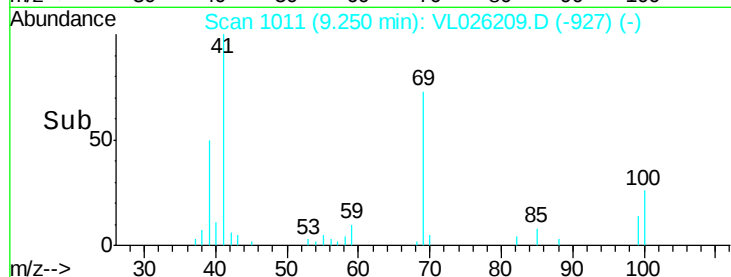
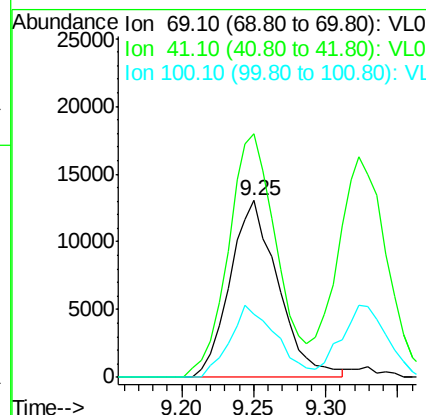
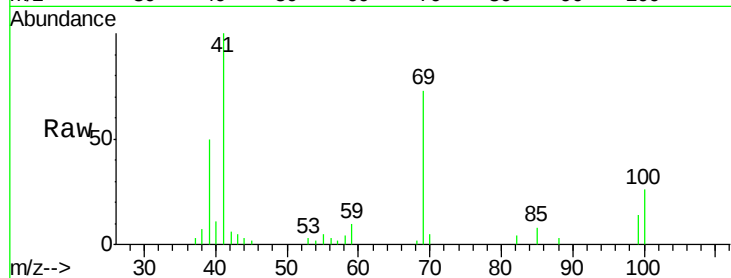
#43  
Methvl Methacrvlate  
Concen: 0.54 ppbv  
RT: 9.25 min Scan# 1011  
Delta R.T. 0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 69      | 100   |       |       |
| 41      | 134.0 | 109.0 | 163.4 |
| 100     | 37.8  | 31.0  | 46.6  |

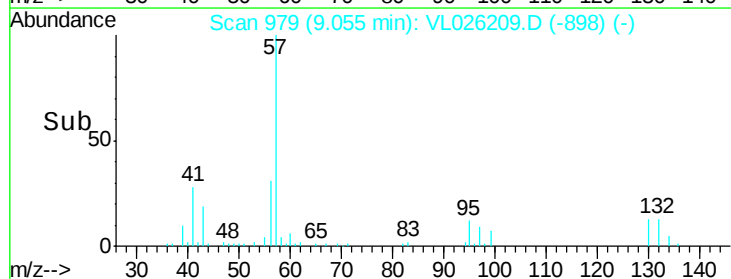
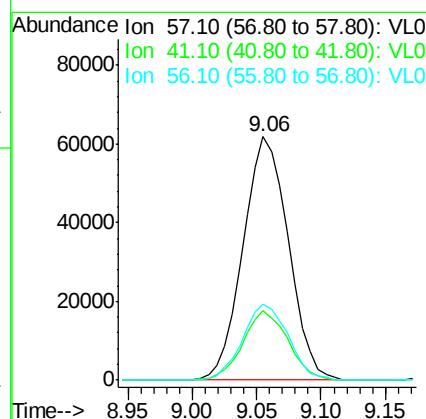
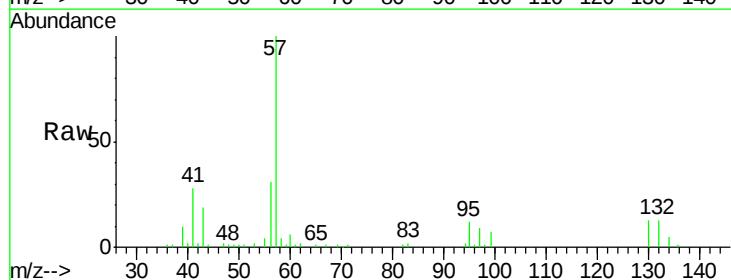
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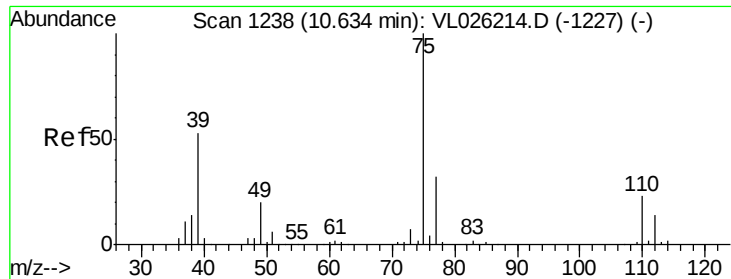
MMDadoda  
10/22/2015 4:31:00 PM



#44  
2,2,4-Trimethylpentane  
Concen: 0.57 ppbv  
RT: 9.06 min Scan# 979  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 28.3  | 24.0  | 36.0  |
| 56      | 31.4  | 26.6  | 39.8  |





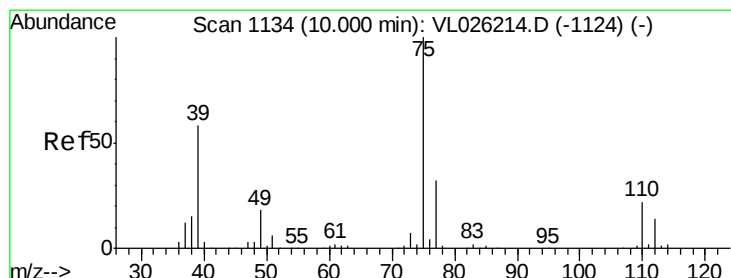
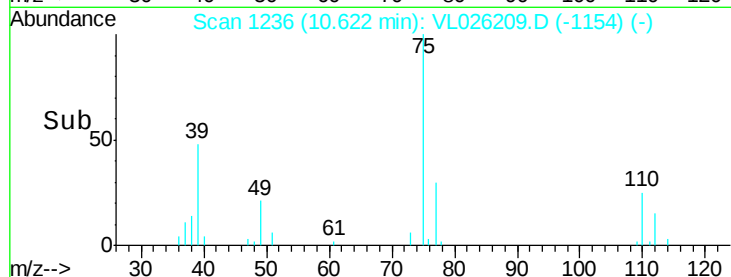
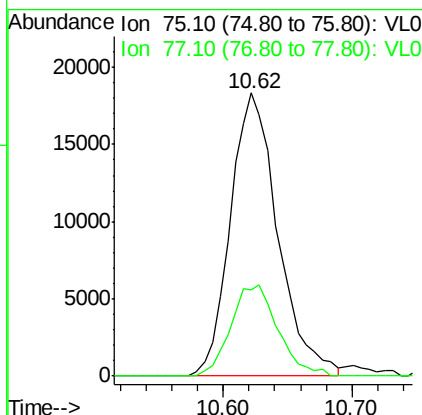
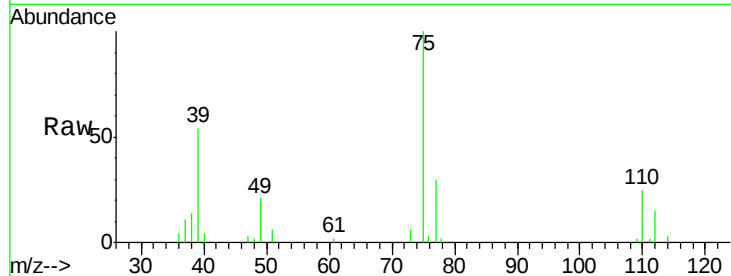
#45  
t-1,3-Dichloropropene  
Concen: 0.59 ppbv  
RT: 10.62 min Scan# 1236  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Tot Ion: 75 Resp: 46963  
Ion Ratio Lower Upper  
75 100  
77 30.3 25.5 38.3

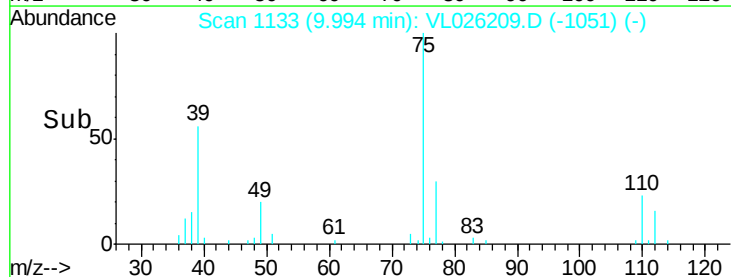
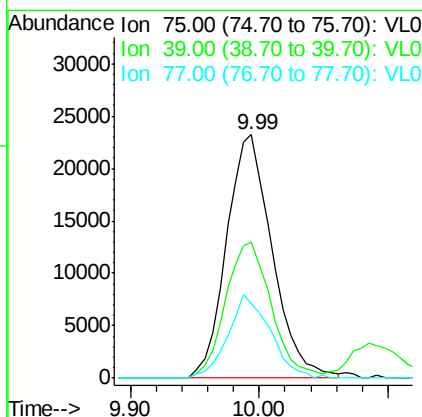
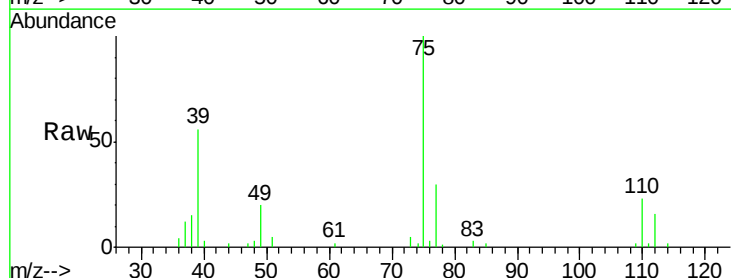
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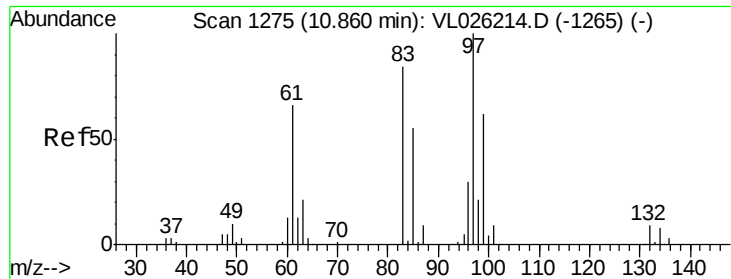
MMDadoda  
10/22/2015 4:31:00 PM



#46  
cis-1,3-Dichloropropene  
Concen: 0.59 ppbv  
RT: 9.99 min Scan# 1133  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Tgt Ion: 75 Resp: 57220  
Ion Ratio Lower Upper  
75 100  
39 55.7 45.3 67.9  
77 30.5 25.3 37.9





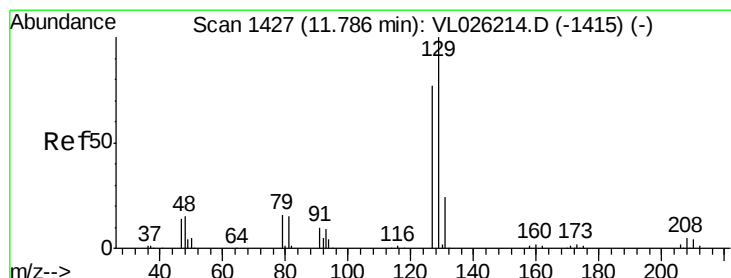
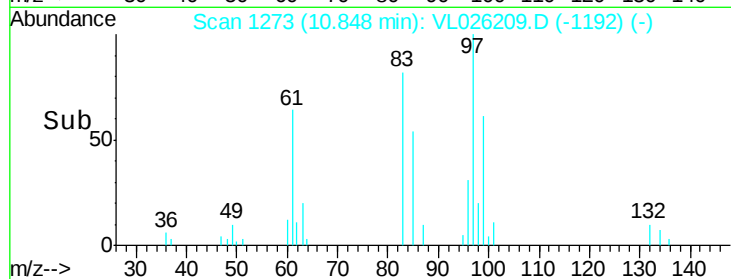
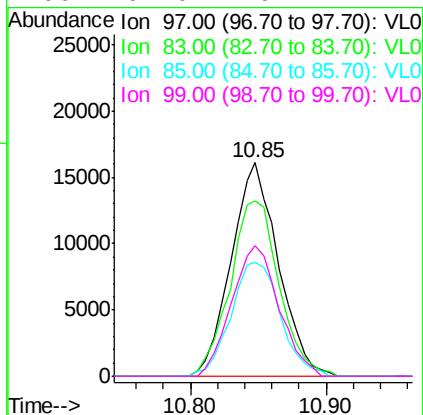
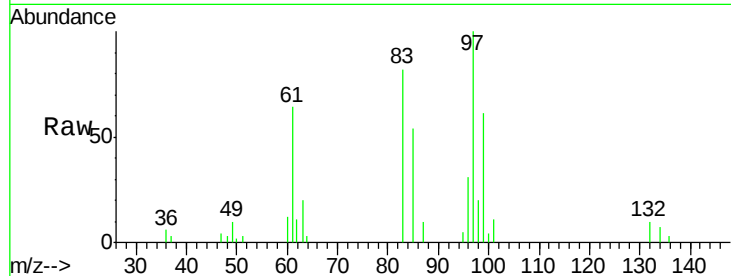
#47  
 1,1,2-Trichloroethane  
 Concen: 0.54 ppbv  
 RT: 10.85 min Scan# 1273  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 97      | 100  |       |       |       |
| 83      | 82.1 | 68.6  | 103.0 |       |
| 85      | 53.5 | 43.5  | 65.3  |       |
| 99      | 61.0 | 49.4  | 74.2  |       |

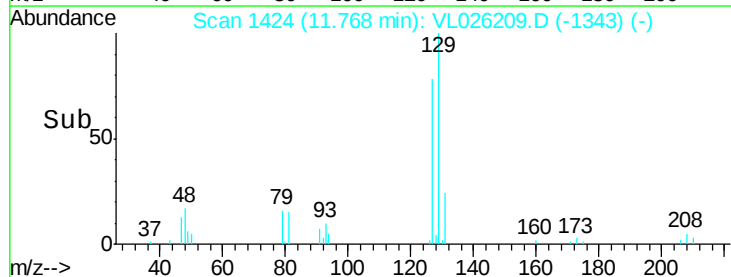
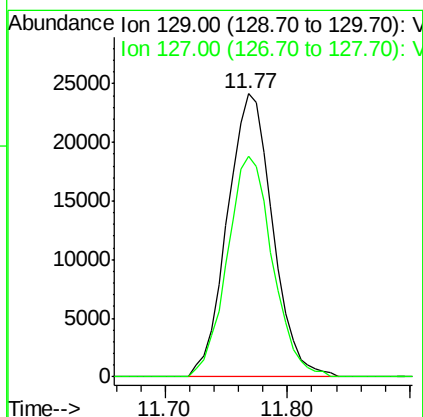
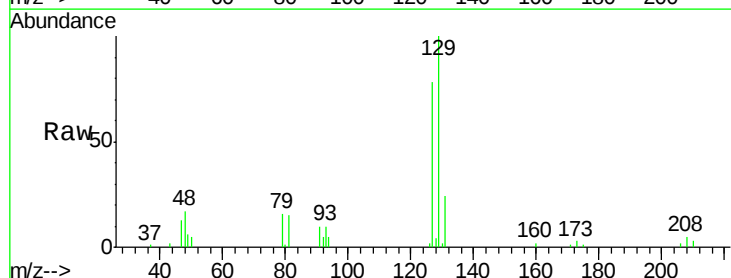
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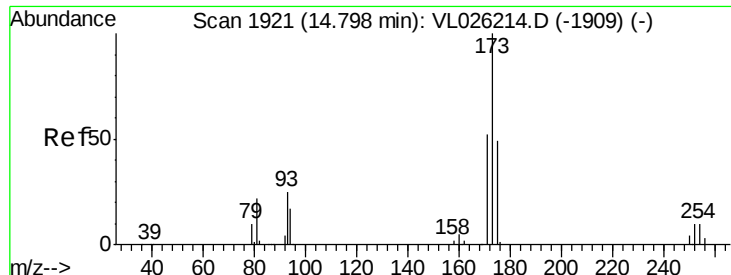
MMDadoda  
 10/22/2015 4:31:00 PM



#48  
 Dibromochloromethane  
 Concen: 0.60 ppbv  
 RT: 11.77 min Scan# 1424  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 129     | 100  |       |       |       |
| 127     | 77.5 | 39.2  | 117.6 |       |





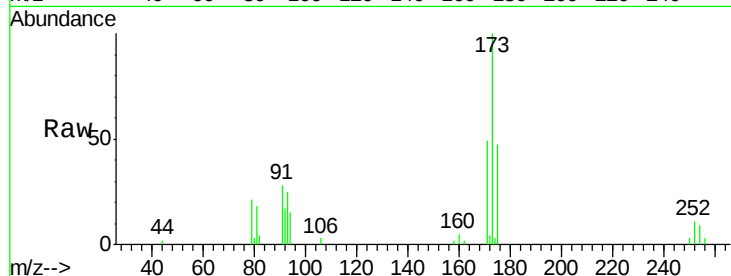
#49  
Bromoform  
Concen: 0.65 ppbv  
RT: 14.77 min Scan# 1917  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

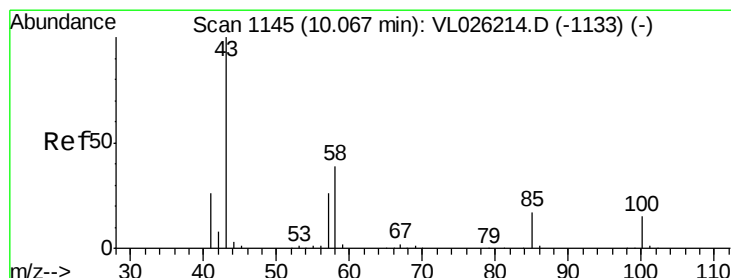
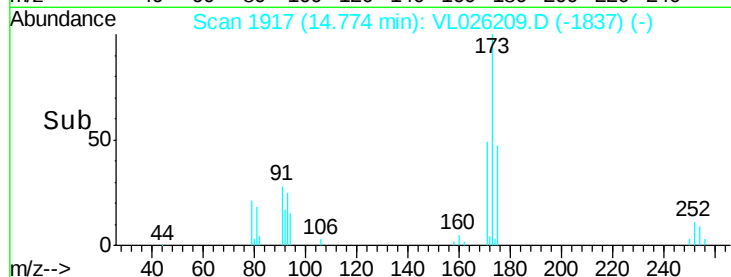
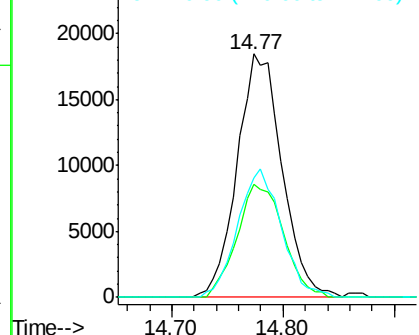
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173     | 100   |       |       |
| 175     | 48.2  | 38.7  | 58.1  |
| 171     | 51.4  | 41.4  | 62.0  |

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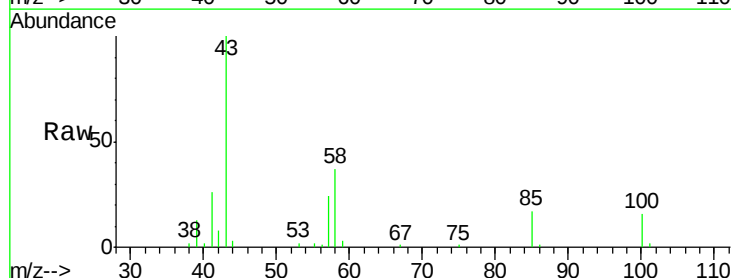


Abundance Ion 172.90 (172.60 to 173.60): V  
Ion 174.90 (174.60 to 175.60): V  
Ion 170.90 (170.60 to 171.60): V

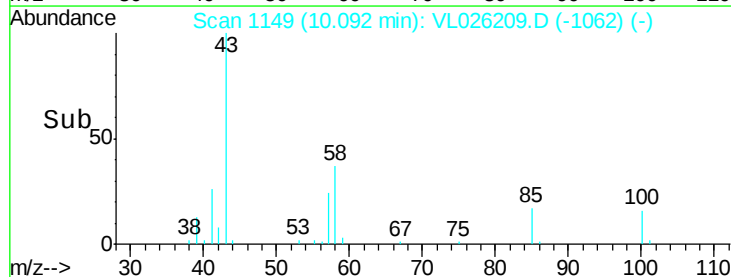
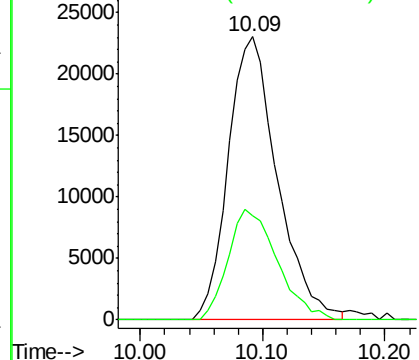


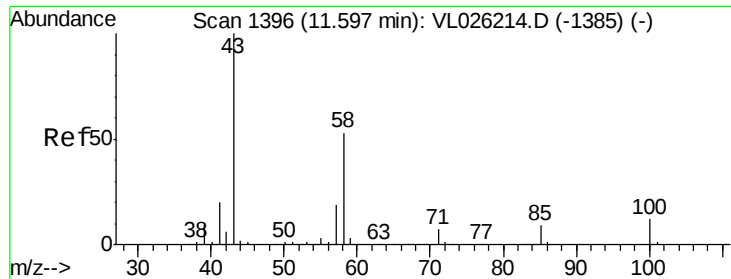
#50  
4-Methyl-2-Pentanone  
Concen: 0.52 ppbv  
RT: 10.09 min Scan# 1149  
Delta R.T. 0.03 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 39.2  | 31.3  | 46.9  |



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





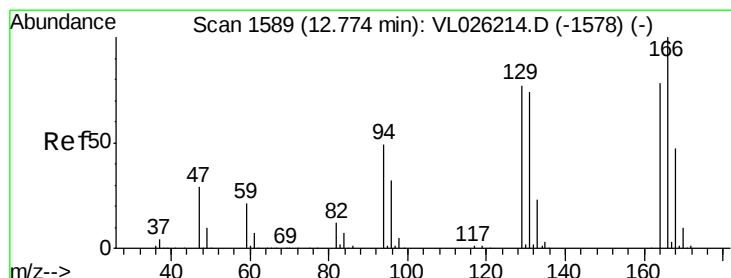
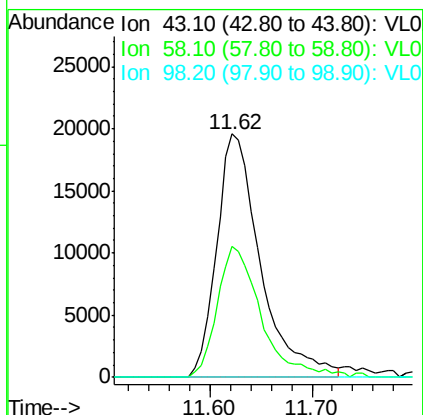
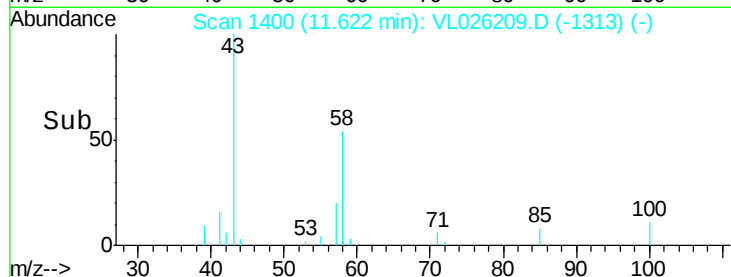
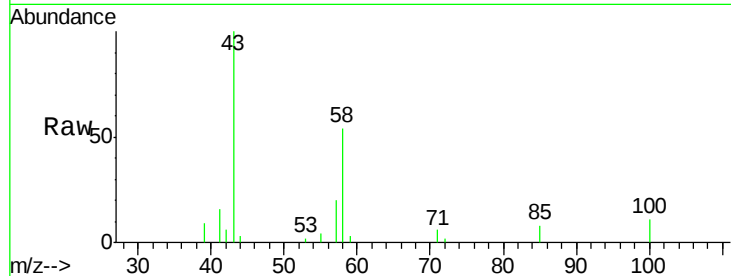
#51  
2-Hexanone  
Concen: 0.54 ppbv  
RT: 11.62 min Scan# 1400  
Delta R.T. 0.03 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 54.0  | 43.9  | 65.9  |
| 98      | 0.0   | 0.1   | 0.1#  |

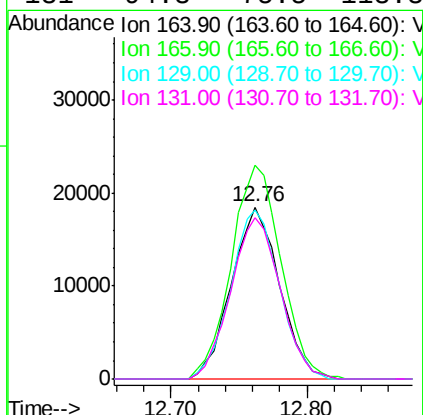
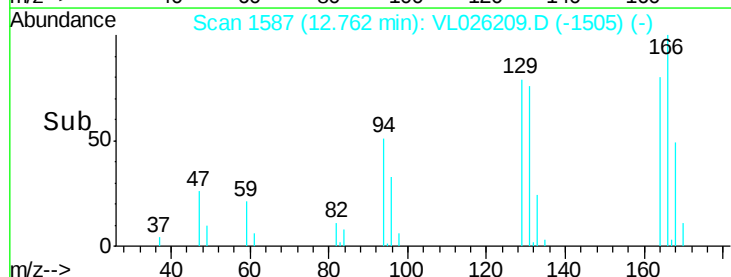
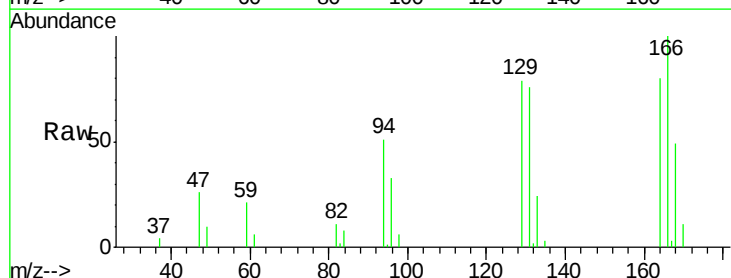
Manual Integrations  
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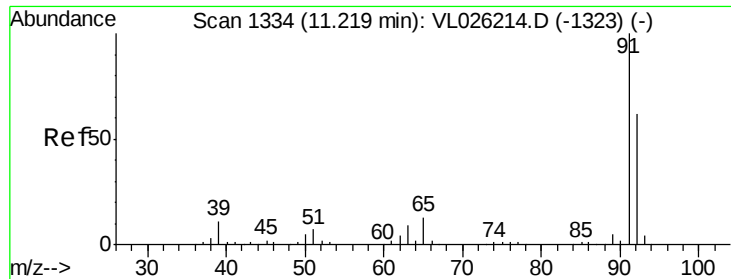
MMDadoda  
10/22/2015 4:31:00 PM



#52  
Tetrachloroethene  
Concen: 0.57 ppbv  
RT: 12.76 min Scan# 1587  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 124.4 | 100.9 | 151.3 |
| 129     | 98.6  | 79.7  | 119.5 |
| 131     | 94.3  | 75.5  | 113.3 |





#53

Toluene

Concen: 0.59 ppbv

RT: 11.21 min Scan# 1332

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 91 Resp: 122547

Ion Ratio Lower Upper

91 100

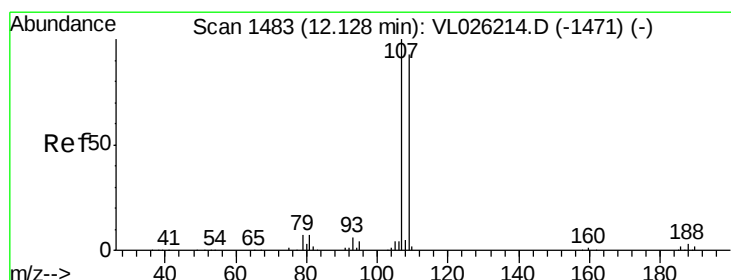
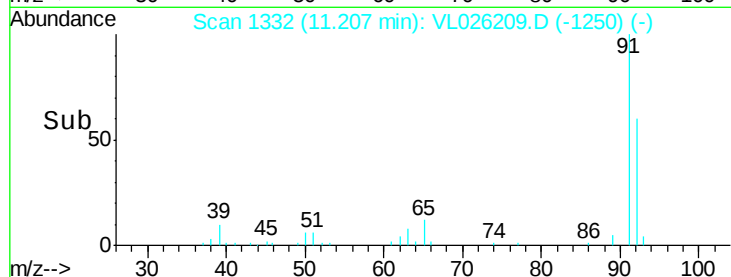
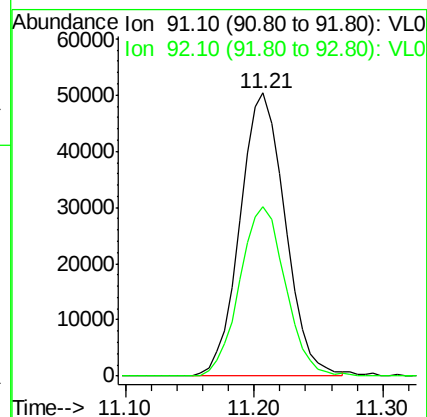
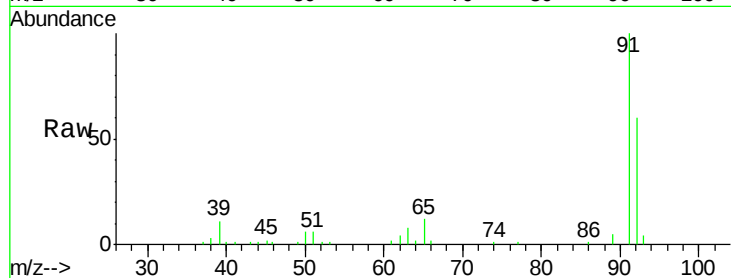
92 60.7 49.0 73.6

Manual Integrations

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#54

1,2-Dibromoethane

Concen: 0.56 ppbv

RT: 12.11 min Scan# 1480

Delta R.T. -0.01 min

Lab File: VL026209.D

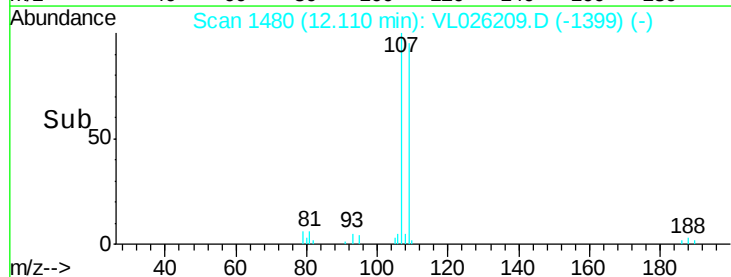
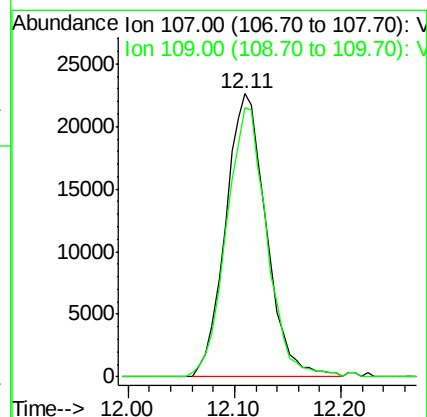
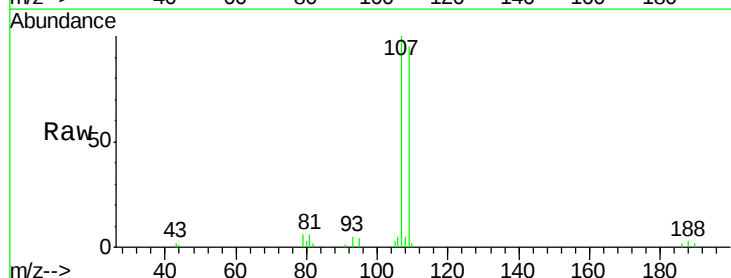
Acq: 20 Oct 2015 12:32

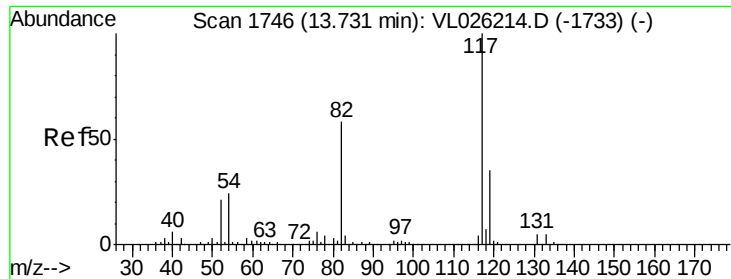
Tgt Ion: 107 Resp: 60276

Ion Ratio Lower Upper

107 100

109 95.2 74.6 112.0





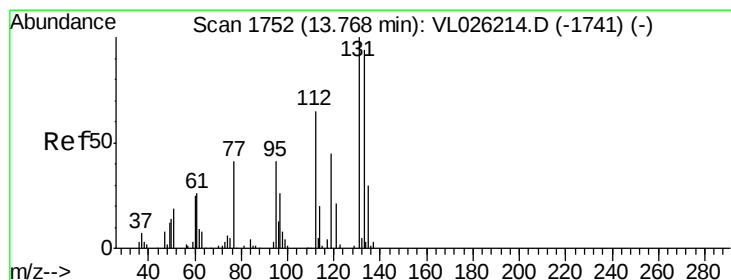
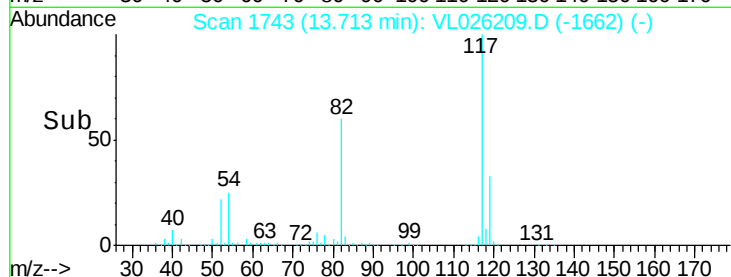
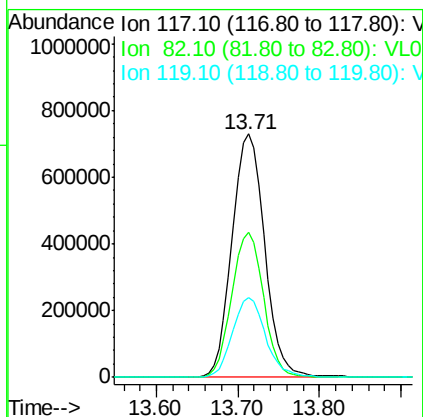
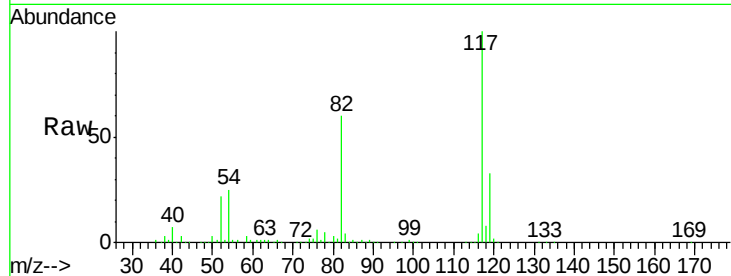
#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv  
RT: 13.71 min Scan# 1743  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 58.9  | 46.3  | 69.5  |
| 119     | 33.4  | 45.0  | 67.4# |

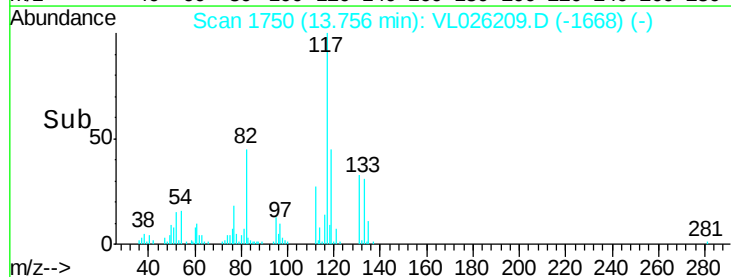
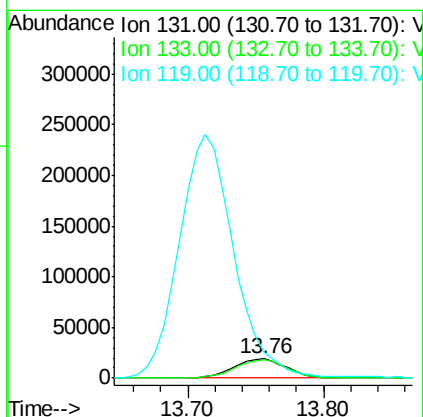
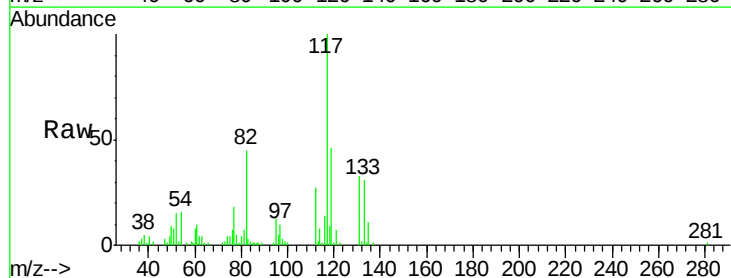
Manual Integrations  
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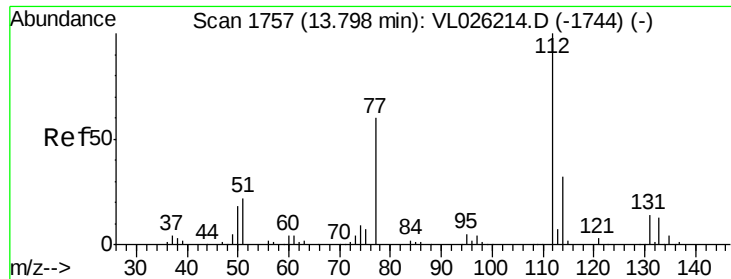
MMDadoda  
10/22/2015 4:31:00 PM



#56  
1,1,1,2-Tetrachloroethane  
Concen: 0.62 ppbv  
RT: 13.76 min Scan# 1750  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio  | Lower | Upper  |
|---------|--------|-------|--------|
| 131     | 100    |       |        |
| 133     | 95.5   | 76.1  | 114.1  |
| 119     | 1334.7 | 109.4 | 164.2# |





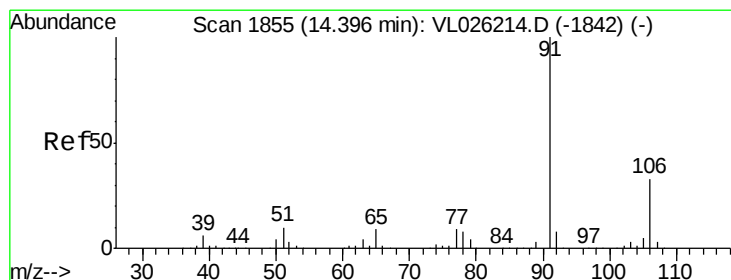
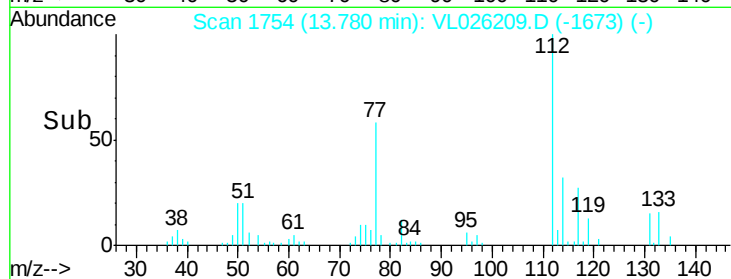
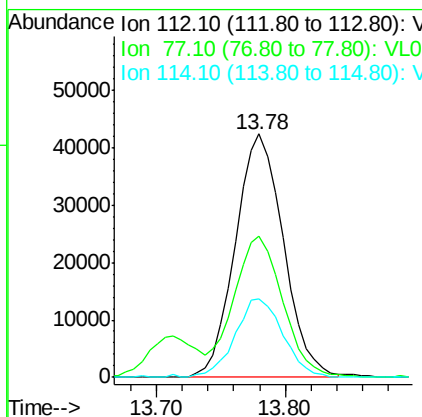
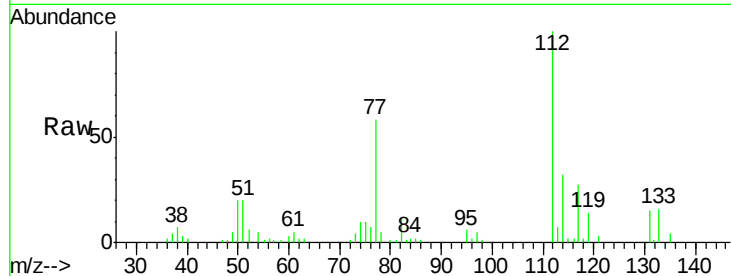
#57  
Chlorobenzene  
Concen: 0.60 ppbv  
RT: 13.78 min Scan# 1754  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 56.7  | 48.2  | 72.4  |
| 114     | 32.4  | 29.0  | 35.4  |

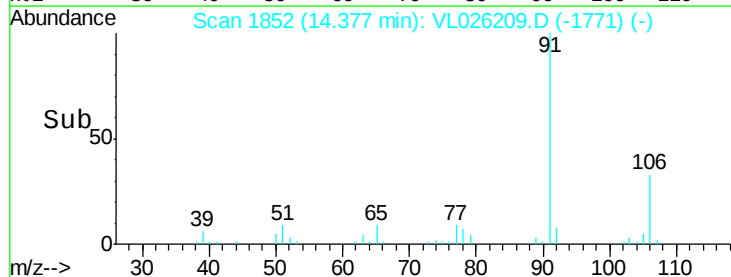
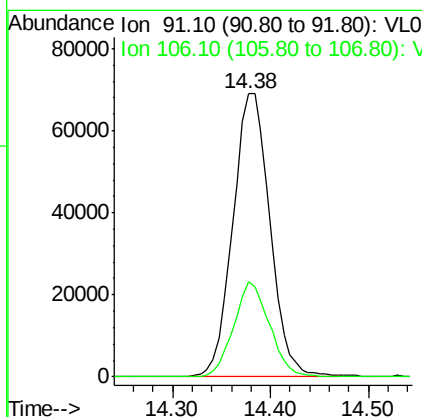
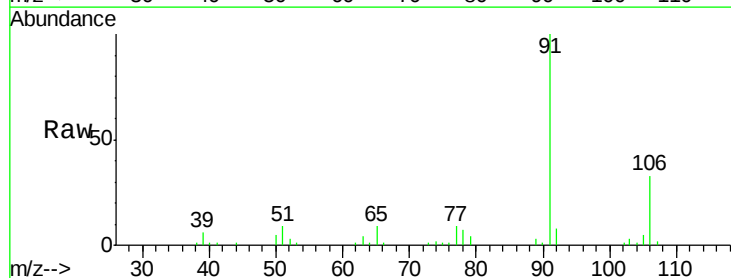
Manual Integrations  
APPROVED

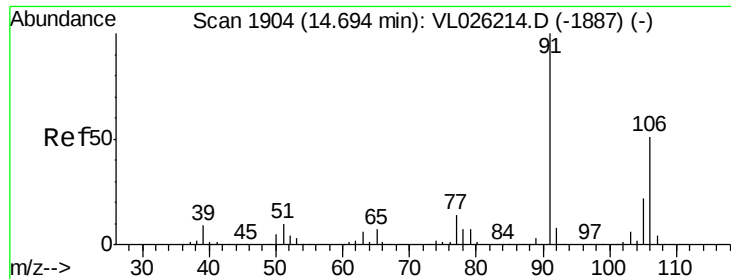
MMDadoda  
10/22/2015 4:31:00 PM



#58  
Ethyl Benzene  
Concen: 0.62 ppbv  
RT: 14.38 min Scan# 1852  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 33.5  | 26.2  | 39.2  |





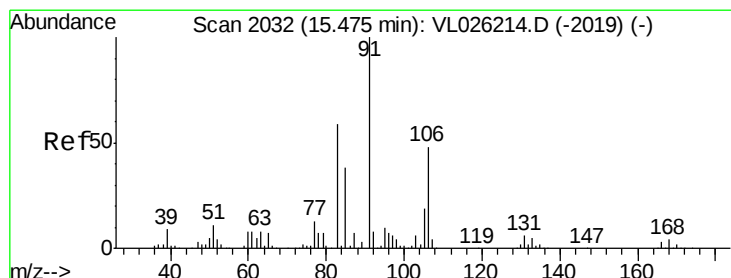
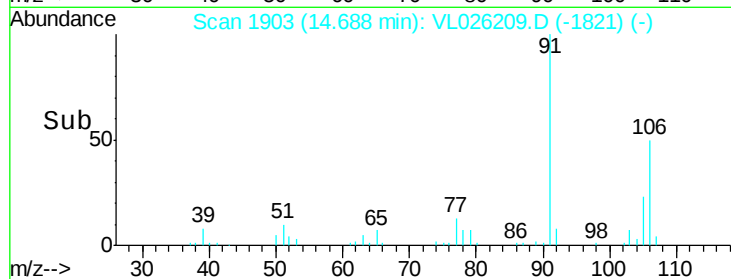
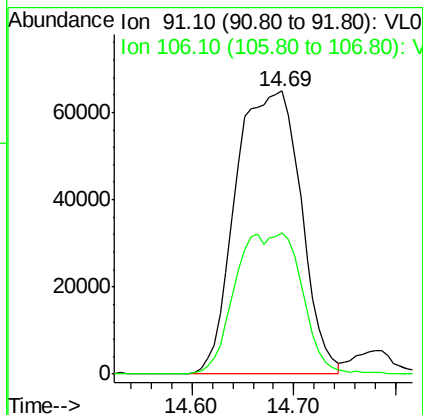
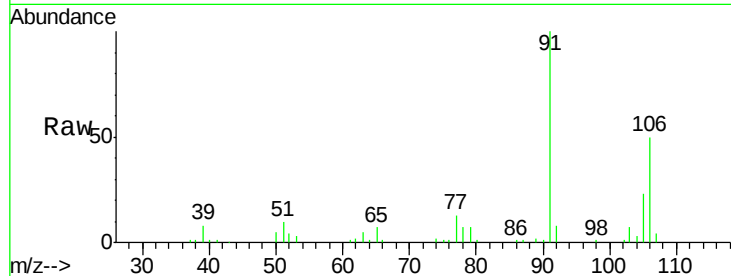
#59  
m/p-Xylene  
Concen: 1.20 ppbv  
RT: 14.69 min Scan# 1903  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

Tot Ion: 91 Resp: 286957  
Ion Ratio Lower Upper  
91 100  
106 50.8 40.6 60.8

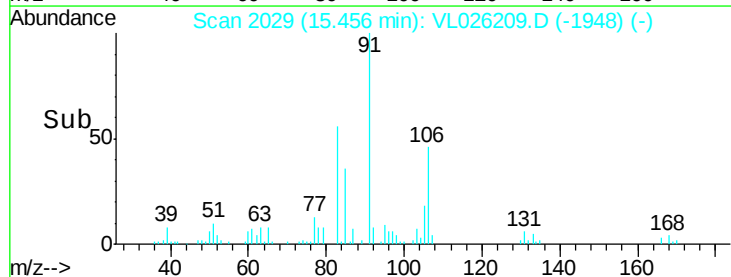
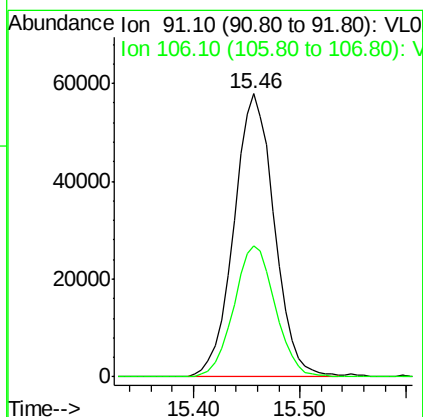
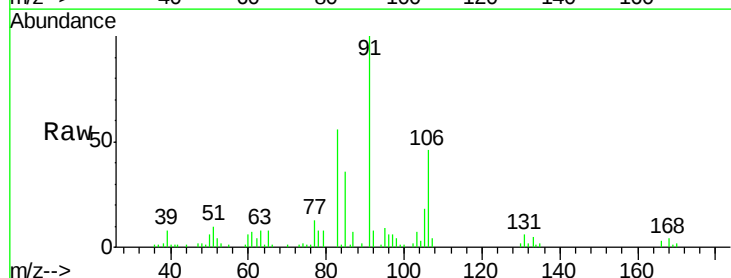
Manual Integrations  
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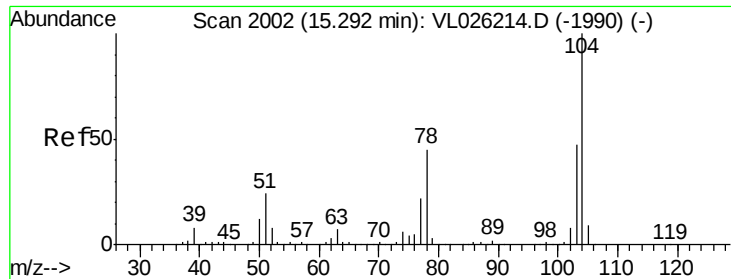
MMDadoda  
10/22/2015 4:31:00 PM



#60  
o-Xylene  
Concen: 0.62 ppbv  
RT: 15.46 min Scan# 2029  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Tgt Ion: 91 Resp: 154012  
Ion Ratio Lower Upper  
91 100  
106 47.3 23.6 71.0





#61

Stvrene

Concen: 0.59 ppbv

RT: 15.28 min Scan# 2000

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

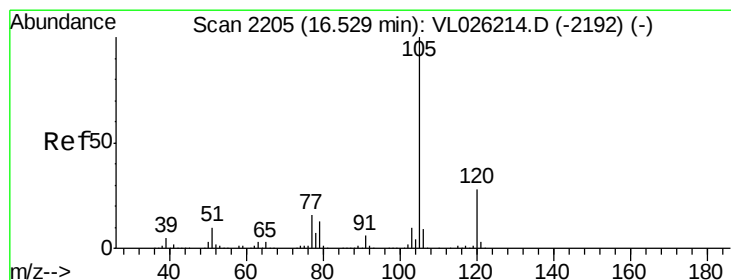
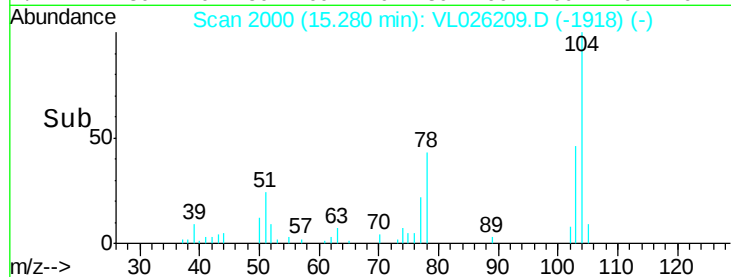
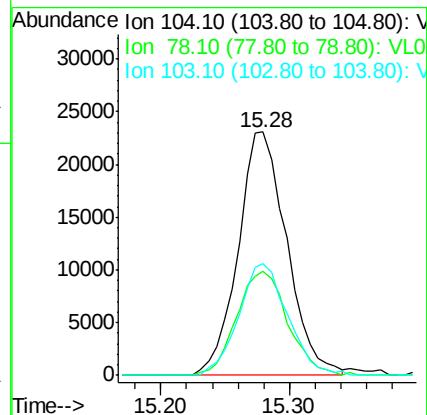
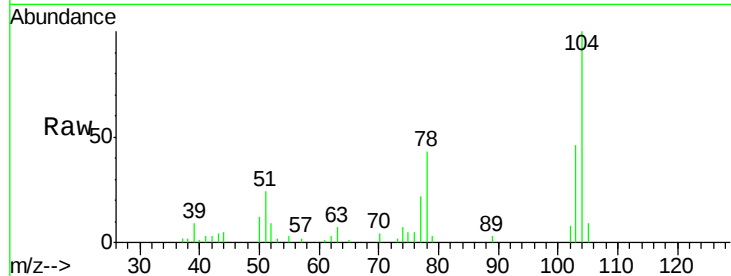
ClientSampleId :

VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 45.0  | 35.6  | 53.4  |
| 103     | 46.3  | 37.1  | 55.7  |

Manual Integrations  
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MMDadoda  
10/22/2015 4:31:00 PM



#62

Isopropylbenzene

Concen: 0.63 ppbv

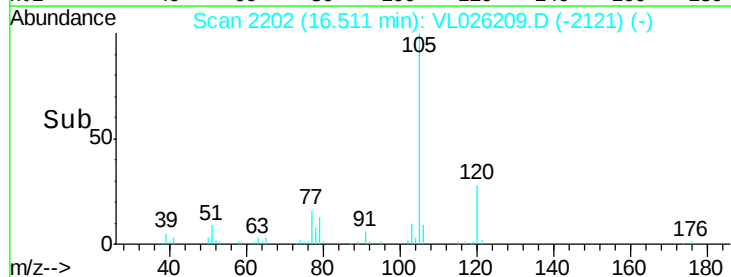
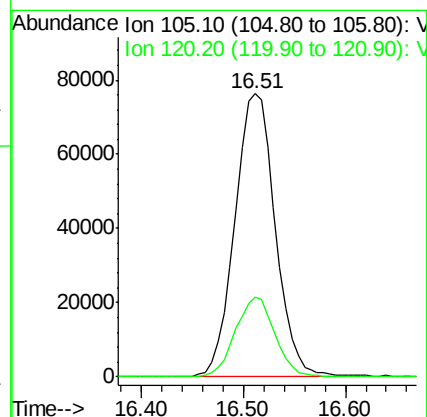
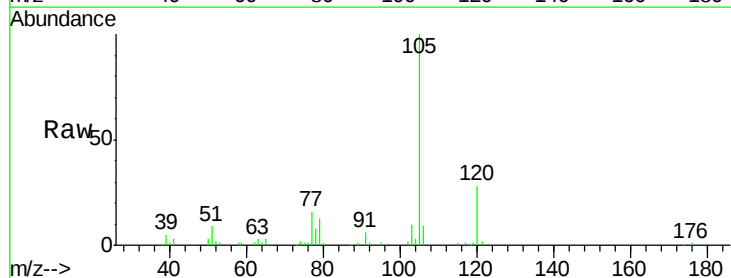
RT: 16.51 min Scan# 2202

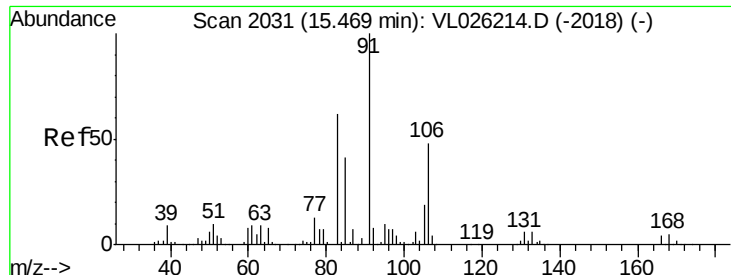
Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 27.3  | 21.8  | 32.6  |





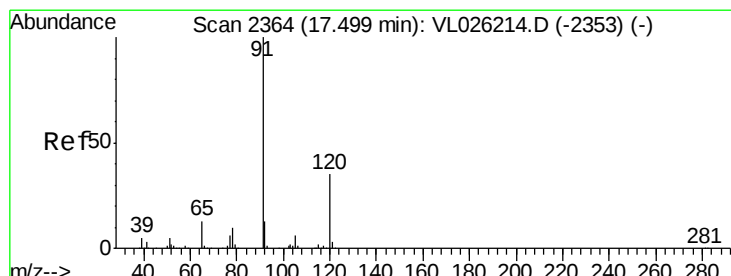
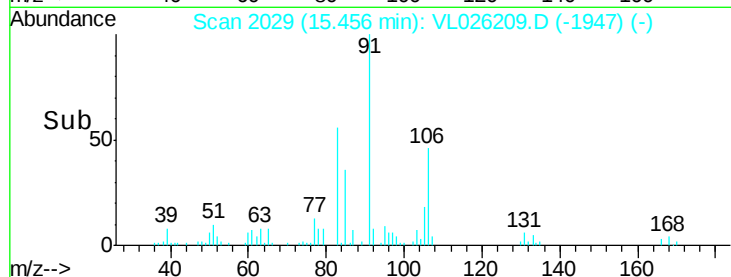
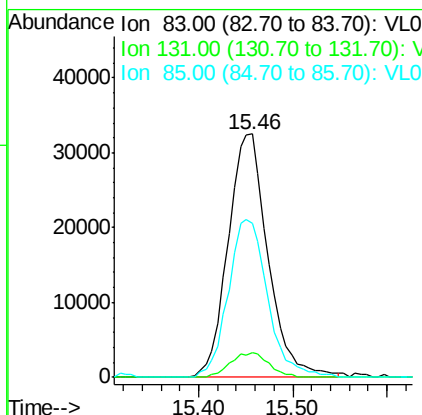
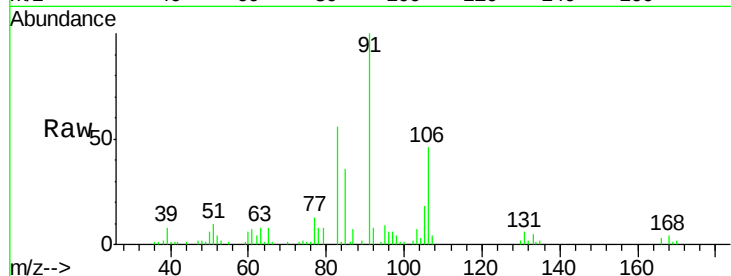
#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.52 ppbv  
 RT: 15.46 min Scan# 2029  
 Delta R.T. 0.00 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion   | 83   | Resp  | 96009 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 83        | 100  |       |       |
| 131       | 9.7  | 4.9   | 14.7  |
| 85        | 64.0 | 32.3  | 96.8  |

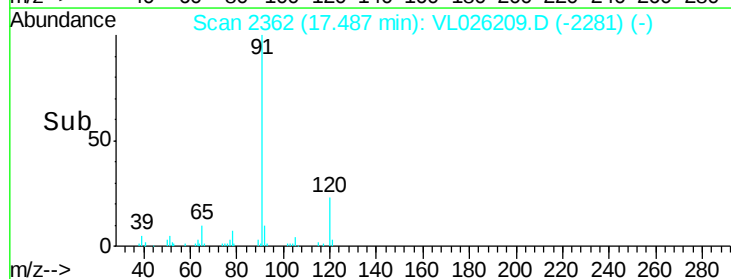
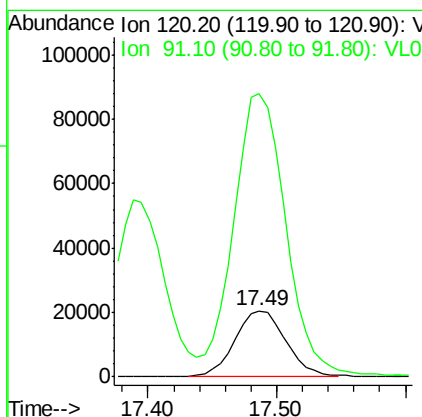
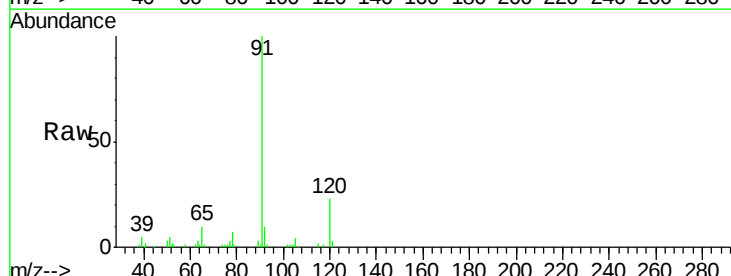
Manual Integrations  
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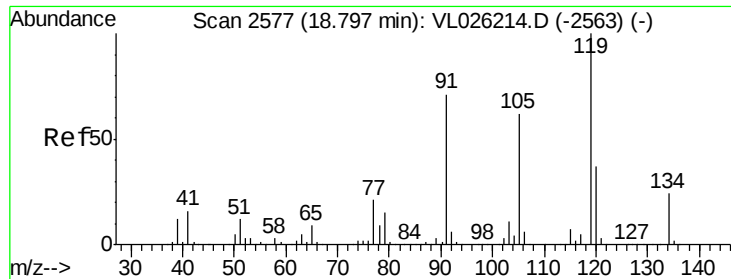
MMDadoda  
 10/22/2015 4:31:00 PM



#64  
 n-propylbenzene  
 Concen: 0.64 ppbv  
 RT: 17.49 min Scan# 2362  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion   | 120   | Resp  | 56876 |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 120       | 100   |       |       |
| 91        | 430.7 | 332.1 | 498.1 |





#65

tert-Butylbenzene

Concen: 0.68 ppbv

RT: 18.78 min Scan# 2574

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

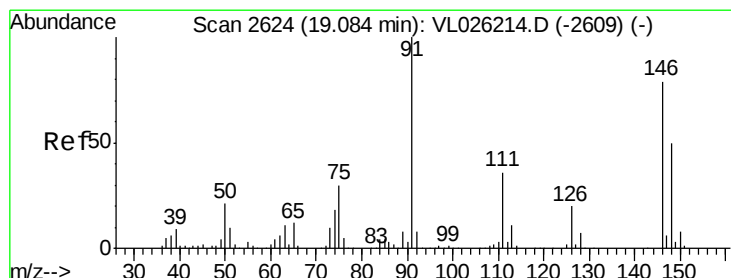
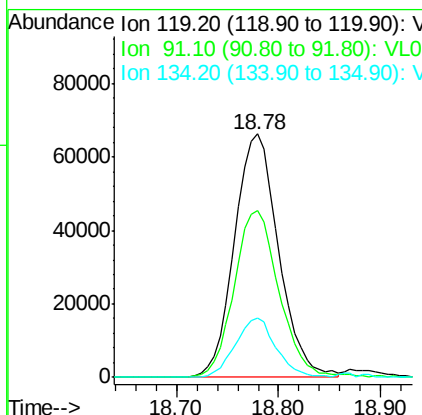
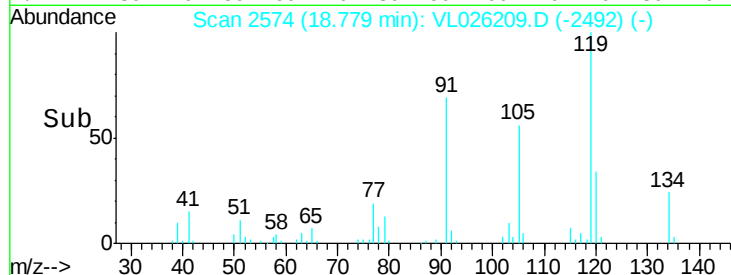
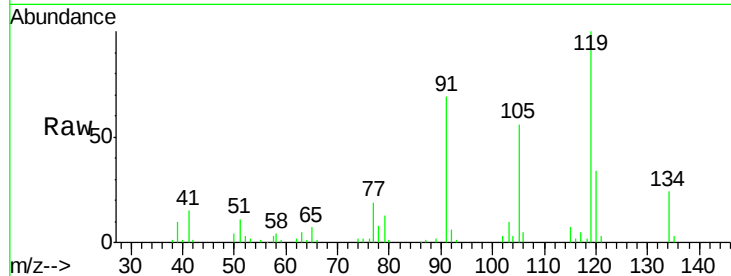
ClientSampleId :

VSTDIC0.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 119   | Resp: | 199488 |
| Ion Ratio | Lower | Upper |        |
| 119       | 100   |       |        |
| 91        | 69.8  | 57.6  | 86.4   |
| 134       | 23.3  | 17.8  | 26.6   |

Manual Integrations  
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10/22/2015 4:31:00 PM



#66

Benzyl Chloride

Concen: 0.77 ppbv

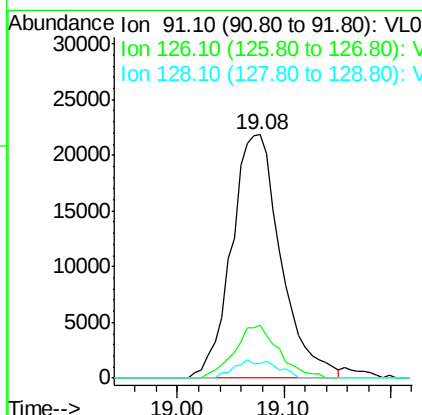
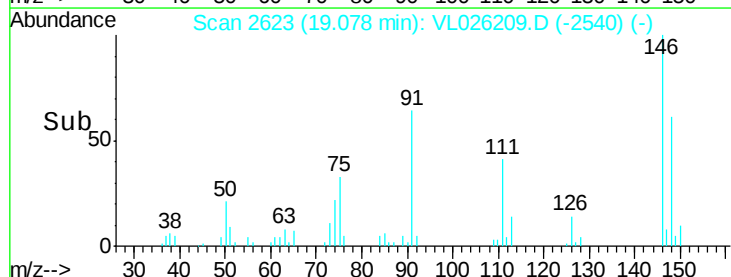
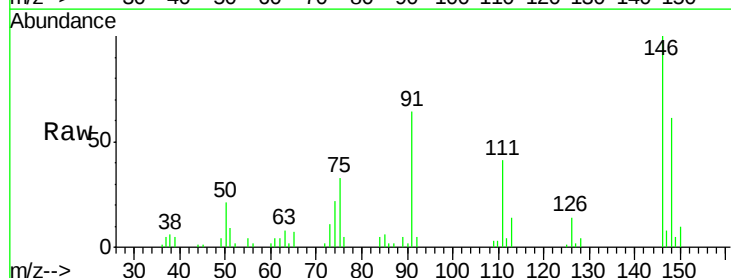
RT: 19.08 min Scan# 2623

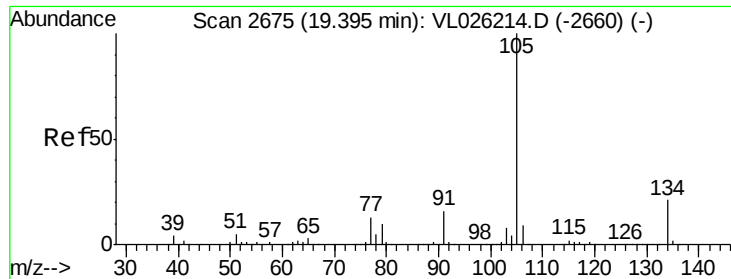
Delta R.T. 0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 70656 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 126       | 19.6  | 16.1  | 24.1  |
| 128       | 6.4   | 5.1   | 7.7   |





#67

sec-Butylbenzene

Concen: 0.66 ppbv

RT: 19.38 min Scan# 2672

Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion: 105 Resp: 269072

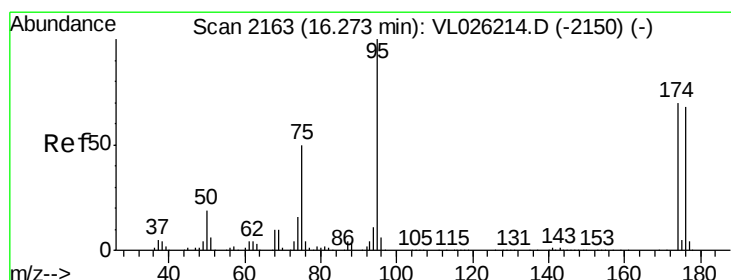
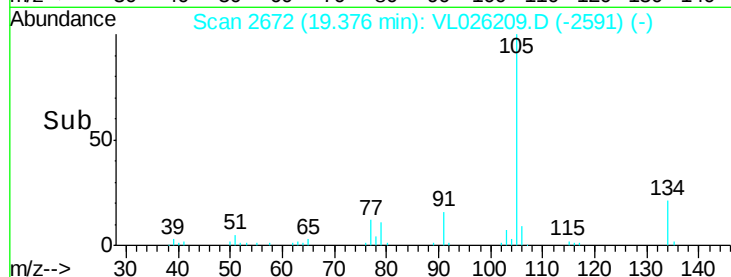
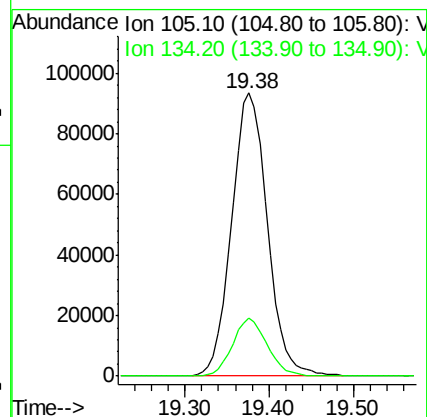
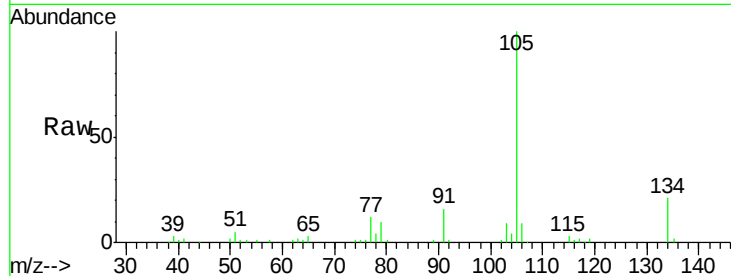
Ion Ratio Lower Upper

105 100

134 19.8 16.3 24.5

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#68

1-Bromo-4-Fluorobenzene

Concen: 10.33 ppbv

RT: 16.26 min Scan# 2160

Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

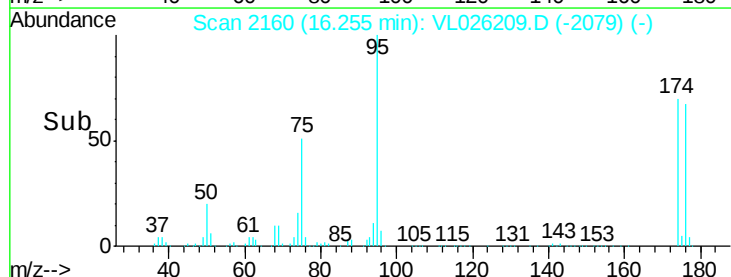
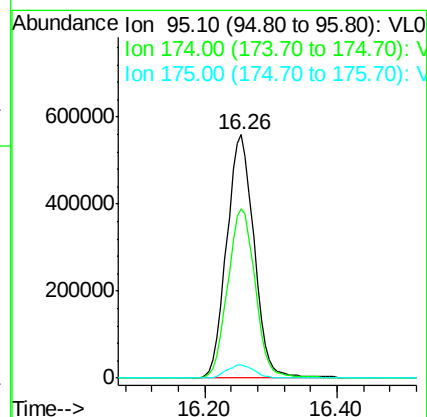
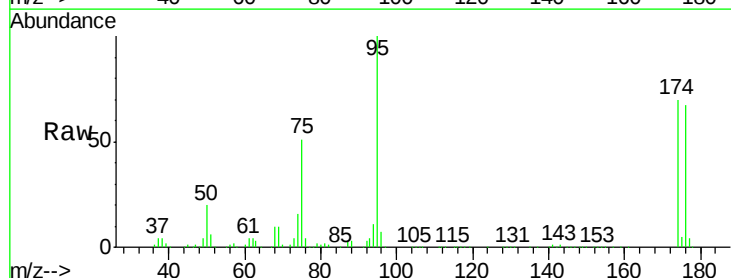
Tgt Ion: 95 Resp: 1606849

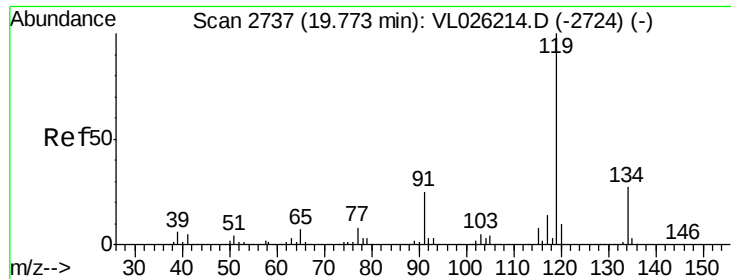
Ion Ratio Lower Upper

95 100

174 70.2 56.2 84.2

175 5.4 4.3 6.5





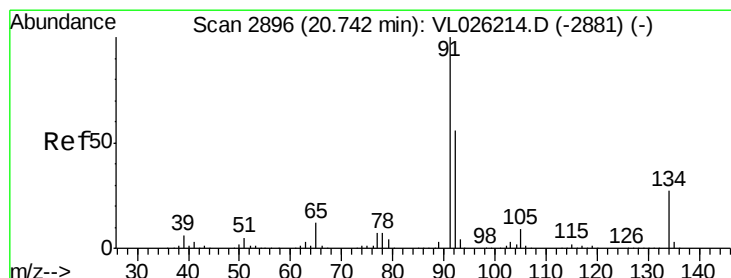
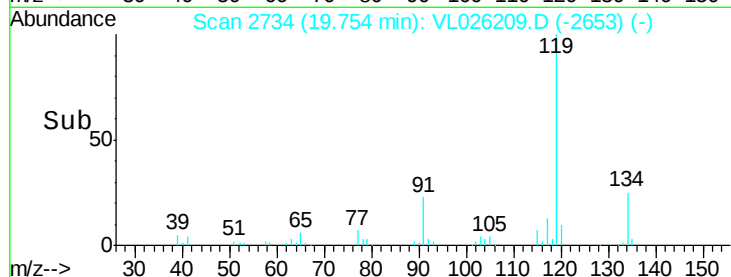
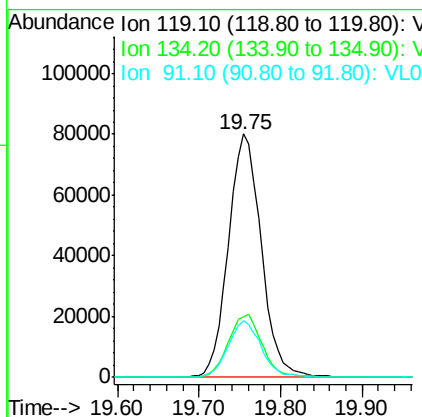
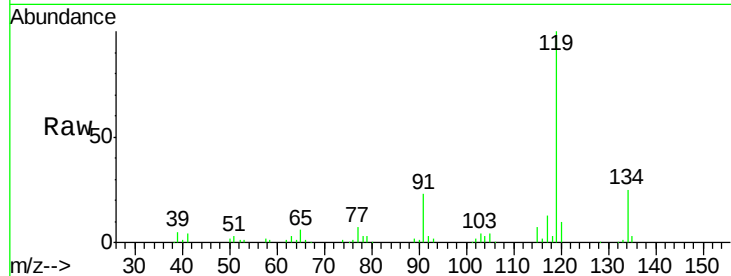
#69  
 p-Isopropyltoluene  
 Concen: 0.68 ppbv  
 RT: 19.75 min Scan# 2734  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDIC0.5

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 119     | 100   | 223639 |       |       |
| 134     | 26.2  |        | 21.4  | 32.0  |
| 91      | 23.4  |        | 19.8  | 29.8  |

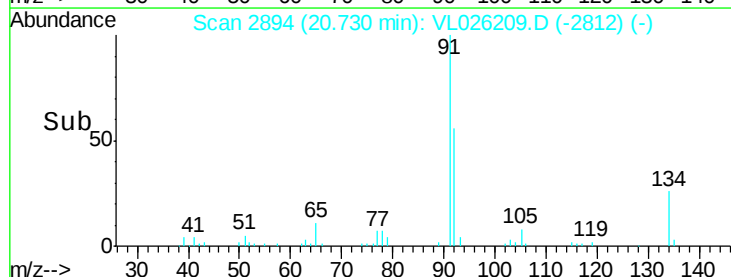
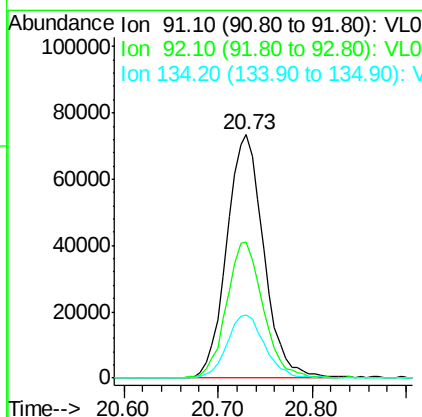
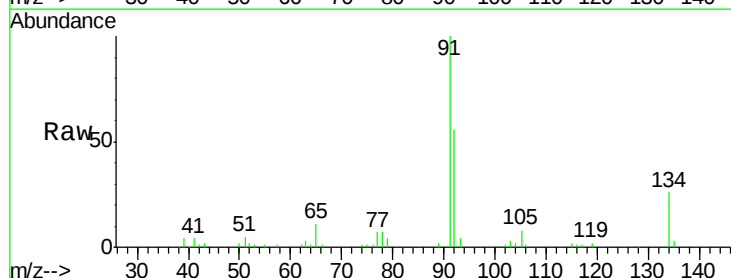
Manual Integrations  
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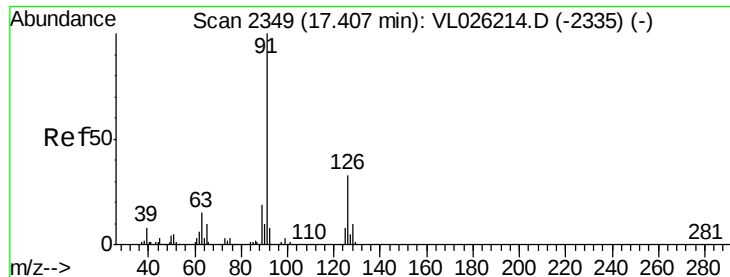
MMDadoda  
 10/22/2015 4:31:00 PM



#70  
 n-Butylbenzene  
 Concen: 0.65 ppbv  
 RT: 20.73 min Scan# 2894  
 Delta R.T. 0.00 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 91      | 100   | 200691 |       |       |
| 92      | 55.3  |        | 44.7  | 67.1  |
| 134     | 26.3  |        | 21.1  | 31.7  |





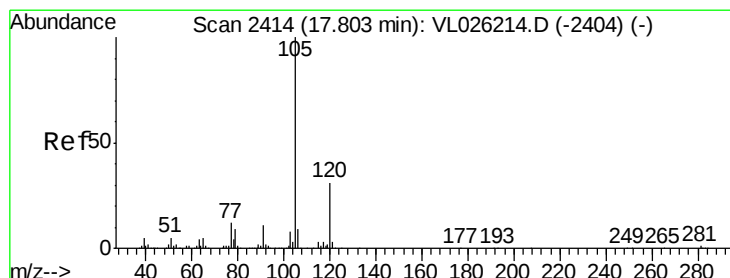
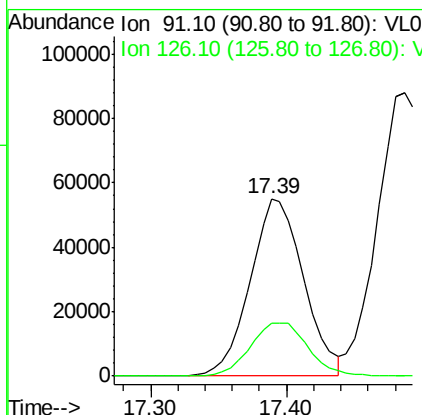
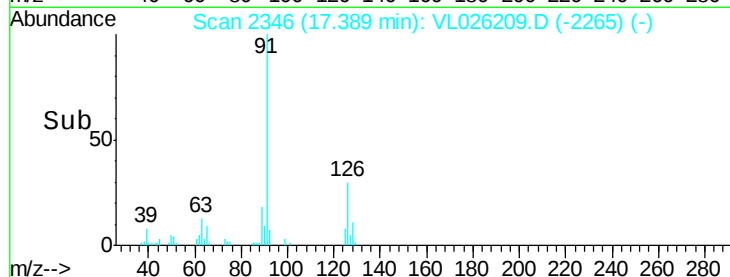
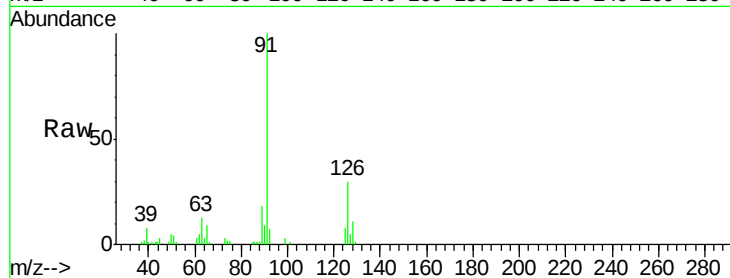
#71  
2-Chlorotoluene  
Concen: 0.63 ppbv  
RT: 17.39 min Scan# 2346  
Delta R.T. -0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 32.3  | 12.9  | 51.7  |

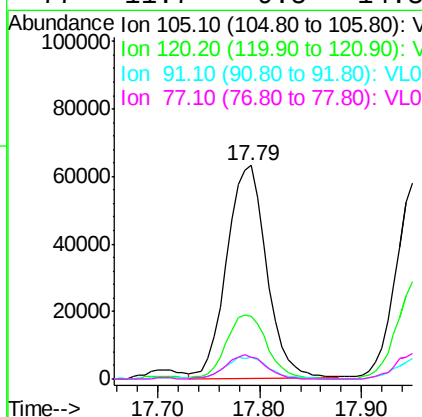
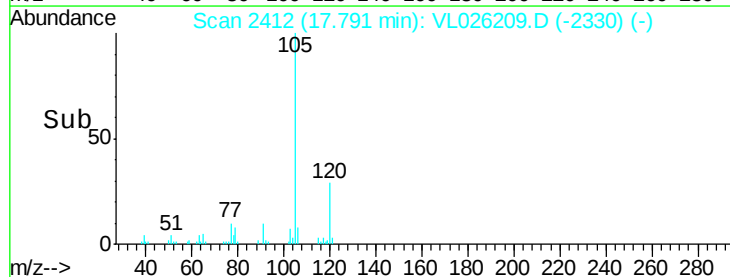
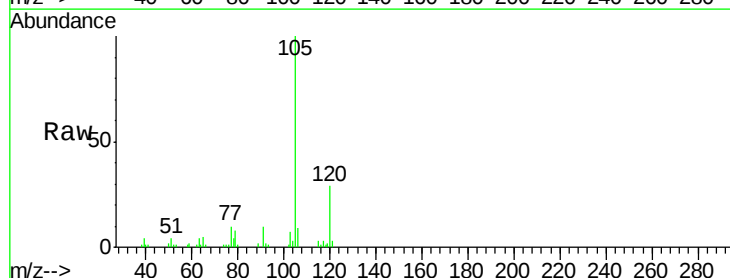
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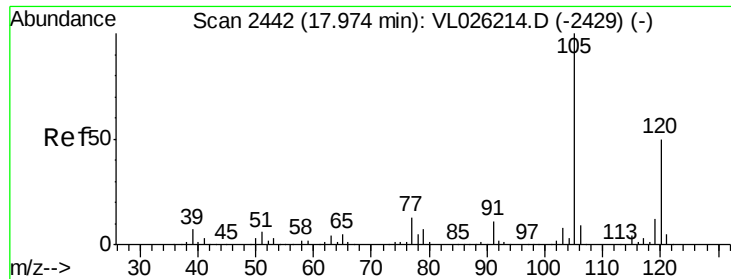
MMDadoda  
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#72  
4-Ethyltoluene  
Concen: 0.64 ppbv  
RT: 17.79 min Scan# 2412  
Delta R.T. 0.00 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 32.4  | 25.2  | 37.8  |
| 91      | 11.8  | 9.2   | 13.8  |
| 77      | 11.7  | 9.5   | 14.3  |





#73

1,3,5-Trimethylbenzene

Concen: 0.63 ppbv

RT: 17.96 min Scan# 2439

Delta R.T. 0.00 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.5

Tot Ion:105 Resp: 158072

Ion Ratio Lower Upper

105 100

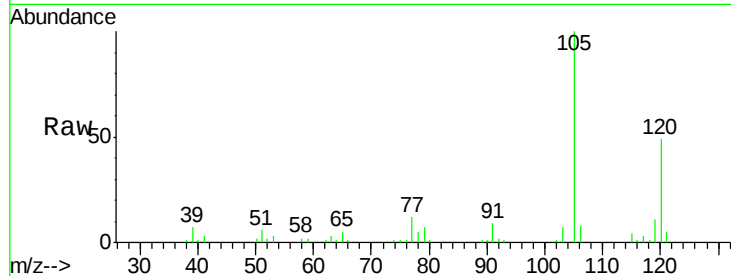
120 49.8 40.3 60.5

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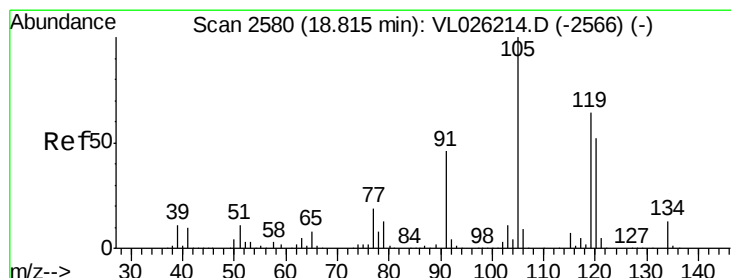
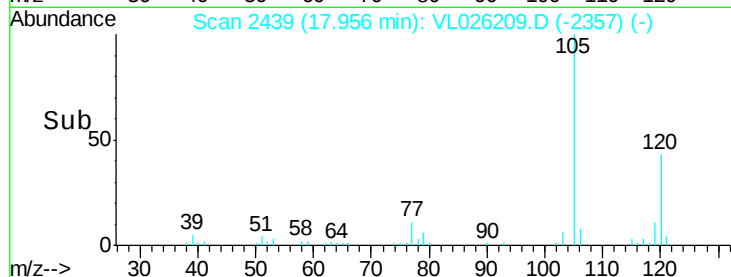
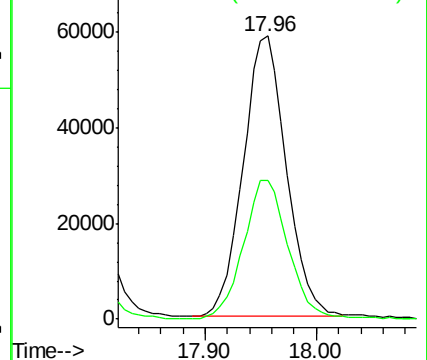
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.66 ppbv

RT: 18.80 min Scan# 2577

Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Tgt Ion:105 Resp: 175570

Ion Ratio Lower Upper

105 100

120 48.5 40.5 60.7

91 42.8 37.4 56.0

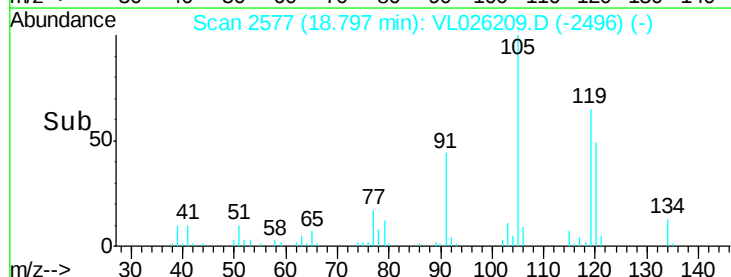
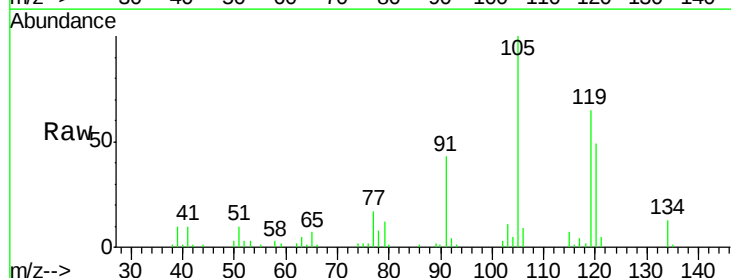
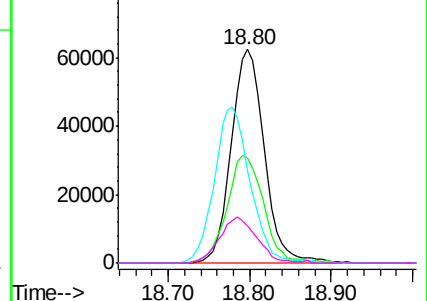
77 17.3 15.3 22.9

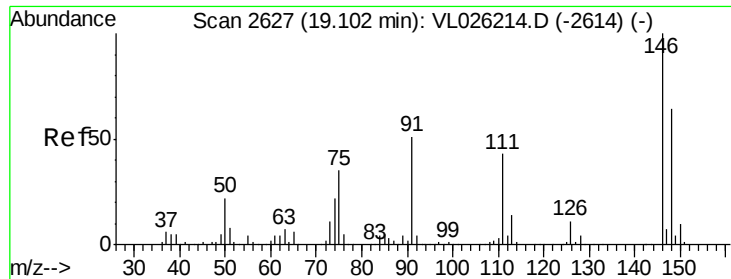
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): V

Ion 77.10 (76.80 to 77.80): V





#75

1,3-Dichlorobenzene

Concen: 0.65 ppbv

RT: 19.08 min Scan# 2624

Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

Instrument :

MSVOA\_L

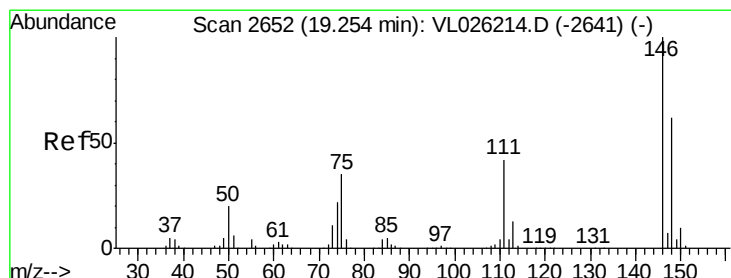
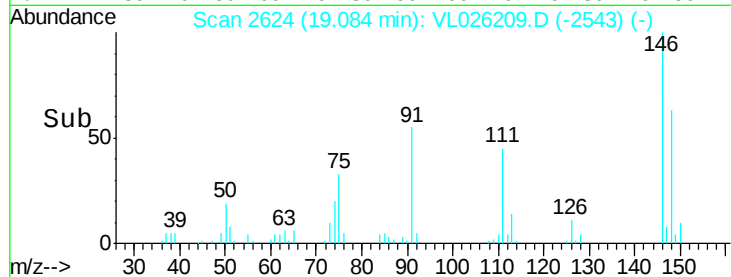
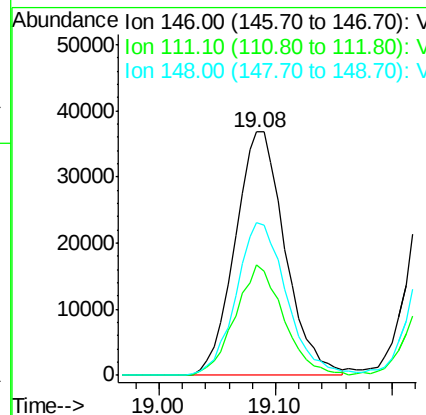
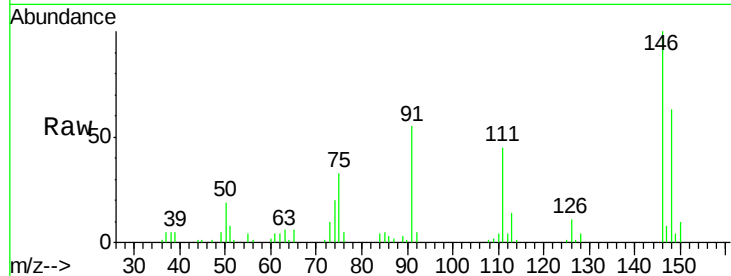
ClientSampleId :

VSTDIC0.5

|           |       |       |        |
|-----------|-------|-------|--------|
| Tot Ion:  | 146   | Resp: | 110108 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 43.6  | 21.6  | 65.0   |
| 148       | 63.3  | 31.7  | 95.1   |

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#76

1,4-Dichlorobenzene

Concen: 0.67 ppbv

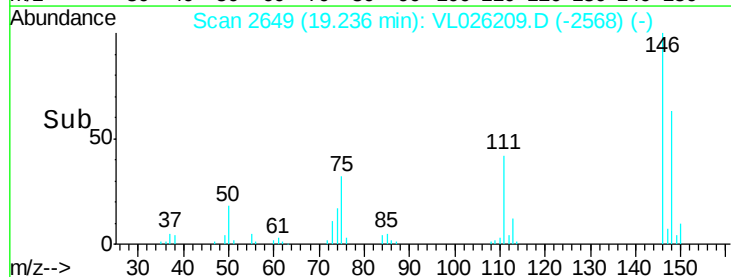
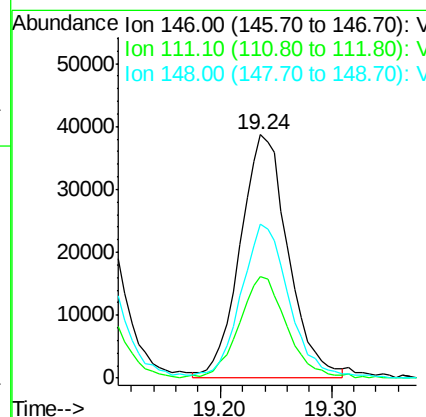
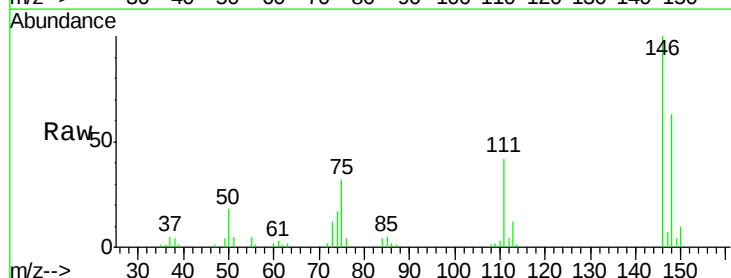
RT: 19.24 min Scan# 2649

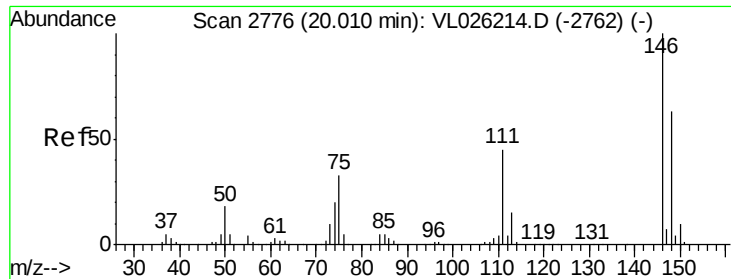
Delta R.T. -0.01 min

Lab File: VL026209.D

Acq: 20 Oct 2015 12:32

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 146   | Resp: | 116178 |
| Ion Ratio | Lower | Upper |        |
| 146       | 100   |       |        |
| 111       | 41.7  | 20.9  | 62.8   |
| 148       | 63.4  | 32.0  | 96.2   |





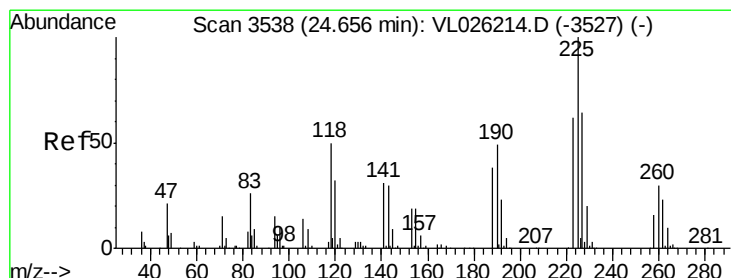
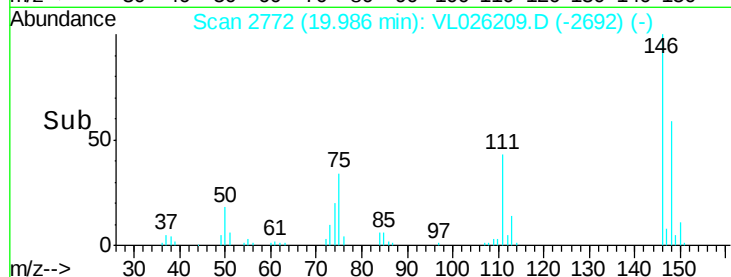
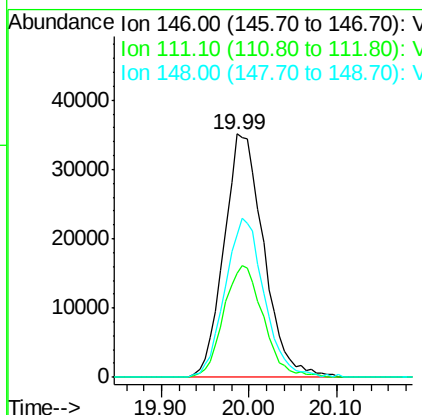
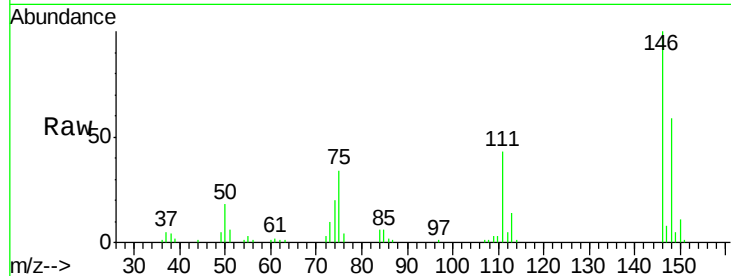
#77  
 1,2-Dichlorobenzene  
 Concen: 0.67 ppbv  
 RT: 19.99 min Scan# 2772  
 Delta R.T. -0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 146     | 100   | 111100 |       |       |
| 111     | 45.5  | 22.6   | 67.8  |       |
| 148     | 64.3  | 32.0   | 96.2  |       |

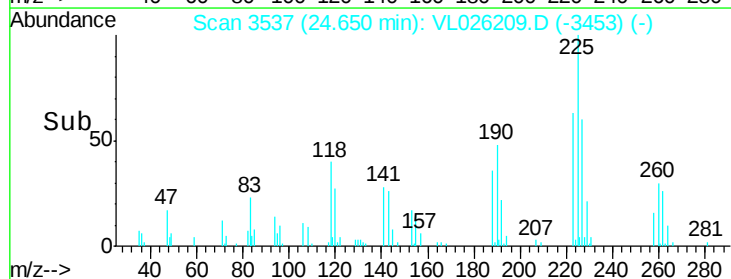
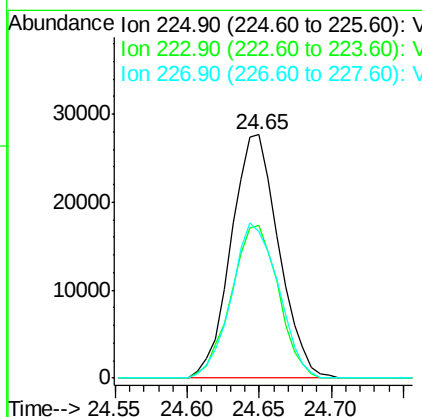
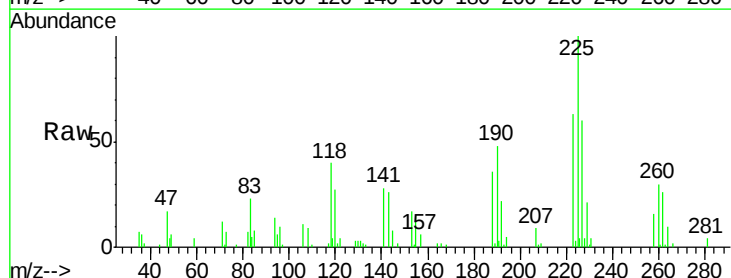
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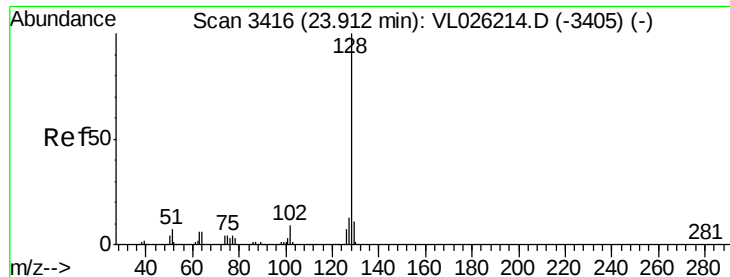
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#78  
 Hexachloro-1,3-Butadiene  
 Concen: 1.06 ppbv  
 RT: 24.65 min Scan# 3537  
 Delta R.T. 0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 225     | 100   | 63522 |       |       |
| 223     | 62.0  | 50.7  | 76.1  |       |
| 227     | 62.9  | 50.2  | 75.2  |       |





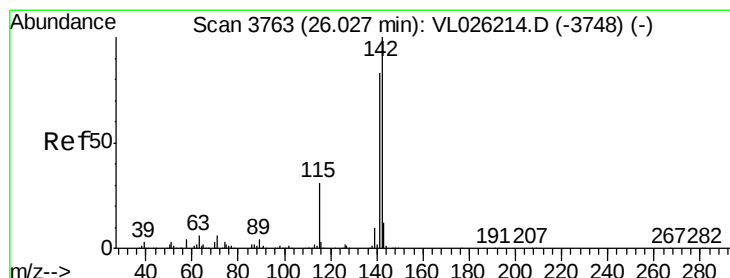
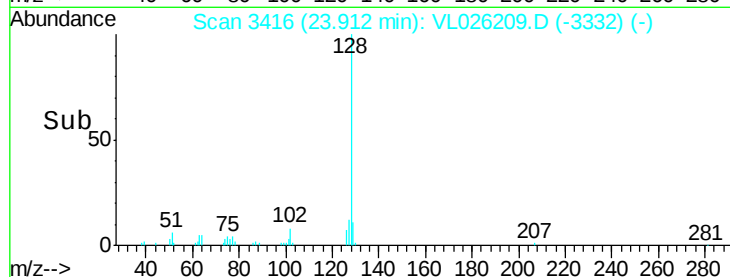
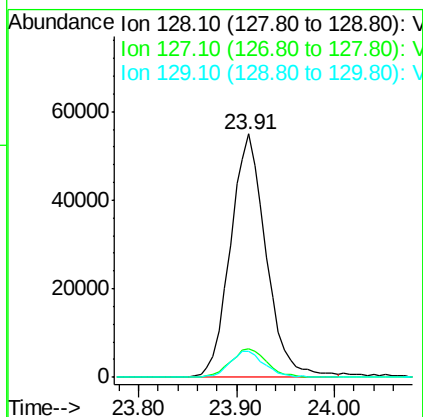
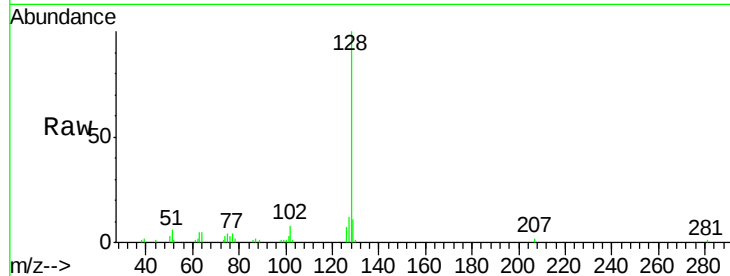
#79  
Naphthalene  
Concen: 0.93 ppbv  
RT: 23.91 min Scan# 3416  
Delta R.T. 0.01 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 11.9  | 11.0  | 16.6  |
| 129     | 10.8  | 8.7   | 13.1  |

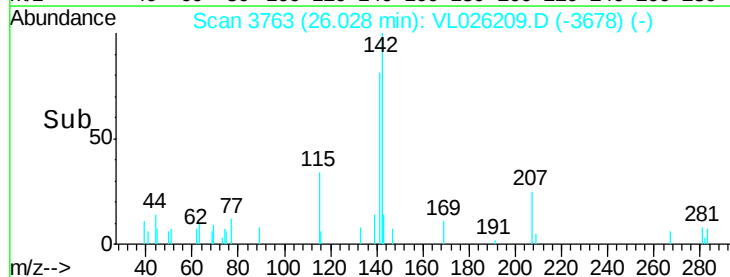
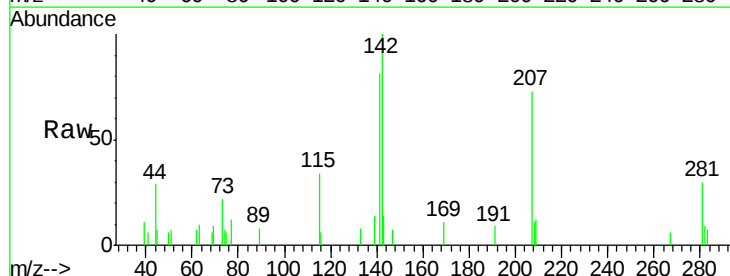
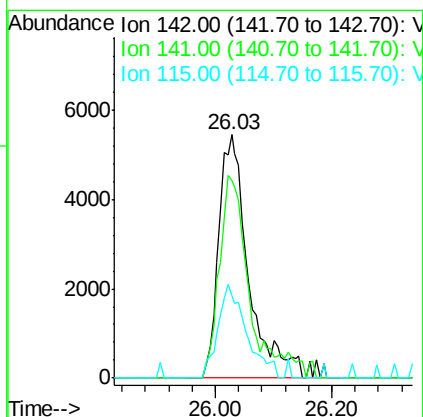
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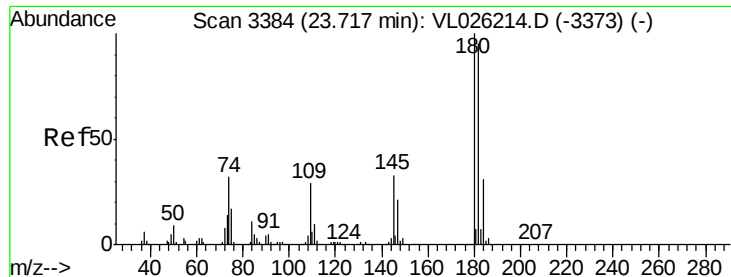
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#80  
Naphthalene, 2-methyl-  
Concen: 0.44 ppbv  
RT: 26.03 min Scan# 3763  
Delta R.T. 0.02 min  
Lab File: VL026209.D  
Acq: 20 Oct 2015 12:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 84.1  | 66.7  | 100.1 |
| 115     | 36.9  | 25.0  | 37.4  |





#81  
 1,2,4-Trichlorobenzene  
 Concen: 0.96 ppbv  
 RT: 23.71 min Scan# 3383  
 Delta R.T. 0.01 min  
 Lab File: VL026209.D  
 Acq: 20 Oct 2015 12:32

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.7  | 76.4  | 114.6 |
| 184     | 30.3  | 24.4  | 36.6  |

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